URS

URS 40942312

Source Test Report
for the
Fluidized Catalytic Cracking Unit

VOLUME 1

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1.0 Executive Summary

Chevron Products Company (Chevron) operates a petroleum refinery in Kapolei, Hawaii. The Chevron Hawaii Refinery is a highly automated petroleum refinery with the capacity to convert approximately 57,000 barrels of a mix of crude oils per calendar day (bbl/cd) into finished products. The Chevron Hawaii Refinery currently operates under Covered Source Permit No. 0088-01-C, dated June 28, 2006. The Fluid Catalytic Cracking Unit (FCCU) is one of several manufacturing processes operating under this permit.

The Chevron Hawaii Refinery received a Clean Air Act (CAA) Section 114 Request for Information (Section 114 Request) from the United States Environmental Protection Agency (U.S. EPA) on April 4, 2011 (dated March 31, 2011). The Section 114 Request describes the Information Collection Request (ICR) program conducted by the U.S. EPA Office of Air and Radiation (OAR) to assist the U.S. EPA Administrator in rule development pursuant to CAA Sections 111 and 112 with respect to petroleum refineries. One requirement of the Section 114 Request is that Chevron conduct emissions testing of the FCCU according to Component 4, Part VIII, of the ICR, *"Test Procedures, Methods and Reporting Requirements for the Information Collection Request for Petroleum Refineries" ('Component 4'),* and report emissions and relevant process data to U.S. EPA by August 31, 2011.

Chevron engaged URS Corporation (URS) to conduct a Source Test for measuring the emissions of target compounds from the FCCU for *Component 4* of the ICR. The Source Test was conducted on the FCCU stack from June 22, 2011 to June 30, 2011. Table 1-1 presents a summary of Source Test information. This "*Source Test Report for the Fluid Catalytic Cracking Unit" ('Report')* presents the results of the Source Test, relevant FCCU process data, and describes the sampling and analytical methodologies used to measure each target compound. On August 25, 2011, Chevron informed the U.S. EPA that due to delays in receiving sample analyses from the contracted laboratory, completion of the final FCCU *Source Test Report* was significantly delayed. Chevron agreed to submit the final test report by September 15, 2011.

Section 1.0 presents an executive summary of the Source Test as well as a summary of average emission results. Section 2.0 presents relevant FCCU process data recorded during the Source Test and for a 30-day period that included that Source Test. A general discussion of the sampling and analytical procedures used during the Source Test is included in Section 3.0. Section 4.0 presents detailed emissions results. Section 5.0 discusses the quality assurance/quality control (QA/QC) objectives and compliance with the requirements of the ICR. The appendices provide raw data, including chain-of-custody forms, sampling logs, laboratory

reports, process data, sampling equipment calibration forms, and continuous emissions monitors (CEMs) data.

Table 1-1. Source Test Information

Facility Name	Chevron Hawaii Refinery
Contact Person(s)	Verle Heyer
Telephone Number	808-682-2394
Facility Address	91-480 Malakole Street Kapolei, Hawaii 96707
Types of Process Sampled	FCCU Exhaust Stack Gas Stream
Person Responsible for Conducting Source Test	Chris Weber
Telephone Number	512-419-5369
Testing Company Name	URS Corporation
URS Address	9400 Amberglen Boulevard Austin, Texas 78729
Person(s) Conducting Source Test	Chris Weber Brian Bernard George Lipinski Meggen DeLollis Nathan Reichardt Brian Bernard Steven Hall Carl Galloway
Modified US EPA Reference Methods Performed	US EPA Methods 1, 2, 3, 4, 5, 18, 23, 25A, 26A, 29, 201A, 202, 308 and 320 ASTM D6784-02 SW-846 Methods 0010 and 0061
Dates of Source Test	June 22 through June 30, 2011

1.1 Source Test Objectives

The Source Test was designed to meet the objectives of *Component 4* of the ICR. The following target compounds were measured from the FCCU exhaust stack during normal process operations:

- Speciated volatile organic compound (VOC) hazardous air pollutant (HAP);
- Speciated semi-volatile organic compound (SVOC) hazardous air pollutant (HAP);
- Selected aldehydes;
- Total hydrocarbons (THC);
- Methane and ethane;
- Carbon monoxide (CO);

- Polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans[1] (PCDDs/PCDFs);
- Polychlorinated biphenyls[2] (PCBs);
- Speciated mercury (Hg^0 and Hg^{2+});
- Hexavalent chromium (Cr^{6+})[3];
- Other selected metals (Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se);
- Total filterable particulate matter (PM);
- Filterable particulate matter ≤2.5 μm ($PM_{2.5}$-FILT);
- Condensable particulate matter ≤2.5 μm ($PM_{2.5}$-CON);
- Ammonia (NH_3);
- Oxides of nitrogen (NO_X);
- Sulfur dioxide (SO_2);
- Hydrogen chloride (HCl);
- Chlorine (Cl_2);
- Hydrogen fluoride (HF); and
- Hydrogen cyanide (HCN).

Oxygen (O_2), carbon dioxide (CO_2) and moisture (H_2O) concentrations and FCCU exhaust gas flow rate were also measured to develop target compound mass emission rates.

1.2 Summary of Results

Some target compounds must be measured simultaneously and are listed in *Component 4* of the ICR as a specific Group (e.g., 'A,' 'B,' 'D,' or 'E'). U.S. EPA allows limited exceptions for simultaneous sampling of target compounds within a particular Group when existing sampling port design or stack diameter constraints interfere, and these limited exceptions applied to the Source Test of the FCCU (see Section 5.0 for details). Triplicate valid test runs were performed for each target compound. Average emissions results are presented in this section for each of the target compounds as follows:

[1] Seven PCDD and ten PCDF congeners, all 2,3,7,8-substituted, are speciated according to *Component 4* of the ICR. In addition, **total** tetra- through octa-chlorinated and **other** tetra- through octa-chlorinated (i.e., **total** minus 2,3,7,8-substituted) congeners are reported.

[2] The 12 "dioxin-like" PCB congeners designated as toxic by the World Health Organization are speciated according to *Component 4* of the ICR.

[3] The samples collected for Cr^{6+} were lost by the subcontracted hazardous materials shipper (Federal Express) during transit between the Chevron Hawaii Refinery and the subcontracted analytical laboratory located in Durham, North Carolina (Enthalpy). See Appendix R for details.

- Table 1-2 presents a summary of the results for ICR Group A (i.e., ‘A1,’ ‘A2,’ and ‘A3’);
- Table 1-3 presents a summary of the results for ICR Group B;
- Table 1-4 presents a summary of the results for ICR Group D (‘D1,’ ‘D2,’ ‘D3,’ and ‘D4’);
- Table 1-5 presents a summary of these results for ICR Group E; and
- Table 1-6 presents a chronology of FCCU exhaust gas sampling.

Some in-stack concentrations and mass emission rates are presented using a “<” before the numerical value to identify that at least one of the analytical values used in calculations is less than the applicable method detection limit. In addition, individual analytical results may be qualified as ‘BDL’ (below detection level), ‘DLL’ (detection level limited), or ‘ADL’ (above detection level) according to Appendix A of *Component 4* of the ICR, if applicable. For measurements conducted using instrumental test methods or certified FCCU CEMS (i.e., for O_2, CO_2, SO_2, NO_X, CO or THC), gaseous concentrations are reported as measured and may include negative values due to normal and acceptable levels of system or analyzer bias. All calculations were performed prior to rounding, and are presented using at least two significant figures.

Table 1-2. Summary of ICR Group A Emissions Results

Target Compound	Sampling Method	Concentration Units	Average Concentration	Mass Emission Rate Units	Average Mass Emission Rate
VOC HAPs					
Acetone	U.S.EPA Method 18	µg/dscm	<2,400	lb/hr	<0.43
Acetonitrile		µg/dscm	R[1]	lb/hr	R[1]
Acrolein		µg/dscm	<3,100	lb/hr	<0.55
Acrylonitrile		µg/dscm	<59	lb/hr	<0.011
Benzene		µg/dscm	<2,900	lb/hr	<0.51
1,3-Butadiene[2]		µg/dscm	<210	lb/hr	<0.038
Carbon Disulfide		µg/dscm	<800	lb/hr	<0.14
Chlorobenzene		µg/dscm	<62	lb/hr	<0.011
Cumene		µg/dscm	<61	lb/hr	<0.011
1,2-Dibromoethane		µg/dscm	<7,700	lb/hr	<1.4
Ethylbenzene		µg/dscm	<64	lb/hr	<0.011
Hexane		µg/dscm	<2,600	lb/hr	<0.46
Methyl Isobutyl Ketone		µg/dscm	<50	lb/hr	<0.0089
Methyl t-Butyl Ether		µg/dscm	<44	lb/hr	<0.0078
Methylene Chloride		µg/dscm	<7,800	lb/hr	<1.4
Nitrobenzene		µg/dscm	<71	lb/hr	<0.013
2-Nitropropane		µg/dscm	<63	lb/hr	<0.011
Pentane		µg/dscm	<4,500	lb/hr	<0.81
Styrene[2]		µg/dscm	<930	lb/hr	<0.17
Tetrachloroethene		µg/dscm	<13,000	lb/hr	<2.3
Trichloroethene		µg/dscm	<4,500	lb/hr	<0.81
Toluene		µg/dscm	<5,000	lb/hr	<0.89
2,2,4-Trimethylpentane		µg/dscm	<39	lb/hr	<0.0070
o-Xylene		µg/dscm	<59	lb/hr	<0.010
m/p-Xylene		µg/dscm	<58	lb/hr	<0.010
Methanol[3]	U.S. EPA Method 308	µg/dscm	<156	lb/hr	<0.028
Aldehydes					
Formaldehyde	U.S. EPA Method 320	µg/dscm	<110	lb/hr	<0.020
Acetaldehyde		µg/dscm	<950	lb/hr	<0.17
Propanal		µg/dscm	<990	lb/hr	<0.18

[1] R = Data rejected during URS quality review. See Section 5.0 for more details.
[2] Reported results for 1,3-butadiene and styrene were determined using Method 320 (FTIR). For more details, see Section 5.0.

[3] Reported results for Methanol were determined using Method 308. Additional methanol results were determined using Method 320 (FTIR). For more details, see Table 4-6.

Table 1-2. Summary of ICR Group A Emission Results (Continued)

Target Compound	Sampling Method	Concentration Units	Average Concentration	Mass Emission Rate Units	Average Mass Emission Rate
SVOC HAPs[a]					
Acenaphthene	SW-846 Method 0010	µg/dscm	<0.012	lb/hr	<2.1E-06
Acenaphthylene		µg/dscm	<0.012	lb/hr	<2.1E-06
Aniline		µg/dscm	<3.0	lb/hr	<5.2E-04
Anthracene		µg/dscm	<0.012	lb/hr	<2.1E-06
Benzidine		µg/dscm	R[2]	lb/hr	R[2]
Benz[a]anthracene		µg/dscm	<0.012	lb/hr	<2.1E-06
Benzo[b]fluoranthene		µg/dscm	<0.012	lb/hr	<2.1E-06
Benzo[k]fluoranthene		µg/dscm	<0.012	lb/hr	<2.1E-06
Benzo[g,h,i]perylene		µg/dscm	<0.012	lb/hr	<2.1E-06
Benzo[a]pyrene		µg/dscm	<0.012	lb/hr	<2.1E-06
Benzo[e]pyrene		µg/dscm	<0.012	lb/hr	<2.1E-06
Biphenyl		µg/dscm	<1.2	lb/hr	<2.1E-04
Chrysene		µg/dscm	<0.012	lb/hr	<2.1E-06
Dibenz[a,h]anthracene		µg/dscm	<0.012	lb/hr	<2.1E-06
Dibenzofuran		µg/dscm	<0.81	lb/hr	<1.4E-04
Dibenzo[a,e]pyrene		µg/dscm	<0.012	lb/hr	<2.1E-06
3,3'-Dimethoxybenzidine		µg/dscm	R[2]	lb/hr	R[2]
Dimethylaminobenzene		µg/dscm	<1.2	lb/hr	<2.1E-04
7,12-Dimethylbenz[a]anthracene		µg/dscm	<0.012	lb/hr	<2.1E-06
3,3'-Dimethylbenzidine		µg/dscm	R[2]	lb/hr	R[2]
α,α-Dimethylphenethylamine		µg/dscm	R[2]	lb/hr	R[2]
2,4-Dimethylphenol		µg/dscm	<0.86	lb/hr	<1.5E-04
Fluoranthene		µg/dscm	<0.012	lb/hr	<2.1E-06
Fluorene		µg/dscm	0.0191	lb/hr	3.41E-06
Indeno[1,2,3-cd]pyrene		µg/dscm	<0.012	lb/hr	<2.1E-06
Isophorone		µg/dscm	<0.88	lb/hr	<1.6E-04
3-Methylcholanthrene		µg/dscm	<0.012	lb/hr	<2.1E-06
2-Methylnaphthalene		µg/dscm	0.0392	lb/hr	6.98E-06
2-Methylphenol		µg/dscm	<0.80	lb/hr	<1.4E-04
3/4-Methylphenol		µg/dscm	<0.69	lb/hr	<1.2E-04
Naphthalene		µg/dscm	0.560	lb/hr	9.98E-05
Perylene		µg/dscm	<0.012	lb/hr	<2.1E-06
Phenanthrene		µg/dscm	0.0142	lb/hr	2.53E-06
Phenol		µg/dscm	6.25	lb/hr	1.12E-03
1,4-Phenylenediamine		µg/dscm	R[2]	lb/hr	R[2]
Pyrene		µg/dscm	<0.012	lb/hr	<2.1E-06
o-Toluidine		µg/dscm	<1.2	lb/hr	<2.1E-04
Methane	U.S. EPA Method 18	ppmvd	<0.686	lb/hr	<0.0815
Ethane		ppmvd	<2.11	lb/hr	<0.470
THC	U.S. EPA Method 25A	ppmvd at 7% O_2, as propane	3.88	lb/hr	1.41
CO	FCCU CEMS	ppmvd	60.7	lb/hr	12.6
O_2	U.S. EPA Method 3A	%, dry	5.52	N/A	N/A
CO_2		%, dry	13.2	N/A	N/A

[1] Method 0010 analytical results biased low because samples were not kept cold during shipment to the laboratory. For more details, see Section 5.0.

[2] R = Data rejected during URS quality review. See Section 5.0 for more details.
N/A Not applicable

Table 1-3. Summary of ICR Group B Emission Results

Target Compound	Sampling Method	Concentration Units	Average Concentration	Mass Emission Rate Units	Average Mass Emission Rate
PCDDs/PCDFs					
2,3,7,8-TCDD	U.S. EPA Method 23	pg/dscm	<3.9	lb/hr	<6.8E-10
1,2,3,7,8-PeCDD		pg/dscm	<1.8	lb/hr	<3.1E-10
1,2,3,4,7,8-HxCDD		pg/dscm	<1.9	lb/hr	<3.3E-10
1,2,3,6,7,8-HxCDD		pg/dscm	<2.3	lb/hr	<4.0E-10
1,2,3,7,8,9-HxCDD		pg/dscm	<1.9	lb/hr	<3.3E-10
1,2,3,4,6,7,8-HpCDD		pg/dscm	<2.5	lb/hr	<4.3E-10
OCDD		pg/dscm	10.6	lb/hr	1.88E-09
Total TCDD		pg/dscm	<4.0	lb/hr	<6.9E-10
Total PeCDD		pg/dscm	2.54	lb/hr	4.41E-10
Total HxCDD		pg/dscm	16.3	lb/hr	2.84E-09
Total HpCDD		pg/dscm	<2.5	lb/hr	<4.3E-10
Total Dioxins		pg/dscm	35.8	lb/hr	6.29E-09
Other TCDD		pg/dscm	0.0484	lb/hr	8.90E-12
Other PeCDD		pg/dscm	0.838	lb/hr	1.45E-10
Other HxCDD		pg/dscm	10.2	lb/hr	1.77E-09
Other HpCDD		pg/dscm	0	lb/hr	0
2,3,7,8-TCDF		pg/dscm	<2.5	lb/hr	<4.3E-10
1,2,3,7,8-PeCDF		pg/dscm	<1.6	lb/hr	<2.8E-10
2,3,4,7,8-PeCDF		pg/dscm	<1.2	lb/hr	<2.2E-10
1,2,3,4,7,8-HxCDF		pg/dscm	<1.6	lb/hr	<2.8E-10
1,2,3,6,7,8-HxCDF		pg/dscm	<1.1	lb/hr	<2.0E-10
1,2,3,7,8,9-HxCDF		pg/dscm	<1.2	lb/hr	<2.1E-10
2,3,4,6,7,8-HxCDF		pg/dscm	<1.0	lb/hr	<1.8E-10
1,2,3,4,6,7,8-HpCDF		pg/dscm	7.75	lb/hr	1.39E-09
1,2,3,4,7,8,9-HpCDF		pg/dscm	<2.5	lb/hr	<4.5E-10
OCDF		pg/dscm	22.6	lb/hr	4.06E-09
Total TCDF		pg/dscm	<2.5	lb/hr	<4.3E-10
Total PeCDF		pg/dscm	<4.5	lb/hr	<7.9E-10
Total HxCDF		pg/dscm	<4.4	lb/hr	<7.9E-10
Total HpCDF		pg/dscm	12.5	lb/hr	2.23E-09
Total Furans		pg/dscm	46.4	lb/hr	8.29E-09
Other TCDF		pg/dscm	0	lb/hr	0
Other PeCDF		pg/dscm	1.93	lb/hr	3.38E-10
Other HxCDF		pg/dscm	1.72	lb/hr	3.15E-10
Other HpCDF		pg/dscm	2.46	lb/hr	4.44E-10

Table 1-3. Summary of ICR Group B Emission Results (Continued)

Target Compound	Sampling Method	Concentration Units	Average Concentration	Mass Emission Rate Units	Average Mass Emission Rate
PCBs					
3,3',4,4'-TCB (#77)	U.S. EPA Method 23	pg/dscm	5.10	lb/hr	9.10E-10
3,4,4',5-TCB (#81)		pg/dscm	<1.8	lb/hr	<3.1E-10
2,3,3',4,4'-PeCB (#105)		pg/dscm	20.0	lb/hr	3.57E-09
2,3,4,4',5-PeCB (#114)		pg/dscm	<1.6	lb/hr	<2.8E-10
2,3',4,4',5-PeCB (#118)		pg/dscm	57.0	lb/hr	1.02E-08
2,3',4,4',5-PeCB (#123)		pg/dscm	<2.6	lb/hr	<4.7E-10
3,3',4,4',5-PeCB (#126)		pg/dscm	<1.7	lb/hr	<3.0E-10
2,3,3',4,4',5-HxCB (#156)		pg/dscm	<3.2	lb/hr	<5.7E-10
2,3,4',4,4',5'-HxCB (#157)		pg/dscm	<3.2	lb/hr	<5.7E-10
2,3',4,4',5,5'-HxCB (#167)		pg/dscm	<1.9	lb/hr	<3.3E-10
3,3',4,4',5,5'-HxCB (#169)		pg/dscm	<1.9	lb/hr	<3.4E-10
2,3,3',4,4',5,5'-HpCB (#189)		pg/dscm	<1.7	lb/hr	<3.0E-10
O_2	U.S. EPA Method 3A	%, dry	5.26	N/A	N/A
CO_2		%, dry	13.5	N/A	N/A

Table 1-4. Summary of ICR Group D Emission Results

Target Compound	Sampling Method	Concentration Units	Average Concentration	Mass Emission Rate Units	Average Mass Emission Rate
Other Metals					
Antimony (Sb)	U.S. EPA Method 29	mg/dscm	0.000472	lb/hr	0.0000844
Arsenic (As)		mg/dscm	<0.0038	lb/hr	<0.00068
Beryllium (Be)		mg/dscm	<0.000028	lb/hr	<0.0000050
Cadmium (Cd)		mg/dscm	<0.000025	lb/hr	<0.0000044
Chromium (Cr)		mg/dscm	0.00228	lb/hr	0.000407
Cobalt (Co)		mg/dscm	0.00603	lb/hr	0.00108
Lead (Pb)		mg/dscm	0.000837	lb/hr	0.000150
Manganese (Mn)		mg/dscm	0.00553	lb/hr	0.000988
Nickel (Ni)		mg/dscm	0.0914	lb/hr	0.0163
Selenium (Se)		mg/dscm	<0.0021	lb/hr	<0.00038
PM	U.S. EPA Method 5	gr/dscf	0.0109	lb/hr	4.45
$PM_{2.5}$-FILT/$PM_{2.5}$-CON	U.S. EPA Methods 201A/202	gr/dscf	0.00977	lb/hr	4.10
NH_3	U.S. EPA Method 320	ppmvd	0.944	lb/hr	0.120
Speciated Mercury					
Oxidized Mercury (Hg^{2+})	ASTM D6784-02	µg/dscm	<0.087	lb/hr	<0.000015
Elemental Mercury (Hg^0)		µg/dscm	<0.17	lb/hr	<0.000030
Cr^{6+} [1]	SW-846 Method 0061	µg/dscm	N/A	lb/hr	N/A
NO_X	FCCU CEMS	ppmvd	49.6	lb/hr	16.7
SO_2	FCCU CEMS	ppmvd	14.5	lb/hr	6.80
O_2	U.S. EPA Method 3A	%, dry	5.38	N/A	N/A
CO_2		%, dry	13.4	N/A	N/A

[1] The samples collected for Cr^{6+} were lost by the subcontracted hazardous materials shipper (Federal Express) during transit between the Chevron Hawaii Refinery and the subcontracted analytical laboratory located in Durham, North Carolina (Enthalpy).

Table 1-5. Summary of ICR Group E Emission Results

Target Compound	Sampling Method	Concentration Units	Average Concentration	Mass Emission Rate Units	Average Mass Emission Rate
HCl	U.S. EPA Method 26A	mg/dscm	0.334	lb/hr	0.0575
Cl_2		mg/dscm	<0.017	lb/hr	<0.0029
HF		mg/dscm	0.0864	lb/hr	0.0149
HCN	U.S. EPA Method 320	µg/dscm	31,100	lb/hr	5.36
O_2	U.S. EPA Method 3A	%, dry	5.18	N/A	N/A
CO_2		%, dry	13.6	N/A	N/A

Table 1-6. Summary of FCCU Exhaust Gas Sampling Times

Condition	Run	Parameter	Date	Time (hh:mm)
E	1	HCl, Cl_2, HF	22-Jun-11	13:04 - 16:00
		HCN		13:50 - 16:10
		O_2, CO_2		13:04 - 16:36
	2	HCl, Cl_2, HF	22-Jun-11	16:53 - 19:02
		HCN		16:56 - 19:06
		O_2, CO_2		16:53 - 19:02
	3	HCl, Cl_2, HF	23-Jun-11	09:55 - 12:05
		HCN		10:01 - 11:21
		O_2, CO_2		09:42 - 13:06
B	1	PCDDs/PCDFs/PCBs	22-Jun-11	13:06 - 16:36
		O_2, CO_2		13:04 - 16:36
	3	PCDDs/PCDFs/PCBs	23-Jun-11	09:42 - 13:06
		O_2, CO_2		09:42 - 13:06
	8	PCDDs/PCDFs/PCBs	27-Jun-11	10:10 - 13:38
		O_2, CO_2		09:20 - 13:40
D1/D2/D4	5	$PM_{2.5}$-FILT, $PM_{2.5}$-CON	24-Jun-11	09:32 - 13:24
		Hg^0, Hg^{2+}		10:25 - 12:45
		Total PM, Other Metals		09:34 - 13:31
		NH_3		09:51 - 11:40
		NO_x, SO_2, O_2, CO_2		09:32 - 13:31
	6	$PM_{2.5}$-FILT, $PM_{2.5}$-CON	24-Jun-11	16:00 - 19:33
		Hg^0, Hg^{2+}		15:30 - 17:45
		Total PM, Other Metals		15:20 - 19:42
		NH_3		15:27 - 18:32
		NO_x, SO_2, O_2, CO_2		15:20 - 19:42
	7	$PM_{2.5}$-FILT, $PM_{2.5}$-CON	26-Jun-11	09:10 - 09:36, 09:55 - 12:01, 16:32 - 17:40
		Hg^0, Hg^{2+}		10:15 - 12:02, 16:32 - 17:00
		Total PM, Other Metals		09:10 - 09:36, 09:55 - 12:01, 16:32 - 17:38
		NH_3		10:35 - 12:00
		NO_x, SO_2, O_2, CO_2		09:10 - 09:36, 09:55 - 12:01, 16:32 - 17:40

Table 1-6. Summary of FCCU Exhaust Gas Sampling Times (Continued)

Condition	Overall Run Number	Parameter	Date	Time
A1/A2/A3	8	VOC HAP - Sorbent Sample	27-Jun-11	11:46 - 13:26
		VOC HAP - Bag Sample		10:05-11:05, 12:21-13:21
		Methanol		11:46 - 13:26
		VOC HAP - FTIR		12:12-14:12
		Methane, Ethane		11:10-13:33
		SVOC HAP		09:20-13:40
		Aldehydes		12:12-14:12
		THC, CO, O_2, CO_2		09:20-13:40
	9	VOC HAP - Sorbent Sample	28-Jun-11	12:05 - 14:05
		VOC HAP - Bag Sample		11:33-12:33, 12:48-14:08
		Methanol		12:05 - 14:04
		VOC HAP - FTIR		11:59-13:59
		Methane, Ethane		12:36-18:17
		SVOC HAP		10:58-15:22
		Aldehydes		11:59-13:59
		THC, CO, O_2, CO_2		10:58-16:20
	11	VOC HAP - Sorbent Sample	29-Jun-11	10:00 - 11:40
		VOC HAP - Bag Sample		09:12-10:12, 10:28-11:28
		Methanol		10:00 - 11:40
		VOC HAP - FTIR		09:25-11:55
		Methane, Ethane		10:18-16:01
		SVOC HAP		09:15-13:21
		Aldehydes		09:25-11:55
		THC, CO, O_2, CO_2		09:15-15:47
D3/D4	9	Cr^{6+}	28-Jun-11	12:32-16:20
		NO_x, SO_2, O_2, CO_2		10:58-16:20
	11	Cr^{6+}	29-Jun-11	12:18-15:47
		NO_x, SO_2, O_2, CO_2		09:15-15:47
	12	Cr^{6+}	30-Jun-11	08:47-12:08
		NO_x, SO_2, O_2, CO_2		08:47-12:08

2.0 Source Description

2.1 FCCU

The FCCU located at the Chevron Hawaii Refinery converts gas oils into lighter products, such as gasoline. Gas oil is introduced into a fluidized bed reactor (at approximately 1000°F) with a catalyst. The catalyst promotes the conversion of the gas oil into lighter fractions that are then removed from the reactor for further processing. The spent catalyst is then transferred to the complete regenerator where it is heated to approximately 1260°F. The regenerator serves to burn-off the carbon deposited on the catalyst in the reactor and separate most of the catalyst from the flue gas. The catalyst material is then re-circulated to the reactor. Heat in the flue gas stream is recovered as 150 psig steam in the flue gas located between the regenerator and the electrostatic precipitator (ESP). The FCCU feed is not hydrotreated.

Exhaust gases from the regenerator are routed to an ESP for additional PM collection. Ammonia is introduced at the inlet to the ESP to enhance PM collection. The flue gas from the ESP then exits through the exhaust stack. CO, O_2, NO_X and SO_2 continuous emission monitoring systems (CEMS) are installed on the exhaust stack and meet the requirements of applicable U.S. EPA Performance Specifications and the CEMS accuracy and ongoing QA/QC requirements of 40 CFR Part 60, Subpart J.

2.2 Process Operations

Per *Component 4* of the ICR, the FCCU was operated during normal and representative conditions during the Source Test. The ESP and all other air pollution control devices (APCD) were also operated in accordance with manufacturer's specifications and requirements during the Source Test.

Most target compounds were sampled during routine soot-blowing events (i.e., "nut-blasting") that occurred on the flue gas cooler, and applicable emission results are identified in Section 3.0 Per U.S. EPA's instructions detailed in a FAQ website associated with *Component 4* of the ICR, every effort should be made to schedule emissions sampling such that it coincides with all normal operating events; however, in the context of the ICR program, it is not necessary to change facility operations in order to capture all events if doing so 'would be detrimental to the process or cause undue burden.'[4] The soot-blowing events on the FCCU occurred once every 8-12 hours for approximately 20 minutes during normal operations. The Source Test was designed such that one soot-blowing event occurred during one out of three test runs performed for most target compounds. Manipulating scheduled emissions sampling times or process operations to include soot-blowing events during one out of three test runs for all target compounds was

[4] RTI International. (n.d.). Petroleum Refineries Information Collection Request. In *Frequently Asked Questions (FAQ)*. Retrieved August 17, 2011, from https://refineryicr.rti.org/FAQ.aspx

considered to cause 'undue burden' to both Chevron and the URS testing personnel. The effect of soot-blowing on applicable emission rates measured during the Source Test was negligible, and emissions data collected during soot-blowing events were not weighted based on the frequency of the soot-blowing events during normal operation of the FCCU.

The following operating parameters were recorded as daily averages during a 30-day period that includes the Source Test, and as test run averages during the Source Test:

- FCCU reactor feed rate (bbl/cd);
- Catalyst recirculation rate (tons/minute);
- Catalyst inventory (tons);
- Fresh catalyst feed rate (tons/minute);
- Coke burn rate (lbs/hour);
- Oxygen concentration of exhaust gas (% dry)[5];
- Exhaust gas temperature at the ESP outlet (°F);
- Ammonia injection rate (lbs/hour);
- Average ESP voltage (volts); and
- ESP spark rate (sparks/minute).

Table 2-1 presents the 30-day daily averages of the operating parameters. Table 2-2 presents the process operating data averages for each test run. Table 2-3 presents the times and durations of the routine soot-blowing events that were performed on the ESP during the applicable test runs. Raw FCCU operating data is included in Appendix A.

[5] Oxygen concentrations measured by the certified FCCU CEMS are presented in Table 2-1 and Appendix C only. Oxygen concentrations measured during the Source Test using U.S. EPA Method 3A are presented with target compound emissions results in applicable tables in Sections 1.0 and 3.0. No emissions results were corrected to a reference concentration of oxygen per *Component 4* of the ICR.

Table 2-1. Summary of Process Operations – 30-Day Daily Averages

Date	Reactor Feed Rate (bbl/d)	Catalyst Recirculation Rate (tons/min)	Catalyst Inventory (tons)	Fresh Catalyst Feed Rate (tons/min)	Coke Burn Rate (lbs/hr)	Exhaust Stack O_2 (%, dry)	ESP Outlet Temperature (°F)	Ammonia Inject Rate (lbs/hr)	Average ESP Voltage (V)	Average ESP Spark Rate (sparks/min)
10-Jun-11	CBI	CBI	CBI	CBI	15,296	4.22	502	CBI	CBI	CBI
11-Jun-11	CBI	CBI	CBI	CBI	15,253	4.27	502	CBI	CBI	CBI
12-Jun-11	CBI	CBI	CBI	CBI	15,300	4.21	502	CBI	CBI	CBI
13-Jun-11	CBI	CBI	CBI	CBI	15,340	4.22	503	CBI	CBI	CBI
14-Jun-11	CBI	CBI	CBI	CBI	14,867	4.41	503	CBI	CBI	CBI
15-Jun-11	CBI	CBI	CBI	CBI	14,598	4.48	505	CBI	CBI	CBI
16-Jun-11	CBI	CBI	CBI	CBI	14,637	4.64	506	CBI	CBI	CBI
17-Jun-11	CBI	CBI	CBI	CBI	15,253	4.63	502	CBI	CBI	CBI
18-Jun-11	CBI	CBI	CBI	CBI	15,576	4.76	502	CBI	CBI	CBI
19-Jun-11	CBI	CBI	CBI	CBI	15,541	4.82	502	CBI	CBI	CBI
20-Jun-11	CBI	CBI	CBI	CBI	14,690	5.05	502	CBI	CBI	CBI
21-Jun-11	CBI	CBI	CBI	CBI	13,868	5.47	502	CBI	CBI	CBI
22-Jun-11	CBI	CBI	CBI	CBI	12,624	6.59	499	CBI	CBI	CBI
23-Jun-11	CBI	CBI	CBI	CBI	12,720	6.84	502	CBI	CBI	CBI
24-Jun-11	CBI	CBI	CBI	CBI	12,544	6.96	502	CBI	CBI	CBI
25-Jun-11	CBI	CBI	CBI	CBI	12,459	6.89	502	CBI	CBI	CBI
26-Jun-11	CBI	CBI	CBI	CBI	12,904	7.07	503	CBI	CBI	CBI
27-Jun-11	CBI	CBI	CBI	CBI	14,558	5.40	501	CBI	CBI	CBI
28-Jun-11	CBI	CBI	CBI	CBI	11,862	5.37	505	CBI	CBI	CBI
29-Jun-11	CBI	CBI	CBI	CBI	11,149	5.48	500	CBI	CBI	CBI
30-Jun-11	CBI	CBI	CBI	CBI	11,151	5.57	502	CBI	CBI	CBI
1-Jul-11	CBI	CBI	CBI	CBI	11,151	5.51	500	CBI	CBI	CBI
2-Jul-11	CBI	CBI	CBI	CBI	11,156	5.49	500	CBI	CBI	CBI
3-Jul-11	CBI	CBI	CBI	CBI	11,165	5.48	504	CBI	CBI	CBI
4-Jul-11	CBI	CBI	CBI	CBI	16,325	5.45	502	CBI	CBI	CBI
5-Jul-11	CBI	CBI	CBI	CBI	16,485	5.41	502	CBI	CBI	CBI
6-Jul-11	CBI	CBI	CBI	CBI	14,079	5.38	500	CBI	CBI	CBI
7-Jul-11	CBI	CBI	CBI	CBI	15,886	5.34	500	CBI	CBI	CBI
8-Jul-11	CBI	CBI	CBI	CBI	16,490	5.32	503	CBI	CBI	CBI
9-Jul-11	CBI	CBI	CBI	CBI	16,483	5.30	503	CBI	CBI	CBI

CBI = Confidential Business Information

Table 2-2. Summary of Process Operations – ICR Test Run Averages

Operating Parameter	Units	Run 1	Run 2	Run 3	Run 5	Run 6	Run 7	Run 8	Run 9	Run 11	Run 12
Reactor Feed Rate	bbl/d	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI
	bbl/hr	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI
Catalyst Recirculation Rate	tons/min	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI
Catalyst Inventory	tons	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI
Fresh Catalyst Feed Rate	tons/min	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI
Coke Burn Rate	lbs/hr	12,562	12,347	12,941	12,175	12,586	12,601	14,192	11,144	11,151	11,152
O_2 Concentration	%, dry	6.78	6.71	6.83	7.12	6.85	7.04	5.49	5.53	5.55	5.60
Temperature at ESP Outlet	°F	498	499	501	507	501	505	499	505	502	505
Ammonia Injection Rate	lbs/hr	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI
Average ESP Voltage	volts	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI
Average ESP Spark Rate	sparks/min	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI	CBI

CBI = Confidential Business Information

Table 2-3. Summary of Process Operations – Soot-Blowing Events

Overall Run Number	Date	Condition	Parameters Measured During Soot-Blow	Overall Run Time (hh:min)	Approximate Soot-Blow Time (hh:mm)
3	23-Jun-11	B/E	HCl, Cl_2, HF, HCN, PCDDs/PCDFs, PCBs O_2, CO_2	09:42-13:06	09:44-10:04
5	24-Jun-11	D1/D2/D4	$PM_{2.5}$-FILT, $PM_{2.5}$-CON, Total PM, Other Metals, NO_X, SO_2, O_2, CO_2	09:32-13:31	13:09-13:29
6	24-Jun-11	D1/D2/D4	$PM_{2.5}$-FILT, $PM_{2.5}$-CON, Total PM, Other Metals, NH_3, NO_X, SO_2, O_2, CO_2	15:20-19:42	18:45-19:05
11	29-Jun-11	A1/A2/A3/D3/D4	Methane, Ethane, THC, SVOC HAP, CO, NO_X, SO_2, O_2, CO_2	09:15-16:01	12:43-13:03

3.0 Sampling and Analytical Procedures

The Source Test of the FCCU exhaust stack was conducted in accordance with *Component 4* of the ICR. Complete descriptions of the Source Test sampling and analytical methodologies are presented in the "*Source Test Plan for the Fluid Catalytic Cracking Unit" ('Plan'),* submitted to Chevron on June 8, 2011. Any deviations from those methodologies encountered during the Source Test are described in this section.

3.1 Sampling Locations

Chevron installed five (5) sampling ports on the FCCU exhaust stack that were used to perform the Source Test according to *Component 4* of the ICR. The exhaust stack is approximately 150 feet high (with a sampling platform approximately 70 feet above grade) and has a diameter of 56 inches (see Figure 3-1). There are two (2) orthogonal sampling ports (Port C and Port D) with diameters of four (4) inches on a single measurement plane, and three (3) orthogonal sampling ports (Port A, Port B and Port E) with diameters of four (4) inches on a second measurement plane. Ports C and D are shown in Figure 3-2 and Ports A and B are shown in Figure 3-3. Port E is not shown. The existing sampling ports allowed simultaneous sampling for all target compounds within each individual Group (i.e., A, B, D and E).

Each sampling port is located in compliance with U.S. EPA Method 1, "*Sample and Velocity Traverses for Stationary Sources,*" and is greater than or equal to two (2) but less than five (5) stack diameters downstream from a constriction in the stack and greater than two (2) stack diameters from the outlet of the stack. Figure 3-4 and Table 3-1 present the location of the 24 traverse points used for isokinetic sampling during the Source Test. A cyclonic flow check of the FCCU exhaust stack was performed prior to testing and passed applicable method criteria. Data sheets documenting the sample point locations are included in Appendix B.

Figure 3-1. FCCU Exhaust Stack

Figure 3-2. FCCU Exhaust Stack Sampling Ports C and D

Figure 3-3. FCCU Exhaust Stack Sampling Ports A and B

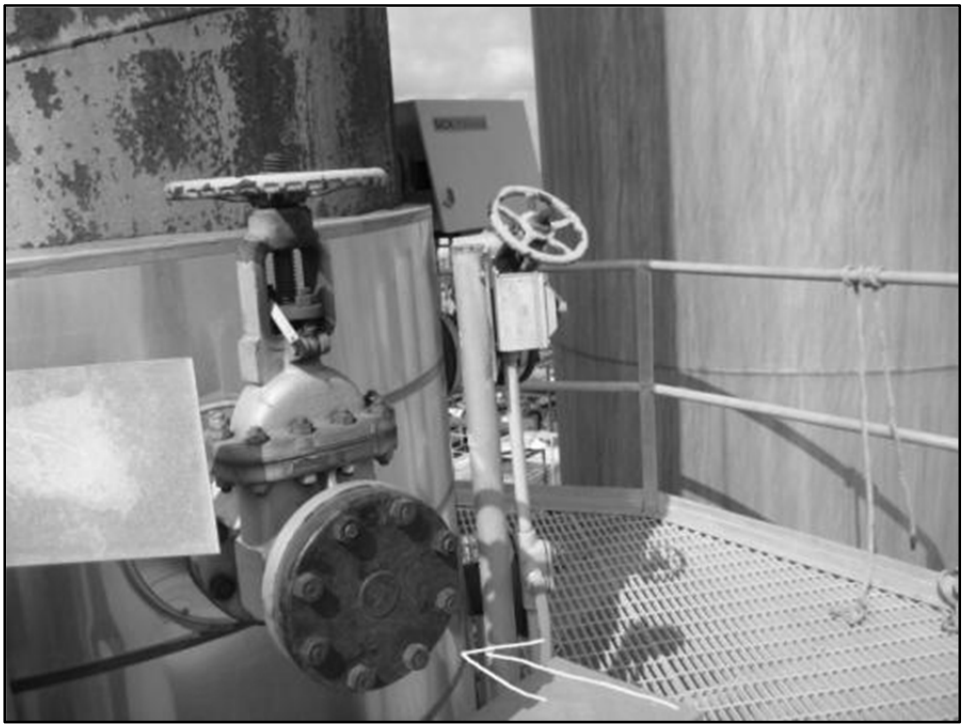

Figure 3-4. FCCU Exhaust Stack Traverse Points for Ports A-E

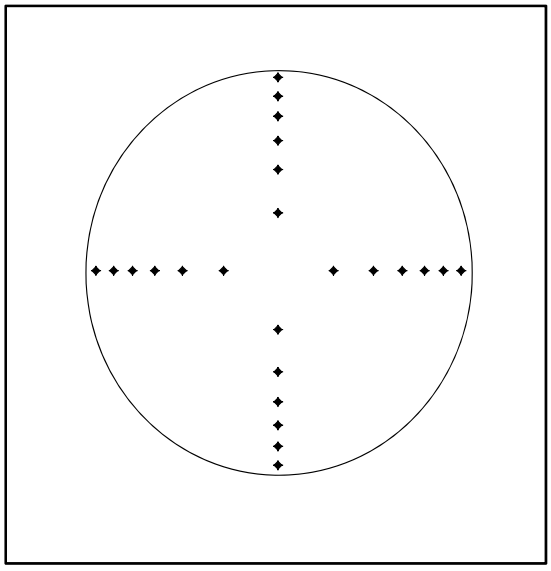

Table 3-1. FCCU Exhaust Stack Isokinetic Traverse Points for Ports A-E

Stack Diameter - 56.0 inches		
Point	Percentage of Diameter	Distance from Wall (inches)
1	2.10	1.18
2	6.70	3.75
3	11.8	6.61
4	17.7	9.91
5	25.0	14.0
6	35.6	19.9
7	64.4	36.1
8	75.0	42.0
9	82.3	46.1
10	88.2	49.4
11	93.3	52.2
12	97.9	54.8

3.2 Volumetric Flow Rate, Dry Gas Molecular Weight and Moisture Concentration by U.S. EPA Methods 2, 3A and 4

Concurrent with the performance of the isokinetic sampling trains during the Source Test for ICR Groups A, B, D and E, measurements were made to determine stack gas flow rate by U.S. EPA Method 2, "*Determination of Stack Gas Velocity and Flow Rate from Stationary Sources (Type-S Pitot Tube),*" dry gas molecular weight by U.S. EPA Method 3A, "*Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure),*" and moisture concentration by U.S. EPA Method 4, "*Determination of Moisture Content in Stack Gases.*" Table 3-2 presents a summary of data collected for FCCU exhaust stack temperature, velocity, moisture concentration, O_2 and CO_2 concentrations, and volumetric flow rates. Also included in Table 3-2 are dry gas sample volumes and isokinetic sampling rates associated with each isokinetic sampling train performed in ICR Groups A, B, D and E. Appendix C presents the calibrations, bias checks, and raw data for the O_2 and CO_2 CEMs. No deviations from the *Plan* occurred during the Source Test.

Table 3-2. Summary of Isokinetic Sampling

Condition	Overall Run	Analytical Parameter	Average Stack Temperature (°F)	Velocity (ft/sec)	Flue Gas Moisture (%)	O_2 (vol %, dry)	CO_2 (vol %, dry)	Avg Flow Rate (acfm)	Avg Flow Rate (scfm)	Avg Flow Rate (dscfm)	Volume at Meter (dscf)	Isokinetic Sampling Rate (%)
E	1	HCl, Cl_2, and HF	482.6	93.94	8.51	5.18	13.68	89,608	50,093	45,832	78.437	103.97
	2	HCl, Cl_2, and HF	484.2	94.68	8.27	5.15	13.65	90,335	50,412	46,243	77.111	101.30
	3	HCl, Cl_2, and HF	486.1	94.29	8.68	5.21	13.54	90,012	50,298	45,932	75.459	99.80
B	1	PCDDs/PCDFs/PCBs	485.4	99.90	7.62	5.18	13.68	95,331	53,134	49,086	121.596	99.96
	3	PCDDs/PCDFs/PCBs	486.7	93.80	7.88	5.21	13.54	89,508	49,984	46,046	112.371	98.48
	8	PCDDs/PCDFs/PCBs	483.2	95.51	7.40	5.38	13.35	91,139	51,002	47,228	117.664	98.50
D1/D2/D4	5	$PM_{2.5}$-FILT/$PM_{2.5}$-CON	489.4	98.82	7.07	5.39	13.40	94,298	52,474	48,767	62.304	99.53
		Hg^0 and Hg^{2+}	487.0	94.96	8.01	5.39	13.40	90,615	50,555	46,507	73.298	98.69
		Total PM/Other Metals	477.2	96.44	7.85	5.39	13.40	92,033	51,880	47,806	124.198	99.63
	6	$PM_{2.5}$-FILT/$PM_{2.5}$-CON	486.0	100.92	7.30	5.16	13.60	96,307	53,788	49,864	67.929	99.39
		Hg^0 and Hg^{2+}	482.3	94.23	8.20	5.16	13.60	89,915	50,413	46,280	72.347	98.88
		Total PM/Other Metals	477.1	96.19	8.14	5.16	13.60	91,789	51,752	47,538	122.073	99.48
	7	$PM_{2.5}$-FILT/$PM_{2.5}$-CON	489.0	97.46	6.95	5.59	13.21	93,004	51,745	48,147	75.787	104.56
		Hg^0 and Hg^{2+}	485.5	95.27	8.18	5.59	13.21	90,914	50,770	46,616	72.593	98.50
		Total PM/Other Metals	479.7	96.98	8.21	5.59	13.21	92,547	52,033	47,760	124.461	100.95
A	8	SVOC HAP	473.6	95.27	7.50	5.38	13.35	90,910	51,393	47,540	150.215	98.92
	9	SVOC HAP	487.1	96.41	7.92	5.72	13.06	92,000	51,204	47,149	149.742	99.43
	11	SVOC HAP	487.0	96.46	5.87	5.47	13.31	92,047	51,150	48,146	150.947	100.18
D3/D4	9	Cr^{6+}	489.6	97.69	9.31	5.72	13.06	93,221	51,745	46,927	119.007	99.74
	11	Cr^{6+}	486.4	98.83	13.20	5.47	13.31	94,310	52,441	45,521	119.260	103.58
	12	Cr^{6+}	493.4	97.95	10.56	5.65	13.15	93,467	51,725	46,262	116.917	99.91

3.3 SO_2 Concentrations by Certified FCCU CEMS

A SO_2 continuous emission monitoring system (CEMS) is installed on the FCCU exhaust stack and meets the requirements of applicable U.S. EPA Performance Specifications and the CEMS accuracy and ongoing QA/QC requirements of 40 CFR 60, Subpart J. Per *Component 4* of the ICR, data from the FCCU SO_2 CEMS is used to report hourly averages from 30 days of data in lieu of performing U.S. EPA Method 6C, "*Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure),*" during the Source Test. A portion of this FCCU SO_2 CEMS data is correlated with emissions sampling conducted for ICR Group D target compounds. Appendix D presents applicable FCCU SO_2 CEMS data. Appendix E presents the results of the most recent accuracy certification of the FCCU SO_2 CEMS. No deviations from the *Plan* occurred during the Source Test.

3.4 NO_X Concentrations by Certified FCCU CEMS

A NO_X continuous emission monitoring system (CEMS) is installed on the FCCU exhaust stack and meets the requirements of applicable U.S. EPA Performance Specifications and the CEMS accuracy and ongoing QA/QC requirements of 40 CFR 60, Subpart J. Per *Component 4* of the ICR, data from the FCCU NO_X CEMS is used to report hourly averages from 30 days of data in lieu of performing U.S. EPA Method 7E, "*Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzers Procedure),*" during the Source Test. A portion of this FCCU NO_X CEMS data is correlated with emissions sampling conducted for ICR Group D target compounds. Appendix D presents applicable FCCU NO_X CEMS data. Appendix E presents the results of the most recent accuracy certification of the FCCU NO_X CEMS. No deviations from the *Plan* occurred during the Source Test.

3.5 CO Concentrations by Certified FCCU CEMS

A CO continuous emission monitoring system (CEMS) is installed on the FCCU exhaust stack and meets the requirements of applicable U.S. EPA Performance Specifications and the CEMS accuracy and ongoing QA/QC requirements of 40 CFR 60, Subpart J. Per *Component 4* of the ICR, data from the FCCU CO CEMS is used to report hourly averages from 30 days of data in lieu of performing U.S. EPA Method 10, "*Determination of Carbon Monoxide Emissions from Stationary Sources (Instrumental Analyzer Procedure),*" during the Source Test. A portion of this FCCU CO CEMS data is correlated with emissions sampling conducted for ICR Group A target compounds. Appendix D presents applicable FCCU CO CEMS data. Appendix E presents the results of the most recent accuracy certification of the FCCU CO CEMS. No deviations from the *Plan* occurred during the Source Test.

3.6 Methane, Ethane and VOC HAP Concentrations by U.S. EPA Method 18

Due to the wide range of boiling points of the VOC HAPs to be measured as part of the ICR program, multiple sampling strategies were employed during the Source Test. A combination of

two separate sampling techniques was utilized to collect selected VOC HAP emissions data per U.S. EPA Method 18, "*Measurement of Gaseous Organic Compound Emissions by Gas Chromatography*," during the Source Test for ICR Group A: bag sampling and sorbent sampling. In addition, direct interface sampling with in-line analysis by a gas chromatograph (GC) equipped with a flame ionization detector (FID) was performed to measure methane and ethane emissions. U.S. EPA Method 18 is a performance-based sampling and analytical method that allows for some flexibility in sampling and analytical techniques provided that certain QA/QC criteria for instrument calibration and sample recovery criteria are achieved. As a precautionary measure, VOC HAP compounds were also monitored using U.S. EPA Method 320. Section 3.13 presents further detail. Table 3-3 and 3-4 present summaries of bag and sorbent sample collection, respectively. Field sampling data sheets are presented in Appendix B. URS GC/FID operating and calibration data are presented in Appendix F. The full analytical report for VOC HAPs is presented in Appendix G. No deviations from the *Plan* occurred during the Source Test.

Table 3-3. Summary of Method 18 Bag Sampling

Condition	Overall Run	Bag ID	Date	Time	Sample Volume (dsL)
A1	8	A	6/27/2011	10:05 - 11:05	6.446
		B		12:21 - 13:21	6.285
	9	A	6/28/2011	11:33 - 12:33	5.817
		B		12:48-13:05, 13:25-14:08	5.846
	11	A	6/29/2011	09:12 - 10:12	5.454
		B		10:28 - 11:28	4.706

Table 3-4. Summary of Method 18 Sorbent Sampling

Condition	Overall Run	Sorbent Type	Date	Time	Sample Volume (dsL)
A1	8	Spiked XAD	6/27/2011	11:46 - 13:26	94.164
		Unspiked XAD		11:46 - 13:26	91.016
	9	Spiked XAD	6/28/2011	12:05 - 14:05	92.906
		Unspiked XAD		12:05 - 14:05	91.984
	11	Spiked XAD	6/29/2011	10:00 - 11:40	99.724
		Unspiked XAD		10:00 - 11:40	90.857

3.7 PCDDs/PCDFs and PCBs Concentrations by U.S. EPA Method 23

FCCU exhaust gas samples were collected for the determination of PCDDs/PCDFs and selected PCBs emissions using U.S. EPA Method 23, "*Determination of Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans from Municipal Waste Combustors*," during the Source Test for ICR Group B. Sample gas was collected isokinetically, filtered, and passed through a sorbent module. The sorbent module consisted of a water-cooled condenser followed by the water-jacketed XAD-2 resin trap. Following the resin trap, the sample gas passed through a series of impingers. The sampling train was also recovered for the determination of PCBs. Samples were analyzed by high resolution GC/MS according to U.S. EPA Method 23. Field sampling data sheets are presented in Appendix B. The full analytical report for PCDDs/PCDFs and PCBs is presented in Appendix H. No deviations from the *Plan* occurred during the Source Test.

3.8 THC Concentration by U.S. EPA Method 25A

U.S. EPA Method 25A, "*Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer*," was performed to measure THC concentrations in the FCCU exhaust stack gas stream during the Source Test for ICR Group A (A3). Gas was withdrawn from the duct and routed to a portable Thermo 51i-HT CEM for analysis. The THC CEMS was calibrated with certified gas standards of propane. Calibrations, hourly drift checks, and raw data from the URS CEMs data acquisition system can be found in Appendix C. No deviations from the *Plan* occurred during the Source Test.

3.9 HCl, Cl_2 and HF Concentrations by U.S. EPA Method 26A

The FCCU exhaust stack gas stream was sampled for determination of HCl, Cl_2, and HF emissions using U.S. EPA Method 26A, "*Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources (Isokinetic Method).*" According to this method, sampled gas was collected isokinetically, filtered, and bubbled through a series of impingers. The gas first contacted a solution of sulfuric acid, which removed the HCl and HF, and then contacted a solution of sodium hydroxide, which removed the Cl_2. The impingers were weighed, and the solutions were recovered and subsequently analyzed using ion chromatography (IC). Field sampling data sheets are presented in Appendix B. The full analytical report for HCl, Cl_2 and HF is presented in Appendix I. No deviations from the *Plan* occurred during the Source Test.

3.10 Total Filterable PM and Other Metals Concentrations by U.S. EPA Methods 5 and 29

The FCCU exhaust stack gas stream was sampled for determination of total filterable PM and other selected metals emissions using a sampling train meeting the requirements of both U.S. EPA Methods 5, "*Determination of Particulate Matter Emissions from Stationary Sources*," and 29, "*Determination of Metals Emissions from Stationary Sources*," during the Source Test for

ICR Group D (D1). Gas was withdrawn from the duct isokinetically, and the PM was filtered from the gas sample. The PM was determined in the rinse of the probe and nozzle, and on the filter, gravimetrically for determination of total filterable PM. The nitric acid probe and nozzle rinse, the filter, and the nitric acid/hydrogen peroxide impingers were analyzed for antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, nickel, manganese and selenium, by inductively coupled plasma (ICP/MS) by SW-846 Method 6020. Field sampling data sheets are presented in Appendix B. The full analytical reports for total filterable PM and other metals are presented in Appendices J and K, respectively. No deviations from the *Plan* occurred during the Source Test.

3.11 $PM_{2.5}$–FILT and $PM_{2.5}$-CON Concentrations by U.S. EPA Methods 201A and 202

The FCCU exhaust stack gas stream was sampled for determination of $PM_{2.5}$-FILT and $PM_{2.5}$-CON concentrations using a sampling train meeting the requirements of both U.S. EPA Methods 201A, "*Determination of PM_{10} and $PM_{2.5}$ Emissions from Stationary Sources (Constant Sampling Rate Procedure)*," and 202, "*Determination of Condensible Particulate Emissions from Stationary Sources*," during the Source Test for ICR Group D (D1). Gas was withdrawn from the exhaust stack isokinetically through an in-stack filter, removing all filterable particulate less than or equal to 2.5 micrometers in diameter. The $PM_{2.5}$-FILT concentration was determined gravimetrically from the rinse of the nozzle and front-half of the in-stack filter holder, and on the tared filter. $PM_{2.5}$-CON was determined in the back-half impingers and mid-train filter. The impinger rinses and filter were desiccated and condensable $PM_{2.5}$ was determined gravimetrically. Field sampling data sheets are presented in Appendix B. The full analytical report for $PM_{2.5}$-FILT and $PM_{2.5}$-CON is presented in Appendix I. The following deviation from the *Plan* occurred during the Source Test:

- The *Plan* states that U.S. EPA Methods 201A/202 sampling trains would collect ≥2 m^3 dry gas sample volume over the course of each sampling run. This dry gas volume requirement was specified in *Component 4* of the ICR. During the first two sampling runs (Runs 5 and 6), this objective was not met. However, dwell-time adjustments were made between each run to rectify the problem, and the dry gas sample volume criterion was met in the third run (Run 7). See Section 5.0 for details on the impact of this deviation on the Source Test QA/QC objectives.

3.12 Methanol Concentration by U.S. EPA Method 308

U.S. EPA Method 308, "*Procedure for Determination of Methanol Emissions from Stationary Sources*," was used to measure methanol (a VOC HAP) concentrations in the FCCU exhaust stack gas stream during the Source Test for ICR Group A. Sample gas was extracted at a constant rate and routed to a chilled condensate trap and sorbent tube. Both the condensate and sorbent fractions were analyzed for methanol by GC/FID. As a precautionary measure, methanol

was also monitored using U.S. EPA Method 320. Section 3.13 presents further detail. Table 3-5 presents a summary of methanol sample collection. Field sampling data sheets are presented in Appendix B. The full analytical report for methanol is presented in Appendix G. The following deviation from the *Plan* occurred during the Source Test:

- The *Plan* states that U.S. EPA Method 308 sampling trains would be performed according the *Component 4* of the ICR. *Component 4* of the ICR allows U.S. EPA Method 308 for the measurement of methanol provided that sample results are above applicable method detection limits (MDLs). Sample results for methanol were below MDLs during Runs 8, 9 and 11. See Section 5.0 for details on the impact of this deviation on the Source Test QA/QC objectives.

Table 3-5. Summary of Method 308 Methanol Sampling

Condition	Overall Run	Sorbent Type	Date	Time	Sample Volume (dsL)
A1	8	Silica Gel	6/27/2011	11:46 - 13:26	96.109
	9	Silica Gel	6/28/2011	12:05 - 14:04	95.348
	11	Silica Gel	6/29/2011	10:00 - 11:40	98.619

3.13 Selected Aldehydes, NH_3 and HCN Concentrations by U.S. EPA Method 320

U.S. EPA Method 320, "*Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy*," was performed to quantify selected aldehydes (formaldehyde, acetaldehyde, and propanal), NH_3, and HCN concentrations in the FCCU exhaust stack gas stream during the Source Test for ICR Groups A (A1), D (D1), and E, respectively. Additionally, the exhaust stack gas stream was monitored for several VOC HAP compounds in the event that U.S. EPA Method 18 QA/QC criteria were not achieved. These samples were extracted continuously from the FCCU exhaust stack gas stream at a constant rate and routed to an MKS Instruments Model 2030 Fourier Transform Infrared (FTIR) spectrometer for analysis. U.S. EPA Method 320 is a "self-validating" method, and sample results are valid provided that the quality assurance criteria defined in the method are met during the validation procedures and quality assurance (QA) spikes. All FTIR quality assurance data is presented in Appendix K. No deviations from the *Plan* occurred during the Source Test.

3.14 Speciated Hg Concentration by ASTM D6784-02

Samples of the FCCU exhaust stack gas stream were collected isokinetically for the determination of speciated mercury emissions according ASTM Method D6784-02, "*Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated*

from Coal-Fired Stationary Sources (Ontario Hydro Method)," during the Source Test for ICR Group D (D2). The nitric acid probe and nozzle rinse, the filter, and the potassium chloride were analyzed for oxidized mercury by cold vapor atomic adsorption (CVAA). The nitric acid/hydrogen peroxide impingers and acidified potassium permanganate impingers were analyzed for elemental mercury by CVAA. Field sampling data sheets are presented in Appendix B. The full analytical report for speciated Hg is presented in Appendix L. No deviations from the *Plan* occurred during the Source Test.

3.15 SVOC HAPs Concentrations by SW-846 Method 0010

FCCU exhaust stack gas samples were collected for the determination of SVOC HAP emissions using SW-846 Method 0010, "*Modified Method 5 Sampling Train,*" during the Source Test for ICR Group A (A2). Sample gas was collected isokinetically, filtered, and passed through a sorbent module. The sorbent module consisted of a water-cooled condenser followed by the water-jacketed XAD-2 resin trap. Following the resin trap, the sample gas passed through a series of impingers. Samples were analyzed by GC/MS according to SW-846 Method 8270C. Field sampling data sheets are presented in Appendix B. The full analytical report for SVOC HAPs is presented in Appendix M. No deviations from the *Plan* occurred during the Source Test.

3.16 Cr^{6+} Concentration by SW-846 Method 0061

Samples of the FCCU exhaust stack gas stream were collected isokinetically for the determination of Cr^{6+} emissions according to SW-846 Method 0061, "*Determination of Hexavalent Chromium Emissions from Stationary Sources,*" during the Source Test for ICR Group D (D3). Field sampling data sheets are presented in Appendix B. The following deviation from the *Plan* occurred during the Source Test:

- The samples collected for Cr^{6+} were lost by the subcontracted hazardous materials shipper (Federal Express) during transit between the Chevron Hawaii Refinery and the subcontracted analytical laboratory located in Durham, North Carolina (Enthalpy). No emissions results for Cr^{6+} are available for the Source Test.

4.0 Results and Calculations

This section presents detailed analytical results from the Source Test of the FCCU exhaust stack. Some in-stack concentrations and mass emission rates are presented using a "<" before the numerical value to identify that at least one of the analytical values used in calculations is less than the applicable method detection limit. In addition, individual analytical results may be qualified as 'BDL' (below detection level), 'DLL' (detection level limited), or 'ADL' (above detection level) according to Appendix A of *Component 4* of the ICR, if applicable. For measurements conducted using instrumental test methods or certified FCCU CEMS (i.e., for O_2, CO_2, SO_2, NO_X, CO or THC), gaseous concentrations are reported as measured and may include negative values due to normal and acceptable levels of system or analyzer bias. All calculations were performed prior to rounding, and are presented using at least two significant figures.

4.1 ICR Group A Results and Calculations

This section presents detailed analytical results from the Source Test for ICR Group A target compound emissions from the FCCU exhaust stack. Results for THC, methane, ethane, CO, aldehydes, VOC HAPs and SVOC HAPs are presented in measurement units according to *Component 4* of the ICR.

In addition to the results for methanol according to U.S. EPA Method 308 (presented in Table 4-11), methanol was monitored using FTIR, according to U.S. EPA Method 320 (presented in Table 4-6). The FTIR sampling during Group A testing agreed with the U.S. EPA Method 308 results, in that no methanol was observed by either method. During testing for other groups, a small but detectable amount of methanol was observed using U.S. EPA Method 320.

Table 4-1. THC Emission Results

	Condition A3		
	Run 8	**Run 9**	**Run 11[1]**
Date	6/27/2011	6/28/2011	6/29/2011
Time	09:20-13:40	10:58-16:20	09:15-15:47
Stack Gas Volumetric Flow Rate (dscfm)	47,540	47,149	48,146
Moisture (%)	7.50	7.92	5.87
THC Uncorrected Concentration (ppmvw)			
THC (as propane)	5.64	2.69	3.64
THC Moisture-Corrected Concentration (ppmvd)			
THC (as propane)	6.10	2.92	3.87
THC Mass Emission Rate (lbs/hr)			
THC (as propane)	1.99	0.947	1.28
Average THC (as propane)	1.41		

[1] THC was measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.

Table 4-2. Methane Emissions Results

	Condition A3		
	Run 8	**Run 9**	**Run 11[1]**
Date	6/27/2011	6/28/2011	6/29/2011
Time	11:10-13:33	12:36-18:17	10:18-16:01
Stack Gas Volumetric Flow Rate (dscfm)	47,540	47,149	48,146
Moisture (%)	7.50	7.92	5.87
Methane Uncorrected Concentration (ppmvw)			
Methane	<0.629	<0.629	<0.653
Methane Moisture-Corrected Concentration (ppmvd)			
Methane	<0.680	<0.683	<0.693
Average Methane	<0.686		
Methane Mass Emission Rate (lbs/hr)			
Methane	<0.0807	<0.0804	<0.0833
Average Methane	<0.0815		

[1] Methane was measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.

Table 4-3. Ethane Emissions Results

	Condition A3		
	Run 8	**Run 9**	**Run 11[1]**
Date	6/27/2011	6/28/2011	6/29/2011
Time	11:10-13:33	12:36-18:17	10:18-16:01
Stack Gas Volumetric Flow Rate (dscfm)	47,540	47,149	48,146
Moisture (%)	7.50	7.92	5.87
Ethane Uncorrected Concentration (ppmvw)			
Ethane	<1.96	<1.96	<1.96
Ethane Moisture-Corrected Concentration (ppmvd)			
Ethane	<2.12	<2.13	<2.08
Average Ethane	<2.11		
Ethane Mass Emission Rate (lbs/hr)			
Ethane	<0.472	<0.470	<0.470
Average Ethane	<0.470		

[1] Ethane was measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.

Table 4-4. CO Emissions Results

	Condition A3		
	Run 8	**Run 9**	**Run 11[1]**
Date	6/27/2011	6/28/2011	6/29/2011
Time	09:20-13:40	10:58-16:20	09:15-15:47
Stack Volumetric Gas Flow Rate (dscfm)	47,540	47,149	48,146
CO (ppmvd)	51.5	64.0	66.5
Average CO (ppmvd)	60.7		
CO (lbs/hr)	10.7	13.3	13.9
Average CO (lbs/hr)	12.6		

[1] CO was measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.

Table 4-5. Selected Aldehydes Emissions Results

	Cond A1 Run 8		**Cond A1 Run 9**		**Cond A1 Run 11[1]**		**Average**
Date	**6/27/2011**		**6/28/2011**		**6/29/2011**		
Time	**12:12-14:12**		**11:59-13:59**		**09:25-11:55**		
Stack Gas Flow Rate (dscfm)	47,540		47,149		48,146		
Moisture (%)	7.50		7.92		5.87		
Stack Gas Wet Concentration (ppmvw)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
Formaldehyde	0.0967		<0.074		<0.074		
Acetaldehyde	<0.48		<0.48		<0.48		
Propanal	<0.38		<0.38		<0.38		
Stack Gas Dry Concentration (ppmvd)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	
Formaldehyde	0.105	ADL	<0.080	BDL	<0.079	BDL	
Acetaldehyde	<0.52	BDL	<0.52	BDL	<0.51	BDL	
Propanal	<0.41	BDL	<0.41	BDL	<0.40	BDL	
Stack Gas Concentration (µg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Formaldehyde	131	ADL	<100	BDL	<98	BDL	<110
Acetaldehyde	<950	BDL	<960	BDL	<940	BDL	947
Propanal	<990	BDL	<1,000	BDL	<980	BDL	989
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Formaldehyde	0.0233	ADL	<0.0177	BDL	<0.0177	BDL	<0.020
Acetaldehyde	<0.169	BDL	<0.169	BDL	<0.169	BDL	0.169
Propanal	<0.177	BDL	<0.176	BDL	<0.176	BDL	0.176

[1] Selected aldehydes were not measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.

Table 4-6. VOC HAPs Analytical Results (FTIR)

	Cond A1 Run 8		Cond A1 Run 9		Cond A1 Run 11		Average
Date	**6/27/2011**		**6/28/2011**		**6/29/2011**		
Time	**12:12-14:12**		**11:59-13:59**		**09:25-11:55**		
Stack Gas Flow Rate (dscfm)	47,540		47,149		48,146		
Moisture (%)	7.50		7.92		5.87		
Stack Gas Wet Concentration (ppmvw)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
1,3-Butadiene	<0.089		<0.097		<0.076		
Styrene	<0.20		<0.20		<0.20		
Methanol	<0.092		<0.092		<0.092		
Stack Gas Dry Concentration (ppmvd)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	
1,3-Butadiene	<0.096	BDL	<0.11	BDL	<0.081	BDL	
Styrene	<0.22	BDL	<0.22	BDL	<0.21	BDL	
Methanol	<0.099	BDL	<0.100	BDL	<0.098	BDL	
Stack Gas Concentration (µg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
1,3-Butadiene	<220	BDL	<240	BDL	<180	BDL	<210
Styrene	<940	BDL	<940	BDL	<920	BDL	<930
Methanol	<130	BDL	<130	BDL	<130	BDL	<130
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
1,3-Butadiene	<0.0386	BDL	<0.0419	BDL	<0.0328	BDL	<0.038
Styrene	<0.167	BDL	<0.166	BDL	<0.166	BDL	<0.17
Methanol	<0.0236	BDL	<0.0236	BDL	<0.0235	BDL	<0.024

Table 4-7. VOC HAPs Analytical Results (Bag Samples)

	Volume Collected (dsL)	Bag (ppm)	Flag	Bag (µg)	Flag	Condensate (µg)	Flag	Totals (µg)
Condition A1 Run 8	6.285							
Acetone		<0.383		<5.83		<7.60		<13.4
Acrolein		<0.296		<4.35		<12.8		<17.1
Benzene		<0.241		<4.93		<11.0		<15.9
1,3-Butadiene[2]		<0.509		<7.21		<12.9		<20.1
Carbon Disulfide		<0.00886		<0.177		<4.27		<4.45
1,2-Dibromoethane		<0.257		<12.6		<29.8		<42.4
Hexane		<0.229		<5.17		<9.22		<14.4
Methylene Chloride		<0.930		<20.7		<22.3		<43.0
Pentane		<0.257		<4.86		<20.2		<25.1
Tetrachloroethene		<0.291		<12.6		<59.2		<71.8
Trichloroethene		<0.367		<12.6		<12.5		<25.1
Toluene		<0.248		<5.98		<21.5		<27.5
Condition A1 Run 9	5.846							
Acetone		<0.383		<5.42		<7.60		<13.0
Acrolein		<0.296		<4.04		<12.8		<16.8
Benzene		<0.241		<4.58		<11.0		<15.6
1,3-Butadiene[2]		<0.509		<6.71		<12.9		<19.6
Carbon Disulfide		<0.00886		<0.164		<4.27		<4.43
1,2-Dibromoethane		<0.257		<11.8		<29.8		<41.6
Hexane		<0.229		<4.81		<9.22		<14.0
Methylene Chloride		<0.930		<19.2		<22.3		<41.5
Pentane		<0.257		<4.52		<20.2		<24.7
Tetrachloroethene		<0.291		<11.8		<59.2		<71.0
Trichloroethene		<0.367		<11.7		<12.5		<24.2
Toluene		<0.248		<5.56		<21.5		<27.1
Condition A1 Run 11[1]	4.706							
Acetone		<0.383		<4.36		<7.60		<12.0
Acrolein		<0.296		<3.26		<12.8		<16.1
Benzene		<0.241		<3.69		<11.0		<14.7
1,3-Butadiene[2]		<0.509		<5.40		<12.9		<18.3
Carbon Disulfide		<0.00886		<0.132		<4.27		<4.40
1,2-Dibromoethane		<0.257		<9.47		<29.8		<39.3
Hexane		<0.229		<3.87		<9.22		<13.1
Methylene Chloride		<0.930		<15.5		<22.3		<37.8
Pentane		<0.257		<3.64		<20.2		<23.8
Tetrachloroethene		<0.291		<9.46		<59.2		<68.7
Trichloroethene		<0.367		<9.46		<12.5		<22.0
Toluene		<0.248		<4.48		<21.5		<26.0

[1] VOC HAPs were not measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.
[2] Laboratory spikes for 1,3-butadiene resulted in low spike recoveries. For more details, see Section 5.0.

Table 4-8. VOC HAPs Emissions Results (Bag Samples)

	Cond A1 Run 8		Cond A1 Run 9		Cond A1 Run 11[1]		Average
Date	**6/27/2011**		**6/28/2011**		**6/29/2011**		
Time	**11:46 - 13:26**		**12:05 - 14:05**		**10:00 - 11:40**		
Volume Collected (dsL)	6.285		5.846		4.706		
Stack Gas Flow Rate (dscfm)	47,540		47,149		48,146		
Mass Found (µg)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	
Acetone	<13.4	BDL	<13.0	BDL	<12.0	BDL	
Acrolein	<17.1	BDL	<16.8	BDL	<16.1	BDL	
Benzene	<15.9	BDL	<15.6	BDL	<14.7	BDL	
1,3-Butadiene[2]	<20.1	BDL	<19.6	BDL	<18.3	BDL	
Carbon Disulfide	<4.45	BDL	<4.43	BDL	<4.40	BDL	
1,2-Dibromoethane	<42.4	BDL	<41.6	BDL	<39.3	BDL	
Hexane	<14.4	BDL	<14.0	BDL	<13.1	BDL	
Methylene Chloride	<43.0	BDL	<41.5	BDL	<37.8	BDL	
Pentane	<25.1	BDL	<24.7	BDL	<23.8	BDL	
Tetrachloroethene	<71.8	BDL	<71.0	BDL	<68.7	BDL	
Trichloroethene	<25.1	BDL	<24.2	BDL	<22.0	BDL	
Toluene	<27.5	BDL	<27.1	BDL	<26.0	BDL	
Stack Gas Concentration (ug/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Acetone	<2,100	BDL	<2,200	BDL	<2,500	BDL	<2,300
Acrolein	<2,700	BDL	<2,900	BDL	<3,400	BDL	<3,000
Benzene	<2,500	BDL	<2,700	BDL	<3,100	BDL	<2,800
1,3-Butadiene[2]	<3,200	BDL	<3,400	BDL	<3,900	BDL	<3,500
Carbon Disulfide	<710	BDL	<760	BDL	<940	BDL	<800
1,2-Dibromoethane	<6,800	BDL	<7,100	BDL	<8,300	BDL	<7,400
Hexane	<2,300	BDL	<2,400	BDL	<2,800	BDL	<2,500
Methylene Chloride	<6,800	BDL	<7,100	BDL	<8,000	BDL	<7,300
Pentane	<4,000	BDL	<4,200	BDL	<5,100	BDL	<4,400
Tetrachloroethene	<11,000	BDL	<12,000	BDL	<15,000	BDL	<13,000
Trichloroethene	<4,000	BDL	<4,100	BDL	<4,700	BDL	<4,300
Toluene	<4,400	BDL	<4,600	BDL	<5,500	BDL	<4,800
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Acetone	<0.38	BDL	<0.39	BDL	<0.46	BDL	<0.41
Acrolein	<0.49	BDL	<0.51	BDL	<0.62	BDL	<0.54
Benzene	<0.45	BDL	<0.47	BDL	<0.56	BDL	<0.50
1,3-Butadiene[2]	<0.57	BDL	<0.59	BDL	<0.70	BDL	<0.62
Carbon Disulfide	<0.13	BDL	<0.13	BDL	<0.17	BDL	<0.14
1,2-Dibromoethane	<1.2	BDL	<1.3	BDL	<1.5	BDL	<1.3
Hexane	<0.41	BDL	<0.42	BDL	<0.50	BDL	<0.44
Methylene Chloride	<1.2	BDL	<1.3	BDL	<1.4	BDL	<1.3
Pentane	<0.71	BDL	<0.75	BDL	<0.91	BDL	<0.79
Tetrachloroethene	<2.0	BDL	<2.1	BDL	<2.6	BDL	<2.3
Trichloroethene	<0.71	BDL	<0.73	BDL	<0.84	BDL	<0.76
Toluene	<0.78	BDL	<0.82	BDL	<1.00	BDL	<0.86

[1] VOC HAPs were not measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.
[2] Laboratory spikes for 1,3-butadiene resulted in low spike recoveries. For more details, see Section 5.0.

Table 4-9. VOC HAPs Analytical Results (Sorbent Samples)

	Cond Ext (µg)	Flag	XAD FH (µg)	Flag	XAD BH (µg)	Flag	CT FH (µg)	Flag	CT BH (µg)	Flag	Totals (µg)
Condition A1 Run 8											
Acetonitrile	R[1]		R[1]		R[1]		R[1]		R[1]		R[1]
Acrylonitrile	<1.27		<1.03		<1.03		<1.03		<1.03		<5.39
Chlorobenzene	<1.34		<1.08		<1.08		<1.08		<1.08		<5.66
Cumene	<1.30		<1.06		<1.06		<1.06		<1.06		<5.54
Ethylbenzene	<1.37		<1.11		<1.11		<1.11		<1.11		<5.81
Methyl Isobutyl Ketone	<1.07		<0.868		<0.868		<0.868		<0.868		<4.54
Methyl t-Butyl Ether	<0.943		<0.764		<0.764		<0.764		<0.764		<4.00
Nitrobenzene	<1.53		<1.24		<1.24		<1.24		<1.24		<6.49
2-Nitropropane	<1.36		<1.10		<1.10		<1.10		<1.10		<5.76
Styrene[2]	<10.4		<8.45		<8.45		<8.45		<8.45		<44.2
2,2,4-Trimethylpentane	<0.846		<0.685		<0.685		<0.685		<0.685		<3.59
o-Xylene	<1.27		<1.02		<1.02		<1.02		<1.02		<5.35
m/p-Xylene	<1.26		<1.02		<1.02		<1.02		<1.02		<5.34
Condition A1 Run 9											
Acetonitrile	R[1]		R[1]		R[1]		R[1]		R[1]		R[1]
Acrylonitrile	<1.27		<1.03		<1.03		<1.03		<1.03		<5.39
Chlorobenzene	<1.34		<1.08		<1.08		<1.08		<1.08		<5.66
Cumene	<1.30		<1.06		<1.06		<1.06		<1.06		<5.54
Ethylbenzene	<1.37		<1.11		<1.11		<1.11		<1.11		<5.81
Methyl Isobutyl Ketone	<1.07		<0.868		<0.868		<0.868		<0.868		<4.54
Methyl t-Butyl Ether	<0.943		<0.764		<0.764		<0.764		<0.764		<4.00
Nitrobenzene	<1.53		<1.24		<1.24		<1.24		<1.24		<6.49
2-Nitropropane	<1.36		<1.10		<1.10		<1.10		<1.10		<5.76
Styrene[2]	<10.4		<8.45		<8.45		<8.45		<8.45		<44.2
2,2,4-Trimethylpentane	<0.846		<0.685		<0.685		<0.685		<0.685		<3.59
o-Xylene	<1.27		<1.02		<1.02		<1.02		<1.02		<5.35
m/p-Xylene	<1.26		<1.02		<1.02		<1.02		<1.02		<5.34
Condition A1 Run 11[3]											
Acetonitrile	R[1]		R[1]		R[1]		R[1]		R[1]		R[1]
Acrylonitrile	<1.26		<1.03		<1.03		<1.03		<1.03		<5.38
Chlorobenzene	<1.33		<1.08		<1.08		<1.08		<1.08		<5.65
Cumene	<1.30		<1.06		<1.06		<1.06		<1.06		<5.54
Ethylbenzene	<1.37		<1.11		<1.11		<1.11		<1.11		<5.81
Methyl Isobutyl Ketone	<1.07		<0.868		<0.868		<0.868		<0.868		<4.54
Methyl t-Butyl Ether	<0.941		<0.764		<0.764		<0.764		<0.764		<4.00
Nitrobenzene	<1.53		<1.24		<1.24		<1.24		<1.24		<6.49
2-Nitropropane	<1.36		<1.10		<1.10		<1.10		<1.10		<5.76
Styrene[2]	<10.4		<8.45		<8.45		<8.45		<8.45		<44.2
2,2,4-Trimethylpentane	<0.844		<0.685		<0.685		<0.685		<0.685		<3.58
o-Xylene	<1.26		<1.02		<1.02		<1.02		<1.02		<5.34
m/p-Xylene	<1.26		<1.02		<1.02		<1.02		<1.02		<5.34

[1] R = Data rejected during URS quality review. See Section 5.0 for more details.
[2] Laboratory pre-spikes for styrene resulted in low spike recoveries. For more details, see Section 5.0.

[3] VOC HAPs were not measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.

Table 4-10. VOC HAPs Emissions Results (Sorbent Samples)

	Cond A1 Run 8		Cond A1 Run 9		Cond A1 Run 11[1]		Average
Date	**6/27/2011**		**6/28/2011**		**6/29/2011**		
Time	**11:46 - 13:26**		**12:05 - 14:05**		**10:00 - 11:40**		
Volume Collected (dsL)	91.016		91.984		90.857		
Stack Gas Flow Rate (dscfm)	47,540		47,149		48,146		
Mass Found (µg)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	
Acetonitrile	R[2]		R[2]		R[2]		
Acrylonitrile	<5.39	BDL	<5.39	BDL	<5.38	BDL	
Chlorobenzene	<5.66	BDL	<5.66	BDL	<5.65	BDL	
Cumene	<5.54	BDL	<5.54	BDL	<5.54	BDL	
Ethylbenzene	<5.81	BDL	<5.81	BDL	<5.81	BDL	
Methyl Isobutyl Ketone	<4.54	BDL	<4.54	BDL	<4.54	BDL	
Methyl t-Butyl Ether	<4.00	BDL	<4.00	BDL	<4.00	BDL	
Nitrobenzene	<6.49	BDL	<6.49	BDL	<6.49	BDL	
2-Nitropropane	<5.76	BDL	<5.76	BDL	<5.76	BDL	
Styrene[3]	<44.2	BDL	<44.2	BDL	<44.2	BDL	
2,2,4-Trimethylpentane	<3.59	BDL	<3.59	BDL	<3.58	BDL	
o-Xylene	<5.35	BDL	<5.35	BDL	<5.34	BDL	
m/p-Xylene	<5.34	BDL	<5.34	BDL	<5.34	BDL	
Stack Gas Concentration (ug/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Acetonitrile	R[2]		R[2]		R[2]		R[2]
Acrylonitrile	<59	BDL	<59	BDL	<59	BDL	<59
Chlorobenzene	<62	BDL	<62	BDL	<62	BDL	<62
Cumene	<61	BDL	<60	BDL	<61	BDL	<61
Ethylbenzene	<64	BDL	<63	BDL	<64	BDL	<64
Methyl Isobutyl Ketone	<50	BDL	<49	BDL	<50	BDL	<50
Methyl t-Butyl Ether	<44	BDL	<43	BDL	<44	BDL	<44
Nitrobenzene	<71	BDL	<71	BDL	<71	BDL	<71
2-Nitropropane	<63	BDL	<63	BDL	<63	BDL	<63
Styrene[3]	<490	BDL	<480	BDL	<490	BDL	<480
2,2,4-Trimethylpentane	<39	BDL	<39	BDL	<39	BDL	<39
o-Xylene	<59	BDL	<58	BDL	<59	BDL	<59
m/p-Xylene	<59	BDL	<58	BDL	<59	BDL	<58

[1] VOC HAPs were not measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.
[2] R = Data rejected during URS quality review. See Section 5.0 for more details.

[3] Laboratory pre-spikes for styrene resulted in low spike recoveries. For more details, see Section 5.0.

Table 4-10. VOC HAPs Emissions Results (Sorbent Samples) (Continued)

	Cond A1 Run 8		Cond A1 Run 9		Cond A1 Run 11[1]		Average
Date	**6/27/2011**		**6/28/2011**		**6/29/2011**		
Time	**11:46 - 13:26**		**12:05 - 14:05**		**10:00 - 11:40**		
Volume Collected (dsL)	91.016		91.984		90.857		
Stack Gas Flow Rate (dscfm)	47,540		47,149		48,146		
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Acetonitrile	R[2]		R[2]		R[2]		R[2]
Acrylonitrile	<0.011	BDL	<0.010	BDL	<0.011	BDL	<0.011
Chlorobenzene	<0.011	BDL	<0.011	BDL	<0.011	BDL	<0.011
Cumene	<0.011	BDL	<0.011	BDL	<0.011	BDL	<0.011
Ethylbenzene	<0.011	BDL	<0.011	BDL	<0.012	BDL	<0.011
Methyl Isobutyl Ketone	<0.0089	BDL	<0.0087	BDL	<0.0090	BDL	<0.0089
Methyl t-Butyl Ether	<0.0078	BDL	<0.0077	BDL	<0.0079	BDL	<0.0078
Nitrobenzene	<0.013	BDL	<0.012	BDL	<0.013	BDL	<0.013
2-Nitropropane	<0.011	BDL	<0.011	BDL	<0.011	BDL	<0.011
Styrene	<0.086	BDL	<0.085	BDL	<0.088	BDL	<0.086
2,2,4-Trimethylpentane	<0.0070	BDL	<0.0069	BDL	<0.0071	BDL	<0.0070
o-Xylene	<0.010	BDL	<0.010	BDL	<0.011	BDL	<0.010
p-Xylene	<0.010	BDL	<0.010	BDL	<0.011	BDL	<0.010

[1] VOC HAPs were not measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.
[2] R = Data rejected during URS quality review. See Section 5.0 for more details.

[3] Laboratory pre-spikes for styrene resulted in low spike recoveries. For more details, see Section 5.0.

Table 4-11. VOC HAPs Analytical Results (Methanol)

	Cond A (µg)	Flag	Cond B (µg)	Flag	SG-FH (µg)	Flag	SG-BH (µg)	Flag	Totals (µg)
Condition A1 Run 8									
Methanol	<6.76		<6.78		<0.790		<0.790		<15.1
Condition A1 Run 9									
Methanol	<6.67		<6.76		<0.790		<0.790		<15.0
Condition A1 Run 11									
Methanol	<6.64		<6.76		<0.790		<0.790		<15.0

Table 4-12. VOC HAPs Emission Results (Methanol)

	Cond A1 Run 8		Cond A1 Run 9		Cond A1 Run 11[1]		Average
Date	**6/27/2011**		**6/28/2011**		**6/29/2011**		
Time	**11:46 - 13:26**		**12:05 - 14:04**		**10:00 - 11:40**		
Volume Collected (dsL)	96.109		95.348		98.619		
Stack Gas Flow Rate (dscfm)	47,540		47,149		48,146		
Mass Found (µg)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
Methanol	<15.1		<15.0		<15.0		
Stack Gas Concentration (µg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Methanol	<157	BDL	<157	BDL	<152	BDL	<156
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Methanol	<0.028	BDL	<0.028	BDL	<0.027	BDL	<0.028

[1] Methanol was not measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.

Table 4-13. SVOC HAP Emissions Results[1]

	Cond A2 Run 8		Cond A2 Run 9		Cond A2 Run 11[2]		Average
Date	**6/27/2011**		**6/28/2011**		**6/29/2011**		
Time	**09:20-13:40**		**10:58-15:22**		**09:15-13:21**		
Volume (dscf)	150.215		149.742		150.947		
Stack Gas Flow Rate (dscfm)	47,540		47,149		48,146		
Mass Found (ug)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
Acenaphthene	<0.05		<0.05		<0.05		
Acenaphthylene	<0.05		<0.05		<0.05		
Aniline	<3.47		30.8		<3.47		
Anthracene	<0.05		<0.05		<0.05		
Benzidine	R[3]		R[3]		R[3]		
Benz[a]anthracene	<0.05		<0.05		<0.05		
Benzo[b]fluoranthene	<0.05		<0.05		<0.05		
Benzo[k]fluoranthene	<0.05		<0.05		<0.05		
Benzo[g,h,i]perylene	<0.05		<0.05		<0.05		
Benzo[a]pyrene	<0.05		<0.05		<0.05		
Benzo[e]pyrene	<0.05		<0.05		<0.05		
Biphenyl	<5.00		<5.00		<5.00		
Chrysene	<0.05		<0.05		<0.05		
Dibenz[a,h]anthracene	<0.05		<0.05		<0.05		
Dibenzofuran	<3.44		<3.44		<3.44		
Dibenzo[a,e]pyrene	<0.05		<0.05		<0.05		
3,3'-Dimethoxybenzidine	R[3]		R[3]		R[3]		
Dimethylaminobenzene	<5.00		<5.00		<5.00		
7,12-Dimethylbenz[a]anthracene	<0.05		<0.05		<0.05		
3,3'-Dimethylbenzidine	R[3]		R[3]		R[3]		
α,α-Dimethylphenethylamine	R[3]		R[3]		R[3]		
2,4-Dimethylphenol	<3.64		<3.64		<3.64		
Fluoranthene	<0.05		<0.05		<0.05		
Fluorene	0.0695		0.0745		0.100		
Indeno[1,2,3-cd]pyrene	<0.05		<0.05		<0.05		
Isophorone	<3.74		<3.74		<3.74		
3-Methylcholanthrene	<0.05		<0.05		<0.05		
2-Methylnaphthalene	0.209		0.155		0.136		
2-Methylphenol	<3.39		<3.39		<3.39		
3/4-Methylphenol	<2.95		<2.95		<2.95		
Naphthalene	2.68		2.58		1.89		
Perylene	<0.05		<0.05		<0.05		
Phenanthrene	0.0671		0.0624		0.0514		
Phenol	22.6	J	26.3		30.9		
1,4-Phenylenediamine	R[3]		R[3]		R[3]		
Pyrene	<0.05		<0.05		<0.05		
o-Toluidine	<5.00		<5.00		<5.00		

Table 4-13. SVOC HAP Emissions Results (Continued)[1]

	Cond A2 Run 8		Cond A2 Run 9		Cond A2 Run 11		Average
Date	**6/27/2011**		**6/28/2011**		**6/29/2011**		
Time	**09:20-13:40**		**10:58-15:22**		**09:15-13:21**		
Volume (dscf)	150.215		149.742		150.947		
Stack Gas Flow Rate (dscfm)	47,540		47,149		48,146		
Stack Gas Concentration (ug/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Acenaphthene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Acenaphthylene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Aniline	<0.82	BDL	7.26	ADL	<0.81	BDL	<3.0
Anthracene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Benzidine	R[3]		R[3]		R[3]		R[3]
Benz[a]anthracene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Benzo[b]fluoranthene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Benzo[k]fluoranthene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Benzo[g,h,i]perylene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Benzo[a]pyrene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Benzo[e]pyrene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Biphenyl	<1.2	BDL	<1.2	BDL	<1.2	BDL	<1.2
Chrysene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Dibenz[a,h]anthracene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Dibenzofuran	<0.81	BDL	<0.81	BDL	<0.80	BDL	<0.81
Dibenzo[a,e]pyrene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
3,3'-Dimethoxybenzidine	R[3]		R[3]		R[3]		R[3]
Dimethylaminobenzene	<1.2	BDL	<1.2	BDL	<1.2	BDL	<1.2
7,12-Dimethylbenz[a]anthracene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
3,3'-Dimethylbenzidine	R[3]		R[3]		R[3]		R[3]
α,α-Dimethylphenethylamine	R[3]		R[3]		R[3]		R[3]
2,4-Dimethylphenol	<0.86	BDL	<0.86	BDL	<0.85	BDL	<0.86
Fluoranthene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Fluorene	0.0163	ADL	0.0176	ADL	0.0234	ADL	0.0191
Indeno[1,2,3-cd]pyrene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Isophorone	<0.88	BDL	<0.88	BDL	<0.87	BDL	<0.88
3-Methylcholanthrene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
2-Methylnaphthalene	0.0491	ADL	0.0366	ADL	0.0318	ADL	0.0392
2-Methylphenol	<0.80	BDL	<0.80	BDL	<0.79	BDL	<0.80
3/4-Methylphenol	<0.69	BDL	<0.70	BDL	<0.69	BDL	<0.69
Naphthalene	0.630	ADL	0.608	ADL	0.442	ADL	0.560
Perylene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
Phenanthrene	0.0158	ADL	0.0147	ADL	0.0120	ADL	0.0142
Phenol	5.31	ADL	6.20	ADL	7.23	ADL	6.25
1,4-Phenylenediamine	R[3]		R[3]		R[3]		R[3]
Pyrene	<0.012	BDL	<0.012	BDL	<0.012	BDL	<0.012
o-Toluidine	<1.2	BDL	<1.2	BDL	<1.2	BDL	<1.2

Table 4-13. SVOC HAP Emissions Results (Continued)[1]

	Cond A2 Run 8		Cond A2 Run 9		Cond A2 Run 11[2]		Average
Date	**6/27/2011**		**6/28/2011**		**6/29/2011**		
Time	**09:20-13:40**		**10:58-15:22**		**09:15-13:21**		
Volume (dscf)	150.215		149.742		150.947		
Stack Gas Flow Rate (dscfm)	47,540		47,149		48,146		
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Acenaphthene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Acenaphthylene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Aniline	<1.5E-04	BDL	1.28E-03	ADL	<1.5E-04	BDL	<5.2E-04
Anthracene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Benzidine	R[3]		R[3]		R[3]		R[3]
Benz[a]anthracene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Benzo[b]fluoranthene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Benzo[k]fluoranthene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Benzo[g,h,i]perylene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Benzo[a]pyrene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Benzo[e]pyrene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Biphenyl	<2.1E-04	BDL	<2.1E-04	BDL	<2.1E-04	BDL	<2.1E-04
Chrysene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Dibenz[a,h]anthracene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Dibenzofuran	<1.4E-04	BDL	<1.4E-04	BDL	<1.5E-04	BDL	<1.4E-04
Dibenzo[a,e]pyrene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
3,3'-Dimethoxybenzidine	R[3]		R[3]	BDL	R[3]	BDL	<2.1E-04
Dimethylaminobenzene	<2.1E-04	BDL	<2.1E-04	BDL	<2.1E-04	BDL	<2.1E-04
7,12-Dimethylbenz[a]anthracene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
3,3'-Dimethylbenzidine	R[3]		R[3]		R[3]		R[3]
α,α-Dimethylphenethylamine	R[3]		R[3]		R[3]		R[3]
2,4-Dimethylphenol	<1.5E-04	BDL	<1.5E-04	BDL	<1.5E-04	BDL	<1.5E-04
Fluoranthene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Fluorene	2.91E-06	ADL	3.10E-06	ADL	4.22E-06	ADL	3.41E-06
Indeno[1,2,3-cd]pyrene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Isophorone	<1.6E-04	BDL	<1.6E-04	BDL	<1.6E-04	BDL	<1.6E-04
3-Methylcholanthrene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
2-Methylnaphthalene	8.75E-06	ADL	6.46E-06	ADL	5.74E-06	ADL	6.98E-06
2-Methylphenol	<1.4E-04	BDL	<1.4E-04	BDL	<1.4E-04	BDL	<1.4E-04
3/4-Methylphenol	<1.2E-04	BDL	<1.2E-04	BDL	<1.2E-04	BDL	<1.2E-04
Naphthalene	1.12E-04	ADL	1.07E-04	ADL	7.97E-05	ADL	9.98E-05
Perylene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
Phenanthrene	2.81E-06	ADL	2.60E-06	ADL	2.17E-06	ADL	2.53E-06
Phenol	9.46E-04	ADL	1.10E-03	ADL	1.30E-03	ADL	1.12E-03
1,4-Phenylenediamine	R[3]		R[3]		R[3]		R[3]
Pyrene	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06	BDL	<2.1E-06
o-Toluidine	<2.1E-04	BDL	<2.1E-04	BDL	<2.1E-04	BDL	<2.1E-04

[1] Analytical results biased low because samples were stored above 4°C upon arrival at analytical laboratory. For more details, see Section 5.0.

[2] Methanol was not measured during the soot-blow event that occurred from 12:43-13:03 during Run 11.

[3] R = Data rejected during URS quality review. See Section 5.0 for more details.

4.2 ICR Group B Results and Calculations

This section presents detailed analytical results from the Source Test for ICR Group B target compound emissions from the FCCU exhaust stack. Results for PCDDs/PCDFs and PCBs are presented in measurement units according to *Component 4* of the ICR. Seven PCDD and ten PCDF congeners, all 2,3,7,8-substituted, are speciated. In addition, **total** tetra- through octa-chlorinated and **other** tetra- through octa-chlorinated (i.e., **total** minus 2,3,7,8-substituted) congeners are reported.

Table 4-14. PCDDs/PCDFs Emission Results

	Cond B Run 1		Cond B Run 3[1]		Cond B Run 8		Average
Date	**6/22/2011**		**6/23/2011**		**6/27/2011**		
Time	**13:06-16:36**		**09:42-13:06**		**10:10-13:38**		
Volume (dscf)	121.596		112.371		117.664		
Stack Gas Flow Rate (dscfm)	49,086		46,046		47,228		
Mass Found (pg)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
2,3,7,8-TCDD	<5.9		<27		<5.2		
1,2,3,7,8-PeCDD	<2.8		<12		<2.6		
1,2,3,4,7,8-HxCDD	<2.7		<13		<2.9		
1,2,3,6,7,8-HxCDD	<2.7		17	EMPC|J	<2.8		
1,2,3,7,8,9-HxCDD	<2.7		<13		<2.8		
1,2,3,4,6,7,8-HpCDD	5.6	EMPC|J	<15		<3.4		
OCDD	47	J	45	J	13	EMPC|J	
Total TCDD	6.4	J	<27		<5.2		
Total PeCDD	2.1	EMPC|J	20	EMPC|J	2.4	EMPC|J	
Total HxCDD	18	EMPC|J	120	EMPC|J	20	EMPC|J	
Total HpCDD	5.6	EMPC|J	<15		<3.4		
Total Dioxins	79.1	ADL	227	DLL	44.0	DLL	
Other TCDD	0.500	DLL	0	DLL	0	DLL	
Other PeCDD	0	DLL	8.00	DLL	0	DLL	
Other HxCDD	9.90	DLL	77.0	DLL	11.5	DLL	
Other HpCDD	0	DLL	0	DLL	0	DLL	
2,3,7,8-TCDF	<3.7		<17		<3.3		
1,2,3,7,8-PeCDF	<2.1		<11		<2.3		
2,3,4,7,8-PeCDF	<2.2		7.5	EMPC|J	<2.4		
1,2,3,4,7,8-HxCDF	6.3	J	<7.5		<1.8		
1,2,3,6,7,8-HxCDF	2.9	EMPC|J	<6.7		<1.6		
1,2,3,7,8,9-HxCDF	<1.5		<8.1		<2		
2,3,4,6,7,8-HxCDF	<1.3		<7.1		<1.7		
1,2,3,4,6,7,8-HpCDF	42	J	30	EMPC|J	5.4	EMPC|J	
1,2,3,4,7,8,9-HpCDF	9.2	EMPC|J	<13		<2.7		
OCDF	140	J	68	EMPC|J	19	J	
Total TCDF	<3.7		<17		<3.3		
Total PeCDF	9.6	EMPC|J	32	EMPC|J	<2.3		
Total HxCDF	27	EMPC|J	<7.3		9.8	EMPC|J	
Total HpCDF	68	EMPC|J	51	EMPC|J	5.4	EMPC|J	
Total Furans	248	DLL	175	DLL	39.8	DLL	
Other TCDF	0	DLL	0	DLL	0	DLL	
Other PeCDF	5.30	DLL	13.5	DLL	0	DLL	
Other HxCDF	15.0	DLL	0	DLL	2.70	DLL	
Other HpCDF	16.8	ADL	8.00	DLL	0	DLL	

Table 4-14. PCDDs/PCDFs Emissions Results (Continued)

	Cond B Run 1		Cond B Run 3[1]		Cond B Run 8		Average
Date	**6/22/2011**		**6/23/2011**		**6/27/2011**		
Time	**13:06-16:36**		**09:42-13:06**		**10:10-13:38**		
Volume (dscf)	121.596		112.371		117.664		
Stack Gas Flow Rate (dscfm)	49,086		46,046		47,228		
Stack Gas Concentration (pg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
2,3,7,8-TCDD	<1.7	BDL	<8.5	BDL	<1.6	BDL	<3.9
1,2,3,7,8-PeCDD	<0.81	BDL	<3.8	BDL	<0.78	BDL	<1.8
1,2,3,4,7,8-HxCDD	<0.78	BDL	<4.1	BDL	<0.87	BDL	<1.9
1,2,3,6,7,8-HxCDD	<0.78	BDL	5.34	DLL	<0.84	BDL	<2.3
1,2,3,7,8,9-HxCDD	<0.78	BDL	<4.1	BDL	<0.84	BDL	<1.9
1,2,3,4,6,7,8-HpCDD	1.63	DLL	<4.7	BDL	<1.0	BDL	<2.5
OCDD	13.7	ADL	14.1	ADL	3.90	DLL	10.6
Total TCDD	1.86	ADL	<8.5	BDL	<1.6	BDL	<4.0
Total PeCDD	0.610	DLL	6.29	DLL	0.720	DLL	2.54
Total HxCDD	5.23	DLL	37.7	DLL	6.00	DLL	16.3
Total HpCDD	1.63	DLL	<4.7	BDL	<1.0	BDL	<2.5
Total Dioxins	23.0	ADL	71.3	DLL	13.2	DLL	0
Other TCDD	0.145	DLL	0	DLL	0	DLL	0.0484
Other PeCDD	0	DLL	2.51	DLL	0	DLL	0.838
Other HxCDD	2.88	DLL	24.2	DLL	3.45	DLL	10.2
Other HpCDD	0	DLL	0	DLL	0	DLL	0
2,3,7,8-TCDF	<1.1	BDL	<5.3	BDL	<0.99	BDL	<2.5
1,2,3,7,8-PeCDF	<0.61	BDL	<3.5	BDL	<0.69	BDL	<1.6
2,3,4,7,8-PeCDF	<0.64	BDL	2.36	DLL	<0.72	BDL	<1.2
1,2,3,4,7,8-HxCDF	1.83	ADL	<2.4	BDL	<0.54	BDL	<1.6
1,2,3,6,7,8-HxCDF	0.842	DLL	<2.1	BDL	<0.48	BDL	<1.1
1,2,3,7,8,9-HxCDF	<0.44	BDL	<2.5	BDL	<0.60	BDL	<1.2
2,3,4,6,7,8-HxCDF	<0.38	BDL	<2.2	BDL	<0.51	BDL	<1.0
1,2,3,4,6,7,8-HpCDF	12.2	ADL	9.43	DLL	1.62	DLL	7.75
1,2,3,4,7,8,9-HpCDF	2.67	DLL	<4.1	BDL	<0.81	BDL	<2.5
OCDF	40.7	ADL	21.4	DLL	5.70	ADL	22.6
Total TCDF	<1.1	BDL	<5.3	BDL	<0.99	BDL	<2.5
Total PeCDF	2.79	DLL	10.1	DLL	<0.69	BDL	<4.5
Total HxCDF	7.84	DLL	<2.3	BDL	2.94	DLL	<4.4
Total HpCDF	19.7	DLL	16.0	DLL	1.62	DLL	12.5
Total Furans	72.1	DLL	55.1	DLL	11.9	DLL	0
Other TCDF	0	DLL	0	DLL	0	DLL	0
Other PeCDF	1.54	DLL	4.24	DLL	0	DLL	1.93
Other HxCDF	4.36	DLL	0	DLL	0.810	DLL	1.72
Other HpCDF	4.88	ADL	2.51	DLL	0	DLL	2.46

Table 4-14. PCDDs/PCDFs Emissions Results (Continued)

	Cond B Run 1		Cond B Run 3[1]		Cond B Run 8		Average
Date	**6/22/2011**		**6/23/2011**		**6/27/2011**		
Time	**13:06-16:36**		**09:42-13:06**		**10:10-13:38**		
Volume (dscf)	121.596		112.371		117.664		
Stack Gas Flow Rate (dscfm)	49,086		46,046		47,228		
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
2,3,7,8-TCDD	<3.2E-10	BDL	<1.5E-09	BDL	<2.8E-10	BDL	<6.8E-10
1,2,3,7,8-PeCDD	<1.5E-10	BDL	<6.5E-10	BDL	<1.4E-10	BDL	<3.1E-10
1,2,3,4,7,8-HxCDD	<1.4E-10	BDL	<7.0E-10	BDL	<1.5E-10	BDL	<3.3E-10
1,2,3,6,7,8-HxCDD	<1.4E-10	BDL	9.21E-10	DLL	<1.5E-10	BDL	<4.0E-10
1,2,3,7,8,9-HxCDD	<1.4E-10	BDL	<7.0E-10	BDL	<1.5E-10	BDL	<3.3E-10
1,2,3,4,6,7,8-HpCDD	2.99E-10	DLL	<8.1E-10	BDL	<1.8E-10	BDL	<4.3E-10
OCDD	2.51E-09	ADL	2.44E-09	ADL	6.90E-10	DLL	1.88E-09
Total TCDD	3.42E-10	ADL	<1.5E-09	BDL	<2.8E-10	BDL	<6.9E-10
Total PeCDD	1.12E-10	DLL	1.08E-09	DLL	1.27E-10	DLL	4.41E-10
Total HxCDD	9.61E-10	DLL	6.50E-09	DLL	1.06E-09	DLL	2.84E-09
Total HpCDD	2.99E-10	DLL	<8.1E-10	BDL	<1.8E-10	BDL	<4.3E-10
Total Dioxins	4.22E-09	ADL	1.23E-08	DLL	2.34E-09	DLL	6.29E-09
Other TCDD	2.67E-11	DLL	0	DLL	0	DLL	8.90E-12
Other PeCDD	0	DLL	4.34E-10	DLL	0	DLL	1.45E-10
Other HxCDD	5.29E-10	DLL	4.17E-09	DLL	6.11E-10	DLL	1.77E-09
Other HpCDD	0	DLL	0	DLL	0	DLL	0
2,3,7,8-TCDF	<2.0E-10	BDL	<9.2E-10	BDL	<1.8E-10	BDL	<4.3E-10
1,2,3,7,8-PeCDF	<1.1E-10	BDL	<6.0E-10	BDL	<1.2E-10	BDL	<2.8E-10
2,3,4,7,8-PeCDF	<1.2E-10	BDL	4.07E-10	DLL	<1.3E-10	BDL	<2.2E-10
1,2,3,4,7,8-HxCDF	3.36E-10	ADL	<4.1E-10	BDL	<9.6E-11	BDL	<2.8E-10
1,2,3,6,7,8-HxCDF	1.55E-10	DLL	<3.6E-10	BDL	<8.5E-11	BDL	<2.0E-10
1,2,3,7,8,9-HxCDF	<8.0E-11	BDL	<4.4E-10	BDL	<1.1E-10	BDL	<2.1E-10
2,3,4,6,7,8-HxCDF	<6.9E-11	BDL	<3.8E-10	BDL	<9.0E-11	BDL	<1.8E-10
1,2,3,4,6,7,8-HpCDF	2.24E-09	ADL	1.63E-09	DLL	2.87E-10	DLL	1.39E-09
1,2,3,4,7,8,9-HpCDF	4.91E-10	DLL	<7.0E-10	BDL	<1.4E-10	BDL	<4.5E-10
OCDF	7.48E-09	ADL	3.69E-09	DLL	1.01E-09	ADL	4.06E-09
Total TCDF	<2.0E-10	BDL	<9.2E-10	BDL	<1.8E-10	BDL	<4.3E-10
Total PeCDF	5.13E-10	DLL	1.73E-09	DLL	<1.2E-10	BDL	<7.9E-10
Total HxCDF	1.44E-09	DLL	<4.0E-10	BDL	5.20E-10	DLL	<7.9E-10
Total HpCDF	3.63E-09	DLL	2.76E-09	DLL	2.87E-10	DLL	2.23E-09
Total Furans	1.33E-08	DLL	9.50E-09	DLL	2.11E-09	DLL	8.29E-09
Other TCDF	0	DLL	0	DLL	0	DLL	0
Other PeCDF	2.83E-10	DLL	7.32E-10	DLL	0	DLL	3.38E-10
Other HxCDF	8.01E-10	DLL	0	DLL	1.43E-10	DLL	3.15E-10
Other HpCDF	8.97E-10	ADL	4.34E-10	DLL	0	DLL	4.44E-10

[1] PCDDs/PCDFs were measured during the soot-blow event that occurred from 09:44-10:04 during Run 3.

Table 4-15. PCBs Emissions Results

	Cond B Run 1		Cond B Run 3[1]		Cond B Run 8		Average
Date	**6/22/2011**		**6/23/2011**		**6/27/2011**		
Time	**13:06-16:36**		**09:42-13:06**		**10:10-13:38**		
Volume (dscf)	121.596		112.371		117.664		
Stack Gas Flow Rate (dscfm)	49,086		46,046		47,228		
Mass Found (ng)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
3,3',4,4'-TCB (#77)	0.022	B|J	0.015	B|J	0.014	EMPC|B|J	
3,4,4',5-TCB (#81)	<0.0062		<0.0047		<0.0067		
2,3,3',4,4'-PeCB (#105)	0.1	EMPC|J	0.067	EMPC|J	0.033	EMPC|J	
2,3,4,4',5-PeCB (#114)	<0.0054		<0.0043		<0.0062		
2,3',4,4',5-PeCB (#118)	0.27		0.19		0.11		
2,3',4,4',5-PeCB (#123)	0.014	J	<0.005		<0.0071		
3,3',4,4',5-PeCB (#126)	<0.0059		<0.0045		<0.0064		
2,3,3',4,4',5-HxCB (#156)	<0.0099		0.012	EMPC|C|J	<0.01		
2,3,4',4,4',5'-HxCB (#157)	<0.0099		0.012	EMPC|C|J	<0.01		
2,3',4,4',5,5'-HxCB (#167)	<0.0067		<0.0051		<0.0069		
3,3',4,4',5,5'-HxCB (#169)	<0.0069		<0.0053		<0.007		
2,3,3',4,4',5,5'-HpCB (#189)	<0.0056		<0.0049		<0.0063		
Stack Gas Concentration (pg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
3,3',4,4'-TCB (#77)	6.39	ADL	4.71	ADL	4.20	ADL	5.10
3,4,4',5-TCB (#81)	<1.8	BDL	<1.5	BDL	<2.0	BDL	<1.8
2,3,3',4,4'-PeCB (#105)	29.0	BDL	21.1	BDL	9.90	BDL	20.0
2,3,4,4',5-PeCB (#114)	<1.6	BDL	<1.4	BDL	<1.9	BDL	<1.6
2,3',4,4',5-PeCB (#118)	78.4	ADL	59.7	ADL	33.0	ADL	57.0
2,3',4,4',5-PeCB (#123)	4.07	ADL	<1.6	BDL	<2.1	BDL	<2.6
3,3',4,4',5-PeCB (#126)	<1.7	BDL	<1.4	BDL	<1.9	BDL	<1.7
2,3,3',4,4',5-HxCB (#156)	<2.9	BDL	3.77	ADL	<3.0	BDL	<3.2
2,3,4',4,4',5'-HxCB (#157)	<2.9	BDL	3.77	ADL	<3.0	BDL	<3.2
2,3',4,4',5,5'-HxCB (#167)	<1.9	BDL	<1.6	BDL	<2.1	BDL	<1.9
3,3',4,4',5,5'-HxCB (#169)	<2.0	BDL	<1.7	BDL	<2.1	BDL	<1.9
2,3,3',4,4',5,5'-HpCB (#189)	<1.6	BDL	<1.5	BDL	<1.9	BDL	<1.7
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
3,3',4,4'-TCB (#77)	1.17E-09	ADL	8.13E-10	ADL	7.43E-10	ADL	9.10E-10
3,4,4',5-TCB (#81)	<3.3E-10	BDL	<2.5E-10	BDL	<3.6E-10	BDL	<3.1E-10
2,3,3',4,4'-PeCB (#105)	5.34E-09	BDL	3.63E-09	BDL	1.75E-09	BDL	3.57E-09
2,3,4,4',5-PeCB (#114)	<2.9E-10	BDL	<2.3E-10	BDL	<3.3E-10	BDL	<2.8E-10
2,3',4,4',5-PeCB (#118)	1.44E-08	ADL	1.03E-08	ADL	5.84E-09	ADL	1.02E-08
2,3',4,4',5-PeCB (#123)	7.48E-10	ADL	<2.7E-10	BDL	<3.8E-10	BDL	<4.7E-10
3,3',4,4',5-PeCB (#126)	<3.2E-10	BDL	<2.4E-10	BDL	<3.4E-10	BDL	<3.0E-10
2,3,3',4,4',5-HxCB (#156)	<5.3E-10	BDL	6.50E-10	ADL	<5.3E-10	BDL	<5.7E-10
2,3,4',4,4',5'-HxCB (#157)	<5.3E-10	BDL	6.50E-10	ADL	<5.3E-10	BDL	<5.7E-10
2,3',4,4',5,5'-HxCB (#167)	<3.6E-10	BDL	<2.8E-10	BDL	<3.7E-10	BDL	<3.3E-10
3,3',4,4',5,5'-HxCB (#169)	<3.7E-10	BDL	<2.9E-10	BDL	<3.7E-10	BDL	<3.4E-10
2,3,3',4,4',5,5'-HpCB (#189)	<3.0E-10	BDL	<2.7E-10	BDL	<3.3E-10	BDL	<3.0E-10

[1] PCBs were measured during the soot-blow event that occurred from 09:44-10:04 during Run 3.

4.3 ICR Group D Results and Calculations

This section presents detailed analytical results from the Source Test for ICR Group D target compound emissions from the FCCU exhaust stack. Results for SO_2, NO_X, NH_3, $PM_{2.5}$-FILT, $PM_{2.5}$-CON, total filterable PM, other metals, speciated Hg are presented in measurement units according to *Component 4* of the ICR. Cr^{6+} results were not obtained during the Source Test.

Table 4-16. SO_2 and NO_X Emissions Results

	Condition D1/D2/D4			Condition D3/D4		
	Run 5[1]	**Run 6[1]**	**Run 7**	**Run 9**	**Run 11[1]**	**Run 12**
Date	**6/24/2011**	**6/24/2011**	**6/26/2011**	**6/28/2011**	**6/29/2011**	**6/30/2011**
Time	**09:32-13:31**	**15:20-19:42**	**09:10-09:36, 09:55-12:01, 16:32-17:40**	**10:58-16:20**	**09:15-15:47**	**08:47-12:08**
Stack Gas Flow Rate (dscfm)	47,806	47,538	47,760	46,927	45,521	46,262
NO_x (ppmvd)	41.9	42.4	38.5	62.1	57.9	54.5
Average NO_x (ppmvd)	40.9			58.2		
6-Run Average NOx (ppmvd)	49.6					
NO_x (lb/hr)	14.4	14.5	13.2	20.9	18.9	18.1
Average NO_x (lb/hr)	14.0			19.3		
6-Run Average NO_x (lb/hr)	16.7					
SO_2 (ppmvd)	15.9	16.6	14.5	12.3	13.6	14.0
Average SO_2 (ppmvd)	15.7			13.3		
6-Run Average SO_2 (ppmvd)	14.5					
SO_2 (lb/hr)	7.60	7.88	6.91	5.76	6.18	6.47
Average SO_2 (lb/hr)	7.46			6.13		
6-Run Average SO_2 (lb/hr)	6.80					

[1] NO_X and SO_2 were measured during the soot-blow events that occurred from 13:09-13:29 during Run 5, from 18:45-19:05 during Run 6, and from 12:43-13:03 during Run 11.

Table 4-17. NH_3 Emissions Results

	Cond D1 Run 5		Cond D1 Run 6[1]		Cond D1 Run 7		Average
Date	**6/24/2011**		**6/24/2011**		**6/26/2011**		
Time	**09:51-11:40**		**15:27-18:32**		**10:35-12:00**		
Stack Gas Flow Rate (dscfm)	47,806		47,538		47,760		
Moisture (%)	7.85		8.14		8.21		
Stack Gas Wet Concentration (ppmvw)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
NH_3	0.856		0.833		0.915		
Stack Gas Dry Concentration (ppmvd)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
NH_3	0.929	ADL	0.907	ADL	0.997	ADL	0.944
Mass Emission Rate (lbs/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
NH_3	0.118	ADL	0.114	ADL	0.126	ADL	0.120

[1] NH_3 was measured during the soot-blow event that occurred from 18:45-19:05 during Run 6.

Table 4-18. $PM_{2.5}$-FILT and $PM_{2.5}$-CON Emissions Results

	Cond D1 Run 5[1]		Cond D1 Run 6[1]		Cond D1 Run 7		Average
Date	**6/24/2011**		**6/24/2011**		**6/26/2011**		
Time	**09:32-13:24**		**16:00-19:33**		**09:10-09:36, 09:55-12:01, 16:32-17:40**		
Volume Collected (dscf)	62.304		67.929		75.787		
Stack Gas Flow Rate (dscfm)	48,767		49,864		48,147		
Mass Found (mg)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
$PM_{2.5}$-FILT	25.5		25.2		25.7		
$PM_{2.5}$-CON (Organic)	1.4		0.3		1.2		
$PM_{2.5}$-CON (Inorganic)	8.1		19.8		24.0		
$PM_{2.5}$ -FILT + $PM_{2.5}$-CON	35.0		45.3		50.9		
Stack Gas Concentration (gr/dscf)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
$PM_{2.5}$-FILT	0.00632	ADL	0.00572	ADL	0.00523	ADL	0.00576
$PM_{2.5}$-CON (Organic)	0.000347	ADL	0.0000681	ADL	0.000244	ADL	0.000220
$PM_{2.5}$-CON (Inorganic)	0.00201	ADL	0.00450	ADL	0.00489	ADL	0.00380
$PM_{2.5}$ -FILT + $PM_{2.5}$-CON	0.00867	ADL	0.0103	ADL	0.0104	ADL	0.00977
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
$PM_{2.5}$-FILT	2.64	ADL	2.45	ADL	2.16	ADL	2.42
$PM_{2.5}$-CON (Organic)	0.145	ADL	0.0291	ADL	0.101	ADL	0.0916
$PM_{2.5}$-CON (Inorganic)	0.839	ADL	1.92	ADL	2.02	ADL	1.59
$PM_{2.5}$ -FILT + $PM_{2.5}$-CON	3.62	ADL	4.40	ADL	4.28	ADL	4.10

[1] $PM_{2.5}$-FILT and $PM_{2.5}$-CON were measured during the soot-blow events that occurred from 13:09-13:29 during Run 5 and from 18:45-19:05 during Run 6.

Table 4-19. Total Filterable PM Emissions Results

	Cond D1 Run 5[1]		Cond D1 Run 6[1]		Cond D1 Run 7		Average
Date	**6/24/2011**		**6/24/2011**		**6/26/2011**		
Time	**09:34-13:31**		**15:20-19:42**		**09:10-09:36, 09:55-12:01, 16:32-17:38**		
Volume Collected (dscf)	124.198		122.073		124.461		
Stack Gas Flow Rate (dscfm)	47,806		47,538		47,760		
Mass Found (g)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
Filterable PM - PNR	0.0146		0.0213		0.0150		
Filterable PM - Filter	0.0825		0.0669		0.0611		
Total Filterable PM	0.0971		0.0882		0.0761		
Stack Gas Concentration (gr/dscf)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Total Filterable PM	0.0121	ADL	0.0111	ADL	0.00943	ADL	0.0109
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Total Filterable PM	4.94	ADL	4.54	ADL	3.86	ADL	4.45

[1] Total Filterable PM was measured during the soot-blow events that occurred from 13:09-13:29 during Run 5 and from 18:45-19:05 during Run 6.

Table 4-20. Other Metals Analytical Results

	Front-Half Fraction (µg)	Flag	Back-Half Fraction (µg)	Flag	Total (µg)
Condition D1 Run 5[1]					
Antimony	1.8	J	0.02	B	1.82
Arsenic	14.4		0.23	B	14.6
Beryllium	0.1	B	<0.012		<0.112
Cadmium	0.11	B	<0.011		<0.121
Chromium	7.7		1.3		9.00
Cobalt	22.9		0.04	B	22.9
Lead	2.9	J	0.69	J	3.59
Manganese	13.9		4.5		18.4
Nickel	365		0.98		366
Selenium	0.92		5.4		6.32
Condition D1 Run 6[1]					
Antimony	1.5	J	0.032	B	1.53
Arsenic	13.1		<0.075		<13.2
Beryllium	0.082	B	<0.012		<0.0940
Cadmium	0.058	B	0.022	B	0.0800
Chromium	6.6		1.2		7.80
Cobalt	20		0.039	B	20.0
Lead	2.2	J	0.41	J	2.61
Manganese	13.9		7.5		21.4
Nickel	325		1.2		326
Selenium	<0.26		8		<8.26
Condition D1 Run 7					
Antimony	1.6	J	0.006	B	1.61
Arsenic	12		<0.075		<12.1
Beryllium	0.076	B	<0.012		<0.0880
Cadmium	0.047	B	<0.011		<0.0580
Chromium	6.5		0.63		7.13
Cobalt	20.3		0.043	B	20.3
Lead	2.3	J	0.29	J	2.59
Manganese	17.4		0.8		18.2
Nickel	266		0.95		267
Selenium	1.7		5.9		7.60

[1] Other metals were measured during the soot-blow events that occurred from 13:09-13:29 during Run 5 and from 18:45-19:05 during Run 6.

Table 4-21. Other Metals Emissions Results

	Cond D1 Run 5[1]		Cond D1 Run 6[1]		Cond D1 Run 7		Average
Date	**6/24/2011**		**6/24/2011**		**6/26/2011**		
Time	**09:34-13:31**		**15:20-19:42**		**09:10-09:36, 09:55-12:01, 16:32-17:38**		
Volume Collected (dscf)	124.198		122.073		124.461		
Stack Gas Flow Rate (dscfm)	47,806		47,538		47,760		
Mass Found (µg)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	
Antimony (Sb)	1.82	ADL	1.53	ADL	1.61	ADL	
Arsenic (As)	14.6	ADL	<13.2	DLL	<12.1	DLL	
Beryllium (Be)	<0.112	DLL	<0.0940	DLL	<0.0880	DLL	
Cadmium (Cd)	<0.121	DLL	0.0800	ADL	<0.0580	DLL	
Chromium (Cr)	9.00	ADL	7.80	ADL	7.13	ADL	
Cobalt (Co)	22.9	ADL	20.0	ADL	20.3	ADL	
Lead (Pb)	3.59	ADL	2.61	ADL	2.59	ADL	
Manganese (Mn)	18.4	ADL	21.4	ADL	18.2	ADL	
Nickel (Ni)	366	ADL	326	ADL	267	ADL	
Selenium (Se)	6.32	ADL	<8.26	DLL	7.60	ADL	
Stack Gas Concentration (mg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Antimony (Sb)	0.000518	ADL	0.000443	ADL	0.000456	ADL	0.000472
Arsenic (As)	0.00416	ADL	<0.0038	DLL	<0.0034	DLL	<0.0038
Beryllium (Be)	<0.000032	DLL	<0.000027	DLL	<0.000025	DLL	<0.000028
Cadmium (Cd)	<0.000034	DLL	0.0000231	ADL	<0.000016	DLL	<0.000025
Chromium (Cr)	0.00256	ADL	0.00226	ADL	0.00202	ADL	0.00228
Cobalt (Co)	0.00652	ADL	0.00580	ADL	0.00577	ADL	0.00603
Lead (Pb)	0.00102	ADL	0.000755	ADL	0.000735	ADL	0.000837
Manganese (Mn)	0.00523	ADL	0.00619	ADL	0.00516	ADL	0.00553
Nickel (Ni)	0.104	ADL	0.0944	ADL	0.0757	ADL	0.0914
Selenium (Se)	0.00180	ADL	<0.0024	DLL	0.00216	ADL	<0.0021
Mass Emission Rate (lb/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Antimony (Sb)	0.0000927	ADL	0.0000789	ADL	0.0000815	ADL	0.0000844
Arsenic (As)	0.000745	ADL	<0.00068	DLL	<0.00061	DLL	<0.00068
Beryllium (Be)	<0.0000057	DLL	<0.0000048	DLL	<0.0000045	DLL	<0.0000050
Cadmium (Cd)	<0.0000062	DLL	0.00000412	ADL	<0.0000029	DLL	<0.0000044
Chromium (Cr)	0.000458	ADL	0.000402	ADL	0.000362	ADL	0.000407
Cobalt (Co)	0.00117	ADL	0.00103	ADL	0.00103	ADL	0.00108
Lead (Pb)	0.000183	ADL	0.000134	ADL	0.000131	ADL	0.000150
Manganese (Mn)	0.000937	ADL	0.00110	ADL	0.000924	ADL	0.000988
Nickel (Ni)	0.0186	ADL	0.0168	ADL	0.0136	ADL	0.0163
Selenium (Se)	0.000322	ADL	<0.00043	DLL	0.000386	ADL	<0.00038

[1] Other metals were measured during the soot-blow events that occurred from 13:09-13:29 during Run 5 and from 18:45-19:05 during Run 6.

Table 4-22. Speciated Hg Analytical Results[1]

	Front-Half Fraction (µg)	Flag	KCl Fraction (µg)	Flag	HNO_3/H_2O_2 Fraction (µg)	Flag	H_2SO_4/ $KMnO_4$ Fraction (µg)	Flag	Total (µg)
Condition D2 Run 5									
Oxidized Mercury	<0.012		0.12	B	N/A		N/A		<0.13
Elemental Mercury	N/A		N/A		<0.048		0.16	B	<0.21
Condition D2 Run 6									
Oxidized Mercury	0.025		0.12	B	N/A		N/A		0.145
Elemental Mercury	N/A		N/A		<0.049		0.36		<0.41
Condition D2 Run 7									
Oxidized Mercury	<0.012		0.25		N/A		N/A		<0.26
Elemental Mercury	N/A		N/A		<0.049		0.4		<0.45

[1] Hg species were not measured during any soot-blow events that occurred during Runs 5-7.

Table 4-23. Speciated Hg Emissions Results[1]

	Cond D2 Run 5		Cond D2 Run 6		Cond D2 Run 7		Average
Date	**6/24/2011**		**6/24/2011**		**6/26/2011**		
Time	**10:25-12:45**		**15:30-17:45**		**10:15-12:02, 16:32-17:00**		
Volume Collected (dscf)	73.298		72.347		72.593		
Stack Gas Flow Rate (dscfm)	46,507		46,280		46,616		
Mass Found (µg)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	
Oxidized Mercury	<0.13	DLL	0.145	DLL	<0.26	DLL	
Elemental Mercury	<0.21	DLL	<0.41	DLL	<0.45	DLL	
Stack Gas Concentration (µg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Oxidized Mercury	<0.064	DLL	0.0708	DLL	<0.13	DLL	<0.087
Elemental Mercury	<0.10	DLL	<0.20	DLL	<0.22	DLL	<0.17
Mass Emission Rate (lbs/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Oxidized Mercury	<0.000011	DLL	0.0000123	DLL	<0.000022	DLL	<0.000015
Elemental Mercury	<0.000017	DLL	<0.000035	DLL	<0.000038	DLL	<0.000030

[1] Hg species were not measured during any soot-blow events that occurred during Runs 5-7.

4.4 ICR Group E Results and Calculations

This section presents detailed analytical results from the Source Test for ICR Group E target compound emissions from the FCCU exhaust stack. Results for HCN, HCl, Cl_2 and HF are presented in measurement units according to *Component 4* of the ICR.

Table 4-24. HCN Emissions

	Cond E Run 1		Cond E Run 2		Cond E Run 3[1]		Average
Date	**6/22/2011**		**6/22/2011**		**6/23/2011**		
Time	**13:50-16:10**		**16:56-19:06**		**10:01-11:21**		
Stack Gas Flow Rate (dscfm)	45,832		46,243		45,932		
Moisture (%)	8.51		8.27		8.68		
Stack Gas Wet Concentration (ppmvw)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
HCN	25.2		25.3		25.4		
Stack Gas Dry Concentration (ppmvd)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	
HCN	27.6	ADL	27.6	ADL	27.9	ADL	
Stack Gas Concentration (µg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
HCN	31,000	ADL	31,000	ADL	31,300	ADL	31,100
Mass Emission Rate (lbs/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
HCN	5.33	ADL	5.37	ADL	5.39	ADL	5.36

[1] HCN was measured during the soot-blow event that occurred from 09:44-10:04 during Run 3.

Table 4-25. HCl and Cl_2 Emissions Results

	Cond E Run 1		Cond E Run 2		Cond E Run 3[1]		Average
Date	**6/22/2011**		**6/22/2011**		**6/23/2011**		
Time	**13:04-16:00**		**16:53-19:02**		**09:55-12:05**		
Volume (dscf)	78.437		77.111		75.459		
Stack Gas Flow Rate (dscfm)	45,832		46,243		45,932		
Mass Found (µg)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
Hydrogen Chloride	779	J	733	J	672	J	
Chlorine	<31.0		<36.0		<43.5		
Stack Gas Concentration (mg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Hydrogen Chloride	0.351	ADL	0.336	ADL	0.314	ADL	0.334
Chlorine	<0.014	BDL	<0.016	BDL	<0.020	BDL	<0.017
Mass Emission Rate (lbs/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Hydrogen Chloride	0.0602	ADL	0.0582	ADL	0.0541	ADL	0.0575
Chlorine	<0.00240	BDL	<0.00286	BDL	<0.00350	BDL	<0.0029

[1] HCl and Cl_2 were measured during the soot-blow event that occurred from 09:44-10:04 during Run 3.

Table 4-26. HF Emissions Results

	Cond E Run 1		Cond E Run 2		Cond E Run 3[1]		Average
Date	**6/22/2011**		**6/22/2011**		**6/23/2011**		
Time	**13:04-16:00**		**16:53-19:02**		**09:55-12:05**		
Volume (dscf)	78.437		77.111		75.459		
Stack Gas Flow Rate (dscfm)	45,832		46,243		45,932		
Mass Found (µg)	**Value**	**Flag**	**Value**	**Flag**	**Value**	**Flag**	
Hydrogen Fluoride	169	J	181	J	214	J	
Stack Gas Concentration (mg/dscm)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Hydrogen Fluoride	0.0761	ADL	0.0829	ADL	0.100	ADL	0.0864
Mass Emission Rate (lbs/hr)	**Value**	**DL**	**Value**	**DL**	**Value**	**DL**	**Value**
Hydrogen Fluoride	0.0131	ADL	0.0144	ADL	0.0172	ADL	0.0149

[1] HF was measured during the soot-blow event that occurred from 09:44-10:04 during Run 3.

5.0 Quality Assurance/Quality Control

A project-specific quality assurance/quality control (QA/QC) effort was developed and implemented for the Source Test of the FCCU exhaust stack. This QA/QC effort was documented in the *Plan* and was tailored to meet the specific needs of this test effort.

The results of the QA/QC activities demonstrate that the quality of project measurement data is well-documented and that the data are reliable, defensible, and meet project objectives.

The primary objectives of the QA/QC effort were to control, assess, and document data quality. To accomplish these objectives, the QA/QC approach consisted of the following key elements:

- Definition of data quality objectives that reflect the overall technical objectives of the measurement program described in *Component 4* of the ICR;
- Design of a sampling, analytical, QA/QC and data analysis system to meet those objectives;
- Evaluation of the performance of the measurement system; and
- Initiation of corrective action when measurement system performance does not meet the specifications.

These QA procedures include sampling and analytical procedures, along with specified calibration requirements, QC checks, data reduction and validation procedures, and sample tracking. A review of analysis results for QA/QC samples and assessment of overall data quality is presented in this section. Detailed data quality assessments are presented in Appendix N and sampling equipment calibration documentation is presented in Appendix O to this report. Appendix P presents the sample logbook and copies of sample chain-of-custody forms. Appendix Q presents relevant project correspondence from U.S. EPA, and Appendix R presents correspondence from Federal Express detailing the loss of the samples collected for the determination of hexavalent chromium.

The sections below present detailed discussions of the QA/QC activities associated with sampling and analysis. Although several minor issues are identified and discussed in the following sections, it should be recognized that the overall conclusion of the QA/QC assessment is that the results meet the criteria of the ICR Component 4 QA/QC guidelines.

Some deviations from the *Plan* were identified as part of the overall quality assessment effort. These are discussed below in detail, along with conclusions about implications of the issue with respect to the usability of the data. In brief, these issues are:

- The *Plan* states that U.S. EPA Methods 201A/202 sampling trains would collect ≥2 m^3 (70.6 cf) dry gas sample volume over the course of each sampling run. During the first two sampling runs (Runs 5 and 6), this objective was not met. However, dwell-time adjustments were made between each run to rectify the problem, and this dry gas sample volume criterion was met in the third run (Run 7).
- The *Plan* states that U.S. EPA Method 308 sampling trains would be performed according the Component 4 of the ICR. Component 4 of the ICR allows U.S. EPA Method 308 for the measurement of methanol provided that sample results are above applicable method detection limits (MDLs). Sample results for methanol were below MDLs during Runs 8, 9 and 11.
- The samples collected for Cr^{6+} were lost by the subcontracted hazardous materials shipper (Federal Express) during transit between the Chevron Hawaii Refinery and the subcontracted analytical laboratory located in Durham, North Carolina (Enthalpy).
- In all three runs of EPA Method 18 by sorbent**,** the breakthrough across the whole train for acetonitrile exceeded 25%. Further, LCS recovery for acetonitrile was low, as was field spike recovery. Acetonitrile results by this method are rejected.
- Field spike recoveries for styrene were low (10.7%). Results for styrene were developed by an alternate methodology, FTIR. The FTIR results met all method specifications and are presented in the report summary for styrene.

In the course of reviewing these data and the data quality associated with the measurements, as listed above, issues were identified with three specific target compounds: 1,3-butadiene, acetonitrile and styrene. Because multiple measurement techniques could be and were utilized for these analytes, it is possible to compare the results and quality indicators for these multiple techniques and to select the result to be reported and used in further reporting. These measurement approaches are compared and contrasted in Table 5-1. The conclusion of this comparison is also presented in Table 5-1.

Table 5-1. VOC HAPs Results Quality Evaluation

Analyte	Sampling/Analysis Method	Quality Review	Course of Action
Acetonitrile	Method 18 – Bag Samples	Not spiked. Laboratory Check samples showed recovery from 22 to 61%. None detected. MDL reported at 1 ppm	Do not report a result for acetonitrile.
	Method 18 – Sorbent Samples	Spiked in the field, recovery efficiency calculated at 28.4% None detected; MDL sum is 22.8 µg/sample. This equates to 0.15 ppm, using masses corrected for the recovery efficiency, and an average volume of 90 liters. Analyte breakthrough is significant. No acetonitrile is found in the condensate or on the XAD-4 sorbent. All acetonitrile found was on the charcoal, with about 30-35% on back half of the charcoal trap. Aqueous LCS Recovery is about 0%. No XAD LCS was performed	
	FTIR	Validation does not meet method specification. Spike recovery near zero None detected at a DL of 2.4 ppm	
1,3-Butadiene	Method 18 – Bag Samples	Spiked in laboratory with 1,3-butadiene; 55% recovery LCS Recoveries are good. None detected; MDL reported as 0.5 ppm	Use FTIR result, ND at 0.09 ppm
	Method 18 – Sorbent Samples	Not reported	
	FTIR	Validation meets method specification Spike recovery between 105 and 120%. Nothing observed; detection limit of 0.09 ppm.	
Styrene	Method 18 – Bag Samples	Not reported	Use FTIR result, ND at 0.2 ppm
	Method 18 – Sorbent Samples	Sorbent pre-spiked with styrene. 11% of spiked styrene found by analytical method. Not detected; MDL sum is 44 µg, this equates to 0.11 ppm, using masses corrected for the 11% recovery and an average volume of 90 liters. No analyte breakthrough is observed. LCS recoveries are good.	
	FTIR	Validation meets method specification Spike recovery between 85 and 95%. Nothing observed; detection limit of 0.2 ppm.	

5.1 Isokinetic Sample Collection

Isokinetic sampling trains were used for the collection of samples for the determination of $PM_{2.5}$-FILT and $PM_{2.5}$-CON emissions according to U.S. EPA Methods 201A and 202; HCl, Cl_2, and HF emissions according to U.S. EPA Method 26A; Speciated Hg (i.e., Hg^0 and Hg^{2+}) emissions according to ASTM D6784-02; Cr^{6+} emissions according to SW-846 Method 0061; Total filterable PM and other metals emissions according to U.S. EPA Methods 5 and 29; PCDDs, PCDFs, and PCBs emissions according to U.S. EPA Method 23; and SVOC HAPs emissions according to SW-846 Method 0010.

Quality assurance and quality control activities associated with the collection of these samples included:

- Ensuring that the sampling points met method specifications for cyclonic flow;
- Ensuring that sampling points were properly identified and marked;
- Collection of the specified volumes of stack gas over the specified duration;
- Collection of stack gas within 90-110% of isokinetic;
- Measurement of stack gas velocity before and after the run agreed within 10%;
- Maintaining the probe, filter and (on applicable trains) heated transfer line at the specified temperatures;
- Maintaining the impinger exit and (on applicable trains) the condenser exit at the specified temperature;
- Performing sampling train leak checks before sample collection, at port changes, and after sample collection;
- Performing pitot tube leak checks before and after sample collection; and
- Recording all data on pre-printed data sheets.

Review of these QA/QC activities indicates that sampling was performed according to the methods and the *Source Test Plan*, with the issues discussed below. See the detailed data quality assessment in Appendix N. Sampling data sheets are presented in Appendix B. Calibration documentation for all field equipment is presented in Appendix O. Issues identified during the QA/QC review follow:

- Two runs performed using U.S. EPA Methods 201A/202 fell short of the dry gas sample volume specification in the *Plan*. Per *Component 4* of the ICR, the U.S. EPA Methods 201A/202 sampling train must collect ≥2 cubic meters (70.6 cf). 1.81 and 1.97 cubic meters (63.9 and 69.7 cf) were collected during Runs 5 and 6. The slight shortfall for dry gas sample volume for two U.S. EPA Methods M201A/M202 sampling trains is not significant. This deviation was resolved on the subsequent Run

7. The dry gas sample volume collected gives sufficient sensitivity to interpret these data, as all $PM_{2.5}$-FILT and $PM_{2.5}$-CON results were above applicable method detection limits. No qualifiers are required for these data based on this finding.

- The sample durations presented in the *Plan* were estimates to accomplish the collection of dry gas volumes required in *Component 4* of the ICR. The dry gas sample volume targets were met during sampling for most of the target compounds (see discussion of U.S. EPA Method 201A/202 sampling train volumes above) and the shortfalls in sample duration have no impact on the usability of these data.

5.2 Analysis of Stack Gas Samples for Determination of $PM_{2.5}$-FILT and $PM_{2.5}$-CON Emissions

Samples of stack gas for determination of $PM_{2.5}$-FILT and $PM_{2.5}$-CON emissions were collected according to U.S. EPA Methods 201A and 202 and *Component 4* of the ICR.

Quality assurance and quality control activities associated with these analyses included:

- Sample handling and preservation;
- Preparation and analysis of samples within specified holding times;
- Preparation and analysis of laboratory blanks;
- Collection and analysis of field blanks;
- Repeatability of sequential weighings; and
- Daily balance calibration.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessment in Appendix N. The following issues were identified in the course of this assessment:

- All samples were prepared and analyzed within 27 days of sampling. The *Plan* specifies analysis within 14 days as a project-specific objective to facilitate the complete reporting of Source Test results within the schedule demanded by U.S. EPA for the ICR. U.S. EPA Methods 201A and 202 include no specification for holding time. The analysis of these samples outside the holding time specified in the *Plan* has no impact on the usability of these results. No data are flagged based on this finding.
- Field blank results for $PM_{2.5}$-FILT are well below actual results. Field blank results for $PM_{2.5}$-CON are significant and on the same order as the field results. The results for $PM_{2.5}$-FILT and $PM_{2.5}$-CON presented in the report are not corrected for field blanks. These may have a positive bias for $PM_{2.5}$-CON, but represent a conservative estimate of emissions. No data are flagged based on blank results.

5.3 Analysis of Stack Gas Samples for Determination of Speciated Hg Emissions

Samples for determination of speciated Hg (i.e., elemental and oxidized) emissions in stack gas were collected according to ASTM D6784-02. The filters, impinger solutions and rinses were analyzed for Hg by CVAA according to ASTM D6784-02.

Quality assurance and quality control activities associated with these analyses included:

- Sample handling and preservation;
- Preparation and analysis of samples within specified holding times;
- Preparation and analysis of laboratory blanks;
- Collection and analysis of field blanks;
- Preparation and analysis of media check samples;
- Preparation and analysis of laboratory control samples and laboratory check sample duplicates; and
- Preparation and analysis of matrix spike and matrix spike duplicate samples.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessment in Appendix N. The following issues were identified in the course of this assessment:

- All samples were originally analyzed within 22 days of sample collection. Permanganate fractions were re-analyzed between 55 and 60 days after sample collection. The *Plan* specifies analysis within 14 days as a project-specific objective to facilitate the complete reporting of Source Test results within the schedule demanded by U.S. EPA for the ICR. ASTM D6784-02 specifies analysis within 45 days. As the applicable method specifies analysis of samples within 45 days of sample collection, the analysis of the samples outside the test plan specification of 14 days has no impact on the interpretation of results. The four samples analyzed between 55 and 60 days were re-analyzed based on problematic MS/MSD results (see below). As these samples were kept in laboratory conditions and under very acidic conditions, there is no reason to suspect any loss of mercury. No data are flagged based on holding time.
- Initially, MS/MSD results for the permanganate fraction were below both the *Plan* and laboratory specifications. The permanganate samples were re-prepared and analyzed with acceptable MS recoveries. The MS/MSD results for the initial analysis of the permanganate fraction have recoveries (43 and 51%) well outside the acceptance criteria (80-120%). These samples were re-analyzed at a higher dilution to mitigate the sample matrix effects. The more diluted analyses provided analytical results within method specification for MS recovery, and these data are reported in the body of the report.

5.4 Analysis of Stack Gas Samples for Determination of Cr^{6+} Emissions

Stack gas samples for the determination of Cr^{6+} emissions were lost during shipment between the Chevron Hawaii Refinery and the analytical laboratory located in Durham, North Carolina. See Appendix R for correspondence from Federal Express acknowledging the loss of the package containing the stack gas samples.

5.5 Analysis of Stack Gas Samples for Determination of Total Filterable PM and Other Metals Emissions

Samples for determination of total filterable PM and other metals emissions in stack gas were collected according to U.S. EPA Methods 5 and 29. Total filterable PM was determined gravimetrically from the acetone probe rinses and filters. The filters, impinger solutions and rinses were analyzed for metals by ICAP/MS, according to SW-846 Method 6020.

Quality assurance and quality control activities associated with these analyses included:

- Sample handling and preservation;
- Preparation and analysis of samples within specified holding times;
- Preparation and analysis of laboratory blanks;
- Collection and analysis of field blanks;
- Preparation and analysis of media check samples;
- Preparation and analysis of laboratory control samples and laboratory check sample duplicates; and
- Preparation and analysis of matrix spike and matrix spike duplicate samples.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessments in Appendix N. The following issues were identified in the course of the data quality assessment:

- All samples were analyzed within 25 days of sample collection. The *Plan* specifies analysis within 14 days as a project-specific objective to facilitate the complete reporting of Source Test results within the schedule demanded by U.S. EPA for the ICR. The analysis of these samples outside the holding time of 14 days has no impact on the data. The applicable method-specified holding time for these analyses is 6 months. No qualifiers are required for these data based on this finding.
- Lead (Pb) was found in laboratory blanks near the applicable method detection limit. Field blank results show detectable levels of most target analytes. The levels of target analytes found in the field and laboratory blanks are well below the levels found in the field samples. As such, these blank levels are insignificant and negligible. No qualifiers are required for these data based on blank results.

- All MS/MSD results met the *Plan* criteria. One MS recovery (nickel in the front- half sample fraction) was outside the laboratory specifications (i.e., 77% recovery while acceptable recovery is 86-110%). The nickel recovery outside laboratory criteria is attributed to the low spike level compared to the native level. This has no impact on the results. No qualifiers are required for these data based on MS/MSD results.

5.6 Analysis of Stack Gas Samples for Determination of HCl, Cl_2 and HF Emissions

Samples of stack gas for determination of HCl, Cl_2 and HF emissions were collected according to U.S. EPA Method 26A. These samples were analyzed using ion chromatography, according to U.S. EPA Method 26A.

Quality assurance and quality control activities associated with these analyses included:

- Sample handling and preservation;
- Preparation and analysis of samples within specified holding times;
- Preparation and analysis of laboratory blanks;
- Collection and analysis of field blanks;
- Preparation and analysis of laboratory control samples;
- Preparation and analysis of matrix spike and matrix spike duplicate samples; and
- Preparation and analysis of all samples in duplicate.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessment in Appendix N. The following issues were identified during the assessment:

- All samples were prepared and analyzed within 20 days of sample collection. The *Plan* specifies analysis within 14 days as a project-specific objective to facilitate the complete reporting of Source Test results within the schedule demanded by U.S. EPA for the ICR. Although the samples were analyzed outside the plan-specified holding time of 14 days, they were analyzed within the 4-week window allowed by U.S. EPA Method 26A. No qualifiers are required for these data based on this finding.
- Fluoride was detected in the field blank and in one reagent blank at levels below the levels in the field samples. The results for fluoride in the blank samples indicate that the field results may have a positive bias. As the data are not corrected, the emissions estimates are conservative. No qualifiers are required for these data based on the blank results.
- All samples were analyzed in duplicate. 15 of 17 samples had duplicates meeting the method specification of 5% difference from the mean. The two outliers were results near the detection limit with 5.4 and 8.1% difference from the mean. Although two samples had precision outside method acceptance, these results are near the detection limit. At

these levels, the results carry a "J" flag, and are expected to have increased imprecision. No qualifiers are required for these data based on these results.

5.7 Analysis of Stack Gas Samples for Determination of PCDDs, PCDFs, and PCBs Emissions

Samples for determination of the PCDDs, PCDFs, and PCBs emissions were collected according to the methodology described in U.S. EPA Method 23. The filters, sorbent tubes, and rinses from these samples were prepared for analysis and the resulting extracts analyzed for PCDDs, PCDFs, and PCBs by high-resolution GC/MS, according to U.S. EPA Methods 23 (PCDD/PCDF) and SW-846 Method 1668 (PCB).

Quality assurance and quality control activities associated with these analyses included:

- Sample handling and preservation;
- Preparation and analysis of samples within specified holding times;
- Preparation and analysis of laboratory blanks;
- Preparation and analysis of media check samples;
- Preparation and analysis of laboratory check samples; and
- Addition of surrogate compounds to each sample.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessment in Appendix N. The following issues were identified as part of this assessment:

- All samples were prepared within 14 days of sample collection, and analyzed within 8 days of extraction. The *Plan* specifies analysis within 14 days as a project-specific objective to facilitate the complete reporting of Source Test results within the schedule demanded by U.S. EPA for the ICR. U.S. EPA Method 23 specifies that samples be extracted within 30 days of collection and analyzed within 45 days of extraction. As the holding times met the applicable method specification, no qualifiers are required for these data, nor are these data invalidated based on this finding.
- The impinger catch samples from Runs 1 and 3 were received at 27°C. These fractions are not included in the sample preparation for PCDDs/PCDFs, and this finding has no impact whatsoever on the PCDDs/PCDFs data. These fractions are included in the sample preparation for PCBs. No PCBs are anticipated to be found in the water fraction, and therefore the results are considered to be usable. Further, U.S. EPA Method 23 has no specification for the analysis of the impinger fractions, and therefore the results which include the impinger fractions represent a conservative estimate of PCBs emissions. No qualifiers are required for these data based on this finding.
- Results for the field blank show 4 PCDDs/PCDFs and 3 PCBs compounds detected at levels similar to the field samples. This indicates a potential positive bias in the field

samples, which is conservative relative to the determination of emission rate. No qualifiers are required for these data based on field blank results.

5.8 Analysis of Stack Gas Samples for Determination of Speciated SVOC HAPs Emissions

Samples for determination of the SVOC HAPs emissions were collected according to the methodology described in SW-846 Method 0010. The filters, sorbent tubes, and rinses from these samples were prepared for analysis and the resulting extracts analyzed for SVOCs by GC/MS, according to SW-846 Method 8270C.

Quality assurance and quality control activities associated with these analyses included:

- Sample handling and preservation;
- Preparation and analysis of samples within specified holding times;
- Preparation and analysis of laboratory blanks;
- Preparation and analysis of media check samples;
- Preparation and analysis of laboratory check samples; and
- Addition of surrogate compounds to each sample.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessment in Appendix N. The following issues were identified in the course of this assessment:

- All samples were received intact and at approximately 22°C. SW-846 specifies sample storage at 4°C. As all samples were received at ambient temperature and not at the specified temperature, these results can be considered biased low. All results are flagged as biased low due to this issue.
- All samples were extracted within 14 days of sampling. All samples were analyzed within 18 days of extraction. The *Plan* specifies analysis within 14 days as a project-specific objective to facilitate the complete reporting of Source Test results within the schedule demanded by U.S. EPA for the ICR. Although samples were analyzed outside the holding time specified in the *Plan*, they were analyzed within the specifications of SW-846. No qualifiers are required for these data based on holding time.
- Only three compounds were detected in the field blank, reagent blank or laboratory blank. These three compounds are naphthalene, 2-methylnaphthalene and phenanthrene. In all three cases, the results for the blanks are similar to the results for the field samples. The detection of three compounds in the blank samples at levels near the field samples suggests that the results for these analytes may be positively

biased. As this is conservative relative to an estimate of emissions, no qualifiers are required for these data based on blank results.

- The following five compounds showed little or no recovery in the LCS: a,a-dimethylphenethylamine, 1,4-Phenylenediamine, Benzidine, 3,3-Dimethylbenzidine, and 3,3-Dimethoxybenzidine. The lack of LCS recovery for the five analytes demonstrates that these compounds cannot be recovered by the sample preparation and analysis methodology. Accordingly, data for these five compounds are rejected, and is not presented in the body of this report.

5.9 Non-isokinetic Sample Collection

Non-isokinetic sampling trains were used for the collection of samples for the determination of VOC HAPs by bag sampling according to U.S. EPA Method 18, VOC HAPs by sorbent sampling according to U.S. EPA Method 18, and methanol according to U.S. EPA Method 308.

Quality assurance and quality control activities associated with the collection of these samples included:

- Collection of the specified volumes of stack gas over the specified duration;
- Performing sampling train leak checks before and after sample collection (as applicable); and
- Recording all data on pre-printed data sheets.

Review of these QA/QC activities indicates that sampling was performed according to the methods and the *Source Test Plan*. See the detailed data quality assessment in Appendix N. There were no issues identified in the course of the data quality assessment.

5.10 Analysis of Stack Gas Samples for VOC HAPs Emissions (Bag Samples)

Samples for determination of speciated VOC HAPs emissions were collected according to the bag sampling methodology of U.S. EPA Method 18. The bag samples and condensates from these trains were analyzed for a subset of speciated VOC HAPs by GC/FID (or GC/FPD for carbon disulfide) according to U.S. EPA Method 18 and *Component 4* of the ICR.

Quality assurance and quality control activities associated with these analyses included:

- Sample handling and preservation;
- Preparation and analysis of samples within specified holding times;
- Use of calibration standards of known and acceptable quality;
- Multi-point instrument calibration; and

- Performance of a recovery study.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessment in Appendix N. There were no issues identified in the course of the data quality assessment.

- All bag samples prepared and analyzed within 64 hours of sample collection. The test plan specifies analysis within 24 hours. Although the samples were analyzed outside the time specified in the test plan, the spiked samples were analyzed at a holding time longer than the samples, as specified in EPA Method 18. No qualifiers are required for these data based on holding time.
- Recovery of 1,3-butadiene from spiked samples was measured at 55%. This is outside the acceptance criteria of 70-130%. The low recovery of 1,3-butadiene indicated increased uncertainty in these results. However, since the results are corrected for the low recovery, there may not be a bias in the data. As noted above, 1,3-butadiene results presented in the summary report are those from FTIR, as the FTIR measurement met the quality specifications for that method.
- The test plan specifies the use of flex film bags for sample collection. Tedlar bags were used instead, based on laboratory recommendation about the sturdiness of flex-film bags. As recoveries are acceptable, no data are flagged based on this observation.

5.11 Analysis of Stack Gas Samples for VOC HAPs Emissions (Sorbent Samples)

Samples for determination of speciated VOC HAPs emissions were collected according to the sorbent sampling methodology of U.S. EPA Method 18. The sorbent and condensate samples from these trains were analyzed for a subset of speciated VOC HAPs by GC/FID according to U.S. EPA Method 18 and *Component 4* of the ICR.

Quality assurance and quality control activities associated with these analyses included:

- Sample handling and preservation;
- Preparation and analysis of samples within specified holding times;
- Use of calibration standards of known and acceptable quality;
- Multi-point instrument calibration; and
- Performance of a recovery study.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessment in Appendix N. There following issues were identified in the course of the data quality assessment:

- All samples received intact. Different packages received at 3°C, 10°C and 19°C. Test plan specifies 4°C. Although some of the samples arrived at temperatures outside the specification, there is no indication of sample degradation. Except as noted, spike recoveries met method specification, and results from all runs were similar. No qualifiers are required for these data based on preservation.
- All samples analyzed within 22 days of sample collection. Test plan specifies analysis within 14 days of sample collection. Although the samples were analyzed outside the time specification in the test plan, they were analyzed within the time allowed by EPA Method 18. No qualifiers are required for these data based on holding time.
- In all three runs, the breakthrough across the whole train for acetonitrile exceeded 25%. The consistent breakthrough of approximately 35% or more of the acetonitrile found in the sampling train suggests that there may be significant loss of acetonitrile from the sampling train. This is consistent with the low spike recovery and low LCS recoveries.
- Eleven of thirteen target analytes had spike recoveries within 70-130%. The outliers are acetonitrile (28.4%) and styrene (10.7%). The spike recoveries outside acceptance criteria for acetonitrile and styrene indicate that these data may be questionable. As discussed in the body of the report, results for styrene were developed by an alternate methodology, FTIR. The FTIR results met all method specifications and are presented in the summary for styrene. The low spike recovery for acetonitrile, combined with the results for LCS recovery and breakthrough suggests that there may be significant loss of acetonitrile in results for field samples.
- Every analysis was performed in triplicate. 594 of 615 triplicate analyses had differences from the mean result that did not exceed 5%. every case, these outliers were associated with analyses between the method detection limit (MDL) and the lowest calibration standard.
- Recovery of the following analytes from LCS failed to meet the laboratory specification: Acetonitrile, aqueous LCS, 0% recovery; Acrylonitrile, aqueous LCS, 15-20% recovery; 2-Nitropropane, aqueous LCS, 65-70% recovery. The extremely low LCS recovery for acetonitrile suggests that there may be significant loss of acetonitrile in results for field samples. The low recoveries for acrylonitrile and 2-nitropropane in LCS samples suggest that there may be losses in field samples. However, recovery of field spikes for both of these species are acceptable. Data for 2-nitropropane and acrylonitrile are not qualified based on LCS recovery.
- Results for acetonitrile are rejected, based on low LCS recovery, low field spike recovery and breakthrough.

5.12 Analysis of Stack Gas Samples for Methanol Emissions

Sorbent and condensate samples for determination of methanol emissions were collected and analyzed by GC/FID according to U.S. EPA Method 308.

Quality assurance and quality control activities associated with these analyses included:

- Sample handling and preservation;
- Preparation and analysis of samples within specified holding times;
- Use of calibration standards of known and acceptable quality;
- Multi-point instrument calibration; and
- Performance of a recovery study.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessment in Appendix N. The following issues were identified in the course of this assessment:

- All samples analyzed within 17 days of sample collection. Test plan specifies analysis within 14 days of sample collection. Although the samples were analyzed outside the time specification in the test plan, there is no specification in Method 308. No qualifiers are required for these data based on holding time.
- Component 4 of the ICR allows U.S. EPA Method 308 for the measurement of methanol provided that sample results are above applicable method detection limits (MDLs). However, sample results for methanol were below MDLs during Runs 8, 9 and 11. In addition to the results for methanol according to U.S. EPA Method 308 (presented in Table 4-11), methanol was monitored using FTIR, according to U.S. EPA Method 320. The FTIR sampling during Group A testing agreed with the U.S. EPA Method 308 results, in that no methanol was observed by either method. During testing for other groups, a small but detectable amount of methanol was observed using U.S. EPA Method 320.

5.13 Monitoring of Stack Gas for O_2, CO_2, and THC Emissions

The stack gas was monitored for O_2 and CO_2 according to U.S. EPA Method 3A and THC according to U.S. EPA Method 25A. Each method employs the use of continuous emissions monitors (CEMs).

Quality assurance and quality control activities associated with CEMs include:

- Use of calibration gas standards of known and acceptable quality;
- Performance of calibration error tests;
- Performance of system bias checks (U.S. EPA Method 3A only); and
- Performance of system drift checks.

Copies of certification of calibration gas standards are presented in Appendix O. Calibration error checks, bias checks, drift checks, and raw data for CEMs monitoring is presented in Appendix C. See the detailed data quality assessment in Appendix N**.** There were no issues identified in the course of the data quality assessment.

5.14 Analysis of Stack Gas for Methane and Ethane Emissions

Samples for determination of methane and ethane emissions were extracted from the stack and routed directly to a GC/FID for semi-continuous analysis according to the direct interface methodology of U.S. EPA Method 18.

Quality assurance and quality control activities associated with these analyses included:

- Use of calibration standards of known and acceptable quality;
- Initial Multi-point instrument calibration;
- Post-test calibration check and
- Performance of a recovery study.

Review of these QA/QC activities indicates that these data meet the ICR Component 4 QA/QC guidelines. See the detailed data quality assessment in Appendix N. There were no issues identified in the course of the data quality assessment.

5.15 Monitoring of Stack Gas for Aldehydes, NH_3, and HCN Emissions

The stack gas was monitored for selected aldehydes (formaldehyde, acetaldehyde, and propanal), NH_3, and HCN emissions using an FTIR spectrometer according to U.S. EPA Method 320.

Quality assurance and quality control activities associated with FTIR include:

- Use of calibration gas standards of known and acceptable quality; and
- Performance of validations for each compound being monitored.

Copies of certification of calibration gas standards are presented in Appendix O. Validation and run raw data is presented in Appendix K. See the detailed data quality assessment in Appendix N. There were no issues identified in the course of the data quality assessment.

Appendix B

URS Sampling Data Sheets

Method 1 – Circular Duct – Determination of Traverse Points

Project Name Chevron ICR
Project Number 40942312.02
NR 6/21/11 Date 6/21/11
Ports ~~C, D~~ A & B Source FCCU Upper Ports
Operator NR
mud dist/n

☐ Velocity Only ☑ Isokinetic Sampling	Upstream Distance (ft/in) 56' ☑ Measurement ☐ Plant Information
Number of Ports to be sampled 2	
Duct Diameter (in) 54" ☑ Measurement ☐ Plant Information	Downstream Distance (ft/in) 20' ☑ Measurement ☐ Plant Information

Total number of Traverse Points (from Figure 2 (velocity) or 1 (all isokinetic sampling))	24
Number of traverse points per port	12
Port Depth	7 1/4"

Traverse Point	Percent of Diameter	Distance from Wall [1] (in)	Marking Location (in)
1	2.1	1.13	8.38
2	6.7	3.61	10.86
3	11.8	6.37	13.62
4	17.7	9.56	16.81
5	25.0	13.50	20.75
6	35.6	19.22	26.47
7	64.4	34.78	42.03
8	75.0	40.50	47.75
9	82.3	44.44	51.69
10	88.2	47.63	54.88
11	93.3	50.38	57.63
12	97.9 ~~79.9~~	52.87	60.12

Traverse Point	Percent of Diameter	Distance from Wall (in)	Marking Location (in)
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			

not used 6/30/11 MDD

Prepare a drawing of the source, showing the ports, disturbances, and the distances
NR 6/21/11

[1] According to Method 1, for stacks between 12 and 24", no point may be within ½ inch of the wall. For stacks greater than 24", no point may be within 1 inch of the wall.

Method 1 – Circular Duct – Determination of Traverse Points

Project Name Chevron ICR

Project Number 40942512.02

NR 6/21/11 Date 6/21/11

Ports ~~A & B~~ C & D Source FCCU Lower Ports

Operator NR

MBD 8/15/11

☐ Velocity Only ☑ Isokinetic Sampling	Upstream Distance (ft/in) 57 1/2" ☐ Measurement ☐ Plant Information
Number of Ports to be sampled 2	
Duct Diameter (in) 54" ☑ Measurement ☐ Plant Information	Downstream Distance (ft/in) 18 1/2" ☐ Measurement ☐ Plant Information

Total number of Traverse Points (from Figure 2 (velocity) or 1 (all isokinetic sampling))	24
Number of traverse points per port	12
Port Depth	7 1/4"

Traverse Point	Percent of Diameter	Distance from Wall [1] (in)	Marking Location (in)
1	2.1	1.13	8.38
2	6.7	3.61	10.86
3	11.8	6.37	13.62
4	17.7	9.56	16.81
5	25.0	13.50	20.75
6	35.6	19.22	26.47
7	64.4	34.78	42.03
8	75.0	40.50	47.75
9	82.3	44.44	51.69
10	88.2	4647.63	54.88
11	93.3	50.38	57.63
12	97.9	52.87	60.12

Traverse Point	Percent of Diameter	Distance from Wall (in)	Marking Location (in)
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			

not used MBD 8/30/11

NR 6/21/11

Prepare a drawing of the source, showing the ports, disturbances, and the distances

[1] According to Method 1, for stacks between 12 and 24", no point may be within ½ inch of the wall. For stacks greater than 24", no point may be within 1 inch of the wall.

Determination of Cyclonic Flow
Preliminary Velocity/Temperature Traverse
EPA Methods 1 and 2

Project Name: Chevron Hawaii
Console (or Temperature Readout) ID: A161396
Project Number: 40942312
Pitot Tube No.: P-343
Source: FCCU Exhaust
PTCF: 0.84
Date: 6/22/11
Pitot Tube Leak Check
Time: —
Initial (+) 0@73 (-) 0@73
Operator: DCW
Final (+) 0@73 (-) 0@73

Port #1 (A)

Traverse Point	Yaw Angle (°)	Velocity Head (ΔP) (in. wc)	Temperature (°F)
1	7.5°	1.6	471
2	7.0°	1.7	478
3	7.5°	1.7	480
4	8.0°	1.9	482
5	7.7°	1.8	483
6	8.0°	1.5	483
7	8.3°	1.6	484
8 (BB)	~~1.5~~ 9°	1.6	484
9	22°	1.7	483
10	18°	1.5	480
11	25°	1.3	479
12	28°	1.1	479

Port #2 (B)

Traverse Point	Yaw Angle (°)	Velocity Head (ΔP) (in. wc)	Temperature (°F)
13 (BB)	~~18~~ 9°	1.8	473
14	12°	1.8	476
15	11°	1.9	479
16	12°	1.8	480
17	9°	1.8	482
18	7°	1.6	482
19	16°	1.7	483
20	10°	1.6	484
21	10°	1.7	484
22	14°	1.6	483
23	11°	1.4	484
24	14°	1.3	483

Average Yaw Angle: 12° .(This is the average of the absolute value of the measurements)

If the average yaw angle exceeds 20°, Method 2 is not applicable for the determination of gas velocity.

State −1.1

Barometric Pressure 29.94

Determination of Cyclonic Flow
Preliminary Velocity/Temperature Traverse
EPA Methods 1 and 2

Project Name: Chevron Hawai'i
Project Number: 40942312
Source: FCC 4 Exhaust
Date:
Time: P.1
Operator:

Console (or Temperature Readout) ID: 1
Pitot Tube No.: P.1
PTCF:

Pitot Tube Leak Check
Initial (+): P.1 (-):
Final (+): (-): P.1

Port #3 (C)

Traverse Point	Yaw Angle (°)	Velocity Head (ΔP) (in. wc)	Temperature (°F)
1	19°		
2	20°		
3	15°		
4	15°		
5	10°		
6	9°		
7	6°		
8	10°		
9	17°		
10	15°		
11	17°		
12	17°		

not used (0/30/11 WDD)

Port #4 (D)

Traverse Point	Yaw Angle (°)	Velocity Head (ΔP) (in. wc)	Temperature (°F)
13	15°		
14	15°		
15	10°		
16	10°		
17	10°		
18	7°		
19	13°		
20	15°		
21	15°		
22	13°		
23	12°		
24	11°		

not used (0/30/11 WDD)

Average Yaw Angle: 13° ok (This is the average of the absolute value of the measurements)

If the average yaw angle exceeds 20°, Method 2 is not applicable for the determination of gas velocity.

Iso Summary - Method 0010

Chevron Hawaii FCCU Refinery ICR

Location	FCCU	FCCU	FCCU	Averages
Parameter	M0010	M0010	M0010	
Run Designation	Run 8	Run 9	Run 11	
Date	6/27/2011	6/28/2011	6/29/2011	
Time Start	09:20	10:58	09:15	
Time Stop	13:40	15:22	13:21	
	09:20-13:40	10:58-15:22	09:15-13:21	
Duct Diameter (ft) *(equivalent if square duct)*	4.50	4.50	4.50	
Pitot Tube Correction Factor	0.84	0.84	0.84	
Nozzle Diameter (inches)	0.197	0.197	0.195	
DGMCF	0.997	0.997	0.997	
Standard Temperature (°F)	68	68	68	
Barometric Pressure Measured (" Hg)	29.99	29.95	29.90	
Stack Elevation (ft) (relative to Barometer)	0	0	0	
Barometric Pressure (" Hg)	29.99	29.95	29.9	
Average Stack Temperature (°F)	473.6	487.1	487.0	482.6
Average DGM Temp (°F)	84.8	85.8	86.4	
Average Delta H (in wc)	1.41	1.40	1.43	
Condensed Water (g)	257.8	272.7	199.4	
Test Duration (minutes)	240	240	240	
Static Pressure (in wc)	-1.10	-1.10	-1.10	
% CO	0	0	0	
% CO2	13.35	13.06	13.31	
% O2	5.38	5.72	5.47	
% H2	0.0	0.0	0.0	
% CH4	0.0	0.0	0.0	
% N2	81.26	81.22	81.22	
Meter Volume (acf)	154.565	154.559	156.240	
Average square root of delta p	1.288	1.292	1.297	
Absolute Stack Pressure (in Hg)	29.91	29.87	29.82	
Absolute Stack Temperature (°R)	933.6	947.1	947.0	942.6
Flue Gas Moisture (%)	7.50	7.92	5.87	7.10
Moisture at saturation	N/A	N/A	N/A	
Moisture used in Calculation	7.50	7.92	5.87	7.10
Gas Molecular Weight (Wet) (g/g-mole)	29.43	29.34	29.62	
Corrected Volume of Gas sampled (acf)	154.101	154.095	155.771	
Volume at Meter (dscf)	150.215	149.742	150.947	
Average Gas Velocity (f/sec)	95.27	96.41	96.46	96.05
Avg Flow Rate (acfh)	5,454,599	5,520,008	5,522,813	5,499,140
Avg Flow Rate (acfm)	90,910	92,000	92,047	91,652
Avg Flow Rate (scfh)	3,083,590	3,072,245	3,068,998	3,074,944
Avg Flow Rate (scfm)	51,393	51,204	51,150	51,249
Avg Flow Rate (dscfh)	2,852,404	2,828,942	2,888,781	2,856,709
Avg Flow Rate (dscfm)	47,540	47,149	48,146	47,612
Isokinetic Sampling Rate (%)	98.92	99.43	100.18	

Sample Type: Semivolatile Organics (Method 0010)	Date 6.27.11	Condition A	Page 1 of 2
Plant Name - Chevron Hawaii	PTCF 0.84	Run 1	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Console No. A16/396	Operator GEL	Initial 0.004 @ 17"
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.197	Final 0.001 @ 10"
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID P-371
Elevation (relative to Barometer) (ft) 0	Kf 0.84	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calibration		Bar. Press. (in. Hg) 29.99	Initial (+) 0073 (-) 0073
Caliper ID — 0.196 0.197 0.197		Stat. Press. (in. H_2O) -1.1	Final (+) 0073 (-) 0073

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F) Stack	Probe	Filter	Cond Exit	Imp Exit	DGM In	DGM Out	Ht Trc Exit	Vacuum (in. Hg)
A12	0920	514.767	1.6	1.4	475	234 (274)	260	66	47	83	81	260	-6
	0925	518.82	1.5	1.3	475	234	250	61	48	85	82	260	-3
A11	0930	521.97	1.5	1.3	477	234	251	63	51	84	82	257	-3
	0935	524.93	1.7	1.4	477	247	249	59	49	85	83	257	-3
A10	0940	527.71	1.7	1.4	479	246	248	57	47	85	83	257	-4
	0945	530.80	1.8	1.5	479	248	249	57	45	86	83	257	-5
A9	0950	533.98	1.7	1.4	478	247	249	55	48	86	84	257	-5
	0955	537.18	1.6	1.4	478	246	249	55	48	86	83	257	-5
A8	1000	540.37	1.6	1.4	480	246	251	56	50	86	84	254	-5
	1005	543.54	1.6	1.4	479	245	247	57	52	86	84	254	-5
A7	1010	546.69	1.8	1.5	480	247	251	55	52	86	84	254	-5
	1015	549.92	1.5	1.3	481	246	249	54	51	86	84	254	-5
A6	1020	553.17	1.7	1.4	482	248	250	55	51	86	84	254	-5
	1025	556.35	1.7	1.4	482	245	247	56	51	86	84	254	-5
A5	1030	559.56	1.9	1.6	483	245	248	57	51	86	84	254	-5
	1035	562.88	2.0	1.7	483	246	248	59	53	87	84	254	-6
A4	1040	566.38	1.9	1.6	483	245	250	57	53	87	84	254	-6
	1045	569.78	2.0	1.7	482	243	248	57	52	87	84	254	-6
A3	1050	573.15	1.8	1.5	480	243	244	57	51	87	85	254	-5
	1055	576.54	1.9	1.6	481	245	249	56	51	87	85	254	-5
A2	1000	579.91	1.6	1.4	477	244	247	57	52	87	85	254	-5
	1105	583.23	1.6	1.4	476	244	245	58	51	87	85	254	-5
A1	1110	586.46	1.5	1.3	470	243	245	60	53	87	85	254	-5
	1115	589.69	1.5	1.3	468	244	247	61	55	87	85	254	-5
STOP	1120	592.665	1/K 20.002		@ 8"								
B1	1140	592.815	1.1	0.93	368	250	248	58	52	85	84	254	-4
B1	1145	595.67	0.9	0.76	371	240	248	55	50	85	84	254	-3
B2	1150	598.09	1.3	1.1	464	242	248	55	50	86	84	254	-4
	1155	600.97	1.2	1.0	465	243	248	55	51	87	84	254	-4
B3	1200	603.71	1.5	1.3	475	244	249	56	50	87	84	254	-5

Comments: 10-min pts, 7150 cf (4.2 m^3), 240 minute duration

SDS-09 Semis by SW-846 0010
Per EM SOP-030
Revision Date: April 2011

Project No. 40942312

Recovered by (Initials) DW

Semi-Volatile Organics
SW-846 – Method 0010

Condition No. A

Run No. 1

Date 6/27/14

Moisture Determination

Impinger No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	-	-	K/O	814.2	-	588.7	=	
2	H_2O	100	Mod.	736.1	-	737.0	=	
3	H_2O	100	G / S	750.4	-	752.8	=	
4	-	-	Mod.	646.0	-	643.5	=	
5	Silica Gel	~ 300g	Mod.	975.4	-	942.3	=	
6					-		=	
						Total Net Gain (g)	=	

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR 1 -M0010-PNRAce	1	Probe and Nozzle Rinse - Ace
CHV-Stk - ICR 1 -M0010-PNRMeCl	1	Probe and Nozzle Rinse – Methylene Chloride
CHV-Stk - ICR 1 -M0010-Filt	1	Filter
CHV-Stk - ICR 1 -M0010-CRAce	1	Condenser Rinse - Ace
CHV-Stk- ICR 1 -M0010-CRMeCl	1	Condenser Rinse – Methylene Chloride
CHV-Stk - ICR 1 -M0010-XAD	1	XAD
CHV-Stk - ICR 1 -M0010-CondA	1	Impinger Catch A
~~CHV-Stk - ICR -M0010-CondB~~		Impinger Catch B
CHV-Stk - ICR 1 -M0010-IRAce	1	Impinger Rinse - Acetone
CHV-Stk - ICR 1 -M0010-IRMeCl	1	Impinger Rinse – Methylene Chloride

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle three times each with acteone, and then methylene chloride into separate PNR bottles.

IN LABORATORY

✓ Separate filter holder and place filter in clean pre-rinsed , glass petri dish. Complete Filt sample label.

✓ Seal XAD trap ends. Complete XADsample label.

✓ Rinse front half of filter holder three times each with acetone and then methylene chloride into separate PNR bottles. Complete PNR sample labels.

✓ Rinse coil condenser, back half of filter holder and all connecting glassware between the filter and XAD three times each with acetone and then methylene chloride into two separate CR (condenser rinse) bottles. Complete CR sample labels.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first impinger (condensate) into the Imps (impinger catch) bottle(s). Complete Imps sample label.

✓ Rinse the impinger and connecting glassware with acetone and then methylene chloride three times each into two separate IR (impinger rinse) bottle(s). Complete IR sample labels.

✓ Log samples into logbook and place in refrigerator or ice chest.

Sample Type: **Semivolatile Organics (Method 0010)**	Date 6.27.11	Condition A	Page 2 of 2		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 1	Sampling Train Leak Rate (ft^3 @ "Hg)		
Project Number - 40942312	Console No. AIG1396	Operator GEL	Initial	@	
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.197	Final	@	
Duct Dimension(s) 54	ΔH@ 1.875	Nozzle ID	Pitot Tube ID		
Elevation (relative to Barometer) (ft) 0	Kf 0.84	Barometer ID BP-1	Pitot Tube Leak Check		
Nozzle Calibration		Bar. Press. (in. Hg) 29.99	Initial	(+) Pass	(-)
Caliper ID —	0.196 0.197 0.197	Stat. Press. (in. H_2O)	Final	(+)	(-)

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	Cond Exit	Imp Exit	DGM In	DGM Out	Ht Trc Exit	
	1205	606.73	1.6	1.4	477	246	248	57	50	86	84	254	-5
B4	1210	609.90	1.6	1.4	480	244	248	58	51	86	84	254	-5
	1215	613.06	1.7	1.4	481	249	249	59	53	86	84	254	-5
B5	1220	616.21	1.7	1.4	483	244	248	59	53	87	85	254	-5
	1225	619.37	1.7	1.4	482	246	247	58	50	87	85	254	-5
B6	1230	622.54	1.8	1.5	482	244	246	58	51	87	85	254	-5
	1235	625.81	1.8	1.5	482	242	250	59	51	87	85	254	-5
B7	1240	629.31	1.6	1.4	481	247	252	60	54	87	85	254	-5
	1245	632.57	1.8	1.5	480	250	248	59	55	87	85	254	-6
B8	1250	635.99	1.8	1.5	481	247	249	60	54	86	84	254	-6
	1255	639.40	1.8	1.5	480	255	249	57	52	86	84	254	-6
B9	1300	642.78	1.8	1.5	481	247	248	58	50	86	84	254	-6
	1305	646.14	1.9	1.6	479	246	247	56	50	85	82	254	-6
B10	1310	649.49	1.8	1.5	479	248	249	56	50	84	82	254	-6
	1315	652.18	1.8	1.5	479	251	250	56	50	84	82	254	-6
B11	1320	656.19	1.8	1.5	476	246	248	56	50	84	82	254	-6
	1325	659.52	1.8	1.5	476	250	249	54	50	84	82	254	-6
B12	1330	662.83	1.7	1.4	474	248	249	53	50	84	82	254	-6
	1335	666.16	1.8	1.5	474	248	248	54	51	84	82	254	-6
STOP	1340	669.482											

Comments:

SDS-09 Semis by SW-846 0010
Per EM SOP-030
Revision Date: April 2011

Sample Type: **Semivolatile Organics (Method 0010)**	Date 6.28.11	Condition A	Page 1 of 2		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft^3 @ "Hg)		
Project Number - 40942312	Console No. A161396	Operator GEL	Initial	0.004 @ 15"	
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.197	Final	0.003 @ 10"	
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID P-371		
Elevation (relative to Barometer) (ft) 5	Kf 0.84	Barometer ID BP-1	Pitot Tube Leak Check		
Nozzle Calibration		Bar. Press. (in. Hg) 29.95	Initial	(+) OBS	(-) OBS
Caliper ID — 0.196 0.197 0.197		Stat. Press. (in. H_2O) -1.1	Final	(+) OBS	(-) OBS

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	Cond Exit	Imp Exit	DGM In	DGM Out	Ht Trc Exit	
A12	1058	669.649	1.8	1.5	484	242	243	48	65	83	82	261	-5
	1103	673.44	1.8	1.5	484	250	247	48	60	84	83	261	-4
A11	1108	676.81	1.9	1.6	486	250	248	48	59	84	83	261	-5
	1113	680.01	1.9	1.6	485	249	248	47	53	84	83	261	-5
A10	1118	683.32	1.8	1.5	487	249	250	46	53	84	83	261	-5
	1123	686.66	1.8	1.5	486	251	250	46	53	85	83	261	-5
A9	1128	689.94	1.8	1.5	488	251	248	49	54	86	84	261	-5
	1133	693.20	1.8	1.5	488	249	248	48	54	87	84	254	-5
A8	1138	696.67	1.7	1.4	488	253	249	47	54	87	84	254	-5
	1143	699.66	1.8	1.5	489	250	248	51	54	87	84	254	-5
A7	1148	702.91	1.7	1.4	490	252	249	49	54	88	84	257	-5
	1153	706.00	1.8	1.5	490	251	248	52	51	88	85	257	-5
A6	1158	709.22	1.7	1.4	491	252	251	48	50	90	86	257	-5
	1203	712.44	1.7	1.4	491	250	250	48	51	90	86	257	-5
A5	1208	715.66	1.6	1.3	491	248	248	51	53	90	86	257	-5
	1213	718.80	1.7	1.4	491	249	250	48	53	90	86	257	-5
A4	1218	721.96	1.6	1.3	489	247	247	50	54	90	86	259	-5
	1223	724.52	1.6	1.3	488	247	249	51	52	90	86	257	-5
A3	1228	728.31	1.4	1.2	486	247	248	51	53	90	86	257	-5
	1233	731.46	1.5	1.3	486	244	249	49	54	89	87	257	-5
A2	1238	734.62	1.3	1.1	480	249	250	49	54	89	87	257	-5
	1243	737.60	1.3	1.1	481	245	250	47	55	87	85	254	-5
A1	1248	740.54	1.3	1.1	479	245	249	48	54	87	85	254	-5
	1253	743.47	1.3	1.1	479	246	249	49	54	87	85	254	-5
STOP	1258	746.410											
B12	1305	746.554	1.5	1.3	—	—	—	—	—	—	—	—	—
STOP	1306	747.146	PAUSE FOR POWER SWITCH										
START	1323	747.146	1.5	1.3	486	250	249	46	60	85	83	254	-5
	1327	749.57	1.5	1.3	485	249	249	47	50	86	84	254	-5
B11	1332	752.63	1.5	1.3	486	252	252	48	50	86	84	254	-5

Comments:

SDS-09 Semis by ~~SW-846~~ 0010
Per EM SOP-030
Revision Date: April 2011

Project No. 40942312

Recovered by (Initials) DCW

Semi-Volatile Organics
SW-846 – Method 0010

Condition No. A

Run No. 2

Date 6/28/17

Moisture Determination

Impinger No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	-	-	K/O	820.0	-	591.7	=	
2	H_2O	100	Mod.	734.9	-	736.1	=	
3	H_2O	100	G / S	748.6	-	750.4	=	
4	-	-	Mod.	649.3	-	646.0	=	
5	Silica Gel	~ 300g	Mod.	999.9	-	965.8	=	
6					-		=	
						Total Net Gain (g)	=	

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR 2 -M0010-PNRAce	1	Probe and Nozzle Rinse - Ace
CHV-Stk - ICR 2 -M0010-PNRMeCl	1	Probe and Nozzle Rinse – Methylene Chloride
CHV-Stk - ICR 2 -M0010-Filt	1	Filter
CHV-Stk - ICR 2 -M0010-CRAce	1	Condenser Rinse - Ace
CHV-Stk- ICR 2 -M0010-CRMeCl	1	Condenser Rinse – Methylene Chloride
CHV-Stk - ICR 2 -M0010-XAD	1	XAD
CHV-Stk - ICR 2 -M0010-CondA	1	Impinger Catch A
~~CHV-Stk- ICR -M0010-CondB~~		~~Impinger Catch B~~
CHV-Stk - ICR 2 -M0010-IRAce	1	Impinger Rinse - Acetone
CHV-Stk - ICR 2 -M0010-IRMeCl	1	Impinger Rinse – Methylene Chloride

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle three times each with acteone, and then methylene chloride into separate PNR bottles.

IN LABORATORY

✓ Separate filter holder and place filter in clean pre-rinsed , glass petri dish. Complete Filt sample label.

✓ Seal XAD trap ends. Complete XADsample label.

✓ Rinse front half of filter holder three times each with acetone and then methylene chloride into separate PNR bottles. Complete PNR sample labels.

✓ Rinse coil condenser, back half of filter holder and all connecting glassware between the filter and XAD three times each with acetone and then methylene chloride into two separate CR (condenser rinse) bottles. Complete CR sample labels.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first impinger (condensate) into the Imps (impinger catch) bottle(s). Complete Imps sample label.

✓ Rinse the impinger and connecting glassware with acetone and then methylene chloride three times each into two separate IR (impinger rinse) bottle(s). Complete IR sample labels.

✓ Log samples into logbook and place in refrigerator or ice chest.

Sample Type: **Semivolatile Organics (Method 0010)**	Date 6.28.11	Condition A	Page 2 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Console No. A161396	Operator GEL	Initial See @
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.197	Final @
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID Front
Elevation (relative to Barometer) (ft) 0	Kf 0.84	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calibration See Front Page		Bar. Press. (in. Hg) 29.95	Initial (+) (-)
Caliper ID _____		Stat. Press. (in. H_2O) -1.1	Final (+) Pass (-)

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	Cond Exit	Imp Exit	DGM In	DGM Out	Ht Trc Exit	
	1337	755.07	1.5	1.3	486	250	250	48	51	87	84	254	-5
B10	1342	758.81	1.5	1.3	486	250	250	48	52	87	84	254	-5
	1347	761.98	1.5	1.3	486	250	250	47	53	87	84	254	-5
B9	1352	764.18	1.6	1.3	487	250	249	49	54	87	84	254	-5
	1357	768.40	1.7	1.4	487	250	250	48	54	87	84	254	-5
B8	1402	771.55	1.8	1.5	487	248	247	48	56	87	84	254	-5
	1407	774.81	1.9	1.6	487	248	249	48	56	87	84	254	-5
B7	1412	778.14	1.8	1.5	490	249	250	51	58	88	85	254	-5
	1417	781.47	1.8	1.5	490	247	250	51	59	87	84	254	-5
B6	1422	784.87	1.9	1.6	491	247	248	55	62	87	84	254	-5
	1427	788.17	2.0	1.7	491	247	248	52	61	87	84	254	-5
B5	1432	791.62	2.0	1.7	491	248	251	53	62	87	84	254	-5
	1437	795.09	2.0	1.7	491	246	249	54	63	87	84	254	-5
B4	1442	798.52	1.8	1.5	491	247	246	50	56	87	84	254	-5
	1447	801.87	1.8	1.5	491	247	247	47	54	87	84	254	-7
B3	1452	805.22	1.8	1.5	488	248	251	48	54	87	84	254	-7
	1457	808.55	1.8	1.5	488	249	247	47	54	88	85	254	-7
B2	1502	811.91	1.6	1.3	484	246	246	48	55	87	84	254	-7
	1507	814.57	1.6	1.3	484	247	249	49	56	87	85	254	-6
B1	1512	817.82	1.5	1.3	484	247	249	52	56	87	85	254	-6
	1517	821.07	1.5	1.3	485	246	252	52	58	87	84	254	-6
STOP	1522	824.352											

Comments:

SDS-09 Semis by SW-846 0010
Per EM SOP-030
Revision Date: April 2011

Sample Type: **Semivolatile Organics (Method 0010)**	Date 6-29-11	Condition A	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Console No. A161396	Operator GEL	Initial 0.002 @ 15"
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.195	Final 0.001 @ 13"
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID P-371
Elevation (relative to Barometer) (ft) 0	Kf 0.81	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calibration		Bar. Press. (in. Hg) 29.90	Initial (+) 0073 (-) 0073
Caliper ID — 0.195 0.194 0.195		Stat. Press. (in. H_2O) -1.1	Final (+) 0073 (-) 0073

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	Cond Exit	Imp Exit	DGM In	DGM Out	Ht Trc Exit	
A1	0915	887.797	1.3	1.1	469	237	254	54	64	85	84	254	-5
	0920	891.72	1.2	1.0	467	247	251	45	57	86	84	254	-3
A2	0925	894.96	1.4	1.2	480	250	257	46	58	87	85	254	-3
	0930	897.95	1.3	1.1	480	246	248	47	58	88	85	254	-4
A3	0935	900.86	1.5	1.2	483	247	256	44	58	88	86	254	-4
	0940	903.78	1.5	1.2	484	251	237	44	59	88	86	254	-4
A4	0945	906.67	1.5	1.2	488	250	234	44	59	88	86	254	-4
	0950	909.55	1.5	1.2	488	247	238	43	56	88	86	254	-4
A5	0955	912.42	1.7	1.4	491	251	245	44	54	88	86	254	-4
	1000	915.48	1.7	1.4	490	248	250	49	53	88	86	254	-5
A6	1005	918.68	1.7	1.4	490	249	250	46	53	88	86	254	-5
	1010	921.83	1.8	1.5	490	250	252	47	54	87	84	254	-5
A7	1015	924.11	1.6	1.3	490	249	241	45	55	88	85	254	-5
	1020	928.18	1.6	1.3	490	246	246	48	56	88	85	254	-5
A8	1025	931.26	1.9	1.5	490	252	256	46	56	88	85	254	-5
	1030	934.48	1.8	1.5	489	255	242	48	57	88	85	254	-5
A9	1035	937.75	1.8	1.5	489	253	256	50	59	87	84	254	-5
	1040	941.02	1.9	1.5	489	252	255	49	59	87	84	254	-5
A10	1045	944.27	1.9	1.5	489	253	249	50	60	87	84	254	-5
	1050	947.51	1.9	1.5	489	259	254	52	61	87	84	254	-5
A11	1055	950.73	1.8	1.5	486	253	238	52	62	88	85	254	-5
	1100	953.96	1.8	1.5	486	248	241	55	64	88	85	254	-5
A12	1105	957.19	1.8	1.5	486	255	243	56	61	88	85	254	-5
	1110	960.32	1.8	1.5	485	255	241	53	60	88	85	254	-5
STOP	1115	963.550		LK ✓ 0.002 @ 11"									
B1	1121	963.791	1.7	1.4	482	256	239	52	62	87	85	254	-5
	1126	966.93	1.7	1.4	486	253	240	52	56	87	85	254	-5
B2	1134	969.47	1.6	1.3	485	250	239	54	54	87	85	254	-5
	1136	973.30	1.6	1.3	484	249	244	51	54	88	85	254	-5
B3	1141	976.44	1.8	1.5	488	249	240	50	55	88	85	254	-5

Comments:

SDS-09 Semis by SW-846 0010
Per EM SOP-030
Revision Date: April 2011

Project No. 40942312

Recovered by (Initials) nav

Semi-Volatile Organics
SW-846 – Method 0010

Condition No. 1

Run No. 3

Date 6/29/11

Moisture Determination

Impinger No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	-	-	K/O	↑	-	↑	=	
2	H_2O	100	Mod.	821.8	-	592.8	=	
3	H_2O	100	G / S	731.6	-	734.9	=	
4	-	-	Mod.	746.9	-	748.7	=	
5	Silica Gel	~ 300g	Mod.	653.4	-	649.4	=	
6				971.1	-	999.6	=	
							Total Net Gain (g) =	

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR 3 -M0010-PNRAce	1	Probe and Nozzle Rinse - Ace
CHV-Stk - ICR 3 -M0010-PNRMeCl	1	Probe and Nozzle Rinse – Methylene Chloride
CHV-Stk - ICR 3 -M0010-Filt	1	Filter
CHV-Stk - ICR 3 -M0010-CRAce	1	Condenser Rinse - Ace
CHV-Stk- ICR 3 -M0010-CRMeCl	1	Condenser Rinse – Methylene Chloride
CHV-Stk - ICR 3 -M0010-XAD	1	XAD
CHV-Stk - ICR 3 -M0010-CondA	1	Impinger Catch A
~~CHV-Stk- ICR -M0010-CondB~~		~~Impinger Catch B~~
CHV-Stk - ICR 3 -M0010-IRAce	1	Impinger Rinse - Acetone
CHV-Stk - ICR 3 -M0010-IRMeCl	1	Impinger Rinse – Methylene Chloride

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle three times each with acteone, and then methylene chloride into separate PNR bottles.

IN LABORATORY

✓ Separate filter holder and place filter in clean pre-rinsed , glass petri dish. Complete Filt sample label.

✓ Seal XAD trap ends. Complete XADsample label.

✓ Rinse front half of filter holder three times each with acetone and then methylene chloride into separate PNR bottles. Complete PNR sample labels.

✓ Rinse coil condenser, back half of filter holder and all connecting glassware between the filter and XAD three times each with acetone and then methylene chloride into two separate CR (condenser rinse) bottles. Complete CR sample labels.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first impinger (condensate) into the Imps (impinger catch) bottle(s). Complete Imps sample label.

✓ Rinse the impinger and connecting glassware with acetone and then methylene chloride three times each into two separate IR (impinger rinse) bottle(s). Complete IR sample labels.

✓ Log samples into logbook and place in refrigerator or ice chest.

RDS-12 *Semis SW-846 0010; Separate Solvents*
Revision Date: October 2007
Reviewed: September 2010

Sample Type: **Semivolatile Organics (Method 0010)**	Date 6.29.11	Condition A	Page 2 of 2		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (ft^3 @ "Hg)		
Project Number - 40942312	Console No. A161396	Operator GEL	Initial	See @	
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.195	Final	0 @	
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID ——	Pitot Tube ~~OK~~ Leak		
Elevation (relative to Barometer) (ft) 0	Kf 0.81	Barometer ID BP-1	Pitot Tube Leak Check		
Nozzle Calibration		Bar. Press. (in. Hg) 29.90	Initial	(+) Pass	(-)
Caliper ID ~	0.195 0.194 0.195	Stat. Press. (in. H_2O) -1.1	Final	(+)	(-)

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	Cond Exit	Imp. Exit	DGM In	DGM Out	Ht Trc Exit	
	1146	979.69	1.8	1.5	489	249	246	50	55	87	84	254	-5
B4	1151	982.80	1.9	1.5	491	248	247	49	54	87	84	254	-5
	1156	986.11	1.9	1.5	491	249	240	50	55	87	84	254	-5
B5	1201	989.44	2.0	1.6	491	250	245	51	56	87	84	254	-5
	1206	992.81	2.0	1.6	491	250	239	51	58	87	84	254	-5
B6	1211	996.06	2.0	1.6	492	250	237	52	58	87	84	254	-5
	1216	999.37	2.0	1.6	492	252	240	48	55	88	84	254	-5
B7	1221	1002.85	1.8	1.5	491	250	240	48	56	88	85	254	-5
	1226	1006.34	1.8	1.5	490	251	244	50	56	88	85	254	-5
B8	1231	1009.74	1.9	1.5	491	253	240	49	54	89	86	254	-5
	1236	1013.12	1.9	1.5	491	252	240	48	54	89	86	254	-5
B9	1241	1016.51	1.9	1.5	491	252	240	48	55	89	86	254	-5
	1246	1019.90	1.9	1.5	489	252	239	48	55	89	86	254	-5
B10	1251	1023.25	2.0	1.6	486	251	239	51	57	89	86	254	-5
	1256	1026.68	2.0	1.6	487	252	251	52	58	89	86	254	-6
B11	1301	1030.10	2.0	1.6	485	254	240	50	58	89	86	254	-6
	1306	1033.53	2.0	1.6	485	253	242	50	57	89	86	254	-6
B12	1311	1037.05	1.9	1.5	485	253	240	50	57	89	86	254	-6
	1316	1040.66	1.9	1.5	483	251	240	52	58	89	86	254	-6
STOP	1321	1044.278											

Comments:

SDS-09 Semis by SW-846 0010
Per EM SOP-030
Revision Date: April 2011

Sample Type: **Semivolatile Organics (Method 0010)**	Date 6/28/11	Condition FB	Page 1 of 1		
Plant Name – Chevron Hawaii	PTCF 0.84	Run FB	Sampling Train Leak Rate (ft^3 @ "Hg)		
Project Number - 40942312	Console No. A16/401	Operator JC	Initial	See below	
Location (Source) - FCCU	DGMCF 1.000	Nozzle Dia (in) —	Final	—	@
Duct Dimension(s) 54"	ΔH@ 1.719	Nozzle ID —	Pitot Tube ID —		
Elevation (relative to Barometer) (ft) 0	Kf —	Barometer ID BP-1	Pitot Tube Leak Check		
Nozzle Calibration		Bar. Press. (in. Hg) 29.95	Initial	(+)	(-)
Caliper ID _____ NA NA NA		Stat. Press. (in. H_2O) —	Final	(+)	(-)

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	Cond Exit	Imp Exit	DGM In	DGM Out	Ht Trc Exit	
	1925	856.454	@ 13"	= 0.004									
		856.515											
	1927	856.515	@ 13"	= 0.006									
		856.662				236	247					254	

Comments:

SDS-09 Semis by SW-846 0010
Per EM SOP-030
Revision Date: April 2011

Project No. 40942312

Recovered by (Initials) DCW/MDD

Semi-Volatile Organics
SW-846 – Method 0010

Condition No. ICR A

Run No. FB

Date 6/28/11

Moisture Determination

Impinger No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	-	-	K/O	591.5	-	593.0	=	
2	H_2O	100	Mod.	734.9	-	734.9	=	
3	H_2O	100	G / S	748.7	-	748.6	=	
4	-	-	Mod.	649.4	-	649.3	=	
5	Silica Gel	~ 300g	Mod.	999.6	-	999.9	=	
6					-		=	
						Total Net Gain (g)	=	

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR_FB_-M0010-PNRAce	1	Probe and Nozzle Rinse - Ace
CHV-Stk - ICR____-M0010-PNRMeCl	1	Probe and Nozzle Rinse – Methylene Chloride
CHV-Stk - ICR____-M0010-Filt	1	Filter
CHV-Stk - ICR____-M0010-CRAce	1	Condenser Rinse - Ace
CHV-Stk- ICR____-M0010-CRMeCl	1	Condenser Rinse – Methylene Chloride
CHV-Stk - ICR____-M0010-XAD	1	XAD
CHV-Stk - ICR____-M0010-CondA	0	Impinger Catch A
CHV-Stk - ICR____-M0010-CondB	0	Impinger Catch B
CHV-Stk - ICR____-M0010-IRAce	1	Impinger Rinse - Acetone
CHV-Stk - ICR____-M0010-IRMeCl	1	Impinger Rinse – Methylene Chloride

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle three times each with acteone, and then methylene chloride into separate PNR bottles.

IN LABORATORY

✓ Separate filter holder and place filter in clean pre-rinsed , glass petri dish. Complete Filt sample label.

✓ Seal XAD trap ends. Complete XADsample label.

✓ Rinse front half of filter holder three times each with acetone and then methylene chloride into separate PNR bottles. Complete PNR sample labels.

✓ Rinse coil condenser, back half of filter holder and all connecting glassware between the filter and XAD three times each with acetone and then methylene chloride into two separate CR (condenser rinse) bottles. Complete CR sample labels.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first impinger (condensate) into the Imps (impinger catch) bottle(s). Complete Imps sample label.

✓ Rinse the impinger and connecting glassware with acetone and then methylene chloride three times each into two separate IR (impinger rinse) bottle(s). Complete IR sample labels.

✓ Log samples into logbook and place in refrigerator or ice chest.

VOC HAPs

U.S. EPA Method 18

Data Entered By: ***mdd***
Data Checked By: ***EDF***
Data Corrected By

Facility **Chevron Hawaii**
Project **FCCU Source Test**
Condition **A1/A2/A3**

Run No./Tube Pair	Run 8/Bag A	Run 8/Bag B	Run 9/Bag A	Run 9/Bag B	Run 11/Bag A	Run 11/Bag B
Date	6/27/2011	6/27/2011	6/28/2011	6/28/2011	6/29/2011	6/29/2011
Time Start	10:05	12:21	11:33	12:48	09:12	10:28
Time Finish	11:05	13:21	12:33	14:08	10:12	11:28
Overall Sample Time	10:05 - 11:05	12:21 - 13:21	11:33 - 12:33	12:48 - 14:08	09:12 - 10:12	10:28 - 11:28
Operator	NR	NR	NR	NR	NR	NR
Dry Gas Meter Calibration (Yd)	0.975	0.975	0.975	0.975	0.975	0.975
Barometric Pressure ("Hg)	29.99	29.99	29.95	29.95	29.90	29.90
Sample Elevation (ft)	0	0	0	0	0	0
Corrected BP ("Hg)	29.99	29.99	29.95	29.95	29.9	29.9
Initial Meter Reading (L)	2069.1	2086.6	2100.73	2107.15	2113.68	2119.93
Final Meter Reading (L)	2076	2093.4	2107.04	2113.5	2119.58	2125.05
Meter Volume (L)	6.900	6.800	6.310	6.350	5.900	5.120
Average DGM Temp (F)	92.3	98.3	99.0	99.8	96.5	99.8
Test Duration (minutes)	60	60	60	60	60	60
Meter Volume (dsL)	6.446	6.285	5.817	5.846	5.454	4.706

Meter Temps	Meter Temps	Meter Temps	Meter Temps	Meter Temps	Meter Temps
88	96	98	99	92	100
88	95	97	100	90	98
91	99	99	99	95	99
90	97	98	100	92	98
92	99	100	99	98	100
91	97	99	100	95	99
94	100	100	100	99	101
95	98	99	100	97	100
95	100	100	100	101	101
94	98	99	100	99	100
95	101	100	100	101	101
95	99	99	100	99	100
			100		
			100		
92.33333333	**98.25**	**99**	**99.78571429**	**96.5**	**99.75**

27

Sample Type – **Method 18** bag	Date 6/28/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	SN1543	Run 1 bag 1	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 0.975	Operator NR	Initial 0 @ 10" Hg
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow n/a	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.99	Post-test Flow n/a	

Point	Clock Time	~~At Probe ΔH~~ ΔP (in. H_2O)	At Orifice ΔH (in. H_2O)	Rate (Lpm) ~~Stack~~	Temperature (°F) Critical Orifice	~~Heat trace~~ PDMIN	~~PDMAINT~~	Vacuum (in. Hg)
Center	1005	1.7	2069.10	0.1		88	88	0
	1015	1.7	2070.75	0.1		91	90	0
	1025	1.7	2071.65	0.1		92	91	0
	1035	1.7	2072.95	0.1		94	95	0
	1045	1.7	2074.08	0.1		95	94	0
	1055	1.7	2075.11	0.1		95	95	0
STOP	1105	1.7	2076.00					

Comments: Tedlar Bag ID: CHV-STK-ICR1-M18b-Bag A
Condensate ID: CHV-STK-ICR1-M18b-Cond A

Project No. 40942312

Operator Initials NR

Sample Recovery

M18

Run No. 1A

Condition No. A

Date: 6/28/11
27

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-STK-1CR1-M18-Cond A	Condensate A	
~~M308-Tube~~	~~Adsorbent Tube~~	
~~M308-Tube~~	~~Charcoal~~	

CHV-STK-1CR1-M18-Bag A

Sample Recovery Notes

AT LOCATION

✓ Disconnect the ~~adsorbent tube~~ bag and label and cap appropriately. ~~Disconnect the Charcoal tube and label and cap appropriately.~~ Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Sample Type – **Method 18** bag	Date 6/27/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	SN1543	Run #1 bag 2	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 0.975	Operator NR	Initial 0.000@15"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow leo	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.99	Post-test Flow ✓	

Point	Clock Time	~~At Probe ΔH (in. H_2O)~~ DGM	At Orifice ΔH (in. H_2O)	Temperature (°F) ~~Stack~~	Critical Orifice	~~Heat trace~~ IN	OUT	Vacuum (in. Hg)
Center	1221	2086.60	0.1		0.1	96	95	0
	1231	2088.00	0.1		0.1	99	97	0
	1241	2089.01	0.1		0.1	99	97	0
	1251	2090.20	0.1		0.1	100	98	0
	1301	2091.20	0.1		0.1	100	98	0
	1311	2092.14	0.1		0.1	101	99	0
STOP	1321 NR	2093.40						
	6/27/11							

Comments:

Project No. 40942312

Operator Initials NR

Sample Recovery

M18

Run No. 1B

Condition No. A

Date: 6/27/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-Stk-ICR1-M18B-M308-Cond B	Condensate B	
~~-M308-Tube~~	~~Adsorbent Tube~~	
~~M308-Tube~~	~~Charcoal~~	

CHV-Stk-ICR1-M18B-Bag B

B-21

Sample Recovery Notes

AT LOCATION

✓ Disconnect the ~~adsorbent tube~~ bag and label and cap appropriately. ~~Disconnect the Charcoal tube and label and cap appropriately.~~ Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Sample Type – **Method 18**	Date 6/28/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.975	Run 2 bag 1	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. SN1543	Operator AR	Initial 0.00@10"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow Vac	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.95	Post-test Flow ✓	

Point	Clock Time	~~At Probe ΔH~~ DGM (in. H_2O)	At Orifice ΔH (in. H_2O)	Temperature (°F)				Vacuum (in. Hg)
				Stack	Critical Orifice	Heat trace		
Center	1133	2100.73	0.1		0.1	98	97	0
	1143	2102.15	0.1		0.1	99	98	0
6/28	1153	2103.15	0.1		0.1	100	99	0
	1203	2103.90	0.1		0.1	100	99	0
	1213	2104.50	0.1		0.1	100	99	0
	1223	2106.08	0.1		0.1	100	99	0
STOP	1233	2107.64						

Comments:

SDS-29: Adsorbent Tubes by Method 18
Per EM SOP-036
Revision Date: June 2011

Project No. 40942312

Operator Initials NP

Sample Recovery

M18

Run No. 2A

Condition No. A

Date: 6/28/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHN-Stk-ICR2-~~M308~~ M18b-Cond A	Condensate A	
____-____-M308-Tube	Adsorbent Tube	
____-____-M308-Tube	Charcoal	

CHN-Stk-ICR2-M18b-Bag A

Sample Recovery Notes

AT LOCATION

✓ Disconnect the ~~adsorbent tube~~ bag and label and cap appropriately. ~~Disconnect the Charcoal tube and label and cap appropriately.~~ Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Sample Type – **Method 18**	Date 6/28/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.975	Run 2 (bag2)	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. SN-1543	Operator NC	Initial 0.00 @ 12"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow Ved	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.95	Post-test Flow ✓	

Point	Clock Time	~~At Probe ΔH (in. H_2O)~~ DGM	At Orifice ΔH (in. H_2O)	Temperature (°F) Stack	Critical Orifice	~~Heat trace~~ IN	OUT	Vacuum (in. Hg)
Center	1248	2107.15	0.1			99	100	0
	~~1241~~ 1258	2109.04	0.1			99	100	8
	1305	2109.65	Pause					
start	1325	2109.65	0.1			99	100	0
	1328	2109.89	0.1			100	100	0
	1338	2110.99	0.1			100	100	0
	1348	2111.78	0.1			100	100	0
	1358	2112.74	0.1			100	100	8
STOP	1408	2113.50						

Comments:

SDS-29: Adsorbent Tubes by Method 18
Per EM SOP-036
Revision Date: June 2011

Project No. 40942312

Operator Initials NP

Sample Recovery

M18

Run No. 2B

Condition No. A

Date: 6/28/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-Stk-ICR2-~~M308~~ M18b-Cond B	Condensate B	
~~M308-Tube~~	~~Adsorbent Tube~~	
~~M308-Tube~~	~~Charcoal~~	

CHV-Stk-ICR2-M18b-Bag B

Sample Recovery Notes

AT LOCATION

✓ Disconnect the ~~adsorbent tube~~ bag and label and cap appropriately. ~~Disconnect the Charcoal tube and label and cap appropriately~~. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

29

Sample Type – **Method 18**	Date 6/28/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.975	Run 3 (bag a)	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. SN1543	Operator NR	Initial 0.00 @ 15"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow Ved	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.90	Post-test Flow J	

Point	Clock Time	~~At Probe ΔH (in. H_2O)~~ ΔGM	At Orifice ΔH (in. H_2O)	Temperature (°F) Stack	Critical Orifice	~~Heat trace~~ IN	OUT	Vacuum (in. Hg)
Center	0912	2113.68	0.1		0.1	92	90	0
	0922	2115.41	0.1		0.1	95	92	0
	0932	2116.28	0.1		0.1	98	95	0
	0942	2116.89	0.1		0.1	99	97	0
	0952	2118.95	0.1		0.1	101	99	0
	1002	2118.75	0.1		0.1	101	99	0
STOP	1012	2119.58						

Comments:

SDS-29: Adsorbent Tubes by Method 18
Per EM SOP-036
Revision Date: June 2011

Project No. 40942312

Operator Initials NR

Sample Recovery

M18

Run No. 3A

Condition No. A

Date: 6/29/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-Stk-1CR3-~~M308~~ M18b-Cond A	Condensate A	
~~M308-Tube~~	~~Adsorbent Tube~~	
~~M308-Tube~~	~~Charcoal~~	

CHV-Stk-1CR3-M18b-Bag A

B-27

Sample Recovery Notes

AT LOCATION

✓ Disconnect the ~~adsorbent tube~~ bag and label and cap appropriately. ~~Disconnect the Charcoal tube and label and cap appropriately.~~ Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Sample Type – **Method 18**	Date 6/29/11	Condition A	Page 1 of 1		
Plant Name – Chevron Hawaii	0.975	Run 3 (bagb)	Sampling Train Leak Check		
Project Number – 40942312	Critical Orifice No. SN-1543	Operator AR	Initial	0.00 @ 10"	
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow Ved	Duct Dimension(s)	54"	
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.90	Post-test Flow J			

Point	Clock Time	~~At Probe ΔH~~ DGM (in. H_2O)	At Orifice ΔH (in. H_2O)	Temperature (°F)				Vacuum (in. Hg)
				Stack	Critical Orifice	~~Heat trace~~ IN	OUT	
Center	1028	2119.93	0.1			100	98	0
|	1038	2121.82	0.1			99	98	0
|	1048	2122.55	0.1			100	99	0
|	1058	2123.56	0.1			101	100	0
↓	1108	2124.30	0.1			101	100	0
	1118	2125.38	0.1			101	100	0
STOP	1128	2125.05						

Comments:

SDS-29: Adsorbent Tubes by Method 18
Per EM SOP-Q36
Revision Date: June 2011

Project No. 40942312

Operator Initials VC

Sample Recovery

M18

Run No. 3B

Condition No. A

Date: 6/29/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
~~CHV-Stk-1CR3-M308-Cond~~ WRB B	Condensate B	
_____-_____-M308-Tube	Adsorbent Tube VC 6/29/11	
_____-_____-M308-Tube	Charcoal	

CHV-Stk-1CR3-M18-Bag B

Sample Recovery Notes

AT LOCATION

Disconnect the ~~adsorbent tube~~ bag and label and cap appropriately. ~~Disconnect the Charcoal tube and label and cap appropriately~~. Cover the impinger train and transport train and tube to the recovery area.

6/29/11

IN LABORATORY

Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

Log samples into logbook and store appropriately.

VOC HAPs

U.S. EPA Method 18

Data Entered By:	***mdd***
Data Checked By:	***EDF***
Data Corrected By	***EDF***

Facility **Chevron Hawaii**
Project **FCCU Source Test**
Condition **A1/A2/A3**

Run No./Tube Pair	Run 8/Spiked	Run 8/Unspiked	Run 9/Spiked	Run 9/Unspiked	Run 11/Spiked	Run 11/Unspiked
Date	6/27/2011	6/27/2011	6/28/2011	6/28/2011	6/29/2011	6/29/2011
Time Start	11:46	11:46	12:05	12:05	10:00	10:00
Time Finish	13:26	13:26	14:05	14:05	11:40	11:40
Overall Sample Time	11:46 - 13:26	11:46 - 13:26	12:05 - 14:05	12:05 - 14:05	10:00 - 11:40	10:00 - 11:40
Operator	NR	NR	NR	NR	NR	NR
Dry Gas Meter Calibration (Yd)	0.998	0.974	0.998	0.974	0.998	0.974
Barometric Pressure ("Hg)	29.99	29.99	29.95	29.95	29.90	29.90
Sample Elevation (ft)	0	0	0	0	0	0
Corrected BP ("Hg)	29.99	29.99	29.95	29.95	29.9	29.9
Initial Meter Reading (L)	0	3611.92	0	3710.01	0	3809.4
Final Meter Reading (L)	99.935	3710.14	98.686	3809.32	105.227	3907.05
Meter Volume (L)	99.935	98.220	98.686	99.310	105.227	97.650
Average DGM Temp (F)	100.6	96.3	100.3	95.8	95.7	92.4
Test Duration (minutes)	100	100	100	100	100	100
Meter Volume (dsL)	94.164	91.016	92.906	91.984	99.724	90.857

Meter Temps	Meter Temps	Meter Temps	Meter Temps	Meter Temps	Meter Temps
95	91	97	89	93	90
97	94	95	89	94	90
96	91	96	90	95	91
95	91	95	90	93	88
95	93	98	91	96	91
94	92	95	90	94	91
97	93	99	91	96	93
95	95	96	91	94	92
99	94	100	92	96	93
95	93	96	92	95	92
100	94	100	93	96	94
96	95	97	93	95	93
100	96	102	94	97	94
97	94	100	94	95	93
101	99	101	95	96	93
97	96	98	94	94	93
102	97	103	96	96	93
98	96	99	95	95	92
103	97	104	97	96	93
99	96	100	96	95	93
104	97	105	98	97	93
100	97	101	97	95	93
104	97	106	98	97	93
101	97	102	98	96	92
104	98	107	99	97	93
101	97	103	98	96	93
105	98	107	99	97	93
102	98	104	98	96	93
105	98	103	100	97	93
102	98	103	100	96	93

VOC HAPs

U.S. EPA Method 18

Data Entered By:	***mdd***
Data Checked By:	***EDF***
Data Corrected By	***EDF***

Facility **Chevron Hawaii**
Project **FCCU Source Test**
Condition **A1/A2/A3**

106	99	101	100	97	93
102	98	102	99	96	92
106	99	99	100	97	93
102	99	100	99	96	92
106	99	99	98	97	93
102	99	100	99	96	92
106	99	99	99	96	93
103	99	100	98	96	92
107	99	100	99	95	92
103	99	99	98	95	91
		101	99		
		100	98		
100.55	**96.275**	**100.2857143**	**95.78571429**	**95.65**	**92.35**

Sample Type – **Method 18**	Date 6/27/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.974	Run 1	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 80-102	Operator NE	Initial 0.00 @ 10"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow Yes	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.99	Post-test Flow ✓	

Point	Clock Time	~~At Probe ΔH (in. H_2O)~~ DGM	At Orifice ΔH (in. H_2O)	Temperature (°F) Stack	Critical Orifice	~~Heat trace~~ DGM IN	DGM Out	Vacuum (in. Hg)
Center	1146	3611.92	1.0			91	94	3
	1151	3618.70	1.0			91	91	3
	1156	3624.20	1.0			93	92	3
	1201	3626.00	1.0			93	95	3
	1206	3633.00	1.0			94	93	3
	1211	3637.60	1.0			94	95	3
	1216	3641.80	1.0			96	94	3
	1221	3646.40	1.0			99	96	3
	1226	3650.50	1.0			97	96	3
	1231	3654.60	1.0			97	96	3
	1236	3660.40	1.0			97	97	3
	1241	3665.60	1.0			97	97	3
	1246	3671.10	1.0			98	97	3
	1251	3675.00	1.0			98	98	3
	1256	3682.01	1.0			98	98	3
	1301	3686.00	1.0			99	98	3
	1306	3690.10	1.0			99	99	3
	1311	3693.50	1.0			99	99	5
	1316	3699.40	1.0			99	99	5
	1321	3705.10	1.0			99	99	
STOP	1326	3710.14						

Comments: Tube 226-175 3007301510
Charcoal 3741804493 226-16

Project No. 40942312

Operator Initials WDD

Sample Recovery

M18

Run No. 1

Condition No. A

Date: 6/27/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV -SK-ICP-18 -M308-Cond	Condensate	
___ - ___ -M308-Tube	Adsorbent Tube	
___ - ___ -M308-Tube	Charcoal	

Sample Recovery Notes

AT LOCATION

✓ Disconnect the adsorbent tube and label and cap appropriately. Disconnect the Charcoal tube and label and cap appropriately. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Sample Type – **Method 18**	Date 6/28/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.974	Run 2 unspiked	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 80-1020Y	Operator NE	Initial 0.00 @ 12"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow Yes	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.95	Post-test Flow	

Point	Clock Time	At Probe ΔH (in. H_2O)	At Orifice ΔH (in. H_2O)	Temperature (°F) Stack	Critical Orifice	Heat trace IN	OUT	Vacuum (in. Hg)
Center	1205	3710.01	1.0			89	89	4
	1210	3713.01	1.0			90	90	4
	1215	3718.61	1.0			91	90	4
	1220	3723.30	1.0			91	91	5
	1225	3728.40	1.0			92	92	5
	1230	3733.20	1.0			93	93	5
	1235	3739.20	1.0			94	94	5
	1240	3743.40	1.0			95	94	5
	1245	3746.60	1.0			96	95	5
	1250	3754.11	1.0			97	96	5
	1255	3759.10	1.0			98	97	4
	1300	3762.70	1.0			98	98	4
Pause	1305	3767.50	1.0			99	98	4
	1310	3767.50	1.0			99	98	4
	1330	3773.71	1.0			100	100	4
	1335	3777.60	1.0			100	99	4
	1340	3782.11	1.0			100	99	4
	1345	3788.30	1.0			98	99	4
	1350	3794.10	1.0			99	98	4
	1355	3798.80	1.0			99	98	4
	1400	3804.20	1.0			99	98	
STOP	1405	3809.32						

Comments: Tube # 350730/1678
Charcoal # 374/804510

SDS-29: Adsorbent Tubes by Method 18
Per EM SOP-036
Revision Date: June 2011

Project No. 40942312

Operator Initials NC

Sample Recovery

M18

Run No. 2

Condition No. A

Date: 6/28/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-Stk-1CR2-M~~300~~18-Cond	Condensate	
CHV-Stk-1CR2-M~~300~~18-Tube	Adsorbent Tube	
CHV-Stk-1CR2-M~~300~~18-Tube	Charcoal	

IR
6/28/11

Sample Recovery Notes

AT LOCATION

✓ Disconnect the adsorbent tube and label and cap appropriately. Disconnect the Charcoal tube and label and cap appropriately. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

29

Sample Type – **Method 18**	Date 6/28/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.974	Run 3	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 80-10264	Operator MR	Initial 0.000 @ 15"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow Yes	Duct Dimension(s) 5'4"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.90	Post-test Flow ✓	

Point	Clock Time	At Probe ΔH (in. H_2O)	At Orifice ΔH (in. H_2O)	Temperature (°F) Stack	Critical Orifice	Heat trace	OUT	Vacuum (in. Hg)
Center	1000	3809.40	1.0			90	90	4
	1005	3817.45	1.0			91	88	4
	1010	3820.20	1.0			91	91	4
	1015	3823.10	1.0			93	92	4
6/28/11	~~1015~~ 1020	3828.15	1.0			93	92	4
	1025	3836.11	1.0			94	93	4
	1030	3841.60	1.0			94	93	4
	1035	3846.60	1.0			93	93	5
	1040	3850.90	1.0			93	92	5
	1045	3855.91	1.0			93	93	5
	1050	3861.20	1.0			93	93	5
	1055	3865.20	1.0			93	92	5
	1100	3870.70	1.0			93	93	5
	1105	3874.70	1.0			93	93	5
	1110	3880.80	1.0			93	93	5
	1115	3885.61	1.0			93	92	5
	1120	3890.50	1.0			93	92	5
	1125	3894.40	1.0			93	92	5
	1130	3898.70	1.0			93	92	5
	1135	3902.50	1.0			92	91	5
STOP	1140	3907.05						

Comments: Tube #: 350736/628
Charcoal #: 3741804508

SDS-29: Adsorbent Tubes by Method 18
Per EM SOP-036
Revision Date: June 2011

Project No. 40942312

Operator Initials NR

Sample Recovery

M18

Run No. 3

Condition No. A

Date: 6/29/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-SHL-1CR3-~~M308~~Cond	Condensate	
1-1-~~M308~~Tube	Adsorbent Tube	
-~~M308~~Tube	Charcoal	

M18
NR 6/29/11

Sample Recovery Notes

AT LOCATION

✓ Disconnect the adsorbent tube and label and cap appropriately. Disconnect the Charcoal tube and label and cap appropriately. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Sample Type – **Method 18** spiked	Date 6/27/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.998	Run 1	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. ~~80-011309-1~~	Operator RE	Initial 0.00 @ 10"
Location (Source) – FCCU	Barometer ID 29.99	Pre-test Flow Ved	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) BP-1	Post-test Flow ✓	

Point	Clock Time	~~At Probe ΔH~~ DGM (in. H_2O)	At Orifice ΔH (in. H_2O)	Temperature (°F) Stack	Critical Orifice	~~Heat trace~~ DGM In	DGM Out	Vacuum (in. Hg)
Center	1146	0.000	1.0	—	—	95	97	4
	1151	5.17	1.0			96	95	4
	1156	10.81	1.0			95	94	4
	1201	15.51	1.0			97	95	4
	1206	20.11	1.0			99	95	4
	1211	24.82	1.0			100	96	4
	1216	29.47	1.0			100	97	4
	1221	34.71	1.0			101	97	4
	1226	39.10	1.0			102	98	3
	1231	43.33	1.0			103	99	3
	1234	47.93	1.0			104	100	3
	1241	53.34	1.0			104	101	3
	1246	58.54	1.0			104	101	3
	1251	64.09	1.0			105	102	3
	1256	70.10	1.0			105	102	3
	1301	74.66	1.0			106	102	3
	1306	79.53	1.0			106	102	3
	1311	84.74	1.0			106	102	3
	1316	89.88	1.0			106	103	3
	1321	94.91	1.0	—	—	107	103	3
STOP	1326	99.935						
~~STOP~~	~~1331~~	NR 6/27/11						

Comments: Spike 0611-22, spike 1350 6/19/11
Tube #0622-22 ~~355~~ 350 1544
Charcoal Tube 226-16 3741800012

Project No. 40942312

Operator Initials WDD

Sample Recovery

M18

Run No. 1

Condition No. A

Date: 6/27/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

CHV-SHK-ICR-1S

Sample ID Number	Description	Comments
CHV-SHK-ICR-1S-M308-Cond	Condensate	
____-____-M308-Tube	Adsorbent Tube	
____-____-M308-Tube	Charcoal	

Sample Recovery Notes

AT LOCATION

✓ Disconnect the adsorbent tube and label and cap appropriately. Disconnect the Charcoal tube and label and cap appropriately. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Sample Type – **Method 18**	Date 6/28/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.998	Run 2 spiked	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 80-0113099	Operator JR	Initial 0.00 @ 12"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow ✓ed	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.95	Post-test Flow ✓	

Point	Clock Time	~~At Probe ΔH~~ DGM (in. H_2O)	At Orifice ΔH (in. H_2O)	Temperature (°F) Stack	Critical Orifice	~~Heat trace~~ IN	OUT	Vacuum (in. Hg)
Center	1205	0.00	1.0			97	95	5
	1210	7.02	1.0			96	95	5
	1215	11.60	1.0			98	95	5
	1220	19.91	1.0			99	96	5
	1225	23.11	1.0			100	96	5
	1230	31.70	1.0			100	97	3
	1235	37.61	1.0			102	100	3
	1240	41.66	1.0			101	98	2
	1245	46.19	1.0			103	99	3
	1250	50.90	1.0			104	100	3
	1255	55.69	1.0			105	101	3
	1300	58.91	1.0			106	102	3
Pause	1305	63.28	1.0			107	103	3
	1325	63.28	1.0			107	104	3
	1330	69.00	1.0			103	103	3
	1335	72.62	1.0			101	102	3
RT 6/28/11	1340	81.7681	1.0			99	100	3
	1345	81.35	1.0			99	100	3
	1350	86.20	1.0			99	100	3
	1355	89.72	1.0			100	99	3
	1400	94.36	1.0			101	100	3
STOP	1405	98.686						

Comments: SPIKE solution 0611-22, spike Bp 50
Tube # 3507301893 226-1-1/5
Charcoal # 3741800153

Project No. 40942312

Operator Initials NR

Sample Recovery

M18

Run No. 2

Condition No. 4

Date: 6/28/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-5th-1CR25-~~M308~~-Cond	Condensate	
CHV-5th-1CR25-~~M308~~-Tube	Adsorbent Tube	
CHV-5th-1CR25-~~M308~~-Tube	Charcoal	

M18
NR
6/28/11

Sample Recovery Notes

AT LOCATION

✓ Disconnect the adsorbent tube and label and cap appropriately. Disconnect the Charcoal tube and label and cap appropriately. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

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Sample Type – **Method 18**	Date 6/28/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.998	Run 3 spike	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 80-011309	Operator RR	Initial 0.00 @ 10"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow Ved	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.90	Post-test Flow ✓	

Point	Clock Time	~~At Probe ΔH~~ BGM (in. H_2O)	At Orifice ΔH (in. H_2O)	Temperature (°F) IN: Stack	Critical Orifice	~~Heat trace~~	Out	Vacuum (in. Hg)
center	1000	0.00	1.0	T	T	93	94	Ø3
	1005	4.72	1.0			95	93	3
	1010	9.78	1.0			96	94	3
	1015	15.95	1.0			96	94	3
	1020	21.88	1.0			96	95	3
	1025	27.16	1.0			96	95	3
	1030	32.40	1.0			97	95	3
	1035	37.70	1.0			96	94	3
	1040	42.76	1.0			96	95	3
	1045	48.17	1.0			96	95	3
	1050	53.71	1.0			97	95	3
	1055	58.32	1.0			97	96	3
	1100	64.50	1.0			97	96	3
	1105	68.72	1.0			97	96	4
	1110	74.31	1.0			97	96	4
	1115	79.86	1.0			97	96	4
	1120	85.17	1.0			97	96	4
	1125	90.10	1.0			97	96	4
	1130	95.40	1.0			96	96	4
▼	1135	100.45	1.0	▼	▼	95	95	4
STOP	1140	105.227						

Comments: Spike solution : 0611-22
Spiked Tube # : 0622-22 , 3507301528
Charcoal Tube # : 3741802789

Project No. 40942312

Operator Initials NR

Sample Recovery

M18

Run No. 3

Condition No. A

Date: 6/29/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CUV-stk-KR35-M~~308~~-Cond	Condensate	
↓-↓-M~~308~~-Tube	Adsorbent Tube	
↓-↓-M~~308~~-Tube	Charcoal	

M18
NR 6/29/11

Sample Recovery Notes

AT LOCATION

✓ Disconnect the adsorbent tube and label and cap appropriately. Disconnect the Charcoal tube and label and cap appropriately. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Methanol

U.S. EPA Method 308

Data Entered By:	***mdd***
Data Checked By:	***EDF***
Data Corrected By	

Facility **Chevron Hawaii**

Project **FCCU Source Test**

Condition **A1/A2/A3**

Run No./Tube Pair	Run 8	Run 9	Run 11
Date	6/27/2011	6/28/2011	6/29/2011
Time Start	11:46	12:05	10:00
Time Finish	13:26	14:04	11:40
Overall Sample Time	11:46 - 13:26	12:05 - 14:04	10:00 - 11:40
Operator	MDD	BB	MDD
Dry Gas Meter Calibration (Yd)	0.985	0.985	0.985
Barometric Pressure ("Hg)	29.99	29.95	29.90
Sample Elevation (ft)	0	0	0
Corrected BP ("Hg)	29.99	29.95	29.9
Initial Meter Reading (L)	1002.27	1118.2	1221.29
Final Meter Reading (L)	1104.98	1220.04	1325.32
Meter Volume (L)	102.710	101.840	104.030
Average DGM Temp (F)	97.1	96.0	88.3
Test Duration (minutes)	100	100	100
Meter Volume (dsL)	96.109	95.348	98.619

Meter Temps	Meter Temps	Meter Temps
92	91	87
92	91	88
92	91	88
92	91	88
94	92	87
94	92	86
94	93	88
94	93	87
95	95	89
95	95	89
96	94	89
97	94	90
97	95	90
98	95	91
96	95	88
96	93	88
98	94	89
97	93	88
99	95	89
99	95	89

Methanol

U.S. EPA Method 308

Data Entered By:	***mdd***
Data Checked By:	***EDF***
Data Corrected By	

Facility **Chevron Hawaii**

Project **FCCU Source Test**

Condition **A1/A2/A3**

99	96	90
98	96	90
98	97	89
98	97	89
98	99	88
98	99	87
99	99	89
99	99	88
99	100	88
99	100	87
99	102	89
99	102	89
98	99	88
98	99	88
99	98	87
99	97	86
100	97	89
100	97	89
100	97	86
100	97	86
	98	
	98	
	98	
	98	
97.1	**96.04545455**	**88.25**

Sample Type – **Method 308**	Date 6/27/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.985	Run 1	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 80-111701-1	Operator WDD	Initial 0.00 @ 15"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow 1.0 lpm	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0'	Bar. Press. (in. Hg) 29.99	Post-test Flow J	

Point	Clock Time	At Probe ΔH (in. H_2O)	At Orifice ~~ΔH (in. H_2O)~~ Flow lpm	Temperature (°F)				Vacuum (in. Hg)
				Stack	Critical Orifice	~~Dgm out~~ Heat trace	DGM Out	
Center	1146	1002.27	1.0	—	—	92	92	7.5"
	1151	1007.96	1.0	—	—	92	92	7.5"
	1156	1013.85	1.0	—	—	94	94	8.0"
	1201	1019.76	1.0	—	—	94	94	7.5"
	1206	1025.02	1.0	—	—	95	95	7.0"
	1211	1029.95	1.0	—	—	96	97	7.0"
	1216	1035.00	1.0	—	—	97	98	7.0"
	1221	1040.02	1.0	—	—	96	96	7.0"
	1226	1045.05	1.0	—	—	98	97	7.0"
	1231	1050.10	1.0	—	—	99	99	7.0"
	1236	1054.95	1.0	—	—	99	98	7.0"
	1241	1060.10	1.0	—	—	98	98	7.0"
	1246	1065.25	1.0	—	—	98	98	7.0"
	1251	1070.00	1.0	—	—	99	99	7.0"
	1256	1074.85	1.0	—	—	99	99	7.0"
	1301	1079.80	1.0	—	—	99	99	7.0"
	1306	1084.50	1.0	—	—	98	98	7.0"
	1311	1089.70	1.0	—	—	99	99	7.0"
	1316	1094.72	1.0	—	—	100	100	7.0"
	1321	1099.81	1.0	—	—	100	100	7.0"
STOP	1326	1104.98						

Comments: 3704501540, 22622

Adsorbent Tubes by Method 308
Revision Date: June 2011

Project No. 40942312

Operator Initials UDD

Sample Recovery

M308

Run No. 1

Condition No. A

Date: 6/27/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-SIX-ICR1-M308-Cond	Condensate	
1-11-M308-Tube	Adsorbent Tube	

Sample Recovery Notes

AT LOCATION

✓ Disconnect the adsorbent tube and label and cap appropriately. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Sample Type – **Method 308**	Date 6-28-11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	80-111701-1 Y_d = 0.985	Run 2	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 80-111701-1	Operator BB	Initial 0.00 @ 15"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow ✓	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0'	Bar. Press. (in. Hg) 29.95	Post-test Flow ✓	

Point	Clock Time	Probe ΔH (in. H_2O)	At Orifice ΔH (in. H_2O)	Temperature (°F) Stack	Critical Orifice	Heat trace IN	Heat trace OUT	Vacuum (in. Hg)
		1118.20						
Center	1205	~~1128.20~~	1.0			91	91	4
	1210	1128.88	1.0			91	91	4
	1215	1128.91	1.0			92	92	10.5
	1220	1133.07	1.0			93	93	10.5
	1225	1138.21	1.0			95	95	7
	1230	1143.50	1.0			94	94	7
	1235	1148.54	1.0			95	95	7
	1240	1153.39	1.0			95	93	7
	1245	1158.71	1.0			94	93	7
	1250	1164.01	1.0			95	95	7
	1255	1169.41	1.0			96	96	7
	1300	1174.57	1.0			97	97	7
	1305	1179.43	1.0			99	99	7
Stop	1306	1180.47	1.0			99	99	7
Start	1325	1190.47	1.0			100	100	7
	1329	1184.41	1.0			102	102	7
	1334	1189.52	1.0			99	99	7
	1339	1194.60	1.0			98	97	7
	1344	1199.68	1.0			97	97	7
	1349	1204.75	1.0			92	97	7
	1354	1209.80	1.0			98	98	7
	1359	1214.87	1.0			98	98	7
	1404	1220.04						

Comments: Silica # 3704501533

Project No. 40942312

Operator Initials NC

Sample Recovery

M308

Run No. 2

Condition No. A

Date: 6/28/14

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-STK-ICR2 -M308-Cond	Condensate	
CHV-STK-ICR2 -M308-Tube	Adsorbent Tube	

Sample Recovery Notes

AT LOCATION

✓ Disconnect the adsorbent tube and label and cap appropriately. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Sample Type – **Method 308**	Date 6/29/11	Condition A	Page 1 of 1
Plant Name – Chevron Hawaii	0.985	Run 3	Sampling Train Leak Check
Project Number – 40942312	Critical Orifice No. 80-111701-1	Operator UUDD	Initial 0.00 @ 15"
Location (Source) – FCCU	Barometer ID BP-1	Pre-test Flow 1.0 lpm	Duct Dimension(s) 54"
Elevation (relative to Barometer) (ft) 0	Bar. Press. (in. Hg) 29.90	Post-test Flow 1.0 lpm	

Point	Clock Time	~~Meter Volume At Probe ΔH (in. H_2O)~~ (L)	At Orifice ΔH (in. H_2O)	Temperature (°F)				Vacuum (in. Hg)
				Stack	Critical Orifice	~~Heat trace~~ DGM In	DGM Out	
Center	1000	1221.29	1.0	—	—	87	88	8.0"
	1005	1226.85	1.0	—	—	88	88	8.0"
	1010	1232.65	1.0	—	—	87	86	8.0"
	1015	1238.35	1.0	—	—	88	87	8.0"
	1020	1243.70	1.0	—	—	89	89	8.0"
	1025	1248.85	1.0	—	—	89	90	8.0"
	1030	1253.90	1.0	—	—	90	91	7.5"
	1035	1259.00	1.0	—	—	88	88	7.5"
	1040	1264.12	1.0	—	—	89	88	7.5"
	1045	1269.35	1.0	—	—	89	89	7.5"
	1050	1274.50	1.0	—	—	90	90	7.5"
	1055	1279.55	1.0	—	—	89	89	7.5"
	1100	1284.70	1.0	—	—	88	87	7.5"
	1105	1289.70	1.0	—	—	89	88	7.5"
	1110	1294.80	1.0	—	—	88	87	7.5"
	1115	1300.01	1.0	—	—	89	89	7.5"
	1120	1305.00	1.0	—	—	88	88	7.5"
	1125	1310.10	1.0	—	—	87	86	7.5"
	1130	1315.15	1.0	—	—	89	89	7.5"
	1135	1320.25	1.0	—	—	86	86	7.5"
STOP	1140	1325.32						

Comments: Silica # 370450/508

Project No. 40942312

Operator Initials NC

Sample Recovery

M308

Run No. 3

Condition No. A

Date: 6/29/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	Empty (Optional)	-	Mini	NA	-	NA	=	NA
2	HPLC Water	20	Mini	NA	-	NA	=	NA
				Total Net Gain (g)			=	NA

Sample Log

Sample ID Number	Description	Comments
CHV-Stk-1CR3 -M308-Cond	Condensate	
CHV-Stk-1CR3 -M308-Tube	Adsorbent Tube	

Sample Recovery Notes

AT LOCATION

✓ Disconnect the adsorbent tube and label and cap appropriately. Cover the impinger train and transport train and tube to the recovery area.

IN LABORATORY

✓ Pour contents of each of the impingers into the condensate bottle. Rinse the impingers and connecting glassware with HPLC water into the same bottle. Complete condensate sample label.

✓ Log samples into logbook and store appropriately.

Iso Summary - Method 23

Chevron Hawaii FCCU Refinery ICR

Location	FCCU	FCCU	FCCU	Averages
Parameter	M23	M23	M23	
Run Designation	Run 1	Run 3	Run 8	
Date	6/22/2011	6/23/2011	6/27/2011	
Time Start	13:06	09:42	10:10	
Time Stop	16:36	13:06	13:38	
	13:06-16:36	09:42-13:06	10:10-13:38	
Duct Diameter (ft) *(equivalent if square duct)*	4.50	4.50	4.50	
Pitot Tube Correction Factor	0.84	0.84	0.84	
Nozzle Diameter (inches)	0.194	0.194	0.196	
DGMCF	1.003	1.003	1.003	
Standard Temperature (°F)	68	68	68	
Barometric Pressure Measured (" Hg)	29.94	30.04	29.99	
Stack Elevation (ft) (relative to Barometer)	0	0	0	
Barometric Pressure (" Hg)	29.94	30.04	29.99	
Average Stack Temperature (°F)	485.4	486.7	483.2	485.1
Average DGM Temp (°F)	93.1	88.5	90.2	
Average Delta H (in wc)	1.44	1.18	1.28	
Condensed Water (g)	212.3	203.5	199.1	
Test Duration (minutes)	192	192	192	
Static Pressure (in wc)	-1.10	-1.10	-1.10	
% CO	0	0	0	
% CO2	13.68	13.54	13.35	
% O2	5.18	5.21	5.38	
% H2	0.0	0.0	0.0	
% CH4	0.0	0.0	0.0	
% N2	81.14	81.26	81.26	
Meter Volume (acf)	126.463	115.577	121.570	
Average square root of delta p	1.342	1.260	1.285	
Absolute Stack Pressure (in Hg)	29.86	29.96	29.91	
Absolute Stack Temperature (°R)	945.4	946.7	943.2	945.1
Flue Gas Moisture (%)	7.62	7.88	7.40	7.63
Moisture at saturation	N/A	N/A	N/A	
Moisture used in Calculation	7.62	7.88	7.40	7.63
Gas Molecular Weight (Wet) (g/g-mole)	29.45	29.40	29.44	
Corrected Volume of Gas sampled (acf)	126.842	115.924	121.935	
Volume at Meter (dscf)	121.596	112.371	117.664	
Average Gas Velocity (f/sec)	99.90	93.80	95.51	96.40
Avg Flow Rate (acfh)	5,719,883	5,370,451	5,468,313	5,519,549
Avg Flow Rate (acfm)	95,331	89,508	91,139	91,992
Avg Flow Rate (scfh)	3,188,033	2,999,068	3,060,137	3,082,412
Avg Flow Rate (scfm)	53,134	49,984	51,002	51,374
Avg Flow Rate (dscfh)	2,945,189	2,762,782	2,833,693	2,847,222
Avg Flow Rate (dscfm)	49,086	46,046	47,228	47,454
Isokinetic Sampling Rate (%)	99.96	98.48	98.50	

WOD 6/22/11

Sample Type – **PCDD/PCDF/PCB (EPA Method 23)**	Date 6/23/11 6/22/11	Condition E/B	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 1	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Console No. A16/400	Operator NR/GL	Initial 0.004 @ 15"
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.194	Final 0.005 @ 11"
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID D/F	Pitot Tube ID P-371
Elevation (relative to Barometer) (ft) 75'		Kf 0.78	Pitot Tube Leak Check
Nozzle Calib. 0.194 / 0.193 / 0.196		Bar. Press. (in. H_2O) 29.94	Initial (+) 0@>3 (-) 0@>3
		Stat. Press. (in. H_2O) -1.1	Final (+) 0@>3 (-) 0@>3

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	XAD Inlet	Imp Exit	DGM In	DGM Out	HtTrc Exit	
A1	1306	586.922	1.7	1.3	477	268	264	57	66	91	90	250	-5
	1310	589.44	1.7	1.3	478	267	266	57	53	90	90	250	-5
A2	1314	591.98	1.8	1.3	483	268	264	57	51	94	92	250	-5
	1318	594.46	1.9	1.5	483	267	264	57	51	92	91	250	-7
A3	1322	597.09	1.9	1.5	484	267	265	57	52	93	98	254	-7.5
	1326	599.79	1.9	1.5	485	267	264	59	53	94	91	254	-7.5
A4	1330	602.46	1.9	1.5	486	266	264	58	54	94	92	254	-7.5
	1334	605.16	1.9	1.5	486	265	264	58	55	95	92	254	-7.5
A5	1338	607.86	1.9	1.5	487	265	267	58	56	96	92	254	-7.5
	1342	610.53	1.8	1.4	487	266	264	58	56	96	92	254	-7.5
A6	1346	613.11	2.0	1.56	489	264	264	60	57	94	92	254	-7.5
	1350	615.84	1.9	1.5	489	265	264	59	59	94	92	254	-7.5
A7	1354	618.6	2.0	1.56	491	264	263	60	58	96	93	254	-8
1358	~~1400~~	621.34	2.1	1.64	492	265	263	59	58	96	92	254	-8
A8	1402	624.10	2.3	1.8	491	262	261	60	59	95	92	254	-8
	1406	626.98	1.9	1.5	492	263	262	60	59	95	92	254	-8
A9	1410	629.41	1.9	1.5	491	261	263	61	60	95	92	254	-8
	1414	632.45	1.8	1.4	491	261	260	61	60	94	92	254	-8
A10	1418	635.07	1.6	1.25	490	263	262	60	61	93	91	254	-8
	1422	637.55	1.7	1.3	490	262	261	60	61	94	91	254	-7
A11	1426	640.08	1.6	1.25	487	262	263	59	61	97	91	254	-7
	1430	642.53	1.6	1.25	487	262	262	59	62	94	91	254	-7
A12	1434	644.95	1.3	1.0	477	263	263	60	63	96	92	254	-6
	1438	647.25	1.3	1.0	474	261	261	61	63	94	92	254	-6
STOP	1442	649.595	port change		pre 1k ΔV: 0.003@ 10",				post 1k ΔV: 0.004@			10"	9.0 WOD 6/22/11
B12	1500	649.630	2.00	1.60	479	269	265	62	63	93	91	254	9.0
	1504	652.25	2.00	1.60	478	268	267	63	64	94	91	254	9.0
B11	1508	655.04	2.10	1.65	484	265	265	61	61	95	91	254	9.0
	1512	657.85	2.00	1.60	483	265	266	59	60	95	91	254	9.0
B10	1516	660.71	2.00	1.60	486	265	264	58	60	95	91	254	9.0

Comments:

SDS-30: PCDD/PCDF/PCB by EPA Method 23
Revision date: July 2010

Project No. 40942312

Recovered by (Initials) WDD

Balance ID TE4101B

Dioxins and Furans and PCB

Method 23

Condition No. ICR E

Run No. 1

Date: 6/22/11

Moisture Determination [1]

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	- Initial Wt. (g)	= Net Gain (g)
1	H_2O	~100	G/S	931.3	- 750.9	= 180.4
2	H_2O	~100	Mod	714.5	- 715.8	= -1.3
3	--	--	Mod	618.0	- 617.3	= 0.7
4	Silica Gel	~ 300g	Mod	976.8	- 944.3	= ~~212~~ 32.5
					-	=
						Total Net Gain (g) = 212.3

[1] Sampling Train Configuration from SW-846 Method 0023A

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle into separate PNR bottles: three times with acetone, twice with methylene chloride, and twice with toluene.

IN LABORATORY

✓ Separate filter holder and place filter in clean pre-rinsed, glass petri dish. Complete Filt sample label.

✓ Seal XAD trap ends. Complete XAD sample label.

✓ Rinse front half of filter holder into separate PNR bottles: three times with acetone, twice with methylene chloride, twice with toluene. Complete PNR sample labels.

✓ Rinse the Teflon transfer line three times with acetone. Soak the Teflon transfer line with three separate portions of methylene chloride for 5 minutes each. Soak the Teflon transfer line with three separate portions of toluene for 5 minutes each. Recover each solvent into the bottles from above (CRAce, CRMeCl, CRTol).

✓ Rinse the back half of the filter holder, all connecting glassware and the coil condenser: three times with acetone, twice with methylene chloride, and twice with toluene. Complete CR sample labels.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Transfer contents of ~~optional knockout and~~ first water impinger into sample bottle. Complete Imps label. WDD 6/22/11

✓ Rinse impingers into IR bottles: three times with acetone, twice with methylene chloride, and twice with toluene. Complete IR labels.

✓ Log samples into log book and place in refrigerator or ice chest.

Sample Log

Sample ID Number	Description
CHV-Stk-ICR1-M23+-PNRAce	Probe and Nozzle Rinse – Acetone
____-____-M0023A-PNRMeCl	Probe and Nozzle Rinse – Methylene Chloride
____-____-M0023A-PNRTol	Probe and Nozzle Rinse - Toluene
____-____-M0023A-Filt	Filter
____-____-M0023A-CRAce	Condenser Rinse – Acetone
____-____-M0023A-CRMeCl	Condenser Rinse – Methylene Chloride
____-____-M0023A-CRTol	Condenser Rinse - Toluene
____-____-M0023A-XAD	XAD Sorbent
____-____-M0023A-Imps	Impinger Catch/Condensate
____-____-M0023A-IRAce	Impinger Rinse – Acetone
____-____-M0023A-IRMeCl	Impinger Rinse – Methylene Chloride
____-____-M0023A-IRTol	Impinger Rinse - Toluene

Comments Silica gel: ~80% spent

RDS-32: PCDD, PCDF, PCB by M0023, separate solvents
Revision Date: March 2011

Sample Type – **PCDD/PCDF/PCB (EPA Method 23)**	Date 6/22/11	Condition E/B	Page 2 of 2		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 1	Sampling Train Leak Rate (ft³ @ "Hg)		
Project Number - 40942312	Console No. A161400	Operator MDD/GL	Initial	@ see pg. 1	
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.194	Final	@	
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID D/F	Pitot Tube ID P-371		
Elevation (relative to Barometer) (ft) 75'		Kf 0.78	Pitot Tube Leak Check		
Nozzle Calib. 0.194 0.193 0.196		Bar. Press. (in. H_2O) 29.94	Initial (+)	(-) see pg. 1	
		Stat. Press. (in. H_2O) -1.1	Final (+)	(-)	

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	XAD Inlet	Imp Exit	DGM In	DGM Out	HtTrc Exit	
B10	1520	663.42	2.10	1.70	486	265	267	57	62	95	91	254	9.5
B9	1524	666.27	2.00	1.65	486	264	269	57	59	96	92	254	9.0
	1528	669.05	2.10	1.70	486	265	263	57	59	95	93	254	9.0
B8	1532	672.12	2.10	1.70	487	266	263	56	58	95	93	254	9.5
	1536	675.20	2.10	1.70	487	265	262	56	59	95	92	254	9.5
B7	1540	677.695	1.90	1.50	487	265	268	58	60	95	92	254	9.0
	1544	680.46	1.90	1.50	487	264	269	59	60	95	93	254	8.5
B6	1548	683.16	1.90	1.50	487	262	265	58	61	94	92	254	8.5
	1552	686.02	1.80	1.50	487	263	266	58	60	95	92	254	8.5
B5	1556	688.61	1.60	1.30	489	264	257	58	61	94	92	254	8.0
	1600	691.14	1.60	1.30	489	262	265	60	62	94	92	254	8.0
B4	1604	693.66	1.70	1.35	490	263	257	58	65	94	92	254	8.0
MDD 6/22/11	1608	696.23	1.70	1.35	490	263	255	57	64	94	92	254	8.0
B3	1612	698.73	1.60	1.30	489	261	259	58	64	95	92	254	8.0
	1616	701.27	1.60	1.30	489	262	258	58	63	94	92	254	8.0
B2	1620	703.82	1.50	1.25	484	261	258	57	63	94	91	254	7.5
MDD 6/22/11	1624	706.32	1.50	1.25	483	261	265	57	62	94	91	254	7.5
B1	1628	708.79	1.30	1.10	468	261	261	57	63	94	91	254	7.0
	1632	711.11	1.30	1.10	471	259	255	57	64	94	92	254	7.0
STOP	1636	713.420											

Comments:

SDS-30: PCDD/PCDF/PCB by EPA Method 23
Revision date: July 2010

Sample Type – **PCDD/PCDF/PCB (EPA Method 23)**	Date 6.23.11	Condition B	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Console No. A16/400	Operator GL	Initial 0.003 @ 15"
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.194	Final see pg 2 @
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID D/F	Pitot Tube ID B-371
Elevation (relative to Barometer) (ft) 0		Kf 0.75	Pitot Tube Leak Check
Nozzle Calib. 0.194 / 0.193 / 0.196		Bar. Press. (in. H_2O) 30.04	Initial (+) 0.003 (-) 0.003
		Stat. Press. (in. H_2O) -1.1	Final (+) see pg 2

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	XAD Inlet	Imp Exit	DGM In	DGM Out	HtTrc Exit	
B12	0942	713.593	1.3	1.0	491	264	252	50	63	85	84	254	-3
	0946	716.0	1.3	1.0	491	263	252	52	59	84	84	254	-3
B11	0950	718.22	1.3	1.0	495	263	254	52	58	85	84	254	-3
	0954	720.38	1.3	1.0	494	265	254	49	57	87	85	254	-3
B10	0958	722.32	1.4	1.03	495	263	254	50	56	88	85	254	-4
	1002	724.55	1.5	1.1	495	264	253	50	56	88	86	254	-4
B09	1006	726.90	1.5	1.1	495	263	255	52	55	88	86	254	-5
	1010	729.09	1.5	1.1	495	264	254	51	56	89	86	254	-5
B08	1014	731.42	1.6	1.2	494	262	254	51	57	89	86	254	-5
	1018	733.73	1.6	1.2	493	263	253	51	58	89	87	254	-5
B07	1022	736.18	1.6	1.2	493	263	255	51	59	90	87	254	-5
	1026	738.45	1.7	1.25	498	263	255	51	59	90	87	254	-5
B06	1030	741	1.6	1.2	493	261	254	53	60	90	87	254	-5
	1034	743.38	1.6	1.2	493	261	254	53	62	92	87	254	-5
B05	1038	745.78	1.6	1.2	492	261	254	53	61	90	87	254	-5
	1042	748.07	1.5	1.1	492	259	254	54	63	90	87	254	-5
B04	1046	750.44	1.6	1.2	490	259	253	54	64	89	87	254	-5
	1050	752.78	1.6	1.2	489	260	257	54	59	89	86	254	-5
B03	1054	755.12	1.6	1.2	488	259	253	52	55	88	86	254	-5
	1058	757.58	1.6	1.2	487	260	255	53	55	92	86	254	-5
B02	1102	759.86	1.5	1.1	486	262	256	52	54	89	86	254	-5
	1106	762.21	1.6	1.2	487	263	258	52	54	90	87	254	-5
B01	1110	764.59	1.5	1.1	482	262	262	52	54	90	87	254	-5
	1114	766.86	1.5	1.1	483	262	257	53	54	91	87	254	-5
STOP	1118	769.199		LK ✓ @	0.002	@ -5					~~89~~	~~254~~	~~-5~~
A12	1130	769.340	1.5	1.1	478	263	254	54	65	91	89	254	-5
	1134	771.66	1.4	1.0	478	264	254	52	54	92	89	254	-5
A11	1138	773.91	1.4	1.0	478	263	256	53	55	92	89	254	-5
	1142	776.15	1.4	1.0	481	263	254	51	58	92	89	254	-5
A10	1146	778.49	1.4	1.0	485	263	254	51	59	92	89	254	-5

Comments:

SDS-30: PCDD/PCDF/PCB by EPA Method 23
Revision date: July 2010

Project No. 40942312

Recovered by (Initials) UMD

Balance ID TE4101B

Dioxins and Furans and PCB

Method 23

Condition No. ICR B

Run No. 2

Date: 6/23/11

Moisture Determination [1]

Imp No.	Contents	Volume (mL)	Config-uration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	H_2O	~100	G/S	938.6	-	761.6	=	
2	H_2O	~100	Mod	716.0	-	714.5	=	
3	--	--	Mod	618.9	-	618.2	=	
4	Silica Gel	~ 300g	Mod	972.9	-	948.6	=	
					-		=	
						Total Net Gain (g)	=	

[1] Sampling Train Configuration from SW-846 Method 0023A

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle into separate PNR bottles: three times with acetone, twice with methylene chloride, and twice with toluene.

IN LABORATORY

✓ Separate filter holder and place filter in clean pre-rinsed, glass petri dish. Complete Filt sample label.

✓ Seal XAD trap ends. Complete XAD sample label.

✓ Rinse front half of filter holder into separate PNR bottles: three times with acetone, twice with methylene chloride, twice with toluene. Complete PNR sample labels.

✓ Rinse the Teflon transfer line three times with acetone. Soak the Teflon transfer line with three separate portions of methylene chloride for 5 minutes each. Soak the Teflon transfer line with three separate portions of toluene for 5 minutes each. Recover each solvent into the bottles from above (CRAce, CRMeCl, CRTol).

✓ Rinse the back half of the filter holder, all connecting glassware and the coil condenser: three times with acetone, twice with methylene chloride, and twice with toluene. Complete CR sample labels.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Transfer contents of optional knockout and first water impinger into sample bottle. Complete Imps label.

✓ Rinse impingers into IR bottles: three times with acetone, twice with methylene chloride, and twice with toluene. Complete IR labels.

✓ Log samples into log book and place in refrigerator or ice chest.

Sample Log

Sample ID Number	Description
CHV-STK-ICR2-~~M0023A~~ M23+ PNRAce	Probe and Nozzle Rinse – Acetone
____-____-M0023A-PNRMeCl	Probe and Nozzle Rinse – Methylene Chloride
____-____-M0023A-PNRTol	Probe and Nozzle Rinse - Toluene
____-____-M0023A-Filt	Filter
____-____-M0023A-CRAce	Condenser Rinse – Acetone
____-____-M0023A-CRMeCl	Condenser Rinse – Methylene Chloride
____-____-M0023A-CRTol	Condenser Rinse - Toluene
____-____-M0023A-XAD	XAD Sorbent
____-____-M0023A-Imps	Impinger Catch/Condensate
____-____-M0023A-IRAce	Impinger Rinse – Acetone
____-____-M0023A-IRMeCl	Impinger Rinse – Methylene Chloride
____-____-M0023A-IRTol	Impinger Rinse - Toluene

Comments MeCl2 1: 1638-1643, MeCl2 2: 1651-1656
MeCl2 3: 1704-1709, Tol 1: 1720-1725
Tol 2: 17:31-1736; Tol 3: 1742-1747
Silica gel: 50% spent

Sample Type – **PCDD/PCDF/PCB (EPA Method 23)**	Date 6-23-11	Condition 1	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Console No. AV61400	Operator GL	Initial 0.003 @ 15"
Location (Source) - FCCU	DGMCF 1.603	Nozzle Dia (in) 0.194	Final 0.002 @ 13"
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID D/F	Pitot Tube ID —
Elevation (relative to Barometer) (ft) 0		Kf 0.75	Pitot Tube Leak Check
		Bar. Press. (in. H_2O) 30.04	Initial (+) 0073 (-) 0073
Nozzle Calib. 0.194 0.193 0.196		Stat. Press. (in. H_2O) -1.1	Final (+) 0073 (-) 0073

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	XAD Inlet	Imp Exit	DGM In	DGM Out	HtTrc Exit	
A10	1150	780.71	1.5	1.1	486	263	256	52	60	92	89	254	-5
A09	1154	782.91	1.5	1.1	486	261	254	53	61	90	89	254	-5
	1158	785.23	1.6	1.2	485	262	255	53	61	92	89	254	-5
A08	1202	787.61	1.7	1.25	485	260	255	55	62	91	89	254	-5
	1206	790.14	1.7	1.25	484	260	256	55	63	90	89	254	-5
A07	1210	792.68	1.7	1.25	485	260	253	54	61	91	89	254	-5
	1214	795.22	1.8	1.34	485	261	255	54	56	91	89	254	-6
A06	1218	797.75	1.8	1.34	483	255	251	54	56	90	88	254	-6
	1222	800.31	1.9	1.4	483	257	251	56	57	88	87	254	-6
A05	1226	802.96	1.9	1.4	483	256	251	56	57	88	86	254	-6
	1230	805.49	2.0	1.5	484	258	252	57	59	89	86	254	-6
A04	1234	808.11	1.9	1.4	482	256	251	57	59	89	86	254	-6
	1238	810.77	1.9	1.4	484	258	252	59	61	90	87	254	-6
A03	1242	813.42	1.8	1.34	483	256	252	58	61	90	87	254	-6
	1246	816.07	1.8	1.34	485	258	253	57	65	91	88	254	-6
A02	1250	818.81	1.6	1.2	483	258	253	57	59	91	88	254	-6
	1254	821.41	1.6	1.2	483	259	255	57	58	91	88	254	-6
A01	1258	824.00	1.6	1.2	474	258	253	56	60	91	89	254	-6
	1302	826.64	1.6	1.2	474	258	253	56	61	92	89	254	-6
STOP	1306	829.31											

Comments:

SDS-30: PCDD/PCDF/PCB by EPA Method 23
Revision date: July 2010

55.6

Sample Type – **PCDD/PCDF/PCB (EPA Method 23)**	Date 6-27-11	Condition B	Page 1 of 2		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (ft^3 @ "Hg)		
Project Number - 40942312	Console No. A161460	Operator BB	Initial	0.004 @ 16"	
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.196	Final	0.003 @ 10"	
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID D/F	Pitot Tube ID	P-~~37~~34	
Elevation (relative to Barometer) (ft) Ø		Kf 0.78	Pitot Tube Leak Check		
Nozzle Calib. 0.196 / 0.195 / 0.196		Bar. Press. (in. H_2O) 29.99	Initial	(+) 0@73"	(-) 0@>8"
		Stat. Press. (in. H_2O) -1.1	Final	(+) 0@>73"	(-) 0@>8"

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	XAD Inlet	Imp Exit	DGM In	DGM Out	HtTrc Exit	
A-1	10:10	136.814	1.7	1.3	474	255	~~250~~	55	59	88	84	257	5.0
-1	10:14	139.42	1.7	1.3	477	257	249	55	57	87	87	258	5.0
-2	10:18	142.06	1.7	1.3	480	256	251	56	57	89	88	257	5.0
-2	10:22	144.65	1.8	1.4	479	241	249	57	57	90	88	257	5.5
-3	10:26	147.06	1.8	1.4	479	239	242	57	58	90	88	258	5.5
-3	10:30	149.72	1.8	1.4	481	252	254	57	58	91	84	257	5.5
-4	10:34	152.41	1.7	1.3	484	253	252	57	56	91	89	258	5.0
-4	10:38	155.08	1.7	1.3	484	252	259	57	56	91	89	258	5.0
-5	10:42	157.81	1.7	1.3	485	263	254	57	57	91	89	256	5.0
-5	10:46	160.07	1.7	1.3	485	254	255	56	58	92	90	255	5.0
-6	10:50	162.65	1.8	1.4	486	253	253	57	58	91	89	256	5.5
-6	10:54	165.26	1.8	1.4	486	252	258	57	58	91	89	257	5.5
-7	10:58	167.83	1.8	1.4	487	249	252	57	59	91	89	256	5.5
-7	11:02	170.45	1.9	1.5	488	251	256	57	58	92	90	255	6.0
-8	11:06	173.12	1.8	1.4	488	253	257	57	58	91	89	255	5.5
-9	11:10	175.76	1.8	1.4	488	251	257	58	59	92	90	256	5.5
-9	11:14	178.40	1.9	1.5	489	254	255	58	58	92	90	255	6.0
-9	11:18	181.11	1.8	1.4	488	251	249	57	58	91	90	255	5.5
-10	11:22	183.72	1.7	1.3	487	254	250	57	57	92	90	256	5.0
-10	11:26	186.27	1.7	1.3	486	251	248	56	57	92	90	255	5.0
-11	11:30	189.94	1.5	1.2	485	250	245	57	58	91	90	256	5.0
-11	11:34	191.18	1.4	1.1	479	251	253	57	57	91	89	257	5.0
-12	11:38	193.49	1.3	1.0	475	252	256	57	57	92	90	256	5.0
-12	11:42	195.80	1.3	1.0	474	253	255	58	58	92	90	255	5.0
Stop	11:46	198.065	-	-	-	-	-	-	-	-	-	-	-
B 1	12:02	198.195	1.7	1.3	480	256	251	56	59	90	90	256	5.0
1	12:06	200.70	1.7	1.3	479	257	256	57	58	89	87	257	5.0
2	12:10	203.27	1.8	1.4	477	259	253	58	56	90	89	255	5.5
2	12:14	205.83	1.8	1.4	484	253	250	57	57	90	89	256	5.5

Comments:

SDS-30: PCDD/PCDF/PCB by EPA Method 23
Revision date: July 2010

Project No. 40942312

Recovered by (Initials) DCW

Balance ID TE4101

Dioxins and Furans and PCB

Method 23

Condition No. B

Run No. 3

Date: 6/27/11

Moisture Determination [1]

Imp No.	Contents	Volume (mL)	Config-uration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	H_2O	~100	G/S	925.7	-	754.5	=	
2	H_2O	~100	Mod	715.9	-	715.9	=	
3	--	--	Mod	620.2	-	618.8	=	
4	Silica Gel	~ 300g	Mod	954.2	-	927.7	=	
					-		=	
							Total Net Gain (g) =	

[1] Sampling Train Configuration from SW-846 Method 0023A

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle into separate PNR bottles: three times with acetone, twice with methylene chloride, and twice with toluene.

IN LABORATORY

✓ Separate filter holder and place filter in clean pre-rinsed, glass petri dish. Complete Filt sample label.

✓ Seal XAD trap ends. Complete XAD sample label.

✓ Rinse front half of filter holder into separate PNR bottles: three times with acetone, twice with methylene chloride, twice with toluene. Complete PNR sample labels.

✓ Rinse the Teflon transfer line three times with acetone. Soak the Teflon transfer line with three separate portions of methylene chloride for 5 minutes each. Soak the Teflon transfer line with three separate portions of toluene for 5 minutes each. Recover each solvent into the bottles from above (CRAce, CRMeCl, CRTol).

✓ Rinse the back half of the filter holder, all connecting glassware and the coil condenser: three times with acetone, twice with methylene chloride, and twice with toluene. Complete CR sample labels.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Transfer contents of optional knockout and first water impinger into sample bottle. Complete Imps label.

✓ Rinse impingers into IR bottles: three times with acetone, twice with methylene chloride, and twice with toluene. Complete IR labels.

✓ Log samples into log book and place in refrigerator or ice chest.

Sample Log

Sample ID Number	Description
CHV-Stk-ICR3-~~M0023A~~-PNRAce	Probe and Nozzle Rinse – Acetone
-M0023A-PNRMeCl	Probe and Nozzle Rinse – Methylene Chloride
-M0023A-PNRTol	Probe and Nozzle Rinse - Toluene
-M0023A-Filt	Filter
-M0023A-CRAce	Condenser Rinse – Acetone
-M0023A-CRMeCl	Condenser Rinse – Methylene Chloride
-M0023A-CRTol	Condenser Rinse - Toluene
-M0023A-XAD	XAD Sorbent
-M0023A-Imps	Impinger Catch/Condensate
-M0023A-IRAce	Impinger Rinse – Acetone
-M0023A-IRMeCl	Impinger Rinse – Methylene Chloride
-M0023A-IRTol	Impinger Rinse - Toluene

Comments

Sample Type – **PCDD/PCDF/PCB (EPA Method 23)**	Date 6-27-11	Condition B	Page 2 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Console No. A161400	Operator BB	Initial @
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in)	Final see @
Duct Dimension(s)	ΔH@ 1.759	Nozzle ID	Pitot Tube ID Pg 1
Elevation (relative to Barometer) (ft)		Kf see Pg 1	Pitot Tube Leak Check
Nozzle Calib.		Bar. Press. (in. H_2O)	Initial (+) (-)
		Stat. Press. (in. H_2O)	Final (+) (-)

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	XAD Inlet	Imp Exit	DGM In	DGM Out	HtTrc Exit	
B 3	12:18	208.51	1.8	1.4	485	256	255	59	59	90	89	255	5.5
3	12:22	211.29	1.8	1.4	486	251	250	57	56	91	89	257	5.5
4	12:26	213.90	1.7	1.3	484	249	250	58	59	92	90	256	5.0
4	12:30	216.61	1.8	1.4	485	251	252	58	58	92	90	257	5.5
5	12:34	219.27	1.7	1.3	484	251	259	59	59	91	90	256	5.0
5	12:38	221.83	1.8	1.4	485	250	253	59	59	92	90	257	5.5
6	12:42	224.45	1.7	1.3	484	253	249	59	59	91	90	258	5.0
6	12:46	227.02	1.7	1.3	485	250	248	59	59	91	90	256	5.0
7	12:50	229.86	1.7	1.3	485	253	250	58	57	91	90	255	5.0
7	12:54	232.1	1.7	1.3	484	250	248	57	57	90	90	256	5.0
8	12:58	234.69	1.6	1.2	488	247	250	57	58	91	89	255	5.0
8	13:02	237.2	1.6	1.2	487	249	248	57	58	91	89	256	5.0
9	13:06	239.60	1.5	1.2	486	247	249	57	57	90	89	255	5.0
9	13:10	242.10	1.5	1.2	485	246	243	56	58	91	90	256	5.0
10	13:14	244.58	1.5	1.2	485	245	247	58	59	92	90	254	5.0
10	13:18	247.06	1.5	1.2	485	249	251	58	59	92	91	253	5.0
11	13:22	249.54	1.3	1.0	480	247	243	58	59	92	90	254	5.0
11	13:26	251.83	1.3	1.0	481	246	247	58	59	92	90	255	5.0
12	13:30	254.08	1.2	0.93	475	248	254	59	59	91	90	255	5.0
12	13:34	256.25	1.3	1.0	473	250	251	59	59	91	90	256	5.0
END	13:38	258.514	—	—	—	—	—	—	—	—	—	—	—

Comments:

SDS-30: PCDD/PCDF/PCB by EPA Method 23
Revised: July 201

Sample Type – **PCDD/PCDF/PCB (EPA Method 23)**	Date 6/26/11	Condition FB	Page 1 of 1
Plant Name – Chevron Hawaii	PTCF n/a	Run FB	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Console No. A16/401	Operator DCW	Initial 0.010 @ 5"
Location (Source) - FCCU	DGMCF 1.000	Nozzle Dia (in) —	Final 0.010 @
Duct Dimension(s) n/a	ΔH@ 1.719	Nozzle ID D/F-1	Pitot Tube ID n/a
Elevation (relative to Barometer) (ft)	—	Kf n/a	Pitot Tube Leak Check
Nozzle Calib.		Bar. Press. (in. H_2O) n/a	Initial (+) n/a (-) n/a
		Stat. Press. (in. H_2O) n/a	Final (+) n/a (-) n/a

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)								Vacuum (in. Hg)
					Stack	Probe	Filter	XAD Inlet	Imp Exit	DGM In	DGM Out	HtTrc Exit	
START	1130	852.648	n/a	n/a	n/a	220	245	87	87	87	82	225	n/a
STOP	1132	~~852.696~~	—										
STOP	1132	852.827	—										
START	1133	852.827	n/a	n/a	n/a	240	240	89	89	87	87	225	n/a
STOP	1135	853.067	—										

Comments:

SDS-30: PCDD/PCDF/PCB by EPA Method 23
Revision date: July 2010

Project No. 40942312

Recovered by (Initials) DW

Balance ID TE4101

Dioxins and Furans and PCB

Method 23

Condition No. FB

Run No. FB

Date: 6/26/11

Moisture Determination [1]

Imp No.	Contents	Volume (mL)	Config-uration	Final Wt (g)	- Initial Wt. (g)	= Net Gain (g)
1	H_2O	~100	G/S	751.6	- 752.2	= ~~751.6~~
2	H_2O	~100	Mod	741.2	- 792.0	= ~~74~~
3	--	--	Mod	645.5	- 645.7	=
4	Silica Gel	~ 300g	Mod	936.1	- 934.5	=
					-	=
					Total Net Gain (g) =	

[1] Sampling Train Configuration from SW-846 Method 0023A

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle into separate PNR bottles: three times with acetone, twice with methylene chloride, and twice with toluene.

IN LABORATORY

✓ Separate filter holder and place filter in clean pre-rinsed, glass petri dish. Complete Filt sample label.

✓ Seal XAD trap ends. Complete XAD sample label.

✓ Rinse front half of filter holder into separate PNR bottles: three times with acetone, twice with methylene chloride, twice with toluene. Complete PNR sample labels.

✓ Rinse the Teflon transfer line three times with acetone. Soak the Teflon transfer line with three separate portions of methylene chloride for 5 minutes each. Soak the Teflon transfer line with three separate portions of toluene for 5 minutes each. Recover each solvent into the bottles from above (CRAce, CRMeCl, CRTol).

✓ Rinse the back half of the filter holder, all connecting glassware and the coil condenser: three times with acetone, twice with methylene chloride, and twice with toluene. Complete CR sample labels.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Transfer contents of optional knockout and first water impinger into sample bottle. Complete Imps label.

✓ Rinse impingers into IR bottles: three times with acetone, twice with methylene chloride, and twice with toluene. Complete IR labels.

✓ Log samples into log book and place in refrigerator or ice chest.

Sample Log

Sample ID Number	Description
CHV-57K-2CLFB-M0023A-PNRAce	Probe and Nozzle Rinse – Acetone
____-____-M0023A-PNRMeCl	Probe and Nozzle Rinse – Methylene Chloride
____-____-M0023A-PNRTol	Probe and Nozzle Rinse - Toluene
____-____-M0023A-Filt	Filter
____-____-M0023A-CRAce	Condenser Rinse – Acetone
____-____-M0023A-CRMeCl	Condenser Rinse – Methylene Chloride
____-____-M0023A-CRTol	Condenser Rinse - Toluene
____-____-M0023A-XAD	XAD Sorbent
____-____-M0023A-Imps	Impinger Catch/Condensate
____-____-M0023A-IRAce	Impinger Rinse – Acetone
____-____-M0023A-IRMeCl	Impinger Rinse – Methylene Chloride
____-____-M0023A-IRTol	Impinger Rinse - Toluene

Comments

RDS-32; PCDD, PCDF, PCB by M0023, separate solvents

Revision Date: March 2011

Iso Summary - M 201A and 202

Chevron Hawaii FCCU Refinery ICR

Location	FCCU	FCCU	FCCU	Averages
Parameter	M201A/202	M201A/202	M201A/202	
Run Designation	Run 5	Run 6	Run 7	
Date	6/24/2011	6/24/2011	6/26/2011	
Time Start	09:32	16:00	09:10	
Time Stop	13:24	19:33	17:40	
	09:32-13:24	16:00-19:33	09:10-17:40	
Duct Diameter (ft) *(equivalent if square duct)*	4.50	4.50	4.50	
Pitot Tube Correction Factor	0.84	0.84	0.84	
Nozzle Diameter (inches)	0.152	0.152	0.152	
DGMCF	0.997	0.997	0.997	
Standard Temperature (°F)	68	68	68	
Barometric Pressure Measured (" Hg)	30.02	30.02	30.00	
Stack Elevation (ft) (relative to Barometer)	0	0	0	
Barometric Pressure (" Hg)	30.02	30.02	30	
Average Stack Temperature (°F)	489.4	486.0	489.0	488.1
Average DGM Temp (°F)	85.3	80.4	80.8	
Average Delta H (in wc)	0.54	0.57	0.59	
Condensed Water (g)	100.3	113.2	119.9	
Test Duration (minutes)	162	173	190	
Static Pressure (in wc)	-1.10	-1.10	-1.10	
% CO	0	0	0	
% CO2	13.40	13.60	13.21	
% O2	5.39	5.16	5.59	
% H2	0.0	0.0	0.0	
% CH4	0.0	0.0	0.0	
% N2	81.22	81.25	81.20	
Meter Volume (acf)	64.234	69.403	77.535	
Average square root of delta p	1.327	1.357	1.308	
Absolute Stack Pressure (in Hg)	29.94	29.94	29.92	
Absolute Stack Temperature (°R)	949.4	946.0	949.0	948.1
Flue Gas Moisture (%)	7.07	7.30	6.95	7.10
Moisture at saturation	N/A	N/A	N/A	
Moisture used in Calculation	7.07	7.30	6.95	7.10
Gas Molecular Weight (Wet) (g/g-mole)	29.49	29.48	29.48	
Corrected Volume of Gas sampled (acf)	64.041	69.195	77.302	
Volume at Meter (dscf)	62.304	67.929	75.787	
Average Gas Velocity (f/sec)	98.82	100.92	97.46	99.07
Avg Flow Rate (acfh)	5,657,886	5,778,411	5,580,244	5,672,180
Avg Flow Rate (acfm)	94,298	96,307	93,004	94,536
Avg Flow Rate (scfh)	3,148,467	3,227,291	3,104,686	3,160,148
Avg Flow Rate (scfm)	52,474	53,788	51,745	52,669
Avg Flow Rate (dscfh)	2,926,010	2,991,836	2,888,846	2,935,564
Avg Flow Rate (dscfm)	48,767	49,864	48,147	48,926
Isokinetic Sampling Rate (%)	99.53	99.39	104.56	

Sample Type – **Method 201A/202**	Date 06 24 11	Condition D	Page 1 of 3
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No.	Operator CSG/LR	Initial 0.006 @ 10
Location (Source) - FCCU	DGMCF A161396	Nozzle Dia (in) 0.152	Final 0.006 @ 10
Duct Dimension(s) 4.5'	ΔH@ 0.997	Nozzle ID ——	Pitot Tube ID P-343
Elevation (relative to Barometer) (ft) 0	Kf 1.875	Bar. Press. (in. H_2O) 30.02	Pitot Tube Leak Check
Nozzle Calib.		Stat. Press. (in. H_2O) -1.1	Initial (+) ok (-) ok
Caliper ID —— .152 .151 .152		Filter No. 3217 10611-24	(+) OK (-) OK

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)	
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out		
B 12	0932	302.316	2.0	0.54	491		85	68	86	85	2	
	0936	303.9	2.0	0.54	490		83	67	86	85	2	
11	0939	305.15	2.1	0.54	493		81	66	86	85	2	
	0943	306.8	2.1	0.54	494		79	65	87	85	2	
Stop	0946:15	308.026										
10	0947	308.026	2.1	0.54	494		78	66	87	86	2	
	0951	309.6	2.1	0.54	494		77	63	87	86	2	
Stop	0954:15	310.930										
9	0955	310.930	2.0	0.54	494		78	64	87	86	2	
	0959	312.53	2.0	0.54	495		77	62	87	86	2	
8	1002	313.73	2.0	0.54	494		76	60	87	86	2	
	1006	315.35	2.0	0.54	493		76	59	87	86	2	
7	1009	316.53	2.1	0.54	494		76	59	87	86	2	
	1013	318.15	2.1	0.54	495		75	53	87	86	2	
Stop	1016:15	319.510										
6	1017	319.51	1.7	0.54	495		77	61	86	85	2	
	1021	321.07	1.7	0.54	495		77	61	86	85	2	
Stop	1023:30	322.08										
5	1024	322.08	2.0	0.54	495		76	53	87	85	2	
	1028	323.7	2.0	0.54	494		76	54	87	85	2	
4	1031	325.00	1.9	0.54	492		77	60	87	86	2	
	1035	326.54	1.9	0.54	492		76	60	87	86	2	
STOP	1037.45	327.613										
3	1039	327.613	1.3	0.54	488		78	63	87	86	2	
	1043	329.20	1.3	0.54	484		77	56	87	86	2	
2	1045.45	330.31	1.3	0.54	481		77	52	87	86	2	
	1049	331.60	1.3	0.54	481		77	52	87	86	2	
STOP	1051.30	332.603										
1	1052	332.603	1.1	0.54	481		77	52	87	86	2	
	1055	333.83	1.1	0.54	481		76	54	87	86	2	

Comments:

SDS-01 Method 201A/202
Revision Date: December 2007

Project No. 40942312

Operator Initials DCW

PM10
With Condensible Back-Half
EPA Method 201A/202

Condition No. 0

Run No. 2

Date: 6/24/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g) - Initial Wt (g) = Net Gain (g)
1	--		KO	678.4 - 589.2 =
2	--	~~100~~	Mod	644.4 - 645.5 =
3	Water	100	Mod	751.1 ~~750.8~~ 756.2
4	Silica Gel	~ 300g	Mod	1007.3 - 990.0 =
				Total Net Gain (g) =

B-66

Sample Log

Sample ID Number	No. of Sample Containers	Description
C#V-STK-ICR2-M201A/202-NR	1	Nozzle Rinse
____-____- M201A/202-CPM Filt		CPM Filter
____-____- M201A/202-BHRns-Ace		Impinger Acetone Rinse Back Half
____-____- M201A/202-BHRns-Hex		Impinger Hexane Rinse Back Half
____-____- M201A/202-BHRnsWtr		Water Rinse of Back Half
____-____- M201A/202-FPM Filt		FPM Filter
____-____- M201A/202-CondA		Impinger Condensate B
____-____- M201A/202-CondB		Impinger Condensate B

Sample Recovery Checklist

AT LOCATION

- ✓ Disconnect PM2.5 head from Probe. Transfer to lab.
- ✓ Rinse and brush probe with Water three times into Water recovery bottle.
- ✓ Rinse and brush probe with acetone three times into Acetone recovery bottle.
- ✓ Rinse and brush probe with hexane three times into hexane recovery bottle.

IN LABORATORY

- ✓ Separate filter holder and place filter in clean pre-rinsed glass petri dish. Complete filter sample label.
- ✓ Rinse and brush nozzle and interior surface of the cyclone excluding the turnaround cup with acetone into Nozzle Rinse sample bottle
- ✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the *Moisture Determination* section of this data sheet.
- ✓ Pour contents of the 1st, 2nd, and 3rd impingers (containing water) into the impinger catch bottle(s). Rinse the back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware Complete water impinger sample label.
- ✓ Rinse back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware with acetone into the acetone rinse bottle(s). Complete acetone rinse sample label.
- ✓ Rinse back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware with hexane into the hexane rinse bottle(s). Complete hexane rinse sample label.
- ✓ Log samples into logbook and store appropriately.

Sample Type – **Method 201A/202**	Date 6/28/11	Condition D	Page 2 of 3
Plant Name – Chevron Hawaii	PTCF 0.84	Run 7	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A161396	Operator CS/LE	Initial See first
Location (Source) - FCCU	DGMCF ~~A161396~~ 0.997 LE 6/29/11	Nozzle Dia (in) 0.152	Final Page
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID P-343
Elevation (relative to Barometer) (ft) 0'	Kf —	Bar. Press. (in. H_2O) 30.02	Pitot Tube Leak Check
Nozzle Calib.		Stat. Press. (in. H_2O) -1.1	Initial (+) See first
Caliper ID — 0.152 0.152 0.152		Filter No. —	(+) Page

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
STOP	1057.30	334,702									
A12	1145.	334.702	1.9	0.54	486		82	62	81	81	2
	1149	336.44	1.9	0.54	487		82	62	81	82	2
STOP	1151.45	337.389	~~1.8~~ LE 6/29/11								
11	1153	337.389	1.8	0.54	490		82	55	83	82	2
	1157	338.98	1.8	0.54	491		79	51	83	82	2
STOP	1159.45	340.068									
10	1201	340.068	2.0	0.54	493		76	53	84	83	2
	1205	341.67	2.0	0.54	493		74	55	84	85	2
STOP	1208	342,875									
9	1209	342.875	1.8	0.54	492		80	55	84	83	2
	1213	344.55	1.8	0.54	492		80	54	84	83	2
STOP	1215.45	345.56									
8	1217	345.56	2.0	0.54	493		82	60	85	84	2
	1221	347.20	2.0	0.54	493		82	55	85	85	2
STOP	1224	348,370									
7	1226	348.370	2.0	0.54	494		82	63	85	84	2
	1230	350,08	2.0	0.54	495		82	57	85	84	2
STOP	1233	351,178									
6	1235	351.178	1.9	0.54	495		79	63	85	85	2
	1239	352.86	1.9	0.54	495		79	58	86	85	2
STOP	1241.45	354,17									
5	1244	354.17	1.8	0.54	495		77	63	86	86	2
	1248	355.82	1.8	0.54	496		75	58	86	85	2
STOP	1250.45	356,932									
4	1255.	356,932	1.8	0.54	494		78	59	86	85	2
	1259	358.69	1.8	0.54	484		75	59	86	85	2
STOP	1301.45	359.675									
3	1303	359.675	1.4	0.54	465		75	62	85	84	2
	1307	361,27	1.4	0.54	459		74	66	85	84	3

Comments:

SDS-01 Method 201A/202
Revision Date: December 2007

Sample Type – **Method 201A/202**	Date 6/24/11	Condition D	Page 3 of 3		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft^3 @ in. Hg)		
Project Number - 40942312	Console No. A16/396	Operator NR	Initial	See Strip	
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.152	Final	Purge	
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID P-343		
Elevation (relative to Barometer) (ft) 0	Kf —	Bar. Press. (in. H_2O) 30.07	Pitot Tube Leak Check		
Nozzle Calib.		Stat. Press. (in. H_2O) -1.1	Initial	(+) See Strip	
Caliper ID —	0.152 / 0.152 / 0.152	Filter No. —		(+) Purge	

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)	
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out		
~~STOP~~	~~1308.45~~	~~362.017~~	~~1.3~~	~~0.54~~	~~482~~	—	~~74~~	64	86	85	3	NR 6/24/11
2	1311	362.017	1.3	0.54	487		74	64	86	85	3	
	1315	363.55	1.3	0.54	484		75	62	87	85	3	
STOP	1316.45	364.303										
1	1318.	364.303	1.3	0.54	481		76	63	85	85	3	
	1322	365.90	1.3	0.54	484		75	62	85	84	3	
STOP	1323.45	366.550										

Comments: N2 purge: start 15:28 stop 16:28 @ 14 L/min

Sample Type – **Method 201A/202**	Date 6/24/11	Condition D	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft^3 @ in. Hg)
Project Number - 40942312	Console No. A161396	Operator NR	Initial 0.004 @ 6"
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.152	Final 0.004 @ 7
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID P-343
Elevation (relative to Barometer) (ft) 0	Kf —	Bar. Press. (in. H_2O) 30.02	Pitot Tube Leak Check
Nozzle Calib.		Stat. Press. (in. H_2O) -1.1	Initial (+) OK (-) OK
Caliper ID —	0.152 0.152 0.152	Filter No. FPM 3218	(+) OK (-) OK

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)	
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out		
A1	1600	367.003	1.4	0.54	482	—	82	66	83	82	2	
	1604	368.70	1.4	0.54	482		81	65	83	82	2	
STOP	1606.15	369.56	~~1.6~~	NR 6/24/11								
2	1607	369.56	1.6	0.54	485		80	66	83	82	2	
	1611	371.17	1.6	0.54	485		78	65	83	82	2	
STOP	1613.30	372.155	~~2.1~~	NR 6/24/11								
3	1615	372.155	2.1	0.54	489		77	66	83	82	2	
	1619	373.74	2.1	0.54	488		76	64	83	82	2	
STOP	1622.30	375.141										
4	1624	375.141	2.1	0.54	488		76	64	83	82	2	
	1628	376.83	2.1	0.54	488		75	64	82	81	2	
STOP	1631.30	378.19										
5	1635	378.19	1.8	0.54	488		77	64	82	81	2	
	1639	380.15	1.8	0.54	488		75	64	82	81	2	
6	1642	381.16	1.8	0.54	488		74	63	82	81	2	
	1646	382.65	1.8	0.54	489		73	64	82	81	2	
STOP	1649	383.70	X NR 6/24/11									
7	1650	383.70	1.8	0.54	488		74	66	83	81	2	
	1654	385.40	1.8	0.54	489		74	64	83	81	2	
STOP	1657	386.475										
8	1658	386.475	1.8	0.54	488		74	67	83	81	2	
	1702	388.07	1.8	0.54	489		74	64	82	81	2	
STOP	1705	389.11										
9	1706	389.11	1.8	0.54	488		74	64	82	81	2	
NR 6/24/11	1710	390.~~76~~ 47	1.8	0.54	488		74	64	82	81	2	
STOP	1713	391.511										
10	1715	391.511	2.0	0.54	489		78	62	82	81	2	
	1719	393.10	2.0	0.54	488		75	62	82	81	2	
STOP	1722.30	394.451										
11	1724	394.451	1.7	0.54	486		77	65	82	83	2	

Comments: FPM Filter: see above
CPM Filter: 0611-24

SDS-01 Method 201A/202
Revision Date: December 2007

Project No. 40942312

Operator Initials WDD

PM10
With Condensible Back-Half
EPA Method 201A/202

Condition No. ICR D

Run No. 3

Date: 6/24/11

____-____-____- M201A/202-CondB	0	Impinger Condensate B

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g) - Initial Wt (g) =	Net Gain (g)
1	--		KO	697.5 - 598.9 =	
2	~~water~~	~~100~~	Mod	1052.5 6051.9 - 341.0 =	
3	Water	100	Mod	744.8 747.8 =	
4	Silica Gel	~ 300g	Mod	982.9 - 964.7 =	
				Total Net Gain (g) =	

WDD 6/24/11

WDD 6/24/11

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Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-STK-ICR3-M201A/202-NR	1	Nozzle Rinse
____-____-____- M201A/202-CPM Filt	1	CPM Filter
____-____-____- M201A/202-BHRns-Ace	1	Impinger Acetone Rinse Back Half
____-____-____- M201A/202-BHRns-Hex	1	Impinger Hexane Rinse Back Half
____-____-____- M201A/202-BHRnsWtr	1	Water Rinse of Back Half
____-____-____- M201A/202-FPM Filt	1	FPM Filter
____-____-____- M201A/202-CondA	1	Impinger Condensate B

Sample Recovery Checklist

AT LOCATION

- ✓ Disconnect PM2.5 head from Probe. Transfer to lab.
- ✓ Rinse and brush probe with Water three times into Water recovery bottle.
- ✓ Rinse and brush probe with acetone three times into Acetone recovery bottle.
- ✓ Rinse and brush probe with hexane three times into hexane recovery bottle.

IN LABORATORY

- ✓ Separate filter holder and place filter in clean pre-rinsed glass petri dish. Complete filter sample label.
- ____ Rinse and brush nozzle and interior surface of the cyclone excluding the turnaround cup with acetone into Nozzle Rinse sample bottle
- ✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the *Moisture Determination* section of this data sheet.
- ✓ Pour contents of the 1st, 2nd, and 3rd impingers (containing water) into the impinger catch bottle(s). Rinse the back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware Complete water impinger sample label.
- ✓ Rinse back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware with acetone into the acetone rinse bottle(s). Complete acetone rinse sample label.
- ✓ Rinse back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware with hexane into the hexane rinse bottle(s). Complete hexane rinse sample label.
- ✓ Log samples into logbook and store appropriately.

N_2 purge = 1955 - 2055

Sample Type – **Method 201A/202**	Date 6/24/11	Condition D	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A161396	Operator RC	Initial See First
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.152	Final Page
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID P-343
Elevation (relative to Barometer) (ft) 0	Kf —	Bar. Press. (in. H_2O) 30.02	Pitot Tube Leak Check
Nozzle Calib. —		Stat. Press. (in. H_2O) -1.1	Initial (+) See First
Caliper ID —	See First Page	Filter No. —	(+) Page

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
	1728	396.26	1.7	0.59	485		74	59	82	81	3
STOP	1730.45	397.277									
12	1732	397.277	1.7	0.59	483		74	62	82	81	3
	1736	398.95	1.7	0.59	483		73	59	82	81	3
STOP	1738.45	400.101									
B/2	1755	400.101	2.1	0.59	485		77	68	80	80	3
	1759	401.77	2.1	0.59	486		74	55	81	80	3
11	1802:30	403.25	2.1	0.59	487		73	53	81	79	3
	1806	404.8	2.1	0.59	488		71	53	81	79	3
10	1810	406.33	2.1	0.59	488		70	53	80	79	3
	1814	408.1	2.1	0.59	489		70	52	80	79	3
9	1817:30	409.5	2.2	0.59	490		68	53	80	79	3
	1821:30	411.1	2.2	0.59	490		68	53	80	79	3
8	1825:15	412.74	2.0	0.59	489		69	53	80	79	3
	1829	414.25	2.0	0.59	490		70	54	80	78	3
7	1832:45	415.86	1.9	0.59	490		70	54	80	79	3
	1836	417.3	1.9	0.59	490		70	54	80	79	3
6	1840	418.89	2.0	0.59	490		70	55	80	78	3
	1844	420.57	2.0	0.59	489		70	56	79	78	3
5	1847:30	421.99	2.1	0.59	489		70	56	79	77	3
STOP	1851	423.467									
~~4~~ 5	~~1855~~ 1902	423.467	2.1	0.59	490		74	68	79	77	3
4	1906	425.16	1.8	0.59	488		73	58	78	77	3
	1910	426.87	1.8	0.59	488		72	57	79	77	3
3	1913	428.08	1.5	0.59	489		71	58	79	77	3
	1916	429.3	1.5	0.59	484		71	58	79	77	3.5
2	1919:30	430.8	1.5	0.59	481		71	58	79	77	~~3.5~~ 4
	1923	432.45	1.5	0.59	467		71	61	79	77	4.5
1	1926	433.6	1.5	0.59	464		71	59	79	77	5
	1929	434.69	1.5	0.59	462		71	60	79	77	5

Comments: Stop 1932:30 436.406

Sample Type – **Method 201A/202**	Date 6/26/11	Condition D	Page 1 of 3
Plant Name – Chevron Hawaii	PTCF 0.84	Run 4	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A161396	Operator AR	Initial 0.012 @ 9"
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.152	Final 0.010 @ 5"
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID P-343
Elevation (relative to Barometer) (ft) 0	Kf —	Bar. Press. (in. H_2O) 30.00	Pitot Tube Leak Check
Nozzle Calib.		Stat. Press. (in. H_2O) -1.1	Initial (+) 0@3 (-) 0@3
Caliper ID — 0.152 0.152 0.152		Filter No. 3219/0611-2A	(+) 0@3 (-) 0@3

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)	
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out		
B12	0910	436.715	2.1	0.59	495		75	66	81	81	2	
	0914	438.56	2.1	0.59	492		75	66	80	81	2	
STOP	0918.45	440,440										
11	0919	440.440	2.1	0.59	495		70	66	80	80	2	
	0923	442.07	2.1	0.59	496		69	66	81	80	2	
STOP	0927.45	443.950										
10	0928	443.950	1.8	0.59	496		67	63	81	81	2	
	0932	445.60	1.8	0.59	496		68	62	82	81	2	
STOP	0936	447.237	Nut	Blast								
AR 6/26 9	0955	447.237	1.8	0.59	496		80	66	80	80	2	
	0959	448.91	1.8	0.59	496		77	66	80	80	2	
8	1003	450.64	1.8	0.59	495		76	65	81	80	2	
	1007	452.20	1.8	0.59	496		75	66	81	80	2	
7	1011	453.85	1.8	0.59	494		78	64	82	80	2	
	1015	455.58	1.8	0.59	495		74	58	82	80	2	
6	1019	457.19	1.6	0.59	493		73	55	83	81	2	
	1023	458.89	1.6	0.59	494		73	55	83	82	3	
STOP	1026.30	460.35										
5	1027	460.35	1.8	0.59	493		74	57	83	82	3	
	1031	462.03	1.8	0.59	492		74	59	83	81	3	
4	1035	463.57	1.8	0.59	489		73	56	84	81	3	
	1039	465.55	1.8	0.59	488		72	56	81	81	3	
3	1043	467.05	1.6	0.57	487		72	55	81	80	3	
	1047	468.66	1.6	0.59	481		72	56	81	80	3	
STOP	1050.30	470,084	~~1.5~~									
2	1051	470.084	1.5	0.59	481		73	57	81	80	3	
	1055	471.74	1.5	0.59	481		73	58	81	80	3	
STOP	1058.15	473.039										
1	1059	473.039	1.3	0.59	482		76	59	81	80	3	
	1103	474.58	1.3	0.59	481		77	58	82	80	3	

Comments:

SDS-01 Method 201A/202
Revision Date: December 2007

Project No. 40942312

Operator Initials DCW

PM10

With Condensible Back-Half

EPA Method 201A/202

Condition No. 0

Run No. 4

Date: 6/26/11

~~M201A/202-CondB~~		Impinger Condensate ~~B~~

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g) - Initial Wt (g) = Net Gain (g)
1	--		KO	700.5 - 588.5 =
2	--	~~100~~	Mod	643.6 / ~~743.3~~ - 643.6 =
3	Water	100	Mod	743.3 - 751.1 =
4	Silica Gel	~ 300g	Mod	1023.6 - 1007.3 =
			Total Net Gain (g)	=

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Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-STK-DCR4-_____-M201A/202-NR	1	Nozzle Rinse
_____-_____- M201A/202-CPM Filt	1	CPM Filter
_____-_____- M201A/202-BHRns-Ace	1	Impinger Acetone Rinse Back Half
_____-_____- M201A/202-BHRns-Hex	1	Impinger Hexane Rinse Back Half
_____-_____- M201A/202-BHRnsWtr	1	Water Rinse of Back Half
_____-_____- M201A/202-FPM Filt	1	FPM Filter
_____-_____- M201A/202-CondA	1	Impinger Condensate B

Sample Recovery Checklist

AT LOCATION

- ✓ Disconnect PM2.5 head from Probe. Transfer to lab.
- ✓ Rinse and brush probe with Water three times into Water recovery bottle.
- ✓ Rinse and brush probe with acetone three times into Acetone recovery bottle.
- ✓ Rinse and brush probe with hexane three times into hexane recovery bottle.

IN LABORATORY

- ✓ Separate filter holder and place filter in clean pre-rinsed glass petri dish. Complete filter sample label.
- ✓ Rinse and brush nozzle and interior surface of the cyclone exclnding the turnaround cup with acetone into Nozzle Rinse sample bottle
- ✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the *Moisture Determination* section of this data sheet.
- ✓ Pour contents of the 1st, 2nd, and 3rd impingers (containing water) into the impinger catch bottle(s). Rinse the back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware Complete water impinger sample label.
- ✓ Rinse back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware with acetone into the acetone rinse bottle(s). Complete acetone rinse sample label.
- ✓ Rinse back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware with hexane into the hexane rinse bottle(s). Complete hexane rinse sample label.
- ✓ Log samples into logbook and store appropriately.
- ✓ N_2 purge 1813-1913

RDS-02 Method 201A/202
Revision Date: December 2007

Sample Type – **Method 201A/202**	Date 6/26/11	Condition D	Page 2 of 3
Plant Name – Chevron Hawaii	PTCF 0.84	Run 4	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A161396	Operator NR	Initial see first
Location (Source) - FCCU	DGMCF 0.997	Nozzle Dia (in) 0.152	Final Page
Duct Dimension(s) 54"	ΔH@ 1.875	Nozzle ID —	Pitot Tube ID P-343
Elevation (relative to Barometer) (ft) 0	Kf —	Bar. Press. (in. H_2O) 30.00	Pitot Tube Leak Check
Nozzle Calib. ✓		Stat. Press. (in. H_2O) -1.1	Initial (+) see first
Caliper ID _____ see First Page		Filter No. —	(+) Page

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
STOP	1105.45	475.809									
A/2	1116	475.809	1.9	0.59	481		82	64	83	83	3
	1120	477.35	1.9	0.59	483		82	63	83	82	3
STOP	1124.15	479.220									
11	1127	479.220	2.0	0.59	485		80	64	83	82	3
	1131	480.97	2.0	0.59	482		80	64	83	82	3
STOP	1135.30	482.705									
10	1136.30	482.705	2.0	0.59	487		82	66	83	83	3
	1140	484.24	2.0	0.59	488		81	66	84	83	3
9	1145	486.21	1.6	0.59	488		80	62	84	83	3
	1149	487.82	1.6	0.59	488		80	62	84	83	3
STOP	1152.30	489.324									
8	1153.45	489.324	1.5	0.59	488		82	66	84	83	3
	1157	490.72	1.5	0.59	489		81	63	84	83	3
STOP	1201	492.347	STOP - Plant CEMS issue								
7	1632	492.347	2.0	0.59	492		76	59	79	79	4
	1636	494.01	2.0	0.59	490		65	57	79	79	4
STOP	1640.30	495.912									
6	1652	495.912	1.8	0.59	492		73	67	79	79	4
	1656	497.74	1.8	0.59	492		64	55	79	79	4
5 Switch	1700	499.68	1.9	0.59	491		67	56	79	78	4
	1704	500.90	1.9	0.59	491		61	56	80	79	4
STOP	1708.15	502.687	~~1.6~~								
4	1709	502.687	1.6	0.59	491		61	63	80	78	4
	1713	504.55	1.6	0.59	490		62	65	80	78	4
STOP	1716.30	505.773									
3	1718	505.773	1.3	0.59	486		63	65	79	78	4
	1722	507.40	1.3	0.59	485		64	66	80	78	4
STOP	1724.45	508.257									
2	1726	508.257	1.4	0.59	481		63	67	79	78	4

Comments:

Sample Type – **Method 201A/202**	Date 6/26/11	Condition D	Page 3 of 3
Plant Name – Chevron Hawaii	PTCF 0.84	Run 4	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A161396	Operator NR	Initial see first
Location (Source) - FCCU	DGMCF 0.994	Nozzle Dia (in) 0.152	Final Purge
Duct Dimension(s) 54"	ΔH@ 1.575	Nozzle ID —	Pitot Tube ID P-343
Elevation (relative to Barometer) (ft) 0	Kf	Bar. Press. (in. H_2O) 30.00	Pitot Tube Leak Check
Nozzle Calib.		Stat. Press. (in. H_2O) -1.1	Initial (+) see first
Caliper ID — see first Page		Filter No. —	(+) Purge (-)

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
2	1730	510.19	1.4	0.59	486		62	64	79	78	4
1	1733	511.63	1.3	0.59	481		63	64	79	77	4
	1737	513.44	1.3	0.59	481		63	64	79	78	4
STOP	1739.45	514.250									

NR 6/26/11

Comments: Small amount of water got into back of Filter holder mid train.

Sample Type – **Method 201A/202**	Date 6-29-11	Condition —	Page 1 of 1
Plant Name – Chevron Hawaii	PTCF A167041 9.97	Run Field Blank	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A167041	Operator MB	Initial 0.008 @ 15"
Location (Source) - FCCU	DGMCF 0.990	Nozzle Dia (in) —	Final 0.008 @ 10"
Duct Dimension(s) —	ΔH@ 1.937	Nozzle ID —	Pitot Tube ID NA
Elevation (relative to Barometer) (ft) —	Kf —	Bar. Press. (in. H_2O) —	Pitot Tube Leak Check
Nozzle Calib.		Stat. Press. (in. H_2O) —	Initial (+) NA (-)
Caliper ID —		Filter No. 3223	(+) (-)

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
	17:20	370.104									

Comments: purge start at 1725

Project No. 40942312

Operator Initials WDD

PM10
With Condensible Back-Half
EPA Method 201A/202

Condition No. ICR D

Run No. FB

Date: 12/29/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g) - Initial Wt (g) = Net Gain (g)
1	--		KO	592.6 - 592.6 =
2	--	100	Mod	648.2 - 648.2 =
3	Water	100	Mod	749.9 - 749.9 =
4	Silica Gel	~ 300g	Mod	988.2 - 988.2 =
				Total Net Gain (g) =

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-StK-ICRFB-M201A/202-NR	1	Nozzle Rinse
_____-_____- M201A/202-CPM Filt	1	CPM Filter
_____-_____- M201A/202-BHRns-Ace	1	Impinger Acetone Rinse Back Half
_____-_____- M201A/202-BHRns-Hex	1	Impinger Hexane Rinse Back Half
_____-_____- M201A/202-BHRnsWtr	1	Water Rinse of Back Half
_____-_____- M201A/202-FPM Filt	1	FPM Filter
_____-_____- M201A/202-CondA	0	Impinger Condensate B
_____-_____- M201A/202-CondB	0	Impinger Condensate B

Sample Recovery Checklist

AT LOCATION

- ✓ Disconnect PM2.5 head from Probe. Transfer to lab.
- ✓ Rinse and brush probe with Water three times into Water recovery bottle.
- ✓ Rinse and brush probe with acetone three times into Acetone recovery bottle.
- ✓ Rinse and brush probe with hexane three tiines into hexane recovery bottle.

IN LABORATORY

- ✓ Separate filter holder and place filter in clean pre-rinsed glass petri dish. Complete filter sample label.
- ✓ Rinse and brush nozzle and interior surface of the cyclone excluding the turnaround cup with acetone into Nozzle Rinse sample bottle
- ✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the *Moisture Determination* section of this data sheet.
- ✓ Pour contents of the 1st, 2nd, and 3rd impingers (containing water) into the impinger catch bottle(s). Rinse the back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware Complete water impinger sample label.
- ✓ Rinse back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware with acetone into the acetone rinse bottle(s). Complete acetone rinse sample label.
- ✓ Rinse back half of the in stack quartz fiber filter holder, impingers, coiled condenser, transfer line and connecting glassware with hexane into the hexane rinse bottle(s). Complete hexane rinse sample label.
- ✓ Log samples into logbook and store appropriately.

RDS-02 Method 201A/202
Revision Date: December 2007

Iso Summary - Methods 5 and 29

Chevron Hawaii FCCU Refinery ICR

Location	FCCU	FCCU	FCCU	Averages
Parameter	M5/29	M5/29	M5/29	
Run Designation	Run 5	Run 6	Run 7	
Date	6/24/2011	6/24/2011	6/26/2011	
Time Start	09:34	15:20	09:10	
Time Stop	13:31	19:42	17:38	
	09:34-13:31	15:20-19:42	09:10-17:38	
Duct Diameter (ft) *(equivalent if square duct)*	4.50	4.50	4.50	
Pitot Tube Correction Factor	0.84	0.84	0.84	
Nozzle Diameter (inches)	0.199	0.198	0.198	
DGMCF	0.990	0.990	0.990	
Standard Temperature (°F)	68	68	68	
Barometric Pressure Measured (" Hg)	30.02	30.02	30.02	
Stack Elevation (ft) (relative to Barometer)	0	0	0	
Barometric Pressure (" Hg)	30.02	30.02	30.02	
Average Stack Temperature (°F)	477.2	477.1	479.7	478.0
Average DGM Temp (°F)	84.3	84.1	82.9	
Average Delta H (in wc)	1.58	1.54	1.51	
Condensed Water (g)	224.1	229.1	235.8	
Test Duration (minutes)	192	192	192	
Static Pressure (in wc)	-1.10	-1.10	-1.10	
% CO	0	0	0	
% CO2	13.40	13.60	13.21	
% O2	5.39	5.16	5.59	
% H2	0.0	0.0	0.0	
% CH4	0.0	0.0	0.0	
% N2	81.22	81.25	81.20	
Meter Volume (acf)	128.404	126.156	128.348	
Average square root of delta p	1.301	1.298	1.305	
Absolute Stack Pressure (in Hg)	29.94	29.94	29.94	
Absolute Stack Temperature (°R)	937.2	937.1	939.7	938.0
Flue Gas Moisture (%)	7.85	8.14	8.21	8.07
Moisture at saturation	N/A	N/A	N/A	
Moisture used in Calculation	7.85	8.14	8.21	8.07
Gas Molecular Weight (Wet) (g/g-mole)	29.39	29.37	29.32	
Corrected Volume of Gas sampled (acf)	127.120	124.894	127.065	
Volume at Meter (dscf)	124.198	122.073	124.461	
Average Gas Velocity (f/sec)	96.44	96.19	96.98	96.54
Avg Flow Rate (acfh)	5,521,976	5,507,352	5,552,823	5,527,384
Avg Flow Rate (acfm)	92,033	91,789	92,547	92,123
Avg Flow Rate (scfh)	3,112,811	3,105,108	3,122,002	3,113,307
Avg Flow Rate (scfm)	51,880	51,752	52,033	51,888
Avg Flow Rate (dscfh)	2,868,386	2,852,305	2,865,608	2,862,100
Avg Flow Rate (dscfm)	47,806	47,538	47,760	47,702
Isokinetic Sampling Rate (%)	99.63	99.48	100.95	

Sample Type – **Multi Metals (Method 5/29)**	Date 6·24·11	Condition ~~E~~D	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A167041	Operator GEL	Initial 0.001 @ 2.2"
Location (Source) - FCCU	DGMCF 0.990	Nozzle Dia (in) 0.199	Final 0.001 @ 10"
Duct Dimension(s) 54"	ΔH@ 1.937	Nozzle ID M5/29	Pitot Tube ID ~~F-04~~
Elevation (relative to Barometer) (ft) 0	Kf 0.93	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calibration 0.199 0.199 0.198		Bar. Press. (in. Hg) 30.07	Initial (+) 0.003 (-) 0.003
		Stat. Press. (in. H_2O) -1.1	Final (-) 0.003 (-) 0.003

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
A1	0934	982.718	1.3	1.1	428	317	316	70	67	80	-2
	0938	985.22	1.3	1.1	426	314	316	66	82	81	-2
A2	0942	987.38	1.7	1.6	484	311	318	64	83	82	-2
	0946	990.01	1.7	1.6	484	314	317	63	84	81	-2
A3	0950	992.62	1.9	1.75	489	312	318	63	86	83	-2
	0954	995.48	1.8	1.66	488	310	319	62	85	82	-2
A4	0958	998.4	2.0	1.8	491	315	319	64	86	83	-2
	1002	1001.02	1.9	1.75	491	309	317	63	86	82	-2
A5	1006	1003.90	1.9	1.75	492	308	318	64	87	84	-2
	1010	1006.87	2.1	1.9	492	312	318	65	87	83	-2
A6	1014	1009.81	2.1	1.9	492	310	317	64	88	85	-2
	1018	1012.72	2.0	1.8	492	306	319	65	87	83	-2
A57	1022	1015.66	1.6	1.45	490	298	318	66	88	84	-2
	1026	1018.56	1.6	1.4	490	333	318	66	89	84	-2
A8	1030	1021.09	1.7	1.6	490	337	316	64	89	86	-2
	1034	1023.71	1.6	1.4	489	332	318	63	89	85	-2
A9	1038	1026.35	1.7	1.6	489	332	319	62	90	87	-2
	1042	1029.01	1.6	1.4	489	321	317	62	89	86	-2
A10	1046	1031.7	1.9	1.75	488	322	318	62	89	87	-2
	1050	1034.22	1.9	1.75	488	323	317	62	88	86	-2
A11	1054	1036.98	1.8	1.66	486	322	318	62	88	87	-2
	1058	1039.70	2.0	1.8	485	324	318	62	87	85	-2
A12	1102	1042.50	1.4	1.3	483	326	318	63	89	87	-2
	1106	1045.08	1.5	1.4	482	325	317	63	88	86	-2
STOP	1110	1047.520	LK	V 0.004 @ 7"	NOZZLE CHANGE				0.004 @ 5"		
B1	1134	1047.970	0.95	0.86	357	298	316	68	80	80	-1
STOP	1135	1048.500									
B1	1136	1048.500	0.95	0.86	353	298	312	66	80	80	-1
	1139	1050.10	1.0	0.90	361	300	318	62	79	80	-1
B2	1143	1052.05	1.8	~~0.98~~ 1.08	475	299	318	60	79	78	-2

Comments: Filter ID: CGD061411-3

2ND NOZZLE: 0.199, 0.197, 0.198

SDS-07 Metals by EPA Method 29
Per EM SOP-017
Revision Date: May 2011

Project No. 40942312
Recovered by (Initials) WDD
Balance ID TE4101B

Multi-Metals
Including Determination of PM
EPA Method 29

Condition No. ICR D
Run No.: 2
Date: 6/24/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	~~-[1]~~	~~-~~	~~K/O~~	~~-~~		~~-~~	=	
2	Nitric/Peroxide	100	Mod	941.3	-	764.6	=	
3	Nitric/Peroxide	100	S/G.	7[illegible]6.2		~~744.9~~ 640.5	=	
4	-	-	Mod	641.0	-	639.2	=	
~~5~~	~~$KMnO_4$ Soln~~	~~100~~	~~Mod~~					
~~6~~	~~$KMnO_4$ Soln~~	100	Mod	~~-~~			=	
7	Silica Gel	~ 300g	Mod	987.9	-	963.6	=	
						Total Net Gain (g)	=	

[1] Per the method, this first impinger is optional and may be excluded for sources with moisture catch anticipated to be less than 100 g (Section 8.1.3.2)

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR 2 -M29-PNR-Ace	1	Probe and Nozzle Rinse - Acetone
CHV-Stk-ICR ____ -M29-PNR-NA	1	Probe and Nozzle Rinse - Nitric Acid
CHV-Stk-ICR ____ -M29-Filt	1	Filter
CHV-Stk-ICR ____ -M29-NPIA	1	Nitric Impinger
CHV-Stk-ICR ____ -M29-NPIB	0	Nitric Impinger
CHV-Stk-ICR ____ -M29-EIR	1	Empty Impinger Rinse
CHV-Stk-ICR ____ -M29-Perm	0	Permanganate Impinger
CHV-Stk-ICR ____ -M29-HClRns	0	HCl Rinse of Permanganate Impinger

Sample Recovery Checklist

AT LOCATION

- ✓ Rinse and brush probe and nozzle with acetone into PNR-Ace bottle. Note – use teflon brush.
- ✓ Rinse and brush probe and nozzle with 0.1 M Nitric Acid into PNR-NA bottle. Note: use Teflon brush.
- ✓ Rinse the (optional) Teflon transfer line with 0.1M nitric acid into NI bottle.

IN LABORATORY

- ✓ Separate filter holder and place filter in clean petri dish. Complete sample label.
- ✓ Rinse front half of filter holder with 0.1 M nitric acid into PNR bottle. Complete PNR sample label.
- ✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.
- ✓ Pour contents of first 2 impingers into the Nitric/peroxide impinger catch bottle(s). Rinse the impingers, filter support, back-half of the filter holder and connecting glassware with 0.1 M nitric acid same bottle(s). Complete sample label(s).
- ✓ Rinse the 4th (initially empty) impinger with 0.1 M nitric acid into the empty impinger rinse (EIR) bottle. Complete EIR sample label.
- NA Pour the contents of the 5th and 6th impingers (permanganate impingers) into the permanganate impinger catch bottle (Perm). Rinse with both permanganate solution and DI water. Complete Perm sample label
- NA Put 100 ml DI water into HClRns sample bottle. Rinse the permanganate impingers with a total of 25 mL of 8N HCl into the same bottle. Rinse impingers with 100 ml DI water into the same bottle. Complete HClRns sample label. (Note, this is not required if there is no visible solid residue)
- ✓ Log samples into logbook and store appropriately.

Comments: Silica gel: ~70% spent

Sample Type – **Multi Metals (Method 5/29)**	Date	Condition	Page 2 of 2
Plant Name – Chevron Hawaii	PTCF	Run	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No.	Operator	Initial @
Location (Source) - FCCU	DGMCF See Pg 1.2	Nozzle Dia (in)	Final @
Duct Dimension(s)	ΔH@	Nozzle ID	Pitot Tube ID FCCU Pg
Elevation (relative to Barometer) (ft)	Kf	Barometer ID	Pitot Tube Leak Check
Nozzle Calibration		Bar. Press. (in. Hg)	Initial (+) (-)
		Stat. Press. (in. H_2O)	Final (-) (-)

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
B2	1147	1054.50	1.7	1.5	483	303	318	60	80	80	-2
B3	1151	1057.25	1.7	1.5	483	307	318	56	81	79	-2
	1155	1059.70	1.7	1.5	486	303	319	56	82	81	-2
B4	1159	1062.70	1.7	1.5	487	311	320	57	84	81	-2
	1203	1064.90	1.8	1.6	489	306	321	58	84	82	-2
B5	1207	1067.50	1.8	1.6	489	298	320	58	84	81	-2
	1211	1070.20	1.8	1.6	491	300	319	58	85	83	-2
B6	1215	1072.75	1.8	1.6	490	319	319	58	84	84	-2
	1219	1075.30	1.8	1.6	490	307	319	58	84	82	-2
B7	1223	1078.050									
B7	1243	1078.050	1.6	1.6	490	305	319	59	85	85	-2
B7	1247	1080.60	1.6	1.6	489	321	318	58	85	83	-2
B8	1251	1082.90	1.7	1.7	490	316	320	58	86	85	-2
	1255	1085.50	1.7	1.7	490	318	319	58	86	84	-2
B9	1259	1088.80	1.7	1.7	489	320	322	60	87	86	-2
	1303	1092.50	1.7	1.7	488	316	320	62	87	84	-2
B10	1307	1093.80	1.9	1.9	487	314	318	62	87	84	-2
	1311	1096.80	1.8	1.8	487	323	318	61	87	85	-2
B11	1315	1099.80	1.9	1.9	487	320	319	61	88	86	-3
	1319	1102.70	1.9	1.9	485	322	319	61	87	85	-3
B12	1323	1105.60	1.8	1.8	486	321	327	62	87	86	-3
	1327	1108.50	1.7	1.7	485	317	328	62	86	86	-3
STOP	1331	1111.572									

Comments:

SDS-07 Metals by EPA Method 29
Per EM SOP-017
Revision Date: May 2011

Sample Type – **Multi Metals (Method 5/29)**	Date 6·24·11	Condition RD	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (ft^3 @ in. Hg)
Project Number - 40942312	Console No. A167041	Operator GEL	Initial 0.002 @ 11"
Location (Source) - FCCU	DGMCF 0.990	Nozzle Dia (in) 0.198	Final 0.014 @ 8"
Duct Dimension(s) 54"	ΔH@ 1.937	Nozzle ID MS29 2	Pitot Tube ID 7-04
Elevation (relative to Barometer) (ft) 0	Kf 0.89	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calibration 0.199 0.197 0.198		Bar. Press. (in. Hg) 30.02	Initial (+) OK (-) OK
		Stat. Press. (in. H_2O) −1.1	Final (-) OK (-) OK

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
B12	1510	112.368	1.3	1.2	474	313	318	83	84	84	-2
STOP	1521	113.159	= WARM IMPINGERS, NO ICE								
START	1528	113.159	1.3	1.2	474	313	318	70	84	84	-2
	1531	114.98	1.9	1.8	474	320	320	68	85	84	-2
B11	1535	118.25	1.9	1.8	479	321	320	61	87	86	-2
B11	1539	120.59	2.0	1.9	478	320	321	59	87	85	-2
B10	1543	123.54	2.0	1.9	481	321	322	58	87	87	-2
	1547	126.30	1.9	1.8	480	324	321	59	87	85	-2
B9	1551	129.34	1.9	1.8	482	320	321	60	88	87	-2
	1555	132.19	1.9	1.8	482	321	323	59	89	87	-2
B8	1559	135.02	1.8	1.6	483	322	322	61	89	88	-2
	1603	137.75	1.8	1.6	483	320	322	61	90	88	-2
B7	1607	140.46	1.8	1.6	483	321	322	62	90	89	-2
	1611	143.09	1.9	1.8	483	306	319	63	90	89	-2
B6	1615	145.98	1.6	1.4	484	307	317	60	90	90	-2
	1619	148.61	1.6	1.4	483	313	318	60	90	89	-2
B5	1623	151.07	1.6	1.4	484	312	319	60	90	90	-2
	1627	153.56	1.5	1.3	483	316	316	60	88	87	-2
B4	1631	156.01	1.6	1.4	482	310	320	60	87	88	-2
	1635	158.52	1.6	1.4	481	312	317	59	87	87	-2
B3	1639	161.12	1.4	1.3	480	313	319	60	88	88	-2
	1643	163.47	1.5	1.3	479	311	319	61	87	86	-2
B2	1647	165.99	1.3	1.2	466	312	320	61	88	87	-2
	1651	168.21	1.3	1.2	467	305	318	61	88	87	-2
B1	1655	170.48	1.2	1.1	392	311	319	61	88	87	-2
	1659	172.74	1.2	1.1	390	304	317	61	88	87	-2
STOP	1703	174.956	LK	< 0.013							
A1	1755	175.179	1.4	1.3	470	313	311	65	82	81	-2
	1759	177.61	1.4	1.3	472	313	314	56	82	82	-2
A2	1803	180.17	1.9	1.8	481	313	314	55	82	82	-2

Comments: Filter ID: CGD061411-16

SDS-07 Metals by EPA Method 29
Per EM SOP-017
Revision Date: May 2011

Project No. 40942312
Recovered by (Initials) WDD
Balance ID TE 4101 B

Multi-Metals
Including Determination of PM
EPA Method 29

Condition No. ICR D
Run No.: 3
Date: 6/24/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
~~1[1]~~	~~-~~	~~-~~	~~K/O~~		-		=	
2	Nitric/Peroxide	100	Mod	929.2	-	734.2	=	
3	Nitric/Peroxide	100	S/G.	742.7	-	734.5	=	
4	-	-	Mod	636.9	-	635.0	=	
~~5~~	~~$KMnO_4$ Soln~~	~~100~~	~~Mod~~		-		=	
~~6~~	~~$KMnO_4$ Soln~~	~~100~~	~~Mod~~		-		=	
7	Silica Gel	~ 300g	Mod	979.4	-	955.4	=	
						Total Net Gain (g)	=	

[1] Per the method, this first impinger is optional and may be excluded for sources with moisture catch anticipated to be less than 100 g (Section 8.1.3.2)

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR 3 -M29-PNR-Ace	1	Probe and Nozzle Rinse - Acetone
CHV-Stk-ICR ___ -M29-PNR-NA	1	Probe and Nozzle Rinse - Nitric Acid
CHV-Stk-ICR ___ -M29-Filt	1	Filter
CHV-Stk-ICR ___ -M29-NPIA	1	Nitric Impinger
CHV-Stk-ICR ___ -M29-NPIB	0	Nitric Impinger
CHV-Stk-ICR ___ -M29-EIR	1	Empty Impinger Rinse
CHV-Stk-ICR ___ -M29-Perm	0	Permanganate Impinger
CHV-Stk-ICR ___ -M29-HClRns	0	HCl Rinse of Permanganate Impinger

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle with acetone into PNR-Ace bottle. Note – use teflon brush.

✓ Rinse and brush probe and nozzle with 0.1 M Nitric Acid into PNR-NA bottle. Note: use Teflon brush.

✓ Rinse the (optional) Teflon transfer line with 0.1M nitric acid into NI bottle.

IN LABORATORY

✓ Separate filter holder and place filter in clean petri dish. Complete sample label.

✓ Rinse front half of filter holder with 0.1 M nitric acid into PNR bottle. Complete PNR sample label.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first 2 impingers into the Nitric/peroxide impinger catch bottle(s). Rinse the impingers, filter support, back-half of the filter holder and connecting glassware with 0.1 M nitric acid same bottle(s). Complete sample label(s).

✓ Rinse the 4th (initially empty) impinger with 0.1 M nitric acid into the empty impinger rinse (EIR) bottle. Complete EIR sample label.

NA Pour the contents of the 5th and 6th impingers (permanganate impingers) into the permanganate impinger catch bottle (Perm). Rinse with both permanganate solution and DI water. Complete Perm sample label

NA Put 100 ml DI water into HClRns sample bottle. Rinse the permanganate impingers with a total of 25 mL of 8N HCl into the same bottle. Rinse impingers with 100 ml DI water into the same bottle. Complete HClRns sample label. (Note, this is not required if there is no visible solid residue)

✓ Log samples into logbook and store appropriately.

Comments: Silica gel: ~60% spent

RDS-24; Metals by EPA M29, including PM
Per EM SOP-017
Revision Date: March 2011

Sample Type – **Multi Metals (Method 5/29)**	Date 6·24·11	Condition ℄ D	Page 2 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A167041	Operator GEL	Initial @
Location (Source) - FCCU	DGMCF 0.990	Nozzle Dia (in) 0.198	Final See @
Duct Dimension(s) 54"	ΔH@ 1.937	Nozzle ID M5 129 2	Pitot Tube ID Front
Elevation (relative to Barometer) (ft) 0	Kf 0.89	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calibration 0.199 0.197 0.198		Bar. Press. (in. Hg) 30.02	Initial (+) PASS (-)
		Stat. Press. (in. H_2O) -1.1	Final (-)

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
	1807	183.5	1.8	1.6	484	315	310	57	82	82	-2
A3	1811	185.57	1.8	1.6	484	315	315	57	82	80	-2
	1815	188.24	1.8	1.6	484	315	310	57	82	82	-2
A4	1819	190.88	1.9	1.8	486	317	317	57	82	80	-2
	1823	193.56	2.0	1.9	488	317	316	57	82	81	-2
A5	1827	196.21	1.9	1.8	487	315	316	59	82	81	-2
	1831	198.76	2.0	1.9	488	315	316	59	82	81	-2
A6	1835	201.97	1.8	1.6	486	317	317	59	82	79	-2
	1839	204.88	1.9	1.8	488	317	316	59	82	80	-2
A7	1843	207.91	1.8	1.6	488	315	317	59	82	78	-2
	1847	210.52	1.8	1.6	486	315	317	59	82	78	-2
STOP A8	1851	213.498									
A8	1902	213.498	1.8	1.6	486	320	316	65	82	79	-2
	1906	215.94	1.8	1.6	486	320	317	59	80	77	-2
A9	1910	218.54	1.8	1.6	484	321	317	59	81	79	-2
	1914	221.12	1.8	1.6	482	321	317	59	81	77	-2
A10	1918	223.79	1.6	1.4	480	321	317	59	81	79	-2
	1922	226.32	1.7	1.5	480	321	317	59	81	78	-2
A11	1926	228.87	1.8	1.6	478	321	313	59	81	78	-2
	1930	231.47	1.6	1.4	477	321	313	59	81	78	-2
A12	1934	234.02	1.5	1.3	476	321	313	59	81	78	-2
	1938	236.39	1.5	1.3	474	318	316	59	81	77	-2
STOP	1942	238.747									

Comments: PAUSE TO AVOID NIT BLOW. @ 1851.

SDS-07 Metals by EPA Method 29
Per EM SOP-017
Revision Date: May 2011

Sample Type – **Multi Metals (Method 5/29)**	Date 6/26/11	Condition D	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 4	Sampling Train Leak Rate (ft^3 @ in. Hg)
Project Number - 40942312	Console No. A167041	Operator GEL	Initial 0.002 @ 10
Location (Source) - FCCU	DGMCF 0.990	Nozzle Dia (in) 0.198	Final 0.001 @ 11"
Duct Dimension(s) 54	ΔH@ 1.937	Nozzle ID M5/29 2.	Pitot Tube ID ~~7~~ ~~04~~
Elevation (relative to Barometer) (ft) 0	Kf 0.89	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calibration 0.198 0.199 0.197		Bar. Press. (in. Hg) 30.02	Initial (+)0073 (-)0073
		Stat. Press. (in. H_2O) -1.1	Final (-)0073 (-)0073

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
A1	0910	~~239~~ ~~239~~ 241.333	1.4	1.2	475	292	316	62	82	78	-2
	0914	241.74	1.5	1.3	471	311	314	56	82	79	-2
A2	0918	244.05	1.5	1.3	477	320	316	53	82	80	-2
	0922	246.45	1.6	1.4	480	319	315	53	84	80	-2
A3	0926	249.02	1.8	1.6	486	321	317	51	84	80	-2
	0930	251.58	1.8	1.6	490	322	315	51	86	81	-2
A4	0934	254.29	1.9	1.7	493	323	318	51	87	82	-2
	0936	255.692	PAUSE TO AVOID NUT BLAST								
	0955	255.692	1.9	1.7	492	319	316	59	83	80	-2
	0957	257.07	1.9	1.7	492	319	317	55	83	81	-2
A5	1001	259.98	1.8	1.6	492	318	318	51	83	81	-2
	1005	262.58	1.8	1.6	492	317	315	51	83	81	-2
A6	1009	265.26	1.8	1.6	492	317	315	51	83	81	-2
	1013	267.95	1.6	1.4	492	317	315	53	84	81	-2
A7	1017	270.65	1.9	1.7	489	317	318	53	85	81	-2
	1021	273.34	1.9	1.7	489	319	315	53	85	81	-2
A8	1025	276.10	2.0	1.8	489	320	317	52	85	81	-2
	1029	278.99	2.0	1.8	487	320	319	53	85	82	-2
A9	1033	281.90	2.0	1.8	486	320	317	53	89	81	-2
	1037	284.80	2.0	1.8	486	318	319	53	84	82	-2
A10	1041	~~287.79~~	1.9	1.7	484	318	315	54	82	80	-2
	1045	290.58	1.9	1.7	483	319	319	54	83	81	-2
A11	1049	293.45	1.6	1.4	482	319	317	54	83	81	-2
	1053	296.01	1.6	1.4	482	321	316	54	83	81	-2
A12	1057	298.54	1.5	1.3	478	321	319	56	83	81	-2
	1101	300.95	1.6	1.4	480	320	318	57	83	81	-2
STOP	1105	303.437	LK ✓ 0.001 @ 8"								
		~~303.525~~ 94									
B1	1115	303.594	1.2	1.1	387	303	315	64	85	83	-2
	1119	306.06	1.2	1.1	377	310	316	58	85	83	-2

Comments: Filter ID: CGD061411-2

SDS-07 Metals by EPA Method 29
Per EM SOP-017
Revision Date: May 2011

Project No. 40942312
Recovered by (Initials) WDD
Balance ID TE4101B

Multi-Metals
Including Determination of PM
EPA Method 29

Condition No. ICR D
Run No.: 4
Date: 6/28/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	- Initial Wt. (g)	= Net Gain (g)
~~1~~ [1]	~~-~~	~~-~~	~~K/O~~	~~-~~	=	
2	Nitric/Peroxide	100	Mod	963.8	- 761.5	=
3	Nitric/Peroxide	100	S/G.	751.0	- 743.7 / 637.1	=
4	-	-	Mod	637.6	- 637.1	=
~~5~~	~~$KMnO_4$ Soln~~	~~100~~	~~Mod~~	~~-~~		=
~~6~~	~~$KMnO_4$ Soln~~	~~100~~	~~Mod~~	~~-~~		=
7	Silica Gel	~ 300g	Mod	971.4	- 946.2	=
					Total Net Gain (g)	=

WDD 6/28/11

[1] Per the method, this first impinger is optional and may be excluded for sources with moisture catch anticipated to be less than 100 g (Section 8.1.3.2)

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR 4 -M29-PNR-Ace	1	Probe and Nozzle Rinse - Acetone
CHV-Stk-ICR ____ -M29-PNR-NA	1	Probe and Nozzle Rinse - Nitric Acid
CHV-Stk-ICR ____ -M29-Filt	1	Filter
CHV-Stk-ICR ____ -M29-NPIA	1	Nitric Impinger
CHV-Stk-ICR ____ -M29-NPIB	0	Nitric Impinger
CHV-Stk-ICR ____ -M29-EIR	1	Empty Impinger Rinse
CHV-Stk-ICR ____ -M29-Perm	0	Permanganate Impinger
CHV-Stk-ICR ____ -M29-HClRns	0	HCl Rinse of Permanganate Impinger

Sample Recovery Checklist

AT LOCATION

- ✓ Rinse and brush probe and nozzle with acetone into PNR-Ace bottle. Note – use teflon brush.
- ✓ Rinse and brush probe and nozzle with 0.1 M Nitric Acid into PNR-NA bottle. Note: use Teflon brush.
- ✓ Rinse the (optional) Teflon transfer line with 0.1M nitric acid into NI bottle.

IN LABORATORY

- ✓ Separate filter holder and place filter in clean petri dish. Complete sample label.
- ✓ Rinse front half of filter holder with 0.1 M nitric acid into PNR bottle. Complete PNR sample label.
- ✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.
- ✓ Pour contents of first 3 impingers into the Nitric/peroxide impinger catch bottle(s). Rinse the impingers, filter support, back-half of the filter holder and connecting glassware with 0.1 M nitric acid same bottle(s). Complete sample label(s).
- ✓ Rinse the 4th (initially empty) impinger with 0.1 M nitric acid into the empty impinger rinse (EIR) bottle. Complete EIR sample label.
- NA Pour the contents of the 5th and 6th impingers (permanganate impingers) into the permanganate impinger catch bottle (Perm). Rinse with both permanganate solution and DI water. Complete Perm sample label
- NA Put 100 ml DI water into HClRns sample bottle. Rinse the permanganate impingers with a total of 25 mL of 8N HCl into the same bottle. Rinse impingers with 100 ml DI water into the same bottle. Complete HClRns sample label. (Note, this is not required if there is no visible solid residue)
- ✓ Log samples into logbook and store appropriately.

Comments: Silica gel: ~50% spent

Sample Type – **Multi Metals (Method 5/29)**	Date 6·26·11	Condition D	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 4	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A167041	Operator GEL	Initial See Page @
Location (Source) - FCCU	DGMCF 0.990	Nozzle Dia (in) 0.198	Final @
Duct Dimension(s) 54	ΔH@ 1.937	Nozzle ID M5/29 2	Pitot Tube ID FRONT
Elevation (relative to Barometer) (ft) 0	Kf 0.89	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calibration 0.198 0.199 0.197		Bar. Press. (in. Hg) 30.02	Initial (+) (-)
		Stat. Press. (in. H₂O) -1.1	Final (+) (-)

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H₂O)	ΔH (in. H₂O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
B2	1123	308.30	1.3	1.15	460	306	315	59	85	83	-2
	1127	310.54	1.4	1.2	468	299	317	59	85	83	-2
B3	1131	312.83	1.7	1.5	480	309	317	60	86	83	-2
	1135	315.36	1.7	1.5	480	318	317	61	86	84	-2
B4	1139	317.96	1.7	1.5	483	317	317	61	86	84	-2
	1143	320.55	1.7	1.5	483	315	317	61	86	84	-2
B5	1147	323.14	1.8	1.6	485	318	317	63	86	84	-2
	1151	325.75	1.7	1.5	484	314	316	61	86	84	-2
B6	1155	328.48	1.7	1.5	485	310	319	61	86	84	-2
	1159	331.09	1.8	1.6	484	306	317	61	86	84	-2
STOP B6	1201	332.557	LK ✓ OK @		NOx dSOx ANALYZERS				NOT	ONLINE	
START	1632	332.631	1.7	1.5	486	319	316	74	82	82	-2
B7	1634	333.93	2.1	1.9	485	328	318	74	81	81	-2
STOP	1635	337.061	STOP: IMPINGER TEMP.								
START	1651	337.061	1.7	1.5	486	304	317	65	83	82	-2
	1654	339.20	1.7	1.5	486	316	317	54	83	83	-2
B8	1658	341.88	1.6	1.4	486	322	317	53	84	82	-2
	1702	344.42	1.7	1.5	485	324	317	53	83	83	-2
B9	1706	347.01	1.8	1.6	484	324	316	53	83	82	-2
	1710	349.69	1.7	1.5	485	323	318	54	83	83	-2
B10	1714	352.31	1.7	1.5	483	320	318	54	84	82	-2
	1718	354.91	1.7	1.5	485	325	318	55	84	83	-2
B11	1722	357.50	1.8	1.6	482	325	318	55	84	82	-2
	1726	360.16	1.7	1.5	484	323	317	55	84	83	-2
B12	1730	362.83	1.6	1.4	477	324	317	55	82	81	-2
	1734	365.39	1.6	1.4	476	326	318	56	82	81	-2
STOP	1738	367.918									

Comments:

SDS-07 Metals by EPA Method 29
Per EM SOP-017
Revision Date: May 2011

Sample Type – **Multi Metals (Method 5/29)**	Date 6/26/11	Condition FB	Page 1 of 1
Plant Name – Chevron Hawaii	PTCF n/a	Run FB	Sampling Train Leak Rate (ft^3 @ in. Hg)
Project Number - 40942312	Console No. A161401	Operator PCW	Initial 0.009 @ 10"
Location (Source) - FCCU	DGMCF 1.000	Nozzle Dia (in) n/a	Final 0.009 @ 10"
Duct Dimension(s) n/a	ΔH@ 1.719	Nozzle ID FB-1	Pitot Tube ID n/a
Elevation (relative to Barometer) (ft)	Kf n/a	Barometer ID n/a	Pitot Tube Leak Check
Nozzle Calibration n/a n/a n/a		Bar. Press. (in. Hg) —	Initial (+) n/a (-) n/a
		Stat. Press. (in. H_2O) —	Final (-) n/a (-) n/a

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
START	1700	853.695	n/a	n/a	n/a	237	238	84	85	85	n/a
STOP	1702	853.750	—								
START	1703	853.750	n/a	n/a	n/a	237	238	84	85	85	n/a
STOP	1704	853.835	—								

Comments: Filter: CGD061411-1

SDS-07 Metals by EPA Method 29
Per EM SOP-017
Revision Date: May 2011

Project No. 40942312
Recovered by (Initials) WDD
Balance ID TE4101B

Multi-Metals
Including Determination of PM
EPA Method 29

Condition No. ICR D
Run No.: FB
Date: 6/21/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	- Initial Wt. (g)	= Net Gain (g)
1	-[1]		K/O			=
2	Nitric/Peroxide	100	Mod	735.4	735.3	=
3	Nitric/Peroxide	100	S/G.	736.9	737.0	=
4	-	-	Mod	638.2	638.2	=
5	~~$KMnO_4$ Soln~~	~~100~~	~~Mod~~			=
6	~~$KMnO_4$ Soln~~	~~100~~	~~Mod~~		-	=
7	Silica Gel	~ 300g	Mod	942.1	942.0	=
					Total Net Gain (g)	=

[1] Per the method, this first impinger is optional and may be excluded for sources with moisture catch anticipated to be less than 100 g (Section 8.1.3.2)

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR FB -M29-PNR-Ace	1	Probe and Nozzle Rinse - Acetone
CHV-Stk-ICR ____ -M29-PNR-NA	1	Probe and Nozzle Rinse - Nitric Acid
CHV-Stk-ICR ____ -M29-Filt	1	Filter
CHV-Stk-ICR ____ -M29-NPIA	1	Nitric Impinger
CHV-Stk-ICR ____ -M29-NPIB	0	Nitric Impinger
CHV-Stk-ICR ____ -M29-EIR	1	Empty Impinger Rinse
CHV-Stk-ICR ____ -M29-Perm	0	Permanganate Impinger
CHV-Stk-ICR ____ -M29-HClRns	0	HCl Rinse of Permanganate Impinger

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle with acetone into PNR-Ace bottle. Note – use teflon brush.

✓ Rinse and brush probe and nozzle with 0.1 M Nitric Acid into PNR-NA bottle. Note: use Teflon brush.

✓ Rinse the (optional) Teflon transfer line with 0.1M nitric acid into NI bottle.

IN LABORATORY

✓ Separate filter holder and place filter in clean petri dish. Complete sample label.

✓ Rinse front half of filter holder with 0.1 M nitric acid into PNR bottle. Complete PNR sample label.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first 3 impingers into the Nitric/peroxide impinger catch bottle(s). Rinse the impingers, filter support, back-half of the filter holder and connecting glassware with 0.1 M nitric acid same bottle(s). Complete sample label(s).

✓ Rinse the 4th (initially empty) impinger with 0.1 M nitric acid into the empty impinger rinse (EIR) bottle. Complete EIR sample label.

NA Pour the contents of the 5th and 6th impingers (permanganate impingers) into the permanganate impinger catch bottle (Perm). Rinse with both permanganate solution and DI water. Complete Perm sample label

NA Put 100 ml DI water into HClRns sample bottle. Rinse the permanganate impingers with a total of 25 mL of 8N HCl into the same bottle. Rinse impingers with 100 ml DI water into the same bottle. Complete HClRns sample label. (Note, this is not required if there is no visible solid residue)

✓ Log samples into logbook and store appropriately.

Comments: Silica gel: 0% spent

RDS-24; Metals by EPA M29, including PM
Per EM SOP-017
Revision Date: March 2011

Iso Summary - Ontario Hydro

Chevron Hawaii FCCU Refinery ICR

Location	FCCU	FCCU	FCCU	Averages
Parameter	OH	OH	OH	
Run Designation	Run 5	Run 6	Run 7	
Date	6/24/2011	6/24/2011	6/26/2011	
Time Start	10:25	15:30	10:15	
Time Stop	12:45	17:45	17:00	
	10:25-12:45	15:30-17:45	10:15-17:00	
Duct Diameter (ft) *(equivalent if square duct)*	4.50	4.50	4.50	
Pitot Tube Correction Factor	0.84	0.84	0.84	
Nozzle Diameter (inches)	0.197	0.196	0.196	
DGMCF	1.003	1.003	1.003	
Standard Temperature (°F)	68	68	68	
Barometric Pressure Measured (" Hg)	30.02	30.02	30.00	
Stack Elevation (ft) (relative to Barometer)	0	0	0	
Barometric Pressure (" Hg)	30.02	30.02	30	
Average Stack Temperature (°F)	487.0	482.3	485.5	483.9
Average DGM Temp (°F)	91.7	95.1	89.0	
Average Delta H (in wc)	1.30	1.30	1.26	
Condensed Water (g)	135.1	136.8	137.0	
Test Duration (minutes)	120	120	120	
Static Pressure (in wc)	-1.10	-1.10	-1.10	
% CO	0	0	0	
% CO2	13.40	13.60	13.21	
% O2	5.39	5.16	5.59	
% H2	0.0	0.0	0.0	
% CH4	0.0	0.0	0.0	
% N2	81.22	81.25	81.20	
Meter Volume (acf)	75.859	75.341	74.825	
Average square root of delta p	1.274	1.267	1.278	
Absolute Stack Pressure (in Hg)	29.94	29.94	29.92	
Absolute Stack Temperature (°R)	947.0	942.3	945.5	943.9
Flue Gas Moisture (%)	8.01	8.20	8.18	8.18
Moisture at saturation	N/A	N/A	N/A	
Moisture used in Calculation	8.01	8.20	8.18	8.18
Gas Molecular Weight (Wet) (g/g-mole)	29.37	29.37	29.33	
Corrected Volume of Gas sampled (acf)	76.087	75.567	75.049	
Volume at Meter (dscf)	73.298	72.347	72.593	
Average Gas Velocity (f/sec)	94.96	94.23	95.27	94.78
Avg Flow Rate (acfh)	5,436,911	5,394,926	5,454,862	5,426,951
Avg Flow Rate (acfm)	90,615	89,915	90,914	90,449
Avg Flow Rate (scfh)	3,033,287	3,024,769	3,046,229	3,037,653
Avg Flow Rate (scfm)	50,555	50,413	50,770	50,628
Avg Flow Rate (dscfh)	2,790,397	2,776,804	2,796,946	2,789,214
Avg Flow Rate (dscfm)	46,507	46,280	46,616	46,487
Isokinetic Sampling Rate (%)	98.69	98.88	98.50	

Sample Type – **Ontario Hydro**	Date 6-24-11	Condition D	Page 1 of 1
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (cfm @ in. Hg)
Project Number - 40942312	Console No. AIG1 400	Operator BB	Initial 0.006 @ 15"
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.197	Final 0.004 @ 8"
Duct Dimension(s) ~~⌀ 54"~~	ΔH@ 1.759	Nozzle ID OH	Pitot Tube ID ~~P-344~~
Elevation (relative to Barometer) (ft) 0	Kf 0.75	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calib. 0.197 / 0.196 / 0.197		Bar. Press. (in. Hg) 30.02	Initial (+) 0@73" (-) 0@73"
		Stat. Press. (in. H_2O) -1.1	Final (-) 0@73" (-) 0@73"

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
C 1	10:25	908.481	1.7	1.4	478	460	458	58	90	90	4
2	10:30	911.67	1.8	1.4	486	481	471	57	91	90	4
3	10:35	914.88	1.8	1.4	488	457	468	57	92	91	4
4	10:40	918.09	1.8	1.4	490	471	495	57	94	92	4
5	10:45	921.31	1.7	1.4	490	461	492	58	94	92	4
6	10:50	924.49	1.7	1.4	490	455	480	59	94	92	4
7	10:55	927.89	1.5	1.2	491	479	495	59	93	92	4
8	11:00	930.71	1.4	1.1	490	476	480	59	93	92	4
9	11:05	933.55	1.4	1.1	489	462	473	57	94	92	4
10	11:10	936.39	1.3	1.0	~~485~~	474	469	58	93	92	4
11	11:15	939.18	1.3	1.0	~~483~~	465	470	59	93	92	4
12	11:20	941.96	1.2	0.95	476	460	460	58	93	91	4
STOP	11:25	944.692	-	-	-	-	-	-	-	-	-
		944.758 (BB)				~~150~~					
D 1	11:45	~~947.758~~	1.7	1.4	480	~~450~~	476	58	89	88	4
2	11:50	947.830	1.7	1.4	485	456	481	58	89	88	4
3	11:55	951.07	1.8	1.4	486	466	491	54	90	89	4
4	12:00	954.31	1.8	1.4	490	476	488	52	92	90	4
5	~~12:05~~	957.56	1.8	1.4	489	484	488	53	92	91	4
6	~~12:10~~	960.84	1.8	1.4	490	492	474	55	93	92	4
7	12:15	964.12	1.7	1.4	491	479	475	56	92	90	4
8	12:20	967.7	1.8	1.4	491	482	494	56	93	90	4
9	12:25	971.4	1.7	1.4	491	486	493	54	93	91	4
10	12:30	974.4	1.7	1.4	489	487	483	65	93	94	4
11	12:35	977.4	1.5	1.2	486	478	473	57	93	91	5
12	12:40	9	1.5	1.2	498	475	473	57	94	91	4
STOP	12:45	984.406	-	-	-	-	-	-	-	-	-

Comments:

SDS-06 Mercury by Ontario Hydro
Per EMSOP-0501
Revision Date: August 2011

Project No. 40942312
Recovered by (Initials) MDD
Balance ID TEA101B

Ontario Hydro
ASTM Method D6784

Condition No. ICR D
Run No.: 2
Date: 6/24/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	KCl Soln	100	Mod	839.8	-	743.4	=	
2	KCl Soln	100	Mod	705.8	-	750.2	=	
3	KCl Soln	100	S/G	736.2	-	733.8	=	
4	Nitric/Peroxide	100	Mod	757.5	-	753.2	=	
5	$KMnO_4$ Soln	100	Mod	764.9	-	763.3	=	
6	$KMnO_4$ Soln	100	Mod	754.1	-	753.6	=	
7	$KMnO_4$ Soln	100	S/G	750.9	-	750.9		
8	Silica Gel	~ 300g	Mod	951.1	-	936.6	=	
						Total Net Gain (g)	=	

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHN-STK-ICR2-OH-PNR	1	Probe and Nozzle Rinse
____-____-OH-Filt	1	Filter
____-____-OH-KCIA	1	KCl Impingers
____-____-OH-KCIB	0	KCl Impingers
____-____-OH-NI	1	Nitric Acid Impinger
____-____-OH-Perm	1	Permanganate Impingers

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle with 0.1 M Nitric Acid into PNR bottle. Note – use Teflon brush.

✓ Rinse Teflon transfer line with 0.1 M Nitric Acid into KCl bottle.

IN LABORATORY

✓ Separate filter holder and place filter in clean Petri dish. Complete Filt sample label.

✓ Rinse front half of filter holder with 0.1 M nitric acid into PNR bottle. Complete PNR sample label.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first 3 impingers into the KCl impinger catch bottle(s). Rinse the impingers, filter support, back-half of the filter holder and connecting glassware once with 10% nitric acid and twice with 0.1 M nitric acid. Collect the rinses in the same sample bottle(s). Add 100 mL of 5% $KMnO_4$. Complete KCl sample labei(s).

✓ Pour the contents of the 4th (nitric acid/ hydrogen peroxide) impinger into the nitric acid impinger catch bottle (NI). Rinse the impinger and connecting glassware with 0.1 M nitric acid into the same bottle(s). Complete NI sample label.

✓ Pour the contents of the 5th, 6th, and 7th impingers (permanganate impingers) into the permanganate impinger catch bottle (Perm Rinse). Collect all rinses into the same sample bottle(s). Rinse the impingers and connecting glassware twice with 0.1 M nitric acid. Add 4-5 drops of 10% hydroxylamine sulfate solution to each impinger. Verify that permanganate color is gone. Rinse two more times with 0.1M nitric acid. Add 1 mL of 5% dichromate solution. Complete Perm sample label.

____ Log samples into logbook and store appropriately.

Comments: Silica gel: ~50% spent

Sample Type – **Ontario Hydro**	Date 6/24/11	Condition E D	Page 1 of 1
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (cfm @ in. Hg)
Project Number - 40942312	Console No. D161400	Operator BB	Initial 0.006 @ 15"
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.196	Final 0.004 @ 8"
Duct Dimension(s) 4.5'	ΔH@ 1.759	Nozzle ID	Pitot Tube ID P-344
Elevation (relative to Barometer) (ft)	Kf 0.75	Barometer ID BP-1 30.02	Pitot Tube Leak Check
Nozzle Calib. 0.196 / 0.196 — 0.195 / 0.197 — 0.196 / 0.197		Bar. Press. (in. Hg) 29.17	Initial (+) 0.073" (-) 0.073"
		Stat. Press. (in. H_2O)	Final (-) 0.073" (-) 0.073"

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)	Jumper
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out		
~~15:30~~ (BB) 15:30	~~15:18~~	985.350	1.6	1.3	474	472	430	58	94	92	4	260
2	15:35	988.55	1.7	1.4	479	475	458	57	95	92	4	260
3	15:40	991.70	1.7	1.4	481	490	491	58	95	93	4	258
4	15:45	994.92	1.7	1.4	482	462	449	57	96	96	4	258
5	15:50	998.18	1.8	1.5	486	464	461	58	96	94	4	258
6	15:55	1001.37	1.7	1.4	486	454	451	58	97	94	4	257
7	16:00	1004.63	1.8	1.5	487	460	472	57	98	94	4	258
8	16:05	1008.11	1.8	1.5	486	455	486	58	98	95	4	260
9	16:10	1011.50	1.6	1.3	486	448	457	58	98	95	4	257
10	16:15	1014.82	1.6	1.3	485	444	463	57	98	95	4	259
11	16:20	1017.96	1.3	1.0	481	455	469	57	97	94	4	261
12	16:25	1020.48	1.3	1.0	480	451	473	57	97	94	4	260
Stop	16:30	1023.579	-	-	-	-	-	-	-	-	-	-
D 1	16:45	1023.699	1.7	1.4	475	434	447	58	95	93	4	258
2	16:50	1026.83	1.8	1.5	481	449	463	58	96	94	4	261
3	16:55	~~1029.~~ 1030.10 (BB)	1.8	1.5	483	452	481	55	96	93	4	259
4	17:00	1033.55	1.9	1.5	484	453	462	56	97	96	4	258
5	17:05	1037.01	1.7	1.3	484	455	460	57	96	94	4	260
6	17:10	1040.12	1.9	1.5	485	457	~~458~~ 456	56	97	94	45	261
7	17:15	1043.46	1.5	1.2	485	448	443	57	97	93	4	257
8	17:20	1046.58	1.4	1.1	486	459	451	57	97	93	4	261
9	17:25	1049.46	1.4	1.1	485	457	455	57	96	93	4	264
10	17:30	1052.40	1.4	1.1	481	450	449	57	96	93	4	261
11	17:35	1055.27	1.3	1.0	479	457	451	58	95	93	4	258
12	17:40	1058.01	1.3	1.0	475	461	458	58	95	93	4	257
END	17:45	1060.811	-	-	-	-	-	-	-	-	-	-

Comments:

SDS-06 Mercury by Ontario Hy.Iro
Per EM SOP-050
Revision Date: August 2007

Project No. 40942312
Recovered by (Initials) WDD
Balance ID TE4101B

Ontario Hydro
ASTM Method D6784

Condition No. ICRD
Run No.: 3
Date: 6/24/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	=	Net Gain (g)
1	KCl Soln	100	Mod	854.8	-	753.9	=	
2	KCl Soln	100	Mod	775.7	-	758.5	=	
3	KCl Soln	100	S/G	768.7	-	767.0	=	
4	Nitric/Peroxide	100	Mod	751.4	-	750.0	=	
5	$KMnO_4$ Soln	100	Mod	749.2	-	748.6	=	
6	$KMnO_4$ Soln	100	Mod	771.1	-	771.4	=	
7	$KMnO_4$ Soln	100	S/G	754.9	-	755.2		
8	Silica Gel	~ 300g	Mod	935.4	-	919.8	=	
						Total Net Gain (g) =		

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-STK-ICR3 -OH-PNR	1	Probe and Nozzle Rinse
____-____-OH-Filt	1	Filter
____-____-OH-KClA	1	KCl Impingers
____-____-OH-KClB	0	KCl Impingers
____-____-OH-NI	1	Nitric Acid Impinger
____-____-OH-Perm	1	Permanganate Impingers

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle with 0.1 M Nitric Acid into PNR bottle. Note – use Teflon brush.

✓ Rinse Teflon transfer line with 0.1 M Nitric Acid into KCl bottle.

IN LABORATORY

✓ Separate filter holder and place filter in clean Petri dish. Complete Filt sample label.

✓ Rinse front half of filter holder with 0.1 M nitric acid into PNR bottle. Complete PNR sample label.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first 3 impingers into the KCl impinger catch bottle(s). Rinse the impingers, filter support, back-half of the filter holder and connecting glassware once with 10% nitric acid and twice with 0.1 M nitric acid. Collect the rinses in the same sample bottle(s). Add 100 mL of 5% $KMnO_4$. Complete KCl sample label(s).

✓ Pour the contents of the 4th (nitric acid/ hydrogen peroxide) impinger into the nitric acid impinger catch bottle (NI). Rinse the impinger and connecting glassware with 0.1 M nitric acid into the same bottle(s). Complete NI sample label.

✓ Pour the contents of the 5th, 6th, and 7th impingers (permanganate impingers) into the permanganate impinger catch bottle (Perm Rinse). Collect all rinses into the same sample bottle(s). Rinse the impingers and connecting glassware twice with 0.1 M nitric acid. Add 4-5 drops of 10% hydroxylamine sulfate solution to each impinger. Verify that permanganate color is gone. Rinse two more times with 0.1M nitric acid. Add 1 mL of 5% dichromate solution. Complete Perm sample label.

✓ Log samples into logbook and store appropriately.

Comments: Silica gel: ~ 40% spent

RDS-28; Mercury by Ontario Hydro, ASTM D6784
Per EM SOP-050
Revision Date: March 2011

Sample Type – **Ontario Hydro**	Date 6-24-11	Condition D	Page 1 of 1
Plant Name – Chevron Hawaii	PTCF 0.84	Run 4	Sampling Train Leak Rate (cfm @ in. Hg)
Project Number - 40942312	Console No. A161400	Operator BB	Initial 0.006 @ 12"
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.196	Final 0.004 @ 8"
Duct Dimension(s) 4.5'	ΔH@ 1.759	Nozzle ID	Pitot Tube ID P-344
Elevation (relative to Barometer) (ft) 0	Kf 0.75	Barometer ID BP-1	Pitot Tube Leak Check
Nozzle Calib. 0.196 / 0.195 / 0.196		Bar. Press. (in. Hg) 30.00	Initial (+)@>3" (-) @>3"
		Stat. Press. (in. H_2O) -1.1	Final (-)@>3 (-)@>3

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)	Temperature °F
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out		
C 1	10:05	61.567	1.6	1.2	484	449	469	57	86	85	4	259
2	10:20	64.69	1.7	1.3	485	456	487	56	86	86	4	261
3	10:25	67.73	1.8	1.4	488	462	477	56	88	86	4	257
4	10:30	70.94	1.7	1.3	488	457	481	56	88	86	4	258
5	10:35	74.05	1.8	1.4	489	466	476	57	89	87	4	258
6	10:40	77.30	1.8	1.4	489	451	441	58	89	87	4	257
7	10:45	80.51	1.7	1.3	489	455	480	57	88	86	4	258
8	10:50	83.66	1.8	1.4	489	454	485	57	88	86	4	257
9	10:55	86.84	1.7	1.3	489	451	489	57	88	86	4	257
10	11:00	90.11	1.6	1.2	484	462	485	58	89	86	4	258
11	11:05	93.28	1.6	1.2	485	459	486	58	90	87	4	258
12	11:10	96.32	1.5	1.2	480	453	479	58	91	88	4	257
STOP	11:15	99.385	-	-	-	-	-	-	-	-	-	-
D 1	11:30	99.489	1.7	1.3	480	432	441	59	89	89	4	257
2	11:35	102.56	1.8	1.4	481	444	457	58	91	89	4	258
3	11:40	105.76	1.9	1.4	482	447	442	57	91	89	4	256
4	11:45	109.95	1.7	1.3	485	451	448	58	91	90	4	257
5	11:50	112.32	1.7	1.3	485	440	445	57	92	90	4	258
6	11:55	115.55	1.8	1.4	484	441	453	58	91	90	4	258
7	12:00	118.77	1.5	1.2	486	449	451	57	91	90	4	257
8	16:35 12:05	120.214 122.00	1.6	1.2	488	478	465	59	92	90	4	258
9	16:40 12:10	125.11	1.4	1.1	488	465	449	58	92	90	4	252
10	16:45 12:15	128.15	1.4	1.1	489	461	463	58	92	90	4	257
11	16:50 12:20	130.86	1.3	1.0	484	460	458	57	93	91	4	258
12	16:55 12:25	133.68	1.3	1.0	480	457	451	57	93	91	4	257
Stop	17:00 12:30	136.578	-	-	-	-	-	-	-	-	-	-

Time BB

Comments: Stop @ 12:02 CEMS Failure leak ✓ 4.77
120.214 Dry Gas Vol Restart @ 120.296
at 16:32 BB

SDS-06 Mercury by Ontario Hydro
Per EM SOP-05
Revision Date: August 2007

Project No. 40942312

Recovered by (Initials) WDD

Balance ID TE4101B

Ontario Hydro
ASTM Method D6784

Condition No. ICR D

Run No.: 4

Date: 6/21/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g) -	Initial Wt. (g)	=	Net Gain (g)
1	KCl Soln	100	Mod	843.7 -	745.5	=	
2	KCl Soln	100	Mod	709.0 -	750.8	=	
3	KCl Soln	100	S/G	735.3 -	734.5	=	
4	Nitric/Peroxide	100	Mod	760.7 -	756.4	=	
5	$KMnO_4$ Soln	100	Mod	761.2 -	760.5	=	
6	$KMnO_4$ Soln	100	Mod	741.3 -	741.9	=	
7	$KMnO_4$ Soln	100	S/G	742.8 -	742.4		
8	Silica Gel	~ 300g	Mod	965.7 -	950.7	=	
				Total Net Gain (g) =			

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-STK-ICR4-OH-PNR	1	Probe and Nozzle Rinse
_____-_____-OH-Filt	1	Filter
_____-_____-OH-KClA	1	KCl Impingers
_____-_____-OH-KClB	0	KCl Impingers
_____-_____-OH-NI	1	Nitric Acid Impinger
_____-_____-OH-Perm	1	Permanganate Impingers

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle with 0.1 M Nitric Acid into PNR bottle. Note – use Teflon brush.

✓ Rinse Teflon transfer line with 0.1 M Nitric Acid into KCl bottle.

IN LABORATORY

✓ Separate filter holder and place filter in clean Petri dish. Complete Filt sample label.

✓ Rinse front half of filter holder with 0.1 M nitric acid into PNR bottle. Complete PNR sample label.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first 3 impingers into the KCl impinger catch bottle(s). Rinse the impingers, filter support, back-half of the filter holder and connecting glassware once with 10% nitric acid and twice with 0.1 M nitric acid. Collect the rinses in the same sample bottle(s). Add 100 mL of 5% $KMnO_4$. Complete KCl sample label(s).

✓ Pour the contents of the 4th (nitric acid/ hydrogen peroxide) impinger into the nitric acid impinger catch bottle (NI). Rinse the impinger and connecting glassware with 0.1 M nitric acid into the same bottle(s). Complete NI sample label.

✓ Pour the contents of the 5th, 6th, and 7th impingers (permanganate impingers) into the permanganate impinger catch bottle (Perm Rinse). Collect all rinses into the same sample bottle(s). Rinse the impingers and connecting glassware twice with 0.1 M nitric acid. Add 4-5 drops of 10% hydroxylamine sulfate solution to each impinger. Verify that permanganate color is gone. Rinse two more times with 0.1M nitric acid. Add 1 mL of 5% dichromate solution. Complete Perm sample label.

✓ Log samples into logbook and store appropriately.

Comments: silica gel: ~60% spent

Sample Type – **Ontario Hydro**	Date 6/26/11	Condition FB	Page 1 of 1		
Plant Name – Chevron Hawaii	PTCF 0.84	Run FB	Sampling Train Leak Rate (cfm @ in. Hg)		
Project Number - 40942312	Console No. A161401	Operator NR	Initial	Before	
Location (Source) - FCCU	DGMCF 1.000	Nozzle Dia (in) —	Final	@	
Duct Dimension(s) 54"	ΔH@ 1.719	Nozzle ID —	Pitot Tube ID NA		
Elevation (relative to Barometer) (ft) 0	Kf — NR 6/26/11	Barometer ID 30.00 BP-1	Pitot Tube Leak Check		
Nozzle Calib. NA		Bar. Press. (in. Hg) 30.00	Initial	(+) NA	(-)
		Stat. Press. (in. H_2O) NA	Final	(-)	(-)

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
	1452	853.548	@ 13" = 0.004								
		853.575									
	1454	853.575	@ 13" = 0.006								
		853.794									

Comments:

SDS-06 Mercury by Ontaria Hydra
Per EM SOP-050
Revision Date: August 2007

Project No. 40942312

Recovered by (Initials) DCW / MOD

Balance ID TE4101

Ontario Hydro
ASTM Method D6784

Condition No. FB

Run No.: FB

Date: 6/26/14

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g) -	Initial Wt. (g)	=	Net Gain (g)
1	KCl Soln	100	Mod	755.0	- 754.9	=	
2	KCl Soln	100	Mod	759.5	- 759.3	=	
3	KCl Soln	100	S/G	774.9	- 774.8	=	
4	Nitric/Peroxide	100	Mod	749.1	- 749.2	=	
5	$KMnO_4$ Soln	100	Mod	751.8	- 751.7	=	
6	$KMnO_4$ Soln	100	Mod	773.4	- 773.2	=	
7	$KMnO_4$ Soln	100	S/G	749.8	- 749.7		
8	Silica Gel	~ 300g	Mod	934.4	- 934.6	=	
					Total Net Gain (g) =		

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-1CRFB-OH-PNR	1	Probe and Nozzle Rinse
____-____-____-OH-Filt	1	Filter
____-____-____-OH-KClA	1	KCl Impingers
____-____-____-OH-KClB	0	KCl Impingers
____-____-____-OH-NI	1	Nitric Acid Impinger
____-____-____-OH-Perm	1	Permanganate Impingers

Sample Recovery Checklist

AT LOCATION

✓ Rinse and brush probe and nozzle with 0.1 M Nitric Acid into PNR bottle. Note – use Teflon brush.

✓ Rinse Teflon transfer line with 0.1 M Nitric Acid into KCl bottle.

IN LABORATORY

✓ Separate filter holder and place filter in clean Petri dish. Complete Filt sample label.

✓ Rinse front half of filter holder with 0.1 M nitric acid into PNR bottle. Complete PNR sample label.

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section.

✓ Pour contents of first 3 impingers into the KCl impinger catch bottle(s). Rinse the impingers, filter support, back-half of the filter holder and connecting glassware once with 10% nitric acid and twice with 0.1 M nitric acid. Collect the rinses in the same sample bottle(s). Add 100 mL of 5% $KMnO_4$. Complete KCl sample label(s).

✓ Pour the contents of the 4th (nitric acid/ hydrogen peroxide) impinger into the nitric acid impinger catch bottle (NI). Rinse the impinger and connecting glassware with 0.1 M nitric acid into the same bottle(s). Complete NI sample label.

✓ Pour the contents of the 5th, 6th, and 7th impingers (permanganate impingers) into the permanganate impinger catch bottle (Perm Rinse). Collect all rinses into the same sample bottle(s). Rinse the impingers and connecting glassware twice with 0.1 M nitric acid. Add 4-5 drops of 10% hydroxylamine sulfate solution to each impinger. Verify that permanganate color is gone. Rinse two more times with 0.1M nitric acid. Add 1 mL of 5% dichromate solution. Complete Perm sample label.

✓ Log samples into logbook and store appropriately.

Comments: Silica gel: ~40% spent

Iso Summary - Method 0061

Chevron Hawaii FCCU Refinery ICR

Location	FCCU	FCCU	FCCU	Averages
Parameter	Chromium (VI)	Chromium (VI)	Chromium (VI)	
Run Designation	Run 12	Run 11	Run 9	
Date	6/30/2011	6/29/2011	6/28/2011	
Time Start	08:47	12:18	12:32	
Time Stop	12:08	15:47	16:20	
	08:47-12:08	12:18-15:47	12:32-16:20	
Duct Diameter (ft) *(equivalent if square duct)*	4.50	4.50	4.50	
Pitot Tube Correction Factor	0.84	0.84	0.84	
Nozzle Diameter (inches)	0.196	0.196	0.196	
DGMCF	1.003	1.003	1.003	
Standard Temperature (°F)	68	68	68	
Barometric Pressure Measured (" Hg)	29.98	29.90	29.95	
Stack Elevation (ft) (relative to Barometer)	0	0	0	
Barometric Pressure (" Hg)	29.98	29.9	29.95	
Average Stack Temperature (°F)	493.4	486.4	489.6	489.8
Average DGM Temp (°F)	91.4	91.7	92.1	
Average Delta H (in wc)	1.33	1.39	1.37	
Condensed Water (g)	292.3	383.9	258.7	
Test Duration (minutes)	192	192	193	
Static Pressure (in wc)	-1.10	-1.10	-1.10	
% CO	0	0	0	
% CO2	13.15	13.31	13.06	
% O2	5.65	5.47	5.72	
% H2	0.0	0.0	0.0	
% CH4	0.0	0.0	0.0	
% N2	81.20	81.22	81.22	
Meter Volume (acf)	121.107	123.891	123.528	
Average square root of delta p	1.301	1.309	1.303	
Absolute Stack Pressure (in Hg)	29.90	29.82	29.87	
Absolute Stack Temperature (°R)	953.4	946.4	949.6	949.8
Flue Gas Moisture (%)	10.56	13.20	9.31	11.02
Moisture at saturation	N/A	N/A	N/A	
Moisture used in Calculation	10.56	13.20	9.31	11.02
Gas Molecular Weight (Wet) (g/g-mole)	29.03	28.72	29.17	
Corrected Volume of Gas sampled (acf)	121.470	124.263	123.899	
Volume at Meter (dscf)	116.917	119.260	119.007	
Average Gas Velocity (f/sec)	97.95	98.83	97.69	98.16
Avg Flow Rate (acfh)	5,608,019	5,658,589	5,593,263	5,619,957
Avg Flow Rate (acfm)	93,467	94,310	93,221	93,666
Avg Flow Rate (scfh)	3,103,473	3,146,456	3,104,684	3,118,204
Avg Flow Rate (scfm)	51,725	52,441	51,745	51,970
Avg Flow Rate (dscfh)	2,775,747	2,731,247	2,815,628	2,774,207
Avg Flow Rate (dscfm)	46,262	45,521	46,927	46,237
Isokinetic Sampling Rate (%)	99.91	103.58	99.74	

Sample Type – **Chromium (VI) (Method 0061)**	Date 6/28/11	Condition D	Page 1 of 2		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 1	Sampling Train Leak Rate (ft^3 @ in. Hg)		
Project Number - 40942312	Console No. A161400	Operator WDD	Initial	0.004 @ 15"	
Location (Source) - FCCU Stack	DGMCF 1.003	Nozzle Dia (in) 0.196	Final	0.003 @ 11"	
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID Cr VI	Pitot Tube ID 7-04		
Elevation (relative to Barometer) (ft) 0'		Kf 0.78	Pitot Tube Leak Check		
Nozzle Calib. 0.196 / 0.196 / 0.197		Bar. Press. (in. H_2O) 29.95	Initial	(+) 0@>3"	(-) 0@>3"
		Stat. Press. (in. H_2O) -1.1	Final	(+) 0@>3"	(-) 0@>3"

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)				Vacuum (in. Hg)	
					Stack	Imp Exit	DGM In	DGM Out		
C12	1232	312.670	1.70	1.35	480	68	90	89	5.0"	
	1236	315.12	1.70	1.35	479	68	90	89	5.5"	
C11	1240	317.69	1.80	1.45	484	62	90	89	6.0"	
	1244	320.26	1.80	1.45	485	63	90	89	6.0"	
C10	1248	322.94	1.80	1.45	487	66	89	89	6.0"	
	1252	325.52	1.80	1.45	488	68	90	88	6.0"	
C9	1256	328.16	1.80	1.45	488	68	90	89	6.0"	
	1300	330.92	1.80	1.45	489	71 68	91	89	6.0"	WDD 6/28/11
C8	1304	333.42	1.70	1.35	489	67	91	89	5.5"	
Pause	1306	334.695	* pH 11							
C8	1326	334.695	1.70	1.35	490	67	90	89	5.0"	
~~C7~~	~~1328~~ 1330	335.82	1.70	1.35	490	63	90	89	5.0"	WDD 6/28/11
C7	1332	338.38	1.70	1.35	491	54	91	89	6.0"	
	1336	340.96	1.65	1.30	491	54	91	89	6.5"	
C6	1340	343.45	1.90	1.55	492	54	92	89	8.5"	
	1344	346.09	1.85	1.50	493	54	92	90	7.5"	
C5	1348	348.72	1.90	1.55	495	55	92	90	8.5"	
	1352	351.69	1.85	1.50	495	56	92	90	7.5"	
C4	1356	354.33	1.80	1.45	495	56	92	90	7.0"	
	1400	356.96	1.80	1.45	497	57	93	90	7.0"	
C3	1404	359.58	1.50	1.25	488	59	94	91	6.0"	
	1408	362.09	1.60	1.30	490	59	94	91	6.0"	
C2	1412	364.58	1.60	1.30	491	59	94	92	6.0"	
	1416	367.08	1.60	1.30	489	59	94	92	6.0"	
C1	1420	369.53	1.30	1.05	479	58	94	92	5.0"	
	1424	371.85	1.30	1.05	472	58	94	92	5.0"	
STOP	1428	374.170	pH 10 ; post leak check: 0.002 @ 10"; pre leak check: 0.003 @ 10"							
D1	1442	374.303	1.25	1.00	468	65	93	92	3.5"	
	1446	376.66	1.30	1.05	469	60	93	92	4.0"	
D2	1450	378.95	1.60	1.30	487	59	95	92	5.0"	

Comments: * Pause for power switch @ 1306. Resumed @ 1326.

Project No. *40942312*

Operator Initials MDD

Hexavalent Chromium

SW-846 – Method 0061

Condition No. D

Run No. 1

Date: 6/28/11

Moisture Determination

Imp No.	Contents	Vol (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	= Net Gain (g)
1	KOH	150	Teflon [1]	727.0	-	692.2	=
2	KOH	75	Teflon [2]	597.4	-	532.8	=
3	KOH	75	Teflon	612.8	-	538.2	=
4	-	-	Teflon	499.9	-	448.1	=
5	Silica Gel	~ 300g	Glass Mod	969.8	-	936.9	=
6					-		=
7					-		=
					Total Net Gain (g) =		

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Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR-1-M0061-Imp/Rns	1	Impinger Catch and Rinses

[1] This impinger has the drop tube 2" from the bottom, and is fitted with an additional line for recirculation of impinger solution

[2] The 2nd, 3rd and 4th impingers have the drop tube ½ inch from the bottom.

Sample Recovery Checklist

AT LOCATION

✓ Rinse probe – *with a known mass of water* – into the first impinger. This is done using the sampling system pumps. First, pull some rinse water (~100 mL) through the peristaltic pump and through the probe, and then pull about 50 mL through the nozzle and probe (using the meter box pump).

IN LABORATORY

✓ Purge sample train with nitrogen for 30 minutes at a flow rate of 10 liters per minute.

✓ Measure pH of impinger solution – must be ≥8.5 pH 10

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section of the sampling data sheet.

✓ Transfer contents of all impingers into sample bottle(s). Rinse all impingers and all connecting lines 4 times with DI water into the sample bottle(s).

✓ Filter contents of sample bottle(s) through 0.45 µm acetate filter. Rinse sample container three times with DI water. Pour rinses through filter. Discard filter. Complete Imp/Rns Sample Label(s).

✓ Log samples into logbook and store samples appropriately.

DI H_2O: tare 112.7 g, gross 210.0 g

*KOH: tare 120.3 g, gross 222.1 g

RDS-04 Hexavalent Chromium
Revision Date: November 2008
Reviewed: July 2010

* KOH not used

Sample Type – **Chromium (VI) (Method 0061)**	Date 6/28/11	Condition D	Page 2 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 1	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A161400	Operator WDD	Initial \ @ See pg. 1
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.196	Final / @
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID Cr VI	Pitot Tube ID 7-04
Elevation (relative to Barometer) (ft) 0'		Kf 0.78	Pitot Tube Leak Check
Nozzle Calib. 0.196 / 0.196 / 0.197		Bar. Press. (in. H_2O) 29.95	Initial (+) See pg. 1 (-)
		Stat. Press. (in. H_2O) -1.1	Final (+) (-)

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)				Vacuum (in. Hg)
					Stack	Imp Exit	DGM In	DGM Out	
D2	1454	381.54	1.50	1.25	490	58	95	92	4.5"
D3	1458	383.86	1.80	1.45	496	59	95	93	5.0"
	1502	386.40	1.85	1.50	497	60	95	92	5.5"
D4	1506	389.18	1.85	1.50	496	59	94	92	5.5"
	1510	391.76	1.90	1.55	496	59	94	92	5.5"
D5	1514	394.46	1.90	1.55	497	59	97	92	5.5"
	1518	397.18	1.90	1.55	496	59	95	92	5.5"
D6	1522	399.88	1.80	1.45	496	60	95	92	5.5"
	1526	402.55	1.75	1.40	496	59	95	92	5.5"
D7	1530	405.16	1.75	1.40	493	60	96	92	5.5"
	1534	407.74	1.80	1.45	493	60	96	92	5.5"
D8	1538	410.35	1.70	1.35	493	60	96	93	5.5"
	1542	412.91	1.70	1.35	492	60	96	93	5.5"
Purge	1546	415.465	pH	10					
D9	1547	415.465	1.70	1.35	492	63	95	92	5.5"
	1551	418.03	1.70	1.35	492	61	96	92	6.0"
D10	1555	420.64	1.6	1.25	491	60	96	93	6.0
	1600	423.72	1.6	1.25	492	57	95	93	5.5
D11	1605	426.81	1.7	1.35	491	57	95	92	5.5
	1610	429.98	1.7	1.35	492	56	95	92	5.5
D12	1615	433.14	1.7	1.35	489	58	94	92	5.5
	~~1620~~ 1624	436.331							
	1620								

Comments: post-run purge: start 1658 stop 1728 10 Lpm

SDS-11; Hexavalent Chromium
Revision Date: July 2010

Sample Type – **Chromium (VI) (Method 0061)**	Date 6/29/11	Condition D	Page 1 of 2		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft^3 @ in. Hg)		
Project Number - 40942312	Console No. A101400	Operator WDD	Initial	0.003 @ 15"	
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.196	Final	0.003 @ 8"	
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID Cr VI	Pitot Tube ID 7-04		
Elevation (relative to Barometer) (ft) 0'		Kf 0.78	Pitot Tube Leak Check		
Nozzle Calib. 0.196 / 0.196 / 0.197		Bar. Press. (in. H_2O) 29.90	Initial	(+) 0@>3"	(-) 0@>3"
		Stat. Press. (in. H_2O) -1.1	Final	(+) 0@>3"	(-) 0@>3"

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)				Vacuum (in. Hg)	
					Stack	Imp Exit	DGM In	DGM Out		
C12	1218	564.439	1.70	1.35	486	68	87	87	5.0"	
	1222	567.16	1.70	1.35	483	68	87	87	5.0"	
C11	1226	569.83	1.80	1.45	485	67	88	87	6.0"	
	1230	572.41	1.80	1.45	487	67	90	87	6.5"	
C10	1234	574.92	1.80	1.45	488	67	90	88	6.5"	
	1238	577.38	1.80	1.45	490	67	91	88	6.0"	
C9	1242	580.19	1.80	1.45	490	67	92	88	6.0"	
	1246	582.83	1.80	1.45	490	65	92	89	5.5"	
C8	1250	585.46	1.80	1.45	490	65	92	89	5.5"	
	1254	588.12	1.80	1.45	490	65	92	89	5.5"	
C7	1258	590.76	1.80	1.45	491	65	92	90	5.0"	
	1302	593.47	1.80	1.45	492	66	92	90	5.0"	
C6	1306	596.00	1.90	1.55	492	64	93	90	5.0"	
	1310	598.69	1.90	1.55	493	63	93	90	5.0"	
C5	1314	601.45	1.90	1.55	493	63	93	91	5.0"	
	1318	604.19	1.90	1.55	494	64	93	91	5.0"	
C4	1322	606.91	1.90	1.55	493	62	92	90	5.0"	
	1326	609.63	1.90	1.55	493	61	93	90	5.0"	
C3	1330	612.30	1.70	1.35	490	60	93	90	4.5"	
	1334	614.96	1.70	1.35	489	60	93	90	4.0"	
C2	1338	617.50	1.60	1.30	486	59	92	90	4.0"	
	1342	620.00	1.50	1.25	485	59	93	90	3.5"	
C1	1346	622.37	1.35	1.10	478	58	94	90	3.5"	
	1350	624.71	1.40	1.15	478	58	93	91	3.5"	
STOP	1354	627.005	pH 10	; post 1k J:	0.003 @ 10"	; pre 1k J:			@	
D12	1411	627.160	1.70	1.35	481	68	94	92	4.0"	
	1415	629.80	1.70	1.35	481	59	94	92	5.5"	
D11	1419	632.31	1.80	1.45	483	59	95	92	6.0"	
	1423	634.79	1.80	1.45	485	59	95	92	6.0"	
D10	1427	637.41	1.80	1.45	484	60	96	93	6.0"	

Comments: * Nut blast @ ~1240.

Project No. *40942312*

Operator Initials MDD

Hexavalent Chromium

SW-846 – Method 0061

Condition No. D

Run No. 2

Date: 6/29/11

Moisture Determination

Imp No.	Contents	Vol (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	= Net Gain (g)
1	KOH	150	Teflon [1]	701.1	-	692.4	=
2	KOH	75	Teflon [2]	613.6	-	439.0	=
3	KOH	75	Teflon	551.6	-	533.8	=
4	-	-	Teflon	601.6	-	448.0	=
5	Silica Gel	~ 300g	Glass Mod	999.0	-	969.8	=
6					-		=
7					-		=
					Total Net Gain (g) =		

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Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR-2-M0061-Imp/Rns	1	Impinger Catch and Rinses

Sample Recovery Checklist

AT LOCATION

✓ Rinse probe – *with a known mass of water* – into the first impinger. This is done using the sampling system pumps. First, pull some rinse water (~100 mL) through the peristaltic pump and through the probe, and then pull about 50 mL through the nozzle and probe (using the meter box pump).

IN LABORATORY

✓ Purge sample train with nitrogen for 30 minutes at a flow rate of 10 liters per minute.

✓ Measure pH of impinger solution – must be ≥8.5

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section of the sampling data sheet.

✓ Transfer contents of all impingers into sample bottle(s). Rinse all impingers and all connecting lines 4 times with DI water into the sample bottle(s).

✓ Filter contents of sample bottle(s) through 0.45 µm acetate filter. Rinse sample container three times with DI water. Pour rinses through filter. Discard filter. Complete Imp/Rns Sample Label(s).

✓ Log samples into logbook and store samples appropriately.

H_2O: tare 24.0g, gross 122.7

RDS-04 Hexavalent Chromium
Revision Date: November 2008
Reviewed: July 2010

[1] This impinger has the drop tube 2" from the bottom, and is fitted with an additional line for recirculation of impinger solution

[2] The 2nd, 3rd and 4th impingers have the drop tube ½ inch from the bottom.

Sample Type – **Chromium (VI) (Method 0061)**	Date 6/29/11	Condition D	Page 2 of 2		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 2	Sampling Train Leak Rate (ft³ @ in. Hg)		
Project Number - 40942312	Console No. A161400	Operator WDD	Initial	see pg. 1	@
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.196	Final	see pg. 1	@
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID Cr VI	Pitot Tube ID 7-04		
Elevation (relative to Barometer) (ft) 0'		Kf 0.78	Pitot Tube Leak Check		
Nozzle Calib. 0.196 / 0.196 / 0.197		Bar. Press. (in. H_2O) 29.90	Initial	(+) see pg. 1	(-)
		Stat. Press. (in. H_2O) -1.1	Final	(+) see pg. 1	(-)

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)				Vacuum (in. Hg)
					Stack	Imp Exit	DGM In	DGM Out	
D 10	1431	640.06	1.80	1.45	483	60	96	93	6.0"
D 9	1435	642.71	1.90	1.55	484	56	96	93	6.0"
	1439	645.47	1.80	1.45	483	56	95	93	6.0"
D 8	1443	648.12	1.80	1.45	484	56	95	93	6.0"
	1447	650.81	1.70	1.35	485	55	95	93	5.5"
D 7	1451	653.39	1.90	1.55	484	56	94	93	6.0"
	1455	656.09	1.80	1.45	485	56	93	92	5.5"
D 6	1459	658.79	1.60	1.30	487	56	93	91	5.0"
	1503	661.33	1.70	1.35	488	56	93	91	5.0"
D 5	1507	663.88	1.70	1.35	488	57	93	91	5.0"
	1511	666.42	1.60	1.30	489	56	93	91	4.5"
D 4	1515	668.88	1.70	1.35	489	57	93	91	4.5"
	1519	671.41	1.70	1.35	489	57	93	91	4.5"
D 3	1523	673.	1.60	1.30	487	56	93	91	4.5"
	1527	676.43	1.70	1.35	486	56	93	91	4.5"
D 2	1531	678.96	1.50	1.25	482	56	93	91	4.5"
	1535	681.41	1.50	1.25	482	57	93	91	4.5"
D 1	1539	683.82	1.30	1.05	477	57	93	91	4.0"
	1543	686.13	1.30	1.05	473	57	93	91	4.0"
STOP	1547	688.425							

Comments: N_2 purge: start 1606 stop 1636 10 Lpm

SDS-11; Hexavalent Chromium
Revision Date: July 2010

Sample Type – **Chromium (VI) (Method 0061)**	Date 6/30/11	Condition D	Page 1 of 2
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (ft³ @ in. Hg)
Project Number - 40942312	Console No. A16/400	Operator RR	Initial 0.006 @ 15"
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.196	Final 0.006 @ 10"
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID —	Pitot Tube ID 7-04
Elevation (relative to Barometer) (ft) 0		Kf 0.78	Pitot Tube Leak Check
Nozzle Calib. 0.196 / 0.196 / 0.197		Bar. Press. (in. H_2O) 29.98	Initial (+) OK >3 (-) OK >3
		Stat. Press. (in. H_2O) -1.1	Final (+) OK >3 (-) OK >3

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F) Stack	Imp Exit	DGM In	DGM Out	Vacuum (in. Hg)
D B12	0847	691.591	1.7	1.3	480	66	84	85	5
	0851	694.15	1.7	1.3	485	61	85	85	5
B11	0855	696.75	1.7	1.3	484	58	87	86	5
	0859	699.05	1.8	1.4	489	57	86	86	5
B10	0903	701.76	1.7	1.3	489	56	89	87	5
	0907	704.19	1.7	1.3	490	56	89	87	5
B9	0911	706.67	1.9	1.5	492	58	90	88	5
	0915	709.33	1.8	1.4	491	56	90	88	5
B8	0919	711.93	1.8	1.4	491	54	91	88	5
	0923	714.21	1.8	1.4	492	53	91	89	5
B7	0927	717.20	1.6	1.3	492	53	91	89	5
	0931	719.78	1.5	1.3	494	54	91	88	5
NC 6/30 B6	0935	722.40	1.5	1.3	496	55	91	89	4
	0939	727.60	1.6	1.3	497	57	92	89	4
B5	0943	727.15	1.7	1.3	497	56	92	89	4
	0947	729.58	1.8	1.4	498	55	92	90	5
B4	0951	732.14	1.7	1.3	498	58	92	90	4
	0955	734.65	1.8	1.4	499	60	92	90	4
B3	0959	737.24	1.7	1.3	497	59	93	90	4
	1003	739.71	1.8	1.3	498	59	93	90	4
B2	1007	742.29	1.5	1.2	497	59	93	90	4
	1011	744.67	1.5	1.2	496	62	93	90	4
B1	1015	747.50	1.3	1.0	490	62	93	91	4
	1019	749.40	1.3	1.0	485	63	93	91	4
STOP	1023	751.657	lk ✓@		10" = 0.004				
C A12	1032	751.694	1.7	1.3	487	58	93	92	4
	1036	754.72	1.6	1.3	489	58	93	92	5
A11	1040	756.11	1.9	1.5	490	59	93	92	6
	1044	759.25	1.9	1.5	492	66	93	91	6
A10	1048	761.79	1.9	1.5	492	62	94	92	6

Comments: N₂ purge: start 1232 stop 1302 10 lpm

SDS-11; Hexavalent Chromium
Revision Date: July 2010

Project No. *40942312*

Operator Initials WDD

Hexavalent Chromium

SW-846 – Method 0061

Condition No. ICRD

Run No. 3

Date: 6/30/11

Moisture Determination

Imp No.	Contents	Vol (mL)	Configuration	Final Wt (g)	-	Initial Wt. (g)	= Net Gain (g)
1	KOH	150	Teflon [1]	723.5	-	699.7	=
2	KOH	75	Teflon [2]	607.6	-	529.9	=
3	KOH	75	Teflon	581.9	-	~~515.6~~ 513.3	=
4	-	-	Teflon	534.7	-	446.5	=
5	Silica Gel	~ 300g	Glass Mod	942.1	-	908.1	=
6					-		=
7					-		=
					Total Net Gain (g) =		

WDD 6/30/11

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Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR-3-M0061-Imp/Rns	1	Impinger Catch and Rinses

Sample Recovery Checklist

AT LOCATION

✓ Rinse probe – *with a known mass of water* – into the first impinger. This is done using the sampling system pumps. First, pull some rinse water (~100 mL) through the peristaltic pump and through the probe, and then pull about 50 mL through the nozzle and probe (using the meter box pump).

IN LABORATORY

✓ Purge sample train with nitrogen for 30 minutes at a flow rate of 10 liters per minute.

✓ Measure pH of impinger solution – must be ≥8.5

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section of the sampling data sheet.

✓ Transfer contents of all impingers into sample bottle(s). Rinse all impingers and all connecting lines 4 times with DI water into the sample bottle(s).

✓ Filter contents of sample bottle(s) through 0.45 µm acetate filter. Rinse sample container three times with DI water. Pour rinses through filter. Discard filter. Complete Imp/Rns Sample Label(s).

✓ Log samples into logbook and store samples appropriately.

H_2O bottle: tare 25.3 g, gross 121.7 g

RDS-04 Hexavalent Chromium
Revision Date: November 2008
Reviewed: July 2010

[1] This impinger has the drop tube 2" from the bottom, and is fitted with an additional line for recirculation of impinger solution

[2] The 2nd, 3rd and 4th impingers have the drop tube ½ inch from the bottom.

Sample Type – **Chromium (VI) (Method 0061)**	Date 6/30/11	Condition D	Page 2 of 2		
Plant Name – Chevron Hawaii	PTCF 0.84	Run 3	Sampling Train Leak Rate (ft³ @ in. Hg)		
Project Number - 40942312	Console No. A16 1900	Operator NE	Initial	See First Page	
Location (Source) - FCCU	DGMCF 1.003	Nozzle Dia (in) 0.195	Final		
Duct Dimension(s) 54"	ΔH@ 1.759	Nozzle ID ——	Pitot Tube ID		
Elevation (relative to Barometer) (ft) 0		Kf 0.76	Pitot Tube Leak Check		
Nozzle Calib. See 1st Page		Bar. Press. (in. H_2O) 29.98	Initial	(+) See First Page	(-)
		Stat. Press. (in. H_2O) -1.1	Final	(+)	

Point	Clock Time	Dry Gas Vol. (ft³)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)				Vacuum (in. Hg)
					Stack	Imp Exit	DGM In	DGM Out	
	1052	764.61	1.9	1.5	492	60	94	92	6
A9	1056	767.19	1.9	1.5	493	63	94	92	6
	1100	769.87	1.9	1.5	493	62	95	92	6
A8	1104	773.00	1.8	1.4	494	62	95	92	5
	1108	775.31	1.8	1.4	493	61	94	92	5
A7	1112	777.83	1.7	1.3	494	62	94	92	5
	1116	780.44	1.7	1.3	495	62	94	92	5
A6	1120	782.84	1.8	1.4	496	63	96	92	5
	1124	785.80	1.8	1.4	498	64	95	92	5
A5	1128	787.93	1.8	1.4	498	65	95	92	5
	1132	790.11	1.8	1.4	500	66	95	93	5
A4	1136	792.13	1.8	1.4	499	63	95	93	5
	1140	795.74	1.9	1.5	498	63	95	93	5
A3	1144	798.45	1.7	1.3	499	63	95	93	5
	1148	800.94	1.7	1.3	496	62	95	93	4
A2	1152	803.31	1.5	1.2	496	62	95	93	4
	1156	806.00	1.5	1.2	496	61	94	93	4
A1	1200	808.30	1.3	1.0	494	62	94	93	4
↓	1204	810.73	1.3	1.0	494	63	94	93	3
STOP	1208	812.735							

Comments:

SDS-11; Hexavalent Chromium
Revision Date: July 2010

Sample Type – **Chromium (VI) (Method 0061)**	Date 6/28/14	Condition FB	Page 1 of 1		
Plant Name – Chevron Hawaii	PTCF 0.84	Run —	Sampling Train Leak Rate (ft^3 @ in. Hg)		
Project Number - 40942312	Console No. A16140J	Operator NR	Initial	see @ below	
Location (Source) - FCCU	DGMCF 1.000	Nozzle Dia (in) —	Final	↓ @ ↓	
Duct Dimension(s) 54"	ΔH@ 1.719	Nozzle ID —	Pitot Tube ID —		
Elevation (relative to Barometer) (ft) 0		Kf —	Pitot Tube Leak Check		
Nozzle Calib. NA NA NA		Bar. Press. (in. H_2O) 29.95	Initial	(+) —	(-) —
		Stat. Press. (in. H_2O) —	Final	(+) —	(-) —

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)				Vacuum (in. Hg)	
					Stack	Imp Exit	DGM In	DGM Out		
	1741	853.920	@15"	=0.004						
		853.950								
	1743	853.951	@15"	=0.004						
		854.011								

Comments:

SDS-11; Hexavalent Chromium
Revision Date: July 2010

Project No. *40942312*

Operator Initials WDD

Hexavalent Chromium

SW-846 – Method 0061

Condition No. D

Run No. 1

Date: 6/28/11

Moisture Determination

Imp No.	Contents	Vol (mL)	Configuration	Final Wt (g)	- Initial Wt. (g)	= Net Gain (g)
1	KOH	150	Teflon [1]	696.4	- 695.1	=
2	KOH	75	Teflon [2]	600.4	- 527.3	=
3	KOH	75	Teflon	555.8	- 515.4	=
4	-	-	Teflon	447.8	- 438.7 (448.4)	=
5	Silica Gel	~ 300g	Glass Mod	984.8	- 983.1	=
6					-	=
7					-	=
					Total Net Gain (g) =	

B-110

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-ICR-~~FB~~-M0061-Imp/Rns	1	Impinger Catch and Rinses

Sample Recovery Checklist

AT LOCATION

✓ Rinse probe – *with a known mass of water* – into the first impinger. This is done using the sampling system pumps. First, pull some rinse water (~100 mL) through the peristaltic pump and through the probe, and then pull about 50 mL through the nozzle and probe (using the meter box pump).

IN LABORATORY

✓ Purge sample train with nitrogen for 30 minutes at a flow rate of 10 liters per minute.

✓ Measure pH of impinger solution – must be ≥8.5 pH 13

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section of the sampling data sheet.

✓ Transfer contents of all impingers into sample bottle(s). Rinse all impingers and all connecting lines 4 times with DI water into the sample bottle(s).

✓ Filter contents of sample bottle(s) through 0.45 µm acetate filter. Rinse sample container three times with DI water. Pour rinses through filter. Discard filter. Complete Imp/Rns Sample Label(s).

✓ Log samples into logbook and store samples appropriately.

Water Recovery Bottle
tare : 112.7g
gross : 213.6g

RDS-04 Hexavalent Chromium
Revision Date: November 2008
Reviewed: July 2010

[1] This impinger has the drop tube 2" from the bottom, and is fitted with an additional line for recirculation of impinger solution

[2] The 2nd, 3rd and 4th impingers have the drop tube ½ inch from the bottom.

Iso Summary - Method 26A

Chevron Hawaii FCCU Refinery ICR

Location	FCCU	FCCU	FCCU	Averages
Parameter	M26A	M26A	M26A	
Run Designation	Run 1	Run 2	Run 3	
Date	6/22/2011	6/22/2011	6/23/2011	
Time Start	13:04	16:53	09:55	
Time Stop	16:00	19:02	12:05	
	13:04-16:00	16:53-19:02	09:55-12:05	
Duct Diameter (ft) *(equivalent if square duct)*	4.50	4.50	4.50	
Pitot Tube Correction Factor	0.84	0.84	0.84	
Nozzle Diameter (inches)	0.200	0.200	0.200	
DGMCF	1.014	1.014	1.014	
Standard Temperature (°F)	68	68	68	
Barometric Pressure Measured (" Hg)	29.94	29.94	30.04	
Stack Elevation (ft) (relative to Barometer)	0	0	0	
Barometric Pressure (" Hg)	29.94	29.94	30.04	
Average Stack Temperature (°F)	482.6	484.2	486.1	484.3
Average DGM Temp (°F)	96.2	97.6	92.1	
Average Delta H (in wc)	1.43	1.41	1.33	
Condensed Water (g)	154.4	147.2	151.9	
Test Duration (minutes)	120	120	120	
Static Pressure (in wc)	-1.10	-1.10	-1.10	
% CO	0	0	0	
% CO2	13.68	13.65	13.54	
% O2	5.18	5.15	5.21	
% H2	0.0	0.0	0.0	
% CH4	0.0	0.0	0.0	
% N2	81.14	81.20	81.26	
Meter Volume (acf)	81.145	79.986	77.255	
Average square root of delta p	1.261	1.270	1.265	
Absolute Stack Pressure (in Hg)	29.86	29.86	29.96	
Absolute Stack Temperature (°R)	942.6	944.2	946.1	944.3
Flue Gas Moisture (%)	8.51	8.27	8.68	8.49
Moisture at saturation	N/A	N/A	N/A	
Moisture used in Calculation	8.51	8.27	8.68	8.49
Gas Molecular Weight (Wet) (g/g-mole)	29.34	29.37	29.30	
Corrected Volume of Gas sampled (acf)	82.281	81.106	78.337	
Volume at Meter (dscf)	78.437	77.111	75.459	
Average Gas Velocity (f/sec)	93.90	94.67	94.33	94.30
Avg Flow Rate (acfh)	5,376,499	5,420,096	5,400,724	5,399,107
Avg Flow Rate (acfm)	89,608	90,335	90,012	89,985
Avg Flow Rate (scfh)	3,005,586	3,024,743	3,017,900	3,016,076
Avg Flow Rate (scfm)	50,093	50,412	50,298	50,268
Avg Flow Rate (dscfh)	2,749,944	2,774,608	2,755,905	2,760,152
Avg Flow Rate (dscfm)	45,832	46,243	45,932	46,003
Isokinetic Sampling Rate (%)	103.97	101.30	99.80	

Sample Type: **HCl, Cl_2 (EPA Method 26A)**	Start Time 13:04	Condition E	Page 1 of 1		
Plant Name – Chevron Hawaii	End Time 1600	Run 1	Sampling Train Leak Rate (ft^3 @ "Hg)		
Project Number - 40942312	Duration (min) 120	Operator BB	Initial	0.002 @ 15"	
Date 6/22/11	Pm 0.84	Nozzle Dia (in) 0.200	Final	0.002 @ 8"	
Location (Source) - FCCU	Console No. A161362	Nozzle ID M26A	Pitot Tube ID	P-349	
Duct Dimension(s) 54"	DGMCF 1.014	Kf 0.87	Pitot Tube Leak Check		
Elevation (relative to Barometer) (ft) 0'	ΔH@ 1.713	Bar. Press. (in. H_2O) 29.94	Initial	(+) OK	(-) OK
Nozzle Calib. 0.200 0.200 0.200		Stat. Press. (in. H_2O) -1.1	Final	(+) OK	(-) OK
			Filter No.		

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
C1	13:04	252.345	1.7	1.5	478	261	260	59	93	92	-3.0
C2	13:09	255.75	1.7	1.5	479	260	259	57	92	92	-3.0
C3	13:14	259.12	1.8	1.6	483	258	258	58	92	91	-3.0
C4	13:19	262.62	1.7	1.5	484	259	261	57	93	91	-3.0
C5	13:24	266.07	1.7	1.5	486	259	264	57	94	92	-3.0
C6	13:29	269.45	1.8	1.6	487	258	265	57	96	93	-3.0
C7	13:34	273.06	1.9	1.7	487	258	266	58	96	93	-3.0
C8	13:39	276.71	1.8	1.6	487	259	268	57	96	92	-3.0
C9	13:44	280.24	1.7	1.5	488	260	264	58	96	93	-3.0
C10	13:49	283.71	1.6	1.4	486	261	266	54	96	93	-3.0
C11	13:54	286.96	1.4	1.2	478	256	264	58	97	93	-3.0
C12	13:59	290.04	1.4	1.2	472	257	266	59	96	93	-3.0
-	14:04	293.089	-	-	-	-	-	-	-	-	-
	port	change	lk √s: 7"		pre: 0.002 @			post: 0.002 @ 7"			
D1	1500 1455	293.213	1.7	1.5	474	252	267	61	97	94	3
D2	1505	296.71	1.7	1.5	482	251	268	61	99	95	3
D3	1510	300.23	1.8	1.6	483	253	259	61	99	95	3
D4	1515	304.06	1.8	1.6	484	255	268	62	100	96	3
D5	1520	307.43	1.9	1.7	485	256	268	61	101	96	3
D6	1525	311.11	1.7	1.6	485	251	268	60	102	97	3
D7	1530	314.70	1.5	1.3	487	252	268	66	102	98	3
D8	1535	318.25	1.5	1.4	488	251	268	62	102	97	3
D9	1540	321.87	1.3	1.2	486	251	268	64	102	98	3
D10	1545	324.62	1.2	1.1	485	251	270	63	103	99	3
D11	1550	327.82	1.2	1.1	476	250	267	61	102	98	3
D12	1555	330.63	0.90	0.8	472	250	270	61	102	98	3
STOP	1600	333.614									

Comments:

SDS-21: HCl, Cl_2 by EPA Method 26A
Revision Date: January 2008
Reviewed: July 2010

Project No. 40942312

Recovered by (Initials) SEH

HCl/Cl2
EPA Method 26A

Condition No. E

Run No. 1

Date: 6-22-16

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt (g)	=	Net Gain (g)
1	0.1 N H2SO4	100	G/S	881.9	-	753.2	=	128.7
2	0.1 N H2SO4	100	G/S	748.2	-	742.2	=	6.00
3	--	--	Mod	643.2		641.4		1.8
4	0.1 N NaOH	100	Mod	721.8	-	720.5	=	1.3
5	0.1 N NaOH	100	Mod	746.0	-	746.1	=	-0.1
6	Silica Gel	~ 300g	Mod	941.0	-	924.3	=	16.7
				Total Net Gain (g) =				154.4

[a] this impinger optional, per Method 26A

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-stk-DCR1-M26A-AcdImp	1	Acid Impinger Catch & Rinse
↓-M26A-AlkImp	1	Alkaline Impinger Catch & Rinse

Sample Recovery Checklist

AT LOCATION

✓ (Only if transfer line is used). Disconnect transfer line, and rinse three times with DI water into acid impinger catch bottle. Transfer bottle to laboratory with impinger train.

IN LABORATORY

SEH Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section of this data sheet.

✓ Pour contents of the 1st, 2nd and 3rd (containing acid) impingers into the Acid impinger catch bottle(s). Rinse impingers and connecting glassware with deionized water into the same bottle(s). Complete acid impinger sample label.

✓ Pour the contents of the 4th and 5th impingers (containing NaOH) into the alkaline impinger catch bottle(s). Rinse impingers and connecting glassware with deionized water into the same bottle(s). Complete alkaline impinger sample label.

✓ Log samples into logbook and store appropriately.

Comments no visible condensation on nozzle, probe liner or filter holder following test run

Sample Type: **HCl, Cl_2 (EPA Method 26A)**	Start Time 16:53	Condition E	Page 1 of 1
Plant Name – Chevron Hawaii	End Time 19:02	Run 2	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Duration (min) 120	Operator JR	Initial 0.003 @ 15"
Date 4/6/22/11	PTCF 0.84	Nozzle Dia (in) 0.200	Final 0.002 @ 10"
Location (Source) - FCCU	Console No. A161362	Nozzle ID M26A	Pitot Tube ID P-344
Duct Dimension(s) 54"	DGMCF 1.014	Kf 0.87	Pitot Tube Leak Check
Elevation (relative to Barometer) (ft) 75'	ΔH@ 1.713	Bar. Press. (in. H_2O) 29.94	Initial (+) OK (-) OK
Nozzle Calib. 0.200 0.200 0.200		Stat. Press. (in. H_2O) -1.1	Final (+) OK (-) OK
			Filter No. —

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
D 1	16:53	334.878	1.7	1.5	477	252	265	59	96	94	-3.0
2	16:58	338.47	1.8	1.6	483	254	267	58	96	95	-3.0
3	17:03	342.01	1.8	1.6	484	251	267	58	97	95	-3.0
4	17:08	345.58	1.8	1.6	487	251	268	58	97	95	-3.0
5	17:13	349.11	1.7	1.5	487	254	267	57	98	94	-3.0
6	17:18	352.70	1.9	1.7	488	254	267	57	98	95	-3.0
7	17:23	356.20	1.7	1.5	489	257	261	58	99	95	-3.0
8	17:28	359.70	1.6	1.4	490	252	266	58	100	96	-3.0
9	17:33	362.99	1.5	1.3	488	252	268	57	100	95	-3.0
10	17:38	366.24	1.4	1.2	484	253	267	58	101	96	-3.0
11	17:43	369.31	1.3	1.1	483	252	268	58	101	96	-3.0
12	17:48	372.31	1.3	1.1	474	252	261	58	101	96	-3.0
-	17:53	375.294	-	-	-	-	-	-	-	-	-
C 1	18:02	375.385	1.6	1.4	472	253	258	57	100	96	-3.0
2	18:07	378.71	1.8	1.6	482	256	262	57	100	96	-3.0
3	18:12	382.22	1.8	1.6	483	256	260	58	101	97	-3.0
4	18:17	385.88	1.7	1.5	486	254	261	56	101	98	-3.0
5	18:22	389.35	1.7	1.5	488	254	262	57	101	97	-3.0
6	18:27	392.83	1.8	1.6	488	254	260	58	101	98	-3.0
7	18:32	396.34	1.8	1.5	489	253	260	57	100	97	-3.0
8	18:37	399.74	1.8	1.5	489	253	264	57	100	98	-3.0
9	18:42	403.11	1.6	1.3	489	250	260	58	100	96	-3.0
10	18:47	406.28	1.4	1.2	488	250	260	57	99	97	-3.0
11	18:52	409.29	1.2	1.0	478	252	263	58	98	96	-3.0
12	18:57	412.08	1.2	1.0	475	251	262	58	98	96	-3.0
	19:02	414.955	-	-	-	-	-	-	-	-	-

Comments:

SDS-21: HCl, Cl_2 by EPA Method 26A
Revision Date: January 2008
Reviewed: July 2010

Project No. 40942312

Recovered by (Initials) NR|MDD

HCl/Cl2
EPA Method 26A

Condition No. ICR E

Run No. 2

Date: 10/22/14

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt (g)	=	Net Gain (g)
1	0.1 N H2SO4	100	G/S	867.5	-	745.9	=	
2	0.1 N H2SO4	100	G/S	748.3	-	743.8	=	
3	--	--	Mod	657.1	-	655.1		
4	0.1 N NaOH	100	Mod	727.2	-	726.2	=	
5	0.1 N NaOH	100	Mod	751.9	-	751.6	=	
6	Silica Gel	~ 300g	Mod	938.2	-	920.4	=	
				Total Net Gain (g) =				

[a] this impinger optional, per Method 26A

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-SIT-ICR2-M26A-AcdImp	1	Acid Impinger Catch & Rinse
↓ - ↓ -M26A-AlkImp	1	Alkaline Impinger Catch & Rinse

Sample Recovery Checklist

AT LOCATION

✓ (Only if transfer line is used). Disconnect transfer line, and rinse three times with DI water into acid impinger catch bottle. Transfer bottle to laboratory with impinger train.

IN LABORATORY

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section of this data sheet.

✓ Pour contents of the 1st, 2nd and 3rd (containing acid) impingers into the Acid impinger catch bottle(s). Rinse impingers and connecting glassware with deionized water into the same bottle(s). Complete acid impinger sample label.

✓ Pour the contents of the 4th and 5th impingers (containing NaOH) into the alkaline impinger catch bottle(s). Rinse impingers and connecting glassware with deionized water into the same bottle(s). Complete alkaline impinger sample label.

✓ Log samples into logbook and store appropriately.

Comments	silica gel: ~50% spent

Sample Type: **HCl, Cl_2 (EPA Method 26A)**	Start Time 09:55	Condition E	Page 1 of 1
Plant Name – Chevron Hawaii	End Time 12:05	Run 3	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Duration (min) 120	Operator BB	Initial 0.003 @ 15"
Date 6/23/11	PTCF 0.84	Nozzle Dia (in) 0.200	Final 0.002 @ 10"
Location (Source) - FCCU	Console No. A161362	Nozzle ID M26A	Pitot Tube ID P-344
Duct Dimension(s) 54"	DGMCF 1.014	Kf 0.87	Pitot Tube Leak Check
Elevation (relative to Barometer) (ft) 0.0'	ΔH@ 1.713	Bar. Press. (in. H_2O) 30.04	Initial (+) 0@8 (-) 0@73"
Nozzle Calib. 0.200 0.200 0.200		Stat. Press. (in. H_2O) -1.1	Final (+) 0@78" (-) 0@78"
			Filter No. —

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out	
C 1	09:55	429.564	1.6	1.3	487	250	258	59	92	89	-3.0
2	10:00	432.78	1.7	1.4	492	254	257	56	93	90	-3.0
3	10:05	436.01	1.7	1.4	492	256	260	56	94	91	-3.0
4	10:10	439.33	1.8	1.5	494	258	260	56	95	91	-3.0
5	10:15	442.72	1.8	1.5	494	254	259	57	95	91	-3.0
6	10:20	446.15	1.7	1.4	494	255	262	58	96	92	-3.0
7	10:25	449.46	1.9	1.6	493	258	260	58	96	92	-3.0
8	10:30	453.12	1.9	1.6	492	252	260	58	95	92	-3.0
9	10:35	456.40	1.8	1.5	492	255	261	59	95	92	-3.0
10	10:40	459.75	1.5	1.2	489	252	260	58	94	91	-3.0
11	10:45	462.84	1.3	1.1	477	251	258	59	93	91	-3.0
12	10:50	465.79	1.3	1.1	478	252	259	59	93	91	-3.0
-	10:55	468.749	-	-	-	-	-	-	-	-	-
D 1	11:05	468.868	1.6	1.3	480	250	259	57	90	90	-3.0
2	11:10	471.97	1.8	1.5	484	250	259	57	92	89	-3.0
3	11:15	475.45	1.7	1.4	485	254	259	58	92	89	-3.0
4	11:20	478.74	1.7	1.4	486	257	261	58	93	89	-3.0
5	11:25	482.02	1.7	1.4	488	256	260	58	94	90	-3.0
6	11:30	485.33	1.7	1.4	488	251	259	57	94	90	-3.0
7	11:35	488.74	1.6	1.3	489	253	261	58	94	91	-3.0
8	11:40	491.84	1.7	1.4	489	255	259	58	94	91	-3.0
9	11:45	495.18	1.5	1.2	487	253	258	57	93	90	-3.0
10	11:50	498.37	1.2	1.0	477	252	257	57	94	91	-3.0
11	11:55	501.275	1.2	1.0	471	252	259	58	94	90	-3.0
12	12:00	503.99	1.2	1.0	469	253	260	59	94	90	-3.0
	12:05	506.938	-	-	-	-	-	-	-	-	—

Comments:

SDS-21 HCl, Cl_2 by EPA Method 26A
Revision Date: January 2007
Reviewed: July 2010

Project No. 40942312

Recovered by (Initials) DCW

HCl/Cl2
EPA Method 26A

Condition No. E

Run No. 3

Date: 6/23/11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt (g)	=	Net Gain (g)
1	0.1 N H2SO4	100	G/S	863.8	-	748.8	=	
2	0.1 N H2SO4	100	G/S	754.5	-	745.9	=	
3	--	--	Mod	657.9	-	654.6	=	
4	0.1 N NaOH	100	Mod	729.3	-	730.2	=	
5	0.1 N NaOH	100	Mod	751.6	-	751.4	=	
6	Silica Gel	~ 300g	Mod	983.4	-	957.7	=	
				Total Net Gain (g) =				

[a] this impinger optional, per Method 26A

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-Stk-DCR3-M26A-AcdImp	1	Acid Impinger Catch & Rinse
↓-M26A-AlkImp	1	Alkaline Impinger Catch & Rinse

Sample Recovery Checklist

AT LOCATION

✓ (Only if transfer line is used). Disconnect transfer line, and rinse three times with DI water into acid impinger catch bottle. Transfer bottle to laboratory with impinger train.

IN LABORATORY

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section of this data sheet.

✓ Pour contents of the 1st, 2nd and 3rd (containing acid) impingers into the Acid impinger catch bottle(s). Rinse impingers and connecting glassware with deionized water into the same bottle(s). Complete acid impinger sample label.

✓ Pour the contents of the 4th and 5th impingers (containing NaOH) into the alkaline impinger catch bottle(s). Rinse impingers and connecting glassware with deionized water into the same bottle(s). Complete alkaline impinger sample label.

✓ Log samples into logbook and store appropriately.

Comments

Sample Type: **HCl, Cl_2 (EPA Method 26A)**	Start Time —	Condition —	Page 1 of 1
Plant Name – Chevron Hawaii	End Time 12:20	Run FB	Sampling Train Leak Rate (ft^3 @ "Hg)
Project Number - 40942312	Duration (min) NA	Operator	Initial 0.002 @ 15"
Date 6-23-11	PTCF 0.824	Nozzle Dia (in) 0.200	Final 0.002 @ 15"
Location (Source) - FCCU	Console No. A161362	Nozzle ID —	Pitot Tube ID —
Duct Dimension(s) NA	DGMCF 1.014	Kf —	Pitot Tube Leak Check
Elevation (relative to Barometer) (ft) NA	ΔH@ 1.715	Bar. Press. (in. H_2O) —	Initial (+) — (-) —
Nozzle Calib. — — —		Stat. Press. (in. H_2O) —	Final (+) — (-) —
			Filter No. —

Point	Clock Time	Dry Gas Vol. (ft^3)	ΔP (in. H_2O)	ΔH (in. H_2O)	Temperature (°F)						Vacuum (in. Hg)	
					Stack	Probe	Filter	Imp Exit	DGM In	DGM Out		
	12:20	507.265										

Comments:

SDS-21: HCl, Cl_2 by EPA Method 26A
Revision Date: January 2008
Reviewed: July 2010

Project No. 40942312

Recovered by (Initials) DCW

HCl/Cl2
EPA Method 26A

Condition No. FB

Run No. —

Date: 6-23-11

Moisture Determination

Imp No.	Contents	Volume (mL)	Configuration	Final Wt (g)	-	Initial Wt (g)	=	Net Gain (g)
1	0.1 N H2SO4	100	G/S	761.2		761.5	=	
2	0.1 N H2SO4	100	G/S	744.3		744.8	=	
3	--	--	Mod	640.7		641.2	=	
4	0.1 N NaOH	100	Mod	718.4		719.0	=	
5	0.1 N NaOH	100	Mod	747.9		748.2	=	
6	Silica Gel	~ 300g	Mod	939.8		941.0	=	
				Total Net Gain (g) =				

[a] this impinger optional, per Method 26A

Sample Log

Sample ID Number	No. of Sample Containers	Description
CHV-SHK ICRPB-M26A-AcdImp	1	Acid Impinger Catch & Rinse
___-___-M26A-AlkImp	1	Alkaline Impinger Catch & Rinse

Sample Recovery Checklist

AT LOCATION

✓ (Only if transfer line is used). Disconnect transfer line, and rinse three times with DI water into acid impinger catch bottle. Transfer bottle to laboratory with impinger train.

IN LABORATORY

✓ Disassemble sample train, wipe off excess water and weigh each impinger. Record the final weights in the Moisture Determination section of this data sheet.

✓ Pour contents of the 1st, 2nd and 3rd (containing acid) impingers into the Acid impinger catch bottle(s). Rinse impingers and connecting glassware with deionized water into the same bottle(s). Complete acid impinger sample label.

✓ Pour the contents of the 4th and 5th impingers (containing NaOH) into the alkaline impinger catch bottle(s). Rinse impingers and connecting glassware with deionized water into the same bottle(s). Complete alkaline impinger sample label.

___ Log samples into logbook and store appropriately.

Comments

Appendix C

URS CEMS Raw Data

URS CEMs Raw Data
Concentrations Summary

Uncorrected Concentrations

	Time	O_2 (%)	CO_2 (%)	THC (ppmv)
22-Jun-11				
Run 1	13:04-16:36	5.31	13.48	--
Run 2	16:53-19:02	5.23	13.57	--
23-Jun-11				
Run 3	09:42-13:06	5.22	13.67	--
24-Jun-11				
Run 5	09:32-13:31	5.40	13.52	--
Run 6	15:20-19:42	5.16	13.72	--
26-Jun-11				
Run 7	09:10-09:36, 09:55-12:01, 16:32-17:40	5.58	13.37	--
27-Jun-11				
Run 8	09:20-13:40	5.37	13.41	5.64
28-Jun-11				
Run 9	10:58-16:20	5.70	13.10	2.69
29-Jun-11				
Run 11	09:15-15:47	5.49	13.32	3.64
30-Jun-11				
Run 12	08:47-12:08	5.69	13.22	--

Corrected O_2 Conc.

	Time	O_2 (%)	Eq. 7E-5 Factors Co	Cma/(Cm-Co)	Bias Corrected Concentration
Run 1	13:04-16:36	5.31	0.29	1.03	5.18
Run 2	16:53-19:02	5.23	0.20	1.02	5.15
Run 3	09:42-13:06	5.22	0.04	1.01	5.21
Run 5	09:32-13:31	5.40	0.06	1.01	5.39
Run 6	15:20-19:42	5.16	0.04	1.01	5.16
Run 7	09:10-09:36, 09:55-12:01, 16:32-17:40	5.58	0.04	1.01	5.59
Run 8	09:20-13:40	5.37	0.06	1.01	5.38
Run 9	10:58-16:20	5.70	0.04	1.01	5.72
Run 11	09:15-15:47	5.49	0.09	1.01	5.47
Run 12	08:47-12:08	5.69	0.07	1.01	5.65

Corrected CO_2 Conc.

	Time	CO_2 (%)	Eq. 7E-5 Factors Co	Cma/(Cm-Co)	Bias Corrected Concentration
Run 1	13:04-16:36	13.48	0.71	1.07	13.68
Run 2	16:53-19:02	13.57	0.51	1.05	13.65
Run 3	09:42-13:06	13.67	0.12	1.00	13.54
Run 5	09:32-13:31	13.52	0.17	1.00	13.40
Run 6	15:20-19:42	13.72	0.17	1.00	13.60
Run 7	09:10-09:36, 09:55-12:01, 16:32-17:40	13.37	0.16	1.00	13.21
Run 8	09:20-13:40	13.41	0.15	1.01	13.35
Run 9	10:58-16:20	13.10	0.20	1.01	13.06
Run 11	09:15-15:47	13.32	0.21	1.02	13.31
Run 12	08:47-12:08	13.22	0.20	1.01	13.15

CEMS Operation Log

Project Chevron Hawaii	**Page** 1 **of** 7
Project Number 40942312	**Operator** MDD
Source FCCU Stack	**Date** 6/21/11 - 6/23/11

Time	Activity	Analyzer Response						Sample Flow Rate
		O_2	CO_2	THC				
6/21/11 11:00	Turn on Analyzers [1]	--	--	--	--	--	--	
~1600	FID Lit	—	—	—				
1708	N_2 zero Cal Error	0.07	0.04	—				1 Lpm
1710	22.1% O_2 / 18.9% CO_2 Span	23.10	19.03	—				↓
1712	% O_2 / % CO_2 Mid	11.08	9.80	—				
1758	FID Out							
6/22/11 0847	Cal Error N_2 zero	0.03	0.07	—				1 Lpm
0849	22.1% O_2 / 18.9% CO_2 Span	22.12	18.74	—				↓
0850	11.1 % O_2 / 9.74% CO_2 Mid	11.19	9.89	—				
0854	Cal Bias N_2 zero	0.10	0.04	—				1 Lpm
0857	11.1% O_2 / 9.74% CO_2 Mid	11.13	9.78	—				↓
0858	O_2 / CO_2 Response Time	45 sec	30 sec	—				
0956	Cal Error N_2 zero	—	—	0.78				1 Lpm
1000	84.5 ppm Propane Span	—	—	86.29				↓
1003	49.8 ppm Propane Mid	—	—	50.20				
1005	30.0 ppm Propane Low	—	—	30.72				
1007	Cal Bias N_2 zero	—	—	0.88				1 Lpm
1008	49.8 ppm Propane Mid	—	—	48.85				↓
1010	THC Response Time	—	—	30 sec				
	Soot-blow							
MDD 6/22/11	Strat Check (CO_2)	~~-0.04~~	~~0.10~~	—	Recording issue resolved			—
1234	MDD 6/22/11 Cal Error N_2 zero	-0.04	0.10	—				1 Lpm
1235	22.1% O_2 / 18.9% CO_2 Span	22.03	19.01	—				↓
1236	11.1% O_2 / 9.74% CO_2 Mid	11.14	9.91	—				
1239	Cal Bias N_2 zero	0.33	0.51	—				
1240	11.1% O_2 / 9.74% CO_2 Mid	11.04	9.79	—				↓
1252	Strat Check (CO_2)							
1306	Start E/B Run 1							
CSG 6/22/11 ~~1636~~ 1641	zero bias	0.37	0.53	—				1 Lpm
1643	11.1 O_2 9.74 CO_2 bias	11.05	9.81	—				↓
1653	Start E Run 2							
1902	End E Run 2							
1906	Cal Bias N_2 zero	0.03	0.08	—				1 Lpm
1909	11.1% O_2 / 9.74% CO_2 Mid	11.06	9.84	—				↓
6/23/11 0905	Cal Error N_2 zero	-0.03	0.12	—				1 Lpm
0906	22.1% O_2 / 18.9% CO_2 Span	22.09	19.11	—				↓

End E/B Run 6/22/11 MDD

[1] "Turn On Analyzers" is to document sufficient warm-up time. If applicable, "yesterday" is an acceptable entry.

Project Chevron Hawaii	**Page** 2 of 7
Project Number 40942312	**Operator** MDD
Source FCCU Stack	**Date** 6/21/11 - 6/30/11 MDD

Calibration Gases

Component(s)	Concentration(s)	Cylinder ID
O_2 / CO_2	22.1% / 18.9 %	CC82073
"	11.1% / 9.74%	CC675460
Propane / Air	84.5 ppm	CC18793
"	49.8 ppm	CC82348
"	30.0 ppm	CC84418
N_2 MDD 6/21/11 60% H_2 / 40% He	zero	AS2788 tag
H_2 / He	60% / 40%	ALM039978
zero Air	zero	CZZ947 tag

Indicate multi-component standards appropriately

Instrument Identification

Analyte	Manufacturer [1]	Model Number	Serial Number	Instrument Name
O_2 MDD 6/22/11	S	1440	01440D1/4393	Waits
CO_2	S	1440	01440D1/4393	Waits
THC	T	51i-HT	0934938732	Cash

[1] Code: T – Thermo; W – Western; C – California; S – Servomex; O -Omega

Method Performance Checks

Activity	Method	Criterion	Initials
Span Selection	3A, 6C, 7E, 10	Emissions between 20% and 100% of calibration span	MDD
	25A	Span 1.5-2.5 times the emission limit; if no emission limit, span 1.5-2.5 times expected level	MDD
Calibration Gas Selection	3A, 6C, 7E, 10	Protocol gas; calibration span, 40-60% of calibration span, and <20% of calibration span (or zero gas)	MDD
	25A	Protocol gas: 25-35%, 45-55% and 80-90% of span, zero grade air	MDD
Calibration Error	3A, 6C, 7E, 10	Span gas within ±2% of calibration span	MDD
		Mid-range gas within ±2% of calibration span	MDD
		Zero gas within ±2% of calibration span	MDD
	25A	Low-range gas within 5% of certified value	MDD
		Mid-range gas within 5% of certified value	MDD
		Span gas within 5% of certified value	MDD MDD 6/21/11
Converter Check	7E	≥90% converter efficiency	~~MDD~~ N/A
System Bias Check	3A, 6C, 7E, 10	Selected gas within ±5% of calibration to measured value during calibration error	MDD
Response Time	3A, 6C, 7E, 10, 25A	No criteria, evaluated to determine duration at sample points	MDD
Sample Flow Rate	3A, 6C, 7E, 10	Stable sample flow rate within 10% of flow rate established during system response time check and bias check	MDD
3 Point Stratification Check [2,3]	3A, 6C, 7E, 10	± 5% of mean at each point – single point ± 5-10% of mean at each point – 3 points > ± 10% of mean at each point 12 points	MDD
Post-Test Calibration Drift Check	3A, 6C, 7E, 10	Selected gas reading within ±3% of calibration span of pre-test reading	MDD
		Zero gas within ±3% of calibration span of pre-test reading	MDD
	25A	Selected gas reading within ±3% of span of pre-test reading	MDD
		Zero gas within ±3% of span of previous reading	MDD

[2] The stratification check criteria do not apply to RATA.
[3] The stratification check is not required for stacks or ducts <4 inches in diameter

Hourly Drift Check (M25A only)

	Okay (initials)					
	Hour 1	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6
Selected gas reading within ±3% of span of initial reading	MDD	MDD	MDD	MDD	MDD	MDD
Zero gas within ±3% of span of initial reading	MDD	MDD	MDD	MDD	MDD	MDD

CEMS Operation Log

Project Chevron Hawaii	**Page** 3 **of** 7
Project Number 40942312	**Operator** MDD
Source FCCU Stack	**Date** 6/23/11 – 6/26/11

Time	Activity	Analyzer Response O_2	Analyzer Response CO_2	Analyzer Response THC				Sample Flow Rate
~~—~~	~~Turn on Analyzers[1]~~	~~—~~	~~—~~	~~—~~	~~—~~	~~—~~	~~—~~	
0908	11.1% O_2 / 9.74% CO_2 Mid	11.16	9.96	—				1 Lpm
0910	Cal Bias N_2 zero	0.06	0.12	—				↓
0911	11.1% O_2 / 9.74% CO_2 Mid	11.07	9.86	—				↓
0942	Start E Run 3 / B Run 2							
1306	End E Run 3 / B Run 2							
1311	Cal Bias N_2 zero	0.03	0.13	—				1 Lpm
1312	11.1% O_2 / 9.74% CO_2 Mid	11.04	9.86	—				↓
1524	Cal Bias N_2 zero	0.04	0.16	—				1 Lpm
MDD 6/23/11 1525	11.1% O_2 / 9.74% CO_2 Mid	~~0.04~~ 11.04	9.84	—				↓
1622	Start Da Run 1							
1923	End Da Run 1							
1925	Cal Bias N_2 zero	0.06	0.19	—				1 Lpm
1926	11.1% O_2 / 9.74% CO_2 Mid	11.03	9.84	—				↓
6/24/11 0856	Cal Error N_2 zero	-0.03	0.16	—				1 Lpm
0857	22.1% O_2 / 18.9% CO_2 Span	22.14	19.15	—				↓
0859	11.1% O_2 / 9.74% CO_2 Mid	11.16	9.98	—				↓
0900	Cal Bias N_2 zero	0.10	0.21	—				↓
0901	11.1% O_2 / 9.74% CO_2 Mid	11.07	9.83	—				↓
	Start D Run 2							
	End D Run 2							
1341	Cal Bias N_2 zero	0.06	0.19	—				1 Lpm
1343	11.1% O_2 / 9.74% CO_2 Mid	11.03	9.83	—				↓
	Start D Run 3							
	End D Run 3							
1945	Cal Bias N_2 zero	0.06	0.19	—				1 Lpm
1946	11.1% O_2 / 9.74% CO_2 Mid	11.02	9.85	—				↓
6/26/11 0840	Cal Error N_2 zero	-0.01	0.10	—				1 Lpm
0841	22.1% O_2 / 18.9% CO_2 Span	22.14	19.11	—				↓
AMP 6/26/11 0842	11.1% O_2 / 9.74% CO_2 ~~Span~~ Mid	11.17	9.99	—				↓
0846	Cal Bias N_2 zero	0.09	0.16	—	THC adjust			1 Lpm
0847	11.1% O_2 / 9.74% CO_2 Mid	11.07	9.85	—				↓
—	Cal Bias N_2 zero	—	—	—				↓
0910	Start D Run 4							
	Pause D Run 4							
1620	Cal Bias N_2 zero	0.00	0.17	—				1 Lpm

[1] "Turn On Analyzers" is to document sufficient warm-up time. If applicable, "yesterday" is an acceptable entry.

CEMS Operation Log

Project	Chevron Hawaii	**Page**	4 of 7
Project Number	40942312	**Operator**	WDI
Source	FCCU Stack	**Date**	6/20/11 - 6/24/11

Time	Activity	Analyzer Response						Sample Flow Rate
		O_2	CO_2	THC				
	Turn on Analyzers [1]	--	--	--	--	--	--	
1621	11.1% O_2 / 9.74% CO_2 Mid	11.00	9.86	—				1 Lpm
	Resume D Run 4							
	End D Run 4							
1750	Cal Bias N_2 Zero	0.02	0.19	—				1 Lpm
1752	11.1% O_2 / 9.74% CO_2 Mid	10.99	9.90	—				↓
6/24/11 0811	Cal Error N_2 Zero	-0.04	0.10	—				1 Lpm
0814	22.1% O_2 / 18.9% CO_2 Span	22.11	19.02	—	CO_2 adjust			↓
0815	Cal Error N_2 Zero	0.00	0.17	—				1 Lpm
0816	22.1% O_2 / 18.9 % CO_2 Span	22.09	19.00	—				
0817	11.1% O_2 / 9.74% CO_2 Mid	11.14	9.92	—				↓
0820	Cal Bias N_2 Zero	0.12	0.12	0.31				1 Lpm
0821	11.1% O_2 / 9.74% CO_2 Mid	11.08	9.80	—				
0826	84.5 ppm Propane Span	—	—	86.83				
0828	49.8 ppm Propane Mid	—	—	49.79				
0836	30.0 ppm Propane Low	—	—	31.05				
0838	N_2 Zero	—	—	0.77				
0840	49.8 ppm Propane Mid	—	—	50.12				
0920 Start A Run 1 → 0942	Drift Check N_2 Zero	—	—	0.72				1 Lpm
0946	49.8 ppm Propane Mid	—	—	50.38				↓
1004	GC VOC recovery check							
1007	End GC rec. check							
1019	GC VOC rec. check							
1021	End GC rec. check							
1031	GC VOC rec. check							
1034	End GC rec. check							
1040	Drift check N_2 zero	—	—	0.72				1 Lpm
1042	49.8 ppm Propane Mid	—	—	50.67				↓
1044	GC VOC rec. check							
1048	End GC rec. check							
1143	Drift check N_2 zero	—	—	0.38				1 Lpm
1145	49.8 ppm propane Mid	—	—	50.41				↓
1156	50 ppm TRS up line							
1157	stop							
1201	50 ppm TRS up							
1204	Stop							

[1] "Turn On Analyzers" is to document sufficient warm-up time. If applicable, "yesterday" is an acceptable entry.

CEMS Operation Log

Project Chevron Hawaii	**Page** 5 **of** 7
Project Number 40942312	**Operator** CSG/MDD
Source FCCU Stack	**Date** 6/27/11 - 06/28/11

Time	Activity	Analyzer Response						Sample Flow Rate
		O_2	CO_2	THC				
	Turn on Analyzers [1]	--	--	--	--	--	--	
1214	50 ppm TRS up							
1217	stop							
1230	50 ppm TRS up							
1233	stop							
1244	Drift check N_2 zero			0.31				1 Lpm
1246	49.8 ppm propane mid			50.26				↓
1351	Drift check N_2 zero	0.02	0.19	0.26				1 Lpm
1353	49.8 ppm propane mid			49.93				↓
1358	11.1% O_2 9.74% CO_2 bias	10.93	9.84					↓
1736	Cal Bias N_2 zero	0.04	0.23	—				1 Lpm
1738	11.1% O_2 / 9.74% CO_2 Mid	11.01	9.79	—				↓
6/28/11 1013	Cal Error N_2 zero	-0.07	0.17	—				1 Lpm
1015	22.1% O_2 / 18.9% CO_2 Span	22.04	19.03	—				↓
1016	11.1% O_2 / 9.74% CO_2 Mid	11.12	9.92	—				↓
1021	Cal Bias N_2 zero	0.05	0.16	0.12				↓
1022	11.1% O_2 / 9.74% CO_2 Mid	11.03	9.80	—				↓
1024	84.5 ppm Propane Span	—	—	85.49				↓
1026	49.8 ppm Propane Mid	—	—	49.37				↓
1028	30.0 ppm Propane Low	—	—	30.58				↓
1030	Cal Bias N_2 zero	0.08	0.17	0.14				↓
1031	49.8 ppm Propane Mid	—	—	50.18				↓
MDD 6/29/11	~~DR~~ Start A Run 2							
1122	Drift Check N_2 zero	—	—	0.10				1 Lpm
1123	49.8 ppm Propane Mid	—	—	50.23				↓
1158	50 ppm C1-C6							
1200	stop							
1206	50 ppm C1-C6							
1208	stop							
1214	50 ppm C1-C6							
1216	stop							
1227	Drift check N_2 Zero	—	—	0.35				1 Lpm
1229	49.8 ppm propane mid	—	—	50.34				↓
1229	50 ppm C1-C6							
1231	stop							
1236	Drift check N_2 zero	—	—	0.20				1 Lpm

[1] "Turn On Analyzers" is to document sufficient warm-up time. If applicable, "yesterday" is an acceptable entry.

CEMS Operation Log

Project Chevron Hawaii	**Page** 6 **of** 7
Project Number 40942312	**Operator** MDD / CSG
Source FCCU Stack	**Date** 06/28/11 - 6/29/11

Time	Activity	Analyzer Response						Sample Flow Rate
		O_2	CO_2	THC				
	Turn on Analyzers [1]	--	--	--	--	--	--	
1330	49.8 ppm propane mid	—	—	50.24				1 Lpm
1559	Drift check N_2 zero	—	—	0.12				1 Lpm
1600	49.8 ppm Propane Mid	—	—	50.11				↓
1711	Cal Bias N_2 zero	0.04	0.24	0.08				1 Lpm
1713	11.1% O_2 / 9.74% CO_2 Mid	11.00	9.76	—				
1714	49.8 ppm Propane Mid	—	—	50.20				↓
1807	Drift check N_2 zero	—	—	0.07				1 Lpm
1808	49.8 ppm Propane Mid	—	—	50.06				↓
	End AD RUN 1							
1923	Cal Bias N_2 zero	0.06	0.21	-0.01				1 Lpm
1925	11.1% O_2 / 9.74% CO_2 Mid	11.00	9.80	—				
1926	49.8 ppm Propane Mid	—	—	50.12				↓
0820	Cal Error N_2 zero	0.00	0.13	—				1 Lpm
0822	22.1% O_2 / 18.9% CO_2 Span	22.03	18.96	—				
0823	11.1% O_2 / 9.74% CO_2 Mid	11.13	9.91	—				
0825	Cal Bias N_2 zero	0.13	0.15	0.38				
0826	11.1% O_2 / 9.74% CO_2 Mid	11.04	9.77	—				
0827	84.5 ppm Propane Span	—	—	91.19	THC adjust			
0829	Cal Bias N_2 zero	—	—	-0.12				
0830	84.5 ppm Propane Span	—	—	84.86				
0832	49.8 ppm Propane Mid	—	—	49.88				
0835	30.0 ppm Propane Low	—	—	30.27				
0836	Cal Bias N_2 zero	—	—	-0.14				
0837	49.8 ppm Propane Mid	—	—	49.75				↓
0915	Start A Run 3							
0946	Drift check N_2 zero	—	—	-0.19				1 Lpm
0947	49.8 ppm Propane Mid	—	—	49.49				↓
0950	50 ppm C1-C6							
0952	stop							
0953	50 ppm C1-C6							
1001	stop							
1006	50 ppm C1-C6	—	—	~~0.05~~ C6				
1053	~~49.8 ppm prop.~~ Drift check zero N_2	—	—	0.05				1 Lpm
1055	49.8 ppm propane mid	—	—	49.55				↓
1156	Drift check N_2 Zero	—	—	-0.16				1 Lpm

End D Run

1600 ←

Start A Run 1

17 - 6/29/11

[1] "Turn On Analyzers" is to document sufficient warm-up time. If applicable, "yesterday" is an acceptable entry.

CEMS Operation Log

Project Chevron Hawaii	**Page** 7 **of** 7
Project Number 40942312	**Operator** MDD/CSG
Source FCCU Stack	**Date** 6/29/11 - 6/30/11

Time	Activity	Analyzer Response						Sample Flow Rate
		O_2	CO_2	THC				
	Turn on Analyzers [1]	--	--	--	--	--	--	
1157	49.8 ppm propane mid	—	—	49.55				1 Lpm
1309	Drift check zero N_2	—	—	-0.09				1 Lpm
1311	49.8 ppm propane mid	—	—	49.57				↓
1413	Drift check zero N_2	—	—	-0.12				1 Lpm
1415	49.8 ppm propane mid	—	—	49.58				↓
1447	Drift check zero N_2	—	—	-0.14				1 Lpm
1448	49.8 ppm propane mid	—	—	49.52				↓
1554	Drift check zero N_2			-0.17				1 Lpm
1556	49.8 ppm propane Mid			49.59				↓
1610	Cal Bias N_2 zero	0.11	0.29	-0.17				1 Lpm
1612	11.1% O_2/9.74% CO_2 Mid	11.00	9.80	—				↓
1613	49.8 ppm Propane Mid	—	—	49.44				↓
6/30/11 0825	Cal Error N_2 zero	0.01	0.15	—				1 Lpm
0828	27.1% O_2/18.9% CO_2 Span	22.16	18.97	—				↓
0829	11.1% O_2/9.74% CO_2 Mid	11.18	9.92	—				↓
0830	Cal Bias N_2 zero	0.16	0.18	—				↓
0832	11.1% O_2/9.74% CO_2 Mid	11.11	9.81	—				↓
	~~End~~ Start D Run 3							
1208	End D Run 3							
1214	Cal Bias N_2 zero	0.03	0.24	—				1 Lpm
1215	11.1% O_2/9.74% CO_2 Mid	11.04	9.82	—				↓

[1] "Turn On Analyzers" is to document sufficient warm-up time. If applicable, "yesterday" is an acceptable entry.

Chevron Hawaii
O_2 Calibration Data Summary

Project ID: Chevron
Date: 22-Jun
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 22.10
Analyzer Range: 25
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	12:34	-0.05	0.05	0.21%
span gas	CC82073	22.10	12:35	22.05	0.05	0.21%
mid-range	CC67546	11.10	12:37	11.11	0.01	0.06%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit		
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5	
Run 1	0.00	-0.05	12:39	0.21	1.15%	16:41	0.37	1.90%	0.75%	Co=	0.291
	11.10	11.11	12:41	11.06	-0.27%	16:43	11.05	-0.29%	-0.03%	Cma/(Cm-Co)	1.031
Run 2	0.00	-0.05	16:41	0.37	1.90%	19:06	0.03	0.34%	-1.56%	Co=	0.201
	11.10	11.11	16:43	11.05	-0.29%	19:10	11.07	-0.20%	0.09%	Cma/(Cm-Co)	1.022

Chevron Hawaii
CO_2 Calibration Data Summary

Project ID: Chevron
Date: 22-Jun-11
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 18.90
Analyzer Range: 20
Units: %
Technician(s): MDD

Calibration Error Test Results

	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)	2% Limit
zero gas	ASZ788	0.00	12:34	0.08	0.08	0.40%	
span gas	CC82073	18.90	12:35	19.02	0.12	0.65%	
mid-range	CC67546	9.74	12:37	9.91	0.17	0.88%	

CEMS Calibration Bias and Drift Tests

Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	5% Limit	Time	Post-test CEMS Response	Bias (% of Span)	5% Limit	Drift (% of Span)	3% Limit	Eq. 7E-5	
Run 1	0.00	0.08	12:39	0.50	2.22%		16:41	0.93	4.52%		2.30%		Co=	0.714
	9.74	9.91	12:41	9.80	-0.55%		16:43	9.81	-0.50%		0.05%		Cma/(Cm-Co)	1.071
Run 2	0.00	0.08	16:41	0.93	4.52%		19:06	0.08	0.04%		-4.48%		Co=	0.508
	9.74	9.91	16:43	9.81	-0.50%		19:10	9.84	-0.36%		0.14%		Cma/(Cm-Co)	1.045

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 12:27:56	6.591	12.436	87.603	68.003
06/22/2011 12:28:06	6.485	12.528	87.603	68.003
06/22/2011 12:28:16	6.342	12.601	87.603	68.003
06/22/2011 12:28:26	6.229	12.799	87.204	68.003
Calibration Error				
06/22/2011 12:33:11	-0.034	0.106	86.904	65.103
06/22/2011 12:33:21	-0.037	0.102	86.904	65.304
06/22/2011 12:33:31	-0.037	0.098	87.003	65.103
06/22/2011 12:33:41	-0.041	0.095	87.204	65.304
06/22/2011 12:33:51	-0.041	0.095	87.402	65.304
06/22/2011 12:34:01	-0.045	0.091	87.603	65.304
06/22/2011 12:34:11	-0.045	0.084	87.603	65.304
06/22/2011 12:34:21	-0.045	0.08	87.603	65.304
06/22/2011 12:34:31	-0.048	0.076	87.402	65.403
06/22/2011 12:34:41	-0.048	0.073	87.204	65.403
N2 Zero	**-0.047**	**0.076**	**87.403**	**65.370**
06/22/2011 12:34:51	2.23	5.46	87.003	65.403
06/22/2011 12:35:01	15.842	18.933	87.204	65.403
06/22/2011 12:35:11	21.826	18.973	87.204	65.403
06/22/2011 12:35:21	22.024	18.995	87.402	65.403
06/22/2011 12:35:31	22.046	19.017	87.402	65.403
06/22/2011 12:35:41	22.053	19.025	87.204	65.403
06/22/2011 12:35:51	22.061	19.025	87.204	65.403
22.1% O2/18.9% CO2 Span	**22.053**	**19.022**	**87.270**	**65.403**
06/22/2011 12:36:01	19.907	10.689	87.204	65.403
06/22/2011 12:36:11	12.967	9.92	87.204	65.403
06/22/2011 12:36:21	11.184	9.909	87.402	65.403
06/22/2011 12:36:31	11.133	9.906	87.402	65.403
06/22/2011 12:36:41	11.125	9.902	87.603	65.604
06/22/2011 12:36:51	11.118	9.902	87.204	65.604
06/22/2011 12:37:01	11.1	9.917	87.603	66.703
11.1% O2/9.74% CO2 Mid	**11.114**	**9.907**	**87.470**	**65.970**
06/22/2011 12:37:11	8.584	13.106	87.204	68.102
06/22/2011 12:37:21	5.555	6.661	87.003	68.501
Calibration Bias				
06/22/2011 12:37:31	2.904	4.149	87.204	68.703
06/22/2011 12:37:41	1.633	4.127	87.204	68.904
06/22/2011 12:37:51	1.387	2.622	87.204	69.003
06/22/2011 12:38:01	0.981	2.189	87.204	69.204
06/22/2011 12:38:11	0.655	0.849	86.904	69.204
06/22/2011 12:38:21	0.355	0.838	87.003	69.204
06/22/2011 12:38:31	0.329	0.823	87.003	69.204
06/22/2011 12:38:41	0.344	0.809	87.003	69.204
06/22/2011 12:38:51	0.347	0.816	87.204	69.402
06/22/2011 12:39:01	0.314	0.585	87.204	69.402
06/22/2011 12:39:11	0.234	0.512	87.204	69.402
06/22/2011 12:39:21	0.212	0.505	86.904	69.204
06/22/2011 12:39:31	0.208	0.486	86.904	69.204
06/22/2011 12:39:41	0.204	0.497	86.904	69.204
N2 Zero	**0.208**	**0.496**	**86.904**	**69.204**
06/22/2011 12:39:51	3.299	8.62	86.702	68.904
06/22/2011 12:40:01	9.803	9.741	86.904	68.904
06/22/2011 12:40:11	10.979	9.774	86.904	68.703
06/22/2011 12:40:21	11.034	9.789	86.904	68.703
06/22/2011 12:40:31	11.045	9.796	86.702	68.501
06/22/2011 12:40:41	11.052	9.799	86.904	68.501
06/22/2011 12:40:51	11.056	9.803	86.904	68.303
06/22/2011 12:41:01	11.059	9.807	87.003	68.501
11.1% O2/9.74% CO2 Mid	**11.056**	**9.803**	**86.937**	**68.435**
06/22/2011 12:41:11	10.536	11.202	86.904	68.501
06/22/2011 12:41:21	7.481	12.879	86.904	68.501
06/22/2011 12:41:31	5.903	12.993	86.702	68.303
06/22/2011 12:41:41	5.789	13.085	86.904	68.303
06/22/2011 12:41:51	5.896	12.817	86.702	68.303
06/22/2011 12:42:01	6.005	12.803	86.702	68.303
06/22/2011 12:42:11	6.057	12.817	86.904	68.303
06/22/2011 12:42:21	6.035	12.938	86.904	68.303
06/22/2011 12:42:31	5.976	12.7	86.904	68.303
06/22/2011 12:42:41	6.119	12.803	86.904	68.303
06/22/2011 12:42:51	6.112	12.854	86.904	68.303
06/22/2011 12:43:01	6.031	12.938	86.904	68.102

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 12:43:11	5.511	13.722	86.904	68.102
06/22/2011 12:43:21	5.28	13.458	86.904	68.102
06/22/2011 12:43:31	5.346	13.48	86.904	68.303
06/22/2011 12:43:41	5.632	12.803	86.904	68.501
06/22/2011 12:43:51	6.148	12.667	86.904	68.501
06/22/2011 12:44:01	6.152	12.901	86.904	68.501
06/22/2011 12:44:11	6.137	12.74	87.003	68.501
06/22/2011 12:44:21	6.167	12.759	87.003	68.501
06/22/2011 12:44:31	6.309	12.557	86.904	68.501
06/22/2011 12:44:41	6.053	13.308	87.003	68.501
06/22/2011 12:44:51	5.808	12.839	87.402	68.501
06/22/2011 12:45:01	5.742	13.421	87.204	68.501
06/22/2011 12:45:11	5.474	13.341	87.003	68.501
06/22/2011 12:45:21	5.416	13.396	87.003	68.501
06/22/2011 12:45:31	5.661	12.737	86.904	68.501
06/22/2011 12:45:41	6.024	12.751	86.904	68.501
06/22/2011 12:45:51	6.09	12.718	86.904	68.501
06/22/2011 12:46:01	5.874	13.41	86.904	68.303
06/22/2011 12:46:11	5.584	12.927	86.505	68.303
06/22/2011 12:46:21	5.709	13.421	86.303	68.501
06/22/2011 12:46:31	5.401	13.348	86.102	68.303
06/22/2011 12:46:41	5.782	12.861	86.303	68.303
06/22/2011 12:46:51	6.123	12.649	86.303	68.303
06/22/2011 12:47:01	6.254	12.674	86.505	68.501
06/22/2011 12:47:11	6.273	12.634	86.505	68.501
06/22/2011 12:47:21	6.196	12.744	86.505	68.501
06/22/2011 12:47:31	5.943	13.253	86.303	68.501
06/22/2011 12:47:41	5.925	12.689	86.303	68.501
06/22/2011 12:47:51	6.189	12.726	86.303	68.303
06/22/2011 12:48:01	6.119	12.975	86.505	68.303
06/22/2011 12:48:11	6.211	12.44	86.702	68.303
06/22/2011 12:48:21	6.353	12.671	86.303	68.303
06/22/2011 12:48:31	6.269	12.649	86.702	68.501
06/22/2011 12:48:41	6.273	12.579	86.505	68.501
06/22/2011 12:48:51	6.328	12.63	86.303	68.303
06/22/2011 12:49:01	6.181	12.759	86.303	68.303
06/22/2011 12:49:11	6.024	12.857	86.505	68.303
06/22/2011 12:49:21	6.126	12.671	86.303	68.303
06/22/2011 12:49:31	6.196	12.674	86.303	68.501
06/22/2011 12:49:41	6.068	13.085	86.102	68.501
06/22/2011 12:49:51	5.577	13.44	86.102	68.501
06/22/2011 12:50:01	5.592	13.03	86.303	68.303
06/22/2011 12:50:11	5.929	12.777	86.505	68.303
06/22/2011 12:50:21	6.09	12.868	86.303	68.303
06/22/2011 12:50:31	6.057	12.623	86.303	68.303
06/22/2011 12:50:41	6.24	12.696	86.505	68.303
06/22/2011 12:50:51	6.17	12.762	86.505	68.303
06/22/2011 12:51:01	6.24	12.66	86.702	68.303
06/22/2011 12:51:11	6.397	12.528	86.702	68.303
06/22/2011 12:51:21	6.174	12.799	86.303	68.303
06/22/2011 12:51:31	5.929	12.748	86.303	68.303
06/22/2011 12:51:41	6.207	12.667	86.102	68.703
06/22/2011 12:51:51	6.346	12.539	86.003	68.501
Strat Check				
06/22/2011 12:52:01	6.148	13.147	86.003	68.501
06/22/2011 12:52:11	5.918	12.638	86.003	68.501
06/22/2011 12:52:21	6.287	12.561	86.003	68.501
06/22/2011 12:52:31	6.306	12.638	86.003	68.501
06/22/2011 12:52:41	5.969	13.191	86.003	68.501
06/22/2011 12:52:51	5.793	12.828	86.003	68.501
Point 3 Average		**12.886**		
06/22/2011 12:53:01	6.192	12.583	85.802	68.501
06/22/2011 12:53:11	6.035	13.041	86.102	68.501
06/22/2011 12:53:21	6.09	12.542	86.102	68.501
06/22/2011 12:53:31	6.247	12.901	86.102	68.501
06/22/2011 12:53:41	5.647	13.436	86.303	68.501
06/22/2011 12:53:51	5.372	13.425	86.505	68.501
Point 2 Average		**13.254**		
06/22/2011 12:54:01	5.383	13.418	86.505	68.703
06/22/2011 12:54:11	5.376	13.451	86.303	68.501
06/22/2011 12:54:21	5.354	13.44	86.102	68.501

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 12:54:31	5.354	13.44	86.003	68.501
06/22/2011 12:54:41	5.354	13.454	86.102	68.501
06/22/2011 12:54:51	5.339	13.484	86.303	68.501
Point 1 Average		**13.459**		
06/22/2011 12:55:01	5.295	13.535	86.303	68.501
06/22/2011 12:55:11	5.277	13.495	86.303	68.501
06/22/2011 12:55:21	5.31	13.462	86.702	68.501
06/22/2011 12:55:31	5.332	13.458	86.702	68.501
06/22/2011 12:55:41	5.343	13.399	86.702	68.501
06/22/2011 12:55:51	5.383	13.407	86.505	68.501
06/22/2011 12:56:01	5.398	13.348	86.505	68.501
06/22/2011 12:56:11	5.427	13.341	86.505	68.501
06/22/2011 12:56:21	5.434	13.388	86.303	68.303
06/22/2011 12:56:31	5.394	13.418	86.303	68.303
06/22/2011 12:56:41	5.361	13.44	86.303	68.303
06/22/2011 12:56:51	5.343	13.447	86.505	68.303
06/22/2011 12:57:01	5.387	13.334	86.505	68.303
06/22/2011 12:57:11	5.507	13.183	86.702	68.501
06/22/2011 12:57:21	5.595	13.198	86.303	68.303
06/22/2011 12:57:31	5.588	13.227	86.505	68.303
06/22/2011 12:57:41	5.555	13.275	86.505	68.303
06/22/2011 12:57:51	5.526	13.282	86.702	68.303
06/22/2011 12:58:01	5.504	13.312	86.303	68.303
06/22/2011 12:58:11	5.471	13.348	86.303	68.501
06/22/2011 12:58:21	5.452	13.33	86.303	68.501
06/22/2011 12:58:31	5.489	13.293	86.505	68.501
06/22/2011 12:58:41	5.504	13.297	86.505	68.501
06/22/2011 12:58:51	5.493	13.301	86.303	68.303
06/22/2011 12:59:01	5.493	13.29	86.303	68.303
06/22/2011 12:59:11	5.507	13.286	86.003	68.303
06/22/2011 12:59:21	5.467	13.392	86.003	68.303
06/22/2011 12:59:31	5.394	13.399	86.102	68.303
06/22/2011 12:59:41	5.405	13.37	85.802	68.303
06/22/2011 12:59:51	5.423	13.33	86.102	68.303
06/22/2011 13:00:01	5.474	13.304	86.102	68.303
06/22/2011 13:00:11	5.533	13.231	86.102	68.303
06/22/2011 13:00:21	5.584	13.213	86.102	68.303
06/22/2011 13:00:31	5.584	13.242	86.102	68.303
06/22/2011 13:00:41	5.522	13.341	86.003	68.303
06/22/2011 13:00:51	5.463	13.359	86.102	68.303
06/22/2011 13:01:01	5.46	13.308	86.102	68.501
06/22/2011 13:01:11	5.504	13.271	86.102	68.501
06/22/2011 13:01:21	5.529	13.242	86.303	68.501
06/22/2011 13:01:31	5.522	13.304	86.003	68.501
06/22/2011 13:01:41	5.5	13.264	86.102	68.303
06/22/2011 13:01:51	5.526	13.238	86.003	68.303
06/22/2011 13:02:01	5.551	13.235	86.102	68.501
06/22/2011 13:02:11	5.537	13.271	86.303	68.501
06/22/2011 13:02:21	5.54	13.286	86.303	68.501
06/22/2011 13:02:31	5.533	13.249	86.102	68.501
06/22/2011 13:02:41	5.526	13.253	86.303	68.501
06/22/2011 13:02:51	5.493	13.345	86.303	68.501
06/22/2011 13:03:01	5.434	13.359	86.505	68.501
06/22/2011 13:03:11	5.452	13.319	86.303	68.501
06/22/2011 13:03:21	5.478	13.308	86.505	68.501
06/22/2011 13:03:31	5.548	13.209	86.702	68.501
06/22/2011 13:03:41	5.614	13.227	86.303	68.501
06/22/2011 13:03:51	5.603	13.22	86.702	68.303
Start Run 1				
06/22/2011 13:04:01	5.61	13.198	86.303	68.303
06/22/2011 13:04:11	5.614	13.198	86.702	68.303
06/22/2011 13:04:21	5.614	13.257	86.505	68.303
06/22/2011 13:04:31	5.566	13.257	86.505	68.303
06/22/2011 13:04:41	5.548	13.286	86.505	68.303
06/22/2011 13:04:51	5.54	13.271	86.702	68.303
06/22/2011 13:05:01	5.559	13.209	86.505	68.303
06/22/2011 13:05:11	5.57	13.216	86.702	68.303
06/22/2011 13:05:21	5.592	13.194	86.702	68.303
06/22/2011 13:05:31	5.57	13.26	86.702	68.303
06/22/2011 13:05:41	5.504	13.282	86.702	68.501

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 13:05:51	5.496	13.29	86.505	68.303
06/22/2011 13:06:01	5.452	13.388	86.702	68.303
06/22/2011 13:06:11	5.383	13.403	86.904	68.303
06/22/2011 13:06:21	5.361	13.425	86.904	68.303
06/22/2011 13:06:31	5.328	13.432	86.904	68.303
06/22/2011 13:06:41	5.302	13.491	86.904	68.303
06/22/2011 13:06:51	5.328	13.462	86.904	68.303
06/22/2011 13:07:01	5.31	13.462	86.904	68.303
06/22/2011 13:07:11	5.31	13.432	86.904	68.303
06/22/2011 13:07:21	5.368	13.33	87.204	68.303
06/22/2011 13:07:31	5.412	13.366	87.204	68.501
06/22/2011 13:07:41	5.387	13.396	87.204	68.501
06/22/2011 13:07:51	5.361	13.429	87.003	68.501
06/22/2011 13:08:01	5.306	13.513	87.003	68.501
06/22/2011 13:08:11	5.273	13.484	87.003	68.303
06/22/2011 13:08:21	5.284	13.487	87.003	68.501
06/22/2011 13:08:31	5.328	13.425	87.003	68.501
06/22/2011 13:08:41	5.372	13.381	86.904	68.501
06/22/2011 13:08:51	5.339	13.454	86.904	68.501
06/22/2011 13:09:01	5.313	13.469	86.904	68.303
06/22/2011 13:09:11	5.317	13.469	86.904	68.303
06/22/2011 13:09:21	5.313	13.469	87.003	68.501
06/22/2011 13:09:31	5.306	13.517	87.003	68.501
06/22/2011 13:09:41	5.244	13.575	87.003	68.501
06/22/2011 13:09:51	5.225	13.542	87.003	68.303
06/22/2011 13:10:01	5.273	13.48	87.003	68.303
06/22/2011 13:10:11	5.31	13.48	86.904	68.303
06/22/2011 13:10:21	5.365	13.392	86.904	68.303
06/22/2011 13:10:31	5.419	13.341	86.904	68.303
06/22/2011 13:10:41	5.463	13.297	86.904	68.303
06/22/2011 13:10:51	5.485	13.33	86.904	68.501
06/22/2011 13:11:01	5.456	13.345	86.904	68.501
06/22/2011 13:11:11	5.434	13.37	87.003	68.501
06/22/2011 13:11:21	5.361	13.52	86.904	68.501
06/22/2011 13:11:31	5.251	13.597	86.904	68.501
06/22/2011 13:11:41	5.218	13.524	86.904	68.501
06/22/2011 13:11:51	5.255	13.52	86.904	68.501
06/22/2011 13:12:01	5.28	13.506	86.904	68.501
06/22/2011 13:12:11	5.302	13.491	86.904	68.501
06/22/2011 13:12:21	5.28	13.506	86.904	68.501
06/22/2011 13:12:31	5.288	13.487	86.904	68.501
06/22/2011 13:12:41	5.335	13.443	86.904	68.501
06/22/2011 13:12:51	5.346	13.484	87.003	68.501
06/22/2011 13:13:01	5.288	13.517	86.904	68.501
06/22/2011 13:13:11	5.247	13.579	86.904	68.501
06/22/2011 13:13:21	5.2	13.623	86.904	68.501
06/22/2011 13:13:31	5.214	13.561	86.702	68.501
06/22/2011 13:13:41	5.229	13.579	86.505	68.501
06/22/2011 13:13:51	5.244	13.513	86.505	68.501
06/22/2011 13:14:01	5.321	13.443	86.505	68.501
06/22/2011 13:14:11	5.394	13.392	86.505	68.501
06/22/2011 13:14:21	5.401	13.407	86.505	68.501
06/22/2011 13:14:31	5.376	13.454	86.702	68.501
06/22/2011 13:14:41	5.321	13.539	86.904	68.501
06/22/2011 13:14:51	5.284	13.476	86.904	68.501
06/22/2011 13:15:01	5.368	13.396	86.303	68.501
06/22/2011 13:15:11	5.405	13.421	86.303	68.501
06/22/2011 13:15:21	5.343	13.502	86.505	68.501
06/22/2011 13:15:31	5.291	13.495	86.904	68.501
06/22/2011 13:15:41	5.346	13.418	86.904	68.501
06/22/2011 13:15:51	5.39	13.41	86.904	68.501
06/22/2011 13:16:01	5.368	13.443	86.904	68.501
06/22/2011 13:16:11	5.368	13.396	86.904	68.501
06/22/2011 13:16:21	5.368	13.44	86.904	68.501
06/22/2011 13:16:31	5.368	13.425	86.904	68.501
06/22/2011 13:16:41	5.365	13.44	86.904	68.501
06/22/2011 13:16:51	5.346	13.495	86.904	68.501
06/22/2011 13:17:01	5.306	13.48	86.904	68.501
06/22/2011 13:17:11	5.343	13.421	86.702	68.501
06/22/2011 13:17:21	5.427	13.29	86.702	68.501
06/22/2011 13:17:31	5.485	13.319	86.904	68.501

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June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 13:17:41	5.485	13.326	86.904	68.501
06/22/2011 13:17:51	5.419	13.465	86.904	68.501
06/22/2011 13:18:01	5.295	13.524	86.904	68.501
06/22/2011 13:18:11	5.255	13.542	86.904	68.501
06/22/2011 13:18:21	5.255	13.55	86.904	68.501
06/22/2011 13:18:31	5.247	13.55	86.904	68.501
06/22/2011 13:18:41	5.229	13.564	86.904	68.501
06/22/2011 13:18:51	5.236	13.586	86.702	68.501
06/22/2011 13:19:01	5.258	13.517	86.702	68.501
06/22/2011 13:19:11	5.288	13.509	86.904	68.501
06/22/2011 13:19:21	5.31	13.498	86.904	68.501
06/22/2011 13:19:31	5.295	13.546	86.904	68.501
06/22/2011 13:19:41	5.284	13.506	86.904	68.501
06/22/2011 13:19:51	5.299	13.476	86.904	68.501
06/22/2011 13:20:01	5.313	13.48	86.505	68.501
06/22/2011 13:20:11	5.28	13.542	86.505	68.501
06/22/2011 13:20:21	5.244	13.561	86.505	68.501
06/22/2011 13:20:31	5.229	13.572	86.505	68.501
06/22/2011 13:20:41	5.244	13.528	86.505	68.501
06/22/2011 13:20:51	5.335	13.396	86.702	68.501
06/22/2011 13:21:01	5.401	13.451	86.702	68.501
06/22/2011 13:21:11	5.361	13.476	86.505	68.501
06/22/2011 13:21:21	5.35	13.451	86.505	68.501
06/22/2011 13:21:31	5.361	13.462	86.505	68.501
06/22/2011 13:21:41	5.361	13.425	86.303	68.703
06/22/2011 13:21:51	5.39	13.429	86.505	68.501
06/22/2011 13:22:01	5.405	13.407	86.505	68.501
06/22/2011 13:22:11	5.452	13.308	86.702	68.501
06/22/2011 13:22:21	5.496	13.334	86.904	68.501
06/22/2011 13:22:31	5.474	13.308	86.904	68.501
06/22/2011 13:22:41	5.511	13.26	87.003	68.501
06/22/2011 13:22:51	5.529	13.275	86.904	68.501
06/22/2011 13:23:01	5.507	13.279	86.904	68.501
06/22/2011 13:23:11	5.504	13.304	86.904	68.501
06/22/2011 13:23:21	5.478	13.337	86.702	68.501
06/22/2011 13:23:31	5.43	13.421	86.904	68.501
06/22/2011 13:23:41	5.379	13.44	86.904	68.501
06/22/2011 13:23:51	5.376	13.407	86.904	68.501
06/22/2011 13:24:01	5.357	13.509	86.904	68.501
06/22/2011 13:24:11	5.317	13.517	86.904	68.501
06/22/2011 13:24:21	5.339	13.425	86.904	68.501
06/22/2011 13:24:31	5.405	13.421	86.702	68.501
06/22/2011 13:24:41	5.398	13.407	86.904	68.501
06/22/2011 13:24:51	5.441	13.334	86.904	68.501
06/22/2011 13:25:01	5.452	13.359	86.702	68.501
06/22/2011 13:25:11	5.427	13.396	86.702	68.501
06/22/2011 13:25:21	5.412	13.432	86.702	68.501
06/22/2011 13:25:31	5.372	13.462	86.505	68.501
06/22/2011 13:25:41	5.324	13.509	86.505	68.501
06/22/2011 13:25:51	5.258	13.542	86.702	68.501
06/22/2011 13:26:01	5.255	13.506	86.505	68.501
06/22/2011 13:26:11	5.28	13.491	86.702	68.501
06/22/2011 13:26:21	5.302	13.509	86.702	68.501
06/22/2011 13:26:31	5.288	13.517	86.702	68.501
06/22/2011 13:26:41	5.31	13.425	86.303	68.303
06/22/2011 13:26:51	5.357	13.388	86.102	68.303
06/22/2011 13:27:01	5.372	13.454	86.702	68.303
06/22/2011 13:27:11	5.324	13.491	86.505	68.303
06/22/2011 13:27:21	5.295	13.491	86.303	68.303
06/22/2011 13:27:31	5.302	13.48	86.102	68.303
06/22/2011 13:27:41	5.284	13.513	86.303	68.303
06/22/2011 13:27:51	5.284	13.524	86.102	68.303
06/22/2011 13:28:01	5.273	13.517	86.303	68.303
06/22/2011 13:28:11	5.262	13.52	86.303	68.303
06/22/2011 13:28:21	5.28	13.487	86.303	68.303
06/22/2011 13:28:31	5.302	13.476	86.505	68.501
06/22/2011 13:28:41	5.346	13.418	86.303	68.501
06/22/2011 13:28:51	5.335	13.498	86.505	68.501
06/22/2011 13:29:01	5.258	13.594	86.303	68.303
06/22/2011 13:29:11	5.167	13.648	86.102	68.303
06/22/2011 13:29:21	5.145	13.623	86.102	68.303

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 13:29:31	5.192	13.59	86.102	68.501
06/22/2011 13:29:41	5.269	13.458	86.102	68.501
06/22/2011 13:29:51	5.317	13.48	86.303	68.501
06/22/2011 13:30:01	5.28	13.553	86.303	68.501
06/22/2011 13:30:11	5.214	13.597	86.303	68.303
06/22/2011 13:30:21	5.233	13.48	86.505	68.303
06/22/2011 13:30:31	5.339	13.418	86.505	68.303
06/22/2011 13:30:41	5.332	13.542	86.702	68.303
06/22/2011 13:30:51	5.273	13.517	86.303	68.303
06/22/2011 13:31:01	5.299	13.491	86.303	68.303
06/22/2011 13:31:11	5.31	13.509	86.102	68.303
06/22/2011 13:31:21	5.273	13.546	86.003	68.303
06/22/2011 13:31:31	5.233	13.564	86.505	68.102
06/22/2011 13:31:41	5.236	13.586	86.505	68.303
06/22/2011 13:31:51	5.236	13.568	86.702	68.303
06/22/2011 13:32:01	5.277	13.487	86.702	68.303
06/22/2011 13:32:11	5.313	13.502	86.505	68.303
06/22/2011 13:32:21	5.288	13.531	86.102	68.303
06/22/2011 13:32:31	5.273	13.539	86.102	68.303
06/22/2011 13:32:41	5.247	13.575	86.303	68.303
06/22/2011 13:32:51	5.251	13.528	86.102	68.303
06/22/2011 13:33:01	5.277	13.513	86.102	68.102
06/22/2011 13:33:11	5.266	13.557	86.102	68.303
06/22/2011 13:33:21	5.247	13.542	86.102	68.303
06/22/2011 13:33:31	5.255	13.539	86.102	68.102
06/22/2011 13:33:41	5.255	13.517	86.102	68.102
06/22/2011 13:33:51	5.273	13.509	86.102	68.303
06/22/2011 13:34:01	5.291	13.498	86.303	68.303
06/22/2011 13:34:11	5.247	13.627	86.505	68.303
06/22/2011 13:34:21	5.178	13.63	86.505	68.303
06/22/2011 13:34:31	5.145	13.685	86.505	68.102
06/22/2011 13:34:41	5.105	13.7	86.702	68.102
06/22/2011 13:34:51	5.108	13.674	86.904	68.303
06/22/2011 13:35:01	5.145	13.652	86.904	68.303
06/22/2011 13:35:11	5.156	13.638	86.702	68.303
06/22/2011 13:35:21	5.145	13.648	86.702	68.303
06/22/2011 13:35:31	5.137	13.656	86.505	68.303
06/22/2011 13:35:41	5.123	13.678	86.702	68.303
06/22/2011 13:35:51	5.105	13.692	86.702	68.303
06/22/2011 13:36:01	5.083	13.703	86.904	68.303
06/22/2011 13:36:11	5.108	13.641	86.904	68.303
06/22/2011 13:36:21	5.119	13.689	86.904	68.303
06/22/2011 13:36:31	5.079	13.718	86.904	68.303
06/22/2011 13:36:41	5.097	13.645	86.904	68.303
06/22/2011 13:36:51	5.145	13.638	86.904	68.303
06/22/2011 13:37:01	5.156	13.623	86.904	68.303
06/22/2011 13:37:11	5.185	13.579	86.904	68.303
06/22/2011 13:37:21	5.218	13.594	86.904	68.303
06/22/2011 13:37:31	5.211	13.586	86.904	68.303
06/22/2011 13:37:41	5.192	13.605	86.904	68.303
06/22/2011 13:37:51	5.203	13.583	87.003	68.303
06/22/2011 13:38:01	5.178	13.674	86.904	68.303
06/22/2011 13:38:11	5.126	13.652	86.505	68.102
06/22/2011 13:38:21	5.167	13.605	86.505	68.303
06/22/2011 13:38:31	5.2	13.608	86.303	68.303
06/22/2011 13:38:41	5.203	13.616	86.303	68.303
06/22/2011 13:38:51	5.211	13.564	85.802	68.102
06/22/2011 13:39:01	5.266	13.509	86.102	68.102
06/22/2011 13:39:11	5.288	13.579	86.303	68.102
06/22/2011 13:39:21	5.236	13.594	86.303	68.102
06/22/2011 13:39:31	5.214	13.575	86.303	68.102
06/22/2011 13:39:41	5.244	13.528	86.505	68.102
06/22/2011 13:39:51	5.299	13.498	86.303	68.303
06/22/2011 13:40:01	5.277	13.564	86.303	68.303
06/22/2011 13:40:11	5.262	13.539	86.505	68.303
06/22/2011 13:40:21	5.236	13.608	86.505	68.102
06/22/2011 13:40:31	5.137	13.667	86.505	68.102
06/22/2011 13:40:41	5.097	13.7	86.505	68.102
06/22/2011 13:40:51	5.108	13.678	86.505	68.102
06/22/2011 13:41:01	5.108	13.711	86.505	68.102
06/22/2011 13:41:11	5.086	13.718	86.505	68.102

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 13:41:21	5.053	13.762	86.505	68.102
06/22/2011 13:41:31	5.035	13.714	86.303	68.102
06/22/2011 13:41:41	5.075	13.674	86.505	68.102
06/22/2011 13:41:51	5.075	13.729	86.505	68.102
06/22/2011 13:42:01	5.009	13.762	86.505	68.102
06/22/2011 13:42:11	4.991	13.773	86.505	68.102
06/22/2011 13:42:21	5.028	13.722	86.505	68.102
06/22/2011 13:42:31	5.042	13.736	86.505	68.102
06/22/2011 13:42:41	5.042	13.729	86.505	68.102
06/22/2011 13:42:51	5.094	13.663	86.505	68.102
06/22/2011 13:43:01	5.116	13.689	86.505	68.102
06/22/2011 13:43:11	5.064	13.762	86.303	68.102
06/22/2011 13:43:21	5.017	13.744	86.102	68.102
06/22/2011 13:43:31	5.02	13.751	86.003	68.102
06/22/2011 13:43:41	5.039	13.729	86.102	68.102
06/22/2011 13:43:51	5.061	13.736	86.102	68.102
06/22/2011 13:44:01	5.009	13.846	86.003	68.102
06/22/2011 13:44:11	4.969	13.802	86.102	68.303
06/22/2011 13:44:21	5.031	13.725	86.303	68.303
06/22/2011 13:44:31	5.097	13.67	86.003	68.102
06/22/2011 13:44:41	5.101	13.769	86.003	68.102
06/22/2011 13:44:51	5.031	13.806	86.003	68.003
06/22/2011 13:45:01	4.969	13.854	86.003	68.102
06/22/2011 13:45:11	4.969	13.802	86.102	68.102
06/22/2011 13:45:21	5.053	13.722	86.303	68.102
06/22/2011 13:45:31	5.083	13.736	86.303	68.303
06/22/2011 13:45:41	5.075	13.714	86.102	68.102
06/22/2011 13:45:51	5.094	13.722	86.303	68.102
06/22/2011 13:46:01	5.068	13.722	86.303	68.102
06/22/2011 13:46:11	5.086	13.678	86.505	68.102
06/22/2011 13:46:21	5.097	13.718	86.505	68.102
06/22/2011 13:46:31	5.101	13.627	86.505	68.102
06/22/2011 13:46:41	5.159	13.648	86.505	68.102
06/22/2011 13:46:51	5.105	13.733	86.505	68.102
06/22/2011 13:47:01	5.031	13.74	86.505	68.102
06/22/2011 13:47:11	5.039	13.729	86.505	68.102
06/22/2011 13:47:21	5.068	13.714	86.505	68.102
06/22/2011 13:47:31	5.108	13.645	86.505	68.102
06/22/2011 13:47:41	5.167	13.601	86.505	68.102
06/22/2011 13:47:51	5.211	13.627	86.505	68.303
06/22/2011 13:48:01	5.2	13.568	86.505	68.303
06/22/2011 13:48:11	5.192	13.678	86.505	68.303
06/22/2011 13:48:21	5.116	13.729	86.505	68.303
06/22/2011 13:48:31	5.079	13.714	86.303	68.303
06/22/2011 13:48:41	5.072	13.718	86.303	68.303
06/22/2011 13:48:51	5.079	13.674	86.003	68.102
06/22/2011 13:49:01	5.119	13.648	85.802	68.102
06/22/2011 13:49:11	5.108	13.718	85.802	68.102
06/22/2011 13:49:21	5.105	13.641	85.802	68.102
06/22/2011 13:49:31	5.189	13.55	86.003	68.102
06/22/2011 13:49:41	5.291	13.502	86.003	68.102
06/22/2011 13:49:51	5.339	13.513	86.303	68.303
06/22/2011 13:50:01	5.343	13.531	86.003	68.102
06/22/2011 13:50:11	5.332	13.484	86.003	68.102
06/22/2011 13:50:21	5.339	13.469	86.003	68.102
06/22/2011 13:50:31	5.324	13.502	86.003	68.102
06/22/2011 13:50:41	5.31	13.502	85.802	68.102
06/22/2011 13:50:51	5.346	13.429	86.003	68.102
06/22/2011 13:51:01	5.376	13.443	86.003	68.102
06/22/2011 13:51:11	5.383	13.44	86.003	68.102
06/22/2011 13:51:21	5.357	13.484	86.102	68.102
06/22/2011 13:51:31	5.346	13.414	86.003	68.102
06/22/2011 13:51:41	5.372	13.458	86.003	68.102
06/22/2011 13:51:51	5.361	13.443	86.102	68.102
06/22/2011 13:52:01	5.376	13.454	86.102	68.102
06/22/2011 13:52:11	5.339	13.465	86.102	68.102
06/22/2011 13:52:21	5.339	13.473	86.102	68.102
06/22/2011 13:52:31	5.35	13.476	86.102	68.102
06/22/2011 13:52:41	5.354	13.432	86.505	68.102
06/22/2011 13:52:51	5.368	13.418	86.702	68.102
06/22/2011 13:53:01	5.365	13.473	86.505	68.102

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 13:53:11	5.361	13.425	86.303	68.003
06/22/2011 13:53:21	5.401	13.37	86.303	68.102
06/22/2011 13:53:31	5.394	13.451	86.505	68.003
06/22/2011 13:53:41	5.332	13.491	86.505	68.003
06/22/2011 13:53:51	5.306	13.476	86.505	68.003
06/22/2011 13:54:01	5.332	13.462	86.505	68.102
06/22/2011 13:54:11	5.324	13.498	86.505	68.003
06/22/2011 13:54:21	5.302	13.52	86.102	68.003
06/22/2011 13:54:31	5.288	13.498	86.102	68.102
06/22/2011 13:54:41	5.291	13.531	86.003	68.003
06/22/2011 13:54:51	5.302	13.458	86.003	68.003
06/22/2011 13:55:01	5.376	13.381	86.003	68.003
06/22/2011 13:55:11	5.408	13.436	86.003	68.003
06/22/2011 13:55:21	5.379	13.447	86.003	68.003
06/22/2011 13:55:31	5.372	13.429	86.102	68.003
06/22/2011 13:55:41	5.383	13.407	86.102	68.003
06/22/2011 13:55:51	5.387	13.436	86.102	68.003
06/22/2011 13:56:01	5.383	13.399	86.003	68.003
06/22/2011 13:56:11	5.379	13.41	86.102	68.003
06/22/2011 13:56:21	5.379	13.407	86.003	68.003
06/22/2011 13:56:31	5.357	13.44	86.303	68.003
06/22/2011 13:56:41	5.306	13.524	86.102	68.003
06/22/2011 13:56:51	5.269	13.509	86.003	68.003
06/22/2011 13:57:01	5.288	13.498	86.003	68.003
06/22/2011 13:57:11	5.295	13.469	86.003	68.003
06/22/2011 13:57:21	5.313	13.48	85.802	68.102
06/22/2011 13:57:31	5.321	13.44	86.003	68.102
06/22/2011 13:57:41	5.332	13.476	86.003	68.102
06/22/2011 13:57:51	5.28	13.542	86.003	68.102
06/22/2011 13:58:01	5.236	13.546	86.303	68.003
06/22/2011 13:58:11	5.211	13.564	86.303	68.102
06/22/2011 13:58:21	5.236	13.487	86.303	68.102
06/22/2011 13:58:31	5.302	13.48	86.102	68.102
06/22/2011 13:58:41	5.288	13.502	86.003	68.102
06/22/2011 13:58:51	5.247	13.55	86.003	68.102
06/22/2011 13:59:01	5.2	13.597	86.003	68.102
06/22/2011 13:59:11	5.174	13.619	86.003	68.102
06/22/2011 13:59:21	5.145	13.67	86.003	68.102
06/22/2011 13:59:31	5.152	13.641	86.003	68.102
06/22/2011 13:59:41	5.156	13.616	86.003	68.102
06/22/2011 13:59:51	5.178	13.597	86.102	68.102
06/22/2011 14:00:01	5.225	13.52	86.102	68.102
06/22/2011 14:00:11	5.269	13.542	86.102	68.003
06/22/2011 14:00:21	5.258	13.502	86.003	68.102
06/22/2011 14:00:31	5.31	13.458	86.003	68.102
06/22/2011 14:00:41	5.335	13.476	86.003	68.102
06/22/2011 14:00:51	5.295	13.568	86.003	68.003
06/22/2011 14:01:01	5.225	13.59	85.802	68.003
06/22/2011 14:01:11	5.225	13.564	85.802	68.003
06/22/2011 14:01:21	5.218	13.601	86.003	68.102
06/22/2011 14:01:31	5.196	13.619	86.303	68.102
06/22/2011 14:01:41	5.207	13.568	86.303	68.102
06/22/2011 14:01:51	5.251	13.539	86.102	68.003
06/22/2011 14:02:01	5.262	13.55	86.303	68.003
06/22/2011 14:02:11	5.207	13.63	86.003	68.003
06/22/2011 14:02:21	5.174	13.616	86.003	68.003
06/22/2011 14:02:31	5.196	13.586	86.003	68.003
06/22/2011 14:02:41	5.236	13.59	86.003	68.003
06/22/2011 14:02:51	5.2	13.608	85.802	68.003
06/22/2011 14:03:01	5.181	13.623	86.003	68.003
06/22/2011 14:03:11	5.178	13.63	86.003	68.003
06/22/2011 14:03:21	5.181	13.608	86.003	68.003
06/22/2011 14:03:31	5.2	13.564	86.003	68.003
06/22/2011 14:03:41	5.24	13.546	86.003	68.102
06/22/2011 14:03:51	5.266	13.509	86.003	68.102
06/22/2011 14:04:01	5.288	13.506	86.003	68.102
06/22/2011 14:04:11	5.295	13.491	85.802	68.003
06/22/2011 14:04:21	5.31	13.491	85.802	68.003
06/22/2011 14:04:31	5.361	13.396	86.003	68.003
06/22/2011 14:04:41	5.394	13.458	86.003	68.003
06/22/2011 14:04:51	5.324	13.542	86.003	68.003

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 14:05:01	5.299	13.484	86.003	67.802
06/22/2011 14:05:11	5.332	13.469	86.003	68.102
06/22/2011 14:05:21	5.387	13.403	86.303	68.102
06/22/2011 14:05:31	5.408	13.432	86.102	68.102
06/22/2011 14:05:41	5.394	13.432	86.003	68.003
06/22/2011 14:05:51	5.361	13.502	86.003	68.003
06/22/2011 14:06:01	5.324	13.487	86.003	68.003
06/22/2011 14:06:11	5.324	13.443	86.003	68.003
06/22/2011 14:06:21	5.346	13.421	86.003	67.802
06/22/2011 14:06:31	5.365	13.429	86.003	67.802
06/22/2011 14:06:41	5.387	13.388	86.003	67.802
06/22/2011 14:06:51	5.408	13.392	86.003	67.802
06/22/2011 14:07:01	5.412	13.363	86.003	68.003
06/22/2011 14:07:11	5.419	13.396	86.003	67.802
06/22/2011 14:07:21	5.387	13.473	86.003	67.802
06/22/2011 14:07:31	5.295	13.524	86.003	67.802
06/22/2011 14:07:41	5.262	13.524	86.003	67.802
06/22/2011 14:07:51	5.258	13.528	85.802	67.802
06/22/2011 14:08:01	5.299	13.443	85.802	67.802
06/22/2011 14:08:11	5.335	13.443	85.802	67.802
06/22/2011 14:08:21	5.328	13.495	85.604	67.802
06/22/2011 14:08:31	5.299	13.48	86.003	67.802
06/22/2011 14:08:41	5.328	13.443	86.003	67.802
06/22/2011 14:08:51	5.365	13.421	86.003	67.802
06/22/2011 14:09:01	5.339	13.498	86.003	67.802
06/22/2011 14:09:11	5.339	13.451	85.802	67.802
06/22/2011 14:09:21	5.35	13.44	85.604	67.802
06/22/2011 14:09:31	5.379	13.403	85.604	67.802
06/22/2011 14:09:41	5.387	13.462	85.802	67.802
06/22/2011 14:09:51	5.357	13.465	86.003	67.802
06/22/2011 14:10:01	5.343	13.462	85.802	67.802
06/22/2011 14:10:11	5.361	13.418	85.802	67.802
06/22/2011 14:10:21	5.376	13.451	86.003	67.802
06/22/2011 14:10:31	5.39	13.392	85.604	67.802
06/22/2011 14:10:41	5.441	13.29	85.402	67.802
06/22/2011 14:10:51	5.518	13.271	85.402	67.802
06/22/2011 14:11:01	5.518	13.337	85.402	67.802
06/22/2011 14:11:11	5.482	13.356	85.604	67.802
06/22/2011 14:11:21	5.438	13.345	85.205	67.802
06/22/2011 14:11:31	5.467	13.326	85.402	67.802
06/22/2011 14:11:41	5.474	13.345	85.604	67.802
06/22/2011 14:11:51	5.452	13.363	85.604	67.802
06/22/2011 14:12:01	5.416	13.403	85.604	67.802
06/22/2011 14:12:11	5.412	13.377	85.604	67.802
06/22/2011 14:12:21	5.46	13.337	86.003	67.802
06/22/2011 14:12:31	5.518	13.315	85.604	67.802
06/22/2011 14:12:41	5.526	13.275	85.802	67.802
06/22/2011 14:12:51	5.537	13.297	85.604	67.802
06/22/2011 14:13:01	5.529	13.293	85.802	67.802
06/22/2011 14:13:11	5.537	13.257	85.802	67.802
06/22/2011 14:13:21	5.566	13.238	85.802	67.802
06/22/2011 14:13:31	5.621	13.15	85.802	67.604
06/22/2011 14:13:41	5.654	13.165	86.003	67.604
06/22/2011 14:13:51	5.617	13.249	85.604	67.604
06/22/2011 14:14:01	5.551	13.312	85.604	67.802
06/22/2011 14:14:11	5.5	13.345	85.402	67.802
06/22/2011 14:14:21	5.507	13.301	85.604	67.802
06/22/2011 14:14:31	5.5	13.312	85.604	67.802
06/22/2011 14:14:41	5.467	13.37	85.802	67.802
06/22/2011 14:14:51	5.43	13.341	85.604	67.802
06/22/2011 14:15:01	5.493	13.264	85.604	67.802
06/22/2011 14:15:11	5.529	13.301	85.802	67.802
06/22/2011 14:15:21	5.511	13.323	85.802	67.802
06/22/2011 14:15:31	5.504	13.341	85.802	67.802
06/22/2011 14:15:41	5.482	13.337	85.604	67.802
06/22/2011 14:15:51	5.515	13.282	85.604	67.802
06/22/2011 14:16:01	5.489	13.363	85.604	67.604
06/22/2011 14:16:11	5.482	13.315	85.402	67.604
06/22/2011 14:16:21	5.5	13.33	85.402	67.604
06/22/2011 14:16:31	5.5	13.312	85.402	67.604
06/22/2011 14:16:41	5.474	13.359	85.402	67.604

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 14:16:51	5.467	13.326	85.402	67.802
06/22/2011 14:17:01	5.471	13.315	85.604	67.604
06/22/2011 14:17:11	5.478	13.282	85.604	67.604
06/22/2011 14:17:21	5.518	13.22	85.402	67.604
06/22/2011 14:17:31	5.518	13.312	85.604	67.604
06/22/2011 14:17:41	5.438	13.381	85.402	67.604
06/22/2011 14:17:51	5.379	13.403	85.604	67.802
06/22/2011 14:18:01	5.408	13.341	85.802	67.604
06/22/2011 14:18:11	5.471	13.286	85.604	67.604
06/22/2011 14:18:21	5.489	13.301	85.802	67.604
06/22/2011 14:18:31	5.482	13.312	85.604	67.604
06/22/2011 14:18:41	5.43	13.41	85.402	67.604
06/22/2011 14:18:51	5.361	13.458	85.402	67.604
06/22/2011 14:19:01	5.354	13.454	85.604	67.802
06/22/2011 14:19:11	5.39	13.348	85.604	67.802
06/22/2011 14:19:21	5.419	13.421	85.402	67.802
06/22/2011 14:19:31	5.361	13.473	85.802	67.802
06/22/2011 14:19:41	5.354	13.418	85.802	67.802
06/22/2011 14:19:51	5.416	13.33	85.802	67.802
06/22/2011 14:20:01	5.493	13.293	85.802	67.802
06/22/2011 14:20:11	5.522	13.279	85.604	67.802
06/22/2011 14:20:21	5.507	13.341	85.205	67.604
06/22/2011 14:20:31	5.441	13.396	85.402	67.604
06/22/2011 14:20:41	5.419	13.366	85.402	67.604
06/22/2011 14:20:51	5.379	13.473	85.604	67.802
06/22/2011 14:21:01	5.306	13.513	85.802	67.802
06/22/2011 14:21:11	5.299	13.465	85.205	67.802
06/22/2011 14:21:21	5.368	13.388	85.205	67.604
06/22/2011 14:21:31	5.416	13.352	85.205	67.604
06/22/2011 14:21:41	5.438	13.385	85.205	67.802
06/22/2011 14:21:51	5.405	13.392	85.402	67.604
06/22/2011 14:22:01	5.412	13.345	85.604	67.604
06/22/2011 14:22:11	5.452	13.341	85.604	67.802
06/22/2011 14:22:21	5.452	13.37	85.802	67.802
06/22/2011 14:22:31	5.416	13.37	85.604	67.802
06/22/2011 14:22:41	5.416	13.399	85.604	67.604
06/22/2011 14:22:51	5.427	13.352	85.604	67.802
06/22/2011 14:23:01	5.419	13.37	85.402	67.802
06/22/2011 14:23:11	5.416	13.385	85.205	67.604
06/22/2011 14:23:21	5.405	13.403	85.205	67.403
06/22/2011 14:23:31	5.35	13.469	85.102	67.403
06/22/2011 14:23:41	5.346	13.436	85.102	67.403
06/22/2011 14:23:51	5.357	13.436	85.205	67.403
06/22/2011 14:24:01	5.339	13.458	85.205	67.403
06/22/2011 14:24:11	5.343	13.429	85.402	67.403
06/22/2011 14:24:21	5.335	13.473	85.604	67.604
06/22/2011 14:24:31	5.313	13.48	85.604	67.604
06/22/2011 14:24:41	5.354	13.432	85.402	67.403
06/22/2011 14:24:51	5.368	13.44	85.205	67.604
06/22/2011 14:25:01	5.361	13.451	85.402	67.604
06/22/2011 14:25:11	5.31	13.55	85.402	67.604
06/22/2011 14:25:21	5.24	13.564	85.205	67.604
06/22/2011 14:25:31	5.203	13.619	85.402	67.604
06/22/2011 14:25:41	5.203	13.579	85.402	67.604
06/22/2011 14:25:51	5.266	13.484	85.402	67.604
06/22/2011 14:26:01	5.273	13.579	85.205	67.604
06/22/2011 14:26:11	5.218	13.597	85.102	67.604
06/22/2011 14:26:21	5.214	13.579	85.205	67.604
06/22/2011 14:26:31	5.255	13.561	85.102	67.403
06/22/2011 14:26:41	5.24	13.605	84.904	67.403
06/22/2011 14:26:51	5.207	13.612	84.904	67.604
06/22/2011 14:27:01	5.196	13.612	85.102	67.604
06/22/2011 14:27:11	5.203	13.55	85.205	67.604
06/22/2011 14:27:21	5.247	13.55	85.205	67.604
06/22/2011 14:27:31	5.262	13.495	85.402	67.403
06/22/2011 14:27:41	5.266	13.568	85.205	67.604
06/22/2011 14:27:51	5.214	13.583	85.205	67.604
06/22/2011 14:28:01	5.207	13.568	85.205	67.604
06/22/2011 14:28:11	5.222	13.553	85.102	67.604
06/22/2011 14:28:21	5.24	13.539	85.102	67.604
06/22/2011 14:28:31	5.233	13.568	85.205	67.604

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 14:28:41	5.17	13.634	85.102	67.403
06/22/2011 14:28:51	5.163	13.59	84.904	67.403
06/22/2011 14:29:01	5.207	13.568	85.102	67.403
06/22/2011 14:29:11	5.178	13.656	85.102	67.403
06/22/2011 14:29:21	5.119	13.634	85.205	67.604
06/22/2011 14:29:31	5.148	13.627	85.102	67.604
06/22/2011 14:29:41	5.141	13.659	85.102	67.403
06/22/2011 14:29:51	5.13	13.638	85.205	67.403
06/22/2011 14:30:01	5.134	13.634	85.604	67.604
06/22/2011 14:30:11	5.119	13.652	85.102	67.604
06/22/2011 14:30:21	5.112	13.652	85.205	67.604
06/22/2011 14:30:31	5.101	13.681	85.402	67.604
06/22/2011 14:30:41	5.068	13.725	85.205	67.604
06/22/2011 14:30:51	5.042	13.714	85.205	67.604
06/22/2011 14:31:01	5.028	13.762	85.205	67.604
06/22/2011 14:31:11	4.995	13.806	85.402	67.604
06/22/2011 14:31:21	4.947	13.839	85.205	67.604
06/22/2011 14:31:31	4.918	13.857	85.102	67.403
06/22/2011 14:31:41	4.943	13.821	85.102	67.403
06/22/2011 14:31:51	4.991	13.766	85.102	67.403
06/22/2011 14:32:01	5.024	13.755	85.102	67.403
06/22/2011 14:32:11	5.017	13.744	85.102	67.403
06/22/2011 14:32:21	5.075	13.678	85.102	67.403
06/22/2011 14:32:31	5.13	13.634	85.205	67.403
06/22/2011 14:32:41	5.148	13.619	85.102	67.403
06/22/2011 14:32:51	5.181	13.608	85.604	67.604
06/22/2011 14:33:01	5.145	13.696	85.402	67.604
06/22/2011 14:33:11	5.075	13.685	85.402	67.604
06/22/2011 14:33:21	5.064	13.744	85.604	67.403
06/22/2011 14:33:31	5.042	13.773	85.205	67.403
06/22/2011 14:33:41	5.006	13.817	85.205	67.403
06/22/2011 14:33:51	4.984	13.791	85.205	67.403
06/22/2011 14:34:01	5.013	13.784	85.205	67.403
06/22/2011 14:34:11	5.05	13.725	85.402	67.403
06/22/2011 14:34:21	5.057	13.766	85.402	67.403
06/22/2011 14:34:31	5.057	13.692	85.402	67.403
06/22/2011 14:34:41	5.108	13.689	85.402	67.201
06/22/2011 14:34:51	5.123	13.663	85.205	67.403
06/22/2011 14:35:01	5.148	13.652	85.402	67.403
06/22/2011 14:35:11	5.159	13.63	85.402	67.403
06/22/2011 14:35:21	5.2	13.55	85.402	67.403
06/22/2011 14:35:31	5.207	13.667	85.402	67.403
06/22/2011 14:35:41	5.101	13.74	85.402	67.604
06/22/2011 14:35:51	5.042	13.773	85.402	67.201
06/22/2011 14:36:01	4.995	13.799	85.205	67.201
06/22/2011 14:36:11	5.009	13.791	84.904	67.403
06/22/2011 14:36:21	5.057	13.707	84.904	67.403
06/22/2011 14:36:31	5.163	13.594	85.205	67.403
06/22/2011 14:36:41	5.214	13.601	85.205	67.403
06/22/2011 14:36:51	5.192	13.645	85.402	67.403
06/22/2011 14:37:01	5.189	13.638	85.604	67.403
06/22/2011 14:37:11	5.163	13.678	85.402	67.403
06/22/2011 14:37:21	5.141	13.656	85.205	67.403
06/22/2011 14:37:31	5.152	13.648	85.402	67.403
06/22/2011 14:37:41	5.145	13.656	85.402	67.403
06/22/2011 14:37:51	5.145	13.619	85.402	67.403
06/22/2011 14:38:01	5.167	13.652	85.205	67.403
06/22/2011 14:38:11	5.13	13.689	85.205	67.403
06/22/2011 14:38:21	5.116	13.652	85.402	67.403
06/22/2011 14:38:31	5.148	13.627	85.402	67.403
06/22/2011 14:38:41	5.17	13.608	85.205	67.403
06/22/2011 14:38:51	5.192	13.623	85.604	67.403
06/22/2011 14:39:01	5.159	13.663	85.604	67.403
06/22/2011 14:39:11	5.123	13.703	85.402	67.403
06/22/2011 14:39:21	5.119	13.663	85.102	67.403
06/22/2011 14:39:31	5.156	13.616	85.205	67.403
06/22/2011 14:39:41	5.174	13.627	85.402	67.604
06/22/2011 14:39:51	5.174	13.616	85.604	67.403
06/22/2011 14:40:01	5.174	13.627	85.402	67.604
06/22/2011 14:40:11	5.163	13.619	85.604	67.604
06/22/2011 14:40:21	5.189	13.601	85.604	67.403

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 14:40:31	5.214	13.583	85.604	67.403
06/22/2011 14:40:41	5.218	13.583	85.604	67.403
06/22/2011 14:40:51	5.211	13.597	85.604	67.403
06/22/2011 14:41:01	5.211	13.597	85.402	67.403
06/22/2011 14:41:11	5.203	13.616	85.402	67.403
06/22/2011 14:41:21	5.207	13.583	85.604	67.201
06/22/2011 14:41:31	5.211	13.608	85.402	67.201
06/22/2011 14:41:41	5.207	13.601	85.205	67.201
06/22/2011 14:41:51	5.17	13.667	85.102	67.403
06/22/2011 14:42:01	5.156	13.648	85.102	67.403
06/22/2011 14:42:11	5.196	13.59	85.102	67.403
06/22/2011 14:42:21	5.266	13.55	85.102	67.403
06/22/2011 14:42:31	5.28	13.52	84.904	67.403
06/22/2011 14:42:41	5.291	13.528	84.904	67.403
06/22/2011 14:42:51	5.266	13.557	85.102	67.403
06/22/2011 14:43:01	5.214	13.608	84.904	67.403
06/22/2011 14:43:11	5.211	13.597	84.703	67.604
06/22/2011 14:43:21	5.247	13.506	84.904	67.604
06/22/2011 14:43:31	5.28	13.52	84.703	67.403
06/22/2011 14:43:41	5.269	13.528	84.904	67.403
06/22/2011 14:43:51	5.277	13.506	85.102	67.403
06/22/2011 14:44:01	5.302	13.509	85.102	67.403
06/22/2011 14:44:11	5.299	13.513	85.102	67.403
06/22/2011 14:44:21	5.31	13.502	85.102	67.403
06/22/2011 14:44:31	5.295	13.546	85.102	67.604
06/22/2011 14:44:41	5.273	13.535	85.102	67.604
06/22/2011 14:44:51	5.266	13.553	85.102	67.604
06/22/2011 14:45:01	5.244	13.583	85.102	67.604
06/22/2011 14:45:11	5.244	13.535	85.205	67.403
06/22/2011 14:45:21	5.277	13.513	85.102	67.403
06/22/2011 14:45:31	5.273	13.546	85.102	67.403
06/22/2011 14:45:41	5.288	13.476	85.102	67.604
06/22/2011 14:45:51	5.339	13.462	85.102	67.604
06/22/2011 14:46:01	5.365	13.473	85.102	67.604
06/22/2011 14:46:11	5.368	13.454	85.102	67.604
06/22/2011 14:46:21	5.368	13.454	85.102	67.604
06/22/2011 14:46:31	5.39	13.458	85.102	67.604
06/22/2011 14:46:41	5.401	13.399	85.402	67.604
06/22/2011 14:46:51	5.427	13.388	85.402	67.604
06/22/2011 14:47:01	5.434	13.403	85.205	67.604
06/22/2011 14:47:11	5.427	13.381	85.102	67.604
06/22/2011 14:47:21	5.445	13.323	85.102	67.604
06/22/2011 14:47:31	5.478	13.315	85.102	67.604
06/22/2011 14:47:41	5.489	13.334	85.205	67.604
06/22/2011 14:47:51	5.478	13.337	85.102	67.604
06/22/2011 14:48:01	5.467	13.323	85.102	67.604
06/22/2011 14:48:11	5.507	13.29	85.102	67.604
06/22/2011 14:48:21	5.489	13.381	85.102	67.403
06/22/2011 14:48:31	5.463	13.334	85.102	67.604
06/22/2011 14:48:41	5.478	13.293	85.102	67.604
06/22/2011 14:48:51	5.467	13.337	85.102	67.604
06/22/2011 14:49:01	5.467	13.323	85.102	67.403
06/22/2011 14:49:11	5.482	13.341	85.205	67.604
06/22/2011 14:49:21	5.441	13.374	85.402	67.604
06/22/2011 14:49:31	5.416	13.381	85.402	67.604
06/22/2011 14:49:41	5.43	13.385	85.205	67.604
06/22/2011 14:49:51	5.427	13.403	85.205	67.604
06/22/2011 14:50:01	5.394	13.432	85.402	67.604
06/22/2011 14:50:11	5.416	13.374	85.205	67.604
06/22/2011 14:50:21	5.419	13.418	85.402	67.604
06/22/2011 14:50:31	5.376	13.41	85.402	67.604
06/22/2011 14:50:41	5.401	13.403	85.402	67.604
06/22/2011 14:50:51	5.434	13.334	85.205	67.604
06/22/2011 14:51:01	5.471	13.326	85.205	67.604
06/22/2011 14:51:11	5.478	13.326	85.402	67.604
06/22/2011 14:51:21	5.493	13.275	85.205	67.403
06/22/2011 14:51:31	5.537	13.264	85.102	67.403
06/22/2011 14:51:41	5.526	13.356	85.205	67.403
06/22/2011 14:51:51	5.441	13.399	85.205	67.403
06/22/2011 14:52:01	5.427	13.37	85.402	67.403
06/22/2011 14:52:11	5.427	13.381	85.102	67.403

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 14:52:21	5.449	13.308	85.205	67.403
06/22/2011 14:52:31	5.533	13.231	85.205	67.403
06/22/2011 14:52:41	5.559	13.293	85.102	67.403
06/22/2011 14:52:51	5.533	13.268	85.102	67.403
06/22/2011 14:53:01	5.533	13.275	85.102	67.403
06/22/2011 14:53:11	5.551	13.264	85.102	67.403
06/22/2011 14:53:21	5.544	13.286	85.102	67.403
06/22/2011 14:53:31	5.555	13.194	85.205	67.604
06/22/2011 14:53:41	5.628	13.18	85.205	67.403
06/22/2011 14:53:51	5.617	13.202	85.205	67.403
06/22/2011 14:54:01	5.603	13.191	85.205	67.604
06/22/2011 14:54:11	5.658	13.081	85.205	67.604
06/22/2011 14:54:21	5.712	13.106	85.102	67.403
06/22/2011 14:54:31	5.672	13.176	85.205	67.403
06/22/2011 14:54:41	5.636	13.147	85.205	67.403
06/22/2011 14:54:51	5.628	13.198	85.205	67.604
06/22/2011 14:55:01	5.592	13.202	85.402	67.604
06/22/2011 14:55:11	5.573	13.22	85.402	67.604
06/22/2011 14:55:21	5.592	13.15	85.205	67.604
06/22/2011 14:55:31	5.614	13.209	85.102	67.403
06/22/2011 14:55:41	5.57	13.26	85.205	67.403
06/22/2011 14:55:51	5.507	13.312	85.205	67.201
06/22/2011 14:56:01	5.482	13.308	85.205	67.201
06/22/2011 14:56:11	5.526	13.246	85.402	67.604
06/22/2011 14:56:21	5.537	13.29	85.402	67.604
06/22/2011 14:56:31	5.548	13.253	85.402	67.403
06/22/2011 14:56:41	5.603	13.176	85.205	67.403
06/22/2011 14:56:51	5.672	13.103	85.102	67.604
06/22/2011 14:57:01	5.731	13.095	85.102	67.604
06/22/2011 14:57:11	5.69	13.198	85.205	67.604
06/22/2011 14:57:21	5.599	13.257	85.205	67.604
06/22/2011 14:57:31	5.522	13.341	85.205	67.604
06/22/2011 14:57:41	5.478	13.334	85.102	67.604
06/22/2011 14:57:51	5.504	13.308	85.102	67.604
06/22/2011 14:58:01	5.548	13.209	85.102	67.604
06/22/2011 14:58:11	5.581	13.187	85.205	67.604
06/22/2011 14:58:21	5.606	13.22	85.205	67.403
06/22/2011 14:58:31	5.551	13.282	85.102	67.403
06/22/2011 14:58:41	5.5	13.301	85.102	67.403
06/22/2011 14:58:51	5.504	13.279	85.102	67.403
06/22/2011 14:59:01	5.533	13.205	85.102	67.604
06/22/2011 14:59:11	5.559	13.249	85.205	67.403
06/22/2011 14:59:21	5.504	13.33	85.102	67.403
06/22/2011 14:59:31	5.456	13.326	85.102	67.403
06/22/2011 14:59:41	5.515	13.231	85.402	67.604
06/22/2011 14:59:51	5.57	13.209	85.402	67.604
06/22/2011 15:00:01	5.562	13.264	85.102	67.604
06/22/2011 15:00:11	5.577	13.194	85.102	67.604
06/22/2011 15:00:21	5.592	13.205	84.904	67.604
06/22/2011 15:00:31	5.555	13.293	84.904	67.604
06/22/2011 15:00:41	5.526	13.312	85.102	67.604
06/22/2011 15:00:51	5.5	13.304	85.102	67.604
06/22/2011 15:01:01	5.511	13.249	85.102	67.604
06/22/2011 15:01:11	5.562	13.205	85.102	67.604
06/22/2011 15:01:21	5.581	13.202	85.102	67.604
06/22/2011 15:01:31	5.606	13.176	85.102	67.604
06/22/2011 15:01:41	5.636	13.165	85.102	67.604
06/22/2011 15:01:51	5.669	13.081	85.102	67.604
06/22/2011 15:02:01	5.661	13.194	85.205	67.604
06/22/2011 15:02:11	5.577	13.275	85.102	67.604
06/22/2011 15:02:21	5.544	13.26	85.102	67.604
06/22/2011 15:02:31	5.537	13.249	85.102	67.604
06/22/2011 15:02:41	5.566	13.172	85.102	67.604
06/22/2011 15:02:51	5.617	13.205	85.205	67.604
06/22/2011 15:03:01	5.573	13.282	85.205	67.604
06/22/2011 15:03:11	5.496	13.293	85.102	67.604
06/22/2011 15:03:21	5.5	13.268	85.205	67.604
06/22/2011 15:03:31	5.533	13.242	85.205	67.604
06/22/2011 15:03:41	5.529	13.268	85.205	67.604
06/22/2011 15:03:51	5.511	13.26	85.402	67.604
06/22/2011 15:04:01	5.478	13.352	85.402	67.403

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 15:04:11	5.445	13.345	85.802	67.403
06/22/2011 15:04:21	5.463	13.326	85.604	67.403
06/22/2011 15:04:31	5.478	13.293	85.604	67.403
06/22/2011 15:04:41	5.537	13.205	85.802	67.403
06/22/2011 15:04:51	5.551	13.26	85.604	67.403
06/22/2011 15:05:01	5.507	13.334	85.402	67.403
06/22/2011 15:05:11	5.471	13.337	85.205	67.403
06/22/2011 15:05:21	5.496	13.275	85.402	67.403
06/22/2011 15:05:31	5.533	13.264	85.604	67.201
06/22/2011 15:05:41	5.577	13.238	85.402	67.403
06/22/2011 15:05:51	5.573	13.238	85.802	67.403
06/22/2011 15:06:01	5.562	13.238	85.604	67.403
06/22/2011 15:06:11	5.537	13.293	85.604	67.403
06/22/2011 15:06:21	5.518	13.271	85.604	67.403
06/22/2011 15:06:31	5.526	13.253	85.802	67.201
06/22/2011 15:06:41	5.548	13.213	85.802	67.403
06/22/2011 15:06:51	5.581	13.235	85.604	67.403
06/22/2011 15:07:01	5.577	13.227	85.604	67.403
06/22/2011 15:07:11	5.57	13.29	85.604	67.403
06/22/2011 15:07:21	5.522	13.29	85.604	67.403
06/22/2011 15:07:31	5.5	13.326	85.604	67.604
06/22/2011 15:07:41	5.474	13.323	85.604	67.604
06/22/2011 15:07:51	5.474	13.315	85.604	67.802
06/22/2011 15:08:01	5.46	13.319	85.604	67.802
06/22/2011 15:08:11	5.471	13.326	85.802	67.802
06/22/2011 15:08:21	5.452	13.326	85.802	67.802
06/22/2011 15:08:31	5.467	13.297	86.003	67.802
06/22/2011 15:08:41	5.467	13.352	86.003	67.802
06/22/2011 15:08:51	5.408	13.385	86.003	67.604
06/22/2011 15:09:01	5.427	13.352	85.802	67.604
06/22/2011 15:09:11	5.434	13.392	85.802	67.604
06/22/2011 15:09:21	5.354	13.495	85.402	67.604
06/22/2011 15:09:31	5.291	13.513	85.402	67.604
06/22/2011 15:09:41	5.288	13.524	85.402	67.604
06/22/2011 15:09:51	5.236	13.579	85.205	67.604
06/22/2011 15:10:01	5.266	13.495	85.402	67.604
06/22/2011 15:10:11	5.313	13.44	85.604	67.604
06/22/2011 15:10:21	5.321	13.487	85.802	67.604
06/22/2011 15:10:31	5.295	13.506	85.604	67.604
06/22/2011 15:10:41	5.251	13.557	85.802	67.802
06/22/2011 15:10:51	5.255	13.484	85.802	67.802
06/22/2011 15:11:01	5.31	13.495	85.604	67.802
06/22/2011 15:11:11	5.321	13.443	85.604	67.802
06/22/2011 15:11:21	5.343	13.462	85.604	67.802
06/22/2011 15:11:31	5.376	13.403	85.604	67.604
06/22/2011 15:11:41	5.372	13.476	85.604	67.604
06/22/2011 15:11:51	5.317	13.473	85.802	67.604
06/22/2011 15:12:01	5.313	13.443	85.802	67.604
06/22/2011 15:12:11	5.379	13.374	85.802	67.604
06/22/2011 15:12:21	5.405	13.41	85.604	67.604
06/22/2011 15:12:31	5.35	13.491	85.802	67.604
06/22/2011 15:12:41	5.288	13.484	85.604	67.604
06/22/2011 15:12:51	5.306	13.44	85.604	67.604
06/22/2011 15:13:01	5.343	13.418	85.604	67.604
06/22/2011 15:13:11	5.343	13.469	86.003	67.802
06/22/2011 15:13:21	5.335	13.451	85.604	67.802
06/22/2011 15:13:31	5.321	13.465	85.604	67.802
06/22/2011 15:13:41	5.332	13.399	85.802	68.003
06/22/2011 15:13:51	5.376	13.414	85.802	68.003
06/22/2011 15:14:01	5.357	13.447	85.802	68.003
06/22/2011 15:14:11	5.332	13.462	85.802	67.802
06/22/2011 15:14:21	5.288	13.553	85.802	68.003
06/22/2011 15:14:31	5.225	13.564	85.604	68.003
06/22/2011 15:14:41	5.244	13.528	85.604	67.802
06/22/2011 15:14:51	5.269	13.528	85.604	67.802
06/22/2011 15:15:01	5.225	13.557	85.205	67.802
06/22/2011 15:15:11	5.222	13.55	85.402	67.802
06/22/2011 15:15:21	5.269	13.469	85.802	67.802
06/22/2011 15:15:31	5.299	13.498	85.802	67.802
06/22/2011 15:15:41	5.31	13.498	85.802	67.802
06/22/2011 15:15:51	5.306	13.502	85.604	67.604

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 15:16:01	5.262	13.542	85.604	67.604
06/22/2011 15:16:11	5.233	13.579	86.003	67.802
06/22/2011 15:16:21	5.222	13.535	86.003	67.802
06/22/2011 15:16:31	5.251	13.546	85.604	67.802
06/22/2011 15:16:41	5.233	13.561	85.604	67.802
06/22/2011 15:16:51	5.185	13.641	85.802	67.802
06/22/2011 15:17:01	5.174	13.605	85.604	67.802
06/22/2011 15:17:11	5.207	13.539	85.802	67.802
06/22/2011 15:17:21	5.273	13.506	85.802	67.802
06/22/2011 15:17:31	5.328	13.506	85.802	67.802
06/22/2011 15:17:41	5.299	13.539	85.604	67.604
06/22/2011 15:17:51	5.262	13.546	85.604	67.802
06/22/2011 15:18:01	5.251	13.557	85.604	67.802
06/22/2011 15:18:11	5.291	13.498	85.604	67.802
06/22/2011 15:18:21	5.288	13.594	85.802	67.802
06/22/2011 15:18:31	5.203	13.605	85.604	67.802
06/22/2011 15:18:41	5.185	13.575	85.205	67.604
06/22/2011 15:18:51	5.24	13.539	85.402	67.604
06/22/2011 15:19:01	5.273	13.517	85.604	67.604
06/22/2011 15:19:11	5.302	13.458	85.402	67.604
06/22/2011 15:19:21	5.324	13.495	85.604	67.604
06/22/2011 15:19:31	5.277	13.55	85.604	67.802
06/22/2011 15:19:41	5.233	13.553	85.604	67.802
06/22/2011 15:19:51	5.236	13.553	85.604	67.802
06/22/2011 15:20:01	5.262	13.462	85.604	67.802
06/22/2011 15:20:11	5.288	13.48	85.604	67.802
06/22/2011 15:20:21	5.258	13.524	85.604	67.802
06/22/2011 15:20:31	5.262	13.48	85.604	67.802
06/22/2011 15:20:41	5.321	13.421	85.604	67.802
06/22/2011 15:20:51	5.35	13.429	85.604	67.802
06/22/2011 15:21:01	5.339	13.502	85.604	67.802
06/22/2011 15:21:11	5.277	13.572	85.604	67.604
06/22/2011 15:21:21	5.211	13.612	85.402	67.604
06/22/2011 15:21:31	5.203	13.561	85.604	67.604
06/22/2011 15:21:41	5.192	13.619	85.205	67.403
06/22/2011 15:21:51	5.145	13.652	85.402	67.604
06/22/2011 15:22:01	5.167	13.619	85.402	67.604
06/22/2011 15:22:11	5.2	13.535	85.604	67.802
06/22/2011 15:22:21	5.255	13.542	85.802	67.802
06/22/2011 15:22:31	5.255	13.546	85.802	67.802
06/22/2011 15:22:41	5.273	13.531	85.802	67.802
06/22/2011 15:22:51	5.236	13.597	85.802	67.802
06/22/2011 15:23:01	5.159	13.7	85.802	67.604
06/22/2011 15:23:11	5.068	13.736	85.802	67.802
06/22/2011 15:23:21	5.068	13.7	86.102	67.802
06/22/2011 15:23:31	5.079	13.681	86.102	67.604
06/22/2011 15:23:41	5.112	13.623	86.003	67.604
06/22/2011 15:23:51	5.167	13.586	85.802	67.604
06/22/2011 15:24:01	5.156	13.659	85.802	67.802
06/22/2011 15:24:11	5.119	13.689	85.802	67.802
06/22/2011 15:24:21	5.116	13.645	85.802	67.802
06/22/2011 15:24:31	5.13	13.641	86.003	67.802
06/22/2011 15:24:41	5.119	13.692	85.802	67.802
06/22/2011 15:24:51	5.13	13.623	85.802	67.802
06/22/2011 15:25:01	5.163	13.638	85.802	67.604
06/22/2011 15:25:11	5.163	13.612	86.003	67.604
06/22/2011 15:25:21	5.17	13.619	86.102	67.604
06/22/2011 15:25:31	5.159	13.63	86.003	67.604
06/22/2011 15:25:41	5.17	13.597	86.003	67.604
06/22/2011 15:25:51	5.214	13.594	85.802	67.604
06/22/2011 15:26:01	5.203	13.612	85.802	67.604
06/22/2011 15:26:11	5.236	13.513	86.003	67.802
06/22/2011 15:26:21	5.266	13.579	85.802	67.802
06/22/2011 15:26:31	5.2	13.656	86.003	67.802
06/22/2011 15:26:41	5.156	13.608	86.003	67.604
06/22/2011 15:26:51	5.189	13.601	86.102	67.802
06/22/2011 15:27:01	5.196	13.612	86.003	67.802
06/22/2011 15:27:11	5.189	13.612	86.102	67.802
06/22/2011 15:27:21	5.185	13.627	86.003	67.802
06/22/2011 15:27:31	5.211	13.561	86.003	67.802
06/22/2011 15:27:41	5.229	13.586	86.102	67.802

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 15:27:51	5.196	13.645	86.003	67.802
06/22/2011 15:28:01	5.167	13.659	85.802	67.802
06/22/2011 15:28:11	5.167	13.623	85.802	67.802
06/22/2011 15:28:21	5.185	13.605	85.802	67.802
06/22/2011 15:28:31	5.178	13.656	85.802	67.802
06/22/2011 15:28:41	5.148	13.645	85.802	67.802
06/22/2011 15:28:51	5.174	13.623	85.802	67.802
06/22/2011 15:29:01	5.189	13.579	85.604	67.604
06/22/2011 15:29:11	5.192	13.583	85.604	67.604
06/22/2011 15:29:21	5.17	13.648	85.604	67.604
06/22/2011 15:29:31	5.141	13.656	85.604	67.604
06/22/2011 15:29:41	5.137	13.63	85.604	67.604
06/22/2011 15:29:51	5.181	13.601	85.604	67.802
06/22/2011 15:30:01	5.196	13.612	85.604	67.802
06/22/2011 15:30:11	5.189	13.608	85.802	67.802
06/22/2011 15:30:21	5.189	13.575	85.802	67.802
06/22/2011 15:30:31	5.2	13.572	86.003	67.802
06/22/2011 15:30:41	5.207	13.564	85.802	67.604
06/22/2011 15:30:51	5.214	13.579	85.802	67.604
06/22/2011 15:31:01	5.211	13.546	85.802	67.604
06/22/2011 15:31:11	5.247	13.528	85.604	67.604
06/22/2011 15:31:21	5.313	13.407	85.604	67.604
06/22/2011 15:31:31	5.372	13.436	85.604	67.604
06/22/2011 15:31:41	5.35	13.451	85.604	67.802
06/22/2011 15:31:51	5.328	13.469	85.802	67.802
06/22/2011 15:32:01	5.262	13.546	85.604	67.802
06/22/2011 15:32:11	5.233	13.561	85.604	67.802
06/22/2011 15:32:21	5.225	13.594	85.604	67.802
06/22/2011 15:32:31	5.218	13.553	85.604	67.802
06/22/2011 15:32:41	5.225	13.568	85.604	67.802
06/22/2011 15:32:51	5.236	13.539	85.604	67.802
06/22/2011 15:33:01	5.258	13.517	85.402	67.802
06/22/2011 15:33:11	5.269	13.502	85.402	67.802
06/22/2011 15:33:21	5.284	13.476	85.402	67.802
06/22/2011 15:33:31	5.306	13.473	85.604	67.802
06/22/2011 15:33:41	5.31	13.495	85.604	67.802
06/22/2011 15:33:51	5.284	13.553	85.802	67.802
06/22/2011 15:34:01	5.258	13.55	85.802	67.802
06/22/2011 15:34:11	5.225	13.575	85.604	67.604
06/22/2011 15:34:21	5.24	13.495	85.604	67.802
06/22/2011 15:34:31	5.317	13.432	85.604	67.802
06/22/2011 15:34:41	5.346	13.436	85.604	67.802
06/22/2011 15:34:51	5.346	13.458	85.604	67.802
06/22/2011 15:35:01	5.313	13.506	85.604	67.802
06/22/2011 15:35:11	5.302	13.495	85.604	67.802
06/22/2011 15:35:21	5.357	13.399	85.604	67.802
06/22/2011 15:35:31	5.39	13.421	85.604	67.802
06/22/2011 15:35:41	5.35	13.454	85.604	67.802
06/22/2011 15:35:51	5.335	13.429	85.604	67.802
06/22/2011 15:36:01	5.313	13.524	85.604	67.802
06/22/2011 15:36:11	5.269	13.528	85.604	67.802
06/22/2011 15:36:21	5.244	13.568	85.402	67.802
06/22/2011 15:36:31	5.236	13.557	85.402	67.802
06/22/2011 15:36:41	5.247	13.539	85.102	67.604
06/22/2011 15:36:51	5.251	13.506	85.102	67.604
06/22/2011 15:37:01	5.255	13.564	85.205	67.604
06/22/2011 15:37:11	5.218	13.583	85.402	67.802
06/22/2011 15:37:21	5.203	13.575	85.402	67.802
06/22/2011 15:37:31	5.218	13.542	85.402	67.802
06/22/2011 15:37:41	5.236	13.553	85.604	67.802
06/22/2011 15:37:51	5.229	13.553	85.604	67.802
06/22/2011 15:38:01	5.225	13.546	85.604	67.802
06/22/2011 15:38:11	5.306	13.396	85.604	67.604
06/22/2011 15:38:21	5.401	13.392	85.802	67.604
06/22/2011 15:38:31	5.372	13.484	85.604	67.604
06/22/2011 15:38:41	5.262	13.594	85.604	67.604
06/22/2011 15:38:51	5.2	13.619	85.604	67.802
06/22/2011 15:39:01	5.152	13.67	85.604	67.604
06/22/2011 15:39:11	5.159	13.594	85.604	67.604
06/22/2011 15:39:21	5.229	13.55	85.604	67.802
06/22/2011 15:39:31	5.284	13.495	85.604	67.802

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 15:39:41	5.335	13.462	85.604	67.802
06/22/2011 15:39:51	5.427	13.341	85.604	67.802
06/22/2011 15:40:01	5.504	13.319	85.604	67.604
06/22/2011 15:40:11	5.54	13.304	85.802	67.802
06/22/2011 15:40:21	5.555	13.26	85.604	68.003
06/22/2011 15:40:31	5.61	13.18	85.604	68.003
06/22/2011 15:40:41	5.687	13.128	85.604	67.802
06/22/2011 15:40:51	5.738	13.07	85.604	67.802
06/22/2011 15:41:01	5.753	13.085	85.604	67.802
06/22/2011 15:41:11	5.764	13.074	85.604	67.802
06/22/2011 15:41:21	5.775	13.015	85.604	67.802
06/22/2011 15:41:31	5.8	13.059	85.604	67.802
06/22/2011 15:41:41	5.8	13.011	85.604	67.802
06/22/2011 15:41:51	5.841	12.989	85.802	67.802
06/22/2011 15:42:01	5.833	13.008	85.802	67.802
06/22/2011 15:42:11	5.815	13.022	86.003	67.604
06/22/2011 15:42:21	5.778	13.074	85.604	67.604
06/22/2011 15:42:31	5.753	13.033	85.604	67.604
06/22/2011 15:42:41	5.808	12.949	85.604	67.604
06/22/2011 15:42:51	5.885	12.92	85.604	67.604
06/22/2011 15:43:01	5.929	12.898	85.604	67.604
06/22/2011 15:43:11	5.921	12.901	85.604	67.604
06/22/2011 15:43:21	5.888	12.975	85.604	67.604
06/22/2011 15:43:31	5.811	13.015	85.604	67.604
06/22/2011 15:43:41	5.756	13.066	85.604	67.604
06/22/2011 15:43:51	5.771	12.997	85.802	67.604
06/22/2011 15:44:01	5.815	12.975	86.003	67.604
06/22/2011 15:44:11	5.819	13.022	85.802	67.604
06/22/2011 15:44:21	5.775	13.059	85.604	67.604
06/22/2011 15:44:31	5.734	13.044	85.604	67.604
06/22/2011 15:44:41	5.76	13.011	85.604	67.604
06/22/2011 15:44:51	5.771	13.019	85.402	67.604
06/22/2011 15:45:01	5.771	13.037	85.604	67.604
06/22/2011 15:45:11	5.764	13.033	85.604	67.604
06/22/2011 15:45:21	5.756	13.015	85.604	67.604
06/22/2011 15:45:31	5.771	13.033	85.802	67.604
06/22/2011 15:45:41	5.771	13.004	86.303	67.802
06/22/2011 15:45:51	5.749	13.059	86.303	67.802
06/22/2011 15:46:01	5.665	13.18	86.303	67.802
06/22/2011 15:46:11	5.57	13.275	86.303	67.802
06/22/2011 15:46:21	5.5	13.293	86.303	67.604
06/22/2011 15:46:31	5.471	13.282	86.303	67.604
06/22/2011 15:46:41	5.46	13.304	86.102	67.802
06/22/2011 15:46:51	5.463	13.315	86.303	67.802
06/22/2011 15:47:01	5.427	13.377	86.303	67.802
06/22/2011 15:47:11	5.39	13.37	86.303	67.802
06/22/2011 15:47:21	5.379	13.396	86.303	67.802
06/22/2011 15:47:31	5.339	13.465	86.102	68.003
06/22/2011 15:47:41	5.291	13.473	86.003	67.802
06/22/2011 15:47:51	5.24	13.528	86.003	67.604
06/22/2011 15:48:01	5.185	13.561	86.003	67.604
06/22/2011 15:48:11	5.137	13.656	86.303	68.003
06/22/2011 15:48:21	5.068	13.714	86.505	67.802
06/22/2011 15:48:31	5.061	13.641	86.303	68.003
06/22/2011 15:48:41	5.13	13.605	86.102	67.802
06/22/2011 15:48:51	5.156	13.616	86.102	67.802
06/22/2011 15:49:01	5.134	13.634	86.102	67.604
06/22/2011 15:49:11	5.097	13.707	86.003	67.604
06/22/2011 15:49:21	5.05	13.725	86.003	67.604
06/22/2011 15:49:31	5.057	13.7	86.003	67.802
06/22/2011 15:49:41	5.108	13.619	86.003	67.802
06/22/2011 15:49:51	5.152	13.634	86.102	67.802
06/22/2011 15:50:01	5.116	13.663	86.102	67.802
06/22/2011 15:50:11	5.108	13.656	86.102	67.802
06/22/2011 15:50:21	5.083	13.729	86.102	67.802
06/22/2011 15:50:31	5.002	13.817	86.102	67.802
06/22/2011 15:50:41	4.936	13.832	86.303	68.003
06/22/2011 15:50:51	4.965	13.755	86.505	67.802
06/22/2011 15:51:01	5.013	13.744	86.102	67.802
06/22/2011 15:51:11	5.006	13.788	86.303	67.802
06/22/2011 15:51:21	4.991	13.762	86.505	67.802

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 15:51:31	5.02	13.729	86.303	67.802
06/22/2011 15:51:41	5.068	13.678	86.003	67.604
06/22/2011 15:51:51	5.119	13.667	86.003	67.604
06/22/2011 15:52:01	5.094	13.733	86.003	67.604
06/22/2011 15:52:11	5.086	13.674	86.003	67.604
06/22/2011 15:52:21	5.119	13.689	86.102	67.802
06/22/2011 15:52:31	5.163	13.601	86.303	67.802
06/22/2011 15:52:41	5.218	13.568	86.102	67.802
06/22/2011 15:52:51	5.244	13.528	86.003	67.802
06/22/2011 15:53:01	5.262	13.517	86.003	67.802
06/22/2011 15:53:11	5.306	13.458	85.802	67.604
06/22/2011 15:53:21	5.317	13.498	85.802	67.802
06/22/2011 15:53:31	5.299	13.524	85.802	67.802
06/22/2011 15:53:41	5.255	13.572	85.802	67.802
06/22/2011 15:53:51	5.181	13.623	86.003	68.003
06/22/2011 15:54:01	5.148	13.605	86.003	67.802
06/22/2011 15:54:11	5.178	13.583	86.003	67.802
06/22/2011 15:54:21	5.24	13.502	86.003	67.802
06/22/2011 15:54:31	5.269	13.513	85.802	67.802
06/22/2011 15:54:41	5.266	13.495	86.003	67.802
06/22/2011 15:54:51	5.266	13.506	86.003	67.802
06/22/2011 15:55:01	5.266	13.524	86.102	67.802
06/22/2011 15:55:11	5.266	13.542	86.303	67.802
06/22/2011 15:55:21	5.225	13.579	86.102	68.003
06/22/2011 15:55:31	5.214	13.557	86.102	67.802
06/22/2011 15:55:41	5.236	13.561	86.303	68.003
06/22/2011 15:55:51	5.236	13.557	86.102	67.802
06/22/2011 15:56:01	5.207	13.594	86.102	68.003
06/22/2011 15:56:11	5.229	13.498	86.102	68.003
06/22/2011 15:56:21	5.288	13.473	86.003	68.003
06/22/2011 15:56:31	5.284	13.535	86.102	67.802
06/22/2011 15:56:41	5.222	13.59	86.102	67.802
06/22/2011 15:56:51	5.152	13.674	86.303	67.802
06/22/2011 15:57:01	5.108	13.67	86.303	67.802
06/22/2011 15:57:11	5.141	13.638	86.505	67.802
06/22/2011 15:57:21	5.156	13.619	86.505	68.003
06/22/2011 15:57:31	5.148	13.667	86.303	68.003
06/22/2011 15:57:41	5.126	13.67	86.303	68.003
06/22/2011 15:57:51	5.126	13.627	86.505	68.003
06/22/2011 15:58:01	5.196	13.509	86.102	68.003
06/22/2011 15:58:11	5.244	13.564	86.303	68.003
06/22/2011 15:58:21	5.185	13.634	86.303	68.003
06/22/2011 15:58:31	5.112	13.747	86.505	68.003
06/22/2011 15:58:41	5.086	13.681	86.303	68.003
06/22/2011 15:58:51	5.094	13.678	86.303	68.003
06/22/2011 15:59:01	5.137	13.638	86.102	67.802
06/22/2011 15:59:11	5.148	13.678	86.003	67.802
06/22/2011 15:59:21	5.141	13.645	86.102	67.802
06/22/2011 15:59:31	5.145	13.641	86.303	68.003
06/22/2011 15:59:41	5.148	13.641	86.505	68.003
06/22/2011 15:59:51	5.17	13.601	86.303	68.003
06/22/2011 16:00:01	5.2	13.594	86.102	68.102
06/22/2011 16:00:11	5.218	13.594	86.102	68.003
06/22/2011 16:00:21	5.2	13.597	86.102	68.003
06/22/2011 16:00:31	5.178	13.608	86.003	68.003
06/22/2011 16:00:41	5.134	13.663	86.003	68.003
06/22/2011 16:00:51	5.119	13.652	86.003	68.003
06/22/2011 16:01:01	5.137	13.648	86.102	68.003
06/22/2011 16:01:11	5.141	13.641	86.102	68.003
06/22/2011 16:01:21	5.13	13.659	86.003	67.802
06/22/2011 16:01:31	5.159	13.568	86.003	67.802
06/22/2011 16:01:41	5.229	13.531	86.003	68.003
06/22/2011 16:01:51	5.24	13.553	86.003	68.003
06/22/2011 16:02:01	5.211	13.59	86.003	67.802
06/22/2011 16:02:11	5.189	13.579	86.102	67.802
06/22/2011 16:02:21	5.203	13.564	86.003	68.003
06/22/2011 16:02:31	5.229	13.561	86.505	68.003
06/22/2011 16:02:41	5.233	13.564	86.303	68.102
06/22/2011 16:02:51	5.222	13.55	86.505	68.102
06/22/2011 16:03:01	5.185	13.619	86.505	68.102
06/22/2011 16:03:11	5.148	13.616	86.102	68.102

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 16:03:21	5.167	13.612	86.102	68.102
06/22/2011 16:03:31	5.145	13.663	86.003	68.102
06/22/2011 16:03:41	5.101	13.692	86.003	68.102
06/22/2011 16:03:51	5.075	13.707	86.102	68.102
06/22/2011 16:04:01	5.105	13.67	86.003	68.003
06/22/2011 16:04:11	5.156	13.605	86.003	68.003
06/22/2011 16:04:21	5.192	13.572	86.003	68.003
06/22/2011 16:04:31	5.17	13.692	85.802	68.003
06/22/2011 16:04:41	5.119	13.678	86.003	68.003
06/22/2011 16:04:51	5.152	13.579	86.003	68.003
06/22/2011 16:05:01	5.192	13.608	85.802	68.003
06/22/2011 16:05:11	5.189	13.612	86.003	67.802
06/22/2011 16:05:21	5.192	13.583	85.802	68.003
06/22/2011 16:05:31	5.196	13.597	85.802	67.802
06/22/2011 16:05:41	5.17	13.645	85.802	67.802
06/22/2011 16:05:51	5.174	13.575	85.802	67.802
06/22/2011 16:06:01	5.189	13.608	85.604	67.802
06/22/2011 16:06:11	5.196	13.605	86.003	67.802
06/22/2011 16:06:21	5.178	13.616	86.003	67.802
06/22/2011 16:06:31	5.174	13.63	85.604	68.003
06/22/2011 16:06:41	5.163	13.619	85.802	68.003
06/22/2011 16:06:51	5.178	13.575	85.802	68.003
06/22/2011 16:07:01	5.214	13.579	86.003	68.003
06/22/2011 16:07:11	5.207	13.601	86.003	68.003
06/22/2011 16:07:21	5.225	13.55	86.003	67.802
06/22/2011 16:07:31	5.244	13.539	86.003	67.802
06/22/2011 16:07:41	5.273	13.506	86.003	68.003
06/22/2011 16:07:51	5.266	13.553	86.003	68.003
06/22/2011 16:08:01	5.255	13.528	86.102	68.003
06/22/2011 16:08:11	5.269	13.55	86.003	68.003
06/22/2011 16:08:21	5.24	13.542	86.003	68.003
06/22/2011 16:08:31	5.266	13.52	86.003	67.802
06/22/2011 16:08:41	5.284	13.513	86.003	68.003
06/22/2011 16:08:51	5.269	13.553	86.003	68.003
06/22/2011 16:09:01	5.233	13.561	85.802	68.003
06/22/2011 16:09:11	5.225	13.55	86.003	68.003
06/22/2011 16:09:21	5.251	13.531	86.003	67.802
06/22/2011 16:09:31	5.299	13.454	86.003	68.003
06/22/2011 16:09:41	5.354	13.421	86.003	68.003
06/22/2011 16:09:51	5.361	13.447	86.003	68.003
06/22/2011 16:10:01	5.343	13.44	86.003	68.003
06/22/2011 16:10:11	5.324	13.542	86.003	68.003
06/22/2011 16:10:21	5.225	13.568	86.003	68.003
06/22/2011 16:10:31	5.251	13.462	86.003	68.003
06/22/2011 16:10:41	5.335	13.465	85.802	67.802
06/22/2011 16:10:51	5.269	13.59	85.802	67.802
06/22/2011 16:11:01	5.2	13.557	85.802	67.802
06/22/2011 16:11:11	5.203	13.586	86.003	67.802
06/22/2011 16:11:21	5.196	13.568	86.003	67.802
06/22/2011 16:11:31	5.192	13.601	86.003	67.802
06/22/2011 16:11:41	5.17	13.601	86.003	67.802
06/22/2011 16:11:51	5.196	13.535	85.802	67.802
06/22/2011 16:12:01	5.233	13.561	85.802	67.802
06/22/2011 16:12:11	5.218	13.564	86.003	67.802
06/22/2011 16:12:21	5.214	13.535	85.802	67.802
06/22/2011 16:12:31	5.196	13.608	85.802	67.802
06/22/2011 16:12:41	5.222	13.55	86.003	68.003
06/22/2011 16:12:51	5.214	13.597	86.003	68.003
06/22/2011 16:13:01	5.181	13.605	86.102	68.003
06/22/2011 16:13:11	5.167	13.608	86.102	68.003
06/22/2011 16:13:21	5.174	13.59	86.102	67.802
06/22/2011 16:13:31	5.178	13.627	86.102	67.802
06/22/2011 16:13:41	5.178	13.583	86.303	67.802
06/22/2011 16:13:51	5.192	13.601	86.102	67.802
06/22/2011 16:14:01	5.181	13.645	86.102	67.604
06/22/2011 16:14:11	5.174	13.608	86.303	67.802
06/22/2011 16:14:21	5.185	13.612	86.303	68.003
06/22/2011 16:14:31	5.211	13.553	86.303	68.003
06/22/2011 16:14:41	5.251	13.561	86.303	68.003
06/22/2011 16:14:51	5.266	13.517	86.102	68.003
06/22/2011 16:15:01	5.328	13.447	86.102	68.003

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 16:15:11	5.335	13.491	86.102	68.003
06/22/2011 16:15:21	5.269	13.546	86.102	68.003
06/22/2011 16:15:31	5.258	13.52	86.102	68.003
06/22/2011 16:15:41	5.266	13.52	86.102	68.003
06/22/2011 16:15:51	5.284	13.469	86.003	68.003
06/22/2011 16:16:01	5.321	13.458	86.003	68.003
06/22/2011 16:16:11	5.35	13.436	86.102	68.003
06/22/2011 16:16:21	5.354	13.451	86.102	68.003
06/22/2011 16:16:31	5.332	13.473	86.303	68.102
06/22/2011 16:16:41	5.332	13.432	86.102	68.003
06/22/2011 16:16:51	5.357	13.425	86.003	67.802
06/22/2011 16:17:01	5.343	13.458	86.003	67.802
06/22/2011 16:17:11	5.302	13.513	86.003	67.802
06/22/2011 16:17:21	5.255	13.561	86.102	67.802
06/22/2011 16:17:31	5.211	13.586	86.102	67.802
06/22/2011 16:17:41	5.236	13.491	86.003	67.802
06/22/2011 16:17:51	5.324	13.41	86.102	68.003
06/22/2011 16:18:01	5.405	13.381	86.102	68.003
06/22/2011 16:18:11	5.383	13.425	86.303	68.003
06/22/2011 16:18:21	5.328	13.495	86.303	68.003
06/22/2011 16:18:31	5.321	13.454	86.303	68.003
06/22/2011 16:18:41	5.332	13.436	86.505	68.003
06/22/2011 16:18:51	5.313	13.48	86.505	68.003
06/22/2011 16:19:01	5.31	13.462	86.505	68.003
06/22/2011 16:19:11	5.343	13.458	86.702	68.003
06/22/2011 16:19:21	5.383	13.345	86.702	68.003
06/22/2011 16:19:31	5.452	13.341	86.702	68.003
06/22/2011 16:19:41	5.449	13.366	86.702	68.003
06/22/2011 16:19:51	5.39	13.495	86.505	68.003
06/22/2011 16:20:01	5.324	13.487	86.505	68.003
06/22/2011 16:20:11	5.324	13.443	86.505	68.003
06/22/2011 16:20:21	5.379	13.385	86.702	68.003
06/22/2011 16:20:31	5.452	13.352	86.904	68.003
06/22/2011 16:20:41	5.449	13.359	86.904	68.003
06/22/2011 16:20:51	5.427	13.381	86.702	68.003
06/22/2011 16:21:01	5.412	13.385	86.303	68.003
06/22/2011 16:21:11	5.372	13.443	86.505	68.003
06/22/2011 16:21:21	5.361	13.407	86.303	68.003
06/22/2011 16:21:31	5.394	13.418	86.303	68.003
06/22/2011 16:21:41	5.383	13.396	86.303	68.003
06/22/2011 16:21:51	5.387	13.396	86.303	68.003
06/22/2011 16:22:01	5.376	13.388	86.102	68.003
06/22/2011 16:22:11	5.398	13.414	86.303	68.003
06/22/2011 16:22:21	5.361	13.443	86.303	68.102
06/22/2011 16:22:31	5.346	13.396	86.102	68.102
06/22/2011 16:22:41	5.376	13.421	86.505	68.102
06/22/2011 16:22:51	5.394	13.37	86.505	68.303
06/22/2011 16:23:01	5.405	13.392	86.303	68.303
06/22/2011 16:23:11	5.383	13.447	86.505	68.102
06/22/2011 16:23:21	5.321	13.528	86.303	68.102
06/22/2011 16:23:31	5.269	13.509	86.102	68.303
06/22/2011 16:23:41	5.295	13.487	86.303	68.102
06/22/2011 16:23:51	5.317	13.462	86.303	68.102
06/22/2011 16:24:01	5.365	13.392	86.003	68.102
06/22/2011 16:24:11	5.383	13.44	86.102	68.102
06/22/2011 16:24:21	5.365	13.418	86.303	68.102
06/22/2011 16:24:31	5.39	13.385	86.102	68.102
06/22/2011 16:24:41	5.423	13.374	86.303	68.102
06/22/2011 16:24:51	5.416	13.41	86.303	68.102
06/22/2011 16:25:01	5.346	13.465	86.303	68.102
06/22/2011 16:25:11	5.302	13.458	86.003	68.102
06/22/2011 16:25:21	5.317	13.487	86.003	68.102
06/22/2011 16:25:31	5.273	13.542	86.102	68.303
06/22/2011 16:25:41	5.288	13.465	86.003	68.102
06/22/2011 16:25:51	5.313	13.48	86.003	68.102
06/22/2011 16:26:01	5.299	13.48	86.003	68.102
06/22/2011 16:26:11	5.284	13.498	86.003	68.102
06/22/2011 16:26:21	5.291	13.491	86.102	68.102
06/22/2011 16:26:31	5.328	13.469	86.102	68.102
06/22/2011 16:26:41	5.365	13.421	86.003	68.003
06/22/2011 16:26:51	5.335	13.502	86.003	68.003

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 16:27:01	5.332	13.451	86.003	68.003
06/22/2011 16:27:11	5.339	13.44	85.802	68.102
06/22/2011 16:27:21	5.354	13.429	86.003	68.102
06/22/2011 16:27:31	5.365	13.429	86.003	68.102
06/22/2011 16:27:41	5.35	13.454	86.003	68.102
06/22/2011 16:27:51	5.332	13.462	86.003	68.102
06/22/2011 16:28:01	5.324	13.473	86.003	68.102
06/22/2011 16:28:11	5.31	13.469	86.003	68.102
06/22/2011 16:28:21	5.339	13.407	86.003	68.102
06/22/2011 16:28:31	5.379	13.399	86.003	68.102
06/22/2011 16:28:41	5.405	13.356	86.003	68.102
06/22/2011 16:28:51	5.405	13.403	86.003	68.102
06/22/2011 16:29:01	5.339	13.495	86.003	68.102
06/22/2011 16:29:11	5.277	13.542	86.003	68.102
06/22/2011 16:29:21	5.317	13.414	85.802	68.102
06/22/2011 16:29:31	5.387	13.414	86.003	68.102
06/22/2011 16:29:41	5.346	13.502	86.003	68.003
06/22/2011 16:29:51	5.346	13.451	86.003	68.102
06/22/2011 16:30:01	5.401	13.381	86.003	68.102
06/22/2011 16:30:11	5.43	13.381	86.003	68.102
06/22/2011 16:30:21	5.419	13.385	86.003	68.102
06/22/2011 16:30:31	5.39	13.399	86.003	68.102
06/22/2011 16:30:41	5.379	13.458	86.003	68.102
06/22/2011 16:30:51	5.383	13.377	86.102	68.102
06/22/2011 16:31:01	5.423	13.366	86.303	68.102
06/22/2011 16:31:11	5.405	13.447	86.102	68.102
06/22/2011 16:31:21	5.339	13.476	86.003	68.102
06/22/2011 16:31:31	5.343	13.421	86.102	68.102
06/22/2011 16:31:41	5.372	13.458	86.003	67.802
06/22/2011 16:31:51	5.343	13.443	86.102	67.802
06/22/2011 16:32:01	5.328	13.454	86.102	67.802
06/22/2011 16:32:11	5.339	13.443	86.003	67.802
06/22/2011 16:32:21	5.339	13.443	86.102	68.102
06/22/2011 16:32:31	5.317	13.462	86.102	68.102
06/22/2011 16:32:41	5.313	13.418	86.303	68.102
06/22/2011 16:32:51	5.357	13.41	86.102	68.003
06/22/2011 16:33:01	5.361	13.41	86.003	68.003
06/22/2011 16:33:11	5.332	13.454	86.102	68.003
06/22/2011 16:33:21	5.288	13.498	86.102	68.102
06/22/2011 16:33:31	5.244	13.557	86.003	68.102
06/22/2011 16:33:41	5.258	13.48	86.003	68.102
06/22/2011 16:33:51	5.324	13.44	86.102	68.102
06/22/2011 16:34:01	5.383	13.352	86.003	68.003
06/22/2011 16:34:11	5.39	13.447	86.102	68.003
06/22/2011 16:34:21	5.291	13.513	86.102	68.003
06/22/2011 16:34:31	5.233	13.605	86.505	68.003
06/22/2011 16:34:41	5.2	13.55	86.505	68.003
06/22/2011 16:34:51	5.211	13.564	86.505	67.802
06/22/2011 16:35:01	5.2	13.568	86.505	67.802
06/22/2011 16:35:11	5.258	13.528	86.303	67.802
06/22/2011 16:35:21	5.295	13.48	86.505	67.802
06/22/2011 16:35:31	5.251	13.586	86.102	67.802
06/22/2011 16:35:41	5.196	13.553	86.303	67.802
06/22/2011 16:35:51	5.247	13.484	86.303	68.003
End Run 1				
Average	**5.311**	**13.484**	**85.922**	**67.889**
Maximum	**5.929**	**13.857**	**87.204**	**68.703**
Minimum	**4.918**	**12.898**	**84.703**	**67.201**
06/22/2011 16:36:01	5.255	13.542	86.102	68.003
06/22/2011 16:36:11	5.225	13.546	86.303	68.003
06/22/2011 16:36:21	5.218	13.568	86.102	68.003
06/22/2011 16:36:31	5.251	13.491	86.102	67.802
06/22/2011 16:36:41	5.328	13.432	86.303	68.003
06/22/2011 16:36:51	5.372	13.429	86.303	67.802
06/22/2011 16:37:01	5.335	13.473	86.303	67.802
06/22/2011 16:37:11	5.335	13.421	86.102	67.802
06/22/2011 16:37:21	5.357	13.44	86.003	68.003
06/22/2011 16:37:31	5.365	13.399	86.102	68.003
06/22/2011 16:37:41	5.368	13.425	86.102	67.802
06/22/2011 16:37:51	5.335	13.498	86.003	67.802

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 16:38:01	5.269	13.572	86.505	68.003
06/22/2011 16:38:11	5.526	10.62	86.505	68.102
06/22/2011 16:38:21	5.797	13.487	86.702	68.102
06/22/2011 16:38:31	5.328	13.542	86.702	68.102
06/22/2011 16:38:41	6.749	10.404	86.505	68.102
Calibration Bias				
06/22/2011 16:38:51	10.305	9.854	86.505	68.102
06/22/2011 16:39:01	10.049	8.983	86.303	68.501
06/22/2011 16:39:11	3.848	0.93	86.102	68.501
06/22/2011 16:39:21	0.501	0.915	86.303	68.501
06/22/2011 16:39:31	0.373	0.937	86.003	68.501
06/22/2011 16:39:41	0.366	0.948	85.802	68.501
06/22/2011 16:39:51	0.366	0.952	86.003	68.501
06/22/2011 16:40:01	0.369	0.963	85.802	68.501
06/22/2011 16:40:11	0.377	0.948	86.003	68.501
06/22/2011 16:40:21	0.38	0.955	86.003	68.501
06/22/2011 16:40:31	0.377	0.948	86.303	68.501
06/22/2011 16:40:41	0.373	0.944	86.003	68.501
06/22/2011 16:40:51	0.369	0.955	86.003	68.501
06/22/2011 16:41:01	0.369	0.952	86.003	68.303
06/22/2011 16:41:11	0.369	0.944	86.003	68.303
06/22/2011 16:41:21	0.369	0.93	86.003	68.303
06/22/2011 16:41:31	0.373	0.926	86.003	68.303
06/22/2011 16:41:41	0.377	0.937	86.003	68.303
N2 Zero	**0.373**	**0.931**	**86.003**	**68.303**
06/22/2011 16:41:51	0.589	2.786	86.003	68.102
06/22/2011 16:42:01	5.544	9.598	86.003	68.003
06/22/2011 16:42:11	10.598	9.756	86.102	67.802
06/22/2011 16:42:21	10.997	9.778	86.102	67.604
06/22/2011 16:42:31	11.023	9.789	86.003	67.403
06/22/2011 16:42:41	11.034	9.796	86.003	67.403
06/22/2011 16:42:51	11.037	9.799	86.003	67.201
06/22/2011 16:43:01	11.045	9.807	86.003	67.201
06/22/2011 16:43:11	11.048	9.81	86.003	67.201
06/22/2011 16:43:21	11.048	9.81	86.102	67.201
06/22/2011 16:43:31	11.052	9.814	86.102	67.201
06/22/2011 16:43:41	11.048	9.814	86.102	67.102
11.1% O2/9.74% CO2 Mid	**11.049**	**9.813**	**86.102**	**67.168**
06/22/2011 16:43:51	8.781	13.304	86.102	67.102
06/22/2011 16:44:01	5.694	13.377	86.303	67.201
06/22/2011 16:44:11	5.423	13.381	86.303	67.201
06/22/2011 16:44:21	5.387	13.407	86.303	67.201
06/22/2011 16:44:31	5.354	13.443	86.303	67.201
06/22/2011 16:44:41	5.317	13.436	86.102	67.201
06/22/2011 16:44:51	5.343	13.429	86.102	67.201
06/22/2011 16:45:01	5.357	13.432	86.102	67.201
06/22/2011 16:45:11	5.354	13.421	86.102	67.201
06/22/2011 16:45:21	5.365	13.432	86.102	67.201
06/22/2011 16:45:31	5.35	13.458	86.303	67.201
06/22/2011 16:45:41	5.354	13.418	86.505	67.201
06/22/2011 16:45:51	5.335	13.469	86.303	67.201
06/22/2011 16:46:01	5.328	13.421	86.303	67.201
06/22/2011 16:46:11	5.354	13.403	86.303	67.201
06/22/2011 16:46:21	5.383	13.374	86.102	67.201
06/22/2011 16:46:31	5.383	13.396	86.102	67.201
06/22/2011 16:46:41	5.387	13.356	86.102	67.201
06/22/2011 16:46:51	5.383	13.425	86.003	67.403
06/22/2011 16:47:01	5.335	13.44	86.003	67.403
06/22/2011 16:47:11	5.335	13.44	86.003	67.403
06/22/2011 16:47:21	5.339	13.436	85.802	67.403
06/22/2011 16:47:31	5.35	13.418	86.003	67.403
06/22/2011 16:47:41	5.372	13.421	86.003	67.403
06/22/2011 16:47:51	5.379	13.421	86.003	67.403
06/22/2011 16:48:01	5.383	13.399	86.003	67.403
06/22/2011 16:48:11	5.354	13.44	86.003	67.604
06/22/2011 16:48:21	5.354	13.421	86.102	67.604
06/22/2011 16:48:31	5.35	13.451	86.303	67.403
06/22/2011 16:48:41	5.372	13.385	86.102	67.604
06/22/2011 16:48:51	5.43	13.323	86.003	67.604
06/22/2011 16:49:01	5.467	13.293	85.802	67.403
06/22/2011 16:49:11	5.467	13.341	85.802	67.403

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 16:49:21	5.423	13.359	86.003	67.403
06/22/2011 16:49:31	5.423	13.377	85.802	67.403
06/22/2011 16:49:41	5.419	13.374	86.003	67.403
06/22/2011 16:49:51	5.412	13.37	86.102	67.604
06/22/2011 16:50:01	5.423	13.363	86.102	67.604
06/22/2011 16:50:11	5.379	13.462	85.802	67.604
06/22/2011 16:50:21	5.354	13.429	85.802	67.403
06/22/2011 16:50:31	5.408	13.388	85.604	67.604
06/22/2011 16:50:41	5.441	13.352	85.802	67.604
06/22/2011 16:50:51	5.387	13.458	85.802	67.604
06/22/2011 16:51:01	5.332	13.451	85.802	67.604
06/22/2011 16:51:11	5.332	13.476	85.802	67.802
06/22/2011 16:51:21	5.313	13.473	85.802	67.802
06/22/2011 16:51:31	5.31	13.469	85.802	67.802
06/22/2011 16:51:41	5.31	13.462	85.802	67.604
06/22/2011 16:51:51	5.335	13.436	86.003	67.802
06/22/2011 16:52:01	5.343	13.392	85.802	67.604
06/22/2011 16:52:11	5.332	13.462	85.802	67.802
06/22/2011 16:52:21	5.324	13.454	85.802	67.604
06/22/2011 16:52:31	5.346	13.396	86.003	67.802
06/22/2011 16:52:41	5.376	13.425	85.604	67.604
06/22/2011 16:52:51	5.339	13.451	85.604	67.604
Start Run 2				
06/22/2011 16:53:01	5.332	13.421	85.604	67.604
06/22/2011 16:53:11	5.383	13.356	85.604	67.604
06/22/2011 16:53:21	5.445	13.33	85.604	67.604
06/22/2011 16:53:31	5.434	13.341	85.802	67.604
06/22/2011 16:53:41	5.408	13.421	86.003	67.802
06/22/2011 16:53:51	5.357	13.44	86.303	67.604
06/22/2011 16:54:01	5.306	13.524	86.303	67.604
06/22/2011 16:54:11	5.262	13.52	86.505	67.802
06/22/2011 16:54:21	5.266	13.491	86.702	67.802
06/22/2011 16:54:31	5.255	13.528	86.702	67.802
06/22/2011 16:54:41	5.225	13.583	86.702	67.802
06/22/2011 16:54:51	5.236	13.531	86.702	67.802
06/22/2011 16:55:01	5.28	13.476	86.702	67.802
06/22/2011 16:55:11	5.291	13.498	86.505	67.802
06/22/2011 16:55:21	5.284	13.531	86.505	67.802
06/22/2011 16:55:31	5.258	13.546	86.702	67.802
06/22/2011 16:55:41	5.225	13.601	86.505	67.802
06/22/2011 16:55:51	5.203	13.542	86.505	67.802
06/22/2011 16:56:01	5.24	13.553	86.303	67.802
06/22/2011 16:56:11	5.222	13.586	86.003	67.802
06/22/2011 16:56:21	5.222	13.561	86.003	67.802
06/22/2011 16:56:31	5.269	13.484	86.003	67.802
06/22/2011 16:56:41	5.299	13.535	86.003	67.604
06/22/2011 16:56:51	5.284	13.506	86.003	67.604
06/22/2011 16:57:01	5.28	13.509	86.102	67.604
06/22/2011 16:57:11	5.306	13.495	86.303	67.802
06/22/2011 16:57:21	5.332	13.458	86.303	68.003
06/22/2011 16:57:31	5.335	13.469	86.102	67.802
06/22/2011 16:57:41	5.302	13.509	86.303	67.802
06/22/2011 16:57:51	5.306	13.465	86.102	67.802
06/22/2011 16:58:01	5.339	13.458	86.303	67.802
06/22/2011 16:58:11	5.273	13.586	86.505	67.802
06/22/2011 16:58:21	5.181	13.605	86.303	67.802
06/22/2011 16:58:31	5.225	13.531	86.303	67.802
06/22/2011 16:58:41	5.302	13.487	86.102	67.802
06/22/2011 16:58:51	5.31	13.451	86.102	67.802
06/22/2011 16:59:01	5.31	13.469	86.303	67.802
06/22/2011 16:59:11	5.324	13.443	86.505	68.003
06/22/2011 16:59:21	5.346	13.454	86.303	68.003
06/22/2011 16:59:31	5.339	13.447	86.102	68.003
06/22/2011 16:59:41	5.324	13.465	86.303	68.003
06/22/2011 16:59:51	5.291	13.531	86.505	68.102
06/22/2011 17:00:01	5.277	13.491	86.505	68.003
06/22/2011 17:00:11	5.288	13.517	86.303	68.003
06/22/2011 17:00:21	5.28	13.55	86.303	68.003
06/22/2011 17:00:31	5.299	13.476	86.102	68.003
06/22/2011 17:00:41	5.372	13.41	86.102	68.003

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 17:00:51	5.408	13.432	86.003	68.003
06/22/2011 17:01:01	5.394	13.414	86.003	68.003
06/22/2011 17:01:11	5.387	13.458	86.003	68.003
06/22/2011 17:01:21	5.335	13.535	86.003	68.003
06/22/2011 17:01:31	5.306	13.451	86.303	68.003
06/22/2011 17:01:41	5.343	13.429	86.102	68.003
06/22/2011 17:01:51	5.383	13.388	86.003	68.003
06/22/2011 17:02:01	5.383	13.432	86.102	68.003
06/22/2011 17:02:11	5.354	13.44	86.102	68.003
06/22/2011 17:02:21	5.313	13.495	86.102	68.003
06/22/2011 17:02:31	5.24	13.608	86.003	68.003
06/22/2011 17:02:41	5.181	13.601	86.003	68.003
06/22/2011 17:02:51	5.181	13.619	85.802	67.802
06/22/2011 17:03:01	5.192	13.601	86.003	68.003
06/22/2011 17:03:11	5.225	13.539	86.003	68.003
06/22/2011 17:03:21	5.288	13.454	86.003	68.003
06/22/2011 17:03:31	5.35	13.454	86.102	68.003
06/22/2011 17:03:41	5.35	13.509	86.102	67.802
06/22/2011 17:03:51	5.306	13.52	86.003	68.003
06/22/2011 17:04:01	5.284	13.509	86.003	68.102
06/22/2011 17:04:11	5.255	13.568	86.102	68.102
06/22/2011 17:04:21	5.233	13.568	86.003	68.102
06/22/2011 17:04:31	5.251	13.531	86.102	68.102
06/22/2011 17:04:41	5.291	13.487	86.003	68.003
06/22/2011 17:04:51	5.313	13.491	86.003	68.003
06/22/2011 17:05:01	5.302	13.487	86.003	68.003
06/22/2011 17:05:11	5.273	13.557	86.003	68.003
06/22/2011 17:05:21	5.211	13.612	86.003	68.003
06/22/2011 17:05:31	5.192	13.597	86.003	68.003
06/22/2011 17:05:41	5.218	13.539	86.003	68.003
06/22/2011 17:05:51	5.24	13.557	86.003	68.003
06/22/2011 17:06:01	5.255	13.517	86.102	68.003
06/22/2011 17:06:11	5.284	13.476	86.102	68.003
06/22/2011 17:06:21	5.299	13.498	86.303	68.003
06/22/2011 17:06:31	5.28	13.528	86.102	68.003
06/22/2011 17:06:41	5.181	13.641	86.003	68.003
06/22/2011 17:06:51	5.05	13.714	86.003	68.003
06/22/2011 17:07:01	5.006	13.7	86.003	68.003
06/22/2011 17:07:11	4.998	13.722	86.003	68.003
06/22/2011 17:07:21	4.936	13.813	86.003	68.003
06/22/2011 17:07:31	4.866	13.821	86.003	68.003
06/22/2011 17:07:41	4.845	13.821	86.003	68.102
06/22/2011 17:07:51	4.79	13.879	86.102	68.102
06/22/2011 17:08:01	4.731	13.93	86.003	68.003
06/22/2011 17:08:11	4.72	13.887	86.003	68.003
06/22/2011 17:08:21	4.742	13.872	86.003	68.003
06/22/2011 17:08:31	4.746	13.909	86.003	68.003
06/22/2011 17:08:41	4.705	13.952	86.003	68.003
06/22/2011 17:08:51	4.716	13.89	86.003	68.102
06/22/2011 17:09:01	4.764	13.894	86.003	68.003
06/22/2011 17:09:11	4.768	13.876	86.003	68.003
06/22/2011 17:09:21	4.753	13.919	86.003	68.003
06/22/2011 17:09:31	4.76	13.872	86.003	68.003
06/22/2011 17:09:41	4.815	13.865	86.003	68.102
06/22/2011 17:09:51	4.826	13.89	86.003	68.102
06/22/2011 17:10:01	4.804	13.941	86.003	68.102
06/22/2011 17:10:11	4.771	13.927	86.003	68.003
06/22/2011 17:10:21	4.782	13.945	85.802	68.003
06/22/2011 17:10:31	4.801	13.898	85.604	68.003
06/22/2011 17:10:41	4.881	13.828	85.802	68.003
06/22/2011 17:10:51	4.932	13.799	85.402	68.003
06/22/2011 17:11:01	4.984	13.755	85.604	68.003
06/22/2011 17:11:11	5.013	13.755	85.802	68.003
06/22/2011 17:11:21	4.984	13.824	85.802	68.003
06/22/2011 17:11:31	4.962	13.802	86.003	68.003
06/22/2011 17:11:41	4.984	13.733	85.802	68.003
06/22/2011 17:11:51	5.042	13.696	85.802	68.003
06/22/2011 17:12:01	5.042	13.758	85.802	68.003
06/22/2011 17:12:11	5.017	13.758	85.802	68.003
06/22/2011 17:12:21	5.006	13.758	86.003	68.003
06/22/2011 17:12:31	4.998	13.81	85.802	68.003

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 17:12:41	5.009	13.707	85.802	68.003
06/22/2011 17:12:51	5.105	13.616	85.802	68.003
06/22/2011 17:13:01	5.126	13.689	86.003	68.003
06/22/2011 17:13:11	5.101	13.674	85.604	68.003
06/22/2011 17:13:21	5.097	13.703	85.802	68.003
06/22/2011 17:13:31	5.064	13.733	85.802	68.003
06/22/2011 17:13:41	5.035	13.762	86.003	68.003
06/22/2011 17:13:51	5.042	13.733	86.003	68.003
06/22/2011 17:14:01	5.086	13.67	86.003	68.003
06/22/2011 17:14:11	5.094	13.7	86.003	68.003
06/22/2011 17:14:21	5.053	13.747	86.102	68.003
06/22/2011 17:14:31	5.009	13.788	86.003	68.003
06/22/2011 17:14:41	5.002	13.784	86.003	68.003
06/22/2011 17:14:51	5.009	13.791	86.003	68.003
06/22/2011 17:15:01	5.002	13.766	86.102	68.003
06/22/2011 17:15:11	5.042	13.729	86.505	68.003
06/22/2011 17:15:21	5.061	13.707	86.102	67.802
06/22/2011 17:15:31	5.068	13.714	86.303	68.003
06/22/2011 17:15:41	5.068	13.692	86.303	68.102
06/22/2011 17:15:51	5.075	13.714	86.102	68.003
06/22/2011 17:16:01	5.061	13.714	86.102	68.003
06/22/2011 17:16:11	5.116	13.623	86.102	68.003
06/22/2011 17:16:21	5.101	13.744	86.102	68.102
06/22/2011 17:16:31	5.013	13.766	86.303	68.102
06/22/2011 17:16:41	4.995	13.78	86.102	68.102
06/22/2011 17:16:51	4.987	13.795	86.102	68.102
06/22/2011 17:17:01	4.998	13.773	86.003	68.102
06/22/2011 17:17:11	4.998	13.78	86.003	68.003
06/22/2011 17:17:21	4.987	13.729	86.102	68.003
06/22/2011 17:17:31	4.998	13.755	86.003	68.003
06/22/2011 17:17:41	5.006	13.747	86.003	68.003
06/22/2011 17:17:51	4.987	13.78	86.003	68.102
06/22/2011 17:18:01	4.969	13.788	86.003	68.102
06/22/2011 17:18:11	4.984	13.773	86.003	68.102
06/22/2011 17:18:21	4.951	13.865	86.003	68.102
06/22/2011 17:18:31	4.896	13.861	86.003	68.102
06/22/2011 17:18:41	4.907	13.806	86.003	68.102
06/22/2011 17:18:51	4.976	13.736	85.802	68.102
06/22/2011 17:19:01	5.057	13.681	85.802	68.102
06/22/2011 17:19:11	5.064	13.747	85.802	68.102
06/22/2011 17:19:21	4.998	13.773	86.003	68.102
06/22/2011 17:19:31	4.991	13.755	86.003	68.102
06/22/2011 17:19:41	5.013	13.769	86.003	68.102
06/22/2011 17:19:51	4.973	13.835	86.003	68.102
06/22/2011 17:20:01	4.896	13.905	86.003	68.102
06/22/2011 17:20:11	4.859	13.905	86.003	68.102
06/22/2011 17:20:21	4.859	13.898	86.003	68.102
06/22/2011 17:20:31	4.874	13.85	86.003	68.303
06/22/2011 17:20:41	4.98	13.678	86.003	68.102
06/22/2011 17:20:51	5.072	13.722	86.003	68.102
06/22/2011 17:21:01	5.039	13.747	85.802	68.102
06/22/2011 17:21:11	4.976	13.835	85.802	68.102
06/22/2011 17:21:21	4.94	13.78	85.604	68.102
06/22/2011 17:21:31	4.987	13.751	86.003	68.102
06/22/2011 17:21:41	5.017	13.725	86.003	68.102
06/22/2011 17:21:51	5.035	13.762	86.003	68.102
06/22/2011 17:22:01	5.028	13.729	86.003	68.303
06/22/2011 17:22:11	5.068	13.692	86.003	68.102
06/22/2011 17:22:21	5.094	13.696	85.802	68.102
06/22/2011 17:22:31	5.09	13.681	85.604	68.102
06/22/2011 17:22:41	5.105	13.652	85.604	68.102
06/22/2011 17:22:51	5.123	13.648	85.802	68.102
06/22/2011 17:23:01	5.13	13.645	85.802	68.102
06/22/2011 17:23:11	5.141	13.652	85.604	68.102
06/22/2011 17:23:21	5.145	13.623	85.604	68.003
06/22/2011 17:23:31	5.167	13.656	85.402	68.102
06/22/2011 17:23:41	5.185	13.586	85.402	68.102
06/22/2011 17:23:51	5.174	13.627	85.604	68.102
06/22/2011 17:24:01	5.13	13.678	85.604	68.102
06/22/2011 17:24:11	5.094	13.714	85.802	68.102
06/22/2011 17:24:21	5.053	13.74	85.604	68.102

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 17:24:31	5.072	13.696	85.802	68.102
06/22/2011 17:24:41	5.079	13.729	85.802	68.102
06/22/2011 17:24:51	5.137	13.594	85.802	68.102
06/22/2011 17:25:01	5.2	13.623	85.802	68.102
06/22/2011 17:25:11	5.156	13.638	85.205	68.003
06/22/2011 17:25:21	5.178	13.623	85.604	68.003
06/22/2011 17:25:31	5.178	13.634	85.402	68.003
06/22/2011 17:25:41	5.167	13.656	85.402	68.003
06/22/2011 17:25:51	5.167	13.63	85.402	68.003
06/22/2011 17:26:01	5.156	13.67	85.402	68.003
06/22/2011 17:26:11	5.156	13.648	85.402	68.003
06/22/2011 17:26:21	5.174	13.619	85.205	68.003
06/22/2011 17:26:31	5.2	13.608	85.205	68.003
06/22/2011 17:26:41	5.214	13.619	85.402	68.003
06/22/2011 17:26:51	5.185	13.663	85.604	68.003
06/22/2011 17:27:01	5.119	13.714	85.802	68.003
06/22/2011 17:27:11	5.101	13.692	86.003	68.003
06/22/2011 17:27:21	5.167	13.597	86.003	68.003
06/22/2011 17:27:31	5.229	13.542	85.802	68.003
06/22/2011 17:27:41	5.324	13.407	85.604	68.102
06/22/2011 17:27:51	5.441	13.326	85.802	68.102
06/22/2011 17:28:01	5.522	13.271	85.802	68.102
06/22/2011 17:28:11	5.548	13.242	85.802	68.102
06/22/2011 17:28:21	5.537	13.33	85.604	68.102
06/22/2011 17:28:31	5.474	13.377	86.003	68.102
06/22/2011 17:28:41	5.387	13.469	85.802	68.102
06/22/2011 17:28:51	5.339	13.458	85.802	68.102
06/22/2011 17:29:01	5.372	13.436	85.604	68.102
06/22/2011 17:29:11	5.39	13.399	85.402	67.802
06/22/2011 17:29:21	5.398	13.421	85.402	67.802
06/22/2011 17:29:31	5.365	13.44	85.402	67.802
06/22/2011 17:29:41	5.35	13.484	85.604	68.102
06/22/2011 17:29:51	5.335	13.451	85.604	67.802
06/22/2011 17:30:01	5.379	13.407	85.402	67.802
06/22/2011 17:30:11	5.372	13.469	85.402	67.802
06/22/2011 17:30:21	5.332	13.498	85.402	67.802
06/22/2011 17:30:31	5.339	13.48	85.402	67.802
06/22/2011 17:30:41	5.354	13.429	85.205	67.802
06/22/2011 17:30:51	5.361	13.44	85.402	67.802
06/22/2011 17:31:01	5.343	13.473	85.604	68.102
06/22/2011 17:31:11	5.332	13.469	85.802	68.102
06/22/2011 17:31:21	5.354	13.414	85.802	68.102
06/22/2011 17:31:31	5.412	13.356	85.802	68.102
06/22/2011 17:31:41	5.452	13.341	85.604	68.102
06/22/2011 17:31:51	5.438	13.374	85.604	68.102
06/22/2011 17:32:01	5.438	13.359	85.205	67.802
06/22/2011 17:32:11	5.419	13.399	85.205	67.802
06/22/2011 17:32:21	5.401	13.414	85.205	67.802
06/22/2011 17:32:31	5.419	13.366	85.604	68.003
06/22/2011 17:32:41	5.412	13.432	85.604	68.003
06/22/2011 17:32:51	5.408	13.348	85.604	68.003
06/22/2011 17:33:01	5.445	13.363	85.604	67.802
06/22/2011 17:33:11	5.405	13.436	85.604	67.802
06/22/2011 17:33:21	5.372	13.44	85.402	67.802
06/22/2011 17:33:31	5.368	13.418	85.402	67.802
06/22/2011 17:33:41	5.452	13.293	85.604	67.802
06/22/2011 17:33:51	5.489	13.337	85.604	67.802
06/22/2011 17:34:01	5.445	13.374	85.402	67.802
06/22/2011 17:34:11	5.43	13.348	85.604	67.802
06/22/2011 17:34:21	5.474	13.297	85.604	67.802
06/22/2011 17:34:31	5.518	13.29	85.604	67.802
06/22/2011 17:34:41	5.507	13.323	85.402	67.802
06/22/2011 17:34:51	5.496	13.319	85.402	67.802
06/22/2011 17:35:01	5.518	13.268	85.604	68.003
06/22/2011 17:35:11	5.533	13.301	85.802	67.802
06/22/2011 17:35:21	5.526	13.26	85.604	68.003
06/22/2011 17:35:31	5.577	13.198	85.604	67.802
06/22/2011 17:35:41	5.577	13.275	85.802	67.802
06/22/2011 17:35:51	5.515	13.304	85.604	67.802
06/22/2011 17:36:01	5.518	13.264	85.604	67.802
06/22/2011 17:36:11	5.551	13.238	85.604	67.802

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 17:36:21	5.573	13.209	85.802	67.802
06/22/2011 17:36:31	5.595	13.227	85.604	67.802
06/22/2011 17:36:41	5.551	13.286	85.604	67.802
06/22/2011 17:36:51	5.5	13.326	85.205	68.003
06/22/2011 17:37:01	5.449	13.396	85.402	68.003
06/22/2011 17:37:11	5.405	13.377	85.402	68.003
06/22/2011 17:37:21	5.449	13.33	85.205	67.802
06/22/2011 17:37:31	5.478	13.282	85.205	68.003
06/22/2011 17:37:41	5.5	13.312	85.102	67.604
06/22/2011 17:37:51	5.467	13.33	85.205	67.604
06/22/2011 17:38:01	5.46	13.33	85.102	67.802
06/22/2011 17:38:11	5.467	13.341	85.402	67.802
06/22/2011 17:38:21	5.441	13.37	85.402	67.802
06/22/2011 17:38:31	5.398	13.421	85.402	68.003
06/22/2011 17:38:41	5.372	13.414	85.604	68.003
06/22/2011 17:38:51	5.383	13.41	85.802	68.003
06/22/2011 17:39:01	5.398	13.396	85.802	67.802
06/22/2011 17:39:11	5.394	13.414	85.402	67.802
06/22/2011 17:39:21	5.416	13.352	85.604	67.802
06/22/2011 17:39:31	5.449	13.348	85.604	67.802
06/22/2011 17:39:41	5.445	13.399	85.802	68.003
06/22/2011 17:39:51	5.43	13.341	85.604	68.003
06/22/2011 17:40:01	5.493	13.279	85.604	67.802
06/22/2011 17:40:11	5.537	13.268	85.604	67.802
06/22/2011 17:40:21	5.548	13.271	85.604	67.802
06/22/2011 17:40:31	5.489	13.366	85.604	67.802
06/22/2011 17:40:41	5.445	13.392	85.402	67.604
06/22/2011 17:40:51	5.401	13.414	85.402	67.604
06/22/2011 17:41:01	5.39	13.429	85.402	67.604
06/22/2011 17:41:11	5.376	13.392	85.802	67.802
06/22/2011 17:41:21	5.416	13.341	85.802	67.802
06/22/2011 17:41:31	5.438	13.377	85.604	67.802
06/22/2011 17:41:41	5.427	13.334	85.604	67.802
06/22/2011 17:41:51	5.478	13.275	85.802	67.802
06/22/2011 17:42:01	5.471	13.359	85.802	67.802
06/22/2011 17:42:11	5.427	13.381	85.802	67.802
06/22/2011 17:42:21	5.419	13.363	85.802	67.802
06/22/2011 17:42:31	5.408	13.418	85.604	67.802
06/22/2011 17:42:41	5.372	13.443	85.205	67.802
06/22/2011 17:42:51	5.35	13.451	85.402	67.802
06/22/2011 17:43:01	5.357	13.392	85.402	67.802
06/22/2011 17:43:11	5.412	13.374	85.402	67.802
06/22/2011 17:43:21	5.405	13.407	85.402	67.802
06/22/2011 17:43:31	5.387	13.436	85.402	67.802
06/22/2011 17:43:41	5.368	13.462	85.402	67.802
06/22/2011 17:43:51	5.339	13.469	85.604	67.802
06/22/2011 17:44:01	5.354	13.425	85.604	67.802
06/22/2011 17:44:11	5.383	13.414	85.802	67.802
06/22/2011 17:44:21	5.419	13.392	85.802	67.802
06/22/2011 17:44:31	5.449	13.363	85.604	67.802
06/22/2011 17:44:41	5.467	13.315	85.604	67.604
06/22/2011 17:44:51	5.471	13.341	85.604	67.802
06/22/2011 17:45:01	5.474	13.33	85.604	67.802
06/22/2011 17:45:11	5.46	13.363	85.402	67.604
06/22/2011 17:45:21	5.456	13.345	85.205	67.604
06/22/2011 17:45:31	5.485	13.293	85.205	67.604
06/22/2011 17:45:41	5.522	13.312	85.205	67.802
06/22/2011 17:45:51	5.511	13.301	85.102	67.802
06/22/2011 17:46:01	5.548	13.198	85.205	67.802
06/22/2011 17:46:11	5.581	13.253	85.402	67.802
06/22/2011 17:46:21	5.548	13.297	85.205	67.802
06/22/2011 17:46:31	5.522	13.304	85.102	67.604
06/22/2011 17:46:41	5.518	13.323	85.205	67.604
06/22/2011 17:46:51	5.518	13.279	85.402	67.604
06/22/2011 17:47:01	5.529	13.279	85.604	67.604
06/22/2011 17:47:11	5.511	13.326	85.604	67.604
06/22/2011 17:47:21	5.471	13.348	85.604	67.604
06/22/2011 17:47:31	5.493	13.315	85.802	67.604
06/22/2011 17:47:41	5.504	13.337	85.604	67.604
06/22/2011 17:47:51	5.441	13.414	85.604	67.604
06/22/2011 17:48:01	5.419	13.359	85.402	67.604

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 17:48:11	5.434	13.352	85.402	67.604
06/22/2011 17:48:21	5.463	13.337	85.205	67.604
06/22/2011 17:48:31	5.504	13.275	85.205	67.604
06/22/2011 17:48:41	5.537	13.268	85.205	67.604
06/22/2011 17:48:51	5.526	13.275	85.402	67.604
06/22/2011 17:49:01	5.577	13.172	85.402	67.604
06/22/2011 17:49:11	5.625	13.187	85.205	67.604
06/22/2011 17:49:21	5.577	13.271	85.205	67.604
06/22/2011 17:49:31	5.504	13.366	85.402	67.604
06/22/2011 17:49:41	5.463	13.359	85.205	67.604
06/22/2011 17:49:51	5.482	13.308	85.402	67.604
06/22/2011 17:50:01	5.511	13.286	85.402	67.604
06/22/2011 17:50:11	5.493	13.385	85.205	67.604
06/22/2011 17:50:21	5.416	13.421	85.402	67.604
06/22/2011 17:50:31	5.419	13.377	85.402	67.604
06/22/2011 17:50:41	5.449	13.345	85.604	67.604
06/22/2011 17:50:51	5.434	13.366	85.802	67.604
06/22/2011 17:51:01	5.43	13.377	85.604	67.604
06/22/2011 17:51:11	5.452	13.341	85.604	67.604
06/22/2011 17:51:21	5.471	13.334	85.402	67.604
06/22/2011 17:51:31	5.449	13.352	85.205	67.604
06/22/2011 17:51:41	5.463	13.326	85.205	67.604
06/22/2011 17:51:51	5.441	13.385	85.402	67.604
06/22/2011 17:52:01	5.379	13.44	85.205	67.604
06/22/2011 17:52:11	5.39	13.385	85.102	67.604
06/22/2011 17:52:21	5.408	13.396	85.102	67.604
06/22/2011 17:52:31	5.394	13.418	84.904	67.604
06/22/2011 17:52:41	5.383	13.429	85.102	67.604
06/22/2011 17:52:51	5.383	13.429	85.102	67.604
06/22/2011 17:53:01	5.398	13.381	85.102	67.604
06/22/2011 17:53:11	5.416	13.352	85.102	67.604
06/22/2011 17:53:21	5.467	13.308	85.402	67.604
06/22/2011 17:53:31	5.511	13.293	85.402	67.604
06/22/2011 17:53:41	5.485	13.377	85.402	67.604
06/22/2011 17:53:51	5.412	13.425	85.102	67.604
06/22/2011 17:54:01	5.379	13.407	85.205	67.604
06/22/2011 17:54:11	5.408	13.352	85.205	67.604
06/22/2011 17:54:21	5.445	13.366	85.402	67.604
06/22/2011 17:54:31	5.449	13.363	85.604	67.802
06/22/2011 17:54:41	5.445	13.396	85.604	67.802
06/22/2011 17:54:51	5.423	13.407	85.402	67.802
06/22/2011 17:55:01	5.441	13.37	85.102	67.604
06/22/2011 17:55:11	5.452	13.352	84.904	67.604
06/22/2011 17:55:21	5.449	13.385	85.102	67.604
06/22/2011 17:55:31	5.438	13.37	85.402	67.802
06/22/2011 17:55:41	5.493	13.323	85.402	67.604
06/22/2011 17:55:51	5.548	13.282	85.205	67.604
06/22/2011 17:56:01	5.577	13.271	85.102	67.604
06/22/2011 17:56:11	5.559	13.304	85.102	67.604
06/22/2011 17:56:21	5.559	13.271	85.205	67.604
06/22/2011 17:56:31	5.573	13.249	85.205	67.604
06/22/2011 17:56:41	5.577	13.253	85.205	67.604
06/22/2011 17:56:51	5.562	13.275	84.904	67.604
06/22/2011 17:57:01	5.573	13.227	85.102	67.604
06/22/2011 17:57:11	5.632	13.176	84.904	67.604
06/22/2011 17:57:21	5.647	13.216	84.703	67.604
06/22/2011 17:57:31	5.621	13.213	84.904	67.604
06/22/2011 17:57:41	5.621	13.209	84.703	67.403
06/22/2011 17:57:51	5.654	13.165	84.703	67.604
06/22/2011 17:58:01	5.661	13.154	84.904	67.604
06/22/2011 17:58:11	5.632	13.205	85.102	67.604
06/22/2011 17:58:21	5.562	13.312	84.703	67.403
06/22/2011 17:58:31	5.5	13.326	84.703	67.403
06/22/2011 17:58:41	5.485	13.304	84.703	67.403
06/22/2011 17:58:51	5.522	13.264	84.703	67.403
06/22/2011 17:59:01	5.537	13.271	84.904	67.403
06/22/2011 17:59:11	5.504	13.315	84.904	67.403
06/22/2011 17:59:21	5.485	13.337	84.904	67.403
06/22/2011 17:59:31	5.474	13.356	84.904	67.403
06/22/2011 17:59:41	5.463	13.377	84.904	67.403
06/22/2011 17:59:51	5.423	13.414	85.102	67.403

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 18:00:01	5.394	13.418	85.102	67.403
06/22/2011 18:00:11	5.365	13.443	85.102	67.403
06/22/2011 18:00:21	5.35	13.458	85.102	67.403
06/22/2011 18:00:31	5.339	13.469	84.904	67.403
06/22/2011 18:00:41	5.31	13.546	85.205	67.604
06/22/2011 18:00:51	5.236	13.575	85.402	67.604
06/22/2011 18:01:01	5.192	13.623	85.205	67.403
06/22/2011 18:01:11	5.145	13.645	84.904	67.403
06/22/2011 18:01:21	5.108	13.689	85.102	67.403
06/22/2011 18:01:31	5.097	13.663	85.102	67.403
06/22/2011 18:01:41	5.108	13.656	84.703	67.403
06/22/2011 18:01:51	5.105	13.703	84.703	67.403
06/22/2011 18:02:01	5.035	13.762	85.102	67.403
06/22/2011 18:02:11	4.998	13.766	85.205	67.403
06/22/2011 18:02:21	5.028	13.707	85.102	67.403
06/22/2011 18:02:31	5.017	13.802	85.102	67.403
06/22/2011 18:02:41	4.998	13.755	84.904	67.403
06/22/2011 18:02:51	5.068	13.681	85.205	67.403
06/22/2011 18:03:01	5.105	13.696	85.102	67.403
06/22/2011 18:03:11	5.097	13.711	85.205	67.604
06/22/2011 18:03:21	5.079	13.703	85.102	67.403
06/22/2011 18:03:31	5.028	13.835	85.102	67.403
06/22/2011 18:03:41	4.951	13.846	85.102	67.403
06/22/2011 18:03:51	4.947	13.843	85.102	67.403
06/22/2011 18:04:01	4.976	13.777	85.102	67.403
06/22/2011 18:04:11	5.02	13.795	85.205	67.604
06/22/2011 18:04:21	4.987	13.835	85.205	67.604
06/22/2011 18:04:31	4.951	13.872	85.402	67.604
06/22/2011 18:04:41	4.943	13.865	85.402	67.604
06/22/2011 18:04:51	4.936	13.865	85.402	67.604
06/22/2011 18:05:01	4.91	13.883	85.402	67.604
06/22/2011 18:05:11	4.94	13.817	85.402	67.604
06/22/2011 18:05:21	4.991	13.817	85.402	67.604
06/22/2011 18:05:31	5.006	13.788	85.102	67.403
06/22/2011 18:05:41	5.039	13.722	84.904	67.403
06/22/2011 18:05:51	5.042	13.758	85.102	67.403
06/22/2011 18:06:01	5.009	13.813	85.205	67.403
06/22/2011 18:06:11	4.94	13.894	85.205	67.403
06/22/2011 18:06:21	4.899	13.876	85.402	67.403
06/22/2011 18:06:31	4.896	13.93	85.604	67.403
06/22/2011 18:06:41	4.859	13.949	85.604	67.403
06/22/2011 18:06:51	4.837	13.96	85.604	67.403
06/22/2011 18:07:01	4.823	13.949	85.604	67.403
06/22/2011 18:07:11	4.848	13.905	85.402	67.403
06/22/2011 18:07:21	4.94	13.762	85.402	67.604
06/22/2011 18:07:31	5.009	13.817	85.402	67.604
06/22/2011 18:07:41	4.962	13.868	85.205	67.604
06/22/2011 18:07:51	4.925	13.887	85.102	67.604
06/22/2011 18:08:01	4.925	13.854	85.205	67.604
06/22/2011 18:08:11	4.907	13.912	85.102	67.604
06/22/2011 18:08:21	4.874	13.901	85.205	67.604
06/22/2011 18:08:31	4.899	13.879	85.102	67.403
06/22/2011 18:08:41	4.921	13.919	85.205	67.403
06/22/2011 18:08:51	4.896	13.919	85.205	67.403
06/22/2011 18:09:01	4.881	13.901	85.402	67.604
06/22/2011 18:09:11	4.892	13.894	85.402	67.403
06/22/2011 18:09:21	4.962	13.795	85.402	67.403
06/22/2011 18:09:31	5.013	13.799	85.102	67.403
06/22/2011 18:09:41	4.973	13.876	84.904	67.403
06/22/2011 18:09:51	4.914	13.905	84.703	67.403
06/22/2011 18:10:01	4.929	13.879	84.904	67.403
06/22/2011 18:10:11	4.962	13.835	84.904	67.403
06/22/2011 18:10:21	4.973	13.85	84.904	67.403
06/22/2011 18:10:31	4.943	13.923	85.102	67.604
06/22/2011 18:10:41	4.874	13.971	85.102	67.403
06/22/2011 18:10:51	4.848	13.949	85.102	67.403
06/22/2011 18:11:01	4.859	13.952	84.904	67.403
06/22/2011 18:11:11	4.863	13.934	84.904	67.403
06/22/2011 18:11:21	4.896	13.872	85.102	67.403
06/22/2011 18:11:31	4.954	13.817	85.102	67.403
06/22/2011 18:11:41	4.973	13.824	84.703	67.403

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 18:11:51	4.98	13.81	84.703	67.403
06/22/2011 18:12:01	4.962	13.883	84.904	67.403
06/22/2011 18:12:11	4.943	13.813	85.102	67.403
06/22/2011 18:12:21	5.031	13.714	85.102	67.403
06/22/2011 18:12:31	5.075	13.744	84.904	67.403
06/22/2011 18:12:41	5.053	13.729	84.703	67.403
06/22/2011 18:12:51	5.105	13.674	84.703	67.403
06/22/2011 18:13:01	5.126	13.718	84.703	67.403
06/22/2011 18:13:11	5.068	13.758	84.904	67.403
06/22/2011 18:13:21	4.991	13.854	84.703	67.403
06/22/2011 18:13:31	4.958	13.824	84.703	67.403
06/22/2011 18:13:41	5.017	13.733	84.904	67.403
06/22/2011 18:13:51	5.042	13.802	85.102	67.403
06/22/2011 18:14:01	5.009	13.821	85.102	67.403
06/22/2011 18:14:11	5.013	13.806	85.102	67.403
06/22/2011 18:14:21	5.009	13.795	85.102	67.403
06/22/2011 18:14:31	4.991	13.813	85.102	67.403
06/22/2011 18:14:41	5.006	13.773	84.904	67.403
06/22/2011 18:14:51	5.017	13.806	85.102	67.403
06/22/2011 18:15:01	4.998	13.835	84.904	67.201
06/22/2011 18:15:11	4.947	13.883	85.102	67.403
06/22/2011 18:15:21	4.929	13.901	85.205	67.403
06/22/2011 18:15:31	4.958	13.81	85.205	67.403
06/22/2011 18:15:41	5.013	13.788	84.904	67.201
06/22/2011 18:15:51	5.031	13.799	84.904	67.403
06/22/2011 18:16:01	5.017	13.806	84.501	67.201
06/22/2011 18:16:11	4.998	13.832	84.703	67.201
06/22/2011 18:16:21	4.969	13.821	84.904	67.201
06/22/2011 18:16:31	4.958	13.876	84.703	67.201
06/22/2011 18:16:41	4.914	13.89	84.904	67.201
06/22/2011 18:16:51	4.929	13.828	85.102	67.403
06/22/2011 18:17:01	4.991	13.795	85.102	67.403
06/22/2011 18:17:11	5.024	13.751	84.904	67.403
06/22/2011 18:17:21	5.061	13.747	85.102	67.403
06/22/2011 18:17:31	5.075	13.707	85.102	67.403
06/22/2011 18:17:41	5.09	13.736	85.102	67.403
06/22/2011 18:17:51	5.083	13.747	84.904	67.403
06/22/2011 18:18:01	5.042	13.788	84.904	67.403
06/22/2011 18:18:11	5.031	13.762	84.904	67.403
06/22/2011 18:18:21	5.079	13.692	84.501	67.201
06/22/2011 18:18:31	5.108	13.711	84.703	67.201
06/22/2011 18:18:41	5.094	13.736	84.703	67.403
06/22/2011 18:18:51	5.079	13.755	84.703	67.201
06/22/2011 18:19:01	5.068	13.762	84.703	67.201
06/22/2011 18:19:11	5.068	13.733	84.904	67.403
06/22/2011 18:19:21	5.083	13.725	84.904	67.403
06/22/2011 18:19:31	5.112	13.656	85.102	67.403
06/22/2011 18:19:41	5.148	13.678	84.904	67.201
06/22/2011 18:19:51	5.152	13.659	84.904	67.201
06/22/2011 18:20:01	5.156	13.678	84.703	67.201
06/22/2011 18:20:11	5.163	13.641	84.501	67.201
06/22/2011 18:20:21	5.181	13.667	84.304	67.201
06/22/2011 18:20:31	5.152	13.692	84.304	67.201
06/22/2011 18:20:41	5.159	13.63	84.304	67.201
06/22/2011 18:20:51	5.203	13.634	84.304	67.201
06/22/2011 18:21:01	5.2	13.645	84.501	67.201
06/22/2011 18:21:11	5.185	13.656	84.501	67.201
06/22/2011 18:21:21	5.167	13.681	84.501	67.201
06/22/2011 18:21:31	5.159	13.641	84.304	67.201
06/22/2011 18:21:41	5.174	13.641	84.304	67.201
06/22/2011 18:21:51	5.2	13.612	84.304	67.201
06/22/2011 18:22:01	5.229	13.601	84.205	67.201
06/22/2011 18:22:11	5.203	13.608	84.205	67.201
06/22/2011 18:22:21	5.2	13.627	84.205	67.403
06/22/2011 18:22:31	5.225	13.579	84.304	67.201
06/22/2011 18:22:41	5.262	13.506	84.501	67.201
06/22/2011 18:22:51	5.258	13.597	84.501	67.201
06/22/2011 18:23:01	5.203	13.659	84.205	67.201
06/22/2011 18:23:11	5.222	13.542	84.304	67.201
06/22/2011 18:23:21	5.302	13.498	84.304	67.201
06/22/2011 18:23:31	5.328	13.487	84.304	67.201

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 18:23:41	5.339	13.473	84.304	67.201
06/22/2011 18:23:51	5.332	13.542	84.304	67.201
06/22/2011 18:24:01	5.313	13.495	84.205	67.201
06/22/2011 18:24:11	5.361	13.425	84.304	67.201
06/22/2011 18:24:21	5.376	13.487	84.304	67.201
06/22/2011 18:24:31	5.328	13.513	84.304	67.201
06/22/2011 18:24:41	5.284	13.564	84.304	67.201
06/22/2011 18:24:51	5.251	13.557	84.501	67.201
06/22/2011 18:25:01	5.255	13.561	84.703	67.201
06/22/2011 18:25:11	5.277	13.531	84.304	67.102
06/22/2011 18:25:21	5.262	13.572	84.205	67.201
06/22/2011 18:25:31	5.266	13.535	84.205	67.201
06/22/2011 18:25:41	5.269	13.601	84.304	67.102
06/22/2011 18:25:51	5.251	13.55	84.501	67.201
06/22/2011 18:26:01	5.317	13.429	84.501	67.201
06/22/2011 18:26:11	5.379	13.454	84.205	67.102
06/22/2011 18:26:21	5.343	13.528	84.205	67.102
06/22/2011 18:26:31	5.31	13.513	84.205	67.102
06/22/2011 18:26:41	5.302	13.509	84.304	67.102
06/22/2011 18:26:51	5.317	13.484	84.304	67.201
06/22/2011 18:27:01	5.313	13.535	84.304	67.102
06/22/2011 18:27:11	5.302	13.517	84.205	67.102
06/22/2011 18:27:21	5.339	13.425	84.205	67.201
06/22/2011 18:27:31	5.35	13.487	83.802	67.102
06/22/2011 18:27:41	5.394	13.37	84.003	67.102
06/22/2011 18:27:51	5.474	13.315	84.304	67.102
06/22/2011 18:28:01	5.489	13.348	84.304	67.102
06/22/2011 18:28:11	5.452	13.399	84.205	67.102
06/22/2011 18:28:21	5.398	13.465	84.003	67.102
06/22/2011 18:28:31	5.383	13.41	83.802	67.102
06/22/2011 18:28:41	5.408	13.399	84.003	67.102
06/22/2011 18:28:51	5.394	13.432	84.205	66.901
06/22/2011 18:29:01	5.394	13.396	84.501	66.901
06/22/2011 18:29:11	5.394	13.473	84.205	66.901
06/22/2011 18:29:21	5.354	13.458	84.205	66.901
06/22/2011 18:29:31	5.357	13.465	84.205	66.901
06/22/2011 18:29:41	5.379	13.425	84.205	66.901
06/22/2011 18:29:51	5.376	13.458	84.304	66.901
06/22/2011 18:30:01	5.394	13.414	84.003	67.102
06/22/2011 18:30:11	5.434	13.348	84.003	66.901
06/22/2011 18:30:21	5.438	13.377	84.003	66.901
06/22/2011 18:30:31	5.452	13.348	83.802	66.901
06/22/2011 18:30:41	5.515	13.286	84.003	66.901
06/22/2011 18:30:51	5.551	13.264	84.003	66.901
06/22/2011 18:31:01	5.548	13.323	84.003	66.901
06/22/2011 18:31:11	5.482	13.363	83.802	66.901
06/22/2011 18:31:21	5.478	13.359	84.205	66.901
06/22/2011 18:31:31	5.467	13.37	84.205	66.901
06/22/2011 18:31:41	5.463	13.388	84.304	66.901
06/22/2011 18:31:51	5.456	13.396	84.205	67.102
06/22/2011 18:32:01	5.46	13.374	84.003	67.102
06/22/2011 18:32:11	5.504	13.286	84.205	67.102
06/22/2011 18:32:21	5.555	13.275	84.304	67.102
06/22/2011 18:32:31	5.529	13.323	84.205	67.102
06/22/2011 18:32:41	5.511	13.293	84.205	67.102
06/22/2011 18:32:51	5.518	13.326	84.304	67.102
06/22/2011 18:33:01	5.489	13.356	84.304	67.102
06/22/2011 18:33:11	5.434	13.381	84.304	67.102
06/22/2011 18:33:21	5.445	13.315	84.304	67.102
06/22/2011 18:33:31	5.555	13.213	84.304	67.102
06/22/2011 18:33:41	5.606	13.249	84.205	67.102
06/22/2011 18:33:51	5.566	13.279	84.205	67.102
06/22/2011 18:34:01	5.518	13.308	84.205	67.102
06/22/2011 18:34:11	5.522	13.297	84.304	67.102
06/22/2011 18:34:21	5.529	13.268	84.304	67.102
06/22/2011 18:34:31	5.526	13.301	84.304	66.901
06/22/2011 18:34:41	5.544	13.242	84.304	66.901
06/22/2011 18:34:51	5.562	13.246	84.304	66.901
06/22/2011 18:35:01	5.537	13.304	84.205	67.102
06/22/2011 18:35:11	5.507	13.323	84.205	67.102
06/22/2011 18:35:21	5.471	13.337	84.205	67.102

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 18:35:31	5.419	13.432	84.003	67.102
06/22/2011 18:35:41	5.398	13.392	84.205	67.102
06/22/2011 18:35:51	5.423	13.374	84.205	67.102
06/22/2011 18:36:01	5.452	13.363	84.304	67.102
06/22/2011 18:36:11	5.482	13.308	84.304	67.102
06/22/2011 18:36:21	5.478	13.366	84.304	67.102
06/22/2011 18:36:31	5.441	13.392	84.304	67.102
06/22/2011 18:36:41	5.445	13.352	84.501	67.102
06/22/2011 18:36:51	5.515	13.264	84.703	67.102
06/22/2011 18:37:01	5.548	13.297	84.703	66.901
06/22/2011 18:37:11	5.522	13.304	84.501	66.901
06/22/2011 18:37:21	5.485	13.348	84.501	66.901
06/22/2011 18:37:31	5.452	13.388	84.703	66.901
06/22/2011 18:37:41	5.434	13.366	84.904	66.901
06/22/2011 18:37:51	5.405	13.407	84.501	66.901
06/22/2011 18:38:01	5.332	13.502	84.501	66.901
06/22/2011 18:38:11	5.332	13.44	84.703	66.901
06/22/2011 18:38:21	5.408	13.366	84.703	66.901
06/22/2011 18:38:31	5.46	13.315	84.501	66.901
06/22/2011 18:38:41	5.471	13.352	84.703	66.901
06/22/2011 18:38:51	5.419	13.454	84.703	66.901
06/22/2011 18:39:01	5.332	13.52	84.501	66.901
06/22/2011 18:39:11	5.324	13.458	84.501	66.901
06/22/2011 18:39:21	5.343	13.476	84.501	66.901
06/22/2011 18:39:31	5.335	13.487	84.501	66.901
06/22/2011 18:39:41	5.372	13.429	84.703	67.102
06/22/2011 18:39:51	5.401	13.454	84.304	66.901
06/22/2011 18:40:01	5.354	13.476	84.501	66.901
06/22/2011 18:40:11	5.335	13.451	84.501	66.901
06/22/2011 18:40:21	5.317	13.553	84.501	66.901
06/22/2011 18:40:31	5.269	13.531	84.501	66.703
06/22/2011 18:40:41	5.284	13.484	84.501	66.703
06/22/2011 18:40:51	5.302	13.506	84.501	66.901
06/22/2011 18:41:01	5.295	13.524	84.501	66.901
06/22/2011 18:41:11	5.313	13.465	84.501	66.901
06/22/2011 18:41:21	5.324	13.48	84.304	66.901
06/22/2011 18:41:31	5.335	13.469	84.304	66.901
06/22/2011 18:41:41	5.376	13.447	84.304	66.901
06/22/2011 18:41:51	5.401	13.414	84.205	66.703
06/22/2011 18:42:01	5.398	13.451	84.304	66.703
06/22/2011 18:42:11	5.354	13.495	84.304	66.703
06/22/2011 18:42:21	5.343	13.531	84.304	66.901
06/22/2011 18:42:31	5.313	13.542	84.304	66.901
06/22/2011 18:42:41	5.321	13.498	84.501	66.901
06/22/2011 18:42:51	5.313	13.546	84.501	66.901
06/22/2011 18:43:01	5.222	13.645	84.501	66.901
06/22/2011 18:43:11	5.222	13.546	84.501	66.901
06/22/2011 18:43:21	5.321	13.436	84.304	66.703
06/22/2011 18:43:31	5.449	13.308	84.304	66.703
06/22/2011 18:43:41	5.496	13.41	84.304	66.901
06/22/2011 18:43:51	5.401	13.495	84.501	66.901
06/22/2011 18:44:01	5.313	13.539	84.304	66.901
06/22/2011 18:44:11	5.295	13.491	84.501	66.703
06/22/2011 18:44:21	5.31	13.513	84.205	66.901
06/22/2011 18:44:31	5.306	13.491	84.205	66.901
06/22/2011 18:44:41	5.35	13.429	84.304	66.901
06/22/2011 18:44:51	5.379	13.399	84.003	66.901
06/22/2011 18:45:01	5.383	13.451	84.003	66.703
06/22/2011 18:45:11	5.383	13.399	84.205	66.901
06/22/2011 18:45:21	5.379	13.454	83.802	66.901
06/22/2011 18:45:31	5.324	13.553	83.802	66.901
06/22/2011 18:45:41	5.269	13.539	84.003	67.102
06/22/2011 18:45:51	5.277	13.553	84.205	66.901
06/22/2011 18:46:01	5.266	13.583	84.205	66.901
06/22/2011 18:46:11	5.236	13.627	84.003	67.102
06/22/2011 18:46:21	5.189	13.616	84.003	67.102
06/22/2011 18:46:31	5.236	13.553	84.205	66.901
06/22/2011 18:46:41	5.273	13.542	84.205	66.703
06/22/2011 18:46:51	5.266	13.564	84.003	66.703
06/22/2011 18:47:01	5.236	13.616	84.003	66.901
06/22/2011 18:47:11	5.192	13.616	84.003	66.901

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 18:47:21	5.214	13.553	84.003	66.901
06/22/2011 18:47:31	5.28	13.487	84.003	66.901
06/22/2011 18:47:41	5.288	13.597	84.205	66.901
06/22/2011 18:47:51	5.214	13.608	84.205	66.901
06/22/2011 18:48:01	5.203	13.619	84.304	66.901
06/22/2011 18:48:11	5.189	13.608	84.304	66.901
06/22/2011 18:48:21	5.185	13.605	84.304	66.901
06/22/2011 18:48:31	5.203	13.59	84.304	66.901
06/22/2011 18:48:41	5.229	13.594	84.205	66.901
06/22/2011 18:48:51	5.196	13.605	84.205	67.102
06/22/2011 18:49:01	5.17	13.648	84.003	67.102
06/22/2011 18:49:11	5.163	13.652	84.205	66.901
06/22/2011 18:49:21	5.167	13.67	84.205	66.901
06/22/2011 18:49:31	5.123	13.685	84.003	66.901
06/22/2011 18:49:41	5.108	13.7	84.003	66.901
06/22/2011 18:49:51	5.079	13.747	84.205	66.901
06/22/2011 18:50:01	5.05	13.766	84.003	66.901
06/22/2011 18:50:11	5.061	13.722	83.802	66.901
06/22/2011 18:50:21	5.072	13.773	84.003	66.901
06/22/2011 18:50:31	4.995	13.828	83.802	66.901
06/22/2011 18:50:41	4.929	13.883	83.802	66.901
06/22/2011 18:50:51	4.929	13.839	83.802	66.901
06/22/2011 18:51:01	4.965	13.81	84.003	66.901
06/22/2011 18:51:11	4.98	13.832	84.003	66.901
06/22/2011 18:51:21	4.995	13.802	84.003	66.901
06/22/2011 18:51:31	5.031	13.729	83.802	66.703
06/22/2011 18:51:41	5.097	13.718	83.802	66.703
06/22/2011 18:51:51	5.108	13.711	83.802	66.703
06/22/2011 18:52:01	5.13	13.703	84.205	66.703
06/22/2011 18:52:11	5.097	13.758	84.205	66.703
06/22/2011 18:52:21	5.112	13.67	84.205	66.703
06/22/2011 18:52:31	5.156	13.674	84.003	66.703
06/22/2011 18:52:41	5.116	13.78	84.205	66.703
06/22/2011 18:52:51	5.075	13.744	84.304	66.703
06/22/2011 18:53:01	5.083	13.762	84.304	66.901
06/22/2011 18:53:11	5.097	13.707	84.304	66.901
06/22/2011 18:53:21	5.159	13.638	84.205	66.901
06/22/2011 18:53:31	5.203	13.652	84.205	66.901
06/22/2011 18:53:41	5.181	13.645	84.003	66.703
06/22/2011 18:53:51	5.181	13.659	84.003	66.703
06/22/2011 18:54:01	5.145	13.711	84.003	66.703
06/22/2011 18:54:11	5.119	13.707	84.003	66.703
06/22/2011 18:54:21	5.112	13.725	84.003	66.703
06/22/2011 18:54:31	5.09	13.692	84.205	66.703
06/22/2011 18:54:41	5.116	13.707	84.205	66.703
06/22/2011 18:54:51	5.119	13.718	84.205	66.703
06/22/2011 18:55:01	5.13	13.67	84.304	66.703
06/22/2011 18:55:11	5.145	13.663	84.304	66.703
06/22/2011 18:55:21	5.123	13.755	84.501	66.703
06/22/2011 18:55:31	5.061	13.795	84.304	66.703
06/22/2011 18:55:41	5.02	13.788	84.304	66.703
06/22/2011 18:55:51	5.057	13.747	84.304	66.703
06/22/2011 18:56:01	5.05	13.791	84.304	66.901
06/22/2011 18:56:11	5.02	13.762	84.304	66.901
06/22/2011 18:56:21	5.068	13.663	84.205	66.901
06/22/2011 18:56:31	5.13	13.681	84.304	66.901
06/22/2011 18:56:41	5.105	13.718	84.205	66.703
06/22/2011 18:56:51	5.064	13.744	84.205	66.901
06/22/2011 18:57:01	5.072	13.733	84.304	66.901
06/22/2011 18:57:11	5.079	13.736	84.304	66.901
06/22/2011 18:57:21	5.075	13.751	84.304	66.901
06/22/2011 18:57:31	5.035	13.824	84.304	66.703
06/22/2011 18:57:41	4.976	13.85	84.304	66.901
06/22/2011 18:57:51	4.943	13.861	84.205	66.703
06/22/2011 18:58:01	4.965	13.795	84.205	66.703
06/22/2011 18:58:11	5.072	13.678	84.304	66.703
06/22/2011 18:58:21	5.123	13.751	84.501	66.901
06/22/2011 18:58:31	5.072	13.762	84.501	66.901
06/22/2011 18:58:41	5.061	13.784	84.501	66.901
06/22/2011 18:58:51	5.031	13.799	84.501	66.901
06/22/2011 18:59:01	5.013	13.799	84.501	66.901

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 18:59:11	5.006	13.832	84.501	66.901
06/22/2011 18:59:21	4.958	13.905	84.501	66.901
06/22/2011 18:59:31	4.918	13.887	84.304	66.901
06/22/2011 18:59:41	4.921	13.876	84.304	66.901
06/22/2011 18:59:51	4.936	13.894	84.304	66.901
06/22/2011 19:00:01	4.925	13.887	84.304	66.901
06/22/2011 19:00:11	4.943	13.85	84.205	66.901
06/22/2011 19:00:21	4.943	13.857	84.304	66.901
06/22/2011 19:00:31	4.936	13.879	84.205	66.703
06/22/2011 19:00:41	4.932	13.876	84.003	66.703
06/22/2011 19:00:51	4.903	13.912	84.003	66.703
06/22/2011 19:01:01	4.921	13.857	84.205	66.703
06/22/2011 19:01:11	4.969	13.806	84.304	66.703
06/22/2011 19:01:21	5.006	13.824	84.304	66.703
06/22/2011 19:01:31	4.991	13.821	84.304	66.703
06/22/2011 19:01:41	4.976	13.872	84.304	66.703
06/22/2011 19:01:51	4.954	13.854	84.304	66.703
End Run 2				
Average	**5.235**	**13.566**	**85.134**	**67.499**
Maximum	**5.661**	**13.971**	**86.702**	**68.303**
Minimum	**4.705**	**13.154**	**83.802**	**66.703**
06/22/2011 19:02:01	4.943	13.85	84.304	66.502
06/22/2011 19:02:11	4.976	13.835	84.304	66.703
06/22/2011 19:02:21	4.991	13.81	84.501	66.901
06/22/2011 19:02:31	5.006	13.799	84.501	66.703
06/22/2011 19:02:41	5.002	13.824	84.501	66.703
06/22/2011 19:02:51	4.976	13.876	84.304	66.703
06/22/2011 19:03:01	4.958	13.879	84.304	66.901
06/22/2011 19:03:11	4.987	13.802	84.304	66.901
06/22/2011 19:03:21	5.02	13.824	84.205	66.901
06/22/2011 19:03:31	5.566	7.456	84.304	67.201
Calibration Bias				
06/22/2011 19:03:41	3.453	1.977	84.003	67.102
06/22/2011 19:03:51	0.776	1.984	84.003	67.201
06/22/2011 19:04:01	0.681	2.178	84.003	67.201
06/22/2011 19:04:11	0.725	2.255	84.205	67.102
06/22/2011 19:04:21	0.75	2.233	84.304	67.201
06/22/2011 19:04:31	0.761	2.23	84.205	67.201
06/22/2011 19:04:41	0.757	2.237	84.205	67.201
06/22/2011 19:04:51	0.743	2.233	84.304	67.201
06/22/2011 19:05:01	0.75	2.2	84.205	67.403
06/22/2011 19:05:11	0.611	0.633	84.304	67.403
06/22/2011 19:05:21	0.157	0.117	84.304	67.201
06/22/2011 19:05:31	0.036	0.102	84.205	67.403
06/22/2011 19:05:41	0.032	0.095	84.205	67.201
06/22/2011 19:05:51	0.032	0.091	84.205	67.201
06/22/2011 19:06:01	0.032	0.087	84.205	67.201
06/22/2011 19:06:11	0.032	0.087	84.304	67.201
06/22/2011 19:06:21	0.032	0.084	84.304	67.201
06/22/2011 19:06:31	0.029	0.084	84.304	67.201
06/22/2011 19:06:41	0.029	0.084	84.205	67.201
06/22/2011 19:06:51	0.029	0.084	84.304	67.102
N2 Zero	**0.029**	**0.084**	**84.271**	**67.168**
06/22/2011 19:07:01	3.46	8.84	84.304	66.703
06/22/2011 19:07:11	9.353	10.396	84.003	66.703
06/22/2011 19:07:21	9.924	10.396	84.205	66.502
06/22/2011 19:07:31	10.008	10.404	84.501	66.502
06/22/2011 19:07:41	10.03	10.404	84.304	66.502
06/22/2011 19:07:51	10.052	10.382	84.304	66.502
06/22/2011 19:08:01	10.074	10.382	84.205	66.304
06/22/2011 19:08:11	10.085	10.385	84.003	66.201
06/22/2011 19:08:21	10.092	10.382	84.205	66.201
06/22/2011 19:08:31	10.539	9.843	84.304	66.201
06/22/2011 19:08:41	11.023	9.836	84.501	66.201
06/22/2011 19:08:51	11.059	9.836	84.304	66.004
06/22/2011 19:09:01	11.063	9.836	84.205	66.004
06/22/2011 19:09:11	11.067	9.836	84.003	65.802
06/22/2011 19:09:21	11.067	9.836	84.205	65.802
06/22/2011 19:09:31	11.067	9.84	84.205	65.802
06/22/2011 19:09:41	11.067	9.836	84.205	65.802

URS CEMs Raw Data
June 22, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/22/2011 19:09:51	11.07	9.84	84.003	65.802
06/22/2011 19:10:01	11.07	9.836	84.205	65.802
06/22/2011 19:10:11	11.07	9.84	84.304	65.604
11.1% O2/9.74% CO2 Mid	**11.070**	**9.839**	**84.171**	**65.736**
06/22/2011 19:10:21	9.778	12.854	84.205	65.604
06/22/2011 19:10:31	6.035	13.714	84.304	65.604
06/22/2011 19:10:41	5.108	13.733	84.304	65.604
06/22/2011 19:10:51	5.064	13.766	84.205	65.604
06/22/2011 19:11:01	5.05	13.711	84.304	65.604
06/22/2011 19:11:11	5.112	13.678	84.501	65.802
06/22/2011 19:11:21	5.134	13.722	84.703	66.004
06/22/2011 19:11:31	5.101	13.725	84.703	65.802
06/22/2011 19:11:41	5.09	13.714	84.501	66.004
06/22/2011 19:11:51	5.108	13.714	84.501	66.004
06/22/2011 19:12:01	5.13	13.656	84.304	66.004
06/22/2011 19:12:11	5.112	13.758	84.501	66.004
06/22/2011 19:12:21	5.05	13.78	84.703	66.004
06/22/2011 19:12:31	5.035	13.777	84.703	66.004
06/22/2011 19:12:41	5.017	13.843	84.304	66.004
06/22/2011 19:12:51	4.998	13.824	84.304	66.004
06/22/2011 19:13:01	5.009	13.788	84.304	66.004
06/22/2011 19:13:11	5.042	13.751	84.205	65.802
06/22/2011 19:13:21	5.083	13.725	84.205	65.802
06/22/2011 19:13:31	5.094	13.711	84.205	65.802
06/22/2011 19:13:41	5.097	13.762	84.501	66.004
06/22/2011 19:13:51	5.094	13.74	84.304	66.004
06/22/2011 19:14:01	5.097	13.707	84.304	66.004
06/22/2011 19:14:11	5.145	13.681	84.304	66.004
06/22/2011 19:14:21	5.211	13.608	84.205	66.004
06/22/2011 19:14:31	7.983	5.086	84.003	66.201
06/22/2011 19:14:41	17.585	0.329	84.003	66.304
06/22/2011 19:14:51	20.61	0.248	83.604	66.304
06/22/2011 19:15:01	20.764	0.215	83.802	66.304
06/22/2011 19:15:11	20.786	0.193	83.802	66.502
06/22/2011 19:15:21	20.801	0.183	84.003	66.502
06/22/2011 19:15:31	20.808	0.172	84.205	66.502
06/22/2011 19:15:41	20.815	0.164	84.205	66.502
06/22/2011 19:15:51	20.819	0.153	84.205	66.703
06/22/2011 19:16:01	20.823	0.146	84.501	66.703

Chevron Hawaii
O_2 Calibration Data Summary

Project ID: Chevron
Date: 23-Jun
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 22.10
Analyzer Range: 25
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	09:05	-0.04	0.04	0.18%
span gas	CC82073	22.10	09:07	22.14	0.04	0.17%
mid-range	CC67546	11.10	09:08	11.16	0.06	0.26%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit		
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5	
Run 3	0.00	-0.04	09:10	0.06	0.43%	13:11	0.03	0.30%	-0.13%	Co=	0.042
	11.10	11.16	09:12	11.10	-0.25%	13:13	11.05	-0.48%	-0.23%	Cma/(Cm-Co)	1.006

Chevron Hawaii
CO_2 Calibration Data Summary

Project ID: Chevron
Date: 23-Jun-11
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 18.90
Analyzer Range: 20
Units: %
Technician(s): MDD

Calibration Error Test Results

	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)	2% Limit
zero gas	ASZ788	0.00	09:05	0.11	0.11	0.60%	
span gas	CC82073	18.90	09:07	19.14	0.24	1.29%	
mid-range	CC67546	9.74	09:08	9.97	0.23	1.19%	

CEMS Calibration Bias and Drift Tests

Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	5% Limit	Time	Post-test CEMS Response	Bias (% of Span)	5% Limit	Drift (% of Span)	3% Limit	Eq. 7E-5	
Run 3	0.00	0.11	09:10	0.12	0.03%		13:11	0.13	0.07%		0.04%		Co=	0.124
	9.74	9.97	09:12	9.88	-0.44%		13:13	9.86	-0.55%		-0.11%		Cma/(Cm-Co)	0.999

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 07:41:26	20.977	0.113	75.302	60.001
06/23/2011 07:41:36	20.977	0.113	75.203	59.902
06/23/2011 07:41:46	20.977	0.113	75.002	59.902
06/23/2011 07:41:56	20.977	0.113	75.203	59.902
06/23/2011 07:42:06	20.977	0.117	75.002	59.902
06/23/2011 07:42:16	20.977	0.117	75.203	59.902
06/23/2011 07:42:26	20.977	0.117	75.203	59.701
06/23/2011 07:42:36	20.977	0.117	75.002	59.902
06/23/2011 07:42:46	20.977	0.117	75.203	59.902
06/23/2011 07:42:56	20.977	0.117	75.302	59.902
06/23/2011 07:43:06	20.977	0.12	75.203	59.902
06/23/2011 07:43:16	20.977	0.12	75.203	60.001
06/23/2011 07:43:26	20.977	0.12	75.203	60.001
06/23/2011 07:43:36	20.977	0.12	75.302	60.001
06/23/2011 07:43:46	20.977	0.12	75.302	60.001
06/23/2011 07:43:56	20.977	0.117	75.302	59.902
06/23/2011 07:44:06	20.977	0.117	75.203	59.902
06/23/2011 07:44:16	20.977	0.12	75.002	59.902
06/23/2011 07:44:26	20.977	0.12	75.002	59.902
06/23/2011 07:44:36	20.977	0.12	75.203	60.001
06/23/2011 07:44:46	20.977	0.12	75.302	59.902
06/23/2011 07:44:56	20.973	0.131	75.302	59.902
06/23/2011 07:45:06	20.973	0.124	75.302	59.902
06/23/2011 07:45:16	20.973	0.124	75.302	59.902
06/23/2011 07:45:26	20.969	0.124	75.302	59.902
06/23/2011 07:45:36	20.969	0.128	75.302	59.902
06/23/2011 07:45:46	20.969	0.12	75.302	59.902
06/23/2011 07:45:56	20.973	0.12	75.302	59.902
06/23/2011 07:46:06	20.973	0.12	75.302	59.902
06/23/2011 07:46:16	20.973	0.12	75.302	59.902
06/23/2011 07:46:26	20.973	0.12	75.503	59.902
06/23/2011 07:46:36	20.973	0.12	75.503	59.902
06/23/2011 07:46:46	20.969	0.128	75.701	59.902
06/23/2011 07:46:56	20.969	0.12	75.302	59.902
06/23/2011 07:47:06	20.973	0.12	75.302	59.902
06/23/2011 07:47:16	20.973	0.12	75.302	59.902
06/23/2011 07:47:26	20.973	0.12	75.302	59.902
06/23/2011 07:47:36	20.973	0.12	75.701	60.001
06/23/2011 07:47:46	20.973	0.12	75.903	59.902
06/23/2011 07:47:56	20.973	0.12	75.701	59.902
06/23/2011 07:48:06	20.973	0.12	75.503	60.001
06/23/2011 07:48:16	20.973	0.12	75.701	59.902
06/23/2011 07:48:26	20.973	0.12	75.701	60.001
06/23/2011 07:48:36	20.977	0.12	75.503	59.902
06/23/2011 07:48:46	20.973	0.124	75.701	59.902
06/23/2011 07:48:56	20.969	0.124	75.903	60.001
06/23/2011 07:49:06	20.969	0.12	75.903	60.001
06/23/2011 07:49:16	20.969	0.124	75.903	60.001
06/23/2011 07:49:26	20.969	0.12	75.903	60.001
06/23/2011 07:49:36	20.973	0.12	75.903	60.001
06/23/2011 07:49:46	20.969	0.12	75.903	60.001
06/23/2011 07:49:56	20.969	0.124	75.903	60.001
06/23/2011 07:50:06	20.969	0.12	75.701	59.902
06/23/2011 07:50:16	20.969	0.128	75.701	60.001
06/23/2011 07:50:26	20.969	0.124	75.701	59.902
06/23/2011 07:50:36	20.969	0.12	75.903	60.001
06/23/2011 07:50:46	20.969	0.124	75.903	60.001
06/23/2011 07:50:56	20.973	0.124	75.903	60.001
06/23/2011 07:51:06	20.969	0.128	75.701	60.001
06/23/2011 07:51:16	20.966	0.131	75.701	60.001
06/23/2011 07:51:26	20.969	0.128	75.701	60.001
06/23/2011 07:51:36	20.969	0.131	75.701	60.001
06/23/2011 07:51:46	20.966	0.131	75.503	60.001
06/23/2011 07:51:56	20.969	0.131	75.503	60.001
06/23/2011 07:52:06	20.969	0.135	75.701	60.001
06/23/2011 07:52:16	20.966	0.142	75.903	60.001
06/23/2011 07:52:26	20.966	0.131	75.503	60.001

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 07:52:36	20.969	0.139	75.701	60.001
06/23/2011 07:52:46	20.969	0.131	75.701	60.203
06/23/2011 07:52:56	20.969	0.135	75.903	60.001
06/23/2011 07:53:06	20.969	0.135	75.203	60.001
06/23/2011 07:53:16	20.969	0.135	75.203	59.902
06/23/2011 07:53:26	20.966	0.135	75.503	59.902
06/23/2011 07:53:36	20.969	0.128	75.503	59.902
06/23/2011 07:53:46	20.969	0.131	75.503	60.001
06/23/2011 07:53:56	20.969	0.131	75.701	60.001
06/23/2011 07:54:06	20.969	0.131	75.701	60.001
06/23/2011 07:54:16	20.969	0.128	75.701	60.001
06/23/2011 07:54:26	20.969	0.124	75.701	60.001
06/23/2011 07:54:36	20.969	0.124	75.701	60.001
06/23/2011 07:54:46	20.973	0.124	75.503	60.001
06/23/2011 07:54:56	20.969	0.12	75.701	60.001
06/23/2011 07:55:06	20.973	0.12	75.701	60.001
06/23/2011 07:55:16	20.973	0.117	75.701	60.001
06/23/2011 07:55:26	20.973	0.12	75.503	60.001
06/23/2011 07:55:36	20.969	0.12	75.203	60.001
06/23/2011 07:55:46	20.969	0.117	75.302	60.001
06/23/2011 07:55:56	20.973	0.113	75.302	60.001
06/23/2011 07:56:06	20.969	0.12	75.302	60.001
06/23/2011 07:56:16	20.966	0.12	75.503	60.001
06/23/2011 07:56:26	20.966	0.117	75.503	60.001
06/23/2011 07:56:36	20.969	0.113	75.503	60.001
06/23/2011 07:56:46	20.973	0.113	75.302	60.001
06/23/2011 07:56:56	20.973	0.113	75.503	60.001
06/23/2011 07:57:06	20.973	0.117	75.503	60.001
06/23/2011 07:57:16	20.969	0.117	75.302	60.001
06/23/2011 07:57:26	20.969	0.117	75.302	60.001
06/23/2011 07:57:36	20.969	0.117	75.503	60.001
06/23/2011 07:57:46	20.973	0.117	75.701	60.001
06/23/2011 07:57:56	20.973	0.117	75.701	60.001
06/23/2011 07:58:06	20.973	0.117	75.903	60.001
06/23/2011 07:58:16	20.969	0.128	75.701	60.001
06/23/2011 07:58:26	20.969	0.12	75.503	60.001
06/23/2011 07:58:36	20.969	0.124	75.503	60.001
06/23/2011 07:58:46	20.973	0.12	75.503	60.001
06/23/2011 07:58:56	20.973	0.124	75.503	60.203
06/23/2011 07:59:06	20.973	0.124	75.701	60.203
06/23/2011 07:59:16	20.973	0.12	75.302	60.001
06/23/2011 07:59:26	20.973	0.124	75.903	60.203
06/23/2011 07:59:36	20.969	0.124	75.503	60.203
06/23/2011 07:59:46	20.969	0.124	75.503	60.203
06/23/2011 07:59:56	20.973	0.12	75.503	60.203
06/23/2011 08:00:06	20.973	0.124	75.503	60.203
06/23/2011 08:00:16	20.973	0.12	75.302	60.203
06/23/2011 08:00:26	20.973	0.12	75.503	60.203
06/23/2011 08:00:36	20.973	0.128	75.903	60.203
06/23/2011 08:00:46	20.969	0.128	75.903	60.404
06/23/2011 08:00:56	20.973	0.12	75.903	60.203
06/23/2011 08:01:06	20.973	0.128	75.903	60.203
06/23/2011 08:01:16	20.969	0.124	75.903	60.203
06/23/2011 08:01:26	20.969	0.124	75.903	60.203
06/23/2011 08:01:36	20.973	0.124	75.701	60.203
06/23/2011 08:01:46	20.973	0.124	75.903	60.203
06/23/2011 08:01:56	20.973	0.12	75.903	60.001
06/23/2011 08:02:06	20.973	0.12	75.903	60.001
06/23/2011 08:02:16	20.973	0.128	76.104	60.203
06/23/2011 08:02:26	20.973	0.12	75.903	60.203
06/23/2011 08:02:36	20.973	0.12	75.701	60.203
06/23/2011 08:02:46	20.973	0.124	75.701	60.203
06/23/2011 08:02:56	20.973	0.124	75.903	60.001
06/23/2011 08:03:06	20.969	0.124	75.903	60.203
06/23/2011 08:03:16	20.969	0.128	75.903	60.001
06/23/2011 08:03:26	20.966	0.128	75.903	60.001
06/23/2011 08:03:36	20.969	0.12	75.903	60.001

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 08:03:46	20.973	0.12	76.104	60.203
06/23/2011 08:03:56	20.969	0.124	76.104	60.203
06/23/2011 08:04:06	20.969	0.12	76.104	60.203
06/23/2011 08:04:16	20.973	0.12	76.104	60.001
06/23/2011 08:04:26	20.969	0.124	76.104	60.203
06/23/2011 08:04:36	20.966	0.128	76.203	60.203
06/23/2011 08:04:46	20.966	0.124	76.104	60.203
06/23/2011 08:04:56	20.969	0.12	76.203	60.203
06/23/2011 08:05:06	20.969	0.12	76.104	60.404
06/23/2011 08:05:16	20.969	0.12	76.203	60.404
06/23/2011 08:05:26	20.969	0.12	76.203	60.404
06/23/2011 08:05:36	20.969	0.12	76.203	60.404
06/23/2011 08:05:46	20.973	0.124	76.404	60.404
06/23/2011 08:05:56	20.973	0.124	76.404	60.404
06/23/2011 08:06:06	20.969	0.124	76.404	60.404
06/23/2011 08:06:16	20.969	0.128	76.404	60.404
06/23/2011 08:06:26	20.969	0.131	76.203	60.404
06/23/2011 08:06:36	20.969	0.128	76.203	60.404
06/23/2011 08:06:46	20.969	0.131	76.104	60.404
06/23/2011 08:06:56	20.969	0.131	76.203	60.404
06/23/2011 08:07:06	20.969	0.131	76.104	60.404
06/23/2011 08:07:16	20.969	0.131	76.104	60.404
06/23/2011 08:07:26	20.969	0.131	76.104	60.404
06/23/2011 08:07:36	20.969	0.135	76.203	60.203
06/23/2011 08:07:46	20.969	0.135	76.203	60.203
06/23/2011 08:07:56	20.969	0.135	76.203	60.404
06/23/2011 08:08:06	20.969	0.135	76.203	60.404
06/23/2011 08:08:16	20.966	0.135	76.203	60.203
06/23/2011 08:08:26	20.962	0.139	76.104	60.203
06/23/2011 08:08:36	20.966	0.131	76.203	60.203
06/23/2011 08:08:46	20.969	0.135	76.203	60.203
06/23/2011 08:08:56	20.966	0.135	76.404	60.404
06/23/2011 08:09:06	20.962	0.139	76.404	60.404
06/23/2011 08:09:16	20.962	0.131	76.404	60.404
06/23/2011 08:09:26	20.966	0.131	76.404	60.404
06/23/2011 08:09:36	20.966	0.128	76.203	60.404
06/23/2011 08:09:46	20.969	0.128	76.104	60.203
06/23/2011 08:09:56	20.966	0.128	76.203	60.203
06/23/2011 08:10:06	20.966	0.124	76.203	60.203
06/23/2011 08:10:16	20.969	0.124	76.404	60.404
06/23/2011 08:10:26	20.966	0.124	76.203	60.404
06/23/2011 08:10:36	20.966	0.12	76.203	60.404
06/23/2011 08:10:46	20.966	0.117	76.602	60.602
06/23/2011 08:10:56	20.969	0.117	76.602	60.602
06/23/2011 08:11:06	20.966	0.117	76.404	60.602
06/23/2011 08:11:16	20.966	0.117	76.404	60.602
06/23/2011 08:11:26	20.966	0.113	76.404	60.602
06/23/2011 08:11:36	20.966	0.113	76.602	60.602
06/23/2011 08:11:46	20.969	0.113	76.404	60.602
06/23/2011 08:11:56	20.966	0.113	76.404	60.602
06/23/2011 08:12:06	20.966	0.113	76.602	60.602
06/23/2011 08:12:16	20.966	0.12	76.602	60.803
06/23/2011 08:12:26	20.966	0.113	76.404	60.803
06/23/2011 08:12:36	20.969	0.113	76.404	60.602
06/23/2011 08:12:46	20.969	0.117	76.203	60.602
06/23/2011 08:12:56	20.966	0.117	76.203	60.602
06/23/2011 08:13:06	20.966	0.12	76.404	60.602
06/23/2011 08:13:16	20.962	0.12	76.602	60.803
06/23/2011 08:13:26	20.966	0.117	76.803	60.803
06/23/2011 08:13:36	20.966	0.117	76.602	60.803
06/23/2011 08:13:46	20.969	0.12	76.803	60.602
06/23/2011 08:13:56	20.966	0.12	76.602	60.803
06/23/2011 08:14:06	20.962	0.124	76.602	60.803
06/23/2011 08:14:16	20.962	0.128	76.803	60.803
06/23/2011 08:14:26	20.966	0.117	76.803	60.803
06/23/2011 08:14:36	20.969	0.12	76.803	60.803
06/23/2011 08:14:46	20.966	0.12	76.404	60.803

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 08:14:56	20.966	0.131	76.203	60.803
06/23/2011 08:15:06	20.962	0.12	76.404	60.803
06/23/2011 08:15:16	20.969	0.124	76.602	60.803
06/23/2011 08:15:26	20.966	0.124	76.803	60.602
06/23/2011 08:15:36	20.969	0.128	76.602	60.602
06/23/2011 08:15:46	20.969	0.124	76.602	60.602
06/23/2011 08:15:56	20.969	0.135	76.404	60.602
06/23/2011 08:16:06	20.962	0.131	76.602	60.803
06/23/2011 08:16:16	20.969	0.128	76.404	60.803
06/23/2011 08:16:26	20.969	0.131	76.602	60.803
06/23/2011 08:16:36	20.969	0.131	76.602	60.803
06/23/2011 08:16:46	20.969	0.131	76.803	60.803
06/23/2011 08:16:56	20.969	0.135	76.803	60.602
06/23/2011 08:17:06	20.969	0.135	76.803	60.803
06/23/2011 08:17:16	20.969	0.131	77.001	60.803
06/23/2011 08:17:26	20.969	0.131	77.104	60.803
06/23/2011 08:17:36	20.969	0.131	77.001	60.803
06/23/2011 08:17:46	20.969	0.135	77.001	60.803
06/23/2011 08:17:56	20.969	0.131	77.104	60.803
06/23/2011 08:18:06	20.969	0.131	77.104	60.803
06/23/2011 08:18:16	20.973	0.128	77.001	60.803
06/23/2011 08:18:26	20.973	0.131	77.104	60.902
06/23/2011 08:18:36	20.973	0.128	77.104	60.902
06/23/2011 08:18:46	20.969	0.128	77.104	60.902
06/23/2011 08:18:56	20.969	0.128	77.104	60.902
06/23/2011 08:19:06	20.966	0.135	77.104	60.902
06/23/2011 08:19:16	20.969	0.128	77.104	60.902
06/23/2011 08:19:26	20.969	0.128	77.302	60.803
06/23/2011 08:19:36	20.969	0.131	77.302	60.803
06/23/2011 08:19:46	20.969	0.124	77.302	60.803
06/23/2011 08:19:56	20.969	0.124	77.302	60.803
06/23/2011 08:20:06	20.966	0.128	77.302	60.803
06/23/2011 08:20:16	20.966	0.131	77.503	60.803
06/23/2011 08:20:26	20.962	0.128	77.503	60.902
06/23/2011 08:20:36	20.966	0.124	77.302	60.902
06/23/2011 08:20:46	20.969	0.124	77.503	60.902
06/23/2011 08:20:56	20.973	0.124	77.704	61.104
06/23/2011 08:21:06	20.973	0.128	77.704	61.104
06/23/2011 08:21:16	20.969	0.128	77.704	60.902
06/23/2011 08:21:26	20.969	0.131	77.704	60.902
06/23/2011 08:21:36	20.969	0.128	77.704	60.902
06/23/2011 08:21:46	20.973	0.131	78.005	61.104
06/23/2011 08:21:56	20.973	0.131	78.005	60.902
06/23/2011 08:22:06	20.973	0.131	78.202	60.902
06/23/2011 08:22:16	20.973	0.135	78.202	60.902
06/23/2011 08:22:26	20.969	0.139	78.005	60.902
06/23/2011 08:22:36	20.969	0.135	77.902	60.902
06/23/2011 08:22:46	20.973	0.135	78.005	61.104
06/23/2011 08:22:56	20.969	0.135	78.202	60.902
06/23/2011 08:23:06	20.966	0.142	78.202	60.902
06/23/2011 08:23:16	20.966	0.135	78.202	61.301
06/23/2011 08:23:26	20.969	0.131	78.202	61.301
06/23/2011 08:23:36	20.969	0.139	78.202	61.301
06/23/2011 08:23:46	20.962	0.135	78.602	61.301
06/23/2011 08:23:56	20.969	0.131	78.602	61.301
06/23/2011 08:24:06	20.969	0.131	78.404	61.301
06/23/2011 08:24:16	20.969	0.128	78.404	61.301
06/23/2011 08:24:26	20.969	0.131	78.602	61.301
06/23/2011 08:24:36	20.969	0.128	78.803	61.301
06/23/2011 08:24:46	20.966	0.128	78.803	61.503
06/23/2011 08:24:56	20.966	0.124	78.902	61.503
06/23/2011 08:25:06	20.969	0.124	79.103	61.301
06/23/2011 08:25:16	20.969	0.12	79.103	61.301
06/23/2011 08:25:26	20.969	0.12	79.305	61.503
06/23/2011 08:25:36	20.969	0.117	79.103	61.503
06/23/2011 08:25:46	20.966	0.117	79.103	61.503
06/23/2011 08:25:56	20.966	0.124	78.902	61.503

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 08:26:06	20.966	0.117	78.902	61.503
06/23/2011 08:26:16	20.969	0.117	78.803	61.503
06/23/2011 08:26:26	20.969	0.117	78.803	61.503
06/23/2011 08:26:36	20.969	0.117	78.902	61.704
06/23/2011 08:26:46	20.969	0.113	79.103	61.704
06/23/2011 08:26:56	20.969	0.113	78.803	61.704
06/23/2011 08:27:06	20.969	0.117	78.902	61.704
06/23/2011 08:27:16	20.969	0.117	78.902	61.503
06/23/2011 08:27:26	20.969	0.117	79.103	61.503
06/23/2011 08:27:36	20.969	0.117	79.103	61.503
06/23/2011 08:27:46	20.969	0.117	79.503	61.704
06/23/2011 08:27:56	20.969	0.117	79.704	61.704
06/23/2011 08:28:06	20.969	0.12	79.704	61.704
06/23/2011 08:28:16	20.969	0.12	79.803	61.803
06/23/2011 08:28:26	20.969	0.12	79.704	61.704
06/23/2011 08:28:36	20.969	0.12	79.704	61.803
06/23/2011 08:28:46	20.966	0.124	79.704	61.704
06/23/2011 08:28:56	20.966	0.12	79.704	61.704
06/23/2011 08:29:06	20.969	0.124	79.503	61.704
06/23/2011 08:29:16	20.966	0.124	79.305	61.704
06/23/2011 08:29:26	20.966	0.12	79.305	61.803
06/23/2011 08:29:36	20.966	0.12	79.704	61.803
06/23/2011 08:29:46	20.966	0.124	79.803	61.803
06/23/2011 08:29:56	20.962	0.124	79.803	61.704
06/23/2011 08:30:06	20.962	0.12	79.803	62.001
06/23/2011 08:30:16	20.962	0.124	79.803	62.202
06/23/2011 08:30:26	20.962	0.124	79.803	62.001
06/23/2011 08:30:36	20.962	0.12	79.803	62.202
06/23/2011 08:30:46	20.962	0.12	79.803	62.202
06/23/2011 08:30:56	20.966	0.12	79.803	62.202
06/23/2011 08:31:06	20.966	0.12	79.704	62.202
06/23/2011 08:31:16	20.966	0.124	79.704	62.202
06/23/2011 08:31:26	20.962	0.124	79.803	62.202
06/23/2011 08:31:36	20.962	0.124	79.803	62.001
06/23/2011 08:31:46	20.962	0.12	79.803	62.001
06/23/2011 08:31:56	20.962	0.124	80.202	62.202
06/23/2011 08:32:06	20.962	0.12	80.202	62.202
06/23/2011 08:32:16	20.962	0.124	80.004	62.202
06/23/2011 08:32:26	20.962	0.124	80.004	62.202
06/23/2011 08:32:36	20.962	0.12	80.004	62.202
06/23/2011 08:32:46	20.958	0.124	80.004	62.202
06/23/2011 08:32:56	20.958	0.12	80.004	62.202
06/23/2011 08:33:06	20.958	0.12	80.202	62.202
06/23/2011 08:33:16	20.962	0.12	80.202	62.202
06/23/2011 08:33:26	20.966	0.12	80.403	62.404
06/23/2011 08:33:36	20.962	0.12	80.403	62.404
06/23/2011 08:33:46	20.962	0.12	80.403	62.404
06/23/2011 08:33:56	20.958	0.12	80.403	62.404
06/23/2011 08:34:06	20.958	0.12	80.403	62.404
06/23/2011 08:34:16	20.962	0.12	80.403	62.202
06/23/2011 08:34:26	20.962	0.117	80.202	62.202
06/23/2011 08:34:36	20.962	0.12	80.202	62.202
06/23/2011 08:34:46	20.962	0.12	80.403	62.202
06/23/2011 08:34:56	20.962	0.12	80.403	62.202
06/23/2011 08:35:06	20.962	0.12	80.202	62.202
06/23/2011 08:35:16	20.962	0.12	80.004	62.202
06/23/2011 08:35:26	20.958	0.124	80.004	62.404
06/23/2011 08:35:36	20.962	0.124	80.004	62.202
06/23/2011 08:35:46	20.962	0.128	80.403	62.404
06/23/2011 08:35:56	20.958	0.131	80.403	62.404
06/23/2011 08:36:06	20.958	0.131	80.403	62.404
06/23/2011 08:36:16	20.962	0.131	80.605	62.601
06/23/2011 08:36:26	20.958	0.131	80.605	62.601
06/23/2011 08:36:36	20.958	0.131	80.704	62.601
06/23/2011 08:36:46	20.962	0.131	80.605	62.404
06/23/2011 08:36:56	20.962	0.131	80.403	62.404
06/23/2011 08:37:06	20.962	0.135	80.403	62.404

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 08:37:16	20.962	0.131	80.403	62.601
06/23/2011 08:37:26	20.958	0.135	80.605	62.601
06/23/2011 08:37:36	20.955	0.135	80.605	62.404
06/23/2011 08:37:46	20.958	0.128	80.403	62.404
06/23/2011 08:37:56	20.958	0.128	80.403	62.404
06/23/2011 08:38:06	20.962	0.124	80.403	62.404
06/23/2011 08:38:16	20.958	0.124	80.403	62.404
06/23/2011 08:38:26	20.962	0.12	80.403	62.601
06/23/2011 08:38:36	20.962	0.12	80.403	62.601
06/23/2011 08:38:46	20.958	0.12	80.403	62.601
06/23/2011 08:38:56	20.958	0.117	80.403	62.601
06/23/2011 08:39:06	20.958	0.117	80.403	62.601
06/23/2011 08:39:16	20.958	0.117	80.403	62.601
06/23/2011 08:39:26	20.958	0.117	80.403	62.601
06/23/2011 08:39:36	20.955	0.117	80.605	62.601
06/23/2011 08:39:46	20.955	0.113	80.605	62.601
06/23/2011 08:39:56	20.958	0.109	80.704	62.601
06/23/2011 08:40:06	20.962	0.109	80.704	62.601
06/23/2011 08:40:16	20.958	0.113	80.605	62.601
06/23/2011 08:40:26	20.958	0.113	80.605	62.404
06/23/2011 08:40:36	20.958	0.113	80.902	62.404
06/23/2011 08:40:46	20.962	0.117	81.103	62.601
06/23/2011 08:40:56	20.958	0.117	80.704	62.601
06/23/2011 08:41:06	20.958	0.12	80.902	62.601
06/23/2011 08:41:16	20.958	0.117	81.103	62.404
06/23/2011 08:41:26	20.958	0.117	81.103	62.404
06/23/2011 08:41:36	20.958	0.117	81.103	62.404
06/23/2011 08:41:46	20.958	0.117	81.502	62.601
06/23/2011 08:41:56	20.958	0.117	81.103	62.601
06/23/2011 08:42:06	20.958	0.117	80.704	62.601
06/23/2011 08:42:16	20.958	0.117	80.704	62.601
06/23/2011 08:42:26	20.958	0.117	80.704	62.601
06/23/2011 08:42:36	20.958	0.117	80.902	62.601
06/23/2011 08:42:46	20.958	0.117	81.103	62.601
06/23/2011 08:42:56	20.958	0.117	81.103	62.601
06/23/2011 08:43:06	20.958	0.12	81.103	62.704
06/23/2011 08:43:16	20.958	0.117	81.103	62.601
06/23/2011 08:43:26	20.958	0.117	81.103	62.601
06/23/2011 08:43:36	20.958	0.117	81.304	62.704
06/23/2011 08:43:46	20.958	0.117	81.502	62.704
06/23/2011 08:43:56	20.958	0.117	81.502	62.704
06/23/2011 08:44:06	20.955	0.117	81.502	62.704
06/23/2011 08:44:16	20.955	0.12	81.103	62.601
06/23/2011 08:44:26	20.955	0.117	81.103	62.601
06/23/2011 08:44:36	20.955	0.117	80.902	62.601
06/23/2011 08:44:46	20.955	0.117	81.502	62.704
06/23/2011 08:44:56	20.955	0.117	81.502	62.704
06/23/2011 08:45:06	20.955	0.117	81.502	62.704
06/23/2011 08:45:16	20.958	0.117	81.304	62.704
06/23/2011 08:45:26	20.958	0.12	81.103	62.704
06/23/2011 08:45:36	20.955	0.12	81.304	62.704
06/23/2011 08:45:46	20.955	0.124	81.304	62.902
06/23/2011 08:45:56	20.955	0.124	81.502	62.704
06/23/2011 08:46:06	20.951	0.12	81.304	62.704
06/23/2011 08:46:16	20.951	0.124	81.103	62.704
06/23/2011 08:46:26	20.951	0.128	81.304	62.704
06/23/2011 08:46:36	20.947	0.135	81.502	62.902
06/23/2011 08:46:46	20.947	0.117	81.502	62.902
06/23/2011 08:46:56	20.955	0.117	81.502	62.902
06/23/2011 08:47:06	20.955	0.117	81.502	62.902
06/23/2011 08:47:16	20.955	0.117	81.502	62.902
06/23/2011 08:47:26	20.955	0.117	81.502	62.902
06/23/2011 08:47:36	20.955	0.117	81.502	62.902
06/23/2011 08:47:46	20.955	0.12	81.502	62.902
06/23/2011 08:47:56	17.289	11.396	81.502	62.704
06/23/2011 08:48:06	7.547	13.55	81.605	62.704
06/23/2011 08:48:16	5.416	13.535	81.502	62.704

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 08:48:26	5.35	13.597	81.605	62.704
06/23/2011 08:48:36	5.302	13.627	81.502	62.902
06/23/2011 08:48:46	5.24	13.692	81.502	62.902
06/23/2011 08:48:56	5.229	13.674	81.605	63.103
06/23/2011 08:49:06	5.233	13.711	81.605	63.103
06/23/2011 08:49:16	5.214	13.663	81.802	63.103
06/23/2011 08:49:26	5.269	13.627	81.605	63.103
06/23/2011 08:49:36	5.244	13.733	81.605	63.103
06/23/2011 08:49:46	5.152	13.795	81.502	63.103
06/23/2011 08:49:56	5.119	13.766	81.502	63.103
06/23/2011 08:50:06	5.174	13.718	81.502	63.103
06/23/2011 08:50:16	5.207	13.736	81.502	63.103
06/23/2011 08:50:26	5.152	13.802	81.502	63.301
06/23/2011 08:50:36	5.141	13.729	81.502	63.301
06/23/2011 08:50:46	5.2	13.696	81.502	63.301
06/23/2011 08:50:56	5.24	13.685	81.605	63.502
06/23/2011 08:51:06	5.196	13.773	81.605	63.502
06/23/2011 08:51:16	5.156	13.718	81.802	63.502
06/23/2011 08:51:26	5.178	13.703	81.802	63.502
06/23/2011 08:51:36	5.218	13.652	81.802	63.502
06/23/2011 08:51:46	5.277	13.605	81.802	63.502
06/23/2011 08:51:56	5.324	13.608	82.004	63.601
06/23/2011 08:52:06	5.291	13.67	81.802	63.601
06/23/2011 08:52:16	5.247	13.722	81.802	63.601
06/23/2011 08:52:26	5.174	13.762	81.605	63.502
06/23/2011 08:52:36	5.159	13.733	81.605	63.502
06/23/2011 08:52:46	5.178	13.725	81.802	63.502
06/23/2011 08:52:56	5.203	13.678	81.802	63.502
06/23/2011 08:53:06	5.214	13.696	82.202	63.601
06/23/2011 08:53:16	5.2	13.736	82.202	63.601
06/23/2011 08:53:26	5.178	13.729	82.202	63.601
06/23/2011 08:53:36	5.233	13.627	82.202	63.601
06/23/2011 08:53:46	5.291	13.608	82.202	63.601
06/23/2011 08:53:56	5.284	13.627	82.202	63.601
06/23/2011 08:54:06	5.284	13.638	82.403	63.803
06/23/2011 08:54:16	5.24	13.718	82.403	63.803
06/23/2011 08:54:26	5.207	13.681	82.403	63.803
06/23/2011 08:54:36	5.255	13.616	82.403	63.803
06/23/2011 08:54:46	5.277	13.645	82.403	63.803
06/23/2011 08:54:56	5.266	13.656	82.403	63.803
06/23/2011 08:55:06	5.269	13.663	82.202	63.601
06/23/2011 08:55:16	5.24	13.685	82.202	63.803
06/23/2011 08:55:26	5.233	13.641	82.403	63.803
06/23/2011 08:55:36	5.28	13.594	82.403	63.803
06/23/2011 08:55:46	5.28	13.645	82.202	63.803
06/23/2011 08:55:56	5.24	13.67	82.202	64.004
06/23/2011 08:56:06	5.258	13.601	82.202	64.004
06/23/2011 08:56:16	5.31	13.575	82.004	63.803
06/23/2011 08:56:26	5.339	13.605	82.202	63.803
06/23/2011 08:56:36	5.251	13.729	82.202	63.803
06/23/2011 08:56:46	5.134	13.799	82.403	64.004
06/23/2011 08:56:56	5.13	13.736	82.403	64.004
06/23/2011 08:57:06	5.159	13.733	82.004	63.803
06/23/2011 08:57:16	5.185	13.729	82.202	63.803
06/23/2011 08:57:26	5.174	13.74	82.202	64.004
06/23/2011 08:57:36	5.167	13.747	82.403	64.202
06/23/2011 08:57:46	5.178	13.703	82.403	64.202
06/23/2011 08:57:56	5.225	13.659	82.403	64.202
06/23/2011 08:58:06	5.266	13.601	82.403	64.202
06/23/2011 08:58:16	5.273	13.645	82.403	64.004
06/23/2011 08:58:26	5.258	13.667	82.403	64.004
06/23/2011 08:58:36	5.236	13.674	82.403	64.004
06/23/2011 08:58:46	5.247	13.674	82.403	64.202
06/23/2011 08:58:56	5.247	13.63	82.202	64.202
06/23/2011 08:59:06	5.284	13.597	82.004	64.202
06/23/2011 08:59:16	5.284	13.652	82.202	64.202
06/23/2011 08:59:26	5.222	13.722	81.802	64.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 08:59:36	5.2	13.714	82.004	64.202
06/23/2011 08:59:46	5.225	13.648	82.004	64.202
06/23/2011 08:59:56	5.288	13.575	82.004	64.403
06/23/2011 09:00:06	5.346	13.553	82.004	64.403
06/23/2011 09:00:16	5.372	13.55	82.004	64.403
06/23/2011 09:00:26	5.354	13.575	82.004	64.403
06/23/2011 09:00:36	5.361	13.583	82.202	64.202
06/23/2011 09:00:46	5.35	13.597	82.403	64.403
06/23/2011 09:00:56	5.354	13.546	82.502	64.403
06/23/2011 09:01:06	5.343	13.608	82.502	64.502
06/23/2011 09:01:16	5.324	13.627	82.703	64.502
06/23/2011 09:01:26	5.354	13.531	82.502	64.502
06/23/2011 09:01:36	5.398	13.52	82.502	64.502
06/23/2011 09:01:46	5.376	13.546	82.502	64.502
06/23/2011 09:01:56	5.339	13.568	82.502	64.502
06/23/2011 09:02:06	5.306	13.605	82.502	64.502
06/23/2011 09:02:16	5.339	13.542	82.502	64.502
06/23/2011 09:02:26	5.379	13.528	82.502	64.502
06/23/2011 09:02:36	5.394	13.524	82.502	64.502
06/23/2011 09:02:46	5.372	13.553	82.403	64.502
06/23/2011 09:02:56	5.361	13.546	82.502	64.502
06/23/2011 09:03:06	5.365	13.546	82.502	64.502
06/23/2011 09:03:16	5.383	13.495	82.502	64.502
06/23/2011 09:03:26	5.398	13.502	82.502	64.704
06/23/2011 09:03:36	5.412	13.48	82.403	64.704
06/23/2011 09:03:46	5.434	13.462	82.202	64.704
06/23/2011 09:03:56	5.471	13.436	82.403	64.704
06/23/2011 09:04:06	5.427	13.528	82.403	64.704
06/23/2011 09:04:16	5.346	13.55	82.502	64.704
06/23/2011 09:04:26	5.332	13.531	82.502	64.202
06/23/2011 09:04:36	5.365	12.041	82.403	62.704
Calibration Error				
06/23/2011 09:04:46	2.805	0.212	82.403	62.202
06/23/2011 09:04:56	0.146	0.15	82.202	62.001
06/23/2011 09:05:06	-0.023	0.135	82.502	62.001
06/23/2011 09:05:16	-0.034	0.124	82.502	62.001
06/23/2011 09:05:26	-0.037	0.117	82.502	62.001
06/23/2011 09:05:36	-0.041	0.113	82.403	62.202
06/23/2011 09:05:46	-0.041	0.113	82.403	62.404
N2 Zero	**-0.040**	**0.114**	**82.436**	**62.202**
06/23/2011 09:05:56	7.375	16.901	82.403	62.404
06/23/2011 09:06:06	20.544	19.061	82.403	62.404
06/23/2011 09:06:16	22.046	19.094	82.502	62.202
06/23/2011 09:06:26	22.105	19.113	82.703	62.202
06/23/2011 09:06:36	22.119	19.124	82.905	62.404
06/23/2011 09:06:46	22.127	19.138	82.905	62.601
06/23/2011 09:06:56	22.134	19.145	82.703	62.601
06/23/2011 09:07:06	22.141	19.145	82.502	62.601
06/23/2011 09:07:16	22.141	19.142	82.703	62.601
22.1% O2/18.9% CO2 Span	**22.139**	**19.144**	**82.636**	**62.601**
06/23/2011 09:07:26	17.655	10.005	82.703	62.601
06/23/2011 09:07:36	11.667	9.979	82.703	62.601
06/23/2011 09:07:46	11.18	9.972	82.703	62.601
06/23/2011 09:07:56	11.162	9.972	82.502	62.601
06/23/2011 09:08:06	11.155	9.964	82.502	62.601
06/23/2011 09:08:16	11.155	9.961	82.403	62.704
11.1% O2/9.74% CO2 Mid	**11.157**	**9.966**	**82.469**	**62.635**
06/23/2011 09:08:26	10.415	11.88	82.502	64.202
06/23/2011 09:08:36	7.016	12.136	82.502	65.103
Calibration Bias				
06/23/2011 09:08:46	3.929	0.435	82.502	65.403
06/23/2011 09:08:56	0.439	0.267	82.703	65.604
06/23/2011 09:09:06	0.117	0.212	82.502	65.604
06/23/2011 09:09:16	0.091	0.179	82.502	65.604
06/23/2011 09:09:26	0.08	0.161	82.703	65.604
06/23/2011 09:09:36	0.073	0.146	82.703	65.604
06/23/2011 09:09:46	0.065	0.135	82.403	65.604

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 09:09:56	0.062	0.128	82.502	65.604
06/23/2011 09:10:06	0.058	0.12	82.403	65.604
06/23/2011 09:10:16	0.054	0.117	82.403	65.604
06/23/2011 09:10:26	0.054	0.124	82.502	65.802
N2 Zero	**0.055**	**0.120**	**82.436**	**65.670**
06/23/2011 09:10:36	3.958	9.239	82.202	65.403
06/23/2011 09:10:46	10.279	9.796	82.202	65.403
06/23/2011 09:10:56	11.019	9.829	82.202	65.403
06/23/2011 09:11:06	11.063	9.847	82.202	65.403
06/23/2011 09:11:16	11.078	9.858	82.403	65.403
06/23/2011 09:11:26	11.085	9.869	82.403	65.304
06/23/2011 09:11:36	11.092	9.873	82.403	65.304
06/23/2011 09:11:46	11.092	9.876	82.403	65.304
06/23/2011 09:11:56	11.096	9.876	82.403	65.103
06/23/2011 09:12:06	11.1	9.88	82.202	65.103
06/23/2011 09:12:16	11.1	9.884	82.202	64.901
06/23/2011 09:12:26	11.103	9.884	82.202	64.901
11.1% O2/9.74% CO2 Mid	**11.101**	**9.883**	**82.202**	**64.968**
06/23/2011 09:12:36	9.862	12.759	82.403	64.704
06/23/2011 09:12:46	6.251	13.568	82.703	64.901
06/23/2011 09:12:56	5.346	13.586	82.703	64.901
06/23/2011 09:13:06	5.302	13.594	82.703	64.704
06/23/2011 09:13:16	5.291	13.619	82.703	64.704
06/23/2011 09:13:26	5.321	13.572	82.502	64.704
06/23/2011 09:13:36	5.328	13.616	82.703	64.704
06/23/2011 09:13:46	5.28	13.659	82.703	64.901
06/23/2011 09:13:56	5.244	13.67	82.905	64.901
06/23/2011 09:14:06	5.251	13.619	82.905	64.901
06/23/2011 09:14:16	5.284	13.583	82.703	64.704
06/23/2011 09:14:26	5.332	13.513	82.703	64.704
06/23/2011 09:14:36	5.354	13.55	82.403	64.704
06/23/2011 09:14:46	5.339	13.568	82.403	64.901
06/23/2011 09:14:56	5.313	13.623	82.403	64.901
06/23/2011 09:15:06	5.288	13.561	82.502	64.901
06/23/2011 09:15:16	5.328	13.586	82.403	64.901
06/23/2011 09:15:26	5.288	13.648	82.502	64.704
06/23/2011 09:15:36	5.269	13.619	82.502	64.704
06/23/2011 09:15:46	5.233	13.67	82.703	64.901
06/23/2011 09:15:56	5.17	13.729	82.703	64.901
06/23/2011 09:16:06	5.141	13.74	82.502	65.103
06/23/2011 09:16:16	5.159	13.692	82.403	65.103
06/23/2011 09:16:26	5.244	13.561	82.502	64.901
06/23/2011 09:16:36	5.317	13.579	82.703	65.103
06/23/2011 09:16:46	5.284	13.67	82.703	64.901
06/23/2011 09:16:56	5.255	13.656	82.502	64.901
06/23/2011 09:17:06	5.269	13.616	82.502	64.901
06/23/2011 09:17:16	5.302	13.605	82.403	64.901
06/23/2011 09:17:26	5.328	13.542	82.403	64.901
06/23/2011 09:17:36	5.372	13.546	82.403	64.901
06/23/2011 09:17:46	5.379	13.535	82.502	64.901
06/23/2011 09:17:56	5.324	13.634	82.502	64.901
06/23/2011 09:18:06	5.24	13.659	82.502	65.103
06/23/2011 09:18:16	5.236	13.663	82.502	65.103
06/23/2011 09:18:26	5.262	13.575	82.905	65.103
06/23/2011 09:18:36	5.368	13.48	82.703	65.103
06/23/2011 09:18:46	5.416	13.506	82.703	65.103
06/23/2011 09:18:56	5.383	13.575	82.502	65.103
06/23/2011 09:19:06	5.306	13.645	82.703	65.103
06/23/2011 09:19:16	5.277	13.63	82.703	65.103
06/23/2011 09:19:26	5.284	13.608	82.703	65.103
06/23/2011 09:19:36	5.306	13.608	82.403	65.103
06/23/2011 09:19:46	5.277	13.663	82.502	65.103
06/23/2011 09:19:56	5.251	13.648	82.502	65.103
06/23/2011 09:20:06	5.288	13.572	82.403	65.103
06/23/2011 09:20:16	5.324	13.564	82.502	65.103
06/23/2011 09:20:26	5.299	13.612	82.502	65.304
06/23/2011 09:20:36	5.302	13.594	82.703	65.304

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 09:20:46	5.269	13.652	82.703	65.304
06/23/2011 09:20:56	5.229	13.667	82.703	65.103
06/23/2011 09:21:06	5.214	13.663	82.703	65.103
06/23/2011 09:21:16	5.233	13.641	82.703	65.304
06/23/2011 09:21:26	5.236	13.652	82.502	65.304
06/23/2011 09:21:36	5.229	13.663	82.403	65.304
06/23/2011 09:21:46	5.229	13.674	82.502	65.304
06/23/2011 09:21:56	5.233	13.656	82.502	65.304
06/23/2011 09:22:06	5.251	13.645	82.703	65.304
06/23/2011 09:22:16	5.236	13.67	82.502	65.304
06/23/2011 09:22:26	5.236	13.656	82.703	65.304
06/23/2011 09:22:36	5.258	13.634	82.905	65.304
06/23/2011 09:22:46	5.277	13.638	82.905	65.103
06/23/2011 09:22:56	5.255	13.638	82.703	65.304
06/23/2011 09:23:06	5.266	13.634	82.502	65.304
06/23/2011 09:23:16	5.284	13.627	82.703	65.304
06/23/2011 09:23:26	5.262	13.678	82.502	65.304
06/23/2011 09:23:36	5.207	13.747	82.403	65.304
06/23/2011 09:23:46	5.207	13.67	82.403	65.304
06/23/2011 09:23:56	5.233	13.652	82.502	65.403
06/23/2011 09:24:06	5.251	13.656	82.502	65.304
06/23/2011 09:24:16	5.28	13.583	82.502	65.304
06/23/2011 09:24:26	5.313	13.583	82.502	65.304
06/23/2011 09:24:36	5.291	13.634	82.502	65.304
06/23/2011 09:24:46	5.251	13.678	82.502	65.304
06/23/2011 09:24:56	5.273	13.575	82.502	65.304
06/23/2011 09:25:06	5.339	13.572	82.905	65.604
06/23/2011 09:25:16	5.321	13.608	83.103	65.403
06/23/2011 09:25:26	5.284	13.63	82.905	65.403
06/23/2011 09:25:36	5.262	13.663	82.905	65.403
06/23/2011 09:25:46	5.233	13.685	82.905	65.604
06/23/2011 09:25:56	5.24	13.652	82.502	65.403
06/23/2011 09:26:06	5.244	13.67	82.703	65.403
06/23/2011 09:26:16	5.236	13.641	82.905	65.403
06/23/2011 09:26:26	5.288	13.517	82.703	65.403
06/23/2011 09:26:36	5.343	13.583	82.703	65.403
06/23/2011 09:26:46	5.302	13.645	82.703	65.403
06/23/2011 09:26:56	5.247	13.634	82.703	65.403
06/23/2011 09:27:06	5.236	13.67	82.502	65.604
06/23/2011 09:27:16	5.229	13.648	82.703	65.604
06/23/2011 09:27:26	5.218	13.7	82.403	65.604
06/23/2011 09:27:36	5.214	13.616	82.403	65.604
06/23/2011 09:27:46	5.306	13.531	82.502	65.604
06/23/2011 09:27:56	5.365	13.524	82.502	65.604
06/23/2011 09:28:06	5.277	13.718	82.502	65.604
06/23/2011 09:28:16	5.148	13.802	82.703	65.604
06/23/2011 09:28:26	5.185	13.678	82.703	65.604
06/23/2011 09:28:36	5.288	13.601	82.703	65.604
06/23/2011 09:28:46	5.328	13.59	82.403	65.304
06/23/2011 09:28:56	5.306	13.608	82.403	65.304
06/23/2011 09:29:06	5.28	13.663	82.403	65.304
06/23/2011 09:29:16	5.211	13.747	82.202	65.403
06/23/2011 09:29:26	5.126	13.791	82.403	65.403
06/23/2011 09:29:36	5.126	13.711	82.905	65.604
06/23/2011 09:29:46	5.207	13.681	82.905	65.604
06/23/2011 09:29:56	5.251	13.612	82.905	65.604
06/23/2011 09:30:06	5.258	13.67	82.905	65.604
06/23/2011 09:30:16	5.236	13.641	82.502	65.403
06/23/2011 09:30:26	5.236	13.663	82.502	65.403
06/23/2011 09:30:36	5.233	13.67	82.502	65.403
06/23/2011 09:30:46	5.218	13.678	82.905	65.604
06/23/2011 09:30:56	5.236	13.659	82.905	65.604
06/23/2011 09:31:06	5.236	13.678	82.703	65.604
06/23/2011 09:31:16	5.247	13.638	82.703	65.604
06/23/2011 09:31:26	5.247	13.652	82.703	65.604
06/23/2011 09:31:36	5.214	13.707	82.905	65.604
06/23/2011 09:31:46	5.211	13.652	82.905	65.604

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 09:31:56	5.24	13.634	82.905	65.604
06/23/2011 09:32:06	5.273	13.608	82.905	65.604
06/23/2011 09:32:16	5.313	13.594	82.703	65.604
06/23/2011 09:32:26	5.291	13.663	82.905	65.604
06/23/2011 09:32:36	5.218	13.725	82.905	65.604
06/23/2011 09:32:46	5.189	13.74	82.502	65.403
06/23/2011 09:32:56	5.207	13.714	82.502	65.604
06/23/2011 09:33:06	5.258	13.594	82.502	65.403
06/23/2011 09:33:16	5.354	13.535	82.703	65.403
06/23/2011 09:33:26	5.46	13.432	82.703	65.403
06/23/2011 09:33:36	5.537	13.418	82.502	65.403
06/23/2011 09:33:46	5.562	13.366	82.502	65.604
06/23/2011 09:33:56	5.548	13.454	82.905	65.802
06/23/2011 09:34:06	5.467	13.509	82.703	65.604
06/23/2011 09:34:16	5.423	13.524	82.502	65.403
06/23/2011 09:34:26	5.405	13.517	82.403	65.403
06/23/2011 09:34:36	5.408	13.513	82.403	65.604
06/23/2011 09:34:46	5.43	13.473	82.403	65.604
06/23/2011 09:34:56	5.463	13.451	82.403	65.604
06/23/2011 09:35:06	5.482	13.465	82.403	65.604
06/23/2011 09:35:16	5.416	13.495	82.403	65.604
06/23/2011 09:35:26	5.427	13.421	82.905	65.802
06/23/2011 09:35:36	5.518	13.301	82.905	65.802
06/23/2011 09:35:46	5.551	13.403	82.905	65.802
06/23/2011 09:35:56	5.511	13.37	82.905	65.802
06/23/2011 09:36:06	5.526	13.385	82.703	65.802
06/23/2011 09:36:16	5.493	13.407	82.703	65.802
06/23/2011 09:36:26	5.408	13.553	82.703	65.802
06/23/2011 09:36:36	5.354	13.542	82.502	65.604
06/23/2011 09:36:46	5.346	13.542	82.703	65.802
06/23/2011 09:36:56	5.343	13.579	82.703	66.004
06/23/2011 09:37:06	5.291	13.689	82.703	65.802
06/23/2011 09:37:16	5.225	13.667	82.905	65.802
06/23/2011 09:37:26	5.233	13.623	83.103	66.004
06/23/2011 09:37:36	5.255	13.638	83.103	66.004
06/23/2011 09:37:46	5.247	13.634	82.905	66.004
06/23/2011 09:37:56	5.258	13.634	83.103	65.802
06/23/2011 09:38:06	5.24	13.656	83.103	65.802
06/23/2011 09:38:16	5.269	13.605	82.905	65.604
06/23/2011 09:38:26	5.291	13.634	82.905	65.604
06/23/2011 09:38:36	5.251	13.674	82.905	65.604
06/23/2011 09:38:46	5.185	13.747	82.905	65.604
06/23/2011 09:38:56	5.159	13.722	82.905	65.604
06/23/2011 09:39:06	5.159	13.729	82.703	65.604
06/23/2011 09:39:16	5.137	13.769	82.403	65.604
06/23/2011 09:39:26	5.123	13.766	82.403	65.604
06/23/2011 09:39:36	5.13	13.755	82.403	65.604
06/23/2011 09:39:46	5.185	13.641	82.703	65.604
06/23/2011 09:39:56	5.244	13.652	82.905	65.604
06/23/2011 09:40:06	5.229	13.7	82.703	65.604
06/23/2011 09:40:16	5.233	13.648	82.703	65.604
06/23/2011 09:40:26	5.247	13.681	82.502	65.604
06/23/2011 09:40:36	5.192	13.729	82.502	65.604
06/23/2011 09:40:46	5.141	13.766	82.502	65.604
06/23/2011 09:40:56	5.119	13.74	82.703	65.604
06/23/2011 09:41:06	5.141	13.78	82.703	65.604
06/23/2011 09:41:16	5.072	13.872	82.502	65.604
06/23/2011 09:41:26	5.035	13.824	82.502	65.802
06/23/2011 09:41:36	5.057	13.821	82.905	65.604
06/23/2011 09:41:46	5.039	13.865	82.905	65.604
06/23/2011 09:41:56	5.035	13.817	82.905	65.604
Start Run 3				
06/23/2011 09:42:06	5.042	13.857	82.703	65.604
06/23/2011 09:42:16	5.002	13.898	82.905	65.604
06/23/2011 09:42:26	4.98	13.876	82.703	65.604
06/23/2011 09:42:36	5.013	13.872	82.703	65.604

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 09:42:46	5.028	13.861	82.703	65.604
06/23/2011 09:42:56	5.017	13.89	82.703	65.604
06/23/2011 09:43:06	5.028	13.817	82.703	65.802
06/23/2011 09:43:16	5.112	13.747	82.703	65.802
06/23/2011 09:43:26	5.159	13.744	82.502	65.802
06/23/2011 09:43:36	5.116	13.799	82.703	65.802
06/23/2011 09:43:46	5.09	13.78	82.703	65.802
06/23/2011 09:43:56	5.123	13.718	82.502	65.802
06/23/2011 09:44:06	5.192	13.678	82.502	65.802
06/23/2011 09:44:16	5.152	13.821	82.703	65.802
06/23/2011 09:44:26	5.05	13.872	82.703	65.802
06/23/2011 09:44:36	5.042	13.832	82.703	65.604
06/23/2011 09:44:46	5.105	13.758	82.703	65.604
06/23/2011 09:44:56	5.123	13.795	82.403	65.802
06/23/2011 09:45:06	5.083	13.865	82.502	65.802
06/23/2011 09:45:16	5.028	13.909	82.502	65.802
06/23/2011 09:45:26	4.984	13.963	82.502	65.802
06/23/2011 09:45:36	4.947	13.952	82.905	65.802
06/23/2011 09:45:46	4.925	13.916	82.703	65.802
06/23/2011 09:45:56	4.958	13.919	82.905	66.004
06/23/2011 09:46:06	4.987	13.868	82.905	66.004
06/23/2011 09:46:16	5.046	13.791	82.905	66.004
06/23/2011 09:46:26	5.108	13.747	82.703	66.004
06/23/2011 09:46:36	5.101	13.799	82.403	66.004
06/23/2011 09:46:46	5.094	13.773	82.905	66.004
06/23/2011 09:46:56	5.079	13.898	82.905	66.004
06/23/2011 09:47:06	4.987	13.923	82.703	66.004
06/23/2011 09:47:16	4.918	14.018	82.703	66.004
06/23/2011 09:47:26	4.87	13.971	82.703	66.004
06/23/2011 09:47:36	4.907	13.952	82.703	66.004
06/23/2011 09:47:46	4.954	13.883	82.703	66.201
06/23/2011 09:47:56	4.991	13.894	82.703	66.004
06/23/2011 09:48:06	4.984	13.923	82.905	66.004
06/23/2011 09:48:16	5.002	13.846	82.703	66.004
06/23/2011 09:48:26	4.987	13.945	82.905	66.004
06/23/2011 09:48:36	4.899	14.033	82.703	66.004
06/23/2011 09:48:46	4.885	13.938	82.905	66.004
06/23/2011 09:48:56	4.962	13.923	82.905	66.004
06/23/2011 09:49:06	4.965	13.952	82.703	66.004
06/23/2011 09:49:16	4.925	13.971	82.703	66.004
06/23/2011 09:49:26	4.903	13.982	82.905	66.004
06/23/2011 09:49:36	4.896	13.967	82.905	66.004
06/23/2011 09:49:46	4.907	14.004	82.905	66.004
06/23/2011 09:49:56	4.863	14.011	82.905	66.004
06/23/2011 09:50:06	4.866	14	83.103	66.004
06/23/2011 09:50:16	4.907	13.938	82.905	66.004
06/23/2011 09:50:26	4.943	13.934	82.905	66.004
06/23/2011 09:50:36	4.932	13.967	83.103	66.004
06/23/2011 09:50:46	4.892	14	83.103	66.004
06/23/2011 09:50:56	4.91	13.923	83.103	66.004
06/23/2011 09:51:06	4.98	13.861	83.304	65.802
06/23/2011 09:51:16	5.002	13.89	83.103	66.004
06/23/2011 09:51:26	5.013	13.835	83.304	65.802
06/23/2011 09:51:36	5.05	13.81	82.905	65.802
06/23/2011 09:51:46	5.094	13.755	83.103	66.004
06/23/2011 09:51:56	5.094	13.799	83.103	66.004
06/23/2011 09:52:06	5.097	13.744	83.103	66.004
06/23/2011 09:52:16	5.119	13.766	83.304	66.201
06/23/2011 09:52:26	5.083	13.828	83.103	66.201
06/23/2011 09:52:36	5.002	13.941	83.304	66.201
06/23/2011 09:52:46	4.899	14	83.304	66.201
06/23/2011 09:52:56	4.881	13.982	83.103	66.004
06/23/2011 09:53:06	4.87	14.015	82.905	66.004
06/23/2011 09:53:16	4.896	13.971	82.905	66.004
06/23/2011 09:53:26	4.929	13.949	83.103	66.004
06/23/2011 09:53:36	4.94	13.919	83.304	66.004
06/23/2011 09:53:46	4.965	13.916	83.403	66.201

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 09:53:56	4.962	13.941	83.304	66.004
06/23/2011 09:54:06	4.943	13.934	83.604	66.201
06/23/2011 09:54:16	4.943	13.971	83.403	66.201
06/23/2011 09:54:26	4.896	14.018	83.403	66.004
06/23/2011 09:54:36	4.899	13.963	83.403	66.004
06/23/2011 09:54:46	4.91	14.004	83.403	66.004
06/23/2011 09:54:56	4.91	13.963	83.304	66.004
06/23/2011 09:55:06	4.965	13.89	83.304	66.004
06/23/2011 09:55:16	5.031	13.879	83.304	66.004
06/23/2011 09:55:26	5.053	13.85	83.304	66.004
06/23/2011 09:55:36	5.009	13.945	83.304	66.004
06/23/2011 09:55:46	4.877	14.114	83.304	66.004
06/23/2011 09:55:56	4.771	14.143	83.103	66.004
06/23/2011 09:56:06	4.819	13.978	83.103	66.004
06/23/2011 09:56:16	4.973	13.857	83.103	66.004
06/23/2011 09:56:26	5.053	13.883	83.403	66.004
06/23/2011 09:56:36	5.002	13.941	83.403	66.004
06/23/2011 09:56:46	4.94	13.996	83.403	66.004
06/23/2011 09:56:56	4.896	14.007	83.403	66.004
06/23/2011 09:57:06	4.87	14.015	83.403	66.004
06/23/2011 09:57:16	4.914	13.927	83.304	66.004
06/23/2011 09:57:26	5.013	13.824	83.403	66.004
06/23/2011 09:57:36	5.039	13.872	83.403	66.004
06/23/2011 09:57:46	4.991	13.916	83.304	66.004
06/23/2011 09:57:56	4.951	13.927	83.304	66.004
06/23/2011 09:58:06	4.973	13.846	83.103	66.004
06/23/2011 09:58:16	5.035	13.813	83.103	66.004
06/23/2011 09:58:26	5.064	13.832	83.304	66.201
06/23/2011 09:58:36	5.031	13.85	83.103	66.201
06/23/2011 09:58:46	5.035	13.813	83.304	66.201
06/23/2011 09:58:56	5.061	13.854	83.103	66.201
06/23/2011 09:59:06	5.02	13.857	83.103	66.004
06/23/2011 09:59:16	4.998	13.923	83.304	66.004
06/23/2011 09:59:26	4.98	13.872	83.304	66.004
06/23/2011 09:59:36	5.031	13.821	83.304	66.004
06/23/2011 09:59:46	5.075	13.784	83.304	66.004
06/23/2011 09:59:56	5.112	13.755	83.304	66.004
06/23/2011 10:00:06	5.116	13.788	83.304	66.004
06/23/2011 10:00:16	5.057	13.894	83.103	66.004
06/23/2011 10:00:26	4.98	13.923	83.103	66.004
06/23/2011 10:00:36	4.98	13.894	83.103	66.201
06/23/2011 10:00:46	5.017	13.832	83.304	66.004
06/23/2011 10:00:56	5.057	13.806	83.103	66.004
06/23/2011 10:01:06	5.075	13.854	83.304	66.004
06/23/2011 10:01:16	5.017	13.887	83.304	66.201
06/23/2011 10:01:26	5.009	13.85	83.304	66.201
06/23/2011 10:01:36	5.031	13.876	83.304	66.201
06/23/2011 10:01:46	5.006	13.941	83.304	66.201
06/23/2011 10:01:56	4.973	13.916	83.304	66.004
06/23/2011 10:02:06	4.998	13.879	83.304	66.004
06/23/2011 10:02:16	5.031	13.839	83.304	66.004
06/23/2011 10:02:26	5.057	13.857	83.304	66.201
06/23/2011 10:02:36	5.046	13.839	83.304	66.201
06/23/2011 10:02:46	5.057	13.843	83.304	66.201
06/23/2011 10:02:56	5.086	13.788	83.304	66.004
06/23/2011 10:03:06	5.141	13.762	83.304	66.004
06/23/2011 10:03:16	5.112	13.828	83.304	66.201
06/23/2011 10:03:26	5.079	13.784	83.304	66.304
06/23/2011 10:03:36	5.101	13.795	83.304	66.304
06/23/2011 10:03:46	5.094	13.839	83.304	66.304
06/23/2011 10:03:56	5.031	13.89	83.103	66.201
06/23/2011 10:04:06	4.954	13.923	83.103	66.201
06/23/2011 10:04:16	4.925	13.941	83.304	66.201
06/23/2011 10:04:26	4.976	13.857	83.103	66.004
06/23/2011 10:04:36	5.072	13.806	83.304	66.304
06/23/2011 10:04:46	5.09	13.821	83.304	66.201
06/23/2011 10:04:56	5.061	13.846	83.304	66.004

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 10:05:06	5.031	13.89	83.304	66.004
06/23/2011 10:05:16	4.987	13.901	83.304	66.201
06/23/2011 10:05:26	4.995	13.868	83.304	66.201
06/23/2011 10:05:36	5.017	13.872	82.905	66.201
06/23/2011 10:05:46	5.042	13.813	82.905	66.004
06/23/2011 10:05:56	5.064	13.835	83.103	66.201
06/23/2011 10:06:06	5.064	13.835	82.905	66.004
06/23/2011 10:06:16	5.079	13.824	83.103	66.004
06/23/2011 10:06:26	5.072	13.854	83.304	66.201
06/23/2011 10:06:36	5.061	13.854	83.103	66.201
06/23/2011 10:06:46	5.017	13.912	83.304	66.304
06/23/2011 10:06:56	5.035	13.85	83.304	66.304
06/23/2011 10:07:06	5.075	13.835	83.304	66.304
06/23/2011 10:07:16	5.101	13.813	83.304	66.304
06/23/2011 10:07:26	5.094	13.868	83.304	66.201
06/23/2011 10:07:36	5.083	13.81	83.103	66.201
06/23/2011 10:07:46	5.112	13.78	83.103	66.201
06/23/2011 10:07:56	5.119	13.839	83.103	66.201
06/23/2011 10:08:06	5.075	13.843	83.103	66.201
06/23/2011 10:08:16	5.101	13.755	83.304	66.201
06/23/2011 10:08:26	5.141	13.769	83.304	66.201
06/23/2011 10:08:36	5.105	13.821	83.304	66.304
06/23/2011 10:08:46	5.097	13.784	83.304	66.201
06/23/2011 10:08:56	5.101	13.832	83.304	66.201
06/23/2011 10:09:06	5.094	13.773	83.304	66.201
06/23/2011 10:09:16	5.141	13.74	83.304	66.201
06/23/2011 10:09:26	5.148	13.758	83.403	66.201
06/23/2011 10:09:36	5.141	13.755	83.304	66.201
06/23/2011 10:09:46	5.145	13.744	83.304	66.201
06/23/2011 10:09:56	5.126	13.784	83.304	66.201
06/23/2011 10:10:06	5.141	13.689	83.304	66.201
06/23/2011 10:10:16	5.181	13.707	83.304	66.201
06/23/2011 10:10:26	5.17	13.747	83.304	66.201
06/23/2011 10:10:36	5.156	13.703	83.304	66.201
06/23/2011 10:10:46	5.211	13.678	83.304	66.201
06/23/2011 10:10:56	5.189	13.766	83.304	66.201
06/23/2011 10:11:06	5.148	13.747	83.304	66.201
06/23/2011 10:11:16	5.167	13.722	83.304	66.201
06/23/2011 10:11:26	5.159	13.769	83.304	66.201
06/23/2011 10:11:36	5.116	13.795	83.304	66.201
06/23/2011 10:11:46	5.126	13.747	83.304	66.201
06/23/2011 10:11:56	5.145	13.755	83.304	66.201
06/23/2011 10:12:06	5.167	13.707	83.304	66.201
06/23/2011 10:12:16	5.214	13.656	83.403	66.201
06/23/2011 10:12:26	5.262	13.648	83.403	66.201
06/23/2011 10:12:36	5.28	13.597	83.304	66.201
06/23/2011 10:12:46	5.28	13.641	83.403	66.201
06/23/2011 10:12:56	5.236	13.667	83.802	66.304
06/23/2011 10:13:06	5.225	13.652	83.802	66.201
06/23/2011 10:13:16	5.262	13.641	83.403	66.201
06/23/2011 10:13:26	5.247	13.703	83.304	66.201
06/23/2011 10:13:36	5.2	13.744	83.304	66.304
06/23/2011 10:13:46	5.2	13.685	83.304	66.201
06/23/2011 10:13:56	5.222	13.692	83.403	66.201
06/23/2011 10:14:06	5.203	13.689	83.403	66.201
06/23/2011 10:14:16	5.203	13.711	83.604	66.201
06/23/2011 10:14:26	5.185	13.718	83.802	66.201
06/23/2011 10:14:36	5.211	13.634	83.802	66.201
06/23/2011 10:14:46	5.277	13.59	83.304	66.201
06/23/2011 10:14:56	5.262	13.674	83.403	66.201
06/23/2011 10:15:06	5.203	13.729	83.403	66.201
06/23/2011 10:15:16	5.156	13.747	83.403	66.201
06/23/2011 10:15:26	5.156	13.755	83.403	66.201
06/23/2011 10:15:36	5.163	13.747	83.802	66.201
06/23/2011 10:15:46	5.192	13.663	83.802	66.201
06/23/2011 10:15:56	5.273	13.597	83.604	66.201
06/23/2011 10:16:06	5.317	13.557	83.403	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 10:16:16	5.31	13.608	83.604	66.201
06/23/2011 10:16:26	5.255	13.678	83.802	66.201
06/23/2011 10:16:36	5.196	13.733	83.604	66.201
06/23/2011 10:16:46	5.17	13.722	83.403	66.201
06/23/2011 10:16:56	5.17	13.725	83.604	66.201
06/23/2011 10:17:06	5.174	13.729	83.403	66.201
06/23/2011 10:17:16	5.163	13.725	83.802	66.201
06/23/2011 10:17:26	5.189	13.685	83.604	66.201
06/23/2011 10:17:36	5.203	13.736	83.604	66.201
06/23/2011 10:17:46	5.159	13.773	83.802	66.201
06/23/2011 10:17:56	5.152	13.718	84.003	66.201
06/23/2011 10:18:06	5.203	13.674	84.003	66.201
06/23/2011 10:18:16	5.269	13.638	83.802	66.201
06/23/2011 10:18:26	5.288	13.616	83.604	66.201
06/23/2011 10:18:36	5.284	13.623	83.802	66.201
06/23/2011 10:18:46	5.269	13.627	83.802	66.004
06/23/2011 10:18:56	5.277	13.634	83.802	66.004
06/23/2011 10:19:06	5.28	13.641	84.205	66.304
06/23/2011 10:19:16	5.335	13.513	83.802	66.004
06/23/2011 10:19:26	5.394	13.531	83.604	66.201
06/23/2011 10:19:36	5.368	13.59	83.604	66.201
06/23/2011 10:19:46	5.324	13.601	83.604	66.201
06/23/2011 10:19:56	5.339	13.539	83.403	66.201
06/23/2011 10:20:06	5.335	13.579	83.304	66.201
06/23/2011 10:20:16	5.302	13.605	83.304	66.201
06/23/2011 10:20:26	5.28	13.63	83.403	66.201
06/23/2011 10:20:36	5.269	13.667	83.403	66.304
06/23/2011 10:20:46	5.225	13.689	83.403	66.304
06/23/2011 10:20:56	5.214	13.641	83.604	66.304
06/23/2011 10:21:06	5.247	13.63	83.604	66.304
06/23/2011 10:21:16	5.266	13.619	83.604	66.201
06/23/2011 10:21:26	5.258	13.67	83.403	66.304
06/23/2011 10:21:36	5.229	13.67	83.304	66.201
06/23/2011 10:21:46	5.236	13.612	83.604	66.304
06/23/2011 10:21:56	5.251	13.648	83.604	66.201
06/23/2011 10:22:06	5.262	13.612	83.802	66.201
06/23/2011 10:22:16	5.295	13.579	84.003	66.201
06/23/2011 10:22:26	5.357	13.509	83.802	66.201
06/23/2011 10:22:36	5.368	13.546	83.802	66.201
06/23/2011 10:22:46	5.317	13.608	83.802	66.201
06/23/2011 10:22:56	5.295	13.616	83.802	66.502
06/23/2011 10:23:06	5.299	13.586	84.003	66.502
06/23/2011 10:23:16	5.306	13.627	83.802	66.502
06/23/2011 10:23:26	5.258	13.692	84.003	66.304
06/23/2011 10:23:36	5.218	13.652	83.802	66.004
06/23/2011 10:23:46	5.273	13.594	83.604	66.201
06/23/2011 10:23:56	5.299	13.59	83.304	66.201
06/23/2011 10:24:06	5.302	13.641	83.304	66.201
06/23/2011 10:24:16	5.295	13.605	83.304	66.201
06/23/2011 10:24:26	5.277	13.634	83.304	66.201
06/23/2011 10:24:36	5.251	13.674	83.304	66.201
06/23/2011 10:24:46	5.273	13.612	83.304	66.201
06/23/2011 10:24:56	5.291	13.612	83.304	66.201
06/23/2011 10:25:06	5.284	13.627	83.304	66.201
06/23/2011 10:25:16	5.28	13.638	83.403	66.201
06/23/2011 10:25:26	5.284	13.612	83.304	66.201
06/23/2011 10:25:36	5.273	13.689	83.403	66.201
06/23/2011 10:25:46	5.236	13.674	83.304	66.201
06/23/2011 10:25:56	5.229	13.63	83.403	66.201
06/23/2011 10:26:06	5.302	13.52	83.403	66.201
06/23/2011 10:26:16	5.332	13.572	83.304	66.201
06/23/2011 10:26:26	5.299	13.612	83.304	66.201
06/23/2011 10:26:36	5.288	13.608	83.403	66.201
06/23/2011 10:26:46	5.28	13.612	83.403	66.201
06/23/2011 10:26:56	5.269	13.612	83.403	66.201
06/23/2011 10:27:06	5.28	13.605	83.304	66.304
06/23/2011 10:27:16	5.288	13.612	83.304	66.304

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 10:27:26	5.288	13.619	83.403	66.304
06/23/2011 10:27:36	5.28	13.608	83.304	66.201
06/23/2011 10:27:46	5.295	13.568	83.304	66.304
06/23/2011 10:27:56	5.35	13.52	83.304	66.201
06/23/2011 10:28:06	5.354	13.568	83.103	66.201
06/23/2011 10:28:16	5.335	13.524	83.103	66.201
06/23/2011 10:28:26	5.354	13.561	83.304	66.201
06/23/2011 10:28:36	5.317	13.601	83.304	66.201
06/23/2011 10:28:46	5.266	13.663	83.304	66.201
06/23/2011 10:28:56	5.233	13.674	83.304	66.201
06/23/2011 10:29:06	5.203	13.707	83.304	66.201
06/23/2011 10:29:16	5.189	13.678	83.403	66.502
06/23/2011 10:29:26	5.218	13.638	83.304	66.304
06/23/2011 10:29:36	5.288	13.586	83.304	66.304
06/23/2011 10:29:46	5.35	13.539	83.304	66.304
06/23/2011 10:29:56	5.332	13.619	83.304	66.201
06/23/2011 10:30:06	5.28	13.656	83.304	66.304
06/23/2011 10:30:16	5.284	13.579	83.304	66.304
06/23/2011 10:30:26	5.335	13.55	82.905	66.304
06/23/2011 10:30:36	5.357	13.568	83.103	66.304
06/23/2011 10:30:46	5.313	13.663	83.304	66.304
06/23/2011 10:30:56	5.218	13.722	83.304	66.201
06/23/2011 10:31:06	5.222	13.63	83.103	66.201
06/23/2011 10:31:16	5.284	13.619	83.103	66.201
06/23/2011 10:31:26	5.291	13.623	83.103	66.201
06/23/2011 10:31:36	5.28	13.627	83.304	66.304
06/23/2011 10:31:46	5.269	13.641	83.304	66.304
06/23/2011 10:31:56	5.251	13.641	83.304	66.304
06/23/2011 10:32:06	5.269	13.594	83.103	66.201
06/23/2011 10:32:16	5.295	13.572	82.703	66.201
06/23/2011 10:32:26	5.317	13.568	82.905	66.201
06/23/2011 10:32:36	5.306	13.605	82.703	66.201
06/23/2011 10:32:46	5.302	13.546	83.103	66.201
06/23/2011 10:32:56	5.291	13.641	83.304	66.201
06/23/2011 10:33:06	5.222	13.674	83.304	66.201
06/23/2011 10:33:16	5.222	13.641	83.304	66.304
06/23/2011 10:33:26	5.229	13.656	83.304	66.304
06/23/2011 10:33:36	5.258	13.612	83.304	66.304
06/23/2011 10:33:46	5.306	13.542	83.304	66.304
06/23/2011 10:33:56	5.35	13.509	83.304	66.304
06/23/2011 10:34:06	5.332	13.608	83.304	66.201
06/23/2011 10:34:16	5.299	13.579	83.304	66.201
06/23/2011 10:34:26	5.299	13.594	83.304	66.201
06/23/2011 10:34:36	5.335	13.542	83.304	66.201
06/23/2011 10:34:46	5.368	13.535	83.304	66.201
06/23/2011 10:34:56	5.346	13.564	83.304	66.004
06/23/2011 10:35:06	5.288	13.656	83.103	66.004
06/23/2011 10:35:16	5.244	13.667	82.905	66.004
06/23/2011 10:35:26	5.233	13.648	82.905	66.004
06/23/2011 10:35:36	5.244	13.634	83.103	66.304
06/23/2011 10:35:46	5.262	13.627	83.103	66.201
06/23/2011 10:35:56	5.273	13.623	83.103	66.201
06/23/2011 10:36:06	5.269	13.605	83.103	66.201
06/23/2011 10:36:16	5.328	13.524	82.905	66.201
06/23/2011 10:36:26	5.372	13.561	83.103	66.004
06/23/2011 10:36:36	5.35	13.542	82.905	66.201
06/23/2011 10:36:46	5.332	13.583	82.905	66.201
06/23/2011 10:36:56	5.321	13.594	82.905	66.201
06/23/2011 10:37:06	5.313	13.597	82.905	66.004
06/23/2011 10:37:16	5.346	13.517	83.103	66.004
06/23/2011 10:37:26	5.368	13.506	83.304	66.201
06/23/2011 10:37:36	5.354	13.575	82.905	66.201
06/23/2011 10:37:46	5.313	13.597	82.905	66.201
06/23/2011 10:37:56	5.273	13.608	82.905	66.201
06/23/2011 10:38:06	5.291	13.583	82.905	66.201
06/23/2011 10:38:16	5.335	13.495	82.703	66.201
06/23/2011 10:38:26	5.368	13.539	82.905	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 10:38:36	5.317	13.634	82.905	66.201
06/23/2011 10:38:46	5.251	13.605	82.905	66.201
06/23/2011 10:38:56	5.277	13.605	82.905	66.201
06/23/2011 10:39:06	5.277	13.634	83.103	66.201
06/23/2011 10:39:16	5.284	13.579	82.905	66.201
06/23/2011 10:39:26	5.291	13.594	82.905	66.201
06/23/2011 10:39:36	5.288	13.583	83.103	66.201
06/23/2011 10:39:46	5.328	13.535	83.304	66.304
06/23/2011 10:39:56	5.354	13.535	83.304	66.304
06/23/2011 10:40:06	5.343	13.586	83.304	66.201
06/23/2011 10:40:16	5.28	13.627	83.103	66.304
06/23/2011 10:40:26	5.225	13.689	82.905	66.304
06/23/2011 10:40:36	5.2	13.703	82.905	66.201
06/23/2011 10:40:46	5.222	13.634	83.103	66.201
06/23/2011 10:40:56	5.269	13.612	83.103	66.201
06/23/2011 10:41:06	5.288	13.627	82.905	66.004
06/23/2011 10:41:16	5.258	13.634	82.905	66.004
06/23/2011 10:41:26	5.244	13.619	82.905	66.201
06/23/2011 10:41:36	5.244	13.663	82.905	66.201
06/23/2011 10:41:46	5.214	13.696	83.103	66.201
06/23/2011 10:41:56	5.2	13.692	83.103	66.201
06/23/2011 10:42:06	5.185	13.729	83.103	66.201
06/23/2011 10:42:16	5.163	13.755	82.905	66.201
06/23/2011 10:42:26	5.145	13.744	83.103	66.201
06/23/2011 10:42:36	5.145	13.758	83.304	66.201
06/23/2011 10:42:46	5.17	13.67	83.304	66.201
06/23/2011 10:42:56	5.247	13.612	83.304	66.004
06/23/2011 10:43:06	5.28	13.616	83.304	66.201
06/23/2011 10:43:16	5.266	13.63	83.103	66.201
06/23/2011 10:43:26	5.251	13.638	82.905	66.201
06/23/2011 10:43:36	5.24	13.7	82.905	66.201
06/23/2011 10:43:46	5.2	13.714	82.905	66.201
06/23/2011 10:43:56	5.145	13.769	83.103	66.201
06/23/2011 10:44:06	5.145	13.696	83.103	66.004
06/23/2011 10:44:16	5.196	13.659	83.103	66.004
06/23/2011 10:44:26	5.262	13.59	83.103	66.004
06/23/2011 10:44:36	5.273	13.627	83.103	66.004
06/23/2011 10:44:46	5.262	13.623	83.304	66.201
06/23/2011 10:44:56	5.288	13.579	83.304	66.201
06/23/2011 10:45:06	5.288	13.627	83.304	66.201
06/23/2011 10:45:16	5.222	13.67	83.304	66.201
06/23/2011 10:45:26	5.229	13.634	83.304	66.201
06/23/2011 10:45:36	5.251	13.689	83.304	66.201
06/23/2011 10:45:46	5.2	13.733	83.304	66.004
06/23/2011 10:45:56	5.178	13.729	83.304	66.004
06/23/2011 10:46:06	5.185	13.681	83.304	66.004
06/23/2011 10:46:16	5.178	13.762	83.103	66.004
06/23/2011 10:46:26	5.112	13.784	83.304	66.004
06/23/2011 10:46:36	5.163	13.659	83.103	66.004
06/23/2011 10:46:46	5.247	13.648	83.103	66.004
06/23/2011 10:46:56	5.218	13.67	83.103	66.201
06/23/2011 10:47:06	5.218	13.663	82.905	66.201
06/23/2011 10:47:16	5.218	13.7	83.103	66.004
06/23/2011 10:47:26	5.218	13.648	83.304	66.004
06/23/2011 10:47:36	5.207	13.762	83.403	66.201
06/23/2011 10:47:46	5.141	13.755	83.403	66.201
06/23/2011 10:47:56	5.167	13.689	83.304	66.201
06/23/2011 10:48:06	5.218	13.681	83.403	66.201
06/23/2011 10:48:16	5.233	13.656	83.403	66.201
06/23/2011 10:48:26	5.255	13.656	83.403	66.201
06/23/2011 10:48:36	5.222	13.707	83.304	66.004
06/23/2011 10:48:46	5.196	13.7	83.304	66.201
06/23/2011 10:48:56	5.214	13.652	83.304	66.201
06/23/2011 10:49:06	5.277	13.561	83.304	66.201
06/23/2011 10:49:16	5.277	13.681	83.304	66.201
06/23/2011 10:49:26	5.211	13.7	83.304	66.201
06/23/2011 10:49:36	5.207	13.656	83.304	66.201

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 10:49:46	5.225	13.627	83.304	66.004
06/23/2011 10:49:56	5.251	13.656	83.403	66.201
06/23/2011 10:50:06	5.251	13.63	83.403	66.201
06/23/2011 10:50:16	5.214	13.711	83.403	66.201
06/23/2011 10:50:26	5.141	13.773	83.403	66.201
06/23/2011 10:50:36	5.105	13.777	83.403	66.201
06/23/2011 10:50:46	5.13	13.733	83.304	66.304
06/23/2011 10:50:56	5.192	13.67	83.304	66.201
06/23/2011 10:51:06	5.247	13.623	83.304	66.201
06/23/2011 10:51:16	5.255	13.638	83.304	66.201
06/23/2011 10:51:26	5.225	13.703	83.304	66.201
06/23/2011 10:51:36	5.192	13.703	83.304	66.201
06/23/2011 10:51:46	5.211	13.711	83.304	66.201
06/23/2011 10:51:56	5.207	13.667	83.304	66.201
06/23/2011 10:52:06	5.222	13.685	83.103	66.201
06/23/2011 10:52:16	5.233	13.641	83.304	66.201
06/23/2011 10:52:26	5.255	13.678	83.103	66.201
06/23/2011 10:52:36	5.236	13.674	83.304	66.201
06/23/2011 10:52:46	5.233	13.674	83.304	66.201
06/23/2011 10:52:56	5.258	13.627	83.304	66.201
06/23/2011 10:53:06	5.28	13.627	83.304	66.201
06/23/2011 10:53:16	5.273	13.652	83.304	66.201
06/23/2011 10:53:26	5.277	13.627	83.304	66.201
06/23/2011 10:53:36	5.321	13.564	83.304	66.201
06/23/2011 10:53:46	5.343	13.568	83.304	66.201
06/23/2011 10:53:56	5.328	13.583	83.304	66.201
06/23/2011 10:54:06	5.306	13.575	83.304	66.201
06/23/2011 10:54:16	5.321	13.572	83.403	66.201
06/23/2011 10:54:26	5.302	13.619	83.304	66.201
06/23/2011 10:54:36	5.277	13.641	83.403	66.201
06/23/2011 10:54:46	5.24	13.674	83.403	66.201
06/23/2011 10:54:56	5.2	13.689	83.403	66.201
06/23/2011 10:55:06	5.174	13.718	83.304	66.201
06/23/2011 10:55:16	5.192	13.667	83.103	66.201
06/23/2011 10:55:26	5.203	13.692	83.304	66.201
06/23/2011 10:55:36	5.203	13.678	83.103	66.304
06/23/2011 10:55:46	5.218	13.638	83.304	66.201
06/23/2011 10:55:56	5.269	13.627	83.304	66.201
06/23/2011 10:56:06	5.284	13.605	83.304	66.201
06/23/2011 10:56:16	5.28	13.619	83.304	66.304
06/23/2011 10:56:26	5.31	13.539	83.403	66.304
06/23/2011 10:56:36	5.357	13.557	83.802	66.201
06/23/2011 10:56:46	5.332	13.594	83.604	66.201
06/23/2011 10:56:56	5.288	13.619	83.802	66.201
06/23/2011 10:57:06	5.277	13.608	83.802	66.201
06/23/2011 10:57:16	5.262	13.648	83.802	66.201
06/23/2011 10:57:26	5.214	13.692	83.604	66.201
06/23/2011 10:57:36	5.178	13.736	83.604	66.201
06/23/2011 10:57:46	5.13	13.766	83.604	66.201
06/23/2011 10:57:56	5.134	13.725	83.403	66.201
06/23/2011 10:58:06	5.163	13.711	83.304	66.201
06/23/2011 10:58:16	5.17	13.714	83.403	66.201
06/23/2011 10:58:26	5.159	13.736	83.403	66.201
06/23/2011 10:58:36	5.156	13.725	83.604	66.304
06/23/2011 10:58:46	5.159	13.692	83.304	66.201
06/23/2011 10:58:56	5.189	13.689	83.304	66.201
06/23/2011 10:59:06	5.203	13.696	83.802	66.201
06/23/2011 10:59:16	5.189	13.7	83.403	66.201
06/23/2011 10:59:26	5.189	13.663	83.403	66.201
06/23/2011 10:59:36	5.214	13.663	83.403	66.304
06/23/2011 10:59:46	5.24	13.627	83.304	66.201
06/23/2011 10:59:56	5.302	13.572	83.304	66.201
06/23/2011 11:00:06	5.295	13.623	83.403	66.201
06/23/2011 11:00:16	5.266	13.601	83.304	66.201
06/23/2011 11:00:26	5.302	13.546	83.403	66.201
06/23/2011 11:00:36	5.302	13.641	83.604	66.201
06/23/2011 11:00:46	5.244	13.678	83.604	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 11:00:56	5.192	13.707	83.604	66.201
06/23/2011 11:01:06	5.145	13.769	83.604	66.201
06/23/2011 11:01:16	5.13	13.74	83.403	66.201
06/23/2011 11:01:26	5.134	13.777	83.304	66.201
06/23/2011 11:01:36	5.123	13.725	83.304	66.201
06/23/2011 11:01:46	5.181	13.692	83.403	66.201
06/23/2011 11:01:56	5.229	13.623	83.403	66.201
06/23/2011 11:02:06	5.288	13.59	83.304	66.201
06/23/2011 11:02:16	5.277	13.656	83.304	66.201
06/23/2011 11:02:26	5.244	13.638	83.304	66.201
06/23/2011 11:02:36	5.222	13.67	83.304	66.304
06/23/2011 11:02:46	5.222	13.648	83.304	66.304
06/23/2011 11:02:56	5.262	13.616	83.403	66.201
06/23/2011 11:03:06	5.284	13.59	83.403	66.304
06/23/2011 11:03:16	5.295	13.608	83.304	66.304
06/23/2011 11:03:26	5.247	13.656	83.604	66.201
06/23/2011 11:03:36	5.207	13.707	83.304	66.201
06/23/2011 11:03:46	5.148	13.762	83.403	66.304
06/23/2011 11:03:56	5.145	13.747	83.403	66.304
06/23/2011 11:04:06	5.141	13.777	83.304	66.201
06/23/2011 11:04:16	5.148	13.74	83.304	66.304
06/23/2011 11:04:26	5.181	13.714	83.304	66.201
06/23/2011 11:04:36	5.178	13.722	83.304	66.201
06/23/2011 11:04:46	5.167	13.711	83.304	66.304
06/23/2011 11:04:56	5.181	13.707	82.905	66.201
06/23/2011 11:05:06	5.185	13.692	83.103	66.201
06/23/2011 11:05:16	5.181	13.707	83.304	66.201
06/23/2011 11:05:26	5.163	13.762	83.103	66.201
06/23/2011 11:05:36	5.152	13.725	82.905	66.201
06/23/2011 11:05:46	5.167	13.707	83.103	66.201
06/23/2011 11:05:56	5.189	13.663	83.304	66.201
06/23/2011 11:06:06	5.218	13.652	83.304	66.201
06/23/2011 11:06:16	5.222	13.638	83.304	66.201
06/23/2011 11:06:26	5.225	13.663	83.304	66.201
06/23/2011 11:06:36	5.2	13.667	83.304	66.201
06/23/2011 11:06:46	5.181	13.718	83.103	66.201
06/23/2011 11:06:56	5.159	13.725	83.304	66.201
06/23/2011 11:07:06	5.181	13.692	83.304	66.201
06/23/2011 11:07:16	5.214	13.652	83.304	66.004
06/23/2011 11:07:26	5.196	13.718	83.304	66.004
06/23/2011 11:07:36	5.181	13.685	83.403	66.304
06/23/2011 11:07:46	5.189	13.729	83.403	66.201
06/23/2011 11:07:56	5.163	13.696	83.304	66.201
06/23/2011 11:08:06	5.192	13.659	83.304	66.004
06/23/2011 11:08:16	5.244	13.597	82.905	66.004
06/23/2011 11:08:26	5.302	13.586	83.103	66.004
06/23/2011 11:08:36	5.31	13.59	83.103	66.004
06/23/2011 11:08:46	5.343	13.469	83.304	66.201
06/23/2011 11:08:56	5.387	13.55	83.103	66.201
06/23/2011 11:09:06	5.317	13.627	82.905	66.004
06/23/2011 11:09:16	5.269	13.616	82.905	66.004
06/23/2011 11:09:26	5.244	13.674	83.304	66.004
06/23/2011 11:09:36	5.211	13.681	83.304	66.004
06/23/2011 11:09:46	5.196	13.711	83.103	66.004
06/23/2011 11:09:56	5.203	13.689	83.103	66.004
06/23/2011 11:10:06	5.211	13.685	82.905	66.004
06/23/2011 11:10:16	5.181	13.74	82.905	66.004
06/23/2011 11:10:26	5.148	13.747	82.905	66.201
06/23/2011 11:10:36	5.126	13.736	82.905	66.004
06/23/2011 11:10:46	5.174	13.67	82.905	66.004
06/23/2011 11:10:56	5.269	13.601	82.905	66.004
06/23/2011 11:11:06	5.317	13.575	82.905	66.201
06/23/2011 11:11:16	5.313	13.597	83.103	66.201
06/23/2011 11:11:26	5.28	13.638	83.103	66.004
06/23/2011 11:11:36	5.244	13.652	83.304	66.201
06/23/2011 11:11:46	5.236	13.656	83.103	66.004
06/23/2011 11:11:56	5.247	13.619	83.103	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 11:12:06	5.332	13.531	83.304	66.201
06/23/2011 11:12:16	5.361	13.572	83.304	66.201
06/23/2011 11:12:26	5.284	13.656	82.905	66.004
06/23/2011 11:12:36	5.218	13.678	82.703	66.004
06/23/2011 11:12:46	5.2	13.681	82.905	66.004
06/23/2011 11:12:56	5.211	13.685	83.103	66.004
06/23/2011 11:13:06	5.211	13.685	82.905	66.004
06/23/2011 11:13:16	5.233	13.641	82.905	66.004
06/23/2011 11:13:26	5.266	13.638	83.103	66.004
06/23/2011 11:13:36	5.247	13.689	82.905	66.004
06/23/2011 11:13:46	5.196	13.685	82.905	66.004
06/23/2011 11:13:56	5.203	13.678	83.103	66.004
06/23/2011 11:14:06	5.251	13.601	83.103	66.004
06/23/2011 11:14:16	5.284	13.597	83.103	66.004
06/23/2011 11:14:26	5.28	13.63	83.103	66.004
06/23/2011 11:14:36	5.273	13.608	83.103	66.004
06/23/2011 11:14:46	5.288	13.619	82.905	66.004
06/23/2011 11:14:56	5.258	13.685	82.703	66.004
06/23/2011 11:15:06	5.236	13.648	82.905	66.004
06/23/2011 11:15:16	5.269	13.641	82.905	66.004
06/23/2011 11:15:26	5.266	13.638	83.103	66.201
06/23/2011 11:15:36	5.258	13.659	83.103	66.004
06/23/2011 11:15:46	5.214	13.722	83.304	66.201
06/23/2011 11:15:56	5.196	13.678	83.304	66.201
06/23/2011 11:16:06	5.211	13.678	83.304	66.004
06/23/2011 11:16:16	5.2	13.685	83.304	66.201
06/23/2011 11:16:26	5.207	13.638	82.905	66.004
06/23/2011 11:16:36	5.273	13.623	82.905	66.004
06/23/2011 11:16:46	5.288	13.597	83.103	66.004
06/23/2011 11:16:56	5.288	13.634	83.103	66.004
06/23/2011 11:17:06	5.218	13.707	83.103	66.004
06/23/2011 11:17:16	5.192	13.678	83.103	66.004
06/23/2011 11:17:26	5.2	13.696	83.103	66.004
06/23/2011 11:17:36	5.189	13.663	83.304	65.802
06/23/2011 11:17:46	5.229	13.659	83.103	65.802
06/23/2011 11:17:56	5.211	13.711	82.905	66.004
06/23/2011 11:18:06	5.196	13.656	83.103	66.004
06/23/2011 11:18:16	5.247	13.619	82.905	65.802
06/23/2011 11:18:26	5.269	13.572	82.703	65.802
06/23/2011 11:18:36	5.343	13.495	82.703	66.004
06/23/2011 11:18:46	5.387	13.506	82.905	66.004
06/23/2011 11:18:56	5.368	13.553	82.905	66.004
06/23/2011 11:19:06	5.31	13.616	82.703	66.004
06/23/2011 11:19:16	5.266	13.597	82.703	66.004
06/23/2011 11:19:26	5.295	13.564	83.304	66.004
06/23/2011 11:19:36	5.317	13.572	83.304	66.004
06/23/2011 11:19:46	5.302	13.597	83.304	66.004
06/23/2011 11:19:56	5.269	13.605	83.304	66.004
06/23/2011 11:20:06	5.269	13.634	82.905	66.004
06/23/2011 11:20:16	5.277	13.561	82.905	66.004
06/23/2011 11:20:26	5.343	13.498	82.703	66.004
06/23/2011 11:20:36	5.365	13.535	82.905	66.004
06/23/2011 11:20:46	5.328	13.597	82.905	66.004
06/23/2011 11:20:56	5.273	13.597	83.103	66.004
06/23/2011 11:21:06	5.262	13.638	82.905	66.004
06/23/2011 11:21:16	5.258	13.608	82.905	66.004
06/23/2011 11:21:26	5.258	13.627	82.703	66.004
06/23/2011 11:21:36	5.244	13.656	82.703	66.004
06/23/2011 11:21:46	5.247	13.638	82.703	66.004
06/23/2011 11:21:56	5.236	13.667	82.905	66.004
06/23/2011 11:22:06	5.214	13.7	82.703	66.004
06/23/2011 11:22:16	5.218	13.667	82.703	66.004
06/23/2011 11:22:26	5.262	13.597	82.905	66.004
06/23/2011 11:22:36	5.302	13.59	83.103	66.004
06/23/2011 11:22:46	5.324	13.572	82.905	65.802
06/23/2011 11:22:56	5.313	13.575	82.905	65.802
06/23/2011 11:23:06	5.28	13.608	82.905	65.802

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 11:23:16	5.28	13.586	82.905	66.004
06/23/2011 11:23:26	5.273	13.659	82.905	66.004
06/23/2011 11:23:36	5.222	13.689	83.304	66.201
06/23/2011 11:23:46	5.222	13.645	83.304	66.201
06/23/2011 11:23:56	5.255	13.63	83.304	66.201
06/23/2011 11:24:06	5.269	13.627	83.103	66.304
06/23/2011 11:24:16	5.28	13.601	83.103	66.201
06/23/2011 11:24:26	5.302	13.601	83.103	66.201
06/23/2011 11:24:36	5.273	13.605	83.103	66.201
06/23/2011 11:24:46	5.255	13.652	83.103	66.201
06/23/2011 11:24:56	5.24	13.648	82.703	66.004
06/23/2011 11:25:06	5.255	13.645	82.703	66.004
06/23/2011 11:25:16	5.262	13.612	82.703	66.004
06/23/2011 11:25:26	5.244	13.663	82.905	66.004
06/23/2011 11:25:36	5.203	13.696	83.103	66.004
06/23/2011 11:25:46	5.214	13.659	83.103	66.004
06/23/2011 11:25:56	5.255	13.63	82.703	65.802
06/23/2011 11:26:06	5.236	13.678	82.703	66.004
06/23/2011 11:26:16	5.218	13.689	82.502	65.802
06/23/2011 11:26:26	5.214	13.67	82.502	65.802
06/23/2011 11:26:36	5.24	13.601	82.703	65.802
06/23/2011 11:26:46	5.277	13.627	82.502	65.802
06/23/2011 11:26:56	5.266	13.63	82.502	65.802
06/23/2011 11:27:06	5.258	13.656	82.403	65.802
06/23/2011 11:27:16	5.225	13.674	82.502	65.802
06/23/2011 11:27:26	5.192	13.747	82.502	65.802
06/23/2011 11:27:36	5.189	13.678	82.703	66.004
06/23/2011 11:27:46	5.251	13.605	82.703	66.004
06/23/2011 11:27:56	5.291	13.623	82.703	66.004
06/23/2011 11:28:06	5.277	13.645	82.502	66.004
06/23/2011 11:28:16	5.247	13.641	82.703	65.802
06/23/2011 11:28:26	5.24	13.641	82.905	65.802
06/23/2011 11:28:36	5.222	13.692	82.905	65.802
06/23/2011 11:28:46	5.233	13.586	82.905	65.802
06/23/2011 11:28:56	5.31	13.553	83.103	66.004
06/23/2011 11:29:06	5.324	13.564	82.905	65.802
06/23/2011 11:29:16	5.302	13.601	82.905	65.802
06/23/2011 11:29:26	5.251	13.681	82.905	65.802
06/23/2011 11:29:36	5.178	13.747	82.905	65.802
06/23/2011 11:29:46	5.163	13.7	82.905	65.802
06/23/2011 11:29:56	5.222	13.619	82.905	65.802
06/23/2011 11:30:06	5.28	13.583	82.905	65.802
06/23/2011 11:30:16	5.302	13.579	82.905	65.802
06/23/2011 11:30:26	5.306	13.575	82.905	65.802
06/23/2011 11:30:36	5.313	13.579	82.905	65.802
06/23/2011 11:30:46	5.306	13.594	82.905	65.802
06/23/2011 11:30:56	5.273	13.623	82.905	65.802
06/23/2011 11:31:06	5.295	13.52	82.905	66.004
06/23/2011 11:31:16	5.398	13.469	82.905	66.004
06/23/2011 11:31:26	5.394	13.55	82.905	66.004
06/23/2011 11:31:36	5.299	13.656	82.703	66.004
06/23/2011 11:31:46	5.266	13.608	82.703	66.004
06/23/2011 11:31:56	5.306	13.561	82.703	66.004
06/23/2011 11:32:06	5.324	13.586	82.905	66.004
06/23/2011 11:32:16	5.313	13.557	82.905	66.004
06/23/2011 11:32:26	5.313	13.612	82.905	66.004
06/23/2011 11:32:36	5.313	13.59	82.905	66.004
06/23/2011 11:32:46	5.306	13.579	82.905	66.004
06/23/2011 11:32:56	5.306	13.59	82.905	66.004
06/23/2011 11:33:06	5.273	13.667	82.905	66.004
06/23/2011 11:33:16	5.244	13.641	82.905	66.004
06/23/2011 11:33:26	5.317	13.572	82.905	66.004
06/23/2011 11:33:36	5.332	13.59	82.905	66.004
06/23/2011 11:33:46	5.302	13.627	82.905	66.004
06/23/2011 11:33:56	5.306	13.572	83.103	66.004
06/23/2011 11:34:06	5.328	13.528	83.103	66.004
06/23/2011 11:34:16	5.354	13.524	83.103	66.004

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 11:34:26	5.339	13.579	82.905	66.004
06/23/2011 11:34:36	5.28	13.692	82.905	66.004
06/23/2011 11:34:46	5.196	13.725	83.103	66.004
06/23/2011 11:34:56	5.189	13.696	83.103	66.004
06/23/2011 11:35:06	5.229	13.648	83.103	66.004
06/23/2011 11:35:16	5.244	13.616	83.103	66.201
06/23/2011 11:35:26	5.28	13.627	83.103	66.201
06/23/2011 11:35:36	5.291	13.608	82.905	66.004
06/23/2011 11:35:46	5.31	13.579	83.103	66.201
06/23/2011 11:35:56	5.317	13.59	83.103	66.201
06/23/2011 11:36:06	5.324	13.583	83.103	66.201
06/23/2011 11:36:16	5.339	13.542	82.905	66.201
06/23/2011 11:36:26	5.317	13.627	83.103	66.201
06/23/2011 11:36:36	5.266	13.63	83.103	66.201
06/23/2011 11:36:46	5.31	13.583	83.103	66.201
06/23/2011 11:36:56	5.313	13.608	83.103	66.004
06/23/2011 11:37:06	5.284	13.616	83.103	66.004
06/23/2011 11:37:16	5.269	13.627	83.103	66.004
06/23/2011 11:37:26	5.288	13.601	83.103	66.004
06/23/2011 11:37:36	5.306	13.619	83.103	66.004
06/23/2011 11:37:46	5.288	13.619	83.103	66.004
06/23/2011 11:37:56	5.328	13.542	82.905	66.004
06/23/2011 11:38:06	5.339	13.586	82.905	66.004
06/23/2011 11:38:16	5.306	13.648	82.905	66.004
06/23/2011 11:38:26	5.28	13.608	82.905	66.004
06/23/2011 11:38:36	5.299	13.63	82.905	66.004
06/23/2011 11:38:46	5.244	13.703	82.905	66.201
06/23/2011 11:38:56	5.233	13.652	82.905	66.304
06/23/2011 11:39:06	5.247	13.674	82.905	66.304
06/23/2011 11:39:16	5.222	13.689	82.905	66.304
06/23/2011 11:39:26	5.2	13.711	82.905	66.201
06/23/2011 11:39:36	5.225	13.638	82.905	66.201
06/23/2011 11:39:46	5.244	13.674	82.905	66.201
06/23/2011 11:39:56	5.251	13.659	82.905	66.201
06/23/2011 11:40:06	5.24	13.656	83.103	66.304
06/23/2011 11:40:16	5.222	13.663	82.905	66.201
06/23/2011 11:40:26	5.247	13.623	82.905	66.201
06/23/2011 11:40:36	5.277	13.623	82.905	66.201
06/23/2011 11:40:46	5.277	13.634	83.103	66.201
06/23/2011 11:40:56	5.284	13.594	82.905	66.201
06/23/2011 11:41:06	5.288	13.616	83.103	66.304
06/23/2011 11:41:16	5.273	13.601	83.103	66.304
06/23/2011 11:41:26	5.28	13.616	82.905	66.201
06/23/2011 11:41:36	5.255	13.63	83.304	66.201
06/23/2011 11:41:46	5.233	13.685	83.304	66.201
06/23/2011 11:41:56	5.24	13.634	83.103	66.304
06/23/2011 11:42:06	5.233	13.685	82.905	66.304
06/23/2011 11:42:16	5.222	13.663	82.905	66.201
06/23/2011 11:42:26	5.218	13.681	82.905	66.201
06/23/2011 11:42:36	5.207	13.674	82.905	66.201
06/23/2011 11:42:46	5.225	13.703	82.905	66.201
06/23/2011 11:42:56	5.2	13.736	82.905	66.201
06/23/2011 11:43:06	5.192	13.7	82.905	66.201
06/23/2011 11:43:16	5.178	13.722	82.905	66.201
06/23/2011 11:43:26	5.189	13.678	83.103	66.304
06/23/2011 11:43:36	5.24	13.623	83.103	66.304
06/23/2011 11:43:46	5.273	13.627	83.103	66.304
06/23/2011 11:43:56	5.28	13.616	83.103	66.304
06/23/2011 11:44:06	5.262	13.663	82.905	66.304
06/23/2011 11:44:16	5.192	13.751	83.103	66.304
06/23/2011 11:44:26	5.159	13.755	83.103	66.304
06/23/2011 11:44:36	5.141	13.751	83.403	66.304
06/23/2011 11:44:46	5.174	13.681	83.103	66.304
06/23/2011 11:44:56	5.211	13.667	82.905	66.304
06/23/2011 11:45:06	5.214	13.692	82.905	66.304
06/23/2011 11:45:16	5.192	13.703	83.304	66.304
06/23/2011 11:45:26	5.181	13.755	83.304	66.304

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 11:45:36	5.189	13.659	83.403	66.304
06/23/2011 11:45:46	5.229	13.619	83.304	66.304
06/23/2011 11:45:56	5.266	13.645	83.304	66.304
06/23/2011 11:46:06	5.244	13.659	83.304	66.304
06/23/2011 11:46:16	5.203	13.722	83.304	66.304
06/23/2011 11:46:26	5.192	13.678	83.304	66.201
06/23/2011 11:46:36	5.225	13.634	83.304	66.304
06/23/2011 11:46:46	5.273	13.586	83.304	66.201
06/23/2011 11:46:56	5.295	13.594	83.304	66.201
06/23/2011 11:47:06	5.284	13.634	83.403	66.304
06/23/2011 11:47:16	5.247	13.674	83.604	66.304
06/23/2011 11:47:26	5.214	13.689	83.304	66.304
06/23/2011 11:47:36	5.189	13.678	83.103	66.201
06/23/2011 11:47:46	5.196	13.685	83.304	66.201
06/23/2011 11:47:56	5.189	13.722	83.304	66.201
06/23/2011 11:48:06	5.211	13.648	83.304	66.201
06/23/2011 11:48:16	5.244	13.678	83.304	66.201
06/23/2011 11:48:26	5.196	13.718	83.304	66.304
06/23/2011 11:48:36	5.159	13.74	83.304	66.502
06/23/2011 11:48:46	5.17	13.692	83.304	66.502
06/23/2011 11:48:56	5.258	13.594	83.304	66.502
06/23/2011 11:49:06	5.299	13.645	83.304	66.502
06/23/2011 11:49:16	5.317	13.561	83.304	66.502
06/23/2011 11:49:26	5.335	13.572	83.304	66.502
06/23/2011 11:49:36	5.288	13.663	83.304	66.502
06/23/2011 11:49:46	5.247	13.652	83.304	66.304
06/23/2011 11:49:56	5.247	13.711	83.304	66.304
06/23/2011 11:50:06	5.251	13.627	83.304	66.304
06/23/2011 11:50:16	5.284	13.616	83.304	66.304
06/23/2011 11:50:26	5.317	13.557	83.304	66.304
06/23/2011 11:50:36	5.302	13.67	83.304	66.502
06/23/2011 11:50:46	5.244	13.674	83.403	66.502
06/23/2011 11:50:56	5.218	13.7	83.304	66.502
06/23/2011 11:51:06	5.233	13.634	83.304	66.304
06/23/2011 11:51:16	5.306	13.55	83.403	66.304
06/23/2011 11:51:26	5.368	13.495	83.304	66.304
06/23/2011 11:51:36	5.416	13.487	83.403	66.304
06/23/2011 11:51:46	5.43	13.469	83.604	66.304
06/23/2011 11:51:56	5.427	13.458	83.604	66.201
06/23/2011 11:52:06	5.43	13.458	83.304	66.304
06/23/2011 11:52:16	5.423	13.509	83.403	66.304
06/23/2011 11:52:26	5.376	13.52	83.604	66.304
06/23/2011 11:52:36	5.357	13.546	83.403	66.304
06/23/2011 11:52:46	5.313	13.616	83.403	66.304
06/23/2011 11:52:56	5.291	13.59	83.403	66.304
06/23/2011 11:53:06	5.288	13.583	83.802	66.304
06/23/2011 11:53:16	5.313	13.561	84.003	66.304
06/23/2011 11:53:26	5.343	13.572	83.802	66.304
06/23/2011 11:53:36	5.302	13.612	83.802	66.201
06/23/2011 11:53:46	5.306	13.553	83.604	66.201
06/23/2011 11:53:56	5.343	13.502	83.802	66.502
06/23/2011 11:54:06	5.372	13.535	83.802	66.502
06/23/2011 11:54:16	5.313	13.63	84.003	66.502
06/23/2011 11:54:26	5.295	13.557	84.003	66.502
06/23/2011 11:54:36	5.361	13.513	83.802	66.304
06/23/2011 11:54:46	5.398	13.491	83.604	66.502
06/23/2011 11:54:56	5.427	13.473	83.802	66.304
06/23/2011 11:55:06	5.427	13.48	83.802	66.304
06/23/2011 11:55:16	5.463	13.403	84.003	66.502
06/23/2011 11:55:26	5.441	13.52	84.205	66.502
06/23/2011 11:55:36	5.383	13.517	84.205	66.502
06/23/2011 11:55:46	5.398	13.495	84.205	66.304
06/23/2011 11:55:56	5.416	13.495	84.003	66.304
06/23/2011 11:56:06	5.408	13.487	84.304	66.502
06/23/2011 11:56:16	5.394	13.491	84.205	66.502
06/23/2011 11:56:26	5.387	13.495	84.205	66.502
06/23/2011 11:56:36	5.339	13.608	84.304	66.502

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 11:56:46	5.295	13.627	84.304	66.502
06/23/2011 11:56:56	5.302	13.586	84.205	66.703
06/23/2011 11:57:06	5.339	13.524	84.205	66.703
06/23/2011 11:57:16	5.35	13.557	84.205	66.703
06/23/2011 11:57:26	5.361	13.513	84.003	66.502
06/23/2011 11:57:36	5.401	13.484	84.003	66.502
06/23/2011 11:57:46	5.394	13.495	84.003	66.502
06/23/2011 11:57:56	5.368	13.561	84.003	66.502
06/23/2011 11:58:06	5.317	13.612	84.003	66.502
06/23/2011 11:58:16	5.317	13.553	84.205	66.502
06/23/2011 11:58:26	5.339	13.564	84.205	66.502
06/23/2011 11:58:36	5.335	13.568	84.304	66.703
06/23/2011 11:58:46	5.361	13.517	84.304	66.703
06/23/2011 11:58:56	5.408	13.473	84.205	66.703
06/23/2011 11:59:06	5.387	13.546	84.205	66.502
06/23/2011 11:59:16	5.354	13.539	84.205	66.502
06/23/2011 11:59:26	5.332	13.557	84.304	66.502
06/23/2011 11:59:36	5.335	13.561	84.205	66.502
06/23/2011 11:59:46	5.313	13.608	84.205	66.502
06/23/2011 11:59:56	5.288	13.605	84.205	66.502
06/23/2011 12:00:06	5.299	13.608	83.802	66.502
06/23/2011 12:00:16	5.288	13.623	84.003	66.502
06/23/2011 12:00:26	5.295	13.612	84.003	66.502
06/23/2011 12:00:36	5.302	13.568	84.205	66.502
06/23/2011 12:00:46	5.365	13.509	84.205	66.502
06/23/2011 12:00:56	5.449	13.407	84.205	66.502
06/23/2011 12:01:06	5.507	13.436	84.205	66.502
06/23/2011 12:01:16	5.504	13.407	84.205	66.502
06/23/2011 12:01:26	5.5	13.418	84.205	66.502
06/23/2011 12:01:36	5.463	13.473	84.205	66.502
06/23/2011 12:01:46	5.383	13.586	84.205	66.703
06/23/2011 12:01:56	5.313	13.634	84.304	66.502
06/23/2011 12:02:06	5.31	13.59	84.205	66.502
06/23/2011 12:02:16	5.332	13.568	84.205	66.703
06/23/2011 12:02:26	5.313	13.641	84.205	66.502
06/23/2011 12:02:36	5.288	13.579	84.205	66.502
06/23/2011 12:02:46	5.339	13.513	84.304	66.703
06/23/2011 12:02:56	5.383	13.48	84.205	66.703
06/23/2011 12:03:06	5.408	13.48	84.304	66.703
06/23/2011 12:03:16	5.387	13.546	84.205	66.703
06/23/2011 12:03:26	5.306	13.63	84.205	66.703
06/23/2011 12:03:36	5.247	13.612	84.003	66.703
06/23/2011 12:03:46	5.244	13.641	84.205	66.703
06/23/2011 12:03:56	5.251	13.616	84.205	66.502
06/23/2011 12:04:06	5.273	13.616	84.703	66.703
06/23/2011 12:04:16	5.277	13.605	84.304	66.703
06/23/2011 12:04:26	5.269	13.616	84.501	66.703
06/23/2011 12:04:36	5.266	13.608	84.703	66.703
06/23/2011 12:04:46	5.247	13.678	84.703	66.703
06/23/2011 12:04:56	5.181	13.703	84.703	66.703
06/23/2011 12:05:06	5.159	13.7	84.703	66.901
06/23/2011 12:05:16	5.156	13.751	84.501	66.703
06/23/2011 12:05:26	5.116	13.744	84.304	66.703
06/23/2011 12:05:36	5.163	13.627	84.205	66.703
06/23/2011 12:05:46	5.24	13.634	84.205	66.703
06/23/2011 12:05:56	5.225	13.659	84.205	66.703
06/23/2011 12:06:06	5.17	13.769	84.304	66.703
06/23/2011 12:06:16	5.075	13.854	84.501	66.703
06/23/2011 12:06:26	5.061	13.788	84.501	66.703
06/23/2011 12:06:36	5.097	13.744	84.304	66.703
06/23/2011 12:06:46	5.134	13.733	84.304	66.703
06/23/2011 12:06:56	5.137	13.758	84.304	66.703
06/23/2011 12:07:06	5.094	13.795	84.703	66.703
06/23/2011 12:07:16	5.046	13.85	84.501	66.703
06/23/2011 12:07:26	5.035	13.824	84.501	66.703
06/23/2011 12:07:36	5.075	13.755	84.703	66.703
06/23/2011 12:07:46	5.108	13.762	84.703	66.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 12:07:56	5.09	13.791	84.501	66.703
06/23/2011 12:08:06	5.039	13.865	84.304	66.703
06/23/2011 12:08:16	5.035	13.828	84.501	66.703
06/23/2011 12:08:26	5.075	13.758	84.703	66.901
06/23/2011 12:08:36	5.126	13.722	84.304	66.703
06/23/2011 12:08:46	5.196	13.667	84.205	66.703
06/23/2011 12:08:56	5.174	13.769	84.304	66.502
06/23/2011 12:09:06	5.097	13.773	84.501	66.502
06/23/2011 12:09:16	5.086	13.81	84.703	66.703
06/23/2011 12:09:26	5.101	13.74	84.703	66.703
06/23/2011 12:09:36	5.105	13.828	84.703	66.703
06/23/2011 12:09:46	5.061	13.828	84.703	66.703
06/23/2011 12:09:56	5.046	13.846	84.703	66.703
06/23/2011 12:10:06	5.061	13.813	84.703	66.703
06/23/2011 12:10:16	5.075	13.846	84.703	66.703
06/23/2011 12:10:26	5.079	13.78	84.703	66.703
06/23/2011 12:10:36	5.119	13.769	84.703	66.703
06/23/2011 12:10:46	5.123	13.766	84.703	66.703
06/23/2011 12:10:56	5.148	13.718	84.703	66.703
06/23/2011 12:11:06	5.189	13.678	84.703	66.901
06/23/2011 12:11:16	5.229	13.616	84.703	66.901
06/23/2011 12:11:26	5.251	13.652	84.501	66.901
06/23/2011 12:11:36	5.214	13.703	84.501	66.901
06/23/2011 12:11:46	5.156	13.773	84.304	66.901
06/23/2011 12:11:56	5.152	13.733	84.304	66.901
06/23/2011 12:12:06	5.163	13.74	84.703	66.901
06/23/2011 12:12:16	5.159	13.755	84.703	66.901
06/23/2011 12:12:26	5.134	13.806	84.703	66.901
06/23/2011 12:12:36	5.108	13.795	84.703	66.901
06/23/2011 12:12:46	5.097	13.802	84.501	66.901
06/23/2011 12:12:56	5.083	13.846	84.501	66.901
06/23/2011 12:13:06	5.101	13.766	84.501	66.901
06/23/2011 12:13:16	5.185	13.656	84.304	66.901
06/23/2011 12:13:26	5.273	13.619	84.501	66.901
06/23/2011 12:13:36	5.277	13.583	84.501	66.901
06/23/2011 12:13:46	5.269	13.634	84.501	66.901
06/23/2011 12:13:56	5.222	13.714	84.703	66.901
06/23/2011 12:14:06	5.196	13.692	84.703	66.901
06/23/2011 12:14:16	5.214	13.641	84.304	66.901
06/23/2011 12:14:26	5.24	13.659	84.205	66.703
06/23/2011 12:14:36	5.247	13.616	84.304	66.703
06/23/2011 12:14:46	5.277	13.623	84.501	66.901
06/23/2011 12:14:56	5.28	13.612	84.501	66.703
06/23/2011 12:15:06	5.317	13.557	84.304	66.703
06/23/2011 12:15:16	5.332	13.572	84.304	66.901
06/23/2011 12:15:26	5.339	13.531	84.205	66.703
06/23/2011 12:15:36	5.346	13.583	84.205	66.703
06/23/2011 12:15:46	5.299	13.63	84.205	66.703
06/23/2011 12:15:56	5.262	13.627	84.205	66.703
06/23/2011 12:16:06	5.266	13.612	84.205	66.703
06/23/2011 12:16:16	5.291	13.605	84.205	66.703
06/23/2011 12:16:26	5.313	13.553	84.205	66.703
06/23/2011 12:16:36	5.328	13.579	84.304	66.901
06/23/2011 12:16:46	5.302	13.63	84.501	67.102
06/23/2011 12:16:56	5.28	13.638	84.205	66.703
06/23/2011 12:17:06	5.324	13.52	84.205	66.703
06/23/2011 12:17:16	5.398	13.473	84.205	66.901
06/23/2011 12:17:26	5.427	13.506	84.205	66.901
06/23/2011 12:17:36	5.419	13.531	84.205	66.901
06/23/2011 12:17:46	5.35	13.601	84.501	66.901
06/23/2011 12:17:56	5.302	13.638	84.304	66.901
06/23/2011 12:18:06	5.258	13.627	84.205	66.901
06/23/2011 12:18:16	5.295	13.553	84.205	66.901
06/23/2011 12:18:26	5.339	13.575	84.304	66.901
06/23/2011 12:18:36	5.332	13.59	84.304	66.901
06/23/2011 12:18:46	5.354	13.517	84.304	66.703
06/23/2011 12:18:56	5.39	13.535	84.304	66.901

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 12:19:06	5.372	13.55	84.205	66.901
06/23/2011 12:19:16	5.372	13.502	84.003	66.901
06/23/2011 12:19:26	5.379	13.528	84.003	66.901
06/23/2011 12:19:36	5.302	13.601	84.205	66.901
06/23/2011 12:19:46	5.291	13.546	84.304	66.703
06/23/2011 12:19:56	5.339	13.553	84.205	66.901
06/23/2011 12:20:06	5.328	13.597	84.205	66.901
06/23/2011 12:20:16	5.273	13.663	84.304	66.703
06/23/2011 12:20:26	5.266	13.612	84.205	66.703
06/23/2011 12:20:36	5.339	13.542	84.304	66.901
06/23/2011 12:20:46	5.354	13.583	84.501	66.901
06/23/2011 12:20:56	5.365	13.491	84.501	66.703
06/23/2011 12:21:06	5.43	13.458	84.304	66.703
06/23/2011 12:21:16	5.467	13.41	84.304	66.703
06/23/2011 12:21:26	5.478	13.436	84.304	66.703
06/23/2011 12:21:36	5.441	13.498	84.304	66.703
06/23/2011 12:21:46	5.416	13.469	84.205	66.703
06/23/2011 12:21:56	5.456	13.425	84.205	66.703
06/23/2011 12:22:06	5.496	13.363	84.205	66.703
06/23/2011 12:22:16	5.507	13.421	84.205	66.703
06/23/2011 12:22:26	5.449	13.513	84.304	66.703
06/23/2011 12:22:36	5.383	13.557	84.205	66.703
06/23/2011 12:22:46	5.408	13.425	84.304	66.703
06/23/2011 12:22:56	5.489	13.388	84.304	66.703
06/23/2011 12:23:06	5.5	13.451	84.205	66.703
06/23/2011 12:23:16	5.463	13.48	84.205	66.703
06/23/2011 12:23:26	5.419	13.498	84.003	66.502
06/23/2011 12:23:36	5.43	13.414	84.003	66.703
06/23/2011 12:23:46	5.5	13.41	84.205	66.703
06/23/2011 12:23:56	5.467	13.476	84.205	66.703
06/23/2011 12:24:06	5.434	13.436	84.205	66.703
06/23/2011 12:24:16	5.471	13.396	84.304	66.901
06/23/2011 12:24:26	5.496	13.377	84.304	66.901
06/23/2011 12:24:36	5.478	13.443	84.304	66.703
06/23/2011 12:24:46	5.46	13.377	84.501	66.703
06/23/2011 12:24:56	5.504	13.363	84.304	66.703
06/23/2011 12:25:06	5.544	13.352	84.501	66.703
06/23/2011 12:25:16	5.57	13.312	84.205	66.703
06/23/2011 12:25:26	5.599	13.301	84.205	66.703
06/23/2011 12:25:36	5.617	13.29	84.205	66.703
06/23/2011 12:25:46	5.599	13.326	84.304	66.703
06/23/2011 12:25:56	5.588	13.293	84.205	66.703
06/23/2011 12:26:06	5.595	13.312	84.501	66.703
06/23/2011 12:26:16	5.577	13.326	84.205	66.502
06/23/2011 12:26:26	5.559	13.374	84.205	66.703
06/23/2011 12:26:36	5.54	13.37	84.205	66.703
06/23/2011 12:26:46	5.518	13.363	84.304	66.703
06/23/2011 12:26:56	5.518	13.345	84.304	66.703
06/23/2011 12:27:06	5.555	13.279	84.205	66.703
06/23/2011 12:27:16	5.599	13.275	84.304	66.703
06/23/2011 12:27:26	5.588	13.326	84.205	66.703
06/23/2011 12:27:36	5.533	13.366	84.304	66.703
06/23/2011 12:27:46	5.5	13.359	84.205	66.703
06/23/2011 12:27:56	5.474	13.436	84.304	66.703
06/23/2011 12:28:06	5.43	13.425	84.304	66.703
06/23/2011 12:28:16	5.474	13.41	84.304	66.703
06/23/2011 12:28:26	5.507	13.381	84.501	66.703
06/23/2011 12:28:36	5.522	13.363	84.501	66.703
06/23/2011 12:28:46	5.548	13.366	84.501	66.703
06/23/2011 12:28:56	5.54	13.352	84.304	66.703
06/23/2011 12:29:06	5.555	13.345	84.304	66.703
06/23/2011 12:29:16	5.537	13.366	84.205	66.703
06/23/2011 12:29:26	5.551	13.348	84.304	66.703
06/23/2011 12:29:36	5.555	13.341	84.501	66.703
06/23/2011 12:29:46	5.515	13.403	84.501	66.703
06/23/2011 12:29:56	5.5	13.392	84.304	66.703
06/23/2011 12:30:06	5.507	13.388	84.304	66.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 12:30:16	5.522	13.341	84.304	66.703
06/23/2011 12:30:26	5.551	13.315	84.501	66.703
06/23/2011 12:30:36	5.526	13.396	84.501	66.703
06/23/2011 12:30:46	5.478	13.414	84.304	66.703
06/23/2011 12:30:56	5.5	13.359	84.205	66.703
06/23/2011 12:31:06	5.529	13.359	84.304	66.703
06/23/2011 12:31:16	5.533	13.356	84.304	66.703
06/23/2011 12:31:26	5.504	13.396	84.501	66.901
06/23/2011 12:31:36	5.474	13.388	84.501	66.901
06/23/2011 12:31:46	5.489	13.396	84.304	66.703
06/23/2011 12:31:56	5.467	13.421	84.501	66.703
06/23/2011 12:32:06	5.456	13.41	84.205	66.703
06/23/2011 12:32:16	5.507	13.359	84.304	66.703
06/23/2011 12:32:26	5.566	13.326	84.304	66.703
06/23/2011 12:32:36	5.529	13.414	84.703	66.901
06/23/2011 12:32:46	5.471	13.429	84.703	66.901
06/23/2011 12:32:56	5.482	13.374	84.703	66.901
06/23/2011 12:33:06	5.518	13.37	84.904	66.901
06/23/2011 12:33:16	5.511	13.399	84.703	66.901
06/23/2011 12:33:26	5.478	13.451	84.904	66.901
06/23/2011 12:33:36	5.438	13.473	84.904	66.901
06/23/2011 12:33:46	5.416	13.473	84.703	66.901
06/23/2011 12:33:56	5.445	13.421	84.205	66.703
06/23/2011 12:34:06	5.452	13.484	84.304	66.703
06/23/2011 12:34:16	5.408	13.509	84.304	66.703
06/23/2011 12:34:26	5.394	13.462	84.501	66.703
06/23/2011 12:34:36	5.408	13.451	84.703	66.901
06/23/2011 12:34:46	5.452	13.377	84.703	66.901
06/23/2011 12:34:56	5.485	13.392	84.703	66.901
06/23/2011 12:35:06	5.416	13.491	84.304	66.703
06/23/2011 12:35:16	5.361	13.531	84.304	66.703
06/23/2011 12:35:26	5.328	13.546	84.205	66.703
06/23/2011 12:35:36	5.35	13.506	84.304	66.703
06/23/2011 12:35:46	5.376	13.469	84.501	66.703
06/23/2011 12:35:56	5.445	13.414	84.501	66.703
06/23/2011 12:36:06	5.46	13.432	84.501	66.703
06/23/2011 12:36:16	5.427	13.451	84.501	66.703
06/23/2011 12:36:26	5.416	13.443	84.703	66.703
06/23/2011 12:36:36	5.423	13.473	84.904	66.901
06/23/2011 12:36:46	5.383	13.52	84.904	66.901
06/23/2011 12:36:56	5.339	13.575	84.904	66.901
06/23/2011 12:37:06	5.306	13.542	85.102	66.901
06/23/2011 12:37:16	5.328	13.564	84.904	66.901
06/23/2011 12:37:26	5.28	13.597	84.904	66.901
06/23/2011 12:37:36	5.31	13.531	84.703	66.901
06/23/2011 12:37:46	5.368	13.458	84.703	66.901
06/23/2011 12:37:56	5.383	13.517	84.703	66.901
06/23/2011 12:38:06	5.35	13.546	84.703	66.901
06/23/2011 12:38:16	5.332	13.568	84.904	66.703
06/23/2011 12:38:26	5.317	13.572	84.904	66.703
06/23/2011 12:38:36	5.313	13.579	84.904	66.703
06/23/2011 12:38:46	5.35	13.513	84.904	66.901
06/23/2011 12:38:56	5.387	13.484	84.703	67.102
06/23/2011 12:39:06	5.39	13.546	84.703	67.102
06/23/2011 12:39:16	5.343	13.561	84.904	67.102
06/23/2011 12:39:26	5.328	13.572	84.904	67.102
06/23/2011 12:39:36	5.335	13.531	84.904	67.102
06/23/2011 12:39:46	5.346	13.553	85.102	67.102
06/23/2011 12:39:56	5.376	13.465	85.102	66.901
06/23/2011 12:40:06	5.419	13.462	84.904	66.901
06/23/2011 12:40:16	5.361	13.568	84.904	66.901
06/23/2011 12:40:26	5.317	13.539	84.904	66.901
06/23/2011 12:40:36	5.335	13.506	84.904	66.901
06/23/2011 12:40:46	5.376	13.458	84.904	66.901
06/23/2011 12:40:56	5.416	13.487	84.904	66.901
06/23/2011 12:41:06	5.35	13.557	84.904	66.901
06/23/2011 12:41:16	5.324	13.535	84.904	67.102

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 12:41:26	5.313	13.572	85.102	67.102
06/23/2011 12:41:36	5.251	13.652	85.102	67.102
06/23/2011 12:41:46	5.225	13.645	85.102	67.102
06/23/2011 12:41:56	5.207	13.667	85.205	66.901
06/23/2011 12:42:06	5.2	13.674	85.102	66.901
06/23/2011 12:42:16	5.203	13.648	85.102	66.901
06/23/2011 12:42:26	5.225	13.641	85.102	66.901
06/23/2011 12:42:36	5.178	13.755	85.205	66.901
06/23/2011 12:42:46	5.116	13.791	85.205	66.901
06/23/2011 12:42:56	5.097	13.784	85.205	66.901
06/23/2011 12:43:06	5.145	13.681	85.102	67.102
06/23/2011 12:43:16	5.174	13.696	85.102	67.102
06/23/2011 12:43:26	5.152	13.7	85.102	66.901
06/23/2011 12:43:36	5.134	13.755	85.102	67.102
06/23/2011 12:43:46	5.105	13.729	85.102	67.102
06/23/2011 12:43:56	5.148	13.667	85.102	67.102
06/23/2011 12:44:06	5.207	13.678	85.205	67.102
06/23/2011 12:44:16	5.178	13.714	85.205	67.201
06/23/2011 12:44:26	5.123	13.769	85.102	67.201
06/23/2011 12:44:36	5.097	13.751	85.102	67.201
06/23/2011 12:44:46	5.126	13.744	85.102	67.201
06/23/2011 12:44:56	5.148	13.711	85.102	67.201
06/23/2011 12:45:06	5.163	13.711	85.102	67.201
06/23/2011 12:45:16	5.218	13.597	85.102	67.102
06/23/2011 12:45:26	5.317	13.517	85.102	67.102
06/23/2011 12:45:36	5.343	13.575	85.402	67.102
06/23/2011 12:45:46	5.262	13.692	85.402	67.102
06/23/2011 12:45:56	5.134	13.806	85.205	67.102
06/23/2011 12:46:06	5.083	13.788	85.102	67.102
06/23/2011 12:46:16	5.119	13.729	85.102	67.102
06/23/2011 12:46:26	5.141	13.729	85.205	67.102
06/23/2011 12:46:36	5.159	13.674	85.102	67.102
06/23/2011 12:46:46	5.214	13.641	85.102	67.102
06/23/2011 12:46:56	5.189	13.722	85.205	66.901
06/23/2011 12:47:06	5.105	13.799	85.402	67.102
06/23/2011 12:47:16	5.053	13.784	85.205	67.201
06/23/2011 12:47:26	5.075	13.791	85.102	67.102
06/23/2011 12:47:36	5.079	13.784	85.102	67.102
06/23/2011 12:47:46	5.083	13.777	85.402	66.901
06/23/2011 12:47:56	5.086	13.777	85.604	67.102
06/23/2011 12:48:06	5.116	13.707	85.402	67.102
06/23/2011 12:48:16	5.163	13.7	85.205	67.102
06/23/2011 12:48:26	5.185	13.7	85.205	67.201
06/23/2011 12:48:36	5.145	13.777	85.604	67.201
06/23/2011 12:48:46	5.086	13.806	85.604	67.201
06/23/2011 12:48:56	5.072	13.802	85.604	67.201
06/23/2011 12:49:06	5.112	13.74	85.604	67.201
06/23/2011 12:49:16	5.126	13.773	85.402	67.201
06/23/2011 12:49:26	5.148	13.681	85.402	67.201
06/23/2011 12:49:36	5.181	13.681	85.402	67.201
06/23/2011 12:49:46	5.137	13.773	85.402	67.201
06/23/2011 12:49:56	5.086	13.747	85.402	67.201
06/23/2011 12:50:06	5.116	13.755	85.402	67.201
06/23/2011 12:50:16	5.116	13.758	85.102	67.201
06/23/2011 12:50:26	5.108	13.744	85.205	67.201
06/23/2011 12:50:36	5.134	13.711	85.102	67.201
06/23/2011 12:50:46	5.123	13.799	85.102	67.201
06/23/2011 12:50:56	5.061	13.806	85.102	67.201
06/23/2011 12:51:06	5.05	13.802	85.102	67.201
06/23/2011 12:51:16	5.039	13.832	85.205	67.201
06/23/2011 12:51:26	5.02	13.85	85.205	67.201
06/23/2011 12:51:36	4.998	13.876	85.402	67.201
06/23/2011 12:51:46	4.984	13.868	85.205	67.201
06/23/2011 12:51:56	5.028	13.788	85.102	67.403
06/23/2011 12:52:06	5.046	13.821	85.205	67.403
06/23/2011 12:52:16	5.039	13.817	85.102	67.201
06/23/2011 12:52:26	5.009	13.861	85.205	67.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 12:52:36	4.973	13.883	85.102	67.201
06/23/2011 12:52:46	4.998	13.828	85.604	67.201
06/23/2011 12:52:56	5.02	13.846	85.604	67.201
06/23/2011 12:53:06	4.991	13.912	85.802	67.201
06/23/2011 12:53:16	4.965	13.894	85.802	67.201
06/23/2011 12:53:26	4.987	13.872	85.802	67.201
06/23/2011 12:53:36	4.991	13.901	85.604	67.201
06/23/2011 12:53:46	4.973	13.916	85.604	67.201
06/23/2011 12:53:56	4.973	13.839	85.205	67.201
06/23/2011 12:54:06	5.02	13.824	85.604	67.201
06/23/2011 12:54:16	5.009	13.868	85.604	67.201
06/23/2011 12:54:26	5.009	13.872	85.604	67.201
06/23/2011 12:54:36	4.991	13.879	85.604	67.201
06/23/2011 12:54:46	5.009	13.876	85.802	67.201
06/23/2011 12:54:56	5.006	13.879	85.802	67.201
06/23/2011 12:55:06	4.987	13.901	85.604	67.201
06/23/2011 12:55:16	4.973	13.912	86.003	67.201
06/23/2011 12:55:26	4.954	13.923	86.003	67.201
06/23/2011 12:55:36	4.962	13.887	85.802	67.201
06/23/2011 12:55:46	5.006	13.865	86.102	67.403
06/23/2011 12:55:56	5.031	13.832	85.604	67.102
06/23/2011 12:56:06	5.017	13.865	85.604	67.201
06/23/2011 12:56:16	4.998	13.898	85.604	67.201
06/23/2011 12:56:26	4.991	13.89	85.802	67.201
06/23/2011 12:56:36	4.998	13.876	85.604	67.201
06/23/2011 12:56:46	5.02	13.824	85.604	67.201
06/23/2011 12:56:56	5.024	13.901	85.604	67.201
06/23/2011 12:57:06	4.969	13.89	85.604	67.403
06/23/2011 12:57:16	4.954	13.941	85.604	67.201
06/23/2011 12:57:26	4.947	13.916	85.604	67.201
06/23/2011 12:57:36	4.984	13.85	85.604	67.201
06/23/2011 12:57:46	5.013	13.854	85.402	67.201
06/23/2011 12:57:56	4.987	13.883	85.604	67.403
06/23/2011 12:58:06	4.962	13.923	85.402	67.403
06/23/2011 12:58:16	4.925	13.96	85.205	67.403
06/23/2011 12:58:26	4.94	13.887	85.102	67.403
06/23/2011 12:58:36	4.965	13.898	85.205	67.403
06/23/2011 12:58:46	4.973	13.861	85.402	67.403
06/23/2011 12:58:56	5.013	13.846	85.604	67.403
06/23/2011 12:59:06	5.017	13.861	85.604	67.403
06/23/2011 12:59:16	4.984	13.901	85.402	67.201
06/23/2011 12:59:26	4.969	13.883	85.604	67.604
06/23/2011 12:59:36	5.006	13.857	85.802	67.604
06/23/2011 12:59:46	5.02	13.861	85.802	67.604
06/23/2011 12:59:56	5.035	13.835	85.802	67.604
06/23/2011 13:00:06	5.013	13.883	85.802	67.604
06/23/2011 13:00:16	5.002	13.861	85.604	67.604
06/23/2011 13:00:26	5.013	13.876	85.802	67.604
06/23/2011 13:00:36	4.998	13.879	85.802	67.802
06/23/2011 13:00:46	5.013	13.839	85.802	67.802
06/23/2011 13:00:56	5.035	13.846	85.604	67.802
06/23/2011 13:01:06	4.991	13.905	85.802	67.802
06/23/2011 13:01:16	4.954	13.916	85.802	67.802
06/23/2011 13:01:26	4.962	13.901	85.802	67.802
06/23/2011 13:01:36	4.973	13.916	85.604	67.604
06/23/2011 13:01:46	5.013	13.802	85.402	67.604
06/23/2011 13:01:56	5.072	13.813	85.402	67.604
06/23/2011 13:02:06	5.039	13.854	85.402	67.604
06/23/2011 13:02:16	4.973	13.905	85.802	67.802
06/23/2011 13:02:26	4.91	13.967	85.802	67.604
06/23/2011 13:02:36	4.925	13.927	85.802	67.604
06/23/2011 13:02:46	4.976	13.861	86.003	67.604
06/23/2011 13:02:56	5.039	13.813	86.003	67.604
06/23/2011 13:03:06	5.079	13.74	85.802	67.604
06/23/2011 13:03:16	5.072	13.828	85.802	67.604
06/23/2011 13:03:26	5.017	13.861	85.802	67.604
06/23/2011 13:03:36	4.965	13.956	85.604	67.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 13:03:46	4.899	13.978	85.402	67.403
06/23/2011 13:03:56	4.881	13.963	85.604	67.403
06/23/2011 13:04:06	4.965	13.806	85.604	67.403
06/23/2011 13:04:16	5.061	13.784	85.604	67.403
06/23/2011 13:04:26	5.072	13.817	85.802	67.604
06/23/2011 13:04:36	5.057	13.824	85.604	67.604
06/23/2011 13:04:46	5.057	13.806	85.604	67.604
06/23/2011 13:04:56	5.053	13.85	85.604	67.604
06/23/2011 13:05:06	5.039	13.817	85.802	67.604
06/23/2011 13:05:16	5.068	13.821	85.802	67.604
06/23/2011 13:05:26	5.031	13.879	85.604	67.604
06/23/2011 13:05:36	4.998	13.865	85.402	67.604
06/23/2011 13:05:46	5.035	13.821	85.205	67.403
06/23/2011 13:05:56	5.02	13.905	85.102	67.403
End Run 3				
Average	**5.219**	**13.671**	**83.736**	**66.409**
Maximum	**5.617**	**14.143**	**86.102**	**67.802**
Minimum	**4.771**	**13.275**	**82.403**	**65.604**
06/23/2011 13:06:06	5.017	13.813	85.402	67.403
06/23/2011 13:06:16	5.053	13.843	85.402	67.403
06/23/2011 13:06:26	5.031	13.872	85.402	67.403
06/23/2011 13:06:36	5.028	13.817	85.402	67.604
06/23/2011 13:06:46	5.035	13.861	85.402	67.802
06/23/2011 13:06:56	4.998	13.909	85.205	67.604
06/23/2011 13:07:06	4.969	13.901	85.205	67.403
06/23/2011 13:07:16	5.028	13.773	85.402	67.604
06/23/2011 13:07:26	5.108	13.747	85.402	67.604
06/23/2011 13:07:36	5.119	13.788	85.205	67.604
06/23/2011 13:07:46	5.042	13.861	85.604	67.604
06/23/2011 13:07:56	4.995	13.854	85.402	67.604
06/23/2011 13:08:06	4.969	13.941	85.604	67.604
06/23/2011 13:08:16	4.899	13.989	85.604	67.604
06/23/2011 13:08:26	4.866	13.989	85.604	67.604
06/23/2011 13:08:36	4.877	13.982	85.604	67.802
06/23/2011 13:08:46	4.914	13.916	85.402	67.802
06/23/2011 13:08:56	4.951	13.909	85.402	67.802
06/23/2011 13:09:06	4.98	13.876	85.402	67.802
06/23/2011 13:09:16	4.962	13.927	85.205	67.802
06/23/2011 13:09:26	4.976	13.861	85.402	67.604
06/23/2011 13:09:36	5.002	13.868	85.402	67.802
06/23/2011 13:09:46	4.984	13.861	85.402	67.802
06/23/2011 13:09:56	4.998	13.839	85.604	67.802
06/23/2011 13:10:06	5.013	13.876	85.402	67.802
06/23/2011 13:10:16	4.995	13.876	85.205	67.802
06/23/2011 13:10:26	5.233	10.543	85.102	67.802
Calibration Bias				
06/23/2011 13:10:36	2.915	0.351	85.205	68.003
06/23/2011 13:10:46	0.219	0.226	85.402	68.003
06/23/2011 13:10:56	0.054	0.186	85.205	68.102
06/23/2011 13:11:06	0.04	0.164	85.205	68.102
06/23/2011 13:11:16	0.036	0.15	85.205	68.102
06/23/2011 13:11:26	0.032	0.139	85.102	68.102
06/23/2011 13:11:36	0.029	0.135	85.102	68.102
06/23/2011 13:11:46	0.029	0.128	85.102	68.102
06/23/2011 13:11:56	0.025	0.12	85.205	68.003
N2 Zero	**0.028**	**0.128**	**85.136**	**68.069**
06/23/2011 13:12:06	3.713	9.052	85.102	67.802
06/23/2011 13:12:16	10.213	9.807	85.102	67.802
06/23/2011 13:12:26	11.001	9.836	85.205	67.802
06/23/2011 13:12:36	11.034	9.847	85.205	67.802
06/23/2011 13:12:46	11.045	9.858	85.102	67.604
06/23/2011 13:12:56	11.052	9.865	85.102	67.604
06/23/2011 13:13:06	11.056	9.862	85.102	67.604
11.1% O2/9.74% CO2 Mid	**11.051**	**9.862**	**85.102**	**67.604**
06/23/2011 13:13:16	10.532	11.356	85.205	67.604
06/23/2011 13:13:26	6.969	13.689	85.205	67.802

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 13:13:36	5.178	13.773	85.102	67.802
06/23/2011 13:13:46	5.046	13.835	85.205	67.802
06/23/2011 13:13:56	5.017	13.832	85.205	67.802
06/23/2011 13:14:06	5.046	13.744	85.205	67.802
06/23/2011 13:14:16	5.13	13.703	85.205	67.802
06/23/2011 13:14:26	5.145	13.729	85.205	67.604
06/23/2011 13:14:36	5.112	13.762	85.205	67.604
06/23/2011 13:14:46	5.112	13.725	85.604	67.604
06/23/2011 13:14:56	5.145	13.692	85.604	67.604
06/23/2011 13:15:06	5.181	13.674	85.604	67.604
06/23/2011 13:15:16	5.167	13.744	85.205	67.604
06/23/2011 13:15:26	5.13	13.747	85.205	67.604
06/23/2011 13:15:36	5.163	13.663	85.102	67.604
06/23/2011 13:15:46	5.196	13.674	85.102	67.604
06/23/2011 13:15:56	5.17	13.729	85.102	67.604
06/23/2011 13:16:06	5.116	13.78	85.102	67.604
06/23/2011 13:16:16	5.072	13.832	85.102	67.604
06/23/2011 13:16:26	5.046	13.791	85.402	67.604
06/23/2011 13:16:36	5.119	13.714	85.402	67.604
06/23/2011 13:16:46	5.181	13.696	85.402	67.403
06/23/2011 13:16:56	5.222	13.652	85.402	67.403
06/23/2011 13:17:06	5.233	13.648	85.205	67.403
06/23/2011 13:17:16	5.207	13.707	85.102	67.201
06/23/2011 13:17:26	5.145	13.747	85.205	67.201
06/23/2011 13:17:36	5.134	13.725	85.402	67.403
06/23/2011 13:17:46	5.148	13.733	85.402	67.403
06/23/2011 13:17:56	5.156	13.703	85.402	67.403
06/23/2011 13:18:06	5.192	13.67	85.402	67.403
06/23/2011 13:18:16	5.178	13.689	85.402	67.403
06/23/2011 13:18:26	5.145	13.718	85.402	67.403
06/23/2011 13:18:36	5.137	13.744	85.402	67.201
06/23/2011 13:18:46	5.126	13.678	85.402	67.403
06/23/2011 13:18:56	5.145	13.696	85.604	67.201
06/23/2011 13:19:06	5.152	13.707	85.802	67.201
06/23/2011 13:19:16	5.156	13.678	85.604	67.201
06/23/2011 13:19:26	5.207	13.627	85.402	67.201
06/23/2011 13:19:36	5.211	13.678	85.604	67.201
06/23/2011 13:19:46	5.163	13.696	85.402	67.201
06/23/2011 13:19:56	5.192	13.652	85.402	67.403
06/23/2011 13:20:06	5.236	13.616	85.402	67.403
06/23/2011 13:20:16	5.262	13.572	85.604	67.403
06/23/2011 13:20:26	5.244	13.663	85.604	67.403
06/23/2011 13:20:36	5.225	13.638	85.402	67.403
06/23/2011 13:20:46	5.222	13.674	85.604	67.403
06/23/2011 13:20:56	5.203	13.663	85.402	67.403
06/23/2011 13:21:06	5.2	13.634	85.402	67.403
06/23/2011 13:21:16	5.2	13.667	85.402	67.403
06/23/2011 13:21:26	5.178	13.714	85.205	67.403
06/23/2011 13:21:36	5.181	13.659	85.205	67.403
06/23/2011 13:21:46	5.203	13.648	85.205	67.403
06/23/2011 13:21:56	5.258	13.542	85.402	67.403
06/23/2011 13:22:06	5.306	13.605	85.205	67.403
06/23/2011 13:22:16	5.269	13.623	85.205	67.201
06/23/2011 13:22:26	5.244	13.645	85.102	67.201
06/23/2011 13:22:36	5.262	13.605	85.604	67.403
06/23/2011 13:22:46	5.299	13.553	85.604	67.403
06/23/2011 13:22:56	5.31	13.616	85.802	67.403
06/23/2011 13:23:06	5.225	13.692	85.604	67.403
06/23/2011 13:23:16	5.214	13.601	85.604	67.403
06/23/2011 13:23:26	5.284	13.583	85.604	67.403
06/23/2011 13:23:36	5.266	13.67	85.802	67.403
06/23/2011 13:23:46	5.211	13.659	85.802	67.403
06/23/2011 13:23:56	5.225	13.616	85.802	67.403
06/23/2011 13:24:06	5.236	13.616	85.604	67.403
06/23/2011 13:24:16	5.251	13.601	85.604	67.403
06/23/2011 13:24:26	5.266	13.59	85.604	67.403
06/23/2011 13:24:36	5.291	13.575	85.604	67.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 13:24:46	5.328	13.517	85.402	67.403
06/23/2011 13:24:56	5.313	13.579	85.102	67.403
06/23/2011 13:25:06	5.236	13.63	85.102	67.403
06/23/2011 13:25:16	5.251	13.561	85.102	67.403
06/23/2011 13:25:26	5.28	13.623	85.205	67.403
06/23/2011 13:25:36	5.266	13.601	85.205	67.403
06/23/2011 13:25:46	5.266	13.583	85.102	67.403
06/23/2011 13:25:56	5.269	13.605	85.205	67.604
06/23/2011 13:26:06	5.247	13.601	85.402	67.604
06/23/2011 13:26:16	5.233	13.645	85.402	67.604
06/23/2011 13:26:26	5.233	13.572	85.604	67.604
06/23/2011 13:26:36	5.332	13.462	85.402	67.604
06/23/2011 13:26:46	5.379	13.491	85.604	67.604
06/23/2011 13:26:56	5.365	13.517	85.604	67.604
06/23/2011 13:27:06	5.328	13.579	85.604	67.604
06/23/2011 13:27:16	5.262	13.634	85.802	67.604
06/23/2011 13:27:26	5.236	13.641	85.604	67.604
06/23/2011 13:27:36	5.233	13.645	85.604	67.604
06/23/2011 13:27:46	5.24	13.597	85.604	67.604
06/23/2011 13:27:56	5.262	13.619	85.604	67.604
06/23/2011 13:28:06	5.247	13.612	85.205	67.201
06/23/2011 13:28:16	5.255	13.612	85.102	67.201
06/23/2011 13:28:26	5.266	13.605	85.102	67.403
06/23/2011 13:28:36	5.258	13.634	85.102	67.403
06/23/2011 13:28:46	5.225	13.623	85.102	67.403
06/23/2011 13:28:56	5.247	13.601	85.205	67.403
06/23/2011 13:29:06	5.277	13.597	85.402	67.403
06/23/2011 13:29:16	5.291	13.583	85.402	67.403
06/23/2011 13:29:26	5.317	13.542	85.402	67.403
06/23/2011 13:29:36	5.346	13.513	85.402	67.403
06/23/2011 13:29:46	5.321	13.575	85.205	67.403
06/23/2011 13:29:56	5.288	13.564	85.205	67.403
06/23/2011 13:30:06	5.291	13.535	85.604	67.604
06/23/2011 13:30:16	5.291	13.627	85.604	67.604
06/23/2011 13:30:26	5.24	13.638	85.802	67.604
06/23/2011 13:30:36	5.266	13.564	85.802	67.604
06/23/2011 13:30:46	5.306	13.528	85.604	67.604
06/23/2011 13:30:56	5.346	13.473	85.802	67.604
06/23/2011 13:31:06	5.383	13.48	86.003	67.604
06/23/2011 13:31:16	5.39	13.502	85.802	67.604
06/23/2011 13:31:26	5.335	13.586	85.604	67.604
06/23/2011 13:31:36	5.229	13.729	85.802	67.604
06/23/2011 13:31:46	5.137	13.747	85.604	67.403
06/23/2011 13:31:56	5.119	13.744	85.604	67.403
06/23/2011 13:32:06	5.141	13.714	85.604	67.403
06/23/2011 13:32:16	5.214	13.608	85.402	67.403
06/23/2011 13:32:26	5.262	13.605	85.402	67.403
06/23/2011 13:32:36	5.262	13.586	85.604	67.403
06/23/2011 13:32:46	5.266	13.586	85.802	67.403
06/23/2011 13:32:56	5.277	13.586	85.802	67.403
06/23/2011 13:33:06	5.258	13.623	85.802	67.403
06/23/2011 13:33:16	5.225	13.692	85.802	67.403
06/23/2011 13:33:26	5.207	13.634	86.102	67.604
06/23/2011 13:33:36	5.214	13.645	86.003	67.604
06/23/2011 13:33:46	5.2	13.67	85.802	67.604
06/23/2011 13:33:56	5.211	13.627	85.205	67.403
06/23/2011 13:34:06	5.24	13.638	85.402	67.604
06/23/2011 13:34:16	5.247	13.597	85.604	67.403
06/23/2011 13:34:26	5.269	13.601	85.604	67.403
06/23/2011 13:34:36	5.255	13.623	85.802	67.403
06/23/2011 13:34:46	5.24	13.652	85.604	67.403
06/23/2011 13:34:56	5.214	13.663	85.604	67.403
06/23/2011 13:35:06	5.218	13.641	85.604	67.403
06/23/2011 13:35:16	5.233	13.656	85.604	67.403
06/23/2011 13:35:26	5.247	13.568	85.604	67.403
06/23/2011 13:35:36	5.269	13.616	85.604	67.403
06/23/2011 13:35:46	5.218	13.667	85.802	67.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 13:35:56	5.192	13.67	85.604	67.403
06/23/2011 13:36:06	5.196	13.685	85.604	67.403
06/23/2011 13:36:16	5.203	13.659	85.604	67.403
06/23/2011 13:36:26	5.233	13.623	85.205	67.403
06/23/2011 13:36:36	5.233	13.634	85.402	67.403
06/23/2011 13:36:46	5.225	13.656	85.402	67.403
06/23/2011 13:36:56	5.236	13.623	85.402	67.403
06/23/2011 13:37:06	5.262	13.59	85.402	67.403
06/23/2011 13:37:16	5.24	13.667	85.402	67.403
06/23/2011 13:37:26	5.229	13.634	85.402	67.403
06/23/2011 13:37:36	5.24	13.623	85.402	67.403
06/23/2011 13:37:46	5.273	13.564	85.604	67.403
06/23/2011 13:37:56	5.291	13.594	85.402	67.403
06/23/2011 13:38:06	5.24	13.678	85.802	67.604
06/23/2011 13:38:16	5.218	13.605	85.802	67.604
06/23/2011 13:38:26	5.284	13.561	85.604	67.403
06/23/2011 13:38:36	5.306	13.612	85.604	67.403
06/23/2011 13:38:46	5.284	13.583	85.802	67.403
06/23/2011 13:38:56	5.302	13.561	85.604	67.403
06/23/2011 13:39:06	5.291	13.623	85.604	67.403
06/23/2011 13:39:16	5.258	13.619	85.604	67.403
06/23/2011 13:39:26	5.273	13.583	85.604	67.403
06/23/2011 13:39:36	5.31	13.557	85.402	67.403
06/23/2011 13:39:46	5.313	13.575	85.402	67.403
06/23/2011 13:39:56	5.306	13.513	85.205	67.604
06/23/2011 13:40:06	5.332	13.546	85.205	67.604
06/23/2011 13:40:16	5.332	13.542	85.402	67.604
06/23/2011 13:40:26	5.317	13.59	85.205	67.604
06/23/2011 13:40:36	5.277	13.597	85.402	67.604
06/23/2011 13:40:46	5.288	13.575	85.604	67.604
06/23/2011 13:40:56	5.31	13.575	85.604	67.604
06/23/2011 13:41:06	5.299	13.616	85.402	67.604
06/23/2011 13:41:16	5.269	13.575	85.402	67.604
06/23/2011 13:41:26	5.28	13.579	85.205	67.604
06/23/2011 13:41:36	5.288	13.586	85.102	67.604
06/23/2011 13:41:46	5.295	13.561	85.205	67.604
06/23/2011 13:41:56	5.339	13.506	85.402	67.604
06/23/2011 13:42:06	5.35	13.528	85.402	67.604
06/23/2011 13:42:16	5.346	13.506	85.402	67.604
06/23/2011 13:42:26	5.335	13.557	85.402	67.604
06/23/2011 13:42:36	5.295	13.619	85.402	67.604
06/23/2011 13:42:46	5.284	13.561	85.402	67.604
06/23/2011 13:42:56	5.328	13.513	85.604	67.604
06/23/2011 13:43:06	5.354	13.52	85.402	67.604
06/23/2011 13:43:16	5.354	13.531	85.402	67.604
06/23/2011 13:43:26	5.328	13.568	85.604	67.604
06/23/2011 13:43:36	5.306	13.579	85.604	67.604
06/23/2011 13:43:46	5.244	13.652	85.402	67.604
06/23/2011 13:43:56	5.236	13.583	85.402	67.802
06/23/2011 13:44:06	5.284	13.608	85.604	67.604
06/23/2011 13:44:16	5.251	13.641	85.402	67.403
06/23/2011 13:44:26	5.203	13.678	85.205	67.403
06/23/2011 13:44:36	5.207	13.597	85.205	67.403
06/23/2011 13:44:46	5.313	13.487	85.205	67.604
06/23/2011 13:44:56	5.376	13.487	85.205	67.604
06/23/2011 13:45:06	5.372	13.502	85.205	67.604
06/23/2011 13:45:16	5.368	13.498	85.205	67.604
06/23/2011 13:45:26	5.361	13.524	85.205	67.604
06/23/2011 13:45:36	5.35	13.528	85.205	67.604
06/23/2011 13:45:46	5.299	13.583	85.205	67.604
06/23/2011 13:45:56	5.244	13.663	85.604	67.604
06/23/2011 13:46:06	5.214	13.616	85.802	67.604
06/23/2011 13:46:16	5.236	13.652	85.604	67.604
06/23/2011 13:46:26	5.207	13.674	85.604	67.604
06/23/2011 13:46:36	5.203	13.645	85.402	67.403
06/23/2011 13:46:46	5.211	13.638	85.402	67.403
06/23/2011 13:46:56	5.214	13.652	85.402	67.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 13:47:06	5.185	13.689	85.402	67.403
06/23/2011 13:47:16	5.185	13.641	85.205	67.604
06/23/2011 13:47:26	5.196	13.689	85.205	67.604
06/23/2011 13:47:36	5.152	13.744	85.205	67.604
06/23/2011 13:47:46	5.167	13.638	85.402	67.604
06/23/2011 13:47:56	5.229	13.597	85.402	67.604
06/23/2011 13:48:06	5.277	13.546	85.402	67.604
06/23/2011 13:48:16	5.284	13.63	85.402	67.604
06/23/2011 13:48:26	5.218	13.656	85.205	67.604
06/23/2011 13:48:36	5.189	13.714	85.402	67.604
06/23/2011 13:48:46	5.163	13.703	85.402	67.604
06/23/2011 13:48:56	5.174	13.67	85.402	67.604
06/23/2011 13:49:06	5.222	13.641	85.205	67.604
06/23/2011 13:49:16	5.255	13.601	85.402	67.403
06/23/2011 13:49:26	5.269	13.612	85.604	67.604
06/23/2011 13:49:36	5.233	13.638	85.802	67.604
06/23/2011 13:49:46	5.244	13.583	85.802	67.604
06/23/2011 13:49:56	5.288	13.575	86.003	67.604
06/23/2011 13:50:06	5.266	13.634	85.802	67.604
06/23/2011 13:50:16	5.225	13.663	85.604	67.604
06/23/2011 13:50:26	5.214	13.623	85.604	67.604
06/23/2011 13:50:36	5.203	13.663	86.003	67.802
06/23/2011 13:50:46	5.167	13.714	85.802	67.604
06/23/2011 13:50:56	5.156	13.681	85.604	67.604
06/23/2011 13:51:06	5.174	13.645	85.604	67.403
06/23/2011 13:51:16	5.233	13.586	85.604	67.403
06/23/2011 13:51:26	5.255	13.605	85.402	67.403
06/23/2011 13:51:36	5.255	13.59	85.402	67.403
06/23/2011 13:51:46	5.306	13.502	85.402	67.403
06/23/2011 13:51:56	5.376	13.509	85.205	67.403
06/23/2011 13:52:06	5.365	13.509	85.205	67.403
06/23/2011 13:52:16	5.354	13.509	85.402	67.403
06/23/2011 13:52:26	5.357	13.491	85.402	67.403
06/23/2011 13:52:36	5.317	13.59	85.205	67.403
06/23/2011 13:52:46	5.262	13.605	85.102	67.403
06/23/2011 13:52:56	5.225	13.678	85.102	67.403
06/23/2011 13:53:06	5.17	13.685	85.205	67.403
06/23/2011 13:53:16	5.178	13.685	85.402	67.403
06/23/2011 13:53:26	5.214	13.623	85.402	67.403
06/23/2011 13:53:36	5.284	13.546	85.604	67.403
06/23/2011 13:53:46	5.346	13.48	85.802	67.403
06/23/2011 13:53:56	5.376	13.506	85.604	67.403
06/23/2011 13:54:06	5.317	13.601	85.402	67.403
06/23/2011 13:54:16	5.24	13.623	85.604	67.604
06/23/2011 13:54:26	5.207	13.634	85.604	67.604
06/23/2011 13:54:36	5.218	13.652	85.604	67.604
06/23/2011 13:54:46	5.203	13.634	85.402	67.403
06/23/2011 13:54:56	5.225	13.612	85.402	67.403
06/23/2011 13:55:06	5.258	13.583	85.604	67.403
06/23/2011 13:55:16	5.247	13.612	85.604	67.403
06/23/2011 13:55:26	5.244	13.612	85.402	67.403
06/23/2011 13:55:36	5.218	13.663	85.205	67.403
06/23/2011 13:55:46	5.189	13.652	85.402	67.403
06/23/2011 13:55:56	5.218	13.648	85.205	67.604
06/23/2011 13:56:06	5.225	13.623	85.402	67.403
06/23/2011 13:56:16	5.222	13.627	85.102	67.403
06/23/2011 13:56:26	5.2	13.674	85.102	67.201
06/23/2011 13:56:36	5.185	13.689	85.102	67.201
06/23/2011 13:56:46	5.159	13.707	85.205	67.201
06/23/2011 13:56:56	5.181	13.634	85.402	67.201
06/23/2011 13:57:06	5.203	13.645	85.402	67.201
06/23/2011 13:57:16	5.189	13.648	85.402	67.403
06/23/2011 13:57:26	5.203	13.63	85.604	67.201
06/23/2011 13:57:36	5.225	13.605	85.402	67.403
06/23/2011 13:57:46	5.189	13.678	85.402	67.403
06/23/2011 13:57:56	5.137	13.751	85.205	67.403
06/23/2011 13:58:06	5.123	13.707	85.205	67.403

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 13:58:16	5.156	13.659	85.205	67.403
06/23/2011 13:58:26	5.181	13.678	85.102	67.403
06/23/2011 13:58:36	5.2	13.648	85.102	67.604
06/23/2011 13:58:46	5.192	13.659	85.102	67.403
06/23/2011 13:58:56	5.229	13.597	85.102	67.403
06/23/2011 13:59:06	5.269	13.561	85.102	67.403
06/23/2011 13:59:16	5.269	13.623	85.205	67.403
06/23/2011 13:59:26	5.244	13.641	85.205	67.403
06/23/2011 13:59:36	5.178	13.729	85.205	67.403
06/23/2011 13:59:46	5.126	13.736	85.402	67.604
06/23/2011 13:59:56	5.123	13.762	85.205	67.604
06/23/2011 14:00:06	5.116	13.744	85.102	67.604
06/23/2011 14:00:16	5.145	13.663	85.102	67.604
06/23/2011 14:00:26	5.163	13.707	85.205	67.604
06/23/2011 14:00:36	5.189	13.645	85.205	67.604
06/23/2011 14:00:46	5.211	13.638	85.102	67.604
06/23/2011 14:00:56	5.222	13.63	85.102	67.604
06/23/2011 14:01:06	5.229	13.616	85.205	67.403
06/23/2011 14:01:16	5.211	13.638	85.402	67.403
06/23/2011 14:01:26	5.211	13.634	85.205	67.403
06/23/2011 14:01:36	5.225	13.616	85.205	67.403
06/23/2011 14:01:46	5.244	13.59	85.205	67.403
06/23/2011 14:01:56	5.247	13.605	85.102	67.403
06/23/2011 14:02:06	5.236	13.634	85.102	67.403
06/23/2011 14:02:16	5.211	13.638	85.102	67.201
06/23/2011 14:02:26	5.17	13.718	85.102	67.201
06/23/2011 14:02:36	5.145	13.689	85.205	67.201
06/23/2011 14:02:46	5.203	13.583	85.102	67.201
06/23/2011 14:02:56	5.266	13.564	85.402	67.403
06/23/2011 14:03:06	5.277	13.616	85.205	67.403
06/23/2011 14:03:16	5.229	13.656	85.205	67.403
06/23/2011 14:03:26	5.233	13.605	85.402	67.403
06/23/2011 14:03:36	5.24	13.612	85.402	67.403
06/23/2011 14:03:46	5.247	13.601	85.205	67.403
06/23/2011 14:03:56	5.273	13.553	85.205	67.403
06/23/2011 14:04:06	5.313	13.524	85.205	67.403
06/23/2011 14:04:16	5.317	13.583	85.205	67.403
06/23/2011 14:04:26	5.31	13.502	85.205	67.403
06/23/2011 14:04:36	5.335	13.524	85.402	67.403
06/23/2011 14:04:46	5.343	13.517	85.402	67.403
06/23/2011 14:04:56	5.321	13.575	85.402	67.403
06/23/2011 14:05:06	5.269	13.59	85.102	67.201
06/23/2011 14:05:16	5.269	13.601	85.102	67.201
06/23/2011 14:05:26	5.244	13.619	85.205	67.403
06/23/2011 14:05:36	5.251	13.601	85.205	67.201
06/23/2011 14:05:46	5.277	13.572	85.205	67.201
06/23/2011 14:05:56	5.295	13.531	85.102	67.201
06/23/2011 14:06:06	5.299	13.564	85.102	67.403
06/23/2011 14:06:16	5.295	13.557	85.102	67.201
06/23/2011 14:06:26	5.317	13.546	85.102	67.201
06/23/2011 14:06:36	5.317	13.531	85.102	67.403
06/23/2011 14:06:46	5.35	13.476	85.102	67.403
06/23/2011 14:06:56	5.398	13.443	85.102	67.403
06/23/2011 14:07:06	5.398	13.491	85.102	67.403
06/23/2011 14:07:16	5.361	13.509	85.102	67.403
06/23/2011 14:07:26	5.313	13.55	85.102	67.403
06/23/2011 14:07:36	5.321	13.498	85.102	67.403
06/23/2011 14:07:46	5.339	13.506	85.102	67.403
06/23/2011 14:07:56	5.343	13.509	85.102	67.201
06/23/2011 14:08:06	5.339	13.498	85.102	67.201
06/23/2011 14:08:16	5.35	13.462	85.102	67.201
06/23/2011 14:08:26	5.401	13.41	85.102	67.201
06/23/2011 14:08:36	5.398	13.495	85.102	67.201
06/23/2011 14:08:46	5.335	13.528	84.904	67.201
06/23/2011 14:08:56	5.306	13.557	85.102	67.201
06/23/2011 14:09:06	5.306	13.513	84.904	67.201
06/23/2011 14:09:16	5.339	13.487	85.102	67.201

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 14:09:26	5.39	13.443	85.102	67.201
06/23/2011 14:09:36	5.394	13.509	85.102	67.201
06/23/2011 14:09:46	5.332	13.546	85.102	67.201
06/23/2011 14:09:56	5.317	13.528	84.904	67.201
06/23/2011 14:10:06	5.328	13.539	84.703	67.201
06/23/2011 14:10:16	5.324	13.568	85.102	67.201
06/23/2011 14:10:26	5.343	13.484	85.102	67.201
06/23/2011 14:10:36	5.372	13.469	85.102	67.201
06/23/2011 14:10:46	5.405	13.425	85.102	67.201
06/23/2011 14:10:56	5.438	13.396	85.102	67.201
06/23/2011 14:11:06	5.43	13.407	85.205	67.201
06/23/2011 14:11:16	5.43	13.447	85.102	67.201
06/23/2011 14:11:26	5.372	13.495	85.402	67.403
06/23/2011 14:11:36	5.376	13.473	85.205	67.102
06/23/2011 14:11:46	5.339	13.568	85.102	67.102
06/23/2011 14:11:56	5.306	13.535	85.102	67.201
06/23/2011 14:12:06	5.339	13.487	85.102	67.201
06/23/2011 14:12:16	5.372	13.48	84.904	67.201
06/23/2011 14:12:26	5.317	13.572	85.102	67.201
06/23/2011 14:12:36	5.295	13.517	85.102	67.201
06/23/2011 14:12:46	5.35	13.509	85.102	67.201
06/23/2011 14:12:56	5.357	13.517	85.102	67.201
06/23/2011 14:13:06	5.335	13.48	85.102	67.403
06/23/2011 14:13:16	5.379	13.414	85.102	67.403
06/23/2011 14:13:26	5.427	13.443	85.102	67.403
06/23/2011 14:13:36	5.372	13.506	85.102	67.403
06/23/2011 14:13:46	5.35	13.491	85.102	67.403
06/23/2011 14:13:56	5.372	13.469	85.205	67.604
06/23/2011 14:14:06	5.372	13.502	85.205	67.604
06/23/2011 14:14:16	5.361	13.498	85.205	67.403
06/23/2011 14:14:26	5.357	13.495	85.205	67.403
06/23/2011 14:14:36	5.335	13.535	85.205	67.403
06/23/2011 14:14:46	5.332	13.517	85.102	67.201
06/23/2011 14:14:56	5.361	13.498	85.102	67.201
06/23/2011 14:15:06	5.368	13.509	85.102	67.403
06/23/2011 14:15:16	5.372	13.484	85.102	67.403
06/23/2011 14:15:26	5.39	13.469	85.205	67.201
06/23/2011 14:15:36	5.438	13.414	85.402	67.201
06/23/2011 14:15:46	5.467	13.418	85.205	67.201
06/23/2011 14:15:56	5.474	13.381	85.102	67.201
06/23/2011 14:16:06	5.474	13.41	85.102	67.201
06/23/2011 14:16:16	5.46	13.436	85.102	67.201
06/23/2011 14:16:26	5.489	13.356	85.102	67.201
06/23/2011 14:16:36	5.548	13.345	85.205	67.201
06/23/2011 14:16:46	5.577	13.279	85.205	67.201
06/23/2011 14:16:56	5.559	13.345	85.205	67.201
06/23/2011 14:17:06	5.526	13.359	85.102	67.201
06/23/2011 14:17:16	5.559	13.312	85.205	67.201
06/23/2011 14:17:26	5.588	13.29	85.205	67.201
06/23/2011 14:17:36	5.555	13.345	85.402	67.201
06/23/2011 14:17:46	5.544	13.345	85.102	67.201
06/23/2011 14:17:56	5.577	13.271	85.102	67.102
06/23/2011 14:18:06	5.617	13.29	84.904	67.102
06/23/2011 14:18:16	5.599	13.279	84.904	67.102
06/23/2011 14:18:26	5.606	13.268	85.102	67.201
06/23/2011 14:18:36	5.573	13.352	85.102	67.201
06/23/2011 14:18:46	5.507	13.403	85.102	67.201
06/23/2011 14:18:56	5.504	13.377	84.904	67.201
06/23/2011 14:19:06	5.496	13.37	84.904	67.201
06/23/2011 14:19:16	5.493	13.418	85.102	67.201
06/23/2011 14:19:26	5.489	13.356	85.402	67.201
06/23/2011 14:19:36	5.522	13.345	85.205	67.201
06/23/2011 14:19:46	5.511	13.37	85.205	67.403
06/23/2011 14:19:56	5.533	13.33	85.205	67.403
06/23/2011 14:20:06	5.54	13.352	85.205	67.403
06/23/2011 14:20:16	5.533	13.334	85.102	67.201
06/23/2011 14:20:26	5.533	13.356	85.102	67.102

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 14:20:36	5.496	13.396	84.904	67.201
06/23/2011 14:20:46	5.485	13.399	84.904	67.201
06/23/2011 14:20:56	5.456	13.443	84.904	67.201
06/23/2011 14:21:06	5.441	13.44	84.904	67.201
06/23/2011 14:21:16	5.423	13.454	84.904	67.201
06/23/2011 14:21:26	5.412	13.458	84.904	67.201
06/23/2011 14:21:36	5.401	13.487	84.904	67.201
06/23/2011 14:21:46	5.405	13.425	85.102	67.201
06/23/2011 14:21:56	5.434	13.436	85.102	67.201
06/23/2011 14:22:06	5.423	13.429	85.102	67.201
06/23/2011 14:22:16	5.463	13.345	85.102	67.403
06/23/2011 14:22:26	5.482	13.396	85.102	67.201
06/23/2011 14:22:36	5.412	13.476	85.205	67.201
06/23/2011 14:22:46	5.313	13.557	85.205	67.201
06/23/2011 14:22:56	5.255	13.616	85.102	67.403
06/23/2011 14:23:06	5.255	13.517	85.102	67.403
06/23/2011 14:23:16	5.354	13.436	85.102	67.403
06/23/2011 14:23:26	5.379	13.462	85.102	67.403
06/23/2011 14:23:36	5.335	13.531	85.102	67.403
06/23/2011 14:23:46	5.284	13.572	85.102	67.403
06/23/2011 14:23:56	5.266	13.557	85.102	67.403
06/23/2011 14:24:06	5.277	13.572	85.102	67.201
06/23/2011 14:24:16	5.28	13.553	84.904	67.201
06/23/2011 14:24:26	5.332	13.469	84.904	67.201
06/23/2011 14:24:36	5.383	13.432	84.904	67.403
06/23/2011 14:24:46	5.383	13.498	85.102	67.403
06/23/2011 14:24:56	5.405	13.418	85.102	67.403
06/23/2011 14:25:06	5.43	13.447	84.904	67.403
06/23/2011 14:25:16	5.401	13.473	85.102	67.403
06/23/2011 14:25:26	5.383	13.495	85.102	67.201
06/23/2011 14:25:36	5.354	13.528	85.205	67.403
06/23/2011 14:25:46	5.302	13.579	85.205	67.403
06/23/2011 14:25:56	5.277	13.601	85.102	67.403
06/23/2011 14:26:06	5.277	13.539	85.402	67.403
06/23/2011 14:26:16	5.299	13.55	85.402	67.403
06/23/2011 14:26:26	5.28	13.601	85.205	67.403
06/23/2011 14:26:36	5.266	13.586	84.904	67.201
06/23/2011 14:26:46	5.244	13.623	84.904	67.201
06/23/2011 14:26:56	5.214	13.627	84.703	67.201
06/23/2011 14:27:06	5.273	13.542	84.904	67.201
06/23/2011 14:27:16	5.346	13.495	84.904	67.201
06/23/2011 14:27:26	5.335	13.55	84.904	67.201
06/23/2011 14:27:36	5.291	13.557	84.904	67.201
06/23/2011 14:27:46	5.324	13.491	84.904	67.201
06/23/2011 14:27:56	5.383	13.473	84.904	67.201
06/23/2011 14:28:06	5.394	13.462	84.904	67.403
06/23/2011 14:28:16	5.379	13.495	85.102	67.403
06/23/2011 14:28:26	5.343	13.568	84.904	67.201
06/23/2011 14:28:36	5.313	13.531	84.703	67.201
06/23/2011 14:28:46	5.335	13.502	84.703	67.201
06/23/2011 14:28:56	5.313	13.586	84.904	67.201
06/23/2011 14:29:06	5.28	13.564	84.703	67.201
06/23/2011 14:29:16	5.28	13.586	85.102	67.403
06/23/2011 14:29:26	5.266	13.586	84.703	67.201
06/23/2011 14:29:36	5.258	13.594	84.904	67.201
06/23/2011 14:29:46	5.244	13.608	84.904	67.201
06/23/2011 14:29:56	5.236	13.605	85.102	67.201
06/23/2011 14:30:06	5.258	13.572	85.402	67.201
06/23/2011 14:30:16	5.262	13.583	85.205	67.201
06/23/2011 14:30:26	5.229	13.612	85.102	67.201
06/23/2011 14:30:36	5.211	13.634	85.205	67.403
06/23/2011 14:30:46	5.203	13.652	85.205	67.403
06/23/2011 14:30:56	5.189	13.667	85.205	67.604
06/23/2011 14:31:06	5.218	13.627	85.402	67.604
06/23/2011 14:31:16	5.233	13.659	85.205	67.604
06/23/2011 14:31:26	5.218	13.645	85.402	67.604
06/23/2011 14:31:36	5.214	13.656	85.604	67.604

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 14:31:46	5.196	13.689	85.102	67.604
06/23/2011 14:31:56	5.207	13.627	84.904	67.403
06/23/2011 14:32:06	5.255	13.605	85.102	67.403
06/23/2011 14:32:16	5.236	13.634	85.205	67.201
06/23/2011 14:32:26	5.24	13.619	85.205	67.201
06/23/2011 14:32:36	5.251	13.619	85.402	67.403
06/23/2011 14:32:46	5.244	13.641	85.102	67.403
06/23/2011 14:32:56	5.222	13.645	85.205	67.403
06/23/2011 14:33:06	5.247	13.586	85.102	67.403
06/23/2011 14:33:16	5.31	13.542	85.402	67.403
06/23/2011 14:33:26	5.295	13.579	85.402	67.403
06/23/2011 14:33:36	5.258	13.627	85.205	67.403
06/23/2011 14:33:46	5.222	13.616	85.205	67.403
06/23/2011 14:33:56	5.211	13.648	85.205	67.403
06/23/2011 14:34:06	5.214	13.597	85.205	67.403
06/23/2011 14:34:16	5.222	13.623	84.904	67.403
06/23/2011 14:34:26	5.156	13.729	85.205	67.403
06/23/2011 14:34:36	5.101	13.744	85.205	67.403
06/23/2011 14:34:46	5.09	13.758	85.205	67.403
06/23/2011 14:34:56	5.09	13.725	85.205	67.403
06/23/2011 14:35:06	5.126	13.685	85.402	67.604
06/23/2011 14:35:16	5.167	13.659	85.205	67.403
06/23/2011 14:35:26	5.181	13.692	85.205	67.403
06/23/2011 14:35:36	5.13	13.722	85.205	67.201
06/23/2011 14:35:46	5.116	13.729	85.205	67.201
06/23/2011 14:35:56	5.119	13.718	85.205	67.201
06/23/2011 14:36:06	5.137	13.703	85.402	67.201
06/23/2011 14:36:16	5.134	13.711	85.102	67.102
06/23/2011 14:36:26	5.152	13.678	85.205	67.102
06/23/2011 14:36:36	5.148	13.736	85.205	67.201
06/23/2011 14:36:46	5.126	13.722	85.402	67.201
06/23/2011 14:36:56	5.108	13.769	85.402	67.201
06/23/2011 14:37:06	5.068	13.751	85.604	67.403
06/23/2011 14:37:16	5.075	13.755	85.402	67.201
06/23/2011 14:37:26	5.072	13.788	85.402	67.403
06/23/2011 14:37:36	5.068	13.766	85.205	67.403
06/23/2011 14:37:46	5.101	13.707	85.102	67.201
06/23/2011 14:37:56	5.148	13.674	85.205	67.201
06/23/2011 14:38:06	5.192	13.616	85.205	67.201
06/23/2011 14:38:16	5.247	13.579	85.402	67.403
06/23/2011 14:38:26	5.291	13.528	85.205	67.201
06/23/2011 14:38:36	5.299	13.579	85.102	67.201
06/23/2011 14:38:46	5.258	13.597	85.102	67.201
06/23/2011 14:38:56	5.222	13.67	84.904	67.201
06/23/2011 14:39:06	5.214	13.638	84.703	67.201
06/23/2011 14:39:16	5.251	13.608	84.904	67.403
06/23/2011 14:39:26	5.266	13.627	84.904	67.403
06/23/2011 14:39:36	5.277	13.601	85.205	67.604
06/23/2011 14:39:46	5.317	13.55	85.205	67.604
06/23/2011 14:39:56	5.361	13.491	85.402	67.604
06/23/2011 14:40:06	5.394	13.495	85.102	67.403
06/23/2011 14:40:16	5.434	13.396	85.102	67.403
06/23/2011 14:40:26	5.515	13.323	85.205	67.604
06/23/2011 14:40:36	5.551	13.348	85.205	67.604
06/23/2011 14:40:46	5.5	13.418	85.205	67.604
06/23/2011 14:40:56	5.452	13.41	85.205	67.403
06/23/2011 14:41:06	5.43	13.458	85.102	67.403
06/23/2011 14:41:16	5.405	13.476	85.102	67.403
06/23/2011 14:41:26	5.401	13.476	85.205	67.403
06/23/2011 14:41:36	5.379	13.539	85.205	67.403
06/23/2011 14:41:46	5.299	13.59	85.205	67.403
06/23/2011 14:41:56	5.229	13.641	85.205	67.403
06/23/2011 14:42:06	5.211	13.648	85.205	67.201
06/23/2011 14:42:16	5.214	13.619	85.402	67.403
06/23/2011 14:42:26	5.185	13.707	85.604	67.403
06/23/2011 14:42:36	5.101	13.773	85.205	67.201
06/23/2011 14:42:46	5.086	13.725	85.205	67.201

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 14:42:56	5.123	13.714	85.205	67.201
06/23/2011 14:43:06	5.134	13.744	85.402	67.201
06/23/2011 14:43:16	5.123	13.74	85.205	67.201
06/23/2011 14:43:26	5.105	13.722	85.205	67.201
06/23/2011 14:43:36	5.112	13.714	85.102	67.201
06/23/2011 14:43:46	5.148	13.667	85.402	67.403
06/23/2011 14:43:56	5.178	13.659	85.205	67.201
06/23/2011 14:44:06	5.185	13.667	85.402	67.201
06/23/2011 14:44:16	5.181	13.663	85.402	67.403
06/23/2011 14:44:26	5.141	13.733	85.402	67.403
06/23/2011 14:44:36	5.116	13.67	85.604	67.201
06/23/2011 14:44:46	5.134	13.718	85.604	67.201
06/23/2011 14:44:56	5.09	13.784	85.402	67.201
06/23/2011 14:45:06	5.057	13.762	85.402	67.403
06/23/2011 14:45:16	5.061	13.751	85.102	67.201
06/23/2011 14:45:26	5.057	13.777	85.102	67.201
06/23/2011 14:45:36	5.046	13.835	85.102	67.102
06/23/2011 14:45:46	5.024	13.828	85.102	67.102
06/23/2011 14:45:56	4.995	13.887	85.102	67.201
06/23/2011 14:46:06	4.954	13.865	84.904	67.201
06/23/2011 14:46:16	4.954	13.865	85.102	67.201
06/23/2011 14:46:26	5.017	13.791	85.102	67.201
06/23/2011 14:46:36	5.053	13.784	85.205	67.102
06/23/2011 14:46:46	5.031	13.813	85.205	67.201
06/23/2011 14:46:56	5.024	13.828	85.102	67.201
06/23/2011 14:47:06	4.995	13.887	84.904	67.201
06/23/2011 14:47:16	4.962	13.857	85.102	67.201
06/23/2011 14:47:26	4.995	13.802	85.102	67.201
06/23/2011 14:47:36	5.068	13.762	85.402	67.201
06/23/2011 14:47:46	5.116	13.7	85.402	67.201
06/23/2011 14:47:56	5.141	13.7	85.205	67.201
06/23/2011 14:48:06	5.141	13.74	85.102	67.201
06/23/2011 14:48:16	5.112	13.758	85.102	67.403
06/23/2011 14:48:26	5.108	13.744	85.205	67.403
06/23/2011 14:48:36	5.123	13.733	85.102	67.201
06/23/2011 14:48:46	5.174	13.67	85.102	67.201
06/23/2011 14:48:56	5.222	13.594	85.402	67.403
06/23/2011 14:49:06	5.233	13.67	85.102	67.201
06/23/2011 14:49:16	5.159	13.729	84.904	67.201
06/23/2011 14:49:26	5.116	13.744	85.102	67.201
06/23/2011 14:49:36	5.094	13.758	85.102	67.201
06/23/2011 14:49:46	5.086	13.758	85.102	67.201
06/23/2011 14:49:56	5.09	13.762	84.703	67.403
06/23/2011 14:50:06	5.108	13.744	84.703	67.403
06/23/2011 14:50:16	5.13	13.74	84.703	67.403
06/23/2011 14:50:26	5.145	13.729	84.703	67.201
06/23/2011 14:50:36	5.17	13.641	84.904	67.201
06/23/2011 14:50:46	5.181	13.714	85.102	67.201
06/23/2011 14:50:56	5.134	13.707	85.205	67.201
06/23/2011 14:51:06	5.156	13.685	85.102	67.201
06/23/2011 14:51:16	5.17	13.659	85.102	67.201
06/23/2011 14:51:26	5.181	13.692	84.904	67.201
06/23/2011 14:51:36	5.163	13.707	84.904	67.201
06/23/2011 14:51:46	5.148	13.718	84.904	67.201
06/23/2011 14:51:56	5.159	13.67	85.102	67.201
06/23/2011 14:52:06	5.163	13.729	85.102	67.201
06/23/2011 14:52:16	5.112	13.755	85.205	67.201
06/23/2011 14:52:26	5.097	13.758	84.904	67.201
06/23/2011 14:52:36	5.141	13.725	84.904	67.201
06/23/2011 14:52:46	5.156	13.7	84.703	67.201
06/23/2011 14:52:56	5.156	13.762	84.703	67.201
06/23/2011 14:53:06	5.156	13.696	84.703	67.201
06/23/2011 14:53:16	5.211	13.645	84.703	67.403
06/23/2011 14:53:26	5.233	13.645	84.703	67.403
06/23/2011 14:53:36	5.24	13.616	84.703	67.403
06/23/2011 14:53:46	5.233	13.648	85.102	67.403
06/23/2011 14:53:56	5.203	13.659	85.205	67.403

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June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 14:54:06	5.214	13.638	85.102	67.403
06/23/2011 14:54:16	5.258	13.564	85.102	67.403
06/23/2011 14:54:26	5.28	13.601	85.102	67.403
06/23/2011 14:54:36	5.222	13.648	85.205	67.403
06/23/2011 14:54:46	5.214	13.619	85.102	67.403
06/23/2011 14:54:56	5.218	13.663	85.205	67.403
06/23/2011 14:55:06	5.2	13.667	85.102	67.403
06/23/2011 14:55:16	5.192	13.685	85.102	67.403
06/23/2011 14:55:26	5.17	13.692	85.102	67.403
06/23/2011 14:55:36	5.196	13.623	85.205	67.403
06/23/2011 14:55:46	5.247	13.594	85.205	67.201
06/23/2011 14:55:56	5.262	13.583	85.205	67.403
06/23/2011 14:56:06	5.244	13.641	85.205	67.201
06/23/2011 14:56:16	5.211	13.659	85.402	67.201
06/23/2011 14:56:26	5.156	13.736	85.102	67.201
06/23/2011 14:56:36	5.108	13.769	85.102	67.201
06/23/2011 14:56:46	5.083	13.762	85.102	67.201
06/23/2011 14:56:56	5.097	13.718	85.205	67.201
06/23/2011 14:57:06	5.119	13.718	84.904	67.201
06/23/2011 14:57:16	5.145	13.674	84.904	67.201
06/23/2011 14:57:26	5.174	13.652	85.102	67.201
06/23/2011 14:57:36	5.236	13.583	85.205	67.201
06/23/2011 14:57:46	5.273	13.557	85.102	67.201
06/23/2011 14:57:56	5.313	13.524	84.904	67.201
06/23/2011 14:58:06	5.335	13.531	85.102	67.403
06/23/2011 14:58:16	5.273	13.634	85.102	67.403
06/23/2011 14:58:26	5.189	13.681	85.205	67.201
06/23/2011 14:58:36	5.17	13.685	85.205	67.201
06/23/2011 14:58:46	5.152	13.707	85.205	67.201
06/23/2011 14:58:56	5.145	13.7	85.205	67.201
06/23/2011 14:59:06	5.178	13.641	85.205	67.201
06/23/2011 14:59:16	5.203	13.67	85.402	67.201
06/23/2011 14:59:26	5.167	13.689	85.205	67.201
06/23/2011 14:59:36	5.119	13.762	85.102	67.201
06/23/2011 14:59:46	5.105	13.733	85.102	67.201
06/23/2011 14:59:56	5.145	13.674	85.102	67.201
06/23/2011 15:00:06	5.192	13.656	85.102	67.201
06/23/2011 15:00:16	5.178	13.659	85.102	67.201
06/23/2011 15:00:26	5.222	13.579	84.904	67.201
06/23/2011 15:00:36	5.288	13.561	85.102	67.201
06/23/2011 15:00:46	5.295	13.586	85.102	67.201
06/23/2011 15:00:56	5.258	13.612	84.703	67.201
06/23/2011 15:01:06	5.211	13.692	84.904	67.201
06/23/2011 15:01:16	5.174	13.648	85.102	67.201
06/23/2011 15:01:26	5.185	13.641	84.904	67.201
06/23/2011 15:01:36	5.207	13.648	85.102	67.201
06/23/2011 15:01:46	5.214	13.638	85.102	67.201
06/23/2011 15:01:56	5.251	13.564	84.904	67.201
06/23/2011 15:02:06	5.288	13.564	84.904	67.201
06/23/2011 15:02:16	5.313	13.542	84.904	67.201
06/23/2011 15:02:26	5.332	13.513	85.102	67.201
06/23/2011 15:02:36	5.317	13.586	85.102	67.403
06/23/2011 15:02:46	5.244	13.63	84.904	67.403
06/23/2011 15:02:56	5.233	13.641	85.205	67.403
06/23/2011 15:03:06	5.192	13.681	85.205	67.403
06/23/2011 15:03:16	5.218	13.616	84.904	67.403
06/23/2011 15:03:26	5.269	13.59	85.102	67.403
06/23/2011 15:03:36	5.258	13.634	85.102	67.403
06/23/2011 15:03:46	5.244	13.601	85.205	67.403
06/23/2011 15:03:56	5.295	13.564	85.402	67.403
06/23/2011 15:04:06	5.328	13.553	85.205	67.403
06/23/2011 15:04:16	5.321	13.601	85.102	67.403
06/23/2011 15:04:26	5.31	13.546	85.102	67.403
06/23/2011 15:04:36	5.346	13.495	85.102	67.403
06/23/2011 15:04:46	5.394	13.473	85.102	67.403
06/23/2011 15:04:56	5.394	13.469	85.402	67.403
06/23/2011 15:05:06	5.387	13.476	85.205	67.403

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June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 15:05:16	5.387	13.495	85.402	67.403
06/23/2011 15:05:26	5.372	13.498	85.402	67.403
06/23/2011 15:05:36	5.387	13.447	85.402	67.403
06/23/2011 15:05:46	5.398	13.476	85.205	67.403
06/23/2011 15:05:56	5.394	13.454	85.205	67.403
06/23/2011 15:06:06	5.379	13.476	85.205	67.403
06/23/2011 15:06:16	5.379	13.502	85.205	67.403
06/23/2011 15:06:26	5.357	13.513	85.205	67.403
06/23/2011 15:06:36	5.354	13.476	85.205	67.403
06/23/2011 15:06:46	5.346	13.513	85.102	67.403
06/23/2011 15:06:56	5.328	13.513	85.102	67.403
06/23/2011 15:07:06	5.299	13.579	85.102	67.403
06/23/2011 15:07:16	5.28	13.55	85.102	67.403
06/23/2011 15:07:26	5.31	13.52	85.205	67.403
06/23/2011 15:07:36	5.361	13.476	85.205	67.403
06/23/2011 15:07:46	5.383	13.487	85.102	67.403
06/23/2011 15:07:56	5.394	13.462	84.904	67.403
06/23/2011 15:08:06	5.39	13.517	84.703	67.201
06/23/2011 15:08:16	5.317	13.601	84.703	67.201
06/23/2011 15:08:26	5.273	13.55	84.703	67.201
06/23/2011 15:08:36	5.266	13.634	84.904	67.102
06/23/2011 15:08:46	5.229	13.601	85.102	67.201
06/23/2011 15:08:56	5.273	13.546	85.102	67.201
06/23/2011 15:09:06	5.302	13.561	84.904	67.201
06/23/2011 15:09:16	5.277	13.59	84.904	67.201
06/23/2011 15:09:26	5.258	13.579	84.703	67.201
06/23/2011 15:09:36	5.266	13.597	84.703	67.201
06/23/2011 15:09:46	5.299	13.52	84.904	67.201
06/23/2011 15:09:56	5.324	13.568	84.904	67.201
06/23/2011 15:10:06	5.299	13.564	85.102	67.201
06/23/2011 15:10:16	5.28	13.627	85.102	67.102
06/23/2011 15:10:26	5.236	13.597	85.205	67.403
06/23/2011 15:10:36	5.288	13.524	85.205	67.403
06/23/2011 15:10:46	5.372	13.447	85.102	67.201
06/23/2011 15:10:56	5.416	13.454	85.102	67.201
06/23/2011 15:11:06	5.423	13.454	85.102	67.201
06/23/2011 15:11:16	5.408	13.462	85.102	67.201
06/23/2011 15:11:26	5.408	13.451	85.205	67.403
06/23/2011 15:11:36	5.416	13.451	85.102	67.403
06/23/2011 15:11:46	5.412	13.447	85.205	67.403
06/23/2011 15:11:56	5.416	13.469	85.205	67.403
06/23/2011 15:12:06	5.379	13.52	85.102	67.201
06/23/2011 15:12:16	5.328	13.564	85.102	67.201
06/23/2011 15:12:26	5.291	13.583	85.102	67.201
06/23/2011 15:12:36	5.273	13.601	85.205	67.201
06/23/2011 15:12:46	5.31	13.513	85.102	67.201
06/23/2011 15:12:56	5.343	13.517	84.904	67.403
06/23/2011 15:13:06	5.361	13.513	84.904	67.403
06/23/2011 15:13:16	5.343	13.531	85.102	67.201
06/23/2011 15:13:26	5.343	13.513	85.402	67.201
06/23/2011 15:13:36	5.346	13.517	85.205	67.201
06/23/2011 15:13:46	5.368	13.498	85.102	67.201
06/23/2011 15:13:56	5.379	13.484	85.205	67.201
06/23/2011 15:14:06	5.368	13.506	85.205	67.403
06/23/2011 15:14:16	5.365	13.469	85.102	67.201
06/23/2011 15:14:26	5.383	13.539	85.102	67.201
06/23/2011 15:14:36	5.346	13.531	85.102	67.201
06/23/2011 15:14:46	5.361	13.491	85.102	67.201
06/23/2011 15:14:56	5.368	13.535	84.904	67.201
06/23/2011 15:15:06	5.372	13.454	85.102	67.201
06/23/2011 15:15:16	5.387	13.495	85.102	67.201
06/23/2011 15:15:26	5.401	13.458	84.904	67.201
06/23/2011 15:15:36	5.438	13.392	84.703	67.201
06/23/2011 15:15:46	5.463	13.432	84.703	67.403
06/23/2011 15:15:56	5.423	13.469	84.904	67.201
06/23/2011 15:16:06	5.376	13.509	85.102	67.201
06/23/2011 15:16:16	5.324	13.594	84.703	67.201

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 15:16:26	5.269	13.557	84.904	67.201
06/23/2011 15:16:36	5.295	13.531	85.205	67.201
06/23/2011 15:16:46	5.31	13.557	85.205	67.201
06/23/2011 15:16:56	5.321	13.528	85.102	67.201
06/23/2011 15:17:06	5.343	13.48	85.102	67.201
06/23/2011 15:17:16	5.376	13.491	84.904	67.201
06/23/2011 15:17:26	5.376	13.495	85.102	67.201
06/23/2011 15:17:36	5.361	13.513	85.102	67.201
06/23/2011 15:17:46	5.354	13.513	85.102	67.201
06/23/2011 15:17:56	5.357	13.484	85.102	67.201
06/23/2011 15:18:06	5.35	13.506	84.703	67.201
06/23/2011 15:18:16	5.346	13.498	84.904	67.201
06/23/2011 15:18:26	5.354	13.495	84.904	67.201
06/23/2011 15:18:36	5.376	13.48	84.703	67.201
06/23/2011 15:18:46	5.416	13.414	84.904	67.201
06/23/2011 15:18:56	5.434	13.451	84.904	67.201
06/23/2011 15:19:06	5.405	13.473	85.102	67.201
06/23/2011 15:19:16	5.423	13.418	85.102	67.201
06/23/2011 15:19:26	5.46	13.377	84.904	67.201
06/23/2011 15:19:36	5.482	13.407	85.102	67.201
06/23/2011 15:19:46	5.441	13.48	85.102	67.201
06/23/2011 15:19:56	5.368	13.546	85.102	67.201
06/23/2011 15:20:06	5.357	13.484	85.102	67.201
06/23/2011 15:20:16	5.354	13.561	85.102	67.201
06/23/2011 15:20:26	5.328	13.513	84.904	67.201
06/23/2011 15:20:36	5.383	13.443	84.904	67.201
06/23/2011 15:20:46	5.441	13.41	84.904	67.201
06/23/2011 15:20:56	5.452	13.436	84.703	67.201
06/23/2011 15:21:06	5.408	13.451	84.904	67.201
06/23/2011 15:21:16	5.412	13.443	84.904	67.201
06/23/2011 15:21:26	5.394	13.487	84.904	67.201
06/23/2011 15:21:36	5.354	13.52	84.904	67.201
06/23/2011 15:21:46	5.328	13.553	84.904	67.201
06/23/2011 15:21:56	5.295	13.572	84.904	67.201
06/23/2011 15:22:06	5.321	13.48	84.904	67.102
06/23/2011 15:22:16	5.376	13.436	85.102	67.102
06/23/2011 15:22:26	5.419	13.447	85.102	67.102
06/23/2011 15:22:36	5.416	13.443	85.205	67.403
06/23/2011 15:22:46	5.412	13.476	85.402	67.403
06/23/2011 15:22:56	5.43	13.429	85.402	67.403
06/23/2011 15:23:06	5.445	13.421	85.402	67.403
06/23/2011 15:23:16	5.46	13.396	85.402	67.403
06/23/2011 15:23:26	5.496	13.374	85.205	67.201
06/23/2011 15:23:36	5.482	7.459	85.102	67.403
Calibration Bias				
06/23/2011 15:23:46	2.475	0.322	85.102	67.604
06/23/2011 15:23:56	0.164	0.223	85.102	67.403
06/23/2011 15:24:06	0.051	0.186	84.904	67.604
06/23/2011 15:24:16	0.04	0.172	85.102	67.604
06/23/2011 15:24:26	0.032	0.157	85.205	67.604
06/23/2011 15:24:36	0.029	0.15	85.102	67.604
06/23/2011 15:24:46	0.029	0.146	84.904	67.604
N2 Zero	**0.030**	**0.151**	**85.070**	**67.604**
06/23/2011 15:24:56	0.443	1.516	84.904	67.403
06/23/2011 15:25:06	6.668	9.759	85.102	67.201
06/23/2011 15:25:16	10.814	9.829	84.904	67.201
06/23/2011 15:25:26	11.015	9.851	84.703	67.201
06/23/2011 15:25:36	11.034	9.862	84.904	67.201
06/23/2011 15:25:46	11.037	9.865	84.904	67.201
06/23/2011 15:25:56	11.045	9.869	84.904	67.201
06/23/2011 15:26:06	11.048	9.869	85.102	67.201
11.1% O2/9.74% CO2 Mid	**11.043**	**9.868**	**84.970**	**67.201**
06/23/2011 15:26:16	10.074	12.301	85.102	67.201
06/23/2011 15:26:26	6.595	13.315	85.205	67.201
06/23/2011 15:26:36	5.526	13.352	85.102	67.102
06/23/2011 15:26:46	5.46	13.414	85.205	67.102
06/23/2011 15:26:56	5.427	13.41	85.102	67.102

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 15:27:06	5.416	13.436	85.102	67.102
06/23/2011 15:27:16	5.346	13.55	85.205	67.201
06/23/2011 15:27:26	5.295	13.539	85.102	67.102
06/23/2011 15:27:36	5.269	13.678	84.904	67.102
06/23/2011 15:27:46	5.181	13.751	85.102	67.102
06/23/2011 15:27:56	5.159	13.755	84.904	66.901
06/23/2011 15:28:06	5.141	13.7	84.904	66.901
06/23/2011 15:28:16	5.196	13.583	85.102	66.901
06/23/2011 15:28:26	5.266	13.524	85.205	67.102
06/23/2011 15:28:36	5.302	13.495	85.102	67.102
06/23/2011 15:28:46	5.339	13.462	84.904	67.102
06/23/2011 15:28:56	5.383	13.447	84.703	67.102
06/23/2011 15:29:06	5.379	13.487	84.904	67.102
06/23/2011 15:29:16	5.346	13.506	84.904	67.102
06/23/2011 15:29:26	5.339	13.495	84.904	67.102
06/23/2011 15:29:36	5.379	13.451	85.102	67.102
06/23/2011 15:29:46	5.412	13.403	85.102	67.102
06/23/2011 15:29:56	5.43	13.403	85.102	67.102
06/23/2011 15:30:06	5.449	13.392	85.102	67.102
06/23/2011 15:30:16	5.471	13.396	84.904	67.102
06/23/2011 15:30:26	5.449	13.407	85.102	67.102
06/23/2011 15:30:36	5.419	13.451	85.102	67.102
06/23/2011 15:30:46	5.419	13.41	85.205	67.102
06/23/2011 15:30:56	5.445	13.414	85.402	67.102
06/23/2011 15:31:06	5.467	13.381	85.205	67.102
06/23/2011 15:31:16	5.518	13.33	85.205	67.102
06/23/2011 15:31:26	5.496	13.407	85.102	67.102
06/23/2011 15:31:36	5.416	13.473	85.102	67.201
06/23/2011 15:31:46	5.387	13.462	85.205	67.201
06/23/2011 15:31:56	5.419	13.436	85.102	67.102
06/23/2011 15:32:06	5.441	13.443	85.102	67.102
06/23/2011 15:32:16	5.416	13.517	85.102	67.102
06/23/2011 15:32:26	5.383	13.473	84.904	66.901
06/23/2011 15:32:36	5.408	13.447	84.904	67.102
06/23/2011 15:32:46	5.441	13.399	84.703	67.102
06/23/2011 15:32:56	5.452	13.414	84.904	67.102
06/23/2011 15:33:06	5.423	13.425	85.102	66.901
06/23/2011 15:33:16	5.423	13.465	85.102	66.901
06/23/2011 15:33:26	5.423	13.436	85.102	67.102
06/23/2011 15:33:36	5.416	13.462	85.102	67.102
06/23/2011 15:33:46	5.372	13.502	85.205	67.102
06/23/2011 15:33:56	5.354	13.473	85.205	67.102
06/23/2011 15:34:06	5.376	13.506	85.102	67.102
06/23/2011 15:34:16	5.332	13.557	85.205	67.102
06/23/2011 15:34:26	5.313	13.539	85.402	67.102
06/23/2011 15:34:36	5.332	13.495	85.205	67.102
06/23/2011 15:34:46	5.401	13.432	85.205	67.102
06/23/2011 15:34:56	5.416	13.476	85.102	67.102
06/23/2011 15:35:06	5.39	13.465	85.205	67.102
06/23/2011 15:35:16	5.383	13.513	85.102	67.102
06/23/2011 15:35:26	5.357	13.539	85.205	67.102
06/23/2011 15:35:36	5.306	13.59	85.205	67.102
06/23/2011 15:35:46	5.277	13.561	85.205	67.102
06/23/2011 15:35:56	5.302	13.564	85.102	67.102
06/23/2011 15:36:06	5.31	13.59	84.904	67.102
06/23/2011 15:36:16	5.299	13.572	85.102	67.102
06/23/2011 15:36:26	5.295	13.564	85.205	67.102
06/23/2011 15:36:36	5.299	13.542	85.102	67.102
06/23/2011 15:36:46	5.288	13.583	85.205	67.102
06/23/2011 15:36:56	5.277	13.546	85.205	67.102
06/23/2011 15:37:06	5.328	13.484	85.102	67.201
06/23/2011 15:37:16	5.372	13.498	85.102	67.102
06/23/2011 15:37:26	5.321	13.553	85.102	67.102
06/23/2011 15:37:36	5.302	13.561	85.102	67.102
06/23/2011 15:37:46	5.313	13.506	84.904	67.102
06/23/2011 15:37:56	5.346	13.484	85.102	67.201
06/23/2011 15:38:06	5.339	13.524	85.102	67.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 15:38:16	5.31	13.546	85.402	67.201
06/23/2011 15:38:26	5.284	13.557	85.205	67.102
06/23/2011 15:38:36	5.269	13.572	85.205	67.102
06/23/2011 15:38:46	5.266	13.59	85.102	67.201
06/23/2011 15:38:56	5.214	13.659	84.904	67.201
06/23/2011 15:39:06	5.214	13.572	85.102	67.201
06/23/2011 15:39:16	5.24	13.605	85.102	67.201
06/23/2011 15:39:26	5.251	13.553	85.102	67.102
06/23/2011 15:39:36	5.284	13.561	85.102	67.102
06/23/2011 15:39:46	5.258	13.616	85.205	67.201
06/23/2011 15:39:56	5.258	13.542	85.205	67.201
06/23/2011 15:40:06	5.295	13.583	85.102	67.201
06/23/2011 15:40:16	5.266	13.608	85.102	67.102
06/23/2011 15:40:26	5.247	13.619	84.904	67.102
06/23/2011 15:40:36	5.247	13.608	84.904	67.102
06/23/2011 15:40:46	5.236	13.63	84.904	67.102
06/23/2011 15:40:56	5.255	13.568	85.205	67.102
06/23/2011 15:41:06	5.324	13.495	85.205	67.102
06/23/2011 15:41:16	5.361	13.513	85.102	67.102
06/23/2011 15:41:26	5.35	13.524	84.904	67.102
06/23/2011 15:41:36	5.324	13.528	84.703	67.201
06/23/2011 15:41:46	5.324	13.506	84.501	67.102
06/23/2011 15:41:56	5.31	13.572	84.703	67.102
06/23/2011 15:42:06	5.295	13.539	85.102	67.102
06/23/2011 15:42:16	5.277	13.583	84.904	67.201
06/23/2011 15:42:26	5.273	13.579	85.102	67.201
06/23/2011 15:42:36	5.266	13.594	84.904	67.201
06/23/2011 15:42:46	5.236	13.652	85.102	67.102
06/23/2011 15:42:56	5.17	13.685	85.102	67.102
06/23/2011 15:43:06	5.174	13.641	85.102	67.201
06/23/2011 15:43:16	5.244	13.597	84.904	67.201
06/23/2011 15:43:26	5.284	13.561	84.904	67.201
06/23/2011 15:43:36	5.284	13.583	85.102	67.201
06/23/2011 15:43:46	5.266	13.564	84.904	67.201
06/23/2011 15:43:56	5.273	13.579	84.904	67.102
06/23/2011 15:44:06	5.28	13.542	84.703	67.102
06/23/2011 15:44:16	5.277	13.59	84.904	67.201
06/23/2011 15:44:26	5.244	13.608	84.904	67.102
06/23/2011 15:44:36	5.247	13.572	84.904	67.102
06/23/2011 15:44:46	5.284	13.586	84.904	67.102
06/23/2011 15:44:56	5.273	13.594	84.904	67.102
06/23/2011 15:45:06	5.236	13.641	84.904	67.201
06/23/2011 15:45:16	5.211	13.663	84.904	67.201
06/23/2011 15:45:26	5.203	13.659	85.102	67.201
06/23/2011 15:45:36	5.211	13.616	85.205	67.201
06/23/2011 15:45:46	5.266	13.572	85.205	67.201
06/23/2011 15:45:56	5.266	13.634	85.205	67.102
06/23/2011 15:46:06	5.24	13.627	85.102	67.102
06/23/2011 15:46:16	5.269	13.59	85.102	67.102
06/23/2011 15:46:26	5.277	13.561	84.904	67.102
06/23/2011 15:46:36	5.284	13.597	84.703	67.102
06/23/2011 15:46:46	5.269	13.605	85.102	67.102
06/23/2011 15:46:56	5.24	13.674	85.102	67.201
06/23/2011 15:47:06	5.251	13.572	85.102	67.201
06/23/2011 15:47:16	5.306	13.55	85.205	67.403
06/23/2011 15:47:26	5.332	13.546	84.904	67.201
06/23/2011 15:47:36	5.302	13.612	85.102	67.201
06/23/2011 15:47:46	5.273	13.612	85.102	67.201
06/23/2011 15:47:56	5.284	13.546	84.501	67.102
06/23/2011 15:48:06	5.306	13.553	84.703	67.102
06/23/2011 15:48:16	5.295	13.579	84.703	67.102
06/23/2011 15:48:26	5.295	13.557	84.703	67.102
06/23/2011 15:48:36	5.251	13.608	84.904	67.102
06/23/2011 15:48:46	5.207	13.652	85.102	67.102
06/23/2011 15:48:56	5.181	13.681	85.102	67.102
06/23/2011 15:49:06	5.141	13.736	85.102	67.102
06/23/2011 15:49:16	5.126	13.722	84.904	67.102

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 15:49:26	5.167	13.663	84.904	67.102
06/23/2011 15:49:36	5.192	13.619	84.703	67.102
06/23/2011 15:49:46	5.218	13.63	84.703	67.102
06/23/2011 15:49:56	5.262	13.564	84.904	67.102
06/23/2011 15:50:06	5.31	13.553	84.904	67.102
06/23/2011 15:50:16	5.28	13.605	84.904	67.102
06/23/2011 15:50:26	5.233	13.656	84.904	67.102
06/23/2011 15:50:36	5.211	13.648	85.102	67.102
06/23/2011 15:50:46	5.222	13.656	85.102	67.102
06/23/2011 15:50:56	5.225	13.648	85.102	67.102
06/23/2011 15:51:06	5.218	13.638	85.102	67.102
06/23/2011 15:51:16	5.211	13.648	85.102	67.201
06/23/2011 15:51:26	5.225	13.623	85.102	67.201
06/23/2011 15:51:36	5.233	13.634	85.205	67.201
06/23/2011 15:51:46	5.218	13.674	85.102	67.201
06/23/2011 15:51:56	5.17	13.692	85.102	67.201
06/23/2011 15:52:06	5.159	13.674	84.904	67.201
06/23/2011 15:52:16	5.225	13.561	84.904	67.201
06/23/2011 15:52:26	5.306	13.542	84.904	67.102
06/23/2011 15:52:36	5.284	13.619	84.904	67.201
06/23/2011 15:52:46	5.229	13.627	84.904	67.201
06/23/2011 15:52:56	5.211	13.645	85.102	67.102
06/23/2011 15:53:06	5.196	13.685	84.904	67.102
06/23/2011 15:53:16	5.13	13.733	85.102	67.201
06/23/2011 15:53:26	5.09	13.799	84.904	67.201
06/23/2011 15:53:36	5.046	13.788	85.102	67.102
06/23/2011 15:53:46	5.068	13.744	84.904	67.102
06/23/2011 15:53:56	5.108	13.74	84.904	67.201
06/23/2011 15:54:06	5.134	13.692	84.703	67.201
06/23/2011 15:54:16	5.134	13.744	84.703	67.102
06/23/2011 15:54:26	5.097	13.788	84.703	67.201
06/23/2011 15:54:36	5.068	13.795	84.703	67.201
06/23/2011 15:54:46	5.068	13.733	84.904	67.201
06/23/2011 15:54:56	5.116	13.718	85.102	67.102
06/23/2011 15:55:06	5.145	13.703	84.703	67.102
06/23/2011 15:55:16	5.152	13.718	84.904	67.201
06/23/2011 15:55:26	5.13	13.729	84.904	67.201
06/23/2011 15:55:36	5.141	13.648	84.904	67.201
06/23/2011 15:55:46	5.229	13.575	84.904	67.201
06/23/2011 15:55:56	5.251	13.605	84.904	67.201
06/23/2011 15:56:06	5.211	13.667	84.904	67.201
06/23/2011 15:56:16	5.159	13.714	84.904	67.102
06/23/2011 15:56:26	5.148	13.7	84.904	67.201
06/23/2011 15:56:36	5.17	13.681	85.102	67.201
06/23/2011 15:56:46	5.17	13.681	84.904	67.201
06/23/2011 15:56:56	5.159	13.729	84.703	67.201
06/23/2011 15:57:06	5.141	13.696	84.501	67.201
06/23/2011 15:57:16	5.192	13.608	84.501	67.201
06/23/2011 15:57:26	5.262	13.619	84.703	67.201
06/23/2011 15:57:36	5.24	13.663	84.703	67.403
06/23/2011 15:57:46	5.196	13.7	84.904	67.403
06/23/2011 15:57:56	5.163	13.7	84.904	67.403
06/23/2011 15:58:06	5.156	13.692	85.205	67.403
06/23/2011 15:58:16	5.152	13.692	85.205	67.403
06/23/2011 15:58:26	5.119	13.78	85.205	67.403
06/23/2011 15:58:36	5.097	13.733	85.102	67.201
06/23/2011 15:58:46	5.141	13.652	84.703	67.201
06/23/2011 15:58:56	5.148	13.74	84.501	67.201
06/23/2011 15:59:06	5.105	13.744	84.904	67.201
06/23/2011 15:59:16	5.145	13.638	84.904	67.201
06/23/2011 15:59:26	5.218	13.652	84.904	67.102
06/23/2011 15:59:36	5.174	13.729	84.904	67.102
06/23/2011 15:59:46	5.108	13.758	84.904	67.201
06/23/2011 15:59:56	5.086	13.766	85.102	67.201
06/23/2011 16:00:06	5.123	13.67	85.102	67.201
06/23/2011 16:00:16	5.2	13.616	85.102	67.201
06/23/2011 16:00:26	5.255	13.572	85.102	67.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 16:00:36	5.269	13.627	85.205	67.201
06/23/2011 16:00:46	5.203	13.681	85.102	67.201
06/23/2011 16:00:56	5.148	13.733	84.904	67.201
06/23/2011 16:01:06	5.112	13.755	84.904	67.201
06/23/2011 16:01:16	5.116	13.7	85.102	67.201
06/23/2011 16:01:26	5.141	13.725	84.904	67.201
06/23/2011 16:01:36	5.141	13.707	84.904	67.201
06/23/2011 16:01:46	5.13	13.755	84.703	67.102
06/23/2011 16:01:56	5.094	13.788	84.501	67.201
06/23/2011 16:02:06	5.075	13.791	84.703	67.201
06/23/2011 16:02:16	5.053	13.777	85.102	67.201
06/23/2011 16:02:26	5.072	13.758	84.501	67.201
06/23/2011 16:02:36	5.101	13.74	84.703	67.102
06/23/2011 16:02:46	5.134	13.722	84.703	67.201
06/23/2011 16:02:56	5.126	13.722	84.703	67.201
06/23/2011 16:03:06	5.156	13.692	84.501	67.102
06/23/2011 16:03:16	5.159	13.692	84.501	67.102
06/23/2011 16:03:26	5.181	13.663	84.304	66.901
06/23/2011 16:03:36	5.181	13.678	84.703	66.901
06/23/2011 16:03:46	5.196	13.634	84.904	66.901
06/23/2011 16:03:56	5.236	13.605	85.102	66.901
06/23/2011 16:04:06	5.222	13.656	85.205	67.102
06/23/2011 16:04:16	5.178	13.689	85.205	67.102
06/23/2011 16:04:26	5.159	13.681	85.102	67.102
06/23/2011 16:04:36	5.181	13.659	85.102	67.102
06/23/2011 16:04:46	5.189	13.67	84.904	67.102
06/23/2011 16:04:56	5.225	13.608	84.703	67.102
06/23/2011 16:05:06	5.244	13.645	84.703	67.102
06/23/2011 16:05:16	5.214	13.663	84.304	66.901
06/23/2011 16:05:26	5.174	13.696	84.501	66.901
06/23/2011 16:05:36	5.156	13.692	84.501	66.901
06/23/2011 16:05:46	5.17	13.685	84.501	66.901
06/23/2011 16:05:56	5.222	13.63	84.703	67.102
06/23/2011 16:06:06	5.203	13.714	84.501	67.102
06/23/2011 16:06:16	5.141	13.714	84.501	67.102
06/23/2011 16:06:26	5.13	13.711	84.703	66.901
06/23/2011 16:06:36	5.174	13.641	84.703	67.102
06/23/2011 16:06:46	5.214	13.667	84.904	67.102
06/23/2011 16:06:56	5.185	13.681	84.703	67.102
06/23/2011 16:07:06	5.189	13.656	84.501	67.102
06/23/2011 16:07:16	5.236	13.608	84.501	67.102
06/23/2011 16:07:26	5.273	13.605	84.501	67.102
06/23/2011 16:07:36	5.251	13.656	84.501	67.102
06/23/2011 16:07:46	5.192	13.689	84.703	67.102
06/23/2011 16:07:56	5.148	13.725	84.703	67.102
06/23/2011 16:08:06	5.159	13.678	84.703	67.102
06/23/2011 16:08:16	5.255	13.583	84.703	67.102
06/23/2011 16:08:26	5.284	13.59	84.703	67.102
06/23/2011 16:08:36	5.288	13.601	84.703	67.201
06/23/2011 16:08:46	5.306	13.557	84.703	67.102
06/23/2011 16:08:56	5.317	13.546	84.703	67.102
06/23/2011 16:09:06	5.317	13.524	84.703	67.102
06/23/2011 16:09:16	5.328	13.572	84.205	66.901
06/23/2011 16:09:26	5.306	13.528	84.304	66.901
06/23/2011 16:09:36	5.35	13.48	84.304	66.901
06/23/2011 16:09:46	5.343	13.531	84.703	66.901
06/23/2011 16:09:56	5.295	13.594	84.703	66.901
06/23/2011 16:10:06	5.284	13.553	84.904	66.901
06/23/2011 16:10:16	5.332	13.465	84.904	67.102
06/23/2011 16:10:26	5.398	13.447	84.904	67.102
06/23/2011 16:10:36	5.416	13.443	84.904	67.102
06/23/2011 16:10:46	5.394	13.498	84.904	67.102
06/23/2011 16:10:56	5.313	13.623	84.703	67.102
06/23/2011 16:11:06	5.262	13.575	84.904	67.102
06/23/2011 16:11:16	5.343	13.443	84.703	67.102
06/23/2011 16:11:26	5.405	13.473	84.501	67.102
06/23/2011 16:11:36	5.368	13.509	84.703	67.102

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 16:11:46	5.332	13.575	84.703	67.102
06/23/2011 16:11:56	5.262	13.627	84.904	67.102
06/23/2011 16:12:06	5.251	13.568	84.703	67.102
06/23/2011 16:12:16	5.317	13.498	84.304	67.102
06/23/2011 16:12:26	5.387	13.44	84.304	67.102
06/23/2011 16:12:36	5.412	13.462	84.501	67.102
06/23/2011 16:12:46	5.365	13.531	84.304	66.901
06/23/2011 16:12:56	5.335	13.509	84.304	66.901
06/23/2011 16:13:06	5.317	13.568	84.304	67.102
06/23/2011 16:13:16	5.269	13.627	84.703	66.901
06/23/2011 16:13:26	5.255	13.597	84.703	66.901
06/23/2011 16:13:36	5.291	13.553	84.703	67.102
06/23/2011 16:13:46	5.313	13.564	84.501	66.901
06/23/2011 16:13:56	5.288	13.612	84.703	67.102
06/23/2011 16:14:06	5.244	13.605	84.501	67.102
06/23/2011 16:14:16	5.251	13.597	84.501	67.102
06/23/2011 16:14:26	5.295	13.524	84.703	67.102
06/23/2011 16:14:36	5.306	13.597	84.304	67.102
06/23/2011 16:14:46	5.255	13.608	84.501	67.102
06/23/2011 16:14:56	5.24	13.601	84.904	67.102
06/23/2011 16:15:06	5.251	13.59	84.904	67.102
06/23/2011 16:15:16	5.273	13.586	84.703	67.102
06/23/2011 16:15:26	5.277	13.59	84.703	67.102
06/23/2011 16:15:36	5.28	13.561	84.501	67.102
06/23/2011 16:15:46	5.299	13.52	84.501	67.102
06/23/2011 16:15:56	5.288	13.597	84.501	67.102
06/23/2011 16:16:06	5.247	13.605	84.501	67.102
06/23/2011 16:16:16	5.262	13.568	84.501	67.102
06/23/2011 16:16:26	5.299	13.55	84.501	66.901
06/23/2011 16:16:36	5.295	13.561	84.501	66.901
06/23/2011 16:16:46	5.317	13.498	84.304	66.901
06/23/2011 16:16:56	5.332	13.55	84.304	66.901
06/23/2011 16:17:06	5.273	13.619	84.304	66.901
06/23/2011 16:17:16	5.24	13.59	84.304	66.901
06/23/2011 16:17:26	5.258	13.583	84.304	66.901
06/23/2011 16:17:36	5.266	13.608	84.501	66.901
06/23/2011 16:17:46	5.258	13.597	84.304	66.901
06/23/2011 16:17:56	5.266	13.594	84.501	66.901
06/23/2011 16:18:06	5.28	13.535	84.501	66.901
06/23/2011 16:18:16	5.313	13.546	84.501	66.901
06/23/2011 16:18:26	5.291	13.601	84.304	66.901
06/23/2011 16:18:36	5.225	13.648	84.501	66.901
06/23/2011 16:18:46	5.214	13.601	84.703	66.703
06/23/2011 16:18:56	5.233	13.619	84.501	66.901
06/23/2011 16:19:06	5.222	13.67	84.304	66.901
06/23/2011 16:19:16	5.2	13.689	84.703	67.102
06/23/2011 16:19:26	5.17	13.703	84.703	67.102
06/23/2011 16:19:36	5.178	13.641	84.904	67.102
06/23/2011 16:19:46	5.24	13.568	84.904	67.102
06/23/2011 16:19:56	5.262	13.608	84.904	66.901
06/23/2011 16:20:06	5.233	13.645	84.703	66.901
06/23/2011 16:20:16	5.244	13.616	84.904	66.901
06/23/2011 16:20:26	5.28	13.561	84.703	66.901
06/23/2011 16:20:36	5.302	13.553	84.501	66.901
06/23/2011 16:20:46	5.299	13.586	84.501	66.901
06/23/2011 16:20:56	5.284	13.528	84.703	66.901
06/23/2011 16:21:06	5.332	13.484	84.703	66.901
06/23/2011 16:21:16	5.306	13.575	84.904	66.901
06/23/2011 16:21:26	5.229	13.674	84.904	66.901
06/23/2011 16:21:36	5.181	13.63	84.904	66.901
06/23/2011 16:21:46	5.229	13.568	84.703	66.901
06/23/2011 16:21:56	5.28	13.528	84.501	66.901
Start Run 4				
06/23/2011 16:22:06	5.324	13.52	84.501	66.901
06/23/2011 16:22:16	5.295	13.572	84.501	66.901
06/23/2011 16:22:26	5.24	13.638	84.703	66.901

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 16:22:36	5.229	13.564	84.501	66.901
06/23/2011 16:22:46	5.269	13.594	84.501	66.901
06/23/2011 16:22:56	5.269	13.568	84.703	66.901
06/23/2011 16:23:06	5.255	13.619	84.703	66.901
06/23/2011 16:23:16	5.236	13.608	84.703	66.901
06/23/2011 16:23:26	5.277	13.557	84.703	66.901
06/23/2011 16:23:36	5.324	13.495	84.703	66.901
06/23/2011 16:23:46	5.35	13.517	84.703	66.901
06/23/2011 16:23:56	5.332	13.539	84.501	66.901
06/23/2011 16:24:06	5.299	13.575	84.501	66.901
06/23/2011 16:24:16	5.269	13.586	84.501	66.901
06/23/2011 16:24:26	5.288	13.55	84.501	66.901
06/23/2011 16:24:36	5.339	13.491	84.904	66.901
06/23/2011 16:24:46	5.335	13.579	84.904	66.901
06/23/2011 16:24:56	5.244	13.667	84.904	66.901
06/23/2011 16:25:06	5.192	13.656	85.102	66.901
06/23/2011 16:25:16	5.229	13.605	84.904	66.901
06/23/2011 16:25:26	5.288	13.524	84.703	66.901
06/23/2011 16:25:36	5.343	13.517	84.703	67.102
06/23/2011 16:25:46	5.317	13.59	84.501	67.102
06/23/2011 16:25:56	5.277	13.583	84.703	67.102
06/23/2011 16:26:06	5.251	13.616	84.501	66.901
06/23/2011 16:26:16	5.255	13.586	84.501	66.901
06/23/2011 16:26:26	5.269	13.575	84.501	66.901
06/23/2011 16:26:36	5.266	13.597	84.501	66.901
06/23/2011 16:26:46	5.236	13.634	84.904	67.102
06/23/2011 16:26:56	5.236	13.583	84.501	67.102
06/23/2011 16:27:06	5.262	13.612	84.501	67.102
06/23/2011 16:27:16	5.251	13.638	84.703	66.901
06/23/2011 16:27:26	5.236	13.601	84.703	66.901
06/23/2011 16:27:36	5.247	13.616	84.703	66.901
06/23/2011 16:27:46	5.203	13.674	84.501	66.901
06/23/2011 16:27:56	5.141	13.729	84.703	66.901
06/23/2011 16:28:06	5.112	13.747	84.501	67.102
06/23/2011 16:28:16	5.083	13.777	84.501	67.102
06/23/2011 16:28:26	5.116	13.67	84.304	66.901
06/23/2011 16:28:36	5.196	13.634	84.501	66.901
06/23/2011 16:28:46	5.207	13.648	84.501	66.901
06/23/2011 16:28:56	5.222	13.619	84.501	66.901
06/23/2011 16:29:06	5.273	13.583	84.501	66.901
06/23/2011 16:29:16	5.288	13.594	84.501	66.901
06/23/2011 16:29:26	5.266	13.605	84.501	67.102
06/23/2011 16:29:36	5.236	13.641	84.304	66.901
06/23/2011 16:29:46	5.222	13.681	84.304	66.901
06/23/2011 16:29:56	5.203	13.692	84.501	66.901
06/23/2011 16:30:06	5.189	13.656	84.205	66.901
06/23/2011 16:30:16	5.185	13.714	84.304	66.901
06/23/2011 16:30:26	5.174	13.659	84.304	66.901
06/23/2011 16:30:36	5.174	13.707	84.205	66.901
06/23/2011 16:30:46	5.119	13.736	84.205	66.901
06/23/2011 16:30:56	5.145	13.663	84.304	67.102
06/23/2011 16:31:06	5.207	13.619	84.205	66.901
06/23/2011 16:31:16	5.255	13.564	84.205	66.901
06/23/2011 16:31:26	5.284	13.575	84.205	66.901
06/23/2011 16:31:36	5.258	13.641	84.304	66.901
06/23/2011 16:31:46	5.189	13.674	84.304	66.901
06/23/2011 16:31:56	5.178	13.689	84.304	66.901
06/23/2011 16:32:06	5.159	13.674	84.501	66.901
06/23/2011 16:32:16	5.167	13.663	84.501	67.102
06/23/2011 16:32:26	5.185	13.659	84.501	66.901
06/23/2011 16:32:36	5.196	13.652	84.501	67.102
06/23/2011 16:32:46	5.192	13.7	84.501	67.102
06/23/2011 16:32:56	5.148	13.707	84.304	67.102
06/23/2011 16:33:06	5.137	13.714	84.304	67.102
06/23/2011 16:33:16	5.116	13.78	84.501	67.102
06/23/2011 16:33:26	5.031	13.909	84.703	66.901
06/23/2011 16:33:36	4.98	13.843	84.703	66.901

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 16:33:46	5.024	13.799	84.501	66.901
06/23/2011 16:33:56	5.079	13.751	84.501	66.901
06/23/2011 16:34:06	5.101	13.766	84.501	66.901
06/23/2011 16:34:16	5.101	13.762	84.304	66.901
06/23/2011 16:34:26	5.083	13.769	84.501	66.901
06/23/2011 16:34:36	5.105	13.736	84.501	66.901
06/23/2011 16:34:46	5.148	13.678	84.501	66.901
06/23/2011 16:34:56	5.163	13.729	84.703	66.901
06/23/2011 16:35:06	5.156	13.707	84.703	67.102
06/23/2011 16:35:16	5.159	13.696	84.304	67.102
06/23/2011 16:35:26	5.137	13.751	84.501	67.102
06/23/2011 16:35:36	5.119	13.718	84.703	66.901
06/23/2011 16:35:46	5.145	13.689	84.904	66.901
06/23/2011 16:35:56	5.156	13.722	84.904	66.901
06/23/2011 16:36:06	5.112	13.791	84.703	66.901
06/23/2011 16:36:16	5.079	13.773	84.703	66.901
06/23/2011 16:36:26	5.079	13.777	84.501	66.901
06/23/2011 16:36:36	5.075	13.777	84.703	67.102
06/23/2011 16:36:46	5.072	13.758	84.501	67.102
06/23/2011 16:36:56	5.079	13.791	84.703	66.901
06/23/2011 16:37:06	5.112	13.696	84.703	66.901
06/23/2011 16:37:16	5.192	13.634	84.304	66.703
06/23/2011 16:37:26	5.222	13.623	84.501	66.703
06/23/2011 16:37:36	5.229	13.619	84.501	66.703
06/23/2011 16:37:46	5.269	13.564	84.703	66.901
06/23/2011 16:37:56	5.258	13.645	84.703	66.901
06/23/2011 16:38:06	5.225	13.619	84.501	66.901
06/23/2011 16:38:16	5.214	13.7	84.501	66.901
06/23/2011 16:38:26	5.137	13.722	84.501	66.901
06/23/2011 16:38:36	5.148	13.648	84.501	66.901
06/23/2011 16:38:46	5.192	13.667	84.501	67.102
06/23/2011 16:38:56	5.17	13.714	84.703	67.102
06/23/2011 16:39:06	5.148	13.681	84.904	67.102
06/23/2011 16:39:16	5.167	13.7	84.703	66.703
06/23/2011 16:39:26	5.137	13.714	84.703	66.703
06/23/2011 16:39:36	5.126	13.703	84.904	66.901
06/23/2011 16:39:46	5.174	13.656	84.904	66.901
06/23/2011 16:39:56	5.17	13.711	84.904	66.703
06/23/2011 16:40:06	5.13	13.744	84.904	66.703
06/23/2011 16:40:16	5.116	13.744	84.703	66.703
06/23/2011 16:40:26	5.112	13.758	84.703	66.901
06/23/2011 16:40:36	5.148	13.678	84.703	66.901
06/23/2011 16:40:46	5.203	13.667	84.703	66.703
06/23/2011 16:40:56	5.218	13.605	84.501	66.703
06/23/2011 16:41:06	5.218	13.681	84.703	66.703
06/23/2011 16:41:16	5.178	13.674	84.501	66.901
06/23/2011 16:41:26	5.178	13.696	84.703	66.901
06/23/2011 16:41:36	5.134	13.755	84.304	66.703
06/23/2011 16:41:46	5.108	13.74	84.304	66.703
06/23/2011 16:41:56	5.145	13.656	84.703	66.703
06/23/2011 16:42:06	5.214	13.616	84.703	66.703
06/23/2011 16:42:16	5.222	13.678	84.501	66.703
06/23/2011 16:42:26	5.174	13.7	84.501	66.703
06/23/2011 16:42:36	5.167	13.689	84.703	66.901
06/23/2011 16:42:46	5.148	13.74	84.703	66.703
06/23/2011 16:42:56	5.156	13.652	84.904	66.901
06/23/2011 16:43:06	5.214	13.627	84.501	66.901
06/23/2011 16:43:16	5.222	13.641	84.501	67.102
06/23/2011 16:43:26	5.218	13.634	84.501	67.102
06/23/2011 16:43:36	5.203	13.652	84.304	66.901
06/23/2011 16:43:46	5.163	13.678	84.304	67.102
06/23/2011 16:43:56	5.174	13.67	84.304	67.102
06/23/2011 16:44:06	5.181	13.685	84.205	67.102
06/23/2011 16:44:16	5.174	13.689	84.304	67.102
06/23/2011 16:44:26	5.163	13.685	84.501	67.102
06/23/2011 16:44:36	5.163	13.681	84.501	67.102
06/23/2011 16:44:46	5.196	13.641	84.703	67.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 16:44:56	5.218	13.652	84.904	67.201
06/23/2011 16:45:06	5.192	13.681	84.501	67.201
06/23/2011 16:45:16	5.178	13.703	84.304	67.102
06/23/2011 16:45:26	5.222	13.539	84.501	67.102
06/23/2011 16:45:36	5.324	13.531	84.501	67.201
06/23/2011 16:45:46	5.302	13.597	84.304	67.102
06/23/2011 16:45:56	5.273	13.616	84.304	67.102
06/23/2011 16:46:06	5.269	13.601	84.304	67.102
06/23/2011 16:46:16	5.284	13.553	84.304	67.102
06/23/2011 16:46:26	5.295	13.608	84.501	67.102
06/23/2011 16:46:36	5.284	13.572	84.501	67.102
06/23/2011 16:46:46	5.266	13.627	84.703	67.201
06/23/2011 16:46:56	5.247	13.59	84.703	67.201
06/23/2011 16:47:06	5.269	13.561	84.703	67.201
06/23/2011 16:47:16	5.288	13.575	84.904	67.201
06/23/2011 16:47:26	5.302	13.528	85.102	67.102
06/23/2011 16:47:36	5.284	13.619	84.904	67.102
06/23/2011 16:47:46	5.24	13.594	84.501	67.102
06/23/2011 16:47:56	5.258	13.583	84.703	67.102
06/23/2011 16:48:06	5.258	13.601	85.102	67.201
06/23/2011 16:48:16	5.273	13.542	84.703	67.102
06/23/2011 16:48:26	5.302	13.568	84.703	67.102
06/23/2011 16:48:36	5.335	13.465	84.703	67.102
06/23/2011 16:48:46	5.39	13.462	84.501	67.102
06/23/2011 16:48:56	5.361	13.528	84.501	67.102
06/23/2011 16:49:06	5.354	13.491	84.904	67.201
06/23/2011 16:49:16	5.346	13.553	84.904	67.201
06/23/2011 16:49:26	5.306	13.572	84.904	67.102
06/23/2011 16:49:36	5.321	13.528	85.102	67.102
06/23/2011 16:49:46	5.354	13.465	84.703	67.102
06/23/2011 16:49:56	5.423	13.432	84.304	67.102
06/23/2011 16:50:06	5.43	13.469	84.304	66.901
06/23/2011 16:50:16	5.387	13.55	84.703	66.901
06/23/2011 16:50:26	5.335	13.542	84.501	66.901
06/23/2011 16:50:36	5.332	13.528	84.501	66.901
06/23/2011 16:50:46	5.324	13.55	84.703	66.901
06/23/2011 16:50:56	5.313	13.564	84.703	67.102
06/23/2011 16:51:06	5.321	13.546	84.304	67.102
06/23/2011 16:51:16	5.302	13.616	84.501	66.901
06/23/2011 16:51:26	5.262	13.601	84.501	66.901
06/23/2011 16:51:36	5.269	13.583	84.703	67.102
06/23/2011 16:51:46	5.28	13.579	84.904	67.102
06/23/2011 16:51:56	5.273	13.586	84.904	66.901
06/23/2011 16:52:06	5.291	13.539	84.501	67.102
06/23/2011 16:52:16	5.335	13.487	84.703	67.102
06/23/2011 16:52:26	5.332	13.535	84.703	66.901
06/23/2011 16:52:36	5.302	13.557	84.501	67.201
06/23/2011 16:52:46	5.302	13.531	84.501	67.102
06/23/2011 16:52:56	5.328	13.524	84.501	67.102
06/23/2011 16:53:06	5.295	13.597	84.501	67.102
06/23/2011 16:53:16	5.28	13.528	84.703	67.102
06/23/2011 16:53:26	5.335	13.469	84.703	67.102
06/23/2011 16:53:36	5.39	13.462	84.703	66.901
06/23/2011 16:53:46	5.365	13.531	84.904	67.102
06/23/2011 16:53:56	5.35	13.469	84.904	67.102
06/23/2011 16:54:06	5.383	13.458	84.703	67.102
06/23/2011 16:54:16	5.427	13.407	84.703	67.102
06/23/2011 16:54:26	5.445	13.462	84.703	67.102
06/23/2011 16:54:36	5.39	13.476	84.904	67.102
06/23/2011 16:54:46	5.394	13.454	84.703	67.102
06/23/2011 16:54:56	5.423	13.432	84.703	67.102
06/23/2011 16:55:06	5.43	13.462	84.703	67.102
06/23/2011 16:55:16	5.419	13.429	84.904	67.102
06/23/2011 16:55:26	5.449	13.374	84.703	66.901
06/23/2011 16:55:36	5.441	13.454	84.904	67.102
06/23/2011 16:55:46	5.423	13.425	84.501	67.102
06/23/2011 16:55:56	5.438	13.429	84.501	66.901

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 16:56:06	5.401	13.484	84.501	66.901
06/23/2011 16:56:16	5.376	13.469	84.703	66.901
06/23/2011 16:56:26	5.35	13.546	84.703	67.102
06/23/2011 16:56:36	5.317	13.546	84.703	67.102
06/23/2011 16:56:46	5.288	13.605	84.904	67.102
06/23/2011 16:56:56	5.266	13.575	84.703	66.901
06/23/2011 16:57:06	5.28	13.572	84.703	66.901
06/23/2011 16:57:16	5.284	13.546	84.501	67.102
06/23/2011 16:57:26	5.288	13.594	84.501	67.102
06/23/2011 16:57:36	5.233	13.641	84.304	67.102
06/23/2011 16:57:46	5.214	13.616	84.304	66.901
06/23/2011 16:57:56	5.222	13.645	84.304	66.901
06/23/2011 16:58:06	5.247	13.564	84.304	66.901
06/23/2011 16:58:16	5.277	13.561	84.205	66.901
06/23/2011 16:58:26	5.31	13.484	84.304	66.901
06/23/2011 16:58:36	5.379	13.432	84.304	66.901
06/23/2011 16:58:46	5.449	13.392	84.304	66.901
06/23/2011 16:58:56	5.46	13.421	84.205	66.901
06/23/2011 16:59:06	5.408	13.506	84.205	66.901
06/23/2011 16:59:16	5.321	13.59	84.304	66.901
06/23/2011 16:59:26	5.273	13.55	84.003	66.901
06/23/2011 16:59:36	5.31	13.546	84.205	67.102
06/23/2011 16:59:46	5.291	13.568	84.205	67.102
06/23/2011 16:59:56	5.255	13.638	84.205	67.102
06/23/2011 17:00:06	5.218	13.645	84.205	67.102
06/23/2011 17:00:16	5.229	13.579	84.304	67.102
06/23/2011 17:00:26	5.284	13.553	84.304	67.102
06/23/2011 17:00:36	5.306	13.561	84.501	67.102
06/23/2011 17:00:46	5.31	13.517	84.501	67.102
06/23/2011 17:00:56	5.313	13.546	84.703	67.102
06/23/2011 17:01:06	5.302	13.557	84.703	67.102
06/23/2011 17:01:16	5.295	13.583	84.703	67.102
06/23/2011 17:01:26	5.266	13.627	84.501	66.901
06/23/2011 17:01:36	5.255	13.605	84.501	66.901
06/23/2011 17:01:46	5.251	13.627	84.703	67.102
06/23/2011 17:01:56	5.244	13.659	84.501	67.102
06/23/2011 17:02:06	5.214	13.685	84.501	67.102
06/23/2011 17:02:16	5.229	13.586	84.304	67.102
06/23/2011 17:02:26	5.284	13.572	84.205	67.102
06/23/2011 17:02:36	5.28	13.616	84.205	67.102
06/23/2011 17:02:46	5.251	13.619	84.205	67.102
06/23/2011 17:02:56	5.273	13.605	84.304	67.201
06/23/2011 17:03:06	5.266	13.601	84.205	67.201
06/23/2011 17:03:16	5.262	13.575	84.205	67.201
06/23/2011 17:03:26	5.284	13.572	84.304	67.201
06/23/2011 17:03:36	5.28	13.568	84.304	67.102
06/23/2011 17:03:46	5.284	13.531	84.501	67.102
06/23/2011 17:03:56	5.291	13.575	84.703	67.102
06/23/2011 17:04:06	5.306	13.465	84.501	67.102
06/23/2011 17:04:16	5.423	13.366	84.501	67.201
06/23/2011 17:04:26	5.511	13.326	84.501	67.102
06/23/2011 17:04:36	5.518	13.388	84.304	66.901
06/23/2011 17:04:46	5.463	13.399	84.304	66.901
06/23/2011 17:04:56	5.438	13.414	84.304	66.901
06/23/2011 17:05:06	5.387	13.524	84.205	66.901
06/23/2011 17:05:16	5.354	13.509	84.205	66.901
06/23/2011 17:05:26	5.394	13.425	84.205	67.102
06/23/2011 17:05:36	5.434	13.421	84.304	67.102
06/23/2011 17:05:46	5.423	13.443	84.205	67.102
06/23/2011 17:05:56	5.434	13.41	84.205	67.102
06/23/2011 17:06:06	5.423	13.469	84.205	67.102
06/23/2011 17:06:16	5.401	13.458	84.205	67.102
06/23/2011 17:06:26	5.419	13.443	84.304	67.102
06/23/2011 17:06:36	5.412	13.487	84.205	67.102
06/23/2011 17:06:46	5.394	13.454	84.304	67.102
06/23/2011 17:06:56	5.423	13.385	84.304	67.102
06/23/2011 17:07:06	5.46	13.403	84.304	67.102

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 17:07:16	5.427	13.451	84.304	67.102
06/23/2011 17:07:26	5.383	13.52	84.501	67.102
06/23/2011 17:07:36	5.365	13.454	84.304	67.102
06/23/2011 17:07:46	5.394	13.454	84.304	66.901
06/23/2011 17:07:56	5.398	13.451	84.703	66.901
06/23/2011 17:08:06	5.383	13.462	84.703	66.901
06/23/2011 17:08:16	5.394	13.462	84.304	66.901
06/23/2011 17:08:26	5.423	13.432	84.304	66.901
06/23/2011 17:08:36	5.376	13.568	84.003	66.901
06/23/2011 17:08:46	5.295	13.568	84.304	66.901
06/23/2011 17:08:56	5.306	13.583	84.304	66.901
06/23/2011 17:09:06	5.284	13.612	84.501	66.901
06/23/2011 17:09:16	5.269	13.605	84.304	66.901
06/23/2011 17:09:26	5.269	13.586	84.205	66.901
06/23/2011 17:09:36	5.288	13.568	84.304	66.901
06/23/2011 17:09:46	5.291	13.623	84.304	66.901
06/23/2011 17:09:56	5.24	13.627	84.003	66.901
06/23/2011 17:10:06	5.233	13.59	84.205	66.901
06/23/2011 17:10:16	5.251	13.605	84.304	66.901
06/23/2011 17:10:26	5.288	13.557	84.304	66.901
06/23/2011 17:10:36	5.302	13.564	84.501	66.901
06/23/2011 17:10:46	5.306	13.535	84.304	66.901
06/23/2011 17:10:56	5.313	13.561	84.501	66.901
06/23/2011 17:11:06	5.258	13.656	84.501	66.901
06/23/2011 17:11:16	5.225	13.634	84.304	66.901
06/23/2011 17:11:26	5.225	13.623	84.304	66.901
06/23/2011 17:11:36	5.229	13.638	84.205	66.901
06/23/2011 17:11:46	5.251	13.612	84.205	66.901
06/23/2011 17:11:56	5.273	13.557	84.304	66.901
06/23/2011 17:12:06	5.328	13.528	84.501	66.901
06/23/2011 17:12:16	5.328	13.557	84.501	66.901
06/23/2011 17:12:26	5.31	13.572	84.304	66.901
06/23/2011 17:12:36	5.28	13.641	84.304	66.901
06/23/2011 17:12:46	5.236	13.608	84.205	66.901
06/23/2011 17:12:56	5.247	13.634	84.304	66.901
06/23/2011 17:13:06	5.218	13.652	84.501	66.901
06/23/2011 17:13:16	5.196	13.663	84.501	66.901
06/23/2011 17:13:26	5.225	13.59	84.304	66.901
06/23/2011 17:13:36	5.273	13.579	84.304	66.901
06/23/2011 17:13:46	5.288	13.531	84.304	66.901
06/23/2011 17:13:56	5.299	13.575	84.304	66.901
06/23/2011 17:14:06	5.273	13.579	84.304	66.901
06/23/2011 17:14:16	5.266	13.634	84.205	66.901
06/23/2011 17:14:26	5.233	13.638	84.304	66.901
06/23/2011 17:14:36	5.222	13.656	84.205	66.901
06/23/2011 17:14:46	5.2	13.627	84.304	66.901
06/23/2011 17:14:56	5.2	13.659	84.304	66.901
06/23/2011 17:15:06	5.174	13.674	84.501	66.901
06/23/2011 17:15:16	5.207	13.557	84.501	66.901
06/23/2011 17:15:26	5.302	13.535	84.501	66.901
06/23/2011 17:15:36	5.324	13.513	84.205	66.901
06/23/2011 17:15:46	5.354	13.458	84.003	66.901
06/23/2011 17:15:56	5.376	13.506	84.205	66.901
06/23/2011 17:16:06	5.335	13.539	84.205	66.901
06/23/2011 17:16:16	5.299	13.594	84.205	66.901
06/23/2011 17:16:26	5.269	13.59	84.003	66.901
06/23/2011 17:16:36	5.24	13.645	84.205	66.901
06/23/2011 17:16:46	5.236	13.561	84.205	66.901
06/23/2011 17:16:56	5.277	13.586	84.205	66.901
06/23/2011 17:17:06	5.295	13.557	84.205	66.703
06/23/2011 17:17:16	5.302	13.546	84.205	66.703
06/23/2011 17:17:26	5.288	13.575	84.205	66.901
06/23/2011 17:17:36	5.273	13.59	84.304	66.703
06/23/2011 17:17:46	5.258	13.583	84.501	66.901
06/23/2011 17:17:56	5.258	13.619	84.205	66.901
06/23/2011 17:18:06	5.225	13.645	84.003	66.901
06/23/2011 17:18:16	5.203	13.674	84.003	66.901

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 17:18:26	5.203	13.659	84.304	66.901
06/23/2011 17:18:36	5.2	13.67	84.304	66.901
06/23/2011 17:18:46	5.214	13.63	84.304	66.901
06/23/2011 17:18:56	5.244	13.619	84.501	66.901
06/23/2011 17:19:06	5.273	13.553	84.304	66.901
06/23/2011 17:19:16	5.31	13.531	84.304	66.703
06/23/2011 17:19:26	5.302	13.586	84.304	66.901
06/23/2011 17:19:36	5.258	13.616	84.205	66.703
06/23/2011 17:19:46	5.244	13.597	84.304	66.703
06/23/2011 17:19:56	5.258	13.579	84.205	66.901
06/23/2011 17:20:06	5.273	13.575	84.205	66.901
06/23/2011 17:20:16	5.28	13.586	84.003	66.703
06/23/2011 17:20:26	5.273	13.601	84.003	66.703
06/23/2011 17:20:36	5.277	13.564	84.003	66.703
06/23/2011 17:20:46	5.273	13.634	84.003	66.502
06/23/2011 17:20:56	5.24	13.619	84.205	66.703
06/23/2011 17:21:06	5.2	13.692	83.802	66.703
06/23/2011 17:21:16	5.2	13.619	84.205	66.901
06/23/2011 17:21:26	5.225	13.638	84.003	66.901
06/23/2011 17:21:36	5.214	13.63	84.003	66.703
06/23/2011 17:21:46	5.266	13.561	84.205	66.703
06/23/2011 17:21:56	5.313	13.572	84.003	66.703
06/23/2011 17:22:06	5.284	13.601	84.003	66.703
06/23/2011 17:22:16	5.225	13.663	84.003	66.703
06/23/2011 17:22:26	5.178	13.696	84.205	66.703
06/23/2011 17:22:36	5.167	13.689	84.205	66.703
06/23/2011 17:22:46	5.192	13.674	84.304	66.703
06/23/2011 17:22:56	5.192	13.674	84.304	66.703
06/23/2011 17:23:06	5.17	13.733	84.304	66.703
06/23/2011 17:23:16	5.123	13.758	84.205	66.703
06/23/2011 17:23:26	5.123	13.707	84.205	66.703
06/23/2011 17:23:36	5.174	13.627	84.205	66.703
06/23/2011 17:23:46	5.211	13.656	84.205	66.901
06/23/2011 17:23:56	5.222	13.656	84.205	66.901
06/23/2011 17:24:06	5.222	13.645	84.003	66.901
06/23/2011 17:24:16	5.218	13.652	84.304	67.102
06/23/2011 17:24:26	5.247	13.619	84.304	67.102
06/23/2011 17:24:36	5.284	13.627	84.501	67.102
06/23/2011 17:24:46	5.255	13.63	84.501	66.901
06/23/2011 17:24:56	5.185	13.729	84.501	66.901
06/23/2011 17:25:06	5.152	13.711	84.304	66.901
06/23/2011 17:25:16	5.159	13.703	84.501	66.901
06/23/2011 17:25:26	5.17	13.689	84.304	66.901
06/23/2011 17:25:36	5.17	13.67	84.304	66.901
06/23/2011 17:25:46	5.207	13.605	84.205	66.901
06/23/2011 17:25:56	5.255	13.597	84.304	66.901
06/23/2011 17:26:06	5.218	13.718	84.304	66.901
06/23/2011 17:26:16	5.17	13.681	84.304	66.901
06/23/2011 17:26:26	5.178	13.696	84.304	66.901
06/23/2011 17:26:36	5.159	13.7	84.304	66.901
06/23/2011 17:26:46	5.17	13.707	84.304	66.901
06/23/2011 17:26:56	5.148	13.714	84.501	66.901
06/23/2011 17:27:06	5.192	13.623	84.703	66.901
06/23/2011 17:27:16	5.277	13.564	84.703	66.901
06/23/2011 17:27:26	5.313	13.564	84.501	66.703
06/23/2011 17:27:36	5.306	13.579	84.501	66.703
06/23/2011 17:27:46	5.273	13.634	84.501	66.703
06/23/2011 17:27:56	5.244	13.616	84.501	66.703
06/23/2011 17:28:06	5.225	13.638	84.703	66.703
06/23/2011 17:28:16	5.192	13.7	84.703	66.703
06/23/2011 17:28:26	5.141	13.733	84.501	66.703
06/23/2011 17:28:36	5.097	13.733	84.703	66.703
06/23/2011 17:28:46	5.145	13.681	84.703	66.703
06/23/2011 17:28:56	5.181	13.656	84.501	66.901
06/23/2011 17:29:06	5.207	13.623	84.501	66.901
06/23/2011 17:29:16	5.258	13.564	84.501	66.901
06/23/2011 17:29:26	5.273	13.59	84.501	66.901

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 17:29:36	5.24	13.652	84.304	66.901
06/23/2011 17:29:46	5.211	13.656	84.205	66.901
06/23/2011 17:29:56	5.174	13.7	84.205	66.703
06/23/2011 17:30:06	5.152	13.722	84.003	66.703
06/23/2011 17:30:16	5.126	13.74	84.205	66.703
06/23/2011 17:30:26	5.137	13.681	84.205	66.901
06/23/2011 17:30:36	5.167	13.678	84.304	66.901
06/23/2011 17:30:46	5.207	13.634	84.304	66.901
06/23/2011 17:30:56	5.225	13.616	84.205	66.901
06/23/2011 17:31:06	5.229	13.627	84.205	66.901
06/23/2011 17:31:16	5.233	13.627	83.802	66.703
06/23/2011 17:31:26	5.225	13.623	84.003	66.703
06/23/2011 17:31:36	5.24	13.623	84.205	66.703
06/23/2011 17:31:46	5.251	13.597	84.205	66.703
06/23/2011 17:31:56	5.269	13.579	84.205	66.703
06/23/2011 17:32:06	5.258	13.619	84.003	66.703
06/23/2011 17:32:16	5.266	13.542	84.003	66.703
06/23/2011 17:32:26	5.321	13.531	84.205	66.703
06/23/2011 17:32:36	5.28	13.616	84.003	66.703
06/23/2011 17:32:46	5.214	13.645	84.205	66.901
06/23/2011 17:32:56	5.192	13.685	84.205	66.901
06/23/2011 17:33:06	5.156	13.707	84.003	66.901
06/23/2011 17:33:16	5.105	13.758	84.003	66.703
06/23/2011 17:33:26	5.101	13.674	84.003	66.901
06/23/2011 17:33:36	5.17	13.667	84.003	66.901
06/23/2011 17:33:46	5.203	13.648	84.003	66.901
06/23/2011 17:33:56	5.236	13.612	84.003	66.901
06/23/2011 17:34:06	5.269	13.564	83.802	66.901
06/23/2011 17:34:16	5.28	13.601	83.604	66.703
06/23/2011 17:34:26	5.262	13.616	83.802	66.703
06/23/2011 17:34:36	5.24	13.645	83.802	66.703
06/23/2011 17:34:46	5.255	13.594	84.003	66.703
06/23/2011 17:34:56	5.277	13.597	84.304	66.901
06/23/2011 17:35:06	5.255	13.627	84.304	66.901
06/23/2011 17:35:16	5.229	13.638	84.205	66.901
06/23/2011 17:35:26	5.218	13.67	84.205	66.901
06/23/2011 17:35:36	5.2	13.689	84.205	66.901
06/23/2011 17:35:46	5.181	13.674	84.205	66.901
06/23/2011 17:35:56	5.189	13.645	84.304	66.901
06/23/2011 17:36:06	5.2	13.711	84.003	66.901
06/23/2011 17:36:16	5.196	13.623	84.003	66.703
06/23/2011 17:36:26	5.288	13.531	84.205	66.703
06/23/2011 17:36:36	5.343	13.513	84.205	66.703
06/23/2011 17:36:46	5.346	13.491	84.205	66.502
06/23/2011 17:36:56	5.324	13.575	84.205	66.901
06/23/2011 17:37:06	5.24	13.678	84.003	66.901
06/23/2011 17:37:16	5.178	13.656	83.802	66.703
06/23/2011 17:37:26	5.2	13.623	84.003	66.703
06/23/2011 17:37:36	5.214	13.638	84.003	66.703
06/23/2011 17:37:46	5.203	13.674	83.802	66.703
06/23/2011 17:37:56	5.17	13.7	84.003	66.901
06/23/2011 17:38:06	5.17	13.638	83.802	66.703
06/23/2011 17:38:16	5.192	13.667	83.604	66.703
06/23/2011 17:38:26	5.222	13.619	83.802	66.703
06/23/2011 17:38:36	5.214	13.703	83.802	66.703
06/23/2011 17:38:46	5.156	13.733	84.003	66.703
06/23/2011 17:38:56	5.126	13.736	84.205	66.901
06/23/2011 17:39:06	5.141	13.692	83.802	66.703
06/23/2011 17:39:16	5.141	13.736	84.003	66.703
06/23/2011 17:39:26	5.119	13.74	84.003	66.703
06/23/2011 17:39:36	5.116	13.751	84.003	66.703
06/23/2011 17:39:46	5.126	13.692	84.003	66.703
06/23/2011 17:39:56	5.207	13.616	84.003	66.502
06/23/2011 17:40:06	5.255	13.63	84.003	66.703
06/23/2011 17:40:16	5.225	13.652	83.802	66.703
06/23/2011 17:40:26	5.24	13.583	83.802	66.703
06/23/2011 17:40:36	5.284	13.619	84.003	66.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 17:40:46	5.244	13.67	84.003	66.703
06/23/2011 17:40:56	5.207	13.663	83.802	66.703
06/23/2011 17:41:06	5.214	13.63	84.003	66.703
06/23/2011 17:41:16	5.236	13.656	84.205	66.703
06/23/2011 17:41:26	5.233	13.645	84.003	66.703
06/23/2011 17:41:36	5.192	13.707	84.205	66.901
06/23/2011 17:41:46	5.181	13.659	84.205	66.703
06/23/2011 17:41:56	5.214	13.652	84.003	66.703
06/23/2011 17:42:06	5.218	13.663	83.802	66.703
06/23/2011 17:42:16	5.181	13.722	84.003	66.901
06/23/2011 17:42:26	5.123	13.755	83.802	66.901
06/23/2011 17:42:36	5.126	13.692	83.802	66.901
06/23/2011 17:42:46	5.17	13.689	83.802	66.901
06/23/2011 17:42:56	5.17	13.678	84.003	66.901
06/23/2011 17:43:06	5.159	13.696	84.205	66.703
06/23/2011 17:43:16	5.17	13.648	84.205	66.703
06/23/2011 17:43:26	5.218	13.667	84.205	66.703
06/23/2011 17:43:36	5.207	13.67	84.003	66.703
06/23/2011 17:43:46	5.251	13.553	84.003	66.901
06/23/2011 17:43:56	5.288	13.594	83.604	66.703
06/23/2011 17:44:06	5.236	13.652	83.604	66.502
06/23/2011 17:44:16	5.196	13.663	83.802	66.502
06/23/2011 17:44:26	5.189	13.634	83.802	66.502
06/23/2011 17:44:36	5.222	13.63	83.604	66.502
06/23/2011 17:44:46	5.247	13.586	83.802	66.502
06/23/2011 17:44:56	5.258	13.627	83.604	66.502
06/23/2011 17:45:06	5.225	13.656	83.802	66.502
06/23/2011 17:45:16	5.189	13.645	83.802	66.502
06/23/2011 17:45:26	5.192	13.663	84.003	66.502
06/23/2011 17:45:36	5.192	13.681	84.003	66.502
06/23/2011 17:45:46	5.185	13.689	84.205	66.502
06/23/2011 17:45:56	5.174	13.696	83.802	66.502
06/23/2011 17:46:06	5.145	13.718	83.802	66.502
06/23/2011 17:46:16	5.167	13.659	83.802	66.304
06/23/2011 17:46:26	5.189	13.696	84.205	66.502
06/23/2011 17:46:36	5.192	13.685	84.205	66.502
06/23/2011 17:46:46	5.214	13.63	84.205	66.703
06/23/2011 17:46:56	5.24	13.659	84.205	66.502
06/23/2011 17:47:06	5.211	13.7	84.205	66.304
06/23/2011 17:47:16	5.189	13.696	84.205	66.304
06/23/2011 17:47:26	5.2	13.659	84.205	66.304
06/23/2011 17:47:36	5.207	13.674	84.003	66.304
06/23/2011 17:47:46	5.233	13.597	83.802	66.304
06/23/2011 17:47:56	5.306	13.524	83.604	66.502
06/23/2011 17:48:06	5.354	13.509	83.802	66.502
06/23/2011 17:48:16	5.376	13.513	83.604	66.502
06/23/2011 17:48:26	5.35	13.561	83.604	66.502
06/23/2011 17:48:36	5.321	13.498	83.802	66.502
06/23/2011 17:48:46	5.35	13.498	84.003	66.502
06/23/2011 17:48:56	5.383	13.48	83.802	66.502
06/23/2011 17:49:06	5.35	13.553	83.802	66.502
06/23/2011 17:49:16	5.306	13.55	83.604	66.502
06/23/2011 17:49:26	5.302	13.568	83.802	66.502
06/23/2011 17:49:36	5.284	13.608	83.802	66.502
06/23/2011 17:49:46	5.24	13.67	84.003	66.502
06/23/2011 17:49:56	5.196	13.696	83.802	66.502
06/23/2011 17:50:06	5.211	13.63	83.802	66.502
06/23/2011 17:50:16	5.273	13.568	83.604	66.502
06/23/2011 17:50:26	5.284	13.601	83.604	66.502
06/23/2011 17:50:36	5.251	13.627	83.802	66.502
06/23/2011 17:50:46	5.247	13.623	83.802	66.502
06/23/2011 17:50:56	5.233	13.659	83.802	66.502
06/23/2011 17:51:06	5.236	13.63	83.802	66.502
06/23/2011 17:51:16	5.269	13.579	83.604	66.502
06/23/2011 17:51:26	5.269	13.63	83.604	66.502
06/23/2011 17:51:36	5.203	13.711	83.604	66.703
06/23/2011 17:51:46	5.189	13.612	83.802	66.502

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 17:51:56	5.273	13.557	83.802	66.502
06/23/2011 17:52:06	5.317	13.564	83.604	66.502
06/23/2011 17:52:16	5.273	13.638	83.604	66.502
06/23/2011 17:52:26	5.214	13.689	83.604	66.304
06/23/2011 17:52:36	5.229	13.572	83.604	66.304
06/23/2011 17:52:46	5.328	13.528	83.604	66.502
06/23/2011 17:52:56	5.357	13.52	83.802	66.502
06/23/2011 17:53:06	5.35	13.524	84.003	66.502
06/23/2011 17:53:16	5.343	13.55	84.003	66.703
06/23/2011 17:53:26	5.284	13.616	83.802	66.502
06/23/2011 17:53:36	5.218	13.645	83.604	66.502
06/23/2011 17:53:46	5.229	13.641	83.802	66.703
06/23/2011 17:53:56	5.222	13.67	83.802	66.502
06/23/2011 17:54:06	5.233	13.627	84.205	66.502
06/23/2011 17:54:16	5.258	13.605	84.205	66.502
06/23/2011 17:54:26	5.284	13.575	84.205	66.304
06/23/2011 17:54:36	5.317	13.583	84.003	66.304
06/23/2011 17:54:46	5.31	13.586	83.802	66.304
06/23/2011 17:54:56	5.317	13.561	83.802	66.502
06/23/2011 17:55:06	5.324	13.568	84.003	66.502
06/23/2011 17:55:16	5.317	13.575	83.802	66.502
06/23/2011 17:55:26	5.302	13.561	84.003	66.304
06/23/2011 17:55:36	5.31	13.575	84.003	66.502
06/23/2011 17:55:46	5.295	13.594	84.003	66.502
06/23/2011 17:55:56	5.299	13.568	83.604	66.502
06/23/2011 17:56:06	5.31	13.55	83.604	66.502
06/23/2011 17:56:16	5.306	13.568	83.802	66.502
06/23/2011 17:56:26	5.288	13.616	83.802	66.502
06/23/2011 17:56:36	5.277	13.616	83.802	66.304
06/23/2011 17:56:46	5.295	13.594	83.604	66.304
06/23/2011 17:56:56	5.295	13.568	83.403	66.304
06/23/2011 17:57:06	5.284	13.597	83.403	66.304
06/23/2011 17:57:16	5.284	13.59	83.304	66.304
06/23/2011 17:57:26	5.273	13.656	83.403	66.304
06/23/2011 17:57:36	5.244	13.648	83.604	66.304
06/23/2011 17:57:46	5.255	13.575	83.403	66.304
06/23/2011 17:57:56	5.306	13.579	83.604	66.304
06/23/2011 17:58:06	5.295	13.616	83.604	66.502
06/23/2011 17:58:16	5.273	13.605	83.604	66.304
06/23/2011 17:58:26	5.28	13.586	83.604	66.304
06/23/2011 17:58:36	5.288	13.601	83.604	66.304
06/23/2011 17:58:46	5.302	13.579	83.403	66.304
06/23/2011 17:58:56	5.324	13.535	83.403	66.502
06/23/2011 17:59:06	5.372	13.495	83.103	66.304
06/23/2011 17:59:16	5.408	13.443	83.304	66.304
06/23/2011 17:59:26	5.416	13.495	83.403	66.304
06/23/2011 17:59:36	5.365	13.553	83.403	66.304
06/23/2011 17:59:46	5.295	13.597	83.103	66.502
06/23/2011 17:59:56	5.262	13.594	83.103	66.502
06/23/2011 18:00:06	5.247	13.641	83.403	66.502
06/23/2011 18:00:16	5.225	13.619	83.403	66.502
06/23/2011 18:00:26	5.233	13.623	83.403	66.304
06/23/2011 18:00:36	5.236	13.608	83.403	66.502
06/23/2011 18:00:46	5.262	13.597	83.403	66.502
06/23/2011 18:00:56	5.258	13.619	83.403	66.502
06/23/2011 18:01:06	5.291	13.498	83.403	66.502
06/23/2011 18:01:16	5.376	13.465	83.604	66.502
06/23/2011 18:01:26	5.43	13.414	83.802	66.502
06/23/2011 18:01:36	5.423	13.509	83.604	66.304
06/23/2011 18:01:46	5.376	13.476	83.403	66.304
06/23/2011 18:01:56	5.387	13.509	83.604	66.304
06/23/2011 18:02:06	5.343	13.535	83.604	66.304
06/23/2011 18:02:16	5.343	13.55	83.604	66.304
06/23/2011 18:02:26	5.306	13.594	83.604	66.304
06/23/2011 18:02:36	5.258	13.627	83.802	66.304
06/23/2011 18:02:46	5.262	13.564	83.604	66.304
06/23/2011 18:02:56	5.28	13.601	83.604	66.304

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 18:03:06	5.207	13.714	83.604	66.304
06/23/2011 18:03:16	5.152	13.7	83.604	66.304
06/23/2011 18:03:26	5.163	13.7	83.802	66.502
06/23/2011 18:03:36	5.207	13.63	84.003	66.502
06/23/2011 18:03:46	5.262	13.623	83.802	66.304
06/23/2011 18:03:56	5.244	13.652	83.802	66.502
06/23/2011 18:04:06	5.229	13.656	84.003	66.703
06/23/2011 18:04:16	5.244	13.634	84.003	66.502
06/23/2011 18:04:26	5.222	13.656	84.003	66.502
06/23/2011 18:04:36	5.222	13.634	83.604	66.502
06/23/2011 18:04:46	5.273	13.572	83.604	66.502
06/23/2011 18:04:56	5.321	13.557	83.802	66.502
06/23/2011 18:05:06	5.288	13.638	83.604	66.502
06/23/2011 18:05:16	5.244	13.608	83.802	66.502
06/23/2011 18:05:26	5.269	13.572	84.003	66.502
06/23/2011 18:05:36	5.31	13.55	84.003	66.502
06/23/2011 18:05:46	5.302	13.586	83.802	66.502
06/23/2011 18:05:56	5.229	13.714	83.802	66.502
06/23/2011 18:06:06	5.17	13.685	83.802	66.502
06/23/2011 18:06:16	5.196	13.638	84.003	66.304
06/23/2011 18:06:26	5.295	13.506	84.003	66.502
06/23/2011 18:06:36	5.405	13.421	83.802	66.502
06/23/2011 18:06:46	5.412	13.513	83.802	66.502
06/23/2011 18:06:56	5.335	13.597	84.003	66.502
06/23/2011 18:07:06	5.269	13.638	83.802	66.502
06/23/2011 18:07:16	5.247	13.583	83.802	66.304
06/23/2011 18:07:26	5.291	13.568	83.802	66.304
06/23/2011 18:07:36	5.28	13.619	83.802	66.304
06/23/2011 18:07:46	5.251	13.638	84.003	66.502
06/23/2011 18:07:56	5.247	13.638	84.003	66.502
06/23/2011 18:08:06	5.233	13.67	83.802	66.502
06/23/2011 18:08:16	5.163	13.773	83.802	66.502
06/23/2011 18:08:26	5.13	13.733	83.802	66.502
06/23/2011 18:08:36	5.192	13.659	83.604	66.502
06/23/2011 18:08:46	5.251	13.623	83.604	66.502
06/23/2011 18:08:56	5.273	13.601	83.604	66.502
06/23/2011 18:09:06	5.291	13.597	83.802	66.502
06/23/2011 18:09:16	5.302	13.605	84.205	66.703
06/23/2011 18:09:26	5.295	13.623	84.003	66.703
06/23/2011 18:09:36	5.258	13.648	84.003	66.703
06/23/2011 18:09:46	5.24	13.612	84.003	66.502
06/23/2011 18:09:56	5.266	13.579	84.003	66.703
06/23/2011 18:10:06	5.295	13.553	84.205	66.703
06/23/2011 18:10:16	5.328	13.524	84.205	66.703
06/23/2011 18:10:26	5.343	13.52	84.205	66.703
06/23/2011 18:10:36	5.299	13.605	84.003	66.703
06/23/2011 18:10:46	5.273	13.575	84.003	66.703
06/23/2011 18:10:56	5.306	13.528	84.205	66.502
06/23/2011 18:11:06	5.313	13.586	84.304	66.502
06/23/2011 18:11:16	5.251	13.652	84.304	66.304
06/23/2011 18:11:26	5.214	13.652	84.003	66.502
06/23/2011 18:11:36	5.207	13.634	84.003	66.502
06/23/2011 18:11:46	5.189	13.681	84.003	66.502
06/23/2011 18:11:56	5.17	13.725	84.003	66.502
06/23/2011 18:12:06	5.181	13.634	84.003	66.304
06/23/2011 18:12:16	5.269	13.572	83.802	66.502
06/23/2011 18:12:26	5.328	13.564	83.802	66.502
06/23/2011 18:12:36	5.306	13.579	84.003	66.502
06/23/2011 18:12:46	5.295	13.586	84.205	66.304
06/23/2011 18:12:56	5.313	13.524	83.802	66.304
06/23/2011 18:13:06	5.328	13.561	84.003	66.304
06/23/2011 18:13:16	5.328	13.542	84.205	66.304
06/23/2011 18:13:26	5.335	13.539	84.205	66.304
06/23/2011 18:13:36	5.313	13.568	83.802	66.304
06/23/2011 18:13:46	5.273	13.634	83.604	66.304
06/23/2011 18:13:56	5.218	13.67	83.802	66.304
06/23/2011 18:14:06	5.17	13.733	83.802	66.304

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 18:14:16	5.163	13.663	83.802	66.304
06/23/2011 18:14:26	5.189	13.663	84.205	66.502
06/23/2011 18:14:36	5.211	13.645	84.205	66.502
06/23/2011 18:14:46	5.251	13.612	84.003	66.502
06/23/2011 18:14:56	5.251	13.659	83.802	66.502
06/23/2011 18:15:06	5.222	13.634	83.604	66.502
06/23/2011 18:15:16	5.222	13.623	83.802	66.502
06/23/2011 18:15:26	5.251	13.594	84.003	66.502
06/23/2011 18:15:36	5.266	13.608	83.604	66.304
06/23/2011 18:15:46	5.247	13.634	83.604	66.304
06/23/2011 18:15:56	5.233	13.645	83.604	66.502
06/23/2011 18:16:06	5.222	13.678	84.003	66.703
06/23/2011 18:16:16	5.196	13.681	83.802	66.502
06/23/2011 18:16:26	5.178	13.714	84.003	66.502
06/23/2011 18:16:36	5.163	13.747	84.003	66.502
06/23/2011 18:16:46	5.137	13.744	83.802	66.502
06/23/2011 18:16:56	5.178	13.663	84.003	66.502
06/23/2011 18:17:06	5.262	13.579	84.205	66.502
06/23/2011 18:17:16	5.31	13.575	84.003	66.502
06/23/2011 18:17:26	5.339	13.535	84.003	66.502
06/23/2011 18:17:36	5.328	13.572	83.802	66.502
06/23/2011 18:17:46	5.306	13.575	84.003	66.304
06/23/2011 18:17:56	5.244	13.689	84.003	66.502
06/23/2011 18:18:06	5.189	13.67	84.003	66.502
06/23/2011 18:18:16	5.17	13.711	84.003	66.502
06/23/2011 18:18:26	5.156	13.718	84.003	66.502
06/23/2011 18:18:36	5.152	13.703	84.003	66.502
06/23/2011 18:18:46	5.196	13.681	83.802	66.502
06/23/2011 18:18:56	5.225	13.652	84.205	66.703
06/23/2011 18:19:06	5.247	13.638	84.003	66.502
06/23/2011 18:19:16	5.233	13.659	83.802	66.502
06/23/2011 18:19:26	5.196	13.692	83.802	66.502
06/23/2011 18:19:36	5.189	13.689	83.802	66.502
06/23/2011 18:19:46	5.189	13.692	83.802	66.502
06/23/2011 18:19:56	5.203	13.652	83.802	66.502
06/23/2011 18:20:06	5.266	13.575	84.003	66.502
06/23/2011 18:20:16	5.328	13.542	84.003	66.502
06/23/2011 18:20:26	5.365	13.564	84.205	66.502
06/23/2011 18:20:36	5.313	13.579	84.205	66.502
06/23/2011 18:20:46	5.277	13.623	84.205	66.502
06/23/2011 18:20:56	5.262	13.594	84.205	66.502
06/23/2011 18:21:06	5.284	13.583	84.003	66.502
06/23/2011 18:21:16	5.273	13.612	83.802	66.703
06/23/2011 18:21:26	5.236	13.681	83.802	66.502
06/23/2011 18:21:36	5.189	13.692	84.003	66.502
06/23/2011 18:21:46	5.192	13.678	84.205	66.502
06/23/2011 18:21:56	5.174	13.714	84.205	66.502
06/23/2011 18:22:06	5.178	13.656	84.003	66.502
06/23/2011 18:22:16	5.222	13.641	84.205	66.502
06/23/2011 18:22:26	5.189	13.711	84.003	66.502
06/23/2011 18:22:36	5.178	13.648	84.304	66.703
06/23/2011 18:22:46	5.222	13.641	84.205	66.703
06/23/2011 18:22:56	5.207	13.681	84.003	66.901
06/23/2011 18:23:06	5.178	13.689	84.205	66.901
06/23/2011 18:23:16	5.2	13.623	84.304	66.703
06/23/2011 18:23:26	5.225	13.638	84.205	66.901
06/23/2011 18:23:36	5.251	13.586	83.802	66.901
06/23/2011 18:23:46	5.284	13.572	83.604	66.703
06/23/2011 18:23:56	5.24	13.645	84.003	66.703
06/23/2011 18:24:06	5.189	13.707	84.003	66.901
06/23/2011 18:24:16	5.156	13.744	83.802	66.901
06/23/2011 18:24:26	5.13	13.736	84.003	66.703
06/23/2011 18:24:36	5.13	13.7	84.003	66.703
06/23/2011 18:24:46	5.167	13.689	83.802	66.703
06/23/2011 18:24:56	5.159	13.703	83.802	66.703
06/23/2011 18:25:06	5.141	13.733	83.802	66.703
06/23/2011 18:25:16	5.09	13.813	84.003	66.703

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 18:25:26	5.042	13.835	84.003	66.703
06/23/2011 18:25:36	5.039	13.795	84.003	66.703
06/23/2011 18:25:46	5.053	13.766	84.003	66.703
06/23/2011 18:25:56	5.083	13.762	84.205	66.703
06/23/2011 18:26:06	5.097	13.769	84.304	66.703
06/23/2011 18:26:16	5.083	13.777	84.205	66.703
06/23/2011 18:26:26	5.068	13.78	84.205	66.703
06/23/2011 18:26:36	5.105	13.711	84.205	66.703
06/23/2011 18:26:46	5.123	13.744	83.802	66.502
06/23/2011 18:26:56	5.086	13.784	83.604	66.502
06/23/2011 18:27:06	5.072	13.784	84.003	66.502
06/23/2011 18:27:16	5.042	13.846	84.304	66.703
06/23/2011 18:27:26	4.954	13.945	84.205	66.703
06/23/2011 18:27:36	4.907	13.934	84.003	66.703
06/23/2011 18:27:46	4.936	13.883	84.205	66.703
06/23/2011 18:27:56	5.024	13.769	84.003	66.703
06/23/2011 18:28:06	5.108	13.722	84.003	66.502
06/23/2011 18:28:16	5.156	13.707	84.003	66.703
06/23/2011 18:28:26	5.163	13.733	84.003	66.703
06/23/2011 18:28:36	5.126	13.769	83.802	66.703
06/23/2011 18:28:46	5.097	13.769	84.003	66.703
06/23/2011 18:28:56	5.097	13.769	84.003	66.703
06/23/2011 18:29:06	5.097	13.795	83.802	66.703
06/23/2011 18:29:16	5.09	13.802	83.802	66.703
06/23/2011 18:29:26	5.064	13.828	84.003	66.703
06/23/2011 18:29:36	5.028	13.865	83.604	66.703
06/23/2011 18:29:46	5.002	13.879	83.802	66.703
06/23/2011 18:29:56	5.02	13.828	84.003	66.703
06/23/2011 18:30:06	5.039	13.857	84.003	66.703
06/23/2011 18:30:16	5.017	13.835	84.003	66.703
06/23/2011 18:30:26	5.057	13.813	84.205	66.703
06/23/2011 18:30:36	5.086	13.806	84.003	66.703
06/23/2011 18:30:46	5.083	13.788	84.003	66.703
06/23/2011 18:30:56	5.101	13.788	84.205	66.703
06/23/2011 18:31:06	5.094	13.791	84.003	66.703
06/23/2011 18:31:16	5.075	13.813	83.802	66.502
06/23/2011 18:31:26	5.086	13.751	84.205	66.502
06/23/2011 18:31:36	5.112	13.766	84.205	66.502
06/23/2011 18:31:46	5.039	13.916	83.802	66.502
06/23/2011 18:31:56	4.936	13.919	83.604	66.502
06/23/2011 18:32:06	4.936	13.919	83.604	66.502
06/23/2011 18:32:16	4.954	13.905	83.604	66.502
06/23/2011 18:32:26	4.973	13.916	83.604	66.502
06/23/2011 18:32:36	4.969	13.909	83.802	66.502
06/23/2011 18:32:46	4.973	13.883	83.604	66.502
06/23/2011 18:32:56	5.006	13.828	83.604	66.502
06/23/2011 18:33:06	5.024	13.846	83.802	66.502
06/23/2011 18:33:16	5.009	13.879	83.802	66.502
06/23/2011 18:33:26	4.998	13.85	83.604	66.502
06/23/2011 18:33:36	5.031	13.788	83.802	66.502
06/23/2011 18:33:46	5.05	13.854	83.802	66.703
06/23/2011 18:33:56	5.013	13.854	84.003	66.703
06/23/2011 18:34:06	5.009	13.839	83.802	66.502
06/23/2011 18:34:16	5.057	13.773	83.802	66.502
06/23/2011 18:34:26	5.097	13.755	83.802	66.502
06/23/2011 18:34:36	5.141	13.725	84.003	66.703
06/23/2011 18:34:46	5.13	13.813	84.003	66.703
06/23/2011 18:34:56	5.079	13.802	84.003	66.703
06/23/2011 18:35:06	5.079	13.81	83.604	66.502
06/23/2011 18:35:16	5.072	13.806	83.802	66.502
06/23/2011 18:35:26	5.094	13.777	83.604	66.502
06/23/2011 18:35:36	5.105	13.795	83.802	66.502
06/23/2011 18:35:46	5.083	13.839	83.802	66.703
06/23/2011 18:35:56	5.024	13.876	83.802	66.703
06/23/2011 18:36:06	4.995	13.843	83.604	66.703
06/23/2011 18:36:16	5.057	13.769	83.802	66.502
06/23/2011 18:36:26	5.079	13.802	83.802	66.502

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 18:36:36	5.068	13.791	83.802	66.703
06/23/2011 18:36:46	5.09	13.777	83.802	66.502
06/23/2011 18:36:56	5.09	13.773	83.802	66.502
06/23/2011 18:37:06	5.079	13.795	84.003	66.502
06/23/2011 18:37:16	5.057	13.817	84.003	66.502
06/23/2011 18:37:26	5.039	13.846	83.802	66.703
06/23/2011 18:37:36	5.013	13.824	83.802	66.703
06/23/2011 18:37:46	5.02	13.839	84.003	66.502
06/23/2011 18:37:56	5.031	13.821	84.003	66.502
06/23/2011 18:38:06	5.035	13.854	84.003	66.502
06/23/2011 18:38:16	5.013	13.865	84.205	66.502
06/23/2011 18:38:26	5.009	13.835	84.205	66.502
06/23/2011 18:38:36	5.039	13.854	84.205	66.502
06/23/2011 18:38:46	5.075	13.766	84.003	66.502
06/23/2011 18:38:56	5.141	13.7	83.802	66.502
06/23/2011 18:39:06	5.159	13.755	83.802	66.502
06/23/2011 18:39:16	5.097	13.795	83.802	66.703
06/23/2011 18:39:26	5.05	13.846	84.003	66.703
06/23/2011 18:39:36	5.02	13.868	83.802	66.502
06/23/2011 18:39:46	5.02	13.828	83.604	66.502
06/23/2011 18:39:56	5.042	13.828	83.604	66.502
06/23/2011 18:40:06	5.024	13.854	83.604	66.502
06/23/2011 18:40:16	4.998	13.901	83.403	66.502
06/23/2011 18:40:26	4.987	13.865	83.604	66.502
06/23/2011 18:40:36	5.024	13.817	83.403	66.304
06/23/2011 18:40:46	5.064	13.821	83.403	66.304
06/23/2011 18:40:56	5.079	13.821	83.304	66.304
06/23/2011 18:41:06	5.086	13.788	83.304	66.304
06/23/2011 18:41:16	5.101	13.795	83.304	66.502
06/23/2011 18:41:26	5.053	13.868	83.304	66.502
06/23/2011 18:41:36	5.031	13.85	83.403	66.502
06/23/2011 18:41:46	5.064	13.791	83.403	66.502
06/23/2011 18:41:56	5.141	13.714	83.403	66.502
06/23/2011 18:42:06	5.2	13.689	83.403	66.502
06/23/2011 18:42:16	5.189	13.729	83.403	66.502
06/23/2011 18:42:26	5.17	13.729	83.403	66.502
06/23/2011 18:42:36	5.145	13.751	83.604	66.502
06/23/2011 18:42:46	5.134	13.751	83.604	66.502
06/23/2011 18:42:56	5.148	13.725	83.604	66.502
06/23/2011 18:43:06	5.156	13.714	83.403	66.502
06/23/2011 18:43:16	5.185	13.681	83.403	66.502
06/23/2011 18:43:26	5.222	13.63	83.604	66.502
06/23/2011 18:43:36	5.225	13.67	83.403	66.502
06/23/2011 18:43:46	5.181	13.758	83.403	66.502
06/23/2011 18:43:56	5.137	13.744	83.403	66.502
06/23/2011 18:44:06	5.137	13.758	83.403	66.502
06/23/2011 18:44:16	5.108	13.795	83.403	66.502
06/23/2011 18:44:26	5.097	13.784	83.403	66.502
06/23/2011 18:44:36	5.119	13.758	83.604	66.502
06/23/2011 18:44:46	5.119	13.766	83.604	66.502
06/23/2011 18:44:56	5.119	13.766	83.604	66.502
06/23/2011 18:45:06	5.145	13.725	83.604	66.502
06/23/2011 18:45:16	5.159	13.711	83.604	66.502
06/23/2011 18:45:26	5.141	13.762	83.604	66.502
06/23/2011 18:45:36	5.086	13.817	83.802	66.502
06/23/2011 18:45:46	5.057	13.828	83.802	66.502
06/23/2011 18:45:56	5.064	13.773	84.003	66.502
06/23/2011 18:46:06	5.119	13.751	83.802	66.502
06/23/2011 18:46:16	5.134	13.762	83.802	66.502
06/23/2011 18:46:26	5.126	13.784	83.802	66.502
06/23/2011 18:46:36	5.112	13.795	83.604	66.502
06/23/2011 18:46:46	5.083	13.799	83.604	66.502
06/23/2011 18:46:56	5.101	13.733	83.604	66.502
06/23/2011 18:47:06	5.105	13.769	83.604	66.502
06/23/2011 18:47:16	5.083	13.784	83.604	66.502
06/23/2011 18:47:26	5.134	13.692	83.604	66.502
06/23/2011 18:47:36	5.203	13.652	83.403	66.502

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 18:47:46	5.236	13.659	83.403	66.502
06/23/2011 18:47:56	5.222	13.638	83.403	66.502
06/23/2011 18:48:06	5.218	13.645	83.604	66.304
06/23/2011 18:48:16	5.207	13.733	83.403	66.304
06/23/2011 18:48:26	5.134	13.821	83.403	66.502
06/23/2011 18:48:36	5.145	13.696	83.604	66.502
06/23/2011 18:48:46	5.185	13.685	83.403	66.304
06/23/2011 18:48:56	5.185	13.718	83.304	66.304
06/23/2011 18:49:06	5.159	13.733	83.403	66.304
06/23/2011 18:49:16	5.156	13.692	83.403	66.304
06/23/2011 18:49:26	5.17	13.714	83.403	66.201
06/23/2011 18:49:36	5.156	13.7	83.604	66.304
06/23/2011 18:49:46	5.13	13.777	83.604	66.304
06/23/2011 18:49:56	5.097	13.799	83.403	66.304
06/23/2011 18:50:06	5.094	13.769	83.304	66.201
06/23/2011 18:50:16	5.097	13.791	83.403	66.201
06/23/2011 18:50:26	5.083	13.799	83.403	66.201
06/23/2011 18:50:36	5.072	13.832	83.403	66.304
06/23/2011 18:50:46	5.039	13.846	83.403	66.304
06/23/2011 18:50:56	5.061	13.788	83.604	66.304
06/23/2011 18:51:06	5.083	13.799	83.403	66.304
06/23/2011 18:51:16	5.068	13.81	83.403	66.304
06/23/2011 18:51:26	5.042	13.854	83.403	66.304
06/23/2011 18:51:36	5.035	13.813	83.604	66.304
06/23/2011 18:51:46	5.028	13.857	83.403	66.304
06/23/2011 18:51:56	5.006	13.898	83.304	66.304
06/23/2011 18:52:06	5.02	13.854	83.103	66.304
06/23/2011 18:52:16	5.039	13.824	83.103	66.304
06/23/2011 18:52:26	5.09	13.747	83.103	66.304
06/23/2011 18:52:36	5.159	13.703	83.103	66.502
06/23/2011 18:52:46	5.189	13.744	83.103	66.502
06/23/2011 18:52:56	5.148	13.755	83.304	66.502
06/23/2011 18:53:06	5.123	13.791	82.905	66.304
06/23/2011 18:53:16	5.094	13.824	83.304	66.304
06/23/2011 18:53:26	5.083	13.758	83.403	66.201
06/23/2011 18:53:36	5.116	13.762	83.304	66.201
06/23/2011 18:53:46	5.112	13.788	83.103	66.201
06/23/2011 18:53:56	5.09	13.799	83.403	66.304
06/23/2011 18:54:06	5.108	13.747	83.304	66.304
06/23/2011 18:54:16	5.13	13.744	83.304	66.304
06/23/2011 18:54:26	5.137	13.722	83.604	66.304
06/23/2011 18:54:36	5.152	13.7	83.604	66.304
06/23/2011 18:54:46	5.233	13.601	83.604	66.201
06/23/2011 18:54:56	5.317	13.506	83.304	66.201
06/23/2011 18:55:06	5.321	13.623	83.304	66.201
06/23/2011 18:55:16	5.229	13.696	83.403	66.201
06/23/2011 18:55:26	5.174	13.707	83.604	66.304
06/23/2011 18:55:36	5.137	13.744	83.403	66.201
06/23/2011 18:55:46	5.101	13.758	83.403	66.304
06/23/2011 18:55:56	5.126	13.714	83.403	66.304
06/23/2011 18:56:06	5.145	13.744	83.403	66.304
06/23/2011 18:56:16	5.167	13.714	83.604	66.304
06/23/2011 18:56:26	5.148	13.758	83.604	66.201
06/23/2011 18:56:36	5.108	13.773	83.604	66.201
06/23/2011 18:56:46	5.097	13.799	83.403	66.304
06/23/2011 18:56:56	5.112	13.736	83.403	66.304
06/23/2011 18:57:06	5.148	13.722	83.403	66.304
06/23/2011 18:57:16	5.134	13.795	83.604	66.304
06/23/2011 18:57:26	5.097	13.791	83.802	66.304
06/23/2011 18:57:36	5.112	13.747	83.604	66.304
06/23/2011 18:57:46	5.148	13.729	83.604	66.304
06/23/2011 18:57:56	5.174	13.67	83.604	66.201
06/23/2011 18:58:06	5.214	13.674	83.604	66.304
06/23/2011 18:58:16	5.189	13.703	83.604	66.304
06/23/2011 18:58:26	5.148	13.78	83.604	66.304
06/23/2011 18:58:36	5.123	13.773	83.403	66.304
06/23/2011 18:58:46	5.108	13.791	83.604	66.304

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 18:58:56	5.108	13.725	83.403	66.304
06/23/2011 18:59:06	5.163	13.703	83.304	66.304
06/23/2011 18:59:16	5.218	13.659	83.403	66.304
06/23/2011 18:59:26	5.258	13.627	83.604	66.304
06/23/2011 18:59:36	5.24	13.674	83.802	66.304
06/23/2011 18:59:46	5.189	13.736	83.604	66.304
06/23/2011 18:59:56	5.159	13.711	83.604	66.304
06/23/2011 19:00:06	5.17	13.722	83.604	66.304
06/23/2011 19:00:16	5.192	13.685	83.304	66.201
06/23/2011 19:00:26	5.2	13.703	83.304	66.201
06/23/2011 19:00:36	5.2	13.692	83.403	66.201
06/23/2011 19:00:46	5.218	13.63	83.403	66.201
06/23/2011 19:00:56	5.247	13.645	83.403	66.201
06/23/2011 19:01:06	5.225	13.67	83.604	66.201
06/23/2011 19:01:16	5.203	13.692	83.403	66.201
06/23/2011 19:01:26	5.2	13.667	83.403	66.201
06/23/2011 19:01:36	5.218	13.652	83.403	66.201
06/23/2011 19:01:46	5.236	13.645	83.304	66.201
06/23/2011 19:01:56	5.247	13.623	83.304	66.201
06/23/2011 19:02:06	5.255	13.656	83.103	66.201
06/23/2011 19:02:16	5.244	13.659	83.304	66.201
06/23/2011 19:02:26	5.24	13.663	83.802	66.201
06/23/2011 19:02:36	5.211	13.714	83.604	66.201
06/23/2011 19:02:46	5.141	13.773	83.403	66.201
06/23/2011 19:02:56	5.152	13.7	83.403	66.201
06/23/2011 19:03:06	5.192	13.692	83.403	66.201
06/23/2011 19:03:16	5.218	13.681	83.304	66.201
06/23/2011 19:03:26	5.189	13.718	83.103	66.304
06/23/2011 19:03:36	5.185	13.707	83.304	66.201
06/23/2011 19:03:46	5.181	13.718	83.403	66.201
06/23/2011 19:03:56	5.207	13.656	83.604	66.201
06/23/2011 19:04:06	5.262	13.641	83.304	66.201
06/23/2011 19:04:16	5.247	13.678	83.304	66.201
06/23/2011 19:04:26	5.196	13.744	83.304	66.201
06/23/2011 19:04:36	5.189	13.678	83.403	66.201
06/23/2011 19:04:46	5.233	13.648	83.604	66.201
06/23/2011 19:04:56	5.222	13.67	83.304	66.201
06/23/2011 19:05:06	5.24	13.641	83.403	66.304
06/23/2011 19:05:16	5.284	13.594	83.802	66.304
06/23/2011 19:05:26	5.299	13.612	83.802	66.304
06/23/2011 19:05:36	5.295	13.619	83.802	66.502
06/23/2011 19:05:46	5.269	13.605	83.604	66.304
06/23/2011 19:05:56	5.291	13.535	83.604	66.304
06/23/2011 19:06:06	5.343	13.502	83.802	66.304
06/23/2011 19:06:16	5.35	13.52	83.802	66.304
06/23/2011 19:06:26	5.321	13.583	83.604	66.201
06/23/2011 19:06:36	5.269	13.638	84.003	66.304
06/23/2011 19:06:46	5.247	13.63	83.604	66.201
06/23/2011 19:06:56	5.28	13.579	83.604	66.201
06/23/2011 19:07:06	5.306	13.619	83.403	66.304
06/23/2011 19:07:16	5.273	13.608	83.403	66.304
06/23/2011 19:07:26	5.258	13.616	83.403	66.201
06/23/2011 19:07:36	5.24	13.641	83.802	66.304
06/23/2011 19:07:46	5.262	13.583	83.604	66.201
06/23/2011 19:07:56	5.313	13.586	83.604	66.201
06/23/2011 19:08:06	5.284	13.641	83.604	66.304
06/23/2011 19:08:16	5.251	13.63	83.403	66.304
06/23/2011 19:08:26	5.291	13.517	83.604	66.304
06/23/2011 19:08:36	5.354	13.535	83.403	66.304
06/23/2011 19:08:46	5.317	13.594	83.403	66.304
06/23/2011 19:08:56	5.284	13.568	83.403	66.304
06/23/2011 19:09:06	5.273	13.63	83.403	66.304
06/23/2011 19:09:16	5.222	13.678	83.403	66.304
06/23/2011 19:09:26	5.159	13.751	83.403	66.304
06/23/2011 19:09:36	5.119	13.769	83.604	66.304
06/23/2011 19:09:46	5.123	13.7	83.403	66.201
06/23/2011 19:09:56	5.163	13.733	83.403	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 19:10:06	5.174	13.692	83.403	66.201
06/23/2011 19:10:16	5.2	13.656	83.403	66.201
06/23/2011 19:10:26	5.211	13.67	83.604	66.304
06/23/2011 19:10:36	5.233	13.659	83.403	66.201
06/23/2011 19:10:46	5.244	13.656	83.403	66.201
06/23/2011 19:10:56	5.258	13.623	83.304	66.304
06/23/2011 19:11:06	5.251	13.619	83.403	66.304
06/23/2011 19:11:16	5.207	13.736	83.403	66.304
06/23/2011 19:11:26	5.163	13.711	83.304	66.201
06/23/2011 19:11:36	5.189	13.67	83.103	66.201
06/23/2011 19:11:46	5.24	13.659	83.103	66.201
06/23/2011 19:11:56	5.236	13.656	83.403	66.201
06/23/2011 19:12:06	5.233	13.63	83.304	66.201
06/23/2011 19:12:16	5.251	13.656	83.403	66.304
06/23/2011 19:12:26	5.236	13.678	83.403	66.304
06/23/2011 19:12:36	5.218	13.656	83.304	66.304
06/23/2011 19:12:46	5.218	13.681	83.304	66.304
06/23/2011 19:12:56	5.189	13.707	83.304	66.304
06/23/2011 19:13:06	5.17	13.74	83.604	66.304
06/23/2011 19:13:16	5.141	13.773	83.403	66.304
06/23/2011 19:13:26	5.086	13.806	83.604	66.304
06/23/2011 19:13:36	5.119	13.7	83.604	66.304
06/23/2011 19:13:46	5.185	13.67	83.604	66.304
06/23/2011 19:13:56	5.24	13.645	83.604	66.304
06/23/2011 19:14:06	5.291	13.594	83.304	66.201
06/23/2011 19:14:16	5.295	13.627	83.403	66.201
06/23/2011 19:14:26	5.273	13.652	83.403	66.304
06/23/2011 19:14:36	5.211	13.736	83.403	66.304
06/23/2011 19:14:46	5.17	13.74	83.403	66.201
06/23/2011 19:14:56	5.174	13.711	83.403	66.201
06/23/2011 19:15:06	5.178	13.736	83.403	66.201
06/23/2011 19:15:16	5.167	13.714	83.403	66.304
06/23/2011 19:15:26	5.214	13.634	83.304	66.304
06/23/2011 19:15:36	5.236	13.703	83.304	66.304
06/23/2011 19:15:46	5.185	13.714	83.103	66.201
06/23/2011 19:15:56	5.174	13.7	83.304	66.201
06/23/2011 19:16:06	5.192	13.681	83.304	66.201
06/23/2011 19:16:16	5.207	13.663	83.304	66.201
06/23/2011 19:16:26	5.192	13.707	83.304	66.201
06/23/2011 19:16:36	5.17	13.7	83.403	66.201
06/23/2011 19:16:46	5.167	13.696	83.304	66.201
06/23/2011 19:16:56	5.17	13.733	83.403	66.201
06/23/2011 19:17:06	5.17	13.67	83.403	66.201
06/23/2011 19:17:16	5.218	13.645	83.304	66.201
06/23/2011 19:17:26	5.207	13.714	83.304	66.201
06/23/2011 19:17:36	5.189	13.678	83.103	66.201
06/23/2011 19:17:46	5.178	13.747	83.103	66.201
06/23/2011 19:17:56	5.13	13.773	83.103	66.201
06/23/2011 19:18:06	5.13	13.729	82.905	66.304
06/23/2011 19:18:16	5.156	13.729	83.103	66.304
06/23/2011 19:18:26	5.207	13.634	82.905	66.304
06/23/2011 19:18:36	5.251	13.663	82.905	66.304
06/23/2011 19:18:46	5.214	13.725	83.103	66.304
06/23/2011 19:18:56	5.2	13.663	83.304	66.201
06/23/2011 19:19:06	5.229	13.659	83.304	66.201
06/23/2011 19:19:16	5.207	13.751	83.304	66.201
06/23/2011 19:19:26	5.148	13.733	83.103	66.201
06/23/2011 19:19:36	5.17	13.678	83.304	66.304
06/23/2011 19:19:46	5.233	13.648	83.304	66.304
06/23/2011 19:19:56	5.266	13.638	83.103	66.304
06/23/2011 19:20:06	5.262	13.63	83.304	66.304
06/23/2011 19:20:16	5.255	13.612	83.103	66.304
06/23/2011 19:20:26	5.299	13.568	83.304	66.304
06/23/2011 19:20:36	5.31	13.564	83.304	66.304
06/23/2011 19:20:46	5.306	13.616	83.304	66.201
06/23/2011 19:20:56	5.277	13.623	82.905	66.201
06/23/2011 19:21:06	5.251	13.667	82.905	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 19:21:16	5.225	13.711	82.905	66.201
06/23/2011 19:21:26	5.185	13.703	82.703	66.201
06/23/2011 19:21:36	5.189	13.685	82.905	66.304
06/23/2011 19:21:46	5.214	13.667	83.103	66.304
06/23/2011 19:21:56	5.196	13.725	83.103	66.201
06/23/2011 19:22:06	5.17	13.711	83.103	66.201
06/23/2011 19:22:16	5.178	13.696	83.103	66.201
06/23/2011 19:22:26	5.214	13.663	82.905	66.201
06/23/2011 19:22:36	5.247	13.634	82.703	66.004
06/23/2011 19:22:46	5.247	13.652	82.703	66.004
06/23/2011 19:22:56	5.225	13.692	82.502	66.201
Run 4 Aborted				
06/23/2011 19:23:06	5.178	13.744	82.502	66.201
06/23/2011 19:23:16	5.13	13.773	82.703	66.004
06/23/2011 19:23:26	5.086	13.839	82.502	65.802
06/23/2011 19:23:36	5.053	13.828	82.502	65.802
06/23/2011 19:23:46	5.05	13.828	82.703	65.802
06/23/2011 19:23:56	5.068	13.795	82.703	66.004
06/23/2011 19:24:06	5.09	13.791	82.502	66.004
06/23/2011 19:24:16	5.148	13.711	82.403	66.004
06/23/2011 19:24:26	5.189	5.5	82.703	66.201
Calibration Bias				
06/23/2011 19:24:36	2.197	0.325	82.703	66.201
06/23/2011 19:24:46	0.153	0.234	82.905	66.201
06/23/2011 19:24:56	0.058	0.193	82.905	66.201
06/23/2011 19:25:06	0.043	0.175	82.703	66.201
06/23/2011 19:25:16	0.036	0.164	82.703	66.201
N2 Zero	**0.046**	**0.177**	**82.770**	**66.201**
06/23/2011 19:25:26	1.625	5.72	82.905	66.004
06/23/2011 19:25:36	8.448	9.814	82.905	66.004
06/23/2011 19:25:46	10.938	9.858	83.103	66.004
06/23/2011 19:25:56	11.037	9.876	82.502	66.004
06/23/2011 19:26:06	11.052	9.887	82.703	66.004
06/23/2011 19:26:16	11.063	9.887	82.502	65.802
11.1% O2/9.74% CO2 Mid	**11.051**	**9.883**	**82.569**	**65.937**
06/23/2011 19:26:26	11.048	9.928	82.502	65.802
06/23/2011 19:26:36	8.444	13.568	82.502	65.802
06/23/2011 19:26:46	5.493	13.605	82.905	66.004
06/23/2011 19:26:56	5.284	13.601	83.103	66.004
06/23/2011 19:27:06	5.24	13.681	82.905	66.004
06/23/2011 19:27:16	5.178	13.711	82.905	66.004
06/23/2011 19:27:26	5.159	13.722	82.703	66.004
06/23/2011 19:27:36	5.134	13.766	82.905	66.004
06/23/2011 19:27:46	8.888	2.779	82.703	66.201
06/23/2011 19:27:56	18.49	0.314	83.103	66.201
06/23/2011 19:28:06	20.676	0.248	82.905	66.201
06/23/2011 19:28:16	20.79	0.219	83.103	66.201
06/23/2011 19:28:26	20.812	0.197	82.905	66.201
06/23/2011 19:28:36	20.823	0.186	83.103	66.201
06/23/2011 19:28:46	20.83	0.179	83.103	66.201
06/23/2011 19:28:56	20.837	0.172	83.103	66.201
06/23/2011 19:29:06	20.841	0.168	83.103	66.201
06/23/2011 19:29:16	20.845	0.168	83.304	66.201
06/23/2011 19:29:26	20.848	0.164	83.304	66.201
06/23/2011 19:29:36	20.848	0.164	82.905	66.201
06/23/2011 19:29:46	20.856	0.161	82.905	66.201
06/23/2011 19:29:56	20.856	0.161	82.905	66.201
06/23/2011 19:30:06	20.856	0.161	82.905	66.201
06/23/2011 19:30:16	20.859	0.161	82.905	66.201
06/23/2011 19:30:26	20.859	0.157	83.103	66.201
06/23/2011 19:30:36	20.859	0.157	82.703	66.201
06/23/2011 19:30:46	20.863	0.157	82.703	66.201
06/23/2011 19:30:56	20.863	0.157	82.905	66.201
06/23/2011 19:31:06	20.863	0.153	82.905	66.201
06/23/2011 19:31:16	20.867	0.153	82.905	66.201
06/23/2011 19:31:26	20.867	0.153	83.103	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 19:31:36	20.867	0.153	83.304	66.201
06/23/2011 19:31:46	20.867	0.153	83.103	66.201
06/23/2011 19:31:56	20.87	0.153	82.703	66.201
06/23/2011 19:32:06	20.87	0.15	82.905	66.201
06/23/2011 19:32:16	20.87	0.15	82.905	66.004
06/23/2011 19:32:26	20.87	0.15	82.905	66.201
06/23/2011 19:32:36	20.874	0.15	82.905	66.201
06/23/2011 19:32:46	20.874	0.15	82.905	66.201
06/23/2011 19:32:56	20.874	0.15	82.905	65.802
06/23/2011 19:33:06	20.874	0.146	82.905	65.802
06/23/2011 19:33:16	20.874	0.15	82.703	65.802
06/23/2011 19:33:26	20.874	0.146	82.905	66.004
06/23/2011 19:33:36	20.878	0.146	82.905	66.004
06/23/2011 19:33:46	20.878	0.146	82.905	66.004
06/23/2011 19:33:56	20.878	0.146	82.905	65.802
06/23/2011 19:34:06	20.878	0.146	82.703	65.802
06/23/2011 19:34:16	20.878	0.146	82.703	65.802
06/23/2011 19:34:26	20.878	0.146	82.905	65.802
06/23/2011 19:34:36	20.878	0.142	82.703	65.802
06/23/2011 19:34:46	20.881	0.142	82.502	65.802
06/23/2011 19:34:56	20.881	0.142	82.502	65.802
06/23/2011 19:35:06	20.885	0.142	82.905	65.802
06/23/2011 19:35:16	20.885	0.142	82.703	65.802
06/23/2011 19:35:26	20.885	0.142	82.502	65.802
06/23/2011 19:35:36	20.885	0.142	82.502	65.802
06/23/2011 19:35:46	20.885	0.142	82.403	65.802
06/23/2011 19:35:56	20.889	0.142	82.403	65.802
06/23/2011 19:36:06	20.889	0.142	82.502	65.802
06/23/2011 19:36:16	20.889	0.146	82.905	65.802
06/23/2011 19:36:26	20.889	0.146	82.703	65.802
06/23/2011 19:36:36	20.889	0.146	82.703	65.802
06/23/2011 19:36:46	20.889	0.15	82.403	65.802
06/23/2011 19:36:56	20.889	0.15	82.502	65.802
06/23/2011 19:37:06	20.889	0.15	82.403	65.604
06/23/2011 19:37:16	20.889	0.153	82.403	65.604
06/23/2011 19:37:26	20.889	0.153	82.502	65.604
06/23/2011 19:37:36	20.889	0.153	82.502	65.604
06/23/2011 19:37:46	20.889	0.153	82.703	65.604
06/23/2011 19:37:56	20.889	0.153	82.905	65.802
06/23/2011 19:38:06	20.889	0.15	82.502	65.802
06/23/2011 19:38:16	20.889	0.146	82.502	65.802
06/23/2011 19:38:26	20.889	0.146	82.403	65.403
06/23/2011 19:38:36	20.889	0.142	82.403	65.403
06/23/2011 19:38:46	20.889	0.142	82.403	65.403
06/23/2011 19:38:56	20.889	0.139	82.502	65.403
06/23/2011 19:39:06	20.889	0.135	82.403	65.403
06/23/2011 19:39:16	20.889	0.135	82.403	65.403
06/23/2011 19:39:26	20.892	0.131	82.403	65.403
06/23/2011 19:39:36	20.892	0.131	82.403	65.403
06/23/2011 19:39:46	20.892	0.131	82.202	65.403
06/23/2011 19:39:56	20.892	0.131	82.004	65.403
06/23/2011 19:40:06	20.892	0.131	82.403	65.403
06/23/2011 19:40:16	20.892	0.131	82.502	65.304
06/23/2011 19:40:26	20.892	0.131	82.403	65.304
06/23/2011 19:40:36	20.892	0.131	82.502	65.403
06/23/2011 19:40:46	20.892	0.131	82.502	65.304
06/23/2011 19:40:56	20.892	0.135	82.502	65.304
06/23/2011 19:41:06	20.892	0.135	82.403	65.304
06/23/2011 19:41:16	20.892	0.135	82.502	65.304
06/23/2011 19:41:26	20.892	0.135	82.403	65.304
06/23/2011 19:41:36	20.892	0.135	82.502	65.103
06/23/2011 19:41:46	20.892	0.135	82.502	65.103
06/23/2011 19:41:56	20.892	0.135	82.403	65.103
06/23/2011 19:42:06	20.892	0.135	82.403	65.304
06/23/2011 19:42:16	20.892	0.135	82.502	65.103
06/23/2011 19:42:26	20.892	0.135	82.502	65.103
06/23/2011 19:42:36	20.892	0.135	82.502	65.103

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 19:42:46	20.892	0.135	82.703	65.103
06/23/2011 19:42:56	20.896	0.135	82.703	65.103
06/23/2011 19:43:06	20.892	0.135	82.502	65.103
06/23/2011 19:43:16	20.892	0.135	82.502	65.103
06/23/2011 19:43:26	20.892	0.135	82.502	65.103
06/23/2011 19:43:36	20.896	0.135	82.403	65.103
06/23/2011 19:43:46	20.896	0.135	82.403	65.103
06/23/2011 19:43:56	20.896	0.135	82.202	65.103
06/23/2011 19:44:06	20.896	0.135	82.502	65.103
06/23/2011 19:44:16	20.896	0.135	82.502	65.103
06/23/2011 19:44:26	20.896	0.135	82.703	65.103
06/23/2011 19:44:36	20.896	0.135	82.703	65.103
06/23/2011 19:44:46	20.896	0.135	82.703	65.103
06/23/2011 19:44:56	20.9	0.135	82.502	65.103
06/23/2011 19:45:06	20.903	0.135	82.703	65.103
06/23/2011 19:45:16	20.903	0.135	82.403	64.704
06/23/2011 19:45:26	20.903	0.135	82.202	64.704
06/23/2011 19:45:36	20.903	0.135	82.004	64.901
06/23/2011 19:45:46	20.9	0.131	82.004	64.901
06/23/2011 19:45:56	20.9	0.135	82.403	64.901
06/23/2011 19:46:06	20.9	0.131	82.502	64.704
06/23/2011 19:46:16	20.9	0.131	82.502	64.704
06/23/2011 19:46:26	20.9	0.135	82.703	64.901
06/23/2011 19:46:36	20.9	0.131	82.502	64.704
06/23/2011 19:46:46	20.9	0.131	82.502	64.704
06/23/2011 19:46:56	20.903	0.131	82.502	64.901
06/23/2011 19:47:06	20.9	0.131	82.502	64.704
06/23/2011 19:47:16	20.896	0.135	82.502	64.704
06/23/2011 19:47:26	20.9	0.135	82.502	64.704
06/23/2011 19:47:36	20.9	0.135	82.502	64.704
06/23/2011 19:47:46	20.896	0.139	82.403	64.704
06/23/2011 19:47:56	20.896	0.139	82.403	64.901
06/23/2011 19:48:06	20.9	0.139	82.202	64.704
06/23/2011 19:48:16	20.9	0.142	82.202	64.704
06/23/2011 19:48:26	20.9	0.142	82.202	64.704
06/23/2011 19:48:36	20.9	0.146	82.403	64.901
06/23/2011 19:48:46	20.9	0.146	82.202	64.901
06/23/2011 19:48:56	20.9	0.146	82.004	64.901
06/23/2011 19:49:06	20.9	0.146	82.004	64.901
06/23/2011 19:49:16	20.903	0.146	82.403	64.901
06/23/2011 19:49:26	20.9	0.146	82.403	64.901
06/23/2011 19:49:36	20.903	0.142	82.403	64.901
06/23/2011 19:49:46	20.9	0.142	82.202	64.901
06/23/2011 19:49:56	20.9	0.139	82.403	64.901
06/23/2011 19:50:06	20.9	0.139	82.202	64.901
06/23/2011 19:50:16	20.9	0.135	82.202	64.704
06/23/2011 19:50:26	20.9	0.135	82.403	64.502
06/23/2011 19:50:36	20.9	0.131	82.403	64.502
06/23/2011 19:50:46	20.903	0.131	82.403	64.502
06/23/2011 19:50:56	20.903	0.128	82.403	64.502
06/23/2011 19:51:06	20.903	0.128	82.502	64.704
06/23/2011 19:51:16	20.903	0.128	82.502	64.704
06/23/2011 19:51:26	20.9	0.128	82.502	64.704
06/23/2011 19:51:36	20.903	0.124	82.502	64.704
06/23/2011 19:51:46	20.903	0.128	82.403	64.704
06/23/2011 19:51:56	20.903	0.128	82.403	64.704
06/23/2011 19:52:06	20.903	0.128	82.502	64.704
06/23/2011 19:52:16	20.903	0.128	82.502	64.704
06/23/2011 19:52:26	20.903	0.128	82.502	64.704
06/23/2011 19:52:36	20.903	0.131	82.502	64.704
06/23/2011 19:52:46	20.903	0.131	82.502	64.704
06/23/2011 19:52:56	20.903	0.131	82.403	64.704
06/23/2011 19:53:06	20.903	0.131	82.202	64.704
06/23/2011 19:53:16	20.903	0.131	82.502	64.704
06/23/2011 19:53:26	20.903	0.131	82.403	64.502
06/23/2011 19:53:36	20.903	0.131	82.403	64.502
06/23/2011 19:53:46	20.903	0.131	82.403	64.502

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 19:53:56	20.903	0.131	82.202	64.502
06/23/2011 19:54:06	20.903	0.131	82.502	64.704
06/23/2011 19:54:16	20.903	0.135	82.403	64.704
06/23/2011 19:54:26	20.903	0.131	82.502	64.704
06/23/2011 19:54:36	20.903	0.135	82.004	64.502
06/23/2011 19:54:46	20.9	0.135	82.202	64.502
06/23/2011 19:54:56	20.9	0.135	82.403	64.502
06/23/2011 19:55:06	20.903	0.135	82.202	64.502
06/23/2011 19:55:16	20.903	0.135	82.403	64.502
06/23/2011 19:55:26	20.903	0.135	82.403	64.502
06/23/2011 19:55:36	20.903	0.135	82.004	64.502
06/23/2011 19:55:46	20.903	0.135	82.004	64.502
06/23/2011 19:55:56	20.903	0.135	82.202	64.502
06/23/2011 19:56:06	20.903	0.135	82.004	64.704
06/23/2011 19:56:16	20.903	0.135	82.403	64.502
06/23/2011 19:56:26	20.903	0.135	82.202	64.502
06/23/2011 19:56:36	20.903	0.135	82.004	64.502
06/23/2011 19:56:46	20.903	0.135	82.403	64.704
06/23/2011 19:56:56	20.903	0.135	82.502	64.704
06/23/2011 19:57:06	20.903	0.135	82.403	64.502
06/23/2011 19:57:16	20.903	0.131	82.403	64.502
06/23/2011 19:57:26	20.903	0.131	82.403	64.502
06/23/2011 19:57:36	20.903	0.131	82.403	64.502
06/23/2011 19:57:46	20.907	0.131	82.403	64.502
06/23/2011 19:57:56	20.907	0.131	82.004	64.502
06/23/2011 19:58:06	20.907	0.131	82.403	64.502
06/23/2011 19:58:16	20.907	0.131	82.403	64.502
06/23/2011 19:58:26	20.907	0.135	82.403	64.502
06/23/2011 19:58:36	20.907	0.131	82.403	64.502
06/23/2011 19:58:46	20.911	0.135	82.403	64.502
06/23/2011 19:58:56	20.911	0.135	82.403	64.502
06/23/2011 19:59:06	20.911	0.135	82.403	64.502
06/23/2011 19:59:16	20.911	0.135	82.202	64.502
06/23/2011 19:59:26	20.911	0.139	82.004	64.403
06/23/2011 19:59:36	20.911	0.139	81.802	64.403
06/23/2011 19:59:46	20.911	0.142	82.004	64.403
06/23/2011 19:59:56	20.911	0.142	82.004	64.502
06/23/2011 20:00:06	20.911	0.146	82.202	64.502
06/23/2011 20:00:16	20.911	0.146	82.403	64.704
06/23/2011 20:00:26	20.911	0.146	82.403	64.403
06/23/2011 20:00:36	20.907	0.146	82.004	64.403
06/23/2011 20:00:46	20.911	0.146	82.004	64.403
06/23/2011 20:00:56	20.907	0.146	82.004	64.403
06/23/2011 20:01:06	20.907	0.142	81.802	64.403
06/23/2011 20:01:16	20.907	0.142	82.202	64.403
06/23/2011 20:01:26	20.907	0.139	82.202	64.502
06/23/2011 20:01:36	20.907	0.139	82.403	64.502
06/23/2011 20:01:46	20.907	0.139	82.202	64.502
06/23/2011 20:01:56	20.907	0.135	82.004	64.502
06/23/2011 20:02:06	20.907	0.135	82.004	64.502
06/23/2011 20:02:16	20.907	0.131	82.004	64.403
06/23/2011 20:02:26	20.907	0.128	82.202	64.502
06/23/2011 20:02:36	20.907	0.131	82.004	64.502
06/23/2011 20:02:46	20.907	0.128	82.202	64.502
06/23/2011 20:02:56	20.907	0.124	82.202	64.502
06/23/2011 20:03:06	20.907	0.124	82.004	64.502
06/23/2011 20:03:16	20.907	0.124	82.004	64.502
06/23/2011 20:03:26	20.907	0.128	82.004	64.502
06/23/2011 20:03:36	20.911	0.128	82.202	64.502
06/23/2011 20:03:46	20.907	0.128	82.403	64.502
06/23/2011 20:03:56	20.907	0.128	82.403	64.502
06/23/2011 20:04:06	20.907	0.128	82.202	64.502
06/23/2011 20:04:16	20.907	0.128	82.403	64.502
06/23/2011 20:04:26	20.907	0.131	82.403	64.502
06/23/2011 20:04:36	20.907	0.131	82.403	64.502
06/23/2011 20:04:46	20.907	0.131	82.403	64.403
06/23/2011 20:04:56	20.907	0.131	82.202	64.403

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 20:05:06	20.907	0.131	82.004	64.403
06/23/2011 20:05:16	20.907	0.131	82.202	64.403
06/23/2011 20:05:26	20.907	0.131	81.802	64.502
06/23/2011 20:05:36	20.907	0.131	81.802	64.502
06/23/2011 20:05:46	20.911	0.131	82.004	64.502
06/23/2011 20:05:56	20.911	0.135	82.202	64.403
06/23/2011 20:06:06	20.911	0.135	82.004	64.403
06/23/2011 20:06:16	20.911	0.135	82.202	64.403
06/23/2011 20:06:26	20.907	0.139	82.202	64.403
06/23/2011 20:06:36	20.907	0.139	81.802	64.403
06/23/2011 20:06:46	20.907	0.139	81.802	64.403
06/23/2011 20:06:56	20.907	0.142	82.004	64.403
06/23/2011 20:07:06	20.911	0.142	81.802	64.403
06/23/2011 20:07:16	20.911	0.142	81.802	64.403
06/23/2011 20:07:26	20.907	0.142	81.605	64.403
06/23/2011 20:07:36	20.907	0.142	81.605	64.403
06/23/2011 20:07:46	20.911	0.142	82.004	64.502
06/23/2011 20:07:56	20.911	0.142	82.004	64.403
06/23/2011 20:08:06	20.907	0.142	82.004	64.502
06/23/2011 20:08:16	20.911	0.142	82.004	64.403
06/23/2011 20:08:26	20.907	0.139	81.802	64.502
06/23/2011 20:08:36	20.907	0.139	81.802	64.502
06/23/2011 20:08:46	20.907	0.139	81.802	64.502
06/23/2011 20:08:56	20.907	0.139	82.004	64.403
06/23/2011 20:09:06	20.911	0.135	81.605	64.403
06/23/2011 20:09:16	20.911	0.135	81.605	64.502
06/23/2011 20:09:26	20.911	0.135	81.605	64.202
06/23/2011 20:09:36	20.911	0.135	81.802	64.403
06/23/2011 20:09:46	20.911	0.135	81.802	64.403
06/23/2011 20:09:56	20.911	0.135	82.004	64.403
06/23/2011 20:10:06	20.911	0.135	82.202	64.403
06/23/2011 20:10:16	20.911	0.135	82.004	64.403
06/23/2011 20:10:26	20.911	0.135	82.004	64.403
06/23/2011 20:10:36	20.911	0.135	82.004	64.403
06/23/2011 20:10:46	20.911	0.139	82.004	64.403
06/23/2011 20:10:56	20.911	0.139	82.004	64.403
06/23/2011 20:11:06	20.911	0.142	81.802	64.403
06/23/2011 20:11:16	20.911	0.142	81.605	64.403
06/23/2011 20:11:26	20.911	0.146	81.802	64.403
06/23/2011 20:11:36	20.911	0.146	81.605	64.403
06/23/2011 20:11:46	20.911	0.146	81.802	64.403
06/23/2011 20:11:56	20.907	0.146	81.605	64.403
06/23/2011 20:12:06	20.907	0.146	81.802	64.403
06/23/2011 20:12:16	20.907	0.146	81.802	64.403
06/23/2011 20:12:26	20.907	0.146	81.802	64.403
06/23/2011 20:12:36	20.907	0.146	81.502	64.403
06/23/2011 20:12:46	20.911	0.146	81.502	64.502
06/23/2011 20:12:56	20.911	0.142	81.304	64.403
06/23/2011 20:13:06	20.911	0.142	81.502	64.403
06/23/2011 20:13:16	20.907	0.139	81.304	64.202
06/23/2011 20:13:26	20.907	0.139	81.103	64.202
06/23/2011 20:13:36	20.907	0.135	81.502	64.202
06/23/2011 20:13:46	20.907	0.135	81.502	64.202
06/23/2011 20:13:56	20.907	0.131	81.605	64.403
06/23/2011 20:14:06	20.907	0.131	81.605	64.403
06/23/2011 20:14:16	20.907	0.131	81.502	64.403
06/23/2011 20:14:26	20.907	0.128	81.605	64.403
06/23/2011 20:14:36	20.911	0.128	81.502	64.403
06/23/2011 20:14:46	20.911	0.128	81.605	64.403
06/23/2011 20:14:56	20.911	0.128	81.605	64.403
06/23/2011 20:15:06	20.911	0.128	81.605	64.403
06/23/2011 20:15:16	20.911	0.131	81.605	64.403
06/23/2011 20:15:26	20.911	0.131	81.802	64.403
06/23/2011 20:15:36	20.911	0.131	81.304	64.202
06/23/2011 20:15:46	20.907	0.131	81.502	64.202
06/23/2011 20:15:56	20.911	0.131	81.502	64.202
06/23/2011 20:16:06	20.911	0.131	81.304	64.202

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 20:16:16	20.911	0.135	81.304	64.202
06/23/2011 20:16:26	20.911	0.135	81.502	64.202
06/23/2011 20:16:36	20.911	0.135	81.502	64.202
06/23/2011 20:16:46	20.911	0.135	81.605	64.202
06/23/2011 20:16:56	20.911	0.135	81.605	64.202
06/23/2011 20:17:06	20.911	0.135	81.605	64.202
06/23/2011 20:17:16	20.911	0.135	81.605	64.202
06/23/2011 20:17:26	20.914	0.135	81.605	64.202
06/23/2011 20:17:36	20.914	0.135	81.605	64.202
06/23/2011 20:17:46	20.914	0.135	81.605	64.202
06/23/2011 20:17:56	20.914	0.135	81.304	64.202
06/23/2011 20:18:06	20.914	0.135	81.304	64.202
06/23/2011 20:18:16	20.914	0.135	81.502	64.202
06/23/2011 20:18:26	20.914	0.135	81.502	64.202
06/23/2011 20:18:36	20.914	0.135	81.304	64.202
06/23/2011 20:18:46	20.911	0.135	81.502	64.004
06/23/2011 20:18:56	20.911	0.135	81.605	64.202
06/23/2011 20:19:06	20.911	0.135	81.502	64.202
06/23/2011 20:19:16	20.911	0.139	81.605	64.202
06/23/2011 20:19:26	20.911	0.139	81.605	64.202
06/23/2011 20:19:36	20.907	0.139	81.605	64.004
06/23/2011 20:19:46	20.907	0.139	81.605	64.004
06/23/2011 20:19:56	20.907	0.139	81.605	64.004
06/23/2011 20:20:06	20.907	0.139	81.802	64.202
06/23/2011 20:20:16	20.907	0.139	81.802	64.202
06/23/2011 20:20:26	20.907	0.139	81.502	64.202
06/23/2011 20:20:36	20.903	0.142	81.304	64.202
06/23/2011 20:20:46	20.9	0.142	81.502	64.202
06/23/2011 20:20:56	20.9	0.142	81.502	64.202
06/23/2011 20:21:06	20.9	0.142	81.502	64.202
06/23/2011 20:21:16	20.9	0.146	81.605	64.202
06/23/2011 20:21:26	20.9	0.142	81.605	64.202
06/23/2011 20:21:36	20.9	0.146	81.605	64.202
06/23/2011 20:21:46	20.9	0.146	81.605	64.202
06/23/2011 20:21:56	20.896	0.146	81.605	64.202
06/23/2011 20:22:06	20.896	0.146	81.605	64.202
06/23/2011 20:22:16	20.9	0.146	81.502	64.202
06/23/2011 20:22:26	20.9	0.15	81.502	64.202
06/23/2011 20:22:36	20.9	0.15	81.502	64.202
06/23/2011 20:22:46	20.903	0.15	81.304	64.202
06/23/2011 20:22:56	20.903	0.15	81.502	64.202
06/23/2011 20:23:06	20.903	0.153	81.304	64.004
06/23/2011 20:23:16	20.903	0.153	81.502	64.004
06/23/2011 20:23:26	20.903	0.153	81.502	64.004
06/23/2011 20:23:36	20.903	0.153	81.502	64.004
06/23/2011 20:23:46	20.903	0.153	81.605	64.202
06/23/2011 20:23:56	20.903	0.153	81.605	64.202
06/23/2011 20:24:06	20.907	0.153	81.605	64.202
06/23/2011 20:24:16	20.907	0.153	81.605	64.202
06/23/2011 20:24:26	20.907	0.15	81.502	64.004
06/23/2011 20:24:36	20.907	0.15	81.502	64.004
06/23/2011 20:24:46	20.907	0.146	81.502	64.004
06/23/2011 20:24:56	20.907	0.146	81.502	64.004
06/23/2011 20:25:06	20.907	0.142	81.502	64.004
06/23/2011 20:25:16	20.907	0.142	81.502	64.004
06/23/2011 20:25:26	20.907	0.139	81.502	64.004
06/23/2011 20:25:36	20.907	0.139	81.502	64.004
06/23/2011 20:25:46	20.907	0.135	81.502	64.004
06/23/2011 20:25:56	20.907	0.135	81.605	64.202
06/23/2011 20:26:06	20.907	0.135	81.304	64.004
06/23/2011 20:26:16	20.903	0.139	81.304	64.004
06/23/2011 20:26:26	20.896	0.142	81.103	64.004
06/23/2011 20:26:36	20.892	0.146	81.103	63.803
06/23/2011 20:26:46	20.889	0.15	81.103	63.803
06/23/2011 20:26:56	20.889	0.15	81.103	63.803
06/23/2011 20:27:06	20.892	0.146	81.103	64.004
06/23/2011 20:27:16	20.892	0.146	80.902	64.004

URS CEMs Raw Data
June 23, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/23/2011 20:27:26	20.896	0.146	81.103	63.803
06/23/2011 20:27:36	20.896	0.146	81.103	64.004
06/23/2011 20:27:46	20.9	0.146	81.103	64.004
06/23/2011 20:27:56	20.9	0.142	81.103	64.004
06/23/2011 20:28:06	20.903	0.146	81.103	64.004
06/23/2011 20:28:16	20.903	0.146	81.304	64.004
06/23/2011 20:28:26	20.903	0.146	81.103	64.004
06/23/2011 20:28:36	20.903	0.146	80.902	64.004
06/23/2011 20:28:46	20.903	0.146	80.902	64.004
06/23/2011 20:28:56	20.903	0.142	81.103	64.004
06/23/2011 20:29:06	20.903	0.142	81.304	64.004
06/23/2011 20:29:16	20.903	0.142	81.103	64.004
06/23/2011 20:29:26	20.903	0.142	81.304	64.004
06/23/2011 20:29:36	20.907	0.142	81.304	64.004
06/23/2011 20:29:46	20.907	0.142	81.103	64.004
06/23/2011 20:29:56	20.907	0.142	81.103	64.004
06/23/2011 20:30:06	20.907	0.142	81.304	64.004
06/23/2011 20:30:16	20.907	0.142	81.304	64.004
06/23/2011 20:30:26	20.907	0.142	81.103	64.004
06/23/2011 20:30:36	20.907	0.142	81.502	64.004
06/23/2011 20:30:46	20.907	0.142	81.304	64.004
06/23/2011 20:30:56	20.907	0.142	81.304	64.004
06/23/2011 20:31:06	20.907	0.142	81.103	64.004
06/23/2011 20:31:16	20.907	0.142	81.304	64.004
06/23/2011 20:31:26	20.907	0.142	81.304	63.803
06/23/2011 20:31:36	20.907	0.142	81.304	63.803
06/23/2011 20:31:46	20.907	0.142	81.304	63.803
06/23/2011 20:31:56	20.907	0.139	81.304	63.803
06/23/2011 20:32:06	20.907	0.139	81.304	63.803
06/23/2011 20:32:16	20.907	0.139	81.502	63.803
06/23/2011 20:32:26	20.907	0.139	81.502	63.803
06/23/2011 20:32:36	20.907	0.139	81.304	63.803
06/23/2011 20:32:46	20.907	0.139	81.103	63.803
06/23/2011 20:32:56	20.907	0.139	81.304	64.004
06/23/2011 20:33:06	20.907	0.139	81.103	64.004
06/23/2011 20:33:16	20.907	0.139	81.304	63.803
06/23/2011 20:33:26	20.907	0.139	81.103	64.004
06/23/2011 20:33:36	20.907	0.139	81.103	64.004
06/23/2011 20:33:46	20.907	0.139	80.902	63.803
06/23/2011 20:33:56	20.907	0.139	81.103	63.803
06/23/2011 20:34:06	20.907	0.142	81.103	63.803
06/23/2011 20:34:16	20.911	0.142	81.103	63.803
06/23/2011 20:34:26	20.911	0.142	81.304	63.803
06/23/2011 20:34:36	20.911	0.146	81.103	63.601
06/23/2011 20:34:46	20.911	0.146	80.902	63.601
06/23/2011 20:34:56	20.911	0.146	81.103	63.803
06/23/2011 20:35:06	20.911	0.15	81.103	63.803
06/23/2011 20:35:16	20.911	0.15	81.103	63.803
06/23/2011 20:35:26	20.911	0.15	80.902	63.601
06/23/2011 20:35:36	20.911	0.15	81.103	63.803
06/23/2011 20:35:46	20.911	0.15	80.902	63.601
06/23/2011 20:35:56	20.911	0.153	80.902	63.601
06/23/2011 20:36:06	20.911	0.15	80.902	63.601
06/23/2011 20:36:16	20.914	0.15	80.902	63.803
06/23/2011 20:36:26	20.911	0.15	80.902	63.601
06/23/2011 20:36:36	20.911	0.146	81.103	63.601
06/23/2011 20:36:46	20.911	0.146	81.103	63.601
06/23/2011 20:36:56	20.911	0.146	81.103	63.803
06/23/2011 20:37:06	20.911	0.142	80.902	63.803
06/23/2011 20:37:16	20.911	0.139	81.103	63.803
06/23/2011 20:37:26	20.911	0.139	81.304	63.601
06/23/2011 20:37:36	20.911	0.135	81.103	63.601
06/23/2011 20:37:46	20.911	0.135	81.502	63.601
06/23/2011 20:37:56	20.911	0.135	81.502	63.601
06/23/2011 20:38:06	20.911	0.135	81.502	63.601

Chevron Hawaii
O_2 Calibration Data Summary

Project ID: Chevron
Date: 24-Jun
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 22.10
Analyzer Range: 25
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	08:56	-0.03	0.03	0.13%
span gas	CC82073	22.10	08:57	22.14	0.04	0.19%
mid-range	CC67546	11.10	08:58	11.16	0.06	0.27%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit		
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5	
Run 5	0.00	-0.03	09:00	0.08	0.51%	13:41	0.04	0.30%	-0.21%	Co=	0.061
	11.10	11.16	09:01	11.10	-0.29%	13:43	11.04	-0.52%	-0.23%	Cma/(Cm-Co)	1.008
Run 6	0.00	-0.03	13:41	0.04	0.30%	19:45	0.05	0.34%	0.04%	Co=	0.042
	11.10	11.16	13:43	11.04	-0.52%	19:46	11.05	-0.52%	0.01%	Cma/(Cm-Co)	1.009

Chevron Hawaii
CO_2 Calibration Data Summary

Project ID: Chevron
Date: 24-Jun-11
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 18.90
Analyzer Range: 20
Units: %
Technician(s): MDD

Calibration Error Test Results

	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)	2% Limit
zero gas	ASZ788	0.00	08:56	0.16	0.16	0.87%	
span gas	CC82073	18.90	08:57	19.15	0.25	1.32%	
mid-range	CC67546	9.74	08:58	9.97	0.23	1.24%	

CEMS Calibration Bias and Drift Tests

Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span) 5% Limit	Time	Post-test CEMS Response	Bias (% of Span) 5% Limit	Drift (% of Span) 3% Limit	Eq. 7E-5	
Run 5	0.00	0.16	09:00	0.19	0.12%	13:41	0.15	-0.05%	-0.17%	Co=	0.171
	9.74	9.97	09:01	9.88	-0.52%	13:43	9.88	-0.51%	0.01%	Cma/(Cm-Co)	1.003
Run 6	0.00	0.16	13:41	0.15	-0.05%	19:45	0.18	0.07%	0.12%	Co=	0.166
	9.74	9.97	13:43	9.88	-0.51%	19:46	9.88	-0.50%	0.01%	Cma/(Cm-Co)	1.003

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 08:03:59	20.966	0.139	76.404	59.503
06/24/2011 08:04:09	20.966	0.139	76.404	59.503
06/24/2011 08:04:20	20.969	0.139	76.203	59.503
06/24/2011 08:04:29	20.966	0.139	76.602	59.503
06/24/2011 08:04:39	20.966	0.139	76.602	59.503
06/24/2011 08:04:50	20.966	0.139	76.602	59.503
06/24/2011 08:04:59	20.966	0.139	76.602	59.503
06/24/2011 08:05:09	20.962	0.142	76.602	59.503
06/24/2011 08:05:19	20.962	0.139	76.803	59.701
06/24/2011 08:05:30	20.962	0.139	76.602	59.701
06/24/2011 08:05:39	20.962	0.142	76.602	59.701
06/24/2011 08:05:49	20.966	0.142	76.404	59.701
06/24/2011 08:05:59	20.966	0.142	76.803	59.503
06/24/2011 08:06:09	20.966	0.142	76.803	59.503
06/24/2011 08:06:19	20.966	0.139	76.803	59.701
06/24/2011 08:06:29	20.962	0.142	76.602	59.701
06/24/2011 08:06:40	20.962	0.142	76.602	59.701
06/24/2011 08:06:49	20.966	0.142	76.602	59.701
06/24/2011 08:06:59	20.966	0.142	76.404	59.701
06/24/2011 08:07:09	20.966	0.142	76.404	59.701
06/24/2011 08:07:19	20.966	0.142	76.404	59.701
06/24/2011 08:07:29	20.966	0.142	76.404	59.701
06/24/2011 08:07:39	20.966	0.139	76.203	59.701
06/24/2011 08:07:50	20.966	0.139	76.404	59.902
06/24/2011 08:07:59	20.966	0.139	76.602	59.701
06/24/2011 08:08:09	20.966	0.139	76.602	59.701
06/24/2011 08:08:19	20.966	0.142	77.001	59.701
06/24/2011 08:08:29	20.966	0.142	77.001	59.902
06/24/2011 08:08:39	20.966	0.139	77.104	59.902
06/24/2011 08:08:49	20.966	0.139	77.001	59.902
06/24/2011 08:09:00	20.966	0.139	77.104	59.902
06/24/2011 08:09:09	20.966	0.139	77.104	59.902
06/24/2011 08:09:19	20.962	0.139	77.001	59.902
06/24/2011 08:09:29	20.962	0.139	77.001	59.902
06/24/2011 08:09:40	20.962	0.139	76.803	59.902
06/24/2011 08:09:49	20.962	0.139	76.803	59.902
06/24/2011 08:09:59	20.962	0.139	76.803	59.902
06/24/2011 08:10:10	20.962	0.139	76.803	59.902
06/24/2011 08:10:19	20.962	0.139	76.803	59.902
06/24/2011 08:10:29	20.962	0.139	76.803	59.902
06/24/2011 08:10:39	20.966	0.139	76.803	59.902
06/24/2011 08:10:50	20.966	0.142	77.001	59.902
06/24/2011 08:10:59	20.966	0.142	77.001	59.902
06/24/2011 08:11:09	20.966	0.142	77.001	59.902
06/24/2011 08:11:19	20.969	0.146	76.803	59.902
06/24/2011 08:11:29	20.969	0.146	76.803	59.902
06/24/2011 08:11:39	20.966	0.146	77.001	59.902
06/24/2011 08:11:49	20.966	0.15	76.803	59.902
06/24/2011 08:12:00	20.969	0.15	76.803	59.902
06/24/2011 08:12:09	20.966	0.15	77.104	60.001
06/24/2011 08:12:19	20.966	0.15	77.104	60.001
06/24/2011 08:12:29	20.966	0.153	77.104	60.001
06/24/2011 08:12:39	20.966	0.153	77.001	60.001
06/24/2011 08:12:49	20.966	0.153	76.803	60.001
06/24/2011 08:12:59	20.966	0.153	77.001	60.001
06/24/2011 08:13:10	20.966	0.153	76.803	60.001
06/24/2011 08:13:19	20.962	0.153	76.803	60.203
06/24/2011 08:13:29	20.966	0.153	76.602	60.001
06/24/2011 08:13:39	20.966	0.153	76.803	60.001
06/24/2011 08:13:49	20.966	0.15	76.803	60.001
06/24/2011 08:13:59	20.966	0.15	76.803	60.001
06/24/2011 08:14:09	20.966	0.15	77.104	60.203
06/24/2011 08:14:20	20.966	0.15	77.302	60.203
06/24/2011 08:14:29	20.966	0.15	77.302	60.203
06/24/2011 08:14:39	20.966	0.15	77.503	60.404

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 08:14:49	20.966	0.146	77.302	60.404
06/24/2011 08:15:00	20.962	0.146	77.302	60.404
06/24/2011 08:15:09	20.962	0.146	77.302	220
06/24/2011 08:15:19	20.966	0.146	77.503	93.503
06/24/2011 08:15:30	20.966	0.142	77.503	59.503
06/24/2011 08:15:39	20.966	0.142	77.704	59.902
06/24/2011 08:15:49	20.966	0.139	77.704	60.001
06/24/2011 08:15:59	20.966	0.139	77.902	60.203
06/24/2011 08:16:10	20.966	0.139	77.902	60.203
06/24/2011 08:16:19	20.966	0.135	77.704	60.203
06/24/2011 08:16:29	20.966	0.135	78.005	60.203
06/24/2011 08:16:40	20.966	0.135	77.902	60.203
06/24/2011 08:16:49	20.966	0.131	78.005	60.404
06/24/2011 08:16:59	20.966	0.131	77.902	60.404
06/24/2011 08:17:09	20.966	0.131	78.005	60.404
06/24/2011 08:17:20	20.966	0.131	78.005	60.404
06/24/2011 08:17:29	20.966	0.131	78.005	60.404
06/24/2011 08:17:39	20.966	0.131	78.005	60.404
06/24/2011 08:17:49	20.966	0.135	78.005	60.404
06/24/2011 08:17:59	20.966	0.135	78.202	60.404
06/24/2011 08:18:09	20.966	0.135	78.202	60.404
06/24/2011 08:18:19	20.966	0.135	78.404	60.404
06/24/2011 08:18:30	20.966	0.135	78.404	60.602
06/24/2011 08:18:39	20.966	0.135	78.404	60.602
06/24/2011 08:18:49	20.966	0.135	78.404	60.602
06/24/2011 08:18:59	20.966	0.135	78.404	60.602
06/24/2011 08:19:09	20.966	0.139	78.602	60.602
06/24/2011 08:19:19	20.966	0.139	78.404	60.602
06/24/2011 08:19:29	20.966	0.135	78.404	60.602
06/24/2011 08:19:40	20.966	0.139	78.404	60.602
06/24/2011 08:19:49	20.966	0.139	78.404	60.602
06/24/2011 08:19:59	20.966	0.139	78.202	60.602
06/24/2011 08:20:09	20.966	0.139	78.404	60.602
06/24/2011 08:20:19	20.966	0.139	78.803	60.803
06/24/2011 08:20:29	20.962	0.139	78.902	60.803
06/24/2011 08:20:39	20.962	0.139	78.803	60.803
06/24/2011 08:20:50	20.962	0.139	78.902	60.803
06/24/2011 08:20:59	20.958	0.142	78.902	60.803
06/24/2011 08:21:09	20.962	0.142	78.902	60.803
06/24/2011 08:21:19	20.962	0.146	78.902	60.803
06/24/2011 08:21:30	20.958	0.146	79.103	60.803
06/24/2011 08:21:39	20.958	0.146	78.902	60.803
06/24/2011 08:21:49	20.958	0.15	78.902	60.902
06/24/2011 08:22:00	20.962	0.15	78.902	60.902
06/24/2011 08:22:09	20.962	0.15	78.803	60.803
06/24/2011 08:22:19	20.962	0.15	78.602	60.902
06/24/2011 08:22:29	20.962	0.15	78.803	60.902
06/24/2011 08:22:40	20.962	0.15	78.803	60.902
06/24/2011 08:22:49	20.962	0.15	78.803	60.902
06/24/2011 08:22:59	20.962	0.15	78.902	60.803
06/24/2011 08:23:09	20.962	0.15	78.902	60.803
06/24/2011 08:23:19	20.962	0.15	79.305	60.902
06/24/2011 08:23:29	20.966	0.15	79.503	60.902
06/24/2011 08:23:39	20.966	0.146	79.503	61.301
06/24/2011 08:23:50	20.966	0.146	79.503	61.301
06/24/2011 08:23:59	20.966	0.146	79.704	61.104
06/24/2011 08:24:09	20.966	0.146	79.704	61.104
06/24/2011 08:24:19	20.962	0.146	79.503	61.104
06/24/2011 08:24:29	20.962	0.142	79.503	61.104
06/24/2011 08:24:39	20.966	0.142	79.103	61.104
06/24/2011 08:24:49	20.962	0.142	79.103	61.104
06/24/2011 08:25:00	20.958	0.142	79.305	61.301
06/24/2011 08:25:09	20.962	0.139	79.305	61.301
06/24/2011 08:25:19	20.962	0.139	79.305	61.301
06/24/2011 08:25:29	20.962	0.139	79.305	61.104

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 08:25:39	20.962	0.142	79.103	61.104
06/24/2011 08:25:49	20.962	0.142	79.103	61.104
06/24/2011 08:25:59	20.962	0.142	79.103	61.104
06/24/2011 08:26:10	20.962	0.142	79.503	61.301
06/24/2011 08:26:19	20.962	0.142	79.503	61.301
06/24/2011 08:26:29	20.962	0.142	79.704	61.301
06/24/2011 08:26:39	20.962	0.142	79.704	61.301
06/24/2011 08:26:50	20.962	0.146	79.704	61.503
06/24/2011 08:26:59	20.962	0.146	79.503	61.301
06/24/2011 08:27:09	20.958	0.146	79.305	61.301
06/24/2011 08:27:20	20.958	0.15	79.103	61.301
06/24/2011 08:27:29	20.962	0.15	79.103	61.301
06/24/2011 08:27:39	20.958	0.15	78.902	61.104
06/24/2011 08:27:49	20.958	0.15	79.103	61.301
06/24/2011 08:28:00	20.958	0.15	79.305	61.301
06/24/2011 08:28:09	20.958	0.153	79.503	61.301
06/24/2011 08:28:19	20.955	0.153	79.503	61.301
06/24/2011 08:28:29	20.955	0.153	79.305	61.301
06/24/2011 08:28:39	20.958	0.153	79.305	61.301
06/24/2011 08:28:49	20.958	0.15	79.503	61.503
06/24/2011 08:28:59	20.958	0.15	79.503	61.301
06/24/2011 08:29:10	20.955	0.15	79.305	61.503
06/24/2011 08:29:19	20.955	0.15	79.503	61.301
06/24/2011 08:29:29	20.955	0.146	79.305	61.503
06/24/2011 08:29:39	20.958	0.146	79.305	61.503
06/24/2011 08:29:49	20.958	0.146	79.305	61.301
06/24/2011 08:29:59	20.955	0.146	79.305	61.301
06/24/2011 08:30:09	20.955	0.142	79.305	61.301
06/24/2011 08:30:20	18.56	9.115	79.305	61.301
06/24/2011 08:30:29	9.331	12.737	79.503	61.301
06/24/2011 08:30:39	6.313	12.803	79.503	61.301
06/24/2011 08:30:49	6.181	13.026	79.305	61.301
06/24/2011 08:30:59	5.804	13.301	79.305	61.301
06/24/2011 08:31:09	5.687	13.165	79.503	61.301
06/24/2011 08:31:19	5.69	13.293	79.503	61.301
06/24/2011 08:31:30	5.614	13.348	79.503	61.503
06/24/2011 08:31:39	5.599	13.326	79.503	61.503
06/24/2011 08:31:49	5.621	13.323	79.103	61.503
06/24/2011 08:31:59	5.603	13.381	79.305	61.503
06/24/2011 08:32:10	5.54	13.418	79.305	61.704
06/24/2011 08:32:19	5.522	13.421	79.305	61.704
06/24/2011 08:32:29	5.529	13.414	79.503	61.704
06/24/2011 08:32:40	5.551	13.326	79.503	61.704
06/24/2011 08:32:49	5.628	13.249	79.305	61.803
06/24/2011 08:32:59	5.863	13.011	79.305	61.803
06/24/2011 08:33:09	5.819	13.271	79.305	61.803
06/24/2011 08:33:20	5.661	13.29	79.103	61.803
06/24/2011 08:33:29	5.617	13.345	79.103	61.803
06/24/2011 08:33:39	5.584	13.388	79.103	61.803
06/24/2011 08:33:49	5.57	13.348	79.103	62.001
06/24/2011 08:33:59	5.628	13.275	79.103	62.001
06/24/2011 08:34:09	5.672	13.286	79.103	62.001
06/24/2011 08:34:19	5.65	13.304	79.305	62.001
06/24/2011 08:34:30	5.65	13.282	79.305	62.001
06/24/2011 08:34:39	5.658	13.26	79.103	62.001
06/24/2011 08:34:49	5.661	13.297	79.503	62.202
06/24/2011 08:34:59	5.632	13.308	79.503	62.202
06/24/2011 08:35:09	5.61	13.37	79.503	62.202
06/24/2011 08:35:19	5.599	13.363	79.103	62.404
06/24/2011 08:35:29	5.584	13.348	79.305	62.404
06/24/2011 08:35:40	5.581	13.356	79.103	62.404
06/24/2011 08:35:49	5.548	13.407	79.103	62.202
06/24/2011 08:35:59	5.54	13.352	79.103	62.202
06/24/2011 08:36:09	5.628	13.235	79.503	62.404
06/24/2011 08:36:19	5.679	13.271	79.503	62.404

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 08:36:29	5.669	13.242	79.503	62.601
06/24/2011 08:36:39	5.658	13.312	79.503	62.601
06/24/2011 08:36:50	5.61	13.345	79.503	62.601
06/24/2011 08:36:59	5.599	13.341	79.503	62.601
06/24/2011 08:37:09	5.628	13.308	79.103	62.404
06/24/2011 08:37:19	5.625	13.356	79.103	62.404
06/24/2011 08:37:30	5.595	13.352	79.103	62.404
06/24/2011 08:37:39	5.581	13.399	79.305	62.704
06/24/2011 08:37:49	5.54	13.388	79.103	62.601
06/24/2011 08:38:00	5.555	13.33	79.103	62.404
06/24/2011 08:38:09	5.588	13.352	79.103	62.404
06/24/2011 08:38:19	5.573	13.374	79.305	62.704
06/24/2011 08:38:29	5.559	13.385	79.103	62.601
06/24/2011 08:38:40	5.581	13.341	79.103	62.601
06/24/2011 08:38:49	5.577	13.366	79.103	62.601
06/24/2011 08:38:59	5.581	13.366	79.305	62.601
06/24/2011 08:39:10	5.551	13.451	79.103	62.601
06/24/2011 08:39:19	5.515	13.392	79.103	62.601
06/24/2011 08:39:29	5.537	13.418	79.305	62.704
06/24/2011 08:39:39	5.489	13.44	79.103	62.601
06/24/2011 08:39:50	5.474	13.429	79.103	62.601
06/24/2011 08:39:59	5.518	13.37	78.902	62.601
06/24/2011 08:40:09	5.551	13.37	79.305	62.704
06/24/2011 08:40:19	5.544	13.381	79.305	62.704
06/24/2011 08:40:29	5.496	13.484	79.503	62.902
06/24/2011 08:40:39	5.419	13.542	79.503	62.902
06/24/2011 08:40:49	5.39	13.524	79.503	62.704
06/24/2011 08:41:00	5.438	13.48	79.305	62.902
06/24/2011 08:41:09	5.39	13.711	79.305	62.902
06/24/2011 08:41:19	5.225	13.85	79.305	62.704
06/24/2011 08:41:29	5.17	13.799	79.305	62.704
06/24/2011 08:41:39	5.214	13.696	79.103	62.704
06/24/2011 08:41:49	5.288	13.583	79.103	62.902
06/24/2011 08:41:59	5.387	13.513	79.305	62.704
06/24/2011 08:42:10	5.456	13.462	79.103	62.704
06/24/2011 08:42:19	5.515	13.396	79.305	62.902
06/24/2011 08:42:29	5.507	13.447	79.503	62.902
06/24/2011 08:42:39	5.496	13.403	79.503	62.902
06/24/2011 08:42:49	5.526	13.381	79.503	62.902
06/24/2011 08:42:59	5.544	13.432	79.503	62.902
06/24/2011 08:43:09	5.515	13.432	79.503	62.902
06/24/2011 08:43:20	5.493	13.41	79.503	62.902
06/24/2011 08:43:29	5.5	13.421	79.503	62.704
06/24/2011 08:43:39	5.522	13.388	79.503	62.704
06/24/2011 08:43:49	5.489	13.454	79.704	62.704
06/24/2011 08:44:00	5.46	13.443	79.503	62.704
06/24/2011 08:44:09	5.489	13.429	79.503	62.902
06/24/2011 08:44:19	5.489	13.458	79.503	62.704
06/24/2011 08:44:30	5.467	13.451	79.503	62.704
06/24/2011 08:44:39	5.489	13.421	79.503	62.704
06/24/2011 08:44:49	5.478	13.458	79.503	62.704
06/24/2011 08:44:59	5.474	13.465	79.503	62.704
06/24/2011 08:45:10	5.423	13.524	79.503	62.902
06/24/2011 08:45:19	5.39	13.509	79.503	62.704
06/24/2011 08:45:29	5.383	13.561	79.305	62.902
06/24/2011 08:45:39	5.387	13.491	79.503	62.902
06/24/2011 08:45:49	5.43	13.495	79.503	62.704
06/24/2011 08:45:59	5.441	13.462	79.503	62.704
06/24/2011 08:46:09	5.438	13.498	79.305	62.704
06/24/2011 08:46:20	5.419	13.447	79.305	62.902
06/24/2011 08:46:29	5.471	13.451	79.305	62.902
06/24/2011 08:46:39	5.441	13.535	79.305	62.902
06/24/2011 08:46:49	5.394	13.568	79.103	63.103
06/24/2011 08:46:59	5.365	13.557	79.305	63.103
06/24/2011 08:47:09	5.376	13.564	79.305	63.103

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 08:47:19	5.412	13.495	79.503	62.902
06/24/2011 08:47:30	5.441	13.487	79.503	62.902
06/24/2011 08:47:39	5.43	13.524	79.305	62.902
06/24/2011 08:47:49	5.412	13.502	79.503	62.902
06/24/2011 08:47:59	5.441	13.454	79.305	62.902
06/24/2011 08:48:09	5.471	13.425	79.305	62.902
06/24/2011 08:48:19	5.485	13.465	79.503	62.902
06/24/2011 08:48:29	5.46	13.451	79.503	62.902
06/24/2011 08:48:40	5.478	13.41	79.503	62.902
06/24/2011 08:48:49	5.489	13.476	79.503	62.902
06/24/2011 08:48:59	5.449	13.517	79.503	62.902
06/24/2011 08:49:09	5.365	13.597	79.503	62.902
06/24/2011 08:49:20	5.31	13.634	79.503	62.902
06/24/2011 08:49:29	5.31	13.623	79.704	63.103
06/24/2011 08:49:39	5.291	13.663	79.803	63.103
06/24/2011 08:49:50	5.266	13.652	79.704	63.103
06/24/2011 08:49:59	5.277	13.67	79.503	62.902
06/24/2011 08:50:09	5.284	13.597	79.103	62.902
06/24/2011 08:50:19	5.335	13.531	79.305	62.902
06/24/2011 08:50:30	5.339	13.608	79.503	62.902
06/24/2011 08:50:39	5.284	13.674	79.503	62.902
06/24/2011 08:50:49	5.233	13.7	79.503	62.902
06/24/2011 08:50:59	5.214	13.707	79.503	62.902
06/24/2011 08:51:09	5.236	13.648	79.704	63.103
06/24/2011 08:51:19	5.284	13.623	79.704	63.103
06/24/2011 08:51:29	5.295	13.648	79.704	63.103
06/24/2011 08:51:40	5.288	13.605	79.704	62.902
06/24/2011 08:51:49	5.295	13.616	79.704	63.103
06/24/2011 08:51:59	5.262	13.656	79.503	62.902
06/24/2011 08:52:09	5.288	13.608	79.704	63.103
06/24/2011 08:52:19	5.31	13.608	79.704	63.103
06/24/2011 08:52:29	5.332	13.605	79.704	63.103
06/24/2011 08:52:39	5.317	13.652	79.704	63.103
06/24/2011 08:52:50	5.291	13.652	79.704	63.103
06/24/2011 08:52:59	5.28	13.656	79.704	63.103
06/24/2011 08:53:09	5.273	13.656	79.704	63.103
06/24/2011 08:53:19	5.266	13.678	79.704	63.103
06/24/2011 08:53:29	5.255	13.663	79.704	63.103
06/24/2011 08:53:39	5.291	13.546	79.704	63.103
06/24/2011 08:53:49	5.332	13.638	79.704	63.103
06/24/2011 08:54:00	5.288	13.659	79.704	63.103
06/24/2011 08:54:09	5.247	13.692	79.704	63.103
06/24/2011 08:54:19	5.236	13.656	79.704	63.103
06/24/2011 08:54:29	5.236	13.681	79.704	63.103
06/24/2011 08:54:40	5.251	13.641	79.803	63.301
06/24/2011 08:54:49	5.31	13.638	79.803	63.301
06/24/2011 08:54:59	5.295	13.663	79.803	63.301
06/24/2011 08:55:10	5.262	13.714	79.305	63.103
06/24/2011 08:55:20	5.255	13.663	79.305	62.601
Calibration Error				
06/24/2011 08:55:29	4.434	5.031	79.305	60.902
06/24/2011 08:55:39	0.996	0.263	79.103	60.602
06/24/2011 08:55:50	0.102	0.19	79.305	60.602
06/24/2011 08:55:59	-0.015	0.172	79.305	60.602
06/24/2011 08:56:09	-0.034	0.161	79.103	60.602
06/24/2011 08:56:19	-0.037	0.161	79.305	60.803
N2 Zero	**-0.029**	**0.165**	**79.238**	**60.669**
06/24/2011 08:56:29	8.313	18.007	79.103	60.803
06/24/2011 08:56:39	20.79	19.087	79.103	60.902
06/24/2011 08:56:49	22.053	19.113	79.103	60.902
06/24/2011 08:57:00	22.108	19.138	79.103	60.902
06/24/2011 08:57:09	22.123	19.145	78.902	60.902
06/24/2011 08:57:19	22.134	19.153	79.103	60.902
06/24/2011 08:57:29	22.145	19.153	78.902	60.902
06/24/2011 08:57:39	22.145	19.145	79.305	60.902

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
22.1% O2/18.9% CO2 Span	**22.141**	**19.150**	**79.103**	**60.902**
06/24/2011 08:57:49	17.629	10.027	79.103	60.902
06/24/2011 08:57:59	11.689	9.997	79.305	60.902
06/24/2011 08:58:10	11.191	9.986	79.103	60.902
06/24/2011 08:58:19	11.169	9.983	79.103	61.104
06/24/2011 08:58:29	11.162	9.979	79.103	61.104
06/24/2011 08:58:39	11.162	9.975	79.103	61.104
06/24/2011 08:58:49	11.155	9.968	78.902	61.104
11.1% O2/9.74% CO2 Mid	**11.160**	**9.974**	**79.036**	**61.104**
06/24/2011 08:58:59	9.759	13.381	78.902	62.704
06/24/2011 08:59:09	6.262	6.558	79.305	63.601
Calibration Bias				
06/24/2011 08:59:20	2.735	0.366	79.103	63.803
06/24/2011 08:59:29	0.237	0.267	79.103	64.004
06/24/2011 08:59:39	0.109	0.226	79.103	64.004
06/24/2011 08:59:49	0.091	0.201	79.103	64.004
06/24/2011 09:00:00	0.084	0.186	79.103	64.004
06/24/2011 09:00:09	0.076	0.175	79.103	64.004
N2 Zero	**0.084**	**0.187**	**79.103**	**64.004**
06/24/2011 09:00:19	0.172	0.527	79.305	63.803
06/24/2011 09:00:30	5.712	9.708	79.305	63.601
06/24/2011 09:00:39	10.708	9.832	79.503	63.601
06/24/2011 09:00:49	11.056	9.858	79.305	63.601
06/24/2011 09:00:59	11.085	9.869	79.503	63.601
06/24/2011 09:01:10	11.1	9.876	79.305	63.803
06/24/2011 09:01:19	11.103	9.884	79.503	63.601
11.1% O2/9.74% CO2 Mid	**11.096**	**9.876**	**79.437**	**63.668**
06/24/2011 09:01:29	10.561	11.55	79.103	63.601
06/24/2011 09:01:40	7.009	13.729	79.103	63.601
06/24/2011 09:01:49	5.207	13.784	79.305	63.601
06/24/2011 09:01:59	5.134	13.762	79.503	63.803
06/24/2011 09:02:09	5.112	13.817	79.704	63.601
06/24/2011 09:02:20	5.053	13.857	79.704	63.601
06/24/2011 09:02:29	5.017	13.89	79.704	63.601
06/24/2011 09:02:39	5.064	13.758	79.704	63.601
06/24/2011 09:02:49	5.174	13.736	79.704	63.601
06/24/2011 09:02:59	5.211	13.692	79.503	63.601
06/24/2011 09:03:09	5.211	13.74	79.503	63.601
06/24/2011 09:03:19	5.196	13.733	79.704	63.601
06/24/2011 09:03:30	5.211	13.674	79.503	63.601
06/24/2011 09:03:39	5.244	13.652	79.704	63.502
06/24/2011 09:03:49	5.211	13.736	79.704	63.502
06/24/2011 09:03:59	5.152	13.747	79.803	63.601
06/24/2011 09:04:09	5.141	13.81	80.004	63.601
06/24/2011 09:04:19	5.126	13.799	80.004	63.601
06/24/2011 09:04:29	5.152	13.733	79.803	63.601
06/24/2011 09:04:40	5.178	13.773	79.803	63.601
06/24/2011 09:04:49	5.126	13.832	79.704	63.502
06/24/2011 09:04:59	5.068	13.887	79.803	63.601
06/24/2011 09:05:09	5.046	13.854	80.004	63.601
06/24/2011 09:05:19	5.072	13.813	80.202	63.601
06/24/2011 09:05:29	5.083	13.828	80.004	63.502
06/24/2011 09:05:39	5.112	13.813	80.004	63.502
06/24/2011 09:05:50	5.119	13.799	80.202	63.502
06/24/2011 09:05:59	5.148	13.751	80.202	63.502
06/24/2011 09:06:09	5.178	13.718	80.202	63.502
06/24/2011 09:06:19	5.156	13.806	80.403	63.502
06/24/2011 09:06:30	5.108	13.81	80.202	63.502
06/24/2011 09:06:39	5.156	13.733	80.004	63.502
06/24/2011 09:06:49	5.207	13.692	80.202	63.502
06/24/2011 09:07:00	5.233	13.7	80.202	63.502
06/24/2011 09:07:09	5.244	13.703	80.004	63.502
06/24/2011 09:07:19	5.203	13.769	80.004	63.502
06/24/2011 09:07:29	5.156	13.784	79.803	63.502
06/24/2011 09:07:40	5.159	13.758	80.202	63.601

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 09:07:49	5.163	13.751	80.403	63.601
06/24/2011 09:07:59	5.2	13.718	80.202	63.502
06/24/2011 09:08:09	5.211	13.766	80.004	63.502
06/24/2011 09:08:19	5.174	13.777	80.004	63.601
06/24/2011 09:08:29	5.123	13.832	80.202	63.601
06/24/2011 09:08:39	5.108	13.832	80.202	63.601
06/24/2011 09:08:50	5.134	13.78	80.202	63.502
06/24/2011 09:08:59	5.148	13.802	80.004	63.502
06/24/2011 09:09:09	5.123	13.854	80.004	63.502
06/24/2011 09:09:19	5.086	13.85	80.004	63.502
06/24/2011 09:09:29	5.112	13.832	80.202	63.502
06/24/2011 09:09:39	5.09	13.872	80.004	63.601
06/24/2011 09:09:49	5.053	13.821	80.004	63.502
06/24/2011 09:10:00	5.116	13.777	80.004	63.502
06/24/2011 09:10:09	5.192	13.689	80.202	63.502
06/24/2011 09:10:19	5.236	13.714	80.004	63.502
06/24/2011 09:10:29	5.233	13.681	80.004	63.502
06/24/2011 09:10:39	5.233	13.714	80.004	63.601
06/24/2011 09:10:49	5.2	13.725	80.202	63.601
06/24/2011 09:10:59	5.178	13.696	80.202	63.502
06/24/2011 09:11:10	5.233	13.652	80.004	63.502
06/24/2011 09:11:19	5.24	13.733	80.004	63.502
06/24/2011 09:11:29	5.189	13.747	80.004	63.502
06/24/2011 09:11:39	5.189	13.725	80.403	63.601
06/24/2011 09:11:50	5.196	13.696	80.403	63.601
06/24/2011 09:11:59	5.207	13.725	80.202	63.601
06/24/2011 09:12:09	5.181	13.795	80.202	63.601
06/24/2011 09:12:20	5.152	13.729	80.202	63.502
06/24/2011 09:12:29	5.211	13.674	80.004	63.502
06/24/2011 09:12:39	5.233	13.722	80.004	63.502
06/24/2011 09:12:49	5.185	13.744	80.004	63.502
06/24/2011 09:13:00	5.17	13.791	80.004	63.502
06/24/2011 09:13:09	5.159	13.744	80.004	63.502
06/24/2011 09:13:19	5.189	13.714	80.202	63.502
06/24/2011 09:13:29	5.207	13.74	80.202	63.502
06/24/2011 09:13:39	5.178	13.762	80.202	63.502
06/24/2011 09:13:49	5.159	13.777	80.202	63.502
06/24/2011 09:13:59	5.137	13.799	80.004	63.601
06/24/2011 09:14:10	5.145	13.747	80.004	63.601
06/24/2011 09:14:19	5.163	13.788	80.004	63.601
06/24/2011 09:14:29	5.156	13.744	79.803	63.502
06/24/2011 09:14:39	5.167	13.766	80.004	63.502
06/24/2011 09:14:49	5.17	13.788	79.803	63.502
06/24/2011 09:14:59	5.167	13.747	79.803	63.502
06/24/2011 09:15:09	5.222	13.667	80.004	63.502
06/24/2011 09:15:20	5.262	13.634	80.202	63.601
06/24/2011 09:15:29	5.255	13.689	79.803	63.601
06/24/2011 09:15:39	5.225	13.74	80.202	63.601
06/24/2011 09:15:49	5.185	13.751	80.202	63.601
06/24/2011 09:15:59	5.211	13.692	80.202	63.601
06/24/2011 09:16:09	5.2	13.755	80.202	63.601
06/24/2011 09:16:19	5.178	13.7	80.004	63.601
06/24/2011 09:16:30	5.203	13.7	80.004	63.601
06/24/2011 09:16:39	5.189	13.766	80.004	63.601
06/24/2011 09:16:49	5.116	13.883	80.202	63.502
06/24/2011 09:16:59	5.028	13.868	80.403	63.601
06/24/2011 09:17:10	5.112	13.714	80.403	63.601
06/24/2011 09:17:19	5.214	13.685	80.403	63.601
06/24/2011 09:17:29	5.211	13.729	80.403	63.601
06/24/2011 09:17:40	5.17	13.78	80.403	63.601
06/24/2011 09:17:49	5.152	13.755	80.403	63.502
06/24/2011 09:17:59	5.159	13.78	80.202	63.502
06/24/2011 09:18:09	5.163	13.725	80.202	63.601
06/24/2011 09:18:20	5.178	13.795	80.403	63.803
06/24/2011 09:18:29	5.123	13.81	80.202	63.601

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 09:18:39	5.123	13.744	80.004	63.601
06/24/2011 09:18:49	5.233	13.634	80.202	63.601
06/24/2011 09:18:59	5.291	13.667	80.202	63.601
06/24/2011 09:19:09	5.236	13.733	80.004	63.502
06/24/2011 09:19:19	5.181	13.769	80.004	63.601
06/24/2011 09:19:30	5.174	13.769	80.004	63.601
06/24/2011 09:19:39	5.196	13.711	80.202	63.803
06/24/2011 09:19:49	5.251	13.667	80.004	63.601
06/24/2011 09:19:59	5.273	13.663	79.803	63.601
06/24/2011 09:20:09	5.288	13.634	80.004	63.803
06/24/2011 09:20:19	5.291	13.67	80.202	63.803
06/24/2011 09:20:29	5.28	13.663	80.202	63.803
06/24/2011 09:20:40	5.291	13.638	80.004	63.601
06/24/2011 09:20:49	5.332	13.572	80.202	63.601
06/24/2011 09:20:59	5.361	13.579	80.202	63.601
06/24/2011 09:21:09	5.376	13.546	80.202	63.601
06/24/2011 09:21:19	5.398	13.561	80.202	63.601
06/24/2011 09:21:29	5.343	13.634	80.202	63.601
06/24/2011 09:21:39	5.313	13.656	80.403	63.803
06/24/2011 09:21:50	5.313	13.612	80.704	63.803
06/24/2011 09:21:59	5.328	13.612	80.704	63.601
06/24/2011 09:22:09	5.339	13.583	80.605	63.803
06/24/2011 09:22:19	5.387	13.539	80.403	63.601
06/24/2011 09:22:30	5.387	13.59	80.403	63.601
06/24/2011 09:22:39	5.361	13.583	80.403	63.601
06/24/2011 09:22:49	5.313	13.678	80.202	63.601
06/24/2011 09:23:00	5.288	13.652	80.403	63.601
06/24/2011 09:23:09	5.273	13.623	80.605	63.601
06/24/2011 09:23:19	5.291	13.619	80.403	63.601
06/24/2011 09:23:29	5.295	13.667	80.605	63.803
06/24/2011 09:23:40	5.295	13.612	80.403	63.803
06/24/2011 09:23:49	5.321	13.608	80.403	63.803
06/24/2011 09:23:59	5.321	13.634	80.403	63.803
06/24/2011 09:24:10	5.317	13.641	79.803	63.601
06/24/2011 09:24:19	5.295	13.648	80.004	63.601
06/24/2011 09:24:29	5.313	13.597	80.202	63.601
06/24/2011 09:24:39	5.387	13.491	80.004	63.601
06/24/2011 09:24:50	5.504	13.385	80.202	63.803
06/24/2011 09:24:59	5.566	13.396	80.202	63.803
06/24/2011 09:25:09	5.489	13.52	80.202	63.803
06/24/2011 09:25:19	5.401	13.52	80.202	63.803
06/24/2011 09:25:29	5.387	13.564	80.403	63.803
06/24/2011 09:25:39	5.357	13.579	80.202	63.601
06/24/2011 09:25:49	5.35	13.586	80.403	63.601
06/24/2011 09:26:00	5.357	13.546	80.605	63.803
06/24/2011 09:26:09	5.387	13.524	80.403	63.601
06/24/2011 09:26:19	5.419	13.462	80.202	63.601
06/24/2011 09:26:29	5.438	13.506	80.202	63.601
06/24/2011 09:26:39	5.379	13.572	80.403	63.601
06/24/2011 09:26:49	5.376	13.509	80.202	63.601
06/24/2011 09:26:59	5.394	13.546	80.403	63.601
06/24/2011 09:27:10	5.412	13.476	80.605	63.601
06/24/2011 09:27:19	5.456	13.484	80.605	63.601
06/24/2011 09:27:29	5.416	13.572	80.403	63.601
06/24/2011 09:27:39	5.357	13.608	80.004	63.601
06/24/2011 09:27:49	5.313	13.63	80.004	63.803
06/24/2011 09:27:59	5.302	13.616	80.202	63.601
06/24/2011 09:28:09	5.332	13.572	80.403	63.601
06/24/2011 09:28:20	5.372	13.528	80.605	63.601
06/24/2011 09:28:29	5.387	13.517	80.403	63.601
06/24/2011 09:28:39	5.398	13.553	80.704	63.803
06/24/2011 09:28:49	5.357	13.601	80.704	63.803
06/24/2011 09:29:00	5.31	13.645	80.704	63.803
06/24/2011 09:29:09	5.31	13.572	80.605	63.803
06/24/2011 09:29:19	5.383	13.561	80.403	63.803

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 09:29:30	5.387	13.535	80.403	63.803
06/24/2011 09:29:39	5.394	13.542	80.403	63.803
06/24/2011 09:29:49	5.405	13.517	80.202	63.803
06/24/2011 09:29:59	5.434	13.509	80.403	63.803
06/24/2011 09:30:10	5.438	13.513	80.403	63.803
06/24/2011 09:30:19	5.405	13.542	80.403	63.803
06/24/2011 09:30:29	5.412	13.502	80.403	63.803
06/24/2011 09:30:39	5.423	13.535	80.403	63.803
06/24/2011 09:30:49	5.408	13.535	80.605	63.803
06/24/2011 09:30:59	5.456	13.432	80.403	63.803
06/24/2011 09:31:09	5.537	13.352	80.202	63.601
06/24/2011 09:31:20	5.555	13.403	80.403	63.601
06/24/2011 09:31:29	5.496	13.458	80.202	63.601
06/24/2011 09:31:39	5.471	13.454	80.605	63.803
06/24/2011 09:31:49	5.438	13.517	80.605	63.803
06/24/2011 09:31:59	5.39	13.52	80.202	63.803
Start Run 5				
06/24/2011 09:32:09	5.401	13.48	80.202	63.803
06/24/2011 09:32:19	5.489	13.377	80.202	63.803
06/24/2011 09:32:30	5.522	13.458	80.004	63.803
06/24/2011 09:32:39	5.463	13.476	80.202	63.803
06/24/2011 09:32:49	5.493	13.359	80.202	63.803
06/24/2011 09:32:59	5.544	13.396	80.202	63.803
06/24/2011 09:33:09	5.533	13.473	80.202	63.803
06/24/2011 09:33:19	5.471	13.498	80.202	63.803
06/24/2011 09:33:29	5.46	13.498	80.004	63.601
06/24/2011 09:33:40	5.496	13.396	80.004	63.601
06/24/2011 09:33:49	5.511	13.498	80.004	63.803
06/24/2011 09:33:59	5.474	13.506	80.202	63.803
06/24/2011 09:34:09	5.467	13.447	80.202	63.803
06/24/2011 09:34:20	5.478	13.509	80.202	63.803
06/24/2011 09:34:29	5.438	13.506	80.004	63.803
06/24/2011 09:34:39	5.445	13.487	80.202	63.803
06/24/2011 09:34:50	5.482	13.458	80.403	63.803
06/24/2011 09:34:59	5.496	13.44	80.403	63.803
06/24/2011 09:35:09	5.537	13.421	80.605	64.004
06/24/2011 09:35:19	5.518	13.473	80.403	63.803
06/24/2011 09:35:30	5.46	13.498	80.403	63.803
06/24/2011 09:35:39	5.412	13.531	80.403	63.803
06/24/2011 09:35:49	5.408	13.498	80.403	63.803
06/24/2011 09:35:59	5.474	13.454	80.403	63.803
06/24/2011 09:36:09	5.478	13.495	80.605	63.803
06/24/2011 09:36:19	5.412	13.553	80.605	63.803
06/24/2011 09:36:29	5.405	13.524	80.605	63.803
06/24/2011 09:36:40	5.434	13.506	80.403	63.803
06/24/2011 09:36:49	5.398	13.542	80.605	63.803
06/24/2011 09:36:59	5.394	13.528	80.704	64.004
06/24/2011 09:37:09	5.408	13.513	80.403	63.803
06/24/2011 09:37:19	5.412	13.524	80.403	63.803
06/24/2011 09:37:29	5.419	13.484	80.605	63.803
06/24/2011 09:37:39	5.467	13.421	80.605	63.803
06/24/2011 09:37:50	5.493	13.432	80.403	63.803
06/24/2011 09:37:59	5.449	13.498	80.202	63.803
06/24/2011 09:38:09	5.412	13.502	80.202	63.803
06/24/2011 09:38:19	5.438	13.44	80.202	64.004
06/24/2011 09:38:29	5.471	13.454	80.403	64.004
06/24/2011 09:38:39	5.452	13.495	80.403	63.803
06/24/2011 09:38:49	5.434	13.487	80.403	64.004
06/24/2011 09:39:00	5.394	13.564	80.202	63.803
06/24/2011 09:39:09	5.35	13.564	80.202	63.803
06/24/2011 09:39:19	5.343	13.561	80.403	63.803
06/24/2011 09:39:29	5.39	13.509	80.403	63.803
06/24/2011 09:39:40	5.441	13.458	80.704	63.803
06/24/2011 09:39:49	5.445	13.502	80.704	63.803

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 09:39:59	5.423	13.528	80.704	64.004
06/24/2011 09:40:10	5.416	13.524	80.704	64.202
06/24/2011 09:40:19	5.445	13.44	80.902	64.004
06/24/2011 09:40:29	5.507	13.385	80.902	64.004
06/24/2011 09:40:39	5.533	13.396	80.902	64.004
06/24/2011 09:40:50	5.496	13.436	80.902	64.202
06/24/2011 09:40:59	5.482	13.454	80.902	64.202
06/24/2011 09:41:09	5.471	13.458	80.704	64.202
06/24/2011 09:41:19	5.482	13.443	80.605	64.202
06/24/2011 09:41:29	5.471	13.473	80.704	64.202
06/24/2011 09:41:39	5.463	13.465	80.902	64.202
06/24/2011 09:41:49	5.482	13.432	80.902	64.202
06/24/2011 09:42:00	5.511	13.458	81.103	64.202
06/24/2011 09:42:09	5.449	13.55	81.103	64.202
06/24/2011 09:42:19	5.419	13.487	80.704	64.004
06/24/2011 09:42:29	5.405	13.539	80.704	64.004
06/24/2011 09:42:39	5.387	13.506	80.902	64.004
06/24/2011 09:42:49	5.405	13.498	80.902	64.004
06/24/2011 09:42:59	5.43	13.473	80.902	64.004
06/24/2011 09:43:10	5.419	13.535	80.704	64.004
06/24/2011 09:43:19	5.39	13.524	80.605	64.004
06/24/2011 09:43:29	5.379	13.542	80.704	64.004
06/24/2011 09:43:39	5.376	13.524	80.704	64.004
06/24/2011 09:43:49	5.427	13.454	80.704	64.004
06/24/2011 09:43:59	5.449	13.473	80.704	64.004
06/24/2011 09:44:09	5.43	13.48	80.704	64.004
06/24/2011 09:44:20	5.419	13.495	80.605	64.004
06/24/2011 09:44:29	5.408	13.528	80.605	64.004
06/24/2011 09:44:39	5.387	13.513	80.704	64.004
06/24/2011 09:44:49	5.43	13.429	80.902	64.004
06/24/2011 09:45:00	5.452	13.509	80.704	64.004
06/24/2011 09:45:09	5.398	13.531	80.704	64.004
06/24/2011 09:45:19	5.372	13.568	80.605	64.004
06/24/2011 09:45:30	5.343	13.568	80.605	64.004
06/24/2011 09:45:39	5.332	13.608	80.403	64.004
06/24/2011 09:45:49	5.328	13.586	80.605	64.004
06/24/2011 09:45:59	5.332	13.619	80.704	64.004
06/24/2011 09:46:10	5.306	13.667	80.902	64.004
06/24/2011 09:46:19	5.302	13.605	81.103	64.202
06/24/2011 09:46:29	5.376	13.546	80.902	64.202
06/24/2011 09:46:40	5.412	13.528	80.704	64.202
06/24/2011 09:46:49	5.398	13.575	80.704	64.202
06/24/2011 09:46:59	5.383	13.59	80.902	64.202
06/24/2011 09:47:09	5.365	13.55	80.902	64.202
06/24/2011 09:47:20	5.357	13.579	81.103	64.202
06/24/2011 09:47:29	5.365	13.583	80.902	64.202
06/24/2011 09:47:39	5.387	13.539	80.902	64.202
06/24/2011 09:47:49	5.452	13.414	80.902	64.202
06/24/2011 09:47:59	5.507	13.476	81.103	64.202
06/24/2011 09:48:09	5.452	13.52	80.902	64.202
06/24/2011 09:48:19	5.405	13.553	81.103	64.202
06/24/2011 09:48:30	5.398	13.542	81.103	64.202
06/24/2011 09:48:39	5.434	13.469	81.103	64.202
06/24/2011 09:48:49	5.445	13.535	80.902	64.202
06/24/2011 09:48:59	5.408	13.531	81.103	64.202
06/24/2011 09:49:09	5.441	13.443	80.902	64.202
06/24/2011 09:49:19	5.504	13.421	81.103	64.202
06/24/2011 09:49:29	5.485	13.476	81.304	64.202
06/24/2011 09:49:40	5.419	13.535	81.304	64.202
06/24/2011 09:49:49	5.39	13.568	81.304	64.202
06/24/2011 09:49:59	5.379	13.52	80.902	64.202
06/24/2011 09:50:09	5.441	13.458	81.304	64.202
06/24/2011 09:50:19	5.478	13.451	81.502	64.202
06/24/2011 09:50:29	5.445	13.52	81.304	64.202
06/24/2011 09:50:39	5.405	13.546	81.103	64.202

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 09:50:50	5.368	13.539	80.902	64.202
06/24/2011 09:50:59	5.379	13.601	80.902	64.202
06/24/2011 09:51:09	5.354	13.572	80.902	64.202
06/24/2011 09:51:19	5.361	13.553	80.902	64.202
06/24/2011 09:51:30	5.361	13.605	81.103	64.202
06/24/2011 09:51:39	5.332	13.638	81.103	64.202
06/24/2011 09:51:49	5.302	13.634	81.103	64.202
06/24/2011 09:52:00	5.317	13.605	80.902	64.202
06/24/2011 09:52:09	5.302	13.619	80.902	64.202
06/24/2011 09:52:19	5.321	13.535	80.902	64.202
06/24/2011 09:52:29	5.416	13.495	80.902	64.202
06/24/2011 09:52:40	5.478	13.403	81.103	64.202
06/24/2011 09:52:49	5.474	13.539	81.103	64.202
06/24/2011 09:52:59	5.408	13.524	81.103	64.202
06/24/2011 09:53:09	5.394	13.572	80.704	64.202
06/24/2011 09:53:19	5.354	13.601	80.902	64.202
06/24/2011 09:53:29	5.335	13.583	81.103	64.202
06/24/2011 09:53:39	5.35	13.601	81.103	64.202
06/24/2011 09:53:50	5.335	13.608	81.103	64.202
06/24/2011 09:53:59	5.306	13.623	80.704	64.202
06/24/2011 09:54:09	5.28	13.67	80.704	64.202
06/24/2011 09:54:19	5.284	13.634	80.902	64.202
06/24/2011 09:54:29	5.31	13.627	80.902	64.202
06/24/2011 09:54:39	5.302	13.634	81.103	64.403
06/24/2011 09:54:49	5.306	13.619	80.902	64.202
06/24/2011 09:55:00	5.284	13.645	80.704	64.202
06/24/2011 09:55:09	5.302	13.594	80.704	64.202
06/24/2011 09:55:19	5.387	13.498	80.902	64.202
06/24/2011 09:55:29	5.427	13.528	80.902	64.202
06/24/2011 09:55:39	5.398	13.583	81.103	64.403
06/24/2011 09:55:49	5.372	13.583	81.304	64.403
06/24/2011 09:55:59	5.328	13.605	81.304	64.403
06/24/2011 09:56:10	5.335	13.564	81.103	64.403
06/24/2011 09:56:19	5.335	13.608	81.304	64.403
06/24/2011 09:56:29	5.335	13.55	81.103	64.403
06/24/2011 09:56:39	5.401	13.517	80.902	64.403
06/24/2011 09:56:50	5.39	13.561	81.103	64.403
06/24/2011 09:56:59	5.372	13.553	80.902	64.403
06/24/2011 09:57:09	5.398	13.495	81.103	64.502
06/24/2011 09:57:20	5.423	13.528	81.304	64.502
06/24/2011 09:57:29	5.408	13.513	81.304	64.502
06/24/2011 09:57:39	5.408	13.491	81.304	64.502
06/24/2011 09:57:49	5.434	13.48	81.502	64.502
06/24/2011 09:58:00	5.434	13.542	81.304	64.403
06/24/2011 09:58:09	5.387	13.531	81.304	64.403
06/24/2011 09:58:19	5.401	13.572	81.304	64.403
06/24/2011 09:58:29	5.408	13.517	81.103	64.403
06/24/2011 09:58:39	5.43	13.495	80.902	64.403
06/24/2011 09:58:49	5.441	13.502	81.103	64.403
06/24/2011 09:58:59	5.434	13.531	81.103	64.403
06/24/2011 09:59:10	5.398	13.561	81.304	64.403
06/24/2011 09:59:19	5.365	13.594	81.103	64.403
06/24/2011 09:59:29	5.343	13.605	81.103	64.403
06/24/2011 09:59:39	5.332	13.586	81.103	64.403
06/24/2011 09:59:49	5.306	13.652	81.304	64.403
06/24/2011 09:59:59	5.302	13.641	81.103	64.403
06/24/2011 10:00:09	5.324	13.619	80.902	64.403
06/24/2011 10:00:20	5.324	13.612	81.304	64.502
06/24/2011 10:00:29	5.332	13.619	81.103	64.502
06/24/2011 10:00:39	5.324	13.634	81.304	64.502
06/24/2011 10:00:49	5.321	13.594	81.502	64.502
06/24/2011 10:00:59	5.354	13.572	81.304	64.502
06/24/2011 10:01:09	5.324	13.656	81.502	64.502
06/24/2011 10:01:19	5.302	13.627	81.605	64.502
06/24/2011 10:01:30	5.346	13.561	81.502	64.502

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 10:01:39	5.354	13.605	81.304	64.502
06/24/2011 10:01:49	5.317	13.623	81.502	64.502
06/24/2011 10:01:59	5.35	13.553	81.605	64.502
06/24/2011 10:02:10	5.387	13.55	81.605	64.502
06/24/2011 10:02:19	5.357	13.601	81.502	64.502
06/24/2011 10:02:29	5.302	13.648	81.304	64.502
06/24/2011 10:02:40	5.302	13.594	81.304	64.502
06/24/2011 10:02:49	5.357	13.561	81.304	64.502
06/24/2011 10:02:59	5.379	13.561	80.902	64.502
06/24/2011 10:03:09	5.401	13.487	80.902	64.403
06/24/2011 10:03:20	5.419	13.509	81.304	64.403
06/24/2011 10:03:29	5.394	13.55	81.304	64.403
06/24/2011 10:03:39	5.339	13.601	81.502	64.403
06/24/2011 10:03:49	5.335	13.586	81.304	64.502
06/24/2011 10:03:59	5.339	13.579	81.502	64.403
06/24/2011 10:04:09	5.335	13.608	81.605	64.403
06/24/2011 10:04:19	5.295	13.681	81.605	64.502
06/24/2011 10:04:30	5.262	13.685	81.605	64.502
06/24/2011 10:04:39	5.273	13.627	81.502	64.403
06/24/2011 10:04:49	5.284	13.667	81.304	64.502
06/24/2011 10:04:59	5.288	13.627	81.605	64.704
06/24/2011 10:05:09	5.306	13.605	81.605	64.502
06/24/2011 10:05:19	5.343	13.616	81.605	64.502
06/24/2011 10:05:29	5.335	13.619	81.605	64.502
06/24/2011 10:05:40	5.324	13.601	81.605	64.502
06/24/2011 10:05:49	5.332	13.619	81.502	64.502
06/24/2011 10:05:59	5.295	13.605	81.502	64.704
06/24/2011 10:06:09	5.288	13.685	81.304	64.502
06/24/2011 10:06:19	5.266	13.656	81.502	64.704
06/24/2011 10:06:29	5.288	13.619	81.304	64.704
06/24/2011 10:06:39	5.332	13.579	81.605	64.704
06/24/2011 10:06:50	5.339	13.648	81.605	64.502
06/24/2011 10:06:59	5.295	13.634	81.605	64.704
06/24/2011 10:07:09	5.306	13.619	81.605	64.704
06/24/2011 10:07:19	5.346	13.572	81.605	64.704
06/24/2011 10:07:30	5.35	13.594	82.004	64.502
06/24/2011 10:07:39	5.365	13.557	82.202	64.704
06/24/2011 10:07:49	5.398	13.502	82.403	64.901
06/24/2011 10:08:00	5.438	13.473	82.004	64.901
06/24/2011 10:08:09	5.463	13.495	82.004	64.704
06/24/2011 10:08:19	5.434	13.509	82.004	64.901
06/24/2011 10:08:29	5.419	13.531	81.802	64.704
06/24/2011 10:08:40	5.387	13.539	82.004	64.704
06/24/2011 10:08:49	5.354	13.597	82.004	64.704
06/24/2011 10:08:59	5.317	13.605	82.202	64.901
06/24/2011 10:09:10	5.335	13.59	82.202	64.704
06/24/2011 10:09:19	5.361	13.546	82.202	64.704
06/24/2011 10:09:29	5.339	13.656	81.802	64.704
06/24/2011 10:09:39	5.266	13.652	81.802	64.704
06/24/2011 10:09:50	5.31	13.572	81.605	64.502
06/24/2011 10:09:59	5.361	13.579	81.802	64.704
06/24/2011 10:10:09	5.332	13.627	81.605	64.901
06/24/2011 10:10:19	5.339	13.579	81.605	64.704
06/24/2011 10:10:29	5.357	13.583	81.802	64.704
06/24/2011 10:10:39	5.361	13.59	82.004	64.704
06/24/2011 10:10:49	5.339	13.579	81.802	64.704
06/24/2011 10:11:00	5.306	13.67	82.202	64.901
06/24/2011 10:11:09	5.262	13.667	82.202	64.901
06/24/2011 10:11:19	5.273	13.597	82.403	65.103
06/24/2011 10:11:29	5.302	13.667	82.403	65.103
06/24/2011 10:11:39	5.288	13.689	82.202	65.103
06/24/2011 10:11:49	5.266	13.638	82.004	64.901
06/24/2011 10:11:59	5.288	13.652	81.802	64.901
06/24/2011 10:12:10	5.295	13.634	81.605	64.901
06/24/2011 10:12:19	5.321	13.605	81.802	64.901

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 10:12:29	5.321	13.663	82.004	64.704
06/24/2011 10:12:39	5.273	13.674	82.403	64.704
06/24/2011 10:12:49	5.269	13.703	82.502	64.901
06/24/2011 10:12:59	5.247	13.656	82.502	64.901
06/24/2011 10:13:09	5.317	13.553	82.403	64.901
06/24/2011 10:13:20	5.372	13.546	82.202	64.901
06/24/2011 10:13:29	5.357	13.619	82.403	64.901
06/24/2011 10:13:39	5.313	13.63	82.202	64.901
06/24/2011 10:13:49	5.291	13.597	82.202	64.901
06/24/2011 10:14:00	5.306	13.623	82.004	64.901
06/24/2011 10:14:09	5.302	13.645	82.202	64.901
06/24/2011 10:14:19	5.258	13.634	82.403	65.103
06/24/2011 10:14:30	5.335	13.531	82.403	65.103
06/24/2011 10:14:39	5.39	13.528	81.802	64.901
06/24/2011 10:14:49	5.383	13.531	81.802	64.901
06/24/2011 10:14:59	5.394	13.542	82.004	64.901
06/24/2011 10:15:10	5.365	13.605	82.202	64.901
06/24/2011 10:15:19	5.302	13.616	82.403	64.901
06/24/2011 10:15:29	5.28	13.678	82.403	65.103
06/24/2011 10:15:39	5.299	13.568	82.502	64.901
06/24/2011 10:15:49	5.339	13.601	82.403	64.901
06/24/2011 10:15:59	5.313	13.608	82.403	64.901
06/24/2011 10:16:09	5.317	13.616	82.403	64.901
06/24/2011 10:16:20	5.324	13.586	82.403	65.103
06/24/2011 10:16:29	5.354	13.583	82.202	65.304
06/24/2011 10:16:39	5.354	13.568	82.004	65.103
06/24/2011 10:16:49	5.372	13.542	82.202	65.103
06/24/2011 10:16:59	5.401	13.517	82.502	65.103
06/24/2011 10:17:09	5.387	13.597	82.502	65.103
06/24/2011 10:17:19	5.328	13.641	82.202	65.103
06/24/2011 10:17:30	5.284	13.689	82.202	65.103
06/24/2011 10:17:39	5.277	13.659	82.202	65.103
06/24/2011 10:17:49	5.288	13.659	82.202	65.103
06/24/2011 10:17:59	5.332	13.542	82.403	65.103
06/24/2011 10:18:09	5.416	13.535	82.703	65.304
06/24/2011 10:18:19	5.438	13.498	82.403	65.304
06/24/2011 10:18:29	5.449	13.524	82.004	65.103
06/24/2011 10:18:40	5.434	13.542	82.202	65.103
06/24/2011 10:18:49	5.387	13.579	82.403	65.103
06/24/2011 10:18:59	5.398	13.502	82.502	65.103
06/24/2011 10:19:09	5.419	13.513	82.703	65.304
06/24/2011 10:19:20	5.419	13.575	82.502	65.304
06/24/2011 10:19:29	5.357	13.616	82.403	65.304
06/24/2011 10:19:39	5.357	13.542	82.403	65.304
06/24/2011 10:19:50	5.401	13.572	82.403	65.304
06/24/2011 10:19:59	5.387	13.564	82.502	65.304
06/24/2011 10:20:09	5.387	13.561	82.502	65.304
06/24/2011 10:20:19	5.383	13.539	82.403	65.304
06/24/2011 10:20:30	5.405	13.546	82.403	65.304
06/24/2011 10:20:39	5.39	13.531	82.403	65.304
06/24/2011 10:20:49	5.387	13.561	82.502	65.304
06/24/2011 10:20:59	5.361	13.542	82.202	65.103
06/24/2011 10:21:09	5.372	13.531	82.403	65.103
06/24/2011 10:21:19	5.398	13.579	82.502	65.103
06/24/2011 10:21:29	5.438	13.465	82.403	65.103
06/24/2011 10:21:40	5.493	13.476	82.502	65.103
06/24/2011 10:21:49	5.478	13.469	82.502	65.103
06/24/2011 10:21:59	5.43	13.509	82.703	65.304
06/24/2011 10:22:09	5.405	13.564	82.502	65.304
06/24/2011 10:22:19	5.416	13.487	82.502	65.304
06/24/2011 10:22:29	5.441	13.495	82.403	65.304
06/24/2011 10:22:39	5.489	13.451	82.403	65.304
06/24/2011 10:22:50	5.493	13.473	82.403	65.304
06/24/2011 10:22:59	5.463	13.473	82.004	65.103
06/24/2011 10:23:09	5.467	13.484	82.202	65.304

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 10:23:19	5.445	13.52	82.202	65.304
06/24/2011 10:23:29	5.438	13.509	82.202	65.304
06/24/2011 10:23:39	5.441	13.517	82.202	65.304
06/24/2011 10:23:49	5.441	13.535	82.202	65.304
06/24/2011 10:24:00	5.427	13.564	82.202	65.103
06/24/2011 10:24:09	5.405	13.517	82.202	65.103
06/24/2011 10:24:19	5.427	13.462	82.202	65.103
06/24/2011 10:24:29	5.449	13.491	82.202	65.304
06/24/2011 10:24:40	5.427	13.528	82.403	65.103
06/24/2011 10:24:49	5.419	13.535	82.403	65.103
06/24/2011 10:24:59	5.383	13.59	82.502	65.304
06/24/2011 10:25:10	5.361	13.579	82.502	65.304
06/24/2011 10:25:19	5.343	13.605	82.502	65.103
06/24/2011 10:25:29	5.354	13.597	82.403	65.103
06/24/2011 10:25:39	5.372	13.524	82.403	65.103
06/24/2011 10:25:50	5.398	13.491	82.403	65.304
06/24/2011 10:25:59	5.405	13.546	82.202	65.304
06/24/2011 10:26:09	5.361	13.564	82.202	65.304
06/24/2011 10:26:19	5.35	13.59	82.004	65.304
06/24/2011 10:26:29	5.343	13.575	82.004	65.304
06/24/2011 10:26:39	5.39	13.506	82.202	65.304
06/24/2011 10:26:49	5.423	13.491	82.202	65.304
06/24/2011 10:27:00	5.423	13.506	82.403	65.304
06/24/2011 10:27:09	5.423	13.524	82.403	65.304
06/24/2011 10:27:19	5.405	13.498	82.502	65.304
06/24/2011 10:27:29	5.423	13.498	82.502	65.304
06/24/2011 10:27:39	5.456	13.473	82.502	65.304
06/24/2011 10:27:49	5.471	13.498	82.403	65.304
06/24/2011 10:27:59	5.423	13.531	82.403	65.103
06/24/2011 10:28:10	5.405	13.52	82.502	65.103
06/24/2011 10:28:19	5.376	13.579	82.502	65.103
06/24/2011 10:28:29	5.361	13.561	82.703	65.304
06/24/2011 10:28:39	5.368	13.542	82.502	65.103
06/24/2011 10:28:49	5.394	13.575	82.502	65.103
06/24/2011 10:28:59	5.361	13.594	82.403	65.103
06/24/2011 10:29:09	5.31	13.67	82.403	65.103
06/24/2011 10:29:20	5.284	13.619	82.502	65.103
06/24/2011 10:29:29	5.295	13.623	82.905	65.103
06/24/2011 10:29:39	5.295	13.623	82.703	65.103
06/24/2011 10:29:49	5.306	13.623	82.502	65.103
06/24/2011 10:30:00	5.335	13.597	82.502	65.103
06/24/2011 10:30:09	5.354	13.579	82.502	65.103
06/24/2011 10:30:19	5.368	13.568	82.502	65.103
06/24/2011 10:30:30	5.35	13.616	82.703	65.103
06/24/2011 10:30:39	5.346	13.528	82.403	65.103
06/24/2011 10:30:49	5.379	13.579	82.502	65.103
06/24/2011 10:30:59	5.317	13.656	82.502	65.103
06/24/2011 10:31:10	5.244	13.711	82.403	65.103
06/24/2011 10:31:19	5.229	13.714	82.403	65.103
06/24/2011 10:31:29	5.233	13.667	82.403	65.304
06/24/2011 10:31:40	5.258	13.663	82.004	65.304
06/24/2011 10:31:49	5.317	13.564	82.202	65.304
06/24/2011 10:31:59	5.398	13.542	82.502	65.304
06/24/2011 10:32:09	5.39	13.572	82.502	65.304
06/24/2011 10:32:20	5.35	13.616	82.403	65.304
06/24/2011 10:32:29	5.339	13.634	82.202	65.304
06/24/2011 10:32:39	5.332	13.616	82.403	65.304
06/24/2011 10:32:49	5.35	13.517	82.403	65.304
06/24/2011 10:32:59	5.423	13.484	82.403	65.304
06/24/2011 10:33:09	5.423	13.539	82.502	65.304
06/24/2011 10:33:19	5.368	13.641	82.703	65.304
06/24/2011 10:33:30	5.288	13.652	82.905	65.304
06/24/2011 10:33:39	5.266	13.656	82.703	65.304
06/24/2011 10:33:49	5.269	13.659	82.703	65.304
06/24/2011 10:33:59	5.269	13.648	82.703	65.304

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 10:34:09	5.269	13.656	82.502	65.304
06/24/2011 10:34:19	5.273	13.667	82.502	65.304
06/24/2011 10:34:29	5.244	13.7	82.703	65.304
06/24/2011 10:34:40	5.247	13.663	82.703	65.304
06/24/2011 10:34:49	5.313	13.619	82.502	65.304
06/24/2011 10:34:59	5.343	13.579	82.703	65.304
06/24/2011 10:35:09	5.365	13.561	82.703	65.103
06/24/2011 10:35:19	5.335	13.645	82.703	65.103
06/24/2011 10:35:29	5.302	13.645	82.502	65.103
06/24/2011 10:35:39	5.295	13.692	82.403	65.304
06/24/2011 10:35:50	5.302	13.564	82.403	65.304
06/24/2011 10:35:59	5.368	13.605	82.403	65.304
06/24/2011 10:36:09	5.31	13.67	82.703	65.304
06/24/2011 10:36:19	5.273	13.667	82.905	65.403
06/24/2011 10:36:30	5.295	13.627	82.905	65.403
06/24/2011 10:36:39	5.295	13.67	82.703	65.403
06/24/2011 10:36:49	5.295	13.627	82.502	65.304
06/24/2011 10:37:00	5.291	13.652	82.703	65.304
06/24/2011 10:37:09	5.302	13.616	82.703	65.304
06/24/2011 10:37:19	5.313	13.616	82.703	65.403
06/24/2011 10:37:29	5.288	13.659	82.403	65.304
06/24/2011 10:37:40	5.262	13.718	82.403	65.304
06/24/2011 10:37:49	5.196	13.777	82.403	65.304
06/24/2011 10:37:59	5.145	13.769	82.502	65.304
06/24/2011 10:38:09	5.134	13.773	82.502	65.304
06/24/2011 10:38:19	5.192	13.689	82.403	65.304
06/24/2011 10:38:29	5.247	13.692	82.502	65.304
06/24/2011 10:38:39	5.225	13.681	82.703	65.403
06/24/2011 10:38:50	5.258	13.645	82.502	65.403
06/24/2011 10:38:59	5.288	13.605	82.502	65.403
06/24/2011 10:39:09	5.288	13.685	82.403	65.304
06/24/2011 10:39:19	5.222	13.722	82.502	65.304
06/24/2011 10:39:29	5.229	13.645	82.703	65.403
06/24/2011 10:39:39	5.251	13.685	82.703	65.403
06/24/2011 10:39:49	5.266	13.652	82.502	65.403
06/24/2011 10:40:00	5.273	13.656	82.502	65.403
06/24/2011 10:40:09	5.284	13.638	82.502	65.403
06/24/2011 10:40:19	5.269	13.692	82.502	65.304
06/24/2011 10:40:29	5.203	13.762	82.502	65.403
06/24/2011 10:40:39	5.17	13.718	82.703	65.403
06/24/2011 10:40:49	5.192	13.7	82.703	65.403
06/24/2011 10:40:59	5.233	13.67	82.703	65.403
06/24/2011 10:41:10	5.251	13.714	82.703	65.403
06/24/2011 10:41:19	5.233	13.711	82.703	65.403
06/24/2011 10:41:29	5.211	13.722	82.905	65.403
06/24/2011 10:41:39	5.222	13.7	83.103	65.403
06/24/2011 10:41:50	5.258	13.623	82.905	65.403
06/24/2011 10:41:59	5.28	13.674	82.703	65.403
06/24/2011 10:42:09	5.236	13.74	82.703	65.403
06/24/2011 10:42:20	5.2	13.729	82.905	65.604
06/24/2011 10:42:29	5.211	13.729	82.905	65.604
06/24/2011 10:42:39	5.222	13.7	83.103	65.604
06/24/2011 10:42:49	5.255	13.656	83.103	65.604
06/24/2011 10:43:00	5.269	13.696	83.304	65.604
06/24/2011 10:43:09	5.251	13.696	83.304	65.604
06/24/2011 10:43:19	5.269	13.674	83.304	65.604
06/24/2011 10:43:29	5.269	13.652	83.103	65.604
06/24/2011 10:43:39	5.284	13.681	83.103	65.802
06/24/2011 10:43:49	5.291	13.63	82.905	65.802
06/24/2011 10:43:59	5.339	13.579	82.905	65.604
06/24/2011 10:44:10	5.427	13.447	82.905	65.604
06/24/2011 10:44:19	5.5	13.454	82.703	65.604
06/24/2011 10:44:29	5.485	13.506	82.905	65.604
06/24/2011 10:44:39	5.394	13.608	82.703	65.604
06/24/2011 10:44:49	5.354	13.597	82.703	65.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 10:44:59	5.321	13.638	82.703	65.403
06/24/2011 10:45:09	5.313	13.638	82.502	65.403
06/24/2011 10:45:20	5.302	13.634	82.502	65.403
06/24/2011 10:45:29	5.302	13.659	82.403	65.403
06/24/2011 10:45:39	5.244	13.725	82.703	65.403
06/24/2011 10:45:49	5.214	13.689	82.703	65.403
06/24/2011 10:45:59	5.258	13.641	82.703	65.403
06/24/2011 10:46:09	5.31	13.638	82.703	65.403
06/24/2011 10:46:19	5.317	13.652	82.502	65.403
06/24/2011 10:46:30	5.284	13.678	82.703	65.403
06/24/2011 10:46:39	5.258	13.718	82.703	65.403
06/24/2011 10:46:49	5.247	13.703	82.905	65.403
06/24/2011 10:46:59	5.214	13.733	82.703	65.403
06/24/2011 10:47:10	5.233	13.656	82.703	65.403
06/24/2011 10:47:19	5.28	13.63	82.703	65.403
06/24/2011 10:47:29	5.295	13.608	82.905	65.403
06/24/2011 10:47:40	5.31	13.656	82.905	65.304
06/24/2011 10:47:49	5.262	13.714	83.103	65.403
06/24/2011 10:47:59	5.244	13.714	82.905	65.403
06/24/2011 10:48:09	5.24	13.718	82.703	65.403
06/24/2011 10:48:20	5.229	13.725	82.905	65.403
06/24/2011 10:48:29	5.233	13.7	83.304	65.604
06/24/2011 10:48:39	5.247	13.696	83.103	65.604
06/24/2011 10:48:49	5.262	13.678	82.905	65.403
06/24/2011 10:48:59	5.302	13.597	82.905	65.403
06/24/2011 10:49:09	5.328	13.608	83.103	65.403
06/24/2011 10:49:19	5.291	13.685	83.103	65.403
06/24/2011 10:49:30	5.258	13.714	83.103	65.403
06/24/2011 10:49:39	5.236	13.714	83.103	65.403
06/24/2011 10:49:49	5.207	13.722	83.103	65.403
06/24/2011 10:49:59	5.266	13.586	83.103	65.403
06/24/2011 10:50:09	5.354	13.579	83.103	65.604
06/24/2011 10:50:19	5.35	13.601	83.103	65.604
06/24/2011 10:50:29	5.295	13.696	83.103	65.403
06/24/2011 10:50:40	5.236	13.659	83.103	65.403
06/24/2011 10:50:49	5.284	13.63	83.103	65.403
06/24/2011 10:50:59	5.35	13.528	83.103	65.604
06/24/2011 10:51:09	5.416	13.502	83.103	65.604
06/24/2011 10:51:19	5.43	13.513	83.103	65.604
06/24/2011 10:51:29	5.423	13.531	83.103	65.604
06/24/2011 10:51:39	5.387	13.564	83.103	65.604
06/24/2011 10:51:50	5.405	13.502	82.703	65.403
06/24/2011 10:51:59	5.423	13.524	82.905	65.403
06/24/2011 10:52:09	5.368	13.616	82.905	65.403
06/24/2011 10:52:19	5.339	13.608	83.304	65.604
06/24/2011 10:52:30	5.372	13.528	83.304	65.604
06/24/2011 10:52:39	5.416	13.484	83.103	65.604
06/24/2011 10:52:49	5.43	13.524	83.304	65.604
06/24/2011 10:53:00	5.376	13.608	83.304	65.604
06/24/2011 10:53:09	5.339	13.597	83.403	65.604
06/24/2011 10:53:19	5.357	13.575	83.304	65.403
06/24/2011 10:53:29	5.361	13.605	83.103	65.604
06/24/2011 10:53:40	5.335	13.616	83.304	65.604
06/24/2011 10:53:49	5.332	13.63	83.304	65.604
06/24/2011 10:53:59	5.324	13.612	83.304	65.604
06/24/2011 10:54:10	5.332	13.597	83.304	65.604
06/24/2011 10:54:19	5.343	13.572	83.103	65.604
06/24/2011 10:54:29	5.332	13.641	83.103	65.604
06/24/2011 10:54:39	5.302	13.67	83.304	65.604
06/24/2011 10:54:50	5.284	13.674	83.304	65.403
06/24/2011 10:54:59	5.269	13.645	83.403	65.604
06/24/2011 10:55:09	5.35	13.546	83.403	65.604
06/24/2011 10:55:19	5.441	13.484	83.403	65.802
06/24/2011 10:55:29	5.423	13.553	83.403	65.604
06/24/2011 10:55:39	5.372	13.583	83.403	65.604

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 10:55:49	5.361	13.557	83.304	65.604
06/24/2011 10:56:00	5.39	13.546	83.304	65.604
06/24/2011 10:56:09	5.39	13.561	83.304	65.604
06/24/2011 10:56:19	5.394	13.52	83.403	65.802
06/24/2011 10:56:29	5.387	13.568	82.905	65.403
06/24/2011 10:56:39	5.398	13.517	83.103	65.604
06/24/2011 10:56:49	5.43	13.476	83.304	65.604
06/24/2011 10:56:59	5.463	13.44	83.304	65.604
06/24/2011 10:57:10	5.482	13.465	83.103	65.604
06/24/2011 10:57:19	5.46	13.495	83.304	65.604
06/24/2011 10:57:29	5.456	13.473	83.304	65.604
06/24/2011 10:57:39	5.471	13.465	82.905	65.604
06/24/2011 10:57:49	5.489	13.429	82.905	65.604
06/24/2011 10:57:59	5.507	13.495	83.103	65.604
06/24/2011 10:58:09	5.452	13.517	83.103	65.604
06/24/2011 10:58:20	5.467	13.447	83.304	65.604
06/24/2011 10:58:29	5.533	13.41	83.103	65.604
06/24/2011 10:58:39	5.555	13.399	83.103	65.604
06/24/2011 10:58:49	5.573	13.403	83.304	65.604
06/24/2011 10:59:00	5.54	13.421	83.103	65.604
06/24/2011 10:59:09	5.544	13.392	83.304	65.604
06/24/2011 10:59:19	5.584	13.352	83.304	65.604
06/24/2011 10:59:30	5.606	13.363	83.304	65.802
06/24/2011 10:59:39	5.581	13.429	83.103	65.802
06/24/2011 10:59:49	5.548	13.418	83.103	65.802
06/24/2011 10:59:59	5.526	13.465	83.103	65.802
06/24/2011 11:00:10	5.555	13.388	83.304	65.802
06/24/2011 11:00:19	5.584	13.407	83.304	65.604
06/24/2011 11:00:29	5.581	13.374	83.304	65.604
06/24/2011 11:00:39	5.588	13.37	83.403	65.802
06/24/2011 11:00:49	5.588	13.396	83.403	65.802
06/24/2011 11:00:59	5.559	13.407	83.403	65.802
06/24/2011 11:01:09	5.54	13.436	83.604	65.802
06/24/2011 11:01:20	5.573	13.356	83.604	65.802
06/24/2011 11:01:29	5.628	13.326	83.604	65.802
06/24/2011 11:01:39	5.65	13.257	83.403	65.802
06/24/2011 11:01:49	5.665	13.271	83.304	65.802
06/24/2011 11:01:59	5.61	13.381	83.103	65.802
06/24/2011 11:02:09	5.537	13.436	83.103	65.802
06/24/2011 11:02:19	5.537	13.366	82.905	65.802
06/24/2011 11:02:30	5.599	13.345	83.103	65.802
06/24/2011 11:02:39	5.617	13.366	82.905	65.604
06/24/2011 11:02:49	5.617	13.301	83.103	65.604
06/24/2011 11:02:59	5.632	13.308	83.103	65.604
06/24/2011 11:03:09	5.614	13.315	83.304	65.802
06/24/2011 11:03:19	5.606	13.341	83.304	65.604
06/24/2011 11:03:29	5.584	13.352	83.604	65.604
06/24/2011 11:03:40	5.614	13.319	83.403	65.802
06/24/2011 11:03:49	5.665	13.231	83.304	65.604
06/24/2011 11:03:59	5.687	13.268	83.403	65.604
06/24/2011 11:04:09	5.639	13.326	83.403	65.802
06/24/2011 11:04:20	5.614	13.334	83.403	65.802
06/24/2011 11:04:29	5.628	13.29	83.604	65.604
06/24/2011 11:04:39	5.669	13.213	83.403	65.802
06/24/2011 11:04:50	5.694	13.253	83.604	66.004
06/24/2011 11:04:59	5.69	13.264	83.604	66.004
06/24/2011 11:05:09	5.705	13.216	83.403	66.004
06/24/2011 11:05:19	5.683	13.29	83.604	66.004
06/24/2011 11:05:30	5.617	13.341	83.604	66.004
06/24/2011 11:05:39	5.577	13.352	83.604	65.802
06/24/2011 11:05:49	5.537	13.429	83.604	65.802
06/24/2011 11:05:59	5.518	13.388	83.403	65.802
06/24/2011 11:06:09	5.548	13.345	83.403	66.004
06/24/2011 11:06:19	5.588	13.345	83.403	66.201
06/24/2011 11:06:29	5.61	13.323	83.802	66.004

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 11:06:40	5.617	13.304	83.802	66.004
06/24/2011 11:06:49	5.661	13.224	83.802	66.004
06/24/2011 11:06:59	5.723	13.139	84.003	66.201
06/24/2011 11:07:09	5.767	13.194	83.802	66.004
06/24/2011 11:07:19	5.69	13.301	84.003	66.004
06/24/2011 11:07:29	5.625	13.315	84.003	66.201
06/24/2011 11:07:39	5.603	13.282	83.802	66.004
06/24/2011 11:07:50	5.621	13.293	83.802	66.004
06/24/2011 11:07:59	5.592	13.399	83.802	66.004
06/24/2011 11:08:09	5.522	13.407	83.604	66.004
06/24/2011 11:08:19	5.515	13.429	83.403	66.201
06/24/2011 11:08:29	5.518	13.396	83.304	66.201
06/24/2011 11:08:39	5.529	13.414	83.604	66.201
06/24/2011 11:08:49	5.518	13.388	83.802	66.004
06/24/2011 11:09:00	5.515	13.447	83.604	66.004
06/24/2011 11:09:09	5.485	13.418	83.802	66.201
06/24/2011 11:09:19	5.511	13.418	83.802	66.004
06/24/2011 11:09:29	5.548	13.385	84.205	66.201
06/24/2011 11:09:40	5.544	13.37	84.205	66.201
06/24/2011 11:09:49	5.544	13.403	84.003	66.201
06/24/2011 11:09:59	5.518	13.429	84.003	66.201
06/24/2011 11:10:10	5.478	13.458	83.802	66.201
06/24/2011 11:10:19	5.467	13.454	83.802	66.201
06/24/2011 11:10:29	5.489	13.399	83.802	66.201
06/24/2011 11:10:39	5.555	13.363	83.802	66.201
06/24/2011 11:10:50	5.573	13.392	83.802	66.004
06/24/2011 11:10:59	5.5	13.48	83.802	66.201
06/24/2011 11:11:09	5.445	13.506	84.003	66.201
06/24/2011 11:11:19	5.588	13.125	83.802	66.004
06/24/2011 11:11:29	5.782	13.264	83.802	66.004
06/24/2011 11:11:39	5.592	13.451	84.003	66.201
06/24/2011 11:11:49	5.504	13.418	84.003	66.201
06/24/2011 11:12:00	5.474	13.491	84.003	66.201
06/24/2011 11:12:09	5.471	13.432	84.205	66.201
06/24/2011 11:12:19	5.5	13.443	84.205	66.201
06/24/2011 11:12:29	5.493	13.451	84.003	66.201
06/24/2011 11:12:39	5.485	13.436	84.003	66.201
06/24/2011 11:12:49	5.474	13.473	83.802	66.304
06/24/2011 11:12:59	5.438	13.502	83.802	66.304
06/24/2011 11:13:10	5.427	13.517	84.003	66.201
06/24/2011 11:13:19	5.408	13.513	84.003	66.304
06/24/2011 11:13:29	5.434	13.487	84.003	66.304
06/24/2011 11:13:39	5.445	13.469	84.003	66.304
06/24/2011 11:13:49	5.434	13.476	83.802	66.304
06/24/2011 11:13:59	5.441	13.462	84.003	66.304
06/24/2011 11:14:09	5.438	13.517	84.003	66.304
06/24/2011 11:14:20	5.405	13.524	83.802	66.304
06/24/2011 11:14:29	5.408	13.487	84.003	66.304
06/24/2011 11:14:39	5.423	13.524	83.802	66.304
06/24/2011 11:14:49	5.405	13.524	83.802	66.304
06/24/2011 11:15:00	5.401	13.542	84.003	66.304
06/24/2011 11:15:09	5.376	13.561	83.802	66.304
06/24/2011 11:15:19	5.408	13.495	83.604	66.201
06/24/2011 11:15:30	5.489	13.414	83.802	66.201
06/24/2011 11:15:39	5.537	13.388	84.003	66.304
06/24/2011 11:15:49	5.54	13.392	84.205	66.304
06/24/2011 11:15:59	5.559	13.37	84.205	66.304
06/24/2011 11:16:10	5.628	13.286	84.205	66.304
06/24/2011 11:16:19	5.709	13.205	84.205	66.304
06/24/2011 11:16:29	5.716	13.257	84.003	66.304
06/24/2011 11:16:40	5.65	13.348	84.003	66.304
06/24/2011 11:16:49	5.654	13.271	84.003	66.201
06/24/2011 11:16:59	5.694	13.264	84.003	66.304
06/24/2011 11:17:09	5.72	13.264	84.003	66.304
06/24/2011 11:17:20	5.705	13.253	84.003	66.304

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 11:17:29	5.709	13.238	84.003	66.304
06/24/2011 11:17:39	5.782	13.095	84.003	66.201
06/24/2011 11:17:49	5.8	13.238	83.802	66.304
06/24/2011 11:17:59	5.701	13.257	83.802	66.304
06/24/2011 11:18:09	5.72	13.194	84.003	66.304
06/24/2011 11:18:19	5.731	13.279	83.802	66.304
06/24/2011 11:18:30	5.687	13.249	83.802	66.304
06/24/2011 11:18:39	5.72	13.161	83.604	66.502
06/24/2011 11:18:49	5.749	13.216	83.802	66.304
06/24/2011 11:18:59	5.679	13.29	83.802	66.304
06/24/2011 11:19:09	5.65	13.216	83.802	66.304
06/24/2011 11:19:19	5.694	13.268	83.802	66.502
06/24/2011 11:19:29	5.636	13.334	84.003	66.502
06/24/2011 11:19:40	5.592	13.341	83.802	66.304
06/24/2011 11:19:49	5.57	13.396	83.802	66.502
06/24/2011 11:19:59	5.529	13.392	83.802	66.502
06/24/2011 11:20:09	5.5	13.469	83.604	66.502
06/24/2011 11:20:19	5.427	13.509	83.802	66.502
06/24/2011 11:20:29	5.449	13.414	84.003	66.502
06/24/2011 11:20:39	5.551	13.308	84.003	66.502
06/24/2011 11:20:50	5.65	13.246	84.003	66.502
06/24/2011 11:20:59	5.65	13.323	83.802	66.502
06/24/2011 11:21:09	5.599	13.337	83.802	66.304
06/24/2011 11:21:19	5.529	13.418	84.003	66.304
06/24/2011 11:21:30	5.485	13.458	84.003	66.304
06/24/2011 11:21:39	5.493	13.41	83.802	66.304
06/24/2011 11:21:49	5.507	13.432	83.802	66.304
06/24/2011 11:22:00	5.474	13.48	84.003	66.304
06/24/2011 11:22:09	5.452	13.484	84.003	66.304
06/24/2011 11:22:19	5.452	13.48	83.802	66.304
06/24/2011 11:22:29	5.434	13.528	83.802	66.201
06/24/2011 11:22:40	5.405	13.52	83.802	66.201
06/24/2011 11:22:49	5.401	13.572	83.802	66.304
06/24/2011 11:22:59	5.361	13.575	83.604	66.304
06/24/2011 11:23:09	5.354	13.586	83.604	66.304
06/24/2011 11:23:19	5.35	13.557	83.802	66.304
06/24/2011 11:23:29	5.361	13.568	83.802	66.304
06/24/2011 11:23:39	5.365	13.557	83.802	66.304
06/24/2011 11:23:50	5.39	13.498	84.003	66.201
06/24/2011 11:23:59	5.401	13.546	83.802	66.201
06/24/2011 11:24:09	5.376	13.535	84.003	66.502
06/24/2011 11:24:19	5.379	13.524	83.802	66.201
06/24/2011 11:24:29	5.405	13.476	83.802	66.201
06/24/2011 11:24:39	5.416	13.506	83.802	66.201
06/24/2011 11:24:49	5.434	13.495	84.205	66.502
06/24/2011 11:25:00	5.423	13.524	84.003	66.502
06/24/2011 11:25:09	5.376	13.583	84.205	66.502
06/24/2011 11:25:19	5.324	13.605	83.802	66.201
06/24/2011 11:25:29	5.317	13.612	83.802	66.201
06/24/2011 11:25:39	5.324	13.597	83.802	66.201
06/24/2011 11:25:49	5.317	13.638	84.003	66.201
06/24/2011 11:25:59	5.313	13.55	84.003	66.201
06/24/2011 11:26:10	5.339	13.63	83.802	66.201
06/24/2011 11:26:19	5.317	13.619	83.604	66.201
06/24/2011 11:26:29	5.31	13.579	83.403	66.201
06/24/2011 11:26:39	5.339	13.539	83.403	66.201
06/24/2011 11:26:50	5.383	13.513	83.604	66.201
06/24/2011 11:26:59	5.383	13.594	83.604	66.201
06/24/2011 11:27:09	5.332	13.616	83.604	66.201
06/24/2011 11:27:20	5.269	13.667	83.403	66.201
06/24/2011 11:27:29	5.214	13.736	83.604	66.201
06/24/2011 11:27:39	5.214	13.656	83.604	66.201
06/24/2011 11:27:49	5.273	13.645	83.604	66.201
06/24/2011 11:28:00	5.313	13.605	83.403	66.201
06/24/2011 11:28:09	5.324	13.601	83.403	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 11:28:19	5.324	13.641	83.604	66.201
06/24/2011 11:28:29	5.288	13.619	83.802	66.502
06/24/2011 11:28:39	5.317	13.59	83.304	66.201
06/24/2011 11:28:49	5.291	13.656	83.403	66.201
06/24/2011 11:28:59	5.277	13.616	83.403	66.201
06/24/2011 11:29:10	5.306	13.641	83.403	66.201
06/24/2011 11:29:19	5.262	13.711	83.403	66.201
06/24/2011 11:29:29	5.2	13.736	83.403	66.201
06/24/2011 11:29:39	5.189	13.725	83.802	66.502
06/24/2011 11:29:49	5.211	13.711	83.403	66.201
06/24/2011 11:29:59	5.225	13.696	83.403	66.004
06/24/2011 11:30:09	5.247	13.689	83.304	66.004
06/24/2011 11:30:20	5.233	13.707	83.604	66.004
06/24/2011 11:30:29	5.251	13.608	84.003	66.304
06/24/2011 11:30:39	5.328	13.542	83.802	66.304
06/24/2011 11:30:49	5.35	13.572	83.604	66.004
06/24/2011 11:30:59	5.328	13.638	83.304	66.004
06/24/2011 11:31:09	5.295	13.652	83.403	66.004
06/24/2011 11:31:19	5.288	13.597	83.304	66.004
06/24/2011 11:31:30	5.269	13.7	83.304	66.004
06/24/2011 11:31:39	5.185	13.751	83.304	66.004
06/24/2011 11:31:49	5.167	13.736	83.403	66.201
06/24/2011 11:31:59	5.17	13.711	83.403	66.004
06/24/2011 11:32:10	5.185	13.703	83.403	66.004
06/24/2011 11:32:19	5.225	13.641	83.604	66.004
06/24/2011 11:32:29	5.233	13.777	83.604	66.201
06/24/2011 11:32:40	5.148	13.795	83.604	66.004
06/24/2011 11:32:49	5.156	13.755	83.604	66.004
06/24/2011 11:32:59	5.181	13.769	83.604	66.004
06/24/2011 11:33:09	5.126	13.81	83.604	66.004
06/24/2011 11:33:20	5.137	13.755	84.003	66.304
06/24/2011 11:33:29	5.156	13.78	84.205	66.304
06/24/2011 11:33:39	5.145	13.799	84.003	66.304
06/24/2011 11:33:49	5.145	13.795	83.802	66.304
06/24/2011 11:33:59	5.152	13.758	83.604	66.004
06/24/2011 11:34:09	5.167	13.751	83.604	66.004
06/24/2011 11:34:19	5.211	13.648	83.604	66.004
06/24/2011 11:34:30	5.273	13.641	83.403	66.004
06/24/2011 11:34:39	5.266	13.689	83.403	66.004
06/24/2011 11:34:49	5.222	13.718	83.403	66.004
06/24/2011 11:34:59	5.189	13.733	83.304	66.004
06/24/2011 11:35:09	5.17	13.766	83.604	66.304
06/24/2011 11:35:19	5.174	13.711	83.802	66.304
06/24/2011 11:35:29	5.196	13.711	83.304	66.004
06/24/2011 11:35:40	5.229	13.667	83.403	66.004
06/24/2011 11:35:49	5.24	13.659	83.403	66.004
06/24/2011 11:35:59	5.24	13.692	83.403	66.004
06/24/2011 11:36:09	5.203	13.751	83.802	66.304
06/24/2011 11:36:19	5.159	13.766	83.604	66.304
06/24/2011 11:36:29	5.137	13.773	83.604	66.304
06/24/2011 11:36:39	5.148	13.762	83.604	66.304
06/24/2011 11:36:50	5.141	13.762	83.604	66.304
06/24/2011 11:36:59	5.148	13.773	83.604	66.304
06/24/2011 11:37:09	5.101	13.839	83.604	66.201
06/24/2011 11:37:19	5.064	13.821	83.802	66.201
06/24/2011 11:37:30	5.108	13.758	83.802	66.201
06/24/2011 11:37:39	5.101	13.824	83.604	66.201
06/24/2011 11:37:49	5.075	13.802	83.802	66.201
06/24/2011 11:38:00	5.101	13.802	83.802	66.201
06/24/2011 11:38:09	5.105	13.821	83.802	66.304
06/24/2011 11:38:19	5.079	13.843	83.403	66.004
06/24/2011 11:38:29	5.083	13.835	83.604	66.004
06/24/2011 11:38:40	5.112	13.788	83.403	66.004
06/24/2011 11:38:49	5.148	13.729	83.604	66.004
06/24/2011 11:38:59	5.17	13.725	83.604	66.004

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June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 11:39:10	5.17	13.744	83.802	66.004
06/24/2011 11:39:19	5.141	13.784	83.802	66.004
06/24/2011 11:39:29	5.097	13.854	83.802	66.004
06/24/2011 11:39:39	5.057	13.868	83.604	66.004
06/24/2011 11:39:50	5.053	13.839	83.604	66.004
06/24/2011 11:39:59	5.075	13.865	83.604	66.004
06/24/2011 11:40:09	5.057	13.85	83.403	66.004
06/24/2011 11:40:19	5.09	13.817	83.802	66.304
06/24/2011 11:40:29	5.112	13.788	83.802	66.304
06/24/2011 11:40:39	5.137	13.788	83.802	66.201
06/24/2011 11:40:49	5.108	13.843	83.802	66.201
06/24/2011 11:41:00	5.097	13.821	83.802	66.201
06/24/2011 11:41:09	5.148	13.751	84.003	66.201
06/24/2011 11:41:19	5.207	13.689	84.003	66.201
06/24/2011 11:41:29	5.229	13.718	83.802	66.201
06/24/2011 11:41:39	5.233	13.648	83.403	66.004
06/24/2011 11:41:49	5.218	13.74	83.403	66.004
06/24/2011 11:41:59	5.17	13.747	83.604	66.004
06/24/2011 11:42:10	5.145	13.758	83.802	66.201
06/24/2011 11:42:19	5.145	13.769	83.802	66.201
06/24/2011 11:42:29	5.13	13.78	83.802	66.201
06/24/2011 11:42:39	5.145	13.751	83.802	66.201
06/24/2011 11:42:49	5.2	13.627	83.802	66.201
06/24/2011 11:42:59	5.548	13.114	83.802	66.201
06/24/2011 11:43:09	5.672	13.425	83.802	66.201
06/24/2011 11:43:20	5.456	13.476	83.802	66.201
06/24/2011 11:43:29	5.401	13.561	83.802	66.004
06/24/2011 11:43:39	5.291	13.747	84.003	66.201
06/24/2011 11:43:49	5.17	13.766	84.003	66.201
06/24/2011 11:44:00	5.141	13.78	84.003	66.201
06/24/2011 11:44:09	5.141	13.751	84.003	66.201
06/24/2011 11:44:19	5.148	13.747	84.003	66.201
06/24/2011 11:44:30	5.126	13.839	84.003	66.201
06/24/2011 11:44:39	5.09	13.824	84.205	66.304
06/24/2011 11:44:49	5.13	13.769	84.205	66.201
06/24/2011 11:44:59	5.152	13.773	84.205	66.304
06/24/2011 11:45:10	5.174	13.729	84.205	66.201
06/24/2011 11:45:19	5.214	13.692	84.205	66.201
06/24/2011 11:45:29	5.189	13.788	84.205	66.201
06/24/2011 11:45:39	5.134	13.769	84.205	66.201
06/24/2011 11:45:49	5.167	13.707	84.205	66.304
06/24/2011 11:45:59	5.185	13.762	84.205	66.201
06/24/2011 11:46:09	5.207	13.63	84.205	66.304
06/24/2011 11:46:20	5.273	13.634	84.205	66.304
06/24/2011 11:46:29	5.295	13.608	84.205	66.201
06/24/2011 11:46:39	5.328	13.553	84.205	66.304
06/24/2011 11:46:49	5.35	13.572	84.205	66.304
06/24/2011 11:46:59	5.339	13.553	84.205	66.201
06/24/2011 11:47:09	5.313	13.663	84.205	66.201
06/24/2011 11:47:19	5.218	13.766	84.205	66.201
06/24/2011 11:47:30	5.159	13.736	84.205	66.201
06/24/2011 11:47:39	5.174	13.703	84.205	66.201
06/24/2011 11:47:49	5.211	13.663	84.205	66.304
06/24/2011 11:47:59	5.225	13.7	84.205	66.304
06/24/2011 11:48:09	5.178	13.747	84.205	66.201
06/24/2011 11:48:19	5.167	13.722	84.205	66.201
06/24/2011 11:48:29	5.214	13.652	84.205	66.201
06/24/2011 11:48:40	5.214	13.707	84.205	66.201
06/24/2011 11:48:49	5.222	13.619	84.205	66.304
06/24/2011 11:48:59	5.229	13.718	84.304	66.304
06/24/2011 11:49:09	5.189	13.707	84.501	66.304
06/24/2011 11:49:20	5.174	13.751	84.304	66.304
06/24/2011 11:49:29	5.17	13.74	84.304	66.304
06/24/2011 11:49:39	5.174	13.74	84.501	66.304
06/24/2011 11:49:50	5.148	13.773	84.205	66.304

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 11:49:59	5.156	13.725	84.304	66.304
06/24/2011 11:50:09	5.196	13.711	84.304	66.304
06/24/2011 11:50:19	5.218	13.678	84.205	66.201
06/24/2011 11:50:30	5.251	13.656	84.304	66.201
06/24/2011 11:50:39	5.255	13.692	84.205	66.304
06/24/2011 11:50:49	5.262	13.634	84.205	66.201
06/24/2011 11:50:59	5.258	13.667	84.304	66.304
06/24/2011 11:51:09	5.236	13.67	84.205	66.304
06/24/2011 11:51:19	5.266	13.597	84.205	66.304
06/24/2011 11:51:29	5.306	13.612	84.501	66.304
06/24/2011 11:51:40	5.258	13.692	84.501	66.304
06/24/2011 11:51:49	5.222	13.689	84.501	66.304
06/24/2011 11:51:59	5.258	13.619	84.501	66.304
06/24/2011 11:52:09	5.321	13.583	84.501	66.304
06/24/2011 11:52:19	5.313	13.652	84.501	66.304
06/24/2011 11:52:29	5.28	13.601	84.304	66.304
06/24/2011 11:52:39	5.288	13.601	84.304	66.502
06/24/2011 11:52:50	5.306	13.601	84.304	66.502
06/24/2011 11:52:59	5.291	13.605	84.501	66.502
06/24/2011 11:53:09	5.31	13.575	84.703	66.502
06/24/2011 11:53:19	5.332	13.59	84.501	66.502
06/24/2011 11:53:29	5.295	13.663	84.205	66.502
06/24/2011 11:53:39	5.251	13.659	84.205	66.502
06/24/2011 11:53:49	5.269	13.663	84.205	66.502
06/24/2011 11:54:00	5.284	13.634	84.205	66.502
06/24/2011 11:54:09	5.295	13.597	84.205	66.502
06/24/2011 11:54:19	5.299	13.656	84.205	66.304
06/24/2011 11:54:29	5.295	13.583	84.205	66.304
06/24/2011 11:54:40	5.354	13.568	84.205	66.502
06/24/2011 11:54:49	5.343	13.623	84.205	66.502
06/24/2011 11:54:59	5.284	13.681	84.304	66.304
06/24/2011 11:55:10	5.262	13.648	84.501	66.304
06/24/2011 11:55:19	5.288	13.634	84.304	66.304
06/24/2011 11:55:29	5.28	13.681	84.304	66.502
06/24/2011 11:55:39	5.266	13.648	84.205	66.304
06/24/2011 11:55:50	5.288	13.616	84.304	66.502
06/24/2011 11:55:59	5.291	13.667	84.205	66.502
06/24/2011 11:56:09	5.24	13.718	84.304	66.502
06/24/2011 11:56:19	5.218	13.689	84.501	66.502
06/24/2011 11:56:29	5.258	13.63	84.501	66.502
06/24/2011 11:56:39	5.306	13.641	84.304	66.502
06/24/2011 11:56:49	5.328	13.579	84.205	66.502
06/24/2011 11:57:00	5.332	13.63	84.205	66.502
06/24/2011 11:57:09	5.28	13.659	84.304	66.304
06/24/2011 11:57:19	5.258	13.652	84.304	66.304
06/24/2011 11:57:29	5.291	13.564	84.304	66.304
06/24/2011 11:57:39	5.346	13.557	84.205	66.304
06/24/2011 11:57:49	5.339	13.623	84.304	66.502
06/24/2011 11:57:59	5.295	13.608	84.304	66.502
06/24/2011 11:58:10	5.313	13.557	84.205	66.502
06/24/2011 11:58:19	5.313	13.638	84.003	66.502
06/24/2011 11:58:29	5.269	13.638	84.205	66.502
06/24/2011 11:58:39	5.273	13.656	84.205	66.703
06/24/2011 11:58:49	5.258	13.663	84.205	66.502
06/24/2011 11:58:59	5.255	13.674	84.205	66.502
06/24/2011 11:59:09	5.244	13.725	84.205	66.502
06/24/2011 11:59:20	5.218	13.667	84.205	66.502
06/24/2011 11:59:29	5.225	13.689	84.304	66.703
06/24/2011 11:59:39	5.233	13.605	84.205	66.502
06/24/2011 11:59:49	5.321	13.652	84.003	66.502
06/24/2011 12:00:00	5.244	13.696	84.003	66.502
06/24/2011 12:00:09	5.2	13.736	84.003	66.502
06/24/2011 12:00:19	5.159	13.769	84.003	66.502
06/24/2011 12:00:30	5.134	13.777	84.003	66.502
06/24/2011 12:00:39	5.178	13.678	84.003	66.502

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 12:00:49	5.225	13.689	84.205	66.502
06/24/2011 12:00:59	5.222	13.7	84.003	66.502
06/24/2011 12:01:10	5.214	13.703	84.003	66.703
06/24/2011 12:01:19	5.214	13.7	84.003	66.703
06/24/2011 12:01:29	5.207	13.685	84.205	66.703
06/24/2011 12:01:40	5.236	13.634	84.003	66.703
06/24/2011 12:01:49	5.288	13.605	84.003	66.703
06/24/2011 12:01:59	5.313	13.638	84.003	66.703
06/24/2011 12:02:09	5.255	13.696	84.003	66.703
06/24/2011 12:02:20	5.178	13.755	84.003	66.502
06/24/2011 12:02:29	5.145	13.755	84.003	66.703
06/24/2011 12:02:39	5.156	13.722	84.003	66.703
06/24/2011 12:02:49	5.203	13.663	84.205	66.502
06/24/2011 12:02:59	5.236	13.7	84.205	66.502
06/24/2011 12:03:09	5.218	13.711	84.205	66.502
06/24/2011 12:03:19	5.203	13.674	84.304	66.502
06/24/2011 12:03:30	5.225	13.67	84.501	66.502
06/24/2011 12:03:39	5.247	13.667	84.003	66.502
06/24/2011 12:03:49	5.236	13.689	84.003	66.502
06/24/2011 12:03:59	5.222	13.703	83.802	66.502
06/24/2011 12:04:09	5.211	13.718	83.802	66.502
06/24/2011 12:04:19	5.211	13.736	83.802	66.502
06/24/2011 12:04:29	5.225	13.67	83.802	66.502
06/24/2011 12:04:40	5.258	13.663	84.003	66.703
06/24/2011 12:04:49	5.28	13.638	83.802	66.502
06/24/2011 12:04:59	5.324	13.579	83.802	66.502
06/24/2011 12:05:09	5.368	13.557	83.802	66.502
06/24/2011 12:05:19	5.408	13.517	83.802	66.502
06/24/2011 12:05:29	5.423	13.506	84.003	66.502
06/24/2011 12:05:39	5.438	13.498	83.802	66.502
06/24/2011 12:05:50	5.423	13.528	83.802	66.502
06/24/2011 12:05:59	5.441	13.487	84.003	66.502
06/24/2011 12:06:09	5.441	13.524	83.802	66.502
06/24/2011 12:06:19	5.383	13.575	83.802	66.502
06/24/2011 12:06:30	5.328	13.63	83.802	66.502
06/24/2011 12:06:39	5.28	13.648	83.802	66.502
06/24/2011 12:06:49	5.273	13.663	83.802	66.502
06/24/2011 12:07:00	5.313	13.572	83.802	66.502
06/24/2011 12:07:09	5.339	13.594	83.802	66.502
06/24/2011 12:07:19	5.354	13.575	83.802	66.502
06/24/2011 12:07:29	5.357	13.55	83.802	66.502
06/24/2011 12:07:40	5.339	13.63	83.802	66.502
06/24/2011 12:07:49	5.284	13.667	83.802	66.502
06/24/2011 12:07:59	5.284	13.634	83.802	66.502
06/24/2011 12:08:09	5.332	13.535	84.003	66.703
06/24/2011 12:08:19	5.39	13.52	83.802	66.502
06/24/2011 12:08:29	5.383	13.539	84.003	66.502
06/24/2011 12:08:39	5.368	13.539	83.802	66.502
06/24/2011 12:08:50	5.343	13.597	83.802	66.502
06/24/2011 12:08:59	5.35	13.561	84.003	66.502
06/24/2011 12:09:09	5.343	13.623	84.003	66.502
06/24/2011 12:09:19	5.291	13.645	84.003	66.502
06/24/2011 12:09:29	5.288	13.612	83.802	66.502
06/24/2011 12:09:39	5.339	13.535	84.003	66.502
06/24/2011 12:09:49	5.357	13.583	83.802	66.502
06/24/2011 12:10:00	5.335	13.586	83.802	66.502
06/24/2011 12:10:09	5.343	13.557	84.003	66.502
06/24/2011 12:10:19	5.365	13.557	84.003	66.502
06/24/2011 12:10:29	5.398	13.491	84.003	66.502
06/24/2011 12:10:39	5.478	13.359	84.205	66.502
06/24/2011 12:10:49	5.551	13.436	84.003	66.502
06/24/2011 12:10:59	5.482	13.473	84.003	66.502
06/24/2011 12:11:10	5.427	13.495	84.003	66.502
06/24/2011 12:11:19	5.398	13.509	84.003	66.703
06/24/2011 12:11:29	5.368	13.583	83.802	66.502

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 12:11:39	5.302	13.627	83.802	66.703
06/24/2011 12:11:50	5.313	13.583	83.802	66.703
06/24/2011 12:11:59	5.324	13.568	84.003	66.502
06/24/2011 12:12:09	5.335	13.55	84.003	66.502
06/24/2011 12:12:20	5.365	13.553	84.003	66.502
06/24/2011 12:12:29	5.339	13.601	84.003	66.703
06/24/2011 12:12:39	5.291	13.612	83.802	66.703
06/24/2011 12:12:49	5.273	13.678	84.003	66.502
06/24/2011 12:13:00	5.211	13.729	84.003	66.502
06/24/2011 12:13:09	5.163	13.744	84.003	66.502
06/24/2011 12:13:19	5.152	13.769	83.802	66.502
06/24/2011 12:13:29	5.178	13.707	84.003	66.502
06/24/2011 12:13:39	5.233	13.663	84.003	66.502
06/24/2011 12:13:49	5.269	13.605	84.205	66.502
06/24/2011 12:13:59	5.302	13.627	84.205	66.502
06/24/2011 12:14:10	5.313	13.597	84.003	66.502
06/24/2011 12:14:19	5.343	13.575	83.802	66.502
06/24/2011 12:14:29	5.383	13.524	83.802	66.502
06/24/2011 12:14:39	5.434	13.436	83.802	66.502
06/24/2011 12:14:49	5.452	13.509	84.003	66.502
06/24/2011 12:14:59	5.405	13.531	83.802	66.502
06/24/2011 12:15:09	5.379	13.557	84.003	66.502
06/24/2011 12:15:20	5.343	13.619	83.802	66.502
06/24/2011 12:15:29	5.295	13.641	84.003	66.502
06/24/2011 12:15:39	5.295	13.627	84.003	66.502
06/24/2011 12:15:49	5.339	13.542	84.003	66.502
06/24/2011 12:15:59	5.379	13.542	83.802	66.502
06/24/2011 12:16:09	5.412	13.454	84.003	66.502
06/24/2011 12:16:19	5.544	13.297	84.003	66.201
06/24/2011 12:16:30	5.647	13.326	83.802	66.201
06/24/2011 12:16:39	5.61	13.356	84.003	66.201
06/24/2011 12:16:49	5.559	13.473	84.205	66.502
06/24/2011 12:16:59	5.456	13.506	84.003	66.502
06/24/2011 12:17:10	5.463	13.425	84.003	66.502
06/24/2011 12:17:19	5.496	13.44	83.604	66.201
06/24/2011 12:17:29	5.471	13.487	83.802	66.304
06/24/2011 12:17:40	5.423	13.535	83.802	66.304
06/24/2011 12:17:49	5.39	13.564	83.604	66.304
06/24/2011 12:17:59	5.398	13.528	83.604	66.304
06/24/2011 12:18:09	5.383	13.575	83.604	66.304
06/24/2011 12:18:20	5.383	13.524	83.604	66.304
06/24/2011 12:18:29	5.427	13.458	84.003	66.304
06/24/2011 12:18:39	5.471	13.44	84.003	66.304
06/24/2011 12:18:49	5.471	13.469	83.802	66.304
06/24/2011 12:18:59	5.445	13.48	83.802	66.304
06/24/2011 12:19:09	5.438	13.487	83.604	66.304
06/24/2011 12:19:19	5.423	13.498	83.604	66.304
06/24/2011 12:19:30	5.372	13.575	83.802	66.304
06/24/2011 12:19:39	5.302	13.623	83.604	66.304
06/24/2011 12:19:49	5.295	13.619	83.802	66.304
06/24/2011 12:19:59	5.306	13.572	83.604	66.304
06/24/2011 12:20:09	5.376	13.462	83.802	66.304
06/24/2011 12:20:19	5.445	13.469	83.802	66.304
06/24/2011 12:20:29	5.456	13.487	83.604	66.304
06/24/2011 12:20:40	5.427	13.502	83.802	66.304
06/24/2011 12:20:49	5.401	13.524	83.802	66.304
06/24/2011 12:20:59	5.379	13.531	83.604	66.304
06/24/2011 12:21:09	5.383	13.531	83.604	66.304
06/24/2011 12:21:19	5.379	13.542	83.802	66.304
06/24/2011 12:21:29	5.357	13.531	83.802	66.304
06/24/2011 12:21:39	5.387	13.458	83.604	66.304
06/24/2011 12:21:50	5.408	13.579	83.802	66.304
06/24/2011 12:21:59	5.368	13.524	84.003	66.304
06/24/2011 12:22:09	5.405	13.502	84.003	66.304
06/24/2011 12:22:19	5.441	13.487	84.003	66.304

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 12:22:30	5.434	13.524	84.003	66.304
06/24/2011 12:22:39	5.412	13.491	84.003	66.304
06/24/2011 12:22:49	5.427	13.502	83.802	66.304
06/24/2011 12:23:00	5.452	13.451	83.802	66.304
06/24/2011 12:23:09	5.471	13.462	83.604	66.304
06/24/2011 12:23:19	5.463	13.44	83.604	66.304
06/24/2011 12:23:29	5.493	13.392	83.403	66.304
06/24/2011 12:23:40	5.54	13.385	83.604	66.304
06/24/2011 12:23:49	5.507	13.498	83.604	66.304
06/24/2011 12:23:59	5.419	13.539	83.604	66.304
06/24/2011 12:24:10	5.354	13.594	83.802	66.304
06/24/2011 12:24:19	5.328	13.539	83.802	66.304
06/24/2011 12:24:29	5.408	13.443	84.003	66.304
06/24/2011 12:24:39	5.452	13.462	83.802	66.304
06/24/2011 12:24:50	5.43	13.498	83.802	66.304
06/24/2011 12:24:59	5.368	13.553	83.802	66.304
06/24/2011 12:25:09	5.335	13.575	83.802	66.304
06/24/2011 12:25:19	5.335	13.572	84.003	66.304
06/24/2011 12:25:29	5.379	13.513	84.003	66.304
06/24/2011 12:25:39	5.405	13.535	84.003	66.304
06/24/2011 12:25:49	5.354	13.623	84.003	66.304
06/24/2011 12:26:00	5.306	13.586	83.802	66.304
06/24/2011 12:26:09	5.46	13.334	83.802	66.304
06/24/2011 12:26:19	5.467	13.542	84.003	66.304
06/24/2011 12:26:29	5.387	13.502	83.802	66.304
06/24/2011 12:26:39	5.419	13.447	84.205	66.304
06/24/2011 12:26:49	5.449	13.465	84.205	66.304
06/24/2011 12:26:59	5.46	13.495	84.003	66.304
06/24/2011 12:27:10	5.405	13.528	84.205	66.304
06/24/2011 12:27:19	5.379	13.524	84.205	66.201
06/24/2011 12:27:29	5.394	13.513	84.003	66.304
06/24/2011 12:27:39	5.408	13.491	84.003	66.201
06/24/2011 12:27:49	5.419	13.495	83.802	66.201
06/24/2011 12:27:59	5.412	13.52	84.205	66.502
06/24/2011 12:28:09	5.408	13.498	84.003	66.201
06/24/2011 12:28:20	5.412	13.531	84.205	66.201
06/24/2011 12:28:29	5.423	13.498	83.802	66.201
06/24/2011 12:28:39	5.471	13.469	84.205	66.502
06/24/2011 12:28:49	5.485	13.451	84.003	66.502
06/24/2011 12:29:00	5.5	13.421	84.003	66.304
06/24/2011 12:29:09	5.493	13.447	83.802	66.201
06/24/2011 12:29:19	5.507	13.385	83.604	66.304
06/24/2011 12:29:30	5.518	13.41	83.802	66.502
06/24/2011 12:29:39	5.474	13.44	83.802	66.304
06/24/2011 12:29:49	5.482	13.392	83.802	66.304
06/24/2011 12:29:59	5.489	13.429	83.802	66.304
06/24/2011 12:30:10	5.463	13.436	83.802	66.304
06/24/2011 12:30:19	5.452	13.418	84.003	66.304
06/24/2011 12:30:29	5.467	13.425	84.003	66.304
06/24/2011 12:30:39	5.577	13.11	83.802	66.304
06/24/2011 12:30:49	5.738	13.187	84.003	66.502
06/24/2011 12:30:59	5.694	13.257	84.003	66.502
06/24/2011 12:31:09	5.603	13.352	84.205	66.502
06/24/2011 12:31:20	5.555	13.334	84.205	66.502
06/24/2011 12:31:29	5.559	13.334	83.802	66.502
06/24/2011 12:31:39	5.562	13.359	83.802	66.502
06/24/2011 12:31:49	5.54	13.319	83.802	66.502
06/24/2011 12:31:59	5.562	13.352	83.802	66.502
06/24/2011 12:32:09	5.548	13.356	84.003	66.502
06/24/2011 12:32:19	5.54	13.366	84.003	66.502
06/24/2011 12:32:30	5.54	13.348	84.205	66.502
06/24/2011 12:32:39	5.551	13.337	84.205	66.502
06/24/2011 12:32:49	5.555	13.345	84.003	66.502
06/24/2011 12:32:59	5.551	13.381	84.003	66.502
06/24/2011 12:33:09	5.482	13.509	84.205	66.502

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 12:33:19	5.441	13.473	84.205	66.502
06/24/2011 12:33:29	5.474	13.436	84.205	66.502
06/24/2011 12:33:40	5.533	13.282	84.003	66.502
06/24/2011 12:33:49	5.588	13.352	84.003	66.502
06/24/2011 12:33:59	5.551	13.385	84.003	66.502
06/24/2011 12:34:09	5.54	13.366	84.003	66.502
06/24/2011 12:34:20	5.57	13.366	84.003	66.304
06/24/2011 12:34:29	5.518	13.414	84.003	66.201
06/24/2011 12:34:39	5.511	13.399	84.003	66.201
06/24/2011 12:34:50	5.5	13.407	84.205	66.502
06/24/2011 12:34:59	5.467	13.447	84.205	66.502
06/24/2011 12:35:09	5.398	13.531	84.304	66.502
06/24/2011 12:35:19	5.398	13.436	84.304	66.502
06/24/2011 12:35:30	5.478	13.396	84.304	66.502
06/24/2011 12:35:39	5.493	13.388	84.205	66.502
06/24/2011 12:35:49	5.518	13.352	83.802	66.304
06/24/2011 12:35:59	5.504	13.462	84.003	66.201
06/24/2011 12:36:09	5.434	13.484	84.003	66.201
06/24/2011 12:36:19	5.416	13.469	84.003	66.201
06/24/2011 12:36:29	5.401	13.572	84.304	66.502
06/24/2011 12:36:40	5.35	13.553	84.205	66.502
06/24/2011 12:36:49	5.31	13.612	84.205	66.502
06/24/2011 12:36:59	5.313	13.583	84.205	66.502
06/24/2011 12:37:09	5.368	13.473	84.003	66.502
06/24/2011 12:37:19	5.467	13.366	84.205	66.502
06/24/2011 12:37:29	5.537	13.359	84.205	66.502
06/24/2011 12:37:39	5.526	13.399	84.003	66.502
06/24/2011 12:37:50	5.522	13.385	84.003	66.502
06/24/2011 12:37:59	5.496	13.491	84.205	66.703
06/24/2011 12:38:09	5.441	13.44	84.304	66.703
06/24/2011 12:38:19	5.463	13.443	84.501	66.703
06/24/2011 12:38:29	5.474	13.425	84.501	66.703
06/24/2011 12:38:39	5.493	13.396	84.304	66.703
06/24/2011 12:38:49	5.493	13.44	84.304	66.703
06/24/2011 12:39:00	5.43	13.517	84.304	66.502
06/24/2011 12:39:09	5.412	13.465	84.304	66.502
06/24/2011 12:39:19	5.474	13.414	84.501	66.502
06/24/2011 12:39:29	5.511	13.432	84.501	66.703
06/24/2011 12:39:40	5.438	13.524	84.501	66.703
06/24/2011 12:39:49	5.398	13.487	84.501	66.703
06/24/2011 12:39:59	5.416	13.506	84.304	66.703
06/24/2011 12:40:10	5.401	13.535	84.703	66.703
06/24/2011 12:40:19	5.394	13.539	84.501	66.703
06/24/2011 12:40:29	5.416	13.432	84.501	66.703
06/24/2011 12:40:39	5.478	13.432	84.304	66.703
06/24/2011 12:40:50	5.478	13.432	84.304	66.703
06/24/2011 12:40:59	5.471	13.458	84.501	66.703
06/24/2011 12:41:09	5.467	13.454	84.703	66.703
06/24/2011 12:41:19	5.463	13.458	84.501	66.703
06/24/2011 12:41:29	5.408	13.517	84.304	66.502
06/24/2011 12:41:39	5.368	13.528	84.703	66.502
06/24/2011 12:41:49	5.339	13.623	84.501	66.502
06/24/2011 12:42:00	5.277	13.652	84.304	66.304
06/24/2011 12:42:09	5.284	13.594	84.501	66.703
06/24/2011 12:42:19	5.332	13.531	84.205	66.703
06/24/2011 12:42:29	5.408	13.454	84.205	66.703
06/24/2011 12:42:39	5.441	13.451	84.205	66.703
06/24/2011 12:42:49	5.416	13.531	84.205	66.703
06/24/2011 12:42:59	5.376	13.498	84.304	66.703
06/24/2011 12:43:10	5.43	13.37	84.501	66.703
06/24/2011 12:43:19	5.526	13.399	84.304	66.703
06/24/2011 12:43:29	5.427	13.546	84.501	66.703
06/24/2011 12:43:39	5.31	13.612	84.304	66.703
06/24/2011 12:43:49	5.321	13.542	84.205	66.703
06/24/2011 12:43:59	5.332	13.579	84.205	66.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 12:44:09	5.321	13.586	84.205	66.703
06/24/2011 12:44:20	5.291	13.641	84.205	66.703
06/24/2011 12:44:29	5.251	13.656	84.205	66.703
06/24/2011 12:44:39	5.236	13.674	84.003	66.703
06/24/2011 12:44:49	5.262	13.59	84.003	66.502
06/24/2011 12:45:00	5.35	13.491	84.003	66.502
06/24/2011 12:45:09	5.387	13.539	84.003	66.502
06/24/2011 12:45:19	5.35	13.542	84.304	66.703
06/24/2011 12:45:30	5.383	13.502	84.304	66.703
06/24/2011 12:45:39	5.376	13.513	84.501	66.703
06/24/2011 12:45:49	5.379	13.506	84.501	66.703
06/24/2011 12:45:59	5.379	13.498	84.205	66.703
06/24/2011 12:46:10	5.401	13.502	84.205	66.703
06/24/2011 12:46:19	5.383	13.528	84.205	66.703
06/24/2011 12:46:29	5.387	13.535	84.501	66.703
06/24/2011 12:46:40	5.376	13.491	84.501	66.703
06/24/2011 12:46:49	5.507	13.37	84.205	66.703
06/24/2011 12:46:59	5.614	13.03	84.205	66.703
06/24/2011 12:47:09	5.786	13.271	84.205	66.703
06/24/2011 12:47:20	5.676	13.176	84.205	66.502
06/24/2011 12:47:29	5.782	12.938	84.205	66.502
06/24/2011 12:47:39	5.94	13.041	84.003	66.502
06/24/2011 12:47:49	5.771	13.341	84.205	66.703
06/24/2011 12:47:59	5.672	13.399	84.304	66.703
06/24/2011 12:48:09	5.661	13.187	84.205	66.703
06/24/2011 12:48:19	5.694	13.312	84.003	66.502
06/24/2011 12:48:30	5.676	13.095	84.205	66.703
06/24/2011 12:48:39	5.647	13.381	84.205	66.703
06/24/2011 12:48:49	5.606	13.253	84.205	66.502
06/24/2011 12:48:59	5.701	13.136	84.205	66.703
06/24/2011 12:49:09	5.712	13.312	84.205	66.703
06/24/2011 12:49:19	5.665	13.161	84.205	66.703
06/24/2011 12:49:29	5.753	13.154	84.205	66.703
06/24/2011 12:49:40	5.797	13.063	84.304	66.703
06/24/2011 12:49:49	5.76	13.125	84.304	66.502
06/24/2011 12:49:59	5.698	13.366	84.304	66.502
06/24/2011 12:50:09	5.584	13.359	84.304	66.703
06/24/2011 12:50:19	5.614	13.235	84.304	66.703
06/24/2011 12:50:29	5.665	13.205	84.003	66.502
06/24/2011 12:50:39	5.694	13.264	84.205	66.502
06/24/2011 12:50:50	5.731	13.077	84.304	66.502
06/24/2011 12:50:59	5.841	13.117	84.501	66.703
06/24/2011 12:51:09	5.855	13.099	84.304	66.703
06/24/2011 12:51:19	5.782	13.205	84.304	66.703
06/24/2011 12:51:30	5.811	12.894	84.205	66.703
06/24/2011 12:51:39	5.925	12.989	84.205	66.703
06/24/2011 12:51:49	5.958	13.041	84.205	66.703
06/24/2011 12:52:00	5.907	13.048	84.205	66.703
06/24/2011 12:52:09	5.833	13.154	84.205	66.703
06/24/2011 12:52:19	5.841	13.11	84.205	66.703
06/24/2011 12:52:29	5.921	12.887	84.205	66.502
06/24/2011 12:52:40	5.94	13.055	84.205	66.502
06/24/2011 12:52:49	5.892	12.894	84.205	66.502
06/24/2011 12:52:59	5.965	13.033	84.205	66.502
06/24/2011 12:53:09	5.797	13.191	84.205	66.703
06/24/2011 12:53:19	5.756	13.169	84.205	66.703
06/24/2011 12:53:29	5.811	12.953	84.205	66.703
06/24/2011 12:53:39	5.903	13.154	84.304	66.703
06/24/2011 12:53:50	5.756	13.139	84.501	66.703
06/24/2011 12:53:59	5.786	13.11	84.304	66.703
06/24/2011 12:54:09	5.925	12.967	84.304	66.703
06/24/2011 12:54:19	5.969	13.059	84.205	66.703
06/24/2011 12:54:29	5.83	13.117	84.205	66.703
06/24/2011 12:54:39	5.745	13.191	84.205	66.703
06/24/2011 12:54:49	5.749	13.154	84.304	66.703

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 12:55:00	5.804	13.074	84.501	66.703
06/24/2011 12:55:09	5.815	13.092	84.501	66.703
06/24/2011 12:55:19	5.782	13.074	84.501	66.703
06/24/2011 12:55:29	5.907	13.044	84.703	66.703
06/24/2011 12:55:39	5.8	13.154	84.904	66.703
06/24/2011 12:55:49	5.756	13.008	84.904	66.901
06/24/2011 12:55:59	5.874	13.128	84.703	66.703
06/24/2011 12:56:10	5.815	13.132	84.703	66.703
06/24/2011 12:56:19	5.753	13.191	84.501	66.703
06/24/2011 12:56:29	5.756	13.253	84.501	66.703
06/24/2011 12:56:39	5.628	13.345	84.703	66.703
06/24/2011 12:56:50	5.614	13.227	84.703	66.703
06/24/2011 12:56:59	5.705	13.07	84.501	66.703
06/24/2011 12:57:09	5.881	12.997	84.501	66.703
06/24/2011 12:57:20	5.877	13.041	84.703	66.703
06/24/2011 12:57:29	5.848	13.158	84.703	66.703
06/24/2011 12:57:39	5.775	13.15	84.904	66.703
06/24/2011 12:57:49	5.753	13.059	85.102	66.901
06/24/2011 12:58:00	5.786	13.158	85.205	66.901
06/24/2011 12:58:09	5.764	13.15	85.102	66.901
06/24/2011 12:58:19	5.837	12.989	85.102	66.901
06/24/2011 12:58:29	5.8	13.165	85.102	66.901
06/24/2011 12:58:39	5.767	13.172	85.102	66.901
06/24/2011 12:58:49	5.767	13.154	85.102	66.901
06/24/2011 12:58:59	5.767	13.063	84.703	66.703
06/24/2011 12:59:10	5.749	13.224	84.703	66.703
06/24/2011 12:59:19	5.852	13.019	84.501	66.703
06/24/2011 12:59:29	5.852	13.106	84.703	66.703
06/24/2011 12:59:39	5.804	13.125	84.703	66.703
06/24/2011 12:59:49	5.782	13.063	84.501	66.703
06/24/2011 12:59:59	5.819	13.169	84.501	66.703
06/24/2011 13:00:09	5.797	13.139	84.501	66.703
06/24/2011 13:00:20	5.815	13.132	84.304	66.703
06/24/2011 13:00:29	5.822	13.033	84.703	66.901
06/24/2011 13:00:39	5.892	13	84.703	66.901
06/24/2011 13:00:49	5.877	13.011	84.904	66.901
06/24/2011 13:00:59	5.811	13.037	85.102	67.102
06/24/2011 13:01:09	5.918	12.883	85.402	67.102
06/24/2011 13:01:19	5.855	13.279	85.402	66.901
06/24/2011 13:01:30	5.654	13.268	85.402	66.901
06/24/2011 13:01:39	5.72	13.117	85.402	66.901
06/24/2011 13:01:49	5.826	13.158	85.402	66.901
06/24/2011 13:01:59	5.822	13.161	85.205	66.901
06/24/2011 13:02:10	5.782	13.257	85.102	66.901
06/24/2011 13:02:19	5.716	13.194	85.102	66.901
06/24/2011 13:02:29	5.833	13.022	85.402	66.901
06/24/2011 13:02:40	5.852	13.059	85.604	66.901
06/24/2011 13:02:49	5.921	13	85.402	66.901
06/24/2011 13:02:59	5.855	13.106	85.205	66.901
06/24/2011 13:03:09	5.775	13.216	85.402	66.703
06/24/2011 13:03:20	5.753	13.18	85.802	66.901
06/24/2011 13:03:29	5.738	13.213	85.402	66.901
06/24/2011 13:03:39	5.767	13.125	85.402	66.901
06/24/2011 13:03:49	5.811	13.121	85.802	66.901
06/24/2011 13:03:59	5.767	13.095	85.802	66.901
06/24/2011 13:04:09	5.848	13.103	85.802	67.102
06/24/2011 13:04:19	5.837	12.927	85.802	66.901
06/24/2011 13:04:30	5.914	13.074	85.604	66.901
06/24/2011 13:04:39	5.822	13.033	85.604	66.901
06/24/2011 13:04:49	5.918	13.066	85.604	66.901
06/24/2011 13:04:59	5.881	13.088	85.205	66.901
06/24/2011 13:05:09	5.764	13.33	85.402	66.901
06/24/2011 13:05:19	5.603	13.224	85.604	66.901
06/24/2011 13:05:29	5.665	13.085	85.604	67.102
06/24/2011 13:05:40	5.786	13.07	85.604	67.102

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 13:05:49	5.822	13.213	85.402	66.901
06/24/2011 13:05:59	5.8	13	85.205	66.901
06/24/2011 13:06:09	5.797	13.216	85.102	66.901
06/24/2011 13:06:19	5.687	13.279	85.102	66.901
06/24/2011 13:06:29	5.661	13.282	85.402	67.102
06/24/2011 13:06:39	5.745	13.095	85.604	67.102
06/24/2011 13:06:50	5.819	13.158	85.802	67.102
06/24/2011 13:06:59	5.734	13.114	85.604	67.102
06/24/2011 13:07:09	5.72	13.202	86.003	67.201
06/24/2011 13:07:19	5.665	13.388	85.802	67.102
06/24/2011 13:07:30	5.606	13.271	85.802	67.102
06/24/2011 13:07:39	5.643	13.33	85.802	67.102
06/24/2011 13:07:49	5.687	13.202	86.003	67.201
06/24/2011 13:08:00	5.665	13.323	86.003	67.201
06/24/2011 13:08:09	5.731	13.11	86.003	67.201
06/24/2011 13:08:19	5.896	12.894	85.802	67.102
06/24/2011 13:08:29	5.885	13.176	86.003	67.201
06/24/2011 13:08:40	5.749	13.172	86.003	67.201
06/24/2011 13:08:49	5.727	13.257	86.003	67.201
06/24/2011 13:08:59	5.687	13.004	86.003	67.201
06/24/2011 13:09:10	5.786	13.052	86.003	67.201
06/24/2011 13:09:19	5.764	13.128	86.003	67.201
06/24/2011 13:09:29	5.782	13.085	86.003	67.403
06/24/2011 13:09:39	5.771	13.125	86.003	67.201
06/24/2011 13:09:50	5.676	13.377	86.003	67.201
06/24/2011 13:09:59	5.632	13.15	86.003	67.201
06/24/2011 13:10:09	5.716	13.194	85.802	67.201
06/24/2011 13:10:19	5.65	13.319	85.802	67.201
06/24/2011 13:10:29	5.606	13.268	85.604	67.201
06/24/2011 13:10:39	5.628	13.26	86.003	67.403
06/24/2011 13:10:49	5.647	13.315	86.003	67.403
06/24/2011 13:11:00	5.562	13.381	86.003	67.403
06/24/2011 13:11:09	5.592	13.231	86.303	67.403
06/24/2011 13:11:19	5.584	13.41	86.303	67.403
06/24/2011 13:11:29	5.398	13.597	86.303	67.201
06/24/2011 13:11:39	5.277	13.623	86.003	67.201
06/24/2011 13:11:49	5.291	13.568	86.102	67.201
06/24/2011 13:11:59	5.31	13.575	86.102	67.201
06/24/2011 13:12:10	5.288	13.638	86.003	67.201
06/24/2011 13:12:19	5.291	13.568	86.003	67.201
06/24/2011 13:12:29	5.306	13.601	86.003	67.201
06/24/2011 13:12:39	5.225	13.718	86.003	67.201
06/24/2011 13:12:49	5.13	13.813	86.303	67.403
06/24/2011 13:12:59	5.134	13.7	86.102	67.403
06/24/2011 13:13:09	5.218	13.652	86.003	67.403
06/24/2011 13:13:20	5.233	13.681	86.102	67.403
06/24/2011 13:13:29	5.214	13.696	86.303	67.604
06/24/2011 13:13:39	5.225	13.645	86.102	67.604
06/24/2011 13:13:49	5.317	13.513	86.102	67.604
06/24/2011 13:14:00	5.379	13.502	86.003	67.403
06/24/2011 13:14:09	5.354	13.586	86.102	67.403
06/24/2011 13:14:19	5.335	13.498	86.102	67.403
06/24/2011 13:14:30	5.379	13.491	86.102	67.403
06/24/2011 13:14:39	5.354	13.616	86.003	67.403
06/24/2011 13:14:49	5.288	13.561	86.003	67.403
06/24/2011 13:14:59	5.306	13.553	86.003	67.604
06/24/2011 13:15:10	5.335	13.528	86.102	67.604
06/24/2011 13:15:19	5.335	13.605	86.102	67.604
06/24/2011 13:15:29	5.284	13.638	86.102	67.604
06/24/2011 13:15:39	5.251	13.663	86.003	67.403
06/24/2011 13:15:49	5.258	13.601	85.802	67.403
06/24/2011 13:15:59	5.339	13.517	85.802	67.403
06/24/2011 13:16:09	5.379	13.531	85.802	67.403
06/24/2011 13:16:20	5.335	13.583	86.003	67.403
06/24/2011 13:16:29	5.299	13.568	86.102	67.403

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 13:16:39	5.299	13.612	86.003	67.604
06/24/2011 13:16:49	5.288	13.612	86.003	67.604
06/24/2011 13:16:59	5.295	13.608	85.802	67.604
06/24/2011 13:17:09	5.269	13.659	86.102	67.802
06/24/2011 13:17:19	5.229	13.663	86.102	67.802
06/24/2011 13:17:30	5.214	13.674	86.303	67.802
06/24/2011 13:17:39	5.251	13.619	86.303	67.802
06/24/2011 13:17:49	5.28	13.623	86.102	67.604
06/24/2011 13:17:59	5.258	13.608	86.102	67.604
06/24/2011 13:18:09	5.302	13.568	86.303	67.802
06/24/2011 13:18:19	5.343	13.55	86.303	67.802
06/24/2011 13:18:29	5.317	13.616	86.102	67.802
06/24/2011 13:18:40	5.255	13.648	86.303	67.802
06/24/2011 13:18:49	5.247	13.634	86.303	67.802
06/24/2011 13:18:59	5.229	13.656	86.505	67.802
06/24/2011 13:19:09	5.262	13.619	86.702	67.802
06/24/2011 13:19:20	5.269	13.627	86.505	67.802
06/24/2011 13:19:29	5.295	13.586	86.303	67.802
06/24/2011 13:19:39	5.31	13.579	86.505	68.003
06/24/2011 13:19:50	5.317	13.568	86.505	67.802
06/24/2011 13:19:59	5.31	13.575	86.702	68.003
06/24/2011 13:20:09	5.317	13.594	86.505	67.802
06/24/2011 13:20:19	5.295	13.641	86.505	67.802
06/24/2011 13:20:30	5.306	13.583	86.505	67.802
06/24/2011 13:20:39	5.339	13.568	86.102	67.802
06/24/2011 13:20:49	5.313	13.605	86.102	67.802
06/24/2011 13:20:59	5.299	13.597	86.505	67.802
06/24/2011 13:21:09	5.288	13.568	86.505	67.802
06/24/2011 13:21:19	5.284	13.601	86.505	67.802
06/24/2011 13:21:29	5.28	13.524	86.702	68.003
06/24/2011 13:21:40	5.372	13.491	86.702	68.003
06/24/2011 13:21:49	5.357	13.572	86.505	68.003
06/24/2011 13:21:59	5.291	13.652	86.702	68.003
06/24/2011 13:22:09	5.262	13.641	86.702	67.802
06/24/2011 13:22:19	5.273	13.681	86.702	67.802
06/24/2011 13:22:29	5.255	13.648	86.904	67.802
06/24/2011 13:22:39	5.225	13.696	86.702	67.802
06/24/2011 13:22:50	5.203	13.696	86.904	67.802
06/24/2011 13:22:59	5.196	13.685	86.702	68.003
06/24/2011 13:23:09	5.218	13.678	86.702	68.003
06/24/2011 13:23:19	5.258	13.616	86.702	68.003
06/24/2011 13:23:29	5.31	13.564	86.702	68.003
06/24/2011 13:23:39	5.346	13.557	86.702	67.802
06/24/2011 13:23:49	5.288	13.696	86.702	67.802
06/24/2011 13:24:00	5.167	13.762	86.505	67.802
06/24/2011 13:24:09	5.156	13.703	86.702	68.003
06/24/2011 13:24:19	5.196	13.7	86.904	68.003
06/24/2011 13:24:29	5.185	13.725	86.904	68.003
06/24/2011 13:24:40	5.167	13.714	86.702	68.003
06/24/2011 13:24:49	5.178	13.714	86.702	68.003
06/24/2011 13:24:59	5.225	13.619	86.702	68.003
06/24/2011 13:25:10	5.291	13.605	86.702	68.003
06/24/2011 13:25:19	5.302	13.601	86.702	68.003
06/24/2011 13:25:29	5.291	13.634	86.702	68.102
06/24/2011 13:25:39	5.225	13.751	86.702	68.102
06/24/2011 13:25:50	5.152	13.769	86.904	68.102
06/24/2011 13:25:59	5.152	13.663	86.702	68.102
06/24/2011 13:26:09	5.225	13.656	86.702	68.102
06/24/2011 13:26:19	5.233	13.667	86.505	68.102
06/24/2011 13:26:29	5.211	13.678	86.505	68.003
06/24/2011 13:26:39	5.222	13.656	86.505	68.003
06/24/2011 13:26:49	5.211	13.707	86.505	68.003
06/24/2011 13:27:00	5.137	13.777	86.303	68.003
06/24/2011 13:27:09	5.141	13.725	86.505	68.102
06/24/2011 13:27:19	5.203	13.648	86.505	68.102

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 13:27:29	5.225	13.707	86.303	68.102
06/24/2011 13:27:39	5.167	13.766	86.303	68.003
06/24/2011 13:27:49	5.167	13.725	86.303	68.003
06/24/2011 13:27:59	5.181	13.747	86.303	68.003
06/24/2011 13:28:10	5.181	13.696	86.505	68.303
06/24/2011 13:28:19	5.2	13.674	86.505	68.303
06/24/2011 13:28:29	5.211	13.725	86.702	68.102
06/24/2011 13:28:39	5.167	13.722	86.702	68.102
06/24/2011 13:28:49	5.145	13.729	86.702	68.102
06/24/2011 13:28:59	5.156	13.685	86.904	68.102
06/24/2011 13:29:09	5.2	13.638	86.904	68.102
06/24/2011 13:29:20	5.262	13.59	86.904	68.303
06/24/2011 13:29:29	5.266	13.689	86.702	68.303
06/24/2011 13:29:39	5.174	13.802	86.904	68.303
06/24/2011 13:29:49	5.119	13.799	86.904	68.303
06/24/2011 13:30:00	5.126	13.751	86.702	68.303
06/24/2011 13:30:09	5.141	13.762	87.003	68.303
06/24/2011 13:30:19	5.119	13.784	87.003	68.102
06/24/2011 13:30:30	5.123	13.736	87.003	68.102
06/24/2011 13:30:39	5.126	13.799	87.003	68.303
06/24/2011 13:30:49	5.134	13.711	86.904	68.303
06/24/2011 13:30:59	5.181	13.729	86.904	68.102
End Run 5				
Average	**5.403**	**13.520**	**83.503**	**65.954**
Maximum	**5.969**	**13.868**	**87.003**	**68.303**
Minimum	**5.053**	**12.883**	**80.004**	**63.601**
06/24/2011 13:31:10	5.159	13.747	86.904	68.102
06/24/2011 13:31:19	5.152	13.725	86.904	68.102
06/24/2011 13:31:29	5.167	13.714	86.702	68.303
06/24/2011 13:31:40	5.196	13.692	86.702	68.303
06/24/2011 13:31:49	5.2	13.707	86.904	68.303
06/24/2011 13:31:59	5.126	13.828	86.904	68.303
06/24/2011 13:32:09	5.072	13.791	86.904	68.303
06/24/2011 13:32:20	5.09	13.802	86.904	68.303
06/24/2011 13:32:29	5.083	13.821	86.702	68.303
06/24/2011 13:32:39	5.108	13.747	86.702	68.303
06/24/2011 13:32:49	5.134	13.791	86.702	68.303
06/24/2011 13:32:59	5.083	13.835	86.702	68.303
06/24/2011 13:33:09	5.061	13.835	86.505	68.303
06/24/2011 13:33:19	5.083	13.784	86.505	68.102
06/24/2011 13:33:30	5.119	13.791	86.505	68.102
06/24/2011 13:33:39	5.108	13.791	86.303	68.102
06/24/2011 13:33:49	5.145	13.755	86.505	68.303
06/24/2011 13:33:59	5.156	13.747	86.505	68.303
06/24/2011 13:34:09	5.145	13.788	86.303	68.303
06/24/2011 13:34:19	5.137	13.766	86.505	68.303
06/24/2011 13:34:29	5.126	13.824	86.102	68.102
06/24/2011 13:34:40	5.086	13.817	86.303	68.102
06/24/2011 13:34:49	5.126	13.725	86.303	68.102
06/24/2011 13:34:59	5.218	13.597	86.303	68.102
06/24/2011 13:35:09	5.306	13.575	86.505	68.102
06/24/2011 13:35:19	5.31	13.619	86.702	68.102
06/24/2011 13:35:29	5.266	13.67	86.904	68.303
06/24/2011 13:35:39	5.247	13.619	86.904	68.102
06/24/2011 13:35:50	5.302	13.557	86.904	68.303
06/24/2011 13:35:59	5.28	13.667	86.904	68.303
06/24/2011 13:36:09	5.214	13.718	87.003	68.303
06/24/2011 13:36:19	5.178	13.725	86.904	68.303
06/24/2011 13:36:30	5.181	13.714	86.702	68.303
06/24/2011 13:36:39	5.192	13.736	86.904	68.303
06/24/2011 13:36:49	5.185	13.696	86.904	68.303
06/24/2011 13:37:00	5.181	13.696	86.904	68.303
06/24/2011 13:37:09	5.203	13.681	86.702	68.102
06/24/2011 13:37:19	5.244	13.634	86.702	68.102

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 13:37:29	5.328	13.495	86.505	68.102
06/24/2011 13:37:40	5.408	13.509	86.702	68.303
06/24/2011 13:37:49	5.39	13.539	86.904	68.303
06/24/2011 13:37:59	5.328	13.612	86.702	68.303
06/24/2011 13:38:09	5.288	13.616	86.702	68.303
06/24/2011 13:38:19	5.28	13.641	86.505	68.303
06/24/2011 13:38:29	5.233	13.681	86.505	68.303
06/24/2011 13:38:39	5.222	13.645	86.505	68.303
06/24/2011 13:38:50	5.24	13.67	86.303	68.102
06/24/2011 13:38:59	5.258	13.619	86.102	68.102
06/24/2011 13:39:09	5.288	13.645	86.102	68.102
06/24/2011 13:39:19	5.277	13.63	86.303	68.102
06/24/2011 13:39:29	5.262	13.67	86.303	68.102
06/24/2011 13:39:39	5.222	13.67	86.102	68.303
06/24/2011 13:39:49	5.244	13.619	86.303	68.303
06/24/2011 13:40:00	5.277	13.586	86.505	68.303
06/24/2011 13:40:09	5.269	13.627	86.505	68.303
06/24/2011 13:40:19	5.266	13.623	86.505	68.303
06/24/2011 13:40:29	5.266	13.63	86.505	68.303
06/24/2011 13:40:39	5.222	13.729	86.303	68.303
06/24/2011 13:40:49	5.09	4.281	86.505	68.501
Calibration Bias				
06/24/2011 13:40:59	1.988	0.303	86.505	68.501
06/24/2011 13:41:10	0.128	0.226	86.505	68.703
06/24/2011 13:41:19	0.054	0.193	86.303	68.703
06/24/2011 13:41:29	0.047	0.186	86.303	68.703
06/24/2011 13:41:39	0.04	0.168	86.303	68.703
06/24/2011 13:41:50	0.036	0.153	86.505	68.703
06/24/2011 13:41:59	0.036	0.142	86.702	68.703
N2 Zero	**0.037**	**0.154**	**86.503**	**68.703**
06/24/2011 13:42:09	3.01	8.518	86.702	68.501
06/24/2011 13:42:20	9.734	9.81	86.702	68.303
06/24/2011 13:42:29	10.971	9.847	86.702	68.303
06/24/2011 13:42:39	11.026	9.858	86.505	68.303
06/24/2011 13:42:49	11.037	9.873	86.505	68.303
06/24/2011 13:43:00	11.048	9.876	86.702	68.303
06/24/2011 13:43:09	11.048	9.884	86.505	68.303
11.1% O2/9.74% CO2 Mid	**11.044**	**9.878**	**86.571**	**68.303**
06/24/2011 13:43:19	9.063	13.513	86.702	68.303
06/24/2011 13:43:29	5.606	13.795	86.702	68.303
06/24/2011 13:43:39	5.119	13.747	86.702	68.102
06/24/2011 13:43:49	5.09	13.817	86.702	68.102
06/24/2011 13:43:59	5.068	13.817	86.702	68.102
06/24/2011 13:44:10	5.083	13.817	86.702	68.102
06/24/2011 13:44:19	5.09	13.788	86.702	68.102
06/24/2011 13:44:29	5.094	13.802	86.702	68.102
06/24/2011 13:44:39	5.101	13.806	86.303	68.102
06/24/2011 13:44:49	5.105	13.788	86.702	68.303
06/24/2011 13:44:59	5.105	13.777	86.702	68.303
06/24/2011 13:45:09	5.086	13.813	86.505	68.102
06/24/2011 13:45:20	5.072	13.799	86.702	68.102
06/24/2011 13:45:29	5.072	13.817	86.505	68.102
06/24/2011 13:45:39	5.083	13.802	86.505	68.102
06/24/2011 13:45:49	5.101	13.747	86.303	68.102
06/24/2011 13:45:59	5.112	13.802	86.505	68.102
06/24/2011 13:46:09	5.105	13.788	86.904	68.303
06/24/2011 13:46:19	5.105	13.795	86.904	68.102
06/24/2011 13:46:30	5.075	13.78	86.904	68.102
06/24/2011 13:46:39	5.083	13.795	86.702	68.102
06/24/2011 13:46:49	5.057	13.865	86.904	68.102
06/24/2011 13:46:59	5.046	13.813	86.904	68.102
06/24/2011 13:47:10	5.042	13.883	87.003	68.102
06/24/2011 13:47:19	5.006	13.876	86.702	68.102
06/24/2011 13:47:29	5.042	13.821	86.702	68.102
06/24/2011 13:47:40	5.101	13.758	86.505	68.102

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 13:47:49	5.152	13.696	86.505	68.102
06/24/2011 13:47:59	5.196	13.725	86.102	68.003
06/24/2011 13:48:09	5.156	13.74	86.303	68.003
06/24/2011 13:48:20	5.112	13.784	86.303	68.003
06/24/2011 13:48:29	5.123	13.769	86.303	68.003
06/24/2011 13:48:39	5.097	13.824	86.303	68.003
06/24/2011 13:48:49	5.083	13.799	86.505	68.003
06/24/2011 13:48:59	5.09	13.817	86.303	68.003
06/24/2011 13:49:09	5.083	13.817	86.303	68.003
06/24/2011 13:49:19	5.053	13.876	86.102	68.003
06/24/2011 13:49:30	4.998	13.883	86.102	68.003
06/24/2011 13:49:39	4.965	13.963	86.303	68.003
06/24/2011 13:49:49	4.914	13.963	86.303	68.102
06/24/2011 13:49:59	4.914	13.934	86.102	68.102
06/24/2011 13:50:09	4.973	13.868	86.303	68.102
06/24/2011 13:50:19	4.995	13.916	86.102	68.102
06/24/2011 13:50:29	4.936	13.956	86.303	68.102
06/24/2011 13:50:40	4.936	13.916	86.102	68.102
06/24/2011 13:50:49	4.954	13.905	86.102	68.102
06/24/2011 13:50:59	4.932	13.938	86.102	68.102
06/24/2011 13:51:09	4.903	14.007	86.303	68.102
06/24/2011 13:51:19	4.881	13.974	86.303	68.102
06/24/2011 13:51:29	4.885	13.996	86.505	68.102
06/24/2011 13:51:39	4.863	13.993	86.505	68.102
06/24/2011 13:51:50	4.848	14.015	86.505	68.102
06/24/2011 13:51:59	4.841	14.018	86.303	68.102
06/24/2011 13:52:09	4.877	13.945	86.303	68.102
06/24/2011 13:52:19	4.877	14.026	86.303	68.102
06/24/2011 13:52:30	4.819	14.051	86.505	68.102
06/24/2011 13:52:39	4.793	14.07	86.505	68.102
06/24/2011 13:52:49	4.823	14.022	86.505	68.102
06/24/2011 13:53:00	4.903	13.974	86.505	68.102
06/24/2011 13:53:09	4.94	13.945	86.702	68.102
06/24/2011 13:53:19	4.991	13.89	86.303	68.102
06/24/2011 13:53:29	5.039	13.854	86.303	68.102
06/24/2011 13:53:40	5.02	13.923	86.505	68.102
06/24/2011 13:53:49	4.991	13.905	86.904	68.102
06/24/2011 13:53:59	5.006	13.898	86.904	68.102
06/24/2011 13:54:10	5.006	13.919	86.904	68.102
06/24/2011 13:54:19	4.987	13.919	86.505	68.303
06/24/2011 13:54:29	4.984	13.876	86.702	68.303
06/24/2011 13:54:39	5.061	13.766	86.303	68.102
06/24/2011 13:54:50	5.097	13.865	86.505	68.303
06/24/2011 13:54:59	4.998	13.927	86.303	68.102
06/24/2011 13:55:09	4.969	13.887	86.102	68.102
06/24/2011 13:55:19	5.017	13.854	86.102	68.102
06/24/2011 13:55:29	5.075	13.766	86.102	68.102
06/24/2011 13:55:39	5.126	13.769	86.003	68.102
06/24/2011 13:55:49	5.068	13.868	86.102	68.102
06/24/2011 13:56:00	5.024	13.857	86.303	68.102
06/24/2011 13:56:09	5.064	13.791	86.303	68.303
06/24/2011 13:56:19	5.112	13.799	86.102	68.303
06/24/2011 13:56:29	5.105	13.813	86.102	68.303
06/24/2011 13:56:39	5.079	13.824	86.102	68.303
06/24/2011 13:56:49	5.094	13.736	86.102	68.303
06/24/2011 13:56:59	5.152	13.729	86.003	68.102
06/24/2011 13:57:10	5.148	13.747	86.003	68.102
06/24/2011 13:57:19	5.116	13.777	86.003	68.303
06/24/2011 13:57:29	5.112	13.799	86.003	68.102
06/24/2011 13:57:39	5.119	13.766	85.802	68.102
06/24/2011 13:57:49	5.163	13.725	86.003	68.102
06/24/2011 13:57:59	5.159	13.762	86.102	68.102
06/24/2011 13:58:09	5.13	13.762	86.102	68.102
06/24/2011 13:58:20	5.126	13.78	86.003	68.303
06/24/2011 13:58:29	5.108	13.773	86.102	68.303

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 13:58:39	5.137	13.744	86.102	68.303
06/24/2011 13:58:49	5.141	13.744	86.102	68.303
06/24/2011 13:59:00	5.145	13.762	86.303	68.303
06/24/2011 13:59:09	5.148	13.733	86.303	68.303
06/24/2011 13:59:19	5.181	13.681	86.003	68.303
06/24/2011 13:59:30	5.203	13.707	86.102	68.303
06/24/2011 13:59:39	5.17	13.758	86.303	68.303
06/24/2011 13:59:49	5.126	13.747	86.102	68.303
06/24/2011 13:59:59	5.141	13.78	86.003	68.303
06/24/2011 14:00:10	5.134	13.762	86.003	68.303
06/24/2011 14:00:19	5.123	13.806	86.003	68.303
06/24/2011 14:00:29	5.09	13.824	86.102	68.303
06/24/2011 14:00:39	5.068	13.828	86.102	68.303
06/24/2011 14:00:49	5.083	13.766	86.102	68.303
06/24/2011 14:00:59	5.108	13.773	86.303	68.303
06/24/2011 14:01:09	5.094	13.784	86.003	68.303
06/24/2011 14:01:20	5.108	13.769	86.102	68.102
06/24/2011 14:01:29	5.126	13.773	86.102	68.303
06/24/2011 14:01:39	5.148	13.714	86.003	68.303
06/24/2011 14:01:49	5.17	13.729	86.303	68.501
06/24/2011 14:01:59	5.156	13.755	86.303	68.303
06/24/2011 14:02:09	5.126	13.762	86.303	68.102
06/24/2011 14:02:19	5.145	13.733	86.505	68.303
06/24/2011 14:02:30	5.163	13.722	86.505	68.303
06/24/2011 14:02:39	5.196	13.678	86.702	68.303
06/24/2011 14:02:49	5.203	13.692	86.702	68.501
06/24/2011 14:02:59	5.203	13.692	86.303	68.303
06/24/2011 14:03:09	5.214	13.685	86.102	68.303
06/24/2011 14:03:19	5.214	13.714	86.003	68.303
06/24/2011 14:03:29	5.189	13.744	86.102	68.303
06/24/2011 14:03:40	5.156	13.799	86.303	68.303
06/24/2011 14:03:49	5.123	13.802	86.505	68.303
06/24/2011 14:03:59	5.13	13.762	86.303	68.303
06/24/2011 14:04:09	5.152	13.795	86.102	68.303
06/24/2011 14:04:20	5.13	13.799	86.102	68.303
06/24/2011 14:04:29	5.174	13.685	86.003	68.303
06/24/2011 14:04:39	5.258	13.656	86.003	68.303
06/24/2011 14:04:50	5.321	13.564	86.003	68.303
06/24/2011 14:04:59	5.376	13.531	86.003	68.303
06/24/2011 14:05:09	5.387	13.55	86.003	68.303
06/24/2011 14:05:19	5.339	13.608	86.003	68.303
06/24/2011 14:05:30	5.288	13.634	86.003	68.303
06/24/2011 14:05:39	5.269	13.638	86.303	68.303
06/24/2011 14:05:49	5.302	13.553	86.505	68.303
06/24/2011 14:05:59	5.368	13.509	86.303	68.303
06/24/2011 14:06:09	5.372	13.575	86.505	68.501
06/24/2011 14:06:19	5.295	13.605	86.303	68.501
06/24/2011 14:06:29	5.306	13.561	86.303	68.501
06/24/2011 14:06:40	5.317	13.586	86.505	68.501
06/24/2011 14:06:49	5.313	13.605	86.303	68.501
06/24/2011 14:06:59	5.266	13.692	86.102	68.303
06/24/2011 14:07:09	5.211	13.689	86.303	68.501
06/24/2011 14:07:19	5.214	13.67	86.303	68.501
06/24/2011 14:07:29	5.211	13.692	86.102	68.501
06/24/2011 14:07:39	5.233	13.623	86.102	68.303
06/24/2011 14:07:50	5.302	13.564	86.303	68.501
06/24/2011 14:07:59	5.31	13.63	86.303	68.303
06/24/2011 14:08:09	5.266	13.652	86.303	68.303
06/24/2011 14:08:19	5.211	13.747	86.102	68.303
06/24/2011 14:08:29	5.134	13.769	86.102	68.501
06/24/2011 14:08:39	5.17	13.667	86.303	68.303
06/24/2011 14:08:49	5.229	13.659	86.303	68.303
06/24/2011 14:09:00	5.258	13.616	86.505	68.303
06/24/2011 14:09:09	5.273	13.652	86.505	68.501
06/24/2011 14:09:19	5.295	13.586	86.303	68.501

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 14:09:29	5.354	13.564	86.303	68.303
06/24/2011 14:09:40	5.357	13.572	86.303	68.303
06/24/2011 14:09:49	5.335	13.572	86.505	68.303
06/24/2011 14:09:59	5.365	13.509	86.303	68.303
06/24/2011 14:10:10	5.423	13.476	86.505	68.303
06/24/2011 14:10:19	5.412	13.531	86.505	68.303
06/24/2011 14:10:29	5.339	13.601	86.505	68.303
06/24/2011 14:10:39	5.284	13.623	86.702	68.303
06/24/2011 14:10:50	5.295	13.594	86.505	68.501
06/24/2011 14:10:59	5.295	13.619	86.702	68.501
06/24/2011 14:11:09	5.288	13.616	86.505	68.303
06/24/2011 14:11:19	5.299	13.579	86.102	68.102
06/24/2011 14:11:29	5.324	13.546	86.003	68.102
06/24/2011 14:11:39	5.332	13.55	86.102	68.303
06/24/2011 14:11:49	5.317	13.594	86.303	68.303
06/24/2011 14:12:00	5.288	13.608	86.303	68.303
06/24/2011 14:12:09	5.24	13.725	86.702	68.501
06/24/2011 14:12:19	5.174	13.681	86.702	68.501
06/24/2011 14:12:29	5.222	13.605	86.702	68.303
06/24/2011 14:12:39	5.273	13.616	86.505	68.501
06/24/2011 14:12:49	5.288	13.59	86.303	68.501
06/24/2011 14:12:59	5.306	13.59	86.702	68.501
06/24/2011 14:13:10	5.306	13.59	86.702	68.303
06/24/2011 14:13:19	5.288	13.63	86.702	68.303
06/24/2011 14:13:29	5.269	13.627	86.904	68.303
06/24/2011 14:13:39	5.273	13.608	86.904	68.303
06/24/2011 14:13:49	5.317	13.55	86.904	68.303
06/24/2011 14:13:59	5.372	13.506	87.003	68.303
06/24/2011 14:14:09	5.405	13.491	86.904	68.303
06/24/2011 14:14:20	5.387	13.557	86.702	68.303
06/24/2011 14:14:29	5.357	13.575	86.505	68.303
06/24/2011 14:14:39	5.335	13.557	86.505	68.303
06/24/2011 14:14:49	5.335	13.568	86.702	68.303
06/24/2011 14:15:00	5.313	13.645	86.702	68.303
06/24/2011 14:15:09	5.288	13.59	86.702	68.303
06/24/2011 14:15:19	5.321	13.557	86.702	68.303
06/24/2011 14:15:30	5.328	13.564	86.702	68.303
06/24/2011 14:15:39	5.313	13.572	86.702	68.303
06/24/2011 14:15:49	5.324	13.542	86.702	68.303
06/24/2011 14:15:59	5.332	13.568	86.702	68.303
06/24/2011 14:16:10	5.273	13.605	86.702	68.303
06/24/2011 14:16:19	5.258	13.648	86.505	68.102
06/24/2011 14:16:29	5.266	13.616	86.102	68.303
06/24/2011 14:16:40	5.302	13.553	86.505	68.303
06/24/2011 14:16:49	5.299	13.648	86.505	68.102
06/24/2011 14:16:59	5.236	13.67	86.303	68.303
06/24/2011 14:17:09	5.225	13.645	86.505	68.303
06/24/2011 14:17:20	5.244	13.645	86.702	68.303
06/24/2011 14:17:29	5.288	13.564	86.505	68.102
06/24/2011 14:17:39	5.343	13.542	86.303	68.102
06/24/2011 14:17:49	5.321	13.616	86.505	68.102
06/24/2011 14:17:59	5.284	13.616	86.505	68.102
06/24/2011 14:18:09	5.262	13.648	86.102	68.102
06/24/2011 14:18:19	5.222	13.711	86.303	68.102
06/24/2011 14:18:30	5.2	13.689	86.702	68.303
06/24/2011 14:18:39	5.203	13.678	86.505	68.303
06/24/2011 14:18:49	5.225	13.652	86.505	68.303
06/24/2011 14:18:59	5.258	13.594	86.505	68.303
06/24/2011 14:19:09	5.291	13.586	86.505	68.303
06/24/2011 14:19:19	5.269	13.648	86.505	68.303
06/24/2011 14:19:29	5.236	13.656	86.303	68.303
06/24/2011 14:19:40	5.233	13.663	86.102	68.303
06/24/2011 14:19:49	5.225	13.656	86.303	68.303
06/24/2011 14:19:59	5.229	13.652	86.303	68.303
06/24/2011 14:20:09	5.255	13.608	86.303	68.303

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June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 14:20:19	5.313	13.542	86.303	68.303
06/24/2011 14:20:29	5.332	13.601	86.102	68.303
06/24/2011 14:20:39	5.247	13.725	86.303	68.303
06/24/2011 14:20:50	5.167	13.733	86.003	68.102
06/24/2011 14:20:59	5.225	13.619	86.102	68.102
06/24/2011 14:21:09	5.284	13.641	86.003	68.102
06/24/2011 14:21:19	5.273	13.638	86.003	68.303
06/24/2011 14:21:30	5.284	13.616	86.102	68.303
06/24/2011 14:21:39	5.288	13.645	86.303	68.303
06/24/2011 14:21:49	5.269	13.652	86.505	68.303
06/24/2011 14:22:00	5.277	13.605	86.505	68.102
06/24/2011 14:22:09	5.321	13.55	86.303	68.102
06/24/2011 14:22:19	5.379	13.506	86.102	68.102
06/24/2011 14:22:29	5.398	13.517	86.303	68.102
06/24/2011 14:22:40	5.398	13.491	86.303	68.303
06/24/2011 14:22:49	5.405	13.476	86.303	68.303
06/24/2011 14:22:59	5.357	13.586	86.102	68.303
06/24/2011 14:23:09	5.291	13.616	86.303	68.303
06/24/2011 14:23:19	5.284	13.586	86.505	68.303
06/24/2011 14:23:29	5.295	13.605	86.505	68.303
06/24/2011 14:23:39	5.247	13.692	86.303	68.303
06/24/2011 14:23:50	5.247	13.612	86.702	68.303
06/24/2011 14:23:59	5.277	13.645	86.505	68.303
06/24/2011 14:24:09	5.214	13.711	86.303	68.303
06/24/2011 14:24:19	5.178	13.729	86.303	68.303
06/24/2011 14:24:29	5.159	13.744	86.505	68.303
06/24/2011 14:24:39	5.126	13.795	86.102	68.303
06/24/2011 14:24:49	5.108	13.769	86.505	68.303
06/24/2011 14:25:00	5.13	13.762	86.505	68.303
06/24/2011 14:25:09	5.112	13.806	86.505	68.303
06/24/2011 14:25:19	5.097	13.802	86.303	68.102
06/24/2011 14:25:29	5.108	13.736	86.303	68.303
06/24/2011 14:25:39	5.148	13.703	86.303	68.102
06/24/2011 14:25:49	5.17	13.733	86.505	68.303
06/24/2011 14:25:59	5.134	13.751	86.505	68.303
06/24/2011 14:26:10	5.159	13.667	86.505	68.303
06/24/2011 14:26:19	5.236	13.608	86.505	68.303
06/24/2011 14:26:29	5.291	13.557	86.505	68.303
06/24/2011 14:26:39	5.324	13.564	86.505	68.102
06/24/2011 14:26:50	5.313	13.597	86.505	68.102
06/24/2011 14:26:59	5.247	13.685	86.702	68.102
06/24/2011 14:27:09	5.196	13.7	86.702	68.303
06/24/2011 14:27:20	5.178	13.718	86.702	68.303
06/24/2011 14:27:29	5.181	13.689	86.505	68.303
06/24/2011 14:27:39	5.203	13.689	86.303	68.102
06/24/2011 14:27:49	5.203	13.67	86.303	68.102
06/24/2011 14:28:00	5.244	13.608	86.303	68.102
06/24/2011 14:28:09	5.284	13.616	86.505	68.102
06/24/2011 14:28:19	5.284	13.616	86.505	68.102
06/24/2011 14:28:29	5.28	13.641	86.505	68.102
06/24/2011 14:28:39	5.222	13.696	86.303	68.102
06/24/2011 14:28:49	5.211	13.641	86.303	68.102
06/24/2011 14:28:59	5.214	13.696	86.505	68.303
06/24/2011 14:29:10	5.181	13.722	86.102	68.102
06/24/2011 14:29:19	5.189	13.678	86.102	68.102
06/24/2011 14:29:29	5.185	13.718	86.102	68.303
06/24/2011 14:29:39	5.244	13.605	86.303	68.102
06/24/2011 14:29:49	5.284	13.627	86.303	68.303
06/24/2011 14:29:59	5.244	13.67	86.102	68.102
06/24/2011 14:30:09	5.229	13.638	86.102	68.303
06/24/2011 14:30:20	5.273	13.568	86.102	68.102
06/24/2011 14:30:29	5.31	13.575	86.303	68.501
06/24/2011 14:30:39	5.332	13.561	86.303	68.501
06/24/2011 14:30:49	5.368	13.484	86.505	68.501
06/24/2011 14:30:59	5.376	13.572	86.102	68.102

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 14:31:09	5.28	13.641	86.003	68.303
06/24/2011 14:31:19	5.222	13.707	86.102	68.303
06/24/2011 14:31:30	5.196	13.678	86.102	68.303
06/24/2011 14:31:39	5.203	13.659	86.003	68.303
06/24/2011 14:31:49	5.262	13.583	86.102	68.303
06/24/2011 14:31:59	5.302	13.608	86.303	68.303
06/24/2011 14:32:10	5.291	13.597	86.303	68.303
06/24/2011 14:32:19	5.284	13.579	86.303	68.303
06/24/2011 14:32:29	5.299	13.605	86.303	68.303
06/24/2011 14:32:40	5.284	13.623	86.303	68.102
06/24/2011 14:32:49	5.251	13.659	86.505	68.102
06/24/2011 14:32:59	5.233	13.648	86.505	68.102
06/24/2011 14:33:09	5.277	13.605	86.702	68.501
06/24/2011 14:33:20	5.288	13.63	86.505	68.303
06/24/2011 14:33:29	5.262	13.627	86.303	68.303
06/24/2011 14:33:39	5.288	13.557	86.102	68.303
06/24/2011 14:33:49	5.39	13.432	86.102	68.003
06/24/2011 14:33:59	5.489	13.388	86.003	68.102
06/24/2011 14:34:09	5.482	13.484	86.102	68.303
06/24/2011 14:34:19	5.412	13.509	86.303	68.303
06/24/2011 14:34:30	5.387	13.491	86.303	68.303
06/24/2011 14:34:39	5.39	13.502	86.303	68.303
06/24/2011 14:34:49	5.365	13.583	86.102	68.303
06/24/2011 14:34:59	5.313	13.572	86.102	68.303
06/24/2011 14:35:09	5.321	13.546	86.102	68.303
06/24/2011 14:35:19	5.346	13.586	86.303	68.303
06/24/2011 14:35:29	5.306	13.605	86.303	68.303
06/24/2011 14:35:40	5.302	13.564	86.505	68.102
06/24/2011 14:35:49	5.302	13.608	86.505	68.102
06/24/2011 14:35:59	5.306	13.546	86.702	68.303
06/24/2011 14:36:09	5.328	13.641	86.505	68.303
06/24/2011 14:36:19	5.218	13.839	86.702	68.303
06/24/2011 14:36:29	5.09	13.876	86.505	68.303
06/24/2011 14:36:39	5.09	13.766	86.303	68.303
06/24/2011 14:36:50	5.148	13.689	86.102	68.102
06/24/2011 14:36:59	5.214	13.568	86.505	68.303
06/24/2011 14:37:09	5.31	13.484	86.505	68.303
06/24/2011 14:37:19	5.398	13.407	86.303	68.303
06/24/2011 14:37:30	5.511	13.308	86.303	68.303
06/24/2011 14:37:39	5.522	13.396	86.303	68.303
06/24/2011 14:37:49	5.471	13.44	86.505	68.303
06/24/2011 14:38:00	5.441	13.469	86.303	68.303
06/24/2011 14:38:09	5.401	13.513	86.303	68.303
06/24/2011 14:38:19	5.35	13.546	86.303	68.303
06/24/2011 14:38:29	5.343	13.509	86.505	68.303
06/24/2011 14:38:40	5.39	13.462	86.505	68.303
06/24/2011 14:38:49	5.467	13.377	86.702	68.303
06/24/2011 14:38:59	5.518	13.352	86.702	68.303
06/24/2011 14:39:10	5.548	13.345	86.702	68.303
06/24/2011 14:39:19	5.57	13.312	86.505	68.303
06/24/2011 14:39:29	5.551	13.396	86.505	68.303
06/24/2011 14:39:39	5.467	13.451	86.505	68.303
06/24/2011 14:39:50	5.434	13.454	86.505	68.303
06/24/2011 14:39:59	5.419	13.48	86.303	68.303
06/24/2011 14:40:09	5.405	13.465	86.505	68.303
06/24/2011 14:40:19	5.43	13.429	86.702	68.303
06/24/2011 14:40:29	5.482	13.352	86.505	68.303
06/24/2011 14:40:39	5.518	13.345	86.505	68.303
06/24/2011 14:40:49	5.548	13.345	86.505	68.303
06/24/2011 14:41:00	5.57	13.345	86.904	68.303
06/24/2011 14:41:09	5.559	13.323	86.904	68.303
06/24/2011 14:41:19	5.584	13.275	86.702	68.501
06/24/2011 14:41:29	5.614	13.264	86.505	68.501
06/24/2011 14:41:39	5.592	13.323	86.505	68.501
06/24/2011 14:41:49	5.559	13.33	86.303	68.501

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 14:41:59	5.573	13.337	86.303	68.501
06/24/2011 14:42:10	5.588	13.301	86.303	68.501
06/24/2011 14:42:19	5.636	13.242	86.505	68.501
06/24/2011 14:42:29	5.676	13.198	86.505	68.501
06/24/2011 14:42:39	5.705	13.183	86.303	68.501
06/24/2011 14:42:49	5.76	13.139	86.303	68.501
06/24/2011 14:42:59	5.789	13.143	86.505	68.501
06/24/2011 14:43:09	5.804	13.11	86.702	68.303
06/24/2011 14:43:20	5.822	13.07	86.702	68.501
06/24/2011 14:43:29	5.822	13.059	86.505	68.501
06/24/2011 14:43:39	5.815	13.066	86.505	68.501
06/24/2011 14:43:49	5.815	13.074	86.505	68.501
06/24/2011 14:44:00	5.83	13.07	86.505	68.501
06/24/2011 14:44:09	5.83	13.074	86.505	68.703
06/24/2011 14:44:19	5.819	13.085	86.702	68.501
06/24/2011 14:44:30	5.841	13.022	86.702	68.501
06/24/2011 14:44:39	5.855	13.088	86.702	68.501
06/24/2011 14:44:49	5.808	13.136	86.702	68.501
06/24/2011 14:44:59	5.778	13.114	86.505	68.501
06/24/2011 14:45:10	5.8	13.092	86.303	68.303
06/24/2011 14:45:19	5.789	13.128	86.505	68.303
06/24/2011 14:45:29	5.782	13.106	86.505	68.303
06/24/2011 14:45:39	5.756	13.183	86.505	68.501
06/24/2011 14:45:49	5.72	13.187	86.303	68.501
06/24/2011 14:45:59	5.727	13.172	86.303	68.501
06/24/2011 14:46:09	5.698	13.209	86.303	68.501
06/24/2011 14:46:20	5.687	13.15	86.102	68.501
06/24/2011 14:46:29	5.734	13.128	86.303	68.501
06/24/2011 14:46:39	5.727	13.165	86.303	68.501
06/24/2011 14:46:49	5.727	13.117	86.303	68.501
06/24/2011 14:46:59	5.756	13.095	86.505	68.501
06/24/2011 14:47:09	5.756	13.15	86.505	68.501
06/24/2011 14:47:19	5.723	13.121	86.303	68.501
06/24/2011 14:47:30	5.767	13.085	86.102	68.501
06/24/2011 14:47:39	5.804	13.019	86.303	68.501
06/24/2011 14:47:49	5.837	13.022	86.505	68.501
06/24/2011 14:47:59	5.866	13.015	86.303	68.501
06/24/2011 14:48:09	5.874	13.03	86.505	68.501
06/24/2011 14:48:19	5.866	13.044	86.505	68.501
06/24/2011 14:48:29	5.833	13.085	86.505	68.501
06/24/2011 14:48:40	5.797	13.121	86.505	68.501
06/24/2011 14:48:49	5.756	13.161	86.505	68.703
06/24/2011 14:48:59	5.72	13.176	86.303	68.703
06/24/2011 14:49:09	5.727	13.128	86.505	68.501
06/24/2011 14:49:20	5.789	13.055	86.702	68.501
06/24/2011 14:49:29	5.83	13.033	86.702	68.501
06/24/2011 14:49:39	5.83	13.074	86.904	68.501
06/24/2011 14:49:50	5.782	13.117	86.702	68.501
06/24/2011 14:49:59	5.734	13.18	86.702	68.501
06/24/2011 14:50:09	5.727	13.125	86.702	68.501
06/24/2011 14:50:19	5.767	13.106	86.702	68.501
06/24/2011 14:50:30	5.764	13.085	86.505	68.303
06/24/2011 14:50:39	5.786	13.077	86.505	68.303
06/24/2011 14:50:49	5.76	13.172	86.505	68.303
06/24/2011 14:50:59	5.723	13.136	86.505	68.501
06/24/2011 14:51:09	5.745	13.128	86.702	68.501
06/24/2011 14:51:19	5.767	13.07	86.904	68.501
06/24/2011 14:51:29	5.793	13.099	86.904	68.703
06/24/2011 14:51:40	5.797	13.095	86.702	68.501
06/24/2011 14:51:49	5.797	13.074	86.904	68.501
06/24/2011 14:51:59	5.808	13.052	86.904	68.501
06/24/2011 14:52:09	5.815	13.063	87.003	68.501
06/24/2011 14:52:19	5.8	13.092	86.904	68.501
06/24/2011 14:52:29	5.782	13.103	87.003	68.703
06/24/2011 14:52:39	5.789	13.092	86.904	68.703

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 14:52:50	5.8	13.048	86.904	68.703
06/24/2011 14:52:59	5.844	12.993	86.904	68.501
06/24/2011 14:53:09	5.888	12.989	86.904	68.501
06/24/2011 14:53:19	5.903	12.982	86.904	68.501
06/24/2011 14:53:29	5.888	13.011	86.904	68.501
06/24/2011 14:53:39	5.877	13.004	86.904	68.501
06/24/2011 14:53:49	5.874	12.989	86.904	68.501
06/24/2011 14:54:00	5.914	12.949	86.904	68.501
06/24/2011 14:54:09	5.925	12.971	86.904	68.501
06/24/2011 14:54:19	5.903	12.989	86.904	68.501
06/24/2011 14:54:29	5.885	13.015	86.702	68.501
06/24/2011 14:54:40	5.87	13.019	86.702	68.501
06/24/2011 14:54:49	5.855	13.03	86.505	68.501
06/24/2011 14:54:59	5.855	13.022	86.702	68.501
06/24/2011 14:55:10	5.866	13.022	86.702	68.501
06/24/2011 14:55:19	5.866	13.026	86.702	68.501
06/24/2011 14:55:29	5.819	13.11	86.303	68.703
06/24/2011 14:55:39	5.753	13.165	86.102	68.501
06/24/2011 14:55:50	5.723	13.154	86.102	68.501
06/24/2011 14:55:59	5.72	13.121	86.102	68.501
06/24/2011 14:56:09	5.753	13.099	86.102	68.501
06/24/2011 14:56:19	5.782	13.085	85.802	68.501
06/24/2011 14:56:29	5.786	13.092	86.003	68.501
06/24/2011 14:56:39	5.782	13.088	86.505	68.703
06/24/2011 14:56:49	5.775	13.121	86.505	68.703
06/24/2011 14:57:00	5.767	13.07	86.505	68.703
06/24/2011 14:57:09	5.797	13.033	86.505	68.703
06/24/2011 14:57:19	5.8	13.077	86.505	68.703
06/24/2011 14:57:29	5.756	13.136	86.303	68.501
06/24/2011 14:57:39	5.72	13.132	86.505	68.501
06/24/2011 14:57:49	5.679	13.249	86.702	68.501
06/24/2011 14:57:59	5.592	13.279	86.702	68.501
06/24/2011 14:58:10	5.555	13.279	86.702	68.303
06/24/2011 14:58:19	5.621	13.15	86.702	68.303
06/24/2011 14:58:29	5.745	13.081	86.904	68.703
06/24/2011 14:58:39	5.764	13.114	86.904	68.501
06/24/2011 14:58:49	5.694	13.183	86.904	68.501
06/24/2011 14:58:59	5.639	13.238	86.505	68.501
06/24/2011 14:59:09	5.617	13.242	86.505	68.501
06/24/2011 14:59:20	5.617	13.257	86.702	68.501
06/24/2011 14:59:29	5.606	13.235	86.904	68.501
06/24/2011 14:59:39	5.639	13.205	87.003	68.501
06/24/2011 14:59:49	5.654	13.213	86.904	68.501
06/24/2011 15:00:00	5.625	13.227	86.904	68.501
06/24/2011 15:00:09	5.617	13.26	86.904	68.303
06/24/2011 15:00:19	5.606	13.253	86.904	68.303
06/24/2011 15:00:30	5.592	13.275	87.003	68.501
06/24/2011 15:00:39	5.599	13.216	87.204	68.703
06/24/2011 15:00:49	5.658	13.172	87.204	68.703
06/24/2011 15:00:59	5.65	13.235	86.904	68.501
06/24/2011 15:01:10	5.595	13.268	87.003	68.501
06/24/2011 15:01:19	5.595	13.249	87.003	68.703
06/24/2011 15:01:29	5.606	13.231	87.204	68.703
06/24/2011 15:01:40	5.61	13.246	87.003	68.501
06/24/2011 15:01:49	5.606	13.242	86.702	68.303
06/24/2011 15:01:59	5.632	13.187	86.702	68.501
06/24/2011 15:02:09	5.665	13.183	86.702	68.501
06/24/2011 15:02:20	5.661	13.191	86.505	68.501
06/24/2011 15:02:29	5.679	13.202	86.702	68.501
06/24/2011 15:02:39	5.676	13.22	86.702	68.501
06/24/2011 15:02:49	5.654	13.249	86.702	68.501
06/24/2011 15:02:59	5.639	13.216	86.505	68.501
06/24/2011 15:03:09	5.617	13.271	86.505	68.501
06/24/2011 15:03:19	5.577	13.326	86.505	68.501
06/24/2011 15:03:30	5.555	13.304	86.904	68.501

URS CEMs Raw Data
June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 15:03:39	5.584	13.257	87.003	68.501
06/24/2011 15:03:49	5.628	13.22	86.702	68.501
06/24/2011 15:03:59	5.639	13.257	86.904	68.703
06/24/2011 15:04:09	5.61	13.297	86.702	68.703
06/24/2011 15:04:19	5.581	13.279	87.003	68.703
06/24/2011 15:04:29	5.617	13.213	86.904	68.703
06/24/2011 15:04:40	5.647	13.257	86.904	68.501
06/24/2011 15:04:49	5.617	13.29	86.904	68.501
06/24/2011 15:04:59	5.562	13.337	86.505	68.501
06/24/2011 15:05:09	5.544	13.345	86.505	68.501
06/24/2011 15:05:19	5.518	13.366	86.303	68.501
06/24/2011 15:05:29	5.504	13.377	86.505	68.501
06/24/2011 15:05:39	5.474	13.418	86.702	68.501
06/24/2011 15:05:50	5.456	13.385	86.303	68.501
06/24/2011 15:05:59	5.496	13.341	86.702	68.501
06/24/2011 15:06:09	5.515	13.352	86.505	68.501
06/24/2011 15:06:19	5.482	13.41	86.702	68.501
06/24/2011 15:06:30	5.423	13.451	86.702	68.501
06/24/2011 15:06:39	5.387	13.458	86.702	68.501
06/24/2011 15:06:49	5.376	13.443	86.303	68.703
06/24/2011 15:07:00	5.39	13.458	86.303	68.703
06/24/2011 15:07:09	5.387	13.44	86.505	68.501
06/24/2011 15:07:19	5.427	13.399	86.505	68.501
06/24/2011 15:07:29	5.419	13.487	86.505	68.501
06/24/2011 15:07:40	5.383	13.425	86.303	68.501
06/24/2011 15:07:49	5.383	13.509	86.303	68.501
06/24/2011 15:07:59	5.317	13.517	86.505	68.501
06/24/2011 15:08:09	5.324	13.502	86.702	68.501
06/24/2011 15:08:19	5.313	13.583	86.702	68.501
06/24/2011 15:08:29	5.284	13.564	86.702	68.501
06/24/2011 15:08:39	5.321	13.484	86.702	68.501
06/24/2011 15:08:50	5.365	13.506	86.702	68.501
06/24/2011 15:08:59	5.328	13.524	86.702	68.501
06/24/2011 15:09:09	5.321	13.52	86.702	68.501
06/24/2011 15:09:19	5.343	13.495	86.702	68.501
06/24/2011 15:09:29	5.354	13.52	86.702	68.501
06/24/2011 15:09:39	5.35	13.517	86.702	68.501
06/24/2011 15:09:49	5.368	13.462	86.702	68.501
06/24/2011 15:10:00	5.441	13.366	86.702	68.501
06/24/2011 15:10:09	5.482	13.396	86.702	68.501
06/24/2011 15:10:19	5.452	13.458	86.702	68.501
06/24/2011 15:10:29	5.408	13.454	86.702	68.501
06/24/2011 15:10:39	5.452	13.388	86.904	68.501
06/24/2011 15:10:49	5.489	13.377	86.904	68.501
06/24/2011 15:10:59	5.482	13.418	86.904	68.501
06/24/2011 15:11:10	5.445	13.451	86.702	68.501
06/24/2011 15:11:19	5.427	13.454	86.505	68.501
06/24/2011 15:11:29	5.412	13.487	86.702	68.501
06/24/2011 15:11:39	5.401	13.495	86.505	68.501
06/24/2011 15:11:50	5.408	13.44	86.303	68.501
06/24/2011 15:11:59	5.471	13.392	86.505	68.501
06/24/2011 15:12:09	5.507	13.33	86.505	68.501
06/24/2011 15:12:20	5.522	13.334	86.702	68.501
06/24/2011 15:12:29	5.529	13.348	86.904	68.501
06/24/2011 15:12:39	5.592	13.253	86.904	68.501
06/24/2011 15:12:49	5.701	13.132	86.904	68.501
06/24/2011 15:13:00	5.756	13.011	86.904	68.501
06/24/2011 15:13:09	5.819	13.147	86.702	68.501
06/24/2011 15:13:19	5.8	13.117	86.702	68.501
06/24/2011 15:13:29	5.712	13.121	86.702	68.501
06/24/2011 15:13:39	5.764	13.15	86.904	68.501
06/24/2011 15:13:49	5.775	13.044	86.702	68.501
06/24/2011 15:13:59	5.789	13.07	86.505	68.501
06/24/2011 15:14:10	5.778	13.092	86.505	68.501
06/24/2011 15:14:19	5.676	13.231	86.505	68.501

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 15:14:29	5.701	12.96	86.505	68.501
06/24/2011 15:14:39	5.731	13.341	86.702	68.501
06/24/2011 15:14:49	5.507	13.33	86.702	68.501
06/24/2011 15:14:59	5.518	13.337	86.702	68.501
06/24/2011 15:15:09	5.548	13.337	86.303	68.501
06/24/2011 15:15:20	5.533	13.312	86.505	68.501
06/24/2011 15:15:29	5.555	13.275	86.505	68.501
06/24/2011 15:15:39	5.478	13.465	86.505	68.501
06/24/2011 15:15:49	5.441	13.356	86.505	68.501
06/24/2011 15:15:59	5.496	13.323	86.904	68.501
06/24/2011 15:16:09	5.485	13.385	86.702	68.501
06/24/2011 15:16:19	5.46	13.399	86.702	68.501
06/24/2011 15:16:30	5.463	13.363	86.702	68.501
06/24/2011 15:16:39	5.441	13.377	86.702	68.501
06/24/2011 15:16:49	5.441	13.451	86.904	68.501
06/24/2011 15:16:59	5.401	13.465	86.702	68.501
06/24/2011 15:17:10	5.361	13.509	86.702	68.501
06/24/2011 15:17:19	5.346	13.469	86.904	68.501
06/24/2011 15:17:29	5.35	13.506	86.904	68.501
06/24/2011 15:17:40	5.35	13.44	86.904	68.501
06/24/2011 15:17:49	5.343	13.495	86.904	68.501
06/24/2011 15:17:59	5.405	13.377	87.003	68.501
06/24/2011 15:18:09	5.398	13.553	86.904	68.501
06/24/2011 15:18:20	5.313	13.487	87.003	68.501
06/24/2011 15:18:29	5.401	13.392	86.904	68.501
06/24/2011 15:18:39	5.379	13.465	86.702	68.501
06/24/2011 15:18:49	5.357	13.498	86.904	68.501
06/24/2011 15:18:59	5.302	13.612	86.904	68.501
06/24/2011 15:19:09	5.225	13.579	86.702	68.501
06/24/2011 15:19:19	5.24	13.623	86.904	68.501
06/24/2011 15:19:30	5.244	13.542	86.904	68.501
06/24/2011 15:19:39	5.262	13.67	87.003	68.501
06/24/2011 15:19:49	5.159	13.736	87.003	68.501
06/24/2011 15:19:59	5.203	13.583	86.904	68.501
Start Run 6				
06/24/2011 15:20:09	5.28	13.638	86.904	68.501
06/24/2011 15:20:19	5.313	13.586	86.904	68.501
06/24/2011 15:20:29	5.31	13.601	86.702	68.501
06/24/2011 15:20:40	5.266	13.634	87.003	68.501
06/24/2011 15:20:49	5.247	13.605	87.003	68.501
06/24/2011 15:20:59	5.302	13.531	86.904	68.501
06/24/2011 15:21:09	5.328	13.564	86.702	68.501
06/24/2011 15:21:19	5.346	13.52	86.904	68.501
06/24/2011 15:21:29	5.31	13.612	86.702	68.501
06/24/2011 15:21:39	5.262	13.568	86.505	68.501
06/24/2011 15:21:50	5.291	13.568	86.702	68.501
06/24/2011 15:21:59	5.321	13.498	86.702	68.501
06/24/2011 15:22:09	5.291	13.681	86.904	68.501
06/24/2011 15:22:19	5.225	13.579	86.904	68.501
06/24/2011 15:22:30	5.299	13.513	87.003	68.501
06/24/2011 15:22:39	5.321	13.473	86.904	68.501
06/24/2011 15:22:49	5.299	13.619	86.904	68.501
06/24/2011 15:23:00	5.174	13.747	86.702	68.501
06/24/2011 15:23:09	5.101	13.729	86.702	68.501
06/24/2011 15:23:19	5.148	13.736	86.505	68.501
06/24/2011 15:23:29	5.141	13.7	86.505	68.501
06/24/2011 15:23:40	5.167	13.67	86.702	68.501
06/24/2011 15:23:49	5.126	13.813	86.904	68.703
06/24/2011 15:23:59	5.053	13.747	87.003	68.703
06/24/2011 15:24:10	5.017	13.868	87.003	68.703
06/24/2011 15:24:19	4.984	13.832	86.904	68.703
06/24/2011 15:24:29	5.057	13.806	87.003	68.703
06/24/2011 15:24:39	5.079	13.769	87.003	68.703
06/24/2011 15:24:50	5.108	13.758	87.003	68.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 15:24:59	5.13	13.74	86.904	68.703
06/24/2011 15:25:09	5.064	13.846	86.904	68.703
06/24/2011 15:25:19	5.039	13.766	87.003	68.703
06/24/2011 15:25:29	5.05	13.828	86.904	68.703
06/24/2011 15:25:39	5.068	13.78	86.702	68.703
06/24/2011 15:25:49	5.112	13.769	86.702	68.703
06/24/2011 15:26:00	5.119	13.711	86.904	68.501
06/24/2011 15:26:09	5.105	13.799	87.003	68.501
06/24/2011 15:26:19	4.995	13.927	87.003	68.501
06/24/2011 15:26:29	4.936	13.934	87.003	68.501
06/24/2011 15:26:39	4.91	13.967	87.003	68.501
06/24/2011 15:26:49	4.903	13.956	87.003	68.703
06/24/2011 15:26:59	4.962	13.861	86.904	68.501
06/24/2011 15:27:10	4.984	13.938	87.003	68.703
06/24/2011 15:27:19	4.903	13.941	87.003	68.703
06/24/2011 15:27:29	4.976	13.755	87.003	68.703
06/24/2011 15:27:39	5.024	13.865	87.003	68.703
06/24/2011 15:27:49	4.936	13.916	86.904	68.501
06/24/2011 15:27:59	4.914	13.963	86.702	68.501
06/24/2011 15:28:09	4.845	14.037	86.904	68.703
06/24/2011 15:28:20	4.804	14.048	86.702	68.703
06/24/2011 15:28:29	4.812	13.996	86.702	68.703
06/24/2011 15:28:39	4.866	13.967	86.505	68.501
06/24/2011 15:28:49	4.848	14.055	86.702	68.703
06/24/2011 15:29:00	4.801	14.07	86.904	68.501
06/24/2011 15:29:09	4.812	14.007	87.003	68.501
06/24/2011 15:29:19	4.907	13.905	87.003	68.703
06/24/2011 15:29:30	4.995	13.85	87.204	68.703
06/24/2011 15:29:39	5.039	13.769	87.003	68.703
06/24/2011 15:29:49	5.017	13.905	87.204	68.703
06/24/2011 15:29:59	4.885	14.007	87.003	68.703
06/24/2011 15:30:10	4.841	14.044	87.204	68.703
06/24/2011 15:30:19	4.771	14.099	87.204	68.703
06/24/2011 15:30:29	4.742	14.128	86.904	68.703
06/24/2011 15:30:39	4.746	14.044	86.904	68.703
06/24/2011 15:30:49	4.753	14.231	86.904	68.703
06/24/2011 15:30:59	4.665	14.194	87.003	68.703
06/24/2011 15:31:09	4.716	14.081	86.904	68.501
06/24/2011 15:31:20	4.746	14.117	87.204	68.501
06/24/2011 15:31:29	4.694	14.161	87.402	68.904
06/24/2011 15:31:39	4.676	14.172	87.402	68.703
06/24/2011 15:31:49	4.588	14.359	87.603	68.703
06/24/2011 15:31:59	4.489	14.381	87.603	68.703
06/24/2011 15:32:09	4.467	14.337	87.402	68.904
06/24/2011 15:32:19	4.584	14.169	87.402	68.703
06/24/2011 15:32:30	4.676	14.216	87.402	68.703
06/24/2011 15:32:39	4.632	14.209	87.402	68.904
06/24/2011 15:32:49	4.599	14.205	87.204	68.904
06/24/2011 15:32:59	4.595	14.242	87.204	68.904
06/24/2011 15:33:09	4.577	14.275	87.402	68.904
06/24/2011 15:33:19	4.5	14.388	87.402	68.904
06/24/2011 15:33:29	4.519	14.223	87.204	68.904
06/24/2011 15:33:40	4.595	14.216	87.402	68.904
06/24/2011 15:33:49	4.588	14.286	87.003	68.703
06/24/2011 15:33:59	4.581	14.337	87.003	68.703
06/24/2011 15:34:09	4.416	14.516	86.904	68.904
06/24/2011 15:34:20	4.302	14.498	87.003	69.003
06/24/2011 15:34:29	4.335	14.483	87.003	69.003
06/24/2011 15:34:39	4.332	14.505	87.003	69.003
06/24/2011 15:34:50	4.328	14.494	87.204	69.003
06/24/2011 15:34:59	4.354	14.429	87.204	68.904
06/24/2011 15:35:09	4.427	14.41	87.402	68.904
06/24/2011 15:35:19	4.416	14.469	87.204	68.904
06/24/2011 15:35:30	4.368	14.476	87.003	68.703
06/24/2011 15:35:39	4.379	14.458	87.204	68.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 15:35:49	4.405	14.418	87.402	69.003
06/24/2011 15:35:59	4.423	14.458	87.204	68.904
06/24/2011 15:36:09	4.372	14.524	86.904	68.904
06/24/2011 15:36:19	4.295	14.579	86.904	68.904
06/24/2011 15:36:29	4.288	14.52	86.904	68.904
06/24/2011 15:36:40	4.299	14.542	86.904	68.904
06/24/2011 15:36:49	4.306	14.542	86.904	68.904
06/24/2011 15:36:59	4.321	14.494	86.904	68.904
06/24/2011 15:37:09	4.35	14.458	87.204	68.904
06/24/2011 15:37:19	4.405	14.385	87.204	68.904
06/24/2011 15:37:29	4.464	14.348	87.204	69.003
06/24/2011 15:37:39	4.445	14.425	87.204	68.904
06/24/2011 15:37:50	4.383	14.443	87.003	68.904
06/24/2011 15:37:59	4.372	14.425	87.003	68.904
06/24/2011 15:38:09	4.401	14.418	87.003	68.904
06/24/2011 15:38:19	4.376	14.487	87.402	68.904
06/24/2011 15:38:29	4.354	14.494	87.204	68.904
06/24/2011 15:38:39	4.302	14.531	87.003	68.904
06/24/2011 15:38:49	4.295	14.527	87.003	68.904
06/24/2011 15:39:00	4.302	14.535	86.904	68.904
06/24/2011 15:39:09	4.302	14.513	86.904	68.904
06/24/2011 15:39:19	4.361	14.407	86.702	68.904
06/24/2011 15:39:29	4.438	14.396	86.702	68.703
06/24/2011 15:39:40	4.401	14.498	86.702	68.703
06/24/2011 15:39:49	4.321	14.538	87.003	68.904
06/24/2011 15:39:59	4.281	14.564	86.904	68.904
06/24/2011 15:40:10	4.251	14.586	86.904	68.904
06/24/2011 15:40:19	4.251	14.568	87.003	69.003
06/24/2011 15:40:29	4.251	14.586	86.904	69.003
06/24/2011 15:40:39	4.222	14.608	87.003	69.003
06/24/2011 15:40:50	4.215	14.586	86.904	69.003
06/24/2011 15:40:59	4.229	14.63	87.003	69.003
06/24/2011 15:41:09	4.226	14.597	87.003	68.904
06/24/2011 15:41:19	4.244	14.564	87.204	68.904
06/24/2011 15:41:29	4.262	14.564	87.204	68.904
06/24/2011 15:41:39	4.281	14.56	87.603	68.904
06/24/2011 15:41:49	4.295	14.516	87.402	68.904
06/24/2011 15:42:00	4.299	14.568	87.402	68.904
06/24/2011 15:42:09	4.277	14.568	87.204	68.904
06/24/2011 15:42:19	4.277	14.549	87.204	68.904
06/24/2011 15:42:29	4.284	14.557	87.204	68.904
06/24/2011 15:42:39	4.281	14.582	87.204	68.904
06/24/2011 15:42:49	4.255	14.575	87.204	68.904
06/24/2011 15:42:59	4.284	14.502	87.402	68.904
06/24/2011 15:43:10	4.368	14.421	87.204	68.904
06/24/2011 15:43:19	4.416	14.465	87.402	68.904
06/24/2011 15:43:29	4.379	14.483	87.204	68.904
06/24/2011 15:43:39	4.354	14.513	87.204	68.904
06/24/2011 15:43:49	4.346	14.483	87.402	68.904
06/24/2011 15:43:59	4.394	14.454	87.204	68.904
06/24/2011 15:44:09	4.416	14.443	87.003	68.904
06/24/2011 15:44:20	4.416	14.418	87.204	68.904
06/24/2011 15:44:29	4.442	14.363	87.204	68.904
06/24/2011 15:44:39	4.405	14.513	87.402	68.904
06/24/2011 15:44:49	4.313	14.571	87.204	68.904
06/24/2011 15:45:00	4.295	14.513	87.204	68.703
06/24/2011 15:45:09	4.324	14.502	87.204	68.904
06/24/2011 15:45:19	4.376	14.458	87.204	68.904
06/24/2011 15:45:30	4.423	14.407	87.204	68.904
06/24/2011 15:45:39	4.497	14.352	87.402	69.003
06/24/2011 15:45:49	4.537	14.359	87.603	68.904
06/24/2011 15:45:59	4.497	14.407	87.603	69.003
06/24/2011 15:46:10	4.456	14.421	87.603	69.003
06/24/2011 15:46:19	4.482	14.355	87.603	69.003
06/24/2011 15:46:29	4.563	14.256	87.204	69.003

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 15:46:40	4.625	14.256	87.204	69.003
06/24/2011 15:46:49	4.588	14.326	87.003	68.904
06/24/2011 15:46:59	4.537	14.341	87.204	68.904
06/24/2011 15:47:09	4.533	14.319	87.204	68.703
06/24/2011 15:47:20	4.541	14.341	87.402	69.003
06/24/2011 15:47:29	4.541	14.311	87.402	69.003
06/24/2011 15:47:39	4.541	14.333	87.603	68.904
06/24/2011 15:47:49	4.519	14.322	87.402	69.003
06/24/2011 15:47:59	4.519	14.337	87.003	68.904
06/24/2011 15:48:09	4.508	14.333	87.204	68.904
06/24/2011 15:48:19	4.526	14.3	87.402	69.003
06/24/2011 15:48:30	4.574	14.282	87.204	69.003
06/24/2011 15:48:39	4.559	14.322	87.003	68.904
06/24/2011 15:48:49	4.563	14.282	86.904	68.703
06/24/2011 15:48:59	4.61	14.238	87.003	68.703
06/24/2011 15:49:09	4.617	14.286	87.003	68.904
06/24/2011 15:49:19	4.563	14.319	87.204	69.003
06/24/2011 15:49:29	4.544	14.293	87.204	68.904
06/24/2011 15:49:40	4.584	14.253	87.204	68.904
06/24/2011 15:49:49	4.625	14.223	87.003	68.904
06/24/2011 15:49:59	4.632	14.245	87.204	69.003
06/24/2011 15:50:09	4.658	14.19	87.003	68.904
06/24/2011 15:50:19	4.691	14.165	87.003	68.904
06/24/2011 15:50:29	4.698	14.22	87.003	68.904
06/24/2011 15:50:39	4.716	14.018	87.003	68.904
06/24/2011 15:50:50	4.782	14.18	87.003	68.904
06/24/2011 15:50:59	4.698	14.216	87.003	68.904
06/24/2011 15:51:09	4.661	14.212	87.204	68.904
06/24/2011 15:51:19	4.672	14.15	87.204	68.904
06/24/2011 15:51:30	4.742	14.077	87.003	68.904
06/24/2011 15:51:39	4.764	14.125	87.204	68.904
06/24/2011 15:51:49	4.705	14.198	87.204	68.904
06/24/2011 15:52:00	4.654	14.209	87.204	68.904
06/24/2011 15:52:09	4.632	14.227	87.402	68.904
06/24/2011 15:52:19	4.647	14.19	87.603	68.904
06/24/2011 15:52:29	4.683	14.132	87.402	68.904
06/24/2011 15:52:40	4.727	14.136	87.603	69.003
06/24/2011 15:52:49	4.72	14.143	87.402	69.003
06/24/2011 15:52:59	4.738	14.132	87.402	69.003
06/24/2011 15:53:09	4.738	14.121	87.402	69.003
06/24/2011 15:53:19	4.801	14.037	87.204	68.904
06/24/2011 15:53:29	4.83	14.055	87.204	68.904
06/24/2011 15:53:39	4.793	14.117	87.204	68.904
06/24/2011 15:53:50	4.749	14.136	87.402	68.904
06/24/2011 15:53:59	4.76	14.11	87.402	69.003
06/24/2011 15:54:09	4.786	14.051	87.603	69.003
06/24/2011 15:54:19	4.837	14.007	87.603	69.003
06/24/2011 15:54:29	4.874	14.015	87.603	69.003
06/24/2011 15:54:39	4.921	13.919	87.805	69.003
06/24/2011 15:54:49	4.995	13.865	87.603	69.003
06/24/2011 15:55:00	5.024	13.857	87.603	68.904
06/24/2011 15:55:09	5.031	13.872	87.805	68.904
06/24/2011 15:55:19	5.009	13.912	87.904	68.904
06/24/2011 15:55:29	4.998	13.857	87.805	68.904
06/24/2011 15:55:39	4.965	13.971	87.402	68.904
06/24/2011 15:55:49	4.914	13.96	87.603	68.904
06/24/2011 15:55:59	4.954	13.887	87.603	68.904
06/24/2011 15:56:10	5.024	13.872	87.603	68.904
06/24/2011 15:56:19	5.028	13.883	87.402	69.003
06/24/2011 15:56:29	5.009	13.883	87.805	69.003
06/24/2011 15:56:39	5.006	13.879	87.805	69.003
06/24/2011 15:56:50	4.998	13.927	87.603	69.003
06/24/2011 15:56:59	4.987	13.923	87.603	69.003
06/24/2011 15:57:09	4.965	13.938	87.603	69.003
06/24/2011 15:57:20	4.991	13.872	87.402	69.003

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 15:57:29	5.035	13.843	87.603	69.003
06/24/2011 15:57:39	5.05	13.854	87.402	69.003
06/24/2011 15:57:49	5.053	13.795	87.603	69.003
06/24/2011 15:58:00	5.079	13.791	87.603	69.003
06/24/2011 15:58:09	5.116	13.707	87.603	69.003
06/24/2011 15:58:19	5.141	13.747	87.603	69.003
06/24/2011 15:58:29	5.097	13.832	87.402	69.003
06/24/2011 15:58:39	5.05	13.872	87.603	69.003
06/24/2011 15:58:49	5.05	13.81	87.402	69.003
06/24/2011 15:58:59	5.097	13.755	87.402	69.204
06/24/2011 15:59:10	5.119	13.802	87.603	69.003
06/24/2011 15:59:19	5.105	13.744	87.603	69.003
06/24/2011 15:59:29	5.119	13.762	87.402	69.003
06/24/2011 15:59:39	5.134	13.747	87.402	69.204
06/24/2011 15:59:49	5.141	13.725	87.402	69.204
06/24/2011 15:59:59	5.17	13.714	87.402	69.204
06/24/2011 16:00:09	5.185	13.67	87.603	69.402
06/24/2011 16:00:20	5.236	13.59	87.603	69.204
06/24/2011 16:00:29	5.28	13.597	87.805	69.402
06/24/2011 16:00:39	5.332	13.473	87.204	69.204
06/24/2011 16:00:49	5.408	13.517	87.402	69.003
06/24/2011 16:00:59	5.434	13.476	87.402	69.003
06/24/2011 16:01:09	5.416	13.454	87.402	69.003
06/24/2011 16:01:19	5.43	13.535	87.402	69.003
06/24/2011 16:01:30	5.306	13.659	87.402	69.003
06/24/2011 16:01:39	5.277	13.594	87.402	69.003
06/24/2011 16:01:49	5.324	13.531	87.603	69.003
06/24/2011 16:01:59	5.365	13.524	87.805	69.204
06/24/2011 16:02:10	5.35	13.553	87.603	69.204
06/24/2011 16:02:19	5.291	13.652	87.603	69.204
06/24/2011 16:02:29	5.258	13.597	87.603	69.204
06/24/2011 16:02:40	5.284	13.597	87.603	69.204
06/24/2011 16:02:49	5.299	13.583	87.603	69.003
06/24/2011 16:02:59	5.302	13.586	87.402	69.003
06/24/2011 16:03:09	5.317	13.579	87.204	69.003
06/24/2011 16:03:20	5.313	13.586	87.402	69.003
06/24/2011 16:03:29	5.302	13.612	87.603	69.204
06/24/2011 16:03:39	5.291	13.597	87.603	69.204
06/24/2011 16:03:49	5.299	13.601	87.402	69.204
06/24/2011 16:03:59	5.313	13.531	87.402	69.402
06/24/2011 16:04:09	5.354	13.531	87.402	69.204
06/24/2011 16:04:19	5.354	13.564	87.805	69.204
06/24/2011 16:04:30	5.35	13.513	87.603	69.402
06/24/2011 16:04:39	5.379	13.506	87.805	69.204
06/24/2011 16:04:49	5.376	13.517	87.603	69.204
06/24/2011 16:04:59	5.368	13.509	87.603	69.204
06/24/2011 16:05:09	5.376	13.506	87.402	69.204
06/24/2011 16:05:19	5.39	13.517	87.402	69.204
06/24/2011 16:05:29	5.379	13.517	87.603	69.204
06/24/2011 16:05:40	5.478	13.308	87.603	69.204
06/24/2011 16:05:49	5.581	13.37	87.402	69.204
06/24/2011 16:05:59	5.533	13.399	87.204	69.204
06/24/2011 16:06:09	5.485	13.462	87.204	69.204
06/24/2011 16:06:19	5.482	13.421	87.402	69.204
06/24/2011 16:06:29	5.522	13.356	87.603	69.204
06/24/2011 16:06:39	5.555	13.381	87.603	69.204
06/24/2011 16:06:50	5.529	13.385	87.603	69.204
06/24/2011 16:06:59	5.559	13.33	87.805	69.204
06/24/2011 16:07:09	5.592	13.293	87.402	69.402
06/24/2011 16:07:19	5.625	13.224	87.603	69.204
06/24/2011 16:07:30	5.658	13.249	87.603	69.402
06/24/2011 16:07:39	5.65	13.257	87.402	69.204
06/24/2011 16:07:49	5.643	13.242	87.603	69.204
06/24/2011 16:08:00	5.614	13.312	87.402	69.204
06/24/2011 16:08:09	5.599	13.242	87.805	69.204

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 16:08:19	5.628	13.257	87.805	69.204
06/24/2011 16:08:29	5.584	13.356	87.904	69.204
06/24/2011 16:08:40	5.548	13.304	87.805	69.204
06/24/2011 16:08:49	5.562	13.334	87.805	69.204
06/24/2011 16:08:59	5.559	13.315	87.805	69.003
06/24/2011 16:09:10	5.562	13.33	87.904	69.204
06/24/2011 16:09:19	5.533	13.352	87.603	69.204
06/24/2011 16:09:29	5.544	13.312	87.603	69.204
06/24/2011 16:09:39	5.621	13.246	87.603	69.003
06/24/2011 16:09:50	5.647	13.29	87.603	69.204
06/24/2011 16:09:59	5.566	13.366	87.603	69.204
06/24/2011 16:10:09	5.526	13.337	87.805	69.204
06/24/2011 16:10:19	5.566	13.304	87.603	69.003
06/24/2011 16:10:29	5.592	13.286	87.603	69.003
06/24/2011 16:10:39	5.639	13.103	87.904	69.204
06/24/2011 16:10:49	5.709	13.253	87.805	69.003
06/24/2011 16:11:00	5.643	13.279	87.603	69.204
06/24/2011 16:11:09	5.614	13.271	87.603	69.204
06/24/2011 16:11:19	5.592	13.345	87.805	69.204
06/24/2011 16:11:29	5.551	13.352	87.805	69.204
06/24/2011 16:11:39	5.537	13.326	87.603	69.204
06/24/2011 16:11:49	5.555	13.304	87.402	69.204
06/24/2011 16:11:59	5.588	13.29	87.603	69.204
06/24/2011 16:12:10	5.559	13.377	87.603	69.204
06/24/2011 16:12:19	5.529	13.341	87.603	69.204
06/24/2011 16:12:29	5.526	13.356	87.603	69.204
06/24/2011 16:12:39	5.504	13.425	87.805	69.204
06/24/2011 16:12:49	5.449	13.469	87.402	69.204
06/24/2011 16:12:59	5.416	13.451	87.603	69.204
06/24/2011 16:13:09	5.456	13.414	87.603	69.204
06/24/2011 16:13:20	5.5	13.388	87.402	69.204
06/24/2011 16:13:29	5.489	13.403	87.603	69.204
06/24/2011 16:13:39	5.489	13.396	87.402	69.204
06/24/2011 16:13:49	5.489	13.388	87.402	69.204
06/24/2011 16:14:00	5.456	13.458	87.402	69.204
06/24/2011 16:14:09	5.427	13.451	87.805	69.204
06/24/2011 16:14:19	5.449	13.432	87.603	69.402
06/24/2011 16:14:30	5.463	13.425	87.402	69.204
06/24/2011 16:14:39	5.526	13.216	87.603	69.204
06/24/2011 16:14:49	5.698	13.183	87.603	69.204
06/24/2011 16:14:59	5.636	13.304	87.603	69.204
06/24/2011 16:15:10	5.496	13.484	87.402	69.204
06/24/2011 16:15:19	5.434	13.41	87.402	69.204
06/24/2011 16:15:29	5.452	13.458	87.003	69.204
06/24/2011 16:15:39	5.419	13.513	86.904	69.204
06/24/2011 16:15:49	5.368	13.564	87.204	69.204
06/24/2011 16:15:59	5.35	13.513	87.402	69.402
06/24/2011 16:16:09	5.405	13.469	87.402	69.402
06/24/2011 16:16:20	5.456	13.432	87.603	69.402
06/24/2011 16:16:29	5.515	13.37	87.603	69.604
06/24/2011 16:16:39	5.533	13.366	87.402	69.604
06/24/2011 16:16:49	5.529	13.388	87.402	69.604
06/24/2011 16:16:59	5.504	13.41	87.402	69.604
06/24/2011 16:17:09	5.493	13.392	87.402	69.402
06/24/2011 16:17:19	5.496	13.366	87.402	69.402
06/24/2011 16:17:30	5.489	13.454	87.402	69.402
06/24/2011 16:17:39	5.445	13.425	87.402	69.402
06/24/2011 16:17:49	5.474	13.399	87.402	69.204
06/24/2011 16:17:59	5.467	13.418	87.603	69.204
06/24/2011 16:18:09	5.467	13.399	87.603	69.402
06/24/2011 16:18:19	5.489	13.352	87.402	69.402
06/24/2011 16:18:29	5.507	13.356	87.402	69.402
06/24/2011 16:18:40	5.529	13.366	87.402	69.402
06/24/2011 16:18:49	5.504	13.425	87.402	69.402
06/24/2011 16:18:59	5.419	13.546	87.402	69.402

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June 24, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 16:19:09	5.354	13.513	87.603	69.204
06/24/2011 16:19:20	5.394	13.458	87.402	69.204
06/24/2011 16:19:29	5.423	13.465	87.402	69.204
06/24/2011 16:19:39	5.398	13.52	87.402	69.204
06/24/2011 16:19:50	5.379	13.506	87.402	69.204
06/24/2011 16:19:59	5.339	13.605	87.603	69.204
06/24/2011 16:20:09	5.324	13.524	87.603	69.204
06/24/2011 16:20:19	5.372	13.498	87.805	69.204
06/24/2011 16:20:30	5.412	13.487	87.805	69.204
06/24/2011 16:20:39	5.434	13.429	87.805	69.204
06/24/2011 16:20:49	5.493	13.473	87.402	69.204
06/24/2011 16:20:59	5.452	13.403	87.402	69.204
06/24/2011 16:21:09	5.478	13.429	87.402	69.204
06/24/2011 16:21:19	5.515	13.392	87.402	69.402
06/24/2011 16:21:29	5.449	13.513	87.805	69.204
06/24/2011 16:21:40	5.372	13.539	87.603	69.204
06/24/2011 16:21:49	5.376	13.473	87.603	69.204
06/24/2011 16:21:59	5.438	13.359	87.603	69.204
06/24/2011 16:22:09	5.526	13.356	87.603	69.402
06/24/2011 16:22:19	5.504	13.403	87.402	69.204
06/24/2011 16:22:29	5.478	13.447	87.603	69.204
06/24/2011 16:22:39	5.383	13.502	87.603	69.204
06/24/2011 16:22:50	5.39	13.491	87.402	69.204
06/24/2011 16:22:59	5.405	13.469	87.402	69.204
06/24/2011 16:23:09	5.471	13.436	87.402	69.204
06/24/2011 16:23:19	5.467	13.385	87.204	69.204
06/24/2011 16:23:29	5.445	13.506	87.402	69.204
06/24/2011 16:23:39	5.419	13.443	87.402	69.204
06/24/2011 16:23:49	5.463	13.381	87.402	69.204
06/24/2011 16:24:00	5.467	13.473	87.603	69.402
06/24/2011 16:24:09	5.419	13.458	87.603	69.402
06/24/2011 16:24:19	5.401	13.561	87.805	69.402
06/24/2011 16:24:29	5.357	13.484	87.603	69.402
06/24/2011 16:24:40	5.361	13.608	87.805	69.402
06/24/2011 16:24:49	5.291	13.579	87.805	69.402
06/24/2011 16:24:59	5.419	13.443	87.805	69.402
06/24/2011 16:25:10	5.478	13.403	87.805	69.402
06/24/2011 16:25:19	5.452	13.44	87.805	69.204
06/24/2011 16:25:29	5.467	13.341	87.805	69.402
06/24/2011 16:25:39	5.5	13.498	87.603	69.204
06/24/2011 16:25:50	5.401	13.553	87.402	69.204
06/24/2011 16:25:59	5.361	13.542	87.204	69.204
06/24/2011 16:26:09	5.39	13.517	87.204	69.204
06/24/2011 16:26:19	5.427	13.418	87.402	69.204
06/24/2011 16:26:29	5.368	13.648	87.003	69.003
06/24/2011 16:26:39	5.361	13.377	87.003	69.204
06/24/2011 16:26:49	5.427	13.524	87.204	69.204
06/24/2011 16:27:00	5.379	13.55	87.204	69.204
06/24/2011 16:27:09	5.324	13.612	87.603	69.402
06/24/2011 16:27:19	5.28	13.63	87.603	69.402
06/24/2011 16:27:29	5.266	13.601	87.402	69.402
06/24/2011 16:27:39	5.328	13.561	87.204	69.204
06/24/2011 16:27:49	5.288	13.652	87.204	69.204
06/24/2011 16:27:59	5.255	13.55	87.204	69.204
06/24/2011 16:28:10	5.31	13.572	87.204	69.204
06/24/2011 16:28:19	5.28	13.638	87.204	69.204
06/24/2011 16:28:29	5.244	13.674	87.204	69.204
06/24/2011 16:28:39	5.233	13.575	87.402	69.402
06/24/2011 16:28:49	5.247	13.678	87.402	69.402
06/24/2011 16:28:59	5.2	13.648	87.204	69.204
06/24/2011 16:29:09	5.137	13.813	87.402	69.402
06/24/2011 16:29:20	5.083	13.725	87.402	69.402
06/24/2011 16:29:29	5.203	13.605	87.402	69.402
06/24/2011 16:29:39	5.273	13.605	87.204	69.204
06/24/2011 16:29:49	5.295	13.641	87.402	69.204

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 16:30:00	5.339	13.601	87.204	69.204
06/24/2011 16:30:09	5.233	13.762	87.402	69.204
06/24/2011 16:30:19	5.126	13.755	87.204	69.204
06/24/2011 16:30:30	5.156	13.703	87.204	69.204
06/24/2011 16:30:39	5.148	13.777	87.402	69.204
06/24/2011 16:30:49	5.2	13.59	87.204	69.204
06/24/2011 16:30:59	5.332	13.381	87.204	69.204
06/24/2011 16:31:10	5.43	13.509	87.402	69.204
06/24/2011 16:31:19	5.339	13.546	87.204	69.204
06/24/2011 16:31:29	5.269	13.652	87.003	69.204
06/24/2011 16:31:40	5.354	13.487	87.204	69.204
06/24/2011 16:31:49	5.398	13.473	87.402	69.204
06/24/2011 16:31:59	5.379	13.542	87.402	69.204
06/24/2011 16:32:09	5.376	13.48	87.402	69.204
06/24/2011 16:32:20	5.383	13.462	87.402	69.204
06/24/2011 16:32:29	5.354	13.667	87.402	69.204
06/24/2011 16:32:39	5.222	13.663	87.204	69.003
06/24/2011 16:32:49	5.284	13.539	87.402	69.204
06/24/2011 16:32:59	5.361	13.487	87.003	69.204
06/24/2011 16:33:09	5.401	13.498	87.003	69.204
06/24/2011 16:33:19	5.295	13.758	87.204	69.003
06/24/2011 16:33:30	5.159	13.696	87.204	69.003
06/24/2011 16:33:39	5.174	13.832	87.402	69.204
06/24/2011 16:33:49	5.09	13.729	87.603	69.204
06/24/2011 16:33:59	5.17	13.78	87.603	69.204
06/24/2011 16:34:09	5.178	13.627	87.805	69.204
06/24/2011 16:34:19	5.236	13.63	87.402	69.003
06/24/2011 16:34:29	5.258	13.773	87.204	69.003
06/24/2011 16:34:40	5.134	13.718	87.204	69.003
06/24/2011 16:34:49	5.101	13.909	87.402	69.003
06/24/2011 16:34:59	4.965	13.945	87.003	69.003
06/24/2011 16:35:09	5.057	13.707	87.204	69.003
06/24/2011 16:35:19	5.251	13.608	87.402	69.003
06/24/2011 16:35:29	5.218	13.641	87.402	69.003
06/24/2011 16:35:39	5.233	13.656	87.003	69.003
06/24/2011 16:35:50	5.273	13.586	87.003	69.003
06/24/2011 16:35:59	5.247	13.714	87.003	69.003
06/24/2011 16:36:09	5.28	13.707	87.204	69.204
06/24/2011 16:36:19	5.167	13.799	87.204	69.003
06/24/2011 16:36:30	5.13	13.81	87.402	69.003
06/24/2011 16:36:39	5.192	13.517	87.204	69.003
06/24/2011 16:36:49	5.313	13.707	87.204	69.003
06/24/2011 16:37:00	5.284	13.586	87.402	69.003
06/24/2011 16:37:09	5.35	13.436	87.402	69.003
06/24/2011 16:37:19	5.262	13.802	87.402	69.003
06/24/2011 16:37:29	5.108	13.795	87.204	69.003
06/24/2011 16:37:40	5.123	13.744	87.204	69.003
06/24/2011 16:37:49	5.141	13.769	87.204	69.003
06/24/2011 16:37:59	5.134	13.729	87.402	69.003
06/24/2011 16:38:09	5.181	13.81	87.003	69.003
06/24/2011 16:38:19	5.101	13.817	86.904	69.003
06/24/2011 16:38:29	5.075	13.81	87.003	69.003
06/24/2011 16:38:39	5.123	13.788	87.003	69.003
06/24/2011 16:38:50	5.214	13.645	87.003	69.003
06/24/2011 16:38:59	5.185	13.769	87.003	69.003
06/24/2011 16:39:09	5.152	13.663	87.204	69.003
06/24/2011 16:39:19	5.207	13.608	87.402	69.003
06/24/2011 16:39:29	5.222	13.806	87.204	69.003
06/24/2011 16:39:39	5.174	13.616	87.003	69.003
06/24/2011 16:39:49	5.148	13.78	87.204	69.003
06/24/2011 16:40:00	5.119	13.7	87.402	69.003
06/24/2011 16:40:09	5.178	13.678	87.204	69.003
06/24/2011 16:40:19	5.145	13.692	86.904	69.003
06/24/2011 16:40:29	5.178	13.7	86.904	69.003
06/24/2011 16:40:39	5.192	13.722	87.003	69.204

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 16:40:49	5.101	13.769	87.003	69.003
06/24/2011 16:40:59	5.163	13.553	87.204	69.003
06/24/2011 16:41:10	5.328	13.557	87.402	69.003
06/24/2011 16:41:19	5.229	13.784	87.204	69.204
06/24/2011 16:41:29	5.2	13.627	87.204	69.003
06/24/2011 16:41:39	5.24	13.59	87.402	69.003
06/24/2011 16:41:50	5.346	13.399	87.204	69.003
06/24/2011 16:41:59	5.452	13.539	87.603	69.003
06/24/2011 16:42:09	5.291	13.722	87.402	69.003
06/24/2011 16:42:20	5.233	13.638	87.204	69.003
06/24/2011 16:42:29	5.244	13.659	86.904	69.003
06/24/2011 16:42:39	5.152	13.901	87.003	69.003
06/24/2011 16:42:49	5.028	13.868	87.402	69.003
06/24/2011 16:43:00	5.053	13.762	87.402	69.003
06/24/2011 16:43:09	5.116	13.758	87.402	69.003
06/24/2011 16:43:19	5.185	13.52	87.204	69.003
06/24/2011 16:43:29	5.207	13.828	87.204	69.003
06/24/2011 16:43:39	5.163	13.773	87.402	69.003
06/24/2011 16:43:49	5.222	13.579	87.402	69.003
06/24/2011 16:43:59	5.262	13.678	87.603	69.003
06/24/2011 16:44:10	5.291	13.542	87.402	69.003
06/24/2011 16:44:19	5.405	13.465	87.003	69.003
06/24/2011 16:44:29	5.387	13.359	87.204	69.003
06/24/2011 16:44:39	5.434	13.542	87.204	68.904
06/24/2011 16:44:49	5.28	13.692	87.402	68.904
06/24/2011 16:44:59	5.218	13.7	87.204	69.003
06/24/2011 16:45:09	5.291	13.674	87.204	69.003
06/24/2011 16:45:20	5.266	13.597	87.003	69.003
06/24/2011 16:45:29	5.273	13.634	87.003	68.904
06/24/2011 16:45:39	5.218	13.692	87.003	68.904
06/24/2011 16:45:49	5.203	13.638	87.402	69.003
06/24/2011 16:45:59	5.295	13.568	87.204	69.003
06/24/2011 16:46:09	5.321	13.656	87.003	69.003
06/24/2011 16:46:19	5.247	13.656	86.904	69.003
06/24/2011 16:46:30	5.361	13.535	87.003	69.003
06/24/2011 16:46:39	5.214	13.923	87.003	69.003
06/24/2011 16:46:49	5.024	13.777	86.904	68.904
06/24/2011 16:46:59	5.079	13.791	87.003	68.904
06/24/2011 16:47:10	5.145	13.755	87.204	69.003
06/24/2011 16:47:19	5.134	13.762	87.402	69.003
06/24/2011 16:47:29	5.207	13.564	87.402	69.003
06/24/2011 16:47:40	5.324	13.443	87.402	69.003
06/24/2011 16:47:49	5.343	13.579	87.402	69.003
06/24/2011 16:47:59	5.335	13.436	87.204	69.003
06/24/2011 16:48:09	5.434	13.476	87.402	69.003
06/24/2011 16:48:20	5.379	13.513	87.402	69.003
06/24/2011 16:48:29	5.456	13.257	87.402	69.003
06/24/2011 16:48:39	5.295	13.912	87.402	69.003
06/24/2011 16:48:49	5.024	13.846	87.204	69.003
06/24/2011 16:48:59	5.09	13.766	87.402	69.003
06/24/2011 16:49:09	5.123	13.795	87.204	69.003
06/24/2011 16:49:19	5.094	13.802	87.204	69.003
06/24/2011 16:49:30	5.097	13.795	87.003	68.904
06/24/2011 16:49:39	5.13	13.744	87.003	68.904
06/24/2011 16:49:49	5.159	13.714	87.003	68.904
06/24/2011 16:49:59	5.2	13.725	86.904	68.904
06/24/2011 16:50:09	5.156	13.784	87.003	68.904
06/24/2011 16:50:19	5.09	13.806	86.904	68.904
06/24/2011 16:50:29	5.039	13.876	86.904	68.904
06/24/2011 16:50:40	5.006	13.865	86.904	68.904
06/24/2011 16:50:49	5.05	13.795	86.904	68.904
06/24/2011 16:50:59	5.112	13.725	86.904	68.904
06/24/2011 16:51:09	5.148	13.755	86.904	68.904
06/24/2011 16:51:19	5.123	13.788	87.003	68.904
06/24/2011 16:51:29	5.09	13.806	87.204	69.003

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 16:51:39	5.057	13.843	87.003	69.003
06/24/2011 16:51:50	5.031	13.865	87.003	69.003
06/24/2011 16:51:59	5.006	13.89	86.904	69.003
06/24/2011 16:52:09	5.006	13.876	86.904	69.003
06/24/2011 16:52:19	5.035	13.839	87.003	69.003
06/24/2011 16:52:30	5.02	13.865	87.003	69.003
06/24/2011 16:52:39	5.031	13.755	87.003	69.003
06/24/2011 16:52:49	5.075	13.824	87.003	69.003
06/24/2011 16:53:00	5.05	13.843	86.904	69.003
06/24/2011 16:53:09	5.035	13.835	86.904	69.003
06/24/2011 16:53:19	5.039	13.821	86.904	69.204
06/24/2011 16:53:29	5.05	13.791	86.702	69.003
06/24/2011 16:53:40	5.068	13.81	86.702	69.003
06/24/2011 16:53:49	5.068	13.799	86.702	69.003
06/24/2011 16:53:59	5.061	13.835	86.702	68.904
06/24/2011 16:54:10	5.013	13.919	86.702	68.904
06/24/2011 16:54:19	4.929	13.934	86.702	68.904
06/24/2011 16:54:29	4.925	13.916	86.904	68.904
06/24/2011 16:54:39	4.984	13.839	87.003	68.904
06/24/2011 16:54:50	5.031	13.832	87.003	69.003
06/24/2011 16:54:59	5.053	13.802	86.702	68.904
06/24/2011 16:55:09	5.094	13.799	86.702	68.904
06/24/2011 16:55:19	5.083	13.828	86.904	68.904
06/24/2011 16:55:29	5.097	13.74	87.003	69.003
06/24/2011 16:55:39	5.145	13.74	87.003	69.003
06/24/2011 16:55:49	5.145	13.758	87.402	69.003
06/24/2011 16:56:00	5.145	13.751	87.402	69.003
06/24/2011 16:56:09	5.112	13.799	87.003	68.904
06/24/2011 16:56:19	5.086	13.821	86.904	68.904
06/24/2011 16:56:29	5.028	13.898	87.003	68.904
06/24/2011 16:56:39	4.998	13.868	87.204	68.904
06/24/2011 16:56:49	5.079	13.722	87.204	68.904
06/24/2011 16:56:59	5.159	13.74	87.003	68.904
06/24/2011 16:57:10	5.181	13.7	87.003	68.904
06/24/2011 16:57:19	5.225	13.659	86.904	68.703
06/24/2011 16:57:29	5.236	13.641	86.702	68.703
06/24/2011 16:57:39	5.266	13.601	86.702	68.904
06/24/2011 16:57:49	5.28	13.616	86.702	68.904
06/24/2011 16:57:59	5.299	13.579	86.904	68.904
06/24/2011 16:58:09	5.291	13.638	86.904	68.904
06/24/2011 16:58:20	5.255	13.605	87.003	69.003
06/24/2011 16:58:29	5.284	13.608	87.003	69.003
06/24/2011 16:58:39	5.291	13.594	86.904	68.904
06/24/2011 16:58:49	5.273	13.645	86.702	68.703
06/24/2011 16:59:00	5.233	13.696	86.702	68.904
06/24/2011 16:59:09	5.233	13.638	86.904	68.904
06/24/2011 16:59:19	5.269	13.616	86.904	68.904
06/24/2011 16:59:30	5.262	13.648	86.904	68.904
06/24/2011 16:59:39	5.269	13.572	86.904	68.904
06/24/2011 16:59:49	5.332	13.561	86.702	68.904
06/24/2011 16:59:59	5.335	13.557	86.702	68.904
06/24/2011 17:00:10	5.299	13.63	86.702	68.904
06/24/2011 17:00:19	5.24	13.663	86.702	68.703
06/24/2011 17:00:29	5.203	13.707	86.702	68.904
06/24/2011 17:00:39	5.148	13.769	87.003	69.003
06/24/2011 17:00:49	5.13	13.733	86.702	68.904
06/24/2011 17:00:59	5.181	13.678	86.702	68.904
06/24/2011 17:01:09	5.244	13.601	86.904	68.904
06/24/2011 17:01:20	5.302	13.583	86.904	68.904
06/24/2011 17:01:29	5.328	13.561	86.702	68.904
06/24/2011 17:01:39	5.31	13.597	86.904	68.904
06/24/2011 17:01:49	5.284	13.583	86.904	68.904
06/24/2011 17:01:59	5.306	13.553	86.702	68.904
06/24/2011 17:02:09	5.335	13.546	86.904	68.904
06/24/2011 17:02:19	5.339	13.55	87.003	68.904

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 17:02:30	5.299	13.616	87.003	68.904
06/24/2011 17:02:39	5.258	13.63	86.702	68.904
06/24/2011 17:02:49	5.225	13.663	86.702	68.904
06/24/2011 17:02:59	5.233	13.612	86.702	68.904
06/24/2011 17:03:09	5.273	13.608	86.702	68.904
06/24/2011 17:03:19	5.299	13.564	87.003	69.003
06/24/2011 17:03:29	5.35	13.502	87.003	68.904
06/24/2011 17:03:40	5.387	13.491	87.003	68.904
06/24/2011 17:03:49	5.368	13.513	87.003	68.904
06/24/2011 17:03:59	5.39	13.447	86.904	69.003
06/24/2011 17:04:09	5.39	13.539	87.003	68.904
06/24/2011 17:04:20	5.313	13.568	86.904	68.904
06/24/2011 17:04:29	5.295	13.59	86.904	68.904
06/24/2011 17:04:39	5.284	13.594	86.904	69.003
06/24/2011 17:04:50	5.266	13.63	86.904	69.003
06/24/2011 17:04:59	5.266	13.575	87.003	69.003
06/24/2011 17:05:09	5.335	13.517	87.204	69.003
06/24/2011 17:05:19	5.379	13.509	87.003	69.003
06/24/2011 17:05:30	5.365	13.561	86.904	69.003
06/24/2011 17:05:39	5.328	13.535	86.904	69.003
06/24/2011 17:05:49	5.339	13.524	86.904	68.904
06/24/2011 17:05:59	5.372	13.495	86.904	68.904
06/24/2011 17:06:09	5.372	13.568	86.904	68.904
06/24/2011 17:06:19	5.302	13.605	87.204	68.904
06/24/2011 17:06:29	5.295	13.583	87.003	69.003
06/24/2011 17:06:40	5.324	13.542	86.904	69.003
06/24/2011 17:06:49	5.365	13.517	86.904	69.003
06/24/2011 17:06:59	5.394	13.517	87.003	69.003
06/24/2011 17:07:09	5.398	13.506	87.003	69.003
06/24/2011 17:07:19	5.39	13.495	87.003	69.003
06/24/2011 17:07:29	5.412	13.462	87.204	69.003
06/24/2011 17:07:39	5.419	13.443	87.204	68.904
06/24/2011 17:07:50	5.452	13.374	87.204	68.904
06/24/2011 17:07:59	5.493	13.377	87.204	68.904
06/24/2011 17:08:09	5.452	13.491	87.204	68.904
06/24/2011 17:08:19	5.372	13.517	87.204	68.904
06/24/2011 17:08:29	5.35	13.517	87.204	68.904
06/24/2011 17:08:39	5.346	13.531	87.204	68.904
06/24/2011 17:08:49	5.365	13.509	87.204	68.904
06/24/2011 17:09:00	5.394	13.454	87.204	68.904
06/24/2011 17:09:09	5.405	13.487	87.003	68.904
06/24/2011 17:09:19	5.398	13.487	87.204	68.904
06/24/2011 17:09:29	5.379	13.506	87.204	68.904
06/24/2011 17:09:40	5.317	13.575	87.003	69.003
06/24/2011 17:09:49	5.335	13.476	87.003	68.904
06/24/2011 17:09:59	5.419	13.436	87.003	68.904
06/24/2011 17:10:10	5.474	13.37	87.003	68.904
06/24/2011 17:10:19	5.529	13.323	87.204	68.904
06/24/2011 17:10:29	5.555	13.359	87.204	68.904
06/24/2011 17:10:39	5.504	13.436	87.003	68.904
06/24/2011 17:10:50	5.452	13.436	87.003	68.904
06/24/2011 17:10:59	5.438	13.443	87.003	68.904
06/24/2011 17:11:09	5.463	13.418	87.204	68.904
06/24/2011 17:11:19	5.485	13.385	87.204	68.904
06/24/2011 17:11:29	5.463	13.451	87.204	68.904
06/24/2011 17:11:39	5.463	13.374	87.003	68.904
06/24/2011 17:11:49	5.522	13.348	87.003	68.904
06/24/2011 17:12:00	5.544	13.385	86.904	68.904
06/24/2011 17:12:09	5.489	13.436	86.904	68.904
06/24/2011 17:12:19	5.419	13.465	86.904	68.904
06/24/2011 17:12:29	5.408	13.451	87.003	68.904
06/24/2011 17:12:39	5.401	13.491	87.003	68.904
06/24/2011 17:12:49	5.368	13.52	87.204	68.904
06/24/2011 17:12:59	5.379	13.484	87.204	68.904
06/24/2011 17:13:10	5.423	13.414	87.003	68.904

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 17:13:19	5.478	13.392	87.003	68.904
06/24/2011 17:13:29	5.489	13.403	86.904	68.904
06/24/2011 17:13:39	5.449	13.487	87.003	68.904
06/24/2011 17:13:49	5.408	13.454	86.904	68.904
06/24/2011 17:13:59	5.408	13.476	86.904	68.904
06/24/2011 17:14:09	5.39	13.517	87.003	68.904
06/24/2011 17:14:20	5.376	13.517	86.904	68.904
06/24/2011 17:14:29	5.427	13.41	86.904	68.904
06/24/2011 17:14:39	5.467	13.41	86.904	68.904
06/24/2011 17:14:49	5.456	13.432	86.904	69.003
06/24/2011 17:15:00	5.449	13.392	87.003	69.003
06/24/2011 17:15:09	5.478	13.414	86.702	68.904
06/24/2011 17:15:19	5.46	13.432	86.702	68.703
06/24/2011 17:15:30	5.441	13.447	86.904	68.703
06/24/2011 17:15:39	5.401	13.498	86.904	68.904
06/24/2011 17:15:49	5.383	13.498	87.003	68.904
06/24/2011 17:15:59	5.398	13.451	86.904	68.904
06/24/2011 17:16:10	5.441	13.443	86.904	68.904
06/24/2011 17:16:19	5.463	13.436	86.904	68.703
06/24/2011 17:16:29	5.434	13.491	86.904	68.904
06/24/2011 17:16:40	5.387	13.491	86.702	68.904
06/24/2011 17:16:49	5.408	13.432	86.904	69.003
06/24/2011 17:16:59	5.43	13.469	87.204	68.904
06/24/2011 17:17:09	5.379	13.506	86.904	68.703
06/24/2011 17:17:20	5.401	13.414	87.003	68.703
06/24/2011 17:17:29	5.449	13.425	87.003	68.904
06/24/2011 17:17:39	5.423	13.487	86.904	68.904
06/24/2011 17:17:49	5.387	13.48	86.904	68.904
06/24/2011 17:17:59	5.416	13.418	86.904	68.904
06/24/2011 17:18:09	5.471	13.381	86.904	68.904
06/24/2011 17:18:19	5.489	13.403	86.904	68.904
06/24/2011 17:18:30	5.441	13.476	86.702	68.904
06/24/2011 17:18:39	5.39	13.495	86.702	68.904
06/24/2011 17:18:49	5.383	13.473	86.904	68.904
06/24/2011 17:18:59	5.394	13.491	86.702	68.904
06/24/2011 17:19:09	5.39	13.476	86.702	68.904
06/24/2011 17:19:19	5.405	13.487	86.904	68.904
06/24/2011 17:19:29	5.39	13.513	86.702	68.904
06/24/2011 17:19:40	5.379	13.48	86.904	68.904
06/24/2011 17:19:49	5.394	13.509	87.003	68.904
06/24/2011 17:19:59	5.368	13.473	87.003	68.904
06/24/2011 17:20:09	5.379	13.506	86.904	68.904
06/24/2011 17:20:19	5.401	13.418	86.904	68.904
06/24/2011 17:20:29	5.456	13.388	86.702	68.703
06/24/2011 17:20:39	5.518	13.326	86.505	68.703
06/24/2011 17:20:50	5.529	13.359	86.505	68.703
06/24/2011 17:20:59	5.452	13.476	86.505	68.703
06/24/2011 17:21:09	5.368	13.546	86.505	68.904
06/24/2011 17:21:19	5.339	13.513	86.505	68.904
06/24/2011 17:21:30	5.343	13.513	86.505	68.904
06/24/2011 17:21:39	5.361	13.476	86.505	68.904
06/24/2011 17:21:49	5.379	13.465	86.505	68.904
06/24/2011 17:22:00	5.405	13.469	86.505	68.904
06/24/2011 17:22:09	5.408	13.473	86.702	68.904
06/24/2011 17:22:19	5.408	13.451	86.702	68.904
06/24/2011 17:22:29	5.387	13.476	86.702	68.904
06/24/2011 17:22:40	5.365	13.502	87.003	68.904
06/24/2011 17:22:49	5.357	13.509	86.702	68.904
06/24/2011 17:22:59	5.376	13.498	86.904	68.904
06/24/2011 17:23:09	5.394	13.484	86.702	68.904
06/24/2011 17:23:19	5.398	13.447	86.702	68.703
06/24/2011 17:23:29	5.401	13.506	86.702	68.703
06/24/2011 17:23:39	5.335	13.564	86.702	68.703
06/24/2011 17:23:50	5.324	13.517	86.702	68.703
06/24/2011 17:23:59	5.35	13.528	86.702	68.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 17:24:09	5.317	13.59	86.702	68.703
06/24/2011 17:24:19	5.266	13.608	86.702	68.904
06/24/2011 17:24:29	5.266	13.608	86.702	68.703
06/24/2011 17:24:39	5.28	13.594	86.702	68.703
06/24/2011 17:24:49	5.269	13.616	86.702	68.703
06/24/2011 17:25:00	5.258	13.627	86.904	68.703
06/24/2011 17:25:09	5.295	13.531	86.702	68.703
06/24/2011 17:25:19	5.332	13.575	86.505	68.703
06/24/2011 17:25:29	5.324	13.557	86.702	68.904
06/24/2011 17:25:39	5.335	13.546	86.702	68.904
06/24/2011 17:25:49	5.346	13.539	86.505	68.703
06/24/2011 17:25:59	5.339	13.542	86.505	68.703
06/24/2011 17:26:10	5.328	13.561	86.303	68.703
06/24/2011 17:26:19	5.306	13.601	86.303	68.703
06/24/2011 17:26:29	5.299	13.583	86.102	68.703
06/24/2011 17:26:39	5.273	13.663	86.303	68.703
06/24/2011 17:26:50	5.236	13.645	86.102	68.703
06/24/2011 17:26:59	5.24	13.612	86.303	68.703
06/24/2011 17:27:09	5.273	13.546	86.505	68.703
06/24/2011 17:27:20	5.324	13.531	86.505	68.703
06/24/2011 17:27:29	5.324	13.539	86.702	68.703
06/24/2011 17:27:39	5.288	13.619	86.702	68.703
06/24/2011 17:27:49	5.218	13.674	86.505	68.703
06/24/2011 17:28:00	5.196	13.667	86.505	68.501
06/24/2011 17:28:09	5.185	13.689	86.505	68.501
06/24/2011 17:28:19	5.174	13.692	86.303	68.501
06/24/2011 17:28:29	5.167	13.703	86.003	68.703
06/24/2011 17:28:39	5.174	13.667	86.102	68.501
06/24/2011 17:28:49	5.222	13.597	86.303	68.501
06/24/2011 17:28:59	5.247	13.634	86.505	68.501
06/24/2011 17:29:10	5.255	13.597	86.303	68.501
06/24/2011 17:29:19	5.273	13.605	86.505	68.501
06/24/2011 17:29:29	5.255	13.648	86.303	68.703
06/24/2011 17:29:39	5.214	13.638	86.303	68.501
06/24/2011 17:29:49	5.207	13.656	86.303	68.703
06/24/2011 17:29:59	5.214	13.638	86.505	68.501
06/24/2011 17:30:09	5.236	13.601	86.702	68.501
06/24/2011 17:30:20	5.258	13.63	86.505	68.501
06/24/2011 17:30:29	5.229	13.656	86.505	68.501
06/24/2011 17:30:39	5.185	13.707	86.303	68.501
06/24/2011 17:30:49	5.116	13.788	86.102	68.501
06/24/2011 17:30:59	5.072	13.747	86.102	68.703
06/24/2011 17:31:09	5.123	13.711	86.505	68.703
06/24/2011 17:31:19	5.167	13.703	86.505	68.501
06/24/2011 17:31:30	5.17	13.707	86.505	68.501
06/24/2011 17:31:39	5.141	13.707	86.303	68.501
06/24/2011 17:31:49	5.159	13.692	86.102	68.501
06/24/2011 17:31:59	5.152	13.747	86.102	68.501
06/24/2011 17:32:10	5.126	13.733	86.102	68.501
06/24/2011 17:32:19	5.116	13.758	86.303	68.501
06/24/2011 17:32:29	5.108	13.722	86.505	68.703
06/24/2011 17:32:40	5.112	13.769	86.303	68.703
06/24/2011 17:32:49	5.061	13.81	86.102	68.501
06/24/2011 17:32:59	5.035	13.85	86.102	68.501
06/24/2011 17:33:09	5.028	13.846	86.102	68.501
06/24/2011 17:33:20	5.035	13.824	86.702	68.703
06/24/2011 17:33:29	5.039	13.784	86.505	68.703
06/24/2011 17:33:39	5.057	13.799	86.505	68.703
06/24/2011 17:33:49	5.057	13.81	86.505	68.703
06/24/2011 17:33:59	5.053	13.821	86.505	68.703
06/24/2011 17:34:09	5.042	13.821	86.505	68.703
06/24/2011 17:34:19	5.079	13.744	86.505	68.703
06/24/2011 17:34:30	5.141	13.703	86.505	68.703
06/24/2011 17:34:39	5.13	13.791	86.505	68.703
06/24/2011 17:34:49	5.064	13.81	86.303	68.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 17:34:59	5.057	13.802	86.505	68.703
06/24/2011 17:35:09	5.068	13.806	86.702	68.703
06/24/2011 17:35:19	5.042	13.835	86.505	68.703
06/24/2011 17:35:29	5.02	13.824	86.303	68.703
06/24/2011 17:35:40	5.039	13.806	86.303	68.703
06/24/2011 17:35:49	5.046	13.828	86.505	68.703
06/24/2011 17:35:59	5.064	13.788	86.505	68.501
06/24/2011 17:36:09	5.061	13.835	86.505	68.501
06/24/2011 17:36:19	5.031	13.839	86.102	68.703
06/24/2011 17:36:29	5.042	13.846	86.303	68.703
06/24/2011 17:36:39	5.057	13.799	86.303	68.703
06/24/2011 17:36:50	5.083	13.81	86.303	68.703
06/24/2011 17:36:59	5.064	13.846	86.303	68.703
06/24/2011 17:37:09	5.02	13.861	86.505	68.501
06/24/2011 17:37:19	5.017	13.839	86.904	68.501
06/24/2011 17:37:30	5.028	13.821	86.904	68.703
06/24/2011 17:37:39	5.068	13.777	86.303	68.501
06/24/2011 17:37:49	5.119	13.707	86.102	68.501
06/24/2011 17:38:00	5.126	13.766	86.003	68.501
06/24/2011 17:38:09	5.086	13.791	86.102	68.501
06/24/2011 17:38:19	5.064	13.802	86.102	68.501
06/24/2011 17:38:29	5.017	13.868	86.102	68.303
06/24/2011 17:38:40	4.998	13.865	86.102	68.303
06/24/2011 17:38:49	4.973	13.909	86.102	68.303
06/24/2011 17:38:59	4.965	13.879	86.003	68.303
06/24/2011 17:39:10	4.998	13.857	86.102	68.303
06/24/2011 17:39:19	5.035	13.799	86.303	68.303
06/24/2011 17:39:29	5.09	13.751	86.102	68.303
06/24/2011 17:39:39	5.086	13.832	86.003	68.102
06/24/2011 17:39:50	5.013	13.883	86.003	68.102
06/24/2011 17:39:59	5.035	13.784	86.003	68.303
06/24/2011 17:40:09	5.075	13.799	86.003	68.303
06/24/2011 17:40:19	5.064	13.791	86.003	68.303
06/24/2011 17:40:29	5.064	13.828	86.102	68.303
06/24/2011 17:40:39	5.053	13.85	86.102	68.303
06/24/2011 17:40:49	5.013	13.872	86.003	68.303
06/24/2011 17:41:00	5.035	13.799	86.003	68.303
06/24/2011 17:41:09	5.09	13.755	86.003	68.303
06/24/2011 17:41:19	5.108	13.795	86.003	68.303
06/24/2011 17:41:29	5.072	13.821	85.802	68.303
06/24/2011 17:41:39	5.061	13.81	86.003	68.303
06/24/2011 17:41:49	5.042	13.81	85.802	68.303
06/24/2011 17:41:59	5.039	13.824	85.802	68.303
06/24/2011 17:42:10	5.042	13.813	86.003	68.303
06/24/2011 17:42:19	5.05	13.824	86.003	68.303
06/24/2011 17:42:29	5.053	13.799	86.003	68.303
06/24/2011 17:42:39	5.075	13.791	86.003	68.303
06/24/2011 17:42:49	5.072	13.824	86.102	68.303
06/24/2011 17:42:59	5.064	13.791	86.102	68.102
06/24/2011 17:43:09	5.09	13.758	86.003	68.303
06/24/2011 17:43:20	5.126	13.755	86.003	68.303
06/24/2011 17:43:29	5.105	13.795	86.003	68.303
06/24/2011 17:43:39	5.094	13.755	86.102	68.303
06/24/2011 17:43:49	5.119	13.722	86.003	68.102
06/24/2011 17:44:00	5.134	13.714	86.102	68.303
06/24/2011 17:44:09	5.141	13.725	86.003	68.303
06/24/2011 17:44:19	5.152	13.718	86.003	68.303
06/24/2011 17:44:30	5.156	13.681	86.003	68.303
06/24/2011 17:44:39	5.163	13.733	86.003	68.303
06/24/2011 17:44:49	5.148	13.747	86.003	68.303
06/24/2011 17:44:59	5.148	13.641	86.102	68.303
06/24/2011 17:45:10	5.211	13.674	86.102	68.303
06/24/2011 17:45:19	5.236	13.634	86.003	68.501
06/24/2011 17:45:29	5.291	13.572	86.102	68.501
06/24/2011 17:45:39	5.31	13.616	86.102	68.501

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 17:45:49	5.258	13.674	86.102	68.501
06/24/2011 17:45:59	5.211	13.711	86.102	68.303
06/24/2011 17:46:09	5.174	13.755	86.102	68.303
06/24/2011 17:46:20	5.167	13.718	86.003	68.303
06/24/2011 17:46:29	5.174	13.707	86.003	68.303
06/24/2011 17:46:39	5.2	13.667	86.102	68.303
06/24/2011 17:46:49	5.244	13.645	86.003	68.303
06/24/2011 17:46:59	5.24	13.667	86.003	68.303
06/24/2011 17:47:09	5.244	13.648	86.003	68.303
06/24/2011 17:47:19	5.273	13.641	86.003	68.303
06/24/2011 17:47:30	5.255	13.641	86.102	68.303
06/24/2011 17:47:39	5.251	13.63	85.802	68.303
06/24/2011 17:47:49	5.262	13.605	85.802	68.303
06/24/2011 17:47:59	5.295	13.539	85.802	68.303
06/24/2011 17:48:09	5.324	13.561	86.003	68.303
06/24/2011 17:48:19	5.291	13.597	86.003	68.303
06/24/2011 17:48:29	5.266	13.586	86.003	68.303
06/24/2011 17:48:40	5.266	13.605	86.102	68.303
06/24/2011 17:48:49	5.24	13.619	86.003	68.303
06/24/2011 17:48:59	5.174	13.747	85.802	68.303
06/24/2011 17:49:09	5.083	13.791	85.802	68.303
06/24/2011 17:49:20	5.064	13.788	85.802	68.303
06/24/2011 17:49:29	5.064	13.802	86.003	68.303
06/24/2011 17:49:39	5.079	13.773	85.802	68.303
06/24/2011 17:49:50	5.072	13.81	85.802	68.303
06/24/2011 17:49:59	5.053	13.799	85.802	68.303
06/24/2011 17:50:09	5.116	13.678	85.802	68.303
06/24/2011 17:50:19	5.174	13.67	86.003	68.303
06/24/2011 17:50:30	5.178	13.685	86.003	68.303
06/24/2011 17:50:39	5.159	13.718	86.003	68.303
06/24/2011 17:50:49	5.141	13.751	86.003	68.303
06/24/2011 17:50:59	5.097	13.813	86.003	68.303
06/24/2011 17:51:09	5.083	13.762	85.802	68.303
06/24/2011 17:51:19	5.148	13.667	85.802	68.102
06/24/2011 17:51:29	5.244	13.583	85.802	68.102
06/24/2011 17:51:40	5.299	13.579	85.802	68.102
06/24/2011 17:51:49	5.317	13.539	85.802	68.102
06/24/2011 17:51:59	5.295	13.63	86.003	68.303
06/24/2011 17:52:09	5.229	13.681	85.802	68.102
06/24/2011 17:52:19	5.196	13.652	85.604	68.102
06/24/2011 17:52:29	5.229	13.638	85.604	68.102
06/24/2011 17:52:39	5.247	13.627	85.604	68.303
06/24/2011 17:52:50	5.262	13.638	85.604	68.303
06/24/2011 17:52:59	5.233	13.67	85.802	68.303
06/24/2011 17:53:09	5.2	13.707	85.604	68.303
06/24/2011 17:53:19	5.189	13.685	85.802	68.303
06/24/2011 17:53:29	5.211	13.648	85.802	68.303
06/24/2011 17:53:39	5.262	13.59	85.802	68.303
06/24/2011 17:53:49	5.299	13.583	85.604	68.102
06/24/2011 17:54:00	5.273	13.63	85.802	68.102
06/24/2011 17:54:09	5.244	13.652	86.003	68.102
06/24/2011 17:54:19	5.255	13.575	86.003	68.102
06/24/2011 17:54:29	5.31	13.561	86.003	68.303
06/24/2011 17:54:40	5.302	13.586	86.003	68.303
06/24/2011 17:54:49	5.273	13.605	85.802	68.303
06/24/2011 17:54:59	5.28	13.59	85.604	68.303
06/24/2011 17:55:10	5.291	13.59	85.604	68.303
06/24/2011 17:55:19	5.299	13.575	85.604	68.303
06/24/2011 17:55:29	5.302	13.579	85.604	68.303
06/24/2011 17:55:39	5.295	13.612	85.604	68.303
06/24/2011 17:55:50	5.295	13.572	85.802	68.303
06/24/2011 17:55:59	5.324	13.55	85.802	68.303
06/24/2011 17:56:09	5.372	13.52	85.604	68.303
06/24/2011 17:56:19	5.398	13.513	85.604	68.303
06/24/2011 17:56:29	5.401	13.509	85.604	68.303

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 17:56:39	5.419	13.436	85.402	68.003
06/24/2011 17:56:49	5.496	13.33	85.402	68.003
06/24/2011 17:57:00	5.533	13.418	85.604	68.003
06/24/2011 17:57:09	5.449	13.487	85.604	68.003
06/24/2011 17:57:19	5.383	13.509	85.604	68.003
06/24/2011 17:57:29	5.357	13.52	85.604	68.003
06/24/2011 17:57:39	5.365	13.535	85.604	68.003
06/24/2011 17:57:49	5.328	13.564	85.802	68.003
06/24/2011 17:57:59	5.357	13.491	85.802	68.003
06/24/2011 17:58:10	5.372	13.531	85.802	68.003
06/24/2011 17:58:19	5.354	13.491	85.604	68.003
06/24/2011 17:58:29	5.372	13.524	85.604	68.003
06/24/2011 17:58:39	5.324	13.564	86.003	68.003
06/24/2011 17:58:49	5.302	13.564	86.003	68.003
06/24/2011 17:58:59	5.31	13.517	85.802	68.003
06/24/2011 17:59:09	5.31	13.579	85.802	68.102
06/24/2011 17:59:20	5.295	13.583	85.802	68.003
06/24/2011 17:59:29	5.295	13.557	85.604	68.003
06/24/2011 17:59:39	5.328	13.539	85.402	68.003
06/24/2011 17:59:49	5.306	13.568	85.604	68.102
06/24/2011 18:00:00	5.317	13.524	85.604	68.102
06/24/2011 18:00:09	5.357	13.509	85.604	68.102
06/24/2011 18:00:19	5.332	13.583	85.604	68.003
06/24/2011 18:00:30	5.31	13.531	85.604	68.003
06/24/2011 18:00:39	5.332	13.553	85.604	68.003
06/24/2011 18:00:49	5.295	13.619	85.402	68.003
06/24/2011 18:00:59	5.262	13.608	85.402	68.003
06/24/2011 18:01:10	5.266	13.59	85.604	68.003
06/24/2011 18:01:19	5.328	13.535	85.402	68.003
06/24/2011 18:01:29	5.379	13.48	85.205	68.003
06/24/2011 18:01:40	5.405	13.476	85.205	68.003
06/24/2011 18:01:49	5.39	13.528	85.402	68.003
06/24/2011 18:01:59	5.361	13.498	85.205	68.003
06/24/2011 18:02:09	5.339	13.575	85.402	68.003
06/24/2011 18:02:20	5.291	13.586	85.205	68.003
06/24/2011 18:02:29	5.284	13.616	85.205	68.003
06/24/2011 18:02:39	5.255	13.619	85.102	67.802
06/24/2011 18:02:49	5.244	13.597	85.102	67.802
06/24/2011 18:02:59	5.273	13.553	85.102	67.802
06/24/2011 18:03:09	5.288	13.605	85.205	67.802
06/24/2011 18:03:19	5.269	13.612	85.205	67.802
06/24/2011 18:03:30	5.247	13.616	85.402	67.802
06/24/2011 18:03:39	5.288	13.579	85.802	68.003
06/24/2011 18:03:49	5.317	13.542	85.205	67.802
06/24/2011 18:03:59	5.335	13.528	85.402	67.802
06/24/2011 18:04:09	5.35	13.498	85.402	67.802
06/24/2011 18:04:19	5.354	13.517	85.402	67.802
06/24/2011 18:04:29	5.335	13.542	85.205	68.003
06/24/2011 18:04:40	5.332	13.524	85.402	67.802
06/24/2011 18:04:49	5.35	13.524	85.604	67.802
06/24/2011 18:04:59	5.346	13.542	85.402	67.802
06/24/2011 18:05:09	5.339	13.539	85.402	68.003
06/24/2011 18:05:19	5.354	13.491	85.604	67.802
06/24/2011 18:05:29	5.368	13.553	85.604	67.802
06/24/2011 18:05:39	5.335	13.546	85.205	67.802
06/24/2011 18:05:50	5.313	13.579	85.402	67.802
06/24/2011 18:05:59	5.299	13.586	85.604	67.802
06/24/2011 18:06:09	5.291	13.586	85.402	67.802
06/24/2011 18:06:19	5.291	13.597	85.604	67.802
06/24/2011 18:06:30	5.321	13.546	85.604	68.003
06/24/2011 18:06:39	5.343	13.572	85.402	67.802
06/24/2011 18:06:49	5.317	13.557	85.402	67.802
06/24/2011 18:07:00	5.357	13.491	85.402	68.003
06/24/2011 18:07:09	5.394	13.506	85.402	68.003
06/24/2011 18:07:19	5.405	13.487	85.205	68.003

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 18:07:29	5.398	13.509	85.402	68.003
06/24/2011 18:07:40	5.376	13.55	85.402	68.003
06/24/2011 18:07:49	5.35	13.495	85.205	68.003
06/24/2011 18:07:59	5.365	13.55	85.402	67.802
06/24/2011 18:08:09	5.361	13.553	85.604	67.802
06/24/2011 18:08:19	5.357	13.542	85.205	67.802
06/24/2011 18:08:29	5.361	13.487	85.205	68.003
06/24/2011 18:08:39	5.372	13.506	85.205	68.003
06/24/2011 18:08:50	5.379	13.498	85.402	67.802
06/24/2011 18:08:59	5.405	13.473	85.205	67.802
06/24/2011 18:09:09	5.423	13.447	85.102	68.003
06/24/2011 18:09:19	5.408	13.484	85.102	68.003
06/24/2011 18:09:29	5.365	13.531	85.102	68.003
06/24/2011 18:09:39	5.365	13.484	85.205	68.003
06/24/2011 18:09:49	5.405	13.48	85.205	67.802
06/24/2011 18:10:00	5.43	13.41	85.205	68.003
06/24/2011 18:10:09	5.438	13.487	85.402	68.003
06/24/2011 18:10:19	5.372	13.557	85.604	67.802
06/24/2011 18:10:29	5.299	13.579	85.604	68.003
06/24/2011 18:10:39	5.306	13.546	85.402	67.604
06/24/2011 18:10:49	5.324	13.561	85.205	67.604
06/24/2011 18:10:59	5.302	13.579	85.402	67.604
06/24/2011 18:11:10	5.269	13.645	85.402	67.802
06/24/2011 18:11:19	5.255	13.619	85.402	67.604
06/24/2011 18:11:29	5.291	13.528	85.402	67.604
06/24/2011 18:11:39	5.365	13.487	85.205	67.604
06/24/2011 18:11:50	5.408	13.484	85.205	67.802
06/24/2011 18:11:59	5.387	13.557	85.102	67.604
06/24/2011 18:12:09	5.328	13.583	85.102	67.604
06/24/2011 18:12:20	5.317	13.553	85.205	67.604
06/24/2011 18:12:29	5.321	13.583	85.102	67.604
06/24/2011 18:12:39	5.317	13.579	85.205	67.604
06/24/2011 18:12:49	5.324	13.546	85.205	67.604
06/24/2011 18:13:00	5.35	13.52	85.102	67.604
06/24/2011 18:13:09	5.343	13.557	85.205	67.604
06/24/2011 18:13:19	5.317	13.564	85.205	67.604
06/24/2011 18:13:29	5.332	13.55	85.102	67.604
06/24/2011 18:13:39	5.31	13.605	85.205	67.403
06/24/2011 18:13:49	5.247	13.645	85.205	67.604
06/24/2011 18:13:59	5.218	13.663	85.402	67.604
06/24/2011 18:14:10	5.24	13.597	85.402	67.604
06/24/2011 18:14:19	5.295	13.575	85.402	67.604
06/24/2011 18:14:29	5.284	13.627	85.205	67.604
06/24/2011 18:14:39	5.236	13.648	85.205	67.604
06/24/2011 18:14:49	5.211	13.696	85.402	67.604
06/24/2011 18:14:59	5.189	13.663	85.402	67.604
06/24/2011 18:15:09	5.17	13.74	85.402	67.604
06/24/2011 18:15:20	5.167	13.681	85.402	67.604
06/24/2011 18:15:29	5.207	13.681	85.205	67.604
06/24/2011 18:15:39	5.185	13.711	84.904	67.604
06/24/2011 18:15:49	5.17	13.67	84.904	67.604
06/24/2011 18:15:59	5.214	13.612	84.904	67.604
06/24/2011 18:16:09	5.247	13.652	85.102	67.604
06/24/2011 18:16:19	5.236	13.619	84.703	67.604
06/24/2011 18:16:30	5.225	13.689	84.703	67.604
06/24/2011 18:16:39	5.185	13.689	84.904	67.403
06/24/2011 18:16:49	5.225	13.656	84.904	67.604
06/24/2011 18:16:59	5.266	13.623	85.205	67.802
06/24/2011 18:17:10	5.269	13.645	85.205	67.802
06/24/2011 18:17:19	5.244	13.652	85.102	67.604
06/24/2011 18:17:29	5.211	13.659	85.102	67.604
06/24/2011 18:17:40	5.214	13.656	85.102	67.604
06/24/2011 18:17:49	5.214	13.689	85.102	67.604
06/24/2011 18:17:59	5.181	13.758	85.102	67.802
06/24/2011 18:18:09	5.159	13.711	85.102	67.604

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 18:18:20	5.163	13.718	85.205	67.604
06/24/2011 18:18:29	5.192	13.648	85.402	67.604
06/24/2011 18:18:39	5.229	13.638	85.205	67.802
06/24/2011 18:18:49	5.189	13.707	85.205	67.802
06/24/2011 18:18:59	5.167	13.7	85.402	67.802
06/24/2011 18:19:09	5.185	13.696	85.205	67.604
06/24/2011 18:19:19	5.189	13.663	85.205	67.802
06/24/2011 18:19:30	5.17	13.714	85.102	67.604
06/24/2011 18:19:39	5.09	13.791	85.205	67.604
06/24/2011 18:19:49	5.05	13.813	85.402	67.604
06/24/2011 18:19:59	5.057	13.791	85.205	67.604
06/24/2011 18:20:09	5.097	13.751	85.205	67.604
06/24/2011 18:20:19	5.126	13.795	85.402	67.604
06/24/2011 18:20:29	5.105	13.758	85.402	67.604
06/24/2011 18:20:40	5.105	13.788	85.205	67.604
06/24/2011 18:20:49	5.116	13.729	85.205	67.604
06/24/2011 18:20:59	5.13	13.769	85.402	67.604
06/24/2011 18:21:09	5.123	13.755	85.604	67.604
06/24/2011 18:21:19	5.123	13.799	85.402	67.604
06/24/2011 18:21:29	5.086	13.78	85.604	67.604
06/24/2011 18:21:39	5.064	13.839	85.604	67.604
06/24/2011 18:21:50	5.057	13.81	85.402	67.604
06/24/2011 18:21:59	5.072	13.788	85.402	67.604
06/24/2011 18:22:09	5.108	13.725	85.402	67.604
06/24/2011 18:22:19	5.13	13.78	85.402	67.604
06/24/2011 18:22:30	5.075	13.821	85.205	67.604
06/24/2011 18:22:39	5.05	13.802	85.205	67.604
06/24/2011 18:22:49	5.094	13.751	85.205	67.604
06/24/2011 18:23:00	5.163	13.652	85.402	67.604
06/24/2011 18:23:09	5.185	13.718	85.604	67.604
06/24/2011 18:23:19	5.112	13.821	85.604	67.403
06/24/2011 18:23:29	5.105	13.736	85.402	67.403
06/24/2011 18:23:40	5.145	13.736	85.205	67.403
06/24/2011 18:23:49	5.156	13.744	85.205	67.403
06/24/2011 18:23:59	5.137	13.747	85.102	67.403
06/24/2011 18:24:10	5.13	13.755	85.102	67.403
06/24/2011 18:24:19	5.137	13.736	84.904	67.403
06/24/2011 18:24:29	5.145	13.744	85.102	67.403
06/24/2011 18:24:39	5.156	13.707	85.102	67.403
06/24/2011 18:24:50	5.17	13.733	84.904	67.403
06/24/2011 18:24:59	5.174	13.685	85.102	67.403
06/24/2011 18:25:09	5.211	13.63	84.904	67.403
06/24/2011 18:25:19	5.273	13.59	84.703	67.403
06/24/2011 18:25:29	5.291	13.616	84.703	67.604
06/24/2011 18:25:39	5.251	13.685	84.904	67.403
06/24/2011 18:25:49	5.167	13.733	85.102	67.403
06/24/2011 18:26:00	5.181	13.659	85.205	67.403
06/24/2011 18:26:09	5.214	13.641	85.205	67.403
06/24/2011 18:26:19	5.225	13.667	85.102	67.403
06/24/2011 18:26:29	5.192	13.707	85.102	67.403
06/24/2011 18:26:39	5.17	13.696	85.102	67.403
06/24/2011 18:26:49	5.141	13.729	85.402	67.403
06/24/2011 18:26:59	5.159	13.674	85.402	67.403
06/24/2011 18:27:10	5.196	13.681	85.102	67.201
06/24/2011 18:27:19	5.207	13.67	85.102	67.403
06/24/2011 18:27:29	5.24	13.638	85.102	67.201
06/24/2011 18:27:39	5.262	13.619	85.205	67.403
06/24/2011 18:27:49	5.251	13.681	85.205	67.403
06/24/2011 18:27:59	5.159	13.795	85.205	67.403
06/24/2011 18:28:09	5.126	13.729	85.205	67.403
06/24/2011 18:28:20	5.174	13.674	85.205	67.403
06/24/2011 18:28:29	5.192	13.663	84.904	67.201
06/24/2011 18:28:39	5.203	13.674	84.904	67.201
06/24/2011 18:28:49	5.229	13.652	85.102	67.403
06/24/2011 18:29:00	5.222	13.703	85.205	67.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 18:29:09	5.185	13.692	85.205	67.403
06/24/2011 18:29:19	5.203	13.674	85.205	67.403
06/24/2011 18:29:30	5.203	13.689	85.402	67.403
06/24/2011 18:29:39	5.192	13.707	85.402	67.403
06/24/2011 18:29:49	5.17	13.696	85.205	67.403
06/24/2011 18:29:59	5.156	13.751	85.102	67.403
06/24/2011 18:30:10	5.126	13.766	85.102	67.403
06/24/2011 18:30:19	5.112	13.755	84.904	67.403
06/24/2011 18:30:29	5.141	13.692	85.102	67.403
06/24/2011 18:30:39	5.211	13.616	85.102	67.403
06/24/2011 18:30:49	5.244	13.659	85.205	67.403
06/24/2011 18:30:59	5.181	13.755	85.205	67.403
06/24/2011 18:31:09	5.145	13.711	85.402	67.403
06/24/2011 18:31:20	5.17	13.689	85.402	67.604
06/24/2011 18:31:29	5.211	13.667	85.102	67.604
06/24/2011 18:31:39	5.218	13.681	85.102	67.604
06/24/2011 18:31:49	5.185	13.718	85.205	67.604
06/24/2011 18:31:59	5.185	13.648	85.205	67.604
06/24/2011 18:32:09	5.244	13.623	85.205	67.604
06/24/2011 18:32:19	5.236	13.663	85.205	67.604
06/24/2011 18:32:30	5.2	13.689	85.205	67.604
06/24/2011 18:32:39	5.163	13.758	85.102	67.604
06/24/2011 18:32:49	5.141	13.736	85.205	67.604
06/24/2011 18:32:59	5.167	13.725	85.205	67.604
06/24/2011 18:33:09	5.207	13.641	85.102	67.403
06/24/2011 18:33:19	5.247	13.619	85.102	67.604
06/24/2011 18:33:29	5.284	13.586	84.904	67.403
06/24/2011 18:33:40	5.321	13.568	84.904	67.403
06/24/2011 18:33:49	5.335	13.524	85.102	67.201
06/24/2011 18:33:59	5.376	13.498	84.703	67.403
06/24/2011 18:34:09	5.387	13.506	84.501	67.403
06/24/2011 18:34:20	5.372	13.55	84.703	67.403
06/24/2011 18:34:29	5.31	13.583	84.904	67.403
06/24/2011 18:34:39	5.28	13.594	85.205	67.403
06/24/2011 18:34:50	5.284	13.579	85.402	67.604
06/24/2011 18:34:59	5.306	13.564	85.205	67.604
06/24/2011 18:35:09	5.335	13.55	85.205	67.604
06/24/2011 18:35:19	5.365	13.469	85.205	67.403
06/24/2011 18:35:30	5.379	13.531	85.205	67.604
06/24/2011 18:35:39	5.302	13.619	85.205	67.604
06/24/2011 18:35:49	5.244	13.616	84.904	67.403
06/24/2011 18:35:59	5.24	13.645	84.703	67.403
06/24/2011 18:36:09	5.255	13.601	84.501	67.403
06/24/2011 18:36:19	5.335	13.487	84.501	67.201
06/24/2011 18:36:29	5.408	13.502	84.501	67.403
06/24/2011 18:36:40	5.379	13.557	84.703	67.403
06/24/2011 18:36:49	5.288	13.685	84.904	67.403
06/24/2011 18:36:59	5.218	13.681	85.102	67.403
06/24/2011 18:37:09	5.211	13.674	84.904	67.403
06/24/2011 18:37:19	5.225	13.645	85.102	67.403
06/24/2011 18:37:29	5.244	13.638	84.904	67.201
06/24/2011 18:37:39	5.244	13.627	84.904	67.201
06/24/2011 18:37:50	5.266	13.594	85.205	67.403
06/24/2011 18:37:59	5.28	13.59	84.904	67.201
06/24/2011 18:38:09	5.262	13.641	84.703	67.201
06/24/2011 18:38:19	5.2	13.696	84.904	67.201
06/24/2011 18:38:29	5.178	13.678	85.102	67.201
06/24/2011 18:38:39	5.192	13.703	85.102	67.201
06/24/2011 18:38:49	5.156	13.744	85.102	67.201
06/24/2011 18:39:00	5.13	13.762	85.102	67.201
06/24/2011 18:39:09	5.119	13.762	85.102	67.403
06/24/2011 18:39:19	5.123	13.729	85.205	67.403
06/24/2011 18:39:29	5.145	13.692	84.904	67.403
06/24/2011 18:39:40	5.185	13.722	85.102	67.403
06/24/2011 18:39:49	5.174	13.692	85.102	67.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 18:39:59	5.167	13.714	84.904	67.403
06/24/2011 18:40:10	5.145	13.718	84.904	67.403
06/24/2011 18:40:19	5.137	13.718	85.102	67.403
06/24/2011 18:40:29	5.141	13.718	84.904	67.201
06/24/2011 18:40:39	5.134	13.722	84.904	67.201
06/24/2011 18:40:50	5.181	13.623	84.904	67.201
06/24/2011 18:40:59	5.236	13.63	84.703	67.201
06/24/2011 18:41:09	5.233	13.667	84.703	67.201
06/24/2011 18:41:19	5.192	13.7	84.703	67.403
06/24/2011 18:41:29	5.17	13.689	84.703	67.403
06/24/2011 18:41:39	5.192	13.652	84.501	67.201
06/24/2011 18:41:49	5.222	13.681	84.904	67.403
06/24/2011 18:42:00	5.211	13.667	84.904	67.201
06/24/2011 18:42:09	5.211	13.678	84.703	67.201
06/24/2011 18:42:19	5.225	13.638	84.703	67.201
06/24/2011 18:42:29	5.251	13.623	84.703	67.403
06/24/2011 18:42:39	5.266	13.619	84.904	67.403
06/24/2011 18:42:49	5.288	13.597	84.703	67.403
06/24/2011 18:42:59	5.269	13.627	84.703	67.201
06/24/2011 18:43:10	5.251	13.619	84.703	67.201
06/24/2011 18:43:19	5.247	13.652	84.703	67.201
06/24/2011 18:43:29	5.218	13.678	84.703	67.403
06/24/2011 18:43:39	5.2	13.667	84.703	67.201
06/24/2011 18:43:49	5.222	13.623	84.703	67.201
06/24/2011 18:43:59	5.244	13.663	84.703	67.201
06/24/2011 18:44:09	5.211	13.659	84.501	67.201
06/24/2011 18:44:20	5.236	13.601	84.703	67.403
06/24/2011 18:44:29	5.284	13.528	84.904	67.201
06/24/2011 18:44:39	5.324	13.509	84.904	67.403
06/24/2011 18:44:49	5.343	13.55	84.904	67.403
06/24/2011 18:45:00	5.291	13.623	84.904	67.403
06/24/2011 18:45:09	5.229	13.648	85.102	67.403
06/24/2011 18:45:19	5.185	13.678	84.904	67.403
06/24/2011 18:45:30	5.222	13.608	85.205	67.403
06/24/2011 18:45:39	5.302	13.524	85.102	67.403
06/24/2011 18:45:49	5.379	13.48	84.703	67.403
06/24/2011 18:45:59	5.368	13.535	84.703	67.403
06/24/2011 18:46:10	5.328	13.55	84.703	67.403
06/24/2011 18:46:19	5.324	13.579	84.703	67.403
06/24/2011 18:46:29	5.284	13.619	84.703	67.403
06/24/2011 18:46:40	5.258	13.594	84.703	67.403
06/24/2011 18:46:49	5.295	13.597	84.904	67.403
06/24/2011 18:46:59	5.31	13.572	84.703	67.403
06/24/2011 18:47:09	5.321	13.55	84.703	67.403
06/24/2011 18:47:20	5.313	13.583	84.703	67.403
06/24/2011 18:47:29	5.277	13.627	84.703	67.403
06/24/2011 18:47:39	5.28	13.55	84.501	67.403
06/24/2011 18:47:49	5.35	13.487	84.703	67.403
06/24/2011 18:47:59	5.39	13.491	84.703	67.403
06/24/2011 18:48:09	5.398	13.48	84.703	67.403
06/24/2011 18:48:19	5.357	13.528	84.703	67.403
06/24/2011 18:48:30	5.339	13.568	84.703	67.403
06/24/2011 18:48:39	5.313	13.586	84.703	67.403
06/24/2011 18:48:49	5.288	13.638	84.904	67.201
06/24/2011 18:48:59	5.247	13.645	84.904	67.403
06/24/2011 18:49:09	5.24	13.689	84.904	67.403
06/24/2011 18:49:19	5.214	13.667	84.904	67.201
06/24/2011 18:49:29	5.225	13.663	84.501	67.201
06/24/2011 18:49:40	5.207	13.736	84.501	67.201
06/24/2011 18:49:49	5.167	13.718	84.703	67.201
06/24/2011 18:49:59	5.185	13.656	84.904	67.201
06/24/2011 18:50:09	5.207	13.696	85.102	67.403
06/24/2011 18:50:19	5.174	13.74	84.904	67.201
06/24/2011 18:50:29	5.156	13.692	84.904	67.403
06/24/2011 18:50:39	5.207	13.667	84.904	67.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 18:50:50	5.24	13.605	84.703	67.403
06/24/2011 18:50:59	5.28	13.616	84.703	67.403
06/24/2011 18:51:09	5.255	13.63	84.904	67.403
06/24/2011 18:51:19	5.247	13.641	84.904	67.403
06/24/2011 18:51:30	5.269	13.586	84.904	67.403
06/24/2011 18:51:39	5.332	13.528	85.102	67.403
06/24/2011 18:51:49	5.372	13.513	84.904	67.403
06/24/2011 18:52:00	5.354	13.542	84.703	67.201
06/24/2011 18:52:09	5.343	13.524	84.501	67.201
06/24/2011 18:52:19	5.376	13.506	84.501	67.201
06/24/2011 18:52:29	5.372	13.542	84.501	67.201
06/24/2011 18:52:40	5.346	13.542	84.304	67.201
06/24/2011 18:52:49	5.335	13.546	84.304	67.201
06/24/2011 18:52:59	5.332	13.561	84.304	67.201
06/24/2011 18:53:09	5.328	13.535	84.304	67.201
06/24/2011 18:53:19	5.284	13.634	84.904	67.403
06/24/2011 18:53:29	5.247	13.681	85.102	67.403
06/24/2011 18:53:39	5.233	13.663	85.102	67.403
06/24/2011 18:53:50	5.236	13.616	84.904	67.403
06/24/2011 18:53:59	5.266	13.579	84.703	67.403
06/24/2011 18:54:09	5.273	13.63	84.904	67.403
06/24/2011 18:54:19	5.251	13.634	85.102	67.403
06/24/2011 18:54:29	5.236	13.659	84.904	67.403
06/24/2011 18:54:39	5.207	13.689	84.501	67.201
06/24/2011 18:54:49	5.174	13.703	84.501	67.201
06/24/2011 18:55:00	5.174	13.707	84.304	67.201
06/24/2011 18:55:09	5.163	13.696	84.501	67.201
06/24/2011 18:55:19	5.163	13.656	84.501	67.201
06/24/2011 18:55:29	5.251	13.535	84.501	67.201
06/24/2011 18:55:39	5.28	13.641	84.703	67.201
06/24/2011 18:55:49	5.178	13.74	84.501	67.201
06/24/2011 18:55:59	5.156	13.696	84.304	67.201
06/24/2011 18:56:10	5.185	13.722	84.501	67.201
06/24/2011 18:56:19	5.137	13.766	84.501	67.201
06/24/2011 18:56:29	5.108	13.769	84.501	67.201
06/24/2011 18:56:39	5.108	13.758	84.501	67.201
06/24/2011 18:56:50	5.148	13.722	84.501	67.201
06/24/2011 18:56:59	5.181	13.685	84.304	67.102
06/24/2011 18:57:09	5.192	13.685	84.501	67.102
06/24/2011 18:57:20	5.178	13.718	84.501	67.102
06/24/2011 18:57:29	5.13	13.795	84.501	67.201
06/24/2011 18:57:39	5.101	13.784	84.501	67.102
06/24/2011 18:57:49	5.09	13.795	84.501	67.102
06/24/2011 18:58:00	5.141	13.689	84.501	67.102
06/24/2011 18:58:09	5.2	13.67	84.501	67.102
06/24/2011 18:58:19	5.218	13.652	84.703	67.102
06/24/2011 18:58:29	5.236	13.692	84.501	67.102
06/24/2011 18:58:39	5.181	13.744	84.501	67.201
06/24/2011 18:58:49	5.141	13.733	84.304	67.201
06/24/2011 18:58:59	5.178	13.692	84.501	67.201
06/24/2011 18:59:10	5.211	13.7	84.703	67.201
06/24/2011 18:59:19	5.203	13.685	84.904	67.102
06/24/2011 18:59:29	5.2	13.725	84.703	67.201
06/24/2011 18:59:39	5.152	13.736	84.501	67.201
06/24/2011 18:59:49	5.112	13.78	84.501	67.201
06/24/2011 18:59:59	5.13	13.729	84.501	67.201
06/24/2011 19:00:09	5.152	13.755	84.501	67.201
06/24/2011 19:00:20	5.156	13.747	84.501	67.102
06/24/2011 19:00:29	5.108	13.813	84.304	67.102
06/24/2011 19:00:39	5.053	13.85	84.205	67.201
06/24/2011 19:00:49	5.024	13.868	84.304	67.201
06/24/2011 19:00:59	5.05	13.806	84.501	67.201
06/24/2011 19:01:09	5.053	13.865	84.501	67.201
06/24/2011 19:01:19	5.013	13.879	84.703	67.201
06/24/2011 19:01:30	5.009	13.824	84.501	67.201

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 19:01:39	5.061	13.799	84.304	67.201
06/24/2011 19:01:49	5.105	13.762	84.501	67.201
06/24/2011 19:01:59	5.126	13.751	84.703	67.201
06/24/2011 19:02:10	5.123	13.729	84.703	67.201
06/24/2011 19:02:19	5.119	13.762	84.304	67.201
06/24/2011 19:02:29	5.112	13.784	84.501	67.201
06/24/2011 19:02:40	5.072	13.788	84.205	67.102
06/24/2011 19:02:49	5.057	13.824	84.304	67.102
06/24/2011 19:02:59	5.05	13.832	84.304	67.102
06/24/2011 19:03:09	5.035	13.843	84.703	67.201
06/24/2011 19:03:20	5.039	13.85	84.501	67.102
06/24/2011 19:03:29	5.024	13.817	84.703	67.102
06/24/2011 19:03:39	5.053	13.835	84.304	67.102
06/24/2011 19:03:49	5.068	13.769	84.501	67.102
06/24/2011 19:03:59	5.126	13.733	84.904	67.201
06/24/2011 19:04:09	5.156	13.744	84.904	67.102
06/24/2011 19:04:19	5.112	13.828	84.904	67.102
06/24/2011 19:04:30	5.031	13.857	84.703	67.102
06/24/2011 19:04:39	5.013	13.85	84.703	67.102
06/24/2011 19:04:49	5.024	13.854	84.904	67.102
06/24/2011 19:04:59	5.009	13.883	84.904	67.102
06/24/2011 19:05:09	4.984	13.894	84.703	66.901
06/24/2011 19:05:19	4.98	13.916	84.703	66.901
06/24/2011 19:05:29	4.962	13.901	84.703	67.102
06/24/2011 19:05:40	4.998	13.85	84.703	67.201
06/24/2011 19:05:49	5.02	13.835	84.703	67.102
06/24/2011 19:05:59	4.998	13.934	84.703	67.102
06/24/2011 19:06:09	4.951	13.927	84.501	67.102
06/24/2011 19:06:19	4.951	13.938	84.501	67.102
06/24/2011 19:06:29	4.965	13.938	84.501	67.102
06/24/2011 19:06:39	4.94	14.029	84.501	67.102
06/24/2011 19:06:50	4.877	14.044	84.501	67.102
06/24/2011 19:06:59	4.852	14.044	84.703	67.201
06/24/2011 19:07:09	4.855	14.037	84.703	67.201
06/24/2011 19:07:19	4.863	13.985	84.703	67.102
06/24/2011 19:07:30	4.892	13.916	84.501	67.102
06/24/2011 19:07:39	4.914	13.93	84.703	66.901
06/24/2011 19:07:49	4.907	13.952	84.703	66.901
06/24/2011 19:08:00	4.925	13.919	84.703	66.901
06/24/2011 19:08:09	4.962	13.887	84.501	66.901
06/24/2011 19:08:19	4.965	13.923	84.703	66.901
06/24/2011 19:08:29	4.965	13.912	84.703	66.901
06/24/2011 19:08:40	4.969	13.898	84.703	66.901
06/24/2011 19:08:49	5.002	13.821	84.501	66.901
06/24/2011 19:08:59	5.039	13.872	84.501	66.901
06/24/2011 19:09:10	5.02	13.854	84.703	66.901
06/24/2011 19:09:19	4.991	13.927	84.703	66.901
06/24/2011 19:09:29	4.94	13.934	84.703	66.901
06/24/2011 19:09:39	4.903	13.967	84.501	66.901
06/24/2011 19:09:50	4.921	13.934	84.501	67.102
06/24/2011 19:09:59	4.947	13.919	84.501	67.102
06/24/2011 19:10:09	4.969	13.905	84.501	67.102
06/24/2011 19:10:19	5.002	13.861	84.501	67.102
06/24/2011 19:10:29	5.028	13.857	84.501	67.102
06/24/2011 19:10:39	5.028	13.883	84.501	67.102
06/24/2011 19:10:49	4.976	13.949	84.304	66.901
06/24/2011 19:11:00	4.969	13.872	84.501	66.901
06/24/2011 19:11:09	5.028	13.839	84.304	66.901
06/24/2011 19:11:19	5.02	13.916	84.205	66.901
06/24/2011 19:11:29	4.969	13.956	84.304	66.901
06/24/2011 19:11:39	4.932	13.96	84.304	66.901
06/24/2011 19:11:49	4.962	13.872	84.501	66.901
06/24/2011 19:11:59	5.002	13.923	84.501	66.901
06/24/2011 19:12:10	4.951	13.934	84.501	66.901
06/24/2011 19:12:19	4.965	13.876	84.304	66.901

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 19:12:29	5.039	13.835	84.501	66.901
06/24/2011 19:12:39	5.061	13.835	84.304	67.102
06/24/2011 19:12:49	5.072	13.791	84.304	67.102
06/24/2011 19:12:59	5.108	13.799	84.501	67.102
06/24/2011 19:13:09	5.101	13.773	84.703	66.901
06/24/2011 19:13:20	5.119	13.788	84.703	66.901
06/24/2011 19:13:29	5.09	13.788	84.703	66.901
06/24/2011 19:13:39	5.083	13.817	84.703	67.102
06/24/2011 19:13:49	5.064	13.813	84.904	67.102
06/24/2011 19:14:00	5.068	13.839	84.904	67.102
06/24/2011 19:14:09	5.053	13.846	84.501	66.901
06/24/2011 19:14:19	5.031	13.876	84.304	66.901
06/24/2011 19:14:30	5.035	13.828	84.304	66.901
06/24/2011 19:14:39	5.02	13.872	84.703	67.102
06/24/2011 19:14:49	5.031	13.813	84.703	67.102
06/24/2011 19:14:59	5.079	13.806	84.703	67.102
06/24/2011 19:15:10	5.068	13.832	84.501	67.102
06/24/2011 19:15:19	5.05	13.839	84.501	67.102
06/24/2011 19:15:29	5.05	13.824	84.501	67.102
06/24/2011 19:15:39	5.031	13.872	84.703	67.102
06/24/2011 19:15:49	4.98	13.93	84.501	66.901
06/24/2011 19:15:59	4.998	13.806	84.304	67.102
06/24/2011 19:16:09	5.086	13.791	84.304	66.901
06/24/2011 19:16:20	5.042	13.879	84.304	66.901
06/24/2011 19:16:29	4.984	13.894	84.205	66.901
06/24/2011 19:16:39	4.98	13.898	84.003	66.901
06/24/2011 19:16:49	4.94	13.971	84.003	66.901
06/24/2011 19:16:59	4.951	13.876	84.205	67.102
06/24/2011 19:17:09	5.006	13.89	84.205	66.901
06/24/2011 19:17:19	4.965	13.952	84.304	66.901
06/24/2011 19:17:30	4.984	13.832	84.501	66.901
06/24/2011 19:17:39	5.053	13.81	84.501	66.703
06/24/2011 19:17:49	5.068	13.817	84.703	67.102
06/24/2011 19:17:59	5.083	13.791	84.304	67.102
06/24/2011 19:18:09	5.097	13.769	84.304	67.102
06/24/2011 19:18:19	5.108	13.78	84.304	66.901
06/24/2011 19:18:29	5.097	13.817	84.703	66.901
06/24/2011 19:18:40	5.097	13.78	84.703	66.901
06/24/2011 19:18:49	5.152	13.692	84.703	66.901
06/24/2011 19:18:59	5.236	13.663	84.904	66.901
06/24/2011 19:19:09	5.247	13.678	84.904	67.102
06/24/2011 19:19:20	5.269	13.634	84.703	67.102
06/24/2011 19:19:29	5.317	13.616	84.703	67.102
06/24/2011 19:19:39	5.302	13.641	84.501	66.901
06/24/2011 19:19:50	5.306	13.601	84.501	66.901
06/24/2011 19:19:59	5.343	13.546	84.501	66.901
06/24/2011 19:20:09	5.346	13.601	84.501	66.901
06/24/2011 19:20:19	5.35	13.502	84.501	66.901
06/24/2011 19:20:30	5.398	13.55	84.304	66.901
06/24/2011 19:20:39	5.365	13.546	84.304	66.901
06/24/2011 19:20:49	5.335	13.612	84.205	66.901
06/24/2011 19:20:59	5.321	13.546	84.304	66.901
06/24/2011 19:21:09	5.313	13.634	84.304	66.703
06/24/2011 19:21:19	5.258	13.692	84.501	67.102
06/24/2011 19:21:29	5.266	13.627	84.304	66.901
06/24/2011 19:21:40	5.332	13.52	84.304	66.901
06/24/2011 19:21:49	5.394	13.491	84.304	66.703
06/24/2011 19:21:59	5.376	13.583	84.501	66.901
06/24/2011 19:22:09	5.332	13.572	84.501	66.901
06/24/2011 19:22:19	5.335	13.568	84.501	66.901
06/24/2011 19:22:29	5.343	13.564	84.304	66.901
06/24/2011 19:22:39	5.31	13.659	84.205	67.102
06/24/2011 19:22:50	5.218	13.696	84.205	66.901
06/24/2011 19:22:59	5.2	13.678	84.205	66.901
06/24/2011 19:23:09	5.222	13.663	84.304	66.901

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 19:23:19	5.244	13.645	84.501	66.901
06/24/2011 19:23:29	5.218	13.689	84.501	66.901
06/24/2011 19:23:39	5.222	13.659	84.304	67.102
06/24/2011 19:23:49	5.251	13.634	84.304	67.102
06/24/2011 19:24:00	5.273	13.579	84.501	67.102
06/24/2011 19:24:09	5.273	13.619	84.501	67.102
06/24/2011 19:24:19	5.244	13.597	84.501	67.102
06/24/2011 19:24:29	5.251	13.659	84.501	67.102
06/24/2011 19:24:40	5.222	13.656	84.501	67.102
06/24/2011 19:24:49	5.214	13.663	84.703	67.102
06/24/2011 19:24:59	5.214	13.681	84.501	66.901
06/24/2011 19:25:10	5.2	13.689	84.304	66.901
06/24/2011 19:25:19	5.167	13.747	84.501	66.901
06/24/2011 19:25:29	5.123	13.773	84.304	66.901
06/24/2011 19:25:39	5.119	13.777	84.304	66.901
06/24/2011 19:25:50	5.141	13.718	84.304	66.901
06/24/2011 19:25:59	5.167	13.74	84.304	66.901
06/24/2011 19:26:09	5.159	13.733	84.304	66.901
06/24/2011 19:26:19	5.174	13.681	84.304	66.901
06/24/2011 19:26:29	5.196	13.725	84.205	66.901
06/24/2011 19:26:39	5.134	13.762	84.304	66.901
06/24/2011 19:26:49	5.123	13.777	84.205	66.901
06/24/2011 19:27:00	5.112	13.769	84.304	66.901
06/24/2011 19:27:09	5.126	13.74	84.501	66.901
06/24/2011 19:27:19	5.134	13.788	84.501	66.901
06/24/2011 19:27:29	5.137	13.685	84.501	66.901
06/24/2011 19:27:39	5.189	13.659	84.501	66.901
06/24/2011 19:27:49	5.207	13.7	84.501	66.901
06/24/2011 19:27:59	5.178	13.714	84.501	66.901
06/24/2011 19:28:10	5.159	13.755	84.703	66.901
06/24/2011 19:28:19	5.13	13.773	84.304	66.901
06/24/2011 19:28:29	5.141	13.711	84.501	66.901
06/24/2011 19:28:39	5.185	13.696	84.501	66.901
06/24/2011 19:28:49	5.163	13.766	84.304	66.901
06/24/2011 19:28:59	5.123	13.758	84.205	67.102
06/24/2011 19:29:09	5.13	13.751	84.304	67.102
06/24/2011 19:29:20	5.159	13.696	84.501	67.102
06/24/2011 19:29:29	5.167	13.762	84.304	67.102
06/24/2011 19:29:39	5.152	13.696	84.304	67.102
06/24/2011 19:29:49	5.2	13.689	84.304	67.102
06/24/2011 19:30:00	5.233	13.627	84.304	67.102
06/24/2011 19:30:09	5.255	13.648	84.205	67.201
06/24/2011 19:30:19	5.218	13.696	84.304	67.102
06/24/2011 19:30:30	5.178	13.733	84.003	66.901
06/24/2011 19:30:39	5.181	13.667	84.003	66.901
06/24/2011 19:30:49	5.218	13.67	84.003	66.901
06/24/2011 19:30:59	5.192	13.744	84.003	66.901
06/24/2011 19:31:10	5.148	13.74	84.205	66.901
06/24/2011 19:31:19	5.159	13.722	84.304	66.901
06/24/2011 19:31:29	5.141	13.817	84.501	67.102
06/24/2011 19:31:40	5.101	13.773	84.501	67.102
06/24/2011 19:31:49	5.116	13.784	84.501	67.102
06/24/2011 19:31:59	5.141	13.733	84.304	67.102
06/24/2011 19:32:09	5.116	13.828	84.205	67.102
06/24/2011 19:32:20	5.09	13.806	84.205	67.102
06/24/2011 19:32:29	5.094	13.832	84.003	67.102
06/24/2011 19:32:39	5.064	13.835	84.205	67.102
06/24/2011 19:32:49	5.09	13.744	84.205	67.102
06/24/2011 19:32:59	5.141	13.762	84.205	66.901
06/24/2011 19:33:09	5.097	13.832	84.304	66.901
06/24/2011 19:33:19	5.039	13.883	84.205	66.901
06/24/2011 19:33:30	4.991	13.919	84.003	66.703
06/24/2011 19:33:39	4.987	13.879	84.205	66.901
06/24/2011 19:33:49	5.028	13.865	84.003	66.901
06/24/2011 19:33:59	5.046	13.839	84.003	66.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 19:34:09	5.046	13.861	84.205	66.703
06/24/2011 19:34:19	5.013	13.879	84.205	66.703
06/24/2011 19:34:29	4.991	13.883	84.003	66.703
06/24/2011 19:34:40	4.962	13.905	84.003	66.703
06/24/2011 19:34:49	4.962	13.887	83.802	66.901
06/24/2011 19:34:59	4.969	13.905	84.003	66.703
06/24/2011 19:35:09	4.936	13.909	84.003	66.901
06/24/2011 19:35:19	4.94	13.905	84.205	66.703
06/24/2011 19:35:29	4.936	13.96	84.003	66.901
06/24/2011 19:35:39	4.863	14.033	84.003	66.703
06/24/2011 19:35:50	4.823	14.037	84.003	66.703
06/24/2011 19:35:59	4.808	14.059	83.802	66.901
06/24/2011 19:36:09	4.79	14.055	83.802	66.703
06/24/2011 19:36:19	4.801	14.055	84.003	66.901
06/24/2011 19:36:30	4.812	14.033	84.003	66.901
06/24/2011 19:36:39	4.823	14.044	84.003	66.703
06/24/2011 19:36:49	4.845	14.004	84.003	66.703
06/24/2011 19:37:00	4.826	14.026	83.802	66.901
06/24/2011 19:37:09	4.826	14.015	84.003	66.901
06/24/2011 19:37:19	4.852	13.996	84.003	66.703
06/24/2011 19:37:29	4.866	14.029	84.003	66.901
06/24/2011 19:37:40	4.852	14.044	84.205	66.703
06/24/2011 19:37:49	4.855	13.993	83.802	66.901
06/24/2011 19:37:59	4.841	14.051	83.802	66.703
06/24/2011 19:38:09	4.845	14.007	83.802	66.901
06/24/2011 19:38:19	4.874	13.985	83.802	66.703
06/24/2011 19:38:29	4.903	13.985	83.604	66.703
06/24/2011 19:38:39	4.888	14.011	83.403	66.703
06/24/2011 19:38:50	4.841	14.07	83.304	66.703
06/24/2011 19:38:59	4.797	14.092	83.304	66.703
06/24/2011 19:39:09	4.845	13.971	83.403	66.703
06/24/2011 19:39:19	4.918	13.967	83.604	66.901
06/24/2011 19:39:29	4.903	13.996	83.403	66.901
06/24/2011 19:39:39	4.881	13.989	83.304	66.703
06/24/2011 19:39:49	4.896	13.971	83.403	66.703
06/24/2011 19:40:00	4.918	13.989	83.604	66.703
06/24/2011 19:40:09	4.888	14.015	83.604	66.703
06/24/2011 19:40:19	4.863	14.007	83.604	66.703
06/24/2011 19:40:29	4.845	14.026	83.802	66.703
06/24/2011 19:40:39	4.881	13.941	83.802	66.703
06/24/2011 19:40:49	4.98	13.843	84.003	66.703
06/24/2011 19:40:59	4.998	13.923	84.003	66.703
06/24/2011 19:41:10	4.947	13.93	83.802	66.703
06/24/2011 19:41:19	4.94	13.93	84.205	66.703
06/24/2011 19:41:29	4.962	13.949	83.802	66.703
06/24/2011 19:41:39	4.951	13.978	83.802	66.703
06/24/2011 19:41:50	4.907	14.011	83.802	66.703
06/24/2011 19:41:59	4.896	13.945	83.604	66.502
End Run 6				
Average	**5.155**	**13.723**	**86.087**	**68.238**
Maximum	**5.709**	**14.630**	**87.904**	**69.604**
Minimum	**4.215**	**13.103**	**83.304**	**66.502**
06/24/2011 19:42:09	4.951	13.916	83.604	66.502
06/24/2011 19:42:20	4.984	13.883	83.802	66.502
06/24/2011 19:42:29	5.031	13.872	83.802	66.703
06/24/2011 19:42:39	4.998	13.934	83.802	66.502
06/24/2011 19:42:49	4.984	13.901	83.802	66.502
06/24/2011 19:43:00	5.013	13.876	83.802	66.703
06/24/2011 19:43:09	5.031	13.857	83.403	66.502
06/24/2011 19:43:19	5.042	13.879	83.604	66.502
06/24/2011 19:43:29	5.039	13.846	83.802	66.703
06/24/2011 19:43:39	5.042	13.912	83.604	66.502
06/24/2011 19:43:49	4.998	13.879	83.403	66.502
06/24/2011 19:43:59	4.991	13.916	83.604	66.502

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 19:44:10	4.962	13.96	83.604	66.502
06/24/2011 19:44:19	4.94	13.934	83.304	66.703
06/24/2011 19:44:29	4.962	13.927	83.304	66.502
06/24/2011 19:44:39	4.991	13.89	83.103	66.502
06/24/2011 19:44:49	5.002	13.883	83.403	66.502
06/24/2011 19:44:59	5.207	10.345	83.304	66.901
Calibration Bias				
06/24/2011 19:45:09	2.926	0.373	83.304	66.901
06/24/2011 19:45:20	0.245	0.252	83.403	66.901
06/24/2011 19:45:29	0.062	0.212	83.403	66.901
06/24/2011 19:45:39	0.051	0.19	83.403	66.901
06/24/2011 19:45:49	0.043	0.175	83.604	66.901
06/24/2011 19:45:59	0.043	0.168	83.604	66.901
N2 Zero	**0.046**	**0.178**	**83.537**	**66.901**
06/24/2011 19:46:09	3.695	9.17	83.604	66.703
06/24/2011 19:46:19	10.136	9.829	83.604	66.502
06/24/2011 19:46:30	10.993	9.858	83.604	66.703
06/24/2011 19:46:39	11.037	9.873	83.802	66.703
06/24/2011 19:46:49	11.048	9.88	83.802	66.502
06/24/2011 19:46:59	11.052	9.884	83.604	66.502
11.1% O2/9.74% CO2 Mid	**11.046**	**9.879**	**83.736**	**66.569**
06/24/2011 19:47:10	10.03	12.616	83.304	66.502
06/24/2011 19:47:19	6.342	13.769	83.403	66.703
06/24/2011 19:47:29	5.156	13.802	83.604	66.502
06/24/2011 19:47:40	5.137	13.707	83.403	66.502
06/24/2011 19:47:49	5.189	13.67	83.403	66.502
06/24/2011 19:47:59	5.207	13.689	83.604	66.502
06/24/2011 19:48:09	5.156	13.78	83.802	66.502
06/24/2011 19:48:20	5.097	13.799	83.802	66.502
06/24/2011 19:48:29	5.094	13.78	83.802	66.502
06/24/2011 19:48:39	5.094	13.773	83.403	66.304
06/24/2011 19:48:49	5.057	13.898	83.403	66.304
06/24/2011 19:48:59	5.035	13.806	83.403	66.304
06/24/2011 19:49:09	5.123	13.707	83.403	66.304
06/24/2011 19:49:19	5.211	13.659	83.304	66.304
06/24/2011 19:49:30	5.222	13.703	83.304	66.304
06/24/2011 19:49:39	5.2	13.703	83.403	66.304
06/24/2011 19:49:49	5.203	13.7	83.304	66.304
06/24/2011 19:49:59	5.218	13.67	83.304	66.304
06/24/2011 19:50:09	5.222	13.689	83.403	66.304
06/24/2011 19:50:19	5.189	13.733	83.604	66.304
06/24/2011 19:50:29	5.163	13.722	83.403	66.304
06/24/2011 19:50:40	5.159	13.751	83.403	66.304
06/24/2011 19:50:49	5.174	13.689	83.403	66.304
06/24/2011 19:50:59	5.225	13.652	83.403	66.304
06/24/2011 19:51:09	5.236	13.663	83.403	66.304
06/24/2011 19:51:19	5.214	13.692	83.403	66.304
06/24/2011 19:51:29	5.192	13.696	83.604	66.304
06/24/2011 19:51:39	5.192	13.685	83.604	66.304
06/24/2011 19:51:50	5.203	13.663	83.604	66.304
06/24/2011 19:51:59	5.196	13.707	83.604	66.304
06/24/2011 19:52:09	5.178	13.692	83.403	66.304
06/24/2011 19:52:19	5.185	13.692	83.403	66.304
06/24/2011 19:52:30	5.214	13.63	83.304	66.304
06/24/2011 19:52:39	5.28	13.616	83.103	66.201
06/24/2011 19:52:49	5.295	13.601	82.905	66.201
06/24/2011 19:53:00	5.302	13.605	83.304	66.304
06/24/2011 19:53:09	5.284	13.659	83.403	66.304
06/24/2011 19:53:19	5.255	13.652	83.403	66.304
06/24/2011 19:53:29	5.251	13.645	83.403	66.502
06/24/2011 19:53:40	5.244	13.678	83.403	66.304
06/24/2011 19:53:49	5.2	13.74	83.304	66.304
06/24/2011 19:53:59	5.137	13.733	83.403	66.502
06/24/2011 19:54:10	5.159	13.707	83.103	66.304
06/24/2011 19:54:19	5.218	13.616	83.103	66.304

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 19:54:29	5.247	13.674	83.304	66.304
06/24/2011 19:54:39	5.163	13.78	83.103	66.201
06/24/2011 19:54:50	5.123	13.696	82.905	66.201
06/24/2011 19:54:59	5.174	13.689	82.905	66.201
06/24/2011 19:55:09	5.181	13.707	82.703	66.201
06/24/2011 19:55:19	5.185	13.711	83.103	66.201
06/24/2011 19:55:29	5.174	13.703	83.103	66.201
06/24/2011 19:55:39	5.17	13.729	83.103	66.304
06/24/2011 19:55:49	5.178	13.703	83.304	66.304
06/24/2011 19:56:00	5.181	13.681	83.304	66.304
06/24/2011 19:56:09	5.192	13.674	83.304	66.304
06/24/2011 19:56:19	5.159	13.736	83.103	66.304
06/24/2011 19:56:29	5.13	13.744	83.304	66.304
06/24/2011 19:56:39	5.159	13.681	83.304	66.304
06/24/2011 19:56:49	5.196	13.674	83.304	66.304
06/24/2011 19:56:59	5.203	13.656	83.304	66.304
06/24/2011 19:57:10	5.211	13.678	83.304	66.201
06/24/2011 19:57:19	5.203	13.659	83.304	66.304
06/24/2011 19:57:29	5.2	13.689	83.304	66.304
06/24/2011 19:57:39	5.203	13.645	83.103	66.304
06/24/2011 19:57:49	5.236	13.612	82.905	66.304
06/24/2011 19:57:59	5.317	13.513	83.103	66.304
06/24/2011 19:58:09	5.365	13.509	83.103	66.304
06/24/2011 19:58:20	5.35	13.542	83.304	66.304
06/24/2011 19:58:29	5.328	13.605	83.103	66.304
06/24/2011 19:58:39	5.302	13.568	82.905	66.304
06/24/2011 19:58:49	5.291	13.608	82.905	66.304
06/24/2011 19:59:00	5.28	13.619	83.304	66.304
06/24/2011 19:59:09	5.273	13.605	83.403	66.304
06/24/2011 19:59:19	5.31	13.531	83.304	66.201
06/24/2011 19:59:30	5.368	13.506	83.304	66.201
06/24/2011 19:59:39	5.401	13.539	83.304	66.004
06/24/2011 19:59:49	5.379	13.542	83.103	66.201
06/24/2011 19:59:59	5.35	13.572	83.103	66.201
06/24/2011 20:00:10	5.321	13.535	83.103	66.201
06/24/2011 20:00:19	5.346	13.572	83.304	66.004
06/24/2011 20:00:29	5.365	13.524	83.304	66.004
06/24/2011 20:00:39	5.354	13.557	83.103	66.201
06/24/2011 20:00:49	5.339	13.564	83.103	66.201
06/24/2011 20:00:59	5.357	13.498	83.304	66.004
06/24/2011 20:01:09	5.394	13.528	83.304	66.004
06/24/2011 20:01:20	5.343	13.597	83.103	66.201
06/24/2011 20:01:29	5.295	13.597	83.103	66.201
06/24/2011 20:01:39	5.357	13.282	83.103	66.201
06/24/2011 20:01:49	11.393	0.9	83.103	66.304
06/24/2011 20:01:59	19.6	0.34	83.103	66.304
06/24/2011 20:02:09	20.698	0.285	83.103	66.304
06/24/2011 20:02:19	20.768	0.259	83.304	66.304
06/24/2011 20:02:30	20.786	0.241	83.103	66.304
06/24/2011 20:02:39	20.797	0.226	83.103	66.304
06/24/2011 20:02:49	20.804	0.219	83.103	66.304
06/24/2011 20:02:59	20.808	0.212	83.103	66.304
06/24/2011 20:03:09	20.815	0.208	82.905	66.304
06/24/2011 20:03:19	20.815	0.204	82.905	66.304
06/24/2011 20:03:29	20.819	0.201	82.905	66.201
06/24/2011 20:03:40	20.823	0.197	82.905	66.201
06/24/2011 20:03:49	20.826	0.193	82.703	66.201
06/24/2011 20:03:59	20.826	0.193	83.103	66.201
06/24/2011 20:04:09	20.83	0.19	82.905	66.201
06/24/2011 20:04:20	20.83	0.19	83.103	66.304
06/24/2011 20:04:29	20.834	0.19	83.103	66.201
06/24/2011 20:04:39	20.834	0.19	83.103	66.201
06/24/2011 20:04:50	20.837	0.19	83.103	66.304
06/24/2011 20:04:59	20.837	0.193	83.103	66.304
06/24/2011 20:05:09	20.837	0.193	82.905	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 20:05:19	20.837	0.193	82.905	66.201
06/24/2011 20:05:30	20.837	0.193	82.905	66.201
06/24/2011 20:05:39	20.841	0.193	83.103	66.304
06/24/2011 20:05:49	20.841	0.193	83.103	66.304
06/24/2011 20:05:59	20.841	0.193	82.905	66.201
06/24/2011 20:06:09	20.841	0.19	82.703	66.304
06/24/2011 20:06:19	20.841	0.19	83.103	66.201
06/24/2011 20:06:29	20.841	0.186	83.103	66.201
06/24/2011 20:06:40	20.841	0.186	82.905	66.201
06/24/2011 20:06:49	20.841	0.183	82.905	66.201
06/24/2011 20:06:59	20.845	0.179	82.905	66.201
06/24/2011 20:07:09	20.845	0.179	82.905	66.201
06/24/2011 20:07:19	20.845	0.175	82.905	66.201
06/24/2011 20:07:29	20.845	0.172	82.905	66.201
06/24/2011 20:07:39	20.848	0.172	83.103	66.201
06/24/2011 20:07:50	20.848	0.168	82.905	66.201
06/24/2011 20:07:59	20.848	0.168	82.905	66.201
06/24/2011 20:08:09	20.848	0.164	83.103	66.201
06/24/2011 20:08:19	20.848	0.164	83.304	66.201
06/24/2011 20:08:29	20.848	0.164	83.103	66.201
06/24/2011 20:08:39	20.848	0.164	83.103	66.201
06/24/2011 20:08:49	20.852	0.164	83.103	66.201
06/24/2011 20:09:00	20.852	0.164	82.905	66.004
06/24/2011 20:09:09	20.852	0.168	82.905	66.201
06/24/2011 20:09:19	20.856	0.168	82.703	66.201
06/24/2011 20:09:29	20.856	0.168	82.905	66.004
06/24/2011 20:09:40	20.856	0.168	82.703	65.802
06/24/2011 20:09:49	20.856	0.168	82.703	65.802
06/24/2011 20:09:59	20.856	0.168	82.703	65.802
06/24/2011 20:10:10	20.856	0.168	82.703	65.802
06/24/2011 20:10:19	20.856	0.168	82.703	65.802
06/24/2011 20:10:29	20.856	0.168	82.703	65.604
06/24/2011 20:10:39	20.859	0.168	82.703	65.802
06/24/2011 20:10:50	20.856	0.168	82.905	66.004
06/24/2011 20:10:59	20.859	0.168	82.703	65.802
06/24/2011 20:11:09	20.859	0.168	82.703	65.604
06/24/2011 20:11:19	20.859	0.168	82.502	65.802
06/24/2011 20:11:29	20.859	0.168	82.403	65.802
06/24/2011 20:11:39	20.859	0.168	82.502	65.604
06/24/2011 20:11:49	20.859	0.168	82.703	65.604
06/24/2011 20:12:00	20.859	0.164	82.502	65.604
06/24/2011 20:12:09	20.859	0.164	82.403	65.604
06/24/2011 20:12:19	20.859	0.164	82.502	65.604
06/24/2011 20:12:29	20.859	0.164	82.502	65.604
06/24/2011 20:12:39	20.859	0.164	82.905	65.604
06/24/2011 20:12:49	20.859	0.164	82.905	65.604
06/24/2011 20:12:59	20.859	0.164	82.905	65.604
06/24/2011 20:13:10	20.863	0.164	83.103	65.403
06/24/2011 20:13:19	20.859	0.164	83.103	65.403
06/24/2011 20:13:29	20.859	0.164	83.103	65.403
06/24/2011 20:13:39	20.863	0.164	83.103	65.403
06/24/2011 20:13:49	20.863	0.164	82.905	65.403
06/24/2011 20:13:59	20.863	0.164	82.905	65.403
06/24/2011 20:14:09	20.863	0.161	82.703	65.403
06/24/2011 20:14:20	20.863	0.161	82.502	65.304
06/24/2011 20:14:29	20.863	0.161	82.403	65.304
06/24/2011 20:14:39	20.863	0.161	82.502	65.304
06/24/2011 20:14:49	20.863	0.161	82.703	65.304
06/24/2011 20:15:00	20.863	0.161	82.703	65.304
06/24/2011 20:15:09	20.867	0.161	82.703	65.304
06/24/2011 20:15:19	20.867	0.161	82.905	65.403
06/24/2011 20:15:30	20.867	0.161	82.905	65.403
06/24/2011 20:15:39	20.867	0.161	83.103	65.403
06/24/2011 20:15:49	20.867	0.164	83.103	65.403
06/24/2011 20:15:59	20.867	0.164	82.703	65.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 20:16:10	20.867	0.164	82.905	65.403
06/24/2011 20:16:19	20.867	0.168	82.202	65.304
06/24/2011 20:16:29	20.867	0.168	82.202	65.304
06/24/2011 20:16:40	20.867	0.168	82.502	65.304
06/24/2011 20:16:49	20.867	0.172	82.502	65.304
06/24/2011 20:16:59	20.867	0.172	82.502	65.304
06/24/2011 20:17:09	20.867	0.172	82.403	65.304
06/24/2011 20:17:20	20.87	0.172	82.403	65.304
06/24/2011 20:17:29	20.867	0.172	82.502	65.304
06/24/2011 20:17:39	20.867	0.172	82.502	65.304
06/24/2011 20:17:49	20.867	0.168	82.502	65.103
06/24/2011 20:17:59	20.867	0.168	82.703	65.304
06/24/2011 20:18:09	20.867	0.164	82.703	65.304
06/24/2011 20:18:19	20.867	0.164	82.703	65.103
06/24/2011 20:18:30	20.867	0.161	82.703	65.103
06/24/2011 20:18:39	20.867	0.157	82.703	65.304
06/24/2011 20:18:49	20.867	0.157	82.703	65.103
06/24/2011 20:18:59	20.867	0.153	82.502	65.103
06/24/2011 20:19:09	20.867	0.153	82.502	65.103
06/24/2011 20:19:19	20.867	0.153	82.502	65.103
06/24/2011 20:19:29	20.867	0.15	82.703	65.103
06/24/2011 20:19:40	20.87	0.15	82.502	65.103
06/24/2011 20:19:49	20.87	0.15	82.403	65.304
06/24/2011 20:19:59	20.87	0.15	82.403	65.103
06/24/2011 20:20:09	20.87	0.153	82.403	65.103
06/24/2011 20:20:19	20.87	0.153	82.502	65.103
06/24/2011 20:20:29	20.87	0.153	82.703	65.103
06/24/2011 20:20:39	20.87	0.153	82.703	65.304
06/24/2011 20:20:50	20.87	0.153	82.703	65.103
06/24/2011 20:20:59	20.87	0.153	82.703	65.103
06/24/2011 20:21:09	20.87	0.153	82.703	65.103
06/24/2011 20:21:19	20.87	0.157	82.703	65.103
06/24/2011 20:21:30	20.874	0.157	82.703	65.103
06/24/2011 20:21:39	20.874	0.157	82.703	65.103
06/24/2011 20:21:49	20.874	0.157	82.905	65.103
06/24/2011 20:22:00	20.874	0.157	82.905	64.901
06/24/2011 20:22:09	20.874	0.157	82.703	65.103
06/24/2011 20:22:19	20.874	0.157	82.502	65.103
06/24/2011 20:22:29	20.874	0.157	82.703	65.103
06/24/2011 20:22:40	20.874	0.157	82.703	65.103
06/24/2011 20:22:49	20.874	0.157	82.703	65.103
06/24/2011 20:22:59	20.874	0.157	82.502	65.103
06/24/2011 20:23:09	20.874	0.157	82.502	65.103
06/24/2011 20:23:19	20.874	0.157	82.502	65.103
06/24/2011 20:23:29	20.878	0.157	82.502	65.103
06/24/2011 20:23:39	20.878	0.157	82.502	65.103
06/24/2011 20:23:50	20.878	0.157	82.202	64.901
06/24/2011 20:23:59	20.878	0.157	82.403	64.901
06/24/2011 20:24:09	20.878	0.157	82.502	64.901
06/24/2011 20:24:19	20.878	0.157	82.703	65.103
06/24/2011 20:24:29	20.878	0.157	82.703	65.103
06/24/2011 20:24:39	20.874	0.157	82.703	65.103
06/24/2011 20:24:49	20.874	0.157	82.703	65.103
06/24/2011 20:25:00	20.874	0.157	82.703	64.901
06/24/2011 20:25:09	20.874	0.157	82.502	64.901
06/24/2011 20:25:19	20.874	0.153	82.502	64.901
06/24/2011 20:25:29	20.878	0.153	82.703	65.103
06/24/2011 20:25:39	20.878	0.153	82.703	64.901
06/24/2011 20:25:49	20.878	0.153	82.703	64.901
06/24/2011 20:25:59	20.878	0.153	82.703	64.901
06/24/2011 20:26:10	20.878	0.153	82.502	64.901
06/24/2011 20:26:19	20.878	0.153	82.502	64.901
06/24/2011 20:26:29	20.878	0.157	82.502	64.704
06/24/2011 20:26:39	20.878	0.157	82.703	64.901
06/24/2011 20:26:50	20.874	0.157	82.502	64.901

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/24/2011 20:26:59	20.878	0.161	82.502	64.704
06/24/2011 20:27:09	20.878	0.161	82.502	64.704
06/24/2011 20:27:20	20.878	0.161	82.502	64.901
06/24/2011 20:27:29	20.878	0.161	82.502	64.704
06/24/2011 20:27:39	20.878	0.164	82.502	64.704
06/24/2011 20:27:49	20.878	0.168	82.502	64.901
06/24/2011 20:28:00	20.874	0.172	82.502	64.704
06/24/2011 20:28:09	20.874	0.172	82.502	64.704
06/24/2011 20:28:19	20.87	0.175	82.502	64.704
06/24/2011 20:28:29	20.87	0.175	82.403	64.704
06/24/2011 20:28:39	20.87	0.175	82.703	64.901
06/24/2011 20:28:49	20.87	0.175	82.905	64.901
06/24/2011 20:28:59	20.87	0.175	82.502	64.704
06/24/2011 20:29:10	20.87	0.175	82.502	64.704
06/24/2011 20:29:19	20.87	0.172	82.403	64.704
06/24/2011 20:29:29	20.87	0.172	82.004	64.704
06/24/2011 20:29:39	20.87	0.168	82.202	64.704
06/24/2011 20:29:49	20.87	0.168	82.403	64.704
06/24/2011 20:29:59	20.867	0.164	82.502	64.704
06/24/2011 20:30:09	20.867	0.161	82.703	64.704
06/24/2011 20:30:20	20.87	0.161	82.502	64.704
06/24/2011 20:30:29	20.87	0.157	82.502	64.704
06/24/2011 20:30:39	20.87	0.157	82.502	64.704
06/24/2011 20:30:49	20.87	0.153	82.502	64.704
06/24/2011 20:30:59	20.87	0.153	82.403	64.704
06/24/2011 20:31:09	20.874	0.153	82.502	64.704
06/24/2011 20:31:19	20.874	0.153	82.403	64.704
06/24/2011 20:31:30	20.874	0.153	82.502	64.704
06/24/2011 20:31:39	20.874	0.153	82.403	64.704
06/24/2011 20:31:49	20.874	0.153	82.202	64.704
06/24/2011 20:31:59	20.874	0.153	82.202	64.502
06/24/2011 20:32:10	20.874	0.153	82.202	64.502
06/24/2011 20:32:19	20.874	0.153	82.004	64.502
06/24/2011 20:32:29	20.874	0.157	82.004	64.704
06/24/2011 20:32:40	20.874	0.157	82.403	64.704
06/24/2011 20:32:49	20.874	0.157	82.403	64.502
06/24/2011 20:32:59	20.874	0.157	82.403	64.502
06/24/2011 20:33:09	20.874	0.157	82.202	64.502
06/24/2011 20:33:20	20.874	0.157	82.004	64.704
06/24/2011 20:33:29	20.874	0.157	82.004	64.502
06/24/2011 20:33:39	20.874	0.157	82.004	64.502
06/24/2011 20:33:49	20.874	0.157	82.004	64.502
06/24/2011 20:33:59	20.874	0.157	82.004	64.502
06/24/2011 20:34:09	20.874	0.157	82.004	64.502
06/24/2011 20:34:19	20.874	0.157	82.202	64.502
06/24/2011 20:34:30	20.874	0.157	82.004	64.502
06/24/2011 20:34:39	20.874	0.157	82.202	64.502
06/24/2011 20:34:49	20.874	0.157	82.202	64.502
06/24/2011 20:34:59	20.874	0.157	82.403	64.704
06/24/2011 20:35:09	20.874	0.157	82.202	64.502
06/24/2011 20:35:19	20.874	0.157	82.403	64.502
06/24/2011 20:35:29	20.874	0.157	82.403	64.502
06/24/2011 20:35:40	20.874	0.157	82.202	64.502
06/24/2011 20:35:49	20.874	0.157	82.202	64.502
06/24/2011 20:35:59	20.874	0.157	82.202	64.502
06/24/2011 20:36:09	20.874	0.157	82.202	64.502
06/24/2011 20:36:19	20.874	0.157	82.202	64.502
06/24/2011 20:36:29	20.874	0.157	82.202	64.502

Chevron Hawaii
O_2 Calibration Data Summary

Project ID: Chevron
Date: 26-Jun
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 22.10
Analyzer Range: 25
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	08:40	-0.02	0.02	0.09%
span gas	CC82073	22.10	08:41	22.15	0.05	0.21%
mid-range	CC67546	11.10	08:42	11.17	0.07	0.33%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit	
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5
Run 7	0.00	-0.02	08:46	0.07	0.41%	17:50	0.00	0.11%	-0.31%	Co= 0.039
	11.10	11.17	08:47	11.10	-0.35%	17:52	11.00	-0.78%	-0.43%	Cma/(Cm-Co) 1.008

Chevron Hawaii
CO_2 Calibration Data Summary

Project ID: Chevron
Date: 26-Jun-11
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 18.90
Analyzer Range: 20
Units: %
Technician(s): MDD

Calibration Error Test Results

	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)	2% Limit
zero gas	ASZ788	0.00	08:40	0.11	0.11	0.56%	
span gas	CC82073	18.90	08:41	19.14	0.24	1.25%	
mid-range	CC67546	9.74	08:42	9.99	0.25	1.30%	

CEMS Calibration Bias and Drift Tests

Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span) 5% Limit	Time	Post-test CEMS Response	Bias (% of Span) 5% Limit	Drift (% of Span) 3% Limit	Eq. 7E-5	
Run 7	0.00	0.11	08:46	0.15	0.21%	17:50	0.17	0.33%	0.12%	Co=	0.158
	9.74	9.99	08:47	9.89	-0.50%	17:52	9.91	-0.39%	0.12%	Cma/(Cm-Co)	1.000

URS CEMs Raw Data
June 26, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 07:40:44	20.951	0.168	74.302	58.804
06/26/2011 07:40:54	20.951	0.168	74.104	58.804
06/26/2011 07:41:04	20.951	0.168	73.903	58.804
06/26/2011 07:41:14	20.951	0.168	73.903	58.804
06/26/2011 07:41:24	20.951	0.168	73.903	58.804
06/26/2011 07:41:34	20.951	0.172	74.302	59.001
06/26/2011 07:41:44	20.951	0.172	74.302	58.804
06/26/2011 07:41:54	20.951	0.172	74.302	58.804
06/26/2011 07:42:04	20.951	0.172	74.302	58.804
06/26/2011 07:42:14	20.951	0.168	74.104	58.804
06/26/2011 07:42:24	20.951	0.172	74.104	59.001
06/26/2011 07:42:34	20.951	0.172	74.401	59.001
06/26/2011 07:42:44	20.951	0.168	74.302	59.001
06/26/2011 07:42:54	20.951	0.172	74.104	59.001
06/26/2011 07:43:04	20.951	0.168	74.302	58.804
06/26/2011 07:43:14	20.951	0.172	74.302	59.001
06/26/2011 07:43:24	20.951	0.172	74.401	59.001
06/26/2011 07:43:34	20.951	0.168	74.602	59.001
06/26/2011 07:43:44	20.951	0.172	74.602	59.001
06/26/2011 07:43:54	20.951	0.168	74.401	58.804
06/26/2011 07:44:04	20.951	0.168	74.602	58.804
06/26/2011 07:44:14	20.951	0.168	74.602	58.804
06/26/2011 07:44:24	20.951	0.168	75.002	59.001
06/26/2011 07:44:34	20.951	0.168	74.804	59.001
06/26/2011 07:44:44	20.951	0.168	74.602	59.001
06/26/2011 07:44:54	20.951	0.168	74.602	59.001
06/26/2011 07:45:04	20.951	0.168	74.804	59.001
06/26/2011 07:45:14	20.951	0.168	74.602	59.001
06/26/2011 07:45:24	20.951	0.168	74.602	59.001
06/26/2011 07:45:34	20.951	0.168	74.602	59.001
06/26/2011 07:45:44	20.951	0.168	74.401	59.001
06/26/2011 07:45:54	20.951	0.168	74.401	59.001
06/26/2011 07:46:04	20.951	0.168	74.401	59.001
06/26/2011 07:46:14	20.951	0.168	74.401	59.001
06/26/2011 07:46:24	20.951	0.168	74.401	59.001
06/26/2011 07:46:34	20.951	0.168	74.401	59.104
06/26/2011 07:46:44	20.951	0.168	74.401	59.001
06/26/2011 07:46:54	20.955	0.168	74.302	59.001
06/26/2011 07:47:04	20.951	0.168	74.401	59.001
06/26/2011 07:47:14	20.951	0.168	74.602	59.001
06/26/2011 07:47:24	20.951	0.172	74.602	59.001
06/26/2011 07:47:34	20.951	0.172	74.602	59.104
06/26/2011 07:47:44	20.951	0.172	74.602	59.104
06/26/2011 07:47:54	20.951	0.172	74.602	59.104
06/26/2011 07:48:04	20.955	0.172	74.804	59.104
06/26/2011 07:48:14	20.955	0.175	74.804	59.104
06/26/2011 07:48:24	20.955	0.175	74.804	59.104
06/26/2011 07:48:34	20.955	0.175	74.804	59.104
06/26/2011 07:48:44	20.955	0.175	75.002	59.104
06/26/2011 07:48:54	20.958	0.179	74.602	59.104
06/26/2011 07:49:04	20.958	0.179	74.804	59.302
06/26/2011 07:49:14	20.958	0.179	75.002	59.104
06/26/2011 07:49:24	20.958	0.179	75.002	59.104
06/26/2011 07:49:34	20.958	0.179	75.002	59.104
06/26/2011 07:49:44	20.958	0.179	75.002	59.104
06/26/2011 07:49:54	20.958	0.179	75.002	59.104
06/26/2011 07:50:04	20.958	0.179	75.002	59.104
06/26/2011 07:50:14	20.958	0.179	75.002	59.104
06/26/2011 07:50:24	20.958	0.179	75.002	59.104
06/26/2011 07:50:34	20.955	0.179	75.002	59.104
06/26/2011 07:50:44	20.955	0.179	75.002	59.104
06/26/2011 07:50:54	20.955	0.179	75.002	59.104
06/26/2011 07:51:04	20.955	0.175	75.002	59.104
06/26/2011 07:51:14	20.955	0.175	74.804	59.104
06/26/2011 07:51:24	20.955	0.175	74.602	59.104
06/26/2011 07:51:34	20.955	0.175	75.002	59.104

URS CEMs Raw Data
June 26, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 07:51:44	20.955	0.172	75.002	59.104
06/26/2011 07:51:54	20.955	0.172	74.804	59.104
06/26/2011 07:52:04	20.955	0.172	75.203	59.302
06/26/2011 07:52:14	20.955	0.172	75.002	59.302
06/26/2011 07:52:24	20.955	0.168	75.203	59.302
06/26/2011 07:52:34	20.955	0.168	75.302	59.302
06/26/2011 07:52:44	20.955	0.168	75.302	59.302
06/26/2011 07:52:54	20.955	0.164	75.203	59.302
06/26/2011 07:53:04	20.955	0.164	75.203	59.503
06/26/2011 07:53:14	20.955	0.164	75.203	59.302
06/26/2011 07:53:24	20.955	0.164	75.302	59.302
06/26/2011 07:53:34	20.955	0.161	75.302	59.503
06/26/2011 07:53:44	20.955	0.161	75.302	59.302
06/26/2011 07:53:54	20.955	0.161	75.302	59.302
06/26/2011 07:54:04	20.955	0.161	75.302	59.302
06/26/2011 07:54:14	20.955	0.161	75.203	59.302
06/26/2011 07:54:24	20.955	0.161	75.002	59.302
06/26/2011 07:54:34	20.955	0.161	75.302	59.302
06/26/2011 07:54:44	20.955	0.161	75.302	59.302
06/26/2011 07:54:54	20.955	0.161	75.302	59.302
06/26/2011 07:55:04	20.955	0.161	75.302	59.302
06/26/2011 07:55:14	20.955	0.161	75.503	59.503
06/26/2011 07:55:24	20.955	0.161	75.503	59.503
06/26/2011 07:55:34	20.955	0.164	75.503	59.503
06/26/2011 07:55:44	20.955	0.164	75.503	59.302
06/26/2011 07:55:54	20.955	0.164	75.903	59.503
06/26/2011 07:56:04	20.955	0.164	75.701	59.503
06/26/2011 07:56:14	20.955	0.164	75.701	59.503
06/26/2011 07:56:24	20.955	0.164	75.701	59.503
06/26/2011 07:56:34	20.951	0.164	75.903	59.503
06/26/2011 07:56:44	20.951	0.164	75.903	59.503
06/26/2011 07:56:54	20.955	0.164	75.903	59.503
06/26/2011 07:57:04	20.951	0.168	75.903	59.503
06/26/2011 07:57:14	20.951	0.168	75.701	59.503
06/26/2011 07:57:24	20.955	0.164	75.701	59.503
06/26/2011 07:57:34	20.951	0.168	75.701	59.503
06/26/2011 07:57:44	20.951	0.168	75.701	59.503
06/26/2011 07:57:54	20.951	0.168	75.903	59.503
06/26/2011 07:58:04	20.951	0.168	75.903	59.503
06/26/2011 07:58:14	20.951	0.164	75.903	59.503
06/26/2011 07:58:24	20.951	0.168	75.903	59.503
06/26/2011 07:58:34	20.951	0.164	76.104	59.503
06/26/2011 07:58:44	20.951	0.168	76.203	59.701
06/26/2011 07:58:54	20.951	0.168	76.104	59.503
06/26/2011 07:59:04	20.951	0.168	76.203	59.503
06/26/2011 07:59:14	20.951	0.168	76.404	59.701
06/26/2011 07:59:24	20.951	0.164	76.203	59.701
06/26/2011 07:59:34	20.951	0.164	76.203	59.701
06/26/2011 07:59:44	20.951	0.168	76.203	59.701
06/26/2011 07:59:54	20.951	0.168	76.203	59.701
06/26/2011 08:00:04	20.951	0.164	76.203	59.701
06/26/2011 08:00:14	20.951	0.164	76.203	59.701
06/26/2011 08:00:24	20.951	0.164	76.203	59.701
06/26/2011 08:00:34	20.951	0.168	76.203	59.701
06/26/2011 08:00:44	20.955	0.164	76.203	59.701
06/26/2011 08:00:54	20.955	0.164	76.203	59.701
06/26/2011 08:01:04	20.955	0.164	76.203	59.701
06/26/2011 08:01:14	20.955	0.164	76.404	59.902
06/26/2011 08:01:24	20.955	0.164	76.404	59.902
06/26/2011 08:01:34	20.955	0.164	76.404	59.902
06/26/2011 08:01:44	20.951	0.164	76.602	60.203
06/26/2011 08:01:54	20.951	0.164	76.803	60.001
06/26/2011 08:02:04	20.951	0.164	76.803	60.001
06/26/2011 08:02:14	20.951	0.164	76.803	60.001
06/26/2011 08:02:24	20.951	0.164	76.803	60.001
06/26/2011 08:02:34	20.951	0.164	76.803	60.001

URS CEMs Raw Data
June 26, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 08:02:44	20.947	0.164	76.602	60.203
06/26/2011 08:02:54	20.947	0.164	76.602	60.001
06/26/2011 08:03:04	20.951	0.164	76.602	60.001
06/26/2011 08:03:14	20.951	0.164	76.803	60.001
06/26/2011 08:03:24	20.951	0.164	76.803	60.001
06/26/2011 08:03:34	20.951	0.164	76.803	60.203
06/26/2011 08:03:44	20.951	0.164	76.803	60.203
06/26/2011 08:03:54	20.951	0.164	77.001	60.203
06/26/2011 08:04:04	20.951	0.164	77.001	60.203
06/26/2011 08:04:14	20.951	0.164	76.803	60.203
06/26/2011 08:04:24	20.951	0.164	77.001	60.001
06/26/2011 08:04:34	20.951	0.164	76.803	60.001
06/26/2011 08:04:44	20.951	0.168	76.803	60.001
06/26/2011 08:04:54	20.951	0.168	76.803	60.001
06/26/2011 08:05:04	20.951	0.168	76.803	60.001
06/26/2011 08:05:14	20.955	0.168	77.001	60.404
06/26/2011 08:05:24	20.955	0.172	77.001	60.203
06/26/2011 08:05:34	20.955	0.172	76.602	60.203
06/26/2011 08:05:44	20.955	0.172	76.803	60.203
06/26/2011 08:05:54	20.951	0.172	76.602	60.203
06/26/2011 08:06:04	20.951	0.172	76.602	60.203
06/26/2011 08:06:14	20.951	0.175	77.001	60.404
06/26/2011 08:06:24	20.951	0.175	77.001	60.404
06/26/2011 08:06:34	20.951	0.175	77.104	60.404
06/26/2011 08:06:44	20.951	0.175	77.104	60.404
06/26/2011 08:06:54	20.947	0.175	77.001	60.404
06/26/2011 08:07:04	20.947	0.175	77.001	60.404
06/26/2011 08:07:14	20.951	0.175	77.104	60.404
06/26/2011 08:07:24	20.947	0.175	77.104	60.203
06/26/2011 08:07:34	20.947	0.175	77.302	60.404
06/26/2011 08:07:44	20.947	0.172	77.302	60.404
06/26/2011 08:07:54	20.947	0.172	77.503	60.404
06/26/2011 08:08:04	20.947	0.172	77.302	60.404
06/26/2011 08:08:14	20.947	0.168	77.302	60.404
06/26/2011 08:08:24	20.947	0.168	77.704	60.602
06/26/2011 08:08:34	20.947	0.168	77.704	60.602
06/26/2011 08:08:44	20.947	0.164	77.503	60.602
06/26/2011 08:08:54	20.947	0.164	77.503	60.602
06/26/2011 08:09:04	20.947	0.164	77.302	60.404
06/26/2011 08:09:14	20.944	0.161	77.302	60.602
06/26/2011 08:09:24	20.944	0.161	77.302	60.602
06/26/2011 08:09:34	20.944	0.157	77.302	60.602
06/26/2011 08:09:44	20.944	0.157	77.302	60.602
06/26/2011 08:09:54	20.944	0.157	77.302	60.602
06/26/2011 08:10:04	20.944	0.157	77.503	60.404
06/26/2011 08:10:14	20.944	0.157	77.302	60.602
06/26/2011 08:10:24	20.944	0.157	77.302	60.602
06/26/2011 08:10:34	20.944	0.157	77.302	60.602
06/26/2011 08:10:44	20.944	0.157	77.302	60.602
06/26/2011 08:10:54	20.94	0.157	77.503	60.602
06/26/2011 08:11:04	20.94	0.157	77.503	60.602
06/26/2011 08:11:14	20.944	0.157	77.503	60.602
06/26/2011 08:11:24	20.944	0.157	77.503	60.803
06/26/2011 08:11:34	20.94	0.161	77.503	60.602
06/26/2011 08:11:44	20.944	0.161	77.302	60.602
06/26/2011 08:11:54	20.944	0.161	77.104	60.602
06/26/2011 08:12:04	20.94	0.161	77.001	60.602
06/26/2011 08:12:14	20.94	0.161	77.001	60.602
06/26/2011 08:12:24	20.94	0.164	77.302	60.803
06/26/2011 08:12:34	20.94	0.164	77.302	60.803
06/26/2011 08:12:44	20.944	0.164	77.302	60.602
06/26/2011 08:12:54	20.944	0.164	77.302	60.602
06/26/2011 08:13:04	20.944	0.164	77.302	60.602
06/26/2011 08:13:14	20.944	0.164	77.302	60.602
06/26/2011 08:13:24	20.944	0.164	77.503	60.602
06/26/2011 08:13:34	20.944	0.164	77.503	60.803

URS CEMs Raw Data
June 26, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 08:13:44	20.944	0.164	77.503	60.803
06/26/2011 08:13:54	20.947	0.164	77.503	60.803
06/26/2011 08:14:04	20.944	0.161	77.104	60.803
06/26/2011 08:14:14	20.947	0.161	77.302	60.602
06/26/2011 08:14:24	20.947	0.161	77.302	60.602
06/26/2011 08:14:34	20.947	0.161	77.302	60.803
06/26/2011 08:14:44	20.94	0.157	77.503	60.803
06/26/2011 08:14:54	20.94	0.157	77.704	60.803
06/26/2011 08:15:04	20.94	0.157	77.704	60.902
06/26/2011 08:15:14	20.94	0.157	77.704	60.803
06/26/2011 08:15:24	20.94	0.153	77.704	60.803
06/26/2011 08:15:34	20.94	0.153	77.902	60.803
06/26/2011 08:15:44	20.94	0.153	77.902	60.902
06/26/2011 08:15:54	20.94	0.153	77.704	60.602
06/26/2011 08:16:04	20.94	0.153	77.704	60.602
06/26/2011 08:16:14	20.94	0.153	77.704	60.602
06/26/2011 08:16:24	20.94	0.153	77.704	60.803
06/26/2011 08:16:34	20.94	0.153	77.704	60.803
06/26/2011 08:16:44	20.94	0.153	77.704	60.803
06/26/2011 08:16:54	20.94	0.153	77.704	60.803
06/26/2011 08:17:04	20.94	0.153	77.503	60.803
06/26/2011 08:17:14	20.94	0.157	77.704	60.803
06/26/2011 08:17:24	20.94	0.157	77.704	60.803
06/26/2011 08:17:34	20.94	0.157	77.503	60.803
06/26/2011 08:17:44	20.94	0.157	77.704	60.902
06/26/2011 08:17:54	20.94	0.157	77.704	60.902
06/26/2011 08:18:04	20.94	0.157	77.503	60.902
06/26/2011 08:18:14	20.94	0.157	77.704	60.803
06/26/2011 08:18:24	20.94	0.157	77.902	60.902
06/26/2011 08:18:34	20.94	0.157	77.902	60.902
06/26/2011 08:18:44	20.94	0.157	78.005	60.902
06/26/2011 08:18:54	20.94	0.157	78.202	61.104
06/26/2011 08:19:04	20.94	0.157	77.902	61.104
06/26/2011 08:19:14	20.94	0.161	77.902	61.104
06/26/2011 08:19:24	20.94	0.161	78.005	61.104
06/26/2011 08:19:34	20.94	0.161	78.202	61.104
06/26/2011 08:19:44	20.94	0.161	78.602	61.104
06/26/2011 08:19:54	20.936	0.161	78.602	61.104
06/26/2011 08:20:04	20.936	0.161	78.602	61.104
06/26/2011 08:20:14	20.94	0.164	78.404	61.104
06/26/2011 08:20:24	20.936	0.164	78.602	61.104
06/26/2011 08:20:34	20.936	0.164	78.404	60.902
06/26/2011 08:20:44	20.936	0.168	78.202	60.902
06/26/2011 08:20:54	20.936	0.164	78.202	61.104
06/26/2011 08:21:04	20.936	0.168	78.602	61.301
06/26/2011 08:21:14	20.94	0.168	78.404	61.104
06/26/2011 08:21:24	20.936	0.172	78.404	61.104
06/26/2011 08:21:34	20.936	0.172	78.404	61.104
06/26/2011 08:21:44	20.94	0.172	78.803	61.301
06/26/2011 08:21:54	20.936	0.172	78.803	62.001
06/26/2011 08:22:04	20.929	0.172	78.602	63.103
06/26/2011 08:22:14	20.925	0.172	78.404	63.803
06/26/2011 08:22:24	20.925	0.175	78.404	64.202
06/26/2011 08:22:34	20.925	0.172	78.803	64.502
06/26/2011 08:22:44	20.922	0.172	78.803	64.704
06/26/2011 08:22:54	20.925	0.172	78.902	64.901
06/26/2011 08:23:04	20.925	0.172	79.103	64.502
06/26/2011 08:23:14	20.929	0.172	79.103	62.202
06/26/2011 08:23:24	20.929	0.164	79.305	61.503
06/26/2011 08:23:34	20.933	0.164	79.103	61.104
06/26/2011 08:23:44	20.933	0.164	79.103	61.104
06/26/2011 08:23:54	20.933	0.161	78.902	60.902
06/26/2011 08:24:04	20.933	0.161	78.902	60.902
06/26/2011 08:24:14	20.933	0.157	79.103	60.902
06/26/2011 08:24:24	20.933	0.157	79.503	61.104
06/26/2011 08:24:34	20.933	0.153	79.503	61.104

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 08:24:44	20.933	0.153	79.305	61.104
06/26/2011 08:24:54	20.933	0.153	79.103	61.104
06/26/2011 08:25:04	20.933	0.153	78.902	61.104
06/26/2011 08:25:14	20.936	0.153	79.103	61.104
06/26/2011 08:25:24	20.933	0.153	78.902	61.104
06/26/2011 08:25:34	20.933	0.153	78.902	61.104
06/26/2011 08:25:44	20.933	0.153	78.902	61.104
06/26/2011 08:25:54	20.933	0.153	79.103	61.104
06/26/2011 08:26:04	20.936	0.153	79.103	61.104
06/26/2011 08:26:14	20.936	0.153	78.902	61.104
06/26/2011 08:26:24	20.936	0.153	78.902	61.104
06/26/2011 08:26:34	20.936	0.157	79.103	61.104
06/26/2011 08:26:44	20.936	0.157	79.103	61.104
06/26/2011 08:26:54	20.936	0.157	79.103	61.104
06/26/2011 08:27:04	20.936	0.157	79.305	60.902
06/26/2011 08:27:14	20.936	0.157	79.305	61.104
06/26/2011 08:27:24	20.936	0.157	79.103	60.902
06/26/2011 08:27:34	20.936	0.157	79.103	60.902
06/26/2011 08:27:44	20.936	0.157	79.103	60.902
06/26/2011 08:27:54	20.936	0.161	79.103	60.902
06/26/2011 08:28:04	20.936	0.161	79.503	61.104
06/26/2011 08:28:14	20.936	0.161	79.503	61.104
06/26/2011 08:28:24	20.933	0.161	79.305	61.104
06/26/2011 08:28:34	20.936	0.161	79.103	61.104
06/26/2011 08:28:44	20.933	0.161	79.503	61.301
06/26/2011 08:28:54	20.933	0.161	79.503	61.301
06/26/2011 08:29:04	20.933	0.161	79.503	61.301
06/26/2011 08:29:14	20.933	0.161	79.305	61.301
06/26/2011 08:29:24	20.933	0.161	79.305	61.301
06/26/2011 08:29:34	20.933	0.161	79.305	61.301
06/26/2011 08:29:44	20.933	0.161	79.503	61.301
06/26/2011 08:29:54	20.933	0.161	79.305	61.104
06/26/2011 08:30:04	20.933	0.161	79.103	61.301
06/26/2011 08:30:14	20.933	0.161	79.305	61.301
06/26/2011 08:30:24	20.933	0.161	79.503	61.301
06/26/2011 08:30:34	20.929	0.161	79.503	61.301
06/26/2011 08:30:44	20.933	0.161	79.503	61.301
06/26/2011 08:30:54	20.933	0.161	79.503	61.301
06/26/2011 08:31:04	20.933	0.161	79.503	61.301
06/26/2011 08:31:14	20.933	0.161	79.503	61.301
06/26/2011 08:31:24	20.936	0.161	79.704	61.301
06/26/2011 08:31:34	20.936	0.157	79.704	61.301
06/26/2011 08:31:44	20.933	0.161	79.704	61.301
06/26/2011 08:31:54	20.933	0.161	79.704	61.301
06/26/2011 08:32:04	20.933	0.157	79.704	61.301
06/26/2011 08:32:14	20.933	0.161	79.704	61.301
06/26/2011 08:32:24	20.933	0.161	79.704	61.301
06/26/2011 08:32:34	20.933	0.157	79.704	61.301
06/26/2011 08:32:44	20.936	0.157	79.704	61.301
06/26/2011 08:32:54	20.933	0.157	79.503	61.301
06/26/2011 08:33:04	20.933	0.161	79.503	61.301
06/26/2011 08:33:14	20.933	0.157	79.704	61.301
06/26/2011 08:33:24	20.933	0.157	79.503	61.104
06/26/2011 08:33:34	20.933	0.157	79.704	61.301
06/26/2011 08:33:44	20.933	0.157	79.803	61.301
06/26/2011 08:33:54	20.936	0.157	80.004	61.301
06/26/2011 08:34:04	20.936	0.161	79.803	61.301
06/26/2011 08:34:14	20.933	0.161	80.004	61.301
06/26/2011 08:34:24	20.933	0.161	79.803	61.104
06/26/2011 08:34:34	20.933	0.161	79.803	61.301
06/26/2011 08:34:44	20.933	0.164	79.803	61.301
06/26/2011 08:34:54	20.933	0.164	79.803	61.301
06/26/2011 08:35:04	20.936	0.164	79.803	61.301
06/26/2011 08:35:14	20.933	0.168	79.704	61.301
06/26/2011 08:35:24	20.933	0.164	79.704	61.301
06/26/2011 08:35:34	20.933	0.168	79.704	61.301

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 08:35:44	20.933	0.168	79.803	61.104
06/26/2011 08:35:54	20.933	0.172	80.202	61.301
06/26/2011 08:36:04	20.933	0.172	80.202	61.301
06/26/2011 08:36:14	20.933	0.172	80.403	61.301
06/26/2011 08:36:24	20.933	0.172	80.403	61.301
06/26/2011 08:36:34	20.933	0.168	80.202	61.301
06/26/2011 08:36:44	20.933	0.172	80.202	61.301
06/26/2011 08:36:54	20.933	0.172	80.202	61.301
06/26/2011 08:37:04	20.933	0.168	80.004	61.301
06/26/2011 08:37:14	20.933	0.168	80.202	61.301
06/26/2011 08:37:24	20.933	0.168	79.803	61.104
06/26/2011 08:37:34	20.933	0.164	79.704	61.104
06/26/2011 08:37:44	20.933	0.164	79.704	61.301
06/26/2011 08:37:54	20.933	0.161	79.704	61.301
06/26/2011 08:38:04	20.933	0.161	79.803	61.104
06/26/2011 08:38:14	20.933	0.161	79.803	61.301
06/26/2011 08:38:24	20.933	0.157	80.004	61.301
06/26/2011 08:38:34	20.933	0.157	79.803	61.301
06/26/2011 08:38:44	20.936	0.157	80.004	61.301
06/26/2011 08:38:54	20.933	0.153	80.004	61.301
06/26/2011 08:39:04	20.933	0.153	80.202	61.503
06/26/2011 08:39:14	20.933	0.153	80.202	60.902
Calibration Error				
06/26/2011 08:39:24	15.703	0.135	80.004	59.104
06/26/2011 08:39:34	1.966	0.106	79.803	58.602
06/26/2011 08:39:44	0.007	0.102	79.503	58.401
06/26/2011 08:39:54	-0.012	0.106	79.305	58.401
06/26/2011 08:40:04	-0.019	0.106	79.305	58.203
06/26/2011 08:40:14	-0.026	0.106	79.305	58.401
N2 Zero	**-0.019**	**0.106**	**79.305**	**58.335**
06/26/2011 08:40:24	3.05	4.185	79.305	58.401
06/26/2011 08:40:34	17.497	19.208	79.305	58.401
06/26/2011 08:40:44	21.925	19.028	79.103	58.401
06/26/2011 08:40:54	21.954	19.109	79.305	58.401
06/26/2011 08:41:04	22.134	19.124	79.305	58.401
06/26/2011 08:41:14	22.149	19.142	79.305	58.401
06/26/2011 08:41:24	22.156	19.142	79.503	58.401
22.1% O2/18.9% CO2 Span	**22.146**	**19.136**	**79.371**	**58.401**
06/26/2011 08:41:34	20.775	13.432	79.503	58.401
06/26/2011 08:41:44	13.806	10.012	79.503	58.401
06/26/2011 08:41:54	11.231	10.001	79.503	58.401
06/26/2011 08:42:04	11.18	9.997	79.503	58.401
06/26/2011 08:42:14	11.173	9.994	79.503	58.401
06/26/2011 08:42:24	11.173	9.986	79.503	58.401
06/26/2011 08:42:34	11.173	9.986	79.305	58.401
06/26/2011 08:42:44	11.173	9.986	79.503	58.602
06/26/2011 08:42:54	11.173	9.986	79.503	58.804
11.1% O2/9.74% CO2 Mid	**11.173**	**9.986**	**79.437**	**58.602**
06/26/2011 08:43:04	11.169	9.979	79.704	59.001
06/26/2011 08:43:14	10.016	13.077	79.503	60.404
06/26/2011 08:43:24	6.375	9.51	79.305	61.503
Calibration Bias				
06/26/2011 08:43:34	2.889	0.377	79.103	61.704
06/26/2011 08:43:44	0.322	0.256	79.305	61.803
06/26/2011 08:43:54	0.153	0.208	79.305	61.803
06/26/2011 08:44:04	0.128	0.186	79.704	62.202
06/26/2011 08:44:14	0.117	0.172	79.803	62.001
06/26/2011 08:44:24	0.109	0.161	79.803	62.001
06/26/2011 08:44:34	0.098	0.153	79.803	62.404
06/26/2011 08:44:44	0.091	0.146	79.803	62.404
06/26/2011 08:44:54	0.087	0.142	80.004	62.404
06/26/2011 08:45:04	0.084	0.139	79.803	62.404
06/26/2011 08:45:14	1.801	11.012	79.803	62.202
06/26/2011 08:45:24	4.801	12.356	79.803	62.404
06/26/2011 08:45:34	2.497	0.344	79.803	62.404
06/26/2011 08:45:44	0.237	0.204	80.004	62.601

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 08:45:54	0.091	0.172	80.004	62.404
06/26/2011 08:46:04	0.076	0.153	80.004	62.404
06/26/2011 08:46:14	0.073	0.146	80.202	62.202
06/26/2011 08:46:24	0.069	0.139	80.202	62.202
N2 Zero	**0.073**	**0.146**	**80.136**	**62.269**
06/26/2011 08:46:34	0.289	1.673	80.202	62.202
06/26/2011 08:46:44	6.046	9.73	80.004	61.803
06/26/2011 08:46:54	10.737	9.829	80.004	61.704
06/26/2011 08:47:04	11.037	9.854	80.004	61.704
06/26/2011 08:47:14	11.067	9.869	80.403	61.503
06/26/2011 08:47:24	11.081	9.88	80.403	61.301
06/26/2011 08:47:34	11.089	9.887	80.202	61.104
06/26/2011 08:47:44	11.096	9.891	80.202	61.104
06/26/2011 08:47:54	11.1	9.895	80.202	60.902
11.1% O2/9.74% CO2 Mid	**11.095**	**9.891**	**80.202**	**61.037**
06/26/2011 08:48:04	11.063	9.997	80.004	60.902
06/26/2011 08:48:14	8.433	13.377	80.202	60.902
06/26/2011 08:48:24	5.698	13.454	80.004	61.104
06/26/2011 08:48:34	5.441	13.531	80.202	61.301
06/26/2011 08:48:44	5.405	13.509	80.202	61.301
06/26/2011 08:48:54	5.416	13.517	80.004	61.503
06/26/2011 08:49:04	5.35	13.59	80.004	61.704
06/26/2011 08:49:14	5.306	13.608	80.202	61.704
06/26/2011 08:49:24	5.266	13.674	80.403	61.704
06/26/2011 08:49:34	5.222	13.692	80.403	61.803
06/26/2011 08:49:44	5.236	13.659	80.202	61.803
06/26/2011 08:49:54	5.288	13.605	80.202	62.001
06/26/2011 08:50:04	5.288	13.678	80.403	62.001
06/26/2011 08:50:14	5.247	13.681	80.403	62.001
06/26/2011 08:50:24	5.236	13.696	80.403	62.001
06/26/2011 08:50:34	5.214	13.7	80.403	62.001
06/26/2011 08:50:44	5.273	13.597	80.202	62.001
06/26/2011 08:50:54	5.31	13.641	80.403	62.202
06/26/2011 08:51:04	5.251	13.7	80.605	62.202
06/26/2011 08:51:14	5.192	13.751	80.605	62.202
06/26/2011 08:51:24	5.181	13.703	80.902	62.404
06/26/2011 08:51:34	5.236	13.681	80.704	62.404
06/26/2011 08:51:44	5.247	13.718	80.605	62.404
06/26/2011 08:51:54	5.214	13.725	80.704	62.601
06/26/2011 08:52:04	5.174	13.78	80.704	62.601
06/26/2011 08:52:14	5.192	13.67	80.704	62.704
06/26/2011 08:52:24	5.214	13.707	80.902	62.601
06/26/2011 08:52:34	5.196	13.711	80.704	62.601
06/26/2011 08:52:44	5.196	13.74	80.902	62.601
06/26/2011 08:52:54	5.2	13.703	80.902	62.601
06/26/2011 08:53:04	5.225	13.659	81.103	62.601
06/26/2011 08:53:14	5.247	13.681	81.103	62.704
06/26/2011 08:53:24	5.211	13.755	81.103	62.704
06/26/2011 08:53:34	5.174	13.714	81.103	62.902
06/26/2011 08:53:44	5.185	13.714	80.902	62.902
06/26/2011 08:53:54	5.192	13.7	80.902	62.704
06/26/2011 08:54:04	5.203	13.707	80.902	62.902
06/26/2011 08:54:14	5.211	13.7	81.103	62.902
06/26/2011 08:54:24	5.236	13.692	81.304	62.902
06/26/2011 08:54:34	5.225	13.674	81.304	62.902
06/26/2011 08:54:44	5.236	13.678	81.304	62.902
06/26/2011 08:54:54	5.266	13.656	81.304	63.103
06/26/2011 08:55:04	5.269	13.674	81.103	63.103
06/26/2011 08:55:14	5.269	13.652	81.304	62.902
06/26/2011 08:55:24	5.258	13.67	81.605	63.103
06/26/2011 08:55:34	5.247	13.67	81.502	63.301
06/26/2011 08:55:44	5.255	13.67	81.103	63.103
06/26/2011 08:55:54	5.269	13.638	81.304	63.103
06/26/2011 08:56:04	5.299	13.638	81.304	63.103
06/26/2011 08:56:14	5.295	13.652	81.103	63.103
06/26/2011 08:56:24	5.269	13.711	80.902	63.103

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 08:56:34	5.2	13.78	81.103	63.301
06/26/2011 08:56:44	5.174	13.711	81.103	63.301
06/26/2011 08:56:54	5.2	13.773	81.103	63.301
06/26/2011 08:57:04	5.163	13.769	81.304	63.301
06/26/2011 08:57:14	5.148	13.773	81.103	63.301
06/26/2011 08:57:24	5.189	13.703	80.902	63.301
06/26/2011 08:57:34	5.211	13.725	81.103	63.301
06/26/2011 08:57:44	5.178	13.784	80.902	63.301
06/26/2011 08:57:54	5.152	13.758	81.304	63.502
06/26/2011 08:58:04	5.17	13.751	81.304	63.502
06/26/2011 08:58:14	5.189	13.7	81.304	63.502
06/26/2011 08:58:24	5.218	13.711	81.304	63.301
06/26/2011 08:58:34	5.218	13.751	81.103	63.502
06/26/2011 08:58:44	5.181	13.802	81.304	63.502
06/26/2011 08:58:54	5.134	13.799	81.304	63.502
06/26/2011 08:59:04	5.13	13.777	81.304	63.502
06/26/2011 08:59:14	5.137	13.799	81.103	63.502
06/26/2011 08:59:24	5.145	13.78	80.902	63.502
06/26/2011 08:59:34	5.181	13.751	81.103	63.502
06/26/2011 08:59:44	5.152	13.832	81.304	63.601
06/26/2011 08:59:54	5.101	13.832	81.103	63.502
06/26/2011 09:00:04	5.094	13.832	81.103	63.502
06/26/2011 09:00:14	5.119	13.744	81.103	63.502
06/26/2011 09:00:24	5.189	13.714	81.304	63.601
06/26/2011 09:00:34	5.218	13.67	81.304	63.601
06/26/2011 09:00:44	5.258	13.703	81.304	63.803
06/26/2011 09:00:54	5.189	13.729	81.605	64.004
06/26/2011 09:01:04	5.214	13.667	81.605	64.004
06/26/2011 09:01:14	5.251	13.703	81.502	64.004
06/26/2011 09:01:24	5.233	13.714	81.502	64.004
06/26/2011 09:01:34	5.222	13.733	81.502	64.004
06/26/2011 09:01:44	5.214	13.722	81.502	64.004
06/26/2011 09:01:54	5.222	13.744	81.502	63.803
06/26/2011 09:02:04	5.218	13.711	81.502	64.004
06/26/2011 09:02:14	5.225	13.707	81.502	64.004
06/26/2011 09:02:24	5.233	13.729	81.605	64.004
06/26/2011 09:02:34	5.218	13.711	81.605	64.004
06/26/2011 09:02:44	5.266	13.656	81.802	64.004
06/26/2011 09:02:54	5.31	13.641	81.502	63.803
06/26/2011 09:03:04	5.324	13.605	81.502	64.004
06/26/2011 09:03:14	5.328	13.638	81.502	64.004
06/26/2011 09:03:24	5.335	13.601	81.502	64.004
06/26/2011 09:03:34	5.361	13.594	81.502	64.004
06/26/2011 09:03:44	5.365	13.616	81.502	64.004
06/26/2011 09:03:54	5.288	13.733	81.605	64.004
06/26/2011 09:04:04	5.247	13.722	81.605	64.004
06/26/2011 09:04:14	5.244	13.696	81.605	64.004
06/26/2011 09:04:24	5.269	13.645	81.605	64.004
06/26/2011 09:04:34	5.258	13.707	81.502	64.004
06/26/2011 09:04:44	5.244	13.7	81.502	64.004
06/26/2011 09:04:54	9.887	1.523	81.605	64.004
06/26/2011 09:05:04	19.058	0.351	81.605	64.202
06/26/2011 09:05:14	20.669	0.281	81.802	64.202
06/26/2011 09:05:24	19.329	3.973	81.605	64.202
06/26/2011 09:05:34	16.842	3.977	81.605	64.202
06/26/2011 09:05:44	16.578	3.991	81.605	64.403
06/26/2011 09:05:54	16.564	3.995	81.605	64.403
06/26/2011 09:06:04	16.556	4.002	81.802	64.403
06/26/2011 09:06:14	16.545	4.01	82.004	64.403
06/26/2011 09:06:24	16.538	4.013	82.004	64.202
06/26/2011 09:06:34	16.538	4.002	82.004	64.202
06/26/2011 09:06:44	16.534	4.024	82.004	64.403
06/26/2011 09:06:54	16.52	4.031	82.004	64.202
06/26/2011 09:07:04	13.374	7.02	82.004	64.202
06/26/2011 09:07:14	5.266	6.361	81.802	64.202
06/26/2011 09:07:24	2.508	6.379	82.004	64.403

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 09:07:34	2.402	6.683	82.004	64.403
06/26/2011 09:07:44	3.793	13.55	82.004	64.403
06/26/2011 09:07:54	5.119	13.583	82.202	64.403
06/26/2011 09:08:04	5.24	13.663	82.004	64.403
06/26/2011 09:08:14	5.247	13.656	82.202	64.502
06/26/2011 09:08:24	5.277	13.648	82.202	64.502
06/26/2011 09:08:34	5.302	13.612	82.202	64.403
06/26/2011 09:08:44	5.321	13.612	82.403	64.403
06/26/2011 09:08:54	5.291	13.641	82.403	64.502
06/26/2011 09:09:04	5.324	13.542	82.004	64.403
06/26/2011 09:09:14	5.383	13.557	82.202	64.502
06/26/2011 09:09:24	5.368	13.557	82.004	64.502
06/26/2011 09:09:34	5.361	13.586	82.202	64.502
06/26/2011 09:09:44	5.339	13.597	82.202	64.403
06/26/2011 09:09:54	5.335	13.564	82.202	64.403
Start Run 7				
06/26/2011 09:10:04	5.372	13.528	82.202	64.403
06/26/2011 09:10:14	5.387	13.561	82.004	64.403
06/26/2011 09:10:24	5.339	13.616	81.802	64.403
06/26/2011 09:10:34	5.317	13.597	82.004	64.403
06/26/2011 09:10:44	5.328	13.619	82.202	64.403
06/26/2011 09:10:54	5.354	13.586	82.004	64.403
06/26/2011 09:11:04	5.346	13.605	82.004	64.403
06/26/2011 09:11:14	5.339	13.564	82.004	64.403
06/26/2011 09:11:24	5.35	13.553	82.202	64.502
06/26/2011 09:11:34	5.354	13.557	82.004	64.403
06/26/2011 09:11:44	5.332	13.645	82.202	64.403
06/26/2011 09:11:54	5.24	13.736	82.004	64.202
06/26/2011 09:12:04	5.181	13.733	82.403	64.403
06/26/2011 09:12:14	5.211	13.689	82.502	64.403
06/26/2011 09:12:24	5.218	13.736	82.403	64.403
06/26/2011 09:12:34	5.211	13.696	82.202	64.403
06/26/2011 09:12:44	5.251	13.623	82.502	64.502
06/26/2011 09:12:54	5.266	13.645	82.403	64.502
06/26/2011 09:13:04	5.258	13.656	82.403	64.502
06/26/2011 09:13:14	5.266	13.634	82.403	64.502
06/26/2011 09:13:24	5.273	13.659	82.403	64.502
06/26/2011 09:13:34	5.233	13.722	82.403	64.502
06/26/2011 09:13:44	5.211	13.722	82.403	64.502
06/26/2011 09:13:54	5.178	13.744	82.403	64.502
06/26/2011 09:14:04	5.196	13.718	82.403	64.502
06/26/2011 09:14:14	5.218	13.729	82.403	64.502
06/26/2011 09:14:24	5.181	13.744	82.403	64.502
06/26/2011 09:14:34	5.189	13.755	82.403	64.502
06/26/2011 09:14:44	5.218	13.711	82.403	64.502
06/26/2011 09:14:54	5.247	13.692	82.403	64.502
06/26/2011 09:15:04	5.258	13.659	82.202	64.403
06/26/2011 09:15:14	5.262	13.67	82.403	64.403
06/26/2011 09:15:24	5.262	13.725	82.502	64.502
06/26/2011 09:15:34	5.222	13.733	82.502	64.502
06/26/2011 09:15:44	5.222	13.7	82.502	64.502
06/26/2011 09:15:54	5.222	13.733	82.502	64.502
06/26/2011 09:16:04	5.225	13.751	82.502	64.502
06/26/2011 09:16:14	5.225	13.7	82.502	64.502
06/26/2011 09:16:24	5.288	13.594	82.403	64.502
06/26/2011 09:16:34	5.365	13.601	82.403	64.502
06/26/2011 09:16:44	5.376	13.597	82.403	64.502
06/26/2011 09:16:54	5.35	13.648	82.502	64.502
06/26/2011 09:17:04	5.31	13.645	82.403	64.502
06/26/2011 09:17:14	5.291	13.67	82.403	64.502
06/26/2011 09:17:24	5.269	13.659	82.502	64.502
06/26/2011 09:17:34	5.266	13.67	82.403	64.403
06/26/2011 09:17:44	5.277	13.648	82.502	64.502
06/26/2011 09:17:54	5.302	13.634	82.703	64.704
06/26/2011 09:18:04	5.328	13.608	82.703	64.502

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 09:18:14	5.317	13.616	82.703	64.901
06/26/2011 09:18:24	5.291	13.627	82.703	64.901
06/26/2011 09:18:34	5.269	13.681	82.703	64.704
06/26/2011 09:18:44	5.258	13.674	82.703	64.502
06/26/2011 09:18:54	5.273	13.648	82.905	64.704
06/26/2011 09:19:04	5.313	13.623	82.905	64.704
06/26/2011 09:19:14	5.295	13.663	83.103	64.704
06/26/2011 09:19:24	5.284	13.652	83.103	64.704
06/26/2011 09:19:34	5.284	13.648	82.905	64.704
06/26/2011 09:19:44	5.236	13.733	82.905	64.704
06/26/2011 09:19:54	5.178	13.784	82.905	65.103
06/26/2011 09:20:04	5.163	13.744	82.905	65.103
06/26/2011 09:20:14	5.214	13.663	82.905	64.901
06/26/2011 09:20:24	5.269	13.659	82.905	64.704
06/26/2011 09:20:34	5.266	13.681	82.905	64.704
06/26/2011 09:20:44	5.236	13.729	83.103	64.704
06/26/2011 09:20:54	5.211	13.74	82.905	64.502
06/26/2011 09:21:04	5.148	13.832	82.703	64.704
06/26/2011 09:21:14	5.119	13.769	82.703	64.502
06/26/2011 09:21:24	5.167	13.773	82.703	64.704
06/26/2011 09:21:34	5.159	13.824	82.703	64.502
06/26/2011 09:21:44	5.119	13.832	82.905	64.704
06/26/2011 09:21:54	5.116	13.817	82.905	64.502
06/26/2011 09:22:04	5.152	13.78	82.703	64.704
06/26/2011 09:22:14	5.134	13.78	82.703	64.704
06/26/2011 09:22:24	5.141	13.747	82.703	64.704
06/26/2011 09:22:34	5.159	13.806	82.703	64.704
06/26/2011 09:22:44	5.141	13.802	82.905	64.704
06/26/2011 09:22:54	5.119	13.806	82.703	64.704
06/26/2011 09:23:04	5.119	13.78	82.905	64.704
06/26/2011 09:23:14	5.159	13.755	82.905	64.704
06/26/2011 09:23:24	5.196	13.718	83.304	64.901
06/26/2011 09:23:34	5.192	13.744	83.304	64.901
06/26/2011 09:23:44	5.192	13.711	83.304	64.901
06/26/2011 09:23:54	5.225	13.703	83.103	64.901
06/26/2011 09:24:04	5.211	13.733	83.103	64.704
06/26/2011 09:24:14	5.203	13.718	83.103	64.704
06/26/2011 09:24:24	5.196	13.784	83.304	64.704
06/26/2011 09:24:34	5.163	13.755	83.304	64.704
06/26/2011 09:24:44	5.181	13.747	83.304	64.704
06/26/2011 09:24:54	5.181	13.758	83.103	64.704
06/26/2011 09:25:04	5.2	13.696	82.905	64.704
06/26/2011 09:25:14	5.185	13.813	82.905	64.704
06/26/2011 09:25:24	5.134	13.813	83.103	64.901
06/26/2011 09:25:34	5.141	13.817	83.103	64.704
06/26/2011 09:25:44	5.152	13.747	83.403	65.103
06/26/2011 09:25:54	5.189	13.729	83.403	65.103
06/26/2011 09:26:04	5.2	13.729	83.403	64.901
06/26/2011 09:26:14	5.203	13.725	83.304	65.103
06/26/2011 09:26:24	5.196	13.769	83.304	64.901
06/26/2011 09:26:34	5.181	13.747	83.304	64.901
06/26/2011 09:26:44	5.167	13.791	83.304	65.103
06/26/2011 09:26:54	5.145	13.802	83.304	65.103
06/26/2011 09:27:04	5.134	13.813	83.103	65.103
06/26/2011 09:27:14	5.167	13.725	83.103	65.103
06/26/2011 09:27:24	5.2	13.751	83.304	65.103
06/26/2011 09:27:34	5.178	13.773	83.304	64.901
06/26/2011 09:27:44	5.123	13.854	83.304	64.901
06/26/2011 09:27:54	5.057	13.909	83.304	65.103
06/26/2011 09:28:04	5.057	13.861	83.304	65.103
06/26/2011 09:28:14	5.079	13.872	83.304	65.103
06/26/2011 09:28:24	5.097	13.817	83.304	65.103
06/26/2011 09:28:34	5.13	13.758	83.304	65.103
06/26/2011 09:28:44	5.148	13.824	83.304	65.103
06/26/2011 09:28:54	5.105	13.839	83.304	65.103
06/26/2011 09:29:04	5.112	13.817	83.304	65.103

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 09:29:14	5.094	13.85	83.304	65.103
06/26/2011 09:29:24	5.068	13.883	83.304	65.103
06/26/2011 09:29:34	5.039	13.89	83.304	65.304
06/26/2011 09:29:44	5.028	13.905	83.403	65.304
06/26/2011 09:29:54	5.02	13.934	83.604	65.304
06/26/2011 09:30:04	5.02	13.894	83.304	65.304
06/26/2011 09:30:14	5.031	13.898	83.103	65.304
06/26/2011 09:30:24	5.031	13.901	83.403	65.304
06/26/2011 09:30:34	5.057	13.843	83.304	65.304
06/26/2011 09:30:44	5.108	13.835	83.103	65.304
06/26/2011 09:30:54	5.101	13.839	83.304	65.304
06/26/2011 09:31:04	5.112	13.802	83.103	65.103
06/26/2011 09:31:14	5.152	13.777	83.304	65.304
06/26/2011 09:31:24	5.181	13.769	83.103	65.103
06/26/2011 09:31:34	5.141	13.835	82.905	65.103
06/26/2011 09:31:44	5.097	13.828	83.103	65.403
06/26/2011 09:31:54	5.086	13.857	83.304	65.304
06/26/2011 09:32:04	5.072	13.839	83.304	65.304
06/26/2011 09:32:14	5.101	13.865	83.604	65.304
06/26/2011 09:32:24	5.086	13.846	83.403	65.304
06/26/2011 09:32:34	5.075	13.846	83.304	65.304
06/26/2011 09:32:44	5.075	13.824	83.304	65.304
06/26/2011 09:32:54	5.108	13.784	83.304	65.304
06/26/2011 09:33:04	5.134	13.802	83.103	65.403
06/26/2011 09:33:14	5.137	13.791	83.103	65.304
06/26/2011 09:33:24	5.097	13.876	83.103	65.304
06/26/2011 09:33:34	5.042	13.919	83.304	65.304
06/26/2011 09:33:44	5.035	13.89	83.403	65.403
06/26/2011 09:33:54	5.053	13.879	83.403	65.403
06/26/2011 09:34:04	5.039	13.912	83.403	65.403
06/26/2011 09:34:14	5.006	13.912	83.403	65.403
06/26/2011 09:34:24	4.995	13.945	83.403	65.403
06/26/2011 09:34:34	4.973	13.971	83.403	65.403
06/26/2011 09:34:44	4.943	13.993	83.304	65.403
06/26/2011 09:34:54	4.925	13.956	83.103	65.304
06/26/2011 09:35:04	4.962	13.967	83.103	65.304
06/26/2011 09:35:14	4.995	13.887	83.304	65.304
06/26/2011 09:35:24	5.039	13.927	83.304	65.403
06/26/2011 09:35:34	4.995	13.989	83.304	65.403
06/26/2011 09:35:44	4.951	13.971	83.403	65.604
06/26/2011 09:35:54	4.969	13.949	83.403	65.403
Pause Run 7				
06/26/2011 09:36:04	5.031	13.854	83.403	65.604
06/26/2011 09:36:14	5.046	13.919	83.403	65.604
06/26/2011 09:36:24	5.031	13.909	83.403	65.604
06/26/2011 09:36:34	5.042	13.89	83.304	65.403
06/26/2011 09:36:44	5.035	13.923	83.304	65.403
06/26/2011 09:36:54	5.02	13.938	83.304	65.403
06/26/2011 09:37:04	5.009	13.883	83.304	65.403
06/26/2011 09:37:14	5.028	13.909	83.304	65.403
06/26/2011 09:37:24	5.035	13.883	83.304	65.403
06/26/2011 09:37:34	5.039	13.898	83.403	65.403
06/26/2011 09:37:44	5.068	13.832	83.304	65.604
06/26/2011 09:37:54	5.053	13.916	83.304	65.604
06/26/2011 09:38:04	4.98	13.956	83.304	65.604
06/26/2011 09:38:14	4.973	13.941	83.304	65.604
06/26/2011 09:38:24	4.987	13.916	83.604	65.604
06/26/2011 09:38:34	4.958	13.974	84.003	65.604
06/26/2011 09:38:44	5.031	13.773	84.003	65.604
06/26/2011 09:38:54	5.134	13.799	84.003	65.604
06/26/2011 09:39:04	5.119	13.843	83.802	65.604
06/26/2011 09:39:14	5.105	13.857	83.802	65.604
06/26/2011 09:39:24	5.075	13.865	83.802	65.604
06/26/2011 09:39:34	5.068	13.879	83.604	65.403
06/26/2011 09:39:44	5.028	13.941	83.403	65.604

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 09:39:54	5.017	13.934	83.403	65.403
06/26/2011 09:40:04	5.042	13.861	83.604	65.403
06/26/2011 09:40:14	5.079	13.865	83.802	65.403
06/26/2011 09:40:24	5.079	13.905	83.604	65.604
06/26/2011 09:40:34	5.039	13.919	83.403	65.604
06/26/2011 09:40:44	5.017	13.912	83.403	65.604
06/26/2011 09:40:54	5.028	13.927	83.403	65.604
06/26/2011 09:41:04	5.031	13.912	83.304	65.604
06/26/2011 09:41:14	5.02	13.916	83.304	65.604
06/26/2011 09:41:24	5.02	13.919	83.403	65.604
06/26/2011 09:41:34	5.05	13.865	83.403	65.604
06/26/2011 09:41:44	5.094	13.799	83.604	65.604
06/26/2011 09:41:54	5.137	13.802	83.802	65.604
06/26/2011 09:42:04	5.094	13.905	83.802	65.604
06/26/2011 09:42:14	5.05	13.879	83.802	65.604
06/26/2011 09:42:24	5.042	13.901	83.403	65.403
06/26/2011 09:42:34	5.035	13.883	83.403	65.604
06/26/2011 09:42:44	5.068	13.861	83.304	65.604
06/26/2011 09:42:54	5.119	13.788	83.403	65.604
06/26/2011 09:43:04	5.163	13.806	83.403	65.604
06/26/2011 09:43:14	5.13	13.824	83.403	65.604
06/26/2011 09:43:24	5.141	13.762	83.403	65.604
06/26/2011 09:43:34	5.156	13.81	83.604	65.604
06/26/2011 09:43:44	5.17	13.711	83.604	65.604
06/26/2011 09:43:54	5.2	13.762	83.604	65.604
06/26/2011 09:44:04	5.218	13.659	83.604	65.802
06/26/2011 09:44:14	5.218	13.821	83.604	65.604
06/26/2011 09:44:24	5.13	13.835	83.604	65.604
06/26/2011 09:44:34	5.086	13.872	83.403	65.604
06/26/2011 09:44:44	5.046	13.901	83.403	65.604
06/26/2011 09:44:54	5.035	13.909	83.604	65.604
06/26/2011 09:45:04	5.039	13.879	83.403	65.604
06/26/2011 09:45:14	5.075	13.854	83.604	65.604
06/26/2011 09:45:24	5.094	13.828	83.802	65.604
06/26/2011 09:45:34	5.141	13.795	84.003	65.802
06/26/2011 09:45:44	5.145	13.788	84.003	65.604
06/26/2011 09:45:54	5.105	13.879	83.802	65.802
06/26/2011 09:46:04	5.068	13.887	83.802	65.802
06/26/2011 09:46:14	5.075	13.85	84.003	65.802
06/26/2011 09:46:24	5.112	13.773	83.802	65.604
06/26/2011 09:46:34	5.159	13.784	83.802	65.802
06/26/2011 09:46:44	5.159	13.806	83.802	65.802
06/26/2011 09:46:54	5.159	13.751	84.003	65.802
06/26/2011 09:47:04	5.192	13.773	84.003	65.604
06/26/2011 09:47:14	5.163	13.806	84.003	65.604
06/26/2011 09:47:24	5.123	13.784	83.802	65.604
06/26/2011 09:47:34	5.152	13.747	83.604	65.604
06/26/2011 09:47:44	5.185	13.747	83.403	65.604
06/26/2011 09:47:54	5.163	13.81	83.802	65.802
06/26/2011 09:48:04	5.13	13.806	83.604	65.802
06/26/2011 09:48:14	5.09	13.919	84.003	66.004
06/26/2011 09:48:24	5.042	13.887	84.205	66.004
06/26/2011 09:48:34	5.042	13.912	84.205	66.004
06/26/2011 09:48:44	5.072	13.821	84.304	66.201
06/26/2011 09:48:54	5.159	13.762	84.205	66.201
06/26/2011 09:49:04	5.207	13.722	84.003	66.004
06/26/2011 09:49:14	5.185	13.817	84.003	66.004
06/26/2011 09:49:24	5.105	13.828	83.802	66.004
06/26/2011 09:49:34	5.09	13.802	83.802	66.004
06/26/2011 09:49:44	5.112	13.791	83.604	65.802
06/26/2011 09:49:54	6.002	12.019	83.604	65.802
06/26/2011 09:50:04	6.804	12.564	83.403	65.802
06/26/2011 09:50:14	6.764	12.07	83.604	66.004
06/26/2011 09:50:24	7.009	12.25	83.604	66.004
06/26/2011 09:50:34	6.796	12.711	83.802	66.004
06/26/2011 09:50:44	5.958	13.553	83.802	66.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 09:50:54	5.354	13.696	84.003	66.201
06/26/2011 09:51:04	5.244	13.758	83.802	66.004
06/26/2011 09:51:14	5.24	13.648	84.003	65.802
06/26/2011 09:51:24	5.379	13.473	83.802	65.802
06/26/2011 09:51:34	5.474	13.473	83.802	66.004
06/26/2011 09:51:44	5.5	13.385	83.802	66.004
06/26/2011 09:51:54	5.515	13.476	83.802	66.004
06/26/2011 09:52:04	5.438	13.594	83.802	66.004
06/26/2011 09:52:14	5.357	13.594	83.604	65.604
06/26/2011 09:52:24	5.31	13.659	83.604	65.802
06/26/2011 09:52:34	5.295	13.681	83.604	65.802
06/26/2011 09:52:44	5.313	13.575	83.802	66.004
06/26/2011 09:52:54	5.376	13.557	83.604	66.004
06/26/2011 09:53:04	5.379	13.553	83.802	66.004
06/26/2011 09:53:14	5.361	13.641	83.802	65.802
06/26/2011 09:53:24	5.368	13.586	83.802	65.802
06/26/2011 09:53:34	5.339	13.659	84.205	65.802
06/26/2011 09:53:44	5.269	13.685	84.205	65.802
06/26/2011 09:53:54	5.317	13.601	84.304	66.004
06/26/2011 09:54:04	5.354	13.528	84.205	66.004
06/26/2011 09:54:14	5.372	13.586	84.205	65.802
06/26/2011 09:54:24	5.365	13.564	84.205	66.004
06/26/2011 09:54:34	5.39	13.557	84.205	65.802
06/26/2011 09:54:44	5.416	13.546	84.205	66.004
06/26/2011 09:54:54	5.408	13.513	84.205	65.802
Resume Run 7				
06/26/2011 09:55:04	5.5	13.352	84.205	65.802
06/26/2011 09:55:14	5.566	13.473	84.003	65.802
06/26/2011 09:55:24	5.5	13.48	84.003	65.802
06/26/2011 09:55:34	5.471	13.495	84.003	65.802
06/26/2011 09:55:44	5.452	13.531	84.003	65.802
06/26/2011 09:55:54	5.383	13.608	84.003	66.004
06/26/2011 09:56:04	5.365	13.542	84.003	65.802
06/26/2011 09:56:14	5.39	13.55	83.802	65.802
06/26/2011 09:56:24	5.416	13.473	83.802	66.004
06/26/2011 09:56:34	5.46	13.509	83.604	65.802
06/26/2011 09:56:44	5.474	13.487	83.403	65.802
06/26/2011 09:56:54	5.463	13.484	83.604	65.802
06/26/2011 09:57:04	5.441	13.52	83.604	66.004
06/26/2011 09:57:14	5.427	13.509	83.103	65.802
06/26/2011 09:57:24	5.445	13.495	83.304	65.802
06/26/2011 09:57:34	5.408	13.542	83.304	65.802
06/26/2011 09:57:44	5.416	13.476	83.103	65.802
06/26/2011 09:57:54	5.467	13.506	83.403	65.802
06/26/2011 09:58:04	5.471	13.473	83.403	66.004
06/26/2011 09:58:14	5.467	13.473	83.604	66.004
06/26/2011 09:58:24	5.456	13.55	83.604	66.004
06/26/2011 09:58:34	5.441	13.513	83.403	66.201
06/26/2011 09:58:44	5.419	13.586	83.403	66.004
06/26/2011 09:58:54	5.383	13.513	83.604	66.004
06/26/2011 09:59:04	5.372	13.638	83.604	66.004
06/26/2011 09:59:14	5.379	13.491	83.604	66.004
06/26/2011 09:59:24	5.449	13.517	83.604	66.004
06/26/2011 09:59:34	5.449	13.495	83.802	66.004
06/26/2011 09:59:44	5.471	13.509	83.802	66.004
06/26/2011 09:59:54	5.474	13.517	83.604	66.004
06/26/2011 10:00:04	5.43	13.583	83.604	66.004
06/26/2011 10:00:14	5.434	13.528	83.604	66.004
06/26/2011 10:00:24	5.452	13.476	83.604	66.004
06/26/2011 10:00:34	5.467	13.484	83.802	66.201
06/26/2011 10:00:44	5.449	13.546	83.604	66.004
06/26/2011 10:00:54	5.441	13.48	83.802	66.004
06/26/2011 10:01:04	5.441	13.561	84.003	66.004
06/26/2011 10:01:14	5.39	13.564	83.802	66.004
06/26/2011 10:01:24	5.412	13.506	83.802	66.004

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 10:01:34	5.43	13.528	83.802	66.201
06/26/2011 10:01:44	5.427	13.561	83.604	66.201
06/26/2011 10:01:54	5.449	13.487	83.604	66.004
06/26/2011 10:02:04	5.496	13.407	83.802	66.004
06/26/2011 10:02:14	5.57	13.366	83.604	66.004
06/26/2011 10:02:24	5.573	13.388	83.604	66.004
06/26/2011 10:02:34	5.544	13.484	83.802	66.004
06/26/2011 10:02:44	5.533	13.432	83.604	66.201
06/26/2011 10:02:54	5.504	13.542	83.802	66.201
06/26/2011 10:03:04	5.423	13.509	83.802	66.004
06/26/2011 10:03:14	5.423	13.535	83.604	66.004
06/26/2011 10:03:24	5.452	13.484	83.802	66.004
06/26/2011 10:03:34	5.526	13.363	84.003	66.201
06/26/2011 10:03:44	5.537	13.48	84.003	66.004
06/26/2011 10:03:54	5.441	13.605	83.802	66.201
06/26/2011 10:04:04	5.387	13.553	84.003	66.201
06/26/2011 10:04:14	5.43	13.447	84.003	66.004
06/26/2011 10:04:24	5.511	13.454	84.003	66.201
06/26/2011 10:04:34	5.496	13.44	83.802	66.004
06/26/2011 10:04:44	5.515	13.451	84.003	66.004
06/26/2011 10:04:54	5.537	13.396	84.205	66.004
06/26/2011 10:05:04	5.57	13.377	84.205	66.004
06/26/2011 10:05:14	5.551	13.421	84.205	66.004
06/26/2011 10:05:24	5.566	13.348	84.304	66.004
06/26/2011 10:05:34	5.65	13.253	84.205	66.004
06/26/2011 10:05:44	5.738	13.205	84.304	66.004
06/26/2011 10:05:54	5.8	13.106	84.501	66.004
06/26/2011 10:06:04	5.91	13.066	84.501	65.802
06/26/2011 10:06:14	5.929	13.063	84.501	65.802
06/26/2011 10:06:24	5.961	12.997	84.501	66.004
06/26/2011 10:06:34	5.976	13.03	84.703	66.004
06/26/2011 10:06:44	5.921	13.092	84.703	66.004
06/26/2011 10:06:54	5.903	13.066	84.304	66.004
06/26/2011 10:07:04	5.94	13.066	84.304	66.004
06/26/2011 10:07:14	5.936	13.033	84.304	66.004
06/26/2011 10:07:24	5.925	13.033	84.205	66.004
06/26/2011 10:07:34	5.896	13.095	84.205	66.004
06/26/2011 10:07:44	5.885	13.033	84.205	66.004
06/26/2011 10:07:54	5.921	13.022	84.205	66.004
06/26/2011 10:08:04	5.958	12.993	84.205	66.004
06/26/2011 10:08:14	5.991	12.964	84.501	66.004
06/26/2011 10:08:24	5.98	13.026	84.501	66.004
06/26/2011 10:08:34	5.932	13.052	84.304	66.201
06/26/2011 10:08:44	5.885	13.092	84.304	66.004
06/26/2011 10:08:54	5.83	13.169	84.304	66.201
06/26/2011 10:09:04	5.8	13.121	84.304	66.201
06/26/2011 10:09:14	5.822	13.103	84.304	66.004
06/26/2011 10:09:24	5.8	13.15	84.304	66.201
06/26/2011 10:09:34	5.753	13.205	84.304	66.004
06/26/2011 10:09:44	5.764	13.15	84.205	66.004
06/26/2011 10:09:54	5.767	13.172	84.205	66.004
06/26/2011 10:10:04	5.742	13.257	84.304	66.004
06/26/2011 10:10:14	5.661	13.286	84.205	66.004
06/26/2011 10:10:24	5.621	13.301	84.205	66.004
06/26/2011 10:10:34	5.632	13.279	84.205	66.004
06/26/2011 10:10:44	5.61	13.323	84.205	66.004
06/26/2011 10:10:54	5.57	13.41	84.304	66.201
06/26/2011 10:11:04	5.529	13.41	84.205	66.201
06/26/2011 10:11:14	5.529	13.399	84.205	66.201
06/26/2011 10:11:24	5.529	13.414	84.205	66.201
06/26/2011 10:11:34	5.522	13.403	84.205	66.201
06/26/2011 10:11:44	5.511	13.425	84.003	66.004
06/26/2011 10:11:54	5.548	13.359	83.604	66.201
06/26/2011 10:12:04	5.573	13.414	84.003	66.004
06/26/2011 10:12:14	5.548	13.418	84.205	66.201
06/26/2011 10:12:24	5.566	13.359	84.205	66.004

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 10:12:34	5.636	13.249	84.205	66.304
06/26/2011 10:12:44	5.676	13.301	84.304	66.304
06/26/2011 10:12:54	5.628	13.374	84.304	66.201
06/26/2011 10:13:04	5.603	13.363	84.304	66.201
06/26/2011 10:13:14	5.617	13.348	84.304	66.201
06/26/2011 10:13:24	5.628	13.326	84.304	66.201
06/26/2011 10:13:34	5.658	13.326	84.304	66.201
06/26/2011 10:13:44	5.65	13.323	84.205	66.201
06/26/2011 10:13:54	5.617	13.352	84.304	66.201
06/26/2011 10:14:04	5.661	13.279	84.501	66.201
06/26/2011 10:14:14	5.679	13.279	84.501	66.201
06/26/2011 10:14:24	5.679	13.264	84.703	66.201
06/26/2011 10:14:34	5.661	13.341	84.501	66.201
06/26/2011 10:14:44	5.625	13.345	84.205	66.201
06/26/2011 10:14:54	5.592	13.363	84.304	66.201
06/26/2011 10:15:04	5.617	13.293	84.205	66.201
06/26/2011 10:15:14	5.643	13.345	84.205	66.201
06/26/2011 10:15:24	5.628	13.348	84.501	66.304
06/26/2011 10:15:34	5.628	13.348	84.304	66.201
06/26/2011 10:15:44	5.643	13.297	84.205	66.201
06/26/2011 10:15:54	5.625	13.312	84.304	66.304
06/26/2011 10:16:04	5.636	13.275	84.304	66.304
06/26/2011 10:16:14	5.661	13.279	84.501	66.304
06/26/2011 10:16:24	5.687	13.238	84.501	66.304
06/26/2011 10:16:34	5.661	13.282	84.501	66.304
06/26/2011 10:16:44	5.643	13.29	84.703	66.304
06/26/2011 10:16:54	5.639	13.326	84.904	66.304
06/26/2011 10:17:04	5.614	13.304	84.703	66.304
06/26/2011 10:17:14	5.625	13.326	84.904	66.201
06/26/2011 10:17:24	5.65	13.257	84.703	66.304
06/26/2011 10:17:34	5.658	13.293	84.703	66.304
06/26/2011 10:17:44	5.661	13.275	84.501	66.304
06/26/2011 10:17:54	5.672	13.275	84.304	66.304
06/26/2011 10:18:04	5.617	13.396	84.501	66.304
06/26/2011 10:18:14	5.555	13.388	84.501	66.304
06/26/2011 10:18:24	5.566	13.374	84.703	66.304
06/26/2011 10:18:34	5.581	13.396	84.703	66.304
06/26/2011 10:18:44	5.566	13.392	84.703	66.304
06/26/2011 10:18:54	5.595	13.319	84.501	66.304
06/26/2011 10:19:04	5.654	13.304	84.501	66.201
06/26/2011 10:19:14	5.672	13.297	84.304	66.201
06/26/2011 10:19:24	5.643	13.312	84.205	66.201
06/26/2011 10:19:34	5.647	13.275	84.205	66.304
06/26/2011 10:19:44	5.654	13.286	84.205	66.304
06/26/2011 10:19:54	5.679	13.275	84.205	66.304
06/26/2011 10:20:04	5.687	13.286	84.304	66.304
06/26/2011 10:20:14	5.687	13.242	84.205	66.304
06/26/2011 10:20:24	5.716	13.271	84.304	66.502
06/26/2011 10:20:34	5.698	13.29	84.304	66.502
06/26/2011 10:20:44	5.683	13.297	84.304	66.502
06/26/2011 10:20:54	5.712	13.26	84.304	66.304
06/26/2011 10:21:04	5.749	13.216	84.703	66.502
06/26/2011 10:21:14	5.745	13.213	84.304	66.502
06/26/2011 10:21:24	5.698	13.304	84.501	66.502
06/26/2011 10:21:34	5.647	13.345	84.703	66.502
06/26/2011 10:21:44	5.654	13.297	84.904	66.304
06/26/2011 10:21:54	5.658	13.301	85.102	66.502
06/26/2011 10:22:04	5.701	13.198	85.102	66.304
06/26/2011 10:22:14	5.694	13.282	84.904	66.304
06/26/2011 10:22:24	5.687	13.26	84.904	66.502
06/26/2011 10:22:34	5.661	13.279	85.102	66.502
06/26/2011 10:22:44	5.632	13.334	84.904	66.304
06/26/2011 10:22:54	5.603	13.359	84.904	66.304
06/26/2011 10:23:04	5.581	13.352	84.904	66.502
06/26/2011 10:23:14	5.599	13.308	84.304	66.304
06/26/2011 10:23:24	5.614	13.319	84.304	66.304

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 10:23:34	5.592	13.407	84.304	66.502
06/26/2011 10:23:44	5.555	13.352	84.205	66.304
06/26/2011 10:23:54	5.599	13.359	84.205	66.304
06/26/2011 10:24:04	5.584	13.396	84.304	66.304
06/26/2011 10:24:14	5.588	13.334	84.304	66.304
06/26/2011 10:24:24	5.621	13.352	84.304	66.502
06/26/2011 10:24:34	5.621	13.319	84.304	66.502
06/26/2011 10:24:44	5.584	13.414	84.304	66.502
06/26/2011 10:24:54	5.559	13.436	84.304	66.502
06/26/2011 10:25:04	5.544	13.414	84.304	66.502
06/26/2011 10:25:14	6.115	12.165	84.304	66.502
06/26/2011 10:25:24	6.203	13.392	84.304	66.502
06/26/2011 10:25:34	5.577	13.458	84.304	66.502
06/26/2011 10:25:44	5.526	13.414	84.501	66.502
06/26/2011 10:25:54	5.588	13.352	84.501	66.502
06/26/2011 10:26:04	5.625	13.443	84.501	66.502
06/26/2011 10:26:14	5.5	13.641	84.501	66.502
06/26/2011 10:26:24	5.354	13.659	84.304	66.304
06/26/2011 10:26:34	5.361	13.524	84.304	66.502
06/26/2011 10:26:44	5.416	13.517	84.304	66.502
06/26/2011 10:26:54	5.419	13.487	84.501	66.502
06/26/2011 10:27:04	5.441	13.476	84.703	66.502
06/26/2011 10:27:14	5.452	13.429	84.501	66.502
06/26/2011 10:27:24	5.537	13.363	84.703	66.502
06/26/2011 10:27:34	5.566	13.407	84.703	66.502
06/26/2011 10:27:44	5.5	13.436	84.904	66.703
06/26/2011 10:27:54	5.526	13.377	84.904	66.502
06/26/2011 10:28:04	5.573	13.345	84.904	66.502
06/26/2011 10:28:14	5.559	13.454	84.703	66.502
06/26/2011 10:28:24	5.526	13.436	84.501	66.502
06/26/2011 10:28:34	5.515	13.41	84.304	66.304
06/26/2011 10:28:44	5.489	13.528	84.304	66.502
06/26/2011 10:28:54	5.427	13.465	84.205	66.304
06/26/2011 10:29:04	5.452	13.458	84.304	66.304
06/26/2011 10:29:14	5.467	13.44	84.501	66.304
06/26/2011 10:29:24	5.551	13.103	84.501	66.502
06/26/2011 10:29:34	6.507	12.246	84.501	66.502
06/26/2011 10:29:44	6.185	13.366	84.904	66.502
06/26/2011 10:29:54	5.603	13.297	84.904	66.502
06/26/2011 10:30:04	5.625	13.421	84.904	66.502
06/26/2011 10:30:14	5.54	13.337	84.703	66.502
06/26/2011 10:30:24	5.54	13.451	84.703	66.502
06/26/2011 10:30:34	5.518	13.418	84.904	66.703
06/26/2011 10:30:44	5.577	13.312	84.904	66.703
06/26/2011 10:30:54	5.65	13.399	84.703	66.703
06/26/2011 10:31:04	5.61	13.352	84.703	66.502
06/26/2011 10:31:14	5.621	13.249	84.904	66.502
06/26/2011 10:31:24	5.705	13.304	84.904	66.502
06/26/2011 10:31:34	5.647	13.312	85.102	66.703
06/26/2011 10:31:44	5.672	13.359	84.904	66.703
06/26/2011 10:31:54	5.621	13.352	84.904	66.703
06/26/2011 10:32:04	5.588	13.429	84.904	66.703
06/26/2011 10:32:14	5.562	13.377	85.102	66.703
06/26/2011 10:32:24	5.595	13.268	85.102	66.703
06/26/2011 10:32:34	5.683	13.264	85.102	66.502
06/26/2011 10:32:44	5.698	13.257	85.205	66.703
06/26/2011 10:32:54	5.683	13.341	85.205	66.703
06/26/2011 10:33:04	5.617	13.271	85.205	66.703
06/26/2011 10:33:14	5.852	13.048	85.402	66.703
06/26/2011 10:33:24	5.855	13.198	85.402	66.703
06/26/2011 10:33:34	5.764	13.202	85.205	66.703
06/26/2011 10:33:44	5.745	13.213	85.102	66.901
06/26/2011 10:33:54	5.786	13.095	85.102	66.901
06/26/2011 10:34:04	5.837	13.121	84.703	66.703
06/26/2011 10:34:14	5.929	12.986	84.501	66.703
06/26/2011 10:34:24	5.877	13.15	84.501	66.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 10:34:34	5.797	13.279	84.304	66.502
06/26/2011 10:34:44	5.694	13.323	84.501	66.502
06/26/2011 10:34:54	5.676	13.202	84.501	66.502
06/26/2011 10:35:04	5.72	13.158	84.304	66.502
06/26/2011 10:35:14	5.76	13.279	84.501	66.703
06/26/2011 10:35:24	5.738	13.143	84.904	66.703
06/26/2011 10:35:34	6.478	12.103	84.904	66.703
06/26/2011 10:35:44	6.434	13.169	85.102	66.901
06/26/2011 10:35:54	5.786	13.176	85.205	66.901
06/26/2011 10:36:04	5.727	13.312	85.205	66.901
06/26/2011 10:36:14	5.694	13.246	85.102	66.901
06/26/2011 10:36:24	5.698	13.29	84.904	66.703
06/26/2011 10:36:34	5.65	13.366	84.501	66.703
06/26/2011 10:36:44	5.617	13.37	84.703	66.703
06/26/2011 10:36:54	5.672	13.22	84.703	66.703
06/26/2011 10:37:04	5.753	13.293	84.501	66.703
06/26/2011 10:37:14	5.709	13.293	84.501	66.703
06/26/2011 10:37:24	5.712	13.205	84.501	66.703
06/26/2011 10:37:34	5.793	13.11	84.703	66.901
06/26/2011 10:37:44	5.775	13.304	84.904	66.901
06/26/2011 10:37:54	5.639	13.356	84.904	66.901
06/26/2011 10:38:04	5.643	13.227	84.703	66.703
06/26/2011 10:38:14	5.709	13.216	84.501	66.703
06/26/2011 10:38:24	5.709	13.279	84.205	66.703
06/26/2011 10:38:34	5.669	13.268	84.205	66.703
06/26/2011 10:38:44	5.65	13.249	84.304	66.703
06/26/2011 10:38:54	5.709	13.246	84.304	66.703
06/26/2011 10:39:04	5.643	13.41	84.304	66.703
06/26/2011 10:39:14	5.661	13.169	84.304	66.502
06/26/2011 10:39:24	5.723	13.356	84.501	66.502
06/26/2011 10:39:34	5.606	13.304	84.501	66.502
06/26/2011 10:39:44	5.72	12.909	84.703	66.502
06/26/2011 10:39:54	6.606	12.374	84.904	66.703
06/26/2011 10:40:04	6.218	13.293	85.102	66.703
06/26/2011 10:40:14	5.738	13.253	84.904	66.703
06/26/2011 10:40:24	5.786	13.147	84.904	66.703
06/26/2011 10:40:34	5.8	13.224	84.904	66.703
06/26/2011 10:40:44	5.709	13.286	85.102	66.703
06/26/2011 10:40:54	5.698	13.249	85.102	66.703
06/26/2011 10:41:04	5.647	13.374	85.102	66.703
06/26/2011 10:41:14	5.614	13.297	85.102	66.703
06/26/2011 10:41:24	5.658	13.304	84.501	66.502
06/26/2011 10:41:34	5.709	13.209	84.501	66.502
06/26/2011 10:41:44	5.771	13.275	84.304	66.502
06/26/2011 10:41:54	5.698	13.279	84.304	66.502
06/26/2011 10:42:04	5.669	13.323	84.501	66.502
06/26/2011 10:42:14	5.61	13.425	84.304	66.502
06/26/2011 10:42:24	5.647	13.187	84.304	66.502
06/26/2011 10:42:34	5.628	13.44	84.703	66.502
06/26/2011 10:42:44	5.599	13.246	84.703	66.304
06/26/2011 10:42:54	5.771	13.088	84.904	66.502
06/26/2011 10:43:04	5.983	12.909	85.102	66.502
06/26/2011 10:43:14	5.98	13.081	85.102	66.703
06/26/2011 10:43:24	5.797	13.341	85.102	66.502
06/26/2011 10:43:34	5.679	13.253	85.102	66.703
06/26/2011 10:43:44	5.709	13.264	84.703	66.703
06/26/2011 10:43:54	5.742	13.136	84.703	66.502
06/26/2011 10:44:04	5.782	13.246	84.904	66.703
06/26/2011 10:44:14	5.705	13.275	84.904	66.502
06/26/2011 10:44:24	5.669	13.359	84.904	66.502
06/26/2011 10:44:34	5.632	13.227	85.402	66.703
06/26/2011 10:44:44	5.756	13.143	85.102	66.703
06/26/2011 10:44:54	5.808	13.183	85.102	66.502
06/26/2011 10:45:04	5.727	13.257	84.904	66.703
06/26/2011 10:45:14	5.745	13.202	85.102	66.703
06/26/2011 10:45:24	5.687	13.348	85.102	66.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 10:45:34	5.617	13.293	85.102	66.703
06/26/2011 10:45:44	5.782	12.748	85.102	66.703
06/26/2011 10:45:54	6.826	11.817	85.102	66.502
06/26/2011 10:46:04	7.379	11.894	85.102	66.502
06/26/2011 10:46:14	7.485	11.686	85.205	66.502
06/26/2011 10:46:24	7.258	12.781	85.205	66.502
06/26/2011 10:46:34	5.961	13.506	85.102	66.502
06/26/2011 10:46:44	5.438	13.539	84.904	66.502
06/26/2011 10:46:54	5.405	13.542	85.102	66.502
06/26/2011 10:47:04	5.449	13.462	85.102	66.502
06/26/2011 10:47:14	5.427	13.586	84.904	66.502
06/26/2011 10:47:24	5.398	13.575	85.102	66.502
06/26/2011 10:47:34	5.379	13.608	84.904	66.502
06/26/2011 10:47:44	5.361	13.572	84.904	66.502
06/26/2011 10:47:54	5.394	13.539	84.904	66.703
06/26/2011 10:48:04	5.441	13.462	84.904	66.703
06/26/2011 10:48:14	5.504	13.436	84.904	66.703
06/26/2011 10:48:24	5.507	13.473	84.904	66.304
06/26/2011 10:48:34	5.46	13.513	84.703	66.502
06/26/2011 10:48:44	5.441	13.465	84.904	66.502
06/26/2011 10:48:54	5.463	13.498	84.904	66.502
06/26/2011 10:49:04	5.456	13.561	84.904	66.304
06/26/2011 10:49:14	5.401	13.513	84.904	66.703
06/26/2011 10:49:24	5.463	13.498	85.102	66.703
06/26/2011 10:49:34	5.522	13.374	85.102	66.703
06/26/2011 10:49:44	5.544	13.418	85.102	66.703
06/26/2011 10:49:54	5.559	13.392	84.904	66.703
06/26/2011 10:50:04	5.548	13.432	84.501	66.502
06/26/2011 10:50:14	5.54	13.432	84.501	66.502
06/26/2011 10:50:24	5.555	13.377	84.501	66.502
06/26/2011 10:50:34	5.518	13.469	84.501	66.502
06/26/2011 10:50:44	5.449	13.542	84.501	66.502
06/26/2011 10:50:54	5.427	13.495	84.304	66.304
06/26/2011 10:51:04	5.445	13.48	84.501	66.304
06/26/2011 10:51:14	5.478	13.491	84.501	66.304
06/26/2011 10:51:24	5.463	13.476	84.703	66.502
06/26/2011 10:51:34	5.489	13.451	84.501	66.502
06/26/2011 10:51:44	5.496	13.476	84.703	66.502
06/26/2011 10:51:54	5.526	13.403	84.904	66.502
06/26/2011 10:52:04	5.566	13.407	85.102	66.502
06/26/2011 10:52:14	5.537	13.425	85.102	66.502
06/26/2011 10:52:24	5.526	13.436	84.904	66.502
06/26/2011 10:52:34	5.485	13.469	84.703	66.502
06/26/2011 10:52:44	5.452	13.524	84.501	66.502
06/26/2011 10:52:54	5.419	13.528	84.703	66.502
06/26/2011 10:53:04	5.445	13.44	84.703	66.502
06/26/2011 10:53:14	5.449	13.546	84.904	66.502
06/26/2011 10:53:24	5.427	13.48	85.102	66.502
06/26/2011 10:53:34	5.434	13.487	85.102	66.502
06/26/2011 10:53:44	5.441	13.528	85.205	66.502
06/26/2011 10:53:54	5.434	13.52	85.205	66.502
06/26/2011 10:54:04	5.427	13.55	84.904	66.502
06/26/2011 10:54:14	6.086	11.729	84.904	66.502
06/26/2011 10:54:24	7.174	12.868	85.102	66.502
06/26/2011 10:54:34	5.863	13.63	85.205	66.703
06/26/2011 10:54:44	5.357	13.601	85.205	66.703
06/26/2011 10:54:54	5.339	13.659	85.205	66.502
06/26/2011 10:55:04	5.244	13.744	85.402	66.502
06/26/2011 10:55:14	5.233	13.696	85.402	66.502
06/26/2011 10:55:24	5.291	13.583	85.102	66.502
06/26/2011 10:55:34	5.394	13.55	85.102	66.502
06/26/2011 10:55:44	5.372	13.616	85.205	66.502
06/26/2011 10:55:54	5.332	13.601	85.102	66.502
06/26/2011 10:56:04	5.354	13.568	85.102	66.502
06/26/2011 10:56:14	5.335	13.616	85.102	66.502
06/26/2011 10:56:24	5.324	13.648	85.102	66.502

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 10:56:34	5.354	13.575	85.102	66.703
06/26/2011 10:56:44	5.379	13.568	85.102	66.703
06/26/2011 10:56:54	5.408	13.506	85.102	66.502
06/26/2011 10:57:04	5.449	13.458	85.102	66.502
06/26/2011 10:57:14	5.43	13.564	85.102	66.502
06/26/2011 10:57:24	5.39	13.586	85.102	66.502
06/26/2011 10:57:34	5.39	13.583	85.205	66.703
06/26/2011 10:57:44	5.346	13.63	85.402	66.703
06/26/2011 10:57:54	5.324	13.623	85.402	66.703
06/26/2011 10:58:04	5.379	13.59	85.604	66.703
06/26/2011 10:58:14	5.361	13.605	85.604	66.703
06/26/2011 10:58:24	5.35	13.579	85.802	66.703
06/26/2011 10:58:34	5.394	13.557	85.802	66.703
06/26/2011 10:58:44	5.43	13.528	85.604	66.703
06/26/2011 10:58:54	5.467	13.414	85.604	66.703
06/26/2011 10:59:04	5.43	13.67	86.003	66.703
06/26/2011 10:59:14	5.339	13.608	86.003	66.703
06/26/2011 10:59:24	5.365	13.546	85.802	66.703
06/26/2011 10:59:34	5.376	13.641	85.802	66.502
06/26/2011 10:59:44	5.727	12.334	85.604	66.703
06/26/2011 10:59:54	6.232	13.374	86.003	66.703
06/26/2011 11:00:04	5.632	13.443	85.802	66.703
06/26/2011 11:00:14	5.595	13.286	85.604	66.703
06/26/2011 11:00:24	5.65	13.352	85.402	66.703
06/26/2011 11:00:34	5.614	13.315	85.604	66.703
06/26/2011 11:00:44	5.599	13.312	86.003	66.703
06/26/2011 11:00:54	5.566	13.337	86.102	66.703
06/26/2011 11:01:04	5.581	13.385	86.003	66.703
06/26/2011 11:01:14	5.61	13.315	85.802	66.703
06/26/2011 11:01:24	5.599	13.443	85.802	66.703
06/26/2011 11:01:34	5.548	13.377	85.604	66.703
06/26/2011 11:01:44	5.555	13.491	85.604	66.703
06/26/2011 11:01:54	5.452	13.491	86.102	66.901
06/26/2011 11:02:04	5.493	13.458	86.003	66.901
06/26/2011 11:02:14	5.526	13.429	86.003	66.901
06/26/2011 11:02:24	5.515	13.377	85.802	66.901
06/26/2011 11:02:34	5.511	13.506	85.802	66.901
06/26/2011 11:02:44	5.427	13.495	86.003	66.901
06/26/2011 11:02:54	5.482	13.363	85.802	66.901
06/26/2011 11:03:04	5.562	13.37	86.003	66.901
06/26/2011 11:03:14	5.559	13.388	85.802	66.901
06/26/2011 11:03:24	5.588	13.337	86.003	66.901
06/26/2011 11:03:34	5.573	13.377	86.003	66.901
06/26/2011 11:03:44	5.496	13.579	86.003	66.901
06/26/2011 11:03:54	5.394	13.528	86.003	66.901
06/26/2011 11:04:04	5.427	13.524	85.802	66.901
06/26/2011 11:04:14	5.482	13.381	85.604	66.901
06/26/2011 11:04:24	5.515	13.52	85.205	66.703
06/26/2011 11:04:34	5.452	13.539	85.205	66.703
06/26/2011 11:04:44	5.489	13.414	85.205	66.703
06/26/2011 11:04:54	5.515	13.487	85.402	66.703
06/26/2011 11:05:04	5.533	13.381	85.402	66.703
06/26/2011 11:05:14	5.61	13.341	85.604	66.901
06/26/2011 11:05:24	6.024	12.099	85.604	66.901
06/26/2011 11:05:34	7.181	12.224	85.604	66.901
06/26/2011 11:05:44	6.383	13.132	85.604	66.901
06/26/2011 11:05:54	5.756	13.268	85.604	66.901
06/26/2011 11:06:04	5.69	13.312	85.604	66.901
06/26/2011 11:06:14	5.709	13.268	86.003	67.201
06/26/2011 11:06:24	5.701	13.253	86.003	67.201
06/26/2011 11:06:34	5.669	13.33	86.003	67.201
06/26/2011 11:06:44	5.716	13.227	86.003	67.201
06/26/2011 11:06:54	5.727	13.253	86.003	67.102
06/26/2011 11:07:04	5.745	13.209	86.102	67.102
06/26/2011 11:07:14	5.738	13.29	86.003	67.102
06/26/2011 11:07:24	5.665	13.374	86.003	67.102

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 11:07:34	5.617	13.279	86.003	67.102
06/26/2011 11:07:44	5.643	13.33	85.802	67.102
06/26/2011 11:07:54	5.614	13.366	85.604	66.901
06/26/2011 11:08:04	5.54	13.469	85.802	67.102
06/26/2011 11:08:14	5.606	13.253	85.802	67.102
06/26/2011 11:08:24	5.698	13.356	86.003	66.901
06/26/2011 11:08:34	5.676	13.194	86.102	67.102
06/26/2011 11:08:44	5.709	13.279	86.003	67.102
06/26/2011 11:08:54	5.647	13.304	86.003	67.102
06/26/2011 11:09:04	5.617	13.37	86.003	66.901
06/26/2011 11:09:14	5.603	13.348	86.003	67.102
06/26/2011 11:09:24	5.537	13.539	86.003	66.901
06/26/2011 11:09:34	5.485	13.429	86.003	66.901
06/26/2011 11:09:44	5.614	13.268	86.003	66.901
06/26/2011 11:09:54	5.72	13.249	86.003	66.901
06/26/2011 11:10:04	5.723	13.253	86.102	67.102
06/26/2011 11:10:14	5.712	13.312	86.003	67.102
06/26/2011 11:10:24	5.716	13.312	86.003	67.102
06/26/2011 11:10:34	5.628	13.385	86.102	67.201
06/26/2011 11:10:44	5.603	13.297	86.102	67.201
06/26/2011 11:10:54	5.658	13.319	86.303	67.102
06/26/2011 11:11:04	5.683	13.231	86.303	67.102
06/26/2011 11:11:14	5.69	13.238	86.702	67.102
06/26/2011 11:11:24	5.676	13.268	86.505	67.102
06/26/2011 11:11:34	5.694	13.271	86.505	67.102
06/26/2011 11:11:44	5.679	13.264	86.303	67.102
06/26/2011 11:11:54	5.654	13.319	86.102	67.102
06/26/2011 11:12:04	5.617	13.345	86.102	67.102
06/26/2011 11:12:14	5.577	13.381	86.102	67.102
06/26/2011 11:12:24	5.661	13.22	86.102	67.102
06/26/2011 11:12:34	5.731	13.275	86.102	67.102
06/26/2011 11:12:44	5.701	13.191	86.102	67.102
06/26/2011 11:12:54	5.709	13.312	86.102	67.102
06/26/2011 11:13:04	5.65	13.392	86.102	67.102
06/26/2011 11:13:14	5.632	13.326	86.102	67.102
06/26/2011 11:13:24	5.614	13.454	86.102	67.201
06/26/2011 11:13:34	5.518	13.531	86.303	67.201
06/26/2011 11:13:44	5.566	13.312	86.003	67.102
06/26/2011 11:13:54	5.679	13.315	86.003	67.102
06/26/2011 11:14:04	5.672	13.271	86.102	67.102
06/26/2011 11:14:14	5.676	13.235	86.102	67.102
06/26/2011 11:14:24	5.712	13.312	86.303	67.102
06/26/2011 11:14:34	5.712	13.205	86.303	67.201
06/26/2011 11:14:44	5.753	13.249	86.102	67.201
06/26/2011 11:14:54	5.72	13.29	86.303	67.201
06/26/2011 11:15:04	5.647	13.341	86.303	67.201
06/26/2011 11:15:14	5.76	13.11	86.303	67.201
06/26/2011 11:15:24	5.771	13.341	86.102	67.201
06/26/2011 11:15:34	5.69	13.264	86.303	67.201
06/26/2011 11:15:44	5.632	13.396	86.303	67.201
06/26/2011 11:15:54	5.592	13.421	86.303	67.201
06/26/2011 11:16:04	6.445	11.433	86.102	67.201
06/26/2011 11:16:14	7.935	11.371	86.102	67.201
06/26/2011 11:16:24	8.031	11.209	86.102	67.201
06/26/2011 11:16:34	7.789	12.085	86.505	67.201
06/26/2011 11:16:44	7.54	11.426	86.303	67.102
06/26/2011 11:16:54	7.826	11.605	86.303	67.102
06/26/2011 11:17:04	8.031	10.993	86.303	67.102
06/26/2011 11:17:14	8.283	11.081	86.303	67.201
06/26/2011 11:17:24	7.822	11.594	86.505	67.201
06/26/2011 11:17:34	7.844	11.209	86.702	67.201
06/26/2011 11:17:44	7.741	11.7	86.702	67.201
06/26/2011 11:17:54	7.642	11.513	86.702	67.201
06/26/2011 11:18:04	7.957	11.502	86.702	67.201
06/26/2011 11:18:14	7.675	11.627	86.505	67.201
06/26/2011 11:18:24	7.928	11.096	86.702	67.201

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 11:18:34	8.214	11.169	86.904	67.403
06/26/2011 11:18:44	8.027	11.576	86.904	67.403
06/26/2011 11:18:54	8.115	11.012	86.702	67.403
06/26/2011 11:19:04	8.137	11.502	86.904	67.201
06/26/2011 11:19:14	7.522	12.173	86.904	67.403
06/26/2011 11:19:24	7.382	11.517	86.702	67.201
06/26/2011 11:19:34	7.73	11.642	86.904	67.201
06/26/2011 11:19:44	7.873	11.524	87.204	67.403
06/26/2011 11:19:54	7.855	11.378	86.702	67.201
06/26/2011 11:20:04	7.906	11.367	86.702	67.403
06/26/2011 11:20:14	8.053	11.323	86.702	67.403
06/26/2011 11:20:24	7.979	11.517	86.702	67.201
06/26/2011 11:20:34	7.782	11.506	86.702	67.403
06/26/2011 11:20:44	7.782	11.404	86.904	67.403
06/26/2011 11:20:54	7.675	11.748	86.904	67.403
06/26/2011 11:21:04	7.514	11.81	86.904	67.403
06/26/2011 11:21:14	7.793	11.491	86.702	67.604
06/26/2011 11:21:24	8.049	11.312	86.904	67.604
06/26/2011 11:21:34	8.031	11.44	86.904	67.604
06/26/2011 11:21:44	7.796	11.612	86.904	67.604
06/26/2011 11:21:54	7.866	11.352	86.904	67.604
06/26/2011 11:22:04	7.763	11.477	86.904	67.604
06/26/2011 11:22:14	8.067	11.111	86.702	67.604
06/26/2011 11:22:24	8.042	11.499	86.702	67.604
06/26/2011 11:22:34	7.924	11.063	86.702	67.604
06/26/2011 11:22:44	8.155	11.356	86.904	67.604
06/26/2011 11:22:54	7.994	11.506	86.904	67.604
06/26/2011 11:23:04	8.031	11.352	86.904	67.604
06/26/2011 11:23:14	7.935	11.371	86.904	67.604
06/26/2011 11:23:24	8.056	11.327	86.904	67.604
06/26/2011 11:23:34	8.269	10.887	86.702	67.403
06/26/2011 11:23:44	8.17	11.642	86.505	67.604
06/26/2011 11:23:54	7.968	11.268	86.904	67.604
06/26/2011 11:24:04	8.17	11.316	86.904	67.604
06/26/2011 11:24:14	8.141	11.166	86.904	67.604
06/26/2011 11:24:24	8.181	11.349	87.003	67.604
06/26/2011 11:24:34	7.968	11.433	87.003	67.604
06/26/2011 11:24:44	7.994	11.279	86.904	67.604
06/26/2011 11:24:54	8.239	11.037	86.904	67.604
06/26/2011 11:25:04	8.346	11.118	86.904	67.604
06/26/2011 11:25:14	8.078	11.616	86.904	67.604
06/26/2011 11:25:24	8.104	11.056	86.904	67.604
06/26/2011 11:25:34	8.335	11.151	86.904	67.604
06/26/2011 11:25:44	8.056	11.36	86.904	67.604
06/26/2011 11:25:54	7.968	11.356	86.702	67.604
06/26/2011 11:26:04	7.88	11.202	86.702	67.604
06/26/2011 11:26:14	8.027	11.279	86.702	67.604
06/26/2011 11:26:24	8.243	11.041	86.904	67.604
06/26/2011 11:26:34	8.239	11.349	86.904	67.604
06/26/2011 11:26:44	7.88	12.048	86.904	67.604
06/26/2011 11:26:54	6.339	13.432	86.904	67.403
06/26/2011 11:27:04	5.496	13.513	86.904	67.604
06/26/2011 11:27:14	5.482	13.418	86.904	67.604
06/26/2011 11:27:24	5.5	13.48	86.904	67.604
06/26/2011 11:27:34	5.463	13.454	86.904	67.403
06/26/2011 11:27:44	5.496	13.462	86.904	67.403
06/26/2011 11:27:54	5.478	13.502	86.702	67.604
06/26/2011 11:28:04	5.463	13.403	86.904	67.604
06/26/2011 11:28:14	5.54	13.348	86.904	67.604
06/26/2011 11:28:24	5.493	13.517	86.904	67.604
06/26/2011 11:28:34	5.46	13.454	86.904	67.604
06/26/2011 11:28:44	5.463	13.561	86.904	67.604
06/26/2011 11:28:54	5.467	13.432	86.702	67.604
06/26/2011 11:29:04	5.5	13.447	86.702	67.604
06/26/2011 11:29:14	5.5	13.502	86.904	67.604
06/26/2011 11:29:24	5.441	13.531	86.904	67.604

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 11:29:34	5.511	13.381	86.904	67.604
06/26/2011 11:29:44	5.581	13.385	86.904	67.604
06/26/2011 11:29:54	5.57	13.396	86.904	67.604
06/26/2011 11:30:04	5.555	13.374	86.904	67.604
06/26/2011 11:30:14	5.518	13.491	86.702	67.604
06/26/2011 11:30:24	5.427	13.561	86.904	67.604
06/26/2011 11:30:34	5.419	13.476	86.702	67.604
06/26/2011 11:30:44	5.548	13.399	86.904	67.604
06/26/2011 11:30:54	5.544	13.407	86.904	67.604
06/26/2011 11:31:04	5.526	13.491	86.904	67.604
06/26/2011 11:31:14	5.511	13.407	87.003	67.802
06/26/2011 11:31:24	5.544	13.363	86.904	67.604
06/26/2011 11:31:34	5.606	13.44	86.904	67.604
06/26/2011 11:31:44	5.566	13.403	86.505	67.604
06/26/2011 11:31:54	5.54	13.421	86.702	67.604
06/26/2011 11:32:04	5.57	13.275	86.904	67.604
06/26/2011 11:32:14	5.628	13.345	86.505	67.802
06/26/2011 11:32:24	5.65	13.26	86.702	67.802
06/26/2011 11:32:34	5.654	13.297	86.904	67.802
06/26/2011 11:32:44	5.559	13.502	86.904	67.802
06/26/2011 11:32:54	5.419	13.583	86.904	67.604
06/26/2011 11:33:04	5.284	13.74	86.702	67.604
06/26/2011 11:33:14	5.24	13.652	86.702	67.802
06/26/2011 11:33:24	5.295	13.652	86.702	67.802
06/26/2011 11:33:34	5.357	13.517	86.904	67.802
06/26/2011 11:33:44	5.405	13.55	87.003	67.604
06/26/2011 11:33:54	5.383	13.583	87.204	67.604
06/26/2011 11:34:04	5.387	13.535	87.204	67.604
06/26/2011 11:34:14	5.405	13.575	87.402	67.802
06/26/2011 11:34:24	5.376	13.575	87.204	67.802
06/26/2011 11:34:34	5.39	13.561	87.204	67.604
06/26/2011 11:34:44	5.35	13.656	87.204	67.604
06/26/2011 11:34:54	5.302	13.645	87.204	67.604
06/26/2011 11:35:04	5.335	13.568	87.204	67.604
06/26/2011 11:35:14	5.361	13.586	87.204	67.604
06/26/2011 11:35:24	5.361	13.59	87.003	67.604
06/26/2011 11:35:34	5.39	13.535	86.904	67.604
06/26/2011 11:35:44	5.372	13.608	86.702	67.604
06/26/2011 11:35:54	5.35	13.546	86.505	67.604
06/26/2011 11:36:04	5.376	13.579	86.505	67.802
06/26/2011 11:36:14	5.398	13.502	86.505	67.604
06/26/2011 11:36:24	5.416	13.557	86.702	67.604
06/26/2011 11:36:34	5.405	13.509	86.702	67.604
06/26/2011 11:36:44	5.419	13.55	86.702	67.802
06/26/2011 11:36:54	5.394	13.601	86.702	67.802
06/26/2011 11:37:04	5.346	13.612	86.904	67.802
06/26/2011 11:37:14	5.317	13.634	86.904	67.802
06/26/2011 11:37:24	5.317	13.612	86.904	67.802
06/26/2011 11:37:34	5.295	13.689	86.904	67.802
06/26/2011 11:37:44	5.295	13.594	86.904	67.802
06/26/2011 11:37:54	5.317	13.623	86.702	67.802
06/26/2011 11:38:04	5.357	13.52	86.904	67.802
06/26/2011 11:38:14	5.383	13.557	86.904	67.802
06/26/2011 11:38:24	5.379	13.539	86.904	67.802
06/26/2011 11:38:34	5.343	13.623	86.904	67.802
06/26/2011 11:38:44	5.288	13.623	86.904	67.604
06/26/2011 11:38:54	5.299	13.608	86.702	67.802
06/26/2011 11:39:04	5.339	13.564	86.702	67.802
06/26/2011 11:39:14	5.354	13.601	86.702	67.604
06/26/2011 11:39:24	5.324	13.634	86.904	67.802
06/26/2011 11:39:34	5.313	13.627	86.904	67.604
06/26/2011 11:39:44	5.31	13.634	86.904	67.604
06/26/2011 11:39:54	5.299	13.638	86.904	67.604
06/26/2011 11:40:04	5.28	13.696	86.702	67.604
06/26/2011 11:40:14	5.262	13.7	86.702	67.802
06/26/2011 11:40:24	5.299	13.597	86.702	67.802

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 11:40:34	5.339	13.638	86.505	67.802
06/26/2011 11:40:44	5.335	13.579	86.702	67.802
06/26/2011 11:40:54	5.416	13.469	86.702	67.802
06/26/2011 11:41:04	5.478	13.462	86.904	67.802
06/26/2011 11:41:14	5.401	13.634	86.904	67.802
06/26/2011 11:41:24	5.31	13.648	86.702	67.802
06/26/2011 11:41:34	5.273	13.685	86.904	67.802
06/26/2011 11:41:44	5.269	13.623	86.904	67.802
06/26/2011 11:41:54	5.339	13.579	86.904	67.802
06/26/2011 11:42:04	5.324	13.608	86.904	67.802
06/26/2011 11:42:14	5.321	13.583	86.904	67.802
06/26/2011 11:42:24	5.354	13.568	86.904	67.802
06/26/2011 11:42:34	5.394	13.451	87.003	67.802
06/26/2011 11:42:44	5.452	13.473	87.003	67.802
06/26/2011 11:42:54	5.434	13.524	87.003	67.802
06/26/2011 11:43:04	5.408	13.531	87.204	67.802
06/26/2011 11:43:14	5.401	13.491	86.904	67.802
06/26/2011 11:43:24	5.419	13.509	86.904	67.802
06/26/2011 11:43:34	5.43	13.502	86.904	67.802
06/26/2011 11:43:44	5.463	13.462	86.702	67.802
06/26/2011 11:43:54	5.493	13.454	86.904	67.802
06/26/2011 11:44:04	5.504	13.396	86.904	67.802
06/26/2011 11:44:14	5.555	13.341	86.904	68.003
06/26/2011 11:44:24	5.529	13.502	87.003	68.003
06/26/2011 11:44:34	5.515	13.366	87.003	67.802
06/26/2011 11:44:44	5.54	13.469	87.003	67.802
06/26/2011 11:44:54	5.452	13.579	87.003	67.802
06/26/2011 11:45:04	5.39	13.524	86.904	67.802
06/26/2011 11:45:14	5.445	13.458	86.904	68.003
06/26/2011 11:45:24	5.445	13.546	86.702	67.802
06/26/2011 11:45:34	5.379	13.583	86.702	67.802
06/26/2011 11:45:44	5.423	13.476	86.505	67.802
06/26/2011 11:45:54	5.434	13.561	86.702	67.802
06/26/2011 11:46:04	5.357	13.634	86.702	67.802
06/26/2011 11:46:14	5.31	13.59	86.702	67.604
06/26/2011 11:46:24	5.379	13.48	87.003	67.802
06/26/2011 11:46:34	5.441	13.506	86.904	68.003
06/26/2011 11:46:44	5.427	13.535	86.904	67.802
06/26/2011 11:46:54	5.43	13.491	87.003	67.802
06/26/2011 11:47:04	5.493	13.425	86.904	68.003
06/26/2011 11:47:14	5.471	13.535	86.904	68.003
06/26/2011 11:47:24	5.427	13.531	87.003	68.003
06/26/2011 11:47:34	5.398	13.528	87.003	67.802
06/26/2011 11:47:44	5.416	13.506	87.003	68.003
06/26/2011 11:47:54	5.493	13.443	86.904	68.003
06/26/2011 11:48:04	5.526	13.418	87.003	67.802
06/26/2011 11:48:14	5.595	13.315	87.402	67.802
06/26/2011 11:48:24	5.606	13.414	87.402	67.802
06/26/2011 11:48:34	5.566	13.421	87.402	67.802
06/26/2011 11:48:44	5.511	13.506	87.204	67.802
06/26/2011 11:48:54	5.438	13.506	87.204	67.802
06/26/2011 11:49:04	5.452	13.498	87.204	67.802
06/26/2011 11:49:14	5.463	13.454	87.204	67.802
06/26/2011 11:49:24	5.482	13.465	87.204	67.802
06/26/2011 11:49:34	5.467	13.491	87.003	67.802
06/26/2011 11:49:44	5.493	13.403	87.003	67.802
06/26/2011 11:49:54	5.507	13.524	87.402	67.802
06/26/2011 11:50:04	5.5	13.363	87.402	67.802
06/26/2011 11:50:14	5.559	13.399	87.603	67.802
06/26/2011 11:50:24	5.559	13.432	87.805	68.003
06/26/2011 11:50:34	5.533	13.407	87.603	68.003
06/26/2011 11:50:44	5.577	13.359	87.402	68.003
06/26/2011 11:50:54	5.628	13.29	87.402	68.003
06/26/2011 11:51:04	5.621	13.432	87.402	68.003
06/26/2011 11:51:14	5.467	13.528	87.402	67.802
06/26/2011 11:51:24	5.412	13.568	87.603	68.003

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 11:51:34	5.394	13.561	87.402	68.102
06/26/2011 11:51:44	5.43	13.469	87.402	68.102
06/26/2011 11:51:54	5.493	13.432	87.402	68.102
06/26/2011 11:52:04	5.507	13.44	87.003	68.003
06/26/2011 11:52:14	5.449	13.568	87.003	68.003
06/26/2011 11:52:24	5.401	13.524	87.204	68.003
06/26/2011 11:52:34	5.438	13.487	87.003	68.003
06/26/2011 11:52:44	5.452	13.436	87.402	68.102
06/26/2011 11:52:54	5.533	13.37	87.402	68.102
06/26/2011 11:53:04	5.562	13.399	87.402	68.102
06/26/2011 11:53:14	5.533	13.414	87.603	68.102
06/26/2011 11:53:24	5.507	13.462	87.603	68.102
06/26/2011 11:53:34	5.441	13.513	87.402	68.003
06/26/2011 11:53:44	5.434	13.506	87.402	68.003
06/26/2011 11:53:54	5.423	13.487	87.603	68.003
06/26/2011 11:54:04	5.463	13.436	87.603	68.102
06/26/2011 11:54:14	5.522	13.41	87.603	68.102
06/26/2011 11:54:24	5.551	13.421	87.402	68.003
06/26/2011 11:54:34	5.54	13.388	87.204	68.003
06/26/2011 11:54:44	5.515	13.447	87.003	68.003
06/26/2011 11:54:54	5.518	13.407	87.204	68.003
06/26/2011 11:55:04	5.482	13.502	87.402	68.003
06/26/2011 11:55:14	5.478	13.414	87.402	68.003
06/26/2011 11:55:24	5.496	13.392	87.402	68.003
06/26/2011 11:55:34	5.515	13.513	87.402	68.003
06/26/2011 11:55:44	5.43	13.535	87.204	68.003
06/26/2011 11:55:54	5.368	13.59	87.402	68.003
06/26/2011 11:56:04	5.387	13.484	87.204	68.102
06/26/2011 11:56:14	5.405	13.568	87.204	68.102
06/26/2011 11:56:24	5.398	13.539	87.402	68.102
06/26/2011 11:56:34	5.449	13.454	87.204	68.003
06/26/2011 11:56:44	5.467	13.524	87.402	68.003
06/26/2011 11:56:54	5.383	13.601	87.402	68.003
06/26/2011 11:57:04	5.354	13.553	87.603	68.003
06/26/2011 11:57:14	5.383	13.546	87.805	68.102
06/26/2011 11:57:24	5.408	13.506	87.603	68.102
06/26/2011 11:57:34	5.438	13.447	87.603	68.102
06/26/2011 11:57:44	5.427	13.561	87.805	68.102
06/26/2011 11:57:54	5.394	13.546	87.805	68.102
06/26/2011 11:58:04	5.372	13.561	87.904	68.102
06/26/2011 11:58:14	5.379	13.586	87.805	68.102
06/26/2011 11:58:24	5.372	13.542	87.603	68.102
06/26/2011 11:58:34	5.408	13.517	87.402	68.003
06/26/2011 11:58:44	5.416	13.539	87.204	68.003
06/26/2011 11:58:54	5.405	13.513	87.402	68.102
06/26/2011 11:59:04	5.43	13.484	87.402	68.102
06/26/2011 11:59:14	5.408	13.612	87.402	68.102
06/26/2011 11:59:24	5.339	13.586	87.603	68.102
06/26/2011 11:59:34	5.368	13.546	87.805	68.102
06/26/2011 11:59:44	5.376	13.557	87.402	68.102
06/26/2011 11:59:54	5.335	13.689	87.402	68.102
06/26/2011 12:00:04	5.295	13.575	87.402	68.102
06/26/2011 12:00:14	5.357	13.528	87.603	68.102
06/26/2011 12:00:24	5.401	13.572	87.603	68.102
06/26/2011 12:00:34	5.383	13.542	87.805	68.102
06/26/2011 12:00:44	5.401	13.55	87.805	68.102
06/26/2011 12:00:54	5.376	13.616	87.603	68.102
Pause Run 7				
06/26/2011 12:01:04	5.328	13.689	87.603	68.303
06/26/2011 12:01:14	5.335	13.608	87.603	68.303
06/26/2011 12:01:24	5.354	13.605	87.603	68.303
06/26/2011 12:01:34	5.324	13.634	87.603	68.303
06/26/2011 12:01:44	5.313	13.638	87.402	68.303
06/26/2011 12:01:54	5.291	13.685	87.402	68.303
06/26/2011 12:02:04	5.324	13.572	87.603	68.303

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 12:02:14	5.335	13.627	87.805	68.303
06/26/2011 12:02:24	5.394	13.491	87.603	68.303
06/26/2011 12:02:34	5.438	13.531	87.603	68.303
06/26/2011 12:02:44	5.452	13.458	87.805	68.303
06/26/2011 12:02:54	5.485	13.451	87.805	68.303
06/26/2011 12:03:04	5.452	13.524	87.603	68.303
06/26/2011 12:03:14	5.401	13.509	87.805	68.303
06/26/2011 12:03:24	5.368	13.627	87.805	68.303
06/26/2011 12:03:34	5.35	13.495	87.805	68.303
06/26/2011 12:03:44	5.471	13.432	87.805	68.303
06/26/2011 12:03:54	5.493	13.498	87.805	68.303
06/26/2011 12:04:04	5.449	13.495	87.904	68.303
06/26/2011 12:04:14	5.423	13.513	87.904	68.303
06/26/2011 12:04:24	5.452	13.443	88.105	68.102
06/26/2011 12:04:34	5.496	13.487	87.904	68.102
06/26/2011 12:04:44	5.5	13.425	87.904	68.102
06/26/2011 12:04:54	5.566	13.341	87.603	68.102
06/26/2011 12:05:04	5.555	13.443	87.603	68.102
06/26/2011 12:05:14	5.482	13.495	87.603	68.102
06/26/2011 12:05:24	5.471	13.451	87.805	68.102
06/26/2011 12:05:34	5.485	13.487	87.603	68.102
06/26/2011 12:05:44	5.478	13.451	87.603	68.102
06/26/2011 12:05:54	5.533	13.323	87.402	68.303
06/26/2011 12:06:04	5.559	13.473	87.402	68.102
06/26/2011 12:06:14	5.496	13.495	87.603	68.303
06/26/2011 12:06:24	5.408	13.52	87.402	68.303
06/26/2011 12:06:34	5.441	13.458	87.603	68.303
06/26/2011 12:06:44	5.474	13.443	87.805	68.303
06/26/2011 12:06:54	5.441	13.506	87.805	68.303
06/26/2011 12:07:04	5.416	13.55	87.603	68.303
06/26/2011 12:07:14	5.343	13.623	87.904	68.303
06/26/2011 12:07:24	5.251	13.667	87.805	68.303
06/26/2011 12:07:34	5.313	13.601	87.904	68.303
06/26/2011 12:07:44	5.394	13.564	87.805	68.303
06/26/2011 12:07:54	5.401	13.52	87.805	68.303
06/26/2011 12:08:04	5.441	13.454	87.805	68.303
06/26/2011 12:08:14	5.496	13.454	87.402	68.102
06/26/2011 12:08:24	5.474	13.498	87.402	68.102
06/26/2011 12:08:34	5.401	13.579	87.603	68.102
06/26/2011 12:08:44	5.383	13.418	87.805	68.303
06/26/2011 12:08:54	5.438	13.513	87.805	68.303
06/26/2011 12:09:04	5.39	13.623	87.805	68.303
06/26/2011 12:09:14	5.361	13.583	87.805	68.303
06/26/2011 12:09:24	5.401	13.495	87.603	68.303
06/26/2011 12:09:34	5.416	13.513	87.603	68.303
06/26/2011 12:09:44	5.419	13.454	87.402	68.303
06/26/2011 12:09:54	5.427	13.561	87.603	68.303
06/26/2011 12:10:04	5.376	13.55	87.204	68.904
06/26/2011 12:10:14	5.372	13.546	87.402	68.703
06/26/2011 12:10:24	5.394	13.528	87.805	68.501
06/26/2011 12:10:34	5.419	13.465	87.603	68.501
06/26/2011 12:10:44	5.438	13.495	87.402	68.303
06/26/2011 12:10:54	5.478	13.469	87.402	68.303
06/26/2011 12:11:04	5.46	13.443	87.402	68.102
06/26/2011 12:11:14	5.489	13.447	87.603	68.303
06/26/2011 12:11:24	5.72	9.272	87.805	68.501
06/26/2011 12:11:34	3.775	3.548	87.805	68.703
06/26/2011 12:11:44	1.479	3.555	87.805	68.904
06/26/2011 12:11:54	1.34	3.585	87.805	68.904
06/26/2011 12:12:04	1.343	3.588	87.805	68.703
06/26/2011 12:12:14	1.343	3.61	87.805	68.904
06/26/2011 12:12:24	1.34	3.592	87.805	68.703
06/26/2011 12:12:34	1.351	3.585	87.805	68.904
06/26/2011 12:12:44	1.351	3.599	87.805	68.904
06/26/2011 12:12:54	1.351	3.57	87.805	68.703
06/26/2011 12:13:04	1.343	3.585	87.904	68.904

URS CEMs Raw Data
June 26, 2011

24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 12:13:14	1.332	3.574	87.805	68.703
06/26/2011 12:13:24	1.329	3.57	87.805	68.703
06/26/2011 12:13:34	1.318	3.588	87.805	68.904
06/26/2011 12:13:44	1.292	3.413	87.805	68.904
06/26/2011 12:13:54	0.648	0.212	87.805	68.904
06/26/2011 12:14:04	0.058	0.168	87.805	68.904
06/26/2011 12:14:14	0.018	0.157	87.805	69.003
06/26/2011 12:14:24	0.018	0.153	87.805	69.003
06/26/2011 12:14:34	0.014	0.15	87.904	68.904
06/26/2011 12:14:44	0.01	0.146	87.805	68.904
06/26/2011 12:14:54	0.01	0.146	87.805	68.703
06/26/2011 12:15:04	0.01	0.142	87.904	68.501
06/26/2011 12:15:14	0.01	0.142	88.303	68.703
06/26/2011 12:15:24	0.01	0.139	88.303	68.501
06/26/2011 12:15:34	0.01	0.139	88.105	68.303
06/26/2011 12:15:44	1.684	12.348	88.105	68.003
06/26/2011 12:15:54	4.819	13.509	87.904	68.003
06/26/2011 12:16:04	5.24	13.491	87.805	68.003
06/26/2011 12:16:14	5.328	13.48	87.904	68.102
06/26/2011 12:16:24	5.379	13.447	87.904	68.102
06/26/2011 12:16:34	5.445	13.451	87.904	68.003
06/26/2011 12:16:44	5.5	13.388	88.105	68.003
06/26/2011 12:16:54	5.46	13.484	88.105	67.802
06/26/2011 12:17:04	5.339	13.623	87.904	67.802
06/26/2011 12:17:14	5.339	13.52	87.904	67.802
06/26/2011 12:17:24	5.332	13.623	88.105	67.802
06/26/2011 12:17:34	5.354	13.531	87.904	67.802
06/26/2011 12:17:44	5.387	13.469	87.904	67.802
06/26/2011 12:17:54	5.376	13.583	87.904	67.802
06/26/2011 12:18:04	5.343	13.645	87.904	67.802
06/26/2011 12:18:14	5.35	13.524	87.904	67.802
06/26/2011 12:18:24	5.43	13.524	87.904	67.802
06/26/2011 12:18:34	5.463	13.377	87.904	67.802
06/26/2011 12:18:44	5.478	13.561	87.904	68.003
06/26/2011 12:18:54	5.383	13.553	88.105	68.003
06/26/2011 12:19:04	5.398	13.495	88.105	68.003
06/26/2011 12:19:14	5.434	13.498	88.105	68.102
06/26/2011 12:19:24	5.456	13.44	88.105	68.102
06/26/2011 12:19:34	5.467	13.476	87.904	68.102
06/26/2011 12:19:44	5.441	13.48	88.105	68.102
06/26/2011 12:19:54	5.35	13.627	88.105	68.102
06/26/2011 12:20:04	5.343	13.502	88.105	68.102
06/26/2011 12:20:14	5.357	13.546	88.303	68.102
06/26/2011 12:20:24	5.354	13.55	88.105	68.102
06/26/2011 12:20:34	5.405	13.469	88.105	68.102
06/26/2011 12:20:44	5.401	13.575	88.105	68.102
06/26/2011 12:20:54	5.394	13.52	88.105	68.102
06/26/2011 12:21:04	5.372	13.612	87.904	68.003
06/26/2011 12:21:14	5.339	13.575	87.904	68.003
06/26/2011 12:21:24	5.365	13.568	88.105	68.003
06/26/2011 12:21:34	5.372	13.59	88.303	68.102
06/26/2011 12:21:44	5.379	13.506	88.303	68.102
06/26/2011 12:21:54	5.419	13.564	88.504	68.102
06/26/2011 12:22:04	5.383	13.553	88.504	68.102
06/26/2011 12:22:14	5.423	13.517	88.105	68.102
06/26/2011 12:22:24	5.438	13.487	88.303	68.303
06/26/2011 12:22:34	5.427	13.568	88.303	68.303
06/26/2011 12:22:44	5.39	13.539	88.303	68.303
06/26/2011 12:22:54	5.405	13.484	88.303	68.303
06/26/2011 12:23:04	5.452	13.469	88.702	68.303
06/26/2011 12:23:14	5.416	13.59	88.504	68.102
06/26/2011 12:23:24	5.317	13.033	88.702	68.501
06/26/2011 12:23:34	2.772	0.417	88.702	68.501
06/26/2011 12:23:44	0.226	0.259	88.504	68.703
06/26/2011 12:23:54	0.036	0.212	88.504	68.703
06/26/2011 12:24:04	0.025	0.19	88.303	68.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 12:24:14	0.021	0.179	88.303	68.904
06/26/2011 12:24:24	0.018	0.168	88.105	68.703
06/26/2011 12:24:34	0.014	0.164	88.105	68.703
06/26/2011 12:24:44	0.014	0.157	88.105	68.703
06/26/2011 12:24:54	0.01	0.157	88.105	68.703
06/26/2011 12:25:04	0.095	0.842	88.303	68.501
06/26/2011 12:25:14	2.911	13.216	88.303	68.303
06/26/2011 12:25:24	5.28	13.425	88.303	68.303
06/26/2011 12:25:34	5.35	13.513	88.504	68.501
06/26/2011 12:25:44	5.398	13.377	88.504	68.303
06/26/2011 12:25:54	5.507	13.381	88.504	68.303
06/26/2011 12:26:04	5.474	13.473	88.303	68.303
06/26/2011 12:26:14	5.394	13.564	88.303	68.303
06/26/2011 12:26:24	5.321	13.583	88.303	68.303
06/26/2011 12:26:34	5.313	13.638	88.504	68.102
06/26/2011 12:26:44	5.247	13.656	88.702	68.303
06/26/2011 12:26:54	5.211	13.674	88.702	68.501
06/26/2011 12:27:04	5.247	13.575	88.702	68.501
06/26/2011 12:27:14	5.313	13.619	88.805	68.501
06/26/2011 12:27:24	5.291	13.575	88.805	68.303
06/26/2011 12:27:34	5.379	13.557	88.805	68.303
06/26/2011 12:27:44	5.394	13.509	88.702	68.303
06/26/2011 12:27:54	5.383	13.564	88.504	68.303
06/26/2011 12:28:04	5.35	13.575	88.702	68.102
06/26/2011 12:28:14	5.313	13.59	88.702	68.102
06/26/2011 12:28:24	5.328	13.597	88.805	68.102
06/26/2011 12:28:34	5.321	13.59	88.504	68.102
06/26/2011 12:28:44	5.328	13.627	88.702	68.102
06/26/2011 12:28:54	5.302	13.597	88.805	68.102
06/26/2011 12:29:04	5.302	13.601	88.702	68.102
06/26/2011 12:29:14	5.343	13.542	88.702	68.102
06/26/2011 12:29:24	5.376	13.575	88.702	68.102
06/26/2011 12:29:34	5.361	13.579	88.702	68.303
06/26/2011 12:29:44	5.306	13.681	88.805	68.303
06/26/2011 12:29:54	5.313	13.531	88.805	68.102
06/26/2011 12:30:04	5.394	13.465	89.002	68.303
06/26/2011 12:30:14	5.394	13.583	89.204	68.303
06/26/2011 12:30:24	5.28	13.696	89.002	68.303
06/26/2011 12:30:34	5.269	13.594	89.204	68.501
06/26/2011 12:30:44	5.354	13.513	89.402	68.501
06/26/2011 12:30:54	5.416	13.561	89.204	68.501
06/26/2011 12:31:04	5.387	13.48	89.002	68.501
06/26/2011 12:31:14	5.449	13.506	89.002	68.501
06/26/2011 12:31:24	5.434	13.539	89.002	68.501
06/26/2011 12:31:34	5.354	13.583	89.204	68.501
06/26/2011 12:31:44	5.324	13.619	89.002	68.303
06/26/2011 12:31:54	5.328	13.627	89.002	68.303
06/26/2011 12:32:04	5.332	13.619	89.204	68.303
06/26/2011 12:32:14	5.35	13.561	89.204	68.501
06/26/2011 12:32:24	5.408	13.414	89.204	68.501
06/26/2011 12:32:34	5.471	13.542	88.805	68.501
06/26/2011 12:32:44	5.441	13.487	88.805	68.501
06/26/2011 12:32:54	5.419	13.535	88.805	68.501
06/26/2011 12:33:04	5.368	13.608	88.805	68.501
06/26/2011 12:33:14	5.284	13.63	88.805	68.501
06/26/2011 12:33:24	5.321	13.568	89.002	68.703
06/26/2011 12:33:34	5.387	13.498	89.002	68.703
06/26/2011 12:33:44	5.408	13.509	88.805	68.703
06/26/2011 12:33:54	5.405	13.495	88.805	68.703
06/26/2011 12:34:04	5.401	13.55	88.805	68.703
06/26/2011 12:34:14	5.372	13.517	88.303	68.501
06/26/2011 12:34:24	5.383	13.546	88.504	68.501
06/26/2011 12:34:34	5.394	13.52	88.702	68.501
06/26/2011 12:34:44	5.419	13.454	88.504	68.501
06/26/2011 12:34:54	5.449	13.535	88.702	68.703
06/26/2011 12:35:04	5.405	13.502	88.702	68.703

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 12:35:14	5.394	13.561	88.805	68.703
06/26/2011 12:35:24	5.372	13.542	88.805	68.703
06/26/2011 12:35:34	5.383	13.539	88.702	68.703
06/26/2011 12:35:44	5.423	13.447	88.805	68.703
06/26/2011 12:35:54	5.485	13.484	88.805	68.703
06/26/2011 12:36:04	5.423	13.498	89.002	68.703
06/26/2011 12:36:14	5.427	13.513	89.002	68.703
06/26/2011 12:36:24	5.387	13.627	89.204	68.904
06/26/2011 12:36:34	5.335	13.561	89.204	68.904
06/26/2011 12:36:44	5.365	13.564	89.002	68.904
06/26/2011 12:36:54	5.398	13.487	89.002	68.904
06/26/2011 12:37:04	5.398	13.542	89.002	68.904
06/26/2011 12:37:14	5.401	13.454	89.204	68.904
06/26/2011 12:37:24	5.416	13.55	88.805	68.904
06/26/2011 12:37:34	5.368	13.583	88.805	68.904
06/26/2011 12:37:44	3.848	1.179	88.805	69.003
06/26/2011 12:37:54	0.626	0.289	88.702	69.204
06/26/2011 12:38:04	0.054	0.234	88.805	69.204
06/26/2011 12:38:14	0.029	0.204	88.805	69.204
06/26/2011 12:38:24	0.021	0.19	88.805	69.204
06/26/2011 12:38:34	0.018	0.179	88.702	69.204
06/26/2011 12:38:44	0.018	0.172	88.805	69.204
06/26/2011 12:38:54	0.018	0.164	88.702	69.204
06/26/2011 12:39:04	0.014	0.157	88.805	69.204
06/26/2011 12:39:14	0.014	0.157	88.805	69.003
06/26/2011 12:39:24	1.746	12.462	88.702	69.003
06/26/2011 12:39:34	4.834	13.542	88.702	69.003
06/26/2011 12:39:44	5.277	13.487	88.805	69.003
06/26/2011 12:39:54	5.361	13.447	88.805	68.904
06/26/2011 12:40:04	5.398	13.513	88.805	68.904
06/26/2011 12:40:14	5.383	13.454	89.002	68.904
06/26/2011 12:40:24	5.474	13.388	89.002	68.703
06/26/2011 12:40:34	5.555	13.348	88.805	68.904
06/26/2011 12:40:44	5.559	13.323	88.702	68.703
06/26/2011 12:40:54	5.544	13.392	88.805	68.703
06/26/2011 12:41:04	5.496	13.414	88.805	68.703
06/26/2011 12:41:14	5.482	13.432	88.805	68.703
06/26/2011 12:41:24	5.474	13.495	89.204	68.703
06/26/2011 12:41:34	5.445	13.48	89.402	68.904
06/26/2011 12:41:44	5.46	13.469	89.204	68.904
06/26/2011 12:41:54	5.46	13.495	89.204	68.904
06/26/2011 12:42:04	5.474	13.462	89.002	68.904
06/26/2011 12:42:14	5.478	13.432	89.002	68.703
06/26/2011 12:42:24	5.467	13.425	89.002	68.703
06/26/2011 12:42:34	5.471	13.425	89.002	68.703
06/26/2011 12:42:44	5.474	13.396	89.402	68.904
06/26/2011 12:42:54	5.511	13.363	89.603	68.904
06/26/2011 12:43:04	5.471	13.506	89.603	68.904
06/26/2011 12:43:14	5.361	13.557	89.204	68.904
06/26/2011 12:43:24	5.361	13.517	89.402	68.904
06/26/2011 12:43:34	5.372	13.55	89.204	68.904
06/26/2011 12:43:44	5.376	13.48	89.402	68.904
06/26/2011 12:43:54	5.445	13.451	89.204	68.904
06/26/2011 12:44:04	5.416	13.517	89.204	68.904
06/26/2011 12:44:14	5.357	13.59	89.002	68.904
06/26/2011 12:44:24	5.365	13.509	89.204	68.904
06/26/2011 12:44:34	5.376	13.612	89.204	68.904
06/26/2011 12:44:44	5.343	13.575	89.402	68.904
06/26/2011 12:44:54	5.383	13.48	89.204	68.703
06/26/2011 12:45:04	5.441	13.495	89.002	68.904
06/26/2011 12:45:14	5.408	13.528	89.204	68.904
06/26/2011 12:45:24	5.376	13.557	89.204	68.904
06/26/2011 12:45:34	5.398	13.473	89.002	68.904
06/26/2011 12:45:44	5.423	13.44	89.002	68.904
06/26/2011 12:45:54	5.416	13.561	89.002	68.904
06/26/2011 12:46:04	5.324	13.601	89.402	68.904

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 12:46:14	5.372	13.425	89.204	68.904
06/26/2011 12:46:24	5.493	13.41	89.204	68.904
06/26/2011 12:46:34	5.485	13.509	89.402	68.904
06/26/2011 12:46:44	5.434	13.506	89.402	68.904
06/26/2011 12:46:54	5.441	13.429	89.204	68.904
06/26/2011 12:47:04	5.445	13.557	89.402	68.904
06/26/2011 12:47:14	5.423	13.487	89.702	69.003
06/26/2011 12:47:24	5.452	13.465	89.603	68.904
06/26/2011 12:47:34	5.46	13.502	89.603	69.003
06/26/2011 12:47:44	5.456	13.506	89.702	69.003
06/26/2011 12:47:54	5.408	13.561	89.603	68.904
06/26/2011 12:48:04	5.387	13.484	89.402	68.904
06/26/2011 12:48:14	5.419	13.491	89.603	69.003
06/26/2011 12:48:24	5.427	13.52	89.603	69.003
06/26/2011 12:48:34	5.441	13.443	89.402	68.904
06/26/2011 12:48:44	5.445	13.509	89.402	68.904
06/26/2011 12:48:54	5.365	13.575	89.702	69.204
06/26/2011 12:49:04	5.35	13.568	89.603	69.204
06/26/2011 12:49:14	5.357	13.531	89.702	69.204
06/26/2011 12:49:24	5.35	13.55	89.702	69.003
06/26/2011 12:49:34	5.383	13.506	89.702	69.003
06/26/2011 12:49:44	5.408	13.531	89.603	69.204
06/26/2011 12:49:54	5.394	13.506	89.603	69.204
06/26/2011 12:50:04	4.354	3.193	89.603	69.402
06/26/2011 12:50:14	1.007	0.318	89.603	69.604
06/26/2011 12:50:24	0.065	0.248	89.603	69.604
06/26/2011 12:50:34	0.029	0.223	89.603	69.604
06/26/2011 12:50:44	0.021	0.204	89.603	69.604
06/26/2011 12:50:54	0.018	0.193	89.204	69.604
06/26/2011 12:51:04	0.018	0.183	89.204	69.604
06/26/2011 12:51:14	0.014	0.175	89.204	69.604
06/26/2011 12:51:24	0.014	0.168	89.204	69.402
06/26/2011 12:51:34	0.01	0.161	89.204	69.402
06/26/2011 12:51:44	0.01	0.153	89.002	69.402
06/26/2011 12:51:54	0.01	0.15	89.002	69.402
06/26/2011 12:52:04	0.01	0.146	89.002	69.402
06/26/2011 12:52:14	0.01	0.142	89.204	69.604
06/26/2011 12:52:24	0.007	0.139	89.204	69.604
06/26/2011 12:52:34	0.007	0.139	89.204	69.604
06/26/2011 12:52:44	0.007	0.139	89.204	69.604
06/26/2011 12:52:54	0.007	0.139	89.002	69.204
06/26/2011 12:53:04	0.007	0.139	89.002	69.204
06/26/2011 12:53:14	0.007	0.135	89.002	69.204
06/26/2011 12:53:24	0.007	0.135	89.002	69.204
06/26/2011 12:53:34	0.007	0.135	89.204	69.204
06/26/2011 12:53:44	0.007	0.135	89.402	68.904
06/26/2011 12:53:54	1.798	12.444	89.204	68.703
06/26/2011 12:54:04	4.951	13.352	89.402	68.501
06/26/2011 12:54:14	5.284	13.044	89.402	68.501
06/26/2011 12:54:24	5.295	13.22	89.402	68.501
06/26/2011 12:54:34	5.482	13.319	89.702	68.501
06/26/2011 12:54:44	5.515	13.451	89.903	68.501
06/26/2011 12:54:54	5.46	13.418	89.702	68.501
06/26/2011 12:55:04	5.456	13.41	89.603	68.501
06/26/2011 12:55:14	5.43	13.495	89.603	68.501
06/26/2011 12:55:24	5.423	13.484	89.702	68.501
06/26/2011 12:55:34	5.467	13.392	89.903	68.501
06/26/2011 12:55:44	5.478	13.48	89.903	68.501
06/26/2011 12:55:54	5.456	13.385	89.903	68.501
06/26/2011 12:56:04	5.46	13.458	89.903	68.501
06/26/2011 12:56:14	5.493	13.385	89.903	68.501
06/26/2011 12:56:24	5.478	13.462	89.702	68.501
06/26/2011 12:56:34	5.419	13.491	89.702	68.501
06/26/2011 12:56:44	5.419	13.462	89.702	68.501
06/26/2011 12:56:54	5.485	13.377	89.603	68.501
06/26/2011 12:57:04	5.522	13.451	89.603	68.501

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 12:57:14	5.445	13.476	89.603	68.501
06/26/2011 12:57:24	5.427	13.491	89.603	68.501
06/26/2011 12:57:34	5.427	13.469	89.603	68.501
06/26/2011 12:57:44	5.398	13.509	89.402	68.501
06/26/2011 12:57:54	5.405	13.469	89.603	68.703
06/26/2011 12:58:04	5.419	13.465	89.603	68.703
06/26/2011 12:58:14	5.467	13.454	89.603	68.703
06/26/2011 12:58:24	5.456	13.473	89.702	68.703
06/26/2011 12:58:34	5.449	13.44	89.603	68.703
06/26/2011 12:58:44	5.482	13.388	89.903	68.904
06/26/2011 12:58:54	5.522	13.385	90.105	68.904
06/26/2011 12:59:04	5.511	13.414	89.702	68.904
06/26/2011 12:59:14	5.489	13.462	89.702	68.904
06/26/2011 12:59:24	5.441	13.502	89.702	68.904
06/26/2011 12:59:34	5.401	13.608	89.903	68.904
06/26/2011 12:59:44	5.321	13.608	89.903	68.904
06/26/2011 12:59:54	5.357	13.524	90.105	69.003
06/26/2011 13:00:04	5.408	13.52	89.903	69.003
06/26/2011 13:00:14	5.438	13.476	90.105	69.003
06/26/2011 13:00:24	5.416	13.561	89.702	69.003
06/26/2011 13:00:34	5.354	13.605	89.702	69.003
06/26/2011 13:00:44	5.306	13.627	89.702	69.003
06/26/2011 13:00:54	5.332	13.535	89.603	69.003
06/26/2011 13:01:04	5.394	13.509	89.603	69.003
06/26/2011 13:01:14	5.427	13.469	89.603	69.003
06/26/2011 13:01:24	5.474	13.414	89.402	69.003
06/26/2011 13:01:34	5.449	13.495	89.603	69.003
06/26/2011 13:01:44	5.434	13.513	89.603	69.003
06/26/2011 13:01:54	5.445	13.414	89.603	69.003
06/26/2011 13:02:04	5.423	13.575	89.603	69.003
06/26/2011 13:02:14	5.372	13.509	89.603	69.204
06/26/2011 13:02:24	5.401	13.531	89.603	69.204
06/26/2011 13:02:34	5.456	13.403	89.204	69.204
06/26/2011 13:02:44	5.511	13.366	89.402	69.204
06/26/2011 13:02:54	5.566	13.345	89.402	69.204
06/26/2011 13:03:04	5.5	13.52	89.204	69.204
06/26/2011 13:03:14	5.357	13.601	89.002	69.204
06/26/2011 13:03:24	5.376	13.52	89.402	69.204
06/26/2011 13:03:34	5.387	13.594	89.402	69.204
06/26/2011 13:03:44	5.343	13.546	89.702	69.204
06/26/2011 13:03:54	5.313	13.645	89.702	69.204
06/26/2011 13:04:04	5.288	13.59	89.702	69.204
06/26/2011 13:04:14	5.299	13.627	89.603	69.204
06/26/2011 13:04:24	5.321	13.597	89.702	69.204
06/26/2011 13:04:34	5.328	13.535	89.603	69.402
06/26/2011 13:04:44	5.401	13.509	89.603	69.402
06/26/2011 13:04:54	5.365	13.619	89.204	69.204
06/26/2011 13:05:04	5.372	13.476	89.204	69.204
06/26/2011 13:05:14	5.376	13.641	89.204	69.204
06/26/2011 13:05:24	5.288	13.638	89.204	69.204
06/26/2011 13:05:34	5.35	13.513	89.603	69.402
06/26/2011 13:05:44	5.416	13.469	89.702	69.402
06/26/2011 13:05:54	5.482	13.462	89.603	69.402
06/26/2011 13:06:04	5.405	13.557	89.603	69.402
06/26/2011 13:06:14	5.357	13.601	89.603	69.402
06/26/2011 13:06:24	5.372	13.561	89.702	69.204
06/26/2011 13:06:34	5.398	13.531	89.603	69.204
06/26/2011 13:06:44	5.408	13.513	89.603	69.402
06/26/2011 13:06:54	5.401	13.561	89.603	69.003
06/26/2011 13:07:04	5.376	13.52	89.204	69.204
06/26/2011 13:07:14	5.408	13.509	89.204	69.204
06/26/2011 13:07:24	5.394	13.564	89.204	69.204
06/26/2011 13:07:34	5.39	13.524	89.204	69.402
06/26/2011 13:07:44	5.401	13.535	89.002	69.204
06/26/2011 13:07:54	5.372	13.579	89.402	69.204
06/26/2011 13:08:04	5.365	13.55	89.402	69.204

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 13:08:14	5.357	13.612	89.603	69.204
06/26/2011 13:08:24	5.365	13.561	89.603	69.003
06/26/2011 13:08:34	5.372	13.542	89.603	69.204
06/26/2011 13:08:44	5.39	13.528	89.603	69.204
06/26/2011 13:08:54	5.419	13.487	89.702	69.402
06/26/2011 13:09:04	5.401	13.568	89.603	69.204
06/26/2011 13:09:14	5.35	13.612	89.204	69.204
06/26/2011 13:09:24	5.302	13.641	89.204	69.204
06/26/2011 13:09:34	5.269	13.608	89.402	69.204
06/26/2011 13:09:44	5.31	13.623	89.402	69.204
06/26/2011 13:09:54	5.332	13.579	89.603	69.402
06/26/2011 13:10:04	5.346	13.557	89.603	69.402
06/26/2011 13:10:14	5.357	13.498	89.402	69.402
06/26/2011 13:10:24	5.401	13.491	89.603	69.402
06/26/2011 13:10:34	5.398	13.539	89.603	69.402
06/26/2011 13:10:44	5.354	13.579	89.603	69.402
06/26/2011 13:10:54	5.346	13.539	89.402	69.402
06/26/2011 13:11:04	5.343	13.608	89.402	69.402
06/26/2011 13:11:14	5.35	13.513	89.402	69.402
06/26/2011 13:11:24	5.39	13.498	89.402	69.402
06/26/2011 13:11:34	5.35	13.605	89.603	69.204
06/26/2011 13:11:44	5.328	13.572	89.603	69.204
06/26/2011 13:11:54	5.321	13.579	89.702	69.204
06/26/2011 13:12:04	5.339	13.594	89.702	69.204
06/26/2011 13:12:14	5.379	13.546	89.603	69.003
06/26/2011 13:12:24	5.427	13.495	89.204	69.204
06/26/2011 13:12:34	5.416	13.539	89.402	69.204
06/26/2011 13:12:44	5.416	13.528	89.603	69.204
06/26/2011 13:12:54	5.383	13.561	89.402	69.402
06/26/2011 13:13:04	5.357	13.627	89.603	69.402
06/26/2011 13:13:14	5.398	13.473	89.204	69.204
06/26/2011 13:13:24	5.445	13.495	89.002	69.204
06/26/2011 13:13:34	5.452	13.535	89.002	69.204
06/26/2011 13:13:44	5.383	13.59	88.805	69.402
06/26/2011 13:13:54	5.387	13.498	89.002	69.402
06/26/2011 13:14:04	5.401	13.495	88.805	69.604
06/26/2011 13:14:14	5.423	13.469	89.002	69.604
06/26/2011 13:14:24	5.441	13.451	88.805	69.604
06/26/2011 13:14:34	5.474	13.451	88.805	69.604
06/26/2011 13:14:44	5.449	13.557	89.002	69.402
06/26/2011 13:14:54	5.405	13.498	89.002	69.402
06/26/2011 13:15:04	5.427	13.542	89.204	69.402
06/26/2011 13:15:14	5.343	13.568	89.204	69.402
06/26/2011 13:15:24	5.335	13.572	89.204	69.402
06/26/2011 13:15:34	5.339	13.597	89.002	69.402
06/26/2011 13:15:44	5.394	13.44	89.204	69.402
06/26/2011 13:15:54	5.478	13.469	89.204	69.402
06/26/2011 13:16:04	5.467	13.432	89.002	69.402
06/26/2011 13:16:14	5.445	13.498	89.002	69.402
06/26/2011 13:16:24	5.441	13.462	89.002	69.604
06/26/2011 13:16:34	5.456	13.491	89.603	69.801
06/26/2011 13:16:44	5.456	13.451	89.402	69.604
06/26/2011 13:16:54	5.474	13.407	89.204	69.604
06/26/2011 13:17:04	5.496	13.44	89.402	69.604
06/26/2011 13:17:14	5.482	13.44	89.402	69.604
06/26/2011 13:17:24	5.493	13.462	89.402	69.402
06/26/2011 13:17:34	5.456	13.425	89.402	69.402
06/26/2011 13:17:44	5.5	13.414	89.603	69.402
06/26/2011 13:17:54	5.537	13.396	89.702	69.604
06/26/2011 13:18:04	5.493	13.476	89.603	69.604
06/26/2011 13:18:14	5.423	13.502	89.702	69.604
06/26/2011 13:18:24	5.412	13.473	89.702	69.604
06/26/2011 13:18:34	5.419	13.476	89.603	69.604
06/26/2011 13:18:44	5.456	13.495	89.402	69.204
06/26/2011 13:18:54	5.416	13.52	89.603	69.204
06/26/2011 13:19:04	5.387	13.524	89.402	69.402

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 13:19:14	5.387	13.579	89.603	69.402
06/26/2011 13:19:24	5.361	13.546	89.603	69.402
06/26/2011 13:19:34	5.343	13.539	89.603	69.402
06/26/2011 13:19:44	5.423	13.487	89.402	69.402
06/26/2011 13:19:54	5.438	13.465	89.702	69.604
06/26/2011 13:20:04	5.463	13.432	89.402	69.604
06/26/2011 13:20:14	5.467	13.498	89.402	69.604
06/26/2011 13:20:24	5.456	13.407	89.402	69.402
06/26/2011 13:20:34	5.467	13.509	89.002	69.402
06/26/2011 13:20:44	5.474	13.37	89.204	69.402
06/26/2011 13:20:54	5.555	13.385	89.204	69.402
06/26/2011 13:21:04	5.5	13.48	89.402	69.402
06/26/2011 13:21:14	5.452	13.451	89.402	69.604
06/26/2011 13:21:24	5.43	13.509	89.204	69.402
06/26/2011 13:21:34	5.398	13.597	89.204	69.402
06/26/2011 13:21:44	5.383	13.517	89.402	69.604
06/26/2011 13:21:54	5.376	13.601	89.402	69.604
06/26/2011 13:22:04	5.379	13.491	89.402	69.402
06/26/2011 13:22:14	5.427	13.432	89.402	69.402
06/26/2011 13:22:24	5.405	13.564	89.603	69.604
06/26/2011 13:22:34	5.361	13.553	89.204	69.402
06/26/2011 13:22:44	5.339	13.652	89.002	69.402
06/26/2011 13:22:54	5.335	13.528	89.002	69.402
06/26/2011 13:23:04	5.419	13.528	89.204	69.402
06/26/2011 13:23:14	5.419	13.524	89.402	69.402
06/26/2011 13:23:24	5.383	13.52	89.002	69.402
06/26/2011 13:23:34	5.361	13.605	89.002	69.604
06/26/2011 13:23:44	5.343	13.524	88.805	69.604
06/26/2011 13:23:54	5.427	13.451	88.805	69.604
06/26/2011 13:24:04	5.489	13.41	88.805	69.604
06/26/2011 13:24:14	5.471	13.509	89.204	69.402
06/26/2011 13:24:24	5.427	13.52	88.805	69.604
06/26/2011 13:24:34	5.438	13.48	88.805	69.402
06/26/2011 13:24:44	5.445	13.48	89.002	69.402
06/26/2011 13:24:54	5.441	13.484	89.002	69.402
06/26/2011 13:25:04	5.445	13.432	89.204	69.402
06/26/2011 13:25:14	5.416	13.531	89.402	69.402
06/26/2011 13:25:24	5.365	13.594	89.402	69.402
06/26/2011 13:25:34	5.339	13.564	89.402	69.402
06/26/2011 13:25:44	5.354	13.539	89.702	69.402
06/26/2011 13:25:54	5.339	13.586	89.702	69.604
06/26/2011 13:26:04	5.423	13.414	89.702	69.604
06/26/2011 13:26:14	5.522	13.421	89.903	69.402
06/26/2011 13:26:24	5.493	13.447	89.702	69.402
06/26/2011 13:26:34	5.471	13.528	89.702	69.402
06/26/2011 13:26:44	5.387	13.561	89.702	69.402
06/26/2011 13:26:54	5.365	13.612	89.903	69.402
06/26/2011 13:27:04	5.343	13.55	89.903	69.402
06/26/2011 13:27:14	5.379	13.535	89.702	69.402
06/26/2011 13:27:24	5.423	13.531	89.903	69.402
06/26/2011 13:27:34	5.416	13.539	89.702	69.402
06/26/2011 13:27:44	5.387	13.572	89.702	69.402
06/26/2011 13:27:54	5.387	13.491	89.702	69.402
06/26/2011 13:28:04	5.408	13.586	89.702	69.402
06/26/2011 13:28:14	5.288	13.692	89.903	69.402
06/26/2011 13:28:24	5.196	13.722	89.903	69.402
06/26/2011 13:28:34	5.2	13.67	89.903	69.402
06/26/2011 13:28:44	5.339	13.451	89.903	69.604
06/26/2011 13:28:54	5.398	13.645	89.903	69.402
06/26/2011 13:29:04	5.332	13.583	89.903	69.604
06/26/2011 13:29:14	5.324	13.616	89.702	69.402
06/26/2011 13:29:24	5.269	13.678	89.603	69.402
06/26/2011 13:29:34	5.313	13.557	89.702	69.402
06/26/2011 13:29:44	5.343	13.553	89.903	69.604
06/26/2011 13:29:54	5.324	13.594	89.903	69.604
06/26/2011 13:30:04	5.299	13.619	89.702	69.402

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 13:30:14	5.332	13.542	89.603	69.604
06/26/2011 13:30:24	5.43	13.451	89.603	69.402
06/26/2011 13:30:34	5.419	13.539	89.702	69.604
06/26/2011 13:30:44	5.379	13.513	89.603	69.604
06/26/2011 13:30:54	5.376	13.55	88.805	69.604
06/26/2011 13:31:04	5.394	13.509	88.805	69.604
06/26/2011 13:31:14	5.445	13.487	89.002	69.604
06/26/2011 13:31:24	5.5	13.345	89.204	69.604
06/26/2011 13:31:34	5.577	13.345	89.204	69.604
06/26/2011 13:31:44	5.559	13.414	89.402	69.604
06/26/2011 13:31:54	5.445	13.535	89.204	69.801
06/26/2011 13:32:04	5.412	13.517	89.002	69.801
06/26/2011 13:32:14	5.39	13.528	89.204	69.604
06/26/2011 13:32:24	5.372	13.517	88.702	69.604
06/26/2011 13:32:34	5.368	13.575	88.702	69.801
06/26/2011 13:32:44	5.324	13.616	88.303	69.604
06/26/2011 13:32:54	5.328	13.528	88.702	69.604
06/26/2011 13:33:04	5.379	13.583	88.504	69.604
06/26/2011 13:33:14	5.339	13.52	88.504	69.801
06/26/2011 13:33:24	5.361	13.531	88.702	69.801
06/26/2011 13:33:34	5.379	13.506	88.702	69.801
06/26/2011 13:33:44	5.398	13.513	88.805	69.801
06/26/2011 13:33:54	5.434	13.418	88.702	69.801
06/26/2011 13:34:04	5.445	13.52	88.504	69.801
06/26/2011 13:34:14	5.368	13.557	88.504	69.801
06/26/2011 13:34:24	5.335	13.601	88.105	69.604
06/26/2011 13:34:34	5.376	13.469	88.303	69.604
06/26/2011 13:34:44	5.452	13.487	88.303	69.604
06/26/2011 13:34:54	5.408	13.531	88.303	69.604
06/26/2011 13:35:04	5.383	13.509	88.702	69.604
06/26/2011 13:35:14	5.401	13.506	89.002	69.801
06/26/2011 13:35:24	5.387	13.59	89.002	69.801
06/26/2011 13:35:34	5.317	13.586	88.805	69.801
06/26/2011 13:35:44	5.328	13.564	88.805	69.604
06/26/2011 13:35:54	5.387	13.495	88.702	69.801
06/26/2011 13:36:04	5.408	13.531	88.702	69.801
06/26/2011 13:36:14	5.427	13.487	88.805	69.801
06/26/2011 13:36:24	5.441	13.531	88.702	69.801
06/26/2011 13:36:34	5.452	13.447	88.702	69.801
06/26/2011 13:36:44	5.474	13.447	89.002	69.801
06/26/2011 13:36:54	5.449	13.535	89.402	69.801
06/26/2011 13:37:04	5.401	13.528	89.603	69.801
06/26/2011 13:37:14	5.474	13.385	89.402	69.801
06/26/2011 13:37:24	5.555	13.356	89.402	69.801
06/26/2011 13:37:34	5.54	13.458	89.204	69.801
06/26/2011 13:37:44	5.485	13.469	89.002	69.801
06/26/2011 13:37:54	5.427	13.542	89.002	69.801
06/26/2011 13:38:04	5.372	13.557	89.204	69.801
06/26/2011 13:38:14	5.39	13.48	89.204	69.801
06/26/2011 13:38:24	5.394	13.52	89.204	69.604
06/26/2011 13:38:34	5.372	13.561	89.002	69.604
06/26/2011 13:38:44	5.416	13.447	89.002	69.604
06/26/2011 13:38:54	5.456	13.487	89.204	69.604
06/26/2011 13:39:04	5.467	13.403	89.204	69.402
06/26/2011 13:39:14	5.5	13.432	89.402	69.801
06/26/2011 13:39:24	5.474	13.473	89.402	69.801
06/26/2011 13:39:34	5.452	13.509	89.603	69.801
06/26/2011 13:39:44	5.427	13.498	89.603	69.801
06/26/2011 13:39:54	5.456	13.407	89.603	69.801
06/26/2011 13:40:04	5.5	13.443	89.402	69.801
06/26/2011 13:40:14	5.474	13.465	89.402	69.604
06/26/2011 13:40:24	5.482	13.44	89.204	69.604
06/26/2011 13:40:34	5.493	13.458	89.204	69.604
06/26/2011 13:40:44	5.489	13.421	89.402	69.801
06/26/2011 13:40:54	5.46	13.517	89.204	69.801
06/26/2011 13:41:04	5.379	13.645	89.402	69.604

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 13:41:14	5.31	13.616	89.702	69.604
06/26/2011 13:41:24	5.324	13.531	89.702	69.604
06/26/2011 13:41:34	5.398	13.539	89.903	69.801
06/26/2011 13:41:44	5.423	13.476	89.903	69.801
06/26/2011 13:41:54	5.511	13.392	89.903	69.801
06/26/2011 13:42:04	5.555	13.414	89.702	69.801
06/26/2011 13:42:14	5.467	13.498	89.903	69.604
06/26/2011 13:42:24	5.408	13.524	89.702	69.801
06/26/2011 13:42:34	5.434	13.454	89.903	69.801
06/26/2011 13:42:44	5.485	13.447	90.105	69.904
06/26/2011 13:42:54	5.427	13.531	90.105	69.801
06/26/2011 13:43:04	5.372	13.583	90.105	69.801
06/26/2011 13:43:14	5.383	13.52	90.105	69.801
06/26/2011 13:43:24	5.423	13.451	90.105	69.801
06/26/2011 13:43:34	5.449	13.487	90.302	69.801
06/26/2011 13:43:44	5.445	13.495	90.302	69.801
06/26/2011 13:43:54	5.467	13.451	90.105	69.801
06/26/2011 13:44:04	5.46	13.509	90.105	69.801
06/26/2011 13:44:14	5.445	13.458	90.105	69.801
06/26/2011 13:44:24	5.482	13.432	89.603	69.801
06/26/2011 13:44:34	5.522	13.352	89.002	69.801
06/26/2011 13:44:44	5.562	13.33	89.204	69.604
06/26/2011 13:44:54	5.588	13.345	89.204	69.801
06/26/2011 13:45:04	5.559	13.421	89.002	69.801
06/26/2011 13:45:14	5.5	13.432	88.805	69.801
06/26/2011 13:45:24	5.474	13.495	88.702	69.801
06/26/2011 13:45:34	5.452	13.469	88.702	69.801
06/26/2011 13:45:44	5.5	13.414	88.504	69.604
06/26/2011 13:45:54	5.489	13.458	88.504	69.604
06/26/2011 13:46:04	5.5	13.429	88.504	69.604
06/26/2011 13:46:14	5.5	13.498	88.303	69.604
06/26/2011 13:46:24	5.441	13.509	88.702	69.604
06/26/2011 13:46:34	5.482	13.374	88.702	69.604
06/26/2011 13:46:44	5.551	13.418	88.702	69.604
06/26/2011 13:46:54	5.493	13.465	88.303	69.604
06/26/2011 13:47:04	5.474	13.41	88.105	69.604
06/26/2011 13:47:14	5.529	13.345	87.402	69.604
06/26/2011 13:47:24	5.537	13.352	87.003	69.604
06/26/2011 13:47:34	5.537	13.462	86.505	69.604
06/26/2011 13:47:44	5.423	13.579	86.303	69.604
06/26/2011 13:47:54	5.339	13.55	86.303	69.801
06/26/2011 13:48:04	5.445	13.385	86.505	69.801
06/26/2011 13:48:14	5.555	13.352	86.505	69.801
06/26/2011 13:48:24	5.577	13.304	86.505	69.801
06/26/2011 13:48:34	5.595	13.348	86.505	69.904
06/26/2011 13:48:44	5.573	13.337	86.505	69.904
06/26/2011 13:48:54	5.551	13.454	86.303	69.904
06/26/2011 13:49:04	5.478	13.484	86.303	69.904
06/26/2011 13:49:14	5.449	13.421	86.102	69.904
06/26/2011 13:49:24	5.518	13.366	86.102	69.904
06/26/2011 13:49:34	5.566	13.286	86.303	69.904
06/26/2011 13:49:44	5.617	13.293	86.303	69.904
06/26/2011 13:49:54	5.614	13.33	86.303	69.904
06/26/2011 13:50:04	5.566	13.326	86.303	69.904
06/26/2011 13:50:14	5.504	13.451	86.303	69.904
06/26/2011 13:50:24	5.449	13.44	86.505	69.904
06/26/2011 13:50:34	5.419	13.491	86.505	69.904
06/26/2011 13:50:44	5.376	13.568	86.505	69.904
06/26/2011 13:50:54	5.434	13.414	86.505	69.904
06/26/2011 13:51:04	5.471	13.44	86.505	69.904
06/26/2011 13:51:14	5.441	13.469	86.505	69.904
06/26/2011 13:51:24	5.387	13.561	86.303	69.904
06/26/2011 13:51:34	5.365	13.572	86.303	69.904
06/26/2011 13:51:44	5.379	13.55	86.702	70.102
06/26/2011 13:51:54	5.379	13.553	86.904	70.102
06/26/2011 13:52:04	5.43	13.418	87.003	70.102

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 13:52:14	5.511	13.418	87.003	70.102
06/26/2011 13:52:24	5.511	13.436	86.904	69.904
06/26/2011 13:52:34	5.496	13.388	86.904	69.904
06/26/2011 13:52:44	5.5	13.392	86.702	69.904
06/26/2011 13:52:54	5.515	13.403	86.505	69.904
06/26/2011 13:53:04	5.485	13.473	86.505	69.904
06/26/2011 13:53:14	5.485	13.407	86.505	69.904
06/26/2011 13:53:24	5.478	13.513	86.505	70.102
06/26/2011 13:53:34	5.398	12.187	86.102	70.102
06/26/2011 13:53:44	3.79	0.996	86.303	70.303
06/26/2011 13:53:54	0.582	0.34	86.102	70.303
06/26/2011 13:54:04	0.08	0.311	86.102	70.504
06/26/2011 13:54:14	0.062	0.292	86.102	70.504
06/26/2011 13:54:24	0.058	0.274	86.303	70.303
06/26/2011 13:54:34	0.054	0.27	86.505	70.504
06/26/2011 13:54:44	0.054	0.267	86.505	70.504
06/26/2011 13:54:54	0.054	0.263	86.505	70.504
06/26/2011 13:55:04	0.051	0.263	86.702	70.504
06/26/2011 13:55:14	0.051	0.259	86.702	70.504
06/26/2011 13:55:24	0.047	0.259	86.702	70.303
06/26/2011 13:55:34	0.047	0.256	86.904	70.303
06/26/2011 13:55:44	0.043	0.237	86.904	70.303
06/26/2011 13:55:54	0.032	0.19	86.904	70.303
06/26/2011 13:56:04	0.025	0.179	86.904	70.303
06/26/2011 13:56:14	0.021	0.172	86.702	69.904
06/26/2011 13:56:24	1.354	10.964	86.702	69.604
06/26/2011 13:56:34	4.713	13.334	86.702	69.604
06/26/2011 13:56:44	5.379	13.315	86.702	69.604
06/26/2011 13:56:54	5.449	13.392	86.702	69.402
06/26/2011 13:57:04	5.452	13.345	86.702	69.604
06/26/2011 13:57:14	5.478	13.356	86.702	69.402
06/26/2011 13:57:24	5.474	13.348	86.702	69.402
06/26/2011 13:57:34	5.507	13.308	86.702	69.402
06/26/2011 13:57:44	5.551	13.304	86.904	69.402
06/26/2011 13:57:54	5.551	13.359	86.904	69.402
06/26/2011 13:58:04	5.529	13.359	86.904	69.402
06/26/2011 13:58:14	5.522	13.334	86.904	69.402
06/26/2011 13:58:24	5.485	13.432	86.904	69.402
06/26/2011 13:58:34	5.43	13.436	86.702	69.402
06/26/2011 13:58:44	5.449	13.421	86.702	69.402
06/26/2011 13:58:54	5.456	13.506	86.702	69.402
06/26/2011 13:59:04	5.361	13.535	86.904	69.402
06/26/2011 13:59:14	5.408	13.399	86.904	69.402
06/26/2011 13:59:24	5.478	13.443	86.505	69.402
06/26/2011 13:59:34	5.482	13.425	86.702	69.402
06/26/2011 13:59:44	5.515	13.388	86.702	69.402
06/26/2011 13:59:54	5.515	13.399	86.303	69.204
06/26/2011 14:00:04	5.511	13.436	86.702	69.402
06/26/2011 14:00:14	5.515	13.407	86.702	69.402
06/26/2011 14:00:24	5.5	13.399	86.702	69.402
06/26/2011 14:00:34	5.496	13.41	86.904	69.604
06/26/2011 14:00:44	5.533	13.352	86.904	69.604
06/26/2011 14:00:54	5.526	13.436	87.003	69.604
06/26/2011 14:01:04	5.526	13.315	86.904	69.604
06/26/2011 14:01:14	5.603	13.282	87.003	69.604
06/26/2011 14:01:24	5.636	13.297	87.003	69.604
06/26/2011 14:01:34	5.592	13.341	87.003	69.402
06/26/2011 14:01:44	5.562	13.359	87.003	69.204
06/26/2011 14:01:54	5.515	13.418	87.003	69.003
06/26/2011 14:02:04	5.478	13.41	87.003	69.003
06/26/2011 14:02:14	5.456	13.443	86.702	69.003
06/26/2011 14:02:24	5.46	13.454	86.702	69.003
06/26/2011 14:02:34	5.463	13.407	86.702	69.003
06/26/2011 14:02:44	5.445	13.498	86.505	69.003
06/26/2011 14:02:54	5.419	13.436	86.702	69.204
06/26/2011 14:03:04	5.467	13.396	86.904	69.204

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 14:03:14	5.485	13.432	87.003	69.204
06/26/2011 14:03:24	5.482	13.432	86.702	69.003
06/26/2011 14:03:34	5.526	13.348	86.702	69.003
06/26/2011 14:03:44	5.507	13.454	86.904	69.003
06/26/2011 14:03:54	5.467	13.418	86.904	69.204
06/26/2011 14:04:04	5.474	13.421	86.904	69.204
06/26/2011 14:04:14	5.489	13.407	86.702	69.003
06/26/2011 14:04:24	5.449	13.502	86.702	69.003
06/26/2011 14:04:34	5.412	13.528	86.702	69.204
06/26/2011 14:04:44	5.379	13.491	86.702	69.204
06/26/2011 14:04:54	5.368	13.498	86.303	69.204
06/26/2011 14:05:04	5.372	13.561	86.505	69.204
06/26/2011 14:05:14	5.313	13.623	86.505	69.204
06/26/2011 14:05:24	5.288	13.638	86.505	69.204
06/26/2011 14:05:34	5.269	13.663	86.303	69.204
06/26/2011 14:05:44	5.255	13.638	86.303	69.204
06/26/2011 14:05:54	5.255	13.663	86.505	69.204
06/26/2011 14:06:04	5.262	13.751	86.505	69.204
06/26/2011 14:06:14	5.163	13.813	86.505	69.204
06/26/2011 14:06:24	5.211	13.619	86.505	69.204
06/26/2011 14:06:34	5.295	13.601	86.702	69.402
06/26/2011 14:06:44	5.31	13.616	86.702	69.204
06/26/2011 14:06:54	5.277	13.608	86.702	69.204
06/26/2011 14:07:04	5.233	13.638	86.904	69.402
06/26/2011 14:07:14	5.244	13.572	86.904	69.402
06/26/2011 14:07:24	5.335	13.487	86.904	69.204
06/26/2011 14:07:34	5.39	13.564	86.904	69.204
06/26/2011 14:07:44	5.321	13.579	86.904	69.204
06/26/2011 14:07:54	5.288	13.59	86.904	69.204
06/26/2011 14:08:04	5.288	13.572	87.003	69.402
06/26/2011 14:08:14	5.324	13.531	87.204	69.402
06/26/2011 14:08:24	5.372	13.546	87.204	69.402
06/26/2011 14:08:34	5.416	13.443	87.603	69.604
06/26/2011 14:08:44	5.408	13.55	87.402	69.402
06/26/2011 14:08:54	5.368	13.55	87.402	69.402
06/26/2011 14:09:04	5.354	13.594	87.402	69.604
06/26/2011 14:09:14	5.295	13.601	87.603	69.402
06/26/2011 14:09:24	5.332	13.539	87.603	69.402
06/26/2011 14:09:34	5.328	13.678	87.402	69.402
06/26/2011 14:09:44	5.313	13.579	87.402	69.604
06/26/2011 14:09:54	5.328	13.612	87.204	69.604
06/26/2011 14:10:04	5.324	13.586	87.402	69.604
06/26/2011 14:10:14	5.343	13.502	87.402	69.604
06/26/2011 14:10:24	5.372	13.55	87.402	69.604
06/26/2011 14:10:34	5.372	13.487	87.402	69.604
06/26/2011 14:10:44	5.372	13.579	87.402	69.604
06/26/2011 14:10:54	5.376	13.546	87.204	69.604
06/26/2011 14:11:04	5.394	13.509	87.204	69.604
06/26/2011 14:11:14	5.419	13.451	87.204	69.604
06/26/2011 14:11:24	5.452	13.502	87.204	69.604
06/26/2011 14:11:34	5.423	13.48	87.204	69.604
06/26/2011 14:11:44	5.379	13.568	87.204	69.604
06/26/2011 14:11:54	5.354	13.59	87.204	69.604
06/26/2011 14:12:04	5.343	13.528	87.204	69.604
06/26/2011 14:12:14	5.343	13.524	87.204	69.604
06/26/2011 14:12:24	5.365	13.524	87.204	69.604
06/26/2011 14:12:34	5.441	13.403	87.204	69.801
06/26/2011 14:12:44	5.449	13.48	87.204	69.801
06/26/2011 14:12:54	5.39	13.524	87.003	69.801
06/26/2011 14:13:04	5.335	13.586	87.204	69.801
06/26/2011 14:13:14	5.288	13.623	87.204	69.801
06/26/2011 14:13:24	5.317	13.59	87.204	69.801
06/26/2011 14:13:34	5.332	13.586	87.204	69.801
06/26/2011 14:13:44	5.354	13.583	87.204	69.801
06/26/2011 14:13:54	5.321	13.623	87.204	69.801
06/26/2011 14:14:04	5.31	13.546	87.204	69.801

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 14:14:14	5.368	13.561	87.204	69.801
06/26/2011 14:14:24	5.313	13.572	87.204	69.801
06/26/2011 14:14:34	5.328	13.561	87.003	69.801
06/26/2011 14:14:44	5.339	13.605	87.003	69.801
06/26/2011 14:14:54	5.335	13.568	87.003	69.904
06/26/2011 14:15:04	5.339	13.605	86.904	69.801
06/26/2011 14:15:14	5.31	13.568	87.204	69.801
06/26/2011 14:15:24	5.328	13.586	87.204	69.801
06/26/2011 14:15:34	5.306	13.605	87.003	69.801
06/26/2011 14:15:44	5.343	13.55	87.204	69.801
06/26/2011 14:15:54	5.401	13.491	87.204	69.801
06/26/2011 14:16:04	5.423	13.454	87.003	69.801
06/26/2011 14:16:14	5.449	13.476	87.003	69.801
06/26/2011 14:16:24	5.438	13.48	87.204	69.904
06/26/2011 14:16:34	5.398	13.586	87.204	69.801
06/26/2011 14:16:44	5.376	13.524	87.204	69.904
06/26/2011 14:16:54	5.339	13.63	87.402	69.904
06/26/2011 14:17:04	5.306	13.553	87.204	69.904
06/26/2011 14:17:14	5.346	13.575	87.204	69.904
06/26/2011 14:17:24	5.299	13.572	87.204	69.904
06/26/2011 14:17:34	5.357	13.495	87.003	69.904
06/26/2011 14:17:44	5.357	13.542	87.204	69.904
06/26/2011 14:17:54	5.31	13.627	87.204	69.801
06/26/2011 14:18:04	5.258	13.648	87.204	69.904
06/26/2011 14:18:14	5.244	13.667	87.204	69.904
06/26/2011 14:18:24	5.244	13.638	87.204	69.904
06/26/2011 14:18:34	5.244	13.634	87.204	69.904
06/26/2011 14:18:44	5.236	13.659	87.204	69.801
06/26/2011 14:18:54	5.255	13.553	87.204	69.801
06/26/2011 14:19:04	5.354	13.568	87.204	69.801
06/26/2011 14:19:14	5.302	13.667	87.204	69.801
06/26/2011 14:19:24	5.236	13.685	87.204	69.801
06/26/2011 14:19:34	5.244	13.627	87.204	69.801
06/26/2011 14:19:44	5.291	13.546	87.204	69.904
06/26/2011 14:19:54	5.372	13.531	87.204	69.904
06/26/2011 14:20:04	5.357	13.539	87.204	69.904
06/26/2011 14:20:14	5.357	13.506	87.204	69.801
06/26/2011 14:20:24	5.357	13.594	87.204	69.801
06/26/2011 14:20:34	5.321	13.586	87.003	69.904
06/26/2011 14:20:44	5.335	13.594	87.003	69.904
06/26/2011 14:20:54	5.324	13.63	87.204	69.904
06/26/2011 14:21:04	5.339	13.539	87.204	69.801
06/26/2011 14:21:14	5.306	13.586	87.003	69.604
06/26/2011 14:21:24	5.295	13.645	87.003	69.801
06/26/2011 14:21:34	5.284	13.546	87.003	69.801
06/26/2011 14:21:44	5.335	13.568	87.003	69.801
06/26/2011 14:21:54	5.372	13.498	87.003	69.801
06/26/2011 14:22:04	5.343	13.645	87.003	69.801
06/26/2011 14:22:14	5.266	13.648	87.003	69.801
06/26/2011 14:22:24	5.255	13.601	87.003	69.801
06/26/2011 14:22:34	5.299	13.586	87.003	69.801
06/26/2011 14:22:44	5.284	13.645	87.003	69.801
06/26/2011 14:22:54	5.251	13.67	87.003	69.801
06/26/2011 14:23:04	5.247	13.623	87.003	69.801
06/26/2011 14:23:14	5.295	13.608	87.003	69.801
06/26/2011 14:23:24	5.321	13.564	87.003	69.801
06/26/2011 14:23:34	5.379	13.473	87.003	69.801
06/26/2011 14:23:44	5.368	13.594	86.904	69.604
06/26/2011 14:23:54	5.284	13.616	86.904	69.604
06/26/2011 14:24:04	5.317	13.542	86.904	69.604
06/26/2011 14:24:14	5.379	13.484	86.904	69.604
06/26/2011 14:24:24	5.372	13.583	86.904	69.604
06/26/2011 14:24:34	5.317	13.59	87.003	69.801
06/26/2011 14:24:44	5.299	13.627	87.003	69.801
06/26/2011 14:24:54	5.313	13.546	87.003	69.801
06/26/2011 14:25:04	5.357	13.498	86.904	69.604

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 14:25:14	5.368	13.539	86.904	69.604
06/26/2011 14:25:24	5.361	13.535	86.904	69.604
06/26/2011 14:25:34	5.394	13.476	86.904	69.604
06/26/2011 14:25:44	5.405	13.583	86.904	69.604
06/26/2011 14:25:54	5.321	13.641	86.904	69.604
06/26/2011 14:26:04	5.28	13.616	86.904	69.604
06/26/2011 14:26:14	5.31	13.546	87.003	69.604
06/26/2011 14:26:24	5.39	13.491	87.003	69.604
06/26/2011 14:26:34	5.376	13.575	87.204	69.801
06/26/2011 14:26:44	5.339	13.535	87.204	69.801
06/26/2011 14:26:54	5.398	13.454	87.204	69.801
06/26/2011 14:27:04	5.383	13.608	87.204	69.801
06/26/2011 14:27:14	5.313	13.597	87.204	69.801
06/26/2011 14:27:24	5.365	13.476	87.003	69.604
06/26/2011 14:27:34	5.39	13.583	87.003	69.604
06/26/2011 14:27:44	5.401	13.506	87.003	69.604
06/26/2011 14:27:54	5.452	13.432	86.904	69.604
06/26/2011 14:28:04	5.471	13.484	87.003	69.604
06/26/2011 14:28:14	5.419	13.572	87.003	69.604
06/26/2011 14:28:24	5.394	13.506	87.003	69.604
06/26/2011 14:28:34	5.423	13.462	87.003	69.604
06/26/2011 14:28:44	5.445	13.476	87.003	69.604
06/26/2011 14:28:54	5.416	13.55	87.003	69.604
06/26/2011 14:29:04	5.372	13.564	87.204	69.604
06/26/2011 14:29:14	5.335	13.553	87.204	69.604
06/26/2011 14:29:24	5.361	13.561	87.204	69.604
06/26/2011 14:29:34	5.31	13.641	87.204	69.604
06/26/2011 14:29:44	5.31	13.546	87.402	69.604
06/26/2011 14:29:54	5.346	13.564	87.204	69.604
06/26/2011 14:30:04	5.357	13.513	87.204	69.604
06/26/2011 14:30:14	5.354	13.542	87.003	69.604
06/26/2011 14:30:24	5.332	13.597	87.204	69.604
06/26/2011 14:30:34	5.295	13.608	87.204	69.604
06/26/2011 14:30:44	5.302	13.498	87.204	69.604
06/26/2011 14:30:54	5.35	13.564	87.402	69.801
06/26/2011 14:31:04	5.376	13.553	87.603	69.801
06/26/2011 14:31:14	5.317	13.608	87.603	69.801
06/26/2011 15:12:04	5.412	13.473	5.544	1.71
06/26/2011 15:12:14	5.401	13.473	5.566	1.673
06/26/2011 15:12:24	5.423	13.487	5.621	1.772
06/26/2011 15:12:34	5.387	13.531	5.599	1.86
06/26/2011 15:12:44	5.438	13.425	5.555	1.816
06/26/2011 15:12:54	5.471	13.465	5.599	1.816
06/26/2011 15:13:04	5.438	13.432	5.647	1.907
06/26/2011 15:13:14	5.427	13.498	5.661	1.977
06/26/2011 15:13:24	5.394	13.531	5.647	1.992
06/26/2011 15:13:34	5.416	13.454	5.592	2.014
06/26/2011 15:13:44	5.471	13.407	5.592	1.981
06/26/2011 15:13:54	5.452	13.484	5.581	2.072
06/26/2011 15:14:04	5.423	13.48	5.588	1.988
06/26/2011 15:14:14	5.387	13.491	5.584	2.017
06/26/2011 15:14:24	5.427	13.41	5.548	2.058
06/26/2011 15:14:34	5.438	13.542	5.526	2.054
06/26/2011 15:14:44	5.368	13.48	5.522	2.102
06/26/2011 15:14:54	5.398	13.513	5.559	2.043
06/26/2011 15:15:04	5.405	13.462	5.581	2.091
06/26/2011 15:15:14	5.408	13.52	5.628	2.134
06/26/2011 15:15:24	5.408	13.414	5.636	2.156
06/26/2011 15:15:34	5.463	13.418	5.592	2.189
06/26/2011 15:15:44	5.463	13.473	5.614	2.142
06/26/2011 15:15:54	5.493	13.374	5.621	2.145
06/26/2011 15:16:04	5.478	13.546	5.606	2.142
06/26/2011 15:16:14	5.408	13.484	5.61	2.127
06/26/2011 15:16:24	5.419	13.418	5.566	2.138
06/26/2011 15:16:34	5.423	13.539	5.581	2.134
06/26/2011 15:16:44	5.43	13.451	5.617	2.156

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 15:16:54	5.463	13.484	5.57	2.252
06/26/2011 15:17:04	5.441	13.487	5.606	2.175
06/26/2011 15:17:14	5.376	13.535	5.625	2.241
06/26/2011 15:17:24	5.339	13.586	5.647	2.219
06/26/2011 15:17:34	5.317	13.601	5.588	2.182
06/26/2011 15:17:44	5.332	13.579	5.551	2.153
06/26/2011 15:17:54	5.339	13.535	5.555	2.252
06/26/2011 15:18:04	5.339	13.528	5.559	2.23
06/26/2011 15:18:14	5.354	13.498	5.584	2.233
06/26/2011 15:18:24	5.39	13.498	5.537	2.131
06/26/2011 15:18:34	5.328	13.641	5.544	2.123
06/26/2011 15:18:44	5.306	13.575	5.592	2.102
06/26/2011 15:18:54	5.302	13.678	5.606	2.189
06/26/2011 15:19:04	5.284	13.557	5.588	2.134
06/26/2011 15:19:14	5.332	13.597	5.566	2.127
06/26/2011 15:19:24	5.266	13.641	5.592	2.164
06/26/2011 15:19:34	5.266	13.645	5.581	2.091
06/26/2011 15:19:44	5.258	13.623	5.614	2.105
06/26/2011 15:19:54	5.247	13.692	5.614	2.153
06/26/2011 15:20:04	5.269	13.619	5.57	2.193
06/26/2011 15:20:14	5.229	13.744	5.588	2.296
06/26/2011 15:20:24	5.152	13.722	5.566	2.2
06/26/2011 15:20:34	5.222	13.627	5.537	2.175
06/26/2011 15:20:44	5.269	13.605	5.584	2.178
06/26/2011 15:20:54	5.255	13.681	5.566	2.241
06/26/2011 15:21:04	5.258	13.638	5.983	2.208
06/26/2011 15:21:14	4.965	9.979	101.571	2.156
06/26/2011 15:21:24	2.025	0.366	101.615	2.189
06/26/2011 15:21:34	0.12	0.259	101.619	2.189
06/26/2011 15:21:44	0.029	0.219	101.615	2.145
06/26/2011 15:21:54	0.018	0.201	101.615	2.109
06/26/2011 15:22:04	0.01	0.179	101.619	2.094
06/26/2011 15:22:14	0.007	0.168	101.615	2.098
06/26/2011 15:22:24	0.003	0.164	101.615	2.123
06/26/2011 15:22:34	0.003	0.157	101.611	2.145
06/26/2011 15:22:44	0.003	0.153	101.615	2.142
06/26/2011 15:22:54	-0.00061	0.15	101.611	2.255
06/26/2011 15:23:04	-0.00061	0.146	101.611	2.178
06/26/2011 15:23:14	-0.00061	0.146	101.615	2.112
06/26/2011 15:23:24	-0.00061	0.142	101.615	2.102
06/26/2011 15:23:34	-0.00061	0.142	101.619	2.102
06/26/2011 15:23:44	-0.00061	0.142	101.615	2.094
06/26/2011 15:23:54	-0.00061	0.142	101.615	2.072
06/26/2011 15:24:04	-0.00061	0.146	101.615	2.061
06/26/2011 15:24:14	1.94	12.788	17.237	2.102
06/26/2011 15:24:24	4.962	13.407	7.232	2.098
06/26/2011 15:24:34	5.339	13.396	6.639	2.091
06/26/2011 15:24:44	5.35	13.524	6.397	2.178
06/26/2011 15:24:54	5.295	13.535	6.254	2.123
06/26/2011 15:25:04	5.244	13.648	6.17	2.134
06/26/2011 15:25:14	5.288	13.487	6.174	2.131
06/26/2011 15:25:24	5.306	13.586	6.082	2.175
06/26/2011 15:25:34	5.291	13.564	6.06	2.204
06/26/2011 15:25:44	5.295	13.575	6.042	2.142
06/26/2011 15:25:54	5.262	13.641	6.016	2.109
06/26/2011 15:26:04	5.266	13.586	5.972	2.16
06/26/2011 15:26:14	5.31	13.553	5.947	2.087
06/26/2011 15:26:24	5.262	13.681	5.907	2.112
06/26/2011 15:26:34	5.181	13.714	5.91	2.167
06/26/2011 15:26:44	5.152	13.718	5.921	2.164
06/26/2011 15:26:54	5.2	13.627	5.877	2.116
06/26/2011 15:27:04	5.236	13.648	5.833	2.076
06/26/2011 15:27:14	5.236	13.667	5.811	2.131
06/26/2011 15:27:24	5.196	13.696	5.819	2.065
06/26/2011 15:27:34	5.145	13.773	5.819	1.999
06/26/2011 15:27:44	5.167	13.663	5.841	2.069

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 15:27:54	5.222	13.638	5.811	2.134
06/26/2011 15:28:04	5.181	13.769	5.819	2.058
06/26/2011 15:28:14	5.145	13.714	5.841	1.995
06/26/2011 15:28:24	5.2	13.652	5.837	2.065
06/26/2011 15:28:34	5.262	13.608	5.797	2.021
06/26/2011 15:28:44	5.269	13.627	5.841	2.076
06/26/2011 15:28:54	5.28	13.586	6.071	2.134
06/26/2011 15:29:04	5.302	13.568	6.046	2.105
06/26/2011 15:29:14	5.255	13.652	6.009	2.134
06/26/2011 15:29:24	5.181	13.722	6.035	2.058
06/26/2011 15:29:34	5.159	13.678	6.057	2.069
06/26/2011 15:29:44	5.174	13.674	6.016	2.109
06/26/2011 15:29:54	5.196	13.634	6.005	2.061
06/26/2011 15:30:04	5.233	13.641	5.994	2.072
06/26/2011 15:30:14	5.258	13.608	5.98	2.061
06/26/2011 15:30:24	5.324	13.531	5.929	2.083
06/26/2011 15:30:34	5.357	13.502	5.892	2.087
06/26/2011 15:30:44	5.357	13.502	5.925	2.138
06/26/2011 15:30:54	5.372	13.542	5.918	2.069
06/26/2011 15:31:04	5.299	13.685	5.918	2.061
06/26/2011 15:31:14	5.266	13.55	5.866	2.083
06/26/2011 15:31:24	5.31	13.586	5.844	2.105
06/26/2011 15:31:34	5.328	13.465	5.833	2.032
06/26/2011 15:31:44	5.328	13.627	5.797	2.116
06/26/2011 15:31:54	5.251	13.7	5.808	2.098
06/26/2011 15:32:04	5.203	13.692	5.833	2.006
06/26/2011 15:32:14	5.211	13.67	5.789	1.999
06/26/2011 15:32:24	5.24	13.627	5.76	2.069
06/26/2011 15:32:34	5.236	13.7	5.731	2.127
06/26/2011 15:32:44	5.288	13.553	5.771	2.167
06/26/2011 15:32:54	5.365	13.586	5.789	2.109
06/26/2011 15:33:04	5.354	13.542	5.826	2.098
06/26/2011 15:33:14	5.31	13.674	5.822	2.109
06/26/2011 15:33:24	5.251	13.586	5.789	2.05
06/26/2011 15:33:34	5.277	13.616	5.786	2.039
06/26/2011 15:33:44	5.295	13.583	5.716	2.083
06/26/2011 15:33:54	5.306	13.608	5.694	2.091
06/26/2011 15:34:04	5.284	13.594	5.734	2.025
06/26/2011 15:34:14	5.306	13.509	5.749	2.021
06/26/2011 15:34:24	5.346	13.597	5.756	2.061
06/26/2011 15:34:34	5.306	13.616	5.701	2.025
06/26/2011 15:34:44	5.255	13.645	5.654	1.992
06/26/2011 15:34:54	5.211	13.656	5.658	1.999
06/26/2011 15:35:04	5.236	13.638	5.665	2.032
06/26/2011 15:35:14	5.295	13.553	5.676	2.006
06/26/2011 15:35:24	5.361	13.561	5.665	2.127
06/26/2011 15:35:34	5.346	13.546	5.647	2.076
06/26/2011 15:35:44	5.346	13.572	5.632	2.087
06/26/2011 15:35:54	5.313	13.645	5.643	2.076
06/26/2011 15:36:04	5.295	13.59	5.683	2.043
06/26/2011 15:36:14	5.339	13.55	5.69	2.069
06/26/2011 15:36:24	5.346	13.561	5.639	2.08
06/26/2011 15:36:34	5.291	13.656	5.617	2.032
06/26/2011 15:36:44	5.251	13.659	5.643	2.087
06/26/2011 15:36:54	5.251	13.667	5.617	2.094
06/26/2011 15:37:04	5.266	13.616	5.654	2.197
06/26/2011 15:37:14	5.317	13.59	5.625	2.208
06/26/2011 15:37:24	5.35	13.513	5.636	2.102
06/26/2011 15:37:34	5.379	13.528	5.628	2.043
06/26/2011 15:37:44	5.376	13.546	5.676	2.076
06/26/2011 15:37:54	5.346	13.579	5.676	2.069
06/26/2011 15:38:04	5.339	13.575	5.701	2.123
06/26/2011 15:38:14	5.379	13.502	5.756	2.164
06/26/2011 15:38:24	5.412	13.487	5.771	2.05
06/26/2011 15:38:34	5.372	13.586	5.76	2.014
06/26/2011 15:38:44	5.299	13.638	5.749	2.098

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 15:38:54	5.211	13.681	5.694	2.102
06/26/2011 15:39:04	5.222	13.63	5.658	2.069
06/26/2011 15:39:14	5.368	13.443	5.705	2.003
06/26/2011 15:39:24	5.416	13.502	5.709	1.992
06/26/2011 15:39:34	5.354	13.542	5.683	2.094
06/26/2011 15:39:44	5.346	13.553	5.69	2.131
06/26/2011 15:39:54	5.357	13.517	5.698	2.145
06/26/2011 15:40:04	5.39	13.52	5.727	2.142
06/26/2011 15:40:14	5.408	13.462	5.723	2.109
06/26/2011 15:40:24	5.39	13.553	5.738	2.189
06/26/2011 15:40:34	5.317	13.623	5.727	2.171
06/26/2011 15:40:44	5.332	13.517	5.72	2.156
06/26/2011 15:40:54	5.372	13.605	5.753	2.156
06/26/2011 15:41:04	5.343	13.55	5.749	2.226
06/26/2011 15:41:14	5.343	13.597	5.731	2.222
06/26/2011 15:41:24	5.332	13.557	5.749	2.127
06/26/2011 15:41:34	5.387	13.473	5.753	2.134
06/26/2011 15:41:44	5.427	13.476	5.731	2.116
06/26/2011 15:41:54	5.438	13.509	5.734	2.138
06/26/2011 15:42:04	5.434	13.462	5.767	2.197
06/26/2011 15:42:14	5.412	13.462	5.782	2.167
06/26/2011 15:42:24	5.408	13.491	5.738	2.127
06/26/2011 15:42:34	5.401	13.48	5.69	2.186
06/26/2011 15:42:44	5.445	13.421	5.669	2.186
06/26/2011 15:42:54	5.405	13.579	5.698	19.164
06/26/2011 15:43:04	5.383	13.469	5.658	25.91
06/26/2011 15:43:14	5.434	13.498	5.709	26.331
06/26/2011 15:43:24	5.387	13.498	5.676	26.378
06/26/2011 15:43:34	5.398	13.476	5.669	26.463
06/26/2011 15:43:44	5.441	13.458	5.694	26.649
06/26/2011 15:43:54	5.43	13.484	5.654	26.631
06/26/2011 15:44:04	5.423	13.451	5.665	26.587
06/26/2011 15:44:14	5.43	13.454	5.694	26.569
06/26/2011 15:44:24	5.456	13.473	5.727	26.616
06/26/2011 15:44:34	5.394	13.553	5.734	26.437
06/26/2011 15:44:44	5.317	13.601	5.72	26.06
06/26/2011 15:44:54	5.273	13.59	5.72	25.836
06/26/2011 15:45:04	5.324	13.594	5.705	25.741
06/26/2011 15:45:14	5.434	13.421	5.694	25.672
06/26/2011 15:45:24	5.482	13.465	5.658	25.683
06/26/2011 15:45:34	5.46	13.454	5.705	25.602
06/26/2011 15:45:44	5.408	13.476	5.709	25.598
06/26/2011 15:45:54	5.445	13.458	5.727	25.617
06/26/2011 15:46:04	5.434	13.484	5.698	25.639
06/26/2011 15:46:14	5.46	13.348	5.698	25.591
06/26/2011 15:46:24	5.493	13.407	5.672	25.613
06/26/2011 15:46:30	220	220	220	220
06/26/2011 15:46:40	5.522	13.399	5.716	25.763
06/26/2011 15:46:50	5.515	13.374	5.775	25.628
06/26/2011 15:47:00	5.566	13.337	5.797	25.679
06/26/2011 15:47:00	220	220	220	220
06/26/2011 15:47:10	5.559	13.396	5.727	25.686
06/26/2011 15:47:20	5.467	13.506	5.727	25.712
06/26/2011 15:47:30	5.434	13.44	5.72	25.668
06/26/2011 15:47:40	5.463	13.429	5.679	25.653
06/26/2011 15:47:50	5.463	13.454	5.669	25.752
06/26/2011 15:48:00	5.482	13.396	5.639	25.88
06/26/2011 15:48:10	5.493	13.462	5.669	25.943
06/26/2011 15:48:20	5.438	13.443	5.665	25.921
06/26/2011 15:48:30	5.434	13.487	5.643	25.979
06/26/2011 15:48:40	5.43	13.465	5.669	25.939
06/26/2011 15:48:50	5.394	13.52	5.669	25.946
06/26/2011 15:49:00	5.372	13.52	5.679	25.99
06/26/2011 15:49:10	5.35	13.531	5.683	26.093
06/26/2011 15:49:20	5.449	13.334	5.709	26.17
06/26/2011 15:49:30	5.533	13.396	5.661	26.166

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 15:49:40	5.504	13.356	5.669	26.338
06/26/2011 15:49:50	5.474	13.432	5.775	26.459
06/26/2011 15:50:00	5.387	13.509	5.716	26.712
06/26/2011 15:50:10	5.387	13.484	5.694	27.027
06/26/2011 15:50:20	5.324	13.557	5.669	27.217
06/26/2011 15:50:30	5.346	13.484	5.621	27.312
06/26/2011 15:50:40	5.408	13.531	5.636	27.184
06/26/2011 15:50:50	5.346	13.561	5.65	27.089
06/26/2011 15:51:00	5.324	13.583	5.672	26.851
06/26/2011 15:51:10	5.295	13.586	5.69	26.752
06/26/2011 15:51:20	5.357	13.491	5.738	26.675
06/26/2011 15:51:30	5.376	13.509	5.709	26.635
06/26/2011 15:51:40	5.387	13.487	5.669	26.701
06/26/2011 15:51:50	5.401	13.495	5.647	26.851
06/26/2011 15:52:00	5.379	13.542	5.658	26.906
06/26/2011 15:52:10	5.379	13.491	5.617	26.792
06/26/2011 15:52:20	5.401	13.469	5.679	26.825
06/26/2011 15:52:30	5.408	13.542	5.745	26.979
06/26/2011 15:52:40	5.35	13.557	5.694	26.873
06/26/2011 15:52:50	5.302	13.623	5.665	26.825
06/26/2011 15:53:00	5.269	13.601	5.65	26.832
06/26/2011 15:53:10	5.313	13.579	5.701	26.895
06/26/2011 15:53:20	5.324	13.568	5.705	26.785
06/26/2011 15:53:30	5.332	13.594	5.701	26.767
06/26/2011 15:53:40	5.302	13.579	5.669	26.92
06/26/2011 15:53:50	5.306	13.601	5.647	27.045
06/26/2011 15:54:00	5.291	13.568	5.617	26.961
06/26/2011 15:54:10	5.288	13.612	5.661	26.902
06/26/2011 15:54:20	5.313	13.513	5.647	26.917
06/26/2011 15:54:30	5.324	13.594	5.654	26.902
06/26/2011 15:54:40	5.361	13.473	5.679	26.851
06/26/2011 15:54:50	5.394	13.572	5.679	26.723
06/26/2011 15:55:00	5.335	13.601	5.665	26.536
06/26/2011 15:55:10	5.372	13.487	5.661	26.492
06/26/2011 15:55:20	5.423	13.484	5.69	26.576
06/26/2011 15:55:30	5.419	13.495	5.676	26.598
06/26/2011 15:55:40	5.365	13.597	5.65	26.627
06/26/2011 15:55:50	5.317	13.59	5.694	26.668
06/26/2011 15:56:00	5.383	13.451	5.749	26.642
06/26/2011 15:56:10	5.445	13.425	5.767	26.58
06/26/2011 15:56:20	5.427	13.458	5.679	26.646
06/26/2011 15:56:30	5.416	13.487	5.669	26.836
06/26/2011 15:56:40	5.372	13.55	5.647	26.865
06/26/2011 15:56:50	5.306	13.638	5.614	26.796
06/26/2011 15:57:00	5.266	13.594	5.628	26.803
06/26/2011 15:57:10	5.262	13.638	5.61	26.745
06/26/2011 15:57:20	5.262	13.601	5.625	26.781
06/26/2011 15:57:30	5.288	13.561	5.628	26.858
06/26/2011 15:57:40	5.288	13.601	5.614	27.056
06/26/2011 15:57:50	5.295	13.583	5.632	27.155
06/26/2011 15:58:00	5.295	13.63	5.676	27.213
06/26/2011 15:58:10	5.269	13.601	5.679	27.21
06/26/2011 15:58:20	5.288	13.659	5.705	27.199
06/26/2011 15:58:30	5.295	13.539	5.749	27.173
06/26/2011 15:58:40	5.306	13.619	5.808	27.001
06/26/2011 15:58:50	5.295	13.55	5.756	27.056
06/26/2011 15:59:00	5.346	13.52	5.76	27.034
06/26/2011 15:59:10	5.405	13.48	5.727	27.038
06/26/2011 15:59:20	5.39	13.509	5.694	27.052
06/26/2011 15:59:30	5.339	13.594	5.69	27.074
06/26/2011 15:59:40	5.295	13.561	5.672	27.21
06/26/2011 15:59:50	5.313	13.52	5.584	27.323
06/26/2011 16:00:00	5.321	13.63	5.592	27.389
06/26/2011 16:00:10	5.247	13.685	5.617	27.385
06/26/2011 16:00:20	5.214	13.689	5.647	27.342
06/26/2011 16:00:30	5.236	13.616	5.698	27.367

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 16:00:40	5.313	13.579	5.679	27.353
06/26/2011 16:00:50	5.346	13.561	5.669	27.378
06/26/2011 16:01:00	5.354	13.579	5.672	27.411
06/26/2011 16:01:10	5.328	13.542	5.669	27.426
06/26/2011 16:01:20	5.346	13.55	5.709	27.561
06/26/2011 16:01:30	5.28	13.616	5.676	27.635
06/26/2011 16:01:40	5.28	13.597	5.705	27.591
06/26/2011 16:01:50	5.357	13.462	5.723	27.667
06/26/2011 16:02:00	5.383	13.517	5.716	27.444
06/26/2011 16:02:10	5.343	13.579	5.921	27.451
06/26/2011 16:02:20	5.266	13.667	6.02	27.477
06/26/2011 16:02:30	5.214	13.678	5.965	27.323
06/26/2011 16:02:40	5.266	13.568	5.954	27.404
06/26/2011 16:02:50	5.332	13.528	5.885	27.44
06/26/2011 16:03:00	5.376	13.495	5.841	27.298
06/26/2011 16:03:10	5.379	13.579	5.914	27.056
06/26/2011 16:03:20	5.302	13.601	5.903	26.975
06/26/2011 16:03:30	5.28	13.601	5.888	26.92
06/26/2011 16:03:40	5.302	13.535	5.837	26.953
06/26/2011 16:03:50	5.335	13.575	5.874	27.067
06/26/2011 16:04:00	5.299	13.605	5.855	27.155
06/26/2011 16:04:10	5.302	13.531	5.811	27.199
06/26/2011 16:04:20	5.288	13.619	5.789	27.257
06/26/2011 16:04:30	5.247	13.659	5.804	27.396
06/26/2011 16:04:40	5.236	13.648	5.826	27.426
06/26/2011 16:04:50	5.284	13.498	5.819	27.466
06/26/2011 16:05:00	5.379	13.491	5.811	27.404
06/26/2011 16:05:10	5.408	13.484	5.767	27.374
06/26/2011 16:05:20	5.387	13.506	5.742	27.349
06/26/2011 16:05:30	5.383	13.517	5.745	27.353
06/26/2011 16:05:40	5.35	13.59	5.727	27.298
06/26/2011 16:05:50	5.295	13.63	5.679	27.184
06/26/2011 16:06:00	5.299	13.572	5.738	27.184
06/26/2011 16:06:10	5.306	13.612	5.745	27.257
06/26/2011 16:06:20	5.306	13.539	5.727	27.353
06/26/2011 16:06:30	5.328	13.568	5.753	27.309
06/26/2011 16:06:40	5.335	13.561	5.69	27.418
06/26/2011 16:06:50	5.346	13.579	5.694	27.382
06/26/2011 16:07:00	5.317	13.597	5.716	27.224
06/26/2011 16:07:10	5.266	13.619	5.694	27.147
06/26/2011 16:07:20	5.299	13.586	5.676	27.012
06/26/2011 16:07:30	5.321	13.55	5.647	26.994
06/26/2011 16:07:40	5.387	13.528	5.669	27.074
06/26/2011 16:07:50	5.357	13.597	5.654	27.118
06/26/2011 16:08:00	5.328	13.528	5.643	27.1
06/26/2011 16:08:10	5.335	13.638	5.65	27.232
06/26/2011 16:08:20	5.277	13.575	5.592	27.367
06/26/2011 16:08:30	5.313	13.572	5.588	27.415
06/26/2011 16:08:40	5.317	13.561	5.621	27.448
06/26/2011 16:08:50	5.328	13.531	5.65	27.569
06/26/2011 16:09:00	5.368	13.535	5.665	27.642
06/26/2011 16:09:10	5.328	13.557	5.628	27.591
06/26/2011 16:09:20	5.365	13.476	5.636	27.572
06/26/2011 16:09:30	5.427	13.425	5.69	27.484
06/26/2011 16:09:40	5.438	13.473	5.742	27.327
06/26/2011 16:09:50	5.339	13.579	5.731	27.261
06/26/2011 16:10:00	5.262	13.656	5.705	27.294
06/26/2011 16:10:10	5.258	13.605	5.679	27.393
06/26/2011 16:10:20	5.295	13.579	5.643	27.532
06/26/2011 16:10:30	5.295	13.641	5.621	27.591
06/26/2011 16:10:40	5.299	13.594	5.606	27.66
06/26/2011 16:10:50	5.266	13.616	5.628	27.693
06/26/2011 16:11:00	5.269	13.608	5.632	27.777
06/26/2011 16:11:10	5.266	13.63	5.617	27.777
06/26/2011 16:11:20	5.233	13.696	5.614	27.803
06/26/2011 16:11:30	5.123	13.817	5.636	27.982

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 16:11:40	5.061	13.784	5.617	28.264
06/26/2011 16:11:50	5.09	13.791	5.647	28.532
06/26/2011 16:12:00	5.09	13.744	5.606	28.733
06/26/2011 16:12:10	5.134	13.707	5.617	28.678
06/26/2011 16:12:20	5.178	13.667	5.614	28.62
06/26/2011 16:12:30	5.189	13.736	5.61	28.426
06/26/2011 16:12:40	5.112	13.773	5.661	28.297
06/26/2011 16:12:50	5.086	13.817	5.665	28.275
06/26/2011 16:13:00	5.141	13.736	5.636	28.235
06/26/2011 16:13:10	5.214	13.689	5.679	28.089
06/26/2011 16:13:20	5.236	13.656	5.709	27.869
06/26/2011 16:13:30	5.262	13.652	5.698	27.722
06/26/2011 16:13:40	5.299	13.517	5.727	27.616
06/26/2011 16:13:50	5.35	13.59	5.734	27.47
06/26/2011 16:14:00	5.222	13.78	5.749	27.349
06/26/2011 16:14:10	5.17	13.645	5.804	27.338
06/26/2011 16:14:20	5.277	13.557	5.775	27.51
06/26/2011 16:14:30	5.343	13.546	5.749	27.609
06/26/2011 16:14:40	5.324	13.645	5.734	27.667
06/26/2011 16:14:50	5.266	13.539	5.738	27.741
06/26/2011 16:15:00	5.427	13.396	5.723	27.792
06/26/2011 16:15:10	5.423	13.601	5.654	27.81
06/26/2011 16:15:20	5.328	13.612	5.632	27.722
06/26/2011 16:15:30	5.28	13.608	5.632	27.667
06/26/2011 16:15:40	5.251	13.645	5.647	27.689
06/26/2011 16:15:50	5.236	13.692	5.694	27.814
06/26/2011 16:16:00	5.229	13.659	5.669	27.876
06/26/2011 16:16:10	5.255	13.663	5.65	27.891
06/26/2011 16:16:20	5.247	13.659	5.61	27.792
06/26/2011 16:16:30	5.291	13.572	5.573	27.748
06/26/2011 16:16:40	5.328	13.612	5.588	27.752
06/26/2011 16:16:50	5.28	13.685	5.636	27.726
06/26/2011 16:17:00	5.214	13.652	5.643	27.752
06/26/2011 16:17:10	5.211	13.714	5.628	27.774
06/26/2011 16:17:20	5.137	13.806	5.632	27.836
06/26/2011 16:17:30	5.119	13.769	5.669	27.832
06/26/2011 16:17:40	5.174	13.689	11.554	27.851
06/26/2011 16:17:50	5.189	13.542	6.243	27.825
06/26/2011 16:18:00	5.192	13.755	41.375	27.719
06/26/2011 16:18:10	4.757	7.371	10.393	27.47
06/26/2011 16:18:20	3.017	6.379	3.5	26.543
06/26/2011 16:18:30	2.325	6.284	3.244	24.258
06/26/2011 16:18:40	2.332	6.284	3.123	21.76
06/26/2011 16:18:50	2.321	6.287	3.061	20.215
06/26/2011 16:19:00	2.299	6.295	3.01	19.16
06/26/2011 16:19:10	2.277	6.306	2.984	18.398
06/26/2011 16:19:20	2.288	6.258	2.768	17.82
06/26/2011 16:19:30	1.904	2.303	0.735	17.45
06/26/2011 16:19:40	0.472	0.237	0.538	16.699
06/26/2011 16:19:50	0.025	0.193	0.508	14.905
06/26/2011 16:20:00	0.007	0.175	0.501	12.788
06/26/2011 16:20:10	0.003	0.164	0.508	11.111
06/26/2011 16:20:20	0.003	0.157	0.464	10.049
06/26/2011 16:20:30	-0.00061	0.15	0.461	9.195
06/26/2011 16:20:40	-0.00061	0.161	1.186	8.499
06/26/2011 16:20:50	3.478	8.884	0.834	8.038
06/26/2011 16:21:00	9.946	9.836	0.805	7.741
06/26/2011 16:21:10	10.938	9.869	0.801	7.331
06/26/2011 16:21:20	10.982	9.887	0.798	7.027
06/26/2011 16:21:30	10.993	9.895	0.801	6.738
06/26/2011 16:21:40	11.001	9.902	0.783	6.463
06/26/2011 16:21:50	11.004	9.909	0.787	6.178
06/26/2011 16:22:00	11.004	9.906	0.794	6.038
06/26/2011 16:22:10	10.898	10.188	4.797	5.881
06/26/2011 16:22:20	7.946	13.579	5.892	6.002
06/26/2011 16:22:30	5.394	13.608	5.815	8.613

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 16:22:40	5.258	13.63	5.76	12.846
06/26/2011 16:22:50	5.203	13.674	5.694	16.428
06/26/2011 16:23:00	5.203	13.714	5.61	18.688
06/26/2011 16:23:10	5.233	13.561	5.65	20.336
06/26/2011 16:23:20	5.295	13.597	5.701	21.731
06/26/2011 16:23:30	5.262	13.575	5.727	22.932
06/26/2011 16:23:40	5.247	13.641	5.705	23.983
06/26/2011 16:23:50	5.225	13.652	5.639	24.708
06/26/2011 16:24:00	5.229	13.656	5.599	25.287
06/26/2011 16:24:10	5.262	13.561	5.603	25.606
06/26/2011 16:24:20	5.306	13.648	5.603	25.763
06/26/2011 16:24:30	5.335	13.524	5.636	25.796
06/26/2011 16:24:40	5.343	13.601	5.647	25.847
06/26/2011 16:24:50	5.28	13.627	5.639	26.151
06/26/2011 16:25:00	5.273	13.579	5.643	26.474
06/26/2011 16:25:10	5.302	13.605	5.647	26.653
06/26/2011 16:25:20	5.229	13.7	5.639	26.675
06/26/2011 16:25:30	5.196	13.663	5.577	26.781
06/26/2011 16:25:40	5.258	13.572	5.61	26.869
06/26/2011 16:25:50	5.313	13.564	5.679	27.041
06/26/2011 16:26:00	5.299	13.648	5.727	27.023
06/26/2011 16:26:10	5.225	13.674	5.647	27.023
06/26/2011 16:26:20	5.233	13.63	5.636	27.125
06/26/2011 16:26:30	5.258	13.605	5.65	27.085
06/26/2011 16:26:40	5.306	13.553	5.665	26.964
06/26/2011 16:26:50	5.339	13.531	5.65	27.027
06/26/2011 16:27:00	5.339	13.561	5.599	27.118
06/26/2011 16:27:10	5.332	13.579	5.588	27.195
06/26/2011 16:27:20	5.328	13.55	5.61	27.184
06/26/2011 16:27:30	5.346	13.517	5.617	27.239
06/26/2011 16:27:40	5.372	13.524	5.588	27.239
06/26/2011 16:27:50	5.328	13.557	5.588	27.338
06/26/2011 16:28:00	5.291	13.605	5.614	27.506
06/26/2011 16:28:10	5.306	13.531	5.599	27.561
06/26/2011 16:28:20	5.372	13.546	5.57	27.627
06/26/2011 16:28:30	5.416	13.506	5.573	27.415
06/26/2011 16:28:40	5.419	13.458	5.592	27.232
06/26/2011 16:28:50	5.449	13.454	5.61	27.213
06/26/2011 16:29:00	5.438	13.473	5.577	27.254
06/26/2011 16:29:10	5.379	13.583	5.562	27.082
06/26/2011 16:29:20	5.328	13.542	5.562	27.049
06/26/2011 16:29:30	5.328	13.55	5.537	27.012
06/26/2011 16:29:40	5.343	13.55	5.544	27.114
06/26/2011 16:29:50	5.332	13.586	5.522	27.268
06/26/2011 16:30:00	5.321	13.568	5.515	27.4
06/26/2011 16:30:10	5.295	13.648	5.544	27.547
06/26/2011 16:30:20	5.244	13.623	5.548	27.656
06/26/2011 16:30:30	5.288	13.564	5.581	27.671
06/26/2011 16:30:40	5.284	13.652	5.581	27.616
06/26/2011 16:30:50	5.211	13.714	5.562	27.561
06/26/2011 16:31:00	5.225	13.605	5.559	27.543
06/26/2011 16:31:10	5.328	13.531	5.533	27.532
06/26/2011 16:31:20	5.343	13.528	5.562	27.404
06/26/2011 16:31:30	5.35	13.583	5.588	27.382
06/26/2011 16:31:40	5.332	13.553	5.581	27.495
06/26/2011 16:31:50	5.35	13.542	5.544	27.605
Resume Run 7				
06/26/2011 16:32:00	5.379	13.506	5.562	27.62
06/26/2011 16:32:10	5.419	13.484	5.573	27.488
06/26/2011 16:32:20	5.368	13.59	5.551	27.272
06/26/2011 16:32:30	5.28	13.645	5.537	27.18
06/26/2011 16:32:40	5.302	13.509	5.57	27.158
06/26/2011 16:32:50	5.361	13.531	5.588	27.316
06/26/2011 16:33:00	5.324	13.601	5.61	27.437
06/26/2011 16:33:10	5.295	13.59	5.61	27.598

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 16:33:20	5.313	13.513	5.606	27.741
06/26/2011 16:33:30	5.394	13.465	5.566	27.887
06/26/2011 16:33:40	5.452	13.443	5.562	27.891
06/26/2011 16:33:50	5.416	13.491	5.577	27.792
06/26/2011 16:34:00	5.35	13.539	5.61	27.715
06/26/2011 16:34:10	5.346	13.535	5.592	27.843
06/26/2011 16:34:20	5.31	13.67	5.573	27.935
06/26/2011 16:34:30	5.251	13.634	5.511	27.847
06/26/2011 16:34:40	5.255	13.656	5.533	27.693
06/26/2011 16:34:50	5.295	13.52	5.566	27.521
06/26/2011 16:35:00	5.335	13.55	5.544	27.396
06/26/2011 16:35:10	5.35	13.586	5.533	27.382
06/26/2011 16:35:20	5.291	13.667	5.551	27.334
06/26/2011 16:35:30	5.247	13.63	5.698	27.404
06/26/2011 16:35:40	5.295	13.542	5.848	27.327
06/26/2011 16:35:50	5.39	13.454	5.833	27.444
06/26/2011 16:36:00	5.416	13.498	5.793	27.367
06/26/2011 16:36:10	5.43	13.465	5.804	27.235
06/26/2011 16:36:20	5.427	13.458	5.771	27.071
06/26/2011 16:36:30	5.445	13.44	5.771	27.019
06/26/2011 16:36:40	5.43	13.498	5.753	26.909
06/26/2011 16:36:50	5.419	13.432	5.76	26.939
06/26/2011 16:37:00	5.471	13.418	5.738	26.972
06/26/2011 16:37:10	5.463	13.447	5.786	27.045
06/26/2011 16:37:20	5.482	13.388	5.797	27.235
06/26/2011 16:37:30	5.485	13.454	5.775	27.276
06/26/2011 16:37:40	5.452	13.418	5.815	27.36
06/26/2011 16:37:50	5.405	13.561	5.837	27.561
06/26/2011 16:38:00	5.335	13.546	5.866	27.627
06/26/2011 16:38:10	5.343	13.528	5.899	27.902
06/26/2011 16:38:20	5.346	13.491	5.866	28.037
06/26/2011 16:38:30	5.398	13.531	5.859	28.078
06/26/2011 16:38:40	5.361	13.531	5.797	27.975
06/26/2011 16:38:50	5.343	13.572	5.727	27.968
06/26/2011 16:39:00	5.324	13.542	5.683	27.851
06/26/2011 16:39:10	5.339	13.509	5.617	27.719
06/26/2011 16:39:20	5.365	13.561	5.621	27.774
06/26/2011 16:39:30	5.379	13.443	5.603	27.682
06/26/2011 16:39:40	5.408	13.495	5.54	27.7
06/26/2011 16:39:50	5.408	13.484	5.493	27.689
06/26/2011 16:40:00	5.449	13.462	5.566	27.587
06/26/2011 16:40:10	5.474	13.392	5.57	27.455
06/26/2011 16:40:20	5.489	13.414	5.606	27.338
06/26/2011 16:40:30	5.482	13.396	5.625	27.349
06/26/2011 16:40:40	5.471	13.418	5.614	27.356
06/26/2011 16:40:50	5.467	13.388	5.61	27.294
06/26/2011 16:41:00	5.559	13.29	5.581	27.243
06/26/2011 16:41:10	5.581	13.388	5.573	27.173
06/26/2011 16:41:20	5.529	13.337	5.61	27.103
06/26/2011 16:41:30	5.533	13.356	5.654	27.111
06/26/2011 16:41:40	5.507	13.418	5.599	27.177
06/26/2011 16:41:50	5.533	13.308	5.581	27.232
06/26/2011 16:42:00	5.551	13.352	5.617	27.18
06/26/2011 16:42:10	5.504	13.392	5.61	27.155
06/26/2011 16:42:20	5.474	13.418	5.559	27.268
06/26/2011 16:42:30	5.449	13.458	5.518	27.418
06/26/2011 16:42:40	5.456	13.443	5.566	27.558
06/26/2011 16:42:50	5.445	13.462	5.566	27.715
06/26/2011 16:43:00	5.398	13.509	5.584	27.821
06/26/2011 16:43:10	5.379	13.465	5.588	27.887
06/26/2011 16:43:20	5.445	13.425	5.577	27.927
06/26/2011 16:43:30	5.482	13.392	5.599	27.836
06/26/2011 16:43:40	5.496	13.407	5.614	27.675
06/26/2011 16:43:50	5.463	13.432	5.584	27.51
06/26/2011 16:44:00	5.482	13.447	5.515	27.418
06/26/2011 16:44:10	5.463	13.476	5.518	27.349

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 16:44:20	5.365	13.616	5.555	27.301
06/26/2011 16:44:30	5.291	13.619	5.581	27.345
06/26/2011 16:44:40	5.291	13.557	5.603	27.451
06/26/2011 16:44:50	5.328	13.546	5.592	27.525
06/26/2011 16:45:00	5.405	13.44	5.621	27.583
06/26/2011 16:45:10	5.419	13.469	5.621	27.719
06/26/2011 16:45:20	5.43	13.458	5.61	27.898
06/26/2011 16:45:30	5.383	13.542	5.61	27.986
06/26/2011 16:45:40	5.361	13.473	5.592	28.048
06/26/2011 16:45:50	5.39	13.513	5.581	28.026
06/26/2011 16:46:00	5.434	13.37	5.603	28.001
06/26/2011 16:46:10	5.471	13.425	5.577	28.037
06/26/2011 16:46:20	5.445	13.421	5.562	28.023
06/26/2011 16:46:30	5.427	13.524	5.54	27.953
06/26/2011 16:46:40	5.343	13.59	5.57	27.858
06/26/2011 16:46:50	5.321	13.561	5.617	28.03
06/26/2011 16:47:00	5.357	13.451	5.584	28.279
06/26/2011 16:47:10	5.467	13.399	5.548	28.323
06/26/2011 16:47:20	5.474	13.436	5.566	28.268
06/26/2011 16:47:30	5.452	13.432	5.566	28.228
06/26/2011 16:47:40	5.43	13.495	5.603	28.235
06/26/2011 16:47:50	5.423	13.447	5.573	28.25
06/26/2011 16:48:00	5.467	13.425	5.588	28.188
06/26/2011 16:48:10	5.449	13.443	5.562	28.045
06/26/2011 16:48:20	5.5	13.348	5.577	27.986
06/26/2011 16:48:30	5.537	13.359	5.57	27.946
06/26/2011 16:48:40	5.482	13.462	5.588	28.004
06/26/2011 16:48:50	5.493	13.403	5.584	28.264
06/26/2011 16:49:00	5.485	13.407	5.566	28.539
06/26/2011 16:49:10	5.504	13.33	5.555	28.788
06/26/2011 16:49:20	5.511	13.425	5.537	28.704
06/26/2011 16:49:30	5.463	13.414	5.511	28.477
06/26/2011 16:49:40	5.511	13.352	5.507	28.319
06/26/2011 16:49:50	5.57	13.323	5.515	28.188
06/26/2011 16:50:00	5.522	13.432	5.518	28.144
06/26/2011 16:50:10	5.478	13.443	5.533	27.99
06/26/2011 16:50:20	5.474	13.403	5.515	27.869
06/26/2011 16:50:30	5.511	13.359	5.529	27.682
06/26/2011 16:50:40	5.504	13.396	5.485	27.675
06/26/2011 16:50:50	5.463	13.465	5.434	27.792
06/26/2011 16:51:00	5.434	13.465	5.383	27.953
06/26/2011 16:51:10	5.493	13.352	5.408	28.125
06/26/2011 16:51:20	5.518	13.407	5.467	28.206
06/26/2011 16:51:30	5.489	13.41	5.493	28.147
06/26/2011 16:51:40	5.456	13.48	5.493	28.067
06/26/2011 16:51:50	5.43	13.44	5.511	28.1
06/26/2011 16:52:00	5.438	13.469	5.511	28.173
06/26/2011 16:52:10	5.441	13.458	5.507	28.268
06/26/2011 16:52:20	5.423	13.509	5.489	28.29
06/26/2011 16:52:30	5.427	13.458	5.496	28.22
06/26/2011 16:52:40	5.427	13.436	5.485	28.07
06/26/2011 16:52:50	5.456	13.425	5.485	28.019
06/26/2011 16:53:00	5.518	13.293	5.496	27.993
06/26/2011 16:53:10	5.548	13.352	5.485	28.023
06/26/2011 16:53:20	5.478	13.425	5.46	28.107
06/26/2011 16:53:30	5.449	13.44	5.423	28.096
06/26/2011 16:53:40	5.507	13.323	5.43	28.231
06/26/2011 16:53:50	5.511	13.432	5.441	28.272
06/26/2011 16:54:00	5.452	13.487	5.485	28.25
06/26/2011 16:54:10	5.423	13.436	5.537	28.198
06/26/2011 16:54:20	5.478	13.366	5.551	28.078
06/26/2011 16:54:30	5.526	13.345	5.559	27.964
06/26/2011 16:54:40	5.496	13.425	5.471	27.902
06/26/2011 16:54:50	5.478	13.388	5.478	27.927
06/26/2011 16:55:00	5.463	13.44	5.474	28.067
06/26/2011 16:55:10	5.452	13.436	5.485	28.166

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 16:55:20	5.438	13.458	5.456	28.29
06/26/2011 16:55:30	5.394	13.524	5.441	28.517
06/26/2011 16:55:40	5.339	13.561	5.423	28.62
06/26/2011 16:55:50	5.321	13.546	5.43	28.751
06/26/2011 16:56:00	5.328	13.561	5.471	28.788
06/26/2011 16:56:10	5.321	13.561	5.485	28.631
06/26/2011 16:56:20	5.339	13.524	5.445	28.488
06/26/2011 16:56:30	5.383	13.443	5.471	28.466
06/26/2011 16:56:40	5.368	13.553	5.449	28.484
06/26/2011 16:56:50	5.39	13.44	5.449	28.627
06/26/2011 16:57:00	5.376	13.597	5.463	28.814
06/26/2011 16:57:10	5.346	13.52	5.46	28.832
06/26/2011 16:57:20	5.379	13.517	5.463	28.697
06/26/2011 16:57:30	5.372	13.52	5.482	28.59
06/26/2011 16:57:40	5.376	13.509	5.533	28.532
06/26/2011 16:57:50	5.357	13.531	5.566	28.539
06/26/2011 16:58:00	5.412	13.432	5.555	28.642
06/26/2011 16:58:10	5.46	13.399	5.482	28.631
06/26/2011 16:58:20	5.449	13.48	5.496	28.715
06/26/2011 16:58:30	5.387	13.52	5.471	28.638
06/26/2011 16:58:40	5.398	13.495	5.493	28.686
06/26/2011 16:58:50	5.419	13.462	5.551	28.634
06/26/2011 16:59:00	5.434	13.484	5.661	28.726
06/26/2011 16:59:10	5.401	13.487	5.69	28.898
06/26/2011 16:59:20	5.412	13.447	5.625	29.147
06/26/2011 16:59:30	5.416	13.517	5.603	29.403
06/26/2011 16:59:40	5.321	13.634	5.57	29.634
06/26/2011 16:59:50	5.269	13.583	5.54	29.876
06/26/2011 17:00:00	5.284	13.638	5.533	29.997
06/26/2011 17:00:10	5.328	13.498	5.533	29.927
06/26/2011 17:00:20	5.372	13.546	5.526	29.623
06/26/2011 17:00:30	5.401	13.517	5.496	29.151
06/26/2011 17:00:40	5.39	13.506	5.515	28.843
06/26/2011 17:00:50	5.383	13.572	5.485	28.664
06/26/2011 17:01:00	5.35	13.572	5.489	28.524
06/26/2011 17:01:10	5.346	13.487	5.544	28.51
06/26/2011 17:01:20	5.376	13.553	5.573	28.612
06/26/2011 17:01:30	5.46	13.312	5.584	28.576
06/26/2011 17:01:40	5.54	13.407	5.518	28.382
06/26/2011 17:01:50	5.496	13.425	5.463	28.261
06/26/2011 17:02:00	5.463	13.52	5.507	28.25
06/26/2011 17:02:10	5.365	13.531	5.5	28.228
06/26/2011 17:02:20	5.372	13.517	5.522	28.184
06/26/2011 17:02:30	5.354	13.575	5.551	28.081
06/26/2011 17:02:40	5.365	13.513	5.555	28.03
06/26/2011 17:02:50	5.379	13.542	5.573	27.895
06/26/2011 17:03:00	5.368	13.524	5.584	27.975
06/26/2011 17:03:10	5.379	13.517	5.562	28.092
06/26/2011 17:03:20	5.332	13.586	5.544	28.228
06/26/2011 17:03:30	5.302	13.616	5.54	28.367
06/26/2011 17:03:40	5.299	13.531	5.533	28.451
06/26/2011 17:03:50	5.324	13.568	5.533	28.627
06/26/2011 17:04:00	5.339	13.531	5.526	28.843
06/26/2011 17:04:10	5.346	13.55	5.57	28.986
06/26/2011 17:04:20	5.321	13.531	5.555	29.129
06/26/2011 17:04:30	5.328	13.597	5.489	29.209
06/26/2011 17:04:40	5.306	13.586	5.467	29.165
06/26/2011 17:04:50	5.332	13.517	5.537	29.165
06/26/2011 17:05:00	5.379	13.517	5.599	29.088
06/26/2011 17:05:10	5.324	13.652	5.632	29.092
06/26/2011 17:05:20	5.262	13.612	5.573	29.092
06/26/2011 17:05:30	5.262	13.59	5.537	29.213
06/26/2011 17:05:40	5.247	13.681	5.518	29.264
06/26/2011 17:05:50	5.269	13.605	5.526	29.378
06/26/2011 17:06:00	5.284	13.616	5.493	29.403
06/26/2011 17:06:10	5.288	13.586	5.438	29.356

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 17:06:20	5.306	13.597	5.489	29.312
06/26/2011 17:06:30	5.299	13.575	5.478	29.275
06/26/2011 17:06:40	5.313	13.612	5.46	29.22
06/26/2011 17:06:50	5.302	13.641	5.529	29.18
06/26/2011 17:07:00	5.28	13.597	5.566	29.074
06/26/2011 17:07:10	5.299	13.55	5.562	29.088
06/26/2011 17:07:20	5.306	13.612	5.544	29.022
06/26/2011 17:07:30	5.313	13.564	5.581	29.048
06/26/2011 17:07:40	5.321	13.568	5.522	29.066
06/26/2011 17:07:50	5.357	13.506	5.5	29.129
06/26/2011 17:08:00	5.408	13.528	5.518	29.253
06/26/2011 17:08:10	5.372	13.579	5.522	29.253
06/26/2011 17:08:20	5.339	13.55	5.584	29.077
06/26/2011 17:08:30	5.335	13.55	5.603	28.887
06/26/2011 17:08:40	5.31	13.652	5.588	28.788
06/26/2011 17:08:50	5.24	13.667	5.643	28.671
06/26/2011 17:09:00	5.269	13.564	5.775	28.664
06/26/2011 17:09:10	5.255	13.63	5.775	28.638
06/26/2011 17:09:20	5.313	13.487	5.756	28.722
06/26/2011 17:09:30	5.372	13.498	5.742	28.751
06/26/2011 17:09:40	5.324	13.619	5.756	28.73
06/26/2011 17:09:50	5.284	13.561	5.738	28.656
06/26/2011 17:10:00	5.343	13.513	5.712	28.686
06/26/2011 17:10:10	5.357	13.553	5.698	28.642
06/26/2011 17:10:20	5.354	13.539	5.669	28.532
06/26/2011 17:10:30	5.372	13.48	5.669	28.382
06/26/2011 17:10:40	5.387	13.487	5.65	28.36
06/26/2011 17:10:50	5.401	13.487	5.698	28.448
06/26/2011 17:11:00	5.423	13.447	5.742	28.488
06/26/2011 17:11:10	5.445	13.407	5.709	28.623
06/26/2011 17:11:20	5.419	13.509	5.716	28.88
06/26/2011 17:11:30	5.343	13.583	5.705	29.012
06/26/2011 17:11:40	5.328	13.535	5.698	29.063
06/26/2011 17:11:50	5.372	13.506	5.679	29.03
06/26/2011 17:12:00	5.379	13.484	5.669	29.052
06/26/2011 17:12:10	5.365	13.568	5.636	29.125
06/26/2011 17:12:20	5.35	13.528	5.614	29.052
06/26/2011 17:12:30	5.361	13.561	5.661	28.997
06/26/2011 17:12:40	5.266	13.722	5.654	28.854
06/26/2011 17:12:50	5.244	13.583	5.621	28.737
06/26/2011 17:13:00	5.328	13.579	5.617	28.773
06/26/2011 17:13:10	5.313	13.601	5.577	28.671
06/26/2011 17:13:20	5.251	13.681	5.588	28.675
06/26/2011 17:13:30	5.207	13.678	5.625	28.7
06/26/2011 17:13:40	5.211	13.7	5.614	28.697
06/26/2011 17:13:50	5.185	13.725	5.621	28.576
06/26/2011 17:14:00	5.236	13.59	5.621	28.543
06/26/2011 17:14:10	5.302	13.59	5.61	28.532
06/26/2011 17:14:20	5.288	13.586	5.636	28.532
06/26/2011 17:14:30	5.291	13.579	5.617	28.55
06/26/2011 17:14:40	5.299	13.568	5.617	28.484
06/26/2011 17:14:50	5.244	13.678	5.606	28.462
06/26/2011 17:15:00	5.233	13.623	5.625	28.554
06/26/2011 17:15:10	5.236	13.641	5.639	28.828
06/26/2011 17:15:20	5.244	13.641	5.621	29.191
06/26/2011 17:15:30	5.262	13.641	5.588	29.326
06/26/2011 17:15:40	5.258	13.623	5.573	29.228
06/26/2011 17:15:50	5.284	13.645	5.577	29.143
06/26/2011 17:16:00	5.302	13.557	5.614	29.052
06/26/2011 17:16:10	5.328	13.564	5.647	29.088
06/26/2011 17:16:20	5.343	13.575	5.654	29.077
06/26/2011 17:16:30	5.368	13.495	5.617	29.015
06/26/2011 17:16:40	5.398	13.55	5.599	28.832
06/26/2011 17:16:50	5.346	13.583	5.617	28.462
06/26/2011 17:17:00	5.28	13.652	5.621	28.389
06/26/2011 17:17:10	5.273	13.601	5.636	28.33

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 17:17:20	5.35	13.509	5.69	28.275
06/26/2011 17:17:30	5.383	13.531	5.676	28.177
06/26/2011 17:17:40	5.383	13.542	5.654	28.239
06/26/2011 17:17:50	5.306	13.645	5.643	28.272
06/26/2011 17:18:00	5.269	13.579	5.65	28.305
06/26/2011 17:18:10	5.328	13.546	5.621	28.524
06/26/2011 17:18:20	5.35	13.55	5.54	28.521
06/26/2011 17:18:30	5.306	13.59	5.485	28.532
06/26/2011 17:18:40	5.28	13.648	5.493	28.638
06/26/2011 17:18:50	5.247	13.634	5.54	28.704
06/26/2011 17:19:00	5.251	13.612	5.548	28.766
06/26/2011 17:19:10	5.262	13.656	5.562	28.784
06/26/2011 17:19:20	5.288	13.561	5.526	28.73
06/26/2011 17:19:30	5.335	13.605	5.544	28.605
06/26/2011 17:19:40	5.361	13.539	5.54	28.513
06/26/2011 17:19:50	5.339	13.612	5.562	28.48
06/26/2011 17:20:00	5.313	13.579	5.599	28.404
06/26/2011 17:20:10	5.35	13.568	5.588	28.385
06/26/2011 17:20:20	5.383	13.506	5.573	28.352
06/26/2011 17:20:30	5.405	13.524	5.57	28.426
06/26/2011 17:20:40	5.328	13.627	5.555	28.345
06/26/2011 17:20:50	5.258	13.623	5.537	28.371
06/26/2011 17:21:00	5.266	13.59	5.548	28.433
06/26/2011 17:21:10	5.262	13.656	5.588	28.44
06/26/2011 17:21:20	5.214	13.678	5.544	28.513
06/26/2011 17:21:30	5.236	13.656	5.581	28.682
06/26/2011 17:21:40	5.236	13.656	5.592	28.77
06/26/2011 17:21:50	5.244	13.623	5.581	29.012
06/26/2011 17:22:00	5.244	13.63	5.548	29.213
06/26/2011 17:22:10	5.266	13.623	5.559	29.488
06/26/2011 17:22:20	5.247	13.67	5.515	29.601
06/26/2011 17:22:30	5.269	13.557	5.551	29.693
06/26/2011 17:22:40	5.277	13.638	5.548	29.663
06/26/2011 17:22:50	5.28	13.594	5.559	29.422
06/26/2011 17:23:00	5.273	13.648	5.577	29.162
06/26/2011 17:23:10	5.324	13.491	5.581	28.902
06/26/2011 17:23:20	5.39	13.539	5.555	28.762
06/26/2011 17:23:30	5.383	13.517	5.537	28.634
06/26/2011 17:23:40	5.376	13.535	5.537	28.708
06/26/2011 17:23:50	5.302	13.678	5.518	28.792
06/26/2011 17:24:00	5.284	13.583	5.522	28.843
06/26/2011 17:24:10	5.324	13.627	5.54	28.861
06/26/2011 17:24:20	5.288	13.627	5.54	28.935
06/26/2011 17:24:30	5.306	13.597	5.566	29.015
06/26/2011 17:24:40	5.328	13.579	5.559	28.968
06/26/2011 17:24:50	5.306	13.623	5.511	28.938
06/26/2011 17:25:00	5.288	13.627	5.485	28.887
06/26/2011 17:25:10	5.258	13.67	5.526	28.748
06/26/2011 17:25:20	5.203	13.722	5.529	28.572
06/26/2011 17:25:30	5.258	13.572	5.485	28.605
06/26/2011 17:25:40	5.335	13.561	5.555	28.521
06/26/2011 17:25:50	5.284	13.681	5.507	28.429
06/26/2011 17:26:00	5.273	13.594	5.537	28.352
06/26/2011 17:26:10	5.31	13.579	5.606	28.323
06/26/2011 17:26:20	5.291	13.597	5.581	28.257
06/26/2011 17:26:30	5.354	13.517	5.562	28.312
06/26/2011 17:26:40	5.383	13.557	5.548	28.363
06/26/2011 17:26:50	5.339	13.572	5.537	28.433
06/26/2011 17:27:00	5.295	13.67	5.478	28.513
06/26/2011 17:27:10	5.251	13.616	5.449	28.645
06/26/2011 17:27:20	5.306	13.572	5.482	28.689
06/26/2011 17:27:30	5.31	13.612	5.526	28.631
06/26/2011 17:27:40	5.335	13.517	5.518	28.517
06/26/2011 17:27:50	5.408	13.502	5.529	28.532
06/26/2011 17:28:00	5.401	13.531	5.526	28.466
06/26/2011 17:28:10	5.387	13.561	5.529	28.466

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 17:28:20	5.379	13.513	5.533	28.316
06/26/2011 17:28:30	5.365	13.528	5.518	28.297
06/26/2011 17:28:40	5.317	13.605	5.551	28.305
06/26/2011 17:28:50	5.244	13.645	5.5	28.418
06/26/2011 17:29:00	5.266	13.612	5.559	28.415
06/26/2011 17:29:10	5.262	13.597	5.555	28.396
06/26/2011 17:29:20	5.317	13.509	5.529	28.422
06/26/2011 17:29:30	5.368	13.553	5.551	28.466
06/26/2011 17:29:40	5.383	13.487	5.518	28.557
06/26/2011 17:29:50	5.401	13.542	5.474	28.605
06/26/2011 17:30:00	5.379	13.487	5.438	28.638
06/26/2011 17:30:10	5.346	13.608	5.434	28.627
06/26/2011 17:30:20	5.31	13.59	5.434	28.634
06/26/2011 17:30:30	5.317	13.616	5.522	28.627
06/26/2011 17:30:40	5.328	13.476	5.548	28.623
06/26/2011 17:30:50	5.401	13.502	5.496	28.759
06/26/2011 17:31:00	5.372	13.542	5.493	28.876
06/26/2011 17:31:10	5.339	13.616	5.54	28.946
06/26/2011 17:31:20	5.321	13.531	5.537	28.957
06/26/2011 17:31:30	5.339	13.561	5.54	28.913
06/26/2011 17:31:40	5.324	13.579	5.493	28.839
06/26/2011 17:31:50	5.313	13.634	5.518	28.825
06/26/2011 17:32:00	5.258	13.641	5.555	28.913
06/26/2011 17:32:10	5.24	13.678	5.548	29.048
06/26/2011 17:32:20	5.247	13.638	5.529	29.154
06/26/2011 17:32:30	5.284	13.575	5.573	29.323
06/26/2011 17:32:40	5.321	13.542	5.551	29.392
06/26/2011 17:32:50	5.398	13.506	5.555	29.326
06/26/2011 17:33:00	5.427	13.451	5.518	29.092
06/26/2011 17:33:10	5.474	13.414	5.489	28.957
06/26/2011 17:33:20	5.504	13.41	5.537	28.792
06/26/2011 17:33:30	5.515	13.421	5.562	28.722
06/26/2011 17:33:40	5.463	13.462	5.573	28.682
06/26/2011 17:33:50	5.408	13.557	5.544	28.543
06/26/2011 17:34:00	5.372	13.542	5.559	28.488
06/26/2011 17:34:10	5.317	13.656	5.522	28.546
06/26/2011 17:34:20	5.266	13.652	5.467	28.656
06/26/2011 17:34:30	5.288	13.605	5.452	28.759
06/26/2011 17:34:40	5.306	13.597	5.496	28.759
06/26/2011 17:34:50	5.335	13.539	5.551	28.777
06/26/2011 17:35:00	5.463	13.377	5.632	28.686
06/26/2011 17:35:10	5.474	13.513	5.639	28.627
06/26/2011 17:35:20	5.394	13.535	5.606	28.719
06/26/2011 17:35:30	5.401	13.484	5.555	28.788
06/26/2011 17:35:40	5.423	13.48	5.518	28.799
06/26/2011 17:35:50	5.416	13.528	5.555	28.579
06/26/2011 17:36:00	5.379	13.487	5.515	28.407
06/26/2011 17:36:10	5.438	13.451	5.5	28.363
06/26/2011 17:36:20	5.434	13.469	5.496	28.224
06/26/2011 17:36:30	5.449	13.484	5.485	28.235
06/26/2011 17:36:40	5.449	13.458	5.533	28.341
06/26/2011 17:36:50	5.46	13.421	5.555	28.433
06/26/2011 17:37:00	5.456	13.44	5.551	28.44
06/26/2011 17:37:10	5.419	13.535	5.511	28.382
06/26/2011 17:37:20	5.372	13.572	5.518	28.367
06/26/2011 17:37:30	5.317	13.583	5.485	28.495
06/26/2011 17:37:40	5.335	13.509	5.482	28.693
06/26/2011 17:37:50	5.361	13.509	5.5	28.935
06/26/2011 17:38:00	5.376	13.524	5.577	28.96
06/26/2011 17:38:10	5.383	13.491	5.614	28.902
06/26/2011 17:38:20	5.394	13.513	5.577	28.762
06/26/2011 17:38:30	5.35	13.546	5.537	28.872
06/26/2011 17:38:40	5.346	13.546	5.526	28.968
06/26/2011 17:38:50	5.324	13.575	5.493	29.008
06/26/2011 17:39:00	5.361	13.513	5.452	29.055
06/26/2011 17:39:10	5.379	13.517	5.482	29.055

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 17:39:20	5.372	13.542	5.555	29.063
06/26/2011 17:39:30	5.335	13.568	5.577	29.169
06/26/2011 17:39:40	5.354	13.531	5.603	29.18
06/26/2011 17:39:50	5.354	13.513	5.643	29.275
End Run 7				
Average	**5.580**	**13.374**	**60.546**	**54.785**
Maximum	**8.346**	**13.993**	**87.904**	**68.102**
Minimum	**4.925**	**10.887**	**5.383**	**26.909**
06/26/2011 17:40:00	5.332	13.601	5.588	29.242
06/26/2011 17:40:10	5.324	13.524	5.57	29.246
06/26/2011 17:40:20	5.394	13.491	5.54	29.132
06/26/2011 17:40:30	5.434	13.458	5.577	29.008
06/26/2011 17:40:40	5.427	13.48	5.533	28.872
06/26/2011 17:40:50	5.43	13.524	5.548	28.828
06/26/2011 17:41:00	5.357	13.583	5.588	28.722
06/26/2011 17:41:10	5.376	13.436	5.562	28.601
06/26/2011 17:41:20	5.423	13.542	5.529	28.48
06/26/2011 17:41:30	5.408	13.454	5.493	28.363
06/26/2011 17:41:40	5.43	13.506	5.485	28.411
06/26/2011 17:41:50	5.408	13.473	5.507	28.371
06/26/2011 17:42:00	5.419	13.458	5.5	28.407
06/26/2011 17:42:10	5.423	13.535	5.61	28.51
06/26/2011 17:42:20	5.427	13.396	5.852	28.568
06/26/2011 17:42:30	5.438	13.495	5.83	28.616
06/26/2011 17:42:40	5.332	13.572	5.764	28.649
06/26/2011 17:42:50	5.317	13.546	5.767	28.675
06/26/2011 17:43:00	5.405	13.399	5.782	28.678
06/26/2011 17:43:10	5.485	13.443	5.738	28.612
06/26/2011 17:43:20	5.441	13.535	5.705	28.579
06/26/2011 17:43:30	5.39	13.524	5.712	28.491
06/26/2011 17:43:40	5.398	13.528	5.694	28.422
06/26/2011 17:43:50	5.416	13.44	5.676	28.29
06/26/2011 17:44:00	5.482	13.396	5.669	28.25
06/26/2011 17:44:10	5.482	13.436	5.679	28.246
06/26/2011 17:44:20	5.449	13.487	5.716	28.308
06/26/2011 17:44:30	5.456	13.399	5.676	28.411
06/26/2011 17:44:40	5.449	13.528	5.669	28.272
06/26/2011 17:44:50	5.365	13.528	5.669	28.224
06/26/2011 17:45:00	5.379	13.495	5.621	28.305
06/26/2011 17:45:10	5.398	13.458	5.566	28.411
06/26/2011 17:45:20	5.412	13.528	5.577	28.433
06/26/2011 17:45:30	5.394	13.458	5.588	28.389
06/26/2011 17:45:40	5.438	13.462	5.573	28.411
06/26/2011 17:45:50	5.449	13.418	5.555	28.484
06/26/2011 17:46:00	5.434	13.535	5.57	28.594
06/26/2011 17:46:10	5.43	13.366	5.562	28.645
06/26/2011 17:46:20	5.438	13.579	5.559	28.7
06/26/2011 17:46:30	5.302	13.561	5.57	28.722
06/26/2011 17:46:40	5.361	13.495	5.61	28.817
06/26/2011 17:46:50	5.401	13.502	5.606	28.814
06/26/2011 17:47:00	5.383	13.502	5.588	28.847
06/26/2011 17:47:10	5.361	13.531	5.588	28.869
06/26/2011 17:47:20	5.357	13.517	5.562	28.88
06/26/2011 17:47:30	5.427	13.421	5.559	28.942
06/26/2011 17:47:40	5.449	13.491	5.61	29.052
06/26/2011 17:47:50	5.365	13.572	5.522	29.048
06/26/2011 17:48:00	5.343	13.531	5.493	29.092
06/26/2011 17:48:10	5.39	13.491	5.467	29.125
06/26/2011 17:48:20	5.412	13.528	5.478	29.184
06/26/2011 17:48:30	5.365	13.476	5.46	29.22
06/26/2011 17:48:40	5.434	13.469	5.5	29.462
06/26/2011 17:48:50	5.46	13.414	5.511	29.378
06/26/2011 17:49:00	5.474	13.465	5.485	29.268
06/26/2011 17:49:10	5.434	13.451	5.522	29.143
06/26/2011 17:49:20	5.401	13.524	5.969	28.99

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 17:49:30	5.526	10.649	4.614	28.935
Calibration Bias				
06/26/2011 17:49:40	2.878	0.417	0.399	27.77
06/26/2011 17:49:50	0.186	0.274	0.325	24.144
06/26/2011 17:50:00	0.025	0.226	0.333	19.827
06/26/2011 17:50:10	0.014	0.201	0.336	16.531
06/26/2011 17:50:20	0.01	0.186	0.318	14.396
06/26/2011 17:50:30	0.007	0.175	0.311	12.748
06/26/2011 17:50:40	0.003	0.168	0.325	11.557
06/26/2011 17:50:50	0.003	0.164	0.303	10.726
N2 Zero	**0.004**	**0.169**	**0.313**	**11.677**
06/26/2011 17:51:00	0.113	0.659	0.629	10.103
06/26/2011 17:51:10	5.606	9.693	0.648	9.539
06/26/2011 17:51:20	10.642	9.858	0.681	9.027
06/26/2011 17:51:30	10.964	9.898	0.699	8.624
06/26/2011 17:51:40	10.986	9.898	0.706	8.36
06/26/2011 17:51:50	10.997	9.909	0.706	8.155
06/26/2011 17:52:00	11.001	9.917	0.714	7.862
06/26/2011 17:52:10	11.004	9.913	2.193	7.679
11.1% O2/9.74% CO2 Mid	**11.001**	**9.913**	**1.204**	**7.899**
06/26/2011 17:52:20	9.481	12.967	5.701	7.5
06/26/2011 17:52:30	6.068	13.447	5.632	8.73
06/26/2011 17:52:40	5.445	13.454	5.544	12.92
06/26/2011 17:52:50	5.434	13.432	5.489	17.058
06/26/2011 17:53:00	5.445	13.484	5.518	19.83
06/26/2011 17:53:10	5.408	13.517	5.493	21.596
06/26/2011 17:53:20	5.405	13.48	5.526	22.866
06/26/2011 17:53:30	5.445	13.44	5.533	23.917
06/26/2011 17:53:40	5.405	13.513	5.474	24.679
06/26/2011 17:53:50	5.394	13.553	5.474	25.404
06/26/2011 17:54:00	5.376	13.473	5.511	25.976
06/26/2011 17:54:10	5.376	13.517	5.463	26.485
06/26/2011 17:54:20	5.394	13.421	5.485	26.854
06/26/2011 17:54:30	5.427	13.465	5.46	27.21
06/26/2011 17:54:40	5.401	13.513	5.408	27.569
06/26/2011 17:54:50	5.343	13.564	5.408	27.997
06/26/2011 17:55:00	5.321	13.561	5.478	28.319
06/26/2011 17:55:10	5.321	13.546	5.496	28.491
06/26/2011 17:55:20	5.313	13.641	5.449	28.609
06/26/2011 17:55:30	5.262	13.648	5.416	28.623
06/26/2011 17:55:40	5.266	13.616	5.408	28.524
06/26/2011 17:55:50	5.365	13.476	5.423	28.565
06/26/2011 17:56:00	5.43	13.476	5.445	28.631
06/26/2011 17:56:10	5.401	13.564	5.489	28.371
06/26/2011 17:56:20	5.379	13.465	5.566	28.36
06/26/2011 17:56:30	5.434	13.443	5.537	28.316
06/26/2011 17:56:40	5.423	13.473	5.463	28.345
06/26/2011 17:56:50	5.408	13.443	5.496	28.51
06/26/2011 17:57:00	5.419	13.462	5.452	28.697
06/26/2011 17:57:10	5.398	13.513	5.478	28.931
06/26/2011 17:57:20	5.379	13.524	5.485	28.96
06/26/2011 17:57:30	5.328	13.583	5.46	29.07
06/26/2011 17:57:40	5.328	13.528	5.485	29.242
06/26/2011 17:57:50	5.383	13.458	5.493	29.502
06/26/2011 17:58:00	5.394	13.597	5.54	29.575
06/26/2011 17:58:10	5.31	13.55	5.526	29.619
06/26/2011 17:58:20	5.35	13.524	5.5	29.638
06/26/2011 17:58:30	5.328	13.638	5.555	29.521
06/26/2011 17:58:40	5.225	13.707	5.577	29.4
06/26/2011 17:58:50	5.247	13.579	5.537	29.367
06/26/2011 17:59:00	5.302	13.601	5.467	29.367
06/26/2011 17:59:10	5.31	13.568	5.493	29.25
06/26/2011 17:59:20	5.269	13.707	5.496	29.121
06/26/2011 17:59:30	5.203	13.659	5.463	29.081
06/26/2011 17:59:40	5.251	13.601	5.438	29.169
06/26/2011 17:59:50	5.299	13.594	5.46	29.275

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 18:00:00	5.288	13.627	5.46	29.283
06/26/2011 18:00:10	5.288	13.627	5.478	29.323
06/26/2011 18:00:20	5.262	13.667	5.485	29.25
06/26/2011 18:00:30	5.236	13.627	5.46	29.169
06/26/2011 18:00:40	5.269	13.638	5.485	29.096
06/26/2011 18:00:50	5.28	13.612	5.482	29.143
06/26/2011 18:01:00	5.302	13.561	5.493	29.132
06/26/2011 18:01:10	5.335	13.55	5.507	29.022
06/26/2011 18:01:20	5.401	13.425	5.489	28.979
06/26/2011 18:01:30	5.401	13.531	5.456	29.052
06/26/2011 18:01:40	5.408	13.465	5.478	29.041
06/26/2011 18:01:50	5.405	13.506	5.485	29.103
06/26/2011 18:02:00	5.401	13.509	5.485	29.283
06/26/2011 18:02:10	5.401	13.458	5.485	29.455
06/26/2011 18:02:20	5.332	13.659	5.493	29.513
06/26/2011 18:02:30	5.262	13.619	5.548	29.462
06/26/2011 18:02:40	5.291	13.612	5.57	29.396
06/26/2011 18:02:50	5.302	13.663	5.599	29.44
06/26/2011 18:03:00	5.299	13.564	5.57	29.466
06/26/2011 18:03:10	5.394	13.502	5.518	29.594
06/26/2011 18:03:20	5.398	13.528	5.511	29.608
06/26/2011 18:03:30	5.383	13.487	5.529	29.638
06/26/2011 18:03:40	5.332	13.601	5.551	29.663
06/26/2011 18:03:50	5.225	13.718	5.57	29.656
06/26/2011 18:04:00	5.222	13.586	5.544	29.667
06/26/2011 18:04:10	5.258	13.689	5.518	29.623
06/26/2011 18:04:20	5.24	13.63	5.507	29.469
06/26/2011 18:04:30	5.28	13.627	5.566	29.356
06/26/2011 18:04:40	5.291	13.59	5.588	29.231
06/26/2011 18:04:50	5.346	13.469	5.588	29.154
06/26/2011 18:05:00	5.365	13.59	5.606	29.195
06/26/2011 18:05:10	5.31	13.572	5.573	29.041
06/26/2011 18:05:20	5.258	13.63	5.515	29.103
06/26/2011 18:05:30	5.255	13.638	5.544	29.29
06/26/2011 18:05:40	5.262	13.659	5.573	29.436
06/26/2011 18:05:50	5.269	13.553	5.544	29.557
06/26/2011 18:06:00	5.394	13.429	5.544	29.543
06/26/2011 18:06:10	5.456	13.429	5.5	29.414
06/26/2011 18:06:20	5.449	13.509	5.529	29.297
06/26/2011 18:06:30	5.419	13.491	5.54	29.085
06/26/2011 18:06:40	5.394	13.524	5.515	28.942
06/26/2011 18:06:50	5.357	13.59	5.562	28.81
06/26/2011 18:07:00	5.28	13.623	5.584	28.843
06/26/2011 18:07:10	5.258	13.605	5.544	28.792
06/26/2011 18:07:20	5.277	13.616	5.5	28.883
06/26/2011 18:07:30	5.291	13.59	5.46	29.033
06/26/2011 18:07:40	5.277	13.638	5.474	29.176
06/26/2011 18:07:50	5.288	13.561	5.606	29.235
06/26/2011 18:08:00	5.291	13.663	5.742	29.345
06/26/2011 18:08:10	5.218	13.674	5.833	29.455
06/26/2011 18:08:20	5.225	13.751	5.866	29.645
06/26/2011 18:08:30	5.119	13.868	5.837	29.649
06/26/2011 18:08:40	5.083	13.784	5.753	29.638
06/26/2011 18:08:50	5.178	13.652	5.665	29.546
06/26/2011 18:09:00	5.233	13.711	5.617	29.539
06/26/2011 18:09:10	5.2	13.696	5.577	29.48
06/26/2011 18:09:20	5.284	13.594	5.588	29.455
06/26/2011 18:09:30	5.302	13.605	5.584	29.378
06/26/2011 18:09:40	5.291	13.601	5.544	29.4
06/26/2011 18:09:50	5.258	13.641	5.482	29.429
06/26/2011 18:10:00	5.222	13.681	5.485	29.356
06/26/2011 18:10:10	5.192	13.689	5.511	29.37
06/26/2011 18:10:20	5.192	13.703	5.467	29.414
06/26/2011 18:10:30	5.214	13.7	5.441	29.455
06/26/2011 18:10:40	5.24	13.645	5.452	29.48
06/26/2011 18:10:50	5.302	13.561	5.46	29.605

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 18:11:00	5.387	13.502	5.482	29.685
06/26/2011 18:11:10	5.35	13.616	5.478	29.667
06/26/2011 18:11:20	5.262	13.681	5.493	29.623
06/26/2011 18:11:30	5.181	13.729	5.467	29.616
06/26/2011 18:11:40	5.181	13.678	5.463	29.641
06/26/2011 18:11:50	5.218	13.663	5.493	29.649
06/26/2011 18:12:00	5.196	13.751	5.482	29.616
06/26/2011 18:12:10	5.174	13.678	5.496	29.656
06/26/2011 18:12:20	5.258	13.623	5.555	29.722
06/26/2011 18:12:30	5.291	13.586	5.588	29.696
06/26/2011 18:12:40	5.28	13.645	5.57	29.674
06/26/2011 18:12:50	5.255	13.619	5.551	29.674
06/26/2011 18:13:00	5.258	13.648	5.489	29.652
06/26/2011 18:13:10	5.24	13.659	5.474	29.682
06/26/2011 18:13:20	5.214	13.707	5.456	29.755
06/26/2011 18:13:30	5.207	13.714	5.522	29.685
06/26/2011 18:13:40	5.17	13.722	5.471	29.638
06/26/2011 18:13:50	5.218	13.67	5.467	29.572
06/26/2011 18:14:00	5.185	13.766	5.485	29.44
06/26/2011 18:14:10	5.152	13.733	5.496	29.389
06/26/2011 18:14:20	5.203	13.645	5.515	29.323
06/26/2011 18:14:30	5.255	13.641	5.467	29.392
06/26/2011 18:14:40	5.288	13.601	5.496	29.341
06/26/2011 18:14:50	5.324	13.561	5.566	29.239
06/26/2011 18:15:00	5.328	13.605	5.566	29.217
06/26/2011 18:15:10	5.262	13.703	5.537	29.187
06/26/2011 18:15:20	5.225	13.645	5.555	29.261
06/26/2011 18:15:30	5.174	13.74	5.625	29.378
06/26/2011 18:15:40	5.156	13.63	5.811	29.634
06/26/2011 18:15:50	5.266	13.575	5.767	29.997
06/26/2011 18:16:00	5.31	13.616	5.822	30.011
06/26/2011 18:16:10	5.335	13.531	5.8	29.967
06/26/2011 18:16:20	5.372	13.517	5.771	29.784
06/26/2011 18:16:30	5.332	13.641	5.738	29.466
06/26/2011 18:16:40	5.299	13.634	5.712	29.158
06/26/2011 18:16:50	5.317	13.605	5.756	28.942
06/26/2011 18:17:00	5.31	13.597	5.749	28.916
06/26/2011 18:17:10	5.284	13.616	5.793	28.931
06/26/2011 18:17:20	5.313	13.55	5.797	28.806
06/26/2011 18:17:30	5.354	13.557	5.767	28.839
06/26/2011 18:17:40	5.398	13.48	5.771	28.872
06/26/2011 18:17:50	5.405	13.498	5.767	28.872
06/26/2011 18:18:00	5.43	13.447	5.771	28.656
06/26/2011 18:18:10	5.511	13.407	5.745	28.572
06/26/2011 18:18:20	5.43	13.535	5.669	28.572
06/26/2011 18:18:30	5.357	13.579	5.617	28.704
06/26/2011 18:18:40	5.332	13.568	5.65	28.942
06/26/2011 18:18:50	5.35	13.535	5.658	29.008
06/26/2011 18:19:00	5.394	13.487	5.661	29.066
06/26/2011 18:19:10	5.43	13.414	5.639	28.982
06/26/2011 18:19:20	5.496	13.443	5.639	28.81
06/26/2011 18:19:30	5.467	13.524	5.647	28.733
06/26/2011 18:19:40	5.401	13.553	5.617	28.462
06/26/2011 18:19:50	5.376	13.557	5.621	28.418
06/26/2011 18:20:00	5.401	13.524	5.698	28.393
06/26/2011 18:20:10	5.387	13.498	5.676	28.444
06/26/2011 18:20:20	5.474	13.388	5.69	28.609
06/26/2011 18:20:30	5.416	13.572	5.625	28.601
06/26/2011 18:20:40	5.372	13.484	5.639	28.671
06/26/2011 18:20:50	5.376	13.55	5.584	28.697
06/26/2011 18:21:00	5.376	13.561	5.617	28.642
06/26/2011 18:21:10	5.335	13.59	5.661	28.572
06/26/2011 18:21:20	5.328	13.55	5.658	28.48
06/26/2011 18:21:30	5.387	13.48	5.636	28.521
06/26/2011 18:21:40	5.419	13.462	5.632	28.598
06/26/2011 18:21:50	5.456	13.469	5.665	28.462

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 18:22:00	5.456	13.454	5.639	28.565
06/26/2011 18:22:10	5.427	13.524	5.614	28.513
06/26/2011 18:22:20	5.438	13.44	5.643	28.433
06/26/2011 18:22:30	5.485	13.429	5.606	28.338
06/26/2011 18:22:40	5.489	13.473	5.625	28.224
06/26/2011 18:22:50	5.416	13.524	5.603	28.22
06/26/2011 18:23:00	5.39	13.509	5.588	28.323
06/26/2011 18:23:10	5.438	13.41	5.632	28.338
06/26/2011 18:23:20	5.456	13.458	5.617	28.338
06/26/2011 18:23:30	5.445	13.462	5.603	28.356
06/26/2011 18:23:40	5.43	13.513	5.592	28.338
06/26/2011 18:23:50	5.419	13.484	5.566	28.349
06/26/2011 18:24:00	5.529	13.268	5.511	28.338
06/26/2011 18:24:10	5.577	13.399	5.544	28.228
06/26/2011 18:24:20	5.507	13.414	5.559	28.07
06/26/2011 18:24:30	5.5	13.399	5.559	28.026
06/26/2011 18:24:40	5.518	13.414	5.562	28.001
06/26/2011 18:24:50	5.5	13.366	5.573	28.048
06/26/2011 18:25:00	5.5	13.436	5.617	28.085
06/26/2011 18:25:10	5.434	13.487	5.584	28.019
06/26/2011 18:25:20	5.449	13.451	5.562	28.004
06/26/2011 18:25:30	5.485	13.374	5.548	28.008
06/26/2011 18:25:40	5.581	13.363	5.54	28.078
06/26/2011 18:25:50	5.548	13.33	5.489	28.151
06/26/2011 18:26:00	5.577	13.374	5.518	28.25
06/26/2011 18:26:10	5.515	13.462	5.518	28.253
06/26/2011 18:26:20	5.515	13.359	5.529	28.22
06/26/2011 18:26:30	5.548	13.366	5.548	28.056
06/26/2011 18:26:40	5.577	13.348	5.562	28.03
06/26/2011 18:26:50	5.57	13.399	5.522	27.909
06/26/2011 18:27:00	5.592	13.304	5.478	27.792
06/26/2011 18:27:10	5.614	13.337	5.474	27.84
06/26/2011 18:27:20	5.636	13.227	5.478	27.957
06/26/2011 18:27:30	5.669	13.271	5.5	28.162
06/26/2011 18:27:40	5.65	13.271	5.485	28.228
06/26/2011 18:27:50	5.595	13.425	5.485	28.147
06/26/2011 18:28:00	5.522	13.407	5.449	28.081
06/26/2011 18:28:10	5.529	13.374	5.441	28.059
06/26/2011 18:28:20	5.551	13.33	5.438	28.162
06/26/2011 18:28:30	5.584	13.279	5.471	28.367
06/26/2011 18:28:40	5.603	13.352	5.452	28.433
06/26/2011 18:28:50	5.57	13.374	5.471	28.433
06/26/2011 18:29:00	5.603	13.326	5.544	28.374
06/26/2011 18:29:10	5.595	13.348	5.551	28.352
06/26/2011 18:29:20	5.566	13.308	5.511	28.319
06/26/2011 18:29:30	5.628	13.271	5.449	28.312
06/26/2011 18:29:40	5.636	13.293	5.434	28.188
06/26/2011 18:29:50	5.606	13.345	5.445	28.158
06/26/2011 18:30:00	5.61	13.271	5.46	28.114
06/26/2011 18:30:10	5.661	13.198	5.507	27.993
06/26/2011 18:30:20	5.679	13.264	5.482	28.056
06/26/2011 18:30:30	5.683	13.22	5.474	28.008
06/26/2011 18:30:40	5.727	13.231	5.456	27.913
06/26/2011 18:30:50	5.672	13.29	5.427	27.81
06/26/2011 18:31:00	5.658	13.301	5.408	27.733
06/26/2011 18:31:10	5.625	13.374	5.449	27.649
06/26/2011 18:31:20	5.592	13.323	5.467	27.561
06/26/2011 18:31:30	5.61	13.33	5.434	27.635
06/26/2011 18:31:40	5.661	13.238	5.471	27.598
06/26/2011 18:31:50	5.679	13.275	5.463	27.455
06/26/2011 18:32:00	5.69	13.26	5.474	27.374
06/26/2011 18:32:10	5.676	13.268	5.452	27.396
06/26/2011 18:32:20	5.625	13.315	5.434	27.536
06/26/2011 18:32:30	5.592	13.308	5.441	27.605
06/26/2011 18:32:40	5.603	13.297	5.419	27.752
06/26/2011 18:32:50	5.617	13.308	5.434	27.931

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 18:33:00	5.647	13.191	5.46	28.034
06/26/2011 18:33:10	5.753	13.161	5.46	28.063
06/26/2011 18:33:20	5.756	13.143	5.416	28.125
06/26/2011 18:33:30	5.738	13.231	5.434	28.122
06/26/2011 18:33:40	5.658	13.293	5.434	28.155
06/26/2011 18:33:50	5.625	13.275	5.419	28.327
06/26/2011 18:34:00	5.654	13.238	5.416	28.539
06/26/2011 18:34:10	5.636	13.315	5.445	28.704
06/26/2011 18:34:20	5.636	13.249	5.493	28.821
06/26/2011 18:34:30	5.65	13.224	5.467	28.858
06/26/2011 18:34:40	5.654	13.282	5.452	28.898
06/26/2011 18:34:50	5.599	13.297	5.423	28.876
06/26/2011 18:35:00	5.628	13.257	5.379	28.935
06/26/2011 18:35:10	5.647	13.297	5.401	28.924
06/26/2011 18:35:20	5.603	13.334	5.463	28.894
06/26/2011 18:35:30	5.562	13.403	5.456	28.817
06/26/2011 18:35:40	5.54	13.304	5.445	28.773
06/26/2011 18:35:50	5.603	13.235	5.46	28.751
06/26/2011 18:36:00	5.712	13.121	5.496	28.839
06/26/2011 18:36:10	5.712	13.286	5.452	28.726
06/26/2011 18:36:20	5.654	13.315	5.482	28.594
06/26/2011 18:36:30	5.592	13.377	5.529	28.499
06/26/2011 18:36:40	5.485	13.513	5.537	28.393
06/26/2011 18:36:50	5.438	13.425	5.511	28.462
06/26/2011 18:37:00	5.515	13.352	5.496	28.671
06/26/2011 18:37:10	5.614	13.231	5.485	28.986
06/26/2011 18:37:20	5.606	13.374	5.515	29.151
06/26/2011 18:37:30	5.588	13.249	5.559	29.184
06/26/2011 18:37:40	5.606	13.381	5.566	29.121
06/26/2011 18:37:50	5.529	13.454	5.522	29.114
06/26/2011 18:38:00	5.485	13.399	5.515	29.154
06/26/2011 18:38:10	5.526	13.377	5.5	29.176
06/26/2011 18:38:20	5.533	13.436	5.526	29.14
06/26/2011 18:38:30	5.482	13.388	5.518	29.114
06/26/2011 18:38:40	5.559	13.334	5.533	29.154
06/26/2011 18:38:50	5.592	13.308	5.529	29.037
06/26/2011 18:39:00	5.603	13.352	5.5	28.997
06/26/2011 18:39:10	5.614	13.268	5.493	28.887
06/26/2011 18:39:20	5.669	13.224	5.445	28.715
06/26/2011 18:39:30	5.658	13.227	5.467	28.594
06/26/2011 18:39:40	5.679	13.194	5.5	28.554
06/26/2011 18:39:50	5.76	13.143	5.559	28.521
06/26/2011 18:40:00	5.742	13.176	5.529	28.462
06/26/2011 18:40:10	5.712	13.194	5.496	28.539
06/26/2011 18:40:20	5.705	13.198	5.467	28.671
06/26/2011 18:40:30	5.723	13.231	5.493	28.748
06/26/2011 18:40:40	5.701	13.205	5.493	28.755
06/26/2011 18:40:50	5.65	13.374	5.46	28.686
06/26/2011 18:41:00	5.54	13.348	5.474	28.543
06/26/2011 18:41:10	5.54	13.381	5.485	28.473
06/26/2011 18:41:20	5.529	13.403	5.515	28.506
06/26/2011 18:41:30	5.603	13.194	5.515	28.627
06/26/2011 18:41:40	5.767	13.085	5.562	28.634
06/26/2011 18:41:50	5.76	13.202	5.507	28.645
06/26/2011 18:42:00	5.742	13.191	5.485	28.524
06/26/2011 18:42:10	5.756	13.15	5.43	28.524
06/26/2011 18:42:20	5.734	13.257	5.416	28.524
06/26/2011 18:42:30	5.683	13.213	5.445	28.554
06/26/2011 18:42:40	5.69	13.268	5.46	28.601
06/26/2011 18:42:50	5.643	13.301	5.452	28.609
06/26/2011 18:43:00	5.661	13.209	5.511	28.755
06/26/2011 18:43:10	5.687	13.224	5.562	28.803
06/26/2011 18:43:20	5.628	13.348	5.529	28.843
06/26/2011 18:43:30	5.551	13.432	5.555	28.839
06/26/2011 18:43:40	5.471	13.473	5.555	29.088
06/26/2011 18:43:50	5.412	13.531	5.482	29.543

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 18:44:00	5.449	13.429	5.427	30.092
06/26/2011 18:44:10	5.515	13.356	5.434	30.268
06/26/2011 18:44:20	5.57	13.352	5.452	30.169
06/26/2011 18:44:30	5.551	13.403	5.434	29.923
06/26/2011 18:44:40	5.562	13.312	5.445	29.682
06/26/2011 18:44:50	5.548	13.436	5.434	29.506
06/26/2011 18:45:00	5.456	13.509	5.441	29.422
06/26/2011 18:45:10	5.427	13.465	5.452	29.326
06/26/2011 18:45:20	5.463	13.425	5.485	29.363
06/26/2011 18:45:30	5.511	13.436	5.555	29.455
06/26/2011 18:45:40	5.485	13.418	5.588	29.436
06/26/2011 18:45:50	5.504	13.388	5.537	29.374
06/26/2011 18:46:00	5.529	13.432	5.482	29.418
06/26/2011 18:46:10	5.526	13.399	5.474	29.341
06/26/2011 18:46:20	5.518	13.403	5.463	29.151
06/26/2011 18:46:30	5.493	13.436	5.471	29.092
06/26/2011 18:46:40	5.474	13.454	5.496	29.18
06/26/2011 18:46:50	5.471	13.385	5.518	29.198
06/26/2011 18:47:00	5.533	13.337	5.467	29.198
06/26/2011 18:47:10	5.617	13.29	5.485	29.206
06/26/2011 18:47:20	5.603	13.388	5.441	29.125
06/26/2011 18:47:30	5.551	13.377	5.482	28.931
06/26/2011 18:47:40	5.551	13.385	5.478	28.697
06/26/2011 18:47:50	5.526	13.451	5.471	28.576
06/26/2011 18:48:00	5.496	13.403	5.441	28.601
06/26/2011 18:48:10	5.485	13.407	5.456	28.645
06/26/2011 18:48:20	5.478	13.458	5.474	28.865
06/26/2011 18:48:30	5.482	13.407	5.485	29.022
06/26/2011 18:48:40	5.507	13.403	5.401	29.151
06/26/2011 18:48:50	5.526	13.429	5.5	29.173
06/26/2011 18:49:00	5.379	13.696	5.811	29.231
06/26/2011 18:49:10	5.207	13.696	5.749	29.367
06/26/2011 18:49:20	5.247	13.616	5.716	29.594
06/26/2011 18:49:30	5.321	13.517	5.676	29.887
06/26/2011 18:49:40	5.416	13.462	5.694	29.956
06/26/2011 18:49:50	5.43	13.436	5.65	29.883
06/26/2011 18:50:00	5.478	13.421	5.621	29.656
06/26/2011 18:50:10	5.537	13.388	5.592	29.367
06/26/2011 18:50:20	5.493	13.506	5.617	29.074
06/26/2011 18:50:30	5.376	13.586	5.592	28.953
06/26/2011 18:50:40	5.313	13.583	5.555	29.096
06/26/2011 18:50:50	5.299	13.623	5.529	29.345
06/26/2011 18:51:00	5.328	13.553	5.544	29.447
06/26/2011 18:51:10	5.379	13.484	5.507	29.565
06/26/2011 18:51:20	5.441	13.436	5.57	29.678
06/26/2011 18:51:30	5.474	13.476	5.603	29.696
06/26/2011 18:51:40	5.489	13.487	5.577	29.506
06/26/2011 18:51:50	5.423	13.55	5.537	29.389
06/26/2011 18:52:00	5.343	13.597	5.529	29.184
06/26/2011 18:52:10	5.368	13.491	5.515	29.107
06/26/2011 18:52:20	5.401	13.498	5.485	29.092
06/26/2011 18:52:30	5.441	13.432	5.511	29.257
06/26/2011 18:52:40	5.456	13.484	5.482	29.418
06/26/2011 18:52:50	5.423	13.542	5.46	29.546
06/26/2011 18:53:00	5.387	13.564	5.463	29.543
06/26/2011 18:53:10	5.383	13.528	5.434	29.638
06/26/2011 18:53:20	5.398	13.517	5.456	29.718
06/26/2011 18:53:30	5.372	13.572	5.471	29.696
06/26/2011 18:53:40	5.39	13.506	5.471	29.718
06/26/2011 18:53:50	5.365	13.561	5.489	29.704
06/26/2011 18:54:00	5.365	13.506	5.478	29.788
06/26/2011 18:54:10	5.398	13.513	5.471	29.748
06/26/2011 18:54:20	5.416	13.502	5.478	29.612
06/26/2011 18:54:30	5.379	13.568	5.507	29.473
06/26/2011 18:54:40	5.324	13.674	5.474	29.429
06/26/2011 18:54:50	5.31	13.557	5.522	29.502

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 18:55:00	5.332	13.627	5.573	29.48
06/26/2011 18:55:10	5.306	13.623	5.518	29.422
06/26/2011 18:55:20	5.324	13.597	5.463	29.48
06/26/2011 18:55:30	5.357	13.579	5.467	29.524
06/26/2011 18:55:40	5.376	13.48	5.434	29.565
06/26/2011 18:55:50	5.456	13.451	5.452	29.495
06/26/2011 18:56:00	5.463	13.502	5.478	29.363
06/26/2011 18:56:10	5.405	13.539	5.471	29.242
06/26/2011 18:56:20	5.423	13.528	5.54	29.103
06/26/2011 18:56:30	5.383	13.553	5.515	29.088
06/26/2011 18:56:40	5.39	13.509	5.478	29.345
06/26/2011 18:56:50	5.441	13.48	5.456	29.524
06/26/2011 18:57:00	5.365	13.634	5.46	29.623
06/26/2011 18:57:10	5.273	13.645	5.467	29.539
06/26/2011 18:57:20	5.291	13.63	5.482	29.543
06/26/2011 18:57:30	5.306	13.656	5.485	29.499
06/26/2011 18:57:40	5.255	13.641	5.5	29.528
06/26/2011 18:57:50	5.273	13.616	5.474	29.565
06/26/2011 18:58:00	5.299	13.634	5.441	29.733
06/26/2011 18:58:10	5.313	13.601	5.478	29.901
06/26/2011 18:58:20	5.313	13.553	5.445	30.099
06/26/2011 18:58:30	5.361	13.539	5.471	30.107
06/26/2011 18:58:40	5.31	13.674	5.452	29.92
06/26/2011 18:58:50	5.262	13.718	5.485	29.865
06/26/2011 18:59:00	5.211	13.758	5.46	29.718
06/26/2011 18:59:10	5.258	13.583	5.467	29.513
06/26/2011 18:59:20	5.335	13.641	5.493	29.359
06/26/2011 18:59:30	5.328	13.55	5.5	29.165
06/26/2011 18:59:40	5.357	13.583	5.482	29.173
06/26/2011 18:59:50	5.387	13.462	5.537	29.103
06/26/2011 19:00:00	5.427	13.553	5.511	29.059
06/26/2011 19:00:10	5.423	13.473	5.522	29.059
06/26/2011 19:00:20	5.43	13.586	5.471	29.125
06/26/2011 19:00:30	5.346	13.594	5.427	29.231
06/26/2011 19:00:40	5.28	13.711	5.467	29.334
06/26/2011 19:00:50	5.196	13.736	5.46	29.433
06/26/2011 19:01:00	5.174	13.769	5.438	29.535
06/26/2011 19:01:10	5.214	13.63	5.46	29.601
06/26/2011 19:01:20	5.328	13.506	5.507	29.51
06/26/2011 19:01:30	5.456	13.443	5.489	29.374
06/26/2011 19:01:40	5.46	13.451	5.467	29.158
06/26/2011 19:01:50	5.482	13.447	5.485	29.077
06/26/2011 19:02:00	5.401	13.579	5.493	29.081
06/26/2011 19:02:10	5.317	13.608	5.489	29.242
06/26/2011 19:02:20	5.35	13.528	5.489	29.444
06/26/2011 19:02:30	5.416	13.44	5.485	29.583
06/26/2011 19:02:40	5.438	13.509	5.485	29.777
06/26/2011 19:02:50	5.405	13.535	5.507	29.846
06/26/2011 19:03:00	5.412	13.502	5.489	29.872
06/26/2011 19:03:10	5.361	13.652	5.526	29.773
06/26/2011 19:03:20	5.321	13.605	5.526	29.7
06/26/2011 19:03:30	5.302	13.681	5.452	29.722
06/26/2011 19:03:40	5.222	13.736	5.452	29.722
06/26/2011 19:03:50	5.181	13.773	5.485	29.601
06/26/2011 19:04:00	5.236	13.638	5.493	29.546
06/26/2011 19:04:10	5.306	13.627	5.515	29.546
06/26/2011 19:04:20	5.291	13.663	5.588	29.462
06/26/2011 19:04:30	5.24	13.641	3.889	29.315
06/26/2011 19:04:40	11.568	0.886	2.277	28.902
06/26/2011 19:04:50	19.753	0.351	2.263	26.543
06/26/2011 19:05:00	20.669	0.285	2.259	21.94
06/26/2011 19:05:10	20.724	0.256	2.307	18.054
06/26/2011 19:05:20	20.742	0.237	2.285	15.571
06/26/2011 19:05:30	20.753	0.226	2.314	13.967
06/26/2011 19:05:40	20.761	0.219	2.314	12.846
06/26/2011 19:05:50	20.768	0.212	2.31	11.799

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 19:06:00	20.772	0.204	2.307	10.96
06/26/2011 19:06:10	20.775	0.201	2.259	10.367
06/26/2011 19:06:20	20.775	0.197	2.266	9.869
06/26/2011 19:06:30	20.779	0.197	2.285	9.356
06/26/2011 19:06:40	20.782	0.197	2.281	9.104
06/26/2011 19:06:50	20.782	0.197	2.288	8.866
06/26/2011 19:07:00	20.786	0.201	2.274	8.591
06/26/2011 19:07:10	20.786	0.197	2.285	8.316
06/26/2011 19:07:20	20.786	0.197	2.288	8.115
06/26/2011 19:07:30	20.79	0.193	2.307	7.983
06/26/2011 19:07:40	20.79	0.19	2.336	7.844
06/26/2011 19:07:50	20.793	0.186	2.321	7.734
06/26/2011 19:08:00	20.793	0.179	2.336	7.675
06/26/2011 19:08:10	20.797	0.175	2.336	7.522
06/26/2011 19:08:20	20.797	0.172	2.307	7.525
06/26/2011 19:08:30	20.797	0.172	2.307	7.467
06/26/2011 19:08:40	20.797	0.172	2.307	7.404
06/26/2011 19:08:50	20.801	0.172	2.296	7.379
06/26/2011 19:09:00	20.801	0.175	2.288	7.338
06/26/2011 19:09:10	20.801	0.172	2.296	7.221
06/26/2011 19:09:20	20.801	0.172	2.266	7.159
06/26/2011 19:09:30	20.804	0.172	2.255	7.111
06/26/2011 19:09:40	20.804	0.172	2.233	7.049
06/26/2011 19:09:50	20.808	0.172	2.215	7.002
06/26/2011 19:10:00	20.808	0.172	2.233	6.936
06/26/2011 19:10:10	20.808	0.172	2.215	6.947
06/26/2011 19:10:20	20.812	0.168	2.233	6.972
06/26/2011 19:10:30	20.812	0.172	2.186	6.936
06/26/2011 19:10:40	20.812	0.168	2.204	6.881
06/26/2011 19:10:50	20.812	0.168	2.193	6.932
06/26/2011 19:11:00	20.812	0.168	2.189	6.844
06/26/2011 19:11:10	20.812	0.168	2.23	6.84
06/26/2011 19:11:20	20.812	0.168	2.233	6.866
06/26/2011 19:11:30	20.812	0.168	2.197	6.84
06/26/2011 19:11:40	20.815	0.168	2.208	6.84
06/26/2011 19:11:50	20.815	0.168	2.23	6.829
06/26/2011 19:12:00	20.815	0.164	2.241	6.807
06/26/2011 19:12:10	20.815	0.164	2.233	6.756
06/26/2011 19:12:20	20.815	0.164	2.241	6.807
06/26/2011 19:12:30	20.815	0.164	2.259	6.764
06/26/2011 19:12:40	20.815	0.164	2.23	6.756
06/26/2011 19:12:50	20.815	0.164	2.204	6.734
06/26/2011 19:13:00	20.815	0.164	2.2	6.738
06/26/2011 19:13:10	20.815	0.161	2.222	6.8
06/26/2011 19:13:20	20.815	0.161	2.23	6.738
06/26/2011 19:13:30	20.819	0.164	2.226	6.701
06/26/2011 19:13:40	20.819	0.164	2.244	6.705
06/26/2011 19:13:50	20.819	0.168	2.219	6.668
06/26/2011 19:14:00	20.819	0.168	2.189	6.672
06/26/2011 19:14:10	20.819	0.172	2.178	6.687
06/26/2011 19:14:20	20.819	0.172	2.193	6.745
06/26/2011 19:14:30	20.819	0.172	2.252	6.738
06/26/2011 19:14:40	20.819	0.172	2.241	6.701
06/26/2011 19:14:50	20.819	0.168	2.27	6.654
06/26/2011 19:15:00	20.823	0.164	2.285	6.69
06/26/2011 19:15:10	20.823	0.161	2.281	6.705
06/26/2011 19:15:20	20.823	0.157	2.277	6.595
06/26/2011 19:15:30	20.819	0.157	2.27	6.676
06/26/2011 19:15:40	20.823	0.153	2.274	6.657
06/26/2011 19:15:50	20.823	0.153	2.244	6.668
06/26/2011 19:16:00	20.823	0.153	2.255	6.679
06/26/2011 19:16:10	20.823	0.153	2.281	6.668
06/26/2011 19:16:20	20.823	0.157	2.281	6.551
06/26/2011 19:16:30	20.823	0.157	2.241	6.584
06/26/2011 19:16:40	20.819	0.157	2.23	6.621
06/26/2011 19:16:50	20.823	0.157	2.233	6.624

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 19:17:00	20.823	0.157	2.237	6.683
06/26/2011 19:17:10	20.823	0.157	2.241	6.661
06/26/2011 19:17:20	20.823	0.157	2.233	6.588
06/26/2011 19:17:30	20.823	0.157	2.233	6.547
06/26/2011 19:17:40	20.823	0.157	2.27	6.569
06/26/2011 19:17:50	20.823	0.161	2.259	6.599
06/26/2011 19:18:00	20.823	0.161	2.288	6.668
06/26/2011 19:18:10	20.823	0.164	2.321	6.69
06/26/2011 19:18:20	20.823	0.168	2.31	6.687
06/26/2011 19:18:30	20.823	0.168	2.292	6.657
06/26/2011 19:18:40	20.823	0.168	2.266	6.657
06/26/2011 19:18:50	20.826	0.168	2.2	6.646
06/26/2011 19:19:00	20.826	0.168	2.23	6.657
06/26/2011 19:19:10	20.826	0.164	2.23	6.687
06/26/2011 19:19:20	20.826	0.164	2.248	6.701
06/26/2011 19:19:30	20.826	0.161	2.219	6.657
06/26/2011 19:19:40	20.826	0.161	2.222	6.639
06/26/2011 19:19:50	20.826	0.157	2.241	6.591
06/26/2011 19:20:00	20.826	0.157	2.248	6.643
06/26/2011 19:20:10	20.826	0.157	2.252	6.617
06/26/2011 19:20:20	20.826	0.157	2.259	6.58
06/26/2011 19:20:30	20.826	0.157	2.248	6.639
06/26/2011 19:20:40	20.826	0.157	2.255	6.639
06/26/2011 19:20:50	20.826	0.161	2.259	6.536
06/26/2011 19:21:00	20.823	0.164	2.263	6.595
06/26/2011 19:21:10	20.823	0.164	2.285	6.65
06/26/2011 19:21:20	20.826	0.168	2.219	6.569
06/26/2011 19:21:30	20.826	0.168	2.233	6.566
06/26/2011 19:21:40	20.826	0.168	2.215	6.643
06/26/2011 19:21:50	20.823	0.172	2.244	6.676
06/26/2011 19:22:00	20.823	0.168	2.27	6.69
06/26/2011 19:22:10	20.823	0.168	2.274	6.617
06/26/2011 19:22:20	20.823	0.161	2.233	6.617
06/26/2011 19:22:30	20.823	0.157	2.233	6.621
06/26/2011 19:22:40	20.823	0.157	2.274	6.624
06/26/2011 19:22:50	20.823	0.157	2.299	6.646
06/26/2011 19:23:00	20.819	0.157	2.307	6.606
06/26/2011 19:23:10	20.819	0.161	2.314	6.558
06/26/2011 19:23:20	20.819	0.161	2.285	6.536
06/26/2011 19:23:30	20.819	0.161	2.281	6.643
06/26/2011 19:23:40	20.819	0.164	2.288	6.591
06/26/2011 19:23:50	20.819	0.164	2.325	6.632
06/26/2011 19:24:00	20.819	0.161	2.314	6.632
06/26/2011 19:24:10	20.819	0.164	2.332	6.654
06/26/2011 19:24:20	20.819	0.164	2.329	6.654
06/26/2011 19:24:30	20.819	0.161	2.332	6.69
06/26/2011 19:24:40	20.819	0.164	2.285	6.665
06/26/2011 19:24:50	20.823	0.161	2.259	6.628
06/26/2011 19:25:00	20.823	0.164	2.259	6.676
06/26/2011 19:25:10	20.819	0.161	2.259	6.599
06/26/2011 19:25:20	20.819	0.164	2.259	6.628
06/26/2011 19:25:30	20.823	0.161	2.248	6.683
06/26/2011 19:25:40	20.823	0.164	2.263	6.687
06/26/2011 19:25:50	20.823	0.161	2.226	6.672
06/26/2011 19:26:00	20.823	0.161	2.215	6.646
06/26/2011 19:26:10	20.823	0.161	2.215	6.727
06/26/2011 19:26:20	20.823	0.161	2.222	6.712
06/26/2011 19:26:30	20.823	0.161	2.266	6.672
06/26/2011 19:26:40	20.823	0.161	2.255	6.617
06/26/2011 19:26:50	20.823	0.161	2.266	6.709
06/26/2011 19:27:00	20.823	0.161	2.259	6.727
06/26/2011 19:27:10	20.826	0.161	2.274	6.672
06/26/2011 19:27:20	20.826	0.157	2.252	6.668
06/26/2011 19:27:30	20.826	0.157	2.23	6.65
06/26/2011 19:27:40	20.826	0.157	2.233	6.643
06/26/2011 19:27:50	20.826	0.157	2.248	6.606

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 19:28:00	20.826	0.161	2.252	6.584
06/26/2011 19:28:10	20.826	0.161	2.27	6.61
06/26/2011 19:28:20	20.826	0.161	2.226	6.632
06/26/2011 19:28:30	20.826	0.164	2.215	6.701
06/26/2011 19:28:40	20.83	0.168	2.226	6.745
06/26/2011 19:28:50	20.826	0.168	2.237	6.701
06/26/2011 19:29:00	20.83	0.168	2.237	6.654
06/26/2011 19:29:10	20.826	0.168	2.204	6.639
06/26/2011 19:29:20	20.826	0.164	2.226	6.639
06/26/2011 19:29:30	20.83	0.161	2.241	6.65
06/26/2011 19:29:40	20.83	0.157	2.23	6.657
06/26/2011 19:29:50	20.826	0.153	2.222	6.657
06/26/2011 19:30:00	20.83	0.153	2.259	6.687
06/26/2011 19:30:10	20.83	0.153	2.259	6.687
06/26/2011 19:30:20	20.83	0.15	2.237	6.701
06/26/2011 19:30:30	20.826	0.153	2.226	6.72
06/26/2011 19:30:40	20.83	0.153	2.215	6.76
06/26/2011 19:30:50	20.826	0.153	2.186	6.727
06/26/2011 19:31:00	20.826	0.153	2.2	6.734
06/26/2011 19:31:10	20.83	0.157	2.208	6.716
06/26/2011 19:31:20	20.83	0.157	2.208	6.727
06/26/2011 19:31:30	20.83	0.157	2.204	6.705
06/26/2011 19:31:40	20.83	0.157	2.248	6.771
06/26/2011 19:31:50	20.83	0.157	2.233	6.76
06/26/2011 19:32:00	20.83	0.157	2.2	6.76
06/26/2011 19:32:10	20.83	0.157	2.204	6.672
06/26/2011 19:32:20	20.83	0.157	2.204	6.635
06/26/2011 19:32:30	20.83	0.157	2.178	6.522
06/26/2011 19:32:40	20.83	0.157	2.186	6.646
06/26/2011 19:32:50	20.83	0.157	2.23	6.661
06/26/2011 19:33:00	20.83	0.157	2.222	6.687
06/26/2011 19:33:10	20.83	0.157	2.248	6.672
06/26/2011 19:33:20	20.83	0.157	2.285	6.731
06/26/2011 19:33:30	20.826	0.157	2.299	6.731
06/26/2011 19:33:40	20.83	0.153	2.281	6.701
06/26/2011 19:33:50	20.83	0.157	2.226	6.665
06/26/2011 19:34:00	20.83	0.153	2.2	6.709
06/26/2011 19:34:10	20.83	0.153	2.197	6.76
06/26/2011 19:34:20	20.83	0.157	2.2	6.712
06/26/2011 19:34:30	20.83	0.153	2.208	6.709
06/26/2011 19:34:40	20.83	0.153	2.23	6.727
06/26/2011 19:34:50	20.83	0.153	2.248	6.679
06/26/2011 19:35:00	20.83	0.153	2.233	6.705
06/26/2011 19:35:10	20.83	0.153	2.23	6.676
06/26/2011 19:35:20	20.83	0.157	2.237	6.679
06/26/2011 19:35:30	20.83	0.157	2.274	6.672
06/26/2011 19:35:40	20.83	0.161	2.285	6.668
06/26/2011 19:35:50	20.83	0.164	2.277	6.621
06/26/2011 19:36:00	20.83	0.164	2.241	6.584
06/26/2011 19:36:10	20.83	0.168	2.259	6.617
06/26/2011 19:36:20	20.826	0.164	2.285	6.676
06/26/2011 19:36:30	20.826	0.164	2.299	6.698
06/26/2011 19:36:40	20.826	0.161	2.288	6.727
06/26/2011 19:36:50	20.826	0.157	2.277	6.72
06/26/2011 19:37:00	20.826	0.153	2.259	6.712
06/26/2011 19:37:10	20.83	0.15	2.296	6.723
06/26/2011 19:37:20	20.83	0.15	2.31	6.687
06/26/2011 19:37:30	20.83	0.15	2.31	6.796
06/26/2011 19:37:40	20.83	0.15	2.343	6.76
06/26/2011 19:37:50	20.83	0.153	2.365	6.727
06/26/2011 19:38:00	20.83	0.153	2.376	6.731
06/26/2011 19:38:10	20.83	0.153	2.307	6.698
06/26/2011 19:38:20	20.83	0.153	2.31	6.683
06/26/2011 19:38:30	20.83	0.157	2.336	6.72
06/26/2011 19:38:40	20.83	0.153	2.347	6.734
06/26/2011 19:38:50	20.83	0.157	2.321	6.796

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 19:39:00	20.83	0.157	2.27	6.818
06/26/2011 19:39:10	20.83	0.157	2.23	6.745
06/26/2011 19:39:20	20.83	0.157	2.248	6.723
06/26/2011 19:39:30	20.83	0.157	2.299	6.701
06/26/2011 19:39:40	20.83	0.153	2.292	6.72
06/26/2011 19:39:50	20.83	0.157	2.274	6.734
06/26/2011 19:40:00	20.83	0.157	2.222	6.676
06/26/2011 19:40:10	20.83	0.157	2.237	6.767
06/26/2011 19:40:20	20.834	0.153	2.281	6.815
06/26/2011 19:40:30	20.834	0.157	2.244	6.807
06/26/2011 19:40:40	20.83	0.157	2.27	6.712
06/26/2011 19:40:50	20.83	0.157	2.259	6.716
06/26/2011 19:41:00	20.83	0.157	2.233	6.749
06/26/2011 19:41:10	20.83	0.153	2.241	6.679
06/26/2011 19:41:20	20.834	0.153	2.233	6.687
06/26/2011 19:41:30	20.834	0.153	2.23	6.632
06/26/2011 19:41:40	20.834	0.153	2.259	6.69
06/26/2011 19:41:50	20.834	0.153	2.288	6.807
06/26/2011 19:42:00	20.834	0.153	2.23	6.778
06/26/2011 19:42:10	20.834	0.153	2.244	6.723
06/26/2011 19:42:20	20.834	0.153	2.281	6.723
06/26/2011 19:42:30	20.834	0.153	2.296	6.76
06/26/2011 19:42:40	20.834	0.157	2.329	6.771
06/26/2011 19:42:50	20.834	0.157	2.31	6.782
06/26/2011 19:43:00	20.834	0.161	2.27	6.796
06/26/2011 19:43:10	20.834	0.164	2.274	6.796
06/26/2011 19:43:20	20.834	0.164	2.31	6.818
06/26/2011 19:43:30	20.834	0.164	2.299	6.767
06/26/2011 19:43:40	20.834	0.164	2.296	6.789
06/26/2011 19:43:50	20.834	0.164	2.274	6.709
06/26/2011 19:44:00	20.834	0.161	2.252	6.654
06/26/2011 19:44:10	20.834	0.153	2.255	6.745
06/26/2011 19:44:20	20.834	0.153	2.204	6.771
06/26/2011 19:44:30	20.837	0.15	2.208	6.764
06/26/2011 19:44:40	20.834	0.15	2.285	6.749
06/26/2011 19:44:50	20.834	0.153	2.233	6.712
06/26/2011 19:45:00	20.834	0.153	2.208	6.745
06/26/2011 19:45:10	20.834	0.153	2.215	6.661
06/26/2011 19:45:20	20.834	0.153	2.292	6.734
06/26/2011 19:45:30	20.834	0.153	2.266	6.683
06/26/2011 19:45:40	20.834	0.153	2.274	6.705
06/26/2011 19:45:50	20.834	0.153	2.255	6.727
06/26/2011 19:46:00	20.834	0.153	2.204	6.687
06/26/2011 19:46:10	20.834	0.157	2.241	6.683
06/26/2011 19:46:20	20.834	0.153	2.266	6.753
06/26/2011 19:46:30	20.834	0.153	2.233	6.709
06/26/2011 19:46:40	20.834	0.153	2.237	6.672
06/26/2011 19:46:50	20.837	0.153	2.255	6.712
06/26/2011 19:47:00	20.837	0.153	2.27	6.672
06/26/2011 19:47:10	20.837	0.157	2.281	6.679
06/26/2011 19:47:20	20.837	0.153	2.281	6.69
06/26/2011 19:47:30	20.837	0.153	2.274	6.756
06/26/2011 19:47:40	20.837	0.153	2.241	6.731
06/26/2011 19:47:50	20.837	0.153	2.292	6.76
06/26/2011 19:48:00	20.837	0.153	2.285	6.705
06/26/2011 19:48:10	20.837	0.153	2.244	6.705
06/26/2011 19:48:20	20.837	0.153	2.226	6.712
06/26/2011 19:48:30	20.837	0.153	2.233	6.742
06/26/2011 19:48:40	20.837	0.153	2.2	6.734
06/26/2011 19:48:50	20.837	0.153	2.219	6.65
06/26/2011 19:49:00	20.837	0.153	2.248	6.701
06/26/2011 19:49:10	20.837	0.153	2.233	6.753
06/26/2011 19:49:20	20.837	0.153	2.263	6.8
06/26/2011 19:49:30	20.837	0.153	2.281	6.833
06/26/2011 19:49:40	20.837	0.153	2.274	6.818
06/26/2011 19:49:50	20.837	0.153	2.288	6.698

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24 hour time	O2 (%)	CO2 (%)	CHILL (°F)	RACK (°F)
06/26/2011 19:50:00	20.837	0.157	2.237	6.72
06/26/2011 19:50:10	20.837	0.157	2.23	6.734
06/26/2011 19:50:20	20.837	0.161	2.277	6.712
06/26/2011 19:50:30	20.837	0.161	2.281	6.767
06/26/2011 19:50:40	20.837	0.164	2.281	6.793
06/26/2011 19:50:50	20.837	0.164	2.31	6.84
06/26/2011 19:51:00	20.837	0.164	2.31	6.778
06/26/2011 19:51:10	20.837	0.157	2.27	6.727
06/26/2011 19:51:20	20.837	0.157	2.252	6.712
06/26/2011 19:51:30	20.837	0.153	2.281	6.723
06/26/2011 19:51:40	20.837	0.15	2.259	6.738
06/26/2011 19:51:50	20.837	0.15	2.259	6.76
06/26/2011 19:52:00	20.837	0.146	2.259	6.837
06/26/2011 19:52:10	20.837	0.15	2.252	6.811
06/26/2011 19:52:20	20.837	0.15	2.252	6.734
06/26/2011 19:52:30	20.837	0.15	2.208	6.811
06/26/2011 19:52:40	20.837	0.15	2.248	6.833
06/26/2011 19:52:50	20.837	0.153	2.233	6.844
06/26/2011 19:53:00	20.837	0.153	2.2	6.818
06/26/2011 19:53:10	20.837	0.153	2.219	6.833
06/26/2011 19:53:20	20.837	0.153	2.204	6.804
06/26/2011 19:53:30	20.837	0.153	2.215	6.716
06/26/2011 19:53:40	20.837	0.153	2.222	6.723
06/26/2011 19:53:50	20.837	0.153	2.219	6.72
06/26/2011 19:54:00	20.837	0.153	2.219	6.756
06/26/2011 19:54:10	20.837	0.153	2.167	6.774
06/26/2011 19:54:20	20.837	0.153	2.156	6.789
06/26/2011 19:54:30	20.837	0.153	2.164	6.764
06/26/2011 19:54:40	20.837	0.153	2.134	6.756
06/26/2011 19:54:50	20.837	0.153	2.131	6.734
06/26/2011 19:55:00	20.837	0.153	2.127	6.811
06/26/2011 19:55:10	20.837	0.153	2.123	6.848
06/26/2011 19:55:20	20.837	0.153	2.123	6.782
06/26/2011 19:55:30	20.837	0.153	2.142	6.833
06/26/2011 19:55:40	20.837	0.153	2.153	6.855
06/26/2011 19:55:50	20.837	0.153	2.142	6.866
06/26/2011 19:56:00	20.837	0.153	2.142	6.833
06/26/2011 19:56:10	20.837	0.153	2.134	6.848
06/26/2011 19:56:20	20.837	0.15	2.153	6.848
06/26/2011 19:56:30	20.837	0.153	2.127	6.837
06/26/2011 19:56:40	20.837	0.15	2.138	6.906
06/26/2011 19:56:50	20.841	0.15	2.153	6.895
06/26/2011 19:57:00	20.837	0.153	2.175	6.815
06/26/2011 19:57:10	20.837	0.153	2.175	6.884
06/26/2011 19:57:20	20.837	0.153	2.145	6.833
06/26/2011 19:57:30	20.837	0.153	2.156	6.771
06/26/2011 19:57:40	20.837	0.157	2.16	6.804
06/26/2011 19:57:50	20.837	0.161	2.138	6.84
06/26/2011 19:58:00	20.837	0.161	2.134	6.796
06/26/2011 19:58:10	20.837	0.161	2.153	6.782
06/26/2011 19:58:20	20.837	0.161	2.153	6.767
06/26/2011 19:58:30	20.837	0.157	2.171	6.829
06/26/2011 19:58:40	20.837	0.153	2.222	6.884
06/26/2011 19:58:50	20.837	0.15	2.186	6.914
06/26/2011 19:59:00	20.837	0.15	2.186	6.914

Chevron Hawaii
O_2 Calibration Data Summary

Project ID: Chevron
Date: 27-Jun
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 22.10
Analyzer Range: 25
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	08:14	-0.01	0.01	0.03%
span gas	CC82073	22.10	08:15	22.10	0.00	0.02%
mid-range	CC67546	11.10	08:17	11.13	0.03	0.15%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit		
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5	
Run 8	0.00	-0.01	08:20	0.10	0.46%	13:51	0.01	0.09%	-0.37%	Co=	0.055
	11.10	11.13	08:22	11.09	-0.19%	13:58	10.94	-0.87%	-0.68%	Cma/(Cm-Co)	1.013

Chevron Hawaii
CO_2 Calibration Data Summary

Project ID: Chevron
Date: 27-Jun-11
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 18.90
Analyzer Range: 20
Units: %
Technician(s): MDD

Calibration Error Test Results

	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)	2% Limit
zero gas	ASZ788	0.00	08:14	0.17	0.17	0.87%	
span gas	CC82073	18.90	08:15	19.01	0.11	0.60%	
mid-range	CC67546	9.74	08:17	9.90	0.16	0.84%	

CEMS Calibration Bias and Drift Tests

Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span) 5% Limit	Time	Post-test CEMS Response	Bias (% of Span) 5% Limit	Drift (% of Span) 3% Limit	Eq. 7E-5	
Run 8	0.00	0.17	08:20	0.12	-0.23%	13:51	0.18	0.09%	0.31%	Co=	0.152
	9.74	9.90	08:22	9.80	-0.51%	13:58	9.85	-0.25%	0.26%	Cma/(Cm-Co)	1.007

Chevron Hawaii
THC Calibration Data Summary

Project ID: Chevron
Date: 27-Jun-11
Instrument Make/Model: Thermo 51i-HT
ID Number: Cash
Span Value: 100
Units: PPMV as C_3H_8
Technician(s): MDD

EPA Method 25A Calibration Error Test Results

	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	5% limit Cal Error (% of Value)
Zero	ASZ788	0.00	08:20	0.35	0.35	n/a
Span	CC18793	84.50	08:26	86.83	2.33	2.76%
Mid	CC82348	49.80	08:28	49.79	0.02	0.03%
Low	CC84418	30.00	08:36	31.05	1.05	3.48%

Note: Operator may use either mid or low C_3H_8 standard for hourly drift checks, per URS SOP-027.

Selection for drift checks; enter Mid or Low	**Mid**

EPA Method 25A Calibration Bias and Drift Tests

Run No.	Cal Error CEMS Response	Time	Hourly Drift CEMS Response	3% Limit Drift (% of Span)
Run 8	0.35	08:38	0.82	0.47%
	49.79	08:40	50.14	0.35%
	0.35	09:45	1.17	0.82%
	49.79	09:46	50.36	0.58%
	0.35	10:40	0.64	0.28%
	49.79	10:42	50.70	0.91%
	0.35	11:43	0.37	0.02%
	49.79	11:45	50.47	0.68%
	0.35	12:44	0.32	-0.04%
	49.79	12:46	50.24	0.46%
	0.35	13:51	0.26	-0.09%
	49.79	13:52	49.93	0.15%

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 07:51:21	20.9	0.168	-2.791	81.802	63.301
06/27/2011 07:51:31	20.9	0.168	-2.81	81.802	63.502
06/27/2011 07:51:41	20.9	0.164	-2.824	82.202	63.601
06/27/2011 07:51:51	20.9	0.168	-3.128	82.004	63.803
06/27/2011 07:52:01	20.9	0.164	-3.198	81.605	63.601
06/27/2011 07:52:11	20.9	0.164	-3.205	82.004	64.004
06/27/2011 07:52:21	20.9	0.161	-3.209	82.202	64.004
06/27/2011 07:52:31	20.9	0.157	-3.209	82.202	63.803
06/27/2011 07:52:41	20.9	0.153	-3.212	82.202	63.502
06/27/2011 07:52:51	20.9	0.15	-3.212	82.202	63.301
06/27/2011 07:53:01	20.9	0.15	-3.212	82.004	63.301
06/27/2011 07:53:11	20.9	0.15	-3.209	82.004	63.301
06/27/2011 07:53:21	20.9	0.15	-3.209	82.202	63.301
06/27/2011 07:53:31	20.9	0.153	-3.209	82.202	63.301
06/27/2011 07:53:41	20.9	0.153	-3.209	82.202	63.301
06/27/2011 07:53:51	20.9	0.153	-3.209	82.202	63.301
06/27/2011 07:54:01	20.9	0.153	-3.209	82.202	63.301
06/27/2011 07:54:11	20.9	0.153	-3.209	82.202	63.301
06/27/2011 07:54:21	20.9	0.157	-3.212	82.202	63.301
06/27/2011 07:54:31	20.9	0.157	-3.212	81.802	63.301
06/27/2011 07:54:41	20.9	0.157	-3.212	82.004	63.301
06/27/2011 07:54:51	20.9	0.157	-3.212	82.004	63.601
06/27/2011 07:55:01	20.9	0.157	-3.212	82.202	63.803
06/27/2011 07:55:11	20.9	0.157	-3.161	82.004	64.202
06/27/2011 07:55:21	20.9	0.157	2.453	82.202	63.803
06/27/2011 07:55:31	20.9	0.157	2.204	82.403	64.202
06/27/2011 07:55:41	20.9	0.157	2.248	82.502	63.601
06/27/2011 07:55:51	20.9	0.157	2.321	82.502	64.202
06/27/2011 07:56:01	20.9	0.157	2.365	82.502	63.601
06/27/2011 07:56:11	20.9	0.157	2.347	82.403	63.803
06/27/2011 07:56:21	20.9	0.157	2.274	82.403	64.004
06/27/2011 07:56:31	20.9	0.157	2.27	82.202	64.004
06/27/2011 07:56:41	20.9	0.157	2.376	82.403	63.803
06/27/2011 07:56:51	20.9	0.157	2.343	82.202	64.403
06/27/2011 07:57:01	20.9	0.157	2.296	82.403	63.601
06/27/2011 07:57:11	20.903	0.157	2.31	82.202	63.601
06/27/2011 07:57:21	20.903	0.157	2.431	82.502	64.004
06/27/2011 07:57:31	20.903	0.157	2.332	82.502	64.004
06/27/2011 07:57:41	20.903	0.157	2.336	82.502	64.004
06/27/2011 07:57:51	20.9	0.153	2.321	82.502	63.803
06/27/2011 07:58:01	20.903	0.157	2.351	82.502	64.004
06/27/2011 07:58:11	20.903	0.157	2.413	82.502	64.004
06/27/2011 07:58:21	20.903	0.157	2.376	82.703	64.004
06/27/2011 07:58:31	20.903	0.153	2.329	82.703	64.004
06/27/2011 07:58:41	20.903	0.157	2.336	82.703	64.004
06/27/2011 07:58:51	20.9	0.157	2.402	82.703	64.004
06/27/2011 07:59:01	20.9	0.157	2.336	82.703	64.202
06/27/2011 07:59:11	20.903	0.157	2.398	82.502	64.403
06/27/2011 07:59:21	20.903	0.157	2.398	82.703	64.403
06/27/2011 07:59:31	20.9	0.161	2.358	82.502	64.403
06/27/2011 07:59:41	20.9	0.164	2.325	82.905	64.502
06/27/2011 07:59:51	20.903	0.164	2.336	82.905	64.403
06/27/2011 08:00:01	20.9	0.164	2.391	82.703	64.202
06/27/2011 08:00:11	20.9	0.168	2.405	82.502	64.403
06/27/2011 08:00:21	20.903	0.168	2.405	82.703	64.403
06/27/2011 08:00:31	20.9	0.168	2.365	82.502	64.502
06/27/2011 08:00:41	20.9	0.164	2.398	82.403	64.403
06/27/2011 08:00:51	20.9	0.161	2.409	82.502	64.502
06/27/2011 08:01:01	20.903	0.157	2.387	82.703	64.403
06/27/2011 08:01:11	20.903	0.157	2.358	82.703	63.803
06/27/2011 08:01:21	20.9	0.153	2.446	82.703	63.803
06/27/2011 08:01:31	20.9	0.15	2.49	82.403	63.803
06/27/2011 08:01:41	20.9	0.15	2.482	82.502	64.202
06/27/2011 08:01:51	20.9	0.15	2.42	82.905	64.704
06/27/2011 08:02:01	20.9	0.15	2.526	82.905	64.704
06/27/2011 08:02:11	20.9	0.15	2.523	82.703	64.004
06/27/2011 08:02:21	20.9	0.153	2.457	82.502	64.004
06/27/2011 08:02:31	20.9	0.153	2.482	82.502	64.502
06/27/2011 08:02:41	20.9	0.153	2.556	82.502	64.704

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 08:02:51	20.9	0.153	2.523	82.502	64.502
06/27/2011 08:03:01	20.9	0.153	2.633	82.703	64.403
06/27/2011 08:03:11	20.9	0.153	2.673	82.905	64.202
06/27/2011 08:03:21	20.9	0.153	2.519	82.905	64.004
06/27/2011 08:03:31	20.9	0.153	2.42	82.703	63.803
06/27/2011 08:03:41	20.9	0.153	2.358	82.905	64.202
06/27/2011 08:03:51	20.9	0.157	2.34	82.905	64.403
06/27/2011 08:04:01	20.896	0.157	2.391	82.703	64.704
06/27/2011 08:04:11	20.9	0.157	2.383	83.103	64.704
06/27/2011 08:04:21	20.9	0.157	2.38	83.103	64.704
06/27/2011 08:04:31	20.896	0.157	2.34	83.103	64.403
06/27/2011 08:04:41	20.896	0.157	2.398	83.103	64.202
06/27/2011 08:04:51	20.896	0.157	2.362	83.403	64.704
06/27/2011 08:05:01	20.9	0.157	2.34	83.604	64.901
06/27/2011 08:05:11	20.9	0.157	2.369	83.403	64.704
06/27/2011 08:05:21	20.9	0.157	2.351	83.403	64.202
06/27/2011 08:05:31	20.896	0.157	2.358	83.604	64.202
06/27/2011 08:05:41	20.9	0.157	2.358	83.604	64.202
06/27/2011 08:05:51	20.9	0.153	2.38	83.604	64.502
06/27/2011 08:06:01	20.896	0.157	2.383	83.604	64.901
06/27/2011 08:06:11	20.896	0.153	2.383	83.604	64.901
06/27/2011 08:06:21	20.896	0.157	2.391	83.604	64.704
06/27/2011 08:06:31	20.896	0.153	2.409	83.403	64.704
06/27/2011 08:06:41	20.896	0.153	2.413	83.604	64.403
06/27/2011 08:06:51	20.896	0.153	2.362	83.802	64.202
06/27/2011 08:07:01	20.896	0.153	2.383	83.802	64.202
06/27/2011 08:07:11	20.896	0.153	2.383	83.802	64.403
06/27/2011 08:07:21	20.896	0.153	2.351	83.604	64.901
06/27/2011 08:07:31	20.896	0.157	2.383	83.403	64.901
06/27/2011 08:07:41	20.896	0.157	2.369	83.304	64.901
06/27/2011 08:07:51	20.896	0.157	2.369	83.604	65.103
06/27/2011 08:08:01	20.896	0.157	2.402	83.403	64.704
06/27/2011 08:08:11	20.896	0.161	2.413	83.403	64.202
06/27/2011 08:08:21	20.896	0.164	2.405	83.802	64.403
06/27/2011 08:08:31	20.896	0.164	2.376	83.604	64.403
06/27/2011 08:08:41	20.896	0.164	2.413	83.802	64.704
06/27/2011 08:08:51	20.896	0.168	2.343	83.802	64.901
06/27/2011 08:09:01	20.907	0.164	2.351	83.802	62.601
Calibration Error					
06/27/2011 08:09:11	10.305	0.117	2.281	83.604	61.104
06/27/2011 08:09:21	2.329	0.113	2.336	84.003	60.803
06/27/2011 08:09:31	2.226	0.109	2.362	83.802	60.803
06/27/2011 08:09:41	2.182	0.109	2.285	83.802	61.301
06/27/2011 08:09:51	1.296	0.106	2.362	83.604	61.301
06/27/2011 08:10:01	0.003	0.102	2.299	83.604	60.803
06/27/2011 08:10:11	-0.056	0.102	2.314	83.604	60.602
06/27/2011 08:10:21	-0.059	0.098	2.347	83.604	60.902
06/27/2011 08:10:31	-0.034	0.102	2.38	83.802	61.301
06/27/2011 08:10:41	-0.023	0.102	2.351	83.802	61.301
06/27/2011 08:10:51	-0.041	0.102	2.336	83.802	61.301
06/27/2011 08:11:01	-0.041	0.102	2.365	84.003	60.602
06/27/2011 08:11:11	-0.041	0.106	2.409	84.003	60.602
06/27/2011 08:11:21	-0.045	0.106	2.358	84.003	61.301
06/27/2011 08:11:31	-0.045	0.106	2.351	84.205	61.104
06/27/2011 08:11:41	-0.048	0.106	2.27	84.205	60.602
06/27/2011 08:11:51	1.054	1.27	2.325	84.003	61.301
06/27/2011 08:12:01	14.366	19.113	2.314	84.003	60.902
06/27/2011 08:12:11	21.91	19.178	2.351	84.205	60.602
06/27/2011 08:12:21	22.09	19.204	2.365	84.205	61.503
06/27/2011 08:12:31	22.105	19.222	2.274	84.205	60.902
06/27/2011 08:12:41	22.108	19.233	2.263	84.003	61.301
06/27/2011 08:12:51	22.116	19.237	2.31	83.604	60.902
06/27/2011 08:13:01	22.119	19.244	2.285	83.802	60.902
06/27/2011 08:13:11	22.123	18.644	2.296	84.003	61.301
06/27/2011 08:13:21	22.123	19.296	2.259	84.003	60.803
06/27/2011 08:13:31	22.127	19.017	2.277	84.003	61.503
06/27/2011 08:13:41	22.127	19.025	2.296	84.003	60.803
06/27/2011 08:13:51	22.127	19.014	2.42	84.003	61.503
06/27/2011 08:14:01	17.805	3.438	2.23	84.003	60.803

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 08:14:11	3.603	0.245	2.274	84.205	60.803
06/27/2011 08:14:21	0.08	0.201	2.27	84.003	61.301
06/27/2011 08:14:31	0.007	0.179	2.292	84.205	61.503
06/27/2011 08:14:41	-0.008	0.164	2.255	84.205	60.902
06/27/2011 08:14:51	-0.019	0.153	2.23	84.304	60.902
N2 Zero	**-0.007**	**0.165**		**84.238**	**61.102**
06/27/2011 08:15:01	2.094	4.017	2.197	84.205	60.902
06/27/2011 08:15:11	16.007	18.929	2.197	84.205	60.803
06/27/2011 08:15:21	21.973	18.984	2.288	84.304	60.803
06/27/2011 08:15:31	22.094	18.999	2.307	84.205	61.104
06/27/2011 08:15:41	22.105	19.014	2.219	84.304	61.301
06/27/2011 08:15:51	22.112	19.025	2.259	84.304	60.902
22.1% O2/18.9% CO2 Span	**22.104**	**19.013**		**84.271**	**61.102**
06/27/2011 08:16:01	21.998	18.739	2.362	84.501	60.803
06/27/2011 08:16:11	15.813	9.931	2.46	84.304	60.902
06/27/2011 08:16:21	11.242	9.924	2.468	84.205	61.503
06/27/2011 08:16:31	11.144	9.917	2.504	84.304	61.301
06/27/2011 08:16:41	11.136	9.917	2.402	84.501	60.902
06/27/2011 08:16:51	11.133	9.92	2.46	84.501	61.704
06/27/2011 08:17:01	11.133	9.895	2.563	84.703	61.104
06/27/2011 08:17:11	11.133	9.88	2.57	84.703	61.301
11.1% O2/9.74% CO2 Mid	**11.133**	**9.898**		**84.636**	**61.370**
06/27/2011 08:17:21	11.151	9.862	2.742	84.501	65.403
06/27/2011 08:17:31	15.985	0.289	2.567	84.501	65.802
06/27/2011 08:17:41	20.625	0.223	2.57	84.501	64.901
06/27/2011 08:17:51	20.881	0.204	2.482	84.304	64.901
06/27/2011 08:18:01	20.878	0.193	2.545	84.205	65.304
06/27/2011 08:18:11	20.878	0.186	2.603	84.304	65.304
06/27/2011 08:18:21	20.878	0.179	2.482	84.304	65.304
06/27/2011 08:18:31	20.878	0.172	2.471	84.304	64.901
06/27/2011 08:18:41	20.878	0.172	3.303	84.205	64.704
06/27/2011 08:18:51	20.149	0.45	1.878	84.304	64.704
Calibration Bias					
THC Calibration Error					
06/27/2011 08:19:01	8.833	0.139	0.395	84.304	64.704
06/27/2011 08:19:11	0.615	0.128	0.333	84.205	64.901
06/27/2011 08:19:21	0.204	0.128	0.307	84.003	64.901
06/27/2011 08:19:31	0.15	0.124	0.311	84.003	64.403
06/27/2011 08:19:41	0.124	0.124	0.311	84.003	64.704
06/27/2011 08:19:51	0.106	0.124	0.307	84.003	64.901
06/27/2011 08:20:01	0.095	0.124	0.307	84.501	64.403
06/27/2011 08:20:11	0.087	0.12	0.443	84.501	64.502
N2 Zero	**0.096**	**0.123**	**0.352**	**84.335**	**64.602**
06/27/2011 08:20:21	3.391	7.84	0.739	84.501	64.704
06/27/2011 08:20:31	9.961	9.682	0.779	84.304	64.004
06/27/2011 08:20:41	11.004	9.737	0.779	84.304	64.004
06/27/2011 08:20:51	11.056	9.763	0.757	84.205	64.502
06/27/2011 08:21:01	11.07	9.774	0.754	84.501	64.403
06/27/2011 08:21:11	11.078	9.781	0.779	84.304	63.803
06/27/2011 08:21:21	11.081	9.789	0.743	84.501	64.502
06/27/2011 08:21:31	11.085	9.796	0.732	84.501	63.803
06/27/2011 08:21:41	11.089	9.796	0.728	84.304	64.403
06/27/2011 08:21:51	11.089	9.799	0.725	84.304	63.803
06/27/2011 08:22:01	11.092	9.803	0.735	84.304	64.403
06/27/2011 08:22:11	11.092	9.803	1.212	84.501	64.004
11.1% O2/9.74% CO2 Mid	**11.091**	**9.802**		**84.370**	**64.070**
06/27/2011 08:22:21	13.268	3.193	2.416	84.501	64.704
06/27/2011 08:22:31	19.244	0.355	2.464	84.501	64.004
06/27/2011 08:22:41	20.72	0.274	2.46	84.501	64.901
06/27/2011 08:22:51	20.797	0.241	2.46	84.501	64.704
06/27/2011 08:23:01	20.819	0.219	2.479	84.304	64.202
06/27/2011 08:23:11	20.826	0.208	2.446	84.501	64.901
06/27/2011 08:23:21	20.837	0.197	2.468	84.205	65.103
06/27/2011 08:23:31	20.841	0.193	2.435	84.304	65.103
06/27/2011 08:23:41	20.845	0.19	2.409	84.304	65.103
06/27/2011 08:23:51	20.848	0.186	2.438	84.304	65.103
06/27/2011 08:24:01	20.852	0.183	2.497	84.703	64.901
06/27/2011 08:24:11	20.856	0.179	2.449	84.501	64.502
06/27/2011 08:24:21	20.859	0.179	2.926	84.703	64.502

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 08:24:31	20.493	1.501	100.864	84.703	64.502
06/27/2011 08:24:41	20.109	0.193	101.626	84.904	64.403
06/27/2011 08:24:51	20.779	0.146	101.626	84.904	64.502
06/27/2011 08:25:01	20.845	0.139	96.023	84.703	64.502
06/27/2011 08:25:11	20.852	0.153	87.091	84.501	64.704
06/27/2011 08:25:21	20.856	0.153	86.944	84.205	64.704
06/27/2011 08:25:31	20.856	0.153	86.915	84.501	64.502
06/27/2011 08:25:41	20.856	0.153	86.831	84.501	64.403
06/27/2011 08:25:51	20.856	0.153	86.823	84.904	64.202
06/27/2011 08:26:01	20.859	0.15	86.827	84.904	64.202
06/27/2011 08:26:11	20.859	0.146	86.834	84.904	64.403
84.5 ppm Propane Span			**86.828**	**84.904**	**64.269**
06/27/2011 08:26:21	20.863	0.142	85.227	84.501	64.502
06/27/2011 08:26:31	20.863	0.142	50.128	84.501	64.901
06/27/2011 08:26:41	20.808	0.139	51.878	84.304	64.901
06/27/2011 08:26:51	20.801	0.131	51.911	84.501	64.403
06/27/2011 08:27:01	20.808	0.131	51.238	84.304	64.004
06/27/2011 08:27:11	20.808	0.128	49.853	84.501	64.202
06/27/2011 08:27:21	20.812	0.128	49.806	84.703	64.704
06/27/2011 08:27:31	20.812	0.131	49.791	84.501	64.901
06/27/2011 08:27:41	20.812	0.131	49.798	84.703	64.202
06/27/2011 08:27:51	20.812	0.131	49.791	84.703	64.004
06/27/2011 08:28:01	20.812	0.131	49.773	84.703	64.004
06/27/2011 08:28:11	20.815	0.131	49.791	84.501	64.004
49.8 ppm Propane Mid			**49.785**	**84.636**	**64.004**
06/27/2011 08:28:21	20.812	0.131	34.014	84.703	64.004
06/27/2011 08:28:31	20.826	0.153	3.079	84.703	64.004
06/27/2011 08:28:41	20.867	0.161	2.662	84.904	64.004
06/27/2011 08:28:51	20.874	0.161	2.687	84.703	64.202
06/27/2011 08:29:01	20.874	0.161	2.794	84.501	64.403
06/27/2011 08:29:11	20.874	0.161	2.651	84.703	64.502
06/27/2011 08:29:21	20.874	0.161	2.68	84.904	64.901
06/27/2011 08:29:31	20.874	0.164	2.753	84.703	65.304
06/27/2011 08:29:41	20.874	0.161	2.739	84.703	65.304
06/27/2011 08:29:51	20.874	0.161	2.592	84.904	64.901
06/27/2011 08:30:01	20.878	0.161	2.552	84.703	64.704
06/27/2011 08:30:11	20.874	0.161	2.603	84.904	64.502
06/27/2011 08:30:21	20.874	0.161	2.706	84.703	64.704
06/27/2011 08:30:31	20.874	0.161	2.673	84.703	64.704
06/27/2011 08:30:41	20.874	0.161	2.702	84.703	64.704
06/27/2011 08:30:51	20.874	0.161	2.548	84.703	64.704
06/27/2011 08:31:01	20.878	0.161	2.633	84.703	64.704
06/27/2011 08:31:11	20.878	0.161	2.684	84.703	64.704
06/27/2011 08:31:21	20.878	0.161	2.592	84.703	64.704
06/27/2011 08:31:31	20.878	0.161	2.709	84.904	64.704
06/27/2011 08:31:41	20.878	0.161	2.625	84.904	64.704
06/27/2011 08:31:51	20.878	0.157	2.629	84.904	65.103
06/27/2011 08:32:01	20.878	0.161	2.504	84.904	65.604
06/27/2011 08:32:11	20.878	0.161	2.559	84.904	65.604
06/27/2011 08:32:21	20.878	0.157	2.618	84.904	65.604
06/27/2011 08:32:31	20.881	0.157	2.589	85.102	65.604
06/27/2011 08:32:41	20.881	0.157	2.526	85.205	65.103
06/27/2011 08:32:51	20.878	0.157	2.519	85.402	64.704
06/27/2011 08:33:01	20.878	0.157	2.614	85.402	64.704
06/27/2011 08:33:11	20.881	0.161	2.644	85.205	64.704
06/27/2011 08:33:21	20.881	0.161	2.567	85.205	64.901
06/27/2011 08:33:31	20.881	0.164	2.563	85.205	64.901
06/27/2011 08:33:41	20.881	0.164	2.556	85.205	64.901
06/27/2011 08:33:51	20.881	0.168	2.567	85.102	65.604
06/27/2011 08:34:01	20.881	0.168	2.574	85.205	65.604
06/27/2011 08:34:11	20.881	0.168	2.548	85.205	64.901
06/27/2011 08:34:21	20.881	0.172	2.658	85.102	64.704
06/27/2011 08:34:31	20.881	0.168	2.57	85.102	65.103
06/27/2011 08:34:41	20.881	0.168	2.728	84.904	65.802
06/27/2011 08:34:51	20.881	0.164	24.434	84.904	64.901
06/27/2011 08:35:01	20.823	0.23	32.139	84.904	64.901
06/27/2011 08:35:11	20.819	0.128	32.304	84.904	65.304
06/27/2011 08:35:21	20.848	0.124	31.308	85.102	64.901
06/27/2011 08:35:31	20.848	0.124	31.15	85.102	64.901

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 08:35:41	20.848	0.12	31.055	85.102	64.704
06/27/2011 08:35:51	20.848	0.12	31.051	85.205	65.103
06/27/2011 08:36:01	20.848	0.12	31.066	85.205	64.502
06/27/2011 08:36:11	20.848	0.124	31.018	85.205	64.901
30.0 ppm Propane Low			**31.045**	**85.205**	**64.835**
06/27/2011 08:36:21	20.848	0.124	29.876	85.205	64.403
06/27/2011 08:36:31	20.826	0.131	6.873	85.205	65.103
THC Calibration Bias					
06/27/2011 08:36:41	15.795	0.131	1.08	85.102	64.403
06/27/2011 08:36:51	8.203	0.128	0.959	85.402	64.901
06/27/2011 08:37:01	6.635	0.128	0.937	85.205	64.403
06/27/2011 08:37:11	6.529	0.124	0.955	85.205	64.901
06/27/2011 08:37:21	6.496	0.128	0.926	85.102	64.202
06/27/2011 08:37:31	6.401	0.128	0.86	85.402	64.704
06/27/2011 08:37:41	5.888	0.124	0.904	85.205	64.901
06/27/2011 08:37:51	5.745	0.128	0.933	85.402	64.901
06/27/2011 08:38:01	6.192	0.128	0.882	85.205	64.403
06/27/2011 08:38:11	5.903	0.124	0.761	85.402	64.403
06/27/2011 08:38:21	4.859	0.124	0.757	85.205	64.704
06/27/2011 08:38:31	4.742	0.124	0.827	85.102	64.901
06/27/2011 08:38:41	5.559	0.124	0.871	85.402	64.901
N2 Zero			**0.818**	**85.236**	**64.835**
06/27/2011 08:38:51	6.939	0.131	31.322	85.402	64.202
06/27/2011 08:39:01	14.201	0.124	50.479	85.402	64.403
06/27/2011 08:39:11	20.032	0.128	50.476	85.205	64.901
06/27/2011 08:39:21	20.691	0.128	50.549	85.205	64.901
06/27/2011 08:39:31	20.742	0.128	50.381	85.604	64.502
06/27/2011 08:39:41	20.757	0.128	50.146	85.604	64.403
06/27/2011 08:39:51	20.772	0.128	50.117	85.402	64.502
06/27/2011 08:40:01	20.779	0.128	50.168	85.102	64.901
06/27/2011 08:40:11	20.782	0.128	50.128	85.205	64.901
49.8 ppm Propane Mid			**50.138**	**85.236**	**64.768**
06/27/2011 08:40:21	20.786	0.128	8.69	85.102	64.704
06/27/2011 08:40:31	20.823	0.153	2.64	85.102	64.502
06/27/2011 08:40:41	20.848	0.157	2.537	85.205	64.704
06/27/2011 08:40:51	20.856	0.157	2.563	85.402	65.304
06/27/2011 08:41:01	20.856	0.157	2.493	85.205	65.304
06/27/2011 08:41:11	20.859	0.157	2.482	85.205	65.304
06/27/2011 08:41:21	20.859	0.157	2.49	85.402	64.704
06/27/2011 08:41:31	20.859	0.157	2.46	85.205	64.901
06/27/2011 08:41:41	20.859	0.157	2.545	85.102	65.403
06/27/2011 08:41:51	20.863	0.161	2.581	85.205	65.604
06/27/2011 08:42:01	20.867	0.164	2.508	85.102	65.403
06/27/2011 08:42:11	20.867	0.164	2.446	85.205	65.103
06/27/2011 08:42:21	20.863	0.168	2.413	85.102	64.901
06/27/2011 08:42:31	20.867	0.168	2.431	85.205	64.901
06/27/2011 08:42:41	20.867	0.183	2.479	85.205	65.103
06/27/2011 08:42:51	20.867	0.168	2.475	85.102	65.103
06/27/2011 08:43:01	20.867	0.168	2.464	85.102	65.103
06/27/2011 08:43:11	20.867	0.164	2.46	85.205	65.103
06/27/2011 08:43:21	20.867	0.161	2.468	85.402	65.103
06/27/2011 08:43:31	20.867	0.157	2.515	85.402	65.103
06/27/2011 08:43:41	20.867	0.153	2.556	85.402	65.802
06/27/2011 08:43:51	20.867	0.153	2.515	85.205	65.802
06/27/2011 08:44:01	20.87	0.15	2.464	85.402	65.802
06/27/2011 08:44:11	20.87	0.15	2.541	85.604	65.304
06/27/2011 08:44:21	20.87	0.153	2.526	85.205	65.103
06/27/2011 08:44:31	20.87	0.153	2.523	85.402	65.304
06/27/2011 08:44:41	20.87	0.153	2.537	85.205	65.403
06/27/2011 08:44:51	20.87	0.153	2.515	85.205	65.802
06/27/2011 08:45:01	20.87	0.157	2.541	85.102	65.802
06/27/2011 08:45:11	20.87	0.157	2.526	85.205	65.103
06/27/2011 08:45:21	20.87	0.153	2.475	85.402	65.304
06/27/2011 08:45:31	20.874	0.157	2.556	85.205	66.004
06/27/2011 08:45:41	20.874	0.157	2.574	85.102	65.802
06/27/2011 08:45:51	20.874	0.157	2.49	85.205	65.304
06/27/2011 08:46:01	20.874	0.157	2.563	85.205	66.004
06/27/2011 08:46:11	20.87	0.157	2.541	85.205	65.604
06/27/2011 08:46:21	20.87	0.157	2.508	85.205	65.304

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 08:46:31	20.87	0.157	2.541	85.102	66.004
06/27/2011 08:46:41	20.874	0.161	2.464	85.102	66.004
06/27/2011 08:46:51	20.874	0.164	2.453	85.102	65.304
06/27/2011 08:47:01	20.874	0.164	2.464	85.102	65.604
06/27/2011 08:47:11	20.874	0.168	2.497	85.102	66.004
06/27/2011 08:47:21	20.874	0.168	2.468	85.102	65.604
06/27/2011 08:47:31	20.87	0.168	2.387	85.102	65.304
06/27/2011 08:47:41	20.874	0.168	2.409	85.102	65.604
06/27/2011 08:47:51	20.874	0.164	2.409	85.102	66.004
06/27/2011 08:48:01	20.874	0.164	2.457	85.205	65.304
06/27/2011 08:48:11	20.874	0.164	2.53	85.205	66.004
06/27/2011 08:48:21	20.874	0.164	2.563	85.205	65.304
06/27/2011 08:48:31	20.874	0.161	2.541	85.205	65.802
06/27/2011 08:48:41	20.87	0.161	2.633	85.102	66.004
06/27/2011 08:48:51	20.874	0.157	2.753	85.205	65.304
06/27/2011 08:49:01	20.878	0.157	2.655	85.102	66.004
06/27/2011 08:49:11	20.878	0.157	2.559	85.102	66.004
06/27/2011 08:49:21	20.878	0.157	2.556	85.102	65.304
06/27/2011 08:49:31	20.878	0.157	2.519	85.102	65.802
06/27/2011 08:49:41	20.878	0.157	2.449	85.205	66.004
06/27/2011 08:49:51	20.874	0.161	2.435	85.205	65.403
06/27/2011 08:50:01	20.874	0.164	2.46	85.205	65.304
06/27/2011 08:50:11	20.878	0.164	2.523	85.102	65.604
06/27/2011 08:50:21	20.878	0.168	2.592	85.102	66.004
06/27/2011 08:50:31	20.878	0.168	2.57	85.205	66.004
06/27/2011 08:50:41	20.874	0.172	2.717	85.402	66.201
06/27/2011 08:50:51	20.874	0.168	2.706	85.402	65.802
06/27/2011 08:51:01	20.874	0.168	2.673	85.402	65.403
06/27/2011 08:51:11	20.874	0.168	2.541	85.402	65.403
06/27/2011 08:51:21	20.874	0.161	2.6	85.102	65.802
06/27/2011 08:51:31	20.874	0.157	2.53	85.102	66.201
06/27/2011 08:51:41	20.874	0.157	2.629	85.402	65.802
06/27/2011 08:51:51	20.87	0.153	2.6	85.402	66.004
06/27/2011 08:52:01	20.87	0.153	2.611	85.402	66.502
06/27/2011 08:52:11	20.87	0.153	2.515	85.402	65.802
06/27/2011 08:52:21	20.874	0.153	2.431	85.402	66.201
06/27/2011 08:52:31	20.874	0.153	2.46	85.604	66.502
06/27/2011 08:52:41	20.874	0.153	2.449	85.402	65.802
06/27/2011 08:52:51	20.874	0.157	2.46	85.604	65.802
06/27/2011 08:53:01	20.874	0.157	2.409	85.402	66.502
06/27/2011 08:53:11	20.878	0.157	2.471	85.402	66.502
06/27/2011 08:53:21	20.878	0.157	2.46	85.205	66.502
06/27/2011 08:53:31	20.878	0.157	2.46	85.402	66.502
06/27/2011 08:53:41	20.878	0.157	2.468	85.604	66.304
06/27/2011 08:53:51	20.878	0.157	2.46	85.402	66.201
06/27/2011 08:54:01	20.878	0.157	2.446	85.402	66.004
06/27/2011 08:54:11	20.878	0.157	2.482	85.604	65.802
06/27/2011 08:54:21	20.878	0.157	2.556	85.604	65.802
06/27/2011 08:54:31	20.874	0.157	2.563	85.802	65.604
06/27/2011 08:54:41	20.874	0.161	2.57	85.604	65.604
06/27/2011 08:54:51	20.878	0.157	2.541	85.604	65.802
06/27/2011 08:55:01	20.878	0.157	2.563	85.402	65.604
06/27/2011 08:55:11	20.878	0.157	2.622	85.402	65.604
06/27/2011 08:55:21	20.878	0.157	2.68	85.802	66.502
06/27/2011 08:55:31	20.878	0.157	2.537	85.604	66.502
06/27/2011 08:55:41	20.878	0.157	2.464	85.802	66.004
06/27/2011 08:55:51	20.878	0.157	2.416	85.604	66.004
06/27/2011 08:56:01	20.878	0.157	2.49	85.604	66.502
06/27/2011 08:56:11	20.878	0.157	2.464	85.802	65.802
06/27/2011 08:56:21	20.878	0.157	2.464	85.604	65.802
06/27/2011 08:56:31	20.878	0.157	2.49	85.802	66.502
06/27/2011 08:56:41	20.878	0.157	2.512	85.604	66.201
06/27/2011 08:56:51	20.878	0.157	2.442	85.802	65.802
06/27/2011 08:57:01	20.878	0.157	2.493	85.604	66.502
06/27/2011 08:57:11	20.878	0.157	2.526	85.604	66.201
06/27/2011 08:57:21	20.874	0.157	2.526	85.802	65.604
06/27/2011 08:57:31	20.874	0.157	2.449	85.802	66.304
06/27/2011 08:57:41	20.878	0.157	2.457	85.604	66.502
06/27/2011 08:57:51	20.874	0.157	2.435	85.402	65.802

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 08:58:01	20.874	0.161	2.46	85.604	65.802
06/27/2011 08:58:11	20.878	0.164	2.457	85.802	65.604
06/27/2011 08:58:21	20.878	0.164	2.438	85.802	65.802
06/27/2011 08:58:31	20.878	0.168	2.42	85.604	65.604
06/27/2011 08:58:41	20.878	0.168	2.46	85.604	65.604
06/27/2011 08:58:51	20.878	0.168	2.53	85.205	66.004
06/27/2011 08:59:01	20.878	0.168	2.504	85.402	66.304
06/27/2011 08:59:11	20.874	0.168	2.541	85.604	66.304
06/27/2011 08:59:21	20.878	0.164	2.493	85.604	65.604
06/27/2011 08:59:31	20.878	0.161	2.471	85.604	65.604
06/27/2011 08:59:41	20.878	0.157	2.468	85.802	66.304
06/27/2011 08:59:51	20.878	0.153	2.534	85.802	66.304
06/27/2011 09:00:01	20.878	0.153	2.501	85.604	66.004
06/27/2011 09:00:11	20.878	0.15	2.563	85.802	65.604
06/27/2011 09:00:21	20.878	0.15	2.717	85.802	66.004
06/27/2011 09:00:31	20.878	0.153	2.676	85.604	66.502
06/27/2011 09:00:41	20.878	0.153	2.786	85.604	66.201
06/27/2011 09:00:51	20.878	0.153	2.808	85.604	65.604
06/27/2011 09:01:01	20.878	0.153	2.651	85.802	66.004
06/27/2011 09:01:11	20.878	0.157	2.416	85.802	66.304
06/27/2011 09:01:21	20.878	0.157	2.475	85.604	66.304
06/27/2011 09:01:31	20.878	0.157	2.49	85.604	65.802
06/27/2011 09:01:41	20.878	0.157	2.523	85.604	65.802
06/27/2011 09:01:51	20.878	0.157	2.556	85.402	66.502
06/27/2011 09:02:01	20.878	0.157	2.581	85.402	66.502
06/27/2011 09:02:11	20.881	0.157	2.526	85.604	66.502
06/27/2011 09:02:21	20.878	0.157	2.567	85.604	66.201
06/27/2011 09:02:31	20.878	0.157	2.581	85.604	65.604
06/27/2011 09:02:41	20.878	0.157	2.592	85.604	65.802
06/27/2011 09:02:51	20.878	0.157	2.515	85.604	66.004
06/27/2011 09:03:01	20.878	0.157	2.614	85.604	66.502
06/27/2011 09:03:11	20.878	0.157	2.589	85.604	66.304
06/27/2011 09:03:21	20.878	0.157	2.559	85.604	66.004
06/27/2011 09:03:31	20.878	0.157	2.548	85.402	65.604
06/27/2011 09:03:41	20.878	0.157	2.515	85.604	65.802
06/27/2011 09:03:51	20.878	0.157	2.515	85.604	65.604
06/27/2011 09:04:01	20.878	0.157	2.541	85.802	66.004
06/27/2011 09:04:11	20.878	0.157	2.482	86.003	66.004
06/27/2011 09:04:21	20.878	0.157	2.475	85.802	65.802
06/27/2011 09:04:31	20.878	0.157	2.541	85.802	66.004
06/27/2011 09:04:41	20.878	0.157	2.523	85.802	66.502
06/27/2011 09:04:51	20.878	0.157	2.541	85.802	66.703
06/27/2011 09:05:01	20.878	0.157	2.556	85.802	65.802
06/27/2011 09:05:11	20.878	0.153	2.592	85.802	66.201
06/27/2011 09:05:21	20.874	0.157	2.618	85.802	66.703
06/27/2011 09:05:31	20.878	0.157	2.563	86.003	65.802
06/27/2011 09:05:41	20.878	0.157	2.574	86.003	66.502
06/27/2011 09:05:51	20.878	0.157	2.589	86.003	65.802
06/27/2011 09:06:01	20.878	0.157	2.589	86.003	66.502
06/27/2011 09:06:11	20.878	0.157	2.592	86.003	66.201
06/27/2011 09:06:21	20.878	0.161	2.504	86.003	65.802
06/27/2011 09:06:31	20.878	0.164	2.515	86.003	66.201
06/27/2011 09:06:41	20.878	0.164	2.515	85.802	66.304
06/27/2011 09:06:51	20.878	0.168	2.49	86.003	66.304
06/27/2011 09:07:01	20.878	0.168	2.464	85.802	66.304
06/27/2011 09:07:11	20.878	0.168	2.515	85.802	66.304
06/27/2011 09:07:21	20.881	0.164	2.526	86.003	66.304
06/27/2011 09:07:31	20.878	0.164	2.449	85.802	66.304
06/27/2011 09:07:41	20.878	0.157	2.523	86.003	66.201
06/27/2011 09:07:51	20.878	0.157	2.563	86.003	66.201
06/27/2011 09:08:01	20.878	0.153	2.541	86.003	65.802
06/27/2011 09:08:11	20.878	0.15	2.497	86.003	66.004
06/27/2011 09:08:21	20.878	0.15	2.581	86.003	66.004
06/27/2011 09:08:31	20.874	0.15	2.541	86.003	66.201
06/27/2011 09:08:41	20.874	0.15	2.559	86.003	66.502
06/27/2011 09:08:51	20.874	0.15	2.567	86.102	66.502
06/27/2011 09:09:01	20.874	0.153	2.409	86.003	66.703
06/27/2011 09:09:11	20.874	0.153	2.526	86.003	66.502
06/27/2011 09:09:21	20.874	0.153	2.589	85.802	66.004

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 09:09:31	20.874	0.153	2.783	86.003	65.802
06/27/2011 09:09:41	20.874	0.153	2.658	86.102	66.004
06/27/2011 09:09:51	20.874	0.153	2.907	86.003	66.502
06/27/2011 09:10:01	20.874	0.153	2.786	86.003	66.703
06/27/2011 09:10:11	20.874	0.157	2.676	86.003	66.201
06/27/2011 09:10:21	20.878	0.157	2.794	86.102	66.004
06/27/2011 09:10:31	20.874	0.157	2.504	86.003	66.304
06/27/2011 09:10:41	20.874	0.157	2.541	85.802	66.901
06/27/2011 09:10:51	20.874	0.157	2.49	86.003	66.901
06/27/2011 09:11:01	20.874	0.157	2.42	85.802	66.703
06/27/2011 09:11:11	20.874	0.157	2.49	86.003	66.201
06/27/2011 09:11:21	20.874	0.157	2.449	86.003	66.004
06/27/2011 09:11:31	20.874	0.157	2.49	86.003	66.703
06/27/2011 09:11:41	20.87	0.157	2.501	85.802	66.703
06/27/2011 09:11:51	20.87	0.157	2.541	86.003	66.201
06/27/2011 09:12:01	20.87	0.157	2.515	86.003	66.502
06/27/2011 09:12:11	20.874	0.157	2.515	86.003	66.901
06/27/2011 09:12:21	20.874	0.153	2.519	86.102	66.201
06/27/2011 09:12:31	20.874	0.157	2.482	86.003	66.201
06/27/2011 09:12:41	20.874	0.157	2.475	86.003	66.901
06/27/2011 09:12:51	20.874	0.153	2.424	86.003	66.304
06/27/2011 09:13:01	20.874	0.157	2.446	86.505	66.201
06/27/2011 09:13:11	20.874	0.153	2.438	86.102	66.201
06/27/2011 09:13:21	20.874	0.153	2.457	86.102	66.703
06/27/2011 09:13:31	20.874	0.153	2.49	86.303	66.901
06/27/2011 09:13:41	20.874	0.153	2.504	86.003	66.502
06/27/2011 09:13:51	20.874	0.157	2.515	86.303	66.201
06/27/2011 09:14:01	20.874	0.157	2.559	86.303	66.201
06/27/2011 09:14:11	20.874	0.157	2.545	86.303	66.703
06/27/2011 09:14:21	20.874	0.157	2.563	86.102	66.703
06/27/2011 09:14:31	20.837	0.223	5.449	86.102	66.004
06/27/2011 09:14:41	14.535	12.674	6.452	86.303	65.802
06/27/2011 09:14:51	6.218	13.319	6.225	86.102	66.304
06/27/2011 09:15:01	5.394	13.418	6.126	86.003	66.901
06/27/2011 09:15:11	5.335	13.44	6.156	86.102	66.901
06/27/2011 09:15:21	5.302	13.502	6.123	86.102	66.502
06/27/2011 09:15:31	5.277	13.498	6.079	86.102	66.304
06/27/2011 09:15:41	5.291	13.498	6.104	86.303	66.304
06/27/2011 09:15:51	5.288	13.524	6.126	86.303	66.502
06/27/2011 09:16:01	5.24	13.59	6.126	86.102	66.703
06/27/2011 09:16:11	5.156	13.659	6.115	86.303	66.901
06/27/2011 09:16:21	5.145	13.616	6.097	86.303	67.201
06/27/2011 09:16:31	5.178	13.612	6.082	86.303	67.201
06/27/2011 09:16:41	5.137	13.656	6.071	86.303	67.201
06/27/2011 09:16:51	5.101	13.656	6.079	86.303	67.201
06/27/2011 09:17:01	5.119	13.627	6.119	86.303	67.201
06/27/2011 09:17:11	5.134	13.645	6.178	86.505	67.403
06/27/2011 09:17:21	5.141	13.619	6.174	86.505	67.201
06/27/2011 09:17:31	5.174	13.59	6.148	86.505	67.102
06/27/2011 09:17:41	5.2	13.557	6.042	86.505	67.102
06/27/2011 09:17:51	5.39	13.403	6.101	86.702	67.201
06/27/2011 09:18:01	5.24	13.659	6.046	86.303	67.604
06/27/2011 09:18:11	5.126	13.663	6.064	86.505	67.802
06/27/2011 09:18:21	5.123	13.656	6.097	86.505	67.403
06/27/2011 09:18:31	5.152	13.623	6.123	86.505	67.201
06/27/2011 09:18:41	5.2	13.564	6.148	86.702	67.403
06/27/2011 09:18:51	5.229	13.564	6.148	86.505	67.802
06/27/2011 09:19:01	5.251	13.509	6.174	86.702	68.003
06/27/2011 09:19:11	5.273	13.517	6.13	86.702	67.403
06/27/2011 09:19:21	5.295	13.495	6.134	86.505	67.403
06/27/2011 09:19:31	5.284	13.579	6.068	86.505	68.003
06/27/2011 09:19:41	5.203	13.59	6.049	86.303	68.102
06/27/2011 09:19:51	5.192	13.605	6.101	86.702	67.604
Start Run 8					
06/27/2011 09:20:01	5.167	13.641	6.119	86.505	67.403
06/27/2011 09:20:11	5.137	13.619	6.068	86.505	68.102
06/27/2011 09:20:21	5.17	13.623	6.038	86.505	68.303
06/27/2011 09:20:31	5.2	13.568	6.064	86.702	68.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 09:20:41	5.233	13.568	6.071	86.702	68.501
06/27/2011 09:20:51	5.192	13.638	6.057	86.702	68.303
06/27/2011 09:21:01	5.141	13.67	6.071	86.904	67.604
06/27/2011 09:21:11	5.094	13.707	6.042	86.904	67.802
06/27/2011 09:21:21	5.112	13.656	6.057	86.904	68.501
06/27/2011 09:21:31	5.134	13.648	6.148	86.702	68.501
06/27/2011 09:21:41	5.174	13.616	6.174	86.904	67.802
06/27/2011 09:21:51	5.156	13.67	6.159	86.702	68.303
06/27/2011 09:22:01	5.152	13.627	6.2	86.904	68.501
06/27/2011 09:22:11	5.185	13.597	6.222	86.702	68.303
06/27/2011 09:22:21	5.181	13.641	6.203	86.904	67.802
06/27/2011 09:22:31	5.152	13.648	6.148	86.702	68.303
06/27/2011 09:22:41	5.126	13.663	6.141	86.505	68.703
06/27/2011 09:22:51	5.145	13.63	6.174	86.505	68.501
06/27/2011 09:23:01	5.134	13.707	6.152	86.702	68.003
06/27/2011 09:23:11	5.09	13.733	6.148	86.702	68.102
06/27/2011 09:23:21	5.068	13.725	6.126	86.904	68.703
06/27/2011 09:23:31	5.061	13.718	6.082	86.702	68.703
06/27/2011 09:23:41	5.072	13.714	6.071	86.505	68.303
06/27/2011 09:23:51	5.097	13.692	6.097	86.702	68.003
06/27/2011 09:24:01	5.123	13.659	6.093	86.904	68.102
06/27/2011 09:24:11	5.159	13.634	6.108	86.904	68.703
06/27/2011 09:24:21	5.189	13.619	6.097	86.702	68.703
06/27/2011 09:24:31	5.163	13.656	6.108	86.505	68.703
06/27/2011 09:24:41	5.148	13.619	6.126	86.505	68.703
06/27/2011 09:24:51	5.163	13.619	6.123	86.702	68.303
06/27/2011 09:25:01	5.156	13.648	6.123	86.702	68.102
06/27/2011 09:25:11	5.134	13.645	6.123	86.904	68.303
06/27/2011 09:25:21	5.119	13.681	6.097	86.904	68.703
06/27/2011 09:25:31	5.112	13.685	6.075	86.904	68.703
06/27/2011 09:25:41	5.119	13.663	6.049	86.702	68.703
06/27/2011 09:25:51	5.116	13.667	6.042	86.904	68.501
06/27/2011 09:26:01	5.09	13.689	6.042	86.702	68.303
06/27/2011 09:26:11	5.116	13.619	6.046	86.702	68.303
06/27/2011 09:26:21	5.145	13.648	6.071	86.702	68.501
06/27/2011 09:26:31	5.116	13.641	6.06	86.505	68.904
06/27/2011 09:26:41	5.119	13.67	6.097	86.505	68.904
06/27/2011 09:26:51	5.083	13.722	6.097	86.702	68.303
06/27/2011 09:27:01	5.086	13.641	6.119	86.702	68.904
06/27/2011 09:27:11	5.126	13.674	6.126	86.702	68.303
06/27/2011 09:27:21	5.086	13.74	6.126	86.904	69.402
06/27/2011 09:27:31	5.035	13.751	6.123	86.702	68.703
06/27/2011 09:27:41	5.075	13.692	6.123	86.904	68.904
06/27/2011 09:27:51	5.101	13.689	6.123	86.702	69.204
06/27/2011 09:28:01	5.112	13.656	6.119	86.904	68.703
06/27/2011 09:28:11	5.123	13.692	6.071	86.904	68.703
06/27/2011 09:28:21	5.094	13.722	6.093	86.702	69.204
06/27/2011 09:28:31	5.024	13.799	6.123	86.702	68.703
06/27/2011 09:28:41	4.998	13.762	6.123	86.702	69.003
06/27/2011 09:28:51	5.061	13.663	6.13	86.702	69.204
06/27/2011 09:29:01	5.123	13.641	6.097	86.904	68.501
06/27/2011 09:29:11	5.137	13.674	6.097	86.702	69.204
06/27/2011 09:29:21	5.134	13.652	6.112	86.904	68.501
06/27/2011 09:29:31	5.13	13.678	6.148	87.003	69.204
06/27/2011 09:29:41	5.072	13.729	6.152	86.904	68.501
06/27/2011 09:29:51	5.053	13.733	6.185	86.904	69.003
06/27/2011 09:30:01	5.072	13.692	6.163	86.904	69.402
06/27/2011 09:30:11	5.123	13.674	6.152	87.003	68.703
06/27/2011 09:30:21	5.123	13.681	6.148	86.904	68.501
06/27/2011 09:30:31	5.108	13.707	6.13	87.003	69.204
06/27/2011 09:30:41	5.134	13.619	6.148	87.003	69.204
06/27/2011 09:30:51	5.2	13.627	6.141	87.003	69.204
06/27/2011 09:31:01	5.163	13.663	6.123	86.904	68.703
06/27/2011 09:31:11	5.108	13.711	6.13	87.003	68.501
06/27/2011 09:31:21	5.09	13.7	6.159	87.003	69.003
06/27/2011 09:31:31	5.112	13.7	6.134	86.904	69.204
06/27/2011 09:31:41	5.119	13.674	6.123	86.904	68.904
06/27/2011 09:31:51	5.178	13.605	6.112	86.904	68.703
06/27/2011 09:32:01	5.207	13.557	6.126	86.904	68.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 09:32:11	5.207	13.59	6.097	86.904	69.402
06/27/2011 09:32:21	5.163	13.645	6.024	86.702	69.402
06/27/2011 09:32:31	5.145	13.645	6.046	86.702	69.003
06/27/2011 09:32:41	5.112	13.7	6.123	86.702	68.904
06/27/2011 09:32:51	5.112	13.648	6.112	86.702	68.501
06/27/2011 09:33:01	5.156	13.616	6.09	86.702	68.703
06/27/2011 09:33:11	5.159	13.645	6.049	86.904	68.904
06/27/2011 09:33:21	5.141	13.652	6.295	86.904	69.402
06/27/2011 09:33:31	5.141	13.619	6.427	86.904	69.402
06/27/2011 09:33:41	5.196	13.568	6.331	87.003	69.402
06/27/2011 09:33:51	5.17	13.656	6.346	87.003	69.003
06/27/2011 09:34:01	5.134	13.656	6.309	86.904	68.703
06/27/2011 09:34:11	5.108	13.7	6.273	86.904	68.703
06/27/2011 09:34:21	5.101	13.659	6.225	86.702	68.703
06/27/2011 09:34:31	5.119	13.678	6.225	87.204	68.703
06/27/2011 09:34:41	5.09	13.714	6.28	87.003	68.703
06/27/2011 09:34:51	5.108	13.645	6.317	87.003	68.703
06/27/2011 09:35:01	5.156	13.623	6.254	86.904	69.204
06/27/2011 09:35:11	5.163	13.648	6.243	86.904	69.402
06/27/2011 09:35:21	5.137	13.634	6.203	86.904	69.402
06/27/2011 09:35:31	5.159	13.627	6.178	86.904	69.402
06/27/2011 09:35:41	5.167	13.616	6.123	86.904	69.003
06/27/2011 09:35:51	5.178	13.601	6.123	86.904	68.904
06/27/2011 09:36:01	5.236	13.539	6.112	86.904	68.904
06/27/2011 09:36:11	5.269	13.528	6.082	86.904	69.402
06/27/2011 09:36:21	5.251	13.579	6.097	86.904	69.402
06/27/2011 09:36:31	5.244	13.524	6.13	86.702	68.904
06/27/2011 09:36:41	5.299	13.476	6.097	86.904	69.003
06/27/2011 09:36:51	5.306	13.55	6.097	86.904	69.402
06/27/2011 09:37:01	5.244	13.572	6.071	86.904	69.003
06/27/2011 09:37:11	5.225	13.561	6.042	86.904	68.904
06/27/2011 09:37:21	5.266	13.528	6.035	87.003	69.003
06/27/2011 09:37:31	5.317	13.462	6.035	87.003	68.904
06/27/2011 09:37:41	5.313	13.495	6.016	86.904	69.003
06/27/2011 09:37:51	5.295	13.506	6.016	86.904	69.604
06/27/2011 09:38:01	5.291	13.52	6.005	87.003	69.604
06/27/2011 09:38:11	5.255	13.579	6.027	87.003	68.904
06/27/2011 09:38:21	5.244	13.553	6.046	87.204	69.204
06/27/2011 09:38:31	5.244	13.583	6.075	87.204	69.604
06/27/2011 09:38:41	5.233	13.561	6.108	87.402	69.402
06/27/2011 09:38:51	5.258	13.55	6.134	87.402	69.003
06/27/2011 09:39:01	5.288	13.52	6.123	87.402	69.204
06/27/2011 09:39:11	5.291	13.528	6.086	87.204	69.402
06/27/2011 09:39:21	5.317	13.473	6.079	87.204	69.402
06/27/2011 09:39:31	5.339	13.48	6.068	87.204	69.204
06/27/2011 09:39:41	5.35	13.458	6.046	87.204	69.003
06/27/2011 09:39:51	5.332	13.509	6.02	87.402	69.003
06/27/2011 09:40:01	5.277	13.517	5.991	87.204	69.604
06/27/2011 09:40:11	5.269	13.528	5.972	87.003	69.003
06/27/2011 09:40:21	5.244	13.539	5.95	87.003	69.402
06/27/2011 09:40:31	5.207	13.583	5.921	87.402	69.003
06/27/2011 09:40:41	5.214	13.546	5.929	87.204	69.402
06/27/2011 09:40:51	5.251	13.539	5.954	87.402	69.003
06/27/2011 09:41:01	5.266	13.542	5.969	87.204	69.604
06/27/2011 09:41:11	5.258	13.553	5.91	87.204	69.204
06/27/2011 09:41:21	5.269	13.528	5.921	87.402	69.604
06/27/2011 09:41:31	5.284	13.524	5.921	87.402	69.402
06/27/2011 09:41:41	5.302	13.48	5.929	87.402	69.003
06/27/2011 09:41:51	5.35	13.443	5.903	87.003	69.604
06/27/2011 09:42:01	5.365	13.447	5.866	86.904	69.604
06/27/2011 09:42:11	5.321	13.52	5.888	87.204	69.604
06/27/2011 09:42:21	5.306	13.447	5.929	87.204	69.402
06/27/2011 09:42:31	5.35	13.469	5.925	87.003	69.003
06/27/2011 09:42:41	5.321	13.476	5.958	87.204	69.204
Pause Run 8					
THC Drift Check					
06/27/2011 09:42:51	5.577	12.846	9.799	87.003	69.801
06/27/2011 09:43:01	5.013	4.357	2.142	87.003	69.904
06/27/2011 09:43:11	1.962	4.145	2.083	87.003	69.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 09:43:21	1.534	4.105	2.076	87.204	69.402
06/27/2011 09:43:31	1.512	4.097	1.962	87.204	69.402
06/27/2011 09:43:41	1.45	3.691	1.867	87.003	69.904
06/27/2011 09:43:51	1.336	3.61	1.867	86.904	69.904
06/27/2011 09:44:01	1.318	3.577	1.223	87.003	69.904
06/27/2011 09:44:11	0.944	1.417	0.538	87.003	69.402
06/27/2011 09:44:21	0.27	0.256	1.274	87.003	69.402
06/27/2011 09:44:31	0.552	3.563	2.047	87.003	69.402
06/27/2011 09:44:41	1.395	4.05	1.666	87.003	69.904
06/27/2011 09:44:51	1.31	2.856	1.505	86.904	69.904
06/27/2011 09:45:01	1.054	2.845	1.541	86.904	70.102
06/27/2011 09:45:11	1.054	2.947	1.358	86.904	69.904
06/27/2011 09:45:21	0.959	2.255	1.168	87.003	69.904
06/27/2011 09:45:31	0.776	2.145	1.16	86.904	69.904
06/27/2011 09:45:41	0.743	2.127	1.175	87.003	69.904
N2 Zero			**1.168**	**86.970**	**69.904**
06/27/2011 09:45:51	0.743	2.12	15.168	87.204	69.402
06/27/2011 09:46:01	4.932	3.215	49.937	87.402	69.402
06/27/2011 09:46:11	14.308	4.174	50.384	87.402	69.402
06/27/2011 09:46:21	15.967	4.207	50.414	87.204	69.904
06/27/2011 09:46:31	16.047	4.196	50.381	87.402	69.604
06/27/2011 09:46:41	16.091	4.182	50.366	87.402	69.204
06/27/2011 09:46:51	16.117	4.174	50.337	87.204	69.402
49.8 ppm Propane Mid			**50.361**	**87.336**	**69.403**
06/27/2011 09:47:01	16.124	4.2	41.837	87.003	69.801
06/27/2011 09:47:11	14.355	9.539	6.745	87.204	69.402
06/27/2011 09:47:21	7.661	13.348	6.002	87.402	68.904
06/27/2011 09:47:31	5.43	13.381	5.94	87.402	69.003
Resume Run 8					
06/27/2011 09:47:41	5.354	13.403	5.94	87.402	69.402
06/27/2011 09:47:51	5.328	13.418	5.943	87.402	69.604
06/27/2011 09:48:01	5.299	13.484	5.936	87.805	69.604
06/27/2011 09:48:11	5.28	13.454	5.936	87.805	69.801
06/27/2011 09:48:21	5.31	13.425	5.877	87.805	69.604
06/27/2011 09:48:31	5.299	13.52	5.833	87.603	69.604
06/27/2011 09:48:41	5.251	13.542	5.929	87.402	69.003
06/27/2011 09:48:51	5.233	13.542	5.921	87.402	69.604
06/27/2011 09:49:01	5.24	13.517	5.899	87.402	69.604
06/27/2011 09:49:11	5.288	13.48	5.874	87.204	69.204
06/27/2011 09:49:21	5.313	13.458	5.929	87.204	69.801
06/27/2011 09:49:31	5.361	13.388	5.969	87.402	69.204
06/27/2011 09:49:41	5.376	13.432	5.94	87.204	69.801
06/27/2011 09:49:51	5.354	13.44	5.855	87.603	69.204
06/27/2011 09:50:01	5.346	13.432	5.83	87.603	69.402
06/27/2011 09:50:11	5.361	13.425	5.852	87.603	69.801
06/27/2011 09:50:21	5.379	13.44	5.848	87.603	69.604
06/27/2011 09:50:31	5.361	13.462	5.859	87.402	69.604
06/27/2011 09:50:41	5.346	13.454	5.899	87.603	69.801
06/27/2011 09:50:51	5.361	13.403	5.899	87.402	69.604
06/27/2011 09:51:01	5.387	13.403	5.903	87.603	69.204
06/27/2011 09:51:11	5.372	13.425	5.91	87.603	69.204
06/27/2011 09:51:21	5.346	13.451	5.885	87.603	69.402
06/27/2011 09:51:31	5.361	13.451	5.866	87.402	69.801
06/27/2011 09:51:41	5.39	13.399	5.892	87.603	69.801
06/27/2011 09:51:51	5.387	13.421	5.903	87.805	69.402
06/27/2011 09:52:01	5.387	13.407	5.91	87.904	69.204
06/27/2011 09:52:11	5.394	13.377	5.91	87.805	69.402
06/27/2011 09:52:21	5.398	13.392	5.863	87.603	69.801
06/27/2011 09:52:31	5.39	13.403	5.797	87.603	69.801
06/27/2011 09:52:41	5.346	13.476	5.826	87.805	69.003
06/27/2011 09:52:51	5.284	13.513	5.881	87.805	69.204
06/27/2011 09:53:01	5.28	13.513	5.83	87.603	69.801
06/27/2011 09:53:11	5.295	13.484	5.833	87.603	69.801
06/27/2011 09:53:21	5.31	13.491	5.855	87.402	69.402
06/27/2011 09:53:31	5.313	13.451	5.881	87.402	69.204
06/27/2011 09:53:41	5.365	13.418	5.866	87.603	69.204
06/27/2011 09:53:51	5.383	13.41	5.892	87.402	69.204
06/27/2011 09:54:01	5.39	13.407	5.907	87.603	69.204
06/27/2011 09:54:11	5.419	13.385	5.903	87.603	69.204

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 09:54:21	5.434	13.374	5.885	87.603	69.604
06/27/2011 09:54:31	5.449	13.352	5.859	87.805	70.102
06/27/2011 09:54:41	5.463	13.377	5.91	87.805	70.102
06/27/2011 09:54:51	5.449	13.356	5.907	87.603	69.402
06/27/2011 09:55:01	5.438	13.407	5.921	87.805	69.204
06/27/2011 09:55:11	5.427	13.392	5.987	87.603	69.904
06/27/2011 09:55:21	5.401	13.429	5.994	87.603	70.102
06/27/2011 09:55:31	5.398	13.407	5.972	87.603	70.303
06/27/2011 09:55:41	5.346	13.487	5.932	87.805	69.604
06/27/2011 09:55:51	5.306	13.462	5.903	87.603	69.402
06/27/2011 09:56:01	5.354	13.432	5.819	87.603	69.904
06/27/2011 09:56:11	5.383	13.41	5.786	87.603	70.102
06/27/2011 09:56:21	5.408	13.37	5.808	87.603	70.303
06/27/2011 09:56:31	5.438	13.363	5.83	87.603	69.604
06/27/2011 09:56:41	5.449	13.356	5.848	87.805	69.604
06/27/2011 09:56:51	5.493	13.297	5.958	87.805	69.402
06/27/2011 09:57:01	5.566	13.216	5.94	87.603	69.801
06/27/2011 09:57:11	5.588	13.253	5.921	87.603	69.801
06/27/2011 09:57:21	5.504	13.37	5.929	87.603	69.604
06/27/2011 09:57:31	5.405	13.451	5.899	87.603	69.604
06/27/2011 09:57:41	5.379	13.418	5.855	87.805	69.604
06/27/2011 09:57:51	5.401	13.399	5.833	87.603	70.303
06/27/2011 09:58:01	5.449	13.337	5.877	87.603	70.303
06/27/2011 09:58:11	5.449	13.377	5.929	87.603	70.303
06/27/2011 09:58:21	5.43	13.363	5.921	87.603	69.801
06/27/2011 09:58:31	5.456	13.334	5.899	87.603	69.604
06/27/2011 09:58:41	5.46	13.363	5.848	87.805	69.604
06/27/2011 09:58:51	5.43	13.388	5.855	87.805	70.303
06/27/2011 09:59:01	5.43	13.385	5.863	87.805	70.303
06/27/2011 09:59:11	5.452	13.341	6.445	87.603	69.801
06/27/2011 09:59:21	5.573	13.022	7.522	87.603	69.604
06/27/2011 09:59:31	5.841	12.927	7.569	87.603	69.904
06/27/2011 09:59:41	5.885	12.956	7.536	87.603	70.303
06/27/2011 09:59:51	5.837	12.993	7.434	87.402	70.303
06/27/2011 10:00:01	5.815	12.989	8.529	87.603	69.801
06/27/2011 10:00:11	5.789	12.978	5.811	87.603	69.801
06/27/2011 10:00:21	5.83	12.942	5.698	87.603	69.904
06/27/2011 10:00:31	5.874	12.942	5.811	87.603	70.303
06/27/2011 10:00:41	5.712	13.268	5.815	87.603	70.303
06/27/2011 10:00:51	5.54	13.304	5.789	87.603	70.303
06/27/2011 10:01:01	5.493	13.345	5.756	87.603	70.303
06/27/2011 10:01:11	5.452	13.385	5.771	87.603	69.904
06/27/2011 10:01:21	5.449	13.363	5.804	87.603	69.801
06/27/2011 10:01:31	5.445	13.377	5.804	87.603	69.801
06/27/2011 10:01:41	5.416	13.418	5.859	87.603	69.801
06/27/2011 10:01:51	5.434	13.345	5.844	87.603	69.801
06/27/2011 10:02:01	5.482	13.326	5.782	87.603	69.604
06/27/2011 10:02:11	5.482	13.359	5.811	87.603	69.801
06/27/2011 10:02:21	5.434	13.41	5.83	87.603	69.801
06/27/2011 10:02:31	5.405	13.414	5.771	87.603	69.604
06/27/2011 10:02:41	5.39	13.403	5.738	87.603	69.604
06/27/2011 10:02:51	5.394	13.399	5.76	87.805	69.604
06/27/2011 10:03:01	5.387	13.447	5.8	87.603	69.604
06/27/2011 10:03:11	5.365	13.44	5.815	87.603	69.801
06/27/2011 10:03:21	5.398	13.377	5.811	87.805	69.604
06/27/2011 10:03:31	5.46	13.348	5.83	87.603	69.801
06/27/2011 10:03:41	5.46	13.403	5.804	87.805	69.904
06/27/2011 10:03:51	5.423	13.399	5.771	87.805	69.801
Pause Run 8					
GC Recovery Check					
06/27/2011 10:04:01	5.43	13.396	43.551	87.603	69.801
06/27/2011 10:04:11	5.8	4.892	101.619	87.603	70.102
06/27/2011 10:04:21	2.574	0.388	101.619	87.603	70.102
06/27/2011 10:04:31	0.131	0.285	101.619	87.805	70.102
06/27/2011 10:04:41	0.043	0.241	101.611	87.805	70.102
06/27/2011 10:04:51	0.032	0.215	101.611	87.603	70.102
06/27/2011 10:05:01	0.025	0.201	101.619	87.805	70.102
06/27/2011 10:05:11	0.021	0.186	101.615	87.805	70.102
06/27/2011 10:05:21	0.018	0.183	101.619	87.904	70.102

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 10:05:31	0.014	0.172	101.619	87.603	69.904
06/27/2011 10:05:41	0.01	0.168	101.615	87.805	70.102
06/27/2011 10:05:51	0.01	0.164	101.615	87.805	70.504
06/27/2011 10:06:01	0.135	0.82	63.191	87.904	70.303
06/27/2011 10:06:11	3.028	12.898	8.133	87.603	70.303
06/27/2011 10:06:21	5.31	13.18	6.961	87.603	70.303
06/27/2011 10:06:31	5.43	13.231	6.738	87.603	69.801
06/27/2011 10:06:41	5.387	13.37	6.756	87.603	69.402
06/27/2011 10:06:51	5.365	13.326	6.705	87.603	69.402
06/27/2011 10:07:01	5.39	13.315	6.551	87.603	69.402
Resume Run 8					
06/27/2011 10:07:11	5.449	13.271	6.313	87.603	69.402
06/27/2011 10:07:21	5.445	13.341	6.185	87.805	69.604
06/27/2011 10:07:31	5.394	13.374	6.243	87.904	69.604
06/27/2011 10:07:41	5.368	13.381	6.203	87.603	69.801
06/27/2011 10:07:51	5.372	13.388	6.134	87.603	70.102
06/27/2011 10:08:01	5.39	13.37	6.071	87.603	70.102
06/27/2011 10:08:11	5.372	13.418	6.097	87.805	70.102
06/27/2011 10:08:21	5.365	13.377	6.071	87.805	69.604
06/27/2011 10:08:31	5.394	13.37	6.013	87.603	69.402
06/27/2011 10:08:41	5.401	13.388	6.027	87.603	69.402
06/27/2011 10:08:51	5.387	13.414	5.998	87.603	69.604
06/27/2011 10:09:01	5.398	13.388	5.972	87.805	69.604
06/27/2011 10:09:11	5.416	13.352	5.969	87.805	69.402
06/27/2011 10:09:21	5.449	13.348	5.965	87.805	69.402
06/27/2011 10:09:31	5.438	13.363	5.921	87.805	69.402
06/27/2011 10:09:41	5.427	13.337	5.965	87.603	69.204
06/27/2011 10:09:51	5.463	13.323	5.943	87.603	69.801
06/27/2011 10:10:01	5.467	13.345	5.94	87.603	70.102
06/27/2011 10:10:11	5.419	13.396	5.972	87.904	70.303
06/27/2011 10:10:21	5.372	13.462	5.991	87.904	69.801
06/27/2011 10:10:31	5.346	13.462	6.016	88.105	69.402
06/27/2011 10:10:41	5.324	13.476	6.082	88.105	69.904
06/27/2011 10:10:51	5.328	13.429	6.441	87.904	70.303
06/27/2011 10:11:01	5.368	13.48	7.046	88.105	69.604
06/27/2011 10:11:11	5.295	13.678	7.188	87.904	69.801
06/27/2011 10:11:21	5.148	13.777	6.925	87.904	70.303
06/27/2011 10:11:31	5.094	13.747	6.687	87.805	69.604
06/27/2011 10:11:41	5.116	13.616	6.452	87.805	70.102
06/27/2011 10:11:51	5.185	13.542	6.262	87.805	70.303
06/27/2011 10:12:01	5.244	13.487	6.134	87.603	69.604
06/27/2011 10:12:11	5.266	13.517	6.06	87.402	70.303
06/27/2011 10:12:21	5.277	13.454	5.976	87.805	69.801
06/27/2011 10:12:31	5.335	13.432	5.932	87.603	70.102
06/27/2011 10:12:41	5.354	13.414	5.907	87.805	70.303
06/27/2011 10:12:51	5.361	13.432	5.95	87.805	69.604
06/27/2011 10:13:01	5.335	13.487	5.969	87.904	70.303
06/27/2011 10:13:11	5.328	13.44	6.016	87.805	69.904
06/27/2011 10:13:21	5.387	13.392	5.991	87.603	69.604
06/27/2011 10:13:31	5.398	13.414	5.991	87.603	69.604
06/27/2011 10:13:41	5.383	13.432	5.983	87.603	69.801
06/27/2011 10:13:51	5.354	13.469	5.976	87.603	70.303
06/27/2011 10:14:01	5.321	13.476	5.994	87.402	69.801
06/27/2011 10:14:11	5.299	13.502	6.005	87.603	69.604
06/27/2011 10:14:21	5.313	13.44	5.976	87.402	70.303
06/27/2011 10:14:31	5.317	13.509	5.95	87.603	70.303
06/27/2011 10:14:41	5.269	13.535	5.921	87.603	69.604
06/27/2011 10:14:51	5.207	13.616	5.954	87.603	69.904
06/27/2011 10:15:01	5.189	13.55	5.976	87.603	70.303
06/27/2011 10:15:11	5.266	13.484	5.965	87.603	70.102
06/27/2011 10:15:21	5.291	13.517	5.958	87.805	69.801
06/27/2011 10:15:31	5.262	13.524	5.94	87.805	70.303
06/27/2011 10:15:41	5.258	13.513	5.943	87.204	70.102
06/27/2011 10:15:51	5.299	13.462	5.943	87.402	69.402
06/27/2011 10:16:01	5.284	13.531	5.899	87.402	69.604
06/27/2011 10:16:11	5.247	13.52	5.885	87.003	70.102
06/27/2011 10:16:21	5.255	13.502	5.914	87.204	69.604
06/27/2011 10:16:31	5.284	13.487	5.841	87.603	69.801
06/27/2011 10:16:41	5.295	13.491	5.874	87.603	70.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 10:16:51	5.306	13.509	5.907	87.204	70.102
06/27/2011 10:17:01	5.295	13.513	5.907	87.603	69.604
06/27/2011 10:17:11	5.306	13.484	5.94	87.603	69.604
06/27/2011 10:17:21	5.324	13.502	5.969	87.603	69.604
06/27/2011 10:17:31	5.291	13.517	5.969	87.204	70.102
06/27/2011 10:17:41	5.302	13.506	5.983	87.402	70.102
06/27/2011 10:17:51	5.291	13.531	6.002	87.805	69.604
06/27/2011 10:18:01	5.277	13.462	5.987	87.805	69.604
06/27/2011 10:18:11	5.328	13.454	5.914	87.805	69.801
06/27/2011 10:18:21	5.321	13.473	5.896	87.402	70.102
06/27/2011 10:18:31	5.269	13.535	5.914	87.402	70.102
06/27/2011 10:18:41	5.225	13.59	5.95	87.603	69.604
06/27/2011 10:18:51	5.192	13.608	5.954	87.603	69.604
06/27/2011 10:19:01	5.233	13.531	5.907	87.603	70.102
06/27/2011 10:19:11	5.299	13.513	5.954	87.603	70.303
Pause Run 8					
GC Recovery Check					
06/27/2011 10:19:21	5.302	13.502	91.573	87.603	69.604
06/27/2011 10:19:31	3.947	2.592	101.619	87.805	70.102
06/27/2011 10:19:41	0.703	0.369	101.615	87.603	70.702
06/27/2011 10:19:51	0.051	0.281	101.619	87.402	70.102
06/27/2011 10:20:01	0.025	0.241	101.615	87.402	69.904
06/27/2011 10:20:11	0.018	0.215	101.615	87.603	70.102
06/27/2011 10:20:21	0.01	0.193	101.615	87.402	70.504
06/27/2011 10:20:31	0.007	0.183	101.619	87.204	70.801
06/27/2011 10:20:41	0.007	0.172	101.615	87.603	70.801
06/27/2011 10:20:51	0.003	0.164	101.615	87.402	70.702
06/27/2011 10:21:01	-0.00061	0.164	101.615	87.402	70.504
06/27/2011 10:21:11	-0.00061	0.161	101.615	87.805	69.801
06/27/2011 10:21:21	0.71	5.61	21.603	87.402	69.402
06/27/2011 10:21:31	3.929	13.301	7.58	87.402	69.801
06/27/2011 10:21:41	5.178	13.377	6.928	87.204	70.102
06/27/2011 10:21:51	5.251	13.414	6.727	87.805	70.303
06/27/2011 10:22:01	5.233	13.469	6.632	87.805	70.303
06/27/2011 10:22:11	5.24	13.432	6.558	87.603	70.303
06/27/2011 10:22:21	5.28	13.473	6.522	87.402	70.303
06/27/2011 10:22:31	5.258	13.495	6.427	87.603	70.303
Resume Run 8					
06/27/2011 10:22:41	5.247	13.495	6.346	87.603	70.102
06/27/2011 10:22:51	5.258	13.498	6.298	87.603	70.102
06/27/2011 10:23:01	5.233	13.524	6.273	87.603	70.303
06/27/2011 10:23:11	5.28	13.458	6.251	87.402	70.303
06/27/2011 10:23:21	5.302	13.469	6.225	87.204	70.102
06/27/2011 10:23:31	5.324	13.425	6.203	87.402	69.904
06/27/2011 10:23:41	5.343	13.443	6.207	87.603	69.604
06/27/2011 10:23:51	5.321	13.487	6.196	87.805	69.604
06/27/2011 10:24:01	5.277	13.509	6.214	87.805	69.604
06/27/2011 10:24:11	5.251	13.553	6.178	87.805	69.801
06/27/2011 10:24:21	5.222	13.553	6.108	87.904	70.102
06/27/2011 10:24:31	5.233	13.52	6.075	87.603	70.102
06/27/2011 10:24:41	5.255	13.528	6.101	87.805	70.303
06/27/2011 10:24:51	5.28	13.44	6.101	87.805	70.102
06/27/2011 10:25:01	5.302	13.48	6.097	87.603	69.801
06/27/2011 10:25:11	5.247	13.568	6.049	87.904	69.604
06/27/2011 10:25:21	5.192	13.59	6.071	87.904	69.604
06/27/2011 10:25:31	5.207	13.568	6.071	87.904	70.303
06/27/2011 10:25:41	5.244	13.542	6.075	87.904	70.102
06/27/2011 10:25:51	5.236	13.55	6.027	88.105	69.604
06/27/2011 10:26:01	5.247	13.528	6.016	87.904	69.604
06/27/2011 10:26:11	5.247	13.561	6.042	87.904	69.604
06/27/2011 10:26:21	5.236	13.568	6.042	88.105	69.904
06/27/2011 10:26:31	5.244	13.55	6.016	88.105	70.102
06/27/2011 10:26:41	5.233	13.55	6.027	88.105	70.102
06/27/2011 10:26:51	5.203	13.623	6.016	87.904	70.102
06/27/2011 10:27:01	5.141	13.656	6.042	87.805	69.904
06/27/2011 10:27:11	5.156	13.601	6.068	87.805	70.102
06/27/2011 10:27:21	5.181	13.623	6.02	87.805	70.102
06/27/2011 10:27:31	5.152	13.674	5.969	87.805	70.102
06/27/2011 10:27:41	5.163	13.601	6.027	88.303	69.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 10:27:51	5.167	13.634	6.071	88.504	69.604
06/27/2011 10:28:01	5.167	13.605	6.02	88.303	70.102
06/27/2011 10:28:11	5.174	13.59	6.002	88.303	70.303
06/27/2011 10:28:21	5.163	13.608	5.965	88.504	69.604
06/27/2011 10:28:31	5.178	13.575	5.921	88.105	70.303
06/27/2011 10:28:41	5.189	13.568	5.94	88.105	69.801
06/27/2011 10:28:51	5.236	13.52	5.943	88.105	70.303
06/27/2011 10:29:01	5.255	13.564	5.954	88.303	69.801
06/27/2011 10:29:11	5.229	13.583	5.965	88.303	70.303
06/27/2011 10:29:21	5.178	13.659	5.943	88.504	69.801
06/27/2011 10:29:31	5.083	13.736	5.914	88.303	70.303
06/27/2011 10:29:41	5.079	13.659	5.969	88.105	70.303
06/27/2011 10:29:51	5.159	13.564	5.991	88.105	69.604
06/27/2011 10:30:01	5.255	13.542	5.965	88.105	69.604
06/27/2011 10:30:11	5.273	13.557	5.994	88.105	69.604
06/27/2011 10:30:21	5.24	13.568	5.969	88.105	69.904
06/27/2011 10:30:31	5.211	13.634	5.98	88.303	70.303
06/27/2011 10:30:41	5.178	13.623	5.987	88.303	70.102
Pause Run 8					
GC Recovery Check					
06/27/2011 10:30:51	5.152	13.685	9.99	88.303	69.801
06/27/2011 10:31:01	4.896	11.543	101.619	88.303	70.303
06/27/2011 10:31:11	2.039	0.501	101.615	87.904	70.504
06/27/2011 10:31:21	0.12	0.322	101.615	88.303	70.102
06/27/2011 10:31:31	0.029	0.263	101.611	88.303	70.504
06/27/2011 10:31:41	0.021	0.234	101.608	87.904	70.702
06/27/2011 10:31:51	0.014	0.212	101.615	88.105	70.303
06/27/2011 10:32:01	0.01	0.197	101.615	88.105	70.702
06/27/2011 10:32:11	0.007	0.19	101.615	88.105	70.801
06/27/2011 10:32:21	0.003	0.179	101.611	87.904	70.303
06/27/2011 10:32:31	0.003	0.172	101.611	88.105	70.303
06/27/2011 10:32:41	0.003	0.168	101.615	88.303	70.303
06/27/2011 10:32:51	-0.00061	0.164	101.615	88.303	70.801
06/27/2011 10:33:01	-0.00061	0.157	101.611	88.504	70.801
06/27/2011 10:33:11	-0.00061	0.157	101.615	88.504	70.801
06/27/2011 10:33:21	-0.00061	0.153	101.611	88.303	70.702
06/27/2011 10:33:31	-0.004	0.15	101.615	88.105	70.504
06/27/2011 10:33:41	-0.004	0.15	101.615	87.805	70.102
06/27/2011 10:33:51	-0.004	0.15	101.611	87.904	69.904
06/27/2011 10:34:01	-0.004	0.15	101.615	88.303	69.801
06/27/2011 10:34:11	0.823	6.628	19.01	88.105	69.604
06/27/2011 10:34:21	4.061	13.334	7.639	88.105	69.402
06/27/2011 10:34:31	5.148	13.432	7.005	87.904	69.604
06/27/2011 10:34:41	5.156	13.546	6.771	88.105	69.904
06/27/2011 10:34:51	5.126	13.561	6.643	87.904	70.303
06/27/2011 10:35:01	5.141	13.542	6.544	88.303	70.303
06/27/2011 10:35:11	5.189	13.535	6.463	88.105	69.604
06/27/2011 10:35:21	5.2	13.52	6.416	88.303	69.604
06/27/2011 10:35:31	5.218	13.502	6.43	88.105	70.303
Resume Run 8					
06/27/2011 10:35:41	5.211	13.568	6.379	88.303	69.604
06/27/2011 10:35:51	5.174	13.568	6.32	88.105	69.904
06/27/2011 10:36:01	5.152	13.575	6.156	88.105	70.102
06/27/2011 10:36:11	5.17	13.572	6.119	88.105	69.604
06/27/2011 10:36:21	5.167	13.612	6.123	88.105	70.303
06/27/2011 10:36:31	5.167	13.608	6.112	88.105	69.801
06/27/2011 10:36:41	5.167	13.608	6.075	87.904	69.904
06/27/2011 10:36:51	5.17	13.579	6.075	87.904	70.102
06/27/2011 10:37:01	5.211	13.568	6.057	88.105	69.801
06/27/2011 10:37:11	5.222	13.564	6.027	88.105	69.801
06/27/2011 10:37:21	5.203	13.601	5.991	88.105	70.303
06/27/2011 10:37:31	5.163	13.638	5.994	88.303	69.801
06/27/2011 10:37:41	5.163	13.55	6.027	88.504	70.303
06/27/2011 10:37:51	5.236	13.524	6.024	88.504	69.801
06/27/2011 10:38:01	5.236	13.564	6.071	88.702	70.303
Pause Run 8					
THC Drift Check					
06/27/2011 10:38:11	5.178	13.634	13.887	88.702	69.801
06/27/2011 10:38:21	5.097	13.509	6.339	88.805	70.504

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 10:38:31	5.105	13.634	69.556	88.702	69.904
06/27/2011 10:38:41	4.372	5.324	4.171	88.805	70.702
06/27/2011 10:38:51	1.629	1.926	1.629	88.504	70.801
06/27/2011 10:39:01	0.626	1.841	1.486	88.805	70.303
06/27/2011 10:39:11	0.585	1.812	1.424	89.002	70.303
06/27/2011 10:39:21	0.578	1.79	1.391	88.805	70.303
06/27/2011 10:39:31	0.578	1.754	1.34	88.805	70.303
06/27/2011 10:39:41	0.512	1.076	0.776	89.002	70.303
06/27/2011 10:39:51	0.161	0.193	0.703	88.805	70.303
06/27/2011 10:40:01	0.018	0.179	0.67	88.702	70.303
06/27/2011 10:40:11	0.01	0.168	0.666	88.702	70.303
06/27/2011 10:40:21	0.007	0.161	0.622	88.702	70.702
06/27/2011 10:40:31	0.007	0.157	0.618	88.504	70.801
N2 Zero			**0.635**	**88.636**	**70.602**
06/27/2011 10:40:41	0.007	0.15	8.166	88.504	70.702
06/27/2011 10:40:51	3.596	3.416	51.344	88.702	70.504
06/27/2011 10:41:01	13.725	4.05	51.483	88.504	70.303
06/27/2011 10:41:11	16.084	4.075	51.457	88.702	69.801
06/27/2011 10:41:21	16.172	4.086	51.49	88.504	69.801
06/27/2011 10:41:31	16.201	4.079	51.468	88.702	69.904
06/27/2011 10:41:41	16.219	4.086	50.256	88.504	70.102
06/27/2011 10:41:51	16.058	4.438	49.564	88.702	70.303
06/27/2011 10:42:01	15.838	4.453	49.527	88.702	70.303
06/27/2011 10:42:11	15.838	4.427	50.487	88.805	70.303
06/27/2011 10:42:21	15.981	4.218	50.703	88.805	70.303
06/27/2011 10:42:31	16.106	4.2	50.685	89.002	70.303
06/27/2011 10:42:41	16.12	4.196	50.707	88.805	70.303
49.8 ppm Propane Mid			**50.698**	**88.871**	**70.303**
06/27/2011 10:42:51	16.124	4.182	22.998	88.805	70.303
06/27/2011 10:43:01	12.297	12.652	6.291	88.702	69.801
06/27/2011 10:43:11	6.06	13.41	6.101	88.805	69.604
06/27/2011 10:43:21	5.357	13.374	6.031	88.702	69.402
Resume Run 8					
06/27/2011 10:43:31	5.339	13.421	5.994	88.303	69.402
06/27/2011 10:43:41	5.291	13.524	6.005	88.303	69.402
06/27/2011 10:43:51	5.222	13.539	5.991	88.504	69.604
06/27/2011 10:44:01	5.251	13.469	7.88	88.303	69.402
06/27/2011 10:44:11	5.504	13.103	6.262	88.504	69.604
06/27/2011 10:44:21	5.463	13.48	5.947	88.504	69.604
06/27/2011 10:44:31	5.269	13.535	5.903	88.702	69.604
Pause Run 8					
GC Recovery Check					
06/27/2011 10:44:41	5.24	13.546	42.664	88.805	69.904
06/27/2011 10:44:51	5.449	5.584	101.611	88.805	70.102
06/27/2011 10:45:01	2.409	0.362	101.611	88.805	70.303
06/27/2011 10:45:11	0.128	0.259	101.611	88.805	70.303
06/27/2011 10:45:21	0.043	0.219	101.611	88.805	70.303
06/27/2011 10:45:31	0.032	0.193	101.611	88.702	70.102
06/27/2011 10:45:41	0.025	0.179	101.611	88.504	70.102
06/27/2011 10:45:51	0.021	0.168	101.611	88.805	70.303
06/27/2011 10:46:01	0.018	0.161	101.615	88.805	70.504
06/27/2011 10:46:11	0.018	0.153	101.611	88.805	70.801
06/27/2011 10:46:21	0.014	0.15	101.611	88.805	70.702
06/27/2011 10:46:31	0.01	0.146	101.611	88.805	70.702
06/27/2011 10:46:41	0.01	0.142	101.615	88.702	70.702
06/27/2011 10:46:51	0.01	0.139	101.611	89.002	70.702
06/27/2011 10:47:01	0.01	0.139	101.615	88.805	70.504
06/27/2011 10:47:11	0.007	0.135	101.615	89.002	70.504
06/27/2011 10:47:21	0.007	0.135	101.615	88.805	70.504
06/27/2011 10:47:31	0.007	0.131	101.611	89.204	69.904
06/27/2011 10:47:41	0.007	0.131	101.615	89.002	69.604
06/27/2011 10:47:51	0.003	0.131	101.615	89.002	69.604
06/27/2011 10:48:01	0.003	0.128	101.611	88.702	69.604
06/27/2011 10:48:11	0.003	0.128	101.615	88.805	70.102
06/27/2011 10:48:21	0.003	0.128	101.611	89.002	69.904
06/27/2011 10:48:31	0.677	5.31	23.075	89.204	69.402
06/27/2011 10:48:41	3.885	13.271	7.822	89.002	69.204
06/27/2011 10:48:51	5.163	13.388	7.086	89.204	69.801
06/27/2011 10:49:01	5.218	13.454	6.804	89.402	69.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 10:49:11	5.273	13.381	6.709	89.204	69.204
06/27/2011 10:49:21	5.339	13.392	6.683	89.002	69.801
06/27/2011 10:49:31	5.346	13.377	6.555	89.002	69.904
06/27/2011 10:49:41	5.372	13.366	6.482	89.002	69.402
06/27/2011 10:49:51	5.372	13.392	6.441	89.002	69.204
Resume Run 8					
06/27/2011 10:50:01	5.394	13.334	6.386	89.002	69.402
06/27/2011 10:50:11	5.376	13.421	6.324	89.002	69.402
06/27/2011 10:50:21	5.324	13.44	6.28	89.204	69.402
06/27/2011 10:50:31	5.31	13.447	6.214	89.204	69.402
06/27/2011 10:50:41	5.328	13.388	6.181	89.002	69.604
06/27/2011 10:50:51	5.35	13.399	6.101	89.002	70.102
06/27/2011 10:51:01	5.357	13.377	6.046	88.805	69.904
06/27/2011 10:51:11	5.379	13.414	6.101	89.002	69.402
06/27/2011 10:51:21	5.372	13.388	6.119	88.805	69.402
06/27/2011 10:51:31	5.427	13.334	6.104	88.805	69.402
06/27/2011 10:51:41	5.456	13.334	6.068	88.702	69.904
06/27/2011 10:51:51	5.474	13.304	6.075	88.303	70.303
06/27/2011 10:52:01	5.504	13.268	6.035	88.702	69.904
06/27/2011 10:52:11	5.54	13.238	5.991	88.805	69.604
06/27/2011 10:52:21	5.584	13.224	6.002	89.204	69.604
06/27/2011 10:52:31	5.562	13.29	5.958	89.204	69.904
06/27/2011 10:52:41	5.507	13.308	5.972	89.204	70.303
06/27/2011 10:52:51	5.493	13.29	13.359	89.204	70.504
06/27/2011 10:53:01	5.485	12.989	7.115	89.204	70.504
06/27/2011 10:53:11	5.5	13.257	6.002	89.402	70.504
06/27/2011 10:53:21	5.54	13.242	5.94	89.204	70.102
06/27/2011 10:53:31	5.588	13.22	5.972	89.402	70.102
06/27/2011 10:53:41	5.577	13.268	5.914	89.204	70.504
06/27/2011 10:53:51	5.526	13.304	5.925	89.402	70.702
06/27/2011 10:54:01	5.511	13.297	5.888	89.402	70.504
06/27/2011 10:54:11	5.518	13.279	5.833	89.402	69.801
06/27/2011 10:54:21	5.463	13.388	5.775	89.402	70.504
06/27/2011 10:54:31	5.35	13.491	5.83	89.204	70.504
06/27/2011 10:54:41	5.302	13.443	5.76	89.204	69.801
06/27/2011 10:54:51	5.343	13.429	5.72	89.402	70.702
06/27/2011 10:55:01	5.35	13.432	5.731	89.402	69.904
06/27/2011 10:55:11	5.317	13.469	5.734	89.204	70.504
06/27/2011 10:55:21	5.306	13.462	5.723	89.603	70.702
06/27/2011 10:55:31	5.31	13.491	5.745	89.402	69.904
06/27/2011 10:55:41	5.332	13.443	5.848	89.402	69.904
06/27/2011 10:55:51	5.372	13.385	5.819	89.402	70.504
06/27/2011 10:56:01	5.376	13.432	5.797	89.603	70.801
06/27/2011 10:56:11	5.324	13.498	5.881	89.204	70.801
06/27/2011 10:56:21	5.31	13.487	5.932	89.204	70.801
06/27/2011 10:56:31	5.31	13.473	5.907	89.204	71.003
06/27/2011 10:56:41	5.324	13.48	5.892	89.204	71.003
06/27/2011 10:56:51	5.321	13.469	5.852	88.805	70.702
06/27/2011 10:57:01	5.332	13.458	5.789	88.805	70.702
06/27/2011 10:57:11	5.295	13.491	5.775	88.702	70.702
06/27/2011 10:57:21	5.299	13.447	5.804	89.002	70.504
06/27/2011 10:57:31	5.302	13.495	5.786	89.002	70.303
06/27/2011 10:57:41	5.306	13.465	5.742	89.002	70.303
06/27/2011 10:57:51	5.324	13.469	5.775	88.805	70.504
06/27/2011 10:58:01	5.313	13.473	5.775	88.805	70.702
06/27/2011 10:58:11	5.343	13.425	5.804	89.402	71.204
06/27/2011 10:58:21	5.332	13.462	5.8	89.002	71.204
06/27/2011 10:58:31	5.288	13.535	5.775	89.204	71.204
06/27/2011 10:58:41	5.277	13.513	5.793	89.002	71.204
06/27/2011 10:58:51	5.313	13.473	5.844	89.002	71.204
06/27/2011 10:59:01	5.343	13.465	5.863	89.002	71.204
06/27/2011 10:59:11	5.343	13.462	5.859	88.702	70.504
06/27/2011 10:59:21	5.361	13.429	5.83	88.702	70.303
06/27/2011 10:59:31	5.339	13.487	5.83	88.805	70.504
06/27/2011 10:59:41	5.295	13.491	5.793	89.002	71.204
06/27/2011 10:59:51	5.273	13.524	5.767	89.002	71.204
06/27/2011 11:00:01	5.302	13.458	5.775	89.002	70.801
06/27/2011 11:00:11	5.343	13.41	5.815	89.002	70.702
06/27/2011 11:00:21	5.379	13.377	5.83	89.002	70.702

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 11:00:31	5.405	13.363	5.863	89.204	71.204
06/27/2011 11:00:41	5.416	13.414	5.844	89.204	71.204
06/27/2011 11:00:51	5.379	13.429	5.815	89.402	70.801
06/27/2011 11:01:01	5.416	13.337	5.855	89.402	70.702
06/27/2011 11:01:11	5.485	13.326	5.852	89.204	70.504
06/27/2011 11:01:21	5.438	13.414	5.833	89.402	70.504
06/27/2011 11:01:31	5.376	13.454	5.866	89.402	70.504
06/27/2011 11:01:41	5.335	13.476	5.885	89.402	70.702
06/27/2011 11:01:51	5.35	13.414	5.885	89.204	71.204
06/27/2011 11:02:01	5.408	13.388	5.877	89.002	71.204
06/27/2011 11:02:11	5.434	13.41	5.819	89.204	71.003
06/27/2011 11:02:21	5.401	13.425	5.83	89.204	70.702
06/27/2011 11:02:31	5.368	13.432	5.852	89.002	71.204
06/27/2011 11:02:41	5.383	13.421	5.855	88.805	71.204
06/27/2011 11:02:51	5.379	13.443	5.808	89.002	70.504
06/27/2011 11:03:01	5.339	13.458	5.841	89.002	71.003
06/27/2011 11:03:11	5.379	13.407	5.833	89.002	71.003
06/27/2011 11:03:21	5.416	13.392	5.852	89.402	70.504
06/27/2011 11:03:31	5.427	13.366	5.808	89.402	70.504
06/27/2011 11:03:41	5.416	13.432	5.877	89.402	70.702
06/27/2011 11:03:51	5.357	13.506	5.907	89.402	71.204
06/27/2011 11:04:01	5.306	13.535	5.907	89.603	70.801
06/27/2011 11:04:11	5.288	13.495	5.888	89.402	70.504
06/27/2011 11:04:21	5.354	13.421	5.874	89.402	70.504
06/27/2011 11:04:31	5.372	13.443	5.874	89.603	71.003
06/27/2011 11:04:41	5.339	13.462	5.844	89.204	71.204
06/27/2011 11:04:51	5.31	13.476	5.826	89.204	71.204
06/27/2011 11:05:01	5.313	13.451	5.76	89.002	71.204
06/27/2011 11:05:11	5.324	13.44	5.76	89.204	71.003
06/27/2011 11:05:21	5.313	13.473	5.804	89.603	70.702
06/27/2011 11:05:31	5.295	13.517	5.83	89.702	70.702
06/27/2011 11:05:41	5.302	13.462	5.855	89.903	70.801
06/27/2011 11:05:51	5.324	13.473	5.855	89.903	70.702
06/27/2011 11:06:01	5.321	13.484	5.863	89.903	70.801
06/27/2011 11:06:11	5.354	13.403	5.877	89.903	70.801
06/27/2011 11:06:21	5.398	13.407	5.855	89.903	70.801
06/27/2011 11:06:31	5.405	13.37	5.855	89.603	70.801
06/27/2011 11:06:41	5.383	13.432	5.819	89.603	71.204
06/27/2011 11:06:51	5.343	13.443	5.771	89.603	71.402
06/27/2011 11:07:01	5.343	13.454	5.756	89.603	71.402
06/27/2011 11:07:11	5.31	13.487	5.745	89.603	71.402
06/27/2011 11:07:21	5.313	13.476	5.727	89.702	70.702
06/27/2011 11:07:31	5.302	13.517	5.771	89.702	71.204
06/27/2011 11:07:41	5.284	13.487	5.789	89.903	71.204
06/27/2011 11:07:51	5.295	13.487	5.756	89.702	70.801
06/27/2011 11:08:01	5.288	13.498	5.723	89.702	71.603
06/27/2011 11:08:11	5.313	13.44	5.753	89.603	70.801
06/27/2011 11:08:21	5.357	13.432	5.786	89.402	71.204
06/27/2011 11:08:31	5.372	13.41	5.753	89.702	71.402
06/27/2011 11:08:41	5.365	13.462	5.753	89.702	70.801
06/27/2011 11:08:51	5.328	13.473	5.764	89.702	70.702
06/27/2011 11:09:01	5.302	13.473	5.797	89.702	70.702
06/27/2011 11:09:11	5.328	13.458	5.855	89.702	70.801
06/27/2011 11:09:21	5.379	13.352	5.885	89.603	71.003
06/27/2011 11:09:31	5.445	13.334	5.808	89.603	70.702
06/27/2011 11:09:41	5.408	13.414	5.797	89.402	70.801
06/27/2011 11:09:51	5.383	13.414	5.83	89.603	71.204
06/27/2011 11:10:01	5.416	13.359	5.811	89.603	71.603
06/27/2011 11:10:11	5.419	13.407	5.797	89.603	71.603
06/27/2011 11:10:21	5.39	13.399	5.819	89.402	71.402
06/27/2011 11:10:31	5.379	13.443	5.837	89.603	71.003
06/27/2011 11:10:41	5.361	13.425	5.855	89.402	71.003
06/27/2011 11:10:51	5.368	13.443	5.866	89.402	71.204
06/27/2011 11:11:01	5.368	13.462	5.855	89.603	71.603
06/27/2011 11:11:11	5.332	13.473	5.885	89.402	71.603
06/27/2011 11:11:21	5.328	13.454	5.859	89.204	71.603
06/27/2011 11:11:31	5.346	13.44	5.841	89.402	71.402
06/27/2011 11:11:41	5.335	13.48	5.855	89.402	71.003
06/27/2011 11:11:51	5.284	13.535	5.793	89.603	70.801

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 11:12:01	5.255	13.509	5.804	89.603	71.003
06/27/2011 11:12:11	5.262	13.524	5.804	89.402	71.003
06/27/2011 11:12:21	5.244	13.528	5.804	89.603	71.402
06/27/2011 11:12:31	5.28	13.465	5.808	89.402	71.603
06/27/2011 11:12:41	5.313	13.469	5.826	89.603	71.603
06/27/2011 11:12:51	5.295	13.491	5.888	89.402	71.402
06/27/2011 11:13:01	5.288	13.484	5.841	89.402	71.204
06/27/2011 11:13:11	5.324	13.465	5.83	89.603	70.801
06/27/2011 11:13:21	5.335	13.48	5.969	89.603	70.801
06/27/2011 11:13:31	5.321	13.473	6.159	89.603	70.801
06/27/2011 11:13:41	5.324	13.462	6.152	89.603	71.003
06/27/2011 11:13:51	5.354	13.425	6.112	89.603	71.003
06/27/2011 11:14:01	5.35	13.458	6.123	89.603	71.003
06/27/2011 11:14:11	5.332	13.451	6.119	89.603	71.204
06/27/2011 11:14:21	5.317	13.447	6.031	89.702	71.204
06/27/2011 11:14:31	5.306	13.491	5.969	89.603	71.204
06/27/2011 11:14:41	5.295	13.465	5.983	89.402	71.003
06/27/2011 11:14:51	5.306	13.469	5.98	89.402	70.801
06/27/2011 11:15:01	5.302	13.454	6.016	88.805	71.204
06/27/2011 11:15:11	5.321	13.465	6.027	88.702	71.603
06/27/2011 11:15:21	5.357	13.385	6.042	89.204	70.801
06/27/2011 11:15:31	5.401	13.385	5.943	89.402	71.402
06/27/2011 11:15:41	5.372	13.454	5.969	89.603	70.801
06/27/2011 11:15:51	5.332	13.458	5.94	89.002	71.402
06/27/2011 11:16:01	5.332	13.443	5.954	89.002	71.003
06/27/2011 11:16:11	5.357	13.436	5.885	89.002	71.402
06/27/2011 11:16:21	5.332	13.462	5.833	88.805	71.204
06/27/2011 11:16:31	5.339	13.421	5.731	89.002	71.003
06/27/2011 11:16:41	5.376	13.41	5.767	89.002	71.402
06/27/2011 11:16:51	5.383	13.432	5.705	89.002	71.603
06/27/2011 11:17:01	5.361	13.447	5.712	89.204	71.003
06/27/2011 11:17:11	5.394	13.385	5.683	89.402	71.204
06/27/2011 11:17:21	5.408	13.414	5.745	89.204	71.603
06/27/2011 11:17:31	5.427	13.385	5.72	89.603	71.402
06/27/2011 11:17:41	5.46	13.356	5.749	89.204	71.204
06/27/2011 11:17:51	5.478	13.337	5.749	89.002	71.204
06/27/2011 11:18:01	5.482	13.341	5.72	89.002	71.204
06/27/2011 11:18:11	5.474	13.363	5.683	89.002	71.603
06/27/2011 11:18:21	5.474	13.356	5.672	89.002	71.603
06/27/2011 11:18:31	5.482	13.304	5.698	89.204	71.603
06/27/2011 11:18:41	5.522	13.257	5.669	89.204	71.204
06/27/2011 11:18:51	5.548	13.275	5.72	89.402	71.003
06/27/2011 11:19:01	5.474	13.374	5.701	89.603	71.003
06/27/2011 11:19:11	5.419	13.363	5.592	89.702	70.801
06/27/2011 11:19:21	5.423	13.366	5.617	89.603	71.003
06/27/2011 11:19:31	5.408	13.403	5.588	89.002	71.003
06/27/2011 11:19:41	5.376	13.407	5.562	88.805	71.003
06/27/2011 11:19:51	5.401	13.348	5.588	89.204	71.003
06/27/2011 11:20:01	5.452	13.352	5.606	89.402	71.204
06/27/2011 11:20:11	5.405	13.429	5.625	89.702	71.003
06/27/2011 11:20:21	5.357	13.454	5.69	89.702	71.003
06/27/2011 11:20:31	5.368	13.436	5.69	89.603	70.801
06/27/2011 11:20:41	5.379	13.407	5.647	89.402	71.204
06/27/2011 11:20:51	5.394	13.418	5.584	89.402	71.603
06/27/2011 11:21:01	5.398	13.41	5.617	89.204	71.402
06/27/2011 11:21:11	5.379	13.421	5.617	89.402	71.003
06/27/2011 11:21:21	5.372	13.414	5.614	89.204	70.801
06/27/2011 11:21:31	5.361	13.454	5.588	89.603	71.603
06/27/2011 11:21:41	5.328	13.436	5.643	89.402	71.003
06/27/2011 11:21:51	5.39	13.366	5.617	89.603	71.003
06/27/2011 11:22:01	5.46	13.308	5.588	89.204	71.402
06/27/2011 11:22:11	5.471	13.345	5.606	89.204	71.702
06/27/2011 11:22:21	5.467	13.345	5.577	89.402	71.603
06/27/2011 11:22:31	5.441	13.381	5.43	89.603	71.603
06/27/2011 11:22:41	5.434	13.341	5.485	89.702	71.603
06/27/2011 11:22:51	5.46	13.352	5.577	89.702	71.603
06/27/2011 11:23:01	5.46	13.341	5.592	89.903	71.603
06/27/2011 11:23:11	5.474	13.312	5.588	89.903	71.204
06/27/2011 11:23:21	5.511	13.279	5.584	89.702	71.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 11:23:31	5.537	13.29	5.584	89.903	71.003
06/27/2011 11:23:41	5.515	13.308	5.544	89.702	71.204
06/27/2011 11:23:51	5.496	13.341	5.529	89.702	71.603
06/27/2011 11:24:01	5.478	13.337	5.54	89.603	71.603
06/27/2011 11:24:11	5.456	13.366	5.533	89.402	71.003
06/27/2011 11:24:21	5.467	13.319	5.533	89.402	71.003
06/27/2011 11:24:31	5.478	13.308	5.54	89.903	71.402
06/27/2011 11:24:41	5.489	13.312	5.537	89.903	71.702
06/27/2011 11:24:51	5.482	13.348	5.533	89.903	71.603
06/27/2011 11:25:01	5.449	13.363	5.537	89.903	71.204
06/27/2011 11:25:11	5.456	13.319	5.515	90.105	71.204
06/27/2011 11:25:21	5.526	13.231	5.529	90.105	71.702
06/27/2011 11:25:31	5.548	13.286	5.559	90.105	71.702
06/27/2011 11:25:41	5.474	13.399	5.548	90.105	71.204
06/27/2011 11:25:51	5.416	13.388	5.562	90.105	71.003
06/27/2011 11:26:01	5.416	13.366	5.551	90.302	71.402
06/27/2011 11:26:11	5.452	13.334	5.628	90.302	71.603
06/27/2011 11:26:21	5.474	13.297	5.614	90.504	71.702
06/27/2011 11:26:31	5.493	13.301	5.544	90.302	71.603
06/27/2011 11:26:41	5.518	13.275	5.555	90.302	71.903
06/27/2011 11:26:51	5.522	13.315	5.588	89.903	71.702
06/27/2011 11:27:01	5.482	13.341	5.559	90.105	71.402
06/27/2011 11:27:11	5.456	13.326	5.544	90.302	71.204
06/27/2011 11:27:21	5.478	13.308	5.559	90.302	71.003
06/27/2011 11:27:31	5.463	13.323	5.54	90.105	71.003
06/27/2011 11:27:41	5.43	13.345	5.581	90.105	71.402
06/27/2011 11:27:51	5.434	13.356	5.625	89.903	71.603
06/27/2011 11:28:01	5.456	13.282	5.643	90.105	71.702
06/27/2011 11:28:11	5.496	13.286	5.562	90.105	71.702
06/27/2011 11:28:21	5.474	13.352	5.581	89.702	71.204
06/27/2011 11:28:31	5.46	13.334	5.577	89.702	71.003
06/27/2011 11:28:41	5.511	13.253	5.562	89.603	71.402
06/27/2011 11:28:51	5.529	13.271	5.548	89.702	71.702
06/27/2011 11:29:01	5.496	13.323	5.522	89.903	71.603
06/27/2011 11:29:11	5.471	13.334	5.299	90.105	71.204
06/27/2011 11:29:21	5.463	13.341	5.405	90.302	71.402
06/27/2011 11:29:31	5.452	13.352	5.346	89.702	71.903
06/27/2011 11:29:41	5.449	13.352	5.434	89.903	71.603
06/27/2011 11:29:51	5.43	13.37	5.467	89.702	71.204
06/27/2011 11:30:01	5.456	13.33	5.423	89.702	71.702
06/27/2011 11:30:11	5.511	13.264	5.332	89.903	71.903
06/27/2011 11:30:21	5.529	13.304	5.379	90.105	71.603
06/27/2011 11:30:31	5.511	13.308	5.35	89.702	71.603
06/27/2011 11:30:41	5.504	13.304	5.324	89.603	71.603
06/27/2011 11:30:51	5.548	13.235	5.302	89.903	71.702
06/27/2011 11:31:01	5.562	13.279	5.302	89.903	71.702
06/27/2011 11:31:11	5.518	13.315	5.266	89.903	71.603
06/27/2011 11:31:21	5.511	13.282	5.247	89.903	71.402
06/27/2011 11:31:31	5.515	13.315	5.262	90.302	71.204
06/27/2011 11:31:41	5.471	13.374	5.258	90.504	71.204
06/27/2011 11:31:51	5.43	13.33	5.258	90.105	71.003
06/27/2011 11:32:01	5.441	13.334	5.273	90.302	71.204
06/27/2011 11:32:11	5.43	13.366	5.258	90.105	71.402
06/27/2011 11:32:21	5.412	13.403	5.277	90.504	71.903
06/27/2011 11:32:31	5.408	13.381	5.284	89.903	72.101
06/27/2011 11:32:41	5.441	13.319	5.251	89.702	71.702
06/27/2011 11:32:51	5.485	13.312	5.255	89.903	71.702
06/27/2011 11:33:01	5.507	13.268	5.247	90.105	71.402
06/27/2011 11:33:11	5.522	13.297	5.236	89.903	71.204
06/27/2011 11:33:21	5.515	13.297	5.247	90.105	71.402
06/27/2011 11:33:31	5.493	13.326	5.214	90.302	71.603
06/27/2011 11:33:41	5.474	13.323	5.251	90.504	71.903
06/27/2011 11:33:51	5.456	13.326	5.273	90.504	72.101
06/27/2011 11:34:01	5.445	13.356	5.288	90.302	72.101
06/27/2011 11:34:11	5.434	13.359	5.328	90.105	71.903
06/27/2011 11:34:21	5.445	13.326	5.357	90.302	71.402
06/27/2011 11:34:31	5.452	13.356	5.357	90.105	71.204
06/27/2011 11:34:41	5.441	13.359	5.405	90.302	71.402
06/27/2011 11:34:51	5.471	13.301	5.324	90.302	71.603

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 11:35:01	5.529	13.242	5.339	90.302	72.101
06/27/2011 11:35:11	5.526	13.319	5.368	90.302	71.903
06/27/2011 11:35:21	5.467	13.348	5.43	90.504	71.903
06/27/2011 11:35:31	5.456	13.341	5.452	90.302	71.702
06/27/2011 11:35:41	5.434	13.37	5.408	90.302	71.603
06/27/2011 11:35:51	5.401	13.403	5.419	90.504	71.702
06/27/2011 11:36:01	5.423	13.352	5.405	90.302	71.903
06/27/2011 11:36:11	5.416	13.44	5.383	90.302	71.903
06/27/2011 11:36:21	5.324	13.491	5.372	90.504	72.101
06/27/2011 11:36:31	5.291	13.517	5.343	90.603	72.101
06/27/2011 11:36:41	5.284	13.502	5.332	90.603	71.603
06/27/2011 11:36:51	5.299	13.473	5.35	90.504	71.204
06/27/2011 11:37:01	5.346	13.429	5.332	90.302	71.903
06/27/2011 11:37:11	5.379	13.421	5.258	90.504	71.702
06/27/2011 11:37:21	5.416	13.359	5.343	90.504	71.603
06/27/2011 11:37:31	5.408	13.432	5.398	90.504	71.702
06/27/2011 11:37:41	5.376	13.451	5.471	90.603	71.402
06/27/2011 11:37:51	5.387	13.399	5.43	90.504	71.903
06/27/2011 11:38:01	5.387	13.421	5.405	90.504	71.204
06/27/2011 11:38:11	5.361	13.469	5.43	90.603	71.903
06/27/2011 11:38:21	5.376	13.385	5.408	90.504	71.204
06/27/2011 11:38:31	5.387	13.418	5.317	90.504	71.402
06/27/2011 11:38:41	5.354	13.436	5.376	90.504	71.702
06/27/2011 11:38:51	5.332	13.462	5.299	90.504	71.702
06/27/2011 11:39:01	5.332	13.491	5.295	90.504	71.402
06/27/2011 11:39:11	5.313	13.502	5.332	90.302	71.003
06/27/2011 11:39:21	5.321	13.484	5.291	90.504	71.003
Pause Run 8					
THC Drift Check					
06/27/2011 11:39:31	5.361	13.432	8.869	90.504	71.702
06/27/2011 11:39:41	5.401	13.183	5.793	89.702	71.702
06/27/2011 11:39:51	5.434	13.381	53.559	90.105	71.603
06/27/2011 11:40:01	5.035	7.708	6.005	90.105	71.204
06/27/2011 11:40:11	2.772	4.251	2.292	89.903	71.402
06/27/2011 11:40:21	1.633	4.185	2.193	89.603	72.101
06/27/2011 11:40:31	1.585	4.163	2.109	89.702	72.303
06/27/2011 11:40:41	1.567	4.152	2.047	89.702	72.101
06/27/2011 11:40:51	1.549	4.156	1.97	89.903	71.903
06/27/2011 11:41:01	1.505	3.9	1.904	90.105	71.603
06/27/2011 11:41:11	1.439	3.867	1.863	90.302	71.702
06/27/2011 11:41:21	1.428	3.856	1.79	90.504	71.603
06/27/2011 11:41:31	1.351	3.178	1.343	90.302	71.702
06/27/2011 11:41:41	1.039	2.589	0.71	90.302	71.702
06/27/2011 11:41:51	0.516	0.296	0.432	90.302	71.702
06/27/2011 11:42:01	0.047	0.197	0.41	90.302	71.702
06/27/2011 11:42:11	0.01	0.183	0.399	90.302	71.603
06/27/2011 11:42:21	0.014	0.208	1.007	90.302	71.702
06/27/2011 11:42:31	0.38	2.102	1.025	89.603	72.101
06/27/2011 11:42:41	0.571	0.79	0.417	90.105	72.303
06/27/2011 11:42:51	0.12	0.175	0.373	90.105	72.303
06/27/2011 11:43:01	0.007	0.161	0.362	90.105	72.101
06/27/2011 11:43:11	0.003	0.153	0.388	90.302	72.101
N2 Zero			**0.374**	**90.171**	**72.168**
06/27/2011 11:43:21	0.003	0.15	9.334	90.504	71.903
06/27/2011 11:43:31	4.138	1.823	71.625	90.603	71.903
06/27/2011 11:43:41	16.849	0.27	71.167	90.105	71.603
06/27/2011 11:43:51	20.068	0.659	71.057	90.302	71.003
06/27/2011 11:44:01	20.032	0.666	71.065	90.302	71.003
06/27/2011 11:44:11	20.057	0.651	63.535	90.603	71.003
06/27/2011 11:44:21	19.01	3.478	52.453	90.603	71.204
06/27/2011 11:44:31	16.765	3.911	52.208	90.504	71.402
06/27/2011 11:44:41	16.421	3.929	50.611	90.603	71.603
06/27/2011 11:44:51	16.186	4.405	48.835	90.603	71.204
06/27/2011 11:45:01	15.798	4.497	49.154	90.504	70.702
06/27/2011 11:45:11	15.857	4.196	51.845	90.302	70.702
06/27/2011 11:45:21	16.285	3.925	51.93	90.105	70.801
06/27/2011 11:45:31	16.421	3.947	50.538	90.504	70.801
06/27/2011 11:45:41	16.252	4.171	50.388	90.603	71.204
06/27/2011 11:45:51	16.135	4.171	50.483	90.603	71.204

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
49.8 ppm Propane Mid			**50.470**	**90.570**	**71.070**
06/27/2011 11:46:01	16.142	4.171	30.03	90.603	71.204
06/27/2011 11:46:11	13.139	11.755	5.881	90.804	70.702
06/27/2011 11:46:21	6.668	13.235	5.54	90.603	70.303
06/27/2011 11:46:31	5.515	13.308	5.449	90.603	70.102
06/27/2011 11:46:41	5.401	13.418	5.548	90.603	70.702
Resume Run 8					
06/27/2011 11:46:51	5.306	13.495	5.72	90.603	70.801
06/27/2011 11:47:01	5.262	13.48	5.61	90.804	71.003
06/27/2011 11:47:11	5.258	13.517	5.592	90.603	70.801
06/27/2011 11:47:21	5.247	13.506	5.57	90.504	71.003
06/27/2011 11:47:31	5.233	13.553	5.672	90.504	71.003
06/27/2011 11:47:41	5.244	13.476	5.701	90.504	71.003
06/27/2011 11:47:51	5.313	13.425	5.742	90.504	70.801
06/27/2011 11:48:01	5.343	13.41	5.756	90.603	70.801
06/27/2011 11:48:11	5.339	13.469	5.683	90.504	70.801
06/27/2011 11:48:21	5.295	13.476	5.694	90.504	70.504
06/27/2011 11:48:31	5.306	13.458	5.676	90.603	70.102
06/27/2011 11:48:41	5.328	13.443	5.669	90.603	70.303
06/27/2011 11:48:51	5.291	13.528	5.676	90.804	70.504
06/27/2011 11:49:01	5.266	13.506	5.669	90.804	70.504
06/27/2011 11:49:11	5.295	13.473	5.698	90.603	70.504
06/27/2011 11:49:21	5.302	13.484	5.738	90.804	70.702
06/27/2011 11:49:31	5.299	13.484	5.698	90.804	70.801
06/27/2011 11:49:41	5.306	13.454	5.643	90.804	71.204
06/27/2011 11:49:51	5.302	13.517	5.57	90.804	71.204
06/27/2011 11:50:01	5.233	13.572	5.562	91.002	70.702
06/27/2011 11:50:11	5.218	13.568	5.54	91.002	70.801
06/27/2011 11:50:21	5.225	13.572	5.555	91.002	71.402
06/27/2011 11:50:31	5.214	13.553	5.537	90.804	70.702
06/27/2011 11:50:41	5.24	13.542	5.54	90.804	71.204
06/27/2011 11:50:51	5.251	13.524	5.493	91.002	70.702
06/27/2011 11:51:01	5.244	13.531	5.46	91.002	71.204
06/27/2011 11:51:11	5.236	13.524	5.46	91.002	70.801
06/27/2011 11:51:21	5.262	13.495	5.456	90.603	71.603
06/27/2011 11:51:31	5.291	13.462	5.452	90.504	70.801
06/27/2011 11:51:41	5.313	13.491	5.394	90.603	71.402
06/27/2011 11:51:51	5.28	13.535	5.456	90.603	71.603
06/27/2011 11:52:01	5.225	13.586	5.449	90.603	71.003
06/27/2011 11:52:11	5.196	13.612	5.43	90.804	70.801
06/27/2011 11:52:21	5.189	13.564	5.434	90.804	70.801
06/27/2011 11:52:31	5.207	13.594	5.463	90.804	70.801
06/27/2011 11:52:41	5.218	13.557	5.485	90.804	70.801
06/27/2011 11:52:51	5.251	13.535	5.507	91.002	71.402
06/27/2011 11:53:01	5.251	13.55	5.559	90.804	71.402
06/27/2011 11:53:11	5.288	13.44	7.529	91.002	71.003
06/27/2011 11:53:21	5.504	13.312	5.537	90.804	71.204
06/27/2011 11:53:31	5.346	13.524	5.467	90.603	71.603
06/27/2011 11:53:41	5.251	13.546	5.46	90.603	71.003
06/27/2011 11:53:51	5.233	13.52	5.419	90.804	71.204
06/27/2011 11:54:01	5.251	13.535	5.441	90.603	71.903
06/27/2011 11:54:11	5.236	13.55	5.46	90.603	71.603
06/27/2011 11:54:21	5.258	13.506	5.46	91.002	71.402
06/27/2011 11:54:31	5.258	13.531	5.449	91.002	71.903
06/27/2011 11:54:41	5.251	13.531	5.434	91.002	71.702
06/27/2011 11:54:51	5.277	13.509	5.408	90.804	71.402
06/27/2011 11:55:01	5.266	13.557	5.46	90.804	71.702
06/27/2011 11:55:11	5.244	13.539	5.452	90.603	71.903
06/27/2011 11:55:21	5.247	13.564	5.441	90.603	71.903
06/27/2011 11:55:31	5.222	13.55	5.408	90.504	71.702
06/27/2011 11:55:41	5.236	13.564	5.434	90.504	71.603
06/27/2011 11:55:51	5.236	13.575	5.398	90.603	71.204
Pause Run 8					
GC Recovery Check					
06/27/2011 11:56:01	5.295	13.425	55.676	90.603	71.603
06/27/2011 11:56:11	4.149	0.71	74.218	90.603	71.702
06/27/2011 11:56:21	0.574	0.311	75.679	90.603	71.702
06/27/2011 11:56:31	0.047	0.248	76.32	90.603	72.101
06/27/2011 11:56:41	0.025	0.215	76.646	90.504	72.504

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 11:56:51	0.018	0.193	76.913	90.603	72.504
06/27/2011 11:57:01	0.014	0.183	69.34	90.603	72.101
06/27/2011 11:57:11	1.153	9.005	10.448	90.504	71.903
06/27/2011 11:57:21	4.383	13.396	5.826	90.603	71.702
Resume Run 8					
06/27/2011 11:57:31	5.167	13.462	5.354	90.804	71.702
06/27/2011 11:57:41	5.203	13.506	5.207	90.603	71.603
06/27/2011 11:57:51	5.211	13.524	5.251	91.002	71.603
06/27/2011 11:58:01	5.192	13.572	5.277	90.804	71.204
06/27/2011 11:58:11	5.189	13.55	5.295	90.603	71.204
06/27/2011 11:58:21	5.192	13.564	5.255	90.603	71.204
06/27/2011 11:58:31	5.24	13.491	5.24	90.504	71.402
06/27/2011 11:58:41	5.247	13.572	5.269	90.603	71.702
06/27/2011 11:58:51	5.214	13.553	5.339	90.504	71.702
06/27/2011 11:59:01	5.251	13.513	5.343	90.504	72.303
06/27/2011 11:59:11	5.277	13.487	5.258	90.504	72.101
06/27/2011 11:59:21	5.258	13.542	5.394	90.603	71.903
06/27/2011 11:59:31	5.181	13.627	5.434	90.804	71.603
06/27/2011 11:59:41	5.156	13.597	5.43	90.603	71.204
06/27/2011 11:59:51	5.181	13.568	5.474	90.603	71.702
06/27/2011 12:00:01	5.189	13.608	5.496	90.804	71.603
06/27/2011 12:00:11	5.174	13.623	5.43	90.804	71.402
06/27/2011 12:00:21	5.192	13.572	5.445	90.603	71.603
06/27/2011 12:00:31	5.2	13.586	5.452	90.603	71.402
06/27/2011 12:00:41	5.211	13.568	5.365	90.504	71.603
06/27/2011 12:00:51	5.258	13.517	5.405	90.603	71.204
06/27/2011 12:01:01	5.295	13.476	5.379	90.504	71.702
06/27/2011 12:01:11	5.295	13.509	5.376	90.504	71.003
06/27/2011 12:01:21	5.273	13.542	5.368	90.504	71.603
Pause Run 8					
GC Recovery Check					
06/27/2011 12:01:31	5.218	13.242	61.81	90.302	71.903
06/27/2011 12:01:41	2.735	0.64	74.606	90.302	72.101
06/27/2011 12:01:51	0.212	0.303	76.005	90.603	71.903
06/27/2011 12:02:01	0.032	0.245	76.543	90.603	71.903
06/27/2011 12:02:11	0.021	0.212	76.8	90.603	72.101
06/27/2011 12:02:21	0.014	0.193	76.95	90.504	72.303
06/27/2011 12:02:31	0.007	0.179	77.074	90.504	72.101
06/27/2011 12:02:41	0.003	0.168	77.089	90.302	71.402
06/27/2011 12:02:51	0.003	0.161	77.221	90.302	71.702
06/27/2011 12:03:01	0.003	0.157	77.287	90.504	72.303
06/27/2011 12:03:11	-0.00061	0.15	77.448	90.603	71.402
06/27/2011 12:03:21	-0.00061	0.146	77.701	90.603	71.603
06/27/2011 12:03:31	-0.00061	0.142	77.657	90.603	71.903
06/27/2011 12:03:41	-0.00061	0.139	71.241	90.603	71.603
06/27/2011 12:03:51	1.201	8.895	13.308	90.603	71.003
06/27/2011 12:04:01	4.548	13.187	6.859	90.603	71.003
Resume Run 8					
06/27/2011 12:04:11	5.339	13.271	5.844	90.504	71.402
06/27/2011 12:04:21	5.39	13.304	5.518	90.504	71.603
06/27/2011 12:04:31	5.376	13.341	5.335	90.804	71.402
06/27/2011 12:04:41	5.35	13.403	5.299	90.504	71.204
06/27/2011 12:04:51	5.295	13.469	5.332	90.603	70.801
06/27/2011 12:05:01	5.247	13.509	5.383	90.603	70.801
06/27/2011 12:05:11	5.233	13.484	5.354	90.504	71.003
06/27/2011 12:05:21	5.24	13.517	5.28	90.504	71.402
06/27/2011 12:05:31	5.24	13.498	5.295	90.603	71.402
06/27/2011 12:05:41	5.24	13.531	5.343	90.603	70.702
06/27/2011 12:05:51	5.211	13.546	5.368	90.504	70.702
06/27/2011 12:06:01	5.214	13.531	5.277	90.504	70.801
06/27/2011 12:06:11	5.236	13.517	5.31	90.504	71.003
06/27/2011 12:06:21	5.262	13.495	5.295	90.603	71.402
06/27/2011 12:06:31	5.233	13.564	5.295	90.603	71.402
06/27/2011 12:06:41	5.207	13.539	5.302	90.603	71.204
06/27/2011 12:06:51	5.244	13.476	5.269	90.504	70.801
06/27/2011 12:07:01	5.288	13.48	5.277	90.105	70.702
06/27/2011 12:07:11	5.244	13.564	5.28	90.504	70.801
06/27/2011 12:07:21	5.236	13.495	5.284	90.504	70.801
06/27/2011 12:07:31	5.31	13.425	5.313	90.302	71.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 12:07:41	5.328	13.473	5.277	90.504	71.003
06/27/2011 12:07:51	5.288	13.502	5.207	90.603	71.003
06/27/2011 12:08:01	5.277	13.487	5.24	90.504	70.801
06/27/2011 12:08:11	5.251	13.517	5.302	90.302	70.801
06/27/2011 12:08:21	5.266	13.465	5.266	90.504	70.801
06/27/2011 12:08:31	5.299	13.447	5.211	90.504	71.204
06/27/2011 12:08:41	5.299	13.495	5.262	90.603	71.402
06/27/2011 12:08:51	5.244	13.539	5.35	90.804	71.204
06/27/2011 12:09:01	5.251	13.495	5.339	90.603	70.801
06/27/2011 12:09:11	5.31	13.484	5.284	90.804	71.603
06/27/2011 12:09:21	5.288	13.509	5.277	90.603	71.204
06/27/2011 12:09:31	5.266	13.524	5.332	90.504	70.801
06/27/2011 12:09:41	5.251	13.535	5.306	90.302	71.402
06/27/2011 12:09:51	5.266	13.509	5.339	90.504	70.801
06/27/2011 12:10:01	5.299	13.484	5.328	90.105	71.603
06/27/2011 12:10:11	5.354	13.432	5.317	90.504	71.402
06/27/2011 12:10:21	5.372	13.403	5.339	90.504	71.003
06/27/2011 12:10:31	5.365	13.44	5.357	90.105	71.603
06/27/2011 12:10:41	5.35	13.425	5.357	90.504	71.402
06/27/2011 12:10:51	5.394	13.377	5.328	90.504	71.003
06/27/2011 12:11:01	5.361	13.476	5.255	90.504	70.801
06/27/2011 12:11:11	5.255	13.546	5.247	90.603	71.204
06/27/2011 12:11:21	5.218	13.546	5.266	90.603	71.603
06/27/2011 12:11:31	5.251	13.495	5.233	90.603	71.603
06/27/2011 12:11:41	5.317	13.436	5.2	90.504	71.204
06/27/2011 12:11:51	5.357	13.432	5.211	90.105	70.801
06/27/2011 12:12:01	5.332	13.495	5.288	90.302	71.003
06/27/2011 12:12:11	5.291	13.495	5.31	90.504	71.603
06/27/2011 12:12:21	5.295	13.465	5.35	90.603	71.702
06/27/2011 12:12:31	5.31	13.513	5.262	90.804	71.603
06/27/2011 12:12:41	5.277	13.487	5.273	90.504	71.204
06/27/2011 12:12:51	5.288	13.502	5.24	90.504	71.204
06/27/2011 12:13:01	5.35	13.396	5.2	90.603	71.204
06/27/2011 12:13:11	5.398	13.396	5.192	90.504	71.204
06/27/2011 12:13:21	5.387	13.44	5.203	90.504	71.402
06/27/2011 12:13:31	5.372	13.432	5.255	90.504	71.603
06/27/2011 12:13:41	5.423	13.33	5.277	90.504	71.603
06/27/2011 12:13:51	5.485	13.337	5.24	90.504	71.702
Pause Run 8					
GC Recovery Check					
06/27/2011 12:14:01	5.416	13.158	59.36	90.504	72.303
06/27/2011 12:14:11	2.889	0.706	74.262	90.504	72.504
06/27/2011 12:14:21	0.237	0.322	75.73	90.504	72.504
06/27/2011 12:14:31	0.032	0.259	76.404	90.504	72.504
06/27/2011 12:14:41	0.014	0.223	76.8	90.105	72.101
06/27/2011 12:14:51	0.007	0.201	77.009	90.105	71.903
06/27/2011 12:15:01	0.007	0.183	77.137	89.903	71.903
06/27/2011 12:15:11	0.003	0.172	77.261	89.903	72.101
06/27/2011 12:15:21	0.003	0.161	77.298	89.702	72.504
06/27/2011 12:15:31	-0.00061	0.153	77.466	89.903	72.603
06/27/2011 12:15:41	-0.00061	0.15	77.562	90.504	72.603
06/27/2011 12:15:51	-0.004	0.146	77.529	90.504	72.603
06/27/2011 12:16:01	-0.004	0.146	77.529	90.504	72.603
06/27/2011 12:16:11	-0.004	0.142	77.576	90.302	72.504
06/27/2011 12:16:21	-0.004	0.139	77.543	90.105	72.101
06/27/2011 12:16:31	-0.004	0.135	77.888	90.504	71.702
06/27/2011 12:16:41	-0.008	0.135	77.855	90.105	71.603
06/27/2011 12:16:51	-0.008	0.135	58.309	90.105	71.204
06/27/2011 12:17:01	1.878	11.821	11.034	89.903	71.204
06/27/2011 12:17:11	4.91	13.271	6.903	90.105	71.204
Resume Run 8					
06/27/2011 12:17:21	5.299	13.271	5.991	89.903	71.204
06/27/2011 12:17:31	5.365	13.282	5.661	90.105	71.903
06/27/2011 12:17:41	5.365	13.33	5.427	90.302	71.402
06/27/2011 12:17:51	5.343	13.374	5.302	90.105	71.204
06/27/2011 12:18:01	5.321	13.421	5.266	90.105	71.903
06/27/2011 12:18:11	5.324	13.388	5.247	90.302	71.603
06/27/2011 12:18:21	5.365	13.381	5.214	90.302	71.204
06/27/2011 12:18:31	5.394	13.33	5.277	90.302	71.603

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 12:18:41	5.445	13.253	5.277	90.504	71.702
06/27/2011 12:18:51	5.507	13.216	5.225	90.105	71.702
06/27/2011 12:19:01	5.537	13.257	5.207	89.903	71.702
06/27/2011 12:19:11	5.511	13.253	5.255	90.302	71.903
06/27/2011 12:19:21	5.518	13.216	5.277	90.105	71.903
06/27/2011 12:19:31	5.54	13.231	5.225	90.105	71.903
06/27/2011 12:19:41	5.518	13.268	5.203	89.903	71.903
06/27/2011 12:19:51	5.518	13.235	5.2	90.302	71.603
06/27/2011 12:20:01	5.555	13.216	5.365	90.302	71.204
06/27/2011 12:20:11	5.577	13.209	5.665	89.702	71.204
06/27/2011 12:20:21	5.537	13.242	5.559	89.702	71.204
06/27/2011 12:20:31	5.489	13.293	5.456	89.603	71.204
06/27/2011 12:20:41	5.456	13.308	5.419	89.603	71.702
06/27/2011 12:20:51	5.43	13.341	5.405	89.903	71.702
06/27/2011 12:21:01	5.408	13.352	5.361	89.903	71.603
06/27/2011 12:21:11	5.408	13.33	5.343	89.903	71.204
06/27/2011 12:21:21	5.449	13.312	5.379	90.105	71.204
06/27/2011 12:21:31	5.482	13.279	5.39	90.105	71.204
06/27/2011 12:21:41	5.496	13.279	5.365	90.302	71.204
06/27/2011 12:21:51	5.489	13.304	5.332	89.903	71.603
06/27/2011 12:22:01	5.452	13.323	5.361	89.702	71.702
06/27/2011 12:22:11	5.452	13.308	5.39	89.702	71.702
06/27/2011 12:22:21	5.474	13.297	5.328	90.105	71.702
06/27/2011 12:22:31	5.471	13.319	5.339	90.105	71.402
06/27/2011 12:22:41	5.441	13.323	5.332	90.105	71.204
06/27/2011 12:22:51	5.445	13.337	5.306	90.105	71.003
06/27/2011 12:23:01	5.463	13.319	5.288	90.302	71.003
06/27/2011 12:23:11	5.463	13.304	5.269	90.105	71.003
06/27/2011 12:23:21	5.496	13.246	5.273	89.903	71.204
06/27/2011 12:23:31	5.54	13.253	5.328	90.105	71.402
06/27/2011 12:23:41	5.533	13.264	5.291	90.504	71.603
06/27/2011 12:23:51	5.496	13.279	5.277	90.302	71.702
06/27/2011 12:24:01	5.471	13.312	5.317	90.504	71.702
06/27/2011 12:24:11	5.474	13.275	5.354	90.302	71.702
06/27/2011 12:24:21	5.522	13.246	5.354	90.302	71.204
06/27/2011 12:24:31	5.548	13.246	5.313	90.302	71.204
06/27/2011 12:24:41	5.526	13.308	5.299	90.302	71.402
06/27/2011 12:24:51	5.489	13.304	5.295	90.302	71.702
06/27/2011 12:25:01	5.467	13.334	5.277	89.702	71.603
06/27/2011 12:25:11	5.467	13.315	5.277	89.903	71.402
06/27/2011 12:25:21	5.456	13.334	5.269	89.702	71.003
06/27/2011 12:25:31	5.478	13.282	5.306	89.903	71.003
06/27/2011 12:25:41	5.511	13.257	5.357	89.702	71.003
06/27/2011 12:25:51	5.511	13.271	5.317	89.903	71.003
06/27/2011 12:26:01	5.496	13.304	5.284	90.105	71.003
06/27/2011 12:26:11	5.478	13.275	5.262	89.903	70.801
06/27/2011 12:26:21	5.537	13.191	5.306	89.903	71.003
06/27/2011 12:26:31	5.617	13.187	5.302	89.903	71.402
06/27/2011 12:26:41	5.599	13.216	5.291	89.603	71.603
06/27/2011 12:26:51	5.511	13.323	5.295	89.603	71.603
06/27/2011 12:27:01	5.474	13.301	5.302	89.402	71.402
06/27/2011 12:27:11	5.507	13.257	5.277	89.603	71.003
06/27/2011 12:27:21	5.515	13.271	5.332	89.702	71.003
06/27/2011 12:27:31	5.5	13.264	5.332	89.903	70.801
06/27/2011 12:27:41	5.485	13.293	5.284	89.702	71.003
06/27/2011 12:27:51	5.485	13.308	5.332	89.903	71.402
06/27/2011 12:28:01	5.467	13.304	5.288	89.402	71.603
06/27/2011 12:28:11	5.438	13.381	5.299	89.204	71.603
06/27/2011 12:28:21	5.401	13.377	5.262	89.204	71.204
06/27/2011 12:28:31	5.434	13.337	5.251	89.204	71.003
06/27/2011 12:28:41	5.452	13.359	5.262	89.603	70.801
06/27/2011 12:28:51	5.419	13.374	5.277	89.603	71.003
06/27/2011 12:29:01	5.43	13.33	5.288	89.402	71.603
06/27/2011 12:29:11	5.434	13.37	5.266	89.402	71.603
06/27/2011 12:29:21	5.412	13.392	5.302	89.402	71.603
06/27/2011 12:29:31	5.412	13.366	5.324	89.603	71.603
06/27/2011 12:29:41	5.427	13.341	5.332	89.702	71.204
06/27/2011 12:29:51	5.43	13.352	5.332	89.603	70.801
06/27/2011 12:30:01	5.43	13.366	5.288	89.702	70.801

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 12:30:11	5.405	13.421	5.277	89.603	70.801
06/27/2011 12:30:21	5.354	13.454	5.306	89.903	70.801
Pause Run 8					
GC Recovery Check					
06/27/2011 12:30:31	5.328	13.286	59.049	89.702	71.003
06/27/2011 12:30:41	2.896	0.706	74.621	89.702	71.204
06/27/2011 12:30:51	0.241	0.333	75.884	89.702	71.204
06/27/2011 12:31:01	0.04	0.267	76.521	89.603	71.204
06/27/2011 12:31:11	0.025	0.237	76.99	89.204	71.204
06/27/2011 12:31:21	0.018	0.204	77.225	89.603	71.603
06/27/2011 12:31:31	0.01	0.19	77.404	89.402	71.903
06/27/2011 12:31:41	0.007	0.179	77.455	89.204	72.101
06/27/2011 12:31:51	0.007	0.172	77.529	89.204	71.903
06/27/2011 12:32:01	0.003	0.168	77.543	89.204	71.402
06/27/2011 12:32:11	0.003	0.161	77.565	89.402	71.204
06/27/2011 12:32:21	-0.00061	0.153	77.631	89.402	71.204
06/27/2011 12:32:31	-0.00061	0.153	77.638	89.402	71.402
06/27/2011 12:32:41	-0.00061	0.15	77.697	89.204	71.702
06/27/2011 12:32:51	-0.00061	0.146	77.833	89.204	71.702
06/27/2011 12:33:01	-0.00061	0.146	77.646	89.002	71.603
06/27/2011 12:33:11	0.281	1.915	25.573	89.002	71.204
06/27/2011 12:33:21	3.416	12.942	8.243	89.402	71.204
06/27/2011 12:33:31	5.346	13.161	6.423	89.402	71.003
06/27/2011 12:33:41	5.43	13.063	7.741	89.002	71.204
Resume Run 8					
06/27/2011 12:33:51	5.324	12.792	5.929	89.002	71.003
06/27/2011 12:34:01	5.335	13.293	5.346	89.204	71.003
06/27/2011 12:34:11	5.372	13.396	5.251	89.402	71.003
06/27/2011 12:34:21	5.332	13.37	5.181	89.002	71.003
06/27/2011 12:34:31	5.387	13.326	5.222	89.204	70.702
06/27/2011 12:34:41	5.416	13.337	5.291	89.002	70.504
06/27/2011 12:34:51	5.398	13.392	5.302	89.204	70.504
06/27/2011 12:35:01	5.365	13.41	5.288	89.402	70.702
06/27/2011 12:35:11	5.357	13.385	5.302	88.805	70.303
06/27/2011 12:35:21	5.372	13.403	5.379	89.002	70.303
06/27/2011 12:35:31	5.361	13.377	5.387	89.002	70.303
06/27/2011 12:35:41	5.361	13.396	5.346	89.204	70.303
06/27/2011 12:35:51	5.398	13.337	5.28	89.402	70.303
06/27/2011 12:36:01	5.408	13.363	5.233	88.805	70.303
06/27/2011 12:36:11	5.372	13.418	5.236	89.002	70.303
06/27/2011 12:36:21	5.35	13.432	5.203	89.002	70.801
06/27/2011 12:36:31	5.321	13.48	5.244	89.002	71.003
06/27/2011 12:36:41	5.295	13.469	5.273	88.805	70.801
06/27/2011 12:36:51	5.313	13.443	5.299	88.805	70.702
06/27/2011 12:37:01	5.379	13.388	5.317	89.204	70.702
06/27/2011 12:37:11	5.416	13.392	5.277	89.603	70.702
06/27/2011 12:37:21	5.423	13.341	5.251	89.204	70.303
06/27/2011 12:37:31	5.478	13.282	5.258	89.204	70.303
06/27/2011 12:37:41	5.485	13.337	5.244	89.402	70.303
06/27/2011 12:37:51	5.485	13.279	5.258	89.402	70.303
06/27/2011 12:38:01	5.5	13.275	5.269	89.002	70.303
06/27/2011 12:38:11	5.537	13.231	5.255	89.402	70.303
06/27/2011 12:38:21	5.533	13.275	5.299	89.603	70.504
06/27/2011 12:38:31	5.478	13.334	5.236	89.402	70.801
06/27/2011 12:38:41	5.434	13.352	5.244	89.402	71.204
06/27/2011 12:38:51	5.434	13.334	5.277	89.402	71.003
06/27/2011 12:39:01	5.452	13.304	5.244	89.603	71.003
06/27/2011 12:39:11	5.452	13.366	5.266	89.603	71.003
06/27/2011 12:39:21	5.43	13.359	5.222	89.702	71.204
06/27/2011 12:39:31	5.43	13.337	5.317	89.702	71.003
06/27/2011 12:39:41	5.452	13.293	5.299	89.603	70.801
06/27/2011 12:39:51	5.46	13.359	5.288	89.603	70.504
06/27/2011 12:40:01	5.394	13.414	5.258	89.702	70.504
06/27/2011 12:40:11	5.361	13.432	5.233	89.603	70.504
06/27/2011 12:40:21	5.343	13.443	5.192	89.603	70.801
06/27/2011 12:40:31	5.365	13.377	5.174	89.603	71.003
06/27/2011 12:40:41	5.438	13.319	5.174	89.603	71.204
06/27/2011 12:40:51	5.463	13.308	5.174	89.402	71.003
06/27/2011 12:41:01	5.467	13.323	5.174	89.402	70.504

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 12:41:11	5.467	13.304	5.185	89.402	70.801
06/27/2011 12:41:21	5.504	13.246	5.207	89.204	71.204
06/27/2011 12:41:31	5.537	13.268	5.225	89.402	70.801
06/27/2011 12:41:41	5.504	13.312	5.225	89.402	70.504
06/27/2011 12:41:51	5.43	13.381	5.262	89.204	70.702
06/27/2011 12:42:01	5.39	13.407	5.273	89.002	71.204
Pause Run 8					
THC Drift Check					
06/27/2011 12:42:11	5.401	13.238	9.55	88.805	71.204
06/27/2011 12:42:21	4.299	4.237	1.794	89.002	70.801
06/27/2011 12:42:31	1.9	3.944	1.516	89.204	71.204
06/27/2011 12:42:41	1.332	2.548	0.959	88.805	71.603
06/27/2011 12:42:51	0.794	1.871	0.937	88.805	71.603
06/27/2011 12:43:01	0.659	1.838	0.933	89.204	71.402
06/27/2011 12:43:11	0.659	1.801	0.86	89.204	71.402
06/27/2011 12:43:21	0.582	1.171	0.538	88.805	71.003
06/27/2011 12:43:31	0.314	0.735	0.516	88.805	71.003
06/27/2011 12:43:41	0.23	0.714	0.494	89.204	71.204
06/27/2011 12:43:51	0.223	0.706	0.424	89.002	71.603
06/27/2011 12:44:01	0.157	0.267	0.333	89.002	71.702
06/27/2011 12:44:11	0.029	0.164	0.336	88.805	71.603
06/27/2011 12:44:21	0.007	0.161	0.307	88.805	71.204
06/27/2011 12:44:31	0.007	0.153	0.322	89.204	71.204
06/27/2011 12:44:41	0.003	0.153	0.322	89.002	71.702
N2 Zero			**0.317**	**89.004**	**71.370**
06/27/2011 12:44:51	0.003	0.15	0.318	88.805	71.702
06/27/2011 12:45:01	-0.00061	0.146	0.307	88.805	71.603
06/27/2011 12:45:11	-0.00061	0.146	2.493	88.805	71.402
06/27/2011 12:45:21	1.951	1.929	59.987	88.805	70.801
06/27/2011 12:45:31	12.953	3.475	49.648	89.002	70.504
06/27/2011 12:45:41	16.113	4.361	49.461	89.402	70.504
06/27/2011 12:45:51	15.813	4.383	49.469	89.402	70.504
06/27/2011 12:46:01	15.868	4.299	51.168	89.204	70.702
06/27/2011 12:46:11	16.139	4.021	51.227	89.402	70.702
06/27/2011 12:46:21	16.289	4.039	50.366	89.002	70.504
06/27/2011 12:46:31	16.183	4.182	50.263	88.702	70.303
06/27/2011 12:46:41	16.117	4.185	50.234	88.805	70.102
06/27/2011 12:46:51	16.128	4.171	50.227	88.805	70.102
49.8 ppm Propane Mid			**50.241**	**88.771**	**70.169**
06/27/2011 12:47:01	16.135	4.182	43.865	88.702	70.303
06/27/2011 12:47:11	14.978	7.229	5.998	88.504	70.801
06/27/2011 12:47:21	7.122	2.116	0.457	88.702	70.801
06/27/2011 12:47:31	0.801	0.226	0.384	88.702	70.504
06/27/2011 12:47:41	0.106	0.183	0.333	88.805	70.303
06/27/2011 12:47:51	0.058	0.164	0.355	88.805	70.504
06/27/2011 12:48:01	0.043	0.157	0.41	88.805	70.504
06/27/2011 12:48:11	0.358	2.259	5.196	89.204	69.604
06/27/2011 12:48:21	3.508	12.967	5.354	89.204	69.801
Resume Run 8					
06/27/2011 12:48:31	5.383	13.176	5.269	89.002	70.102
06/27/2011 12:48:41	5.434	13.249	5.207	89.204	69.904
06/27/2011 12:48:51	5.419	13.304	5.203	89.002	69.801
06/27/2011 12:49:01	5.401	13.326	5.148	89.204	69.801
06/27/2011 12:49:11	5.376	13.359	5.2	89.204	69.904
06/27/2011 12:49:21	5.408	13.315	5.233	89.002	70.303
06/27/2011 12:49:31	5.463	13.282	5.211	89.204	70.303
06/27/2011 12:49:41	5.452	13.334	5.2	89.204	70.303
06/27/2011 12:49:51	5.423	13.326	5.2	89.204	69.904
06/27/2011 12:50:01	5.408	13.359	5.214	89.002	69.904
06/27/2011 12:50:11	5.423	13.312	5.233	89.204	69.904
06/27/2011 12:50:21	5.452	13.348	5.236	89.002	69.904
06/27/2011 12:50:31	5.394	13.414	5.251	88.702	70.102
06/27/2011 12:50:41	5.354	13.414	5.273	88.805	70.303
06/27/2011 12:50:51	5.376	13.359	5.313	88.805	70.504
06/27/2011 12:51:01	5.408	13.352	5.299	88.805	70.504
06/27/2011 12:51:11	5.416	13.363	5.332	88.702	70.504
06/27/2011 12:51:21	5.423	13.315	5.357	88.702	70.702
06/27/2011 12:51:31	5.456	13.275	5.299	88.805	70.702
06/27/2011 12:51:41	5.496	13.275	5.277	88.702	70.702

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 12:51:51	5.496	13.286	5.277	88.702	70.702
06/27/2011 12:52:01	5.445	13.377	5.288	88.702	70.702
06/27/2011 12:52:11	5.383	13.366	5.262	88.805	70.801
06/27/2011 12:52:21	5.441	13.268	5.255	88.702	70.702
06/27/2011 12:52:31	5.449	13.345	5.225	88.303	70.702
06/27/2011 12:52:41	5.398	13.403	5.203	88.105	70.702
06/27/2011 12:52:51	5.387	13.366	5.211	88.504	70.702
06/27/2011 12:53:01	5.372	13.396	5.222	88.504	70.702
06/27/2011 12:53:11	5.383	13.359	5.225	88.702	70.801
06/27/2011 12:53:21	5.423	13.345	5.302	88.702	70.303
06/27/2011 12:53:31	5.416	13.352	5.489	88.702	70.102
06/27/2011 12:53:41	5.398	13.37	5.387	88.702	70.801
06/27/2011 12:53:51	5.401	13.366	5.357	88.702	70.303
06/27/2011 12:54:01	5.408	13.337	5.379	88.805	70.303
06/27/2011 12:54:11	5.398	13.396	5.357	88.702	70.801
06/27/2011 12:54:21	5.372	13.352	5.277	88.702	70.102
06/27/2011 12:54:31	5.408	13.377	5.247	88.303	70.801
06/27/2011 12:54:41	5.398	13.366	5.255	88.105	70.801
06/27/2011 12:54:51	5.423	13.359	5.291	88.504	70.102
06/27/2011 12:55:01	5.43	13.341	5.299	88.702	70.102
06/27/2011 12:55:11	5.452	13.323	5.365	88.303	71.003
06/27/2011 12:55:21	5.471	13.301	5.405	88.702	71.003
06/27/2011 12:55:31	5.493	13.268	5.379	88.702	70.303
06/27/2011 12:55:41	5.511	13.271	5.39	88.504	70.303
06/27/2011 12:55:51	5.478	13.308	5.354	88.504	71.003
06/27/2011 12:56:01	5.419	13.396	5.317	88.303	71.003
06/27/2011 12:56:11	5.376	13.399	5.379	88.504	71.204
06/27/2011 12:56:21	5.434	13.293	5.379	88.702	71.204
06/27/2011 12:56:31	5.5	13.264	5.357	88.702	71.003
06/27/2011 12:56:41	5.478	13.345	5.291	88.702	71.003
06/27/2011 12:56:51	5.416	13.381	5.31	88.504	71.204
06/27/2011 12:57:01	5.387	13.403	5.291	88.702	70.702
06/27/2011 12:57:11	5.394	13.396	5.277	88.504	70.102
06/27/2011 12:57:21	5.372	13.432	5.255	88.702	70.702
06/27/2011 12:57:31	5.357	13.421	5.247	88.702	71.003
06/27/2011 12:57:41	5.376	13.414	5.236	88.702	70.303
06/27/2011 12:57:51	5.387	13.388	5.277	88.702	70.102
06/27/2011 12:58:01	5.401	13.377	5.244	88.702	70.801
06/27/2011 12:58:11	5.379	13.381	5.247	88.702	70.801
06/27/2011 12:58:21	5.357	13.414	5.244	88.702	70.702
06/27/2011 12:58:31	5.394	13.348	5.222	88.805	70.102
06/27/2011 12:58:41	5.423	13.363	5.196	88.805	70.303
06/27/2011 12:58:51	5.398	13.396	5.251	88.702	70.102
06/27/2011 12:59:01	5.412	13.312	5.247	88.702	70.303
06/27/2011 12:59:11	5.463	13.29	5.251	88.702	70.801
06/27/2011 12:59:21	5.474	13.334	5.211	89.002	71.003
06/27/2011 12:59:31	5.445	13.374	5.222	88.805	70.801
06/27/2011 12:59:41	5.394	13.407	5.258	88.805	71.003
06/27/2011 12:59:51	5.383	13.396	5.28	88.805	70.702
06/27/2011 13:00:01	5.401	13.359	5.277	88.702	70.504
06/27/2011 13:00:11	5.412	13.403	5.273	88.702	70.303
06/27/2011 13:00:21	5.394	13.392	5.236	88.702	70.303
06/27/2011 13:00:31	5.408	13.366	5.189	88.504	70.504
06/27/2011 13:00:41	5.43	13.37	5.148	88.504	70.801
06/27/2011 13:00:51	5.43	13.381	5.174	88.504	71.003
06/27/2011 13:01:01	5.412	13.396	5.218	88.702	71.003
06/27/2011 13:01:11	5.383	13.44	5.225	88.805	71.003
06/27/2011 13:01:21	5.343	13.429	5.277	88.504	71.003
06/27/2011 13:01:31	5.376	13.399	5.251	88.702	70.702
06/27/2011 13:01:41	5.434	13.304	5.291	88.805	70.504
06/27/2011 13:01:51	5.474	13.323	5.284	88.805	70.303
06/27/2011 13:02:01	5.401	13.392	5.266	88.805	70.303
06/27/2011 13:02:11	5.324	13.48	5.255	88.805	70.303
06/27/2011 13:02:21	5.288	13.476	5.244	88.702	70.303
06/27/2011 13:02:31	5.291	13.484	5.225	88.805	70.504
06/27/2011 13:02:41	5.273	13.491	5.255	88.805	70.801
06/27/2011 13:02:51	5.229	13.575	5.218	88.805	71.003
06/27/2011 13:03:01	5.185	13.575	5.196	89.002	71.003
06/27/2011 13:03:11	5.178	13.586	5.174	89.002	71.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 13:03:21	5.251	13.462	5.163	89.002	70.801
06/27/2011 13:03:31	5.317	13.48	5.126	89.002	70.504
06/27/2011 13:03:41	5.328	13.465	5.13	89.002	70.303
06/27/2011 13:03:51	5.335	13.495	5.174	89.204	70.303
06/27/2011 13:04:01	5.317	13.469	5.225	89.204	70.303
06/27/2011 13:04:11	5.328	13.436	5.196	89.002	70.504
06/27/2011 13:04:21	5.379	13.37	5.17	89.002	71.003
06/27/2011 13:04:31	5.383	13.451	5.163	89.204	71.204
06/27/2011 13:04:41	5.328	13.473	5.189	89.204	71.003
06/27/2011 13:04:51	5.313	13.458	5.207	89.204	71.003
06/27/2011 13:05:01	5.335	13.436	5.222	89.402	71.003
06/27/2011 13:05:11	5.335	13.451	5.255	89.204	71.003
06/27/2011 13:05:21	5.306	13.484	5.28	89.002	71.003
06/27/2011 13:05:31	5.302	13.443	5.328	88.805	71.003
06/27/2011 13:05:41	5.339	13.396	5.328	88.805	70.801
06/27/2011 13:05:51	5.361	13.414	5.332	88.702	70.303
06/27/2011 13:06:01	5.332	13.451	5.28	88.702	71.003
06/27/2011 13:06:11	5.306	13.487	5.266	88.805	70.303
06/27/2011 13:06:21	5.269	13.524	5.302	88.805	71.003
06/27/2011 13:06:31	5.273	13.48	5.302	89.002	70.303
06/27/2011 13:06:41	5.288	13.458	5.302	89.002	71.003
06/27/2011 13:06:51	5.295	13.495	5.288	89.002	70.303
06/27/2011 13:07:01	5.266	13.52	5.24	88.805	71.003
06/27/2011 13:07:11	5.262	13.495	5.2	89.204	70.303
06/27/2011 13:07:21	5.291	13.458	5.225	89.002	70.702
06/27/2011 13:07:31	5.317	13.451	5.277	89.204	71.204
06/27/2011 13:07:41	5.313	13.465	5.343	89.002	70.303
06/27/2011 13:07:51	5.321	13.473	5.306	89.204	70.303
06/27/2011 13:08:01	5.269	13.561	5.302	89.002	70.801
06/27/2011 13:08:11	5.225	13.557	5.302	89.402	70.702
06/27/2011 13:08:21	5.211	13.568	5.324	89.402	70.504
06/27/2011 13:08:31	5.269	13.476	5.357	89.204	70.504
06/27/2011 13:08:41	5.31	13.476	5.383	89.204	71.204
06/27/2011 13:08:51	5.328	13.451	5.361	89.204	70.801
06/27/2011 13:09:01	5.317	13.495	5.332	89.204	70.303
06/27/2011 13:09:11	5.269	13.531	5.328	89.402	70.504
06/27/2011 13:09:21	5.233	13.531	5.332	89.204	71.204
06/27/2011 13:09:31	5.262	13.491	5.306	89.402	70.801
06/27/2011 13:09:41	5.324	13.436	5.288	89.204	70.102
06/27/2011 13:09:51	5.361	13.421	5.288	89.204	70.702
06/27/2011 13:10:01	5.365	13.436	5.277	89.002	71.003
06/27/2011 13:10:11	5.376	13.388	5.247	89.402	70.303
06/27/2011 13:10:21	5.39	13.392	5.233	89.402	70.303
06/27/2011 13:10:31	5.401	13.385	5.379	89.204	70.801
06/27/2011 13:10:41	5.398	13.414	5.361	89.402	71.003
06/27/2011 13:10:51	5.398	13.418	5.398	89.402	70.702
06/27/2011 13:11:01	5.398	13.396	5.376	89.402	70.303
06/27/2011 13:11:11	5.387	13.418	5.376	89.402	70.504
06/27/2011 13:11:21	5.379	13.418	5.332	89.204	71.003
06/27/2011 13:11:31	5.405	13.366	5.361	89.204	71.003
06/27/2011 13:11:41	5.452	13.326	5.376	89.002	71.003
06/27/2011 13:11:51	5.434	13.392	5.357	89.204	70.504
06/27/2011 13:12:01	5.412	13.399	5.35	89.204	70.303
06/27/2011 13:12:11	5.423	13.352	5.335	89.002	70.303
06/27/2011 13:12:21	5.456	13.348	5.372	89.204	71.003
06/27/2011 13:12:31	5.452	13.37	5.438	89.204	71.204
06/27/2011 13:12:41	5.416	13.377	5.434	89.603	71.204
06/27/2011 13:12:51	5.434	13.345	5.419	89.603	71.204
06/27/2011 13:13:01	5.43	13.385	5.376	89.603	70.801
06/27/2011 13:13:11	5.394	13.403	5.416	89.603	70.504
06/27/2011 13:13:21	5.423	13.341	5.434	89.402	70.303
06/27/2011 13:13:31	5.449	13.334	5.452	89.702	70.303
06/27/2011 13:13:41	5.471	13.268	5.489	89.402	70.303
06/27/2011 13:13:51	5.515	13.301	5.5	89.402	70.504
06/27/2011 13:14:01	5.46	13.366	5.434	89.402	70.504
06/27/2011 13:14:11	5.394	13.432	5.423	89.402	70.801
06/27/2011 13:14:21	5.324	13.469	5.401	89.402	71.204
06/27/2011 13:14:31	5.354	13.407	5.376	89.603	71.204
06/27/2011 13:14:41	5.416	13.37	5.306	89.402	71.204

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 13:14:51	5.427	13.366	5.302	89.603	71.204
06/27/2011 13:15:01	5.46	13.308	5.291	89.603	71.204
06/27/2011 13:15:11	5.471	13.33	5.28	89.402	71.204
06/27/2011 13:15:21	5.452	13.348	5.277	89.603	71.204
06/27/2011 13:15:31	5.427	13.356	5.284	89.702	71.204
06/27/2011 13:15:41	5.449	13.348	5.255	89.702	71.003
06/27/2011 13:15:51	5.449	13.363	5.24	89.903	70.801
06/27/2011 13:16:01	5.401	13.407	5.255	89.702	70.702
06/27/2011 13:16:11	5.379	13.407	5.339	89.903	70.702
06/27/2011 13:16:21	5.401	13.352	5.332	89.603	70.504
06/27/2011 13:16:31	5.43	13.366	5.357	89.204	70.303
06/27/2011 13:16:41	5.419	13.381	5.357	89.603	71.003
06/27/2011 13:16:51	5.383	13.41	5.35	89.702	71.204
06/27/2011 13:17:01	5.398	13.345	5.332	89.702	70.504
06/27/2011 13:17:11	5.463	13.297	5.299	89.702	71.402
06/27/2011 13:17:21	5.511	13.275	5.372	89.603	70.801
06/27/2011 13:17:31	5.518	13.293	5.39	89.702	71.402
06/27/2011 13:17:41	5.493	13.297	5.434	89.903	71.402
06/27/2011 13:17:51	5.5	13.257	5.46	89.903	70.702
06/27/2011 13:18:01	5.529	13.268	5.43	89.903	71.402
06/27/2011 13:18:11	5.504	13.304	5.383	89.702	70.702
06/27/2011 13:18:21	5.482	13.337	5.376	89.903	71.402
06/27/2011 13:18:31	5.471	13.312	5.346	89.702	71.003
06/27/2011 13:18:41	5.496	13.268	5.332	89.603	70.702
06/27/2011 13:18:51	5.515	13.297	5.357	89.702	70.702
06/27/2011 13:19:01	5.511	13.275	5.423	89.702	70.702
06/27/2011 13:19:11	5.522	13.271	5.46	89.903	70.504
06/27/2011 13:19:21	5.551	13.231	5.46	90.105	70.702
06/27/2011 13:19:31	5.566	13.249	5.401	89.903	70.702
06/27/2011 13:19:41	5.522	13.326	5.383	90.105	70.702
06/27/2011 13:19:51	5.474	13.326	5.416	89.903	70.702
06/27/2011 13:20:01	5.482	13.301	5.408	89.903	71.204
06/27/2011 13:20:11	5.507	13.275	5.379	90.105	71.402
06/27/2011 13:20:21	5.5	13.308	5.368	90.105	71.003
06/27/2011 13:20:31	5.515	13.26	5.354	90.105	70.504
06/27/2011 13:20:41	5.54	13.231	5.332	90.105	70.801
06/27/2011 13:20:51	5.544	13.293	5.332	90.105	71.204
06/27/2011 13:21:01	5.504	13.308	5.379	90.105	70.702
06/27/2011 13:21:11	5.474	13.33	5.339	90.105	70.702
06/27/2011 13:21:21	5.452	13.312	5.288	89.903	71.204
06/27/2011 13:21:31	5.449	13.326	5.302	90.302	71.003
06/27/2011 13:21:41	5.485	13.275	5.357	90.302	70.702
06/27/2011 13:21:51	5.548	13.227	5.302	90.302	71.603
06/27/2011 13:22:01	5.551	13.246	5.299	90.302	71.402
06/27/2011 13:22:11	5.54	13.257	5.277	90.105	70.702
06/27/2011 13:22:21	5.551	13.224	5.302	89.903	70.702
06/27/2011 13:22:31	5.57	13.231	5.335	90.105	71.402
06/27/2011 13:22:41	5.548	13.268	5.288	90.105	71.402
06/27/2011 13:22:51	5.504	13.308	5.302	90.105	70.801
06/27/2011 13:23:01	5.456	13.352	5.31	90.302	70.702
06/27/2011 13:23:11	5.427	13.352	5.277	89.903	70.801
06/27/2011 13:23:21	5.482	13.275	5.295	90.105	71.402
06/27/2011 13:23:31	5.537	13.279	5.258	90.105	71.402
06/27/2011 13:23:41	5.518	13.312	5.225	90.105	71.402
06/27/2011 13:23:51	5.496	13.315	5.203	90.105	71.402
06/27/2011 13:24:01	5.496	13.286	5.2	90.105	71.402
06/27/2011 13:24:11	5.5	13.293	5.178	90.105	71.402
06/27/2011 13:24:21	5.529	13.235	5.214	90.302	70.702
06/27/2011 13:24:31	5.577	13.213	5.247	90.302	70.801
06/27/2011 13:24:41	5.588	13.22	5.189	90.105	71.603
06/27/2011 13:24:51	5.599	13.194	5.225	90.302	70.702
06/27/2011 13:25:01	5.617	13.183	5.214	90.105	70.702
06/27/2011 13:25:11	5.61	13.183	5.192	90.302	71.603
06/27/2011 13:25:21	5.603	13.176	5.189	90.105	71.702
06/27/2011 13:25:31	5.581	13.238	5.156	89.702	71.402
06/27/2011 13:25:41	5.548	13.249	5.299	89.903	71.204
06/27/2011 13:25:51	5.606	13.147	5.178	89.702	71.603
06/27/2011 13:26:01	5.632	13.165	5.148	89.603	71.603
06/27/2011 13:26:11	5.643	13.158	5.174	89.603	71.603

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 13:26:21	5.665	13.147	5.214	89.702	71.603
06/27/2011 13:26:31	5.65	13.154	5.196	89.702	71.603
06/27/2011 13:26:41	5.636	13.18	5.255	89.903	71.402
06/27/2011 13:26:51	5.603	13.235	5.398	90.105	71.003
06/27/2011 13:27:01	5.592	13.216	5.343	89.702	70.801
06/27/2011 13:27:11	5.625	13.147	5.35	89.702	71.702
06/27/2011 13:27:21	5.639	13.169	5.526	89.903	71.003
06/27/2011 13:27:31	5.658	13.11	5.485	90.105	71.003
06/27/2011 13:27:41	5.698	13.074	5.438	90.302	71.702
06/27/2011 13:27:51	5.723	13.077	5.398	90.302	71.204
06/27/2011 13:28:01	5.69	13.132	5.379	90.302	70.801
06/27/2011 13:28:11	5.661	13.139	5.376	90.302	71.003
06/27/2011 13:28:21	5.679	13.095	5.357	90.302	71.402
06/27/2011 13:28:31	5.687	13.114	5.339	90.302	71.402
06/27/2011 13:28:41	5.698	13.099	5.372	89.903	71.603
06/27/2011 13:28:51	5.683	13.125	5.376	90.105	71.402
06/27/2011 13:29:01	5.654	13.161	5.372	90.105	71.204
06/27/2011 13:29:11	5.636	13.183	5.284	90.302	70.801
06/27/2011 13:29:21	5.628	13.169	5.306	90.105	71.402
06/27/2011 13:29:31	5.65	13.121	5.317	90.105	71.702
06/27/2011 13:29:41	5.749	12.978	5.255	90.302	71.402
06/27/2011 13:29:51	5.8	13.011	5.24	90.504	70.801
06/27/2011 13:30:01	5.753	13.055	5.196	90.302	71.003
06/27/2011 13:30:11	5.701	13.136	5.105	90.105	71.603
06/27/2011 13:30:21	5.639	13.18	5.123	89.903	71.603
06/27/2011 13:30:31	5.658	13.11	5.13	90.105	71.204
06/27/2011 13:30:41	5.687	13.095	5.145	90.105	70.801
06/27/2011 13:30:51	5.709	13.055	5.13	90.105	71.003
06/27/2011 13:31:01	5.723	13.092	5.116	90.302	71.402
06/27/2011 13:31:11	5.694	13.11	5.357	90.302	71.603
06/27/2011 13:31:21	5.687	13.095	5.251	90.105	71.603
06/27/2011 13:31:31	5.672	13.125	5.346	90.105	71.603
06/27/2011 13:31:41	5.647	13.158	5.368	89.903	71.402
06/27/2011 13:31:51	5.632	13.161	5.354	89.702	71.402
06/27/2011 13:32:01	5.654	13.132	5.317	89.903	71.402
06/27/2011 13:32:11	5.69	13.106	5.247	89.603	71.003
06/27/2011 13:32:21	5.69	13.158	5.258	89.603	70.801
06/27/2011 13:32:31	5.665	13.147	5.255	89.603	71.603
06/27/2011 13:32:41	5.661	13.15	5.255	89.903	71.603
06/27/2011 13:32:51	5.654	13.143	5.317	89.702	70.801
06/27/2011 13:33:01	5.676	13.11	5.332	89.903	70.801
06/27/2011 13:33:11	5.654	13.143	5.332	90.105	70.801
06/27/2011 13:33:21	5.676	13.121	5.288	89.903	71.603
06/27/2011 13:33:31	5.69	13.147	5.317	89.702	70.801
06/27/2011 13:33:41	5.687	13.11	5.247	89.702	71.204
06/27/2011 13:33:51	5.69	13.128	5.284	89.702	71.402
06/27/2011 13:34:01	5.672	13.158	5.28	89.903	71.204
06/27/2011 13:34:11	5.621	13.216	5.328	90.105	71.402
06/27/2011 13:34:21	5.592	13.205	5.288	89.702	71.603
06/27/2011 13:34:31	5.577	13.253	5.317	89.603	71.204
06/27/2011 13:34:41	5.518	13.279	5.332	89.702	71.603
06/27/2011 13:34:51	5.54	13.209	5.306	89.702	70.801
06/27/2011 13:35:01	5.61	13.161	5.299	89.702	71.402
06/27/2011 13:35:11	5.625	13.169	5.299	89.702	70.801
06/27/2011 13:35:21	5.625	13.143	5.302	89.702	71.204
06/27/2011 13:35:31	5.661	13.114	5.277	89.903	71.204
06/27/2011 13:35:41	5.643	13.198	5.225	89.903	71.003
06/27/2011 13:35:51	5.566	13.253	5.225	89.903	71.603
06/27/2011 13:36:01	5.544	13.249	5.251	90.105	71.003
06/27/2011 13:36:11	5.606	13.132	5.258	90.105	71.003
06/27/2011 13:36:21	5.65	13.154	5.233	89.903	71.402
06/27/2011 13:36:31	5.632	13.154	5.269	89.702	71.003
06/27/2011 13:36:41	5.639	13.125	5.225	89.903	70.801
06/27/2011 13:36:51	5.639	13.183	5.225	89.603	71.402
06/27/2011 13:37:01	5.617	13.176	5.214	89.702	71.402
06/27/2011 13:37:11	5.61	13.18	5.196	90.105	71.603
06/27/2011 13:37:21	5.573	13.249	5.178	89.903	71.003
06/27/2011 13:37:31	5.507	13.312	5.119	90.105	71.603
06/27/2011 13:37:41	5.467	13.334	5.145	89.903	71.603

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 13:37:51	5.511	13.238	5.189	89.903	71.003
06/27/2011 13:38:01	5.566	13.249	5.185	89.903	70.801
06/27/2011 13:38:11	5.544	13.268	5.203	89.903	71.003
06/27/2011 13:38:21	5.544	13.264	5.2	90.105	71.402
06/27/2011 13:38:31	5.537	13.257	5.2	90.105	70.801
06/27/2011 13:38:41	5.533	13.293	5.218	90.105	71.003
06/27/2011 13:38:51	5.529	13.271	5.225	90.105	71.402
06/27/2011 13:39:01	5.526	13.29	5.178	89.903	71.402
06/27/2011 13:39:11	5.504	13.301	5.163	89.903	71.003
06/27/2011 13:39:21	5.515	13.264	5.116	90.105	70.801
06/27/2011 13:39:31	5.496	13.348	5.064	90.105	71.402
06/27/2011 13:39:41	5.427	13.341	5.053	90.504	71.402
06/27/2011 13:39:51	5.478	13.253	5.057	90.302	70.801
End Run 8					
Average	**5.372**	**13.414**	**5.640**	**89.023**	**70.559**
Maximum	**5.885**	**13.799**	**13.359**	**91.002**	**72.303**
Minimum	**4.998**	**12.792**	**5.053**	**86.505**	**67.403**
06/27/2011 13:40:01	5.559	13.202	5.072	89.903	71.603
06/27/2011 13:40:11	5.555	13.286	5.057	90.105	71.204
06/27/2011 13:40:21	5.471	13.37	5.035	90.105	71.003
06/27/2011 13:40:31	5.419	13.377	5.028	90.105	71.402
06/27/2011 13:40:41	5.427	13.381	5.017	90.105	71.003
06/27/2011 13:40:51	5.467	13.304	5.075	90.302	71.003
06/27/2011 13:41:01	5.5	13.304	5.126	90.302	71.402
06/27/2011 13:41:11	5.471	13.341	5.13	90.302	71.402
06/27/2011 13:41:21	5.456	13.33	5.189	90.105	71.204
06/27/2011 13:41:31	5.467	13.334	5.141	90.504	70.801
06/27/2011 13:41:41	5.5	13.293	5.123	90.105	70.801
06/27/2011 13:41:51	5.518	13.29	5.101	90.504	70.801
06/27/2011 13:42:01	5.522	13.286	5.126	89.903	70.801
06/27/2011 13:42:11	5.515	13.304	5.119	90.105	71.003
06/27/2011 13:42:21	5.526	13.242	5.156	90.105	71.003
06/27/2011 13:42:31	5.599	13.183	5.189	90.105	71.402
06/27/2011 13:42:41	5.665	13.136	5.2	89.903	71.603
06/27/2011 13:42:51	5.669	13.18	5.174	90.105	71.003
06/27/2011 13:43:01	5.599	13.224	5.163	89.702	71.402
06/27/2011 13:43:11	5.577	13.216	5.174	89.702	71.204
06/27/2011 13:43:21	5.577	13.231	5.141	89.903	71.204
06/27/2011 13:43:31	5.544	13.264	5.141	89.903	71.603
06/27/2011 13:43:41	5.529	13.257	5.141	89.903	71.003
06/27/2011 13:43:51	5.537	13.275	5.101	90.105	71.402
06/27/2011 13:44:01	5.537	13.271	5.159	90.302	71.603
06/27/2011 13:44:11	5.548	13.268	5.148	90.302	71.003
06/27/2011 13:44:21	5.526	13.268	5.126	90.105	71.003
06/27/2011 13:44:31	5.526	13.275	5.119	90.302	71.204
06/27/2011 13:44:41	5.577	13.209	5.126	90.302	71.402
06/27/2011 13:44:51	5.621	13.205	5.13	90.302	71.204
06/27/2011 13:45:01	5.632	13.165	5.196	90.105	71.003
06/27/2011 13:45:11	5.643	13.172	5.178	90.504	71.003
06/27/2011 13:45:21	5.661	13.117	5.174	90.302	71.003
06/27/2011 13:45:31	5.672	13.128	5.174	90.302	71.204
06/27/2011 13:45:41	5.676	13.11	5.196	90.302	71.402
06/27/2011 13:45:51	5.69	13.085	5.148	90.302	71.603
06/27/2011 13:46:01	5.723	13.055	5.148	90.105	71.603
06/27/2011 13:46:11	5.731	13.103	5.185	90.105	71.603
06/27/2011 13:46:21	5.669	13.169	5.174	90.105	71.603
06/27/2011 13:46:31	5.639	13.139	5.141	90.302	71.603
06/27/2011 13:46:41	5.606	13.202	5.159	90.504	71.603
06/27/2011 13:46:51	5.61	13.169	5.145	90.504	71.603
06/27/2011 13:47:01	5.639	13.143	5.13	90.302	71.402
06/27/2011 13:47:11	5.625	13.187	5.097	90.302	71.603
06/27/2011 13:47:21	5.595	13.213	5.112	90.504	71.402
06/27/2011 13:47:31	5.577	13.187	5.09	90.504	71.402
06/27/2011 13:47:41	5.592	13.191	5.083	90.504	71.402
06/27/2011 13:47:51	5.588	13.213	5.064	90.504	71.402
06/27/2011 13:48:01	5.595	13.154	5.035	90.504	71.603
06/27/2011 13:48:11	5.603	13.187	5.064	90.302	71.603
06/27/2011 13:48:21	5.603	13.202	5.094	90.302	71.603

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 13:48:31	5.592	13.202	5.075	90.504	71.603
06/27/2011 13:48:41	5.588	13.198	5.064	90.504	71.603
06/27/2011 13:48:51	5.621	13.158	5.064	90.603	71.003
06/27/2011 13:49:01	5.647	13.169	5.053	90.603	71.003
06/27/2011 13:49:11	5.628	13.198	5.119	90.804	71.003
06/27/2011 13:49:21	5.599	13.231	5.112	90.603	71.003
06/27/2011 13:49:31	5.588	13.194	5.17	90.603	71.003
06/27/2011 13:49:41	5.643	13.154	5.174	90.504	71.003
Calibration Bias					
06/27/2011 13:49:51	5.694	13.059	5.903	90.504	71.204
06/27/2011 13:50:01	5.28	8.21	0.875	90.603	71.402
06/27/2011 13:50:11	1.918	0.417	0.303	90.603	71.603
06/27/2011 13:50:21	0.113	0.296	0.311	90.804	72.101
06/27/2011 13:50:31	0.036	0.245	0.241	90.504	72.101
06/27/2011 13:50:41	0.025	0.219	0.252	90.302	72.303
06/27/2011 13:50:51	0.021	0.201	0.263	90.504	72.101
06/27/2011 13:51:01	0.018	0.19	0.252	90.302	72.101
06/27/2011 13:51:11	0.014	0.183	0.263	90.504	72.101
06/27/2011 13:51:21	0.01	0.172	0.259	90.504	71.903
N2 Zero	**0.014**	**0.182**	**0.258**	**90.437**	**72.035**
06/27/2011 13:51:31	0.084	0.549	37.79	90.302	71.702
06/27/2011 13:51:41	7.28	3.303	49.981	90.302	71.702
06/27/2011 13:51:51	15.428	4.204	50.003	90.302	71.702
06/27/2011 13:52:01	15.97	4.211	50	90.105	71.702
06/27/2011 13:52:11	16.025	4.204	49.923	90.302	71.903
06/27/2011 13:52:21	16.058	4.196	49.926	89.903	71.402
06/27/2011 13:52:31	16.073	4.2	49.948	90.105	71.204
06/27/2011 13:52:41	16.08	4.204	49.923	89.702	71.702
49.8 ppm Propane Mid			**49.932**	**89.903**	**71.436**
06/27/2011 13:52:51	16.08	4.207	49.872	90.105	71.204
06/27/2011 13:53:01	15.974	4.442	20.032	90.105	71.204
06/27/2011 13:53:11	13.363	11.667	3.478	89.603	71.402
06/27/2011 13:53:21	15.051	16.754	2.823	89.702	70.702
06/27/2011 13:53:31	16.219	16.846	2.464	89.702	70.504
06/27/2011 13:53:41	17.355	17.996	1.556	89.603	71.003
06/27/2011 13:53:51	20.588	18.625	1.552	89.903	71.003
06/27/2011 13:54:01	21.379	18.636	1.559	89.702	70.801
06/27/2011 13:54:11	21.394	18.651	1.552	89.702	70.801
06/27/2011 13:54:21	21.398	18.658	2.296	89.702	70.801
06/27/2011 13:54:31	17.908	10.243	0.395	89.702	71.003
06/27/2011 13:54:41	5.13	0.497	0.314	89.702	71.204
06/27/2011 13:54:51	0.289	0.329	0.311	89.903	71.702
06/27/2011 13:55:01	0.109	0.263	0.303	89.903	71.204
06/27/2011 13:55:11	0.076	0.23	0.278	90.302	71.003
06/27/2011 13:55:21	0.058	0.208	0.248	89.903	71.402
06/27/2011 13:55:31	0.047	0.193	0.234	89.903	71.204
06/27/2011 13:55:41	0.04	0.183	0.245	90.105	70.702
06/27/2011 13:55:51	0.032	0.175	0.252	90.105	71.204
06/27/2011 13:56:01	0.029	0.168	0.252	90.105	71.204
06/27/2011 13:56:11	0.025	0.164	0.263	90.105	71.003
06/27/2011 13:56:21	0.021	0.157	0.252	89.903	70.504
06/27/2011 13:56:31	0.018	0.15	0.278	89.702	70.801
06/27/2011 13:56:41	0.04	0.237	0.725	89.603	70.801
06/27/2011 13:56:51	4.544	9.148	0.688	89.702	69.904
06/27/2011 13:57:01	10.415	9.715	0.71	89.903	69.801
06/27/2011 13:57:11	10.953	9.789	0.754	89.903	70.504
06/27/2011 13:57:21	10.938	9.818	0.754	89.603	70.102
06/27/2011 13:57:31	10.931	9.832	0.728	89.603	69.604
06/27/2011 13:57:41	10.931	9.84	0.728	89.903	69.604
06/27/2011 13:57:51	10.935	9.851	0.765	89.903	69.904
06/27/2011 13:58:01	10.942	9.847	0.787	89.603	70.102
06/27/2011 13:58:11	10.942	9.854	0.794	89.702	69.904
11.1% O2/9.74% CO2 Mid	**10.940**	**9.851**		**89.736**	**69.970**
06/27/2011 13:58:21	10.851	10.012	4.855	89.702	69.801
06/27/2011 13:58:31	8.064	13.22	5.053	90.105	69.604
06/27/2011 13:58:41	5.592	13.33	4.896	90.302	69.801
06/27/2011 13:58:51	5.408	13.388	4.877	90.105	69.801
06/27/2011 13:59:01	5.412	13.337	4.855	89.903	70.303
06/27/2011 13:59:11	5.434	13.337	4.87	89.702	70.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 13:59:21	5.423	13.345	4.899	89.702	69.801
06/27/2011 13:59:31	5.412	13.396	4.852	89.603	69.801
06/27/2011 13:59:41	5.379	13.385	4.885	89.702	70.303
06/27/2011 13:59:51	5.43	13.297	4.958	89.603	70.102
06/27/2011 14:00:01	5.489	13.33	4.969	89.903	69.801
06/27/2011 14:00:11	5.423	13.388	5.2	90.105	70.702
06/27/2011 14:00:21	5.379	13.403	5.123	90.105	69.801
06/27/2011 14:00:31	5.35	13.44	5.075	90.105	70.702
06/27/2011 14:00:41	5.343	13.396	5.061	90.302	69.904
06/27/2011 14:00:51	5.394	13.37	5.068	90.105	70.702
06/27/2011 14:01:01	5.419	13.356	5.152	90.105	70.702
06/27/2011 14:01:11	5.427	13.348	5.075	90.504	70.102
06/27/2011 14:01:21	5.43	13.345	5.031	90.302	70.303
06/27/2011 14:01:31	5.43	13.359	5.028	90.302	70.801
06/27/2011 14:01:41	5.383	13.41	5.024	90.105	71.003
06/27/2011 14:01:51	5.321	13.487	5.009	90.105	71.003
06/27/2011 14:02:01	5.273	13.509	5.009	90.504	71.003
06/27/2011 14:02:11	5.288	13.469	5.002	90.504	71.003
06/27/2011 14:02:21	5.306	13.473	4.958	90.504	70.702
06/27/2011 14:02:31	5.273	13.506	4.969	90.603	70.504
06/27/2011 14:02:41	5.299	13.443	4.925	90.504	70.801
06/27/2011 14:02:51	5.365	13.399	4.903	90.302	71.003
06/27/2011 14:03:01	5.419	13.374	4.91	90.504	70.702
06/27/2011 14:03:11	5.43	13.377	4.965	90.603	70.504
06/27/2011 14:03:21	5.467	13.319	4.958	90.804	71.204
06/27/2011 14:03:31	5.489	13.308	4.91	90.804	71.204
06/27/2011 14:03:41	5.471	13.326	4.907	90.804	71.003
06/27/2011 14:03:51	5.485	13.319	4.845	90.804	70.702
06/27/2011 14:04:01	5.445	13.385	4.855	90.804	70.504
06/27/2011 14:04:11	5.394	13.418	4.896	90.804	70.504
06/27/2011 14:04:21	5.368	13.425	4.881	91.002	70.504
06/27/2011 14:04:31	5.357	13.451	4.885	90.804	70.504
06/27/2011 14:04:41	5.31	13.484	4.852	90.603	71.204
06/27/2011 14:04:51	5.302	13.476	4.819	90.504	71.204
06/27/2011 14:05:01	5.273	13.524	4.801	90.504	70.801
06/27/2011 14:05:11	5.251	13.52	4.764	90.603	70.702
06/27/2011 14:05:21	5.273	13.473	4.837	90.603	70.702
06/27/2011 14:05:31	5.346	13.414	4.83	90.804	70.702
06/27/2011 14:05:41	5.372	13.41	4.841	90.804	70.801
06/27/2011 14:05:51	5.376	13.44	4.83	91.203	71.603
06/27/2011 14:06:01	5.339	13.451	4.808	91.002	71.603
06/27/2011 14:06:11	5.339	13.425	4.793	91.405	71.003
06/27/2011 14:06:21	5.357	13.425	4.79	90.804	70.801
06/27/2011 14:06:31	5.357	13.454	4.826	90.804	71.603
06/27/2011 14:06:41	5.361	13.443	4.826	90.804	71.603
06/27/2011 14:06:51	5.35	13.432	4.786	90.603	71.402
06/27/2011 14:07:01	5.354	13.44	4.79	90.603	71.003
06/27/2011 14:07:11	5.357	13.414	4.801	90.603	71.003
06/27/2011 14:07:21	5.398	13.341	4.801	90.603	71.402
06/27/2011 14:07:31	5.452	13.356	4.801	90.603	71.702
06/27/2011 14:07:41	5.434	13.37	4.782	90.804	71.702
06/27/2011 14:07:51	5.379	13.443	4.801	90.603	71.702
06/27/2011 14:08:01	5.343	13.432	4.837	90.804	71.603
06/27/2011 14:08:11	5.354	13.414	4.815	90.804	71.204
06/27/2011 14:08:21	5.398	13.388	4.855	90.804	71.702
06/27/2011 14:08:31	5.405	13.396	4.848	91.002	71.402
06/27/2011 14:08:41	5.405	13.396	4.881	90.804	71.603
06/27/2011 14:08:51	5.39	13.399	4.881	91.002	71.702
06/27/2011 14:09:01	5.39	13.425	4.815	91.002	71.402
06/27/2011 14:09:11	5.401	13.352	4.779	91.002	71.903
06/27/2011 14:09:21	5.46	13.33	4.801	91.002	71.402
06/27/2011 14:09:31	5.474	13.33	4.826	90.804	71.702
06/27/2011 14:09:41	5.438	13.403	4.852	90.804	71.903
06/27/2011 14:09:51	5.354	13.469	4.881	90.804	71.702
06/27/2011 14:10:01	5.361	13.392	4.852	90.804	71.603
06/27/2011 14:10:11	5.441	13.345	4.804	91.002	71.402
06/27/2011 14:10:21	5.467	13.33	4.764	90.804	71.603
06/27/2011 14:10:31	5.43	13.385	4.742	90.603	71.702
06/27/2011 14:10:41	5.394	13.403	4.731	90.603	72.101

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 14:10:51	5.379	13.425	4.83	90.603	72.101
06/27/2011 14:11:01	5.379	13.392	4.899	90.603	72.101
06/27/2011 14:11:11	5.427	13.341	4.874	90.603	72.101
06/27/2011 14:11:21	5.423	13.414	4.852	90.603	72.101
06/27/2011 14:11:31	5.387	13.381	4.852	90.603	71.702
06/27/2011 14:11:41	5.434	13.293	4.881	90.302	71.603
06/27/2011 14:11:51	5.496	13.279	4.881	90.504	71.702
06/27/2011 14:12:01	5.518	13.275	4.874	90.603	72.303
06/27/2011 14:12:11	5.482	13.337	4.888	90.603	71.603
06/27/2011 14:12:21	5.419	13.385	4.855	90.804	72.101
06/27/2011 14:12:31	5.394	13.374	4.881	90.603	71.903
06/27/2011 14:12:41	5.383	13.396	4.841	90.804	71.603
06/27/2011 14:12:51	5.372	13.392	4.812	90.804	72.101
06/27/2011 14:13:01	5.408	13.345	4.881	91.002	72.303
06/27/2011 14:13:11	5.445	13.341	4.866	90.603	71.903
06/27/2011 14:13:21	5.423	13.396	4.812	90.603	72.101
06/27/2011 14:13:31	5.321	13.513	4.746	90.105	72.303
06/27/2011 14:13:41	5.229	13.524	4.764	90.504	72.101
06/27/2011 14:13:51	5.262	13.484	4.797	90.603	71.603
06/27/2011 14:14:01	5.317	13.432	4.771	90.504	71.702
06/27/2011 14:14:11	5.376	13.37	4.746	90.504	72.303
06/27/2011 14:14:21	5.423	13.356	4.742	90.603	72.101
06/27/2011 14:14:31	5.423	13.366	4.746	90.603	71.702
06/27/2011 14:14:41	5.401	13.399	4.746	90.603	71.603
06/27/2011 14:14:51	5.35	13.458	4.753	90.603	71.702
06/27/2011 14:15:01	5.321	13.495	4.801	90.804	72.101
06/27/2011 14:15:11	5.302	13.491	4.826	90.603	72.303
06/27/2011 14:15:21	5.288	13.517	4.768	90.603	72.101
06/27/2011 14:15:31	5.262	13.531	4.746	90.603	71.603
06/27/2011 14:15:41	5.273	13.498	4.731	90.603	71.702
06/27/2011 14:15:51	5.31	13.447	4.735	90.603	72.303
06/27/2011 14:16:01	5.35	13.429	4.724	90.504	72.101
06/27/2011 14:16:11	5.357	13.403	4.72	90.603	71.702
06/27/2011 14:16:21	5.365	13.421	4.716	90.603	72.303
06/27/2011 14:16:31	5.339	13.473	4.749	90.302	72.303
06/27/2011 14:16:41	5.28	13.52	4.746	90.302	71.603
06/27/2011 14:16:51	5.24	13.535	4.757	90.504	71.702
06/27/2011 14:17:01	5.247	13.546	4.782	90.603	72.303
06/27/2011 14:17:11	5.24	13.55	4.779	90.603	72.101
06/27/2011 14:17:21	5.218	13.583	4.746	90.603	71.702
06/27/2011 14:17:31	5.189	13.597	4.746	90.603	71.603
06/27/2011 14:17:41	5.145	13.627	4.779	90.603	71.603
06/27/2011 14:17:51	5.126	13.601	4.738	90.603	71.702
06/27/2011 14:18:01	5.141	13.564	4.746	90.603	71.702
06/27/2011 14:18:11	5.108	13.601	4.749	90.504	71.903
06/27/2011 14:18:21	5.079	13.616	4.727	90.504	72.101
06/27/2011 14:18:31	5.057	13.612	4.731	90.603	72.101
06/27/2011 14:18:41	5.05	13.616	4.731	90.603	72.101
06/27/2011 14:18:51	5.031	13.678	4.757	90.603	71.702
06/27/2011 14:19:01	4.969	13.718	4.771	90.603	71.702
06/27/2011 14:19:11	4.936	13.744	4.771	90.302	71.702
06/27/2011 14:19:21	4.958	13.685	4.771	90.504	71.702
06/27/2011 14:19:31	4.98	13.703	4.746	90.504	71.603
06/27/2011 14:19:41	4.987	13.67	4.753	90.105	71.702
06/27/2011 14:19:51	4.976	13.7	4.779	90.504	71.603
06/27/2011 14:20:01	4.962	13.692	4.797	90.603	71.702
06/27/2011 14:20:11	4.969	13.678	4.779	90.603	71.702
06/27/2011 14:20:21	4.932	13.773	4.768	90.804	71.603
06/27/2011 14:20:31	4.848	13.806	4.801	90.603	71.603
06/27/2011 14:20:41	4.815	13.806	4.815	90.603	71.603
06/27/2011 14:20:51	4.819	13.799	4.76	90.804	71.603
06/27/2011 14:21:01	4.797	13.843	4.793	90.804	71.702
06/27/2011 14:21:11	4.782	13.843	4.801	90.603	71.702
06/27/2011 14:21:21	4.801	13.81	4.782	90.603	72.303
06/27/2011 14:21:31	4.79	13.857	4.786	90.603	71.702
06/27/2011 14:21:41	4.746	13.894	4.764	90.603	71.702
06/27/2011 14:21:51	4.702	13.938	4.746	90.603	72.303
06/27/2011 14:22:01	4.661	13.971	4.724	90.804	71.603
06/27/2011 14:22:11	4.672	13.912	4.669	91.002	72.101

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 14:22:21	4.727	13.89	4.643	91.203	71.402
06/27/2011 14:22:31	4.79	13.828	4.698	90.804	72.101
06/27/2011 14:22:41	4.877	13.744	4.687	90.804	71.603
06/27/2011 14:22:51	4.94	13.78	4.669	90.804	71.702
06/27/2011 14:23:01	4.91	13.802	4.647	90.804	71.402
06/27/2011 14:23:11	4.899	13.806	4.669	90.804	72.101
06/27/2011 14:23:21	4.896	13.861	4.665	90.804	72.101
06/27/2011 14:23:31	4.874	13.843	4.658	90.804	71.702
06/27/2011 14:23:41	4.896	13.806	4.72	91.002	71.702
06/27/2011 14:23:51	4.918	13.806	4.746	91.002	71.603
06/27/2011 14:24:01	4.892	13.835	4.705	90.603	71.903
06/27/2011 14:24:11	4.903	13.788	4.698	90.603	72.303
06/27/2011 14:24:21	4.936	13.769	4.727	90.603	72.101
06/27/2011 14:24:31	4.951	13.758	4.746	90.603	71.603
06/27/2011 14:24:41	5.002	13.711	4.702	91.002	71.903
06/27/2011 14:24:51	5.024	13.74	4.661	91.002	72.303
06/27/2011 14:25:01	5.006	13.711	4.636	90.804	71.903
06/27/2011 14:25:11	5.009	13.729	4.669	90.804	71.702
06/27/2011 14:25:21	4.976	13.791	4.658	90.804	72.101
06/27/2011 14:25:31	4.991	13.711	4.647	90.603	72.101
06/27/2011 14:25:41	5.057	13.648	4.705	90.603	71.702
06/27/2011 14:25:51	5.09	13.645	4.669	90.603	71.702
06/27/2011 14:26:01	5.097	13.663	4.672	90.804	72.101
06/27/2011 14:26:11	5.097	13.659	4.687	90.603	72.504
06/27/2011 14:26:21	5.083	13.674	4.669	91.002	72.504
06/27/2011 14:26:31	5.057	13.714	4.665	90.804	72.303
06/27/2011 14:26:41	5.035	13.703	4.669	90.603	72.303
06/27/2011 14:26:51	5.031	13.718	4.617	90.603	72.101
06/27/2011 14:27:01	5.042	13.689	4.61	90.603	71.903
06/27/2011 14:27:11	5.068	13.714	4.574	90.603	71.702
06/27/2011 14:27:21	5.053	13.714	4.606	90.804	71.903
06/27/2011 14:27:31	5.108	13.63	4.617	90.603	72.101
06/27/2011 14:27:41	5.141	13.619	4.621	90.804	72.504
06/27/2011 14:27:51	5.148	13.619	4.639	90.603	72.101
06/27/2011 14:28:01	5.137	13.659	4.68	90.804	71.903
06/27/2011 14:28:11	5.13	13.623	4.742	90.603	72.101
06/27/2011 14:28:21	5.145	13.638	4.768	90.603	72.504
06/27/2011 14:28:31	5.178	13.553	4.79	90.603	72.101
06/27/2011 14:28:41	5.225	13.513	4.771	90.504	71.903
06/27/2011 14:28:51	5.255	13.52	4.72	90.603	71.903
06/27/2011 14:29:01	5.207	13.605	4.639	90.603	72.101
06/27/2011 14:29:11	5.156	13.605	4.643	90.504	72.603
06/27/2011 14:29:21	5.148	13.612	4.658	90.504	72.603
06/27/2011 14:29:31	5.126	13.656	4.639	90.603	72.504
06/27/2011 14:29:41	5.101	13.645	4.698	90.603	72.504
06/27/2011 14:29:51	5.119	13.63	4.669	90.302	72.504
06/27/2011 14:30:01	5.152	13.605	4.639	90.504	72.504
06/27/2011 14:30:11	5.148	13.656	4.658	90.603	72.101
06/27/2011 14:30:21	5.137	13.619	4.702	90.804	71.903
06/27/2011 14:30:31	5.167	13.568	4.738	90.603	72.504
06/27/2011 14:30:41	5.229	13.509	4.735	90.603	72.603
06/27/2011 14:30:51	5.266	13.542	4.713	91.002	71.903
06/27/2011 14:31:01	5.236	13.572	4.687	90.804	72.101
06/27/2011 14:31:11	5.222	13.531	4.665	90.603	72.603
06/27/2011 14:31:21	5.218	13.568	4.669	90.804	72.303
06/27/2011 14:31:31	5.17	13.616	4.658	90.804	71.903
06/27/2011 14:31:41	5.178	13.575	4.676	90.804	71.903
06/27/2011 14:31:51	5.24	13.495	4.68	90.603	71.903
06/27/2011 14:32:01	5.269	13.528	4.694	90.603	71.903
06/27/2011 14:32:11	5.225	13.572	4.654	90.603	71.903
06/27/2011 14:32:21	5.196	13.59	4.68	90.804	72.101
06/27/2011 14:32:31	5.192	13.572	4.716	90.603	71.903
06/27/2011 14:32:41	5.189	13.605	4.698	90.603	71.903
06/27/2011 14:32:51	5.159	13.608	4.669	90.804	72.101
06/27/2011 14:33:01	5.174	13.579	4.636	91.002	72.101
06/27/2011 14:33:11	5.174	13.601	4.617	90.804	71.903
06/27/2011 14:33:21	5.167	13.605	4.621	91.002	71.903
06/27/2011 14:33:31	5.2	13.557	4.841	91.002	72.504
06/27/2011 14:33:41	5.244	13.506	4.826	91.002	72.504

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 14:33:51	5.262	13.506	4.782	90.804	71.903
06/27/2011 14:34:01	5.251	13.513	4.724	90.603	71.702
06/27/2011 14:34:11	5.244	13.517	4.742	90.603	72.303
06/27/2011 14:34:21	5.24	13.524	4.749	90.603	72.603
06/27/2011 14:34:31	5.211	13.542	4.746	90.603	72.101
06/27/2011 14:34:41	5.196	13.553	4.727	90.804	71.903
06/27/2011 14:34:51	5.233	13.473	4.709	90.603	72.504
06/27/2011 14:35:01	5.302	13.44	4.702	90.603	72.603
06/27/2011 14:35:11	5.31	13.458	4.716	90.603	71.903
06/27/2011 14:35:21	5.244	13.572	4.702	90.603	71.903
06/27/2011 14:35:31	5.185	13.542	4.698	90.804	71.903
06/27/2011 14:35:41	5.192	13.557	4.702	90.603	72.101
06/27/2011 14:35:51	5.167	13.583	4.713	90.603	72.504
06/27/2011 14:36:01	5.159	13.605	4.768	90.603	72.303
06/27/2011 14:36:11	5.152	13.579	5.116	90.603	71.702
06/27/2011 14:36:21	5.159	13.656	5.474	90.804	71.903
06/27/2011 14:36:31	5.083	13.791	5.463	90.603	72.303
06/27/2011 14:36:41	4.995	13.795	5.284	90.603	72.101
06/27/2011 14:36:51	4.995	13.751	5.123	90.603	71.702
06/27/2011 14:37:01	5.061	13.627	4.94	90.804	71.903
06/27/2011 14:37:11	5.13	13.601	4.819	90.603	72.303
06/27/2011 14:37:21	5.141	13.59	4.786	90.804	72.303
06/27/2011 14:37:31	5.167	13.524	4.727	90.603	72.303
06/27/2011 14:37:41	5.181	13.572	4.628	90.603	71.903
06/27/2011 14:37:51	5.214	13.476	4.541	90.504	71.903
06/27/2011 14:38:01	5.266	13.487	4.511	90.504	71.702
06/27/2011 14:38:11	5.269	13.487	4.555	90.105	71.903
06/27/2011 14:38:21	5.302	13.451	4.595	90.504	71.903
06/27/2011 14:38:31	5.31	13.484	4.563	90.105	71.903
06/27/2011 14:38:41	5.302	13.447	4.563	89.903	71.903
06/27/2011 14:38:51	5.306	13.491	4.548	89.702	71.903
06/27/2011 14:39:01	5.291	13.506	4.544	90.105	71.903
06/27/2011 14:39:11	5.295	13.509	4.493	90.105	71.903
06/27/2011 14:39:21	5.321	13.454	4.482	90.302	72.504
06/27/2011 14:39:31	5.324	13.476	4.467	90.504	72.603
06/27/2011 14:39:41	5.357	13.381	4.453	90.603	71.903
06/27/2011 14:39:51	5.405	13.396	4.405	90.504	72.504
06/27/2011 14:40:01	5.394	13.385	4.401	90.603	72.504
06/27/2011 14:40:11	5.379	13.418	4.401	90.504	71.903
06/27/2011 14:40:21	5.357	13.425	4.401	90.603	72.504
06/27/2011 14:40:31	5.321	13.476	4.383	90.603	72.303
06/27/2011 14:40:41	5.306	13.462	4.431	90.804	71.903
06/27/2011 14:40:51	5.324	13.447	4.508	90.504	72.504
06/27/2011 14:41:01	5.357	13.418	4.478	90.302	71.903
06/27/2011 14:41:11	5.383	13.403	4.515	90.105	71.903
06/27/2011 14:41:21	5.365	13.44	4.552	89.903	71.903
06/27/2011 14:41:31	5.357	13.436	4.515	89.903	72.504
06/27/2011 14:41:41	5.317	13.487	4.482	89.903	72.504
06/27/2011 14:41:51	5.343	13.425	4.464	90.302	72.504
06/27/2011 14:42:01	5.372	13.414	4.405	90.302	72.504
06/27/2011 14:42:11	5.379	13.421	4.449	90.504	72.101
06/27/2011 14:42:21	5.376	13.37	4.442	90.504	71.702
06/27/2011 14:42:31	5.408	13.37	4.482	90.603	71.702
06/27/2011 14:42:41	5.408	13.385	4.401	90.603	71.702
06/27/2011 14:42:51	5.398	13.403	4.401	90.504	71.702
06/27/2011 14:43:01	5.394	13.429	4.416	90.105	71.903
06/27/2011 14:43:11	5.39	13.399	4.416	90.105	71.903
06/27/2011 14:43:21	5.449	13.33	4.46	90.603	71.702
06/27/2011 14:43:31	5.493	13.323	4.438	90.603	71.702
06/27/2011 14:43:41	5.467	13.377	4.416	90.804	71.702
06/27/2011 14:43:51	5.419	13.396	4.431	90.603	71.702
06/27/2011 14:44:01	5.427	13.356	4.442	90.603	71.903
06/27/2011 14:44:11	5.467	13.312	4.39	90.603	72.303
06/27/2011 14:44:21	5.493	13.293	4.434	90.603	72.504
06/27/2011 14:44:31	5.485	13.345	4.511	90.603	72.504
06/27/2011 14:44:41	5.449	13.341	4.489	90.504	72.303
06/27/2011 14:44:51	5.449	13.33	4.537	90.302	71.702
06/27/2011 14:45:01	5.43	13.366	4.574	90.302	71.702
06/27/2011 14:45:11	5.39	13.41	4.584	89.903	71.702

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 14:45:21	5.376	13.436	4.519	90.105	72.303
06/27/2011 14:45:31	5.379	13.385	4.533	90.504	72.504
06/27/2011 14:45:41	5.445	13.33	4.603	90.603	72.303
06/27/2011 14:45:51	5.496	13.26	4.617	90.603	71.702
06/27/2011 14:46:01	5.515	13.293	4.617	90.804	71.702
06/27/2011 14:46:11	5.482	13.319	4.588	90.603	71.702
06/27/2011 14:46:21	5.467	13.359	4.563	90.603	72.504
06/27/2011 14:46:31	5.412	13.425	4.563	90.504	72.504
06/27/2011 14:46:41	5.365	13.44	4.563	90.504	71.702
06/27/2011 14:46:51	5.376	13.407	4.522	90.105	71.702
06/27/2011 14:47:01	5.35	13.476	4.489	90.105	71.903
06/27/2011 14:47:11	5.313	13.469	4.511	90.302	72.504
06/27/2011 14:47:21	5.299	13.48	4.519	90.302	72.303
06/27/2011 14:47:31	5.284	13.487	4.537	90.302	71.702
06/27/2011 14:47:41	5.273	13.509	4.617	89.903	71.702
06/27/2011 14:47:51	5.247	13.531	4.614	89.903	72.504
06/27/2011 14:48:01	5.258	13.473	4.574	89.603	72.303
06/27/2011 14:48:11	5.317	13.432	4.563	89.903	71.702
06/27/2011 14:48:21	5.343	13.447	4.563	90.302	71.702
06/27/2011 14:48:31	5.31	13.498	4.519	89.903	72.303
06/27/2011 14:48:41	5.284	13.506	4.548	89.903	72.504
06/27/2011 14:48:51	5.284	13.506	4.574	89.903	72.303
06/27/2011 14:49:01	5.288	13.491	4.617	89.903	71.903
06/27/2011 14:49:11	5.306	13.484	4.614	89.903	71.702
06/27/2011 14:49:21	5.313	13.454	4.625	89.903	71.702
06/27/2011 14:49:31	5.335	13.465	4.621	90.105	71.702
06/27/2011 14:49:41	5.361	13.425	4.625	90.105	71.903
06/27/2011 14:49:51	5.354	13.44	4.606	90.302	71.903
06/27/2011 14:50:01	5.346	13.403	4.522	90.504	71.702
06/27/2011 14:50:11	5.372	13.432	4.584	90.603	71.702
06/27/2011 14:50:21	5.376	13.41	4.537	90.603	71.702
06/27/2011 14:50:31	5.387	13.399	4.515	90.603	71.702
06/27/2011 14:50:41	5.368	13.447	4.482	90.603	71.702
06/27/2011 14:50:51	5.343	13.443	4.449	90.603	71.702
06/27/2011 14:51:01	5.335	13.451	4.456	90.603	72.101
06/27/2011 14:51:11	5.376	13.377	4.46	90.603	72.303
06/27/2011 14:51:21	5.401	13.407	4.497	90.603	72.504
06/27/2011 14:51:31	5.372	13.443	4.515	90.603	72.303
06/27/2011 14:51:41	5.387	13.407	4.533	90.603	72.101
06/27/2011 14:51:51	5.419	13.341	4.537	90.603	71.702
06/27/2011 14:52:01	5.485	13.293	4.515	90.804	71.702
06/27/2011 14:52:11	5.5	13.341	4.486	90.603	71.603
06/27/2011 14:52:21	5.449	13.29	4.482	90.603	71.702
06/27/2011 14:52:31	5.452	13.356	4.449	90.603	71.702
06/27/2011 14:52:41	5.387	13.414	4.46	90.603	72.101
06/27/2011 14:52:51	5.376	13.407	4.453	90.603	72.303
06/27/2011 14:53:01	5.379	13.421	4.442	90.603	72.303
06/27/2011 14:53:11	5.394	13.41	4.46	90.603	72.101
06/27/2011 14:53:21	5.405	13.392	4.46	90.603	72.303
06/27/2011 14:53:31	5.398	13.41	4.456	90.603	72.303
06/27/2011 14:53:41	5.372	13.462	4.46	90.603	72.101
06/27/2011 14:53:51	5.357	13.425	4.46	90.603	72.101
06/27/2011 14:54:01	5.357	13.451	4.438	90.504	72.303
06/27/2011 14:54:11	5.343	13.454	4.475	90.504	72.303
06/27/2011 14:54:21	5.361	13.388	4.508	90.302	72.303
06/27/2011 14:54:31	5.394	13.385	4.442	90.302	72.303
06/27/2011 14:54:41	5.427	13.348	4.431	90.302	72.303
06/27/2011 14:54:51	5.412	13.425	4.449	90.504	72.101
06/27/2011 14:55:01	5.401	13.381	4.511	90.504	72.101
06/27/2011 14:55:11	5.441	13.345	4.504	90.504	71.702
06/27/2011 14:55:21	5.416	13.432	4.486	90.504	71.603
06/27/2011 14:55:31	5.35	13.462	4.486	90.603	71.603
06/27/2011 14:55:41	5.339	13.425	4.46	90.504	71.603
06/27/2011 14:55:51	5.339	13.484	4.423	90.603	71.702
06/27/2011 14:56:01	5.28	13.528	4.427	90.504	71.702
06/27/2011 14:56:11	5.244	13.528	4.508	90.105	72.303
06/27/2011 14:56:21	5.244	13.524	4.464	89.903	71.702
06/27/2011 14:56:31	5.251	13.502	4.464	90.302	71.702
06/27/2011 14:56:41	5.28	13.509	4.467	90.302	71.702

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 14:56:51	5.306	13.462	4.464	90.302	71.702
06/27/2011 14:57:01	5.354	13.414	4.46	90.302	71.702
06/27/2011 14:57:11	5.401	13.399	4.464	90.504	71.702
06/27/2011 14:57:21	5.423	13.377	4.46	90.504	71.903
06/27/2011 14:57:31	5.401	13.436	4.508	90.302	72.303
06/27/2011 14:57:41	5.365	13.454	4.519	90.302	72.303
06/27/2011 14:57:51	5.324	13.517	4.511	90.105	72.303
06/27/2011 14:58:01	5.266	13.528	4.511	90.105	71.903
06/27/2011 14:58:11	5.284	13.473	4.475	90.302	71.702
06/27/2011 14:58:21	5.324	13.487	4.431	90.504	71.603
06/27/2011 14:58:31	5.335	13.443	4.489	90.504	71.603
06/27/2011 14:58:41	5.339	13.48	4.482	90.603	71.603
06/27/2011 14:58:51	5.295	13.498	4.486	90.603	71.702
06/27/2011 14:59:01	5.321	13.443	4.519	90.603	71.903
06/27/2011 14:59:11	5.379	13.392	4.486	90.603	72.101
06/27/2011 14:59:21	5.412	13.396	4.471	90.504	72.303
06/27/2011 14:59:31	5.394	13.425	4.493	90.302	72.101
06/27/2011 14:59:41	5.372	13.421	4.478	90.105	71.603
06/27/2011 14:59:51	5.365	13.425	4.46	90.302	71.603
06/27/2011 15:00:01	5.357	13.451	4.475	90.504	71.402
06/27/2011 15:00:11	5.365	13.403	4.486	90.504	71.402
06/27/2011 15:00:21	5.398	13.388	4.515	90.302	71.603
06/27/2011 15:00:31	5.408	13.396	4.511	90.105	71.603
06/27/2011 15:00:41	5.376	13.436	4.508	90.302	71.603
06/27/2011 15:00:51	5.346	13.443	4.533	90.504	71.603
06/27/2011 15:01:01	5.368	13.414	4.493	90.302	71.402
06/27/2011 15:01:11	5.394	13.385	4.486	90.105	71.402
06/27/2011 15:01:21	5.39	13.403	4.511	89.702	71.603
06/27/2011 15:01:31	5.346	13.473	4.519	89.603	71.603
06/27/2011 15:01:41	5.317	13.465	4.53	89.603	72.101
06/27/2011 15:01:51	5.324	13.429	4.511	89.603	72.101
06/27/2011 15:02:01	5.354	13.44	4.497	89.402	72.101
06/27/2011 15:02:11	5.335	13.447	4.515	89.204	72.101
06/27/2011 15:02:21	5.339	13.414	4.526	89.204	71.903
06/27/2011 15:02:31	5.365	13.399	4.515	89.402	71.702
06/27/2011 15:02:41	5.39	13.396	4.482	89.603	71.603
06/27/2011 15:02:51	5.354	13.454	4.486	89.603	72.101
06/27/2011 15:03:01	5.35	13.425	4.427	89.702	72.101
06/27/2011 15:03:11	5.354	13.432	4.453	89.702	71.603
06/27/2011 15:03:21	5.335	13.436	4.486	89.402	71.204
06/27/2011 15:03:31	5.324	13.465	4.482	89.603	71.702
06/27/2011 15:03:41	5.31	13.469	4.489	89.402	72.101
06/27/2011 15:03:51	5.324	13.462	4.486	89.702	71.204
06/27/2011 15:04:01	5.324	13.465	4.456	89.903	71.204
06/27/2011 15:04:11	5.328	13.454	4.438	90.105	71.903
06/27/2011 15:04:21	5.324	13.458	4.387	90.504	71.903
06/27/2011 15:04:31	5.273	13.539	4.405	90.504	71.903
06/27/2011 15:04:41	5.255	13.484	4.405	90.504	71.903
06/27/2011 15:04:51	5.321	13.418	4.401	90.504	71.702
06/27/2011 15:05:01	5.313	13.495	4.423	90.105	71.402
06/27/2011 15:05:11	5.288	13.491	4.442	90.105	71.204
06/27/2011 15:05:21	5.313	13.443	4.412	90.302	71.204
06/27/2011 15:05:31	5.321	13.473	4.416	89.903	71.702
06/27/2011 15:05:41	5.306	13.469	4.431	90.105	71.702
06/27/2011 15:05:51	5.288	13.513	4.46	89.903	71.402
06/27/2011 15:06:01	5.222	13.594	4.489	89.903	71.204
06/27/2011 15:06:11	5.207	13.553	4.489	89.702	71.204
06/27/2011 15:06:21	5.255	13.531	4.482	89.702	71.903
06/27/2011 15:06:31	5.31	13.447	4.489	89.702	71.903
06/27/2011 15:06:41	5.354	13.432	4.453	89.702	71.402
06/27/2011 15:06:51	5.332	13.484	4.617	89.903	71.204
06/27/2011 15:07:01	5.317	13.447	4.628	89.702	71.204
06/27/2011 15:07:11	5.313	13.48	4.588	89.702	71.702
06/27/2011 15:07:21	5.266	13.535	4.614	89.702	71.903
06/27/2011 15:07:31	5.24	13.55	4.687	89.903	71.402
06/27/2011 15:07:41	5.255	13.531	4.669	89.903	71.204
06/27/2011 15:07:51	5.273	13.52	4.636	89.903	71.903
06/27/2011 15:08:01	5.277	13.502	4.614	89.903	71.204
06/27/2011 15:08:11	5.273	13.506	4.614	89.903	71.702

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 15:08:21	5.306	13.425	4.588	89.702	71.702
06/27/2011 15:08:31	5.328	13.484	4.577	89.903	71.204
06/27/2011 15:08:41	5.262	13.564	4.552	89.702	71.903
06/27/2011 15:08:51	5.2	13.583	4.526	89.702	72.101
06/27/2011 15:09:01	5.185	13.575	4.493	89.702	71.603
06/27/2011 15:09:11	5.17	13.605	4.537	89.903	71.402
06/27/2011 15:09:21	5.181	13.531	4.489	89.702	71.402
06/27/2011 15:09:31	5.222	13.52	4.504	89.702	71.903
06/27/2011 15:09:41	5.2	13.564	4.442	89.702	71.702
06/27/2011 15:09:51	5.178	13.583	4.401	89.702	71.204
06/27/2011 15:10:01	5.185	13.579	4.401	89.702	71.204
06/27/2011 15:10:11	5.181	13.586	4.416	89.702	71.903
06/27/2011 15:10:21	5.2	13.531	4.401	89.903	71.903
06/27/2011 15:10:31	5.24	13.528	4.387	89.903	71.204
06/27/2011 15:10:41	5.229	13.561	4.365	89.702	71.204
06/27/2011 15:10:51	5.222	13.568	4.379	89.702	71.204
06/27/2011 15:11:01	5.159	13.656	4.354	89.603	71.402
06/27/2011 15:11:11	5.126	13.63	4.42	89.402	71.903
06/27/2011 15:11:21	5.13	13.63	4.412	89.603	71.903
06/27/2011 15:11:31	5.152	13.601	4.365	89.702	71.903
06/27/2011 15:11:41	5.178	13.605	4.372	89.903	71.702
06/27/2011 15:11:51	5.159	13.648	4.394	90.105	71.204
06/27/2011 15:12:01	5.126	13.667	4.376	89.702	71.204
06/27/2011 15:12:11	5.101	13.692	4.379	89.702	71.903
06/27/2011 15:12:21	5.105	13.638	4.383	89.702	71.702
06/27/2011 15:12:31	5.123	13.648	4.379	89.903	71.204
06/27/2011 15:12:41	5.145	13.594	4.431	89.702	71.402
06/27/2011 15:12:51	5.152	13.634	4.438	89.702	71.702
06/27/2011 15:13:01	5.13	13.638	4.401	89.903	71.204
06/27/2011 15:13:11	5.152	13.627	4.442	89.702	71.204
06/27/2011 15:13:21	5.163	13.623	4.427	89.702	71.702
06/27/2011 15:13:31	5.167	13.623	4.405	89.903	71.603
06/27/2011 15:13:41	5.174	13.59	4.379	90.105	71.204
06/27/2011 15:13:51	5.174	13.619	4.394	89.903	71.402
06/27/2011 15:14:01	5.116	13.685	4.376	89.903	71.702
06/27/2011 15:14:11	5.097	13.678	4.42	89.903	71.402
06/27/2011 15:14:21	5.137	13.59	4.449	89.702	71.204
06/27/2011 15:14:31	5.203	13.579	4.453	89.702	71.204
06/27/2011 15:14:41	5.214	13.557	4.453	89.702	71.702
06/27/2011 15:14:51	5.189	13.623	4.431	89.603	71.702
06/27/2011 15:15:01	5.17	13.616	4.379	89.204	71.702
06/27/2011 15:15:11	5.189	13.616	4.372	89.204	71.204
06/27/2011 15:15:21	5.145	13.667	4.412	89.603	71.204
06/27/2011 15:15:31	5.097	13.703	4.405	89.402	71.204
06/27/2011 15:15:41	5.075	13.707	4.354	89.603	71.204
06/27/2011 15:15:51	5.057	13.733	4.46	89.402	71.204
06/27/2011 15:16:01	5.024	13.729	4.511	89.204	71.204
06/27/2011 15:16:11	5.057	13.681	4.467	89.402	71.204
06/27/2011 15:16:21	5.094	13.674	4.464	89.204	71.204
06/27/2011 15:16:31	5.053	13.74	4.398	89.402	71.702
06/27/2011 15:16:41	5.017	13.758	4.427	89.204	71.702
06/27/2011 15:16:51	5.002	13.74	4.442	89.204	71.204
06/27/2011 15:17:01	5.039	13.7	4.434	89.204	71.603
06/27/2011 15:17:11	5.068	13.692	4.431	89.603	71.603
06/27/2011 15:17:21	5.097	13.67	4.431	89.603	71.204
06/27/2011 15:17:31	5.123	13.623	4.475	89.603	71.903
06/27/2011 15:17:41	5.13	13.648	4.515	89.702	71.204
06/27/2011 15:17:51	5.079	13.703	4.489	89.603	71.603
06/27/2011 15:18:01	5.068	13.692	4.46	89.603	71.702
06/27/2011 15:18:11	5.086	13.681	4.482	89.603	71.204
06/27/2011 15:18:21	5.075	13.711	4.486	89.603	71.903
06/27/2011 15:18:31	5.064	13.718	4.504	89.603	71.603
06/27/2011 15:18:41	5.068	13.692	4.478	89.702	71.204
06/27/2011 15:18:51	5.09	13.685	4.434	89.903	71.204
06/27/2011 15:19:01	5.137	13.601	4.416	90.105	71.402
06/27/2011 15:19:11	5.185	13.63	4.431	90.105	71.204
06/27/2011 15:19:21	5.141	13.692	4.46	90.302	71.204
06/27/2011 15:19:31	5.09	13.714	4.478	90.105	71.204
06/27/2011 15:19:41	5.108	13.619	4.442	89.903	71.702

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 15:19:51	5.189	13.579	4.431	89.903	71.702
06/27/2011 15:20:01	5.189	13.634	4.464	90.105	71.204
06/27/2011 15:20:11	5.148	13.656	4.486	90.105	71.204
06/27/2011 15:20:21	5.141	13.659	4.449	90.105	71.204
06/27/2011 15:20:31	5.159	13.601	4.438	89.702	71.402
06/27/2011 15:20:41	5.2	13.575	4.434	89.702	71.702
06/27/2011 15:20:51	5.222	13.568	4.405	89.702	71.603
06/27/2011 15:21:01	5.214	13.605	4.405	89.603	71.204
06/27/2011 15:21:11	5.203	13.597	4.401	89.702	71.204
06/27/2011 15:21:21	5.203	13.605	4.398	89.903	71.003
06/27/2011 15:21:31	5.225	13.517	4.383	89.702	71.003
06/27/2011 15:21:41	5.266	13.539	4.401	89.903	71.204
06/27/2011 15:21:51	5.251	13.531	4.434	89.903	71.204
06/27/2011 15:22:01	5.273	13.509	4.427	89.702	71.402
06/27/2011 15:22:11	5.269	13.517	4.412	89.603	71.603
06/27/2011 15:22:21	5.218	13.616	4.431	89.603	71.702
06/27/2011 15:22:31	5.167	13.638	4.394	89.603	71.702
06/27/2011 15:22:41	5.156	13.623	4.368	89.603	71.603
06/27/2011 15:22:51	5.167	13.667	4.273	89.702	71.402
06/27/2011 15:23:01	5.134	13.67	4.321	89.603	71.003
06/27/2011 15:23:11	5.116	13.678	4.328	89.603	71.003
06/27/2011 15:23:21	5.086	13.685	4.299	89.603	71.003
06/27/2011 15:23:31	5.123	13.619	4.313	89.603	71.204
06/27/2011 15:23:41	5.192	13.568	4.31	90.105	71.204
06/27/2011 15:23:51	5.222	13.575	4.328	90.105	71.204
06/27/2011 15:24:01	5.159	13.659	4.313	90.105	71.204
06/27/2011 15:24:11	5.086	13.689	4.299	89.903	71.702
06/27/2011 15:24:21	5.116	13.612	4.299	90.105	71.204
06/27/2011 15:24:31	5.178	13.616	4.299	90.105	71.603
06/27/2011 15:24:41	5.137	13.689	4.328	90.105	71.204
06/27/2011 15:24:51	5.134	13.616	4.346	90.105	71.702
06/27/2011 15:25:01	5.159	13.656	4.368	89.903	71.204
06/27/2011 15:25:11	5.126	13.689	4.379	89.903	71.702
06/27/2011 15:25:21	5.145	13.623	4.431	89.903	71.204
06/27/2011 15:25:31	5.207	13.542	4.467	89.702	71.702
06/27/2011 15:25:41	5.189	13.634	4.398	89.903	71.204
06/27/2011 15:25:51	5.116	13.696	4.35	89.903	71.702
06/27/2011 15:26:01	5.083	13.659	4.324	90.105	71.702
06/27/2011 15:26:11	5.163	13.583	4.288	89.903	71.204
06/27/2011 15:26:21	5.244	13.495	4.354	89.903	71.204
06/27/2011 15:26:31	5.317	13.458	4.372	89.702	71.204
06/27/2011 15:26:41	5.317	13.502	4.328	90.105	71.204
06/27/2011 15:26:51	5.266	13.55	4.321	90.302	71.204
06/27/2011 15:27:01	5.222	13.59	4.299	90.302	71.204
06/27/2011 15:27:11	5.196	13.627	4.299	89.903	71.204
06/27/2011 15:27:21	5.174	13.583	4.284	89.702	71.702
06/27/2011 15:27:31	5.211	13.579	4.295	89.702	71.702
06/27/2011 15:27:41	5.2	13.601	4.324	89.702	71.402
06/27/2011 15:27:51	5.181	13.627	4.324	89.903	71.003
06/27/2011 15:28:01	5.152	13.63	4.346	89.903	71.204
06/27/2011 15:28:11	5.17	13.594	4.328	89.903	71.702
06/27/2011 15:28:21	5.211	13.579	4.306	89.903	71.402
06/27/2011 15:28:31	5.233	13.557	4.288	89.903	71.204
06/27/2011 15:28:41	5.236	13.55	4.233	90.302	71.702
06/27/2011 15:28:51	5.255	13.553	4.27	90.105	71.603
06/27/2011 15:29:01	5.233	13.594	4.335	90.105	71.003
06/27/2011 15:29:11	5.2	13.597	4.354	89.702	71.402
06/27/2011 15:29:21	5.167	13.623	4.328	89.702	71.702
06/27/2011 15:29:31	5.178	13.586	4.299	89.702	71.204
06/27/2011 15:29:41	5.218	13.594	4.31	89.702	71.204
06/27/2011 15:29:51	5.207	13.59	4.321	89.903	71.603
06/27/2011 15:30:01	5.192	13.605	4.328	89.702	71.702
06/27/2011 15:30:11	5.203	13.579	4.354	89.903	71.204
06/27/2011 15:30:21	5.229	13.535	4.299	90.105	71.204
06/27/2011 15:30:31	5.236	13.546	4.299	89.903	71.603
06/27/2011 15:30:41	5.218	13.575	4.255	90.105	71.903
06/27/2011 15:30:51	5.233	13.546	4.255	90.504	71.702
06/27/2011 15:31:01	5.236	13.55	4.299	90.504	71.402
06/27/2011 15:31:11	5.24	13.542	4.27	90.504	71.204

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 15:31:21	5.24	13.553	4.328	90.504	71.204
06/27/2011 15:31:31	5.244	13.517	4.357	90.603	71.204
06/27/2011 15:31:41	5.288	13.498	4.379	90.504	71.204
06/27/2011 15:31:51	5.273	13.561	4.354	90.302	71.204
06/27/2011 15:32:01	5.229	13.597	4.299	90.302	71.204
06/27/2011 15:32:11	5.214	13.561	4.31	90.302	71.204
06/27/2011 15:32:21	5.255	13.498	4.277	90.105	71.702
06/27/2011 15:32:31	5.306	13.465	4.324	90.504	71.702
06/27/2011 15:32:41	5.306	13.502	4.273	90.302	71.204
06/27/2011 15:32:51	5.273	13.509	4.273	90.504	71.702
06/27/2011 15:33:01	5.222	13.605	4.229	90.603	71.204
06/27/2011 15:33:11	5.13	13.645	4.229	90.504	71.204
06/27/2011 15:33:21	5.083	13.663	4.229	90.302	71.702
06/27/2011 15:33:31	5.108	13.638	4.215	90.105	71.204
06/27/2011 15:33:41	5.126	13.667	4.248	90.302	71.204
06/27/2011 15:33:51	5.152	13.583	4.229	90.105	71.204
06/27/2011 15:34:01	5.196	13.586	4.189	90.302	71.603
06/27/2011 15:34:11	5.222	13.572	4.178	90.105	71.402
06/27/2011 15:34:21	5.222	13.579	4.222	90.504	71.204
06/27/2011 15:34:31	5.218	13.586	4.266	90.504	71.204
06/27/2011 15:34:41	5.233	13.568	4.299	90.504	71.402
06/27/2011 15:34:51	5.233	13.564	4.27	90.504	71.903
06/27/2011 15:35:01	5.222	13.59	4.259	90.504	71.702
06/27/2011 15:35:11	5.196	13.616	4.248	90.302	71.204
06/27/2011 15:35:21	5.181	13.605	4.251	90.302	71.204
06/27/2011 15:35:31	5.2	13.597	4.24	90.504	71.204
06/27/2011 15:35:41	5.192	13.583	4.255	90.105	71.204
06/27/2011 15:35:51	5.163	13.634	4.273	90.105	71.204
06/27/2011 15:36:01	5.159	13.583	4.266	90.302	71.204
06/27/2011 15:36:11	5.222	13.524	4.24	90.302	71.603
06/27/2011 15:36:21	5.255	13.542	4.251	90.302	71.903
06/27/2011 15:36:31	5.203	13.605	4.31	90.603	71.402
06/27/2011 15:36:41	5.148	13.656	4.299	90.504	71.204
06/27/2011 15:36:51	5.112	13.667	4.259	90.504	71.702
06/27/2011 15:37:01	5.119	13.663	4.248	90.504	72.101
06/27/2011 15:37:11	5.112	13.703	4.299	90.504	71.204
06/27/2011 15:37:21	5.112	13.659	4.299	90.302	71.204
06/27/2011 15:37:31	5.178	13.612	4.292	90.302	71.204
06/27/2011 15:37:41	5.207	13.59	4.259	90.302	71.204
06/27/2011 15:37:51	5.203	13.616	4.233	90.105	71.204
06/27/2011 15:38:01	5.181	13.627	4.196	90.804	71.402
06/27/2011 15:38:11	5.2	13.568	4.189	90.504	71.402
06/27/2011 15:38:21	5.258	13.52	4.251	90.302	71.204
06/27/2011 15:38:31	5.269	13.546	4.233	90.302	71.603
06/27/2011 15:38:41	5.255	13.564	4.218	89.702	71.903
06/27/2011 15:38:51	5.255	13.528	4.229	89.903	71.903
06/27/2011 15:39:01	5.28	13.513	4.24	89.903	71.402
06/27/2011 15:39:11	5.288	13.495	4.259	89.903	71.204
06/27/2011 15:39:21	5.31	13.487	4.251	89.903	71.204
06/27/2011 15:39:31	5.28	13.528	4.207	89.702	71.204
06/27/2011 15:39:41	5.262	13.528	4.204	89.903	71.204
06/27/2011 15:39:51	5.236	13.564	4.229	89.702	71.603
06/27/2011 15:40:01	5.225	13.586	4.2	89.702	71.603
06/27/2011 15:40:11	5.251	13.524	4.46	89.702	71.603
06/27/2011 15:40:21	5.266	13.509	4.493	89.603	71.603
06/27/2011 15:40:31	5.262	13.524	4.383	89.702	71.204
06/27/2011 15:40:41	5.24	13.531	4.361	89.903	71.204
06/27/2011 15:40:51	5.266	13.517	4.313	89.903	71.204
06/27/2011 15:41:01	5.266	13.524	4.324	90.105	71.603
06/27/2011 15:41:11	5.236	13.564	4.332	90.302	71.603
06/27/2011 15:41:21	5.229	13.55	4.332	90.105	71.603
06/27/2011 15:41:31	5.192	13.612	4.273	89.702	71.903
06/27/2011 15:41:41	5.189	13.572	4.259	89.903	71.903
06/27/2011 15:41:51	5.258	13.473	4.273	90.105	71.702
06/27/2011 15:42:01	5.306	13.473	4.284	90.302	71.402
06/27/2011 15:42:11	5.291	13.509	4.288	90.105	71.204
06/27/2011 15:42:21	5.273	13.531	4.277	89.702	71.204
06/27/2011 15:42:31	5.24	13.579	4.299	89.702	71.204
06/27/2011 15:42:41	5.185	13.648	4.343	89.903	71.204

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 15:42:51	5.163	13.605	4.354	89.903	71.204
06/27/2011 15:43:01	5.24	13.52	4.346	89.903	71.204
06/27/2011 15:43:11	5.284	13.517	4.284	90.105	71.204
06/27/2011 15:43:21	5.273	13.52	4.281	89.903	71.204
06/27/2011 15:43:31	5.284	13.495	4.31	89.702	71.204
06/27/2011 15:43:41	5.284	13.513	4.295	89.702	71.204
06/27/2011 15:43:51	5.262	13.517	4.328	89.702	71.402
06/27/2011 15:44:01	5.269	13.517	4.328	89.702	71.402
06/27/2011 15:44:11	5.266	13.524	4.313	89.702	71.603
06/27/2011 15:44:21	5.218	13.619	4.273	89.702	71.204
06/27/2011 15:44:31	5.126	13.696	4.284	89.903	71.204
06/27/2011 15:44:41	5.134	13.616	4.233	90.105	71.204
06/27/2011 15:44:51	5.181	13.623	4.182	90.302	71.204
06/27/2011 15:45:01	5.185	13.634	4.189	89.903	71.402
06/27/2011 15:45:11	5.181	13.641	4.229	89.702	71.702
06/27/2011 15:45:21	5.189	13.619	4.237	89.903	71.903
06/27/2011 15:45:31	5.222	13.539	4.218	90.105	71.702
06/27/2011 15:45:41	5.302	13.495	4.259	90.302	71.204
06/27/2011 15:45:51	5.313	13.513	4.262	90.105	71.402
06/27/2011 15:46:01	5.302	13.535	4.259	90.105	71.903
06/27/2011 15:46:11	5.302	13.509	4.259	90.302	71.204
06/27/2011 15:46:21	5.335	13.473	4.244	90.105	71.204
06/27/2011 15:46:31	5.365	13.44	4.233	90.105	71.903
06/27/2011 15:46:41	5.394	13.421	4.248	90.504	71.204
06/27/2011 15:46:51	5.368	13.502	4.259	90.302	71.204
06/27/2011 15:47:01	5.295	13.553	4.24	90.302	71.204
06/27/2011 15:47:11	5.258	13.557	4.207	90.504	71.402
06/27/2011 15:47:21	5.269	13.506	4.2	90.302	71.204
06/27/2011 15:47:31	5.317	13.469	4.2	90.302	71.204
06/27/2011 15:47:41	5.35	13.443	4.229	90.504	71.603
06/27/2011 15:47:51	5.343	13.469	4.233	90.504	71.702
06/27/2011 15:48:01	5.321	13.495	4.248	90.105	71.702
06/27/2011 15:48:11	5.273	13.531	4.273	89.903	71.204
06/27/2011 15:48:21	5.233	13.55	4.306	90.105	71.204
06/27/2011 15:48:31	5.218	13.564	4.284	89.702	71.204
06/27/2011 15:48:41	5.266	13.476	4.248	90.105	71.402
06/27/2011 15:48:51	5.299	13.513	4.218	89.903	71.603
06/27/2011 15:49:01	5.262	13.583	4.196	89.903	71.903
06/27/2011 15:49:11	5.222	13.561	4.193	89.702	71.702
06/27/2011 15:49:21	5.262	13.517	4.196	89.702	71.702
06/27/2011 15:49:31	5.244	13.568	4.211	89.903	71.702
06/27/2011 15:49:41	5.247	13.495	4.259	90.302	71.702
06/27/2011 15:49:51	5.302	13.491	4.277	90.302	71.702
06/27/2011 15:50:01	5.324	13.473	4.27	90.302	71.702
06/27/2011 15:50:11	5.299	13.535	4.255	90.302	71.702
06/27/2011 15:50:21	5.244	13.568	4.31	90.105	71.204
06/27/2011 15:50:31	5.244	13.528	4.306	90.105	71.204
06/27/2011 15:50:41	5.269	13.513	4.292	89.903	71.204
06/27/2011 15:50:51	5.28	13.509	4.288	89.702	71.204
06/27/2011 15:51:01	5.284	13.487	4.259	89.603	71.204
06/27/2011 15:51:11	5.317	13.447	4.346	89.702	71.204
06/27/2011 15:51:21	5.295	13.542	4.365	89.603	71.204
06/27/2011 15:51:31	5.258	13.517	4.332	89.603	71.702
06/27/2011 15:51:41	5.269	13.539	4.346	89.603	71.204
06/27/2011 15:51:51	5.255	13.561	4.387	89.402	71.603
06/27/2011 15:52:01	5.269	13.502	4.398	89.204	71.402
06/27/2011 15:52:11	5.273	13.542	4.401	89.603	71.603
06/27/2011 15:52:21	5.247	13.553	4.365	89.702	71.204
06/27/2011 15:52:31	5.211	13.601	4.299	89.603	71.702
06/27/2011 15:52:41	5.181	13.616	4.299	89.603	71.402
06/27/2011 15:52:51	5.192	13.586	4.31	89.903	71.402
06/27/2011 15:53:01	5.222	13.524	4.332	89.903	71.903
06/27/2011 15:53:11	5.28	13.498	4.292	89.903	71.903
06/27/2011 15:53:21	5.291	13.495	4.292	89.903	71.903
06/27/2011 15:53:31	5.291	13.506	4.262	89.702	71.903
06/27/2011 15:53:41	5.258	13.542	4.24	89.702	71.903
06/27/2011 15:53:51	5.266	13.487	4.27	89.702	71.204
06/27/2011 15:54:01	5.277	13.513	4.229	89.702	71.204
06/27/2011 15:54:11	5.251	13.579	4.204	89.603	71.204

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 15:54:21	5.236	13.553	4.229	89.702	72.101
06/27/2011 15:54:31	5.258	13.509	4.233	89.702	71.903
06/27/2011 15:54:41	5.324	13.462	4.273	89.702	71.402
06/27/2011 15:54:51	5.343	13.451	4.281	89.702	71.204
06/27/2011 15:55:01	5.354	13.454	4.273	89.903	71.402
06/27/2011 15:55:11	5.35	13.473	4.259	90.105	71.903
06/27/2011 15:55:21	5.379	13.407	4.251	89.702	71.903
06/27/2011 15:55:31	5.39	13.429	4.24	89.702	71.402
06/27/2011 15:55:41	5.365	13.465	4.233	89.204	71.204
06/27/2011 15:55:51	5.346	13.469	4.237	89.002	71.603
06/27/2011 15:56:01	5.321	13.509	4.237	88.805	71.903
06/27/2011 15:56:11	5.288	13.524	4.211	89.002	71.903
06/27/2011 15:56:21	5.284	13.487	4.204	89.402	72.101
06/27/2011 15:56:31	5.324	13.458	4.2	89.402	71.903
06/27/2011 15:56:41	5.335	13.465	4.152	89.204	71.903
06/27/2011 15:56:51	5.324	13.458	4.215	89.603	71.903
06/27/2011 15:57:01	5.339	13.465	4.196	89.204	71.903
06/27/2011 15:57:11	5.328	13.443	4.149	89.204	71.402
06/27/2011 15:57:21	5.328	13.484	4.152	89.402	71.204
06/27/2011 15:57:31	5.317	13.454	4.215	89.204	71.402
06/27/2011 15:57:41	5.339	13.44	4.215	89.002	71.903
06/27/2011 15:57:51	5.313	13.513	4.222	89.204	71.903
06/27/2011 15:58:01	5.277	13.498	4.2	89.002	71.903
06/27/2011 15:58:11	5.258	13.553	4.174	89.402	71.603
06/27/2011 15:58:21	5.236	13.531	4.229	89.204	71.402
06/27/2011 15:58:31	5.266	13.513	4.215	89.204	71.402
06/27/2011 15:58:41	5.284	13.491	4.171	89.402	71.702
06/27/2011 15:58:51	5.324	13.48	4.2	89.402	71.903
06/27/2011 15:59:01	5.277	13.579	4.196	89.603	71.903
06/27/2011 15:59:11	5.178	13.634	4.174	89.603	71.903
06/27/2011 15:59:21	5.126	13.67	4.16	89.603	71.702
06/27/2011 15:59:31	5.148	13.564	4.167	89.603	71.603
06/27/2011 15:59:41	5.211	13.546	4.182	89.603	71.204
06/27/2011 15:59:51	5.192	13.619	4.222	89.402	71.204
06/27/2011 16:00:01	5.159	13.601	4.237	89.204	71.003
06/27/2011 16:00:11	5.17	13.619	4.24	89.204	71.003
06/27/2011 16:00:21	5.126	13.692	4.259	89.002	71.204
06/27/2011 16:00:31	5.137	13.616	4.248	89.204	71.204
06/27/2011 16:00:41	5.178	13.623	4.229	89.402	71.204
06/27/2011 16:00:51	5.185	13.616	4.244	89.002	71.204
06/27/2011 16:01:01	5.174	13.612	4.211	89.204	71.204
06/27/2011 16:01:11	5.2	13.579	4.204	89.402	71.402
06/27/2011 16:01:21	5.225	13.561	4.222	89.603	71.702
06/27/2011 16:01:31	5.244	13.55	4.229	89.204	71.702
06/27/2011 16:01:41	5.214	13.597	4.299	89.204	71.603
06/27/2011 16:01:51	5.211	13.561	4.299	89.204	71.402
06/27/2011 16:02:01	5.266	13.52	4.259	88.805	70.801
06/27/2011 16:02:11	5.288	13.524	4.204	88.805	70.801
06/27/2011 16:02:21	5.247	13.572	4.2	89.002	70.801
06/27/2011 16:02:31	5.244	13.542	4.229	89.002	71.003
06/27/2011 16:02:41	5.291	13.495	4.193	88.504	71.204
06/27/2011 16:02:51	5.295	13.52	4.193	89.002	71.603
06/27/2011 16:03:01	5.247	13.579	4.174	89.204	71.402
06/27/2011 16:03:11	5.218	13.586	4.196	89.204	71.402
06/27/2011 16:03:21	5.218	13.572	4.193	89.002	70.801
06/27/2011 16:03:31	5.295	13.473	4.2	88.805	70.801
06/27/2011 16:03:41	5.401	13.414	4.215	88.805	71.402
06/27/2011 16:03:51	5.43	13.374	4.222	88.702	71.603
06/27/2011 16:04:01	5.467	13.348	4.262	89.204	71.003
06/27/2011 16:04:11	5.478	13.374	4.277	89.204	71.204
06/27/2011 16:04:21	5.467	13.356	4.27	89.402	71.603
06/27/2011 16:04:31	5.456	13.381	4.244	89.402	71.402
06/27/2011 16:04:41	5.449	13.341	4.218	89.603	70.801
06/27/2011 16:04:51	5.489	13.301	4.152	89.702	71.003
06/27/2011 16:05:01	5.533	13.271	4.149	89.603	71.402
06/27/2011 16:05:11	5.548	13.26	4.174	89.002	71.603
06/27/2011 16:05:21	5.533	13.308	4.174	89.204	71.603
06/27/2011 16:05:31	5.471	13.37	4.16	89.603	71.402
06/27/2011 16:05:41	5.434	13.374	4.163	89.402	71.603

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 16:05:51	5.441	13.359	4.105	89.002	71.402
06/27/2011 16:06:01	5.434	13.407	4.149	89.002	71.603
06/27/2011 16:06:11	5.412	13.403	4.119	89.402	71.603
06/27/2011 16:06:21	5.441	13.37	4.141	89.603	71.402
06/27/2011 16:06:31	5.452	13.37	4.138	89.402	71.003
06/27/2011 16:06:41	5.434	13.385	4.16	89.402	70.702
06/27/2011 16:06:51	5.408	13.388	4.182	89.402	70.801
06/27/2011 16:07:01	5.408	13.399	4.163	89.402	70.801
06/27/2011 16:07:11	5.394	13.421	4.16	89.603	71.003
06/27/2011 16:07:21	5.354	13.487	4.163	89.402	71.603
06/27/2011 16:07:31	5.339	13.418	4.149	89.603	71.603
06/27/2011 16:07:41	5.365	13.407	4.149	89.603	71.402
06/27/2011 16:07:51	5.343	13.465	4.145	89.603	70.801
06/27/2011 16:08:01	5.28	13.517	4.127	89.603	70.801
06/27/2011 16:08:11	5.214	13.579	4.145	89.702	71.603
06/27/2011 16:08:21	5.189	13.564	4.105	89.702	71.603
06/27/2011 16:08:31	5.203	13.557	4.116	89.702	70.702
06/27/2011 16:08:41	5.211	13.546	4.119	89.603	70.702
06/27/2011 16:08:51	5.222	13.55	4.119	89.402	70.801
06/27/2011 16:09:01	5.203	13.605	4.097	89.002	71.402
06/27/2011 16:09:11	5.181	13.605	4.097	89.002	71.402
06/27/2011 16:09:21	5.178	13.608	4.149	88.805	71.402
06/27/2011 16:09:31	5.2	13.557	4.149	88.805	71.603
06/27/2011 16:09:41	5.247	13.557	4.145	89.204	71.402
06/27/2011 16:09:51	5.225	13.605	4.123	89.402	71.003
06/27/2011 16:10:01	5.2	13.583	4.149	89.402	70.801
06/27/2011 16:10:11	5.218	13.546	4.138	89.603	70.801
06/27/2011 16:10:21	5.247	13.517	4.079	89.702	70.801
06/27/2011 16:10:31	5.251	13.553	3.995	89.603	71.003
06/27/2011 16:10:41	5.196	13.638	4.064	89.603	70.801
06/27/2011 16:10:51	5.2	13.517	4.094	89.603	71.003
06/27/2011 16:11:01	5.28	13.476	4.094	89.402	70.801
06/27/2011 16:11:11	5.295	13.473	4.108	89.402	71.204
06/27/2011 16:11:21	5.306	13.487	4.149	89.402	71.603
06/27/2011 16:11:31	5.273	13.539	4.112	89.603	71.603
06/27/2011 16:11:41	5.28	13.484	4.127	89.402	71.603
06/27/2011 16:11:51	5.332	13.454	4.119	89.603	70.801
06/27/2011 16:12:01	5.328	13.487	4.127	89.204	71.603
06/27/2011 16:12:11	5.291	13.542	4.119	89.603	71.204
06/27/2011 16:12:21	5.262	13.531	4.119	89.402	70.801
06/27/2011 16:12:31	5.273	13.506	4.119	89.603	71.603
06/27/2011 16:12:41	5.284	13.542	4.112	89.402	71.003
06/27/2011 16:12:51	5.244	13.542	4.097	89.402	70.801
06/27/2011 16:13:01	5.251	13.55	4.057	89.603	71.603
06/27/2011 16:13:11	5.262	13.506	4.046	89.603	71.003
06/27/2011 16:13:21	5.284	13.506	4.061	89.603	70.702
06/27/2011 16:13:31	5.262	13.561	4.178	89.204	70.504
06/27/2011 16:13:41	5.247	13.528	4.288	89.603	71.204
06/27/2011 16:13:51	5.266	13.509	4.273	89.603	71.402
06/27/2011 16:14:01	5.251	13.579	4.251	89.402	71.603
06/27/2011 16:14:11	5.214	13.575	4.237	89.603	71.402
06/27/2011 16:14:21	5.2	13.583	4.229	89.002	71.402
06/27/2011 16:14:31	5.218	13.513	4.2	89.002	71.003
06/27/2011 16:14:41	5.284	13.429	4.248	89.002	70.702
06/27/2011 16:14:51	5.361	13.403	4.292	89.002	70.702
06/27/2011 16:15:01	5.343	13.487	4.273	89.002	70.801
06/27/2011 16:15:11	5.277	13.531	4.273	88.805	71.204
06/27/2011 16:15:21	5.244	13.575	4.259	89.002	71.402
06/27/2011 16:15:31	5.225	13.553	4.251	88.805	71.204
06/27/2011 16:15:41	5.244	13.513	4.251	89.002	70.702
06/27/2011 16:15:51	5.262	13.531	4.237	89.402	71.003
06/27/2011 16:16:01	5.24	13.553	4.277	89.204	71.702
06/27/2011 16:16:11	5.247	13.52	4.259	89.002	71.402
06/27/2011 16:16:21	5.247	13.55	4.24	88.805	70.801
06/27/2011 16:16:31	5.244	13.539	4.244	88.805	71.204
06/27/2011 16:16:41	5.233	13.557	4.218	89.002	71.702
06/27/2011 16:16:51	5.236	13.55	4.218	89.204	71.402
06/27/2011 16:17:01	5.229	13.553	4.16	89.402	70.801
06/27/2011 16:17:11	5.214	13.568	4.174	89.204	70.801

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 16:17:21	5.207	13.601	4.149	89.402	71.204
06/27/2011 16:17:31	5.185	13.627	4.178	89.002	71.702
06/27/2011 16:17:41	5.178	13.594	4.2	89.204	71.603
06/27/2011 16:17:51	5.218	13.564	4.215	89.002	71.603
06/27/2011 16:18:01	5.233	13.564	4.2	89.002	71.003
06/27/2011 16:18:11	5.236	13.531	4.233	89.204	70.801
06/27/2011 16:18:21	5.244	13.542	4.24	89.002	70.801
06/27/2011 16:18:31	5.229	13.564	4.2	89.402	70.801
06/27/2011 16:18:41	5.2	13.572	4.229	89.204	71.003
06/27/2011 16:18:51	5.192	13.586	4.2	88.702	71.402
06/27/2011 16:19:01	5.196	13.601	4.229	89.002	71.702
06/27/2011 16:19:11	5.185	13.619	4.218	89.204	71.702
06/27/2011 16:19:21	5.178	13.623	4.229	89.002	71.603
06/27/2011 16:19:31	5.181	13.579	4.237	89.002	71.003
06/27/2011 16:19:41	5.211	13.579	4.229	89.204	70.801
06/27/2011 16:19:51	5.247	13.502	4.244	89.402	70.801
06/27/2011 16:20:01	5.266	13.517	4.248	89.603	71.402
06/27/2011 16:20:11	5.247	13.542	4.233	89.402	71.702
06/27/2011 16:20:21	5.222	13.575	4.237	89.603	71.702
06/27/2011 16:20:31	5.196	13.619	4.24	89.603	71.702
06/27/2011 16:20:41	5.152	13.674	4.259	89.402	71.204
06/27/2011 16:20:51	5.119	13.659	4.255	89.603	70.801
06/27/2011 16:21:01	5.134	13.67	4.218	89.603	71.003
06/27/2011 16:21:11	5.126	13.67	4.27	89.603	71.603
06/27/2011 16:21:21	5.13	13.659	4.343	89.204	71.603
06/27/2011 16:21:31	5.163	13.59	4.328	89.402	70.801
06/27/2011 16:21:41	5.222	13.513	4.332	89.603	70.801
06/27/2011 16:21:51	5.247	13.557	4.299	89.603	70.801
06/27/2011 16:22:01	5.222	13.59	4.248	89.603	70.801
06/27/2011 16:22:11	5.203	13.605	4.2	89.603	70.801
06/27/2011 16:22:21	5.156	13.696	4.207	89.603	70.801
06/27/2011 16:22:31	5.105	13.689	4.204	89.702	70.801
06/27/2011 16:22:41	5.123	13.656	4.207	89.702	70.801
06/27/2011 16:22:51	5.13	13.659	4.182	89.702	70.801
06/27/2011 16:23:01	5.123	13.663	4.215	89.402	70.801
06/27/2011 16:23:11	5.152	13.594	4.218	89.603	70.801
06/27/2011 16:23:21	5.222	13.535	4.189	89.603	70.801
06/27/2011 16:23:31	5.233	13.583	4.185	89.402	70.801
06/27/2011 16:23:41	5.222	13.564	4.211	89.402	70.801
06/27/2011 16:23:51	5.214	13.601	4.215	89.204	71.603
06/27/2011 16:24:01	5.185	13.619	4.233	89.002	71.603
06/27/2011 16:24:11	5.189	13.583	4.255	89.402	70.801
06/27/2011 16:24:21	5.181	13.627	4.237	89.402	71.003
06/27/2011 16:24:31	5.156	13.634	4.196	89.603	71.603
06/27/2011 16:24:41	5.119	13.674	4.174	89.603	71.003
06/27/2011 16:24:51	5.112	13.67	4.119	89.603	70.801
06/27/2011 16:25:01	5.108	13.718	4.189	89.603	71.003
06/27/2011 16:25:11	5.097	13.659	4.233	89.204	71.603
06/27/2011 16:25:21	5.174	13.586	4.163	89.402	71.702
06/27/2011 16:25:31	5.207	13.572	4.174	89.402	71.204
06/27/2011 16:25:41	5.189	13.619	4.174	89.402	70.801
06/27/2011 16:25:51	5.167	13.638	4.196	89.402	70.801
06/27/2011 16:26:01	5.17	13.597	4.215	89.002	70.801
06/27/2011 16:26:11	5.174	13.638	4.24	89.204	70.801
06/27/2011 16:26:21	5.097	13.729	4.222	89.402	71.003
06/27/2011 16:26:31	5.061	13.696	4.222	89.402	70.801
06/27/2011 16:26:41	5.097	13.659	4.185	89.402	70.801
06/27/2011 16:26:51	5.083	13.707	4.189	89.204	70.801
06/27/2011 16:27:01	5.079	13.711	4.141	89.402	71.003
06/27/2011 16:27:11	5.079	13.696	4.149	89.402	70.801
06/27/2011 16:27:21	5.086	13.689	4.149	89.002	70.801
06/27/2011 16:27:31	5.079	13.729	4.119	89.002	71.402
06/27/2011 16:27:41	5.075	13.714	4.174	89.002	71.402
06/27/2011 16:27:51	5.094	13.692	4.16	89.002	71.402
06/27/2011 16:28:01	5.13	13.645	4.174	89.204	71.204
06/27/2011 16:28:11	5.181	13.594	4.167	89.204	70.702
06/27/2011 16:28:21	5.225	13.568	4.174	89.402	70.702
06/27/2011 16:28:31	5.247	13.575	4.174	89.402	71.204
06/27/2011 16:28:41	5.247	13.531	4.204	89.603	70.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 16:28:51	5.273	13.509	4.204	89.702	70.801
06/27/2011 16:29:01	5.258	13.557	4.174	89.903	70.801
06/27/2011 16:29:11	5.222	13.561	4.171	89.702	70.801
06/27/2011 16:29:21	5.222	13.583	4.189	89.204	70.801
06/27/2011 16:29:31	5.207	13.572	4.174	89.402	71.003
06/27/2011 16:29:41	5.2	13.597	4.174	89.603	70.702
06/27/2011 16:29:51	5.159	13.648	4.149	89.402	70.702
06/27/2011 16:30:01	5.167	13.575	4.119	89.603	71.003
06/27/2011 16:30:11	5.203	13.59	4.178	89.603	71.603
06/27/2011 16:30:21	5.218	13.546	4.149	89.603	70.702
06/27/2011 16:30:31	5.233	13.568	4.127	89.603	71.402
06/27/2011 16:30:41	5.236	13.542	4.145	89.402	70.801
06/27/2011 16:30:51	5.247	13.528	4.13	89.402	71.402
06/27/2011 16:31:01	5.258	13.524	4.097	89.204	70.702
06/27/2011 16:31:11	5.251	13.568	4.123	89.204	71.402
06/27/2011 16:31:21	5.229	13.564	4.13	89.402	70.702
06/27/2011 16:31:31	5.225	13.586	4.119	89.402	71.603
06/27/2011 16:31:41	5.17	13.67	4.13	89.402	70.702
06/27/2011 16:31:51	5.152	13.597	4.145	89.204	71.402
06/27/2011 16:32:01	5.185	13.586	4.193	89.603	71.003
06/27/2011 16:32:11	5.181	13.608	4.182	89.402	70.801
06/27/2011 16:32:21	5.152	13.652	4.167	89.002	71.402
06/27/2011 16:32:31	5.13	13.652	4.189	89.002	71.402
06/27/2011 16:32:41	5.167	13.605	4.193	89.402	71.402
06/27/2011 16:32:51	5.178	13.619	4.167	89.402	71.402
06/27/2011 16:33:01	5.196	13.568	4.105	89.402	71.003
06/27/2011 16:33:11	5.229	13.586	4.09	89.204	70.702
06/27/2011 16:33:21	5.218	13.553	4.068	89.402	71.402
06/27/2011 16:33:31	5.222	13.542	4.086	89.402	71.204
06/27/2011 16:33:41	5.258	13.506	4.046	89.402	70.702
06/27/2011 16:33:51	5.284	13.502	4.035	89.002	71.603
06/27/2011 16:34:01	5.269	13.557	4.006	89.204	71.204
06/27/2011 16:34:11	5.251	13.557	4.013	89.402	70.702
06/27/2011 16:34:21	5.236	13.575	4.013	89.402	71.402
06/27/2011 16:34:31	5.207	13.601	4.046	89.002	71.603
06/27/2011 16:34:41	5.218	13.55	4.039	88.805	70.702
06/27/2011 16:34:51	5.255	13.553	4.061	88.805	70.801
06/27/2011 16:35:01	5.244	13.579	4.046	89.002	71.603
06/27/2011 16:35:11	5.181	13.616	4.039	89.002	71.603
06/27/2011 16:35:21	5.211	13.524	4.006	88.805	71.402
06/27/2011 16:35:31	5.284	13.509	3.969	88.805	71.204
06/27/2011 16:35:41	5.295	13.531	3.98	88.805	71.204
06/27/2011 16:35:51	5.277	13.52	4.046	89.002	71.402
06/27/2011 16:36:01	5.306	13.487	4.061	89.002	71.603
06/27/2011 16:36:11	5.361	13.436	4.035	89.402	70.801
06/27/2011 16:36:21	5.372	13.436	4.053	89.402	71.003
06/27/2011 16:36:31	5.368	13.443	4.068	89.402	71.402
06/27/2011 16:36:41	5.335	13.498	4.061	89.402	70.801
06/27/2011 16:36:51	5.299	13.484	4.021	89.402	71.204
06/27/2011 16:37:01	5.335	13.447	3.999	89.204	70.702
06/27/2011 16:37:11	5.383	13.381	4.006	89.204	71.204
06/27/2011 16:37:21	5.456	13.304	4.021	89.002	70.702
06/27/2011 16:37:31	5.522	13.29	4.028	89.002	71.402
06/27/2011 16:37:41	5.496	13.326	4.053	89.002	70.702
06/27/2011 16:37:51	5.449	13.359	4.05	89.002	71.003
06/27/2011 16:38:01	5.434	13.352	3.991	89.204	71.402
06/27/2011 16:38:11	5.441	13.366	3.984	88.805	71.003
06/27/2011 16:38:21	5.427	13.363	3.999	88.805	70.801
06/27/2011 16:38:31	5.441	13.319	4.006	88.805	70.801
06/27/2011 16:38:41	5.485	13.312	3.991	89.002	71.402
06/27/2011 16:38:51	5.456	13.363	3.98	89.002	71.402
06/27/2011 16:39:01	5.416	13.392	4.046	88.805	71.204
06/27/2011 16:39:11	5.423	13.377	4.108	88.805	70.801
06/27/2011 16:39:21	5.474	13.304	4.083	88.805	70.504
06/27/2011 16:39:31	5.46	13.392	4.013	88.805	70.504
06/27/2011 16:39:41	5.401	13.443	4.046	89.002	71.204
06/27/2011 16:39:51	5.405	13.366	4.097	89.204	71.003
06/27/2011 16:40:01	5.423	13.399	4.094	89.204	70.504
06/27/2011 16:40:11	5.405	13.421	4.079	89.204	70.702

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 16:40:21	5.401	13.41	4.072	88.805	71.204
06/27/2011 16:40:31	5.427	13.356	4.072	89.002	71.003
06/27/2011 16:40:41	5.463	13.312	4.094	89.402	70.504
06/27/2011 16:40:51	5.489	13.348	4.097	89.002	70.504
06/27/2011 16:41:01	5.427	13.421	4.068	88.805	70.702
06/27/2011 16:41:11	5.361	13.465	4.061	88.805	71.003
06/27/2011 16:41:21	5.365	13.421	4.086	88.702	71.204
06/27/2011 16:41:31	5.456	13.282	4.094	88.805	71.204
06/27/2011 16:41:41	5.562	13.216	4.105	89.002	71.402
06/27/2011 16:41:51	5.595	13.194	4.086	88.805	71.003
06/27/2011 16:42:01	5.61	13.194	4.079	88.805	70.702
06/27/2011 16:42:11	5.581	13.257	4.068	88.805	70.702
06/27/2011 16:42:21	5.588	13.205	4.086	88.702	71.204
06/27/2011 16:42:31	5.573	13.297	4.101	88.805	70.801
06/27/2011 16:42:41	5.471	13.366	4.101	88.805	70.504
06/27/2011 16:42:51	5.438	13.356	4.068	88.805	71.204
06/27/2011 16:43:01	5.445	13.374	4.072	88.805	71.402
06/27/2011 16:43:11	5.427	13.399	4.068	89.002	71.204
06/27/2011 16:43:21	5.434	13.326	4.068	89.204	71.402
06/27/2011 16:43:31	5.485	13.268	4.046	89.002	71.204
06/27/2011 16:43:41	5.518	13.268	4.035	89.002	71.003
06/27/2011 16:43:51	5.474	13.345	4.086	88.805	70.702
06/27/2011 16:44:01	5.434	13.348	4.127	88.805	70.504
06/27/2011 16:44:11	5.427	13.348	4.119	88.805	70.801
06/27/2011 16:44:21	5.401	13.429	4.057	88.805	71.402
06/27/2011 16:44:31	5.35	13.443	4.068	88.504	71.402
06/27/2011 16:44:41	5.365	13.388	4.046	88.105	71.003
06/27/2011 16:44:51	5.405	13.407	4.061	88.702	70.504
06/27/2011 16:45:01	5.423	13.352	4.09	88.504	70.303
06/27/2011 16:45:11	5.452	13.326	4.119	88.702	70.504
06/27/2011 16:45:21	5.467	13.337	4.156	88.702	70.504
06/27/2011 16:45:31	5.449	13.37	4.167	88.303	71.003
06/27/2011 16:45:41	5.438	13.345	4.105	87.805	71.003
06/27/2011 16:45:51	5.419	13.381	4.119	87.904	71.003
06/27/2011 16:46:01	5.39	13.388	4.149	88.105	71.003
06/27/2011 16:46:11	5.401	13.363	4.149	88.105	71.003
06/27/2011 16:46:21	5.427	13.377	4.094	87.904	71.003
06/27/2011 16:46:31	5.434	13.356	4.105	88.105	70.801
06/27/2011 16:46:41	5.401	13.425	4.112	88.303	70.801
06/27/2011 16:46:51	5.361	13.44	4.222	88.105	70.702
06/27/2011 16:47:01	5.335	13.462	4.284	88.504	70.801
06/27/2011 16:47:11	5.339	13.418	4.229	88.504	71.204
06/27/2011 16:47:21	5.368	13.41	4.2	88.702	71.003
06/27/2011 16:47:31	5.394	13.366	4.24	88.504	70.801
06/27/2011 16:47:41	5.427	13.359	4.215	88.702	70.801
06/27/2011 16:47:51	5.423	13.385	4.174	88.504	70.801
06/27/2011 16:48:01	5.394	13.403	4.174	88.105	70.801
06/27/2011 16:48:11	5.398	13.374	4.2	87.805	71.003
06/27/2011 16:48:21	5.398	13.418	4.174	88.303	70.801
06/27/2011 16:48:31	5.379	13.425	4.2	88.504	70.702
06/27/2011 16:48:41	5.365	13.429	4.211	88.702	70.504
06/27/2011 16:48:51	5.376	13.381	4.174	88.702	70.303
06/27/2011 16:49:01	5.39	13.407	4.138	88.805	70.102
06/27/2011 16:49:11	5.361	13.418	4.149	88.702	70.102
06/27/2011 16:49:21	5.383	13.374	4.149	88.805	70.102
06/27/2011 16:49:31	5.401	13.418	4.101	88.805	70.504
06/27/2011 16:49:41	5.35	13.502	4.141	88.805	70.801
06/27/2011 16:49:51	5.332	13.425	4.149	89.002	71.003
06/27/2011 16:50:01	5.416	13.377	4.149	88.805	71.003
06/27/2011 16:50:11	5.423	13.403	4.123	89.204	71.003
06/27/2011 16:50:21	5.379	13.44	4.101	89.204	71.204
06/27/2011 16:50:31	5.372	13.44	4.072	88.805	71.003
06/27/2011 16:50:41	5.383	13.414	4.101	88.702	70.801
06/27/2011 16:50:51	5.423	13.363	4.061	88.702	70.801
06/27/2011 16:51:01	5.434	13.407	4.013	88.702	71.003
06/27/2011 16:51:11	5.408	13.403	4.072	88.805	71.204
06/27/2011 16:51:21	5.379	13.454	4.072	88.805	71.204
06/27/2011 16:51:31	5.379	13.374	4.068	88.805	70.702
06/27/2011 16:51:41	5.445	13.326	4.021	89.002	70.303

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 16:51:51	5.434	13.414	4.075	89.204	70.102
06/27/2011 16:52:01	5.398	13.392	4.072	89.002	70.303
06/27/2011 16:52:11	5.383	13.44	4.046	89.002	70.504
06/27/2011 16:52:21	5.372	13.418	4.046	88.805	70.801
06/27/2011 16:52:31	5.365	13.429	4.068	88.805	71.003
06/27/2011 16:52:41	5.357	13.41	4.028	88.702	71.003
06/27/2011 16:52:51	5.39	13.392	4.035	88.504	70.702
06/27/2011 16:53:01	5.365	13.454	4.075	88.702	70.303
06/27/2011 16:53:11	5.306	13.498	4.072	88.702	70.303
06/27/2011 16:53:21	5.229	13.601	4.046	88.702	70.102
06/27/2011 16:53:31	5.192	13.616	4.035	88.702	70.303
06/27/2011 16:53:41	5.196	13.586	4.061	88.805	70.801
06/27/2011 16:53:51	5.2	13.572	4.053	88.805	70.504
06/27/2011 16:54:01	5.225	13.531	4.046	89.002	70.102
06/27/2011 16:54:11	5.28	13.52	4.061	89.204	70.801
06/27/2011 16:54:21	5.306	13.498	4.101	89.204	70.702
06/27/2011 16:54:31	5.31	13.484	4.097	89.402	70.102
06/27/2011 16:54:41	5.321	13.473	4.094	89.204	70.102
06/27/2011 16:54:51	5.324	13.462	4.119	89.002	70.702
06/27/2011 16:55:01	5.302	13.535	4.112	88.702	70.801
06/27/2011 16:55:11	5.251	13.546	4.116	88.805	70.801
06/27/2011 16:55:21	5.244	13.524	4.119	89.204	70.801
06/27/2011 16:55:31	5.291	13.436	4.119	89.204	70.303
06/27/2011 16:55:41	5.35	13.443	4.072	89.204	70.303
06/27/2011 16:55:51	5.372	13.392	4.094	89.402	70.303
06/27/2011 16:56:01	5.394	13.418	4.13	89.002	70.702
06/27/2011 16:56:11	5.357	13.443	4.13	89.002	70.801
06/27/2011 16:56:21	5.346	13.443	4.105	89.002	70.801
06/27/2011 16:56:31	5.346	13.436	4.119	89.002	70.801
06/27/2011 16:56:41	5.401	13.37	4.119	89.002	70.504
06/27/2011 16:56:51	5.441	13.352	4.086	89.204	70.102
06/27/2011 16:57:01	5.423	13.407	4.068	89.204	70.303
06/27/2011 16:57:11	5.376	13.432	4.068	89.002	70.801
06/27/2011 16:57:21	5.343	13.48	4.09	89.204	71.003
06/27/2011 16:57:31	5.346	13.432	4.119	88.805	70.504
06/27/2011 16:57:41	5.379	13.421	4.149	89.204	70.504
06/27/2011 16:57:51	5.419	13.348	4.189	89.204	70.303
06/27/2011 16:58:01	5.474	13.334	4.149	89.402	71.003
06/27/2011 16:58:11	5.485	13.326	4.119	89.402	71.003
06/27/2011 16:58:21	5.452	13.356	4.112	89.002	70.504
06/27/2011 16:58:31	5.419	13.366	4.094	88.805	70.303
06/27/2011 16:58:41	5.423	13.359	4.141	88.805	70.702
06/27/2011 16:58:51	5.445	13.326	4.174	89.002	71.204
06/27/2011 16:59:01	5.46	13.352	4.152	89.204	71.003
06/27/2011 16:59:11	5.438	13.341	4.149	89.402	70.303
06/27/2011 16:59:21	5.445	13.33	4.116	89.402	70.303
06/27/2011 16:59:31	5.456	13.308	4.119	89.402	70.801
06/27/2011 16:59:41	5.463	13.359	4.094	89.204	71.204
06/27/2011 16:59:51	5.412	13.396	4.101	89.002	71.204
06/27/2011 17:00:01	5.394	13.425	4.149	88.805	71.003
06/27/2011 17:00:11	5.39	13.414	4.13	88.805	71.003
06/27/2011 17:00:21	5.394	13.403	4.149	88.702	71.003
06/27/2011 17:00:31	5.408	13.403	4.119	89.002	71.204
06/27/2011 17:00:41	5.39	13.429	4.094	88.805	71.003
06/27/2011 17:00:51	5.361	13.44	4.079	88.702	71.003
06/27/2011 17:01:01	5.368	13.418	4.061	89.002	71.204
06/27/2011 17:01:11	5.387	13.396	4.094	88.702	71.204
06/27/2011 17:01:21	5.398	13.385	4.068	88.702	71.204
06/27/2011 17:01:31	5.401	13.388	4.094	88.702	71.204
06/27/2011 17:01:41	5.394	13.414	4.119	88.702	71.204
06/27/2011 17:01:51	5.372	13.429	4.189	88.702	71.003
06/27/2011 17:02:01	5.361	13.425	4.167	88.702	70.801
06/27/2011 17:02:11	5.346	13.469	4.112	88.702	70.702
06/27/2011 17:02:21	5.343	13.451	4.068	88.504	70.504
06/27/2011 17:02:31	5.343	13.476	4.094	88.303	70.303
06/27/2011 17:02:41	5.317	13.484	4.127	88.504	70.702
06/27/2011 17:02:51	5.299	13.484	4.174	88.303	70.801
06/27/2011 17:03:01	5.313	13.454	4.149	88.702	71.003
06/27/2011 17:03:11	5.383	13.359	4.123	88.702	70.801

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 17:03:21	5.449	13.334	4.057	88.702	71.003
06/27/2011 17:03:31	5.43	13.381	4.094	88.702	70.702
06/27/2011 17:03:41	5.387	13.429	4.174	88.702	70.702
06/27/2011 17:03:51	5.339	13.469	4.218	88.805	70.303
06/27/2011 17:04:01	5.313	13.458	4.251	88.702	70.303
06/27/2011 17:04:11	5.339	13.432	4.24	88.702	70.303
06/27/2011 17:04:21	5.335	13.454	4.204	88.805	70.504
06/27/2011 17:04:31	5.328	13.458	4.149	89.002	70.702
06/27/2011 17:04:41	5.379	13.392	4.145	89.002	71.003
06/27/2011 17:04:51	5.405	13.403	4.123	89.002	71.003
06/27/2011 17:05:01	5.387	13.451	4.178	89.002	71.003
06/27/2011 17:05:11	5.35	13.473	4.222	89.204	70.801
06/27/2011 17:05:21	5.379	13.392	4.237	89.002	70.504
06/27/2011 17:05:31	5.438	13.348	4.189	89.002	70.303
06/27/2011 17:05:41	5.46	13.323	4.189	89.002	70.303
06/27/2011 17:05:51	5.471	13.319	4.204	89.002	70.303
06/27/2011 17:06:01	5.474	13.33	4.218	88.702	70.102
06/27/2011 17:06:11	5.511	13.253	4.13	89.002	70.504
06/27/2011 17:06:21	5.57	13.242	4.094	89.002	70.801
06/27/2011 17:06:31	5.54	13.297	4.163	89.002	70.801
06/27/2011 17:06:41	5.485	13.359	4.171	89.603	70.801
06/27/2011 17:06:51	5.434	13.388	4.174	89.204	70.702
06/27/2011 17:07:01	5.401	13.418	4.163	89.204	70.102
06/27/2011 17:07:11	5.387	13.407	4.171	89.204	70.102
06/27/2011 17:07:21	5.398	13.388	4.152	89.204	70.102
06/27/2011 17:07:31	5.434	13.345	4.123	89.002	70.303
06/27/2011 17:07:41	5.456	13.348	4.167	89.002	70.702
06/27/2011 17:07:51	5.467	13.326	4.163	88.805	71.003
06/27/2011 17:08:01	5.46	13.352	4.145	88.504	71.003
06/27/2011 17:08:11	5.427	13.366	4.123	88.702	71.003
06/27/2011 17:08:21	5.456	13.352	4.149	88.504	70.801
06/27/2011 17:08:31	5.489	13.304	4.149	88.702	71.003
06/27/2011 17:08:41	5.522	13.301	4.163	88.702	70.504
06/27/2011 17:08:51	5.551	13.242	4.178	88.702	70.102
06/27/2011 17:09:01	5.54	13.301	4.171	88.702	70.303
06/27/2011 17:09:11	5.522	13.268	4.149	88.303	70.303
06/27/2011 17:09:21	5.496	13.304	4.119	88.702	70.801
06/27/2011 17:09:31	5.482	13.334	4.101	88.504	71.003
06/27/2011 17:09:41	5.485	13.308	4.116	88.303	70.801
06/27/2011 17:09:51	5.493	13.326	4.127	88.504	70.801
06/27/2011 17:10:01	5.474	13.312	4.149	88.702	70.801
06/27/2011 17:10:11	5.511	13.268	4.119	88.702	71.003
06/27/2011 17:10:21	5.515	13.323	4.119	88.702	70.702
06/27/2011 17:10:31	5.438	13.407	4.13	88.805	70.303
06/27/2011 17:10:41	5.368	13.451	4.156	88.702	70.102
06/27/2011 17:10:51	5.354	13.407	4.174	88.805	70.303
06/27/2011 17:11:01	5.398	13.377	4.163	88.805	70.702
06/27/2011 17:11:11	5.43	13.381	4.152	88.805	71.003
06/27/2011 17:11:21	5.441	13.345	4.171	88.805	70.801
06/27/2011 17:11:31	5.412	13.447	4.119	88.805	70.801
06/27/2011 17:11:41	5.35	13.462	4.174	89.002	70.801
06/27/2011 17:11:51	5.357	13.454	4.229	88.805	70.801
06/27/2011 17:12:01	5.372	13.425	4.229	88.805	70.504
06/27/2011 17:12:11	5.368	13.432	4.174	88.805	70.102
06/27/2011 17:12:21	5.365	13.429	4.145	89.002	70.102
06/27/2011 17:12:31	5.317	13.52	4.149	89.002	70.303
06/27/2011 17:12:41	5.28	13.487	4.174	89.002	70.702
06/27/2011 17:12:51	5.273	13.506	4.16	88.805	70.801
06/27/2011 17:13:01	5.284	13.476	4.174	88.504	70.801
06/27/2011 17:13:11	5.343	13.425	4.141	88.702	70.801
06/27/2011 17:13:21	5.35	13.443	4.149	88.702	70.102
06/27/2011 17:13:31	5.346	13.425	4.127	88.702	70.102
06/27/2011 17:13:41	5.387	13.388	4.141	88.702	70.102
06/27/2011 17:13:51	5.379	13.443	4.149	88.702	70.504
06/27/2011 17:14:01	5.339	13.447	4.149	88.702	70.801
06/27/2011 17:14:11	5.354	13.44	4.149	88.805	70.801
06/27/2011 17:14:21	5.368	13.414	4.149	88.702	70.801
06/27/2011 17:14:31	5.376	13.443	4.127	88.702	70.801
06/27/2011 17:14:41	5.339	13.487	4.123	88.303	70.702

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 17:14:51	5.317	13.462	4.116	88.702	70.702
06/27/2011 17:15:01	5.372	13.381	4.068	88.303	70.702
06/27/2011 17:15:11	5.427	13.403	4.068	88.105	70.702
06/27/2011 17:15:21	5.405	13.399	4.094	87.805	70.702
06/27/2011 17:15:31	5.372	13.465	4.101	87.904	70.702
06/27/2011 17:15:41	5.383	13.399	4.138	87.904	70.504
06/27/2011 17:15:51	5.445	13.315	4.13	88.303	70.102
06/27/2011 17:16:01	5.474	13.348	4.119	88.303	69.904
06/27/2011 17:16:11	5.46	13.345	4.119	88.105	69.904
06/27/2011 17:16:21	5.489	13.286	4.101	88.504	70.102
06/27/2011 17:16:31	5.533	13.282	4.072	88.303	70.702
06/27/2011 17:16:41	5.507	13.345	4.079	88.303	70.303
06/27/2011 17:16:51	5.43	13.385	4.149	88.702	69.904
06/27/2011 17:17:01	5.419	13.374	4.218	88.702	70.102
06/27/2011 17:17:11	5.419	13.366	4.27	88.702	70.504
06/27/2011 17:17:21	5.387	13.403	4.248	88.702	70.702
06/27/2011 17:17:31	5.387	13.396	4.211	88.702	70.504
06/27/2011 17:17:41	5.394	13.407	4.2	88.702	69.904
06/27/2011 17:17:51	5.361	13.443	4.138	88.702	70.702
06/27/2011 17:18:01	5.321	13.491	4.09	88.702	70.702
06/27/2011 17:18:11	5.335	13.443	4.138	89.002	69.904
06/27/2011 17:18:21	5.387	13.381	4.13	88.702	70.102
06/27/2011 17:18:31	5.43	13.359	4.119	88.805	70.801
06/27/2011 17:18:41	5.456	13.348	4.174	89.002	70.102
06/27/2011 17:18:51	5.452	13.341	4.16	89.002	70.102
06/27/2011 17:19:01	5.452	13.366	4.149	88.702	70.504
06/27/2011 17:19:11	5.379	13.473	4.101	88.805	70.504
06/27/2011 17:19:21	5.35	13.399	4.119	89.002	70.102
06/27/2011 17:19:31	5.383	13.418	4.094	88.805	69.904
06/27/2011 17:19:41	5.35	13.48	4.108	88.702	69.904
06/27/2011 17:19:51	5.291	13.513	4.072	88.303	69.904
06/27/2011 17:20:01	5.255	13.55	4.064	88.702	69.904
06/27/2011 17:20:11	5.258	13.546	4.215	88.702	69.904
06/27/2011 17:20:21	5.258	13.506	4.449	88.504	70.303
06/27/2011 17:20:31	5.269	13.506	4.354	88.702	70.801
06/27/2011 17:20:41	5.295	13.487	4.328	88.702	70.801
06/27/2011 17:20:51	5.295	13.498	4.332	88.702	69.904
06/27/2011 17:21:01	5.277	13.491	4.328	88.702	69.904
06/27/2011 17:21:11	5.269	13.528	4.328	88.702	70.102
06/27/2011 17:21:21	5.273	13.506	4.313	88.805	70.801
06/27/2011 17:21:31	5.302	13.476	4.281	88.702	70.702
06/27/2011 17:21:41	5.306	13.491	4.273	88.805	70.102
06/27/2011 17:21:51	5.317	13.454	4.251	88.805	70.102
06/27/2011 17:22:01	5.313	13.502	4.248	88.805	70.702
06/27/2011 17:22:11	5.258	13.531	4.262	88.805	70.801
06/27/2011 17:22:21	5.233	13.539	4.215	89.002	70.702
06/27/2011 17:22:31	5.258	13.495	4.174	88.805	70.102
06/27/2011 17:22:41	5.284	13.491	4.174	88.702	70.102
06/27/2011 17:22:51	5.284	13.495	4.171	88.702	70.702
06/27/2011 17:23:01	5.31	13.473	4.123	88.702	70.702
06/27/2011 17:23:11	5.321	13.487	4.204	88.702	70.702
06/27/2011 17:23:21	5.244	13.597	4.222	88.702	70.702
06/27/2011 17:23:31	5.203	13.564	4.222	88.702	70.504
06/27/2011 17:23:41	5.211	13.564	4.237	88.702	70.504
06/27/2011 17:23:51	5.203	13.594	4.152	88.805	70.504
06/27/2011 17:24:01	5.222	13.513	4.16	88.702	70.303
06/27/2011 17:24:11	5.273	13.517	4.174	88.702	70.303
06/27/2011 17:24:21	5.335	13.418	4.233	88.702	69.904
06/27/2011 17:24:31	5.398	13.385	4.244	88.805	69.904
06/27/2011 17:24:41	5.379	13.443	4.222	88.702	69.904
06/27/2011 17:24:51	5.31	13.48	4.222	88.805	69.904
06/27/2011 17:25:01	5.299	13.465	4.211	88.702	70.504
06/27/2011 17:25:11	5.302	13.484	4.193	88.702	70.702
06/27/2011 17:25:21	5.302	13.476	4.207	88.702	70.102
06/27/2011 17:25:31	5.288	13.509	4.185	89.002	69.904
06/27/2011 17:25:41	5.247	13.553	4.174	88.805	70.504
06/27/2011 17:25:51	5.236	13.546	4.127	88.702	70.702
06/27/2011 17:26:01	5.24	13.524	4.156	88.504	69.904
06/27/2011 17:26:11	5.266	13.542	4.189	88.702	69.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 17:26:21	5.225	13.605	4.149	88.702	70.504
06/27/2011 17:26:31	5.203	13.564	4.116	88.504	70.702
06/27/2011 17:26:41	5.258	13.546	4.094	88.702	70.504
06/27/2011 17:26:51	5.24	13.616	4.13	88.504	69.904
06/27/2011 17:27:01	5.211	13.568	4.174	88.702	69.904
06/27/2011 17:27:11	5.247	13.546	4.156	88.805	70.102
06/27/2011 17:27:21	5.277	13.542	4.237	88.702	70.702
06/27/2011 17:27:31	5.284	13.524	4.244	88.702	70.702
06/27/2011 17:27:41	5.332	13.421	4.259	88.702	70.702
06/27/2011 17:27:51	5.383	13.421	4.16	88.702	70.504
06/27/2011 17:28:01	5.328	13.524	4.149	88.702	70.702
06/27/2011 17:28:11	5.244	13.564	4.145	88.702	70.702
06/27/2011 17:28:21	5.244	13.528	4.119	88.702	70.702
06/27/2011 17:28:31	5.266	13.509	4.145	88.805	70.504
06/27/2011 17:28:41	5.328	13.432	4.174	88.805	69.904
06/27/2011 17:28:51	5.339	13.484	4.123	88.702	70.504
06/27/2011 17:29:01	5.295	13.502	4.149	88.702	70.504
06/27/2011 17:29:11	5.288	13.531	4.156	88.702	69.904
06/27/2011 17:29:21	5.284	13.491	4.145	88.702	70.303
06/27/2011 17:29:31	5.302	13.491	4.149	88.702	70.303
06/27/2011 17:29:41	5.31	13.476	4.196	88.702	69.904
06/27/2011 17:29:51	5.346	13.454	4.185	88.702	70.702
06/27/2011 17:30:01	5.361	13.454	4.156	88.702	69.904
06/27/2011 17:30:11	5.354	13.447	4.13	88.504	70.102
06/27/2011 17:30:21	5.357	13.443	4.119	88.504	70.702
06/27/2011 17:30:31	5.416	13.348	4.119	88.702	69.904
06/27/2011 17:30:41	5.419	13.436	4.108	88.702	70.102
06/27/2011 17:30:51	5.372	13.425	4.075	88.702	70.702
06/27/2011 17:31:01	5.372	13.425	4.105	88.702	70.801
06/27/2011 17:31:11	5.361	13.469	4.119	88.702	70.504
06/27/2011 17:31:21	5.35	13.465	4.079	88.702	70.102
06/27/2011 17:31:31	5.357	13.451	4.094	88.702	70.102
06/27/2011 17:31:41	5.313	13.506	4.075	88.504	69.904
06/27/2011 17:31:51	5.273	13.535	4.101	88.504	69.904
06/27/2011 17:32:01	5.28	13.502	4.149	88.504	69.904
06/27/2011 17:32:11	5.299	13.498	4.138	88.504	69.904
06/27/2011 17:32:21	5.31	13.48	4.178	88.504	70.102
06/27/2011 17:32:31	5.291	13.498	4.174	88.504	70.303
06/27/2011 17:32:41	5.28	13.495	4.108	88.702	70.702
06/27/2011 17:32:51	5.295	13.513	4.094	88.702	70.702
06/27/2011 17:33:01	5.295	13.473	4.075	88.702	71.204
06/27/2011 17:33:11	5.328	13.454	3.962	88.805	71.204
06/27/2011 17:33:21	5.368	13.41	4.112	88.702	70.303
06/27/2011 17:33:31	5.383	13.414	4.094	88.504	69.904
06/27/2011 17:33:41	5.365	13.454	4.101	88.105	69.904
06/27/2011 17:33:51	5.317	13.524	4.171	88.105	70.102
06/27/2011 17:34:01	5.284	13.524	4.127	88.702	70.303
06/27/2011 17:34:11	5.28	13.513	4.123	88.105	70.303
06/27/2011 17:34:21	5.299	13.506	4.13	88.504	70.504
06/27/2011 17:34:31	5.295	13.52	4.174	88.504	70.702
06/27/2011 17:34:41	5.262	13.575	4.167	88.702	70.702
06/27/2011 17:34:51	5.196	13.627	4.163	88.702	70.702
06/27/2011 17:35:01	5.2	13.542	4.2	88.702	70.702
06/27/2011 17:35:11	5.258	13.531	10.865	88.702	70.801
06/27/2011 17:35:21	5.145	3.478	0.446	88.702	71.003
06/27/2011 17:35:31	1.721	0.395	0.109	88.702	71.003
06/27/2011 17:35:41	0.098	0.3	0.109	88.303	71.003
06/27/2011 17:35:51	0.043	0.256	0.113	88.504	71.003
06/27/2011 17:36:01	0.032	0.23	0.095	88.702	70.801
06/27/2011 17:36:11	0.025	0.215	0.095	88.504	71.003
06/27/2011 17:36:21	0.021	0.204	0.113	88.504	70.801
06/27/2011 17:36:31	0.018	0.193	0.124	88.702	70.504
06/27/2011 17:36:41	0.014	0.186	0.069	88.702	70.303
06/27/2011 17:36:51	0.014	0.186	1.951	88.702	70.303
06/27/2011 17:37:01	1.428	10.14	4.123	88.504	70.801
06/27/2011 17:37:11	4.837	12.678	6.13	88.504	70.702
06/27/2011 17:37:21	9.067	9.701	0.552	88.303	69.904
06/27/2011 17:37:31	10.949	9.799	0.516	88.504	69.801
06/27/2011 17:37:41	10.986	9.803	0.516	88.702	69.904

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 17:37:51	11.001	9.81	0.516	88.702	69.904
06/27/2011 17:38:01	11.008	9.81	0.53	88.702	70.102
06/27/2011 17:38:11	11.012	9.814	0.604	88.303	70.504
06/27/2011 17:38:21	10.836	10.155	4.251	88.303	70.702
06/27/2011 17:38:31	7.749	13.447	4.233	88.303	70.702
06/27/2011 17:38:41	5.379	13.498	4.229	87.904	70.702
06/27/2011 17:38:51	5.28	13.473	4.244	88.105	70.702
06/27/2011 17:39:01	5.302	13.432	4.24	88.105	70.702
06/27/2011 17:39:11	5.339	13.432	4.185	88.504	70.303
06/27/2011 17:39:21	5.269	13.575	4.2	88.702	69.904
06/27/2011 17:39:31	5.203	13.535	4.178	88.105	69.801
06/27/2011 17:39:41	5.236	13.535	4.2	88.303	69.801
06/27/2011 17:39:51	5.225	13.568	4.174	88.105	70.102
06/27/2011 17:40:01	5.222	13.531	4.149	88.105	70.504
06/27/2011 17:40:11	5.262	13.491	4.174	88.504	70.504
06/27/2011 17:40:21	5.28	13.513	4.174	88.105	70.303
06/27/2011 17:40:31	5.258	13.55	4.156	88.105	70.303
06/27/2011 17:40:41	5.247	13.509	4.182	88.303	70.102
06/27/2011 17:40:51	5.24	13.561	4.189	88.303	70.102
06/27/2011 17:41:01	5.255	13.487	4.2	88.702	70.303
06/27/2011 17:41:11	5.302	13.484	4.171	88.702	70.504
06/27/2011 17:41:21	5.284	13.546	4.145	88.504	70.303
06/27/2011 17:41:31	5.251	13.52	4.149	88.702	70.303
06/27/2011 17:41:41	5.28	13.524	4.167	88.702	70.102
06/27/2011 17:41:51	5.277	13.531	4.174	88.702	70.102
06/27/2011 17:42:01	5.266	13.495	4.149	88.702	70.102
06/27/2011 17:42:11	5.299	13.506	4.119	88.303	69.904
06/27/2011 17:42:21	5.291	13.506	4.167	88.504	69.801
06/27/2011 17:42:31	5.291	13.509	4.149	88.702	69.904
06/27/2011 17:42:41	5.262	13.535	4.108	88.702	70.102
06/27/2011 17:42:51	5.251	13.542	4.094	88.702	70.504
06/27/2011 17:43:01	5.229	13.553	4.119	88.702	70.504
06/27/2011 17:43:11	5.214	13.564	4.13	88.702	70.102
06/27/2011 17:43:21	5.203	13.579	4.127	88.702	69.801
06/27/2011 17:43:31	5.185	13.59	4.127	88.702	69.801
06/27/2011 17:43:41	5.178	13.608	4.207	88.702	69.904
06/27/2011 17:43:51	5.178	13.594	4.182	88.504	69.904
06/27/2011 17:44:01	5.178	13.619	4.189	88.702	70.303
06/27/2011 17:44:11	5.196	13.568	4.2	88.504	70.504
06/27/2011 17:44:21	5.218	13.601	4.167	88.702	70.504
06/27/2011 17:44:31	5.203	13.561	4.149	88.702	70.504
06/27/2011 17:44:41	5.207	13.608	4.171	88.504	70.504
06/27/2011 17:44:51	5.189	13.568	4.149	88.504	70.504
06/27/2011 17:45:01	5.225	13.528	4.215	88.702	70.303
06/27/2011 17:45:11	5.266	13.473	4.207	88.303	69.904
06/27/2011 17:45:21	5.302	13.451	4.174	88.105	69.801
06/27/2011 17:45:31	5.346	13.429	4.145	88.303	69.904
06/27/2011 17:45:41	5.324	13.491	4.171	88.504	69.904
06/27/2011 17:45:51	5.313	13.498	4.2	88.303	70.102
06/27/2011 17:46:01	5.324	13.476	4.149	87.904	70.303
06/27/2011 17:46:11	5.302	13.524	4.156	87.904	70.303
06/27/2011 17:46:21	5.258	13.535	4.171	88.105	70.504
06/27/2011 17:46:31	5.266	13.487	4.211	87.904	70.303
06/27/2011 17:46:41	5.299	13.502	4.174	87.904	69.604
06/27/2011 17:46:51	5.258	13.583	4.171	88.303	69.904
06/27/2011 17:47:01	5.203	13.608	4.149	88.504	69.801
06/27/2011 17:47:11	5.189	13.608	4.149	88.702	69.801
06/27/2011 17:47:21	5.236	13.498	4.156	88.702	69.904
06/27/2011 17:47:31	5.321	13.443	4.16	88.105	70.504
06/27/2011 17:47:41	5.376	13.425	4.2	88.303	70.504
06/27/2011 17:47:51	5.398	13.421	4.233	88.702	69.801
06/27/2011 17:48:01	5.412	13.359	4.229	88.504	70.504
06/27/2011 17:48:11	5.463	13.33	4.185	88.702	69.801
06/27/2011 17:48:21	5.456	13.385	4.101	88.105	70.303
06/27/2011 17:48:31	5.408	13.421	4.16	88.105	69.604
06/27/2011 17:48:41	5.354	13.462	4.196	88.105	70.303
06/27/2011 17:48:51	5.343	13.414	4.2	88.702	69.801
06/27/2011 17:49:01	5.379	13.436	4.189	88.702	70.504
06/27/2011 17:49:11	5.354	13.436	4.145	88.303	69.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 17:49:21	5.357	13.436	4.149	88.303	70.303
06/27/2011 17:49:31	5.35	13.487	4.178	88.504	69.801
06/27/2011 17:49:41	5.339	13.451	4.2	88.303	69.604
06/27/2011 17:49:51	5.335	13.454	4.185	88.303	69.801
06/27/2011 17:50:01	5.365	13.432	4.2	88.303	69.904
06/27/2011 17:50:11	5.365	13.429	4.2	88.303	69.604
06/27/2011 17:50:21	5.343	13.473	4.2	88.504	69.801
06/27/2011 17:50:31	5.35	13.421	4.193	88.504	70.303
06/27/2011 17:50:41	5.372	13.407	4.222	88.702	70.504
06/27/2011 17:50:51	5.383	13.403	4.251	88.805	69.904
06/27/2011 17:51:01	5.361	13.443	4.262	88.805	69.604
06/27/2011 17:51:11	5.357	13.421	4.259	88.504	70.303
06/27/2011 17:51:21	5.357	13.462	4.237	88.702	70.504
06/27/2011 17:51:31	5.346	13.454	4.204	88.702	70.102
06/27/2011 17:51:41	5.361	13.421	4.255	88.702	69.801
06/27/2011 17:51:51	5.387	13.396	4.27	88.702	70.102
06/27/2011 17:52:01	5.405	13.374	4.248	88.504	70.702
06/27/2011 17:52:11	5.405	13.392	4.215	88.702	70.303
06/27/2011 17:52:21	5.372	13.447	4.207	88.805	69.904
06/27/2011 17:52:31	5.35	13.432	4.222	88.702	69.801
06/27/2011 17:52:41	5.335	13.469	4.251	88.702	69.801
06/27/2011 17:52:51	5.306	13.506	4.251	88.303	69.801
06/27/2011 17:53:01	5.302	13.473	4.233	88.303	70.303
06/27/2011 17:53:11	5.335	13.451	4.222	88.303	70.504
06/27/2011 17:53:21	5.324	13.491	4.2	88.105	70.504
06/27/2011 17:53:31	5.313	13.469	4.31	88.303	70.504
06/27/2011 17:53:41	5.361	13.407	4.427	88.303	70.303
06/27/2011 17:53:51	5.365	13.421	4.405	88.303	69.801
06/27/2011 17:54:01	5.361	13.454	4.379	88.105	69.801
06/27/2011 17:54:11	5.313	13.484	4.354	88.303	69.801
06/27/2011 17:54:21	5.28	13.517	4.321	88.303	69.801
06/27/2011 17:54:31	5.277	13.513	4.339	88.105	69.904
06/27/2011 17:54:41	5.291	13.491	4.328	88.105	70.102
06/27/2011 17:54:51	5.291	13.506	4.383	88.303	70.504
06/27/2011 17:55:01	5.277	13.52	4.423	88.504	70.102
06/27/2011 17:55:11	5.324	13.399	4.394	88.303	69.801
06/27/2011 17:55:21	5.398	13.399	4.35	88.303	69.801
06/27/2011 17:55:31	5.398	13.407	4.328	88.504	70.504
06/27/2011 17:55:41	5.39	13.407	4.328	88.303	70.102
06/27/2011 17:55:51	5.361	13.458	4.335	88.105	69.801
06/27/2011 17:56:01	5.383	13.403	4.354	87.904	70.504
06/27/2011 17:56:11	5.379	13.458	4.354	88.105	70.303
06/27/2011 17:56:21	5.383	13.381	4.328	88.105	69.801
06/27/2011 17:56:31	5.427	13.352	4.292	88.105	70.303
06/27/2011 17:56:41	5.46	13.341	4.277	88.303	70.303
06/27/2011 17:56:51	5.489	13.301	4.27	88.303	69.604
06/27/2011 17:57:01	5.518	13.293	4.251	88.303	70.504
06/27/2011 17:57:11	5.522	13.308	4.244	88.702	70.504
06/27/2011 17:57:21	5.507	13.319	4.251	88.504	69.801
06/27/2011 17:57:31	5.471	13.348	4.248	88.504	69.904
06/27/2011 17:57:41	5.423	13.41	4.233	88.702	70.303
06/27/2011 17:57:51	5.394	13.377	4.24	88.504	70.504
06/27/2011 17:58:01	5.449	13.308	4.229	88.303	70.504
06/27/2011 17:58:11	5.478	13.352	4.229	88.303	70.303
06/27/2011 17:58:21	5.456	13.323	4.262	88.702	70.102
06/27/2011 17:58:31	5.478	13.304	4.27	88.702	69.801
06/27/2011 17:58:41	5.478	13.348	4.31	88.702	69.801
06/27/2011 17:58:51	5.449	13.37	4.284	88.303	69.604
06/27/2011 17:59:01	5.419	13.399	4.27	88.303	70.102
06/27/2011 17:59:11	5.401	13.396	4.251	88.303	70.102
06/27/2011 17:59:21	5.408	13.385	4.24	88.504	70.102
06/27/2011 17:59:31	5.408	13.41	4.24	88.702	70.303
06/27/2011 17:59:41	5.383	13.425	4.255	88.504	70.504
06/27/2011 17:59:51	5.354	13.462	4.255	88.504	70.504
06/27/2011 18:00:01	5.343	13.451	4.299	88.702	70.504
06/27/2011 18:00:11	5.35	13.48	4.346	88.702	70.504
06/27/2011 18:00:21	5.35	13.458	4.299	88.702	70.504
06/27/2011 18:00:31	5.368	13.432	4.281	88.702	70.303
06/27/2011 18:00:41	5.365	13.429	4.281	88.702	69.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 18:00:51	5.368	13.429	4.284	88.702	69.801
06/27/2011 18:01:01	5.339	13.44	4.259	88.702	69.904
06/27/2011 18:01:11	5.317	13.502	4.251	88.504	70.504
06/27/2011 18:01:21	5.291	13.502	4.251	88.504	69.904
06/27/2011 18:01:31	5.299	13.495	4.237	88.702	70.102
06/27/2011 18:01:41	5.302	13.513	4.255	88.702	70.102
06/27/2011 18:01:51	5.299	13.487	4.27	88.702	70.102
06/27/2011 18:02:01	5.317	13.473	4.24	88.702	69.801
06/27/2011 18:02:11	5.313	13.487	4.229	88.702	70.303
06/27/2011 18:02:21	5.277	13.528	4.237	88.805	69.801
06/27/2011 18:02:31	5.255	13.506	4.204	88.702	70.303
06/27/2011 18:02:41	5.288	13.465	4.2	88.702	69.801
06/27/2011 18:02:51	5.31	13.484	4.207	88.504	69.904
06/27/2011 18:03:01	5.291	13.52	4.229	88.303	70.504
06/27/2011 18:03:11	5.306	13.462	4.24	88.303	69.904
06/27/2011 18:03:21	5.332	13.454	4.204	88.702	69.801
06/27/2011 18:03:31	5.357	13.432	4.178	88.702	69.801
06/27/2011 18:03:41	5.365	13.454	4.156	88.504	69.801
06/27/2011 18:03:51	5.357	13.425	4.163	88.303	69.801
06/27/2011 18:04:01	5.372	13.425	4.193	88.303	69.801
06/27/2011 18:04:11	5.361	13.443	4.215	88.105	70.504
06/27/2011 18:04:21	5.365	13.414	4.185	87.904	70.303
06/27/2011 18:04:31	5.383	13.407	4.163	88.105	69.604
06/27/2011 18:04:41	5.412	13.377	4.174	88.303	69.604
06/27/2011 18:04:51	5.416	13.399	4.2	88.303	70.504
06/27/2011 18:05:01	5.383	13.421	4.185	88.105	70.303
06/27/2011 18:05:11	5.401	13.421	4.178	88.303	69.801
06/27/2011 18:05:21	5.398	13.418	4.193	88.303	69.604
06/27/2011 18:05:31	5.405	13.399	4.2	88.303	70.303
06/27/2011 18:05:41	5.39	13.458	4.259	88.303	70.303
06/27/2011 18:05:51	5.343	13.469	4.244	88.303	70.102
06/27/2011 18:06:01	5.354	13.41	4.2	88.504	69.604
06/27/2011 18:06:11	5.419	13.326	4.171	88.702	69.604
06/27/2011 18:06:21	5.467	13.356	4.16	88.504	69.801
06/27/2011 18:06:31	5.449	13.366	4.156	87.904	70.303
06/27/2011 18:06:41	5.398	13.432	4.156	87.904	70.303
06/27/2011 18:06:51	5.361	13.451	4.16	87.904	70.303
06/27/2011 18:07:01	5.335	13.484	4.13	87.904	70.102
06/27/2011 18:07:11	5.332	13.473	4.094	87.904	69.801
06/27/2011 18:07:21	5.361	13.399	4.141	88.105	69.604
06/27/2011 18:07:31	5.379	13.451	4.189	87.904	69.604
06/27/2011 18:07:41	5.332	13.495	4.196	87.904	70.303
06/27/2011 18:07:51	5.317	13.451	4.174	87.904	70.504
06/27/2011 18:08:01	5.354	13.454	4.211	87.904	70.303
06/27/2011 18:08:11	5.332	13.491	4.251	87.904	70.303
06/27/2011 18:08:21	5.357	13.421	4.204	87.904	70.102
06/27/2011 18:08:31	5.376	13.436	4.2	87.904	69.801
06/27/2011 18:08:41	5.405	13.348	4.185	88.105	69.402
06/27/2011 18:08:51	5.445	13.345	4.16	87.904	69.604
06/27/2011 18:09:01	5.423	13.421	4.16	87.904	69.801
06/27/2011 18:09:11	5.368	13.451	4.204	87.904	70.102
06/27/2011 18:09:21	5.35	13.44	4.237	87.904	70.303
06/27/2011 18:09:31	5.372	13.414	4.299	87.904	70.303
06/27/2011 18:09:41	5.39	13.418	4.284	87.904	69.604
06/27/2011 18:09:51	5.394	13.399	4.255	88.303	70.303
06/27/2011 18:10:01	5.419	13.37	4.266	88.303	69.801
06/27/2011 18:10:11	5.39	13.465	4.299	88.105	70.303
06/27/2011 18:10:21	5.317	13.498	4.299	87.904	69.904
06/27/2011 18:10:31	5.328	13.458	4.255	87.904	70.102
06/27/2011 18:10:41	5.365	13.396	4.273	88.105	69.904
06/27/2011 18:10:51	5.427	13.366	4.215	87.904	70.102
06/27/2011 18:11:01	5.405	13.432	4.248	87.904	69.604
06/27/2011 18:11:11	5.394	13.414	4.174	88.105	70.504
06/27/2011 18:11:21	5.379	13.436	4.171	88.105	69.604
06/27/2011 18:11:31	5.361	13.436	4.193	87.904	69.604
06/27/2011 18:11:41	5.379	13.418	4.149	87.904	69.904
06/27/2011 18:11:51	5.365	13.454	4.119	87.904	70.102
06/27/2011 18:12:01	5.317	13.491	4.13	88.105	69.904
06/27/2011 18:12:11	5.277	13.539	4.174	87.904	69.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 18:12:21	5.288	13.528	4.189	87.805	69.402
06/27/2011 18:12:31	5.273	13.542	4.204	87.402	69.904
06/27/2011 18:12:41	5.273	13.52	4.24	87.603	70.303
06/27/2011 18:12:51	5.324	13.48	4.244	87.805	70.303
06/27/2011 18:13:01	5.354	13.473	4.211	87.805	70.303
06/27/2011 18:13:11	5.354	13.462	4.229	87.904	70.102
06/27/2011 18:13:21	5.335	13.473	4.248	88.105	69.904
06/27/2011 18:13:31	5.324	13.48	4.273	87.805	69.904
06/27/2011 18:13:41	5.346	13.458	4.368	87.805	69.904
06/27/2011 18:13:51	5.335	13.498	4.606	87.805	69.904
06/27/2011 18:14:01	5.266	13.612	4.83	87.805	70.102
06/27/2011 18:14:11	5.156	13.744	4.808	87.904	70.303
06/27/2011 18:14:21	5.09	13.736	4.694	87.805	70.102
06/27/2011 18:14:31	5.086	13.722	4.603	87.805	70.102
06/27/2011 18:14:41	5.105	13.645	4.526	87.805	70.102
06/27/2011 18:14:51	5.178	13.539	4.442	87.805	70.102
06/27/2011 18:15:01	5.258	13.484	4.368	87.805	70.102
06/27/2011 18:15:11	5.295	13.502	4.306	87.805	70.102
06/27/2011 18:15:21	5.273	13.524	4.27	87.805	70.102
06/27/2011 18:15:31	5.247	13.546	4.251	87.904	70.102
06/27/2011 18:15:41	5.24	13.572	4.273	87.904	70.102
06/27/2011 18:15:51	5.266	13.509	4.324	87.805	70.303
06/27/2011 18:16:01	5.302	13.495	4.262	87.805	70.303
06/27/2011 18:16:11	5.306	13.52	4.277	87.805	70.303
06/27/2011 18:16:21	5.273	13.528	4.255	87.805	70.303
06/27/2011 18:16:31	5.31	13.473	4.273	87.603	69.904
06/27/2011 18:16:41	5.357	13.436	4.251	87.603	69.801
06/27/2011 18:16:51	5.357	13.458	4.251	87.805	69.801
06/27/2011 18:17:01	5.335	13.48	4.27	87.603	69.904
06/27/2011 18:17:11	5.302	13.531	4.266	87.805	69.904
06/27/2011 18:17:21	5.251	13.557	4.248	87.805	69.801
06/27/2011 18:17:31	5.233	13.575	4.259	87.805	69.604
06/27/2011 18:17:41	5.207	13.594	4.248	87.904	69.604
06/27/2011 18:17:51	5.181	13.619	4.27	88.105	69.604
06/27/2011 18:18:01	5.196	13.561	4.273	88.105	69.402
06/27/2011 18:18:11	5.225	13.568	4.233	87.805	69.402
06/27/2011 18:18:21	5.233	13.557	4.27	87.805	69.402
06/27/2011 18:18:31	5.258	13.528	4.248	87.805	69.402
06/27/2011 18:18:41	5.28	13.539	4.229	87.805	69.604
06/27/2011 18:18:51	5.277	13.506	4.237	87.805	69.604
06/27/2011 18:19:01	5.317	13.462	4.072	87.805	69.904
06/27/2011 18:19:11	5.343	13.491	4.046	87.805	70.102
06/27/2011 18:19:21	5.302	13.546	4.083	87.805	70.102
06/27/2011 18:19:31	5.24	13.586	4.174	87.904	69.904
06/27/2011 18:19:41	5.218	13.594	4.156	88.105	69.402
06/27/2011 18:19:51	5.211	13.623	4.2	87.805	69.402
06/27/2011 18:20:01	5.207	13.572	4.174	87.603	70.102
06/27/2011 18:20:11	5.24	13.546	4.229	87.805	69.801
06/27/2011 18:20:21	5.255	13.539	4.24	87.805	69.402
06/27/2011 18:20:31	5.28	13.476	4.248	87.805	69.402
06/27/2011 18:20:41	5.299	13.509	4.273	87.603	69.604
06/27/2011 18:20:51	5.299	13.48	4.339	87.204	69.801
06/27/2011 18:21:01	5.335	13.447	4.379	87.402	69.904
06/27/2011 18:21:11	5.365	13.432	4.354	87.603	69.801
06/27/2011 18:21:21	5.357	13.48	4.354	87.904	69.402
06/27/2011 18:21:31	5.288	13.55	4.339	87.805	69.402
06/27/2011 18:21:41	5.2	13.645	4.306	87.805	69.801
06/27/2011 18:21:51	5.126	13.685	4.328	87.805	70.102
06/27/2011 18:22:01	5.068	13.725	4.328	87.805	69.904
06/27/2011 18:22:11	5.068	13.667	4.335	87.805	69.801
06/27/2011 18:22:21	5.145	13.601	4.383	87.904	69.204
06/27/2011 18:22:31	5.167	13.63	4.405	87.904	69.402
06/27/2011 18:22:41	5.141	13.663	4.405	87.904	69.801
06/27/2011 18:22:51	5.141	13.638	4.434	87.603	70.102
06/27/2011 18:23:01	5.181	13.623	4.379	87.904	69.904
06/27/2011 18:23:11	5.163	13.667	4.354	87.904	69.402
06/27/2011 18:23:21	5.126	13.696	4.379	88.105	69.604
06/27/2011 18:23:31	5.105	13.696	4.405	87.904	69.801
06/27/2011 18:23:41	5.126	13.619	4.431	87.904	69.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 18:23:51	5.225	13.575	4.379	87.805	70.102
06/27/2011 18:24:01	5.24	13.601	4.354	88.105	70.102
06/27/2011 18:24:11	5.185	13.652	4.365	87.904	70.303
06/27/2011 18:24:21	5.163	13.638	4.379	88.105	70.303
06/27/2011 18:24:31	5.189	13.597	4.379	88.105	70.303
06/27/2011 18:24:41	5.222	13.583	4.379	87.904	70.102
06/27/2011 18:24:51	5.203	13.601	4.405	88.105	70.303
06/27/2011 18:25:01	5.196	13.579	4.354	88.105	70.303
06/27/2011 18:25:11	5.218	13.583	4.376	88.105	70.303
06/27/2011 18:25:21	5.192	13.638	4.398	87.904	70.102
06/27/2011 18:25:31	5.167	13.645	4.39	88.105	69.801
06/27/2011 18:25:41	5.163	13.648	4.401	88.105	69.402
06/27/2011 18:25:51	5.152	13.652	4.431	87.904	69.604
06/27/2011 18:26:01	5.152	13.638	4.438	88.105	70.102
06/27/2011 18:26:11	5.141	13.685	4.401	88.303	70.303
06/27/2011 18:26:21	5.097	13.711	4.379	88.303	69.904
06/27/2011 18:26:31	5.068	13.718	4.423	88.105	69.402
06/27/2011 18:26:41	5.105	13.656	4.383	88.105	69.402
06/27/2011 18:26:51	5.156	13.63	4.456	88.105	69.402
06/27/2011 18:27:01	5.2	13.616	4.698	87.805	69.904
06/27/2011 18:27:11	5.174	13.652	4.687	87.805	70.303
06/27/2011 18:27:21	5.178	13.586	4.621	88.105	70.102
06/27/2011 18:27:31	5.211	13.641	4.577	87.904	69.402
06/27/2011 18:27:41	5.17	13.652	4.566	87.904	69.402
06/27/2011 18:27:51	5.137	13.652	4.563	87.805	69.402
06/27/2011 18:28:01	5.152	13.623	4.57	87.805	69.904
06/27/2011 18:28:11	5.148	13.663	4.57	87.805	69.904
06/27/2011 18:28:21	5.141	13.659	4.57	87.805	69.904
06/27/2011 18:28:31	5.119	13.685	4.533	87.805	70.102
06/27/2011 18:28:41	5.123	13.641	4.537	87.805	69.904
06/27/2011 18:28:51	5.167	13.623	4.526	87.805	69.604
06/27/2011 18:29:01	5.17	13.627	4.519	87.805	69.204
06/27/2011 18:29:11	5.174	13.616	4.526	87.904	69.402
06/27/2011 18:29:21	5.2	13.59	4.519	87.805	70.102
06/27/2011 18:29:31	5.181	13.641	4.482	87.904	70.102
06/27/2011 18:29:41	5.126	13.678	4.482	87.603	70.102
06/27/2011 18:29:51	5.116	13.678	4.438	87.805	69.604
06/27/2011 18:30:01	5.126	13.674	4.416	87.805	69.402
06/27/2011 18:30:11	5.145	13.634	4.46	87.805	69.604
06/27/2011 18:30:21	5.167	13.605	4.464	87.904	69.801
06/27/2011 18:30:31	5.207	13.568	4.486	87.904	70.102
06/27/2011 18:30:41	5.269	13.473	4.482	87.805	70.102
06/27/2011 18:30:51	5.306	13.52	4.438	87.805	69.801
06/27/2011 18:31:01	5.269	13.561	4.27	87.805	69.904
06/27/2011 18:31:11	5.233	13.583	4.438	87.805	70.303
06/27/2011 18:31:21	5.189	13.619	4.482	87.805	69.904
06/27/2011 18:31:31	5.181	13.638	4.464	87.603	69.204
06/27/2011 18:31:41	5.178	13.63	4.423	87.603	69.402
06/27/2011 18:31:51	5.181	13.648	4.368	87.603	69.904
06/27/2011 18:32:01	5.137	13.707	4.42	87.603	69.904
06/27/2011 18:32:11	5.097	13.703	4.442	87.603	69.204
06/27/2011 18:32:21	5.13	13.623	4.442	87.805	69.801
06/27/2011 18:32:31	5.192	13.579	4.453	87.805	69.904
06/27/2011 18:32:41	5.229	13.586	4.46	87.603	69.402
06/27/2011 18:32:51	5.207	13.594	4.394	87.603	69.204
06/27/2011 18:33:01	5.196	13.623	4.379	87.603	70.102
06/27/2011 18:33:11	5.196	13.616	4.372	87.402	69.904
06/27/2011 18:33:21	5.167	13.648	4.354	87.805	69.402
06/27/2011 18:33:31	5.148	13.648	4.354	87.805	69.204
06/27/2011 18:33:41	5.163	13.627	4.354	87.603	70.102
06/27/2011 18:33:51	5.174	13.641	4.332	87.805	70.102
06/27/2011 18:34:01	5.178	13.616	4.302	87.805	69.904
06/27/2011 18:34:11	5.192	13.608	4.328	87.603	69.801
06/27/2011 18:34:21	5.196	13.605	4.379	87.603	69.801
06/27/2011 18:34:31	5.233	13.583	4.405	87.603	69.801
06/27/2011 18:34:41	5.233	13.608	4.379	87.402	69.604
06/27/2011 18:34:51	5.218	13.608	4.379	87.204	69.204
06/27/2011 18:35:01	5.244	13.55	4.379	87.003	69.904
06/27/2011 18:35:11	5.266	13.564	4.383	87.402	69.204

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 18:35:21	5.203	13.667	4.383	87.603	69.801
06/27/2011 18:35:31	5.134	13.689	4.379	87.603	69.204
06/27/2011 18:35:41	5.148	13.594	4.383	87.603	69.904
06/27/2011 18:35:51	5.17	13.648	4.354	87.603	69.003
06/27/2011 18:36:01	5.167	13.608	4.357	87.603	69.604
06/27/2011 18:36:11	5.225	13.539	4.405	87.603	69.204
06/27/2011 18:36:21	5.28	13.484	4.423	87.204	69.904
06/27/2011 18:36:31	5.306	13.495	4.427	87.204	69.604
06/27/2011 18:36:41	5.31	13.535	4.357	87.204	69.003
06/27/2011 18:36:51	5.258	13.55	4.361	87.003	69.204
06/27/2011 18:37:01	5.28	13.491	4.405	87.003	69.204
06/27/2011 18:37:11	5.313	13.517	4.434	87.402	69.204
06/27/2011 18:37:21	5.35	13.443	4.379	87.402	69.204
06/27/2011 18:37:31	5.372	13.476	4.357	87.003	69.204
06/27/2011 18:37:41	5.317	13.531	4.354	87.003	69.402
06/27/2011 18:37:51	5.291	13.528	4.376	86.702	69.904
06/27/2011 18:38:01	5.299	13.502	4.335	86.702	69.904
06/27/2011 18:38:11	5.313	13.502	4.383	87.003	69.604
06/27/2011 18:38:21	5.321	13.487	4.379	87.402	69.003
06/27/2011 18:38:31	5.328	13.487	4.394	87.603	69.204
06/27/2011 18:38:41	5.31	13.524	4.354	87.603	69.904
06/27/2011 18:38:51	5.295	13.513	4.354	87.603	69.904
06/27/2011 18:39:01	5.295	13.531	4.339	87.603	69.604
06/27/2011 18:39:11	5.269	13.586	4.379	87.603	69.204
06/27/2011 18:39:21	5.218	13.616	4.368	87.603	69.204
06/27/2011 18:39:31	5.203	13.619	4.379	87.204	69.604
06/27/2011 18:39:41	5.218	13.546	4.398	86.904	69.604
06/27/2011 18:39:51	5.269	13.513	4.383	87.003	69.604
06/27/2011 18:40:01	5.31	13.484	4.379	87.204	69.003
06/27/2011 18:40:11	5.313	13.509	4.365	87.003	68.904
06/27/2011 18:40:21	5.335	13.432	4.379	87.204	69.003
06/27/2011 18:40:31	5.332	13.513	4.357	86.904	69.604
06/27/2011 18:40:41	5.28	13.568	4.379	86.904	69.604
06/27/2011 18:40:51	5.262	13.531	4.365	86.702	68.904
06/27/2011 18:41:01	5.291	13.524	4.339	86.702	68.904
06/27/2011 18:41:11	5.299	13.506	4.361	86.505	69.204
06/27/2011 18:41:21	5.295	13.524	4.361	86.505	69.604
06/27/2011 18:41:31	5.273	13.531	4.354	86.702	69.604
06/27/2011 18:41:41	5.262	13.55	4.328	86.904	69.003
06/27/2011 18:41:51	5.244	13.575	4.328	87.003	68.904
06/27/2011 18:42:01	5.203	13.627	4.379	87.204	69.402
06/27/2011 18:42:11	5.192	13.619	4.354	87.204	69.604
06/27/2011 18:42:21	5.192	13.638	4.372	87.204	69.604
06/27/2011 18:42:31	5.189	13.616	4.383	87.003	68.904
06/27/2011 18:42:41	5.225	13.564	4.365	86.904	69.003
06/27/2011 18:42:51	5.269	13.568	4.365	87.003	69.604
06/27/2011 18:43:01	5.24	13.586	4.431	87.003	69.604
06/27/2011 18:43:11	5.225	13.561	4.456	86.505	69.604
06/27/2011 18:43:21	5.24	13.55	4.416	86.904	69.204
06/27/2011 18:43:31	5.225	13.59	4.401	86.904	69.003
06/27/2011 18:43:41	5.236	13.52	4.401	86.904	69.003
06/27/2011 18:43:51	5.277	13.535	4.39	86.904	69.003
06/27/2011 18:44:01	5.269	13.568	4.376	86.702	69.003
06/27/2011 18:44:11	5.236	13.594	4.401	86.904	69.003
06/27/2011 18:44:21	5.225	13.583	4.361	86.904	68.904
06/27/2011 18:44:31	5.214	13.623	4.357	86.904	68.904
06/27/2011 18:44:41	5.189	13.605	4.361	86.904	68.904
06/27/2011 18:44:51	5.225	13.55	4.321	86.904	68.904
06/27/2011 18:45:01	5.291	13.495	4.376	86.904	69.003
06/27/2011 18:45:11	5.346	13.462	4.39	86.904	69.402
06/27/2011 18:45:21	5.365	13.451	4.383	86.904	69.402
06/27/2011 18:45:31	5.39	13.451	4.35	86.702	69.402
06/27/2011 18:45:41	5.416	13.421	4.335	86.904	69.402
06/27/2011 18:45:51	5.405	13.462	4.324	86.904	68.904
06/27/2011 18:46:01	5.343	13.513	4.324	86.904	68.703
06/27/2011 18:46:11	5.306	13.506	4.346	86.904	69.402
06/27/2011 18:46:21	5.346	13.447	4.357	86.702	69.204
06/27/2011 18:46:31	5.343	13.473	4.376	86.702	68.703
06/27/2011 18:46:41	5.365	13.407	4.387	86.904	69.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 18:46:51	5.412	13.396	4.365	86.702	68.703
06/27/2011 18:47:01	5.434	13.392	4.332	86.505	69.402
06/27/2011 18:47:11	5.405	13.451	4.324	86.702	68.703
06/27/2011 18:47:21	5.35	13.491	4.292	86.702	69.402
06/27/2011 18:47:31	5.346	13.498	4.306	86.904	68.703
06/27/2011 18:47:41	5.365	13.443	4.302	86.303	69.204
06/27/2011 18:47:51	5.372	13.451	4.277	86.702	69.402
06/27/2011 18:48:01	5.343	13.491	4.324	86.702	69.604
06/27/2011 18:48:11	5.343	13.451	4.324	86.702	69.604
06/27/2011 18:48:21	5.357	13.451	4.262	86.904	69.402
06/27/2011 18:48:31	5.35	13.458	4.255	86.904	69.003
06/27/2011 18:48:41	5.354	13.462	4.255	86.702	69.003
06/27/2011 18:48:51	5.35	13.469	4.273	86.702	69.402
06/27/2011 18:49:01	5.339	13.454	4.324	86.505	69.604
06/27/2011 18:49:11	5.343	13.487	4.244	86.505	69.402
06/27/2011 18:49:21	5.299	13.557	4.189	86.505	69.003
06/27/2011 18:49:31	5.258	13.535	4.123	86.505	68.904
06/27/2011 18:49:41	5.284	13.528	4.097	86.505	68.904
06/27/2011 18:49:51	5.295	13.535	4.094	86.904	68.904
06/27/2011 18:50:01	5.295	13.513	4.094	86.505	69.003
06/27/2011 18:50:11	5.295	13.517	4.123	86.505	68.904
06/27/2011 18:50:21	5.324	13.462	4.149	86.102	68.904
06/27/2011 18:50:31	5.354	13.473	4.05	86.303	68.904
06/27/2011 18:50:41	5.31	13.553	4.189	86.505	68.703
06/27/2011 18:50:51	5.247	13.586	4.189	86.904	68.904
06/27/2011 18:51:01	5.24	13.55	4.222	86.904	68.904
06/27/2011 18:51:11	5.284	13.513	4.229	86.904	68.904
06/27/2011 18:51:21	5.302	13.506	4.24	86.904	69.003
06/27/2011 18:51:31	5.284	13.517	4.248	86.904	68.703
06/27/2011 18:51:41	5.236	13.594	4.248	87.003	69.003
06/27/2011 18:51:51	5.222	13.561	4.244	87.204	68.703
06/27/2011 18:52:01	5.229	13.572	4.255	87.204	68.703
06/27/2011 18:52:11	5.222	13.583	4.299	87.204	68.904
06/27/2011 18:52:21	5.196	13.616	4.302	87.204	69.003
06/27/2011 18:52:31	5.185	13.63	4.365	87.204	69.402
06/27/2011 18:52:41	5.218	13.553	4.313	87.402	69.204
06/27/2011 18:52:51	5.262	13.542	4.292	87.204	68.904
06/27/2011 18:53:01	5.258	13.564	4.295	87.003	68.703
06/27/2011 18:53:11	5.247	13.579	4.299	86.904	68.703
06/27/2011 18:53:21	5.222	13.619	4.324	86.702	68.904
06/27/2011 18:53:31	5.207	13.597	4.313	86.904	68.703
06/27/2011 18:53:41	5.222	13.561	4.354	86.904	68.904
06/27/2011 18:53:51	5.255	13.542	4.357	86.904	69.204
06/27/2011 18:54:01	5.273	13.546	4.339	87.003	69.003
06/27/2011 18:54:11	5.277	13.524	4.35	86.904	69.003
06/27/2011 18:54:21	5.335	13.418	4.354	86.904	68.904
06/27/2011 18:54:31	5.412	13.418	4.346	86.904	68.904
06/27/2011 18:54:41	5.39	13.458	4.354	86.904	68.904
06/27/2011 18:54:51	5.357	13.432	4.354	86.904	68.904
06/27/2011 18:55:01	5.376	13.454	4.346	86.904	69.003
06/27/2011 18:55:11	5.335	13.528	4.368	86.904	69.402
06/27/2011 18:55:21	5.332	13.443	4.354	86.904	69.402
06/27/2011 18:55:31	5.361	13.473	4.335	87.003	69.402
06/27/2011 18:55:41	5.328	13.476	4.306	86.904	69.402
06/27/2011 18:55:51	5.299	13.546	4.313	87.003	68.904
06/27/2011 18:56:01	5.258	13.568	4.354	87.204	68.904
06/27/2011 18:56:11	5.258	13.528	4.328	87.003	68.904
06/27/2011 18:56:21	5.306	13.506	4.313	87.003	69.402
06/27/2011 18:56:31	5.295	13.564	4.328	87.003	69.402
06/27/2011 18:56:41	5.244	13.583	4.332	87.003	69.402
06/27/2011 18:56:51	5.192	13.674	4.328	87.003	68.703
06/27/2011 18:57:01	5.13	13.689	4.35	87.003	68.703
06/27/2011 18:57:11	5.145	13.641	4.343	87.204	69.003
06/27/2011 18:57:21	5.189	13.608	4.343	87.402	69.402
06/27/2011 18:57:31	5.233	13.579	4.354	87.003	69.402
06/27/2011 18:57:41	5.284	13.513	4.332	87.204	69.003
06/27/2011 18:57:51	5.317	13.535	4.306	87.003	68.904
06/27/2011 18:58:01	5.299	13.539	4.306	86.904	68.904
06/27/2011 18:58:11	5.269	13.583	4.31	86.904	69.204

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 18:58:21	5.222	13.619	4.27	86.904	69.402
06/27/2011 18:58:31	5.167	13.685	4.259	86.904	69.402
06/27/2011 18:58:41	5.152	13.656	4.273	86.702	68.904
06/27/2011 18:58:51	5.181	13.597	4.273	86.904	68.703
06/27/2011 18:59:01	5.207	13.627	4.255	86.904	68.703
06/27/2011 18:59:11	5.218	13.568	4.299	87.003	68.904
06/27/2011 18:59:21	5.262	13.528	4.299	86.702	68.904
06/27/2011 18:59:31	5.273	13.553	4.299	86.904	68.904
06/27/2011 18:59:41	5.247	13.586	4.31	86.702	68.904
06/27/2011 18:59:51	5.236	13.586	4.299	86.904	69.003
06/27/2011 19:00:01	5.236	13.594	4.299	86.904	69.204
06/27/2011 19:00:11	5.28	13.506	4.423	86.904	69.003
06/27/2011 19:00:21	5.302	13.509	4.687	87.003	69.003
06/27/2011 19:00:31	5.273	13.531	4.647	86.904	68.703
06/27/2011 19:00:41	5.284	13.513	4.566	86.904	68.703
06/27/2011 19:00:51	5.277	13.535	4.526	86.904	68.703
06/27/2011 19:01:01	5.233	13.586	4.431	86.702	68.703
06/27/2011 19:01:11	5.178	13.616	4.482	86.904	68.703
06/27/2011 19:01:21	5.203	13.561	4.434	86.904	68.703
06/27/2011 19:01:31	5.247	13.55	4.383	86.904	68.703
06/27/2011 19:01:41	5.236	13.586	4.379	86.904	68.904
06/27/2011 19:01:51	5.233	13.531	4.354	86.904	69.003
06/27/2011 19:02:01	5.222	13.638	4.354	86.904	69.402
06/27/2011 19:02:11	5.163	13.648	4.354	86.904	69.402
06/27/2011 19:02:21	5.148	13.645	4.35	87.003	69.402
06/27/2011 19:02:31	5.141	13.696	4.35	87.003	69.204
06/27/2011 19:02:41	5.141	13.645	4.379	86.904	68.904
06/27/2011 19:02:51	5.156	13.638	4.431	86.904	68.904
06/27/2011 19:03:01	5.185	13.63	4.401	86.904	68.703
06/27/2011 19:03:11	5.167	13.659	4.35	86.904	68.904
06/27/2011 19:03:21	5.141	13.711	4.31	86.702	68.904
06/27/2011 19:03:31	5.116	13.703	4.343	86.505	68.703
06/27/2011 19:03:41	5.116	13.689	4.423	86.702	69.204
06/27/2011 19:03:51	5.134	13.678	4.398	86.904	69.402
06/27/2011 19:04:01	5.137	13.659	4.379	86.904	69.402
06/27/2011 19:04:11	5.137	13.645	4.354	86.702	69.402
06/27/2011 19:04:21	5.178	13.619	4.295	86.904	69.402
06/27/2011 19:04:31	5.167	13.667	4.2	86.505	69.402
06/27/2011 19:04:41	5.126	13.711	4.16	86.505	69.003
06/27/2011 19:04:51	5.105	13.674	4.207	86.702	68.703
06/27/2011 19:05:01	5.156	13.641	4.2	86.904	68.904
06/27/2011 19:05:11	5.152	13.703	4.204	86.904	69.402
06/27/2011 19:05:21	5.123	13.689	4.229	86.505	69.402
06/27/2011 19:05:31	5.112	13.733	4.189	86.505	68.501
06/27/2011 19:05:41	5.086	13.751	4.259	86.702	68.904
06/27/2011 19:05:51	5.112	13.674	4.218	86.102	69.402
06/27/2011 19:06:01	5.126	13.718	4.174	86.505	68.904
06/27/2011 19:06:11	5.072	13.773	4.2	86.702	68.501
06/27/2011 19:06:21	5.057	13.725	4.171	86.303	69.204
06/27/2011 19:06:31	5.094	13.7	4.156	86.505	68.904
06/27/2011 19:06:41	5.13	13.663	4.178	86.702	68.703
06/27/2011 19:06:51	5.17	13.627	4.2	86.505	69.204
06/27/2011 19:07:01	5.178	13.656	4.152	86.303	69.402
06/27/2011 19:07:11	5.181	13.623	4.156	86.003	69.003
06/27/2011 19:07:21	5.214	13.605	4.105	86.102	68.904
06/27/2011 19:07:31	5.225	13.601	4.112	86.505	69.402
06/27/2011 19:07:41	5.229	13.597	4.116	86.505	69.402
06/27/2011 19:07:51	5.244	13.557	4.149	86.303	69.402
06/27/2011 19:08:01	5.251	13.579	4.193	86.702	69.003
06/27/2011 19:08:11	5.211	13.638	4.284	86.702	68.904
06/27/2011 19:08:21	5.174	13.656	4.295	86.702	69.003
06/27/2011 19:08:31	5.148	13.67	4.328	86.303	69.402
06/27/2011 19:08:41	5.152	13.638	4.299	86.505	69.003
06/27/2011 19:08:51	5.189	13.619	4.299	86.303	68.703
06/27/2011 19:09:01	5.178	13.663	4.292	86.303	69.402
06/27/2011 19:09:11	5.189	13.605	4.281	86.505	69.402
06/27/2011 19:09:21	5.222	13.59	4.248	86.003	68.703
06/27/2011 19:09:31	5.225	13.601	4.27	86.102	68.703
06/27/2011 19:09:41	5.2	13.648	4.262	86.003	69.204

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 19:09:51	5.2	13.601	4.27	86.102	69.003
06/27/2011 19:10:01	5.24	13.572	4.248	86.303	68.904
06/27/2011 19:10:11	5.244	13.583	4.215	86.303	68.703
06/27/2011 19:10:21	5.211	13.634	4.16	86.303	69.204
06/27/2011 19:10:31	5.214	13.597	4.174	86.303	69.204
06/27/2011 19:10:41	5.251	13.564	4.2	86.303	68.904
06/27/2011 19:10:51	5.269	13.568	4.207	86.102	68.703
06/27/2011 19:11:01	5.262	13.564	4.229	86.003	68.703
06/27/2011 19:11:11	5.284	13.539	4.229	86.003	68.703
06/27/2011 19:11:21	5.306	13.498	4.237	85.802	69.204
06/27/2011 19:11:31	5.295	13.568	4.24	85.604	69.204
06/27/2011 19:11:41	5.247	13.583	4.266	85.802	69.204
06/27/2011 19:11:51	5.295	13.487	4.229	86.003	68.904
06/27/2011 19:12:01	5.346	13.498	4.207	86.102	68.703
06/27/2011 19:12:11	5.306	13.553	4.204	86.303	68.703
06/27/2011 19:12:21	5.262	13.561	4.185	86.102	69.204
06/27/2011 19:12:31	5.258	13.564	4.178	86.303	69.402
06/27/2011 19:12:41	5.233	13.59	4.178	86.003	69.402
06/27/2011 19:12:51	5.247	13.557	4.185	85.802	68.904
06/27/2011 19:13:01	5.277	13.575	4.174	85.802	68.501
06/27/2011 19:13:11	5.236	13.634	4.174	85.402	68.501
06/27/2011 19:13:21	5.192	13.641	4.16	85.604	69.003
06/27/2011 19:13:31	5.211	13.616	4.119	85.402	69.204
06/27/2011 19:13:41	5.222	13.605	4.13	85.802	69.204
06/27/2011 19:13:51	5.225	13.597	4.174	86.003	68.703
06/27/2011 19:14:01	5.214	13.612	4.2	86.003	68.501
06/27/2011 19:14:11	5.222	13.586	4.218	86.003	68.501
06/27/2011 19:14:21	5.214	13.616	4.174	86.003	68.703
06/27/2011 19:14:31	5.222	13.597	4.182	86.003	68.904
06/27/2011 19:14:41	5.225	13.638	4.174	86.003	69.003
06/27/2011 19:14:51	5.196	13.641	4.178	86.003	69.003
06/27/2011 19:15:01	5.196	13.59	4.2	85.802	69.003
06/27/2011 19:15:11	5.222	13.616	4.24	86.003	69.003
06/27/2011 19:15:21	5.214	13.605	4.248	86.003	69.204
06/27/2011 19:15:31	5.225	13.59	4.222	86.102	69.003
06/27/2011 19:15:41	5.244	13.586	4.229	86.102	69.003
06/27/2011 19:15:51	5.251	13.542	4.182	86.003	68.703
06/27/2011 19:16:01	5.258	13.586	4.174	86.102	68.501
06/27/2011 19:16:11	5.236	13.583	4.189	86.303	68.501
06/27/2011 19:16:21	5.214	13.63	4.174	86.102	68.501
06/27/2011 19:16:31	5.192	13.616	4.189	86.003	68.501
06/27/2011 19:16:41	5.211	13.623	4.215	85.802	68.904
06/27/2011 19:16:51	5.225	13.59	4.193	85.802	69.003
06/27/2011 19:17:01	5.244	13.579	4.2	86.003	69.003
06/27/2011 19:17:11	5.273	13.539	4.229	85.604	68.904
06/27/2011 19:17:21	5.321	13.469	4.2	86.003	68.904
06/27/2011 19:17:31	5.365	13.465	4.156	85.802	69.003
06/27/2011 19:17:41	5.339	13.517	4.163	86.003	68.904
06/27/2011 19:17:51	5.302	13.553	4.149	86.003	68.501
06/27/2011 19:18:01	5.262	13.583	4.145	86.003	69.003
06/27/2011 19:18:11	5.233	13.601	4.149	86.003	68.501
06/27/2011 19:18:21	5.196	13.641	4.16	86.003	69.003
06/27/2011 19:18:31	5.192	13.597	4.2	86.003	68.501
06/27/2011 19:18:41	5.229	13.568	4.196	85.604	69.204
06/27/2011 19:18:51	5.277	13.579	4.145	86.003	68.501
06/27/2011 19:19:01	5.273	13.539	4.119	86.003	69.003
06/27/2011 19:19:11	5.306	13.528	4.138	86.003	69.003
06/27/2011 19:19:21	5.291	13.55	4.149	86.102	68.501
06/27/2011 19:19:31	5.258	13.583	4.149	86.102	68.501
06/27/2011 19:19:41	5.266	13.531	4.13	86.102	68.904
06/27/2011 19:19:51	5.306	13.498	4.112	86.102	69.003
06/27/2011 19:20:01	5.306	13.535	4.112	86.303	69.003
06/27/2011 19:20:11	5.313	13.484	4.123	86.003	68.703
06/27/2011 19:20:21	5.346	13.498	4.145	86.003	68.303
06/27/2011 19:20:31	5.332	13.535	4.13	86.003	68.501
06/27/2011 19:20:41	5.269	13.586	4.116	86.003	69.003
06/27/2011 19:20:51	5.273	13.528	4.163	86.003	68.703
06/27/2011 19:21:01	5.302	13.528	4.163	86.003	68.501
06/27/2011 19:21:11	5.335	13.484	4.116	86.003	68.904

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 19:21:21	5.35	13.498	4.141	86.003	69.003
06/27/2011 19:21:31	5.361	13.469	4.086	86.102	68.501
06/27/2011 19:21:41	5.408	13.432	4.035	86.102	68.501
06/27/2011 19:21:51	5.412	13.458	4.046	86.003	69.003
06/27/2011 19:22:01	5.408	13.421	4.046	86.003	68.703
06/27/2011 19:22:11	5.416	13.436	4.061	86.303	68.501
06/27/2011 19:22:21	5.387	13.447	4.05	86.102	68.703
06/27/2011 19:22:31	5.354	13.491	4.053	86.003	69.003
06/27/2011 19:22:41	5.339	13.487	4.068	86.003	68.703
06/27/2011 19:22:51	5.354	13.451	4.046	85.604	68.501
06/27/2011 19:23:01	5.361	13.502	3.973	85.802	68.904
06/27/2011 19:23:11	5.302	13.535	4.068	85.802	68.904
06/27/2011 19:23:21	5.28	13.55	4.189	85.802	68.703
06/27/2011 19:23:31	5.299	13.509	4.222	85.802	68.303
06/27/2011 19:23:41	5.339	13.491	4.2	85.802	68.303
06/27/2011 19:23:51	5.368	13.443	4.248	85.604	68.303
06/27/2011 19:24:01	5.394	13.451	4.266	85.205	68.501
06/27/2011 19:24:11	5.39	13.432	4.27	85.402	68.904
06/27/2011 19:24:21	5.408	13.451	4.273	85.604	68.904
06/27/2011 19:24:31	5.387	13.473	4.215	85.604	68.904
06/27/2011 19:24:41	5.35	13.487	4.229	85.802	68.703
06/27/2011 19:24:51	5.343	13.513	4.218	85.802	68.501
06/27/2011 19:25:01	5.313	13.517	4.193	86.003	68.102
06/27/2011 19:25:11	5.28	13.55	4.2	86.102	68.102
06/27/2011 19:25:21	5.28	13.546	4.2	86.102	68.303
06/27/2011 19:25:31	5.299	13.528	4.259	86.003	68.303
06/27/2011 19:25:41	5.306	13.561	4.251	85.604	68.303
06/27/2011 19:25:51	5.295	13.539	4.251	85.604	68.303
06/27/2011 19:26:01	5.295	13.564	4.299	85.802	68.303
06/27/2011 19:26:11	5.357	13.429	4.31	85.402	68.303
06/27/2011 19:26:21	5.423	13.414	4.277	85.205	68.303
06/27/2011 19:26:31	5.401	13.473	4.302	85.802	68.303
06/27/2011 19:26:41	5.383	13.443	4.299	85.604	68.303
06/27/2011 19:26:51	5.383	13.469	4.266	85.802	68.303
06/27/2011 19:27:01	5.387	13.454	4.255	85.802	68.501
06/27/2011 19:27:11	5.372	13.498	4.251	85.802	69.003
06/27/2011 19:27:21	5.321	13.52	4.248	85.802	69.003
06/27/2011 19:27:31	5.284	13.542	4.288	85.802	68.501
06/27/2011 19:27:41	5.317	13.462	4.288	85.802	68.501
06/27/2011 19:27:51	5.361	13.443	4.24	85.802	69.003
06/27/2011 19:28:01	5.357	13.491	4.207	85.402	68.303
06/27/2011 19:28:11	5.306	13.546	4.218	85.402	68.102
06/27/2011 19:28:21	5.269	13.575	4.229	85.402	68.904
06/27/2011 19:28:31	5.251	13.605	4.222	85.604	68.501
06/27/2011 19:28:41	5.24	13.564	4.251	85.604	68.102
06/27/2011 19:28:51	5.273	13.561	4.248	85.205	68.904
06/27/2011 19:29:01	5.306	13.535	4.244	85.402	69.003
06/27/2011 19:29:11	5.321	13.531	4.182	85.205	68.703
06/27/2011 19:29:21	5.31	13.55	4.119	85.402	68.102
06/27/2011 19:29:31	5.273	13.575	4.145	85.102	68.102
06/27/2011 19:29:41	5.269	13.557	4.123	85.402	68.303
06/27/2011 19:29:51	5.299	13.535	4.127	85.604	68.303
06/27/2011 19:30:01	5.313	13.513	4.079	85.802	68.303
06/27/2011 19:30:11	5.302	13.52	4.079	86.003	68.303
06/27/2011 19:30:21	5.258	13.59	3.995	86.003	68.303
06/27/2011 19:30:31	5.222	13.597	3.98	85.802	68.303
06/27/2011 19:30:41	5.222	13.597	4.002	85.402	68.303
06/27/2011 19:30:51	5.262	13.495	3.984	85.402	68.303
06/27/2011 19:31:01	5.324	13.502	4.094	85.402	68.303
06/27/2011 19:31:11	5.31	13.531	4.127	85.402	68.703
06/27/2011 19:31:21	5.321	13.491	4.167	85.402	69.003
06/27/2011 19:31:31	5.332	13.517	4.163	85.205	68.904
06/27/2011 19:31:41	5.321	13.506	4.174	85.604	69.003
06/27/2011 19:31:51	5.324	13.506	4.149	85.604	69.003
06/27/2011 19:32:01	5.288	13.575	4.112	85.604	68.501
06/27/2011 19:32:11	5.273	13.524	4.108	85.604	68.303
06/27/2011 19:32:21	5.302	13.528	4.16	85.402	68.303
06/27/2011 19:32:31	5.31	13.55	4.174	85.402	68.303
06/27/2011 19:32:41	5.346	13.469	4.2	85.802	68.501

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 19:32:51	5.405	13.436	4.2	86.003	68.904
06/27/2011 19:33:01	5.445	13.396	4.2	85.604	69.003
06/27/2011 19:33:11	5.467	13.363	4.207	85.205	68.904
06/27/2011 19:33:21	5.489	13.352	4.222	85.102	68.904
06/27/2011 19:33:31	5.471	13.41	4.273	84.904	68.703
06/27/2011 19:33:41	5.43	13.421	4.559	85.102	68.501
06/27/2011 19:33:51	5.383	13.487	4.61	85.205	68.303
06/27/2011 19:34:01	5.302	13.531	4.563	85.205	68.303
06/27/2011 19:34:11	5.251	13.561	4.508	85.102	68.303
06/27/2011 19:34:21	5.273	13.495	4.42	85.402	68.303
06/27/2011 19:34:31	5.31	13.506	4.431	85.604	68.303
06/27/2011 19:34:41	5.332	13.48	4.427	85.604	68.102
06/27/2011 19:34:51	5.324	13.553	4.387	85.604	68.303
06/27/2011 19:35:01	5.266	13.568	4.383	85.402	68.303
06/27/2011 19:35:11	5.222	13.612	4.401	85.604	68.303
06/27/2011 19:35:21	5.2	13.575	4.398	85.402	68.303
06/27/2011 19:35:31	5.236	13.539	4.412	85.604	68.303
06/27/2011 19:35:41	5.31	13.487	4.442	85.604	68.303
06/27/2011 19:35:51	5.368	13.451	4.431	85.604	68.303
06/27/2011 19:36:01	5.401	13.436	4.423	85.802	68.102
06/27/2011 19:36:11	5.361	13.498	4.401	86.003	68.102
06/27/2011 19:36:21	5.376	13.458	4.376	86.003	68.102
06/27/2011 19:36:31	5.43	13.421	4.401	86.003	68.303
06/27/2011 19:36:41	5.441	13.436	4.372	85.802	68.102
06/27/2011 19:36:51	5.416	13.454	4.354	85.604	68.303
06/27/2011 19:37:01	5.394	13.462	4.354	85.402	68.904
06/27/2011 19:37:11	5.394	13.436	4.35	85.604	68.904
06/27/2011 19:37:21	5.354	13.52	4.328	85.604	68.703
06/27/2011 19:37:31	5.302	13.517	4.313	85.604	68.102
06/27/2011 19:37:41	5.28	13.572	4.259	85.402	68.102
06/27/2011 19:37:51	5.225	13.619	4.313	85.802	68.904
06/27/2011 19:38:01	5.214	13.583	4.321	85.402	68.904
06/27/2011 19:38:11	5.266	13.52	4.324	85.802	69.003
06/27/2011 19:38:21	5.31	13.513	4.346	85.604	68.904
06/27/2011 19:38:31	5.328	13.495	4.354	85.402	68.703
06/27/2011 19:38:41	5.328	13.491	4.376	85.205	68.904
06/27/2011 19:38:51	5.332	13.506	4.332	85.102	68.703
06/27/2011 19:39:01	5.306	13.528	4.288	85.102	68.102
06/27/2011 19:39:11	5.284	13.553	4.273	85.102	68.703
06/27/2011 19:39:21	5.266	13.575	4.273	85.102	68.501
06/27/2011 19:39:31	5.284	13.531	4.27	84.904	68.303
06/27/2011 19:39:41	5.288	13.579	4.27	85.205	68.303
06/27/2011 19:39:51	5.258	13.586	4.292	85.205	68.904
06/27/2011 19:40:01	5.222	13.627	4.288	85.205	68.102
06/27/2011 19:40:11	5.178	13.678	4.244	85.102	68.904
06/27/2011 19:40:21	5.181	13.608	4.299	85.102	68.102
06/27/2011 19:40:31	5.251	13.546	4.299	85.205	68.904
06/27/2011 19:40:41	5.262	13.575	4.313	85.205	68.102
06/27/2011 19:40:51	5.225	13.612	4.284	85.102	68.904
06/27/2011 19:41:01	5.189	13.645	4.218	85.205	68.703
06/27/2011 19:41:11	5.167	13.67	4.248	85.402	68.102
06/27/2011 19:41:21	5.156	13.634	4.299	85.205	68.102
06/27/2011 19:41:31	5.152	13.681	4.281	85.205	68.003
06/27/2011 19:41:41	5.148	13.659	4.277	85.402	68.102
06/27/2011 19:41:51	5.196	13.605	4.299	85.604	68.102
06/27/2011 19:42:01	5.2	13.641	4.321	85.604	68.303
06/27/2011 19:42:11	5.152	13.667	4.321	85.604	68.904
06/27/2011 19:42:21	5.148	13.663	4.372	85.604	68.904
06/27/2011 19:42:31	5.181	13.608	15.113	85.604	68.501
06/27/2011 19:42:41	5.207	13.63	29.048	85.205	68.102
06/27/2011 19:42:51	5.222	13.575	30.956	85.205	68.003
06/27/2011 19:43:01	5.321	13.421	23.189	85.205	68.102
06/27/2011 19:43:11	5.43	13.418	13.659	85.102	68.303
06/27/2011 19:43:21	5.376	13.55	10.898	85.102	68.501
06/27/2011 19:43:31	5.302	13.553	10.092	85.102	68.703
06/27/2011 19:43:41	5.28	13.575	9.902	85.102	68.703
06/27/2011 19:43:51	5.288	13.55	9.99	85.102	68.703
06/27/2011 19:44:01	5.291	13.542	10.246	85.102	68.703
06/27/2011 19:44:11	5.277	13.601	10.561	84.904	68.703

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 19:44:21	5.247	13.583	10.88	84.904	68.703
06/27/2011 19:44:31	5.24	13.605	11.195	85.102	68.501
06/27/2011 19:44:41	5.251	13.579	11.532	85.102	68.003
06/27/2011 19:44:51	5.284	13.531	11.821	85.102	68.003
06/27/2011 19:45:01	5.269	13.601	11.96	85.102	68.003
06/27/2011 19:45:11	5.262	13.561	12.143	85.205	68.501
06/27/2011 19:45:21	5.277	13.553	12.246	85.402	68.703
06/27/2011 19:45:31	5.284	13.55	12.304	85.402	68.303
06/27/2011 19:45:41	5.273	13.583	12.326	85.402	68.003
06/27/2011 19:45:51	5.269	13.546	12.315	85.205	68.102
06/27/2011 19:46:01	5.306	13.506	12.359	85.402	68.703
06/27/2011 19:46:11	5.313	13.513	12.455	85.205	68.904
06/27/2011 19:46:21	5.302	13.52	12.429	85.102	68.904
06/27/2011 19:46:31	5.258	13.608	12.378	85.102	68.703
06/27/2011 19:46:41	5.255	13.561	12.33	85.205	68.904
06/27/2011 19:46:51	5.269	13.568	12.279	85.402	68.703
06/27/2011 19:47:01	5.214	13.659	12.154	85.402	68.904
06/27/2011 19:47:11	5.159	13.667	12.132	85.205	68.904
06/27/2011 19:47:21	5.148	13.678	12.037	85.205	68.703
06/27/2011 19:47:31	5.152	13.648	11.953	85.205	68.102
06/27/2011 19:47:41	5.189	13.608	11.81	85.102	68.102
06/27/2011 19:47:51	5.251	13.528	11.664	85.102	68.501
06/27/2011 19:48:01	5.324	13.506	11.524	85.102	68.904
06/27/2011 19:48:11	5.317	13.546	11.393	85.102	68.102
06/27/2011 19:48:21	5.247	13.623	11.173	85.102	68.703
06/27/2011 19:48:31	5.211	13.627	10.971	85.102	68.003
06/27/2011 19:48:41	5.203	13.638	10.796	84.904	68.703
06/27/2011 19:48:51	5.181	13.656	10.532	85.102	68.003
06/27/2011 19:49:01	5.159	13.681	10.213	84.904	68.703
06/27/2011 19:49:11	5.156	13.656	9.983	85.102	68.303
06/27/2011 19:49:21	5.185	13.63	9.821	85.102	68.003
06/27/2011 19:49:31	5.189	13.652	9.638	85.102	68.303
06/27/2011 19:49:41	5.178	13.656	9.419	85.102	68.501
06/27/2011 19:49:51	5.156	13.689	9.199	85.205	68.501
06/27/2011 19:50:01	5.123	13.718	9.034	85.102	68.102
06/27/2011 19:50:11	5.134	13.667	8.866	84.904	68.003
06/27/2011 19:50:21	5.207	13.59	8.781	84.703	67.802
06/27/2011 19:50:31	5.255	13.579	8.613	85.102	68.501
06/27/2011 19:50:41	5.288	13.557	10.459	84.904	68.703
06/27/2011 19:50:51	5.28	13.572	29.129	84.904	68.501
06/27/2011 19:51:01	5.262	13.561	37.131	85.102	68.003
06/27/2011 19:51:11	5.247	13.557	37.566	84.904	67.802
06/27/2011 19:51:21	5.258	13.553	25.236	84.501	68.003
06/27/2011 19:51:31	5.295	13.528	17.985	84.703	68.102
06/27/2011 19:51:41	5.255	13.619	16.238	84.703	68.703
06/27/2011 19:51:51	5.203	13.623	15.967	84.904	68.703
06/27/2011 19:52:01	5.178	13.685	16.084	85.102	68.501
06/27/2011 19:52:11	5.174	13.648	16.476	84.904	68.303
06/27/2011 19:52:21	5.185	13.645	17.047	84.904	68.303
06/27/2011 19:52:31	5.178	13.659	17.67	84.904	68.303
06/27/2011 19:52:41	5.167	13.685	18.241	84.904	68.501
06/27/2011 19:52:51	5.159	13.681	18.79	84.703	68.501
06/27/2011 19:53:01	5.13	13.74	19.259	85.102	68.501
06/27/2011 19:53:11	5.108	13.725	19.647	84.904	68.102
06/27/2011 19:53:21	5.148	13.638	19.94	84.904	67.802
06/27/2011 19:53:31	5.192	13.638	20.087	84.501	67.802
06/27/2011 19:53:41	5.174	13.681	20.186	84.703	68.501
06/27/2011 19:53:51	5.141	13.674	20.215	84.501	68.102
06/27/2011 19:54:01	5.145	13.678	20.625	84.703	67.604
06/27/2011 19:54:11	5.148	13.659	37.768	84.703	67.802
06/27/2011 19:54:21	5.145	13.659	47.136	84.904	68.501
06/27/2011 19:54:31	5.189	13.601	50.26	84.904	68.703
06/27/2011 19:54:41	5.189	13.645	48.787	84.904	67.802
06/27/2011 19:54:51	5.148	13.681	34.714	84.904	67.802
06/27/2011 19:55:01	5.148	13.689	27.631	84.904	68.501
06/27/2011 19:55:11	5.145	13.659	25.844	84.904	68.703
06/27/2011 19:55:21	5.163	13.659	25.452	84.904	68.003
06/27/2011 19:55:31	5.181	13.645	25.664	84.904	68.102
06/27/2011 19:55:41	5.189	13.605	26.038	84.703	68.703

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 19:55:51	5.2	13.641	26.503	84.703	68.102
06/27/2011 19:56:01	5.181	13.645	27.206	84.501	67.802
06/27/2011 19:56:11	5.229	13.553	28.228	84.501	68.501
06/27/2011 19:56:21	5.302	13.557	29.228	84.703	68.703
06/27/2011 19:56:31	5.284	13.586	30.645	84.703	68.003
06/27/2011 19:56:41	5.251	13.59	32.19	84.304	67.802
06/27/2011 19:56:51	5.218	13.667	33.659	84.205	68.303
06/27/2011 19:57:01	5.167	13.674	34.922	84.501	68.303
06/27/2011 19:57:11	5.178	13.652	35.875	84.304	67.802
06/27/2011 19:57:21	5.196	13.627	36.636	84.205	67.802
06/27/2011 19:57:31	5.211	13.619	37.065	84.205	68.501
06/27/2011 19:57:41	5.211	13.597	36.867	84.304	68.501
06/27/2011 19:57:51	5.222	13.601	36.098	84.205	68.501
06/27/2011 19:58:01	5.255	13.575	35.219	84.501	68.501
06/27/2011 19:58:11	5.28	13.539	34.248	84.501	68.501
06/27/2011 19:58:21	5.288	13.553	33.333	84.501	68.501
06/27/2011 19:58:31	5.24	13.638	32.355	84.703	68.501
06/27/2011 19:58:41	5.196	13.634	31.447	84.501	68.501
06/27/2011 19:58:51	5.167	13.674	30.568	84.304	68.303
06/27/2011 19:59:01	5.145	13.667	29.77	84.304	67.802
06/27/2011 19:59:11	5.156	13.663	28.968	84.304	67.604
06/27/2011 19:59:21	5.178	13.663	28.213	84.501	67.802
06/27/2011 19:59:31	5.152	13.692	27.594	84.304	67.802
06/27/2011 19:59:41	5.105	13.718	26.898	84.904	67.802
06/27/2011 19:59:51	5.105	13.722	26.254	84.703	67.802
06/27/2011 20:00:01	5.112	13.733	40.705	84.205	67.802
06/27/2011 20:00:11	5.156	13.627	51.78	84.304	67.802
06/27/2011 20:00:21	5.225	13.572	42.108	84.304	67.802
06/27/2011 20:00:31	5.233	13.63	34.615	84.304	67.802
06/27/2011 20:00:41	5.203	13.648	31.648	84.703	68.003
06/27/2011 20:00:51	5.156	13.725	31.282	84.904	68.102
06/27/2011 20:01:01	5.126	13.718	31.949	84.703	68.303
06/27/2011 20:01:11	5.167	13.641	32.871	84.904	68.303
06/27/2011 20:01:21	5.203	13.612	33.516	84.501	68.303
06/27/2011 20:01:31	5.196	13.645	33.454	84.703	68.303
06/27/2011 20:01:41	5.178	13.638	33.278	85.102	68.501
06/27/2011 20:01:51	5.167	13.656	32.776	84.904	68.501
06/27/2011 20:02:01	5.134	13.711	32.146	85.102	68.102
06/27/2011 20:02:11	5.068	13.755	31.33	85.205	68.102
06/27/2011 20:02:21	5.057	13.722	30.513	85.102	68.003
06/27/2011 20:02:31	5.086	13.725	29.63	85.102	67.802
06/27/2011 20:02:41	5.086	13.733	28.715	85.205	67.802
06/27/2011 20:02:51	5.112	13.685	27.902	85.102	67.802
06/27/2011 20:03:01	5.112	13.747	27.125	84.904	67.802
06/27/2011 20:03:11	5.072	13.744	26.367	84.501	67.802
06/27/2011 20:03:21	5.064	13.733	25.573	84.304	67.802
06/27/2011 20:03:31	5.09	13.744	24.895	84.304	67.802
06/27/2011 20:03:41	5.086	13.722	24.207	84.304	68.003
06/27/2011 20:03:51	5.101	13.718	23.566	84.501	68.003
06/27/2011 20:04:01	5.09	13.78	23.02	84.304	67.802
06/27/2011 20:04:11	5.028	13.806	22.324	84.501	68.102
06/27/2011 20:04:21	5.057	13.744	21.753	84.501	68.102
06/27/2011 20:04:31	5.137	13.656	21.244	84.205	68.102
06/27/2011 20:04:41	5.222	13.583	20.834	84.501	68.303
06/27/2011 20:04:51	5.262	13.586	20.365	84.501	68.303
06/27/2011 20:05:01	5.229	13.659	19.922	84.304	68.102
06/27/2011 20:05:11	5.189	13.656	19.526	84.304	68.102
06/27/2011 20:05:21	5.17	13.692	19.171	84.304	68.102
06/27/2011 20:05:31	5.119	13.7	18.768	84.304	67.604
06/27/2011 20:05:41	5.075	13.762	18.34	84.205	67.604
06/27/2011 20:05:51	5.075	13.758	17.86	84.205	67.604
06/27/2011 20:06:01	5.105	13.725	17.523	84.205	67.604
06/27/2011 20:06:11	5.134	13.659	17.128	84.205	67.604
06/27/2011 20:06:21	5.192	13.616	16.787	84.304	67.604
06/27/2011 20:06:31	5.229	13.616	16.465	84.205	67.604
06/27/2011 20:06:41	5.247	13.601	16.164	84.205	67.604
06/27/2011 20:06:51	5.24	13.623	15.893	84.205	67.604
06/27/2011 20:07:01	5.24	13.601	15.974	84.205	67.604
06/27/2011 20:07:11	5.244	13.579	15.784	84.304	67.604

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 20:07:21	5.258	13.59	15.439	84.501	67.604
06/27/2011 20:07:31	5.247	13.568	15.176	84.205	67.604
06/27/2011 20:07:41	5.284	13.495	14.875	84.205	67.802
06/27/2011 20:07:51	5.324	13.491	14.63	84.205	68.003
06/27/2011 20:08:01	5.313	13.535	14.363	84.501	67.802
06/27/2011 20:08:11	5.266	13.59	14.11	84.703	67.604
06/27/2011 20:08:21	5.262	13.524	13.872	84.904	67.604
06/27/2011 20:08:31	5.313	13.506	13.685	84.501	67.802
06/27/2011 20:08:41	5.302	13.528	13.447	84.304	68.303
06/27/2011 20:08:51	5.306	13.542	13.275	84.304	68.102
06/27/2011 20:09:01	5.277	13.583	13.03	84.501	68.102
06/27/2011 20:09:11	5.24	13.601	12.799	84.304	67.604
06/27/2011 20:09:21	5.269	13.528	12.693	84.501	67.604
06/27/2011 20:09:31	5.266	13.572	12.484	84.501	67.604
06/27/2011 20:09:41	5.233	13.583	12.29	84.205	68.102
06/27/2011 20:09:51	5.251	13.55	12.147	84.205	68.102
06/27/2011 20:10:01	5.291	13.535	11.986	84.205	68.102
06/27/2011 20:10:11	5.28	13.579	11.803	84.205	68.102
06/27/2011 20:10:21	5.233	13.641	11.667	84.205	68.003
06/27/2011 20:10:31	5.196	13.612	11.462	84.304	67.802
06/27/2011 20:10:41	5.24	13.557	11.286	84.205	67.802
06/27/2011 20:10:51	5.269	13.586	11.107	84.205	67.802
06/27/2011 20:11:01	5.255	13.601	11.03	84.304	68.102
06/27/2011 20:11:11	5.222	13.638	10.887	84.501	68.303
06/27/2011 20:11:21	5.225	13.586	10.766	84.205	68.102
06/27/2011 20:11:31	5.251	13.575	10.634	84.205	68.102
06/27/2011 20:11:41	5.266	13.561	10.539	84.205	67.802
06/27/2011 20:11:51	5.28	13.546	10.378	84.205	67.802
06/27/2011 20:12:01	5.277	13.546	10.257	84.003	68.102
06/27/2011 20:12:11	5.28	13.55	10.136	83.802	68.303
06/27/2011 20:12:21	5.295	13.528	10.038	83.604	68.003
06/27/2011 20:12:31	5.284	13.553	9.935	83.802	67.604
06/27/2011 20:12:41	5.236	13.616	9.778	83.802	68.003
06/27/2011 20:12:51	5.24	13.564	9.73	83.802	68.102
06/27/2011 20:13:01	5.262	13.597	9.657	84.003	67.802
06/27/2011 20:13:11	5.196	13.641	9.58	84.205	67.802
06/27/2011 20:13:21	5.134	13.714	9.477	84.003	68.102
06/27/2011 20:13:31	5.112	13.667	9.389	84.205	68.003
06/27/2011 20:13:41	5.134	13.652	9.32	84.205	67.604
06/27/2011 20:13:51	5.167	13.623	9.276	84.205	68.102
06/27/2011 20:14:01	5.207	13.605	9.203	84.304	68.003
06/27/2011 20:14:11	5.2	13.652	9.111	84.205	67.604
06/27/2011 20:14:21	5.163	13.678	9.012	84.205	68.102
06/27/2011 20:14:31	5.159	13.659	8.939	84.205	68.303
06/27/2011 20:14:41	5.141	13.725	8.844	84.205	67.604
06/27/2011 20:14:51	5.167	13.605	8.748	84.003	67.604
06/27/2011 20:15:01	5.251	13.575	8.701	84.205	68.003
06/27/2011 20:15:11	5.258	13.608	8.624	84.205	68.102
06/27/2011 20:15:21	5.236	13.623	8.547	83.802	68.102
06/27/2011 20:15:31	5.211	13.645	8.529	84.003	68.303
06/27/2011 20:15:41	5.203	13.601	8.452	84.205	68.102
06/27/2011 20:15:51	5.214	13.597	8.386	84.205	68.003
06/27/2011 20:16:01	5.203	13.63	8.313	84.003	68.003
06/27/2011 20:16:11	5.203	13.616	8.287	83.802	68.003
06/27/2011 20:16:21	5.207	13.627	8.247	83.802	68.003
06/27/2011 20:16:31	5.222	13.597	8.184	84.205	67.802
06/27/2011 20:16:41	5.251	13.568	8.148	84.003	67.403
06/27/2011 20:16:51	5.258	13.612	8.133	84.003	67.604
06/27/2011 20:17:01	5.214	13.641	8.031	84.003	68.003
06/27/2011 20:17:11	5.189	13.648	8.016	83.802	68.003
06/27/2011 20:17:21	5.174	13.641	8.02	83.802	67.802
06/27/2011 20:17:31	5.192	13.619	7.983	84.003	67.604
06/27/2011 20:17:41	5.222	13.594	7.921	83.604	67.201
06/27/2011 20:17:51	5.225	13.59	7.851	83.802	67.403
06/27/2011 20:18:01	5.266	13.568	7.771	83.403	67.403
06/27/2011 20:18:11	5.251	13.597	7.763	83.604	67.604
06/27/2011 20:18:21	5.222	13.623	7.694	83.604	67.604
06/27/2011 20:18:31	5.196	13.674	7.657	83.802	67.604
06/27/2011 20:18:41	5.167	13.659	7.635	83.604	67.403

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 20:18:51	5.178	13.608	7.613	83.604	67.604
06/27/2011 20:19:01	5.2	13.641	7.551	83.604	67.403
06/27/2011 20:19:11	5.178	13.638	7.514	83.604	68.003
06/27/2011 20:19:21	5.167	13.656	7.5	83.802	68.003
06/27/2011 20:19:31	5.178	13.645	7.507	83.802	67.802
06/27/2011 20:19:41	5.156	13.692	7.423	84.003	67.403
06/27/2011 20:19:51	5.137	13.678	7.368	84.003	67.802
06/27/2011 20:20:01	5.141	13.689	7.349	84.003	68.102
06/27/2011 20:20:11	5.119	13.711	7.313	84.003	67.604
06/27/2011 20:20:21	5.126	13.689	7.291	83.604	68.003
06/27/2011 20:20:31	5.156	13.663	7.273	84.003	68.003
06/27/2011 20:20:41	5.148	13.678	7.236	84.205	67.403
06/27/2011 20:20:51	5.126	13.7	7.203	84.003	67.403
06/27/2011 20:21:01	5.13	13.685	7.148	84.003	67.802
06/27/2011 20:21:11	5.145	13.7	7.115	84.003	68.003
06/27/2011 20:21:21	5.126	13.696	7.108	83.604	68.003
06/27/2011 20:21:31	5.137	13.674	7.067	84.003	68.003
06/27/2011 20:21:41	5.178	13.612	7.035	83.604	68.102
06/27/2011 20:21:51	5.24	13.605	7.027	84.003	68.102
06/27/2011 20:22:01	5.236	13.605	7.002	84.003	68.003
06/27/2011 20:22:11	5.225	13.608	6.928	84.003	68.003
06/27/2011 20:22:21	5.214	13.667	6.928	84.304	68.003
06/27/2011 20:22:31	5.167	13.678	6.862	84.003	68.003
06/27/2011 20:22:41	5.163	13.645	6.833	84.003	68.003
06/27/2011 20:22:51	5.167	13.678	6.84	83.604	67.802
06/27/2011 20:23:01	5.159	13.645	6.826	83.604	67.802
06/27/2011 20:23:11	5.196	13.641	6.8	83.403	67.802
06/27/2011 20:23:21	5.189	13.674	6.829	84.003	68.003
06/27/2011 20:23:31	5.189	13.638	6.826	84.003	68.003
06/27/2011 20:23:41	5.192	13.645	6.771	84.003	67.802
06/27/2011 20:23:51	5.192	13.652	6.771	84.304	67.802
06/27/2011 20:24:01	5.174	13.638	6.771	84.205	67.604
06/27/2011 20:24:11	5.185	13.634	6.789	83.802	67.403
06/27/2011 20:24:21	5.203	13.634	6.749	83.604	67.201
06/27/2011 20:24:31	5.229	13.605	6.716	83.604	67.201
06/27/2011 20:24:41	5.2	13.67	6.705	83.802	67.403
06/27/2011 20:24:51	5.152	13.681	6.628	84.003	67.403
06/27/2011 20:25:01	5.145	13.703	6.584	83.802	67.201
06/27/2011 20:25:11	5.108	13.751	6.555	84.003	67.604
06/27/2011 20:25:21	5.086	13.74	6.536	83.802	67.802
06/27/2011 20:25:31	5.112	13.663	6.493	83.802	67.802
06/27/2011 20:25:41	5.148	13.67	6.522	84.003	67.802
06/27/2011 20:25:51	5.156	13.667	6.485	84.205	67.802
06/27/2011 20:26:01	5.178	13.648	6.496	84.003	68.003
06/27/2011 20:26:11	5.156	13.656	6.485	84.205	67.802
06/27/2011 20:26:21	5.137	13.692	6.482	84.205	67.201
06/27/2011 20:26:31	5.141	13.667	6.5	84.304	67.201
06/27/2011 20:26:41	5.167	13.656	6.441	84.205	67.802
06/27/2011 20:26:51	5.178	13.656	6.467	83.802	67.604
06/27/2011 20:27:01	5.163	13.67	6.434	83.802	67.201
06/27/2011 20:27:11	5.137	13.696	6.383	83.403	67.403
06/27/2011 20:27:21	5.126	13.696	6.368	83.604	67.802
06/27/2011 20:27:31	5.13	13.696	6.353	83.604	68.003
06/27/2011 20:27:41	5.148	13.663	6.353	83.802	67.802
06/27/2011 20:27:51	5.174	13.63	6.306	83.802	68.003
06/27/2011 20:28:01	5.2	13.648	6.28	83.802	68.003
06/27/2011 20:28:11	5.233	13.586	6.258	84.003	68.003
06/27/2011 20:28:21	5.24	13.605	6.251	83.403	67.802
06/27/2011 20:28:31	5.233	13.594	6.251	84.003	67.604
06/27/2011 20:28:41	5.203	13.678	6.196	83.802	67.201
06/27/2011 20:28:51	5.152	13.674	6.181	83.802	67.403
06/27/2011 20:29:01	5.148	13.689	6.152	83.604	67.403
06/27/2011 20:29:11	5.156	13.67	6.148	83.604	67.604
06/27/2011 20:29:21	5.214	13.561	6.159	84.205	67.604
06/27/2011 20:29:31	5.269	13.59	6.181	83.403	67.802
06/27/2011 20:29:41	5.273	13.553	6.251	83.403	67.802
06/27/2011 20:29:51	5.317	13.469	6.24	83.304	67.802
06/27/2011 20:30:01	5.354	13.509	6.196	83.403	67.604
06/27/2011 20:30:11	5.321	13.575	6.196	83.403	67.604

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 20:30:21	5.251	13.616	6.156	83.403	67.604
06/27/2011 20:30:31	5.203	13.634	6.093	83.802	67.604
06/27/2011 20:30:41	5.192	13.648	6.057	84.003	67.403
06/27/2011 20:30:51	5.192	13.638	6.049	84.003	67.403
06/27/2011 20:31:01	5.207	13.608	6.064	84.205	67.802
06/27/2011 20:31:11	5.225	13.623	6.097	83.604	67.802
06/27/2011 20:31:21	5.2	13.634	6.082	84.003	68.003
06/27/2011 20:31:31	5.196	13.59	6.031	83.802	68.003
06/27/2011 20:31:41	5.229	13.586	6.016	84.003	68.003
06/27/2011 20:31:51	5.233	13.594	6.042	83.604	67.802
06/27/2011 20:32:01	5.214	13.641	6.09	83.604	67.802
06/27/2011 20:32:11	5.211	13.612	6.057	83.403	67.604
06/27/2011 20:32:21	5.214	13.641	6.002	83.304	67.604
06/27/2011 20:32:31	5.159	13.7	5.925	83.403	67.604
06/27/2011 20:32:41	5.126	13.74	5.881	83.403	67.403
06/27/2011 20:32:51	5.09	13.769	5.885	83.604	67.604
06/27/2011 20:33:01	5.079	13.733	5.885	83.403	68.003
06/27/2011 20:33:11	5.134	13.681	5.859	83.403	67.604
06/27/2011 20:33:21	5.145	13.67	5.903	83.304	67.604
06/27/2011 20:33:31	5.156	13.67	5.91	83.304	68.003
06/27/2011 20:33:41	5.167	13.674	5.899	83.802	67.403
06/27/2011 20:33:51	5.17	13.674	5.83	83.604	68.003
06/27/2011 20:34:01	5.17	13.648	5.83	83.802	67.403
06/27/2011 20:34:11	5.163	13.678	5.822	83.304	68.003
06/27/2011 20:34:21	5.152	13.656	5.811	83.403	67.604
06/27/2011 20:34:31	5.192	13.623	5.855	83.403	67.604
06/27/2011 20:34:41	5.218	13.594	5.83	83.604	68.102
06/27/2011 20:34:51	5.236	13.601	5.837	83.403	67.403
06/27/2011 20:35:01	5.24	13.597	5.797	83.403	67.201
06/27/2011 20:35:11	5.236	13.59	5.753	83.304	68.003
06/27/2011 20:35:21	5.244	13.579	5.749	83.304	68.003
06/27/2011 20:35:31	5.255	13.586	5.764	83.604	68.102
06/27/2011 20:35:41	5.244	13.586	5.786	83.802	68.003
06/27/2011 20:35:51	5.24	13.623	5.76	83.802	68.003
06/27/2011 20:36:01	5.247	13.586	5.72	83.802	68.003
06/27/2011 20:36:11	5.225	13.652	5.694	83.802	67.403
06/27/2011 20:36:21	5.185	13.681	5.679	83.604	67.403
06/27/2011 20:36:31	5.152	13.678	5.617	83.403	68.003
06/27/2011 20:36:41	5.137	13.714	5.632	83.403	68.102
06/27/2011 20:36:51	5.126	13.711	5.643	83.403	67.403
06/27/2011 20:37:01	5.152	13.645	5.636	83.403	67.201
06/27/2011 20:37:11	5.203	13.645	5.636	83.403	67.201
06/27/2011 20:37:21	5.2	13.627	5.621	83.604	67.802
06/27/2011 20:37:31	5.24	13.583	5.661	84.003	68.003
06/27/2011 20:37:41	5.24	13.638	5.606	84.003	68.003
06/27/2011 20:37:51	5.233	13.583	5.573	83.604	67.604
06/27/2011 20:38:01	5.24	13.627	5.617	83.802	67.403
06/27/2011 20:38:11	5.211	13.63	5.559	83.604	67.201
06/27/2011 20:38:21	5.214	13.583	5.533	83.802	67.201
06/27/2011 20:38:31	5.218	13.648	5.518	84.003	67.604
06/27/2011 20:38:41	5.196	13.648	5.548	84.003	68.003
06/27/2011 20:38:51	5.211	13.608	5.562	84.003	68.003
06/27/2011 20:39:01	5.251	13.568	5.562	83.802	68.003
06/27/2011 20:39:11	5.255	13.597	5.548	83.304	67.802
06/27/2011 20:39:21	5.244	13.59	5.559	83.604	67.403
06/27/2011 20:39:31	5.24	13.608	5.489	83.802	67.403
06/27/2011 20:39:41	5.222	13.612	5.507	83.802	67.201
06/27/2011 20:39:51	5.222	13.616	5.555	84.003	67.403
06/27/2011 20:40:01	5.222	13.619	5.537	83.802	67.403
06/27/2011 20:40:11	5.214	13.652	5.522	84.003	67.201
06/27/2011 20:40:21	5.185	13.663	5.804	84.003	67.102
06/27/2011 20:40:31	5.211	13.608	5.837	83.604	67.604
06/27/2011 20:40:41	5.244	13.59	5.749	83.403	67.604
06/27/2011 20:40:51	5.233	13.605	5.742	83.403	67.102
06/27/2011 20:41:01	5.233	13.561	5.716	83.304	67.802
06/27/2011 20:41:11	5.277	13.539	5.694	83.304	67.201
06/27/2011 20:41:21	5.313	13.495	5.676	83.304	67.604
06/27/2011 20:41:31	5.306	13.517	5.676	83.403	67.201
06/27/2011 20:41:41	5.291	13.535	5.654	83.604	67.604

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 20:41:51	5.269	13.572	5.625	83.802	67.201
06/27/2011 20:42:01	5.229	13.612	5.588	83.604	67.802
06/27/2011 20:42:11	5.189	13.638	5.566	83.604	67.201
06/27/2011 20:42:21	5.163	13.663	5.537	83.403	67.604
06/27/2011 20:42:31	5.178	13.641	5.537	83.604	67.802
06/27/2011 20:42:41	5.229	13.597	5.544	83.604	67.802
06/27/2011 20:42:51	5.291	13.55	5.515	83.802	67.604
06/27/2011 20:43:01	5.354	13.473	5.496	83.802	67.802
06/27/2011 20:43:11	5.394	13.462	5.533	83.802	67.802
06/27/2011 20:43:21	5.394	13.495	5.518	83.604	67.201
06/27/2011 20:43:31	5.354	13.531	5.515	83.403	67.201
06/27/2011 20:43:41	5.317	13.531	5.478	83.304	67.802
06/27/2011 20:43:51	5.343	13.473	5.438	83.403	67.201
06/27/2011 20:44:01	5.376	13.447	5.434	83.304	67.201
06/27/2011 20:44:11	5.35	13.509	5.398	83.304	67.802
06/27/2011 20:44:21	5.288	13.586	5.394	83.304	67.201
06/27/2011 20:44:31	5.247	13.557	5.394	83.304	67.201
06/27/2011 20:44:41	5.258	13.586	5.408	83.403	67.802
06/27/2011 20:44:51	5.255	13.579	5.332	83.403	67.403
06/27/2011 20:45:01	5.251	13.59	5.354	83.403	67.201
06/27/2011 20:45:11	5.236	13.608	5.379	83.604	67.802
06/27/2011 20:45:21	5.236	13.605	5.376	83.802	67.802
06/27/2011 20:45:31	5.247	13.59	5.332	83.802	67.201
06/27/2011 20:45:41	5.28	13.564	5.35	83.604	67.201
06/27/2011 20:45:51	5.273	13.597	5.332	83.304	67.403
06/27/2011 20:46:01	5.244	13.586	5.288	83.304	67.802
06/27/2011 20:46:11	5.258	13.575	5.302	83.604	67.802
06/27/2011 20:46:21	5.251	13.612	5.313	83.304	67.802
06/27/2011 20:46:31	5.222	13.623	5.346	83.304	67.802
06/27/2011 20:46:41	5.236	13.561	5.332	83.403	67.802
06/27/2011 20:46:51	5.262	13.579	5.317	83.304	67.802
06/27/2011 20:47:01	5.222	13.663	5.258	83.304	67.802
06/27/2011 20:47:11	5.156	13.696	5.24	83.304	67.802
06/27/2011 20:47:21	5.17	13.641	5.302	83.304	67.604
06/27/2011 20:47:31	5.17	13.689	5.269	83.604	67.403
06/27/2011 20:47:41	5.134	13.707	5.273	83.604	67.201
06/27/2011 20:47:51	5.108	13.7	5.262	83.304	67.201
06/27/2011 20:48:01	5.123	13.667	5.225	83.304	67.201
06/27/2011 20:48:11	5.134	13.707	5.255	83.604	67.201
06/27/2011 20:48:21	5.108	13.747	5.2	83.604	67.201
06/27/2011 20:48:31	5.123	13.703	5.244	83.403	67.201
06/27/2011 20:48:41	5.101	13.769	5.233	83.304	67.201
06/27/2011 20:48:51	5.09	13.747	5.233	83.304	67.802
06/27/2011 20:49:01	5.137	13.718	5.2	83.304	67.604
06/27/2011 20:49:11	5.137	13.711	5.214	83.403	67.201
06/27/2011 20:49:21	5.141	13.7	5.2	83.304	67.802
06/27/2011 20:49:31	5.148	13.7	5.174	83.604	67.201
06/27/2011 20:49:41	5.148	13.689	5.189	83.403	67.802
06/27/2011 20:49:51	5.17	13.659	5.218	83.403	67.201
06/27/2011 20:50:01	5.192	13.652	5.211	83.403	68.003
06/27/2011 20:50:11	5.181	13.656	5.203	83.604	67.201
06/27/2011 20:50:21	5.192	13.605	5.163	83.304	67.201
06/27/2011 20:50:31	5.251	13.575	5.148	83.304	67.802
06/27/2011 20:50:41	5.233	13.645	5.148	83.403	68.003
06/27/2011 20:50:51	5.214	13.612	5.148	83.403	67.802
06/27/2011 20:51:01	5.214	13.656	5.159	83.403	67.604
06/27/2011 20:51:11	5.152	13.681	5.119	83.403	67.201
06/27/2011 20:51:21	5.156	13.674	5.097	83.604	67.201
06/27/2011 20:51:31	5.152	13.67	5.105	83.403	67.802
06/27/2011 20:51:41	5.148	13.692	5.097	83.304	67.802
06/27/2011 20:51:51	5.178	13.663	5.112	83.604	67.403
06/27/2011 20:52:01	5.222	13.634	5.101	83.604	67.201
06/27/2011 20:52:11	5.236	13.616	5.119	84.003	67.201
06/27/2011 20:52:21	5.255	13.594	5.097	83.802	67.102
06/27/2011 20:52:31	5.236	13.619	5.083	83.802	67.102
06/27/2011 20:52:41	5.207	13.641	5.101	83.403	67.102
06/27/2011 20:52:51	5.236	13.568	5.119	83.304	67.102
06/27/2011 20:53:01	5.288	13.579	5.148	83.304	67.102
06/27/2011 20:53:11	5.262	13.612	5.075	83.103	67.201

URS CEMs Raw Data
June 27, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/27/2011 20:53:21	5.262	13.601	5.097	83.304	67.604
06/27/2011 20:53:31	5.251	13.608	5.064	83.304	67.604
06/27/2011 20:53:41	5.236	13.619	5.097	83.304	67.403
06/27/2011 20:53:51	5.233	13.597	5.126	83.304	67.102
06/27/2011 20:54:01	5.225	13.641	5.134	83.403	67.102
06/27/2011 20:54:11	5.181	13.678	5.123	83.304	67.102
06/27/2011 20:54:21	5.163	13.659	5.097	83.304	67.102
06/27/2011 20:54:31	5.185	13.656	5.112	83.604	67.102
06/27/2011 20:54:41	5.17	13.678	5.097	83.802	67.102
06/27/2011 20:54:51	5.148	13.692	5.05	83.604	67.102
06/27/2011 20:55:01	5.13	13.692	5.083	83.304	67.604
06/27/2011 20:55:11	5.137	13.67	5.061	83.304	67.802
06/27/2011 20:55:21	5.123	13.74	5.064	83.304	67.102
06/27/2011 20:55:31	5.086	13.751	5.075	83.304	67.201
06/27/2011 20:55:41	5.116	13.692	5.075	83.304	67.802
06/27/2011 20:55:51	5.192	13.619	5.097	83.403	67.102
06/27/2011 20:56:01	5.255	13.605	5.09	83.604	67.802
06/27/2011 20:56:11	5.222	13.689	5.119	83.604	67.102
06/27/2011 20:56:21	5.148	13.729	5.097	83.403	67.102
06/27/2011 20:56:31	5.137	13.689	5.064	83.403	67.604
06/27/2011 20:56:41	5.181	13.659	5.09	83.604	67.102
06/27/2011 20:56:51	5.225	13.619	5.075	83.604	67.201
06/27/2011 20:57:01	5.24	13.656	5.068	83.304	67.102
06/27/2011 20:57:11	5.269	13.572	5.05	83.304	67.102
06/27/2011 20:57:21	5.269	13.619	5.009	83.403	66.901
06/27/2011 20:57:31	5.244	13.619	5.035	83.604	67.102
06/27/2011 20:57:41	5.269	13.583	5.013	83.802	67.403
06/27/2011 20:57:51	5.28	13.579	5.009	83.802	67.201
06/27/2011 20:58:01	5.24	13.634	5.031	83.604	67.102
06/27/2011 20:58:11	5.214	13.623	5.035	83.403	67.102
06/27/2011 20:58:21	5.196	13.667	5.013	83.802	67.604
06/27/2011 20:58:31	5.218	13.579	4.995	83.604	67.604
06/27/2011 20:58:41	5.288	13.539	5.009	83.802	67.102
06/27/2011 20:58:51	5.269	13.59	4.958	83.802	67.102
06/27/2011 20:59:01	5.222	13.674	4.962	84.003	66.901
06/27/2011 20:59:10	5.222	13.674	4.962	84.003	66.901

Chevron Hawaii
O_2 Calibration Data Summary

Project ID: Chevron
Date: 28-Jun
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 22.10
Analyzer Range: 25
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	10:13	-0.08	0.08	0.34%
span gas	CC82073	22.10	10:14	22.06	0.04	0.19%
mid-range	CC67546	11.10	10:16	11.11	0.01	0.03%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit		
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5	
Run 9	0.00	-0.08	10:21	0.05	0.56%	17:11	0.04	0.52%	-0.04%	Co=	0.045
	11.10	11.11	10:22	11.04	-0.29%	17:13	11.01	-0.44%	-0.15%	Cma/(Cm-Co)	1.011

Chevron Hawaii
CO_2 Calibration Data Summary

Project ID: Chevron
Date: 28-Jun-11
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 18.90
Analyzer Range: 20
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	10:13	0.16	0.16	0.87%
span gas	CC82073	18.90	10:14	19.04	0.14	0.75%
mid-range	CC67546	9.74	10:16	9.92	0.18	0.94%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit		
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5	
Run 9	0.00	0.16	10:21	0.16	-0.02%	17:11	0.23	0.36%	0.38%	Co=	0.197
	9.74	9.92	10:22	9.82	-0.52%	17:13	9.81	-0.56%	-0.03%	Cma/(Cm-Co)	1.013

Chevron Hawaii
THC Calibration Data Summary

Project ID: Chevron
Date: 28-Jun-11
Instrument Make/Model: Thermo 51i-HT
ID Number: Cash
Span Value: 100
Units: PPMV as C_3H_8
Technician(s): MDD

EPA Method 25A Calibration Error Test Results

	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	5% limit Cal Error (% of Value)
Zero	ASZ788	0.00	10:21	0.10	0.10	n/a
Span	CC18793	84.50	10:24	85.51	1.01	1.20%
Mid	CC82348	49.80	10:26	49.29	0.51	1.03%
Low	CC84418	30.00	10:28	30.58	0.58	1.94%

Note: Operator may use either mid or low C_3H_8 standard for hourly drift checks, per URS SOP-027.

Selection for drift checks; enter Mid or Low	**Mid**

EPA Method 25A Calibration Bias and Drift Tests

Run No.	Cal Error CEMS Response	Time	Hourly Drift CEMS Response	3% Limit Drift (% of Span)
Run 9	0.10	10:30	0.10	0.00%
	49.29	10:31	50.21	0.92%
	0.10	11:22	0.09	-0.01%
	49.29	11:23	50.24	0.95%
	0.10	12:27	0.32	0.22%
	49.29	12:28	50.36	1.07%
	0.10	13:29	0.20	0.10%
	49.29	13:30	50.26	0.98%
	0.10	15:59	0.10	0.00%
	49.29	16:00	50.11	0.83%
	0.10	17:11	0.09	-0.01%
	49.29	17:14	50.22	0.94%

URS CEMs Raw Data
June 28, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 09:52:03	5.134	13.542	3.68	82.703	67.604
06/28/2011 09:52:13	5.094	13.572	3.687	82.703	67.604
06/28/2011 09:52:23	5.064	13.579	3.691	83.304	67.102
06/28/2011 09:52:33	5.031	13.634	3.695	83.103	67.102
06/28/2011 09:52:43	5.028	13.597	3.72	83.304	67.604
06/28/2011 09:52:53	5.053	13.594	3.739	83.304	67.802
06/28/2011 09:53:03	5.028	13.638	3.709	83.103	67.604
06/28/2011 09:53:13	4.984	13.656	3.72	83.304	67.102
06/28/2011 09:53:23	4.947	13.696	3.746	82.703	67.102
06/28/2011 09:53:33	4.94	13.681	3.731	82.905	67.102
06/28/2011 09:53:43	4.973	13.678	3.691	82.905	67.604
06/28/2011 09:53:53	4.951	13.714	3.72	82.502	67.604
06/28/2011 09:54:03	4.914	13.758	3.72	82.703	67.604
06/28/2011 09:54:13	4.896	13.725	3.702	82.703	67.403
06/28/2011 09:54:23	4.914	13.736	3.713	82.905	67.403
06/28/2011 09:54:33	4.947	13.678	3.717	83.103	67.201
06/28/2011 09:54:43	4.969	13.681	3.742	83.103	67.201
06/28/2011 09:54:53	4.951	13.707	3.739	82.905	67.201
06/28/2011 09:55:03	4.914	13.755	3.742	83.103	67.201
06/28/2011 09:55:13	4.888	13.758	3.72	82.905	67.802
06/28/2011 09:55:23	4.899	13.736	3.728	83.103	67.802
06/28/2011 09:55:33	4.866	13.828	3.713	83.103	67.802
06/28/2011 09:55:43	4.83	13.784	3.735	83.304	67.201
06/28/2011 09:55:53	4.837	13.795	3.72	83.103	67.102
06/28/2011 09:56:03	4.866	13.733	3.728	82.905	66.901
06/28/2011 09:56:13	4.921	13.714	3.742	82.905	67.102
06/28/2011 09:56:23	4.918	13.766	3.717	82.703	67.604
06/28/2011 09:56:33	4.859	13.824	3.724	82.905	67.604
06/28/2011 09:56:43	4.801	13.857	3.717	82.703	67.604
06/28/2011 09:56:53	4.797	13.854	3.72	82.502	67.403
06/28/2011 09:57:03	4.819	13.813	3.739	82.703	67.604
06/28/2011 09:57:13	4.83	13.846	3.742	83.103	67.403
06/28/2011 09:57:23	4.819	13.872	3.771	82.905	67.102
06/28/2011 09:57:33	4.738	13.96	3.742	83.103	67.201
06/28/2011 09:57:43	4.702	13.938	3.735	83.103	67.604
06/28/2011 09:57:53	4.709	13.934	3.687	83.103	67.802
06/28/2011 09:58:03	4.735	13.89	3.691	82.905	67.201
06/28/2011 09:58:13	4.771	13.846	3.742	83.103	66.901
06/28/2011 09:58:23	4.771	13.876	3.742	83.103	67.102
06/28/2011 09:58:33	4.768	13.887	3.706	82.905	67.604
06/28/2011 09:58:43	4.731	13.938	3.717	83.304	67.403
06/28/2011 09:58:53	4.694	13.927	3.72	83.304	67.201
06/28/2011 09:59:03	4.691	13.934	3.72	83.103	66.901
06/28/2011 09:59:13	4.702	13.909	3.75	83.304	67.102
06/28/2011 09:59:23	4.724	13.919	3.709	82.905	67.403
06/28/2011 09:59:33	4.757	13.868	3.735	82.905	67.403
06/28/2011 09:59:43	4.797	13.843	3.72	82.703	66.901
06/28/2011 09:59:53	4.797	13.843	3.742	82.703	67.102
06/28/2011 10:00:03	4.768	13.898	3.742	82.905	67.604
06/28/2011 10:00:13	4.757	13.901	3.728	83.103	67.403
06/28/2011 10:00:23	4.771	13.868	3.717	83.304	66.901
06/28/2011 10:00:33	4.793	13.879	3.742	83.304	66.901
06/28/2011 10:00:43	4.779	13.909	3.911	83.304	67.102
06/28/2011 10:00:53	4.775	13.865	3.991	83.304	67.102
06/28/2011 10:01:03	4.779	13.872	3.892	83.304	67.102
06/28/2011 10:01:13	4.746	13.894	3.848	83.304	67.102
06/28/2011 10:01:23	4.746	13.898	3.848	83.403	67.102
06/28/2011 10:01:33	4.775	13.846	3.834	83.304	66.901
06/28/2011 10:01:43	4.808	13.868	3.804	83.304	66.901
06/28/2011 10:01:53	4.764	13.887	3.797	83.304	67.102
06/28/2011 10:02:03	4.746	13.876	3.797	83.403	67.201
06/28/2011 10:02:13	4.764	13.872	3.757	83.604	67.403
06/28/2011 10:02:23	4.779	13.832	3.742	83.604	67.802
06/28/2011 10:02:33	4.775	13.89	3.742	83.403	67.604
06/28/2011 10:02:43	4.764	13.876	3.771	83.403	67.403
06/28/2011 10:02:53	4.793	13.81	3.79	83.802	67.201
06/28/2011 10:03:03	4.834	13.828	3.771	83.802	67.102
06/28/2011 10:03:13	4.819	13.861	3.793	83.802	67.102
06/28/2011 10:03:23	4.812	13.865	3.771	84.003	67.201
06/28/2011 10:03:33	4.848	13.81	3.753	83.604	67.403
06/28/2011 10:03:43	4.877	13.828	3.731	83.802	67.604

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 10:03:53	4.907	13.78	3.742	83.403	67.604
06/28/2011 10:04:03	4.958	13.689	3.731	83.304	67.201
06/28/2011 10:04:13	5.006	13.7	3.72	83.304	67.102
06/28/2011 10:04:23	4.973	13.747	3.771	83.403	67.102
06/28/2011 10:04:33	4.914	13.788	3.786	83.403	67.201
06/28/2011 10:04:43	4.947	13.707	3.76	83.403	67.802
06/28/2011 10:04:53	5.013	13.656	3.739	83.403	67.802
06/28/2011 10:05:03	5.05	13.641	3.742	83.604	67.802
06/28/2011 10:05:13	5.013	13.718	3.713	83.604	67.201
06/28/2011 10:05:23	4.998	13.685	3.698	83.604	67.403
06/28/2011 10:05:33	4.998	13.725	3.695	83.802	67.201
06/28/2011 10:05:43	4.998	13.714	3.691	83.403	67.201
06/28/2011 10:05:53	5.006	13.718	3.665	83.304	67.403
06/28/2011 10:06:03	4.991	13.707	3.68	83.304	67.403
06/28/2011 10:06:13	4.991	13.714	3.691	83.604	67.802
06/28/2011 10:06:23	4.995	13.733	3.691	83.802	68.003
06/28/2011 10:06:33	4.991	13.703	3.691	83.802	68.003
06/28/2011 10:06:43	5.006	13.689	3.687	84.003	67.604
06/28/2011 10:06:53	5.031	13.645	3.684	84.205	67.604
06/28/2011 10:07:03	5.053	13.608	3.662	84.205	67.403
06/28/2011 10:07:13	5.086	13.619	3.662	84.205	68.003
06/28/2011 10:07:23	5.083	13.616	3.662	84.205	68.003
06/28/2011 10:07:33	5.057	13.627	3.643	84.304	67.403
06/28/2011 10:07:43	5.031	13.638	3.665	83.802	67.604
06/28/2011 10:07:53	5.009	13.667	3.687	83.604	68.003
06/28/2011 10:08:03	5.002	13.685	3.64	83.802	67.201
06/28/2011 10:08:13	5.035	13.645	3.662	84.003	68.003
06/28/2011 10:08:23	5.105	13.575	3.64	84.304	67.403
06/28/2011 10:08:33	5.145	13.59	3.636	84.205	68.003
06/28/2011 10:08:43	5.152	13.586	3.607	84.501	67.604
06/28/2011 10:08:53	5.141	13.575	3.643	84.703	67.802
06/28/2011 10:09:03	5.152	13.55	3.665	84.703	67.802
06/28/2011 10:09:13	5.181	13.52	3.651	84.703	67.201
06/28/2011 10:09:23	5.181	13.535	3.61	84.703	67.802
06/28/2011 10:09:33	5.185	13.506	3.588	84.904	67.604
06/28/2011 10:09:43	5.211	13.502	3.596	84.904	67.403
06/28/2011 10:09:53	5.185	13.561	3.566	84.904	68.102
06/28/2011 10:10:03	5.126	13.579	3.541	84.904	67.403
06/28/2011 10:10:13	5.148	13.55	3.559	84.703	67.403
06/28/2011 10:10:23	5.163	13.546	3.566	84.703	68.102
06/28/2011 10:10:33	5.126	13.597	3.566	84.703	68.003
06/28/2011 10:10:43	5.079	13.605	3.588	84.703	67.604
06/28/2011 10:10:53	5.101	13.561	3.61	84.703	67.604
06/28/2011 10:11:03	5.174	13.498	3.588	84.703	67.403
06/28/2011 10:11:13	5.24	13.451	3.588	84.304	67.604
06/28/2011 10:11:23	5.233	13.502	3.566	84.703	68.003
06/28/2011 10:11:33	5.185	13.528	3.581	84.703	68.102
06/28/2011 10:11:43	5.167	13.546	3.592	84.703	68.102
06/28/2011 10:11:53	5.17	13.535	3.57	84.904	67.201
Calibration Error					
06/28/2011 10:12:03	3.695	1.014	3.387	84.501	65.304
06/28/2011 10:12:13	0.318	0.274	3.372	84.703	64.704
06/28/2011 10:12:23	-0.037	0.19	3.376	84.304	64.704
06/28/2011 10:12:33	-0.07	0.179	3.383	84.501	64.704
06/28/2011 10:12:43	-0.07	0.175	3.376	84.501	64.901
06/28/2011 10:12:53	-0.07	0.168	3.354	84.304	64.403
06/28/2011 10:13:03	-0.074	0.164	3.369	84.501	64.403
06/28/2011 10:13:13	-0.074	0.164	3.372	84.501	64.403
06/28/2011 10:13:23	-0.078	0.164	3.354	84.304	64.403
N2 Zero	**-0.075**	**0.164**		**84.435**	**64.403**
06/28/2011 10:13:33	0.706	1.168	3.343	84.501	64.403
06/28/2011 10:13:43	13.689	18.86	3.347	84.501	64.502
06/28/2011 10:13:53	21.742	18.962	3.347	84.304	64.901
06/28/2011 10:14:03	22.013	19.003	3.347	84.501	65.304
06/28/2011 10:14:13	22.039	19.025	3.361	84.501	65.103
06/28/2011 10:14:23	22.05	19.039	3.347	84.501	65.103
06/28/2011 10:14:33	22.057	19.043	3.347	84.703	64.901
06/28/2011 10:14:43	22.064	19.043	3.35	84.501	64.502
22.1% O2/18.9% CO2 Span	**22.057**	**19.042**		**84.568**	**64.835**
06/28/2011 10:14:53	18.717	10.074	3.372	84.501	64.901
06/28/2011 10:15:03	12	9.95	3.347	84.904	65.604

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 10:15:13	11.136	9.935	3.321	84.904	65.604
06/28/2011 10:15:23	11.114	9.924	3.332	84.501	64.704
06/28/2011 10:15:33	11.111	9.92	3.332	84.501	64.901
06/28/2011 10:15:43	11.107	9.92	3.292	84.501	65.604
06/28/2011 10:15:53	11.107	9.92	3.295	84.703	66.703
06/28/2011 10:16:03	11.103	9.913	3.629	84.904	69.402
11.1% O2/9.74% CO2 Mid	**11.106**	**9.918**		**84.703**	**67.236**
06/28/2011 10:16:13	11.092	9.931	3.614	84.501	71.003
06/28/2011 10:16:23	10.957	11.184	13.718	84.304	71.702
06/28/2011 10:16:33	9.594	12.843	0.875	84.703	71.402
06/28/2011 10:16:43	7.327	13.231	0.142	84.904	70.801
Calibration Bias					
THC Calibration Error					
06/28/2011 10:16:53	5.013	7.177	0.128	84.703	70.102
06/28/2011 10:17:03	1.516	0.399	0.128	84.904	69.402
06/28/2011 10:17:13	0.102	0.296	0.102	85.102	68.703
06/28/2011 10:17:23	0.051	0.259	0.084	84.904	69.402
06/28/2011 10:17:33	0.04	0.237	0.362	84.904	68.904
06/28/2011 10:17:43	1.343	3.266	98.649	84.904	68.703
06/28/2011 10:17:53	13.279	0.256	101.622	84.904	69.003
06/28/2011 10:18:03	20.369	0.208	101.622	85.102	69.204
06/28/2011 10:18:13	20.706	0.197	101.622	85.102	68.703
06/28/2011 10:18:23	20.75	0.19	85.252	85.205	68.501
06/28/2011 10:18:33	20.772	0.186	85.307	85.402	68.501
06/28/2011 10:18:43	20.786	0.179	85.314	85.402	68.703
06/28/2011 10:18:53	20.793	0.175	84.509	85.205	68.703
06/28/2011 10:19:03	20.211	1.611	14.15	85.205	68.703
06/28/2011 10:19:13	9.789	0.457	0.329	84.904	68.703
06/28/2011 10:19:23	0.692	0.183	0.161	84.904	68.703
06/28/2011 10:19:33	0.139	0.175	0.135	85.102	68.703
06/28/2011 10:19:43	0.091	0.172	6.2	85.205	68.703
06/28/2011 10:19:53	4.888	1.827	48.498	84.904	69.204
06/28/2011 10:20:03	17.582	0.186	50.036	84.904	68.904
06/28/2011 10:20:13	20.548	0.172	47.813	84.501	68.904
06/28/2011 10:20:23	19.036	1.677	2.936	84.501	68.904
06/28/2011 10:20:33	6.873	0.183	0.179	84.304	68.904
06/28/2011 10:20:43	0.333	0.168	0.131	84.304	68.703
06/28/2011 10:20:53	0.109	0.164	0.12	84.304	68.904
06/28/2011 10:21:03	0.073	0.161	0.091	84.501	68.703
06/28/2011 10:21:13	0.058	0.161	0.109	85.102	68.303
06/28/2011 10:21:23	0.047	0.161	0.095	85.205	69.003
06/28/2011 10:21:33	0.043	0.161	0.091	85.402	68.303
N2 Zero	**0.049**	**0.161**	**0.098**	**85.236**	**68.536**
06/28/2011 10:21:43	0.036	0.164	0.534	85.205	68.303
06/28/2011 10:21:53	2.098	6.888	0.369	85.102	68.501
06/28/2011 10:22:03	8.833	9.723	0.358	85.102	68.102
06/28/2011 10:22:13	10.946	9.778	0.388	85.102	67.604
06/28/2011 10:22:23	11.023	9.799	0.358	85.102	67.604
06/28/2011 10:22:33	11.037	9.814	0.388	85.102	67.403
06/28/2011 10:22:43	11.045	9.814	0.373	85.102	67.403
06/28/2011 10:22:53	11.041	9.829	20.01	85.102	67.604
11.1% O2/9.74% CO2 Mid	**11.041**	**9.819**		**85.102**	**67.470**
06/28/2011 10:23:03	12.704	3.032	83.732	85.102	68.102
06/28/2011 10:23:13	19.08	0.307	85.252	84.904	68.102
06/28/2011 10:23:23	20.684	0.234	85.391	84.703	68.003
06/28/2011 10:23:33	20.757	0.201	85.443	84.501	68.003
06/28/2011 10:23:43	20.779	0.183	85.454	84.501	67.604
06/28/2011 10:23:53	20.79	0.175	85.472	84.703	67.403
06/28/2011 10:24:03	20.797	0.168	85.476	84.703	67.201
06/28/2011 10:24:13	20.801	0.164	85.468	84.904	67.102
06/28/2011 10:24:23	20.808	0.161	85.483	85.102	67.604
06/28/2011 10:24:33	20.812	0.161	85.501	85.402	67.604
06/28/2011 10:24:43	20.812	0.157	85.531	85.402	67.201
06/28/2011 10:24:53	20.815	0.157	85.509	85.802	66.703
84.5 ppm Propane Span			**85.514**	**85.535**	**67.169**
06/28/2011 10:25:03	20.746	0.336	57.742	85.402	66.703
06/28/2011 10:25:13	20.098	0.49	49.509	85.205	67.403
06/28/2011 10:25:23	20.405	0.384	49.428	85.102	67.201
06/28/2011 10:25:33	20.504	0.388	49.362	84.904	66.502
06/28/2011 10:25:43	20.501	0.391	49.366	84.904	66.502
06/28/2011 10:25:53	20.501	0.391	49.351	84.904	67.201

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 10:26:03	20.501	0.391	49.139	85.102	67.102
49.8 ppm Propane Mid			**49.285**	**84.970**	**66.935**
06/28/2011 10:26:13	20.215	1.252	7.357	85.205	66.304
06/28/2011 10:26:23	12.846	12.48	2.655	85.102	66.304
06/28/2011 10:26:33	6.474	12.663	2.563	85.205	67.102
06/28/2011 10:26:43	6.126	12.7	2.526	85.102	67.102
06/28/2011 10:26:53	6.108	12.66	2.493	85.205	66.502
06/28/2011 10:27:03	6.159	12.649	2.438	84.904	66.304
06/28/2011 10:27:13	6.159	12.689	2.424	84.904	66.304
06/28/2011 10:27:23	6.126	12.704	2.435	84.703	66.901
06/28/2011 10:27:33	6.108	12.707	17.34	85.102	67.403
06/28/2011 10:27:43	10.979	1.728	30.154	85.102	67.403
06/28/2011 10:27:53	19.427	0.322	30.498	85.102	67.102
06/28/2011 10:28:03	20.665	0.248	30.575	84.904	66.901
06/28/2011 10:28:13	20.735	0.215	30.579	84.703	66.901
06/28/2011 10:28:23	20.753	0.197	30.575	84.904	66.901
06/28/2011 10:28:33	20.764	0.183	30.594	85.102	67.102
30.0 ppm Propane Low			**30.583**	**84.903**	**66.968**
06/28/2011 10:28:43	20.772	0.175	26.422	85.102	67.403
06/28/2011 10:28:53	18.237	2.786	1.179	84.703	67.604
THC Calibration Bias					
06/28/2011 10:29:03	5.877	0.45	0.183	84.904	67.802
06/28/2011 10:29:13	0.454	0.439	0.146	85.102	67.604
06/28/2011 10:29:23	0.256	0.428	0.12	85.102	67.604
06/28/2011 10:29:33	0.168	0.179	0.095	85.102	67.102
06/28/2011 10:29:43	0.087	0.168	0.095	85.102	66.901
06/28/2011 10:29:53	0.069	0.168	0.095	85.102	67.403
06/28/2011 10:30:03	0.062	0.168	0.095	85.102	67.403
N2 Zero			**0.095**	**85.102**	**67.236**
06/28/2011 10:30:13	0.204	0.805	32.524	85.102	66.502
06/28/2011 10:30:23	9.832	0.252	49.813	85.102	67.201
06/28/2011 10:30:33	19.841	0.168	50.128	85.102	66.703
06/28/2011 10:30:43	20.614	0.157	50.183	85.102	66.502
06/28/2011 10:30:53	20.673	0.153	50.19	84.904	67.102
06/28/2011 10:31:03	20.695	0.15	50.212	85.102	67.102
06/28/2011 10:31:13	20.709	0.146	50.219	85.102	66.901
06/28/2011 10:31:23	20.717	0.139	50.194	85.102	66.502
49.8 ppm Propane Mid			**50.208**	**85.102**	**66.835**
06/28/2011 10:31:33	20.713	0.15	18.193	85.102	66.201
06/28/2011 10:31:43	15.406	11.773	2.676	84.904	66.304
06/28/2011 10:31:53	7.236	12.488	2.49	85.102	66.703
06/28/2011 10:32:03	6.331	12.51	2.46	85.102	66.901
06/28/2011 10:32:13	6.317	12.528	2.435	85.102	66.201
06/28/2011 10:32:23	6.302	12.553	2.409	85.102	66.502
06/28/2011 10:32:33	6.265	12.586	2.409	85.102	66.901
06/28/2011 10:32:43	6.229	12.627	2.409	85.102	66.703
06/28/2011 10:32:53	6.2	12.634	2.38	85.205	66.703
06/28/2011 10:33:03	6.178	12.656	2.376	85.205	67.201
06/28/2011 10:33:13	6.167	12.634	2.358	85.402	67.201
06/28/2011 10:33:23	6.134	12.693	2.373	85.402	66.502
06/28/2011 10:33:33	6.086	12.704	2.383	85.604	66.703
06/28/2011 10:33:43	6.057	12.744	2.376	85.604	67.201
06/28/2011 10:33:53	6.057	12.711	2.365	85.205	67.201
06/28/2011 10:34:03	6.086	12.667	2.49	85.102	67.201
06/28/2011 10:34:13	6.112	12.674	2.567	85.102	66.901
06/28/2011 10:34:23	6.104	12.682	2.479	85.402	66.703
06/28/2011 10:34:33	6.101	12.696	2.49	85.604	66.703
06/28/2011 10:34:43	6.13	12.674	2.442	85.604	66.703
06/28/2011 10:34:53	6.119	12.707	2.435	85.402	66.703
06/28/2011 10:35:03	6.119	12.693	2.413	85.102	66.703
06/28/2011 10:35:13	6.137	12.7	2.409	85.102	66.901
06/28/2011 10:35:23	6.145	12.689	2.409	85.102	66.901
06/28/2011 10:35:33	6.141	12.678	2.409	85.205	66.703
06/28/2011 10:35:43	6.178	12.627	2.391	85.205	66.901
06/28/2011 10:35:53	6.178	12.678	2.383	85.205	66.901
06/28/2011 10:36:03	6.152	12.66	2.387	85.604	67.802
06/28/2011 10:36:13	6.181	12.619	2.383	85.402	67.802
06/28/2011 10:36:23	6.181	12.663	2.383	85.205	67.201
06/28/2011 10:36:33	6.181	12.616	2.38	85.205	67.102
06/28/2011 10:36:43	6.214	12.605	2.38	85.205	67.604
06/28/2011 10:36:53	6.214	12.616	2.376	85.102	68.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 10:37:03	6.174	12.685	2.373	85.205	68.003
06/28/2011 10:37:13	6.097	12.737	2.38	85.402	67.604
06/28/2011 10:37:23	6.064	12.744	2.38	85.604	67.403
06/28/2011 10:37:33	6.064	12.737	2.409	85.604	67.201
06/28/2011 10:37:43	6.049	12.748	2.409	85.402	67.201
06/28/2011 10:37:53	6.02	12.81	2.383	85.205	67.201
06/28/2011 10:38:03	5.969	12.817	2.387	85.102	67.403
06/28/2011 10:38:13	5.965	12.814	2.402	85.402	67.201
06/28/2011 10:38:23	5.983	12.81	2.398	85.604	67.201
06/28/2011 10:38:33	5.994	12.781	2.398	85.402	67.201
06/28/2011 10:38:43	5.98	12.817	2.409	85.604	67.403
06/28/2011 10:38:53	5.958	12.828	2.391	85.802	67.403
06/28/2011 10:39:03	5.947	12.817	2.405	85.802	67.604
06/28/2011 10:39:13	5.976	12.784	2.435	85.802	67.802
06/28/2011 10:39:23	5.95	12.865	2.435	85.802	68.003
06/28/2011 10:39:33	5.881	12.909	2.402	86.003	68.303
06/28/2011 10:39:43	5.881	12.872	2.413	86.003	68.303
06/28/2011 10:39:53	5.914	12.828	2.409	86.003	68.303
06/28/2011 10:40:03	5.925	12.861	2.387	86.003	67.403
06/28/2011 10:40:13	5.903	12.861	2.383	86.003	68.303
06/28/2011 10:40:23	5.903	12.857	2.416	86.102	68.003
06/28/2011 10:40:33	5.921	12.846	2.449	86.003	67.802
06/28/2011 10:40:43	5.94	12.846	2.435	86.003	68.303
06/28/2011 10:40:53	5.965	12.795	2.453	86.003	67.604
06/28/2011 10:41:03	5.969	12.832	2.442	86.102	68.501
06/28/2011 10:41:13	5.929	12.872	2.438	86.003	68.003
06/28/2011 10:41:23	5.91	12.85	2.413	86.303	68.102
06/28/2011 10:41:33	5.91	12.879	2.413	86.102	68.303
06/28/2011 10:41:43	5.877	12.909	2.413	86.102	67.802
06/28/2011 10:41:53	5.885	12.861	2.427	86.102	68.303
06/28/2011 10:42:03	5.929	12.832	2.435	86.303	68.003
06/28/2011 10:42:13	5.925	12.887	2.435	86.303	68.501
06/28/2011 10:42:23	5.881	12.89	2.435	86.303	68.303
06/28/2011 10:42:33	5.885	12.887	2.482	86.303	67.802
06/28/2011 10:42:43	5.877	12.887	2.49	86.102	68.303
06/28/2011 10:42:53	5.844	12.978	2.453	86.003	68.501
06/28/2011 10:43:03	5.771	13.008	2.457	86.003	68.501
06/28/2011 10:43:13	5.756	13	2.46	86.003	68.501
06/28/2011 10:43:23	5.76	13.015	2.46	86.102	68.501
06/28/2011 10:43:33	5.764	12.989	2.46	86.303	68.501
06/28/2011 10:43:43	5.742	13.026	2.46	86.303	68.501
06/28/2011 10:43:53	5.709	13.066	2.475	86.303	68.501
06/28/2011 10:44:03	5.676	13.095	2.49	86.102	68.003
06/28/2011 10:44:13	5.698	13.022	2.49	86.102	67.802
06/28/2011 10:44:23	5.742	13.011	2.475	86.003	67.802
06/28/2011 10:44:33	5.797	12.92	2.464	86.003	68.102
06/28/2011 10:44:43	5.826	12.96	2.46	85.802	68.501
06/28/2011 10:44:53	5.767	13.03	2.468	86.003	68.501
06/28/2011 10:45:03	5.738	13.011	2.46	85.802	68.501
06/28/2011 10:45:13	5.749	13.048	2.449	85.802	68.102
06/28/2011 10:45:23	5.694	13.147	2.46	86.303	68.303
06/28/2011 10:45:33	5.639	13.114	2.49	86.303	68.102
06/28/2011 10:45:43	5.676	13.088	2.512	86.003	68.102
06/28/2011 10:45:53	5.698	13.092	2.512	86.102	68.303
06/28/2011 10:46:03	5.698	13.121	2.515	86.003	68.501
06/28/2011 10:46:13	5.654	13.125	2.515	86.003	68.303
06/28/2011 10:46:23	5.632	13.154	2.541	86.003	68.303
06/28/2011 10:46:33	5.632	13.11	2.537	86.102	68.303
06/28/2011 10:46:43	5.632	13.187	2.515	86.303	68.303
06/28/2011 10:46:53	5.592	13.172	2.515	86.102	68.501
06/28/2011 10:47:03	5.625	13.103	2.526	86.102	68.501
06/28/2011 10:47:13	5.647	13.132	2.515	86.102	68.501
06/28/2011 10:47:23	5.636	13.136	2.526	86.303	68.303
06/28/2011 10:47:33	5.639	13.085	2.541	86.303	68.303
06/28/2011 10:47:43	5.65	13.125	2.537	86.303	68.501
06/28/2011 10:47:53	5.647	13.117	2.515	86.003	68.904
06/28/2011 10:48:03	5.654	13.092	2.515	86.003	69.003
06/28/2011 10:48:13	5.679	13.059	2.537	86.102	68.703
06/28/2011 10:48:23	5.694	13.088	2.537	86.102	68.303
06/28/2011 10:48:33	5.676	13.121	2.526	86.303	68.703
06/28/2011 10:48:43	5.654	13.103	2.537	86.505	69.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 10:48:53	5.636	13.15	2.563	86.303	68.904
06/28/2011 10:49:03	5.595	13.161	2.563	86.003	68.501
06/28/2011 10:49:13	5.61	13.143	2.537	85.802	68.703
06/28/2011 10:49:23	5.61	13.165	2.537	86.003	69.003
06/28/2011 10:49:33	5.54	13.249	2.537	86.003	68.703
06/28/2011 10:49:43	5.522	13.231	2.537	86.003	68.501
06/28/2011 10:49:53	5.544	13.242	2.537	86.003	69.003
06/28/2011 10:50:03	5.537	13.249	2.548	86.102	69.003
06/28/2011 10:50:13	5.544	13.216	2.585	86.303	68.501
06/28/2011 10:50:23	5.592	13.169	2.563	86.102	68.501
06/28/2011 10:50:33	5.617	13.117	2.563	86.303	69.003
06/28/2011 10:50:43	5.639	13.114	2.563	86.102	69.204
06/28/2011 10:50:53	5.625	13.172	2.559	86.102	68.703
06/28/2011 10:51:03	5.592	13.176	2.563	86.102	68.501
06/28/2011 10:51:13	5.551	13.253	2.556	86.702	68.703
06/28/2011 10:51:23	5.507	13.26	2.574	86.102	68.501
06/28/2011 10:51:33	5.485	13.315	2.563	86.102	68.703
06/28/2011 10:51:43	5.449	13.268	2.574	86.303	68.703
06/28/2011 10:51:53	5.474	13.249	2.614	86.303	68.904
06/28/2011 10:52:03	5.5	13.231	2.596	86.303	69.204
06/28/2011 10:52:13	5.518	13.235	2.57	86.303	69.204
06/28/2011 10:52:23	5.526	13.227	2.592	86.102	69.204
06/28/2011 10:52:33	5.515	13.209	2.618	86.102	69.204
06/28/2011 10:52:43	5.526	13.202	2.618	86.003	69.204
06/28/2011 10:52:53	5.504	13.238	2.614	86.003	69.003
06/28/2011 10:53:03	5.467	13.286	2.618	86.003	68.904
06/28/2011 10:53:13	5.398	13.341	2.618	86.003	68.703
06/28/2011 10:53:23	5.365	13.348	2.618	86.003	68.703
06/28/2011 10:53:33	5.335	13.374	2.603	86.003	68.703
06/28/2011 10:53:43	5.324	13.366	2.592	86.003	69.003
06/28/2011 10:53:53	5.317	13.385	2.563	86.303	69.402
06/28/2011 10:54:03	5.291	13.414	2.592	86.702	68.904
06/28/2011 10:54:13	5.255	13.432	2.592	86.505	69.204
06/28/2011 10:54:23	5.229	13.418	2.581	86.505	68.703
06/28/2011 10:54:33	5.233	13.399	2.592	86.303	69.003
06/28/2011 10:54:43	5.28	13.345	2.592	86.702	68.904
06/28/2011 10:54:53	5.291	13.381	2.614	86.702	69.003
06/28/2011 10:55:03	5.247	13.414	2.618	86.702	69.402
06/28/2011 10:55:13	5.251	13.37	2.618	86.702	68.703
06/28/2011 10:55:23	5.31	13.345	2.618	86.505	69.402
06/28/2011 10:55:33	5.306	13.377	2.585	86.702	68.904
06/28/2011 10:55:43	5.284	13.396	2.592	86.702	68.904
06/28/2011 10:55:53	5.284	13.407	2.581	86.505	69.402
06/28/2011 10:56:03	5.247	13.458	2.592	86.505	68.904
06/28/2011 10:56:13	5.178	13.539	2.585	86.102	68.703
06/28/2011 10:56:23	5.145	13.535	2.592	86.003	69.204
06/28/2011 10:56:33	5.167	13.473	2.592	86.102	69.003
06/28/2011 10:56:43	5.236	13.421	2.592	86.702	68.703
06/28/2011 10:56:53	5.284	13.388	2.618	86.702	68.904
06/28/2011 10:57:03	5.317	13.33	2.629	86.702	69.402
06/28/2011 10:57:13	5.346	13.363	2.64	86.904	69.402
06/28/2011 10:57:23	5.324	13.418	2.633	86.702	68.703
06/28/2011 10:57:33	5.273	13.436	2.64	86.904	68.703
06/28/2011 10:57:43	5.277	13.41	2.655	86.702	68.904
06/28/2011 10:57:53	5.284	13.399	2.673	86.702	68.904
Start Run 9					
06/28/2011 10:58:03	5.255	13.473	2.618	86.702	68.904
06/28/2011 10:58:13	5.207	13.498	2.622	86.702	68.703
06/28/2011 10:58:23	5.181	13.502	2.629	86.505	68.703
06/28/2011 10:58:33	5.167	13.517	2.618	86.702	69.204
06/28/2011 10:58:43	5.148	13.55	2.618	86.702	69.402
06/28/2011 10:58:53	5.09	13.612	2.618	86.904	69.402
06/28/2011 10:59:03	5.068	13.583	2.622	86.904	68.904
06/28/2011 10:59:13	5.097	13.586	2.618	86.904	68.904
06/28/2011 10:59:23	5.09	13.608	2.618	86.904	69.402
06/28/2011 10:59:33	5.101	13.561	2.625	86.904	69.402
06/28/2011 10:59:43	5.148	13.52	2.644	86.904	68.904
06/28/2011 10:59:53	5.2	13.48	2.64	86.904	68.904
06/28/2011 11:00:03	5.244	13.447	2.618	86.904	69.604
06/28/2011 11:00:13	5.236	13.517	2.618	86.904	69.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 11:00:23	5.178	13.557	2.618	87.003	68.904
06/28/2011 11:00:33	5.181	13.52	2.618	87.003	69.204
06/28/2011 11:00:43	5.203	13.506	2.614	86.904	69.604
06/28/2011 11:00:53	5.214	13.513	2.618	86.904	69.402
06/28/2011 11:01:03	5.218	13.487	2.622	87.003	69.003
06/28/2011 11:01:13	5.24	13.458	2.64	86.702	69.604
06/28/2011 11:01:23	5.233	13.473	2.64	86.904	69.604
06/28/2011 11:01:33	5.189	13.561	2.64	86.904	68.904
06/28/2011 11:01:43	5.083	13.648	2.64	87.003	69.204
06/28/2011 11:01:53	5.042	13.667	2.64	86.904	69.604
06/28/2011 11:02:03	5.031	13.648	2.622	86.904	69.402
06/28/2011 11:02:13	5.061	13.641	2.618	86.505	69.003
06/28/2011 11:02:23	5.075	13.605	2.618	86.702	69.003
06/28/2011 11:02:33	5.126	13.575	2.618	86.505	69.604
06/28/2011 11:02:43	5.141	13.597	2.64	86.702	69.604
06/28/2011 11:02:53	5.094	13.612	2.64	86.904	68.904
06/28/2011 11:03:03	5.09	13.601	2.64	86.904	68.904
06/28/2011 11:03:13	5.123	13.579	2.64	86.702	69.204
06/28/2011 11:03:23	5.119	13.605	2.64	86.505	69.604
06/28/2011 11:03:33	5.119	13.564	2.636	86.702	69.604
06/28/2011 11:03:43	5.152	13.542	2.64	86.702	69.204
06/28/2011 11:03:53	5.2	13.502	2.625	86.904	68.904
06/28/2011 11:04:03	5.229	13.484	2.618	86.702	69.204
06/28/2011 11:04:13	5.233	13.495	2.611	86.904	69.402
06/28/2011 11:04:23	5.203	13.531	2.603	86.904	69.604
06/28/2011 11:04:33	5.181	13.52	2.607	86.904	69.801
06/28/2011 11:04:43	5.174	13.535	2.618	87.003	69.402
06/28/2011 11:04:53	5.148	13.572	2.625	87.003	69.402
06/28/2011 11:05:03	5.148	13.572	2.611	87.204	69.003
06/28/2011 11:05:13	5.148	13.564	2.618	86.904	69.204
06/28/2011 11:05:23	5.152	13.524	2.64	86.904	69.402
06/28/2011 11:05:33	5.163	13.542	2.64	86.904	69.402
06/28/2011 11:05:43	5.152	13.572	2.644	86.904	69.604
06/28/2011 11:05:53	5.141	13.539	2.625	86.702	69.402
06/28/2011 11:06:03	5.174	13.535	2.644	86.702	69.604
06/28/2011 11:06:13	5.189	13.524	2.618	86.904	69.604
06/28/2011 11:06:23	5.225	13.473	2.618	86.702	69.604
06/28/2011 11:06:33	5.266	13.473	2.618	86.505	69.003
06/28/2011 11:06:43	5.28	13.447	2.618	86.303	68.904
06/28/2011 11:06:53	5.291	13.476	2.618	86.303	69.604
06/28/2011 11:07:03	5.251	13.513	2.618	86.303	69.604
06/28/2011 11:07:13	5.251	13.469	2.618	86.303	69.003
06/28/2011 11:07:23	5.266	13.495	2.768	86.303	69.003
06/28/2011 11:07:33	5.244	13.517	2.896	86.102	69.204
06/28/2011 11:07:43	5.222	13.513	2.786	86.505	69.402
06/28/2011 11:07:53	5.233	13.476	2.746	86.702	69.604
06/28/2011 11:08:03	5.288	13.44	2.731	86.505	69.204
06/28/2011 11:08:13	5.346	13.41	2.724	86.702	69.003
06/28/2011 11:08:23	5.372	13.385	2.706	86.505	69.003
06/28/2011 11:08:33	5.387	13.377	2.698	86.303	69.604
06/28/2011 11:08:43	5.372	13.418	2.673	86.303	69.604
06/28/2011 11:08:53	5.328	13.48	2.702	86.505	69.604
06/28/2011 11:09:03	5.324	13.425	2.717	86.702	69.604
06/28/2011 11:09:13	5.361	13.418	2.695	86.702	69.604
06/28/2011 11:09:23	5.383	13.385	2.673	86.702	69.204
06/28/2011 11:09:33	5.387	13.432	2.655	86.505	69.204
06/28/2011 11:09:43	5.346	13.469	2.662	86.303	69.204
06/28/2011 11:09:53	5.339	13.451	2.684	86.303	69.402
06/28/2011 11:10:03	5.376	13.436	2.665	86.702	69.604
06/28/2011 11:10:13	5.387	13.414	2.665	86.505	69.801
06/28/2011 11:10:23	5.387	13.41	2.644	86.303	69.801
06/28/2011 11:10:33	5.379	13.407	2.665	86.303	69.801
06/28/2011 11:10:43	5.419	13.363	2.64	86.505	69.604
06/28/2011 11:10:53	5.463	13.323	2.647	86.904	69.402
06/28/2011 11:11:03	5.478	13.323	2.687	86.904	69.604
06/28/2011 11:11:13	5.489	13.301	2.695	86.702	69.604
06/28/2011 11:11:23	5.485	13.304	2.651	86.904	69.801
06/28/2011 11:11:33	5.474	13.297	2.644	87.003	69.801
06/28/2011 11:11:43	5.482	13.308	2.644	86.904	69.402
06/28/2011 11:11:53	5.482	13.304	2.644	86.702	69.003
06/28/2011 11:12:03	5.511	13.29	2.658	86.505	69.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 11:12:13	5.493	13.323	2.644	86.102	69.604
06/28/2011 11:12:23	5.5	13.301	2.636	86.303	69.604
06/28/2011 11:12:33	5.471	13.363	2.647	86.303	69.204
06/28/2011 11:12:43	5.467	13.326	2.64	86.505	69.204
06/28/2011 11:12:53	5.489	13.341	2.64	86.303	69.204
06/28/2011 11:13:03	5.467	13.366	2.629	86.505	69.204
06/28/2011 11:13:13	5.416	13.41	2.644	86.303	69.204
06/28/2011 11:13:23	5.412	13.366	2.644	86.505	69.204
06/28/2011 11:13:33	5.46	13.308	2.64	86.303	69.801
06/28/2011 11:13:43	5.54	13.249	2.64	86.303	69.604
06/28/2011 11:13:53	5.562	13.242	2.629	86.102	69.003
06/28/2011 11:14:03	5.551	13.323	2.611	86.303	69.402
06/28/2011 11:14:13	5.482	13.363	2.592	86.505	69.801
06/28/2011 11:14:23	5.482	13.326	2.607	86.702	69.801
06/28/2011 11:14:33	5.511	13.282	2.618	86.702	69.204
06/28/2011 11:14:43	5.54	13.257	2.618	86.702	69.003
06/28/2011 11:14:53	5.54	13.286	2.596	86.904	69.402
06/28/2011 11:15:03	5.529	13.257	2.592	86.904	69.801
06/28/2011 11:15:13	5.588	13.198	2.596	86.904	69.604
06/28/2011 11:15:23	5.621	13.18	2.607	86.904	69.003
06/28/2011 11:15:33	5.658	13.125	2.618	87.003	69.204
06/28/2011 11:15:43	5.701	13.121	2.618	87.204	69.801
06/28/2011 11:15:53	5.687	13.15	2.592	87.204	69.604
06/28/2011 11:16:03	5.654	13.18	2.618	87.402	69.204
06/28/2011 11:16:13	5.617	13.202	2.618	87.402	69.003
06/28/2011 11:16:23	5.588	13.194	2.592	87.402	69.402
06/28/2011 11:16:33	5.603	13.205	2.592	87.402	69.604
06/28/2011 11:16:43	5.628	13.18	2.57	87.003	69.801
06/28/2011 11:16:53	5.658	13.158	2.589	86.904	69.801
06/28/2011 11:17:03	5.654	13.18	2.592	86.904	69.801
06/28/2011 11:17:13	5.639	13.176	2.592	87.003	69.801
06/28/2011 11:17:23	5.65	13.191	2.592	87.204	69.604
06/28/2011 11:17:33	5.676	13.147	2.592	87.204	69.801
06/28/2011 11:17:43	5.727	13.095	2.592	86.904	69.801
06/28/2011 11:17:53	5.778	13.03	2.592	86.904	69.604
06/28/2011 11:18:03	5.8	13.044	2.596	86.702	69.801
06/28/2011 11:18:13	5.782	13.03	2.6	86.904	69.604
06/28/2011 11:18:23	5.786	13.015	2.592	86.904	69.204
06/28/2011 11:18:33	5.786	13.026	2.563	86.904	69.402
06/28/2011 11:18:43	5.786	13.048	2.57	86.904	69.904
06/28/2011 11:18:53	5.764	13.07	2.607	87.003	69.604
06/28/2011 11:19:03	5.738	13.088	2.611	87.003	69.204
06/28/2011 11:19:13	5.731	13.077	2.618	87.003	69.402
06/28/2011 11:19:23	5.756	13.041	2.592	86.904	69.801
06/28/2011 11:19:33	5.786	12.986	2.592	87.204	69.402
06/28/2011 11:19:43	5.841	12.993	2.592	87.204	69.204
06/28/2011 11:19:53	5.822	13.019	2.567	87.204	69.402
06/28/2011 11:20:03	5.811	13.037	2.567	87.204	69.801
06/28/2011 11:20:13	5.815	12.989	2.585	87.204	69.204
06/28/2011 11:20:23	5.826	12.989	2.596	87.204	69.604
06/28/2011 11:20:33	5.896	12.868	2.581	87.402	69.604
06/28/2011 11:20:43	5.965	12.894	2.556	87.402	69.204
06/28/2011 11:20:53	5.896	12.956	2.567	87.204	69.801
06/28/2011 11:21:03	5.83	13.004	2.541	87.003	69.003
Pause Run 9					
THC Drift Check					
06/28/2011 11:21:13	5.793	13.041	9.829	86.904	69.801
06/28/2011 11:21:23	5.665	2.233	0.384	86.904	69.604
06/28/2011 11:21:33	1.746	0.395	0.124	86.904	69.402
06/28/2011 11:21:43	0.113	0.358	0.124	86.702	69.604
06/28/2011 11:21:53	0.065	0.292	0.098	86.904	70.303
06/28/2011 11:22:03	0.036	0.237	0.095	86.702	70.303
06/28/2011 11:22:13	0.025	0.223	0.087	86.702	70.303
N2 Zero			**0.093**	**86.769**	**70.303**
06/28/2011 11:22:23	0.021	0.212	3.215	87.003	69.801
06/28/2011 11:22:33	3.2	0.937	47.799	87.003	69.604
06/28/2011 11:22:43	16.011	0.197	50.051	86.904	69.604
06/28/2011 11:22:53	20.431	0.186	50.183	87.003	69.801
06/28/2011 11:23:03	20.607	0.183	50.23	87.003	69.904
06/28/2011 11:23:13	20.643	0.175	50.238	87.003	70.102
06/28/2011 11:23:23	20.662	0.172	50.249	87.402	70.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
49.8 ppm Propane Mid			**50.239**	**87.136**	**70.103**
06/28/2011 11:23:33	20.673	0.172	24.163	87.204	69.801
06/28/2011 11:23:43	15.926	11.576	2.922	87.402	69.801
06/28/2011 11:23:53	7.236	12.729	2.658	87.003	69.604
06/28/2011 11:24:03	6.013	12.792	2.633	86.904	69.604
Resume Run 9					
06/28/2011 11:24:13	5.954	12.846	2.633	87.204	69.003
06/28/2011 11:24:23	5.914	12.861	2.618	87.204	69.003
06/28/2011 11:24:33	5.888	12.927	2.644	87.204	68.904
06/28/2011 11:24:43	5.848	12.949	2.633	87.402	69.003
06/28/2011 11:24:53	5.855	12.927	2.596	87.402	69.402
06/28/2011 11:25:03	5.888	12.901	2.614	87.402	69.604
06/28/2011 11:25:13	5.877	12.931	2.614	87.402	69.604
06/28/2011 11:25:23	5.885	12.92	2.596	87.003	69.801
06/28/2011 11:25:33	5.903	12.894	2.6	86.904	69.801
06/28/2011 11:25:43	5.888	12.912	2.614	87.003	69.604
06/28/2011 11:25:53	5.859	12.923	2.611	87.003	69.003
06/28/2011 11:26:03	5.841	12.949	2.6	87.402	69.003
06/28/2011 11:26:13	5.83	12.923	2.618	87.003	69.402
06/28/2011 11:26:23	5.844	12.912	2.618	86.505	69.801
06/28/2011 11:26:33	5.83	12.964	2.633	86.702	69.604
06/28/2011 11:26:43	5.815	12.96	2.618	86.904	69.402
06/28/2011 11:26:53	5.793	13.008	2.614	86.904	69.204
06/28/2011 11:27:03	5.804	12.945	2.644	86.702	69.402
06/28/2011 11:27:13	5.852	12.912	2.644	86.904	69.801
06/28/2011 11:27:23	5.852	12.975	2.618	86.702	69.402
06/28/2011 11:27:33	5.833	12.978	2.618	87.003	69.003
06/28/2011 11:27:43	5.885	12.883	2.618	86.904	69.003
06/28/2011 11:27:53	5.914	12.876	2.618	86.904	69.604
06/28/2011 11:28:03	5.929	12.883	2.625	86.505	69.801
06/28/2011 11:28:13	5.932	12.879	2.622	86.702	69.801
06/28/2011 11:28:23	5.94	12.868	2.644	86.702	69.402
06/28/2011 11:28:33	5.943	12.854	2.636	86.904	69.003
06/28/2011 11:28:43	5.914	12.916	2.644	87.003	69.003
06/28/2011 11:28:53	5.91	12.879	2.622	86.904	69.003
06/28/2011 11:29:03	5.943	12.814	2.644	86.702	69.204
06/28/2011 11:29:13	5.95	12.846	2.618	86.505	69.402
06/28/2011 11:29:23	5.921	12.901	2.592	86.904	69.801
06/28/2011 11:29:33	5.888	12.942	2.618	86.904	69.801
06/28/2011 11:29:43	5.859	12.92	2.629	87.003	69.402
06/28/2011 11:29:53	5.881	12.898	2.644	87.402	69.204
06/28/2011 11:30:03	5.932	12.854	2.622	86.904	69.801
06/28/2011 11:30:13	5.954	12.835	2.618	87.003	69.402
06/28/2011 11:30:23	5.943	12.861	2.618	86.702	69.801
06/28/2011 11:30:33	5.921	12.872	2.618	86.904	69.204
06/28/2011 11:30:43	5.943	12.872	2.618	86.505	69.904
06/28/2011 11:30:53	5.95	12.854	2.596	86.904	69.003
06/28/2011 11:31:03	5.921	12.909	2.563	86.904	69.801
06/28/2011 11:31:13	5.903	12.89	2.592	86.702	69.003
06/28/2011 11:31:23	5.943	12.821	2.592	86.303	69.604
06/28/2011 11:31:33	5.954	12.868	2.603	86.303	69.801
06/28/2011 11:31:43	5.947	12.846	2.574	86.505	69.003
06/28/2011 11:31:53	5.983	12.781	2.592	86.505	69.801
06/28/2011 11:32:03	5.991	12.835	2.592	86.702	69.003
06/28/2011 11:32:13	5.943	12.865	2.574	86.702	69.904
06/28/2011 11:32:23	5.91	12.898	2.592	87.204	69.604
06/28/2011 11:32:33	5.91	12.868	2.611	87.204	69.003
06/28/2011 11:32:43	5.936	12.854	2.614	87.003	69.904
06/28/2011 11:32:53	5.932	12.85	2.618	87.003	69.801
06/28/2011 11:33:03	5.954	12.854	2.618	87.003	69.402
06/28/2011 11:33:13	5.932	12.89	2.618	87.603	69.003
06/28/2011 11:33:23	5.91	12.912	2.592	87.204	69.003
06/28/2011 11:33:33	5.921	12.835	2.618	87.204	69.003
06/28/2011 11:33:43	5.961	12.817	2.607	87.204	69.003
06/28/2011 11:33:53	5.972	12.839	2.618	87.204	69.604
06/28/2011 11:34:03	5.965	12.843	2.592	87.204	69.904
06/28/2011 11:34:13	5.929	12.901	2.592	87.003	69.904
06/28/2011 11:34:23	5.899	12.887	2.614	87.204	69.801
06/28/2011 11:34:33	5.94	12.806	2.603	87.402	69.801
06/28/2011 11:34:43	6.002	12.766	2.625	87.603	69.402
06/28/2011 11:34:53	5.976	12.839	2.644	87.204	69.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 11:35:03	5.94	12.821	2.644	87.204	69.003
06/28/2011 11:35:13	5.914	12.912	2.618	86.904	69.204
06/28/2011 11:35:23	5.844	12.986	2.629	86.904	69.801
06/28/2011 11:35:33	5.811	12.982	2.644	87.003	69.904
06/28/2011 11:35:43	5.83	12.971	2.64	87.003	69.801
06/28/2011 11:35:53	5.804	13.015	2.644	86.702	69.801
06/28/2011 11:36:03	5.815	12.953	2.644	86.702	69.904
06/28/2011 11:36:13	5.819	12.967	2.644	86.505	69.204
06/28/2011 11:36:23	5.804	12.982	2.644	86.702	69.204
06/28/2011 11:36:33	5.786	13.004	2.644	86.904	69.904
06/28/2011 11:36:43	5.764	13.011	2.644	86.702	69.904
06/28/2011 11:36:53	5.756	13.019	2.673	86.904	69.204
06/28/2011 11:37:03	5.72	13.059	2.673	86.702	69.402
06/28/2011 11:37:13	5.698	13.033	2.684	86.505	70.102
06/28/2011 11:37:23	5.72	13	2.702	86.505	69.801
06/28/2011 11:37:33	5.672	13.106	2.687	87.003	69.204
06/28/2011 11:37:43	5.588	13.128	2.698	87.003	69.402
06/28/2011 11:37:53	5.5	13.202	2.698	86.904	70.102
06/28/2011 11:38:03	5.456	13.202	2.717	86.904	69.904
06/28/2011 11:38:13	5.46	13.22	2.706	87.003	69.904
06/28/2011 11:38:23	5.398	13.297	2.709	87.204	69.904
06/28/2011 11:38:33	5.302	13.374	2.695	87.204	69.904
06/28/2011 11:38:43	5.244	13.399	2.695	87.204	69.904
06/28/2011 11:38:53	5.222	13.425	2.728	87.003	70.102
06/28/2011 11:39:03	5.159	13.454	2.75	87.204	70.102
06/28/2011 11:39:13	5.134	13.443	2.746	87.003	69.801
06/28/2011 11:39:23	5.152	13.44	2.746	87.204	69.204
06/28/2011 11:39:33	5.13	13.498	2.746	87.204	69.801
06/28/2011 11:39:43	5.105	13.476	2.735	87.204	69.904
06/28/2011 11:39:53	5.101	13.48	2.706	87.204	69.204
06/28/2011 11:40:03	5.09	13.495	2.687	86.904	69.604
06/28/2011 11:40:13	5.064	13.564	2.724	87.003	69.904
06/28/2011 11:40:23	5.002	13.59	2.709	86.904	69.204
06/28/2011 11:40:33	4.976	13.608	2.698	86.904	69.402
06/28/2011 11:40:43	4.995	13.605	2.816	86.702	69.801
06/28/2011 11:40:53	5.024	13.542	2.962	86.904	69.402
06/28/2011 11:41:03	5.042	13.535	2.907	86.904	69.204
06/28/2011 11:41:13	5.009	13.597	2.885	87.003	69.204
06/28/2011 11:41:23	4.976	13.594	2.856	87.003	69.402
06/28/2011 11:41:33	5.009	13.539	2.885	86.505	69.801
06/28/2011 11:41:43	5.009	13.623	2.856	86.102	69.204
06/28/2011 11:41:53	4.951	13.67	2.83	86.303	69.003
06/28/2011 11:42:03	4.866	13.744	2.83	86.702	69.204
06/28/2011 11:42:13	4.83	13.766	2.83	86.904	69.402
06/28/2011 11:42:23	4.812	13.758	2.827	86.702	69.604
06/28/2011 11:42:33	4.834	13.736	2.827	86.702	69.801
06/28/2011 11:42:43	4.845	13.725	2.823	86.505	70.102
06/28/2011 11:42:53	4.848	13.773	2.805	86.702	69.904
06/28/2011 11:43:03	4.793	13.832	2.805	86.702	69.904
06/28/2011 11:43:13	4.716	13.857	2.79	86.702	69.402
06/28/2011 11:43:23	4.698	13.883	2.805	86.702	69.003
06/28/2011 11:43:33	4.709	13.846	2.786	86.904	69.204
06/28/2011 11:43:43	4.731	13.828	2.805	86.904	69.402
06/28/2011 11:43:53	4.735	13.835	2.808	86.904	69.801
06/28/2011 11:44:03	4.749	13.832	2.819	86.702	69.801
06/28/2011 11:44:13	4.742	13.828	2.805	86.904	69.904
06/28/2011 11:44:23	4.724	13.865	2.805	87.204	69.604
06/28/2011 11:44:33	4.731	13.879	2.768	86.904	69.402
06/28/2011 11:44:43	4.698	13.919	2.797	86.505	69.402
06/28/2011 11:44:53	4.661	13.938	2.801	86.702	69.204
06/28/2011 11:45:03	4.621	13.974	2.805	86.904	69.204
06/28/2011 11:45:13	4.617	13.949	2.805	86.904	69.204
06/28/2011 11:45:23	4.625	13.971	2.805	86.904	69.204
06/28/2011 11:45:33	4.643	13.934	2.797	86.904	69.204
06/28/2011 11:45:43	4.639	13.96	2.801	86.904	69.402
06/28/2011 11:45:53	4.603	14.007	2.805	86.904	69.204
06/28/2011 11:46:03	4.566	14.011	2.812	86.904	69.204
06/28/2011 11:46:13	4.537	14.066	2.83	86.904	69.204
06/28/2011 11:46:23	4.508	14.073	2.805	86.904	69.402
06/28/2011 11:46:33	4.537	14.026	2.797	86.904	69.402
06/28/2011 11:46:43	4.581	13.985	2.779	86.904	69.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 11:46:53	4.584	14.044	2.805	86.702	69.604
06/28/2011 11:47:03	4.541	14.066	2.79	86.505	69.604
06/28/2011 11:47:13	4.533	14.051	2.783	86.702	69.904
06/28/2011 11:47:23	4.541	14.033	2.797	86.904	69.904
06/28/2011 11:47:33	4.574	14.026	2.779	86.904	69.402
06/28/2011 11:47:43	4.555	14.099	2.786	86.904	69.204
06/28/2011 11:47:53	4.471	14.169	2.794	86.904	69.801
06/28/2011 11:48:03	4.398	14.22	2.779	86.904	69.604
06/28/2011 11:48:13	4.368	14.201	2.801	86.904	69.204
06/28/2011 11:48:23	4.372	14.198	2.83	86.505	69.604
06/28/2011 11:48:33	4.372	14.172	2.805	86.702	69.801
06/28/2011 11:48:43	4.376	14.19	2.805	86.702	69.402
06/28/2011 11:48:53	4.357	14.234	2.83	86.904	69.204
06/28/2011 11:49:03	4.317	14.245	2.83	86.904	69.204
06/28/2011 11:49:13	4.313	14.26	2.83	87.003	69.204
06/28/2011 11:49:23	4.346	14.212	2.805	87.003	69.204
06/28/2011 11:49:33	4.346	14.267	2.801	86.904	69.204
06/28/2011 11:49:43	4.317	14.253	2.805	86.904	69.801
06/28/2011 11:49:53	4.313	14.267	2.823	86.303	69.904
06/28/2011 11:50:03	4.317	14.238	2.805	86.505	69.204
06/28/2011 11:50:13	4.35	14.212	2.83	86.303	69.801
06/28/2011 11:50:23	4.368	14.231	2.805	86.505	69.204
06/28/2011 11:50:33	4.357	14.245	2.805	86.505	69.604
06/28/2011 11:50:43	4.387	14.201	2.823	86.702	69.604
06/28/2011 11:50:53	4.423	14.19	2.83	86.904	69.204
06/28/2011 11:51:03	4.42	14.245	2.827	86.505	69.801
06/28/2011 11:51:13	4.387	14.26	2.797	86.702	69.801
06/28/2011 11:51:23	4.398	14.256	2.79	86.702	69.402
06/28/2011 11:51:33	4.427	14.194	2.75	86.702	69.402
06/28/2011 11:51:43	4.445	14.26	2.746	86.505	69.204
06/28/2011 11:51:53	4.394	14.267	2.746	86.702	69.204
06/28/2011 11:52:03	4.357	14.286	2.746	86.505	69.204
06/28/2011 11:52:13	4.379	14.249	2.779	86.904	69.402
06/28/2011 11:52:23	4.398	14.227	2.79	86.904	69.801
06/28/2011 11:52:33	4.376	14.293	2.779	86.702	69.801
06/28/2011 11:52:43	4.35	14.311	2.779	86.505	69.801
06/28/2011 11:52:53	4.332	14.297	2.779	86.904	69.604
06/28/2011 11:53:03	4.361	14.293	2.779	86.904	69.204
06/28/2011 11:53:13	4.376	14.278	2.783	86.904	69.204
06/28/2011 11:53:23	4.383	14.293	2.779	87.003	69.204
06/28/2011 11:53:33	4.376	14.286	2.805	86.904	69.604
06/28/2011 11:53:43	4.401	14.256	2.805	86.904	69.204
06/28/2011 11:53:53	4.409	14.282	2.79	86.904	69.204
06/28/2011 11:54:03	4.416	14.242	2.805	86.904	69.402
06/28/2011 11:54:13	4.46	14.209	2.805	86.904	69.204
06/28/2011 11:54:23	4.464	14.227	2.823	86.904	69.204
06/28/2011 11:54:33	4.478	14.187	2.805	86.904	69.204
06/28/2011 11:54:43	4.541	14.132	2.779	86.904	69.204
06/28/2011 11:54:53	4.581	14.114	2.779	86.505	69.204
06/28/2011 11:55:03	4.541	14.187	2.794	86.904	69.204
06/28/2011 11:55:13	4.46	14.256	2.779	86.702	69.204
06/28/2011 11:55:23	4.445	14.231	2.79	86.702	69.204
06/28/2011 11:55:33	4.449	14.249	2.779	86.904	69.204
06/28/2011 11:55:43	4.423	14.267	2.779	86.904	69.604
06/28/2011 11:55:53	4.427	14.245	2.79	86.702	69.801
06/28/2011 11:56:03	4.409	14.286	2.775	86.904	69.801
06/28/2011 11:56:13	4.401	14.275	2.746	86.904	69.801
06/28/2011 11:56:23	4.412	14.242	2.746	86.702	69.402
06/28/2011 11:56:33	4.434	14.212	2.746	86.702	69.204
06/28/2011 11:56:43	4.445	14.231	2.746	86.505	69.801
06/28/2011 11:56:53	4.453	14.212	2.746	86.303	69.604
06/28/2011 11:57:03	4.471	14.201	2.746	86.702	69.204
06/28/2011 11:57:13	4.471	14.209	2.764	86.505	69.801
06/28/2011 11:57:23	4.482	14.183	2.779	86.904	69.204
06/28/2011 11:57:33	4.519	14.18	2.753	86.904	69.801
06/28/2011 11:57:43	4.533	14.154	2.779	86.702	69.204
06/28/2011 11:57:53	4.548	14.15	2.746	86.505	69.402
06/28/2011 11:58:03	4.552	14.183	2.746	86.904	69.604
Pause Run 9					
GC Recovery Check					
06/28/2011 11:58:13	4.548	14.154	3.193	86.904	69.204

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 11:58:23	5.068	12.022	101.615	86.303	69.904
06/28/2011 11:58:33	4.068	3.167	101.619	86.505	69.604
06/28/2011 11:58:43	0.992	1.45	101.619	86.702	69.604
06/28/2011 11:58:53	0.219	0.314	101.619	86.505	70.102
06/28/2011 11:59:03	0.04	0.267	101.619	86.702	70.102
06/28/2011 11:59:13	0.025	0.241	101.619	86.505	69.801
06/28/2011 11:59:23	0.021	0.226	101.622	86.702	69.402
06/28/2011 11:59:33	0.018	0.212	101.619	86.904	69.604
06/28/2011 11:59:43	0.014	0.204	101.619	86.702	70.102
06/28/2011 11:59:53	0.01	0.197	101.619	86.505	69.604
06/28/2011 12:00:03	0.01	0.19	101.619	86.904	69.402
06/28/2011 12:00:13	0.01	0.186	96.287	86.904	69.904
06/28/2011 12:00:23	1.534	12.392	8.247	86.505	69.402
06/28/2011 12:00:33	4.156	13.974	5.017	86.702	69.204
06/28/2011 12:00:43	4.467	14.099	4.145	86.904	69.801
06/28/2011 12:00:53	4.475	14.081	3.709	86.904	69.204
Resume Run 9					
06/28/2011 12:01:03	4.522	14.059	3.449	86.702	69.204
06/28/2011 12:01:13	4.552	14.077	3.306	86.904	69.604
06/28/2011 12:01:23	4.555	14.073	3.207	86.904	69.003
06/28/2011 12:01:33	4.563	14.059	3.087	86.904	69.204
06/28/2011 12:01:43	4.57	14.062	3.002	87.003	69.801
06/28/2011 12:01:53	4.595	14.062	2.958	87.204	69.604
06/28/2011 12:02:03	4.628	14.004	2.94	87.003	69.402
06/28/2011 12:02:13	4.68	13.978	2.907	87.402	69.402
06/28/2011 12:02:23	4.731	13.945	2.929	86.904	69.204
06/28/2011 12:02:33	4.764	13.927	2.907	87.003	69.204
06/28/2011 12:02:43	4.779	13.923	2.867	87.204	69.204
06/28/2011 12:02:53	4.775	13.912	2.856	86.904	69.402
06/28/2011 12:03:03	4.804	13.905	2.856	86.904	69.402
06/28/2011 12:03:13	4.812	13.898	2.805	87.003	69.402
06/28/2011 12:03:23	4.753	14.004	2.779	87.003	68.904
06/28/2011 12:03:33	4.643	14.062	2.779	86.904	68.703
06/28/2011 12:03:43	4.625	14.048	2.779	86.904	69.604
06/28/2011 12:03:53	4.636	14.044	2.779	86.904	69.204
06/28/2011 12:04:03	4.665	13.993	2.779	86.904	68.904
06/28/2011 12:04:13	4.705	13.945	2.75	86.702	69.204
06/28/2011 12:04:23	4.76	13.916	2.695	86.702	69.604
06/28/2011 12:04:33	4.815	13.865	2.695	86.702	69.604
06/28/2011 12:04:43	4.848	13.846	2.691	86.904	69.003
06/28/2011 12:04:53	4.877	13.846	2.665	86.702	69.003
06/28/2011 12:05:03	4.874	13.846	2.665	86.303	69.604
06/28/2011 12:05:13	4.874	13.791	2.647	86.505	69.604
06/28/2011 12:05:23	4.921	13.777	2.618	86.702	69.402
06/28/2011 12:05:33	4.921	13.81	2.618	86.702	69.003
06/28/2011 12:05:43	4.896	13.806	2.603	86.505	69.604
06/28/2011 12:05:53	4.907	13.784	2.596	86.505	69.604
Pause Run 9					
GC Recovery Check					
06/28/2011 12:06:03	4.914	13.788	72.647	86.904	69.204
06/28/2011 12:06:13	3.764	3.156	101.619	86.904	69.604
06/28/2011 12:06:23	0.739	0.377	101.619	86.702	70.102
06/28/2011 12:06:33	0.051	0.292	101.615	86.303	69.904
06/28/2011 12:06:43	0.025	0.252	101.615	86.505	69.604
06/28/2011 12:06:53	0.018	0.226	101.619	86.505	69.604
06/28/2011 12:07:03	0.014	0.212	101.619	86.702	70.102
06/28/2011 12:07:13	0.01	0.201	101.622	86.303	69.801
06/28/2011 12:07:23	0.01	0.19	101.619	86.303	69.402
06/28/2011 12:07:33	0.007	0.183	101.619	86.904	69.604
06/28/2011 12:07:43	0.007	0.186	90.284	86.505	69.402
06/28/2011 12:07:53	1.992	12.444	7.888	86.702	69.604
06/28/2011 12:08:03	4.866	13.323	5.017	86.904	69.402
06/28/2011 12:08:13	5.167	13.462	4.002	86.702	69.402
06/28/2011 12:08:23	5.152	13.509	3.537	86.505	69.003
Resume Run 9					
06/28/2011 12:08:33	5.134	13.502	3.332	86.505	69.204
06/28/2011 12:08:43	5.119	13.583	3.292	86.702	69.801
06/28/2011 12:08:53	5.101	13.528	3.134	86.702	69.204
06/28/2011 12:09:03	5.152	13.506	3.032	86.702	69.801
06/28/2011 12:09:13	5.163	13.498	2.951	86.904	69.204
06/28/2011 12:09:23	5.13	13.572	2.856	86.904	69.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 12:09:33	5.086	13.583	2.797	86.904	69.604
06/28/2011 12:09:43	5.094	13.575	2.746	87.003	69.204
06/28/2011 12:09:53	5.116	13.546	2.728	86.904	69.801
06/28/2011 12:10:03	5.167	13.48	2.695	87.204	69.003
06/28/2011 12:10:13	5.225	13.469	2.644	87.003	69.604
06/28/2011 12:10:23	5.247	13.451	2.673	87.003	69.204
06/28/2011 12:10:33	5.302	13.407	2.691	86.904	69.402
06/28/2011 12:10:43	5.317	13.432	2.698	87.003	69.204
06/28/2011 12:10:53	5.295	13.436	2.651	87.204	69.604
06/28/2011 12:11:03	5.324	13.37	2.644	86.904	68.904
06/28/2011 12:11:13	5.39	13.293	2.644	87.204	69.604
06/28/2011 12:11:23	5.416	13.359	2.644	86.904	69.604
06/28/2011 12:11:33	5.368	13.356	2.611	86.702	69.604
06/28/2011 12:11:43	5.335	13.41	2.581	86.904	69.604
06/28/2011 12:11:53	5.28	13.425	2.548	86.904	69.604
06/28/2011 12:12:03	5.299	13.359	2.541	86.904	69.604
06/28/2011 12:12:13	5.35	13.304	2.541	86.904	69.003
06/28/2011 12:12:23	5.387	13.33	2.515	87.003	69.003
06/28/2011 12:12:33	5.346	13.37	2.515	86.904	69.604
06/28/2011 12:12:43	5.357	13.308	2.49	86.904	69.604
06/28/2011 12:12:53	5.449	13.213	2.46	86.904	69.204
06/28/2011 12:13:03	5.511	13.224	2.453	86.904	69.003
06/28/2011 12:13:13	5.526	13.22	2.446	86.904	69.604
06/28/2011 12:13:23	5.54	13.15	2.431	86.904	69.604
06/28/2011 12:13:33	5.595	13.143	2.409	86.904	69.204
06/28/2011 12:13:43	5.599	13.187	2.435	86.904	69.003
06/28/2011 12:13:53	5.592	13.169	2.435	86.904	69.204
Pause Run 9					
GC Recovery Check					
06/28/2011 12:14:03	5.617	13.128	11.957	86.904	69.801
06/28/2011 12:14:13	5.258	9.51	101.615	86.303	69.801
06/28/2011 12:14:23	1.94	0.439	101.615	86.505	69.604
06/28/2011 12:14:33	0.102	0.303	101.619	86.702	69.801
06/28/2011 12:14:43	0.029	0.256	101.619	86.702	70.303
06/28/2011 12:14:53	0.021	0.226	101.615	86.702	70.303
06/28/2011 12:15:03	0.018	0.208	101.619	86.702	70.303
06/28/2011 12:15:13	0.01	0.197	101.615	86.702	69.801
06/28/2011 12:15:23	0.01	0.19	101.619	86.505	69.801
06/28/2011 12:15:33	0.036	0.307	69.307	86.303	70.102
06/28/2011 12:15:43	2.783	12.4	6.584	86.702	69.904
06/28/2011 12:15:53	5.65	12.755	4.357	87.204	69.204
06/28/2011 12:16:03	5.833	12.843	3.57	87.204	69.801
06/28/2011 12:16:13	5.844	12.861	3.262	87.003	69.801
Resume Run 9					
06/28/2011 12:16:23	5.877	12.814	3.065	87.402	69.204
06/28/2011 12:16:33	5.925	12.788	2.969	87.003	69.604
06/28/2011 12:16:43	5.987	12.748	2.83	86.904	69.904
06/28/2011 12:16:53	6.024	12.718	2.757	86.702	69.604
06/28/2011 12:17:03	6.02	12.777	2.728	86.904	69.204
06/28/2011 12:17:13	6.016	12.759	2.651	86.904	69.402
06/28/2011 12:17:23	6.038	12.722	2.618	87.003	69.904
06/28/2011 12:17:33	6.09	12.7	2.614	87.003	69.604
06/28/2011 12:17:43	6.097	12.711	2.563	86.904	69.204
06/28/2011 12:17:53	6.093	12.715	2.552	87.003	69.204
06/28/2011 12:18:03	6.09	12.722	2.534	87.003	69.904
06/28/2011 12:18:13	6.068	12.751	2.515	87.204	69.904
06/28/2011 12:18:23	6.016	12.784	2.519	87.402	69.801
06/28/2011 12:18:33	5.991	12.792	2.508	87.204	69.801
06/28/2011 12:18:43	6.02	12.748	2.479	87.003	69.801
06/28/2011 12:18:53	6.064	12.737	2.457	87.204	69.904
06/28/2011 12:19:03	6.082	12.726	2.424	87.204	69.801
06/28/2011 12:19:13	6.097	12.678	2.409	87.204	69.204
06/28/2011 12:19:23	6.152	12.667	2.391	87.402	69.003
06/28/2011 12:19:33	6.156	12.678	2.409	87.003	69.801
06/28/2011 12:19:43	6.163	12.623	2.416	87.204	69.204
06/28/2011 12:19:53	6.189	12.638	2.409	87.003	69.604
06/28/2011 12:20:03	6.163	12.696	2.38	87.402	69.402
06/28/2011 12:20:13	6.156	12.649	2.38	87.003	69.801
06/28/2011 12:20:23	6.17	12.641	2.409	87.204	69.204
06/28/2011 12:20:33	6.189	12.63	2.435	87.204	69.604
06/28/2011 12:20:43	6.196	12.619	2.416	87.402	69.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 12:20:53	6.192	12.645	2.38	87.402	69.801
06/28/2011 12:21:03	6.192	12.652	2.383	87.603	69.003
06/28/2011 12:21:13	6.203	12.616	2.358	87.402	69.801
06/28/2011 12:21:23	6.254	12.59	2.358	87.204	69.003
06/28/2011 12:21:33	6.273	12.586	2.383	87.003	69.801
06/28/2011 12:21:43	6.273	12.586	2.38	87.204	69.003
06/28/2011 12:21:53	6.251	12.608	2.413	87.003	69.204
06/28/2011 12:22:03	6.247	12.601	2.413	87.204	69.801
06/28/2011 12:22:13	6.265	12.579	2.409	87.402	68.904
06/28/2011 12:22:23	6.291	12.564	2.383	87.402	69.604
06/28/2011 12:22:33	6.317	12.553	2.38	87.204	69.801
06/28/2011 12:22:43	6.309	12.561	2.38	87.204	68.904
06/28/2011 12:22:53	6.331	12.539	2.358	87.003	69.003
06/28/2011 12:23:03	6.368	12.524	2.362	86.904	69.003
06/28/2011 12:23:13	6.375	12.513	2.336	87.003	69.204
06/28/2011 12:23:23	6.416	12.447	2.31	87.204	69.402
06/28/2011 12:23:33	6.438	12.477	2.292	87.204	69.904
06/28/2011 12:23:43	6.434	12.469	2.292	87.402	69.904
06/28/2011 12:23:53	6.419	12.495	2.31	87.402	69.904
06/28/2011 12:24:03	6.408	12.488	2.31	87.204	69.604
06/28/2011 12:24:13	6.434	12.444	2.31	87.204	69.003
06/28/2011 12:24:23	6.441	12.484	2.336	87.204	69.204
06/28/2011 12:24:33	6.438	12.455	2.31	87.204	69.904
06/28/2011 12:24:43	6.46	12.425	2.292	87.204	69.904
06/28/2011 12:24:53	6.438	12.466	2.296	87.204	69.204
06/28/2011 12:25:03	6.43	12.473	2.31	87.003	69.204
06/28/2011 12:25:13	6.379	12.51	2.332	86.904	69.801
06/28/2011 12:25:23	6.372	12.48	2.34	87.204	69.904
06/28/2011 12:25:33	6.383	12.499	2.336	87.003	69.801
06/28/2011 12:25:43	6.331	12.586	2.358	87.402	69.204
06/28/2011 12:25:53	6.24	12.63	2.354	87.204	69.204
06/28/2011 12:26:03	6.2	12.641	2.358	87.402	69.801
Pause Run 9					
THC Drift Check					
06/28/2011 12:26:13	6.2	12.652	54.442	87.603	70.102
06/28/2011 12:26:23	4.464	1.915	2.219	87.603	69.604
06/28/2011 12:26:33	0.728	0.358	0.567	87.603	69.604
06/28/2011 12:26:43	0.058	0.281	0.454	87.603	69.801
06/28/2011 12:26:53	0.032	0.241	0.402	87.402	70.303
06/28/2011 12:27:03	0.025	0.219	0.355	87.003	69.904
06/28/2011 12:27:13	0.021	0.201	0.314	87.204	69.604
06/28/2011 12:27:23	0.018	0.19	0.281	87.204	69.904
N2 Zero			**0.317**	**87.137**	**69.804**
06/28/2011 12:27:33	0.113	0.6	31.985	87.204	70.303
06/28/2011 12:27:43	9.411	0.267	49.97	87.204	70.303
06/28/2011 12:27:53	19.728	0.175	50.278	87.402	69.801
06/28/2011 12:28:03	20.574	0.168	50.326	87.603	69.604
06/28/2011 12:28:13	20.632	0.164	50.348	87.402	69.604
06/28/2011 12:28:23	20.654	0.164	50.351	87.805	69.604
06/28/2011 12:28:33	20.669	0.161	50.37	87.402	69.904
06/28/2011 12:28:43	20.68	0.161	50.359	87.204	69.904
49.8 ppm Propane Mid			**50.360**	**87.470**	**69.804**
GC Recovery Check					
06/28/2011 12:28:53	20.684	0.161	85.955	86.702	70.102
06/28/2011 12:29:03	15.685	2.27	101.615	87.003	70.102
06/28/2011 12:29:13	3.625	2.215	101.615	86.702	70.102
06/28/2011 12:29:23	0.779	0.336	101.615	86.702	70.102
06/28/2011 12:29:33	0.157	0.172	101.615	86.904	69.801
06/28/2011 12:29:43	0.073	0.164	101.615	86.904	69.904
06/28/2011 12:29:53	0.054	0.157	101.615	86.904	69.801
06/28/2011 12:30:03	0.043	0.157	101.615	86.904	69.402
06/28/2011 12:30:13	0.036	0.153	101.615	87.003	69.204
06/28/2011 12:30:23	0.032	0.153	101.615	87.003	69.904
06/28/2011 12:30:33	0.029	0.15	101.615	87.402	69.904
06/28/2011 12:30:43	0.025	0.15	101.615	87.603	69.204
06/28/2011 12:30:53	0.021	0.15	101.619	87.402	69.904
06/28/2011 12:31:03	0.018	0.15	101.615	87.805	69.003
06/28/2011 12:31:13	0.644	4.244	21.387	87.204	69.402
06/28/2011 12:31:23	4.313	12.528	6.331	87.402	69.003
06/28/2011 12:31:33	5.998	12.59	4.669	87.805	68.703
06/28/2011 12:31:43	6.082	12.627	4.086	87.603	68.904

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 12:31:53	6.049	12.7	3.658	87.603	69.204
06/28/2011 12:32:03	5.998	12.751	3.424	87.805	69.204
06/28/2011 12:32:13	5.998	12.729	3.229	87.805	69.003
Resume Run 9					
06/28/2011 12:32:23	6.013	12.748	3.079	87.402	68.904
06/28/2011 12:32:33	6.009	12.729	2.995	87.402	68.904
06/28/2011 12:32:43	6.046	12.704	2.936	87.204	68.904
06/28/2011 12:32:53	6.046	12.737	2.889	87.003	68.904
06/28/2011 12:33:03	6.024	12.755	2.841	87.204	68.904
06/28/2011 12:33:13	6.009	12.744	2.72	87.204	69.003
06/28/2011 12:33:23	6.013	12.77	2.691	87.003	69.003
06/28/2011 12:33:33	6.013	12.788	2.673	87.003	69.402
06/28/2011 12:33:43	5.991	12.828	2.698	87.003	69.604
06/28/2011 12:33:53	5.95	12.821	2.691	87.003	69.604
06/28/2011 12:34:03	5.961	12.824	2.68	87.204	69.402
06/28/2011 12:34:13	5.936	12.857	2.68	86.904	69.402
06/28/2011 12:34:23	5.925	12.839	2.691	87.003	69.204
06/28/2011 12:34:33	5.943	12.865	2.662	87.003	69.003
06/28/2011 12:34:43	5.918	12.872	2.673	87.204	69.204
06/28/2011 12:34:53	5.892	12.876	2.644	87.603	69.204
06/28/2011 12:35:03	5.888	12.89	2.64	87.805	69.204
06/28/2011 12:35:13	5.899	12.868	2.636	87.805	69.204
06/28/2011 12:35:23	5.903	12.879	2.633	87.805	69.003
06/28/2011 12:35:33	5.903	12.883	2.618	87.603	69.003
06/28/2011 12:35:43	5.899	12.854	2.614	87.603	69.003
06/28/2011 12:35:53	5.954	12.803	2.592	87.805	69.003
06/28/2011 12:36:03	5.972	12.839	2.592	87.904	69.003
06/28/2011 12:36:13	5.936	12.868	2.592	87.904	69.003
06/28/2011 12:36:23	5.903	12.89	2.592	87.805	69.003
06/28/2011 12:36:33	5.881	12.905	2.563	87.805	69.801
06/28/2011 12:36:43	5.877	12.883	2.567	87.805	69.801
06/28/2011 12:36:53	5.896	12.901	2.585	87.402	69.604
06/28/2011 12:37:03	5.848	12.982	2.596	87.402	69.204
06/28/2011 12:37:13	5.804	12.971	2.618	87.402	68.904
06/28/2011 12:37:23	5.804	12.964	2.618	87.204	68.904
06/28/2011 12:37:33	5.771	13.048	2.581	87.402	68.904
06/28/2011 12:37:43	5.723	13.088	2.592	87.402	68.904
06/28/2011 12:37:53	5.723	13.037	2.592	87.402	69.003
06/28/2011 12:38:03	5.775	12.96	2.592	87.805	69.204
06/28/2011 12:38:13	5.822	12.964	2.592	87.805	69.801
06/28/2011 12:38:23	5.804	13.022	2.585	87.402	69.604
06/28/2011 12:38:33	5.782	13.004	2.592	87.402	69.604
06/28/2011 12:38:43	5.797	13.008	2.581	87.402	69.604
06/28/2011 12:38:53	5.764	13.03	2.592	87.603	69.604
06/28/2011 12:39:03	5.76	12.993	2.618	87.805	69.604
06/28/2011 12:39:13	5.789	12.997	2.581	87.603	69.402
06/28/2011 12:39:23	5.734	13.114	2.614	87.603	69.604
06/28/2011 12:39:33	5.639	13.187	2.618	87.204	69.402
06/28/2011 12:39:43	5.592	13.176	2.603	87.204	69.604
06/28/2011 12:39:53	5.595	13.183	2.592	86.904	69.801
06/28/2011 12:40:03	5.621	13.106	2.614	86.904	69.003
06/28/2011 12:40:13	5.687	13.066	2.585	87.402	69.003
06/28/2011 12:40:23	5.665	13.176	2.556	87.402	69.801
06/28/2011 12:40:33	5.606	13.191	2.567	87.805	69.003
06/28/2011 12:40:43	5.617	13.125	2.592	87.402	69.801
06/28/2011 12:40:53	5.654	13.161	2.596	87.603	69.402
06/28/2011 12:41:03	5.639	13.143	2.618	87.204	69.003
06/28/2011 12:41:13	5.669	13.121	2.633	87.402	69.801
06/28/2011 12:41:23	5.672	13.136	2.644	87.603	69.003
06/28/2011 12:41:33	5.639	13.187	2.644	87.402	69.003
06/28/2011 12:41:43	5.57	13.268	2.636	87.402	69.204
06/28/2011 12:41:53	5.529	13.26	2.644	87.204	69.204
06/28/2011 12:42:03	5.54	13.253	2.625	87.402	69.003
06/28/2011 12:42:13	5.555	13.209	2.64	87.603	69.003
06/28/2011 12:42:23	5.606	13.147	2.629	87.603	69.204
06/28/2011 12:42:33	5.643	13.165	2.644	87.402	69.904
06/28/2011 12:42:43	5.614	13.198	2.644	87.204	69.904
06/28/2011 12:42:53	5.603	13.169	2.644	86.904	69.904
06/28/2011 12:43:03	5.617	13.161	2.633	86.904	69.204
06/28/2011 12:43:13	5.61	13.209	2.644	87.003	69.904
06/28/2011 12:43:23	5.548	13.293	2.644	86.904	69.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 12:43:33	5.496	13.26	2.651	86.904	69.604
06/28/2011 12:43:43	5.581	13.169	2.651	87.003	69.003
06/28/2011 12:43:53	5.658	13.114	2.655	87.204	69.204
06/28/2011 12:44:03	5.701	13.139	2.618	87.204	69.402
06/28/2011 12:44:13	5.661	13.202	2.622	87.003	69.801
06/28/2011 12:44:23	5.603	13.205	2.673	86.904	69.904
06/28/2011 12:44:33	5.603	13.194	2.658	87.003	69.801
06/28/2011 12:44:43	5.61	13.22	2.614	87.003	69.904
06/28/2011 12:44:53	5.581	13.216	2.644	86.702	69.402
06/28/2011 12:45:03	5.573	13.227	2.596	87.003	69.204
06/28/2011 12:45:13	5.548	13.22	2.644	86.904	69.204
06/28/2011 12:45:23	5.533	13.279	2.622	87.204	69.204
06/28/2011 12:45:33	5.515	13.271	2.596	87.003	69.204
06/28/2011 12:45:43	5.474	13.374	2.607	87.402	69.204
06/28/2011 12:45:53	5.434	13.323	2.618	87.204	69.204
06/28/2011 12:46:03	5.441	13.352	2.658	87.402	69.003
06/28/2011 12:46:13	5.408	13.37	2.629	87.402	69.801
06/28/2011 12:46:23	5.449	13.315	2.629	87.204	69.904
06/28/2011 12:46:33	5.504	13.297	2.618	87.204	69.904
06/28/2011 12:46:43	5.507	13.282	2.644	86.904	69.402
06/28/2011 12:46:53	5.474	13.319	2.618	86.904	69.204
06/28/2011 12:47:03	5.456	13.323	2.636	86.904	69.604
06/28/2011 12:47:13	5.434	13.366	2.618	87.204	69.904
06/28/2011 12:47:23	5.419	13.399	2.687	87.204	70.102
06/28/2011 12:47:33	5.387	13.388	2.918	87.402	69.904
06/28/2011 12:47:43	5.405	13.352	2.856	87.204	69.204
06/28/2011 12:47:53	5.401	13.356	2.819	87.402	69.204
06/28/2011 12:48:03	5.405	13.363	2.779	87.204	69.204
06/28/2011 12:48:13	5.408	13.37	2.75	87.204	69.402
06/28/2011 12:48:23	5.412	13.345	2.731	86.904	69.801
06/28/2011 12:48:33	5.438	13.337	2.717	86.702	70.102
06/28/2011 12:48:43	5.456	13.334	2.739	86.904	70.102
06/28/2011 12:48:53	5.474	13.345	2.739	87.003	69.801
06/28/2011 12:49:03	5.441	13.363	2.735	87.402	69.402
06/28/2011 12:49:13	5.43	13.388	2.724	87.003	69.204
06/28/2011 12:49:23	5.398	13.432	2.735	87.204	69.204
06/28/2011 12:49:33	5.401	13.326	2.75	87.204	69.204
06/28/2011 12:49:43	5.434	13.374	2.746	86.904	69.604
06/28/2011 12:49:53	5.408	13.414	2.746	86.904	69.904
06/28/2011 12:50:03	5.387	13.41	2.742	86.904	69.904
06/28/2011 12:50:13	5.361	13.429	2.779	86.904	69.604
06/28/2011 12:50:23	5.35	13.41	2.768	87.003	69.402
06/28/2011 12:50:33	5.357	13.443	2.772	86.904	69.402
06/28/2011 12:50:43	5.313	13.473	2.779	87.003	69.402
06/28/2011 12:50:53	5.346	13.425	2.779	87.003	70.102
06/28/2011 12:51:03	5.398	13.377	2.739	86.702	70.102
06/28/2011 12:51:13	5.419	13.377	2.764	86.702	70.102
06/28/2011 12:51:23	5.398	13.418	2.746	86.505	69.904
06/28/2011 12:51:33	5.365	13.454	2.724	86.702	69.604
06/28/2011 12:51:43	5.317	13.502	2.702	86.702	69.402
06/28/2011 12:51:53	5.295	13.506	2.709	86.904	69.402
06/28/2011 12:52:03	5.244	13.579	2.742	87.003	69.402
06/28/2011 12:52:13	5.244	13.524	2.79	87.204	69.402
06/28/2011 12:52:23	5.299	13.432	2.764	87.402	69.801
06/28/2011 12:52:33	5.35	13.454	2.764	87.003	69.904
06/28/2011 12:52:43	5.335	13.465	2.779	86.904	70.102
06/28/2011 12:52:53	5.361	13.407	2.775	87.003	70.102
06/28/2011 12:53:03	5.346	13.513	2.746	87.402	69.402
06/28/2011 12:53:13	5.302	13.495	2.72	86.904	69.604
06/28/2011 12:53:23	5.277	13.557	2.72	86.904	70.102
06/28/2011 12:53:33	5.192	13.641	2.742	86.702	69.604
06/28/2011 12:53:43	5.141	13.648	2.728	86.702	69.904
06/28/2011 12:53:53	5.108	13.667	2.72	86.904	69.904
06/28/2011 12:54:03	5.13	13.601	2.731	87.003	69.604
06/28/2011 12:54:13	5.192	13.572	2.717	87.204	69.402
06/28/2011 12:54:23	5.214	13.568	2.731	87.402	70.303
06/28/2011 12:54:33	5.225	13.553	2.72	87.603	69.402
06/28/2011 12:54:43	5.2	13.612	2.724	87.603	69.604
06/28/2011 12:54:53	5.167	13.594	2.728	87.603	70.102
06/28/2011 12:55:03	5.178	13.608	2.698	87.603	70.102
06/28/2011 12:55:13	5.152	13.627	2.72	87.603	70.102

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 12:55:23	5.167	13.594	2.72	87.402	69.801
06/28/2011 12:55:33	5.211	13.572	2.702	87.603	69.204
06/28/2011 12:55:43	5.203	13.594	2.72	87.603	69.402
06/28/2011 12:55:53	5.207	13.594	2.72	87.805	69.604
06/28/2011 12:56:03	5.255	13.517	2.695	87.805	70.102
06/28/2011 12:56:13	5.335	13.458	2.684	87.805	69.801
06/28/2011 12:56:23	5.354	13.495	2.695	87.805	69.204
06/28/2011 12:56:33	5.295	13.564	2.72	87.904	69.402
06/28/2011 12:56:43	5.258	13.568	2.724	88.105	70.102
06/28/2011 12:56:53	5.233	13.572	2.709	88.303	70.102
06/28/2011 12:57:03	5.225	13.594	2.728	88.504	69.402
06/28/2011 12:57:13	5.196	13.608	2.72	88.504	69.801
06/28/2011 12:57:23	5.17	13.616	2.676	88.303	70.102
06/28/2011 12:57:33	5.159	13.627	2.687	88.303	69.604
06/28/2011 12:57:43	5.141	13.634	2.695	88.504	69.402
06/28/2011 12:57:53	5.123	13.648	2.706	88.504	70.102
06/28/2011 12:58:03	5.123	13.634	2.728	88.303	70.102
06/28/2011 12:58:13	5.137	13.627	2.717	88.303	69.402
06/28/2011 12:58:23	5.09	13.744	2.72	88.504	69.801
06/28/2011 12:58:33	5.039	13.725	2.728	88.303	70.303
06/28/2011 12:58:43	5.064	13.707	2.779	88.504	69.604
06/28/2011 12:58:53	5.079	13.714	2.757	88.504	69.402
06/28/2011 12:59:03	5.072	13.707	2.72	88.303	70.102
06/28/2011 12:59:13	5.09	13.678	2.724	88.105	69.904
06/28/2011 12:59:23	5.123	13.659	2.746	88.105	69.402
06/28/2011 12:59:33	5.112	13.689	2.746	88.303	69.801
06/28/2011 12:59:43	5.079	13.696	2.746	88.504	70.303
06/28/2011 12:59:53	5.101	13.616	2.768	88.303	69.801
06/28/2011 13:00:03	5.163	13.583	2.779	88.303	69.402
06/28/2011 13:00:13	5.141	13.678	2.794	88.504	69.402
06/28/2011 13:00:23	5.068	13.755	2.779	88.504	70.102
06/28/2011 13:00:33	5.042	13.729	2.772	88.504	70.303
06/28/2011 13:00:43	5.075	13.7	2.746	88.504	70.303
06/28/2011 13:00:53	5.068	13.747	2.775	88.303	70.303
06/28/2011 13:01:03	5.031	13.758	2.775	88.303	70.303
06/28/2011 13:01:13	5.068	13.7	2.746	88.504	70.102
06/28/2011 13:01:23	5.068	13.751	2.746	88.303	69.904
06/28/2011 13:01:33	5.039	13.744	2.764	88.303	69.801
06/28/2011 13:01:43	5.031	13.744	2.779	88.702	69.801
06/28/2011 13:01:53	5.083	13.663	2.797	88.303	70.303
06/28/2011 13:02:03	5.145	13.634	2.805	88.303	70.303
06/28/2011 13:02:13	5.192	13.575	2.805	88.105	69.604
06/28/2011 13:02:23	5.247	13.531	2.805	87.904	70.504
06/28/2011 13:02:33	5.236	13.63	2.779	87.904	69.801
06/28/2011 13:02:43	5.159	13.659	2.746	87.805	70.504
06/28/2011 13:02:53	5.141	13.67	2.779	87.805	69.604
06/28/2011 13:03:03	5.156	13.601	2.79	87.904	70.303
06/28/2011 13:03:13	5.214	13.542	2.779	87.904	70.102
06/28/2011 13:03:23	5.258	13.553	2.779	87.904	69.604
06/28/2011 13:03:33	5.244	13.568	2.772	87.904	70.504
06/28/2011 13:03:43	5.233	13.597	2.746	88.105	69.801
06/28/2011 13:03:53	5.225	13.59	2.728	87.805	70.504
06/28/2011 13:04:03	5.2	13.623	2.72	87.904	69.801
06/28/2011 13:04:13	5.222	13.55	2.746	87.805	70.504
06/28/2011 13:04:23	5.28	13.539	2.72	87.904	69.801
06/28/2011 13:04:33	5.273	13.513	2.742	87.904	70.504
06/28/2011 13:04:43	5.288	13.528	2.768	88.105	69.801
06/28/2011 13:04:53	5.284	13.498	2.746	88.303	70.504
06/28/2011 13:05:03	5.28	13.528	2.768	88.504	69.801
06/28/2011 13:05:13	5.258	13.52	2.753	88.702	70.102
06/28/2011 13:05:23	5.251	13.517	2.753	88.702	70.504
06/28/2011 13:05:33	5.277	13.487	2.753	88.702	69.801
06/28/2011 13:05:43	5.317	13.465	2.72	88.504	69.801
06/28/2011 13:05:53	5.28	13.586	2.72	88.504	69.801
06/28/2011 13:06:03	5.218	13.59	2.717	88.805	69.904
06/28/2011 13:06:13	5.203	13.608	2.72	88.702	70.303
06/28/2011 13:06:23	5.214	13.55	2.724	88.504	69.801
06/28/2011 13:06:33	5.247	13.542	2.746	88.702	69.604
06/28/2011 13:06:43	5.302	13.451	2.79	88.702	70.303
06/28/2011 13:06:53	5.379	13.399	2.746	88.805	69.801
06/28/2011 13:07:03	5.427	13.399	2.757	88.702	70.504

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 13:07:13	5.427	13.414	2.75	88.504	69.801
06/28/2011 13:07:23	5.383	13.476	2.746	88.504	70.504
06/28/2011 13:07:33	5.376	13.418	2.746	88.303	69.904
06/28/2011 13:07:43	5.401	13.436	2.779	88.504	69.801
06/28/2011 13:07:53	5.394	13.41	2.779	88.504	70.504
06/28/2011 13:08:03	5.423	13.385	2.79	88.702	69.801
06/28/2011 13:08:13	5.445	13.356	2.779	88.702	69.801
06/28/2011 13:08:23	5.452	13.37	2.746	88.303	70.504
06/28/2011 13:08:33	5.438	13.388	2.735	88.504	70.102
06/28/2011 13:08:43	5.423	13.381	2.746	88.504	69.801
06/28/2011 13:08:53	5.438	13.37	2.728	88.805	70.102
06/28/2011 13:09:03	5.412	13.432	2.72	88.805	70.504
06/28/2011 13:09:13	5.335	13.506	2.72	88.805	69.801
06/28/2011 13:09:23	5.306	13.473	2.717	88.805	69.801
06/28/2011 13:09:33	5.335	13.425	2.717	88.504	70.504
06/28/2011 13:09:43	5.379	13.403	2.695	88.504	69.801
06/28/2011 13:09:53	5.372	13.447	2.695	88.504	69.904
06/28/2011 13:10:03	5.346	13.462	2.695	88.303	70.504
06/28/2011 13:10:13	5.354	13.429	2.698	88.303	69.904
06/28/2011 13:10:23	5.416	13.345	2.695	88.303	70.303
06/28/2011 13:10:33	5.485	13.293	2.713	87.904	70.504
06/28/2011 13:10:43	5.485	13.312	2.72	88.303	69.904
06/28/2011 13:10:53	5.434	13.377	2.72	88.504	70.102
06/28/2011 13:11:03	5.383	13.421	2.72	88.105	70.504
06/28/2011 13:11:13	5.357	13.454	2.695	87.805	70.504
06/28/2011 13:11:23	5.346	13.407	2.695	87.805	69.904
06/28/2011 13:11:33	5.401	13.385	2.691	87.805	70.102
06/28/2011 13:11:43	5.405	13.44	2.72	87.805	70.504
06/28/2011 13:11:53	5.339	13.484	2.72	87.805	70.303
06/28/2011 13:12:03	5.306	13.502	2.731	87.904	70.102
06/28/2011 13:12:13	5.302	13.469	2.72	87.904	70.102
06/28/2011 13:12:23	5.321	13.487	2.709	88.105	70.303
06/28/2011 13:12:33	5.339	13.425	2.695	88.303	70.801
06/28/2011 13:12:43	5.39	13.359	2.695	88.105	70.303
06/28/2011 13:12:53	5.419	13.396	2.695	87.805	71.003
06/28/2011 13:13:03	5.387	13.418	2.695	87.805	70.303
06/28/2011 13:13:13	5.365	13.429	2.717	87.402	71.003
06/28/2011 13:13:23	5.343	13.476	2.72	87.603	70.504
06/28/2011 13:13:33	5.295	13.52	2.72	87.904	71.003
06/28/2011 13:13:43	5.28	13.495	2.724	87.603	70.702
06/28/2011 13:13:53	5.306	13.476	2.698	87.603	70.801
06/28/2011 13:14:03	5.313	13.465	2.717	87.402	70.702
06/28/2011 13:14:13	5.35	13.421	2.72	87.402	71.003
06/28/2011 13:14:23	5.401	13.37	2.735	87.402	70.504
06/28/2011 13:14:33	5.416	13.388	2.687	87.805	71.003
06/28/2011 13:14:43	5.39	13.399	2.673	87.805	70.504
06/28/2011 13:14:53	5.434	13.312	2.698	87.805	70.702
06/28/2011 13:15:03	5.474	13.334	2.695	87.603	71.003
06/28/2011 13:15:13	5.419	13.414	2.673	87.805	70.801
06/28/2011 13:15:23	5.354	13.462	2.673	87.904	70.702
06/28/2011 13:15:33	5.343	13.451	2.647	87.904	70.702
06/28/2011 13:15:43	5.376	13.414	2.673	87.904	70.702
06/28/2011 13:15:53	5.394	13.414	2.691	87.805	70.801
06/28/2011 13:16:03	5.412	13.348	2.698	87.805	70.801
06/28/2011 13:16:13	5.474	13.33	2.673	87.805	70.801
06/28/2011 13:16:23	5.493	13.356	2.673	87.805	70.504
06/28/2011 13:16:33	5.518	13.26	2.687	87.603	70.303
06/28/2011 13:16:43	5.581	13.227	2.706	87.402	70.801
06/28/2011 13:16:53	5.614	13.18	2.717	87.603	70.801
06/28/2011 13:17:03	5.632	13.213	2.706	87.603	70.504
06/28/2011 13:17:13	5.603	13.216	2.651	87.805	70.303
06/28/2011 13:17:23	5.573	13.271	2.665	87.805	70.303
06/28/2011 13:17:33	5.533	13.268	2.673	87.805	70.303
06/28/2011 13:17:43	5.566	13.216	2.695	87.603	70.303
06/28/2011 13:17:53	5.599	13.209	2.665	87.603	70.504
06/28/2011 13:18:03	5.606	13.191	2.665	87.603	70.801
06/28/2011 13:18:13	5.614	13.224	2.665	87.805	70.702
06/28/2011 13:18:23	5.632	13.161	2.651	87.805	70.702
06/28/2011 13:18:33	5.654	13.154	2.662	87.904	70.303
06/28/2011 13:18:43	5.679	13.095	2.647	88.105	70.303
06/28/2011 13:18:53	5.723	13.11	2.665	88.105	70.504

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 13:19:03	5.705	13.125	2.673	88.303	70.801
06/28/2011 13:19:13	5.683	13.125	2.673	87.904	70.102
06/28/2011 13:19:23	5.683	13.125	2.673	87.805	70.801
06/28/2011 13:19:33	5.658	13.15	2.665	87.805	70.303
06/28/2011 13:19:43	5.65	13.136	2.64	87.805	70.102
06/28/2011 13:19:53	5.647	13.169	2.673	87.904	70.801
06/28/2011 13:20:03	5.61	13.235	2.673	87.805	70.303
06/28/2011 13:20:13	5.562	13.22	2.698	87.805	70.102
06/28/2011 13:20:23	5.592	13.147	2.673	87.904	70.303
06/28/2011 13:20:33	5.625	13.194	2.673	87.904	70.702
06/28/2011 13:20:43	5.555	13.249	2.731	87.805	70.801
06/28/2011 13:20:53	5.518	13.26	2.98	87.904	70.303
06/28/2011 13:21:03	5.526	13.227	2.889	87.904	70.102
06/28/2011 13:21:13	5.526	13.268	2.79	87.805	70.801
06/28/2011 13:21:23	5.496	13.26	2.779	87.805	70.504
06/28/2011 13:21:33	5.515	13.257	2.772	87.805	70.102
06/28/2011 13:21:43	5.566	13.18	2.746	87.805	70.801
06/28/2011 13:21:53	5.599	13.202	2.746	87.805	70.504
06/28/2011 13:22:03	5.595	13.205	2.731	87.904	70.303
06/28/2011 13:22:13	5.606	13.18	2.72	87.904	70.801
06/28/2011 13:22:23	5.595	13.202	2.713	87.904	70.504
06/28/2011 13:22:33	5.61	13.143	2.72	87.904	70.303
06/28/2011 13:22:43	5.672	13.106	2.695	87.904	70.801
06/28/2011 13:22:53	5.647	13.161	2.695	87.904	70.303
06/28/2011 13:23:03	5.625	13.15	2.695	87.904	70.303
06/28/2011 13:23:13	5.647	13.169	2.695	87.805	70.801
06/28/2011 13:23:23	5.636	13.154	2.68	88.105	70.801
06/28/2011 13:23:33	5.628	13.194	2.673	87.904	70.303
06/28/2011 13:23:43	5.592	13.213	2.687	88.105	70.102
06/28/2011 13:23:53	5.584	13.216	2.676	87.904	70.102
06/28/2011 13:24:03	5.577	13.231	2.695	87.805	70.303
06/28/2011 13:24:13	5.592	13.18	2.673	87.805	70.303
06/28/2011 13:24:23	5.632	13.143	2.673	88.105	70.504
06/28/2011 13:24:33	5.639	13.165	2.673	88.105	70.504
06/28/2011 13:24:43	5.647	13.128	2.673	88.303	70.504
06/28/2011 13:24:53	5.61	13.224	2.673	88.105	70.702
06/28/2011 13:25:03	5.577	13.205	2.673	88.303	70.702
06/28/2011 13:25:13	5.577	13.202	2.651	88.105	70.702
06/28/2011 13:25:23	5.566	13.224	2.651	88.105	70.702
06/28/2011 13:25:33	5.548	13.246	2.64	88.303	70.702
06/28/2011 13:25:43	5.544	13.238	2.644	88.303	70.702
06/28/2011 13:25:53	5.566	13.213	2.64	88.303	70.504
06/28/2011 13:26:03	5.61	13.161	2.644	88.504	70.702
06/28/2011 13:26:13	5.698	13.074	2.662	88.504	70.702
06/28/2011 13:26:23	5.749	13.041	2.655	88.702	70.801
06/28/2011 13:26:33	5.76	13.063	2.64	88.805	70.702
06/28/2011 13:26:43	5.72	13.117	2.618	88.805	70.102
06/28/2011 13:26:53	5.705	13.085	2.618	89.002	70.702
06/28/2011 13:27:03	5.727	13.092	2.644	88.805	70.801
06/28/2011 13:27:13	5.701	13.15	2.636	88.805	70.102
Pause Run 9					
THC Drift Check					
06/28/2011 13:27:23	5.654	13.176	26.4	89.002	70.702
06/28/2011 13:27:33	5.057	4.09	2.123	88.805	71.204
06/28/2011 13:27:43	1.618	0.384	0.439	88.702	70.702
06/28/2011 13:27:53	0.087	0.289	0.355	88.702	71.003
06/28/2011 13:28:03	0.036	0.245	0.311	88.702	70.702
06/28/2011 13:28:13	0.029	0.223	0.281	88.303	70.702
06/28/2011 13:28:23	0.021	0.208	0.234	88.702	71.204
06/28/2011 13:28:33	0.018	0.201	0.226	88.504	70.504
06/28/2011 13:28:43	0.014	0.19	0.201	88.504	71.003
06/28/2011 13:28:53	0.01	0.186	0.201	88.303	70.702
06/28/2011 13:29:03	0.01	0.179	0.19	88.702	71.402
N2 Zero			**0.197**	**88.503**	**71.036**
06/28/2011 13:29:13	0.007	0.175	0.172	88.702	70.801
06/28/2011 13:29:23	0.007	0.172	0.355	88.702	71.204
06/28/2011 13:29:33	1.043	4.182	42.001	88.805	71.402
06/28/2011 13:29:43	12.458	0.267	49.992	88.805	71.402
06/28/2011 13:29:53	20.145	0.175	50.205	88.702	71.402
06/28/2011 13:30:03	20.574	0.168	50.252	88.702	70.801
06/28/2011 13:30:13	20.618	0.161	50.263	88.702	70.702

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 13:30:23	20.64	0.157	50.274	88.702	71.204
49.8 ppm Propane Mid			**50.263**	**88.702**	**70.902**
06/28/2011 13:30:33	20.651	0.157	47.465	88.702	71.003
06/28/2011 13:30:43	19.318	4.672	4.193	88.303	70.303
06/28/2011 13:30:53	10.349	12.854	2.709	87.805	70.801
06/28/2011 13:31:03	5.896	12.997	2.658	87.805	70.702
Resume Run 9					
06/28/2011 13:31:13	5.72	13.03	2.651	88.105	69.904
06/28/2011 13:31:23	5.701	13.044	2.665	88.303	70.504
06/28/2011 13:31:33	5.687	13.081	2.644	88.504	70.702
06/28/2011 13:31:43	5.679	13.077	2.647	88.303	69.904
06/28/2011 13:31:53	5.694	13.055	2.655	88.702	70.303
06/28/2011 13:32:03	5.709	13.055	2.644	88.702	70.702
06/28/2011 13:32:13	5.698	13.085	2.618	88.504	69.904
06/28/2011 13:32:23	5.701	13.07	2.618	88.303	70.303
06/28/2011 13:32:33	5.742	13.004	2.618	88.303	70.801
06/28/2011 13:32:43	5.734	13.088	2.603	88.504	70.504
06/28/2011 13:32:53	5.709	13.07	2.618	88.504	69.801
06/28/2011 13:33:03	5.727	13.081	2.618	88.504	69.904
06/28/2011 13:33:13	5.698	13.081	2.636	88.504	70.303
06/28/2011 13:33:23	5.683	13.099	2.636	88.303	70.702
06/28/2011 13:33:33	5.723	13.03	2.64	88.303	70.702
06/28/2011 13:33:43	5.775	12.993	2.64	88.303	70.504
06/28/2011 13:33:53	5.797	13.019	2.658	88.504	70.702
06/28/2011 13:34:03	5.76	13.07	2.622	88.702	70.504
06/28/2011 13:34:13	5.738	13.074	2.618	88.702	70.702
06/28/2011 13:34:23	5.727	13.074	2.607	88.702	70.801
06/28/2011 13:34:33	5.716	13.11	2.592	88.702	70.702
06/28/2011 13:34:43	5.683	13.136	2.618	88.702	70.702
06/28/2011 13:34:53	5.683	13.077	2.618	88.805	70.702
06/28/2011 13:35:03	5.72	13.055	2.592	88.702	70.702
06/28/2011 13:35:13	5.731	13.059	2.603	88.702	70.702
06/28/2011 13:35:23	5.694	13.117	2.592	88.702	70.702
06/28/2011 13:35:33	5.672	13.077	2.614	88.504	70.102
06/28/2011 13:35:43	5.745	13	2.596	88.303	70.102
06/28/2011 13:35:53	5.775	13.015	2.563	88.303	69.904
06/28/2011 13:36:03	5.731	13.07	2.541	88.303	70.102
06/28/2011 13:36:13	5.716	13.041	2.537	88.702	69.904
06/28/2011 13:36:23	5.731	13.052	2.504	88.504	70.102
06/28/2011 13:36:33	5.679	13.176	2.49	88.504	70.702
06/28/2011 13:36:43	5.588	13.253	2.515	88.105	70.801
06/28/2011 13:36:53	5.581	13.213	2.526	88.105	70.801
06/28/2011 13:37:03	5.61	13.209	2.545	88.504	70.801
06/28/2011 13:37:13	5.636	13.165	2.567	88.105	69.801
06/28/2011 13:37:23	5.672	13.088	2.563	88.303	69.801
06/28/2011 13:37:33	5.676	13.161	2.541	88.105	70.504
06/28/2011 13:37:43	5.628	13.154	2.556	88.303	70.702
06/28/2011 13:37:53	5.606	13.187	2.552	88.702	70.102
06/28/2011 13:38:03	5.61	13.154	2.563	88.702	69.904
06/28/2011 13:38:13	5.592	13.194	2.567	88.303	70.702
06/28/2011 13:38:23	5.54	13.268	2.57	88.504	70.801
06/28/2011 13:38:33	5.548	13.183	2.618	88.504	69.904
06/28/2011 13:38:43	5.606	13.11	2.618	88.504	70.504
06/28/2011 13:38:53	5.625	13.169	2.625	88.303	70.801
06/28/2011 13:39:03	5.639	13.11	2.665	88.702	70.102
06/28/2011 13:39:13	5.621	13.194	2.673	88.504	69.904
06/28/2011 13:39:23	5.526	13.293	2.739	88.105	70.702
06/28/2011 13:39:33	5.504	13.249	2.893	88.303	70.702
06/28/2011 13:39:43	5.529	13.326	2.999	88.504	69.904
06/28/2011 13:39:53	5.383	13.539	2.958	88.504	69.904
06/28/2011 13:40:03	5.262	13.528	2.856	88.702	70.702
06/28/2011 13:40:13	5.244	13.506	2.786	88.702	70.702
06/28/2011 13:40:23	5.306	13.374	2.746	88.702	70.702
06/28/2011 13:40:33	5.39	13.345	2.72	88.504	70.102
06/28/2011 13:40:43	5.39	13.37	2.698	88.504	70.102
06/28/2011 13:40:53	5.423	13.297	2.702	88.504	69.904
06/28/2011 13:41:03	5.5	13.235	2.695	88.702	70.102
06/28/2011 13:41:13	5.507	13.308	2.695	88.504	70.102
06/28/2011 13:41:23	5.445	13.363	2.695	88.303	70.102
06/28/2011 13:41:33	5.419	13.37	2.695	88.105	70.504
06/28/2011 13:41:43	5.43	13.352	2.72	88.504	70.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 13:41:53	5.46	13.304	2.695	88.504	70.303
06/28/2011 13:42:03	5.496	13.297	2.713	88.504	70.102
06/28/2011 13:42:13	5.5	13.312	2.72	88.504	70.303
06/28/2011 13:42:23	5.515	13.271	2.706	88.105	70.801
06/28/2011 13:42:33	5.522	13.293	2.72	87.904	70.303
06/28/2011 13:42:43	5.529	13.187	2.746	88.105	69.904
06/28/2011 13:42:53	5.599	13.158	2.72	88.303	70.504
06/28/2011 13:43:03	5.577	13.235	2.713	88.303	70.702
06/28/2011 13:43:13	5.511	13.312	2.702	88.504	69.904
06/28/2011 13:43:23	5.452	13.326	2.717	88.303	69.904
06/28/2011 13:43:33	5.456	13.334	2.713	88.504	70.303
06/28/2011 13:43:43	5.441	13.363	2.72	88.303	70.702
06/28/2011 13:43:53	5.438	13.323	2.717	88.303	70.102
06/28/2011 13:44:03	5.441	13.356	2.72	88.504	69.904
06/28/2011 13:44:13	5.434	13.337	2.72	88.504	70.102
06/28/2011 13:44:23	5.427	13.359	2.735	88.303	70.702
06/28/2011 13:44:33	5.43	13.323	2.731	88.504	70.702
06/28/2011 13:44:43	5.434	13.345	2.72	88.504	70.801
06/28/2011 13:44:53	5.412	13.388	2.695	88.702	70.504
06/28/2011 13:45:03	5.419	13.366	2.72	88.702	69.904
06/28/2011 13:45:13	5.445	13.323	2.746	88.702	69.904
06/28/2011 13:45:23	5.452	13.315	2.72	88.702	70.504
06/28/2011 13:45:33	5.449	13.359	2.717	88.702	70.801
06/28/2011 13:45:43	5.419	13.381	2.724	88.504	70.702
06/28/2011 13:45:53	5.441	13.334	2.724	88.303	70.702
06/28/2011 13:46:03	5.441	13.341	2.724	88.303	70.504
06/28/2011 13:46:13	5.441	13.341	2.746	88.303	70.504
06/28/2011 13:46:23	5.449	13.319	2.746	88.105	70.504
06/28/2011 13:46:33	5.489	13.275	2.753	88.303	70.102
06/28/2011 13:46:43	5.526	13.231	2.72	88.504	70.102
06/28/2011 13:46:53	5.599	13.191	2.724	88.702	70.102
06/28/2011 13:47:03	5.606	13.22	2.72	88.702	69.904
06/28/2011 13:47:13	5.592	13.205	2.72	88.504	70.102
06/28/2011 13:47:23	5.566	13.231	2.72	88.702	70.102
06/28/2011 13:47:33	5.57	13.213	2.709	88.805	70.303
06/28/2011 13:47:43	5.573	13.238	2.673	88.702	70.504
06/28/2011 13:47:53	5.533	13.301	2.673	88.805	70.504
06/28/2011 13:48:03	5.518	13.275	2.673	88.702	70.504
06/28/2011 13:48:13	5.555	13.238	2.673	88.702	70.504
06/28/2011 13:48:23	5.562	13.246	2.673	88.702	70.102
06/28/2011 13:48:33	5.581	13.176	2.695	88.303	70.102
06/28/2011 13:48:43	5.632	13.158	2.698	88.303	70.303
06/28/2011 13:48:53	5.61	13.238	2.673	88.303	70.702
06/28/2011 13:49:03	5.544	13.297	2.673	88.303	71.003
06/28/2011 13:49:13	5.511	13.264	2.717	88.504	71.003
06/28/2011 13:49:23	5.548	13.242	2.72	88.105	70.702
06/28/2011 13:49:33	5.577	13.249	2.698	88.504	70.504
06/28/2011 13:49:43	5.555	13.282	2.695	88.303	70.702
06/28/2011 13:49:53	5.511	13.312	2.695	88.303	70.801
06/28/2011 13:50:03	5.507	13.26	2.695	88.303	70.801
06/28/2011 13:50:13	5.533	13.264	2.72	88.504	70.102
06/28/2011 13:50:23	5.559	13.224	2.695	88.702	70.504
06/28/2011 13:50:33	5.566	13.22	2.72	88.702	70.504
06/28/2011 13:50:43	5.581	13.213	2.709	88.702	70.303
06/28/2011 13:50:53	5.551	13.275	2.695	88.805	70.702
06/28/2011 13:51:03	5.493	13.334	2.695	88.805	70.102
06/28/2011 13:51:13	5.412	13.388	2.735	89.002	70.801
06/28/2011 13:51:23	5.423	13.301	2.709	88.805	69.904
06/28/2011 13:51:33	5.489	13.315	2.691	89.002	70.702
06/28/2011 13:51:43	5.416	13.425	2.673	89.002	70.801
06/28/2011 13:51:53	5.387	13.359	2.695	89.204	70.303
06/28/2011 13:52:03	5.43	13.323	2.695	89.204	70.102
06/28/2011 13:52:13	5.434	13.334	2.695	89.002	70.702
06/28/2011 13:52:23	5.423	13.352	2.687	89.002	70.801
06/28/2011 13:52:33	5.405	13.37	2.665	89.002	70.702
06/28/2011 13:52:43	5.405	13.374	2.673	89.002	69.904
06/28/2011 13:52:53	5.416	13.356	2.665	89.402	70.303
06/28/2011 13:53:03	5.438	13.334	2.673	89.204	70.801
06/28/2011 13:53:13	5.434	13.37	2.687	89.204	71.003
06/28/2011 13:53:23	5.383	13.403	2.68	89.402	70.801
06/28/2011 13:53:33	5.365	13.418	2.695	89.402	70.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 13:53:43	5.372	13.37	2.691	89.402	70.102
06/28/2011 13:53:53	5.416	13.363	2.709	89.204	70.303
06/28/2011 13:54:03	5.456	13.326	2.746	89.204	70.303
06/28/2011 13:54:13	5.467	13.334	2.995	89.204	70.801
06/28/2011 13:54:23	5.441	13.37	2.929	89.204	70.504
06/28/2011 13:54:33	5.39	13.421	2.856	89.204	70.303
06/28/2011 13:54:43	5.35	13.44	2.841	89.204	70.102
06/28/2011 13:54:53	5.365	13.388	2.83	89.002	70.702
06/28/2011 13:55:03	5.361	13.421	2.827	89.204	70.801
06/28/2011 13:55:13	5.376	13.366	2.827	89.402	70.303
06/28/2011 13:55:23	5.394	13.363	2.827	89.002	70.102
06/28/2011 13:55:33	5.365	13.421	2.827	89.002	70.801
06/28/2011 13:55:43	5.332	13.451	2.827	89.002	70.801
06/28/2011 13:55:53	5.306	13.484	2.805	89.002	70.303
06/28/2011 13:56:03	5.262	13.509	2.823	89.002	70.504
06/28/2011 13:56:13	5.28	13.473	2.819	89.402	71.003
06/28/2011 13:56:23	5.332	13.421	2.827	89.204	70.303
06/28/2011 13:56:33	5.328	13.473	2.827	89.204	70.303
06/28/2011 13:56:43	5.262	13.528	2.805	89.002	70.102
06/28/2011 13:56:53	5.269	13.498	2.779	89.002	70.102
06/28/2011 13:57:03	5.277	13.495	2.805	89.002	70.102
06/28/2011 13:57:13	5.306	13.451	2.845	89.002	70.303
06/28/2011 13:57:23	5.343	13.41	2.827	89.002	71.003
06/28/2011 13:57:33	5.357	13.425	2.827	88.805	70.702
06/28/2011 13:57:43	5.324	13.436	2.819	89.002	70.102
06/28/2011 13:57:53	5.335	13.44	2.805	89.204	70.303
06/28/2011 13:58:03	5.306	13.531	2.786	89.002	71.003
06/28/2011 13:58:13	5.251	13.528	2.801	89.002	71.003
06/28/2011 13:58:23	5.233	13.531	2.801	88.805	70.303
06/28/2011 13:58:33	5.269	13.491	2.79	88.805	70.303
06/28/2011 13:58:43	5.284	13.491	2.779	88.702	70.504
06/28/2011 13:58:53	5.291	13.491	2.768	88.805	71.003
06/28/2011 13:59:03	5.291	13.476	2.779	88.805	71.204
06/28/2011 13:59:13	5.321	13.429	2.779	88.805	71.204
06/28/2011 13:59:23	5.346	13.436	2.746	89.002	71.003
06/28/2011 13:59:33	5.401	13.345	2.746	88.805	70.702
06/28/2011 13:59:43	5.438	13.359	2.746	88.702	70.702
06/28/2011 13:59:53	5.43	13.374	2.64	88.805	71.003
06/28/2011 14:00:03	5.434	13.345	2.746	88.702	70.702
06/28/2011 14:00:13	5.456	13.337	2.735	88.702	70.303
06/28/2011 14:00:23	5.419	13.396	2.72	89.002	70.504
06/28/2011 14:00:33	5.401	13.366	2.742	89.002	70.303
06/28/2011 14:00:43	5.372	13.443	2.735	89.204	70.303
06/28/2011 14:00:53	5.313	13.44	2.724	89.204	70.504
06/28/2011 14:01:03	5.335	13.44	2.72	89.002	70.504
06/28/2011 14:01:13	5.339	13.443	2.72	89.204	70.504
06/28/2011 14:01:23	5.35	13.429	2.72	89.002	70.504
06/28/2011 14:01:33	5.339	13.476	2.72	89.204	70.504
06/28/2011 14:01:43	5.295	13.498	2.72	88.805	70.702
06/28/2011 14:01:53	5.284	13.491	2.746	88.805	71.204
06/28/2011 14:02:03	5.35	13.396	2.746	88.805	71.204
06/28/2011 14:02:13	5.405	13.388	2.735	88.702	71.204
06/28/2011 14:02:23	5.383	13.436	2.735	88.702	70.801
06/28/2011 14:02:33	5.332	13.48	2.735	88.702	70.303
06/28/2011 14:02:43	5.321	13.484	2.72	88.702	70.801
06/28/2011 14:02:53	5.313	13.487	2.742	88.504	71.003
06/28/2011 14:03:03	5.306	13.473	2.75	88.702	70.303
06/28/2011 14:03:13	5.306	13.491	2.746	88.702	71.204
06/28/2011 14:03:23	5.31	13.48	2.746	88.702	70.702
06/28/2011 14:03:33	5.299	13.502	2.746	88.702	70.504
06/28/2011 14:03:43	5.295	13.509	2.746	88.702	71.003
06/28/2011 14:03:53	5.306	13.473	2.764	88.702	70.303
06/28/2011 14:04:03	5.361	13.421	2.746	88.702	71.003
06/28/2011 14:04:13	5.376	13.454	2.724	88.702	70.504
06/28/2011 14:04:23	5.379	13.381	2.72	88.702	70.303
06/28/2011 14:04:33	5.405	13.421	2.72	88.805	71.003
06/28/2011 14:04:43	5.346	13.458	2.706	88.702	70.801
06/28/2011 14:04:53	5.361	13.396	2.72	88.805	70.303
06/28/2011 14:05:03	5.376	13.451	2.717	88.805	70.303
06/28/2011 14:05:13	5.321	13.491	2.72	89.002	70.702
06/28/2011 14:05:23	5.295	13.462	2.72	89.002	71.003

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 14:05:33	5.31	13.458	2.713	88.805	71.003
06/28/2011 14:05:43	5.313	13.443	2.735	89.204	71.003
06/28/2011 14:05:53	5.387	13.337	2.746	89.002	71.003
06/28/2011 14:06:03	5.456	13.293	2.735	88.702	71.003
06/28/2011 14:06:13	5.416	13.443	2.717	88.805	71.003
06/28/2011 14:06:23	5.335	13.48	2.665	89.002	70.303
06/28/2011 14:06:33	5.339	13.432	2.636	88.702	70.504
06/28/2011 14:06:43	5.346	13.443	2.633	88.805	71.003
06/28/2011 14:06:53	5.306	13.542	2.644	89.204	70.303
06/28/2011 14:07:03	5.251	13.528	2.658	89.204	70.702
06/28/2011 14:07:13	5.255	13.572	2.673	89.204	71.003
06/28/2011 14:07:23	5.24	13.557	2.72	89.002	70.303
06/28/2011 14:07:33	5.236	13.557	2.731	89.002	71.003
06/28/2011 14:07:43	5.207	13.616	2.772	89.204	70.102
06/28/2011 14:07:53	5.167	13.652	2.808	88.805	70.801
06/28/2011 14:08:03	5.163	13.601	2.849	89.204	70.102
06/28/2011 14:08:13	5.145	13.619	2.823	89.002	71.003
06/28/2011 14:08:23	5.178	13.52	2.827	89.204	70.504
06/28/2011 14:08:33	5.24	13.52	2.827	89.002	70.102
06/28/2011 14:08:43	5.229	13.546	2.797	89.204	71.003
06/28/2011 14:08:53	5.159	13.616	2.786	89.204	71.003
06/28/2011 14:09:03	5.101	13.689	2.805	89.002	71.003
06/28/2011 14:09:13	5.061	13.707	2.801	89.002	70.801
06/28/2011 14:09:23	5.105	13.605	2.83	89.204	70.801
06/28/2011 14:09:33	5.152	13.601	2.83	89.603	71.003
06/28/2011 14:09:43	5.163	13.641	2.812	89.402	70.801
06/28/2011 14:09:53	5.119	13.674	2.805	89.002	70.801
06/28/2011 14:10:03	5.09	13.689	2.83	89.204	69.904
06/28/2011 14:10:13	5.057	13.733	2.794	89.204	70.102
06/28/2011 14:10:23	5.02	13.755	2.779	89.402	70.801
06/28/2011 14:10:33	5.02	13.729	2.805	89.204	70.801
06/28/2011 14:10:43	5.013	13.747	2.805	89.204	70.303
06/28/2011 14:10:53	5.039	13.696	2.805	88.702	69.904
06/28/2011 14:11:03	5.072	13.685	2.797	88.805	70.702
06/28/2011 14:11:13	5.097	13.696	2.779	88.702	71.003
06/28/2011 14:11:23	5.101	13.696	2.779	88.702	70.702
06/28/2011 14:11:33	5.09	13.689	2.779	88.702	70.303
06/28/2011 14:11:43	5.068	13.736	2.794	88.702	70.303
06/28/2011 14:11:53	5.009	13.773	2.801	88.805	70.801
06/28/2011 14:12:03	4.98	13.751	2.775	88.702	71.003
06/28/2011 14:12:13	5.031	13.67	2.801	88.702	71.204
06/28/2011 14:12:23	5.097	13.645	2.801	88.805	71.204
06/28/2011 14:12:33	5.105	13.67	2.801	89.002	71.003
06/28/2011 14:12:43	5.123	13.63	2.801	88.702	70.801
06/28/2011 14:12:53	5.17	13.638	2.801	89.002	70.702
06/28/2011 14:13:03	5.167	13.645	2.801	88.805	70.504
06/28/2011 14:13:13	5.174	13.605	2.805	88.805	70.303
06/28/2011 14:13:23	5.141	13.663	2.801	88.805	70.303
06/28/2011 14:13:33	5.097	13.692	2.775	89.002	70.303
06/28/2011 14:13:43	5.064	13.729	2.79	89.402	70.303
06/28/2011 14:13:53	5.097	13.638	2.786	89.603	70.303
06/28/2011 14:14:03	5.174	13.579	2.823	89.603	70.303
06/28/2011 14:14:13	5.159	13.63	2.827	89.702	70.504
06/28/2011 14:14:23	5.134	13.641	2.827	89.402	70.303
06/28/2011 14:14:33	5.13	13.634	2.801	89.402	70.303
06/28/2011 14:14:43	5.148	13.652	2.823	89.603	70.303
06/28/2011 14:14:53	5.159	13.597	2.827	89.204	70.303
06/28/2011 14:15:03	5.159	13.616	2.801	89.204	70.303
06/28/2011 14:15:13	5.141	13.645	2.779	89.402	70.303
06/28/2011 14:15:23	5.112	13.645	2.779	89.603	70.504
06/28/2011 14:15:33	5.145	13.597	2.779	89.702	71.003
06/28/2011 14:15:43	5.203	13.55	2.779	89.702	71.204
06/28/2011 14:15:53	5.24	13.535	2.783	89.903	71.003
06/28/2011 14:16:03	5.258	13.528	2.816	90.105	70.504
06/28/2011 14:16:13	5.266	13.473	2.827	90.105	71.204
06/28/2011 14:16:23	5.302	13.491	2.812	90.105	70.801
06/28/2011 14:16:33	5.273	13.528	2.797	90.302	71.204
06/28/2011 14:16:43	5.255	13.561	2.779	90.302	70.801
06/28/2011 14:16:53	5.236	13.586	2.746	90.105	71.204
06/28/2011 14:17:03	5.211	13.594	2.779	89.903	71.402
06/28/2011 14:17:13	5.174	13.616	2.801	90.105	70.702

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 14:17:23	5.178	13.634	2.779	90.302	71.402
06/28/2011 14:17:33	5.17	13.623	2.779	90.302	70.801
06/28/2011 14:17:43	5.178	13.627	2.794	90.302	70.702
06/28/2011 14:17:53	5.189	13.579	2.801	90.302	71.204
06/28/2011 14:18:03	5.233	13.561	2.805	90.105	71.402
06/28/2011 14:18:13	5.24	13.572	2.827	90.302	71.402
06/28/2011 14:18:23	5.181	13.627	2.827	90.302	70.801
06/28/2011 14:18:33	5.174	13.616	2.816	90.302	70.702
06/28/2011 14:18:43	5.203	13.55	2.801	90.302	70.702
06/28/2011 14:18:53	5.244	13.575	2.753	90.302	70.504
06/28/2011 14:19:03	5.203	13.564	2.746	90.302	70.702
06/28/2011 14:19:13	5.269	13.476	2.772	90.504	70.801
06/28/2011 14:19:23	5.332	13.451	2.775	90.302	71.603
06/28/2011 14:19:33	5.343	13.436	2.801	90.302	71.603
06/28/2011 14:19:43	5.335	13.469	2.794	90.302	71.402
06/28/2011 14:19:53	5.35	13.429	2.775	90.504	70.801
06/28/2011 14:20:03	5.368	13.425	2.753	90.302	70.801
06/28/2011 14:20:13	5.343	13.498	2.746	90.302	71.204
06/28/2011 14:20:23	5.321	13.432	2.735	90.105	71.402
06/28/2011 14:20:33	5.365	13.432	2.724	90.302	71.402
06/28/2011 14:20:43	5.372	13.447	2.72	90.105	71.204
06/28/2011 14:20:53	5.354	13.414	2.731	90.302	71.003
06/28/2011 14:21:03	5.405	13.374	2.746	90.105	70.702
06/28/2011 14:21:13	5.46	13.326	2.746	90.105	70.801
06/28/2011 14:21:23	5.478	13.323	2.746	89.903	70.702
06/28/2011 14:21:33	5.471	13.33	2.728	89.903	70.801
06/28/2011 14:21:43	5.427	13.403	2.72	89.903	71.402
06/28/2011 14:21:53	5.379	13.381	2.72	89.702	71.603
06/28/2011 14:22:03	5.394	13.385	2.72	90.105	71.603
06/28/2011 14:22:13	5.408	13.381	2.746	90.504	71.003
06/28/2011 14:22:23	5.43	13.381	2.746	90.504	71.603
06/28/2011 14:22:33	5.427	13.392	2.728	90.302	71.702
06/28/2011 14:22:43	5.423	13.374	2.746	90.504	71.204
06/28/2011 14:22:53	5.438	13.366	2.742	90.302	71.003
06/28/2011 14:23:03	5.405	13.418	2.724	90.302	71.003
06/28/2011 14:23:13	5.383	13.392	2.72	90.105	71.204
06/28/2011 14:23:23	5.405	13.363	2.72	90.105	71.702
06/28/2011 14:23:33	5.416	13.396	2.72	89.903	71.903
06/28/2011 14:23:43	5.408	13.396	2.713	89.702	71.603
06/28/2011 14:23:53	5.412	13.356	2.691	89.702	71.003
06/28/2011 14:24:03	5.449	13.286	2.687	89.603	71.003
06/28/2011 14:24:13	5.485	13.323	2.72	89.603	71.003
06/28/2011 14:24:23	5.467	13.359	2.72	89.402	71.204
06/28/2011 14:24:33	5.471	13.279	2.728	89.603	71.603
06/28/2011 14:24:43	5.526	13.224	2.698	89.603	71.702
06/28/2011 14:24:53	5.537	13.279	2.695	89.603	71.903
06/28/2011 14:25:03	5.467	13.323	2.691	89.603	71.903
06/28/2011 14:25:13	5.427	13.366	2.687	89.603	71.903
06/28/2011 14:25:23	5.405	13.392	2.695	89.702	71.903
06/28/2011 14:25:33	5.471	13.279	2.695	89.603	71.402
06/28/2011 14:25:43	5.577	13.147	2.698	89.702	71.003
06/28/2011 14:25:53	5.628	13.22	2.658	89.603	71.204
06/28/2011 14:26:03	5.654	13.139	2.655	89.702	71.204
06/28/2011 14:26:13	5.669	13.125	2.658	89.702	71.702
06/28/2011 14:26:23	5.698	13.081	2.673	89.702	72.101
06/28/2011 14:26:33	5.698	13.088	2.673	89.603	71.903
06/28/2011 14:26:43	5.771	12.989	2.68	89.702	71.903
06/28/2011 14:26:53	5.844	12.832	2.698	89.702	71.903
06/28/2011 14:27:03	5.833	13.081	2.665	89.702	71.903
06/28/2011 14:27:13	5.745	12.986	2.687	89.903	71.204
06/28/2011 14:27:23	5.844	12.89	2.735	89.702	71.603
06/28/2011 14:27:33	5.833	12.986	2.966	90.105	71.903
06/28/2011 14:27:43	6.053	12.638	2.911	90.105	71.204
06/28/2011 14:27:53	6.243	12.546	2.819	90.302	71.204
06/28/2011 14:28:03	6.452	12.169	2.658	89.702	71.702
06/28/2011 14:28:13	7.141	11.623	2.702	89.603	71.903
06/28/2011 14:28:23	7.155	12.469	2.819	89.702	71.903
06/28/2011 14:28:33	6.097	13.019	2.779	89.903	71.903
06/28/2011 14:28:43	5.771	13	2.753	89.702	71.903
06/28/2011 14:28:53	5.705	13.161	2.775	89.702	71.903
06/28/2011 14:29:03	5.628	13.099	2.805	90.105	71.603

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 14:29:13	5.679	13.092	2.779	90.105	71.204
06/28/2011 14:29:23	5.727	13.037	2.786	90.105	71.204
06/28/2011 14:29:33	5.727	13.117	2.783	90.105	71.702
06/28/2011 14:29:43	5.709	13.008	2.779	90.105	72.101
06/28/2011 14:29:53	5.815	12.912	2.779	89.903	72.101
06/28/2011 14:30:03	5.87	12.923	2.753	89.702	72.101
06/28/2011 14:30:13	5.921	12.824	2.746	89.903	72.101
06/28/2011 14:30:23	5.914	12.956	2.698	89.603	72.101
06/28/2011 14:30:33	5.881	12.898	2.687	89.903	72.101
06/28/2011 14:30:43	5.874	12.986	2.739	90.105	72.101
06/28/2011 14:30:53	5.76	13.033	2.746	90.105	72.101
06/28/2011 14:31:03	5.72	13.092	2.728	90.105	71.903
06/28/2011 14:31:13	5.76	12.912	2.724	90.105	71.603
06/28/2011 14:31:23	5.877	12.938	2.742	90.302	71.402
06/28/2011 14:31:33	5.892	12.89	2.746	90.302	71.402
06/28/2011 14:31:43	5.921	12.868	2.746	90.302	71.402
06/28/2011 14:31:53	5.91	12.898	2.728	90.302	71.702
06/28/2011 14:32:03	5.94	12.817	2.746	90.105	71.903
06/28/2011 14:32:13	5.954	12.872	2.75	89.903	72.101
06/28/2011 14:32:23	5.896	12.96	2.746	89.903	71.903
06/28/2011 14:32:33	5.903	12.945	2.746	89.903	72.101
06/28/2011 14:32:43	5.918	12.909	2.739	90.302	72.101
06/28/2011 14:32:53	5.943	12.85	2.709	90.302	71.603
06/28/2011 14:33:03	6.079	12.711	2.706	90.105	71.702
06/28/2011 14:33:13	6.156	12.693	2.68	90.105	71.903
06/28/2011 14:33:23	6.222	12.627	2.709	89.903	71.903
06/28/2011 14:33:33	6.211	12.726	2.673	89.702	72.101
06/28/2011 14:33:43	6.192	12.667	2.658	89.702	71.903
06/28/2011 14:33:53	6.159	12.737	2.673	89.903	71.603
06/28/2011 14:34:03	6.042	12.803	2.665	89.903	71.603
06/28/2011 14:34:13	6.049	12.674	2.673	89.903	71.702
06/28/2011 14:34:23	6.082	12.781	2.695	90.105	71.603
06/28/2011 14:34:33	6.042	12.777	2.687	90.105	72.101
06/28/2011 14:34:43	6.071	12.726	2.695	89.903	71.903
06/28/2011 14:34:53	6.016	12.942	2.665	89.702	71.702
06/28/2011 14:35:03	5.866	12.861	2.676	90.105	71.402
06/28/2011 14:35:13	5.932	12.861	2.676	89.702	71.603
06/28/2011 14:35:23	6.06	12.685	2.72	89.903	71.903
06/28/2011 14:35:33	6.097	12.762	2.746	89.603	72.101
06/28/2011 14:35:43	6.071	12.711	2.706	89.702	71.702
06/28/2011 14:35:53	6.064	12.748	2.687	89.702	71.402
06/28/2011 14:36:03	5.994	12.868	2.713	89.903	71.402
06/28/2011 14:36:13	5.965	12.773	2.695	89.702	71.402
06/28/2011 14:36:23	6.016	12.755	2.695	89.903	71.204
06/28/2011 14:36:33	6.013	12.711	2.695	89.903	71.204
06/28/2011 14:36:43	6.068	12.766	2.698	90.105	71.402
06/28/2011 14:36:53	6.057	12.766	2.665	90.302	72.101
06/28/2011 14:37:03	6.163	12.619	2.655	90.302	71.702
06/28/2011 14:37:13	6.214	12.641	2.665	90.105	71.204
06/28/2011 14:37:23	6.13	12.806	2.687	89.903	72.101
06/28/2011 14:37:33	6.06	12.773	2.687	90.105	71.204
06/28/2011 14:37:43	6.101	12.726	2.658	89.702	71.903
06/28/2011 14:37:53	6.134	12.674	2.673	89.702	71.204
06/28/2011 14:38:03	6.13	12.766	2.673	89.702	71.702
06/28/2011 14:38:13	6.057	12.74	2.665	89.603	71.204
06/28/2011 14:38:23	6.137	12.682	2.665	89.603	71.903
06/28/2011 14:38:33	6.218	12.685	2.695	89.702	71.204
06/28/2011 14:38:43	6.163	12.693	2.665	89.603	71.903
06/28/2011 14:38:53	6.189	12.674	2.695	89.903	71.204
06/28/2011 14:39:03	6.137	12.689	2.709	89.702	71.702
06/28/2011 14:39:13	6.079	12.74	2.673	89.702	71.204
06/28/2011 14:39:23	6.093	12.656	2.698	89.702	71.204
06/28/2011 14:39:33	6.038	12.806	2.676	89.903	71.903
06/28/2011 14:39:43	6.141	12.619	2.702	89.903	71.204
06/28/2011 14:39:53	6.265	12.586	2.695	89.903	71.204
06/28/2011 14:40:03	6.243	12.685	2.706	89.702	71.603
06/28/2011 14:40:13	6.104	12.762	2.684	89.903	71.903
06/28/2011 14:40:23	6.13	12.663	2.673	89.603	71.603
06/28/2011 14:40:33	6.163	12.704	2.673	89.603	71.204
06/28/2011 14:40:43	6.123	12.751	2.673	89.903	71.204
06/28/2011 14:40:53	6.148	12.667	2.673	89.603	71.402

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 14:41:03	6.156	12.784	2.687	89.603	71.903
06/28/2011 14:41:13	6.119	12.638	2.658	89.903	71.702
06/28/2011 14:41:23	6.24	12.645	2.655	90.105	71.204
06/28/2011 14:41:33	6.229	12.597	2.698	89.603	71.603
06/28/2011 14:41:43	6.225	12.619	2.676	89.603	71.903
06/28/2011 14:41:53	6.222	12.7	2.695	89.603	71.204
06/28/2011 14:42:03	6.064	12.773	2.695	89.603	71.903
06/28/2011 14:42:13	6.075	12.718	2.676	89.603	71.204
06/28/2011 14:42:23	6.123	12.656	2.665	89.402	71.702
06/28/2011 14:42:33	6.17	12.645	2.684	89.603	71.903
06/28/2011 14:42:43	6.126	12.718	2.695	89.603	71.204
06/28/2011 14:42:53	6.137	12.634	2.684	89.603	72.101
06/28/2011 14:43:03	6.174	12.726	2.64	89.702	71.603
06/28/2011 14:43:13	6.229	12.517	2.64	89.603	71.204
06/28/2011 14:43:23	6.364	12.568	2.644	89.903	72.101
06/28/2011 14:43:33	6.35	12.528	2.644	89.603	71.903
06/28/2011 14:43:43	6.254	12.667	2.658	89.702	71.204
06/28/2011 14:43:53	6.203	12.612	2.691	89.702	71.204
06/28/2011 14:44:03	6.203	12.667	2.655	89.702	71.603
06/28/2011 14:44:13	6.269	12.583	2.673	89.603	71.702
06/28/2011 14:44:23	6.291	12.63	2.658	89.603	71.702
06/28/2011 14:44:33	6.276	12.502	2.64	89.402	71.402
06/28/2011 14:44:43	6.372	12.502	2.64	89.603	71.003
06/28/2011 14:44:53	6.265	12.693	2.658	89.603	71.003
06/28/2011 14:45:03	6.126	12.693	2.673	89.603	71.003
06/28/2011 14:45:13	6.104	12.762	2.662	89.603	71.003
06/28/2011 14:45:23	6.038	12.766	2.629	89.603	71.003
06/28/2011 14:45:33	6.126	12.641	2.662	89.702	71.003
06/28/2011 14:45:43	6.115	12.737	2.662	89.702	71.603
06/28/2011 14:45:53	6.108	12.649	2.644	89.603	71.603
06/28/2011 14:46:03	6.189	12.641	2.644	89.603	71.003
06/28/2011 14:46:13	6.243	12.612	2.644	89.603	71.603
06/28/2011 14:46:23	6.291	12.568	2.673	89.702	71.402
06/28/2011 14:46:33	6.251	12.641	2.695	89.603	71.402
06/28/2011 14:46:43	6.101	12.792	2.687	89.603	71.603
06/28/2011 14:46:53	6.119	12.601	2.673	89.603	71.402
06/28/2011 14:47:03	6.218	12.656	2.673	89.603	71.204
06/28/2011 14:47:13	6.236	12.619	2.644	89.603	71.603
06/28/2011 14:47:23	6.229	12.689	2.676	89.402	70.801
06/28/2011 14:47:33	6.152	12.619	2.662	89.204	70.801
06/28/2011 14:47:43	6.262	12.671	2.698	89.603	71.003
06/28/2011 14:47:53	6.214	12.641	2.698	89.603	71.204
06/28/2011 14:48:03	6.156	12.718	2.673	89.603	71.402
06/28/2011 14:48:13	6.038	12.806	2.687	89.603	71.204
06/28/2011 14:48:23	5.994	12.77	2.691	89.402	71.003
06/28/2011 14:48:33	6.06	12.641	2.665	89.204	70.801
06/28/2011 14:48:43	6.152	12.722	2.647	89.402	70.801
06/28/2011 14:48:53	6.06	12.784	2.676	89.002	70.801
06/28/2011 14:49:03	6.053	12.81	2.717	89.204	71.003
06/28/2011 14:49:13	5.976	12.883	2.695	89.402	71.402
06/28/2011 14:49:23	5.932	12.85	2.676	89.603	71.603
06/28/2011 14:49:33	5.998	12.795	2.695	89.603	71.603
06/28/2011 14:49:43	5.991	12.817	2.676	89.603	71.702
06/28/2011 14:49:53	6.009	12.795	2.695	89.204	71.603
06/28/2011 14:50:03	6.145	12.572	2.695	89.204	71.603
06/28/2011 14:50:13	6.32	12.488	2.698	89.603	71.702
06/28/2011 14:50:23	6.342	12.652	2.695	89.204	71.702
06/28/2011 14:50:33	6.276	12.55	2.72	89.204	71.702
06/28/2011 14:50:43	6.222	12.762	2.72	89.402	71.204
06/28/2011 14:50:53	6.13	12.583	2.695	89.603	71.003
06/28/2011 14:51:03	6.284	12.59	2.695	89.402	70.801
06/28/2011 14:51:13	6.203	12.696	2.673	89.603	70.801
06/28/2011 14:51:23	6.196	12.616	2.651	89.603	71.402
06/28/2011 14:51:33	6.298	12.51	2.662	89.702	71.603
06/28/2011 14:51:43	6.317	12.579	2.673	89.603	71.603
06/28/2011 14:51:53	6.265	12.619	2.673	89.702	71.603
06/28/2011 14:52:03	6.134	12.803	2.684	89.702	71.204
06/28/2011 14:52:13	6.031	12.781	2.72	89.702	70.801
06/28/2011 14:52:23	6.016	12.784	2.72	89.702	70.801
06/28/2011 14:52:33	6.042	12.784	2.702	89.702	70.801
06/28/2011 14:52:43	6.071	12.693	2.695	89.702	70.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 14:52:53	6.137	12.663	2.665	89.603	71.003
06/28/2011 14:53:03	6.174	12.755	2.651	89.702	70.801
06/28/2011 14:53:13	6.167	12.564	2.644	89.903	70.801
06/28/2011 14:53:23	6.342	12.521	2.644	89.702	70.801
06/28/2011 14:53:33	6.339	12.634	2.673	89.903	70.801
06/28/2011 14:53:43	6.214	12.616	2.687	90.105	70.801
06/28/2011 14:53:53	6.214	12.663	2.684	90.105	70.801
06/28/2011 14:54:03	6.247	12.652	2.691	90.302	70.801
06/28/2011 14:54:13	6.218	12.612	2.695	90.105	70.801
06/28/2011 14:54:23	6.229	12.63	2.695	89.903	70.801
06/28/2011 14:54:33	6.287	12.572	2.658	89.702	71.402
06/28/2011 14:54:43	6.229	12.674	2.665	89.702	71.603
06/28/2011 14:54:53	6.218	12.579	2.665	89.603	71.603
06/28/2011 14:55:03	6.262	12.652	2.665	89.702	71.204
06/28/2011 14:55:13	6.211	12.685	2.647	89.702	70.801
06/28/2011 14:55:23	6.258	12.583	2.673	89.903	70.801
06/28/2011 14:55:33	6.211	12.685	2.665	89.903	70.801
06/28/2011 14:55:43	6.163	12.682	2.64	89.903	70.801
06/28/2011 14:55:53	6.222	12.619	2.644	89.903	70.801
06/28/2011 14:56:03	6.251	12.612	2.64	90.105	71.003
06/28/2011 14:56:13	6.222	12.66	2.673	90.105	71.003
06/28/2011 14:56:23	6.123	12.7	2.647	90.105	71.003
06/28/2011 14:56:33	6.09	12.748	2.64	90.302	71.603
06/28/2011 14:56:43	6.075	12.718	2.64	90.105	71.603
06/28/2011 14:56:53	6.101	12.722	2.622	89.702	71.603
06/28/2011 14:57:03	6.181	12.619	2.622	89.603	71.003
06/28/2011 14:57:13	6.174	12.7	2.644	89.702	71.003
06/28/2011 14:57:23	6.145	12.601	2.665	89.903	71.003
06/28/2011 14:57:33	6.247	12.605	2.698	89.702	71.003
06/28/2011 14:57:43	6.243	12.612	2.673	89.903	71.003
06/28/2011 14:57:53	6.324	12.473	2.687	89.903	71.003
06/28/2011 14:58:03	6.324	12.645	2.695	89.903	70.801
06/28/2011 14:58:13	6.24	12.612	2.684	89.603	71.204
06/28/2011 14:58:23	6.247	12.568	2.676	89.402	71.603
06/28/2011 14:58:33	6.342	12.586	2.695	89.702	71.204
06/28/2011 14:58:43	6.284	12.51	2.695	89.603	71.003
06/28/2011 14:58:53	6.298	12.557	2.695	89.603	71.402
06/28/2011 14:59:03	6.254	12.623	2.684	89.603	71.603
06/28/2011 14:59:13	6.276	12.451	2.695	89.603	71.003
06/28/2011 14:59:23	6.324	12.619	2.691	89.603	71.003
06/28/2011 14:59:33	6.159	12.652	2.673	89.603	71.204
06/28/2011 14:59:43	6.196	12.663	2.665	89.603	71.603
06/28/2011 14:59:53	6.214	12.696	2.665	89.603	71.603
06/28/2011 15:00:03	6.192	12.652	2.673	89.702	71.603
06/28/2011 15:00:13	6.258	12.579	2.684	89.603	71.603
06/28/2011 15:00:23	6.298	12.601	2.676	89.603	71.603
06/28/2011 15:00:33	6.207	12.729	2.68	89.603	71.603
06/28/2011 15:00:43	6.145	12.575	2.676	89.603	71.003
06/28/2011 15:00:53	6.262	12.601	2.9	89.603	70.801
06/28/2011 15:01:03	6.174	12.645	2.86	89.603	71.003
06/28/2011 15:01:13	6.313	12.521	2.83	89.603	70.801
06/28/2011 15:01:23	6.298	12.638	2.779	89.702	71.003
06/28/2011 15:01:33	6.298	12.553	2.764	89.603	71.402
06/28/2011 15:01:43	6.317	12.532	2.742	89.702	71.603
06/28/2011 15:01:53	6.254	12.674	2.706	89.204	71.402
06/28/2011 15:02:03	6.276	12.499	2.746	89.002	70.801
06/28/2011 15:02:13	6.291	12.634	2.746	89.402	71.003
06/28/2011 15:02:23	6.222	12.674	2.724	89.603	71.402
06/28/2011 15:02:33	6.163	12.641	2.72	89.402	71.702
06/28/2011 15:02:43	6.214	12.583	2.728	89.603	71.204
06/28/2011 15:02:53	6.2	12.726	2.746	89.603	70.801
06/28/2011 15:03:03	6.134	12.7	2.72	89.603	71.003
06/28/2011 15:03:13	6.196	12.605	2.698	89.402	71.603
06/28/2011 15:03:23	6.225	12.561	2.72	89.402	71.603
06/28/2011 15:03:33	6.232	12.594	2.717	89.603	71.003
06/28/2011 15:03:43	6.225	12.66	2.695	89.603	70.801
06/28/2011 15:03:53	6.269	12.491	2.695	89.702	71.003
06/28/2011 15:04:03	6.361	12.553	2.695	89.603	71.204
06/28/2011 15:04:13	6.313	12.564	2.687	89.603	71.603
06/28/2011 15:04:23	6.254	12.583	2.695	89.603	71.603
06/28/2011 15:04:33	6.247	12.63	2.695	89.603	71.603

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 15:04:43	6.214	12.612	2.673	89.603	71.402
06/28/2011 15:04:53	6.214	12.638	2.684	89.603	71.402
06/28/2011 15:05:03	6.232	12.579	2.673	89.204	71.402
06/28/2011 15:05:13	6.262	12.66	2.687	89.402	71.603
06/28/2011 15:05:23	6.148	12.759	2.695	89.402	71.603
06/28/2011 15:05:33	6.119	12.689	2.676	89.603	71.603
06/28/2011 15:05:43	6.068	12.814	2.713	89.603	71.603
06/28/2011 15:05:53	5.95	12.854	2.673	89.002	71.402
06/28/2011 15:06:03	6.079	12.674	2.655	89.204	71.402
06/28/2011 15:06:13	6.167	12.704	2.658	89.204	71.204
06/28/2011 15:06:23	6.225	12.561	2.655	89.402	71.204
06/28/2011 15:06:33	6.243	12.718	2.665	89.204	71.204
06/28/2011 15:06:43	6.2	12.634	2.691	89.002	71.204
06/28/2011 15:06:53	6.243	12.608	2.717	88.805	71.402
06/28/2011 15:07:03	6.17	12.759	2.698	88.805	71.402
06/28/2011 15:07:13	6.049	12.726	2.695	89.002	71.603
06/28/2011 15:07:23	6.064	12.799	2.695	89.204	71.204
06/28/2011 15:07:33	6.064	12.704	2.698	89.402	71.003
06/28/2011 15:07:43	6.13	12.715	2.676	89.002	70.801
06/28/2011 15:07:53	6.137	12.652	2.644	88.805	70.801
06/28/2011 15:08:03	6.218	12.66	2.673	88.702	71.402
06/28/2011 15:08:13	6.134	12.689	2.644	88.105	71.603
06/28/2011 15:08:23	6.17	12.619	2.658	88.702	70.801
06/28/2011 15:08:33	6.192	12.704	2.691	88.702	70.801
06/28/2011 15:08:43	6.097	12.762	2.698	88.702	70.801
06/28/2011 15:08:53	6.02	12.85	2.655	88.303	71.204
06/28/2011 15:09:03	6.137	12.539	2.662	88.702	71.603
06/28/2011 15:09:13	6.269	12.586	2.684	88.805	71.402
06/28/2011 15:09:23	6.225	12.685	2.651	89.002	71.204
06/28/2011 15:09:33	6.306	12.568	2.673	88.805	70.801
06/28/2011 15:09:43	6.379	12.539	2.691	88.805	70.801
06/28/2011 15:09:53	6.287	12.689	2.662	88.702	70.801
06/28/2011 15:10:03	6.145	12.766	2.651	88.504	70.801
06/28/2011 15:10:13	6.035	12.821	2.673	88.702	70.801
06/28/2011 15:10:23	5.976	12.817	2.695	88.504	70.801
06/28/2011 15:10:33	6.024	12.718	2.691	89.002	71.204
06/28/2011 15:10:43	6.13	12.645	2.695	88.702	71.003
06/28/2011 15:10:53	6.126	12.77	2.698	89.002	71.003
06/28/2011 15:11:03	6.071	12.711	2.698	88.805	71.003
06/28/2011 15:11:13	6.053	12.821	2.673	89.002	71.402
06/28/2011 15:11:23	6.079	12.685	2.691	88.805	71.003
06/28/2011 15:11:33	6.148	12.744	2.695	88.805	70.702
06/28/2011 15:11:43	6.068	12.74	2.706	89.002	70.702
06/28/2011 15:11:53	6.079	12.715	2.695	88.805	70.702
06/28/2011 15:12:03	6.203	12.594	2.673	89.002	70.702
06/28/2011 15:12:13	6.214	12.671	2.673	88.504	71.003
06/28/2011 15:12:23	6.181	12.667	2.676	88.702	71.204
06/28/2011 15:12:33	6.152	12.766	2.695	88.504	70.702
06/28/2011 15:12:43	6.09	12.711	2.684	88.504	70.702
06/28/2011 15:12:53	6.148	12.678	2.695	88.303	71.402
06/28/2011 15:13:03	6.137	12.715	2.698	88.702	70.702
06/28/2011 15:13:13	6.097	12.744	2.695	88.702	71.204
06/28/2011 15:13:23	6.17	12.586	2.673	88.805	70.702
06/28/2011 15:13:33	6.276	12.586	2.662	88.702	70.303
06/28/2011 15:13:43	6.331	12.499	2.644	88.504	70.801
06/28/2011 15:13:53	6.295	12.63	2.691	88.504	71.204
06/28/2011 15:14:03	6.181	12.715	2.691	88.702	71.204
06/28/2011 15:14:13	6.152	12.638	2.647	88.805	71.003
06/28/2011 15:14:23	6.254	12.575	2.673	88.504	70.702
06/28/2011 15:14:33	6.291	12.524	2.695	88.303	71.204
06/28/2011 15:14:43	6.287	12.579	2.698	88.702	71.204
06/28/2011 15:14:53	6.17	12.674	2.691	88.702	71.204
06/28/2011 15:15:03	6.156	12.663	2.687	88.805	70.702
06/28/2011 15:15:13	6.137	12.726	2.673	88.805	70.504
06/28/2011 15:15:23	6.13	12.696	2.665	88.805	70.801
06/28/2011 15:15:33	6.148	12.693	2.665	89.002	71.402
06/28/2011 15:15:43	6.064	12.828	2.665	88.805	71.003
06/28/2011 15:15:53	5.983	12.876	2.665	89.002	70.504
06/28/2011 15:16:03	5.994	12.839	2.695	88.805	70.702
06/28/2011 15:16:13	6.042	12.762	2.691	89.002	71.402
06/28/2011 15:16:23	6.038	12.733	2.651	88.805	71.204

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 15:16:33	6.126	12.707	2.64	88.702	70.303
06/28/2011 15:16:43	6.101	12.806	2.658	88.702	70.504
06/28/2011 15:16:53	5.98	12.982	2.647	88.504	71.003
06/28/2011 15:17:03	5.87	12.964	2.64	88.504	71.204
06/28/2011 15:17:13	5.863	12.865	2.64	88.303	71.003
06/28/2011 15:17:23	5.932	12.898	2.644	88.504	70.504
06/28/2011 15:17:33	6.02	12.707	2.662	88.303	70.504
06/28/2011 15:17:43	6.101	12.744	2.695	88.303	70.504
06/28/2011 15:17:53	5.991	12.92	2.698	88.504	70.702
06/28/2011 15:18:03	5.91	12.857	2.698	88.702	70.504
06/28/2011 15:18:13	6.002	12.744	2.68	88.702	70.801
06/28/2011 15:18:23	6.053	12.744	2.687	88.805	71.204
06/28/2011 15:18:33	6.082	12.766	2.695	88.805	71.402
06/28/2011 15:18:43	5.994	12.887	2.724	88.805	71.402
06/28/2011 15:18:53	5.95	12.817	2.695	88.702	71.402
06/28/2011 15:19:03	5.991	12.759	2.695	88.702	71.003
06/28/2011 15:19:13	6.115	12.696	2.695	88.702	70.702
06/28/2011 15:19:23	6.097	12.718	2.691	88.805	70.702
06/28/2011 15:19:33	6.156	12.616	2.695	88.702	71.204
06/28/2011 15:19:43	6.163	12.726	2.695	88.303	71.204
06/28/2011 15:19:53	6.097	12.77	2.72	88.303	71.003
06/28/2011 15:20:03	5.936	13.008	2.728	88.504	70.702
06/28/2011 15:20:13	5.848	12.942	2.742	88.303	70.504
06/28/2011 15:20:23	5.896	12.843	2.72	88.504	70.702
06/28/2011 15:20:33	6.009	12.726	2.72	88.702	70.702
06/28/2011 15:20:43	6.119	12.722	2.713	88.702	70.801
06/28/2011 15:20:53	6.068	12.777	2.724	88.702	71.204
06/28/2011 15:21:03	6.009	12.85	2.731	88.805	71.204
06/28/2011 15:21:13	6.053	12.707	2.746	89.002	71.204
06/28/2011 15:21:23	5.998	12.942	2.698	88.702	71.204
06/28/2011 15:21:33	5.936	12.751	2.717	88.303	71.003
06/28/2011 15:21:43	6.06	12.81	2.695	88.303	71.003
06/28/2011 15:21:53	6.101	12.63	2.695	88.504	71.003
06/28/2011 15:22:03	6.178	12.737	2.709	88.504	71.204
06/28/2011 15:22:13	6.086	12.759	2.717	88.105	70.504
06/28/2011 15:22:23	6.115	12.722	2.698	87.904	70.303
06/28/2011 15:22:33	6.137	12.693	2.709	88.303	71.003
06/28/2011 15:22:43	6.031	12.81	2.676	88.702	70.303
06/28/2011 15:22:53	6.027	12.726	2.695	88.702	71.204
06/28/2011 15:23:03	6.057	12.737	2.673	88.303	70.303
06/28/2011 15:23:13	6.068	12.74	2.647	88.504	71.204
06/28/2011 15:23:23	6.031	12.832	2.676	88.303	70.303
06/28/2011 15:23:33	6.013	12.784	2.691	88.504	71.204
06/28/2011 15:23:43	6.042	12.77	2.695	88.702	70.504
06/28/2011 15:23:53	6.031	12.814	2.68	88.504	71.003
06/28/2011 15:24:03	6.042	12.795	2.673	88.702	70.702
06/28/2011 15:24:13	6.064	12.737	2.644	88.504	70.303
06/28/2011 15:24:23	6.163	12.627	2.629	88.303	71.003
06/28/2011 15:24:33	6.222	12.733	2.662	88.702	70.504
06/28/2011 15:24:43	6.031	12.872	2.662	88.504	70.303
06/28/2011 15:24:53	5.943	12.854	2.644	88.504	70.102
06/28/2011 15:25:03	5.958	12.835	2.651	88.702	70.303
06/28/2011 15:25:13	5.976	12.773	2.644	88.504	70.102
06/28/2011 15:25:23	6.068	12.748	2.64	88.702	70.303
06/28/2011 15:25:33	6.17	12.63	2.618	88.702	70.702
06/28/2011 15:25:43	6.192	12.784	2.651	88.504	71.003
06/28/2011 15:25:53	5.954	12.923	2.618	88.303	70.702
06/28/2011 15:26:03	6.013	12.671	2.647	88.702	70.102
06/28/2011 15:26:13	6.123	12.748	2.64	88.504	70.504
06/28/2011 15:26:23	6.163	12.63	2.644	88.702	71.003
06/28/2011 15:26:33	6.152	12.773	2.64	88.303	70.801
06/28/2011 15:26:43	6.159	12.597	2.64	88.702	70.303
06/28/2011 15:26:53	6.258	12.575	2.614	88.504	70.303
06/28/2011 15:27:03	6.298	12.586	2.618	88.504	70.801
06/28/2011 15:27:13	6.163	12.718	2.64	88.303	71.003
06/28/2011 15:27:23	6.082	12.751	2.64	88.303	70.801
06/28/2011 15:27:33	6.101	12.663	2.64	88.105	70.504
06/28/2011 15:27:43	6.13	12.733	2.636	88.504	70.102
06/28/2011 15:27:53	5.991	12.967	2.64	88.702	70.303
06/28/2011 15:28:03	5.899	12.876	2.665	88.702	70.102
06/28/2011 15:28:13	5.954	12.821	2.665	88.702	71.003

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 15:28:23	6.035	12.729	2.673	88.504	71.003
06/28/2011 15:28:33	6.009	12.854	2.691	88.303	70.504
06/28/2011 15:28:43	5.965	12.777	2.724	88.303	70.102
06/28/2011 15:28:53	6.027	12.832	2.72	88.504	70.702
06/28/2011 15:29:03	6.057	12.707	2.695	88.702	71.003
06/28/2011 15:29:13	6.243	12.579	2.68	88.504	70.801
06/28/2011 15:29:23	6.276	12.575	2.68	88.702	70.102
06/28/2011 15:29:33	6.203	12.744	2.698	88.303	70.102
06/28/2011 15:29:43	6.024	12.784	2.695	88.303	70.303
06/28/2011 15:29:53	6.086	12.707	2.717	88.504	70.102
06/28/2011 15:30:03	6.167	12.671	2.695	88.504	70.303
06/28/2011 15:30:13	6.218	12.696	2.695	88.504	70.102
06/28/2011 15:30:23	6.093	12.788	2.695	88.303	70.303
06/28/2011 15:30:33	5.98	12.784	2.665	88.504	70.303
06/28/2011 15:30:43	6.027	12.81	2.698	88.702	70.303
06/28/2011 15:30:53	5.983	12.872	2.717	88.504	70.303
06/28/2011 15:31:03	5.943	12.828	2.72	88.303	70.702
06/28/2011 15:31:13	5.932	12.898	2.713	88.504	70.504
06/28/2011 15:31:23	5.888	12.865	2.665	88.303	70.303
06/28/2011 15:31:33	6.013	12.711	2.665	88.303	70.303
06/28/2011 15:31:43	6.049	12.795	2.676	88.105	70.303
06/28/2011 15:31:53	6.104	12.689	2.695	88.105	70.303
06/28/2011 15:32:03	6.09	12.773	2.695	88.105	70.504
06/28/2011 15:32:13	6.082	12.773	2.695	88.504	70.801
06/28/2011 15:32:23	6.016	12.835	2.64	88.303	71.003
06/28/2011 15:32:33	6.093	12.693	2.665	88.702	71.003
06/28/2011 15:32:43	6.167	12.634	2.673	88.702	71.003
06/28/2011 15:32:53	6.189	12.696	2.673	88.504	71.003
06/28/2011 15:33:03	6.082	12.781	2.691	88.303	71.003
06/28/2011 15:33:13	6.079	12.667	2.695	88.303	70.801
06/28/2011 15:33:23	6.079	12.828	2.698	88.504	70.801
06/28/2011 15:33:33	6.042	12.711	2.695	88.702	71.003
06/28/2011 15:33:43	6.049	12.766	2.695	88.702	71.003
06/28/2011 15:33:53	6.013	12.748	2.72	88.805	70.702
06/28/2011 15:34:03	6.027	12.803	2.717	88.504	70.504
06/28/2011 15:34:13	6.141	12.55	2.9	88.504	70.303
06/28/2011 15:34:23	6.265	12.634	2.922	88.504	70.303
06/28/2011 15:34:33	6.24	12.561	2.86	88.702	70.303
06/28/2011 15:34:43	6.265	12.608	2.805	88.303	70.303
06/28/2011 15:34:53	6.295	12.616	2.801	88.105	70.504
06/28/2011 15:35:03	6.276	12.583	2.797	88.303	70.801
06/28/2011 15:35:13	6.258	12.641	2.775	88.303	71.003
06/28/2011 15:35:23	6.156	12.649	2.757	88.105	71.003
06/28/2011 15:35:33	6.2	12.656	2.779	88.105	71.003
06/28/2011 15:35:43	6.145	12.722	2.775	88.504	71.003
06/28/2011 15:35:53	6.218	12.557	2.794	88.303	70.801
06/28/2011 15:36:03	6.302	12.521	2.779	88.303	71.003
06/28/2011 15:36:13	6.335	12.484	2.783	88.105	70.702
06/28/2011 15:36:23	6.291	12.616	2.786	88.105	70.702
06/28/2011 15:36:33	6.167	12.667	2.731	88.105	70.102
06/28/2011 15:36:43	6.247	12.542	2.695	88.303	70.504
06/28/2011 15:36:53	6.32	12.539	2.695	88.105	70.702
06/28/2011 15:37:03	6.353	12.539	2.724	88.105	70.102
06/28/2011 15:37:13	6.262	12.63	2.72	88.303	70.702
06/28/2011 15:37:23	6.247	12.59	2.72	88.702	70.801
06/28/2011 15:37:33	6.254	12.557	2.72	88.702	70.102
06/28/2011 15:37:43	6.17	12.766	2.713	88.303	70.801
06/28/2011 15:37:53	6.082	12.685	2.706	87.904	70.504
06/28/2011 15:38:03	6.222	12.539	2.72	87.904	69.904
06/28/2011 15:38:13	6.331	12.444	2.72	87.904	70.702
06/28/2011 15:38:23	6.412	12.499	2.695	87.904	70.702
06/28/2011 15:38:33	6.364	12.524	2.665	87.904	70.303
06/28/2011 15:38:43	6.375	12.48	2.665	88.105	70.102
06/28/2011 15:38:53	6.408	12.48	2.665	88.105	70.102
06/28/2011 15:39:03	6.452	12.411	2.625	87.904	70.504
06/28/2011 15:39:13	6.511	12.436	2.64	88.105	70.702
06/28/2011 15:39:23	6.43	12.521	2.64	87.904	70.702
06/28/2011 15:39:33	6.434	12.429	2.651	87.904	70.504
06/28/2011 15:39:43	6.394	12.564	2.64	87.904	69.904
06/28/2011 15:39:53	6.328	12.524	2.64	87.904	70.102
06/28/2011 15:40:03	6.379	12.513	2.64	87.904	70.504

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 15:40:13	6.405	12.477	2.665	87.904	70.702
06/28/2011 15:40:23	6.324	12.608	2.647	87.904	70.702
06/28/2011 15:40:33	6.247	12.532	2.64	87.904	69.904
06/28/2011 15:40:43	6.28	12.601	2.622	87.904	70.102
06/28/2011 15:40:53	6.236	12.627	2.611	87.904	70.303
06/28/2011 15:41:03	6.254	12.59	2.633	87.805	70.702
06/28/2011 15:41:13	6.276	12.634	2.633	87.805	70.702
06/28/2011 15:41:23	6.28	12.473	2.636	87.805	70.702
06/28/2011 15:41:33	6.379	12.502	2.633	87.904	70.702
06/28/2011 15:41:43	6.346	12.48	2.618	87.904	70.102
06/28/2011 15:41:53	6.379	12.521	2.64	88.105	70.102
06/28/2011 15:42:03	6.306	12.583	2.618	88.105	70.102
06/28/2011 15:42:13	6.368	12.455	2.633	87.904	70.702
06/28/2011 15:42:23	6.456	12.455	2.64	87.904	70.702
06/28/2011 15:42:33	6.342	12.553	2.618	87.904	70.102
06/28/2011 15:42:43	6.331	12.542	2.618	87.904	70.102
06/28/2011 15:42:53	6.313	12.539	2.633	88.303	70.702
06/28/2011 15:43:03	6.207	12.744	2.625	88.303	70.801
06/28/2011 15:43:13	6.108	12.634	2.592	87.904	70.303
06/28/2011 15:43:23	6.163	12.711	2.614	87.904	70.102
06/28/2011 15:43:33	6.093	12.784	2.618	87.805	70.702
06/28/2011 15:43:43	6.101	12.638	2.618	87.805	70.702
06/28/2011 15:43:53	6.229	12.619	2.618	87.904	70.702
06/28/2011 15:44:03	6.181	12.682	2.618	87.904	70.102
06/28/2011 15:44:13	6.156	12.696	2.633	87.904	70.303
06/28/2011 15:44:23	6.185	12.755	2.64	87.805	70.702
06/28/2011 15:44:33	6.137	12.627	2.618	87.904	70.504
06/28/2011 15:44:43	6.335	12.418	2.618	87.805	70.102
06/28/2011 15:44:53	6.482	12.451	2.596	87.603	69.904
06/28/2011 15:45:03	6.5	12.381	2.589	87.603	69.904
06/28/2011 15:45:13	6.562	12.308	2.614	87.805	69.904
06/28/2011 15:45:23	6.493	12.506	2.636	87.805	69.904
06/28/2011 15:45:33	6.302	12.594	2.611	87.603	70.303
06/28/2011 15:45:43	6.298	12.619	2.622	87.805	70.801
06/28/2011 15:45:53	6.284	12.59	2.662	87.904	70.102
06/28/2011 15:46:03	6.229	12.656	2.644	87.904	70.702
06/28/2011 15:46:13	6.284	12.484	2.658	88.105	70.102
06/28/2011 15:46:23	6.379	12.59	2.676	88.105	70.702
06/28/2011 15:46:33	6.258	12.63	2.673	87.805	70.303
06/28/2011 15:46:43	6.251	12.634	2.651	88.105	70.102
06/28/2011 15:46:53	6.258	12.572	2.618	87.805	70.702
06/28/2011 15:47:03	6.328	12.48	2.611	87.904	70.102
06/28/2011 15:47:13	6.379	12.513	2.607	87.904	70.702
06/28/2011 15:47:23	6.361	12.451	2.589	88.105	69.904
06/28/2011 15:47:33	6.493	12.429	2.581	87.805	70.504
06/28/2011 15:47:43	6.449	12.491	2.563	88.105	70.702
06/28/2011 15:47:53	6.533	12.271	2.592	87.904	70.702
06/28/2011 15:48:03	6.566	12.348	2.618	88.303	70.702
06/28/2011 15:48:13	6.514	12.455	2.614	88.303	70.102
06/28/2011 15:48:23	6.441	12.422	2.592	88.105	69.904
06/28/2011 15:48:33	6.547	12.297	2.622	87.904	69.904
06/28/2011 15:48:43	6.566	12.414	2.625	88.105	70.702
06/28/2011 15:48:53	6.558	12.275	2.618	88.105	70.702
06/28/2011 15:49:03	6.54	12.491	2.618	88.105	69.904
06/28/2011 15:49:13	6.339	12.575	2.633	88.303	70.102
06/28/2011 15:49:23	6.339	12.447	2.658	87.904	70.504
06/28/2011 15:49:33	6.394	12.506	2.614	88.105	70.702
06/28/2011 15:49:43	6.474	12.403	2.618	87.904	70.702
06/28/2011 15:49:53	6.544	12.363	2.611	87.805	70.702
06/28/2011 15:50:03	6.599	12.271	2.618	87.805	70.102
06/28/2011 15:50:13	6.602	12.4	2.622	87.603	70.102
06/28/2011 15:50:23	6.562	12.341	2.618	87.603	70.102
06/28/2011 15:50:33	6.613	12.319	2.596	87.805	70.702
06/28/2011 15:50:43	6.639	12.337	2.625	87.805	70.702
06/28/2011 15:50:53	6.61	12.282	2.644	87.904	70.702
06/28/2011 15:51:03	6.694	12.242	2.618	87.805	70.702
06/28/2011 15:51:13	6.701	12.319	2.603	87.805	70.504
06/28/2011 15:51:23	6.617	12.392	2.618	87.603	70.102
06/28/2011 15:51:33	6.518	12.447	2.644	87.805	69.904
06/28/2011 15:51:43	6.496	12.319	2.614	87.603	69.904
06/28/2011 15:51:53	6.558	12.389	2.622	87.805	69.904

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 15:52:03	6.573	12.29	2.618	87.603	69.904
06/28/2011 15:52:13	6.723	12.18	2.644	87.805	69.904
06/28/2011 15:52:23	6.72	12.341	2.636	87.805	69.904
06/28/2011 15:52:33	6.69	12.217	2.636	87.603	69.904
06/28/2011 15:52:43	6.731	12.301	2.618	87.603	70.303
06/28/2011 15:52:53	6.694	12.25	2.64	87.805	70.504
06/28/2011 15:53:03	6.661	12.297	2.644	87.603	70.504
06/28/2011 15:53:13	6.577	12.374	2.644	87.603	70.303
06/28/2011 15:53:23	6.536	12.37	2.625	87.805	69.904
06/28/2011 15:53:33	6.588	12.304	2.658	87.805	69.801
06/28/2011 15:53:43	6.525	12.425	2.64	87.805	70.504
06/28/2011 15:53:53	6.401	12.553	2.662	87.805	70.504
06/28/2011 15:54:03	6.383	12.528	2.684	87.904	69.904
06/28/2011 15:54:13	6.427	12.447	2.665	87.904	69.904
06/28/2011 15:54:23	6.496	12.407	2.691	87.904	70.303
06/28/2011 15:54:33	6.5	12.477	2.691	88.105	70.504
06/28/2011 15:54:43	6.507	12.422	2.695	87.904	70.504
06/28/2011 15:54:53	6.489	12.418	2.702	88.105	70.504
06/28/2011 15:55:03	6.46	12.513	2.695	88.105	70.504
06/28/2011 15:55:13	6.394	12.51	2.706	88.303	70.504
06/28/2011 15:55:23	6.306	12.553	2.695	87.904	70.303
06/28/2011 15:55:33	6.397	12.418	2.665	87.904	69.904
06/28/2011 15:55:43	6.416	12.524	2.706	87.805	69.801
06/28/2011 15:55:53	6.247	12.696	2.695	87.904	69.801
06/28/2011 15:56:03	6.203	12.612	2.72	87.805	70.303
06/28/2011 15:56:13	6.32	12.484	2.742	87.805	70.702
06/28/2011 15:56:23	6.342	12.579	2.713	87.805	70.504
06/28/2011 15:56:33	6.331	12.583	2.673	87.904	70.504
06/28/2011 15:56:43	6.471	12.213	2.633	87.904	70.102
06/28/2011 15:56:53	6.654	12.396	2.651	87.805	69.904
06/28/2011 15:57:03	6.654	12.217	2.665	87.805	69.904
06/28/2011 15:57:13	6.676	12.33	2.658	87.805	70.102
06/28/2011 15:57:23	6.591	12.356	2.647	87.603	70.303
06/28/2011 15:57:33	6.613	12.261	2.665	87.204	70.504
06/28/2011 15:57:43	6.555	12.462	2.64	87.603	70.504
06/28/2011 15:57:53	6.507	12.429	2.622	87.805	70.504
06/28/2011 15:58:03	6.474	12.528	2.662	87.805	69.904
Pause Run 9					
THC Drift Check					
06/28/2011 15:58:13	6.364	12.521	12.909	87.805	70.102
06/28/2011 15:58:23	5.69	1.402	0.329	87.805	70.303
06/28/2011 15:58:33	1.325	0.333	0.12	87.805	70.504
06/28/2011 15:58:43	0.08	0.267	0.12	87.603	71.003
06/28/2011 15:58:53	0.043	0.237	0.12	87.402	70.801
06/28/2011 15:59:03	0.032	0.215	0.091	87.402	70.801
06/28/2011 15:59:13	0.025	0.204	0.091	87.402	70.504
N2 Zero			**0.101**	**87.402**	**70.702**
06/28/2011 15:59:23	0.021	0.193	1.486	87.805	70.102
06/28/2011 15:59:33	2.618	5.335	46.074	87.603	70.303
06/28/2011 15:59:43	14.685	0.23	49.959	87.603	70.504
06/28/2011 15:59:53	20.314	0.19	50.091	87.805	70.702
06/28/2011 16:00:03	20.577	0.179	50.128	87.805	70.801
06/28/2011 16:00:13	20.614	0.172	50.121	87.904	70.702
49.8 ppm Propane Mid			**50.113**	**87.838**	**70.735**
06/28/2011 16:00:23	20.629	0.168	47.934	87.805	70.801
06/28/2011 16:00:33	19.673	3.468	4.53	87.805	70.504
06/28/2011 16:00:43	11.363	12.297	2.665	87.904	70.504
06/28/2011 16:00:53	6.701	12.242	2.647	87.904	70.504
06/28/2011 16:01:03	6.544	12.458	2.673	88.105	70.504
Resume Run 9					
06/28/2011 16:01:13	6.383	12.458	2.673	88.105	70.504
06/28/2011 16:01:23	6.401	12.451	2.618	88.303	69.904
06/28/2011 16:01:33	6.405	12.433	2.592	88.105	70.702
06/28/2011 16:01:43	6.449	12.378	2.607	88.303	69.904
06/28/2011 16:01:53	6.471	12.466	2.625	88.303	70.504
06/28/2011 16:02:03	6.342	12.634	2.64	88.105	69.904
06/28/2011 16:02:13	6.152	12.696	2.644	87.904	70.102
06/28/2011 16:02:23	6.071	12.729	2.607	87.805	70.303
06/28/2011 16:02:33	6.218	12.469	2.607	87.805	69.801
06/28/2011 16:02:43	6.317	12.553	2.607	87.904	70.303
06/28/2011 16:02:53	6.342	12.502	2.618	88.105	69.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 16:03:03	6.298	12.605	2.607	87.904	69.801
06/28/2011 16:03:13	6.265	12.586	2.592	88.105	70.504
06/28/2011 16:03:23	6.269	12.572	2.618	88.303	70.303
06/28/2011 16:03:33	6.214	12.674	2.592	88.105	69.904
06/28/2011 16:03:43	6.243	12.561	2.622	88.303	69.904
06/28/2011 16:03:53	6.295	12.586	2.618	87.904	69.801
06/28/2011 16:04:03	6.287	12.546	2.618	87.805	69.904
06/28/2011 16:04:13	6.427	12.33	2.64	87.805	69.801
06/28/2011 16:04:23	6.463	12.418	2.614	87.904	69.904
06/28/2011 16:04:33	6.482	12.407	2.614	87.904	69.904
06/28/2011 16:04:43	6.536	12.367	2.625	87.805	69.801
06/28/2011 16:04:53	6.54	12.385	2.64	87.805	69.801
06/28/2011 16:05:03	6.493	12.495	2.647	87.805	69.801
06/28/2011 16:05:13	6.346	12.59	2.658	87.904	69.904
06/28/2011 16:05:23	6.287	12.645	2.665	87.805	70.504
06/28/2011 16:05:33	6.189	12.704	2.64	87.904	70.504
06/28/2011 16:05:43	6.2	12.667	2.625	87.904	70.702
06/28/2011 16:05:53	6.243	12.564	2.662	87.805	70.504
06/28/2011 16:06:03	6.309	12.528	2.625	88.105	70.504
06/28/2011 16:06:13	6.379	12.48	2.589	87.904	70.504
06/28/2011 16:06:23	6.434	12.429	2.574	87.904	70.504
06/28/2011 16:06:33	6.445	12.477	2.614	87.904	70.303
06/28/2011 16:06:43	6.339	12.652	2.618	87.904	69.904
06/28/2011 16:06:53	6.364	12.359	2.607	87.904	70.102
06/28/2011 16:07:03	6.536	12.444	2.614	87.805	70.504
06/28/2011 16:07:13	6.463	12.451	2.607	87.805	70.102
06/28/2011 16:07:23	6.547	12.345	2.6	87.904	69.801
06/28/2011 16:07:33	6.61	12.246	2.779	87.805	70.504
06/28/2011 16:07:43	6.731	12.165	2.838	87.805	70.504
06/28/2011 16:07:53	6.771	12.191	2.739	87.805	70.102
06/28/2011 16:08:03	6.69	12.279	2.72	88.105	69.904
06/28/2011 16:08:13	6.547	12.48	2.717	88.105	70.102
06/28/2011 16:08:23	6.452	12.323	2.698	88.105	70.504
06/28/2011 16:08:33	6.547	12.422	2.687	88.105	70.504
06/28/2011 16:08:43	6.427	12.403	2.673	88.504	70.303
06/28/2011 16:08:53	6.514	12.414	2.673	88.303	69.904
06/28/2011 16:09:03	6.514	12.411	2.673	87.904	70.102
06/28/2011 16:09:13	6.529	12.455	2.673	87.805	70.504
06/28/2011 16:09:23	6.471	12.414	2.655	87.603	70.504
06/28/2011 16:09:33	6.514	12.407	2.698	87.603	70.504
06/28/2011 16:09:43	6.427	12.466	2.72	87.904	69.904
06/28/2011 16:09:53	6.317	12.564	2.673	87.904	69.904
06/28/2011 16:10:03	6.276	12.627	2.695	88.105	70.102
06/28/2011 16:10:13	6.156	12.674	2.655	88.105	70.702
06/28/2011 16:10:23	6.313	12.392	2.658	88.105	70.702
06/28/2011 16:10:33	6.438	12.532	2.673	88.105	70.102
06/28/2011 16:10:43	6.368	12.491	2.673	88.105	69.904
06/28/2011 16:10:53	6.434	12.44	2.698	87.904	70.303
06/28/2011 16:11:03	6.405	12.484	2.687	87.805	70.702
06/28/2011 16:11:13	6.372	12.466	2.673	87.805	70.702
06/28/2011 16:11:23	6.372	12.564	2.673	87.805	70.702
06/28/2011 16:11:33	6.269	12.652	2.691	87.805	70.702
06/28/2011 16:11:43	6.192	12.729	2.673	87.805	70.702
06/28/2011 16:11:53	6.2	12.59	2.658	87.805	70.504
06/28/2011 16:12:03	6.262	12.521	2.625	87.805	70.702
06/28/2011 16:12:13	6.452	12.48	2.673	87.805	70.702
06/28/2011 16:12:23	6.339	12.564	2.673	87.805	70.801
06/28/2011 16:12:33	6.463	12.334	2.647	87.805	70.801
06/28/2011 16:12:43	6.566	12.337	2.644	87.805	70.102
06/28/2011 16:12:53	6.613	12.33	2.673	87.805	70.102
06/28/2011 16:13:03	6.558	12.44	2.636	87.805	70.504
06/28/2011 16:13:13	6.511	12.455	2.636	87.805	70.702
06/28/2011 16:13:23	6.43	12.462	2.64	87.805	70.702
06/28/2011 16:13:33	6.427	12.411	2.618	87.904	70.504
06/28/2011 16:13:43	6.452	12.502	2.636	88.105	70.102
06/28/2011 16:13:53	6.364	12.48	2.655	88.105	70.504
06/28/2011 16:14:03	6.375	12.521	2.673	88.303	70.702
06/28/2011 16:14:13	6.386	12.473	2.644	87.904	70.504
06/28/2011 16:14:23	6.482	12.422	2.665	87.904	70.303
06/28/2011 16:14:33	6.449	12.499	2.647	87.904	70.504
06/28/2011 16:14:43	6.401	12.553	2.644	87.805	70.702

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 16:14:53	6.342	12.55	2.618	87.904	70.504
06/28/2011 16:15:03	6.287	12.619	2.644	87.904	70.102
06/28/2011 16:15:13	6.185	12.682	2.618	88.105	70.102
06/28/2011 16:15:23	6.291	12.517	2.622	88.303	70.303
06/28/2011 16:15:33	6.353	12.583	2.644	87.904	70.303
06/28/2011 16:15:43	6.419	12.304	2.665	87.805	70.504
06/28/2011 16:15:53	6.547	12.411	2.662	87.805	70.801
06/28/2011 16:16:03	6.408	12.553	2.665	87.805	71.003
06/28/2011 16:16:13	6.236	12.715	2.662	87.402	70.801
06/28/2011 16:16:23	6.207	12.619	2.647	87.603	70.801
06/28/2011 16:16:33	6.251	12.553	2.673	87.402	70.702
06/28/2011 16:16:43	6.189	12.7	2.68	87.603	70.801
06/28/2011 16:16:53	6.17	12.59	2.673	87.805	70.801
06/28/2011 16:17:03	6.214	12.634	2.698	87.402	70.801
06/28/2011 16:17:13	6.225	12.671	2.691	87.805	70.801
06/28/2011 16:17:23	6.24	12.586	2.673	87.805	70.801
06/28/2011 16:17:33	6.265	12.616	2.687	87.805	70.801
06/28/2011 16:17:43	6.247	12.663	2.673	87.805	70.303
06/28/2011 16:17:53	6.258	12.597	2.676	87.805	70.303
06/28/2011 16:18:03	6.229	12.711	2.695	87.805	70.303
06/28/2011 16:18:13	6.104	12.788	2.68	87.805	70.303
06/28/2011 16:18:23	5.994	12.81	2.673	87.805	70.801
06/28/2011 16:18:33	5.991	12.788	2.695	87.603	70.801
06/28/2011 16:18:43	6.013	12.817	2.684	87.603	70.702
06/28/2011 16:18:53	6.042	12.781	2.72	87.805	70.303
06/28/2011 16:19:03	6.057	12.762	2.731	87.904	70.303
06/28/2011 16:19:13	6.086	12.66	2.717	87.904	70.303
06/28/2011 16:19:23	6.214	12.652	2.698	87.805	71.003
06/28/2011 16:19:33	6.243	12.542	2.713	87.805	70.801
06/28/2011 16:19:43	6.291	12.528	2.658	87.904	70.504
06/28/2011 16:19:53	6.284	12.682	2.684	88.105	70.303
End Run 9					
Average	**5.700**	**13.097**	**2.687**	**88.128**	**70.277**
Maximum	**7.155**	**14.311**	**3.449**	**90.504**	**72.101**
Minimum	**4.313**	**11.623**	**2.292**	**86.102**	**68.703**
06/28/2011 16:20:03	6.086	12.839	2.665	88.105	70.303
06/28/2011 16:20:13	5.925	12.846	2.684	87.904	70.303
06/28/2011 16:20:23	5.95	12.879	2.72	87.904	70.504
06/28/2011 16:20:33	5.969	12.715	2.72	87.805	70.702
06/28/2011 16:20:43	6.137	12.678	2.698	87.805	70.801
06/28/2011 16:20:53	6.232	12.572	2.673	87.805	70.801
06/28/2011 16:21:03	6.32	12.586	2.676	87.805	71.003
06/28/2011 16:21:13	6.273	12.7	2.713	87.805	71.003
06/28/2011 16:21:23	6.222	12.564	2.698	87.904	70.702
06/28/2011 16:21:33	6.35	12.48	2.695	87.805	70.504
06/28/2011 16:21:43	6.5	12.433	2.728	87.805	70.504
06/28/2011 16:21:53	6.39	12.619	2.746	88.105	70.303
06/28/2011 16:22:03	6.328	12.524	2.698	87.904	70.303
06/28/2011 16:22:13	6.331	12.597	2.698	87.904	70.702
06/28/2011 16:22:23	6.32	12.528	2.731	87.904	71.003
06/28/2011 16:22:33	6.346	12.572	2.728	88.303	71.003
06/28/2011 16:22:43	6.342	12.55	2.746	87.904	71.003
06/28/2011 16:22:53	6.328	12.619	2.779	87.904	70.801
06/28/2011 16:23:03	6.123	12.876	2.724	87.904	70.801
06/28/2011 16:23:13	6.108	12.583	2.72	87.904	70.801
06/28/2011 16:23:23	6.222	12.711	2.72	87.904	70.801
06/28/2011 16:23:33	6.119	12.718	2.676	88.105	70.702
06/28/2011 16:23:43	6.317	12.447	2.698	87.805	70.303
06/28/2011 16:23:53	6.394	12.59	2.687	87.805	70.303
06/28/2011 16:24:03	6.357	12.477	2.706	87.805	70.303
06/28/2011 16:24:13	6.405	12.491	2.698	87.805	70.303
06/28/2011 16:24:23	6.474	12.524	2.695	87.805	70.303
06/28/2011 16:24:33	6.449	12.411	2.684	87.805	70.303
06/28/2011 16:24:43	6.536	12.308	2.695	87.805	70.504
06/28/2011 16:24:53	6.522	12.436	2.673	87.904	70.504
06/28/2011 16:25:03	6.43	12.532	2.68	87.904	71.003
06/28/2011 16:25:13	6.357	12.48	2.673	87.904	71.204
06/28/2011 16:25:23	6.364	12.535	2.673	87.805	71.204
06/28/2011 16:25:33	6.353	12.458	2.644	87.805	71.204
06/28/2011 16:25:43	6.405	12.484	2.633	87.603	71.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 16:25:53	6.364	12.594	2.622	87.603	71.204
06/28/2011 16:26:03	6.35	12.542	2.64	87.805	71.204
06/28/2011 16:26:13	6.346	12.502	2.611	87.805	70.504
06/28/2011 16:26:23	6.438	12.491	2.618	87.805	70.303
06/28/2011 16:26:33	6.39	12.473	2.644	87.603	71.003
06/28/2011 16:26:43	6.313	12.63	2.644	87.805	70.504
06/28/2011 16:26:53	6.2	12.645	2.64	87.805	70.303
06/28/2011 16:27:03	6.269	12.491	2.625	87.904	71.003
06/28/2011 16:27:13	6.493	12.458	2.64	87.904	70.303
06/28/2011 16:27:23	6.485	12.466	2.662	88.105	70.801
06/28/2011 16:27:33	6.386	12.553	2.662	87.805	70.801
06/28/2011 16:27:43	6.287	12.623	2.651	87.805	70.303
06/28/2011 16:27:53	6.265	12.575	2.655	87.805	71.003
06/28/2011 16:28:03	6.254	12.546	2.618	87.805	70.702
06/28/2011 16:28:13	6.438	12.374	2.647	87.603	70.303
06/28/2011 16:28:23	6.522	12.37	2.647	87.603	70.702
06/28/2011 16:28:33	6.496	12.451	2.651	87.805	71.003
06/28/2011 16:28:43	6.39	12.572	2.665	87.805	71.003
06/28/2011 16:28:53	6.353	12.517	2.644	87.805	70.801
06/28/2011 16:29:03	6.379	12.528	2.644	88.105	70.303
06/28/2011 16:29:13	6.375	12.517	2.651	88.303	70.303
06/28/2011 16:29:23	6.313	12.619	2.64	88.303	71.003
06/28/2011 16:29:33	6.353	12.436	2.665	88.504	70.702
06/28/2011 16:29:43	6.32	12.579	2.64	88.702	70.303
06/28/2011 16:29:53	6.383	12.396	2.64	88.805	70.801
06/28/2011 16:30:03	6.434	12.561	2.662	88.702	71.003
06/28/2011 16:30:13	6.236	12.583	2.644	88.805	70.303
06/28/2011 16:30:23	6.372	12.488	2.695	88.504	70.303
06/28/2011 16:30:33	6.313	12.619	2.695	88.504	70.801
06/28/2011 16:30:43	6.203	12.63	2.636	88.702	70.801
06/28/2011 16:30:53	6.346	12.469	2.629	88.702	70.702
06/28/2011 16:31:03	6.339	12.601	2.618	88.702	70.303
06/28/2011 16:31:13	6.324	12.597	2.644	88.702	70.303
06/28/2011 16:31:23	6.298	12.535	2.618	88.702	70.303
06/28/2011 16:31:33	6.416	12.455	2.618	88.504	70.504
06/28/2011 16:31:43	6.503	12.433	2.644	88.303	70.702
06/28/2011 16:31:53	6.46	12.469	2.644	88.504	70.702
06/28/2011 16:32:03	6.463	12.392	2.647	88.303	70.504
06/28/2011 16:32:13	6.445	12.597	2.658	88.303	70.303
06/28/2011 16:32:23	6.298	12.597	2.64	88.504	70.303
06/28/2011 16:32:33	6.295	12.579	2.633	88.504	70.801
06/28/2011 16:32:43	6.357	12.601	2.673	88.702	70.303
06/28/2011 16:32:53	6.284	12.561	2.676	88.702	70.801
06/28/2011 16:33:03	6.342	12.491	2.644	88.702	70.303
06/28/2011 16:33:13	6.434	12.411	2.633	88.303	70.801
06/28/2011 16:33:23	6.511	12.411	2.644	88.504	70.303
06/28/2011 16:33:33	6.449	12.51	2.644	88.504	70.801
06/28/2011 16:33:43	6.298	12.623	2.662	88.504	70.303
06/28/2011 16:33:53	6.309	12.433	2.636	88.303	70.702
06/28/2011 16:34:03	6.463	12.51	2.636	88.105	70.303
06/28/2011 16:34:13	6.434	12.425	2.636	88.105	70.801
06/28/2011 16:34:23	6.478	12.488	2.644	88.303	70.303
06/28/2011 16:34:33	6.379	12.539	2.625	88.105	70.801
06/28/2011 16:34:43	6.397	12.579	2.658	88.504	71.003
06/28/2011 16:34:53	6.401	12.378	2.651	88.504	70.504
06/28/2011 16:35:03	6.529	12.389	2.644	88.702	70.303
06/28/2011 16:35:13	6.485	12.451	2.618	88.504	70.303
06/28/2011 16:35:23	6.474	12.422	2.644	88.504	70.303
06/28/2011 16:35:33	6.547	12.385	2.636	88.702	70.303
06/28/2011 16:35:43	6.547	12.561	2.658	88.504	70.303
06/28/2011 16:35:53	6.269	12.667	2.644	88.504	70.702
06/28/2011 16:36:03	6.324	12.535	2.636	88.303	70.801
06/28/2011 16:36:13	6.339	12.579	2.603	88.303	71.003
06/28/2011 16:36:23	6.419	12.418	2.618	88.303	71.003
06/28/2011 16:36:33	6.46	12.484	2.655	88.303	71.003
06/28/2011 16:36:43	6.434	12.444	2.6	88.303	70.702
06/28/2011 16:36:53	6.595	12.411	2.644	88.303	70.303
06/28/2011 16:37:03	6.562	12.37	2.658	88.303	70.303
06/28/2011 16:37:13	6.449	12.557	2.644	87.904	70.303
06/28/2011 16:37:23	6.247	12.792	2.644	88.105	70.303
06/28/2011 16:37:33	6.093	12.711	2.64	88.303	70.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 16:37:43	6.189	12.638	2.636	88.303	70.801
06/28/2011 16:37:53	6.17	12.781	2.662	88.303	71.003
06/28/2011 16:38:03	6.046	12.773	2.644	87.904	70.801
06/28/2011 16:38:13	6.101	12.608	2.614	87.805	70.801
06/28/2011 16:38:23	6.35	12.502	2.618	88.105	70.504
06/28/2011 16:38:33	6.317	12.608	2.592	87.805	70.303
06/28/2011 16:38:43	6.346	12.564	2.596	87.904	70.303
06/28/2011 16:38:53	6.273	12.667	2.592	87.904	70.303
06/28/2011 16:39:03	6.211	12.652	2.618	88.303	70.702
06/28/2011 16:39:13	6.174	12.711	2.581	88.504	71.003
06/28/2011 16:39:23	6.265	12.466	2.559	88.303	71.003
06/28/2011 16:39:33	6.507	12.363	2.559	88.303	70.801
06/28/2011 16:39:43	6.566	12.418	2.592	88.303	70.504
06/28/2011 16:39:53	6.566	12.282	2.592	88.105	70.303
06/28/2011 16:40:03	6.683	12.282	2.592	87.904	70.303
06/28/2011 16:40:13	6.588	12.425	2.589	87.904	70.504
06/28/2011 16:40:23	6.518	12.455	2.592	87.904	70.801
06/28/2011 16:40:33	6.471	12.477	2.592	87.805	70.801
06/28/2011 16:40:43	6.419	12.561	2.614	87.805	70.801
06/28/2011 16:40:53	6.317	12.586	2.753	87.805	70.801
06/28/2011 16:41:03	6.328	12.524	2.838	87.805	70.303
06/28/2011 16:41:13	6.339	12.532	2.735	87.805	70.303
06/28/2011 16:41:23	6.419	12.326	2.673	87.805	70.303
06/28/2011 16:41:33	6.591	12.359	2.644	87.402	70.801
06/28/2011 16:41:43	6.602	12.319	2.622	87.402	71.003
06/28/2011 16:41:53	6.687	12.228	2.622	87.603	70.801
06/28/2011 16:42:03	6.657	12.374	2.644	87.805	70.702
06/28/2011 16:42:13	6.555	12.323	2.644	87.904	70.303
06/28/2011 16:42:23	6.657	12.257	2.644	87.904	70.504
06/28/2011 16:42:33	6.683	12.29	2.655	87.904	70.303
06/28/2011 16:42:43	6.602	12.312	2.673	88.105	70.504
06/28/2011 16:42:53	6.536	12.418	2.651	87.904	70.504
06/28/2011 16:43:03	6.405	12.528	2.644	87.904	70.801
06/28/2011 16:43:13	6.317	12.542	2.644	87.805	70.702
06/28/2011 16:43:23	6.306	12.557	2.644	87.805	70.702
06/28/2011 16:43:33	6.335	12.539	2.644	87.805	70.102
06/28/2011 16:43:43	6.368	12.51	2.618	87.603	70.504
06/28/2011 16:43:53	6.493	12.323	2.567	87.805	70.303
06/28/2011 16:44:03	6.632	12.279	2.563	87.805	70.102
06/28/2011 16:44:13	6.657	12.301	2.585	87.805	70.702
06/28/2011 16:44:23	6.599	12.433	2.603	87.805	70.303
06/28/2011 16:44:33	6.317	12.63	2.64	88.105	70.702
06/28/2011 16:44:43	6.247	12.557	2.644	88.105	70.504
06/28/2011 16:44:53	6.339	12.517	2.644	88.303	70.801
06/28/2011 16:45:03	6.251	12.689	2.618	88.303	70.102
06/28/2011 16:45:13	6.284	12.477	2.636	87.805	70.702
06/28/2011 16:45:23	6.438	12.433	2.618	87.904	70.303
06/28/2011 16:45:33	6.632	12.301	2.618	88.105	69.904
06/28/2011 16:45:43	6.657	12.37	2.563	88.105	70.504
06/28/2011 16:45:53	6.679	12.312	2.592	87.805	70.303
06/28/2011 16:46:03	6.573	12.429	2.574	87.805	70.102
06/28/2011 16:46:13	6.595	12.261	2.592	87.904	69.904
06/28/2011 16:46:23	6.683	12.286	2.618	87.904	70.504
06/28/2011 16:46:33	6.562	12.455	2.592	87.805	70.504
06/28/2011 16:46:43	6.595	12.304	2.592	87.603	70.102
06/28/2011 16:46:53	6.606	12.392	2.618	87.805	70.102
06/28/2011 16:47:03	6.621	12.261	2.625	87.805	70.102
06/28/2011 16:47:13	6.701	12.25	2.574	87.402	70.303
06/28/2011 16:47:23	6.705	12.271	2.592	87.805	70.702
06/28/2011 16:47:33	6.547	12.535	2.592	87.805	70.702
06/28/2011 16:47:43	6.438	12.473	2.603	87.805	70.702
06/28/2011 16:47:53	6.503	12.381	2.633	87.805	70.303
06/28/2011 16:48:03	6.547	12.407	2.644	87.805	70.102
06/28/2011 16:48:13	6.46	12.469	2.611	87.805	69.904
06/28/2011 16:48:23	6.434	12.396	2.581	87.805	69.904
06/28/2011 16:48:33	6.58	12.264	2.592	87.805	70.303
06/28/2011 16:48:43	6.683	12.356	2.581	87.402	70.303
06/28/2011 16:48:53	6.522	12.436	2.559	87.603	70.702
06/28/2011 16:49:03	6.643	12.213	2.563	87.402	70.504
06/28/2011 16:49:13	6.76	12.224	2.592	87.402	70.504
06/28/2011 16:49:23	6.646	12.385	2.567	87.603	70.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 16:49:33	6.522	12.407	2.563	87.805	70.102
06/28/2011 16:49:43	6.529	12.381	2.563	87.805	69.904
06/28/2011 16:49:53	6.558	12.429	2.567	87.805	69.904
06/28/2011 16:50:03	6.562	12.4	2.618	87.904	69.904
06/28/2011 16:50:13	6.434	12.477	2.607	87.805	70.303
06/28/2011 16:50:23	6.551	12.312	2.592	87.805	70.504
06/28/2011 16:50:33	6.606	12.356	2.563	87.603	70.702
06/28/2011 16:50:43	6.635	12.22	2.537	87.603	70.504
06/28/2011 16:50:53	6.804	12.136	2.541	87.402	70.303
06/28/2011 16:51:03	6.793	12.217	2.541	87.204	69.904
06/28/2011 16:51:13	6.723	12.301	2.559	87.402	69.904
06/28/2011 16:51:23	6.577	12.484	2.592	87.402	70.102
06/28/2011 16:51:33	6.335	12.594	2.567	87.603	70.504
06/28/2011 16:51:43	6.434	12.337	2.589	87.402	70.702
06/28/2011 16:51:53	6.525	12.429	2.611	87.402	70.702
06/28/2011 16:52:03	6.522	12.286	2.567	87.204	70.801
06/28/2011 16:52:13	6.723	12.191	2.545	87.402	70.801
06/28/2011 16:52:23	6.774	12.301	2.563	87.603	70.504
06/28/2011 16:52:33	6.632	12.381	2.545	87.402	70.102
06/28/2011 16:52:43	6.676	12.187	2.541	87.603	69.904
06/28/2011 16:52:53	6.756	12.261	2.515	87.805	70.303
06/28/2011 16:53:03	6.723	12.315	2.541	87.603	70.303
06/28/2011 16:53:13	6.665	12.319	2.585	87.805	70.801
06/28/2011 16:53:23	6.588	12.356	2.563	87.805	70.801
06/28/2011 16:53:33	6.61	12.341	2.537	87.904	70.702
06/28/2011 16:53:43	6.661	12.37	2.574	87.805	70.504
06/28/2011 16:53:53	6.514	12.524	2.6	88.105	69.904
06/28/2011 16:54:03	6.269	12.704	2.6	87.904	70.504
06/28/2011 16:54:13	6.196	12.649	2.603	87.904	70.702
06/28/2011 16:54:23	6.353	12.484	2.592	88.105	70.102
06/28/2011 16:54:33	6.372	12.575	2.592	88.105	70.303
06/28/2011 16:54:43	6.28	12.663	2.563	88.303	70.702
06/28/2011 16:54:53	6.452	12.22	2.548	88.303	70.303
06/28/2011 16:55:03	6.753	12.22	2.559	88.303	70.303
06/28/2011 16:55:13	6.771	12.224	2.567	88.303	70.702
06/28/2011 16:55:23	6.723	12.286	2.541	88.504	70.702
06/28/2011 16:55:33	6.646	12.389	2.563	88.702	70.504
06/28/2011 16:55:43	6.503	12.429	2.537	88.504	70.702
06/28/2011 16:55:53	6.61	12.235	2.515	88.504	70.702
06/28/2011 16:56:03	6.749	12.246	2.512	88.504	70.702
06/28/2011 16:56:13	6.731	12.253	2.519	88.504	70.702
06/28/2011 16:56:23	6.595	12.422	2.515	88.504	70.702
06/28/2011 16:56:33	6.536	12.447	2.515	88.504	70.303
06/28/2011 16:56:43	6.445	12.495	2.541	88.303	70.102
06/28/2011 16:56:53	6.361	12.553	2.541	88.504	69.904
06/28/2011 16:57:03	6.331	12.597	2.556	88.303	69.904
06/28/2011 16:57:13	6.262	12.63	2.559	88.105	69.904
06/28/2011 16:57:23	6.346	12.484	2.592	88.303	69.904
06/28/2011 16:57:33	6.346	12.605	2.57	88.303	69.904
06/28/2011 16:57:43	6.247	12.689	2.589	88.105	70.303
06/28/2011 16:57:53	6.189	12.634	2.581	88.105	70.303
06/28/2011 16:58:03	6.302	12.572	2.589	87.904	70.504
06/28/2011 16:58:13	6.441	12.356	2.592	87.904	70.504
06/28/2011 16:58:23	6.569	12.37	2.567	87.904	70.303
06/28/2011 16:58:33	6.529	12.425	2.563	88.303	69.904
06/28/2011 16:58:43	6.474	12.436	2.556	87.904	70.102
06/28/2011 16:58:53	6.482	12.433	2.541	87.805	70.504
06/28/2011 16:59:03	6.525	12.337	2.563	87.805	70.102
06/28/2011 16:59:13	6.5	12.532	2.563	87.805	70.102
06/28/2011 16:59:23	6.408	12.458	2.559	88.105	70.702
06/28/2011 16:59:33	6.372	12.656	2.574	88.105	69.904
06/28/2011 16:59:43	6.276	12.671	2.592	87.904	70.504
06/28/2011 16:59:53	6.189	12.634	2.592	88.105	70.102
06/28/2011 17:00:03	6.211	12.685	2.589	87.904	70.702
06/28/2011 17:00:13	6.287	12.616	2.585	88.105	70.102
06/28/2011 17:00:23	6.397	12.392	2.592	87.904	69.904
06/28/2011 17:00:33	6.452	12.528	2.563	87.904	70.102
06/28/2011 17:00:43	6.441	12.4	2.552	87.805	70.303
06/28/2011 17:00:53	6.536	12.348	2.537	87.805	70.102
06/28/2011 17:01:03	6.588	12.37	2.548	88.105	69.904
06/28/2011 17:01:13	6.514	12.469	2.537	87.805	69.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 17:01:23	6.364	12.608	2.563	87.805	69.904
06/28/2011 17:01:33	6.243	12.696	2.537	87.805	69.904
06/28/2011 17:01:43	6.185	12.605	2.523	87.603	70.303
06/28/2011 17:01:53	6.361	12.403	2.574	87.402	70.702
06/28/2011 17:02:03	6.302	12.733	2.567	87.204	70.702
06/28/2011 17:02:13	6.126	12.663	2.545	87.204	70.504
06/28/2011 17:02:23	6.185	12.682	2.545	87.603	70.303
06/28/2011 17:02:33	6.298	12.455	2.53	87.805	70.102
06/28/2011 17:02:43	6.507	12.359	2.537	87.904	70.102
06/28/2011 17:02:53	6.522	12.433	2.526	87.805	70.303
06/28/2011 17:03:03	6.525	12.389	2.541	87.805	70.504
06/28/2011 17:03:13	6.588	12.337	2.545	87.805	70.702
06/28/2011 17:03:23	6.555	12.4	2.545	87.904	70.702
06/28/2011 17:03:33	6.584	12.363	2.592	87.904	70.303
06/28/2011 17:03:43	6.493	12.499	2.563	87.904	69.904
06/28/2011 17:03:53	6.518	12.352	2.552	88.105	69.904
06/28/2011 17:04:03	6.635	12.242	2.552	88.105	70.102
06/28/2011 17:04:13	6.624	12.308	2.541	87.904	70.303
06/28/2011 17:04:23	6.61	12.356	2.515	88.105	70.303
06/28/2011 17:04:33	6.635	12.315	2.526	87.805	70.303
06/28/2011 17:04:43	6.518	12.502	2.534	87.805	70.303
06/28/2011 17:04:53	6.452	12.341	2.534	87.904	70.303
06/28/2011 17:05:03	6.547	12.477	2.541	87.904	70.303
06/28/2011 17:05:13	6.427	12.491	2.559	87.805	69.904
06/28/2011 17:05:23	6.372	12.517	2.526	87.805	69.904
06/28/2011 17:05:33	6.496	12.392	2.563	87.402	69.904
06/28/2011 17:05:43	6.471	12.521	2.552	87.805	70.504
06/28/2011 17:05:53	6.43	12.37	2.537	87.805	70.702
06/28/2011 17:06:03	6.547	12.418	2.563	87.904	70.102
06/28/2011 17:06:13	6.412	12.608	2.519	87.805	69.904
06/28/2011 17:06:23	6.379	12.546	2.563	87.805	70.504
06/28/2011 17:06:33	6.269	12.652	2.548	87.603	70.702
06/28/2011 17:06:43	6.232	12.59	2.541	87.402	70.102
06/28/2011 17:06:53	6.412	12.308	2.537	87.603	70.102
06/28/2011 17:07:03	6.65	12.213	2.563	87.402	70.303
06/28/2011 17:07:13	6.698	12.253	2.537	87.805	70.504
06/28/2011 17:07:23	6.683	12.323	2.515	87.603	70.504
06/28/2011 17:07:33	6.745	12.198	2.515	87.805	70.504
06/28/2011 17:07:43	6.807	12.239	2.515	87.805	70.102
06/28/2011 17:07:53	6.738	12.275	2.541	87.805	69.904
06/28/2011 17:08:03	6.617	12.436	2.563	87.805	69.904
06/28/2011 17:08:13	6.536	12.334	2.541	87.805	69.904
06/28/2011 17:08:23	6.632	12.312	2.541	87.603	70.303
06/28/2011 17:08:33	6.679	12.228	2.53	87.603	70.702
06/28/2011 17:08:43	6.727	12.308	2.545	87.603	70.702
06/28/2011 17:08:53	6.602	12.433	2.537	87.603	70.303
06/28/2011 17:09:03	6.551	12.458	2.53	87.603	69.904
06/28/2011 17:09:13	6.493	12.37	2.49	87.805	69.904
06/28/2011 17:09:23	6.657	12.253	2.49	87.805	70.303
06/28/2011 17:09:33	6.712	12.293	2.49	87.805	70.702
06/28/2011 17:09:43	6.712	12.271	2.49	87.805	70.702
06/28/2011 17:09:53	6.65	12.359	2.515	87.805	70.102
06/28/2011 17:10:03	6.551	12.425	2.515	87.805	70.102
06/28/2011 17:10:13	6.61	12.315	2.515	87.805	70.504
06/28/2011 17:10:23	6.606	12.359	2.512	87.805	70.702
06/28/2011 17:10:33	6.679	12.114	2.501	87.805	70.102
06/28/2011 17:10:43	6.807	12.348	2.526	87.805	70.102
Calibration Bias					
06/28/2011 17:10:53	6.555	12.521	4.76	87.805	70.702
06/28/2011 17:11:03	6.815	7.591	1.644	87.805	70.801
06/28/2011 17:11:13	3.489	0.494	0.131	87.805	70.303
06/28/2011 17:11:23	0.23	0.314	0.091	87.904	70.303
06/28/2011 17:11:33	0.054	0.252	0.095	88.105	70.801
06/28/2011 17:11:43	0.036	0.23	0.073	88.105	71.003
06/28/2011 17:11:53	0.029	0.215	0.087	87.904	71.003
N2 Zero	**0.040**	**0.232**	**0.085**	**88.038**	**70.936**
06/28/2011 17:12:03	0.025	0.208	0.67	87.904	70.303
06/28/2011 17:12:13	3.358	8.181	0.402	87.904	70.102
06/28/2011 17:12:23	9.935	9.734	0.377	88.105	70.102
06/28/2011 17:12:33	10.946	9.774	0.388	87.904	70.102
06/28/2011 17:12:43	10.99	9.792	0.388	87.805	70.504

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 17:12:53	11.001	9.803	0.388	87.603	70.702
06/28/2011 17:13:03	11.004	9.81	0.366	87.603	70.702
06/28/2011 17:13:13	11.008	9.814	0.373	87.805	70.702
06/28/2011 17:13:23	11.012	9.814	4.595	87.805	70.504
11.1% O2/9.74% CO2 Mid	**11.008**	**9.813**		**87.738**	**70.636**
06/28/2011 17:13:33	12.136	5.529	48.278	87.402	70.102
06/28/2011 17:13:43	18.138	0.351	50.077	87.603	69.904
06/28/2011 17:13:53	20.515	0.263	50.19	87.402	70.102
06/28/2011 17:14:03	20.614	0.23	50.223	87.204	70.102
06/28/2011 17:14:13	20.632	0.208	50.26	87.402	70.504
49.8 ppm Propane Mid			**50.224**	**87.336**	**70.236**
06/28/2011 17:14:23	20.643	0.197	43.276	87.603	70.504
06/28/2011 17:14:33	18.592	6.833	3.698	87.204	70.303
06/28/2011 17:14:43	10.045	11.905	2.72	87.204	70.303
06/28/2011 17:14:53	7.141	11.861	2.691	87.204	70.303
06/28/2011 17:15:03	6.998	12.239	2.647	87.204	69.801
06/28/2011 17:15:13	6.888	12.011	2.662	87.805	69.604
06/28/2011 17:15:23	6.903	12.077	2.636	87.603	69.604
06/28/2011 17:15:33	6.818	12.308	2.618	87.805	69.801
06/28/2011 17:15:43	6.716	12.118	2.596	87.904	69.904
06/28/2011 17:15:53	6.738	12.239	2.592	87.603	70.102
06/28/2011 17:16:03	6.632	12.359	2.6	87.805	70.102
06/28/2011 17:16:13	6.606	12.359	2.603	87.603	70.102
06/28/2011 17:16:23	6.639	12.293	2.618	87.805	70.303
06/28/2011 17:16:33	6.555	12.407	2.556	87.805	70.102
06/28/2011 17:16:43	6.72	12.07	2.563	87.204	69.904
06/28/2011 17:16:53	6.95	11.971	2.592	87.603	69.402
Start Run 10					
06/28/2011 17:17:03	6.903	12.257	2.548	87.603	69.402
06/28/2011 17:17:13	6.672	12.264	2.545	87.402	69.402
06/28/2011 17:17:23	6.687	12.202	2.53	87.603	69.801
06/28/2011 17:17:33	6.822	12.165	2.592	87.603	70.303
06/28/2011 17:17:43	6.694	12.359	2.592	87.402	70.303
06/28/2011 17:17:53	6.599	12.268	2.548	87.402	70.102
06/28/2011 17:18:03	6.65	12.312	2.556	87.204	69.904
06/28/2011 17:18:13	6.555	12.484	2.563	87.603	69.402
06/28/2011 17:18:23	6.401	12.528	2.545	87.204	69.402
06/28/2011 17:18:33	6.427	12.403	2.534	87.204	69.604
06/28/2011 17:18:43	6.621	12.293	2.567	87.003	69.604
06/28/2011 17:18:53	6.562	12.477	2.541	86.904	69.604
06/28/2011 17:19:03	6.441	12.447	2.515	87.003	69.904
06/28/2011 17:19:13	6.536	12.308	2.526	87.402	69.904
06/28/2011 17:19:23	6.54	12.381	2.53	87.805	70.303
06/28/2011 17:19:33	6.478	12.491	2.515	87.805	70.102
06/28/2011 17:19:43	6.525	12.367	2.515	87.805	69.904
06/28/2011 17:19:53	6.566	12.326	2.49	87.805	69.604
06/28/2011 17:20:03	6.613	12.367	2.46	87.805	69.604
06/28/2011 17:20:13	6.705	12.121	2.482	87.805	69.801
06/28/2011 17:20:23	6.709	12.411	2.464	87.805	70.303
06/28/2011 17:20:33	6.566	12.411	2.46	88.105	70.303
06/28/2011 17:20:43	6.716	12.059	2.482	88.105	69.604
06/28/2011 17:20:53	6.84	12.29	2.49	87.603	69.402
06/28/2011 17:21:03	6.818	12.081	2.46	87.805	70.303
06/28/2011 17:21:13	6.936	12.074	2.438	87.904	70.102
06/28/2011 17:21:23	6.899	12.151	2.457	87.603	69.402
06/28/2011 17:21:33	6.723	12.414	2.46	87.805	69.402
06/28/2011 17:21:43	6.588	12.323	2.435	87.603	70.102
06/28/2011 17:21:53	6.701	12.228	2.435	87.603	70.102
06/28/2011 17:22:03	6.866	11.938	2.446	87.003	70.303
06/28/2011 17:22:13	7.027	12.169	2.427	87.003	70.303
06/28/2011 17:22:23	6.859	12.14	2.435	87.402	70.303
06/28/2011 17:22:33	6.789	12.242	2.435	87.603	70.303
06/28/2011 17:22:43	6.687	12.374	2.435	87.603	70.102
06/28/2011 17:22:53	6.628	12.176	2.435	87.603	69.604
06/28/2011 17:23:03	6.716	12.29	2.424	87.402	69.402
06/28/2011 17:23:13	6.756	12.041	2.409	87.603	69.604
06/28/2011 17:23:23	6.888	12.158	2.435	87.603	69.801
06/28/2011 17:23:33	6.8	12.206	2.46	87.603	69.801
06/28/2011 17:23:43	6.855	12.052	2.435	87.402	69.801
06/28/2011 17:23:53	7.005	12.055	2.435	87.402	69.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 17:24:03	6.991	12.048	2.442	87.402	69.604
06/28/2011 17:24:13	7.035	11.957	2.398	87.603	69.604
06/28/2011 17:24:23	7.115	11.975	2.431	87.402	69.604
06/28/2011 17:24:33	7.056	12.063	2.409	87.402	70.303
06/28/2011 17:24:43	7.053	11.909	2.409	87.003	70.303
06/28/2011 17:24:53	7.053	12.129	2.387	87.402	70.303
06/28/2011 17:25:03	7.013	12.077	2.402	87.402	69.904
06/28/2011 17:25:13	6.807	12.418	2.387	87.402	69.801
06/28/2011 17:25:23	6.628	12.25	2.409	87.603	69.904
06/28/2011 17:25:33	6.723	12.209	2.427	87.904	70.102
06/28/2011 17:25:43	6.69	12.374	2.435	88.105	70.504
06/28/2011 17:25:53	6.558	12.378	2.405	88.105	70.303
06/28/2011 17:26:03	6.668	12.173	2.42	88.105	69.904
06/28/2011 17:26:13	6.657	12.458	2.442	88.105	69.904
06/28/2011 17:26:23	6.5	12.462	2.435	88.105	70.504
06/28/2011 17:26:33	6.434	12.466	2.438	88.303	70.504
06/28/2011 17:26:43	6.405	12.411	2.435	88.504	69.801
06/28/2011 17:26:53	6.471	12.458	2.413	88.504	70.303
06/28/2011 17:27:03	6.617	12.158	2.409	88.504	70.702
06/28/2011 17:27:13	6.822	12.176	2.42	88.805	69.904
06/28/2011 17:27:23	6.811	12.154	2.435	88.702	70.303
06/28/2011 17:27:33	6.701	12.389	2.413	88.303	70.504
06/28/2011 17:27:43	6.742	12.077	2.413	88.303	70.102
06/28/2011 17:27:53	6.859	12.169	2.413	88.504	69.801
06/28/2011 17:28:03	6.72	12.418	2.431	88.105	70.303
06/28/2011 17:28:13	6.613	12.257	2.431	88.504	70.702
06/28/2011 17:28:23	6.72	12.147	2.453	88.504	70.504
06/28/2011 17:28:33	6.8	12.22	2.435	88.303	70.303
06/28/2011 17:28:43	6.833	12.162	2.435	88.303	69.904
06/28/2011 17:28:53	6.895	12.121	2.442	88.105	69.904
06/28/2011 17:29:03	6.892	12.077	2.449	87.805	69.904
06/28/2011 17:29:13	6.906	12.191	2.409	88.105	69.904
06/28/2011 17:29:23	6.862	12.11	2.42	88.303	69.904
06/28/2011 17:29:33	6.87	12.246	2.413	88.105	69.904
06/28/2011 17:29:43	6.789	12.136	2.413	88.303	70.303
06/28/2011 17:29:53	6.815	12.121	2.431	88.504	70.801
06/28/2011 17:30:03	6.829	12.154	2.442	88.702	70.504
06/28/2011 17:30:13	6.767	12.235	2.46	88.504	70.102
06/28/2011 17:30:23	6.698	12.352	2.46	88.504	70.102
06/28/2011 17:30:33	6.683	12.213	2.46	88.303	70.702
06/28/2011 17:30:43	6.892	12.07	2.46	88.105	70.702
06/28/2011 17:30:53	6.807	12.282	2.457	88.105	70.102
06/28/2011 17:31:03	6.72	12.301	2.49	87.805	70.702
06/28/2011 17:31:13	6.555	12.48	2.49	87.904	70.102
06/28/2011 17:31:23	6.386	12.48	2.46	88.105	70.702
06/28/2011 17:31:33	6.588	12.173	2.46	88.303	70.303
06/28/2011 17:31:43	6.72	12.301	2.46	87.904	70.303
06/28/2011 17:31:53	6.712	12.293	2.453	88.105	70.504
06/28/2011 17:32:03	6.72	12.356	2.46	87.904	70.303
06/28/2011 17:32:13	6.617	12.337	2.449	88.105	70.303
06/28/2011 17:32:23	6.573	12.37	2.482	88.105	70.102
06/28/2011 17:32:33	6.547	12.396	2.475	88.504	70.702
06/28/2011 17:32:43	6.687	12.081	2.442	88.303	70.102
06/28/2011 17:32:53	6.961	11.935	2.46	87.904	70.702
06/28/2011 17:33:03	6.884	12.206	2.453	87.904	70.801
06/28/2011 17:33:13	6.785	12.253	2.442	87.904	70.504
06/28/2011 17:33:23	6.767	12.301	2.46	87.805	70.303
06/28/2011 17:33:33	6.705	12.271	2.435	87.904	70.504
06/28/2011 17:33:43	6.738	12.18	2.46	87.805	70.801
06/28/2011 17:33:53	6.723	12.282	2.49	87.904	70.801
06/28/2011 17:34:03	6.577	12.484	2.457	87.904	70.102
06/28/2011 17:34:13	6.639	12.22	2.46	88.105	70.102
06/28/2011 17:34:23	6.859	12.052	2.464	87.904	70.702
06/28/2011 17:34:33	6.859	12.143	2.435	87.805	70.702
06/28/2011 17:34:43	6.95	12.037	2.435	87.805	70.102
06/28/2011 17:34:53	7.02	12.022	2.504	87.805	70.303
06/28/2011 17:35:03	6.859	12.279	2.475	87.904	70.702
06/28/2011 17:35:13	6.866	11.924	2.409	87.805	70.702
06/28/2011 17:35:23	7.148	11.898	2.424	87.904	70.303
06/28/2011 17:35:33	7.071	12.07	2.427	87.904	70.303
06/28/2011 17:35:43	6.969	12.158	2.435	87.904	70.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 17:35:53	6.903	12.011	2.449	87.805	70.303
06/28/2011 17:36:03	6.943	12.107	2.449	87.805	70.303
06/28/2011 17:36:13	6.914	12.132	2.42	87.805	70.504
06/28/2011 17:36:23	6.888	12.07	2.435	87.805	70.702
06/28/2011 17:36:33	6.936	12.125	2.416	87.805	70.801
06/28/2011 17:36:43	7.013	11.99	2.453	87.805	70.801
06/28/2011 17:36:53	6.98	12.019	2.449	87.805	70.702
06/28/2011 17:37:03	6.943	12.088	2.431	87.603	70.702
06/28/2011 17:37:13	6.965	11.964	2.435	87.603	70.702
06/28/2011 17:37:23	7.049	12.052	2.416	87.603	70.702
06/28/2011 17:37:33	6.928	12.103	2.431	88.105	70.801
06/28/2011 17:37:43	6.932	12.063	2.413	87.904	70.801
06/28/2011 17:37:53	7.053	11.88	2.457	88.105	70.801
06/28/2011 17:38:03	7.042	12.092	2.435	88.105	70.303
06/28/2011 17:38:13	6.987	12.052	2.435	88.105	70.303
06/28/2011 17:38:23	6.947	12.07	2.438	87.904	70.102
06/28/2011 17:38:33	6.873	12.143	2.409	87.805	70.102
06/28/2011 17:38:43	6.972	11.953	2.435	87.805	70.303
06/28/2011 17:38:53	7.093	11.971	2.46	87.805	70.702
06/28/2011 17:39:03	6.972	12.063	2.435	87.904	70.303
06/28/2011 17:39:13	7.016	12.008	2.435	87.805	69.904
06/28/2011 17:39:23	7.078	11.92	2.446	87.805	70.702
06/28/2011 17:39:33	7.013	12.173	2.46	87.805	70.303
06/28/2011 17:39:43	6.848	12.125	2.435	87.402	70.102
06/28/2011 17:39:53	6.884	12.132	2.435	87.603	70.702
06/28/2011 17:40:03	6.753	12.378	2.49	87.805	70.102
06/28/2011 17:40:13	6.529	12.407	2.457	87.805	70.303
06/28/2011 17:40:23	6.679	12.114	2.435	87.805	70.801
06/28/2011 17:40:33	7.027	11.92	2.424	87.805	70.702
06/28/2011 17:40:43	7.035	11.964	2.409	87.904	70.801
06/28/2011 17:40:53	7.126	11.876	2.413	88.105	70.801
06/28/2011 17:41:03	7.027	11.997	2.446	87.904	70.303
06/28/2011 17:41:13	6.888	12.184	2.46	88.303	70.303
06/28/2011 17:41:23	6.764	12.195	2.453	87.904	70.702
06/28/2011 17:41:33	6.822	12.143	2.435	87.904	70.102
06/28/2011 17:41:43	6.8	12.268	2.435	88.105	70.303
06/28/2011 17:41:53	6.698	12.22	2.442	87.805	70.702
06/28/2011 17:42:03	6.771	12.195	2.468	87.904	70.303
06/28/2011 17:42:13	6.811	12.242	2.512	87.904	70.303
06/28/2011 17:42:23	6.65	12.297	2.464	87.904	70.303
06/28/2011 17:42:33	6.925	11.832	2.457	87.904	70.504
06/28/2011 17:42:43	7.199	11.799	2.46	87.805	70.702
06/28/2011 17:42:53	7.21	11.938	2.468	87.904	70.801
06/28/2011 17:43:03	7.009	12.147	2.435	88.105	71.003
06/28/2011 17:43:13	7.002	11.975	2.435	88.303	70.801
06/28/2011 17:43:23	7.137	11.821	2.438	88.105	70.801
06/28/2011 17:43:33	7.177	11.935	2.438	88.105	70.801
06/28/2011 17:43:43	7.078	12.022	2.435	87.805	70.801
06/28/2011 17:43:53	7.093	11.854	2.457	87.904	70.801
06/28/2011 17:44:03	7.064	12.103	2.442	88.303	70.801
06/28/2011 17:44:13	6.95	12.066	2.453	88.105	70.504
06/28/2011 17:44:23	7.031	11.968	2.46	87.904	70.303
06/28/2011 17:44:33	7.038	11.997	2.479	87.805	70.102
06/28/2011 17:44:43	6.899	12.242	2.471	87.904	70.102
06/28/2011 17:44:53	6.793	12.125	2.471	87.805	70.102
06/28/2011 17:45:03	6.727	12.348	2.457	87.805	70.303
06/28/2011 17:45:13	6.764	11.971	2.453	87.402	70.504
06/28/2011 17:45:23	7.035	12.066	2.457	87.805	70.102
06/28/2011 17:45:33	6.928	12.044	2.468	87.805	70.303
06/28/2011 17:45:43	6.851	12.334	2.442	88.303	70.303
06/28/2011 17:45:53	6.822	11.971	2.457	88.105	70.303
06/28/2011 17:46:03	6.998	11.964	2.413	87.904	70.303
06/28/2011 17:46:13	7.159	11.799	2.435	87.805	70.303
06/28/2011 17:46:23	7.291	11.773	2.46	87.904	70.504
06/28/2011 17:46:33	7.196	11.858	2.435	87.805	70.102
06/28/2011 17:46:43	7.243	11.847	2.424	87.904	70.504
06/28/2011 17:46:53	7.258	11.817	2.435	87.805	70.702
06/28/2011 17:47:03	7.163	12.022	2.416	87.805	70.702
06/28/2011 17:47:13	7.013	11.946	2.387	87.904	70.702
06/28/2011 17:47:23	7.177	11.825	2.409	87.904	70.702
06/28/2011 17:47:33	7.188	11.847	2.497	88.105	70.102

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 17:47:43	7.192	11.916	2.618	88.105	70.102
06/28/2011 17:47:53	7.225	11.755	2.592	88.105	70.303
06/28/2011 17:48:03	7.317	11.748	2.556	88.303	70.702
06/28/2011 17:48:13	7.229	11.88	2.537	88.105	70.303
06/28/2011 17:48:23	7.148	11.883	2.515	88.105	70.102
06/28/2011 17:48:33	7.188	11.916	2.46	87.805	70.702
06/28/2011 17:48:43	7.137	11.898	2.46	87.805	70.702
06/28/2011 17:48:53	7.115	11.905	2.468	87.805	69.904
06/28/2011 17:49:03	7.089	11.99	2.508	88.105	69.904
06/28/2011 17:49:13	7.067	12.015	2.515	88.105	70.702
06/28/2011 17:49:23	7.042	12	2.504	88.105	70.702
06/28/2011 17:49:33	7.002	11.964	2.49	87.904	70.303
06/28/2011 17:49:43	7.1	11.898	2.468	88.105	70.102
06/28/2011 17:49:53	7.214	11.883	2.464	88.105	70.102
06/28/2011 17:50:03	7.229	11.946	2.479	88.303	70.303
06/28/2011 17:50:13	6.965	12.136	2.493	87.904	70.702
06/28/2011 17:50:23	6.72	12.341	2.497	87.805	70.504
06/28/2011 17:50:33	6.679	12.239	2.49	87.603	70.303
06/28/2011 17:50:43	6.844	12.081	2.49	87.805	69.904
06/28/2011 17:50:53	6.983	11.975	2.471	87.805	69.904
06/28/2011 17:51:03	7.046	12.026	2.471	87.805	70.102
06/28/2011 17:51:13	6.939	12.081	2.49	87.603	70.504
06/28/2011 17:51:23	6.877	12.173	2.493	87.805	70.504
06/28/2011 17:51:33	6.782	12.206	2.501	87.805	70.504
06/28/2011 17:51:43	6.727	12.29	2.501	87.805	70.702
06/28/2011 17:51:53	6.698	12.154	2.515	87.805	70.303
06/28/2011 17:52:03	6.705	12.352	2.471	87.805	69.904
06/28/2011 17:52:13	6.771	11.99	2.446	87.402	70.504
06/28/2011 17:52:23	6.998	12.147	2.475	87.603	69.904
06/28/2011 17:52:33	6.928	12.055	2.46	87.402	70.504
06/28/2011 17:52:43	6.91	12.132	2.446	87.805	69.904
06/28/2011 17:52:53	6.928	12.008	2.435	87.603	70.504
06/28/2011 17:53:03	7.111	11.858	2.435	87.805	70.303
06/28/2011 17:53:13	7.185	11.858	2.446	87.805	70.102
06/28/2011 17:53:23	7.163	11.858	2.46	87.805	70.303
06/28/2011 17:53:33	7.141	11.957	2.479	87.603	69.801
06/28/2011 17:53:43	7.1	11.887	2.49	87.603	70.303
06/28/2011 17:53:53	7.163	11.898	2.49	87.402	69.801
06/28/2011 17:54:03	7.009	12.162	2.515	87.204	70.303
06/28/2011 17:54:13	6.734	12.359	2.464	87.204	69.904
06/28/2011 17:54:23	6.742	12.158	2.42	87.402	69.904
06/28/2011 17:54:33	6.881	12.132	2.471	87.603	70.504
06/28/2011 17:54:43	6.881	12.206	2.515	87.603	69.801
06/28/2011 17:54:53	6.639	12.367	2.515	87.402	70.303
06/28/2011 17:55:03	6.665	12.147	2.464	87.402	70.504
06/28/2011 17:55:13	6.961	11.938	2.438	87.603	69.801
06/28/2011 17:55:23	7.1	11.942	2.46	87.603	69.904
06/28/2011 17:55:33	7.06	12.052	2.442	87.402	70.504
06/28/2011 17:55:43	7.056	12.059	2.438	87.603	69.904
06/28/2011 17:55:53	7.002	12.055	2.435	87.603	70.303
06/28/2011 17:56:03	7.042	11.927	2.46	87.805	70.303
06/28/2011 17:56:13	7.02	12.03	2.464	87.904	69.904
06/28/2011 17:56:23	6.976	11.979	2.471	87.805	70.303
06/28/2011 17:56:33	6.976	12.096	2.49	87.904	69.604
06/28/2011 17:56:43	6.881	12.195	2.49	87.904	70.303
06/28/2011 17:56:53	6.925	12.037	2.493	87.805	69.801
06/28/2011 17:57:03	6.881	12.209	2.515	87.603	70.303
06/28/2011 17:57:13	6.742	12.235	2.471	87.402	70.504
06/28/2011 17:57:23	6.899	12.151	2.457	87.603	69.801
06/28/2011 17:57:33	6.969	12.059	2.435	87.805	69.801
06/28/2011 17:57:43	7.097	11.839	2.435	87.805	70.504
06/28/2011 17:57:53	7.067	12.052	2.409	87.603	70.303
06/28/2011 17:58:03	7.097	11.847	2.416	87.603	69.904
06/28/2011 17:58:13	7.196	11.872	2.435	87.603	69.801
06/28/2011 17:58:23	7.038	12.147	2.471	87.805	69.604
06/28/2011 17:58:33	6.807	12.253	2.471	87.603	70.102
06/28/2011 17:58:43	6.796	12.286	2.49	87.402	70.303
06/28/2011 17:58:53	6.672	12.293	2.479	87.204	70.303
06/28/2011 17:59:03	6.742	12.187	2.46	87.402	70.303
06/28/2011 17:59:13	6.774	12.271	2.475	87.402	70.504
06/28/2011 17:59:23	6.72	12.158	2.453	87.603	70.504

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 17:59:33	6.958	11.946	2.435	87.603	70.504
06/28/2011 17:59:43	7.016	12.143	2.446	87.402	70.303
06/28/2011 17:59:53	6.877	12.191	2.482	87.603	70.303
06/28/2011 18:00:03	6.811	12.151	2.482	87.603	70.303
06/28/2011 18:00:13	6.807	12.198	2.508	87.402	70.303
06/28/2011 18:00:23	6.793	12.22	2.49	87.003	69.801
06/28/2011 18:00:33	6.844	12.136	2.468	87.402	69.604
06/28/2011 18:00:43	6.961	12.015	2.46	87.204	69.801
06/28/2011 18:00:53	6.972	12.055	2.482	86.904	70.303
06/28/2011 18:01:03	6.888	12.176	2.464	87.204	69.604
06/28/2011 18:01:13	6.862	12.03	2.49	87.204	70.303
06/28/2011 18:01:23	6.943	12.096	2.46	87.402	69.801
06/28/2011 18:01:33	6.87	12.132	2.431	87.603	70.303
06/28/2011 18:01:43	6.976	12.041	2.468	87.603	69.801
06/28/2011 18:01:53	7.013	12.03	2.46	87.204	70.303
06/28/2011 18:02:03	7.024	12.044	2.42	87.402	70.504
06/28/2011 18:02:13	7.064	11.858	2.409	87.204	69.801
06/28/2011 18:02:23	7.21	11.938	2.453	87.402	69.904
06/28/2011 18:02:33	7.049	12.121	2.471	87.603	70.102
06/28/2011 18:02:43	6.881	12.158	2.46	87.805	69.801
06/28/2011 18:02:53	6.976	11.916	2.446	87.805	69.801
06/28/2011 18:03:03	7.056	11.924	2.46	87.904	69.801
06/28/2011 18:03:13	6.873	12.264	2.479	87.904	70.303
06/28/2011 18:03:23	6.646	12.319	2.468	87.904	70.504
06/28/2011 18:03:33	6.676	12.202	2.409	87.805	69.801
06/28/2011 18:03:43	6.925	11.894	2.449	87.805	69.801
06/28/2011 18:03:53	7.086	12.033	2.435	87.805	70.102
06/28/2011 18:04:03	7.027	11.953	2.471	87.603	70.504
06/28/2011 18:04:13	7.024	12.129	2.46	87.603	70.504
06/28/2011 18:04:23	6.91	12.158	2.46	87.805	70.303
06/28/2011 18:04:33	6.782	12.282	2.46	87.805	69.904
06/28/2011 18:04:43	6.767	12.209	2.46	87.904	69.801
06/28/2011 18:04:53	6.899	12.07	2.49	87.904	70.102
06/28/2011 18:05:03	6.888	12.088	2.515	87.805	70.303
06/28/2011 18:05:13	6.892	12.048	2.49	87.603	70.303
06/28/2011 18:05:23	6.939	12.07	2.49	87.904	70.303
06/28/2011 18:05:33	6.972	11.99	2.46	87.805	70.102
06/28/2011 18:05:43	7.126	11.898	2.46	87.904	69.801
06/28/2011 18:05:53	7.144	11.957	2.435	87.904	70.102
06/28/2011 18:06:03	7.104	11.942	2.442	87.904	70.303
06/28/2011 18:06:13	7.038	12.074	2.446	87.805	69.604
06/28/2011 18:06:23	6.914	12.074	2.409	87.805	70.303
06/28/2011 18:06:33	6.998	11.964	2.457	87.904	69.604
06/28/2011 18:06:43	6.954	12.129	2.471	87.805	70.303
Pause Run 10					
THC Drift Check					
06/28/2011 18:06:53	7.086	11.645	6.097	87.603	69.904
06/28/2011 18:07:03	5.214	0.648	0.124	87.603	70.504
06/28/2011 18:07:13	0.677	0.413	0.069	87.805	70.102
06/28/2011 18:07:23	0.128	0.373	0.069	87.805	70.702
06/28/2011 18:07:33	0.098	0.311	0.069	87.805	69.904
06/28/2011 18:07:43	0.076	0.296	0.069	87.603	70.504
N2 Zero			**0.069**	**87.738**	**70.370**
06/28/2011 18:07:53	0.069	0.281	9.525	87.805	70.303
06/28/2011 18:08:03	5.112	1.354	48.868	87.805	70.303
06/28/2011 18:08:13	17.655	0.197	49.996	87.805	70.702
06/28/2011 18:08:23	20.49	0.183	50.077	87.805	70.303
06/28/2011 18:08:33	20.61	0.175	50.095	87.805	70.102
06/28/2011 18:08:43	20.636	0.172	50.106	87.805	70.702
06/28/2011 18:08:53	20.651	0.172	50.055	87.805	70.102
49.8 ppm Propane Mid			**50.085**	**87.805**	**70.302**
06/28/2011 18:09:03	20.501	0.615	8.001	87.904	69.904
06/28/2011 18:09:13	14.509	10.583	2.446	87.603	70.504
06/28/2011 18:09:23	8.803	11.041	2.329	87.603	69.801
06/28/2011 18:09:33	8.598	10.122	2.321	87.805	69.904
06/28/2011 18:09:43	9.034	10.188	2.391	87.603	70.303
06/28/2011 18:09:53	8.459	12.022	2.618	87.603	69.801
06/28/2011 18:10:03	6.32	13.121	2.596	87.603	69.604
Resume Run 10					
06/28/2011 18:10:13	5.65	13.183	2.618	87.603	70.303
06/28/2011 18:10:23	5.614	13.154	2.592	87.603	70.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 18:10:33	5.636	13.15	2.596	87.805	70.303
06/28/2011 18:10:43	5.606	13.224	2.592	87.805	70.303
06/28/2011 18:10:53	5.573	13.227	2.592	87.805	69.402
06/28/2011 18:11:03	5.577	13.183	2.596	87.603	70.102
06/28/2011 18:11:13	5.588	13.18	2.57	87.603	70.303
06/28/2011 18:11:23	5.606	13.191	2.574	87.603	69.402
06/28/2011 18:11:33	5.606	13.18	2.563	87.603	70.303
06/28/2011 18:11:43	5.595	13.205	2.592	87.603	70.303
06/28/2011 18:11:53	5.577	13.205	2.603	87.805	69.402
06/28/2011 18:12:03	5.599	13.18	2.618	87.603	70.303
06/28/2011 18:12:13	5.636	13.169	2.618	87.805	70.102
06/28/2011 18:12:23	5.614	13.209	2.618	87.805	69.604
06/28/2011 18:12:33	5.606	13.172	2.618	87.904	70.303
06/28/2011 18:12:43	5.61	13.194	2.592	87.603	70.303
06/28/2011 18:12:53	5.577	13.235	2.592	87.603	69.604
06/28/2011 18:13:03	5.551	13.271	2.574	87.603	70.303
06/28/2011 18:13:13	5.566	13.202	2.592	87.402	70.102
06/28/2011 18:13:23	5.588	13.202	2.603	87.603	69.604
06/28/2011 18:13:33	5.603	13.176	2.592	87.603	70.102
06/28/2011 18:13:43	5.614	13.202	2.574	87.603	70.102
06/28/2011 18:13:53	5.639	13.143	2.563	87.603	69.604
06/28/2011 18:14:03	5.665	13.15	2.556	87.603	70.303
06/28/2011 18:14:13	5.628	13.213	2.567	87.603	69.904
06/28/2011 18:14:23	5.621	13.18	2.57	87.603	69.604
06/28/2011 18:14:33	5.661	13.136	2.592	87.204	70.303
06/28/2011 18:14:43	5.72	13.033	2.592	87.603	70.102
06/28/2011 18:14:53	5.8	12.975	2.567	87.402	69.604
06/28/2011 18:15:03	5.808	13.026	2.592	87.402	70.102
06/28/2011 18:15:13	5.738	13.099	2.592	87.204	70.102
06/28/2011 18:15:23	5.683	13.161	2.563	87.003	69.604
06/28/2011 18:15:33	5.698	13.063	2.563	86.904	70.303
06/28/2011 18:15:43	5.767	13.033	2.563	87.003	70.102
06/28/2011 18:15:53	5.749	13.114	2.556	87.204	69.604
06/28/2011 18:16:03	5.669	13.147	2.563	87.402	70.102
06/28/2011 18:16:13	5.639	13.158	2.592	87.204	70.303
06/28/2011 18:16:23	5.625	13.18	2.592	86.904	69.604
06/28/2011 18:16:33	5.643	13.147	2.563	87.003	70.102
06/28/2011 18:16:43	5.687	13.11	2.589	86.904	70.102
06/28/2011 18:16:53	5.694	13.121	2.589	87.204	69.604
06/28/2011 18:17:03	5.745	13.015	2.563	86.904	70.303
06/28/2011 18:17:13	5.811	13.03	2.563	87.003	69.801
06/28/2011 18:17:23	5.804	13.004	2.563	87.204	69.904
06/28/2011 18:17:33	5.797	13.022	2.559	87.603	70.303
06/28/2011 18:17:43	5.782	13.03	2.563	87.402	69.604
06/28/2011 18:17:53	5.789	12.986	2.563	87.402	69.801
06/28/2011 18:18:03	5.782	13.019	2.548	87.204	69.904
06/28/2011 18:18:13	5.767	13.074	2.523	87.003	69.604
06/28/2011 18:18:23	5.723	13.092	2.541	87.204	69.402
06/28/2011 18:18:33	5.709	13.055	2.563	87.003	69.904
06/28/2011 18:18:43	5.705	13.125	2.537	87.204	69.904
06/28/2011 18:18:53	5.669	13.139	2.556	87.204	69.402
06/28/2011 18:19:03	5.669	13.114	2.563	87.402	69.604
06/28/2011 18:19:13	5.676	13.147	2.541	87.402	70.102
06/28/2011 18:19:23	5.639	13.147	2.592	87.003	69.604
06/28/2011 18:19:33	5.643	13.176	2.563	87.204	69.604
06/28/2011 18:19:43	5.636	13.169	2.559	87.402	70.102
06/28/2011 18:19:53	5.636	13.136	2.57	87.003	70.102
06/28/2011 18:20:03	5.636	13.176	2.581	87.003	69.604
06/28/2011 18:20:13	5.628	13.176	2.563	87.003	69.904
06/28/2011 18:20:23	5.625	13.176	2.563	87.402	69.801
06/28/2011 18:20:33	5.628	13.18	2.581	86.904	70.102
06/28/2011 18:20:43	5.632	13.132	2.563	87.003	70.102
06/28/2011 18:20:53	5.665	13.121	2.603	87.003	70.102
06/28/2011 18:21:03	5.665	13.114	2.779	87.003	70.102
06/28/2011 18:21:13	5.658	13.139	2.728	86.904	69.801
06/28/2011 18:21:23	5.628	13.147	2.673	87.003	69.904
06/28/2011 18:21:33	5.621	13.161	2.673	87.003	70.102
06/28/2011 18:21:43	5.599	13.216	2.673	86.904	69.904
06/28/2011 18:21:53	5.577	13.187	2.658	86.904	69.402
06/28/2011 18:22:03	5.625	13.125	2.673	86.904	70.102
06/28/2011 18:22:13	5.669	13.11	2.673	87.204	69.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 18:22:23	5.625	13.209	2.691	87.204	69.801
06/28/2011 18:22:33	5.555	13.242	2.673	87.204	70.102
06/28/2011 18:22:43	5.562	13.213	2.673	87.003	69.604
06/28/2011 18:22:53	5.625	13.099	2.673	86.904	69.402
06/28/2011 18:23:03	5.676	13.106	2.655	86.904	69.402
06/28/2011 18:23:13	5.669	13.128	2.658	87.003	69.402
06/28/2011 18:23:23	5.661	13.15	2.673	86.904	69.402
06/28/2011 18:23:33	5.669	13.121	2.673	86.904	69.604
06/28/2011 18:23:43	5.694	13.088	2.662	86.904	69.904
06/28/2011 18:23:53	5.738	13.081	2.644	87.003	69.904
06/28/2011 18:24:03	5.749	13.077	2.625	87.204	69.402
06/28/2011 18:24:13	5.745	13.066	2.618	87.204	69.604
06/28/2011 18:24:23	5.764	13.052	2.592	87.003	69.904
06/28/2011 18:24:33	5.786	13.041	2.592	87.003	69.604
06/28/2011 18:24:43	5.786	13.037	2.592	87.204	69.402
06/28/2011 18:24:53	5.778	13.052	2.618	87.003	69.904
06/28/2011 18:25:03	5.764	13.052	2.592	86.904	69.904
06/28/2011 18:25:13	5.771	13.033	2.618	86.904	69.801
06/28/2011 18:25:23	5.793	13.019	2.618	86.702	69.402
06/28/2011 18:25:33	5.83	12.938	2.618	86.904	69.604
06/28/2011 18:25:43	5.899	12.861	2.592	86.904	70.102
06/28/2011 18:25:53	5.958	12.835	2.567	86.904	70.102
06/28/2011 18:26:03	5.936	12.89	2.545	86.702	70.102
06/28/2011 18:26:13	5.907	12.887	2.537	86.702	69.801
06/28/2011 18:26:23	5.914	12.898	2.567	86.904	69.402
06/28/2011 18:26:33	5.914	12.879	2.563	86.904	69.402
06/28/2011 18:26:43	5.91	12.905	2.559	86.904	69.402
06/28/2011 18:26:53	5.885	12.912	2.567	86.904	69.402
06/28/2011 18:27:03	5.866	12.934	2.563	86.904	69.402
06/28/2011 18:27:13	5.859	12.916	2.541	86.904	69.402
06/28/2011 18:27:23	5.91	12.828	2.548	87.003	69.402
06/28/2011 18:27:33	5.943	12.887	2.537	87.204	69.402
06/28/2011 18:27:43	5.881	12.956	2.563	87.003	69.402
06/28/2011 18:27:53	5.83	12.971	2.563	86.904	69.402
06/28/2011 18:28:03	5.815	13	2.563	86.702	69.402
06/28/2011 18:28:13	5.819	12.978	2.563	86.702	69.402
06/28/2011 18:28:23	5.83	13	2.574	86.505	69.402
06/28/2011 18:28:33	5.789	12.986	2.581	86.904	69.402
06/28/2011 18:28:43	5.778	13.019	2.592	86.904	69.402
06/28/2011 18:28:53	5.753	13.059	2.592	86.904	69.402
06/28/2011 18:29:03	5.745	13.044	2.585	86.904	69.604
06/28/2011 18:29:13	5.767	13.044	2.592	87.204	69.801
06/28/2011 18:29:23	5.775	13.008	2.592	87.204	69.904
06/28/2011 18:29:33	5.789	13.044	2.614	87.402	69.904
06/28/2011 18:29:43	5.723	13.121	2.618	87.204	70.102
06/28/2011 18:29:53	5.658	13.147	2.618	87.003	69.904
06/28/2011 18:30:03	5.654	13.099	2.629	87.003	69.904
06/28/2011 18:30:13	5.694	13.095	2.64	86.904	69.604
06/28/2011 18:30:23	5.694	13.106	2.644	86.702	69.402
06/28/2011 18:30:33	5.709	13.081	2.622	87.003	69.402
06/28/2011 18:30:43	5.749	13.019	2.607	86.904	69.402
06/28/2011 18:30:53	5.767	13.037	2.618	86.505	69.402
06/28/2011 18:31:03	5.745	13.095	2.57	86.702	69.904
06/28/2011 18:31:13	5.716	13.088	2.592	86.505	70.102
06/28/2011 18:31:23	5.701	13.139	2.596	86.904	70.303
06/28/2011 18:31:33	5.636	13.187	2.618	86.904	70.102
06/28/2011 18:31:43	5.61	13.176	2.618	86.904	69.801
06/28/2011 18:31:53	5.647	13.128	2.618	86.904	69.604
06/28/2011 18:32:03	5.701	13.095	2.618	86.904	69.402
06/28/2011 18:32:13	5.745	13.066	2.625	86.904	69.402
06/28/2011 18:32:23	5.749	13.07	2.618	86.702	69.801
06/28/2011 18:32:33	5.742	13.074	2.618	86.904	69.402
06/28/2011 18:32:43	5.745	13.085	2.618	86.702	70.303
06/28/2011 18:32:53	5.709	13.125	2.618	86.702	69.904
06/28/2011 18:33:03	5.738	13.033	2.618	86.904	69.604
06/28/2011 18:33:13	5.789	13.052	2.618	86.904	69.402
06/28/2011 18:33:23	5.804	13	2.618	86.904	69.402
06/28/2011 18:33:33	5.844	12.927	2.614	86.904	69.402
06/28/2011 18:33:43	5.881	12.912	2.603	86.702	69.402
06/28/2011 18:33:53	5.874	12.945	2.618	86.702	69.402
06/28/2011 18:34:03	5.83	13.011	2.607	86.702	69.402

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 18:34:13	5.815	12.975	2.618	86.702	69.402
06/28/2011 18:34:23	5.822	12.986	2.592	86.702	69.604
06/28/2011 18:34:33	5.793	13.048	2.563	86.702	70.102
06/28/2011 18:34:43	5.749	13.07	2.592	86.702	70.102
06/28/2011 18:34:53	5.753	13.052	2.57	86.702	69.604
06/28/2011 18:35:03	5.771	13.019	2.585	86.904	69.402
06/28/2011 18:35:13	5.782	12.978	2.563	86.904	69.402
06/28/2011 18:35:23	5.764	13.052	2.563	86.904	69.904
06/28/2011 18:35:33	5.716	13.081	2.574	86.904	70.102
06/28/2011 18:35:43	5.687	13.095	2.592	86.702	69.904
06/28/2011 18:35:53	5.72	13.037	2.592	86.702	69.604
06/28/2011 18:36:03	5.775	13	2.592	86.904	69.402
06/28/2011 18:36:13	5.782	13.074	2.592	86.904	69.204
06/28/2011 18:36:23	5.753	13.015	2.611	87.402	69.402
06/28/2011 18:36:33	5.8	12.953	2.629	87.402	69.402
06/28/2011 18:36:43	5.83	12.993	2.614	87.204	69.204
06/28/2011 18:36:53	5.771	13.077	2.611	87.204	69.402
06/28/2011 18:37:03	5.705	13.139	2.6	87.003	69.801
06/28/2011 18:37:13	5.647	13.15	2.611	87.003	69.904
06/28/2011 18:37:23	5.679	13.099	2.618	87.003	69.604
06/28/2011 18:37:33	5.723	13.085	2.592	87.204	69.402
06/28/2011 18:37:43	5.745	13.03	2.6	87.402	69.402
06/28/2011 18:37:53	5.767	13.03	2.592	87.402	69.904
06/28/2011 18:38:03	5.756	13.048	2.57	87.603	69.402
06/28/2011 18:38:13	5.793	13.026	2.618	87.402	69.402
06/28/2011 18:38:23	5.764	13.041	2.603	87.402	69.801
06/28/2011 18:38:33	5.778	12.956	2.592	87.402	69.204
06/28/2011 18:38:43	5.844	12.975	2.567	87.603	69.402
06/28/2011 18:38:53	5.793	13.07	2.585	87.805	69.801
06/28/2011 18:39:03	5.731	13.07	2.618	87.402	69.801
06/28/2011 18:39:13	5.727	13.088	2.607	87.603	69.402
06/28/2011 18:39:23	5.709	13.103	2.618	87.603	69.204
06/28/2011 18:39:33	5.72	13.088	2.607	87.402	69.204
06/28/2011 18:39:43	5.8	12.927	2.6	87.402	69.402
06/28/2011 18:39:53	5.885	12.942	2.592	87.603	69.604
06/28/2011 18:40:03	5.874	12.956	2.603	87.603	69.402
06/28/2011 18:40:13	5.852	13	2.614	87.402	69.204
06/28/2011 18:40:23	5.866	12.938	2.618	87.402	69.204
06/28/2011 18:40:33	5.874	12.938	2.589	87.402	69.402
06/28/2011 18:40:43	5.837	13.011	2.592	87.003	69.904
06/28/2011 18:40:53	5.789	13.03	2.592	87.003	69.204
06/28/2011 18:41:03	5.775	12.993	2.592	87.204	69.604
06/28/2011 18:41:13	5.778	13.044	2.592	87.003	69.904
06/28/2011 18:41:23	5.756	13.041	2.567	87.204	69.402
06/28/2011 18:41:33	5.778	13.015	2.592	87.402	69.402
06/28/2011 18:41:43	5.742	13.077	2.592	87.402	70.102
06/28/2011 18:41:53	5.694	13.092	2.618	87.003	69.904
06/28/2011 18:42:03	5.672	13.117	2.618	87.204	69.402
06/28/2011 18:42:13	5.731	13.033	2.644	87.204	69.402
06/28/2011 18:42:23	5.8	12.96	2.644	87.204	69.801
06/28/2011 18:42:33	5.826	13.015	2.644	87.204	70.102
06/28/2011 18:42:43	5.782	13.022	2.644	86.904	69.904
06/28/2011 18:42:53	5.712	13.15	2.644	86.904	69.402
06/28/2011 18:43:03	5.643	13.136	2.618	86.702	69.402
06/28/2011 18:43:13	5.701	13.092	2.618	86.505	69.801
06/28/2011 18:43:23	5.709	13.114	2.629	86.904	69.904
06/28/2011 18:43:33	5.72	13.095	2.618	86.702	70.102
06/28/2011 18:43:43	5.665	13.213	2.629	86.505	69.904
06/28/2011 18:43:53	5.603	13.154	2.644	86.702	69.801
06/28/2011 18:44:03	5.639	13.169	2.614	86.505	69.801
06/28/2011 18:44:13	5.625	13.172	2.618	86.702	69.904
06/28/2011 18:44:23	5.628	13.169	2.618	86.505	70.102
06/28/2011 18:44:33	5.617	13.172	2.611	86.505	70.102
06/28/2011 18:44:43	5.584	13.216	2.618	86.904	69.801
06/28/2011 18:44:53	5.592	13.187	2.636	86.904	69.402
06/28/2011 18:45:03	5.588	13.216	2.658	86.904	70.102
06/28/2011 18:45:13	5.548	13.315	2.673	86.904	69.402
06/28/2011 18:45:23	5.515	13.198	2.644	86.904	70.303
06/28/2011 18:45:33	5.555	13.26	2.673	86.904	69.402
06/28/2011 18:45:43	5.548	13.238	2.698	86.904	70.102
06/28/2011 18:45:53	5.551	13.209	2.72	86.904	69.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 18:46:03	5.647	13.033	2.695	86.702	70.102
06/28/2011 18:46:13	5.83	12.997	2.695	86.904	70.102
06/28/2011 18:46:23	5.885	12.828	2.698	86.904	69.402
06/28/2011 18:46:33	5.947	12.872	2.673	86.904	69.402
06/28/2011 18:46:43	6.005	12.755	2.658	86.702	69.402
06/28/2011 18:46:53	6.071	12.718	2.644	86.702	69.801
06/28/2011 18:47:03	6.049	12.832	2.618	86.303	69.904
06/28/2011 18:47:13	6.02	12.799	2.644	86.303	69.801
06/28/2011 18:47:23	6.009	12.846	2.636	86.505	69.402
06/28/2011 18:47:33	5.958	12.868	2.618	86.505	69.402
06/28/2011 18:47:43	6.005	12.817	2.629	86.702	69.904
06/28/2011 18:47:53	6.049	12.781	2.644	86.702	69.904
06/28/2011 18:48:03	6.049	12.821	2.644	86.702	69.402
06/28/2011 18:48:13	6.027	12.806	2.618	86.702	69.402
06/28/2011 18:48:23	6.046	12.795	2.592	86.702	69.904
06/28/2011 18:48:33	5.998	12.872	2.629	86.702	69.904
06/28/2011 18:48:43	5.958	12.81	2.618	86.702	69.604
06/28/2011 18:48:53	6.06	12.711	2.618	86.904	69.402
06/28/2011 18:49:03	6.049	12.795	2.603	86.904	69.402
06/28/2011 18:49:13	5.976	12.923	2.592	86.702	69.402
06/28/2011 18:49:23	5.888	12.986	2.592	87.003	69.904
06/28/2011 18:49:33	5.822	12.956	2.622	86.702	69.904
06/28/2011 18:49:43	5.808	13.015	2.644	86.702	69.904
06/28/2011 18:49:53	5.778	13.03	2.673	86.505	69.801
06/28/2011 18:50:03	5.793	13.022	2.644	86.702	69.402
06/28/2011 18:50:13	5.745	13.128	2.64	86.702	69.204
06/28/2011 18:50:23	5.687	13.103	2.633	86.702	69.204
06/28/2011 18:50:33	5.742	13.048	2.644	86.702	69.402
06/28/2011 18:50:43	5.701	13.081	2.644	86.505	69.402
06/28/2011 18:50:53	5.679	13.158	2.64	86.505	69.402
06/28/2011 18:51:03	5.614	13.216	2.644	86.303	69.402
06/28/2011 18:51:13	5.61	13.191	2.644	86.505	69.604
06/28/2011 18:51:23	5.636	13.11	2.644	86.702	69.604
06/28/2011 18:51:33	5.658	13.202	2.64	86.702	69.402
06/28/2011 18:51:43	5.643	13.191	2.658	86.702	69.402
06/28/2011 18:51:53	5.592	13.224	2.629	86.702	69.604
06/28/2011 18:52:03	5.654	13.103	2.644	86.702	69.904
06/28/2011 18:52:13	5.676	13.121	2.647	86.702	69.904
06/28/2011 18:52:23	5.665	13.176	2.629	86.702	69.402
06/28/2011 18:52:33	5.72	13.066	2.644	86.702	69.402
06/28/2011 18:52:43	5.811	13.004	2.644	86.904	69.801
06/28/2011 18:52:53	5.782	13.059	2.644	86.702	69.904
06/28/2011 18:53:03	5.797	12.989	2.644	86.505	69.604
06/28/2011 18:53:13	5.808	13.048	2.644	86.702	69.402
06/28/2011 18:53:23	5.775	13.048	2.644	86.904	69.402
06/28/2011 18:53:33	5.804	12.997	2.644	86.904	70.102
06/28/2011 18:53:43	5.83	13.026	2.468	86.702	70.102
06/28/2011 18:53:53	6.734	11.898	2.556	86.904	70.102
06/28/2011 18:54:03	6.917	12.195	2.592	86.702	70.102
06/28/2011 18:54:13	6.782	12.228	2.596	86.702	70.102
06/28/2011 18:54:23	6.778	12.22	2.72	86.505	69.801
06/28/2011 18:54:33	6.793	12.173	2.731	86.702	69.402
06/28/2011 18:54:43	6.753	12.231	2.68	86.702	69.402
06/28/2011 18:54:53	6.709	12.246	2.695	86.702	69.604
06/28/2011 18:55:03	6.555	12.601	2.644	86.702	69.402
06/28/2011 18:55:13	6.383	12.48	2.633	86.505	69.904
06/28/2011 18:55:23	6.474	12.389	2.655	86.102	69.801
06/28/2011 18:55:33	6.489	12.44	2.673	86.303	69.904
06/28/2011 18:55:43	6.555	12.264	2.691	86.904	70.303
06/28/2011 18:55:53	6.525	12.55	2.647	86.702	70.303
06/28/2011 18:56:03	6.39	12.51	2.644	86.702	70.102
06/28/2011 18:56:13	6.408	12.466	2.636	86.702	70.102
06/28/2011 18:56:23	6.46	12.425	2.644	86.702	70.102
06/28/2011 18:56:33	6.493	12.407	2.618	86.702	70.303
06/28/2011 18:56:43	6.536	12.422	2.64	86.702	70.303
06/28/2011 18:56:53	6.43	12.502	2.644	86.702	70.102
06/28/2011 18:57:03	6.408	12.51	2.655	86.102	69.604
06/28/2011 18:57:13	6.408	12.524	2.64	86.102	69.402
06/28/2011 18:57:23	6.478	12.418	2.651	86.102	69.604
06/28/2011 18:57:33	6.514	12.4	2.629	86.303	70.102
06/28/2011 18:57:43	6.566	12.378	2.603	86.303	69.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 18:57:53	6.588	12.444	2.618	86.303	69.402
06/28/2011 18:58:03	6.547	12.29	2.618	86.303	70.102
06/28/2011 18:58:13	6.657	12.33	2.607	86.102	70.303
06/28/2011 18:58:23	6.646	12.326	2.592	86.505	69.402
06/28/2011 18:58:33	6.566	12.418	2.589	86.102	69.801
06/28/2011 18:58:43	6.529	12.44	2.618	86.303	70.102
06/28/2011 18:58:53	6.478	12.513	2.636	86.102	69.402
06/28/2011 18:59:03	6.401	12.455	2.574	86.102	69.604
06/28/2011 18:59:13	6.569	12.396	2.592	86.303	70.102
06/28/2011 18:59:23	6.591	12.352	2.592	86.702	70.102
06/28/2011 18:59:33	6.665	12.337	2.589	86.505	69.604
06/28/2011 18:59:43	6.665	12.304	2.574	86.303	69.402
06/28/2011 18:59:53	6.698	12.323	2.563	86.505	69.402
06/28/2011 19:00:03	6.789	12.129	2.563	86.003	69.402
06/28/2011 19:00:13	6.848	12.231	2.581	86.102	69.402
06/28/2011 19:00:23	6.72	12.25	2.581	86.303	69.604
06/28/2011 19:00:33	6.657	12.374	2.596	86.003	69.402
06/28/2011 19:00:43	6.522	12.451	2.592	86.003	69.402
06/28/2011 19:00:53	6.555	12.367	2.614	86.102	69.402
06/28/2011 19:01:03	6.558	12.352	2.592	86.003	69.604
06/28/2011 19:01:13	6.646	12.25	2.567	86.003	69.604
06/28/2011 19:01:23	6.72	12.29	2.592	86.102	69.402
06/28/2011 19:01:33	6.72	12.209	2.614	86.303	69.604
06/28/2011 19:01:43	6.742	12.293	2.552	86.303	69.604
06/28/2011 19:01:53	6.712	12.224	2.563	86.303	69.402
06/28/2011 19:02:03	6.687	12.319	2.592	86.102	69.402
06/28/2011 19:02:13	6.588	12.425	2.563	86.003	69.801
06/28/2011 19:02:23	6.639	12.282	2.563	86.003	70.102
06/28/2011 19:02:33	6.683	12.348	2.519	86.003	70.102
06/28/2011 19:02:43	6.833	11.773	2.362	85.802	69.604
06/28/2011 19:02:53	8.166	10.155	2.402	86.003	69.604
06/28/2011 19:03:03	8.891	10.667	2.34	86.003	69.604
06/28/2011 19:03:13	9.019	9.909	2.285	86.303	69.604
06/28/2011 19:03:23	9.543	9.931	2.398	86.303	69.604
06/28/2011 19:03:33	9.195	10.25	2.336	86.505	69.402
06/28/2011 19:03:43	9.265	10.206	2.362	86.303	69.402
06/28/2011 19:03:53	9.305	9.972	2.358	86.102	69.604
End Run 10					
Average	**6.401**	**12.515**	**2.534**	**87.331**	**69.964**
Maximum	**9.543**	**13.315**	**2.779**	**88.805**	**71.003**
Minimum	**5.515**	**9.909**	**2.285**	**85.802**	**69.204**
06/28/2011 19:04:03	9.316	10.21	2.332	86.003	69.604
06/28/2011 19:04:13	9.184	10.18	2.274	86.102	69.904
06/28/2011 19:04:23	9.433	9.913	2.292	86.303	70.102
06/28/2011 19:04:33	9.514	9.796	2.259	86.003	69.904
06/28/2011 19:04:43	9.781	9.616	2.208	86.303	69.604
06/28/2011 19:04:53	10.038	9.367	2.296	86.003	69.204
06/28/2011 19:05:03	9.792	9.884	2.292	86.003	69.801
06/28/2011 19:05:13	9.576	9.759	2.259	86.003	69.904
06/28/2011 19:05:23	9.77	9.616	2.252	86.003	69.402
06/28/2011 19:05:33	9.876	9.591	2.263	86.003	69.604
06/28/2011 19:05:43	9.92	9.627	2.277	86.003	69.904
06/28/2011 19:05:53	9.92	9.609	2.285	86.003	69.801
06/28/2011 19:06:03	9.902	9.58	2.281	86.303	69.402
06/28/2011 19:06:13	9.77	9.723	2.259	86.303	69.904
06/28/2011 19:06:23	9.81	9.774	2.296	86.102	70.102
06/28/2011 19:06:33	9.638	9.972	2.288	86.303	69.801
06/28/2011 19:06:43	9.536	9.887	2.314	86.003	69.402
06/28/2011 19:06:53	9.624	9.939	2.31	86.003	69.402
06/28/2011 19:07:03	9.616	9.895	2.277	86.003	69.904
06/28/2011 19:07:13	9.631	9.704	2.277	86.003	69.904
06/28/2011 19:07:23	9.748	9.81	2.248	86.003	69.904
06/28/2011 19:07:33	9.836	9.411	2.237	86.003	69.904
06/28/2011 19:07:43	10.085	9.583	2.241	86.102	69.904
06/28/2011 19:07:53	9.964	9.734	2.255	86.102	69.904
06/28/2011 19:08:03	9.741	9.756	2.23	86.303	69.904
06/28/2011 19:08:13	9.785	9.741	2.233	86.003	69.801
06/28/2011 19:08:23	9.836	9.646	2.237	86.102	69.604
06/28/2011 19:08:33	9.814	9.807	2.233	86.505	69.402
06/28/2011 19:08:43	9.756	9.734	2.255	86.102	69.204

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 19:08:53	9.741	9.572	2.259	86.303	69.204
06/28/2011 19:09:03	9.745	9.884	2.296	86.303	69.204
06/28/2011 19:09:13	9.47	9.964	2.244	86.303	69.204
06/28/2011 19:09:23	9.796	9.382	2.233	86.102	69.402
06/28/2011 19:09:33	10.166	9.393	2.259	86.003	69.801
06/28/2011 19:09:43	10.081	9.569	2.277	86.303	69.904
06/28/2011 19:09:53	9.873	9.693	2.244	86.303	69.904
06/28/2011 19:10:03	9.942	9.408	2.259	86.303	69.904
06/28/2011 19:10:13	10.07	9.602	2.299	86.303	69.904
06/28/2011 19:10:23	9.686	10.235	2.358	86.303	69.904
06/28/2011 19:10:33	9.221	9.924	2.266	86.303	69.904
06/28/2011 19:10:43	9.825	9.576	2.307	86.303	69.904
06/28/2011 19:10:53	9.854	9.869	2.31	86.003	69.904
06/28/2011 19:11:03	9.734	9.767	2.296	86.303	69.904
06/28/2011 19:11:13	9.829	9.488	2.318	86.102	69.801
06/28/2011 19:11:23	9.774	10.122	2.237	86.303	69.604
06/28/2011 19:11:33	9.796	9.444	2.281	86.303	69.204
06/28/2011 19:11:43	9.843	9.946	2.281	86.505	69.204
06/28/2011 19:11:53	9.675	9.591	2.233	86.102	69.003
06/28/2011 19:12:03	10.089	9.349	2.219	86.303	69.204
06/28/2011 19:12:13	10.228	9.276	2.204	86.303	69.204
06/28/2011 19:12:23	10.363	9.232	2.219	86.303	69.402
06/28/2011 19:12:33	10.301	9.521	2.215	86.702	69.904
06/28/2011 19:12:43	10.016	9.514	2.244	86.505	69.904
06/28/2011 19:12:53	9.92	9.796	2.226	86.702	69.402
06/28/2011 19:13:03	9.895	9.422	2.182	86.505	69.003
06/28/2011 19:13:13	10.272	9.151	2.204	86.702	69.204
06/28/2011 19:13:23	10.411	9.309	2.23	86.505	69.801
06/28/2011 19:13:33	10.191	9.521	2.23	86.505	69.801
06/28/2011 19:13:43	10.045	9.726	2.259	86.702	69.003
06/28/2011 19:13:53	9.807	9.697	2.219	86.702	69.003
06/28/2011 19:14:03	10.034	9.433	2.259	86.505	69.604
06/28/2011 19:14:13	9.99	9.624	2.204	86.303	69.801
06/28/2011 19:14:23	10.195	9.29	2.233	86.303	69.801
06/28/2011 19:14:33	10.078	9.799	2.222	86.505	69.604
06/28/2011 19:14:43	9.862	9.503	2.23	86.702	69.604
06/28/2011 19:14:53	10.1	9.668	2.255	86.303	69.604
06/28/2011 19:15:03	9.887	9.616	2.277	86.505	69.604
06/28/2011 19:15:13	9.734	9.92	2.263	86.003	69.604
06/28/2011 19:15:23	9.525	10.078	2.241	86.003	69.604
06/28/2011 19:15:33	9.631	9.426	2.2	86.003	69.801
06/28/2011 19:15:43	10.162	9.492	2.241	86.003	69.801
06/28/2011 19:15:53	9.862	10.019	2.31	86.003	69.402
06/28/2011 19:16:03	9.257	10.045	2.204	86.102	69.402
06/28/2011 19:16:13	9.712	9.594	2.252	86.003	68.904
06/28/2011 19:16:23	9.719	9.869	2.208	86.003	68.904
06/28/2011 19:16:33	9.789	9.594	2.215	86.102	68.904
06/28/2011 19:16:43	9.953	9.774	2.204	86.003	68.904
06/28/2011 19:16:53	9.895	9.543	2.219	86.003	69.402
06/28/2011 19:17:03	9.95	9.708	2.23	86.003	69.604
06/28/2011 19:17:13	9.825	9.884	2.241	85.802	69.402
06/28/2011 19:17:23	9.528	9.862	2.204	85.802	68.904
06/28/2011 19:17:33	9.734	9.525	2.219	86.003	69.003
06/28/2011 19:17:43	9.939	9.627	2.204	86.102	69.204
06/28/2011 19:17:53	10.06	9.474	2.263	86.003	69.801
06/28/2011 19:18:03	9.73	9.953	2.241	85.802	69.801
06/28/2011 19:18:13	9.679	9.613	2.204	85.604	69.801
06/28/2011 19:18:23	9.968	9.668	2.23	85.604	69.801
06/28/2011 19:18:33	9.796	9.792	2.208	85.604	69.801
06/28/2011 19:18:43	9.792	9.693	2.193	86.003	69.801
06/28/2011 19:18:53	10.041	9.572	2.233	85.802	69.801
06/28/2011 19:19:03	9.92	9.748	2.277	85.604	69.801
06/28/2011 19:19:13	9.47	9.979	2.255	85.802	69.402
06/28/2011 19:19:23	9.437	9.909	2.208	86.003	69.003
06/28/2011 19:19:33	9.763	9.51	2.178	85.802	68.904
06/28/2011 19:19:43	10.085	9.47	2.233	85.802	68.904
06/28/2011 19:19:53	9.854	9.873	2.222	85.604	69.003
06/28/2011 19:20:03	9.704	9.752	2.208	85.402	69.402
06/28/2011 19:20:13	9.789	9.653	2.204	85.802	69.604
06/28/2011 19:20:23	9.851	9.825	2.266	85.802	69.402
06/28/2011 19:20:33	9.518	10.188	2.208	85.802	68.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 19:20:43	9.646	9.576	2.252	85.604	69.204
06/28/2011 19:20:53	9.854	9.854	2.263	85.205	69.604
06/28/2011 19:21:03	9.723	9.719	2.248	85.205	69.003
06/28/2011 19:21:13	9.906	9.693	2.252	85.402	68.703
06/28/2011 19:21:23	9.781	9.741	2.259	85.402	69.604
06/28/2011 19:21:33	9.591	10.166	2.255	85.604	69.204
06/28/2011 19:21:43	9.232	10.206	2.27	85.802	68.904
06/28/2011 19:21:53	9.122	10.323	2.182	86.003	68.904
06/28/2011 19:22:03	9.452	9.745	2.23	85.802	68.904
06/28/2011 19:22:13	9.474	10.177	2.219	85.802	69.003
06/28/2011 19:22:23	9.411	9.909	2.259	86.003	69.604
Calibration Bias					
06/28/2011 19:22:33	9.228	10.47	3.251	86.102	69.204
06/28/2011 19:22:43	9.107	8.162	2.299	86.003	69.402
06/28/2011 19:22:53	4.965	0.377	0.025	85.802	69.904
06/28/2011 19:23:03	0.344	0.263	-0.00061	85.402	69.204
06/28/2011 19:23:13	0.069	0.226	-0.012	85.205	69.904
06/28/2011 19:23:23	0.047	0.208	0.003	85.402	69.801
06/28/2011 19:23:33	0.04	0.193	-0.012	85.205	69.204
06/28/2011 19:23:43	0.032	0.186	-0.037	85.102	69.904
06/28/2011 19:23:53	0.029	0.183	0.128	85.205	69.604
N2 Zero	**0.034**	**0.187**	**0.026**	**85.171**	**69.571**
06/28/2011 19:24:03	2.131	5.683	0.252	85.402	69.003
06/28/2011 19:24:13	8.983	9.723	0.252	85.402	69.402
06/28/2011 19:24:23	10.942	9.778	0.252	85.402	69.604
06/28/2011 19:24:33	11.012	9.796	0.281	85.402	69.204
06/28/2011 19:24:43	11.023	9.81	0.274	85.205	68.703
06/28/2011 19:24:53	11.03	9.814	0.278	85.402	68.904
06/28/2011 19:25:03	11.03	9.818	20.863	85.402	69.402
11.1% O2/9.74% CO2 Mid	**11.028**	**9.814**		**85.336**	**69.003**
06/28/2011 19:25:13	13.74	1.768	49.194	85.205	69.402
06/28/2011 19:25:23	19.53	0.355	49.641	85.604	69.003
06/28/2011 19:25:33	20.541	0.314	49.784	85.402	69.204
06/28/2011 19:25:43	20.596	0.245	50.11	85.604	69.402
06/28/2011 19:25:53	20.662	0.204	50.121	85.402	69.402
06/28/2011 19:26:03	20.684	0.193	50.135	85.205	68.904
06/28/2011 19:26:13	20.691	0.186	50.102	85.402	69.402
49.8 ppm Propane Mid			**50.119**	**85.336**	**69.236**
06/28/2011 19:26:23	20.526	0.655	8.529	85.205	69.402
06/28/2011 19:26:33	13.476	12.422	2.746	85.205	68.501
06/28/2011 19:26:43	6.562	12.718	2.603	85.205	68.501
06/28/2011 19:26:53	6.134	12.682	2.592	85.102	69.003
06/28/2011 19:27:03	6.119	12.726	2.563	85.205	69.003
06/28/2011 19:27:13	6.093	12.748	2.563	85.402	68.501
06/28/2011 19:27:23	6.112	12.671	2.592	85.402	68.703
06/28/2011 19:27:33	6.141	12.667	2.636	85.604	69.003
06/28/2011 19:27:43	6.148	12.693	2.845	85.604	68.501
06/28/2011 19:27:53	6.112	12.704	2.775	85.402	68.303
06/28/2011 19:28:03	6.134	12.696	2.72	85.205	69.003
06/28/2011 19:28:13	6.064	12.795	2.695	85.402	68.904
06/28/2011 19:28:23	6.002	12.839	2.541	85.802	68.501
06/28/2011 19:28:33	7.595	8.272	1.395	85.402	68.501
06/28/2011 19:28:43	16.527	0.428	1.395	85.402	68.501
06/28/2011 19:28:53	20.541	0.314	1.417	85.402	68.904
06/28/2011 19:29:03	20.731	0.274	1.417	85.102	69.204
06/28/2011 19:29:13	20.757	0.252	1.417	85.205	69.204
06/28/2011 19:29:23	20.768	0.241	1.442	85.604	69.003
06/28/2011 19:29:33	20.779	0.23	1.42	85.205	68.501
06/28/2011 19:29:43	20.782	0.223	1.439	85.402	68.501
06/28/2011 19:29:53	20.79	0.219	1.461	85.402	69.003
06/28/2011 19:30:03	20.793	0.215	1.464	85.102	69.204
06/28/2011 19:30:13	20.793	0.212	1.457	85.205	69.204
06/28/2011 19:30:23	20.797	0.208	1.417	85.102	68.904
06/28/2011 19:30:33	20.801	0.204	1.417	85.205	68.501
06/28/2011 19:30:43	20.801	0.204	1.446	85.205	68.501
06/28/2011 19:30:53	20.801	0.204	1.464	85.402	68.703
06/28/2011 19:31:03	20.801	0.201	1.475	85.205	68.501
06/28/2011 19:31:13	20.804	0.201	1.475	85.402	68.904
06/28/2011 19:31:23	20.804	0.197	1.457	85.205	68.703
06/28/2011 19:31:33	20.804	0.197	1.461	85.205	68.703
06/28/2011 19:31:43	20.808	0.197	1.442	85.205	69.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 19:31:53	20.808	0.197	1.464	85.102	69.003
06/28/2011 19:32:03	20.808	0.193	1.442	85.102	69.003
06/28/2011 19:32:13	20.812	0.193	1.439	85.402	69.003
06/28/2011 19:32:23	20.812	0.193	1.395	85.402	68.501
06/28/2011 19:32:33	20.812	0.19	1.398	85.402	68.303
06/28/2011 19:32:43	20.812	0.19	1.417	85.205	68.904
06/28/2011 19:32:53	20.815	0.19	1.417	85.205	69.003
06/28/2011 19:33:03	20.815	0.193	1.406	85.205	68.904
06/28/2011 19:33:13	20.815	0.193	1.442	85.402	68.303
06/28/2011 19:33:23	20.815	0.193	1.424	85.402	68.501
06/28/2011 19:33:33	20.815	0.193	1.439	85.402	68.904
06/28/2011 19:33:43	20.815	0.197	1.45	85.205	69.003
06/28/2011 19:33:53	20.815	0.197	1.362	85.102	69.003
06/28/2011 19:34:03	20.819	0.197	1.431	85.205	68.501
06/28/2011 19:34:13	20.815	0.193	1.464	85.402	68.303
06/28/2011 19:34:23	20.819	0.19	1.457	85.102	68.102
06/28/2011 19:34:33	20.819	0.186	1.439	85.205	68.303
06/28/2011 19:34:43	20.819	0.186	1.42	85.205	68.303
06/28/2011 19:34:53	20.819	0.183	1.417	85.205	68.703
06/28/2011 19:35:03	20.819	0.179	1.42	85.402	68.904
06/28/2011 19:35:13	20.819	0.179	1.439	85.402	69.003
06/28/2011 19:35:23	20.823	0.179	1.45	85.402	69.003
06/28/2011 19:35:33	20.823	0.183	1.45	85.402	69.003
06/28/2011 19:35:43	20.823	0.183	1.494	85.802	68.904
06/28/2011 19:35:53	20.823	0.183	1.435	85.402	68.102
06/28/2011 19:36:03	20.823	0.183	1.431	85.102	68.102
06/28/2011 19:36:13	20.823	0.183	1.413	85.102	68.102
06/28/2011 19:36:23	20.823	0.183	1.413	84.904	68.102
06/28/2011 19:36:33	20.823	0.183	1.391	85.205	68.303
06/28/2011 19:36:43	20.823	0.183	1.413	85.402	68.303
06/28/2011 19:36:53	20.823	0.183	1.362	85.402	68.102
06/28/2011 19:37:03	20.826	0.183	1.354	85.604	68.102
06/28/2011 19:37:13	20.826	0.183	1.362	85.604	68.003
06/28/2011 19:37:23	20.826	0.183	1.376	85.802	68.003
06/28/2011 19:37:33	20.826	0.179	1.384	85.604	68.003
06/28/2011 19:37:43	20.826	0.175	1.395	85.604	68.003
06/28/2011 19:37:53	20.826	0.175	1.391	85.604	68.003
06/28/2011 19:38:03	20.826	0.172	1.398	85.402	68.102
06/28/2011 19:38:13	20.826	0.172	1.406	85.102	68.303
06/28/2011 19:38:23	20.826	0.172	1.417	85.102	68.703
06/28/2011 19:38:33	20.826	0.168	1.431	84.904	68.501
06/28/2011 19:38:43	20.83	0.172	1.391	85.102	68.501
06/28/2011 19:38:53	20.83	0.172	1.391	85.102	68.501
06/28/2011 19:39:03	20.83	0.172	1.417	85.205	68.501
06/28/2011 19:39:13	20.83	0.172	1.395	85.102	68.501
06/28/2011 19:39:23	20.83	0.175	1.409	85.205	68.501
06/28/2011 19:39:33	20.83	0.175	1.391	85.205	68.303
06/28/2011 19:39:43	20.83	0.175	1.395	85.102	67.802
06/28/2011 19:39:53	20.83	0.175	1.42	85.205	67.604
06/28/2011 19:40:03	20.83	0.175	1.453	85.205	67.604
06/28/2011 19:40:13	20.83	0.175	1.439	85.402	67.604
06/28/2011 19:40:23	20.83	0.175	1.398	85.102	67.604
06/28/2011 19:40:33	20.834	0.175	1.435	85.102	67.604
06/28/2011 19:40:43	20.834	0.175	1.464	85.205	67.403
06/28/2011 19:40:53	20.834	0.179	1.442	85.102	67.604
06/28/2011 19:41:03	20.834	0.179	1.442	85.102	67.604
06/28/2011 19:41:13	20.834	0.183	1.442	85.102	67.802
06/28/2011 19:41:23	20.834	0.183	1.431	84.904	67.802
06/28/2011 19:41:33	20.834	0.186	1.494	85.102	67.802
06/28/2011 19:41:43	20.834	0.186	1.442	85.102	67.802
06/28/2011 19:41:53	20.834	0.186	1.417	85.102	67.802
06/28/2011 19:42:03	20.834	0.183	1.435	85.102	67.802
06/28/2011 19:42:13	20.837	0.179	1.406	85.102	68.003
06/28/2011 19:42:23	20.834	0.175	1.384	85.205	68.003
06/28/2011 19:42:33	20.834	0.172	1.391	84.904	68.102
06/28/2011 19:42:43	20.837	0.172	1.391	84.703	68.003
06/28/2011 19:42:53	20.837	0.168	1.391	84.501	68.003
06/28/2011 19:43:03	20.837	0.168	1.391	85.102	68.003
06/28/2011 19:43:13	20.837	0.172	1.402	85.102	68.003
06/28/2011 19:43:23	20.837	0.172	1.417	85.102	68.003
06/28/2011 19:43:33	20.834	0.172	1.413	85.205	68.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 19:43:43	20.834	0.172	1.391	85.205	68.003
06/28/2011 19:43:53	20.834	0.172	1.391	85.604	67.802
06/28/2011 19:44:03	20.837	0.172	1.362	85.205	67.604
06/28/2011 19:44:13	20.837	0.172	1.373	85.102	67.403
06/28/2011 19:44:23	20.837	0.172	1.362	84.904	67.201
06/28/2011 19:44:33	20.837	0.172	1.384	84.904	67.201
06/28/2011 19:44:43	20.837	0.172	1.417	85.102	67.201
06/28/2011 19:44:53	20.837	0.175	1.391	84.904	67.604
06/28/2011 19:45:03	20.837	0.175	1.391	84.904	67.802
06/28/2011 19:45:13	20.837	0.175	1.391	84.904	68.003
06/28/2011 19:45:23	20.837	0.175	1.373	85.102	67.403
06/28/2011 19:45:33	20.837	0.175	1.384	85.205	67.201
06/28/2011 19:45:43	20.837	0.175	1.391	85.102	67.604
06/28/2011 19:45:53	20.837	0.172	1.362	84.703	67.802
06/28/2011 19:46:03	20.837	0.175	1.376	84.904	67.802
06/28/2011 19:46:13	20.837	0.175	1.406	84.904	67.802
06/28/2011 19:46:23	20.837	0.172	1.391	85.102	67.604
06/28/2011 19:46:33	20.837	0.175	1.406	85.102	67.604
06/28/2011 19:46:43	20.837	0.175	1.406	84.904	67.604
06/28/2011 19:46:53	20.837	0.175	1.398	84.904	67.802
06/28/2011 19:47:03	20.837	0.172	1.424	84.904	67.802
06/28/2011 19:47:13	20.837	0.175	1.413	84.904	67.802
06/28/2011 19:47:23	20.837	0.175	1.406	84.904	67.604
06/28/2011 19:47:33	20.837	0.172	1.439	84.904	67.604
06/28/2011 19:47:43	20.837	0.172	1.417	84.703	67.403
06/28/2011 19:47:53	20.841	0.172	1.417	84.703	67.201
06/28/2011 19:48:03	20.841	0.172	1.417	84.904	67.201
06/28/2011 19:48:13	20.841	0.172	1.402	84.904	67.604
06/28/2011 19:48:23	20.841	0.172	1.384	84.904	67.604
06/28/2011 19:48:33	20.841	0.175	1.391	84.904	67.802
06/28/2011 19:48:43	20.837	0.175	1.395	84.904	67.102
06/28/2011 19:48:53	20.837	0.175	1.384	84.904	67.604
06/28/2011 19:49:03	20.841	0.179	1.413	85.102	67.604
06/28/2011 19:49:13	20.841	0.179	1.365	84.904	66.901
06/28/2011 19:49:23	20.841	0.183	1.391	84.904	67.604
06/28/2011 19:49:33	20.841	0.183	1.406	85.102	67.102
06/28/2011 19:49:43	20.841	0.183	1.431	84.904	67.403
06/28/2011 19:49:53	20.841	0.183	1.42	84.904	67.102
06/28/2011 19:50:03	20.841	0.179	1.395	85.102	67.403
06/28/2011 19:50:13	20.841	0.175	1.417	84.904	67.604
06/28/2011 19:50:23	20.841	0.172	1.391	85.102	66.901
06/28/2011 19:50:33	20.841	0.168	1.391	85.205	67.604
06/28/2011 19:50:43	20.841	0.168	1.391	85.205	66.901
06/28/2011 19:50:53	20.841	0.168	1.391	84.904	67.604
06/28/2011 19:51:03	20.841	0.168	1.391	85.102	67.604
06/28/2011 19:51:13	20.841	0.168	1.406	85.102	67.102
06/28/2011 19:51:23	20.845	0.168	1.402	85.205	67.403
06/28/2011 19:51:33	20.845	0.168	1.402	85.402	67.403
06/28/2011 19:51:43	20.845	0.172	1.409	85.205	66.901
06/28/2011 19:51:53	20.845	0.172	1.369	85.205	66.703
06/28/2011 19:52:03	20.845	0.172	1.376	85.205	66.901
06/28/2011 19:52:13	20.841	0.172	1.409	85.102	67.102
06/28/2011 19:52:23	20.841	0.172	1.398	85.102	67.403
06/28/2011 19:52:33	20.845	0.172	1.413	85.102	67.201
06/28/2011 19:52:43	20.845	0.172	1.413	85.205	66.901
06/28/2011 19:52:53	20.845	0.172	1.369	85.402	66.703
06/28/2011 19:53:03	20.845	0.172	1.38	84.703	66.703
06/28/2011 19:53:13	20.845	0.172	1.384	85.102	66.703
06/28/2011 19:53:23	20.845	0.172	1.417	84.501	66.901
06/28/2011 19:53:33	20.845	0.172	1.413	84.904	66.901
06/28/2011 19:53:43	20.841	0.172	1.384	84.703	66.901
06/28/2011 19:53:53	20.845	0.172	1.406	84.703	66.901
06/28/2011 19:54:03	20.845	0.172	1.384	84.205	67.201
06/28/2011 19:54:13	20.845	0.172	1.369	84.501	67.604
06/28/2011 19:54:23	20.845	0.172	1.384	84.304	67.403
06/28/2011 19:54:33	20.845	0.172	1.384	84.205	66.901
06/28/2011 19:54:43	20.845	0.172	1.391	84.304	66.901
06/28/2011 19:54:53	20.845	0.172	1.365	84.304	67.403
06/28/2011 19:55:03	20.845	0.172	1.365	84.501	66.901
06/28/2011 19:55:13	20.845	0.172	1.406	84.304	67.201
06/28/2011 19:55:23	20.845	0.172	1.413	84.703	66.901

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 19:55:33	20.845	0.172	1.435	84.703	67.201
06/28/2011 19:55:43	20.845	0.172	1.428	84.904	66.901
06/28/2011 19:55:53	20.845	0.172	1.409	84.904	67.403
06/28/2011 19:56:03	20.845	0.172	1.369	85.102	66.703
06/28/2011 19:56:13	20.845	0.172	1.413	84.703	67.403
06/28/2011 19:56:23	20.845	0.172	1.413	84.501	66.703
06/28/2011 19:56:33	20.845	0.172	1.398	84.304	67.403
06/28/2011 19:56:43	20.845	0.175	1.384	84.703	66.901
06/28/2011 19:56:53	20.845	0.175	1.391	84.304	66.901
06/28/2011 19:57:03	20.845	0.175	1.362	84.205	67.102
06/28/2011 19:57:13	20.845	0.179	1.362	84.304	66.901
06/28/2011 19:57:23	20.845	0.183	1.362	84.501	66.901
06/28/2011 19:57:33	20.845	0.183	1.369	84.501	66.703
06/28/2011 19:57:43	20.845	0.183	1.38	84.501	66.901
06/28/2011 19:57:53	20.845	0.179	1.384	84.501	66.901
06/28/2011 19:58:03	20.845	0.175	1.376	84.501	67.201
06/28/2011 19:58:13	20.845	0.172	1.398	84.304	67.201
06/28/2011 19:58:23	20.845	0.168	1.376	84.304	67.201
06/28/2011 19:58:33	20.845	0.168	1.376	84.205	67.201
06/28/2011 19:58:43	20.845	0.168	1.362	84.205	66.901
06/28/2011 19:58:53	20.845	0.168	1.391	84.205	66.703
06/28/2011 19:59:03	20.845	0.168	1.365	84.501	66.703
06/28/2011 19:59:13	20.845	0.168	1.362	84.703	66.703
06/28/2011 19:59:23	20.845	0.168	1.369	84.304	66.703
06/28/2011 19:59:33	20.845	0.168	1.351	84.703	66.703
06/28/2011 19:59:43	20.845	0.172	1.336	84.501	66.901
06/28/2011 19:59:53	20.845	0.172	1.34	84.205	66.901
06/28/2011 20:00:03	20.845	0.172	1.362	84.304	66.901
06/28/2011 20:00:13	20.845	0.172	1.384	84.304	66.901
06/28/2011 20:00:23	20.845	0.172	1.384	84.205	66.901
06/28/2011 20:00:33	20.848	0.172	1.351	84.205	67.201
06/28/2011 20:00:43	20.845	0.172	1.362	84.205	67.403
06/28/2011 20:00:53	20.848	0.172	1.384	84.205	66.703
06/28/2011 20:01:03	20.845	0.172	1.336	84.205	67.102
06/28/2011 20:01:13	20.845	0.172	1.336	84.304	66.901
06/28/2011 20:01:23	20.845	0.172	1.325	84.205	66.703
06/28/2011 20:01:33	20.845	0.172	1.332	84.304	67.102
06/28/2011 20:01:43	20.845	0.172	1.373	84.501	66.502
06/28/2011 20:01:53	20.845	0.172	1.369	84.205	66.703
06/28/2011 20:02:03	20.845	0.172	1.369	84.304	67.201
06/28/2011 20:02:13	20.845	0.172	1.314	84.703	66.703
06/28/2011 20:02:23	20.845	0.172	1.332	84.501	66.703
06/28/2011 20:02:33	20.845	0.172	1.34	84.205	66.901
06/28/2011 20:02:43	20.845	0.172	1.332	84.205	67.102
06/28/2011 20:02:53	20.845	0.172	1.336	84.304	67.102
06/28/2011 20:03:03	20.845	0.172	1.358	84.205	67.102
06/28/2011 20:03:13	20.845	0.172	1.362	84.304	66.502
06/28/2011 20:03:23	20.845	0.172	1.362	84.205	66.703
06/28/2011 20:03:33	20.845	0.172	1.391	84.205	67.201
06/28/2011 20:03:43	20.845	0.172	1.351	84.205	66.703
06/28/2011 20:03:53	20.845	0.172	1.362	84.501	66.502
06/28/2011 20:04:03	20.845	0.172	1.362	84.501	67.102
06/28/2011 20:04:13	20.845	0.172	1.391	84.501	67.102
06/28/2011 20:04:23	20.845	0.172	1.365	84.501	66.502
06/28/2011 20:04:33	20.845	0.172	1.406	84.304	66.502
06/28/2011 20:04:43	20.845	0.175	1.417	84.304	67.102
06/28/2011 20:04:53	20.848	0.175	1.398	84.003	66.901
06/28/2011 20:05:03	20.848	0.179	1.417	84.205	66.304
06/28/2011 20:05:13	20.848	0.183	1.395	84.501	66.703
06/28/2011 20:05:23	20.848	0.183	1.439	84.205	67.102
06/28/2011 20:05:33	20.848	0.183	1.442	84.205	67.102
06/28/2011 20:05:43	20.848	0.183	1.431	84.205	66.703
06/28/2011 20:05:53	20.848	0.179	1.424	84.205	66.502
06/28/2011 20:06:03	20.848	0.175	1.442	84.003	66.703
06/28/2011 20:06:13	20.848	0.172	1.45	84.304	66.901
06/28/2011 20:06:23	20.848	0.168	1.417	84.501	66.703
06/28/2011 20:06:33	20.848	0.168	1.435	84.501	66.703
06/28/2011 20:06:43	20.848	0.164	1.395	84.304	66.502
06/28/2011 20:06:53	20.848	0.164	1.395	84.205	66.502
06/28/2011 20:07:03	20.845	0.168	1.38	84.205	66.703
06/28/2011 20:07:13	20.848	0.168	1.384	84.205	67.102

URS CEMs Raw Data
June 28, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 20:07:23	20.848	0.168	1.398	84.205	66.703
06/28/2011 20:07:33	20.848	0.168	1.391	84.205	66.502
06/28/2011 20:07:43	20.848	0.172	1.354	84.304	66.901
06/28/2011 20:07:53	20.848	0.172	1.384	84.703	67.102
06/28/2011 20:08:03	20.848	0.172	1.384	84.703	66.502
06/28/2011 20:08:13	20.848	0.172	1.398	84.703	66.502
06/28/2011 20:08:23	20.848	0.172	1.413	84.304	67.102
06/28/2011 20:08:33	20.848	0.172	1.413	84.205	66.304
06/28/2011 20:08:43	20.848	0.172	1.417	83.802	66.901
06/28/2011 20:08:53	20.848	0.172	1.406	84.205	66.703
06/28/2011 20:09:03	20.848	0.172	1.384	84.205	66.502
06/28/2011 20:09:13	20.848	0.172	1.362	84.205	66.703
06/28/2011 20:09:23	20.848	0.172	1.384	84.003	66.703
06/28/2011 20:09:33	20.848	0.172	1.347	83.604	66.901
06/28/2011 20:09:43	20.848	0.172	1.362	84.003	66.703
06/28/2011 20:09:53	20.848	0.172	1.362	84.003	66.703
06/28/2011 20:10:03	20.848	0.172	1.384	84.205	66.901
06/28/2011 20:10:13	20.852	0.172	1.391	84.205	66.901
06/28/2011 20:10:23	20.852	0.172	1.362	84.304	66.703
06/28/2011 20:10:33	20.848	0.172	1.362	84.703	66.502
06/28/2011 20:10:43	20.848	0.172	1.351	84.304	66.304
06/28/2011 20:10:53	20.848	0.172	1.373	84.703	66.502
06/28/2011 20:11:03	20.848	0.172	1.358	84.904	66.502
06/28/2011 20:11:13	20.848	0.172	1.343	84.205	66.703
06/28/2011 20:11:23	20.848	0.172	1.362	84.304	66.901
06/28/2011 20:11:33	20.848	0.172	1.398	84.501	67.102
06/28/2011 20:11:43	20.848	0.172	1.38	84.501	67.102
06/28/2011 20:11:53	20.848	0.172	1.384	84.703	66.502
06/28/2011 20:12:03	20.848	0.172	1.369	84.703	66.502
06/28/2011 20:12:13	20.848	0.172	1.384	84.304	67.102
06/28/2011 20:12:23	20.852	0.172	1.358	84.304	66.703
06/28/2011 20:12:33	20.848	0.172	1.384	84.304	66.502
06/28/2011 20:12:43	20.848	0.175	1.384	84.304	66.901
06/28/2011 20:12:53	20.848	0.175	1.384	84.501	67.102
06/28/2011 20:13:03	20.848	0.179	1.409	84.501	67.102
06/28/2011 20:13:13	20.852	0.183	1.384	84.501	66.901
06/28/2011 20:13:23	20.848	0.183	1.347	84.205	66.703
06/28/2011 20:13:33	20.848	0.183	1.373	84.205	66.502
06/28/2011 20:13:43	20.848	0.183	1.413	84.205	66.502
06/28/2011 20:13:53	20.848	0.179	1.384	84.304	66.304
06/28/2011 20:14:03	20.848	0.175	1.395	84.304	66.304
06/28/2011 20:14:13	20.848	0.172	1.413	84.304	66.304
06/28/2011 20:14:23	20.848	0.168	1.391	84.304	66.304
06/28/2011 20:14:33	20.848	0.168	1.362	84.304	66.502
06/28/2011 20:14:43	20.848	0.164	1.343	84.304	66.502
06/28/2011 20:14:53	20.848	0.164	1.362	84.501	66.502
06/28/2011 20:15:03	20.848	0.168	1.358	84.501	66.703
06/28/2011 20:15:13	20.848	0.168	1.38	84.703	66.901
06/28/2011 20:15:23	20.848	0.168	1.376	84.003	66.703
06/28/2011 20:15:33	20.848	0.172	1.395	83.604	66.901
06/28/2011 20:15:43	20.848	0.172	1.384	83.802	66.703
06/28/2011 20:15:53	20.848	0.172	1.34	83.403	66.502
06/28/2011 20:16:03	20.848	0.172	1.336	83.802	66.502
06/28/2011 20:16:13	20.848	0.172	1.332	83.802	66.304
06/28/2011 20:16:23	20.848	0.172	1.336	84.003	66.703
06/28/2011 20:16:33	20.848	0.172	1.365	84.205	67.102
06/28/2011 20:16:43	20.848	0.172	1.354	84.205	67.102
06/28/2011 20:16:53	20.848	0.172	1.314	83.802	66.703
06/28/2011 20:17:03	20.848	0.172	1.325	83.802	66.703
06/28/2011 20:17:13	20.852	0.172	1.336	83.604	66.703
06/28/2011 20:17:23	20.848	0.172	1.336	83.604	66.703
06/28/2011 20:17:33	20.852	0.172	1.362	84.003	66.703
06/28/2011 20:17:43	20.852	0.172	1.351	84.003	66.703
06/28/2011 20:17:53	20.852	0.172	1.362	84.003	66.901
06/28/2011 20:18:03	20.852	0.172	1.376	84.205	67.102
06/28/2011 20:18:13	20.852	0.172	1.336	84.205	67.102
06/28/2011 20:18:23	20.852	0.172	1.34	84.003	66.901
06/28/2011 20:18:33	20.852	0.172	1.34	84.003	66.304
06/28/2011 20:18:43	20.852	0.172	1.362	84.003	66.201
06/28/2011 20:18:53	20.852	0.172	1.362	84.304	66.703
06/28/2011 20:19:03	20.852	0.172	1.362	84.003	66.901

URS CEMs Raw Data
June 28, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/28/2011 20:19:13	20.852	0.172	1.358	84.003	66.901
06/28/2011 20:19:23	20.852	0.172	1.362	84.003	66.304
06/28/2011 20:19:33	20.852	0.172	1.336	84.003	66.502
06/28/2011 20:19:43	20.848	0.172	1.321	83.802	66.703
06/28/2011 20:19:53	20.848	0.172	1.31	83.604	66.901
06/28/2011 20:20:03	20.848	0.172	1.31	83.604	66.901
06/28/2011 20:20:13	20.848	0.172	1.362	83.604	66.703
06/28/2011 20:20:23	20.848	0.172	1.347	83.802	66.201
06/28/2011 20:20:33	20.848	0.175	1.409	84.003	66.201
06/28/2011 20:20:43	20.852	0.175	1.417	84.003	66.201
06/28/2011 20:20:53	20.852	0.179	1.38	83.802	66.201
06/28/2011 20:21:03	20.852	0.183	1.362	84.003	66.304
06/28/2011 20:21:13	20.852	0.183	1.391	84.003	66.304
06/28/2011 20:21:23	20.852	0.183	1.406	83.802	66.502
06/28/2011 20:21:33	20.852	0.183	1.439	83.802	66.502
06/28/2011 20:21:43	20.852	0.183	1.362	84.003	66.304
06/28/2011 20:21:53	20.852	0.179	1.369	84.205	66.502
06/28/2011 20:22:03	20.852	0.175	1.362	84.003	66.502
06/28/2011 20:22:13	20.852	0.172	1.376	84.003	66.201
06/28/2011 20:22:23	20.852	0.168	1.431	84.003	66.201
06/28/2011 20:22:33	20.852	0.168	1.446	84.003	66.201
06/28/2011 20:22:43	20.852	0.168	1.435	83.802	66.703
06/28/2011 20:22:53	20.852	0.168	1.34	83.802	66.703
06/28/2011 20:23:03	20.852	0.168	1.362	84.205	66.304
06/28/2011 20:23:13	20.852	0.168	1.38	84.003	66.004
06/28/2011 20:23:23	20.852	0.168	1.38	84.003	66.703
06/28/2011 20:23:33	20.852	0.172	1.38	84.003	66.703
06/28/2011 20:23:43	20.852	0.172	1.362	84.003	66.004
06/28/2011 20:23:53	20.852	0.172	1.362	84.003	66.502
06/28/2011 20:24:03	20.852	0.172	1.391	84.003	66.502
06/28/2011 20:24:13	20.852	0.172	1.409	84.003	65.802
06/28/2011 20:24:23	20.856	0.172	1.391	84.205	66.304
06/28/2011 20:24:33	20.856	0.172	1.395	84.205	65.604
06/28/2011 20:24:43	20.856	0.175	1.38	84.304	66.201
06/28/2011 20:24:53	20.852	0.175	1.362	84.205	65.802
06/28/2011 20:25:03	20.852	0.172	1.365	84.003	66.004
06/28/2011 20:25:13	20.852	0.175	1.391	84.205	66.304
06/28/2011 20:25:23	20.852	0.175	1.391	84.205	65.604
06/28/2011 20:25:33	20.852	0.175	1.391	84.501	65.604
06/28/2011 20:25:43	20.852	0.175	1.398	84.703	66.201
06/28/2011 20:25:53	20.852	0.172	1.417	84.501	66.304
06/28/2011 20:26:03	20.852	0.172	1.417	84.304	66.304
06/28/2011 20:26:13	20.852	0.175	1.424	84.304	66.201
06/28/2011 20:26:23	20.852	0.175	1.424	84.703	65.604
06/28/2011 20:26:33	20.856	0.172	1.391	84.703	65.604
06/28/2011 20:26:43	20.856	0.172	1.391	84.904	66.201
06/28/2011 20:26:53	20.856	0.175	1.391	84.703	65.802
06/28/2011 20:27:03	20.856	0.172	1.362	84.703	65.403
06/28/2011 20:27:13	20.856	0.172	1.362	84.703	65.403

Chevron Hawaii
O_2 Calibration Data Summary

Project ID: Chevron
Date: 29-Jun
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 22.10
Analyzer Range: 25
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	08:20	-0.01	0.01	0.04%
span gas	CC82073	22.10	08:22	22.08	0.02	0.08%
mid-range	CC67546	11.10	08:23	11.13	0.03	0.14%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit		
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5	
Run 11	0.00	-0.01	08:25	0.12	0.59%	16:10	0.06	0.33%	-0.26%	Co=	0.093
	11.10	11.13	08:26	11.07	-0.29%	16:12	11.02	-0.49%	-0.19%	Cma/(Cm-Co)	1.014

Chevron Hawaii
CO_2 Calibration Data Summary

Project ID: Chevron
Date: 29-Jun-11
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 18.90
Analyzer Range: 20
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	08:20	0.13	0.13	0.68%
span gas	CC82073	18.90	08:22	18.98	0.08	0.40%
mid-range	CC67546	9.74	08:23	9.91	0.17	0.89%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit		
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5	
Run 11	0.00	0.13	08:25	0.15	0.10%	16:10	0.26	0.71%	0.61%	Co=	0.205
	9.74	9.91	08:26	9.79	-0.64%	16:12	9.81	-0.50%	0.14%	Cma/(Cm-Co)	1.015

Chevron Hawaii
THC Calibration Data Summary

Project ID: Chevron
Date: 29-Jun-11
Instrument Make/Model: Thermo 51i-HT
ID Number: Cash
Span Value: 100
Units: PPMV as C_3H_8
Technician(s): MDD

EPA Method 25A Calibration Error Test Results

	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	5% limit Cal Error (% of Value)
Zero	ASZ788	0.00	08:25	0.39	0.39	n/a
Span	CC18793	84.50	08:30	84.87	0.37	0.44%
Mid	CC82348	49.80	08:31	49.88	0.08	0.17%
Low	CC84418	30.00	08:34	30.28	0.28	0.95%

Note: Operator may use either mid or low C_3H_8 standard for hourly drift checks, per URS SOP-027.

Selection for drift checks; enter Mid or Low	**Mid**

EPA Method 25A Calibration Bias and Drift Tests

Run No.	Cal Error CEMS Response	Time	Hourly Drift CEMS Response	3% Limit Drift (% of Span)
Run 11	0.39	08:36	-0.14	-0.53%
	49.88	08:37	49.78	-0.10%
	0.39	09:46	-0.20	-0.59%
	49.88	09:47	49.50	-0.38%
	0.39	10:53	0.02	-0.37%
	49.88	10:54	49.54	-0.34%
	0.39	11:55	-0.17	-0.56%
	49.88	11:57	49.37	-0.52%
	0.39	13:08	-0.09	-0.48%
	49.88	13:10	49.57	-0.32%
	0.39	14:13	-0.11	-0.50%
	49.88	14:14	49.57	-0.31%
	0.39	14:47	-0.13	-0.53%
	49.88	14:48	49.53	-0.35%
	0.39	15:54	-0.15	-0.54%
	49.88	15:56	49.60	-0.29%
	0.39	16:10	-0.17	-0.56%
	49.88	16:14	49.55	-0.33%

URS CEMs Raw Data
June 29, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 07:46:56	20.885	0.179	1.252	79.503	63.601
06/29/2011 07:47:06	20.885	0.179	1.267	79.503	63.301
06/29/2011 07:47:16	20.885	0.179	1.288	79.803	63.301
06/29/2011 07:47:26	20.885	0.179	1.362	80.004	63.301
06/29/2011 07:47:36	20.885	0.179	1.274	80.004	63.601
06/29/2011 07:47:46	20.885	0.179	1.245	80.202	63.103
06/29/2011 07:47:56	20.885	0.179	1.278	80.403	63.103
06/29/2011 07:48:06	20.885	0.179	1.314	80.202	63.502
06/29/2011 07:48:16	20.885	0.179	1.31	80.202	63.301
06/29/2011 07:48:26	20.885	0.179	1.376	80.403	63.103
06/29/2011 07:48:36	20.885	0.179	1.413	79.803	63.301
06/29/2011 07:48:46	20.885	0.179	1.464	79.803	63.601
06/29/2011 07:48:56	20.885	0.179	1.567	79.803	63.301
06/29/2011 07:49:06	20.885	0.179	1.592	79.803	63.103
06/29/2011 07:49:16	20.885	0.179	1.475	79.704	63.301
06/29/2011 07:49:26	20.885	0.179	1.486	79.704	63.601
06/29/2011 07:49:36	20.885	0.179	1.592	79.704	63.803
06/29/2011 07:49:46	20.885	0.179	1.49	79.803	63.803
06/29/2011 07:49:56	20.885	0.179	1.332	79.803	63.601
06/29/2011 07:50:06	20.885	0.183	1.398	79.803	63.301
06/29/2011 07:50:16	20.885	0.183	1.512	80.004	63.103
06/29/2011 07:50:26	20.885	0.183	1.461	79.803	63.301
06/29/2011 07:50:36	20.885	0.186	1.362	79.704	63.803
06/29/2011 07:50:46	20.885	0.186	1.31	79.704	64.004
06/29/2011 07:50:56	20.885	0.19	1.325	79.803	64.004
06/29/2011 07:51:06	20.885	0.19	1.343	80.004	64.004
06/29/2011 07:51:16	20.885	0.19	1.31	79.803	63.502
06/29/2011 07:51:26	20.885	0.19	1.31	80.004	63.301
06/29/2011 07:51:36	20.885	0.186	1.332	79.803	63.301
06/29/2011 07:51:46	20.885	0.186	1.267	80.004	63.502
06/29/2011 07:51:56	20.885	0.183	1.281	80.202	63.803
06/29/2011 07:52:06	20.885	0.179	1.248	80.202	64.004
06/29/2011 07:52:16	20.885	0.175	1.278	80.403	63.601
06/29/2011 07:52:26	20.885	0.175	1.274	80.605	63.301
06/29/2011 07:52:36	20.885	0.172	1.288	80.202	63.502
06/29/2011 07:52:46	20.885	0.172	1.281	80.202	64.004
06/29/2011 07:52:56	20.885	0.172	1.27	80.202	63.601
06/29/2011 07:53:06	20.885	0.172	1.267	80.004	63.502
06/29/2011 07:53:16	20.885	0.172	1.288	80.202	63.601
06/29/2011 07:53:26	20.885	0.175	1.303	79.803	64.004
06/29/2011 07:53:36	20.885	0.175	1.288	79.803	64.004
06/29/2011 07:53:46	20.885	0.175	1.263	79.803	64.004
06/29/2011 07:53:56	20.885	0.175	1.267	80.004	63.601
06/29/2011 07:54:06	20.881	0.175	1.248	80.004	63.301
06/29/2011 07:54:16	20.881	0.179	1.288	80.202	63.601
06/29/2011 07:54:26	20.885	0.179	1.267	80.403	64.004
06/29/2011 07:54:36	20.885	0.179	1.241	80.403	64.202
06/29/2011 07:54:46	20.885	0.183	1.267	80.202	64.004
06/29/2011 07:54:56	20.885	0.179	1.267	80.605	63.601
06/29/2011 07:55:06	20.881	0.183	1.267	80.704	63.502
06/29/2011 07:55:16	20.881	0.179	1.288	80.704	63.601
06/29/2011 07:55:26	20.885	0.179	1.285	80.605	63.502
06/29/2011 07:55:36	20.885	0.179	1.288	80.704	63.502
06/29/2011 07:55:46	20.885	0.179	1.332	80.605	63.803
06/29/2011 07:55:56	20.885	0.179	1.27	80.403	64.004
06/29/2011 07:56:06	20.881	0.179	1.267	80.605	64.202
06/29/2011 07:56:16	20.881	0.179	1.237	80.704	64.202
06/29/2011 07:56:26	20.881	0.179	1.252	81.103	64.202
06/29/2011 07:56:36	20.881	0.179	1.292	80.704	64.202
06/29/2011 07:56:46	20.881	0.179	1.288	80.902	64.004
06/29/2011 07:56:56	20.881	0.179	1.303	80.605	63.601
06/29/2011 07:57:06	20.881	0.179	1.329	80.704	63.803
06/29/2011 07:57:16	20.881	0.179	1.354	80.704	64.202
06/29/2011 07:57:26	20.881	0.179	1.303	80.902	64.403
06/29/2011 07:57:36	20.881	0.179	1.278	81.103	63.803
06/29/2011 07:57:46	20.881	0.179	1.241	81.103	63.803
06/29/2011 07:57:56	20.881	0.179	1.241	80.902	64.004
06/29/2011 07:58:06	20.881	0.179	1.245	80.403	64.202
06/29/2011 07:58:16	20.885	0.179	1.281	80.605	64.403
06/29/2011 07:58:26	20.885	0.179	1.252	80.704	64.403
06/29/2011 07:58:36	20.885	0.179	1.215	80.902	63.803
06/29/2011 07:58:46	20.885	0.179	1.237	80.902	63.601
06/29/2011 07:58:56	20.885	0.179	1.186	80.704	64.004

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 07:59:06	20.885	0.179	1.182	80.605	64.202
06/29/2011 07:59:16	20.881	0.183	1.215	80.605	64.403
06/29/2011 07:59:26	20.881	0.183	1.186	80.902	64.403
06/29/2011 07:59:36	20.885	0.186	1.179	80.704	64.403
06/29/2011 07:59:46	20.885	0.186	1.241	80.902	64.004
06/29/2011 07:59:56	20.885	0.19	1.292	80.704	63.601
06/29/2011 08:00:06	20.885	0.19	1.259	80.704	63.601
06/29/2011 08:00:16	20.881	0.19	1.263	80.605	63.601
06/29/2011 08:00:26	20.885	0.19	1.303	80.704	63.601
06/29/2011 08:00:36	20.881	0.186	1.343	81.103	63.803
06/29/2011 08:00:46	20.881	0.186	1.274	81.304	63.803
06/29/2011 08:00:56	20.885	0.183	1.307	81.103	64.004
06/29/2011 08:01:06	20.885	0.179	1.237	81.304	64.004
06/29/2011 08:01:16	20.885	0.175	1.102	80.902	64.202
06/29/2011 08:01:26	20.885	0.172	1.12	80.902	63.803
06/29/2011 08:01:36	20.885	0.172	1.168	80.902	63.803
06/29/2011 08:01:46	20.885	0.172	1.212	80.902	64.403
06/29/2011 08:01:56	20.881	0.172	1.197	80.704	64.704
06/29/2011 08:02:06	20.881	0.172	1.186	81.103	64.004
06/29/2011 08:02:16	20.881	0.172	1.12	80.902	64.502
06/29/2011 08:02:26	20.881	0.172	1.094	81.103	64.502
06/29/2011 08:02:36	20.881	0.175	1.087	80.902	64.004
06/29/2011 08:02:46	20.881	0.175	1.069	81.103	64.004
06/29/2011 08:02:56	20.881	0.175	1.083	81.103	64.502
06/29/2011 08:03:06	20.881	0.175	1.087	81.103	64.502
06/29/2011 08:03:16	20.881	0.175	1.061	80.704	64.502
06/29/2011 08:03:26	20.881	0.175	1.05	80.902	64.502
06/29/2011 08:03:36	20.881	0.175	1.036	81.103	64.502
06/29/2011 08:03:46	20.881	0.179	1.047	81.304	63.803
06/29/2011 08:03:56	20.881	0.179	1.05	81.304	64.004
06/29/2011 08:04:06	20.881	0.179	1.061	80.902	64.502
06/29/2011 08:04:16	20.881	0.179	1.061	80.902	64.502
06/29/2011 08:04:26	20.881	0.179	1.036	81.103	64.004
06/29/2011 08:04:36	20.881	0.179	1.01	81.605	64.004
06/29/2011 08:04:46	20.881	0.179	0.981	81.304	64.502
06/29/2011 08:04:56	20.881	0.179	0.974	81.304	64.704
06/29/2011 08:05:06	20.881	0.179	1.007	81.605	64.202
06/29/2011 08:05:16	20.881	0.179	1.01	81.605	64.004
06/29/2011 08:05:26	20.881	0.179	1.025	81.502	64.004
06/29/2011 08:05:36	20.881	0.179	1.017	81.304	64.004
06/29/2011 08:05:46	20.881	0.179	1.007	81.605	64.004
06/29/2011 08:05:56	20.881	0.179	0.966	81.304	64.202
06/29/2011 08:06:06	20.881	0.179	0.981	81.605	64.502
06/29/2011 08:06:16	20.881	0.179	0.963	81.605	64.704
06/29/2011 08:06:26	20.881	0.179	0.926	81.605	64.704
06/29/2011 08:06:36	20.881	0.179	0.904	81.502	64.502
06/29/2011 08:06:46	20.881	0.175	0.904	81.605	64.403
06/29/2011 08:06:56	20.881	0.179	0.904	81.605	64.403
06/29/2011 08:07:06	20.881	0.175	0.878	81.502	64.202
06/29/2011 08:07:16	20.881	0.175	0.878	81.502	64.004
06/29/2011 08:07:26	20.881	0.175	0.897	81.605	64.901
06/29/2011 08:07:36	20.881	0.175	0.882	81.502	64.901
06/29/2011 08:07:46	20.881	0.175	0.878	81.304	64.202
06/29/2011 08:07:56	20.881	0.179	0.867	81.304	64.901
06/29/2011 08:08:06	20.881	0.179	0.856	81.502	64.202
06/29/2011 08:08:16	20.881	0.183	0.845	81.304	64.704
06/29/2011 08:08:26	20.881	0.183	0.827	81.802	64.202
06/29/2011 08:08:36	20.881	0.186	0.794	81.502	64.901
06/29/2011 08:08:46	20.881	0.186	0.787	81.605	65.103
06/29/2011 08:08:56	20.881	0.19	0.801	81.605	64.403
06/29/2011 08:09:06	20.881	0.19	0.801	81.802	64.704
06/29/2011 08:09:16	20.881	0.19	0.779	81.802	65.103
06/29/2011 08:09:26	20.881	0.186	0.805	81.802	65.103
06/29/2011 08:09:36	20.881	0.183	0.827	81.502	65.103
06/29/2011 08:09:46	20.881	0.183	0.809	81.502	65.103
06/29/2011 08:09:56	20.881	0.179	0.787	81.304	64.901
06/29/2011 08:10:06	20.881	0.175	0.801	81.304	64.502
06/29/2011 08:10:16	20.881	0.172	0.776	81.502	64.202
06/29/2011 08:10:26	20.881	0.172	0.75	81.502	64.502
06/29/2011 08:10:36	20.881	0.172	0.743	81.502	65.103
06/29/2011 08:10:46	20.881	0.172	0.743	81.502	65.103
06/29/2011 08:10:56	20.881	0.172	0.717	81.304	64.202
06/29/2011 08:11:06	20.885	0.172	0.684	81.502	64.502

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 08:11:16	20.885	0.172	0.699	81.605	65.103
06/29/2011 08:11:26	20.881	0.175	0.699	81.802	65.103
06/29/2011 08:11:36	20.881	0.175	0.673	81.605	64.502
06/29/2011 08:11:46	20.885	0.175	0.644	81.502	64.403
06/29/2011 08:11:56	20.885	0.175	0.626	81.605	64.704
06/29/2011 08:12:06	20.885	0.175	0.607	81.802	65.403
06/29/2011 08:12:16	20.881	0.175	0.618	82.202	65.103
06/29/2011 08:12:26	20.881	0.175	0.593	82.202	64.502
06/29/2011 08:12:36	20.881	0.175	0.596	82.004	64.502
06/29/2011 08:12:46	20.881	0.175	0.607	81.802	65.103
06/29/2011 08:12:56	20.881	0.175	0.644	81.502	65.304
06/29/2011 08:13:06	20.881	0.179	0.659	81.502	65.403
06/29/2011 08:13:16	20.881	0.175	0.585	81.502	65.304
06/29/2011 08:13:26	20.881	0.179	0.578	81.802	65.304
06/29/2011 08:13:36	20.881	0.179	0.545	82.004	65.304
06/29/2011 08:13:46	20.881	0.175	0.67	82.004	65.103
06/29/2011 08:13:56	20.881	0.175	0.666	82.004	64.901
06/29/2011 08:14:06	20.881	0.175	0.644	81.605	64.502
06/29/2011 08:14:16	20.881	0.175	0.622	81.802	64.502
06/29/2011 08:14:26	20.881	0.175	0.523	81.802	64.502
06/29/2011 08:14:36	20.881	0.175	0.578	81.802	65.304
06/29/2011 08:14:46	20.881	0.175	0.574	81.802	65.103
06/29/2011 08:14:56	20.881	0.175	0.56	82.004	65.103
06/29/2011 08:15:06	20.881	0.175	0.505	82.403	65.403
06/29/2011 08:15:16	20.881	0.175	-0.096	82.502	66.004
06/29/2011 08:15:26	20.885	0.175	-2.191	82.905	66.201
06/29/2011 08:15:36	20.885	0.175	-2.202	82.905	66.304
06/29/2011 08:15:46	20.885	0.175	-2.202	82.905	66.304
06/29/2011 08:15:56	20.885	0.175	-2.202	83.304	66.304
06/29/2011 08:16:06	20.885	0.175	-2.202	83.802	66.201
06/29/2011 08:16:16	20.885	0.175	2.281	84.003	66.201
06/29/2011 08:16:26	20.885	0.179	1.915	84.003	66.201
06/29/2011 08:16:36	20.881	0.179	1.944	84.205	66.502
06/29/2011 08:16:46	20.885	0.179	1.951	84.304	66.901
06/29/2011 08:16:56	20.885	0.179	1.984	84.205	66.901
06/29/2011 08:17:06	20.885	0.183	1.911	84.003	66.901
06/29/2011 08:17:16	20.885	0.186	1.889	83.604	66.703
06/29/2011 08:17:26	20.885	0.186	1.907	83.304	66.304
06/29/2011 08:17:36	20.881	0.186	1.922	83.103	66.201
06/29/2011 08:17:46	20.881	0.19	1.966	83.103	66.703
06/29/2011 08:17:56	20.881	0.19	1.984	83.403	66.304
06/29/2011 08:18:06	20.881	0.186	1.992	83.304	66.703
06/29/2011 08:18:16	20.881	0.186	1.992	82.703	66.502
06/29/2011 08:18:26	20.881	0.183	1.966	82.703	66.502
06/29/2011 08:18:36	20.881	0.179	2.017	82.905	66.703
06/29/2011 08:18:46	20.881	0.175	2.014	83.103	66.502
06/29/2011 08:18:56	20.881	0.172	1.955	83.103	66.703
06/29/2011 08:19:06	20.881	0.172	1.933	82.905	66.502
06/29/2011 08:19:16	20.881	0.172	1.904	83.304	66.004
Calibration Error					
06/29/2011 08:19:26	16.487	0.139	1.849	83.304	61.803
06/29/2011 08:19:36	3.347	0.124	1.863	83.103	61.803
06/29/2011 08:19:46	0.944	0.124	1.863	83.304	61.301
06/29/2011 08:19:56	0.058	0.124	1.874	83.403	60.602
06/29/2011 08:20:06	0.014	0.128	1.874	83.604	61.104
06/29/2011 08:20:16	0.007	0.128	1.841	83.304	61.104
06/29/2011 08:20:26	0.003	0.128	1.863	83.304	60.602
06/29/2011 08:20:36	-0.004	0.128	1.889	82.905	61.104
06/29/2011 08:20:46	-0.008	0.128	1.867	82.703	61.301
06/29/2011 08:20:56	-0.015	0.128	1.863	82.403	60.803
N2 Zero	**-0.009**	**0.128**		**82.670**	**61.069**
06/29/2011 08:21:06	0.582	0.541	1.856	82.703	60.602
06/29/2011 08:21:16	13.132	18.574	1.856	83.103	61.104
06/29/2011 08:21:26	21.669	18.863	1.893	83.304	61.301
06/29/2011 08:21:36	22.024	18.937	1.867	83.103	61.301
06/29/2011 08:21:46	22.072	18.962	1.827	82.703	60.902
06/29/2011 08:21:56	22.083	18.981	1.831	82.703	60.803
06/29/2011 08:22:06	22.09	18.984	1.893	83.103	60.602
22.1% O2/18.9% CO2 Span	**22.082**	**18.976**		**82.836**	**60.769**
06/29/2011 08:22:16	17.725	9.851	1.893	83.103	60.803
06/29/2011 08:22:26	11.528	9.92	1.893	82.703	61.104
06/29/2011 08:22:36	11.151	9.913	1.882	83.103	61.301
06/29/2011 08:22:46	11.136	9.909	1.915	83.103	61.104

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 08:22:56	11.133	9.909	1.907	83.304	60.803
06/29/2011 08:23:06	11.129	9.909	1.852	83.304	60.602
06/29/2011 08:23:16	11.129	9.906	1.838	83.304	60.803
11.1% O2/9.74% CO2 Mid	**11.130**	**9.908**		**83.304**	**60.736**
06/29/2011 08:23:26	11.898	7.203	1.955	83.802	64.004
06/29/2011 08:23:36	17.75	0.256	11.858	83.604	65.103
06/29/2011 08:23:46	19.237	0.622	0.897	83.403	65.403
Calibration Bias					
THC Calibration Error					
06/29/2011 08:23:56	7.536	0.183	0.461	83.304	65.403
06/29/2011 08:24:06	0.629	0.164	0.428	83.103	65.103
06/29/2011 08:24:16	0.248	0.157	0.41	83.403	65.304
06/29/2011 08:24:26	0.186	0.153	0.41	83.304	65.403
06/29/2011 08:24:36	0.153	0.15	0.406	83.304	65.403
06/29/2011 08:24:46	0.135	0.15	0.402	83.403	64.901
06/29/2011 08:24:56	0.12	0.146	0.384	83.304	64.704
06/29/2011 08:25:06	0.109	0.146	0.388	83.304	65.304
N2 Zero	**0.121**	**0.147**	**0.391**	**83.337**	**64.970**
06/29/2011 08:25:16	0.102	0.146	0.534	83.403	65.103
06/29/2011 08:25:26	1.516	2.083	0.714	83.304	64.403
06/29/2011 08:25:36	7.976	9.554	0.71	83.304	64.704
06/29/2011 08:25:46	10.862	9.712	0.699	83.403	64.901
06/29/2011 08:25:56	11.026	9.752	0.699	83.304	64.202
06/29/2011 08:26:06	11.056	9.774	0.699	82.905	64.901
06/29/2011 08:26:16	11.067	9.789	0.699	82.905	64.202
06/29/2011 08:26:26	11.074	9.799	0.798	83.304	64.901
11.1% O2/9.74% CO2 Mid	**11.066**	**9.787**		**83.038**	**64.668**
06/29/2011 08:26:36	11.371	8.906	79.334	83.304	64.202
06/29/2011 08:26:46	15.784	0.915	90.844	83.103	64.403
06/29/2011 08:26:56	20.186	0.311	91.097	83.103	64.901
06/29/2011 08:27:06	20.713	0.241	91.148	82.905	64.901
06/29/2011 08:27:16	20.764	0.208	91.181	83.304	64.403
06/29/2011 08:27:26	20.786	0.19	91.247	83.103	64.403
06/29/2011 08:27:36	20.797	0.175	91.258	83.103	65.103
06/29/2011 08:27:46	20.808	0.164	84.985	82.502	65.103
06/29/2011 08:27:56	20.812	0.161	73.387	82.905	64.704
06/29/2011 08:28:06	20.482	0.161	2.951	82.403	64.502
06/29/2011 08:28:16	11.484	0.157	0.651	82.403	65.103
06/29/2011 08:28:26	3.043	0.157	0.637	82.502	64.901
06/29/2011 08:28:36	2.574	0.157	0.446	82.905	64.704
06/29/2011 08:28:46	1.534	0.15	0.421	82.703	64.502
06/29/2011 08:28:56	0.274	0.15	-0.0006	83.304	64.704
06/29/2011 08:29:06	0.146	0.15	-0.114	82.905	64.704
06/29/2011 08:29:16	0.124	0.146	-0.118	82.905	64.704
06/29/2011 08:29:26	0.109	0.146	-0.114	82.905	64.901
06/29/2011 08:29:36	0.098	0.146	0.219	83.403	64.901
06/29/2011 08:29:46	1.102	0.153	75.8	83.103	64.704
06/29/2011 08:29:56	11.506	0.146	84.575	82.905	64.502
06/29/2011 08:30:06	19.86	0.142	84.82	83.304	64.502
06/29/2011 08:30:16	20.64	0.142	84.875	83.304	64.502
06/29/2011 08:30:26	20.72	0.142	84.908	83.304	64.704
84.5 ppm Propane Span			**84.868**	**83.304**	**64.569**
06/29/2011 08:30:36	20.753	0.142	84.11	83.403	64.704
06/29/2011 08:30:46	20.772	0.142	50.296	83.304	64.502
06/29/2011 08:30:56	20.753	0.146	46.627	83.304	64.901
06/29/2011 08:31:06	20.728	0.146	47.374	83.304	65.103
06/29/2011 08:31:16	20.731	0.142	49.828	83.304	64.502
06/29/2011 08:31:26	20.735	0.142	49.872	83.103	64.901
06/29/2011 08:31:36	20.735	0.139	49.883	82.703	64.901
06/29/2011 08:31:46	20.742	0.139	49.883	82.905	64.502
06/29/2011 08:31:56	20.746	0.139	49.883	82.703	65.103
49.8 ppm Propane Mid			**49.883**	**82.770**	**64.835**
06/29/2011 08:32:06	20.746	0.139	22.196	82.905	64.704
06/29/2011 08:32:16	20.768	0.168	1.666	82.905	64.502
06/29/2011 08:32:26	20.823	0.183	1.417	83.103	64.704
06/29/2011 08:32:36	20.837	0.183	1.365	83.103	64.901
06/29/2011 08:32:46	20.841	0.183	1.362	83.304	65.304
06/29/2011 08:32:56	20.841	0.183	1.351	83.403	65.103
06/29/2011 08:33:06	20.845	0.183	1.336	83.304	64.901
06/29/2011 08:33:16	20.845	0.183	1.31	83.304	64.704
06/29/2011 08:33:26	20.848	0.183	1.299	82.905	64.704
06/29/2011 08:33:36	20.848	0.183	1.288	83.103	64.901
06/29/2011 08:33:46	20.852	0.183	1.321	83.403	65.103

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 08:33:56	20.852	0.183	1.684	83.604	65.304
06/29/2011 08:34:06	20.848	0.186	28.997	83.604	65.304
06/29/2011 08:34:16	20.79	0.179	30.209	83.403	65.103
06/29/2011 08:34:26	20.793	0.142	30.257	83.403	64.901
06/29/2011 08:34:36	20.808	0.146	30.268	83.304	64.901
06/29/2011 08:34:46	20.812	0.146	30.29	83.304	64.901
06/29/2011 08:34:56	20.812	0.15	30.293	83.304	64.901
30.0 ppm Propane Low			**30.284**	**83.304**	**64.901**
06/29/2011 08:35:06	20.812	0.15	11.209	83.403	64.901
06/29/2011 08:35:16	17.563	0.168	0.047	83.304	64.901
THC Calibration Bias					
06/29/2011 08:35:26	5.02	0.15	-0.099	83.304	64.704
06/29/2011 08:35:36	0.468	0.15	-0.118	83.103	64.502
06/29/2011 08:35:46	0.241	0.146	-0.147	83.403	64.502
06/29/2011 08:35:56	0.186	0.142	-0.143	83.304	64.704
06/29/2011 08:36:06	0.157	0.139	-0.143	83.304	64.901
06/29/2011 08:36:16	0.139	0.139	-0.132	83.403	64.901
06/29/2011 08:36:26	0.124	0.135	-0.143	83.304	64.704
N2 Zero			**-0.139**	**83.337**	**64.835**
06/29/2011 08:36:36	0.113	0.131	6.844	83.103	64.502
06/29/2011 08:36:46	2.797	0.139	48.341	83.304	64.502
06/29/2011 08:36:56	14.817	0.131	49.652	83.802	64.704
06/29/2011 08:37:06	20.266	0.131	49.725	83.604	64.901
06/29/2011 08:37:16	20.607	0.131	49.754	83.604	65.304
06/29/2011 08:37:26	20.665	0.131	49.78	83.604	64.901
06/29/2011 08:37:36	20.691	0.131	49.78	83.403	64.704
06/29/2011 08:37:46	20.706	0.135	49.791	83.604	64.901
49.8 ppm Propane Mid			**49.784**	**83.537**	**64.835**
06/29/2011 08:37:56	20.72	0.135	34.369	83.802	65.103
06/29/2011 08:38:06	20.735	0.153	1.885	84.003	64.901
06/29/2011 08:38:16	20.797	0.183	1.398	84.205	64.502
06/29/2011 08:38:26	20.823	0.183	1.362	83.604	64.901
06/29/2011 08:38:36	20.83	0.183	1.31	83.802	65.103
06/29/2011 08:38:46	20.834	0.183	1.31	84.003	64.901
06/29/2011 08:38:56	20.837	0.183	1.325	84.003	64.901
06/29/2011 08:39:06	20.837	0.183	1.307	84.205	65.304
06/29/2011 08:39:16	20.841	0.183	1.351	84.205	64.901
06/29/2011 08:39:26	20.841	0.183	1.354	84.003	64.901
06/29/2011 08:39:36	20.841	0.183	1.336	83.802	64.901
06/29/2011 08:39:46	20.845	0.183	1.321	83.802	64.901
06/29/2011 08:39:56	20.845	0.183	1.31	84.003	65.403
06/29/2011 08:40:06	20.848	0.183	1.318	84.304	65.403
06/29/2011 08:40:16	20.848	0.183	1.358	84.205	65.403
06/29/2011 08:40:26	20.848	0.183	1.343	84.003	65.403
06/29/2011 08:40:36	20.848	0.186	1.336	84.003	65.103
06/29/2011 08:40:46	20.852	0.183	1.336	84.003	65.103
06/29/2011 08:40:56	20.852	0.183	1.336	84.003	65.103
06/29/2011 08:41:06	20.852	0.183	1.292	84.003	65.103
06/29/2011 08:41:16	20.856	0.183	1.303	84.003	65.403
06/29/2011 08:41:26	20.856	0.183	1.288	83.802	65.403
06/29/2011 08:41:36	20.856	0.183	1.288	84.003	64.901
06/29/2011 08:41:46	20.856	0.183	1.288	83.802	64.901
06/29/2011 08:41:56	20.856	0.183	1.263	84.003	65.403
06/29/2011 08:42:06	20.859	0.183	1.263	83.802	65.604
06/29/2011 08:42:16	20.859	0.183	1.237	84.003	65.604
06/29/2011 08:42:26	20.859	0.183	1.237	84.003	65.103
06/29/2011 08:42:36	20.859	0.183	1.248	84.003	65.103
06/29/2011 08:42:46	20.856	0.183	1.248	83.604	65.103
06/29/2011 08:42:56	20.856	0.183	1.263	83.802	65.304
06/29/2011 08:43:06	20.859	0.186	1.263	83.604	65.604
06/29/2011 08:43:16	20.859	0.186	1.263	83.802	65.604
06/29/2011 08:43:26	20.859	0.186	1.27	83.802	65.802
06/29/2011 08:43:36	20.859	0.19	1.288	83.802	65.604
06/29/2011 08:43:46	20.859	0.193	1.23	83.604	65.604
06/29/2011 08:43:56	20.859	0.193	1.263	83.403	65.604
06/29/2011 08:44:06	20.859	0.193	1.263	83.304	65.103
06/29/2011 08:44:16	20.859	0.193	1.252	83.604	65.103
06/29/2011 08:44:26	20.859	0.193	1.274	83.403	65.103
06/29/2011 08:44:36	20.859	0.193	1.267	83.403	65.304
06/29/2011 08:44:46	20.863	0.19	1.267	83.604	65.604
06/29/2011 08:44:56	20.863	0.186	1.241	83.403	65.604
06/29/2011 08:45:06	20.863	0.183	1.303	83.403	65.802
06/29/2011 08:45:16	20.863	0.183	1.267	83.403	65.802

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 08:45:26	20.863	0.179	1.288	83.403	65.403
06/29/2011 08:45:36	20.863	0.175	1.237	83.604	65.304
06/29/2011 08:45:46	20.863	0.175	1.215	83.604	65.802
06/29/2011 08:45:56	20.863	0.175	1.215	83.604	66.004
06/29/2011 08:46:06	20.863	0.175	1.23	83.802	65.802
06/29/2011 08:46:16	20.863	0.175	1.307	84.003	65.802
06/29/2011 08:46:26	20.863	0.179	1.307	83.604	65.802
06/29/2011 08:46:36	20.863	0.179	1.288	84.003	65.304
06/29/2011 08:46:46	20.863	0.179	1.31	83.604	65.403
06/29/2011 08:46:56	20.863	0.179	1.288	83.802	65.802
06/29/2011 08:47:06	20.863	0.179	1.343	83.604	66.004
06/29/2011 08:47:16	20.863	0.179	1.329	83.304	66.004
06/29/2011 08:47:26	20.863	0.183	1.292	83.604	66.004
06/29/2011 08:47:36	20.859	0.19	2.878	83.403	65.802
06/29/2011 08:47:46	16.208	11.356	3.347	83.403	65.604
06/29/2011 08:47:56	7.309	13.085	3.248	83.802	65.304
06/29/2011 08:48:06	5.661	13.246	3.321	83.604	65.304
06/29/2011 08:48:16	5.504	13.334	3.248	83.604	65.403
06/29/2011 08:48:26	5.427	13.359	3.145	83.604	65.403
06/29/2011 08:48:36	5.408	13.37	3.131	84.003	65.802
06/29/2011 08:48:46	5.438	13.418	3.09	83.802	66.004
06/29/2011 08:48:56	5.398	13.392	3.065	83.802	66.201
06/29/2011 08:49:06	5.379	13.418	3.061	84.003	66.201
06/29/2011 08:49:16	5.365	13.44	3.054	84.205	66.004
06/29/2011 08:49:26	5.372	13.421	3.057	84.205	65.604
06/29/2011 08:49:36	5.39	13.418	3.046	83.802	65.604
06/29/2011 08:49:46	5.408	13.414	3.039	83.802	65.802
06/29/2011 08:49:56	5.398	13.44	3.039	84.003	66.304
06/29/2011 08:50:06	5.376	13.429	3.028	84.205	66.201
06/29/2011 08:50:16	5.35	13.476	3.039	84.205	65.802
06/29/2011 08:50:26	5.354	13.421	2.999	84.003	66.304
06/29/2011 08:50:36	5.408	13.37	2.984	84.003	65.802
06/29/2011 08:50:46	5.401	13.447	2.988	83.802	66.304
06/29/2011 08:50:56	5.361	13.458	2.999	83.604	65.802
06/29/2011 08:51:06	5.335	13.487	3.01	83.604	66.004
06/29/2011 08:51:16	5.317	13.462	3.01	83.802	66.502
06/29/2011 08:51:26	5.354	13.414	2.984	84.003	66.201
06/29/2011 08:51:36	5.401	13.403	2.973	84.003	65.802
06/29/2011 08:51:46	5.408	13.436	2.958	83.802	65.802
06/29/2011 08:51:56	5.383	13.421	2.984	84.003	66.004
06/29/2011 08:52:06	5.39	13.436	2.958	84.205	66.004
06/29/2011 08:52:16	5.39	13.403	2.94	84.205	66.004
06/29/2011 08:52:26	5.419	13.366	2.933	84.205	66.004
06/29/2011 08:52:36	5.43	13.403	2.911	84.003	66.201
06/29/2011 08:52:46	5.408	13.403	2.893	84.304	66.304
06/29/2011 08:52:56	5.398	13.425	2.907	84.304	66.703
06/29/2011 08:53:06	5.368	13.458	2.915	84.304	67.102
06/29/2011 08:53:16	5.361	13.465	2.926	84.501	66.901
06/29/2011 08:53:26	5.365	13.454	2.915	84.304	66.304
06/29/2011 08:53:36	5.365	13.458	2.926	84.501	66.201
06/29/2011 08:53:46	5.354	13.484	2.933	84.501	66.304
06/29/2011 08:53:56	5.332	13.509	2.926	84.703	66.901
06/29/2011 08:54:06	5.317	13.465	2.907	84.501	67.102
06/29/2011 08:54:16	5.357	13.429	2.904	84.501	67.102
06/29/2011 08:54:26	5.398	13.436	2.882	84.304	67.102
06/29/2011 08:54:36	5.401	13.418	2.882	84.304	67.201
06/29/2011 08:54:46	5.376	13.462	2.882	84.003	67.102
06/29/2011 08:54:56	5.339	13.469	2.86	84.205	67.102
06/29/2011 08:55:06	5.335	13.484	2.882	84.304	66.703
06/29/2011 08:55:16	5.31	13.495	2.904	84.501	66.502
06/29/2011 08:55:26	5.317	13.462	2.9	84.501	67.201
06/29/2011 08:55:36	5.346	13.462	2.911	84.501	67.102
06/29/2011 08:55:46	5.368	13.414	2.907	84.501	66.502
06/29/2011 08:55:56	5.394	13.41	2.907	84.304	67.102
06/29/2011 08:56:06	5.401	13.403	2.885	84.304	66.703
06/29/2011 08:56:16	5.405	13.425	2.882	84.205	66.502
06/29/2011 08:56:26	5.394	13.418	2.882	84.205	66.703
06/29/2011 08:56:36	5.401	13.418	2.896	84.304	67.102
06/29/2011 08:56:46	5.379	13.476	2.904	84.304	67.201
06/29/2011 08:56:56	5.35	13.465	2.856	84.304	66.901
06/29/2011 08:57:06	5.379	13.403	2.867	84.501	66.502
06/29/2011 08:57:16	5.427	13.366	2.856	84.501	66.703
06/29/2011 08:57:26	5.471	13.323	2.856	84.501	67.201

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 08:57:36	5.5	13.334	2.845	84.501	67.201
06/29/2011 08:57:46	5.467	13.388	2.808	84.501	66.901
06/29/2011 08:57:56	5.441	13.377	2.827	84.304	66.703
06/29/2011 08:58:06	5.43	13.385	2.841	84.304	67.403
06/29/2011 08:58:16	5.408	13.396	2.827	84.205	67.403
06/29/2011 08:58:26	5.408	13.399	2.827	84.003	66.703
06/29/2011 08:58:36	5.423	13.385	2.827	84.003	67.102
06/29/2011 08:58:46	5.434	13.374	2.827	84.003	67.403
06/29/2011 08:58:56	5.46	13.348	2.801	84.205	67.403
06/29/2011 08:59:06	5.452	13.377	2.812	84.205	66.901
06/29/2011 08:59:16	5.434	13.396	2.801	84.501	67.201
06/29/2011 08:59:26	5.434	13.385	2.797	84.703	67.604
06/29/2011 08:59:36	5.441	13.374	2.801	84.501	67.604
06/29/2011 08:59:46	5.46	13.352	2.823	84.304	67.102
06/29/2011 08:59:56	5.474	13.341	2.856	84.501	67.102
06/29/2011 09:00:06	5.467	13.37	2.819	84.703	67.201
06/29/2011 09:00:16	5.482	13.323	2.805	84.501	67.604
06/29/2011 09:00:26	5.489	13.352	2.801	84.304	67.604
06/29/2011 09:00:36	5.493	13.323	2.801	84.304	67.604
06/29/2011 09:00:46	5.518	13.323	2.805	84.205	67.604
06/29/2011 09:00:56	5.518	13.323	2.834	84.304	67.201
06/29/2011 09:01:06	5.515	13.279	2.827	84.205	67.102
06/29/2011 09:01:16	5.526	13.334	2.838	84.205	67.102
06/29/2011 09:01:26	5.485	13.348	2.827	84.304	67.403
06/29/2011 09:01:36	5.478	13.345	2.823	84.003	67.102
06/29/2011 09:01:46	5.485	13.348	2.841	84.304	67.201
06/29/2011 09:01:56	5.518	13.315	2.856	84.205	67.201
06/29/2011 09:02:06	5.496	13.359	2.863	84.205	67.604
06/29/2011 09:02:16	5.467	13.352	2.856	83.802	67.604
06/29/2011 09:02:26	5.507	13.275	2.856	83.802	67.604
06/29/2011 09:02:36	5.562	13.279	2.856	84.003	67.201
06/29/2011 09:02:46	5.5	13.381	2.838	84.205	67.802
06/29/2011 09:02:56	5.456	13.326	2.834	84.205	67.201
06/29/2011 09:03:06	5.496	13.304	2.805	84.003	67.802
06/29/2011 09:03:16	5.518	13.286	2.805	83.802	67.201
06/29/2011 09:03:26	5.515	13.293	2.805	83.802	67.802
06/29/2011 09:03:36	5.496	13.312	2.797	84.205	67.802
06/29/2011 09:03:46	5.493	13.312	2.805	84.003	67.201
06/29/2011 09:03:56	5.467	13.366	2.779	84.205	67.604
06/29/2011 09:04:06	5.419	13.399	2.801	84.205	67.403
06/29/2011 09:04:16	5.405	13.374	2.805	84.003	67.201
06/29/2011 09:04:26	5.456	13.315	2.834	84.205	67.802
06/29/2011 09:04:36	5.474	13.334	2.83	84.205	67.403
06/29/2011 09:04:46	5.441	13.363	2.812	84.205	67.802
06/29/2011 09:04:56	5.408	13.403	2.838	84.304	67.604
06/29/2011 09:05:06	5.383	13.41	2.856	84.003	67.403
06/29/2011 09:05:16	5.372	13.443	2.838	83.802	67.802
06/29/2011 09:05:26	5.357	13.458	2.849	83.802	67.604
06/29/2011 09:05:36	5.354	13.462	2.86	84.003	67.403
06/29/2011 09:05:46	5.357	13.447	2.856	84.304	67.403
06/29/2011 09:05:56	5.332	13.502	2.838	84.501	67.604
06/29/2011 09:06:06	5.291	13.498	2.856	84.501	67.604
06/29/2011 09:06:16	5.306	13.476	2.856	84.501	67.604
06/29/2011 09:06:26	5.372	13.388	2.834	84.904	67.403
06/29/2011 09:06:36	5.427	13.385	2.838	84.703	67.201
06/29/2011 09:06:46	5.419	13.374	2.805	84.703	67.102
06/29/2011 09:06:56	5.401	13.418	2.83	84.904	67.201
06/29/2011 09:07:06	5.368	13.465	2.83	84.904	67.604
06/29/2011 09:07:16	5.317	13.517	2.827	84.703	67.802
06/29/2011 09:07:26	5.313	13.458	2.827	84.703	67.604
06/29/2011 09:07:36	5.332	13.498	2.83	84.304	67.403
06/29/2011 09:07:46	5.321	13.487	2.827	84.205	67.403
06/29/2011 09:07:56	5.361	13.432	2.827	84.205	67.604
06/29/2011 09:08:06	5.423	13.377	2.805	83.802	67.604
06/29/2011 09:08:16	5.449	13.37	2.834	83.802	67.604
06/29/2011 09:08:26	5.452	13.366	2.856	84.003	67.604
06/29/2011 09:08:36	5.438	13.385	2.856	84.003	67.604
06/29/2011 09:08:46	5.419	13.396	2.856	84.304	67.802
06/29/2011 09:08:56	5.405	13.425	2.856	83.802	68.003
06/29/2011 09:09:06	5.361	13.484	2.823	83.802	67.403
06/29/2011 09:09:16	5.313	13.502	2.841	84.205	68.003
06/29/2011 09:09:26	5.324	13.443	2.849	84.205	67.403
06/29/2011 09:09:36	5.398	13.399	2.834	84.003	68.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 09:09:46	5.478	13.312	2.827	84.003	67.403
06/29/2011 09:09:56	5.511	13.334	2.838	84.205	67.604
06/29/2011 09:10:06	5.463	13.403	2.856	84.003	68.003
06/29/2011 09:10:16	5.401	13.421	2.856	84.003	67.403
06/29/2011 09:10:26	5.401	13.407	2.856	84.003	67.403
06/29/2011 09:10:36	5.416	13.396	2.856	83.802	67.403
06/29/2011 09:10:46	5.452	13.326	2.845	84.003	67.604
06/29/2011 09:10:56	5.471	13.359	2.816	84.003	68.102
06/29/2011 09:11:06	5.471	13.323	2.805	84.205	67.604
06/29/2011 09:11:16	5.474	13.392	2.786	84.304	67.403
06/29/2011 09:11:26	5.412	13.429	2.805	84.205	67.802
06/29/2011 09:11:36	5.368	13.462	2.816	83.802	68.102
06/29/2011 09:11:46	5.383	13.407	2.83	84.003	68.003
06/29/2011 09:11:56	5.405	13.429	2.819	83.802	67.403
06/29/2011 09:12:06	5.383	13.447	2.823	84.003	67.403
06/29/2011 09:12:16	5.379	13.418	2.805	84.205	67.604
06/29/2011 09:12:26	5.408	13.399	2.823	84.003	68.003
06/29/2011 09:12:36	5.423	13.396	2.83	84.003	68.003
06/29/2011 09:12:46	5.412	13.414	2.83	84.003	67.802
06/29/2011 09:12:56	5.405	13.418	2.827	84.003	67.604
06/29/2011 09:13:06	5.398	13.429	2.83	83.802	67.604
06/29/2011 09:13:16	5.39	13.425	2.823	83.604	67.604
06/29/2011 09:13:26	5.43	13.348	2.805	83.604	67.802
06/29/2011 09:13:36	5.463	13.334	2.827	83.604	68.003
06/29/2011 09:13:46	5.438	13.396	2.83	83.604	68.102
06/29/2011 09:13:56	5.387	13.447	2.827	83.604	67.604
06/29/2011 09:14:06	5.357	13.454	2.83	84.003	67.403
06/29/2011 09:14:16	5.376	13.399	2.827	84.501	67.201
06/29/2011 09:14:26	5.412	13.381	2.827	84.501	67.403
06/29/2011 09:14:36	5.412	13.414	2.823	84.501	67.802
06/29/2011 09:14:46	5.354	13.454	2.827	84.501	68.003
06/29/2011 09:14:56	5.361	13.432	2.816	84.501	67.802
Start Run 11					
06/29/2011 09:15:06	5.383	13.429	2.845	84.304	68.003
06/29/2011 09:15:16	5.398	13.403	2.856	84.501	68.003
06/29/2011 09:15:26	5.39	13.429	2.856	84.501	68.003
06/29/2011 09:15:36	5.357	13.498	2.823	84.501	68.003
06/29/2011 09:15:46	5.324	13.469	2.841	84.304	67.802
06/29/2011 09:15:56	5.332	13.469	2.856	84.304	67.802
06/29/2011 09:16:06	5.35	13.429	2.83	84.501	68.003
06/29/2011 09:16:16	5.383	13.414	2.827	84.304	68.003
06/29/2011 09:16:26	5.394	13.414	2.849	84.205	68.003
06/29/2011 09:16:36	5.368	13.451	2.83	84.304	68.003
06/29/2011 09:16:46	5.368	13.414	2.827	84.304	67.802
06/29/2011 09:16:56	5.368	13.458	2.83	84.304	67.403
06/29/2011 09:17:06	5.332	13.506	2.856	84.205	67.403
06/29/2011 09:17:16	5.328	13.454	2.856	84.501	67.604
06/29/2011 09:17:26	5.354	13.432	2.834	84.501	68.102
06/29/2011 09:17:36	5.387	13.407	2.856	84.703	68.003
06/29/2011 09:17:46	5.412	13.385	2.83	84.501	67.802
06/29/2011 09:17:56	5.419	13.388	2.856	84.501	67.201
06/29/2011 09:18:06	5.394	13.425	2.827	84.304	67.403
06/29/2011 09:18:16	5.357	13.487	2.827	84.304	67.604
06/29/2011 09:18:26	5.313	13.495	2.827	84.003	67.802
06/29/2011 09:18:36	5.339	13.454	2.856	84.003	68.003
06/29/2011 09:18:46	5.383	13.44	2.83	84.003	68.102
06/29/2011 09:18:56	5.434	13.359	2.86	84.003	68.102
06/29/2011 09:19:06	5.46	13.381	2.856	83.802	68.003
06/29/2011 09:19:16	5.46	13.374	2.856	84.003	67.604
06/29/2011 09:19:26	5.474	13.366	2.86	84.003	67.604
06/29/2011 09:19:36	5.478	13.356	2.856	84.003	67.604
06/29/2011 09:19:46	5.467	13.385	2.86	84.205	67.802
06/29/2011 09:19:56	5.445	13.374	2.841	84.205	67.802
06/29/2011 09:20:06	5.445	13.37	2.86	84.003	68.102
06/29/2011 09:20:16	5.445	13.359	2.893	84.205	68.303
06/29/2011 09:20:26	5.489	13.304	2.882	83.802	68.102
06/29/2011 09:20:36	5.489	13.352	2.849	84.205	68.003
06/29/2011 09:20:46	5.471	13.337	2.83	84.205	67.802
06/29/2011 09:20:56	5.463	13.377	2.83	84.003	67.802
06/29/2011 09:21:06	5.452	13.356	2.83	84.003	67.802
06/29/2011 09:21:16	5.452	13.363	2.845	83.802	67.604
06/29/2011 09:21:26	5.434	13.381	3.153	84.003	67.604

URS CEMs Raw Data
June 29, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 09:21:36	5.398	13.44	3.134	84.003	67.802
06/29/2011 09:21:46	5.365	13.403	3.024	84.003	68.303
06/29/2011 09:21:56	5.387	13.388	3.01	84.003	68.102
06/29/2011 09:22:06	5.401	13.399	2.984	84.003	67.604
06/29/2011 09:22:16	5.423	13.388	2.947	84.304	68.303
06/29/2011 09:22:26	5.408	13.421	2.933	84.304	68.102
06/29/2011 09:22:36	5.376	13.418	2.933	84.304	67.604
06/29/2011 09:22:46	5.383	13.458	2.929	84.501	68.303
06/29/2011 09:22:56	5.343	13.476	2.933	84.501	68.003
06/29/2011 09:23:06	5.343	13.421	2.933	84.304	67.604
06/29/2011 09:23:16	5.376	13.436	2.933	84.304	68.303
06/29/2011 09:23:26	5.365	13.451	2.933	84.304	68.102
06/29/2011 09:23:36	5.376	13.407	2.907	84.304	67.604
06/29/2011 09:23:46	5.398	13.414	2.915	84.501	68.003
06/29/2011 09:23:56	5.408	13.37	2.911	84.501	68.102
06/29/2011 09:24:06	5.456	13.359	2.933	84.501	68.303
06/29/2011 09:24:16	5.445	13.396	2.9	84.501	68.102
06/29/2011 09:24:26	5.416	13.407	2.885	84.304	68.102
06/29/2011 09:24:36	5.405	13.429	2.885	84.703	67.403
06/29/2011 09:24:46	5.387	13.454	2.867	84.904	67.403
06/29/2011 09:24:56	5.328	13.502	2.885	84.703	67.604
06/29/2011 09:25:06	5.328	13.454	2.882	84.501	68.303
06/29/2011 09:25:16	5.357	13.421	2.863	84.304	68.102
06/29/2011 09:25:26	5.419	13.341	2.885	84.501	67.802
06/29/2011 09:25:36	5.467	13.341	2.871	84.703	67.604
06/29/2011 09:25:46	5.474	13.33	2.86	84.703	67.604
06/29/2011 09:25:56	5.467	13.352	2.86	84.501	68.003
06/29/2011 09:26:06	5.412	13.432	2.827	84.205	68.303
06/29/2011 09:26:16	5.354	13.462	2.827	84.003	68.303
06/29/2011 09:26:26	5.354	13.436	2.805	83.802	68.102
06/29/2011 09:26:36	5.372	13.432	2.83	83.802	68.102
06/29/2011 09:26:46	5.387	13.403	2.845	83.604	68.003
06/29/2011 09:26:56	5.427	13.377	2.83	83.604	68.303
06/29/2011 09:27:06	5.419	13.396	2.827	84.003	67.604
06/29/2011 09:27:16	5.383	13.458	2.83	84.003	67.604
06/29/2011 09:27:26	5.339	13.48	2.83	84.003	67.604
06/29/2011 09:27:36	5.346	13.436	2.827	84.003	68.003
06/29/2011 09:27:46	5.335	13.502	2.83	84.003	68.102
06/29/2011 09:27:56	5.295	13.509	2.856	84.205	68.303
06/29/2011 09:28:06	5.288	13.495	2.878	84.304	68.501
06/29/2011 09:28:16	5.332	13.458	2.882	84.501	68.501
06/29/2011 09:28:26	5.376	13.407	2.882	84.904	68.501
06/29/2011 09:28:36	5.379	13.473	2.896	84.501	68.303
06/29/2011 09:28:46	5.324	13.52	2.896	84.205	68.501
06/29/2011 09:28:56	5.284	13.517	2.882	84.205	68.303
06/29/2011 09:29:06	5.291	13.498	2.86	84.205	68.303
06/29/2011 09:29:16	5.295	13.513	2.856	84.205	68.303
06/29/2011 09:29:26	5.277	13.528	2.856	84.501	68.303
06/29/2011 09:29:36	5.291	13.506	2.856	84.304	68.303
06/29/2011 09:29:46	5.306	13.506	2.856	84.205	68.501
06/29/2011 09:29:56	5.335	13.465	2.83	84.304	68.501
06/29/2011 09:30:06	5.343	13.473	2.83	84.205	68.501
06/29/2011 09:30:16	5.31	13.531	2.805	84.304	68.501
06/29/2011 09:30:26	5.291	13.524	2.808	84.304	68.501
06/29/2011 09:30:36	5.317	13.473	2.83	84.501	68.703
06/29/2011 09:30:46	5.376	13.436	2.83	84.703	68.703
06/29/2011 09:30:56	5.387	13.458	2.83	84.904	68.703
06/29/2011 09:31:06	5.346	13.517	2.808	85.102	68.703
06/29/2011 09:31:16	5.335	13.473	2.823	85.102	68.703
06/29/2011 09:31:26	5.339	13.509	2.838	84.703	68.703
06/29/2011 09:31:36	5.339	13.458	2.83	84.501	68.703
06/29/2011 09:31:46	5.372	13.44	2.827	84.904	68.904
06/29/2011 09:31:56	5.372	13.465	2.856	85.205	68.904
06/29/2011 09:32:06	5.361	13.465	2.838	85.102	68.904
06/29/2011 09:32:16	5.368	13.465	2.856	85.102	68.904
06/29/2011 09:32:26	5.379	13.462	2.856	84.904	68.904
06/29/2011 09:32:36	5.401	13.418	2.856	85.102	68.501
06/29/2011 09:32:46	5.441	13.403	2.856	85.102	68.102
06/29/2011 09:32:56	5.452	13.414	2.882	85.102	68.303
06/29/2011 09:33:06	5.438	13.41	2.856	85.102	68.102
06/29/2011 09:33:16	5.427	13.414	2.856	84.904	68.501
06/29/2011 09:33:26	5.405	13.44	2.882	84.501	68.703
06/29/2011 09:33:36	5.387	13.447	2.882	84.904	68.904

URS CEMs Raw Data
June 29, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 09:33:46	5.405	13.403	2.882	84.703	68.703
06/29/2011 09:33:56	5.405	13.436	2.856	84.501	68.703
06/29/2011 09:34:06	5.405	13.414	2.856	84.304	68.102
06/29/2011 09:34:16	5.401	13.429	2.834	84.205	68.102
06/29/2011 09:34:26	5.398	13.414	2.838	84.304	68.102
06/29/2011 09:34:36	5.416	13.429	2.856	84.304	68.303
06/29/2011 09:34:46	5.412	13.399	2.68	84.501	68.501
06/29/2011 09:34:56	5.416	13.41	2.856	84.501	68.904
06/29/2011 09:35:06	5.368	13.487	2.856	84.501	68.904
06/29/2011 09:35:16	5.302	13.535	2.838	84.304	68.703
06/29/2011 09:35:26	5.291	13.484	2.827	84.205	68.102
06/29/2011 09:35:36	5.306	13.524	2.819	84.304	68.102
06/29/2011 09:35:46	5.247	13.568	2.841	84.304	68.303
06/29/2011 09:35:56	5.2	13.619	2.856	84.501	68.703
06/29/2011 09:36:06	5.196	13.575	2.856	84.501	68.904
06/29/2011 09:36:16	5.203	13.605	2.849	84.501	68.703
06/29/2011 09:36:26	5.196	13.601	2.856	84.703	68.102
06/29/2011 09:36:36	5.203	13.59	2.856	84.703	68.102
06/29/2011 09:36:46	5.192	13.619	2.856	84.501	68.102
06/29/2011 09:36:56	5.185	13.605	2.878	84.703	68.102
06/29/2011 09:37:06	5.203	13.575	2.893	84.501	68.102
06/29/2011 09:37:16	5.225	13.557	2.893	84.304	68.102
06/29/2011 09:37:26	5.233	13.568	2.904	84.205	68.102
06/29/2011 09:37:36	5.203	13.612	2.889	84.205	68.102
06/29/2011 09:37:46	5.167	13.605	2.882	84.304	68.501
06/29/2011 09:37:56	5.2	13.583	2.882	84.304	68.703
06/29/2011 09:38:06	5.222	13.572	2.907	84.501	68.904
06/29/2011 09:38:16	5.214	13.623	2.882	84.501	68.904
06/29/2011 09:38:26	5.181	13.63	2.867	84.304	68.904
06/29/2011 09:38:36	5.2	13.597	2.856	84.304	68.703
06/29/2011 09:38:46	5.233	13.564	2.856	84.501	68.501
06/29/2011 09:38:56	5.251	13.542	2.856	84.703	68.102
06/29/2011 09:39:06	5.266	13.568	2.856	84.501	68.102
06/29/2011 09:39:16	5.222	13.627	2.834	84.501	68.501
06/29/2011 09:39:26	5.178	13.645	2.856	84.304	68.904
06/29/2011 09:39:36	5.2	13.561	2.856	84.205	68.703
06/29/2011 09:39:46	5.284	13.513	2.856	84.304	68.102
06/29/2011 09:39:56	5.295	13.557	2.856	84.304	68.102
06/29/2011 09:40:06	5.266	13.568	2.856	84.304	68.703
06/29/2011 09:40:16	5.229	13.594	2.856	84.304	68.703
06/29/2011 09:40:26	5.2	13.605	2.882	84.205	68.703
06/29/2011 09:40:36	5.203	13.59	2.882	84.205	68.703
06/29/2011 09:40:46	5.24	13.575	2.885	84.205	68.703
06/29/2011 09:40:56	5.236	13.579	2.867	84.205	68.703
06/29/2011 09:41:06	5.233	13.579	2.882	84.205	68.303
06/29/2011 09:41:16	5.24	13.597	2.882	84.205	68.102
06/29/2011 09:41:26	5.262	13.542	2.882	84.205	68.102
06/29/2011 09:41:36	5.31	13.498	2.885	84.205	68.501
06/29/2011 09:41:46	5.332	13.513	2.882	84.304	68.703
06/29/2011 09:41:56	5.328	13.517	2.907	84.304	68.703
06/29/2011 09:42:06	5.31	13.557	2.904	84.501	68.501
06/29/2011 09:42:16	5.258	13.59	2.86	84.304	68.303
06/29/2011 09:42:26	5.244	13.575	2.863	84.501	68.904
06/29/2011 09:42:36	5.24	13.583	2.856	84.501	68.703
06/29/2011 09:42:46	5.24	13.594	2.856	84.501	68.501
06/29/2011 09:42:56	5.225	13.583	2.856	84.304	68.102
06/29/2011 09:43:06	5.214	13.619	2.856	84.304	68.102
06/29/2011 09:43:16	5.196	13.612	2.856	84.304	68.303
06/29/2011 09:43:26	5.207	13.594	2.871	84.205	68.501
06/29/2011 09:43:36	5.211	13.627	2.882	84.501	68.303
06/29/2011 09:43:46	5.218	13.564	2.856	84.304	68.501
06/29/2011 09:43:56	5.247	13.579	2.856	84.205	68.703
06/29/2011 09:44:06	5.233	13.586	2.856	84.205	68.102
06/29/2011 09:44:16	5.24	13.553	2.856	84.304	68.303
06/29/2011 09:44:26	5.211	13.641	2.856	84.205	68.703
06/29/2011 09:44:36	5.185	13.608	2.856	84.205	68.501
06/29/2011 09:44:46	5.211	13.597	2.856	84.205	68.102
06/29/2011 09:44:56	5.211	13.601	2.856	84.205	68.303
06/29/2011 09:45:06	5.214	13.597	2.856	84.003	68.703
Pause Run 11					
THC Drift Check					
06/29/2011 09:45:16	5.218	13.55	5.185	84.205	68.102
06/29/2011 09:45:26	5.507	12.14	1.16	83.802	68.303

URS CEMs Raw Data
June 29, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 09:45:36	4.09	0.779	-0.169	84.003	68.904
06/29/2011 09:45:46	0.582	0.428	-0.191	84.003	69.204
06/29/2011 09:45:56	0.102	0.351	-0.191	83.802	69.003
06/29/2011 09:46:06	0.069	0.307	-0.191	84.003	68.501
06/29/2011 09:46:16	0.058	0.285	-0.217	83.802	68.501
N2 Zero			**-0.200**	**83.869**	**68.668**
06/29/2011 09:46:26	0.051	0.267	0.538	84.003	68.501
06/29/2011 09:46:36	0.464	1.047	45.532	84.205	68.501
06/29/2011 09:46:46	10.653	0.3	49.308	84.003	68.501
06/29/2011 09:46:56	19.761	0.23	49.439	84.205	68.501
06/29/2011 09:47:06	20.537	0.219	49.472	84.205	68.501
06/29/2011 09:47:16	20.618	0.208	49.494	84.205	68.501
06/29/2011 09:47:26	20.651	0.204	49.494	84.003	68.501
06/29/2011 09:47:36	20.669	0.201	49.527	84.003	68.501
06/29/2011 09:47:46	20.684	0.197	49.483	84.003	68.501
49.8 ppm Propane Mid			**49.501**	**84.003**	**68.501**
06/29/2011 09:47:56	20.691	0.197	17.303	83.802	68.501
06/29/2011 09:48:06	17.252	10.199	3.116	83.604	68.102
06/29/2011 09:48:16	7.932	13.308	2.94	83.604	68.303
Resume Run 11					
06/29/2011 09:48:26	5.478	13.392	2.889	84.003	68.703
06/29/2011 09:48:36	5.372	13.44	2.885	84.205	68.904
06/29/2011 09:48:46	5.328	13.476	2.885	84.205	68.703
06/29/2011 09:48:56	5.31	13.484	2.904	84.205	68.003
06/29/2011 09:49:06	5.299	13.465	2.874	84.205	68.003
06/29/2011 09:49:16	5.295	13.535	2.856	84.003	68.501
06/29/2011 09:49:26	5.258	13.546	2.867	84.003	68.102
06/29/2011 09:49:36	5.273	13.524	2.882	84.205	68.102
06/29/2011 09:49:46	5.288	13.528	2.856	84.003	68.703
06/29/2011 09:49:56	5.288	13.513	2.856	84.205	68.102
Pause Run 11					
GC Recovery Check					
06/29/2011 09:50:06	5.332	13.476	39.57	84.205	68.303
06/29/2011 09:50:16	5.885	8.939	101.644	84.205	69.003
06/29/2011 09:50:26	3.98	2.255	101.648	84.205	68.303
06/29/2011 09:50:36	0.992	2.142	101.648	84.205	68.703
06/29/2011 09:50:46	0.732	1.768	101.644	84.205	69.003
06/29/2011 09:50:56	0.344	0.322	101.644	84.205	68.303
06/29/2011 09:51:06	0.08	0.27	101.648	84.205	68.501
06/29/2011 09:51:16	0.058	0.248	101.648	84.205	68.904
06/29/2011 09:51:26	0.051	0.234	101.648	84.205	68.303
06/29/2011 09:51:36	0.047	0.226	101.648	84.205	68.501
06/29/2011 09:51:46	0.043	0.219	101.648	84.205	69.003
06/29/2011 09:51:56	0.04	0.212	101.648	84.003	68.703
06/29/2011 09:52:06	0.036	0.208	101.648	83.403	68.102
06/29/2011 09:52:16	0.556	4.687	11.773	84.003	68.501
06/29/2011 09:52:26	3.695	13.048	6.35	84.205	68.501
06/29/2011 09:52:36	5.277	13.227	4.896	84.304	68.003
06/29/2011 09:52:46	5.372	13.29	4.189	84.205	68.303
06/29/2011 09:52:56	5.383	13.312	3.775	84.205	68.501
06/29/2011 09:53:06	5.408	13.33	3.574	84.205	68.003
06/29/2011 09:53:16	5.419	13.323	3.438	84.205	68.003
06/29/2011 09:53:26	5.419	13.345	3.229	84.003	68.303
06/29/2011 09:53:36	5.412	13.381	3.134	83.802	68.303
Resume Run 11					
06/29/2011 09:53:46	5.376	13.385	3.065	83.802	68.003
06/29/2011 09:53:56	5.416	13.297	3.013	84.003	67.802
06/29/2011 09:54:06	5.478	13.315	2.999	84.003	67.802
06/29/2011 09:54:16	5.416	13.418	2.962	84.304	68.102
06/29/2011 09:54:26	5.343	13.458	3.01	84.205	68.501
06/29/2011 09:54:36	5.306	13.473	3.072	84.205	68.303
06/29/2011 09:54:46	5.28	13.491	3.266	84.205	68.102
06/29/2011 09:54:56	5.258	13.539	3.317	84.205	68.003
06/29/2011 09:55:06	5.211	13.539	3.255	84.003	67.802
06/29/2011 09:55:16	5.251	13.498	3.193	84.205	67.802
06/29/2011 09:55:26	5.321	13.451	3.189	84.205	67.802
06/29/2011 09:55:36	5.35	13.425	3.142	84.205	67.802
06/29/2011 09:55:46	5.354	13.462	3.101	84.003	67.802
06/29/2011 09:55:56	5.35	13.447	3.079	84.003	67.604
06/29/2011 09:56:06	5.339	13.443	3.09	84.003	67.604
06/29/2011 09:56:16	5.328	13.469	3.065	84.205	67.802
06/29/2011 09:56:26	5.343	13.407	3.039	84.304	68.102
06/29/2011 09:56:36	5.401	13.385	3.065	84.205	68.102

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 09:56:46	5.423	13.399	3.065	83.802	67.604
06/29/2011 09:56:56	5.401	13.388	3.065	84.003	68.102
06/29/2011 09:57:06	5.434	13.33	3.039	83.802	67.604
06/29/2011 09:57:16	5.445	13.385	2.995	83.604	68.303
06/29/2011 09:57:26	5.408	13.403	2.984	83.802	67.802
06/29/2011 09:57:36	5.335	13.524	2.988	84.003	68.303
06/29/2011 09:57:46	5.258	13.528	2.984	83.802	68.003
06/29/2011 09:57:56	5.273	13.509	2.962	83.604	68.303
06/29/2011 09:58:06	5.317	13.469	2.947	83.604	67.802
06/29/2011 09:58:16	5.339	13.443	2.933	83.802	68.003
06/29/2011 09:58:26	5.376	13.436	2.915	84.205	68.501
06/29/2011 09:58:36	5.379	13.429	2.904	83.604	67.802
06/29/2011 09:58:46	5.376	13.41	2.918	83.604	67.802
06/29/2011 09:58:56	5.434	13.363	2.936	84.003	68.303
06/29/2011 09:59:06	5.441	13.432	2.933	83.802	68.303
Pause Run 11					
GC Recovery Check					
06/29/2011 09:59:16	5.405	13.403	23.749	83.802	68.501
06/29/2011 09:59:26	5.273	11.792	101.652	83.604	68.703
06/29/2011 09:59:36	2.585	0.706	101.655	83.604	68.904
06/29/2011 09:59:46	0.256	0.391	101.652	84.003	68.703
06/29/2011 09:59:56	0.076	0.325	101.655	83.802	68.703
06/29/2011 10:00:06	0.054	0.285	101.655	84.003	68.303
06/29/2011 10:00:16	0.047	0.263	101.652	84.003	68.501
06/29/2011 10:00:26	0.04	0.245	101.652	83.802	68.904
06/29/2011 10:00:36	0.036	0.234	101.652	83.604	68.303
06/29/2011 10:00:46	0.032	0.223	100.139	83.403	68.102
06/29/2011 10:00:56	0.9	7.62	9.455	83.403	68.501
06/29/2011 10:01:06	4.09	13.198	5.822	83.604	68.501
06/29/2011 10:01:16	5.2	13.341	4.548	83.802	67.802
06/29/2011 10:01:26	5.251	13.399	4.013	83.604	67.802
06/29/2011 10:01:36	5.236	13.498	3.739	83.802	68.501
06/29/2011 10:01:46	5.214	13.491	3.511	84.003	68.501
06/29/2011 10:01:56	5.255	13.454	3.369	84.003	67.802
06/29/2011 10:02:06	5.313	13.407	3.273	84.003	67.802
06/29/2011 10:02:16	5.372	13.374	3.244	83.802	68.303
06/29/2011 10:02:26	5.405	13.348	3.262	84.003	68.003
06/29/2011 10:02:36	5.456	13.326	3.295	83.802	67.802
06/29/2011 10:02:46	5.463	13.356	3.288	84.003	68.303
06/29/2011 10:02:56	5.449	13.345	3.288	84.003	68.102
06/29/2011 10:03:06	5.456	13.341	3.244	84.003	67.802
Resume Run 11					
06/29/2011 10:03:16	5.452	13.381	3.189	84.003	68.003
06/29/2011 10:03:26	5.419	13.414	3.189	84.205	68.102
06/29/2011 10:03:36	5.387	13.421	3.167	83.802	68.303
06/29/2011 10:03:46	5.387	13.425	3.123	84.205	68.501
06/29/2011 10:03:56	5.379	13.414	3.065	84.205	68.303
06/29/2011 10:04:06	5.408	13.381	3.021	84.205	68.303
06/29/2011 10:04:16	5.416	13.392	2.98	84.304	68.102
06/29/2011 10:04:26	5.438	13.392	2.966	84.304	68.003
06/29/2011 10:04:36	5.463	13.326	2.962	84.003	68.003
06/29/2011 10:04:46	5.489	13.352	2.962	84.205	68.102
06/29/2011 10:04:56	5.471	13.352	2.929	84.205	68.501
06/29/2011 10:05:06	5.449	13.363	2.907	83.802	67.802
06/29/2011 10:05:16	5.449	13.337	2.907	83.604	67.802
06/29/2011 10:05:26	5.46	13.33	2.907	83.604	68.303
06/29/2011 10:05:36	5.467	13.337	2.896	84.003	68.303
06/29/2011 10:05:46	5.474	13.334	2.907	84.205	68.303
06/29/2011 10:05:56	5.405	13.414	2.904	83.802	68.303
06/29/2011 10:06:06	5.357	13.399	2.907	83.802	68.303
06/29/2011 10:06:16	5.379	13.403	2.907	84.003	68.303
06/29/2011 10:06:26	5.394	13.377	2.885	84.003	68.501
06/29/2011 10:06:36	5.416	13.396	2.863	83.802	68.501
06/29/2011 10:06:46	5.408	13.356	2.86	83.802	68.501
06/29/2011 10:06:56	5.427	13.407	2.882	84.003	68.501
06/29/2011 10:07:06	5.416	13.374	2.867	84.205	68.501
06/29/2011 10:07:16	5.423	13.385	2.882	84.205	68.102
06/29/2011 10:07:26	5.408	13.443	2.882	84.003	68.003
06/29/2011 10:07:36	5.43	13.348	2.834	84.205	68.003
Pause Run 11					
GC Recovery Check					
06/29/2011 10:07:46	5.496	13.308	10.905	83.802	68.003
06/29/2011 10:07:56	5.408	12.652	101.655	84.205	68.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 10:08:06	2.86	0.834	101.648	84.205	68.904
06/29/2011 10:08:16	0.307	0.402	101.648	84.003	69.003
06/29/2011 10:08:26	0.073	0.329	101.648	84.205	68.703
06/29/2011 10:08:36	0.051	0.289	101.652	84.205	68.303
06/29/2011 10:08:46	0.043	0.263	101.652	84.205	68.303
06/29/2011 10:08:56	0.036	0.245	101.652	84.304	68.303
06/29/2011 10:09:06	0.032	0.23	101.652	84.205	68.703
06/29/2011 10:09:16	0.032	0.219	101.652	84.205	68.904
06/29/2011 10:09:26	0.029	0.208	101.652	84.205	69.003
06/29/2011 10:09:36	0.029	0.23	58.712	84.205	68.703
06/29/2011 10:09:46	1.918	11.839	7.445	84.205	68.703
06/29/2011 10:09:56	4.885	13.213	5.255	84.205	68.501
06/29/2011 10:10:06	5.313	13.293	4.453	84.304	68.303
06/29/2011 10:10:16	5.332	13.37	4.01	84.205	68.303
06/29/2011 10:10:26	5.328	13.359	3.673	84.205	68.003
06/29/2011 10:10:36	5.335	13.374	3.541	84.205	68.102
06/29/2011 10:10:46	5.343	13.366	3.482	84.205	68.102
06/29/2011 10:10:56	5.383	13.363	3.457	84.304	68.102
06/29/2011 10:11:06	5.408	13.319	3.457	84.205	68.102
06/29/2011 10:11:16	5.427	13.359	3.391	84.205	68.003
06/29/2011 10:11:26	5.419	13.345	3.27	84.205	68.102
Resume Run 11					
06/29/2011 10:11:36	5.39	13.41	3.189	84.304	68.102
06/29/2011 10:11:46	5.339	13.418	3.175	84.501	68.102
06/29/2011 10:11:56	5.379	13.363	3.116	84.304	68.501
06/29/2011 10:12:06	5.438	13.352	3.072	84.304	68.501
06/29/2011 10:12:16	5.423	13.407	3.024	84.501	68.501
06/29/2011 10:12:26	5.35	13.462	3.01	84.501	68.303
06/29/2011 10:12:36	5.31	13.48	2.991	84.304	68.303
06/29/2011 10:12:46	5.324	13.476	3.01	84.304	68.102
06/29/2011 10:12:56	5.306	13.528	3.039	84.205	68.003
06/29/2011 10:13:06	5.266	13.498	3.054	84.205	68.003
06/29/2011 10:13:16	5.273	13.531	3.01	84.205	68.003
06/29/2011 10:13:26	5.277	13.487	3.01	84.205	68.102
06/29/2011 10:13:36	5.302	13.498	3.01	84.205	68.501
06/29/2011 10:13:46	5.284	13.48	3.013	84.205	68.501
06/29/2011 10:13:56	5.306	13.458	3.01	84.205	68.102
06/29/2011 10:14:06	5.328	13.484	3.01	84.205	68.003
06/29/2011 10:14:16	5.313	13.509	3.013	84.205	68.501
06/29/2011 10:14:26	5.317	13.48	3.01	84.205	68.501
06/29/2011 10:14:36	5.328	13.502	2.995	84.205	68.102
06/29/2011 10:14:46	5.299	13.524	2.969	84.304	68.003
06/29/2011 10:14:56	5.28	13.528	2.962	84.501	68.102
06/29/2011 10:15:06	5.277	13.52	2.962	84.501	68.501
06/29/2011 10:15:16	5.291	13.535	2.933	84.501	68.303
06/29/2011 10:15:26	5.273	13.52	2.933	84.205	68.102
06/29/2011 10:15:36	5.28	13.542	2.933	84.304	68.102
06/29/2011 10:15:46	5.269	13.542	2.933	84.205	68.102
06/29/2011 10:15:56	5.233	13.59	2.918	84.205	68.102
06/29/2011 10:16:06	5.211	13.572	2.907	84.205	68.102
06/29/2011 10:16:16	5.229	13.568	2.907	84.304	68.003
06/29/2011 10:16:26	5.244	13.528	2.933	84.205	67.802
06/29/2011 10:16:36	5.284	13.513	2.907	84.205	67.802
06/29/2011 10:16:46	5.236	13.619	2.885	84.205	68.003
06/29/2011 10:16:56	5.207	13.557	2.882	84.205	68.003
06/29/2011 10:17:06	5.236	13.528	2.9	84.205	68.102
06/29/2011 10:17:16	5.236	13.557	2.889	84.304	68.102
06/29/2011 10:17:26	5.203	13.619	2.882	84.304	68.003
06/29/2011 10:17:36	5.152	13.619	2.856	84.304	67.802
06/29/2011 10:17:46	5.17	13.605	2.856	84.205	68.102
06/29/2011 10:17:56	5.222	13.579	2.827	84.205	68.303
06/29/2011 10:18:06	5.236	13.597	2.856	84.205	67.802
06/29/2011 10:18:16	5.233	13.572	2.834	84.205	68.501
06/29/2011 10:18:26	5.28	13.524	2.856	84.205	68.003
06/29/2011 10:18:36	5.321	13.495	2.867	84.003	68.501
06/29/2011 10:18:46	5.328	13.495	2.882	84.205	68.003
06/29/2011 10:18:56	5.31	13.546	2.9	84.205	68.102
06/29/2011 10:19:06	5.269	13.572	2.882	84.205	68.501
06/29/2011 10:19:16	5.295	13.484	2.9	84.003	68.003
06/29/2011 10:19:26	5.372	13.44	2.874	84.205	68.303
06/29/2011 10:19:36	5.394	13.443	2.856	84.205	68.303
06/29/2011 10:19:46	5.39	13.48	2.856	84.003	68.003
06/29/2011 10:19:56	5.343	13.52	2.834	84.205	68.102

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 10:20:06	5.317	13.506	2.83	84.304	68.501
06/29/2011 10:20:16	5.354	13.429	2.834	84.205	68.501
06/29/2011 10:20:26	5.383	13.443	2.838	84.205	68.501
06/29/2011 10:20:36	5.379	13.436	2.827	84.205	68.303
06/29/2011 10:20:46	5.357	13.491	2.827	84.205	68.003
06/29/2011 10:20:56	5.324	13.484	2.827	84.205	68.003
06/29/2011 10:21:06	5.288	13.568	2.856	84.205	68.501
06/29/2011 10:21:16	5.233	13.597	2.838	84.205	68.501
06/29/2011 10:21:26	5.218	13.597	2.827	84.205	68.102
06/29/2011 10:21:36	5.211	13.601	2.856	84.205	68.003
06/29/2011 10:21:46	5.214	13.572	2.856	84.304	68.003
06/29/2011 10:21:56	5.255	13.513	2.838	84.501	68.102
06/29/2011 10:22:06	5.269	13.539	2.827	84.205	68.501
06/29/2011 10:22:16	5.214	13.627	2.827	84.205	68.501
06/29/2011 10:22:26	5.159	13.634	2.801	84.205	68.501
06/29/2011 10:22:36	5.163	13.641	2.823	84.304	68.303
06/29/2011 10:22:46	5.163	13.634	2.827	84.501	68.501
06/29/2011 10:22:56	5.17	13.623	2.856	84.703	68.102
06/29/2011 10:23:06	5.178	13.608	2.827	84.304	68.003
06/29/2011 10:23:16	5.159	13.678	2.827	84.304	68.501
06/29/2011 10:23:26	5.112	13.718	2.827	84.205	68.003
06/29/2011 10:23:36	5.09	13.678	2.827	84.304	68.303
06/29/2011 10:23:46	5.126	13.638	2.827	84.501	68.003
06/29/2011 10:23:56	5.152	13.641	2.845	84.703	68.501
06/29/2011 10:24:06	5.134	13.692	2.856	84.304	68.003
06/29/2011 10:24:16	5.108	13.714	2.856	84.304	68.102
06/29/2011 10:24:26	5.116	13.659	2.856	84.304	68.501
06/29/2011 10:24:36	5.167	13.634	2.856	84.205	67.802
06/29/2011 10:24:46	5.159	13.681	2.856	84.205	68.303
06/29/2011 10:24:56	5.148	13.656	2.863	84.205	68.102
06/29/2011 10:25:06	5.156	13.627	2.863	84.205	68.102
06/29/2011 10:25:16	5.196	13.619	2.856	84.205	68.303
06/29/2011 10:25:26	5.2	13.619	2.856	84.205	67.802
06/29/2011 10:25:36	5.203	13.605	2.856	84.205	68.303
06/29/2011 10:25:46	5.189	13.641	2.856	84.205	68.501
06/29/2011 10:25:56	5.185	13.638	2.878	84.205	68.102
06/29/2011 10:26:06	5.207	13.612	2.856	84.205	68.003
06/29/2011 10:26:16	5.207	13.659	2.856	84.205	68.003
06/29/2011 10:26:26	5.181	13.689	2.856	84.205	68.003
06/29/2011 10:26:36	5.163	13.659	2.856	84.205	68.102
06/29/2011 10:26:46	5.196	13.597	2.856	84.205	68.102
06/29/2011 10:26:56	5.233	13.612	2.856	84.205	68.303
06/29/2011 10:27:06	5.24	13.59	2.856	84.205	68.303
06/29/2011 10:27:16	5.222	13.597	2.856	84.501	68.102
06/29/2011 10:27:26	5.229	13.564	2.856	84.304	67.802
06/29/2011 10:27:36	5.236	13.572	2.827	84.501	67.802
06/29/2011 10:27:46	5.247	13.55	2.849	84.703	68.102
06/29/2011 10:27:56	5.251	13.583	2.856	84.501	68.303
06/29/2011 10:28:06	5.218	13.586	3.068	84.501	68.303
06/29/2011 10:28:16	5.233	13.564	3.156	84.703	68.102
06/29/2011 10:28:26	5.229	13.59	3.054	84.703	68.102
06/29/2011 10:28:36	5.185	13.605	3.01	84.703	68.003
06/29/2011 10:28:46	5.214	13.575	2.977	84.703	68.003
06/29/2011 10:28:56	5.262	13.517	2.958	84.501	68.102
06/29/2011 10:29:06	5.295	13.517	2.958	84.501	68.102
06/29/2011 10:29:16	5.28	13.553	2.958	84.304	68.303
06/29/2011 10:29:26	5.269	13.546	2.962	84.304	68.303
06/29/2011 10:29:36	5.288	13.506	2.933	84.501	68.303
06/29/2011 10:29:46	5.313	13.542	2.933	84.304	68.003
06/29/2011 10:29:56	5.284	13.557	2.922	84.205	67.802
06/29/2011 10:30:06	5.266	13.575	2.907	84.205	67.802
06/29/2011 10:30:16	5.269	13.513	2.896	84.304	67.802
06/29/2011 10:30:26	5.291	13.513	2.907	84.304	68.003
06/29/2011 10:30:36	5.273	13.583	2.907	84.205	68.102
06/29/2011 10:30:46	5.24	13.583	2.893	84.304	68.303
06/29/2011 10:30:56	5.244	13.528	2.882	84.205	68.303
06/29/2011 10:31:06	5.302	13.513	2.907	84.304	68.303
06/29/2011 10:31:16	5.302	13.52	2.882	84.205	68.102
06/29/2011 10:31:26	5.306	13.502	2.856	84.205	67.802
06/29/2011 10:31:36	5.306	13.539	2.856	84.205	67.802
06/29/2011 10:31:46	5.255	13.575	2.856	84.205	67.802
06/29/2011 10:31:56	5.229	13.583	2.856	84.205	68.003
06/29/2011 10:32:06	5.214	13.63	2.845	84.205	68.102

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 10:32:16	5.203	13.594	2.856	84.003	68.102
06/29/2011 10:32:26	5.233	13.575	2.871	84.003	68.303
06/29/2011 10:32:36	5.284	13.52	2.882	83.604	68.303
06/29/2011 10:32:46	5.321	13.513	2.849	83.802	68.303
06/29/2011 10:32:56	5.302	13.553	2.838	83.604	68.303
06/29/2011 10:33:06	5.284	13.528	2.856	83.802	68.102
06/29/2011 10:33:16	5.321	13.491	2.856	83.802	67.802
06/29/2011 10:33:26	5.328	13.509	2.856	84.003	67.802
06/29/2011 10:33:36	5.291	13.561	2.856	84.003	68.003
06/29/2011 10:33:46	5.24	13.601	2.827	84.003	68.102
06/29/2011 10:33:56	5.196	13.623	2.827	84.003	68.303
06/29/2011 10:34:06	5.229	13.557	2.827	84.003	68.303
06/29/2011 10:34:16	5.269	13.539	2.845	84.205	68.303
06/29/2011 10:34:26	5.273	13.539	2.83	84.205	68.102
06/29/2011 10:34:36	5.262	13.572	2.823	84.205	68.003
06/29/2011 10:34:46	5.236	13.568	2.827	84.205	67.802
06/29/2011 10:34:56	5.233	13.59	2.838	84.205	67.802
06/29/2011 10:35:06	5.24	13.564	2.856	84.003	68.003
06/29/2011 10:35:16	5.229	13.586	2.856	83.802	68.102
06/29/2011 10:35:26	5.218	13.605	2.823	84.205	68.501
06/29/2011 10:35:36	5.214	13.597	2.801	84.003	68.501
06/29/2011 10:35:46	5.218	13.597	2.801	84.205	68.303
06/29/2011 10:35:56	5.214	13.616	2.801	84.205	68.003
06/29/2011 10:36:06	5.233	13.564	2.801	84.205	68.003
06/29/2011 10:36:16	5.273	13.546	2.827	84.003	68.003
06/29/2011 10:36:26	5.28	13.55	2.827	84.205	68.102
06/29/2011 10:36:36	5.295	13.524	2.823	84.205	68.102
06/29/2011 10:36:46	5.302	13.524	2.801	84.205	68.501
06/29/2011 10:36:56	5.295	13.535	2.827	84.205	68.102
06/29/2011 10:37:06	5.284	13.55	2.838	84.304	68.003
06/29/2011 10:37:16	5.28	13.557	2.856	84.501	68.501
06/29/2011 10:37:26	5.269	13.575	2.856	84.703	68.501
06/29/2011 10:37:36	5.277	13.539	2.827	84.703	68.102
06/29/2011 10:37:46	5.302	13.535	2.827	84.904	68.102
06/29/2011 10:37:56	5.321	13.498	2.827	85.102	68.703
06/29/2011 10:38:06	5.35	13.487	2.805	85.102	68.102
06/29/2011 10:38:16	5.361	13.495	2.819	85.102	68.003
06/29/2011 10:38:26	5.317	13.517	2.827	85.205	68.003
06/29/2011 10:38:36	5.324	13.513	2.83	85.205	68.003
06/29/2011 10:38:46	5.328	13.487	2.812	85.205	68.303
06/29/2011 10:38:56	5.346	13.484	2.812	85.205	68.501
06/29/2011 10:39:06	5.357	13.436	2.819	85.102	68.003
06/29/2011 10:39:16	5.383	13.458	2.827	85.102	68.102
06/29/2011 10:39:26	5.387	13.454	2.819	85.102	68.501
06/29/2011 10:39:36	5.405	13.403	2.827	85.102	68.102
06/29/2011 10:39:46	5.408	13.436	2.805	85.205	68.003
06/29/2011 10:39:56	5.379	13.451	2.827	85.205	68.102
06/29/2011 10:40:06	5.368	13.454	2.805	85.205	68.501
06/29/2011 10:40:16	5.372	13.447	2.801	85.402	68.501
06/29/2011 10:40:26	5.346	13.491	2.838	85.205	68.303
06/29/2011 10:40:36	5.335	13.487	2.856	85.102	68.102
06/29/2011 10:40:46	5.313	13.531	2.856	84.501	68.102
06/29/2011 10:40:56	5.328	13.458	2.827	84.501	68.501
06/29/2011 10:41:06	5.35	13.462	2.801	84.703	68.102
06/29/2011 10:41:16	5.324	13.517	2.779	84.703	68.003
06/29/2011 10:41:26	5.302	13.509	2.801	84.501	68.003
06/29/2011 10:41:36	5.335	13.454	2.827	84.904	68.303
06/29/2011 10:41:46	5.357	13.48	2.827	84.703	68.501
06/29/2011 10:41:56	5.346	13.454	2.808	84.703	68.303
06/29/2011 10:42:06	5.387	13.403	2.801	84.703	68.003
06/29/2011 10:42:16	5.416	13.403	2.801	84.904	68.102
06/29/2011 10:42:26	5.427	13.392	2.805	84.904	68.703
06/29/2011 10:42:36	5.416	13.429	2.805	84.904	68.501
06/29/2011 10:42:46	5.405	13.414	2.83	84.703	68.303
06/29/2011 10:42:56	5.412	13.41	2.83	84.703	68.003
06/29/2011 10:43:06	5.438	13.388	2.827	84.703	68.102
06/29/2011 10:43:16	5.438	13.403	2.827	84.703	68.303
06/29/2011 10:43:26	5.441	13.392	2.801	85.102	68.501
06/29/2011 10:43:36	5.423	13.447	2.779	84.904	68.303
06/29/2011 10:43:46	5.365	13.476	2.797	84.904	68.303
06/29/2011 10:43:56	5.346	13.44	2.812	84.904	68.303
06/29/2011 10:44:06	5.365	13.462	2.823	84.703	68.703
06/29/2011 10:44:16	5.387	13.429	2.801	84.703	68.703

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 10:44:26	5.387	13.451	2.801	84.501	68.703
06/29/2011 10:44:36	5.354	13.473	2.801	84.501	68.501
06/29/2011 10:44:46	5.357	13.451	2.797	84.304	68.102
06/29/2011 10:44:56	5.39	13.44	2.75	84.501	68.102
06/29/2011 10:45:06	5.372	13.473	2.779	84.703	68.501
06/29/2011 10:45:16	5.368	13.429	2.801	84.904	68.703
06/29/2011 10:45:26	5.419	13.407	2.823	84.904	68.703
06/29/2011 10:45:36	5.423	13.432	2.801	84.703	68.703
06/29/2011 10:45:46	5.401	13.429	2.808	84.904	68.703
06/29/2011 10:45:56	5.383	13.44	2.816	84.703	68.904
06/29/2011 10:46:06	5.408	13.385	2.801	84.703	68.904
06/29/2011 10:46:16	5.489	13.304	2.816	84.904	68.904
06/29/2011 10:46:26	5.496	13.388	2.786	84.703	68.904
06/29/2011 10:46:36	5.412	13.462	2.779	84.703	68.904
06/29/2011 10:46:46	5.35	13.48	2.779	84.703	68.703
06/29/2011 10:46:56	5.317	13.528	2.797	85.102	68.904
06/29/2011 10:47:06	5.284	13.535	2.779	84.703	68.703
06/29/2011 10:47:16	5.306	13.491	2.801	84.904	68.703
06/29/2011 10:47:26	5.339	13.484	2.801	84.904	68.703
06/29/2011 10:47:36	5.328	13.535	2.823	84.904	68.703
06/29/2011 10:47:46	5.273	13.561	2.801	84.703	68.703
06/29/2011 10:47:56	5.258	13.561	2.801	85.102	68.703
06/29/2011 10:48:06	5.284	13.495	2.801	84.703	68.102
06/29/2011 10:48:16	5.332	13.495	2.786	84.703	68.501
06/29/2011 10:48:26	5.302	13.579	2.801	84.703	68.102
06/29/2011 10:48:36	5.225	13.605	2.801	84.703	68.703
06/29/2011 10:48:46	5.203	13.597	2.827	84.501	68.501
06/29/2011 10:48:56	5.255	13.539	2.841	84.304	68.102
06/29/2011 10:49:06	5.324	13.487	2.827	84.501	68.703
06/29/2011 10:49:16	5.343	13.491	2.812	84.703	68.102
06/29/2011 10:49:26	5.321	13.542	2.827	84.501	68.501
06/29/2011 10:49:36	5.277	13.561	2.856	84.304	68.703
06/29/2011 10:49:46	5.288	13.495	2.867	84.501	68.501
06/29/2011 10:49:56	5.302	13.55	2.882	84.501	68.102
06/29/2011 10:50:06	5.302	13.528	2.856	84.501	68.703
06/29/2011 10:50:16	5.313	13.52	2.856	84.501	68.501
06/29/2011 10:50:26	5.302	13.513	2.856	84.304	68.303
06/29/2011 10:50:36	5.328	13.473	2.83	84.501	68.102
06/29/2011 10:50:46	5.354	13.473	2.801	84.703	68.102
06/29/2011 10:50:56	5.343	13.495	2.805	84.904	68.102
06/29/2011 10:51:06	5.306	13.513	2.786	84.501	68.102
06/29/2011 10:51:16	5.306	13.52	2.805	84.501	68.703
06/29/2011 10:51:26	5.324	13.487	2.805	84.304	68.703
06/29/2011 10:51:36	5.291	13.553	2.805	84.205	68.303
06/29/2011 10:51:46	5.291	13.491	2.794	84.501	68.303
06/29/2011 10:51:56	5.354	13.469	2.805	84.304	68.703
06/29/2011 10:52:06	5.361	13.491	2.805	84.304	68.904
Pause Run 11					
THC Drift Check					
06/29/2011 10:52:16	5.339	13.487	35.296	84.703	69.003
06/29/2011 10:52:26	3.739	1.801	0.582	84.501	69.204
06/29/2011 10:52:36	0.673	0.432	0.193	84.205	69.402
06/29/2011 10:52:46	0.091	0.347	0.117	84.205	68.904
06/29/2011 10:52:56	0.058	0.303	0.062	84.003	68.703
06/29/2011 10:53:06	0.047	0.278	0.021	84.205	69.204
06/29/2011 10:53:16	0.04	0.259	-0.015	84.205	69.402
N2 Zero			**0.023**	**84.138**	**69.103**
06/29/2011 10:53:26	0.036	0.245	-0.037	84.205	68.703
06/29/2011 10:53:36	0.032	0.237	5.625	84.205	68.703
06/29/2011 10:53:46	1.658	0.805	47.949	84.304	69.604
06/29/2011 10:53:56	13.528	0.23	49.458	84.205	69.003
06/29/2011 10:54:06	20.186	0.212	49.535	84.003	68.703
06/29/2011 10:54:16	20.581	0.204	49.557	83.802	68.904
06/29/2011 10:54:26	20.64	0.201	49.557	84.003	69.604
06/29/2011 10:54:36	20.665	0.197	49.553	83.802	69.003
06/29/2011 10:54:46	20.684	0.193	49.549	84.205	68.703
06/29/2011 10:54:56	20.695	0.193	49.516	84.304	69.003
49.8 ppm Propane Mid			**49.539**	**84.104**	**68.903**
06/29/2011 10:55:06	20.695	0.208	10.73	84.501	69.204
06/29/2011 10:55:16	15.996	11.638	2.984	84.501	69.204
06/29/2011 10:55:26	7.067	13.315	2.834	84.501	69.003
06/29/2011 10:55:36	5.452	13.385	2.83	84.703	68.904
Resume Run 11					

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 10:55:46	5.379	13.429	2.801	84.205	68.102
06/29/2011 10:55:56	5.317	13.502	2.823	84.304	68.303
06/29/2011 10:56:06	5.302	13.451	2.827	84.205	68.703
06/29/2011 10:56:16	5.343	13.418	2.856	84.304	68.904
06/29/2011 10:56:26	5.379	13.447	2.856	84.205	68.501
06/29/2011 10:56:36	5.354	13.476	2.856	84.205	68.102
06/29/2011 10:56:46	5.317	13.506	2.856	84.304	68.102
06/29/2011 10:56:56	5.324	13.443	2.863	84.304	68.703
06/29/2011 10:57:06	5.343	13.484	2.823	84.205	69.003
06/29/2011 10:57:16	5.313	13.506	2.827	84.205	68.904
06/29/2011 10:57:26	5.28	13.561	2.827	84.304	68.501
06/29/2011 10:57:36	5.299	13.473	2.823	84.501	68.102
06/29/2011 10:57:46	5.361	13.451	2.808	84.304	68.102
06/29/2011 10:57:56	5.372	13.48	2.827	84.304	68.501
06/29/2011 10:58:06	5.346	13.48	2.827	84.304	68.904
06/29/2011 10:58:16	5.346	13.473	2.838	84.205	68.904
06/29/2011 10:58:26	5.313	13.542	2.801	84.205	68.904
06/29/2011 10:58:36	5.291	13.535	2.797	84.304	69.003
06/29/2011 10:58:46	5.302	13.509	2.801	84.501	68.904
06/29/2011 10:58:56	5.328	13.513	2.801	84.703	68.703
06/29/2011 10:59:06	5.335	13.491	2.775	84.501	68.102
06/29/2011 10:59:16	5.343	13.48	2.801	84.501	68.904
06/29/2011 10:59:26	5.365	13.443	2.786	84.304	68.303
06/29/2011 10:59:36	5.376	13.476	2.786	84.304	68.703
06/29/2011 10:59:46	5.332	13.52	2.801	84.205	68.904
06/29/2011 10:59:56	5.28	13.568	2.779	84.304	68.102
06/29/2011 11:00:06	5.24	13.608	2.794	84.501	68.703
06/29/2011 11:00:16	5.185	13.63	2.786	84.904	68.703
06/29/2011 11:00:26	5.192	13.608	2.775	85.205	68.102
06/29/2011 11:00:36	5.2	13.627	2.797	85.102	68.102
06/29/2011 11:00:46	5.178	13.648	2.786	85.102	68.703
06/29/2011 11:00:56	5.167	13.623	2.801	85.205	68.102
06/29/2011 11:01:06	5.203	13.608	2.808	85.604	68.303
06/29/2011 11:01:16	5.211	13.601	2.827	85.604	68.501
06/29/2011 11:01:26	5.192	13.659	2.98	85.604	68.501
06/29/2011 11:01:36	5.148	13.67	3.083	85.604	68.303
06/29/2011 11:01:46	5.126	13.638	3.002	85.604	68.303
06/29/2011 11:01:56	5.156	13.623	2.958	85.604	68.303
06/29/2011 11:02:06	5.17	13.63	2.933	85.802	68.501
06/29/2011 11:02:16	5.167	13.605	2.907	85.604	68.904
06/29/2011 11:02:26	5.17	13.616	2.907	85.402	68.703
06/29/2011 11:02:36	5.178	13.634	2.882	85.402	68.303
06/29/2011 11:02:46	5.181	13.601	2.907	85.402	68.501
06/29/2011 11:02:56	5.207	13.59	2.94	85.402	68.703
06/29/2011 11:03:06	5.178	13.663	2.933	85.402	68.303
06/29/2011 11:03:16	5.156	13.619	2.933	85.402	68.303
06/29/2011 11:03:26	5.174	13.627	2.926	85.402	68.703
06/29/2011 11:03:36	5.159	13.648	2.907	85.604	68.501
06/29/2011 11:03:46	5.145	13.663	2.882	85.802	68.303
06/29/2011 11:03:56	5.13	13.67	2.907	85.604	68.303
06/29/2011 11:04:06	5.105	13.722	2.907	85.802	68.703
06/29/2011 11:04:16	5.068	13.7	2.907	85.402	68.904
06/29/2011 11:04:26	5.094	13.692	2.885	85.604	68.703
06/29/2011 11:04:36	5.097	13.7	2.922	85.402	68.303
06/29/2011 11:04:46	5.112	13.678	2.958	85.604	68.303
06/29/2011 11:04:56	5.13	13.659	2.951	85.604	68.501
06/29/2011 11:05:06	5.178	13.601	2.933	85.402	68.703
06/29/2011 11:05:16	5.214	13.623	2.907	85.604	68.904
06/29/2011 11:05:26	5.185	13.648	2.904	85.402	68.904
06/29/2011 11:05:36	5.141	13.692	2.907	85.604	68.703
06/29/2011 11:05:46	5.13	13.667	2.911	85.402	68.303
06/29/2011 11:05:56	5.196	13.586	2.933	85.205	68.303
06/29/2011 11:06:06	5.244	13.579	2.933	85.205	68.501
06/29/2011 11:06:16	5.236	13.583	2.933	85.402	68.904
06/29/2011 11:06:26	5.196	13.63	2.907	85.402	68.703
06/29/2011 11:06:36	5.152	13.685	2.885	85.402	68.303
06/29/2011 11:06:46	5.119	13.685	2.878	85.205	68.303
06/29/2011 11:06:56	5.101	13.733	2.856	85.102	68.501
06/29/2011 11:07:06	5.086	13.718	2.882	85.102	68.904
06/29/2011 11:07:16	5.105	13.696	2.882	84.904	68.904
06/29/2011 11:07:26	5.116	13.692	2.882	85.102	68.904
06/29/2011 11:07:36	5.116	13.7	2.907	85.402	68.904
06/29/2011 11:07:46	5.123	13.7	2.885	85.205	68.501

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 11:07:56	5.141	13.656	2.907	85.205	68.501
06/29/2011 11:08:06	5.185	13.608	2.907	85.205	68.703
06/29/2011 11:08:16	5.214	13.59	2.907	85.102	68.904
06/29/2011 11:08:26	5.24	13.557	2.907	85.402	69.003
06/29/2011 11:08:36	5.262	13.583	2.882	85.205	68.904
06/29/2011 11:08:46	5.251	13.579	2.9	85.102	68.501
06/29/2011 11:08:56	5.244	13.583	2.889	85.102	68.501
06/29/2011 11:09:06	5.247	13.594	2.885	85.102	68.904
06/29/2011 11:09:16	5.203	13.638	2.885	85.205	69.003
06/29/2011 11:09:26	5.167	13.663	2.907	85.102	68.904
06/29/2011 11:09:36	5.207	13.586	2.882	85.102	68.501
06/29/2011 11:09:46	5.236	13.616	2.856	85.102	68.501
06/29/2011 11:09:56	5.211	13.63	2.878	85.205	69.003
06/29/2011 11:10:06	5.2	13.612	2.882	85.102	69.003
06/29/2011 11:10:16	5.2	13.627	2.882	85.102	68.703
06/29/2011 11:10:26	5.159	13.707	2.907	85.102	68.501
06/29/2011 11:10:36	5.141	13.645	2.904	85.102	68.904
06/29/2011 11:10:46	5.167	13.659	2.867	85.102	69.003
06/29/2011 11:10:56	5.181	13.616	2.856	85.102	69.003
06/29/2011 11:11:06	5.178	13.656	2.849	85.102	68.904
06/29/2011 11:11:16	5.167	13.659	2.856	85.102	68.703
06/29/2011 11:11:26	5.145	13.733	2.827	85.102	68.703
06/29/2011 11:11:36	5.126	13.685	2.838	85.102	68.501
06/29/2011 11:11:46	5.152	13.689	2.856	85.102	68.501
06/29/2011 11:11:56	5.145	13.703	2.856	85.102	68.904
06/29/2011 11:12:06	5.148	13.67	2.849	85.102	68.703
06/29/2011 11:12:16	5.203	13.612	2.827	84.904	68.501
06/29/2011 11:12:26	5.222	13.612	2.845	84.904	68.703
06/29/2011 11:12:36	5.181	13.663	2.838	85.102	69.003
06/29/2011 11:12:46	5.185	13.612	2.856	85.102	69.003
06/29/2011 11:12:56	5.189	13.656	2.856	85.102	68.703
06/29/2011 11:13:06	5.178	13.638	2.856	85.102	68.703
06/29/2011 11:13:16	5.192	13.601	2.863	85.102	69.003
06/29/2011 11:13:26	5.2	13.619	2.863	85.102	69.204
06/29/2011 11:13:36	5.196	13.597	2.882	85.102	68.703
06/29/2011 11:13:46	5.211	13.608	2.874	85.102	68.904
06/29/2011 11:13:56	5.192	13.623	2.885	85.205	69.204
06/29/2011 11:14:06	5.225	13.535	2.882	85.102	69.003
06/29/2011 11:14:16	5.28	13.553	2.885	85.205	68.703
06/29/2011 11:14:26	5.288	13.517	2.907	85.102	69.003
06/29/2011 11:14:36	5.295	13.539	2.885	84.904	69.204
06/29/2011 11:14:46	5.28	13.572	2.83	84.904	68.904
06/29/2011 11:14:56	5.222	13.605	2.849	85.102	68.703
06/29/2011 11:15:06	5.196	13.645	2.867	85.102	68.703
06/29/2011 11:15:16	5.167	13.652	2.856	85.102	68.703
06/29/2011 11:15:26	5.163	13.638	2.867	84.904	68.904
06/29/2011 11:15:36	5.159	13.663	2.856	84.904	68.703
06/29/2011 11:15:46	5.189	13.564	2.856	85.102	68.501
06/29/2011 11:15:56	5.258	13.553	2.83	85.102	68.904
06/29/2011 11:16:06	5.236	13.605	2.816	84.904	69.003
06/29/2011 11:16:16	5.192	13.612	2.823	85.102	68.501
06/29/2011 11:16:26	5.181	13.627	2.83	85.102	69.003
06/29/2011 11:16:36	5.192	13.627	2.83	85.102	68.904
06/29/2011 11:16:46	5.189	13.623	2.856	84.501	68.703
06/29/2011 11:16:56	5.218	13.572	2.867	84.904	69.003
06/29/2011 11:17:06	5.251	13.553	2.845	84.904	68.703
06/29/2011 11:17:16	5.258	13.583	2.827	84.904	69.003
06/29/2011 11:17:26	5.225	13.619	2.823	85.102	68.703
06/29/2011 11:17:36	5.17	13.667	2.838	84.501	68.904
06/29/2011 11:17:46	5.174	13.612	2.856	84.703	69.003
06/29/2011 11:17:56	5.211	13.612	2.856	84.904	68.703
06/29/2011 11:18:06	5.178	13.674	2.856	84.703	69.003
06/29/2011 11:18:16	5.141	13.685	2.882	84.703	68.501
06/29/2011 11:18:26	5.126	13.711	2.882	84.904	68.904
06/29/2011 11:18:36	5.134	13.648	2.882	84.703	68.501
06/29/2011 11:18:46	5.207	13.623	2.893	84.904	68.303
06/29/2011 11:18:56	5.192	13.623	2.907	84.904	68.501
06/29/2011 11:19:06	5.196	13.612	2.907	84.501	68.303
06/29/2011 11:19:16	5.222	13.568	2.889	84.501	68.501
06/29/2011 11:19:26	5.222	13.608	2.907	84.703	68.703
06/29/2011 11:19:36	5.192	13.645	2.882	84.703	68.904
06/29/2011 11:19:46	5.159	13.652	2.904	84.501	68.703
06/29/2011 11:19:56	5.123	13.714	2.907	84.904	68.501

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 11:20:06	5.068	13.736	2.907	84.904	68.904
06/29/2011 11:20:16	5.083	13.696	2.907	84.904	68.904
06/29/2011 11:20:26	5.105	13.7	2.907	84.703	68.501
06/29/2011 11:20:36	5.126	13.663	2.922	84.501	68.501
06/29/2011 11:20:46	5.126	13.703	2.933	84.501	68.703
06/29/2011 11:20:56	5.094	13.7	2.933	84.703	68.904
06/29/2011 11:21:06	5.119	13.659	2.951	84.904	69.003
06/29/2011 11:21:16	5.148	13.663	2.933	84.703	69.003
06/29/2011 11:21:26	5.17	13.638	2.933	84.703	69.003
06/29/2011 11:21:36	5.156	13.685	2.958	84.904	68.904
06/29/2011 11:21:46	5.112	13.733	2.962	84.904	69.003
06/29/2011 11:21:56	5.094	13.692	2.922	84.904	68.904
06/29/2011 11:22:06	5.126	13.692	2.907	84.904	68.703
06/29/2011 11:22:16	5.152	13.67	2.933	84.904	68.303
06/29/2011 11:22:26	5.159	13.674	2.936	84.904	68.303
06/29/2011 11:22:36	5.141	13.678	2.936	84.904	68.501
06/29/2011 11:22:46	5.148	13.7	2.933	84.904	68.703
06/29/2011 11:22:56	5.097	13.788	2.915	84.904	68.904
06/29/2011 11:23:06	5.028	13.802	2.907	84.904	68.904
06/29/2011 11:23:16	5.05	13.747	2.918	84.904	68.904
06/29/2011 11:23:26	5.068	13.777	2.94	84.501	68.501
06/29/2011 11:23:36	5.05	13.755	2.933	84.703	68.303
06/29/2011 11:23:46	5.101	13.696	2.907	84.703	68.303
06/29/2011 11:23:56	5.116	13.755	2.907	84.304	68.904
06/29/2011 11:24:06	5.061	13.777	2.907	84.205	68.904
06/29/2011 11:24:16	5.064	13.722	2.896	84.304	68.501
06/29/2011 11:24:26	5.079	13.718	2.896	84.501	68.501
06/29/2011 11:24:36	5.079	13.714	2.907	84.205	68.904
06/29/2011 11:24:46	5.119	13.652	2.882	84.205	68.303
06/29/2011 11:24:56	5.126	13.733	2.9	84.205	68.501
06/29/2011 11:25:06	5.075	13.766	2.907	84.304	68.904
06/29/2011 11:25:16	5.046	13.762	2.907	84.501	68.501
06/29/2011 11:25:26	5.042	13.788	2.933	84.304	68.303
06/29/2011 11:25:36	5.046	13.751	2.936	84.205	68.501
06/29/2011 11:25:46	5.068	13.747	2.929	84.205	68.904
06/29/2011 11:25:56	5.105	13.689	2.958	84.205	68.904
06/29/2011 11:26:06	5.123	13.7	2.958	84.304	68.904
06/29/2011 11:26:16	5.123	13.696	2.958	84.304	68.904
06/29/2011 11:26:26	5.152	13.656	2.973	84.501	68.904
06/29/2011 11:26:36	5.192	13.63	2.98	84.501	68.904
06/29/2011 11:26:46	5.196	13.638	2.98	84.205	68.501
06/29/2011 11:26:56	5.17	13.681	2.951	84.304	68.303
06/29/2011 11:27:06	5.159	13.652	2.962	84.304	68.303
06/29/2011 11:27:16	5.156	13.678	2.951	84.304	68.303
06/29/2011 11:27:26	5.148	13.696	2.951	84.304	68.303
06/29/2011 11:27:36	5.126	13.681	2.933	84.205	68.303
06/29/2011 11:27:46	5.134	13.667	2.933	84.205	68.703
06/29/2011 11:27:56	5.105	13.762	2.907	84.304	68.904
06/29/2011 11:28:06	5.039	13.788	2.907	84.205	68.501
06/29/2011 11:28:16	5.039	13.769	2.926	84.205	68.303
06/29/2011 11:28:26	5.039	13.777	2.951	84.205	68.501
06/29/2011 11:28:36	5.028	13.795	2.951	84.205	68.904
06/29/2011 11:28:46	5.02	13.777	2.933	84.205	68.501
06/29/2011 11:28:56	5.068	13.725	2.933	84.205	68.501
06/29/2011 11:29:06	5.13	13.648	2.933	84.205	68.904
06/29/2011 11:29:16	5.148	13.685	2.936	84.205	68.303
06/29/2011 11:29:26	5.123	13.703	2.933	84.304	68.303
06/29/2011 11:29:36	5.137	13.678	2.933	84.205	68.501
06/29/2011 11:29:46	5.112	13.725	2.94	84.304	68.904
06/29/2011 11:29:56	5.086	13.722	2.962	84.501	68.904
06/29/2011 11:30:06	5.101	13.725	2.955	84.205	68.501
06/29/2011 11:30:16	5.083	13.751	2.936	84.205	68.303
06/29/2011 11:30:26	5.086	13.725	2.955	84.501	68.303
06/29/2011 11:30:36	5.097	13.718	2.933	84.205	68.303
06/29/2011 11:30:46	5.09	13.711	2.958	84.304	68.303
06/29/2011 11:30:56	5.123	13.674	2.933	84.304	68.303
06/29/2011 11:31:06	5.141	13.707	2.922	84.501	68.703
06/29/2011 11:31:16	5.09	13.744	2.933	84.304	68.904
06/29/2011 11:31:26	5.079	13.729	2.933	84.003	68.303
06/29/2011 11:31:36	5.083	13.755	2.933	84.003	68.003
06/29/2011 11:31:46	5.079	13.725	2.926	84.205	68.102
06/29/2011 11:31:56	5.09	13.692	2.918	84.205	68.501
06/29/2011 11:32:06	5.116	13.696	2.933	84.205	68.703

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 11:32:16	5.094	13.751	2.951	84.501	68.303
06/29/2011 11:32:26	5.079	13.725	2.955	84.304	68.102
06/29/2011 11:32:36	5.057	13.755	2.962	84.304	68.501
06/29/2011 11:32:46	5.042	13.714	2.958	84.304	68.904
06/29/2011 11:32:56	5.112	13.67	2.966	84.205	68.501
06/29/2011 11:33:06	5.123	13.729	2.984	84.205	68.303
06/29/2011 11:33:16	5.083	13.755	2.984	84.205	68.501
06/29/2011 11:33:26	5.057	13.766	2.962	84.304	68.703
06/29/2011 11:33:36	5.083	13.711	2.958	84.205	68.703
06/29/2011 11:33:46	5.137	13.659	2.962	84.205	68.303
06/29/2011 11:33:56	5.192	13.634	2.958	84.205	68.102
06/29/2011 11:34:06	5.2	13.659	2.962	84.205	68.102
06/29/2011 11:34:16	5.17	13.689	2.962	84.304	68.501
06/29/2011 11:34:26	5.148	13.681	2.958	84.205	68.501
06/29/2011 11:34:36	5.17	13.645	2.966	84.501	68.703
06/29/2011 11:34:46	5.222	13.605	3.167	84.501	68.703
06/29/2011 11:34:56	5.244	13.612	3.317	84.205	68.703
06/29/2011 11:35:06	5.214	13.638	3.2	84.205	68.703
06/29/2011 11:35:16	5.185	13.619	3.112	84.304	68.703
06/29/2011 11:35:26	5.203	13.575	3.105	84.205	68.703
06/29/2011 11:35:36	5.251	13.553	3.068	84.205	68.703
06/29/2011 11:35:46	5.269	13.568	3.05	84.205	68.703
06/29/2011 11:35:56	5.203	13.648	3.065	84.205	68.501
06/29/2011 11:36:06	5.167	13.652	3.039	84.003	68.501
06/29/2011 11:36:16	5.174	13.63	3.01	84.205	68.501
06/29/2011 11:36:26	5.207	13.612	3.024	84.304	68.501
06/29/2011 11:36:36	5.229	13.594	3.039	84.205	68.501
06/29/2011 11:36:46	5.273	13.517	3.032	84.205	68.303
06/29/2011 11:36:56	5.295	13.557	3.01	84.205	68.102
06/29/2011 11:37:06	5.258	13.586	3.002	84.205	68.102
06/29/2011 11:37:16	5.251	13.568	3.01	84.205	68.501
06/29/2011 11:37:26	5.24	13.579	2.984	84.304	68.102
06/29/2011 11:37:36	5.244	13.568	2.984	84.703	68.501
06/29/2011 11:37:46	5.244	13.583	2.962	84.304	68.501
06/29/2011 11:37:56	5.244	13.572	2.973	84.205	68.102
06/29/2011 11:38:06	5.247	13.553	2.962	84.304	68.703
06/29/2011 11:38:16	5.251	13.572	2.984	84.304	68.102
06/29/2011 11:38:26	5.233	13.579	2.958	84.703	68.102
06/29/2011 11:38:36	5.222	13.583	2.951	84.501	68.703
06/29/2011 11:38:46	5.2	13.638	2.915	84.501	68.102
06/29/2011 11:38:56	5.185	13.616	2.951	84.501	68.501
06/29/2011 11:39:06	5.178	13.645	2.958	84.501	68.303
06/29/2011 11:39:16	5.145	13.659	2.936	84.304	68.003
06/29/2011 11:39:26	5.137	13.656	2.918	84.304	68.501
06/29/2011 11:39:36	5.148	13.656	2.936	84.304	68.501
06/29/2011 11:39:46	5.185	13.612	2.94	84.703	68.003
06/29/2011 11:39:56	5.207	13.623	2.958	84.904	68.102
06/29/2011 11:40:06	5.181	13.692	2.962	85.102	68.303
06/29/2011 11:40:16	5.126	13.678	2.962	85.205	68.501
06/29/2011 11:40:26	5.156	13.619	2.958	85.205	68.703
06/29/2011 11:40:36	5.207	13.601	2.911	85.402	68.703
06/29/2011 11:40:46	5.229	13.608	2.882	85.205	68.703
06/29/2011 11:40:56	5.207	13.63	2.922	85.205	68.102
06/29/2011 11:41:06	5.225	13.546	2.933	85.205	68.003
06/29/2011 11:41:16	5.262	13.583	2.922	85.402	68.003
06/29/2011 11:41:26	5.225	13.605	2.933	85.402	68.003
06/29/2011 11:41:36	5.214	13.645	2.907	85.604	67.802
06/29/2011 11:41:46	5.214	13.612	2.882	85.604	68.003
06/29/2011 11:41:56	5.218	13.634	2.889	85.604	68.102
06/29/2011 11:42:06	5.174	13.67	2.882	85.402	68.303
06/29/2011 11:42:16	5.156	13.656	2.896	85.604	68.501
06/29/2011 11:42:26	5.178	13.652	2.907	85.402	68.501
06/29/2011 11:42:36	5.178	13.645	2.933	85.402	68.501
06/29/2011 11:42:46	5.156	13.659	2.907	85.402	68.303
06/29/2011 11:42:56	5.159	13.674	2.933	85.402	68.003
06/29/2011 11:43:06	5.167	13.663	2.962	85.402	68.003
06/29/2011 11:43:16	5.141	13.663	2.947	85.402	68.102
06/29/2011 11:43:26	5.167	13.623	2.907	85.402	68.102
06/29/2011 11:43:36	5.203	13.612	2.926	85.604	68.102
06/29/2011 11:43:46	5.218	13.63	2.951	85.604	68.501
06/29/2011 11:43:56	5.196	13.634	2.962	85.205	68.904
06/29/2011 11:44:06	5.192	13.638	2.933	85.205	68.703
06/29/2011 11:44:16	5.214	13.575	2.962	85.205	68.501

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 11:44:26	5.258	13.557	2.933	85.205	68.102
06/29/2011 11:44:36	5.269	13.564	2.933	85.402	68.102
06/29/2011 11:44:46	5.247	13.597	2.933	85.102	68.303
06/29/2011 11:44:56	5.247	13.579	2.907	85.205	68.904
06/29/2011 11:45:06	5.269	13.561	2.907	85.102	68.703
06/29/2011 11:45:16	5.251	13.605	2.907	85.102	68.102
06/29/2011 11:45:26	5.247	13.586	2.907	85.102	68.102
06/29/2011 11:45:36	5.269	13.557	2.933	85.102	68.303
06/29/2011 11:45:46	5.291	13.528	2.933	85.102	68.904
06/29/2011 11:45:56	5.302	13.513	2.889	85.102	68.904
06/29/2011 11:46:06	5.335	13.495	2.889	84.904	68.501
06/29/2011 11:46:16	5.313	13.579	2.889	84.703	68.102
06/29/2011 11:46:26	5.284	13.561	2.907	84.501	68.003
06/29/2011 11:46:36	5.295	13.535	2.907	84.501	68.303
06/29/2011 11:46:46	5.288	13.55	2.9	84.501	68.703
06/29/2011 11:46:56	5.31	13.517	2.885	84.703	68.703
06/29/2011 11:47:06	5.31	13.568	2.882	84.703	68.703
06/29/2011 11:47:16	5.284	13.513	2.896	84.304	68.102
06/29/2011 11:47:26	5.343	13.44	2.882	84.501	68.102
06/29/2011 11:47:36	5.419	13.392	2.882	84.501	68.501
06/29/2011 11:47:46	5.419	13.44	2.882	84.501	68.703
06/29/2011 11:47:56	5.387	13.436	2.867	84.501	68.303
06/29/2011 11:48:06	5.376	13.454	2.856	84.501	68.102
06/29/2011 11:48:16	5.368	13.469	2.856	84.904	68.003
06/29/2011 11:48:26	5.357	13.48	2.882	84.703	68.102
06/29/2011 11:48:36	5.313	13.535	2.882	84.703	68.303
06/29/2011 11:48:46	5.291	13.528	2.856	84.904	68.303
06/29/2011 11:48:56	5.288	13.546	2.83	84.703	68.501
06/29/2011 11:49:06	5.288	13.542	2.823	84.703	68.303
06/29/2011 11:49:16	5.269	13.553	2.841	84.703	68.102
06/29/2011 11:49:26	5.262	13.568	2.871	84.703	68.703
06/29/2011 11:49:36	5.262	13.546	2.856	84.501	68.102
06/29/2011 11:49:46	5.269	13.564	2.856	84.703	68.703
06/29/2011 11:49:56	5.269	13.539	2.871	84.501	68.102
06/29/2011 11:50:06	5.291	13.513	2.856	84.304	68.703
06/29/2011 11:50:16	5.284	13.55	2.856	84.304	68.102
06/29/2011 11:50:26	5.218	13.623	2.856	84.501	68.501
06/29/2011 11:50:36	5.178	13.63	2.856	84.501	68.303
06/29/2011 11:50:46	5.185	13.601	2.849	84.703	68.703
06/29/2011 11:50:56	5.222	13.568	2.834	84.501	68.102
06/29/2011 11:51:06	5.24	13.568	2.827	84.703	68.703
06/29/2011 11:51:16	5.277	13.513	2.849	84.904	68.703
06/29/2011 11:51:26	5.31	13.524	2.838	84.904	68.703
06/29/2011 11:51:36	5.295	13.553	2.827	84.904	68.303
06/29/2011 11:51:46	5.28	13.55	2.805	84.703	68.102
06/29/2011 11:51:56	5.273	13.561	2.823	84.904	68.303
06/29/2011 11:52:06	5.266	13.564	2.827	84.904	68.703
06/29/2011 11:52:16	5.258	13.59	2.827	85.102	68.703
06/29/2011 11:52:26	5.244	13.568	2.856	84.904	68.703
06/29/2011 11:52:36	5.277	13.528	2.845	84.703	68.303
06/29/2011 11:52:46	5.31	13.506	2.827	84.501	68.102
06/29/2011 11:52:56	5.328	13.509	2.827	84.703	68.102
06/29/2011 11:53:06	5.328	13.524	2.827	84.904	68.303
06/29/2011 11:53:16	5.302	13.542	2.827	84.904	68.703
06/29/2011 11:53:26	5.288	13.509	2.827	84.904	68.703
06/29/2011 11:53:36	5.339	13.469	2.827	85.102	68.703
Pause Run 11					
THC Drift Check					
06/29/2011 11:53:46	5.379	13.44	11.184	84.904	68.703
06/29/2011 11:53:56	5.771	7.529	0.333	85.102	68.904
06/29/2011 11:54:06	3.164	0.549	-0.132	84.904	68.904
06/29/2011 11:54:16	0.259	0.395	-0.132	84.904	68.703
06/29/2011 11:54:26	0.08	0.333	-0.143	84.904	68.501
06/29/2011 11:54:36	0.058	0.303	-0.143	84.904	68.501
06/29/2011 11:54:46	0.051	0.281	-0.158	84.703	68.703
06/29/2011 11:54:56	0.043	0.267	-0.169	84.904	68.703
06/29/2011 11:55:06	0.04	0.256	-0.162	84.904	68.703
06/29/2011 11:55:16	0.036	0.245	-0.169	84.904	68.501
06/29/2011 11:55:26	0.032	0.237	-0.169	84.904	69.003
06/29/2011 11:55:36	0.032	0.23	-0.169	84.904	68.703
N2 Zero			**-0.169**	**84.904**	**68.736**
06/29/2011 11:55:46	0.032	0.241	30.44	84.904	68.501
06/29/2011 11:55:56	5.943	0.483	49.048	84.904	69.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 11:56:06	18.102	0.219	49.436	84.904	68.501
06/29/2011 11:56:16	20.453	0.212	49.472	84.904	68.703
06/29/2011 11:56:26	20.596	0.208	49.487	84.904	69.003
06/29/2011 11:56:36	20.636	0.204	49.498	84.703	68.703
06/29/2011 11:56:46	20.658	0.204	49.527	84.904	68.703
06/29/2011 11:56:56	20.673	0.204	49.553	84.904	68.501
06/29/2011 11:57:06	20.684	0.204	49.553	85.102	68.501
06/29/2011 11:57:16	20.687	0.204	48.989	84.904	68.501
49.8 ppm Propane Mid			**49.365**	**84.970**	**68.501**
06/29/2011 11:57:26	20.588	0.541	6.013	84.904	68.303
06/29/2011 11:57:36	14.209	12.466	2.973	84.904	68.303
06/29/2011 11:57:46	6.452	13.15	2.907	84.703	68.501
06/29/2011 11:57:56	5.577	13.293	2.882	84.703	68.904
Resume Run 11					
06/29/2011 11:58:06	5.482	13.33	2.867	85.102	68.703
06/29/2011 11:58:16	5.419	13.436	2.83	85.205	68.303
06/29/2011 11:58:26	5.357	13.462	2.83	85.402	68.303
06/29/2011 11:58:36	5.346	13.447	2.83	85.205	68.501
06/29/2011 11:58:46	5.354	13.465	2.83	85.402	68.703
06/29/2011 11:58:56	5.35	13.454	2.801	85.205	68.703
06/29/2011 11:59:06	5.365	13.443	2.805	85.205	68.102
06/29/2011 11:59:16	5.383	13.432	2.805	85.102	68.102
06/29/2011 11:59:26	5.394	13.421	2.801	85.205	68.303
06/29/2011 11:59:36	5.401	13.388	2.779	85.205	68.501
06/29/2011 11:59:46	5.43	13.363	2.779	85.205	68.703
06/29/2011 11:59:56	5.445	13.377	2.797	85.205	68.703
06/29/2011 12:00:06	5.405	13.425	2.819	85.102	68.501
06/29/2011 12:00:16	5.383	13.414	2.794	84.904	68.102
06/29/2011 12:00:26	5.387	13.403	2.779	84.904	68.003
06/29/2011 12:00:36	5.43	13.366	2.779	84.904	68.003
06/29/2011 12:00:46	5.463	13.348	2.779	85.102	68.003
06/29/2011 12:00:56	5.485	13.341	2.779	84.904	68.003
06/29/2011 12:01:06	5.478	13.37	2.779	84.904	68.003
06/29/2011 12:01:16	5.438	13.414	2.805	84.904	68.303
06/29/2011 12:01:26	5.405	13.403	2.779	85.102	68.501
06/29/2011 12:01:36	5.438	13.374	2.753	85.205	68.501
06/29/2011 12:01:46	5.449	13.37	2.75	85.205	68.102
06/29/2011 12:01:56	5.463	13.359	2.775	85.402	68.003
06/29/2011 12:02:06	5.478	13.337	2.779	85.402	68.003
06/29/2011 12:02:16	5.5	13.341	2.779	85.402	68.303
06/29/2011 12:02:26	5.504	13.319	2.746	85.205	68.501
06/29/2011 12:02:36	5.533	13.282	2.75	85.402	68.703
06/29/2011 12:02:46	5.555	13.29	2.779	85.402	68.501
06/29/2011 12:02:56	5.496	13.37	2.779	85.402	68.703
06/29/2011 12:03:06	5.478	13.345	2.779	85.205	68.703
06/29/2011 12:03:16	5.518	13.297	2.779	85.102	68.904
06/29/2011 12:03:26	5.551	13.257	2.779	85.102	68.904
06/29/2011 12:03:36	5.566	13.275	2.746	84.904	68.904
06/29/2011 12:03:46	5.522	13.334	2.746	85.102	68.904
06/29/2011 12:03:56	5.5	13.337	2.746	84.904	68.703
06/29/2011 12:04:06	5.46	13.348	2.746	85.102	68.501
06/29/2011 12:04:16	5.449	13.374	2.746	85.102	68.303
06/29/2011 12:04:26	5.471	13.352	2.746	85.102	68.003
06/29/2011 12:04:36	5.482	13.326	2.739	85.102	68.102
06/29/2011 12:04:46	5.463	13.403	2.764	85.102	68.703
06/29/2011 12:04:56	5.39	13.436	2.746	85.102	68.904
06/29/2011 12:05:06	5.372	13.436	2.72	84.904	68.703
06/29/2011 12:05:16	5.408	13.41	2.746	85.102	68.102
06/29/2011 12:05:26	5.423	13.399	2.72	85.102	68.303
06/29/2011 12:05:36	5.471	13.33	2.713	85.102	68.303
06/29/2011 12:05:46	5.526	13.33	2.72	85.205	68.501
06/29/2011 12:05:56	5.526	13.341	2.746	85.102	68.703
06/29/2011 12:06:06	5.511	13.326	2.731	85.102	68.703
06/29/2011 12:06:16	5.562	13.22	2.731	85.102	68.904
06/29/2011 12:06:26	5.61	13.227	2.735	84.703	68.904
06/29/2011 12:06:36	5.592	13.268	2.72	84.904	68.904
06/29/2011 12:06:46	5.566	13.271	2.72	84.904	68.904
06/29/2011 12:06:56	5.54	13.304	2.72	85.102	68.904
06/29/2011 12:07:06	5.537	13.257	2.746	84.904	68.904
06/29/2011 12:07:16	5.603	13.209	2.717	84.904	68.904
06/29/2011 12:07:26	5.643	13.202	2.72	85.102	68.904
06/29/2011 12:07:36	5.606	13.279	2.72	85.102	68.703
06/29/2011 12:07:46	5.548	13.286	2.72	85.102	68.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 12:07:56	5.507	13.352	2.746	85.102	68.703
06/29/2011 12:08:06	5.478	13.334	2.878	85.102	68.303
06/29/2011 12:08:16	5.485	13.319	2.999	85.102	68.102
06/29/2011 12:08:26	5.493	13.334	2.907	85.102	68.303
06/29/2011 12:08:36	5.449	13.385	2.856	84.904	68.303
06/29/2011 12:08:46	5.456	13.334	2.83	85.102	68.904
06/29/2011 12:08:56	5.507	13.286	2.83	85.102	69.003
06/29/2011 12:09:06	5.529	13.286	2.83	85.102	69.003
06/29/2011 12:09:16	5.548	13.264	2.83	85.102	68.904
06/29/2011 12:09:26	5.555	13.293	2.827	85.102	68.303
06/29/2011 12:09:36	5.533	13.334	2.827	85.102	68.303
06/29/2011 12:09:46	5.518	13.297	2.801	85.102	68.303
06/29/2011 12:09:56	5.529	13.326	2.801	85.102	68.303
06/29/2011 12:10:06	5.507	13.337	2.775	85.102	68.501
06/29/2011 12:10:16	5.5	13.319	2.779	85.102	68.501
06/29/2011 12:10:26	5.489	13.341	2.797	85.205	68.703
06/29/2011 12:10:36	5.445	13.396	2.79	85.205	68.703
06/29/2011 12:10:46	5.43	13.37	2.797	85.802	69.003
06/29/2011 12:10:56	5.471	13.337	2.801	85.802	69.003
06/29/2011 12:11:06	5.485	13.341	2.805	85.604	69.003
06/29/2011 12:11:16	5.507	13.293	2.797	86.003	69.003
06/29/2011 12:11:26	5.548	13.257	2.746	85.604	69.003
06/29/2011 12:11:36	5.573	13.253	2.746	85.604	68.501
06/29/2011 12:11:46	5.577	13.271	2.735	85.802	68.303
06/29/2011 12:11:56	5.566	13.268	2.695	86.102	68.303
06/29/2011 12:12:06	5.551	13.301	2.72	86.003	68.303
06/29/2011 12:12:16	5.537	13.26	2.72	86.102	68.303
06/29/2011 12:12:26	5.584	13.238	2.724	86.102	68.703
06/29/2011 12:12:36	5.603	13.26	2.746	86.102	68.904
06/29/2011 12:12:46	5.577	13.246	2.735	86.102	69.003
06/29/2011 12:12:56	5.581	13.224	2.72	86.102	69.003
06/29/2011 12:13:06	5.639	13.176	2.695	86.102	69.003
06/29/2011 12:13:16	5.687	13.132	2.695	86.303	68.904
06/29/2011 12:13:26	5.709	13.154	2.72	86.303	68.501
06/29/2011 12:13:36	5.679	13.183	2.746	86.303	68.303
06/29/2011 12:13:46	5.683	13.139	2.735	86.505	68.904
06/29/2011 12:13:56	5.723	13.099	2.691	86.303	69.003
06/29/2011 12:14:06	5.793	12.949	2.552	86.102	68.501
06/29/2011 12:14:16	6.471	12.022	2.563	86.102	68.303
06/29/2011 12:14:26	7.02	12.059	2.742	86.102	68.501
06/29/2011 12:14:36	6.525	12.975	2.695	86.003	68.703
06/29/2011 12:14:46	5.899	13.03	2.665	86.003	68.501
06/29/2011 12:14:56	5.822	13.015	2.665	86.003	68.501
06/29/2011 12:15:06	5.797	13.052	2.706	85.802	68.501
06/29/2011 12:15:16	5.742	13.165	2.72	86.003	69.204
06/29/2011 12:15:26	5.639	13.205	2.72	86.003	68.904
06/29/2011 12:15:36	5.599	13.216	2.72	86.003	68.501
06/29/2011 12:15:46	5.592	13.231	2.72	86.303	69.204
06/29/2011 12:15:56	5.599	13.202	2.72	86.003	68.501
06/29/2011 12:16:06	5.588	13.271	2.706	86.102	69.003
06/29/2011 12:16:16	5.529	13.312	2.709	86.102	68.703
06/29/2011 12:16:26	5.504	13.323	2.695	86.003	69.003
06/29/2011 12:16:36	5.504	13.33	2.72	85.802	68.703
06/29/2011 12:16:46	5.493	13.319	2.746	85.604	68.904
06/29/2011 12:16:56	5.526	13.271	2.746	85.604	68.703
06/29/2011 12:17:06	5.522	13.33	2.72	85.604	69.204
06/29/2011 12:17:16	5.507	13.312	2.72	86.003	68.501
06/29/2011 12:17:26	5.544	13.249	2.724	85.604	68.904
06/29/2011 12:17:36	5.533	13.363	2.75	85.604	69.204
06/29/2011 12:17:46	5.463	13.356	2.746	85.604	69.003
06/29/2011 12:17:56	5.496	13.279	2.728	85.604	68.501
06/29/2011 12:18:06	5.507	13.356	2.724	85.402	68.501
06/29/2011 12:18:16	5.456	13.363	2.746	85.802	68.501
06/29/2011 12:18:26	5.474	13.326	2.746	85.802	68.501
06/29/2011 12:18:36	5.493	13.323	2.75	85.402	68.501
06/29/2011 12:18:46	5.496	13.297	2.746	85.205	68.501
06/29/2011 12:18:56	5.507	13.33	2.757	85.802	69.003
06/29/2011 12:19:06	5.496	13.334	2.746	85.802	69.204
06/29/2011 12:19:16	5.496	13.348	2.731	85.802	69.204
06/29/2011 12:19:26	5.489	13.308	2.746	85.802	68.703
06/29/2011 12:19:36	5.529	13.253	2.746	85.604	68.501
06/29/2011 12:19:46	5.592	13.202	2.746	85.604	68.703
06/29/2011 12:19:56	5.636	13.213	2.746	85.604	69.204

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 12:20:06	5.625	13.205	2.72	85.402	68.703
06/29/2011 12:20:16	5.61	13.235	2.746	85.604	68.501
06/29/2011 12:20:26	5.606	13.227	2.746	85.604	68.703
06/29/2011 12:20:36	5.581	13.304	2.746	85.402	69.003
06/29/2011 12:20:46	5.555	13.279	2.779	85.604	69.402
06/29/2011 12:20:56	5.581	13.26	2.79	85.604	69.204
06/29/2011 12:21:06	5.595	13.235	2.786	85.205	69.003
06/29/2011 12:21:16	5.617	13.194	2.746	85.402	68.703
06/29/2011 12:21:26	5.636	13.213	2.757	85.402	68.501
06/29/2011 12:21:36	5.654	13.187	2.75	85.802	68.501
06/29/2011 12:21:46	5.636	13.235	2.735	85.802	68.501
06/29/2011 12:21:56	5.625	13.253	2.72	85.802	68.703
06/29/2011 12:22:06	5.595	13.249	2.706	85.802	68.904
06/29/2011 12:22:16	5.617	13.213	2.72	85.802	69.003
06/29/2011 12:22:26	5.628	13.227	2.72	85.102	69.204
06/29/2011 12:22:36	5.621	13.194	2.72	85.102	69.204
06/29/2011 12:22:46	5.636	13.183	2.72	85.102	69.402
06/29/2011 12:22:56	5.654	13.158	2.724	85.102	69.003
06/29/2011 12:23:06	5.661	13.161	2.72	85.205	68.904
06/29/2011 12:23:16	5.636	13.172	2.695	85.205	68.501
06/29/2011 12:23:26	5.61	13.205	2.735	85.205	68.703
06/29/2011 12:23:36	5.614	13.187	2.739	85.205	68.904
06/29/2011 12:23:46	5.636	13.132	2.72	85.402	69.402
06/29/2011 12:23:56	5.672	13.147	2.746	85.205	69.204
06/29/2011 12:24:06	5.665	13.161	2.772	85.205	68.904
06/29/2011 12:24:16	5.654	13.183	2.742	85.102	68.703
06/29/2011 12:24:26	5.661	13.161	2.695	85.102	68.904
06/29/2011 12:24:36	5.683	13.125	2.706	84.904	68.904
06/29/2011 12:24:46	5.701	13.11	2.695	84.703	69.402
06/29/2011 12:24:56	5.694	13.15	2.72	85.102	69.402
06/29/2011 12:25:06	5.658	13.187	2.731	85.102	69.003
06/29/2011 12:25:16	5.617	13.216	2.731	85.205	68.904
06/29/2011 12:25:26	5.606	13.194	2.72	85.205	68.703
06/29/2011 12:25:36	5.606	13.224	2.746	85.102	68.703
06/29/2011 12:25:46	5.592	13.231	2.757	85.205	68.703
06/29/2011 12:25:56	5.577	13.275	2.746	85.205	68.904
06/29/2011 12:26:06	5.559	13.264	2.753	85.402	68.904
06/29/2011 12:26:16	5.533	13.308	2.779	85.604	69.402
06/29/2011 12:26:26	5.485	13.381	2.779	85.402	69.402
06/29/2011 12:26:36	5.467	13.315	2.779	85.402	68.904
06/29/2011 12:26:46	5.551	13.191	2.779	85.402	68.703
06/29/2011 12:26:56	5.639	13.187	2.757	85.402	69.204
06/29/2011 12:27:06	5.632	13.202	2.779	85.402	69.204
06/29/2011 12:27:16	5.636	13.187	2.779	85.205	68.703
06/29/2011 12:27:26	5.628	13.194	2.746	85.402	69.402
06/29/2011 12:27:36	5.617	13.213	2.746	85.604	68.703
06/29/2011 12:27:46	5.628	13.158	2.746	85.402	69.402
06/29/2011 12:27:56	5.658	13.154	2.757	85.402	68.703
06/29/2011 12:28:06	5.647	13.187	2.768	85.205	69.402
06/29/2011 12:28:16	5.647	13.15	2.768	85.102	68.904
06/29/2011 12:28:26	5.672	13.136	2.772	85.205	69.402
06/29/2011 12:28:36	5.65	13.224	2.786	85.102	68.904
06/29/2011 12:28:46	5.617	13.183	2.786	85.205	69.402
06/29/2011 12:28:56	5.632	13.194	2.797	85.102	68.904
06/29/2011 12:29:06	5.661	13.169	2.801	85.402	69.402
06/29/2011 12:29:16	5.643	13.231	2.805	85.205	68.904
06/29/2011 12:29:26	5.603	13.213	2.801	85.205	68.904
06/29/2011 12:29:36	5.639	13.147	2.801	85.102	68.904
06/29/2011 12:29:46	5.694	13.11	2.801	85.102	68.904
06/29/2011 12:29:56	5.701	13.128	2.79	85.102	69.003
06/29/2011 12:30:06	5.694	13.15	2.779	84.904	69.204
06/29/2011 12:30:16	5.672	13.15	2.779	84.904	69.204
06/29/2011 12:30:26	5.676	13.161	2.746	85.102	68.703
06/29/2011 12:30:36	5.654	13.176	2.772	85.102	69.003
06/29/2011 12:30:46	5.654	13.18	2.757	84.703	69.204
06/29/2011 12:30:56	5.683	13.092	2.779	84.904	68.904
06/29/2011 12:31:06	5.72	13.125	2.768	85.102	69.003
06/29/2011 12:31:16	5.698	13.158	2.779	85.102	69.204
06/29/2011 12:31:26	5.698	13.121	2.805	85.102	68.904
06/29/2011 12:31:36	5.723	13.099	2.805	85.102	68.904
06/29/2011 12:31:46	5.723	13.121	2.808	85.102	69.204
06/29/2011 12:31:56	5.69	13.15	2.808	85.102	69.204
06/29/2011 12:32:06	5.72	13.099	2.827	85.102	68.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 12:32:16	5.745	13.095	2.83	85.102	69.402
06/29/2011 12:32:26	5.727	13.103	2.805	85.102	69.402
06/29/2011 12:32:36	5.753	13.033	2.805	85.102	68.703
06/29/2011 12:32:46	5.815	12.993	2.779	85.102	68.904
06/29/2011 12:32:56	5.811	13.044	2.746	84.904	69.204
06/29/2011 12:33:06	5.771	13.081	2.779	84.703	69.402
06/29/2011 12:33:16	5.745	13.077	2.772	84.703	69.204
06/29/2011 12:33:26	5.767	13.063	2.779	84.703	68.703
06/29/2011 12:33:36	5.793	13.066	2.757	84.904	69.003
06/29/2011 12:33:46	5.815	13	2.746	85.102	69.204
06/29/2011 12:33:56	5.819	13.055	2.779	85.102	69.204
06/29/2011 12:34:06	5.793	13.041	2.779	85.102	68.904
06/29/2011 12:34:16	5.808	13.033	2.801	85.102	68.904
06/29/2011 12:34:26	5.822	12.997	2.805	85.102	69.003
06/29/2011 12:34:36	5.83	12.997	2.805	85.102	69.204
06/29/2011 12:34:46	5.797	13.044	2.779	84.904	69.204
06/29/2011 12:34:56	5.764	13.077	2.779	85.102	69.003
06/29/2011 12:35:06	5.742	13.099	2.779	85.102	68.703
06/29/2011 12:35:16	5.701	13.125	2.779	85.102	68.703
06/29/2011 12:35:26	5.69	13.11	2.779	85.102	68.904
06/29/2011 12:35:36	5.712	13.063	2.772	85.205	69.204
06/29/2011 12:35:46	5.749	13.07	2.794	85.102	69.204
06/29/2011 12:35:56	5.756	13.03	2.805	85.102	69.204
06/29/2011 12:36:06	5.771	13.026	2.779	85.102	69.204
06/29/2011 12:36:16	5.771	13.048	2.753	85.102	69.204
06/29/2011 12:36:26	5.764	13.052	2.779	85.102	69.204
06/29/2011 12:36:36	5.764	13.077	2.779	84.904	69.204
06/29/2011 12:36:46	5.756	13.066	2.746	84.703	69.003
06/29/2011 12:36:56	5.756	13.033	2.746	84.703	69.003
06/29/2011 12:37:06	5.786	13.033	2.779	84.904	69.003
06/29/2011 12:37:16	5.815	13	2.801	85.102	69.204
06/29/2011 12:37:26	5.859	12.945	2.805	85.102	69.204
06/29/2011 12:37:36	5.877	12.967	2.805	85.102	69.204
06/29/2011 12:37:46	5.819	13.055	2.801	85.102	69.402
06/29/2011 12:37:56	5.767	13.077	2.79	85.205	69.204
06/29/2011 12:38:06	5.756	13.044	2.746	85.102	69.402
06/29/2011 12:38:16	5.782	13.037	2.779	85.102	69.402
06/29/2011 12:38:26	5.775	13.044	2.746	85.205	69.204
06/29/2011 12:38:36	5.767	13.048	2.779	85.402	69.003
06/29/2011 12:38:46	5.753	13.055	2.779	85.205	68.904
06/29/2011 12:38:56	5.789	12.993	2.779	85.205	69.003
06/29/2011 12:39:06	5.819	12.986	2.779	85.402	69.204
06/29/2011 12:39:16	5.833	12.975	2.764	85.402	68.904
06/29/2011 12:39:26	5.833	13.004	2.805	85.402	68.904
06/29/2011 12:39:36	5.767	13.095	2.779	85.402	69.204
06/29/2011 12:39:46	5.712	13.088	2.805	85.802	68.904
06/29/2011 12:39:56	5.76	13	2.805	85.604	69.003
06/29/2011 12:40:06	5.844	12.967	2.823	85.402	69.003
06/29/2011 12:40:16	5.837	13.044	2.808	85.604	68.904
06/29/2011 12:40:26	5.764	13.052	2.805	85.604	69.003
06/29/2011 12:40:36	5.764	13.052	2.805	85.205	69.204
06/29/2011 12:40:46	5.767	13.048	2.808	85.205	68.904
06/29/2011 12:40:56	5.756	13.055	2.83	85.402	69.204
06/29/2011 12:41:06	5.738	13.103	2.805	85.402	68.904
06/29/2011 12:41:16	5.72	13.081	2.805	85.205	69.204
06/29/2011 12:41:26	5.742	13.07	2.867	85.205	68.904
06/29/2011 12:41:36	5.749	13.059	3.043	85.205	69.204
06/29/2011 12:41:46	5.782	12.978	2.991	85.102	69.204
06/29/2011 12:41:56	5.83	12.96	2.933	85.102	68.904
06/29/2011 12:42:06	5.841	12.967	2.933	85.102	69.402
06/29/2011 12:42:16	5.841	12.942	3.281	85.102	69.003
06/29/2011 12:42:26	5.859	12.945	12.462	85.102	68.904
06/29/2011 12:42:36	5.863	12.949	18.23	85.102	68.904
06/29/2011 12:42:46	5.837	12.953	20.438	85.102	69.003
06/29/2011 12:42:56	5.859	12.898	22.321	85.102	69.204
06/29/2011 12:43:06	5.855	12.964	19.482	85.102	69.204
06/29/2011 12:43:16	5.822	12.964	11.85	85.205	69.402
06/29/2011 12:43:26	5.815	13.048	8.913	85.604	69.402
06/29/2011 12:43:36	5.793	13	7.855	85.205	69.003
06/29/2011 12:43:46	5.808	13.008	7.577	85.205	68.703
06/29/2011 12:43:56	5.87	12.912	7.555	85.102	68.904
06/29/2011 12:44:06	5.929	12.883	7.734	85.102	69.204
06/29/2011 12:44:16	5.921	12.934	7.965	85.102	69.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 12:44:26	5.859	12.989	8.166	85.102	69.402
06/29/2011 12:44:36	5.808	13.033	8.419	85.102	69.003
06/29/2011 12:44:46	5.789	13.033	8.668	85.205	68.904
06/29/2011 12:44:56	5.786	13.052	8.888	85.205	68.904
06/29/2011 12:45:06	5.797	13.037	9.118	85.402	69.003
06/29/2011 12:45:16	5.804	13.033	9.364	85.205	69.204
06/29/2011 12:45:26	5.797	13.019	9.565	85.102	69.204
06/29/2011 12:45:36	5.822	12.967	9.774	85.102	69.204
06/29/2011 12:45:46	5.877	12.927	10.023	85.205	69.204
06/29/2011 12:45:56	5.87	13.004	10.206	85.205	69.003
06/29/2011 12:46:06	5.844	12.956	10.331	85.205	68.904
06/29/2011 12:46:16	5.885	12.912	10.418	85.205	68.904
06/29/2011 12:46:26	5.91	12.927	10.51	85.402	69.003
06/29/2011 12:46:36	5.892	12.956	10.591	85.402	69.402
06/29/2011 12:46:46	5.859	12.96	10.591	85.604	69.402
06/29/2011 12:46:56	5.841	13.008	10.605	85.802	69.402
06/29/2011 12:47:06	5.804	13.041	10.587	85.802	68.904
06/29/2011 12:47:16	5.797	12.993	10.642	85.402	68.904
06/29/2011 12:47:26	5.811	13.008	10.631	85.604	69.402
06/29/2011 12:47:36	5.822	12.986	10.62	85.604	69.402
06/29/2011 12:47:46	5.815	13	10.558	85.802	69.204
06/29/2011 12:47:56	5.811	13	10.51	85.604	68.904
06/29/2011 12:48:06	5.819	13.015	10.503	85.604	68.703
06/29/2011 12:48:16	5.808	13.041	10.484	86.003	69.003
06/29/2011 12:48:26	5.764	13.041	10.404	86.003	69.402
06/29/2011 12:48:36	5.756	13.041	10.312	86.003	69.402
06/29/2011 12:48:46	5.771	13.037	10.21	86.102	68.703
06/29/2011 12:48:56	5.764	13.055	10.133	86.003	68.703
06/29/2011 12:49:06	5.727	13.095	10.06	86.003	69.402
06/29/2011 12:49:16	5.694	13.125	9.95	85.802	69.204
06/29/2011 12:49:26	5.679	13.132	9.825	86.102	68.703
06/29/2011 12:49:36	5.676	13.132	9.704	86.003	68.703
06/29/2011 12:49:46	5.72	13.059	9.635	86.003	69.402
06/29/2011 12:49:56	5.745	13.052	9.543	86.003	69.003
06/29/2011 12:50:06	5.745	13.07	9.47	86.102	68.703
06/29/2011 12:50:16	5.69	13.18	9.389	86.003	69.402
06/29/2011 12:50:26	5.61	13.202	9.243	86.003	69.204
06/29/2011 12:50:36	5.603	13.161	9.199	86.003	68.501
06/29/2011 12:50:46	5.595	13.231	9.126	86.102	69.204
06/29/2011 12:50:56	5.577	13.227	9.005	86.102	69.402
06/29/2011 12:51:06	5.606	13.176	8.902	86.102	68.703
06/29/2011 12:51:16	5.621	13.191	8.77	86.003	68.703
06/29/2011 12:51:26	5.599	13.238	8.668	85.802	69.003
06/29/2011 12:51:36	5.588	13.216	8.565	85.802	69.402
06/29/2011 12:51:46	5.592	13.22	8.448	85.802	69.402
06/29/2011 12:51:56	5.577	13.249	8.357	86.102	69.204
06/29/2011 12:52:06	5.581	13.194	8.225	86.003	69.003
06/29/2011 12:52:16	5.625	13.165	8.1	85.802	68.904
06/29/2011 12:52:26	5.639	13.176	8.009	85.802	68.703
06/29/2011 12:52:36	5.621	13.202	7.924	86.003	68.904
06/29/2011 12:52:46	5.606	13.176	7.811	86.003	69.204
06/29/2011 12:52:56	5.617	13.198	7.719	86.003	69.604
06/29/2011 12:53:06	5.592	13.231	7.591	85.802	69.604
06/29/2011 12:53:16	5.617	13.139	7.496	85.802	69.402
06/29/2011 12:53:26	5.643	13.191	7.412	85.802	68.904
06/29/2011 12:53:36	5.599	13.205	7.36	86.003	69.003
06/29/2011 12:53:46	5.617	13.15	7.276	85.802	69.604
06/29/2011 12:53:56	5.636	13.165	7.185	85.802	68.904
06/29/2011 12:54:06	5.632	13.183	7.067	85.802	69.003
06/29/2011 12:54:16	5.639	13.169	6.987	85.802	69.604
06/29/2011 12:54:26	5.632	13.202	6.921	85.802	68.904
06/29/2011 12:54:36	5.606	13.227	6.84	85.604	69.402
06/29/2011 12:54:46	5.617	13.169	6.774	85.802	69.604
06/29/2011 12:54:56	5.658	13.136	6.687	85.604	69.003
06/29/2011 12:55:06	5.658	13.209	7.628	85.604	69.604
06/29/2011 12:55:16	5.654	13.139	18.505	85.604	68.904
06/29/2011 12:55:26	5.705	13.066	23.881	85.604	69.204
06/29/2011 12:55:36	5.764	13.004	23.145	85.604	69.604
06/29/2011 12:55:46	5.8	13.004	17.695	85.402	69.003
06/29/2011 12:55:56	5.808	13.004	13.506	85.402	69.204
06/29/2011 12:56:06	5.775	13.088	11.898	85.604	69.604
06/29/2011 12:56:16	5.723	13.099	11.583	85.402	69.003
06/29/2011 12:56:26	5.679	13.183	11.729	85.604	69.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 12:56:36	5.65	13.154	12.107	85.604	69.604
06/29/2011 12:56:46	5.69	13.103	12.568	85.604	69.003
06/29/2011 12:56:56	5.698	13.154	13.128	85.402	69.003
06/29/2011 12:57:06	5.621	13.235	13.623	85.802	69.604
06/29/2011 12:57:16	5.562	13.238	14.099	85.802	69.604
06/29/2011 12:57:26	5.562	13.202	14.483	85.604	69.604
06/29/2011 12:57:36	5.621	13.161	14.886	85.402	69.204
06/29/2011 12:57:46	5.617	13.198	15.223	85.402	69.402
06/29/2011 12:57:56	5.588	13.209	15.483	85.402	69.604
06/29/2011 12:58:06	5.548	13.275	15.626	85.604	69.604
06/29/2011 12:58:16	5.511	13.293	15.641	85.402	69.204
06/29/2011 12:58:26	5.518	13.268	15.571	85.604	69.003
06/29/2011 12:58:36	5.551	13.238	15.557	85.205	69.204
06/29/2011 12:58:46	5.577	13.231	15.531	85.205	69.801
06/29/2011 12:58:56	5.592	13.231	15.436	85.604	69.604
06/29/2011 12:59:06	5.584	13.242	15.344	85.604	69.204
06/29/2011 12:59:16	5.573	13.227	15.253	85.604	69.003
06/29/2011 12:59:26	5.544	13.29	15.117	85.604	69.604
06/29/2011 12:59:36	5.504	13.323	14.886	85.402	69.604
06/29/2011 12:59:46	5.496	13.297	14.663	85.604	69.204
06/29/2011 12:59:56	5.489	13.304	14.385	85.802	69.204
06/29/2011 13:00:06	5.511	13.271	14.128	85.802	69.801
06/29/2011 13:00:16	5.526	13.304	13.876	85.604	69.801
06/29/2011 13:00:26	5.5	13.297	13.484	85.402	69.204
06/29/2011 13:00:36	5.526	13.29	13.121	85.604	69.204
06/29/2011 13:00:46	5.526	13.293	12.766	85.802	69.604
06/29/2011 13:00:56	5.548	13.246	12.403	85.402	69.604
06/29/2011 13:01:06	5.562	13.231	12.096	85.205	69.604
06/29/2011 13:01:16	5.548	13.286	11.825	85.604	69.604
06/29/2011 13:01:26	5.504	13.304	11.488	85.402	69.604
06/29/2011 13:01:36	5.482	13.319	11.162	85.802	69.604
06/29/2011 13:01:46	5.493	13.319	10.876	85.604	69.604
06/29/2011 13:01:56	5.463	13.377	10.58	86.003	69.801
06/29/2011 13:02:06	5.398	13.396	10.298	86.003	69.801
06/29/2011 13:02:16	5.383	13.418	9.979	86.102	69.801
06/29/2011 13:02:26	5.376	13.421	9.756	86.003	69.801
06/29/2011 13:02:36	5.405	13.363	9.528	86.003	69.604
06/29/2011 13:02:46	5.445	13.304	9.331	86.003	69.204
06/29/2011 13:02:56	5.496	13.293	9.129	86.102	69.801
06/29/2011 13:03:06	5.489	13.341	8.921	86.102	69.604
06/29/2011 13:03:16	5.452	13.356	8.745	86.102	69.402
06/29/2011 13:03:26	5.438	13.37	8.562	86.102	69.904
06/29/2011 13:03:36	5.405	13.388	8.401	86.102	69.204
06/29/2011 13:03:46	5.39	13.392	8.177	86.102	69.801
06/29/2011 13:03:56	5.43	13.345	8.045	86.303	69.204
06/29/2011 13:04:06	5.452	13.345	7.899	86.102	69.604
06/29/2011 13:04:16	5.474	13.301	7.741	86.003	69.801
06/29/2011 13:04:26	5.537	13.253	7.624	86.003	69.003
06/29/2011 13:04:36	5.537	13.286	7.525	86.303	69.801
06/29/2011 13:04:46	5.518	13.29	7.393	86.303	69.801
06/29/2011 13:04:56	5.537	13.29	7.265	86.102	69.402
06/29/2011 13:05:06	5.54	13.271	7.174	86.102	69.204
06/29/2011 13:05:16	5.518	13.326	7.064	86.102	69.604
06/29/2011 13:05:26	5.493	13.326	6.976	86.303	69.904
06/29/2011 13:05:36	5.496	13.304	6.888	86.505	69.604
06/29/2011 13:05:46	5.522	13.268	6.778	86.303	69.204
06/29/2011 13:05:56	5.566	13.26	6.701	86.303	69.402
06/29/2011 13:06:06	5.566	13.257	6.646	86.102	69.904
06/29/2011 13:06:16	5.544	13.304	6.547	86.102	69.801
06/29/2011 13:06:26	5.537	13.253	6.456	86.102	69.402
06/29/2011 13:06:36	5.584	13.205	6.361	86.505	69.003
06/29/2011 13:06:46	5.603	13.224	6.298	86.505	69.204
06/29/2011 13:06:56	5.584	13.249	6.225	86.505	69.604
06/29/2011 13:07:06	5.581	13.202	6.167	86.702	69.801
06/29/2011 13:07:16	5.595	13.224	6.097	86.303	69.801
Pause Run 11					
THC Drift Check					
06/29/2011 13:07:26	5.592	13.22	12.389	86.003	69.904
06/29/2011 13:07:36	5.921	7.419	0.545	86.102	69.904
06/29/2011 13:07:46	3.175	0.538	0.029	86.505	69.801
06/29/2011 13:07:56	0.256	0.384	-0.037	86.505	69.604
06/29/2011 13:08:06	0.073	0.325	-0.037	86.303	69.604
06/29/2011 13:08:16	0.051	0.296	-0.063	86.003	69.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 13:08:26	0.043	0.274	-0.063	86.003	70.303
06/29/2011 13:08:36	0.036	0.259	-0.074	86.003	70.102
06/29/2011 13:08:46	0.032	0.245	-0.092	86.003	69.904
06/29/2011 13:08:56	0.029	0.234	-0.092	86.003	69.801
N2 Zero			**-0.086**	**86.003**	**69.936**
06/29/2011 13:09:06	0.025	0.226	0.131	86.003	69.801
06/29/2011 13:09:16	0.252	1.102	43.668	86.102	69.904
06/29/2011 13:09:26	9.679	0.34	49.326	86.102	70.303
06/29/2011 13:09:36	19.545	0.208	49.494	86.003	70.303
06/29/2011 13:09:46	20.519	0.197	49.527	86.003	70.303
06/29/2011 13:09:56	20.603	0.19	49.535	86.003	69.604
06/29/2011 13:10:06	20.636	0.186	49.546	86.003	69.604
06/29/2011 13:10:16	20.654	0.186	49.549	85.802	69.604
06/29/2011 13:10:26	20.665	0.183	49.553	85.802	69.604
06/29/2011 13:10:36	20.676	0.183	49.575	85.802	69.801
06/29/2011 13:10:46	20.684	0.179	49.575	86.003	69.604
49.8 ppm Propane Mid			**49.568**	**85.869**	**69.670**
06/29/2011 13:10:56	20.687	0.183	34.816	86.003	69.801
06/29/2011 13:11:06	19.38	4.962	5.734	85.802	69.402
06/29/2011 13:11:16	10.704	12.839	5.394	85.802	69.904
Resume Run 11					
06/29/2011 13:11:26	6.002	12.96	5.291	85.604	69.904
06/29/2011 13:11:36	5.793	12.997	5.167	85.604	69.801
06/29/2011 13:11:46	5.749	13.095	5.097	85.802	69.402
06/29/2011 13:11:56	5.701	13.095	5.061	85.402	69.402
06/29/2011 13:12:06	5.687	13.103	5.035	85.402	69.604
06/29/2011 13:12:16	5.672	13.143	4.976	85.205	69.904
06/29/2011 13:12:26	5.632	13.169	4.921	85.402	69.904
06/29/2011 13:12:36	5.592	13.216	4.896	85.802	69.904
06/29/2011 13:12:46	5.581	13.224	4.87	85.604	69.801
06/29/2011 13:12:56	5.551	13.249	4.848	86.003	69.204
06/29/2011 13:13:06	5.548	13.224	4.826	86.303	69.204
06/29/2011 13:13:16	5.544	13.216	4.815	86.303	69.204
06/29/2011 13:13:26	5.555	13.227	4.746	86.303	69.204
06/29/2011 13:13:36	5.592	13.176	4.724	86.303	69.204
06/29/2011 13:13:46	5.628	13.18	4.713	86.303	69.604
06/29/2011 13:13:56	5.617	13.187	4.72	86.505	69.604
06/29/2011 13:14:06	5.577	13.242	4.694	86.303	69.402
06/29/2011 13:14:16	5.537	13.231	4.672	86.102	69.604
06/29/2011 13:14:26	5.562	13.194	4.639	86.003	69.904
06/29/2011 13:14:36	5.584	13.202	4.639	86.003	69.904
06/29/2011 13:14:46	5.584	13.205	4.724	86.003	69.904
06/29/2011 13:14:56	5.54	13.268	4.958	85.802	69.801
06/29/2011 13:15:06	5.504	13.253	4.848	85.802	69.402
06/29/2011 13:15:16	5.518	13.209	4.746	86.003	69.204
06/29/2011 13:15:26	5.566	13.143	4.705	86.102	69.204
06/29/2011 13:15:36	5.61	13.169	4.669	86.102	69.402
06/29/2011 13:15:46	5.577	13.227	4.658	86.003	69.402
06/29/2011 13:15:56	5.518	13.268	4.625	86.003	69.402
06/29/2011 13:16:06	5.496	13.297	4.606	86.003	69.801
06/29/2011 13:16:16	5.482	13.301	4.588	86.102	69.904
06/29/2011 13:16:26	5.485	13.264	4.574	86.102	69.904
06/29/2011 13:16:36	5.485	13.293	4.555	86.102	70.102
06/29/2011 13:16:46	5.5	13.257	4.522	86.303	70.102
06/29/2011 13:16:56	5.54	13.213	4.504	86.102	70.102
06/29/2011 13:17:06	5.584	13.198	4.511	86.003	69.904
06/29/2011 13:17:16	5.595	13.187	4.471	86.003	69.904
06/29/2011 13:17:26	5.636	13.136	4.431	86.003	69.904
06/29/2011 13:17:36	5.669	13.154	4.427	86.003	69.801
06/29/2011 13:17:46	5.628	13.187	4.405	86.102	69.402
06/29/2011 13:17:56	5.621	13.18	4.394	86.102	69.402
06/29/2011 13:18:06	5.614	13.213	4.354	86.303	69.402
06/29/2011 13:18:16	5.599	13.209	4.328	86.303	69.402
06/29/2011 13:18:26	5.584	13.257	4.306	86.102	69.402
06/29/2011 13:18:36	5.562	13.253	4.281	86.003	69.801
06/29/2011 13:18:46	5.559	13.238	4.273	86.003	69.904
06/29/2011 13:18:56	5.566	13.238	4.273	86.003	70.102
06/29/2011 13:19:06	5.566	13.26	4.27	86.102	69.904
06/29/2011 13:19:16	5.551	13.227	4.266	86.505	69.904
06/29/2011 13:19:26	5.57	13.26	4.229	86.505	69.904
06/29/2011 13:19:36	5.584	13.202	4.215	86.702	69.801
06/29/2011 13:19:46	5.614	13.194	4.2	86.505	69.801
06/29/2011 13:19:56	5.632	13.176	4.189	86.505	69.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 13:20:06	5.628	13.198	4.152	86.505	69.801
06/29/2011 13:20:16	5.628	13.191	4.149	86.505	69.604
06/29/2011 13:20:26	5.661	13.136	4.145	86.505	69.204
06/29/2011 13:20:36	5.683	13.147	4.119	86.303	69.204
06/29/2011 13:20:46	5.672	13.139	4.119	86.505	69.904
06/29/2011 13:20:56	5.658	13.18	4.116	86.505	69.801
06/29/2011 13:21:06	5.625	13.205	4.116	86.702	69.604
06/29/2011 13:21:16	5.625	13.121	4.119	86.303	69.801
06/29/2011 13:21:26	5.69	13.085	4.119	86.702	69.801
06/29/2011 13:21:36	5.727	13.059	4.119	86.505	69.604
06/29/2011 13:21:46	5.753	13.048	4.116	86.102	70.102
06/29/2011 13:21:56	5.705	13.114	4.094	86.003	69.402
06/29/2011 13:22:06	5.636	13.154	4.086	86.102	70.102
06/29/2011 13:22:16	5.614	13.176	4.079	86.303	69.604
06/29/2011 13:22:26	5.584	13.205	4.046	86.303	70.102
06/29/2011 13:22:36	5.529	13.257	4.061	86.303	69.604
06/29/2011 13:22:46	5.5	13.286	4.028	86.505	69.402
06/29/2011 13:22:56	5.463	13.326	4.006	86.102	69.402
06/29/2011 13:23:06	5.441	13.326	4.006	86.102	69.904
06/29/2011 13:23:16	5.452	13.301	3.988	86.303	69.904
06/29/2011 13:23:26	5.5	13.257	3.999	86.102	70.102
06/29/2011 13:23:36	5.54	13.264	3.98	86.102	69.904
06/29/2011 13:23:46	5.54	13.268	3.958	86.003	70.102
06/29/2011 13:23:56	5.533	13.242	3.966	86.102	69.904
06/29/2011 13:24:06	5.526	13.286	3.955	86.303	69.402
06/29/2011 13:24:16	5.515	13.268	3.929	86.102	69.402
06/29/2011 13:24:26	5.544	13.246	3.929	86.003	69.402
06/29/2011 13:24:36	5.533	13.297	3.918	86.003	69.801
06/29/2011 13:24:46	5.515	13.293	3.94	86.102	70.102
06/29/2011 13:24:56	5.518	13.26	3.925	86.003	70.102
06/29/2011 13:25:06	5.548	13.231	3.98	86.003	69.402
06/29/2011 13:25:16	5.537	13.271	3.98	86.003	69.402
06/29/2011 13:25:26	5.54	13.246	3.958	86.303	69.904
06/29/2011 13:25:36	5.537	13.246	3.962	86.303	69.904
06/29/2011 13:25:46	5.533	13.249	3.933	86.303	69.402
06/29/2011 13:25:56	5.544	13.26	3.929	86.505	69.402
06/29/2011 13:26:06	5.533	13.271	3.903	86.702	69.904
06/29/2011 13:26:16	5.511	13.29	3.881	86.702	70.102
06/29/2011 13:26:26	5.522	13.249	3.867	86.904	70.102
06/29/2011 13:26:36	5.518	13.304	3.867	87.003	70.102
06/29/2011 13:26:46	5.518	13.249	3.878	87.204	69.904
06/29/2011 13:26:56	5.588	13.147	3.848	87.204	70.102
06/29/2011 13:27:06	5.658	13.136	3.848	87.402	69.801
06/29/2011 13:27:16	5.621	13.198	3.848	87.402	69.204
06/29/2011 13:27:26	5.588	13.213	3.848	87.603	69.204
06/29/2011 13:27:36	5.562	13.242	3.826	87.603	69.402
06/29/2011 13:27:46	5.577	13.18	3.848	87.402	69.904
06/29/2011 13:27:56	5.617	13.165	3.848	87.402	69.904
06/29/2011 13:28:06	5.625	13.202	3.823	87.204	69.402
06/29/2011 13:28:16	5.581	13.238	3.801	87.402	69.402
06/29/2011 13:28:26	5.577	13.205	3.823	87.402	70.102
06/29/2011 13:28:36	5.588	13.238	3.845	87.204	69.402
06/29/2011 13:28:46	5.573	13.231	3.823	87.003	69.402
06/29/2011 13:28:56	5.584	13.194	3.812	87.204	69.904
06/29/2011 13:29:06	5.592	13.238	3.797	87.003	69.402
06/29/2011 13:29:16	5.559	13.253	3.782	87.003	69.801
06/29/2011 13:29:26	5.537	13.275	3.79	87.003	69.904
06/29/2011 13:29:36	5.529	13.253	3.793	87.003	69.402
06/29/2011 13:29:46	5.559	13.213	3.79	86.904	69.904
06/29/2011 13:29:56	5.57	13.249	3.79	86.904	69.402
06/29/2011 13:30:06	5.537	13.26	3.742	86.904	69.402
06/29/2011 13:30:16	5.518	13.293	3.771	86.904	69.904
06/29/2011 13:30:26	5.504	13.297	3.757	86.904	69.604
06/29/2011 13:30:36	5.522	13.275	3.742	86.904	69.402
06/29/2011 13:30:46	5.54	13.279	3.742	86.702	69.402
06/29/2011 13:30:56	5.537	13.271	3.717	86.904	69.904
06/29/2011 13:31:06	5.526	13.301	3.706	86.904	69.904
06/29/2011 13:31:16	5.489	13.33	3.742	86.702	69.801
06/29/2011 13:31:26	5.449	13.348	3.771	86.702	69.402
06/29/2011 13:31:36	5.441	13.352	3.742	86.702	69.402
06/29/2011 13:31:46	5.496	13.235	3.742	86.702	69.402
06/29/2011 13:31:56	5.555	13.264	3.742	86.702	69.402
06/29/2011 13:32:06	5.529	13.264	3.731	86.702	69.604

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 13:32:16	5.548	13.224	3.739	86.702	69.402
06/29/2011 13:32:26	5.526	13.293	3.702	86.505	69.904
06/29/2011 13:32:36	5.511	13.242	3.717	86.505	70.102
06/29/2011 13:32:46	5.54	13.242	3.713	86.702	69.402
06/29/2011 13:32:56	5.504	13.304	3.695	86.904	70.102
06/29/2011 13:33:06	5.5	13.275	3.691	86.904	69.604
06/29/2011 13:33:16	5.511	13.264	3.662	86.904	70.102
06/29/2011 13:33:26	5.493	13.315	3.643	86.904	69.604
06/29/2011 13:33:36	5.474	13.282	3.691	86.702	69.904
06/29/2011 13:33:46	5.507	13.282	3.691	86.702	69.604
06/29/2011 13:33:56	5.504	13.286	3.654	86.505	69.402
06/29/2011 13:34:06	5.5	13.26	3.662	86.505	69.904
06/29/2011 13:34:16	5.511	13.282	3.662	86.904	69.904
06/29/2011 13:34:26	5.529	13.253	3.636	86.702	69.402
06/29/2011 13:34:36	5.529	13.279	3.68	86.702	69.904
06/29/2011 13:34:46	5.522	13.268	3.691	86.505	69.801
06/29/2011 13:34:56	5.522	13.253	3.691	86.505	69.402
06/29/2011 13:35:06	5.526	13.246	3.662	86.505	70.102
06/29/2011 13:35:16	5.522	13.257	3.669	86.505	69.604
06/29/2011 13:35:26	5.529	13.271	3.662	86.702	69.604
06/29/2011 13:35:36	5.533	13.242	3.691	86.303	70.102
06/29/2011 13:35:46	5.533	13.253	3.687	86.505	69.904
06/29/2011 13:35:56	5.529	13.279	3.665	86.505	69.402
06/29/2011 13:36:06	5.533	13.29	3.687	86.702	69.604
06/29/2011 13:36:16	5.515	13.238	3.68	86.303	70.102
06/29/2011 13:36:26	5.54	13.253	3.636	86.702	70.303
06/29/2011 13:36:36	5.566	13.194	3.632	86.505	70.102
06/29/2011 13:36:46	5.562	13.249	3.636	86.102	70.102
06/29/2011 13:36:56	5.529	13.253	3.647	86.303	69.604
06/29/2011 13:37:06	5.544	13.253	3.643	86.303	70.102
06/29/2011 13:37:16	5.577	13.216	3.636	86.505	70.102
06/29/2011 13:37:26	5.592	13.224	3.636	86.303	69.604
06/29/2011 13:37:36	5.603	13.194	3.643	86.303	70.303
06/29/2011 13:37:46	5.632	13.172	3.662	86.102	69.801
06/29/2011 13:37:56	5.65	13.15	3.643	86.505	69.904
06/29/2011 13:38:06	5.639	13.169	3.636	86.702	69.904
06/29/2011 13:38:16	5.643	13.158	3.614	86.702	69.801
06/29/2011 13:38:26	5.658	13.161	3.603	86.505	70.303
06/29/2011 13:38:36	5.683	13.081	3.625	86.505	69.604
06/29/2011 13:38:46	5.701	13.132	3.614	86.505	70.303
06/29/2011 13:38:56	5.661	13.183	3.614	86.702	69.801
06/29/2011 13:39:06	5.617	13.18	3.607	86.505	69.604
06/29/2011 13:39:16	5.595	13.238	3.603	86.702	69.801
06/29/2011 13:39:26	5.559	13.253	3.61	86.702	69.904
06/29/2011 13:39:36	5.592	13.154	3.614	86.505	69.801
06/29/2011 13:39:46	5.625	13.165	3.614	86.303	69.604
06/29/2011 13:39:56	5.617	13.198	3.61	86.303	69.604
06/29/2011 13:40:06	5.581	13.213	3.603	86.303	70.303
06/29/2011 13:40:16	5.577	13.18	3.61	86.303	69.604
06/29/2011 13:40:26	5.603	13.176	3.636	86.505	70.303
06/29/2011 13:40:36	5.614	13.161	3.636	86.702	69.604
06/29/2011 13:40:46	5.588	13.246	3.614	86.702	70.303
06/29/2011 13:40:56	5.526	13.293	3.61	86.505	69.604
06/29/2011 13:41:06	5.478	13.308	3.596	86.303	69.801
06/29/2011 13:41:16	5.467	13.348	3.61	86.303	70.102
06/29/2011 13:41:26	5.449	13.337	3.588	86.102	69.604
06/29/2011 13:41:36	5.518	13.253	3.588	86.505	70.303
06/29/2011 13:41:46	5.584	13.253	3.588	86.303	69.801
06/29/2011 13:41:56	5.573	13.26	3.614	86.303	70.102
06/29/2011 13:42:06	5.577	13.213	3.636	86.303	69.904
06/29/2011 13:42:16	5.658	13.11	3.636	86.102	69.904
06/29/2011 13:42:26	5.701	13.125	3.636	86.102	69.801
06/29/2011 13:42:36	5.676	13.165	3.636	86.102	70.303
06/29/2011 13:42:46	5.584	13.271	3.632	86.102	69.604
06/29/2011 13:42:56	5.559	13.22	3.614	86.102	70.102
06/29/2011 13:43:06	5.614	13.165	3.614	86.102	69.604
06/29/2011 13:43:16	5.639	13.176	3.581	86.003	69.904
06/29/2011 13:43:26	5.61	13.224	3.588	86.102	69.904
06/29/2011 13:43:36	5.559	13.249	3.588	86.003	69.604
06/29/2011 13:43:46	5.529	13.275	3.563	85.802	69.801
06/29/2011 13:43:56	5.522	13.235	3.555	85.802	70.102
06/29/2011 13:44:06	5.548	13.235	3.548	86.003	70.102
06/29/2011 13:44:16	5.533	13.253	3.588	86.003	69.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 13:44:26	5.537	13.22	3.57	86.003	69.604
06/29/2011 13:44:36	5.592	13.183	3.559	86.003	69.604
06/29/2011 13:44:46	5.584	13.238	3.555	86.003	69.801
06/29/2011 13:44:56	5.57	13.191	3.559	86.102	70.102
06/29/2011 13:45:06	5.595	13.22	3.559	86.003	70.303
06/29/2011 13:45:16	5.581	13.202	3.559	86.003	69.904
06/29/2011 13:45:26	5.599	13.18	3.559	86.102	69.604
06/29/2011 13:45:36	5.632	13.165	3.544	85.604	69.402
06/29/2011 13:45:46	5.643	13.117	3.511	85.604	69.604
06/29/2011 13:45:56	5.654	13.121	3.511	86.003	69.604
06/29/2011 13:46:06	5.632	13.187	3.537	86.102	69.604
06/29/2011 13:46:16	5.588	13.198	3.511	86.003	69.604
06/29/2011 13:46:26	5.562	13.246	3.497	86.102	69.801
06/29/2011 13:46:36	5.573	13.165	3.511	86.303	69.604
06/29/2011 13:46:46	5.584	13.253	3.511	86.102	69.604
06/29/2011 13:46:56	5.566	13.194	3.511	86.003	69.801
06/29/2011 13:47:06	5.592	13.194	3.537	86.102	69.904
06/29/2011 13:47:16	5.562	13.227	3.533	86.102	69.801
06/29/2011 13:47:26	5.5	13.308	3.559	86.102	69.801
06/29/2011 13:47:36	5.445	13.345	3.515	86.303	69.904
06/29/2011 13:47:46	5.46	13.29	3.511	86.102	69.801
06/29/2011 13:47:56	5.456	13.341	3.526	86.102	69.604
06/29/2011 13:48:06	5.474	13.271	3.599	86.102	69.904
06/29/2011 13:48:16	5.518	13.26	3.845	86.102	70.303
06/29/2011 13:48:26	5.489	13.297	3.728	86.102	69.604
06/29/2011 13:48:36	5.478	13.301	3.669	86.102	69.904
06/29/2011 13:48:46	5.507	13.213	3.673	86.303	70.102
06/29/2011 13:48:56	5.581	13.187	3.662	86.303	69.801
06/29/2011 13:49:06	5.584	13.224	3.636	86.303	70.303
06/29/2011 13:49:16	5.584	13.209	3.614	86.505	69.604
06/29/2011 13:49:26	5.581	13.205	3.588	86.702	70.303
06/29/2011 13:49:36	5.617	13.15	3.588	86.702	69.801
06/29/2011 13:49:46	5.636	13.154	3.614	86.505	69.801
06/29/2011 13:49:56	5.606	13.213	3.614	86.303	70.102
06/29/2011 13:50:06	5.577	13.224	3.61	86.303	69.604
06/29/2011 13:50:16	5.559	13.213	3.574	86.303	69.801
06/29/2011 13:50:26	5.588	13.18	3.592	86.303	70.303
06/29/2011 13:50:36	5.581	13.213	3.57	86.303	69.801
06/29/2011 13:50:46	5.592	13.161	3.563	86.102	69.604
06/29/2011 13:50:56	5.617	13.194	3.537	86.003	69.402
06/29/2011 13:51:06	5.599	13.172	3.537	86.102	69.402
06/29/2011 13:51:16	5.606	13.176	3.552	86.003	69.402
06/29/2011 13:51:26	5.57	13.249	3.537	86.003	69.402
06/29/2011 13:51:36	5.548	13.22	3.537	86.003	69.402
06/29/2011 13:51:46	5.526	13.308	3.511	86.003	69.402
06/29/2011 13:51:56	5.489	13.26	3.511	86.003	69.402
06/29/2011 13:52:06	5.559	13.183	3.511	86.003	69.402
06/29/2011 13:52:16	5.595	13.202	3.482	86.003	69.402
06/29/2011 13:52:26	5.584	13.205	3.482	86.003	69.604
06/29/2011 13:52:36	5.584	13.238	3.482	85.802	69.801
06/29/2011 13:52:46	5.54	13.275	3.5	85.604	70.102
06/29/2011 13:52:56	5.526	13.257	3.478	85.802	70.102
06/29/2011 13:53:06	5.555	13.202	3.464	85.604	70.102
06/29/2011 13:53:16	5.588	13.242	3.435	85.802	70.102
06/29/2011 13:53:26	5.581	13.224	3.431	86.003	69.801
06/29/2011 13:53:36	5.588	13.22	3.442	86.003	69.604
06/29/2011 13:53:46	5.61	13.187	3.424	86.003	69.402
06/29/2011 13:53:56	5.628	13.165	3.391	85.802	69.801
06/29/2011 13:54:06	5.632	13.18	3.409	86.003	70.102
06/29/2011 13:54:16	5.643	13.136	3.431	86.003	70.102
06/29/2011 13:54:26	5.683	13.085	3.431	86.003	70.102
06/29/2011 13:54:36	5.687	13.139	3.435	86.003	70.102
06/29/2011 13:54:46	5.672	13.106	3.398	86.003	70.102
06/29/2011 13:54:56	5.738	12.96	3.416	86.003	70.102
06/29/2011 13:55:06	5.767	13.095	3.457	85.802	70.102
06/29/2011 13:55:16	5.69	13.114	3.438	85.802	69.904
06/29/2011 13:55:26	5.639	13.18	3.431	86.003	69.801
06/29/2011 13:55:36	5.61	13.165	3.431	85.802	69.604
06/29/2011 13:55:46	5.621	13.154	3.431	85.802	69.402
06/29/2011 13:55:56	5.584	13.249	3.405	85.604	69.604
06/29/2011 13:56:06	5.555	13.202	3.424	85.604	69.604
06/29/2011 13:56:16	5.584	13.154	3.427	86.003	69.604
06/29/2011 13:56:26	5.606	13.231	3.413	86.003	69.604

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 13:56:36	5.57	13.213	3.42	85.802	69.801
06/29/2011 13:56:46	5.588	13.238	3.431	85.802	69.604
06/29/2011 13:56:56	5.584	13.169	3.431	86.003	69.604
06/29/2011 13:57:06	5.632	13.154	3.405	86.003	70.102
06/29/2011 13:57:16	5.632	13.169	3.405	86.003	70.303
06/29/2011 13:57:26	5.603	13.205	3.405	86.102	70.303
06/29/2011 13:57:36	5.581	13.224	3.409	86.003	70.303
06/29/2011 13:57:46	5.599	13.128	3.409	86.003	70.303
06/29/2011 13:57:56	5.658	13.081	3.409	86.303	70.303
06/29/2011 13:58:06	5.654	13.194	3.424	86.505	69.904
06/29/2011 13:58:16	5.592	13.213	3.424	86.904	69.801
06/29/2011 13:58:26	5.559	13.224	3.431	87.003	70.303
06/29/2011 13:58:36	5.584	13.169	3.42	87.003	70.303
06/29/2011 13:58:46	5.639	13.128	3.405	87.003	69.801
06/29/2011 13:58:56	5.665	13.103	3.409	87.003	70.102
06/29/2011 13:59:06	5.636	13.202	3.409	87.204	70.303
06/29/2011 13:59:16	5.537	13.293	3.409	87.003	70.102
06/29/2011 13:59:26	5.544	13.191	3.405	87.204	69.904
06/29/2011 13:59:36	5.603	13.213	3.391	87.204	70.102
06/29/2011 13:59:46	5.603	13.18	3.398	87.402	70.303
06/29/2011 13:59:56	5.584	13.224	3.431	87.204	70.303
06/29/2011 14:00:06	5.518	13.268	3.431	87.402	70.102
06/29/2011 14:00:16	5.504	13.253	3.405	87.402	69.904
06/29/2011 14:00:26	5.573	13.187	3.431	87.402	70.102
06/29/2011 14:00:36	5.581	13.227	3.409	87.402	70.303
06/29/2011 14:00:46	5.566	13.26	3.405	87.402	70.504
06/29/2011 14:00:56	5.537	13.235	3.391	87.402	70.504
06/29/2011 14:01:06	5.518	13.29	3.372	87.402	70.504
06/29/2011 14:01:16	5.5	13.26	3.347	87.402	70.102
06/29/2011 14:01:26	5.555	13.209	3.383	87.003	69.904
06/29/2011 14:01:36	5.61	13.183	3.405	86.904	69.904
06/29/2011 14:01:46	5.665	13.106	3.405	86.702	70.504
06/29/2011 14:01:56	5.679	13.132	3.372	87.003	70.504
06/29/2011 14:02:06	5.658	13.117	3.372	87.003	70.504
06/29/2011 14:02:16	5.617	13.183	3.35	86.904	69.801
06/29/2011 14:02:26	5.592	13.194	3.347	86.904	69.904
06/29/2011 14:02:36	5.592	13.227	3.347	86.702	70.504
06/29/2011 14:02:46	5.584	13.187	3.372	86.904	70.504
06/29/2011 14:02:56	5.592	13.194	3.372	86.904	70.504
06/29/2011 14:03:06	5.61	13.147	3.372	86.904	70.102
06/29/2011 14:03:16	5.621	13.22	3.358	86.904	69.801
06/29/2011 14:03:26	5.573	13.216	3.372	87.003	69.801
06/29/2011 14:03:36	5.559	13.238	3.376	86.904	69.904
06/29/2011 14:03:46	5.592	13.187	3.405	86.904	70.504
06/29/2011 14:03:56	5.617	13.139	3.372	86.904	70.504
06/29/2011 14:04:06	5.672	13.11	3.372	86.904	70.504
06/29/2011 14:04:16	5.69	13.132	3.372	86.702	70.303
06/29/2011 14:04:26	5.654	13.176	3.372	86.702	70.102
06/29/2011 14:04:36	5.632	13.172	3.405	86.904	70.303
06/29/2011 14:04:46	5.625	13.176	3.431	86.904	70.303
06/29/2011 14:04:56	5.617	13.169	3.431	86.904	70.702
06/29/2011 14:05:06	5.581	13.22	3.405	86.904	70.504
06/29/2011 14:05:16	5.577	13.213	3.372	86.904	70.504
06/29/2011 14:05:26	5.588	13.202	3.372	86.904	70.504
06/29/2011 14:05:36	5.599	13.18	3.372	86.904	70.504
06/29/2011 14:05:46	5.636	13.139	3.372	86.904	70.504
06/29/2011 14:05:56	5.636	13.161	3.372	86.702	70.504
06/29/2011 14:06:06	5.639	13.154	3.372	86.904	70.102
06/29/2011 14:06:16	5.636	13.128	3.405	86.702	69.801
06/29/2011 14:06:26	5.658	13.106	3.391	86.702	69.604
06/29/2011 14:06:36	5.643	13.15	3.383	86.702	69.904
06/29/2011 14:06:46	5.614	13.165	3.391	86.702	70.303
06/29/2011 14:06:56	5.614	13.154	3.347	86.904	70.504
06/29/2011 14:07:06	5.647	13.147	3.35	86.702	70.504
06/29/2011 14:07:16	5.639	13.161	3.372	86.702	70.102
06/29/2011 14:07:26	5.632	13.158	3.369	86.505	69.904
06/29/2011 14:07:36	5.625	13.172	3.347	86.505	69.904
06/29/2011 14:07:46	5.614	13.15	3.328	86.702	69.801
06/29/2011 14:07:56	5.621	13.18	3.332	86.702	69.801
06/29/2011 14:08:06	5.621	13.154	3.347	86.702	69.801
06/29/2011 14:08:16	5.592	13.227	3.328	86.702	70.102
06/29/2011 14:08:26	5.581	13.161	3.347	86.702	70.504
06/29/2011 14:08:36	5.592	13.202	3.35	86.505	70.504

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 14:08:46	5.599	13.187	3.369	86.505	69.904
06/29/2011 14:08:56	5.603	13.176	3.358	86.303	69.904
06/29/2011 14:09:06	5.603	13.213	3.372	86.505	70.504
06/29/2011 14:09:16	5.566	13.235	3.372	86.505	70.504
06/29/2011 14:09:26	5.577	13.172	3.372	86.505	69.904
06/29/2011 14:09:36	5.603	13.209	3.372	86.303	69.904
06/29/2011 14:09:46	5.614	13.187	3.372	86.505	69.904
06/29/2011 14:09:56	5.588	13.246	3.372	86.702	70.102
06/29/2011 14:10:06	5.526	13.22	3.369	86.702	70.102
06/29/2011 14:10:16	5.518	13.271	3.332	86.702	70.504
06/29/2011 14:10:26	5.485	13.279	3.343	86.303	70.504
06/29/2011 14:10:36	5.504	13.275	3.358	86.303	70.504
06/29/2011 14:10:46	5.526	13.231	3.405	86.702	70.504
06/29/2011 14:10:56	5.54	13.224	3.372	86.702	70.102
06/29/2011 14:11:06	5.533	13.26	3.358	86.702	70.102
06/29/2011 14:11:16	5.522	13.242	3.343	86.702	70.504
06/29/2011 14:11:26	5.537	13.246	3.328	86.702	70.504
06/29/2011 14:11:36	5.57	13.235	3.306	86.702	69.801
06/29/2011 14:11:46	5.595	13.172	3.336	86.702	70.504
06/29/2011 14:11:56	5.599	13.18	3.347	86.702	70.504
06/29/2011 14:12:06	5.628	13.128	3.347	86.702	69.904
Pause Run 11					
THC Drift Check					
06/29/2011 14:12:16	5.661	13.147	3.468	86.303	69.801
06/29/2011 14:12:26	5.72	12.993	4.302	86.303	70.504
06/29/2011 14:12:36	4.998	1.226	-0.056	86.505	70.702
06/29/2011 14:12:46	1.08	0.417	-0.118	86.303	70.303
06/29/2011 14:12:56	0.109	0.336	-0.121	86.102	70.303
06/29/2011 14:13:06	0.062	0.296	-0.118	86.102	70.702
06/29/2011 14:13:16	0.051	0.27	-0.118	86.505	70.801
06/29/2011 14:13:26	0.04	0.256	-0.103	86.505	70.702
N2 Zero			**-0.113**	**86.371**	**70.735**
06/29/2011 14:13:36	0.098	0.464	41.086	86.702	70.303
06/29/2011 14:13:46	8.492	0.344	49.275	86.702	70.102
06/29/2011 14:13:56	19.23	0.223	49.465	86.702	70.303
06/29/2011 14:14:06	20.493	0.212	49.516	86.702	70.702
06/29/2011 14:14:16	20.588	0.208	49.557	86.702	70.504
06/29/2011 14:14:26	20.625	0.204	49.575	86.303	70.504
06/29/2011 14:14:36	20.643	0.201	49.586	86.102	70.303
06/29/2011 14:14:46	20.658	0.201	49.557	86.102	70.504
49.8 ppm Propane Mid			**49.573**	**86.169**	**70.437**
06/29/2011 14:14:56	20.658	0.204	11.85	86.303	70.504
06/29/2011 14:15:06	16.428	10.993	3.53	86.702	70.504
06/29/2011 14:15:16	7.668	12.824	3.431	86.505	70.303
06/29/2011 14:15:26	5.903	12.945	3.416	86.505	70.504
Resume Run 11					
06/29/2011 14:15:36	5.778	13.052	3.383	86.303	70.504
06/29/2011 14:15:46	5.709	13.103	3.383	86.505	70.102
06/29/2011 14:15:56	5.661	13.099	3.405	86.505	69.801
06/29/2011 14:16:06	5.672	13.077	3.405	86.702	69.604
06/29/2011 14:16:16	5.632	13.205	3.394	86.702	70.303
06/29/2011 14:16:26	5.581	13.209	3.383	86.505	70.303
06/29/2011 14:16:36	5.555	13.242	3.354	86.505	69.604
06/29/2011 14:16:46	5.507	13.26	3.372	86.505	69.904
06/29/2011 14:16:56	5.482	13.29	3.372	86.702	70.303
06/29/2011 14:17:06	5.522	13.191	3.347	86.702	69.801
06/29/2011 14:17:16	5.566	13.205	3.321	86.505	69.904
06/29/2011 14:17:26	5.555	13.198	3.321	86.702	70.303
06/29/2011 14:17:36	5.551	13.235	3.325	86.505	69.904
06/29/2011 14:17:46	5.562	13.169	3.347	86.505	69.604
06/29/2011 14:17:56	5.544	13.279	3.343	86.303	70.102
06/29/2011 14:18:06	5.496	13.271	3.347	86.303	70.303
06/29/2011 14:18:16	5.518	13.22	3.321	86.303	69.801
06/29/2011 14:18:26	5.533	13.253	3.347	86.102	69.604
06/29/2011 14:18:36	5.504	13.264	3.347	86.102	70.102
06/29/2011 14:18:46	5.515	13.22	3.358	86.303	70.102
06/29/2011 14:18:56	5.515	13.279	3.321	86.303	69.402
06/29/2011 14:19:06	5.511	13.26	3.347	86.505	69.604
06/29/2011 14:19:16	5.482	13.29	3.347	86.505	70.102
06/29/2011 14:19:26	5.449	13.33	3.347	86.505	70.102
06/29/2011 14:19:36	5.482	13.227	3.372	86.702	69.604
06/29/2011 14:19:46	5.518	13.279	3.354	86.702	69.604
06/29/2011 14:19:56	5.478	13.308	3.321	86.505	69.904

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 14:20:06	5.522	13.198	3.321	86.505	70.303
06/29/2011 14:20:16	5.584	13.216	3.295	86.904	70.303
06/29/2011 14:20:26	5.562	13.213	3.306	86.904	69.904
06/29/2011 14:20:36	5.577	13.235	3.321	86.702	69.604
06/29/2011 14:20:46	5.551	13.216	3.321	86.702	69.604
06/29/2011 14:20:56	5.57	13.169	3.321	86.702	69.801
06/29/2011 14:21:06	5.617	13.213	3.325	86.904	69.801
06/29/2011 14:21:16	5.577	13.213	3.361	87.204	69.801
06/29/2011 14:21:26	5.551	13.257	3.358	87.003	69.801
06/29/2011 14:21:36	5.504	13.315	3.522	87.204	69.801
06/29/2011 14:21:46	5.485	13.264	3.548	87.003	69.801
06/29/2011 14:21:56	5.537	13.242	3.482	87.003	69.604
06/29/2011 14:22:06	5.551	13.18	3.457	86.904	69.801
06/29/2011 14:22:16	5.577	13.194	3.446	87.003	69.604
06/29/2011 14:22:26	5.544	13.268	3.438	86.904	69.801
06/29/2011 14:22:36	5.548	13.143	3.457	87.003	70.102
06/29/2011 14:22:46	5.599	13.213	3.42	87.204	70.303
06/29/2011 14:22:56	5.61	13.128	3.449	87.204	70.303
06/29/2011 14:23:06	5.606	13.198	3.416	87.204	69.604
06/29/2011 14:23:16	5.584	13.154	3.424	87.003	69.801
06/29/2011 14:23:26	5.603	13.194	3.405	87.204	70.303
06/29/2011 14:23:36	5.562	13.271	3.424	87.603	69.904
06/29/2011 14:23:46	5.482	13.29	3.431	87.603	70.504
06/29/2011 14:23:56	5.507	13.227	3.431	87.805	70.504
06/29/2011 14:24:06	5.566	13.216	3.405	87.904	70.102
06/29/2011 14:24:16	5.581	13.191	3.38	87.904	70.504
06/29/2011 14:24:26	5.581	13.183	3.372	87.904	70.702
06/29/2011 14:24:36	5.61	13.191	3.347	87.805	70.702
06/29/2011 14:24:46	5.577	13.213	3.339	87.805	70.702
06/29/2011 14:24:56	5.526	13.304	3.321	87.603	70.504
06/29/2011 14:25:06	5.485	13.29	3.306	87.402	70.303
06/29/2011 14:25:16	5.526	13.205	3.303	87.805	70.303
06/29/2011 14:25:26	5.599	13.136	3.343	87.904	70.504
06/29/2011 14:25:36	5.625	13.205	3.347	87.805	70.702
06/29/2011 14:25:46	5.581	13.176	3.347	87.805	70.801
06/29/2011 14:25:56	5.625	13.158	3.35	87.904	70.702
06/29/2011 14:26:06	5.647	13.161	3.347	88.105	70.702
06/29/2011 14:26:16	5.617	13.143	3.347	88.105	70.702
06/29/2011 14:26:26	5.566	13.293	3.339	88.105	70.102
06/29/2011 14:26:36	5.522	13.238	3.347	88.105	69.904
06/29/2011 14:26:46	5.548	13.242	3.325	88.105	70.504
06/29/2011 14:26:56	5.537	13.238	3.325	88.105	70.801
06/29/2011 14:27:06	5.599	13.187	3.347	87.904	70.303
06/29/2011 14:27:16	5.647	13.128	3.321	87.904	70.102
06/29/2011 14:27:26	5.683	13.121	3.306	88.105	70.801
06/29/2011 14:27:36	5.694	13.106	3.321	88.105	70.504
06/29/2011 14:27:46	5.654	13.187	3.321	87.805	70.504
06/29/2011 14:27:56	5.588	13.238	3.321	87.805	71.003
06/29/2011 14:28:06	5.537	13.279	3.292	87.402	70.303
06/29/2011 14:28:16	5.544	13.194	3.314	87.204	70.504
06/29/2011 14:28:26	5.584	13.183	3.321	87.402	71.003
06/29/2011 14:28:36	5.599	13.194	3.321	87.603	71.003
06/29/2011 14:28:46	5.581	13.18	3.321	87.603	70.504
06/29/2011 14:28:56	5.584	13.205	3.317	87.805	70.702
06/29/2011 14:29:06	5.636	13.077	3.321	87.805	71.003
06/29/2011 14:29:16	5.676	13.114	3.321	87.805	71.204
06/29/2011 14:29:26	5.639	13.128	3.321	87.805	71.003
06/29/2011 14:29:36	5.592	13.202	3.306	87.603	70.702
06/29/2011 14:29:46	5.548	13.246	3.321	87.402	70.504
06/29/2011 14:29:56	5.559	13.15	3.321	87.204	70.702
06/29/2011 14:30:06	5.57	13.279	3.321	87.402	70.702
06/29/2011 14:30:16	5.485	13.282	3.347	87.204	71.003
06/29/2011 14:30:26	5.511	13.22	3.347	86.505	71.204
06/29/2011 14:30:36	5.566	13.231	3.295	86.904	71.003
06/29/2011 14:30:46	5.577	13.176	3.306	86.904	71.003
06/29/2011 14:30:56	5.603	13.158	3.306	86.904	71.003
06/29/2011 14:31:06	5.614	13.194	3.295	87.204	71.003
06/29/2011 14:31:16	5.606	13.139	3.292	87.402	71.003
06/29/2011 14:31:26	5.617	13.187	3.303	87.805	71.204
06/29/2011 14:31:36	5.54	13.297	3.292	87.805	71.204
06/29/2011 14:31:46	5.548	13.198	3.321	87.603	70.801
06/29/2011 14:31:56	5.599	13.205	3.292	87.402	70.504
06/29/2011 14:32:06	5.632	13.121	3.292	87.805	71.204

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 14:32:16	5.694	13.03	3.314	87.805	70.504
06/29/2011 14:32:26	5.701	13.158	3.303	87.805	71.204
06/29/2011 14:32:36	5.544	13.304	3.295	87.603	70.702
06/29/2011 14:32:46	5.511	13.209	3.295	87.603	71.204
06/29/2011 14:32:56	5.533	13.257	3.317	87.603	70.702
06/29/2011 14:33:06	5.526	13.257	3.303	87.603	71.204
06/29/2011 14:33:16	5.537	13.227	3.273	87.603	70.702
06/29/2011 14:33:26	5.584	13.183	3.27	87.603	71.003
06/29/2011 14:33:36	5.577	13.227	3.295	87.603	71.204
06/29/2011 14:33:46	5.581	13.176	3.299	87.603	71.003
06/29/2011 14:33:56	5.643	13.077	3.321	87.402	70.702
06/29/2011 14:34:06	5.647	13.18	3.273	87.402	71.003
06/29/2011 14:34:16	5.632	13.081	3.266	87.003	71.204
06/29/2011 14:34:26	5.676	13.143	3.266	86.904	71.204
06/29/2011 14:34:36	5.683	13.081	3.266	87.003	70.702
06/29/2011 14:34:46	5.709	13.03	3.299	87.003	70.702
06/29/2011 14:34:56	5.727	13.114	3.295	87.204	71.204
06/29/2011 14:35:06	5.694	13.114	3.27	87.402	71.402
06/29/2011 14:35:16	5.661	13.15	3.292	87.003	71.204
06/29/2011 14:35:26	5.625	13.216	3.284	87.204	71.402
06/29/2011 14:35:36	5.614	13.143	3.27	87.204	71.204
06/29/2011 14:35:46	5.625	13.114	3.248	87.204	71.204
06/29/2011 14:35:56	5.647	13.139	3.244	87.402	70.801
06/29/2011 14:36:06	5.658	13.074	3.266	87.402	70.801
06/29/2011 14:36:16	5.712	13.095	3.295	87.603	70.801
06/29/2011 14:36:26	5.698	13.081	3.284	87.603	70.801
06/29/2011 14:36:36	5.727	13.041	3.295	87.805	70.702
06/29/2011 14:36:46	5.698	13.169	3.299	87.805	70.702
06/29/2011 14:36:56	5.603	13.242	3.321	87.402	70.702
06/29/2011 14:37:06	5.566	13.202	3.321	87.204	70.702
06/29/2011 14:37:16	5.588	13.202	3.295	87.204	70.702
06/29/2011 14:37:26	5.599	13.22	3.266	87.003	70.801
06/29/2011 14:37:36	5.577	13.224	3.266	87.204	71.204
06/29/2011 14:37:46	5.559	13.242	3.27	87.204	71.204
06/29/2011 14:37:56	5.584	13.183	3.27	87.402	71.204
06/29/2011 14:38:06	5.61	13.205	3.262	87.603	71.204
06/29/2011 14:38:16	5.581	13.238	3.277	87.603	71.204
06/29/2011 14:38:26	5.566	13.202	3.299	87.603	71.204
06/29/2011 14:38:36	5.654	13.077	3.281	87.603	71.204
06/29/2011 14:38:46	5.745	13.019	3.244	87.402	70.801
06/29/2011 14:38:56	5.775	13.048	3.233	87.204	70.801
06/29/2011 14:39:06	5.723	13.121	3.244	87.003	70.702
06/29/2011 14:39:16	5.683	13.147	3.244	87.402	70.702
06/29/2011 14:39:26	5.603	13.213	3.226	87.402	70.702
06/29/2011 14:39:36	5.533	13.26	3.244	87.204	70.702
06/29/2011 14:39:46	5.548	13.194	3.259	87.204	70.702
06/29/2011 14:39:56	5.57	13.22	3.295	87.402	70.702
06/29/2011 14:40:06	5.562	13.183	3.295	87.402	70.801
06/29/2011 14:40:16	5.57	13.216	3.27	87.402	71.003
06/29/2011 14:40:26	5.573	13.176	3.248	87.603	71.204
06/29/2011 14:40:36	5.581	13.18	3.244	87.204	71.402
06/29/2011 14:40:46	5.562	13.22	3.244	87.402	71.402
06/29/2011 14:40:56	5.537	13.264	3.244	87.402	71.402
06/29/2011 14:41:06	5.522	13.235	3.244	87.204	71.204
06/29/2011 14:41:16	5.533	13.231	3.244	87.003	71.003
06/29/2011 14:41:26	5.599	13.136	3.215	87.204	70.801
06/29/2011 14:41:36	5.672	13.15	3.2	87.204	71.003
06/29/2011 14:41:46	5.658	13.165	3.189	87.402	71.204
06/29/2011 14:41:56	5.614	13.172	3.193	87.603	71.204
06/29/2011 14:42:06	5.658	13.121	3.215	87.805	71.402
06/29/2011 14:42:16	5.669	13.143	3.215	87.805	71.204
06/29/2011 14:42:26	5.654	13.121	3.215	87.603	71.204
06/29/2011 14:42:36	5.683	13.121	3.244	87.402	71.003
06/29/2011 14:42:46	5.687	13.11	3.244	87.402	70.702
06/29/2011 14:42:56	5.72	13.052	3.244	87.204	70.702
06/29/2011 14:43:06	5.72	13.128	3.266	87.003	70.801
06/29/2011 14:43:16	5.712	13.07	3.266	86.904	70.801
06/29/2011 14:43:26	5.727	13.085	3.255	86.904	71.204
06/29/2011 14:43:36	5.69	13.132	3.226	86.904	71.402
06/29/2011 14:43:46	5.669	13.11	3.229	87.003	71.402
06/29/2011 14:43:56	5.683	13.121	3.244	87.003	71.204
06/29/2011 14:44:06	5.636	13.194	3.244	87.003	71.204
06/29/2011 14:44:16	5.573	13.209	3.244	87.003	71.204

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 14:44:26	5.573	13.227	3.244	86.702	71.204
06/29/2011 14:44:36	5.551	13.26	3.248	86.904	71.204
06/29/2011 14:44:46	5.548	13.202	3.244	86.904	71.003
06/29/2011 14:44:56	5.581	13.205	3.244	86.904	71.204
Pause Run 11					
THC Drift Check					
06/29/2011 14:45:06	5.595	13.165	6.013	86.702	71.603
06/29/2011 14:45:16	5.233	1.746	-0.067	86.702	71.702
06/29/2011 14:45:26	1.406	0.446	-0.096	86.702	71.702
06/29/2011 14:45:36	0.12	0.355	-0.118	86.904	71.903
06/29/2011 14:45:46	0.062	0.311	-0.118	86.904	71.903
06/29/2011 14:45:56	0.047	0.281	-0.143	86.904	71.903
06/29/2011 14:46:06	0.04	0.263	-0.14	86.702	71.702
06/29/2011 14:46:16	0.032	0.248	-0.143	86.505	71.603
06/29/2011 14:46:26	0.032	0.241	-0.143	86.505	71.402
06/29/2011 14:46:36	0.029	0.23	-0.143	86.702	71.204
06/29/2011 14:46:46	0.025	0.223	-0.14	86.702	71.204
06/29/2011 14:46:56	0.025	0.219	-0.118	86.505	71.003
06/29/2011 14:47:06	0.021	0.212	-0.143	86.505	71.003
N2 Zero			**-0.134**	**86.571**	**71.070**
06/29/2011 14:47:16	0.021	0.212	27.184	86.702	71.402
06/29/2011 14:47:26	5.222	0.6	48.996	86.702	71.702
06/29/2011 14:47:36	17.593	0.208	49.414	86.702	71.603
06/29/2011 14:47:46	20.398	0.201	49.472	86.702	71.003
06/29/2011 14:47:56	20.563	0.197	49.494	86.702	71.003
06/29/2011 14:48:06	20.599	0.197	49.524	86.904	71.402
06/29/2011 14:48:16	20.621	0.193	49.535	86.904	71.603
06/29/2011 14:48:26	20.64	0.193	49.524	86.904	71.402
06/29/2011 14:48:36	20.651	0.193	49.527	86.904	71.003
49.8 ppm Propane Mid			**49.529**	**86.904**	**71.336**
06/29/2011 14:48:46	20.658	0.197	49.37	86.702	70.801
06/29/2011 14:48:56	20.614	0.34	7.28	86.702	70.801
06/29/2011 14:49:06	14.725	12.158	3.398	86.904	71.003
Resume Run 11					
06/29/2011 14:49:16	6.756	12.898	3.325	86.904	71.003
06/29/2011 14:49:26	5.833	12.975	3.295	87.003	71.204
06/29/2011 14:49:36	5.764	12.978	3.295	87.003	71.003
06/29/2011 14:49:46	5.782	12.949	3.295	86.904	71.003
06/29/2011 14:49:56	5.775	13.041	3.27	87.003	70.801
06/29/2011 14:50:06	5.72	13.066	3.244	86.904	70.504
06/29/2011 14:50:16	5.687	13.106	3.24	86.904	70.504
06/29/2011 14:50:26	5.676	13.088	3.24	87.003	70.801
06/29/2011 14:50:36	5.694	13.052	3.244	86.904	71.003
06/29/2011 14:50:46	5.727	13.019	3.244	86.904	71.003
06/29/2011 14:50:56	5.701	13.077	3.215	86.904	70.702
06/29/2011 14:51:06	5.661	13.092	3.251	86.702	70.303
06/29/2011 14:51:16	5.658	13.103	3.266	86.303	70.303
06/29/2011 14:51:26	5.661	13.092	3.248	86.102	70.504
06/29/2011 14:51:36	5.654	13.114	3.244	86.303	70.801
06/29/2011 14:51:46	5.621	13.154	3.248	86.303	70.801
06/29/2011 14:51:56	5.57	13.209	3.266	86.505	70.801
06/29/2011 14:52:06	5.559	13.205	3.244	86.303	70.801
06/29/2011 14:52:16	5.577	13.154	3.237	86.505	70.702
06/29/2011 14:52:26	5.603	13.161	3.244	86.702	70.303
06/29/2011 14:52:36	5.61	13.132	3.215	86.904	70.303
06/29/2011 14:52:46	5.632	13.139	3.207	86.702	70.303
06/29/2011 14:52:56	5.603	13.187	3.244	86.702	70.504
06/29/2011 14:53:06	5.584	13.205	3.244	86.702	70.504
06/29/2011 14:53:16	5.581	13.191	3.244	86.904	70.702
06/29/2011 14:53:26	5.606	13.136	3.215	86.702	70.801
06/29/2011 14:53:36	5.632	13.143	3.233	86.702	70.801
06/29/2011 14:53:46	5.603	13.161	3.215	86.904	70.801
06/29/2011 14:53:56	5.603	13.165	3.244	86.904	70.504
06/29/2011 14:54:06	5.628	13.136	3.244	86.904	70.504
06/29/2011 14:54:16	5.636	13.176	3.266	87.003	71.003
06/29/2011 14:54:26	5.617	13.161	3.266	87.003	71.003
06/29/2011 14:54:36	5.625	13.172	3.292	86.904	70.702
06/29/2011 14:54:46	5.628	13.147	3.339	86.904	70.504
06/29/2011 14:54:56	5.625	13.143	3.599	86.904	70.504
06/29/2011 14:55:06	5.636	13.158	3.577	86.904	70.702
06/29/2011 14:55:16	5.614	13.15	3.457	86.904	71.003
06/29/2011 14:55:26	5.584	13.194	3.38	86.904	70.801
06/29/2011 14:55:36	5.57	13.187	3.347	86.904	70.801

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 14:55:46	5.599	13.139	3.361	87.003	70.801
06/29/2011 14:55:56	5.606	13.169	3.361	87.003	70.801
06/29/2011 14:56:06	5.577	13.191	3.347	86.904	70.801
06/29/2011 14:56:16	5.562	13.176	3.347	86.904	70.801
06/29/2011 14:56:26	5.555	13.22	3.339	86.904	71.003
06/29/2011 14:56:36	5.54	13.227	3.328	86.904	70.801
06/29/2011 14:56:46	5.551	13.187	3.347	87.003	70.504
06/29/2011 14:56:56	5.599	13.136	3.347	86.904	70.504
06/29/2011 14:57:06	5.636	13.088	3.347	86.904	70.303
06/29/2011 14:57:16	5.661	13.114	3.321	86.904	70.504
06/29/2011 14:57:26	5.669	13.095	3.284	86.904	70.504
06/29/2011 14:57:36	5.669	13.103	3.277	86.904	70.504
06/29/2011 14:57:46	5.65	13.15	3.295	86.904	70.801
06/29/2011 14:57:56	5.621	13.143	3.288	87.003	70.801
06/29/2011 14:58:06	5.636	13.11	3.259	87.204	70.801
06/29/2011 14:58:16	5.683	13.055	3.248	87.003	70.801
06/29/2011 14:58:26	5.734	13.037	3.244	87.204	70.303
06/29/2011 14:58:36	5.698	13.099	3.244	87.204	70.303
06/29/2011 14:58:46	5.658	13.147	3.244	87.003	70.102
06/29/2011 14:58:56	5.625	13.165	3.266	87.204	70.702
06/29/2011 14:59:06	5.588	13.183	3.288	87.402	71.003
06/29/2011 14:59:16	5.562	13.238	3.266	87.402	71.003
06/29/2011 14:59:26	5.551	13.213	3.295	87.204	70.801
06/29/2011 14:59:36	5.588	13.172	3.27	87.204	70.303
06/29/2011 14:59:46	5.599	13.183	3.288	87.204	70.102
06/29/2011 14:59:56	5.581	13.198	3.295	87.204	70.801
06/29/2011 15:00:06	5.588	13.187	3.266	87.603	71.003
06/29/2011 15:00:16	5.625	13.172	3.266	87.603	70.303
06/29/2011 15:00:26	5.625	13.15	3.244	87.603	70.504
06/29/2011 15:00:36	5.647	13.117	3.244	87.603	71.003
06/29/2011 15:00:46	5.603	13.22	3.244	87.402	70.504
06/29/2011 15:00:56	5.57	13.187	3.266	87.603	70.102
06/29/2011 15:01:06	5.584	13.224	3.295	87.603	70.801
06/29/2011 15:01:16	5.559	13.224	3.262	87.402	71.003
06/29/2011 15:01:26	5.577	13.136	3.347	87.603	70.702
06/29/2011 15:01:36	5.698	12.986	3.244	87.603	70.303
06/29/2011 15:01:46	5.808	12.964	3.251	87.603	71.003
06/29/2011 15:01:56	5.848	12.931	3.27	87.603	70.702
06/29/2011 15:02:06	5.855	12.975	3.229	87.603	70.303
06/29/2011 15:02:16	5.863	12.85	3.211	87.805	70.801
06/29/2011 15:02:26	5.932	12.883	3.186	87.805	71.003
06/29/2011 15:02:36	5.918	12.828	3.211	87.402	71.003
06/29/2011 15:02:46	5.929	12.846	3.222	87.603	70.504
06/29/2011 15:02:56	5.903	12.967	3.215	87.603	70.303
06/29/2011 15:03:06	5.808	12.967	3.2	87.603	71.003
06/29/2011 15:03:16	5.778	13.011	3.186	87.402	71.003
06/29/2011 15:03:26	5.778	12.982	3.189	87.603	70.303
06/29/2011 15:03:36	5.797	13.044	3.186	87.805	70.504
06/29/2011 15:03:46	5.775	12.949	3.182	87.603	71.003
06/29/2011 15:03:56	5.822	12.945	3.189	87.402	70.702
06/29/2011 15:04:06	5.76	13.106	3.167	87.402	70.303
06/29/2011 15:04:16	5.679	13.092	3.167	87.603	70.702
06/29/2011 15:04:26	5.698	13.037	3.186	87.402	71.003
06/29/2011 15:04:36	5.745	12.975	3.171	87.402	70.702
06/29/2011 15:04:46	5.808	12.975	3.193	87.402	70.303
06/29/2011 15:04:56	5.749	13.074	3.171	87.003	70.702
06/29/2011 15:05:06	5.716	12.975	3.167	87.204	71.003
06/29/2011 15:05:16	5.712	13.103	3.149	87.402	70.702
06/29/2011 15:05:26	5.712	13.019	3.189	87.204	70.303
06/29/2011 15:05:36	5.789	12.964	3.197	87.204	70.303
06/29/2011 15:05:46	5.841	12.923	3.189	87.402	71.003
06/29/2011 15:05:56	5.852	12.971	3.215	87.402	70.801
06/29/2011 15:06:06	5.804	13	3.189	87.603	70.801
06/29/2011 15:06:16	5.793	13.011	3.189	87.204	70.303
06/29/2011 15:06:26	5.811	12.949	3.207	87.204	70.303
06/29/2011 15:06:36	5.808	13.008	3.189	87.003	70.504
06/29/2011 15:06:46	5.764	13.052	3.167	87.003	71.003
06/29/2011 15:06:56	5.789	12.993	3.189	86.904	70.801
06/29/2011 15:07:06	5.76	13.081	3.171	87.402	70.801
06/29/2011 15:07:16	5.742	13.026	3.167	87.003	70.504
06/29/2011 15:07:26	5.789	12.978	3.153	86.904	70.303
06/29/2011 15:07:36	5.833	12.901	3.189	87.003	70.504
06/29/2011 15:07:46	5.782	13.088	3.167	87.003	70.801

URS CEMs Raw Data
June 29, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 15:07:56	5.72	13.044	3.167	87.204	71.003
06/29/2011 15:08:06	5.767	12.982	3.189	87.003	71.003
06/29/2011 15:08:16	5.731	13.026	3.175	87.003	70.801
06/29/2011 15:08:26	5.727	13.008	3.167	87.003	70.504
06/29/2011 15:08:36	5.749	12.982	3.182	86.904	70.303
06/29/2011 15:08:46	5.764	13.008	3.167	86.904	70.102
06/29/2011 15:08:56	5.742	13.026	3.189	86.904	70.702
06/29/2011 15:09:06	5.672	13.092	3.229	86.904	70.801
06/29/2011 15:09:16	5.679	13.081	3.222	86.904	70.801
06/29/2011 15:09:26	5.676	13.114	3.215	86.702	71.003
06/29/2011 15:09:36	5.679	13.081	3.215	86.904	70.702
06/29/2011 15:09:46	5.69	13.092	3.244	86.904	70.303
06/29/2011 15:09:56	5.705	13.125	3.215	86.702	70.801
06/29/2011 15:10:06	5.669	13.15	3.204	86.505	70.504
06/29/2011 15:10:16	5.727	12.934	3.193	86.702	70.801
06/29/2011 15:10:26	5.782	13.044	3.189	86.702	70.504
06/29/2011 15:10:36	5.749	13.041	3.189	86.904	70.801
06/29/2011 15:10:46	5.727	13.103	3.189	86.702	70.303
06/29/2011 15:10:56	5.709	13.059	3.178	86.702	71.003
06/29/2011 15:11:06	5.738	13.022	3.186	86.303	70.303
06/29/2011 15:11:16	5.753	13.059	3.167	86.505	71.003
06/29/2011 15:11:26	5.775	12.971	3.167	86.702	70.303
06/29/2011 15:11:36	5.808	12.997	3.204	86.904	71.003
06/29/2011 15:11:46	5.767	13.066	3.186	86.904	70.303
06/29/2011 15:11:56	5.8	12.905	3.186	86.904	70.801
06/29/2011 15:12:06	5.848	12.938	3.182	86.904	71.003
06/29/2011 15:12:16	5.819	13.011	3.189	86.904	70.303
06/29/2011 15:12:26	5.771	13.092	3.215	86.505	70.504
06/29/2011 15:12:36	5.742	13.055	3.229	86.702	71.003
06/29/2011 15:12:46	5.745	13.004	3.197	86.904	71.003
06/29/2011 15:12:56	5.778	12.887	3.193	86.702	71.003
06/29/2011 15:13:06	5.888	12.879	3.193	86.505	70.801
06/29/2011 15:13:16	5.877	12.872	3.24	86.303	70.801
06/29/2011 15:13:26	5.892	12.96	3.244	86.505	70.504
06/29/2011 15:13:36	5.756	13.139	3.244	86.505	70.504
06/29/2011 15:13:46	5.647	13.074	3.193	86.505	70.702
06/29/2011 15:13:56	5.698	13.026	3.189	86.505	71.003
06/29/2011 15:14:06	5.698	13.125	3.207	86.702	71.003
06/29/2011 15:14:16	5.636	13.147	3.2	86.702	70.702
06/29/2011 15:14:26	5.632	13.158	3.222	86.702	70.303
06/29/2011 15:14:36	5.636	13.106	3.222	86.702	70.303
06/29/2011 15:14:46	5.705	12.993	3.215	86.904	70.702
06/29/2011 15:14:56	5.8	12.949	3.222	86.904	70.801
06/29/2011 15:15:06	5.771	13.095	3.215	86.904	71.003
06/29/2011 15:15:16	5.738	12.971	3.215	86.904	70.702
06/29/2011 15:15:26	5.815	13.019	3.189	87.003	70.102
06/29/2011 15:15:36	5.767	13.037	3.175	86.904	70.303
06/29/2011 15:15:46	5.782	12.949	3.189	86.904	70.702
06/29/2011 15:15:56	5.742	13.121	3.215	86.904	71.003
06/29/2011 15:16:06	5.709	13.048	3.222	86.904	70.801
06/29/2011 15:16:16	5.734	13.037	3.244	86.904	70.504
06/29/2011 15:16:26	5.742	13.044	3.222	86.904	70.303
06/29/2011 15:16:36	5.734	13.026	3.189	86.904	70.702
06/29/2011 15:16:46	5.793	12.909	3.215	86.904	71.003
06/29/2011 15:16:56	5.8	13.019	3.251	86.904	70.504
06/29/2011 15:17:06	5.727	13.066	3.244	86.904	70.303
06/29/2011 15:17:16	5.756	12.975	3.266	86.904	70.801
06/29/2011 15:17:26	5.811	13.015	3.244	86.904	70.702
06/29/2011 15:17:36	5.811	12.945	3.215	86.904	70.303
06/29/2011 15:17:46	5.764	13.088	3.215	86.904	70.801
06/29/2011 15:17:56	5.705	13	3.215	86.904	70.303
06/29/2011 15:18:06	5.731	13.048	3.207	86.904	70.801
06/29/2011 15:18:16	5.789	12.868	3.215	86.505	70.303
06/29/2011 15:18:26	5.914	12.901	3.211	86.702	70.702
06/29/2011 15:18:36	5.892	12.868	3.229	87.003	70.801
06/29/2011 15:18:46	5.852	13.015	3.215	87.204	70.303
06/29/2011 15:18:56	5.778	13	3.2	87.402	70.702
06/29/2011 15:19:06	5.83	12.89	3.237	87.402	70.801
06/29/2011 15:19:16	5.833	13.026	3.215	87.204	70.504
06/29/2011 15:19:26	5.786	12.989	3.186	87.003	70.303
06/29/2011 15:19:36	5.808	12.975	3.2	87.003	70.702
06/29/2011 15:19:46	5.819	13.015	3.171	87.204	71.003
06/29/2011 15:19:56	5.819	12.953	3.189	87.003	71.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 15:20:06	5.771	13.059	3.189	87.003	71.003
06/29/2011 15:20:16	5.786	13.008	3.189	86.904	70.801
06/29/2011 15:20:26	5.771	12.975	3.189	87.003	71.003
06/29/2011 15:20:36	5.822	12.934	3.167	86.904	71.003
06/29/2011 15:20:46	5.83	12.964	3.164	86.904	71.003
06/29/2011 15:20:56	5.749	13.059	3.167	86.904	70.702
06/29/2011 15:21:06	5.716	13.022	3.186	87.402	70.303
06/29/2011 15:21:16	5.764	12.971	3.167	87.204	70.702
06/29/2011 15:21:26	5.782	13	3.182	87.003	71.003
06/29/2011 15:21:36	5.76	13.015	3.167	87.003	70.504
06/29/2011 15:21:46	5.731	13.011	3.167	86.904	70.504
06/29/2011 15:21:56	5.72	13.044	3.167	87.003	71.003
06/29/2011 15:22:06	5.731	13.052	3.189	86.702	70.504
06/29/2011 15:22:16	5.676	13.128	3.204	86.904	70.504
06/29/2011 15:22:26	5.606	13.169	3.211	86.904	71.003
06/29/2011 15:22:36	5.603	13.169	3.189	87.003	70.303
06/29/2011 15:22:46	5.632	13.132	3.204	87.003	71.003
06/29/2011 15:22:56	5.632	13.169	3.215	87.402	70.702
06/29/2011 15:23:06	5.592	13.191	3.222	87.204	70.504
06/29/2011 15:23:16	5.588	13.176	3.211	86.904	70.801
06/29/2011 15:23:26	5.592	13.172	3.211	86.904	70.504
06/29/2011 15:23:36	5.617	13.143	3.244	86.702	70.303
06/29/2011 15:23:46	5.592	13.209	3.27	86.904	70.303
06/29/2011 15:23:56	5.57	13.187	3.244	86.904	70.504
06/29/2011 15:24:06	5.592	13.194	3.259	86.904	70.702
06/29/2011 15:24:16	5.599	13.165	3.266	86.904	71.003
06/29/2011 15:24:26	5.584	13.161	3.262	86.904	71.003
06/29/2011 15:24:36	5.57	13.216	3.244	87.003	70.504
06/29/2011 15:24:46	5.551	13.246	3.251	87.003	70.702
06/29/2011 15:24:56	5.511	13.249	3.244	86.904	70.801
06/29/2011 15:25:06	5.511	13.231	3.387	86.904	71.003
06/29/2011 15:25:16	5.544	13.154	3.482	86.904	71.003
06/29/2011 15:25:26	5.639	13.132	3.416	86.904	70.702
06/29/2011 15:25:36	5.592	13.198	3.347	86.904	70.504
06/29/2011 15:25:46	5.588	13.106	3.347	86.904	70.702
06/29/2011 15:25:56	5.577	13.202	3.347	86.904	70.504
06/29/2011 15:26:06	5.544	13.213	3.372	87.003	71.003
06/29/2011 15:26:16	5.518	13.282	3.365	87.003	71.003
06/29/2011 15:26:26	5.529	13.158	3.372	86.904	70.702
06/29/2011 15:26:36	5.588	13.213	3.343	86.904	70.702
06/29/2011 15:26:46	5.628	13.088	3.325	87.003	70.801
06/29/2011 15:26:56	5.676	13.117	3.321	87.204	71.003
06/29/2011 15:27:06	5.69	13.037	3.317	87.003	71.003
06/29/2011 15:27:16	5.771	12.989	3.361	86.904	70.702
06/29/2011 15:27:26	5.679	13.187	3.35	86.904	70.702
06/29/2011 15:27:36	5.562	13.205	3.372	86.904	70.702
06/29/2011 15:27:46	5.577	13.191	3.347	86.904	70.801
06/29/2011 15:27:56	5.595	13.187	3.328	86.904	71.003
06/29/2011 15:28:06	5.617	13.092	3.325	86.702	71.003
06/29/2011 15:28:16	5.672	13.074	3.295	86.702	70.504
06/29/2011 15:28:26	5.705	13.081	3.321	86.904	70.504
06/29/2011 15:28:36	5.614	13.249	3.321	86.904	71.003
06/29/2011 15:28:46	5.511	13.26	3.288	86.904	70.801
06/29/2011 15:28:56	5.562	13.103	3.295	86.904	70.504
06/29/2011 15:29:06	5.661	13.125	3.284	86.904	70.303
06/29/2011 15:29:16	5.632	13.154	3.281	86.702	70.504
06/29/2011 15:29:26	5.643	13.169	3.299	86.702	70.801
06/29/2011 15:29:36	5.61	13.176	3.295	86.702	70.801
06/29/2011 15:29:46	5.581	13.18	3.299	86.505	70.801
06/29/2011 15:29:56	5.621	13.136	3.266	86.505	70.801
06/29/2011 15:30:06	5.599	13.213	3.288	86.505	70.504
06/29/2011 15:30:16	5.559	13.216	3.27	86.505	70.504
06/29/2011 15:30:26	5.577	13.136	3.281	86.505	70.303
06/29/2011 15:30:36	5.665	13.085	3.255	86.303	70.504
06/29/2011 15:30:46	5.705	13.026	3.266	86.505	70.801
06/29/2011 15:30:56	5.694	13.176	3.27	86.702	71.003
06/29/2011 15:31:06	5.61	13.191	3.295	86.702	70.504
06/29/2011 15:31:16	5.588	13.194	3.27	86.904	71.003
06/29/2011 15:31:26	5.676	13.03	3.248	86.904	70.504
06/29/2011 15:31:36	5.789	13.008	3.266	86.904	70.801
06/29/2011 15:31:46	5.745	13.033	3.27	86.702	70.504
06/29/2011 15:31:56	5.701	13.143	3.244	86.904	70.801
06/29/2011 15:32:06	5.647	13.103	3.244	86.904	70.303

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 15:32:16	5.676	13.103	3.248	86.702	71.003
06/29/2011 15:32:26	5.69	13.055	3.292	86.702	70.504
06/29/2011 15:32:36	5.65	13.209	3.248	86.904	71.003
06/29/2011 15:32:46	5.551	13.242	3.24	86.904	70.303
06/29/2011 15:32:56	5.559	13.176	3.24	86.904	70.801
06/29/2011 15:33:06	5.606	13.18	3.27	86.904	70.504
06/29/2011 15:33:16	5.617	13.216	3.266	86.904	70.504
06/29/2011 15:33:26	5.522	13.315	3.237	86.505	70.801
06/29/2011 15:33:36	5.533	13.161	3.244	86.505	70.702
06/29/2011 15:33:46	5.606	13.216	3.266	86.505	70.504
06/29/2011 15:33:56	5.588	13.22	3.248	86.505	70.303
06/29/2011 15:34:06	5.566	13.249	3.244	86.702	70.504
06/29/2011 15:34:16	5.526	13.249	3.284	86.102	70.303
06/29/2011 15:34:26	5.573	13.169	3.295	86.303	70.801
06/29/2011 15:34:36	5.654	13.132	3.295	86.702	70.801
06/29/2011 15:34:46	5.683	13.121	3.321	86.702	70.303
06/29/2011 15:34:56	5.727	13.103	3.325	86.702	70.702
06/29/2011 15:35:06	5.683	13.125	3.317	86.904	70.702
06/29/2011 15:35:16	5.632	13.18	3.321	86.904	70.303
06/29/2011 15:35:26	5.647	13.132	3.314	86.702	70.801
06/29/2011 15:35:36	5.661	13.147	3.295	86.702	70.303
06/29/2011 15:35:46	5.669	13.099	3.27	86.904	70.504
06/29/2011 15:35:56	5.731	13.019	3.244	86.904	70.801
06/29/2011 15:36:06	5.687	13.172	3.244	86.904	71.003
06/29/2011 15:36:16	5.621	13.143	3.255	87.003	71.003
06/29/2011 15:36:26	5.617	13.15	3.27	86.904	70.702
06/29/2011 15:36:36	5.669	13.085	3.255	87.003	70.303
06/29/2011 15:36:46	5.701	13.088	3.262	86.904	70.702
06/29/2011 15:36:56	5.661	13.121	3.244	86.904	71.003
06/29/2011 15:37:06	5.676	13.066	3.2	86.702	70.801
06/29/2011 15:37:16	5.701	13.066	3.189	86.505	70.504
06/29/2011 15:37:26	5.705	13.081	3.171	86.505	70.504
06/29/2011 15:37:36	5.749	13.004	3.186	86.904	71.003
06/29/2011 15:37:46	5.687	13.15	3.215	86.702	70.702
06/29/2011 15:37:56	5.61	13.161	3.237	86.702	70.303
06/29/2011 15:38:06	5.555	13.249	3.226	86.702	70.702
06/29/2011 15:38:16	5.57	13.132	3.226	86.702	70.801
06/29/2011 15:38:26	5.588	13.15	3.204	86.505	70.801
06/29/2011 15:38:36	5.562	13.282	3.197	86.702	70.504
06/29/2011 15:38:46	5.478	13.286	3.189	86.702	70.504
06/29/2011 15:38:56	5.474	13.26	3.204	86.702	70.504
06/29/2011 15:39:06	5.496	13.297	3.182	86.702	70.801
06/29/2011 15:39:16	5.482	13.253	3.2	86.505	71.003
06/29/2011 15:39:26	5.507	13.238	3.186	86.702	71.003
06/29/2011 15:39:36	5.61	13.121	3.211	86.505	70.801
06/29/2011 15:39:46	5.661	13.154	3.229	86.702	70.504
06/29/2011 15:39:56	5.639	13.128	3.215	86.505	70.504
06/29/2011 15:40:06	5.643	13.143	3.215	86.303	70.504
06/29/2011 15:40:16	5.65	13.143	3.215	86.303	70.504
06/29/2011 15:40:26	5.628	13.125	3.229	86.702	70.801
06/29/2011 15:40:36	5.672	13.063	3.266	86.702	71.204
06/29/2011 15:40:46	5.723	13.085	3.292	86.904	71.003
06/29/2011 15:40:56	5.694	13.114	3.295	86.904	70.702
06/29/2011 15:41:06	5.647	13.176	3.273	86.904	70.702
06/29/2011 15:41:16	5.636	13.11	3.27	86.904	70.504
06/29/2011 15:41:26	5.712	13.077	3.259	87.003	70.801
06/29/2011 15:41:36	5.738	13.114	3.244	86.904	71.003
06/29/2011 15:41:46	5.665	13.165	3.266	86.505	70.702
06/29/2011 15:41:56	5.632	13.125	3.259	86.505	70.504
06/29/2011 15:42:06	5.672	13.095	3.266	86.904	71.003
06/29/2011 15:42:16	5.683	13.11	3.248	86.505	71.003
06/29/2011 15:42:26	5.69	13.07	3.24	86.904	70.504
06/29/2011 15:42:36	5.716	13.077	3.233	86.904	70.702
06/29/2011 15:42:46	5.709	13.092	3.226	86.904	71.003
06/29/2011 15:42:56	5.734	13.037	3.207	86.904	70.801
06/29/2011 15:43:06	5.745	13.037	3.215	86.904	70.702
06/29/2011 15:43:16	5.745	13.059	3.237	86.702	70.504
06/29/2011 15:43:26	5.687	13.114	3.215	86.904	70.303
06/29/2011 15:43:36	5.72	13.019	3.244	86.904	70.303
06/29/2011 15:43:46	5.742	13.085	3.262	86.904	70.504
06/29/2011 15:43:56	5.712	13.106	3.24	86.904	70.801
06/29/2011 15:44:06	5.742	13.044	3.215	86.904	70.303
06/29/2011 15:44:16	5.76	13.011	3.171	86.904	71.003

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 15:44:26	5.833	12.894	3.189	86.702	70.504
06/29/2011 15:44:36	5.87	12.953	3.175	86.303	70.801
06/29/2011 15:44:46	5.826	12.956	3.215	86.702	70.504
06/29/2011 15:44:56	5.771	13.114	3.193	86.505	70.504
06/29/2011 15:45:06	5.709	13.033	3.24	86.702	70.702
06/29/2011 15:45:16	5.723	13.128	3.2	86.505	70.303
06/29/2011 15:45:26	5.712	13.022	3.237	86.303	70.702
06/29/2011 15:45:36	5.734	13.077	3.215	86.303	71.003
06/29/2011 15:45:46	5.745	13.033	3.189	86.505	70.504
06/29/2011 15:45:56	5.745	13.048	3.207	86.702	70.504
06/29/2011 15:46:06	5.716	13.092	3.237	86.505	70.303
06/29/2011 15:46:16	5.679	13.074	3.237	86.303	70.504
06/29/2011 15:46:26	5.716	12.997	3.105	86.303	70.303
06/29/2011 15:46:36	6.049	12.491	3.039	86.303	70.303
06/29/2011 15:46:46	6.555	12.121	3.09	86.303	70.504
06/29/2011 15:46:56	6.731	12.257	3.083	86.303	71.003
End Run 11					
Average	**5.487**	**13.317**	**3.643**	**85.641**	**69.299**
Maximum	**7.020**	**13.802**	**23.881**	**88.105**	**71.402**
Minimum	**5.020**	**12.022**	**2.552**	**83.604**	**67.201**
06/29/2011 15:47:06	6.701	12.378	3.09	86.303	71.003
06/29/2011 15:47:16	6.46	12.477	3.105	86.303	70.504
06/29/2011 15:47:26	6.383	12.462	3.112	86.303	70.504
06/29/2011 15:47:36	6.408	12.553	3.112	86.505	71.003
06/29/2011 15:47:46	6.309	12.499	3.142	86.505	70.702
06/29/2011 15:47:56	6.383	12.425	3.112	86.303	70.504
06/29/2011 15:48:06	6.522	12.352	3.054	86.505	70.702
06/29/2011 15:48:16	6.584	12.228	3.046	86.702	71.003
06/29/2011 15:48:26	6.774	12.187	3.057	86.702	71.003
06/29/2011 15:48:36	6.731	12.29	3.098	86.505	70.702
06/29/2011 15:48:46	6.54	12.524	3.017	86.702	70.504
06/29/2011 15:48:56	6.654	12.066	3.032	86.702	70.504
06/29/2011 15:49:06	6.833	12.209	3.032	86.505	70.504
06/29/2011 15:49:16	6.804	12.275	3.057	86.102	70.504
06/29/2011 15:49:26	6.687	12.279	3.039	86.303	70.504
06/29/2011 15:49:36	6.727	12.158	3.021	86.702	70.702
06/29/2011 15:49:46	6.826	12.066	3.079	86.702	71.003
06/29/2011 15:49:56	6.866	12.242	3.072	86.702	71.003
06/29/2011 15:50:06	6.789	12.154	3.09	86.702	70.504
06/29/2011 15:50:16	6.698	12.319	3.094	86.702	70.702
06/29/2011 15:50:26	6.628	12.323	3.098	86.702	70.702
06/29/2011 15:50:36	6.665	12.403	3.039	86.702	70.504
06/29/2011 15:50:46	6.606	12.191	3.021	86.702	71.003
06/29/2011 15:50:56	6.771	12.151	3.039	87.003	70.504
06/29/2011 15:51:06	6.8	12.187	3.057	87.003	70.702
06/29/2011 15:51:16	6.778	12.275	3.061	87.003	71.003
06/29/2011 15:51:26	6.774	12.14	3.057	86.904	71.003
06/29/2011 15:51:36	6.87	12.059	2.991	86.904	70.801
06/29/2011 15:51:46	7.075	11.861	3.01	86.904	70.504
06/29/2011 15:51:56	7.027	12.107	3.002	86.505	70.504
06/29/2011 15:52:06	6.972	11.902	3.039	86.505	70.702
06/29/2011 15:52:16	7.097	12.11	3.01	86.505	71.003
06/29/2011 15:52:26	6.925	11.99	3.01	86.102	70.801
06/29/2011 15:52:36	6.855	12.085	3.021	86.003	70.303
06/29/2011 15:52:46	6.899	12.118	3.072	86.303	70.504
06/29/2011 15:52:56	6.793	12.213	3.039	86.003	70.801
Calibration Bias					
06/29/2011 15:53:06	6.774	12.165	7.038	85.604	71.003
06/29/2011 15:53:16	7.078	9.605	0.721	85.802	71.003
06/29/2011 15:53:26	4.368	0.571	-0.121	86.003	70.702
06/29/2011 15:53:36	0.439	0.355	-0.143	86.003	70.702
06/29/2011 15:53:46	0.087	0.3	-0.143	86.003	71.003
06/29/2011 15:53:56	0.058	0.27	-0.143	85.604	71.003
06/29/2011 15:54:06	0.047	0.252	-0.151	85.402	70.801
06/29/2011 15:54:16	0.04	0.237	-0.154	85.604	70.801
06/29/2011 15:54:26	0.036	0.226	-0.151	86.003	70.801
N2 Zero			**-0.152**	**85.670**	**70.801**
06/29/2011 15:54:36	0.032	0.219	5.936	86.003	70.801
06/29/2011 15:54:46	2.171	4.105	47.81	86.003	70.702
06/29/2011 15:54:56	13.919	0.281	49.414	86.003	71.003
06/29/2011 15:55:06	20.16	0.219	49.516	86.003	71.402
06/29/2011 15:55:16	20.555	0.208	49.542	86.505	71.402

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 15:55:26	20.61	0.201	49.571	86.505	70.801
06/29/2011 15:55:36	20.636	0.201	49.575	86.702	71.204
06/29/2011 15:55:46	20.651	0.197	49.575	86.702	71.402
06/29/2011 15:55:56	20.658	0.197	49.593	86.702	70.702
06/29/2011 15:56:06	20.665	0.193	49.622	86.505	70.702
49.8 ppm Propane Mid			**49.597**	**86.636**	**70.935**
06/29/2011 15:56:16	20.673	0.193	46.026	86.303	70.702
06/29/2011 15:56:26	20.354	1.332	4.464	86.505	70.504
06/29/2011 15:56:36	13.645	11.605	3.079	86.702	70.504
06/29/2011 15:56:46	7.496	11.99	3.068	86.702	70.504
06/29/2011 15:56:56	6.961	12.081	3.054	86.702	70.702
06/29/2011 15:57:06	6.903	12.081	3.017	86.505	71.003
06/29/2011 15:57:16	6.998	11.953	3.039	86.505	71.003
06/29/2011 15:57:26	6.958	12.143	3.002	86.303	70.801
06/29/2011 15:57:36	6.851	12.074	3.028	86.102	70.504
06/29/2011 15:57:46	6.851	12.191	2.973	86.702	70.303
06/29/2011 15:57:56	6.892	11.927	2.984	86.505	70.504
06/29/2011 15:58:06	6.983	12.088	2.984	86.702	70.801
06/29/2011 15:58:16	6.987	12.041	2.969	86.702	70.801
06/29/2011 15:58:26	7.067	11.931	3.024	86.702	70.504
06/29/2011 15:58:36	6.818	12.308	2.94	86.702	70.303
06/29/2011 15:58:46	6.822	12.022	2.951	86.702	70.801
06/29/2011 15:58:56	6.932	11.986	2.984	86.702	70.801
06/29/2011 15:59:06	6.91	12.187	2.966	86.702	70.504
06/29/2011 15:59:16	6.884	11.986	2.951	86.505	70.303
06/29/2011 15:59:26	6.892	12.074	2.958	86.505	70.504
06/29/2011 15:59:36	6.888	12.114	3.006	86.505	70.801
06/29/2011 15:59:46	6.767	12.315	2.984	86.303	70.702
06/29/2011 15:59:56	6.668	12.217	2.951	86.303	70.504
06/29/2011 16:00:06	6.734	12.18	2.984	86.702	70.303
06/29/2011 16:00:16	6.69	12.304	2.977	86.505	70.303
06/29/2011 16:00:26	6.774	12.129	2.966	86.303	70.303
06/29/2011 16:00:36	6.826	12.121	2.958	86.102	70.303
06/29/2011 16:00:46	6.899	12.107	3.01	86.303	70.303
06/29/2011 16:00:56	6.701	12.308	3.006	86.505	70.303
06/29/2011 16:01:06	6.654	12.18	3.002	86.303	70.504
06/29/2011 16:01:16	6.734	12.169	2.984	86.003	70.303
06/29/2011 16:01:26	6.873	12.059	2.984	86.003	70.303
06/29/2011 16:01:36	6.851	12.235	2.969	86.003	70.303
06/29/2011 16:01:46	6.764	12.154	2.973	86.102	70.102
06/29/2011 16:01:56	6.837	12.11	2.991	86.003	70.303
06/29/2011 16:02:06	6.932	12.114	2.969	86.102	70.504
06/29/2011 16:02:16	6.866	12.041	3.028	86.702	70.702
06/29/2011 16:02:26	6.818	12.268	3.021	86.702	70.702
06/29/2011 16:02:36	6.672	12.261	2.995	86.702	70.702
06/29/2011 16:02:46	6.676	12.176	2.966	86.505	70.303
06/29/2011 16:02:56	6.829	12.121	2.991	86.303	70.102
06/29/2011 16:03:06	6.851	12.14	2.966	86.102	70.102
06/29/2011 16:03:16	6.862	12.063	2.988	86.102	70.102
06/29/2011 16:03:26	6.921	12.096	3.01	86.003	69.904
06/29/2011 16:03:36	6.84	12.228	2.973	86.003	70.102
06/29/2011 16:03:46	6.76	12.228	2.977	86.003	70.102
06/29/2011 16:03:56	6.716	12.253	2.962	86.102	69.904
06/29/2011 16:04:06	6.774	12.121	3.024	86.505	70.102
06/29/2011 16:04:16	6.753	12.378	2.995	86.505	70.504
06/29/2011 16:04:26	6.639	12.235	3.002	86.505	70.702
06/29/2011 16:04:36	6.643	12.301	3.039	86.303	70.702
06/29/2011 16:04:46	6.606	12.37	3.05	86.303	70.303
06/29/2011 16:04:56	6.482	12.436	2.933	86.303	70.102
06/29/2011 16:05:06	6.811	11.902	3.002	86.303	70.702
06/29/2011 16:05:16	6.917	12.235	3.002	86.003	70.303
06/29/2011 16:05:26	6.749	12.25	3.01	86.102	69.904
06/29/2011 16:05:36	6.698	12.268	2.988	86.102	70.504
06/29/2011 16:05:46	6.731	12.103	2.966	86.102	70.303
06/29/2011 16:05:56	6.899	12.151	2.984	86.102	69.904
06/29/2011 16:06:06	6.8	12.22	2.973	86.003	70.303
06/29/2011 16:06:16	6.705	12.154	2.973	86.505	70.504
06/29/2011 16:06:26	6.789	12.11	2.966	86.505	70.504
06/29/2011 16:06:36	6.796	12.158	2.969	86.102	70.303
06/29/2011 16:06:46	6.851	12.077	3.006	86.102	70.303
06/29/2011 16:06:56	6.848	12.195	2.988	85.802	70.303
06/29/2011 16:07:06	6.822	12.173	2.991	86.003	70.504
06/29/2011 16:07:16	6.745	12.22	2.988	86.303	70.702

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 16:07:26	6.807	12.246	3.039	86.102	70.702
06/29/2011 16:07:36	6.602	12.433	2.98	86.102	70.303
06/29/2011 16:07:46	6.58	12.14	2.94	85.802	70.102
06/29/2011 16:07:56	6.932	12.048	2.973	86.003	70.303
06/29/2011 16:08:06	6.936	12.044	2.999	86.003	70.504
06/29/2011 16:08:16	6.928	12.239	3.006	86.003	70.303
06/29/2011 16:08:26	6.749	12.257	2.977	86.003	70.102
06/29/2011 16:08:36	6.793	12.118	2.951	86.003	70.102
06/29/2011 16:08:46	6.928	11.924	2.962	86.003	70.303
06/29/2011 16:08:56	6.994	12.048	2.933	86.003	70.702
06/29/2011 16:09:06	7.049	11.894	2.98	86.003	70.504
06/29/2011 16:09:16	7.089	12.059	2.973	86.003	70.702
06/29/2011 16:09:26	6.947	12.044	2.984	85.802	70.504
Calibration Bias					
06/29/2011 16:09:36	6.899	12.246	8.943	86.003	70.702
06/29/2011 16:09:46	6.602	3.098	-0.034	86.303	71.003
06/29/2011 16:09:56	2.376	0.424	-0.143	86.003	71.003
06/29/2011 16:10:06	0.179	0.329	-0.169	86.003	71.003
06/29/2011 16:10:16	0.08	0.285	-0.169	86.003	70.504
06/29/2011 16:10:26	0.062	0.259	-0.169	86.003	70.303
06/29/2011 16:10:36	0.051	0.245	-0.169	86.102	70.504
N2 Zero	**0.064**	**0.263**	**-0.169**	**86.036**	**70.437**
06/29/2011 16:10:46	0.047	0.245	0.673	86.003	70.702
06/29/2011 16:10:56	2.958	7.547	0.12	86.003	70.504
06/29/2011 16:11:06	9.411	9.697	0.091	85.802	70.102
06/29/2011 16:11:16	10.909	9.763	0.095	86.003	70.102
06/29/2011 16:11:26	10.986	9.785	0.095	85.802	70.504
06/29/2011 16:11:36	11.004	9.799	0.095	86.003	70.504
06/29/2011 16:11:46	11.012	9.807	0.091	85.604	70.102
06/29/2011 16:11:56	11.019	9.81	0.091	85.604	69.904
06/29/2011 16:12:06	11.023	9.814	0.095	85.802	70.504
06/29/2011 16:12:16	11.026	9.818	5.782	86.003	70.702
11.1% O2/9.74% CO2 Mid	**11.023**	**9.814**		**85.803**	**70.370**
06/29/2011 16:12:26	11.36	8.419	47.894	86.003	70.504
06/29/2011 16:12:36	16.56	0.53	49.333	86.102	70.504
06/29/2011 16:12:46	20.332	0.318	49.439	86.102	70.504
06/29/2011 16:12:56	20.596	0.267	49.469	86.303	70.504
06/29/2011 16:13:06	20.632	0.241	49.491	86.102	70.303
06/29/2011 16:13:16	20.651	0.223	49.509	86.102	70.504
06/29/2011 16:13:26	20.658	0.208	49.505	86.102	70.702
06/29/2011 16:13:36	20.665	0.201	49.502	86.303	70.702
06/29/2011 16:13:46	20.673	0.193	49.52	86.003	70.504
06/29/2011 16:13:56	20.676	0.186	49.524	85.802	70.504
06/29/2011 16:14:06	20.676	0.183	49.535	85.604	70.504
06/29/2011 16:14:16	20.684	0.179	49.538	85.604	70.504
06/29/2011 16:14:26	20.687	0.175	49.557	85.402	70.303
06/29/2011 16:14:36	20.691	0.175	49.56	85.604	70.303
49.8 ppm Propane Mid			**49.552**	**85.537**	**70.370**
06/29/2011 16:14:46	20.691	0.175	46.389	85.802	70.303
06/29/2011 16:14:56	20.365	1.336	4.691	86.003	69.801
06/29/2011 16:15:06	13.605	11.579	3.12	86.003	69.801
06/29/2011 16:15:16	7.642	11.759	3.101	86.003	69.904
06/29/2011 16:15:26	7.166	12.004	3.061	86.003	69.801
06/29/2011 16:15:36	7.053	11.953	3.028	86.003	69.402
06/29/2011 16:15:46	7.141	11.861	3.013	86.003	69.402
06/29/2011 16:15:56	7.269	11.751	3.065	86.003	69.402
06/29/2011 16:16:06	7.181	11.938	3.065	86.003	69.801
06/29/2011 16:16:16	7.013	12.066	3.076	86.003	69.904
06/29/2011 16:16:26	6.914	12.052	3.054	86.003	70.303
06/29/2011 16:16:36	6.884	12.121	3.039	86.003	70.303
06/29/2011 16:16:46	6.848	12.187	3.021	86.003	70.102
06/29/2011 16:16:56	6.771	12.165	2.999	86.003	70.102
06/29/2011 16:17:06	6.855	12.18	3.01	86.003	70.303
06/29/2011 16:17:16	6.701	12.37	2.995	86.003	70.102
06/29/2011 16:17:26	6.661	12.213	3.028	86.003	70.102
06/29/2011 16:17:36	6.639	12.4	3.054	85.802	69.801
06/29/2011 16:17:46	6.46	12.48	3.021	85.802	69.801
06/29/2011 16:17:56	6.474	12.363	2.995	86.003	69.604
06/29/2011 16:18:06	6.654	12.143	3.032	86.003	69.604
06/29/2011 16:18:16	6.811	12.337	2.999	86.003	69.604
06/29/2011 16:18:26	6.72	12.184	2.988	86.003	69.604
06/29/2011 16:18:36	6.877	12.11	2.984	86.003	69.604
06/29/2011 16:18:46	6.914	12.011	2.977	86.003	69.604

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 16:18:56	6.928	12.052	2.962	86.003	69.402
06/29/2011 16:19:06	6.998	12.077	2.936	86.003	69.604
06/29/2011 16:19:16	7.075	11.957	2.984	85.604	70.102
06/29/2011 16:19:26	6.939	12.125	2.973	85.604	70.303
06/29/2011 16:19:36	6.855	12.173	2.988	86.102	69.904
06/29/2011 16:19:46	6.753	12.18	3.028	86.102	69.604
06/29/2011 16:19:56	6.745	12.279	2.973	86.303	69.904
06/29/2011 16:20:06	6.778	11.997	2.918	86.505	70.303
06/29/2011 16:20:16	7.097	11.795	2.966	86.702	69.801
06/29/2011 16:20:26	7.137	12.074	2.936	86.904	69.604
06/29/2011 16:20:36	6.972	11.916	2.984	86.904	69.801
06/29/2011 16:20:46	6.95	12.165	2.969	86.904	70.102
06/29/2011 16:20:56	6.881	12.033	3.01	86.904	70.102
06/29/2011 16:21:06	6.826	12.253	2.962	86.702	70.102
06/29/2011 16:21:16	6.844	11.99	2.999	86.702	69.904
06/29/2011 16:21:26	6.91	12.125	2.991	86.702	69.801
06/29/2011 16:21:36	6.95	11.993	3.002	86.702	69.801
06/29/2011 16:21:46	6.906	12.158	2.969	86.702	69.801
06/29/2011 16:21:56	6.899	12.118	2.918	86.505	69.801
06/29/2011 16:22:06	7.002	11.85	2.926	86.303	69.801
06/29/2011 16:22:16	7.155	11.96	2.958	86.505	69.904
06/29/2011 16:22:26	7.027	12.037	2.969	86.303	69.904
06/29/2011 16:22:36	7.024	12.019	2.936	86.303	70.303
06/29/2011 16:22:46	7.078	11.861	2.999	86.303	70.303
06/29/2011 16:22:56	7.078	12.099	2.98	86.303	69.801
06/29/2011 16:23:06	6.969	11.993	2.962	86.303	69.904
06/29/2011 16:23:16	7.049	11.971	2.958	86.303	70.102
06/29/2011 16:23:26	7.111	12.004	2.922	86.303	70.504
06/29/2011 16:23:36	7.042	11.99	2.947	86.303	70.303
06/29/2011 16:23:46	6.954	12.03	2.951	86.505	70.303
06/29/2011 16:23:56	6.914	12.096	2.915	86.505	70.303
06/29/2011 16:24:06	7.009	11.946	2.933	86.505	70.303
06/29/2011 16:24:16	7.024	11.993	2.926	86.702	70.102
06/29/2011 16:24:26	6.936	11.993	2.926	86.702	69.801
06/29/2011 16:24:36	6.921	12.202	2.918	86.702	70.102
06/29/2011 16:24:46	6.844	12.048	2.936	86.904	70.504
06/29/2011 16:24:56	7.005	11.997	2.955	86.904	70.504
06/29/2011 16:25:06	6.983	12.026	2.955	86.303	70.102
06/29/2011 16:25:16	6.943	12.066	3.01	86.505	69.904
06/29/2011 16:25:26	6.76	12.345	2.984	86.702	70.303
06/29/2011 16:25:36	6.518	12.392	2.958	86.505	68.102
06/29/2011 16:25:46	6.482	12.378	2.907	86.102	66.502
06/29/2011 16:25:56	6.482	12.37	2.874	86.102	66.201
06/29/2011 16:26:06	6.482	12.367	2.882	86.303	66.004
06/29/2011 16:26:16	6.482	12.359	2.882	86.303	66.004
06/29/2011 16:26:26	6.482	12.359	2.882	86.102	66.004
06/29/2011 16:26:36	6.482	12.356	2.878	86.102	66.201
06/29/2011 16:26:46	6.482	12.352	2.878	86.003	66.201
06/29/2011 16:26:56	6.482	12.345	2.878	86.003	66.201
06/29/2011 16:27:06	6.482	12.345	2.882	86.003	66.304
06/29/2011 16:27:16	6.482	12.337	2.856	86.102	66.201
06/29/2011 16:27:26	6.482	12.337	2.871	86.505	66.004
06/29/2011 16:27:36	6.482	12.334	2.845	86.303	66.004
06/29/2011 16:27:46	6.482	12.33	2.882	86.003	66.004
06/29/2011 16:27:56	6.485	12.326	2.904	85.802	65.802
06/29/2011 16:28:06	6.485	12.323	2.889	86.003	65.802
06/29/2011 16:28:16	6.485	12.319	2.874	86.003	65.802
06/29/2011 16:28:26	6.522	12.359	2.856	86.003	65.802
06/29/2011 16:28:36	7.58	7.177	2.882	86.003	66.004
06/29/2011 16:28:46	12.678	1.545	2.83	86.003	66.004
06/29/2011 16:28:56	17.893	0.446	2.827	85.802	66.004
06/29/2011 16:29:06	20.068	0.314	2.827	85.802	66.201
06/29/2011 16:29:16	20.391	0.3	2.827	86.003	66.201
06/29/2011 16:29:26	20.424	0.325	2.834	86.003	66.201
06/29/2011 16:29:36	19.677	2.08	2.779	85.802	66.304
06/29/2011 16:29:46	17.703	2.57	2.794	85.802	66.304
06/29/2011 16:29:56	16.754	2.6	2.83	85.604	66.502
06/29/2011 16:30:06	16.553	2.607	2.823	85.604	66.502
06/29/2011 16:30:16	16.509	2.618	2.764	85.802	66.703
06/29/2011 16:30:26	16.49	2.614	2.856	86.102	66.703
06/29/2011 16:30:36	16.479	2.611	2.808	86.003	66.703
06/29/2011 16:30:46	16.472	2.607	2.801	85.802	66.703
06/29/2011 16:30:56	16.465	2.607	2.841	85.402	67.102

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 16:31:06	16.461	2.603	2.841	85.604	67.201
06/29/2011 16:31:16	16.461	2.6	2.849	85.604	66.901
06/29/2011 16:31:26	16.457	2.596	2.841	85.604	66.703
06/29/2011 16:31:36	16.457	2.596	2.827	85.802	67.201
06/29/2011 16:31:46	16.457	2.592	2.856	86.003	67.403
06/29/2011 16:31:56	16.454	2.589	2.867	86.003	67.201
06/29/2011 16:32:06	16.454	2.585	2.867	86.003	66.901
06/29/2011 16:32:16	16.454	2.585	2.863	86.102	66.901
06/29/2011 16:32:26	16.454	2.585	2.845	86.102	67.201
06/29/2011 16:32:36	16.454	2.585	2.882	86.003	67.403
06/29/2011 16:32:46	16.454	2.581	2.856	86.003	67.403
06/29/2011 16:32:56	16.454	2.581	2.867	86.003	67.403
06/29/2011 16:33:06	16.454	2.581	2.834	86.003	67.403
06/29/2011 16:33:16	16.454	2.581	2.805	86.102	67.201
06/29/2011 16:33:26	16.454	2.581	2.841	86.003	67.102
06/29/2011 16:33:36	16.457	2.581	2.856	86.003	67.102
06/29/2011 16:33:46	16.457	2.581	2.849	86.102	67.102
06/29/2011 16:33:56	16.457	2.581	2.849	86.303	67.102
06/29/2011 16:34:06	16.461	2.581	2.838	86.102	67.102
06/29/2011 16:34:16	16.461	2.581	2.801	86.003	67.201
06/29/2011 16:34:26	16.461	2.581	2.786	86.003	67.604
06/29/2011 16:34:36	16.465	2.578	2.801	86.003	67.802
06/29/2011 16:34:46	16.465	2.578	2.797	86.003	67.604
06/29/2011 16:34:56	16.465	2.574	2.779	86.003	67.403
06/29/2011 16:35:06	16.468	2.574	2.797	86.102	67.102
06/29/2011 16:35:16	16.468	2.57	2.797	86.003	67.102
06/29/2011 16:35:26	16.468	2.574	2.867	86.003	67.201
06/29/2011 16:35:36	16.468	2.574	2.849	86.003	67.403
06/29/2011 16:35:46	16.468	2.581	2.801	86.003	67.604
06/29/2011 16:35:56	16.468	2.585	2.808	86.102	67.604
06/29/2011 16:36:06	16.468	2.589	2.823	86.102	67.403
06/29/2011 16:36:16	16.468	2.592	2.816	86.102	67.403
06/29/2011 16:36:26	16.472	2.6	2.823	85.802	67.201
06/29/2011 16:36:36	16.472	2.607	2.827	85.802	67.201
06/29/2011 16:36:46	16.472	2.611	2.845	86.003	67.201
06/29/2011 16:36:56	16.472	2.618	2.827	85.604	67.201
06/29/2011 16:37:06	16.472	2.622	2.823	86.003	67.102
06/29/2011 16:37:16	16.472	2.629	2.79	86.003	67.102
06/29/2011 16:37:26	16.476	2.636	2.838	86.003	67.201
06/29/2011 16:37:36	16.476	2.64	2.838	86.003	67.604
06/29/2011 16:37:46	16.476	2.647	2.805	86.003	68.003
06/29/2011 16:37:56	16.476	2.655	2.823	85.604	67.403
06/29/2011 16:38:06	16.479	2.658	2.849	85.802	67.102
06/29/2011 16:38:16	16.479	2.665	2.838	85.802	68.003
06/29/2011 16:38:26	16.479	2.676	2.827	85.802	67.604
06/29/2011 16:38:36	16.479	2.68	2.805	85.802	67.102
06/29/2011 16:38:46	16.479	2.687	2.834	86.003	68.003
06/29/2011 16:38:56	16.479	2.698	2.805	86.102	68.003
06/29/2011 16:39:06	16.483	2.702	2.779	86.003	67.403
06/29/2011 16:39:16	16.483	2.713	2.772	86.003	67.802
06/29/2011 16:39:26	16.483	2.717	2.819	86.003	68.102
06/29/2011 16:39:36	16.483	2.724	2.805	86.003	67.802
06/29/2011 16:39:46	16.483	2.731	2.805	85.802	67.403
06/29/2011 16:39:56	16.487	2.739	2.786	85.402	67.403
06/29/2011 16:40:06	16.487	2.746	2.779	85.802	67.403
06/29/2011 16:40:16	16.487	2.753	2.801	85.802	67.201
06/29/2011 16:40:26	16.487	2.761	2.856	85.802	67.201
06/29/2011 16:40:36	16.487	2.768	2.83	85.802	67.201
06/29/2011 16:40:46	16.487	2.775	2.823	86.003	67.201
06/29/2011 16:40:56	16.487	2.786	2.801	86.003	67.604
06/29/2011 16:41:06	16.49	2.794	2.808	86.003	68.102
06/29/2011 16:41:16	16.49	2.801	2.849	86.003	68.003
06/29/2011 16:41:26	16.49	2.808	2.805	85.802	67.403
06/29/2011 16:41:36	16.49	2.816	2.83	85.802	67.403
06/29/2011 16:41:46	16.49	2.823	2.801	86.003	68.102
06/29/2011 16:41:56	16.49	2.827	2.838	85.604	68.003
06/29/2011 16:42:06	16.49	2.834	2.83	85.604	67.604
06/29/2011 16:42:16	16.49	2.838	2.801	85.802	67.604
06/29/2011 16:42:26	16.49	2.841	2.805	85.604	68.102
06/29/2011 16:42:36	16.494	2.845	2.794	85.604	68.102
06/29/2011 16:42:46	16.494	2.852	2.757	85.604	67.802
06/29/2011 16:42:56	16.494	2.852	2.794	85.402	67.403
06/29/2011 16:43:06	16.494	2.856	2.79	85.402	67.403

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 16:43:16	16.494	2.86	2.794	85.205	67.802
06/29/2011 16:43:26	16.498	2.863	2.819	85.604	68.102
06/29/2011 16:43:36	16.494	2.871	2.823	85.802	68.003
06/29/2011 16:43:46	16.498	2.874	2.819	85.604	67.403
06/29/2011 16:43:56	16.498	2.878	2.805	85.604	67.403
06/29/2011 16:44:06	16.498	2.885	2.805	85.802	67.604
06/29/2011 16:44:16	16.498	2.893	2.805	85.802	68.003
06/29/2011 16:44:26	16.498	2.896	2.816	85.604	68.102
06/29/2011 16:44:36	16.498	2.904	2.79	85.604	68.003
06/29/2011 16:44:46	16.498	2.911	2.797	85.604	67.403
06/29/2011 16:44:56	16.498	2.915	2.816	85.802	67.604
06/29/2011 16:45:06	16.498	2.922	2.812	85.802	68.303
06/29/2011 16:45:16	16.498	2.929	2.83	85.802	68.303
06/29/2011 16:45:26	16.498	2.933	2.819	85.802	68.003
06/29/2011 16:45:36	16.498	2.94	2.797	85.802	67.604
06/29/2011 16:45:46	16.501	2.944	2.823	86.303	67.604
06/29/2011 16:45:56	16.501	2.951	2.841	86.303	67.604
06/29/2011 16:46:06	16.501	2.955	2.805	86.003	67.604
06/29/2011 16:46:16	16.501	2.962	2.783	86.003	68.003
06/29/2011 16:46:26	16.501	2.966	2.779	86.003	68.303
06/29/2011 16:46:36	16.501	2.969	2.75	86.303	68.303
06/29/2011 16:46:46	16.501	2.973	2.764	86.102	68.102
06/29/2011 16:46:56	16.501	2.98	2.79	86.102	68.501
06/29/2011 16:47:06	16.501	2.988	2.772	86.303	67.604
06/29/2011 16:47:16	16.501	2.991	2.775	86.102	67.403
06/29/2011 16:47:26	16.501	2.995	2.783	85.802	67.802
06/29/2011 16:47:36	16.501	2.999	2.823	85.802	68.102
06/29/2011 16:47:46	16.501	3.006	2.768	85.802	68.501
06/29/2011 16:47:56	16.501	3.01	2.753	86.003	68.501
06/29/2011 16:48:06	16.501	3.013	2.775	86.003	68.303
06/29/2011 16:48:16	16.505	3.017	2.805	85.802	68.303
06/29/2011 16:48:26	16.505	3.024	2.797	85.802	68.003
06/29/2011 16:48:36	16.505	3.028	2.816	86.003	68.102
06/29/2011 16:48:46	16.505	3.032	2.805	86.003	68.003
06/29/2011 16:48:56	16.505	3.039	2.827	86.003	68.102
06/29/2011 16:49:06	16.505	3.043	2.845	85.802	68.303
06/29/2011 16:49:16	16.505	3.046	2.845	85.802	68.303
06/29/2011 16:49:26	16.505	3.05	2.805	85.802	68.303
06/29/2011 16:49:36	16.505	3.057	2.79	85.802	67.802
06/29/2011 16:49:46	16.505	3.061	2.775	85.604	68.102
06/29/2011 16:49:56	16.509	3.065	2.805	85.604	68.102
06/29/2011 16:50:06	16.505	3.068	2.779	85.802	68.102
06/29/2011 16:50:16	16.505	3.072	2.772	85.802	68.003
06/29/2011 16:50:26	16.505	3.076	2.783	85.802	68.102
06/29/2011 16:50:36	16.509	3.079	2.805	85.802	68.303
06/29/2011 16:50:46	16.509	3.083	2.823	85.604	67.802
06/29/2011 16:50:56	16.509	3.087	2.746	85.205	68.102
06/29/2011 16:51:06	16.509	3.09	2.757	85.205	67.802
06/29/2011 16:51:16	16.509	3.098	2.805	85.205	67.604
06/29/2011 16:51:26	16.509	3.101	2.746	85.402	67.604
06/29/2011 16:51:36	16.509	3.105	2.783	85.802	67.802
06/29/2011 16:51:46	16.509	3.109	2.794	85.402	67.802
06/29/2011 16:51:56	16.509	3.116	2.779	85.604	67.604
06/29/2011 16:52:06	16.509	3.12	2.819	85.604	67.604
06/29/2011 16:52:16	16.509	3.123	2.794	85.402	67.802
06/29/2011 16:52:26	16.509	3.131	2.845	85.604	68.003
06/29/2011 16:52:36	16.509	3.134	2.79	85.604	68.003
06/29/2011 16:52:46	16.509	3.138	2.797	85.802	67.604
06/29/2011 16:52:56	16.509	3.145	2.83	85.802	67.604
06/29/2011 16:53:06	16.512	3.149	2.885	85.802	67.802
06/29/2011 16:53:16	16.512	3.153	2.915	85.402	68.003
06/29/2011 16:53:26	16.512	3.16	2.863	85.402	67.802
06/29/2011 16:53:36	16.512	3.16	2.889	85.802	67.403
06/29/2011 16:53:46	16.512	3.164	2.878	85.604	67.403
06/29/2011 16:53:56	16.512	3.167	2.83	85.402	67.802
06/29/2011 16:54:06	16.512	3.171	2.827	85.402	68.003
06/29/2011 16:54:16	16.512	3.171	2.845	85.604	67.802
06/29/2011 16:54:26	16.512	3.171	2.871	85.402	67.403
06/29/2011 16:54:36	16.512	3.175	2.893	85.402	67.403
06/29/2011 16:54:46	16.512	3.175	2.893	85.402	67.403
06/29/2011 16:54:56	16.512	3.178	2.907	85.402	67.403
06/29/2011 16:55:06	16.512	3.182	2.893	85.402	67.604
06/29/2011 16:55:16	16.512	3.182	2.863	85.402	67.604

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 16:55:26	16.512	3.186	2.882	85.402	67.802
06/29/2011 16:55:36	16.512	3.189	2.885	85.802	67.802
06/29/2011 16:55:46	16.512	3.193	2.9	85.402	67.802
06/29/2011 16:55:56	16.512	3.197	2.871	85.604	67.802
06/29/2011 16:56:06	16.512	3.204	2.838	85.604	67.802
06/29/2011 16:56:16	16.512	3.207	2.845	85.402	67.802
06/29/2011 16:56:26	16.512	3.215	2.845	85.402	67.403
06/29/2011 16:56:36	16.512	3.218	2.834	85.604	67.201
06/29/2011 16:56:46	16.512	3.222	2.838	85.604	67.802
06/29/2011 16:56:56	16.512	3.226	2.801	85.604	67.802
06/29/2011 16:57:06	16.512	3.233	2.786	85.205	67.201
06/29/2011 16:57:16	16.512	3.237	2.779	85.604	68.003
06/29/2011 16:57:26	16.512	3.24	2.779	85.402	67.403
06/29/2011 16:57:36	16.512	3.244	2.827	85.402	67.403
06/29/2011 16:57:46	16.512	3.248	2.882	85.402	67.802
06/29/2011 16:57:56	16.516	3.248	2.882	85.402	67.802
06/29/2011 16:58:06	16.516	3.251	2.856	85.402	67.604
06/29/2011 16:58:16	16.516	3.255	2.816	85.604	67.201
06/29/2011 16:58:26	16.516	3.262	2.86	85.802	67.403
06/29/2011 16:58:36	16.512	3.266	2.885	85.802	67.802
06/29/2011 16:58:46	16.512	3.27	2.856	85.604	67.802
06/29/2011 16:58:56	16.512	3.27	2.871	85.802	67.802
06/29/2011 16:59:06	16.512	3.273	2.885	85.604	67.802
06/29/2011 16:59:16	16.512	3.277	2.816	85.604	67.802
06/29/2011 16:59:26	16.512	3.281	2.805	85.402	67.802
06/29/2011 16:59:36	16.512	3.284	2.878	85.604	67.802
06/29/2011 16:59:46	16.516	3.288	2.874	85.604	67.802
06/29/2011 16:59:56	16.516	3.292	2.83	85.402	67.802
06/29/2011 17:00:06	16.516	3.295	2.805	85.402	67.802
06/29/2011 17:00:16	16.516	3.299	2.797	85.604	67.802
06/29/2011 17:00:26	16.516	3.303	2.812	85.402	67.802
06/29/2011 17:00:36	16.516	3.306	2.827	85.205	67.802
06/29/2011 17:00:46	16.516	3.31	2.827	85.205	67.802
06/29/2011 17:00:56	16.516	3.31	2.805	85.402	67.802
06/29/2011 17:01:06	16.516	3.317	2.827	85.402	67.403
06/29/2011 17:01:16	16.516	3.321	2.827	85.402	67.201
06/29/2011 17:01:26	16.516	3.321	2.83	85.402	67.403
06/29/2011 17:01:36	16.516	3.325	2.841	85.402	67.403
06/29/2011 17:01:46	16.516	3.328	2.827	85.205	67.802
06/29/2011 17:01:56	16.516	3.332	2.823	85.205	67.201
06/29/2011 17:02:06	16.516	3.336	2.805	85.205	67.102
06/29/2011 17:02:16	16.52	3.339	2.783	85.402	67.201
06/29/2011 17:02:26	16.52	3.339	2.779	85.402	67.604
06/29/2011 17:02:36	16.52	3.343	2.757	85.205	67.604
06/29/2011 17:02:46	16.52	3.35	2.805	85.102	67.604
06/29/2011 17:02:56	16.52	3.35	2.819	85.205	67.604
06/29/2011 17:03:06	16.52	3.35	2.805	85.402	67.403
06/29/2011 17:03:16	16.52	3.354	2.823	85.604	67.102
06/29/2011 17:03:26	16.52	3.358	2.808	85.802	67.604
06/29/2011 17:03:36	16.52	3.365	2.823	85.802	67.201
06/29/2011 17:03:46	16.52	3.369	2.856	85.604	67.604
06/29/2011 17:03:56	16.52	3.372	2.805	85.604	67.604
06/29/2011 17:04:06	16.523	3.376	2.779	85.604	67.201
06/29/2011 17:04:16	16.523	3.38	2.753	85.802	67.802
06/29/2011 17:04:26	16.523	3.383	2.779	86.003	67.102
06/29/2011 17:04:36	16.523	3.387	2.849	85.604	67.802
06/29/2011 17:04:46	16.523	3.391	2.823	85.604	66.901
06/29/2011 17:04:56	16.523	3.394	2.797	85.604	67.604
06/29/2011 17:05:06	16.523	3.398	2.856	85.402	67.201
06/29/2011 17:05:16	16.52	3.402	2.838	85.402	66.901
06/29/2011 17:05:26	16.52	3.405	2.845	85.205	67.403
06/29/2011 17:05:36	16.523	3.405	2.871	85.205	67.604
06/29/2011 17:05:46	16.523	3.409	2.808	85.102	67.403
06/29/2011 17:05:56	16.523	3.409	2.808	85.205	66.901
06/29/2011 17:06:06	16.523	3.409	2.808	85.205	67.102
06/29/2011 17:06:16	16.523	3.409	2.823	85.402	67.604
06/29/2011 17:06:26	16.527	3.409	2.856	85.802	67.102
06/29/2011 17:06:36	16.527	3.413	2.819	85.802	67.201
06/29/2011 17:06:46	16.527	3.413	2.805	85.604	67.604
06/29/2011 17:06:56	16.527	3.416	2.794	85.604	67.201
06/29/2011 17:07:06	16.523	3.416	2.834	85.402	67.102
06/29/2011 17:07:16	16.523	3.42	2.856	85.402	67.604
06/29/2011 17:07:26	16.523	3.424	2.838	85.402	67.403

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 17:07:36	16.523	3.427	2.856	85.604	67.102
06/29/2011 17:07:46	16.527	3.435	2.973	85.205	67.201
06/29/2011 17:07:56	16.527	3.435	1.464	85.402	67.604
06/29/2011 17:08:06	16.527	3.438	1.142	85.402	67.604
06/29/2011 17:08:16	16.527	3.442	1.153	85.402	67.102
06/29/2011 17:08:26	16.527	3.446	1.16	85.102	67.102
06/29/2011 17:08:36	16.527	3.449	1.175	85.102	67.604
06/29/2011 17:08:46	16.527	3.449	1.201	85.102	67.604
06/29/2011 17:08:56	16.527	3.453	1.186	85.102	66.901
06/29/2011 17:09:06	16.527	3.457	1.19	85.102	67.102
06/29/2011 17:09:16	16.527	3.46	1.215	85.402	67.604
06/29/2011 17:09:26	16.527	3.464	1.16	85.402	67.604
06/29/2011 17:09:36	16.531	3.468	1.186	85.102	67.201
06/29/2011 17:09:46	16.531	3.468	1.179	85.205	66.901
06/29/2011 17:09:56	16.531	3.471	1.16	85.205	66.901
06/29/2011 17:10:06	16.531	3.475	1.142	85.205	66.703
06/29/2011 17:10:16	16.531	3.478	1.16	85.102	66.703
06/29/2011 17:10:26	16.531	3.482	1.175	84.904	66.502
06/29/2011 17:10:36	16.531	3.486	1.19	85.102	66.703
06/29/2011 17:10:46	16.531	3.486	1.215	85.102	66.901
06/29/2011 17:10:56	16.534	3.489	1.175	85.102	66.703
06/29/2011 17:11:06	16.534	3.493	1.16	85.102	66.201
06/29/2011 17:11:16	16.534	3.493	1.149	85.102	66.004
06/29/2011 17:11:26	16.534	3.497	1.16	85.205	66.004
06/29/2011 17:11:36	16.534	3.497	1.153	85.402	65.802
06/29/2011 17:11:46	16.534	3.5	1.138	85.102	65.802
06/29/2011 17:11:56	16.534	3.504	1.16	85.102	66.004
06/29/2011 17:12:06	16.534	3.504	1.164	84.904	66.004
06/29/2011 17:12:16	16.534	3.508	1.186	84.904	66.004
06/29/2011 17:12:26	16.534	3.511	1.19	85.102	66.004
06/29/2011 17:12:36	16.534	3.515	1.267	85.102	66.004
06/29/2011 17:12:46	16.534	3.515	1.226	85.102	65.802
06/29/2011 17:12:56	16.534	3.519	1.186	85.205	65.802
06/29/2011 17:13:06	16.538	3.519	1.153	85.205	65.604
06/29/2011 17:13:16	16.538	3.519	1.109	85.102	65.604
06/29/2011 17:13:26	16.538	3.522	1.135	84.904	65.403
06/29/2011 17:13:36	16.538	3.526	1.138	84.703	65.103
06/29/2011 17:13:46	16.542	3.526	1.138	85.102	64.901
06/29/2011 17:13:56	16.542	3.53	1.135	84.904	64.704
06/29/2011 17:14:06	16.542	3.53	1.16	85.102	64.502
06/29/2011 17:14:16	16.542	3.533	1.135	85.102	64.901
06/29/2011 17:14:26	16.542	3.533	1.135	85.102	65.103
06/29/2011 17:14:36	16.542	3.537	1.109	85.102	65.103
06/29/2011 17:14:46	16.542	3.537	1.105	85.102	64.704
06/29/2011 17:14:56	16.542	3.541	1.135	85.205	64.502
06/29/2011 17:15:06	16.542	3.541	1.135	85.102	64.403
06/29/2011 17:15:16	16.545	3.544	1.146	85.102	64.704
06/29/2011 17:15:26	16.545	3.548	1.16	84.904	64.901
06/29/2011 17:15:36	16.545	3.552	1.16	84.904	64.901
06/29/2011 17:15:46	16.545	3.555	1.135	84.904	64.704
06/29/2011 17:15:56	16.545	3.559	1.135	84.904	64.202
06/29/2011 17:16:06	16.545	3.563	1.135	84.904	64.202
06/29/2011 17:16:16	16.545	3.566	1.116	85.102	64.704
06/29/2011 17:16:26	16.545	3.57	1.127	85.102	64.704
06/29/2011 17:16:36	16.549	3.574	1.135	84.904	64.502
06/29/2011 17:16:46	16.549	3.574	1.149	84.703	64.202
06/29/2011 17:16:56	16.549	3.577	1.16	84.703	64.004
06/29/2011 17:17:06	16.549	3.577	1.16	84.904	64.004
06/29/2011 17:17:16	16.549	3.577	1.153	84.904	64.403
06/29/2011 17:17:26	16.549	3.577	1.153	85.205	64.502
06/29/2011 17:17:36	16.553	3.577	1.138	85.205	63.803
06/29/2011 17:17:46	16.553	3.577	1.135	85.102	64.004
06/29/2011 17:17:56	16.553	3.577	1.16	84.904	63.601
06/29/2011 17:18:06	16.553	3.577	1.138	84.904	64.202
06/29/2011 17:18:16	16.553	3.577	1.142	84.904	63.502
06/29/2011 17:18:26	16.556	3.577	1.16	84.904	64.202
06/29/2011 17:18:36	16.556	3.577	1.135	84.904	63.502
06/29/2011 17:18:46	16.556	3.581	1.135	84.904	63.803
06/29/2011 17:18:56	16.556	3.581	1.135	84.904	64.004
06/29/2011 17:19:06	16.556	3.585	1.135	84.904	63.803
06/29/2011 17:19:16	16.556	3.588	1.16	84.904	63.803
06/29/2011 17:19:26	16.556	3.592	1.16	84.904	63.502
06/29/2011 17:19:36	16.556	3.596	1.16	84.904	63.601

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 17:19:46	16.56	3.599	1.16	85.205	63.601
06/29/2011 17:19:56	16.56	3.599	1.168	85.205	63.803
06/29/2011 17:20:06	16.56	3.603	1.135	84.904	63.803
06/29/2011 17:20:16	16.56	3.607	1.138	84.703	63.502
06/29/2011 17:20:26	16.56	3.61	1.135	84.904	63.301
06/29/2011 17:20:36	16.564	3.614	1.16	84.904	63.502
06/29/2011 17:20:46	16.564	3.614	1.109	84.904	63.803
06/29/2011 17:20:56	16.564	3.618	1.135	84.904	63.601
06/29/2011 17:21:06	16.564	3.621	1.135	84.703	63.502
06/29/2011 17:21:16	16.564	3.621	1.138	84.501	63.103
06/29/2011 17:21:26	16.567	3.625	1.094	84.904	63.301
06/29/2011 17:21:36	16.567	3.625	1.072	85.102	63.502
06/29/2011 17:21:46	16.567	3.629	1.127	84.904	63.601
06/29/2011 17:21:56	16.567	3.629	1.153	84.904	63.601
06/29/2011 17:22:06	16.567	3.632	1.135	84.501	63.301
06/29/2011 17:22:16	16.567	3.632	1.142	84.703	62.902
06/29/2011 17:22:26	16.571	3.636	1.146	84.703	63.103
06/29/2011 17:22:36	16.567	3.64	1.138	84.703	63.502
06/29/2011 17:22:46	16.571	3.64	1.175	84.703	63.502
06/29/2011 17:22:56	16.571	3.64	1.131	84.703	63.502
06/29/2011 17:23:06	16.571	3.643	1.12	84.703	63.502
06/29/2011 17:23:16	16.571	3.643	1.153	84.703	63.502
06/29/2011 17:23:26	16.571	3.647	1.19	84.904	63.502
06/29/2011 17:23:36	16.571	3.647	1.193	84.904	63.502
06/29/2011 17:23:46	16.571	3.647	1.171	84.904	63.502
06/29/2011 17:23:56	16.575	3.651	1.135	84.904	63.301
06/29/2011 17:24:06	16.575	3.651	1.146	84.904	63.301
06/29/2011 17:24:16	16.575	3.654	1.135	84.703	63.103
06/29/2011 17:24:26	16.578	3.654	1.138	84.501	62.902
06/29/2011 17:24:36	16.578	3.654	1.142	84.703	62.902
06/29/2011 17:24:46	16.578	3.658	1.131	84.904	62.902
06/29/2011 17:24:56	16.582	3.662	1.102	84.904	62.902
06/29/2011 17:25:06	16.582	3.662	1.094	84.904	62.902
06/29/2011 17:25:16	16.582	3.665	1.12	84.904	62.704
06/29/2011 17:25:26	16.582	3.665	1.116	84.703	62.704
06/29/2011 17:25:36	16.582	3.665	1.109	84.904	62.704
06/29/2011 17:25:46	16.586	3.669	1.109	84.904	62.704
06/29/2011 17:25:56	16.586	3.669	1.109	84.703	62.704
06/29/2011 17:26:06	16.586	3.669	1.087	84.703	62.704
06/29/2011 17:26:16	16.586	3.673	1.061	84.904	63.103
06/29/2011 17:26:26	16.589	3.673	1.08	84.904	63.103
06/29/2011 17:26:36	16.589	3.676	1.098	84.904	63.301
06/29/2011 17:26:46	16.589	3.676	1.094	84.904	63.502
06/29/2011 17:26:56	16.593	3.676	1.109	84.904	63.301
06/29/2011 17:27:06	16.593	3.68	1.091	84.904	63.301
06/29/2011 17:27:16	16.593	3.68	1.087	84.904	63.301
06/29/2011 17:27:26	16.593	3.684	1.087	84.904	63.301
06/29/2011 17:27:36	16.593	3.687	1.087	84.904	63.103
06/29/2011 17:27:46	16.593	3.691	1.087	84.904	62.601
06/29/2011 17:27:56	16.593	3.695	1.087	84.904	62.902
06/29/2011 17:28:06	16.597	3.698	1.098	84.904	63.301
06/29/2011 17:28:16	16.597	3.698	1.109	84.904	62.902
06/29/2011 17:28:26	16.6	3.702	1.131	84.904	62.601
06/29/2011 17:28:36	16.6	3.702	1.109	84.904	63.301
06/29/2011 17:28:46	16.6	3.702	1.105	84.703	62.902
06/29/2011 17:28:56	16.6	3.706	1.087	84.904	62.601
06/29/2011 17:29:06	16.604	3.702	1.109	84.904	63.103
06/29/2011 17:29:16	16.604	3.706	1.087	84.904	63.103
06/29/2011 17:29:26	16.604	3.706	1.083	84.904	62.601
06/29/2011 17:29:36	16.604	3.706	1.12	84.904	62.601
06/29/2011 17:29:46	16.604	3.709	1.142	84.904	62.601
06/29/2011 17:29:56	16.604	3.709	1.124	84.904	62.601
06/29/2011 17:30:06	16.608	3.706	1.135	84.904	62.902
06/29/2011 17:30:16	16.608	3.706	1.135	84.904	63.301
06/29/2011 17:30:26	16.608	3.706	1.16	84.703	62.704
06/29/2011 17:30:36	16.608	3.706	1.135	84.703	62.601
06/29/2011 17:30:46	16.611	3.706	1.146	84.904	63.301
06/29/2011 17:30:56	16.611	3.709	1.142	84.904	63.301
06/29/2011 17:31:06	16.611	3.709	1.138	84.304	62.404
06/29/2011 17:31:16	16.611	3.709	1.138	84.501	62.404
06/29/2011 17:31:26	16.615	3.709	1.16	84.304	62.902
06/29/2011 17:31:36	16.615	3.713	1.157	84.703	63.103
06/29/2011 17:31:46	16.615	3.717	1.146	84.501	62.601

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 17:31:56	16.615	3.717	1.149	84.703	62.404
06/29/2011 17:32:06	16.615	3.72	1.16	84.501	62.404
06/29/2011 17:32:16	16.619	3.724	1.153	84.703	63.103
06/29/2011 17:32:26	16.619	3.724	1.109	84.304	63.103
06/29/2011 17:32:36	16.619	3.724	1.109	84.501	62.902
06/29/2011 17:32:46	16.619	3.728	1.138	84.501	62.601
06/29/2011 17:32:56	16.622	3.728	1.146	84.703	62.404
06/29/2011 17:33:06	16.622	3.731	1.138	84.501	62.404
06/29/2011 17:33:16	16.622	3.731	1.109	84.703	62.601
06/29/2011 17:33:26	16.622	3.731	1.087	84.703	62.404
06/29/2011 17:33:36	16.626	3.735	1.105	84.501	62.404
06/29/2011 17:33:46	16.626	3.735	1.135	84.501	62.404
06/29/2011 17:33:56	16.626	3.735	1.197	84.304	62.704
06/29/2011 17:34:06	16.626	3.739	1.263	84.501	63.103
06/29/2011 17:34:16	16.626	3.739	1.241	84.501	63.103
06/29/2011 17:34:26	16.626	3.739	1.23	84.501	63.103
06/29/2011 17:34:36	16.63	3.739	1.215	84.501	62.902
06/29/2011 17:34:46	16.63	3.742	1.149	84.703	62.704
06/29/2011 17:34:56	16.63	3.742	1.168	84.501	62.601
06/29/2011 17:35:06	16.63	3.742	1.168	84.703	62.704
06/29/2011 17:35:16	16.63	3.742	1.186	84.304	62.902
06/29/2011 17:35:26	16.633	3.742	1.12	84.205	63.103
06/29/2011 17:35:36	16.633	3.746	1.109	84.205	62.902
06/29/2011 17:35:46	16.633	3.746	1.109	84.304	63.103
06/29/2011 17:35:56	16.633	3.746	1.124	84.304	63.103
06/29/2011 17:36:06	16.637	3.75	1.135	84.205	62.902
06/29/2011 17:36:16	16.637	3.75	1.138	84.304	62.902
06/29/2011 17:36:26	16.637	3.75	1.087	84.304	62.704
06/29/2011 17:36:36	16.637	3.753	1.135	84.501	62.704
06/29/2011 17:36:46	16.637	3.753	1.138	84.501	62.704
06/29/2011 17:36:56	16.641	3.753	1.116	84.304	62.404
06/29/2011 17:37:06	16.641	3.757	1.138	84.304	62.001
06/29/2011 17:37:16	16.641	3.757	1.138	84.304	62.001
06/29/2011 17:37:26	16.641	3.757	1.138	84.304	62.202
06/29/2011 17:37:36	16.641	3.76	1.131	84.501	62.202
06/29/2011 17:37:46	16.644	3.76	1.124	84.304	62.001
06/29/2011 17:37:56	16.644	3.76	1.109	84.501	62.202
06/29/2011 17:38:06	16.644	3.76	1.109	84.304	62.601
06/29/2011 17:38:16	16.648	3.76	1.087	84.304	62.902
06/29/2011 17:38:26	16.648	3.76	1.087	84.205	62.704
06/29/2011 17:38:36	16.648	3.764	1.109	84.003	62.001
06/29/2011 17:38:46	16.648	3.764	1.109	84.205	62.001
06/29/2011 17:38:56	16.652	3.768	1.109	84.205	62.601
06/29/2011 17:39:06	16.652	3.768	1.142	84.205	62.704
06/29/2011 17:39:16	16.652	3.768	1.16	84.205	62.404
06/29/2011 17:39:26	16.655	3.771	1.164	84.205	62.202
06/29/2011 17:39:36	16.655	3.771	1.164	84.205	62.404
06/29/2011 17:39:46	16.655	3.775	1.164	84.205	62.704
06/29/2011 17:39:56	16.655	3.779	1.142	84.003	62.601
06/29/2011 17:40:06	16.655	3.779	1.138	84.205	62.001
06/29/2011 17:40:16	16.659	3.782	1.094	84.205	62.001
06/29/2011 17:40:26	16.659	3.782	1.087	84.304	62.601
06/29/2011 17:40:36	16.659	3.786	1.087	84.205	62.704
06/29/2011 17:40:46	16.659	3.79	1.08	84.304	62.601
06/29/2011 17:40:56	16.662	3.79	1.087	84.205	62.001
06/29/2011 17:41:06	16.659	3.79	1.087	84.205	62.001
06/29/2011 17:41:16	16.659	3.79	1.091	84.304	62.001
06/29/2011 17:41:26	16.662	3.79	1.087	84.205	62.001
06/29/2011 17:41:36	16.662	3.786	1.109	84.304	61.803
06/29/2011 17:41:46	16.666	3.786	1.109	84.304	61.803
06/29/2011 17:41:56	16.666	3.786	1.124	84.205	62.202
06/29/2011 17:42:06	16.666	3.782	1.124	84.205	62.601
06/29/2011 17:42:16	16.67	3.782	1.105	83.802	62.601
06/29/2011 17:42:26	16.67	3.779	1.12	84.003	62.404
06/29/2011 17:42:36	16.673	3.779	1.179	84.304	61.803
06/29/2011 17:42:46	16.673	3.779	1.135	84.501	62.001
06/29/2011 17:42:56	16.673	3.779	1.109	84.501	62.601
06/29/2011 17:43:06	16.673	3.779	1.12	84.501	62.404
06/29/2011 17:43:16	16.673	3.779	1.131	84.304	61.803
06/29/2011 17:43:26	16.677	3.782	1.135	84.703	62.001
06/29/2011 17:43:36	16.677	3.782	1.12	84.304	62.601
06/29/2011 17:43:46	16.677	3.786	1.109	84.304	62.001
06/29/2011 17:43:56	16.681	3.786	1.087	84.304	61.803

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 17:44:06	16.681	3.79	1.105	84.501	61.803
06/29/2011 17:44:16	16.681	3.79	1.109	84.501	62.601
06/29/2011 17:44:26	16.681	3.793	1.109	84.501	62.404
06/29/2011 17:44:36	16.684	3.793	1.127	84.501	61.803
06/29/2011 17:44:46	16.684	3.797	1.186	84.304	61.803
06/29/2011 17:44:56	16.684	3.797	1.186	84.205	62.404
06/29/2011 17:45:06	16.684	3.797	1.186	84.304	62.404
06/29/2011 17:45:16	16.688	3.801	1.186	84.205	61.803
06/29/2011 17:45:26	16.688	3.801	1.16	84.205	61.803
06/29/2011 17:45:36	16.692	3.801	1.146	84.205	62.404
06/29/2011 17:45:46	16.692	3.801	1.201	84.205	62.601
06/29/2011 17:45:56	16.692	3.804	1.241	84.205	62.404
06/29/2011 17:46:06	16.692	3.804	1.237	84.304	61.803
06/29/2011 17:46:16	16.692	3.804	1.215	84.304	61.803
06/29/2011 17:46:26	16.695	3.808	1.215	84.304	61.803
06/29/2011 17:46:36	16.695	3.808	1.215	84.304	62.001
06/29/2011 17:46:46	16.695	3.808	1.182	84.304	62.404
06/29/2011 17:46:56	16.699	3.812	1.109	84.205	62.404
06/29/2011 17:47:06	16.699	3.815	1.109	84.205	62.202
06/29/2011 17:47:16	16.699	3.815	1.135	84.205	61.704
06/29/2011 17:47:26	16.703	3.819	1.135	84.205	61.704
06/29/2011 17:47:36	16.703	3.819	1.16	84.205	61.803
06/29/2011 17:47:46	16.703	3.823	1.157	84.205	61.704
06/29/2011 17:47:56	16.703	3.826	1.16	84.205	61.704
06/29/2011 17:48:06	16.703	3.826	1.175	84.304	61.803
06/29/2011 17:48:16	16.706	3.826	1.157	84.205	62.404
06/29/2011 17:48:26	16.706	3.823	1.116	84.304	62.001
06/29/2011 17:48:36	16.71	3.826	1.175	84.205	61.704
06/29/2011 17:48:46	16.71	3.826	1.197	84.304	62.404
06/29/2011 17:48:56	16.71	3.826	1.201	84.501	61.704
06/29/2011 17:49:06	16.71	3.826	1.186	84.304	62.202
06/29/2011 17:49:16	16.714	3.826	1.186	84.304	61.503
06/29/2011 17:49:26	16.714	3.826	1.142	84.304	62.202
06/29/2011 17:49:36	16.717	3.83	1.127	84.304	61.704
06/29/2011 17:49:46	16.717	3.83	1.131	84.304	61.704
06/29/2011 17:49:56	16.717	3.83	1.135	84.304	62.404
06/29/2011 17:50:06	16.721	3.83	1.138	84.205	62.404
06/29/2011 17:50:16	16.721	3.83	1.109	84.205	62.404
06/29/2011 17:50:26	16.721	3.83	1.131	84.003	62.202
06/29/2011 17:50:36	16.721	3.834	1.157	84.205	62.404
06/29/2011 17:50:46	16.725	3.834	1.197	84.205	62.202
06/29/2011 17:50:56	16.725	3.834	1.186	84.003	62.202
06/29/2011 17:51:06	16.725	3.837	1.201	84.003	62.001
06/29/2011 17:51:16	16.725	3.837	1.215	83.802	61.803
06/29/2011 17:51:26	16.728	3.837	1.175	84.003	61.503
06/29/2011 17:51:36	16.728	3.841	1.175	84.205	61.704
06/29/2011 17:51:46	16.728	3.841	1.171	84.205	61.704
06/29/2011 17:51:56	16.728	3.845	1.16	84.205	62.001
06/29/2011 17:52:06	16.728	3.848	1.186	84.205	62.404
06/29/2011 17:52:16	16.732	3.852	1.193	84.205	62.202
06/29/2011 17:52:26	16.732	3.852	1.215	84.205	62.202
06/29/2011 17:52:36	16.732	3.856	1.186	84.003	62.001
06/29/2011 17:52:46	16.732	3.856	1.109	84.304	62.001
06/29/2011 17:52:56	16.732	3.859	1.153	84.205	62.001
06/29/2011 17:53:06	16.736	3.859	1.16	84.003	62.001
06/29/2011 17:53:16	16.736	3.863	1.168	84.003	62.001
06/29/2011 17:53:26	16.739	3.859	1.168	84.003	62.001
06/29/2011 17:53:36	16.739	3.863	1.16	84.003	62.202
06/29/2011 17:53:46	16.739	3.863	1.16	84.205	62.404
06/29/2011 17:53:56	16.743	3.863	1.138	84.205	62.404
06/29/2011 17:54:06	16.743	3.859	1.087	84.304	61.803
06/29/2011 17:54:16	16.743	3.859	1.094	84.304	61.704
06/29/2011 17:54:26	16.743	3.856	1.102	84.205	62.001
06/29/2011 17:54:36	16.747	3.856	1.135	84.304	62.202
06/29/2011 17:54:46	16.747	3.856	1.109	84.501	62.404
06/29/2011 17:54:56	16.747	3.856	1.105	84.304	62.601
06/29/2011 17:55:06	16.75	3.856	1.105	84.304	62.601
06/29/2011 17:55:16	16.75	3.859	1.127	84.304	62.601
06/29/2011 17:55:26	16.75	3.856	1.105	84.703	62.601
06/29/2011 17:55:36	16.754	3.856	1.116	84.501	62.202
06/29/2011 17:55:46	16.754	3.859	1.094	84.501	61.704
06/29/2011 17:55:56	16.754	3.859	1.105	84.501	61.704
06/29/2011 17:56:06	16.758	3.863	1.124	84.501	62.202

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 17:56:16	16.761	3.863	1.109	84.304	62.001
06/29/2011 17:56:26	16.761	3.863	1.105	84.501	61.704
06/29/2011 17:56:36	16.761	3.867	1.135	84.501	62.001
06/29/2011 17:56:46	16.761	3.87	1.135	84.304	62.202
06/29/2011 17:56:56	16.765	3.87	1.098	84.304	61.803
06/29/2011 17:57:06	16.765	3.87	1.109	84.304	61.704
06/29/2011 17:57:16	16.765	3.87	1.109	84.501	62.202
06/29/2011 17:57:26	16.769	3.87	1.109	84.904	61.803
06/29/2011 17:57:36	16.769	3.874	1.087	84.501	61.704
06/29/2011 17:57:46	16.769	3.874	1.087	84.703	61.704
06/29/2011 17:57:56	16.772	3.874	1.098	84.304	61.704
06/29/2011 17:58:06	16.772	3.874	1.087	84.205	61.704
06/29/2011 17:58:16	16.772	3.874	1.109	84.304	61.704
06/29/2011 17:58:26	16.772	3.874	1.105	84.501	61.803
06/29/2011 17:58:36	16.776	3.878	1.12	84.501	61.803
06/29/2011 17:58:46	16.776	3.878	1.135	84.703	61.803
06/29/2011 17:58:56	16.78	3.878	1.116	84.501	61.803
06/29/2011 17:59:06	16.783	3.878	1.098	84.501	62.001
06/29/2011 17:59:16	16.783	3.878	1.109	84.304	62.202
06/29/2011 17:59:26	16.783	3.881	1.087	84.304	62.202
06/29/2011 17:59:36	16.787	3.881	1.094	84.501	62.202
06/29/2011 17:59:46	16.787	3.881	1.087	84.501	62.404
06/29/2011 17:59:56	16.787	3.881	1.087	84.501	62.202
06/29/2011 18:00:06	16.787	3.881	1.087	84.703	61.803
06/29/2011 18:00:16	16.791	3.881	1.094	84.501	62.001
06/29/2011 18:00:26	16.791	3.881	1.109	84.304	61.803
06/29/2011 18:00:36	16.794	3.885	1.109	84.703	62.202
06/29/2011 18:00:46	16.794	3.885	1.109	84.703	61.803
06/29/2011 18:00:56	16.794	3.885	1.109	84.904	62.404
06/29/2011 18:01:06	16.794	3.885	1.135	84.304	61.803
06/29/2011 18:01:16	16.798	3.885	1.109	84.703	62.404
06/29/2011 18:01:26	16.798	3.885	1.091	84.703	61.803
06/29/2011 18:01:36	16.798	3.885	1.091	84.703	62.404
06/29/2011 18:01:46	16.802	3.885	1.091	84.501	61.803
06/29/2011 18:01:56	16.802	3.885	1.109	84.501	62.202
06/29/2011 18:02:06	16.805	3.885	1.109	84.703	61.803
06/29/2011 18:02:16	16.805	3.889	1.12	84.703	61.803
06/29/2011 18:02:26	16.805	3.885	1.149	84.703	62.404
06/29/2011 18:02:36	16.809	3.889	1.175	84.501	61.803
06/29/2011 18:02:46	16.809	3.892	1.149	84.703	62.202
06/29/2011 18:02:56	16.809	3.892	1.212	84.703	62.001
06/29/2011 18:03:06	16.813	3.892	1.186	84.304	61.704
06/29/2011 18:03:16	16.813	3.896	1.215	84.304	62.202
06/29/2011 18:03:26	16.813	3.896	1.215	84.304	62.001
06/29/2011 18:03:36	16.816	3.896	1.212	84.304	61.704
06/29/2011 18:03:46	16.816	3.9	1.179	84.501	62.202
06/29/2011 18:03:56	16.816	3.9	1.142	84.304	62.202
06/29/2011 18:04:06	16.82	3.903	1.135	84.304	61.704
06/29/2011 18:04:16	16.82	3.903	1.12	84.304	61.704
06/29/2011 18:04:26	16.82	3.907	1.131	84.501	61.704
06/29/2011 18:04:36	16.824	3.911	1.109	84.501	61.704
06/29/2011 18:04:46	16.824	3.911	1.138	84.501	61.704
06/29/2011 18:04:56	16.824	3.911	1.138	84.205	62.202
06/29/2011 18:05:06	16.824	3.911	1.16	84.205	62.001
06/29/2011 18:05:16	16.827	3.914	1.109	84.304	62.404
06/29/2011 18:05:26	16.827	3.914	1.087	84.205	61.503
06/29/2011 18:05:36	16.831	3.914	1.087	84.205	62.001
06/29/2011 18:05:46	16.831	3.911	1.087	84.304	61.503
06/29/2011 18:05:56	16.831	3.911	1.087	84.304	62.001
06/29/2011 18:06:06	16.835	3.911	1.109	84.205	61.803
06/29/2011 18:06:16	16.835	3.907	1.102	84.205	61.704
06/29/2011 18:06:26	16.835	3.907	1.109	84.205	62.001
06/29/2011 18:06:36	16.835	3.903	1.087	84.003	61.503
06/29/2011 18:06:46	16.838	3.903	1.087	84.003	62.001
06/29/2011 18:06:56	16.838	3.9	1.102	84.003	62.001
06/29/2011 18:07:06	16.838	3.9	1.087	83.802	61.503
06/29/2011 18:07:16	16.838	3.9	1.087	84.003	61.704
06/29/2011 18:07:26	16.842	3.9	1.098	84.205	62.001
06/29/2011 18:07:36	16.842	3.9	1.109	84.205	61.803
06/29/2011 18:07:46	16.842	3.9	1.109	84.205	61.503
06/29/2011 18:07:56	16.842	3.903	1.12	84.003	61.704
06/29/2011 18:08:06	16.846	3.9	1.109	84.003	62.001
06/29/2011 18:08:16	16.846	3.903	1.109	84.205	61.803

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 18:08:26	16.849	3.903	1.131	84.003	61.704
06/29/2011 18:08:36	16.849	3.903	1.109	83.802	61.803
06/29/2011 18:08:46	16.849	3.903	1.109	83.802	62.001
06/29/2011 18:08:56	16.849	3.907	1.109	83.802	61.704
06/29/2011 18:09:06	16.853	3.907	1.102	83.802	61.704
06/29/2011 18:09:16	16.853	3.907	1.109	83.802	62.202
06/29/2011 18:09:26	16.853	3.907	1.105	83.802	62.202
06/29/2011 18:09:36	16.857	3.907	1.091	83.802	61.704
06/29/2011 18:09:46	16.857	3.907	1.105	83.802	61.704
06/29/2011 18:09:56	16.857	3.907	1.109	83.802	61.803
06/29/2011 18:10:06	16.857	3.907	1.109	84.003	62.001
06/29/2011 18:10:16	16.86	3.907	1.109	84.003	62.202
06/29/2011 18:10:26	16.86	3.911	1.102	83.802	62.202
06/29/2011 18:10:36	16.86	3.911	1.135	83.802	62.202
06/29/2011 18:10:46	16.86	3.911	1.146	84.003	61.803
06/29/2011 18:10:56	16.864	3.911	1.245	84.205	61.704
06/29/2011 18:11:06	16.864	3.911	1.146	84.205	61.503
06/29/2011 18:11:16	16.864	3.911	1.16	84.205	61.803
06/29/2011 18:11:26	16.864	3.911	1.135	84.205	62.001
06/29/2011 18:11:36	16.864	3.911	1.16	84.003	62.001
06/29/2011 18:11:46	16.868	3.911	1.135	84.003	61.803
06/29/2011 18:11:56	16.868	3.914	1.135	84.003	61.503
06/29/2011 18:12:06	16.868	3.914	1.135	83.802	61.803
06/29/2011 18:12:16	16.871	3.914	1.186	83.604	62.001
06/29/2011 18:12:26	16.871	3.914	1.215	84.003	61.704
06/29/2011 18:12:36	16.871	3.914	1.215	84.003	61.704
06/29/2011 18:12:46	16.875	3.914	1.142	83.802	62.202
06/29/2011 18:12:56	16.875	3.914	1.146	84.003	61.803
06/29/2011 18:13:06	16.875	3.914	1.135	83.802	61.503
06/29/2011 18:13:16	16.875	3.918	1.153	84.205	62.001
06/29/2011 18:13:26	16.875	3.914	1.186	84.003	62.001
06/29/2011 18:13:36	16.879	3.914	1.193	83.802	61.803
06/29/2011 18:13:46	16.879	3.918	1.201	83.403	61.503
06/29/2011 18:13:56	16.879	3.914	1.171	83.403	61.503
06/29/2011 18:14:06	16.882	3.914	1.135	83.403	61.503
06/29/2011 18:14:16	16.882	3.918	1.138	83.403	61.503
06/29/2011 18:14:26	16.882	3.918	1.164	83.403	61.503
06/29/2011 18:14:36	16.882	3.918	1.131	83.604	61.704
06/29/2011 18:14:46	16.886	3.918	1.16	83.802	61.803
06/29/2011 18:14:56	16.886	3.918	1.19	83.604	62.001
06/29/2011 18:15:06	16.886	3.918	1.208	83.604	61.803
06/29/2011 18:15:16	16.89	3.922	1.186	83.604	61.503
06/29/2011 18:15:26	16.89	3.922	1.201	83.802	61.301
06/29/2011 18:15:36	16.89	3.922	1.215	84.003	61.704
06/29/2011 18:15:46	16.89	3.922	1.186	83.802	61.803
06/29/2011 18:15:56	16.893	3.925	1.186	83.802	61.704
06/29/2011 18:16:06	16.893	3.925	1.142	83.802	61.301
06/29/2011 18:16:16	16.893	3.925	1.135	83.403	61.803
06/29/2011 18:16:26	16.893	3.929	1.116	83.802	62.001
06/29/2011 18:16:36	16.893	3.929	1.12	83.604	61.503
06/29/2011 18:16:46	16.893	3.933	1.138	83.604	61.503
06/29/2011 18:16:56	16.897	3.933	1.135	83.604	61.704
06/29/2011 18:17:06	16.897	3.936	1.157	83.802	61.803
06/29/2011 18:17:16	16.897	3.936	1.19	83.604	61.803
06/29/2011 18:17:26	16.901	3.936	1.241	83.403	61.704
06/29/2011 18:17:36	16.901	3.936	1.23	83.304	61.704
06/29/2011 18:17:46	16.901	3.936	1.212	83.403	61.503
06/29/2011 18:17:56	16.904	3.933	1.193	83.604	61.704
06/29/2011 18:18:06	16.904	3.933	1.109	83.604	61.803
06/29/2011 18:18:16	16.904	3.933	1.16	83.604	61.803
06/29/2011 18:18:26	16.904	3.929	1.109	83.304	61.503
06/29/2011 18:18:36	16.908	3.925	1.135	83.304	61.503
06/29/2011 18:18:46	16.908	3.925	1.116	83.403	61.704
06/29/2011 18:18:56	16.908	3.922	1.091	83.304	61.803
06/29/2011 18:19:06	16.908	3.922	1.098	83.304	61.301
06/29/2011 18:19:16	16.908	3.922	1.087	83.403	61.503
06/29/2011 18:19:26	16.908	3.918	1.098	83.403	61.803
06/29/2011 18:19:36	16.908	3.918	1.135	83.304	61.104
06/29/2011 18:19:46	16.912	3.918	1.087	83.403	61.503
06/29/2011 18:19:56	16.912	3.918	1.109	83.304	61.803
06/29/2011 18:20:06	16.915	3.918	1.16	83.304	61.301
06/29/2011 18:20:16	16.915	3.918	1.201	83.304	61.704
06/29/2011 18:20:26	16.915	3.918	1.212	83.304	61.704

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 18:20:36	16.915	3.922	1.149	83.304	61.503
06/29/2011 18:20:46	16.919	3.922	1.157	83.403	61.803
06/29/2011 18:20:56	16.919	3.925	1.105	83.304	61.301
06/29/2011 18:21:06	16.923	3.925	1.127	83.304	61.803
06/29/2011 18:21:16	16.923	3.925	1.142	83.304	61.301
06/29/2011 18:21:26	16.923	3.925	1.186	83.304	61.704
06/29/2011 18:21:36	16.923	3.929	1.186	83.304	61.803
06/29/2011 18:21:46	16.923	3.929	1.157	83.304	61.301
06/29/2011 18:21:56	16.926	3.929	1.149	83.403	61.803
06/29/2011 18:22:06	16.926	3.929	1.182	83.403	61.301
06/29/2011 18:22:16	16.926	3.929	1.182	83.403	61.704
06/29/2011 18:22:26	16.93	3.929	1.135	83.403	61.704
06/29/2011 18:22:36	16.93	3.929	1.142	83.403	61.301
06/29/2011 18:22:46	16.93	3.929	1.182	83.604	61.803
06/29/2011 18:22:56	16.93	3.933	1.087	83.604	61.503
06/29/2011 18:23:06	16.93	3.933	1.076	83.403	61.503
06/29/2011 18:23:16	16.934	3.929	1.065	83.304	61.803
06/29/2011 18:23:26	16.934	3.929	1.061	83.304	61.803
06/29/2011 18:23:36	16.934	3.929	1.12	83.304	61.301
06/29/2011 18:23:46	16.934	3.929	1.135	83.304	61.503
06/29/2011 18:23:56	16.934	3.929	1.164	83.304	61.704
06/29/2011 18:24:06	16.937	3.929	1.223	83.103	61.301
06/29/2011 18:24:16	16.941	3.929	1.234	83.304	61.301
06/29/2011 18:24:26	16.941	3.929	1.274	83.103	61.503
06/29/2011 18:24:36	16.941	3.929	1.208	83.304	61.704
06/29/2011 18:24:46	16.944	3.929	1.197	83.304	61.704
06/29/2011 18:24:56	16.944	3.929	1.197	83.304	61.503
06/29/2011 18:25:06	16.944	3.929	1.127	83.304	61.301
06/29/2011 18:25:16	16.944	3.929	1.193	83.304	61.503
06/29/2011 18:25:26	16.948	3.929	1.23	83.103	61.503
06/29/2011 18:25:36	16.948	3.929	1.124	83.103	61.503
06/29/2011 18:25:46	16.948	3.929	1.226	83.103	61.301
06/29/2011 18:25:56	16.948	3.929	1.215	83.103	61.803
06/29/2011 18:26:06	16.948	3.929	1.171	82.703	61.104
06/29/2011 18:26:16	16.952	3.929	1.179	82.905	61.704
06/29/2011 18:26:26	16.952	3.929	1.175	82.905	61.503
06/29/2011 18:26:36	16.952	3.929	1.168	82.905	61.104
06/29/2011 18:26:46	16.955	3.929	1.16	83.103	61.704
06/29/2011 18:26:56	16.955	3.929	1.109	83.103	61.503
06/29/2011 18:27:06	16.955	3.929	1.094	83.103	61.301
06/29/2011 18:27:16	16.959	3.929	1.087	83.103	61.704
06/29/2011 18:27:26	16.959	3.929	1.065	83.304	61.301
06/29/2011 18:27:36	16.959	3.929	1.087	83.103	61.704
06/29/2011 18:27:46	16.959	3.929	1.061	82.905	61.803
06/29/2011 18:27:56	16.959	3.929	1.102	82.905	61.503
06/29/2011 18:28:06	16.963	3.929	1.087	83.103	61.104
06/29/2011 18:28:16	16.963	3.929	1.116	82.703	61.104
06/29/2011 18:28:26	16.963	3.933	1.105	82.905	61.104
06/29/2011 18:28:36	16.966	3.933	1.12	83.103	61.104
06/29/2011 18:28:46	16.966	3.936	1.149	82.905	61.104
06/29/2011 18:28:56	16.966	3.936	1.16	83.103	61.104
06/29/2011 18:29:06	16.966	3.94	1.135	83.103	61.104
06/29/2011 18:29:16	16.97	3.94	1.168	83.103	61.301
06/29/2011 18:29:26	16.97	3.944	1.153	83.103	61.301
06/29/2011 18:29:36	16.97	3.944	1.175	83.103	61.301
06/29/2011 18:29:46	16.97	3.944	1.215	83.103	61.301
06/29/2011 18:29:56	16.97	3.944	1.171	83.103	61.104
06/29/2011 18:30:06	16.974	3.944	1.135	83.103	61.503
06/29/2011 18:30:16	16.977	3.94	1.116	83.103	61.503
06/29/2011 18:30:26	16.977	3.94	1.094	83.103	60.902
06/29/2011 18:30:36	16.977	3.94	1.094	83.103	61.503
06/29/2011 18:30:46	16.977	3.936	1.135	83.103	60.902
06/29/2011 18:30:56	16.981	3.933	1.16	83.103	61.301
06/29/2011 18:31:06	16.981	3.933	1.142	83.103	61.704
06/29/2011 18:31:16	16.981	3.929	1.135	82.703	60.902
06/29/2011 18:31:26	16.985	3.929	1.109	82.703	61.301
06/29/2011 18:31:36	16.985	3.925	1.138	82.502	61.503
06/29/2011 18:31:46	16.985	3.925	1.105	82.703	60.902
06/29/2011 18:31:56	16.988	3.925	1.12	82.703	61.104
06/29/2011 18:32:06	16.988	3.925	1.131	82.502	61.503
06/29/2011 18:32:16	16.992	3.925	1.135	82.703	61.503
06/29/2011 18:32:26	16.992	3.925	1.149	82.703	61.503
06/29/2011 18:32:36	16.992	3.925	1.135	82.905	61.503

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 18:32:46	16.992	3.925	1.16	82.905	61.301
06/29/2011 18:32:56	16.996	3.929	1.12	82.703	61.503
06/29/2011 18:33:06	16.996	3.929	1.087	82.905	61.704
06/29/2011 18:33:16	16.996	3.929	1.072	82.905	61.704
06/29/2011 18:33:26	16.996	3.929	1.105	82.905	61.503
06/29/2011 18:33:36	16.996	3.929	1.094	82.502	60.803
06/29/2011 18:33:46	16.999	3.933	1.069	82.703	60.902
06/29/2011 18:33:56	16.999	3.933	1.094	82.703	61.503
06/29/2011 18:34:06	16.999	3.933	1.142	82.403	60.803
06/29/2011 18:34:16	16.999	3.933	1.142	82.703	61.503
06/29/2011 18:34:26	17.003	3.933	1.19	82.703	61.503
06/29/2011 18:34:36	17.003	3.933	1.212	82.703	60.902
06/29/2011 18:34:46	17.007	3.933	1.186	82.502	61.503
06/29/2011 18:34:56	17.007	3.933	1.234	82.905	61.503
06/29/2011 18:35:06	17.007	3.936	1.131	83.103	60.902
06/29/2011 18:35:16	17.01	3.936	1.116	83.103	60.902
06/29/2011 18:35:26	17.01	3.936	1.116	82.905	61.503
06/29/2011 18:35:36	17.01	3.94	1.105	82.905	61.704
06/29/2011 18:35:46	17.014	3.936	1.091	83.103	60.902
06/29/2011 18:35:56	17.014	3.936	1.105	83.304	60.902
06/29/2011 18:36:06	17.014	3.94	1.109	83.103	60.803
06/29/2011 18:36:16	17.014	3.936	1.109	82.905	60.902
06/29/2011 18:36:26	17.018	3.936	1.16	82.905	61.301
06/29/2011 18:36:36	17.018	3.94	1.131	82.703	61.503
06/29/2011 18:36:46	17.021	3.94	1.116	82.502	61.503
06/29/2011 18:36:56	17.021	3.94	1.127	82.703	61.301
06/29/2011 18:37:06	17.021	3.94	1.153	82.703	60.803
06/29/2011 18:37:16	17.021	3.94	1.157	82.703	60.803
06/29/2011 18:37:26	17.021	3.944	1.131	82.905	60.902
06/29/2011 18:37:36	17.025	3.944	1.105	82.502	60.902
06/29/2011 18:37:46	17.025	3.94	1.105	82.703	60.902
06/29/2011 18:37:56	17.029	3.944	1.087	82.703	61.503
06/29/2011 18:38:06	17.029	3.94	1.083	82.703	60.902
06/29/2011 18:38:16	17.029	3.94	1.087	82.502	61.301
06/29/2011 18:38:26	17.029	3.94	1.094	82.703	61.503
06/29/2011 18:38:36	17.032	3.94	1.087	82.905	60.902
06/29/2011 18:38:46	17.032	3.94	1.098	82.403	61.301
06/29/2011 18:38:56	17.032	3.94	1.135	82.502	61.503
06/29/2011 18:39:06	17.032	3.94	1.138	82.403	61.503
06/29/2011 18:39:16	17.036	3.94	1.08	82.502	61.503
06/29/2011 18:39:26	17.036	3.94	1.098	82.502	61.503
06/29/2011 18:39:36	17.036	3.94	1.102	82.703	61.301
06/29/2011 18:39:46	17.04	3.94	1.083	82.502	60.902
06/29/2011 18:39:56	17.04	3.94	1.102	82.502	61.104
06/29/2011 18:40:06	17.04	3.94	1.098	82.905	61.503
06/29/2011 18:40:16	17.04	3.94	1.124	82.703	61.704
06/29/2011 18:40:26	17.043	3.94	1.105	82.905	61.301
06/29/2011 18:40:36	17.043	3.944	1.102	82.703	60.902
06/29/2011 18:40:46	17.047	3.944	1.087	82.703	60.902
06/29/2011 18:40:56	17.047	3.944	1.102	82.905	61.301
06/29/2011 18:41:06	17.047	3.947	1.109	82.703	61.503
06/29/2011 18:41:16	17.051	3.951	1.091	82.703	61.704
06/29/2011 18:41:26	17.051	3.951	1.08	82.703	61.704
06/29/2011 18:41:36	17.051	3.955	1.087	82.703	61.704
06/29/2011 18:41:46	17.054	3.955	1.098	82.502	61.301
06/29/2011 18:41:56	17.054	3.955	1.098	82.502	61.104
06/29/2011 18:42:06	17.058	3.955	1.102	82.502	60.902
06/29/2011 18:42:16	17.058	3.958	1.094	82.703	61.301
06/29/2011 18:42:26	17.058	3.955	1.094	82.905	61.503
06/29/2011 18:42:36	17.062	3.955	1.098	83.103	61.301
06/29/2011 18:42:46	17.062	3.955	1.135	82.905	61.301
06/29/2011 18:42:56	17.065	3.955	1.146	82.905	61.803
06/29/2011 18:43:06	17.065	3.955	1.16	82.905	61.104
06/29/2011 18:43:16	17.065	3.951	1.102	82.905	61.503
06/29/2011 18:43:26	17.069	3.947	1.105	82.502	61.803
06/29/2011 18:43:36	17.069	3.947	1.109	82.703	61.704
06/29/2011 18:43:46	17.069	3.944	1.109	82.502	61.503
06/29/2011 18:43:56	17.069	3.94	1.087	82.703	61.301
06/29/2011 18:44:06	17.073	3.94	1.061	82.703	61.104
06/29/2011 18:44:16	17.073	3.94	1.105	82.905	61.301
06/29/2011 18:44:26	17.073	3.936	1.102	82.905	61.503
06/29/2011 18:44:36	17.076	3.936	1.087	82.703	61.704
06/29/2011 18:44:46	17.076	3.94	1.083	82.502	61.803

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 18:44:56	17.076	3.94	1.083	82.502	61.803
06/29/2011 18:45:06	17.08	3.94	1.061	82.502	61.503
06/29/2011 18:45:16	17.08	3.94	1.08	82.403	61.104
06/29/2011 18:45:26	17.084	3.94	1.061	82.403	61.104
06/29/2011 18:45:36	17.084	3.94	1.069	82.403	61.503
06/29/2011 18:45:46	17.084	3.944	1.109	82.403	61.803
06/29/2011 18:45:56	17.087	3.944	1.091	82.703	61.803
06/29/2011 18:46:06	17.087	3.944	1.083	82.403	61.301
06/29/2011 18:46:16	17.091	3.944	1.105	82.403	61.104
06/29/2011 18:46:26	17.091	3.944	1.098	82.403	61.803
06/29/2011 18:46:36	17.091	3.944	1.08	82.403	61.704
06/29/2011 18:46:46	17.095	3.944	1.076	82.502	61.104
06/29/2011 18:46:56	17.095	3.944	1.091	82.502	61.301
06/29/2011 18:47:06	17.095	3.944	1.087	82.703	61.803
06/29/2011 18:47:16	17.095	3.944	1.083	82.403	61.704
06/29/2011 18:47:26	17.098	3.944	1.091	82.403	61.301
06/29/2011 18:47:36	17.098	3.944	1.124	82.403	61.503
06/29/2011 18:47:46	17.102	3.944	1.083	82.403	62.001
06/29/2011 18:47:56	17.102	3.944	1.135	82.202	61.301
06/29/2011 18:48:06	17.102	3.944	1.102	82.403	61.104
06/29/2011 18:48:16	17.106	3.944	1.142	82.202	61.704
06/29/2011 18:48:26	17.106	3.944	1.105	82.202	61.803
06/29/2011 18:48:36	17.106	3.944	1.153	82.202	61.803
06/29/2011 18:48:46	17.109	3.944	1.116	82.202	61.104
06/29/2011 18:48:56	17.109	3.947	1.105	82.202	61.301
06/29/2011 18:49:06	17.113	3.944	1.127	82.004	61.803
06/29/2011 18:49:16	17.113	3.947	1.105	82.202	61.803
06/29/2011 18:49:26	17.113	3.947	1.065	82.202	61.503
06/29/2011 18:49:36	17.117	3.944	1.105	82.202	61.104
06/29/2011 18:49:46	17.117	3.947	1.105	82.202	61.301
06/29/2011 18:49:56	17.117	3.944	1.105	82.202	61.803
06/29/2011 18:50:06	17.12	3.947	1.105	82.202	61.704
06/29/2011 18:50:16	17.12	3.944	1.061	82.004	61.104
06/29/2011 18:50:26	17.12	3.947	1.072	81.802	61.301
06/29/2011 18:50:36	17.12	3.947	1.094	82.004	61.503
06/29/2011 18:50:46	17.124	3.944	1.105	82.202	61.803
06/29/2011 18:50:56	17.128	3.944	1.105	82.004	61.803
06/29/2011 18:51:06	17.128	3.944	1.105	82.202	61.803
06/29/2011 18:51:16	17.128	3.944	1.083	82.202	61.803
06/29/2011 18:51:26	17.131	3.944	1.087	82.202	61.803
06/29/2011 18:51:36	17.131	3.944	1.094	82.202	61.301
06/29/2011 18:51:46	17.131	3.944	1.105	82.004	61.301
06/29/2011 18:51:56	17.135	3.944	1.083	82.004	61.803
06/29/2011 18:52:06	17.135	3.944	1.065	82.202	61.104
06/29/2011 18:52:16	17.135	3.944	1.061	82.403	61.803
06/29/2011 18:52:26	17.139	3.944	1.061	82.502	61.104
06/29/2011 18:52:36	17.139	3.944	1.043	82.202	61.803
06/29/2011 18:52:46	17.139	3.944	1.036	82.004	61.301
06/29/2011 18:52:56	17.142	3.944	1.036	81.802	61.104
06/29/2011 18:53:06	17.142	3.944	1.05	82.004	61.301
06/29/2011 18:53:16	17.142	3.947	1.039	81.802	61.503
06/29/2011 18:53:26	17.146	3.947	1.05	82.202	61.503
06/29/2011 18:53:36	17.146	3.947	1.08	82.004	61.301
06/29/2011 18:53:46	17.146	3.951	1.105	82.202	61.301
06/29/2011 18:53:56	17.15	3.951	1.098	82.202	61.803
06/29/2011 18:54:06	17.15	3.955	1.105	81.802	61.704
06/29/2011 18:54:16	17.15	3.955	1.124	81.802	61.301
06/29/2011 18:54:26	17.153	3.955	1.16	81.605	61.301
06/29/2011 18:54:36	17.153	3.955	1.135	81.802	61.704
06/29/2011 18:54:46	17.153	3.955	1.069	81.802	61.503
06/29/2011 18:54:56	17.157	3.955	1.087	81.605	61.301
06/29/2011 18:55:06	17.157	3.955	1.142	81.802	61.503
06/29/2011 18:55:16	17.157	3.951	1.146	81.802	61.803
06/29/2011 18:55:26	17.157	3.951	1.127	81.802	61.503
06/29/2011 18:55:36	17.161	3.951	1.109	82.004	61.301
06/29/2011 18:55:46	17.161	3.947	1.087	82.403	61.301
06/29/2011 18:55:56	17.164	3.947	1.109	82.202	61.503
06/29/2011 18:56:06	17.164	3.944	1.109	82.403	61.803
06/29/2011 18:56:16	17.168	3.944	1.12	82.004	62.001
06/29/2011 18:56:26	17.168	3.94	1.087	82.403	61.803
06/29/2011 18:56:36	17.168	3.94	1.091	82.502	61.803
06/29/2011 18:56:46	17.168	3.94	1.102	82.502	61.803
06/29/2011 18:56:56	17.172	3.936	1.105	82.202	61.704

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 18:57:06	17.172	3.936	1.105	81.802	61.704
06/29/2011 18:57:16	17.172	3.936	1.105	81.605	61.803
06/29/2011 18:57:26	17.175	3.94	1.087	81.605	62.001
06/29/2011 18:57:36	17.179	3.94	1.076	81.605	61.301
06/29/2011 18:57:46	17.179	3.94	1.109	81.605	61.503
06/29/2011 18:57:56	17.179	3.94	1.102	82.004	61.704
06/29/2011 18:58:06	17.183	3.94	1.061	82.004	61.301
06/29/2011 18:58:16	17.183	3.944	1.061	82.004	61.803
06/29/2011 18:58:26	17.183	3.944	1.094	82.004	61.503
06/29/2011 18:58:36	17.186	3.944	1.083	81.802	61.503
06/29/2011 18:58:46	17.186	3.944	1.105	81.605	61.704
06/29/2011 18:58:56	17.186	3.944	1.105	81.502	61.301
06/29/2011 18:59:06	17.19	3.944	1.109	81.802	61.803
06/29/2011 18:59:16	17.19	3.944	1.127	81.502	61.704
06/29/2011 18:59:26	17.194	3.944	1.087	81.605	61.301
06/29/2011 18:59:36	17.194	3.944	1.098	82.202	61.301
06/29/2011 18:59:46	17.197	3.944	1.135	82.202	61.104
06/29/2011 18:59:56	17.197	3.944	1.12	81.802	61.301
06/29/2011 19:00:06	17.197	3.944	1.116	81.802	61.704
06/29/2011 19:00:16	17.201	3.947	1.087	81.605	61.803
06/29/2011 19:00:26	17.201	3.944	1.098	81.502	61.104
06/29/2011 19:00:36	17.201	3.944	1.157	81.502	61.301
06/29/2011 19:00:46	17.205	3.944	1.087	81.502	61.704
06/29/2011 19:00:56	17.205	3.944	1.087	81.502	61.803
06/29/2011 19:01:06	17.205	3.947	1.061	81.502	61.704
06/29/2011 19:01:16	17.205	3.944	1.083	81.502	61.301
06/29/2011 19:01:26	17.208	3.944	1.05	81.502	61.301
06/29/2011 19:01:36	17.208	3.944	1.058	81.502	61.301
06/29/2011 19:01:46	17.208	3.944	1.039	81.502	61.503
06/29/2011 19:01:56	17.212	3.944	1.076	81.605	61.803
06/29/2011 19:02:06	17.212	3.944	1.087	81.502	61.803
06/29/2011 19:02:16	17.212	3.944	1.087	81.502	61.803
06/29/2011 19:02:26	17.215	3.944	1.039	81.502	61.704
06/29/2011 19:02:36	17.215	3.944	1.061	81.502	61.301
06/29/2011 19:02:46	17.215	3.944	1.061	81.605	61.301
06/29/2011 19:02:56	17.219	3.944	1.061	81.605	61.301
06/29/2011 19:03:06	17.219	3.944	1.065	81.502	61.803
06/29/2011 19:03:16	17.223	3.944	1.109	81.605	61.803
06/29/2011 19:03:26	17.223	3.944	1.109	81.502	61.104
06/29/2011 19:03:36	17.223	3.944	1.098	81.502	61.104
06/29/2011 19:03:46	17.223	3.94	1.105	81.502	61.704
06/29/2011 19:03:56	17.226	3.944	1.135	81.304	61.503
06/29/2011 19:04:06	17.226	3.94	1.124	81.502	61.104
06/29/2011 19:04:16	17.226	3.944	1.109	81.304	61.104
06/29/2011 19:04:26	17.226	3.944	1.12	81.502	61.503
06/29/2011 19:04:36	17.23	3.944	1.131	81.502	61.704
06/29/2011 19:04:46	17.23	3.944	1.138	81.502	61.503
06/29/2011 19:04:56	17.23	3.944	1.12	81.304	61.104
06/29/2011 19:05:06	17.234	3.944	1.149	81.502	61.104
06/29/2011 19:05:16	17.234	3.944	1.109	82.004	61.104
06/29/2011 19:05:26	17.234	3.944	1.098	82.004	61.704
06/29/2011 19:05:36	17.237	3.947	1.083	81.605	61.301
06/29/2011 19:05:46	17.237	3.947	1.087	81.605	61.104
06/29/2011 19:05:56	17.241	3.947	1.105	81.605	61.104
06/29/2011 19:06:06	17.241	3.951	1.105	81.802	61.104
06/29/2011 19:06:16	17.241	3.955	1.146	81.605	61.104
06/29/2011 19:06:26	17.241	3.955	1.135	81.605	61.104
06/29/2011 19:06:36	17.245	3.955	1.109	81.502	61.104
06/29/2011 19:06:46	17.245	3.955	1.12	81.502	61.104
06/29/2011 19:06:56	17.248	3.955	1.094	81.605	61.104
06/29/2011 19:07:06	17.248	3.958	1.098	81.605	61.503
06/29/2011 19:07:16	17.248	3.955	1.109	81.802	61.301
06/29/2011 19:07:26	17.248	3.955	1.094	82.004	61.104
06/29/2011 19:07:36	17.252	3.955	1.131	81.802	61.503
06/29/2011 19:07:46	17.252	3.955	1.091	81.605	60.902
06/29/2011 19:07:56	17.252	3.955	1.109	81.605	61.301
06/29/2011 19:08:06	17.252	3.951	1.102	81.502	60.902
06/29/2011 19:08:16	17.256	3.951	1.102	81.502	60.803
06/29/2011 19:08:26	17.256	3.947	1.061	81.304	61.301
06/29/2011 19:08:36	17.256	3.947	1.058	81.304	60.902
06/29/2011 19:08:46	17.259	3.944	1.043	81.304	60.803
06/29/2011 19:08:56	17.259	3.944	1.08	81.304	61.301
06/29/2011 19:09:06	17.259	3.94	1.105	81.304	61.301

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 19:09:16	17.263	3.94	1.087	81.304	60.902
06/29/2011 19:09:26	17.263	3.94	1.061	81.304	60.803
06/29/2011 19:09:36	17.263	3.94	1.076	81.304	60.803
06/29/2011 19:09:46	17.267	3.94	1.083	81.502	60.803
06/29/2011 19:09:56	17.267	3.94	1.091	81.502	60.902
06/29/2011 19:10:06	17.267	3.94	1.083	82.004	60.902
06/29/2011 19:10:16	17.267	3.94	1.098	81.605	60.902
06/29/2011 19:10:26	17.27	3.94	1.105	81.304	60.902
06/29/2011 19:10:36	17.27	3.944	1.072	80.704	60.602
06/29/2011 19:10:46	17.274	3.944	1.076	80.902	60.602
06/29/2011 19:10:56	17.274	3.944	1.058	80.902	60.803
06/29/2011 19:11:06	17.274	3.944	1.083	80.902	61.301
06/29/2011 19:11:16	17.274	3.944	1.08	80.902	61.503
06/29/2011 19:11:26	17.278	3.944	1.061	81.103	61.503
06/29/2011 19:11:36	17.281	3.947	1.061	81.103	61.503
06/29/2011 19:11:46	17.281	3.947	1.069	81.103	61.301
06/29/2011 19:11:56	17.281	3.947	1.083	81.103	61.503
06/29/2011 19:12:06	17.281	3.944	1.12	80.902	61.301
06/29/2011 19:12:16	17.281	3.944	1.124	81.103	60.902
06/29/2011 19:12:26	17.285	3.947	1.105	81.103	60.803
06/29/2011 19:12:36	17.285	3.944	1.102	80.902	60.902
06/29/2011 19:12:46	17.285	3.944	1.12	80.902	61.503
06/29/2011 19:12:56	17.289	3.947	1.05	81.103	61.503
06/29/2011 19:13:06	17.289	3.947	1.036	81.304	60.902
06/29/2011 19:13:16	17.289	3.947	1.036	81.304	60.803
06/29/2011 19:13:26	17.289	3.944	1.036	81.502	61.503
06/29/2011 19:13:36	17.292	3.947	1.036	81.103	61.503
06/29/2011 19:13:46	17.292	3.947	1.058	81.304	60.902
06/29/2011 19:13:56	17.292	3.947	1.083	80.902	60.803
06/29/2011 19:14:06	17.296	3.947	1.098	81.103	60.902
06/29/2011 19:14:16	17.296	3.947	1.105	81.304	61.503
06/29/2011 19:14:26	17.296	3.947	1.061	81.304	60.902
06/29/2011 19:14:36	17.3	3.947	1.08	81.502	60.602
06/29/2011 19:14:46	17.3	3.947	1.087	81.304	60.803
06/29/2011 19:14:56	17.3	3.947	1.083	81.103	61.104
06/29/2011 19:15:06	17.3	3.947	1.069	80.902	61.301
06/29/2011 19:15:16	17.303	3.947	1.083	81.103	61.301
06/29/2011 19:15:26	17.303	3.947	1.065	81.304	61.104
06/29/2011 19:15:36	17.303	3.947	1.061	81.103	60.902
06/29/2011 19:15:46	17.307	3.947	1.058	80.704	60.602
06/29/2011 19:15:56	17.307	3.947	1.083	80.704	60.602
06/29/2011 19:16:06	17.307	3.947	1.087	80.902	60.404
06/29/2011 19:16:16	17.311	3.947	1.105	80.902	60.404
06/29/2011 19:16:26	17.311	3.947	1.124	80.704	60.602
06/29/2011 19:16:36	17.311	3.947	1.105	80.704	60.803
06/29/2011 19:16:46	17.314	3.947	1.135	80.902	61.104
06/29/2011 19:16:56	17.314	3.947	1.153	81.103	61.104
06/29/2011 19:17:06	17.314	3.947	1.146	81.103	61.104
06/29/2011 19:17:16	17.314	3.947	1.105	80.902	60.803
06/29/2011 19:17:26	17.318	3.947	1.105	80.605	60.602
06/29/2011 19:17:36	17.318	3.947	1.135	80.902	60.902
06/29/2011 19:17:46	17.318	3.947	1.135	80.902	61.301
06/29/2011 19:17:56	17.322	3.947	1.131	80.902	61.104
06/29/2011 19:18:06	17.322	3.951	1.083	80.704	60.602
06/29/2011 19:18:16	17.322	3.947	1.105	80.902	60.602
06/29/2011 19:18:26	17.322	3.951	1.105	80.902	60.602
06/29/2011 19:18:36	17.325	3.951	1.105	80.902	60.803
06/29/2011 19:18:46	17.325	3.951	1.091	80.902	60.602
06/29/2011 19:18:56	17.325	3.955	1.109	81.103	60.602
06/29/2011 19:19:06	17.325	3.955	1.116	80.605	60.803
06/29/2011 19:19:16	17.329	3.958	1.116	80.704	60.803
06/29/2011 19:19:26	17.329	3.958	1.135	80.403	61.104
06/29/2011 19:19:36	17.329	3.958	1.127	80.403	61.301
06/29/2011 19:19:46	17.329	3.958	1.109	80.605	61.104
06/29/2011 19:19:56	17.333	3.962	1.116	80.605	60.803
06/29/2011 19:20:06	17.333	3.958	1.102	80.605	60.602
06/29/2011 19:20:16	17.336	3.958	1.135	80.403	60.902
06/29/2011 19:20:26	17.336	3.958	1.135	80.605	61.301
06/29/2011 19:20:36	17.336	3.958	1.135	80.605	61.301
06/29/2011 19:20:46	17.34	3.955	1.138	80.605	60.902
06/29/2011 19:20:56	17.34	3.951	1.105	80.902	60.602
06/29/2011 19:21:06	17.34	3.951	1.087	80.704	60.803
06/29/2011 19:21:16	17.34	3.947	1.105	80.704	61.104

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 19:21:26	17.344	3.947	1.109	80.704	61.301
06/29/2011 19:21:36	17.344	3.944	1.12	80.704	61.301
06/29/2011 19:21:46	17.344	3.944	1.127	80.902	60.803
06/29/2011 19:21:56	17.344	3.944	1.109	80.704	60.602
06/29/2011 19:22:06	17.347	3.94	1.109	81.103	60.803
06/29/2011 19:22:16	17.347	3.94	1.109	80.902	61.104
06/29/2011 19:22:26	17.347	3.94	1.138	80.902	61.301
06/29/2011 19:22:36	17.351	3.94	1.105	80.704	61.301
06/29/2011 19:22:46	17.351	3.94	1.087	80.902	60.902
06/29/2011 19:22:56	17.351	3.94	1.072	80.902	60.602
06/29/2011 19:23:06	17.351	3.94	1.105	80.605	60.602
06/29/2011 19:23:16	17.355	3.94	1.061	80.902	60.602
06/29/2011 19:23:26	17.355	3.944	1.065	80.704	60.902
06/29/2011 19:23:36	17.358	3.944	1.131	80.704	61.104
06/29/2011 19:23:46	17.358	3.944	1.12	80.902	61.104
06/29/2011 19:23:56	17.362	3.944	1.087	80.902	61.301
06/29/2011 19:24:06	17.362	3.944	1.116	80.704	61.301
06/29/2011 19:24:16	17.362	3.944	1.109	80.605	61.301
06/29/2011 19:24:26	17.362	3.944	1.109	80.605	61.301
06/29/2011 19:24:36	17.366	3.944	1.091	80.704	61.301
06/29/2011 19:24:46	17.366	3.944	1.058	80.704	60.902
06/29/2011 19:24:56	17.366	3.947	1.094	80.605	60.803
06/29/2011 19:25:06	17.369	3.947	1.072	80.704	60.803
06/29/2011 19:25:16	17.369	3.947	1.087	80.605	60.803
06/29/2011 19:25:26	17.369	3.944	1.087	80.605	60.803
06/29/2011 19:25:36	17.369	3.944	1.098	80.704	61.104
06/29/2011 19:25:46	17.369	3.944	1.091	80.605	61.301
06/29/2011 19:25:56	17.373	3.944	1.087	80.403	61.503
06/29/2011 19:26:06	17.373	3.944	1.105	80.704	61.301
06/29/2011 19:26:16	17.373	3.94	1.105	80.704	61.104
06/29/2011 19:26:26	17.373	3.94	1.135	80.902	60.803
06/29/2011 19:26:36	17.377	3.94	1.105	80.605	60.602
06/29/2011 19:26:46	17.38	3.936	1.149	80.605	60.803
06/29/2011 19:26:56	17.38	3.936	1.087	80.605	61.104
06/29/2011 19:27:06	17.38	3.936	1.061	80.605	61.503
06/29/2011 19:27:16	17.38	3.936	1.065	80.403	61.503
06/29/2011 19:27:26	17.38	3.933	1.102	80.403	61.301
06/29/2011 19:27:36	17.384	3.933	1.105	80.704	61.104
06/29/2011 19:27:46	17.384	3.933	1.105	80.403	60.602
06/29/2011 19:27:56	17.384	3.936	1.109	80.605	60.803
06/29/2011 19:28:06	17.388	3.936	1.142	80.403	60.803
06/29/2011 19:28:16	17.388	3.936	1.131	80.704	60.902
06/29/2011 19:28:26	17.388	3.936	1.135	80.704	61.104
06/29/2011 19:28:36	17.391	3.936	1.135	80.902	61.301
06/29/2011 19:28:46	17.391	3.936	1.135	80.704	61.301
06/29/2011 19:28:56	17.391	3.936	1.116	80.605	61.104
06/29/2011 19:29:06	17.391	3.94	1.109	80.704	61.104
06/29/2011 19:29:16	17.395	3.94	1.094	80.605	60.803
06/29/2011 19:29:26	17.395	3.94	1.061	80.605	60.602
06/29/2011 19:29:36	17.395	3.94	1.083	80.605	60.803
06/29/2011 19:29:46	17.395	3.94	1.083	80.902	60.803
06/29/2011 19:29:56	17.399	3.94	1.072	80.704	60.602
06/29/2011 19:30:06	17.399	3.94	1.135	80.704	61.104
06/29/2011 19:30:16	17.402	3.944	1.135	80.403	61.301
06/29/2011 19:30:26	17.402	3.94	1.135	80.403	61.104
06/29/2011 19:30:36	17.402	3.94	1.135	80.605	60.803
06/29/2011 19:30:46	17.402	3.94	1.098	80.605	60.404
06/29/2011 19:30:56	17.406	3.944	1.091	80.605	60.404
06/29/2011 19:31:06	17.406	3.94	1.12	80.704	60.602
06/29/2011 19:31:16	17.406	3.944	1.083	80.605	60.803
06/29/2011 19:31:26	17.406	3.944	1.087	80.403	60.902
06/29/2011 19:31:36	17.406	3.944	1.105	80.403	60.803
06/29/2011 19:31:46	17.41	3.947	1.131	80.605	60.902
06/29/2011 19:31:56	17.41	3.947	1.076	80.403	60.602
06/29/2011 19:32:06	17.413	3.947	1.083	80.202	60.602
06/29/2011 19:32:16	17.413	3.947	1.083	80.403	60.203
06/29/2011 19:32:26	17.413	3.951	1.065	80.202	60.203
06/29/2011 19:32:36	17.413	3.951	1.105	80.403	60.404
06/29/2011 19:32:46	17.413	3.955	1.083	80.605	60.404
06/29/2011 19:32:56	17.413	3.955	1.058	80.704	60.902
06/29/2011 19:33:06	17.413	3.951	1.083	80.605	60.902
06/29/2011 19:33:16	17.417	3.951	1.105	80.704	60.404
06/29/2011 19:33:26	17.417	3.951	1.098	80.403	60.602

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 19:33:36	17.417	3.951	1.105	80.403	60.902
06/29/2011 19:33:46	17.417	3.947	1.065	80.403	60.902
06/29/2011 19:33:56	17.421	3.947	1.094	80.605	60.902
06/29/2011 19:34:06	17.421	3.944	1.105	80.605	60.803
06/29/2011 19:34:16	17.424	3.944	1.083	80.403	60.404
06/29/2011 19:34:26	17.424	3.94	1.105	80.403	60.404
06/29/2011 19:34:36	17.428	3.94	1.127	80.403	60.602
06/29/2011 19:34:46	17.428	3.936	1.135	80.403	60.602
06/29/2011 19:34:56	17.428	3.936	1.135	80.605	60.602
06/29/2011 19:35:06	17.432	3.936	1.109	80.403	60.602
06/29/2011 19:35:16	17.432	3.933	1.153	80.202	60.803
06/29/2011 19:35:26	17.435	3.933	1.146	80.403	60.902
06/29/2011 19:35:36	17.435	3.933	1.142	80.202	60.902
06/29/2011 19:35:46	17.435	3.929	1.16	80.202	61.104
06/29/2011 19:35:56	17.435	3.929	1.109	80.605	60.902
06/29/2011 19:36:06	17.439	3.933	1.135	80.004	60.902
06/29/2011 19:36:16	17.439	3.933	1.135	80.004	60.803
06/29/2011 19:36:26	17.439	3.933	1.127	80.004	60.902
06/29/2011 19:36:36	17.439	3.933	1.12	80.202	60.902
06/29/2011 19:36:46	17.443	3.933	1.135	80.403	60.803
06/29/2011 19:36:56	17.443	3.936	1.105	80.605	60.803
06/29/2011 19:37:06	17.446	3.936	1.105	80.403	60.803
06/29/2011 19:37:16	17.446	3.936	1.105	80.605	60.404
06/29/2011 19:37:26	17.446	3.936	1.105	80.605	60.404
06/29/2011 19:37:36	17.45	3.936	1.135	80.704	60.602
06/29/2011 19:37:46	17.45	3.936	1.149	80.704	60.803
06/29/2011 19:37:56	17.45	3.936	1.135	80.704	60.803
06/29/2011 19:38:06	17.45	3.936	1.149	80.704	60.803
06/29/2011 19:38:16	17.454	3.94	1.135	80.704	60.803
06/29/2011 19:38:26	17.454	3.936	1.135	80.704	60.803
06/29/2011 19:38:36	17.454	3.936	1.135	80.403	60.602
06/29/2011 19:38:46	17.457	3.936	1.109	80.605	60.404
06/29/2011 19:38:56	17.457	3.936	1.16	80.403	60.203
06/29/2011 19:39:06	17.457	3.936	1.16	80.403	60.203
06/29/2011 19:39:16	17.457	3.936	1.142	80.202	60.203
06/29/2011 19:39:26	17.461	3.936	1.135	80.202	60.602
06/29/2011 19:39:36	17.461	3.936	1.102	79.803	60.803
06/29/2011 19:39:46	17.461	3.936	1.087	80.004	60.803
06/29/2011 19:39:56	17.465	3.936	1.087	80.004	60.404
06/29/2011 19:40:06	17.465	3.936	1.131	80.004	60.602
06/29/2011 19:40:16	17.465	3.936	1.131	80.202	60.902
06/29/2011 19:40:26	17.465	3.936	1.149	80.403	60.404
06/29/2011 19:40:36	17.468	3.936	1.116	80.202	60.803
06/29/2011 19:40:46	17.468	3.936	1.109	80.403	60.803
06/29/2011 19:40:56	17.468	3.936	1.149	80.004	60.602
06/29/2011 19:41:06	17.472	3.936	1.179	80.202	60.404
06/29/2011 19:41:16	17.472	3.936	1.102	80.202	60.803
06/29/2011 19:41:26	17.472	3.936	1.124	80.403	60.803
06/29/2011 19:41:36	17.476	3.933	1.135	80.202	60.803
06/29/2011 19:41:46	17.476	3.933	1.16	80.403	60.803
06/29/2011 19:41:56	17.476	3.936	1.149	80.202	60.602
06/29/2011 19:42:06	17.479	3.936	1.135	79.704	60.404
06/29/2011 19:42:16	17.479	3.936	1.16	79.704	60.404
06/29/2011 19:42:26	17.479	3.933	1.157	80.004	60.902
06/29/2011 19:42:36	17.483	3.936	1.138	80.004	60.803
06/29/2011 19:42:46	17.483	3.933	1.193	79.803	60.602
06/29/2011 19:42:56	17.483	3.933	1.197	79.704	60.203
06/29/2011 19:43:06	17.483	3.936	1.16	79.803	60.404
06/29/2011 19:43:16	17.486	3.933	1.135	80.004	60.404
06/29/2011 19:43:26	17.486	3.933	1.105	80.004	60.203
06/29/2011 19:43:36	17.486	3.933	1.135	79.803	60.602
06/29/2011 19:43:46	17.486	3.933	1.135	80.202	60.902
06/29/2011 19:43:56	17.49	3.933	1.083	80.202	60.602
06/29/2011 19:44:06	17.49	3.933	1.065	80.202	60.404
06/29/2011 19:44:16	17.494	3.933	1.087	80.202	60.902
06/29/2011 19:44:26	17.494	3.936	1.109	80.202	60.404
06/29/2011 19:44:36	17.494	3.933	1.102	80.004	60.902
06/29/2011 19:44:46	17.497	3.933	1.058	80.202	60.602
06/29/2011 19:44:56	17.497	3.936	1.061	80.202	60.902
06/29/2011 19:45:06	17.497	3.936	1.054	79.803	60.404
06/29/2011 19:45:16	17.497	3.936	1.061	80.004	60.803
06/29/2011 19:45:26	17.501	3.936	1.083	79.803	60.602
06/29/2011 19:45:36	17.501	3.94	1.08	80.004	60.602

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 19:45:46	17.505	3.94	1.061	80.202	60.902
06/29/2011 19:45:56	17.505	3.944	1.083	80.202	60.404
06/29/2011 19:46:06	17.505	3.94	1.076	80.202	60.602
06/29/2011 19:46:16	17.505	3.944	1.083	80.202	60.902
06/29/2011 19:46:26	17.508	3.94	1.083	80.004	60.602
06/29/2011 19:46:36	17.508	3.94	1.083	79.803	60.404
06/29/2011 19:46:46	17.508	3.94	1.083	80.202	60.602
06/29/2011 19:46:56	17.508	3.94	1.083	80.202	60.902
06/29/2011 19:47:06	17.512	3.936	1.065	80.202	60.902
06/29/2011 19:47:16	17.512	3.936	1.08	80.202	60.902
06/29/2011 19:47:26	17.512	3.933	1.098	80.004	60.902
06/29/2011 19:47:36	17.516	3.933	1.105	80.403	60.902
06/29/2011 19:47:46	17.516	3.929	1.105	80.403	60.902
06/29/2011 19:47:56	17.516	3.929	1.105	80.202	60.803
06/29/2011 19:48:06	17.519	3.925	1.135	80.004	60.602
06/29/2011 19:48:16	17.519	3.925	1.135	80.202	60.602
06/29/2011 19:48:26	17.519	3.922	1.135	80.004	60.602
06/29/2011 19:48:36	17.523	3.922	1.135	79.803	60.602
06/29/2011 19:48:46	17.523	3.922	1.131	80.004	60.404
06/29/2011 19:48:56	17.527	3.922	1.146	79.803	60.602
06/29/2011 19:49:06	17.527	3.922	1.135	79.704	60.404
06/29/2011 19:49:16	17.527	3.922	1.135	79.803	60.602
06/29/2011 19:49:26	17.527	3.922	1.149	80.004	60.803
06/29/2011 19:49:36	17.53	3.922	1.146	80.004	60.902
06/29/2011 19:49:46	17.53	3.922	1.105	80.202	60.902
06/29/2011 19:49:56	17.53	3.922	1.135	80.403	60.602
06/29/2011 19:50:06	17.534	3.922	1.094	80.403	60.203
06/29/2011 19:50:16	17.534	3.922	1.16	80.202	60.203
06/29/2011 19:50:26	17.534	3.925	1.127	80.202	60.803
06/29/2011 19:50:36	17.534	3.925	1.105	80.202	60.803
06/29/2011 19:50:46	17.538	3.925	1.124	80.403	60.602
06/29/2011 19:50:56	17.538	3.925	1.083	80.202	60.404
06/29/2011 19:51:06	17.538	3.925	1.102	80.004	60.203
06/29/2011 19:51:16	17.541	3.925	1.135	79.803	60.203
06/29/2011 19:51:26	17.541	3.925	1.102	80.004	60.203
06/29/2011 19:51:36	17.541	3.925	1.094	80.202	60.602
06/29/2011 19:51:46	17.541	3.925	1.105	79.803	60.803
06/29/2011 19:51:56	17.541	3.925	1.105	79.803	60.803
06/29/2011 19:52:06	17.545	3.925	1.105	79.803	60.602
06/29/2011 19:52:16	17.545	3.925	1.109	79.803	60.203
06/29/2011 19:52:26	17.545	3.925	1.102	79.803	60.203
06/29/2011 19:52:36	17.549	3.925	1.12	79.803	60.203
06/29/2011 19:52:46	17.549	3.925	1.105	79.803	60.203
06/29/2011 19:52:56	17.549	3.925	1.109	80.605	60.203
06/29/2011 19:53:06	17.552	3.925	1.087	80.605	60.203
06/29/2011 19:53:16	17.552	3.925	1.105	80.605	60.203
06/29/2011 19:53:26	17.552	3.925	1.105	80.403	60.404
06/29/2011 19:53:36	17.552	3.925	1.135	80.403	60.803
06/29/2011 19:53:46	17.556	3.925	1.131	80.202	60.803
06/29/2011 19:53:56	17.556	3.925	1.083	80.202	60.602
06/29/2011 19:54:06	17.56	3.925	1.083	80.004	60.203
06/29/2011 19:54:16	17.56	3.925	1.109	80.004	60.203
06/29/2011 19:54:26	17.56	3.925	1.138	79.803	60.404
06/29/2011 19:54:36	17.56	3.925	1.135	79.803	60.602
06/29/2011 19:54:46	17.563	3.925	1.102	80.202	60.803
06/29/2011 19:54:56	17.563	3.925	1.083	80.202	60.803
06/29/2011 19:55:06	17.567	3.925	1.105	80.004	60.803
06/29/2011 19:55:16	17.567	3.925	1.105	80.004	60.803
06/29/2011 19:55:26	17.567	3.925	1.087	80.004	60.803
06/29/2011 19:55:36	17.567	3.925	1.061	80.004	60.803
06/29/2011 19:55:46	17.571	3.925	1.105	79.803	60.404
06/29/2011 19:55:56	17.571	3.925	1.105	80.004	60.203
06/29/2011 19:56:06	17.574	3.925	1.083	80.004	60.803
06/29/2011 19:56:16	17.574	3.925	1.076	79.803	60.203
06/29/2011 19:56:26	17.574	3.922	1.08	79.803	60.902
06/29/2011 19:56:36	17.574	3.922	1.08	79.704	60.203
06/29/2011 19:56:46	17.574	3.922	1.061	79.704	60.902
06/29/2011 19:56:56	17.574	3.922	1.083	79.803	60.203
06/29/2011 19:57:06	17.578	3.922	1.054	79.704	60.902
06/29/2011 19:57:16	17.578	3.922	1.065	79.704	60.902
06/29/2011 19:57:26	17.578	3.922	1.047	79.704	60.404
06/29/2011 19:57:36	17.582	3.925	1.054	79.503	60.203
06/29/2011 19:57:46	17.582	3.922	1.05	79.704	60.902

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24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 19:57:56	17.582	3.925	1.08	79.704	60.803
06/29/2011 19:58:06	17.582	3.925	1.094	79.803	60.203
06/29/2011 19:58:16	17.585	3.925	1.098	79.803	60.803
06/29/2011 19:58:26	17.585	3.929	1.091	80.004	60.602
06/29/2011 19:58:36	17.585	3.929	1.105	79.803	60.001
06/29/2011 19:58:46	17.589	3.929	1.083	80.004	60.902
06/29/2011 19:58:56	17.589	3.933	1.072	80.004	60.602
06/29/2011 19:59:06	17.593	3.936	1.083	80.202	60.203
06/29/2011 19:59:16	17.593	3.933	1.05	80.202	60.803
06/29/2011 19:59:26	17.593	3.936	1.061	79.803	60.602
06/29/2011 19:59:36	17.593	3.936	1.058	80.004	60.203
06/29/2011 19:59:46	17.593	3.936	1.08	80.004	60.404
06/29/2011 19:59:56	17.596	3.936	1.069	80.202	60.803
06/29/2011 20:00:06	17.596	3.936	1.105	80.004	60.803
06/29/2011 20:00:16	17.596	3.933	1.098	80.202	60.404
06/29/2011 20:00:26	17.6	3.933	1.083	80.004	60.203
06/29/2011 20:00:36	17.6	3.929	1.083	79.803	60.203
06/29/2011 20:00:46	17.6	3.929	1.061	80.004	60.203
06/29/2011 20:00:56	17.604	3.925	1.069	79.803	60.001
06/29/2011 20:01:06	17.604	3.925	1.083	79.803	60.001
06/29/2011 20:01:16	17.607	3.922	1.102	80.004	60.001
06/29/2011 20:01:26	17.607	3.922	1.105	80.004	60.404
06/29/2011 20:01:36	17.607	3.918	1.116	79.803	60.803
06/29/2011 20:01:46	17.607	3.918	1.083	79.803	60.803
06/29/2011 20:01:56	17.607	3.918	1.102	80.004	60.404
06/29/2011 20:02:06	17.607	3.914	1.105	80.202	60.203
06/29/2011 20:02:16	17.611	3.918	1.105	80.403	60.803
06/29/2011 20:02:26	17.611	3.918	1.083	80.202	60.203
06/29/2011 20:02:36	17.611	3.914	1.083	80.004	60.203
06/29/2011 20:02:46	17.615	3.914	1.083	80.004	60.602
06/29/2011 20:02:56	17.615	3.918	1.087	80.004	59.902
06/29/2011 20:03:06	17.615	3.918	1.102	79.803	60.602
06/29/2011 20:03:16	17.615	3.918	1.105	79.803	60.001
06/29/2011 20:03:26	17.615	3.918	1.124	79.704	60.001
06/29/2011 20:03:36	17.618	3.918	1.105	79.704	60.602
06/29/2011 20:03:46	17.618	3.922	1.109	79.803	59.902
06/29/2011 20:03:56	17.618	3.922	1.135	79.704	60.203
06/29/2011 20:04:06	17.622	3.922	1.135	79.704	60.602
06/29/2011 20:04:16	17.622	3.922	1.138	80.004	59.902
06/29/2011 20:04:26	17.626	3.922	1.138	79.803	59.902
06/29/2011 20:04:36	17.626	3.922	1.105	79.704	60.404
06/29/2011 20:04:46	17.629	3.922	1.135	79.803	60.803
06/29/2011 20:04:56	17.629	3.922	1.124	79.503	60.803
06/29/2011 20:05:06	17.629	3.922	1.12	79.503	60.001
06/29/2011 20:05:16	17.629	3.922	1.072	79.503	59.902
06/29/2011 20:05:26	17.629	3.922	1.087	79.503	60.001
06/29/2011 20:05:36	17.629	3.922	1.091	79.305	60.001
06/29/2011 20:05:46	17.633	3.922	1.087	79.503	60.001
06/29/2011 20:05:56	17.633	3.922	1.087	79.503	59.902
06/29/2011 20:06:06	17.637	3.922	1.105	79.503	59.902
06/29/2011 20:06:16	17.637	3.922	1.109	79.503	60.001
06/29/2011 20:06:26	17.637	3.922	1.05	79.503	60.602
06/29/2011 20:06:36	17.637	3.918	1.036	79.704	60.803
06/29/2011 20:06:46	17.637	3.918	1.061	79.704	60.001
06/29/2011 20:06:56	17.637	3.918	1.061	79.704	60.404
06/29/2011 20:07:06	17.64	3.918	1.087	79.503	60.803
06/29/2011 20:07:16	17.64	3.918	1.087	79.704	60.001
06/29/2011 20:07:26	17.644	3.918	1.087	79.704	60.001
06/29/2011 20:07:36	17.644	3.918	1.135	79.503	60.602
06/29/2011 20:07:46	17.644	3.918	1.135	79.803	60.803
06/29/2011 20:07:56	17.644	3.918	1.127	79.803	60.404
06/29/2011 20:08:06	17.648	3.918	1.146	79.704	60.001
06/29/2011 20:08:16	17.648	3.918	1.16	79.704	59.902
06/29/2011 20:08:26	17.648	3.918	1.16	79.803	60.203
06/29/2011 20:08:36	17.648	3.918	1.109	79.704	60.602
06/29/2011 20:08:46	17.651	3.918	1.116	79.503	60.404
06/29/2011 20:08:56	17.655	3.918	1.105	79.803	60.001
06/29/2011 20:09:06	17.655	3.918	1.124	79.503	59.902
06/29/2011 20:09:16	17.655	3.918	1.16	79.704	60.001
06/29/2011 20:09:26	17.655	3.918	1.146	79.704	60.203
06/29/2011 20:09:36	17.655	3.918	1.127	79.503	60.602
06/29/2011 20:09:46	17.659	3.918	1.153	79.803	60.803
06/29/2011 20:09:56	17.659	3.918	1.135	79.503	60.602

URS CEMs Raw Data
June 29, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 20:10:06	17.659	3.914	1.16	79.803	60.203
06/29/2011 20:10:16	17.662	3.914	1.16	79.803	59.902
06/29/2011 20:10:26	17.662	3.918	1.16	79.803	60.001
06/29/2011 20:10:36	17.662	3.918	1.186	79.704	60.001
06/29/2011 20:10:46	17.662	3.914	1.186	79.503	60.203
06/29/2011 20:10:56	17.666	3.914	1.168	79.503	60.404
06/29/2011 20:11:06	17.666	3.914	1.16	79.503	60.602
06/29/2011 20:11:16	17.666	3.918	1.149	79.503	60.803
06/29/2011 20:11:26	17.666	3.918	1.116	79.503	60.803
06/29/2011 20:11:36	17.67	3.918	1.135	79.704	60.803
06/29/2011 20:11:46	17.67	3.918	1.131	79.803	60.602
06/29/2011 20:11:56	17.67	3.922	1.182	79.803	60.001
06/29/2011 20:12:06	17.67	3.922	1.168	79.704	60.001
06/29/2011 20:12:16	17.67	3.922	1.16	79.704	60.001
06/29/2011 20:12:26	17.67	3.925	1.153	79.704	59.902
06/29/2011 20:12:36	17.673	3.925	1.109	79.704	60.203
06/29/2011 20:12:46	17.677	3.925	1.109	79.503	60.203
06/29/2011 20:12:56	17.677	3.925	1.102	79.503	60.203
06/29/2011 20:13:06	17.677	3.925	1.135	79.503	60.001
06/29/2011 20:13:16	17.677	3.925	1.175	79.803	60.203
06/29/2011 20:13:26	17.681	3.925	1.19	79.704	60.001
06/29/2011 20:13:36	17.681	3.925	1.186	79.803	60.001
06/29/2011 20:13:46	17.681	3.922	1.186	79.503	60.001
06/29/2011 20:13:56	17.684	3.922	1.16	79.704	60.404
06/29/2011 20:14:06	17.684	3.922	1.186	79.704	60.602
06/29/2011 20:14:16	17.684	3.918	1.124	79.704	60.602
06/29/2011 20:14:26	17.688	3.918	1.087	79.503	60.001
06/29/2011 20:14:36	17.688	3.914	1.135	79.503	59.902
06/29/2011 20:14:46	17.688	3.911	1.153	79.803	60.803
06/29/2011 20:14:56	17.688	3.911	1.087	79.704	60.001
06/29/2011 20:15:06	17.688	3.907	1.109	79.503	60.803
06/29/2011 20:15:16	17.692	3.907	1.116	79.503	60.001
06/29/2011 20:15:26	17.692	3.907	1.131	79.503	60.803
06/29/2011 20:15:36	17.692	3.903	1.08	79.704	60.001
06/29/2011 20:15:46	17.692	3.903	1.109	79.704	60.803
06/29/2011 20:15:56	17.695	3.903	1.065	79.704	60.001
06/29/2011 20:16:06	17.695	3.903	1.076	79.803	60.602
06/29/2011 20:16:16	17.695	3.903	1.094	79.803	60.001
06/29/2011 20:16:26	17.699	3.903	1.087	79.305	60.404
06/29/2011 20:16:36	17.699	3.903	1.102	79.305	60.001
06/29/2011 20:16:46	17.699	3.903	1.109	79.305	60.602
06/29/2011 20:16:56	17.699	3.907	1.138	79.503	59.902
06/29/2011 20:17:06	17.703	3.903	1.124	79.503	60.001
06/29/2011 20:17:16	17.703	3.907	1.065	79.503	60.602
06/29/2011 20:17:26	17.703	3.907	1.098	79.305	60.602
06/29/2011 20:17:36	17.703	3.907	1.087	79.503	60.001
06/29/2011 20:17:46	17.703	3.907	1.072	79.503	59.902
06/29/2011 20:17:56	17.706	3.907	1.061	79.704	59.902
06/29/2011 20:18:06	17.706	3.907	1.076	79.503	59.902
06/29/2011 20:18:16	17.706	3.907	1.061	79.503	59.902
06/29/2011 20:18:26	17.706	3.907	1.087	79.103	59.902
06/29/2011 20:18:36	17.71	3.907	1.065	78.902	59.902
06/29/2011 20:18:46	17.71	3.907	1.083	78.803	59.902
06/29/2011 20:18:56	17.71	3.911	1.091	79.103	60.602
06/29/2011 20:19:06	17.714	3.907	1.102	79.103	60.602
06/29/2011 20:19:16	17.714	3.907	1.105	79.103	60.803
06/29/2011 20:19:26	17.717	3.907	1.135	78.902	60.001
06/29/2011 20:19:36	17.717	3.907	1.16	78.803	59.701
06/29/2011 20:19:46	17.717	3.907	1.175	78.902	60.001
06/29/2011 20:19:56	17.717	3.907	1.138	78.803	60.602
06/29/2011 20:20:06	17.717	3.907	1.157	78.902	60.602
06/29/2011 20:20:16	17.717	3.907	1.12	79.103	60.602
06/29/2011 20:20:26	17.721	3.907	1.065	78.902	60.602
06/29/2011 20:20:36	17.721	3.907	1.098	78.902	60.602
06/29/2011 20:20:46	17.721	3.907	1.105	78.902	60.203
06/29/2011 20:20:56	17.721	3.907	1.105	79.103	59.902
06/29/2011 20:21:06	17.725	3.907	1.087	78.902	59.902
06/29/2011 20:21:16	17.725	3.907	1.087	78.902	60.001
06/29/2011 20:21:26	17.725	3.907	1.127	79.305	60.602
06/29/2011 20:21:36	17.725	3.907	1.138	79.503	60.602
06/29/2011 20:21:46	17.725	3.907	1.182	79.305	60.203
06/29/2011 20:21:56	17.725	3.907	1.135	79.103	59.902
06/29/2011 20:22:06	17.728	3.907	1.135	79.305	59.902

URS CEMs Raw Data
June 29, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 20:22:16	17.728	3.907	1.083	79.305	60.404
06/29/2011 20:22:26	17.728	3.907	1.08	79.103	60.602
06/29/2011 20:22:36	17.732	3.907	1.083	79.305	60.001
06/29/2011 20:22:46	17.732	3.907	1.087	79.103	59.902
06/29/2011 20:22:56	17.732	3.903	1.083	79.503	60.602
06/29/2011 20:23:06	17.732	3.907	1.069	79.305	60.602
06/29/2011 20:23:16	17.736	3.903	1.083	79.503	60.404
06/29/2011 20:23:26	17.736	3.907	1.072	79.103	59.902
06/29/2011 20:23:36	17.736	3.907	1.087	78.902	59.902
06/29/2011 20:23:46	17.736	3.903	1.105	79.103	60.404
06/29/2011 20:23:56	17.739	3.907	1.135	79.305	60.803
06/29/2011 20:24:06	17.739	3.907	1.116	79.103	60.404
06/29/2011 20:24:16	17.739	3.903	1.105	78.902	60.404
06/29/2011 20:24:26	17.739	3.903	1.124	79.103	60.203
06/29/2011 20:24:36	17.743	3.903	1.098	79.503	60.602
06/29/2011 20:24:46	17.743	3.907	1.054	79.503	60.404
06/29/2011 20:24:56	17.743	3.907	1.065	79.305	60.203
06/29/2011 20:25:06	17.743	3.907	1.05	79.103	60.001
06/29/2011 20:25:16	17.747	3.907	1.007	79.305	60.001
06/29/2011 20:25:26	17.747	3.907	1.039	79.305	60.001
06/29/2011 20:25:36	17.747	3.911	1.036	79.103	60.203
06/29/2011 20:25:46	17.747	3.911	1.061	78.902	60.404
06/29/2011 20:25:56	17.747	3.914	1.036	78.902	60.404
06/29/2011 20:26:06	17.75	3.914	1.061	78.902	60.404
06/29/2011 20:26:16	17.75	3.914	1.032	79.103	59.902
06/29/2011 20:26:26	17.75	3.914	1.003	79.103	60.203
06/29/2011 20:26:36	17.754	3.918	1.036	79.103	60.602
06/29/2011 20:26:46	17.754	3.914	1.025	79.103	59.902
06/29/2011 20:26:56	17.754	3.914	1.01	79.103	60.602
06/29/2011 20:27:06	17.754	3.914	0.981	78.902	60.404
06/29/2011 20:27:16	17.757	3.914	0.981	78.602	59.902
06/29/2011 20:27:26	17.757	3.914	0.981	78.803	60.602
06/29/2011 20:27:36	17.757	3.911	0.992	78.803	60.404
06/29/2011 20:27:46	17.761	3.911	1.007	78.803	60.001
06/29/2011 20:27:56	17.761	3.911	1.028	78.803	60.001
06/29/2011 20:28:06	17.761	3.907	1.014	78.803	59.902
06/29/2011 20:28:16	17.761	3.907	1.007	78.902	59.902
06/29/2011 20:28:26	17.765	3.903	1.007	78.803	60.203
06/29/2011 20:28:36	17.765	3.903	1.017	78.803	60.404
06/29/2011 20:28:46	17.765	3.9	0.992	78.803	60.404
06/29/2011 20:28:56	17.768	3.9	1.007	78.803	60.404
06/29/2011 20:29:06	17.768	3.896	1.032	78.902	60.203
06/29/2011 20:29:16	17.768	3.896	1.036	79.103	59.902
06/29/2011 20:29:26	17.772	3.896	1.039	79.103	59.701
06/29/2011 20:29:36	17.768	3.896	1.076	79.503	60.203
06/29/2011 20:29:46	17.772	3.896	1.087	79.103	60.404
06/29/2011 20:29:56	17.772	3.892	1.083	78.902	60.203
06/29/2011 20:30:06	17.772	3.896	1.091	78.803	59.902
06/29/2011 20:30:16	17.772	3.896	1.109	78.803	60.001
06/29/2011 20:30:26	17.776	3.896	1.094	78.803	60.404
06/29/2011 20:30:36	17.776	3.896	1.094	78.602	60.001
06/29/2011 20:30:46	17.776	3.9	1.105	78.803	59.701
06/29/2011 20:30:56	17.779	3.896	1.098	78.803	60.203
06/29/2011 20:31:06	17.779	3.9	1.087	78.602	60.404
06/29/2011 20:31:16	17.779	3.9	1.109	78.602	60.602
06/29/2011 20:31:26	17.779	3.9	1.135	78.602	59.902
06/29/2011 20:31:36	17.783	3.9	1.124	78.602	59.902
06/29/2011 20:31:46	17.783	3.9	1.135	78.602	60.001
06/29/2011 20:31:56	17.783	3.9	1.142	78.803	60.404
06/29/2011 20:32:06	17.783	3.9	1.186	78.902	60.404
06/29/2011 20:32:16	17.787	3.9	1.16	78.902	59.902
06/29/2011 20:32:26	17.787	3.9	1.186	79.103	59.701
06/29/2011 20:32:36	17.787	3.9	1.109	78.902	59.902
06/29/2011 20:32:46	17.79	3.903	1.12	78.902	60.404
06/29/2011 20:32:56	17.79	3.9	1.127	78.902	60.404
06/29/2011 20:33:06	17.79	3.9	1.135	78.902	60.404
06/29/2011 20:33:16	17.794	3.9	1.124	78.803	59.902
06/29/2011 20:33:26	17.794	3.9	1.171	78.803	59.902
06/29/2011 20:33:36	17.794	3.9	1.142	78.902	60.404
06/29/2011 20:33:46	17.794	3.9	1.146	78.902	60.602
06/29/2011 20:33:56	17.794	3.9	1.087	78.902	60.001
06/29/2011 20:34:06	17.798	3.9	1.105	78.902	59.902
06/29/2011 20:34:16	17.798	3.9	1.142	79.103	60.001

URS CEMs Raw Data
June 29, 2011

24 hour time	O2 (%)	CO2 (%)	THC (PPM)	RACK (°F)	CHILL (°F)
06/29/2011 20:34:26	17.798	3.9	1.127	79.305	60.602
06/29/2011 20:34:36	17.801	3.9	1.061	79.305	60.602
06/29/2011 20:34:46	17.801	3.9	1.061	79.103	60.203
06/29/2011 20:34:56	17.805	3.9	1.105	79.503	59.902
06/29/2011 20:35:06	17.805	3.9	1.069	79.704	59.902
06/29/2011 20:35:16	17.805	3.9	1.08	79.503	60.404
06/29/2011 20:35:26	17.805	3.9	1.08	79.503	60.404

Chevron Hawaii
O_2 Calibration Data Summary

Project ID: Chevron
Date: 30-Jun
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 22.10
Analyzer Range: 25
Units: %
Technician(s): MDD

						2% Limit
Calibration Error Test Results						
	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)
zero gas	ASZ788	0.00	08:25	0.00	0.00	0.02%
span gas	CC82073	22.10	08:27	22.16	0.06	0.29%
mid-range	CC67546	11.10	08:29	11.17	0.07	0.33%

CEMS Calibration Bias and Drift Tests

					5% Limit			5% Limit	3% Limit		
Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span)	Time	Post-test CEMS Response	Bias (% of Span)	Drift (% of Span)	Eq. 7E-5	
Run 12	0.00	0.00	08:31	0.12	0.57%	12:14	0.02	0.11%	-0.46%	Co=	0.072
	11.10	11.17	08:32	11.14	-0.16%	12:16	11.06	-0.51%	-0.35%	Cma/(Cm-Co)	1.007

Chevron Hawaii
CO_2 Calibration Data Summary

Project ID: Chevron
Date: 30-Jun-11
Instrument Make/Model: Servomex 1440
ID Number: Waits
Calibration Span Value: 18.90
Analyzer Range: 20
Units: %
Technician(s): MDD

Calibration Error Test Results

	Cylinder ID	Certified Value	Time	CEM Response	Absolute Difference	Cal Error (% of Span)	2% Limit
zero gas	ASZ788	0.00	08:25	0.15	0.15	0.80%	
span gas	CC82073	18.90	08:27	18.98	0.08	0.43%	
mid-range	CC67546	9.74	08:29	9.91	0.17	0.92%	

CEMS Calibration Bias and Drift Tests

Run No.	Cylinder Value	Cal Error CEMS Response	Time	Pre-test CEMS Response	Bias (% of Span) 5% Limit	Time	Post-test CEMS Response	Bias (% of Span) 5% Limit	Drift (% of Span) 3% Limit	Eq. 7E-5	
Run 12	0.00	0.15	08:31	0.18	0.13%	12:14	0.23	0.41%	0.28%	Co=	0.203
	9.74	9.91	08:32	9.84	-0.41%	12:16	9.85	-0.34%	0.07%	Cma/(Cm-Co)	1.010

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 08:21:14	21.16	0.204	75.903	59.701
06/30/2011 08:21:24	21.16	0.204	76.104	59.701
06/30/2011 08:21:34	21.16	0.204	75.903	59.701
06/30/2011 08:21:44	21.16	0.208	75.903	59.701
06/30/2011 08:21:54	21.16	0.208	75.701	59.701
06/30/2011 08:22:04	21.156	0.208	76.104	60.001
06/30/2011 08:22:14	21.156	0.208	75.903	60.001
06/30/2011 08:22:24	21.156	0.212	75.903	60.001
06/30/2011 08:22:34	21.116	0.212	76.104	58.401
06/30/2011 08:22:44	21.006	0.212	76.203	58.602
06/30/2011 08:22:54	20.995	0.215	76.602	58.804
06/30/2011 08:23:04	20.995	0.215	76.602	58.804
06/30/2011 08:23:14	20.995	0.215	76.404	58.804
06/30/2011 08:23:24	20.995	0.215	76.404	58.804
06/30/2011 08:23:34	20.991	0.281	76.104	59.001
06/30/2011 08:23:44	20.973	0.311	76.203	58.804
06/30/2011 08:23:54	20.57	0.256	76.104	59.001
Calibration Error				
06/30/2011 08:24:04	18.721	0.219	76.104	59.001
06/30/2011 08:24:14	15.571	0.197	76.104	59.001
06/30/2011 08:24:24	12.271	0.186	76.404	59.001
06/30/2011 08:24:34	9.444	0.179	76.203	59.104
06/30/2011 08:24:44	6.441	0.168	76.203	59.104
06/30/2011 08:24:54	1.625	0.157	76.203	59.104
06/30/2011 08:25:04	0.054	0.157	76.404	59.104
06/30/2011 08:25:14	0.003	0.153	76.602	59.104
06/30/2011 08:25:24	-0.00061	0.153	76.104	59.104
06/30/2011 08:25:34	-0.004	0.153	76.404	59.104
06/30/2011 08:25:44	-0.008	0.15	76.602	59.104
N2 Zero	**-0.004**	**0.152**	**76.370**	**59.104**
06/30/2011 08:25:54	0.439	0.629	76.602	59.104
06/30/2011 08:26:04	12.744	18.658	76.203	59.104
06/30/2011 08:26:14	21.665	18.86	76.203	59.104
06/30/2011 08:26:24	22.09	18.896	76.404	59.302
06/30/2011 08:26:34	22.119	18.918	76.404	59.104
06/30/2011 08:26:44	22.134	18.933	76.203	59.104
06/30/2011 08:26:54	22.141	18.944	76.203	59.104
06/30/2011 08:27:04	22.149	18.951	76.203	59.104
06/30/2011 08:27:14	22.152	18.962	76.203	59.104
06/30/2011 08:27:24	22.156	18.966	76.404	59.104
06/30/2011 08:27:34	22.159	18.973	76.803	59.104
06/30/2011 08:27:44	22.163	18.977	76.803	59.104
06/30/2011 08:27:54	22.167	18.992	76.803	59.104
22.1% O2/18.9% CO2 Span	**22.163**	**18.981**	**76.803**	**59.104**
06/30/2011 08:28:04	17.699	9.873	77.001	59.104
06/30/2011 08:28:14	11.601	9.935	77.302	59.001
06/30/2011 08:28:24	11.213	9.924	77.001	59.001
06/30/2011 08:28:34	11.198	9.92	77.001	59.001
06/30/2011 08:28:44	11.184	9.917	77.104	59.104
06/30/2011 08:28:54	11.18	9.917	77.104	59.104
06/30/2011 08:29:04	11.176	9.917	77.302	59.302
06/30/2011 08:29:14	11.173	9.913	77.104	59.302
06/30/2011 08:29:24	11.173	9.913	77.104	59.302
11.1% O2/9.74% CO2 Mid	**11.174**	**9.914**	**77.170**	**59.302**
06/30/2011 08:29:34	12.055	7.668	77.302	60.602
06/30/2011 08:29:44	18.439	0.241	77.104	61.301
06/30/2011 08:29:54	18.889	0.75	77.104	62.404
Calibration Bias				
06/30/2011 08:30:04	6.452	0.201	77.503	62.404
06/30/2011 08:30:14	0.417	0.19	77.503	62.404
06/30/2011 08:30:24	0.212	0.186	77.503	62.404
06/30/2011 08:30:34	0.168	0.183	77.704	62.601
06/30/2011 08:30:44	0.139	0.179	77.902	62.601
06/30/2011 08:30:54	0.12	0.175	77.902	62.404
06/30/2011 08:31:04	0.109	0.175	77.503	62.404
N2 Zero	**0.123**	**0.176**	**77.769**	**62.470**
06/30/2011 08:31:14	0.183	0.395	77.503	62.001
06/30/2011 08:31:24	5.54	9.58	78.005	62.001
06/30/2011 08:31:34	10.73	9.774	77.503	62.001

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 08:31:44	11.092	9.803	77.503	61.803
06/30/2011 08:31:54	11.122	9.821	77.503	61.803
06/30/2011 08:32:04	11.133	9.829	77.503	61.704
06/30/2011 08:32:14	11.14	9.836	77.503	61.704
06/30/2011 08:32:24	11.14	9.843	77.503	61.704
11.1% O2/9.74% CO2 Mid	**11.138**	**9.836**	**77.503**	**61.704**
06/30/2011 08:32:34	11.352	9.144	77.302	61.803
06/30/2011 08:32:44	16.388	0.49	77.503	62.001
06/30/2011 08:32:54	20.57	0.329	77.503	62.001
06/30/2011 08:33:04	20.885	0.281	77.704	62.001
06/30/2011 08:33:14	20.922	0.263	77.704	62.202
06/30/2011 08:33:24	20.936	0.252	77.704	62.202
06/30/2011 08:33:34	20.947	0.241	77.704	62.202
06/30/2011 08:33:44	20.951	0.237	77.704	62.202
06/30/2011 08:33:54	20.958	0.23	77.902	62.202
06/30/2011 08:34:04	20.966	0.226	77.704	62.202
06/30/2011 08:34:14	20.969	0.226	77.704	62.404
06/30/2011 08:34:24	20.973	0.223	77.704	62.404
06/30/2011 08:34:34	20.973	0.219	77.704	62.404
06/30/2011 08:34:44	20.977	0.219	77.704	62.404
06/30/2011 08:34:54	20.98	0.219	77.704	62.404
06/30/2011 08:35:04	20.98	0.215	77.704	62.404
06/30/2011 08:35:14	20.98	0.215	77.704	62.404
06/30/2011 08:35:24	20.984	0.215	77.704	62.404
06/30/2011 08:35:34	20.984	0.215	77.503	62.404
06/30/2011 08:35:44	20.984	0.215	77.503	62.404
06/30/2011 08:35:54	20.984	0.215	77.704	62.404
06/30/2011 08:36:04	20.988	0.215	77.902	62.404
06/30/2011 08:36:14	20.988	0.219	77.704	62.601
06/30/2011 08:36:24	20.988	0.219	77.302	62.601
06/30/2011 08:36:34	20.988	0.219	77.302	62.601
06/30/2011 08:36:44	20.988	0.219	77.503	62.601
06/30/2011 08:36:54	20.988	0.219	77.704	62.704
06/30/2011 08:37:04	20.988	0.219	77.902	62.704
06/30/2011 08:37:14	20.991	0.223	77.704	62.704
06/30/2011 08:37:24	20.991	0.223	77.704	62.704
06/30/2011 08:37:34	20.991	0.223	77.104	62.704
06/30/2011 08:37:44	20.991	0.223	77.503	62.704
06/30/2011 08:37:54	20.991	0.219	77.104	62.601
06/30/2011 08:38:04	20.991	0.219	77.104	62.704
06/30/2011 08:38:14	20.991	0.219	77.001	62.704
06/30/2011 08:38:24	20.991	0.215	77.001	62.704
06/30/2011 08:38:34	20.991	0.215	76.803	62.704
06/30/2011 08:38:44	20.995	0.212	77.001	62.704
06/30/2011 08:38:54	20.995	0.212	77.704	62.704
06/30/2011 08:39:04	20.995	0.208	77.503	62.704
06/30/2011 08:39:14	20.995	0.208	77.104	62.704
06/30/2011 08:39:24	20.995	0.204	77.104	62.704
06/30/2011 08:39:34	20.995	0.204	77.001	62.902
06/30/2011 08:39:44	20.995	0.201	76.803	62.704
06/30/2011 08:39:54	20.995	0.201	76.602	62.902
06/30/2011 08:40:04	20.995	0.201	76.803	62.704
06/30/2011 08:40:14	20.995	0.197	76.803	62.704
06/30/2011 08:40:24	20.995	0.197	76.602	62.902
06/30/2011 08:40:34	20.995	0.197	77.001	62.902
06/30/2011 08:40:44	20.999	0.197	76.602	62.902
06/30/2011 08:40:54	20.999	0.197	77.001	63.103
06/30/2011 08:41:04	20.999	0.201	77.104	62.902
06/30/2011 08:41:14	20.995	0.201	77.503	62.902
06/30/2011 08:41:24	20.995	0.201	77.302	62.902
06/30/2011 08:41:34	20.995	0.201	77.104	63.103
06/30/2011 08:41:44	20.999	0.201	76.803	62.902
06/30/2011 08:41:54	20.999	0.201	77.001	62.902
06/30/2011 08:42:04	20.999	0.201	77.302	63.103
06/30/2011 08:42:14	20.999	0.201	77.302	63.103
06/30/2011 08:42:24	20.999	0.204	77.302	63.103
06/30/2011 08:42:34	20.995	0.201	76.803	63.103
06/30/2011 08:42:44	20.995	0.212	77.001	63.103
06/30/2011 08:42:54	16.421	11.773	77.104	63.103

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 08:43:04	7.463	12.927	77.302	63.103
06/30/2011 08:43:14	5.958	13.008	77.001	62.902
06/30/2011 08:43:24	5.881	13.041	77.001	62.601
06/30/2011 08:43:34	5.87	13.041	77.001	62.601
06/30/2011 08:43:44	5.848	13.063	77.001	62.704
06/30/2011 08:43:54	5.833	13.099	77.104	62.704
06/30/2011 08:44:04	5.756	13.213	77.104	62.704
06/30/2011 08:44:14	5.698	13.202	77.302	62.704
06/30/2011 08:44:24	5.683	13.209	77.001	62.704
06/30/2011 08:44:34	5.69	13.191	77.302	62.704
06/30/2011 08:44:44	5.701	13.202	77.001	62.704
06/30/2011 08:44:54	5.694	13.202	76.803	62.704
06/30/2011 08:45:04	5.669	13.264	76.803	62.704
06/30/2011 08:45:14	5.61	13.312	77.001	62.704
06/30/2011 08:45:24	5.588	13.301	77.001	62.704
06/30/2011 08:45:34	5.614	13.249	76.803	62.704
06/30/2011 08:45:44	5.632	13.271	77.001	62.704
06/30/2011 08:45:54	5.632	13.224	76.803	62.704
06/30/2011 08:46:04	5.658	13.238	77.001	62.704
06/30/2011 08:46:14	5.658	13.238	77.104	62.902
06/30/2011 08:46:24	5.658	13.268	77.001	62.902
06/30/2011 08:46:34	5.65	13.246	76.602	62.601
06/30/2011 08:46:44	5.658	13.231	76.803	62.704
06/30/2011 08:46:54	5.679	13.209	76.803	62.704
Start Run 12				
06/30/2011 08:47:04	5.709	13.202	77.001	62.704
06/30/2011 08:47:14	5.727	13.187	77.001	62.704
06/30/2011 08:47:24	5.701	13.242	76.803	62.704
06/30/2011 08:47:34	5.632	13.297	76.602	62.704
06/30/2011 08:47:44	5.625	13.242	76.404	62.704
06/30/2011 08:47:54	5.643	13.235	76.803	62.902
06/30/2011 08:48:04	5.632	13.286	77.001	62.902
06/30/2011 08:48:14	5.632	13.249	76.803	62.902
06/30/2011 08:48:24	5.65	13.249	76.602	62.902
06/30/2011 08:48:34	5.672	13.231	76.404	63.103
06/30/2011 08:48:44	5.654	13.264	76.404	63.103
06/30/2011 08:48:54	5.628	13.271	76.404	63.103
06/30/2011 08:49:04	5.625	13.26	76.404	63.103
06/30/2011 08:49:14	5.636	13.242	77.001	63.103
06/30/2011 08:49:24	5.636	13.26	76.803	63.103
06/30/2011 08:49:34	5.628	13.242	77.302	63.103
06/30/2011 08:49:44	5.65	13.301	77.503	63.103
06/30/2011 08:49:54	5.628	13.271	77.503	63.103
06/30/2011 08:50:04	5.669	13.246	77.302	62.902
06/30/2011 08:50:14	5.669	13.26	77.503	63.103
06/30/2011 08:50:24	5.647	13.29	77.503	63.103
06/30/2011 08:50:34	5.636	13.286	77.302	63.103
06/30/2011 08:50:44	5.606	13.326	77.704	63.103
06/30/2011 08:50:54	5.555	13.37	77.302	63.103
06/30/2011 08:51:04	5.526	13.366	77.104	63.103
06/30/2011 08:51:14	5.482	13.41	76.803	63.103
06/30/2011 08:51:24	5.46	13.399	77.001	63.103
06/30/2011 08:51:34	5.471	13.429	77.001	62.902
06/30/2011 08:51:44	5.441	13.41	77.104	62.902
06/30/2011 08:51:54	5.441	13.421	77.001	63.103
06/30/2011 08:52:04	5.46	13.429	77.001	63.103
06/30/2011 08:52:14	5.445	13.443	77.001	63.103
06/30/2011 08:52:24	5.434	13.44	76.602	63.103
06/30/2011 08:52:34	5.441	13.418	77.104	63.103
06/30/2011 08:52:44	5.496	13.37	77.001	63.103
06/30/2011 08:52:54	5.551	13.345	77.001	63.103
06/30/2011 08:53:04	5.54	13.377	77.302	63.103
06/30/2011 08:53:14	5.515	13.385	77.503	63.103
06/30/2011 08:53:24	5.489	13.41	77.302	63.103
06/30/2011 08:53:34	5.423	13.487	77.302	63.103
06/30/2011 08:53:44	5.383	13.535	77.001	63.103
06/30/2011 08:53:54	5.339	13.561	77.104	63.103
06/30/2011 08:54:04	5.328	13.517	77.302	63.103

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 08:54:14	5.35	13.498	76.803	63.103
06/30/2011 08:54:24	5.365	13.502	77.001	63.502
06/30/2011 08:54:34	5.372	13.48	76.803	63.502
06/30/2011 08:54:44	5.365	13.528	77.001	63.502
06/30/2011 08:54:54	5.324	13.568	77.104	63.502
06/30/2011 08:55:04	5.31	13.557	77.302	63.502
06/30/2011 08:55:14	5.324	13.557	77.302	63.301
06/30/2011 08:55:24	5.321	13.55	77.001	63.502
06/30/2011 08:55:34	5.343	13.502	77.001	63.502
06/30/2011 08:55:44	5.357	13.561	76.803	63.502
06/30/2011 08:55:54	5.302	13.594	76.803	63.502
06/30/2011 08:56:04	5.251	13.605	76.803	62.902
06/30/2011 08:56:14	5.251	13.612	77.001	62.704
06/30/2011 08:56:24	5.251	13.608	77.001	62.704
06/30/2011 08:56:34	5.236	13.648	77.104	62.601
06/30/2011 08:56:44	5.211	13.689	77.001	62.601
06/30/2011 08:56:54	5.196	13.663	77.104	62.704
06/30/2011 08:57:04	5.229	13.641	77.104	62.601
06/30/2011 08:57:14	5.203	13.685	76.803	62.704
06/30/2011 08:57:24	5.181	13.7	77.104	62.704
06/30/2011 08:57:34	5.181	13.678	76.803	62.601
06/30/2011 08:57:44	5.203	13.63	77.302	62.601
06/30/2011 08:57:54	5.266	13.535	77.302	62.704
06/30/2011 08:58:04	5.302	13.557	77.104	62.601
06/30/2011 08:58:14	5.28	13.579	77.104	62.704
06/30/2011 08:58:24	5.284	13.597	77.302	62.601
06/30/2011 08:58:34	5.273	13.597	77.001	62.601
06/30/2011 08:58:44	5.288	13.553	76.803	62.601
06/30/2011 08:58:54	5.302	13.612	76.803	62.601
06/30/2011 08:59:04	5.236	13.656	76.803	62.704
06/30/2011 08:59:14	5.28	13.498	77.001	62.704
06/30/2011 08:59:24	5.379	13.528	76.803	62.704
06/30/2011 08:59:34	5.39	13.48	77.001	62.704
06/30/2011 08:59:44	5.412	13.517	76.803	62.601
06/30/2011 08:59:54	5.398	13.517	77.001	62.704
06/30/2011 09:00:04	5.394	13.513	77.302	62.704
06/30/2011 09:00:14	5.372	13.542	77.302	62.704
06/30/2011 09:00:24	5.35	13.546	77.104	62.601
06/30/2011 09:00:34	5.339	13.539	77.001	62.704
06/30/2011 09:00:44	5.332	13.59	77.001	62.704
06/30/2011 09:00:54	5.31	13.575	77.104	62.704
06/30/2011 09:01:04	5.288	13.612	77.104	62.704
06/30/2011 09:01:14	5.288	13.568	77.001	62.601
06/30/2011 09:01:24	5.335	13.513	76.803	62.704
06/30/2011 09:01:34	5.332	13.561	77.001	62.601
06/30/2011 09:01:44	5.321	13.568	77.302	62.601
06/30/2011 09:01:54	5.302	13.597	77.302	62.601
06/30/2011 09:02:04	5.302	13.579	77.104	62.601
06/30/2011 09:02:14	5.302	13.579	77.302	62.601
06/30/2011 09:02:24	5.266	13.663	77.302	62.601
06/30/2011 09:02:34	5.244	13.616	77.104	62.704
06/30/2011 09:02:44	5.255	13.638	77.302	62.704
06/30/2011 09:02:54	5.262	13.619	77.302	62.601
06/30/2011 09:03:04	5.284	13.623	77.704	62.601
06/30/2011 09:03:14	5.277	13.659	77.902	62.601
06/30/2011 09:03:24	5.211	13.711	77.704	62.601
06/30/2011 09:03:34	5.189	13.685	77.503	62.601
06/30/2011 09:03:44	5.218	13.674	77.503	62.704
06/30/2011 09:03:54	5.236	13.656	77.902	62.704
06/30/2011 09:04:04	5.266	13.623	77.902	62.704
06/30/2011 09:04:14	5.236	13.681	77.503	62.704
06/30/2011 09:04:24	5.214	13.645	77.104	62.704
06/30/2011 09:04:34	5.273	13.579	77.302	62.704
06/30/2011 09:04:44	5.313	13.575	77.302	62.704
06/30/2011 09:04:54	5.273	13.681	77.503	62.704
06/30/2011 09:05:04	5.174	13.733	77.704	62.704
06/30/2011 09:05:14	5.148	13.722	77.302	62.704
06/30/2011 09:05:24	5.17	13.707	77.302	62.902
06/30/2011 09:05:34	5.196	13.663	77.302	62.902

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 09:05:44	5.24	13.583	77.001	62.601
06/30/2011 09:05:54	5.299	13.557	76.803	62.704
06/30/2011 09:06:04	5.332	13.572	76.803	62.704
06/30/2011 09:06:14	5.332	13.586	76.803	62.601
06/30/2011 09:06:24	5.332	13.561	77.001	62.902
06/30/2011 09:06:34	5.346	13.542	77.001	62.704
06/30/2011 09:06:44	5.343	13.575	77.302	62.704
06/30/2011 09:06:54	5.321	13.579	77.104	62.704
06/30/2011 09:07:04	5.335	13.575	77.302	62.704
06/30/2011 09:07:14	5.317	13.601	77.302	62.704
06/30/2011 09:07:24	5.302	13.597	77.104	62.601
06/30/2011 09:07:34	5.332	13.524	77.302	62.601
06/30/2011 09:07:44	5.357	13.572	77.104	62.601
06/30/2011 09:07:54	5.328	13.572	77.302	62.601
06/30/2011 09:08:04	5.332	13.553	77.001	62.601
06/30/2011 09:08:14	5.339	13.583	77.104	62.601
06/30/2011 09:08:24	5.288	13.667	77.104	62.704
06/30/2011 09:08:34	5.251	13.652	77.001	62.704
06/30/2011 09:08:44	5.269	13.63	77.503	62.704
06/30/2011 09:08:54	5.302	13.557	77.302	62.704
06/30/2011 09:09:04	5.376	13.513	77.302	62.704
06/30/2011 09:09:14	5.398	13.535	77.104	62.704
06/30/2011 09:09:24	5.365	13.539	77.302	62.704
06/30/2011 09:09:34	5.343	13.564	77.503	62.704
06/30/2011 09:09:44	5.288	13.63	77.503	62.704
06/30/2011 09:09:54	5.269	13.597	77.704	62.704
06/30/2011 09:10:04	5.317	13.535	77.503	62.601
06/30/2011 09:10:14	5.361	13.528	77.704	62.601
06/30/2011 09:10:24	5.365	13.539	78.005	62.704
06/30/2011 09:10:34	5.365	13.528	78.005	62.704
06/30/2011 09:10:44	5.35	13.546	77.704	62.704
06/30/2011 09:10:54	5.335	13.575	77.503	62.704
06/30/2011 09:11:04	5.306	13.619	77.302	62.704
06/30/2011 09:11:14	5.273	13.605	77.704	62.704
06/30/2011 09:11:24	5.324	13.506	77.302	62.704
06/30/2011 09:11:34	5.368	13.517	77.104	62.704
06/30/2011 09:11:44	5.368	13.531	77.302	62.704
06/30/2011 09:11:54	5.343	13.564	77.503	62.601
06/30/2011 09:12:04	5.273	13.663	77.104	62.704
06/30/2011 09:12:14	5.222	13.674	77.302	62.601
06/30/2011 09:12:24	5.233	13.652	77.104	62.704
06/30/2011 09:12:34	5.214	13.696	77.104	62.704
06/30/2011 09:12:44	5.247	13.59	77.104	62.704
06/30/2011 09:12:54	5.324	13.572	77.302	62.704
06/30/2011 09:13:04	5.357	13.524	77.104	62.704
06/30/2011 09:13:14	5.372	13.535	77.503	62.704
06/30/2011 09:13:24	5.35	13.583	77.503	62.704
06/30/2011 09:13:34	5.332	13.553	77.704	62.704
06/30/2011 09:13:44	5.335	13.579	78.005	62.902
06/30/2011 09:13:54	5.313	13.601	78.005	62.902
06/30/2011 09:14:04	5.317	13.55	77.704	62.902
06/30/2011 09:14:14	5.346	13.553	77.704	62.902
06/30/2011 09:14:24	5.361	13.542	78.202	62.902
06/30/2011 09:14:34	5.343	13.597	78.202	62.704
06/30/2011 09:14:44	5.317	13.564	78.404	62.704
06/30/2011 09:14:54	5.354	13.495	78.202	62.704
06/30/2011 09:15:04	5.412	13.509	78.404	62.902
06/30/2011 09:15:14	5.408	13.513	78.202	62.902
06/30/2011 09:15:24	5.365	13.605	78.202	62.902
06/30/2011 09:15:34	5.339	13.528	78.404	62.902
06/30/2011 09:15:44	5.401	13.502	78.602	62.902
06/30/2011 09:15:54	5.427	13.498	78.404	62.704
06/30/2011 09:16:04	5.419	13.502	78.404	62.704
06/30/2011 09:16:14	5.405	13.491	78.404	62.902
06/30/2011 09:16:24	5.427	13.458	78.404	62.902
06/30/2011 09:16:34	5.423	13.535	78.404	62.902
06/30/2011 09:16:44	5.372	13.564	78.602	62.902
06/30/2011 09:16:54	5.379	13.506	78.404	62.902
06/30/2011 09:17:04	5.401	13.473	78.602	62.902

URS CEMs Raw Data
June 30, 2011

24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 09:17:14	5.438	13.454	78.602	62.902
06/30/2011 09:17:24	5.467	13.451	78.803	63.103
06/30/2011 09:17:34	5.463	13.454	78.602	63.103
06/30/2011 09:17:44	5.489	13.396	78.602	63.103
06/30/2011 09:17:54	5.518	13.363	79.103	62.902
06/30/2011 09:18:04	5.562	13.326	79.704	63.103
06/30/2011 09:18:14	5.595	13.293	79.103	63.103
06/30/2011 09:18:24	5.61	13.308	78.902	63.103
06/30/2011 09:18:34	5.581	13.348	78.803	63.103
06/30/2011 09:18:44	5.518	13.396	79.103	63.103
06/30/2011 09:18:54	5.489	13.44	78.902	63.103
06/30/2011 09:19:04	5.478	13.407	78.803	63.103
06/30/2011 09:19:14	5.504	13.37	78.803	63.103
06/30/2011 09:19:24	5.507	13.403	78.602	63.103
06/30/2011 09:19:34	5.511	13.363	78.602	63.103
06/30/2011 09:19:44	5.504	13.432	78.602	63.103
06/30/2011 09:19:54	5.493	13.37	78.404	63.103
06/30/2011 09:20:04	5.548	13.323	78.602	63.103
06/30/2011 09:20:14	5.566	13.377	78.803	63.103
06/30/2011 09:20:24	5.548	13.341	78.602	63.103
06/30/2011 09:20:34	5.559	13.341	78.602	63.103
06/30/2011 09:20:44	5.584	13.301	78.803	63.301
06/30/2011 09:20:54	5.625	13.286	78.902	63.301
06/30/2011 09:21:04	5.628	13.29	78.803	63.301
06/30/2011 09:21:14	5.606	13.33	78.404	63.103
06/30/2011 09:21:24	5.551	13.385	78.404	63.301
06/30/2011 09:21:34	5.511	13.41	78.404	63.103
06/30/2011 09:21:44	5.449	13.491	78.602	63.103
06/30/2011 09:21:54	5.394	13.498	78.404	63.301
06/30/2011 09:22:04	5.452	13.374	78.202	63.301
06/30/2011 09:22:14	5.555	13.334	78.602	63.301
06/30/2011 09:22:24	5.632	13.246	78.404	63.301
06/30/2011 09:22:34	5.679	13.238	78.005	63.301
06/30/2011 09:22:44	5.654	13.29	78.202	63.301
06/30/2011 09:22:54	5.628	13.29	78.404	63.502
06/30/2011 09:23:04	5.665	13.246	78.602	63.502
06/30/2011 09:23:14	5.698	13.209	78.803	63.502
06/30/2011 09:23:24	5.69	13.242	78.803	63.502
06/30/2011 09:23:34	5.698	13.22	78.602	63.502
06/30/2011 09:23:44	5.679	13.29	78.404	63.502
06/30/2011 09:23:54	5.592	13.359	78.005	63.301
06/30/2011 09:24:04	5.577	13.308	78.005	63.301
06/30/2011 09:24:14	5.592	13.341	77.902	63.502
06/30/2011 09:24:24	5.57	13.323	78.005	63.502
06/30/2011 09:24:34	5.577	13.319	77.902	63.502
06/30/2011 09:24:44	5.588	13.279	78.005	63.502
06/30/2011 09:24:54	5.592	13.326	78.005	63.502
06/30/2011 09:25:04	5.603	13.279	78.005	63.502
06/30/2011 09:25:14	5.603	13.334	78.202	63.502
06/30/2011 09:25:24	5.562	13.334	78.404	63.502
06/30/2011 09:25:34	5.606	13.26	78.404	63.502
06/30/2011 09:25:44	5.661	13.238	78.404	63.502
06/30/2011 09:25:54	5.65	13.235	78.404	63.301
06/30/2011 09:26:04	5.672	13.22	78.404	63.502
06/30/2011 09:26:14	5.709	13.165	78.005	63.502
06/30/2011 09:26:24	5.716	13.191	78.202	63.301
06/30/2011 09:26:34	5.701	13.216	78.404	63.502
06/30/2011 09:26:44	5.628	13.33	78.202	63.502
06/30/2011 09:26:54	5.581	13.319	78.202	63.601
06/30/2011 09:27:04	5.599	13.301	78.404	63.502
06/30/2011 09:27:14	5.647	13.238	78.005	63.502
06/30/2011 09:27:24	5.705	13.183	78.202	63.502
06/30/2011 09:27:34	5.731	13.216	78.005	63.502
06/30/2011 09:27:44	5.72	13.205	78.005	63.502
06/30/2011 09:27:54	5.749	13.143	78.202	63.502
06/30/2011 09:28:04	5.778	13.169	78.005	63.502
06/30/2011 09:28:14	5.738	13.224	77.902	63.502
06/30/2011 09:28:24	5.679	13.224	77.902	63.502
06/30/2011 09:28:34	5.669	13.224	77.704	63.502

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 09:28:44	5.658	13.22	77.704	63.502
06/30/2011 09:28:54	5.639	13.286	77.704	63.502
06/30/2011 09:29:04	5.625	13.249	77.902	63.502
06/30/2011 09:29:14	5.643	13.275	77.902	63.502
06/30/2011 09:29:24	5.61	13.301	77.704	63.502
06/30/2011 09:29:34	5.584	13.33	77.902	63.502
06/30/2011 09:29:44	5.551	13.345	77.704	63.601
06/30/2011 09:29:54	5.559	13.33	77.704	63.601
06/30/2011 09:30:04	5.566	13.352	77.302	63.601
06/30/2011 09:30:14	5.559	13.323	77.704	63.601
06/30/2011 09:30:24	5.551	13.381	77.503	63.601
06/30/2011 09:30:34	5.474	13.458	77.902	63.502
06/30/2011 09:30:44	5.43	13.484	78.005	63.502
06/30/2011 09:30:54	5.427	13.432	78.005	63.502
06/30/2011 09:31:04	5.474	13.403	78.005	63.601
06/30/2011 09:31:14	5.496	13.392	78.202	63.601
06/30/2011 09:31:24	5.496	13.399	78.404	63.601
06/30/2011 09:31:34	5.471	13.436	78.404	63.502
06/30/2011 09:31:44	5.474	13.366	78.005	63.502
06/30/2011 09:31:54	5.511	13.399	77.902	63.502
06/30/2011 09:32:04	5.482	13.421	78.005	63.301
06/30/2011 09:32:14	5.518	13.315	78.404	63.502
06/30/2011 09:32:24	5.544	13.356	78.005	63.502
06/30/2011 09:32:34	5.555	13.334	78.005	63.502
06/30/2011 09:32:44	5.562	13.345	78.202	63.502
06/30/2011 09:32:54	5.511	13.425	78.005	63.502
06/30/2011 09:33:04	5.478	13.421	78.005	63.502
06/30/2011 09:33:14	5.518	13.359	78.005	63.502
06/30/2011 09:33:24	5.566	13.308	78.005	63.502
06/30/2011 09:33:34	5.562	13.363	78.005	63.502
06/30/2011 09:33:44	5.529	13.37	78.202	63.502
06/30/2011 09:33:54	5.537	13.334	78.602	63.601
06/30/2011 09:34:04	5.555	13.348	78.404	63.502
06/30/2011 09:34:14	5.555	13.348	78.803	63.502
06/30/2011 09:34:24	5.57	13.319	78.803	63.502
06/30/2011 09:34:34	5.592	13.301	78.602	63.502
06/30/2011 09:34:44	5.592	13.381	78.404	63.502
06/30/2011 09:34:54	5.57	13.326	78.602	63.502
06/30/2011 09:35:04	5.566	13.345	78.202	63.502
06/30/2011 09:35:14	5.595	13.282	78.404	63.601
06/30/2011 09:35:24	5.603	13.337	78.202	63.601
06/30/2011 09:35:34	5.566	13.304	78.202	63.601
06/30/2011 09:35:44	5.581	13.348	78.005	63.502
06/30/2011 09:35:54	5.555	13.359	78.202	63.502
06/30/2011 09:36:04	5.518	13.425	78.202	63.502
06/30/2011 09:36:14	5.493	13.363	78.005	63.502
06/30/2011 09:36:24	5.577	13.26	78.005	63.502
06/30/2011 09:36:34	5.621	13.304	78.005	63.502
06/30/2011 09:36:44	5.592	13.268	78.005	63.502
06/30/2011 09:36:54	5.614	13.249	78.005	63.601
06/30/2011 09:37:04	5.617	13.293	78.005	63.601
06/30/2011 09:37:14	5.595	13.326	78.005	63.601
06/30/2011 09:37:24	5.559	13.352	78.005	63.502
06/30/2011 09:37:34	5.5	13.421	78.005	63.502
06/30/2011 09:37:44	5.471	13.421	78.005	63.502
06/30/2011 09:37:54	5.515	13.356	78.202	63.502
06/30/2011 09:38:04	5.522	13.407	78.404	63.502
06/30/2011 09:38:14	5.496	13.388	78.202	63.502
06/30/2011 09:38:24	5.559	13.301	78.404	63.502
06/30/2011 09:38:34	5.632	13.279	78.404	63.502
06/30/2011 09:38:44	5.61	13.363	78.005	63.502
06/30/2011 09:38:54	5.544	13.377	78.005	63.502
06/30/2011 09:39:04	5.533	13.359	78.202	63.601
06/30/2011 09:39:14	5.581	13.29	78.202	63.601
06/30/2011 09:39:24	5.621	13.29	78.404	63.502
06/30/2011 09:39:34	5.606	13.33	78.404	63.502
06/30/2011 09:39:44	5.562	13.345	78.404	63.502
06/30/2011 09:39:54	5.559	13.334	78.404	63.601
06/30/2011 09:40:04	5.529	13.418	78.404	63.601

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 09:40:14	5.474	13.421	78.202	63.601
06/30/2011 09:40:24	5.478	13.443	78.202	63.601
06/30/2011 09:40:34	5.482	13.407	78.005	63.502
06/30/2011 09:40:44	5.522	13.348	77.902	63.502
06/30/2011 09:40:54	5.584	13.312	77.503	63.502
06/30/2011 09:41:04	5.581	13.399	77.704	63.601
06/30/2011 09:41:14	5.537	13.374	78.005	63.502
06/30/2011 09:41:24	5.54	13.37	78.005	63.601
06/30/2011 09:41:34	5.526	13.385	78.005	63.601
06/30/2011 09:41:44	5.493	13.447	78.202	63.502
06/30/2011 09:41:54	5.467	13.425	78.005	63.502
06/30/2011 09:42:04	5.551	13.304	78.005	63.502
06/30/2011 09:42:14	5.566	13.366	78.005	63.601
06/30/2011 09:42:24	5.485	13.451	78.005	63.502
06/30/2011 09:42:34	5.478	13.399	78.202	63.502
06/30/2011 09:42:44	5.526	13.352	78.005	63.601
06/30/2011 09:42:54	5.581	13.337	78.005	63.502
06/30/2011 09:43:04	5.592	13.301	78.005	63.502
06/30/2011 09:43:14	5.595	13.304	78.202	63.502
06/30/2011 09:43:24	5.592	13.315	78.005	63.502
06/30/2011 09:43:34	5.581	13.352	77.902	63.502
06/30/2011 09:43:44	5.566	13.341	77.902	63.502
06/30/2011 09:43:54	5.548	13.385	77.704	63.502
06/30/2011 09:44:04	5.507	13.425	78.005	63.502
06/30/2011 09:44:14	5.471	13.451	78.202	63.601
06/30/2011 09:44:24	5.452	13.44	78.404	63.601
06/30/2011 09:44:34	5.471	13.425	78.005	63.502
06/30/2011 09:44:44	5.478	13.403	78.005	63.502
06/30/2011 09:44:54	5.471	13.469	78.404	63.502
06/30/2011 09:45:04	5.43	13.469	78.005	63.502
06/30/2011 09:45:14	5.398	13.535	78.202	63.502
06/30/2011 09:45:24	5.408	13.44	78.202	63.502
06/30/2011 09:45:34	5.456	13.44	78.005	63.502
06/30/2011 09:45:44	5.467	13.421	78.602	63.601
06/30/2011 09:45:54	5.471	13.458	78.404	63.601
06/30/2011 09:46:04	5.5	13.366	78.404	63.601
06/30/2011 09:46:14	5.566	13.301	78.005	63.601
06/30/2011 09:46:24	5.566	13.388	77.503	63.502
06/30/2011 09:46:34	5.515	13.414	78.005	63.502
06/30/2011 09:46:44	5.452	13.469	78.202	63.502
06/30/2011 09:46:54	5.452	13.436	78.202	63.502
06/30/2011 09:47:04	5.449	13.447	78.202	63.502
06/30/2011 09:47:14	5.416	13.524	78.602	63.502
06/30/2011 09:47:24	5.376	13.513	78.803	63.502
06/30/2011 09:47:34	5.394	13.517	78.803	63.301
06/30/2011 09:47:44	5.405	13.484	78.803	63.601
06/30/2011 09:47:54	5.423	13.484	78.202	63.502
06/30/2011 09:48:04	5.441	13.462	78.404	63.502
06/30/2011 09:48:14	5.405	13.513	78.404	63.502
06/30/2011 09:48:24	5.387	13.491	78.404	63.502
06/30/2011 09:48:34	5.405	13.509	78.602	63.601
06/30/2011 09:48:44	5.365	13.572	78.803	63.601
06/30/2011 09:48:54	5.35	13.539	78.902	63.601
06/30/2011 09:49:04	5.372	13.513	78.902	63.601
06/30/2011 09:49:14	5.379	13.517	78.902	63.601
06/30/2011 09:49:24	5.408	13.462	79.103	63.601
06/30/2011 09:49:34	5.412	13.513	79.103	63.601
06/30/2011 09:49:44	5.383	13.491	79.103	63.601
06/30/2011 09:49:54	5.401	13.517	78.803	63.601
06/30/2011 09:50:04	5.398	13.498	78.803	63.601
06/30/2011 09:50:14	5.416	13.462	79.103	63.601
06/30/2011 09:50:24	5.394	13.557	79.103	63.601
06/30/2011 09:50:34	5.302	13.63	78.902	63.502
06/30/2011 09:50:44	5.255	13.667	78.902	63.502
06/30/2011 09:50:54	5.214	13.714	78.803	63.601
06/30/2011 09:51:04	5.203	13.667	78.902	63.601
06/30/2011 09:51:14	5.266	13.579	78.803	63.601
06/30/2011 09:51:24	5.321	13.568	78.803	63.502
06/30/2011 09:51:34	5.295	13.648	78.602	63.601

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 09:51:44	5.269	13.608	78.902	63.803
06/30/2011 09:51:54	5.295	13.597	79.103	63.803
06/30/2011 09:52:04	5.31	13.579	79.305	63.601
06/30/2011 09:52:14	5.306	13.619	79.305	63.601
06/30/2011 09:52:24	5.28	13.638	79.103	63.601
06/30/2011 09:52:34	5.291	13.597	79.305	63.601
06/30/2011 09:52:44	5.324	13.553	78.902	63.803
06/30/2011 09:52:54	5.328	13.594	78.803	63.803
06/30/2011 09:53:04	5.28	13.619	78.803	63.601
06/30/2011 09:53:14	5.258	13.594	78.602	63.601
06/30/2011 09:53:24	5.302	13.564	78.803	63.601
06/30/2011 09:53:34	5.343	13.535	78.902	63.601
06/30/2011 09:53:44	5.365	13.517	78.404	63.601
06/30/2011 09:53:54	5.343	13.568	78.803	63.803
06/30/2011 09:54:04	5.313	13.575	78.602	63.803
06/30/2011 09:54:14	5.31	13.608	78.202	63.803
06/30/2011 09:54:24	5.302	13.579	78.005	63.803
06/30/2011 09:54:34	5.332	13.524	78.005	63.803
06/30/2011 09:54:44	5.35	13.594	78.202	63.803
06/30/2011 09:54:54	5.306	13.59	78.404	63.803
06/30/2011 09:55:04	5.302	13.586	78.803	63.803
06/30/2011 09:55:14	5.313	13.616	78.602	63.601
06/30/2011 09:55:24	5.299	13.594	78.602	64.004
06/30/2011 09:55:34	5.313	13.605	78.602	64.004
06/30/2011 09:55:44	5.299	13.616	78.902	64.004
06/30/2011 09:55:54	5.269	13.641	78.602	64.004
06/30/2011 09:56:04	5.262	13.616	78.602	63.803
06/30/2011 09:56:14	5.28	13.583	78.803	64.004
06/30/2011 09:56:24	5.328	13.539	78.602	64.004
06/30/2011 09:56:34	5.354	13.553	78.602	63.803
06/30/2011 09:56:44	5.339	13.572	78.404	63.601
06/30/2011 09:56:54	5.321	13.586	78.202	63.601
06/30/2011 09:57:04	5.324	13.55	78.202	63.601
06/30/2011 09:57:14	5.313	13.619	78.202	63.601
06/30/2011 09:57:24	5.255	13.623	78.404	63.803
06/30/2011 09:57:34	5.251	13.619	78.404	63.601
06/30/2011 09:57:44	5.266	13.597	78.602	63.803
06/30/2011 09:57:54	5.295	13.608	78.602	63.803
06/30/2011 09:58:04	5.302	13.572	78.005	63.803
06/30/2011 09:58:14	5.324	13.59	78.005	63.803
06/30/2011 09:58:24	5.291	13.616	78.404	63.601
06/30/2011 09:58:34	5.321	13.546	78.202	63.803
06/30/2011 09:58:44	5.423	13.414	78.202	63.803
06/30/2011 09:58:54	5.489	13.44	78.005	64.004
06/30/2011 09:59:04	5.434	13.506	78.005	63.803
06/30/2011 09:59:14	5.361	13.579	78.202	64.004
06/30/2011 09:59:24	5.324	13.575	78.202	64.004
06/30/2011 09:59:34	5.332	13.539	77.902	63.803
06/30/2011 09:59:44	5.339	13.575	77.902	63.803
06/30/2011 09:59:54	5.328	13.597	78.005	63.803
06/30/2011 10:00:04	5.295	13.579	78.005	63.803
06/30/2011 10:00:14	5.339	13.546	77.902	63.803
06/30/2011 10:00:24	5.332	13.568	78.005	63.803
06/30/2011 10:00:34	5.313	13.586	78.404	63.803
06/30/2011 10:00:44	5.324	13.546	78.404	63.803
06/30/2011 10:00:54	5.339	13.583	78.005	63.803
06/30/2011 10:01:04	5.335	13.572	78.202	63.803
06/30/2011 10:01:14	5.332	13.561	78.602	63.803
06/30/2011 10:01:24	5.332	13.575	78.404	63.803
06/30/2011 10:01:34	5.31	13.586	78.404	63.803
06/30/2011 10:01:44	5.284	13.619	78.404	63.601
06/30/2011 10:01:54	5.284	13.597	78.404	63.601
06/30/2011 10:02:04	5.324	13.601	78.404	63.601
06/30/2011 10:02:14	5.317	13.586	77.902	63.601
06/30/2011 10:02:24	5.376	13.495	78.202	63.601
06/30/2011 10:02:34	5.438	13.498	78.202	63.601
06/30/2011 10:02:44	5.463	13.425	78.202	63.601
06/30/2011 10:02:54	5.467	13.487	78.202	63.601
06/30/2011 10:03:04	5.408	13.513	78.202	63.601

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 10:03:14	5.427	13.473	78.202	63.601
06/30/2011 10:03:24	5.441	13.462	78.602	63.803
06/30/2011 10:03:34	5.43	13.509	78.602	63.803
06/30/2011 10:03:44	5.416	13.48	78.602	63.803
06/30/2011 10:03:54	5.438	13.473	78.803	63.601
06/30/2011 10:04:04	5.427	13.495	78.803	63.803
06/30/2011 10:04:14	5.408	13.491	78.404	63.803
06/30/2011 10:04:24	5.441	13.462	78.202	63.601
06/30/2011 10:04:34	5.441	13.476	78.404	63.601
06/30/2011 10:04:44	5.423	13.502	78.404	63.601
06/30/2011 10:04:54	5.401	13.491	78.602	63.601
06/30/2011 10:05:04	5.419	13.465	78.902	63.601
06/30/2011 10:05:14	5.438	13.44	78.902	63.601
06/30/2011 10:05:24	5.438	13.484	78.902	63.803
06/30/2011 10:05:34	5.408	13.48	78.902	63.601
06/30/2011 10:05:44	5.405	13.447	78.803	63.601
06/30/2011 10:05:54	5.43	13.465	78.902	63.601
06/30/2011 10:06:04	5.401	13.524	79.103	63.601
06/30/2011 10:06:14	5.335	13.586	79.103	63.601
06/30/2011 10:06:24	5.288	13.572	78.902	63.601
06/30/2011 10:06:34	5.313	13.557	79.103	63.601
06/30/2011 10:06:44	5.339	13.509	79.103	63.601
06/30/2011 10:06:54	5.398	13.451	78.803	63.601
06/30/2011 10:07:04	5.445	13.436	79.103	63.601
06/30/2011 10:07:14	5.493	13.374	78.902	63.601
06/30/2011 10:07:24	5.518	13.421	79.103	63.601
06/30/2011 10:07:34	5.489	13.458	78.803	63.601
06/30/2011 10:07:44	5.405	13.539	78.902	63.601
06/30/2011 10:07:54	5.394	13.48	78.902	63.601
06/30/2011 10:08:04	5.471	13.363	78.803	63.601
06/30/2011 10:08:14	5.537	13.374	78.803	63.601
06/30/2011 10:08:24	5.511	13.436	78.602	63.601
06/30/2011 10:08:34	5.478	13.451	78.602	63.601
06/30/2011 10:08:44	5.478	13.418	78.602	63.601
06/30/2011 10:08:54	5.537	13.319	78.602	63.601
06/30/2011 10:09:04	5.636	13.246	78.602	63.502
06/30/2011 10:09:14	5.687	13.209	78.602	63.502
06/30/2011 10:09:24	5.727	13.183	78.602	63.601
06/30/2011 10:09:34	5.745	13.165	78.602	63.601
06/30/2011 10:09:44	5.705	13.26	78.803	63.803
06/30/2011 10:09:54	5.632	13.334	78.803	63.601
06/30/2011 10:10:04	5.592	13.359	78.803	63.601
06/30/2011 10:10:14	5.588	13.275	78.602	63.601
06/30/2011 10:10:24	5.665	13.22	78.602	63.502
06/30/2011 10:10:34	5.669	13.286	78.902	63.601
06/30/2011 10:10:44	5.61	13.345	78.803	63.601
06/30/2011 10:10:54	5.581	13.334	78.602	63.803
06/30/2011 10:11:04	5.581	13.337	78.902	63.601
06/30/2011 10:11:14	5.555	13.363	78.803	63.601
06/30/2011 10:11:24	5.559	13.352	78.902	63.601
06/30/2011 10:11:34	5.555	13.341	78.902	63.601
06/30/2011 10:11:44	5.588	13.312	78.602	63.601
06/30/2011 10:11:54	5.625	13.268	78.602	63.502
06/30/2011 10:12:04	5.617	13.345	78.404	63.601
06/30/2011 10:12:14	5.562	13.345	78.602	63.601
06/30/2011 10:12:24	5.559	13.352	78.602	63.601
06/30/2011 10:12:34	5.588	13.286	78.803	63.601
06/30/2011 10:12:44	5.643	13.286	78.602	63.601
06/30/2011 10:12:54	5.654	13.282	78.602	63.601
06/30/2011 10:13:04	5.654	13.231	78.602	63.601
06/30/2011 10:13:14	5.636	13.293	78.803	63.601
06/30/2011 10:13:24	5.625	13.29	78.902	63.601
06/30/2011 10:13:34	5.614	13.319	78.902	63.601
06/30/2011 10:13:44	5.639	13.22	78.902	63.601
06/30/2011 10:13:54	5.756	13.095	78.803	63.803
06/30/2011 10:14:04	5.833	13.092	78.902	63.803
06/30/2011 10:14:14	5.855	13.055	78.602	63.601
06/30/2011 10:14:24	5.793	13.18	78.803	63.601
06/30/2011 10:14:34	5.738	13.18	78.602	63.601

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 10:14:44	5.716	13.246	78.404	63.803
06/30/2011 10:14:54	5.676	13.205	78.602	63.601
06/30/2011 10:15:04	5.701	13.238	78.602	63.601
06/30/2011 10:15:14	5.716	13.139	78.803	63.601
06/30/2011 10:15:24	5.815	13.095	78.602	63.601
06/30/2011 10:15:34	5.822	13.15	78.602	63.803
06/30/2011 10:15:44	5.764	13.172	78.602	63.601
06/30/2011 10:15:54	5.745	13.158	78.902	63.803
06/30/2011 10:16:04	5.767	13.128	78.803	63.601
06/30/2011 10:16:14	5.764	13.205	78.803	63.803
06/30/2011 10:16:24	5.698	13.209	78.803	63.601
06/30/2011 10:16:34	5.687	13.227	79.103	63.601
06/30/2011 10:16:44	5.669	13.253	78.902	63.601
06/30/2011 10:16:54	5.676	13.205	78.803	63.601
06/30/2011 10:17:04	5.679	13.249	78.902	63.601
06/30/2011 10:17:14	5.632	13.279	78.602	63.601
06/30/2011 10:17:24	5.647	13.227	78.602	63.601
06/30/2011 10:17:34	5.731	13.143	78.602	63.601
06/30/2011 10:17:44	5.786	13.103	78.602	63.601
06/30/2011 10:17:54	5.789	13.143	78.602	63.601
06/30/2011 10:18:04	5.749	13.176	78.602	63.601
06/30/2011 10:18:14	5.738	13.165	78.602	63.803
06/30/2011 10:18:24	5.723	13.209	78.602	63.803
06/30/2011 10:18:34	5.731	13.158	78.803	63.601
06/30/2011 10:18:44	5.767	13.143	78.902	63.601
06/30/2011 10:18:54	5.753	13.161	78.803	63.803
06/30/2011 10:19:04	5.742	13.18	78.803	63.601
06/30/2011 10:19:14	5.705	13.22	79.103	63.601
06/30/2011 10:19:24	5.669	13.253	78.602	63.601
06/30/2011 10:19:34	5.632	13.268	78.803	63.601
06/30/2011 10:19:44	5.632	13.231	78.803	63.803
06/30/2011 10:19:54	5.694	13.176	78.803	63.601
06/30/2011 10:20:04	5.727	13.158	78.803	63.803
06/30/2011 10:20:14	5.727	13.191	78.602	63.803
06/30/2011 10:20:24	5.694	13.205	78.803	63.803
06/30/2011 10:20:34	5.672	13.264	78.803	63.803
06/30/2011 10:20:44	5.625	13.279	78.803	63.803
06/30/2011 10:20:54	5.632	13.238	78.803	63.803
06/30/2011 10:21:04	5.658	13.216	78.902	63.803
06/30/2011 10:21:14	5.654	13.253	78.602	63.803
06/30/2011 10:21:24	5.617	13.312	78.602	63.803
06/30/2011 10:21:34	5.592	13.301	78.902	63.803
06/30/2011 10:21:44	5.61	13.315	78.602	63.803
06/30/2011 10:21:54	5.603	13.315	78.602	63.803
06/30/2011 10:22:04	5.617	13.26	78.602	63.803
06/30/2011 10:22:14	5.65	13.224	78.602	63.601
06/30/2011 10:22:24	5.694	13.165	78.404	63.601
06/30/2011 10:22:34	5.716	13.216	78.803	63.803
06/30/2011 10:22:44	5.672	13.242	78.404	63.803
06/30/2011 10:22:54	5.654	13.231	78.005	63.601
06/30/2011 10:23:04	5.665	13.216	78.202	63.601
06/30/2011 10:23:14	5.669	13.238	78.602	63.803
06/30/2011 10:23:24	5.665	13.238	78.902	63.601
06/30/2011 10:23:34	5.701	13.183	79.103	63.601
06/30/2011 10:23:44	5.72	13.187	79.103	63.803
06/30/2011 10:23:54	5.716	13.209	79.503	63.803
06/30/2011 10:24:04	5.709	13.198	80.004	63.803
06/30/2011 10:24:14	5.712	13.209	79.503	63.601
06/30/2011 10:24:24	5.698	13.227	78.902	63.601
06/30/2011 10:24:34	5.669	13.249	78.803	63.601
06/30/2011 10:24:44	5.672	13.213	78.803	63.601
06/30/2011 10:24:54	5.778	12.846	78.803	63.601
06/30/2011 10:25:04	6.086	12.85	79.103	63.601
06/30/2011 10:25:14	6.134	12.773	79.305	63.803
06/30/2011 10:25:24	6.167	12.784	79.103	63.803
06/30/2011 10:25:34	6.145	12.854	79.305	63.803
06/30/2011 10:25:44	5.998	13.011	79.503	63.803
06/30/2011 10:25:54	5.947	12.953	78.902	63.601
06/30/2011 10:26:04	5.98	12.905	78.902	63.803

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 10:26:14	5.95	13.004	78.902	63.803
06/30/2011 10:26:24	5.881	13	79.103	63.803
06/30/2011 10:26:34	5.855	13.092	79.305	63.803
06/30/2011 10:26:44	5.936	12.901	78.902	63.803
06/30/2011 10:26:54	6.112	12.722	79.103	63.601
06/30/2011 10:27:04	6.2	12.817	79.305	63.601
06/30/2011 10:27:14	6.064	12.923	78.902	63.601
06/30/2011 10:27:24	5.998	12.953	78.902	63.803
06/30/2011 10:27:34	6.038	12.821	78.803	63.803
06/30/2011 10:27:44	6.049	12.901	79.103	63.601
06/30/2011 10:27:54	6.035	12.803	79.103	63.803
06/30/2011 10:28:04	6.123	12.744	79.305	63.803
06/30/2011 10:28:14	6.222	12.781	79.305	63.601
06/30/2011 10:28:24	6.148	12.799	79.503	63.803
06/30/2011 10:28:34	6.104	12.781	79.803	63.601
06/30/2011 10:28:44	6.148	12.711	79.803	63.803
06/30/2011 10:28:54	6.159	12.821	79.704	63.803
06/30/2011 10:29:04	6.123	12.762	79.503	63.803
06/30/2011 10:29:14	6.126	12.832	79.305	63.803
06/30/2011 10:29:24	6.09	12.814	79.103	63.803
06/30/2011 10:29:34	6.06	12.975	79.503	63.803
06/30/2011 10:29:44	6.064	12.748	79.704	63.601
06/30/2011 10:29:54	6.159	12.81	79.704	63.803
06/30/2011 10:30:04	6.13	12.817	79.704	63.803
06/30/2011 10:30:14	6.126	12.799	79.704	63.601
06/30/2011 10:30:24	6.126	12.784	79.704	63.803
06/30/2011 10:30:34	6.317	12.535	79.305	63.803
06/30/2011 10:30:44	6.324	12.81	79.103	63.601
06/30/2011 10:30:54	5.914	13.176	79.305	63.601
06/30/2011 10:31:04	5.786	13.037	78.902	63.601
06/30/2011 10:31:14	5.921	12.964	78.902	63.601
06/30/2011 10:31:24	5.969	12.912	79.103	63.803
06/30/2011 10:31:34	5.983	12.894	79.305	63.601
06/30/2011 10:31:44	5.998	12.901	79.503	63.601
06/30/2011 10:31:54	6.002	13.004	79.305	63.601
06/30/2011 10:32:04	5.819	13.172	79.305	63.601
06/30/2011 10:32:14	5.672	13.249	79.503	63.601
06/30/2011 10:32:24	5.665	13.187	79.305	63.803
06/30/2011 10:32:34	5.727	13.224	79.103	63.601
06/30/2011 10:32:44	5.701	13.198	78.803	63.803
06/30/2011 10:32:54	5.731	13.161	78.902	63.803
06/30/2011 10:33:04	5.742	13.209	79.103	63.803
06/30/2011 10:33:14	5.727	13.176	78.803	63.803
06/30/2011 10:33:24	5.72	13.253	78.902	63.803
06/30/2011 10:33:34	5.672	13.246	78.902	63.803
06/30/2011 10:33:44	5.683	13.235	78.902	63.601
06/30/2011 10:33:54	5.709	13.161	79.103	63.601
06/30/2011 10:34:04	5.764	13.18	79.305	63.803
06/30/2011 10:34:14	5.756	13.183	79.103	63.601
06/30/2011 10:34:24	5.745	13.216	79.103	63.803
06/30/2011 10:34:34	5.731	13.158	78.902	63.803
06/30/2011 10:34:44	5.764	13.147	79.103	63.601
06/30/2011 10:34:54	5.778	13.139	79.103	63.803
06/30/2011 10:35:04	5.767	13.132	78.902	63.803
06/30/2011 10:35:14	5.76	13.18	79.103	63.803
06/30/2011 10:35:24	5.727	13.213	79.103	63.601
06/30/2011 10:35:34	5.694	13.213	78.803	63.601
06/30/2011 10:35:44	5.72	13.18	78.803	63.803
06/30/2011 10:35:54	5.749	13.147	78.902	63.803
06/30/2011 10:36:04	5.764	13.202	78.803	63.803
06/30/2011 10:36:14	5.716	13.238	78.803	63.803
06/30/2011 10:36:24	5.701	13.202	78.803	63.803
06/30/2011 10:36:34	5.687	13.257	78.902	63.803
06/30/2011 10:36:44	5.709	13.158	78.803	63.803
06/30/2011 10:36:54	5.734	13.209	78.803	63.803
06/30/2011 10:37:04	5.683	13.242	78.803	63.803
06/30/2011 10:37:14	5.628	13.308	79.103	63.803
06/30/2011 10:37:24	5.603	13.293	78.803	63.803
06/30/2011 10:37:34	5.647	13.235	78.803	63.803

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 10:37:44	5.683	13.242	79.103	63.803
06/30/2011 10:37:54	5.672	13.253	79.305	64.004
06/30/2011 10:38:04	5.687	13.194	79.103	64.004
06/30/2011 10:38:14	5.745	13.205	79.103	64.004
06/30/2011 10:38:24	5.731	13.213	78.902	64.004
06/30/2011 10:38:34	5.727	13.205	78.902	64.004
06/30/2011 10:38:44	5.727	13.187	78.902	63.803
06/30/2011 10:38:54	5.749	13.194	79.503	63.803
06/30/2011 10:39:04	5.778	13.121	79.305	63.803
06/30/2011 10:39:14	5.786	13.158	79.503	63.803
06/30/2011 10:39:24	5.738	13.183	79.103	63.803
06/30/2011 10:39:34	5.694	13.231	79.103	63.803
06/30/2011 10:39:44	5.701	13.213	78.902	63.601
06/30/2011 10:39:54	5.698	13.187	78.902	63.601
06/30/2011 10:40:04	5.749	13.103	78.902	63.601
06/30/2011 10:40:14	5.804	13.088	79.103	63.601
06/30/2011 10:40:24	5.793	13.15	79.503	63.601
06/30/2011 10:40:34	5.723	13.235	79.305	63.601
06/30/2011 10:40:44	5.683	13.202	79.305	63.601
06/30/2011 10:40:54	5.687	13.224	79.305	63.803
06/30/2011 10:41:04	5.632	13.312	79.704	63.803
06/30/2011 10:41:14	5.588	13.297	79.704	63.803
06/30/2011 10:41:24	5.595	13.279	79.305	63.803
06/30/2011 10:41:34	5.555	13.356	79.503	63.803
06/30/2011 10:41:44	5.504	13.41	79.704	63.803
06/30/2011 10:41:54	5.463	13.425	79.803	63.803
06/30/2011 10:42:04	5.463	13.418	79.704	63.803
06/30/2011 10:42:14	5.474	13.403	79.803	63.803
06/30/2011 10:42:24	5.496	13.388	79.803	63.803
06/30/2011 10:42:34	5.54	13.33	79.704	63.803
06/30/2011 10:42:44	5.559	13.359	79.704	63.803
06/30/2011 10:42:54	5.566	13.297	79.803	63.803
06/30/2011 10:43:04	5.592	13.33	79.803	63.803
06/30/2011 10:43:14	5.533	13.421	79.803	63.601
06/30/2011 10:43:24	5.441	13.451	79.803	64.004
06/30/2011 10:43:34	5.467	13.359	80.403	63.803
06/30/2011 10:43:44	5.551	13.293	80.403	64.004
06/30/2011 10:43:54	5.562	13.363	80.403	64.004
06/30/2011 10:44:04	5.533	13.374	80.403	64.004
06/30/2011 10:44:14	5.526	13.366	80.403	64.004
06/30/2011 10:44:24	5.562	13.323	80.403	64.004
06/30/2011 10:44:34	5.603	13.246	80.403	64.004
06/30/2011 10:44:44	5.61	13.33	80.605	64.004
06/30/2011 10:44:54	5.57	13.341	80.704	64.202
06/30/2011 10:45:04	5.555	13.312	80.902	64.004
06/30/2011 10:45:14	5.592	13.315	80.902	64.004
06/30/2011 10:45:24	5.639	13.224	81.103	64.004
06/30/2011 10:45:34	5.716	13.194	81.103	64.202
06/30/2011 10:45:44	5.716	13.224	81.103	64.004
06/30/2011 10:45:54	5.709	13.224	81.103	64.202
06/30/2011 10:46:04	5.709	13.191	81.103	64.202
06/30/2011 10:46:14	5.698	13.253	80.902	64.004
06/30/2011 10:46:24	5.661	13.286	81.103	64.403
06/30/2011 10:46:34	5.65	13.249	81.103	64.403
06/30/2011 10:46:44	5.665	13.227	80.902	64.403
06/30/2011 10:46:54	5.679	13.22	80.704	64.403
06/30/2011 10:47:04	5.679	13.22	80.704	64.403
06/30/2011 10:47:14	5.665	13.26	80.704	64.403
06/30/2011 10:47:24	5.625	13.301	80.704	64.202
06/30/2011 10:47:34	5.61	13.29	80.605	64.403
06/30/2011 10:47:44	5.57	13.359	80.403	64.403
06/30/2011 10:47:54	5.592	13.286	80.403	64.502
06/30/2011 10:48:04	5.65	13.246	80.403	64.502
06/30/2011 10:48:14	5.647	13.238	80.605	64.502
06/30/2011 10:48:24	5.639	13.293	80.704	64.502
06/30/2011 10:48:34	5.614	13.275	80.704	64.403
06/30/2011 10:48:44	5.606	13.293	81.304	64.403
06/30/2011 10:48:54	5.584	13.334	81.502	64.403
06/30/2011 10:49:04	5.588	13.304	81.502	64.502

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 10:49:14	5.599	13.319	81.605	64.502
06/30/2011 10:49:24	5.617	13.286	81.802	64.502
06/30/2011 10:49:34	5.614	13.29	82.202	64.502
06/30/2011 10:49:44	5.595	13.323	82.202	64.502
06/30/2011 10:49:54	5.614	13.304	82.004	64.502
06/30/2011 10:50:04	5.614	13.308	82.004	64.704
06/30/2011 10:50:14	5.595	13.315	81.802	64.502
06/30/2011 10:50:24	5.581	13.41	81.605	64.502
06/30/2011 10:50:34	5.544	13.356	81.502	64.502
06/30/2011 10:50:44	5.588	13.282	81.502	64.704
06/30/2011 10:50:54	5.643	13.26	81.605	64.502
06/30/2011 10:51:04	5.621	13.279	82.202	64.502
06/30/2011 10:51:14	5.672	13.202	81.802	64.502
06/30/2011 10:51:24	5.694	13.242	81.605	64.704
06/30/2011 10:51:34	5.628	13.29	81.802	64.502
06/30/2011 10:51:44	5.573	13.341	81.605	64.502
06/30/2011 10:51:54	5.584	13.29	81.605	64.502
06/30/2011 10:52:04	5.654	13.253	81.502	64.502
06/30/2011 10:52:14	5.625	13.293	81.502	64.901
06/30/2011 10:52:24	5.603	13.279	81.605	64.704
06/30/2011 10:52:34	5.628	13.257	81.502	64.704
06/30/2011 10:52:44	5.669	13.18	81.304	64.704
06/30/2011 10:52:54	5.778	13.099	81.304	64.704
06/30/2011 10:53:04	5.789	13.154	81.304	64.704
06/30/2011 10:53:14	5.782	13.143	81.304	64.704
06/30/2011 10:53:24	5.793	13.128	82.004	64.704
06/30/2011 10:53:34	5.83	13.066	81.802	64.502
06/30/2011 10:53:44	5.822	13.11	81.502	64.704
06/30/2011 10:53:54	5.815	13.092	81.502	64.704
06/30/2011 10:54:04	5.797	13.143	81.502	64.704
06/30/2011 10:54:14	5.789	13.07	81.605	64.704
06/30/2011 10:54:24	5.87	13.048	81.605	64.502
06/30/2011 10:54:34	5.863	13.037	81.802	64.901
06/30/2011 10:54:44	5.885	13.055	82.004	64.704
06/30/2011 10:54:54	5.87	13.07	82.202	64.901
06/30/2011 10:55:04	5.844	13.106	82.202	64.901
06/30/2011 10:55:14	5.778	13.147	82.403	64.901
06/30/2011 10:55:24	5.793	13.088	82.004	64.901
06/30/2011 10:55:34	5.848	13.066	82.202	65.103
06/30/2011 10:55:44	5.881	13.011	82.202	65.103
06/30/2011 10:55:54	5.874	13.037	82.403	64.901
06/30/2011 10:56:04	5.83	13.074	82.502	65.103
06/30/2011 10:56:14	5.811	13.085	82.703	65.103
06/30/2011 10:56:24	5.797	13.128	82.703	65.103
06/30/2011 10:56:34	5.786	13.128	82.905	65.103
06/30/2011 10:56:44	5.771	13.15	82.905	65.103
06/30/2011 10:56:54	5.767	13.136	82.703	64.901
06/30/2011 10:57:04	5.764	13.139	82.703	64.901
06/30/2011 10:57:14	5.8	13.095	82.703	65.103
06/30/2011 10:57:24	5.826	13.095	83.103	64.901
06/30/2011 10:57:34	5.837	13.055	83.103	65.103
06/30/2011 10:57:44	5.859	13.048	82.905	65.103
06/30/2011 10:57:54	5.83	13.106	82.905	65.103
06/30/2011 10:58:04	5.782	13.095	82.905	65.103
06/30/2011 10:58:14	5.767	13.161	82.703	65.103
06/30/2011 10:58:24	5.723	13.169	82.703	65.103
06/30/2011 10:58:34	5.753	13.139	82.905	65.103
06/30/2011 10:58:44	5.764	13.165	83.103	65.304
06/30/2011 10:58:54	5.775	13.095	83.103	65.103
06/30/2011 10:59:04	5.8	13.07	82.703	65.304
06/30/2011 10:59:14	5.833	13.077	83.103	65.103
06/30/2011 10:59:24	5.819	13.103	83.304	65.103
06/30/2011 10:59:34	5.797	13.11	83.103	65.103
06/30/2011 10:59:44	5.815	13.055	83.103	65.304
06/30/2011 10:59:54	5.83	13.088	82.905	65.103
06/30/2011 11:00:04	5.837	13.041	82.703	65.103
06/30/2011 11:00:14	5.903	13.011	82.202	65.304
06/30/2011 11:00:24	5.903	13.055	82.502	65.103
06/30/2011 11:00:34	5.837	13.103	82.502	65.103

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 11:00:44	5.793	13.114	82.502	65.103
06/30/2011 11:00:54	5.855	13.052	82.905	65.103
06/30/2011 11:01:04	5.833	13.183	82.502	65.103
06/30/2011 11:01:14	5.811	13.044	82.502	65.103
06/30/2011 11:01:24	5.885	13.03	82.502	65.304
06/30/2011 11:01:34	5.866	13.059	82.502	65.304
06/30/2011 11:01:44	5.874	13.048	82.403	65.304
06/30/2011 11:01:54	5.903	12.993	82.502	65.304
06/30/2011 11:02:04	5.91	13.052	82.905	65.304
06/30/2011 11:02:14	5.855	13.077	82.403	65.304
06/30/2011 11:02:24	5.815	13.103	82.403	65.304
06/30/2011 11:02:34	5.8	13.106	82.403	65.103
06/30/2011 11:02:44	5.771	13.147	82.403	65.304
06/30/2011 11:02:54	5.727	13.15	82.202	65.304
06/30/2011 11:03:04	5.701	13.154	82.202	65.103
06/30/2011 11:03:14	5.738	13.106	82.004	65.304
06/30/2011 11:03:24	5.738	13.169	82.202	65.103
06/30/2011 11:03:34	5.727	13.158	82.403	65.304
06/30/2011 11:03:44	5.734	13.136	82.403	65.304
06/30/2011 11:03:54	5.786	13.099	82.403	65.103
06/30/2011 11:04:04	5.833	13.048	82.905	65.304
06/30/2011 11:04:14	5.833	13.103	82.905	65.103
06/30/2011 11:04:24	5.83	13.03	82.502	65.103
06/30/2011 11:04:34	5.841	13.088	82.905	65.304
06/30/2011 11:04:44	5.815	13.066	82.502	65.304
06/30/2011 11:04:54	5.844	13.041	82.703	65.304
06/30/2011 11:05:04	5.892	12.986	82.703	65.304
06/30/2011 11:05:14	5.885	13.077	82.703	65.103
06/30/2011 11:05:24	5.811	13.143	82.703	65.103
06/30/2011 11:05:34	5.775	13.132	82.502	65.103
06/30/2011 11:05:44	5.76	13.15	82.502	65.304
06/30/2011 11:05:54	5.767	13.125	82.502	65.103
06/30/2011 11:06:04	5.822	13.074	82.403	65.103
06/30/2011 11:06:14	5.844	13.063	82.403	65.304
06/30/2011 11:06:24	5.899	12.978	82.403	65.103
06/30/2011 11:06:34	5.998	12.868	82.403	65.304
06/30/2011 11:06:44	6.046	12.876	81.802	65.304
06/30/2011 11:06:54	6.02	12.934	81.605	65.304
06/30/2011 11:07:04	6.002	12.894	81.605	65.304
06/30/2011 11:07:14	5.98	12.986	81.802	65.403
06/30/2011 11:07:24	5.943	12.982	82.004	65.304
06/30/2011 11:07:34	5.965	12.953	82.004	65.304
06/30/2011 11:07:44	5.998	12.92	81.605	65.304
06/30/2011 11:07:54	6.002	12.956	81.605	65.304
06/30/2011 11:08:04	5.987	12.938	81.605	65.403
06/30/2011 11:08:14	6.005	12.923	81.304	65.403
06/30/2011 11:08:24	6.035	12.843	81.502	65.403
06/30/2011 11:08:34	6.053	12.89	81.802	65.304
06/30/2011 11:08:44	6.027	12.894	81.802	65.304
06/30/2011 11:08:54	6.031	12.861	82.202	65.403
06/30/2011 11:09:04	6.079	12.803	82.004	65.403
06/30/2011 11:09:14	6.108	12.814	82.202	65.403
06/30/2011 11:09:24	6.09	12.832	82.202	65.304
06/30/2011 11:09:34	6.057	12.883	82.202	65.403
06/30/2011 11:09:44	6.068	12.795	82.004	65.403
06/30/2011 11:09:54	6.075	12.89	81.802	65.403
06/30/2011 11:10:04	6.016	12.909	82.004	65.403
06/30/2011 11:10:14	5.958	12.975	82.202	65.304
06/30/2011 11:10:24	5.925	12.975	82.202	65.604
06/30/2011 11:10:34	5.918	13.022	82.004	65.604
06/30/2011 11:10:44	5.929	12.956	81.605	65.604
06/30/2011 11:10:54	5.918	13.03	82.004	65.604
06/30/2011 11:11:04	5.885	12.967	82.202	65.604
06/30/2011 11:11:14	5.921	12.997	82.202	65.604
06/30/2011 11:11:24	5.91	13.008	82.202	65.403
06/30/2011 11:11:34	5.903	13.011	82.004	65.403
06/30/2011 11:11:44	5.892	13.055	81.802	65.403
06/30/2011 11:11:54	5.888	12.986	82.004	65.604
06/30/2011 11:12:04	5.929	12.975	82.202	65.604

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 11:12:14	5.961	12.96	82.004	65.604
06/30/2011 11:12:24	5.932	13.052	82.004	65.604
06/30/2011 11:12:34	5.892	12.986	82.202	65.403
06/30/2011 11:12:44	5.925	12.986	82.202	65.604
06/30/2011 11:12:54	5.903	13.033	82.004	65.403
06/30/2011 11:13:04	5.888	13.033	82.004	65.604
06/30/2011 11:13:14	5.888	13.008	82.202	65.604
06/30/2011 11:13:24	5.903	12.993	81.605	65.604
06/30/2011 11:13:34	5.903	13.044	82.202	65.604
06/30/2011 11:13:44	5.918	12.942	82.403	65.403
06/30/2011 11:13:54	5.947	12.978	82.403	65.604
06/30/2011 11:14:04	5.943	12.971	82.403	65.403
06/30/2011 11:14:14	5.94	12.967	82.502	65.403
06/30/2011 11:14:24	5.969	12.876	82.403	65.403
06/30/2011 11:14:34	6.068	12.821	82.202	65.403
06/30/2011 11:14:44	6.104	12.832	82.202	65.403
06/30/2011 11:14:54	6.104	12.803	82.403	65.403
06/30/2011 11:15:04	6.097	12.843	82.202	65.403
06/30/2011 11:15:14	6.049	12.846	82.403	65.403
06/30/2011 11:15:24	6.027	12.905	82.202	65.403
06/30/2011 11:15:34	5.983	12.964	82.004	65.403
06/30/2011 11:15:44	5.958	12.923	81.802	65.802
06/30/2011 11:15:54	5.983	12.927	81.802	65.802
06/30/2011 11:16:04	5.991	12.901	81.605	65.802
06/30/2011 11:16:14	5.98	12.953	81.802	65.802
06/30/2011 11:16:24	5.95	12.942	81.605	65.604
06/30/2011 11:16:34	5.91	12.989	81.502	65.403
06/30/2011 11:16:44	5.877	13.048	81.605	65.403
06/30/2011 11:16:54	5.881	13.026	81.502	65.403
06/30/2011 11:17:04	5.881	13.041	81.502	65.403
06/30/2011 11:17:14	5.863	13.041	81.802	65.403
06/30/2011 11:17:24	5.907	12.916	81.605	65.604
06/30/2011 11:17:34	5.987	12.901	81.605	65.403
06/30/2011 11:17:44	5.965	12.975	81.802	65.403
06/30/2011 11:17:54	5.925	12.975	81.802	65.403
06/30/2011 11:18:04	5.914	12.982	82.004	65.403
06/30/2011 11:18:14	5.91	12.971	82.004	65.604
06/30/2011 11:18:24	5.925	12.967	82.403	65.403
06/30/2011 11:18:34	5.932	12.967	82.403	65.403
06/30/2011 11:18:44	5.965	12.905	82.403	65.304
06/30/2011 11:18:54	5.972	12.949	82.403	65.802
06/30/2011 11:19:04	5.98	12.905	82.703	65.802
06/30/2011 11:19:14	5.969	12.938	82.905	65.604
06/30/2011 11:19:24	5.965	12.956	82.703	65.604
06/30/2011 11:19:34	5.954	12.96	82.703	65.604
06/30/2011 11:19:44	5.892	13.077	82.703	65.802
06/30/2011 11:19:54	5.844	13.044	82.502	65.604
06/30/2011 11:20:04	5.852	13.055	82.202	65.802
06/30/2011 11:20:14	5.87	12.986	82.502	65.802
06/30/2011 11:20:24	5.877	13.033	82.502	65.802
06/30/2011 11:20:34	5.863	12.997	82.502	65.802
06/30/2011 11:20:44	5.899	13.044	82.703	65.604
06/30/2011 11:20:54	5.877	12.989	82.502	65.802
06/30/2011 11:21:04	5.888	13.026	82.703	65.604
06/30/2011 11:21:14	5.848	13.081	82.905	65.604
06/30/2011 11:21:24	5.815	13.048	82.905	65.403
06/30/2011 11:21:34	5.844	13.041	82.703	65.604
06/30/2011 11:21:44	5.841	13.085	82.905	65.403
06/30/2011 11:21:54	5.815	13.052	83.304	65.403
06/30/2011 11:22:04	5.83	13.07	83.103	65.403
06/30/2011 11:22:14	5.855	13.055	82.905	65.304
06/30/2011 11:22:24	5.833	13.128	82.703	65.304
06/30/2011 11:22:34	5.808	13.081	82.502	65.403
06/30/2011 11:22:44	5.844	13.063	82.703	65.604
06/30/2011 11:22:54	5.877	13.019	82.703	65.403
06/30/2011 11:23:04	5.907	13.026	82.703	65.403
06/30/2011 11:23:14	5.936	12.949	82.502	65.403
06/30/2011 11:23:24	5.958	12.986	82.502	65.403
06/30/2011 11:23:34	5.95	12.986	82.703	65.403

URS CEMs Raw Data
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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 11:23:44	5.95	12.967	82.905	65.304
06/30/2011 11:23:54	5.936	12.989	82.905	65.403
06/30/2011 11:24:04	5.929	12.964	82.703	65.304
06/30/2011 11:24:14	5.925	13.011	82.703	65.403
06/30/2011 11:24:24	5.932	12.956	82.502	65.304
06/30/2011 11:24:34	5.943	12.971	82.703	65.403
06/30/2011 11:24:44	5.943	12.934	82.905	65.403
06/30/2011 11:24:54	5.907	13.03	82.703	65.304
06/30/2011 11:25:04	5.87	13.019	82.703	65.304
06/30/2011 11:25:14	5.877	12.989	82.502	65.403
06/30/2011 11:25:24	5.899	13	82.502	65.304
06/30/2011 11:25:34	5.899	12.96	82.502	65.403
06/30/2011 11:25:44	5.932	12.975	82.403	65.304
06/30/2011 11:25:54	5.892	13.037	82.202	65.403
06/30/2011 11:26:04	5.855	13.03	82.202	65.304
06/30/2011 11:26:14	5.852	13.044	82.403	65.403
06/30/2011 11:26:24	5.859	13.011	82.403	65.304
06/30/2011 11:26:34	5.877	13.037	82.403	65.304
06/30/2011 11:26:44	5.826	13.121	82.703	65.304
06/30/2011 11:26:54	5.76	13.136	82.502	65.103
06/30/2011 11:27:04	5.756	13.117	82.403	65.304
06/30/2011 11:27:14	5.786	13.055	82.202	65.103
06/30/2011 11:27:24	5.866	12.964	82.004	65.304
06/30/2011 11:27:34	5.914	13	82.004	65.304
06/30/2011 11:27:44	5.929	12.975	81.802	65.304
06/30/2011 11:27:54	5.929	12.956	81.802	65.304
06/30/2011 11:28:04	5.94	12.949	82.004	65.103
06/30/2011 11:28:14	5.936	12.96	82.202	65.304
06/30/2011 11:28:24	5.965	12.898	82.202	65.103
06/30/2011 11:28:34	5.991	12.912	82.202	65.304
06/30/2011 11:28:44	5.998	12.883	82.004	65.103
06/30/2011 11:28:54	5.998	12.905	82.004	65.103
06/30/2011 11:29:04	5.983	12.956	81.802	65.103
06/30/2011 11:29:14	5.954	12.982	81.802	65.103
06/30/2011 11:29:24	5.95	12.945	81.802	65.304
06/30/2011 11:29:34	5.921	12.997	81.802	65.304
06/30/2011 11:29:44	5.914	13.011	81.802	65.304
06/30/2011 11:29:54	5.888	13.019	81.802	65.103
06/30/2011 11:30:04	5.888	13.019	82.004	65.304
06/30/2011 11:30:14	5.888	13.022	82.004	65.103
06/30/2011 11:30:24	5.907	12.978	82.004	65.103
06/30/2011 11:30:34	5.885	13.015	81.802	65.103
06/30/2011 11:30:44	5.874	13.052	81.802	65.103
06/30/2011 11:30:54	5.852	13.07	81.802	65.103
06/30/2011 11:31:04	5.767	13.187	81.605	65.103
06/30/2011 11:31:14	5.72	13.132	80.902	64.901
06/30/2011 11:31:24	5.723	13.169	81.502	65.103
06/30/2011 11:31:34	5.705	13.198	81.103	64.901
06/30/2011 11:31:44	5.742	13.132	81.304	65.103
06/30/2011 11:31:54	5.771	13.11	81.304	64.901
06/30/2011 11:32:04	5.782	13.132	81.502	65.103
06/30/2011 11:32:14	5.771	13.136	81.304	64.901
06/30/2011 11:32:24	5.789	13.066	81.103	64.901
06/30/2011 11:32:34	5.837	13.077	81.304	64.901
06/30/2011 11:32:44	5.778	13.205	81.502	64.901
06/30/2011 11:32:54	5.712	13.18	81.802	65.103
06/30/2011 11:33:04	5.727	13.183	81.802	64.901
06/30/2011 11:33:14	5.731	13.147	81.605	64.901
06/30/2011 11:33:24	5.771	13.106	81.605	64.901
06/30/2011 11:33:34	5.8	13.095	81.605	64.901
06/30/2011 11:33:44	5.734	13.249	81.802	64.901
06/30/2011 11:33:54	5.639	13.271	81.802	64.901
06/30/2011 11:34:04	5.672	13.165	81.605	64.901
06/30/2011 11:34:14	5.716	13.183	81.502	64.704
06/30/2011 11:34:24	5.709	13.205	81.502	64.901
06/30/2011 11:34:34	5.661	13.29	81.802	64.704
06/30/2011 11:34:44	5.621	13.301	82.004	64.704
06/30/2011 11:34:54	5.625	13.257	81.802	64.502
06/30/2011 11:35:04	5.647	13.213	81.802	64.502

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 11:35:14	5.698	13.139	81.802	64.502
06/30/2011 11:35:24	5.745	13.165	81.802	64.502
06/30/2011 11:35:34	5.716	13.238	81.502	64.704
06/30/2011 11:35:44	5.701	13.18	81.304	64.502
06/30/2011 11:35:54	5.749	13.081	81.103	64.502
06/30/2011 11:36:04	5.815	13.074	80.902	64.502
06/30/2011 11:36:14	5.822	13.117	81.103	64.704
06/30/2011 11:36:24	5.771	13.161	81.304	64.704
06/30/2011 11:36:34	5.731	13.136	80.902	64.502
06/30/2011 11:36:44	5.731	13.187	81.103	64.502
06/30/2011 11:36:54	5.727	13.132	81.103	64.403
06/30/2011 11:37:04	5.734	13.202	81.103	64.502
06/30/2011 11:37:14	5.789	13.041	80.902	64.502
06/30/2011 11:37:24	5.877	13.044	81.304	64.502
06/30/2011 11:37:34	5.888	13.059	81.103	64.704
06/30/2011 11:37:44	5.859	13.074	81.304	64.502
06/30/2011 11:37:54	5.877	13.026	81.304	64.704
06/30/2011 11:38:04	5.936	12.964	81.502	64.502
06/30/2011 11:38:14	5.892	13.055	81.103	64.704
06/30/2011 11:38:24	5.841	13.125	81.502	64.502
06/30/2011 11:38:34	5.808	13.066	81.304	64.502
06/30/2011 11:38:44	5.793	13.143	81.103	64.502
06/30/2011 11:38:54	5.793	13.099	81.304	64.502
06/30/2011 11:39:04	5.786	13.106	81.502	64.502
06/30/2011 11:39:14	5.797	13.117	81.605	64.704
06/30/2011 11:39:24	5.756	13.158	81.605	64.704
06/30/2011 11:39:34	5.709	13.246	81.802	64.502
06/30/2011 11:39:44	5.676	13.18	81.605	64.502
06/30/2011 11:39:54	5.705	13.191	81.605	64.502
06/30/2011 11:40:04	5.694	13.205	81.802	64.502
06/30/2011 11:40:14	5.716	13.169	81.802	64.502
06/30/2011 11:40:24	5.72	13.194	81.802	64.502
06/30/2011 11:40:34	5.738	13.106	81.802	64.502
06/30/2011 11:40:44	5.83	13.044	81.605	64.502
06/30/2011 11:40:54	5.83	13.081	81.304	64.502
06/30/2011 11:41:04	5.844	13.03	81.304	64.502
06/30/2011 11:41:14	5.87	13.059	80.902	64.403
06/30/2011 11:41:24	5.789	13.139	81.103	64.403
06/30/2011 11:41:34	5.764	13.161	81.103	64.403
06/30/2011 11:41:44	5.738	13.125	81.103	64.403
06/30/2011 11:41:54	5.745	13.187	81.103	64.403
06/30/2011 11:42:04	5.767	13.081	81.304	64.403
06/30/2011 11:42:14	5.881	12.975	80.902	64.403
06/30/2011 11:42:24	5.91	13.015	80.902	64.403
06/30/2011 11:42:34	5.87	13.081	81.103	64.502
06/30/2011 11:42:44	5.866	12.964	81.103	64.403
06/30/2011 11:42:54	5.907	13.022	81.502	64.403
06/30/2011 11:43:04	5.881	13.044	81.304	64.202
06/30/2011 11:43:14	5.852	13.081	81.605	64.403
06/30/2011 11:43:24	5.881	12.96	81.502	64.403
06/30/2011 11:43:34	5.947	13	81.605	64.403
06/30/2011 11:43:44	5.918	13.066	81.304	64.403
06/30/2011 11:43:54	5.87	13.059	81.502	64.403
06/30/2011 11:44:04	5.881	13.004	81.103	64.403
06/30/2011 11:44:14	5.888	13.085	81.103	64.403
06/30/2011 11:44:24	5.833	13.063	80.902	64.403
06/30/2011 11:44:34	5.863	12.997	81.103	64.403
06/30/2011 11:44:44	5.892	13.081	80.902	64.202
06/30/2011 11:44:54	5.87	13.011	80.902	64.202
06/30/2011 11:45:04	5.91	12.949	81.502	64.202
06/30/2011 11:45:14	5.961	13.004	81.304	64.403
06/30/2011 11:45:24	5.929	12.975	81.103	64.403
06/30/2011 11:45:34	5.903	13.019	81.304	64.403
06/30/2011 11:45:44	5.899	12.978	81.502	64.202
06/30/2011 11:45:54	5.936	12.956	81.304	64.202
06/30/2011 11:46:04	5.95	12.934	81.103	64.202
06/30/2011 11:46:14	5.954	12.912	81.304	64.403
06/30/2011 11:46:24	5.991	12.956	80.902	64.403
06/30/2011 11:46:34	5.958	12.938	81.304	64.403

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 11:46:44	5.958	12.945	81.304	64.403
06/30/2011 11:46:54	5.98	12.901	81.304	64.403
06/30/2011 11:47:04	5.936	13.019	81.304	64.403
06/30/2011 11:47:14	5.885	12.982	81.103	64.403
06/30/2011 11:47:24	5.921	12.953	81.103	64.202
06/30/2011 11:47:34	5.947	12.956	81.304	64.403
06/30/2011 11:47:44	5.958	12.912	80.704	64.403
06/30/2011 11:47:54	5.954	12.931	80.605	64.403
06/30/2011 11:48:04	5.994	12.865	80.605	64.202
06/30/2011 11:48:14	6.024	12.901	80.704	64.202
06/30/2011 11:48:24	5.95	12.993	80.902	64.202
06/30/2011 11:48:34	5.958	12.931	81.103	64.202
06/30/2011 11:48:44	5.899	13.044	81.304	64.202
06/30/2011 11:48:54	5.844	13.037	80.902	64.004
06/30/2011 11:49:04	5.87	13.048	80.902	64.202
06/30/2011 11:49:14	5.855	13.041	81.103	64.202
06/30/2011 11:49:24	5.892	12.982	80.902	64.202
06/30/2011 11:49:34	5.947	12.949	80.403	64.202
06/30/2011 11:49:44	5.958	12.978	80.605	64.004
06/30/2011 11:49:54	5.969	12.942	80.902	64.403
06/30/2011 11:50:04	5.965	12.96	81.103	64.202
06/30/2011 11:50:14	5.954	12.956	80.902	64.403
06/30/2011 11:50:24	5.943	12.956	80.902	64.403
06/30/2011 11:50:34	5.972	12.931	80.605	64.202
06/30/2011 11:50:44	6.016	12.828	80.704	64.202
06/30/2011 11:50:54	6.024	12.96	80.403	64.004
06/30/2011 11:51:04	5.94	13.022	80.704	64.202
06/30/2011 11:51:14	5.914	12.953	80.902	64.202
06/30/2011 11:51:24	5.983	12.876	80.403	64.004
06/30/2011 11:51:34	6.057	12.817	80.403	64.202
06/30/2011 11:51:44	6.082	12.846	80.403	64.202
06/30/2011 11:51:54	6.057	12.806	80.605	64.202
06/30/2011 11:52:04	6.134	12.821	80.704	64.202
06/30/2011 11:52:14	6.093	12.85	80.403	64.202
06/30/2011 11:52:24	5.998	12.956	80.403	64.202
06/30/2011 11:52:34	5.987	12.85	80.704	64.202
06/30/2011 11:52:44	6.042	12.846	80.704	64.202
06/30/2011 11:52:54	6.086	12.81	80.403	64.202
06/30/2011 11:53:04	6.086	12.817	80.403	64.202
06/30/2011 11:53:14	6.071	12.824	80.605	64.202
06/30/2011 11:53:24	6.075	12.872	80.403	64.202
06/30/2011 11:53:34	6.06	12.828	80.605	64.202
06/30/2011 11:53:44	6.06	12.872	80.902	64.202
06/30/2011 11:53:54	6.016	12.894	81.304	64.202
06/30/2011 11:54:04	6.013	12.854	80.902	64.202
06/30/2011 11:54:14	6.053	12.854	80.704	64.202
06/30/2011 11:54:24	6.024	12.916	80.704	64.202
06/30/2011 11:54:34	5.998	12.887	80.704	64.202
06/30/2011 11:54:44	6.038	12.85	80.704	64.202
06/30/2011 11:54:54	6.097	12.744	80.902	64.202
06/30/2011 11:55:04	6.148	12.777	80.902	64.202
06/30/2011 11:55:14	6.141	12.795	81.103	64.202
06/30/2011 11:55:24	6.093	12.865	81.304	64.004
06/30/2011 11:55:34	6.09	12.814	81.605	64.202
06/30/2011 11:55:44	6.115	12.788	81.605	64.202
06/30/2011 11:55:54	6.13	12.792	81.502	64.202
06/30/2011 11:56:04	6.093	12.814	81.304	64.202
06/30/2011 11:56:14	6.038	12.861	81.103	64.202
06/30/2011 11:56:24	6.035	12.872	80.902	64.202
06/30/2011 11:56:34	6.035	12.824	81.103	64.202
06/30/2011 11:56:44	6.038	12.839	81.103	64.403
06/30/2011 11:56:54	5.976	12.978	80.902	64.202
06/30/2011 11:57:04	5.95	12.901	81.304	64.004
06/30/2011 11:57:14	6.027	12.799	81.103	64.202
06/30/2011 11:57:24	6.13	12.722	80.902	64.202
06/30/2011 11:57:34	6.178	12.759	81.103	64.202
06/30/2011 11:57:44	6.178	12.711	81.103	64.202
06/30/2011 11:57:54	6.243	12.671	81.103	64.004
06/30/2011 11:58:04	6.214	12.726	80.704	64.202

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 11:58:14	6.192	12.715	80.902	64.004
06/30/2011 11:58:24	6.214	12.693	80.704	64.202
06/30/2011 11:58:34	6.196	12.751	80.902	64.004
06/30/2011 11:58:44	6.108	12.814	80.902	64.004
06/30/2011 11:58:54	6.115	12.748	80.704	64.004
06/30/2011 11:59:04	6.207	12.685	80.902	64.004
06/30/2011 11:59:14	6.218	12.737	81.103	64.004
06/30/2011 11:59:24	6.203	12.711	81.103	64.004
06/30/2011 11:59:34	6.243	12.667	80.902	64.202
06/30/2011 11:59:44	6.232	12.696	80.704	64.004
06/30/2011 11:59:54	6.192	12.726	80.605	64.202
06/30/2011 12:00:04	6.265	12.517	80.605	64.202
06/30/2011 12:00:14	6.317	12.696	80.605	64.004
06/30/2011 12:00:24	6.218	12.718	81.103	64.004
06/30/2011 12:00:34	6.222	12.667	80.902	64.202
06/30/2011 12:00:44	6.225	12.751	80.704	64.202
06/30/2011 12:00:54	6.17	12.707	80.605	64.004
06/30/2011 12:01:04	6.156	12.77	80.704	64.202
06/30/2011 12:01:14	6.145	12.729	80.605	64.004
06/30/2011 12:01:24	6.174	12.748	80.902	64.004
06/30/2011 12:01:34	6.152	12.744	80.704	64.004
06/30/2011 12:01:44	6.174	12.733	81.103	63.803
06/30/2011 12:01:54	6.163	12.755	80.902	63.803
06/30/2011 12:02:04	6.17	12.711	80.704	63.803
06/30/2011 12:02:14	6.214	12.682	80.704	63.803
06/30/2011 12:02:24	6.236	12.715	80.704	64.004
06/30/2011 12:02:34	6.265	12.652	81.103	64.004
06/30/2011 12:02:44	6.262	12.66	81.103	64.004
06/30/2011 12:02:54	6.269	12.623	81.304	63.803
06/30/2011 12:03:04	6.295	12.674	81.304	64.202
06/30/2011 12:03:14	6.218	12.682	81.304	64.004
06/30/2011 12:03:24	6.243	12.704	80.902	64.202
06/30/2011 12:03:34	6.211	12.711	80.704	64.004
06/30/2011 12:03:44	6.2	12.704	80.902	64.004
06/30/2011 12:03:54	6.229	12.66	81.103	64.004
06/30/2011 12:04:04	6.287	12.649	81.304	64.004
06/30/2011 12:04:14	6.265	12.682	81.304	64.202
06/30/2011 12:04:24	6.247	12.649	81.502	64.004
06/30/2011 12:04:34	6.28	12.682	81.502	64.202
06/30/2011 12:04:44	6.295	12.597	81.605	64.004
06/30/2011 12:04:54	6.331	12.667	81.103	64.004
06/30/2011 12:05:04	6.269	12.663	81.304	64.004
06/30/2011 12:05:14	6.287	12.66	81.103	63.803
06/30/2011 12:05:24	6.375	12.473	81.103	63.803
06/30/2011 12:05:34	6.445	12.597	80.902	63.803
06/30/2011 12:05:44	6.353	12.601	80.704	63.803
06/30/2011 12:05:54	6.276	12.704	80.902	63.803
06/30/2011 12:06:04	6.229	12.689	80.704	64.004
06/30/2011 12:06:14	6.214	12.759	80.704	64.004
06/30/2011 12:06:24	6.254	12.63	80.902	64.004
06/30/2011 12:06:34	6.32	12.638	81.103	64.004
06/30/2011 12:06:44	6.313	12.623	80.902	64.004
06/30/2011 12:06:54	6.317	12.627	81.103	64.004
06/30/2011 12:07:04	6.331	12.63	80.704	64.004
06/30/2011 12:07:14	6.306	12.63	80.704	64.004
06/30/2011 12:07:24	6.313	12.634	80.605	64.004
06/30/2011 12:07:34	6.295	12.689	80.704	64.004
06/30/2011 12:07:44	6.24	12.689	80.605	64.202
06/30/2011 12:07:54	6.254	12.638	80.403	64.004
End Run 12				
Average	**5.688**	**13.217**	**79.695**	**63.978**
Maximum	**6.445**	**13.733**	**83.304**	**65.802**
Minimum	**5.148**	**12.473**	**76.404**	**62.601**
06/30/2011 12:08:04	6.276	12.638	80.605	64.202
06/30/2011 12:08:14	6.273	12.707	80.704	64.004
06/30/2011 12:08:24	6.269	12.59	80.902	64.202
06/30/2011 12:08:34	6.342	12.586	80.605	64.202
06/30/2011 12:08:44	6.379	12.594	80.704	64.202

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 12:08:54	6.291	12.718	80.704	64.004
06/30/2011 12:09:04	6.2	12.718	80.902	64.202
06/30/2011 12:09:14	6.269	12.594	80.704	64.202
06/30/2011 12:09:24	6.522	12.326	80.902	64.202
06/30/2011 12:09:34	6.778	12.312	81.103	64.202
06/30/2011 12:09:44	6.778	12.297	81.103	64.202
06/30/2011 12:09:54	6.753	12.268	80.704	64.202
06/30/2011 12:10:04	6.709	12.363	80.605	64.202
06/30/2011 12:10:14	6.595	12.418	80.605	64.202
06/30/2011 12:10:24	6.661	12.297	80.605	64.202
06/30/2011 12:10:34	6.628	12.466	80.605	64.004
06/30/2011 12:10:44	6.643	12.334	80.605	64.004
06/30/2011 12:10:54	6.694	12.308	81.103	64.004
06/30/2011 12:11:04	6.635	12.444	81.304	64.004
06/30/2011 12:11:14	6.665	12.246	81.103	64.004
06/30/2011 12:11:24	6.698	12.436	81.103	63.803
06/30/2011 12:11:34	6.507	12.729	80.902	64.004
06/30/2011 12:11:44	6.174	12.77	80.902	64.004
06/30/2011 12:11:54	6.108	12.832	80.902	64.004
06/30/2011 12:12:04	6.042	12.861	81.103	64.004
06/30/2011 12:12:14	5.976	12.89	80.605	64.004
06/30/2011 12:12:24	5.994	12.865	80.403	64.004
06/30/2011 12:12:34	6.046	12.81	80.403	64.004
06/30/2011 12:12:44	6.064	12.828	80.403	64.004
06/30/2011 12:12:54	6.053	12.824	80.605	64.202
Calibration Bias				
06/30/2011 12:13:04	6.782	3.028	80.704	64.403
06/30/2011 12:13:14	3.134	0.439	80.704	64.403
06/30/2011 12:13:24	0.186	0.358	80.704	64.403
06/30/2011 12:13:34	0.073	0.322	80.704	64.502
06/30/2011 12:13:44	0.054	0.296	80.605	64.403
06/30/2011 12:13:54	0.043	0.274	80.403	64.502
06/30/2011 12:14:04	0.036	0.259	80.605	64.502
06/30/2011 12:14:14	0.029	0.259	80.605	64.502
06/30/2011 12:14:24	0.029	0.245	80.704	64.502
06/30/2011 12:14:34	0.025	0.241	81.103	64.502
06/30/2011 12:14:44	0.018	0.226	81.304	64.403
06/30/2011 12:14:54	0.018	0.223	81.502	64.202
N2 Zero	**0.020**	**0.230**	**81.303**	**64.369**
06/30/2011 12:15:04	4.086	9.137	81.502	64.202
06/30/2011 12:15:14	10.272	9.785	81.304	64.202
06/30/2011 12:15:24	10.997	9.821	81.502	64.004
06/30/2011 12:15:34	11.037	9.84	81.103	64.202
06/30/2011 12:15:44	11.052	9.851	81.304	64.202
06/30/2011 12:15:54	11.063	9.836	81.502	64.202
06/30/2011 12:16:04	11.067	9.862	81.103	64.004
11.1% O2/9.74% CO2 Mid	**11.061**	**9.850**	**81.303**	**64.136**
06/30/2011 12:16:14	9.55	12.524	81.103	64.004
06/30/2011 12:16:24	6.566	12.795	81.304	64.004
06/30/2011 12:16:34	6.101	12.762	81.103	63.803
06/30/2011 12:16:44	6.115	12.773	81.304	63.803
06/30/2011 12:16:54	6.06	12.843	81.304	63.803
06/30/2011 12:17:04	6.027	12.817	81.103	63.803
06/30/2011 12:17:14	6.049	12.817	81.103	63.803
06/30/2011 12:17:24	6.016	12.883	81.103	64.004
06/30/2011 12:17:34	6.009	12.835	81.103	64.004
06/30/2011 12:17:44	6.002	12.868	81.103	64.004
06/30/2011 12:17:54	5.976	12.912	81.103	63.803
06/30/2011 12:18:04	5.943	12.912	81.304	64.004
06/30/2011 12:18:14	5.976	12.887	81.304	64.004
06/30/2011 12:18:24	6.027	12.821	81.103	63.803
06/30/2011 12:18:34	6.035	12.894	80.704	64.004
06/30/2011 12:18:44	6.002	12.832	80.902	64.202
06/30/2011 12:18:54	6.027	12.843	81.304	64.004
06/30/2011 12:19:04	6.02	12.861	81.103	64.004
06/30/2011 12:19:14	5.987	12.927	81.304	64.004
06/30/2011 12:19:24	5.903	12.978	81.502	64.004
06/30/2011 12:19:34	5.896	12.927	81.502	64.004
06/30/2011 12:19:44	5.932	12.909	81.304	64.004

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 12:19:54	5.954	12.912	81.103	64.004
06/30/2011 12:20:04	5.932	12.949	80.902	64.202
06/30/2011 12:20:14	5.958	12.887	80.902	64.202
06/30/2011 12:20:24	5.976	12.89	81.103	64.202
06/30/2011 12:20:34	5.921	12.967	80.704	64.202
06/30/2011 12:20:44	5.863	13	80.902	64.202
06/30/2011 12:20:54	5.881	12.956	81.103	64.202
06/30/2011 12:21:04	5.903	12.949	81.304	64.202
06/30/2011 12:21:14	5.892	12.971	81.304	64.202
06/30/2011 12:21:24	5.885	12.971	81.304	64.202
06/30/2011 12:21:34	5.91	12.938	81.103	64.202
06/30/2011 12:21:44	5.892	13.008	81.304	64.202
06/30/2011 12:21:54	5.844	12.989	81.103	64.202
06/30/2011 12:22:04	5.881	12.949	80.902	64.202
06/30/2011 12:22:14	5.954	12.865	80.902	64.202
06/30/2011 12:22:24	5.965	12.909	81.304	64.202
06/30/2011 12:22:34	5.907	12.982	81.304	64.202
06/30/2011 12:22:44	5.885	12.949	81.502	64.202
06/30/2011 12:22:54	5.885	12.975	81.103	64.202
06/30/2011 12:23:04	5.899	12.912	81.103	64.202
06/30/2011 12:23:14	5.907	13	81.103	64.202
06/30/2011 12:23:24	5.837	13.033	81.103	64.202
06/30/2011 12:23:34	5.793	13.059	81.502	64.202
06/30/2011 12:23:44	5.778	13.088	81.304	64.202
06/30/2011 12:23:54	5.775	13.037	81.103	64.004
06/30/2011 12:24:04	5.797	13.077	81.103	63.803
06/30/2011 12:24:14	5.789	13.114	80.902	64.004
06/30/2011 12:24:24	5.789	13.059	81.304	64.004
06/30/2011 12:24:34	5.852	12.967	81.304	64.202
06/30/2011 12:24:44	5.91	12.982	81.103	64.004
06/30/2011 12:24:54	5.907	12.975	80.902	64.004
06/30/2011 12:25:04	5.892	12.975	80.704	64.004
06/30/2011 12:25:14	5.918	12.934	80.902	64.004
06/30/2011 12:25:24	5.947	12.934	80.704	64.004
06/30/2011 12:25:34	5.914	12.96	80.704	64.004
06/30/2011 12:25:44	5.925	12.905	80.605	64.004
06/30/2011 12:25:54	5.95	12.923	80.902	64.004
06/30/2011 12:26:04	5.943	12.938	80.902	64.004
06/30/2011 12:26:14	5.899	12.964	80.704	64.004
06/30/2011 12:26:24	5.885	12.975	80.902	64.004
06/30/2011 12:26:34	5.907	12.945	81.103	64.004
06/30/2011 12:26:44	5.929	12.949	80.902	64.004
06/30/2011 12:26:54	5.918	12.949	81.304	63.803
06/30/2011 12:27:04	5.94	12.905	81.304	64.004
06/30/2011 12:27:14	5.961	12.854	81.103	64.004
06/30/2011 12:27:24	6.02	12.828	80.704	64.004
06/30/2011 12:27:34	6.031	12.879	80.902	64.004
06/30/2011 12:27:44	5.958	12.949	81.103	64.004
06/30/2011 12:27:54	5.929	12.931	80.902	64.004
06/30/2011 12:28:04	5.91	12.975	80.902	64.004
06/30/2011 12:28:14	5.881	12.978	80.704	64.004
06/30/2011 12:28:24	5.91	12.927	80.704	63.803
06/30/2011 12:28:34	5.936	12.942	81.304	64.004
06/30/2011 12:28:44	5.91	12.997	81.103	63.803
06/30/2011 12:28:54	5.892	12.997	81.304	63.803
06/30/2011 12:29:04	5.885	13.008	81.304	64.004
06/30/2011 12:29:14	5.885	12.978	81.304	64.004
06/30/2011 12:29:24	5.863	13.059	81.304	64.004
06/30/2011 12:29:34	5.837	13.052	81.502	63.803
06/30/2011 12:29:44	5.866	12.96	81.304	64.004
06/30/2011 12:29:54	5.914	12.978	81.502	63.803
06/30/2011 12:30:04	5.914	12.938	81.802	64.004
06/30/2011 12:30:14	5.929	12.938	81.605	64.004
06/30/2011 12:30:24	5.877	13.008	81.502	64.004
06/30/2011 12:30:34	5.841	13.037	81.502	64.202
06/30/2011 12:30:44	5.786	13.121	81.502	64.004
06/30/2011 12:30:54	5.767	13.066	81.502	64.202
06/30/2011 12:31:04	5.775	13.077	81.502	64.004
06/30/2011 12:31:14	5.771	13.092	81.502	64.004

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 12:31:24	5.76	13.106	81.304	64.202
06/30/2011 12:31:34	5.742	13.132	81.502	64.004
06/30/2011 12:31:44	5.731	13.136	81.304	64.004
06/30/2011 12:31:54	5.716	13.165	81.304	64.004
06/30/2011 12:32:04	5.69	13.158	80.902	64.004
06/30/2011 12:32:14	5.698	13.125	81.103	63.803
06/30/2011 12:32:24	5.764	13.044	81.103	64.004
06/30/2011 12:32:34	5.8	13.085	81.304	64.004
06/30/2011 12:32:44	5.775	13.088	81.502	64.004
06/30/2011 12:32:54	5.771	13.121	81.304	64.004
06/30/2011 12:33:04	5.745	13.114	81.304	64.004
06/30/2011 12:33:14	5.753	13.088	81.103	64.004
06/30/2011 12:33:24	5.745	13.165	80.902	63.803
06/30/2011 12:33:34	5.738	13.074	80.605	63.803
06/30/2011 12:33:44	5.771	13.11	80.902	63.803
06/30/2011 12:33:54	5.701	13.213	80.902	63.803
06/30/2011 12:34:04	5.658	13.191	81.103	63.803
06/30/2011 12:34:14	5.672	13.169	81.304	63.803
06/30/2011 12:34:24	5.72	13.143	81.103	64.004
06/30/2011 12:34:34	5.69	13.22	80.902	64.004
06/30/2011 12:34:44	5.679	13.147	80.902	64.004
06/30/2011 12:34:54	5.716	13.117	80.704	63.803
06/30/2011 12:35:04	5.727	13.158	80.704	64.004
06/30/2011 12:35:14	5.701	13.169	80.704	64.004
06/30/2011 12:35:24	5.683	13.172	81.103	63.803
06/30/2011 12:35:34	5.665	13.202	81.103	64.004
06/30/2011 12:35:44	5.679	13.15	81.103	64.004
06/30/2011 12:35:54	5.687	13.198	81.103	64.202
06/30/2011 12:36:04	5.679	13.176	81.103	64.004
06/30/2011 12:36:14	5.654	13.209	81.103	64.202
06/30/2011 12:36:24	5.621	13.249	81.304	64.202
06/30/2011 12:36:34	5.588	13.271	81.304	64.004
06/30/2011 12:36:44	5.621	13.187	81.304	64.004
06/30/2011 12:36:54	5.628	13.268	81.605	64.004
06/30/2011 12:37:04	5.599	13.253	81.605	64.004
06/30/2011 12:37:14	5.61	13.231	81.802	64.004
06/30/2011 12:37:24	5.599	13.271	82.004	63.803
06/30/2011 12:37:34	5.599	13.242	82.004	63.803
06/30/2011 12:37:44	5.658	13.194	82.403	64.004
06/30/2011 12:37:54	5.712	13.172	82.202	64.202
06/30/2011 12:38:04	5.727	13.128	82.004	64.004
06/30/2011 12:38:14	5.76	13.103	82.004	64.202
06/30/2011 12:38:24	5.775	13.103	81.802	64.004
06/30/2011 12:38:34	5.771	13.114	81.802	64.004
06/30/2011 12:38:44	5.786	13.07	82.004	64.202
06/30/2011 12:38:54	5.819	13.085	82.202	64.004
06/30/2011 12:39:04	5.8	13.103	82.202	64.202
06/30/2011 12:39:14	5.793	13.103	82.502	64.004
06/30/2011 12:39:24	5.8	13.106	82.403	64.004
06/30/2011 12:39:34	5.808	13.063	82.403	64.004
06/30/2011 12:39:44	5.811	13.085	82.403	64.004
06/30/2011 12:39:54	5.778	13.099	82.403	64.004
06/30/2011 12:40:04	5.786	13.074	82.403	64.004
06/30/2011 12:40:14	5.815	13.03	82.502	64.004
06/30/2011 12:40:24	5.819	13.11	82.502	63.803
06/30/2011 12:40:34	5.742	13.169	82.502	64.004
06/30/2011 12:40:44	5.705	13.125	82.202	64.004
06/30/2011 12:40:54	5.76	13.099	82.004	64.004
06/30/2011 12:41:04	5.771	13.106	82.202	64.004
06/30/2011 12:41:14	5.734	13.128	82.202	63.803
06/30/2011 12:41:24	5.771	13.059	82.502	64.202
06/30/2011 12:41:34	5.841	12.989	82.403	64.202
06/30/2011 12:41:44	5.848	13.074	82.403	64.202
06/30/2011 12:41:54	5.826	13.022	82.004	64.202
06/30/2011 12:42:04	5.811	13.095	81.802	64.004
06/30/2011 12:42:14	5.782	13.074	81.802	64.004
06/30/2011 12:42:24	5.83	12.986	81.802	64.004
06/30/2011 12:42:34	5.885	12.986	82.202	64.202
06/30/2011 12:42:44	5.852	13.033	82.502	64.004

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 12:42:54	5.826	13.037	82.502	64.004
06/30/2011 12:43:04	5.83	13.026	82.502	64.004
06/30/2011 12:43:14	5.852	13.033	82.502	64.202
06/30/2011 12:43:24	5.808	13.103	82.502	64.202
06/30/2011 12:43:34	5.815	12.956	82.905	64.004
06/30/2011 12:43:44	5.896	12.953	83.103	64.403
06/30/2011 12:43:54	5.899	12.956	82.905	64.202
06/30/2011 12:44:04	5.892	13.004	83.103	64.202
06/30/2011 12:44:14	5.87	13	82.905	64.202
06/30/2011 12:44:24	5.859	13.011	82.703	64.202
06/30/2011 12:44:34	5.87	13.011	82.703	64.403
06/30/2011 12:44:44	5.877	12.978	82.703	64.403
06/30/2011 12:44:54	5.877	13.044	82.905	64.403
06/30/2011 12:45:04	5.844	13.048	82.703	64.202
06/30/2011 12:45:14	5.797	13.088	82.703	64.202
06/30/2011 12:45:24	5.756	13.114	82.703	64.202
06/30/2011 12:45:34	5.742	13.121	82.905	64.202
06/30/2011 12:45:44	5.749	13.106	82.502	64.403
06/30/2011 12:45:54	5.793	13.066	82.703	64.403
06/30/2011 12:46:04	5.841	12.967	82.905	64.403
06/30/2011 12:46:14	5.896	12.982	82.703	64.202
06/30/2011 12:46:24	5.888	13.008	82.905	64.403
06/30/2011 12:46:34	5.852	13.033	82.905	64.403
06/30/2011 12:46:44	5.815	13.081	82.703	64.403
06/30/2011 12:46:54	5.738	13.161	82.502	64.403
06/30/2011 12:47:04	5.716	13.125	82.502	64.502
06/30/2011 12:47:14	5.72	13.143	82.703	64.502
06/30/2011 12:47:24	5.734	13.085	82.502	64.502
06/30/2011 12:47:34	5.8	13.037	82.703	64.502
06/30/2011 12:47:44	5.833	13.022	82.403	64.502
06/30/2011 12:47:54	5.863	12.975	82.403	64.502
06/30/2011 12:48:04	5.874	12.993	82.502	64.502
06/30/2011 12:48:14	5.892	12.92	82.403	64.502
06/30/2011 12:48:24	5.914	12.964	82.403	64.502
06/30/2011 12:48:34	5.855	13.037	82.202	64.502
06/30/2011 12:48:44	5.811	13.037	82.403	64.502
06/30/2011 12:48:54	5.797	13.055	82.202	64.502
06/30/2011 12:49:04	5.786	13.095	82.403	64.502
06/30/2011 12:49:14	5.778	13.095	83.103	64.502
06/30/2011 12:49:24	5.789	13.048	82.703	64.502
06/30/2011 12:49:34	5.797	13.055	82.703	64.502
06/30/2011 12:49:44	5.793	13.092	82.905	64.502
06/30/2011 12:49:54	5.764	13.106	82.905	64.502
06/30/2011 12:50:04	5.767	13.106	82.703	64.502
06/30/2011 12:50:14	5.76	13.103	82.905	64.502
06/30/2011 12:50:24	5.738	13.183	83.103	64.502
06/30/2011 12:50:34	5.683	13.198	83.103	64.403
06/30/2011 12:50:44	5.661	13.191	83.304	64.502
06/30/2011 12:50:54	5.669	13.183	83.403	64.502
06/30/2011 12:51:04	5.665	13.202	83.304	64.704
06/30/2011 12:51:14	5.647	13.253	83.304	64.704
06/30/2011 12:51:24	5.595	13.304	83.403	64.704
06/30/2011 12:51:34	5.566	13.301	83.403	64.502
06/30/2011 12:51:44	5.559	13.297	83.304	64.502
06/30/2011 12:51:54	5.555	13.319	83.304	64.901
06/30/2011 12:52:04	5.526	13.348	82.703	64.704
06/30/2011 12:52:14	5.544	13.304	82.703	64.704
06/30/2011 12:52:24	5.57	13.301	82.703	64.502
06/30/2011 12:52:34	5.562	13.304	82.403	64.704
06/30/2011 12:52:44	5.559	13.29	82.502	61.704
06/30/2011 12:52:54	5.555	13.275	82.502	61.803
06/30/2011 12:53:04	5.555	13.268	82.502	62.202
06/30/2011 12:53:14	5.551	13.26	82.502	62.202
06/30/2011 12:53:24	5.555	13.253	82.703	62.704
06/30/2011 12:53:34	5.581	13.235	82.502	62.704
06/30/2011 12:53:44	5.694	13.015	82.004	62.601
06/30/2011 12:53:54	5.808	13.015	82.202	62.704
06/30/2011 12:54:04	5.837	12.993	82.403	62.704
06/30/2011 12:54:14	5.811	13.085	82.703	63.103

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24 hour time	O2 (%)	CO2 (%)	RACK (°F)	CHILL (°F)
06/30/2011 12:54:24	5.753	13.095	83.103	63.103
06/30/2011 12:54:34	5.738	13.095	83.304	63.103
06/30/2011 12:54:44	5.734	13.077	83.304	63.103
06/30/2011 12:54:54	5.738	13.059	83.304	62.902
06/30/2011 12:55:04	5.738	13.055	83.304	63.103
06/30/2011 12:55:14	5.738	13.052	83.103	63.103
06/30/2011 12:55:24	5.742	13.048	82.703	63.103
06/30/2011 12:55:34	5.742	13.041	82.502	63.103
06/30/2011 12:55:44	5.738	13.041	82.703	63.601
06/30/2011 12:55:54	5.742	13.037	82.905	63.502
06/30/2011 12:56:04	5.738	13.044	82.703	63.803
06/30/2011 12:56:14	5.742	13.041	82.703	63.601
06/30/2011 12:56:24	5.782	12.982	82.703	63.601
06/30/2011 12:56:34	5.8	13.044	82.403	63.601
06/30/2011 12:56:44	5.8	12.964	82.202	63.601
06/30/2011 12:56:54	5.837	12.982	82.403	63.803
06/30/2011 12:57:04	5.804	13.048	82.202	63.803
06/30/2011 12:57:14	5.756	13.059	82.004	63.601
06/30/2011 12:57:24	5.734	13.11	81.802	63.803
06/30/2011 12:57:34	5.705	13.092	82.202	63.803
06/30/2011 12:57:44	5.694	13.143	82.202	66.201
06/30/2011 12:57:54	8.17	12.169	82.004	66.901
06/30/2011 12:58:04	6.925	13.103	81.802	66.901
06/30/2011 12:58:14	5.771	13.132	81.802	66.901
06/30/2011 12:58:24	5.701	13.176	81.802	66.901
06/30/2011 12:58:34	5.658	13.209	82.004	66.703
06/30/2011 12:58:44	5.65	13.172	81.802	66.502
06/30/2011 12:58:54	5.661	13.22	81.802	64.403
06/30/2011 12:59:04	6.72	7.262	81.802	63.301
06/30/2011 12:59:14	14.784	0.417	82.403	63.502
06/30/2011 12:59:24	19.823	0.355	82.502	63.803
06/30/2011 12:59:34	20.391	0.329	82.703	63.803
06/30/2011 12:59:44	20.299	1.831	82.202	64.004
06/30/2011 12:59:54	14.374	9.778	82.004	64.004

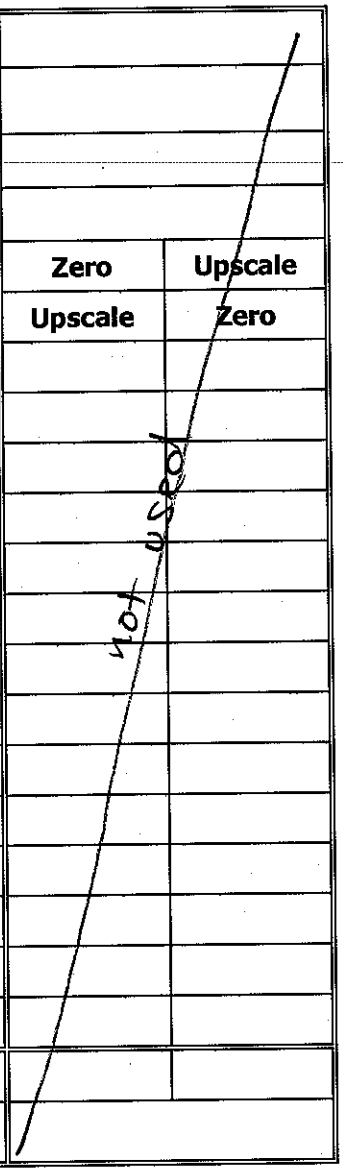
Response Time Determination – EPA Method 7E

Applicable to Performance of EPA Methods 3A, 6C, 7E and 10

Project Name: Chevron Hawaii
Project Number: 40942312
Location: Kapolei, HI

Source: FCCU Stack
Date: 10/22/11
Time 08:58 - 09:02

Parameter	O_2		CO_2			
Analyzer Make and Model	Servomex 1440		Servomex 1440			
Analyzer Name	Waits		Waits			
Analyzer Range	0-25%		0-20%			
From	Zero	Upscale	Zero	Upscale	Zero	Upscale
To	Upscale	Zero	Upscale	Zero	Upscale	Zero
Start Time (hh:mm)	08:58:30	09:00:00	08:58:30	09:00:00		
15 sec	0.81	21.90	0.09	18.70		
30 sec	15.72	8.01	18.50	0.90		
45 sec	21.82	0.43	18.72	0.71		
60 sec	21.93	0.32	18.76	0.66		
75 sec		0.20		0.53		
90 sec		0.19		0.11		
105 sec						
120 sec						
135 sec						
150 sec						
165 sec						
180 sec						
195 sec						
Response Time [1]	45 sec	45 sec	30 sec	30 sec		
Analyzer Response Time [2]	45 sec		30 sec			



[1] Time in seconds to reach 95% of final stable value.
[2] Greater of upscale and downscale response time

	Cylinder Number	Actual Value
Upscale	CC82073	22.1% O_2 / 18.9% CO_2
Upscale	———	———
Upscale	———	———
Zero	AS2788 tag	0

FDS-10 EPA 7E CEM Response Time
Revision Date: October 2009
Reviewed: September 2010

Response Time Determination

Project Name: Chevron Hawaii
Project Number: A0942312
Location: Kapolei, HI
Source: FCCU Stack
Date: 10/22/11

Parameter: THC
Monitor Make/Model: Thermo 51i-HT
Monitor Name: Cash
Operator: MDD
Span: 0 - 100 ppm
Time: 10:10 - 10:19

From	To	System Response													Response Time [1]	
		15 sec	30 sec	45 sec	60 sec	75 sec	90 sec	105 sec	120 sec	135 sec	150 sec	165 sec	180 sec	195 sec	Upscale	Downscale
Zero	High	57.21	90.12	89.73	89.42	89.35	88.69								30 sec	
High	Zero	50.57	0.72	0.50	0.20	0.17										30 sec
Zero	High	60.72	89.45	85.44	85.07	84.87	84.66								30 sec	
High	Zero	60.11	0.88	0.61	0.41											30 sec
Zero	High	39.04	95.62	94.23	88.43	87.78									30 sec	
High	Zero	30.99	2.94	2.56	2.40											30 sec
Average															30 sec	30 sec
System Response Time [2]															30 sec	

[1] Time in seconds to reach 95% of final stable value.
[2] Select greater of upscale and downscale response time.

	Cylinder Number	Actual Value
High	CC18793	84.5 ppm Span
Zero	AS7788 tag	0

FDS-05: CEM Response Time
Revision Date: October 2009
Reviewed: September 2010

Stratification Determination – EPA Method 7E

Applicable to Performance of EPA Methods 3A, 6C, 7E and 10

Parameter CO_2 | Analyzer Make and Model Servomex 1440

Plant Chevron Hawaii | Analyzer Tag Waits

Source FCCU Stack | Analyzer S/N 01440D1/4393

Operator MDD | Analyzer Range 0-20%

Date 6/22/11 | System Response Time 30 sec

Traverse Points (3 are required)	Marking Location	Sampling Duration	Concentration	% Difference from Mean
1	16.25"	60 sec	13.~~46~~ ~~13.25~~	~~2.50~~ 1.97
2	34.25"	60 sec	13.25 ~~12.89~~	~~0.35~~ 0.41
3	57.25"	60 sec	12.89 ~~12.65~~	~~2.40~~ 2.38
4				
5				
6				
7			not used	
8				
9				
10				
11				
12				
Mean Concentration of all Traverse Points			13.20 ~~12.93~~	

MDD 6/22/11

MDD 6/22/11

Stratification Test Criteria[1] – Evaluate in Order

1	Do the concentrations at each traverse point differ from the mean concentration by no more than (a) ±5.0% of the mean or (b) ±0.5 ppm (whichever is less restrictive)?	yes	**If YES, use 1 point**
2	Do the concentrations at each traverse point differ from the mean concentration by more than (a) ±5.0% of the mean or (b) ±0.5 ppm (whichever is less restrictive) and by no more than (a) ±10.0% of the mean or (b) ±1.0 ppm (whichever is less restrictive)?	no	**If YES, use 3 points**
3	Do the concentrations at each traverse point differ from the mean concentration by more than (a) ±10.0% of the mean or (b) ±1.0 ppm (whichever is less restrictive)?	no	**If YES, use 12 points**

[1] According to EPA Method 3A, Section 8.1, the alternative acceptance criterion for 3-point sampling is ±0.5% CO_2 or O_2, and the criterion for single-point sampling is ±0.3% CO_2 or O_2.

Notes 12:51-12:55

FDS-12: Stratification Test
Revision Date: March 2009
Reviewed: July 2010

Appendix D

FCCU CEMS Raw Data

Chevron FCCU CEMS Data

Run 5

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
Average	**41.926**	**15.908**
Maximum	**68.351**	**17.095**
Minimum	**37.490**	**14.234**
Start Run 5		
24-Jun-11 09:32:00	42.02708679	15.86611454
24-Jun-11 09:33:00	41.98337084	16.60507297
24-Jun-11 09:34:00	41.66338919	16.23430508
24-Jun-11 09:35:00	41.71138113	15.70568723
24-Jun-11 09:36:00	41.1542967	16.12280739
24-Jun-11 09:37:00	40.83456332	16.18074885
24-Jun-11 09:38:00	40.72303122	15.8988315
24-Jun-11 09:39:00	40.70147774	16.10937655
24-Jun-11 09:40:00	40.88343184	15.69116303
24-Jun-11 09:41:00	40.95081663	15.83295602
24-Jun-11 09:42:00	41.11577052	15.92005199
24-Jun-11 09:43:00	41.24814401	16.00098344
24-Jun-11 09:44:00	41.18778224	16.2129149
24-Jun-11 09:45:00	40.89998139	16.39467948
24-Jun-11 09:46:00	40.89818192	16.40104871
24-Jun-11 09:47:00	40.89745575	16.40089492
24-Jun-11 09:48:00	40.69928249	16.35620492
24-Jun-11 09:49:00	40.41714098	16.22550193
24-Jun-11 09:50:00	40.33320999	16.18863442
24-Jun-11 09:51:00	40.32314454	16.3236096
24-Jun-11 09:52:00	40.11767993	16.64652234
24-Jun-11 09:53:00	39.97230937	16.31660433
24-Jun-11 09:54:00	39.82694287	16.46688227
24-Jun-11 09:55:00	39.80591708	16.65703963
24-Jun-11 09:56:00	39.89296341	16.55601956
24-Jun-11 09:57:00	40.07944629	16.48298347
24-Jun-11 09:58:00	40.31109019	16.59654406
24-Jun-11 09:59:00	40.24818737	16.62812171
24-Jun-11 10:00:00	39.9820187	16.95529404
24-Jun-11 10:01:00	39.96598816	16.97543526
24-Jun-11 10:02:00	39.96598816	16.97543526
24-Jun-11 10:03:00	39.83355006	16.57077162
24-Jun-11 10:04:00	39.59159342	15.98953925
24-Jun-11 10:05:00	39.44592265	15.93301609
24-Jun-11 10:06:00	39.25423026	15.80129106
24-Jun-11 10:07:00	39.4403913	15.60856418
24-Jun-11 10:08:00	39.66181412	15.65089906

Chevron FCCU CEMS Data

Run 5

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 10:09:00	39.6453833	15.77947348
24-Jun-11 10:10:00	39.61678165	15.87341027
24-Jun-11 10:11:00	39.4292031	15.98831623
24-Jun-11 10:12:00	39.54136842	16.12957124
24-Jun-11 10:13:00	39.33400414	16.13574255
24-Jun-11 10:14:00	39.38283811	16.02872586
24-Jun-11 10:15:00	39.73951297	15.71646173
24-Jun-11 10:16:00	39.79649734	15.66660118
24-Jun-11 10:17:00	39.79649734	15.66660118
24-Jun-11 10:18:00	39.90174348	15.7016833
24-Jun-11 10:19:00	40.22905865	15.78575712
24-Jun-11 10:20:00	40.19731076	15.92498712
24-Jun-11 10:21:00	40.27834704	16.17357234
24-Jun-11 10:22:00	40.59402818	15.93378094
24-Jun-11 10:23:00	40.44569089	15.96397386
24-Jun-11 10:24:00	40.60486679	15.66275463
24-Jun-11 10:25:00	40.63847472	15.61759019
24-Jun-11 10:26:00	40.15412915	15.93099382
24-Jun-11 10:27:00	40.14169245	15.9231067
24-Jun-11 10:28:00	40.11158697	15.89595865
24-Jun-11 10:29:00	39.94868488	15.65436055
24-Jun-11 10:30:00	39.88822261	15.69547371
24-Jun-11 10:31:00	39.88123703	15.75134373
24-Jun-11 10:32:00	39.89648626	15.76320408
24-Jun-11 10:33:00	39.98388964	15.86216899
24-Jun-11 10:34:00	39.74579219	15.90166707
24-Jun-11 10:35:00	39.7568139	15.9526476
24-Jun-11 10:36:00	39.60152014	15.65532398
24-Jun-11 10:37:00	39.40174203	16.06755676
24-Jun-11 10:38:00	39.31972769	15.94613029
24-Jun-11 10:39:00	39.44285957	15.78257508
24-Jun-11 10:40:00	39.37073573	15.84305111
24-Jun-11 10:41:00	39.26137832	15.9586534
24-Jun-11 10:42:00	39.22261127	16.17375927
24-Jun-11 10:43:00	39.25762031	16.07880676
24-Jun-11 10:44:00	39.78538472	15.6672778
24-Jun-11 10:45:00	39.981919	15.58505996
24-Jun-11 10:46:00	39.85299301	15.60068703
24-Jun-11 10:47:00	39.84529024	15.6016207
24-Jun-11 10:48:00	39.63439595	15.64238496
24-Jun-11 10:49:00	39.61009982	15.94676952

Chevron FCCU CEMS Data

Run 5

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 10:50:00	39.71311158	15.89744614
24-Jun-11 10:51:00	39.93306535	15.58036179
24-Jun-11 10:52:00	39.89827184	15.40650665
24-Jun-11 10:53:00	39.85848218	15.57623345
24-Jun-11 10:54:00	39.69631229	15.5769378
24-Jun-11 10:55:00	39.60776567	15.80904025
24-Jun-11 10:56:00	40.02758393	15.65014585
24-Jun-11 10:57:00	40.6019571	15.17380426
24-Jun-11 10:58:00	40.91370201	14.86912419
24-Jun-11 10:59:00	41.01121533	14.88305239
24-Jun-11 11:00:00	41.03347075	14.98528086
24-Jun-11 11:01:00	40.98326133	14.96992372
24-Jun-11 11:02:00	40.98296149	14.96982378
24-Jun-11 11:03:00	41.33187583	15.08595469
24-Jun-11 11:04:00	41.73096408	15.16896477
24-Jun-11 11:05:00	41.74984386	15.06297501
24-Jun-11 11:06:00	41.77466954	15.012236
24-Jun-11 11:07:00	41.78269722	15.159598
24-Jun-11 11:08:00	41.37192089	15.44720724
24-Jun-11 11:09:00	40.82900296	15.73786321
24-Jun-11 11:10:00	40.57676489	15.68934858
24-Jun-11 11:11:00	40.60462319	15.88347708
24-Jun-11 11:12:00	40.45607467	15.99566196
24-Jun-11 11:13:00	40.3446171	16.07724689
24-Jun-11 11:14:00	40.33320999	15.77631686
24-Jun-11 11:15:00	40.33320999	15.71588972
24-Jun-11 11:16:00	40.33320999	15.71368027
24-Jun-11 11:17:00	40.33320999	15.71368027
24-Jun-11 11:18:00	41.0722736	15.43119421
24-Jun-11 11:19:00	42.25468187	15.12143591
24-Jun-11 11:20:00	41.87820238	15.78033993
24-Jun-11 11:21:00	41.62027826	16.14766677
24-Jun-11 11:22:00	41.27371535	16.29052032
24-Jun-11 11:23:00	40.6398671	16.51487704
24-Jun-11 11:24:00	40.63282073	16.52336503
24-Jun-11 11:25:00	40.62244796	16.46867417
24-Jun-11 11:26:00	40.52064194	16.61445218
24-Jun-11 11:27:00	40.32285995	16.91074798
24-Jun-11 11:28:00	40.30925293	16.42068834
24-Jun-11 11:29:00	40.23919446	16.6842224
24-Jun-11 11:30:00	40.00977571	16.58608389

Chevron FCCU CEMS Data

Run 5

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 11:31:00	39.96598816	16.54229546
24-Jun-11 11:32:00	39.96598816	16.54229546
24-Jun-11 11:33:00	39.8815722	16.68111208
24-Jun-11 11:34:00	39.69141626	17.09318318
24-Jun-11 11:35:00	40.05550424	16.83208794
24-Jun-11 11:36:00	39.96564589	16.93956925
24-Jun-11 11:37:00	39.71831018	17.09526912
24-Jun-11 11:38:00	39.85561593	16.95053132
24-Jun-11 11:39:00	40.04026995	16.79048088
24-Jun-11 11:40:00	39.77293679	16.86855489
24-Jun-11 11:41:00	39.96835125	16.61982181
24-Jun-11 11:42:00	40.11959688	16.58619894
24-Jun-11 11:43:00	40.19492712	16.57449456
24-Jun-11 11:44:00	40.15806971	16.75493242
24-Jun-11 11:45:00	39.95830662	16.68685414
24-Jun-11 11:46:00	39.90949249	16.6082077
24-Jun-11 11:47:00	39.98514868	16.60488939
24-Jun-11 11:48:00	40.77382415	16.5560366
24-Jun-11 11:49:00	40.81632574	16.43311171
24-Jun-11 11:50:00	40.69135682	16.37116923
24-Jun-11 11:51:00	40.94648506	16.20304351
24-Jun-11 11:52:00	40.9829216	16.36355976
24-Jun-11 11:53:00	40.93704074	16.27345264
24-Jun-11 11:54:00	40.82405393	16.13047802
24-Jun-11 11:55:00	40.84257867	16.05459848
24-Jun-11 11:56:00	40.7612839	16.2128558
24-Jun-11 11:57:00	40.87859612	16.21696658
24-Jun-11 11:58:00	40.73557657	16.6679505
24-Jun-11 11:59:00	40.43216914	16.84193504
24-Jun-11 12:00:00	40.44620132	16.5882307
24-Jun-11 12:01:00	40.44620132	16.51404762
24-Jun-11 12:02:00	40.43549416	16.51761669
24-Jun-11 12:03:00	39.94753497	16.66522713
24-Jun-11 12:04:00	39.67665277	16.31962074
24-Jun-11 12:05:00	40.15795756	15.83095425
24-Jun-11 12:06:00	40.32724259	15.70467387
24-Jun-11 12:07:00	40.26379714	15.8478227
24-Jun-11 12:08:00	40.24846649	16.14555222
24-Jun-11 12:09:00	40.25242137	16.18338831
24-Jun-11 12:10:00	40.33618632	15.99452265
24-Jun-11 12:11:00	40.5196997	16.17226997

Chevron FCCU CEMS Data

Run 5

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 12:12:00	40.02249142	16.29828875
24-Jun-11 12:13:00	39.46224216	16.3398257
24-Jun-11 12:14:00	39.62901286	16.08254181
24-Jun-11 12:15:00	40.05725379	16.05839436
24-Jun-11 12:16:00	40.05100934	16.03420402
24-Jun-11 12:17:00	40.05072784	16.03382874
24-Jun-11 12:18:00	40.28570245	16.08453283
24-Jun-11 12:19:00	40.37967034	16.23249988
24-Jun-11 12:20:00	40.427133	15.993203
24-Jun-11 12:21:00	40.31024729	15.83334226
24-Jun-11 12:22:00	40.17718778	15.9419778
24-Jun-11 12:23:00	40.54995188	15.91967874
24-Jun-11 12:24:00	40.36215173	15.73817316
24-Jun-11 12:25:00	40.16768323	16.21187029
24-Jun-11 12:26:00	40.05250974	16.25105783
24-Jun-11 12:27:00	40.45825005	16.2200197
24-Jun-11 12:28:00	40.67662883	16.11331003
24-Jun-11 12:29:00	41.02944556	15.57649647
24-Jun-11 12:30:00	41.42551771	15.39592089
24-Jun-11 12:31:00	41.4631424	15.38411713
24-Jun-11 12:32:00	41.4631424	15.38411713
24-Jun-11 12:33:00	41.29054339	15.54521087
24-Jun-11 12:34:00	40.96761336	15.97747509
24-Jun-11 12:35:00	40.92195202	16.29950949
24-Jun-11 12:36:00	40.39224227	16.62244073
24-Jun-11 12:37:00	40.38086166	16.55496029
24-Jun-11 12:38:00	40.69375411	16.41040517
24-Jun-11 12:39:00	40.62820124	16.39313028
24-Jun-11 12:40:00	40.27074029	16.3150804
24-Jun-11 12:41:00	40.1427686	16.20292021
24-Jun-11 12:42:00	40.62264413	16.34842354
24-Jun-11 12:43:00	40.65803775	16.25429565
24-Jun-11 12:44:00	40.21164232	16.45903113
24-Jun-11 12:45:00	40.21739195	16.27833541
24-Jun-11 12:46:00	40.24846649	16.21273232
24-Jun-11 12:47:00	40.24846649	16.21273232
24-Jun-11 12:48:00	40.31400406	16.22053447
24-Jun-11 12:49:00	40.55164687	16.25053287
24-Jun-11 12:50:00	40.52647465	15.95169393
24-Jun-11 12:51:00	41.03964565	14.97981505
24-Jun-11 12:52:00	41.09167055	14.6522488

Chevron FCCU CEMS Data

Run 5

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 12:53:00	41.38902259	14.3378904
24-Jun-11 12:54:00	41.62906355	14.23364085
24-Jun-11 12:55:00	41.54647836	14.49427918
24-Jun-11 12:56:00	41.49011155	14.62909181
24-Jun-11 12:57:00	41.5483456	14.79260503
24-Jun-11 12:58:00	41.66217241	14.71894233
24-Jun-11 12:59:00	41.570079	14.95202834
24-Jun-11 13:00:00	41.59592196	15.10122369
24-Jun-11 13:01:00	41.66087341	15.07338619
24-Jun-11 13:02:00	41.69370832	15.07935604
24-Jun-11 13:03:00	42.14265711	15.19546886
24-Jun-11 13:04:00	42.16594402	15.58488933
24-Jun-11 13:05:00	41.92114536	15.77373272
24-Jun-11 13:06:00	41.80141579	15.93167994
24-Jun-11 13:07:00	41.73536985	15.40283197
24-Jun-11 13:08:00	44.82798503	15.37333844
24-Jun-11 13:09:00	58.48775606	15.46598065
24-Jun-11 13:10:00	65.2073609	14.53336878
24-Jun-11 13:11:00	62.25737387	14.68777061
24-Jun-11 13:12:00	59.42682552	14.96604528
24-Jun-11 13:13:00	54.73530729	15.21981777
24-Jun-11 13:14:00	50.52860488	15.38964873
24-Jun-11 13:15:00	47.91374216	15.68365838
24-Jun-11 13:16:00	47.48001862	15.77017593
24-Jun-11 13:17:00	47.4154829	15.76743807
24-Jun-11 13:18:00	41.58633382	15.52122606
24-Jun-11 13:19:00	37.48959715	15.40169016
24-Jun-11 13:20:00	38.27711512	15.45022383
24-Jun-11 13:21:00	61.13850599	15.22257006
24-Jun-11 13:22:00	68.35123249	14.26586023
24-Jun-11 13:23:00	67.09783338	14.44911709
24-Jun-11 13:24:00	67.61323559	15.13806539
24-Jun-11 13:25:00	64.45392972	14.94941059
24-Jun-11 13:26:00	59.98726438	15.04682015
24-Jun-11 13:27:00	56.51402072	15.26791141
24-Jun-11 13:28:00	56.49167484	15.22903305
24-Jun-11 13:29:00	63.45586042	15.13332317
24-Jun-11 13:30:00	62.39334586	14.62384758
End Run 5		

Chevron FCCU CEMS Data

Run 6

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
Average	**42.404**	**16.584**
Maximum	**63.621**	**19.966**
Minimum	**34.440**	**14.088**
Start Run 6		
24-Jun-11 15:20:00	39.96750823	18.27596241
24-Jun-11 15:21:00	40.11400729	17.88957737
24-Jun-11 15:22:00	40.21354742	17.89448246
24-Jun-11 15:23:00	39.68316991	18.19812292
24-Jun-11 15:24:00	39.06860379	18.33503839
24-Jun-11 15:25:00	38.80851195	18.59452049
24-Jun-11 15:26:00	38.189973	18.74164791
24-Jun-11 15:27:00	37.5927326	18.9060897
24-Jun-11 15:28:00	37.19998872	18.99042243
24-Jun-11 15:29:00	37.39008091	18.97045119
24-Jun-11 15:30:00	37.52916379	19.01347473
24-Jun-11 15:31:00	37.44141676	19.05639267
24-Jun-11 15:32:00	37.40319366	19.07476021
24-Jun-11 15:33:00	35.91070987	19.64008536
24-Jun-11 15:34:00	35.12412689	19.96588791
24-Jun-11 15:35:00	35.17505368	19.69112184
24-Jun-11 15:36:00	34.90176227	19.44431331
24-Jun-11 15:37:00	35.02357719	19.68807878
24-Jun-11 15:38:00	35.0875042	19.87763
24-Jun-11 15:39:00	34.73898772	19.6485305
24-Jun-11 15:40:00	34.55162074	19.74983577
24-Jun-11 15:41:00	34.43964859	19.69231463
24-Jun-11 15:42:00	34.75794597	19.19908969
24-Jun-11 15:43:00	34.95870752	19.00664128
24-Jun-11 15:44:00	35.35238798	18.87769546
24-Jun-11 15:45:00	35.38329725	18.64030621
24-Jun-11 15:46:00	35.33349446	18.67018046
24-Jun-11 15:47:00	35.33409593	18.6698751
24-Jun-11 15:48:00	36.55705543	17.99540073
24-Jun-11 15:49:00	37.69268457	17.32494694
24-Jun-11 15:50:00	38.31417715	17.0158225
24-Jun-11 15:51:00	38.92288626	16.72744429
24-Jun-11 15:52:00	38.80261735	16.85203384
24-Jun-11 15:53:00	39.38842621	16.40883846
24-Jun-11 15:54:00	40.13220343	15.88989656
24-Jun-11 15:55:00	41.23132966	15.58921306
24-Jun-11 15:56:00	41.67629904	15.57029393

Chevron FCCU CEMS Data

Run 6

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 15:57:00	41.8312368	15.56576646
24-Jun-11 15:58:00	42.43845731	15.45618183
24-Jun-11 15:59:00	42.56775503	15.57710503
24-Jun-11 16:00:00	43.06455887	15.16224324
24-Jun-11 16:01:00	43.10154343	15.12988186
24-Jun-11 16:02:00	43.10154343	15.12988186
24-Jun-11 16:03:00	43.41265671	14.94839889
24-Jun-11 16:04:00	44.17122882	14.52050567
24-Jun-11 16:05:00	44.57849611	14.52932011
24-Jun-11 16:06:00	44.86312565	14.59672633
24-Jun-11 16:07:00	45.28250863	14.24369096
24-Jun-11 16:08:00	45.44864804	14.08778059
24-Jun-11 16:09:00	45.42122293	14.49258777
24-Jun-11 16:10:00	45.26035576	14.87636392
24-Jun-11 16:11:00	45.2949526	15.18297171
24-Jun-11 16:12:00	45.11126656	15.22294195
24-Jun-11 16:13:00	44.57624526	15.38856323
24-Jun-11 16:14:00	44.40213637	15.40699399
24-Jun-11 16:15:00	44.68361063	15.14183926
24-Jun-11 16:16:00	44.73993683	15.0922184
24-Jun-11 16:17:00	44.73993683	15.0922184
24-Jun-11 16:18:00	44.65138798	15.24164574
24-Jun-11 16:19:00	44.2234199	15.83577656
24-Jun-11 16:20:00	43.86520192	15.94031754
24-Jun-11 16:21:00	43.70168785	15.8565045
24-Jun-11 16:22:00	43.57135093	16.00577558
24-Jun-11 16:23:00	43.51901689	16.35646492
24-Jun-11 16:24:00	43.35072047	16.09336495
24-Jun-11 16:25:00	43.32937581	15.85076838
24-Jun-11 16:26:00	43.19459077	16.23522582
24-Jun-11 16:27:00	42.76405957	16.17034107
24-Jun-11 16:28:00	42.42091936	16.45446292
24-Jun-11 16:29:00	42.14310372	16.79861214
24-Jun-11 16:30:00	42.22947192	16.75635087
24-Jun-11 16:31:00	42.30369053	16.73061943
24-Jun-11 16:32:00	42.1999438	16.75749923
24-Jun-11 16:33:00	40.94657785	17.10361941
24-Jun-11 16:34:00	40.52877855	17.47483949
24-Jun-11 16:35:00	39.98579229	17.18947392
24-Jun-11 16:36:00	40.29892079	17.38797492
24-Jun-11 16:37:00	40.21147457	17.28375715

Chevron FCCU CEMS Data

Run 6

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 16:38:00	40.54399187	17.04034115
24-Jun-11 16:39:00	40.45305209	16.91512341
24-Jun-11 16:40:00	40.43710538	16.92153255
24-Jun-11 16:41:00	40.35724936	16.89927714
24-Jun-11 16:42:00	40.21570967	17.00530945
24-Jun-11 16:43:00	40.33108391	16.96541461
24-Jun-11 16:44:00	40.4306818	16.75594234
24-Jun-11 16:45:00	40.28618634	16.46914684
24-Jun-11 16:46:00	40.24846649	16.41047096
24-Jun-11 16:47:00	40.26633324	16.40530947
24-Jun-11 16:48:00	41.12515146	16.14790171
24-Jun-11 16:49:00	42.06575629	15.62453983
24-Jun-11 16:50:00	42.29468776	15.70311783
24-Jun-11 16:51:00	42.43195276	15.85505956
24-Jun-11 16:52:00	41.97768577	16.28958839
24-Jun-11 16:53:00	42.15798388	16.45144453
24-Jun-11 16:54:00	42.08348484	16.39756316
24-Jun-11 16:55:00	42.36277298	16.33652294
24-Jun-11 16:56:00	42.52392515	16.03772845
24-Jun-11 16:57:00	42.75635661	15.84507556
24-Jun-11 16:58:00	43.38117033	15.39775928
24-Jun-11 16:59:00	43.47439316	15.44172725
24-Jun-11 17:00:00	43.71746298	15.32104704
24-Jun-11 17:01:00	43.72300339	15.31820583
24-Jun-11 17:02:00	43.72300339	15.31820583
24-Jun-11 17:03:00	43.73679091	15.06099616
24-Jun-11 17:04:00	43.78254214	15.05427959
24-Jun-11 17:05:00	44.02148447	15.1403429
24-Jun-11 17:06:00	44.00193265	15.35987421
24-Jun-11 17:07:00	44.1584793	15.12761023
24-Jun-11 17:08:00	44.26417991	15.18025233
24-Jun-11 17:09:00	44.2207764	15.34552204
24-Jun-11 17:10:00	44.52015098	15.01453106
24-Jun-11 17:11:00	44.45730025	15.0119572
24-Jun-11 17:12:00	44.33631534	15.14549969
24-Jun-11 17:13:00	44.04470897	15.5241621
24-Jun-11 17:14:00	43.99948607	15.37767159
24-Jun-11 17:15:00	44.08121683	15.02470593
24-Jun-11 17:16:00	44.09023285	14.98864269
24-Jun-11 17:17:00	44.09023285	14.98864269
24-Jun-11 17:18:00	44.15078455	15.13569888

Chevron FCCU CEMS Data

Run 6

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 17:19:00	44.18711695	15.45012973
24-Jun-11 17:20:00	44.10681467	15.75741405
24-Jun-11 17:21:00	44.14535057	16.20169429
24-Jun-11 17:22:00	43.91971031	15.99458884
24-Jun-11 17:23:00	43.72518049	15.90209562
24-Jun-11 17:24:00	43.20137841	16.05526677
24-Jun-11 17:25:00	43.01002637	15.96067357
24-Jun-11 17:26:00	42.96559101	16.05793836
24-Jun-11 17:27:00	43.08999949	16.06082309
24-Jun-11 17:28:00	42.49187431	16.14482034
24-Jun-11 17:29:00	42.40429601	16.10378037
24-Jun-11 17:30:00	42.38250924	16.14851529
24-Jun-11 17:31:00	42.3670845	16.16565323
24-Jun-11 17:32:00	42.3670845	16.16565323
24-Jun-11 17:33:00	42.16895654	16.29144895
24-Jun-11 17:34:00	41.30922194	16.8344196
24-Jun-11 17:35:00	41.3203937	16.89105146
24-Jun-11 17:36:00	41.2460097	17.07719098
24-Jun-11 17:37:00	41.23738089	16.82808712
24-Jun-11 17:38:00	41.21407845	16.68891542
24-Jun-11 17:39:00	41.13495069	16.6857458
24-Jun-11 17:40:00	41.34911428	16.64687546
24-Jun-11 17:41:00	41.39286931	16.41400409
24-Jun-11 17:42:00	41.43556767	16.42709295
24-Jun-11 17:43:00	41.5551419	16.38816397
24-Jun-11 17:44:00	41.92155365	16.44248359
24-Jun-11 17:45:00	42.25609636	16.47549348
24-Jun-11 17:46:00	42.33884048	16.4387188
24-Jun-11 17:47:00	42.37801792	16.41163316
24-Jun-11 17:48:00	42.85387383	16.12771854
24-Jun-11 17:49:00	42.10533023	17.06925254
24-Jun-11 17:50:00	41.87713414	16.8779117
24-Jun-11 17:51:00	41.91897154	16.75156417
24-Jun-11 17:52:00	42.38838923	16.51421445
24-Jun-11 17:53:00	42.15826699	16.1919338
24-Jun-11 17:54:00	42.33108865	15.92277104
24-Jun-11 17:55:00	42.52686342	16.04397471
24-Jun-11 17:56:00	42.85929954	15.942252
24-Jun-11 17:57:00	43.40745981	15.74638349
24-Jun-11 17:58:00	43.06868866	15.9084304
24-Jun-11 17:59:00	42.81508543	16.04163051

Chevron FCCU CEMS Data

Run 6

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 18:00:00	42.76193052	16.19686631
24-Jun-11 18:01:00	42.79080963	16.25981331
24-Jun-11 18:02:00	42.79156328	16.26088096
24-Jun-11 18:03:00	42.86748891	16.35140051
24-Jun-11 18:04:00	43.14294499	15.9765814
24-Jun-11 18:05:00	42.99774793	15.99526478
24-Jun-11 18:06:00	42.75287045	15.97380035
24-Jun-11 18:07:00	42.70820105	16.15713358
24-Jun-11 18:08:00	42.75391287	16.19061489
24-Jun-11 18:09:00	42.95239948	16.10511437
24-Jun-11 18:10:00	42.92162354	16.07621172
24-Jun-11 18:11:00	42.65673953	16.44074909
24-Jun-11 18:12:00	42.89750006	16.2320766
24-Jun-11 18:13:00	42.57945551	16.12300959
24-Jun-11 18:14:00	42.05935686	16.36866458
24-Jun-11 18:15:00	41.90147054	16.23473618
24-Jun-11 18:16:00	41.91459106	16.24063245
24-Jun-11 18:17:00	41.91511536	16.24098206
24-Jun-11 18:18:00	41.84084503	16.47204316
24-Jun-11 18:19:00	41.46471445	16.82406689
24-Jun-11 18:20:00	41.18125507	16.84835991
24-Jun-11 18:21:00	41.27969472	16.58040091
24-Jun-11 18:22:00	41.18554767	16.60091027
24-Jun-11 18:23:00	41.02594586	16.84594668
24-Jun-11 18:24:00	41.21063751	16.78834116
24-Jun-11 18:25:00	41.72190889	16.36812168
24-Jun-11 18:26:00	41.71318203	16.61194642
24-Jun-11 18:27:00	41.67425189	16.87912188
24-Jun-11 18:28:00	41.42526241	16.81148245
24-Jun-11 18:29:00	41.49843449	16.90822616
24-Jun-11 18:30:00	41.51964188	16.66974592
24-Jun-11 18:31:00	41.51964188	16.62777392
24-Jun-11 18:32:00	41.51964188	16.62704086
24-Jun-11 18:33:00	41.70409274	16.51175817
24-Jun-11 18:34:00	42.17088371	16.52851716
24-Jun-11 18:35:00	42.08087802	16.95316193
24-Jun-11 18:36:00	41.87325577	16.25330161
24-Jun-11 18:37:00	41.68950985	15.99737172
24-Jun-11 18:38:00	41.30546145	16.81101877
24-Jun-11 18:39:00	41.06805669	17.02999067
24-Jun-11 18:40:00	41.13592674	17.37324827

Chevron FCCU CEMS Data

Run 6

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 18:41:00	41.28769888	17.19763481
24-Jun-11 18:42:00	41.35419845	16.57300274
24-Jun-11 18:43:00	41.57903228	16.42193828
24-Jun-11 18:44:00	44.20728834	16.45727725
24-Jun-11 18:45:00	51.12768673	16.13507711
24-Jun-11 18:46:00	52.93194199	16.03382874
24-Jun-11 18:47:00	52.93194199	16.03382874
24-Jun-11 18:48:00	53.61769591	15.96674387
24-Jun-11 18:49:00	57.81158678	15.66686007
24-Jun-11 18:50:00	60.01137638	15.98931503
24-Jun-11 18:51:00	62.9869374	15.8654657
24-Jun-11 18:52:00	63.62054903	15.73992203
24-Jun-11 18:53:00	60.98744155	15.98333657
24-Jun-11 18:54:00	57.56560146	16.37434171
24-Jun-11 18:55:00	58.44178539	16.7233513
24-Jun-11 18:56:00	61.93894559	16.42352862
24-Jun-11 18:57:00	62.30904464	15.9833819
24-Jun-11 18:58:00	63.38856336	16.09377133
24-Jun-11 18:59:00	61.73894577	15.88879865
24-Jun-11 19:00:00	59.7974065	16.19386322
24-Jun-11 19:01:00	59.31604385	16.38222313
24-Jun-11 19:02:00	58.97729667	16.40244675
24-Jun-11 19:03:00	52.12950667	16.80450471
24-Jun-11 19:04:00	48.30119999	16.95946716
24-Jun-11 19:05:00	45.89887843	17.32462743
24-Jun-11 19:06:00	44.45952941	17.43890493
24-Jun-11 19:07:00	44.24542012	17.69170414
24-Jun-11 19:08:00	41.27773229	17.48741875
24-Jun-11 19:09:00	39.38447704	17.70413609
24-Jun-11 19:10:00	38.01113149	18.0070029
24-Jun-11 19:11:00	37.2113067	17.65454526
24-Jun-11 19:12:00	36.43482765	17.72049078
24-Jun-11 19:13:00	36.06105566	17.44056262
24-Jun-11 19:14:00	35.66243485	17.22276334
24-Jun-11 19:15:00	35.37263317	17.36205546
24-Jun-11 19:16:00	35.41796081	17.25804524
24-Jun-11 19:17:00	35.4176454	17.25826962
24-Jun-11 19:18:00	35.32405248	17.34293873
24-Jun-11 19:19:00	35.77292898	16.55016151
24-Jun-11 19:20:00	36.48354182	15.93233482
24-Jun-11 19:21:00	36.64181826	15.98144612

Chevron FCCU CEMS Data

Run 6

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
24-Jun-11 19:22:00	36.88393885	16.31571126
24-Jun-11 19:23:00	37.06399378	16.53785532
24-Jun-11 19:24:00	37.36514471	16.87459703
24-Jun-11 19:25:00	37.54521667	17.33882119
24-Jun-11 19:26:00	37.94361003	17.01144256
24-Jun-11 19:27:00	38.24886391	16.66199061
24-Jun-11 19:28:00	38.3454439	16.73324598
24-Jun-11 19:29:00	38.53771229	16.78388525
24-Jun-11 19:30:00	38.87274829	16.76051531
24-Jun-11 19:31:00	38.89254761	16.75886536
24-Jun-11 19:32:00	38.89254761	16.75886536
24-Jun-11 19:33:00	38.81592985	16.84278289
24-Jun-11 19:34:00	38.67095804	17.19671764
24-Jun-11 19:35:00	38.44638405	17.75775323
24-Jun-11 19:36:00	38.00195532	18.3152702
24-Jun-11 19:37:00	38.05757149	18.38006482
24-Jun-11 19:38:00	38.47213396	18.00610849
24-Jun-11 19:39:00	38.49790511	17.67849612
24-Jun-11 19:40:00	38.52331897	17.80144764
24-Jun-11 19:41:00	39.0209695	17.39067818
End Run 6		

Chevron FCCU CEMS Data

Run 7

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
Average	**38.508**	**14.473**
Maximum	**59.203**	**18.011**
Minimum	**4.408**	**0.098**
Start Run 7		
26-Jun-11 09:10:00	41.14583088	15.21182123
26-Jun-11 09:11:00	40.90519214	15.34051842
26-Jun-11 09:12:00	40.5707843	15.85128951
26-Jun-11 09:13:00	40.3672247	15.81612969
26-Jun-11 09:14:00	40.32895347	15.40167117
26-Jun-11 09:15:00	40.26505222	15.09192176
26-Jun-11 09:16:00	40.24850482	15.07342453
26-Jun-11 09:17:00	40.24985948	15.07362584
26-Jun-11 09:18:00	40.75745471	15.16135464
26-Jun-11 09:19:00	41.34545872	15.30941705
26-Jun-11 09:20:00	41.08985501	15.55125573
26-Jun-11 09:21:00	40.66142139	15.69436346
26-Jun-11 09:22:00	40.6223112	15.70091637
26-Jun-11 09:23:00	40.65503833	15.50621639
26-Jun-11 09:24:00	40.75998776	15.40488799
26-Jun-11 09:25:00	40.57835432	15.22818549
26-Jun-11 09:26:00	40.37628337	15.36105121
26-Jun-11 09:27:00	40.2811329	15.27066062
26-Jun-11 09:28:00	40.25081579	15.39778306
26-Jun-11 09:29:00	40.16654655	15.59829848
26-Jun-11 09:30:00	39.89874953	15.87507339
26-Jun-11 09:31:00	39.88123703	15.89258575
26-Jun-11 09:32:00	39.88123703	15.89258575
26-Jun-11 09:33:00	39.95683596	15.65859506
26-Jun-11 09:34:00	39.88514034	15.44044313
26-Jun-11 09:35:00	39.43890943	15.75062414
Pause Run 7		
Resume Run 7		
26-Jun-11 09:55:00	59.20253665	14.74875907
26-Jun-11 09:56:00	56.34287134	14.74698908
26-Jun-11 09:57:00	53.1323447	14.6590183
26-Jun-11 09:58:00	50.3303859	14.77725711
26-Jun-11 09:59:00	47.7103087	14.8592489
26-Jun-11 10:00:00	46.15923279	15.12517747
26-Jun-11 10:01:00	45.86986923	15.22404289
26-Jun-11 10:02:00	45.37874158	15.20852547

Chevron FCCU CEMS Data

Run 7

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
26-Jun-11 10:03:00	40.70945429	15.11442955
26-Jun-11 10:04:00	38.64495011	15.39353739
26-Jun-11 10:05:00	37.79579325	15.23182828
26-Jun-11 10:06:00	37.57319748	15.01682769
26-Jun-11 10:07:00	37.48114977	14.76782895
26-Jun-11 10:08:00	37.16937025	15.20799108
26-Jun-11 10:09:00	36.73410624	15.61461624
26-Jun-11 10:10:00	36.26771538	16.33720847
26-Jun-11 10:11:00	35.70179737	16.78843748
26-Jun-11 10:12:00	35.70871549	16.5655488
26-Jun-11 10:13:00	35.8696521	16.23260563
26-Jun-11 10:14:00	35.95966103	16.09972545
26-Jun-11 10:15:00	36.03947449	16.09431272
26-Jun-11 10:16:00	36.03947449	16.0903244
26-Jun-11 10:17:00	36.05617134	16.10413529
26-Jun-11 10:18:00	36.57824608	16.53125124
26-Jun-11 10:19:00	36.82492748	16.62705611
26-Jun-11 10:20:00	37.19343824	16.70931976
26-Jun-11 10:21:00	37.48924829	16.2531797
26-Jun-11 10:22:00	37.51850871	16.30362817
26-Jun-11 10:23:00	37.46427911	16.2245541
26-Jun-11 10:24:00	37.81337969	15.9505539
26-Jun-11 10:25:00	38.00623811	15.94983707
26-Jun-11 10:26:00	39.68164202	16.00082861
26-Jun-11 10:27:00	39.7945252	16.23731416
26-Jun-11 10:28:00	38.85639275	15.94611095
26-Jun-11 10:29:00	38.8202415	15.69762949
26-Jun-11 10:30:00	38.55398017	15.77232215
26-Jun-11 10:31:00	38.49756314	15.77953912
26-Jun-11 10:32:00	38.49707884	15.77959637
26-Jun-11 10:33:00	38.691537	15.8983805
26-Jun-11 10:34:00	39.13950811	15.79992039
26-Jun-11 10:35:00	39.2756158	15.62815825
26-Jun-11 10:36:00	39.31082303	15.51447112
26-Jun-11 10:37:00	39.46169936	15.52395418
26-Jun-11 10:38:00	39.44707668	15.64075625
26-Jun-11 10:39:00	39.36129728	15.62826685
26-Jun-11 10:40:00	39.35561897	15.35050101
26-Jun-11 10:41:00	39.64929562	15.44131036
26-Jun-11 10:42:00	39.81997303	15.50111452
26-Jun-11 10:43:00	40.37168064	15.14558921

Chevron FCCU CEMS Data

Run 7

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
26-Jun-11 10:44:00	40.10562363	15.15515519
26-Jun-11 10:45:00	40.02600249	15.36864198
26-Jun-11 10:46:00	40.02248383	15.39308733
26-Jun-11 10:47:00	40.02248383	15.39353466
26-Jun-11 10:48:00	39.82113447	15.30404563
26-Jun-11 10:49:00	39.65158918	15.23348053
26-Jun-11 10:50:00	39.87067377	15.26349299
26-Jun-11 10:51:00	39.8872898	15.09260323
26-Jun-11 10:52:00	40.07846393	15.13212132
26-Jun-11 10:53:00	39.86791526	15.23901141
26-Jun-11 10:54:00	39.76137594	15.39339636
26-Jun-11 10:55:00	39.63087405	15.35311536
26-Jun-11 10:56:00	39.67770525	15.49469396
26-Jun-11 10:57:00	40.06300747	15.40701634
26-Jun-11 10:58:00	40.10396127	15.19570363
26-Jun-11 10:59:00	40.07897949	15.09689852
26-Jun-11 11:00:00	40.07897949	15.21465595
26-Jun-11 11:01:00	40.07897949	15.2428751
26-Jun-11 11:02:00	40.07897949	15.2428751
26-Jun-11 11:03:00	39.90155672	15.28230275
26-Jun-11 11:04:00	39.14434985	15.38650215
26-Jun-11 11:05:00	38.85587607	15.26872312
26-Jun-11 11:06:00	38.75740703	15.33209156
26-Jun-11 11:07:00	38.56329616	15.41204823
26-Jun-11 11:08:00	38.23866102	15.52095021
26-Jun-11 11:09:00	38.05812643	15.35747059
26-Jun-11 11:10:00	38.04133846	15.50116267
26-Jun-11 11:11:00	37.78755799	15.61912635
26-Jun-11 11:12:00	37.52935684	15.46689378
26-Jun-11 11:13:00	37.62244561	15.24946883
26-Jun-11 11:14:00	37.91482559	15.12748359
26-Jun-11 11:15:00	38.10507804	15.02166691
26-Jun-11 11:16:00	38.12984467	14.98864269
26-Jun-11 11:17:00	38.13541656	14.97688063
26-Jun-11 11:18:00	38.15047549	14.85366287
26-Jun-11 11:19:00	37.74852788	14.8886588
26-Jun-11 11:20:00	37.70077203	14.72205575
26-Jun-11 11:21:00	37.59637571	14.63017574
26-Jun-11 11:22:00	37.62644064	14.59155172
26-Jun-11 11:23:00	37.58914051	14.15095239
26-Jun-11 11:24:00	37.59463027	13.95691394

Chevron FCCU CEMS Data

Run 7

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
26-Jun-11 11:25:00	37.4667276	13.84685722
26-Jun-11 11:26:00	37.44132765	13.87687894
26-Jun-11 11:27:00	37.36840072	13.85983784
26-Jun-11 11:28:00	37.25794896	13.83097222
26-Jun-11 11:29:00	37.15364078	13.72882681
26-Jun-11 11:30:00	37.12300209	13.53641363
26-Jun-11 11:31:00	37.05641556	13.50089931
26-Jun-11 11:32:00	37.03516847	13.49335257
26-Jun-11 11:33:00	35.91646901	13.08845162
26-Jun-11 11:34:00	35.48501027	12.69184759
26-Jun-11 11:35:00	34.95626824	12.37128581
26-Jun-11 11:36:00	34.31282746	11.926381
26-Jun-11 11:37:00	33.14468352	11.69677794
26-Jun-11 11:38:00	31.33462038	11.10139517
26-Jun-11 11:39:00	28.25518532	9.62997816
26-Jun-11 11:40:00	26.91916586	8.858064967
26-Jun-11 11:41:00	25.96413947	8.24386038
26-Jun-11 11:42:00	23.56123422	7.053616561
26-Jun-11 11:43:00	21.84850721	6.02189774
26-Jun-11 11:44:00	20.47831446	5.186229283
26-Jun-11 11:45:00	17.3748562	4.380158278
26-Jun-11 11:46:00	17.23795301	4.305956985
26-Jun-11 11:47:00	17.25425081	4.310757399
26-Jun-11 11:48:00	13.10137124	2.697983637
26-Jun-11 11:49:00	6.65207197	0.757209541
26-Jun-11 11:50:00	5.292790858	0.539872635
26-Jun-11 11:51:00	5.807208292	0.46462576
26-Jun-11 11:52:00	5.73038998	0.452779151
26-Jun-11 11:53:00	5.326749532	0.339745681
26-Jun-11 11:54:00	5.010086125	0.291960229
26-Jun-11 11:55:00	4.939983525	0.315191868
26-Jun-11 11:56:00	4.94429154	0.271887101
26-Jun-11 11:57:00	4.791101792	0.22709062
26-Jun-11 11:58:00	4.668583789	0.138544929
26-Jun-11 11:59:00	4.493212553	0.097859477
26-Jun-11 12:00:00	4.408469698	0.101028975
Pause Run 7		
Resume Run 7		
26-Jun-11 16:32:00	42.98855209	15.0074749
26-Jun-11 16:33:00	44.18753265	15.55811788

Chevron FCCU CEMS Data

Run 7

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
26-Jun-11 16:34:00	45.19253938	16.10598286
26-Jun-11 16:35:00	45.25606483	15.93935183
26-Jun-11 16:36:00	46.03942999	15.644433
26-Jun-11 16:37:00	46.60425039	15.86804547
26-Jun-11 16:38:00	47.06256571	16.3599483
26-Jun-11 16:39:00	46.52805532	16.30924891
26-Jun-11 16:40:00	46.41507222	16.12923143
26-Jun-11 16:41:00	46.6701139	15.97624171
26-Jun-11 16:42:00	46.75828608	16.08521621
26-Jun-11 16:43:00	46.56774335	16.30014597
26-Jun-11 16:44:00	46.54144674	15.98996494
26-Jun-11 16:45:00	46.29409117	16.05791729
26-Jun-11 16:46:00	46.26534271	16.07149315
26-Jun-11 16:47:00	46.26534271	16.07149315
26-Jun-11 16:48:00	46.31576946	16.18915404
26-Jun-11 16:49:00	46.40271212	16.3475968
26-Jun-11 16:50:00	46.30815313	16.1162266
26-Jun-11 16:51:00	46.20162786	16.17609742
26-Jun-11 16:52:00	46.11224689	16.24450326
26-Jun-11 16:53:00	46.06761182	16.37267528
26-Jun-11 16:54:00	46.06431464	16.4565088
26-Jun-11 16:55:00	45.6677876	16.7636068
26-Jun-11 16:56:00	45.48316605	16.75515298
26-Jun-11 16:57:00	45.22111789	16.75504469
26-Jun-11 16:58:00	45.27626889	16.94018543
26-Jun-11 16:59:00	45.44662771	17.3734023
26-Jun-11 17:00:00	45.026762	17.90454142
26-Jun-11 17:01:00	44.90943146	18.01120567
26-Jun-11 17:02:00	44.90943146	18.01120567
26-Jun-11 17:03:00	44.89135135	17.8816292
26-Jun-11 17:04:00	44.80590918	17.25682739
26-Jun-11 17:05:00	44.75296358	17.19366651
26-Jun-11 17:06:00	44.61550425	17.31524212
26-Jun-11 17:07:00	44.70141561	17.19947544
26-Jun-11 17:08:00	44.84733826	17.10172473
26-Jun-11 17:09:00	44.9790158	16.91029237
26-Jun-11 17:10:00	45.2979365	16.96550791
26-Jun-11 17:11:00	45.21258588	17.11399798
26-Jun-11 17:12:00	44.73911367	17.31205902
26-Jun-11 17:13:00	44.38105465	17.16900316
26-Jun-11 17:14:00	44.39505779	16.97790131

Chevron FCCU CEMS Data

Run 7

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
26-Jun-11 17:15:00	44.31682811	17.05619626
26-Jun-11 17:16:00	44.25972366	17.13550949
26-Jun-11 17:17:00	44.2944863	17.12436747
26-Jun-11 17:18:00	44.80172308	16.97245575
26-Jun-11 17:19:00	44.68740259	17.11224557
26-Jun-11 17:20:00	45.0695698	16.85419184
26-Jun-11 17:21:00	44.70437859	17.18875036
26-Jun-11 17:22:00	44.67376514	17.81265997
26-Jun-11 17:23:00	44.98067632	17.19734876
26-Jun-11 17:24:00	44.8545304	17.38658689
26-Jun-11 17:25:00	44.71962551	17.18172247
26-Jun-11 17:26:00	44.73683837	17.1929237
26-Jun-11 17:27:00	44.76615014	17.40116072
26-Jun-11 17:28:00	44.74475941	17.17541132
26-Jun-11 17:29:00	44.98657668	17.13562132
26-Jun-11 17:30:00	45.19483258	17.1510672
26-Jun-11 17:31:00	45.13542132	17.12609432
26-Jun-11 17:32:00	45.13915537	17.12586221
26-Jun-11 17:33:00	45.59675684	17.09846352
26-Jun-11 17:34:00	45.42158016	17.16131024
26-Jun-11 17:35:00	45.4687949	17.23478113
26-Jun-11 17:36:00	45.72593314	16.9867714
26-Jun-11 17:37:00	45.63680118	17.08114757
26-Jun-11 17:38:00	45.38616057	17.21717201
26-Jun-11 17:39:00	45.15113978	17.50554809
End Run 7		

Chevron FCCU CEMS Data

Run 8

	53A613.PV
	FCC STACK CEM CO
	PPM
Average	**51.451**
Maximum	**58.419**
Minimum	**47.853**
Start Run 8	
27-Jun-11 09:20:00	50.05641848
27-Jun-11 09:21:00	50.94255511
27-Jun-11 09:22:00	50.68867396
27-Jun-11 09:23:00	49.36233248
27-Jun-11 09:24:00	49.02275093
27-Jun-11 09:25:00	48.59932247
27-Jun-11 09:26:00	48.32378249
27-Jun-11 09:27:00	49.59014345
27-Jun-11 09:28:00	50.07207975
27-Jun-11 09:29:00	49.677266
27-Jun-11 09:30:00	50.5597881
27-Jun-11 09:31:00	50.73502731
27-Jun-11 09:32:00	50.73502731
27-Jun-11 09:33:00	50.59182385
27-Jun-11 09:34:00	50.15600765
27-Jun-11 09:35:00	49.92722138
27-Jun-11 09:36:00	49.31674841
27-Jun-11 09:37:00	49.56383306
27-Jun-11 09:38:00	50.03075505
27-Jun-11 09:39:00	50.68903095
27-Jun-11 09:40:00	49.51499934
27-Jun-11 09:41:00	49.71265304
27-Jun-11 09:42:00	50.17464827
27-Jun-11 09:43:00	49.88039324
27-Jun-11 09:44:00	49.61805616
27-Jun-11 09:45:00	49.37595256
27-Jun-11 09:46:00	49.38973109
27-Jun-11 09:47:00	49.31769104
27-Jun-11 09:48:00	49.05707177
27-Jun-11 09:49:00	48.90531412
27-Jun-11 09:50:00	49.58744284
27-Jun-11 09:51:00	50.17598611
27-Jun-11 09:52:00	50.49404828
27-Jun-11 09:53:00	49.95976466
27-Jun-11 09:54:00	51.18807658
27-Jun-11 09:55:00	51.50464607
27-Jun-11 09:56:00	51.90685084

Chevron FCCU CEMS Data
Run 8

	53A613.PV
	FCC STACK CEM CO
	PPM
27-Jun-11 09:57:00	52.51928636
27-Jun-11 09:58:00	51.35248086
27-Jun-11 09:59:00	50.86406307
27-Jun-11 10:00:00	50.6659104
27-Jun-11 10:01:00	50.82920074
27-Jun-11 10:02:00	50.84909721
27-Jun-11 10:03:00	51.53729573
27-Jun-11 10:04:00	51.4782579
27-Jun-11 10:05:00	50.93942268
27-Jun-11 10:06:00	52.89984494
27-Jun-11 10:07:00	51.35494285
27-Jun-11 10:08:00	50.58027939
27-Jun-11 10:09:00	50.19229578
27-Jun-11 10:10:00	51.71095257
27-Jun-11 10:11:00	53.67010013
27-Jun-11 10:12:00	52.79197333
27-Jun-11 10:13:00	52.65030775
27-Jun-11 10:14:00	53.31244096
27-Jun-11 10:15:00	52.90942777
27-Jun-11 10:16:00	52.90073395
27-Jun-11 10:17:00	52.90073395
27-Jun-11 10:18:00	51.87646333
27-Jun-11 10:19:00	51.23344687
27-Jun-11 10:20:00	50.04742773
27-Jun-11 10:21:00	49.86356291
27-Jun-11 10:22:00	51.83628258
27-Jun-11 10:23:00	51.44792066
27-Jun-11 10:24:00	49.9129444
27-Jun-11 10:25:00	49.93592036
27-Jun-11 10:26:00	50.40679391
27-Jun-11 10:27:00	50.83064033
27-Jun-11 10:28:00	49.74478912
27-Jun-11 10:29:00	49.31484531
27-Jun-11 10:30:00	49.49035064
27-Jun-11 10:31:00	49.51095581
27-Jun-11 10:32:00	49.51095581
27-Jun-11 10:33:00	49.17072171
27-Jun-11 10:34:00	48.5592306
27-Jun-11 10:35:00	49.05549567
27-Jun-11 10:36:00	49.07721039
27-Jun-11 10:37:00	48.03977914

Chevron FCCU CEMS Data
Run 8

	53A613.PV
	FCC STACK CEM CO
	PPM
27-Jun-11 10:38:00	47.85285243
27-Jun-11 10:39:00	49.77487786
27-Jun-11 10:40:00	49.36876545
27-Jun-11 10:41:00	48.52143762
27-Jun-11 10:42:00	48.97448637
27-Jun-11 10:43:00	50.27197576
27-Jun-11 10:44:00	48.86906546
27-Jun-11 10:45:00	48.53878879
27-Jun-11 10:46:00	48.5693512
27-Jun-11 10:47:00	48.5693512
27-Jun-11 10:48:00	48.89985046
27-Jun-11 10:49:00	50.54950163
27-Jun-11 10:50:00	51.17755554
27-Jun-11 10:51:00	50.01715443
27-Jun-11 10:52:00	50.46476355
27-Jun-11 10:53:00	50.96438406
27-Jun-11 10:54:00	50.80074845
27-Jun-11 10:55:00	49.67337753
27-Jun-11 10:56:00	50.50831778
27-Jun-11 10:57:00	49.76608502
27-Jun-11 10:58:00	49.23901289
27-Jun-11 10:59:00	49.69925633
27-Jun-11 11:00:00	48.95169105
27-Jun-11 11:01:00	48.5693512
27-Jun-11 11:02:00	48.712154
27-Jun-11 11:03:00	50.51946249
27-Jun-11 11:04:00	51.30453942
27-Jun-11 11:05:00	49.90395001
27-Jun-11 11:06:00	50.70479863
27-Jun-11 11:07:00	48.92511663
27-Jun-11 11:08:00	49.68506033
27-Jun-11 11:09:00	49.60699574
27-Jun-11 11:10:00	50.46131312
27-Jun-11 11:11:00	51.01877577
27-Jun-11 11:12:00	50.11367992
27-Jun-11 11:13:00	50.18516583
27-Jun-11 11:14:00	49.30382342
27-Jun-11 11:15:00	48.44263191
27-Jun-11 11:16:00	48.85181808
27-Jun-11 11:17:00	48.88296572
27-Jun-11 11:18:00	50.58910068

Chevron FCCU CEMS Data
Run 8

	53A613.PV
	FCC STACK CEM CO
	PPM
27-Jun-11 11:19:00	50.85886999
27-Jun-11 11:20:00	51.34025552
27-Jun-11 11:21:00	51.00103709
27-Jun-11 11:22:00	51.44887599
27-Jun-11 11:23:00	51.99371757
27-Jun-11 11:24:00	52.53240567
27-Jun-11 11:25:00	51.61267098
27-Jun-11 11:26:00	53.10629792
27-Jun-11 11:27:00	52.79653605
27-Jun-11 11:28:00	53.16542561
27-Jun-11 11:29:00	51.95534136
27-Jun-11 11:30:00	53.7541061
27-Jun-11 11:31:00	53.74919252
27-Jun-11 11:32:00	53.74819183
27-Jun-11 11:33:00	52.79280884
27-Jun-11 11:34:00	53.29297994
27-Jun-11 11:35:00	55.07215699
27-Jun-11 11:36:00	53.66323897
27-Jun-11 11:37:00	53.77061431
27-Jun-11 11:38:00	54.65898668
27-Jun-11 11:39:00	53.04484054
27-Jun-11 11:40:00	51.88851822
27-Jun-11 11:41:00	50.67756895
27-Jun-11 11:42:00	52.15135376
27-Jun-11 11:43:00	53.93656581
27-Jun-11 11:44:00	55.18127179
27-Jun-11 11:45:00	51.13371365
27-Jun-11 11:46:00	50.6408844
27-Jun-11 11:47:00	50.6408844
27-Jun-11 11:48:00	50.87045396
27-Jun-11 11:49:00	50.96615192
27-Jun-11 11:50:00	50.71549997
27-Jun-11 11:51:00	51.22319849
27-Jun-11 11:52:00	50.69404453
27-Jun-11 11:53:00	50.44707154
27-Jun-11 11:54:00	50.85463616
27-Jun-11 11:55:00	51.23246632
27-Jun-11 11:56:00	50.63970626
27-Jun-11 11:57:00	50.21636871
27-Jun-11 11:58:00	49.96866498
27-Jun-11 11:59:00	50.04880689

Chevron FCCU CEMS Data
Run 8

	53A613.PV
	FCC STACK CEM CO
	PPM
27-Jun-11 12:00:00	50.22988212
27-Jun-11 12:01:00	50.26424026
27-Jun-11 12:02:00	50.27717271
27-Jun-11 12:03:00	50.30280819
27-Jun-11 12:04:00	50.18658939
27-Jun-11 12:05:00	50.80380973
27-Jun-11 12:06:00	51.12964406
27-Jun-11 12:07:00	49.37333051
27-Jun-11 12:08:00	49.66039597
27-Jun-11 12:09:00	50.71609531
27-Jun-11 12:10:00	51.50681695
27-Jun-11 12:11:00	50.16782103
27-Jun-11 12:12:00	50.44677537
27-Jun-11 12:13:00	51.88358226
27-Jun-11 12:14:00	52.22987684
27-Jun-11 12:15:00	51.16440132
27-Jun-11 12:16:00	50.54670715
27-Jun-11 12:17:00	50.62583125
27-Jun-11 12:18:00	51.82853598
27-Jun-11 12:19:00	52.5188071
27-Jun-11 12:20:00	51.65188658
27-Jun-11 12:21:00	50.21805822
27-Jun-11 12:22:00	50.97608976
27-Jun-11 12:23:00	51.61548502
27-Jun-11 12:24:00	52.63610123
27-Jun-11 12:25:00	51.07991097
27-Jun-11 12:26:00	53.02591389
27-Jun-11 12:27:00	53.4641405
27-Jun-11 12:28:00	51.64904156
27-Jun-11 12:29:00	52.05352854
27-Jun-11 12:30:00	53.27269354
27-Jun-11 12:31:00	53.3715477
27-Jun-11 12:32:00	53.36167893
27-Jun-11 12:33:00	52.05065407
27-Jun-11 12:34:00	51.41289583
27-Jun-11 12:35:00	52.21254708
27-Jun-11 12:36:00	51.21962541
27-Jun-11 12:37:00	52.64625633
27-Jun-11 12:38:00	52.32414739
27-Jun-11 12:39:00	51.68047659
27-Jun-11 12:40:00	52.64290012

Chevron FCCU CEMS Data
Run 8

	53A613.PV
	FCC STACK CEM CO
	PPM
27-Jun-11 12:41:00	52.21794526
27-Jun-11 12:42:00	52.78314053
27-Jun-11 12:43:00	52.68466343
27-Jun-11 12:44:00	52.50985831
27-Jun-11 12:45:00	52.43326969
27-Jun-11 12:46:00	52.42994308
27-Jun-11 12:47:00	52.42994308
27-Jun-11 12:48:00	52.74299245
27-Jun-11 12:49:00	51.31230854
27-Jun-11 12:50:00	50.25547475
27-Jun-11 12:51:00	52.04223305
27-Jun-11 12:52:00	51.70191861
27-Jun-11 12:53:00	51.60864784
27-Jun-11 12:54:00	51.98773673
27-Jun-11 12:55:00	53.51682355
27-Jun-11 12:56:00	54.42365718
27-Jun-11 12:57:00	52.22454975
27-Jun-11 12:58:00	50.94086367
27-Jun-11 12:59:00	52.19280858
27-Jun-11 13:00:00	52.51447344
27-Jun-11 13:01:00	52.52408981
27-Jun-11 13:02:00	52.52408981
27-Jun-11 13:03:00	52.7151323
27-Jun-11 13:04:00	52.89679374
27-Jun-11 13:05:00	52.08094722
27-Jun-11 13:06:00	51.6005727
27-Jun-11 13:07:00	50.63358201
27-Jun-11 13:08:00	51.21592253
27-Jun-11 13:09:00	51.5727669
27-Jun-11 13:10:00	51.27729431
27-Jun-11 13:11:00	51.11124188
27-Jun-11 13:12:00	52.4365705
27-Jun-11 13:13:00	52.11903928
27-Jun-11 13:14:00	52.43407091
27-Jun-11 13:15:00	52.85776362
27-Jun-11 13:16:00	52.90073395
27-Jun-11 13:17:00	52.89131861
27-Jun-11 13:18:00	53.10688328
27-Jun-11 13:19:00	54.59847957
27-Jun-11 13:20:00	53.75752895
27-Jun-11 13:21:00	53.35828103

Chevron FCCU CEMS Data

Run 8

	53A613.PV
	FCC STACK CEM CO
	PPM
27-Jun-11 13:22:00	52.75871886
27-Jun-11 13:23:00	53.33795567
27-Jun-11 13:24:00	54.68294005
27-Jun-11 13:25:00	55.22111341
27-Jun-11 13:26:00	54.99959956
27-Jun-11 13:27:00	56.66838599
27-Jun-11 13:28:00	56.78246474
27-Jun-11 13:29:00	57.33373906
27-Jun-11 13:30:00	57.76396429
27-Jun-11 13:31:00	57.32629013
27-Jun-11 13:32:00	57.37400451
27-Jun-11 13:33:00	58.41932067
27-Jun-11 13:34:00	57.55259199
27-Jun-11 13:35:00	57.98148486
27-Jun-11 13:36:00	56.94554265
27-Jun-11 13:37:00	55.93445353
27-Jun-11 13:38:00	57.19717829
27-Jun-11 13:39:00	57.62409238
End Run 8	

Chevron FCCU CEMS Data

Run 9

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
Average	**62.058**	**12.280**	**63.998**
Maximum	**67.226**	**15.519**	**88.848**
Minimum	**57.394**	**9.419**	**45.841**
Start Run 9			
28-Jun-11 10:58:00	61.09974136	12.49304656	64.76806082
28-Jun-11 10:59:00	60.69328032	12.82053092	62.24264474
28-Jun-11 11:00:00	60.98728797	12.62417161	63.65299586
28-Jun-11 11:01:00	61.03918076	12.58754158	63.91754532
28-Jun-11 11:02:00	61.03918076	12.58754158	63.91754532
28-Jun-11 11:03:00	61.19747583	12.45562805	63.7736415
28-Jun-11 11:04:00	61.63945986	12.15045042	62.54821608
28-Jun-11 11:05:00	61.72645909	12.23118479	61.06173883
28-Jun-11 11:06:00	62.12234571	11.98468089	61.63903782
28-Jun-11 11:07:00	62.79890701	11.73308944	61.39014431
28-Jun-11 11:08:00	63.47572989	11.58387897	61.39012695
28-Jun-11 11:09:00	63.71659603	11.54716345	61.14388721
28-Jun-11 11:10:00	63.48376739	11.47231907	62.2729314
28-Jun-11 11:11:00	63.29656978	11.45479279	64.39504853
28-Jun-11 11:12:00	63.58308462	11.30427412	65.27013132
28-Jun-11 11:13:00	63.72527939	11.05878707	66.35840247
28-Jun-11 11:14:00	63.81346014	10.87216655	65.50624728
28-Jun-11 11:15:00	63.75431775	10.98340898	66.6873798
28-Jun-11 11:16:00	63.72277069	11.03388691	67.21318054
28-Jun-11 11:17:00	63.80374185	10.95966276	67.46380834
28-Jun-11 11:18:00	64.34493456	10.45526755	69.50508196
28-Jun-11 11:19:00	64.10282069	10.60626054	71.40812355
28-Jun-11 11:20:00	64.08435437	10.45428372	73.53707963
28-Jun-11 11:21:00	63.90179957	10.37932967	71.75357398
28-Jun-11 11:22:00	63.82864693	10.44603764	74.96401767
28-Jun-11 11:23:00	63.37925301	10.99736496	77.2820689
28-Jun-11 11:24:00	63.05485578	11.25755455	78.22485945
28-Jun-11 11:25:00	63.01329871	11.21861083	80.27692339
28-Jun-11 11:26:00	62.75943059	11.49721068	80.32270629
28-Jun-11 11:27:00	62.5339944	11.48709842	80.30224931
28-Jun-11 11:28:00	62.65160966	11.12489602	83.35225168
28-Jun-11 11:29:00	62.6409138	11.03183856	84.76469142
28-Jun-11 11:30:00	62.54036104	10.98278736	85.51664039
28-Jun-11 11:31:00	62.50809479	11.0150547	86.2336731
28-Jun-11 11:32:00	62.50532495	11.02244033	86.33522617
28-Jun-11 11:33:00	62.42712176	11.17316681	88.41587782
28-Jun-11 11:34:00	62.10575814	11.1432295	87.54191644

Chevron FCCU CEMS Data

Run 9

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
28-Jun-11 11:35:00	61.902649	11.72933637	88.84834091
28-Jun-11 11:36:00	61.95291923	11.68825314	87.75561783
28-Jun-11 11:37:00	61.68175853	11.66859115	85.03586799
28-Jun-11 11:38:00	60.82446676	12.62521264	77.62301825
28-Jun-11 11:39:00	60.08671086	13.5604933	70.91396949
28-Jun-11 11:40:00	59.86464785	14.06972767	65.96224869
28-Jun-11 11:41:00	60.43476225	13.92399438	65.31230222
28-Jun-11 11:42:00	60.34052427	14.23941834	63.91053456
28-Jun-11 11:43:00	59.75717796	14.38755017	61.26079308
28-Jun-11 11:44:00	59.07670992	14.4930634	60.08108001
28-Jun-11 11:45:00	58.82639848	14.4549235	58.68793696
28-Jun-11 11:46:00	58.80760674	14.4707174	58.5014568
28-Jun-11 11:47:00	58.80637836	14.47204246	58.49706445
28-Jun-11 11:48:00	58.14619494	15.18206344	56.14536405
28-Jun-11 11:49:00	57.39397572	15.51940043	53.65355388
28-Jun-11 11:50:00	57.54031673	15.28844472	53.07077304
28-Jun-11 11:51:00	58.23079866	14.45844887	53.34608719
28-Jun-11 11:52:00	58.40574923	14.27840907	52.52579155
28-Jun-11 11:53:00	58.44826434	14.19866674	52.3311136
28-Jun-11 11:54:00	59.23328412	13.69015369	51.85307105
28-Jun-11 11:55:00	59.67858754	13.47785124	50.53631799
28-Jun-11 11:56:00	59.59338696	13.36979303	49.60237012
28-Jun-11 11:57:00	60.06380552	13.25858732	48.51268696
28-Jun-11 11:58:00	60.64461397	12.89313411	48.77126952
28-Jun-11 11:59:00	60.77084979	12.847214	48.52423711
28-Jun-11 12:00:00	60.33458678	13.33363906	46.88885113
28-Jun-11 12:01:00	60.30473328	13.35997442	46.78029251
28-Jun-11 12:02:00	60.30473328	13.36281918	46.78029251
28-Jun-11 12:03:00	60.98402468	12.90548828	46.42649487
28-Jun-11 12:04:00	62.52913879	11.90564503	46.24120317
28-Jun-11 12:05:00	63.34304226	11.47288254	46.46581923
28-Jun-11 12:06:00	63.9669514	11.34324848	45.97325582
28-Jun-11 12:07:00	64.73733123	11.09305912	45.84114137
28-Jun-11 12:08:00	65.15003823	10.81085669	46.12185881
28-Jun-11 12:09:00	64.93716684	10.75758563	45.88524741
28-Jun-11 12:10:00	65.28330094	10.66266749	46.02396558
28-Jun-11 12:11:00	65.49438154	10.58880113	47.01902519
28-Jun-11 12:12:00	65.43856719	10.70141326	46.1394557
28-Jun-11 12:13:00	66.20829876	10.20481882	46.14782506
28-Jun-11 12:14:00	66.61515348	9.816037397	47.92384425
28-Jun-11 12:15:00	67.13812108	9.810340101	48.36836104

Chevron FCCU CEMS Data

Run 9

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
28-Jun-11 12:16:00	67.22555542	9.819210052	48.38103485
28-Jun-11 12:17:00	67.22555542	9.819210052	48.36324318
28-Jun-11 12:18:00	66.86255036	9.756623002	49.29435643
28-Jun-11 12:19:00	65.57130399	9.598611905	53.5089939
28-Jun-11 12:20:00	65.0987815	9.735463577	56.5992244
28-Jun-11 12:21:00	64.69221032	9.707577124	58.34456995
28-Jun-11 12:22:00	64.42117137	9.659577502	60.69925953
28-Jun-11 12:23:00	64.21347431	9.641489404	61.67577499
28-Jun-11 12:24:00	64.01237697	9.41928781	63.25996792
28-Jun-11 12:25:00	63.61374893	9.7573969	65.53119028
28-Jun-11 12:26:00	63.18891444	10.31168882	66.5925187
28-Jun-11 12:27:00	62.76331514	10.68922969	65.8551618
28-Jun-11 12:28:00	62.3566531	11.22276356	66.85114112
28-Jun-11 12:29:00	62.42697332	11.1085247	68.94254874
28-Jun-11 12:30:00	62.59011955	10.82217338	67.48437678
28-Jun-11 12:31:00	62.59916674	10.77023411	66.74239349
28-Jun-11 12:32:00	62.57659247	10.80814112	66.95900231
28-Jun-11 12:33:00	62.4268528	11.16054114	68.95551195
28-Jun-11 12:34:00	62.39509964	11.23756248	69.37888336
28-Jun-11 12:35:00	62.36842363	11.1293847	69.24550453
28-Jun-11 12:36:00	62.18696484	11.12643303	69.01099938
28-Jun-11 12:37:00	61.88038303	11.41993437	69.99416681
28-Jun-11 12:38:00	61.64425634	11.92736481	68.37372436
28-Jun-11 12:39:00	61.59445628	11.87914234	68.35451794
28-Jun-11 12:40:00	61.25962718	11.85183669	67.20542293
28-Jun-11 12:41:00	61.52337765	11.72803706	66.23935231
28-Jun-11 12:42:00	61.73571252	11.81200359	66.38000703
28-Jun-11 12:43:00	61.66249403	12.0267337	66.21277141
28-Jun-11 12:44:00	62.03178182	11.88200679	68.24245375
28-Jun-11 12:45:00	62.39509964	11.55733243	68.3407919
28-Jun-11 12:46:00	62.39509964	11.59523621	67.77813721
28-Jun-11 12:47:00	62.40263078	11.62125254	67.68737707
28-Jun-11 12:48:00	62.638248	12.35238543	64.66296482
28-Jun-11 12:49:00	62.4138702	12.3909683	63.18340708
28-Jun-11 12:50:00	62.08490122	12.29170674	63.75437435
28-Jun-11 12:51:00	61.93639384	12.35236561	64.16032088
28-Jun-11 12:52:00	61.73605322	12.31832503	63.61226404
28-Jun-11 12:53:00	61.82131	12.1779893	63.0346052
28-Jun-11 12:54:00	61.33797128	12.59242279	62.44335036
28-Jun-11 12:55:00	61.19172905	12.72482984	62.52191723
28-Jun-11 12:56:00	61.38181143	12.46013764	62.31440449

Chevron FCCU CEMS Data

Run 9

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
28-Jun-11 12:57:00	61.27198121	12.49681563	62.05992826
28-Jun-11 12:58:00	60.87937899	12.82965046	61.94113067
28-Jun-11 12:59:00	60.68840214	12.7033609	62.0691167
28-Jun-11 13:00:00	60.7553529	12.77950111	60.81230024
28-Jun-11 13:01:00	60.75670242	12.80390359	60.90338618
28-Jun-11 13:02:00	60.75670281	12.80410846	60.90441138
28-Jun-11 13:03:00	61.39525731	12.54655446	61.00149604
28-Jun-11 13:04:00	62.16609402	12.1692865	60.28559736
28-Jun-11 13:05:00	62.36141001	12.12236221	59.97880439
28-Jun-11 13:06:00	62.35473226	12.06800467	60.83851585
28-Jun-11 13:07:00	62.82912224	11.72007317	61.37018101
28-Jun-11 13:08:00	63.09033006	11.44436309	61.09838926
28-Jun-11 13:09:00	62.84435083	11.69853519	60.57286904
28-Jun-11 13:10:00	62.74818513	11.86885497	59.82093228
28-Jun-11 13:11:00	62.60173271	11.94278199	60.18050772
28-Jun-11 13:12:00	62.47898263	11.98396356	60.57236862
28-Jun-11 13:13:00	62.60549297	11.91523253	60.66667639
28-Jun-11 13:14:00	62.53111249	11.84983179	60.86287967
28-Jun-11 13:15:00	62.94937653	11.71416936	60.81641892
28-Jun-11 13:16:00	62.98106276	11.70242691	60.81023788
28-Jun-11 13:17:00	62.96100865	11.70242691	60.81023788
28-Jun-11 13:18:00	63.10747589	11.56730143	61.76226458
28-Jun-11 13:19:00	63.39548625	11.42349126	63.86582857
28-Jun-11 13:20:00	63.39586345	11.7136986	63.95910414
28-Jun-11 13:21:00	63.58532184	11.65124277	63.85808847
28-Jun-11 13:22:00	63.80813105	11.48734615	64.45131029
28-Jun-11 13:23:00	63.54397412	11.59991759	65.15584685
28-Jun-11 13:24:00	63.25271789	11.61016171	67.02989961
28-Jun-11 13:25:00	62.92175854	11.77048184	66.97092012
28-Jun-11 13:26:00	62.9581186	11.69862891	67.43240079
28-Jun-11 13:27:00	62.97789105	11.53982462	69.52249313
28-Jun-11 13:28:00	62.88163313	11.5632244	71.03369951
28-Jun-11 13:29:00	62.71786008	11.55847031	70.28019684
28-Jun-11 13:30:00	62.70120114	11.35957393	71.10938152
28-Jun-11 13:31:00	62.70582962	11.3163681	71.36837645
28-Jun-11 13:32:00	62.70582962	11.3163681	71.42539628
28-Jun-11 13:33:00	62.75377559	11.37674389	71.98578079
28-Jun-11 13:34:00	62.81890917	11.61546538	74.16557411
28-Jun-11 13:35:00	62.28442714	11.59062067	72.20608106
28-Jun-11 13:36:00	61.65177837	11.5884828	66.60820199
28-Jun-11 13:37:00	61.33969591	11.8312733	62.87668354

Chevron FCCU CEMS Data

Run 9

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
28-Jun-11 13:38:00	61.86137053	11.74975039	66.24245917
28-Jun-11 13:39:00	62.87717716	12.06633773	78.38990375
28-Jun-11 13:40:00	63.56207094	12.65445032	86.5748802
28-Jun-11 13:41:00	62.26294869	12.83275047	79.23817795
28-Jun-11 13:42:00	61.61127544	12.410123	77.04442676
28-Jun-11 13:43:00	61.55261058	12.18350658	73.01113512
28-Jun-11 13:44:00	61.30402342	12.44182696	70.19626259
28-Jun-11 13:45:00	61.20867538	12.73647153	68.81731276
28-Jun-11 13:46:00	61.20867538	12.82294083	68.34313202
28-Jun-11 13:47:00	61.27927381	12.75294559	68.27675633
28-Jun-11 13:48:00	62.07585493	11.94782892	67.67685286
28-Jun-11 13:49:00	62.05507813	11.85481444	69.26746745
28-Jun-11 13:50:00	61.86606365	12.20232479	70.97972026
28-Jun-11 13:51:00	61.69959251	12.40644581	70.34395547
28-Jun-11 13:52:00	61.39346189	12.77860879	70.77350688
28-Jun-11 13:53:00	61.31768021	12.56088561	68.86842218
28-Jun-11 13:54:00	61.56303442	12.52141894	68.21448118
28-Jun-11 13:55:00	61.93046703	12.42282013	65.94455573
28-Jun-11 13:56:00	61.46538087	12.63234155	65.87244165
28-Jun-11 13:57:00	61.24500621	12.80693306	65.87211111
28-Jun-11 13:58:00	61.22155316	12.87382008	67.94530829
28-Jun-11 13:59:00	61.28458504	12.79091628	67.52087286
28-Jun-11 14:00:00	61.62574722	12.68704098	66.97552388
28-Jun-11 14:01:00	61.77363586	12.60637379	66.93071747
28-Jun-11 14:02:00	61.76985551	12.60579216	66.92877879
28-Jun-11 14:03:00	61.52757415	12.57307994	66.78699977
28-Jun-11 14:04:00	61.26459997	12.68138089	66.02190136
28-Jun-11 14:05:00	61.12338053	12.72871966	64.31599819
28-Jun-11 14:06:00	60.76922175	12.8827087	61.24773204
28-Jun-11 14:07:00	60.88707764	12.75376771	59.80802447
28-Jun-11 14:08:00	61.03273524	12.9217065	67.84792431
28-Jun-11 14:09:00	60.63389052	13.31214133	67.60013561
28-Jun-11 14:10:00	60.51906586	13.57035019	66.79472212
28-Jun-11 14:11:00	60.25199	13.63162818	63.93454398
28-Jun-11 14:12:00	60.0951804	13.69267523	62.27854135
28-Jun-11 14:13:00	60.60784289	13.18022038	62.49899337
28-Jun-11 14:14:00	60.74317375	12.95118056	60.89052526
28-Jun-11 14:15:00	60.97539431	12.70803104	62.45247046
28-Jun-11 14:16:00	60.9826889	12.70053387	62.50515366
28-Jun-11 14:17:00	60.9826889	12.70053387	62.50515366
28-Jun-11 14:18:00	61.3009993	12.57674465	61.66515888

Chevron FCCU CEMS Data

Run 9

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
28-Jun-11 14:19:00	62.05920408	12.33841129	60.96070585
28-Jun-11 14:20:00	62.48842908	12.20556086	60.59537239
28-Jun-11 14:21:00	62.62104846	12.16635552	60.05133803
28-Jun-11 14:22:00	62.54743813	12.09829033	60.89269469
28-Jun-11 14:23:00	62.47601508	11.97274561	61.2958309
28-Jun-11 14:24:00	61.9608727	12.27170301	62.34801377
28-Jun-11 14:25:00	61.9809797	12.42455922	61.41546692
28-Jun-11 14:26:00	62.2505446	12.15480766	60.98539432
28-Jun-11 14:27:00	62.48731289	12.23759841	61.71761672
28-Jun-11 14:28:00	62.75427254	12.70759025	62.83291819
28-Jun-11 14:29:00	62.5714054	12.6993534	61.51480419
28-Jun-11 14:30:00	62.66335288	12.70757655	62.12777993
28-Jun-11 14:31:00	62.6775856	12.70994854	62.22266388
28-Jun-11 14:32:00	62.6775856	12.70994854	62.19866254
28-Jun-11 14:33:00	62.70246154	12.47775927	62.32522251
28-Jun-11 14:34:00	62.63687005	12.01819807	63.15414703
28-Jun-11 14:35:00	62.39945526	12.36725902	64.6868501
28-Jun-11 14:36:00	62.39509964	12.62730679	65.50033551
28-Jun-11 14:37:00	62.26130979	12.37474012	65.03927536
28-Jun-11 14:38:00	62.26056198	12.10273473	64.69411033
28-Jun-11 14:39:00	62.34658441	12.19986125	64.72729228
28-Jun-11 14:40:00	62.30910737	12.58498123	63.77169289
28-Jun-11 14:41:00	62.23195796	12.62884817	64.27698044
28-Jun-11 14:42:00	62.08728311	12.27123195	63.82505271
28-Jun-11 14:43:00	62.25092244	12.18777326	64.15958116
28-Jun-11 14:44:00	62.53512309	12.35966919	65.32859034
28-Jun-11 14:45:00	62.66367132	12.40102415	64.6412422
28-Jun-11 14:46:00	62.70133139	12.39921761	64.3883667
28-Jun-11 14:47:00	62.60618555	12.4225909	64.40066653
28-Jun-11 14:48:00	62.0260676	12.56014176	64.42806743
28-Jun-11 14:49:00	61.95882528	12.525675	64.25903504
28-Jun-11 14:50:00	62.08850581	12.43836387	64.75843405
28-Jun-11 14:51:00	62.31625686	12.86235252	65.60634239
28-Jun-11 14:52:00	62.39448531	12.55418987	64.46758363
28-Jun-11 14:53:00	62.58670361	12.27665107	64.81964098
28-Jun-11 14:54:00	62.55030937	12.15015156	64.78129866
28-Jun-11 14:55:00	62.40884003	12.36938932	64.52375451
28-Jun-11 14:56:00	62.17743381	12.54904981	64.59701141
28-Jun-11 14:57:00	61.95388522	12.57832275	64.93965655
28-Jun-11 14:58:00	61.87102245	12.59836686	65.65876809
28-Jun-11 14:59:00	61.92804562	12.8886633	64.77362714

Chevron FCCU CEMS Data

Run 9

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
28-Jun-11 15:00:00	61.97137833	12.97818102	63.9515754
28-Jun-11 15:01:00	61.97137833	12.90738006	63.82340622
28-Jun-11 15:02:00	61.99530053	12.88298673	63.85441584
28-Jun-11 15:03:00	62.33381873	12.60815708	64.31726802
28-Jun-11 15:04:00	62.06592978	12.57496222	64.4193448
28-Jun-11 15:05:00	61.93856813	12.74261567	65.58098399
28-Jun-11 15:06:00	61.84374174	12.52130284	63.98607688
28-Jun-11 15:07:00	61.66906083	12.81435693	64.05043228
28-Jun-11 15:08:00	61.61498976	12.72073973	63.59463561
28-Jun-11 15:09:00	61.74046594	12.66276698	64.24031728
28-Jun-11 15:10:00	61.75061594	12.68596898	63.83742798
28-Jun-11 15:11:00	61.71646728	12.79976346	64.63667232
28-Jun-11 15:12:00	61.70561385	12.57984344	64.74077751
28-Jun-11 15:13:00	61.69526882	12.85362076	64.41144438
28-Jun-11 15:14:00	61.75371389	13.10627221	63.00382564
28-Jun-11 15:15:00	61.53663358	13.26511074	62.88206564
28-Jun-11 15:16:00	61.49115919	13.26549911	62.88179779
28-Jun-11 15:17:00	61.49265072	13.263054	62.87830475
28-Jun-11 15:18:00	61.66616533	12.98874448	62.48266334
28-Jun-11 15:19:00	61.83740661	13.27475149	62.67216179
28-Jun-11 15:20:00	62.13989735	13.62065229	63.30246672
28-Jun-11 15:21:00	62.73924018	13.19205461	62.53055811
28-Jun-11 15:22:00	62.71330352	12.98909784	61.66274675
28-Jun-11 15:23:00	62.14156562	13.1731756	61.0250916
28-Jun-11 15:24:00	61.82328339	12.95076559	61.54117186
28-Jun-11 15:25:00	61.64616458	12.98804358	61.80882873
28-Jun-11 15:26:00	61.52318198	12.8679604	61.83646677
28-Jun-11 15:27:00	61.84879752	12.81514105	61.82532677
28-Jun-11 15:28:00	61.78313177	12.98978015	60.92055277
28-Jun-11 15:29:00	62.33426943	12.91971945	62.09431264
28-Jun-11 15:30:00	62.31316252	13.024789	61.59165325
28-Jun-11 15:31:00	62.31035233	13.03009701	61.53188021
28-Jun-11 15:32:00	62.31035233	13.03009701	61.50606114
28-Jun-11 15:33:00	62.20280109	13.0938327	61.68251338
28-Jun-11 15:34:00	62.61897442	13.25196019	62.06882158
28-Jun-11 15:35:00	63.04993469	13.1480795	61.87281086
28-Jun-11 15:36:00	62.92491915	12.75425567	61.79905372
28-Jun-11 15:37:00	63.07765197	12.34278877	62.71543587
28-Jun-11 15:38:00	62.89735088	12.47612077	62.25920952
28-Jun-11 15:39:00	62.78122107	12.65869568	62.73085032
28-Jun-11 15:40:00	62.73654425	12.40588999	64.34872296

Chevron FCCU CEMS Data

Run 9

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
28-Jun-11 15:41:00	62.20060393	12.54572813	64.15100842
28-Jun-11 15:42:00	61.87460473	12.9034396	64.0559416
28-Jun-11 15:43:00	61.67855546	12.90036721	62.72757048
28-Jun-11 15:44:00	62.01920105	12.46570923	63.61061933
28-Jun-11 15:45:00	61.96126046	12.3502733	63.82340622
28-Jun-11 15:46:00	61.94312286	12.3513608	63.82340622
28-Jun-11 15:47:00	61.94312286	12.35213852	63.82340622
28-Jun-11 15:48:00	61.92137578	12.50920993	63.94422522
28-Jun-11 15:49:00	61.80267429	12.97738999	64.36221985
28-Jun-11 15:50:00	61.60763328	13.03350044	65.30132676
28-Jun-11 15:51:00	61.46095072	13.08487861	65.10862341
28-Jun-11 15:52:00	61.44292618	13.1116391	63.36987487
28-Jun-11 15:53:00	61.53136372	12.96908768	64.07695247
28-Jun-11 15:54:00	61.68000917	12.84045092	63.29062421
28-Jun-11 15:55:00	61.92097944	12.83305942	63.62564713
28-Jun-11 15:56:00	62.32531078	12.7660812	64.74858571
28-Jun-11 15:57:00	62.55654504	12.63876302	65.31313173
28-Jun-11 15:58:00	62.31600294	12.47811386	64.88180529
28-Jun-11 15:59:00	61.78916649	12.35037941	64.41374987
28-Jun-11 16:00:00	61.37511797	12.50482726	64.65425213
28-Jun-11 16:01:00	61.2934227	12.55929184	64.68904601
28-Jun-11 16:02:00	61.22422126	12.64453937	64.53045027
28-Jun-11 16:03:00	60.69877174	13.25998531	63.40040593
28-Jun-11 16:04:00	60.46875306	13.33808887	62.76533733
28-Jun-11 16:05:00	60.62076604	13.06238329	64.05385565
28-Jun-11 16:06:00	60.86791602	12.96154855	64.64336197
28-Jun-11 16:07:00	61.21794471	12.88729517	64.04704404
28-Jun-11 16:08:00	61.58358109	12.7386351	64.01888211
28-Jun-11 16:09:00	61.04310576	12.94063414	63.29138452
28-Jun-11 16:10:00	60.3695672	13.46421915	63.84845379
28-Jun-11 16:11:00	60.01291662	13.36486513	63.4386012
28-Jun-11 16:12:00	60.2999465	13.40122854	63.23634655
28-Jun-11 16:13:00	60.25634218	13.30717328	63.18707684
28-Jun-11 16:14:00	60.28043165	13.09781855	63.38478777
28-Jun-11 16:15:00	60.33696592	12.98740723	62.75065948
28-Jun-11 16:16:00	60.30473328	12.92651939	62.0343399
28-Jun-11 16:17:00	60.27325729	12.94300676	61.9863768
28-Jun-11 16:18:00	59.59445039	13.32193178	61.00777464
28-Jun-11 16:19:00	59.63814137	13.66257074	61.83351849
End Run 9			

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
Average	**57.909**	**13.580**	**66.517**
Maximum	**77.114**	**15.123**	**375.443**
Minimum	**53.750**	**11.716**	**48.004**
Start Run 11			
29-Jun-11 09:15:00	55.18902373	14.11570042	66.61602533
29-Jun-11 09:16:00	55.19179916	14.12236118	66.61059843
29-Jun-11 09:17:00	55.19179916	14.12236118	66.55447146
29-Jun-11 09:18:00	55.06927298	13.97710936	67.91568287
29-Jun-11 09:19:00	55.46411962	13.50007868	69.52809121
29-Jun-11 09:20:00	55.72874719	13.33888875	69.2087484
29-Jun-11 09:21:00	55.64772692	13.87462525	67.71827916
29-Jun-11 09:22:00	56.02147436	13.698165	66.79173484
29-Jun-11 09:23:00	55.88746149	13.97903067	67.23733403
29-Jun-11 09:24:00	55.74276782	13.79180337	67.22810284
29-Jun-11 09:25:00	55.52996336	13.81287777	67.3023902
29-Jun-11 09:26:00	55.40551092	14.2311188	66.94306888
29-Jun-11 09:27:00	55.40212446	14.43803107	66.92049979
29-Jun-11 09:28:00	55.42696731	14.50463515	67.78644003
29-Jun-11 09:29:00	55.12933883	14.65116524	69.30156105
29-Jun-11 09:30:00	55.23224534	14.23642168	68.45776679
29-Jun-11 09:31:00	55.24829483	14.18827438	68.34313202
29-Jun-11 09:32:00	55.24084703	14.18827438	68.34313202
29-Jun-11 09:33:00	55.24623354	14.078666	68.90522506
29-Jun-11 09:34:00	55.37044924	13.81579545	70.79731857
29-Jun-11 09:35:00	55.18276955	14.13066398	69.36755206
29-Jun-11 09:36:00	54.56490363	14.72679785	65.63264403
29-Jun-11 09:37:00	54.40113332	15.12263161	67.2631356
29-Jun-11 09:38:00	54.31130568	15.08192167	67.1225413
29-Jun-11 09:39:00	54.52631627	14.68802505	65.0701431
29-Jun-11 09:40:00	54.65468323	14.54859672	64.21141921
29-Jun-11 09:41:00	54.77428371	14.42620832	65.23954232
29-Jun-11 09:42:00	55.04436477	14.19659261	65.02223655
29-Jun-11 09:43:00	54.94440924	14.34261731	64.52744356
29-Jun-11 09:44:00	54.89070775	14.24281309	63.49297192
29-Jun-11 09:45:00	54.99629777	14.18827438	63.47154797
29-Jun-11 09:46:00	55.02230835	14.18827438	63.54090881
29-Jun-11 09:47:00	55.04951227	14.18827438	63.6445435
29-Jun-11 09:48:00	55.23220627	14.23763562	64.23254848
29-Jun-11 09:49:00	55.45104275	14.30452493	64.41724387
29-Jun-11 09:50:00	55.77819865	13.74038293	64.71480798
29-Jun-11 09:51:00	56.16249664	13.81271993	65.45494604

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
29-Jun-11 09:52:00	56.21175709	13.87134708	65.52371863
29-Jun-11 09:53:00	56.36202741	13.77617168	64.73080554
29-Jun-11 09:54:00	56.19609876	13.93423935	65.01710796
29-Jun-11 09:55:00	56.38250657	13.96186341	64.19926421
29-Jun-11 09:56:00	56.96604226	13.71070205	64.89771909
29-Jun-11 09:57:00	56.54074496	13.99879826	64.39206295
29-Jun-11 09:58:00	56.30200621	14.18119017	65.0567459
29-Jun-11 09:59:00	56.47629174	13.87180737	67.27153521
29-Jun-11 10:00:00	56.6136641	13.69236354	67.62110656
29-Jun-11 10:01:00	56.68895721	13.69863796	67.40149689
29-Jun-11 10:02:00	56.69183404	13.68137564	67.36313633
29-Jun-11 10:03:00	56.74112055	13.45369493	66.86150233
29-Jun-11 10:04:00	56.85266775	13.59093432	67.24664995
29-Jun-11 10:05:00	56.91918385	13.55587568	67.18863655
29-Jun-11 10:06:00	56.4360547	14.14801044	66.86607708
29-Jun-11 10:07:00	56.60929577	13.97151603	67.02514947
29-Jun-11 10:08:00	56.5661191	13.93198549	66.93060045
29-Jun-11 10:09:00	56.4515216	14.19470891	68.36521116
29-Jun-11 10:10:00	56.35472446	14.48354674	67.21364952
29-Jun-11 10:11:00	56.51095317	14.23070686	66.48176289
29-Jun-11 10:12:00	56.47692147	14.13805621	65.5504239
29-Jun-11 10:13:00	56.16551793	14.44320942	66.13995803
29-Jun-11 10:14:00	55.91958832	14.59800799	65.97688403
29-Jun-11 10:15:00	55.91112758	14.24004775	64.86088166
29-Jun-11 10:16:00	55.95450211	14.26360321	64.85918427
29-Jun-11 10:17:00	55.95313097	14.26464785	64.85461383
29-Jun-11 10:18:00	55.83648084	14.35517293	64.463557
29-Jun-11 10:19:00	56.07808491	14.26237046	65.1028529
29-Jun-11 10:20:00	56.24778837	14.15451069	64.39357984
29-Jun-11 10:21:00	55.68200694	14.28538708	63.5315147
29-Jun-11 10:22:00	55.49255775	14.61424725	61.92172777
29-Jun-11 10:23:00	54.98301093	14.85784929	60.91093005
29-Jun-11 10:24:00	54.86869047	14.86709741	61.74903798
29-Jun-11 10:25:00	55.00730421	14.41294794	61.98380683
29-Jun-11 10:26:00	55.22460213	13.97372986	61.79629873
29-Jun-11 10:27:00	55.4473983	13.81462814	61.61836771
29-Jun-11 10:28:00	55.93897101	14.18050816	61.21299275
29-Jun-11 10:29:00	56.59738031	13.93150243	62.88317075
29-Jun-11 10:30:00	56.57865659	13.6991038	63.96680718
29-Jun-11 10:31:00	56.57596207	13.68922329	64.01171875
29-Jun-11 10:32:00	56.57596207	13.68922329	64.01171875

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
29-Jun-11 10:33:00	56.3802946	13.85227827	63.48178562
29-Jun-11 10:34:00	56.12435883	14.06096919	62.51359866
29-Jun-11 10:35:00	55.97233265	14.15290147	61.260974
29-Jun-11 10:36:00	56.00848277	14.2378825	61.15370843
29-Jun-11 10:37:00	56.28525193	13.95383087	62.00312045
29-Jun-11 10:38:00	56.44191418	13.75681724	61.70469161
29-Jun-11 10:39:00	56.65434279	13.53242443	61.17436892
29-Jun-11 10:40:00	56.52923942	13.57886519	61.76069005
29-Jun-11 10:41:00	56.4214045	13.9705555	60.90813173
29-Jun-11 10:42:00	56.68510224	14.09322056	61.82135587
29-Jun-11 10:43:00	56.77951201	13.69997664	62.8097919
29-Jun-11 10:44:00	56.53034696	13.74255252	62.7085669
29-Jun-11 10:45:00	56.46584346	13.80588392	62.11095725
29-Jun-11 10:46:00	56.46297073	13.81163025	62.0343399
29-Jun-11 10:47:00	56.46297073	13.81163025	62.0343399
29-Jun-11 10:48:00	56.23810074	13.85410558	62.25921091
29-Jun-11 10:49:00	55.70967717	13.86378781	62.71315944
29-Jun-11 10:50:00	55.90518296	13.73322674	61.83685645
29-Jun-11 10:51:00	55.92821662	13.95014841	61.20597849
29-Jun-11 10:52:00	55.75816551	13.81605423	61.73069624
29-Jun-11 10:53:00	55.61904442	13.86950305	62.3416529
29-Jun-11 10:54:00	55.47411658	14.22140322	61.7389872
29-Jun-11 10:55:00	55.42607296	14.17272153	60.38892327
29-Jun-11 10:56:00	55.51356571	14.29865894	61.33496779
29-Jun-11 10:57:00	55.58727264	14.17564912	61.47749083
29-Jun-11 10:58:00	55.60037648	14.02461639	60.63021732
29-Jun-11 10:59:00	55.84995638	14.12402882	59.38559118
29-Jun-11 11:00:00	55.75498659	14.21914067	58.22861835
29-Jun-11 11:01:00	55.70026779	14.23535347	57.98542404
29-Jun-11 11:02:00	55.73476052	14.22699166	57.99587823
29-Jun-11 11:03:00	55.87026041	14.20471822	58.12012356
29-Jun-11 11:04:00	55.36959104	14.40241693	58.65030932
29-Jun-11 11:05:00	55.43492526	14.40845902	59.82675574
29-Jun-11 11:06:00	55.5138315	14.29521633	59.64709203
29-Jun-11 11:07:00	55.16824435	14.740757	57.8178498
29-Jun-11 11:08:00	55.50789352	14.36009711	58.10306475
29-Jun-11 11:09:00	55.72712877	14.41192459	58.15178015
29-Jun-11 11:10:00	55.65561004	14.29028862	56.45100936
29-Jun-11 11:11:00	55.7192888	14.09116657	55.74902199
29-Jun-11 11:12:00	55.83608311	14.05555738	56.07254095
29-Jun-11 11:13:00	56.14894025	14.25449238	56.79082271

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
29-Jun-11 11:14:00	56.59576329	14.15201165	56.62570729
29-Jun-11 11:15:00	56.79473233	13.95118223	56.43079897
29-Jun-11 11:16:00	56.77369308	13.87754345	56.29053497
29-Jun-11 11:17:00	56.75718548	13.88434078	56.26140335
29-Jun-11 11:18:00	56.42665965	14.01811034	55.70116473
29-Jun-11 11:19:00	56.43429869	13.98701591	56.04660709
29-Jun-11 11:20:00	56.35492079	14.12721104	55.48516821
29-Jun-11 11:21:00	56.54207943	14.19509615	54.26408118
29-Jun-11 11:22:00	56.58921058	13.93605789	53.64503893
29-Jun-11 11:23:00	56.24172873	13.80878579	53.32010688
29-Jun-11 11:24:00	56.21934932	14.06275667	52.03750244
29-Jun-11 11:25:00	56.56753377	14.39592801	52.84236886
29-Jun-11 11:26:00	56.78713147	14.2489435	53.29292638
29-Jun-11 11:27:00	57.06534584	14.22701061	52.4954799
29-Jun-11 11:28:00	56.66162195	14.18535966	51.69990404
29-Jun-11 11:29:00	56.43924466	14.05624292	51.32411113
29-Jun-11 11:30:00	56.8185669	13.68898367	51.36425539
29-Jun-11 11:31:00	56.77376774	13.75502581	51.20609371
29-Jun-11 11:32:00	56.77421526	13.75530769	51.20371749
29-Jun-11 11:33:00	56.92698566	13.80256832	50.59970672
29-Jun-11 11:34:00	57.44633373	13.63600024	50.2389704
29-Jun-11 11:35:00	58.20587565	13.66579395	50.76639296
29-Jun-11 11:36:00	58.42418805	13.50267304	50.96072736
29-Jun-11 11:37:00	58.31371848	13.55470901	51.1360536
29-Jun-11 11:38:00	58.07359324	13.2997949	51.16011425
29-Jun-11 11:39:00	57.72559711	13.49453053	50.6829424
29-Jun-11 11:40:00	57.56307952	13.5059128	50.66231215
29-Jun-11 11:41:00	57.84985894	13.5761068	50.10006887
29-Jun-11 11:42:00	57.6780448	13.63644451	48.59789231
29-Jun-11 11:43:00	57.44844888	13.41942467	49.04978342
29-Jun-11 11:44:00	57.8680857	13.34748747	49.56567686
29-Jun-11 11:45:00	58.0907682	13.37652938	49.33833901
29-Jun-11 11:46:00	58.10136795	13.37849236	49.32263565
29-Jun-11 11:47:00	58.10136795	13.37849236	49.32263565
29-Jun-11 11:48:00	58.35586673	13.24570855	49.35951433
29-Jun-11 11:49:00	58.47698507	12.92588635	49.29307254
29-Jun-11 11:50:00	58.11631506	12.90927734	48.62930526
29-Jun-11 11:51:00	58.20720715	13.11504933	48.4019092
29-Jun-11 11:52:00	58.2513287	13.32697935	48.82457957
29-Jun-11 11:53:00	58.37188318	13.09574278	48.58336842
29-Jun-11 11:54:00	58.36826804	12.90964089	48.02174344

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
29-Jun-11 11:55:00	58.70684726	12.79292612	48.50506389
29-Jun-11 11:56:00	58.86406708	12.79864115	49.97765023
29-Jun-11 11:57:00	58.84333247	13.04901559	48.80643645
29-Jun-11 11:58:00	58.62291124	13.15881537	48.13897903
29-Jun-11 11:59:00	58.54938445	12.91824649	48.01809448
29-Jun-11 12:00:00	58.79573286	12.86171902	48.00439072
29-Jun-11 12:01:00	58.83582306	12.86060524	48.00439072
29-Jun-11 12:02:00	58.83582306	12.86060524	48.00439072
29-Jun-11 12:03:00	58.84235046	12.82578734	48.24376065
29-Jun-11 12:04:00	58.8329266	12.78136308	48.77027032
29-Jun-11 12:05:00	58.84038903	12.76697625	48.30470226
29-Jun-11 12:06:00	59.12667376	12.35284155	48.37163959
29-Jun-11 12:07:00	59.23598236	12.36449132	48.37947904
29-Jun-11 12:08:00	59.28173038	12.47174815	48.8699442
29-Jun-11 12:09:00	59.38648128	12.47941891	49.08701414
29-Jun-11 12:10:00	58.76187372	12.75292004	48.73612742
29-Jun-11 12:11:00	58.4602921	12.72207377	49.65969778
29-Jun-11 12:12:00	58.40050492	12.52262699	50.65357914
29-Jun-11 12:13:00	58.75526871	12.28183915	51.55148424
29-Jun-11 12:14:00	59.21893747	12.31347688	51.34375346
29-Jun-11 12:15:00	59.38083097	12.3565727	51.11169815
29-Jun-11 12:16:00	59.40078354	12.35213852	51.11169815
29-Jun-11 12:17:00	59.28600749	12.38956564	51.09506133
29-Jun-11 12:18:00	58.32100808	12.71155626	50.97330271
29-Jun-11 12:19:00	58.34872739	12.7289336	51.28372623
29-Jun-11 12:20:00	58.78205615	12.50069988	52.42975178
29-Jun-11 12:21:00	58.86886892	12.57770686	52.72906209
29-Jun-11 12:22:00	58.96219473	12.5638983	52.65014804
29-Jun-11 12:23:00	58.89336164	12.78932857	53.31577332
29-Jun-11 12:24:00	58.91059277	12.80761932	53.73695951
29-Jun-11 12:25:00	58.84777738	12.66824363	53.10036931
29-Jun-11 12:26:00	58.96697289	12.67717599	53.85955127
29-Jun-11 12:27:00	59.2710606	12.7550269	54.09792198
29-Jun-11 12:28:00	59.51387673	12.76556281	54.55378973
29-Jun-11 12:29:00	59.35212136	12.61266379	55.93223745
29-Jun-11 12:30:00	59.29213978	12.56518937	56.53472673
29-Jun-11 12:31:00	59.37253952	12.54987431	56.57300568
29-Jun-11 12:32:00	59.3879851	12.53957727	56.59539056
29-Jun-11 12:33:00	59.84264115	12.23613124	57.34128613
29-Jun-11 12:34:00	60.12650015	12.04878385	59.37400635
29-Jun-11 12:35:00	59.86388676	12.37670197	58.39951032

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
29-Jun-11 12:36:00	60.03705413	12.62935717	58.99766973
29-Jun-11 12:37:00	59.86064914	12.73064619	59.52148501
29-Jun-11 12:38:00	59.61971735	12.58581166	58.92957641
29-Jun-11 12:39:00	59.73151801	12.65212433	60.99800504
29-Jun-11 12:40:00	59.82802947	12.86983199	62.1401724
29-Jun-11 12:41:00	59.50699728	12.86483473	62.53996348
29-Jun-11 12:42:00	63.59901317	12.35157668	187.335893
29-Jun-11 12:43:00	70.05595427	11.81966011	375.4433895
29-Jun-11 12:44:00	65.42987138	11.71605129	107.2842635
29-Jun-11 12:45:00	64.39701699	11.9549773	90.18833277
29-Jun-11 12:46:00	64.48474197	11.9473288	90.3743311
29-Jun-11 12:47:00	64.48569686	11.94726807	90.37685324
29-Jun-11 12:48:00	66.78199533	12.16019691	91.22644165
29-Jun-11 12:49:00	67.67964684	12.66183406	89.65234998
29-Jun-11 12:50:00	65.59439844	12.96335054	85.97144439
29-Jun-11 12:51:00	63.67970897	12.89119438	82.94157773
29-Jun-11 12:52:00	61.53883966	12.88218321	79.74575593
29-Jun-11 12:53:00	59.86144528	13.04408187	77.89822362
29-Jun-11 12:54:00	59.17571571	12.96905446	98.35585562
29-Jun-11 12:55:00	61.65223008	12.93472178	292.1017861
29-Jun-11 12:56:00	69.55137285	12.43289797	164.0261625
29-Jun-11 12:57:00	71.48463255	12.31467288	104.0178819
29-Jun-11 12:58:00	75.23625337	12.6062323	101.7028472
29-Jun-11 12:59:00	76.99736674	12.50439709	99.59244816
29-Jun-11 13:00:00	77.11420218	12.8829406	96.29148637
29-Jun-11 13:01:00	77.11243439	12.91710472	96.02642059
29-Jun-11 13:02:00	77.11243439	12.91710472	96.02642059
29-Jun-11 13:03:00	71.29050432	13.16374161	89.11408769
29-Jun-11 13:04:00	59.36412641	13.52972149	75.90609347
29-Jun-11 13:05:00	56.70032927	13.46443339	74.81023215
29-Jun-11 13:06:00	54.87767171	13.40591321	73.23401484
29-Jun-11 13:07:00	53.87487883	13.34313976	71.62930161
29-Jun-11 13:08:00	53.75027078	13.21872387	72.04591456
29-Jun-11 13:09:00	54.03236921	13.34429869	75.06954343
29-Jun-11 13:10:00	54.4000363	13.60528212	73.69656478
29-Jun-11 13:11:00	55.28810444	13.58196361	72.44489006
29-Jun-11 13:12:00	55.93246717	13.31556963	70.78840448
29-Jun-11 13:13:00	56.1029167	13.29573695	70.07780059
29-Jun-11 13:14:00	56.38156761	13.24376731	69.99742894
29-Jun-11 13:15:00	56.92828689	13.21295258	69.63941522
29-Jun-11 13:16:00	57.02793121	13.21593692	69.56720734

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
29-Jun-11 13:17:00	57.02793121	13.20994318	69.56720734
29-Jun-11 13:18:00	57.18877812	13.14244374	70.15882861
29-Jun-11 13:19:00	57.86383232	13.00549419	72.04421026
29-Jun-11 13:20:00	58.08698583	13.18248295	71.18517484
29-Jun-11 13:21:00	58.22689162	12.8996095	71.22712515
29-Jun-11 13:22:00	58.25698913	13.37690064	70.69121673
29-Jun-11 13:23:00	57.68764502	13.75230412	69.74550615
29-Jun-11 13:24:00	57.92307381	13.29147698	69.52538331
29-Jun-11 13:25:00	58.15876634	13.28633699	70.79902219
29-Jun-11 13:26:00	58.20665613	13.37211517	69.74763238
29-Jun-11 13:27:00	58.16326981	13.398583	68.77438788
29-Jun-11 13:28:00	58.25404866	13.24290166	70.16923706
29-Jun-11 13:29:00	58.16878548	12.91246007	70.21589477
29-Jun-11 13:30:00	58.16176454	12.89946984	69.76957627
29-Jun-11 13:31:00	58.18610764	12.92701064	69.66137695
29-Jun-11 13:32:00	58.15719106	12.98725339	69.53928468
29-Jun-11 13:33:00	57.83222508	13.5455863	68.17401247
29-Jun-11 13:34:00	57.72059108	13.41246989	67.71036623
29-Jun-11 13:35:00	57.93538569	13.18388594	67.92261245
29-Jun-11 13:36:00	58.16147095	13.25809375	66.71307081
29-Jun-11 13:37:00	58.36458169	13.21592786	66.88431782
29-Jun-11 13:38:00	58.6456305	12.95623754	68.38031296
29-Jun-11 13:39:00	58.61118081	13.038882	69.31696815
29-Jun-11 13:40:00	58.33029036	13.30775532	68.358738
29-Jun-11 13:41:00	58.12391697	13.36455842	66.71152275
29-Jun-11 13:42:00	58.69250125	13.31187187	67.10625535
29-Jun-11 13:43:00	59.06594803	13.57791716	67.63276586
29-Jun-11 13:44:00	58.710544	13.53685339	68.35416365
29-Jun-11 13:45:00	58.71186185	13.44510673	69.21306126
29-Jun-11 13:46:00	58.75107193	13.45382023	68.90809631
29-Jun-11 13:47:00	58.75335972	13.45712485	68.87250775
29-Jun-11 13:48:00	58.8637432	13.60778022	67.16135489
29-Jun-11 13:49:00	58.8658198	13.38141163	67.07409655
29-Jun-11 13:50:00	58.56483327	13.36559077	67.36170811
29-Jun-11 13:51:00	58.42848703	13.54399089	67.77081425
29-Jun-11 13:52:00	58.00933616	13.45380701	68.01906028
29-Jun-11 13:53:00	57.83958805	13.60526835	67.98054515
29-Jun-11 13:54:00	58.17221549	13.35599045	68.16798003
29-Jun-11 13:55:00	58.2068602	13.167323	68.95740242
29-Jun-11 13:56:00	57.914206	13.29863806	68.07744295
29-Jun-11 13:57:00	58.18830831	13.32770721	68.98602003

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
29-Jun-11 13:58:00	58.1612272	13.54052157	69.2220172
29-Jun-11 13:59:00	57.97079819	13.59783531	68.84361187
29-Jun-11 14:00:00	57.85037265	13.66841162	68.26515791
29-Jun-11 14:01:00	57.84713364	13.67039108	68.2489624
29-Jun-11 14:02:00	57.84713364	13.67039108	68.2489624
29-Jun-11 14:03:00	57.88977786	13.55683251	67.91815076
29-Jun-11 14:04:00	58.03897565	13.41398957	68.09854041
29-Jun-11 14:05:00	58.01570047	13.47699041	67.60210779
29-Jun-11 14:06:00	58.10576623	13.61562881	67.68057542
29-Jun-11 14:07:00	58.02063471	13.669534	67.13414291
29-Jun-11 14:08:00	57.82425707	13.72732409	66.44444207
29-Jun-11 14:09:00	58.01507187	13.55349859	67.47501893
29-Jun-11 14:10:00	57.77950298	13.53397095	65.91616204
29-Jun-11 14:11:00	57.79534313	13.81928035	65.55112938
29-Jun-11 14:12:00	58.22750559	13.56695056	66.67604928
29-Jun-11 14:13:00	58.33797797	13.4264558	66.33134373
29-Jun-11 14:14:00	58.18345378	13.2764564	67.02579729
29-Jun-11 14:15:00	58.2858734	13.26476424	67.54573504
29-Jun-11 14:16:00	58.29909897	13.26549911	67.58982086
29-Jun-11 14:17:00	58.29909897	13.26549911	67.58982086
29-Jun-11 14:18:00	58.13512868	13.46398926	67.33092642
29-Jun-11 14:19:00	57.58439027	14.01210671	66.46134476
29-Jun-11 14:20:00	57.36287778	14.06152063	66.52683688
29-Jun-11 14:21:00	57.75867814	13.7769271	65.61305648
29-Jun-11 14:22:00	58.15355905	13.51640885	64.35811309
29-Jun-11 14:23:00	58.23780862	13.48649873	65.15896536
29-Jun-11 14:24:00	58.03688186	13.7486917	65.3820976
29-Jun-11 14:25:00	57.93070375	13.61584157	66.64212898
29-Jun-11 14:26:00	57.87885589	13.90148976	67.53811859
29-Jun-11 14:27:00	57.95580392	13.77028487	67.02737476
29-Jun-11 14:28:00	57.7821254	13.59364425	66.56393019
29-Jun-11 14:29:00	57.96157148	13.63457379	66.87475985
29-Jun-11 14:30:00	57.75122142	13.71878219	65.88467633
29-Jun-11 14:31:00	57.67763901	13.73630142	65.53271349
29-Jun-11 14:32:00	57.6504647	13.74665371	65.45358834
29-Jun-11 14:33:00	57.58965864	13.75990625	65.00016579
29-Jun-11 14:34:00	58.04656192	13.50771715	64.39755763
29-Jun-11 14:35:00	58.30301495	13.27602541	64.27130739
29-Jun-11 14:36:00	58.12536953	13.35128946	65.83945781
29-Jun-11 14:37:00	58.19607804	13.41482935	66.65158309
29-Jun-11 14:38:00	58.55967689	13.33826723	67.3775057

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
29-Jun-11 14:39:00	58.50386303	13.31660687	68.66317559
29-Jun-11 14:40:00	58.04551134	13.43653281	67.72740148
29-Jun-11 14:41:00	58.15215048	13.37814301	66.61120285
29-Jun-11 14:42:00	58.35341881	13.2147369	67.44023457
29-Jun-11 14:43:00	58.30697134	13.22032779	69.70841773
29-Jun-11 14:44:00	57.94444973	13.53553288	70.90003952
29-Jun-11 14:45:00	57.75312491	13.7838537	71.13707719
29-Jun-11 14:46:00	57.76238251	13.81163025	71.16794586
29-Jun-11 14:47:00	57.79757798	13.79051314	71.16325235
29-Jun-11 14:48:00	58.30410215	13.47774277	71.07490782
29-Jun-11 14:49:00	58.30455104	13.36395398	70.9104236
29-Jun-11 14:50:00	58.06903066	13.41234992	71.36650787
29-Jun-11 14:51:00	58.04367339	13.79007945	71.31185248
29-Jun-11 14:52:00	57.82449242	13.64502718	72.42374532
29-Jun-11 14:53:00	57.95656175	13.46894953	71.55018465
29-Jun-11 14:54:00	58.36106479	13.62318902	71.58083621
29-Jun-11 14:55:00	59.11085653	13.47339048	70.73763013
29-Jun-11 14:56:00	58.79547634	13.40940582	70.04352572
29-Jun-11 14:57:00	58.30621829	13.44092863	71.33402808
29-Jun-11 14:58:00	58.31638844	13.57746171	72.05773156
29-Jun-11 14:59:00	57.96962036	13.76851853	72.20831745
29-Jun-11 15:00:00	57.7048468	13.94753801	72.28340598
29-Jun-11 15:01:00	57.76238251	13.96228981	72.86283875
29-Jun-11 15:02:00	57.76521734	13.95886445	72.85043655
29-Jun-11 15:03:00	58.04216624	13.62284875	71.62687238
29-Jun-11 15:04:00	57.99645754	13.60774253	71.19460085
29-Jun-11 15:05:00	57.62864595	13.93613623	71.22311799
29-Jun-11 15:06:00	58.02935928	13.63647801	72.47172887
29-Jun-11 15:07:00	58.15998513	13.64519872	72.63980568
29-Jun-11 15:08:00	58.03757468	13.89998721	71.65895532
29-Jun-11 15:09:00	57.71484815	14.16243482	69.61411126
29-Jun-11 15:10:00	57.64501859	13.78292895	70.30850243
29-Jun-11 15:11:00	58.1069503	13.67793391	69.56065889
29-Jun-11 15:12:00	58.29458811	13.98511952	70.45499954
29-Jun-11 15:13:00	58.18750145	13.89629726	71.21370084
29-Jun-11 15:14:00	57.94304659	14.0246039	70.7120063
29-Jun-11 15:15:00	57.8750093	13.81664571	69.85508005
29-Jun-11 15:16:00	57.90362549	13.81163025	69.56720734
29-Jun-11 15:17:00	57.90693079	13.81273201	69.57174404
29-Jun-11 15:18:00	58.20692385	13.91315125	69.95148409
29-Jun-11 15:19:00	58.32619203	13.96536202	68.69865335

Chevron FCCU CEMS Data

Run 11

	53A612.PV	53A611.PV	53A613.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**	**FCC STACK CEM CO**
	PPM	PPM	PPM
29-Jun-11 15:20:00	58.28843653	13.80739906	68.18043555
29-Jun-11 15:21:00	58.0524337	13.96830611	67.19921951
29-Jun-11 15:22:00	57.55304187	14.13131394	66.74303938
29-Jun-11 15:23:00	57.67053243	14.12652711	66.68354266
29-Jun-11 15:24:00	57.55461376	14.12413325	67.86652937
29-Jun-11 15:25:00	57.72790278	14.27382681	66.74830763
29-Jun-11 15:26:00	57.80536829	14.16942301	66.01692205
29-Jun-11 15:27:00	57.92883356	14.02205488	66.62908833
29-Jun-11 15:28:00	57.7171671	13.9931567	68.15121328
29-Jun-11 15:29:00	57.75127286	14.00594835	67.46190887
29-Jun-11 15:30:00	57.73499065	14.36097021	67.22170378
29-Jun-11 15:31:00	57.73413849	14.3765955	67.21318054
29-Jun-11 15:32:00	57.74529762	14.3765955	67.21318054
29-Jun-11 15:33:00	57.72550247	14.11512379	66.43694719
29-Jun-11 15:34:00	57.83792593	13.77100234	65.68405084
29-Jun-11 15:35:00	58.19082925	13.76216838	66.24996453
29-Jun-11 15:36:00	58.41421621	13.7304061	67.06936009
29-Jun-11 15:37:00	58.00313361	13.96220513	66.43912353
29-Jun-11 15:38:00	57.38909876	14.4074988	64.4765665
29-Jun-11 15:39:00	57.41999048	14.43939383	64.56013462
29-Jun-11 15:40:00	57.73080837	14.10361957	65.40162009
29-Jun-11 15:41:00	58.14582563	13.87390977	65.22874201
29-Jun-11 15:42:00	58.24970209	13.82013811	65.58588719
29-Jun-11 15:43:00	57.97060304	13.61177833	65.69695577
29-Jun-11 15:44:00	58.29088605	13.37944631	66.31470417
29-Jun-11 15:45:00	58.33974444	13.6874396	66.21873258
29-Jun-11 15:46:00	58.29909897	13.81163025	66.08325195
End Run 11			

Chevron FCCU CEMS Data

Run 12

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
Average	**54.522**	**13.985**
Maximum	**56.298**	**14.957**
Minimum	**52.409**	**13.204**
Start Run 12		
30-Jun-11 08:47:00	54.96597368	14.35314728
30-Jun-11 08:48:00	54.98549633	13.85942315
30-Jun-11 08:49:00	55.10306442	13.86716861
30-Jun-11 08:50:00	55.01051173	13.6699015
30-Jun-11 08:51:00	54.22491509	14.23551992
30-Jun-11 08:52:00	53.72861948	14.55307919
30-Jun-11 08:53:00	54.02037962	14.08471509
30-Jun-11 08:54:00	53.68069019	14.49458136
30-Jun-11 08:55:00	53.4586861	14.88859461
30-Jun-11 08:56:00	53.36097837	14.93943385
30-Jun-11 08:57:00	53.07959798	14.27869888
30-Jun-11 08:58:00	53.0116563	14.5061962
30-Jun-11 08:59:00	53.21446059	14.54510228
30-Jun-11 09:00:00	53.40372595	14.09681394
30-Jun-11 09:01:00	53.41215134	14.0752821
30-Jun-11 09:02:00	53.41215134	14.0752821
30-Jun-11 09:03:00	53.37604259	14.33609436
30-Jun-11 09:04:00	53.28701648	14.74508718
30-Jun-11 09:05:00	53.02154501	14.79865383
30-Jun-11 09:06:00	53.53116451	14.22108806
30-Jun-11 09:07:00	53.90063168	14.14995817
30-Jun-11 09:08:00	53.62778899	14.07763242
30-Jun-11 09:09:00	53.79041282	13.98675317
30-Jun-11 09:10:00	54.00488179	14.2104938
30-Jun-11 09:11:00	53.81755013	14.49847218
30-Jun-11 09:12:00	53.5291538	14.52797841
30-Jun-11 09:13:00	53.89647897	14.19149138
30-Jun-11 09:14:00	54.02822429	14.03674134
30-Jun-11 09:15:00	53.91017848	13.90377196
30-Jun-11 09:16:00	53.89237595	13.88695812
30-Jun-11 09:17:00	53.89237595	13.88695812
30-Jun-11 09:18:00	54.26755656	13.84772355
30-Jun-11 09:19:00	55.2870034	13.78582225
30-Jun-11 09:20:00	55.48359674	13.7613676
30-Jun-11 09:21:00	55.43848755	13.68769271
30-Jun-11 09:22:00	55.19920822	13.72161025
30-Jun-11 09:23:00	55.57418436	13.3763965
30-Jun-11 09:24:00	55.42683824	13.65289556
30-Jun-11 09:25:00	55.44989727	13.50824427

Chevron FCCU CEMS Data

Run 12

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
30-Jun-11 09:26:00	55.86756673	13.61760335
30-Jun-11 09:27:00	56.20087958	13.43333197
30-Jun-11 09:28:00	56.2975553	13.61316974
30-Jun-11 09:29:00	55.73002819	13.80067428
30-Jun-11 09:30:00	55.33270746	13.81688714
30-Jun-11 09:31:00	55.27653885	13.82104778
30-Jun-11 09:32:00	55.25573713	13.80817001
30-Jun-11 09:33:00	55.1159436	13.77388059
30-Jun-11 09:34:00	55.18198634	14.04316582
30-Jun-11 09:35:00	55.28642537	13.86016286
30-Jun-11 09:36:00	55.21239202	13.91897541
30-Jun-11 09:37:00	55.20754775	14.02002513
30-Jun-11 09:38:00	54.82008339	13.88188676
30-Jun-11 09:39:00	54.63228372	13.94010793
30-Jun-11 09:40:00	54.59452994	14.37889051
30-Jun-11 09:41:00	54.57881478	14.0860415
30-Jun-11 09:42:00	54.66734249	13.89071762
30-Jun-11 09:43:00	54.99397746	14.09848644
30-Jun-11 09:44:00	54.88933263	14.21622113
30-Jun-11 09:45:00	54.57403289	14.19413963
30-Jun-11 09:46:00	54.54208374	14.19768906
30-Jun-11 09:47:00	54.54115106	14.2281571
30-Jun-11 09:48:00	54.52119843	14.85756519
30-Jun-11 09:49:00	54.51383591	14.72990919
30-Jun-11 09:50:00	54.46144283	14.54667785
30-Jun-11 09:51:00	54.00970117	14.78483763
30-Jun-11 09:52:00	54.002278	14.35059736
30-Jun-11 09:53:00	53.75584573	14.46548955
30-Jun-11 09:54:00	53.46901953	14.56833254
30-Jun-11 09:55:00	53.48422155	14.4401728
30-Jun-11 09:56:00	53.69457076	14.24944925
30-Jun-11 09:57:00	53.80086021	14.22520366
30-Jun-11 09:58:00	53.79636447	14.1894561
30-Jun-11 09:59:00	54.0107714	13.88136363
30-Jun-11 10:00:00	53.76094878	13.87499298
30-Jun-11 10:01:00	53.69476355	13.8963323
30-Jun-11 10:02:00	53.69562908	13.89585233
30-Jun-11 10:03:00	54.11571457	13.67534312
30-Jun-11 10:04:00	54.30700331	13.61158359
30-Jun-11 10:05:00	54.23962646	13.80227242
30-Jun-11 10:06:00	53.95164402	14.05924562
30-Jun-11 10:07:00	54.47613271	13.75099227

Chevron FCCU CEMS Data

Run 12

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
30-Jun-11 10:08:00	54.82604801	13.62464661
30-Jun-11 10:09:00	55.38344094	13.59705741
30-Jun-11 10:10:00	55.44785556	13.44565164
30-Jun-11 10:11:00	55.51597401	13.2038047
30-Jun-11 10:12:00	55.53077316	13.29709537
30-Jun-11 10:13:00	55.61694497	13.35921794
30-Jun-11 10:14:00	55.90976647	13.24376458
30-Jun-11 10:15:00	55.78699652	13.41360097
30-Jun-11 10:16:00	55.75766748	13.42557049
30-Jun-11 10:17:00	55.75675964	13.42557049
30-Jun-11 10:18:00	55.76729825	13.33422273
30-Jun-11 10:19:00	55.56752516	13.37522774
30-Jun-11 10:20:00	55.18267751	13.70865711
30-Jun-11 10:21:00	54.97501522	13.61409492
30-Jun-11 10:22:00	55.09136677	13.48907817
30-Jun-11 10:23:00	55.14381912	13.81530021
30-Jun-11 10:24:00	55.13528934	13.70964429
30-Jun-11 10:25:00	55.16075579	13.80167569
30-Jun-11 10:26:00	55.08776612	13.93541466
30-Jun-11 10:27:00	54.84672994	13.95271499
30-Jun-11 10:28:00	54.62914494	13.75514273
30-Jun-11 10:29:00	54.4729106	13.88184417
30-Jun-11 10:30:00	54.04835019	13.57279722
30-Jun-11 10:31:00	53.97712326	13.51031685
30-Jun-11 10:32:00	53.97712326	13.51031685
30-Jun-11 10:33:00	54.05953081	13.61596824
30-Jun-11 10:34:00	54.34904483	13.90294552
30-Jun-11 10:35:00	54.46001474	13.78838586
30-Jun-11 10:36:00	54.44428658	13.71486244
30-Jun-11 10:37:00	54.26294515	13.64644171
30-Jun-11 10:38:00	54.33216374	13.94958871
30-Jun-11 10:39:00	54.60480131	13.84953018
30-Jun-11 10:40:00	54.70609723	13.89802136
30-Jun-11 10:41:00	54.30320602	14.32676187
30-Jun-11 10:42:00	54.18201799	14.33755226
30-Jun-11 10:43:00	54.07316816	14.44146252
30-Jun-11 10:44:00	54.08134523	14.36312052
30-Jun-11 10:45:00	54.22309721	14.27090515
30-Jun-11 10:46:00	54.25960541	14.26360321
30-Jun-11 10:47:00	54.2741387	14.19900987
30-Jun-11 10:48:00	54.39328902	13.70029768
30-Jun-11 10:49:00	54.36659245	14.0597347

Chevron FCCU CEMS Data

Run 12

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
30-Jun-11 10:50:00	54.4201265	13.96645882
30-Jun-11 10:51:00	54.38026668	13.87839703
30-Jun-11 10:52:00	54.33054025	14.16249907
30-Jun-11 10:53:00	54.75976629	13.83171255
30-Jun-11 10:54:00	54.83594824	13.45143053
30-Jun-11 10:55:00	55.04676587	13.54885888
30-Jun-11 10:56:00	55.02106639	13.75464005
30-Jun-11 10:57:00	54.76161028	13.79252382
30-Jun-11 10:58:00	54.49152815	13.82495007
30-Jun-11 10:59:00	54.16763923	14.00689394
30-Jun-11 11:00:00	54.14017573	14.05390401
30-Jun-11 11:01:00	54.17485428	13.99995422
30-Jun-11 11:02:00	54.16436115	14.01229901
30-Jun-11 11:03:00	53.84537252	14.38642182
30-Jun-11 11:04:00	53.91810106	14.26492351
30-Jun-11 11:05:00	54.2216295	13.74344195
30-Jun-11 11:06:00	54.63288822	13.49897831
30-Jun-11 11:07:00	55.39486079	13.68242193
30-Jun-11 11:08:00	55.74819205	13.227727
30-Jun-11 11:09:00	55.71680268	13.61051727
30-Jun-11 11:10:00	55.28109387	13.81838115
30-Jun-11 11:11:00	54.83135327	13.66989361
30-Jun-11 11:12:00	54.72413069	13.79212873
30-Jun-11 11:13:00	54.60870763	13.97732204
30-Jun-11 11:14:00	55.04614646	13.65727698
30-Jun-11 11:15:00	55.51139331	13.38526273
30-Jun-11 11:16:00	55.50263063	13.36914502
30-Jun-11 11:17:00	55.50253631	13.36909644
30-Jun-11 11:18:00	55.66676104	13.6933489
30-Jun-11 11:19:00	55.64706357	13.98249524
30-Jun-11 11:20:00	55.13818849	14.14026313
30-Jun-11 11:21:00	54.58947761	14.59057529
30-Jun-11 11:22:00	54.45377631	14.59792396
30-Jun-11 11:23:00	54.98070685	14.30529523
30-Jun-11 11:24:00	55.28431129	14.19396175
30-Jun-11 11:25:00	55.21939524	14.08575443
30-Jun-11 11:26:00	55.36169454	14.19018175
30-Jun-11 11:27:00	55.07736768	14.45655215
30-Jun-11 11:28:00	54.69162686	14.34190592
30-Jun-11 11:29:00	54.25017555	14.41920473
30-Jun-11 11:30:00	53.73586919	14.38959872
30-Jun-11 11:31:00	53.69463348	14.38601303

Chevron FCCU CEMS Data

Run 12

	53A612.PV	53A611.PV
	FCC STACK CEM NOX	**FCC STACK CEM SO2**
	PPM	PPM
30-Jun-11 11:32:00	53.69463348	14.38601303
30-Jun-11 11:33:00	53.33120249	14.5741052
30-Jun-11 11:34:00	52.51471101	14.89548759
30-Jun-11 11:35:00	52.4092869	14.85470379
30-Jun-11 11:36:00	52.57682099	14.81696051
30-Jun-11 11:37:00	52.94810207	14.57539784
30-Jun-11 11:38:00	53.09427701	14.69921048
30-Jun-11 11:39:00	52.91542759	14.95707654
30-Jun-11 11:40:00	52.76670668	14.69308527
30-Jun-11 11:41:00	52.86103816	14.78711031
30-Jun-11 11:42:00	53.27250524	14.22621515
30-Jun-11 11:43:00	53.28557555	14.23727529
30-Jun-11 11:44:00	53.3137551	14.27066099
30-Jun-11 11:45:00	53.35139416	14.02804763
30-Jun-11 11:46:00	53.35565948	13.98112202
30-Jun-11 11:47:00	53.35565948	13.98112202
30-Jun-11 11:48:00	53.38821763	14.0100629
30-Jun-11 11:49:00	53.69809089	14.0588825
30-Jun-11 11:50:00	54.42348422	13.92828283
30-Jun-11 11:51:00	55.01392833	13.80447759
30-Jun-11 11:52:00	55.42806456	13.22170389
30-Jun-11 11:53:00	55.23333287	13.54243353
30-Jun-11 11:54:00	55.29559454	13.82415327
30-Jun-11 11:55:00	55.4660313	13.72129758
30-Jun-11 11:56:00	55.84886166	13.57449234
30-Jun-11 11:57:00	55.77265562	13.68774296
30-Jun-11 11:58:00	55.7372877	13.52494957
30-Jun-11 11:59:00	55.7410111	13.28317335
30-Jun-11 12:00:00	55.79975949	13.40308125
30-Jun-11 12:01:00	55.84149933	13.47265244
30-Jun-11 12:02:00	55.83406651	13.5160127
30-Jun-11 12:03:00	55.70263979	13.99891842
30-Jun-11 12:04:00	55.29256753	14.03616785
30-Jun-11 12:05:00	55.41157595	13.90655668
30-Jun-11 12:06:00	55.0046027	13.87628965
30-Jun-11 12:07:00	54.69654458	13.8882722
End Run 12		

Appendix E

FCCU CEMS Certification Data

EnvironMETeo Services, Inc.

Environmental / Industrial Health & Safety

2011 Relative Accuracy Test Audit

(Sulfur Dioxide, Nitrogen Oxide, Carbon Monoxide and Oxygen)

of

Chevron Hawaii Refinery

91-480 Malakole Street

Kapolei, Hawaii 96707

Fluid Catalytic Cracker Unit (FCCU)

Continuous Monitoring System

for

Chevron Hawaii Refinery

Test Date:

March 23, 2011

Testing Firm:

EnvironMETeo Services, Inc.

EMET ID: 1104196

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IV.	Sampling and Analytical Procedures	9
V.	Description of Tests	12

Appendix A:	Relative Accuracy Determination
Appendix B:	Overview of Equations and Calculations
Appendix C:	Calculation of Average Emissions
Appendix D:	Analyzer Calibration Error
Appendix E:	Sampling System Bias and Drift
Appendix F:	Calibration Gas Certificates
Appendix G:	Field Data – Recording Charts and Data Acquisition System
Appendix H:	CEMS Data

EnvironMETeo (EMET) Services, Inc. Waipio Gentry Business Park 94-520 Uke'e Street, Suite A Waipahu, Hawaii, USA 96797-4200
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RATA Results Summary

Test Performed For:
Chevron Hawaii
FCC Unit CEMS
FCC RATA
EMET ID: 1104196
Date:3/23/11

Test Performed By:
EnvironMETeo (EMET) Services Inc.
Air Pollution Measurement
Servomex, Fuji, Bovar
1104196/FCC 2011 RATA
CEM SN: FCC CEMS

Parameter	Avg RM Value (Active Runs)	Avg Diff RM-CEM	Applicable Standard	Relative Accuracy	Perf. Spec. Limit	RA Status	Method of Determination
SO2 ppm@0% O2:O2	22.9	0.5	25.0	3.5	20.0	Passed	Avg. RM
NOx ppm	34.5	0.5	0.0	3.2	20.0	Passed	Avg. RM
CO ppm@0% O2:O2	47.2	1.6	500.0	0.4	5.0	Passed	App. Std.
O_2 %	2.5	-0.1	1.0	0.2	1.0	Passed	App. Std.

Results Summary
Page 1 of 1

EnvironMETeo (EMET) Services, Inc. Waipio Gentry Business Park 94-520 Uke'e Street, Suite A Waipahu, Hawaii, USA 96797-4200
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Introduction

EnvironMETeo Services Inc. (EMET) performed a relative accuracy test audit (RATA) for Chevron Hawaii Refinery, Fluid Catalytic Cracker Unit (FCCU) located at 91-480 Malakole Street, Kapolei, Hawaii. The RATA was conducted on the FCCU continuous emission monitoring system (CEMS).

The RATA was conducted for sulfur dioxide (SO_2), nitrogen oxides (NO_x), and carbon monoxide (CO). Oxygen (O_2) was also measured during the test. RATA testing was conducted March 23, 2011.

The purpose of RATA testing is to determine the acceptability of the FCCU CEMS as delineated by DOH/EPA. Sampling and analytical methods for relative accuracy testing were performed in accordance with Title 40, Chapter I of the Code of Federal Regulations, Part 60 (40CFR60), Appendix A and Appendix B.

On-site test coordination was provided by Sonni Escuardo of Chevron Hawaii Refinery. A DOH representative was not present during the test program.

This report presents the sampling methodology, data and results.

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Description of Equipment

The instruments used for compliance are listed below; along with technical data.

Continuous Monitoring Instruments

	Oxygen	Sulfur Dioxide	Nitrogen Oxide	Carbon Monoxide
Manufacturer	Servomex	Bovar	Bovar	Automated Custom Systems
Model No.	1400B4	922	922	3400
Detection Principle	paramagnetic	UV	UV	NDIR
Range	0-25%	0-100ppm	0-100ppm	0-1000ppm
sensitivity, min. detection limit (% of full scale)	1	1	1	1
noise level, % of full scale (peak to peak)	0.5	0.5	0.5	0.5
system response time (minute)	<1.0	<1.0	<1.0	<1.0

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Sampling and Analytical Procedures

The sampling protocol followed the procedures as outlined in 40 CFR 60, Appendix A, Methods 3a, 6c, 7e and 10.

Gaseous Emission Tests

A continuous sample was extracted from the stack through a stainless steel probe, filter, sample conditioner (moisture removal system), filtered again through a Teflon filter and then delivered to the analyzers through a sample manifold flow controller.

Prior to the compliance tests, zero and span, direct and system, analyzer calibration checks were conducted. After zeroing all analyzers, EPA Protocol I gases were used to calibrate each analyzer within 80-100% full scale of the selected range. Each analyzer was then spanned within 40-60% of the selected range by introducing EPA Protocol I gases.

A system bias check was conducted before, and after, each sampling run by supplying calibration gas to a three-way valve located at the probe sample filter at the start of the sample line. The bias check for each analyzer did not exceed 5%.

All concentrations from O_2, SO_2, NO_X, and CO analyzers were recorded in EMET's mobile laboratory data acquisition system. All reference method (RM) data is acquired in the field by an IBM® compatible computer, a DuTec® I/O network and a software package specific to USEPA reference method testing. The above equipment complies with "Data Recorder" as defined in 40 CFR 60, Appendix A, Specification 2, Section 2.1.4, 40 CFR 60, Appendix A, Method 6C, Section 3.1.3 and 40 CFR 60, Appendix B, Method 6C, Section 5.1.11. Once

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basic data is acquired, a spread sheet import process filters pertinent data to specific areas of a Microsoft® Excel® spread sheet, prepares the data for display and completes all necessary calculations.

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Description of Tests

Overview

EnvironMETeo Services Inc., (EMET), performed 2011 RATA testing on the FCCU CEMS, located at Chevron Hawaii, 91-480 Malakole Street, Kapolei, Hawaii. RATA testing consisted of at least nine (9) sampling runs of at least twenty-one (21) minutes each. RATA testing was conducted on March 23, 2011.

The parameters and testing methods are as follows:

EPA Method 3a - oxygen (O_2) concentrations
EPA Method 6c - sulfur dioxide (SO_2) concentrations
EPA Method 7e - nitrogen oxide (NO_x) concentrations
EPA Method 10 - carbon monoxide (CO) concentrations

Daily Testing Description

March 22, 2011: EMET personnel arrived at Chevron Hawaii Refinery Plant at 9:00a.m. The equipment was set up, checked and readied for RATA testing of the CEMS the following day.

March 23, 2011: EMET personnel arrived at Chevron Hawaii Refinery Plant at 4:15a.m. The equipment was set up, checked and readied for RATA testing of the CEMS. RATA testing began after Chevron's release of the FCCU. RATA testing proceeded as follows:

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date	time	run #	parameters tested
March 23, 2011	0537-0558	1	O_2, NO_x, SO_2, CO
March 23, 2011	0607-0628	2	O_2, NO_x, SO_2, CO
March 23, 2011	0635-0656	3	O_2, NO_x, SO_2, CO
March 23, 2011	0707-0725	4	O_2, NO_x, SO_2, CO
March 23, 2011	0733-0754	5	O_2, NO_x, SO_2, CO
March 23, 2011	0802-0823	6	O_2, NO_x, SO_2, CO
March 23, 2011	0831-0852	7	O2, NO_x, SO2, CO
March 23, 2011	0859-0920	8	O2, NO_x, SO2, CO
March 23, 2011	0928-0950	9	O2, NO_x, SO2, CO
March 23, 2011	0957-1018	10	O2, NO_x, SO2, CO
March 23, 2011	1026-1047	11	O2, NOx, SO2, CO

After the completion of eleven (11) RATA sampling runs the test equipment was secured for transport.

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Appendix F

URS GC/FID Raw Data

Chevron FCCU
Refinery ICR Source Test
GC/FID Results
Group A - Run 8

Project: Chevron Hawaii
Location: Kapolei, HI
Date: 06/27/11
Base Injection Volume (uL) 600

Analyte		**methane**	**ethane**
Cal. Gas Concentration (ppmv)		**50**	**50**
Pre-Test Calibration			
Data and Time			
Injection ID			
Injection Volume (uL)			
6/27/2011 8:19:42	AC	137	244
fid-48.CHR	Cal. Gas Conc. (ppmv)	16.7	16.7
200	RF	73.0	41.0
	ppmv	17.7	17.1
6/27/2011 8:36:58	AC	136	243
fid-49.CHR	Cal. Gas Conc. (ppmv)	16.7	16.7
200	RF	73.3	41.2
	ppmv	17.6	17.0
6/27/2011 8:47:10	AC	136	243
fid-50.CHR	Cal. Gas Conc. (ppmv)	16.7	16.7
200	RF	73.3	41.2
	ppmv	17.6	17.0
Level 1	Average AC	137	243
Cal. Summary	Average ppmv	17.6	17.0
6/27/2011 8:57:58	AC	226	412
fid-51.CHR	Cal. Gas Conc. (ppmv)	29.2	29.2
350	RF	77.4	42.5
	ppmv	29.2	28.8
6/27/2011 9:07:12	AC	228	410
fid-52.CHR	Cal. Gas Conc. (ppmv)	29.2	29.2
350	RF	76.8	42.7
	ppmv	29.4	28.7
6/27/2011 9:14:24	AC	227	408
fid-53.CHR	Cal. Gas Conc. (ppmv)	29.2	29.2
350	RF	77.0	42.9
	ppmv	29.3	28.5
Level 2	Average AC	227	410
Cal. Summary	Average ppmv	29.3	28.7
6/27/2011 9:25:07	AC	360	713
fid-54.CHR	Cal. Gas Conc. (ppmv)	50.0	50.0
600	RF	83.3	42.1
	ppmv	46.5	49.9
6/27/2011 9:33:52	AC	356	716
fid-55.CHR	Cal. Gas Conc. (ppmv)	50.0	50.0
600	RF	84.2	41.9
	ppmv	46.0	50.1
6/27/2011 9:45:47	AC	371	701
fid-56.CHR	Cal. Gas Conc. (ppmv)	50.0	50.0
600	RF	80.9	42.8
	ppmv	47.9	49.0
Level 3	Average AC	362	710
Cal. Summary	Average ppmv	46.8	49.7
Calibration Curve	**Cal. Gas Conc. (ppmv)**		
	Zero	0	0
	Level 1	16.7	16.7
	Level 2	29.2	29.2
	Level 3	50.0	50.0
	Average AC		
	Zero	0	0
	Level 1	137	243
	Level 2	227	410
	Level 3	362	710
Calculated with Excel			
	Slope	7.22	14.1
	Intercept	8.50	1.87
	r2	0.996	1.00
Calculated with PeakSimple	**Slope**	7.75	14.3
(forced zero intercept)	**Intercept**	0	0
Pre-Test Recovery Study			
Date and Time			
Injection ID			
Calibration Gas			
Injection Volume (uL)			
Dilution Factor			

Chevron FCCU
Refinery ICR Source Test
GC/FID Results
Group A - Run 8

Project: Chevron Hawaii
Location: Kapolei, HI
Date: 06/27/11

Base Injection Volume (uL)	600		
Analyte		**methane**	**ethane**
Cal. Gas Concentration (ppmv)		**50**	**50**
06/27/11 10:05 AM	AC	212	380
fid-57.CHR	ppmv	27.4	26.6
50 ppmv methane/ethane	Recovery (%)	93.3	92.6
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/27/11 10:20 AM	AC	211	378
fid-58.CHR	ppmv	27.2	26.4
50 ppmv methane/ethane	Recovery (%)	92.9	92.2
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/27/11 10:47 AM	AC	224	398
fid-59.CHR	ppmv	28.9	27.9
50 ppmv methane/ethane	Recovery (%)	98.7	97.1
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
Sample Analyses			
Date and Time			
Injection ID			
Sample ID			
Injection Volume (uL)			
Dilution Factor			
06/27/11 11:00 AM	AC	0	0
fid-60.CHR	ppmv	0	0
Group A - Run 8 - Injection 1			
350			
1			
06/27/11 11:10 AM	AC	1.12	0
fid-61.CHR	ppmv	0.144	0
Group A - Run 8 - Injection 2			
600			
1			
06/27/11 11:36 AM	AC	1.28	0
fid-62.CHR	ppmv	0.165	0
Group A - Run 8 - Injection 3			
600			
1			
06/27/11 11:59 AM	AC	1.29	0
fid-63.CHR	ppmv	0.167	0
Group A - Run 8 - Injection 4			
600			
1			
06/27/11 12:23 PM	AC	1.28	0
fid-64.CHR	ppmv	0.165	0
Group A - Run 8 - Injection 5			
600			
1			
06/27/11 12:49 PM	AC	1.14	0
fid-65.CHR	ppmv	0.147	0
Group A - Run 8 - Injection 6			
600			
1			
06/27/11 01:14 PM	AC	1.06	0
fid-66.CHR	ppmv	0.137	0
Group A - Run 8 - Injection 7			
600			
1			
06/27/11 01:33 PM	AC	1.19	0
fid-67.CHR	ppmv	0.154	0
Group A - Run 8 - Injection 8			
600			
1			
06/27/11 04:15 PM	AC	1.06	0
fid-69.CHR	ppmv	0.137	0
N/A			
600			
1			
Post-Test Calibration			
Date and Time			
Injection ID			
Calibration Gas			
Injection Volume (uL)			
Dilution Factor			
06/27/11 04:41 PM	AC	224	465
fid-70.CHR	ppmv	28.9	32.6

Chevron FCCU
Refinery ICR Source Test
GC/FID Results
Group A - Run 8

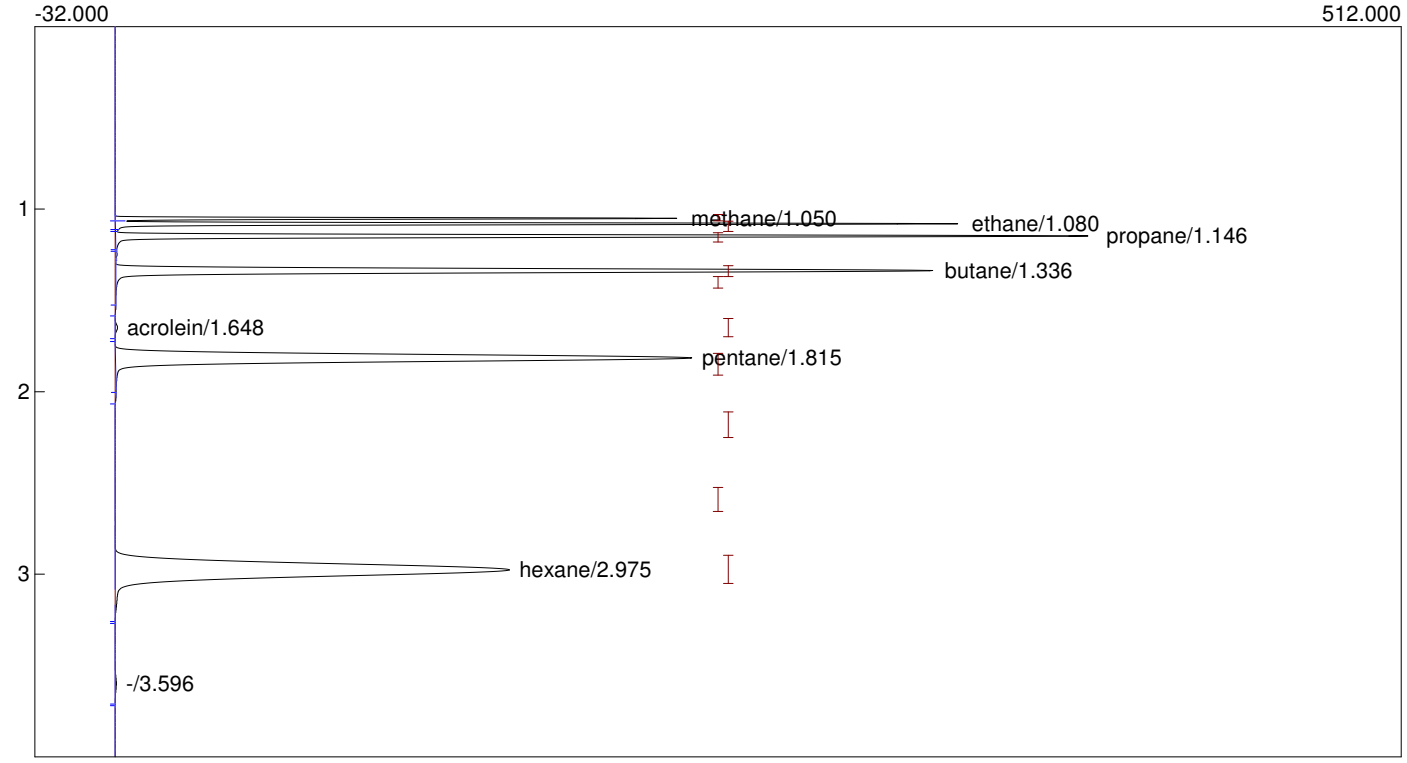
Project: Chevron Hawaii
Location: Kapolei, HI
Date: 06/27/11

Base Injection Volume (uL)	600		
Analyte		**methane**	**ethane**
Cal. Gas Concentration (ppmv)		**50**	**50**
50 ppmv methane/ethane	Recovery (%)	98.6	113.5
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/27/11 04:58 PM	AC	225	406
fid-71.CHR	ppmv	29.1	28.4
50 ppmv methane/ethane	Recovery (%)	99.2	99.1
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/27/11 05:11 PM	AC	227	407
fid-72.CHR	ppmv	29.3	28.5
50 ppmv methane/ethane	Recovery (%)	99.9	99.2
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 08:19:42
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-48.CHR (C:\Peak385\data\CH)
Sample: 0.2 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

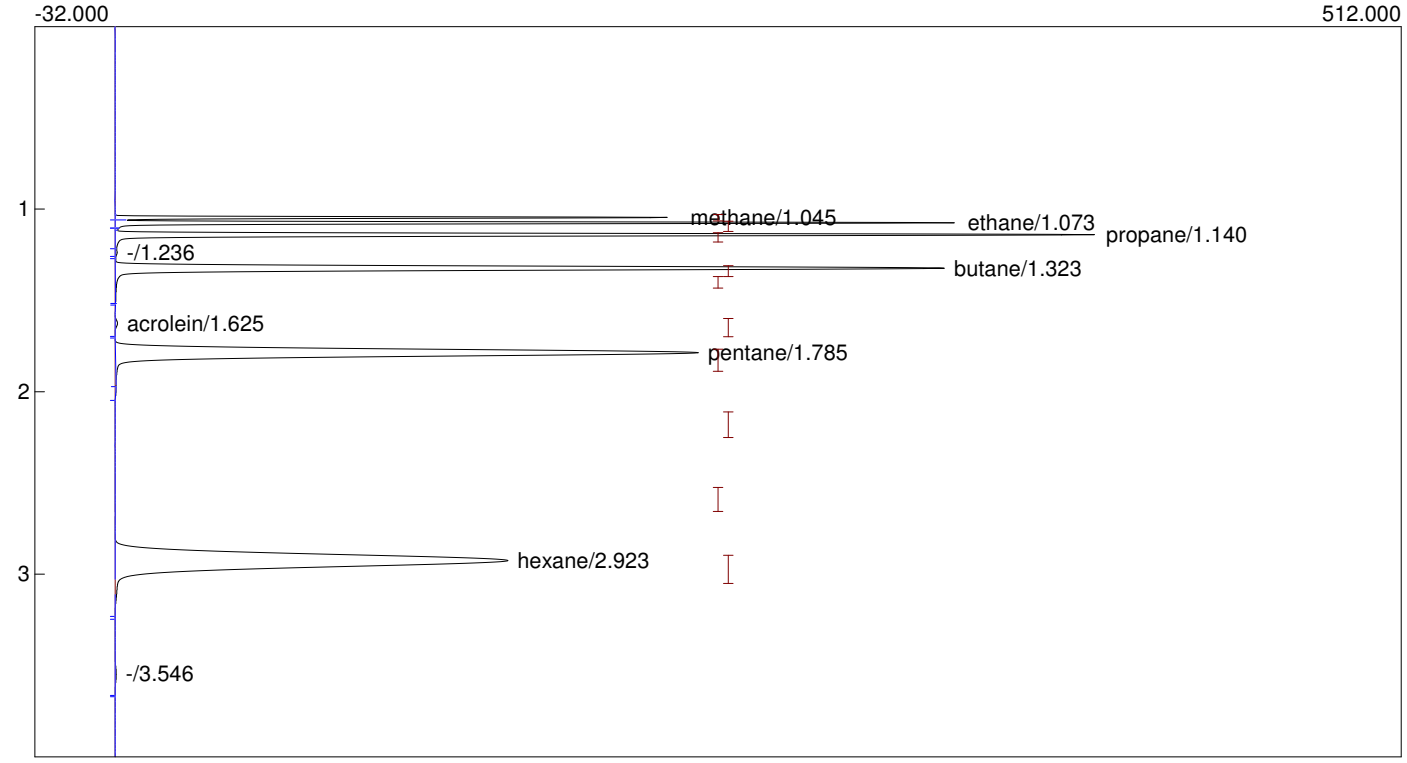


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.050	137.0714	17.3393	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
ethane	1.080	244.1110	16.7291	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
propane	1.146	375.3088	17.2270	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
butane	1.336	496.8502	17.1022	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
acrolein	1.648	2.4222	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
pentane	1.815	615.9575	16.8227	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
hexane	2.975	751.5458	16.9821	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-48.CHR	0.2 ml 50 ppm C1-C6
		2623.2669	102.2024				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 08:36:58
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-49.CHR (C:\Peak385\data\CH)
Sample: 0.2 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

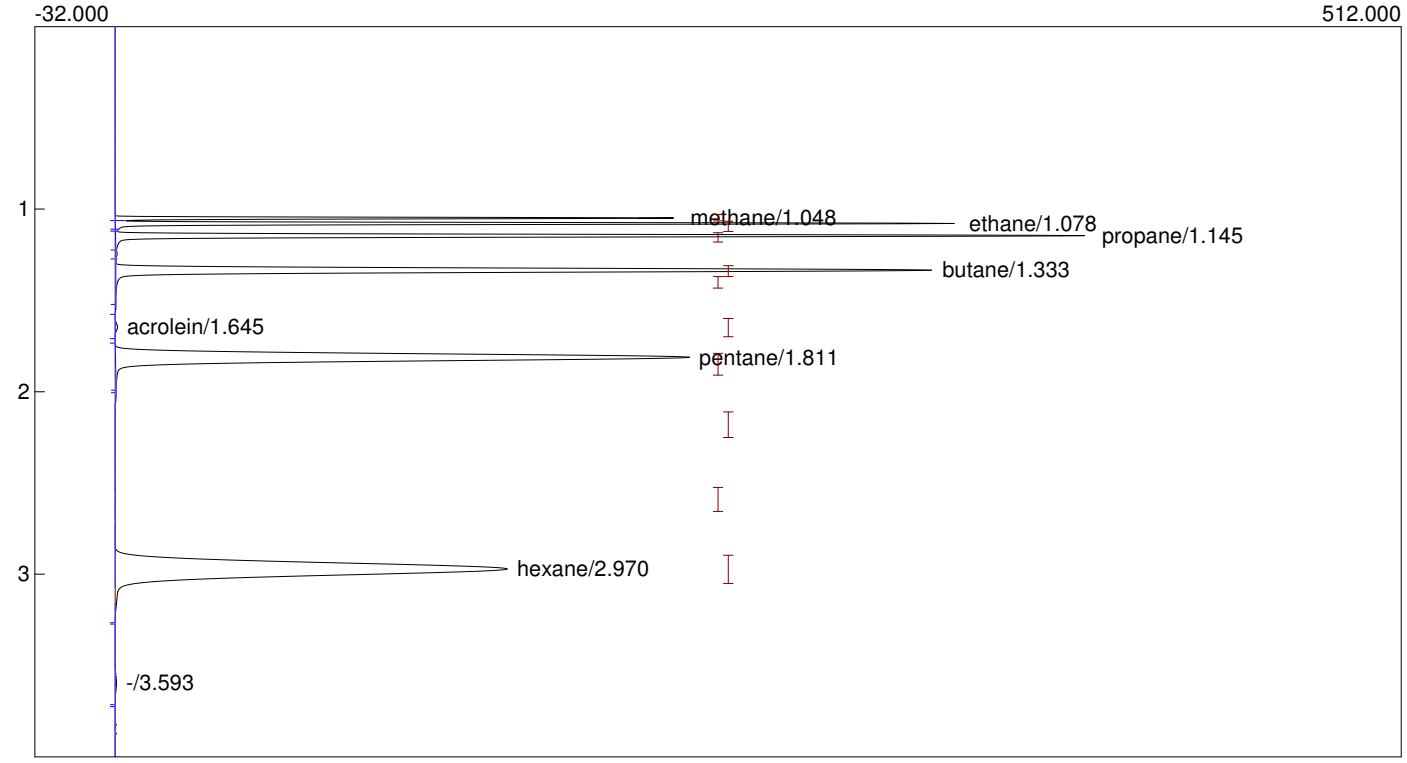


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.045	136.4280	17.2579	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
ethane	1.073	242.7957	16.6390	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
propane	1.140	374.1535	17.1740	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
butane	1.323	495.7484	17.0643	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
acrolein	1.625	2.3967	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
pentane	1.785	612.7870	16.7361	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
hexane	2.923	748.1242	16.9048	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-49.CHR	0.2 ml 50 ppm C1-C6
		2612.4335	101.7760				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 08:47:10
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-50.CHR (C:\Peak385\data\CH)
Sample: 0.2 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

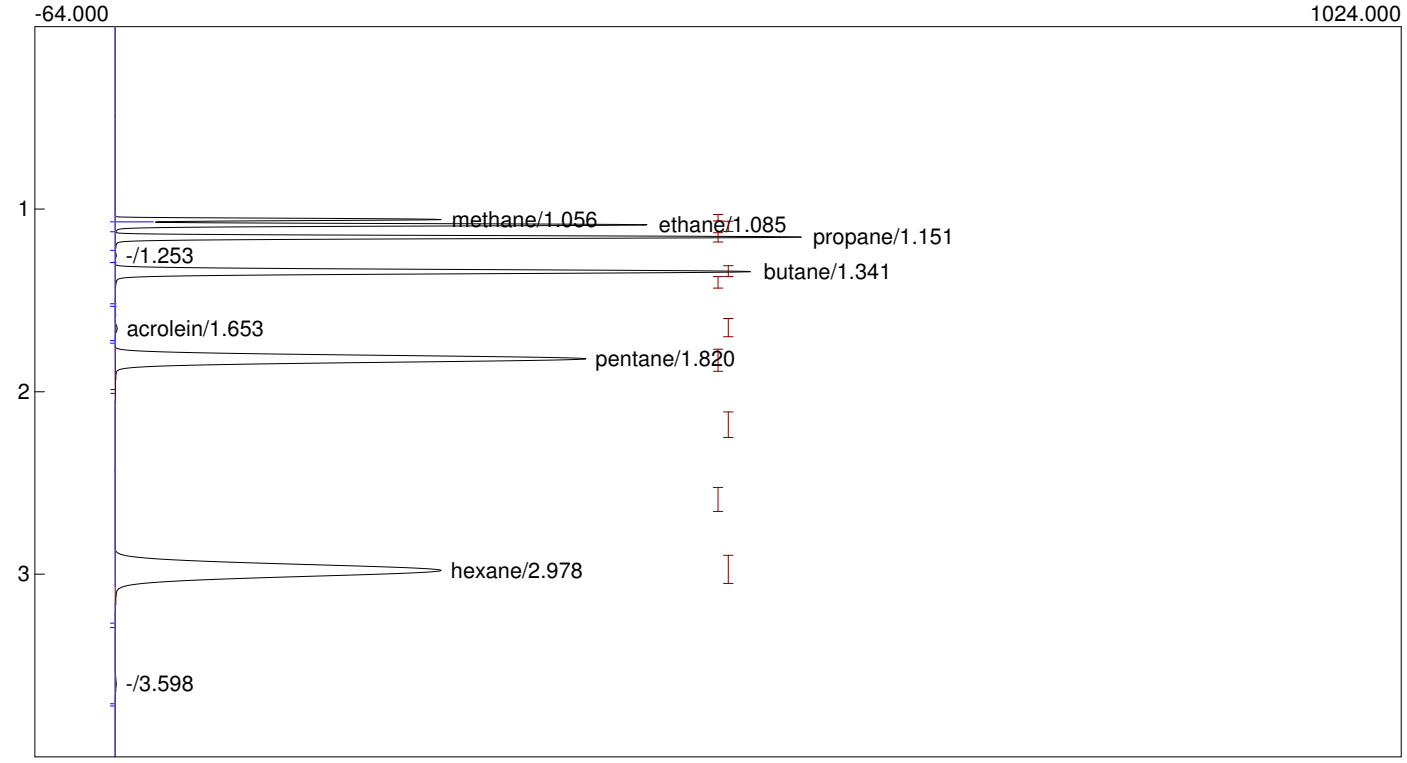


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.048	136.4559	17.2614	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
ethane	1.078	242.9180	16.6474	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
propane	1.145	373.3722	17.1381	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
butane	1.333	494.0128	17.0046	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
acrolein	1.645	2.3906	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
pentane	1.811	612.6780	16.7331	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
hexane	2.970	747.7200	16.8956	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-50.CHR	0.2 ml 50 ppm C1-C6
		2609.5475	101.6802				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 08:57:58
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-51.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

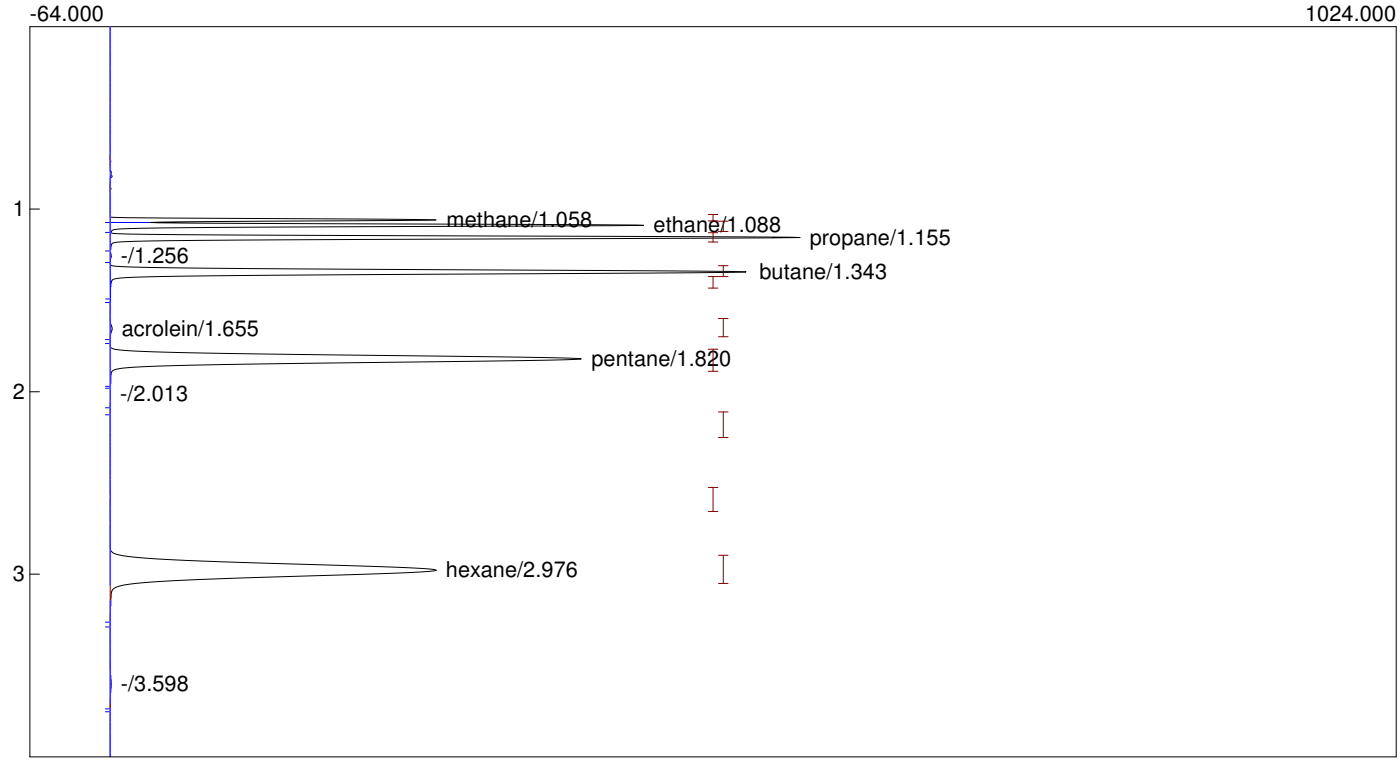


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.056	226.1537	28.6080	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
ethane	1.085	412.0180	28.2359	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
propane	1.151	625.4895	28.7105	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
butane	1.341	829.2955	28.5454	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.653	4.0264	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
pentane	1.820	1022.8720	27.9361	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
hexane	2.978	1238.7930	27.9920	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 08:	fid-51.CHR	0.35 ml 50 ppm C1-C6
		4358.6480	170.0280				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 09:07:12
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-52.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

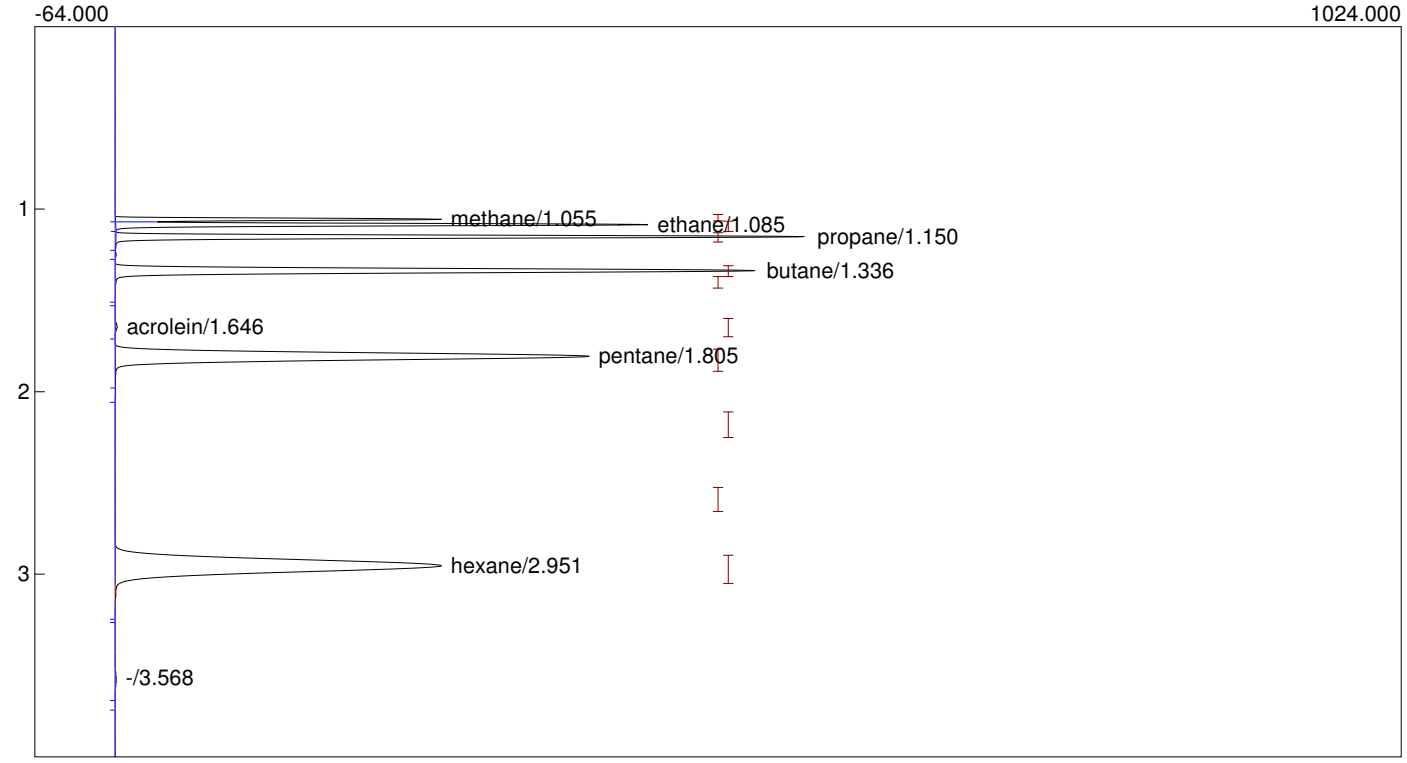


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.058	227.9762	28.8385	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
ethane	1.088	409.9833	28.0965	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
propane	1.155	624.8018	28.6789	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
butane	1.343	826.9254	28.4639	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.655	4.1194	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
pentane	1.820	1024.8013	27.9888	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
hexane	2.976	1238.5730	27.9870	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-52.CHR	0.35 ml 50 ppm C1-C6
		4357.1804	170.0537				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 09:14:24
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-53.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

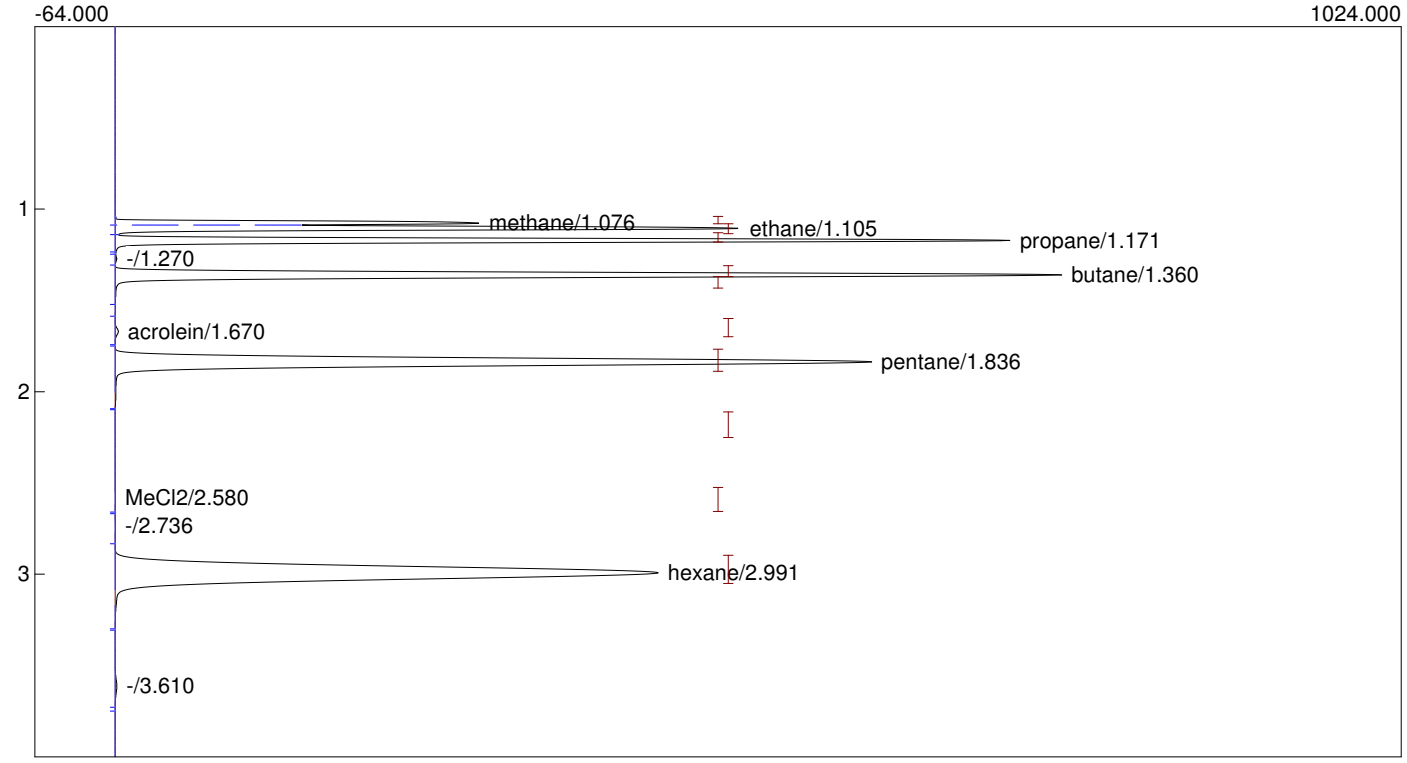


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.055	227.3536	28.7598	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
ethane	1.085	407.8678	27.9515	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
propane	1.150	620.8588	28.4979	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
butane	1.336	825.9412	28.4300	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.646	4.2560	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
pentane	1.805	1027.1318	28.0524	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
hexane	2.951	1236.2190	27.9338	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-53.CHR	0.35 ml 50 ppm C1-C6
		4349.6282	169.6255				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 09:25:07
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-54.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

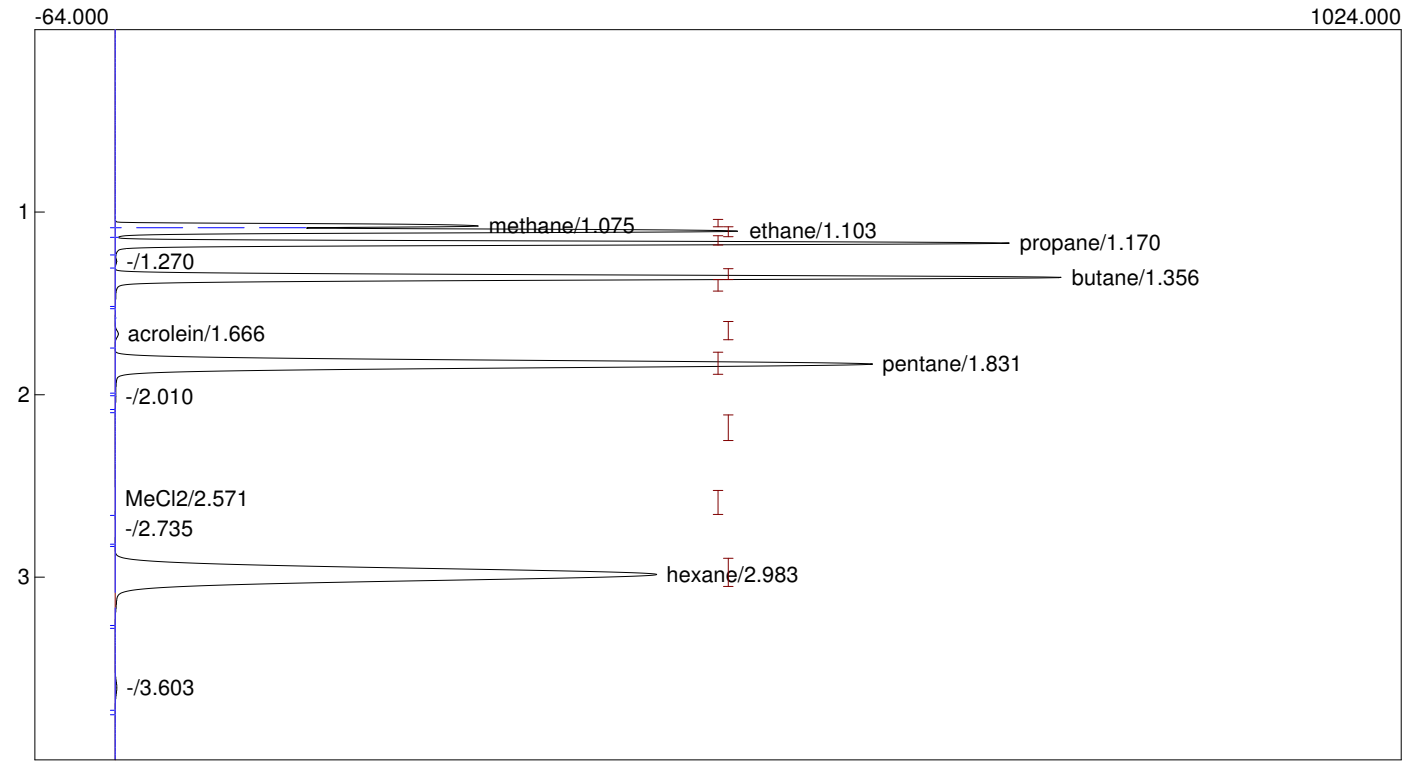


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.076	360.2498	45.5709	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
ethane	1.105	712.9914	48.8619	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
propane	1.171	1052.0695	48.2909	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
butane	1.360	1393.1935	47.9555	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
acrolein	1.670	6.8307	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
pentane	1.836	1723.6478	47.0753	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
MeCl2	2.580	1.1786	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
hexane	2.991	2085.1008	47.1153	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-54.CHR	0.6 ml 50 ppm C1-C6
		7335.2622	284.8699				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 09:33:52
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-55.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

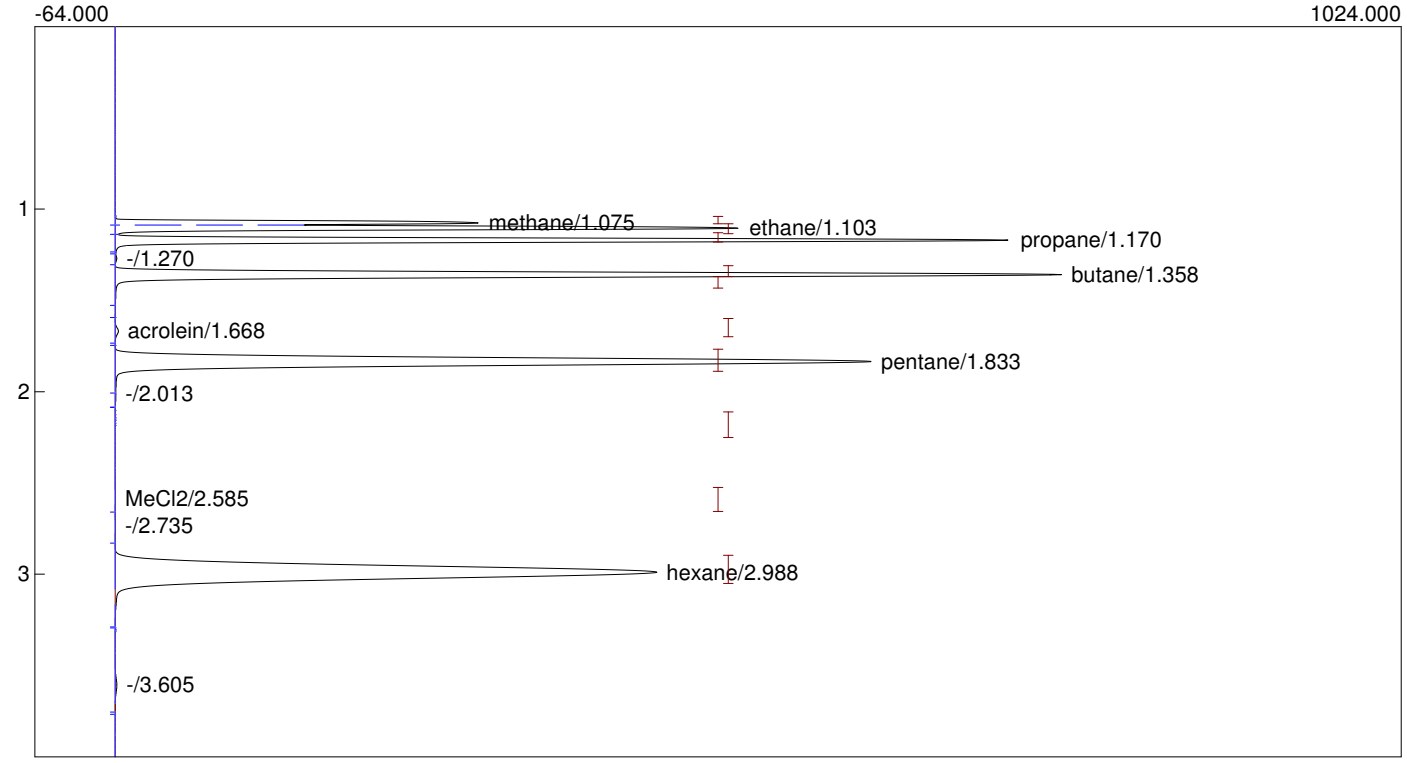


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.075	356.2115	45.0601	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
ethane	1.103	715.9740	49.0663	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
propane	1.170	1051.1042	48.2466	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
butane	1.356	1391.8258	47.9085	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
acrolein	1.666	6.9335	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
pentane	1.831	1719.6764	46.9668	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
MeCl2	2.571	1.5546	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
hexane	2.983	2077.6058	46.9460	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 09:	fid-55.CHR	0.6 ml 50 ppm C1-C6
		7320.8859	284.1942				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 09:45:47
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-56.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

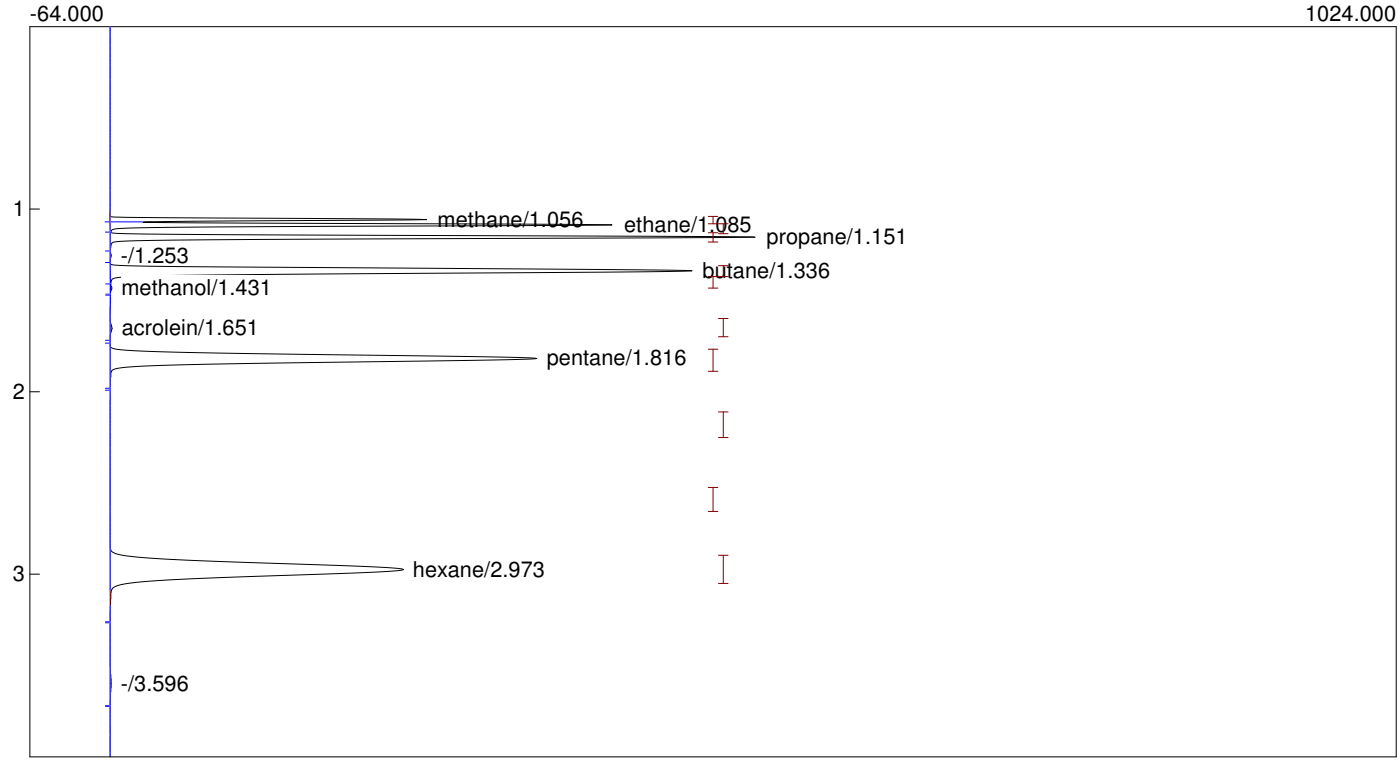


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.075	370.8592	46.9130	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
ethane	1.103	700.8861	48.0323	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
propane	1.170	1050.7615	48.2308	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
butane	1.358	1391.4165	47.8944	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
acrolein	1.668	7.0500	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
pentane	1.833	1719.5040	46.9621	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
MeCl2	2.585	1.1960	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
hexane	2.988	2075.5088	46.8986	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 09	fid-56.CHR	0.6 ml 50 ppm C1-C6
		7317.1821	284.9312				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 10:05:23
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-57.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6 rec

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

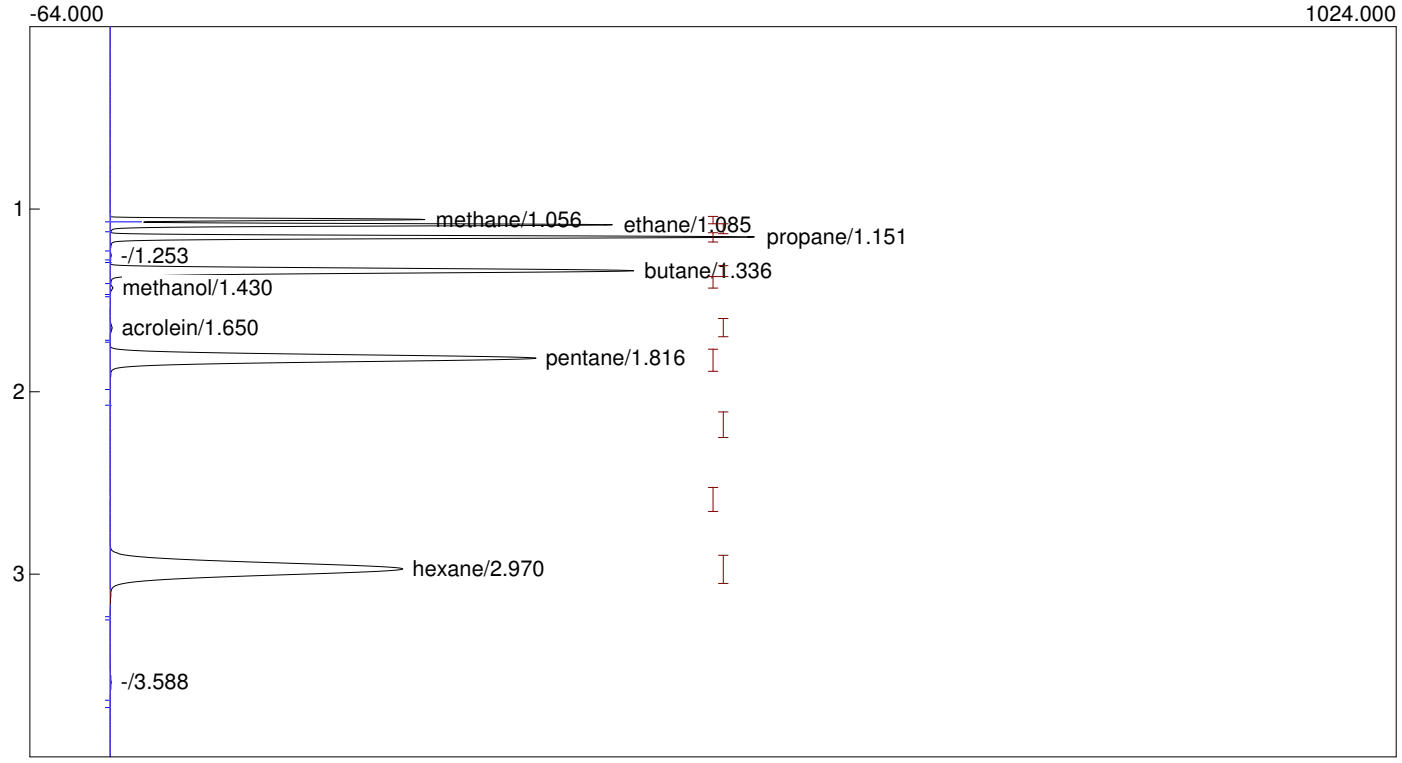


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.056	211.9765	27.3637	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
ethane	1.085	379.7828	26.5763	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
propane	1.151	572.5442	26.2803	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
butane	1.336	843.7430	29.0427	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
methanol	1.431	1.7922	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
acrolein	1.651	3.7618	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
pentane	1.816	927.7072	25.3370	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
hexane	2.973	1110.1476	25.0851	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-57.CHR	0.35 ml 50 ppm C1-C6 rec
		4051.4553	159.6851				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 10:20:32
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-58.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6 rec

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

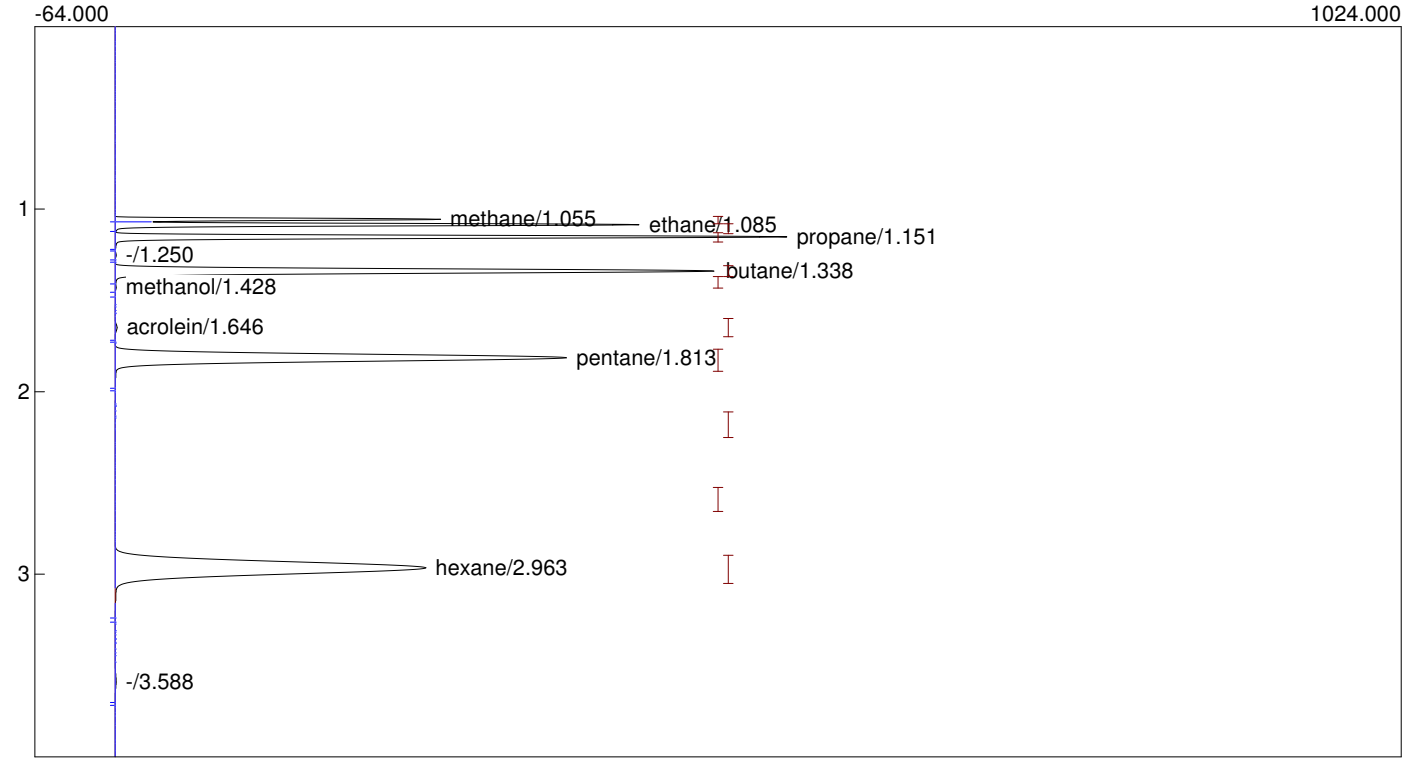


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.056	211.0593	27.2453	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
ethane	1.085	377.9319	26.4467	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
propane	1.151	571.0651	26.2124	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
butane	1.336	750.8634	25.8457	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
methanol	1.430	3.4416	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
acrolein	1.650	3.7278	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
pentane	1.816	925.5654	25.2785	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
hexane	2.970	1108.2683	25.0426	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 10	fid-58.CHR	0.35 ml 50 ppm C1-C6 rec
		3951.9229	156.0713				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 10:47:46
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-59.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6 rec

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	60.00

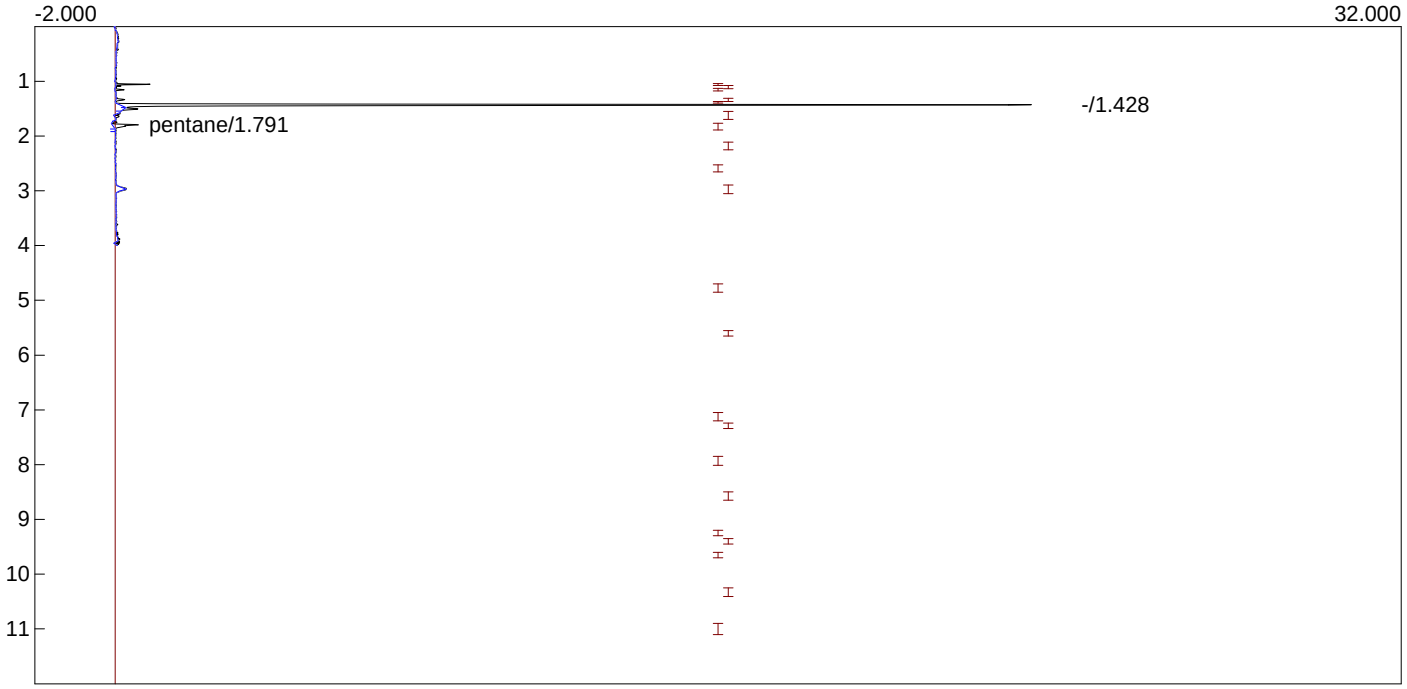


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.055	224.1764	28.9386	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
ethane	1.085	398.0034	27.8513	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
propane	1.151	603.2036	27.6876	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
butane	1.338	794.0752	27.3331	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
methanol	1.428	1.5467	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
acrolein	1.646	3.9480	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
pentane	1.813	978.9748	26.7372	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
hexane	2.963	1175.5793	26.5636	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 10:	fid-59.CHR	0.35 ml 50 ppm C1-C6 rec
		4179.5073	165.1113				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 11:00:18
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-60.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

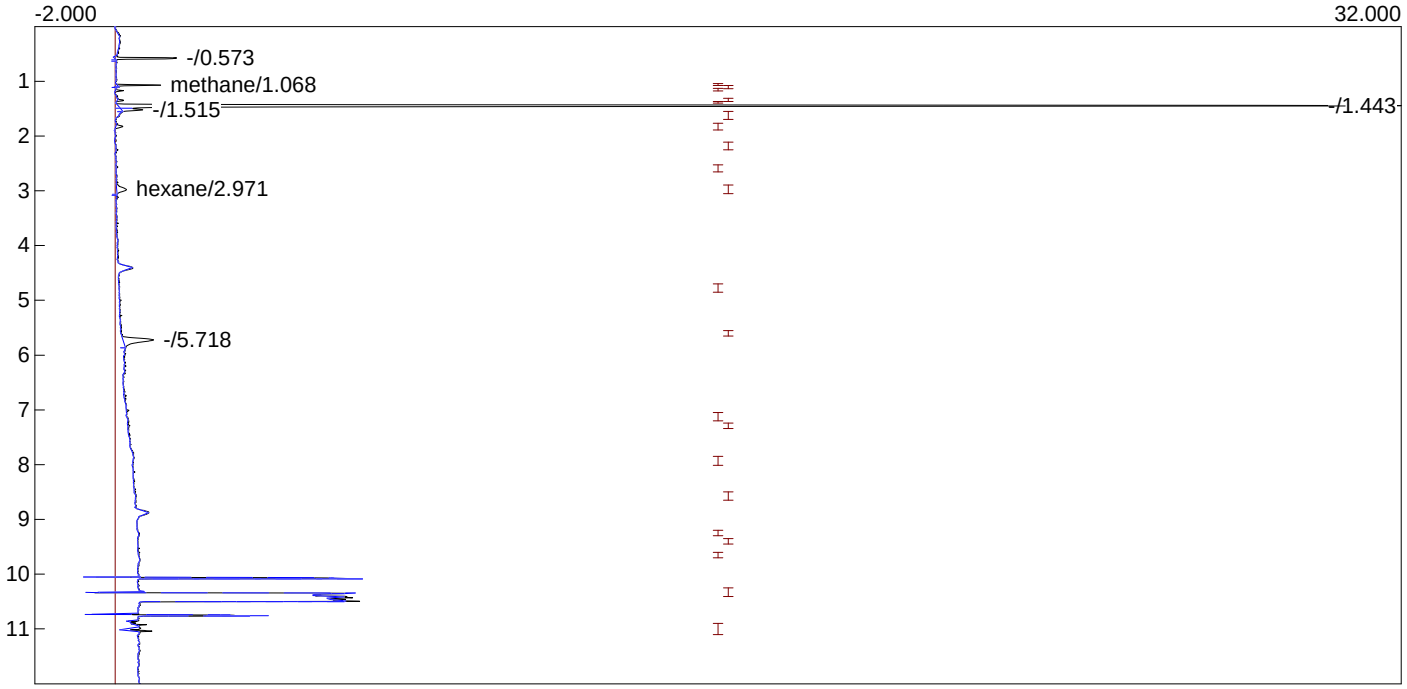


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
pentane	1.791	1.4016	0.0395	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-60.CHR	0.35 ml sample
		1.4016	0.0395				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 11:10:47
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-61.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

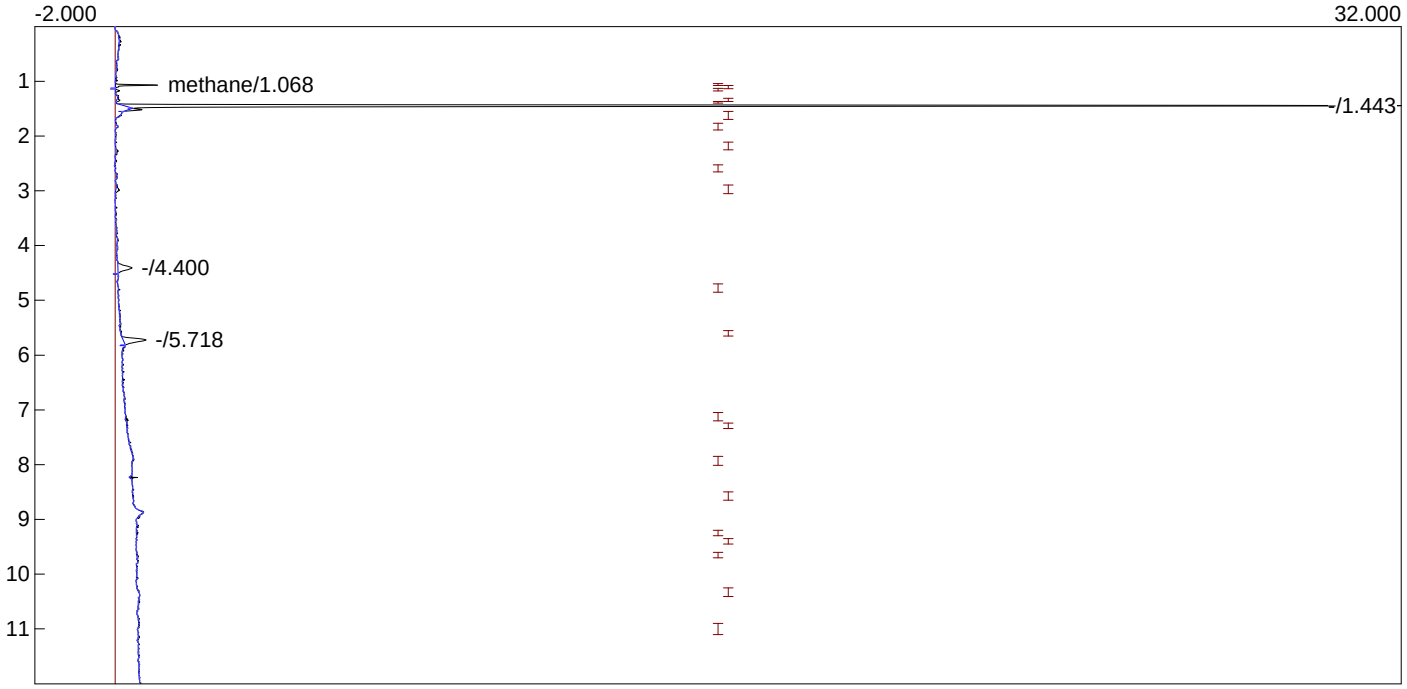


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.068	1.1184	0.1444	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
hexane	2.971	1.3026	0.0303	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-61.CHR	0.6 ml sample
		2.4210	0.1747				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 11:36:07
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-62.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

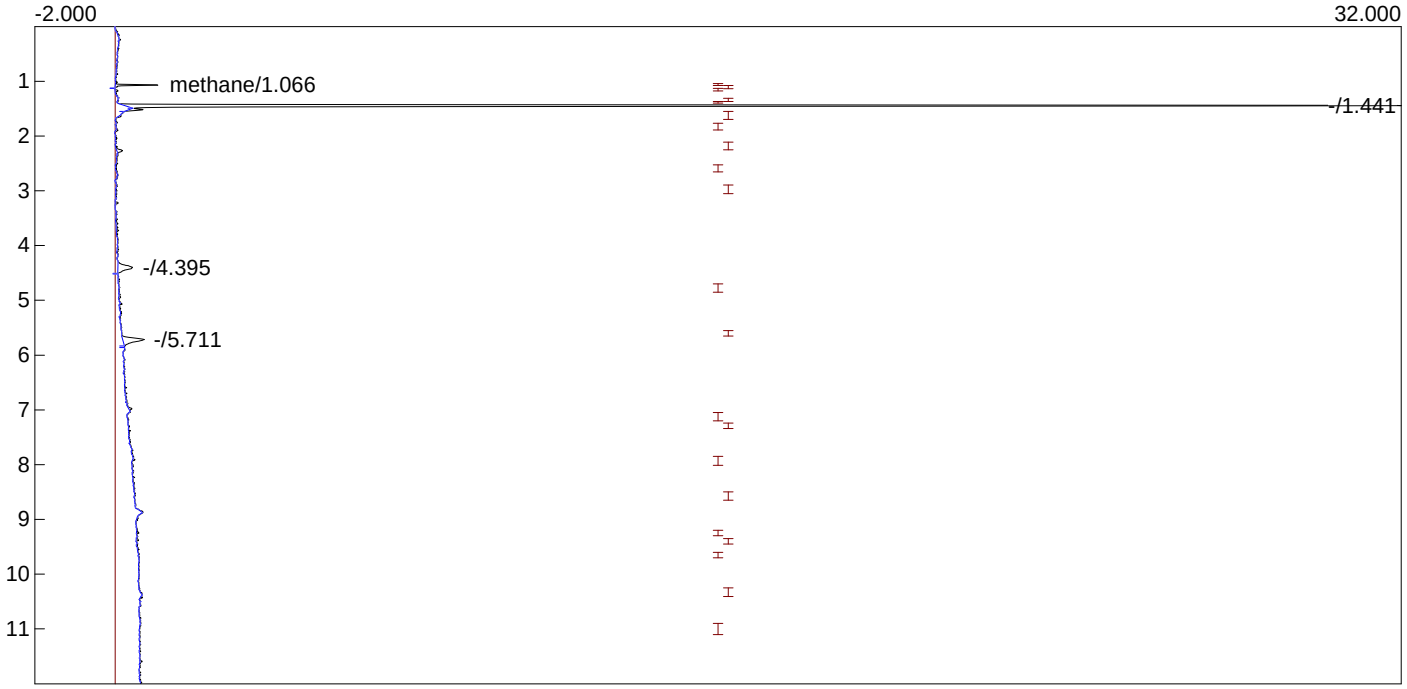


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.068	1.2806	0.1653	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-62.CHR	0.6 ml sample
		1.2806	0.1653				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 11:59:52
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-63.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

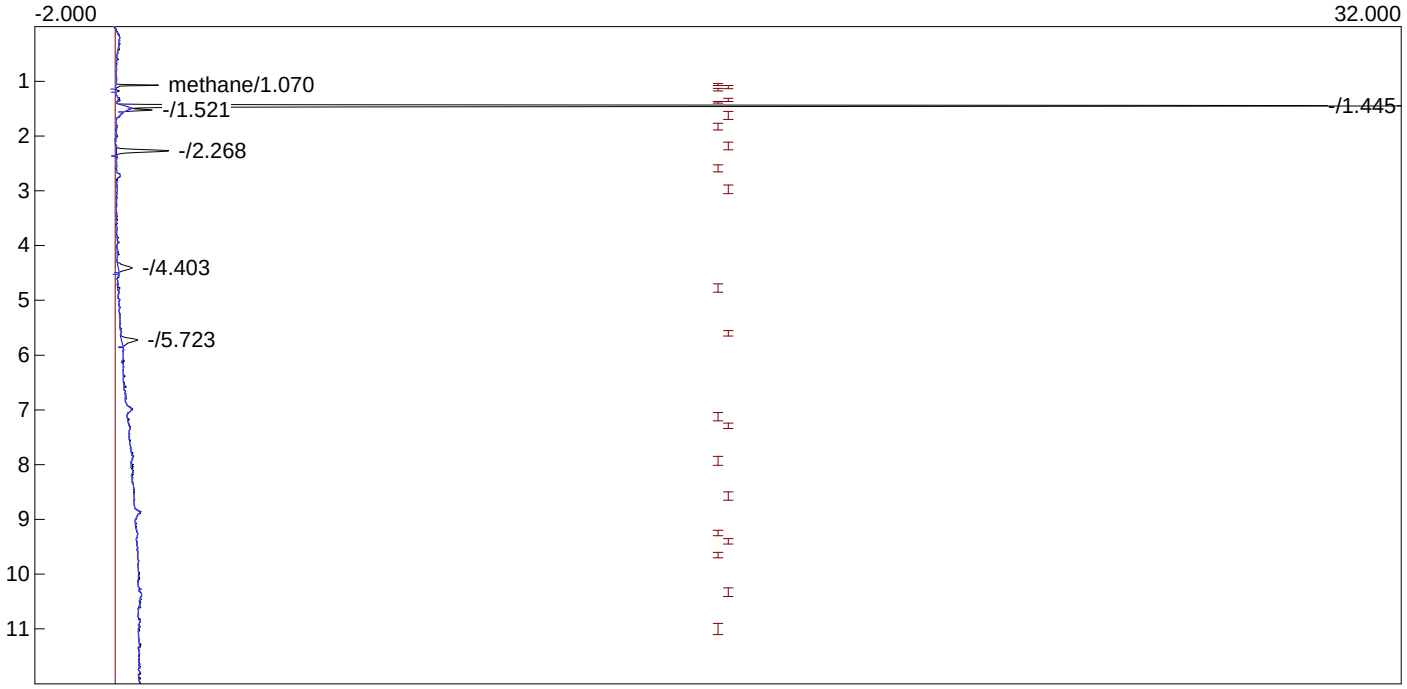


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.066	1.2937	0.1670	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 11:	fid-63.CHR	0.6 ml sample
		1.2937	0.1670				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 12:23:48
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-64.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

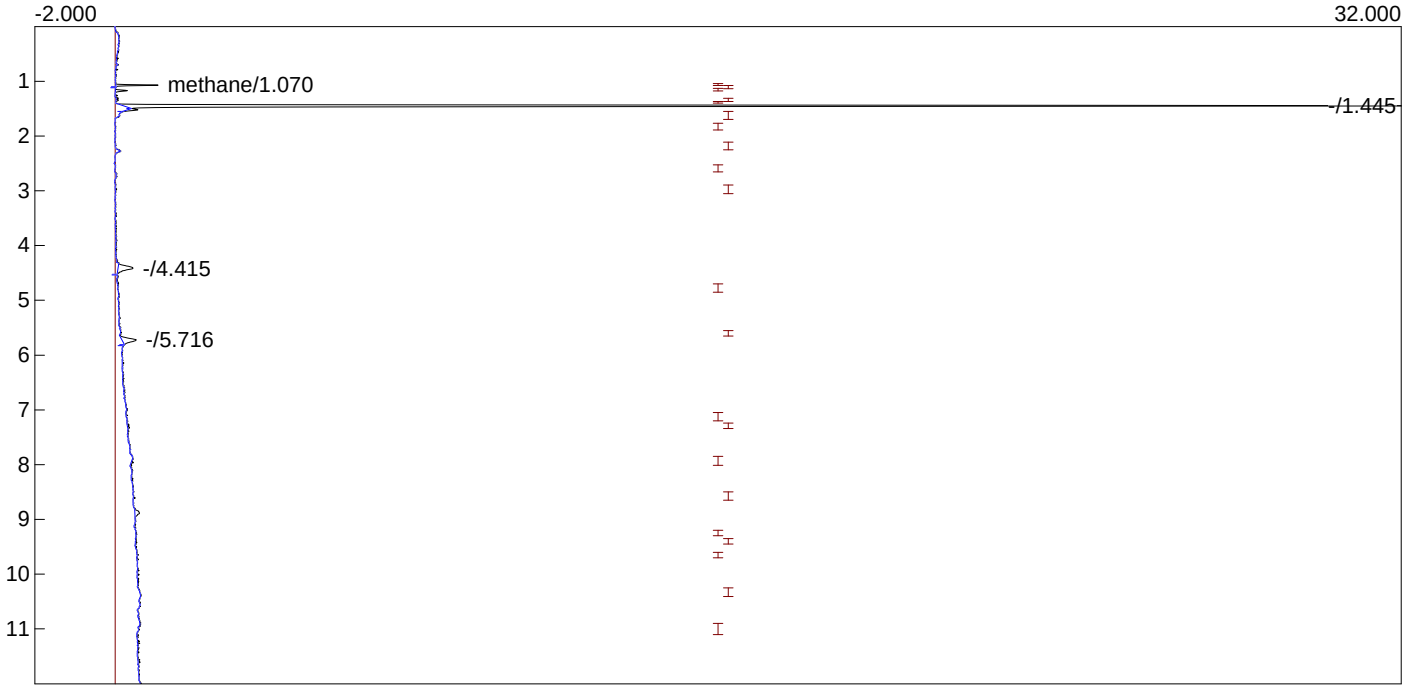


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	1.2806	0.1653	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-64.CHR	0.6 ml sample
		1.2806	0.1653				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 12:49:48
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-65.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

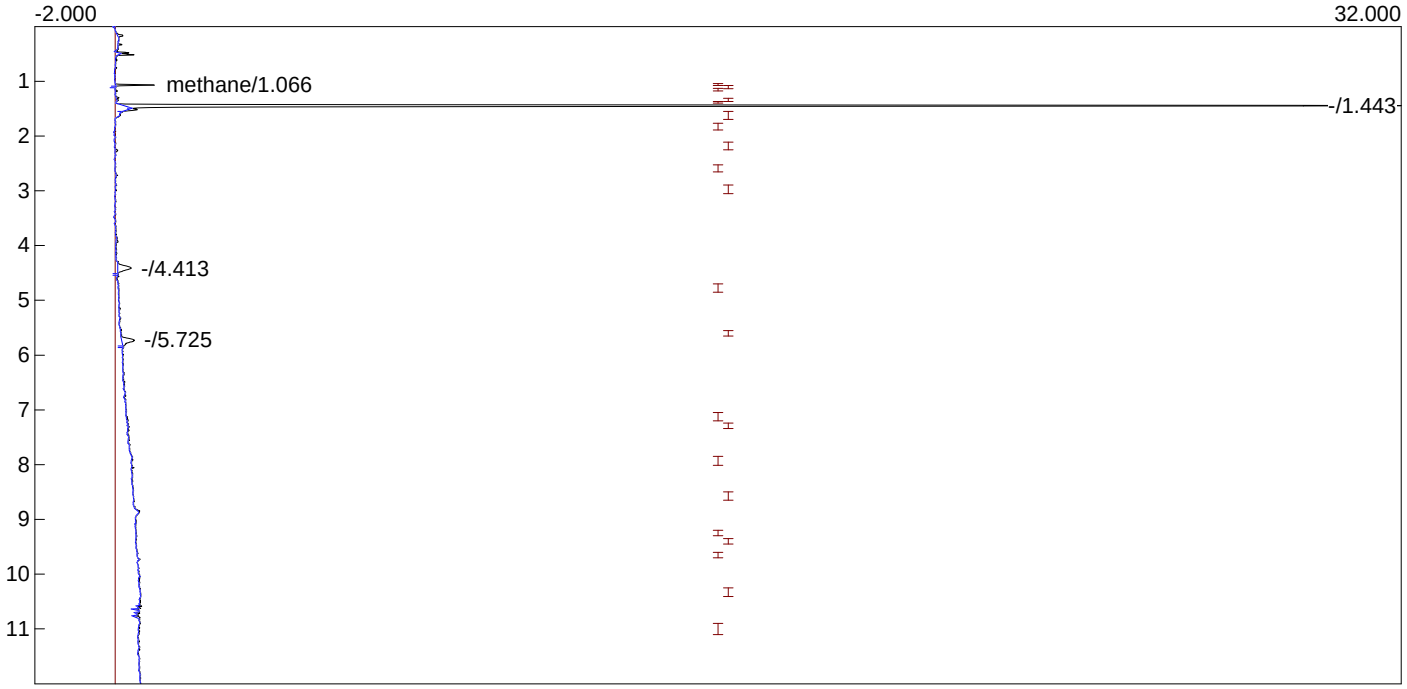


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	1.1382	0.1469	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 12:	fid-65.CHR	0.6 ml sample
		1.1382	0.1469				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 13:14:39
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-66.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

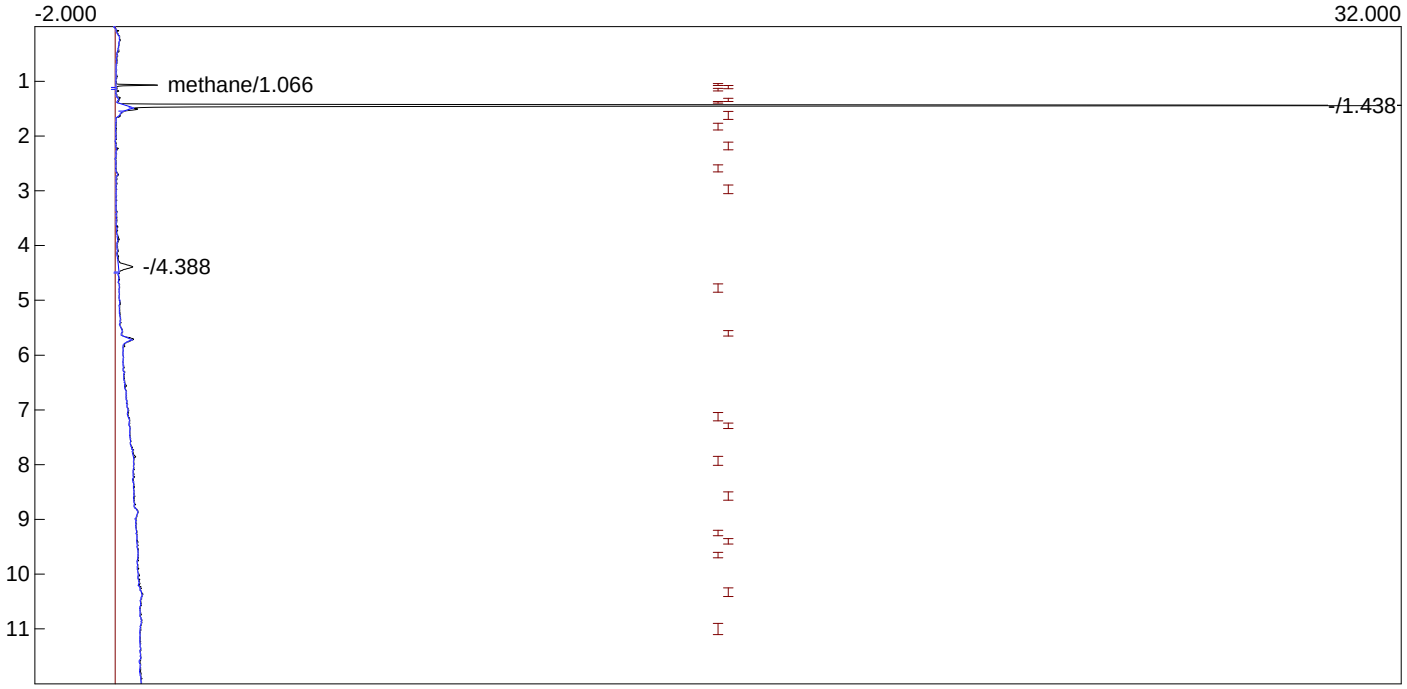


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.066	1.0646	0.1374	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-66.CHR	0.6 ml sample
		1.0646	0.1374				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 13:33:20
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-67.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

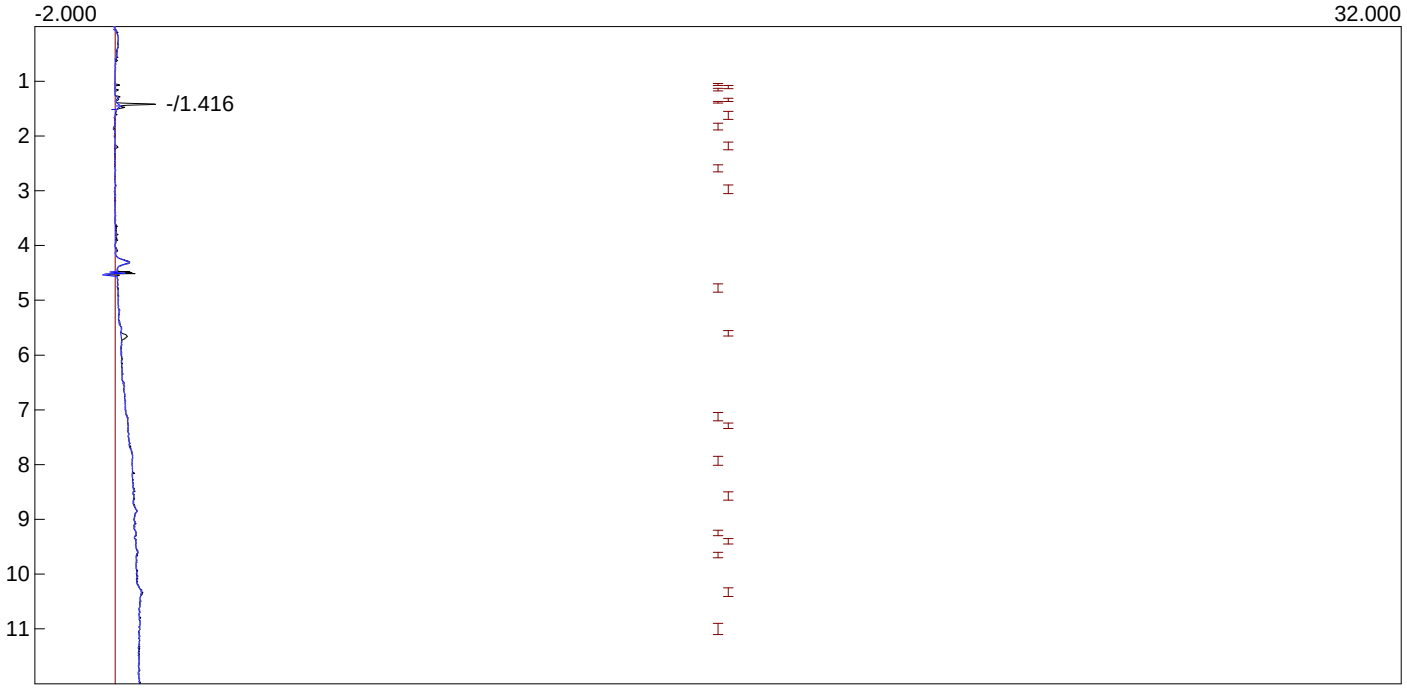


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.066	1.1894	0.1535	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-67.CHR	0.6 ml sample
		1.1894	0.1535				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 13:50:17
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-68.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample
Comments: loop not loaded

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

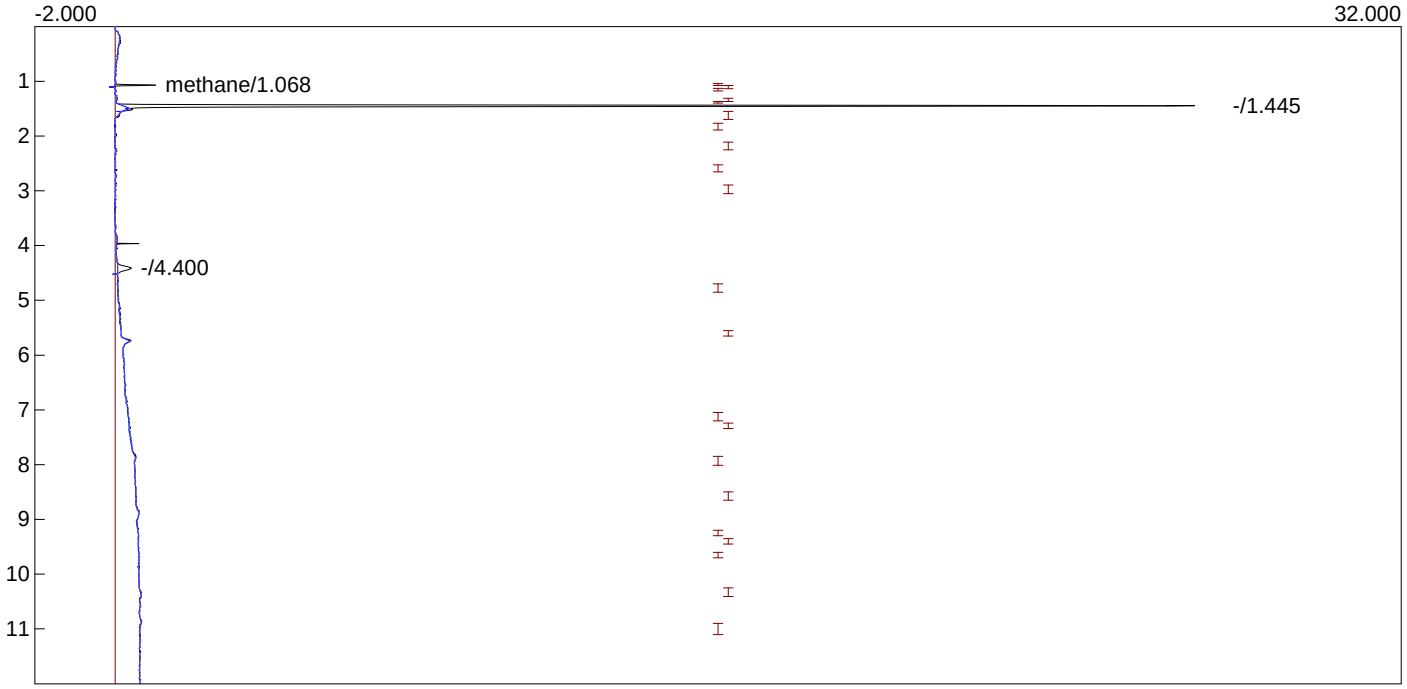


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 13:	fid-68.CHR	0.6 ml sample
		0.0000	0.0000				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 16:15:05
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-69.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

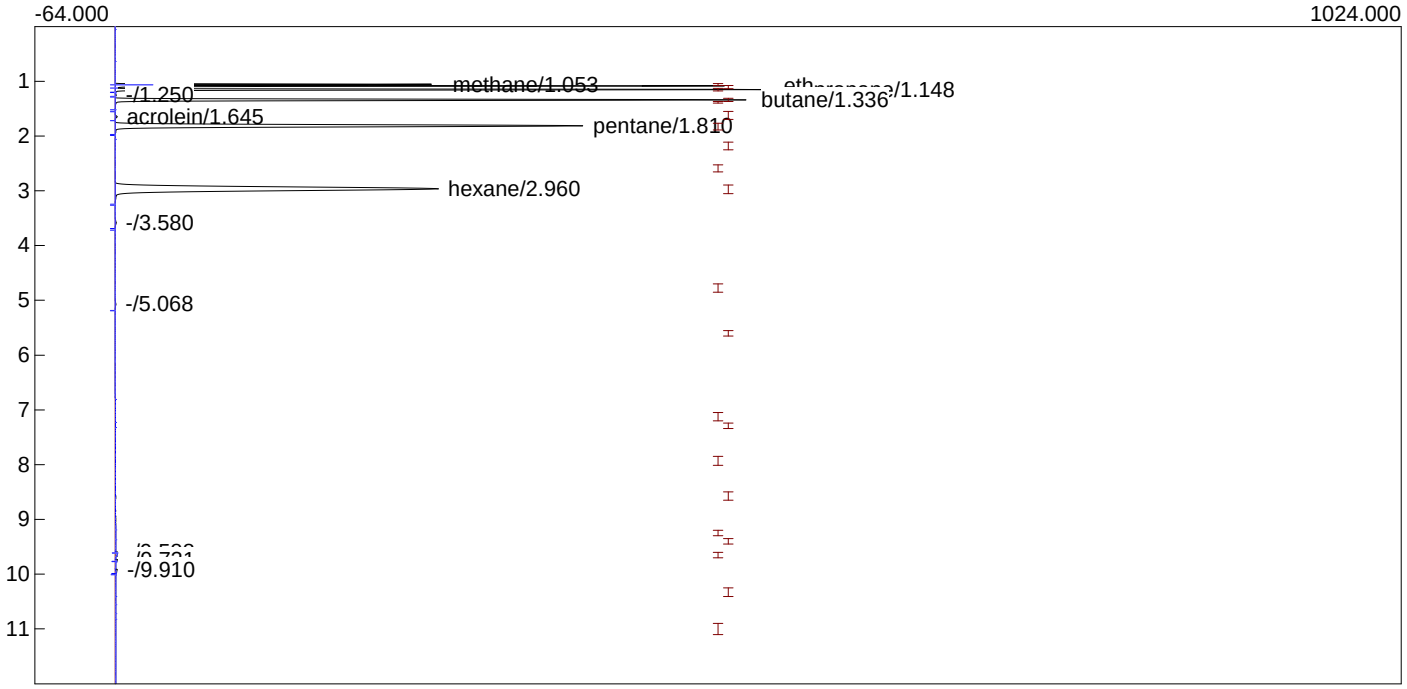


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.068	1.0624	0.1371	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-69.CHR	0.6 ml sample
		1.0624	0.1371				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 16:41:04
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-70.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

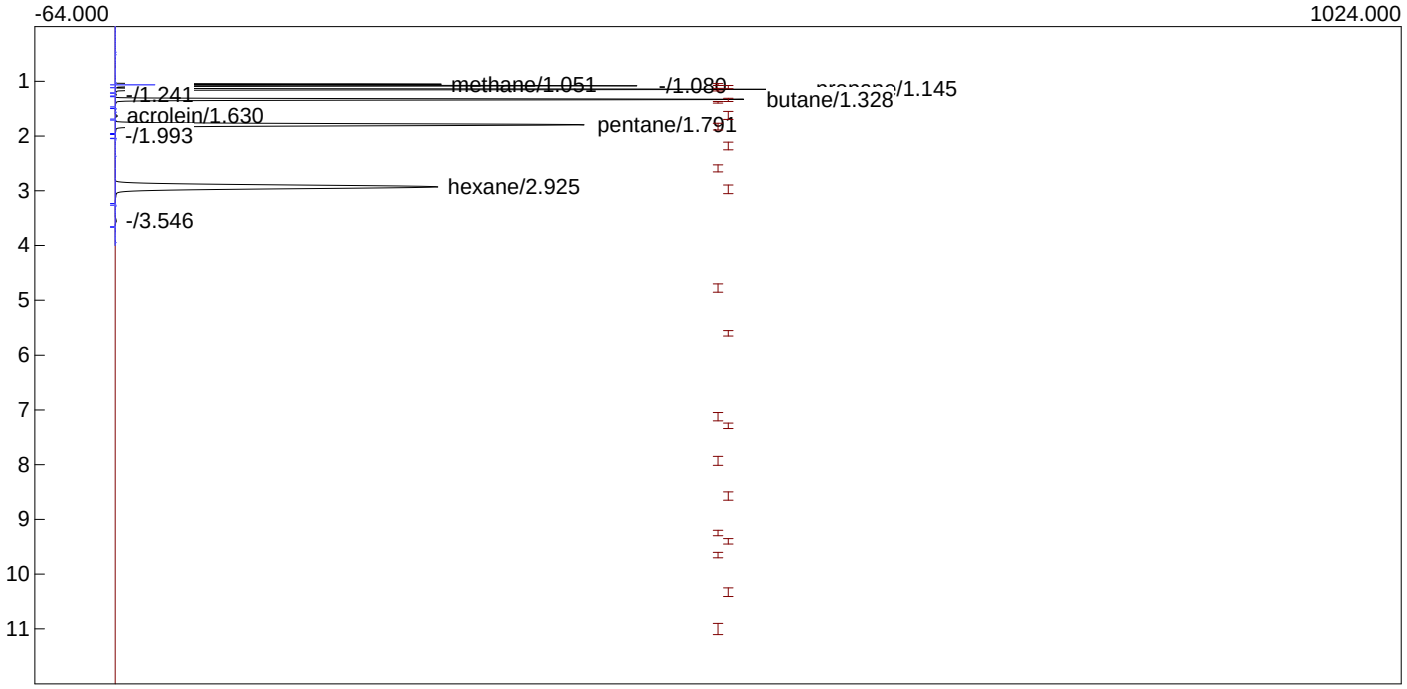


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.053	224.0195	28.9183	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
ethane	1.083	465.3827	32.5663	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
propane	1.148	618.9637	29.1984	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
butane	1.336	820.5143	29.2145	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.645	4.1707	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
pentane	1.810	1014.8110	28.6164	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
hexane	2.960	1224.7406	28.4875	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-70.CHR	0.35 ml 50 ppm C1-C6
		4372.6025	177.0014				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 16:58:59
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-71.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

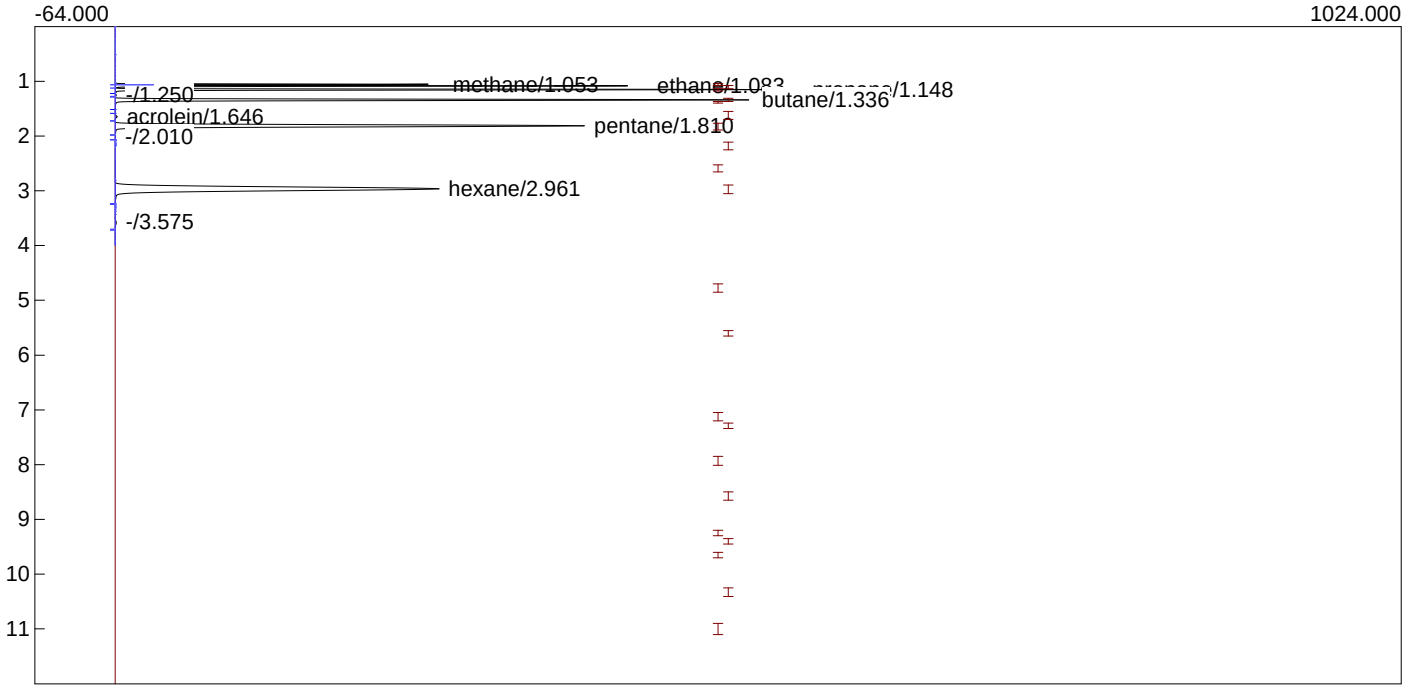


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.051	225.2312	29.0747	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
ethane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
propane	1.145	618.5770	29.1802	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
butane	1.328	819.7025	29.1856	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.630	4.0578	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
pentane	1.791	1013.3137	28.5741	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
hexane	2.925	1223.6308	28.4617	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 16:	fid-71.CHR	0.35 ml 50 ppm C1-C6
		3904.5129	144.4763				

Lab name: URS
Client: Chevron
Analysis date: 06/27/2011 17:11:56
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-72.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00



Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.053	226.9086	29.2913	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
ethane	1.083	406.6000	28.4529	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
propane	1.148	620.7668	29.2835	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
butane	1.336	822.9824	29.3024	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.646	4.2902	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
pentane	1.810	1016.7916	28.6722	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
hexane	2.961	1227.7349	28.5571	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/27/2011 17:	fid-72.CHR	0.35 ml 50 ppm C1-C6
		4326.0745	173.5593				

Chevron FCCU
Refinery ICR Source Test
GC/FID Results
Group A - Run 9

Project: Chevron Hawaii
Location: Kapolei, HI
Date: 06/28/11
Base Injection Volume (uL) 600

Analyte		methane	ethane
Cal. Gas Concentration (ppmv)		**50**	**50**
Pre-Test Calibration			
Data and Time			
Injection ID			
Injection Volume (uL)			
6/28/2011 10:03:37	AC	148	263
fid-76.CHR	Cal. Gas Conc. (ppmv)	16.7	16.7
200	RF	67.7	38.0
	ppmv	17.8	17.1
6/28/2011 10:14:21	AC	147	263
fid-77.CHR	Cal. Gas Conc. (ppmv)	16.7	16.7
200	RF	67.9	38.0
	ppmv	17.8	17.1
6/28/2011 10:23:26	AC	148	262
fid-78.CHR	Cal. Gas Conc. (ppmv)	16.7	16.7
200	RF	67.8	38.1
	ppmv	17.8	17.1
Level 1	Average AC	148	263
Cal. Summary	Average ppmv	17.8	17.1
6/28/2011 10:43:28	AC	244	448
fid-79.CHR	Cal. Gas Conc. (ppmv)	29.2	29.2
350	RF	71.8	39.1
	ppmv	29.4	29.1
6/28/2011 11:10:08	AC	245	445
fid-80.CHR	Cal. Gas Conc. (ppmv)	29.2	29.2
350	RF	71.4	39.4
	ppmv	29.5	28.9
6/28/2011 11:26:44	AC	244	442
fid-81.CHR	Cal. Gas Conc. (ppmv)	29.2	29.2
350	RF	71.8	39.6
	ppmv	29.4	28.8
Level 2	Average AC	244	445
Cal. Summary	Average ppmv	29.4	28.9
6/28/2011 11:33:29	AC	385	757
fid-82.CHR	Cal. Gas Conc. (ppmv)	50.0	50.0
600	RF	77.8	39.7
	ppmv	46.5	49.2
6/28/2011 11:39:21	AC	377	756
fid-83.CHR	Cal. Gas Conc. (ppmv)	50.0	50.0
600	RF	79.6	39.7
	ppmv	45.4	49.2
6/28/2011 11:46:46	AC	388	754
fid-84.CHR	Cal. Gas Conc. (ppmv)	50.0	50.0
600	RF	77.2	39.8
	ppmv	46.8	49.0
Level 3	Average AC	384	755
Cal. Summary	Average ppmv	46.2	49.1

Calibration Curve		**Cal. Gas Conc. (ppmv)**	
	Zero	0	0
	Level 1	16.7	16.7
	Level 2	29.2	29.2
	Level 3	50.0	50.0
		Average AC	
	Zero	0	0
	Level 1	148	263
	Level 2	244	445
	Level 3	384	755
Calculated with Excel			
	Slope	7.64	15.1
	Intercept	10.69	4.86
	r2	0.995	1.00
Calculated with PeakSimple	**Slope**	8.30	15.4
(forced zero intercept)	**Intercept**	0	0

Pre-Test Recovery Study			
Date and Time			
Injection ID			
Calibration Gas			
Injection Volume (uL)			
Dilution Factor			

Chevron FCCU
Refinery ICR Source Test
GC/FID Results
Group A - Run 9

Project: Chevron Hawaii
Location: Kapolei, HI
Date: 06/28/11

Base Injection Volume (uL)	600		
Analyte		**methane**	**ethane**
Cal. Gas Concentration (ppmv)		**50**	**50**
06/28/11 12:07 PM	AC	231	411
fid-86.CHR	ppmv	27.8	26.7
50 ppmv methane/ethane	Recovery (%)	94.5	92.4
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/28/11 12:15 PM	AC	227	406
fid-87.CHR	ppmv	27.4	26.4
50 ppmv methane/ethane	Recovery (%)	93.0	91.3
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/28/11 12:30 PM	AC	236	421
fid-88.CHR	ppmv	28.4	27.4
50 ppmv methane/ethane	Recovery (%)	96.7	94.7
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
Sample Analyses			
Date and Time			
Injection ID			
Sample ID			
Injection Volume (uL)			
Dilution Factor			
06/28/11 12:36 PM	AC	1.48	0
fid-89.chr	ppmv	0.178	0
Group A - Run 9 - Injection 1			
600			
1			
06/28/11 01:06 PM	AC	1.55	0
fid-90.chr	ppmv	0.187	0
Group A - Run 9 - Injection 2			
600			
1			
06/28/11 01:31 PM	AC	1.33	0
fid-91.chr	ppmv	0.161	0
Group A - Run 9 - Injection 3			
600			
1			
06/28/11 01:56 PM	AC	1.46	0
fid-92.CHR	ppmv	0.176	0
Group A - Run 9 - Injection 4			
600			
1			
06/28/11 02:32 PM	AC	1.96	0
fid-93.CHR	ppmv	0.236	0
Group A - Run 9 - Injection 5			
600			
1			
06/28/11 04:10 PM	AC	2.37	0
fid-94.CHR	ppmv	0.286	0
Group A - Run 9 - Injection 6			
600			
1			
06/28/11 04:34 PM	AC	2.48	0
fid-95.CHR	ppmv	0.299	0
Group A - Run 9 - Injection 7			
600			
1			
06/28/11 05:06 PM	AC	2.60	0
fid-96.CHR	ppmv	0.313	0
Group A - Run 9 - Injection 8			
600			
1			
06/28/11 05:44 PM	AC	2.79	0
fid-97.CHR	ppmv	0.336	0
Group A - Run 9 - Injection 9			
600			
1			
06/28/11 06:17 PM	AC	1.50	0
fid-98.CHR	ppmv	0.180	0
Group A - Run 9 - Injection 10			
600			
1			

Chevron FCCU
Refinery ICR Source Test
GC/FID Results
Group A - Run 9

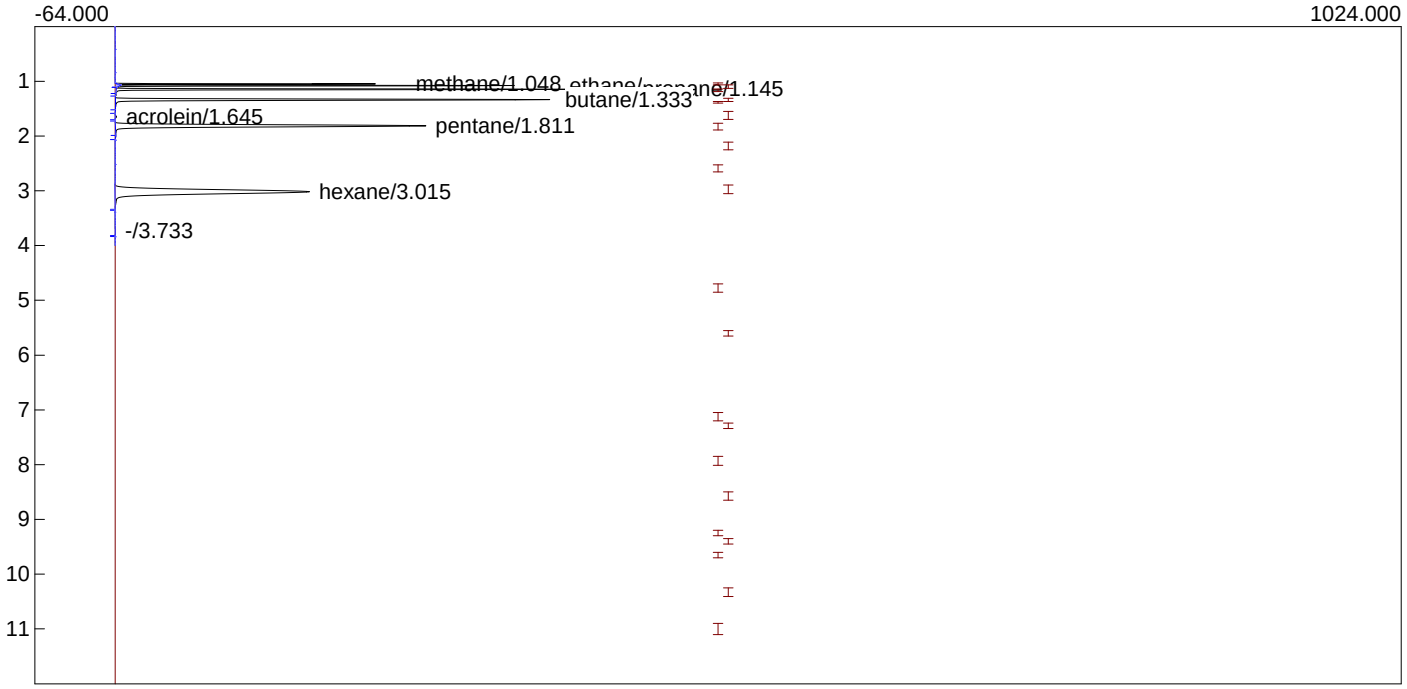
Project: Chevron Hawaii
Location: Kapolei, HI
Date: 06/28/11

Base Injection Volume (uL)	600		
Analyte		**methane**	**ethane**
Cal. Gas Concentration (ppmv)		**50**	**50**
Post-Test Calibration			
Date and Time			
Injection ID			
Calibration Gas			
Injection Volume (uL)			
Dilution Factor			
06/28/11 07:43 PM	AC	243	441
fid-99.CHR	ppmv	29.2	28.7
50 ppmv methane/ethane	Recovery (%)	99.4	99.2
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/28/11 07:52 PM	AC	243	442
fid-100.CHR	ppmv	29.3	28.8
50 ppmv methane/ethane	Recovery (%)	99.4	99.4
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/28/11 08:05 PM	AC	244	445
fid-101.CHR	ppmv	29.4	29.0
50 ppmv methane/ethane	Recovery (%)	99.8	100.1
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 10:03:37
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-76.CHR (C:\Peak385\data\CH)
Sample: 0.2 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

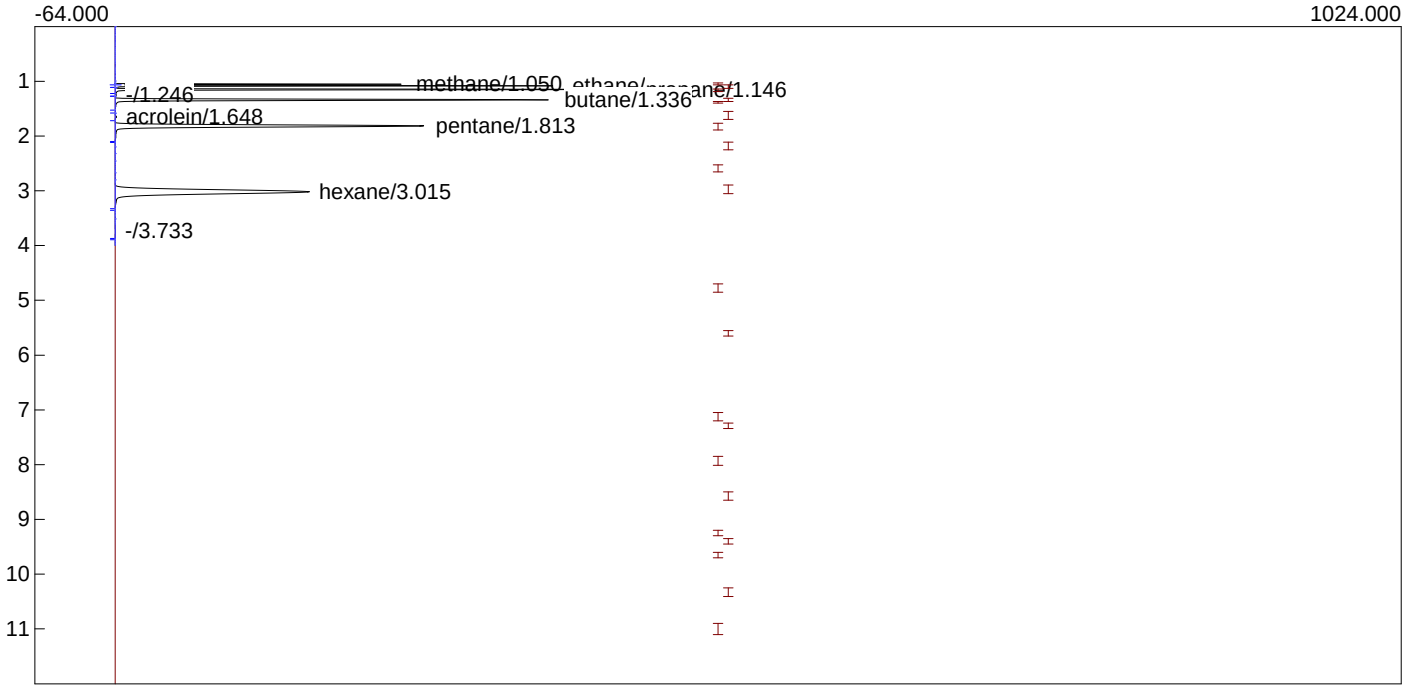


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.048	142.2146	17.1384	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
ethane	1.076	253.5428	16.4878	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
propane	1.145	400.0621	17.5396	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
butane	1.333	535.2534	17.6659	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
acrolein	1.645	2.5720	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
pentane	1.811	664.3687	17.3341	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
hexane	3.015	817.8669	17.5219	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-76.CHR	0.2 ml 50 ppm C1-C6
		2815.8805	103.6878				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 10:14:21
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-77.CHR (C:\Peak385\data\CH)
Sample: 0.2 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

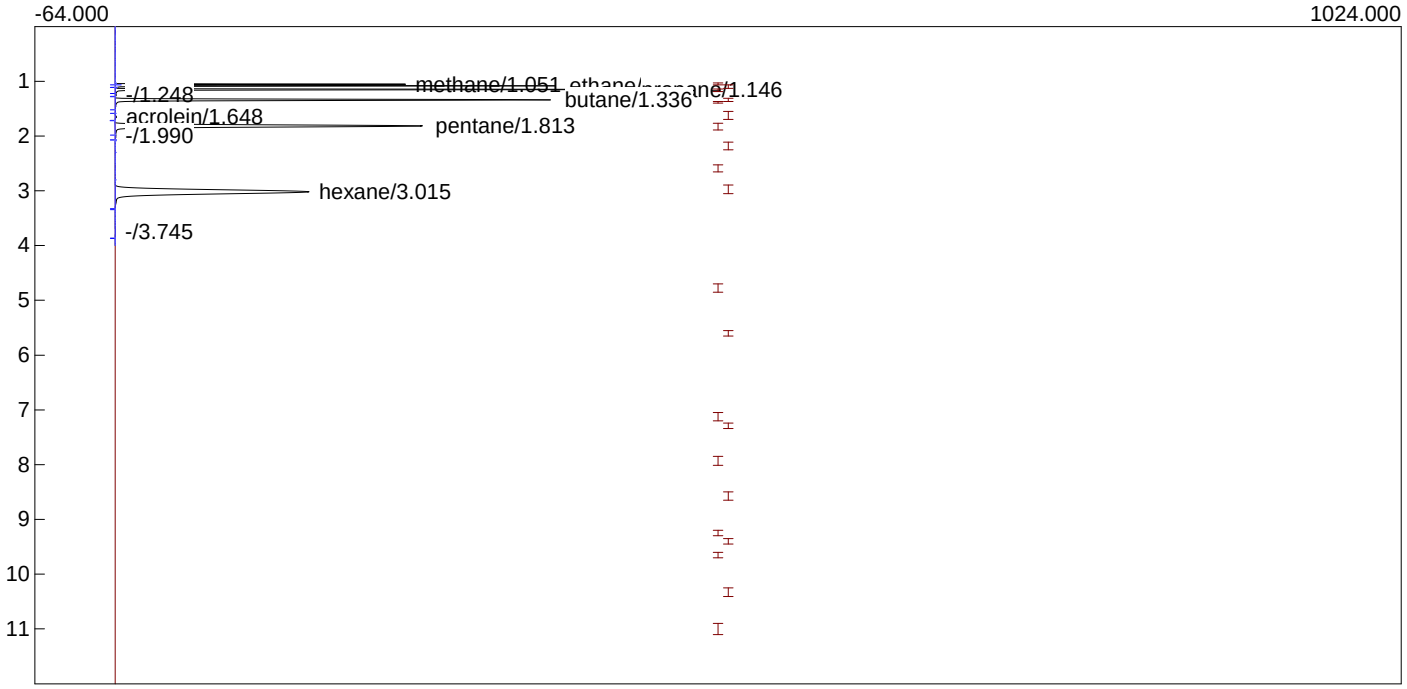


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.050	147.3548	17.7578	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
ethane	1.080	263.2566	17.1195	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
propane	1.146	405.5790	17.7815	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
butane	1.336	538.9910	17.7893	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
acrolein	1.648	2.6999	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
pentane	1.813	670.7016	17.4994	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
hexane	3.015	817.8316	17.5212	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-77.CHR	0.2 ml 50 ppm C1-C6
		2846.4144	105.4687				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 10:23:26
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-78.CHR (C:\Peak385\data\CH)
Sample: 0.2 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

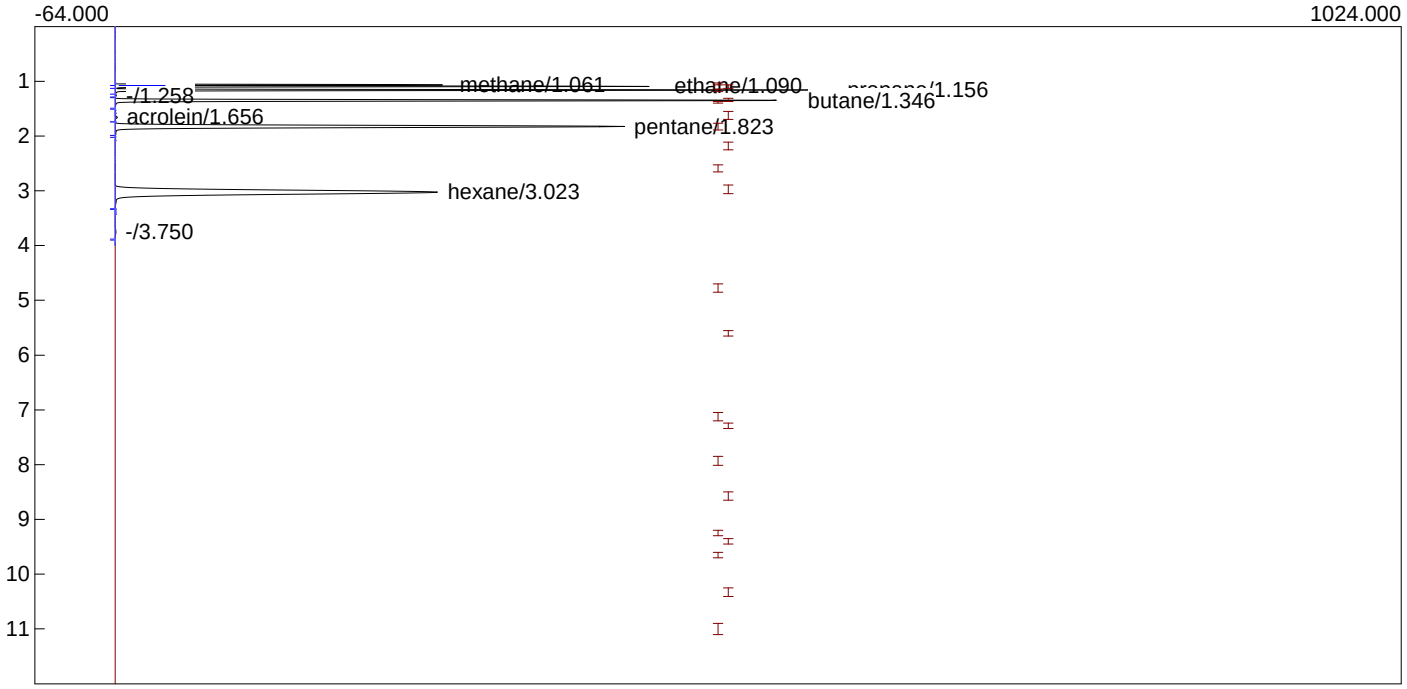


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.051	147.5357	17.7796	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
ethane	1.080	262.2936	17.0569	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
propane	1.146	404.9781	17.7551	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
butane	1.336	538.5512	17.7748	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
acrolein	1.648	2.6517	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
pentane	1.813	667.8283	17.4244	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
hexane	3.015	817.3898	17.5117	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 10:	fid-78.CHR	0.2 ml 50 ppm C1-C6
		2841.2284	105.3026				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 10:43:28
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-79.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

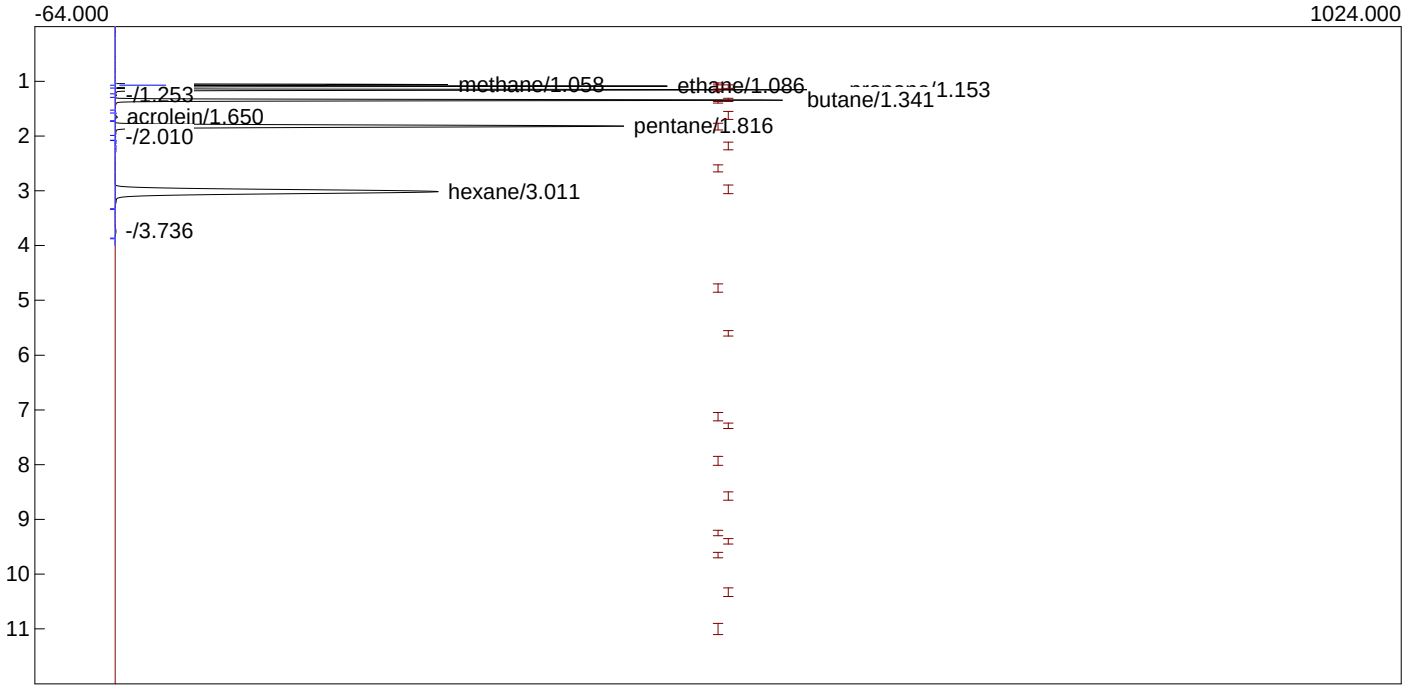


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.061	243.8842	29.3907	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
ethane	1.090	448.0459	29.1363	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
propane	1.156	678.4248	29.7436	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
butane	1.346	899.3978	29.6845	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.656	4.5212	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
pentane	1.823	1114.2107	29.0710	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
hexane	3.023	1353.5409	28.9982	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 10:43	fid-79.CHR	0.35 ml 50 ppm C1-C6
		4742.0255	176.0243				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 11:10:08
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-80.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

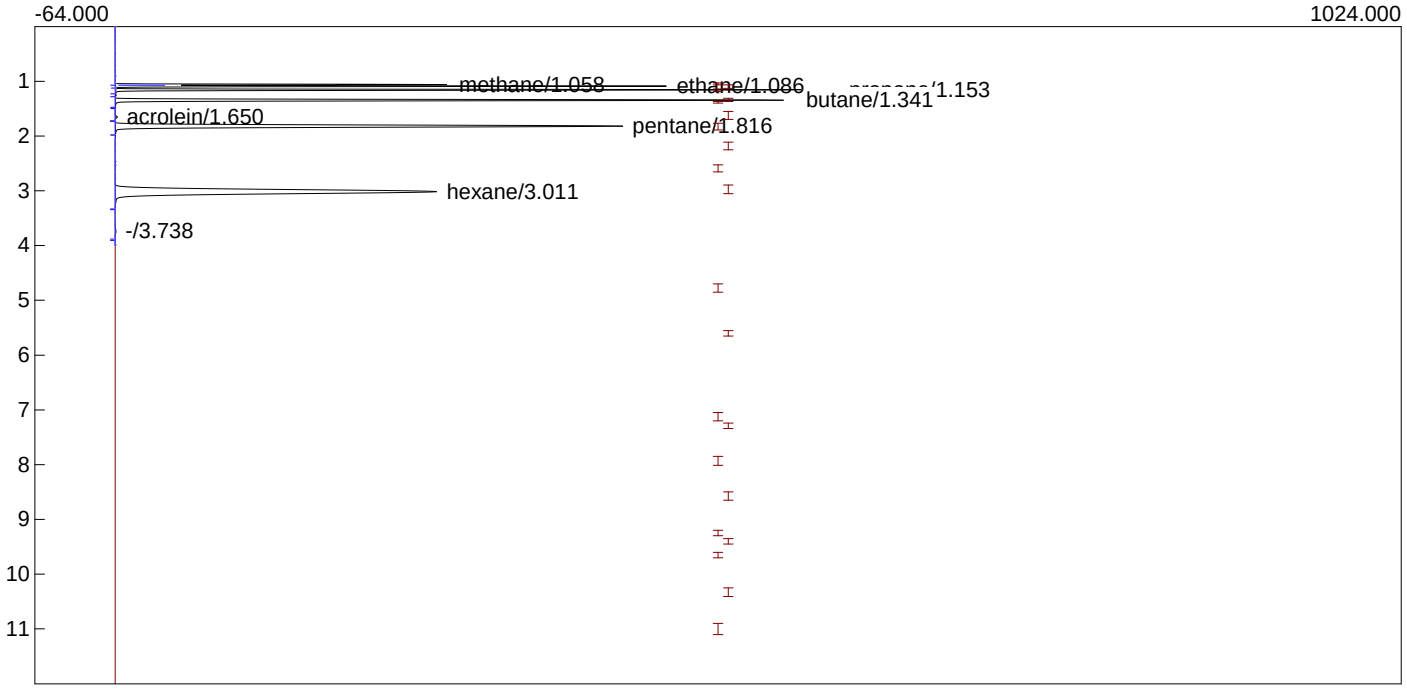


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.058	245.0230	29.5279	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
ethane	1.086	444.6688	28.9167	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
propane	1.153	676.2494	29.6482	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
butane	1.341	897.4045	29.6187	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.650	4.5000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
pentane	1.816	1111.4718	28.9996	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
hexane	3.011	1353.6898	29.0014	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-80.CHR	0.35 ml 50 ppm C1-C6
		4733.0073	175.7125				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 11:26:44
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-81.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

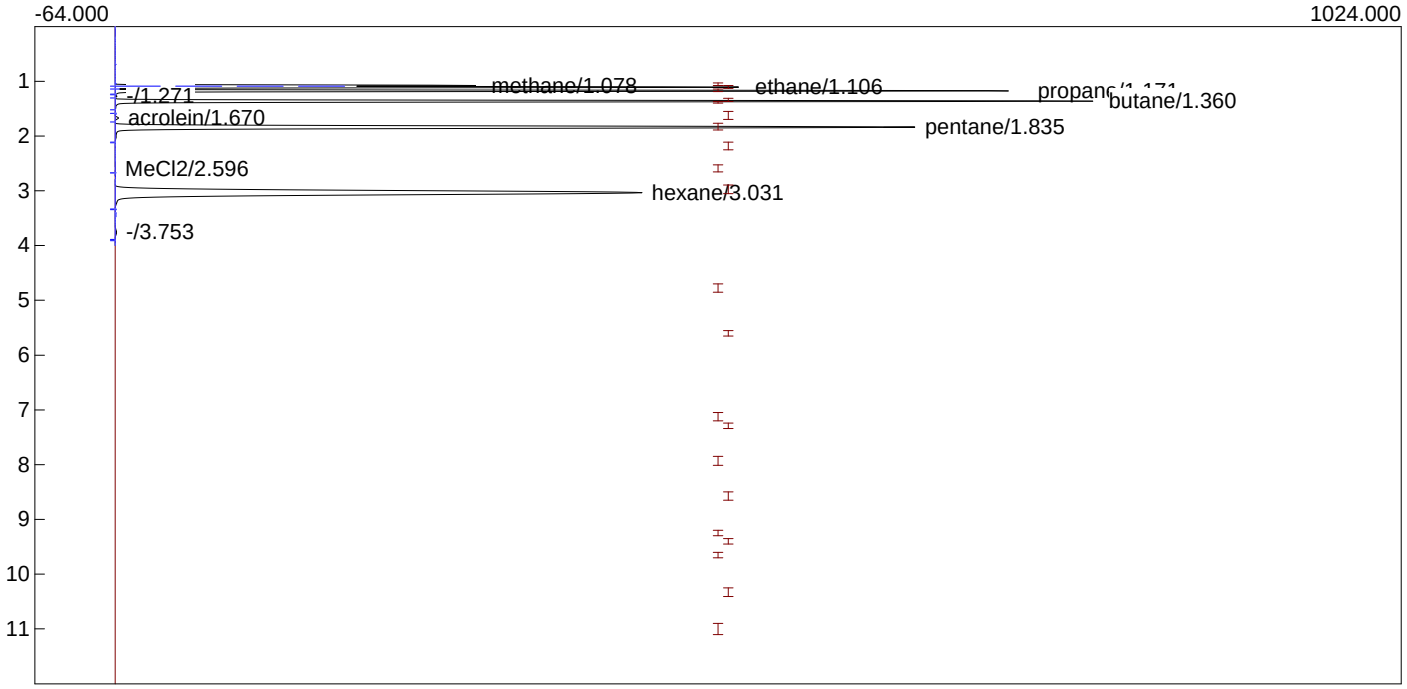


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.058	243.5780	29.3538	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
ethane	1.086	442.1418	28.7524	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
propane	1.153	670.5730	29.3994	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
butane	1.341	891.9798	29.4396	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.650	4.5562	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
pentane	1.816	1105.7154	28.8494	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
hexane	3.011	1347.4430	28.8675	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-81.CHR	0.35 ml 50 ppm C1-C6
		4705.9872	174.6621				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 11:33:29
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-82.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

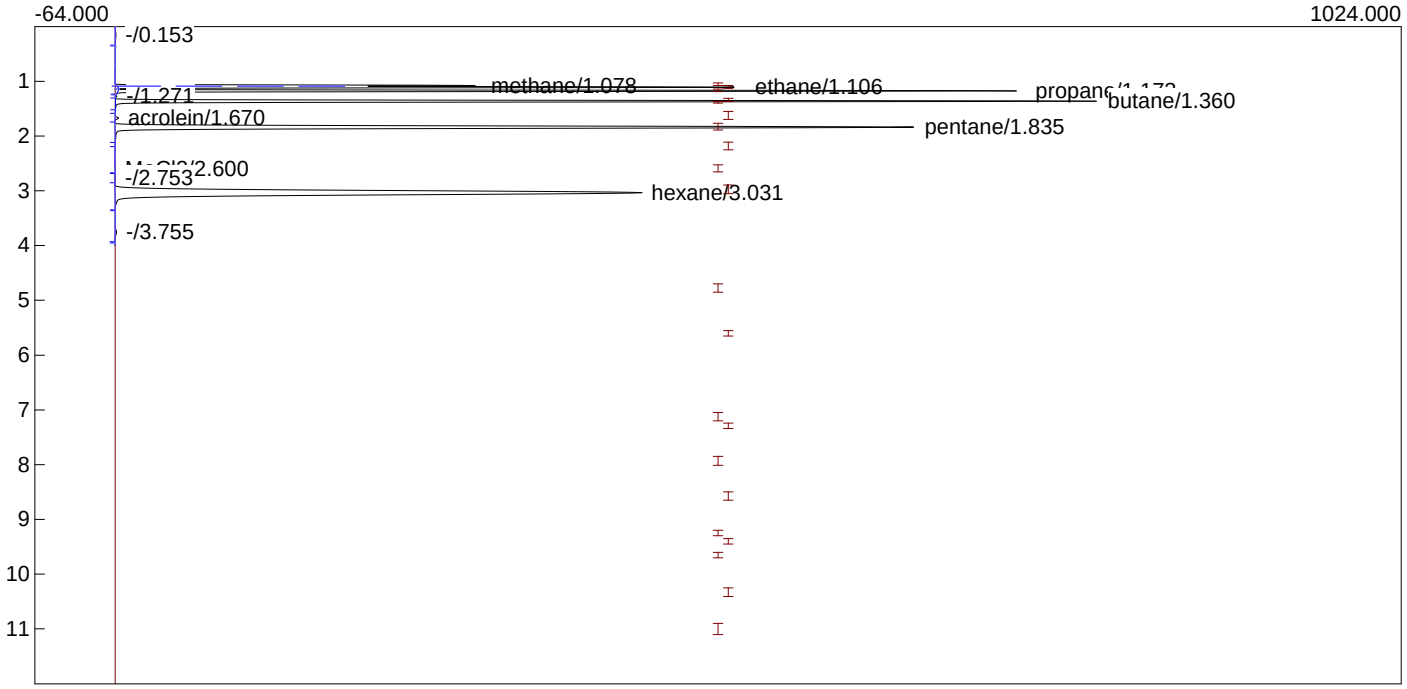


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.078	385.4931	46.4560	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
ethane	1.106	756.6162	49.2026	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
propane	1.171	1120.6649	49.1324	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
butane	1.360	1484.6313	49.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
acrolein	1.670	7.3112	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
pentane	1.835	1841.7704	48.0539	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
MeCl2	2.596	1.3575	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
hexane	3.031	2239.7926	47.9852	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-82.CHR	0.6 ml 50 ppm C1-C6
		7837.6372	289.8301				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 11:39:21
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-83.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

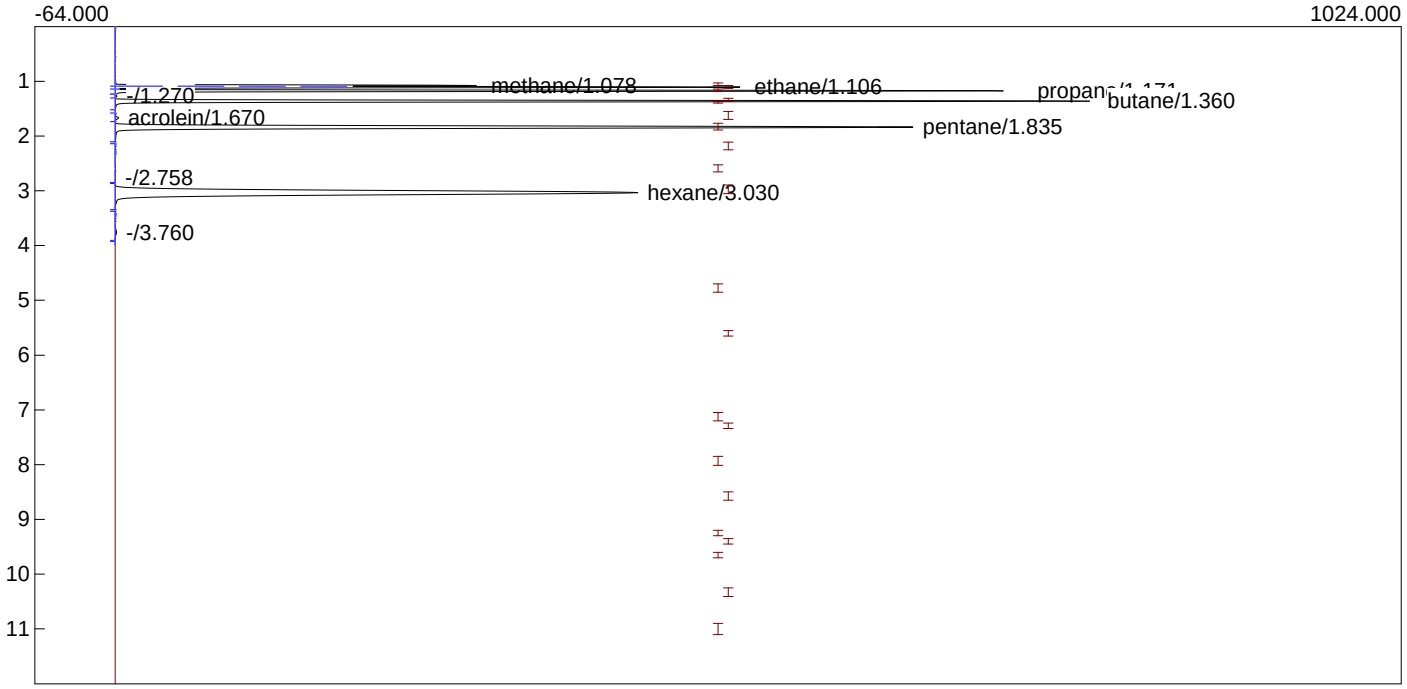


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.078	376.6758	45.3935	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
ethane	1.106	755.8850	49.1551	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
propane	1.173	1108.3196	48.5911	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
butane	1.360	1480.3852	48.8599	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
acrolein	1.670	7.3091	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
pentane	1.835	1840.9778	48.0332	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
MeCl2	2.600	1.2161	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
hexane	3.031	2236.6949	47.9188	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-83.CHR	0.6 ml 50 ppm C1-C6
		7807.4635	287.9516				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 11:46:46
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-84.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

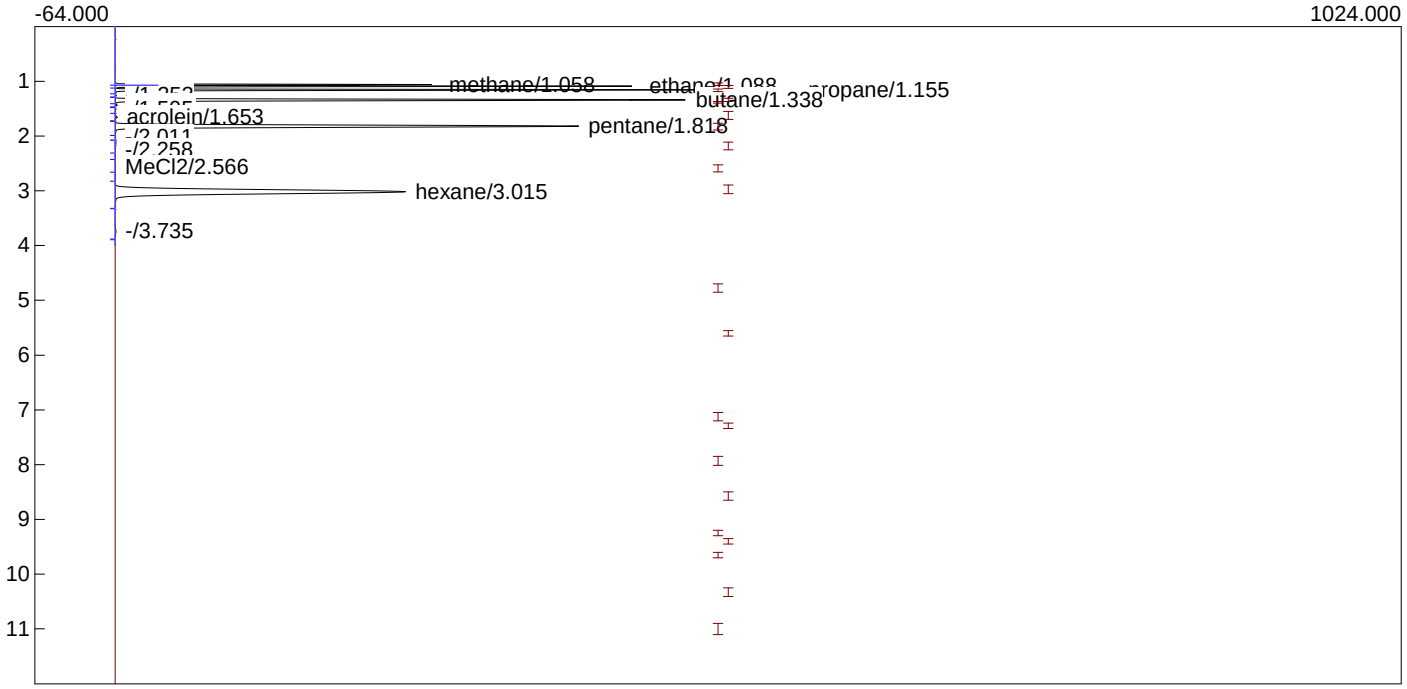


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.078	388.4926	46.8175	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
ethane	1.106	753.8105	49.0202	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
propane	1.171	1120.3003	49.1164	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
butane	1.360	1483.6243	48.9668	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
acrolein	1.670	7.5566	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
pentane	1.835	1835.4423	47.8888	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
hexane	3.030	2217.9373	47.5170	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 11:	fid-84.CHR	0.6 ml 50 ppm C1-C6
		7807.1638	289.3266				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 12:07:19
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-86.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6 rec

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

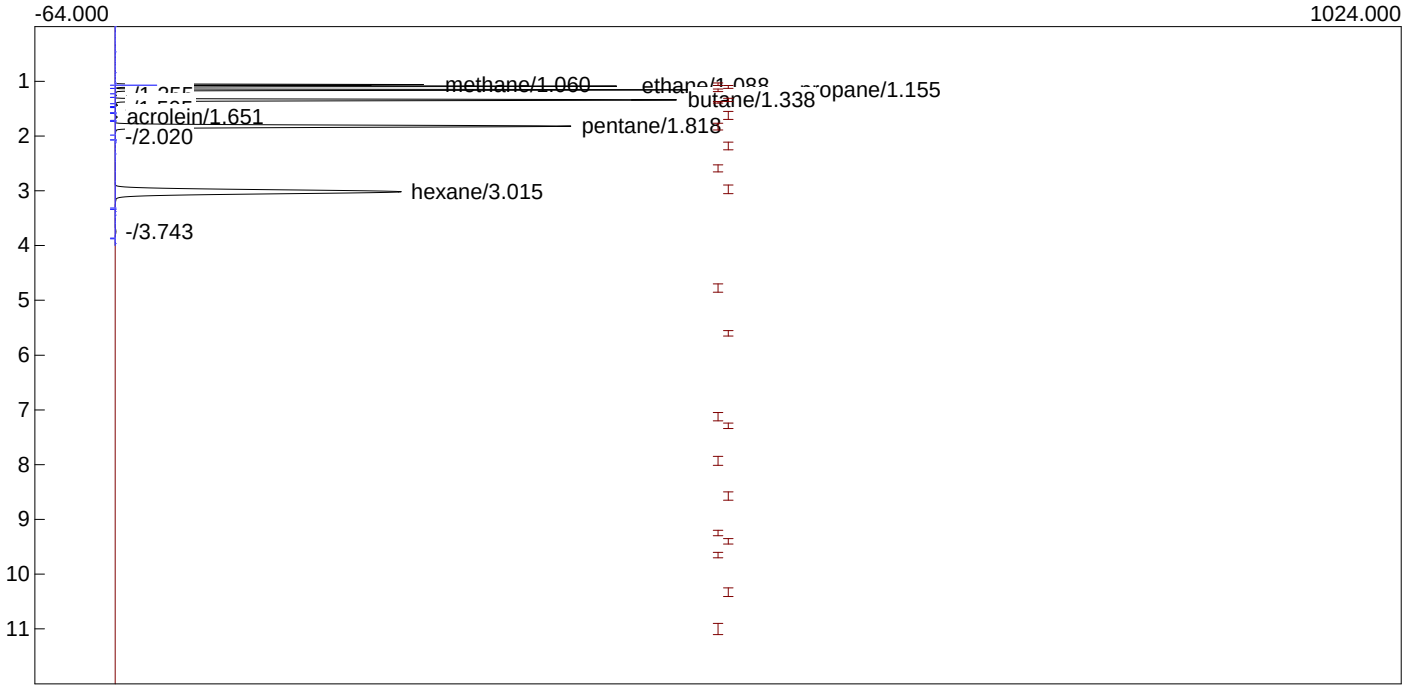


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.058	230.7392	27.8065	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
ethane	1.088	411.1148	26.7347	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
propane	1.155	623.3044	27.3270	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
butane	1.338	819.1584	27.0362	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
acrolein	1.653	4.5232	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
pentane	1.818	1012.4113	26.4150	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
MeCl2	2.566	1.1752	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
hexane	3.015	1211.1524	25.9477	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-86.CHR	0.35 ml 50 ppm C1-C6 rec
		4313.5790	161.2671				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 12:15:01
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-87.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6 rec

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

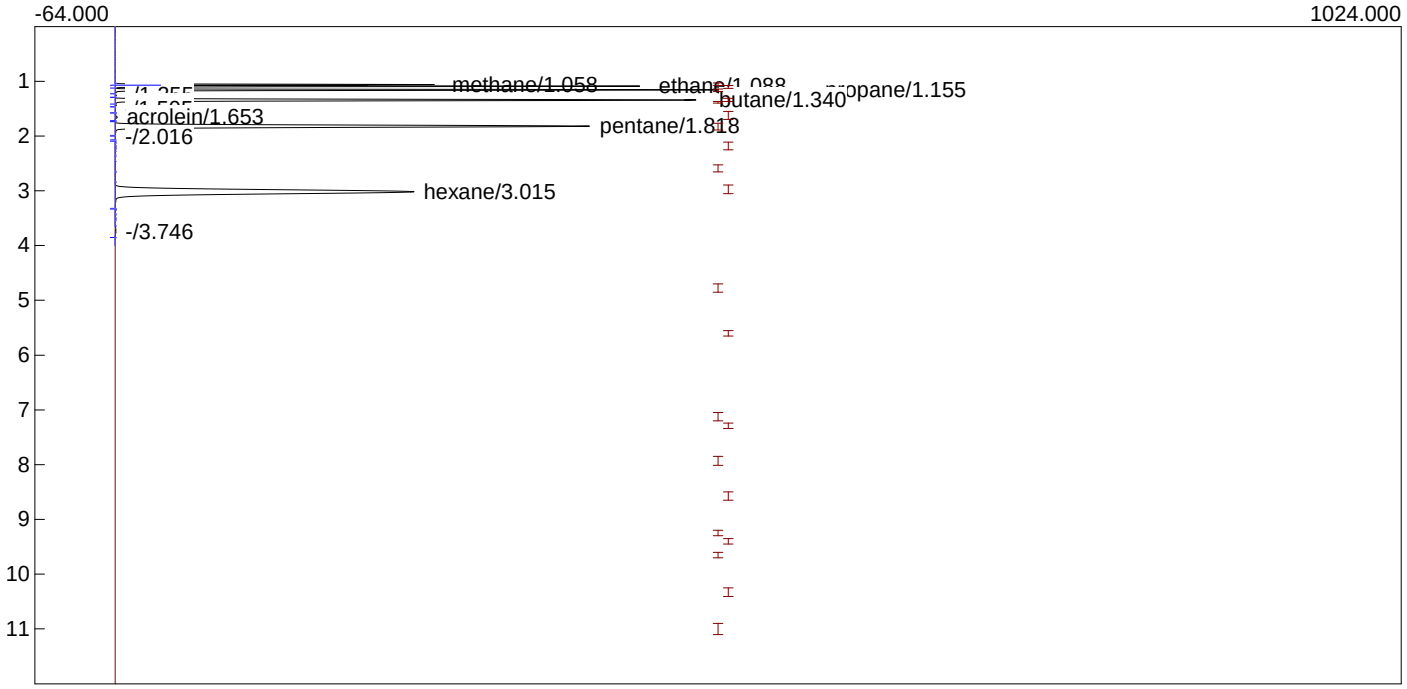


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.060	226.9774	27.3532	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
ethane	1.088	406.3397	26.4242	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
propane	1.155	614.4009	26.9367	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
butane	1.338	807.5941	26.6545	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
acrolein	1.651	4.1861	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
pentane	1.818	997.0156	26.0133	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
hexane	3.015	1194.5387	25.5917	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-87.CHR	0.35 ml 50 ppm C1-C6 rec
		4251.0525	158.9736				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 12:30:44
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-88.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6 rec

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

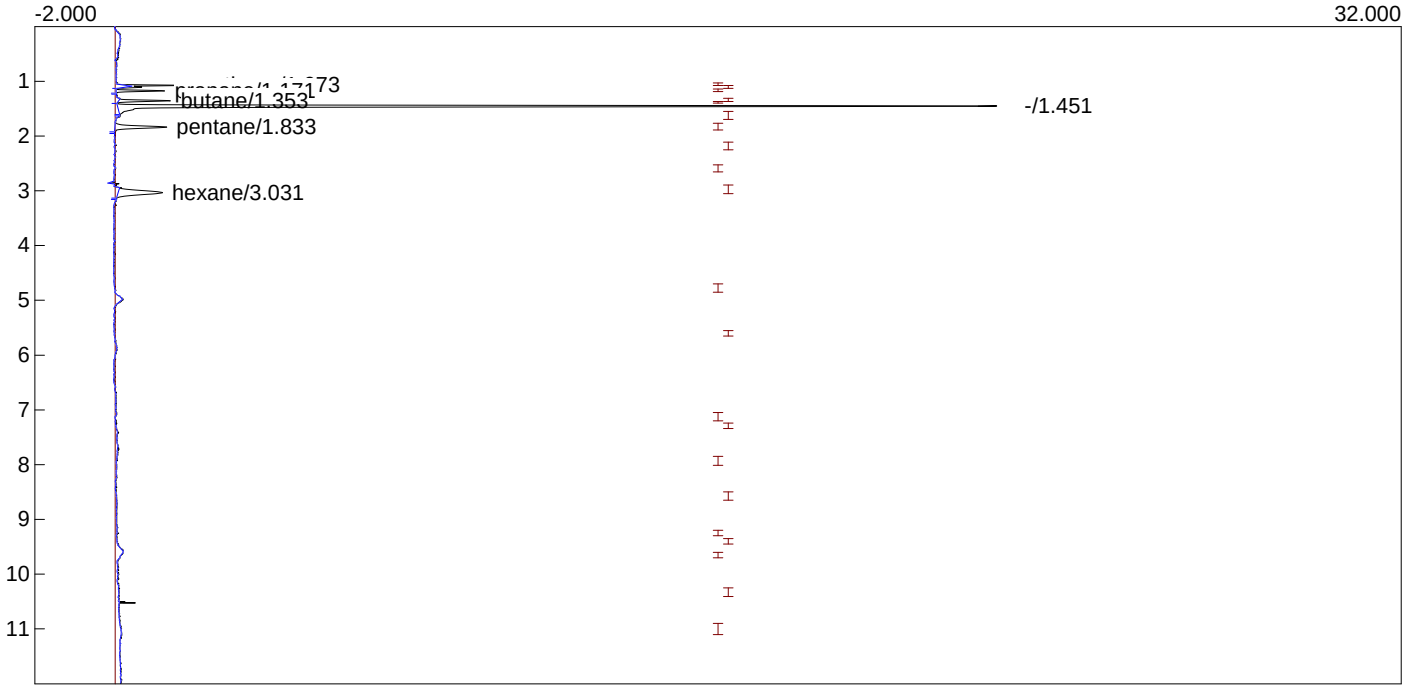


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.058	236.0344	28.4447	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
ethane	1.088	421.1838	27.3895	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
propane	1.155	642.4874	28.1680	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
butane	1.340	840.3147	27.7344	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
acrolein	1.653	4.5052	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
pentane	1.818	1037.5623	27.0712	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
hexane	3.015	1246.9008	26.7135	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-88.CHR	0.35 ml 50 ppm C1-C6 rec
		4428.9886	165.5214				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 12:36:59
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-89.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

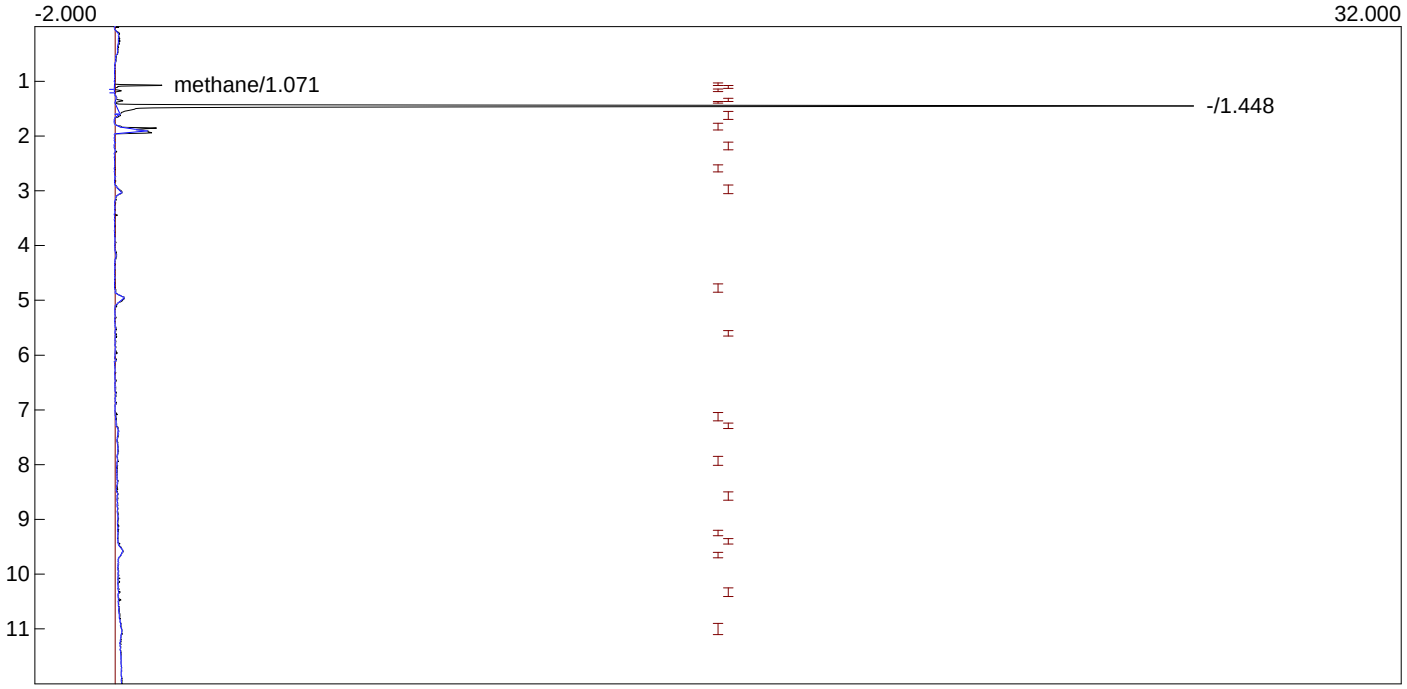


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.073	1.4767	0.1780	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
propane	1.171	1.8674	0.0819	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
butane	1.353	2.2574	0.0745	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
pentane	1.833	3.9632	0.1034	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
hexane	3.031	5.5540	0.1190	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 12:	fid-89.CHR	0.6 ml sample
		15.1187	0.5567				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 13:06:57
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-90.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

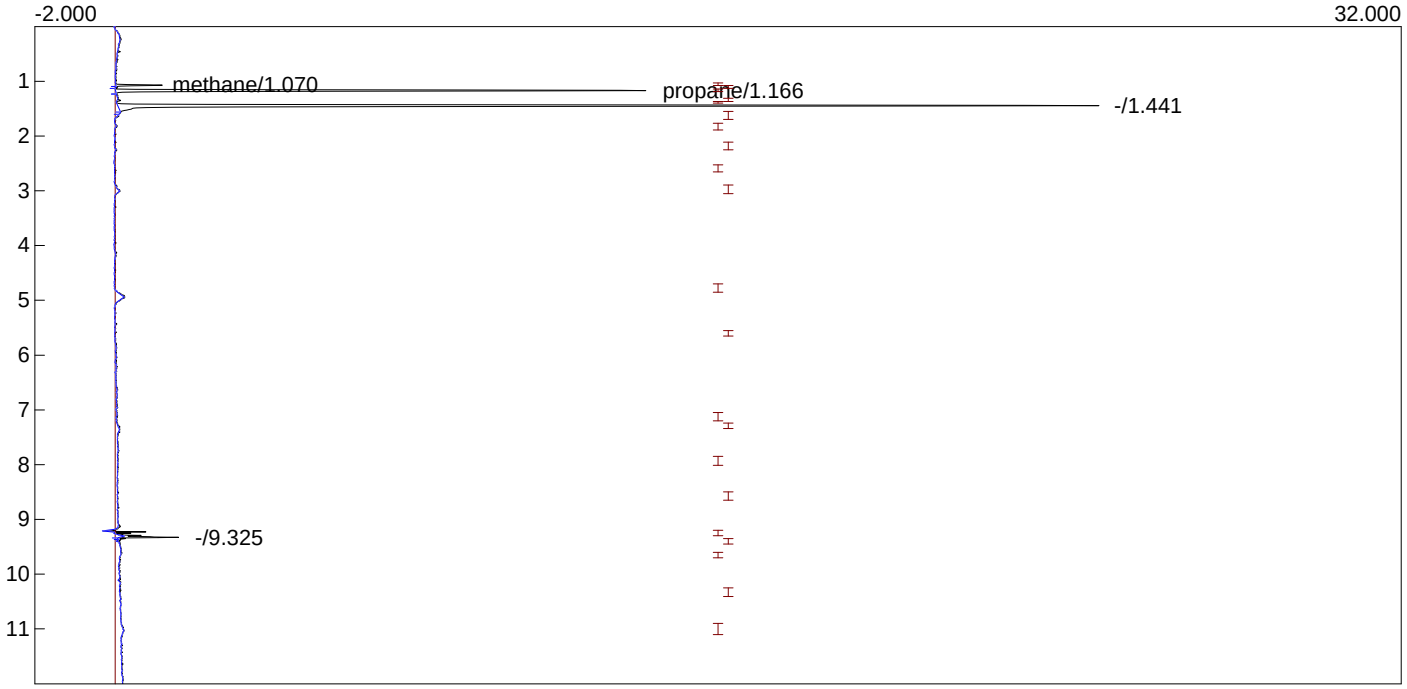


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.071	1.5506	0.1869	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-90.CHR	0.6 ml sample
		1.5506	0.1869				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 13:31:46
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-91.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

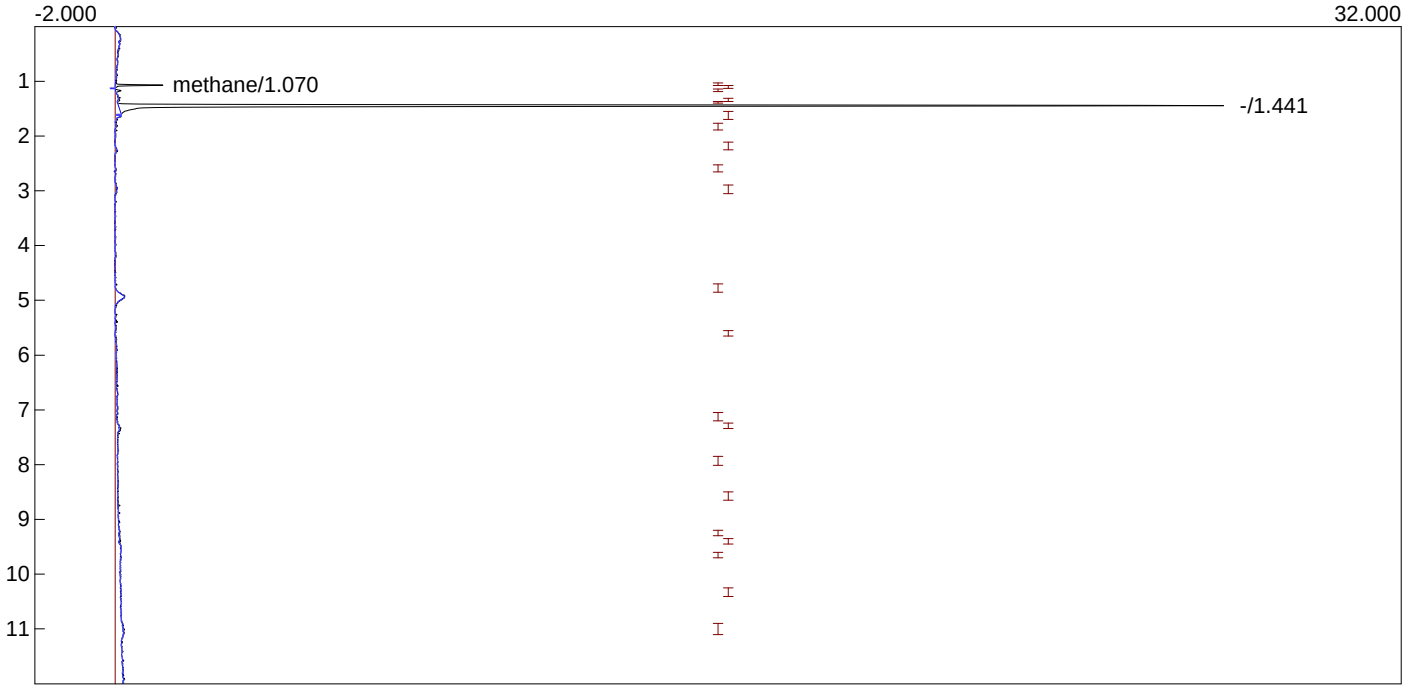


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	1.3343	0.1608	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
propane	1.166	19.9953	0.8766	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-91.CHR	0.6 ml sample
		21.3296	1.0374				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 13:56:49
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-92.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

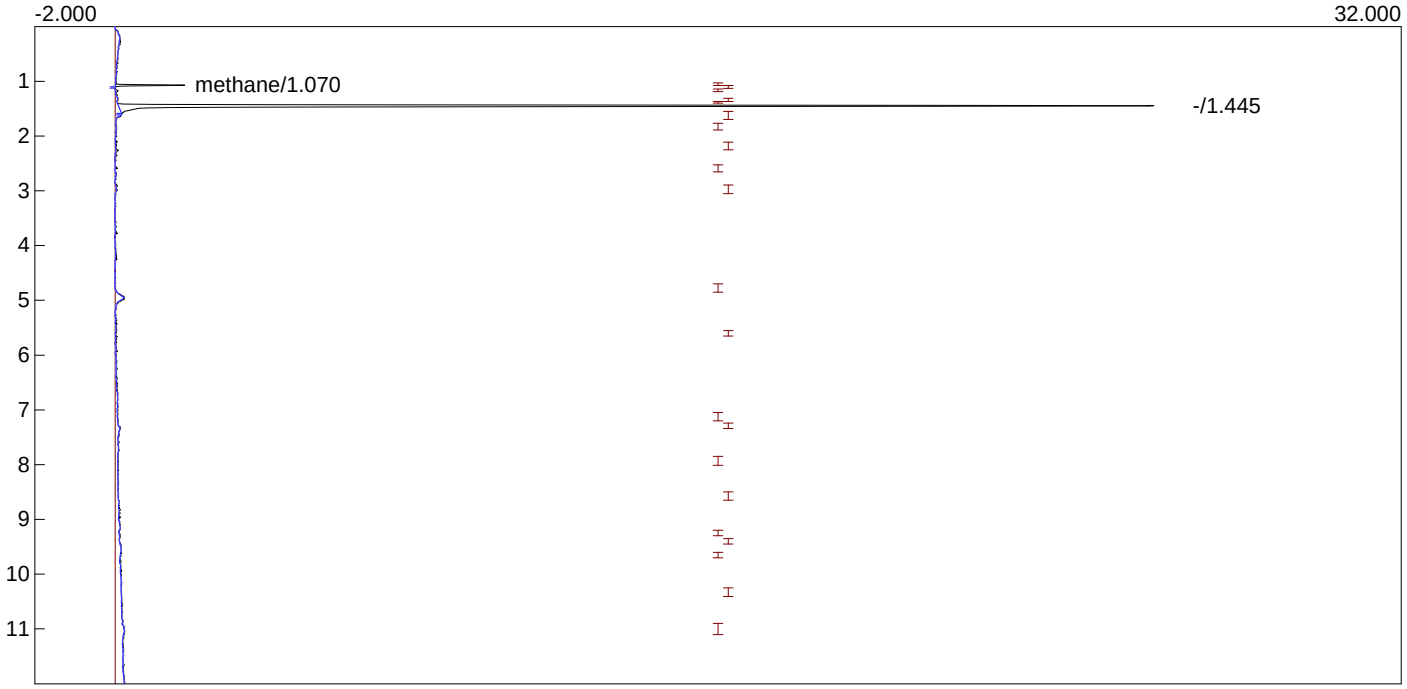


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	1.4569	0.1756	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 13:	fid-92.CHR	0.6 ml sample
		1.4569	0.1756				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 14:32:27
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-93.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

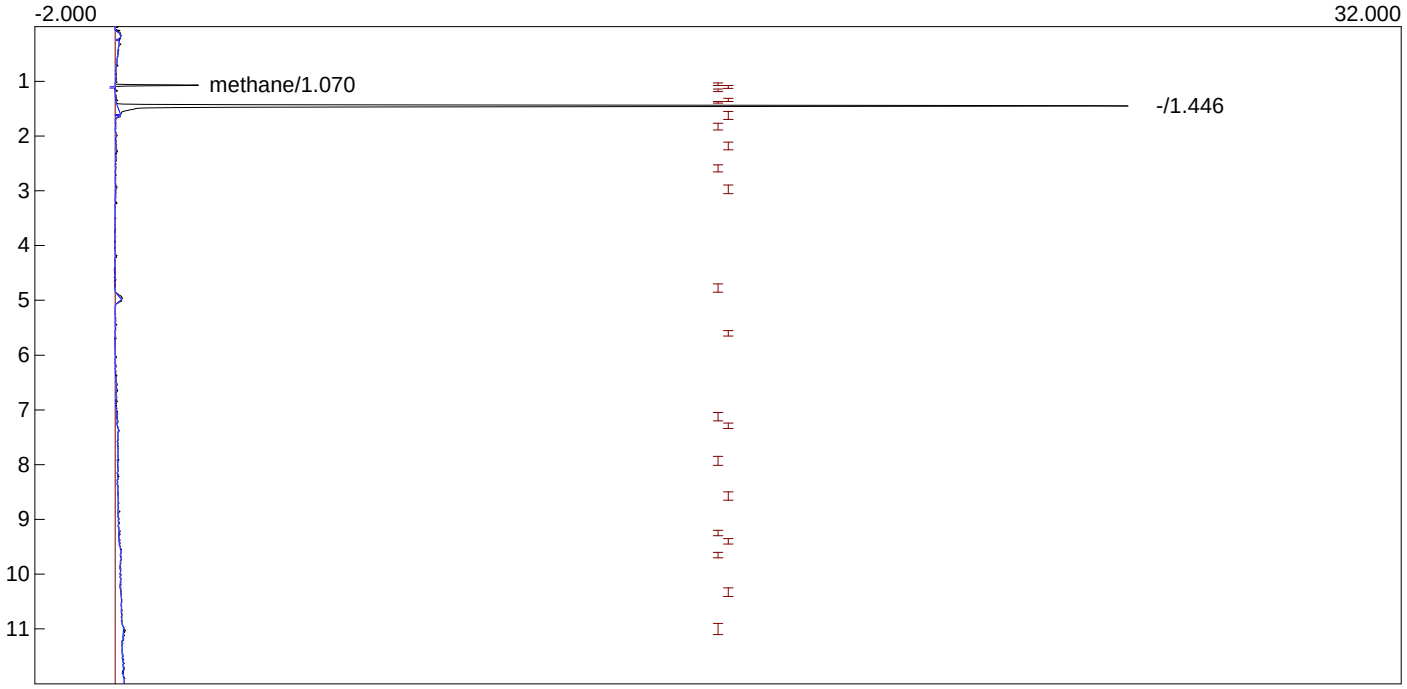


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	1.9624	0.2365	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 14:	fid-93.CHR	0.6 ml sample
		1.9624	0.2365				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 16:10:32
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-94.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

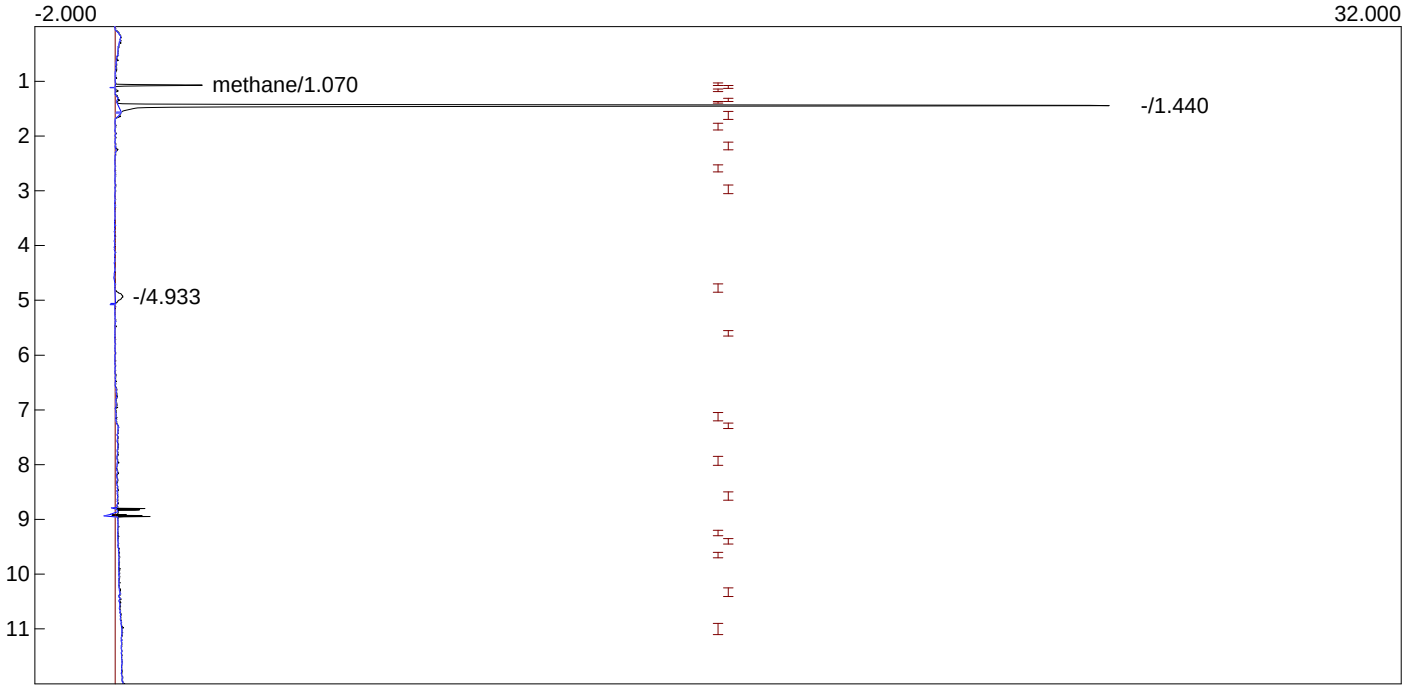


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	2.3712	0.2858	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-94.CHR	0.6 ml sample
		2.3712	0.2858				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 16:34:55
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-95.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

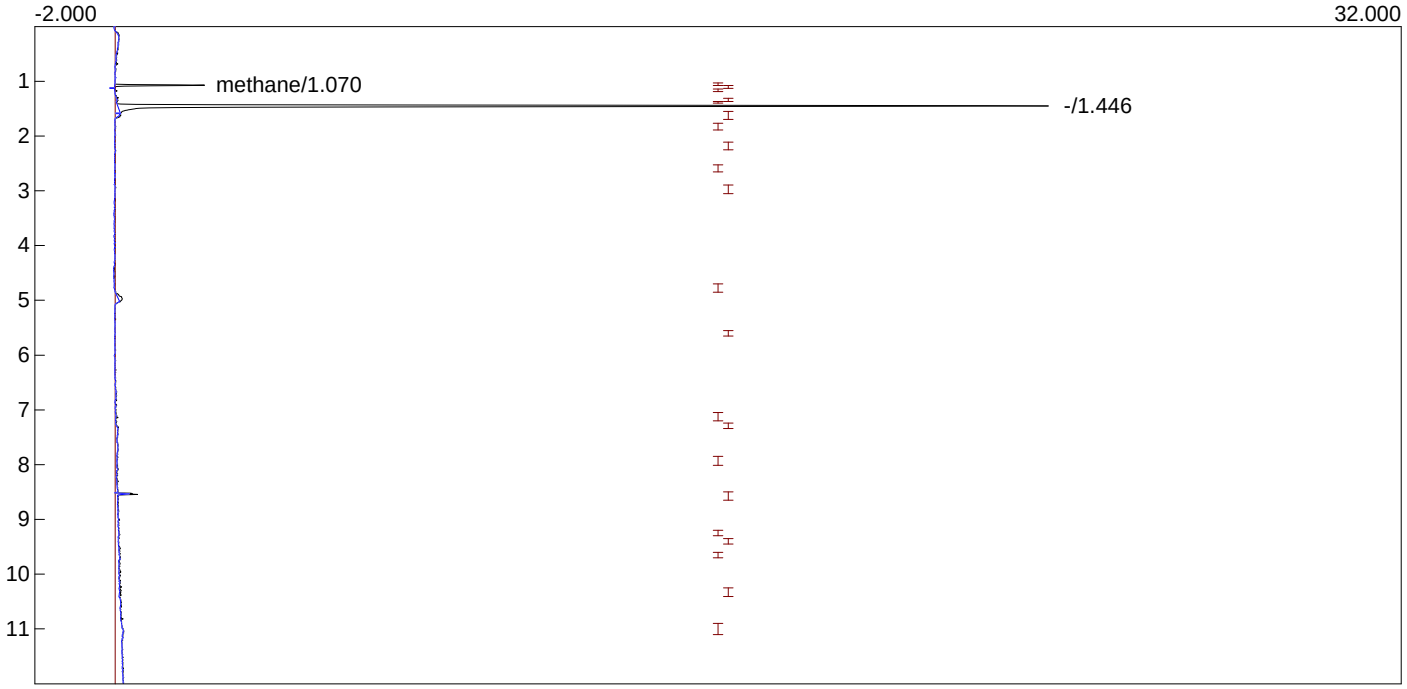


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	2.4778	0.2986	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 16:	fid-95.CHR	0.6 ml sample
		2.4778	0.2986				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 17:06:54
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-96.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

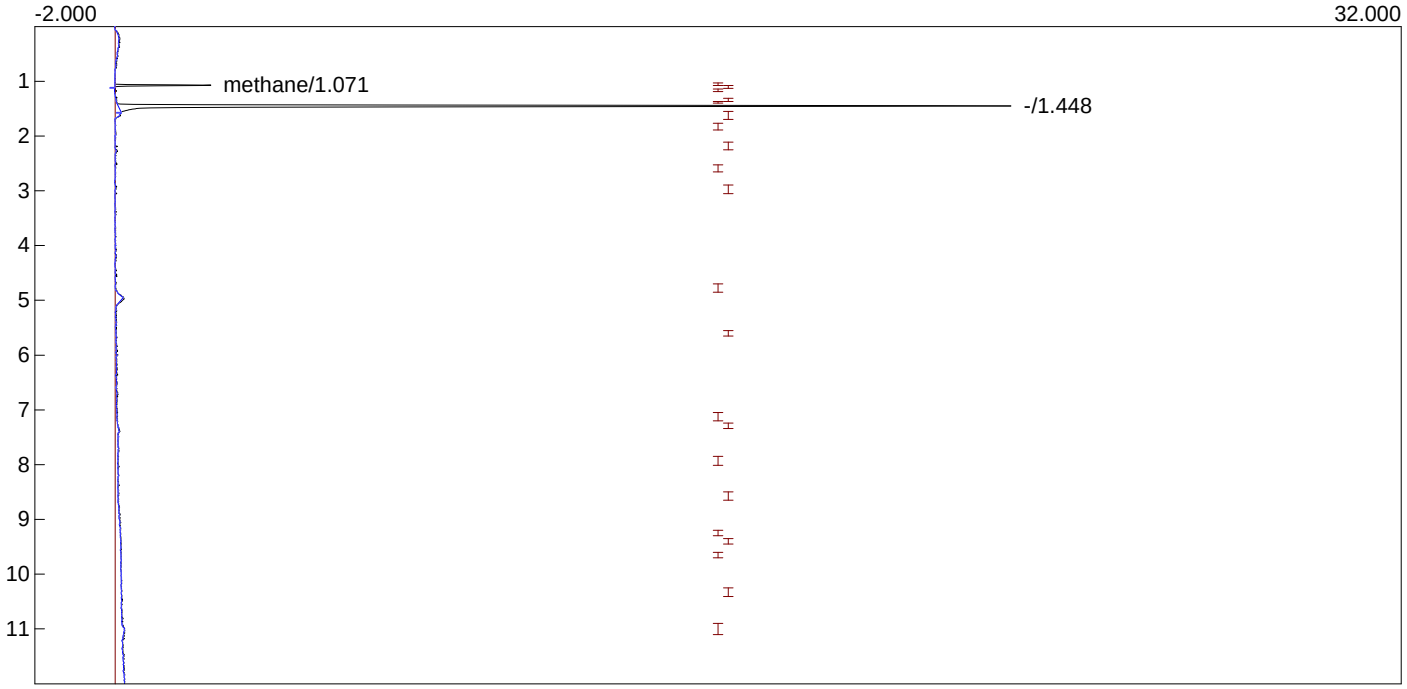


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	2.5952	0.3127	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-96.CHR	0.6 ml sample
		2.5952	0.3127				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 17:44:01
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-97.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

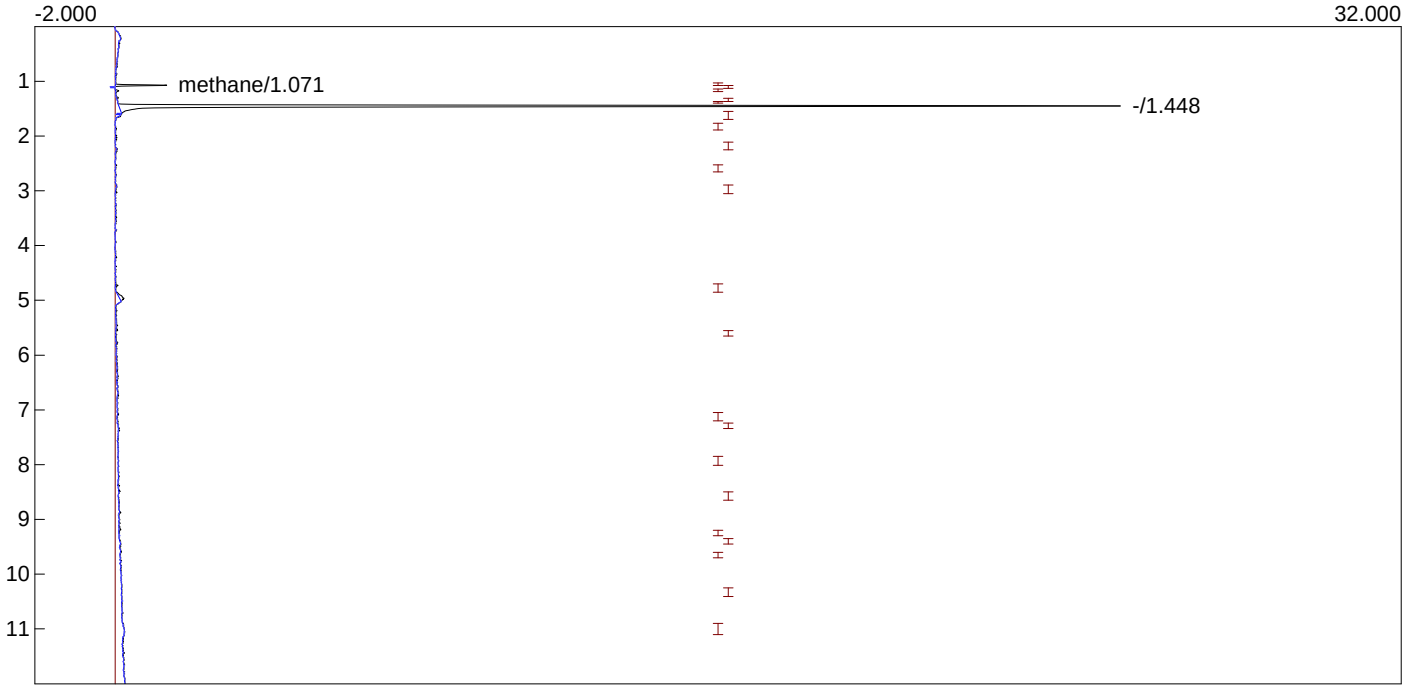


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.071	2.7908	0.3363	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 17:	fid-97.CHR	0.6 ml sample
		2.7908	0.3363				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 18:17:30
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-98.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

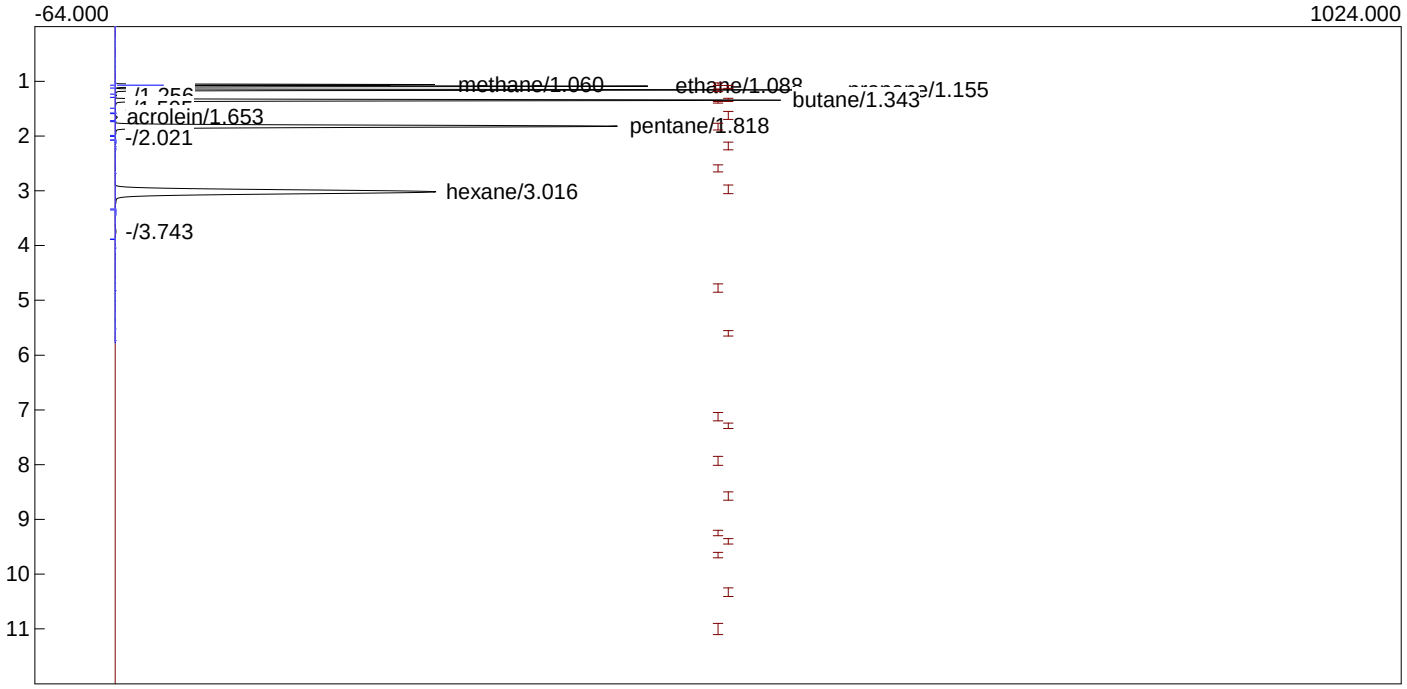


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.071	1.4964	0.1803	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 18:	fid-98.CHR	0.6 ml sample
		1.4964	0.1803				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 19:43:33
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-99.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

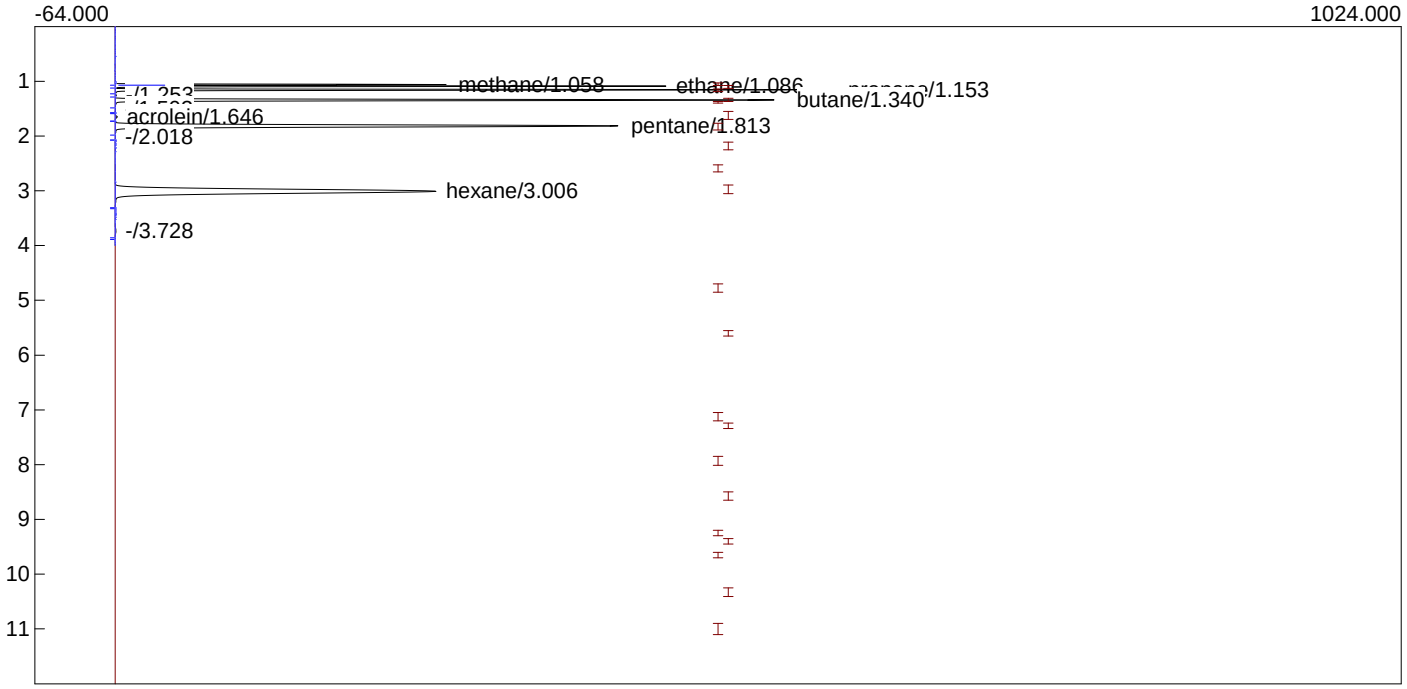


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.060	242.6860	29.2463	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
ethane	1.088	441.3214	28.6990	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
propane	1.155	671.0248	29.4192	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
butane	1.343	889.5155	29.3583	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.653	4.6063	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
pentane	1.818	1102.2827	28.7598	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
hexane	3.016	1341.9374	28.7496	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-99.CHR	0.35 ml 50 ppm C1-C6
		4693.3740	174.2322				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 19:52:12
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-100.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

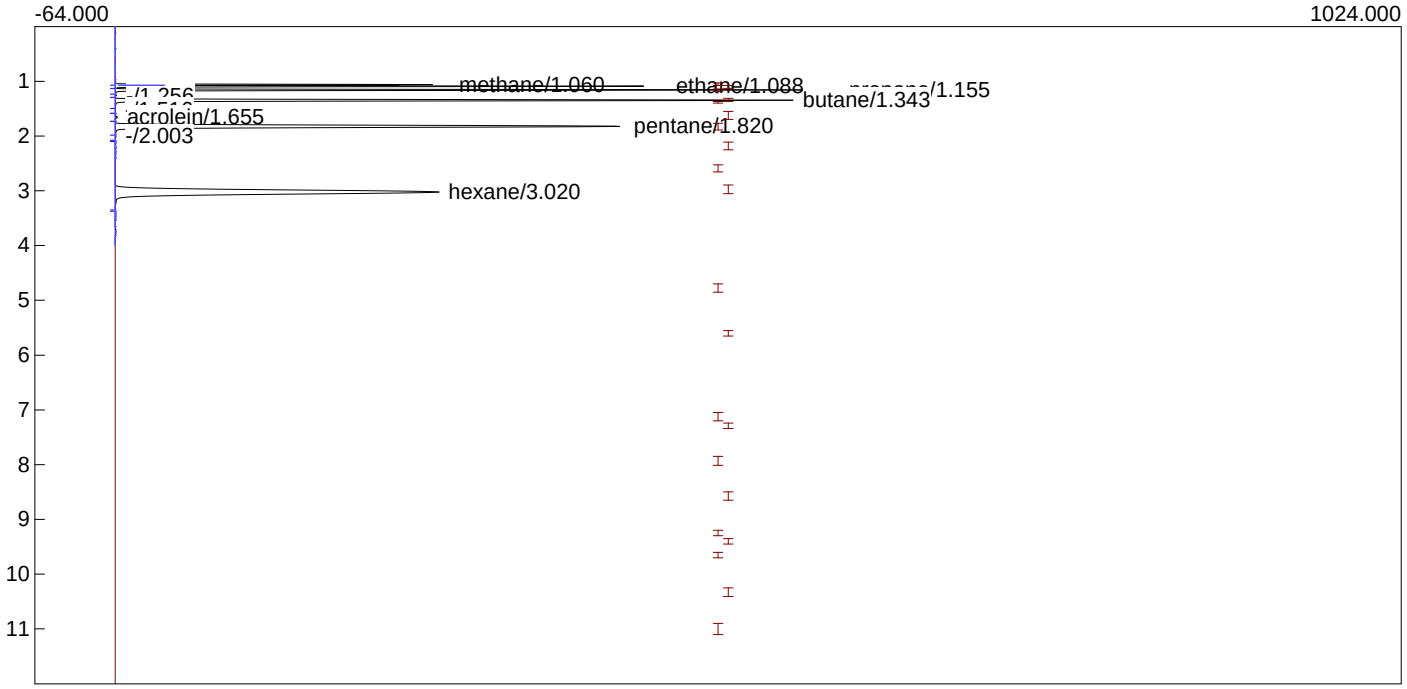


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.058	242.7972	29.2597	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
ethane	1.086	442.3680	28.7671	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
propane	1.153	671.8095	29.4536	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
butane	1.340	890.1960	29.3808	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.646	4.5827	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
pentane	1.813	1102.4406	28.7639	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
hexane	3.006	1340.9806	28.7291	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 19:	fid-100.CHR	0.35 ml 50 ppm C1-C6
		4695.1745	174.3541				

Lab name: URS
Client: Chevron
Analysis date: 06/28/2011 20:05:23
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-101.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

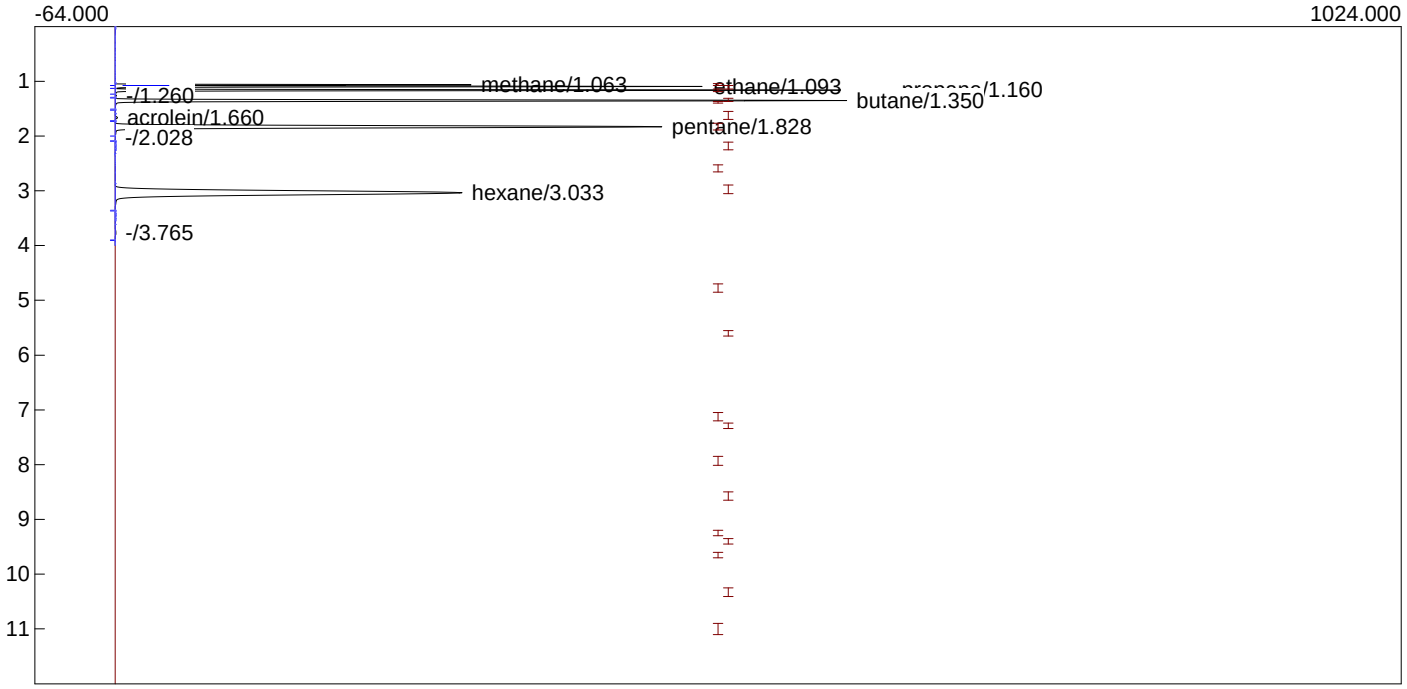


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.060	243.7952	29.3799	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
ethane	1.088	445.3385	28.9603	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
propane	1.155	676.0842	29.6410	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
butane	1.343	897.1946	29.6118	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.655	4.7122	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
pentane	1.820	1112.6443	29.0302	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
hexane	3.020	1356.4303	29.0601	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/28/2011 20:	fid-101.CHR	0.35 ml 50 ppm C1-C6
		4736.1992	175.6832				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 08:22:17
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-102.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

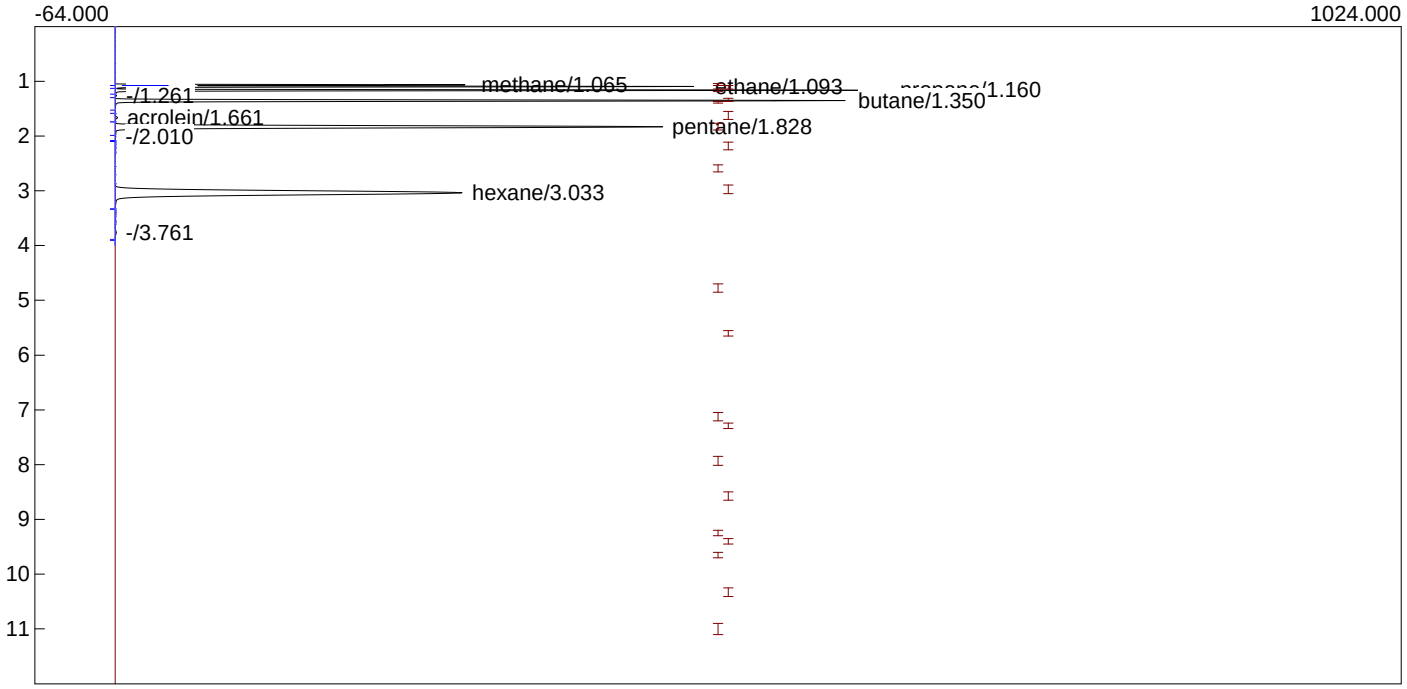


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.063	260.4210	29.2315	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
ethane	1.093	480.9648	29.1286	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
propane	1.160	728.4501	29.6922	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
butane	1.350	966.9214	29.6553	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.660	4.9264	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
pentane	1.828	1198.6050	29.0426	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
hexane	3.033	1456.0056	28.9268	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-102.CHR	0.35 ml 50 ppm C1-C6
		5096.2943	175.6769				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 08:32:02
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-103.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

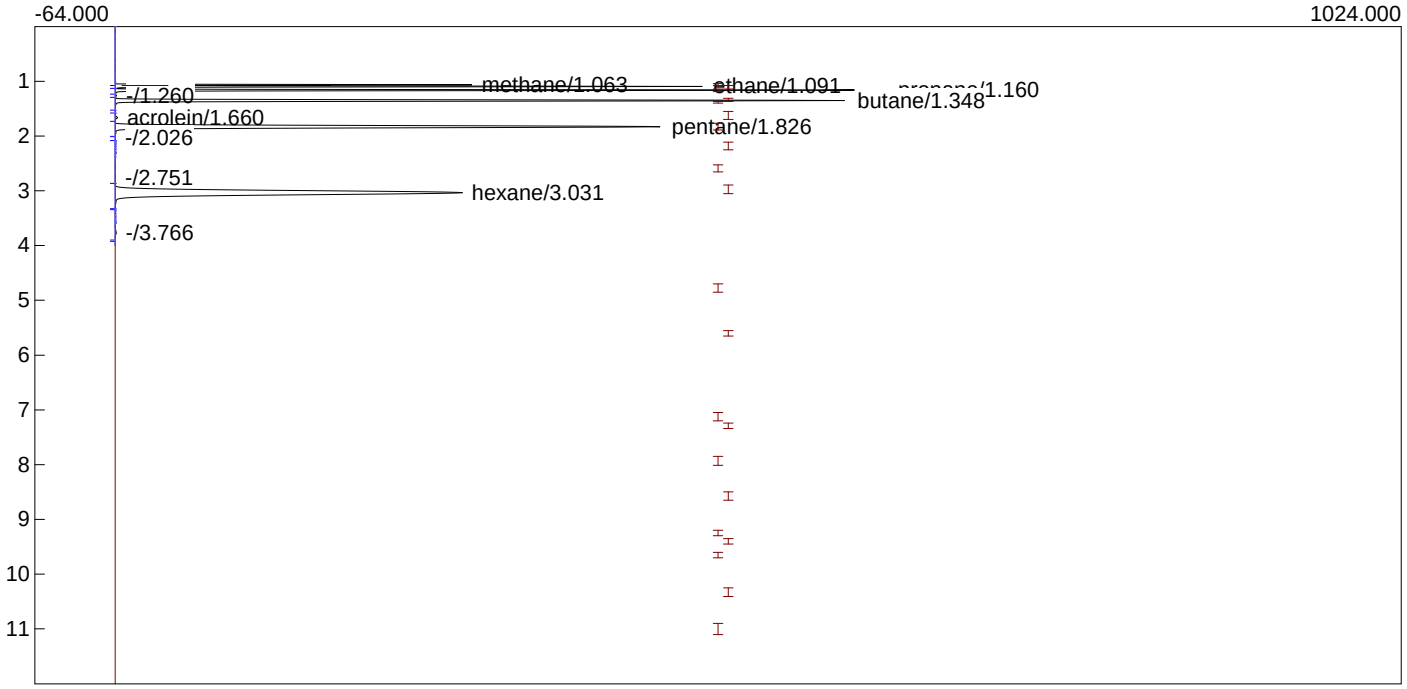


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.065	262.1747	29.4283	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
ethane	1.093	479.3643	29.0316	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
propane	1.160	728.7231	29.7033	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
butane	1.350	967.5822	29.6755	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.661	5.1149	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
pentane	1.828	1198.6770	29.0444	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
hexane	3.033	1456.0017	28.9267	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-103.CHR	0.35 ml 50 ppm C1-C6
		5097.6380	175.8099				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 08:38:56
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-104.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00



Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.063	261.2582	29.3255	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
ethane	1.091	479.5025	29.0400	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
propane	1.160	727.6268	29.6586	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
butane	1.348	966.0105	29.6273	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.660	5.2094	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
pentane	1.826	1197.3670	29.0126	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
hexane	3.031	1454.1626	28.8902	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-104.CHR	0.35 ml 50 ppm C1-C6
		5091.1370	175.5542				

Chevron FCCU
Refinery ICR Source Test
GC/FID Results
Group A - Run 11

Project: Chevron Hawaii
Location: Kapolei, HI
Date: 06/29/11
Base Injection Volume (uL) 600

Analyte		methane	ethane
Cal. Gas Concentration (ppmv)		**50**	**50**
Pre-Test Calibration			
Data and Time			
Injection ID			
Injection Volume (uL)			
6/29/2011 8:44:09	AC	158	281
fid-105.CHR	Cal. Gas Conc. (ppmv)	16.7	16.7
200	RF	63.5	35.6
	ppmv	17.7	17.0
6/29/2011 8:53:49	AC	158	281
fid-106.CHR	Cal. Gas Conc. (ppmv)	16.7	16.7
200	RF	63.5	35.6
	ppmv	17.7	17.0
6/29/2011 9:01:34	AC	157	281
fid-107.CHR	Cal. Gas Conc. (ppmv)	16.7	16.7
200	RF	63.7	35.6
	ppmv	17.6	17.0
Level 1	Average AC	157	281
Cal. Summary	Average ppmv	17.7	17.0
6/29/2011 8:22:17	AC	260	481
fid-102.CHR	Cal. Gas Conc. (ppmv)	29.2	29.2
350	RF	67.2	36.4
	ppmv	29.2	29.1
6/29/2011 8:32:02	AC	262	479
fid-103.CHR	Cal. Gas Conc. (ppmv)	29.2	29.2
350	RF	66.7	36.5
	ppmv	29.4	29.0
6/29/2011 8:38:56	AC	261	480
fid-104.CHR	Cal. Gas Conc. (ppmv)	29.2	29.2
350	RF	67.0	36.5
	ppmv	29.3	29.0
Level 2	Average AC	261	480
Cal. Summary	Average ppmv	29.3	29.1
6/29/2011 9:11:39	AC	418	818
fid-108.CHR	Cal. Gas Conc. (ppmv)	50.0	50.0
600	RF	71.8	36.7
	ppmv	46.9	49.5
6/29/2011 9:22:45	AC	414	810
fid-109.CHR	Cal. Gas Conc. (ppmv)	50.0	50.0
600	RF	72.5	37.0
	ppmv	46.5	49.0
6/29/2011 9:31:45	AC	417	806
fid-110.CHR	Cal. Gas Conc. (ppmv)	50.0	50.0
600	RF	71.9	37.2
	ppmv	46.9	48.8
Level 3	Average AC	416	811
Cal. Summary	Average ppmv	46.7	49.1

Calibration Curve		**Cal. Gas Conc. (ppmv)**	
	Zero	0	0
	Level 1	16.7	16.7
	Level 2	29.2	29.2
	Level 3	50.0	50.0
		Average AC	
	Zero	0	0
	Level 1	157	281
	Level 2	261	480
	Level 3	416	811
Calculated with Excel			
	Slope	8.30	16.2
	Intercept	9.95	5.07
	r2	0.996	1.00
Calculated with PeakSimple	**Slope**	8.91	16.5
(forced zero intercept)	**Intercept**	0	0

Pre-Test Recovery Study
Date and Time
Injection ID
Calibration Gas
Injection Volume (uL)
Dilution Factor

Chevron FCCU
Refinery ICR Source Test
GC/FID Results
Group A - Run 11

Project: Chevron Hawaii
Location: Kapolei, HI
Date: 06/29/11

Base Injection Volume (uL)	600		
Analyte		**methane**	**ethane**
Cal. Gas Concentration (ppmv)		**50**	**50**
06/29/11 09:51 AM	AC	248	450
fid-111.CHR	ppmv	27.8	27.3
50 ppmv methane/ethane	Recovery (%)	94.8	93.8
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/29/11 10:00 AM	AC	245	443
fid-112.CHR	ppmv	27.5	26.8
50 ppmv methane/ethane	Recovery (%)	93.9	92.2
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/29/11 10:09 AM	AC	250	446
fid-113.CHR	ppmv	28.0	27.0
50 ppmv methane/ethane	Recovery (%)	95.5	93.0
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
Sample Analyses			
Date and Time			
Injection ID			
Sample ID			
Injection Volume (uL)			
Dilution Factor			
06/29/11 10:18 AM	AC	2.37	1.32
fid-114.CHR	ppmv	0.266	0.0798
Group A - Run 11 - Injection 1			
600			
1			
06/29/11 10:41 AM	AC	1.40	0
fid-115.CHR	ppmv	0.157	0
Group A - Run 11 - Injection 2			
600			
1			
06/29/11 11:21 AM	AC	1.42	0
fid-116.CHR	ppmv	0.160	0
Group A - Run 11 - Injection 3			
600			
1			
06/29/11 11:53 AM	AC	1.43	0
fid-117.CHR	ppmv	0.161	0
Group A - Run 11 - Injection 4			
600			
1			
06/29/11 12:29 PM	AC	1.41	0
fid-118.CHR	ppmv	0.158	0
Group A - Run 11 - Injection 5			
600			
1			
06/29/11 01:06 PM	AC	7.51	0
fid-119.CHR	ppmv	0.843	0
Group A - Run 11 - Injection 6			
600			
1			
06/29/11 02:02 PM	AC	2.08	0
fid-120.CHR	ppmv	0.233	0
Group A - Run 11 - Injection 7			
600			
1			
06/29/11 02:39 PM	AC	1.73	0
fid-121.CHR	ppmv	0.194	0
Group A - Run 11 - Injection 8			
600			
1			
06/29/11 04:01 PM	AC	3.15	0
fid-122.CHR	ppmv	0.354	0
Group A - Run 11 - Injection 9			
600			
1			
Post-Test Calibration			
Date and Time			
Injection ID			
Calibration Gas			
Injection Volume (uL)			
Dilution Factor			

Chevron FCCU
Refinery ICR Source Test
GC/FID Results
Group A - Run 11

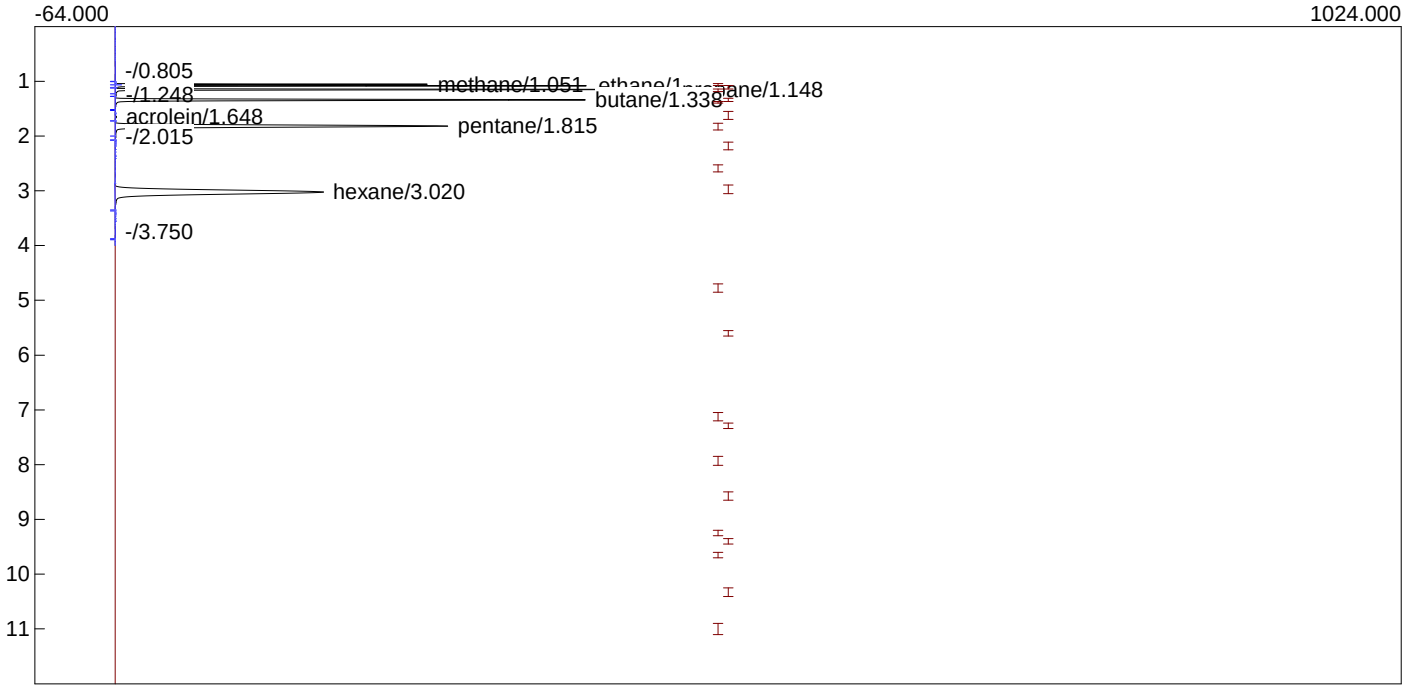
Project: Chevron Hawaii
Location: Kapolei, HI
Date: 06/29/11

Base Injection Volume (uL)		600	
Analyte		**methane**	**ethane**
Cal. Gas Concentration (ppmv)		**50**	**50**
06/29/11 04:33 PM	AC	258	474
fid-123.CHR	ppmv	29.0	28.7
50 ppmv methane/ethane	Recovery (%)	98.8	98.9
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/29/11 05:21 PM	AC	261	478
fid-124.CHR	ppmv	29.3	29.0
50 ppmv methane/ethane	Recovery (%)	99.9	99.6
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			
06/29/11 05:26 PM	AC	261	475
fid-125.CHR	ppmv	29.3	28.8
50 ppmv methane/ethane	Recovery (%)	99.9	99.0
350	Cal. Gas Conc. (ppmv)	29.2	29.2
1			

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 08:44:09
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-105.CHR (C:\Peak385\data\CH)
Sample: 0.2 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

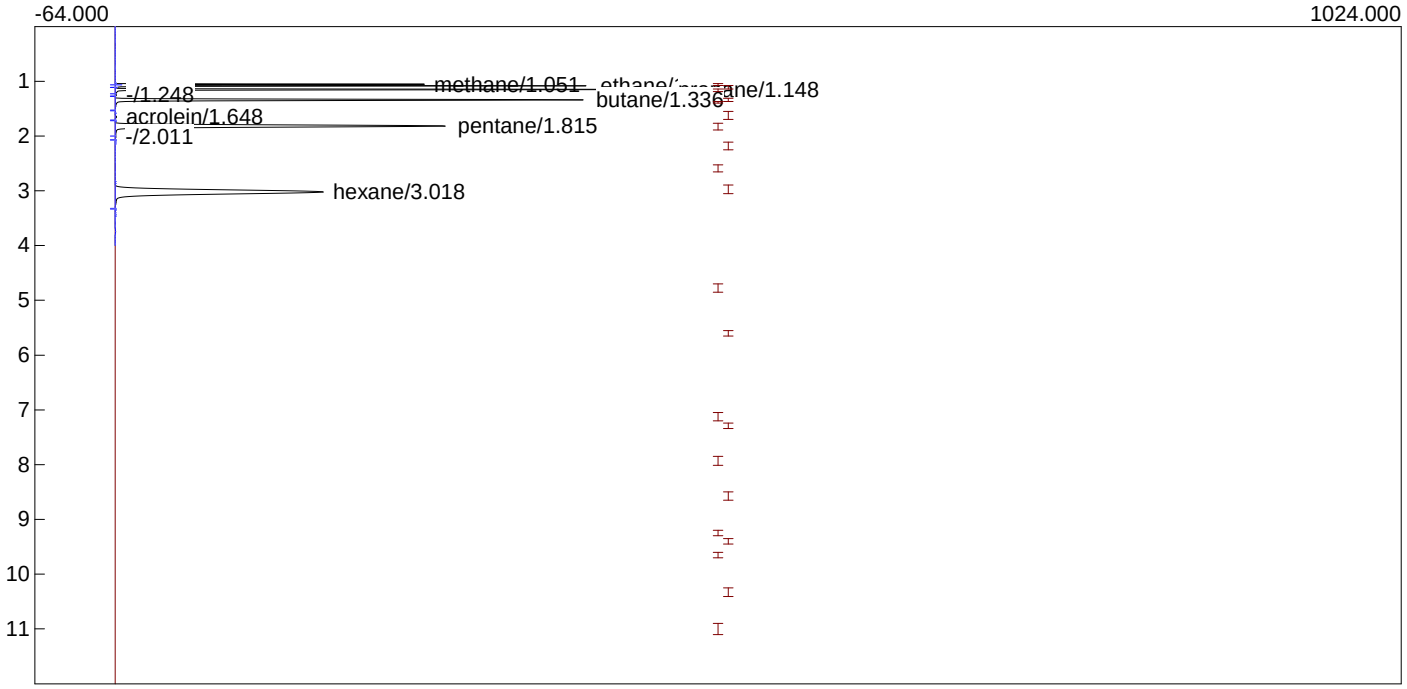


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.051	157.5128	17.6803	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
ethane	1.081	281.2472	17.0331	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
propane	1.148	434.1262	17.6953	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
butane	1.338	577.3719	17.7079	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
acrolein	1.648	3.0158	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
pentane	1.815	716.9756	17.3726	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
hexane	3.020	877.4721	17.4329	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-105.CHR	0.2 ml 50 ppm C1-C6
		3047.7216	104.9221				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 08:53:49
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-106.CHR (C:\Peak385\data\CH)
Sample: 0.2 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

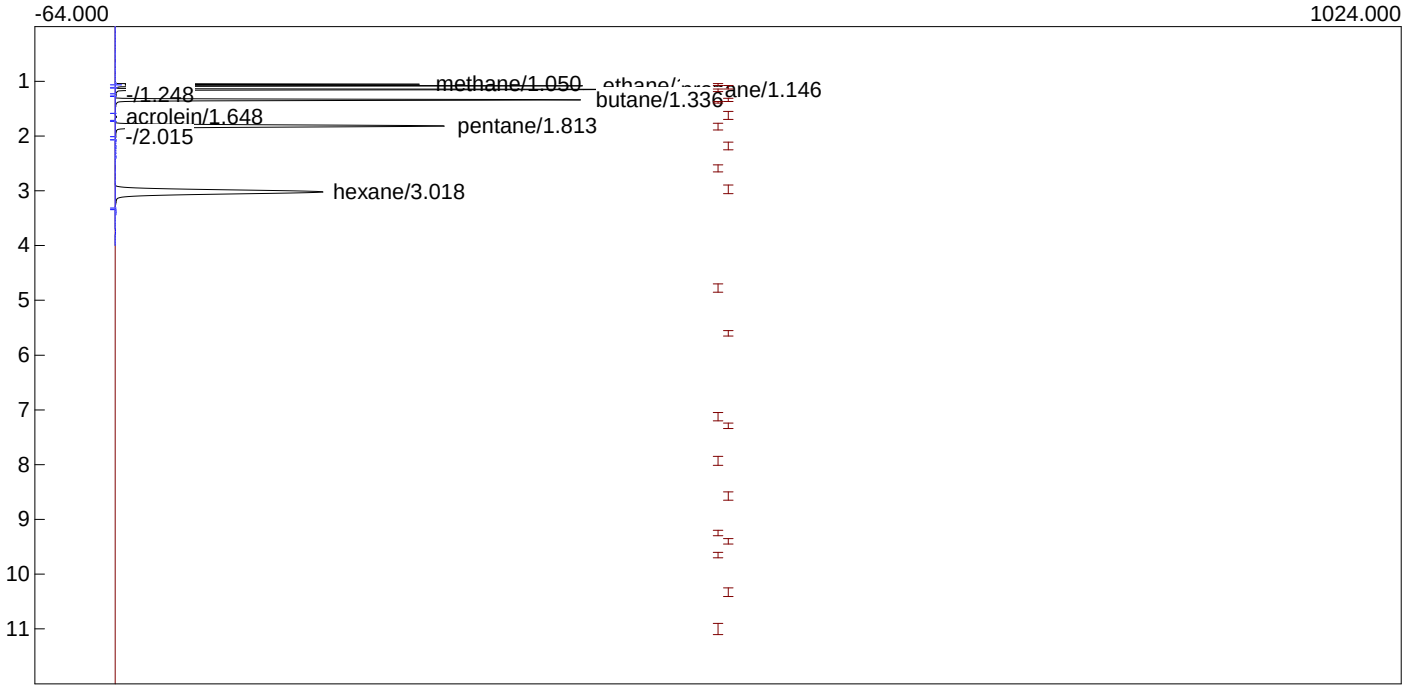


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.051	157.5183	17.6810	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
ethane	1.080	280.5784	16.9926	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
propane	1.148	433.7426	17.6797	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
butane	1.336	576.9651	17.6954	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
acrolein	1.648	3.0154	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
pentane	1.815	716.4013	17.3587	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
hexane	3.018	875.7166	17.3980	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 08:	fid-106.CHR	0.2 ml 50 ppm C1-C6
		3043.9377	104.8053				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 09:01:34
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-107.CHR (C:\Peak385\data\CH)
Sample: 0.2 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

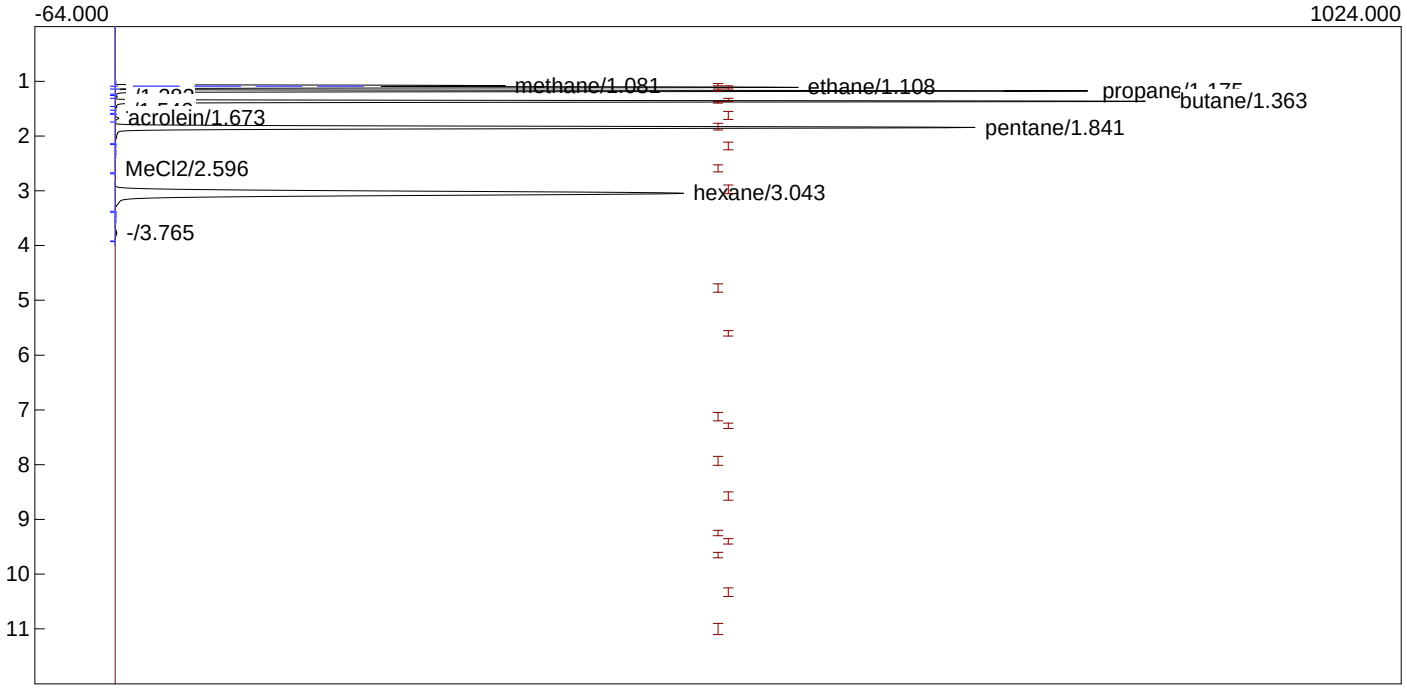


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.050	157.0088	17.6238	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
ethane	1.080	280.9940	17.0178	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
propane	1.146	433.4808	17.6690	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
butane	1.336	577.4675	17.7108	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
acrolein	1.648	3.0090	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
pentane	1.813	716.0480	17.3501	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
hexane	3.018	875.4741	17.3932	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-107.CHR	0.2 ml 50 ppm C1-C6
		3043.4821	104.7647				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 09:11:39
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-108.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

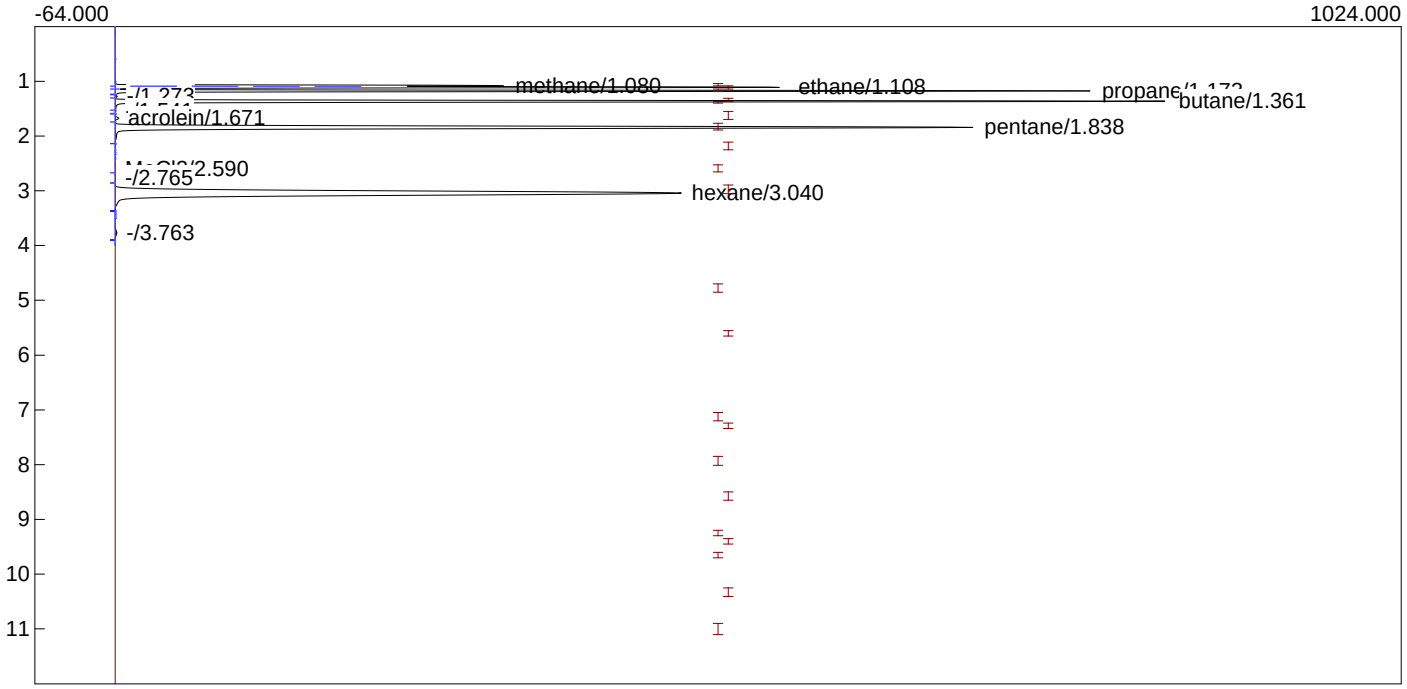


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.081	417.8638	46.9040	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
ethane	1.108	817.6315	49.5180	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
propane	1.175	1204.5695	49.0991	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
butane	1.363	1604.1774	49.1998	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
acrolein	1.673	8.0612	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
pentane	1.841	1992.5629	48.2805	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
MeCl2	2.596	1.1758	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
hexane	3.043	2442.5826	48.5273	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-108.CHR	0.6 ml 50 ppm C1-C6
		8488.6247	291.5288				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 09:22:45
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-109.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

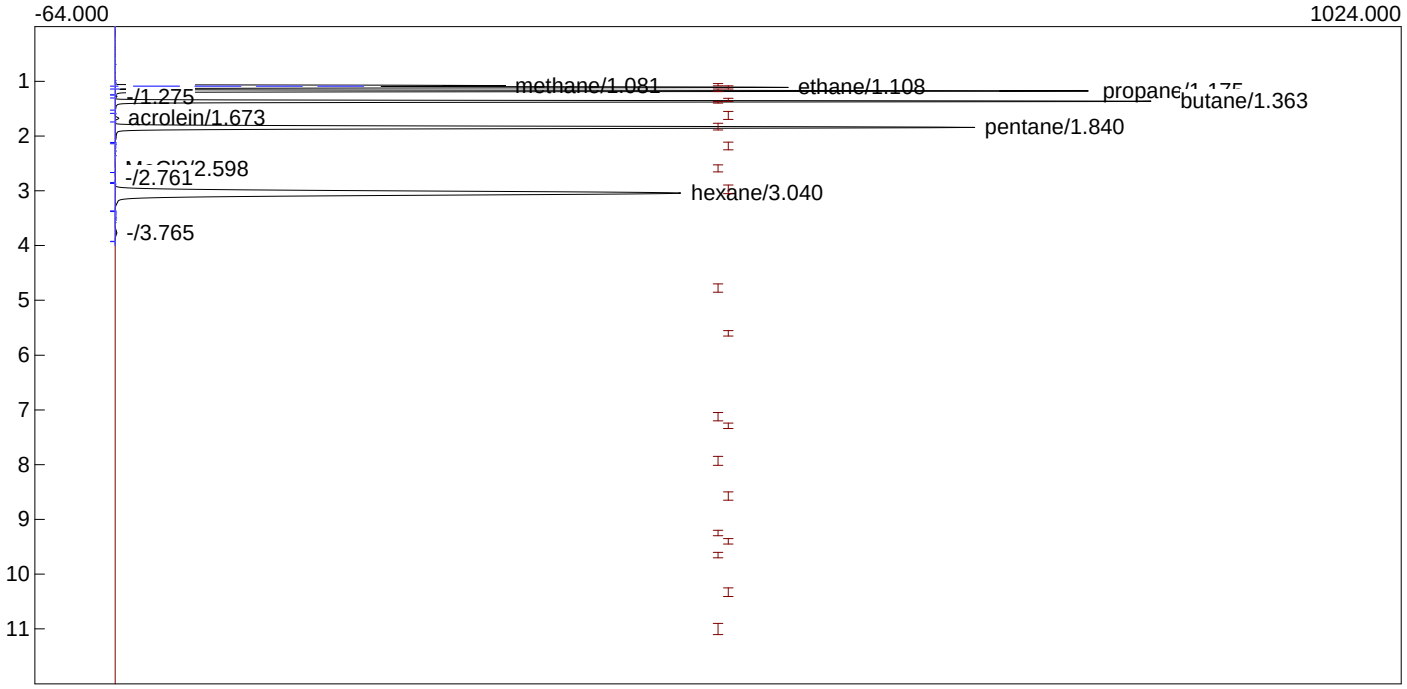


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.080	413.8499	46.4534	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
ethane	1.108	809.8762	49.0484	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
propane	1.173	1203.7159	49.0643	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
butane	1.361	1597.7846	49.0037	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
acrolein	1.671	8.1844	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
pentane	1.838	1986.2932	48.1286	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
MeCl2	2.590	1.1314	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
hexane	3.040	2423.5428	48.1490	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-109.CHR	0.6 ml 50 ppm C1-C6
		8444.3784	289.8475				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 09:31:45
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-110.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

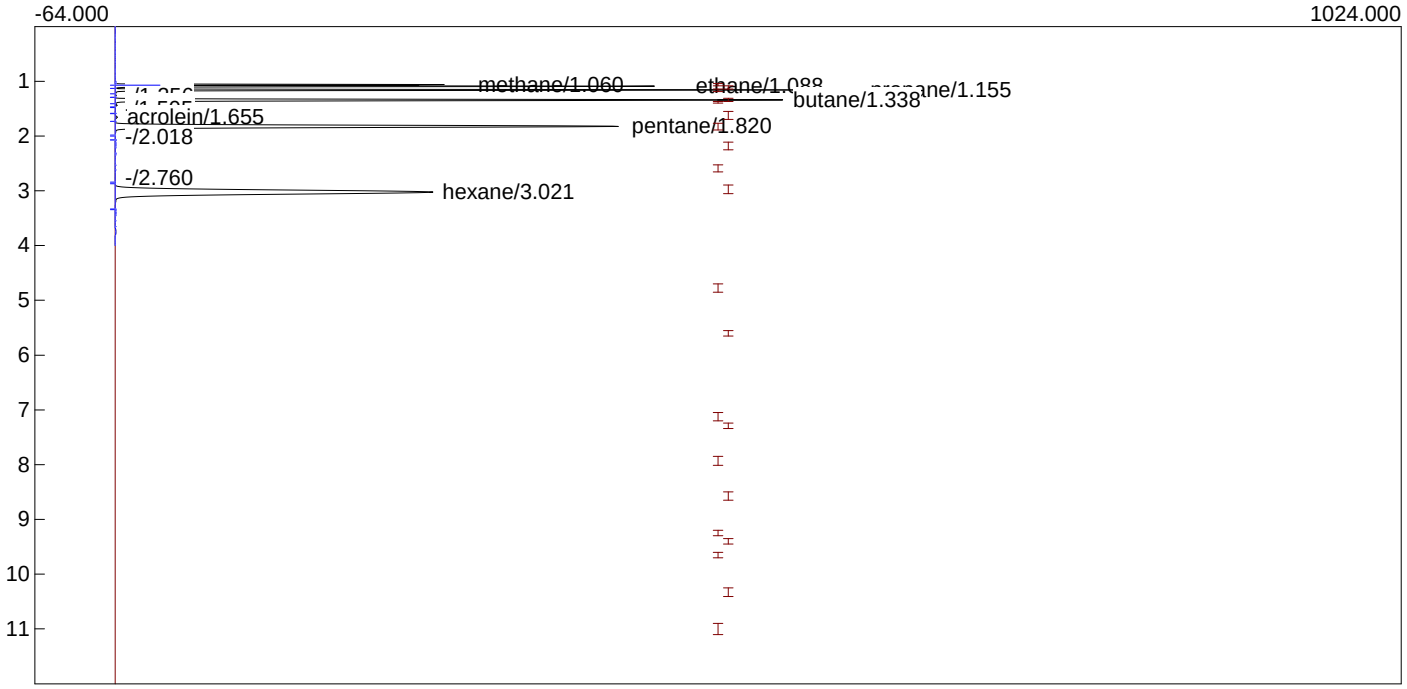


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.081	417.4366	46.8560	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
ethane	1.108	806.0637	48.8175	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
propane	1.175	1203.1339	49.0406	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
butane	1.363	1596.1812	48.9545	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
acrolein	1.673	8.0565	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
pentane	1.840	1982.3668	48.0335	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
MeCl2	2.598	1.2196	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
hexane	3.040	2413.4378	47.9483	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-110.CHR	0.6 ml 50 ppm C1-C6
		8427.8961	289.6504				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 09:51:44
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-111.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6 rec

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

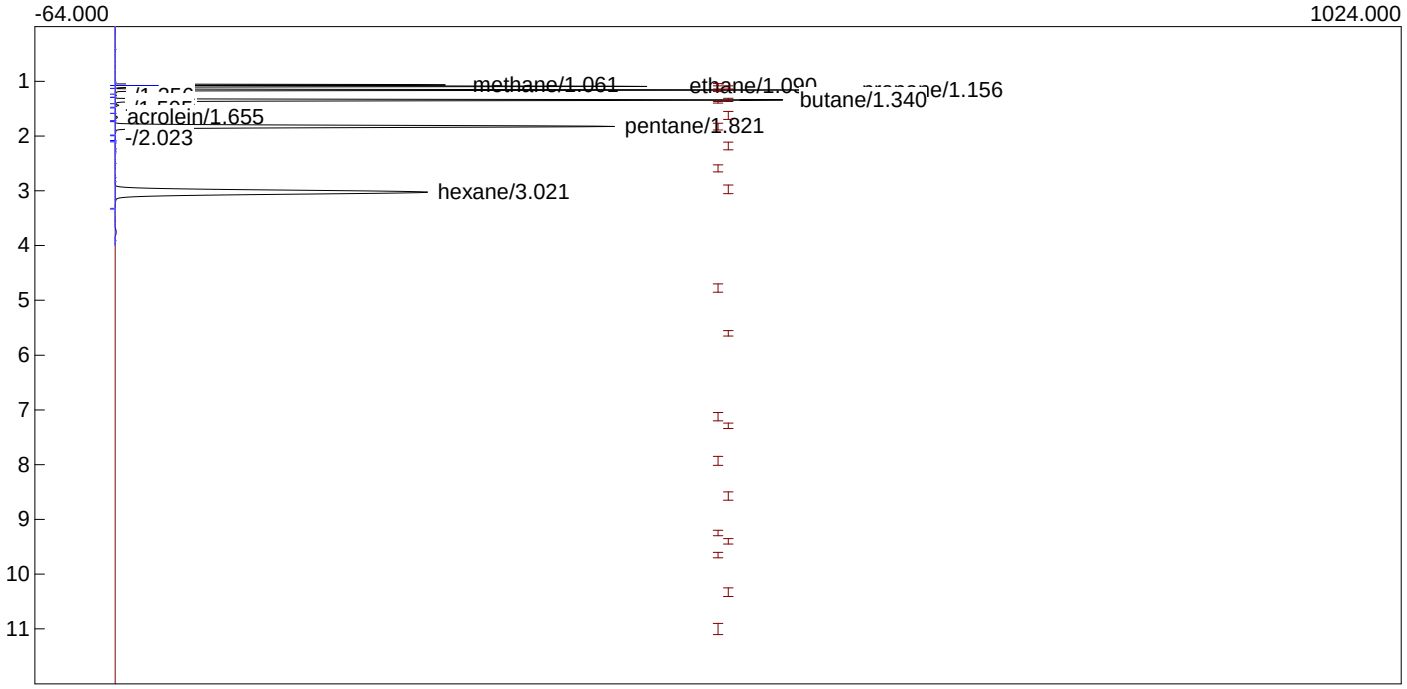


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.060	247.7632	27.8107	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
ethane	1.088	450.1030	27.2595	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
propane	1.155	680.9453	27.7558	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
butane	1.338	893.2421	27.3955	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
acrolein	1.655	4.7198	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
pentane	1.820	1107.2256	26.8285	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
hexane	3.021	1327.2358	26.3685	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 09:	fid-111.CHR	0.35 ml 50 ppm C1-C6 rec
		4711.2347	163.4185				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 10:00:23
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-112.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6 rec

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

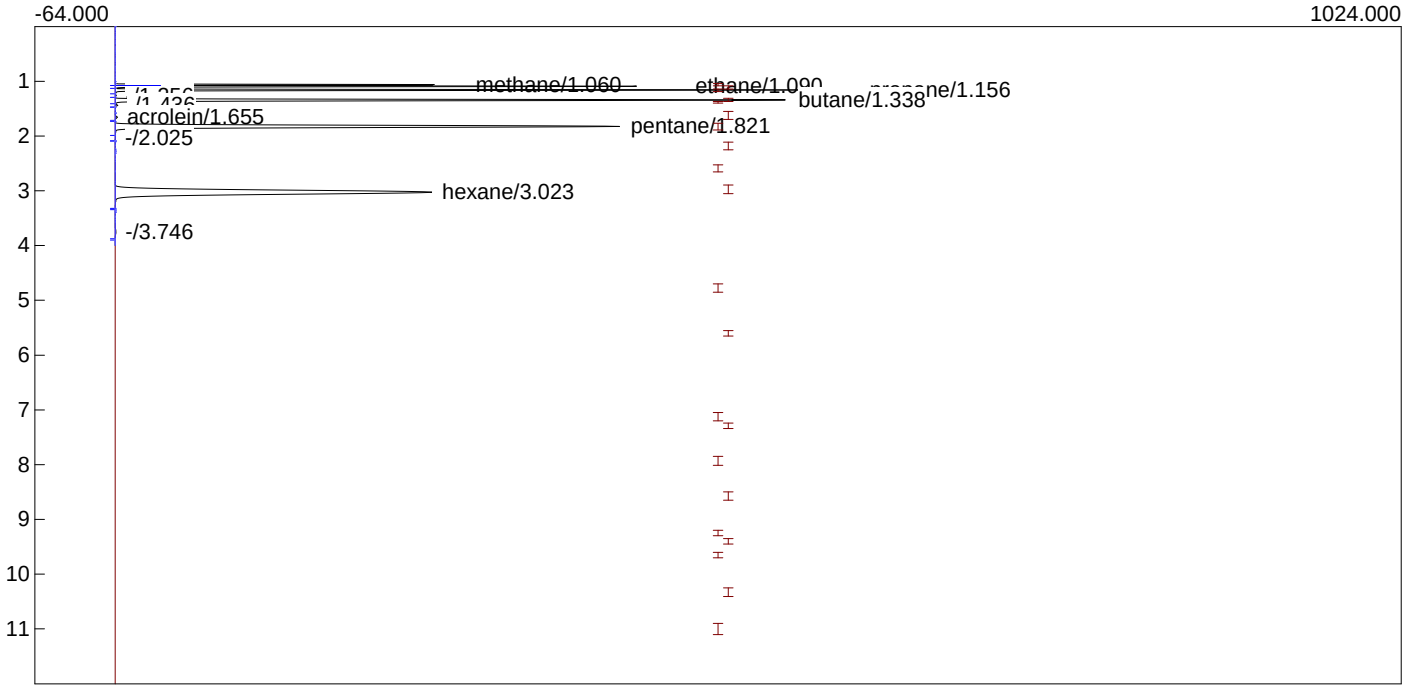


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.061	245.3142	27.5358	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
ethane	1.090	442.7418	26.8137	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
propane	1.156	670.6068	27.3344	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
butane	1.340	880.5688	27.0069	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
acrolein	1.655	4.7634	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
pentane	1.821	1091.3697	26.4443	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
hexane	3.021	1305.8116	25.9428	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-112.CHR	0.35 ml 50 ppm C1-C6 rec
		4641.1762	161.0779				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 10:09:09
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-113.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6 rec

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

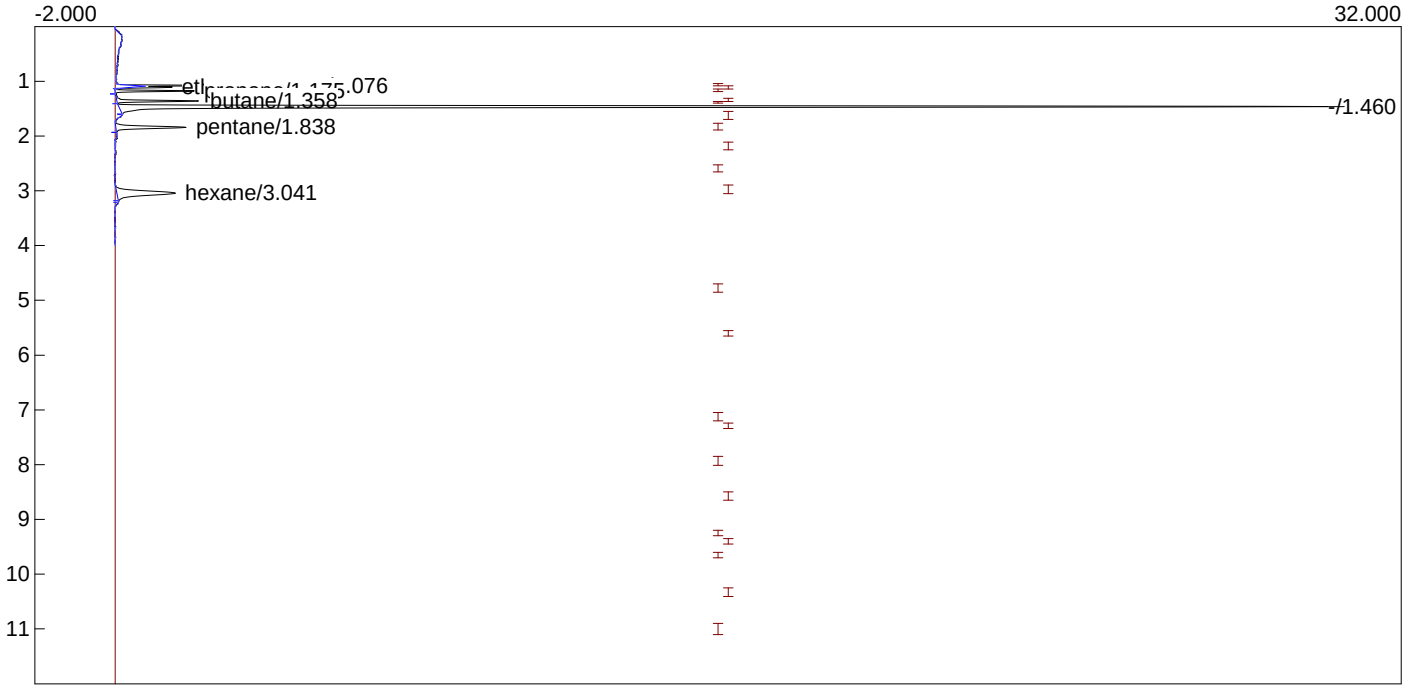


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.060	249.5370	28.0098	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
ethane	1.090	446.3088	27.0297	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
propane	1.156	678.0669	27.6385	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
butane	1.338	890.8085	27.3209	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
acrolein	1.655	4.7322	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
pentane	1.821	1104.5104	26.7627	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
hexane	3.023	1325.3756	26.3315	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-113.CHR	0.35 ml 50 ppm C1-C6 rec
		4699.3394	163.0931				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 10:18:30
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-114.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

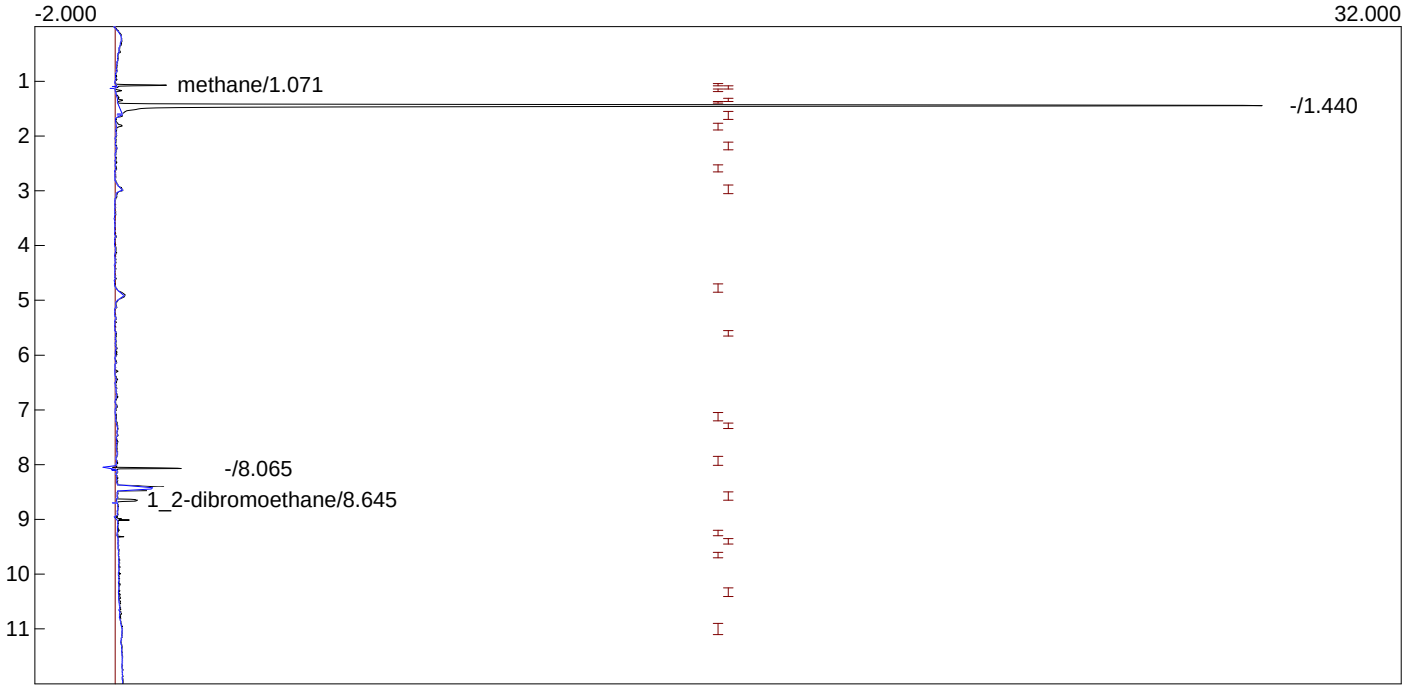


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.076	2.3688	0.2659	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
ethane	1.106	1.3176	0.0798	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
propane	1.175	3.0472	0.1242	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
butane	1.358	3.8206	0.1172	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
pentane	1.838	5.2634	0.1275	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
hexane	3.041	8.0807	0.1605	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-114.CHR	0.6 ml sample
		23.8983	0.8751				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 10:41:36
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-115.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

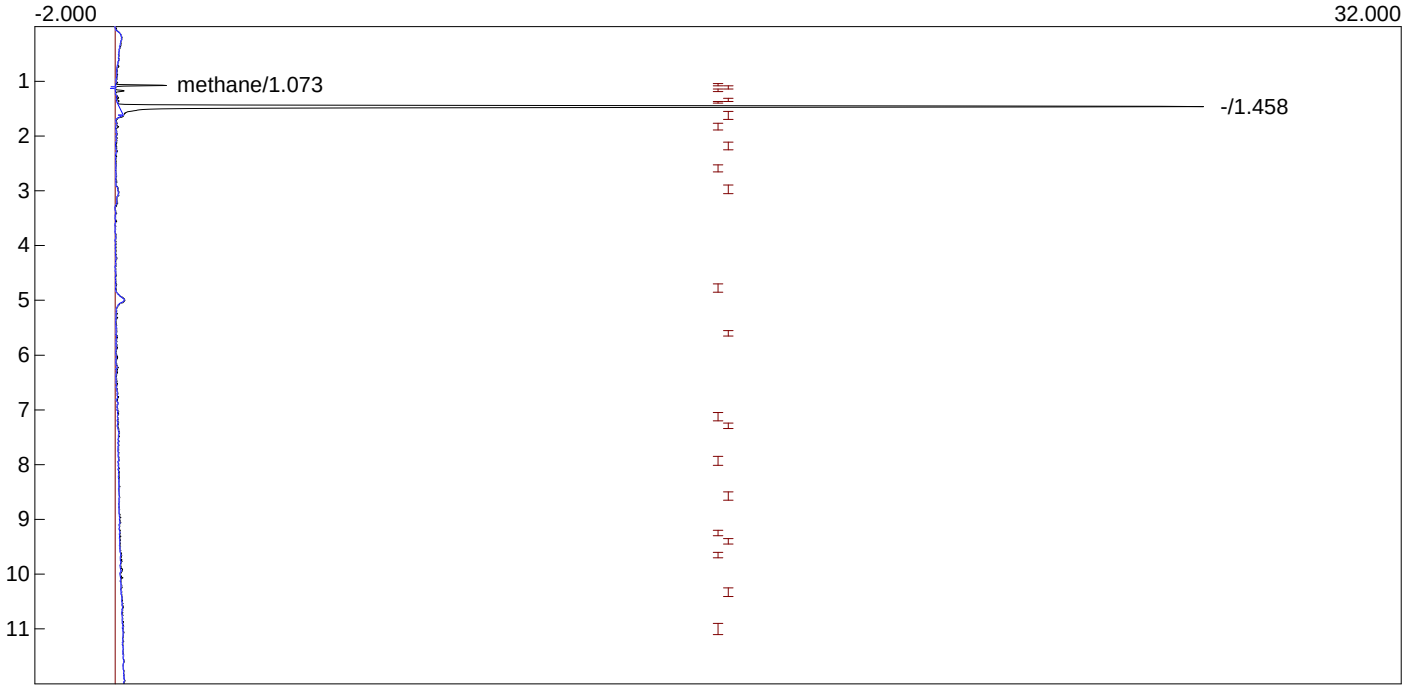


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.071	1.3958	0.1567	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
1_2-dibromoethane	8.645	1.2265	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 10:	fid-115.CHR	0.6 ml sample
		2.6223	0.1567				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 11:21:08
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-116.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

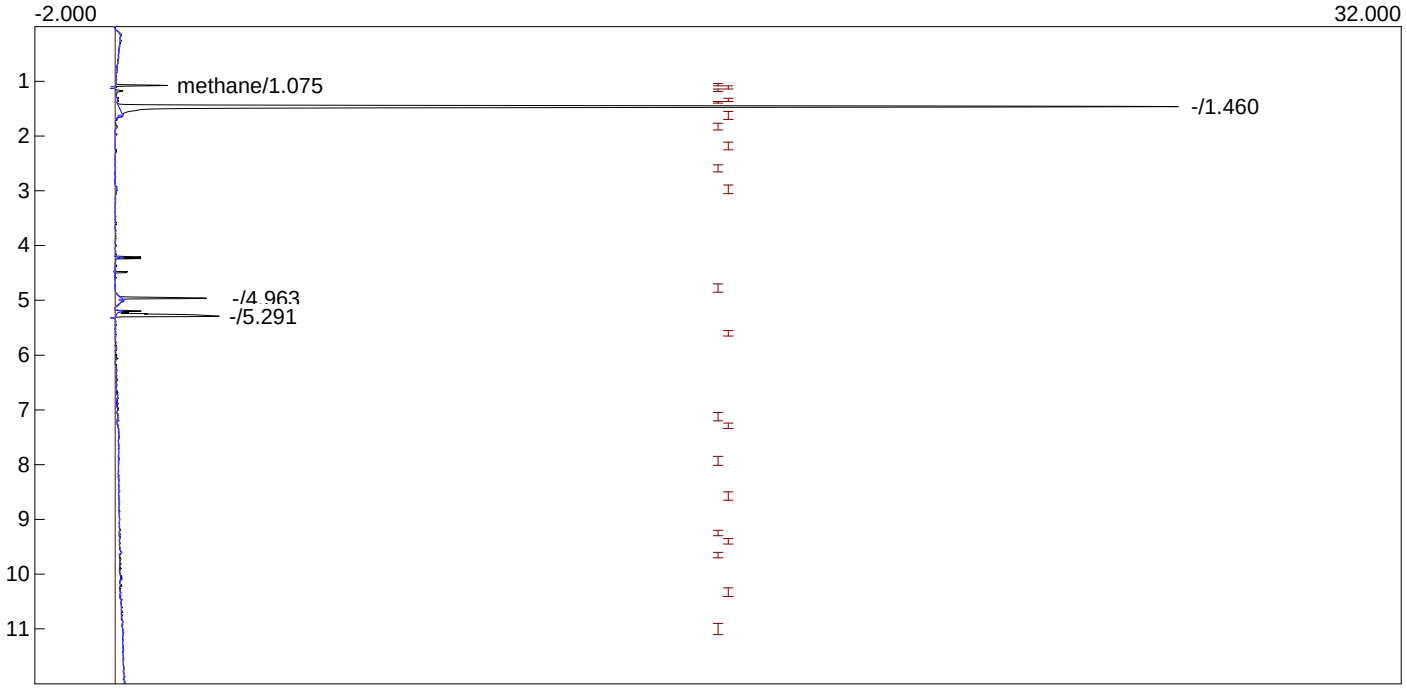


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.073	1.4236	0.1598	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-116.CHR	0.6 ml sample
		1.4236	0.1598				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 11:53:20
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-117.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

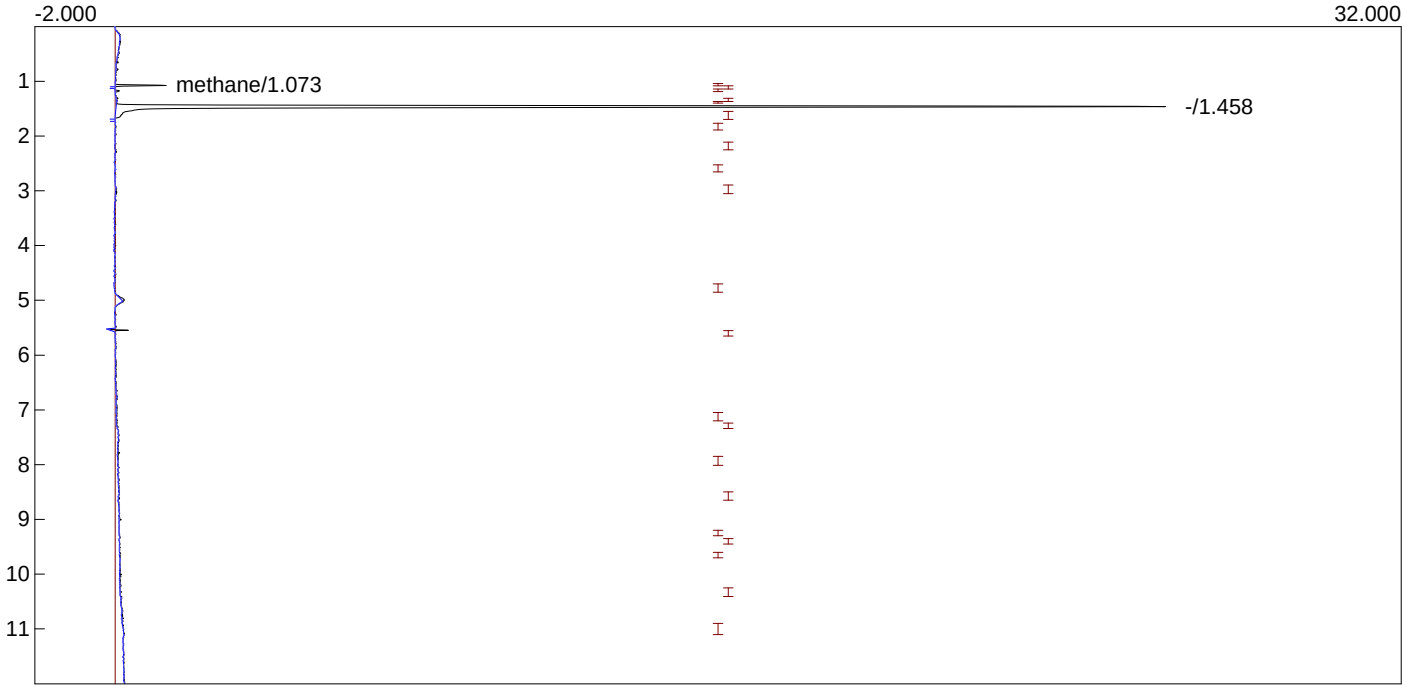


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.075	1.4304	0.1606	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 11:	fid-117.CHR	0.6 ml sample
		1.4304	0.1606				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 12:29:13
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-118.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

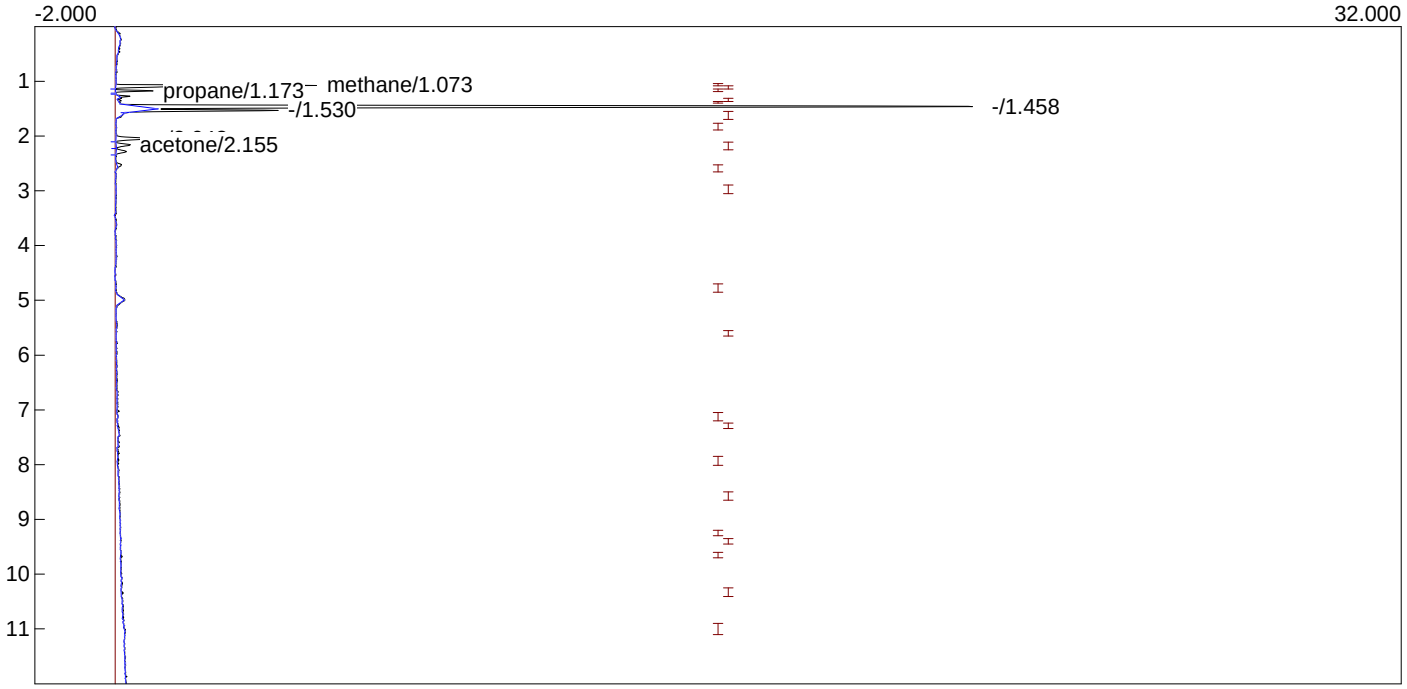


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.073	1.4108	0.1584	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 12:	fid-118.CHR	0.6 ml sample
		1.4108	0.1584				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 13:06:52
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-119.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

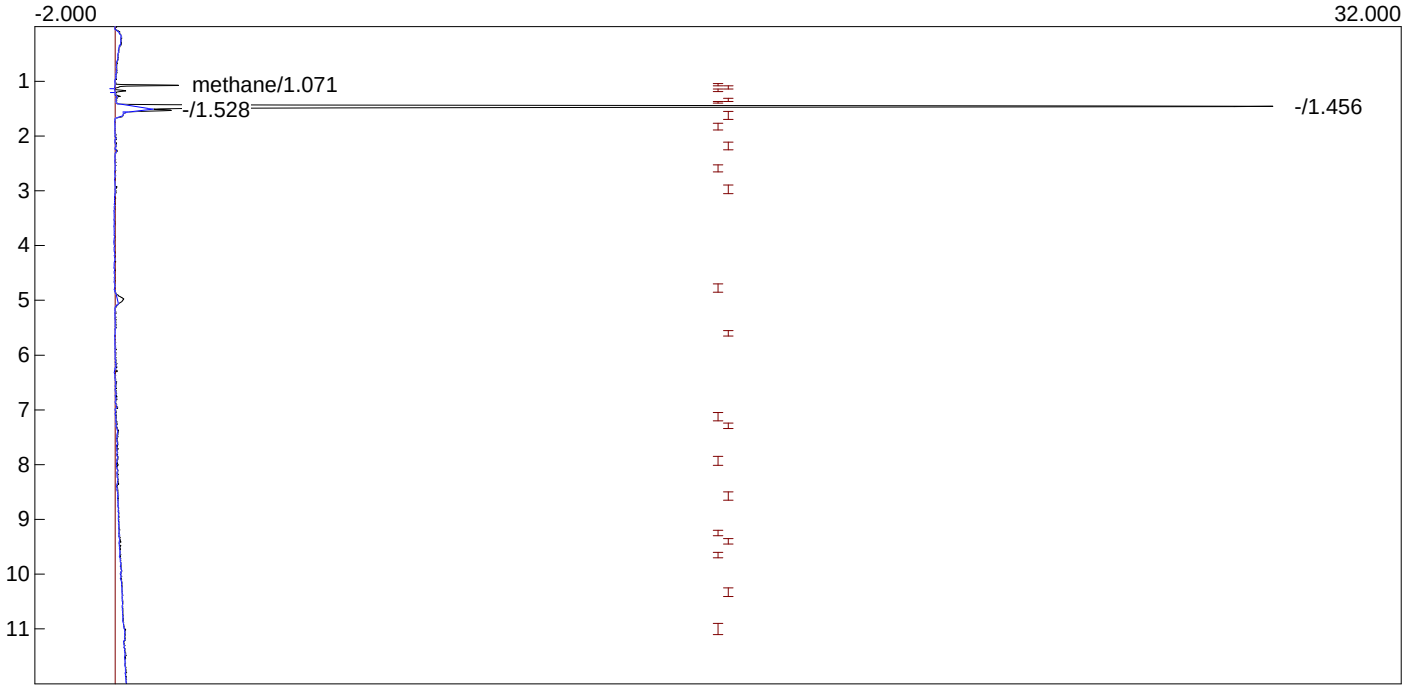


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.073	7.5078	0.8427	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
propane	1.173	1.4063	0.0573	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
acetone	2.155	1.0600	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 13:	fid-119.CHR	0.6 ml sample
		9.9741	0.9001				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 14:02:24
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-120.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

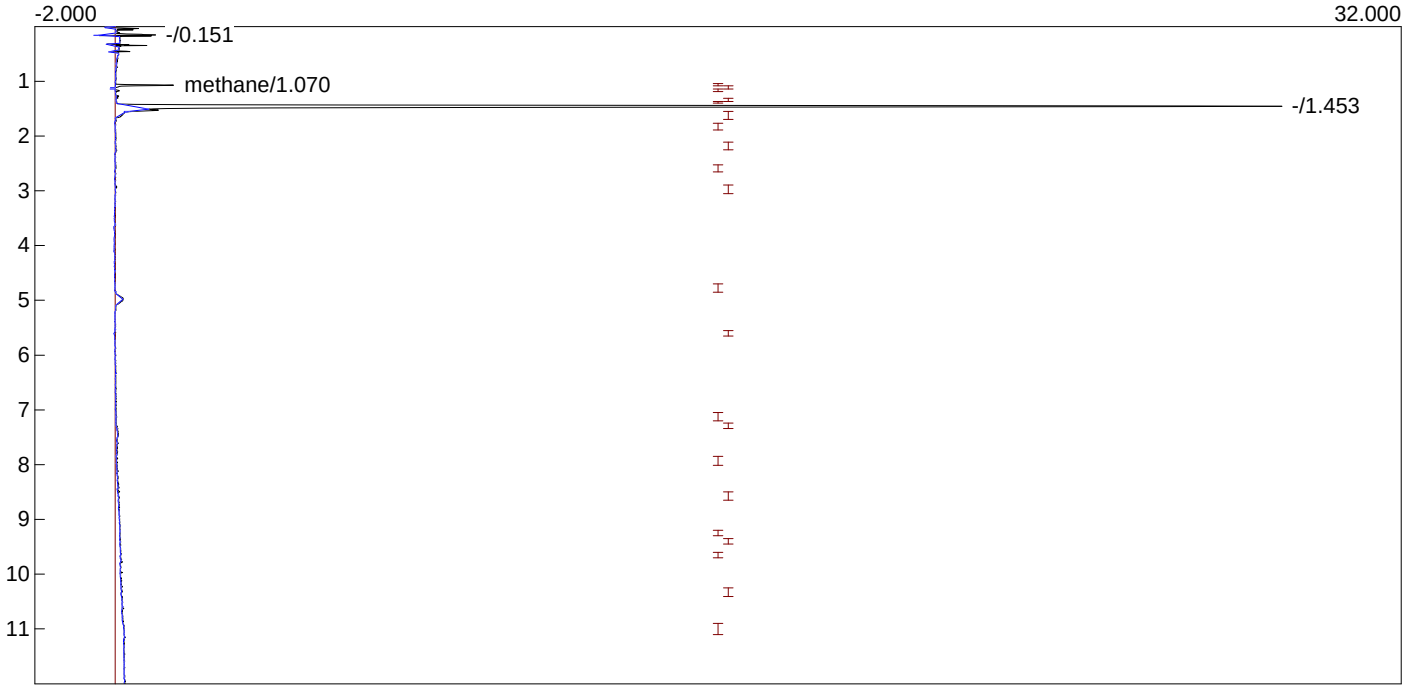


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.071	2.0766	0.2331	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-120.CHR	0.6 ml sample
		2.0766	0.2331				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 14:39:25
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-121.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

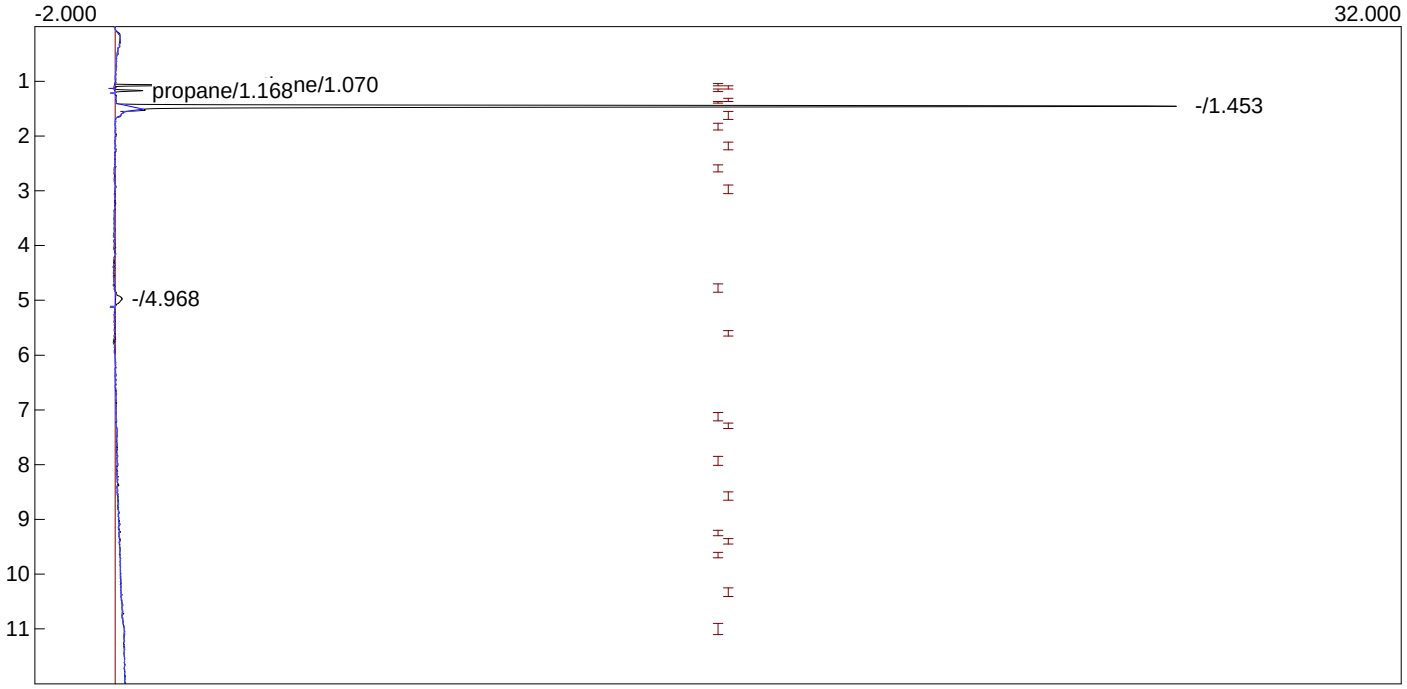


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	1.7322	0.1944	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
propane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 14:	fid-121.CHR	0.6 ml sample
		1.7322	0.1944				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 16:01:09
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-122.CHR (C:\Peak385\data\CH)
Sample: 0.6 ml sample

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

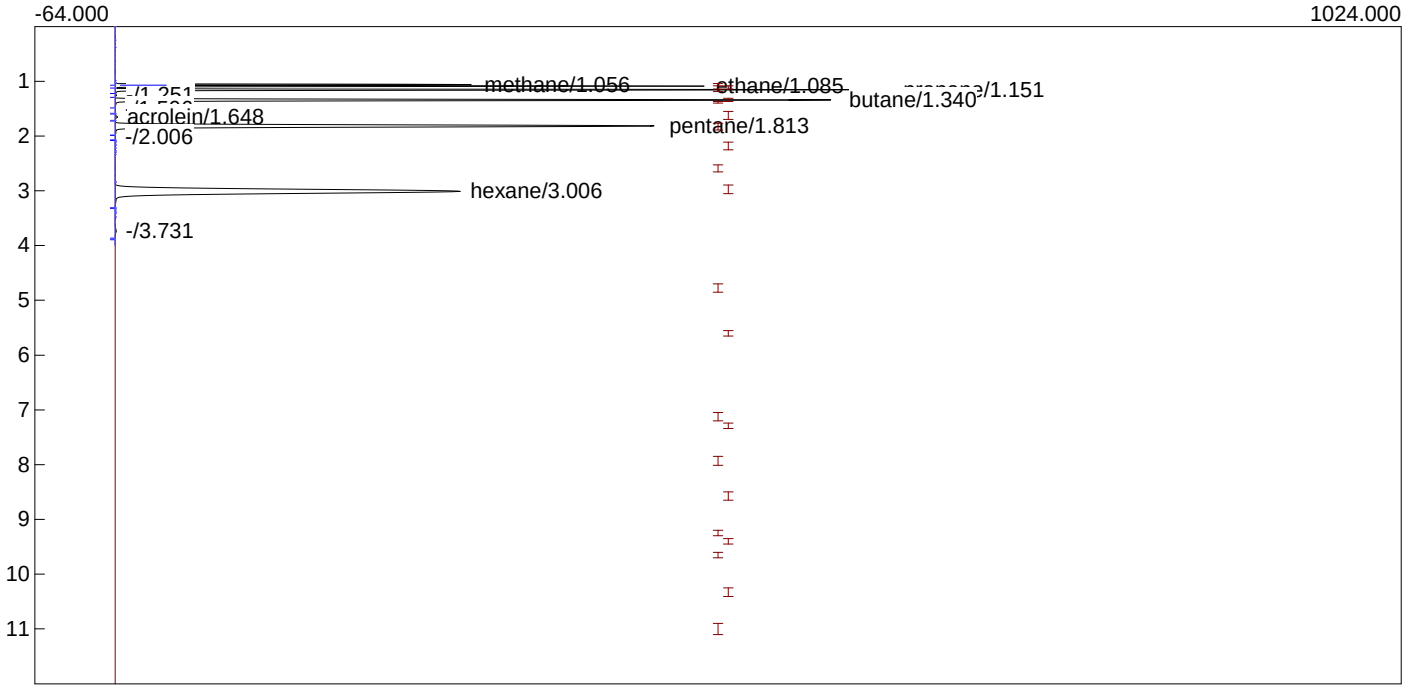


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.070	3.1502	0.3536	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
ethane	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
propane	1.168	1.0751	0.0438	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
butane	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
acrolein	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
pentane	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
hexane	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-122.CHR	0.6 ml sample
		4.2253	0.3974				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 16:33:40
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-123.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

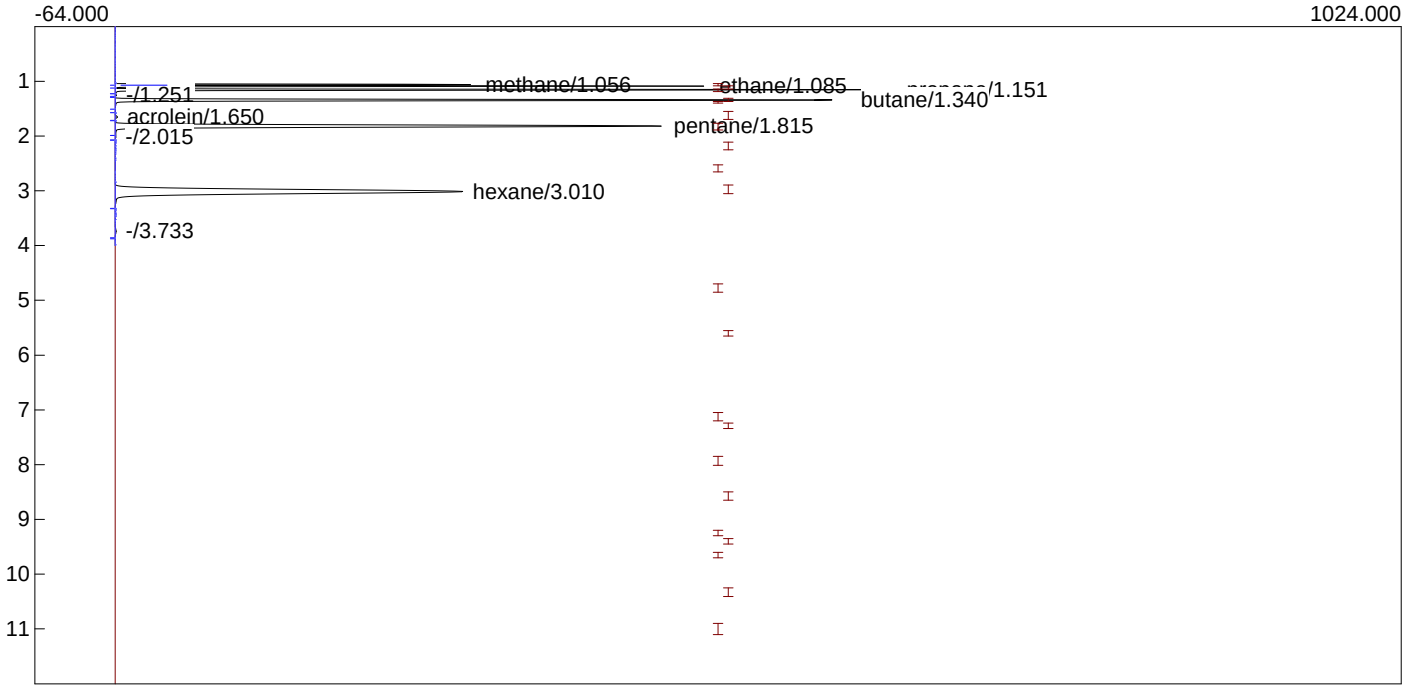


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.056	258.2444	28.9872	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
ethane	1.085	474.4511	28.7341	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
propane	1.151	719.9631	29.3462	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
butane	1.340	955.2903	29.2986	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.648	4.8052	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
pentane	1.813	1184.7085	28.7059	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
hexane	3.006	1439.3856	28.5966	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 16:	fid-123.CHR	0.35 ml 50 ppm C1-C6
		5036.8481	173.6685				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 17:21:03
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-124.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00

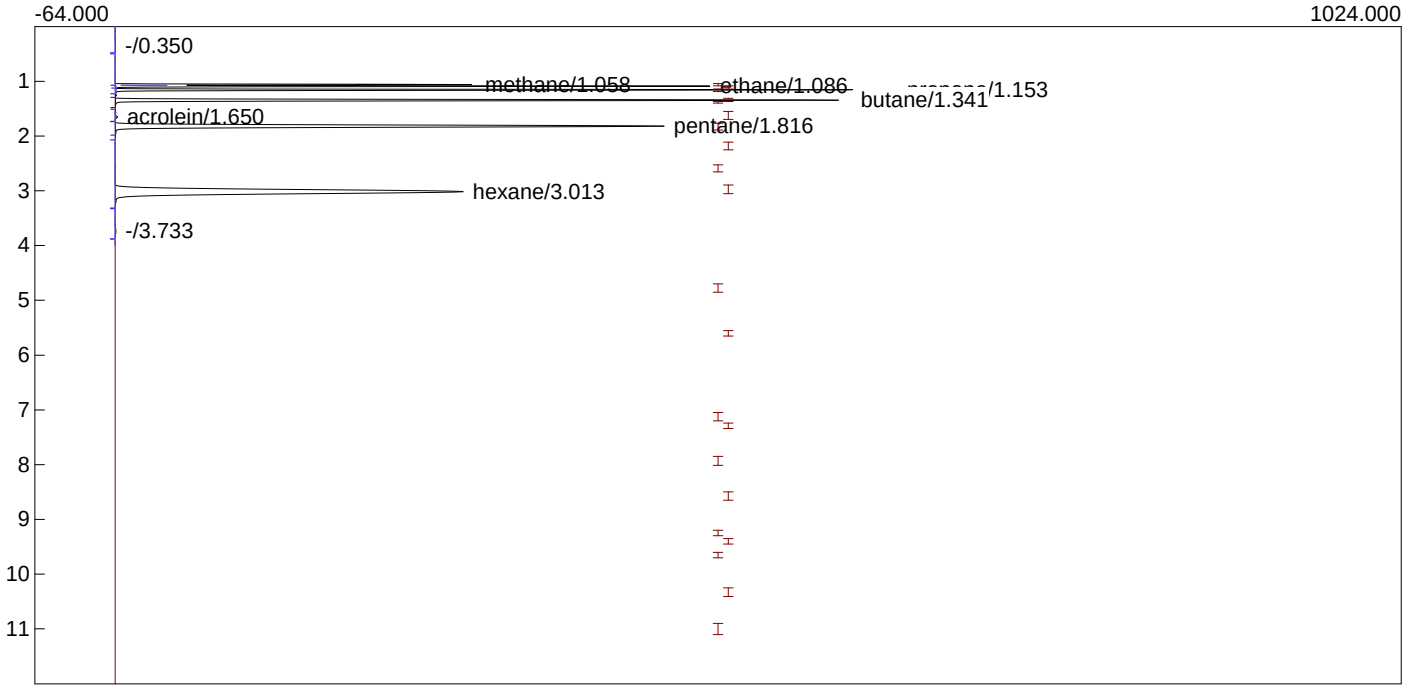


Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.056	260.9524	29.2911	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
ethane	1.085	478.2256	28.9627	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
propane	1.151	726.5989	29.6167	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
butane	1.340	965.4428	29.6099	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.650	5.0481	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
pentane	1.815	1197.9311	29.0263	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
hexane	3.010	1457.4726	28.9559	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-124.CHR	0.35 ml 50 ppm C1-C6
		5091.6716	175.4627				

Lab name: URS
Client: Chevron
Analysis date: 06/29/2011 17:26:41
Method: Valve Injection
Description: FID Ch1
Column: Restek 60m MXT-624
Carrier: Nitrogen
Data file: fid-125.CHR (C:\Peak385\data\CH)
Sample: 0.35 ml 50 ppm C1-C6

Temperature program:

Init temp	Hold	Ramp	Final temp
40.00	2.000	10.000	100.00
100.00	4.000	0.000	0.00



Component	Retention	Area	External	Units	Analysis date	Data file	Sample
methane	1.058	261.0809	29.3056	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
ethane	1.086	475.3666	28.7895	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
propane	1.153	722.1132	29.4339	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
butane	1.341	961.7664	29.4972	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
methanol	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
acrolein	1.650	4.7622	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
pentane	1.816	1193.6254	28.9220	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
acetone	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
MeCl2	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
hexane	3.013	1456.0121	28.9269	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
benzene_ isooctane	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
trichloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
MIBK	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
toluene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
tetrachloroethylene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
1_2-dibromoethane	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
chlorobenzene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
ethylbenzene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
m_p-xylene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
o-xylene_styrene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
cumene	0.000	0.0000	0.0000	ppm	06/29/2011 17:	fid-125.CHR	0.35 ml 50 ppm C1-C6
		5074.7268	174.8750				

Appendix G

Report for VOC HAP and Methanol Analysis

URS Corporation

9400 Amberglen Blvd
Austin, TX 78729

Chevron - FCCU: Hawaii Refinery

Project # 40942312
PO # 251266.US

Analytical Report
(0611-22R)

EPA Method 18 (Bags and Condensates)

1,3-Butadiene, Acetonitrile, Acrolein, Acetone, Pentane, Methylene chloride, Hexane, Benzene, Trichloroethene, Toluene, 1,2-Dibromoethane, Tetrachloroethene, and Carbon disulfide

EPA Method 18 (Adsorbents)

Acetonitrile, Acrylonitrile, Methyl t-butyl ether (MTBE), 2-Nitropropane, Isooctane, Methyl isobutyl ketone (MIBK), Chlorobenzene, Ethylbenzene, m/p-Xylene, Styrene, o-Xylene, Cumene, and Nitrobenzene,

EPA Method 308

Methanol

Enthalpy Analytical, Inc.

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
2202 Ellis Road Durham, NC 27703 - 5518

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains ??? pages.

Report Issued: xx/xx/xxxx

Summary of Results

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

Compound	Sample ID / Adjusted Concentration (ppm)		
	CHV-Stk-ICR1-M18b-Bag A	***CHV-Stk-ICR2-Bag A R2***	***STK-ICR3-M18b-Bag A R1***
1-3 Butadiene	0.509 ND	0.509 ND	0.509 ND
Acetonitrile	1.12 ND	1.12 ND	1.12 ND
Acrolein	0.296 ND	0.296 ND	0.296 ND
Acetone	0.383 ND	0.383 ND	0.383 ND
Acrylonitrile	0.319 ND	0.319 ND	0.319 ND
Pentane	0.257 ND	0.257 ND	0.257 ND
Methylene chloride	0.930 ND	0.930 ND	0.930 ND
Hexane	0.229 ND	0.229 ND	0.229 ND
Benzene	0.241 ND	0.241 ND	0.241 ND
Trichloroethene	0.367 ND	0.367 ND	0.367 ND
Toluene	0.248 ND	0.248 ND	0.248 ND
1,2 Dibromoethane	0.257 ND	0.257 ND	0.257 ND
Tetrachloroethene	0.291 ND	0.291 ND	0.291 ND

Company	URS Corporation
Analyst	KAM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

Compound	Sample ID / Sample Concentration (ppm)		
	CHV-Stk-ICR1-Bag A	***CHV-Stk-ICR2-Bag A***	***STK-ICR3-M18b-Bag A***
Carbon disulfide	0.00886 ND	0.00886 ND	0.00886 ND

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

Compound	Sample ID / Catch Weight (ug)		
	ICR1 Bag Cond A	***ICR2 Bag Cond A***	***ICR3 Bag Cond A***
1,3-Butadiene	12.9 ND	12.9 ND	12.9 ND
Pentane	20.2 ND	20.2 ND	20.2 ND
Acrolein	12.8 ND	12.8 ND	12.8 ND
Acetone	7.60 ND	7.60 ND	7.60 ND
Dichloromethane	22.3 ND	22.3 ND	22.3 ND
Hexane	9.22 ND	9.22 ND	9.22 ND
Benzene	11.0 ND	11.0 ND	11.0 ND
Trichloroethylene	12.5 ND	12.5 ND	12.5 ND
Toluene	21.5 ND	21.5 ND	21.5 ND
Tetrachloroethylene	59.2 ND	59.2 ND	59.2 ND
1,2-Dibromoethane	29.8 ND	29.8 ND	29.8 ND

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22R
# Samples	3 Bag condendates

Compound	Sample ID / Catch Weight (ug)		
	ICR1 Bag Cond A	***ICR2 Bag Cond A***	***ICR3 Bag Cond A***
Carbon disulfide	4.27 ND	4.27 ND	4.27 ND

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs, 3 spikes, 1 blank

Compound	Sample ID / Adjusted Catch Weight (ug)		
	M18 ICR1 SP	***M18 ICR2***	***M18 ICR3***
Acetonitrile	3.41 ND	3.41 ND	3.40 ND
Acrylonitrile	1.27 ND	1.27 ND	1.26 ND
MTBE	0.943 ND	0.943 ND	0.941 ND
2-Nitropropane	1.36 ND	1.36 ND	1.36 ND
Isooctane	0.846 ND	0.846 ND	0.844 ND
MIBK	1.07 ND	1.07 ND	1.07 ND
Chlorobenzene	1.34 ND	1.34 ND	1.33 ND
Ethylbenzene	1.37 ND	1.37 ND	1.37 ND
m/p-Xylene	1.26 ND	1.26 ND	1.26 ND
Styrene	10.4 ND	10.4 ND	10.4 ND
o-Xylene	1.27 ND	1.27 ND	1.26 ND
Cumene	1.30 ND	1.30 ND	1.30 ND
Nitrobenzene	1.53 ND	1.53 ND	1.53 ND

	M18 FB
Acetonitrile	0.973 ND
Acrylonitrile	0.975 ND
MTBE	0.738 ND
2-Nitropropane	0.967 ND
Isooctane	0.688 ND
MIBK	0.796 ND
Chlorobenzene	1.11 ND
Ethylbenzene	0.865 ND
m/p-Xylene	0.859 ND
Styrene	0.904 ND
o-Xylene	0.878 ND
Cumene	0.866 ND
Nitrobenzene	1.20 ND

Note: Sample ***M18 ICR1 SP*** tube was marked as an unspiked run

Company	URS Corporation
Analyst	KMT
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	6 Cond & 1 blank (Raff.)

Compound	Sample ID / Adjusted Catch Weight (ug)		
	M18 Stk-ICR1 Cond Raff	***M18 Stk-ICR1S Cond Raff***	***M18 Stk-ICR2 Cond Raff***
Acrylonitrile	8.44 ND	8.44 ND	8.44 ND
Acetonitrile	8.23 ND	17.1 J	8.23 ND
2-Nitropropane	10.2 ND	10.2 ND	10.2 ND
	M18 Stk-ICR2S Cond Raff	***M18 Stk-ICR3 Cond Raff***	***M18 Stk-ICR3S Cond Raff***
Acrylonitrile	8.44 ND	8.52 ND	8.54 ND
Acetonitrile	25.3 J	8.31 ND	39.1 J
2-Nitropropane	10.2 ND	10.3 ND	10.3 ND
	M18 Stk-ICR Cond FB Raff		
Acrylonitrile	8.24 ND		
Acetonitrile	8.04 ND		
2-Nitropropane	9.92 ND		

Company	URS Corporation
Analyst	KMT / CLD
Parameters	EPA Method 308

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 1 blank

Compound	Sample ID / Catch Weight (ug)		
	stk-icr1-m308	***stk-icr2-m308***	***stk-icr3-m308***
Methanol	6.78 ND	6.76 ND	6.76 ND
	stk-icr-m308-silica-fb		
Methanol	0.790 ND		

Results

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.282 (ppm)
LOQ 2.57 (ppm)
Compound 1-3 Butadiene

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.282	0.282	0.282	0.0	0.282	1	55.5	0.509	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.282	0.282	0.282	0.0	0.282	1	55.5	0.509	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.282	0.282	0.282	0.0	0.282	1	55.5	0.509	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.282	0.282	0.282	0.0	0.282	1	100	0.282	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.282	0.282	0.282	0.0	0.282	1	100	0.282	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	2.62	2.62	2.62	0.1	91.6	91.9	90.3	1.0	91.3	1	100	91.3	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			88.8%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	2.62	2.62	2.62	0.0	88.0	87.9	87.9	0.1	88.0	1	100	88.0	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			85.6%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	2.62	2.62	2.62	0.0	86.4	86.0	86.2	0.3	86.2	1	100	86.2	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			83.9%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	2.62	2.62	2.62	0.0	4.22	4.19	4.09	1.9	4.17	1	100	4.17	

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 1.12 (ppm)
LOQ 2.57 (ppm)
Compound Acetonitrile

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	1.12	1.12	1.12	0.0	1.12	1	100	1.12	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	1.12	1.12	1.12	0.0	1.12	1	100	1.12	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	1.12	1.12	1.12	0.0	1.12	1	100	1.12	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	1.12	1.12	1.12	0.0	1.12	1	100	1.12	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	1.12	1.12	1.12	0.0	1.12	1	100	1.12	ND
gc119p173 #AN4 LCS	023B1201.D	023B1202.D	023B1203.D	GC114P176R_ICR.M	3.45	3.45	3.45	0.1	62.5	60.7	60.1	2.3	61.1	1	100	61.1	
													Spike Amount (ppm)			99.8	
													Spike Recovery (%)			61.3%	
gc119p173 #AN4 LCS	023B0401.D	023B0402.D	023B0403.D	GC114P176R_ICR.M	3.45	3.45	3.45	0.0	35.2	34.7	34.1	1.6	34.7	1	100	34.7	
													Spike Amount (ppm)			99.8	
													Spike Recovery (%)			34.8%	
gc119p173 #AN4 LCS	023B0701.D	023B0702.D	023B0703.D	GC114P176R_ICR.M	3.45	3.45	3.45	0.0	23.0	22.2	22.2	2.2	22.5	1	100	22.5	
													Spike Amount (ppm)			99.8	
													Spike Recovery (%)			22.5%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	1.12	1.12	1.12	0.0	1.12	1	100	1.12	ND

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.283 (ppm)
LOQ 2.57 (ppm)
Compound Acrolein

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.283	0.283	0.283	0.0	0.283	1	95.6	0.296	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.283	0.283	0.283	0.0	0.283	1	95.6	0.296	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.283	0.283	0.283	0.0	0.283	1	95.6	0.296	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.283	0.283	0.283	0.0	0.283	1	100	0.283	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.283	0.283	0.283	0.0	0.283	1	100	0.283	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	3.59	3.59	3.59	0.1	88.0	88.4	86.8	1.1	87.7	1	100	87.7	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			85.3%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	3.59	3.59	3.59	0.0	77.0	77.1	76.6	0.4	76.9	1	100	76.9	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			74.8%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	3.59	3.59	3.59	0.0	68.4	68.2	68.4	0.2	68.4	1	100	68.4	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			66.5%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	3.59	3.59	3.59	0.0	6.95	7.08	7.23	2.0	7.08	1	100	7.08	

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.415 (ppm)
LOQ 2.57 (ppm)
Compound Acetone

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.415	0.415	0.415	0.0	0.415	1	108	0.383	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.415	0.415	0.415	0.0	0.415	1	108	0.383	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.415	0.415	0.415	0.0	0.415	1	108	0.383	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.415	0.415	0.415	0.0	0.415	1	100	0.415	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.415	0.415	0.415	0.0	0.415	1	100	0.415	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	3.69	3.70	3.70	0.1	89.5	89.4	88.1	1.0	89.0	1	100	89.0	
															Spike Amount (ppm)	103	
															Spike Recovery (%)	86.6%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	3.70	3.70	3.70	0.0	84.5	84.8	84.7	0.2	84.7	1	100	84.7	
															Spike Amount (ppm)	103	
															Spike Recovery (%)	82.4%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	3.70	3.70	3.70	0.0	81.4	81.5	81.7	0.2	81.5	1	100	81.5	
															Spike Amount (ppm)	103	
															Spike Recovery (%)	79.3%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	3.70	3.70	3.70	0.1	7.84	7.83	8.07	2.0	7.91	1	100	7.91	

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.319 (ppm)
LOQ 2.57 (ppm)
Compound Acrylonitrile

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.319	0.319	0.319	0.0	0.319	1	100	0.319	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.319	0.319	0.319	0.0	0.319	1	100	0.319	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.319	0.319	0.319	0.0	0.319	1	100	0.319	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.319	0.319	0.319	0.0	0.319	1	100	0.319	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.319	0.319	0.319	0.0	0.319	1	100	0.319	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	4.10	4.10	4.11	0.1	83.4	83.5	82.0	1.2	83.0	1	100	83.0	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			81.0%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	4.11	4.11	4.11	0.0	71.0	70.8	70.8	0.2	70.9	1	100	70.9	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			69.2%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	4.11	4.11	4.11	0.0	62.0	61.6	61.6	0.4	61.7	1	100	61.7	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			60.3%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.319	0.319	0.319	0.0	0.319	1	100	0.319	ND

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.257 (ppm)
LOQ 2.57 (ppm)
Compound Pentane

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	4.19	4.19	4.19	0.1	92.5	93.1	91.5	0.9	92.4	1	100	92.4	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			89.9%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	4.19	4.19	4.19	0.0	89.3	89.4	89.2	0.1	89.3	1	100	89.3	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			86.9%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	4.19	4.19	4.19	0.0	87.8	87.8	87.6	0.1	87.8	1	100	87.8	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			85.4%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.958 (ppm)
LOQ 2.57 (ppm)
Compound Methylene chloride

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.958	0.958	0.958	0.0	0.958	1	103	0.930	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.958	0.958	0.958	0.0	0.958	1	103	0.930	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.958	0.958	0.958	0.0	0.958	1	103	0.930	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.958	0.958	0.958	0.0	0.958	1	100	0.958	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.958	0.958	0.958	0.0	0.958	1	100	0.958	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	4.50	4.50	4.50	0.1	92.3	93.9	92.2	1.2	92.8	1	100	92.8	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			90.3%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	4.50	4.50	4.50	0.0	87.4	89.5	87.2	1.7	88.1	1	100	88.1	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			85.7%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	4.51	4.51	4.51	0.0	83.4	85.1	83.4	1.3	84.0	1	100	84.0	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			81.7%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	4.50	4.50	4.50	0.1	7.85	7.66	7.33	3.7	7.61	1	100	7.61	

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.259 (ppm)
LOQ 2.57 (ppm)
Compound Hexane

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.259	0.259	0.259	0.0	0.259	1	113	0.229	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.259	0.259	0.259	0.0	0.259	1	113	0.229	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.259	0.259	0.259	0.0	0.259	1	113	0.229	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.259	0.259	0.259	0.0	0.259	1	100	0.259	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.259	0.259	0.259	0.0	0.259	1	100	0.259	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	5.78	5.78	5.78	0.1	92.5	93.1	91.3	1.1	92.3	1	100	92.3	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			89.8%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	5.78	5.78	5.78	0.0	88.9	89.1	88.7	0.3	88.9	1	100	88.9	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			86.5%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	5.78	5.78	5.78	0.0	87.1	86.8	86.9	0.2	86.9	1	100	86.9	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			84.6%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	5.78	5.78	5.78	0.0	8.31	8.47	8.36	1.1	8.38	1	100	8.38	

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.256 (ppm)
LOQ 2.57 (ppm)
Compound Benzene

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	106	0.241	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	106	0.241	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	106	0.241	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	100	0.256	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	100	0.256	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	6.49	6.50	6.50	0.0	92.1	92.6	91.2	0.9	92.0	1	100	92.0	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			89.8%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	6.50	6.50	6.50	0.0	87.6	87.4	87.4	0.2	87.5	1	100	87.5	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			85.4%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	6.50	6.50	6.50	0.0	84.5	84.3	84.5	0.2	84.4	1	100	84.4	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			82.4%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	6.49	6.50	6.50	0.0	8.01	7.91	7.89	1.0	7.94	1	100	7.94	

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.401 (ppm)
LOQ 2.57 (ppm)
Compound Trichloroethene

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.401	0.401	0.401	0.0	0.401	1	109	0.367	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.401	0.401	0.401	0.0	0.401	1	109	0.367	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.401	0.401	0.401	0.0	0.401	1	109	0.367	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.401	0.401	0.401	0.0	0.401	1	100	0.401	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.401	0.401	0.401	0.0	0.401	1	100	0.401	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	6.89	6.89	6.89	0.0	89.4	90.0	88.5	0.9	89.3	1	100	89.3	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			87.2%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	6.89	6.89	6.89	0.0	84.7	84.4	84.4	0.2	84.5	1	100	84.5	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			82.5%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	6.89	6.89	6.89	0.0	81.4	81.1	81.3	0.2	81.3	1	100	81.3	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			79.4%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	6.89	6.89	6.89	0.0	8.30	8.11	8.15	1.4	8.19	1	100	8.19	

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.256 (ppm)
LOQ 2.57 (ppm)
Compound Toluene

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	103	0.248	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	103	0.248	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	103	0.248	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	100	0.256	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.256	0.256	0.256	0.0	0.256	1	100	0.256	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	7.56	7.56	7.56	0.0	89.6	89.8	88.3	1.1	89.2	1	100	89.2	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			87.1%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	7.56	7.56	7.56	0.0	83.5	83.3	83.3	0.2	83.4	1	100	83.4	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			81.4%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	7.56	7.57	7.57	0.0	79.5	79.2	79.3	0.2	79.3	1	100	79.3	
													Spike Amount (ppm)			102	
													Spike Recovery (%)			77.5%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	7.56	7.56	7.56	0.0	7.81	7.77	7.72	0.5	7.77	1	100	7.77	

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.257 (ppm)
LOQ 2.57 (ppm)
Compound 1,2 Dibromoethane

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	7.83	7.84	7.84	0.0	88.5	88.9	87.3	1.0	88.2	1	100	88.2	
															Spike Amount (ppm)	103	
															Spike Recovery (%)	85.8%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	7.84	7.84	7.84	0.0	79.9	79.7	79.6	0.2	79.8	1	100	79.8	
															Spike Amount (ppm)	103	
															Spike Recovery (%)	77.6%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	7.84	7.84	7.84	0.0	74.1	73.7	73.9	0.2	73.9	1	100	73.9	
															Spike Amount (ppm)	103	
															Spike Recovery (%)	71.9%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	100	0.257	ND

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.291 (ppm)
LOQ 2.57 (ppm)
Compound Tetrachloroethene

Lower Curve Limit 2.57 (ppm)
Upper Curve Limit 257 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Rec Eff (%)	Adj Conc (ppm)	Qual
CHV-Stk-ICR1-M18b-Bag A	018B0801.D	018B0802.D	018B0803.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.291	0.291	0.291	0.0	0.291	1	100	0.291	ND
CHV-Stk-ICR2-Bag A R2	018B0101.D	018B0102.D	018B0103.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.291	0.291	0.291	0.0	0.291	1	100	0.291	ND
STK-ICR3-M18b-Bag A R1	018B0401.D	018B0402.D	018B0403.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.291	0.291	0.291	0.0	0.291	1	100	0.291	ND
N2 Blank	001F0201.D	001F0202.D	001F0203.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.291	0.291	0.291	0.0	0.291	1	100	0.291	ND
N2 Blank	017B0501.D	017B0502.D	017B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.291	0.291	0.291	0.0	0.291	1	100	0.291	ND
gc119p176 #I4 LCS	022B1101.D	022B1102.D	022B1103.D	GC114P176R_ICR.M	7.98	7.98	7.98	0.0	89.8	90.3	88.8	0.9	89.7	1	100	89.7	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			87.2%	
gc119p176 #I4 LCS	022B0301.D	022B0302.D	022B0303.D	GC114P176R_ICR.M	7.98	7.98	7.98	0.0	84.5	84.3	84.3	0.2	84.4	1	100	84.4	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			82.1%	
gc119p176 #I4 LCS	022B0601.D	022B0602.D	022B0603.D	GC114P176R_ICR.M	7.98	7.98	7.98	0.0	81.0	80.6	80.8	0.2	80.8	1	100	80.8	
													Spike Amount (ppm)			103	
													Spike Recovery (%)			78.6%	
CHV-STK-ICR1-M18b- Bag A S/R	018B0501.D	018B0502.D	018B0503.D	GC114P176R_ICR.M	NA	NA	NA	NA	0.291	0.291	0.291	0.0	0.291	1	100	0.291	ND

v 2.13 Validated by MSS 4/14/11

Company	URS Corporation
Analyst	MGM
Parameters	Bag Spike & Recovery

Client #	40942312
Job #	0611-22
Unspiked Sample ID	CHV-Stk-ICR1-M18b-Bag A R1

% Recovery = (T - U) / S x 100

T = after spike concentration U = before spike concentration S = theoretical spike concentration

	1-3 Butadiene MW 54.090			Acrolein MW 56.063			Acetone MW 58.079		
What was the conc of the bag before spiking?	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)
U' (before spiking)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Avg ppm	0.00		Avg ppm	0.00		Avg ppm	0.00	
What was added to the bag?									
	ug/mL	Total ug		ug/mL	Total ug		ug/mL	Total ug	
Liquid Spike #1	0.00	0.00		0.00	0.00		0.00	0.00	
uL Added	0.00			0.00			0.00		
	ug/mL	Total ug		ug/mL	Total ug		ug/mL	Total ug	
Liquid Spike #2	0.00	0.00		0.00	0.00		0.00	0.00	
uL Added	0.00			0.00			0.00		
	ug/mL	Total ug		ug/mL	Total ug		ug/mL	Total ug	
Liquid Spike #3	0.00	0.00		0.00	0.00		0.00	0.00	
uL Added	0.00			0.00			0.00		
	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)
Gas Spike #1	508	29.82	71.5	501	29.82	71.5	495	29.82	71.5
Volume Added (mL)	60.0	Total ug	67.8	60.0	Total ug	69.3	60.0	Total ug	70.97
	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)
Gas Spike #2	0.00	29.82	71.5	0.00	29.82	71.5	0.00	29.82	71.5
Volume Added (mL)	0.00	Total ug	0.00	0.00	Total ug	0.00	0.00	Total ug	0.00
	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)
Gas Spike #3	0.00	29.82	71.5	0.00	29.82	71.5	0.00	29.82	71.5
Volume Added (mL)	0.00	Total ug	0.00	0.00	Total ug	0.00	0.00	Total ug	0.00
Total Vol (mL) vaporized	0.00			0.00			0.00		
Total Vol (mL) added as gas	60.0			60.0			60.0		
Other volume (mL) Added	0.00			0.00			0.00		

What volume was in the bag before spiking?

Wedge Volume	3.957	(L)	Sampled	6/27/11 5:05 PM	Hours	
					Delta	45:55:07
			Analyzed	6/29/11 3:00 PM		
			Spiked	6/30/11 5:45 PM	Hours	
					Delta	48:11:56
			Spike Analyzed	7/2/11 5:56 PM		
Total Vol. After Spiking	4,017	(mL)	Spike hold equal to or greater than original hold			YES

Ending Volume in Bag (mL)	4,017		
Original volume in the bag (mL)	3,957	3,957	3,957
Total volume added (mL)	60.0	60.0	60.0
Dilution Factor caused by addition	1.02	1.02	1.02
Dilution Adjusted Base Conc (ppm) "U"	0.00	0.00	0.00
Theoretical Spike Conc (ppm) "S"	**7.51**	**7.41**	**7.32**

	1-3 Butadiene			Acrolein			Acetone		
What was the conc of the bag after spiking?	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)
	4.22	4.19	4.09	6.95	7.08	7.23	7.84	7.83	8.07
Final Concentration (ppm) "T"	Avg ppm	4.17		Avg ppm	7.08		Avg ppm	7.91	
RECOVERY %		55.5	%		95.6	%		108	%

v 2.13 Validated by MSS 4/14/11

Company	URS Corporation
Analyst	MGM
Parameters	Bag Spike & Recovery

Client #	40942312
Job #	0611-22
Unspiked Sample ID	CHV-Stk-ICR1-M18b-Bag A R1

% Recovery = (T - U) / S x 100

T = after spike concentration U = before spike concentration S = theoretical spike concentration

	Methylene chloride MW 84.933			Hexane MW 84.160			Benzene MW 78.113		
What was the conc of the bag before spiking?	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)
U' (before spiking)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Avg ppm	0.00		Avg ppm	0.00		Avg ppm	0.00	
What was added to the bag?									
	ug/mL	Total ug		ug/mL	Total ug		ug/mL	Total ug	
Liquid Spike #1	0.00	0.00		0.00	0.00		0.00	0.00	
uL Added	0.00			0.00			0.00		
	ug/mL	Total ug		ug/mL	Total ug		ug/mL	Total ug	
Liquid Spike #2	0.00	0.00		0.00	0.00		0.00	0.00	
uL Added	0.00			0.00			0.00		
	ug/mL	Total ug		ug/mL	Total ug		ug/mL	Total ug	
Liquid Spike #3	0.00	0.00		0.00	0.00		0.00	0.00	
uL Added	0.00			0.00			0.00		
	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)
Gas Spike #1	500	29.82	71.5	501	29.82	71.5	505	29.82	71.5
Volume Added (mL)	60.0	Total ug	104.83	60.0	Total ug	104.08	60.0	Total ug	97.38
	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)
Gas Spike #2	0.00	29.82	71.5	0.00	29.82	71.5	0.00	29.82	71.5
Volume Added (mL)	0.00	Total ug	0.00	0.00	Total ug	0.00	0.00	Total ug	0.00
	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)
Gas Spike #3	0.00	29.82	71.5	0.00	29.82	71.5	0.00	29.82	71.5
Volume Added (mL)	0.00	Total ug	0.00	0.00	Total ug	0.00	0.00	Total ug	0.00
Total Vol (mL) vaporized	0.00			0.00			0.00		
Total Vol (mL) added as gas	60.0			60.0			60.0		
Other volume (mL) Added	0.00			0.00			0.00		

What volume was in the bag before spiking?

Wedge Volume	3.957	(L)	Sampled	6/9/11 1:12 PM		Hours
					Delta	45:55:07
			Analyzed	6/13/11 1:42 PM		
			Spiked	6/15/11 1:30 PM		Hours
					Delta	48:11:56
			Spike Analyzed	7/2/11 5:56 PM		
Total Vol. After Spiking	4,017	(mL)	Spike hold equal to or greater than original hold			YES

Ending Volume in Bag (mL)	4,017			
Original volume in the bag (mL)		3,957	3,957	3,957
Total volume added (mL)		60.0	60.0	60.0
Dilution Factor caused by addition		1.02	1.02	1.02
Dilution Adjusted Base Conc (ppm) "U"		0.00	0.00	0.00
Theoretical Spike Conc (ppm) "S"		**7.39**	**7.41**	**7.47**

	Methylene chloride			Hexane			Benzene		
What was the conc of the bag after spiking?	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)
	7.85	7.66	7.33	8.31	8.47	8.36	8.01	7.91	7.89
Final Concentration (ppm) "T"	Avg ppm	7.61		Avg ppm	8.38		Avg ppm	7.94	
RECOVERY %		103	%		113	%		106	%

v 2.13 Validated by MSS 4/14/11

Company	URS Corporation
Analyst	MGM
Parameters	Bag Spike & Recovery

Client #	40942312
Job #	0611-22
Unspiked Sample ID	CHV-Stk-ICR1-M18b-Bag A R1

% Recovery = (T - U) / S x 100

T = after spike concentration U = before spike concentration S = theoretical spike concentration

	Trichloroethene MW 131.388			Toluene MW 92.140		
What was the conc of the bag before spiking?	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)
U' (before spiking)	0.00	0.00	0.00	0.00	0.00	0.00
	Avg ppm	0.00		Avg ppm	0.00	
What was added to the bag?						
	ug/mL	Total ug		ug/mL	Total ug	
Liquid Spike #1	0.00	0.00		0.00	0.00	
uL Added	0.00			0.00		
	ug/mL	Total ug		ug/mL	Total ug	
Liquid Spike #2	0.00	0.00		0.00	0.00	
uL Added	0.00			0.00		
	ug/mL	Total ug		ug/mL	Total ug	
Liquid Spike #3	0.00	0.00		0.00	0.00	
uL Added	0.00			0.00		
	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)
Gas Spike #1	507	29.82	71.5	508	29.82	71.5
Volume Added (mL)	60.0	Total ug	164.4	60.0	Total ug	115.5
	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)
Gas Spike #2	0.00	29.82	71.5	0.00	29.82	71.5
Volume Added (mL)	0.00	Total ug	0.0	0.00	Total ug	0.0
	Conc. ppm	Pbar (inHg)	T (F)	Conc. ppm	Pbar (inHg)	T (F)
Gas Spike #3	0.00	29.82	71.5	0.00	29.82	71.5
Volume Added (mL)	0.00	Total ug	0.0	0.00	Total ug	0.0
Total Vol (mL) vaporized	0.00			0.00		
Total Vol (mL) added as gas	60.0			60.0		
Other volume (mL) Added	0.00			0.00		

What volume was in the bag before spiking?

Wedge Volume	3.957	(L)	Sampled	6/27/11 5:05 PM	Hours	
					Delta	45:55:07
			Analyzed	6/29/11 3:00 PM		
			Spiked	6/30/11 5:45 PM	Hours	
					Delta	48:11:56
			Spike Analyzed	7/2/11 5:56 PM		
Total Vol. After Spiking	4,017	(mL)	Spike hold equal to or greater than original hold			YES

Ending Volume in Bag (mL)		4,017	
Original volume in the bag (mL)		3,957	3,957
Total volume added (mL)		60	60
Dilution Factor caused by addition		1.02	1.02
Dilution Adjusted Base Conc (ppm)	"U"	0.00	0.00
Theoretical Spike Conc (ppm)	"S"	**7.50**	**7.51**

	Trichloroethene			Toluene		
What was the conc of the bag after spiking?	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)	Inj 1 (ppm)	Inj 2 (ppm)	Inj 3 (ppm)
	8.30	8.11	8.15	7.81	7.77	7.72
Final Concentration (ppm) "T"	Avg ppm	8.19		Avg ppm	7.77	
RECOVERY %		109 %			103 %	

Company	URS Corporation
Analyst	KAM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags

MDL 0.00886 (ppm)
LOQ 1.10 (ppm)
Compound Carbon disulfide

Lower Curve Limit 1.10 (ppm)
Upper Curve Limit 4.73 (ppm)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ppm)	Conc # 2 (ppm)	Conc # 3 (ppm)	% Diff Conc	Avg Conc (ppm)	DF	Sample Conc (ppm)	Qual
CHV-Stk-ICR1-Bag A	116B2701.D	116B2702.D	116B2703.D	GC125P009B_0611-22.M	NA	NA	NA	NA	0.00886	0.00886	0.00886	0.0	0.00886	1	0.00886	ND
CHV-Stk-ICR2-Bag A	116B0101.D	116B0102.D	116B0103.D	GC125P009B_0611-22.M	NA	NA	NA	NA	0.00886	0.00886	0.00886	0.0	0.00886	1	0.00886	ND
STK-ICR3-M18b-Bag A	116B1301.D	116B1302.D	116B1303.D	GC125P010_0611-22.M	NA	NA	NA	NA	0.00886	0.00886	0.00886	0.0	0.00886	1	0.00886	ND
N2 Blank	111B0201.D	111B0202.D	111B0203.D	GC125P009B_0611-22.M	NA	NA	NA	NA	0.00886	0.00886	0.00886	0.0	0.00886	1	0.00886	ND

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.301 (ug/mL)
LOQ 2.20 (ug/mL)
Compound 1,3-Butadiene

Lower Curve Limit 2.20 (ug/mL)
Upper Curve Limit 183 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.301	0.301	0.301	0.0	0.301	1	42.7	12.9	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.301	0.301	0.301	0.0	0.301	1	42.7	12.9	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.301	0.301	0.301	0.0	0.301	1	42.7	12.9	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	4.46	4.46	4.46	0.0	11.5	11.5	11.6	0.6	11.5	1	2.14	24.7	
																Spike Amount (ug)	22.0
																Native Amount (ug)	0.00
																Spike Recovery (%)	112%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.301	0.301	0.301	0.0	0.301	1	1.00	0.301	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	4.41	4.41	4.41	0.0	11.3	11.2	11.2	0.5	11.2	1	1.00	11.2	
																Spike Amount (ug)	11.1
																Spike Recovery (%)	100.9%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.473 (ug/mL)
LOQ 1.25 (ug/mL)
Compound Pentane

Lower Curve Limit 1.25 (ug/mL)
Upper Curve Limit 104 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.473	0.473	0.473	0.0	0.473	1	42.7	20.2	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.473	0.473	0.473	0.0	0.473	1	42.7	20.2	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.473	0.473	0.473	0.0	0.473	1	42.7	20.2	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	5.47	5.47	5.47	0.0	7.61	7.52	7.47	1.1	7.54	1	2.14	16.1	
																Spike Amount (ug)	12.5
																Native Amount (ug)	0.00
																Spike Recovery (%)	129%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.473	0.473	0.473	0.0	0.473	1	1.00	0.473	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	5.36	5.36	5.36	0.0	12.1	12.1	12.2	0.7	12.1	1	1.00	12.1	
																Spike Amount (ug)	12.4
																Spike Recovery (%)	98.0%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.300 (ug/mL)
LOQ 1.65 (ug/mL)
Compound Acrolein

Lower Curve Limit 1.65 (ug/mL)
Upper Curve Limit 138 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.300	0.300	0.300	0.0	0.300	1	42.7	12.8	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.300	0.300	0.300	0.0	0.300	1	42.7	12.8	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.300	0.300	0.300	0.0	0.300	1	42.7	12.8	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	6.00	6.00	6.00	0.0	8.74	8.83	8.80	0.6	8.79	1	2.14	18.8	
																Spike Amount (ug)	16.5
																Native Amount (ug)	0.00
																Spike Recovery (%)	114%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.300	0.300	0.300	0.0	0.300	1	1.00	0.300	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	5.94	5.94	5.94	0.0	14.8	14.7	14.8	0.6	14.7	1	1.00	14.7	
																Spike Amount (ug)	16.3
																Spike Recovery (%)	90.2%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.178 (ug/mL)
LOQ 1.58 (ug/mL)
Compound Acetone

Lower Curve Limit 1.58 (ug/mL)
Upper Curve Limit 132 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.178	0.178	0.178	0.0	0.178	1	42.7	7.60	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.178	0.178	0.178	0.0	0.178	1	42.7	7.60	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.178	0.178	0.178	0.0	0.178	1	42.7	7.60	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	6.16	6.16	6.16	0.0	6.10	6.21	6.21	1.1	6.17	1	2.14	13.2	
																Spike Amount (ug)	15.8
																Native Amount (ug)	0.00
																Spike Recovery (%)	83.6%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.178	0.178	0.178	0.0	0.178	1	1.00	0.178	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	6.10	6.10	6.10	0.0	16.7	16.5	16.6	0.8	16.6	1	1.00	16.6	
																Spike Amount (ug)	15.6
																Spike Recovery (%)	106%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.522 (ug/mL)
LOQ 2.64 (ug/mL)
Compound Dichloromethane

Lower Curve Limit 2.64 (ug/mL)
Upper Curve Limit 221 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.522	0.522	0.522	0.0	0.522	1	42.7	22.3	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.522	0.522	0.522	0.0	0.522	1	42.7	22.3	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.522	0.522	0.522	0.0	0.522	1	42.7	22.3	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	6.59	6.59	6.59	0.0	12.9	13.0	13.1	0.6	13.0	1	2.14	27.8	
																Spike Amount (ug)	26.5
																Native Amount (ug)	0.00
																Spike Recovery (%)	105%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.522	0.522	0.522	0.0	0.522	1	1.00	0.522	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	6.52	6.52	6.52	0.0	26.8	26.6	25.3	3.6	26.2	1	1.00	26.2	
																Spike Amount (ug)	26.2
																Spike Recovery (%)	100.0%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.216 (ug/mL)
LOQ 1.31 (ug/mL)
Compound Hexane

Lower Curve Limit 1.31 (ug/mL)
Upper Curve Limit 109 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.216	0.216	0.216	0.0	0.216	1	42.7	9.22	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.216	0.216	0.216	0.0	0.216	1	42.7	9.22	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.216	0.216	0.216	0.0	0.216	1	42.7	9.22	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	6.95	6.95	6.95	0.0	5.81	5.49	5.38	4.5	5.56	1	2.14	11.9	
																Spike Amount (ug)	13.1
																Native Amount (ug)	0.00
																Spike Recovery (%)	90.7%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.216	0.216	0.216	0.0	0.216	1	1.00	0.216	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	6.88	6.88	6.88	0.0	13.2	12.8	12.9	1.9	13.0	1	1.00	13.0	
																Spike Amount (ug)	12.9
																Spike Recovery (%)	100.3%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.257 (ug/mL)
LOQ 1.74 (ug/mL)
Compound Benzene

Lower Curve Limit 1.74 (ug/mL)
Upper Curve Limit 146 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	42.7	11.0	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	42.7	11.0	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	42.7	11.0	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	8.41	8.41	8.41	0.0	9.15	9.15	9.21	0.4	9.17	1	2.14	19.6	
																Spike Amount (ug)	17.5
																Native Amount (ug)	0.00
																Spike Recovery (%)	112%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	1.00	0.257	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	8.37	8.37	8.37	0.0	17.3	17.1	17.0	0.8	17.1	1	1.00	17.1	
																Spike Amount (ug)	17.4
																Spike Recovery (%)	98.6%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.292 (ug/mL)
LOQ 2.92 (ug/mL)
Compound Trichloroethylene

Lower Curve Limit 2.92 (ug/mL)
Upper Curve Limit 244 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.292	0.292	0.292	0.0	0.292	1	42.7	12.5	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.292	0.292	0.292	0.0	0.292	1	42.7	12.5	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.292	0.292	0.292	0.0	0.292	1	42.7	12.5	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	8.88	8.88	8.88	0.0	15.1	15.1	15.1	0.4	15.1	1	2.14	32.3	
																Spike Amount (ug)	29.3
																Native Amount (ug)	0.00
																Spike Recovery (%)	110%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.292	0.292	0.292	0.0	0.292	1	1.00	0.292	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	8.84	8.84	8.84	0.0	28.8	28.6	28.5	0.5	28.6	1	1.00	28.6	
																Spike Amount (ug)	27.9
																Spike Recovery (%)	103%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.504 (ug/mL)
LOQ 1.72 (ug/mL)
Compound Toluene

Lower Curve Limit 1.72 (ug/mL)
Upper Curve Limit 144 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.504	0.504	0.504	0.0	0.504	1	42.7	21.5	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.504	0.504	0.504	0.0	0.504	1	42.7	21.5	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.504	0.504	0.504	0.0	0.504	1	42.7	21.5	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	9.86	9.86	9.86	0.0	8.51	8.41	8.47	0.6	8.46	1	2.14	18.1	
																Spike Amount (ug)	17.3
																Native Amount (ug)	0.00
																Spike Recovery (%)	105%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.504	0.504	0.504	0.0	0.504	1	1.00	0.504	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	9.83	9.83	9.83	0.0	17.5	17.3	17.2	1.0	17.3	1	1.00	17.3	
																Spike Amount (ug)	17.1
																Spike Recovery (%)	101%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 1.39 (ug/mL)
LOQ 3.22 (ug/mL)
Compound Tetrachloroethylene

Lower Curve Limit 3.22 (ug/mL)
Upper Curve Limit 269 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	1.39	1.39	1.39	0.0	1.39	1	42.7	59.2	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	1.39	1.39	1.39	0.0	1.39	1	42.7	59.2	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	1.39	1.39	1.39	0.0	1.39	1	42.7	59.2	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	10.28	10.28	10.28	0.0	16.4	16.2	16.3	0.5	16.3	1	2.14	34.9	
																Spike Amount (ug)	32.3
																Native Amount (ug)	0.00
																Spike Recovery (%)	108%
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	1.39	1.39	1.39	0.0	1.39	1	1.00	1.39	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	10.26	10.26	10.26	0.0	34.2	32.0	32.0	4.4	32.7	1	1.00	32.7	
																Spike Amount (ug)	32.0
																Spike Recovery (%)	102%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

MDL 0.699 (ug/mL)
LOQ 4.31 (ug/mL)
Compound 1,2-Dibromoethane

Lower Curve Limit 4.31 (ug/mL)
Upper Curve Limit 360 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	016F3001.D	016F3002.D	016F3003.D	GC118P140.M	NA	NA	NA	NA	0.699	0.699	0.699	0.0	0.699	1	42.7	29.8	ND
ICR2 Bag Cond A	021F3501.D	021F3502.D	021F3503.D	GC118P140.M	NA	NA	NA	NA	0.699	0.699	0.699	0.0	0.699	1	42.7	29.8	ND
ICR3 Bag Cond A	023F3701.D	023F3702.D	023F3703.D	GC118P140.M	NA	NA	NA	NA	0.699	0.699	0.699	0.0	0.699	1	42.7	29.8	ND
ICR1 Bag Cond A #MS	093F1103.D	093F1104.D	093F1105.D	GC118P140.M	10.70	10.70	10.70	0.0	21.6	21.8	21.6	0.6	21.7	1	2.14	46.4	
															Spike Amount (ug)	43.2	
															Native Amount (ug)	0.00	
															Spike Recovery (%)	107%	
RB H2O	020F3401.D	020F3402.D	020F3403.D	GC118P140.M	NA	NA	NA	NA	0.699	0.699	0.699	0.0	0.699	1	1.00	0.699	ND
gc118p137 #3ss	006F0501.D	006F0502.D	006F0503.D	GC118P140.M	10.68	10.68	10.68	0.0	43.8	43.4	43.3	0.6	43.5	1	1.00	43.5	
															Spike Amount (ug)	42.7	
															Spike Recovery (%)	102%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22R
# Samples	3 Bag condendates

MDL 0.100 (ug/mL)
LOQ 0.503 (ug/mL)
Compound Carbon disulfide

Lower Curve Limit 0.503 (ug/mL)
Upper Curve Limit 9.88 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
ICR1 Bag Cond A	025B2501.D	025B2502.D	025B2503.D	GC116P46.M	NA	NA	NA	NA	0.100	0.100	0.100	0.0	0.100	1	42.7	4.27	ND
ICR2 Bag Cond A	027B2701.D	027B2702.D	027B2703.D	GC116P46.M	NA	NA	NA	NA	0.100	0.100	0.100	0.0	0.100	1	42.7	4.27	ND
ICR3 Bag Cond A	029B2901.D	029B2902.D	029B2903.D	GC116P46.M	NA	NA	NA	NA	0.100	0.100	0.100	0.0	0.100	1	42.7	4.27	ND
RB H2O	024B2401.D	024B2402.D	024B2403.D	GC116P46.M	NA	NA	NA	NA	0.100	0.100	0.100	0.0	0.100	1	1.00	0.100	ND
ICR1 Bag Cond A #MS	031B3103.D	031B3104.D	031B3105.D	GC116P46.M	1.69	1.70	1.70	0.3	1.89	1.99	1.95	2.9	1.95	1	2.14	4.16	
																Spike Amount (ug)	5.04
																Native Amount (ug)	0.00
																Spike Recovery (%)	82.6%
gc116p46 #3ss	007B0703.D	007B0704.D	007B0705.D	GC116P46.M	1.59	1.59	1.60	0.6	2.20	2.16	2.15	1.5	2.17	1	1.00	2.17	
																Spike Amount (ug)	2.01
																Spike Recovery (%)	108%

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.157 (ug/mL)
LOQ 1.57 (ug/mL)
Compound Acetonitrile

Lower Curve Limit 1.57 (ug/mL)
Upper Curve Limit 261 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.968	100.0	0.968	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	2.69	2.69	2.69	0.1	4.28	4.24	4.04	3.5	4.19	1.000	5.00	20.9	100.0	20.9	
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	2.70	2.70	2.70	0.1	2.21	2.32	2.23	2.9	2.25	1.000	5.00	11.3	100.0	11.3	
																		32.2	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.968	28.4	3.41	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
																		3.41	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.968	28.4	3.41	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
																		3.41	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.968	100.0	0.968	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	2.69	2.69	2.69	0.1	4.54	4.34	4.39	2.6	4.43	1.000	5.00	22.1	100.0	22.1	
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	2.70	2.70	2.70	0.3	2.63	2.73	2.61	2.8	2.66	1.000	5.00	13.3	100.0	13.3	
																		35.4	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.233	5.00	0.966	28.4	3.40	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	28.4	2.76	ND
																		3.40	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.232	5.00	0.965	100.0	0.965	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	2.69	2.69	2.69	0.0	6.51	6.44	6.41	0.9	6.45	1.000	5.00	32.3	100.0	32.3	
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	2.69	2.70	2.69	0.1	3.67	3.83	3.81	2.7	3.77	1.000	5.00	18.8	100.0	18.8	
																		51.1	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.157 (ug/mL)
LOQ 1.57 (ug/mL)
Compound Acetonitrile

Lower Curve Limit 1.57 (ug/mL)
Upper Curve Limit 261 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
																	Spike Amount (ug)	78.5	
																	Spike Recovery (%)	1.0%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.78	100.0	0.78	ND
																	Spike Amount (ug)	78.5	
																	Spike Recovery (%)	1.0%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.968	100.0	0.968	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.784	100.0	0.784	ND
																	difference	0.0%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	2.69	2.69	2.69	0.0	4.59	4.42	4.23	4.1	4.42	1.000	5.00	22.1	100.0	22.1	
																	difference	0.3%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.157 (ug/mL)
LOQ 1.57 (ug/mL)
Compound Acrylonitrile

Lower Curve Limit 1.57 (ug/mL)
Upper Curve Limit 262 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.969	100.0	0.969	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	3.17	3.17	3.17	0.0	37.1	34.6	34.6	4.7	35.4	1.000	5.00	177	100.0	177	
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	3.19	3.18	3.18	0.2	0.713	0.634	0.661	6.5	0.669	1.000	5.00	3.35	100.0	3.35	J
																		181	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.969	76.5	1.27	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
																		1.27	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.969	76.5	1.27	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
																		1.27	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.969	100.0	0.969	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	3.17	3.17	3.17	0.0	35.7	34.3	35.0	2.0	35.0	1.000	5.00	175	100.0	175	
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	3.18	3.18	3.18	0.1	1.50	1.49	1.48	0.6	1.49	1.000	5.00	7.45	100.0	7.45	J
																		182	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.233	5.00	0.967	76.5	1.26	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	76.5	1.03	ND
																		1.26	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.232	5.00	0.966	100.0	0.966	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	3.17	3.17	3.17	0.0	35.3	35.5	34.0	2.7	34.9	1.000	5.00	175	100.0	175	
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	3.18	3.18	3.18	0.0	0.702	0.596	0.683	9.8	0.661	1.000	5.00	3.30	100.0	3.30	J
																		178	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.157 (ug/mL)
LOQ 1.57 (ug/mL)
Compound Acrylonitrile

Lower Curve Limit 1.57 (ug/mL)
Upper Curve Limit 262 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	3.18	3.18	3.18	0.0	2.78	2.90	2.90	2.7	2.86	1.000	5.00	14.3	100.0	14.3	
																	Spike Amount (ug)	80.5	
																	Spike Recovery (%)	17.8%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	3.18	3.18	3.18	0.1	2.82	2.70	2.65	3.6	2.73	1.000	5.00	13.6	100.0	13.6	
																	Spike Amount (ug)	80.5	
																	Spike Recovery (%)	16.9%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.235	5.00	0.969	100.0	0.969	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	NA	NA	NA	NA	0.157	0.157	0.157	0.0	0.157	1.000	5.00	0.785	100.0	0.785	ND
																	difference	0.0%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	3.17	3.17	3.17	0.0	36.1	35.5	34.5	2.4	35.4	1.000	5.00	177	100.0	177	
																	difference	1.1%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.148 (ug/mL)
LOQ 1.48 (ug/mL)
Compound MTBE

Lower Curve Limit 1.48 (ug/mL)
Upper Curve Limit 246 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.235	5.00	0.911	100.0	0.911	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	4.05	4.05	4.05	0.0	0.458	0.358	0.422	13.2	0.413	1.000	5.00	2.06	100.0	2.06	J
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	NA	4.05	NA	NA	0.148	0.292	0.148	49.1	0.196	1.000	5.00	0.978	100.0	0.978	J
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	4.05	4.05	4.05	0.0	4.01	3.75	3.74	4.6	3.83	1.000	5.00	19.2	100.0	19.2	
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
																		22.2	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.235	5.00	0.911	96.6	0.943	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
																		0.943	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.235	5.00	0.911	96.6	0.943	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
																		0.943	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.235	5.00	0.911	100.0	0.911	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	4.06	NA	NA	NA	0.300	0.148	0.148	51.3	0.198	1.000	5.00	0.992	100.0	0.992	J
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	NA	NA	4.05	NA	0.148	0.148	0.279	45.8	0.191	1.000	5.00	0.957	100.0	0.957	J
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	4.05	4.05	4.05	0.0	3.84	3.65	3.71	3.0	3.73	1.000	5.00	18.7	100.0	18.7	
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
																		20.6	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.233	5.00	0.909	96.6	0.941	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	96.6	0.764	ND
																		0.941	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.232	5.00	0.909	100.0	0.909	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	4.06	4.05	4.05	0.1	0.376	0.419	0.428	7.8	0.408	1.000	5.00	2.04	100.0	2.04	J
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	4.06	4.05	4.06	0.1	0.296	0.227	0.211	21.0	0.244	1.000	5.00	1.22	100.0	1.22	J
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	4.05	4.05	4.05	0.0	3.69	3.60	3.56	2.2	3.62	1.000	5.00	18.1	100.0	18.1	
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
																		21.3	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.148 (ug/mL)
LOQ 1.48 (ug/mL)
Compound MTBE

Lower Curve Limit 1.48 (ug/mL)
Upper Curve Limit 246 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	4.05	4.05	4.05	0.0	11.8	12.0	11.8	1.1	11.9	1.000	5.00	59.4	100.0	59.4	
																	Spike Amount (ug)	73.8	
																	Spike Recovery (%)	80.5%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	4.05	4.05	4.05	0.0	12.4	11.6	11.4	4.8	11.8	1.000	5.0	59	100.0	59	
																	Spike Amount (ug)	73.8	
																	Spike Recovery (%)	80.1%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	4.05	4.05	4.05	0.0	4.95	5.00	4.73	3.3	4.90	1.000	5.00	24.5	100.0	24.5	
																	Spike Amount (ug)	22.1	
																	Spike Recovery (%)	111%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	4.05	4.05	4.05	0.0	4.22	4.16	4.02	2.7	4.14	1.000	5.00	20.7	100.0	20.7	
																	Spike Amount (ug)	22.1	
																	Spike Recovery (%)	93.4%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.235	5.00	0.911	100.0	0.911	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.000	5.00	0.738	100.0	0.738	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.148	0.148	0.148	0.0	0.148	1.235	5.00	0.911	100.0	0.911	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	4.06	4.05	4.06	0.1	0.306	0.266	0.293	7.9	0.288	1	5.00	1.44	100.0	1.44	J
																	difference	45.3%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	4.05	4.05	4.05	0.0	3.86	3.74	3.75	1.9	3.78	1	5.00	18.9	100.0	18.9	
																	difference	1.3%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.193 (ug/mL)
LOQ 1.93 (ug/mL)
Compound 2-Nitropropane

Lower Curve Limit 1.93 (ug/mL)
Upper Curve Limit 323 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.235	5.00	1.195	100.0	1.19	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	5.28	5.28	5.28	0.0	1.74	1.74	1.69	2.1	1.72	1.000	5.00	8.62	100.0	8.62	J
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	5.28	5.28	5.28	0.0	0.852	0.858	0.848	0.6	0.852	1.000	5.00	4.26	100.0	4.26	J
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	5.28	5.28	5.28	0.0	2.62	2.45	2.43	4.8	2.50	1.000	5.00	12.5	100.0	12.5	
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
																		25.4	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.235	5.00	1.195	87.5	1.36	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
																		1.36	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.235	5.00	1.195	87.5	1.36	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
																		1.36	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.235	5.00	1.195	100.0	1.19	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	5.28	5.28	5.28	0.0	1.54	1.52	1.51	1.1	1.52	1.000	5.00	7.62	100.0	7.62	J
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	5.28	5.28	5.28	0.0	0.896	0.905	0.893	0.8	0.898	1.000	5.00	4.49	100.0	4.49	J
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	5.28	5.28	5.28	0.0	2.64	2.57	2.54	2.1	2.58	1.000	5.00	12.9	100.0	12.9	
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
																		25.0	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.233	5.00	1.192	87.5	1.36	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	87.5	1.10	ND
																		1.36	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.232	5.00	1.191	100.0	1.19	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	5.28	5.28	5.28	0.0	1.95	1.90	1.92	1.1	1.92	1.000	5.00	9.62	100.0	9.62	J
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	5.28	5.28	5.28	0.0	0.967	0.868	0.909	5.8	0.915	1.000	5.00	4.57	100.0	4.57	J
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	5.28	5.28	5.28	0.0	2.41	2.36	2.23	4.5	2.34	1.000	5.00	11.7	100.0	11.7	
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
																		25.9	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.193 (ug/mL)
LOQ 1.93 (ug/mL)
Compound 2-Nitropropane

Lower Curve Limit 1.93 (ug/mL)
Upper Curve Limit 323 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	5.28	5.28	5.28	0.0	13.0	13.2	13.0	0.8	13.1	1.000	5.00	65.4	100.0	65.4	
																	Spike Amount (ug)	96.8	
																	Spike Recovery (%)	67.5%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	5.28	5.28	5.28	0.0	13.6	12.8	12.5	4.4	13.0	1.000	5.00	64.9	100.0	64.9	
																	Spike Amount (ug)	96.8	
																	Spike Recovery (%)	67.0%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	5.28	5.28	5.28	0.0	6.27	6.18	5.91	3.4	6.12	1.000	5.00	30.6	100.0	30.6	
																	Spike Amount (ug)	29.0	
																	Spike Recovery (%)	105%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	5.28	5.28	5.28	0.0	5.47	5.20	5.14	3.9	5.27	1.000	5.00	26.3	100.0	26.3	
																	Spike Amount (ug)	29.0	
																	Spike Recovery (%)	90.7%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.235	5.00	1.195	100.0	1.195	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.000	5.00	0.967	100.0	0.967	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.193	0.193	0.193	0.0	0.193	1.235	5.00	1.194	100.0	1.19	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	5.28	5.28	5.28	0.0	1.56	1.46	1.53	3.5	1.52	1	5.00	7.59	100.0	7.59	J
																	difference	0.4%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	5.28	5.28	5.28	0.0	2.73	2.59	2.56	4.0	2.63	1	5.00	13.1	100.0	13.1	
																	difference	1.8%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.138 (ug/mL)
LOQ 1.38 (ug/mL)
Compound Isooctane

Lower Curve Limit 1.38 (ug/mL)
Upper Curve Limit 230 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.235	5.00	0.850	100.0	0.850	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	5.49	5.49	5.49	0.0	4.59	4.52	4.41	2.1	4.50	1.000	5.00	22.5	100.0	22.5	
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	5.49	5.49	5.49	0.0	0.278	0.258	0.291	6.5	0.276	1.000	5.00	1.38	100.0	1.38	J
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	5.49	5.50	5.49	0.2	0.164	0.160	0.145	7.3	0.156	1.000	5.00	0.780	100.0	0.780	J
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
																		24.7	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.235	5.00	0.850	100.5	0.846	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
																		0.846	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.235	5.00	0.850	100.5	0.846	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
																		0.846	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.235	5.00	0.850	100.0	0.850	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	5.49	5.49	5.49	0.0	4.49	4.29	4.33	2.8	4.37	1.000	5.00	21.9	100.0	21.9	
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	5.49	5.49	5.49	0.0	0.330	0.307	0.334	5.1	0.324	1.000	5.00	1.62	100.0	1.62	J
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	5.49	5.49	5.49	0.1	0.208	0.219	0.194	6.1	0.207	1.000	5.00	1.04	100.0	1.04	J
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
																		24.5	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.233	5.00	0.848	100.5	0.844	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.5	0.685	ND
																		0.844	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.232	5.00	0.848	100.0	0.848	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	5.49	5.49	5.49	0.0	4.63	4.37	4.38	3.9	4.46	1.000	5.00	22.3	100.0	22.3	
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	5.49	5.49	5.50	0.1	0.278	0.208	0.221	17.8	0.236	1.000	5.00	1.18	100.0	1.18	J
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
																		23.5	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.138 (ug/mL)
LOQ 1.38 (ug/mL)
Compound Isooctane

Lower Curve Limit 1.38 (ug/mL)
Upper Curve Limit 230 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	5.49	5.49	5.49	0.0	13.8	14.0	13.8	0.8	13.9	1.000	5.00	69	100.0	69.3	
																Spike Amount (ug)		68.9	
																Spike Recovery (%)		100.6%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	5.49	5.49	5.49	0.0	14.5	13.7	13.5	4.3	13.9	1.000	5.00	69	100.0	69	
																Spike Amount (ug)		68.9	
																Spike Recovery (%)		100.8%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	5.49	5.49	5.49	0.0	5.59	5.53	5.33	2.8	5.48	1.000	5.00	27.4	100.0	27.4	
																Spike Amount (ug)		24.1	
																Spike Recovery (%)		114%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	5.49	5.49	5.49	0.0	4.88	4.68	4.62	3.3	4.73	1.000	5.00	23.6	100.0	23.6	
																Spike Amount (ug)		24.1	
																Spike Recovery (%)		98.0%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.235	5.00	0.850	100.0	0.850	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.000	5.00	0.688	100.0	0.688	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.138	0.138	0.138	0.0	0.138	1.235	5.00	0.850	100.0	0.850	ND
																difference		0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	5.49	5.49	5.49	0.0	4.49	4.32	4.30	2.8	4.37	1	5.00	21.8	100.0	21.8	
																difference		0.1%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	5.49	5.50	5.49	0.1	0.188	0.215	0.196	8.0	0.200	1	5.00	0.998	100.0	0.998	J
																difference		3.7%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.159 (ug/mL)
LOQ 1.59 (ug/mL)
Compound MIBK

Lower Curve Limit 1.59 (ug/mL)
Upper Curve Limit 265 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.235	5.00	0.983	100.0	0.983	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	5.79	5.79	5.79	0.0	4.26	4.21	4.16	1.2	4.21	1.000	5.00	21.0	100.0	21.0	
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	5.79	5.79	5.79	0.1	0.296	0.246	0.237	14.0	0.260	1.000	5.00	1.30	100.0	1.30	J
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
																		22.3	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.235	5.00	0.983	91.6	1.07	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
																		1.07	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.235	5.00	0.983	91.6	1.07	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
																		1.07	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.235	5.00	0.983	100.0	0.983	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	5.79	5.79	5.79	0.0	4.14	3.98	3.99	2.5	4.04	1.000	5.00	20.2	100.0	20.2	
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	5.79	5.79	5.79	0.0	0.283	0.271	0.273	2.7	0.276	1.000	5.00	1.38	100.0	1.38	J
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
																		21.6	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.233	5.00	0.981	91.6	1.07	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	91.6	0.868	ND
																		1.07	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.232	5.00	0.980	100.0	0.980	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	5.79	5.79	5.79	0.0	4.28	4.10	4.08	3.1	4.15	1.000	5.00	20.8	100.0	20.8	
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	5.79	5.79	5.79	0.0	0.203	0.202	0.182	7.0	0.195	1.000	5.00	0.977	100.0	0.977	J
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
																		21.7	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.159 (ug/mL)
LOQ 1.59 (ug/mL)
Compound MIBK

Lower Curve Limit 1.59 (ug/mL)
Upper Curve Limit 265 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	5.79	5.79	5.79	0.0	13.9	13.9	13.7	0.9	13.8	1.000	5.00	69	100.0	69.1	
																	Spike Amount (ug)	79.7	
																	Spike Recovery (%)	86.7%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	5.79	5.79	5.79	0.0	14.3	13.6	13.4	4.0	13.8	1.000	5.00	69	100.0	68.8	
																	Spike Amount (ug)	79.7	
																	Spike Recovery (%)	86.4%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	5.79	5.79	5.79	0.0	5.33	5.37	5.08	3.4	5.26	1.000	5.00	26.3	100.0	26.3	
																	Spike Amount (ug)	23.9	
																	Spike Recovery (%)	110%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	5.79	5.79	5.79	0.0	4.58	4.44	4.38	2.5	4.47	1.000	5.00	22.3	100.0	22.3	
																	Spike Amount (ug)	23.9	
																	Spike Recovery (%)	93.5%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.235	5.00	0.983	100.0	0.983	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.000	5.00	0.796	100.0	0.796	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1.235	5.00	0.982	100.0	0.982	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	5.79	5.79	5.79	0.0	4.15	3.95	3.99	2.9	4.03	1	5.00	20.2	100.0	20.2	
																	difference	0.1%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	NA	NA	NA	NA	0.159	0.159	0.159	0.0	0.159	1	5.00	0.796	100.0	0.796	ND
																	difference	0.0%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.221 (ug/mL)
LOQ 2.21 (ug/mL)
Compound Chlorobenzene

Lower Curve Limit 2.21 (ug/mL)
Upper Curve Limit 369 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.235	5.00	1.37	100.0	1.37	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	6.92	6.92	6.92	0.0	6.31	6.44	6.31	1.4	6.35	1.000	5.00	31.8	100.0	31.8	
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	6.92	6.92	6.92	0.0	0.313	0.333	0.343	5.1	0.329	1.000	5.00	1.65	100.0	1.65	J
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
																		33.4	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.235	5.00	1.37	102.1	1.34	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
																		1.34	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.235	5.00	1.37	102.1	1.34	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
																		1.34	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.235	5.00	1.37	100.0	1.37	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	6.92	6.92	6.92	0.0	6.58	6.34	6.36	2.4	6.43	1.000	5.00	32.1	100.0	32.1	
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	6.92	6.92	6.92	0.0	0.385	0.365	0.387	3.6	0.379	1.000	5.00	1.90	100.0	1.90	J
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
																		34.0	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.233	5.00	1.36	102.1	1.33	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	102.1	1.08	ND
																		1.33	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.232	5.00	1.36	100.0	1.36	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	6.92	6.92	6.92	0.0	6.86	6.35	6.38	5.0	6.53	1.000	5.00	32.7	100.0	32.7	
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	6.92	6.92	6.92	0.0	0.305	0.305	0.286	4.3	0.299	1.000	5.00	1.49	100.0	1.49	J
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
																		34.2	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.221 (ug/mL)
LOQ 2.21 (ug/mL)
Compound Chlorobenzene

Lower Curve Limit 2.21 (ug/mL)
Upper Curve Limit 369 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	6.92	6.92	6.92	0.0	22.1	22.3	22.1	0.6	22.2	1.000	5.00	111	100.0	111	
																	Spike Amount (ug)	111	
																	Spike Recovery (%)	100.3%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	6.92	6.92	6.92	0.0	23.2	21.9	21.8	4.0	22.3	1.000	5.00	111	100.0	111	
																	Spike Amount (ug)	111	
																	Spike Recovery (%)	100.6%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	6.92	6.92	6.92	0.0	7.41	7.30	7.01	3.2	7.24	1.000	5.00	36.2	100.0	36.2	
																	Spike Amount (ug)	33.2	
																	Spike Recovery (%)	109%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	6.92	6.92	6.92	0.0	6.55	6.27	6.18	3.4	6.33	1.000	5.00	31.7	100.0	31.7	
																	Spike Amount (ug)	33.2	
																	Spike Recovery (%)	95.5%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.235	5.00	1.37	100.0	1.37	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.000	5.00	1.11	100.0	1.11	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.235	5.00	1.36	100.0	1.36	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	6.92	6.92	6.92	0.0	6.52	6.21	6.30	2.8	6.34	1.00	5.00	31.7	100.0	31.7	
																	difference	1.4%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	NA	NA	NA	NA	0.221	0.221	0.221	0.0	0.221	1.00	5.00	1.11	100.0	1.11	ND
																	difference	0.0%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.173 (ug/mL)
LOQ 1.73 (ug/mL)
Compound Ethylbenzene

Lower Curve Limit 1.73 (ug/mL)
Upper Curve Limit 289 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.069	100.0	1.07	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	7.05	7.05	7.05	0.0	4.40	4.53	4.43	1.8	4.45	1.000	5.00	22.3	100.0	22.3	
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
																		22.3	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.069	77.9	1.37	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
																		1.37	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.069	77.9	1.37	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
																		1.37	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.069	100.0	1.07	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	7.05	7.05	7.05	0.0	3.99	3.81	3.86	2.6	3.89	1.000	5.00	19.4	100.0	19.4	
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
																		19.4	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.233	5.00	1.066	77.9	1.37	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	77.9	1.11	ND
																		1.37	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.232	5.00	1.066	100.0	1.07	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	7.05	7.05	7.05	0.0	3.98	3.70	3.71	4.8	3.80	1.000	5.00	19.0	100.0	19.0	
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
																		19.0	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.173 (ug/mL)
LOQ 1.73 (ug/mL)
Compound Ethylbenzene

Lower Curve Limit 1.73 (ug/mL)
Upper Curve Limit 289 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	7.05	7.04	7.04	0.0	17.5	17.6	17.4	0.6	17.5	1.000	5.00	87	100.0	87	
																	Spike Amount (ug)	86.6	
																	Spike Recovery (%)	101%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	7.05	7.04	7.04	0.0	18.2	17.3	17.2	3.9	17.6	1.000	5.00	88	100.0	88	
																	Spike Amount (ug)	86.6	
																	Spike Recovery (%)	101%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	7.05	7.05	7.04	0.0	2.63	2.75	2.77	3.2	2.72	1.000	5.00	13.6	100.0	13.6	
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	7.05	7.05	NA	0.173	0.174	0.176	0.8	0.174	1.000	5.00	0.871	100.0	0.871	J
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	7.04	7.04	7.04	0.0	5.90	5.82	5.60	3.0	5.78	1.000	5.00	28.9	100.0	28.9	
																	Spike Amount (ug)	26.0	
																	Spike Recovery (%)	111%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	7.04	7.04	7.04	0.0	5.20	5.01	4.95	2.9	5.05	1.000	5.00	25.3	100.0	25.3	
																	Spike Amount (ug)	26.0	
																	Spike Recovery (%)	97.3%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.069	100.0	1.069	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.865	100.0	0.865	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.068	100.0	1.07	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	7.05	7.05	7.05	0.0	3.93	3.81	3.82	2.1	3.85	1	5.00	19.3	100.0	19.3	
																	difference	0.9%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1	5.00	0.865	100.0	0.865	ND
																	difference	0.0%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.172 (ug/mL)
LOQ 1.72 (ug/mL)
Compound p-Xylene

Lower Curve Limit 1.72 (ug/mL)
Upper Curve Limit 286 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.235	5.00	1.061	100.0	1.06	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	7.12	7.12	7.12	0.0	7.59	7.88	7.70	2.1	7.72	1.000	5.00	38.6	100.0	38.6	
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
																		38.6	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.235	5.00	1.061	83.9	1.26	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
																		1.26	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.235	5.00	1.061	83.9	1.26	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
																		1.26	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.235	5.00	1.061	100.0	1.06	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	7.12	7.12	7.12	0.0	7.18	6.93	7.01	2.0	7.04	1.000	5.00	35.2	100.0	35.2	
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
																		35.2	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.233	5.00	1.058	83.9	1.26	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	83.9	1.02	ND
																		1.26	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.232	5.00	1.058	100.0	1.06	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	7.12	7.12	7.12	0.0	7.18	6.69	6.73	4.6	6.87	1.000	5.00	34.3	100.0	34.3	
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
																		34.3	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.172 (ug/mL)
LOQ 1.72 (ug/mL)
Compound p-Xylene

Lower Curve Limit 1.72 (ug/mL)
Upper Curve Limit 286 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	7.12	7.12	7.12	0.0	17.3	17.4	17.2	0.7	17.3	1.000	5.00	86	100.0	86.5	
																	Spike Amount (ug)	87.1	
																	Spike Recovery (%)	99.3%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	7.12	7.12	7.12	0.0	18.1	17.1	17.0	3.8	17.4	1.000	5.00	87	100.0	86.9	
																	Spike Amount (ug)	87.1	
																	Spike Recovery (%)	99.8%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	7.11	7.11	7.11	0.0	16.7	18.0	17.9	5.0	17.5	1.000	5.00	87.7	100.0	87.7	
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	7.11	7.11	7.11	0.0	0.669	0.625	0.625	4.6	0.640	1.000	5.00	3.20	100.0	3.20	J
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	7.12	7.12	7.12	0.0	9.85	9.74	9.37	3.0	9.65	1.000	5.00	48.3	100.0	48.3	
																	Spike Amount (ug)	43.0	
																	Spike Recovery (%)	112%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	7.12	7.12	7.12	0.0	8.76	8.40	8.28	3.3	8.48	1.000	5.00	42.4	100.0	42.4	
																	Spike Amount (ug)	43.0	
																	Spike Recovery (%)	98.7%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.235	5.00	1.061	100.0	1.061	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.000	5.00	0.859	100.0	0.859	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1.235	5.00	1.060	100.0	1.06	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	7.12	7.12	7.12	0.0	7.13	6.93	6.95	1.8	7.00	1	5.00	35.0	100.0	35.0	
																	difference	0.6%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	NA	NA	NA	NA	0.172	0.172	0.172	0.0	0.172	1	5.00	0.859	100.0	0.859	ND
																	difference	0.0%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.181 (ug/mL)
LOQ 1.81 (ug/mL)
Compound Styrene

Lower Curve Limit 1.81 (ug/mL)
Upper Curve Limit 302 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.235	5.00	1.117	100.0	1.12	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	7.27	7.27	7.27	0.0	0.962	1.01	0.967	2.9	0.978	1.000	5.00	4.89	100.0	4.89	J
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
																		4.89	J
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.235	5.00	1.117	10.7	10.4	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
																		10.4	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.235	5.00	1.117	10.7	10.4	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
																		10.4	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.235	5.00	1.117	100.0	1.12	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	7.27	7.27	7.27	0.0	0.437	0.429	0.429	1.2	0.431	1.000	5.00	2.16	100.0	2.16	J
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
																		2.16	J
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.233	5.00	1.114	10.7	10.4	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	10.7	8.45	ND
																		10.4	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.232	5.00	1.114	100.0	1.11	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	7.27	7.27	7.27	0.0	0.356	0.325	0.318	7.0	0.333	1.000	5.00	1.66	100.0	1.66	J
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
																		1.66	J

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.181 (ug/mL)
LOQ 1.81 (ug/mL)
Compound Styrene

Lower Curve Limit 1.81 (ug/mL)
Upper Curve Limit 302 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	7.27	7.27	7.27	0.0	18.1	18.2	18.0	0.6	18.1	1.000	5.00	90.6	100.0	90.6	
																	Spike Amount (ug)	90.5	
																	Spike Recovery (%)	100.2%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	7.27	7.27	7.27	0.0	18.9	17.9	17.8	3.7	18.2	1.000	5.00	91.1	100.0	91.1	
																	Spike Amount (ug)	90.5	
																	Spike Recovery (%)	100.7%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	7.27	7.27	7.27	0.0	6.08	5.99	5.77	2.9	5.95	1.000	5.00	29.7	100.0	29.7	
																	Spike Amount (ug)	27.2	
																	Spike Recovery (%)	110%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	7.27	7.27	7.27	0.0	5.40	5.17	5.12	3.3	5.23	1.000	5.00	26.2	100.0	26.2	
																	Spike Amount (ug)	27.2	
																	Spike Recovery (%)	96.3%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.235	5.00	1.117	100.0	1.117	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.000	5.00	0.904	100.0	0.904	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1.235	5.00	1.116	100.0	1.12	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	7.27	7.27	7.27	0.0	0.427	0.417	0.410	2.0	0.418	1	5.00	2.09	100.0	2.09	J
																	difference	3.1%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	NA	NA	NA	NA	0.181	0.181	0.181	0.0	0.181	1	5.00	0.904	100.0	0.904	ND
																	difference	0.0%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.176 (ug/mL)
LOQ 1.76 (ug/mL)
Compound o-Xylene

Lower Curve Limit 1.76 (ug/mL)
Upper Curve Limit 293 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.235	5.00	1.084	100.0	1.08	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	7.32	7.32	7.32	0.0	4.69	4.89	4.77	2.2	4.78	1.000	5.00	23.9	100.0	23.9	
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
																		23.9	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.235	5.00	1.084	85.7	1.27	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
																		1.27	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.235	5.00	1.084	85.7	1.27	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
																		1.27	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.235	5.00	1.084	100.0	1.08	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	7.32	7.32	7.32	0.0	4.54	4.36	4.38	2.6	4.42	1.000	5.00	22.1	100.0	22.1	
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
																		22.1	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.233	5.00	1.082	85.7	1.26	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	85.7	1.02	ND
																		1.26	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.232	5.00	1.081	100.0	1.08	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	7.32	7.32	7.32	0.0	4.56	4.23	4.23	5.0	4.34	1.000	5.00	21.7	100.0	21.7	
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
																		21.7	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.176 (ug/mL)
LOQ 1.76 (ug/mL)
Compound o-Xylene

Lower Curve Limit 1.76 (ug/mL)
Upper Curve Limit 293 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	7.32	7.32	7.32	0.0	17.4	17.5	17.3	0.6	17.4	1.000	5.00	87.2	100.0	87.2	
																Spike Amount (ug)		85.9	
																Spike Recovery (%)		102%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	7.32	7.32	7.32	0.0	18.2	17.3	17.1	3.8	17.5	1.000	5.00	87.7	100.0	87.7	
																Spike Amount (ug)		85.9	
																Spike Recovery (%)		102%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	7.32	7.32	7.32	0.0	6.56	7.12	7.05	5.0	6.91	1.000	5.00	34.5	100.0	34.5	
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	7.32	7.32	7.32	0.0	0.349	0.324	0.347	4.8	0.340	1.000	5.00	1.70	100.0	1.70	J
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	7.32	7.32	7.32	0.0	5.95	5.87	5.64	3.1	5.82	1.000	5.00	29.1	100.0	29.1	
																Spike Amount (ug)		26.3	
																Spike Recovery (%)		110%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	7.32	7.32	7.32	0.0	5.28	5.06	4.99	3.3	5.11	1.000	5.00	25.5	100.0	25.5	
																Spike Amount (ug)		26.3	
																Spike Recovery (%)		96.9%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.235	5.00	1.084	100.0	1.084	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.000	5.00	0.878	100.0	0.878	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1.235	5.00	1.084	100.0	1.08	ND
																difference		0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	7.32	7.32	7.32	0.0	4.48	4.34	4.35	2.0	4.39	1	5.00	21.9	100.0	21.9	
																difference		0.8%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	NA	NA	NA	NA	0.176	0.176	0.176	0.0	0.176	1	5.00	0.878	100.0	0.878	ND
																difference		0.0%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.173 (ug/mL)
LOQ 1.73 (ug/mL)
Compound Cumene

Lower Curve Limit 1.73 (ug/mL)
Upper Curve Limit 289 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.070	100.0	1.07	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	7.56	7.56	7.56	0.0	4.54	4.73	4.62	2.1	4.63	1.000	5.00	23.1	100.0	23.1	
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
																		23.1	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.070	82.0	1.30	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
																		1.30	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.070	82.0	1.30	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
																		1.30	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.070	100.0	1.07	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	7.56	7.56	7.56	0.0	4.19	4.02	4.08	2.2	4.10	1.000	5.00	20.5	100.0	20.5	
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
																		20.5	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.233	5.00	1.067	82.0	1.30	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	82.0	1.06	ND
																		1.30	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.232	5.00	1.067	100.0	1.07	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	7.56	7.56	7.56	0.0	4.26	3.97	3.98	4.7	4.07	1.000	5.00	20.3	100.0	20.3	
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
																		20.3	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.173 (ug/mL)
LOQ 1.73 (ug/mL)
Compound Cumene

Lower Curve Limit 1.73 (ug/mL)
Upper Curve Limit 289 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	7.56	7.56	7.56	0.0	17.3	17.4	17.2	0.7	17.3	1.000	5.00	86.5	100.0	86.5	
																	Spike Amount (ug)	86.2	
																	Spike Recovery (%)	100.4%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	7.56	7.56	7.56	0.0	18.0	17.1	17.0	3.7	17.4	1.000	5.00	87.0	100.0	87.0	
																	Spike Amount (ug)	86.2	
																	Spike Recovery (%)	101%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	NA	7.56	7.56	NA	0.173	0.199	0.194	8.2	0.189	1.000	5.00	0.944	100.0	0.944	J
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	7.56	7.56	7.56	0.0	5.93	5.86	5.65	2.8	5.82	1.000	5.00	29.1	100.0	29.1	
																	Spike Amount (ug)	26.0	
																	Spike Recovery (%)	112%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	7.56	7.56	7.56	0.0	5.29	5.06	4.99	3.4	5.11	1.000	5.00	25.6	100.0	25.6	
																	Spike Amount (ug)	26.0	
																	Spike Recovery (%)	98.3%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.070	100.0	1.070	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.000	5.00	0.866	100.0	0.866	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1.235	5.00	1.070	100.0	1.07	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	7.56	7.56	7.56	0.0	4.14	4.04	4.04	1.6	4.07	1	5.00	20.4	100.0	20.4	
																	difference	0.5%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	NA	NA	NA	NA	0.173	0.173	0.173	0.0	0.173	1	5.00	0.866	100.0	0.866	ND
																	difference	0.0%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.240 (ug/mL)
LOQ 2.40 (ug/mL)
Compound Nitrobenzene

Lower Curve Limit 2.40 (ug/mL)
Upper Curve Limit 401 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 ICR1 Cond Ext	015F1501.D	015F1502.D	015F1503.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.235	5.00	1.48	100.0	1.48	ND
M18 ICR1 XAD FH	016F1601.D	016F1602.D	016F1603.D	GC121P076.M	8.71	8.71	8.71	0.0	6.70	7.03	6.91	2.6	6.88	1.000	5.00	34.4	100.0	34.4	
M18 ICR1 XAD BH	017F1701.D	017F1702.D	017F1703.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
M18 ICR1 CT FH	018F1801.D	018F1802.D	018F1803.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
M18 ICR1 CT BH	019F1901.D	019F1902.D	019F1903.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
																		34.4	
M18 ICR1 SP Cond Ext	020F2001.D	020F2002.D	020F2003.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.235	5.00	1.48	96.7	1.53	ND
M18 ICR1 SP XAD FH	021F2101.D	021F2102.D	021F2103.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
M18 ICR1 SP XAD BH	022F2201.D	022F2202.D	022F2203.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
M18 ICR1 SP CT FH	023F2301.D	023F2302.D	023F2303.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
M18 ICR1 SP CT BH	024F2401.D	024F2402.D	024F2403.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
																		1.53	ND
M18 ICR2 Cond Ext	025F2501.D	025F2502.D	025F2503.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.235	5.00	1.48	96.7	1.53	ND
M18 ICR2 XAD FH	028F2801.D	028F2802.D	028F2803.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
M18 ICR2 XAD BH	029F2901.D	029F2902.D	029F2903.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
M18 ICR2 CT FH	030F3001.D	030F3002.D	030F3003.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
M18 ICR2 CT BH	031F3101.D	031F3102.D	031F3103.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
																		1.53	ND
M18 ICR2 SP Cond Ext	032F3201.D	032F3202.D	032F3203.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.235	5.00	1.48	100.0	1.48	ND
M18 ICR2 SP XAD FH	034F3401.D	034F3402.D	034F3403.D	GC121P076.M	8.71	8.71	8.71	0.0	7.16	6.88	6.97	2.2	7.00	1.000	5.00	35.0	100.0	35.0	
M18 ICR2 SP XAD BH	036F3601.D	036F3602.D	036F3603.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
M18 ICR2 SP CT FH	037F3701.D	037F3702.D	037F3703.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
M18 ICR2 SP CT BH	041F4101.D	041F4102.D	041F4103.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
																		35.0	
M18 ICR3 Cond Ext	042F4201.D	042F4202.D	042F4203.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.233	5.00	1.48	96.7	1.53	ND
M18 ICR3 XAD FH	043F4301.D	043F4302.D	043F4303.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
M18 ICR3 XAD BH	044F4401.D	044F4402.D	044F4403.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
M18 ICR3 CT FH	045F4501.D	045F4502.D	045F4503.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
M18 ICR3 CT BH	046F4601.D	046F4602.D	046F4603.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	96.7	1.24	ND
																		1.53	ND
M18 ICR3 SP Cond Ext	047F4701.D	047F4702.D	047F4703.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.232	5.00	1.48	100.0	1.48	ND
M18 ICR3 SP XAD FH	048F4801.D	048F4802.D	048F4803.D	GC121P076.M	8.71	8.71	8.71	0.0	7.19	6.75	7.14	3.9	7.03	1.000	5.00	35.1	100.0	35.1	
M18 ICR3 SP XAD BH	049F4901.D	049F4902.D	049F4903.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
M18 ICR3 SP CT FH	052F5201.D	052F5202.D	052F5203.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
M18 ICR3 SP CT BH	053F5301.D	053F5302.D	053F5303.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
																		35.1	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

MDL 0.240 (ug/mL)
LOQ 2.40 (ug/mL)
Compound Nitrobenzene

Lower Curve Limit 2.40 (ug/mL)
Upper Curve Limit 401 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
AQ LCS-3	001F5501.D	001F5502.D	001F5503.D	GC121P076.M	8.71	8.71	8.71	0.0	22.9	23.0	22.7	0.8	22.9	1.000	5.00	114	100.0	114	
																	Spike Amount (ug)	120	
																	Spike Recovery (%)	95.3%	
AQ LCS-4	002F5601.D	002F5602.D	002F5603.D	GC121P076.M	8.71	8.71	8.71	0.0	23.8	22.8	22.5	3.3	23.0	1.000	5.00	115	100.0	115	
																	Spike Amount (ug)	120	
																	Spike Recovery (%)	95.9%	
0611-107 Pre1	003F5701.D	003F5702.D	003F5703.D	GC121P076.M	8.69	8.69	8.69	0.0	1.99	1.91	1.94	2.1	1.94	1.000	5.00	9.72	100.0	9.72	J
0611-107 Pre1	004F5801.D	004F5802.D	004F5803.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
XAD LCS1	005F0501.D	005F0502.D	005F0503.D	GC121P076.M	8.71	8.71	8.71	0.0	7.60	7.35	7.12	3.3	7.36	1.000	5.00	36.8	100.0	36.8	
																	Spike Amount (ug)	36.1	
																	Spike Recovery (%)	102%	
XAD LCS2	006F0601.D	006F0602.D	006F0603.D	GC121P076.M	8.71	8.71	8.71	0.0	6.63	6.37	6.39	2.7	6.46	1.000	5.00	32.3	100.0	32.3	
																	Spike Amount (ug)	36.1	
																	Spike Recovery (%)	89.6%	
H2O EXT MB	007F0701.D	007F0702.D	007F0703.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
CT MB	008F0801.D	008F0802.D	008F0803.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
XAD MB	009F0901.D	009F0902.D	009F0903.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
M18 FB	010F1001.D	010F1002.D	010F1003.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
M18 XAD FB	011F1101.D	011F1102.D	011F1103.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.235	5.00	1.48	100.0	1.48	ND
M18 CT FB	012F1201.D	012F1202.D	012F1203.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.000	5.00	1.20	100.0	1.20	ND
M18 ICR2 SP Cond Ext LD	033F3301.D	033F3302.D	033F3303.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1.235	5.00	1.48	100.0	1.48	ND
																	difference	0.0%	
M18 ICR2 SP XAD FH LD	035F3501.D	035F3502.D	035F3503.D	GC121P076.M	8.71	8.71	8.71	0.0	7.12	6.95	6.93	1.7	7.00	1	5.00	35.0	100.0	35.0	
																	difference	0.0%	
M18 ICR2 SP CT FH LD	040F4001.D	040F4002.D	040F4003.D	GC121P076.M	NA	NA	NA	NA	0.240	0.240	0.240	0.0	0.240	1	5.00	1.20	100.0	1.20	ND
																	difference	0.0%	

Company	URS Corporation
Analyst	KMT
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	6 Cond & 1 blank (Raff.)

MDL 0.201 (ug/mL)
LOQ 1.96 (ug/mL)
Compound Acrylonitrile

Lower Curve Limit 1.96 (ug/mL)
Upper Curve Limit 366 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 Stk-ICR1 Cond Raff	020F2201.D	020F2202.D	020F2203.D	GC120P135-R.M	NA	NA	NA	NA	0.201	0.201	0.201	0.0	0.201	1.235	34.0	8.44	100	8.44	ND
M18 Stk-ICR1S Cond Raff	021F2301.D	021F2302.D	021F2303.D	GC120P135-R.M	NA	NA	NA	NA	0.201	0.201	0.201	0.0	0.201	1.235	34.0	8.44	100	8.44	ND
M18 Stk-ICR2 Cond Raff	022F2401.D	022F2402.D	022F2403.D	GC120P135-R.M	NA	NA	NA	NA	0.201	0.201	0.201	0.0	0.201	1.235	34.0	8.44	100	8.44	ND
M18 Stk-ICR2S Cond Raff	023F2501.D	023F2502.D	023F2503.D	GC120P135-R.M	NA	NA	NA	NA	0.201	0.201	0.201	0.0	0.201	1.235	34.0	8.44	100	8.44	ND
M18 Stk-ICR3 Cond Raff	025F2701.D	025F2702.D	025F2703.D	GC120P135-R.M	NA	NA	NA	NA	0.201	0.201	0.201	0.0	0.201	1.233	34.4	8.52	100	8.52	ND
M18 Stk-ICR3S Cond Raff	026F2801.D	026F2802.D	026F2803.D	GC120P135-R.M	NA	NA	NA	NA	0.201	0.201	0.201	0.0	0.201	1.232	34.5	8.54	100	8.54	ND
M18 Stk-ICR Cond FB Raff	027F2901.D	027F2902.D	027F2903.D	GC120P135-R.M	NA	NA	NA	NA	0.201	0.201	0.201	0.0	0.201	1.242	33.0	8.24	100	8.24	ND
M18 ICR Cond LB Raff	028F3201.D	028F3202.D	028F3203.D	GC120P135-R.M	NA	NA	NA	NA	0.201	0.201	0.201	0.0	0.201	1.000	1.00	0.201	100	0.201	ND
M18 AQ LCS 1 Raff	029F3301.D	029F3302.D	029F3303.D	GC120P135-R.M	4.56	4.56	4.56	0.0	18.6	18.6	18.7	0.1	18.6	1.000	10.0	186	100	186	
																	Spike Amount (ug)	236	
																	Spike Recovery (%)	79.1%	
M18 AQ LCS 2 Raff	030F3401.D	030F3402.D	030F3403.D	GC120P135-R.M	4.56	4.56	4.56	0.0	18.2	18.1	18.3	0.8	18.2	1.000	10.0	182	100	182	
																	Spike Amount (ug)	236	
																	Spike Recovery (%)	77.2%	
M18 Stk-ICR2S Cond Raff-LD	024F2601.D	024F2602.D	024F2603.D	GC120P135-R.M	NA	NA	NA	NA	0.201	0.201	0.201	0.0	0.201	1.235	34.0	8.44	100	8.44	ND
																	difference	0.0%	
gc120p135 #3ss	007F0701.D	007F0702.D	007F0703.D	GC120P135-R.M	4.55	4.55	4.55	0.0	39.3	40.5	40.0	1.5	39.9	1.000	1.00	39.9	100	39.9	
																	Spike Amount (ug)	39.1	
																	Spike Recovery (%)	102%	

Company	URS Corporation
Analyst	KMT
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	6 Cond & 1 blank (Raff.)

MDL 0.196 (ug/mL)
LOQ 2.01 (ug/mL)
Compound Acetonitrile

Lower Curve Limit 2.01 (ug/mL)
Upper Curve Limit 357 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 Stk-ICR1 Cond Raff	020F2201.D	020F2202.D	020F2203.D	GC120P135-R.M	NA	NA	NA	NA	0.196	0.196	0.196	0.0	0.196	1.235	34.0	8.23	100	8.23	ND
M18 Stk-ICR1S Cond Raff	021F2301.D	021F2302.D	021F2303.D	GC120P135-R.M	4.79	4.79	4.79	0.0	0.410	0.415	0.400	2.1	0.408	1.235	34.0	17.1	100	17.1	J
M18 Stk-ICR2 Cond Raff	022F2401.D	022F2402.D	022F2403.D	GC120P135-R.M	NA	NA	NA	NA	0.196	0.196	0.196	0.0	0.196	1.235	34.0	8.23	100	8.23	ND
M18 Stk-ICR2S Cond Raff	023F2501.D	023F2502.D	023F2503.D	GC120P135-R.M	4.79	4.79	4.79	0.1	0.597	0.606	0.607	1.0	0.603	1.235	34.0	25.3	100	25.3	J
M18 Stk-ICR3 Cond Raff	025F2701.D	025F2702.D	025F2703.D	GC120P135-R.M	NA	NA	NA	NA	0.196	0.196	0.196	0.0	0.196	1.233	34.4	8.31	100	8.31	ND
M18 Stk-ICR3S Cond Raff	026F2801.D	026F2802.D	026F2803.D	GC120P135-R.M	4.78	4.79	4.79	0.0	0.919	0.923	0.919	0.3	0.920	1.232	34.5	39.1	100	39.1	J
M18 Stk-ICR Cond FB Raff	027F2901.D	027F2902.D	027F2903.D	GC120P135-R.M	NA	NA	NA	NA	0.196	0.196	0.196	0.0	0.196	1.242	33.0	8.04	100	8.04	ND
M18 ICR Cond LB Raff	028F3201.D	028F3202.D	028F3203.D	GC120P135-R.M	NA	NA	NA	NA	0.196	0.196	0.196	0.0	0.196	1.000	1.00	0.196	100	0.196	ND
M18 AQ LCS 1 Raff	029F3301.D	029F3302.D	029F3303.D	GC120P135-R.M	4.78	4.78	4.78	0.0	21.4	21.4	21.4	0.1	21.4	1.000	10.0	214	100	214	
																	Spike Amount (ug)	235	
																	Spike Recovery (%)	90.8%	
M18 AQ LCS 2 Raff	030F3401.D	030F3402.D	030F3403.D	GC120P135-R.M	4.78	4.78	4.78	0.0	21.2	21.1	21.4	0.7	21.2	1.000	10.0	212	100	212	
																	Spike Amount (ug)	235	
																	Spike Recovery (%)	90.1%	
M18 Stk-ICR2S Cond Raff-LD	024F2601.D	024F2602.D	024F2603.D	GC120P135-R.M	4.78	4.79	4.79	0.1	0.616	0.593	0.594	2.5	0.601	1.235	34.0	25.2	100	25.2	J
																	difference	0.4%	
gc120p135 #3ss	007F0701.D	007F0702.D	007F0703.D	GC120P135-R.M	4.77	4.77	4.77	0.1	38.5	39.3	39.0	1.1	38.9	1.000	1.00	38.9	100	38.9	
																	Spike Amount (ug)	39.0	
																	Spike Recovery (%)	99.7%	

Company	URS Corporation
Analyst	KMT
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	6 Cond & 1 blank (Raff.)

MDL 0.242 (ug/mL)
LOQ 2.42 (ug/mL)
Compound 2-Nitropropane

Lower Curve Limit 2.42 (ug/mL)
Upper Curve Limit 440 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Lab ID # 3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	Conc # 3 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	Aliquot Factor	Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj Catch Wt (ug)	Qual
M18 Stk-ICR1 Cond Raff	020F2201.D	020F2202.D	020F2203.D	GC120P135-R.M	NA	NA	NA	NA	0.242	0.242	0.242	0.0	0.242	1.235	34.0	10.2	100	10.2	ND
M18 Stk-ICR1S Cond Raff	021F2301.D	021F2302.D	021F2303.D	GC120P135-R.M	NA	NA	NA	NA	0.242	0.242	0.242	0.0	0.242	1.235	34.0	10.2	100	10.2	ND
M18 Stk-ICR2 Cond Raff	022F2401.D	022F2402.D	022F2403.D	GC120P135-R.M	NA	NA	NA	NA	0.242	0.242	0.242	0.0	0.242	1.235	34.0	10.2	100	10.2	ND
M18 Stk-ICR2S Cond Raff	023F2501.D	023F2502.D	023F2503.D	GC120P135-R.M	NA	NA	NA	NA	0.242	0.242	0.242	0.0	0.242	1.235	34.0	10.2	100	10.2	ND
M18 Stk-ICR3 Cond Raff	025F2701.D	025F2702.D	025F2703.D	GC120P135-R.M	NA	NA	NA	NA	0.242	0.242	0.242	0.0	0.242	1.233	34.4	10.3	100	10.3	ND
M18 Stk-ICR3S Cond Raff	026F2801.D	026F2802.D	026F2803.D	GC120P135-R.M	NA	NA	NA	NA	0.242	0.242	0.242	0.0	0.242	1.232	34.5	10.3	100	10.3	ND
M18 Stk-ICR Cond FB Raff	027F2901.D	027F2902.D	027F2903.D	GC120P135-R.M	NA	NA	NA	NA	0.242	0.242	0.242	0.0	0.242	1.242	33.0	9.92	100	9.92	ND
M18 ICR Cond LB Raff	028F3201.D	028F3202.D	028F3203.D	GC120P135-R.M	NA	NA	NA	NA	0.242	0.242	0.242	0.0	0.242	1.000	1.00	0.242	100	0.242	ND
M18 Stk-ICR2S Cond Raff-LD	024F2601.D	024F2602.D	024F2603.D	GC120P135-R.M	NA	NA	NA	NA	0.242	0.242	0.242	0.0	0.242	1.235	34.0	10.2	100	10.16	ND
																	difference	0.0%	
gc120p135 #3ss	007F0701.D	007F0702.D	007F0703.D	GC120P135-R.M	6.24	6.24	6.24	0.0	47.1	48.0	47.8	1.2	47.6	1.000	1.00	47.6	100	47.6	
																	Spike Amount (ug)	48.2	
																	Spike Recovery (%)	98.9%	

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **Acetonitrile**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	235	40.531	21.0
M18 ICR1	Spike	49.3		30.666	
M18 ICR2	Sample	0.00	235	37.914	25.8
M18 ICR2 SP	Spike	60.8		35.187	
M18 ICR3	Sample	0.00	235	34.910	38.3
M18 ICR3 SP	Spike	90.2		31.474	
				Avg Recovery:	28.4

Includes mass recovered from raffinate

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **Acrylonitrile**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	236	40.531	76.6
M18 ICR1	Spike	181		30.666	
M18 ICR2	Sample	0.00	236	37.914	77.4
M18 ICR2 SP	Spike	182		35.187	
M18 ICR3	Sample	0.00	236	34.910	75.5
M18 ICR3 SP	Spike	178		31.474	
				Avg Recovery:	76.5

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **MTBE**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	22.1	40.531	100.2
M18 ICR1	Spike	22.2		30.666	
M18 ICR2	Sample	0.00	22.1	37.914	93.1
M18 ICR2 SP	Spike	20.6		35.187	
M18 ICR3	Sample	0.00	22.1	34.910	96.4
M18 ICR3 SP	Spike	21.3		31.474	
				Avg Recovery:	96.6

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **2-Nitropropane**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	29.0	40.531	87.4
M18 ICR1	Spike	25.4		30.666	
M18 ICR2	Sample	0.00	29.0	37.914	86.1
M18 ICR2 SP	Spike	25.0		35.187	
M18 ICR3	Sample	0.00	29.0	34.910	89.1
M18 ICR3 SP	Spike	25.9		31.474	
				Avg Recovery:	87.5

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **Isooctane**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	24.1	40.531	102
M18 ICR1	Spike	24.7		30.666	
M18 ICR2	Sample	0.00	24.1	37.914	102
M18 ICR2 SP	Spike	24.5		35.187	
M18 ICR3	Sample	0.00	24.1	34.910	97.4
M18 ICR3 SP	Spike	23.5		31.474	
				Avg Recovery:	100.5

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **MIBK**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	23.9	40.531	93.5
M18 ICR1	Spike	22.3		30.666	
M18 ICR2	Sample	0.00	23.9	37.914	90.3
M18 ICR2 SP	Spike	21.6		35.187	
M18 ICR3	Sample	0.00	23.9	34.910	91.0
M18 ICR3 SP	Spike	21.7		31.474	
				Avg Recovery:	91.6

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **Chlorobenzene**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	33.2	40.531	100.7
M18 ICR1	Spike	33.4		30.666	
M18 ICR2	Sample	0.00	33.2	37.914	102.6
M18 ICR2 SP	Spike	34.0		35.187	
M18 ICR3	Sample	0.00	33.2	34.910	103.0
M18 ICR3 SP	Spike	34.2		31.474	
				Avg Recovery:	102.1

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **Ethylbenzene**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	26.0	40.531	85.7
M18 ICR1	Spike	22.3		30.666	
M18 ICR2	Sample	0.00	26.0	37.914	74.9
M18 ICR2 SP	Spike	19.4		35.187	
M18 ICR3	Sample	0.00	26.0	34.910	73.1
M18 ICR3 SP	Spike	19.0		31.474	
				Avg Recovery:	77.9

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **p-Xylene**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	43.0	40.531	89.9
M18 ICR1	Spike	38.6		30.666	
M18 ICR2	Sample	0.00	43.0	37.914	81.9
M18 ICR2 SP	Spike	35.2		35.187	
M18 ICR3	Sample	0.00	43.0	34.910	79.9
M18 ICR3 SP	Spike	34.3		31.474	
				Avg Recovery:	83.9

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **Styrene**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	27.2	40.531	18.0
M18 ICR1	Spike	4.89		30.666	
M18 ICR2	Sample	0.00	27.2	37.914	7.9
M18 ICR2 SP	Spike	2.16		35.187	
M18 ICR3	Sample	0.00	27.2	34.910	6.1
M18 ICR3 SP	Spike	1.66		31.474	
				Avg Recovery:	10.7

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **o-Xylene**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	26.3	40.531	90.7
M18 ICR1	Spike	23.9		30.666	
M18 ICR2	Sample	0.00	26.3	37.914	84.0
M18 ICR2 SP	Spike	22.1		35.187	
M18 ICR3	Sample	0.00	26.3	34.910	82.3
M18 ICR3 SP	Spike	21.7		31.474	
				Avg Recovery:	85.7

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **Cumene**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	26.0	40.531	89.0
M18 ICR1	Spike	23.1		30.666	
M18 ICR2	Sample	0.00	26.0	37.914	78.7
M18 ICR2 SP	Spike	20.5		35.187	
M18 ICR3	Sample	0.00	26.0	34.910	78.3
M18 ICR3 SP	Spike	20.3		31.474	
				Avg Recovery:	82.0

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spiked runs

Location **ICR**
Spike ID **Nitrobenzene**

Sample ID	Type	Catch Weight (ug)	Spike AMT (ug)	Sample Vol (L)	Rec. (%)
M18 ICR1 SP	Sample	0.00	36.1	40.531	95.4
M18 ICR1	Spike	34.4		30.666	
M18 ICR2	Sample	0.00	36.1	37.914	97.1
M18 ICR2 SP	Spike	35.0		35.187	
M18 ICR3	Sample	0.00	36.1	34.910	97.5
M18 ICR3 SP	Spike	35.1		31.474	
				Avg Recovery:	96.7

Company	URS Corporation
Analyst	KMT / CLD
Parameters	EPA Method 308

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 1 blank

MDL 0.158 (ug/mL)
LOQ 1.58 (ug/mL)
Compound Methanol

Lower Curve Limit 1.58 (ug/mL)
Upper Curve Limit 3,161 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
stk-icr1-m308 Cond A	009F0901.D	009F0902.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	42.8	6.76	ND
stk-icr1-m308 Cond B	010F1001.D	010F1002.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	42.9	6.78	ND
stk-icr1-m308 SG-FH	058B0801.D	058B0802.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	5.00	0.790	ND
stk-icr1-m308 SG-BH	059B0901.D	059B0902.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	5.00	0.790	ND
													6.78	ND
stk-icr2-m308 Cond A	011F1101.D	011F1102.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	42.2	6.67	ND
stk-icr2-m308 Cond B	013F1301.D	013F1302.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	42.8	6.76	ND
stk-icr2-m308 SG-FH	060B1001.D	060B1002.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	5.00	0.790	ND
stk-icr2-m308 SG-BH	062B1201.D	062B1202.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	5.00	0.790	ND
													6.76	ND
stk-icr3-m308 Cond A	014F1401.D	014F1402.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	42.0	6.64	ND
stk-icr3-m308 Cond B	015F1501.D	015F1502.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	42.8	6.76	ND
stk-icr3-m308 SG-FH	063B1301.D	063B1302.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	5.00	0.790	ND
stk-icr3-m308 SG-BH	064B1401.D	064B1402.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	5.00	0.790	ND
													6.76	ND
stk-icr-m308-silica-fb	065B1501.D	065B1502.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	5.00	0.790	ND
m308-silica-lb	066B1601.D	066B1602.D	GC120P132.M	3.42	3.41	0.2	0.536	0.495	4.0	0.516	1	5.00	2.58	J
lab blank 3%	057B0701.D	057B0702.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	1.00	0.158	ND
m308-silica-lcs	067B1901.D	067B1902.D	GC120P132.M	3.42	3.42	0.0	38.0	37.8	0.3	37.9	1	5.00	190	
stk-icr2-m308-silica-fh-LD	061B1101.D	061B1102.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	5.00	0.790	ND
												difference	0.0%	

Company	URS Corporation
Analyst	KMT / CLD
Parameters	EPA Method 308

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 1 blank

MDL 0.158 (ug/mL)
LOQ 1.58 (ug/mL)
Compound Methanol

Lower Curve Limit 1.58 (ug/mL)
Upper Curve Limit 3,161 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
stk-icr2-m308-condA-LD	012F1201.D	012F1202.D	GC120P132.M	NA	NA	NA	0.158	0.158	0.0	0.158	1	42.2	6.67	ND
												difference	0.0%	
gc120p132 #3ss	007F0701.D	007F0702.D	GC120P132.M	3.33	3.33	0.1	39.7	39.8	0.1	39.8	1	1.00	39.8	
												Spike Amount (ug)	39.3	
												Spike Recovery (%)	101%	

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	URS Corporation
Analyst	MGM
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bags & 1 S/R

Custody

Heather Tarjeft of Enthalpy Analytical, Inc. received the samples on June 29, 2011 at ambient temperature after being relinquished by URS Corporation of Austin, TX. The samples were received in good condition. Prior to, during, and after analysis, the sample was kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.

Analysis

The sample was analyzed for 1,3-butadiene, acetonitrile, acrolein, acetone, acrylonitrile, pentane, methylene chloride, hexane, benzene, trichloroethene toluene, 1,2-dibromoethane, tetrachloroethene, and carbon disulfide using the analytical procedures in EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).

The standards and samples were analyzed following the procedures specified in section 8.2.1, Integrated Bag Sampling and Analysis.

All samples and standards were introduced directly to the column using an automated multi-port Valco gas sampling valve equipped with a stainless steel loop. All target analytes were referenced to certified gas phase standards.

The Agilent Technologies Model 6890, Gas Chromatograph ("Gummo" S/N US00028451) was equipped with front and rear Flame Ionization Detectors, along with Restek Rtx-624 30m x 0.32mm (S/N 926828) and Rtx-1 30m x 0.32mm x 4.0um (S/N 869999) capillary columns.

The carbon disulfide analysis utilized a Hewlett Packard Model 5890, Series II Gas Chromatograph ("Zeppo" S/N 3235A4448X) was equipped with a Flame Photometric Detector and a Restek Rtx-1 60m x 0.53mm x 5.0um (S/N 663119) capillary column.

Enthalpy Analytical Narrative Summary
(continued)

Analysis (continued)	The chain of custody requested that the FlexFilm B bag samples be analyzed, however, the Tedlar A bags were analyzed. This was because while Enthalpy Analytical, Inc. originally recommended FlexFilm bags due to stability of the target compounds. Further testing revealed that these bags lacked the field ruggedness required for stack sampling, and we changed our recommendation back to Tedlar. The FlexFilm bags we received for this project all had cracks and could not be trusted to be leak free, so the Tedlar (Bag A) samples were analyzed.
Calibration	The calibration curves are located in the Calibration Curve Chromatograms section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition methods GC114P165.M, FPDTEST1.M, and FPDTEST2.M are included in the Calibration Curve Chromatograms section of this report.
QC Notes	As required by section 8.4.2, Recovery Study for Bag Sampling, a recovery study is performed on a bag sample. The bag sample ***CHV-Stk-ICR1-M18b-Bag A*** was spiked with 1-3 butadiene, acrolein, acetone, hexane, benzene, trichloroethene, and toluene on 6/30/11 at 5:45 PM. The recovery efficiency values met the method-required limit of between 70 and 130% for all analytes except 1-3 butadiene (55.5%). The recovery efficiency value is used to adjust the results following equation 18-7 from section 12.8 only for the analytes that were spiked . All sample preparation and analytical holding times specified in the method were met.

Enthalpy Analytical Narrative Summary
(continued)

Reporting Notes

These analytical results are reported on a wet basis. The user of this report should determine the % moisture in the sample and correct the reported value to ppmvd as appropriate.

Enthalpy Analytical, Inc. is accredited to perform this method for compliance purposes by the National Environmental Laboratory Accreditation Conference (NELAC) through the Louisiana Environmental Laboratory Accreditation Program (LELAP), certificate number 04010.

The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company	URS Corp. - Austin
Analyst	JBB
Parameters	EPA Method 18

Client #	40942312
Job #	0611-22
# Samples	3 Bag condensates

Custody

Heather Tarjeft of Enthalpy Analytical, Inc. received the samples on June 29 2011 at 5.4 °C after being relinquished by URS Corporation of Austin, TX. The samples were received in good condition. Prior to, during, and after analysis, the sample was kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.

Analysis

The bag condensate samples were analyzed for 1,3-butadiene, pentane, acrolein, acetone, dichloromethane, hexane, benzene, trichloroethene, toluene, tetrachloroethene, 1,2-dibromoethane, and carbon disulfide using the analytical procedures in EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).

The samples were analyzed by direct aqueous injection. Calibration standards were made in methanol. Matrix spikes were created by taking ~ 2 mL of sample and adding 20 uL of methanol stock solutions containing the target analytes. Thus the matrix spikes analyzed were 99% water and were representative of the sample matrix. Because the target analytes are volatile, the samples were placed in zero headspace autosampler vials and kept at 4ºC while being analyzed by using a recirculating chilled water system on the gas chromatograph sample tray.

The Agilent Technologies Model 6890N, Gas Chromatograph ("Veronica" S/N US10645052) was equipped with a Flame Ionization Detector and a Restek Rtx-624 105m x 0.53mm x 3.0um (S/N 1032767) capillary column.

The carbon disulfide analysis was performed using a Hewlett Packard Model 5890, Series II Gas Chromatograph ("Oscar" S/N 2938A2) equipped with a Flame Photometric Detector and a Restek Stabilwax 30m x 0.53mm x 1.5um (S/N 1033248) capillary column.

Enthalpy Analytical Narrative Summary
(continued)

Calibration	The calibration curves are located in the Calibration Curve Chromatograms section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition methods GC118P140.M and GC118P146.M are included in the Calibration Curve Chromatograms section of this report.
QC Notes	All of the matrix spikes were between 70% and 130% recovery.
Reporting Notes	Enthalpy Analytical, Inc. is accredited to perform this method for compliance purposes by the National Environmental Laboratory Accreditation Conference (NELAC) through the Louisiana Environmental Laboratory Accreditation Program (LELAP), certificate number 04010. The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company	URS Corporation
Analyst	JBB
Parameters	EPA Method 18 Adsorbents

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 3 spikes

Custody

Heather Tarjeft of Enthalpy Analytical, Inc. received samples on June 23, 2011 at 15.8 °C, June 29, 2011 at 5.4 °C, July 1, 2011 at 19 °C, and July 7, 2011 at 3.1 °C after being relinquished by URS Corporation of Austin, TX. The samples were received in good condition. Prior to, during, and after analysis, the sample was kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.

Analysis

The sample was analyzed for acetonitrile, acrylonitrile, methyl t-butyl ether (MTBE), 2-nitropropane, isooctane, methyl isobutyl ketone (MIBK), chlorobenzene, ethylbenzene, m/p-xylene, styrene, o-xylene, cumene, and nitrobenzene using the analytical procedures in EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).

The standards and samples were analyzed following the procedures specified in section 8.2.4, Adsorption Tube Procedure.

Each sample train consisted of a knockout impinger, a SKC Xad-4 (Cat# 226-93), and a SKC Charcoal (Cat# 226-16) sample tube. All sample tubes were divided into front half (FH) and back half (BH) fractions. Each fraction was desorbed using 5 mL of benzene-free carbon disulfide. The condensate samples were volumed and 8 mL was removed and archived. The remaining water was extracted with CS2. The carbon disulfide and aqueous layers were seperated and analyzed seperately. The aqueous fraction is termed the raffinate.

The Hewlett Packard Model 6890, Gas Chromatograph ("Lucy" S/N US00039147) was equipped with a Flame Ionization Detector and a Restek Rtx-1 30m x 0.32mm x 4.0um (S/N 450928) capillary column.

The raffenate was analyzed using a Hewlett Packard Model 5890, Series II Gas Chromatograph ("Penn" S/N 2750A17269) equipped with a Flame Ionization Detector and a Restek Stabilwax 30m x 0.53mm x 2.0um (S/N 808560) capillary column.

Enthalpy Analytical Narrative Summary
(continued)

Calibration	The calibration curves are located in the Calibration Curve Chromatograms section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition methods GC121P076.M, GC121P067.M, and GC120P135.M are included in the Calibration Curve Chromatograms section of this report.
QC Notes	As required by section 8.4.3, Recovery Study for Adsorption Tube Sampling, a recovery study is performed for the compounds of interest during the field test. The train collection efficiency (R) is calculated using equations 18-7, 18-8, and 18-9 in EPA Method 18. The reported results have been adjusted for this recovery efficiency value(s). The spike amount and spike results are presented in the Results section of this report. All compounds except acetonitrile and acrylonitrile were spiked onto the first XAD tube in the spiked train. [For Run 1 the spiked and unspiked trains were switched in the field – the train labeled as unspiked contained the tube with the spike label. The train labeled spike did not contain a spiked tube – Enthalpy has treated the ICR1 train as if it was the spike sample and ICR1 SP as the unspiked train]. Acetonitrile and acrylonitrile were only spiked into the water knock-out of the spiked train. Therefore any acetonitrile and acrylonitrile on the adsorbent media migrated there during sampling. During the extraction some of the acetonitrile stayed in the raffinate and some extracted into the CS2. The recovery calculation includes the catch from the raffinate. Acetonitrile was analyzed in the bags and on tubes. For the bag analysis, acetonitrile was not listed as a spike compound by the EPA. Therefore, there is no recovery data for acetonitrile in the bag. However, an LCS was performed that showed ~ 35% recovery after 48 hours. The bags were held 45 hours before analysis. The tube train had ~ 28% recovery. The tester could use the acetonitrile data from either media.

Enthalpy Analytical Narrative Summary
(continued)

QC Notes (cont.)	Styrene recovery was ~ 10%. The lab can find no reason for he low recovery. Similar projects using the same media have demonstrated >90% recovery. The LCSs prepared with the sample spikes had recoveries of ~ 100%.
Reporting Notes	The results presented in this report are representative of the samples as provided to the laboratory. Enthalpy Analytical, Inc. is accredited to perform this method for compliance purposes by the National Environmental Laboratory Accreditation Conference (NELAC) through the Louisiana Environmental Laboratory Accreditation Program (LELAP), certificate number 04010.

Enthalpy Analytical Narrative Summary

Company	URS Corporation
Analyst	KMT / CLD
Parameters	EPA Method 308

Client #	40942312
Job #	0611-22
# Samples	3 Runs & 1 blank

Custody	Heather Tarjeft of Enthalpy Analytical, Inc. received the samples on July 1, 2011 at 19 °C and July 7, 2011 at 3.1 °C after being relinquished by URS Corporation of Austin, TX. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.
Analysis	The samples were analyzed for methanol using the analytical procedures in EPA Method 308, Procedure for Determination of Methanol Emission from Stationary Sources (40 CFR Part 63, Appendix A). The samples were analyzed following the procedures in Section 11.0 Analytical Procedures. All silica gel tubes were desorbed using 5.00 mL of a 3% n-propanol in deionized water solution. The Hewlett Packard Model 5890, Series II Gas Chromatograph ("Penn" S/N 2750A17269) was equipped with front and rear Flame Ionization Detectors and Restek Stabilwax 30m x 0.53mm x 2.0 um (S/N 810087 and S/N 808560) capillary columns.
Calibration	The calibration curve is located in the Calibration Curve Chromatograms section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition method GC120P132.M is included in the Calibration Curve Chromatograms section of this report.
QC Notes	All sample preparation and analytical holding times specified in the method were met.

Enthalpy Analytical Narrative Summary
(continued)

Reporting Notes	The results presented in this report are representative of the samples as provided to the laboratory. Enthalpy Analytical, Inc. is accredited to perform this method for compliance purposes by the National Environmental Laboratory Accreditation Conference (NELAC) through the Louisiana Environmental Laboratory Accreditation Program (LELAP), certificate number 04010.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc. data reports, unless specifically noted otherwise.

- The acronym ***MDL*** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym ***LOQ*** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym ***ND*** following a value indicates a non-detect or analytical result below the MDL.
- The letter ***J*** following a value indicates an analytical result between the MDL and the LOQ. A J flag indicates that the laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter ***E*** following a value indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- The acronym ***DF*** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of ***MS*** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. This shows what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).
- The addition of ***MSD*** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as an MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of ***LD*** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of ***AD*** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.
- The Sample ID ***LCS*** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two extra spikes are prepared. The extras (randomly chosen) are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection and/or sample transport.

General Reporting Notes

(continued)

- **Significant Figures**: Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits.
- **Manual Integration**: The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations. The peak was ***not integrated*** by the software **"NI"**, the peak was ***integrated incorrectly*** by the software **"II"** or the ***wrong peak*** was integrated by the software **"WP"**. These codes will accompany the analyst's manual integration stamp placed next to the compound name.

Sample Custody

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-Pre1-M18s-XAD	XAD Sorbent Cartridge	6/20/11 1904	X						See note below.
CHV-Stk-Pre1-M18s-C	Charcoal	6/20/11 1904	X						
CHV-Stk-Pre2-M18s-XAD	XAD Sorbent Cartridge	6/20/11 1904	X						
CHV-Stk-Pre2-M18s-C	Charcoal	6/20/11 1904	X						

Remarks: Redundant samples collected. Only analyze one set of XAD/charcoal tubes. Hold redundant set.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Maggie DeBolt	6/21/11	1200						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
	6/23/11	2:54pm						15.8 Raytek gun #2

Seal #	Condition
	Good

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M18b-Cond A	Condensate	6/27/11 ~~6/28/11~~ 1105	X			X			backup sample
CHV-Stk-ICR1-M18b-Bag A	Bag Sample A	6/27/11 ~~6/28/11~~ 1105	X			X			tedlar bag - backup sample
CHV-Stk-ICR__-M18b-Bag B	Bag Sample B								* analyze these samples
CHV-Stk-ICR__-M18b-Bag C	Bag Sample C								only if CHV-Stk-ICR1-M18b-COND B and CHV-Stk-ICR1-M18b-Bag B samples are lost, delayed in shipment, or do not meet M18 QA/QC criteria

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/27	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	6/29/11	9:06AM						5.4°C Raytek gun

Seal #	Condition
	Good

Bag temp = Ambient

6/29/11 MLT

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M18b-Cond B	Condensate B	6/27/11 1321	X						Collected w/ Flexfilm Bag
CHV-Stk-ICR1-M18b-Bag A	Bag Sample A								
CHV-Stk-ICR1-M18b-Bag B	Bag Sample B	6/27/11 1321	X						Flexfilm
CHV-Stk-ICR1-M18b-Bag C	Bag Sample C								

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/27/11	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	6/28/11	9:06AM						5.4°C Ranytek gun

HT 6/28/11

Seal #	Condition	
	Good	Bag temp = Ambient

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M18b-Cond A	Condensate A	6/28/11 1233	X			X			Tedlar (backup) Analyze Tedlars Hold Flexfilm per JDL HLT 6/30/11
CHV-Stk-ICR2-M18b-Bag A	Bag Sample A	6/28/11 1233	X			X			Tedlar (backup)
CHV-Stk-ICR2-M18b-Bag B	Bag Sample B	6/28/11 1408	X						Flexfilm
CHV-Stk-ICR2-M18b-Bag C	Bag Sample C								
CHV-Stk-ICR2-M18b-Cond B	condensate B	6/28/11 1408	X						Flexfilm
									Condensate A and Bag sample A collected as backup samples in case Condensate B and Bag sample B are lost or damaged during shipment, or M18 QA/QC criteria not met.
									* note holding time >40 hours

All times Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
W Cash	6/28/11	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
Liz Mele	6/30/11	9:21am						10.6 Raytek Gun #1

Seal #	Condition
	Good

Bag temp = ambient

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M18s-CondA	Condensate - Bottle A	6/27/11 1326	X						
CHV-Stk-ICR1-M18s-CondB	Condensate - Bottle B	27							
CHV-Stk-ICR1-M18s-Sorbent	Sorbent	6/28/11 1326	X						
CHV-Stk-ICR1-M18s-Charcoal	Charcoal	6/27/11 1326	X						
		27							
CHV-Stk-ICR1S-M18s-CondA	Condensate - Bottle A	6/27/11 1326	X						spiked M18 sampling train
CHV-Stk-ICR1S-M18s-CondB	Condensate - Bottle B	27							
CHV-Stk-ICR1S-M18s-Sorbent	Sorbent	6/28/11 1326	X						spiked M18 sampling train
CHV-Stk-ICR1S-M18s-Charcoal	Charcoal	6/27/11 1326	X						

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/28/11	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	6/30/11	9:21am						10.6 Raytek Gun #1

Seal #	Condition	
		Bag Temp = ambient

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M308-CondA	Condensate - Bottle A	~~6/28/11~~ 6/27/11 1326		X					
CHV-Stk-ICR1-M308-CondB	Condensate - Bottle B	6/27/11 1326		X					
CHV-Stk-ICR1-M308-Silica	Silica	~~6/28/11~~ 6/27/11 1326		X					

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/28/11	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	6/30/11	9:21 am						10.6

Reytek Cooler #1

Seal #	Condition

Bag Temp ambient

Remarks:

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M18b-Cond A	Condensate A	6/29/11 1012	X						
CHV-Stk-ICR3-M18b-Bag A	Bag Sample A	↓	X						
CHV-Stk-ICR3-M18b-Bag B	Bag Sample B	6/29/11 1128	X						
CHV-Stk-ICR3-M18b-Bag C	Bag Sample C								
CHV-Stk-ICR3-M18b-Cond B	Condensate B	6/29/11 1128	X						

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1145						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)	
[signature]	7/1/11	9:50am						19	Raytek Gun #1

Seal #	Condition
	Good

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M18s-CondA	Condensate - Bottle A	6/28/11 1405	X						
~~CHV-Stk-ICR2-M18s-CondB~~	~~Condensate - Bottle B~~								
CHV-Stk-ICR2-M18s-Sorbent	Sorbent		X						
CHV-Stk-ICR2-M18s-Charcoal	Charcoal		X						
CHV-Stk-ICR2S-M18s-CondA	Condensate - Bottle A	6/28/11 1405	X						spiked train
~~CHV-Stk-ICR2S-M18s-CondB~~	~~Condensate - Bottle B~~								
CHV-Stk-ICR2S-M18s-Sorbent	Sorbent		X						spiked train
CHV-Stk-ICR2S-M18s-Charcoal	Charcoal		X						spiked train

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1130						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	7/1/11	9:50am						19

Raytek Gun #1

Seal #	Condition
	Good

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M308-CondA	Condensate - Bottle A	6/28/11 1404		X					
CHV-Stk-ICR2-M308-CondB	Condensate - Bottle B	↓		X					
CHV-Stk-ICR2-M308-Silica	Silica	↓		X					

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1130						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	7/1/11	9:30am						19

Raytek Gun #1

Seal #	Condition
	Good

Remarks

27°C

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M18s-CondA	Condensate - Bottle A	6/29/11 1140	X						← Received on 7/7/11 LMC
CHV-Stk-ICR3-M18s-CondB	Condensate - Bottle B		X						
CHV-Stk-ICR3-M18s-Sorbent	Sorbent		X						← Received on 7/7/11 LMC
CHV-Stk-ICR3-M18s-Charcoal	Charcoal		X						← Received on 7/7/11 LMC
			X						
CHV-Stk-ICR3S-M18s-CondA	Condensate - Bottle A		X						← Received on 7/7/11 LMC
CHV-Stk-ICR3S-M18s-CondB	Condensate - Bottle B		X						
CHV-Stk-ICR3S-M18s-Sorbent	Sorbent		X						← Received on 7/7/11 LMC
CHV-Stk-ICR3S-M18s-Charcoal	Charcoal		X						← Received on 7/7/11 LMC

Hawaii Time

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Nathan Reliant	1654	6/29/11	[signature]	7/5/11	09:30	[signature]	7/5/11	13:30
Received by:	Date	Time	Relinquished by:	Date	Time			
			[signature]					

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)	
[signature]	7/7/11	9:35 am						3.1°	Raytek Gun #1

Seal #	Condition
	Good

Remarks

27'c

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M308-CondA	Condensate - Bottle A	6/29/11 1310		X					← Received on 7/7/11 LMC
CHV-Stk-ICR3-M308-CondB	Condensate - Bottle B	↓		X					← Received on 7/7/11 LMC
CHV-Stk-ICR3-M308-Silica	Silica	↓		X					← Received on 7/7/11 LMC

Hawaii Time

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Nathan Reichert	6/29/11	1654	[signature]	7/5/11	09:30	[signature]	7/5/11	13:30
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	7/7/11	9:35						3.1° Raytek Gun #1

Seal #	Condition
	Good

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M308-Water	Water	6/29/11 1310		X					← Received on 7/7/11 LMC
CHV-Stk-ICRRB-M308-Silica	Silica	↓		X					← Received on 7/7/11 LMC

Hawaii Time

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1654	[signature]	7/5/11	09:30	[signature]	7/5/11	13:30
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)
[signature]	7/7/11	9:35						3.1° Raytek Gun #1

Seal #	Condition
	Good

Remarks

27°C

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M18s-Sorbent	Sorbent	6/29/11 1310	X						← Received on 7/7/11 LMC
CHV-Stk-ICRRB-M18s-Charcoal	Charcoal	↓	X						← Received on 7/7/11 LMC
CHV-Stk-ICRRB-M18s-Water	Water	↓	X						← Received on 7/7/11 LMC

Hawaii Time

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Nathan Rehf	6/29/11	1654	George Hancock	7/5/11	09:30	George Hancock	7/5/11	13:30
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
Lizabeth	7/7/11	9:35 am						3.1° Raytek Gun #1

Seal #	Condition
	Good

Remarks

Sample Chromatograms

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\018B0801.D
Sample Name: CHV-Stk-ICR1-M18b-Bag A 0611-22

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   8
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 29-Jun-11, 15:00:07                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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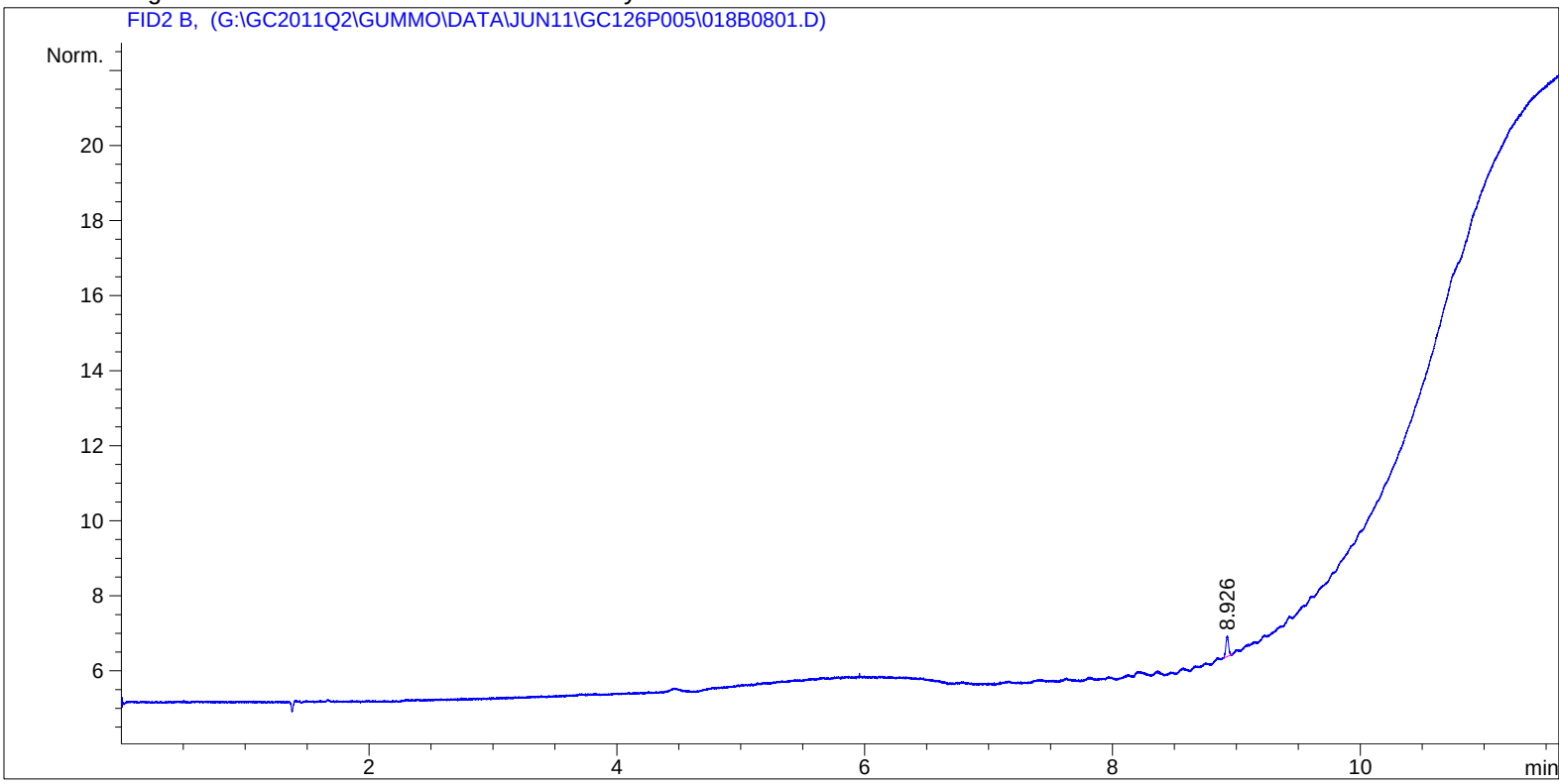



```
==========================================================================
                      External Standard Report
==========================================================================

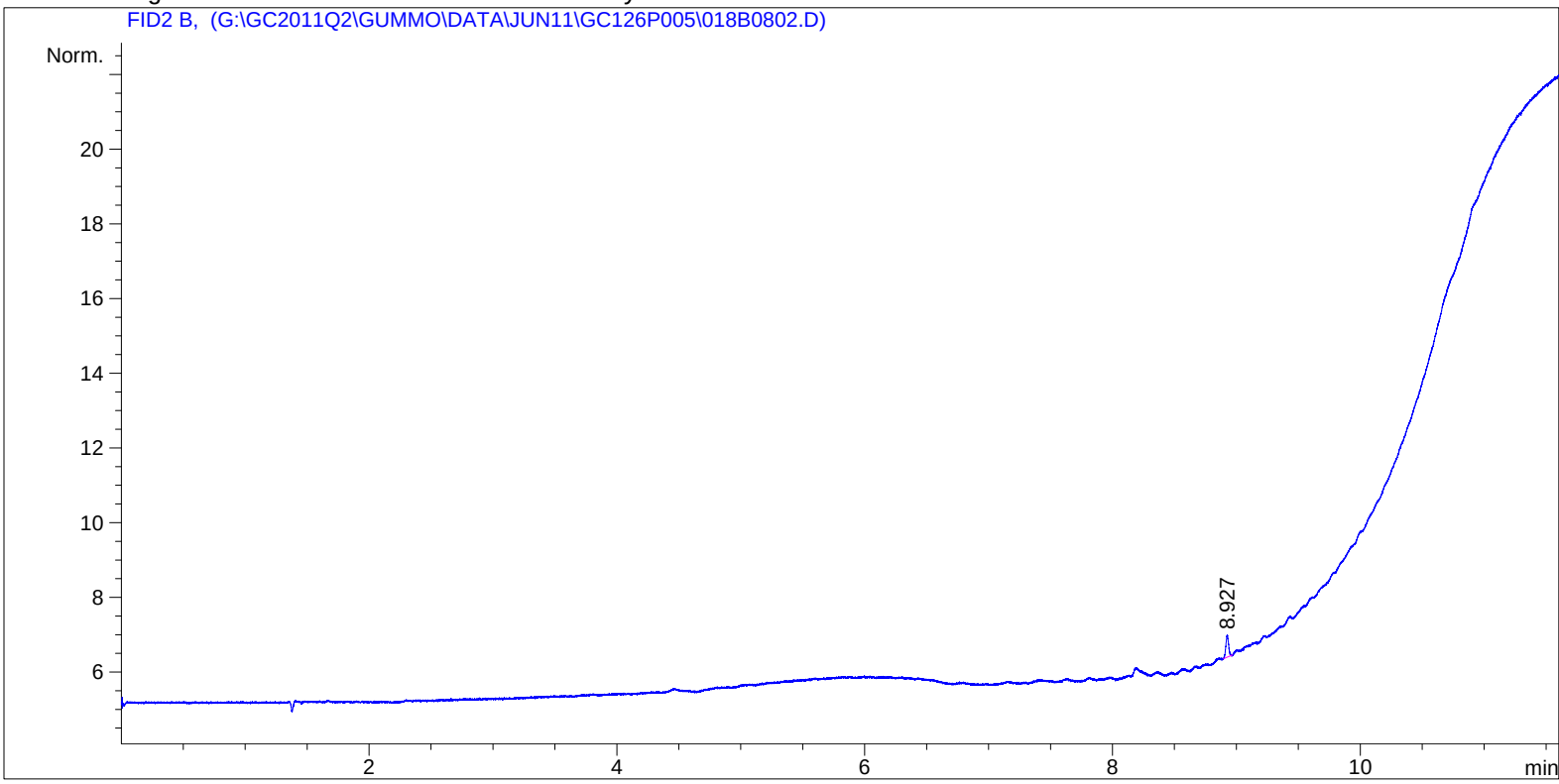
Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|-----------------
  2.620            -          -          -         1-3 Butadiene
  3.453            -          -          -         Acetonitrile
  3.591            -          -          -         Acrolein
  3.700            -          -          -         Acetone
  4.107            -          -          -         Acrylonitrile
  4.191            -          -          -         Pentane
  4.508            -          -          -         Methylene chloride
  5.781            -          -          -         Hexane
  6.497            -          -          -         Benzene
  6.890            -          -          -         Trichloroethene
  7.565            -          -          -         Toluene
  7.836            -          -          -         1,2 Dibromoethane
  7.981            -          -          -         Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\018B0802.D
Sample Name: CHV-Stk-ICR1-M18b-Bag A 0611-22

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   8
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 29-Jun-11, 15:16:21                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\018B0803.D
Sample Name: CHV-Stk-ICR1-M18b-Bag A 0611-22

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   8
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 29-Jun-11, 15:32:35                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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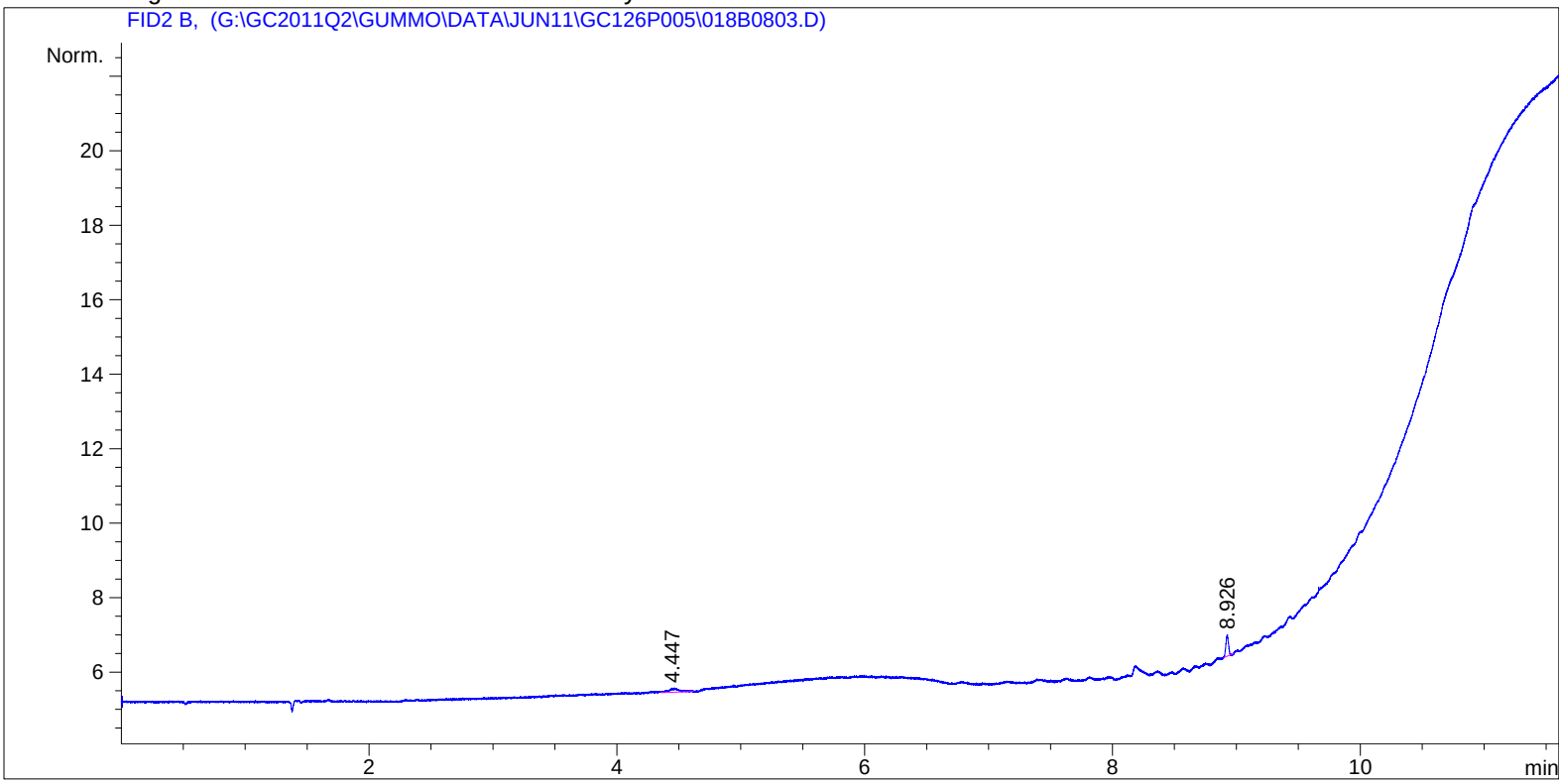
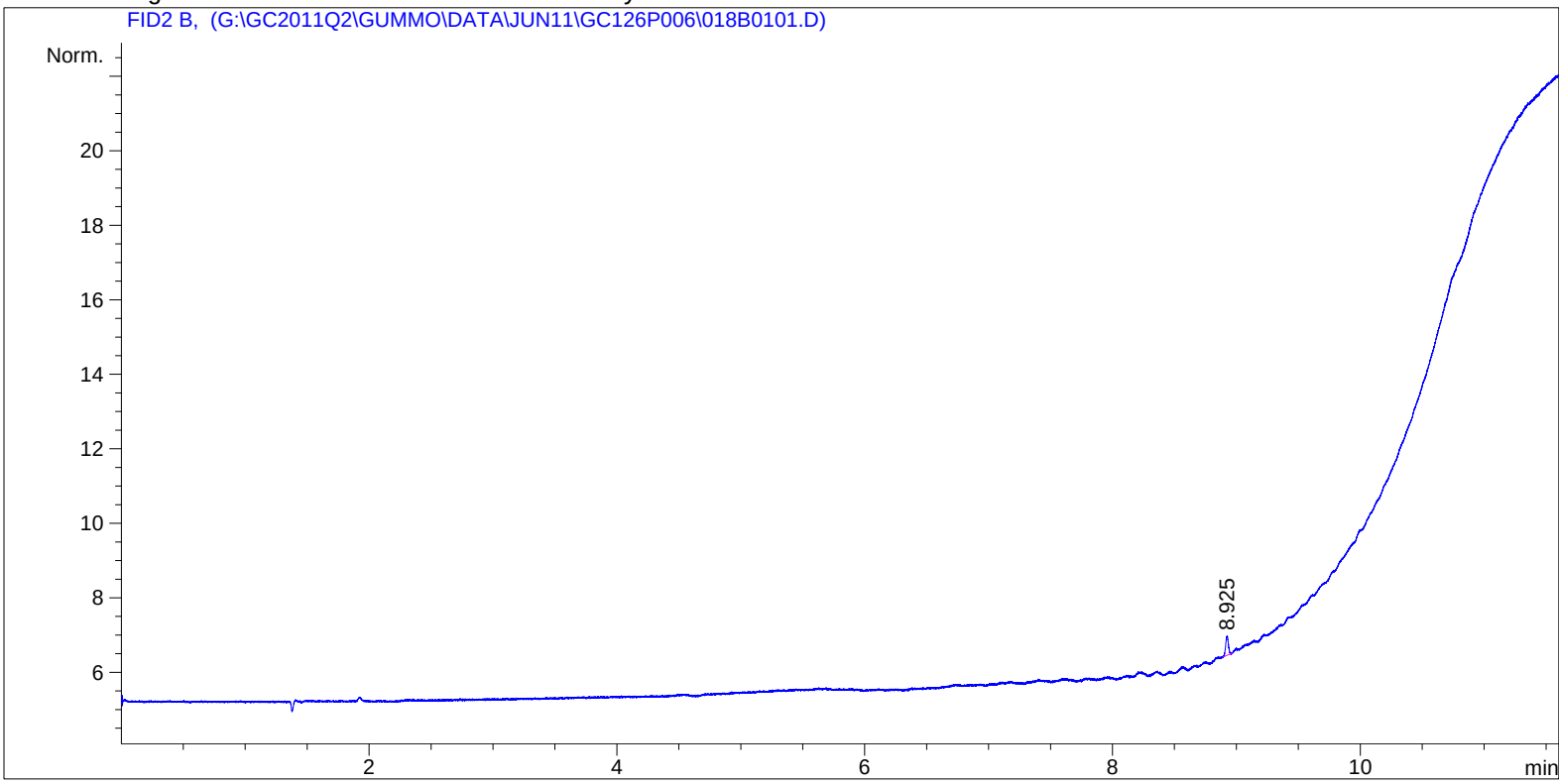



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -         1-3 Butadiene
  3.453            -          -          -         Acetonitrile
  3.591            -          -          -         Acrolein
  3.700            -          -          -         Acetone
  4.107            -          -          -         Acrylonitrile
  4.191            -          -          -         Pentane
  4.508            -          -          -         Methylene chloride
  5.781            -          -          -         Hexane
  6.497            -          -          -         Benzene
  6.890            -          -          -         Trichloroethene
  7.565            -          -          -         Toluene
  7.836            -          -          -         1,2 Dibromoethane
  7.981            -          -          -         Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\018B0101.D
Sample Name: CHV-Stk-ICR2-Bag A Run 2 0611-22

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 30-Jun-11, 11:54:31                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -         1-3 Butadiene
  3.453            -          -          -         Acetonitrile
  3.591            -          -          -         Acrolein
  3.700            -          -          -         Acetone
  4.107            -          -          -         Acrylonitrile
  4.191            -          -          -         Pentane
  4.508            -          -          -         Methylene chloride
  5.781            -          -          -         Hexane
  6.497            -          -          -         Benzene
  6.890            -          -          -         Trichloroethene
  7.565            -          -          -         Toluene
  7.836            -          -          -         1,2 Dibromoethane
  7.981            -          -          -         Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\018B0102.D
Sample Name: CHV-Stk-ICR2-Bag A Run 2 0611-22

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 30-Jun-11, 12:10:51                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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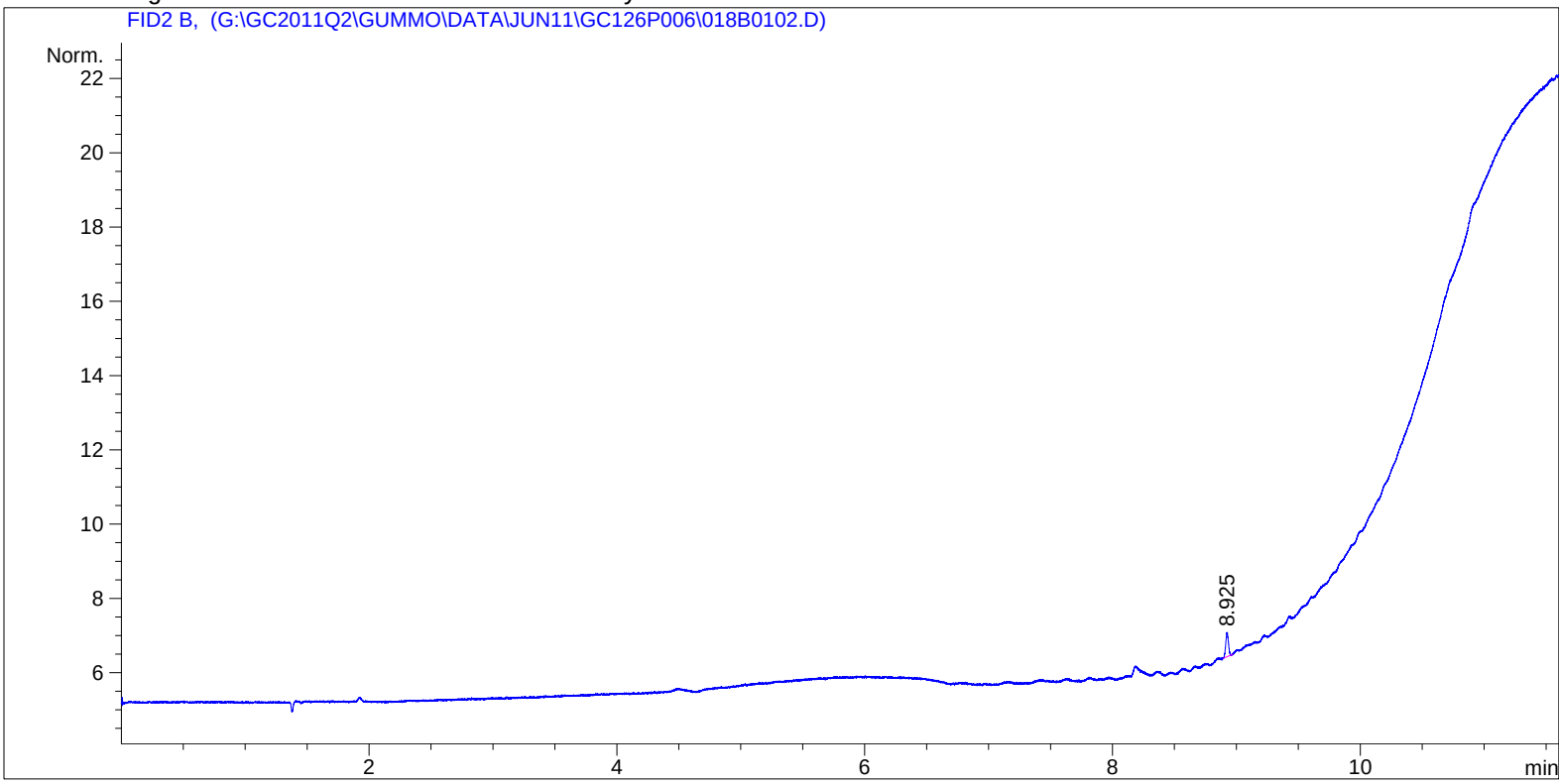


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -         1-3 Butadiene
  3.453            -          -          -         Acetonitrile
  3.591            -          -          -         Acrolein
  3.700            -          -          -         Acetone
  4.107            -          -          -         Acrylonitrile
  4.191            -          -          -         Pentane
  4.508            -          -          -         Methylene chloride
  5.781            -          -          -         Hexane
  6.497            -          -          -         Benzene
  6.890            -          -          -         Trichloroethene
  7.565            -          -          -         Toluene
  7.836            -          -          -         1,2 Dibromoethane
  7.981            -          -          -         Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\018B0103.D
Sample Name: CHV-Stk-ICR2-Bag A Run 2 0611-22

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 30-Jun-11, 12:27:04                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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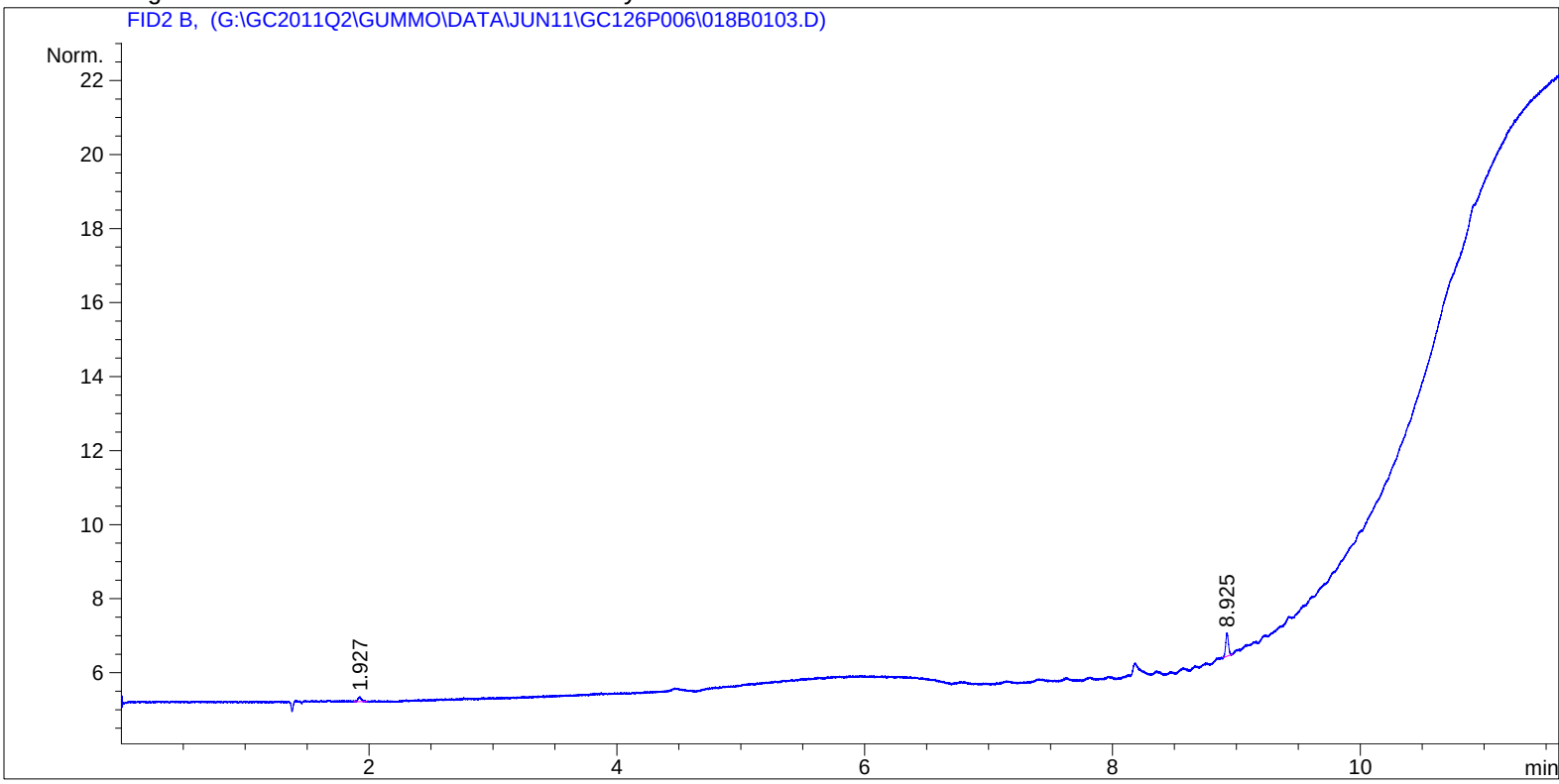
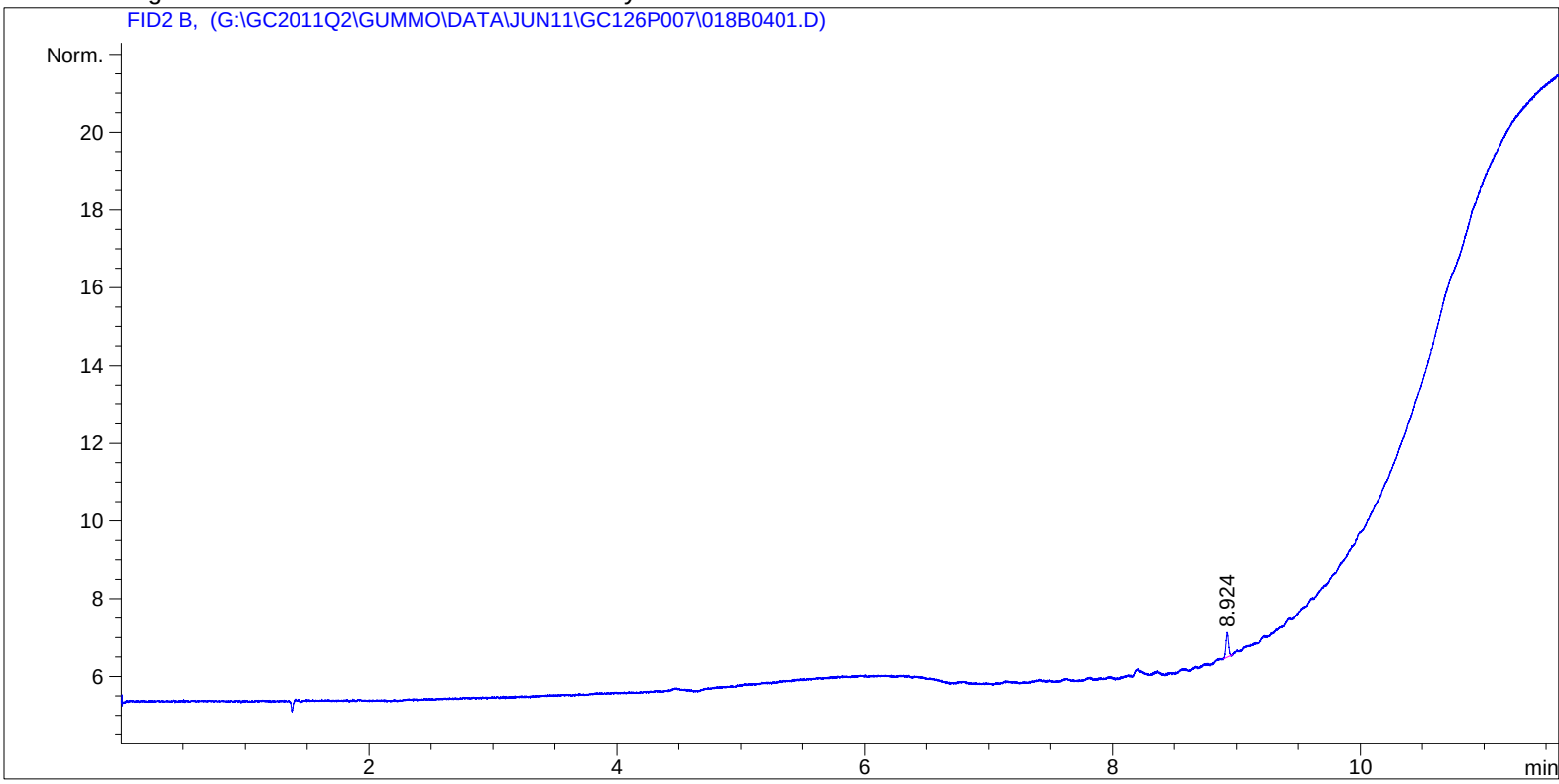



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -         1-3 Butadiene
  3.453            -          -          -         Acetonitrile
  3.591            -          -          -         Acrolein
  3.700            -          -          -         Acetone
  4.107            -          -          -         Acrylonitrile
  4.191            -          -          -         Pentane
  4.508            -          -          -         Methylene chloride
  5.781            -          -          -         Hexane
  6.497            -          -          -         Benzene
  6.890            -          -          -         Trichloroethene
  7.565            -          -          -         Toluene
  7.836            -          -          -         1,2 Dibromoethane
  7.981            -          -          -         Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\018B0401.D
Sample Name: STK-ICR3-M18b-Bag A Run1 0611-22

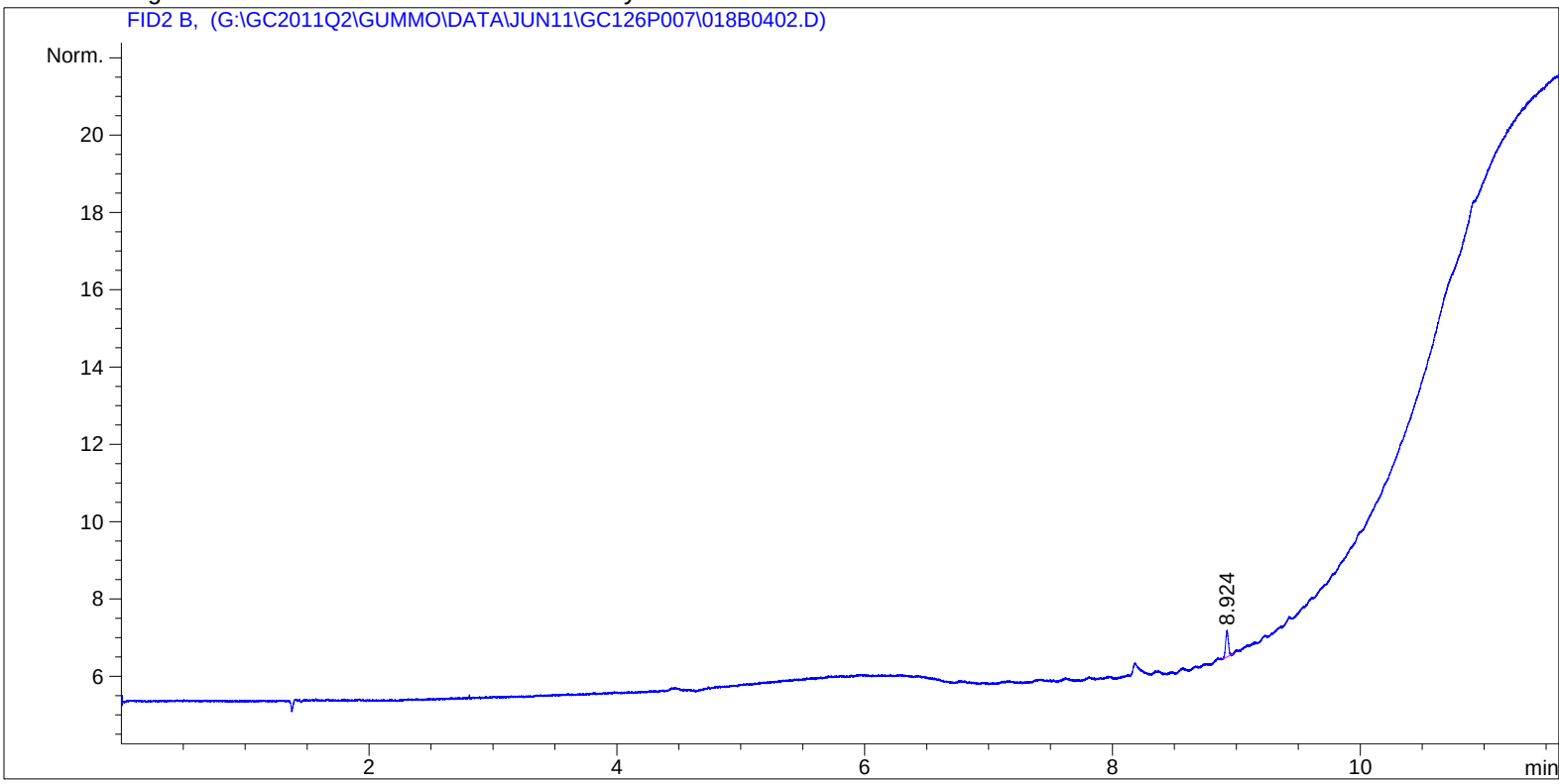
```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   4
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 01-Jul-11, 11:33:58                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -         1-3 Butadiene
  3.453            -          -          -         Acetonitrile
  3.591            -          -          -         Acrolein
  3.700            -          -          -         Acetone
  4.107            -          -          -         Acrylonitrile
  4.191            -          -          -         Pentane
  4.508            -          -          -         Methylene chloride
  5.781            -          -          -         Hexane
  6.497            -          -          -         Benzene
  6.890            -          -          -         Trichloroethene
  7.565            -          -          -         Toluene
  7.836            -          -          -         1,2 Dibromoethane
  7.981            -          -          -         Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\018B0402.D
Sample Name: STK-ICR3-M18b-Bag A Run1 0611-22

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   4
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 01-Jul-11, 11:50:15                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

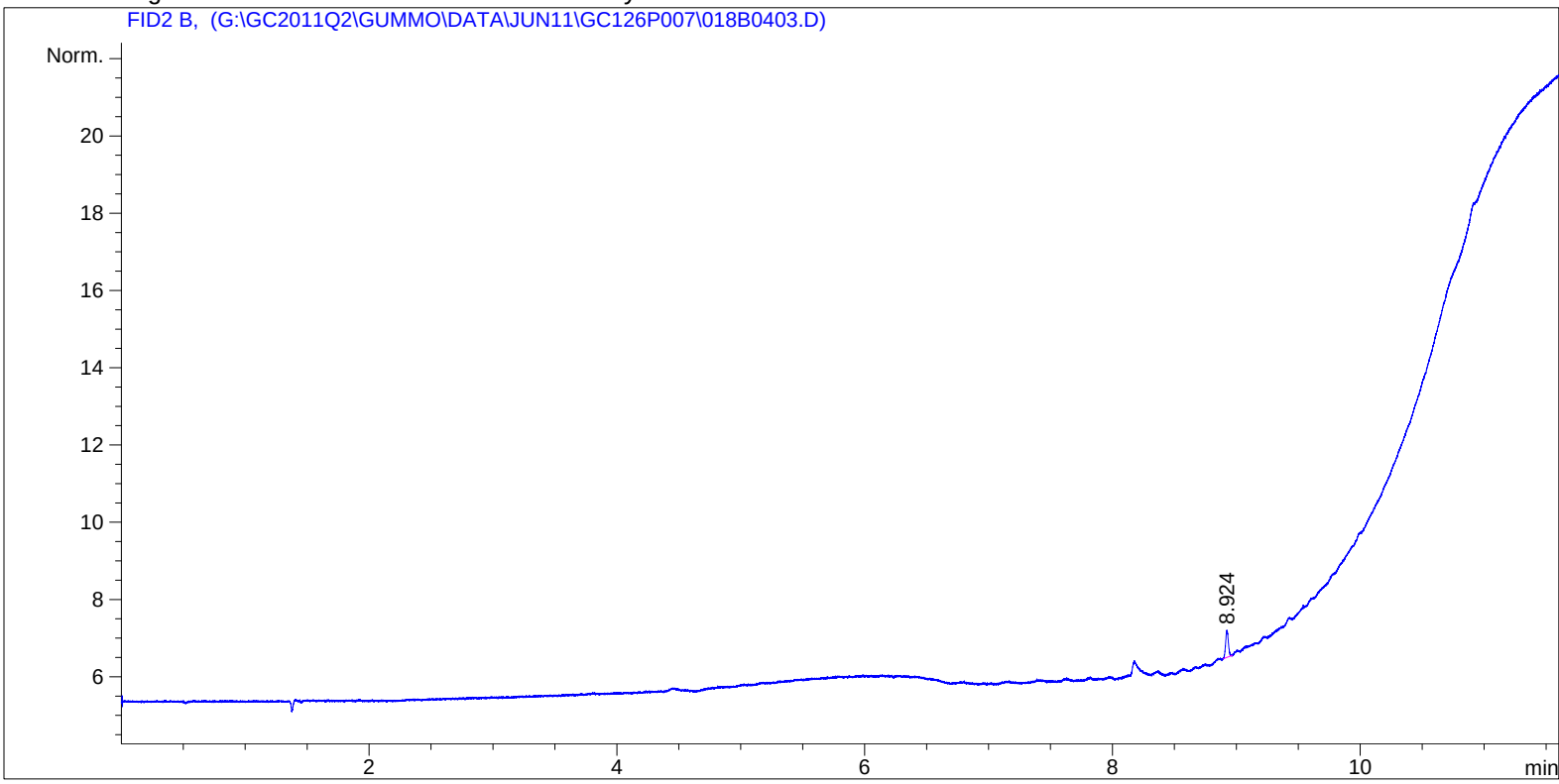



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\018B0403.D
Sample Name: STK-ICR3-M18b-Bag A Run1 0611-22

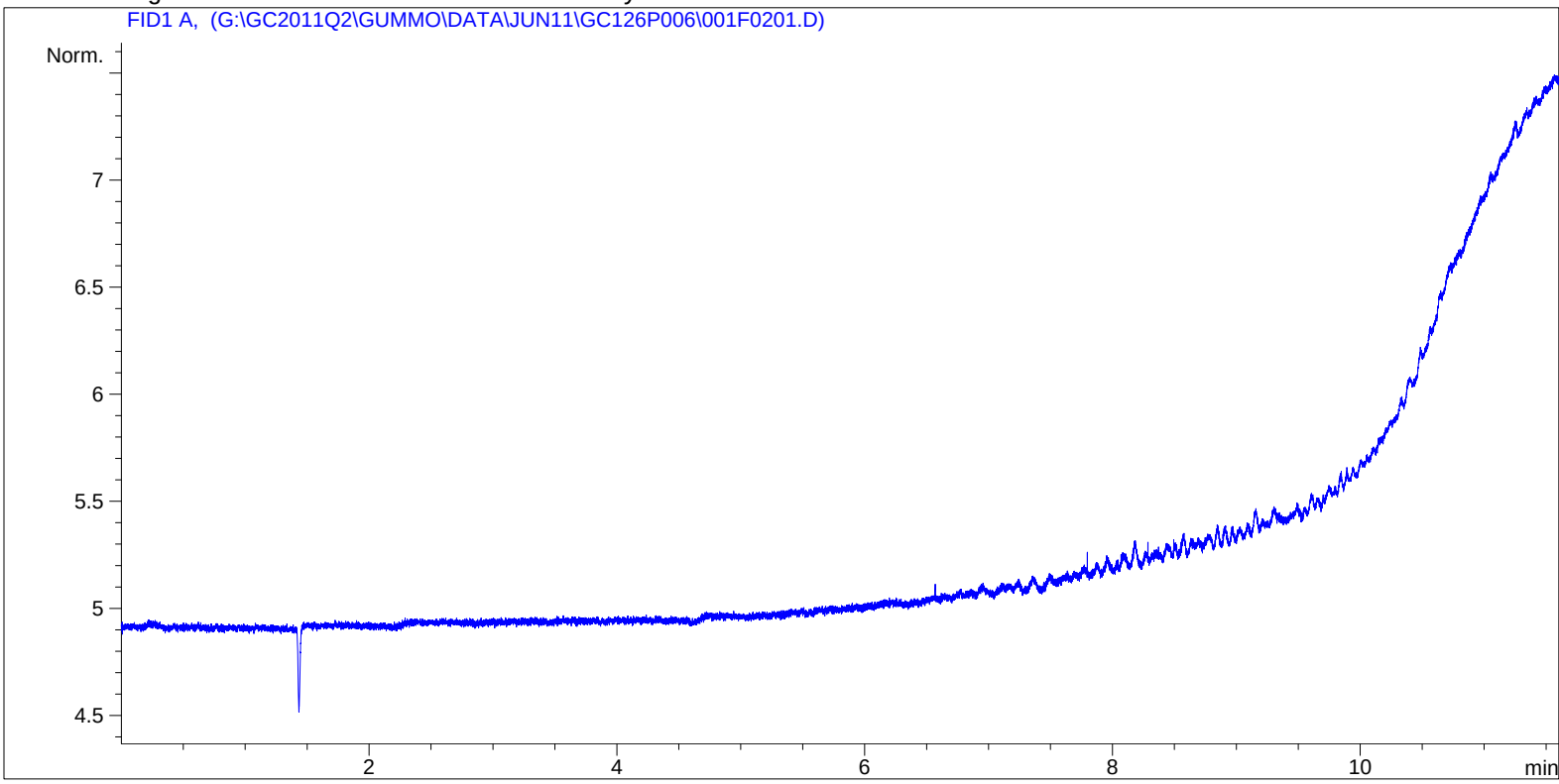
```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   4
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 01-Jul-11, 12:06:37                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -         1-3 Butadiene
  3.453            -          -          -         Acetonitrile
  3.591            -          -          -         Acrolein
  3.700            -          -          -         Acetone
  4.107            -          -          -         Acrylonitrile
  4.191            -          -          -         Pentane
  4.508            -          -          -         Methylene chloride
  5.781            -          -          -         Hexane
  6.497            -          -          -         Benzene
  6.890            -          -          -         Trichloroethene
  7.565            -          -          -         Toluene
  7.836            -          -          -         1,2 Dibromoethane
  7.981            -          -          -         Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\001F0201.D
Sample Name: N2 Blank

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 1
Injection Date  : 30-Jun-11, 12:42:59                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

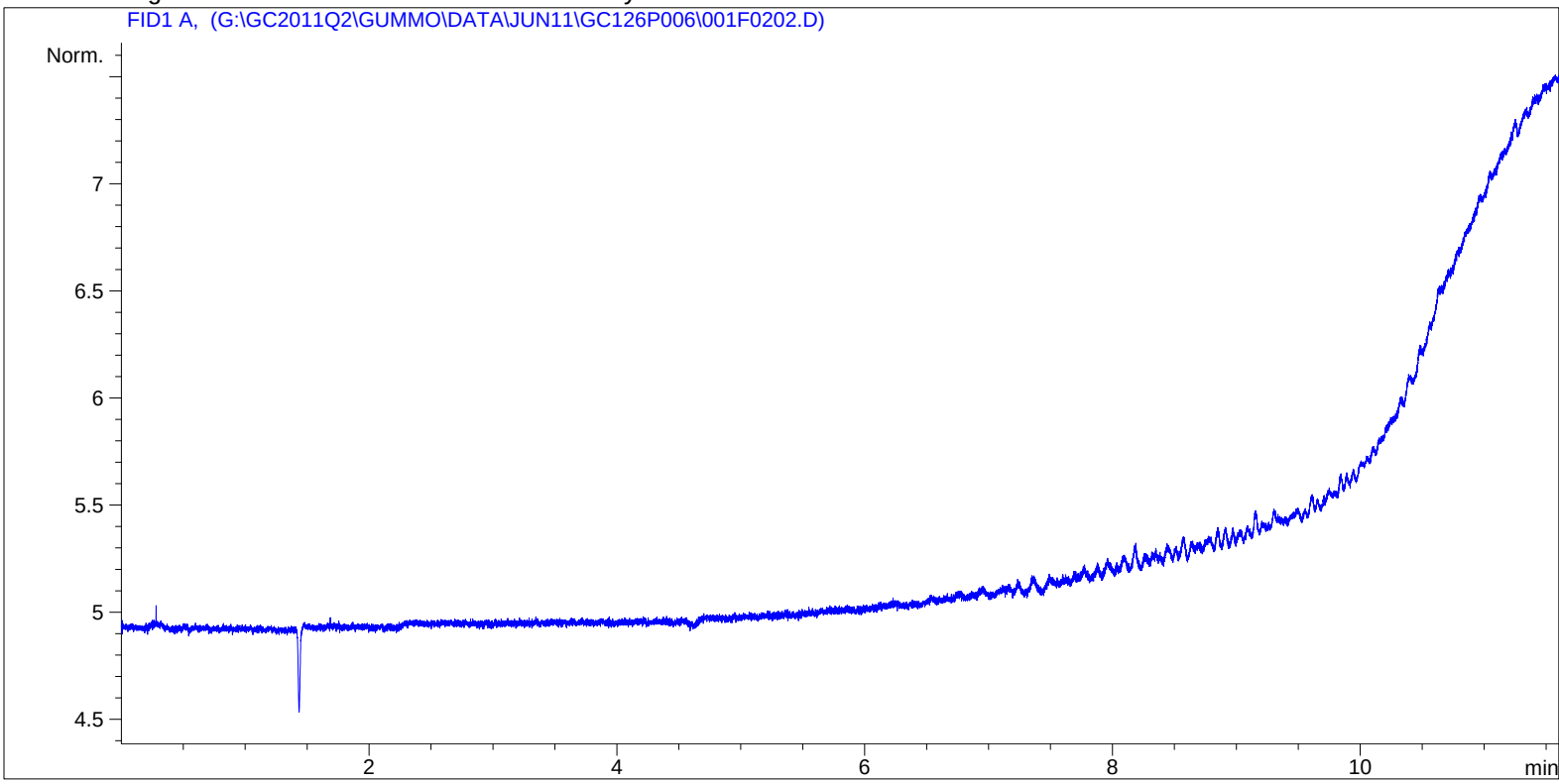



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,


Signal 2: FID2 B,    not found
```

RetTime [min]	Type	Area	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\001F0202.D
Sample Name: N2 Blank

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 1
Injection Date  : 30-Jun-11, 12:58:43                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

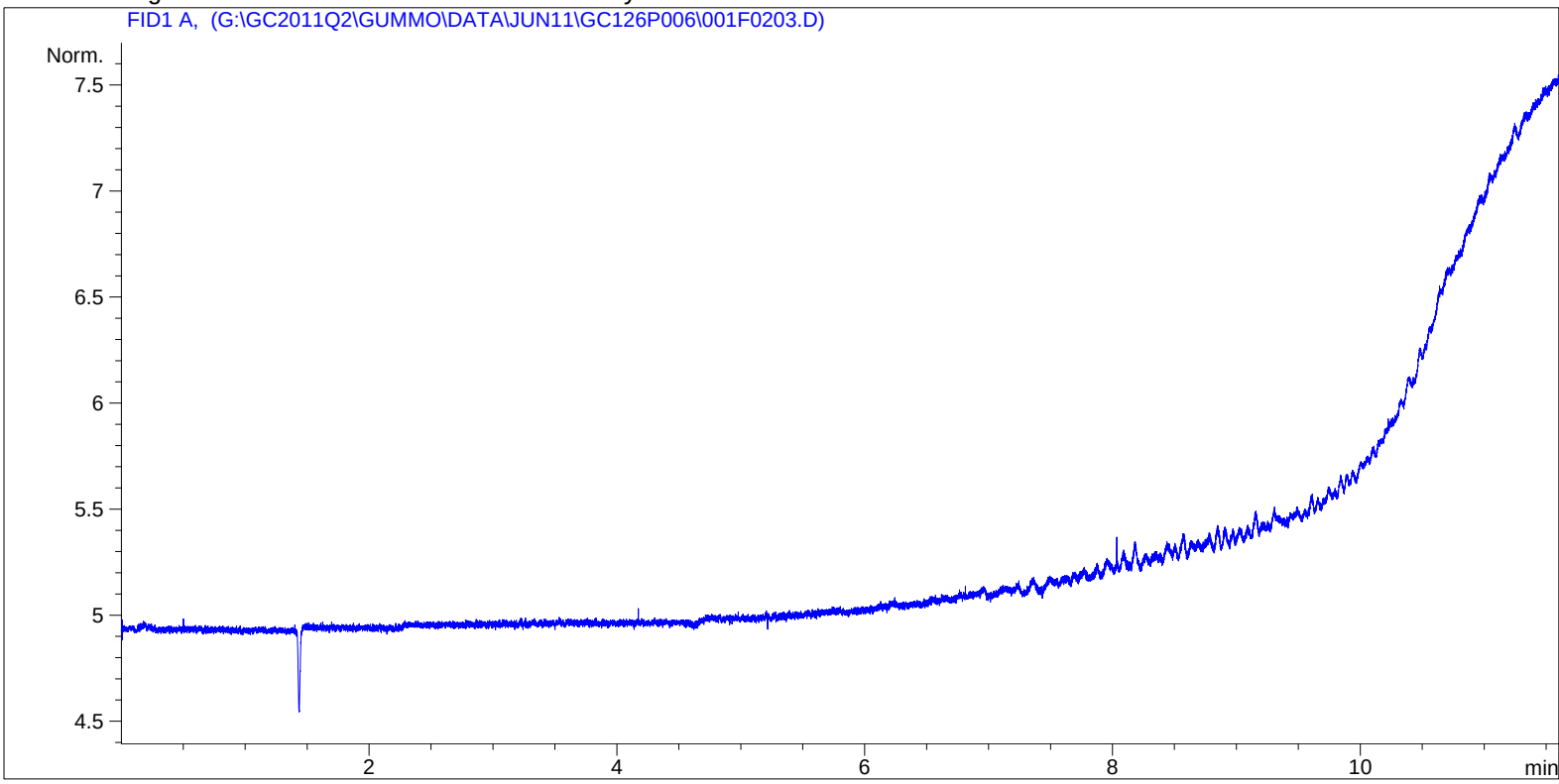



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,


Signal 2: FID2 B,    not found
```

RetTime [min]	Type	Area	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\001F0203.D
Sample Name: N2 Blank

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 1
Injection Date  : 30-Jun-11, 13:14:29                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

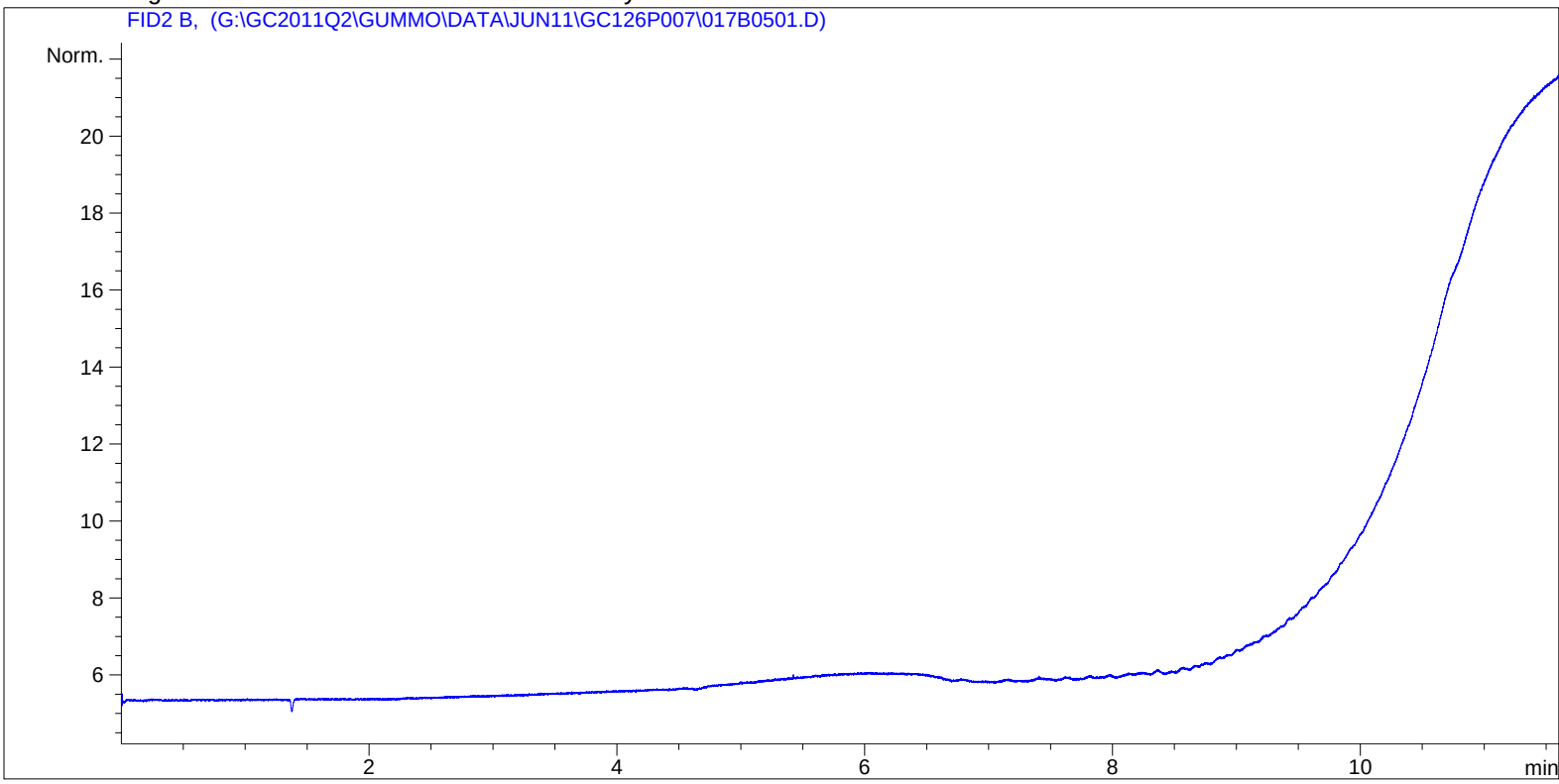



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,


Signal 2: FID2 B,    not found
```

RetTime [min]	Type	Area	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\017B0501.D
Sample Name: N2 Blank

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 17
Injection Date  : 01-Jul-11, 12:22:20                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

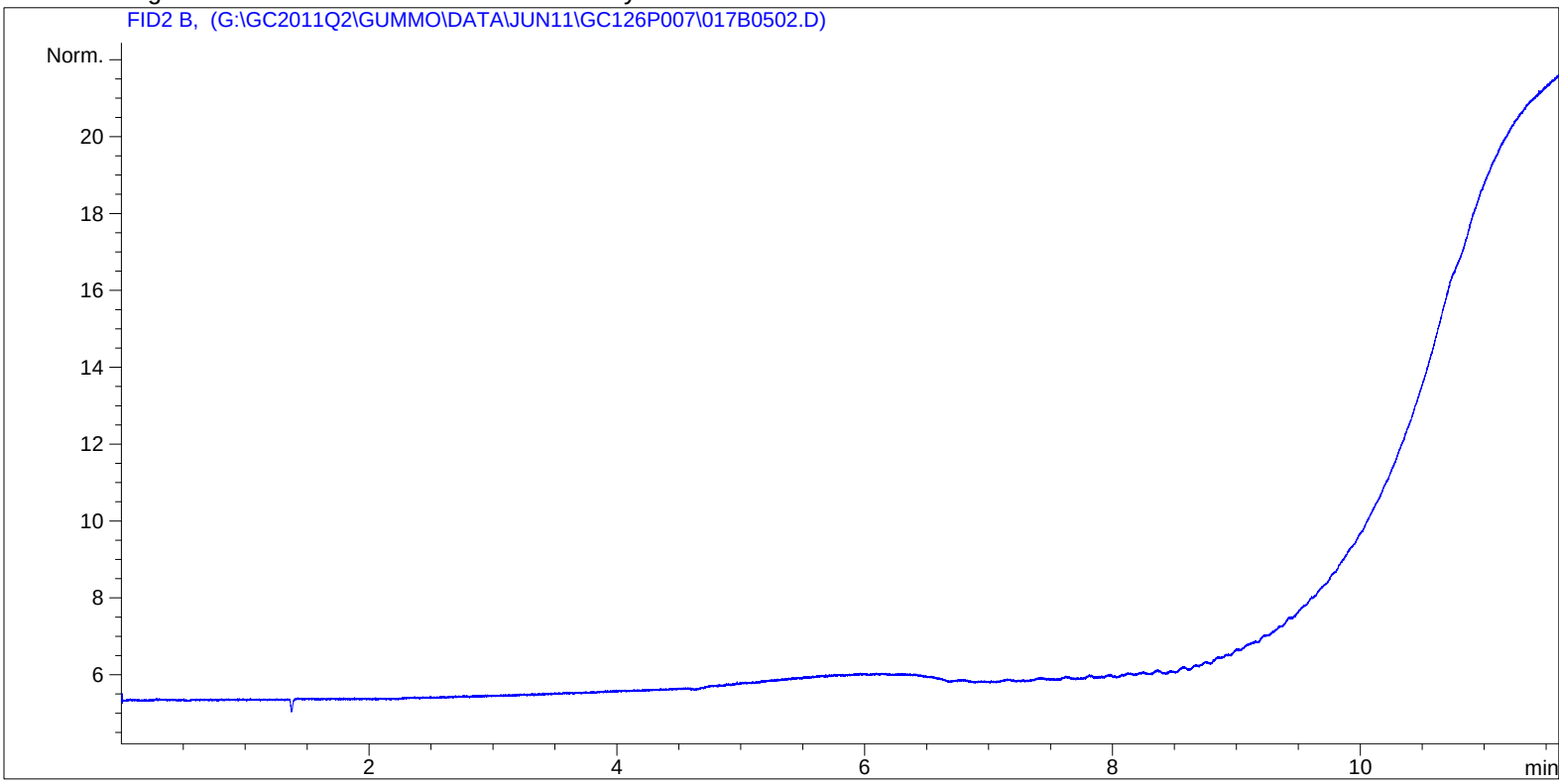



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\017B0502.D
Sample Name: N2 Blank

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 17
Injection Date  : 01-Jul-11, 12:38:23                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

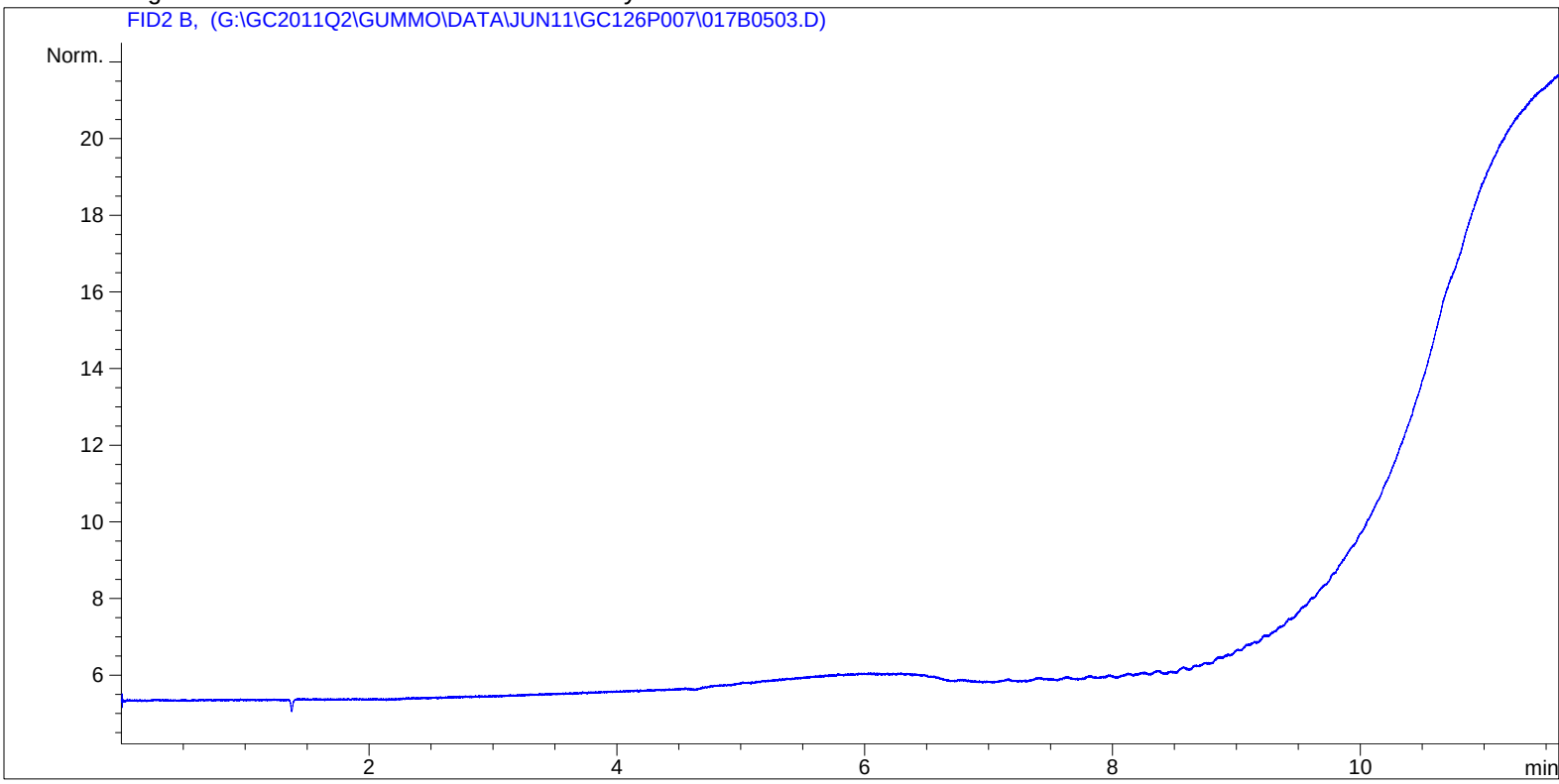



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\017B0503.D
Sample Name: N2 Blank

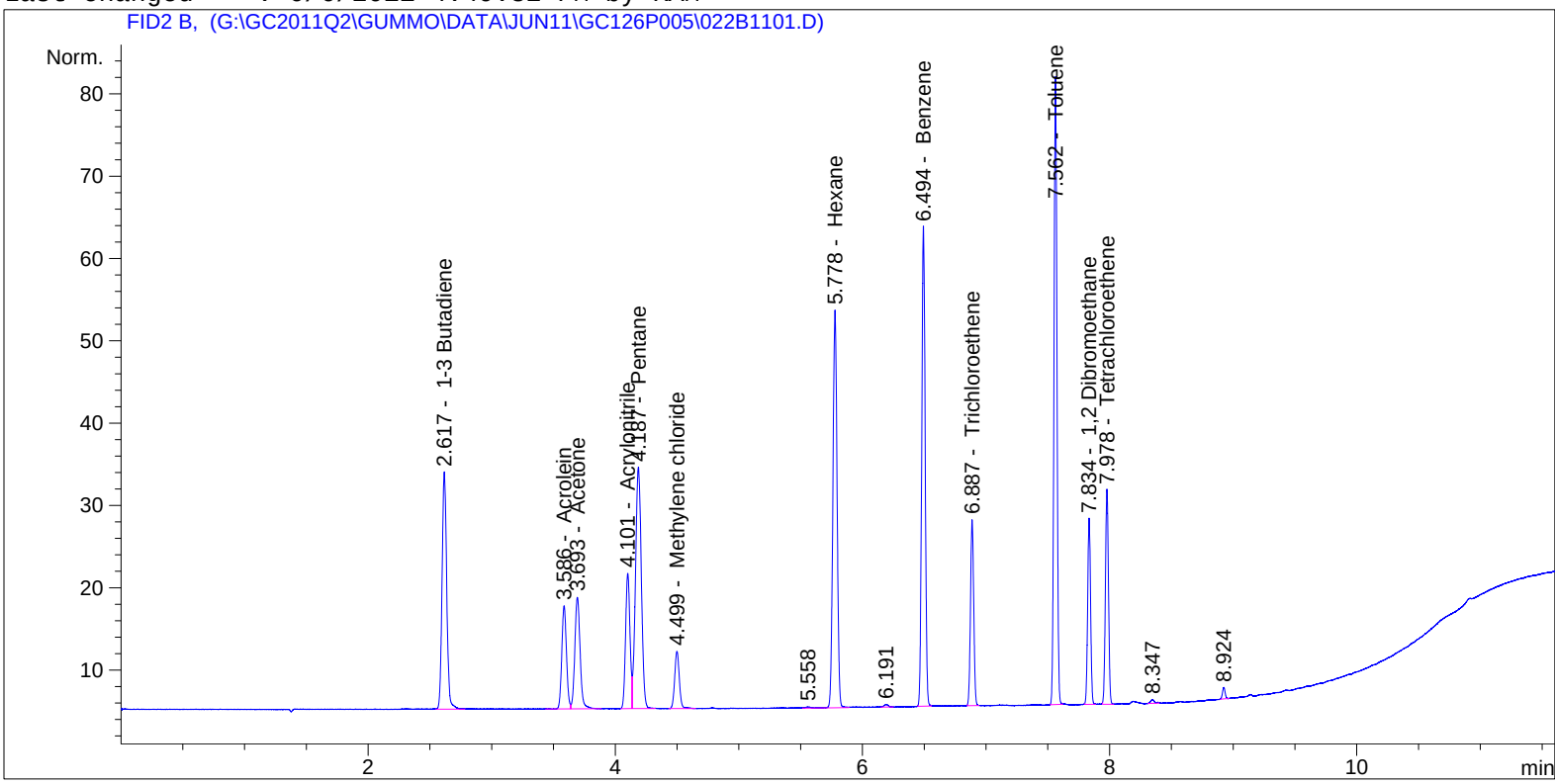
```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 17
Injection Date  : 01-Jul-11, 12:54:13                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -         1-3 Butadiene
  3.453            -          -          -         Acetonitrile
  3.591            -          -          -         Acrolein
  3.700            -          -          -         Acetone
  4.107            -          -          -         Acrylonitrile
  4.191            -          -          -         Pentane
  4.508            -          -          -         Methylene chloride
  5.781            -          -          -         Hexane
  6.497            -          -          -         Benzene
  6.890            -          -          -         Trichloroethene
  7.565            -          -          -         Toluene
  7.836            -          -          -         1,2 Dibromoethane
  7.981            -          -          -         Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\022B1101.D
Sample Name: gc119p176 #I4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  11
Acq. Instrument : Gummo online                  Location : Vial 22
Injection Date  : 29-Jun-11, 18:19:00                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

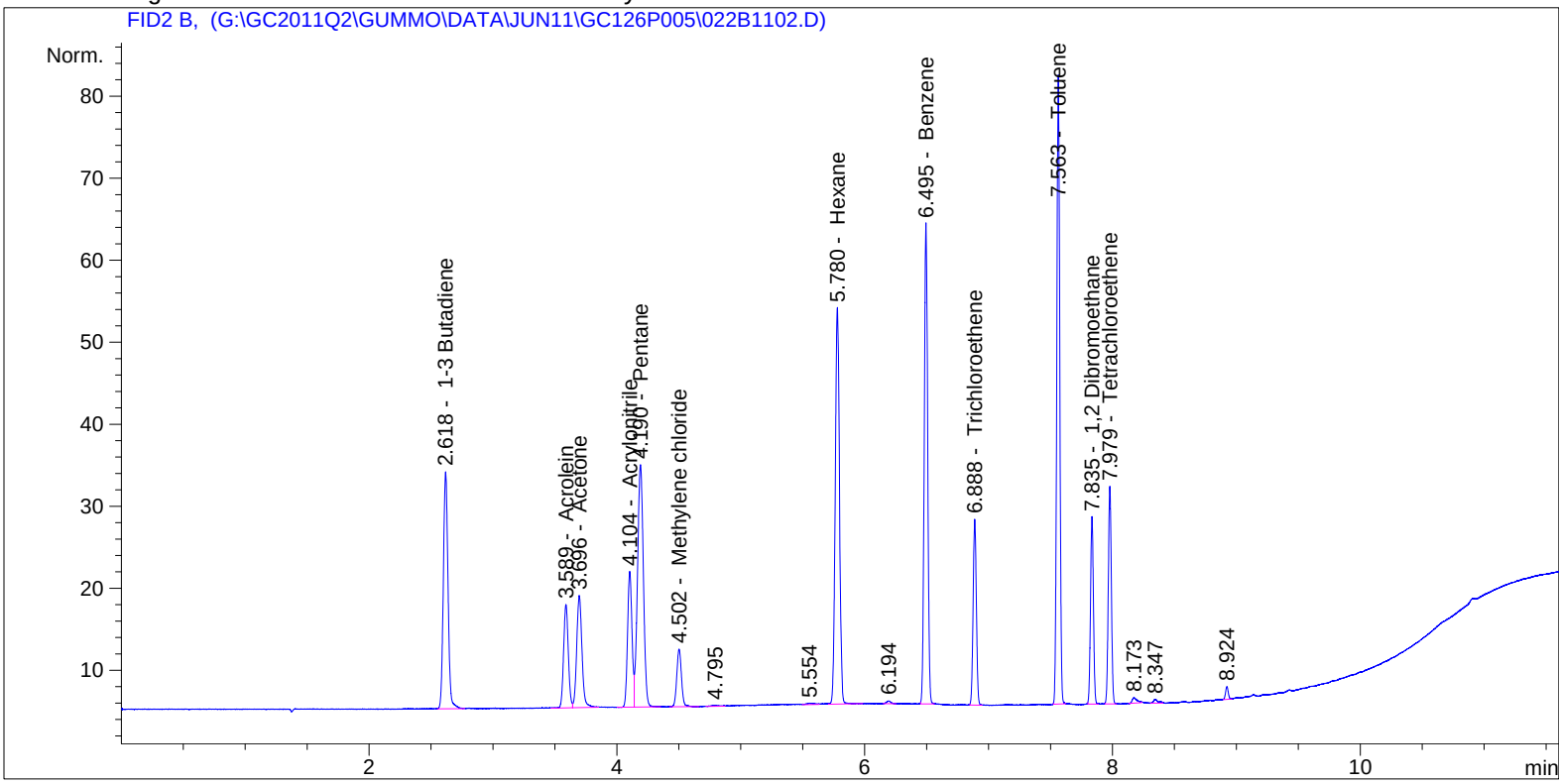



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	BV	75.53457	1.21281	91.60933		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.586	BV	32.93068	2.67296	88.02254		Acrolein
3.693	VB	40.19446	2.22631	89.48552		Acetone
4.101	BV	40.94700	2.03709	83.41273		Acrylonitrile
4.187	VB	96.68924	9.56985e-1	92.53013		Pentane
4.499	BB	18.04364	5.11386	92.27258		Methylene chloride
5.778	VV	114.16309	8.10403e-1	92.51813		Hexane
6.494	BB	113.46329	8.12111e-1	92.14477		Benzene
6.887	BB	41.04155	2.17907	89.43241		Trichloroethene
7.562	BB	129.71294	6.90555e-1	89.57388		Toluene
7.834	BB	37.36013	2.36780	88.46142		1,2 Dibromoethane
7.978	BB	45.38389	1.97968	89.84573		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\022B1102.D
Sample Name: gc119p176 #I4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  11
Acq. Instrument : Gummo online                  Location : Vial 22
Injection Date  : 29-Jun-11, 18:35:09                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	BB	75.80289	1.21279	91.93293		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.589	VV	33.06404	2.67290	88.37691		Acrolein
3.696	VB	40.16516	2.22633	89.42106		Acetone
4.104	BV	41.01126	2.03705	83.54180		Acrylonitrile
4.190	VB	97.26290	9.56963e-1	93.07699		Pentane
4.502	BB	18.36547	5.11337	93.90940		Methylene chloride
5.780	VB	114.86038	8.10378e-1	93.08031		Hexane
6.495	BB	114.03175	8.12090e-1	92.60402		Benzene
6.888	BB	41.30939	2.17885	90.00705		Trichloroethene
7.563	BB	130.02742	6.90529e-1	89.78776		Toluene
7.835	BB	37.53414	2.36769	88.86912		1,2 Dibromoethane
7.979	BB	45.62803	1.97956	90.32335		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\022B1103.D
Sample Name: gc119p176 #I4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  11
Acq. Instrument : Gummo online                  Location : Vial 22
Injection Date  : 29-Jun-11, 18:51:21                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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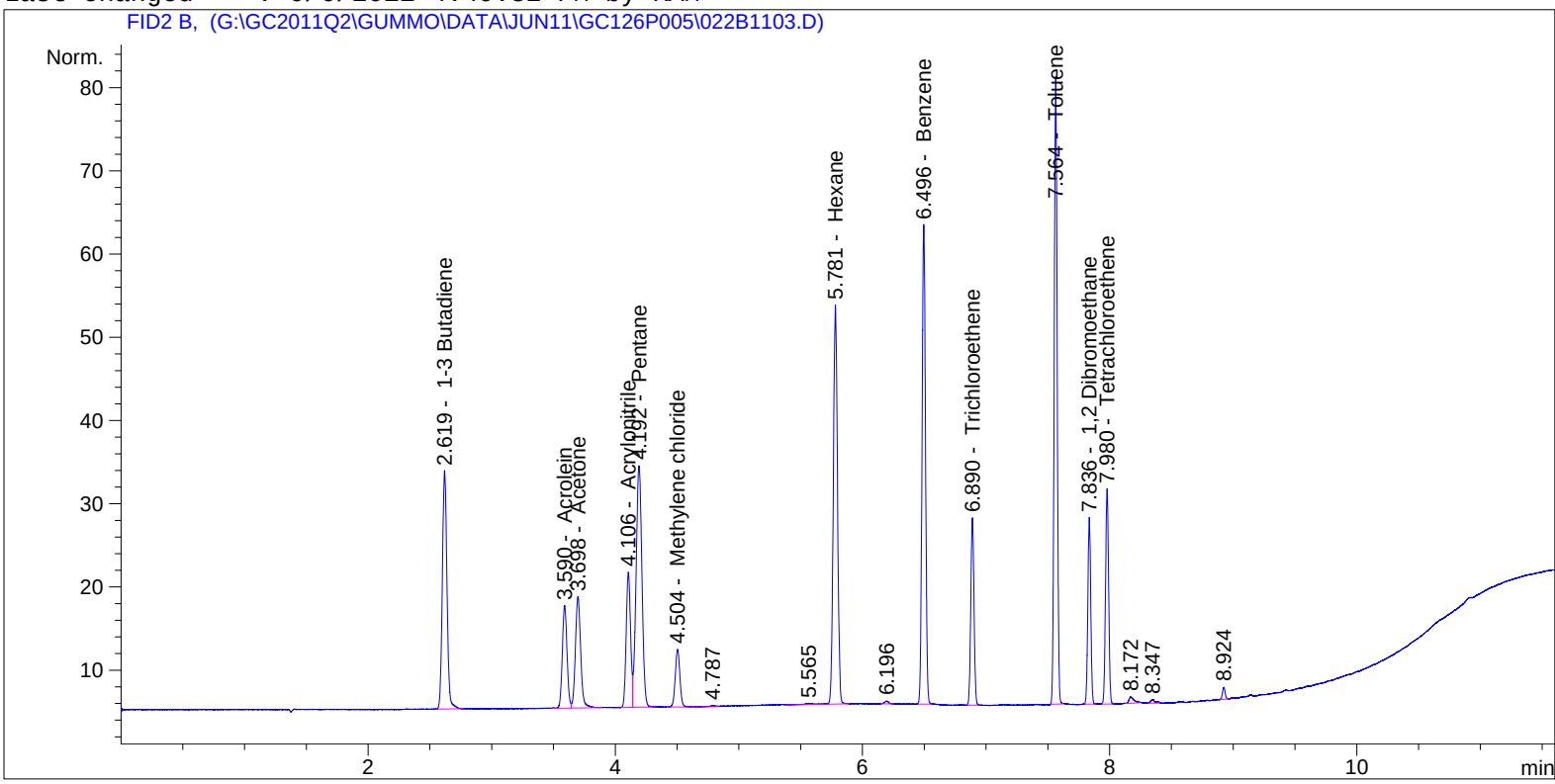


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.619	BB	74.48875	1.21291	90.34808		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.590	VV	32.46748	2.67319	86.79178		Acrolein
3.698	VB	39.54988	2.22675	88.06755		Acetone
4.106	BV	40.24249	2.03759	81.99754		Acrylonitrile
4.192	VB	95.64088	9.57025e-1	91.53074		Pentane
4.504	BB	18.03408	5.11387	92.22398		Methylene chloride
5.781	VB	112.66024	8.10459e-1	91.30648		Hexane
6.496	BB	112.26115	8.12156e-1	91.17358		Benzene
6.890	BB	40.61990	2.17942	88.52780		Trichloroethene
7.564	BB	127.78726	6.90712e-1	88.26423		Toluene
7.836	BB	36.87341	2.36813	87.32099		1,2 Dibromoethane
7.980	BB	44.86473	1.97995	88.83007		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\023B1201.D
Sample Name: gc119p173 #AN4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  12
Acq. Instrument : Gummo online                  Location : Vial 23
Injection Date  : 29-Jun-11, 19:07:43                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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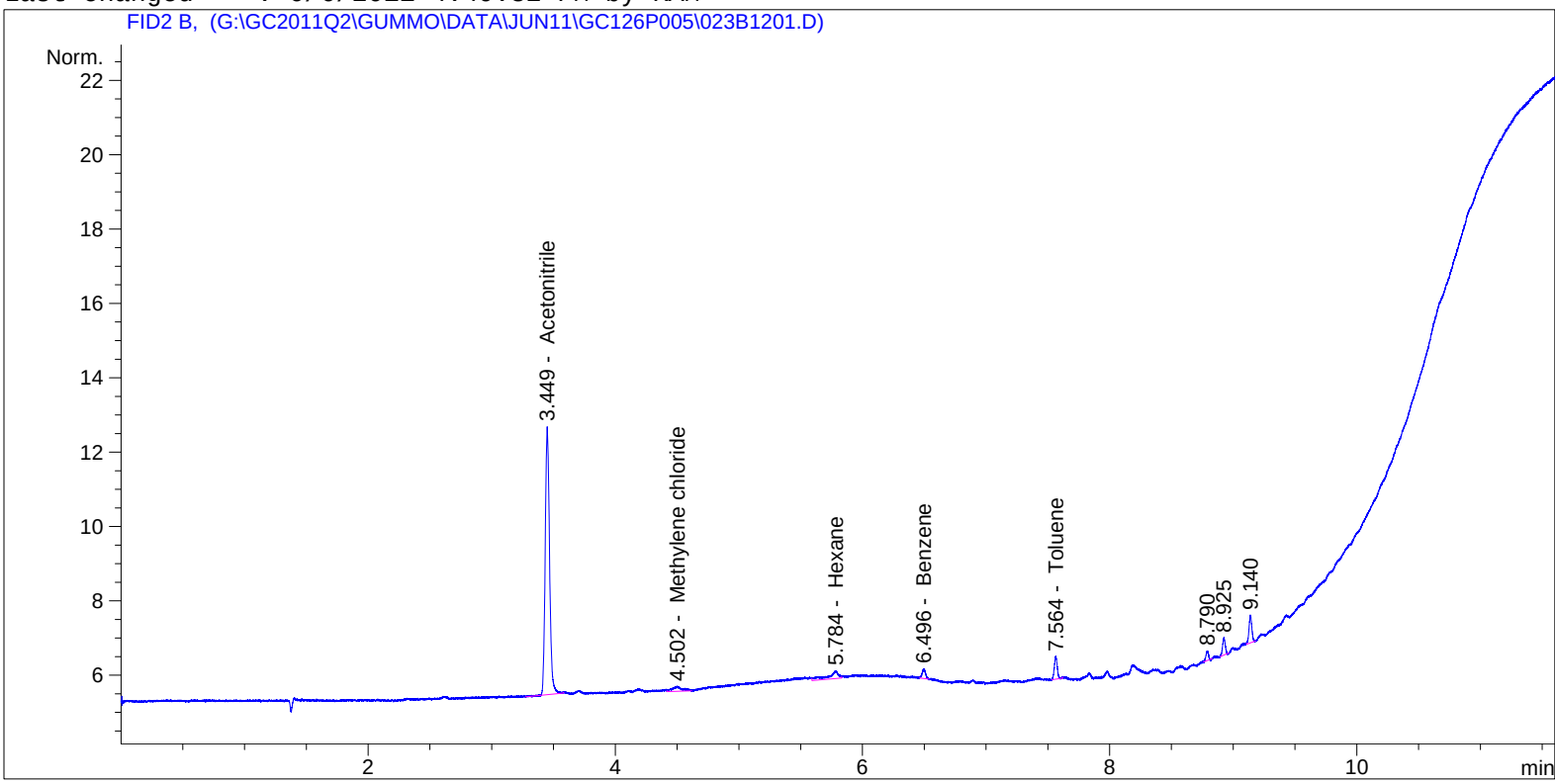


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|-----------------
  2.620           -           -          -          1-3 Butadiene
  3.449 VB       17.54895    3.56328   62.53190    Acetonitrile
  3.591           -           -          -          Acrolein
  3.700           -           -          -          Acetone
  4.107           -           -          -          Acrylonitrile
  4.191           -           -          -          Pentane
  4.502 VV     7.26140e-1    5.77944    4.19668    Methylene chloride
  5.784 VV        1.17238 9.89631e-1    1.16022    Hexane
  6.496 BB     4.76523e-1 9.94036e-1 4.73681e-1    Benzene
  6.890           -           -          -          Trichloroethene
  7.564 BB     9.92986e-1 9.35231e-1 9.28672e-1    Toluene
  7.836           -           -          -          1,2 Dibromoethane
  7.981           -           -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\023B1202.D
Sample Name: gc119p173 #AN4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  12
Acq. Instrument : Gummo online                  Location : Vial 23
Injection Date  : 29-Jun-11, 19:24:02                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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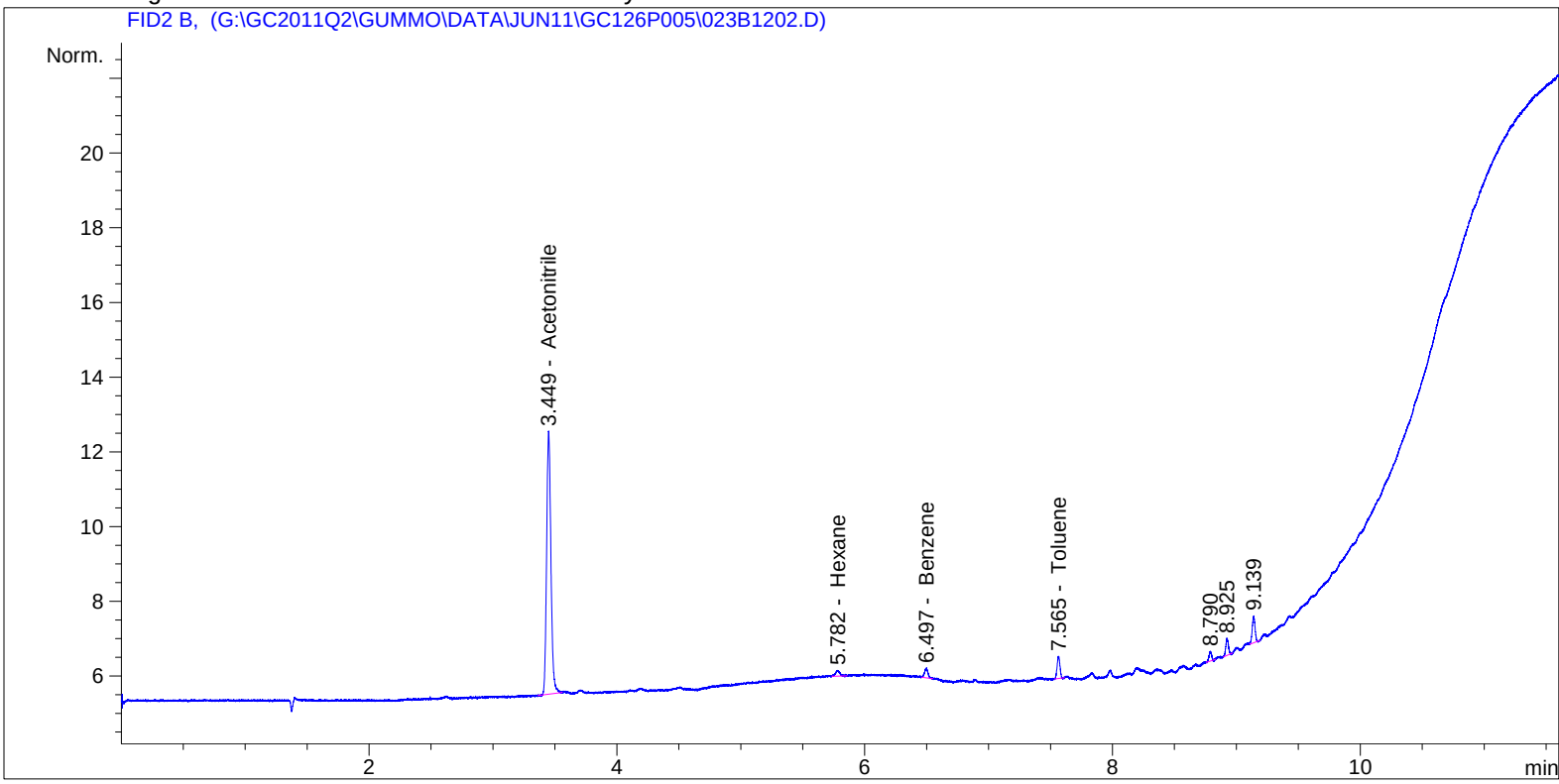


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==========================================================================
                      External Standard Report
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Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|-----------------
  2.620           -          -          -          1-3 Butadiene
  3.449 BB       17.02455    3.56456   60.68507    Acetonitrile
  3.591           -          -          -          Acrolein
  3.700           -          -          -          Acetone
  4.107           -          -          -          Acrylonitrile
  4.191           -          -          -          Pentane
  4.508           -          -          -          Methylene chloride
  5.782 BB     3.71828e-1 9.89631e-1 3.67972e-1    Hexane
  6.497 BB     4.77267e-1 9.94036e-1 4.74421e-1    Benzene
  6.890           -          -          -          Trichloroethene
  7.565 BB     9.38270e-1 9.35231e-1 8.77499e-1    Toluene
  7.836           -          -          -          1,2 Dibromoethane
  7.981           -          -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\023B1203.D
Sample Name: gc119p173 #AN4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  12
Acq. Instrument : Gummo online                  Location : Vial 23
Injection Date  : 29-Jun-11, 19:40:17                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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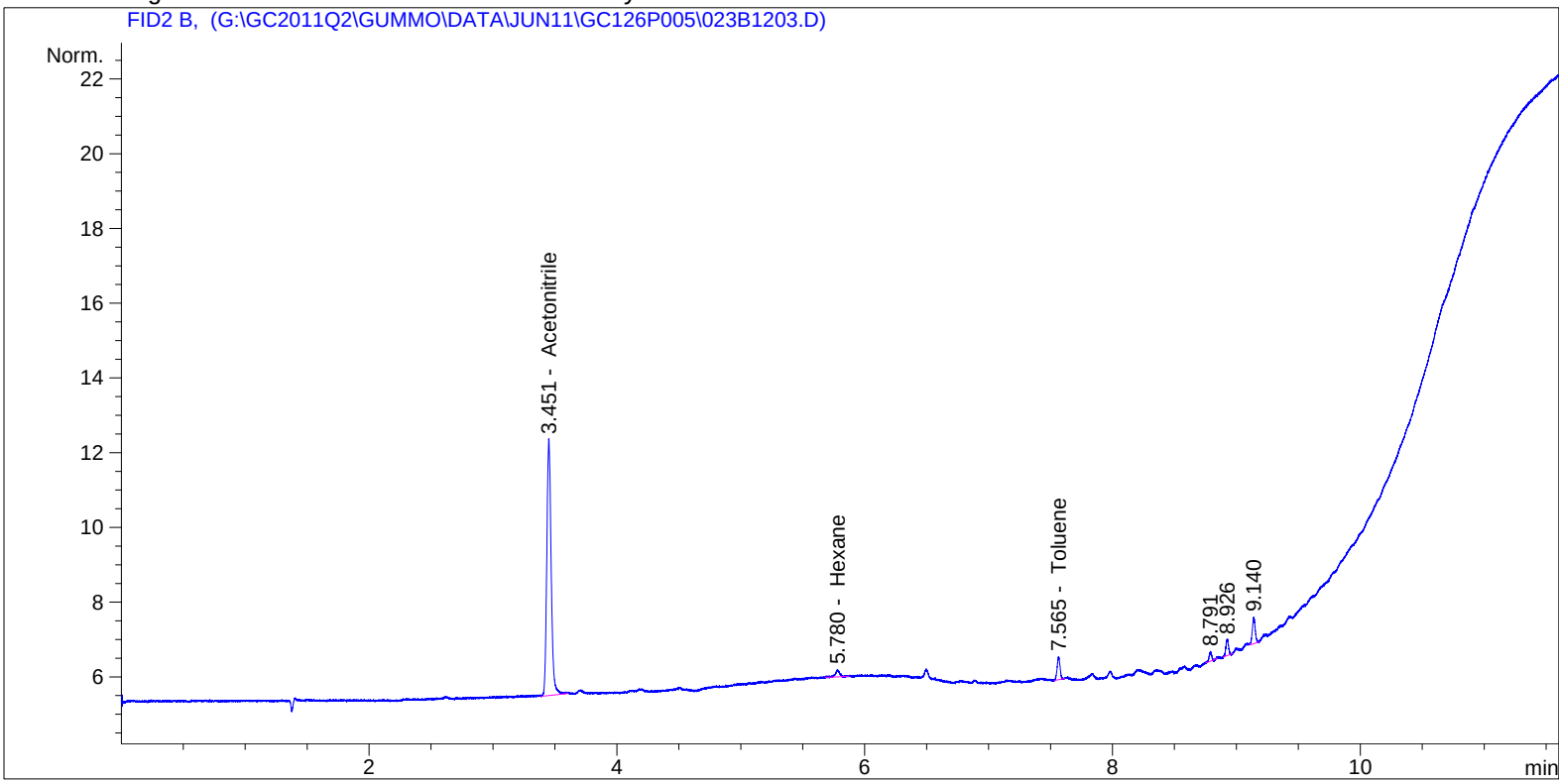


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.451	VB	16.86037	3.56498	60.10687		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.780	BB	4.49270e-1	9.89631e-1	4.44612e-1		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565	BB	9.88908e-1	9.35231e-1	9.24858e-1		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\022B0301.D
Sample Name: gc119p176 #I4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 22
Injection Date  : 30-Jun-11, 13:30:52                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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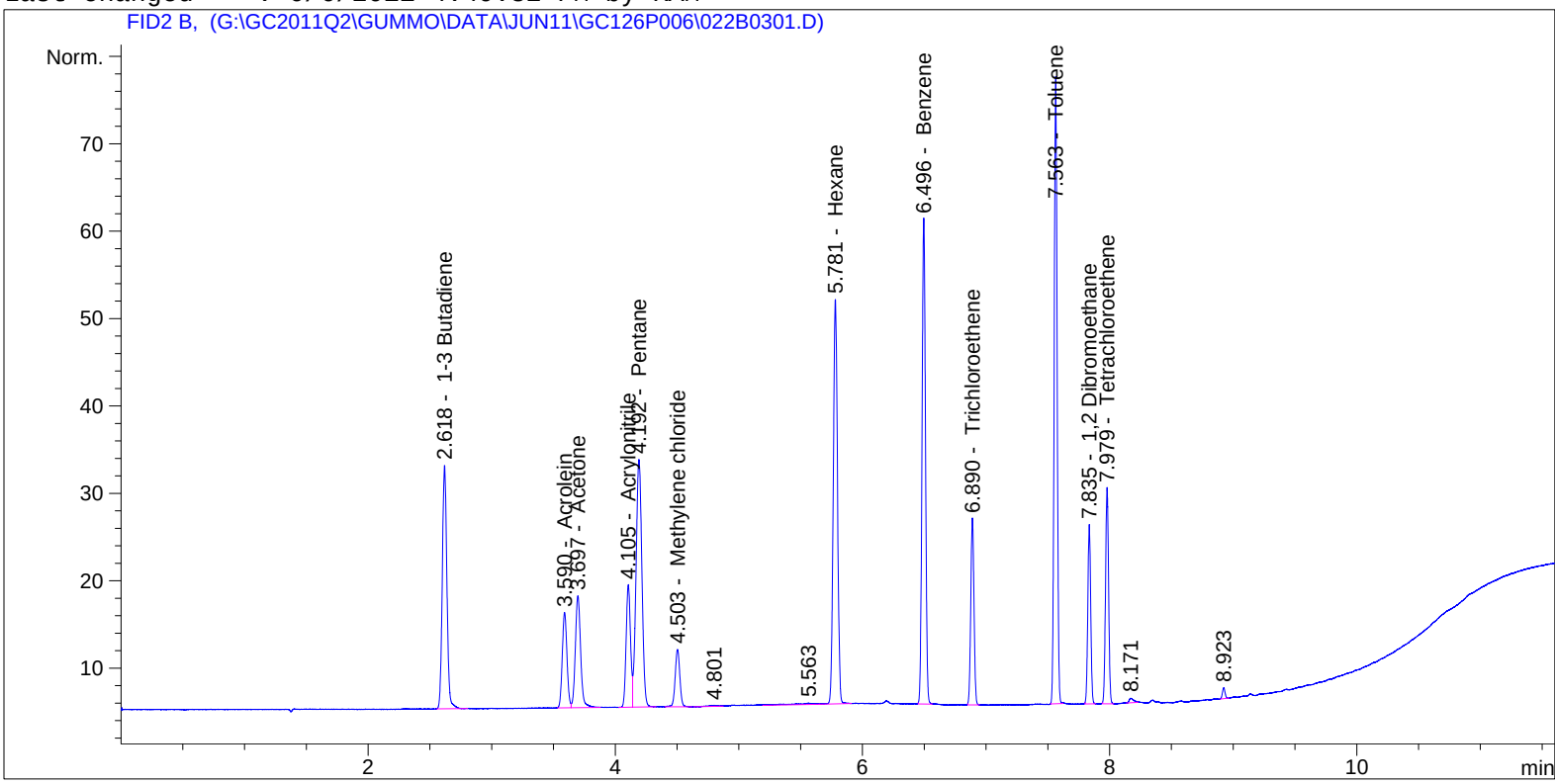


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	BB	72.56975	1.21309	88.03378		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.590	BV	28.79191	2.67525	77.02543		Acrolein
3.697	VB	37.93705	2.22789	84.51957		Acetone
4.105	VV	34.77966	2.04211	71.02399		Acrylonitrile
4.192	VB	93.34371	9.57117e-1	89.34087		Pentane
4.503	BB	17.09199	5.11541	87.43255		Methylene chloride
5.781	VB	109.63136	8.10576e-1	88.86451		Hexane
6.496	BB	107.88291	8.12329e-1	87.63646		Benzene
6.890	BB	38.83654	2.18098	84.70177		Trichloroethene
7.563	BB	120.80644	6.91325e-1	83.51657		Toluene
7.835	BB	33.72631	2.37047	79.94711		1,2 Dibromoethane
7.979	BB	42.67411	1.98117	84.54449		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\022B0302.D
Sample Name: gc119p176 #I4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 22
Injection Date  : 30-Jun-11, 13:47:13                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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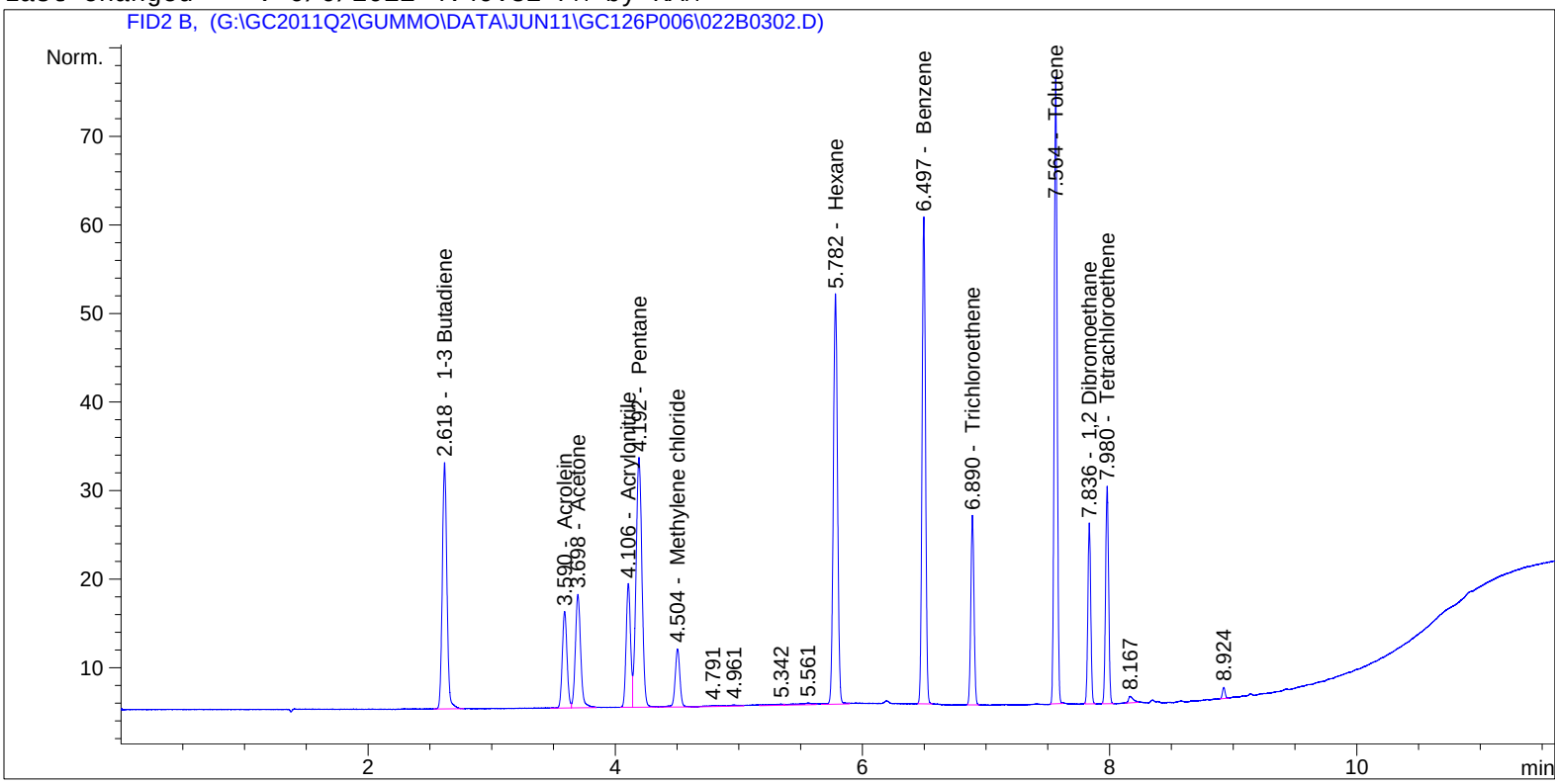


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==========================================================================
                      External Standard Report
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Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	BB	72.48125	1.21310	87.92706		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.590	VV	28.81518	2.67523	77.08725		Acrolein
3.698	VV	38.07616	2.22779	84.82559		Acetone
4.106	BV	34.64932	2.04224	70.76218		Acrylonitrile
4.192	VB	93.41827	9.57114e-1	89.41195		Pentane
4.504	BB	17.50394	5.11472	89.52772		Methylene chloride
5.782	VB	109.96703	8.10562e-1	89.13513		Hexane
6.497	BB	107.56522	8.12342e-1	87.37980		Benzene
6.890	BB	38.71298	2.18109	84.43668		Trichloroethene
7.564	BB	120.48107	6.91356e-1	83.29529		Toluene
7.836	BB	33.63121	2.37054	79.72428		1,2 Dibromoethane
7.980	BB	42.55186	1.98124	84.30534		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\022B0303.D
Sample Name: gc119p176 #I4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 22
Injection Date  : 30-Jun-11, 14:03:32                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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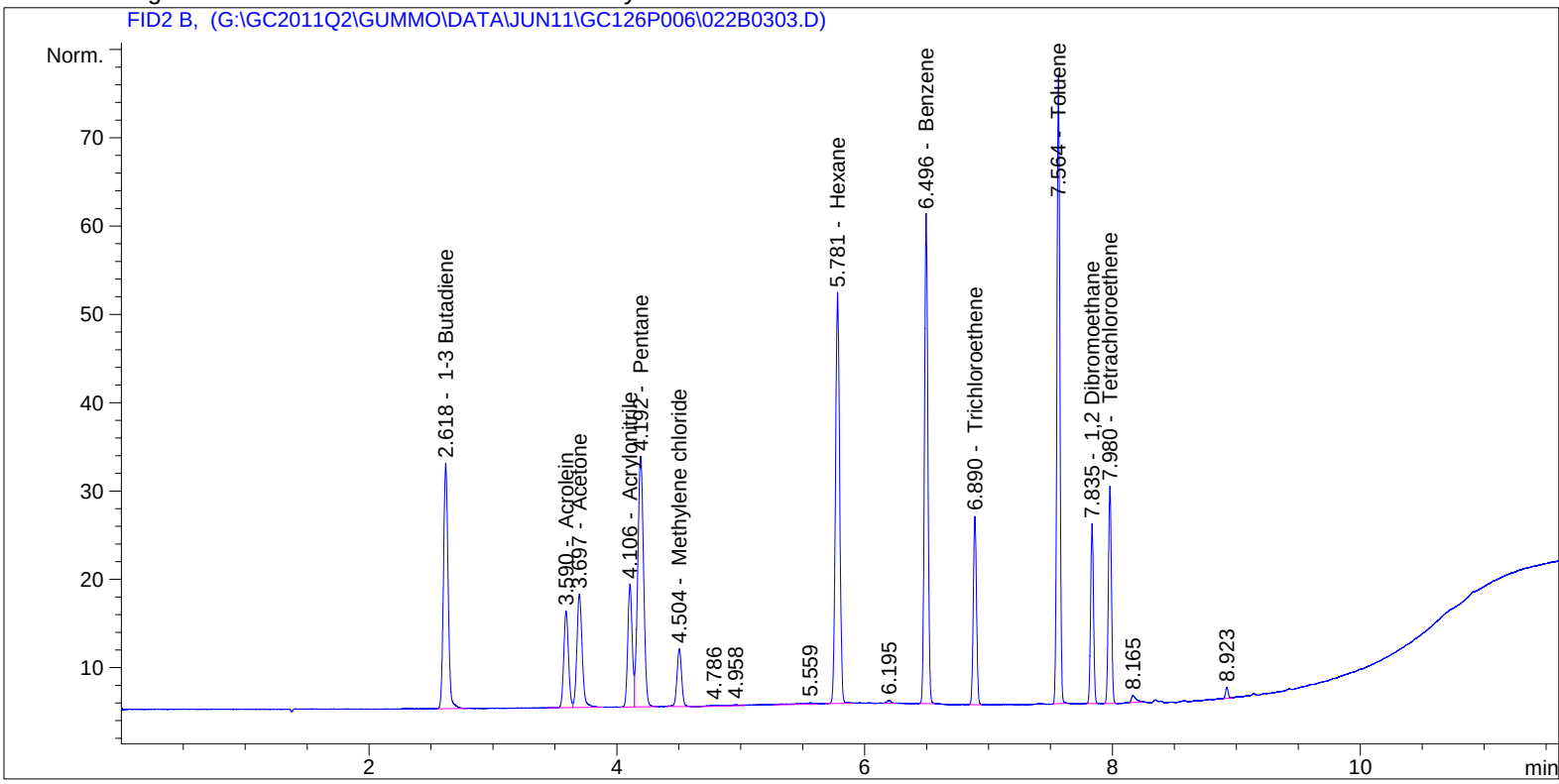


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==========================================================================
                      External Standard Report
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Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	BB	72.46849	1.21310	87.91166		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.590	BV	28.64380	2.67534	76.63188		Acrolein
3.697	VB	38.01401	2.22783	84.68887		Acetone
4.106	VV	34.66272	2.04223	70.78908		Acrylonitrile
4.192	VB	93.19069	9.57124e-1	89.19500		Pentane
4.504	BB	17.05421	5.11548	87.24043		Methylene chloride
5.781	VB	109.44030	8.10583e-1	88.71047		Hexane
6.496	BB	107.57563	8.12342e-1	87.38821		Benzene
6.890	BB	38.69870	2.18111	84.40604		Trichloroethene
7.564	BB	120.44083	6.91360e-1	83.26792		Toluene
7.835	BB	33.58281	2.37058	79.61088		1,2 Dibromoethane
7.980	BB	42.53112	1.98125	84.26477		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\023B0401.D
Sample Name: gc119p173 #AN4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   4
Acq. Instrument : Gummo online                  Location : Vial 23
Injection Date  : 30-Jun-11, 14:20:00                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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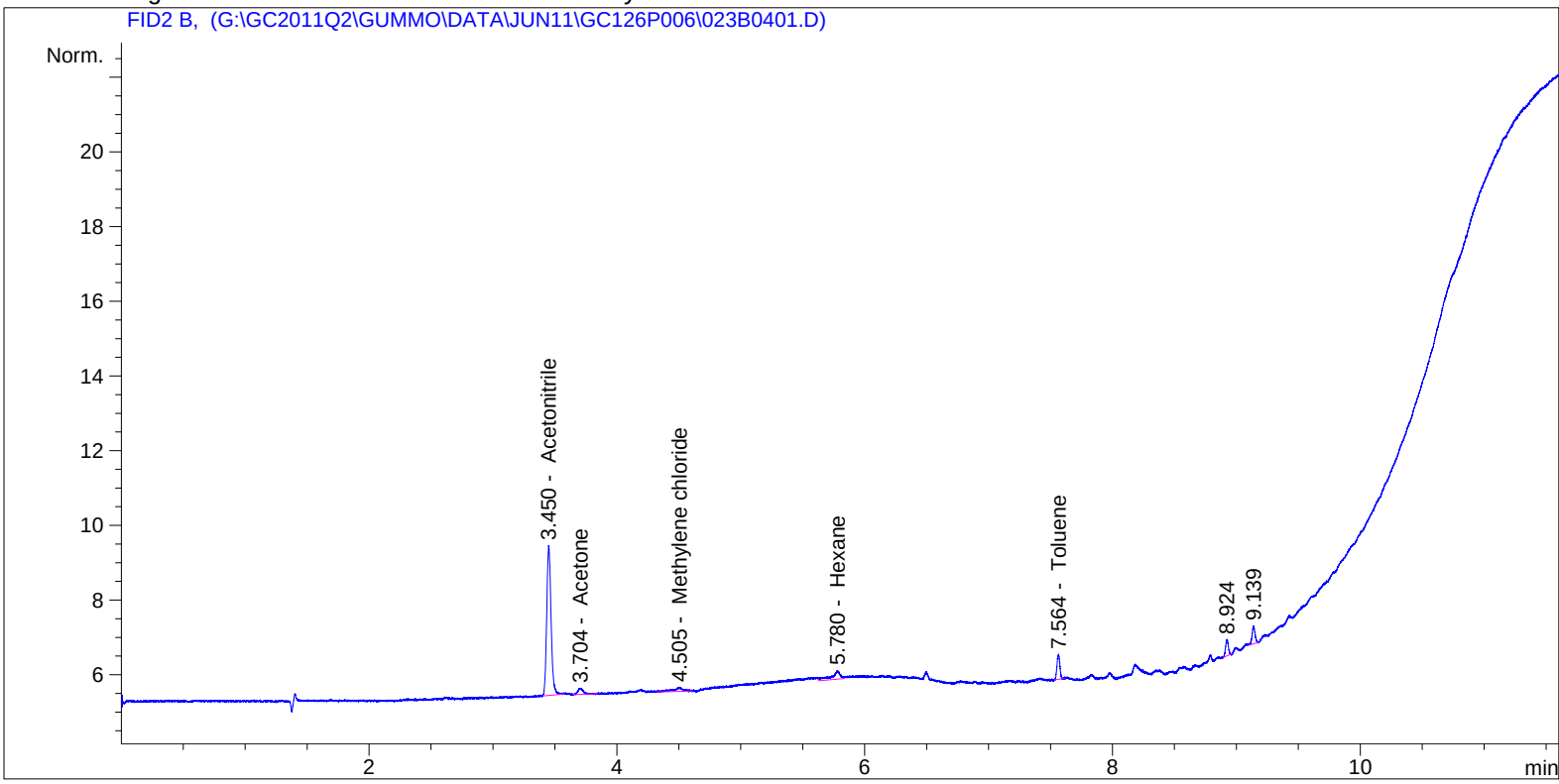


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|-----------------
  2.620           -           -          -          1-3 Butadiene
  3.450 BB        9.78656     3.59619    35.19431   Acetonitrile
  3.591           -           -          -          Acrolein
  3.704 BB     4.96584e-1     2.79611     1.38850   Acetone
  4.107           -           -          -          Acrylonitrile
  4.191           -           -          -          Pentane
  4.505 BB     6.32268e-1     5.88240     3.71925   Methylene chloride
  5.780 VV        1.08750 9.89631e-1     1.07622   Hexane
  6.497           -           -          -          Benzene
  6.890           -           -          -          Trichloroethene
  7.564 BB        1.07555 9.35231e-1     1.00589   Toluene
  7.836           -           -          -          1,2 Dibromoethane
  7.981           -           -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\023B0402.D
Sample Name: gc119p173 #AN4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   4
Acq. Instrument : Gummo online                  Location : Vial 23
Injection Date  : 30-Jun-11, 14:36:23                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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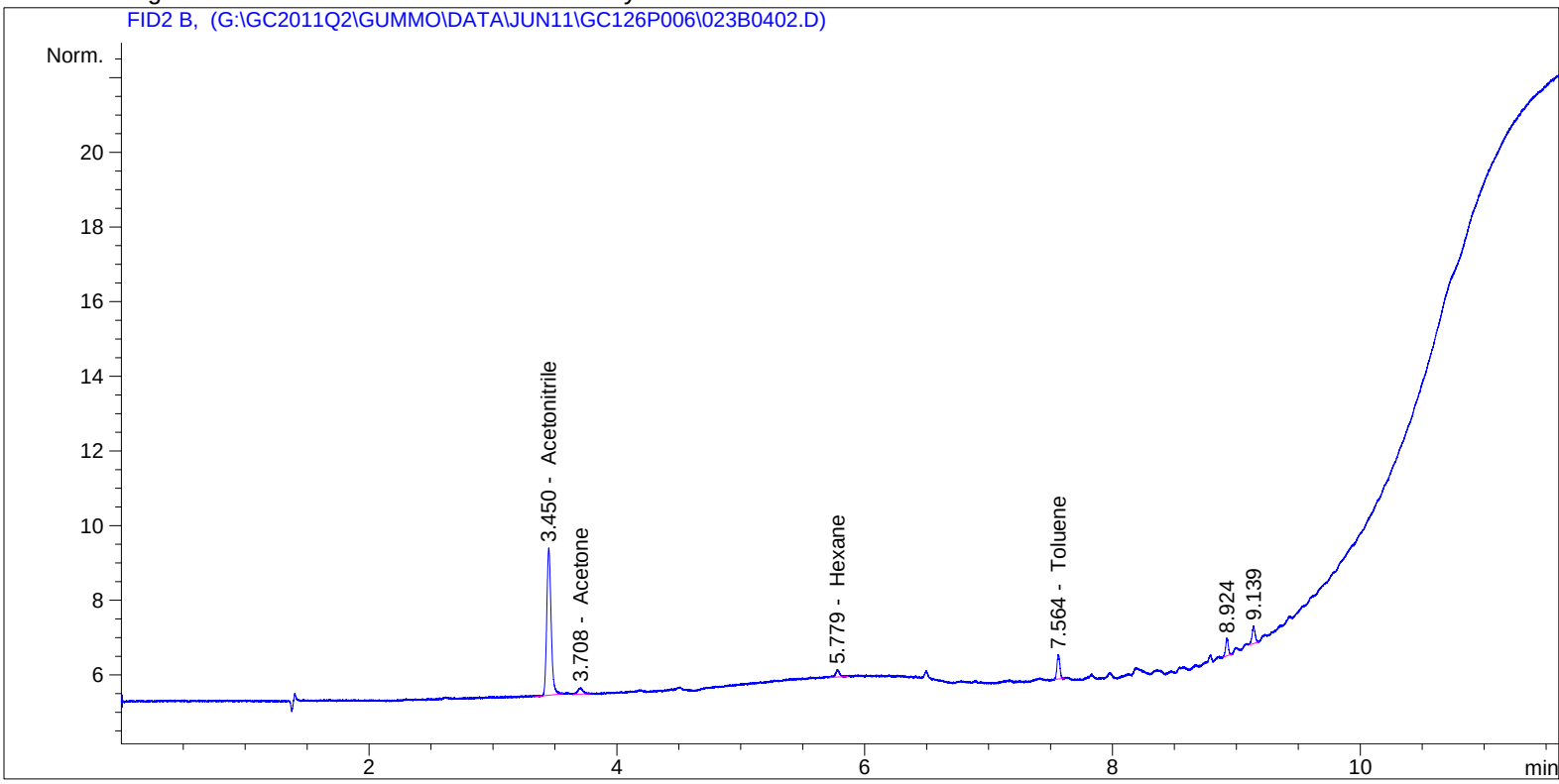


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|-----------------
  2.620           -           -          -          1-3 Butadiene
  3.450 VB        9.65801     3.59718    34.74158   Acetonitrile
  3.591           -           -          -          Acrolein
  3.708 BV     4.69098e-1     2.79611     1.31165   Acetone
  4.107           -           -          -          Acrylonitrile
  4.191           -           -          -          Pentane
  4.508           -           -          -          Methylene chloride
  5.779 BB     4.39002e-1 9.89631e-1 4.34450e-1    Hexane
  6.497           -           -          -          Benzene
  6.890           -           -          -          Trichloroethene
  7.564 BB        1.04150 9.35231e-1 9.74045e-1    Toluene
  7.836           -           -          -          1,2 Dibromoethane
  7.981           -           -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\023B0403.D
Sample Name: gc119p173 #AN4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   4
Acq. Instrument : Gummo online                  Location : Vial 23
Injection Date  : 30-Jun-11, 14:52:42                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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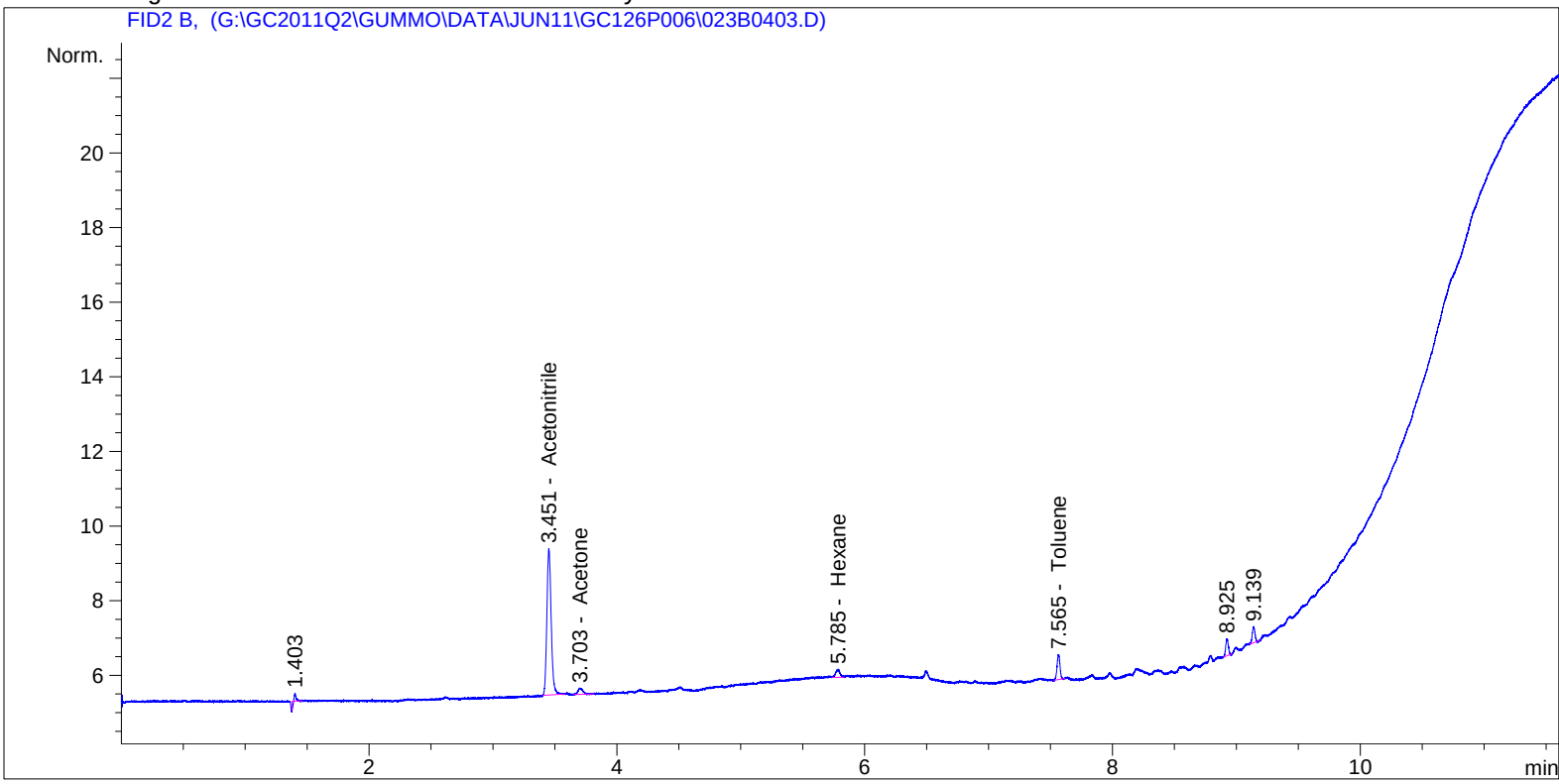


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|-----------------
  2.620           -           -          -          1-3 Butadiene
  3.451 BB        9.48625     3.59854    34.13667   Acetonitrile
  3.591           -           -          -          Acrolein
  3.703 BB     4.42128e-1     2.79611     1.23624   Acetone
  4.107           -           -          -          Acrylonitrile
  4.191           -           -          -          Pentane
  4.508           -           -          -          Methylene chloride
  5.785 BV     5.07579e-1 9.89631e-1 5.02316e-1    Hexane
  6.497           -           -          -          Benzene
  6.890           -           -          -          Trichloroethene
  7.565 BB        1.08797 9.35231e-1     1.01750    Toluene
  7.836           -           -          -          1,2 Dibromoethane
  7.981           -           -          -          Tetrachloroethene
```
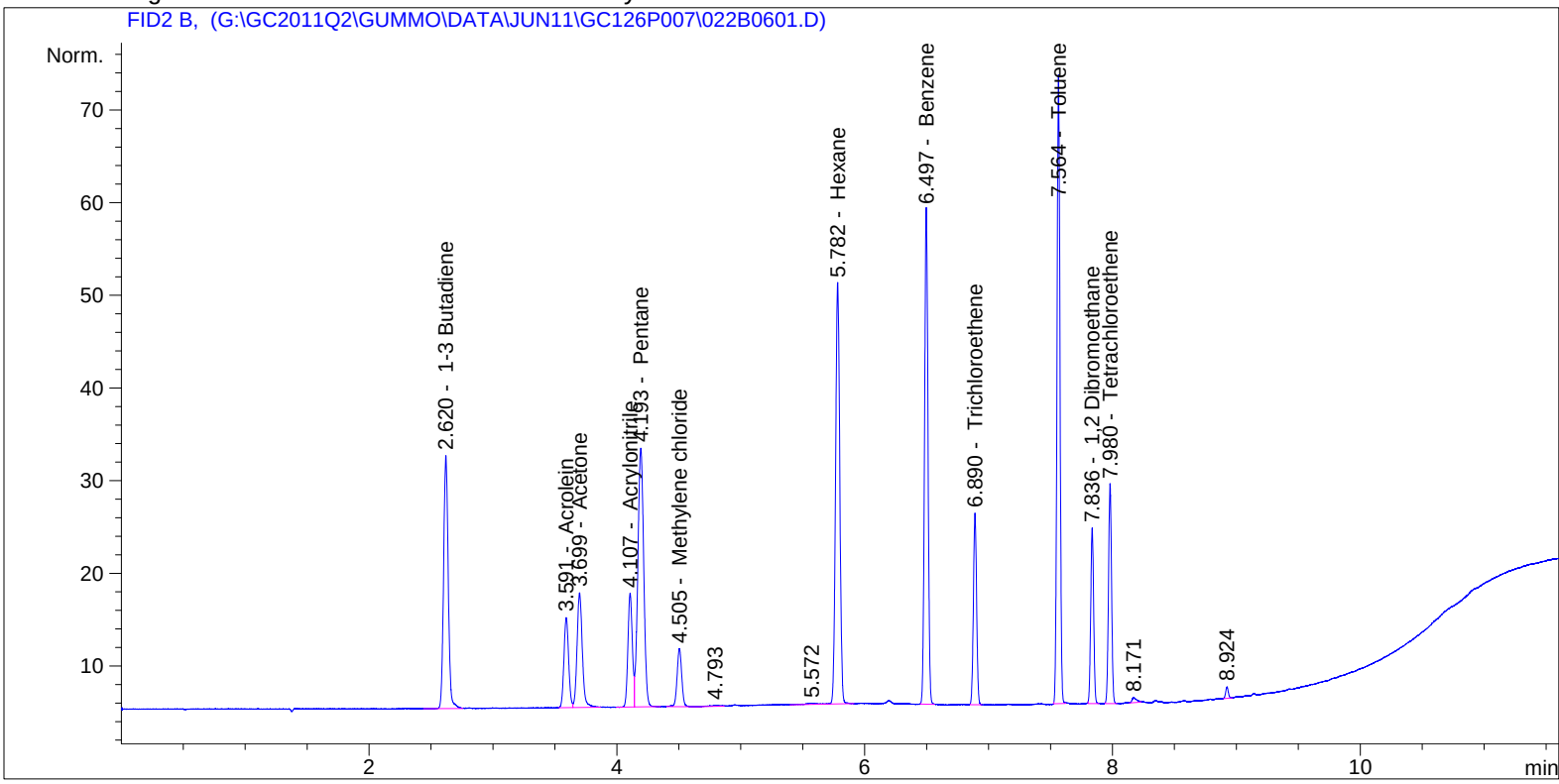

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\022B0601.D
Sample Name: gc119p176 #I4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 22
Injection Date  : 01-Jul-11, 13:10:43                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

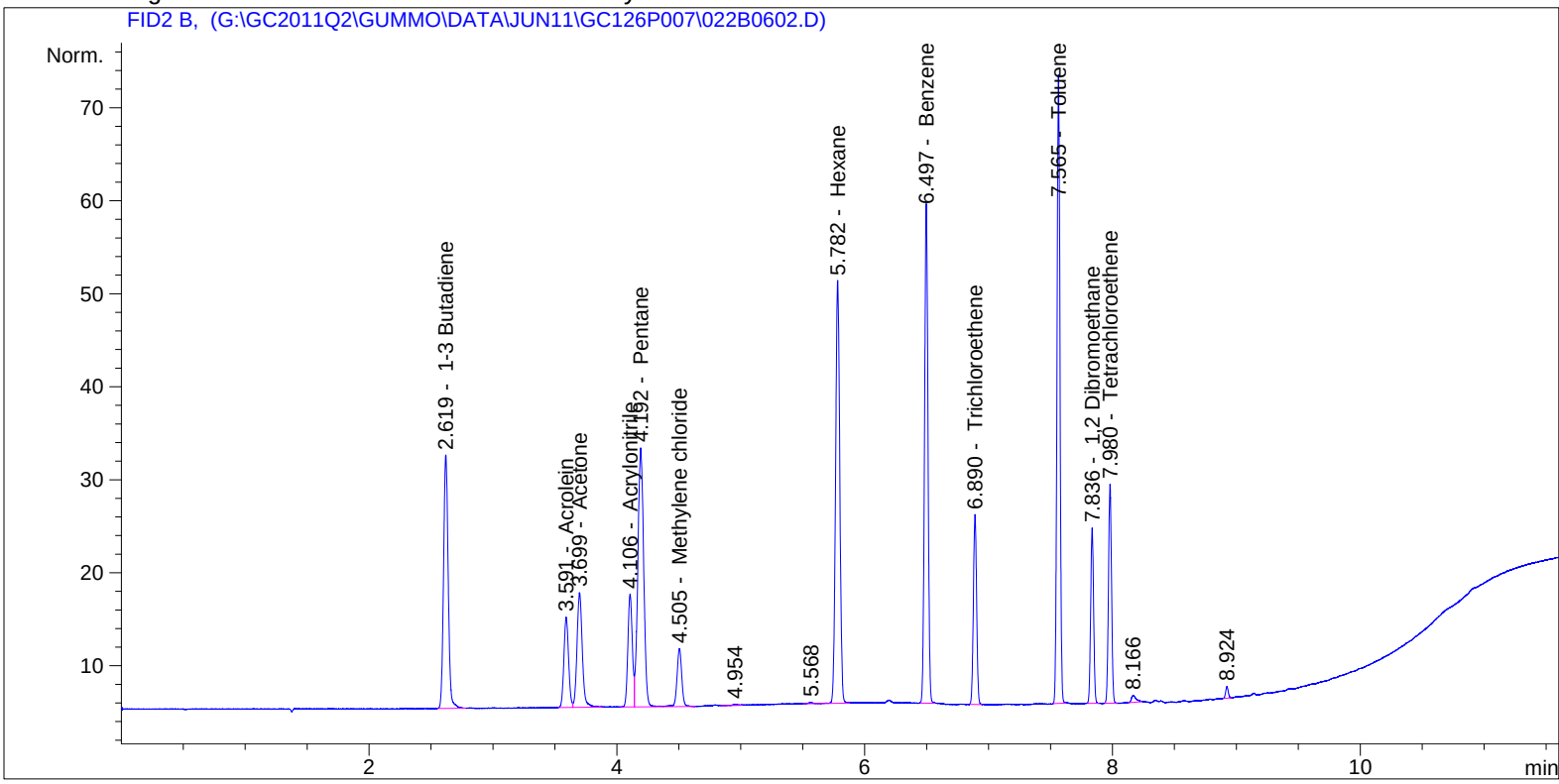



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620	BV	71.23212	1.21323	86.42061		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591	BV	25.56408	2.67754	68.44874		Acrolein
3.699	VB	36.51483	2.22898	81.39092		Acetone
4.107	BV	30.26474	2.04709	61.95460		Acrylonitrile
4.193	VB	91.77237	9.57183e-1	87.84293		Pentane
4.505	BV	16.30027	5.11684	83.40591		Methylene chloride
5.782	VB	107.50031	8.10662e-1	87.14639		Hexane
6.497	BB	104.02074	8.12494e-1	84.51627		Benzene
6.890	BB	37.29638	2.18245	81.39748		Trichloroethene
7.564	BB	114.85107	6.91908e-1	79.46632		Toluene
7.836	BB	31.21063	2.37268	74.05270		1,2 Dibromoethane
7.980	BB	40.84793	1.98228	80.97190		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\022B0602.D
Sample Name: gc119p176 #I4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 22
Injection Date  : 01-Jul-11, 13:27:04                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```

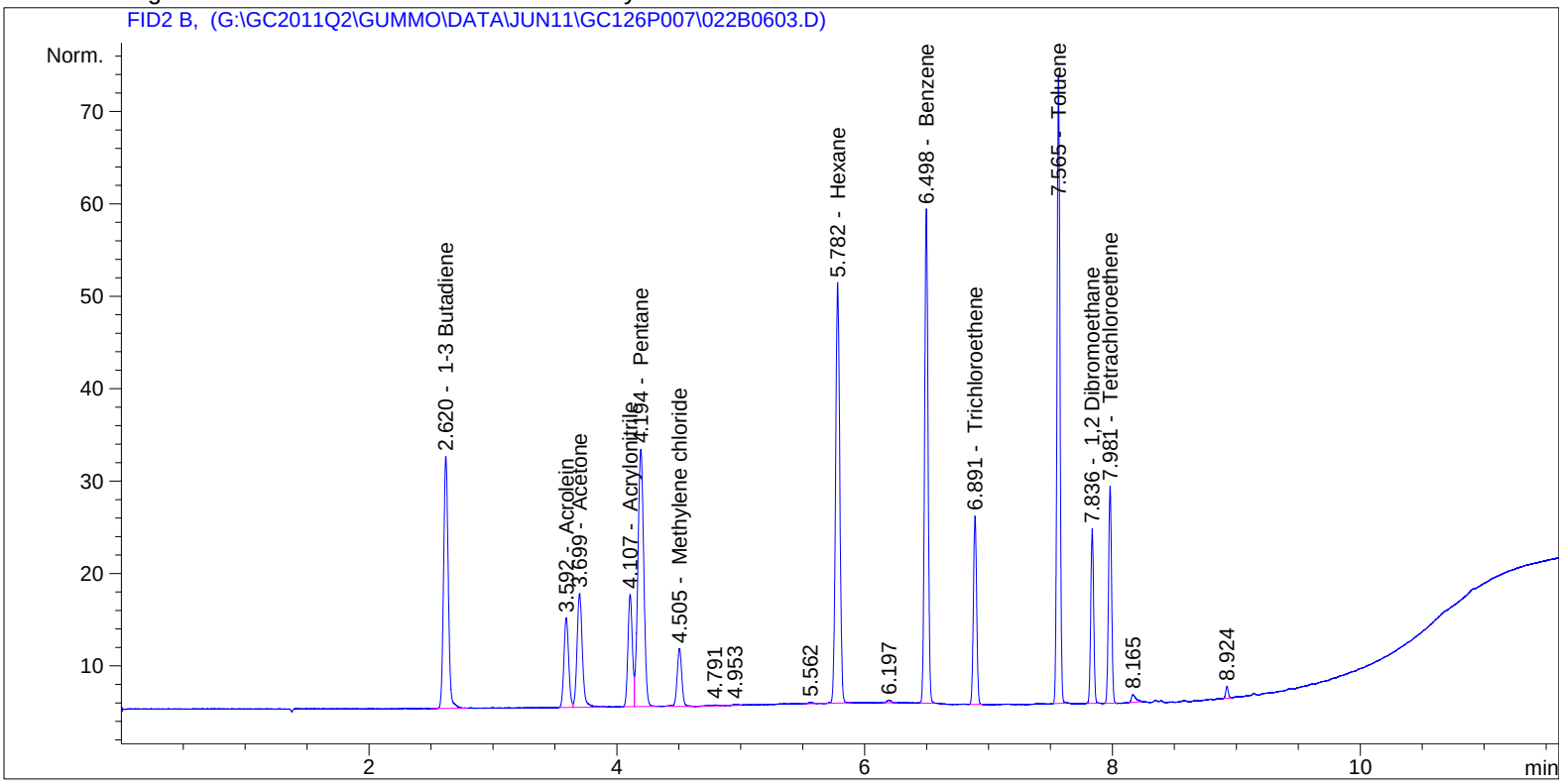



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.619	BB	70.90553	1.21326	86.02675		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591	BV	25.47941	2.67760	68.22378		Acrolein
3.699	VB	36.56187	2.22894	81.49440		Acetone
4.106	BV	30.10544	2.04729	61.63459		Acrylonitrile
4.192	VB	91.70432	9.57186e-1	87.77806		Pentane
4.505	BB	16.62534	5.11624	85.05920		Methylene chloride
5.782	VV	107.08694	8.10679e-1	86.81311		Hexane
6.497	BB	103.72473	8.12508e-1	84.27712		Benzene
6.890	BB	37.15692	2.18259	81.09828		Trichloroethene
7.565	BB	114.42918	6.91951e-1	79.17940		Toluene
7.836	BB	31.08124	2.37280	73.74953		1,2 Dibromoethane
7.980	BB	40.66315	1.98239	80.61040		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\022B0603.D
Sample Name: gc119p176 #I4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 22
Injection Date  : 01-Jul-11, 13:43:23                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620	BB	71.02034	1.21325	86.16520		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.592	BV	25.54350	2.67755	68.39406		Acrolein
3.699	VB	36.64307	2.22888	81.67303		Acetone
4.107	BV	30.07859	2.04733	61.58067		Acrylonitrile
4.194	VB	91.56181	9.57192e-1	87.64221		Pentane
4.505	BB	16.30496	5.11683	83.42978		Methylene chloride
5.782	VB	107.14822	8.10676e-1	86.86252		Hexane
6.498	BB	103.94252	8.12498e-1	84.45307		Benzene
6.891	BB	37.26378	2.18248	81.32754		Trichloroethene
7.565	BB	114.63581	6.91930e-1	79.31992		Toluene
7.836	BB	31.13771	2.37274	73.88185		1,2 Dibromoethane
7.981	BB	40.76175	1.98233	80.80328		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\023B0701.D
Sample Name: gc119p173 #AN4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   7
Acq. Instrument : Gummo online                  Location : Vial 23
Injection Date  : 01-Jul-11, 13:59:36                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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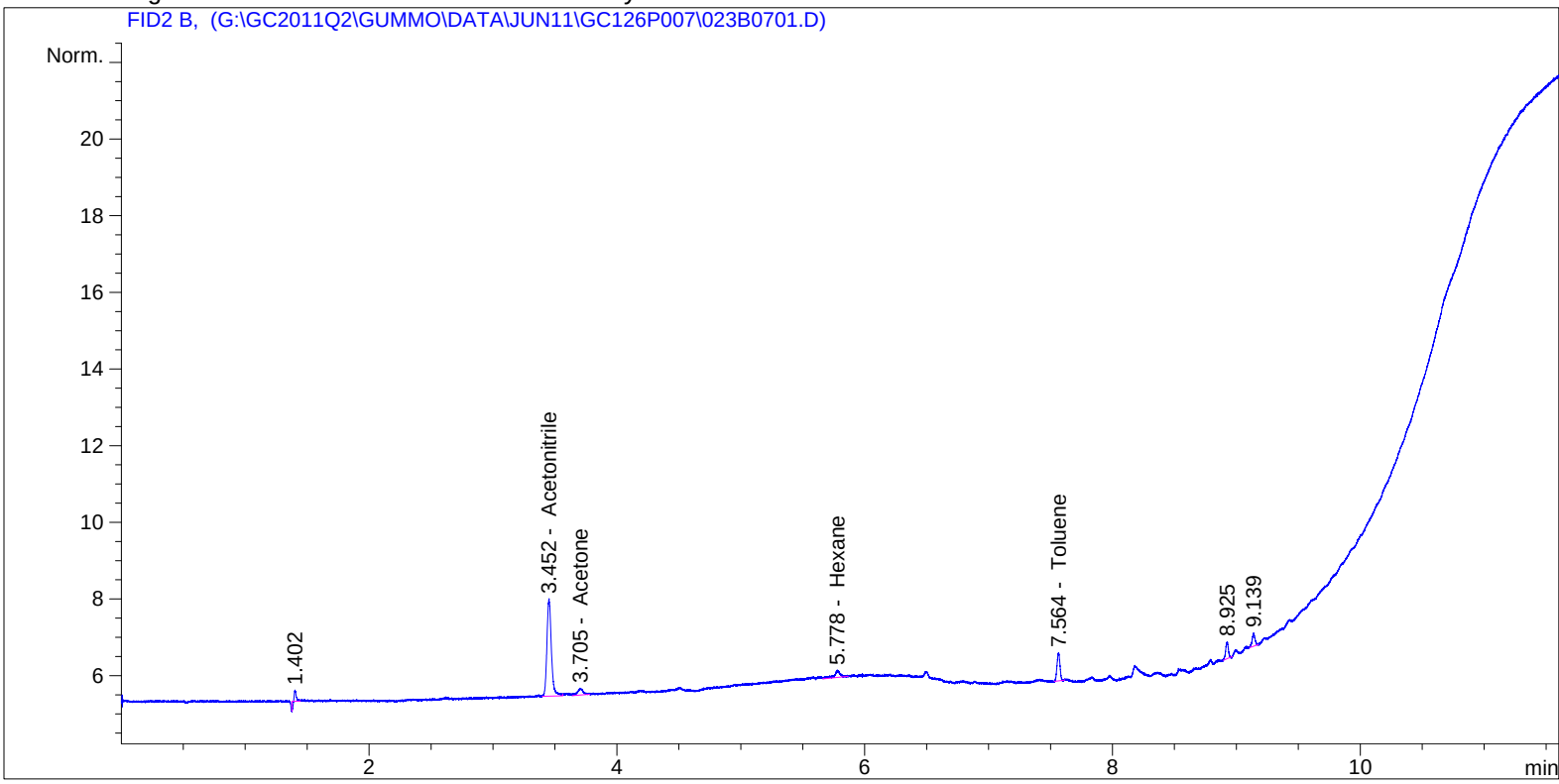


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|-----------------
  2.620           -           -          -          1-3 Butadiene
  3.452 BB        6.32049     3.63698    22.98748   Acetonitrile
  3.591           -           -          -          Acrolein
  3.705 VB     5.36900e-1     2.79611     1.50123   Acetone
  4.107           -           -          -          Acrylonitrile
  4.191           -           -          -          Pentane
  4.508           -           -          -          Methylene chloride
  5.778 VB     5.93627e-1 9.89631e-1 5.87472e-1    Hexane
  6.497           -           -          -          Benzene
  6.890           -           -          -          Trichloroethene
  7.564 BB        1.20430 9.35231e-1     1.12630   Toluene
  7.836           -           -          -          1,2 Dibromoethane
  7.981           -           -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\023B0702.D
Sample Name: gc119p173 #AN4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   7
Acq. Instrument : Gummo online                  Location : Vial 23
Injection Date  : 01-Jul-11, 14:16:08                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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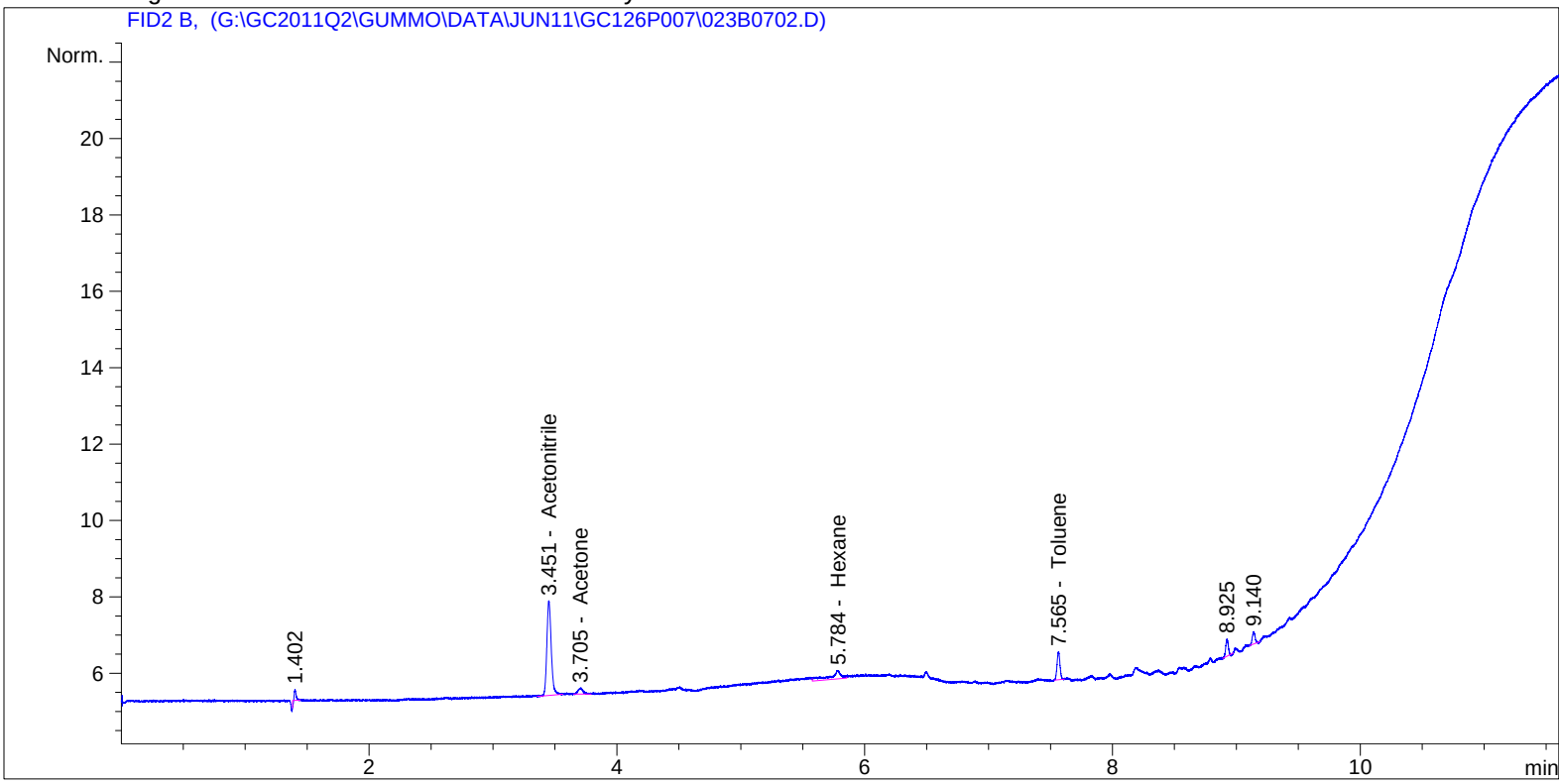
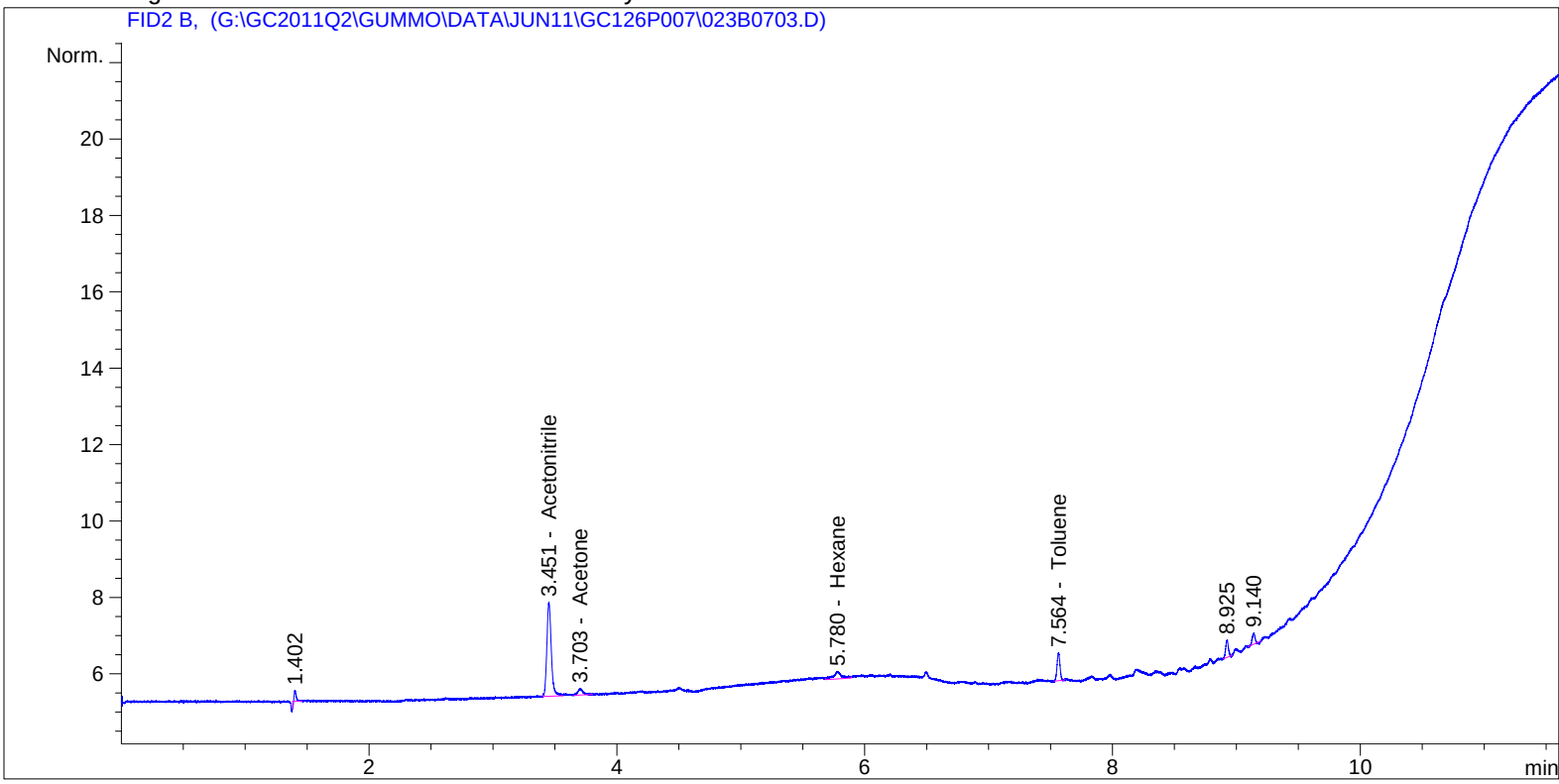



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.451	VB	6.11078	3.64093	22.24894		Acetonitrile
3.591		-	-	-		Acrolein
3.705	BB	4.38454e-1	2.79611	1.22597		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.784	VV	1.37726	9.89631e-1	1.36297		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565	BB	1.20127	9.35231e-1	1.12347		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\023B0703.D
Sample Name: gc119p173 #AN4 LCS

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   7
Acq. Instrument : Gummo online                  Location : Vial 23
Injection Date  : 01-Jul-11, 14:32:25                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|-----------------
  2.620           -           -          -          1-3 Butadiene
  3.451 BV        6.10111     3.64112    22.21490   Acetonitrile
  3.591           -           -          -          Acrolein
  3.703 BB     5.01904e-1     2.79611     1.40338   Acetone
  4.107           -           -          -          Acrylonitrile
  4.191           -           -          -          Pentane
  4.508           -           -          -          Methylene chloride
  5.780 BB     8.83780e-1 9.89631e-1 8.74616e-1    Hexane
  6.497           -           -          -          Benzene
  6.890           -           -          -          Trichloroethene
  7.564 BB        1.19972 9.35231e-1     1.12201    Toluene
  7.836           -           -          -          1,2 Dibromoethane
  7.981           -           -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\018B0501.D
Sample Name: CHV-STK-ICR1-M18b- bag a R1 S&R 0611-22

```
==================================================================
Acq. Operator   : MGM                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 02-Jul-11, 17:56:56                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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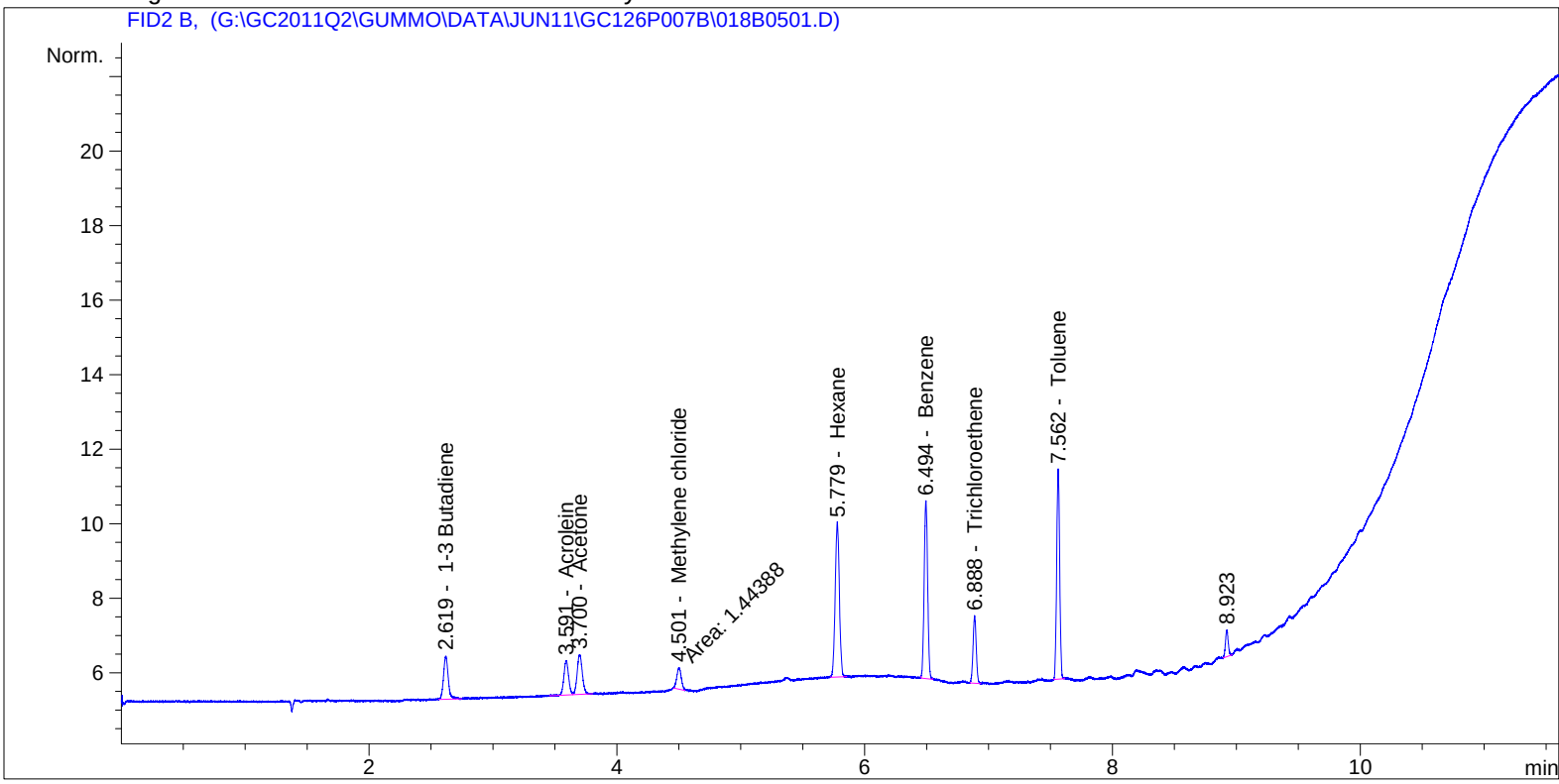


```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name	
2.619	BB	3.07158	1.37371	4.21944		1-3 Butadiene	
3.453		-	-	-		Acetonitrile	
3.591	BV	2.41745	2.87319	6.94579		Acrolein	
3.700	VB	3.08041	2.54529	7.84053		Acetone	
4.107		-	-	-		Acrylonitrile	
4.191		-	-	-		Pentane	
4.501	MM T	1.44388	5.43471	7.84707		Methylene chloride	Manual Int. "II" (MGM)
5.779	BB	9.72237	8.55219e-1	8.31475		Hexane	
6.494	BB	9.32643	8.59288e-1	8.01409		Benzene	
6.888	BB	3.22436	2.57386	8.29906		Trichloroethene	
7.562	BB	9.48420	8.23084e-1	7.80629		Toluene	
7.836		-	-	-		1,2 Dibromoethane	
7.981		-	-	-		Tetrachloroethene	

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\018B0502.D
Sample Name: CHV-STK-ICR1-M18b- bag a R1 S&R 0611-22

```
==================================================================
Acq. Operator   : MGM                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 02-Jul-11, 18:13:14                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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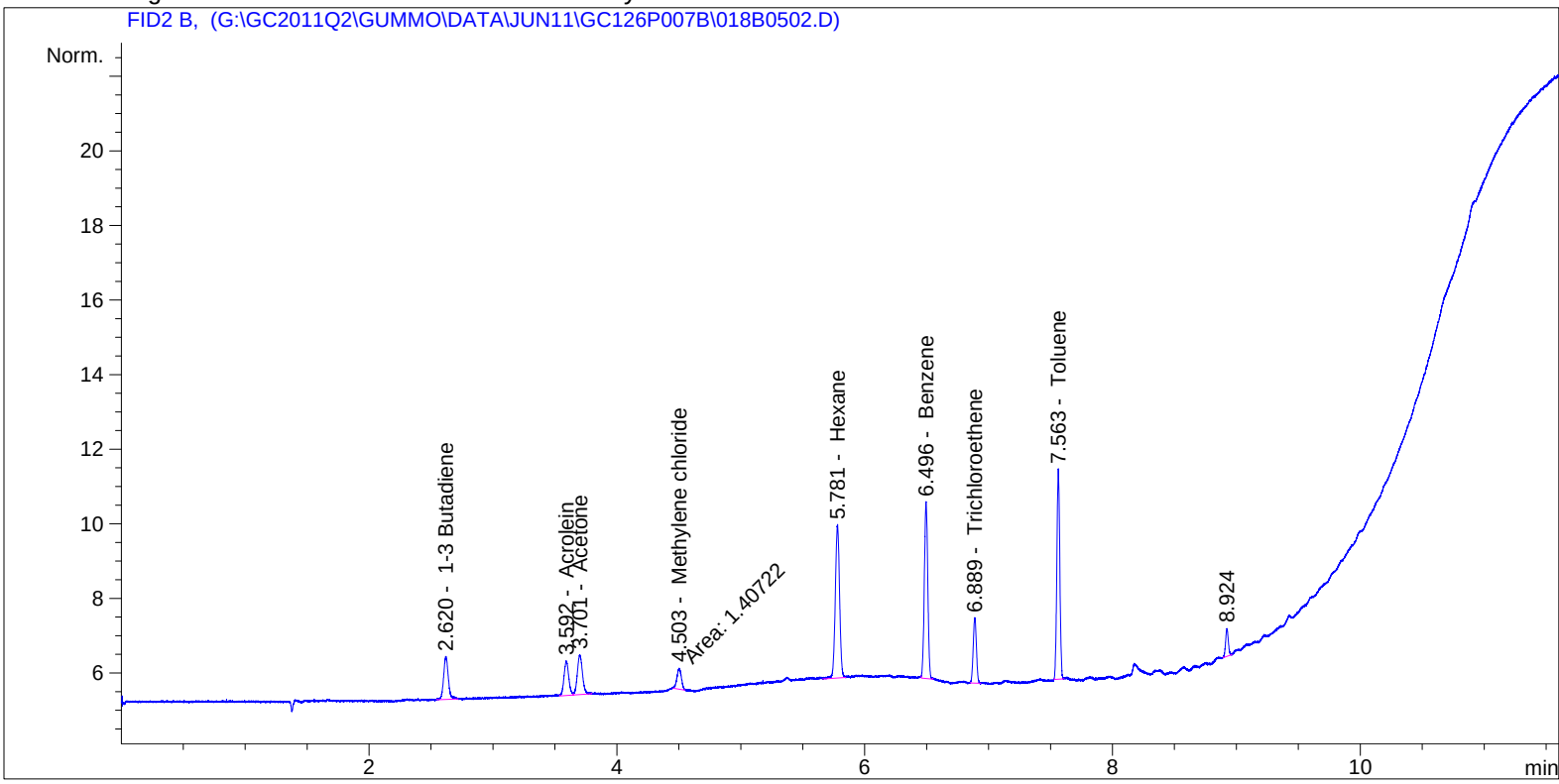


```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name	
2.620	BB	3.04799	1.37500	4.19099		1-3 Butadiene	
3.453		-	-	-		Acetonitrile	
3.592	BV	2.46687	2.86886	7.07710		Acrolein	
3.701	VB	3.07647	2.54573	7.83186		Acetone	
4.107		-	-	-		Acrylonitrile	
4.191		-	-	-		Pentane	
4.503	MM T	1.40722	5.44380	7.66060		Methylene chloride	Manual Int. "II" (MGM)
5.781	VV	9.91727	8.54256e-1	8.47189		Hexane	
6.496	BB	9.20193	8.59984e-1	7.91351		Benzene	
6.889	BB	3.13741	2.58574	8.11252		Trichloroethene	
7.563	BB	9.42560	8.23973e-1	7.76644		Toluene	
7.836		-	-	-		1,2 Dibromoethane	
7.981		-	-	-		Tetrachloroethene	

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\018B0503.D
Sample Name: CHV-STK-ICR1-M18b- bag a R1 S&R 0611-22

```
==================================================================
Acq. Operator   : MGM                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 18
Injection Date  : 02-Jul-11, 18:29:30                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
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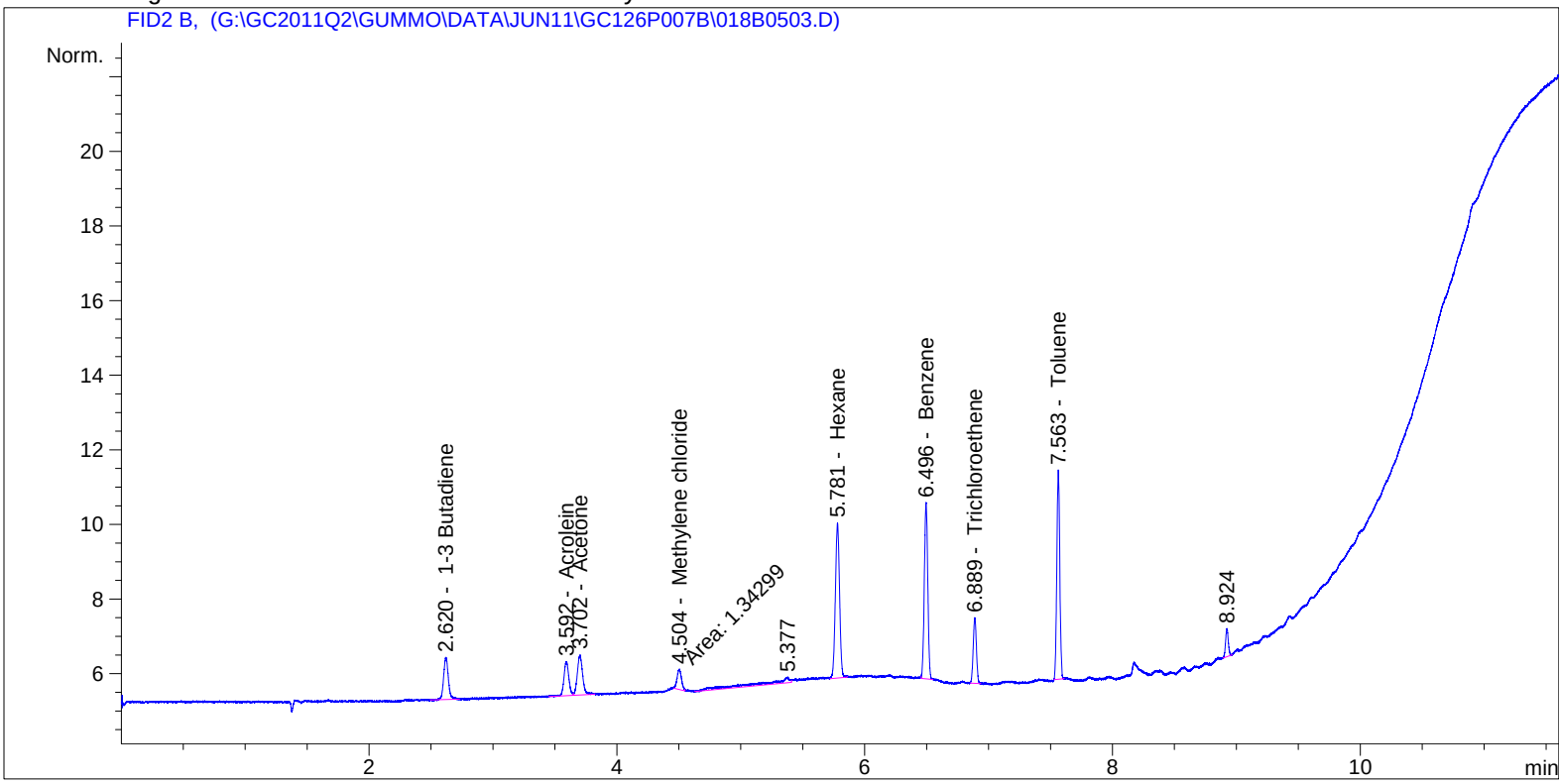


```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name	
2.620	BB	2.96153	1.37994	4.08672		1-3 Butadiene	
3.453		-	-	-		Acetonitrile	
3.592	BV	2.52326	2.86413	7.22694		Acrolein	
3.702	VB	3.18408	2.53404	8.06858		Acetone	
4.107		-	-	-		Acrylonitrile	
4.191		-	-	-		Pentane	
4.504	MM T	1.34299	5.46091	7.33396		Methylene chloride	Manual Int. "II" (MGM)
5.781	BB	9.77972	8.54932e-1	8.36100		Hexane	
6.496	BB	9.17078	8.60161e-1	7.88835		Benzene	
6.889	BB	3.15486	2.58330	8.14995		Trichloroethene	
7.563	BB	9.36425	8.24916e-1	7.72472		Toluene	
7.836		-	-	-		1,2 Dibromoethane	
7.981		-	-	-		Tetrachloroethene	

Calibration Curve Chromatograms

Calibration Table

Calib. Data Modified : 6/6/2011 4:49:09 PM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.050 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A,
Signal 2: FID2 B,

RetTime [min]	Lvl Sig	Amount [ppm]	Area	Amt/Area	Ref	Grp	Name
2.620	2 80	2.57000	1.73700	1.47957			1-3 Butadiene
	81	4.99000	3.59493	1.38807			
	82	10.28000	8.13800	1.26321			
	83	25.70000	20.34834	1.26300			
	84	102.80000	83.80799	1.22661			
	85	257.00000	222.15141	1.15687			
3.453	2 41	4.85400	1.15460	4.20405			Acetonitrile
	42	10.00000	2.72201	3.67376			
	43	25.00000	6.79330	3.68009			
	44	100.00000	28.03901	3.56646			
	45	250.00000	70.78018	3.53206			
3.591	2 80	2.57000	8.03270e-1	3.19942			Acrolein
	81	4.99000	1.55505	3.20891			
	82	10.28000	3.71165	2.76966			
	83	25.70000	9.27803	2.76999			
	84	102.80000	38.36533	2.67950			
	85	257.00000	101.07550	2.54265			
3.700	2 81	4.99000	1.75846	2.83771			Acetone
	82	10.28000	4.33995	2.36869			
	83	25.70000	10.99442	2.33755			
	84	102.80000	45.20877	2.27389			
	85	257.00000	118.56614	2.16757			
4.107	2 81	4.97100	1.87515	2.65098			Acrylonitrile
	82	10.24000	4.66113	2.19689			
	83	25.60000	11.90857	2.14971			
	84	102.40000	49.37942	2.07374			
	85	256.00000	129.61155	1.97513			

RetTime [min]	Sig	Lvl	Amount [ppm]	Area	Amt/Area	Ref Grp	Name
4.191	2	80	2.57000	2.39945	1.07108		Pentane
		81	4.99000	4.59405	1.08619		
		82	10.28000	10.34747	9.93480e-1		
		83	25.70000	26.06314	9.86067e-1		
		84	102.80000	107.20813	9.58883e-1		
		85	257.00000	282.44813	9.09902e-1		
4.508	2	80	2.57000	4.20799e-1	6.10743		Methylene chloride
		81	4.99000	8.06924e-1	6.18398		
		82	10.28000	2.02343	5.08048		
		83	25.70000	4.87173	5.27534		
		84	102.80000	19.78841	5.19496		
		85	257.00000	51.96278	4.94585		
5.781	2	80	2.57000	2.69331	9.54216e-1		Hexane
		81	4.99000	5.19826	9.59936e-1		
		82	10.28000	12.42061	8.27656e-1		
		83	25.70000	30.55459	8.41117e-1		
		84	102.80000	125.95523	8.16163e-1		
		85	257.00000	332.35309	7.73274e-1		
6.497	2	80	2.56000	2.72188	9.40527e-1		Benzene
		81	4.97100	5.02133	9.89976e-1		
		82	10.24000	12.06254	8.48909e-1		
		83	25.60000	30.63082	8.35760e-1		
		84	102.40000	126.87513	8.07093e-1		
		85	256.00000	332.67322	7.69524e-1		
6.890	2	81	4.97100	1.64281	3.02591		Trichloroethene
		82	10.24000	4.29742	2.38283		
		83	25.60000	11.08450	2.30953		
		84	102.40000	46.05923	2.22322		
		85	256.00000	120.63905	2.12203		
7.565	2	81	4.97100	5.24351	9.48028e-1		Toluene
		82	10.24000	13.47014	7.60200e-1		
		83	25.60000	35.11275	7.29080e-1		
		84	102.40000	145.96796	7.01524e-1		
		85	256.00000	379.78746	6.74061e-1		
7.836	2	81	4.99000	1.70474	2.92714		1,2 Dibromoethane
		82	10.28000	4.13848	2.48401		
		83	25.70000	10.51291	2.44461		
		84	102.80000	42.89871	2.39634		
		85	257.00000	109.29550	2.35142		
7.981	2	81	4.99000	1.97946	2.52088		Tetrachloroethene
		82	10.28000	4.87139	2.11028		
		83	25.70000	12.42854	2.06782		
		84	102.80000	51.13319	2.01044		
		85	257.00000	132.23401	1.94352		

1 Warnings or Errors :

Warning : Cal. table open and changed while report was generated.

==========

Peak Sum Table

==========

No Entries in table

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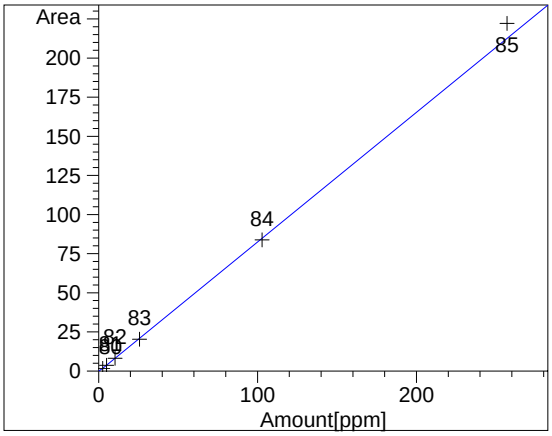
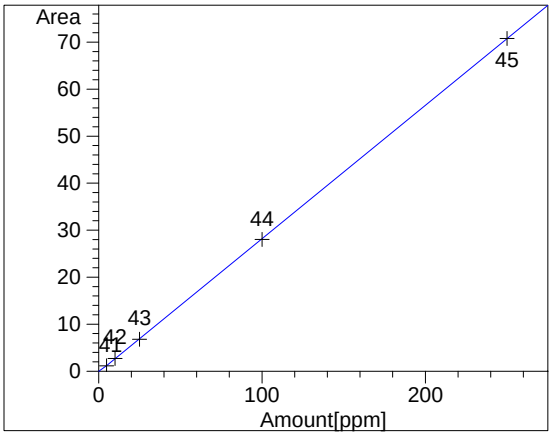
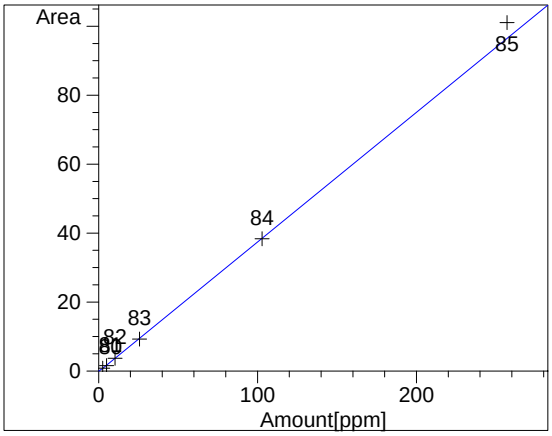
Calibration Curves



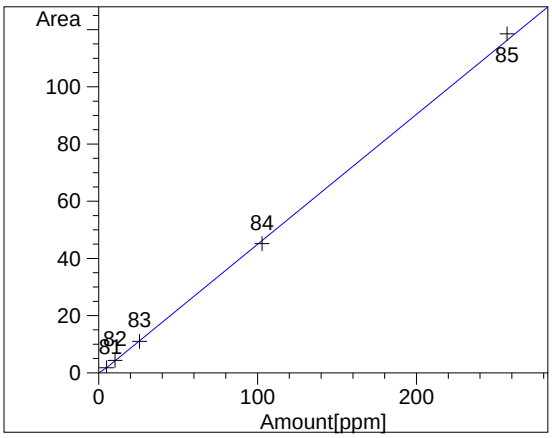
1-3 Butadiene at exp. RT: 2.620
FID2 B,
Correlation: 0.99943
Residual Std. Dev.: 4.77265
Formula: y = mx + b
m: 8.29192e-1
b: -4.27151e-1
x: Amount
y: Area
Calibration Level Weights:
Level 80 : 1
Level 81 : 0.265256
Level 82 : 0.0625
Level 83 : 0.01
Level 84 : 0.000625
Level 85 : 0.0001



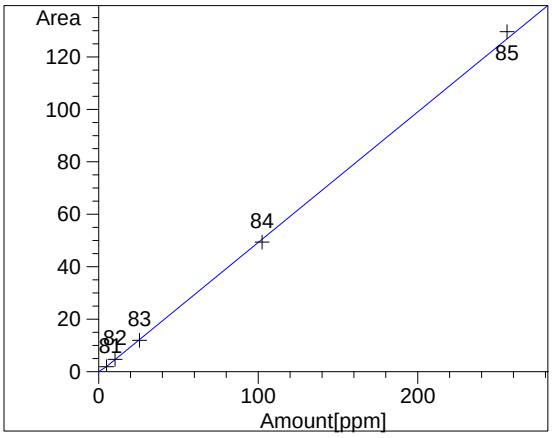
Acetonitrile at exp. RT: 3.453
FID2 B,
Correlation: 0.99974
Residual Std. Dev.: 0.11567
Formula: y = mx + b
m: 2.83946e-1
b: -2.06709e-1
x: Amount
y: Area
Calibration Level Weights:
Level 41 : 1
Level 42 : 0.235613
Level 43 : 0.037698
Level 44 : 0.002356
Level 45 : 0.000377



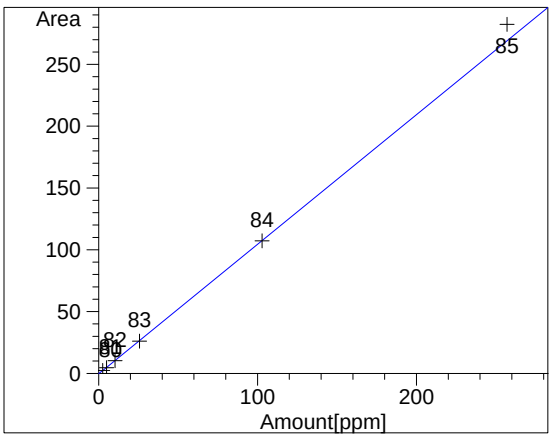
Acrolein at exp. RT: 3.591
FID2 B,
Correlation: 0.99873
Residual Std. Dev.: 2.27913
Formula: y = mx + b
m: 3.76350e-1
b: -1.96601e-1
x: Amount
y: Area
Calibration Level Weights:
Level 80 : 1
Level 81 : 0.265256
Level 82 : 0.0625
Level 83 : 0.01
Level 84 : 0.000625
Level 85 : 0.0001



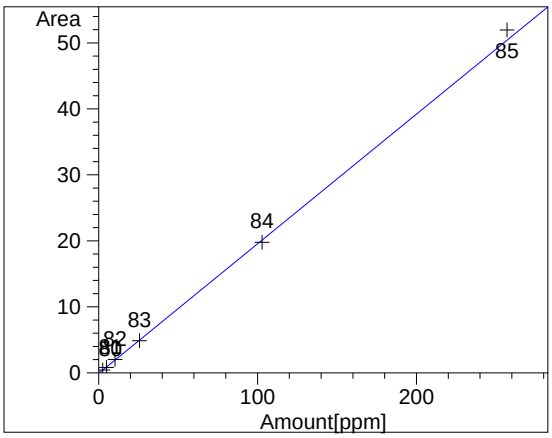
Acetone at exp. RT: 3.700
FID2 B,
Correlation: 0.99955
Residual Std. Dev.: 1.42427
Formula: y = mx + b
m: 4.54578e-1
b: -4.83722e-1
x: Amount
y: Area
Calibration Level Weights:
Level 81 : 1
Level 82 : 0.235621
Level 83 : 0.037699
Level 84 : 0.002356
Level 85 : 0.000377



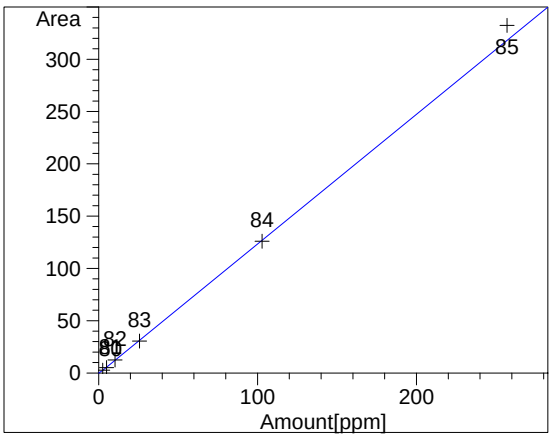
Acrylonitrile at exp. RT: 4.107
FID2 B,
Correlation: 0.99959
Residual Std. Dev.: 1.70050
Formula: y = mx + b
m: 4.97819e-1
b: -5.77407e-1
x: Amount
y: Area
Calibration Level Weights:
Level 81 : 1
Level 82 : 0.235661
Level 83 : 0.037706
Level 84 : 0.002357
Level 85 : 0.000377



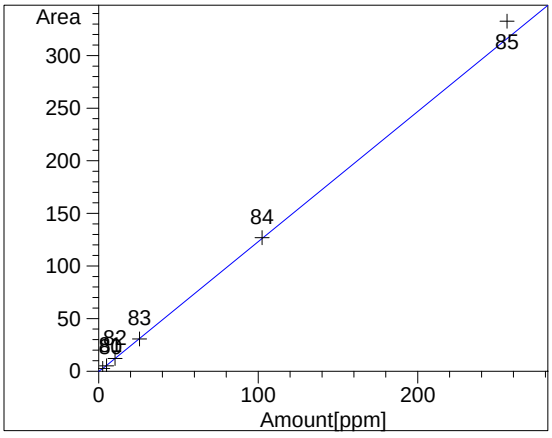
Pentane at exp. RT: 4.191
FID2 B,
Correlation: 0.99906
Residual Std. Dev.: 6.62290
Formula: y = mx + b
m: 1.04900
b: -3.74831e-1
x: Amount
y: Area
Calibration Level Weights:
Level 80 : 1
Level 81 : 0.265256
Level 82 : 0.0625
Level 83 : 0.01
Level 84 : 0.000625
Level 85 : 0.0001



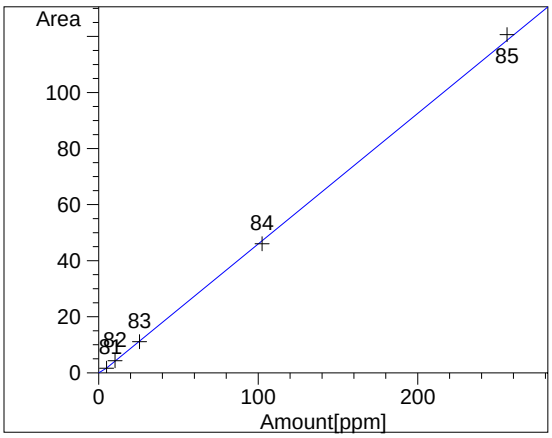
Methylene chloride at exp. RT: 4.508
FID2 B,
Correlation: 0.99839
Residual Std. Dev.: 0.78593
Formula: y = mx + b
m: 1.96620e-1
b: -9.90117e-2
x: Amount
y: Area
Calibration Level Weights:
Level 80 : 1
Level 81 : 0.265256
Level 82 : 0.0625
Level 83 : 0.01
Level 84 : 0.000625
Level 85 : 0.0001



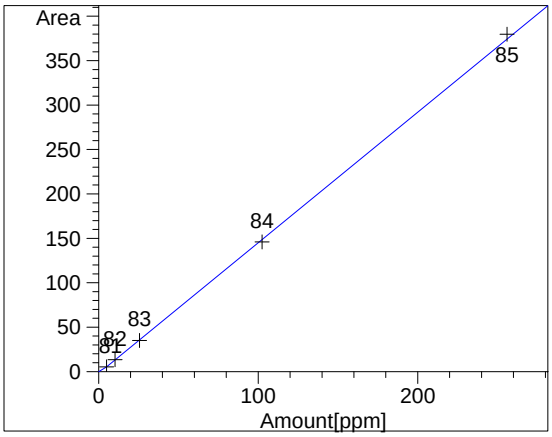
Hexane at exp. RT: 5.781
FID2 B,
Correlation: 0.99878
Residual Std. Dev.: 7.11821
Formula: y = mx + b
m: 1.24034
b: -5.90743e-1
x: Amount
y: Area
Calibration Level Weights:
Level 80 : 1
Level 81 : 0.265256
Level 82 : 0.0625
Level 83 : 0.01
Level 84 : 0.000625
Level 85 : 0.0001



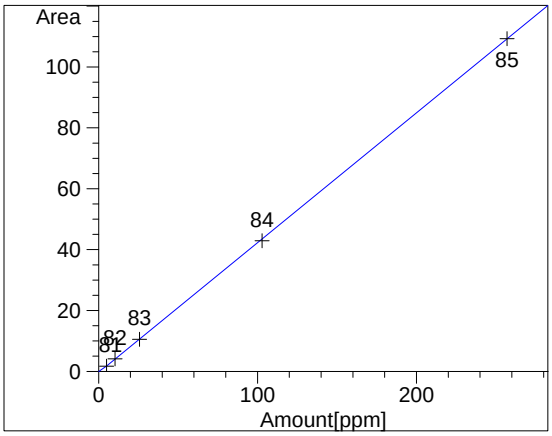
Benzene at exp. RT: 6.497
FID2 B,
Correlation: 0.99808
Residual Std. Dev.: 8.21092
Formula: y = mx + b
m: 1.23780
b: -5.93406e-1
x: Amount
y: Area
Calibration Level Weights:
Level 80 : 1
Level 81 : 0.265212
Level 82 : 0.0625
Level 83 : 0.01
Level 84 : 0.000625
Level 85 : 0.0001



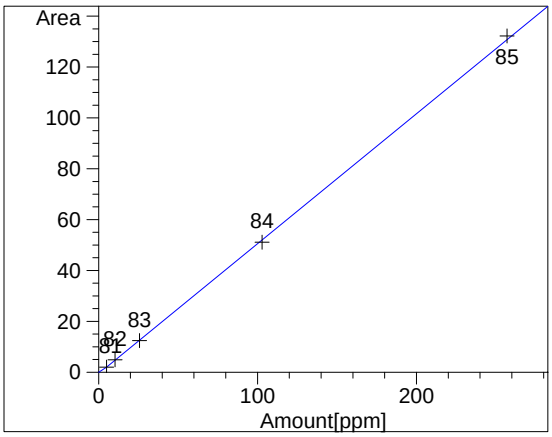
Trichloroethene at exp. RT: 6.890
FID2 B,
Correlation: 0.99953
Residual Std. Dev.: 1.28587
Formula: y = mx + b
m: 4.66112e-1
b: -6.43926e-1
x: Amount
y: Area
Calibration Level Weights:
Level 81 : 1
Level 82 : 0.235661
Level 83 : 0.037706
Level 84 : 0.002357
Level 85 : 0.000377



Toluene at exp. RT: 7.565
FID2 B,
Correlation: 0.99971
Residual Std. Dev.: 3.46582
Formula: y = mx + b
m: 1.47037
b: -1.99395
x: Amount
y: Area
Calibration Level Weights:
Level 81 : 1
Level 82 : 0.235661
Level 83 : 0.037706
Level 84 : 0.002357
Level 85 : 0.000377



1,2 Dibromoethane at exp. RT: 7.836
FID2 B,
Correlation: 0.99971
Residual Std. Dev.: 0.34805
Formula: y = mx + b
m: 4.26790e-1
b: -3.94359e-1
x: Amount
y: Area
Calibration Level Weights:
Level 81 : 1
Level 82 : 0.235621
Level 83 : 0.037699
Level 84 : 0.002356
Level 85 : 0.000377



Tetrachloroethene at exp. RT: 7.981
FID2 B,
Correlation: 0.99969
Residual Std. Dev.: 0.96534
Formula: y = mx + b
m: 5.11161e-1
b: -5.41717e-1
x: Amount
y: Area
Calibration Level Weights:
Level 81 : 1
Level 82 : 0.235621
Level 83 : 0.037699
Level 84 : 0.002356

Level 85 : 0.000377

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0102.D
Sample Name: gc119p176 #I5 ENV(1=0,4=350)

```
==========================================================================
Acq. Operator   : stg                              Seq. Line :   1
Acq. Instrument : Gummo online                      Location : Vial 24
Injection Date  : 24-May-11, 20:17:52                    Inj :   2
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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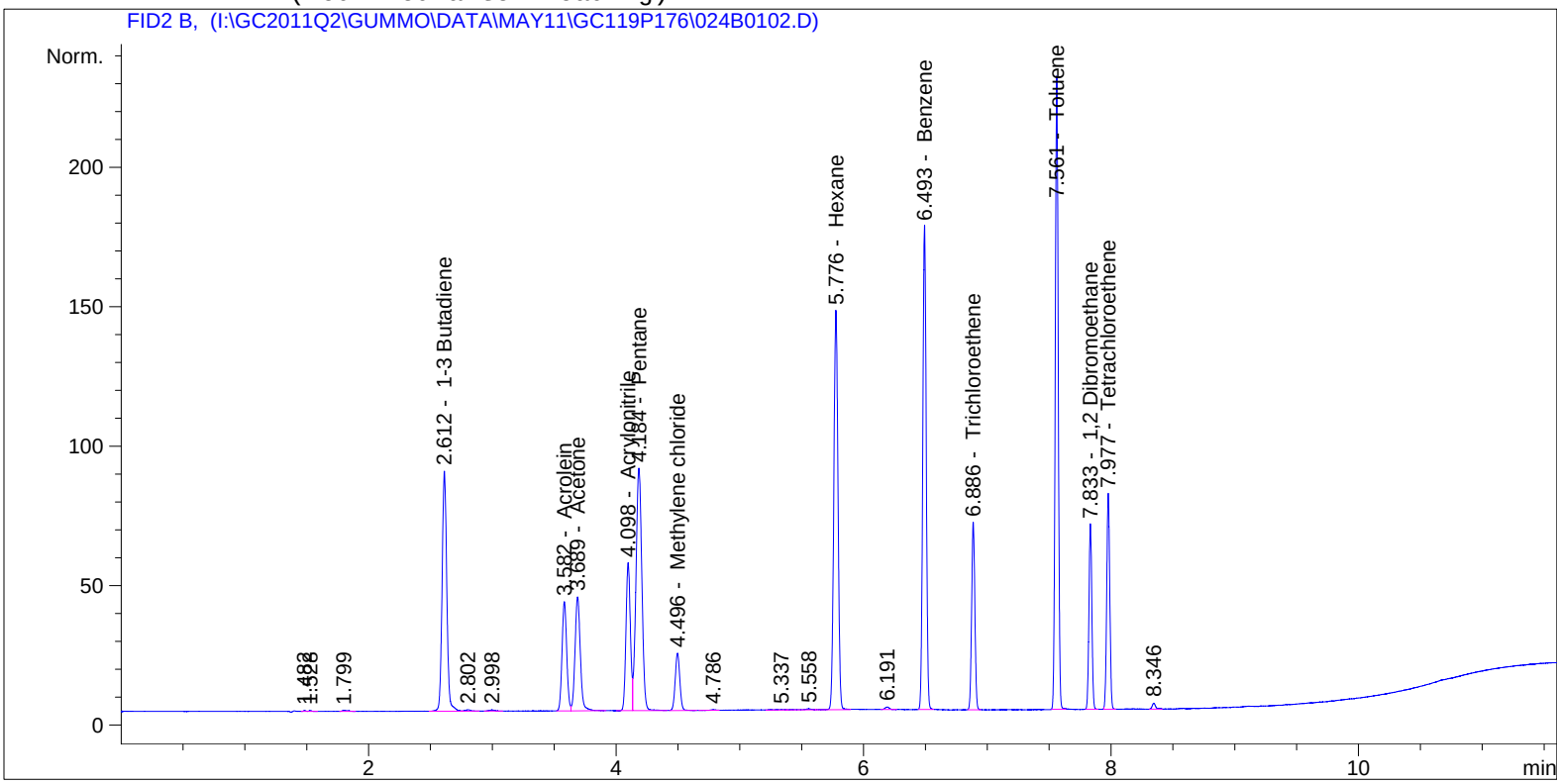


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.612 BV      227.49275    1.20826  274.86990    1-3 Butadiene
  3.453           -            -          -        Acetonitrile
  3.582 BV      103.01763    2.66217  274.25071    Acrolein
  3.689 VB      120.90163    2.20864  267.02843    Acetone
  4.098 BV      131.69485    2.01757  265.70373    Acrylonitrile
  4.184 VB      287.39124 9.54533e-1  274.32428    Pentane
  4.496 BB       52.92663    5.09546  269.68567    Methylene chloride
  5.776 VV      338.63821 8.07638e-1  273.49699    Hexane
  6.493 BB      337.74820 8.09305e-1  273.34132    Benzene
  6.886 BB      122.42929    2.15669  264.04243    Trichloroethene
  7.561 BB      384.49036 6.83627e-1  262.84805    Toluene
  7.833 BB      109.98495    2.35147  258.62646    1,2 Dibromoethane
```

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0102.D
Sample Name: gc119p176 #I5 ENV(1=0,4=350)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.977	BB	133.55983	1.96427	262.34713		Tetrachloroethene

Totals : 3220.56510

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0103.D
Sample Name: gc119p176 #I5 ENV(1=0,4=350)

```
================================================================================
Acq. Operator   : stg                              Seq. Line :   1
Acq. Instrument : Gummo online                      Location : Vial 24
Injection Date  : 24-May-11, 20:36:55                    Inj :   3
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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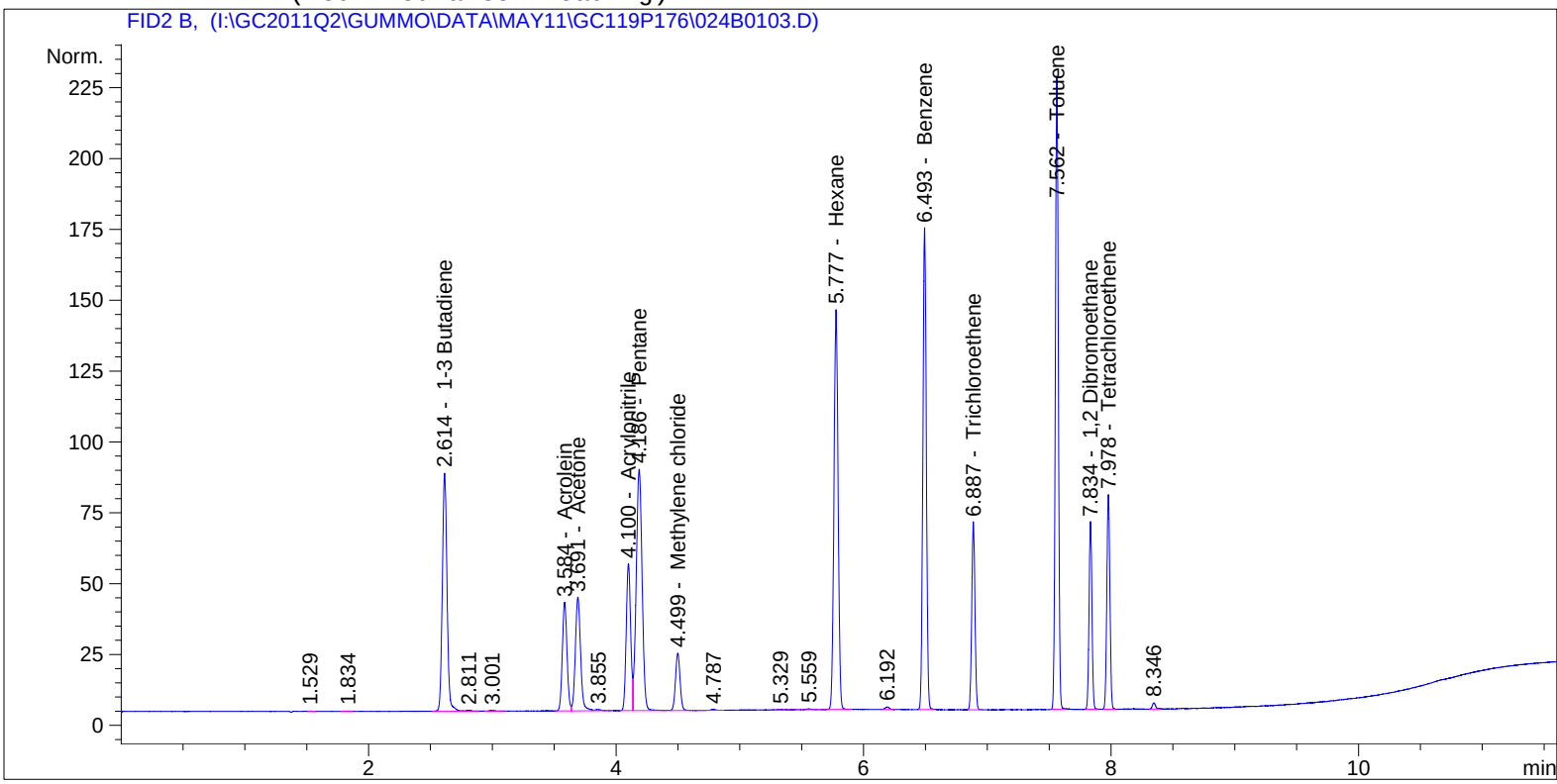


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================================================================================
                        External Standard Report
================================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                  [ppm]
-------|------|----------|----------|----------|--|------------------
  2.614 VV      220.73529    1.20833  266.72045    1-3 Butadiene
  3.453           -            -          -        Acetonitrile
  3.584 BV      100.61214    2.66229  267.85907    Acrolein
  3.691 VV      118.07658    2.20885  260.81375    Acetone
  4.100 BV      129.14693    2.01774  260.58554    Acrylonitrile
  4.186 VB      281.57263 9.54558e-1  268.77747    Pentane
  4.499 BB       51.84889    5.09566  264.20435    Methylene chloride
  5.777 VB      330.75290 8.07671e-1  267.13961    Hexane
  6.493 BB      331.53180 8.09332e-1  268.31918    Benzene
  6.887 BB      120.18494    2.15690  259.22737    Trichloroethene
  7.562 BB      378.41660 6.83684e-1  258.71728    Toluene
  7.834 BB      108.91993    2.35155  256.13103    1,2 Dibromoethane
```

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0103.D
Sample Name: gc119p176 #I5 ENV(1=0,4=350)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.978	BB	131.82426	1.96437	258.95179		Tetrachloroethene

Totals : 3157.44688

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0104.D
Sample Name: gc119p176 #I5 ENV(1=0,4=350)

```
==========================================================================
Acq. Operator   : stg                              Seq. Line :   1
Acq. Instrument : Gummo online                      Location : Vial 24
Injection Date  : 24-May-11, 20:56:10                    Inj :   4
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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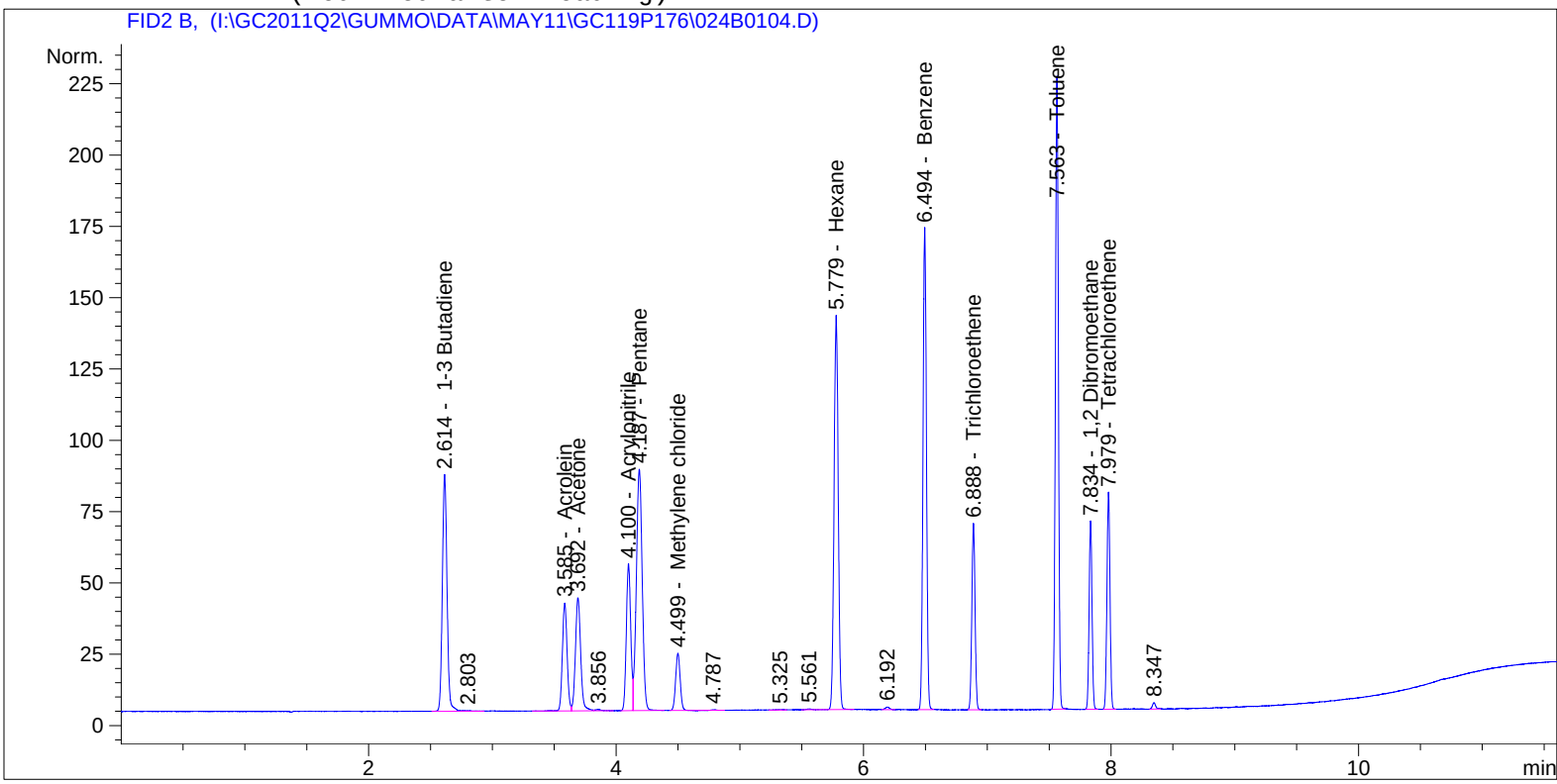


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.614 VV      218.22620    1.20835  263.69450    1-3 Butadiene
  3.453           -            -          -        Acetonitrile
  3.585 VV       99.59673    2.66235  265.16104    Acrolein
  3.692 VV      116.72022    2.20896  257.82999    Acetone
  4.100 BV      127.99286    2.01783  258.26729    Acrylonitrile
  4.187 VB      278.38052 9.54573e-1  265.73447    Pentane
  4.499 BV       51.11282    5.09580  260.46072    Methylene chloride
  5.779 VB      327.66815 8.07685e-1  264.65259    Hexane
  6.494 BB      328.73965 8.09344e-1  266.06344    Benzene
  6.888 BB      119.30291    2.15699  257.33506    Trichloroethene
  7.563 BB      376.45541 6.83702e-1  257.38348    Toluene
  7.834 BB      108.98161    2.35155  256.27555    1,2 Dibromoethane
```

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0104.D
Sample Name: gc119p176 #I5 ENV(1=0,4=350)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.979	BB	131.31793	1.96440	257.96124		Tetrachloroethene

Totals : 3130.81935

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0201.D
Sample Name: gc119p176 #I4 ENV(1=600,4=400)

```
==========================================================================
Acq. Operator   : stg                              Seq. Line :   2
Acq. Instrument : Gummo online                     Location : Vial 24
Injection Date  : 24-May-11, 21:15:26                   Inj :   1
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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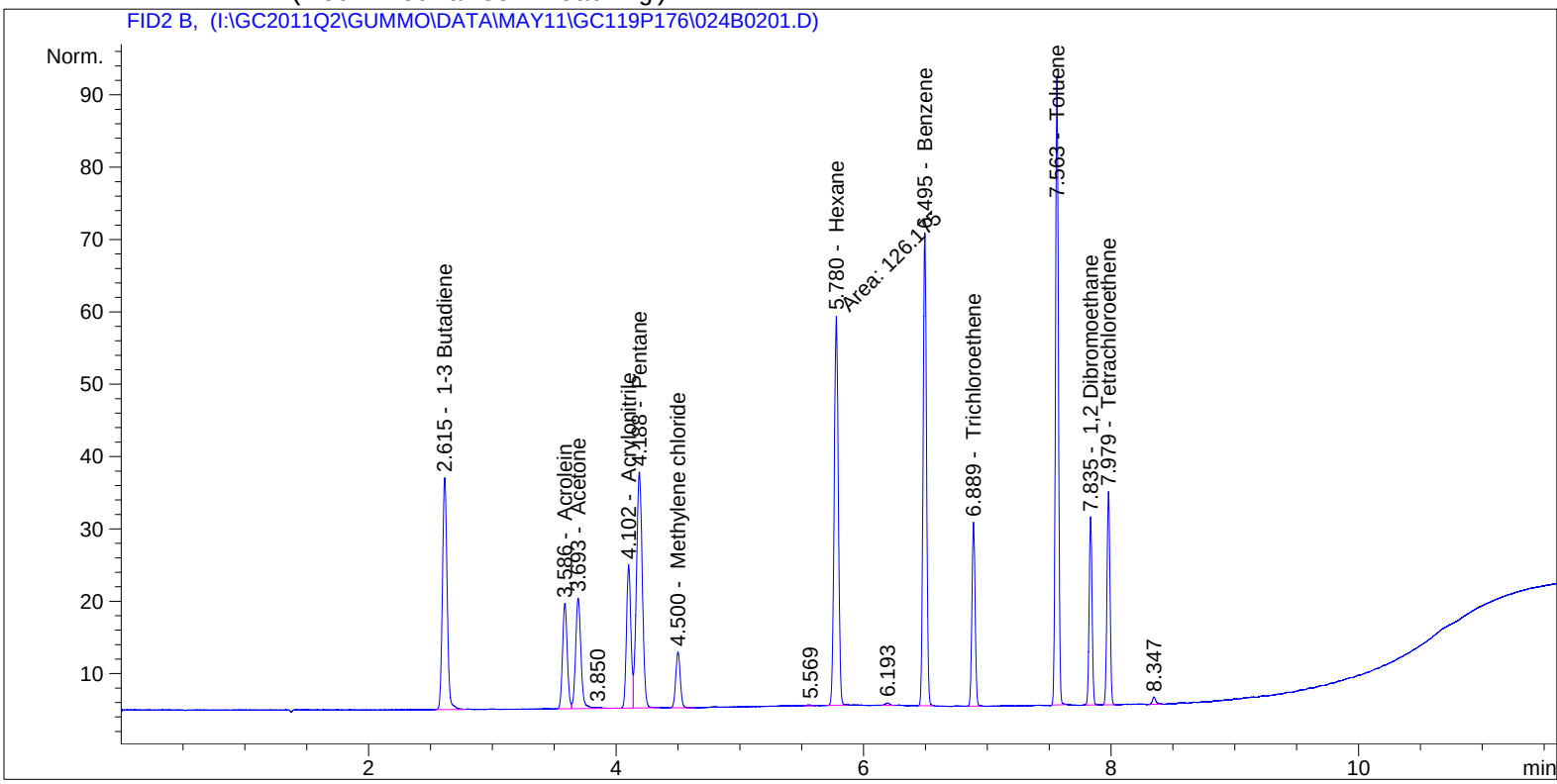


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.615	BB	84.04774	1.21212	101.87617		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.586	BV	38.49335	2.67067	102.80313		Acrolein
3.693	VV	45.40085	2.22328	100.93874		Acetone
4.102	VV	49.55680	2.03217	100.70778		Acrylonitrile
4.188	VB	107.48136	9.56614e-1	102.81814		Pentane
4.500	BB	19.76759	5.11142	101.04051		Methylene chloride
5.780	MM	126.17490	8.10006e-1	102.20242		Hexane
6.495	BB	127.17520	8.11655e-1	103.22242		Benzene
6.889	BB	46.17884	2.17533	100.45400		Trichloroethene
7.563	BB	146.17778	6.89377e-1	100.77162		Toluene
7.835	BB	42.82140	2.36465	101.25755		1,2 Dibromoethane

Manual Int. “II” (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0201.D
Sample Name: gc119p176 #I4 ENV(1=600,4=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.979	BB	51.18778	1.97704	101.20007		Tetrachloroethene

Totals : 1219.29255

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0202.D
Sample Name: gc119p176 #I4 ENV(1=600,4=400)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 24-May-11, 21:34:35                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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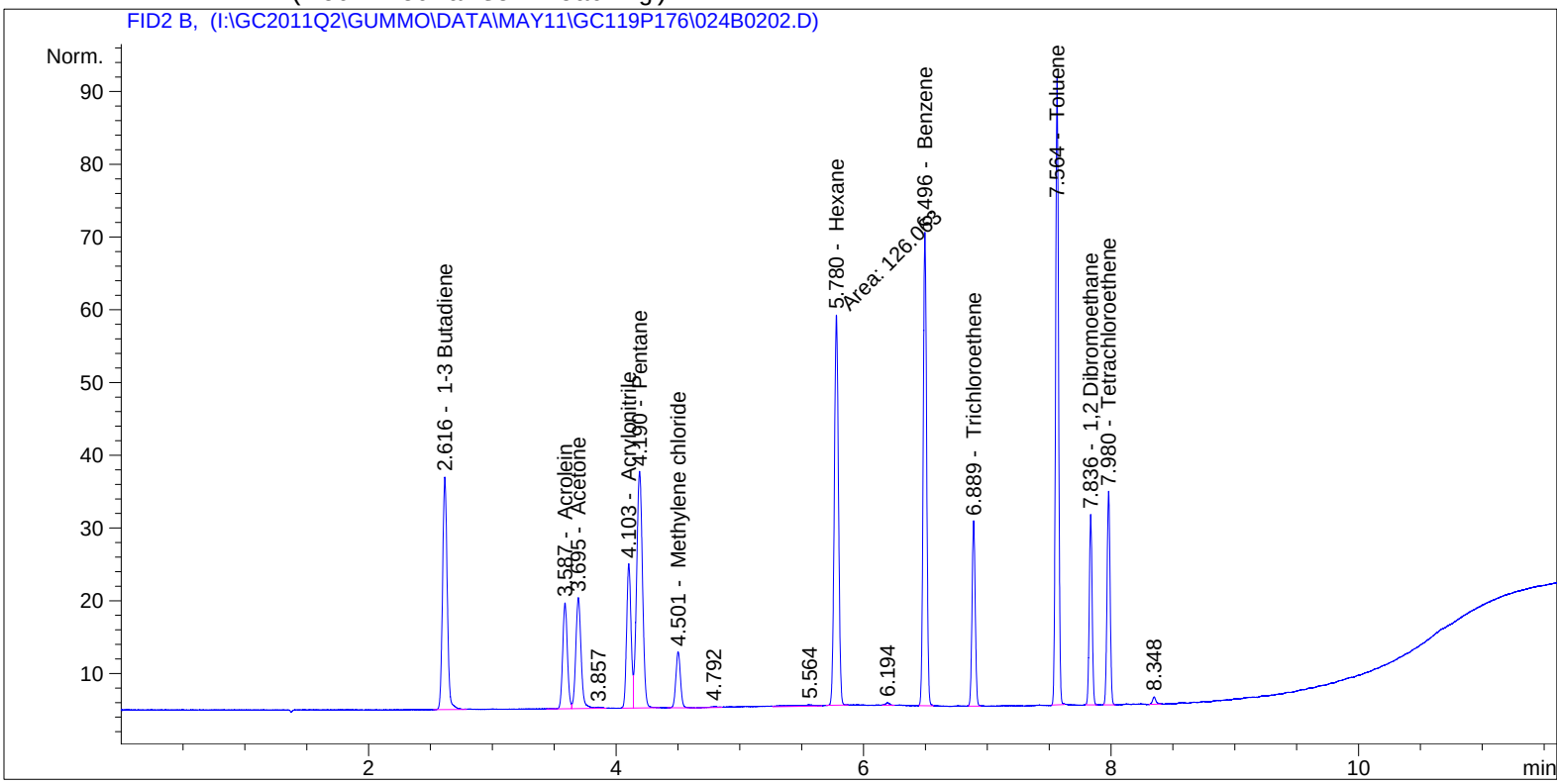


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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.616 BV       83.91992    1.21213  101.72201    1-3 Butadiene
  3.453            -           -          -        Acetonitrile
  3.587 BV       38.33099    2.67073  102.37174    Acrolein
  3.695 VV       45.20304    2.22338  100.50358    Acetone
  4.103 BV       49.38340    2.03225  100.35945    Acrylonitrile
  4.190 VB      107.37476 9.56617e-1  102.71652    Pentane
  4.501 BB       19.81387    5.11136  101.27590    Methylene chloride
  5.780 MM      126.06277 8.10009e-1  102.11202    Hexane
  6.496 BB      126.96530 8.11661e-1  103.05284    Benzene
  6.889 BB       46.08913    2.17538  100.26154    Trichloroethene
  7.564 BB      146.07574 6.89384e-1  100.70223    Toluene
  7.836 BB       42.94029    2.36459  101.53612    1,2 Dibromoethane
```

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0202.D
Sample Name: gc119p176 #I4 ENV(1=600,4=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	51.15772	1.97705	101.14125		Tetrachloroethene

Totals : 1217.75521

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0203.D
Sample Name: gc119p176 #I4 ENV(1=600,4=400)

```
================================================================
Acq. Operator   : stg                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 24-May-11, 21:54:35                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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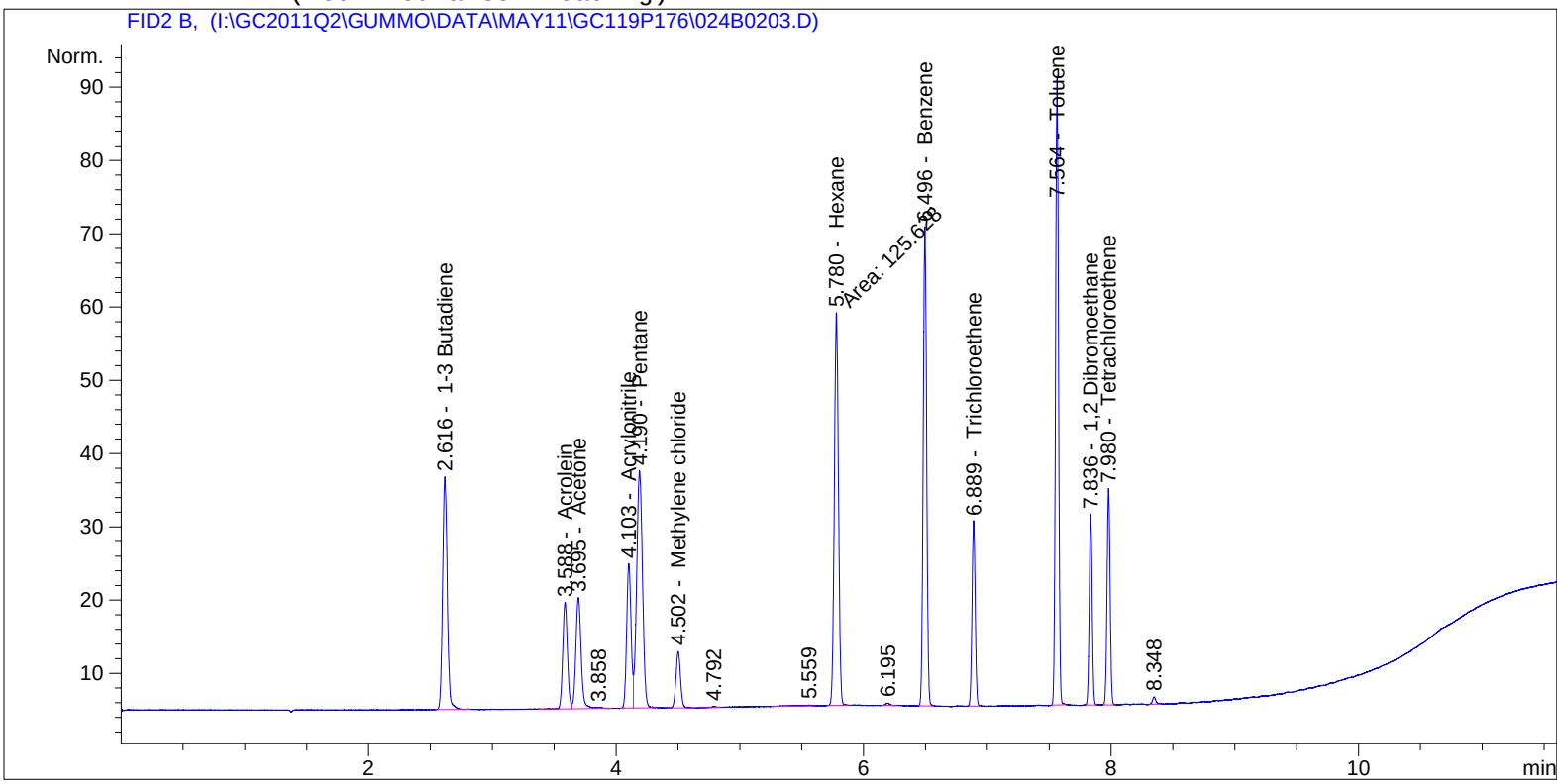


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================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.616	BB	83.45629	1.21217	101.16288		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.588	BV	38.27164	2.67075	102.21402		Acrolein
3.695	VV	45.02244	2.22348	100.10630		Acetone
4.103	BV	49.19806	2.03234	99.98715		Acrylonitrile
4.190	VB	106.76827	9.56636e-1	102.13836		Pentane
4.502	BB	19.78378	5.11140	101.12287		Methylene chloride
5.780	MM	125.62802	8.10022e-1	101.76151		Hexane
6.496	BB	126.48488	8.11676e-1	102.66472		Benzene
6.889	BB	45.90971	2.17550	99.87660		Trichloroethene
7.564	BB	145.65034	6.89411e-1	100.41291		Toluene
7.836	BB	42.93444	2.36459	101.52240		1,2 Dibromoethane

Manual Int. “II” (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0203.D
Sample Name: gc119p176 #I4 ENV(1=600,4=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	51.05406	1.97709	100.93846		Tetrachloroethene

Totals : 1213.90818

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0301.D
Sample Name: gc119p176 #I3 ENV(1=900,4=100)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 24-May-11, 22:15:33                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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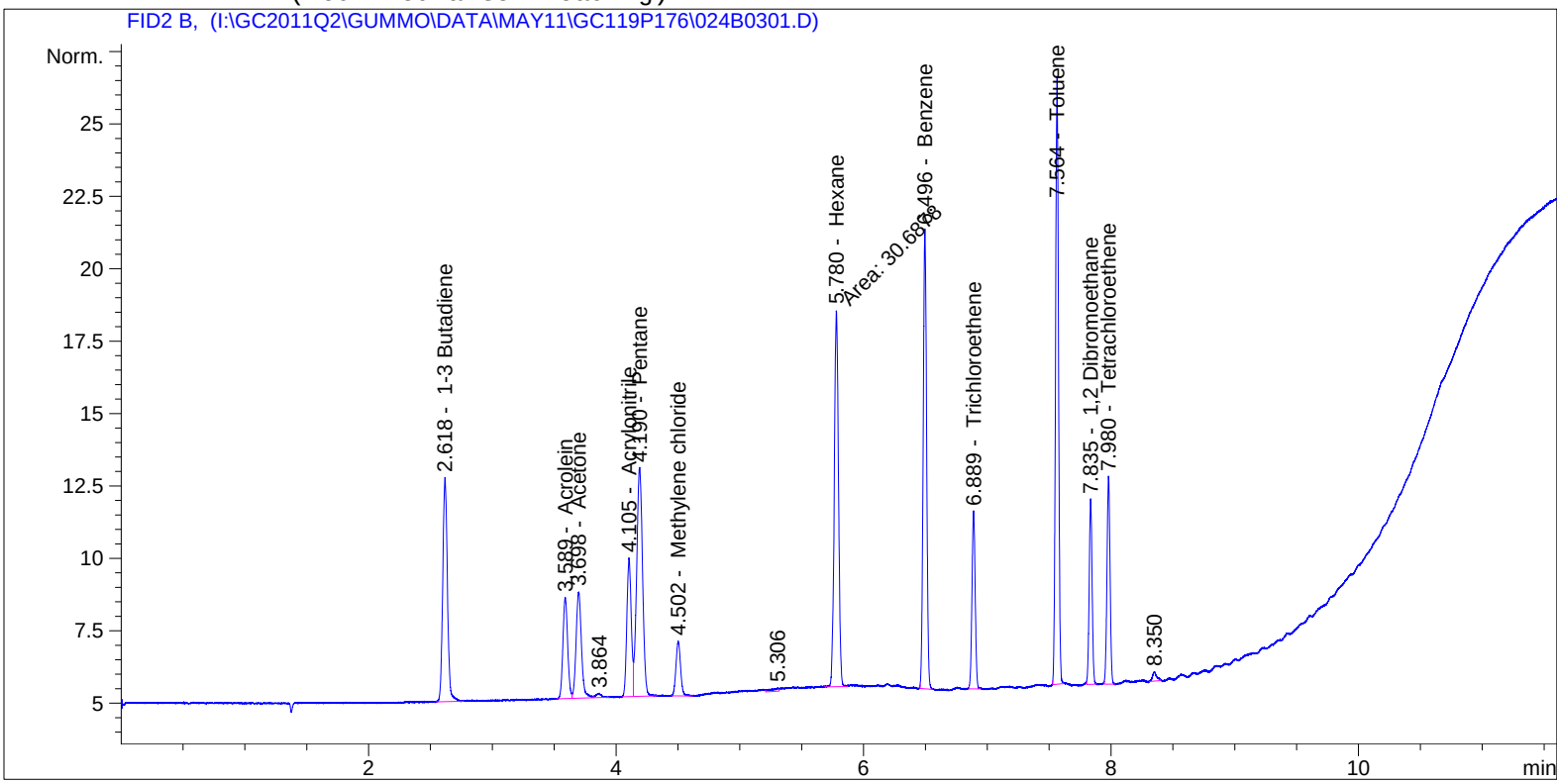


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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.618 BB       20.39541    1.23125   25.11188    1-3 Butadiene
  3.453            -           -         -         Acetonitrile
  3.589 BV        9.31069    2.71321   25.26183    Acrolein
  3.698 VV       11.05628    2.29609   25.38617    Acetone
  4.105 BV       11.94638    2.10585   25.15734    Acrylonitrile
  4.190 VB       26.11541 9.66972e-1   25.25286    Pentane
  4.502 BB        4.90854    5.18854   25.46815    Methylene chloride
  5.780 MM       30.68785 8.21751e-1   25.21778    Hexane
  6.496 BB       30.70170 8.23501e-1   25.28287    Benzene
  6.889 BB       11.10415    2.26982   25.20442    Trichloroethene
  7.564 BB       35.18100 7.18646e-1   25.28269    Toluene
  7.835 BB       10.57866    2.43042   25.71054    1,2 Dibromoethane
```

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0301.D
Sample Name: gc119p176 #I3 ENV(1=900,4=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	12.47315	2.04130	25.46140		Tetrachloroethene

Totals : 303.79793

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0302.D
Sample Name: gc119p176 #I3 ENV(1=900,4=100)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 24-May-11, 22:36:34                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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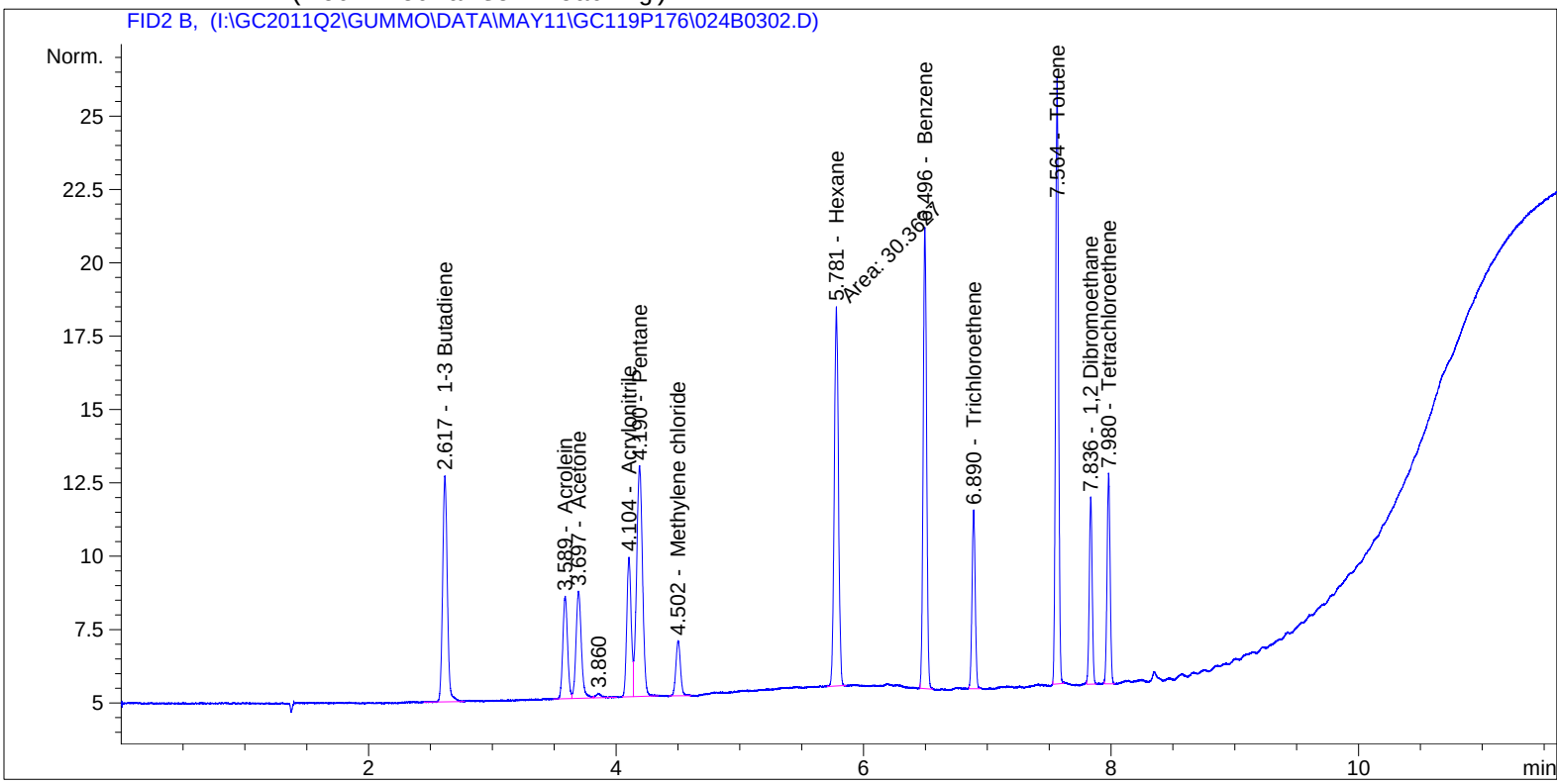


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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                  [ppm]
-------|------|----------|----------|----------|--|------------------
  2.617 BB       20.29779    1.23137   24.99414    1-3 Butadiene
  3.453            -           -         -         Acetonitrile
  3.589 BV        9.25119    2.71357   25.10375    Acrolein
  3.697 VB       10.96829    2.29686   25.19259    Acetone
  4.104 BV       11.87855    2.10641   25.02108    Acrylonitrile
  4.190 VB       26.05370 9.67004e-1   25.19403    Pentane
  4.502 BB        4.84770    5.18983   25.15870    Methylene chloride
  5.781 MM       30.36272 8.21917e-1   24.95565    Hexane
  6.496 BB       30.55249 8.23577e-1   25.16232    Benzene
  6.890 BB       11.06860    2.27022   25.12816    Trichloroethene
  7.564 BB       35.03233 7.18810e-1   25.18158    Toluene
  7.836 BB       10.48280    2.43122   25.48594    1,2 Dibromoethane
```

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0302.D
Sample Name: gc119p176 #I3 ENV(1=900,4=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	12.41059	2.04172	25.33901		Tetrachloroethene

Totals : 301.91697

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0303.D
Sample Name: gc119p176 #I3 ENV(1=900,4=100)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 24-May-11, 22:57:22                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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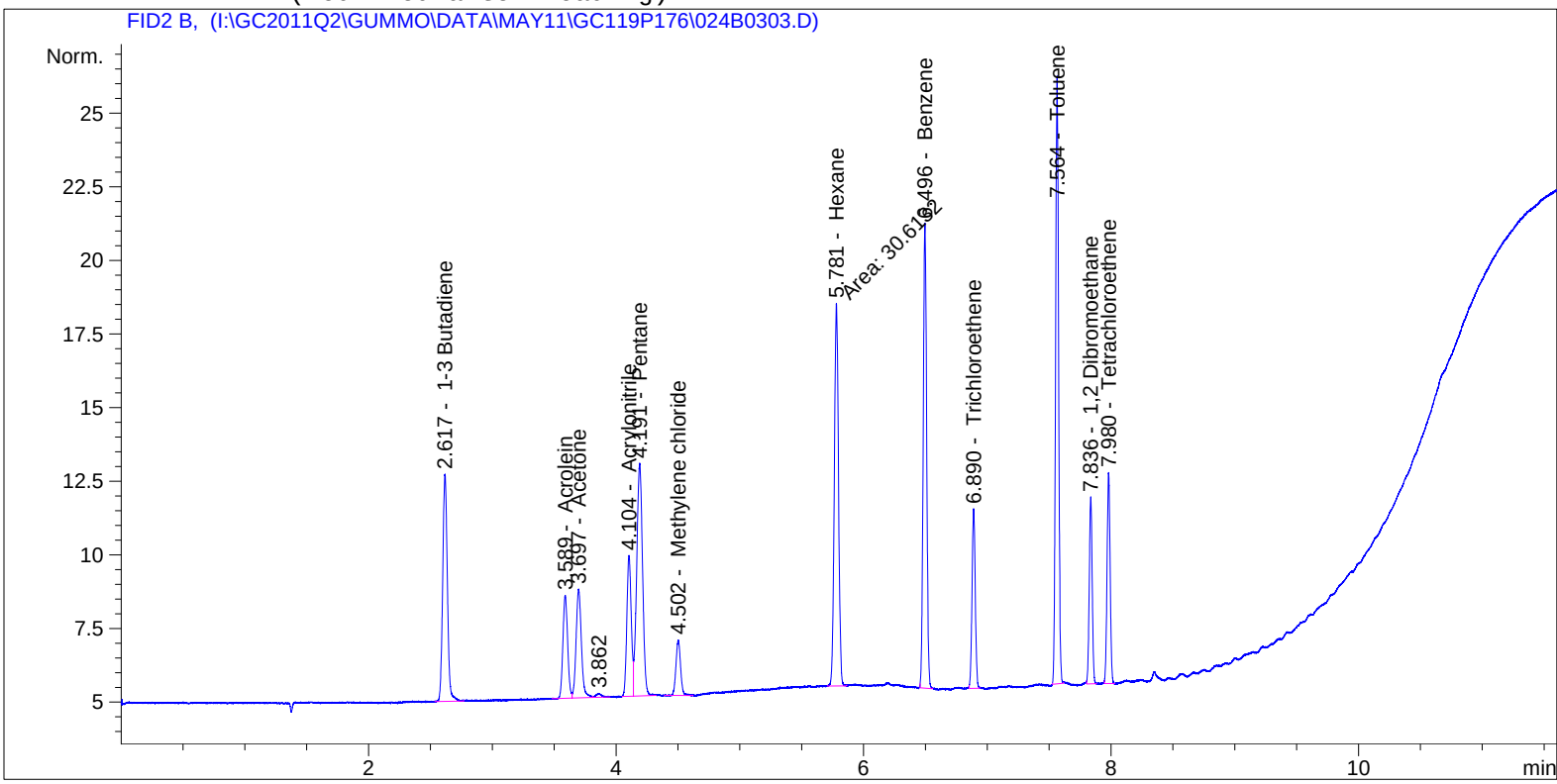


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==================================================================
                      External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.617 BB       20.35183    1.23131   25.05932    1-3 Butadiene
  3.453            -           -         -         Acetonitrile
  3.589 BV        9.27220    2.71344   25.15956    Acrolein
  3.697 VV       10.95870    2.29694   25.17151    Acetone
  4.104 BV       11.90077    2.10623   25.06571    Acrylonitrile
  4.191 VB       26.02032 9.67022e-1   25.16221    Pentane
  4.502 BB        4.85894    5.18959   25.21590    Methylene chloride
  5.781 MM       30.61320 8.21789e-1   25.15759    Hexane
  6.496 BB       30.63826 8.23533e-1   25.23161    Benzene
  6.890 BB       11.08076    2.27008   25.15426    Trichloroethene
  7.564 BB       35.12492 7.18708e-1   25.24456    Toluene
  7.836 BB       10.47728    2.43126   25.47302    1,2 Dibromoethane
```

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0303.D
Sample Name: gc119p176 #I3 ENV(1=900,4=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	12.40187	2.04178	25.32196		Tetrachloroethene

Totals : 302.41720

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0401.D
Sample Name: gc119p176 #I2 ENV(1=960,4=40)

```
==========================================================================
Acq. Operator   : stg                              Seq. Line :   4
Acq. Instrument : Gummo online                      Location : Vial 24
Injection Date  : 24-May-11, 23:18:14                    Inj :   1
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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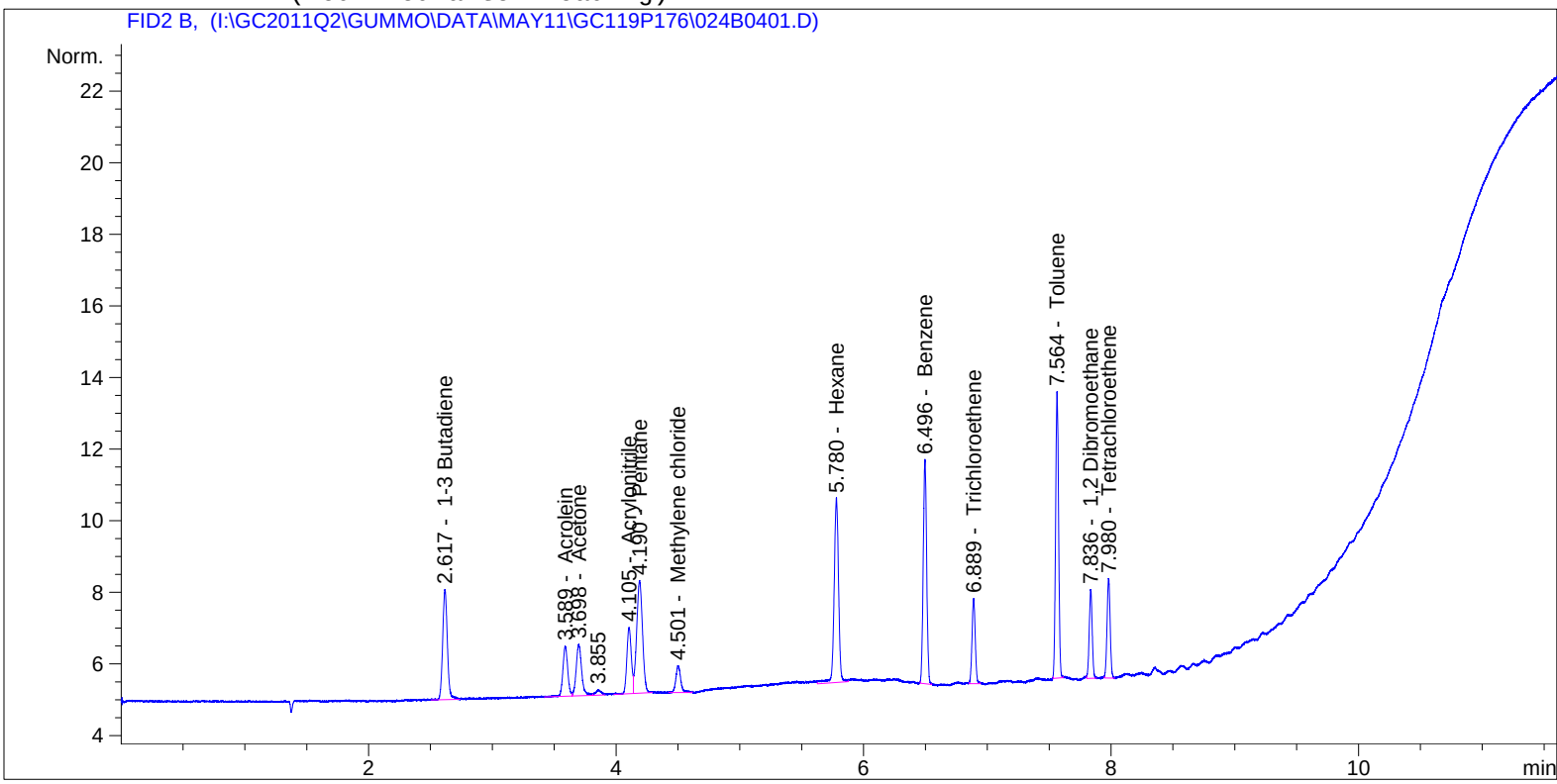


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.617 BV        8.11377    1.26948   10.30029    1-3 Butadiene
  3.453            -          -         -         Acetonitrile
  3.589 BV        3.79931    2.79460   10.61754    Acrolein
  3.698 VB        4.41069    2.44110   10.76692    Acetone
  4.105 VV        4.71410    2.25481   10.62938    Acrylonitrile
  4.190 VB       10.34579 9.87827e-1   10.21985    Pentane
  4.501 BB        2.01055    5.33641   10.72910    Methylene chloride
  5.780 VV       12.92357 8.43085e-1   10.89566    Hexane
  6.496 BB       12.05374 8.47658e-1   10.21745    Benzene
  6.889 BB        4.32283    2.46499   10.65573    Trichloroethene
  7.564 BB       13.51208 7.80461e-1   10.54566    Toluene
  7.836 BB        4.14835    2.56581   10.64388    1,2 Dibromoethane
```

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0401.D
Sample Name: gc119p176 #I2 ENV(1=960,4=40)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	4.91049	2.17215	10.66632		Tetrachloroethene

Totals : 126.88780

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0402.D
Sample Name: gc119p176 #I2 ENV(1=960,4=40)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   4
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 24-May-11, 23:39:05                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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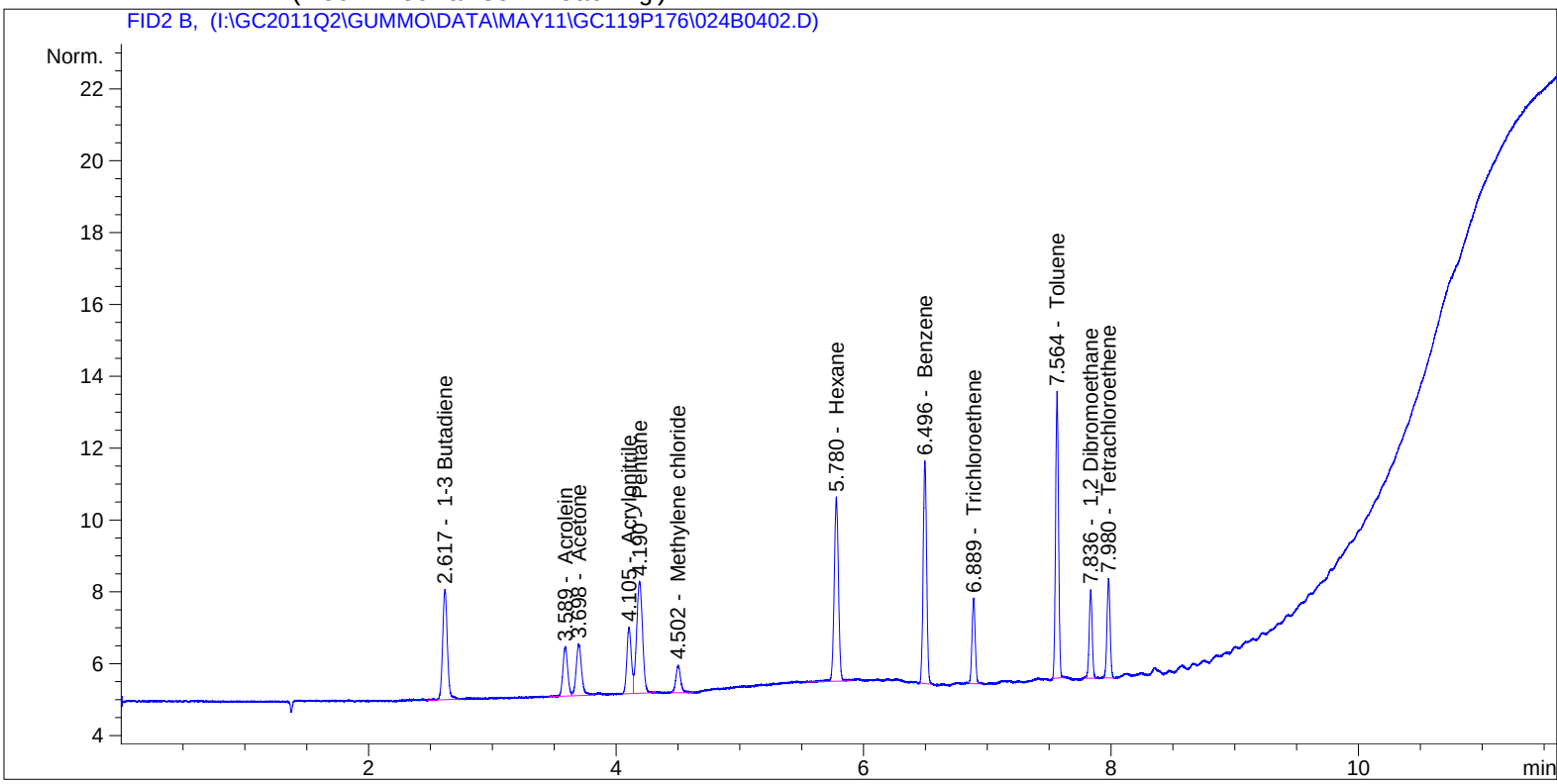


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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	VB	8.14729	1.26922	10.34072		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.589	BV	3.72422	2.79737	10.41801		Acrolein
3.698	VB	4.38102	2.44273	10.70166		Acetone
4.105	BV	4.64849	2.25828	10.49760		Acrylonitrile
4.190	VB	10.35551	9.87795e-1	10.22911		Pentane
4.502	BV	2.07233	5.32894	11.04334		Methylene chloride
5.780	BB	12.34091	8.44825e-1	10.42590		Hexane
6.496	BB	12.03899	8.47707e-1	10.20553		Benzene
6.889	BB	4.28205	2.46803	10.56824		Trichloroethene
7.564	BB	13.38906	7.81383e-1	10.46199		Toluene
7.836	BB	4.13674	2.56644	10.61669		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0402.D
Sample Name: gc119p176 #I2 ENV(1=960,4=40)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	4.83662	2.17545	10.52181		Tetrachloroethene

Totals : 126.03060

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0403.D
Sample Name: gc119p176 #I2 ENV(1=960,4=40)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   4
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 24-May-11, 23:59:54                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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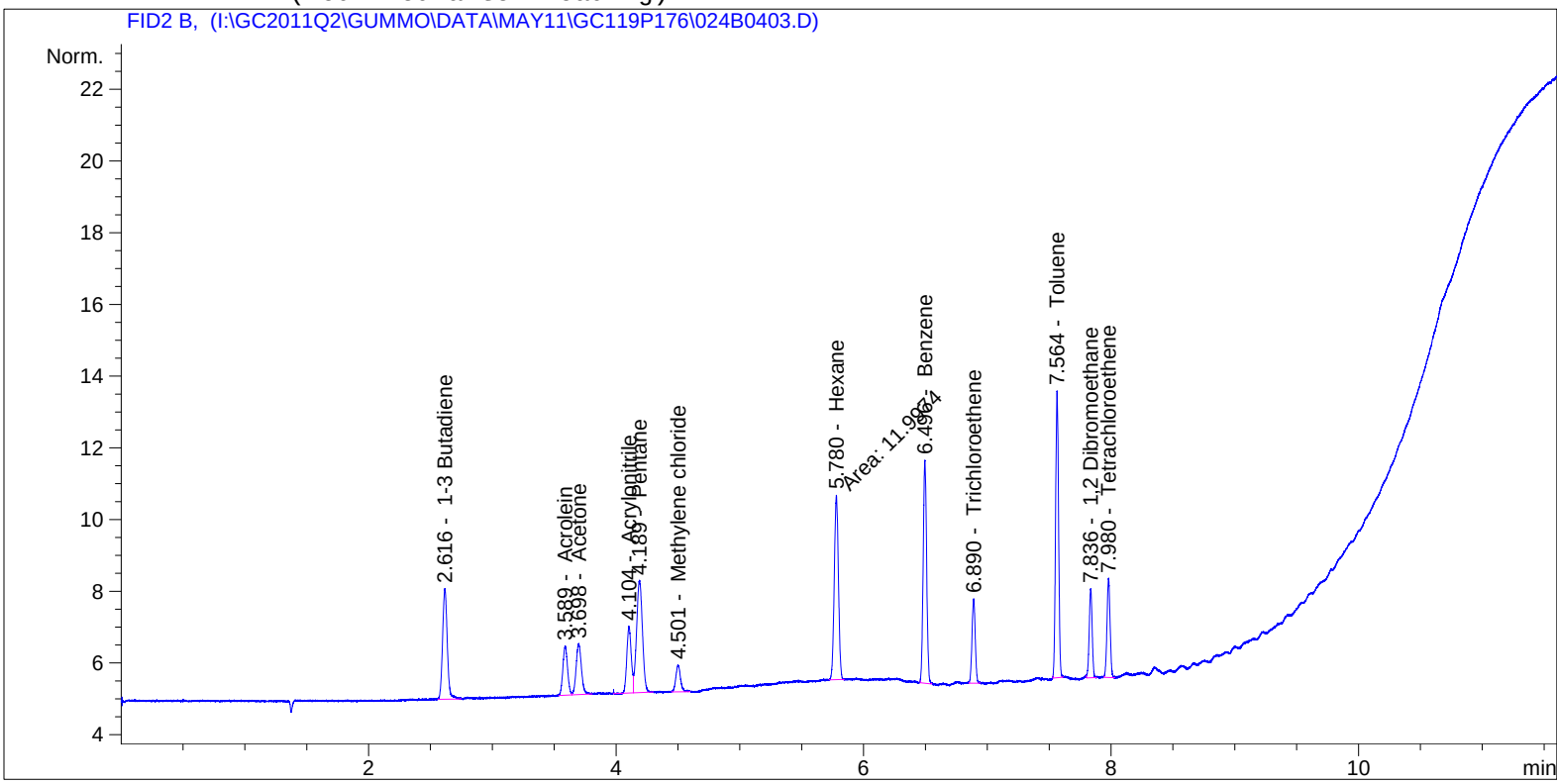


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==================================================================
                      External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.616 BB        8.15296    1.26918   10.34755    1-3 Butadiene
  3.453            -          -         -         Acetonitrile
  3.589 BV        3.61142    2.80175   10.11830    Acrolein
  3.698 VB        4.22813    2.45151   10.36533    Acetone
  4.104 BV        4.62080    2.25978   10.44197    Acrylonitrile
  4.189 VB       10.34111 9.87843e-1   10.21539    Pentane
  4.501 BB        1.98741    5.33933   10.61145    Methylene chloride
  5.780 MM       11.99737 8.45930e-1   10.14893    Hexane
  6.496 BB       12.09490 8.47523e-1   10.25070    Benzene
  6.890 BB        4.28737    2.46763   10.57964    Trichloroethene
  7.564 BB       13.50928 7.80482e-1   10.54375    Toluene
  7.836 BB        4.13033    2.56678   10.60167    1,2 Dibromoethane
```

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0403.D
Sample Name: gc119p176 #I2 ENV(1=960,4=40)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	4.86705	2.17408	10.58135		Tetrachloroethene

Totals : 124.80603

1 Warnings or Errors :

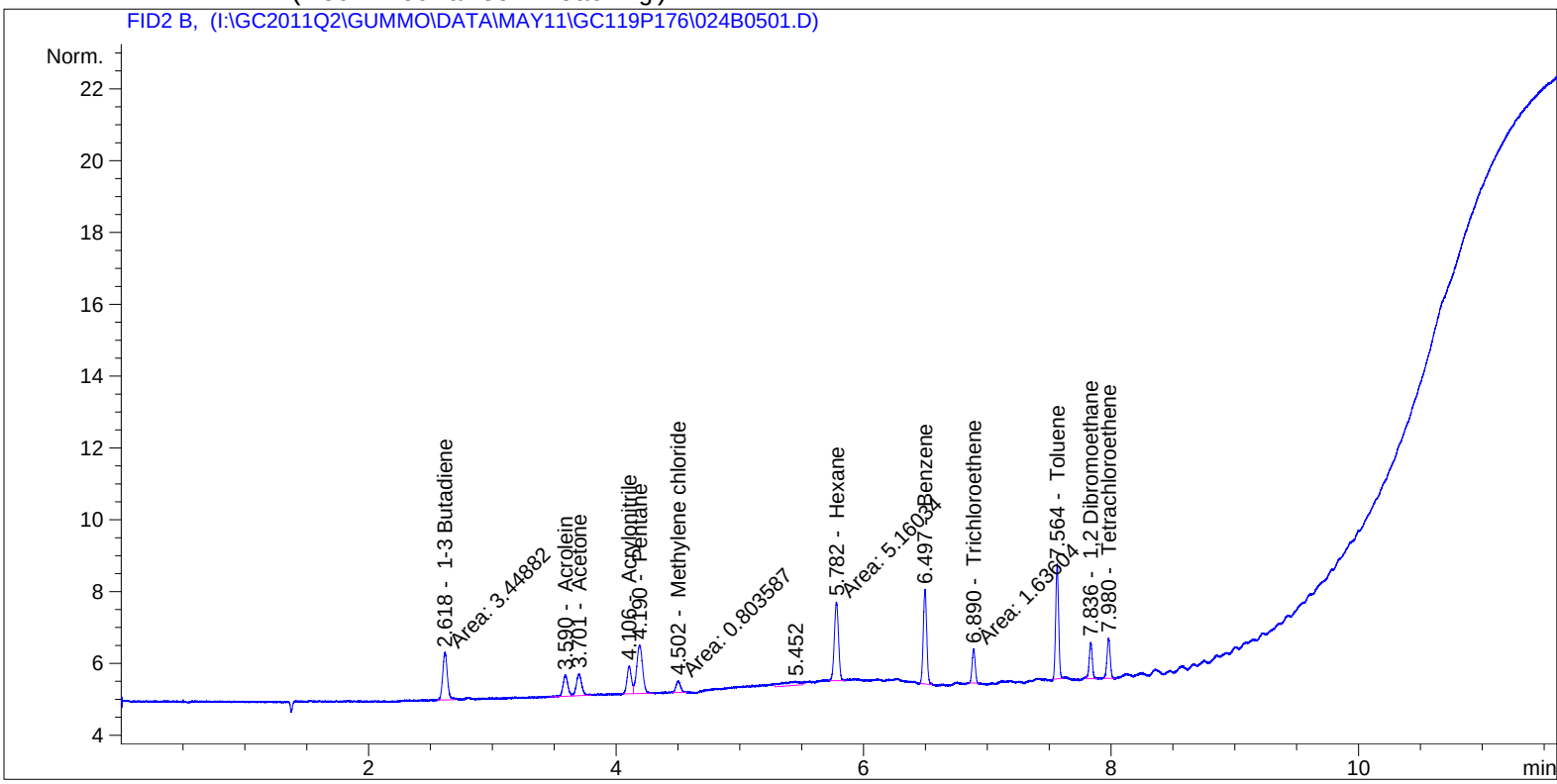
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0501.D
Sample Name: gc119p176 #I1 ENV(1=1010,4=20)

```
================================================================
Acq. Operator   : stg                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 00:20:39                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```

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================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	MM	3.44882	1.35536	4.67440		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.590	BV	1.61224	2.98112	4.80626		Acrolein
3.701	VB	1.79594	2.79235	5.01489		Acetone
4.106	BV	1.91363	2.61488	5.00391		Acrylonitrile
4.190	VB	4.45763	1.03345	4.60674		Pentane
4.502	MM	8.03587e-1	5.71260	4.59057		Methylene chloride
5.782	MM	5.16034	8.98527e-1	4.63670		Hexane
6.497	BB	5.10556	9.01784e-1	4.60411		Benzene
6.890	MM	1.63604	2.97111	4.86086		Trichloroethene
7.564	BB	5.34037	9.34031e-1	4.98808		Toluene
7.836	BB	1.73366	2.87554	4.98521		1,2 Dibromoethane

Manual Int. “II” (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0501.D
Sample Name: gc119p176 #I1 ENV(1=1010,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	2.00471	2.48385	4.97940		Tetrachloroethene

Totals : 57.75113

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0502.D
Sample Name: gc119p176 #I1 ENV(1=1010,4=20)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 00:41:28                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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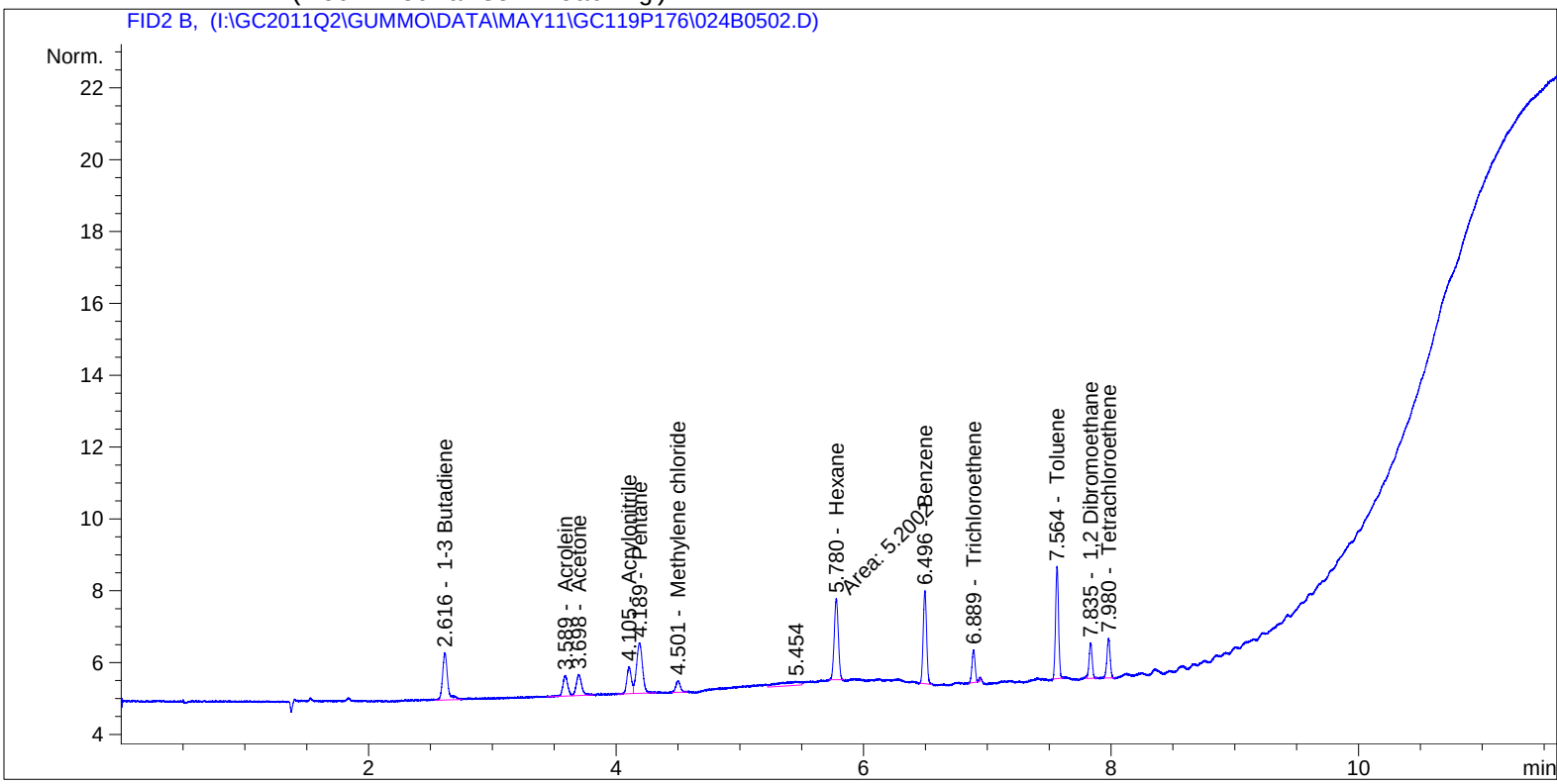


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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.616 VB        3.74505    1.34355    5.03165    1-3 Butadiene
  3.453            -          -          -         Acetonitrile
  3.589 BV        1.55819    2.99235    4.66266    Acrolein
  3.698 VB        1.76517    2.79611    4.93560    Acetone
  4.105 BV        1.87865    2.62011    4.92227    Acrylonitrile
  4.189 VB        4.69095    1.02946    4.82915    Pentane
  4.501 BB     8.07582e-1    5.70950    4.61089    Methylene chloride
  5.780 MM        5.20020 8.97819e-1    4.66884    Hexane
  6.496 BB        4.98430 9.04069e-1    4.50615    Benzene
  6.889 BB        1.64132    2.97111    4.87654    Trichloroethene
  7.564 BB        5.21998 9.35231e-1    4.88188    Toluene
  7.835 BB        1.69868    2.87554    4.88461    1,2 Dibromoethane
```

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0502.D
Sample Name: gc119p176 #I1 ENV(1=1010,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.980	BB	1.96073	2.48385	4.87016		Tetrachloroethene

Totals : 57.68040

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0503.D
Sample Name: gc119p176 #I1 ENV(1=1010,4=20)

```
================================================================
Acq. Operator   : stg                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 01:02:21                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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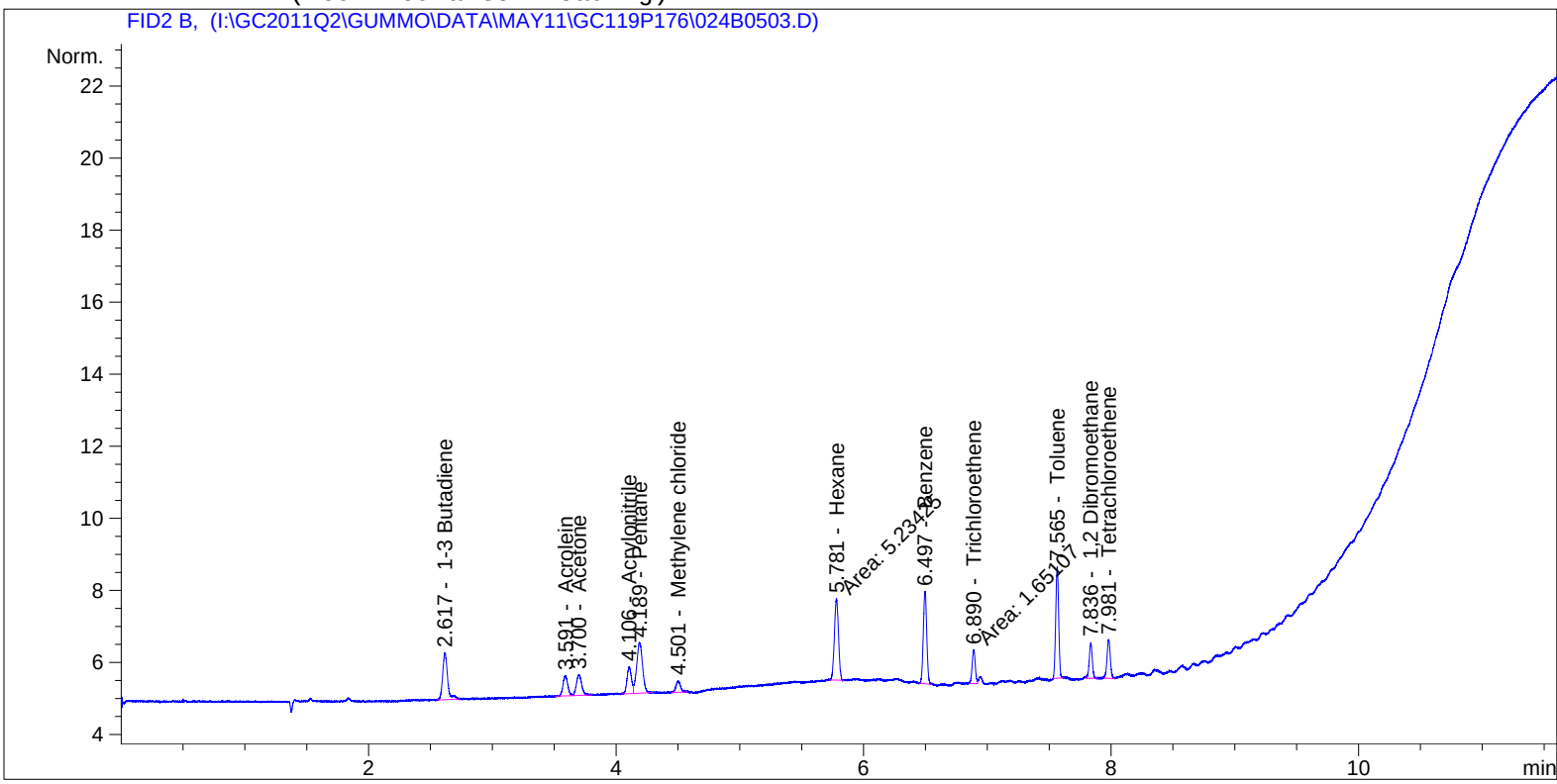


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================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	BB	3.59091	1.34945	4.84575		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591	BV	1.49471	3.00659	4.49398		Acrolein
3.700	VB	1.71426	2.79611	4.79327		Acetone
4.106	BV	1.83318	2.62011	4.80312		Acrylonitrile
4.189	VB	4.63356	1.03041	4.77445		Pentane
4.501	BB	8.09604e-1	5.70794	4.62117		Methylene chloride
5.781	MM	5.23425	8.97223e-1	4.69629		Hexane
6.497	BB	4.97415	9.04265e-1	4.49795		Benzene
6.890	MM	1.65107	2.97111	4.90551		Trichloroethene
7.565	BB	5.17019	9.35231e-1	4.83532		Toluene
7.836	BB	1.68187	2.87554	4.83629		1,2 Dibromoethane

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0503.D
Sample Name: gc119p176 #I1 ENV(1=1010,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981	BB	1.97296	2.48385	4.90054		Tetrachloroethene

Totals : 57.00364

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0601.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 01:23:13                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 9:40:26 AM by KAM
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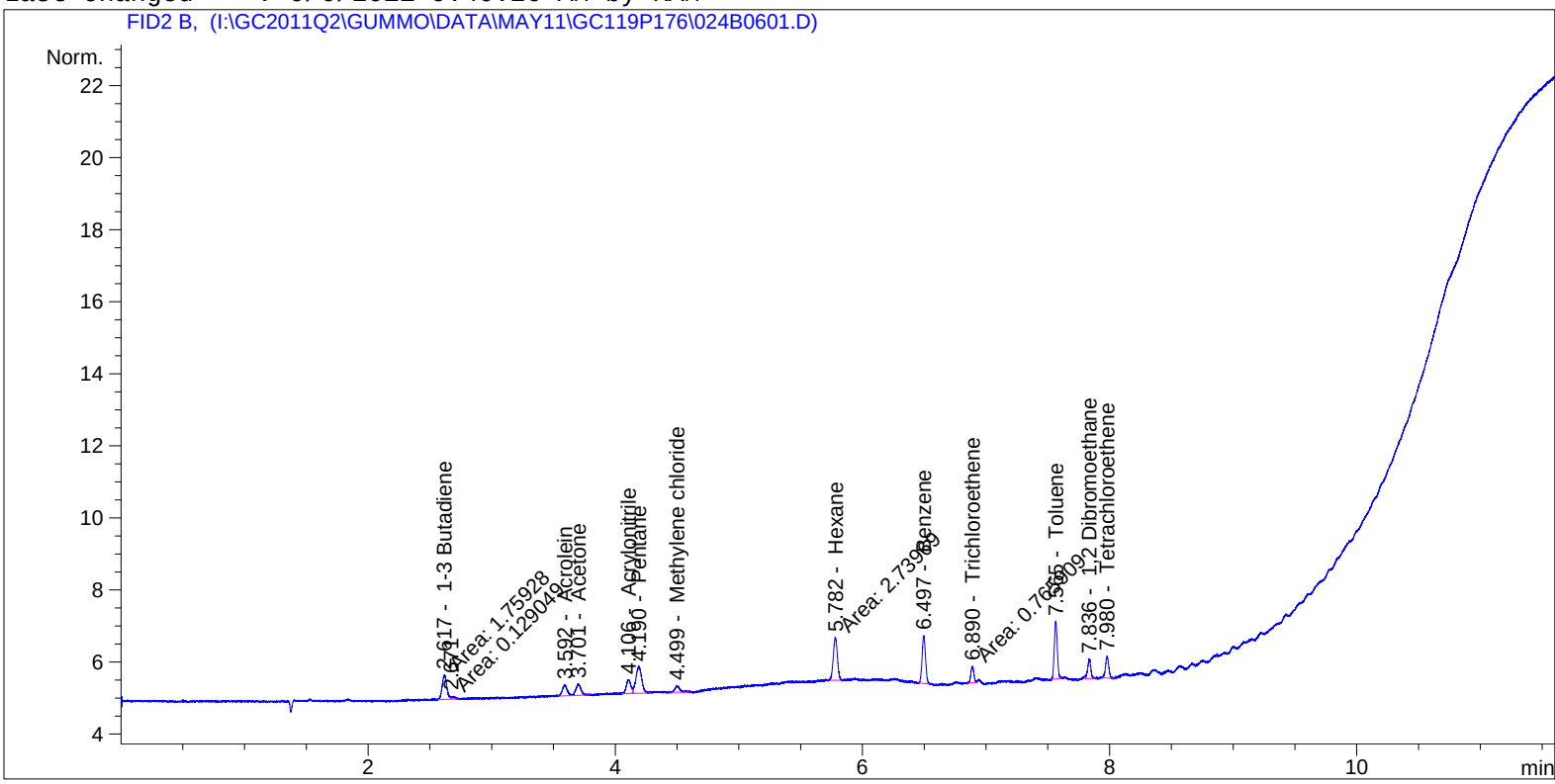


```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 9:38:24 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	MF	1.75928	1.43703	2.52814		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.592	BV	7.97064e-1	3.31249	2.64027		Acrolein
3.701	VB	8.90922e-1	2.79611	2.49111		Acetone
4.106	BV	9.74719e-1	2.62011	2.55387		Acrylonitrile
4.190	VV	2.44013	1.09972	2.68347		Pentane
4.499	BB	4.83178e-1	6.12815	2.96098		Methylene chloride
5.782	MM	2.73969	9.79165e-1	2.68261		Hexane
6.497	BB	2.56766	9.94036e-1	2.55235		Benzene
6.890	MM	7.65909e-1	2.97111	2.27560		Trichloroethene
7.565	BB	2.71815	9.35231e-1	2.54210		Toluene
7.836	BB	9.72586e-1	2.87554	2.79671		1,2 Dibromoethane
7.980	BB	1.06108	2.48385	2.63557		Tetrachloroethene

Manual Int. “II” (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0601.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				31.34278		

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0602.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 01:44:07                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 9:40:26 AM by KAM
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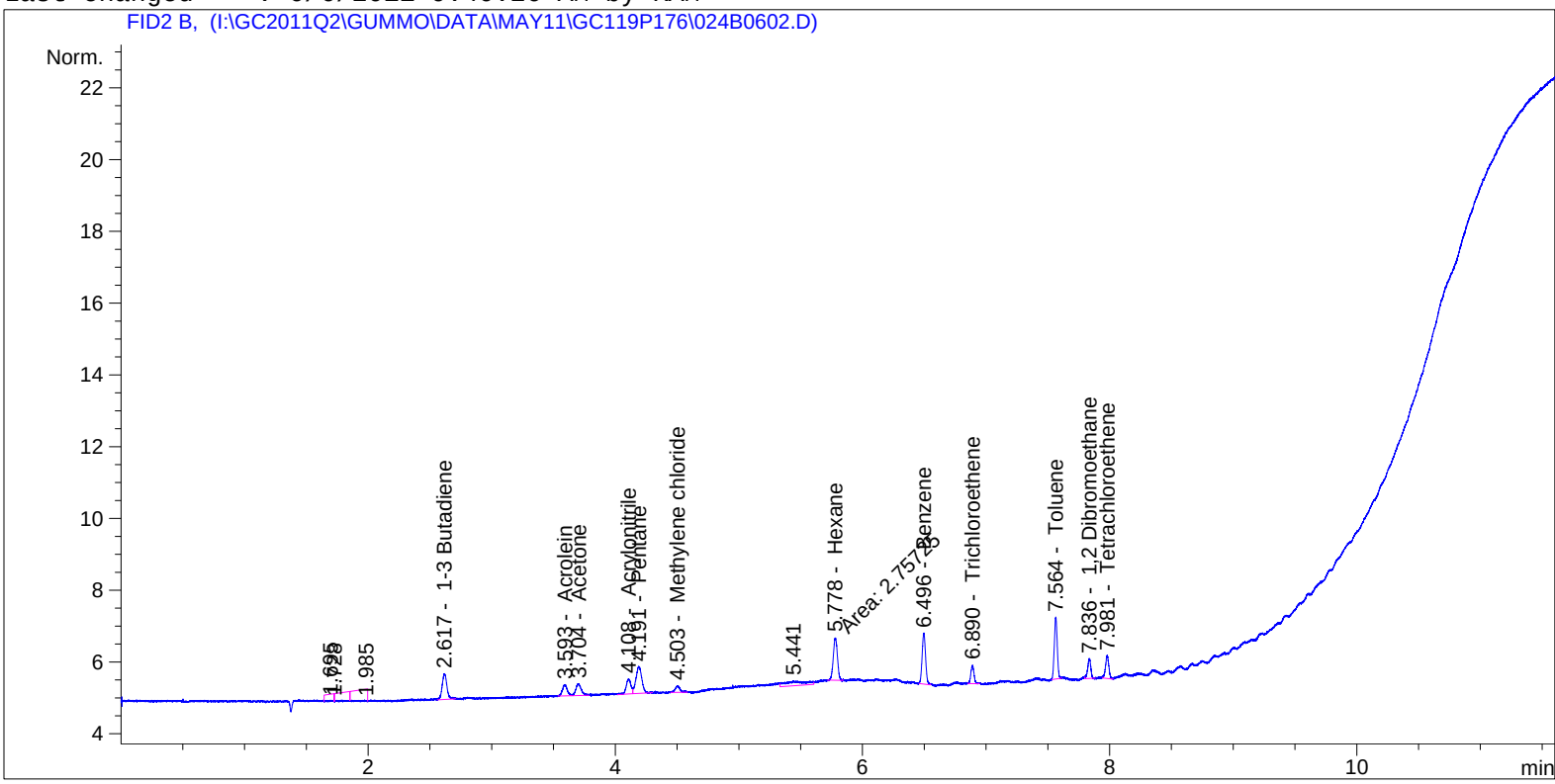


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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 9:38:24 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	VB	1.91464	1.42230	2.72320		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.593	BV	8.44908e-1	3.27538	2.76739		Acrolein
3.704	VV	1.02043	2.79611	2.85322		Acetone
4.108	VV	1.10857	2.62011	2.90457		Acrylonitrile
4.191	VB	2.47463	1.09768	2.71636		Pentane
4.503	BB	5.12554e-1	6.06842	3.11039		Methylene chloride
5.778	MM	2.75725	9.78024e-1	2.69665		Hexane
6.496	BB	2.76023	9.81568e-1	2.70935		Benzene
6.890	BB	9.15984e-1	2.97111	2.72149		Trichloroethene
7.564	BB	2.85956	9.35231e-1	2.67435		Toluene
7.836	BB	9.73909e-1	2.87554	2.80051		1,2 Dibromoethane
7.981	BB	1.20246	2.48385	2.98675		Tetrachloroethene

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0602.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				33.66424		

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0603.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 02:05:06                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 9:40:26 AM by KAM
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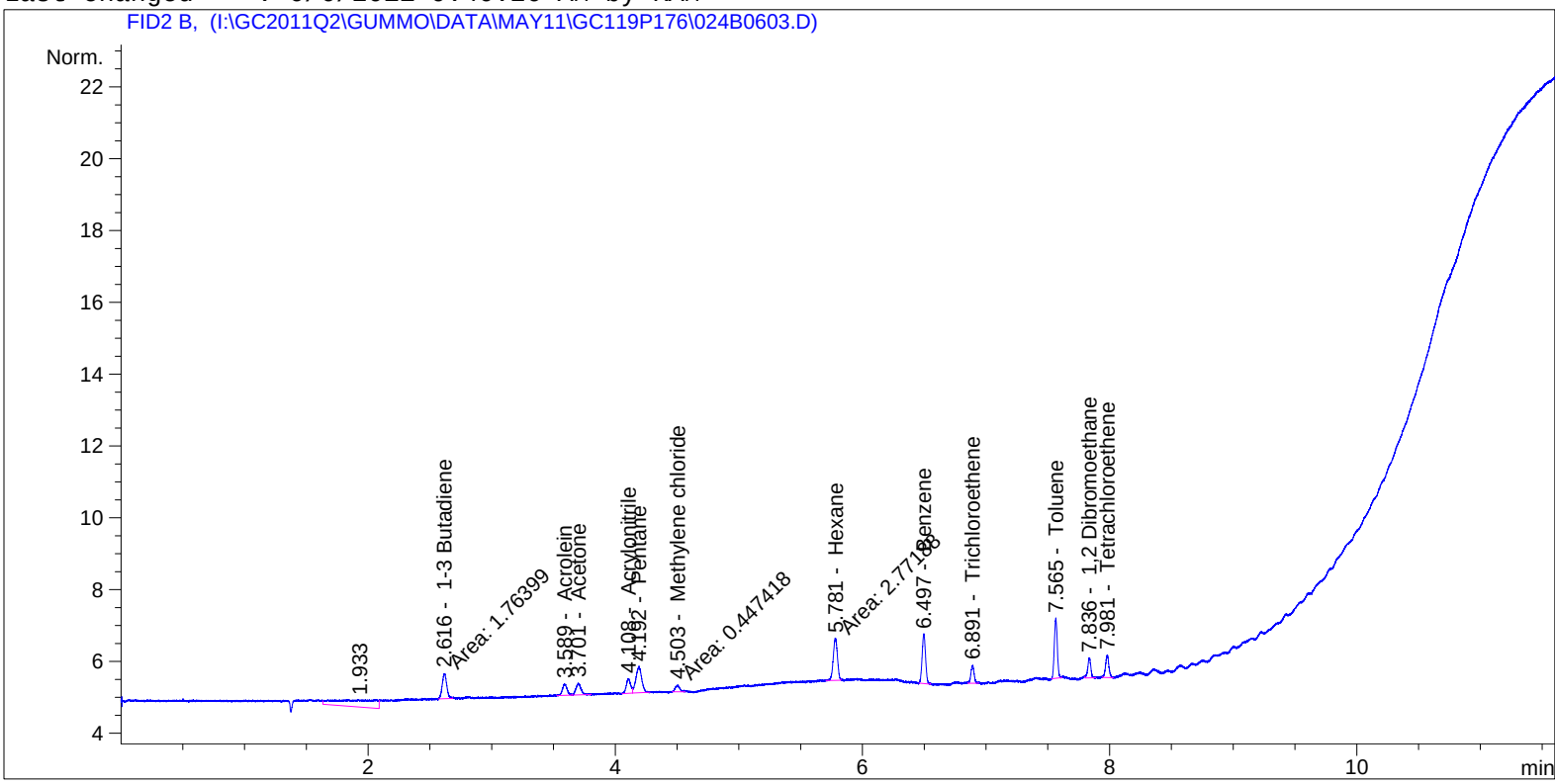


```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 9:38:24 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.616	MM	1.76399	1.43703	2.53491		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.589	BV	8.26564e-1	3.28910	2.71865		Acrolein
3.701	VB	8.96940e-1	2.79611	2.50794		Acetone
4.108	BV	1.00076	2.62011	2.62210		Acrylonitrile
4.192	VB	2.36672	1.10427	2.61349		Pentane
4.503	MM	4.47418e-1	6.21145	2.77911		Methylene chloride
5.781	MM	2.77188	9.77084e-1	2.70836		Hexane
6.497	BB	2.65487	9.88461e-1	2.62424		Benzene
6.891	BB	9.01491e-1	2.97111	2.67843		Trichloroethene
7.565	BB	2.80098	9.35231e-1	2.61956		Toluene
7.836	BB	9.60342e-1	2.87554	2.76150		1,2 Dibromoethane
7.981	BB	1.14761	2.48385	2.85051		Tetrachloroethene

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0603.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				32.01881		

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0604.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

```
================================================================
Acq. Operator   : stg                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 02:25:59                Inj :   4
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 9:40:26 AM by KAM
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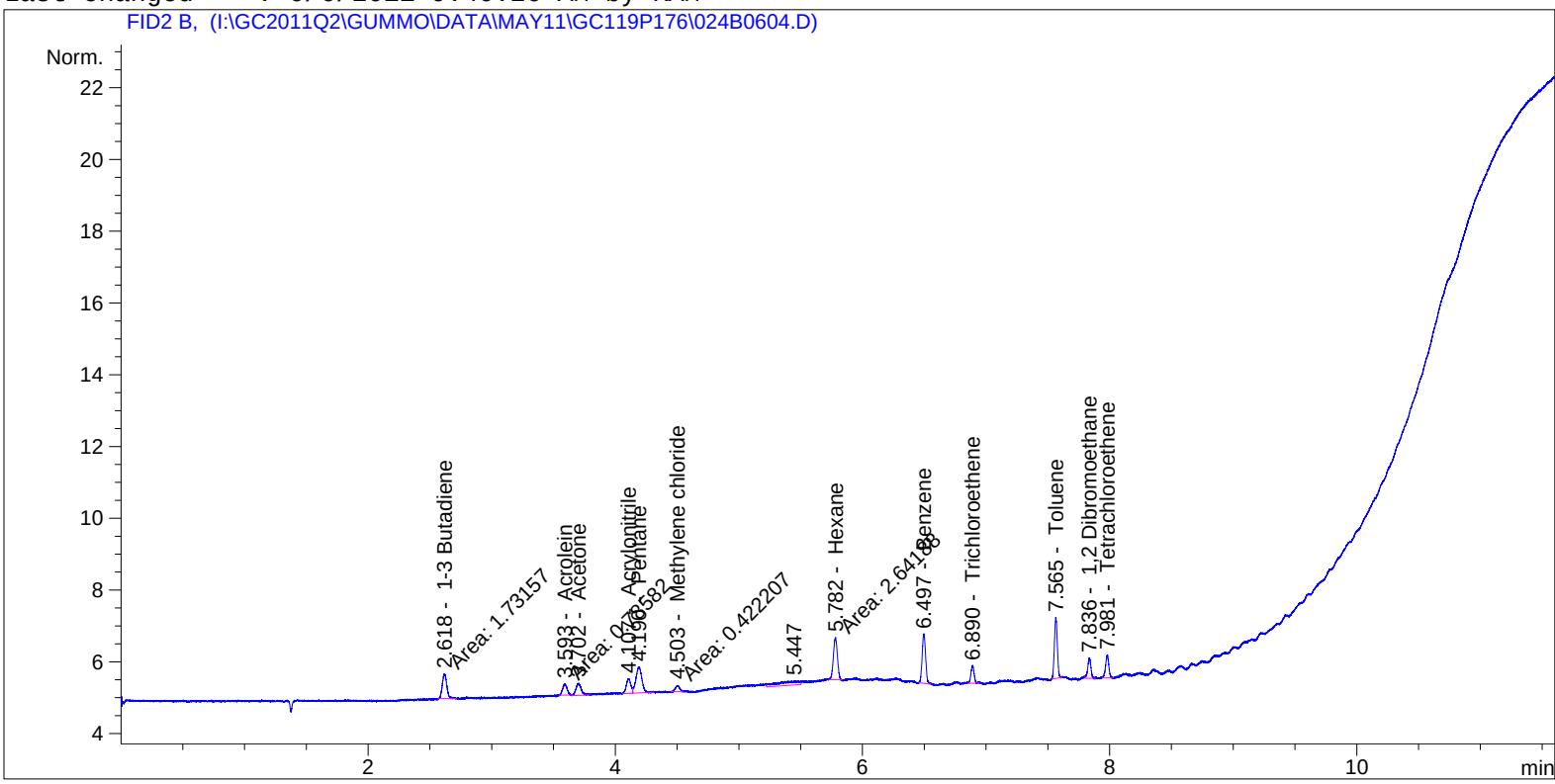



```
================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 9:38:24 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	MM	1.73157	1.43703	2.48831		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.593	MM	7.85820e-1	3.32187	2.61039		Acrolein
3.702	VB	1.00714	2.79611	2.81608		Acetone
4.107	BV	1.03781	2.62011	2.71917		Acrylonitrile
4.190	VB	2.40363	1.10195	2.64868		Pentane
4.503	MM	4.22207e-1	6.27865	2.65089		Methylene chloride
5.782	MM	2.64188	9.85801e-1	2.60437		Hexane
6.497	BB	2.70077	9.85393e-1	2.66131		Benzene
6.890	BB	8.60321e-1	2.97111	2.55611		Trichloroethene
7.565	BB	2.80850	9.35231e-1	2.62660		Toluene
7.836	BB	1.00491	2.87554	2.88967		1,2 Dibromoethane
7.981	BB	1.16463	2.48385	2.89276		Tetrachloroethene

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0604.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				32.16434		

1 Warnings or Errors :

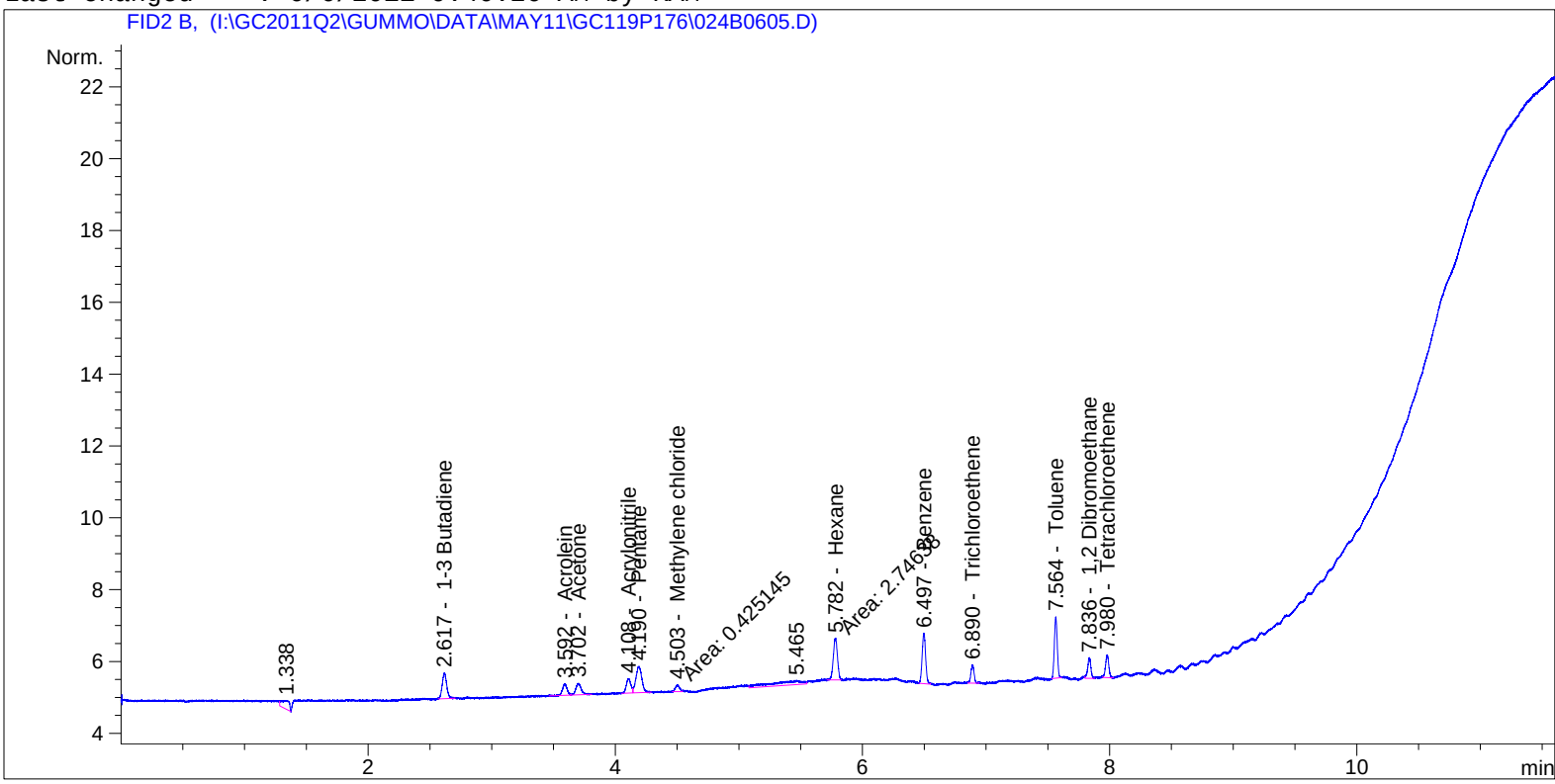
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0605.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

```
================================================================
Acq. Operator   : stg                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 02:46:50                Inj :   5
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 9:40:26 AM by KAM
```




```
================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 9:38:24 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	BB	1.78973	1.43687	2.57160		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.592	BV	8.07510e-1	3.30401	2.66802		Acrolein
3.702	VB	9.48440e-1	2.79611	2.65194		Acetone
4.108	BV	1.02979	2.62011	2.69817		Acrylonitrile
4.190	VB	2.41214	1.10142	2.65679		Pentane
4.503	MM	4.25145e-1	6.27041	2.66584		Methylene chloride
5.782	MM	2.74638	9.78729e-1	2.68796		Hexane
6.497	BB	2.76970	9.80975e-1	2.71701		Benzene
6.890	BB	9.06135e-1	2.97111	2.69222		Trichloroethene
7.564	BB	2.80065	9.35231e-1	2.61925		Toluene
7.836	BB	1.02783	2.87554	2.95558		1,2 Dibromoethane
7.980	BB	1.13788	2.48385	2.82632		Tetrachloroethene

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0605.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				32.41069		

1 Warnings or Errors :

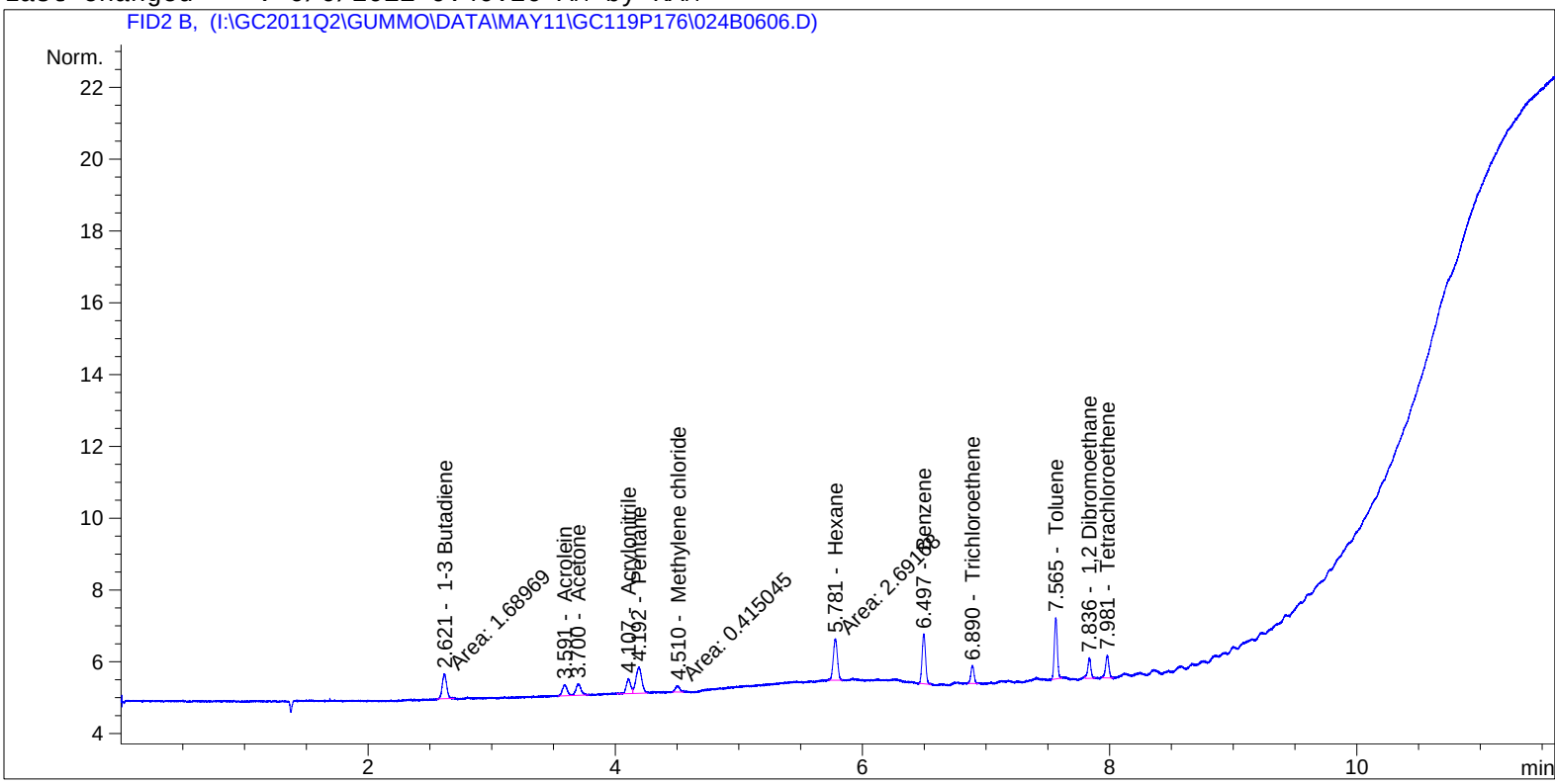
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0606.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

```
================================================================
Acq. Operator   : stg                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 03:07:44                Inj :   6
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 9:40:26 AM by KAM
```




```
================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 9:38:24 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.621	MM	1.68969	1.43703	2.42814		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591	BV	8.16480e-1	3.29691	2.69186		Acrolein
3.700	VB	9.36161e-1	2.79611	2.61761		Acetone
4.107	BV	1.03000	2.62011	2.69872		Acrylonitrile
4.192	VV	2.38257	1.10326	2.62860		Pentane
4.510	MM	4.15045e-1	6.29924	2.61446		Methylene chloride
5.781	MM	2.69168	9.82363e-1	2.64420		Hexane
6.497	BB	2.69517	9.85761e-1	2.65679		Benzene
6.890	BB	8.82700e-1	2.97111	2.62259		Trichloroethene
7.565	BB	2.85081	9.35231e-1	2.66617		Toluene
7.836	BB	9.93097e-1	2.87554	2.85569		1,2 Dibromoethane
7.981	BB	1.15238	2.48385	2.86235		Tetrachloroethene

Manual Int. “II” (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0606.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				31.98717		

1 Warnings or Errors :

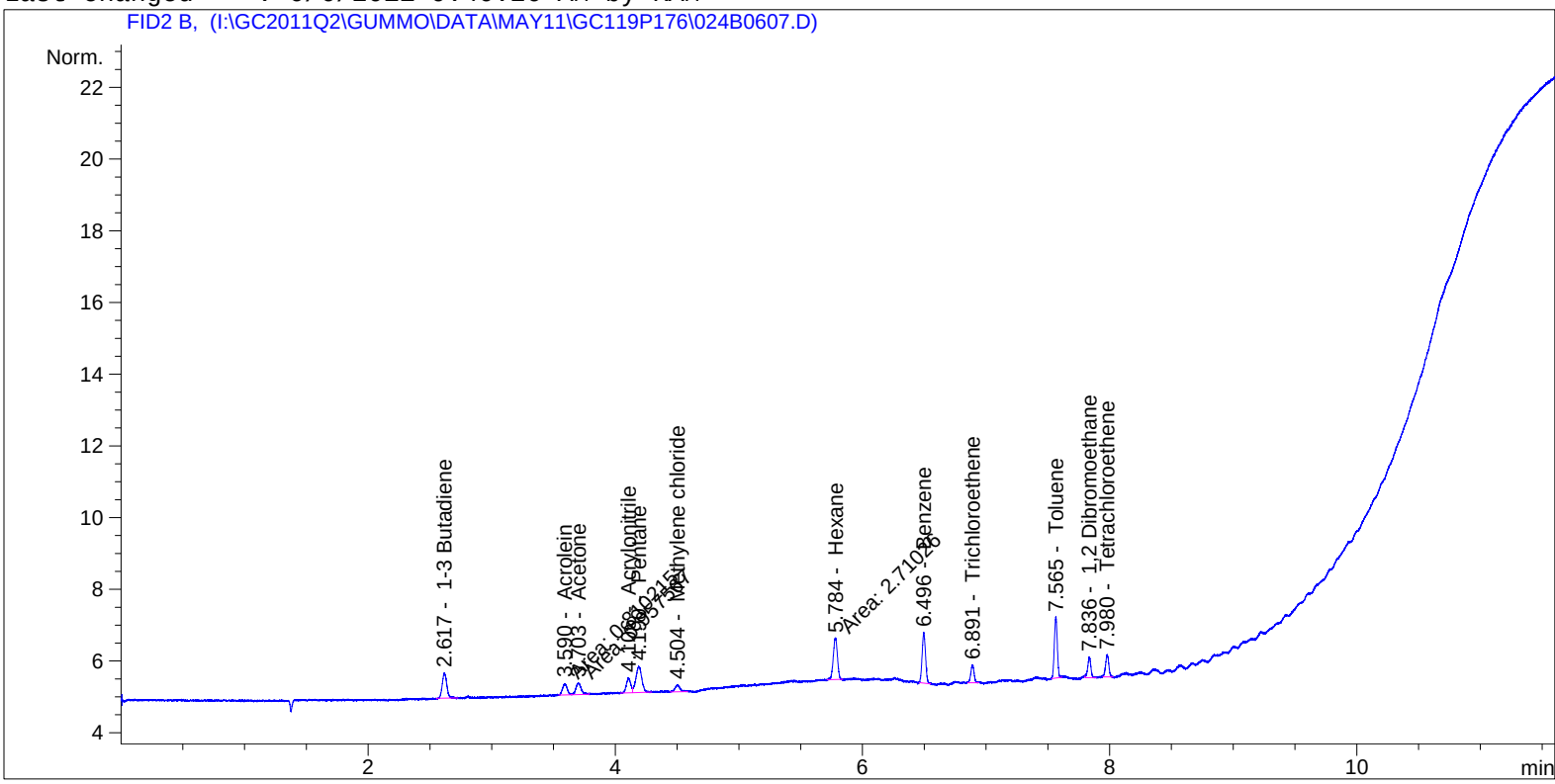
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0607.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

```
================================================================
Acq. Operator   : stg                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 03:28:45                Inj :   7
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 9:40:26 AM by KAM
```




```
================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 9:38:24 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	BB	1.73768	1.43703	2.49709		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.590	MF	8.10215e-1	3.30185	2.67521		Acrolein
3.703	FM	9.57567e-1	2.79611	2.67746		Acetone
4.106	BV	1.01872	2.62011	2.66916		Acrylonitrile
4.190	VB	2.39815	1.10229	2.64345		Pentane
4.504	BB	5.26038e-1	6.04323	3.17897		Methylene chloride
5.784	MM	2.71026	9.81112e-1	2.65907		Hexane
6.496	BB	2.72864	9.83579e-1	2.68384		Benzene
6.891	BB	9.09232e-1	2.97111	2.70143		Trichloroethene
7.565	BB	2.84913	9.35231e-1	2.66460		Toluene
7.836	BB	1.00344	2.87554	2.88544		1,2 Dibromoethane
7.980	BB	1.12483	2.48385	2.79391		Tetrachloroethene

Manual Int. “II” (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0607.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				32.72963		

1 Warnings or Errors :

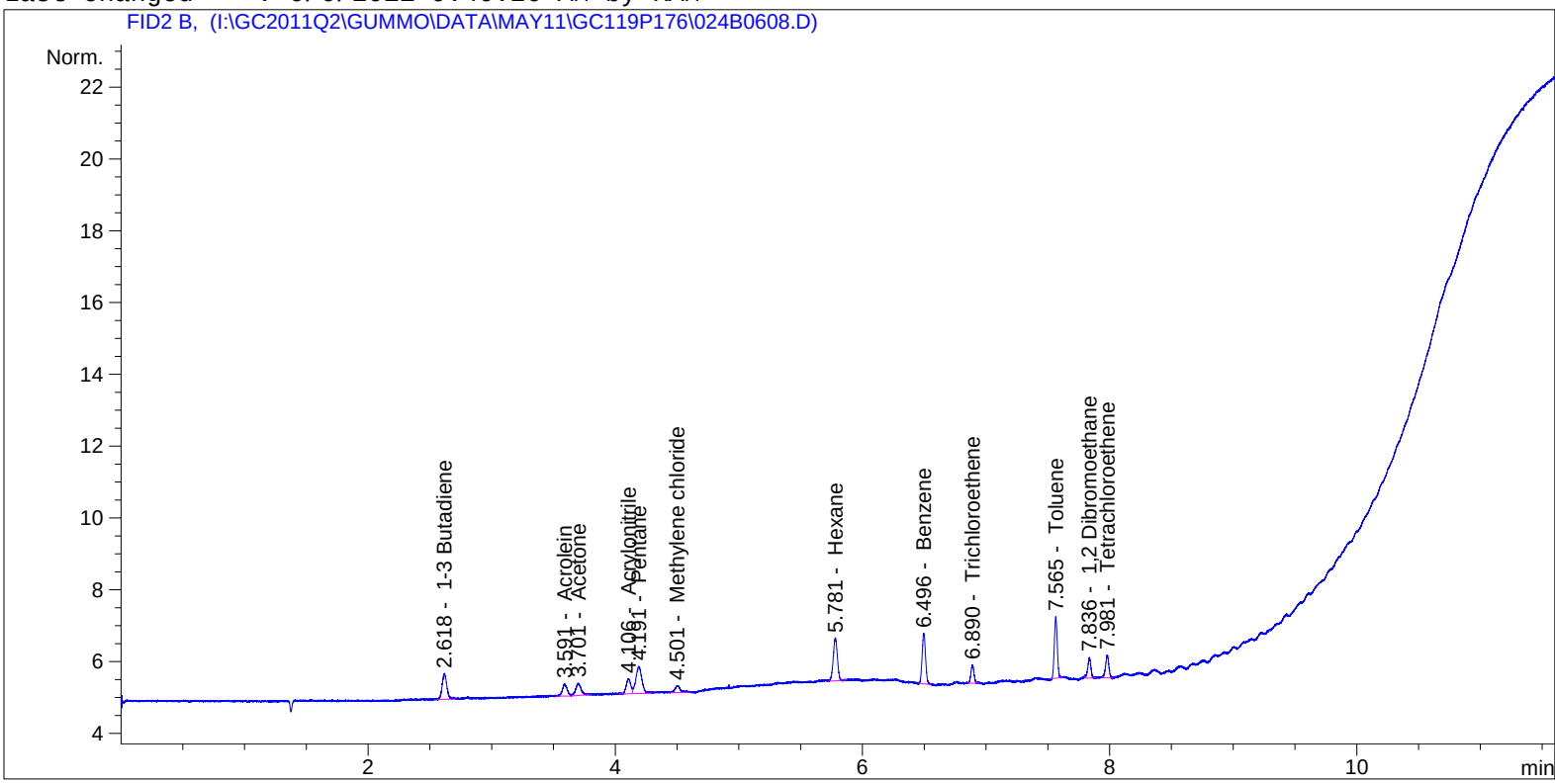
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0608.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

```
==================================================================
Acq. Operator   : stg                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 03:49:59                Inj :   8
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 9:40:26 AM by KAM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 9:38:24 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	BB	1.89591	1.42436	2.70046		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.591	BV	9.11124e-1	3.23045	2.94334		Acrolein
3.701	VB	1.03389	2.79611	2.89088		Acetone
4.106	BV	1.08953	2.62011	2.85470		Acrylonitrile
4.191	VB	2.58416	1.09156	2.82078		Pentane
4.501	BB	6.12391e-1	5.90825	3.61816		Methylene chloride
5.781	VB	2.77153	9.77107e-1	2.70808		Hexane
6.496	BB	2.70515	9.85105e-1	2.66486		Benzene
6.890	BB	8.91355e-1	2.97111	2.64831		Trichloroethene
7.565	BB	2.84549	9.35231e-1	2.66119		Toluene
7.836	BB	1.00585	2.87554	2.89236		1,2 Dibromoethane
7.981	BB	1.16774	2.48385	2.90049		Tetrachloroethene

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0608.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				34.30360		

1 Warnings or Errors :

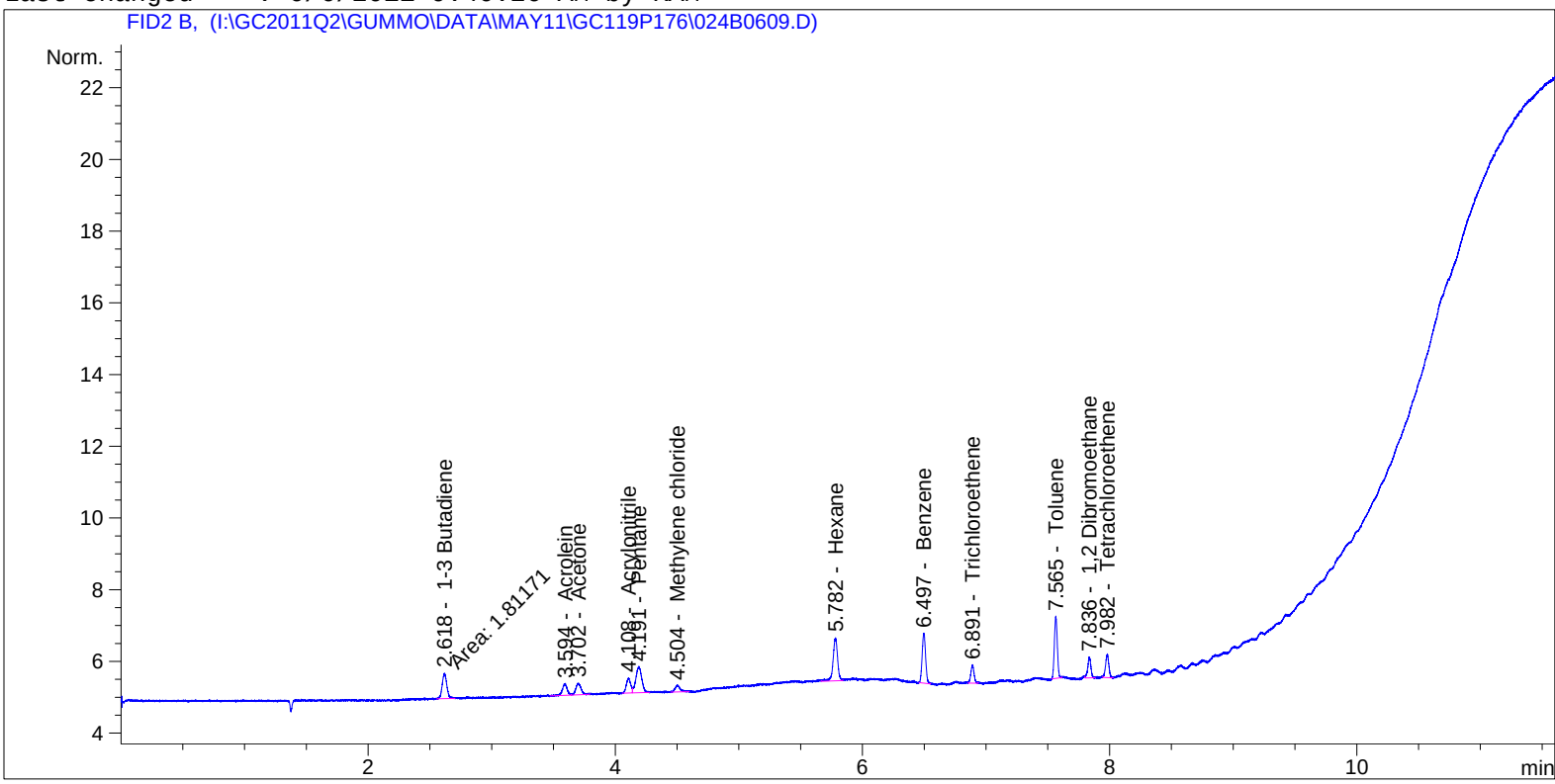
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0609.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

```
================================================================
Acq. Operator   : stg                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 25-May-11, 04:11:01                Inj :   9
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 9:40:26 AM by KAM
```




```
================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 9:38:24 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	MM	1.81171	1.43416	2.59828		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.594	BV	8.36638e-1	3.28149	2.74542		Acrolein
3.702	VB	9.46384e-1	2.79611	2.64619		Acetone
4.108	BV	1.00886	2.62011	2.64333		Acrylonitrile
4.191	VV	2.41897	1.10101	2.66330		Pentane
4.504	BB	5.21404e-1	6.05174	3.15540		Methylene chloride
5.782	VV	3.03985	9.61469e-1	2.92272		Hexane
6.497	BB	2.70669	9.85004e-1	2.66610		Benzene
6.891	BB	9.04341e-1	2.97111	2.68689		Trichloroethene
7.565	BB	2.88958	9.35231e-1	2.70242		Toluene
7.836	BB	1.02124	2.87554	2.93662		1,2 Dibromoethane
7.982	BB	1.18346	2.48385	2.93954		Tetrachloroethene

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P176\024B0609.D
Sample Name: gc119p176 #I0 ENV(1=1980,4=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				33.30622		

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3401.D
Sample Name: gc119p172 #AN1 ENV(1=1010,2=20)

```
==========================================================================
Acq. Operator   : tbo                              Seq. Line :  34
Acq. Instrument : Gummo online                    Location : Vial 24
Injection Date  : 22-May-11, 18:29:21                  Inj :   1
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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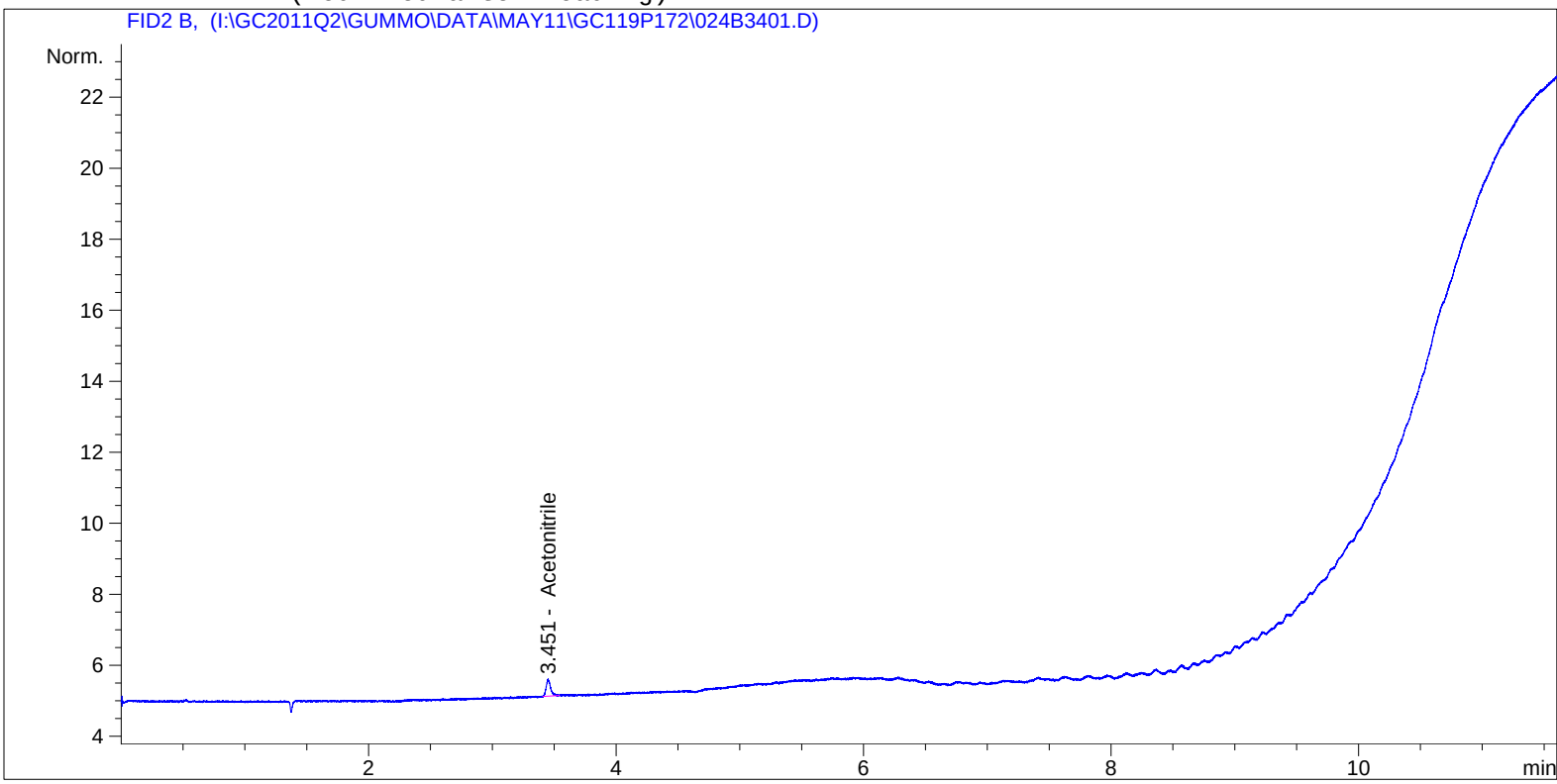



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.451	BB	1.15513	4.15030	4.79413		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3401.D
Sample Name: gc119p172 #AN1 ENV(1=1010,2=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 4.79413

1 Warnings or Errors :

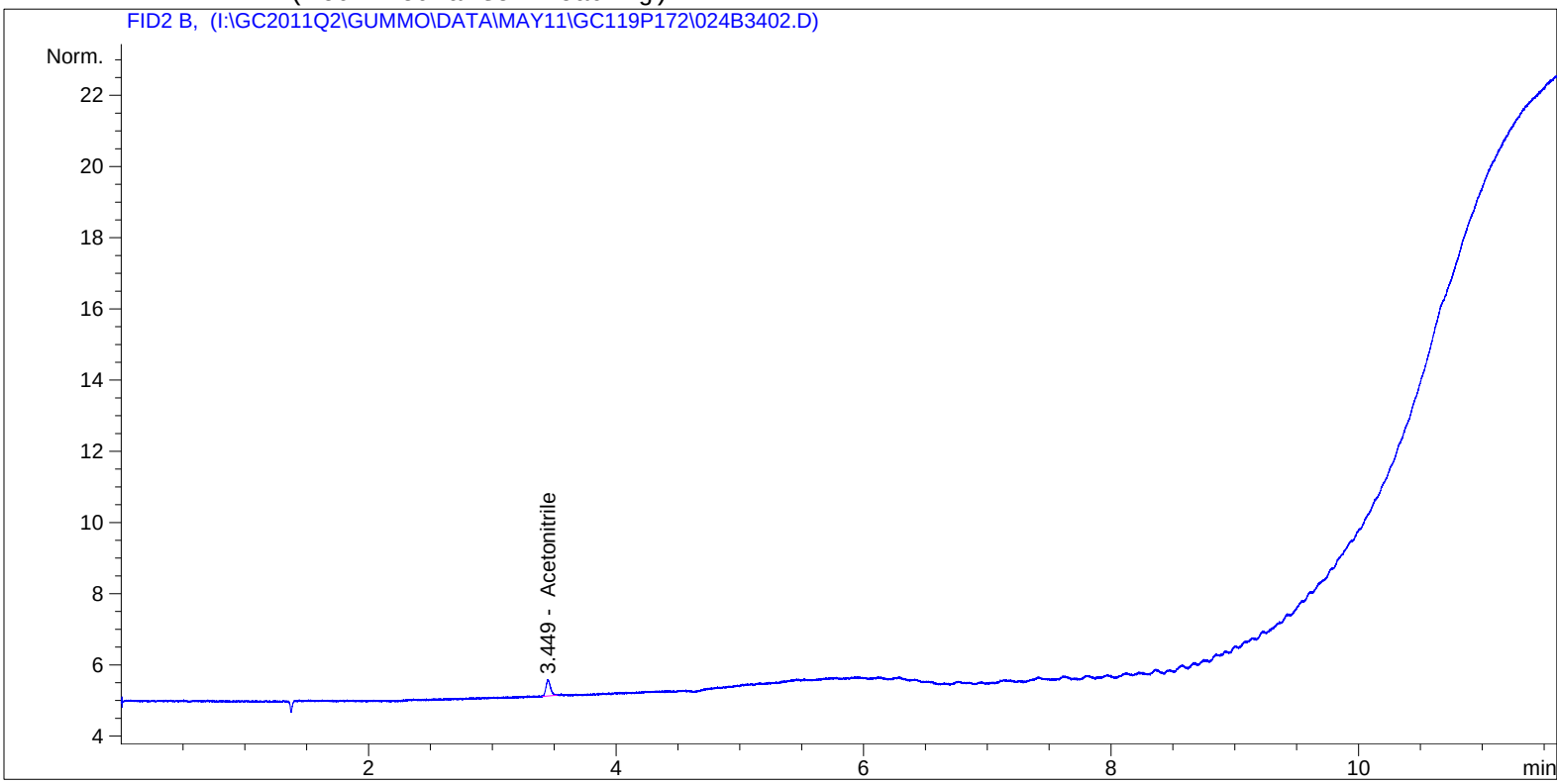
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3402.D
Sample Name: gc119p172 #AN1 ENV(1=1010,2=20)

```
==========================================================================
Acq. Operator   : tbo                              Seq. Line :  34
Acq. Instrument : Gummo online                    Location : Vial 24
Injection Date  : 22-May-11, 18:48:32                  Inj :   2
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, June 06, 2011 10:20:51 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.449	BB	1.14551	4.15030	4.75423		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3402.D
Sample Name: gc119p172 #AN1 ENV(1=1010,2=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 4.75423

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3403.D
Sample Name: gc119p172 #AN1 ENV(1=1010,2=20)

```
==========================================================================
Acq. Operator   : tbo                              Seq. Line :  34
Acq. Instrument : Gummo online                    Location : Vial 24
Injection Date  : 22-May-11, 19:07:50                  Inj :   3
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
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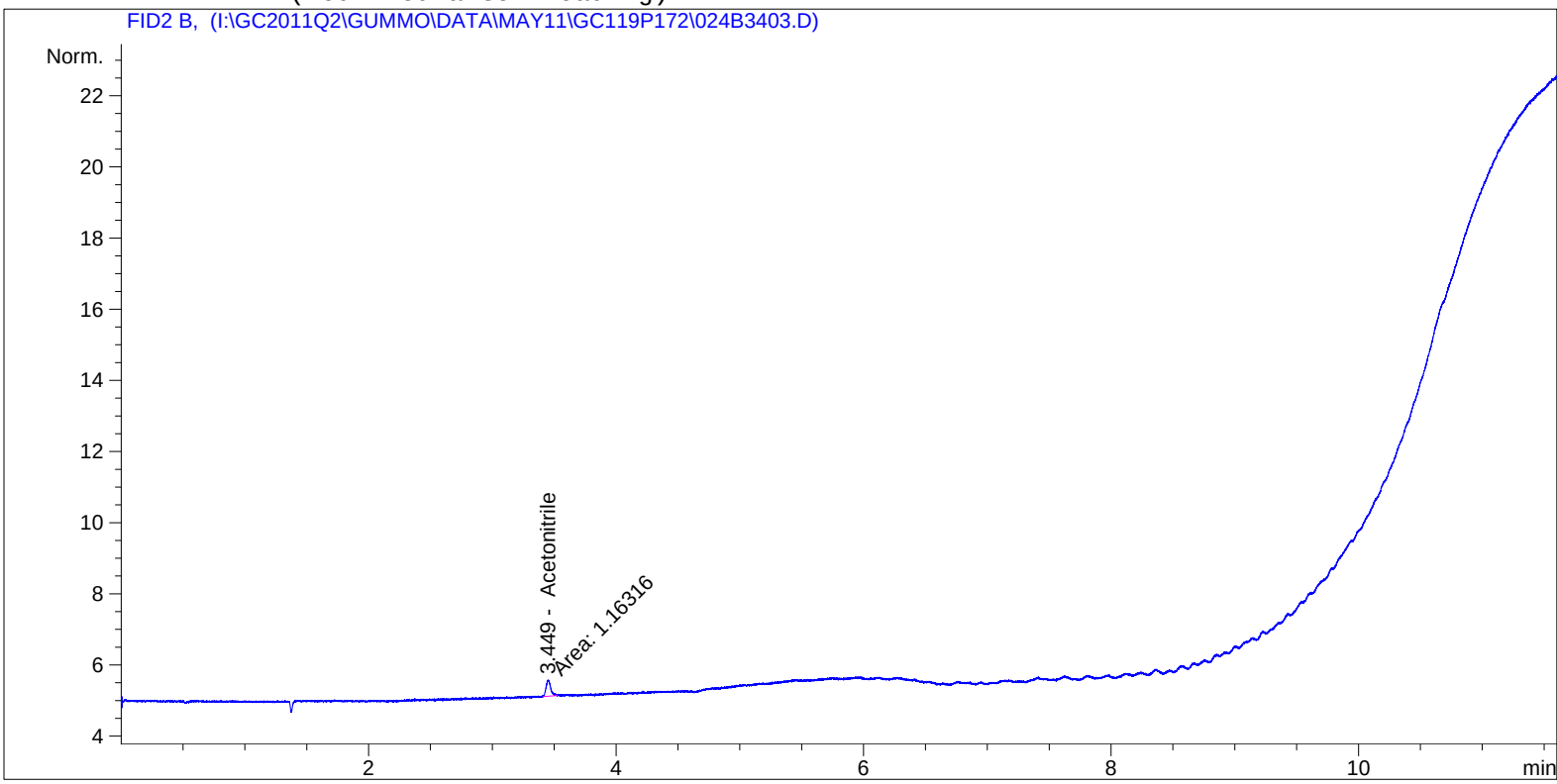



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.449	MM	1.16316	4.15030	4.82747		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Manual Int. “II” (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3403.D
Sample Name: gc119p172 #AN1 ENV(1=1010,2=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 4.82747

1 Warnings or Errors :

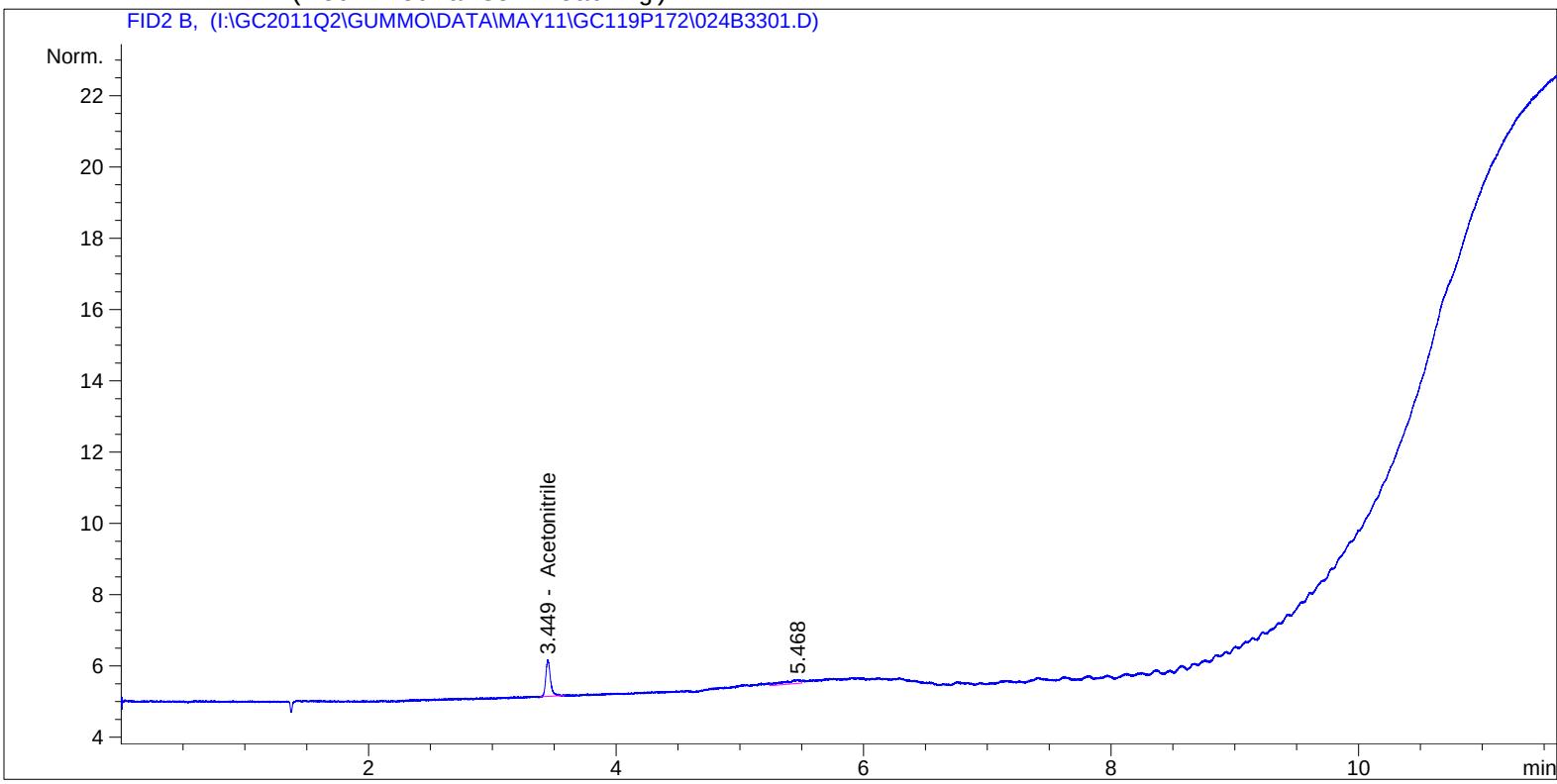
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3301.D
Sample Name: gc119p172 #AN2 ENV(1=960,2=40)

```
==========================================================================
Acq. Operator   : tbo                          Seq. Line :  33
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 22-May-11, 17:31:32                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.449	BB	2.68690	3.79240	10.18977		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3301.D
Sample Name: gc119p172 #AN2 ENV(1=960,2=40)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 10.18977

1 Warnings or Errors :

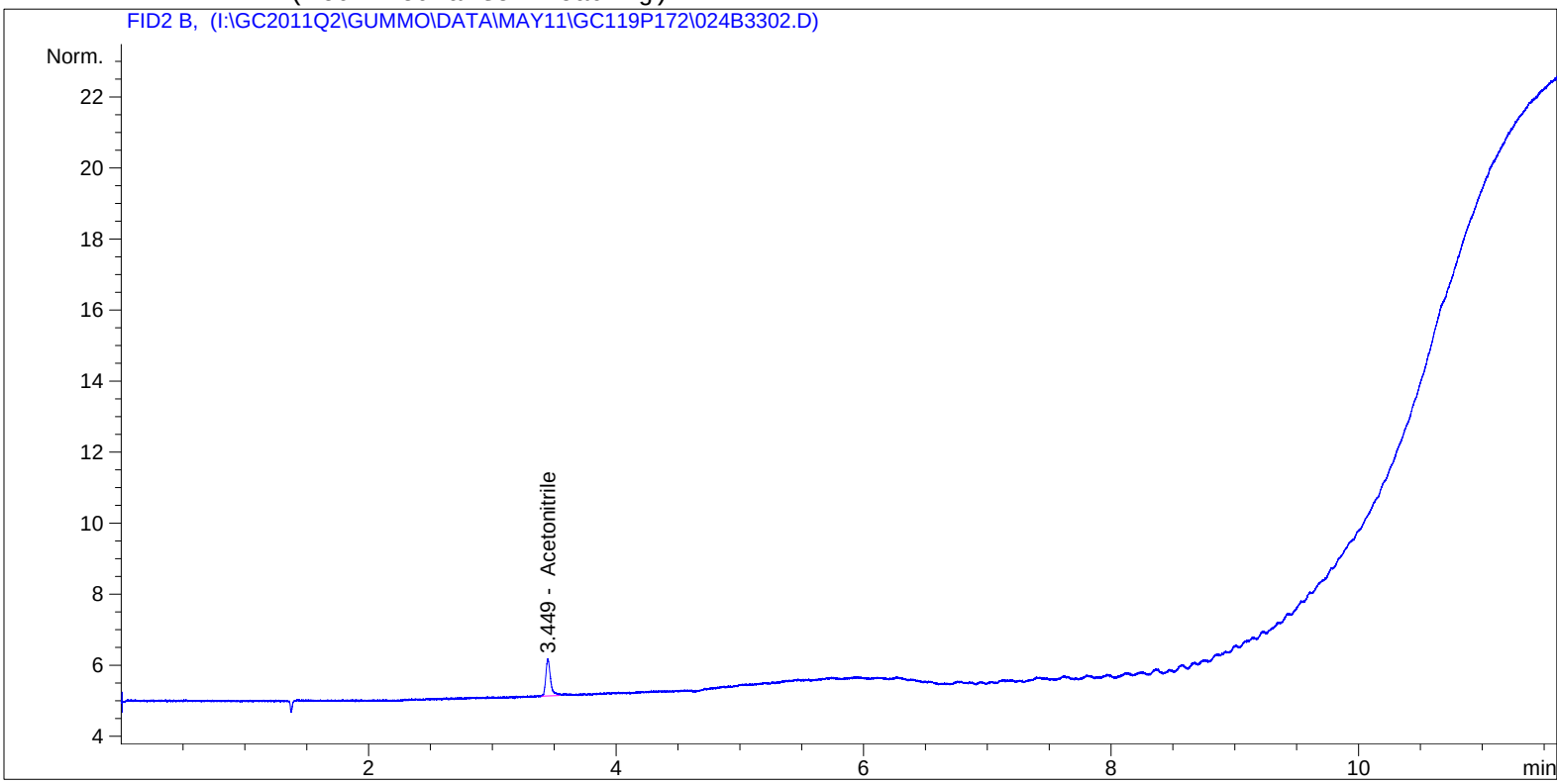
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3302.D
Sample Name: gc119p172 #AN2 ENV(1=960,2=40)

```
==========================================================================
Acq. Operator   : tbo                              Seq. Line :  33
Acq. Instrument : Gummo online                      Location : Vial 24
Injection Date  : 22-May-11, 17:50:53                    Inj :   2
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.449	BV	2.73580	3.78747	10.36173		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3302.D
Sample Name: gc119p172 #AN2 ENV(1=960,2=40)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 10.36173

1 Warnings or Errors :

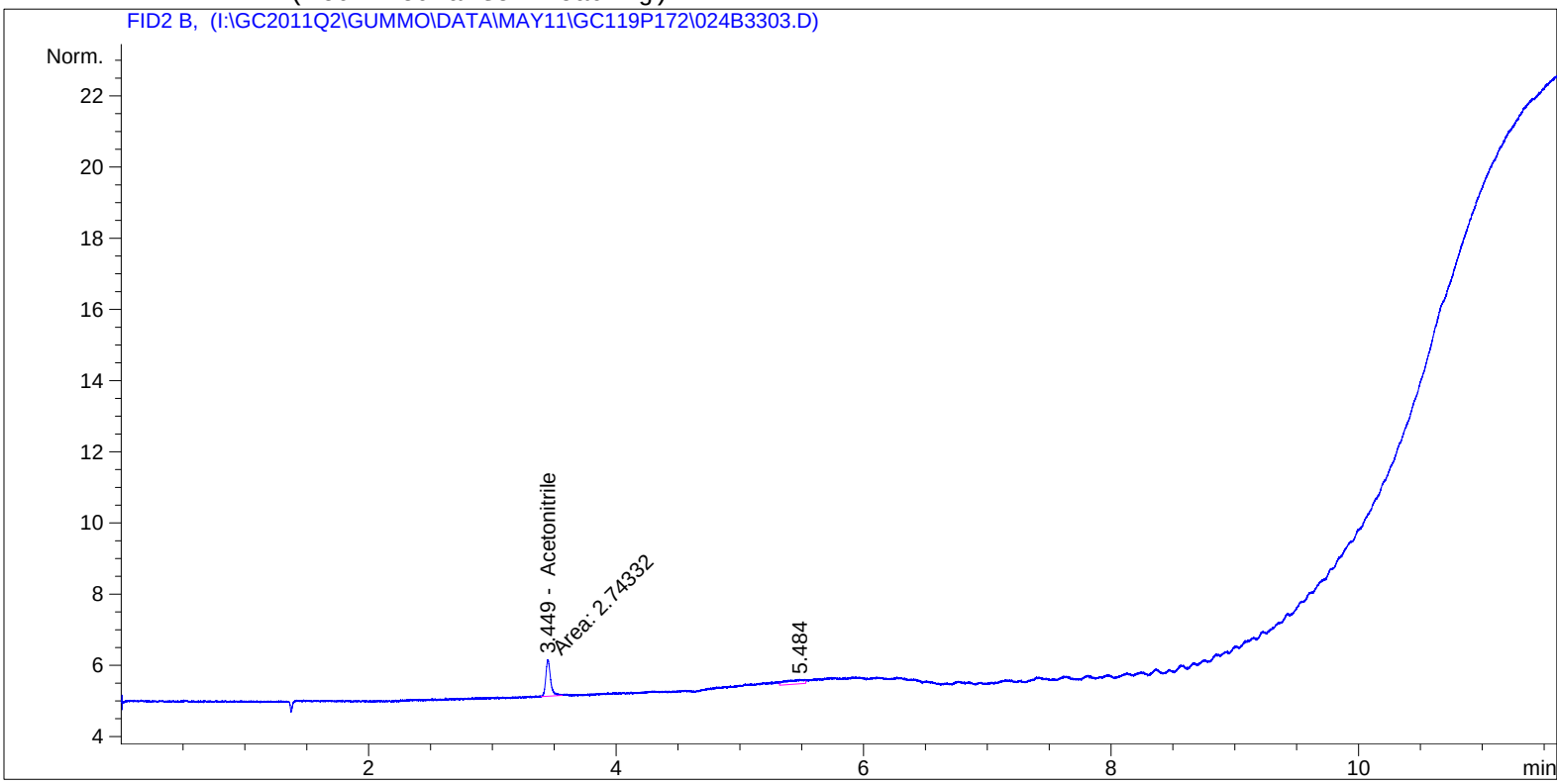
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3303.D
Sample Name: gc119p172 #AN2 ENV(1=960,2=40)

```
==========================================================================
Acq. Operator   : tbo                          Seq. Line :  33
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 22-May-11, 18:10:06                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.449	MM	2.74332	3.78672	10.38820		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Manual Int. "II" (KAM)

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3303.D
Sample Name: gc119p172 #AN2 ENV(1=960,2=40)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 10.38820

1 Warnings or Errors :

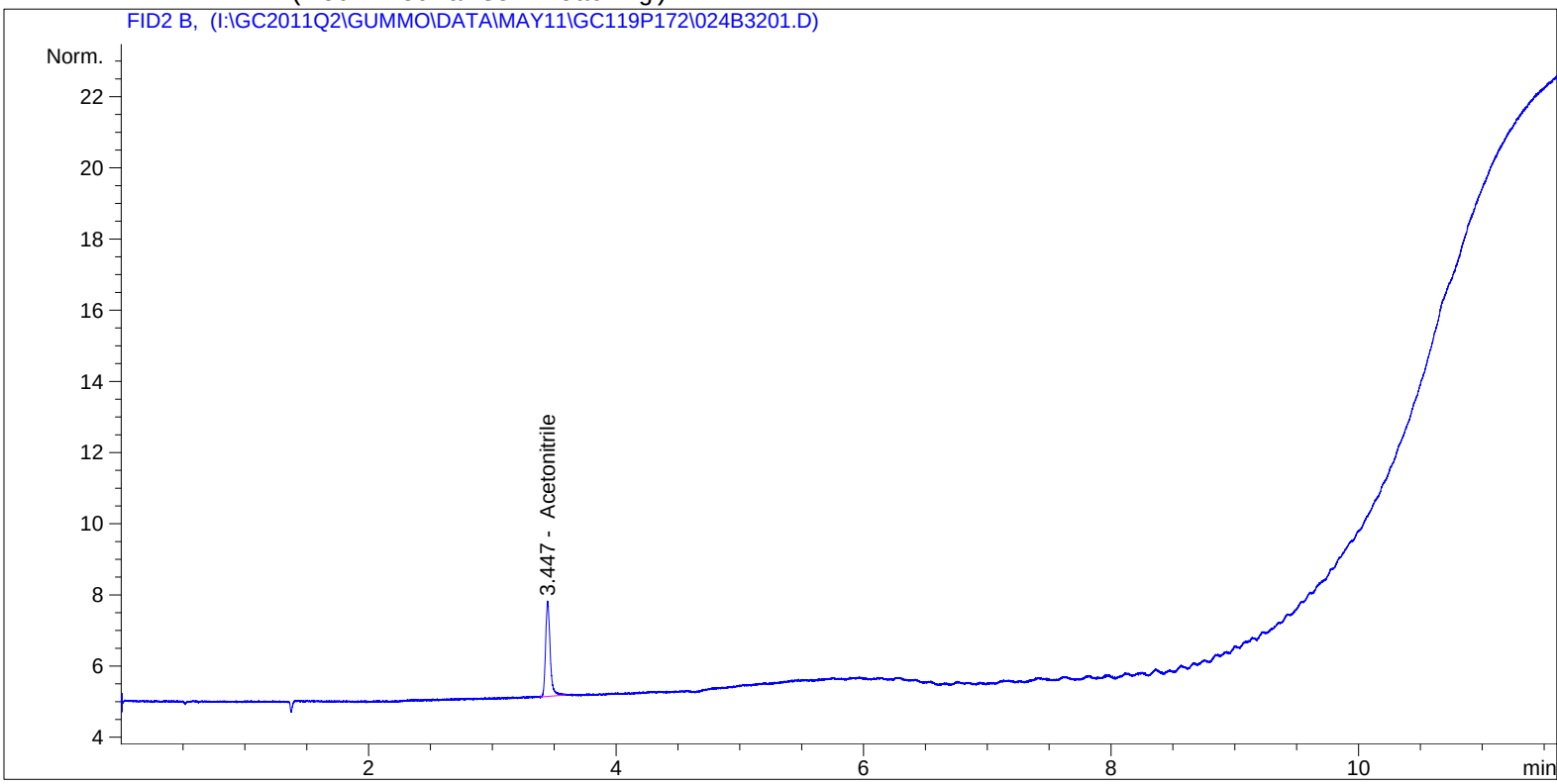
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3201.D
Sample Name: gc119p172 #AN3 ENV(1=900,2=100)

```
==========================================================================
Acq. Operator   : tbo                          Seq. Line :  32
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 22-May-11, 16:33:54                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.447	BB	6.87636	3.62432	24.92212		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3201.D
Sample Name: gc119p172 #AN3 ENV(1=900,2=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 24.92212

1 Warnings or Errors :

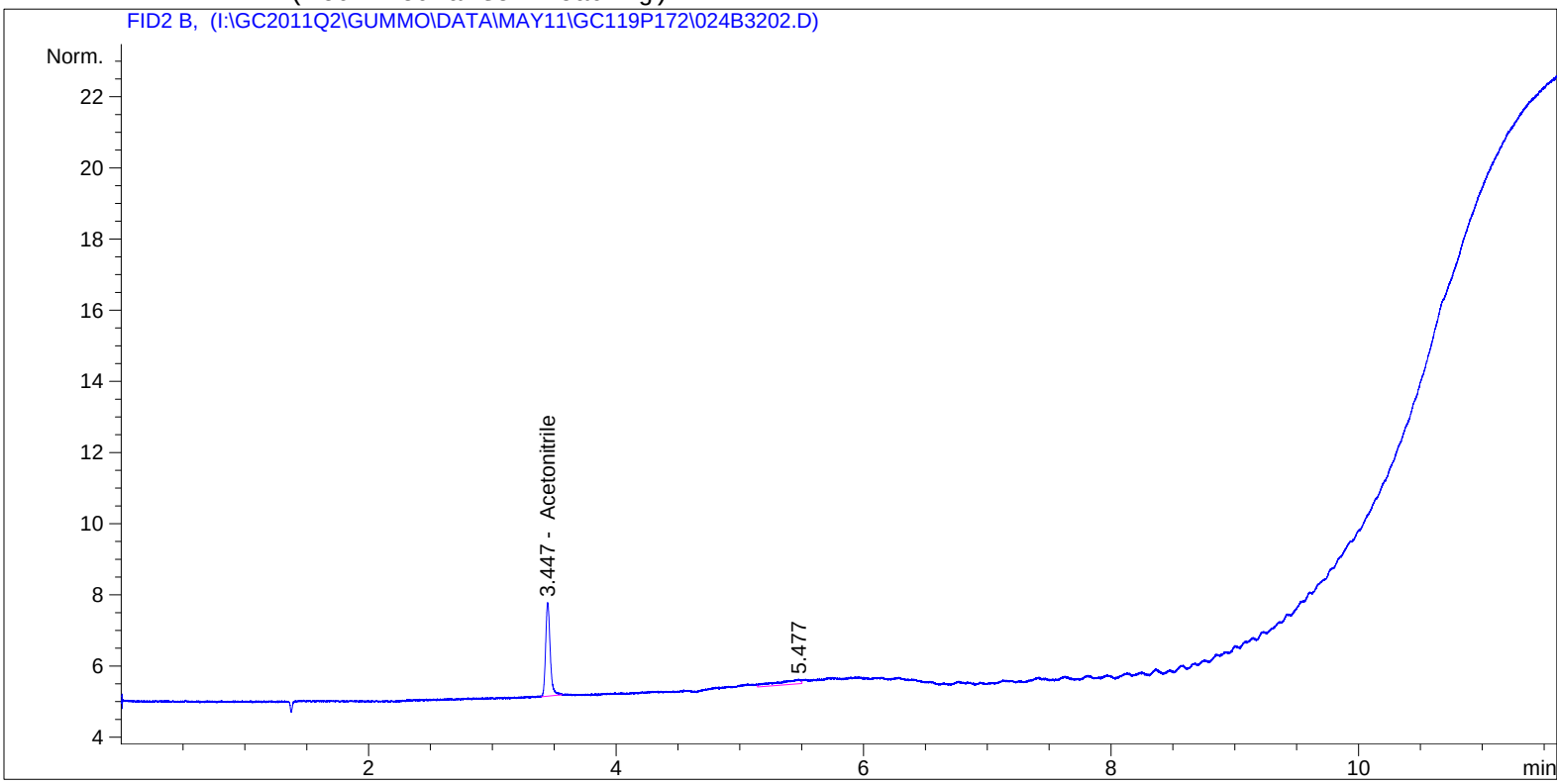
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3202.D
Sample Name: gc119p172 #AN3 ENV(1=900,2=100)

```
==========================================================================
Acq. Operator   : tbo                          Seq. Line :  32
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 22-May-11, 16:53:03                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.447	BB	6.70172	3.62713	24.30800		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3202.D
Sample Name: gc119p172 #AN3 ENV(1=900,2=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 24.30800

1 Warnings or Errors :

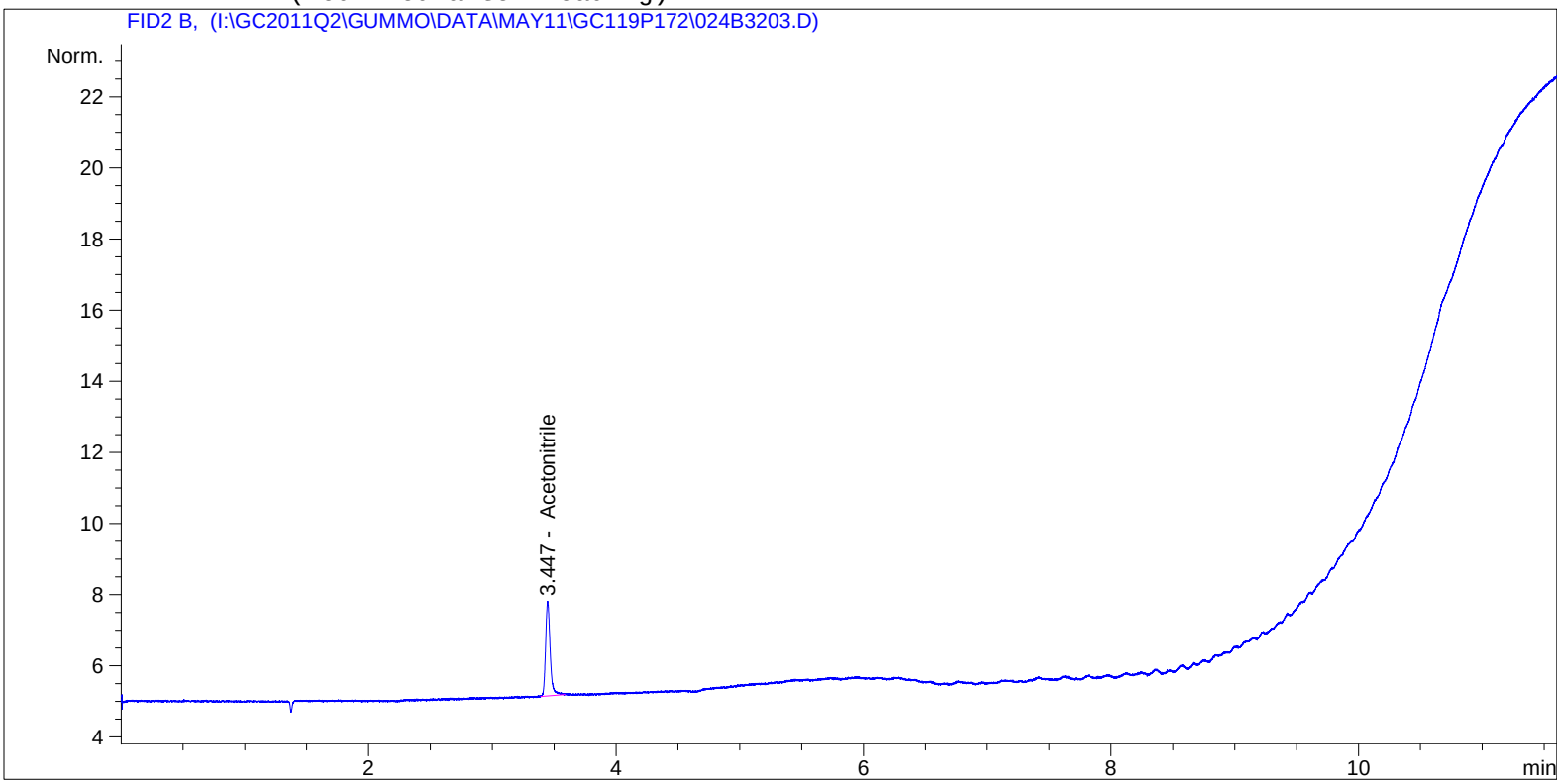
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3203.D
Sample Name: gc119p172 #AN3 ENV(1=900,2=100)

```
==========================================================================
Acq. Operator   : tbo                          Seq. Line :  32
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 22-May-11, 17:12:17                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.447	BB	6.80183	3.62550	24.66004		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3203.D
Sample Name: gc119p172 #AN3 ENV(1=900,2=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 24.66004

1 Warnings or Errors :

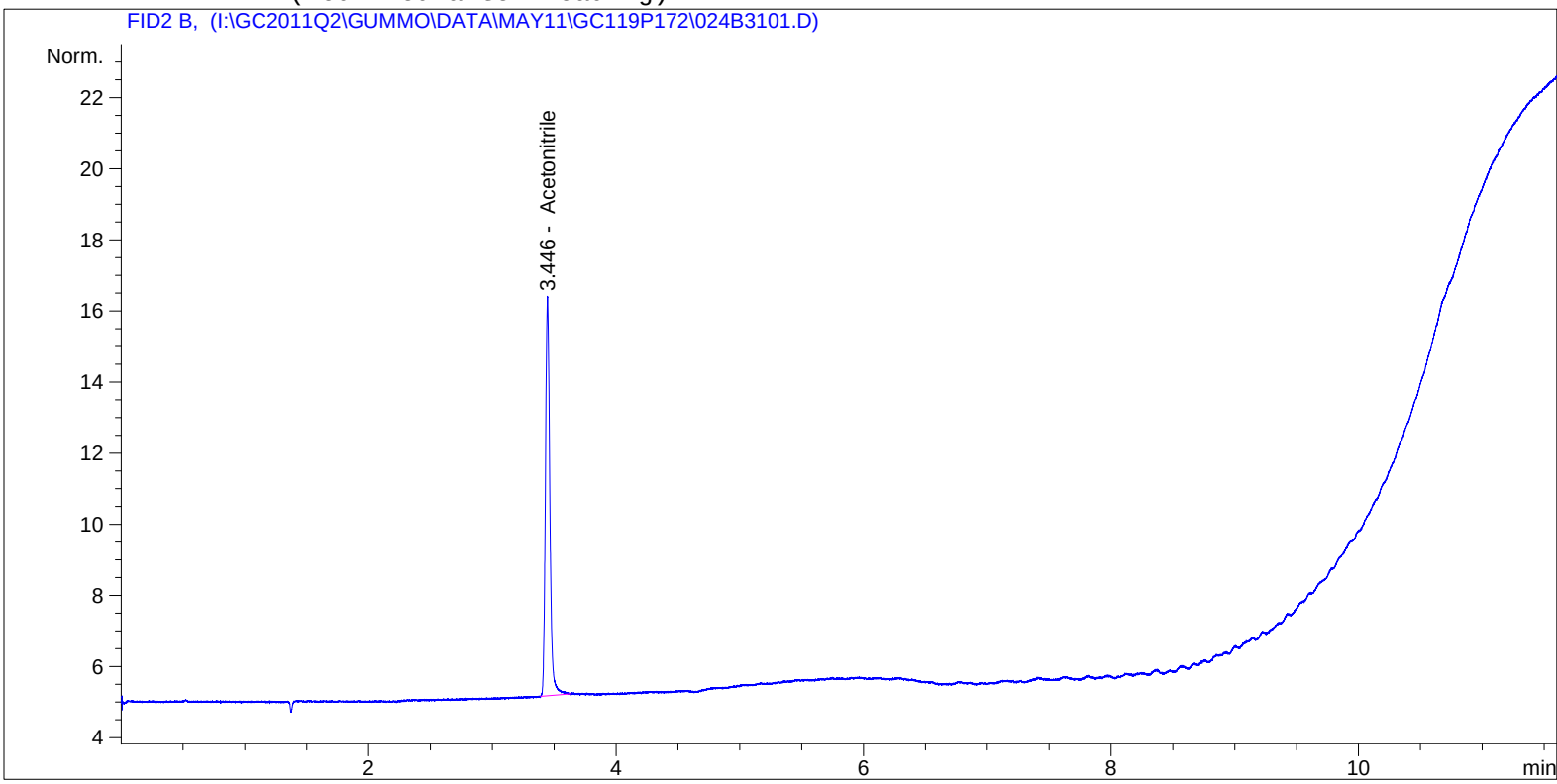
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3101.D
Sample Name: gc119p172 #AN4 ENV(1=600,2=400)

```
==========================================================================
Acq. Operator   : tbo                              Seq. Line :  31
Acq. Instrument : Gummo online                     Location : Vial 24
Injection Date  : 22-May-11, 15:35:53                   Inj :   1
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.446	BB	28.03072	3.54297	99.31195		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3101.D
Sample Name: gc119p172 #AN4 ENV(1=600,2=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 99.31195

1 Warnings or Errors :

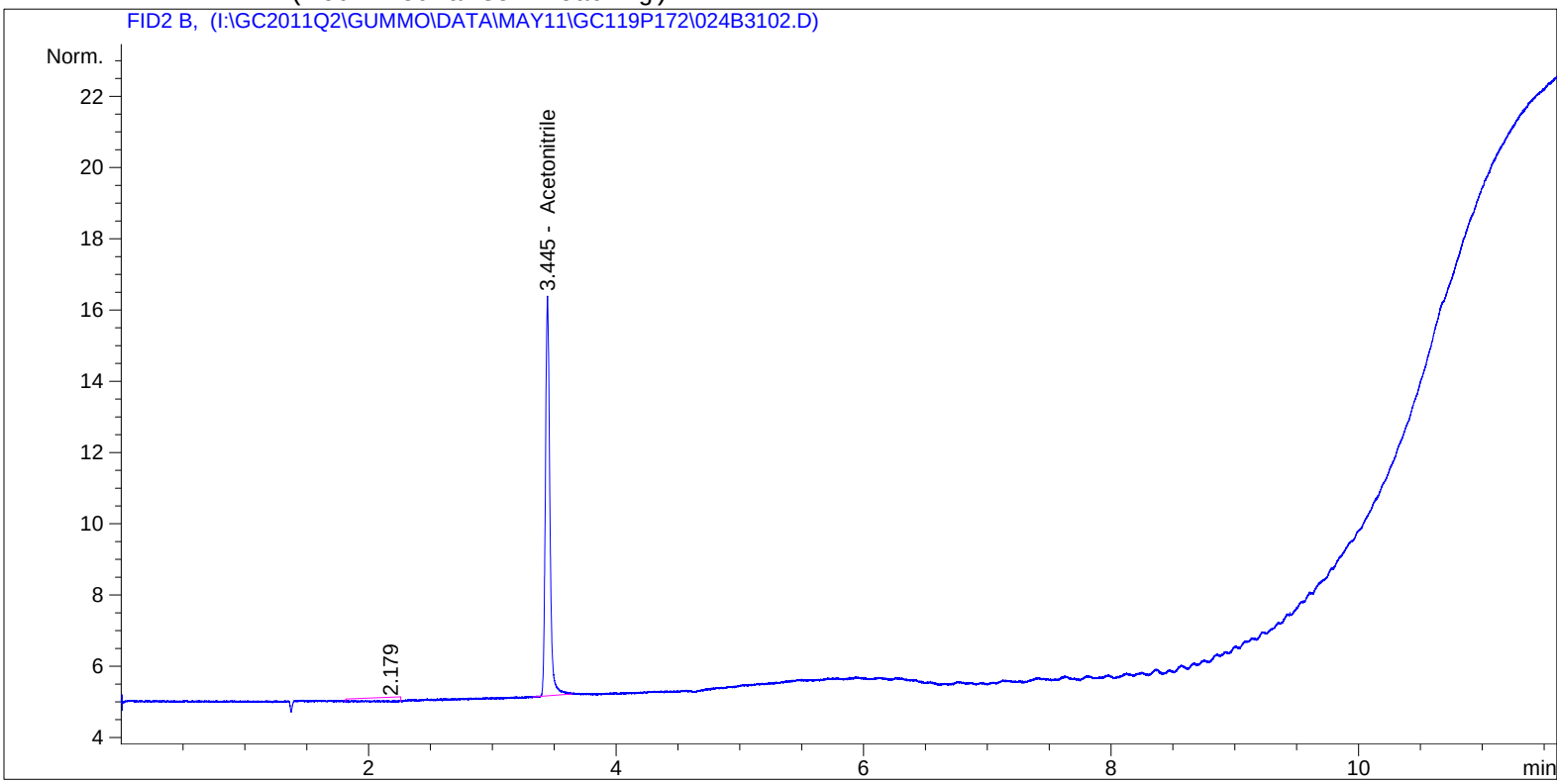
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3102.D
Sample Name: gc119p172 #AN4 ENV(1=600,2=400)

```
==========================================================================
Acq. Operator   : tbo                              Seq. Line :  31
Acq. Instrument : Gummo online                     Location : Vial 24
Injection Date  : 22-May-11, 15:55:10                   Inj :   2
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.445	BB	28.15088	3.54285	99.73448		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3102.D
Sample Name: gc119p172 #AN4 ENV(1=600,2=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 99.73448

1 Warnings or Errors :

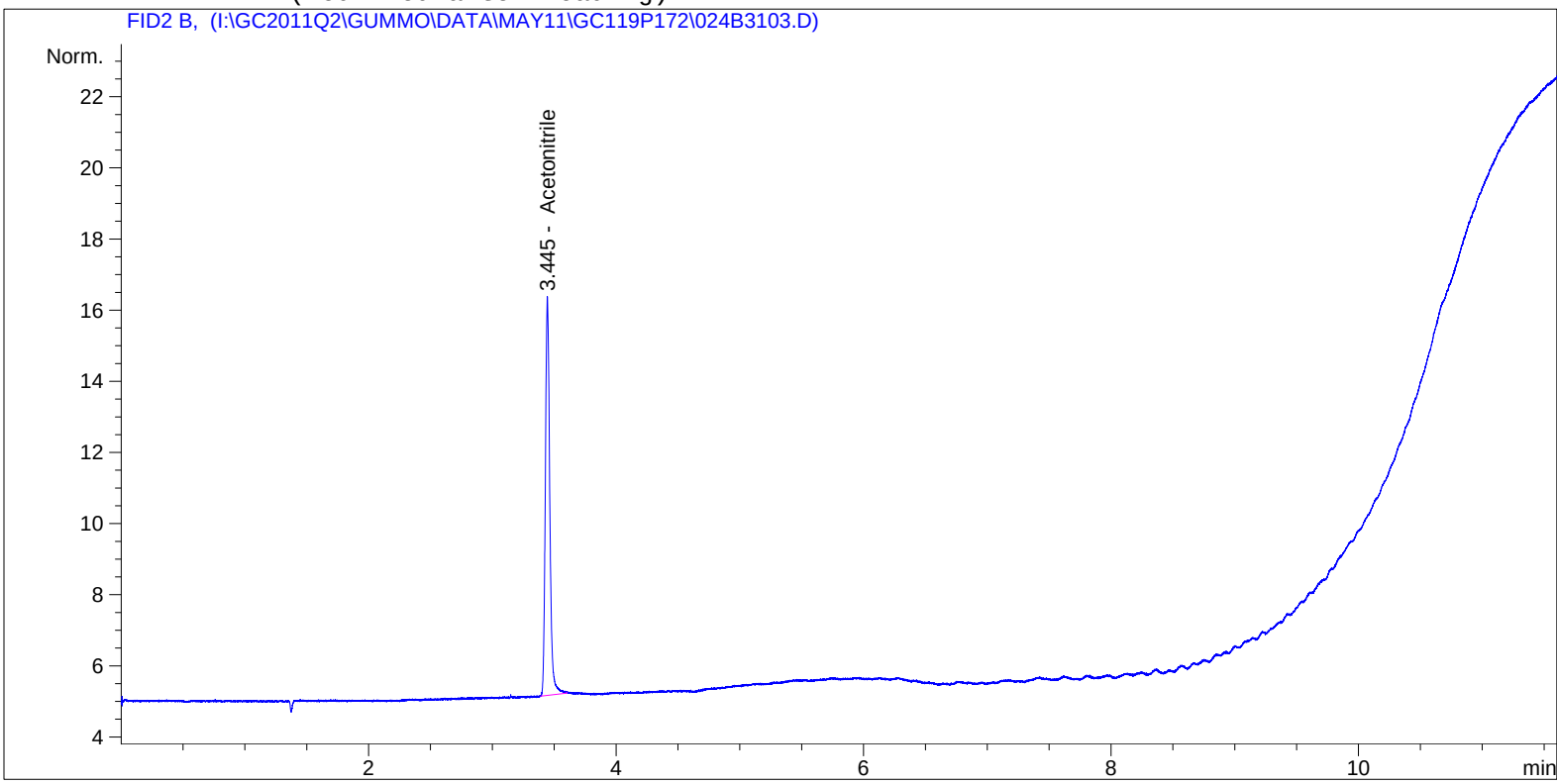
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3103.D
Sample Name: gc119p172 #AN4 ENV(1=600,2=400)

```
==========================================================================
Acq. Operator   : tbo                          Seq. Line :  31
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 22-May-11, 16:14:34                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.445	BB	27.93542	3.54306	98.97681		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3103.D
Sample Name: gc119p172 #AN4 ENV(1=600,2=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 98.97681

1 Warnings or Errors :

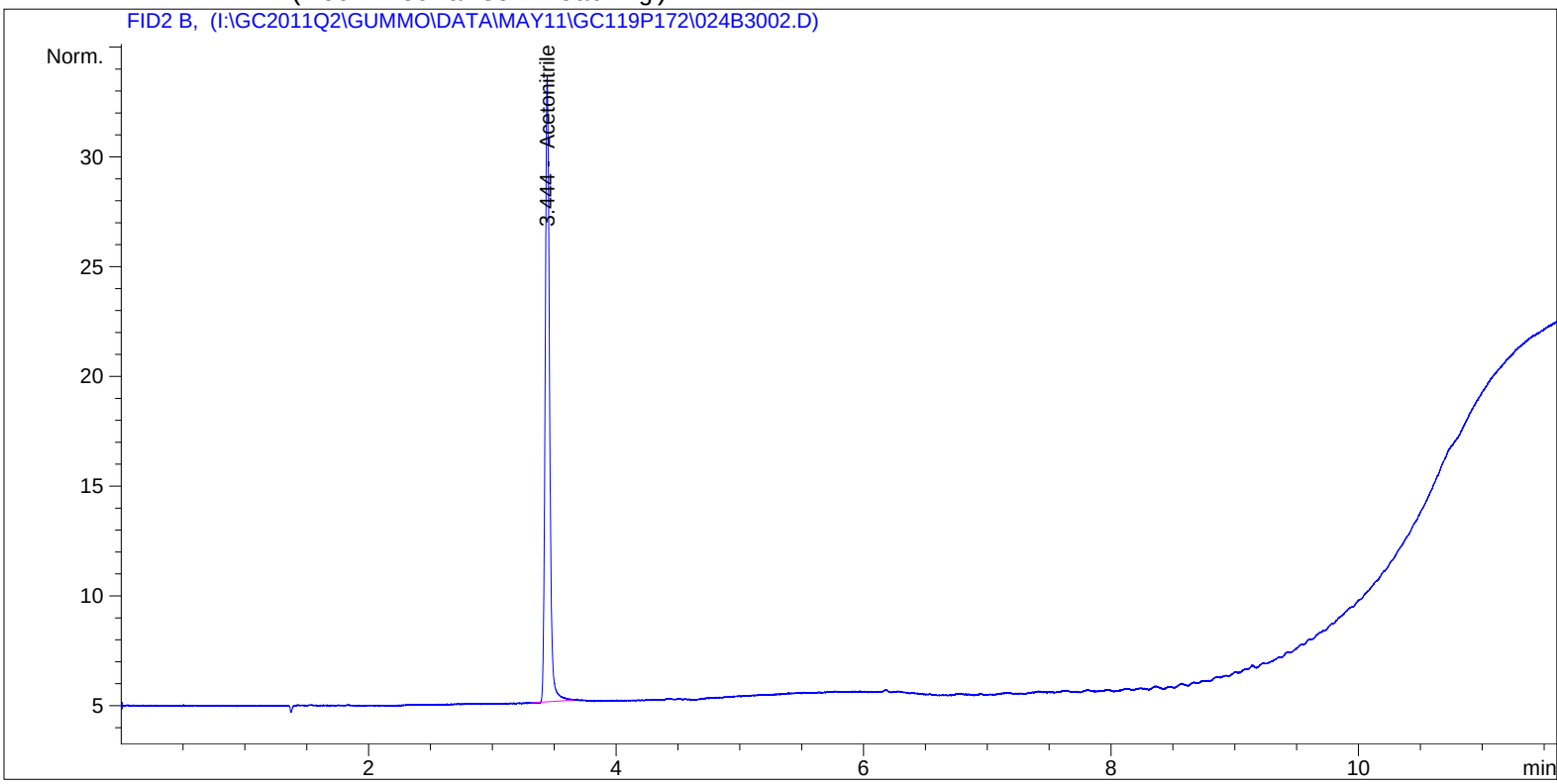
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3002.D
Sample Name: gc119p172 #AN5 ENV(1=0,2=350)

```
==========================================================================
Acq. Operator   : tbo                          Seq. Line :  30
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 22-May-11, 14:38:03                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.444	BB	70.12820	3.52709	247.34874		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3002.D
Sample Name: gc119p172 #AN5 ENV(1=0,2=350)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 247.34874

1 Warnings or Errors :

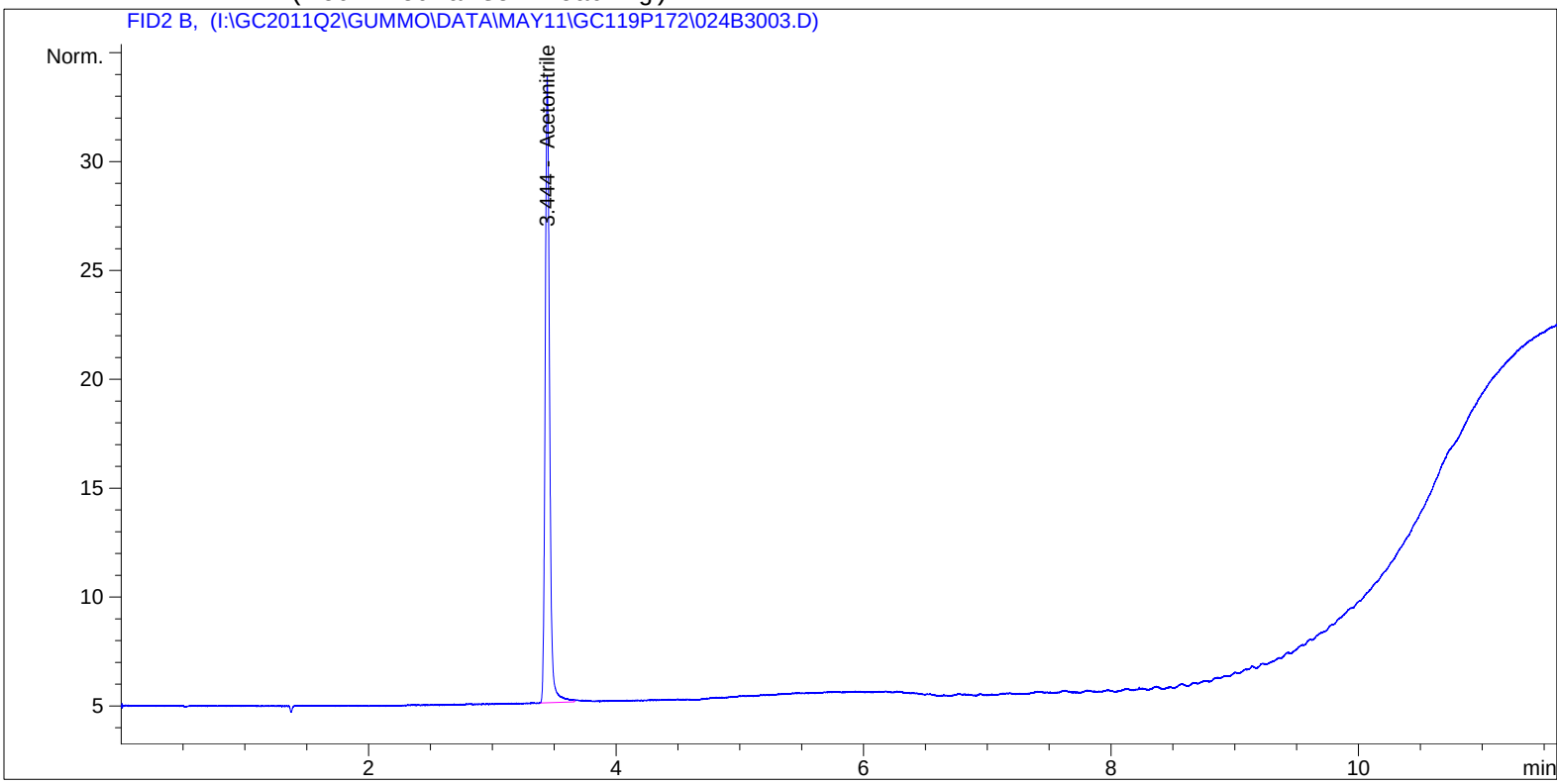
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3003.D
Sample Name: gc119p172 #AN5 ENV(1=0,2=350)

```
==========================================================================
Acq. Operator   : tbo                              Seq. Line :  30
Acq. Instrument : Gummo online                     Location : Vial 24
Injection Date  : 22-May-11, 14:57:28                   Inj :   3
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.444	BB	71.40660	3.52690	251.84425		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3003.D
Sample Name: gc119p172 #AN5 ENV(1=0,2=350)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 251.84425

1 Warnings or Errors :

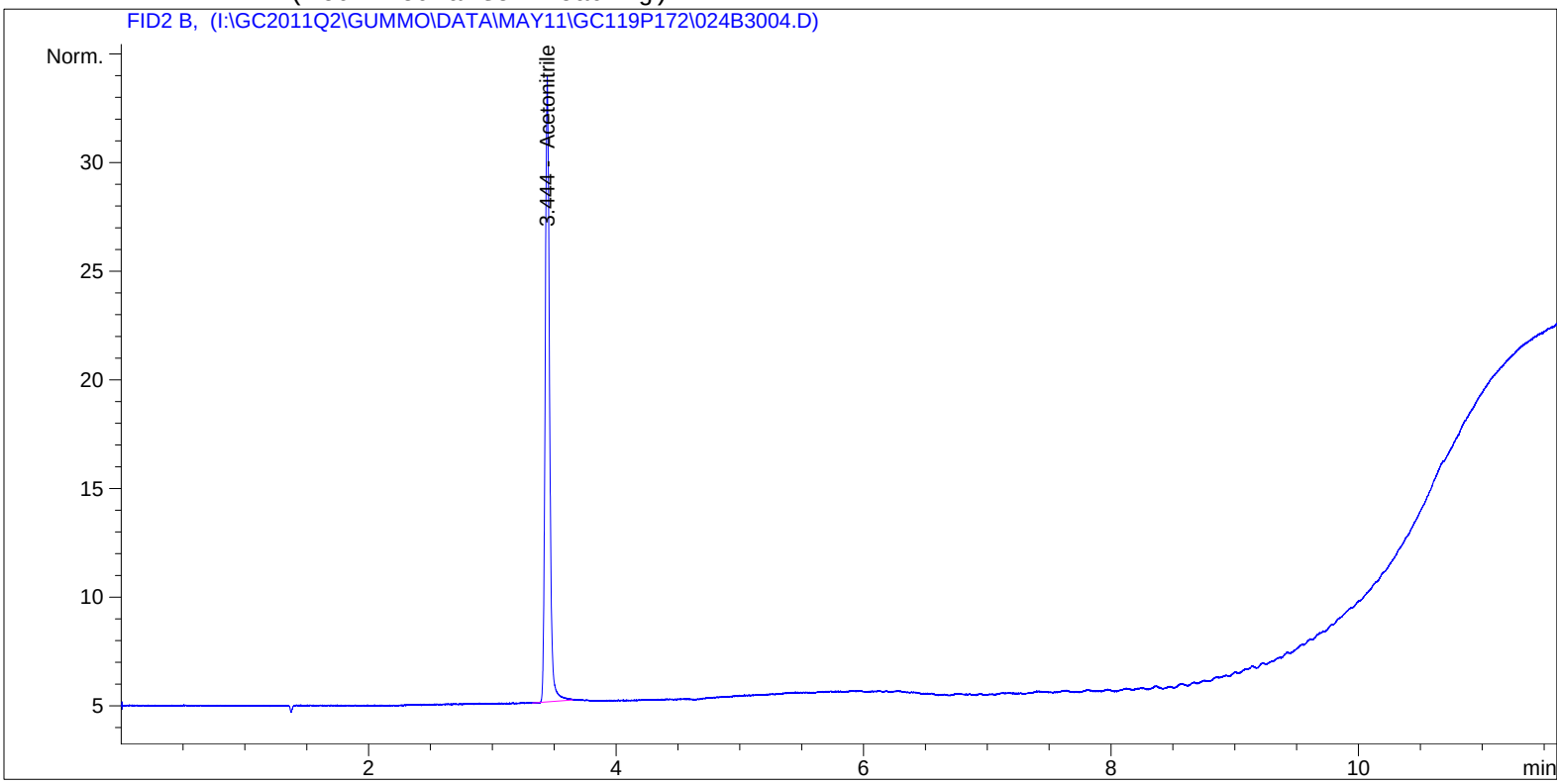
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3004.D
Sample Name: gc119p172 #AN5 ENV(1=0,2=350)

```
==========================================================================
Acq. Operator   : tbo                              Seq. Line :  30
Acq. Instrument : Gummo online                     Location : Vial 24
Injection Date  : 22-May-11, 15:16:40                   Inj :   4
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:20:51 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:37:06 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.444	BB	70.80573	3.52699	249.73128		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P172\024B3004.D
Sample Name: gc119p172 #AN5 ENV(1=0,2=350)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
7.981		-	-	-		Tetrachloroethene

Totals : 249.73128

1 Warnings or Errors :

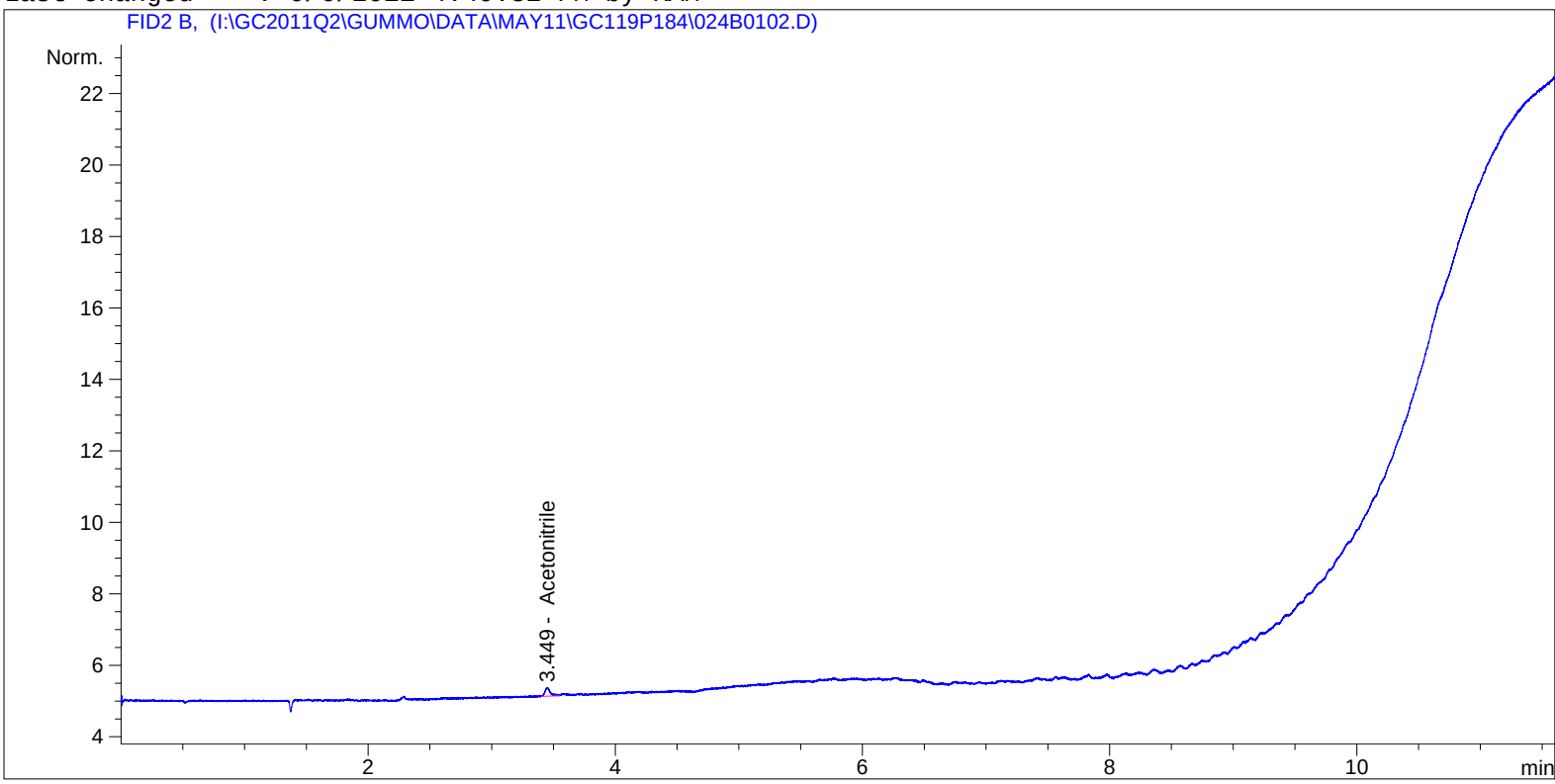
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0102.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 06-Jun-11, 18:34:41                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.449	BV	6.86758e-1	4.14319	2.84536		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0102.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				2.84536		

2 Warnings or Errors :

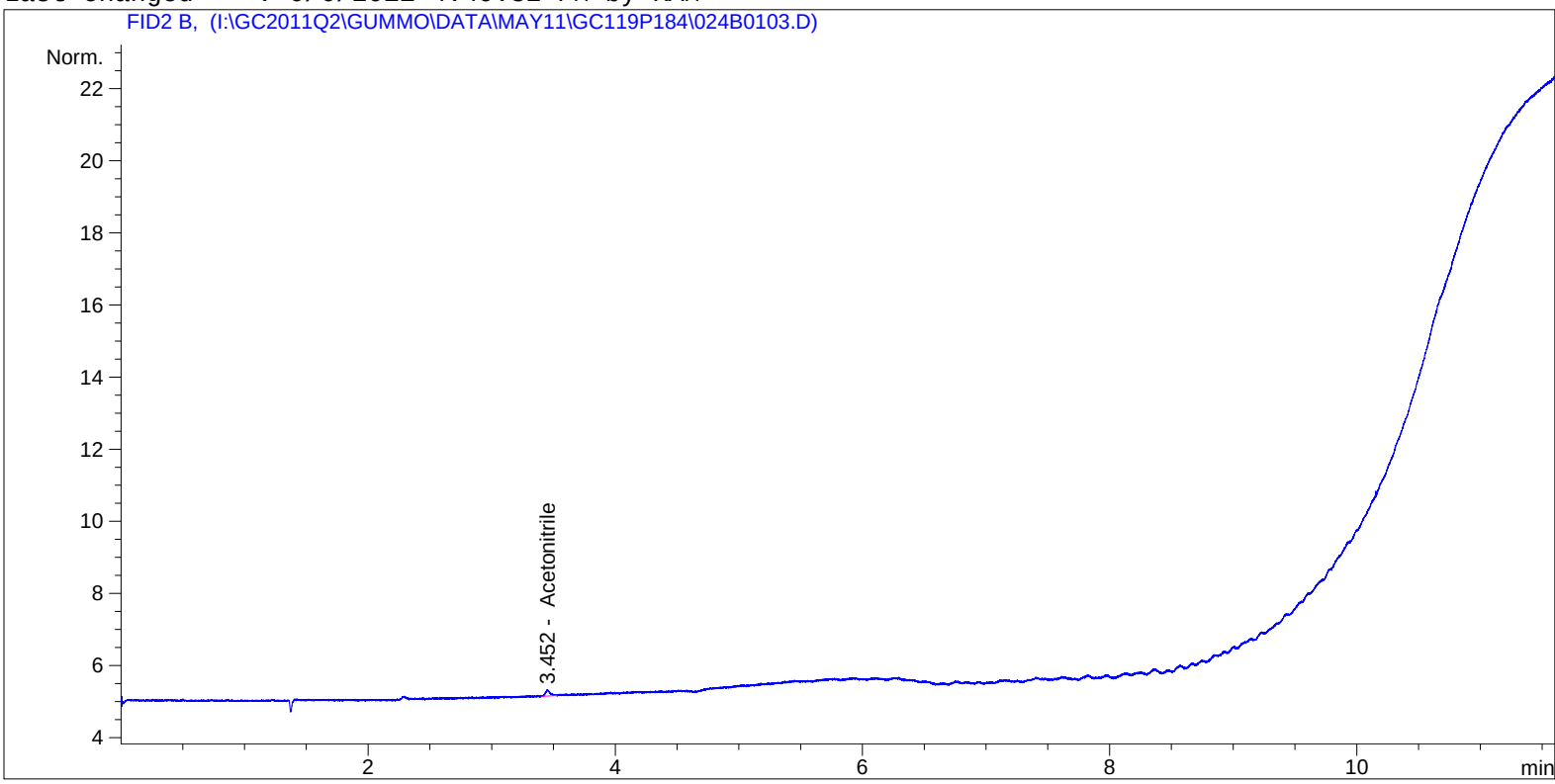
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0103.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 06-Jun-11, 18:55:13                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.452	BB	4.58176e-1	4.14319	1.89831		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0103.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1.89831		

2 Warnings or Errors :

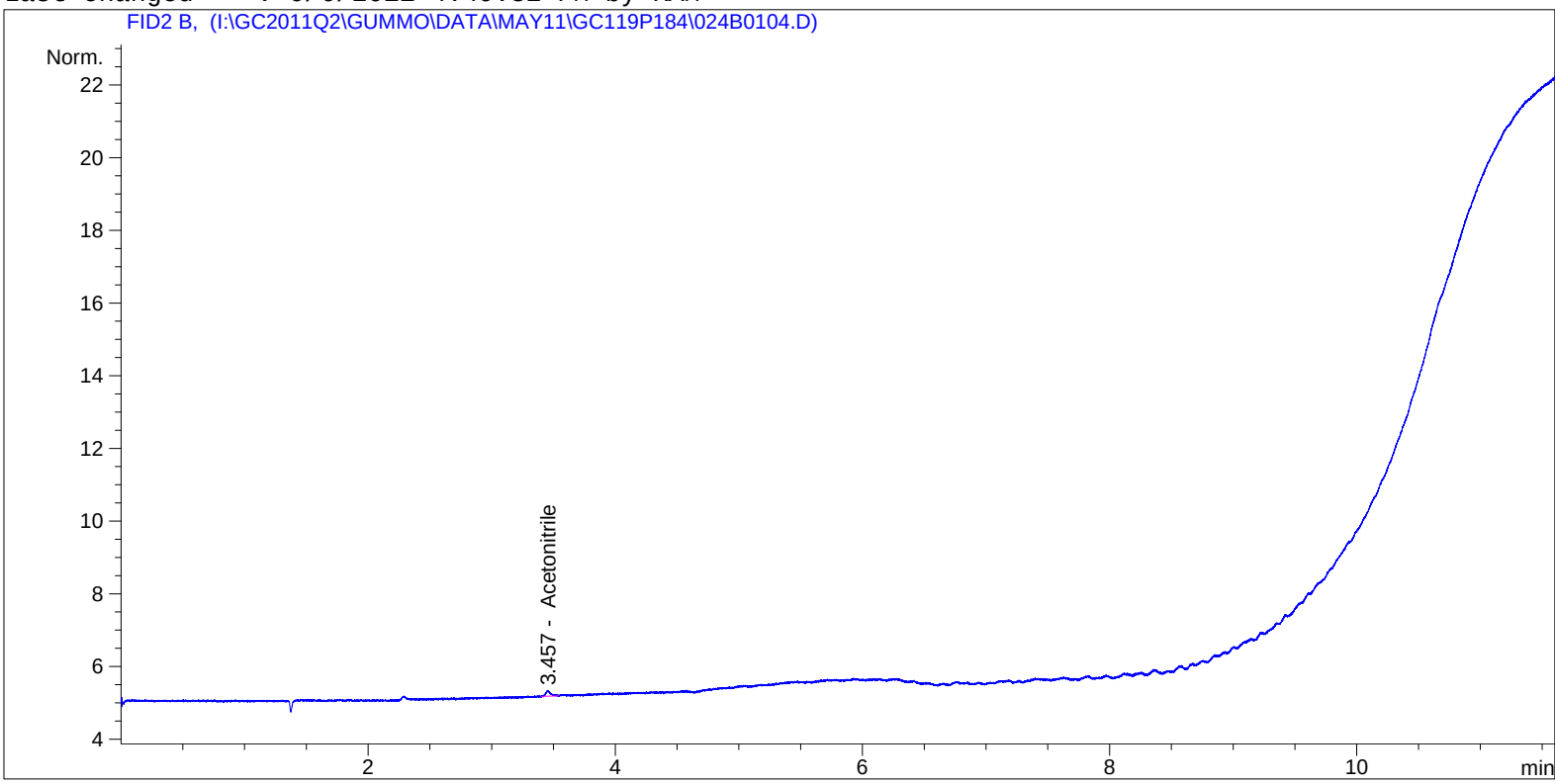
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0104.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 06-Jun-11, 19:16:02                Inj :   4
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.457	BB	4.06769e-1	4.14319	1.68532		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0104.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1.68532		

2 Warnings or Errors :

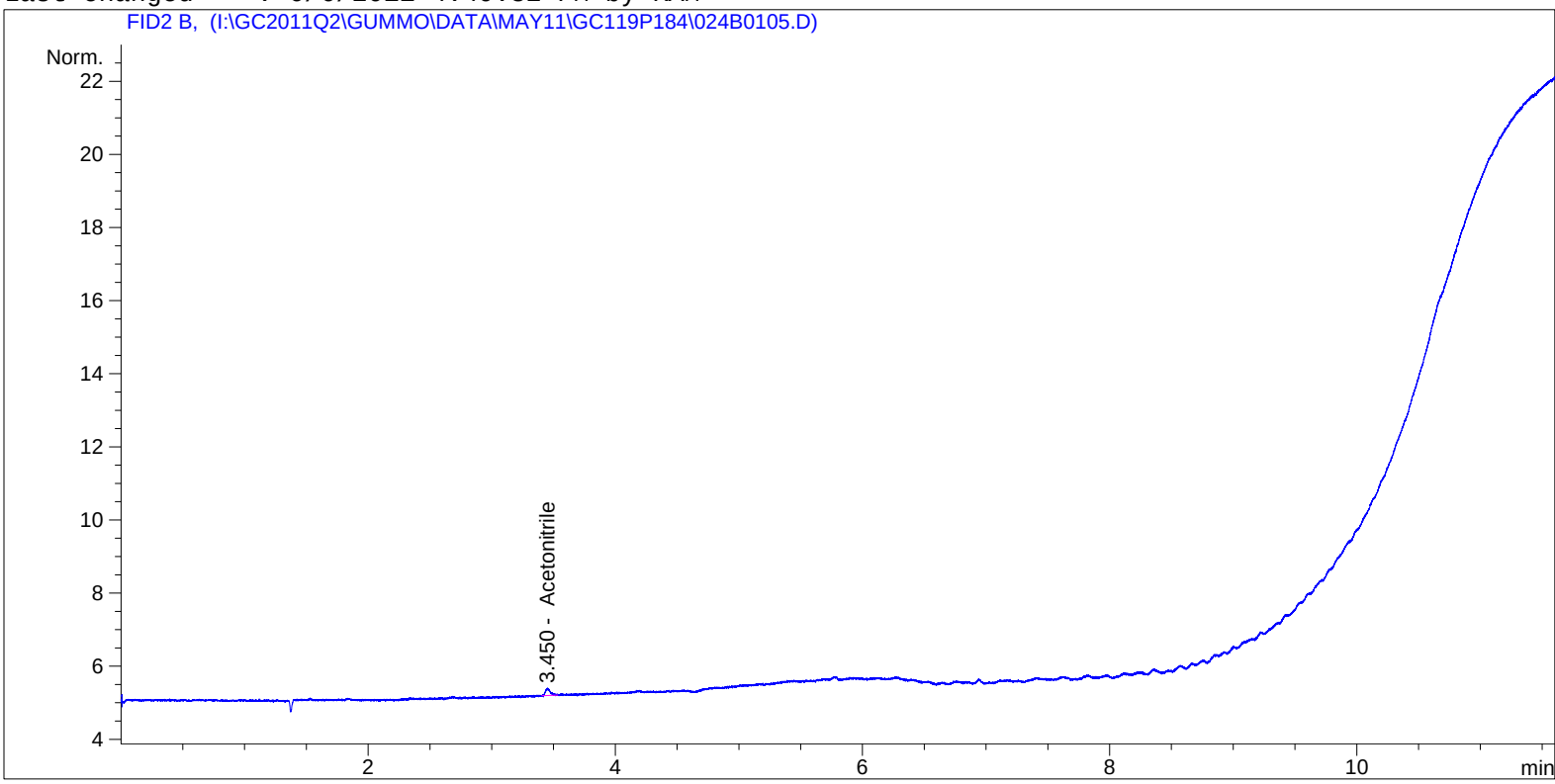
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0105.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 06-Jun-11, 19:36:34                Inj :   5
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.450	BB	5.12177e-1	4.14319	2.12204		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0105.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				2.12204		

2 Warnings or Errors :

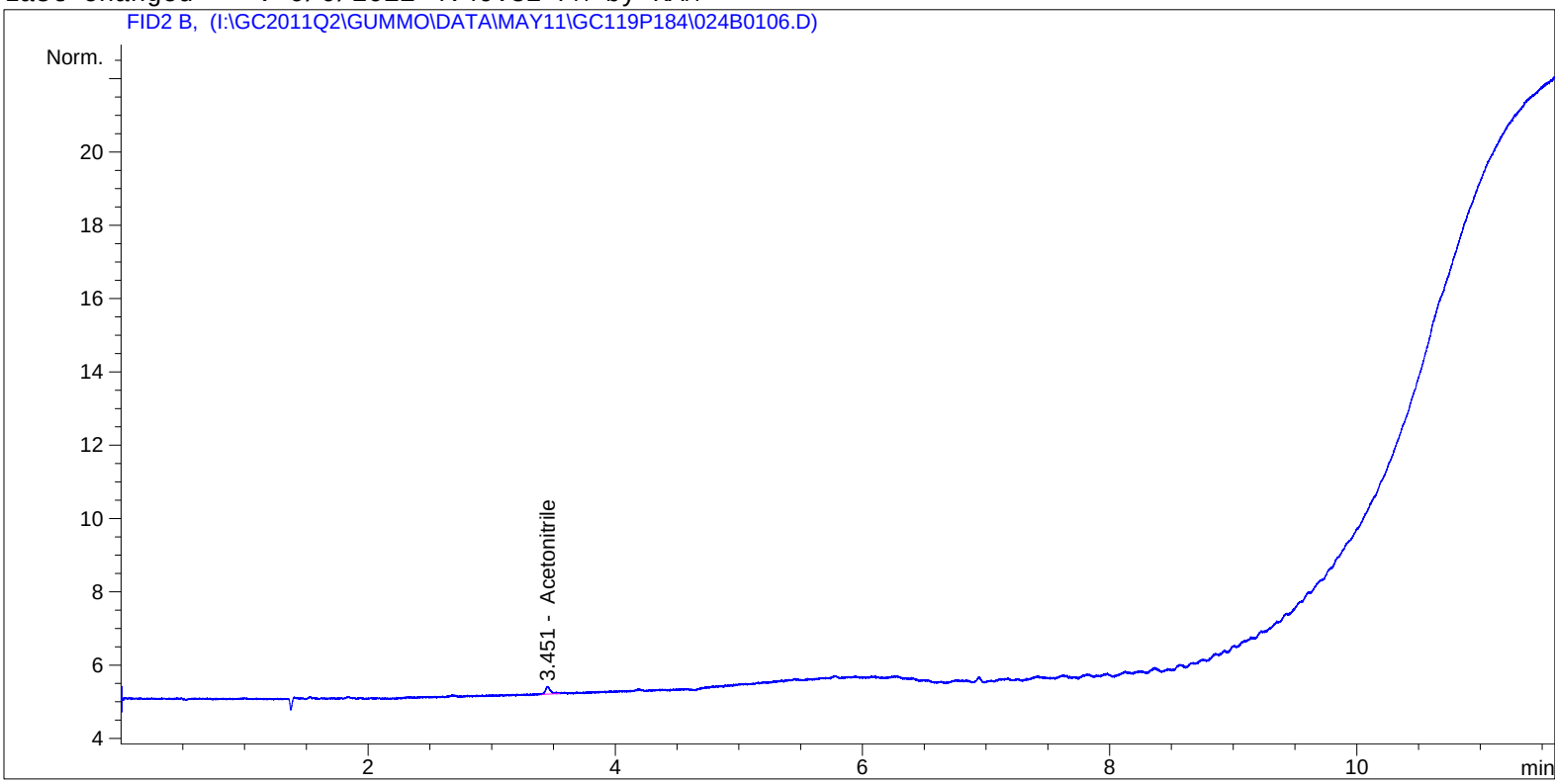
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0106.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 06-Jun-11, 19:57:10                Inj :   6
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.451	BB	5.70572e-1	4.14319	2.36399		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0106.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				2.36399		

2 Warnings or Errors :

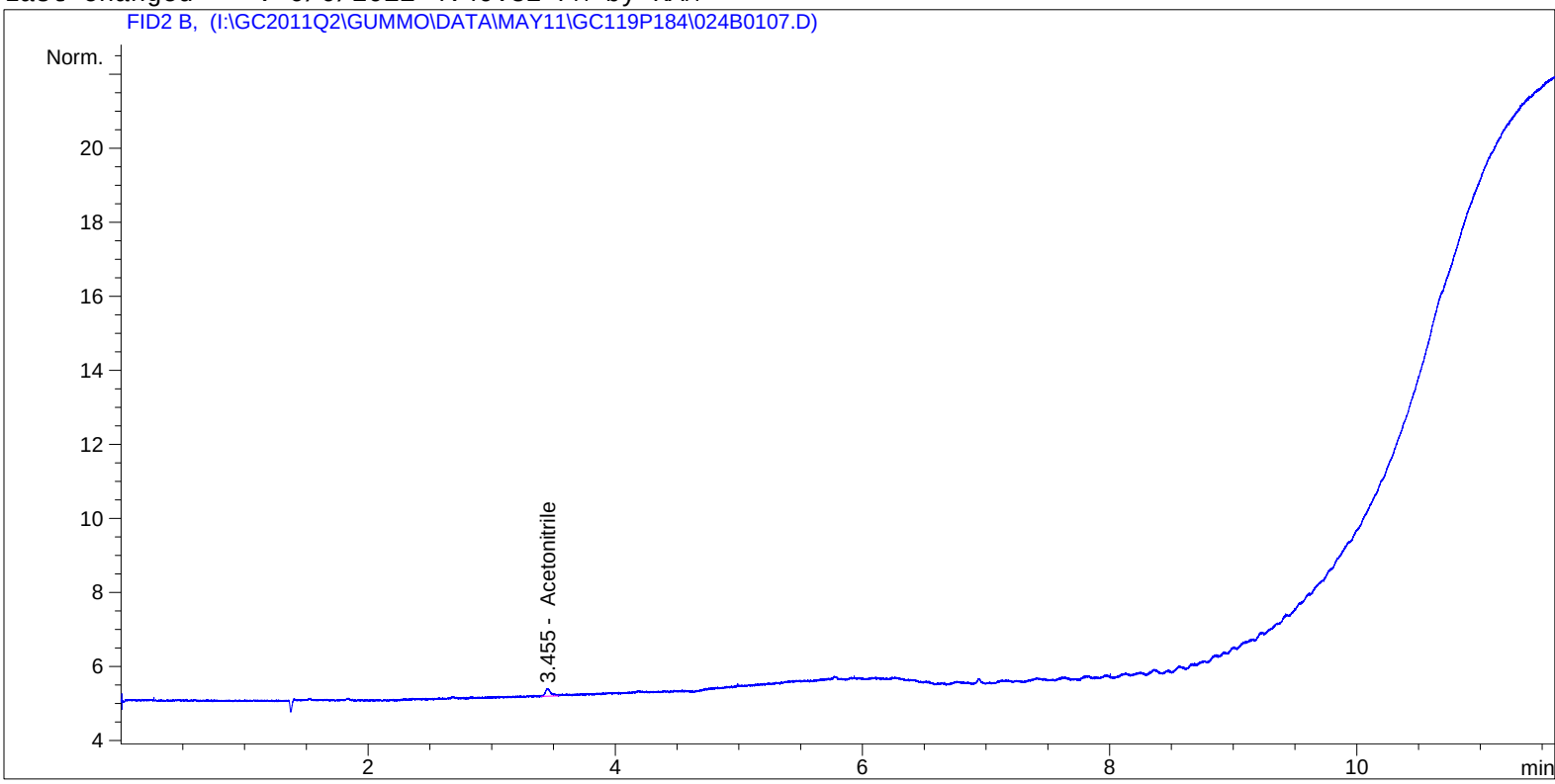
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0107.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 06-Jun-11, 20:17:35                Inj :   7
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.455	BV	6.33780e-1	4.14319	2.62587		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0107.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				2.62587		

2 Warnings or Errors :

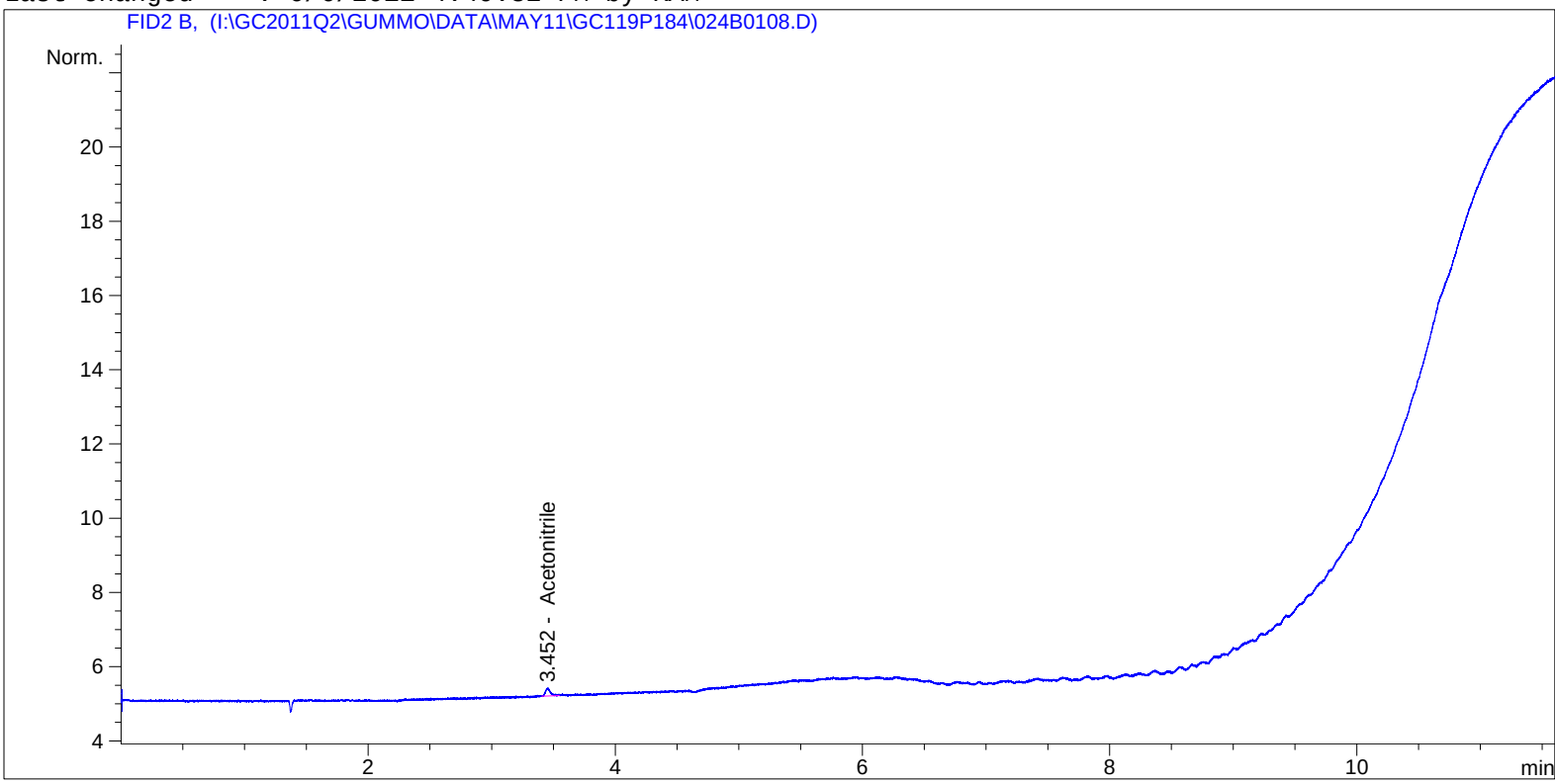
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0108.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 06-Jun-11, 20:36:38                Inj :   8
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.452	BB	5.72375e-1	4.14319	2.37146		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0108.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				2.37146		

2 Warnings or Errors :

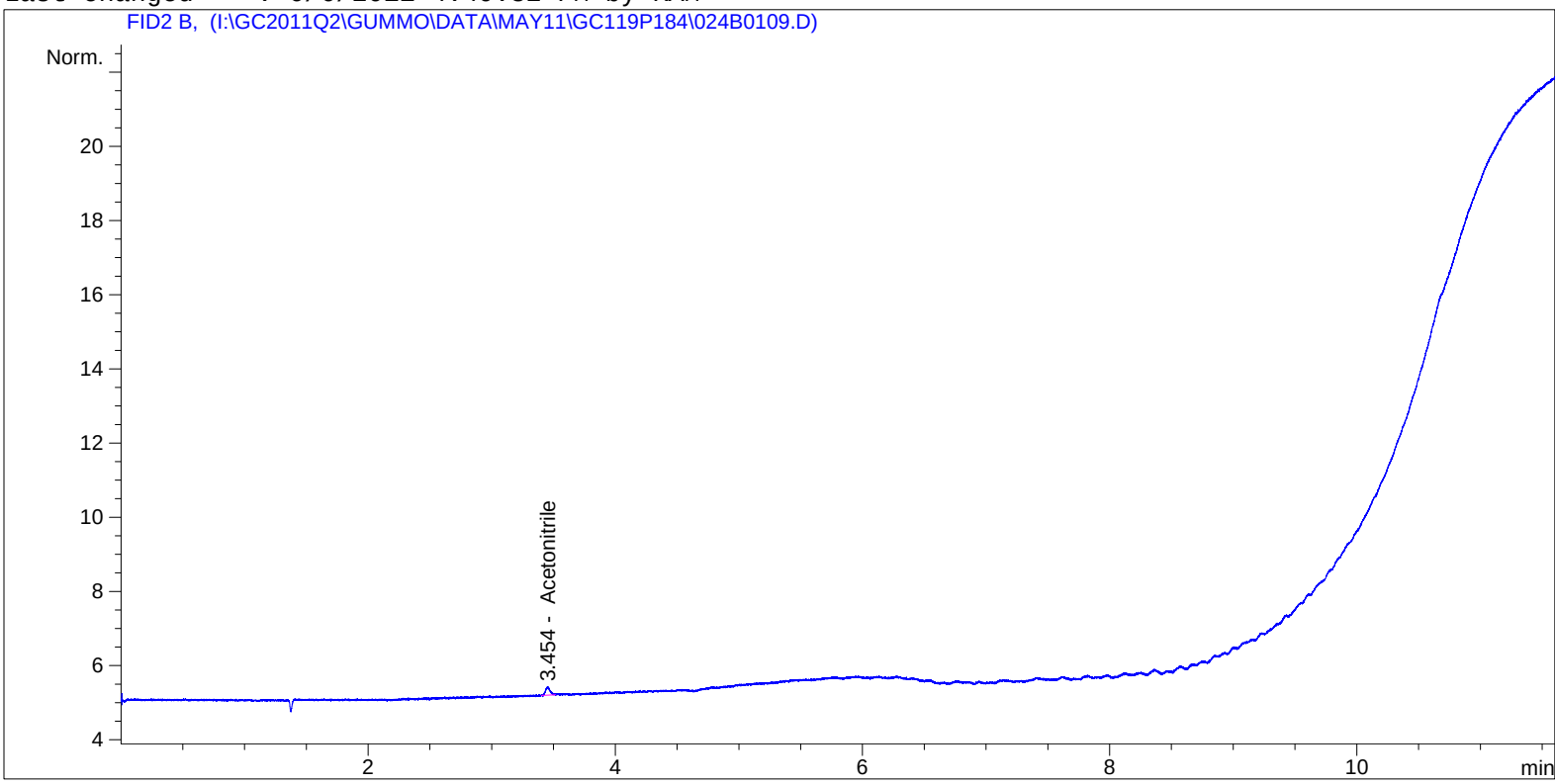
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0109.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   1
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 06-Jun-11, 20:55:46                Inj :   9
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : I:\GC2011Q2\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.454	BV	5.58644e-1	4.14319	2.31457		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File I:\GC2011Q2\GUMMO\DATA\MAY11\GC119P184\024B0109.D
Sample Name: gc119p183 #AN0 ENV(1=1980,5=20)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				2.31457		

2 Warnings or Errors :

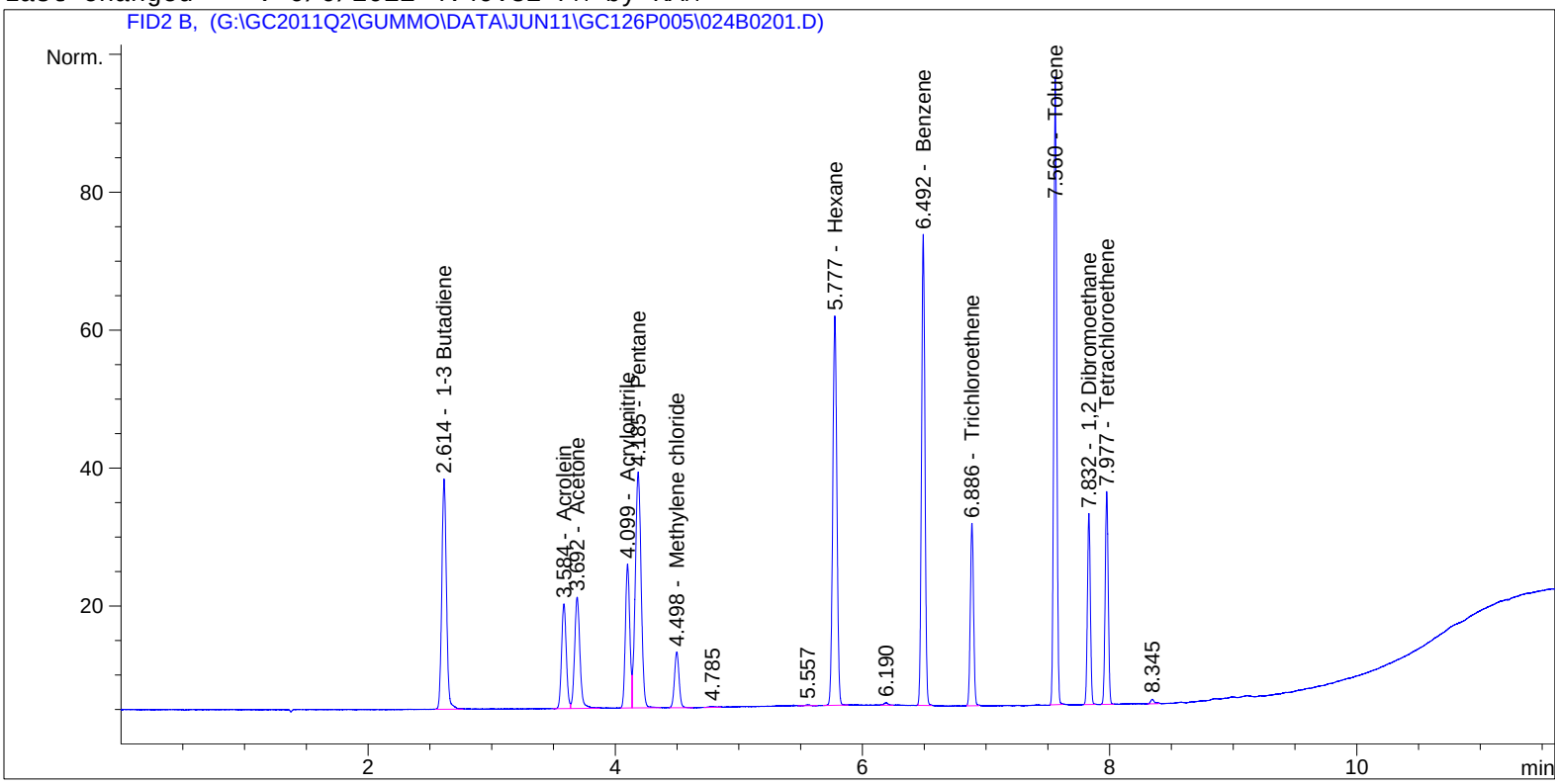
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0201.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==================================================================
Acq. Operator   : MGM                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 10:02:30               Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.614	BV	87.49343	1.21188	106.03164		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.584	BV	40.18729	2.67010	107.30411		Acrolein
3.692	VB	48.13588	2.22195	106.95536		Acetone
4.099	BV	52.11202	2.03102	105.84061		Acrylonitrile
4.185	VB	112.40266	9.56468e-1	107.50957		Pentane
4.498	BB	20.70231	5.11027	105.79443		Methylene chloride
5.777	BB	131.72504	8.09847e-1	106.67712		Hexane
6.492	BB	132.70911	8.11498e-1	107.69318		Benzene
6.886	BB	48.17524	2.17409	104.73709		Trichloroethene
7.560	BB	153.84619	6.88915e-1	105.98691		Toluene
7.832	BB	45.83945	2.36323	108.32905		1,2 Dibromoethane
7.977	BB	53.46937	1.97615	105.66361		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0201.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1278.52269		

2 Warnings or Errors :

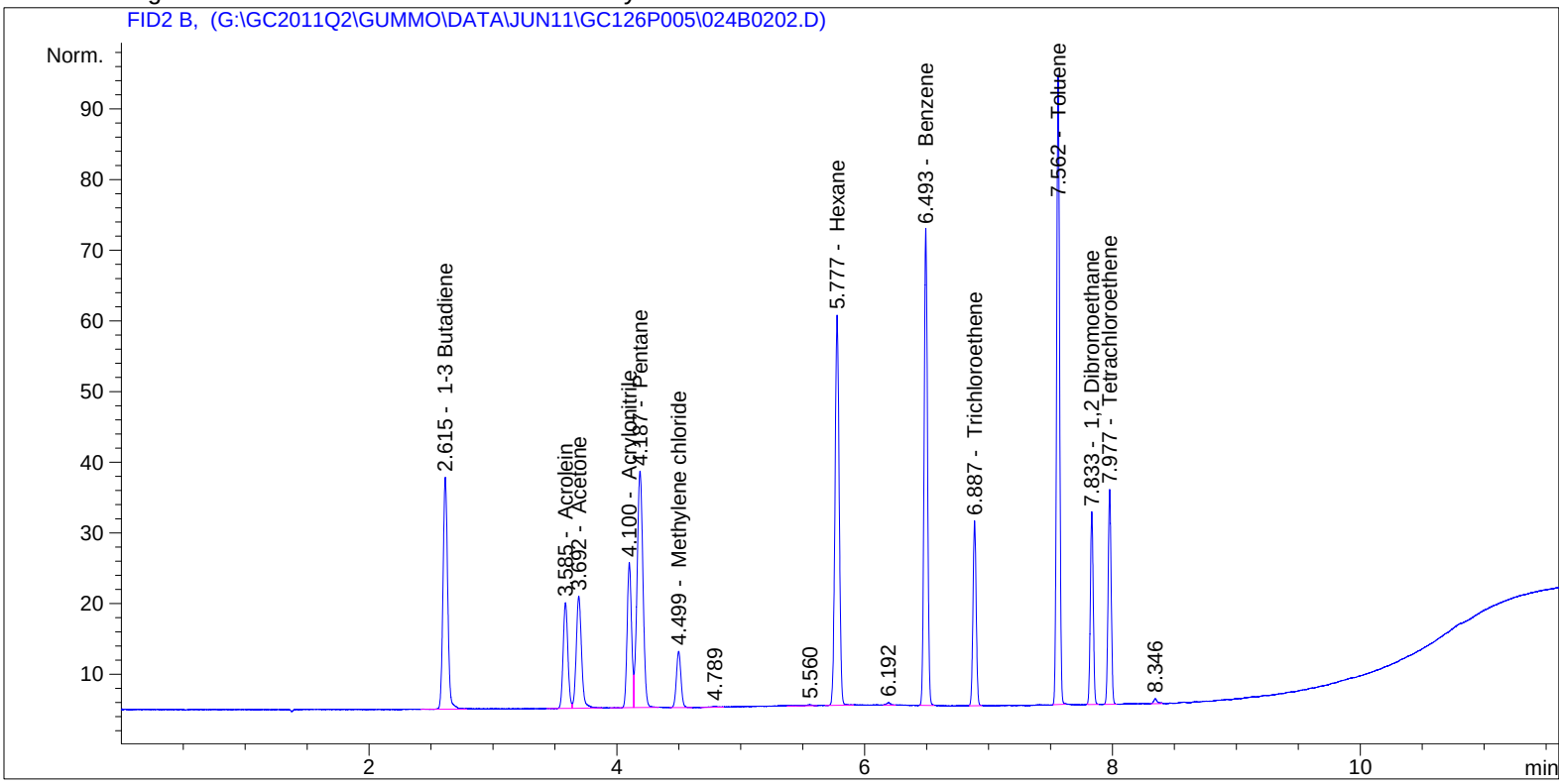
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0202.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
================================================================
Acq. Operator   : MGM                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 10:21:48                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.615	BV	86.13311	1.21197	104.39110		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.585	BV	39.37711	2.67037	105.15137		Acrolein
3.692	VB	46.82591	2.22257	104.07364		Acetone
4.100	BV	50.94573	2.03153	103.49782		Acrylonitrile
4.187	VB	110.06585	9.56536e-1	105.28191		Pentane
4.499	BB	20.27702	5.11078	103.63143		Methylene chloride
5.777	BB	129.60240	8.09906e-1	104.96578		Hexane
6.493	BB	130.52298	8.11559e-1	105.92704		Benzene
6.887	BB	47.42530	2.17454	103.12816		Trichloroethene
7.562	BB	151.21284	6.89068e-1	104.19597		Toluene
7.833	BB	45.06374	2.36357	106.51150		1,2 Dibromoethane
7.977	BB	52.82126	1.97640	104.39569		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0202.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1255.15142		

2 Warnings or Errors :

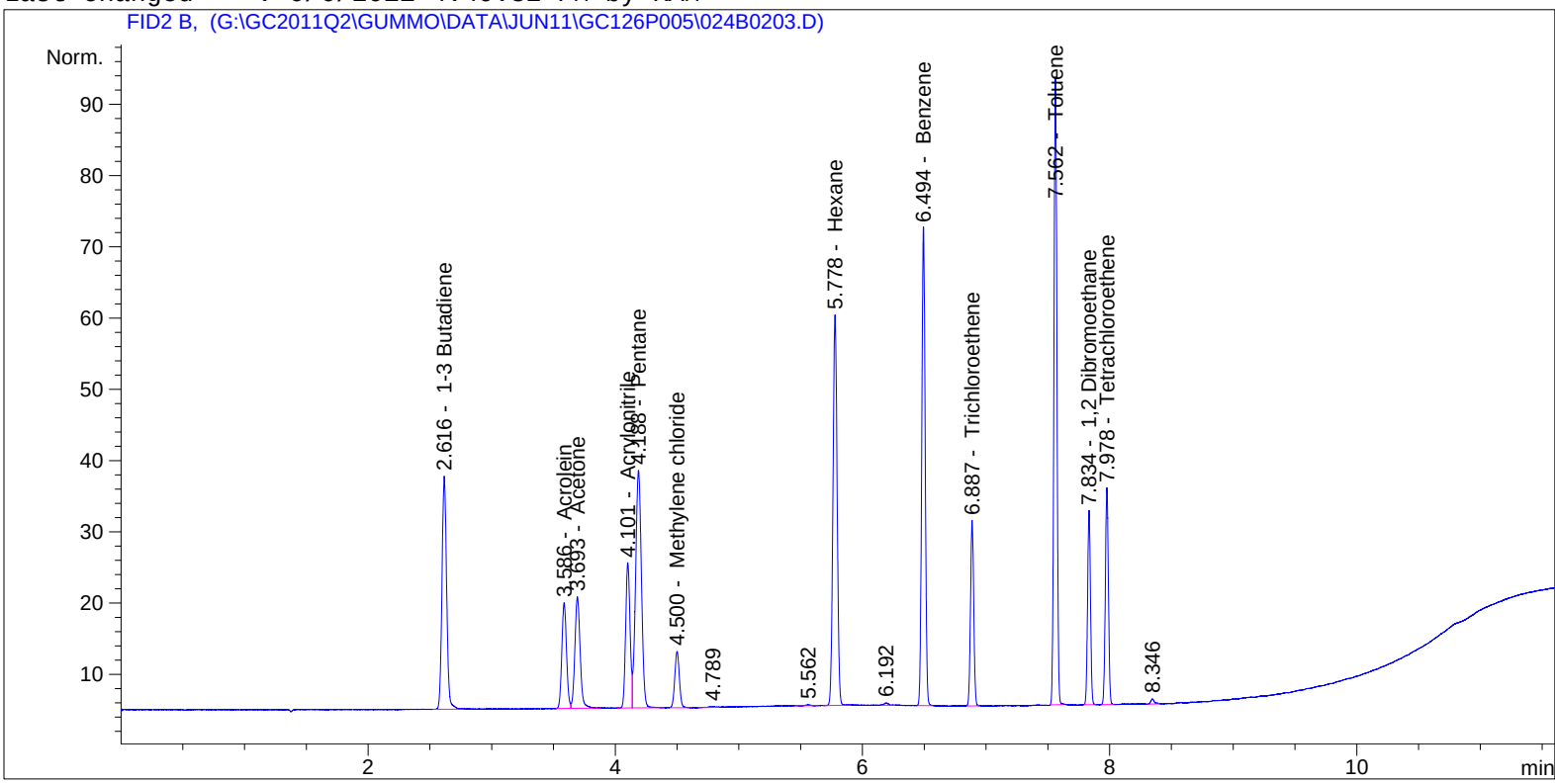
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0203.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 10:41:03               Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.616	BV	85.67431	1.21201	103.83779		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.586	BV	39.15718	2.67044	104.56700		Acrolein
3.693	VB	46.33160	2.22281	102.98624		Acetone
4.101	BV	50.82730	2.03158	103.25992		Acrylonitrile
4.188	VB	109.96980	9.56538e-1	105.19034		Pentane
4.500	BB	20.34530	5.11070	103.97870		Methylene chloride
5.778	VB	129.10307	8.09920e-1	104.56321		Hexane
6.494	BB	130.04637	8.11572e-1	105.54200		Benzene
6.887	BB	47.22837	2.17466	102.70568		Trichloroethene
7.562	BB	150.42896	6.89115e-1	103.66285		Toluene
7.834	BB	44.81693	2.36369	105.93321		1,2 Dibromoethane
7.978	BB	52.62995	1.97647	104.02142		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0203.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1250.24836		

2 Warnings or Errors :

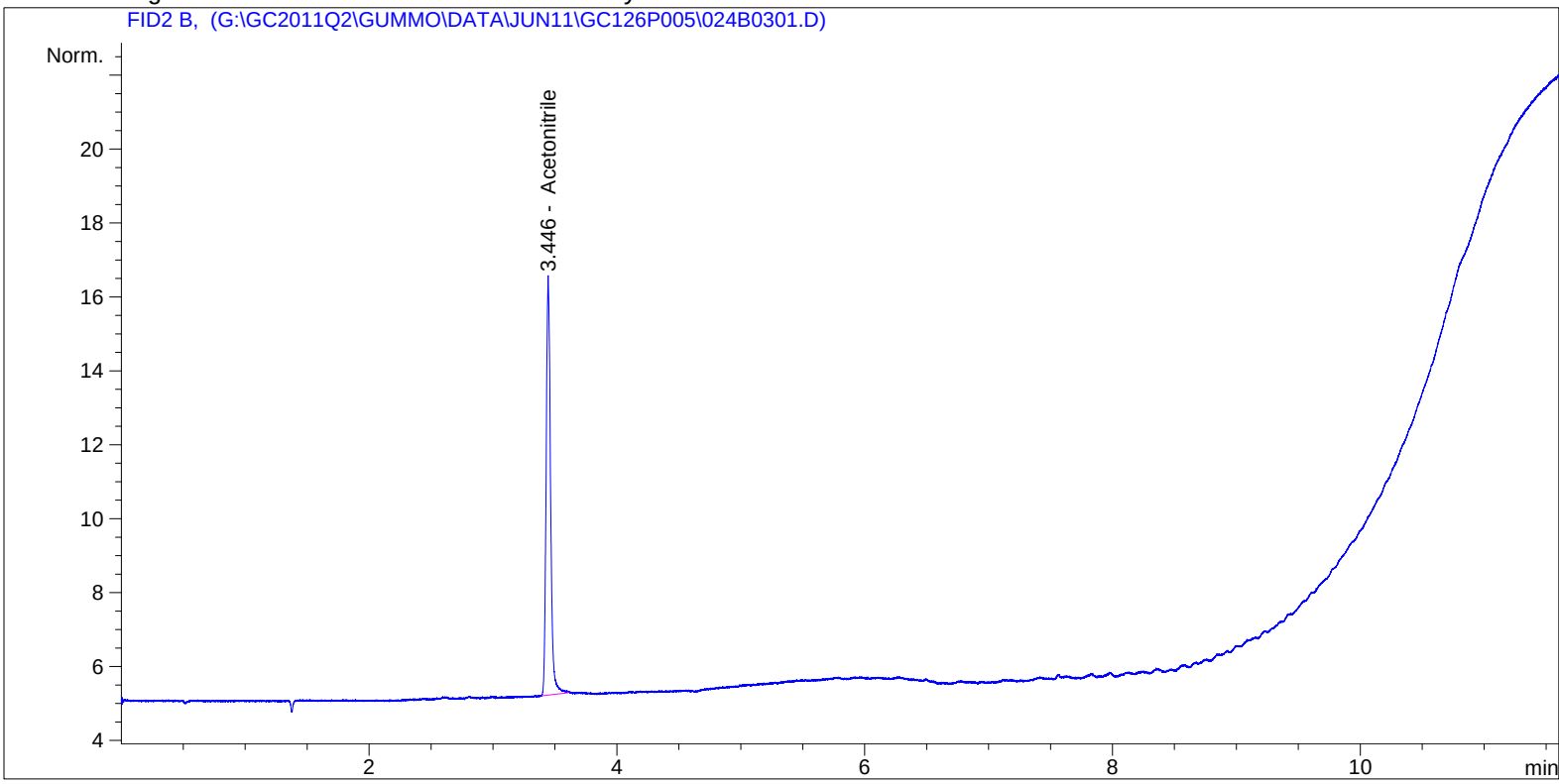
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0301.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==================================================================
Acq. Operator   : MGM                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 11:00:19                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.446	BB	28.25214	3.54757	100.22641		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0301.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				100.22641		

2 Warnings or Errors :

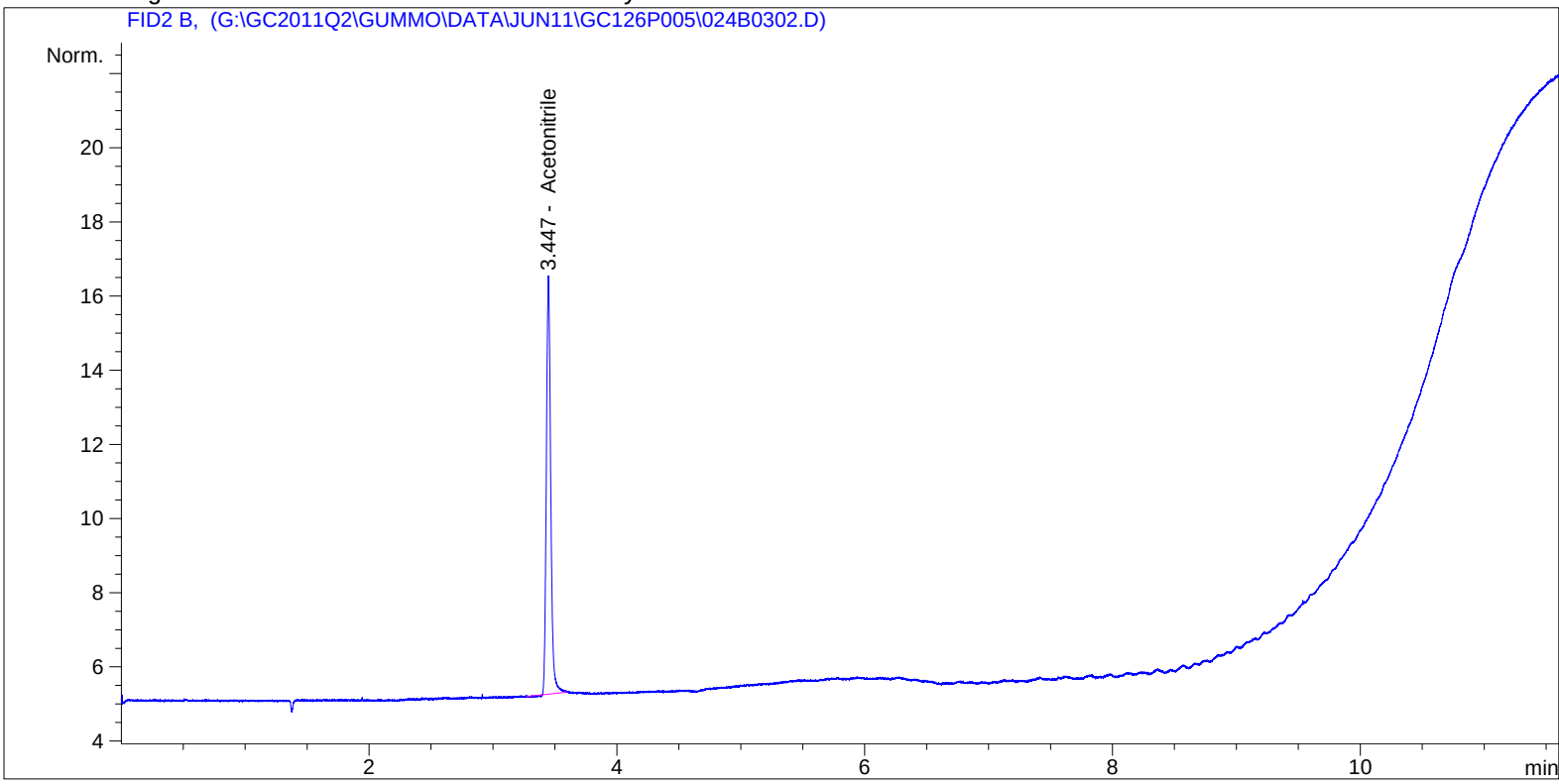
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0302.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 11:19:38                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.447	BB	27.74767	3.54804	98.44979		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0302.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				98.44979		

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

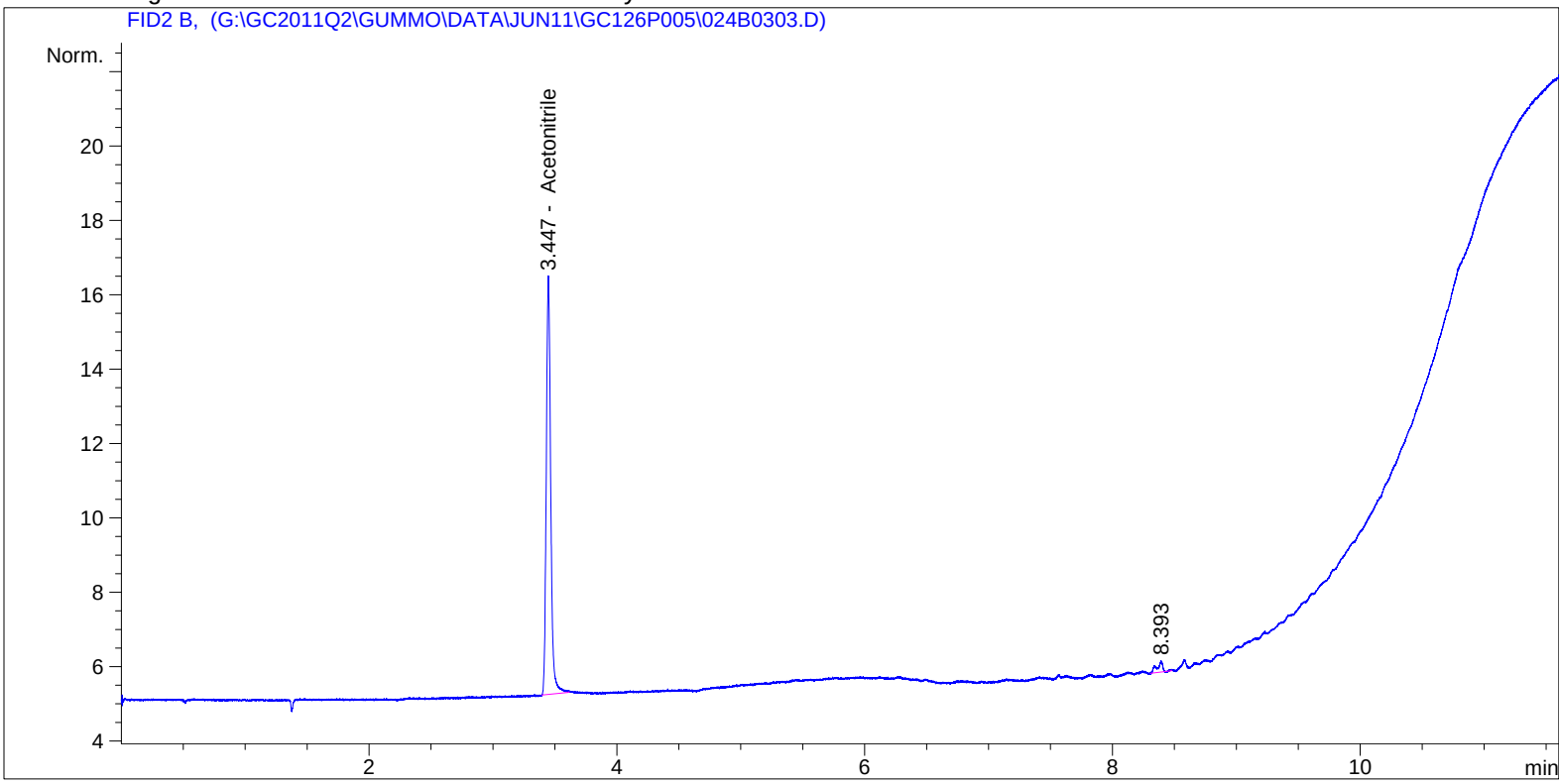
==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0303.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

==========

Acq. Operator : MGM Seq. Line : 3
Acq. Instrument : Gummo online Location : Vial 24
Injection Date : 29-Jun-11, 11:39:03 Inj : 3
Inj Volume : External
Acq. Method : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed : 6/6/2011 4:49:32 PM by KAM



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External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/6/2011 4:49:09 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.447	BB	28.07803	3.54773	99.61323		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B0303.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				99.61323		

2 Warnings or Errors :

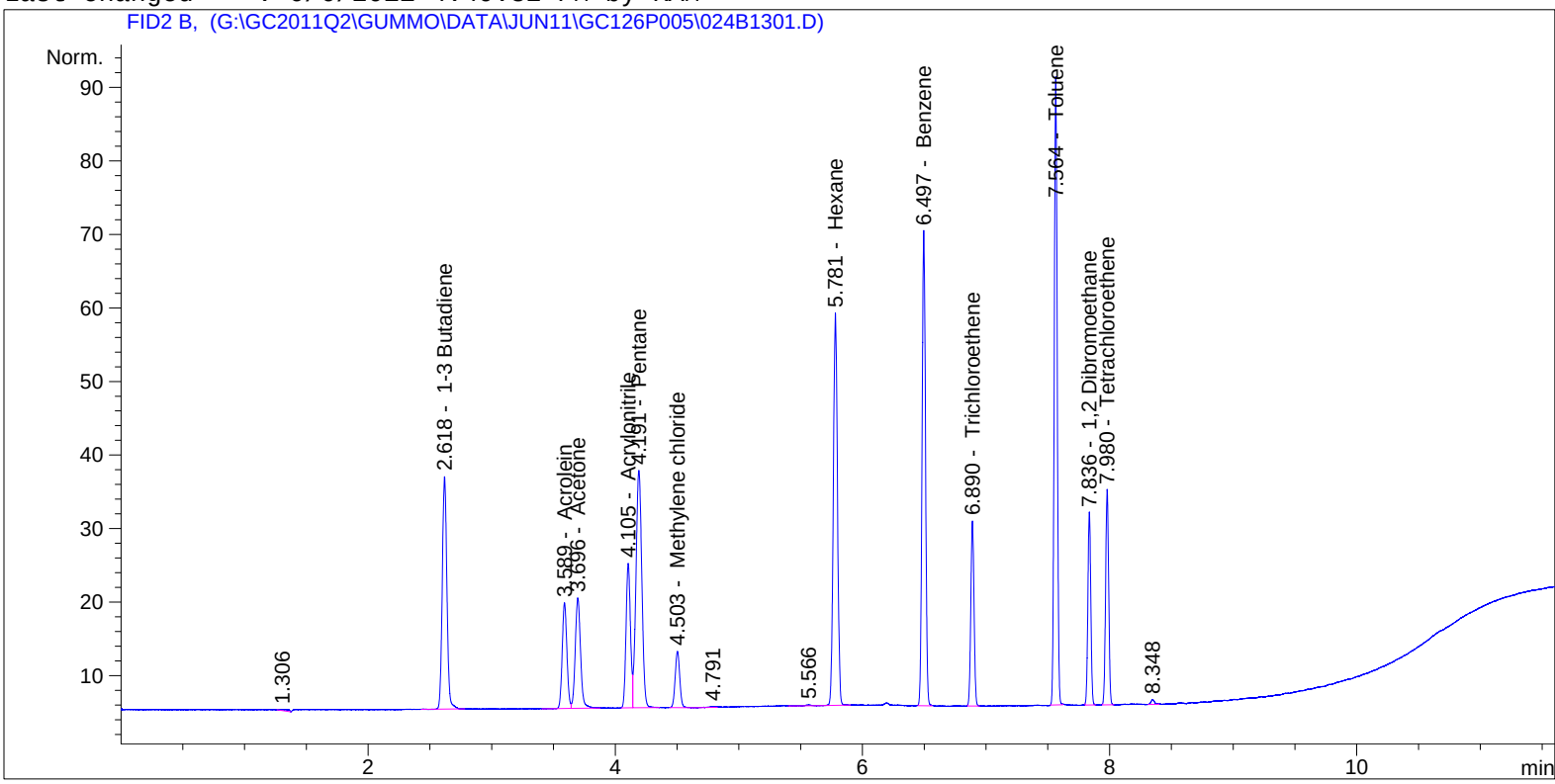
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1301.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  13
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 19:59:44                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	BB	82.64786	1.21223	100.18791		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.589	VV	37.89413	2.67089	101.21095		Acrolein
3.696	VB	44.66244	2.22367	99.31435		Acetone
4.105	BV	48.86245	2.03250	99.31300		Acrylonitrile
4.191	VB	106.45944	9.56646e-1	101.84396		Pentane
4.503	BV	19.75560	5.11144	100.97953		Methylene chloride
5.781	VB	125.11588	8.10038e-1	101.34861		Hexane
6.497	BB	125.84307	8.11695e-1	102.14621		Benzene
6.890	BB	45.71665	2.17563	99.46241		Trichloroethene
7.564	BB	145.21806	6.89438e-1	100.11892		Toluene
7.836	BB	43.32534	2.36440	102.43832		1,2 Dibromoethane
7.980	BB	50.84052	1.97718	100.52071		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1301.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1208.88487		

2 Warnings or Errors :

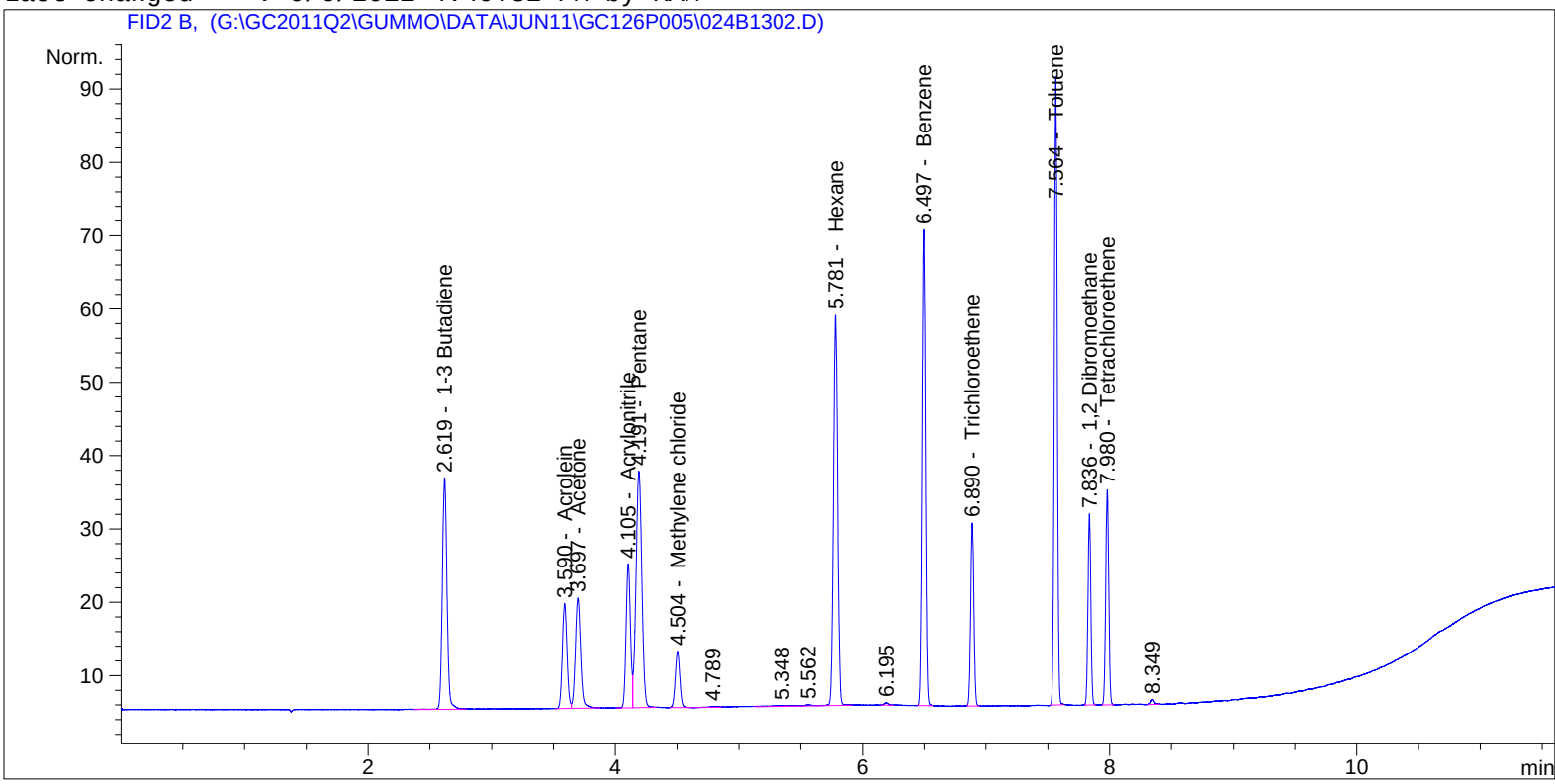
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1302.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  13
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 20:19:00               Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|-----------------
  2.619 VV       83.11946    1.21219  100.75666    1-3 Butadiene
  3.453            -           -          -        Acetonitrile
  3.590 VV       37.83846    2.67091  101.06301    Acrolein
  3.697 VB       44.69616    2.22365   99.38853    Acetone
  4.105 BV       48.71223    2.03257   99.01123    Acrylonitrile
  4.191 VB      105.96248 9.56661e-1  101.37021    Pentane
  4.504 BB       19.65532    5.11157  100.46949    Methylene chloride
  5.781 VB      125.28683 8.10033e-1  101.48644    Hexane
  6.497 BB      125.45358 8.11707e-1  101.83154    Benzene
  6.890 BB       45.55610    2.17573   99.11796    Trichloroethene
  7.564 BB      144.56049 6.89481e-1   99.67170    Toluene
  7.836 BB       43.01613    2.36455  101.71381    1,2 Dibromoethane
  7.980 BB       50.67488    1.97725  100.19666    Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1302.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1206.07725		

2 Warnings or Errors :

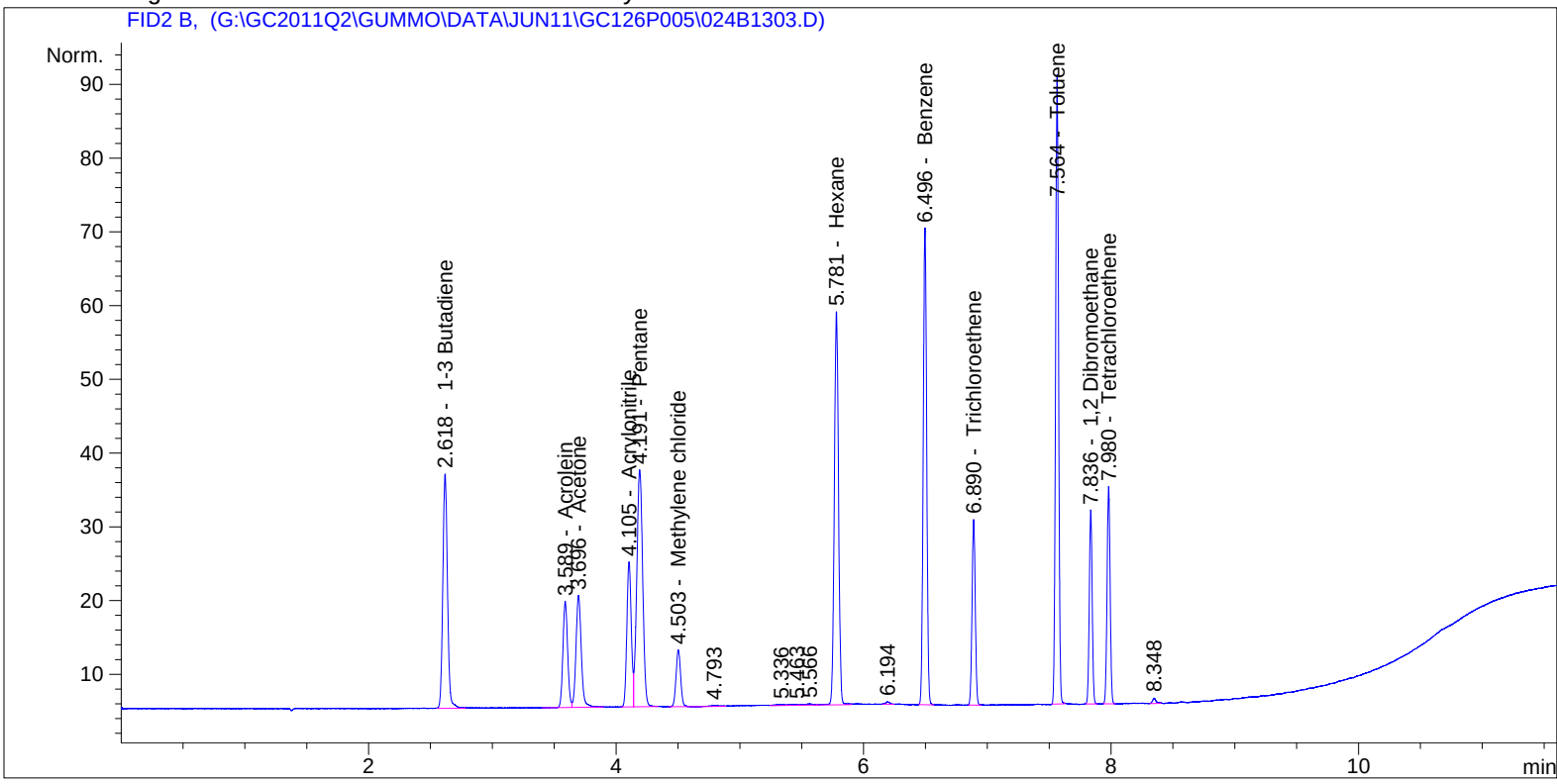
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1303.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  13
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 20:38:23                Inj :   3
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	BB	83.31281	1.21218	100.98984		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.589	VV	38.10740	2.67081	101.77763		Acrolein
3.696	VB	44.99743	2.22349	100.05128		Acetone
4.105	BV	49.08995	2.03239	99.76998		Acrylonitrile
4.191	VB	106.65543	9.56639e-1	102.03079		Pentane
4.503	BB	19.76070	5.11143	101.00548		Methylene chloride
5.781	VB	126.30560	8.10002e-1	102.30780		Hexane
6.496	BB	126.12798	8.11687e-1	102.37638		Benzene
6.890	BB	45.87366	2.17552	99.79926		Trichloroethene
7.564	BB	145.50372	6.89420e-1	100.31320		Toluene
7.836	BB	43.30594	2.36441	102.39286		1,2 Dibromoethane
7.980	BB	50.98406	1.97712	100.80153		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1303.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1213.61602		

2 Warnings or Errors :

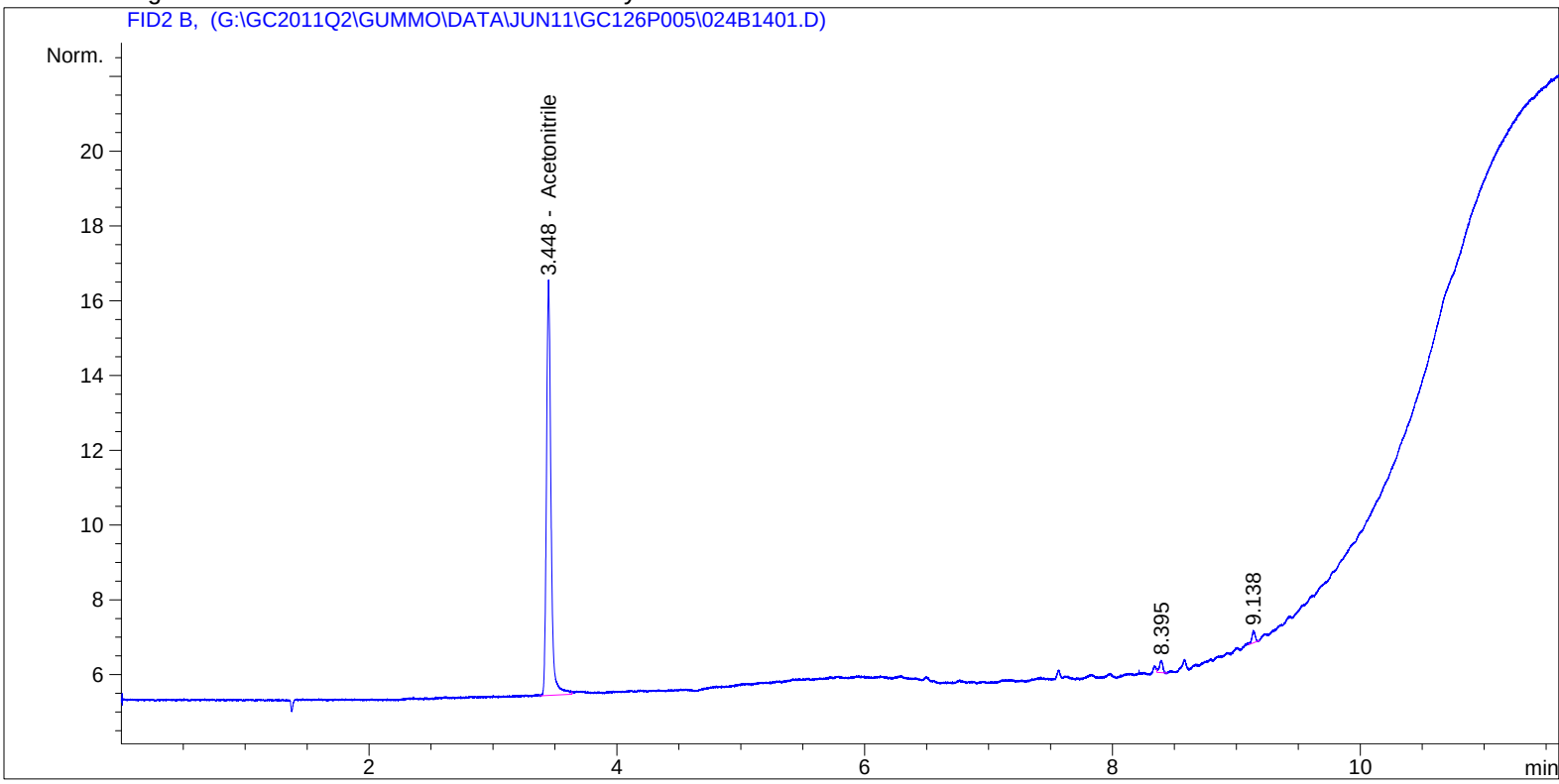
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1401.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  14
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 20:57:36                Inj :   1
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -          1-3 Butadiene
  3.448 VB       28.31783    3.54751  100.45777     Acetonitrile
  3.591            -          -          -          Acrolein
  3.700            -          -          -          Acetone
  4.107            -          -          -          Acrylonitrile
  4.191            -          -          -          Pentane
  4.508            -          -          -          Methylene chloride
  5.781            -          -          -          Hexane
  6.497            -          -          -          Benzene
  6.890            -          -          -          Trichloroethene
  7.565            -          -          -          Toluene
  7.836            -          -          -          1,2 Dibromoethane
  7.981            -          -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1401.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				100.45777		

2 Warnings or Errors :

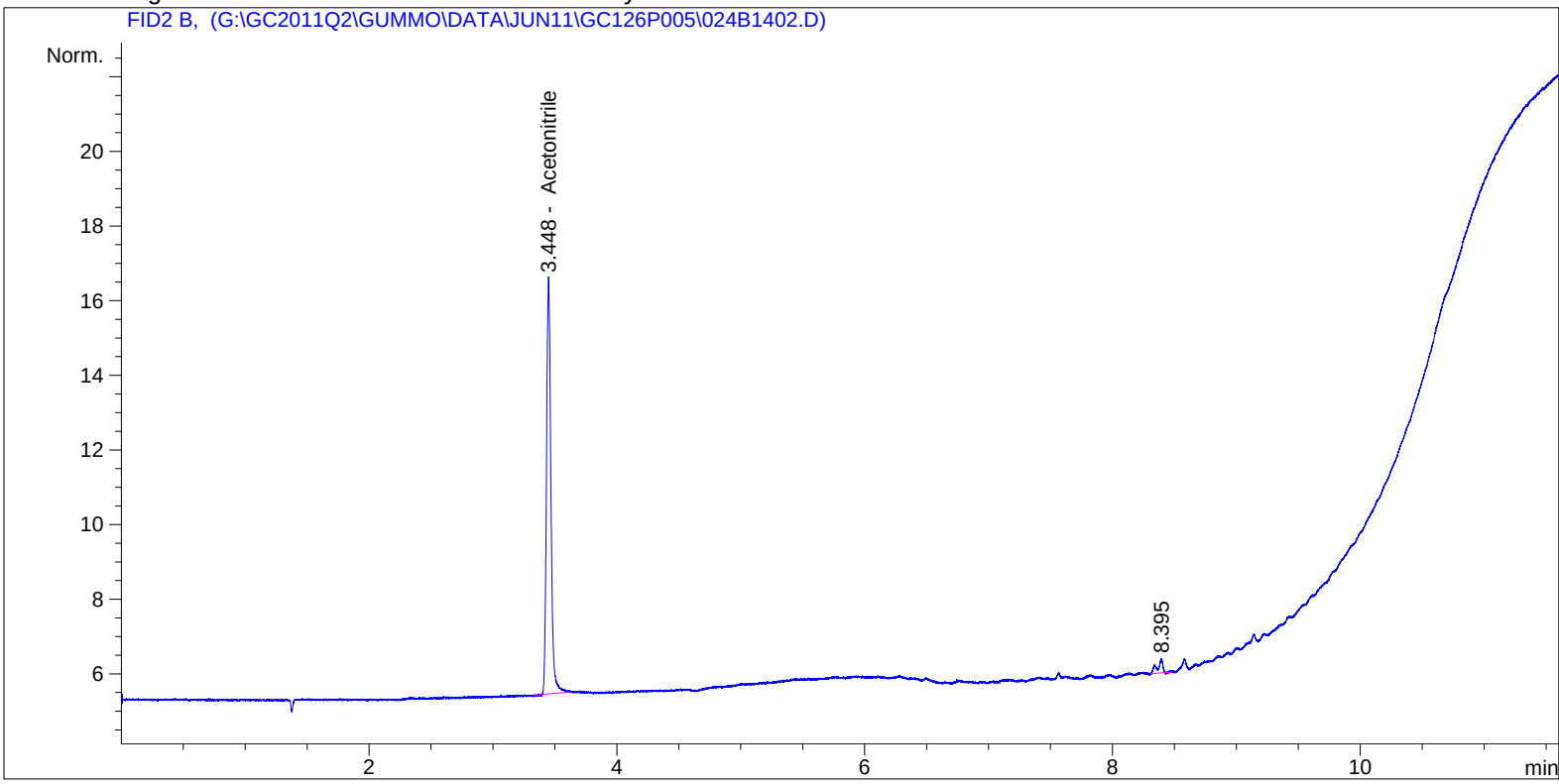
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1402.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  14
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 21:16:50                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -         1-3 Butadiene
  3.448 BB       27.81098    3.54798   98.67274     Acetonitrile
  3.591            -          -          -         Acrolein
  3.700            -          -          -         Acetone
  4.107            -          -          -         Acrylonitrile
  4.191            -          -          -         Pentane
  4.508            -          -          -         Methylene chloride
  5.781            -          -          -         Hexane
  6.497            -          -          -         Benzene
  6.890            -          -          -         Trichloroethene
  7.565            -          -          -         Toluene
  7.836            -          -          -         1,2 Dibromoethane
  7.981            -          -          -         Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1402.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				98.67274		

2 Warnings or Errors :

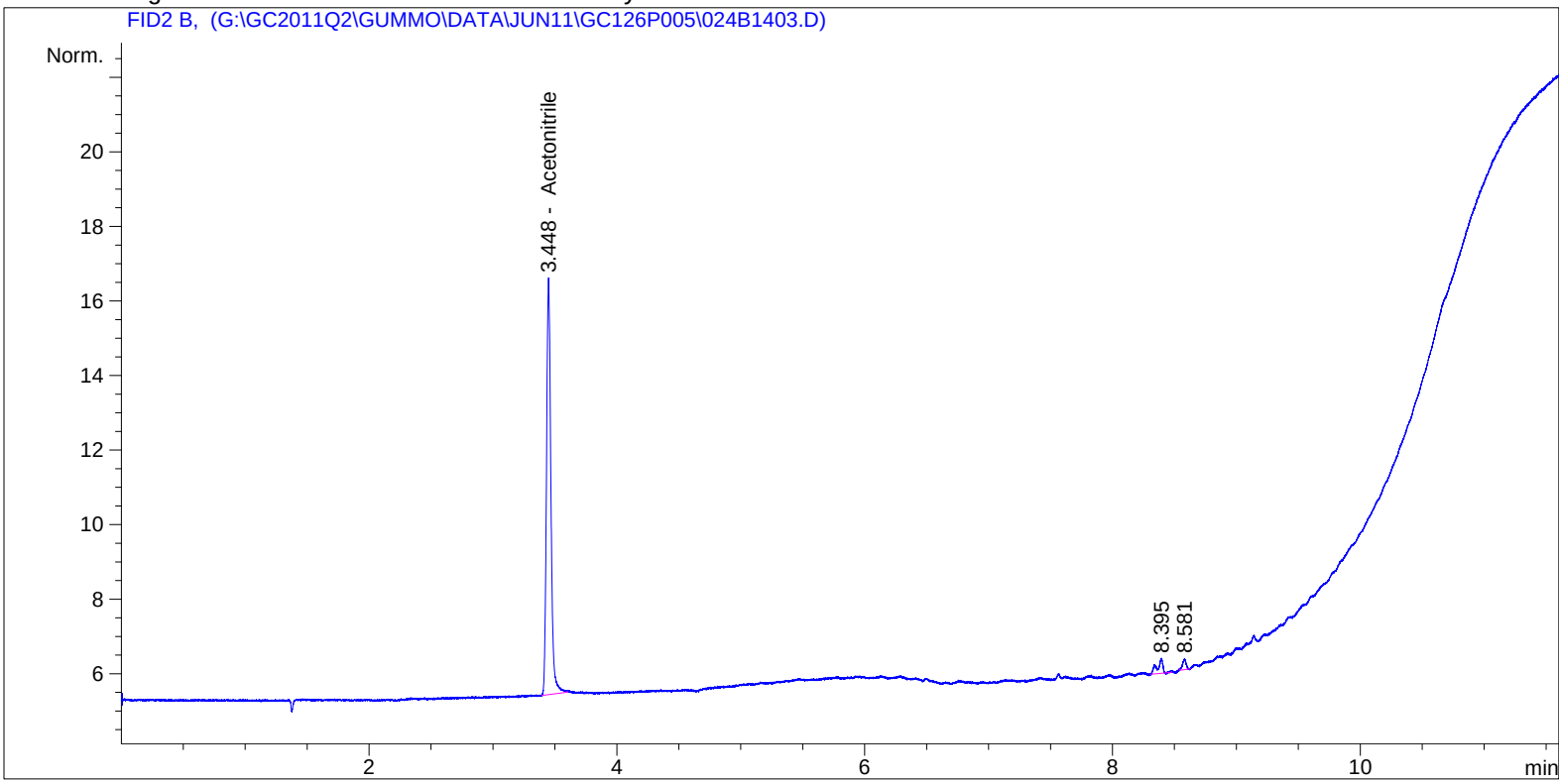
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1403.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :  14
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 29-Jun-11, 21:36:04                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620           -          -          -          1-3 Butadiene
  3.448 BB       27.78513    3.54800   98.58171    Acetonitrile
  3.591           -          -          -          Acrolein
  3.700           -          -          -          Acetone
  4.107           -          -          -          Acrylonitrile
  4.191           -          -          -          Pentane
  4.508           -          -          -          Methylene chloride
  5.781           -          -          -          Hexane
  6.497           -          -          -          Benzene
  6.890           -          -          -          Trichloroethene
  7.565           -          -          -          Toluene
  7.836           -          -          -          1,2 Dibromoethane
  7.981           -          -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P005\024B1403.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				98.58171		

2 Warnings or Errors :

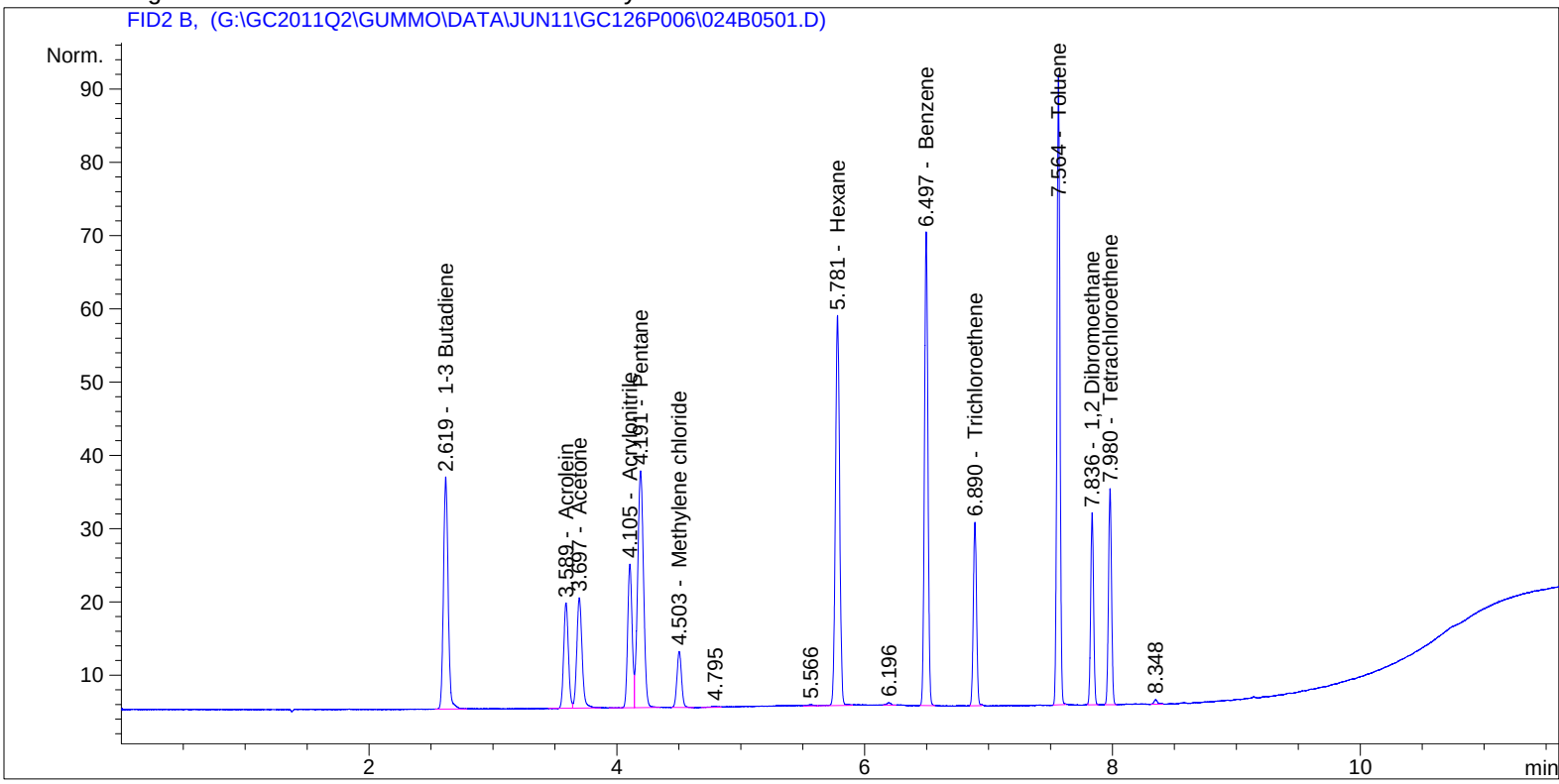
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0501.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
================================================================
Acq. Operator   : MGM                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 30-Jun-11, 15:12:09                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
================================================================
                    External Standard Report
================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.619	BB	83.19895	1.21219	100.85253		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.589	BV	37.70088	2.67096	100.69746		Acrolein
3.697	VB	44.58458	2.22371	99.14308		Acetone
4.105	BV	48.87357	2.03250	99.33534		Acrylonitrile
4.191	VB	106.50719	9.56644e-1	101.88947		Pentane
4.503	BB	19.66413	5.11156	100.51430		Methylene chloride
5.781	VV	126.23462	8.10004e-1	102.25057		Hexane
6.497	BB	125.97206	8.11691e-1	102.25042		Benzene
6.890	BB	45.71223	2.17563	99.45292		Trichloroethene
7.564	BB	145.37726	6.89428e-1	100.22719		Toluene
7.836	BB	43.33709	2.36439	102.46586		1,2 Dibromoethane
7.980	BB	50.85177	1.97717	100.54271		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0501.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1209.62184		

2 Warnings or Errors :

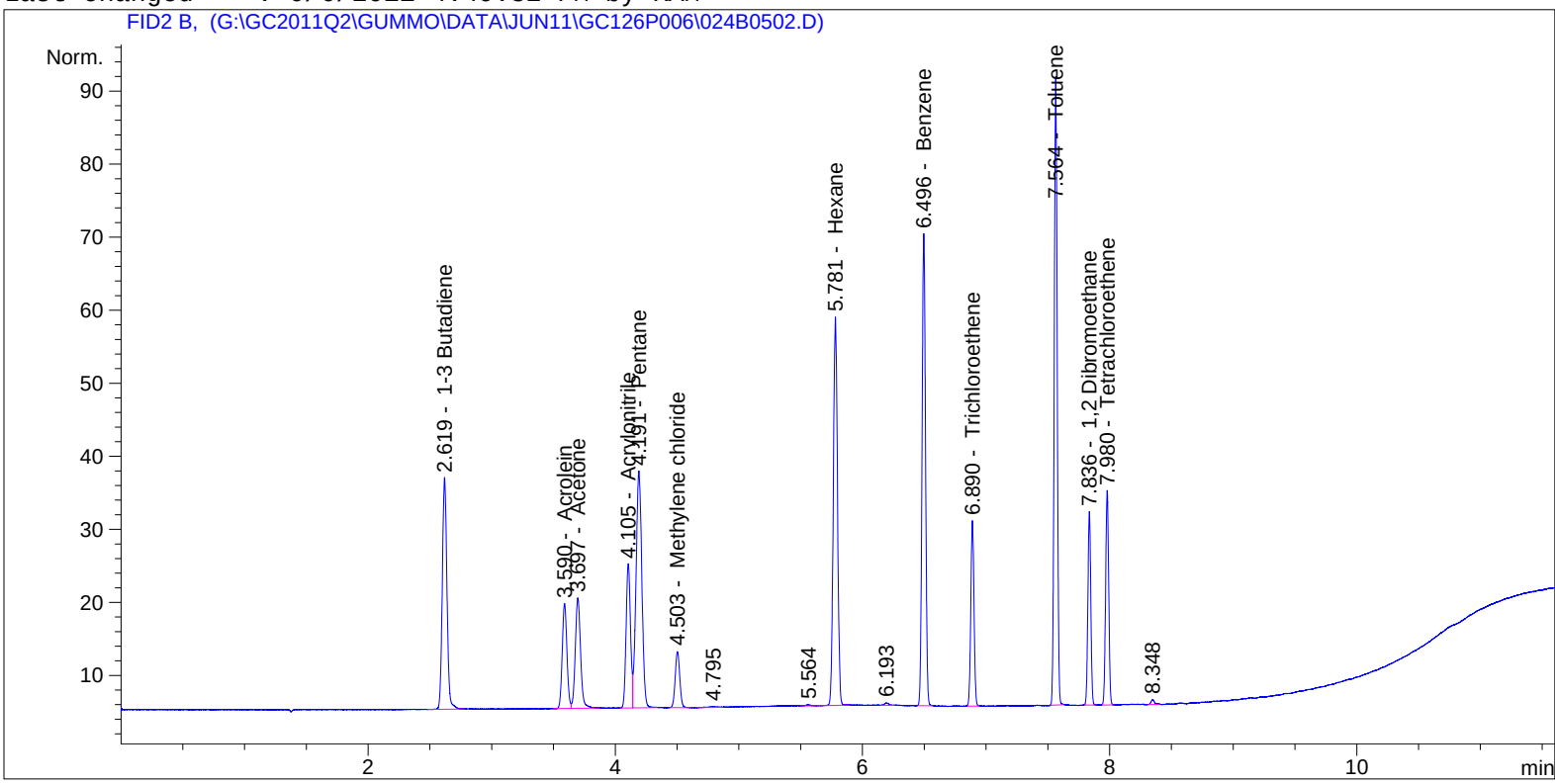
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0502.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                              Seq. Line :   5
Acq. Instrument : Gummo online                    Location : Vial 24
Injection Date  : 30-Jun-11, 15:31:32                  Inj :   2
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.619	VB	83.11517	1.21219	100.75149		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.590	VV	37.95769	2.67086	101.37983		Acrolein
3.697	VB	44.79026	2.22360	99.59553		Acetone
4.105	BV	49.10446	2.03238	99.79914		Acrylonitrile
4.191	VB	106.56569	9.56642e-1	101.94524		Pentane
4.503	BB	19.67695	5.11154	100.57951		Methylene chloride
5.781	VB	125.39152	8.10030e-1	101.57084		Hexane
6.496	BB	126.17329	8.11685e-1	102.41299		Benzene
6.890	BB	45.85070	2.17554	99.75001		Trichloroethene
7.564	BB	145.69055	6.89408e-1	100.44026		Toluene
7.836	BB	43.52824	2.36430	102.91373		1,2 Dibromoethane
7.980	BB	51.03152	1.97710	100.89436		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0502.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1212.03294		

2 Warnings or Errors :

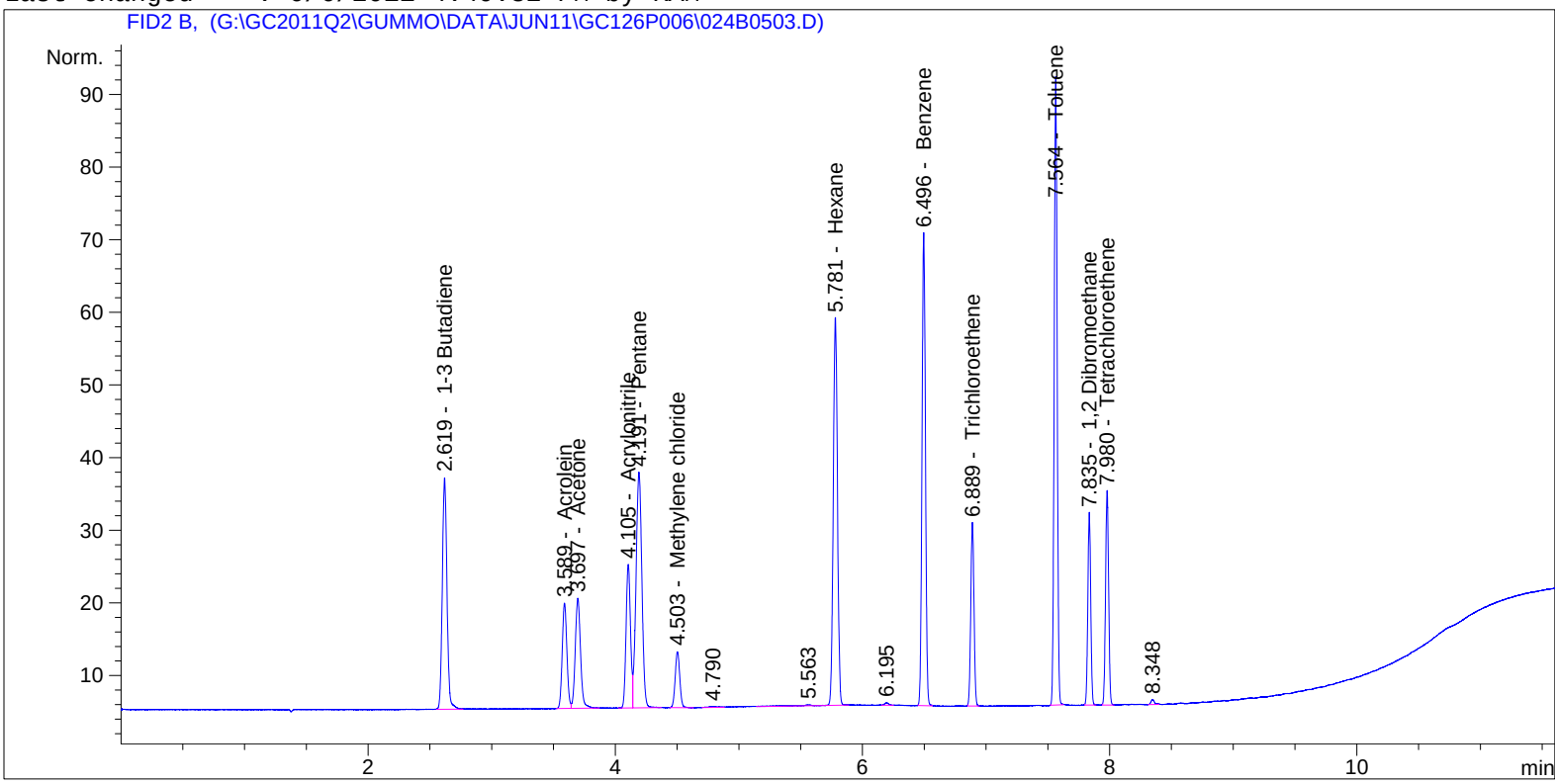
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0503.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   5
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 30-Jun-11, 15:50:45               Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.619	BV	83.70091	1.21215	101.45789		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.589	BV	38.10236	2.67081	101.76422		Acrolein
3.697	VB	44.99792	2.22349	100.05237		Acetone
4.105	BV	49.40519	2.03224	100.40322		Acrylonitrile
4.191	VB	107.38415	9.56617e-1	102.72547		Pentane
4.503	BB	19.86032	5.11130	101.51212		Methylene chloride
5.781	VB	126.06295	8.10009e-1	102.11217		Hexane
6.496	BB	126.79860	8.11666e-1	102.91817		Benzene
6.889	BB	46.05049	2.17541	100.17864		Trichloroethene
7.564	BB	146.35379	6.89366e-1	100.89133		Toluene
7.835	BB	43.56336	2.36428	102.99602		1,2 Dibromoethane
7.980	BB	51.32451	1.97698	101.46755		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0503.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1218.47917		

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

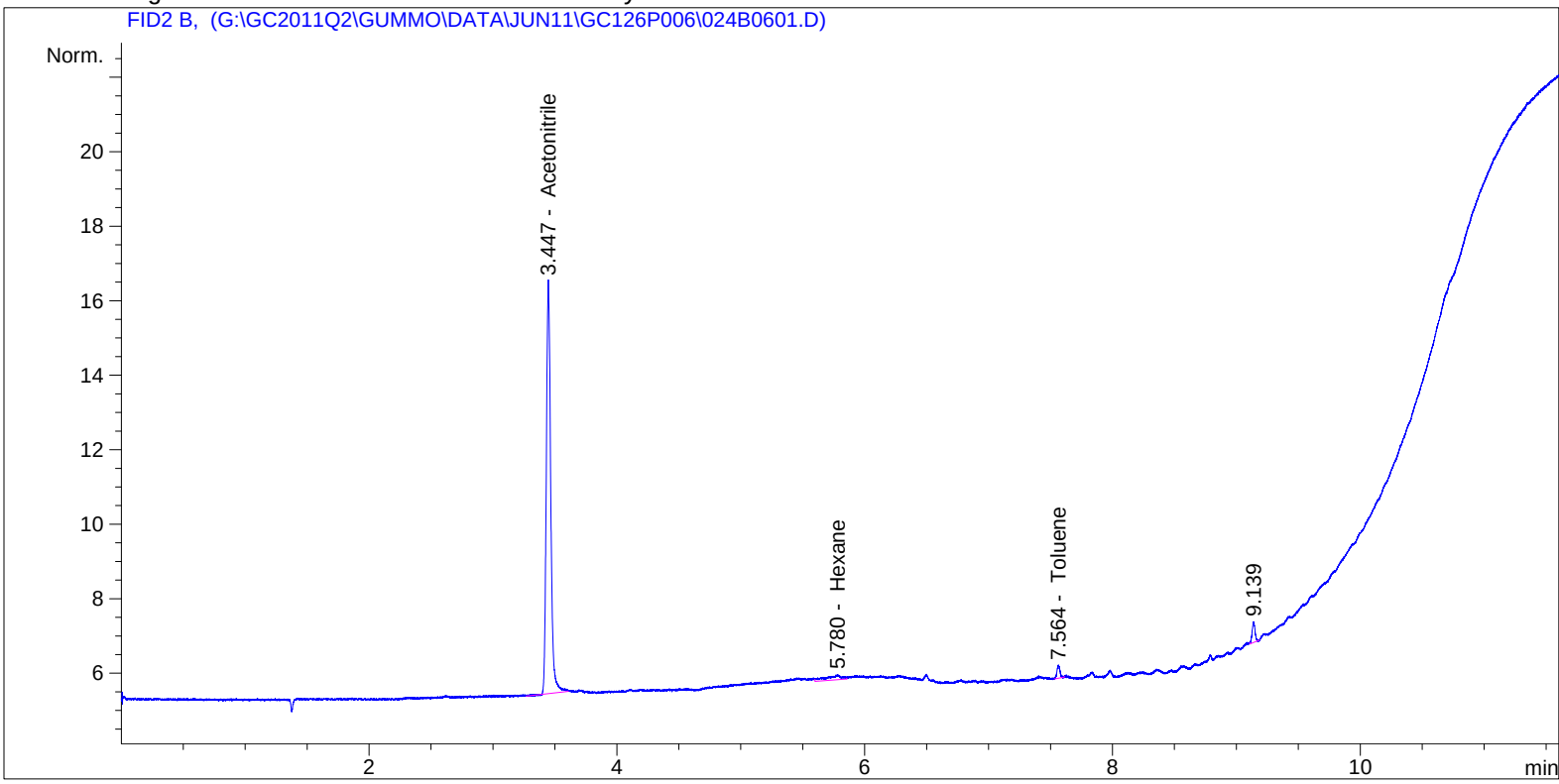
==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0601.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

==========

Acq. Operator : MGM Seq. Line : 6
Acq. Instrument : Gummo online Location : Vial 24
Injection Date : 30-Jun-11, 16:09:59 Inj : 1
Inj Volume : External
Acq. Method : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed : 6/6/2011 4:49:32 PM by KAM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 6/6/2011 4:49:09 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.447	VB	27.71251	3.54807	98.32593		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.780	BV	1.06988	9.89631e-1	1.05878		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.564	BB	5.75780e-1	9.35231e-1	5.38487e-1		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0601.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				99.92320		

2 Warnings or Errors :

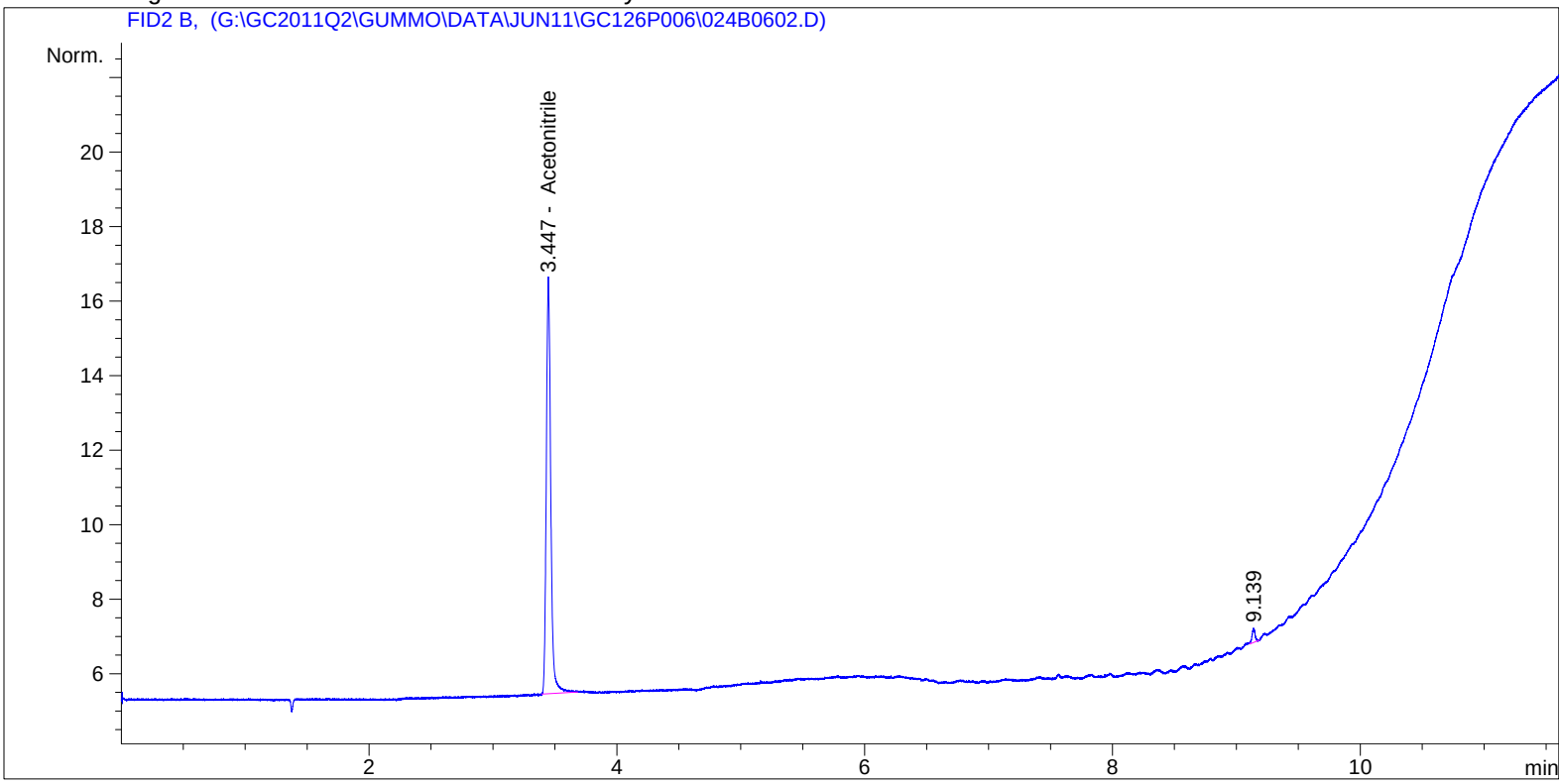
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0602.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 30-Jun-11, 16:29:14                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620           -          -          -          1-3 Butadiene
  3.447 BB       28.06527    3.54774   99.56831    Acetonitrile
  3.591           -          -          -          Acrolein
  3.700           -          -          -          Acetone
  4.107           -          -          -          Acrylonitrile
  4.191           -          -          -          Pentane
  4.508           -          -          -          Methylene chloride
  5.781           -          -          -          Hexane
  6.497           -          -          -          Benzene
  6.890           -          -          -          Trichloroethene
  7.565           -          -          -          Toluene
  7.836           -          -          -          1,2 Dibromoethane
  7.981           -          -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0602.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				99.56831		

2 Warnings or Errors :

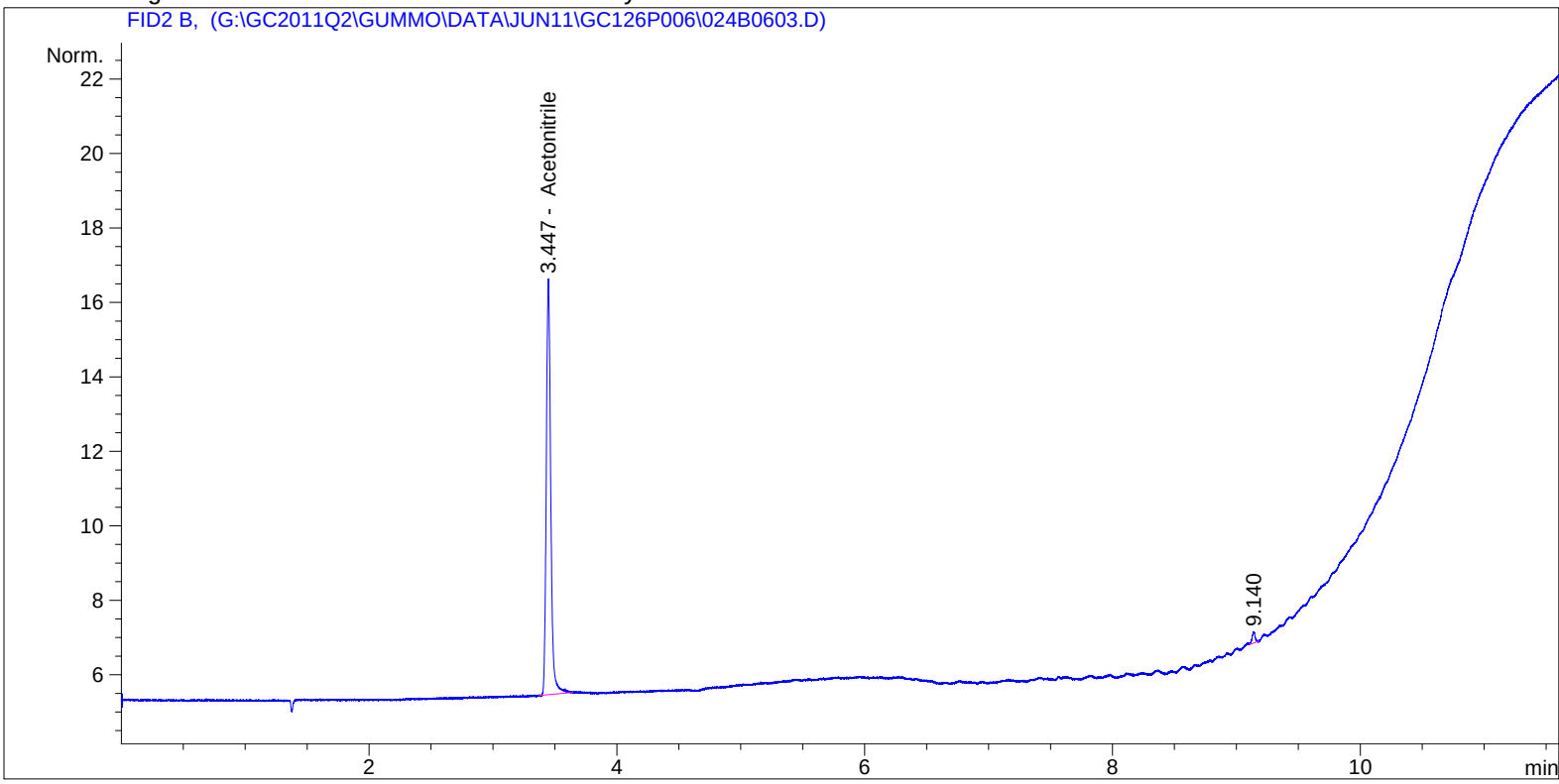
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0603.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
=====================================================================
Acq. Operator   : MGM                          Seq. Line :   6
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 30-Jun-11, 16:48:33                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
=====================================================================
                    External Standard Report
=====================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.447	BB	28.07096	3.54774	99.58832		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P006\024B0603.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				99.58832		

2 Warnings or Errors :

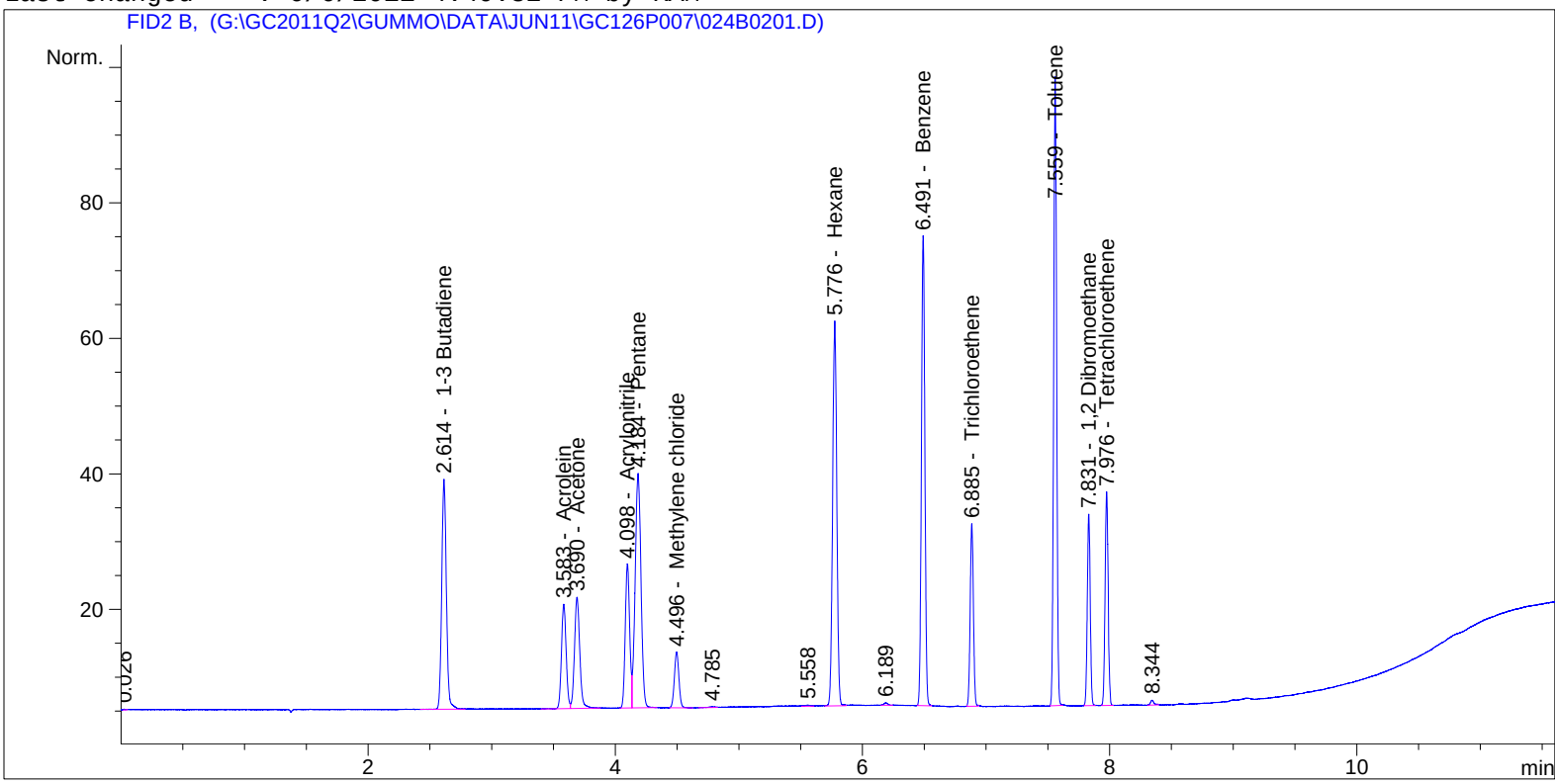
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0201.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 09:36:47               Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.614	BB	88.87160	1.21179	107.69370		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.583	VV	41.01996	2.66984	109.51659		Acrolein
3.690	VB	48.66699	2.22171	108.12373		Acetone
4.098	BV	52.85614	2.03071	107.33538		Acrylonitrile
4.184	VB	113.80377	9.56429e-1	108.84523		Pentane
4.496	BB	20.95346	5.10998	107.07180		Methylene chloride
5.776	VV	134.22546	8.09780e-1	108.69304		Hexane
6.491	BB	134.78232	8.11442e-1	109.36810		Benzene
6.885	BB	48.85466	2.17369	106.19474		Trichloroethene
7.559	BB	156.35027	6.88774e-1	107.68993		Toluene
7.831	BB	46.63047	2.36289	110.18248		1,2 Dibromoethane
7.976	BB	54.34177	1.97583	107.37032		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0201.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1298.08505		

2 Warnings or Errors :

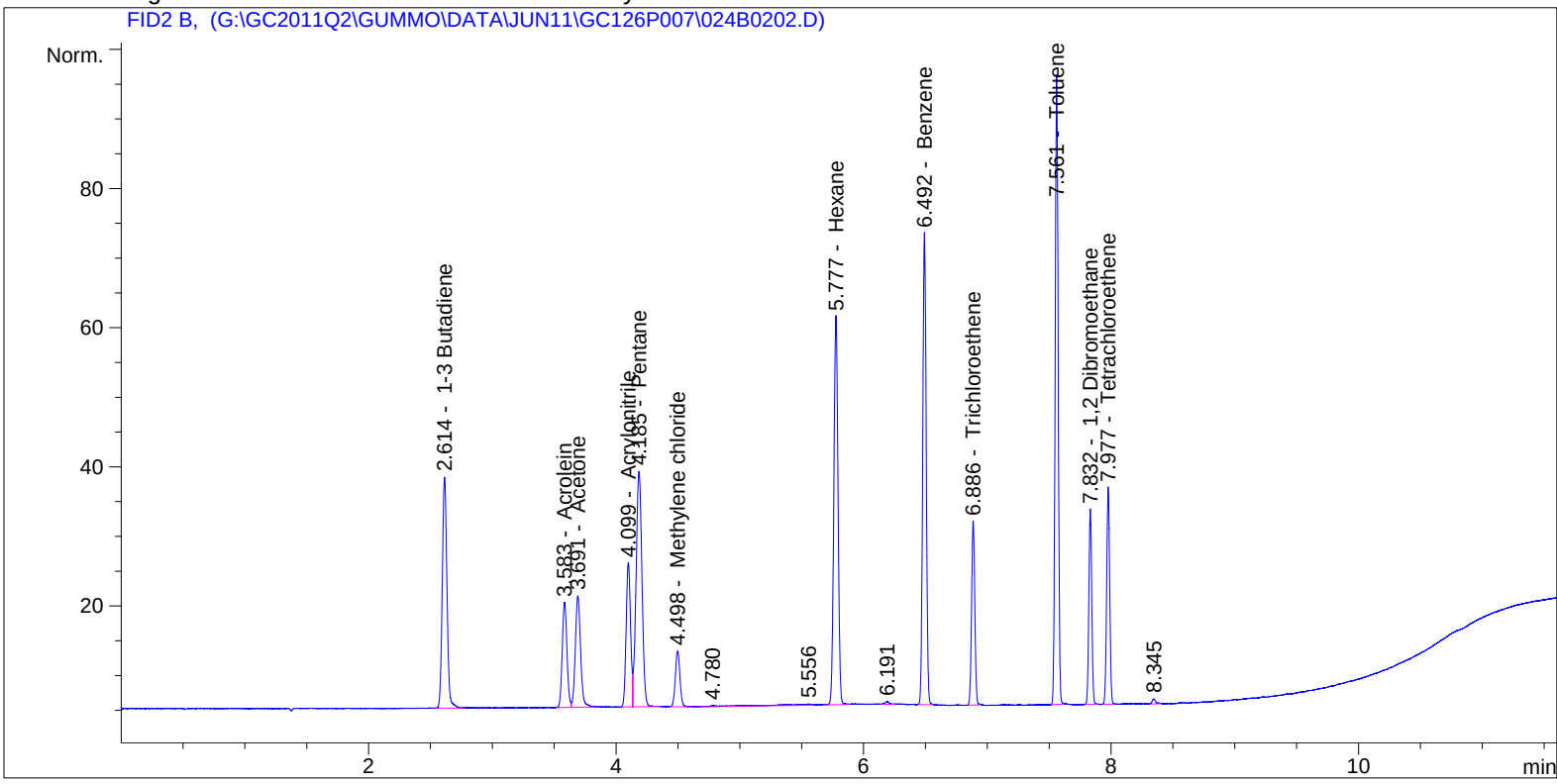
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0202.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                              Seq. Line :   2
Acq. Instrument : Gummo online                    Location : Vial 24
Injection Date  : 01-Jul-11, 09:56:05                  Inj :   2
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.614	BV	87.10934	1.21191	105.56843		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.583	BV	39.93557	2.67018	106.63525		Acrolein
3.691	VB	47.34245	2.22232	105.20996		Acetone
4.099	BV	51.80455	2.03115	105.22299		Acrylonitrile
4.185	VB	111.67959	9.56489e-1	106.82027		Pentane
4.498	BV	20.76419	5.11020	106.10919		Methylene chloride
5.777	VV	131.76219	8.09846e-1	106.70708		Hexane
6.492	BB	132.26996	8.11510e-1	107.33840		Benzene
6.886	BB	47.98965	2.17420	104.33893		Trichloroethene
7.561	BB	153.41594	6.88939e-1	105.69430		Toluene
7.832	BB	45.86169	2.36322	108.38115		1,2 Dibromoethane
7.977	BB	53.54316	1.97612	105.80797		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0202.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1273.83390		

2 Warnings or Errors :

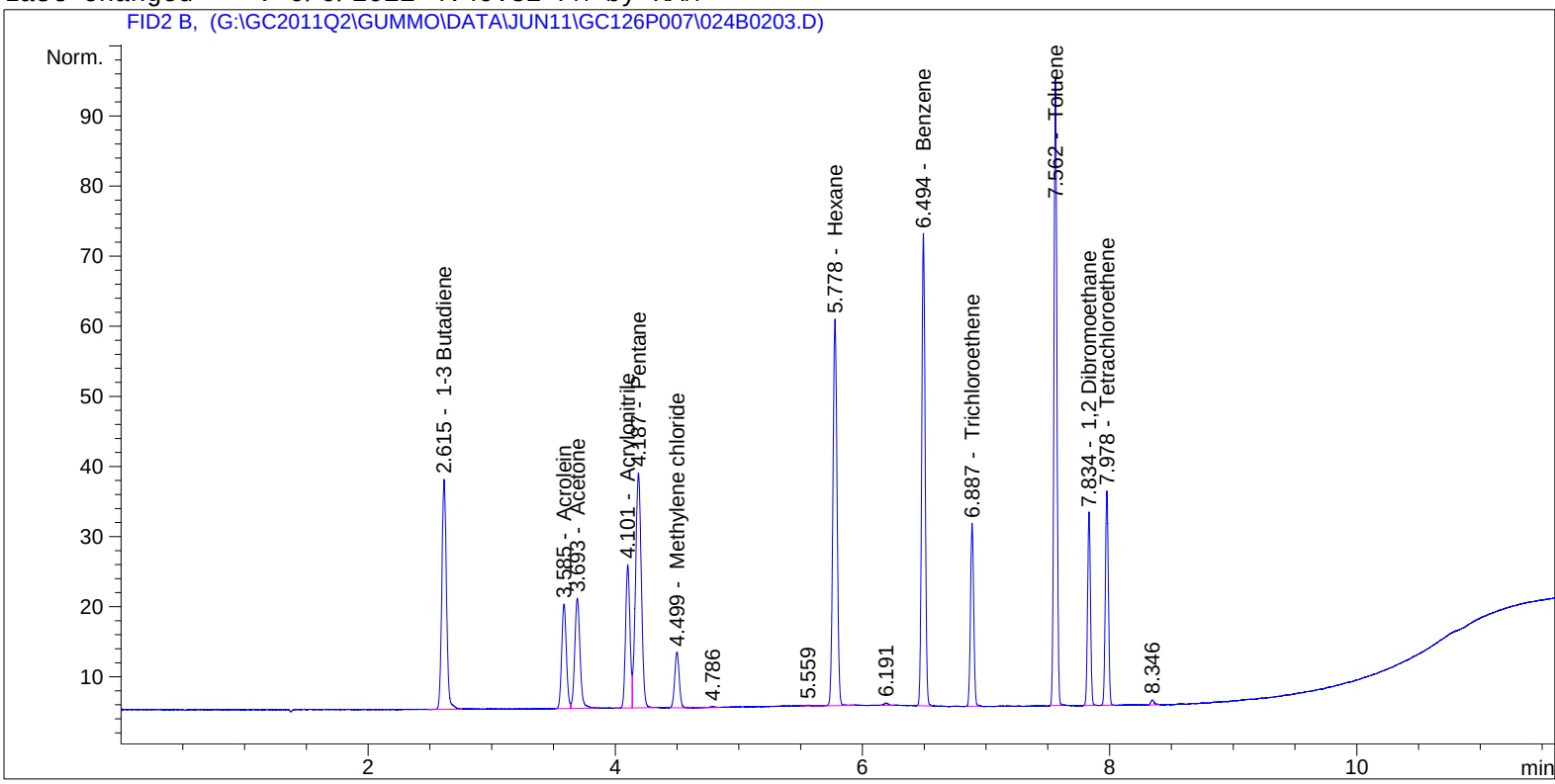
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0203.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   2
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 10:15:17               Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.615	VV	86.25113	1.21197	104.53343		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.585	BV	39.40965	2.67036	105.23783		Acrolein
3.693	VB	46.57365	2.22269	103.51872		Acetone
4.101	BV	50.94984	2.03153	103.50608		Acrylonitrile
4.187	VB	110.12184	9.56534e-1	105.33528		Pentane
4.499	BB	20.20867	5.11087	103.28382		Methylene chloride
5.778	VB	129.92853	8.09897e-1	105.22872		Hexane
6.494	BB	130.58946	8.11557e-1	105.98075		Benzene
6.887	BB	47.43779	2.17453	103.15495		Trichloroethene
7.562	BB	151.26524	6.89065e-1	104.23161		Toluene
7.834	BB	45.18607	2.36352	106.79813		1,2 Dibromoethane
7.978	BB	52.86677	1.97638	104.48473		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0203.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1255.29405		

2 Warnings or Errors :

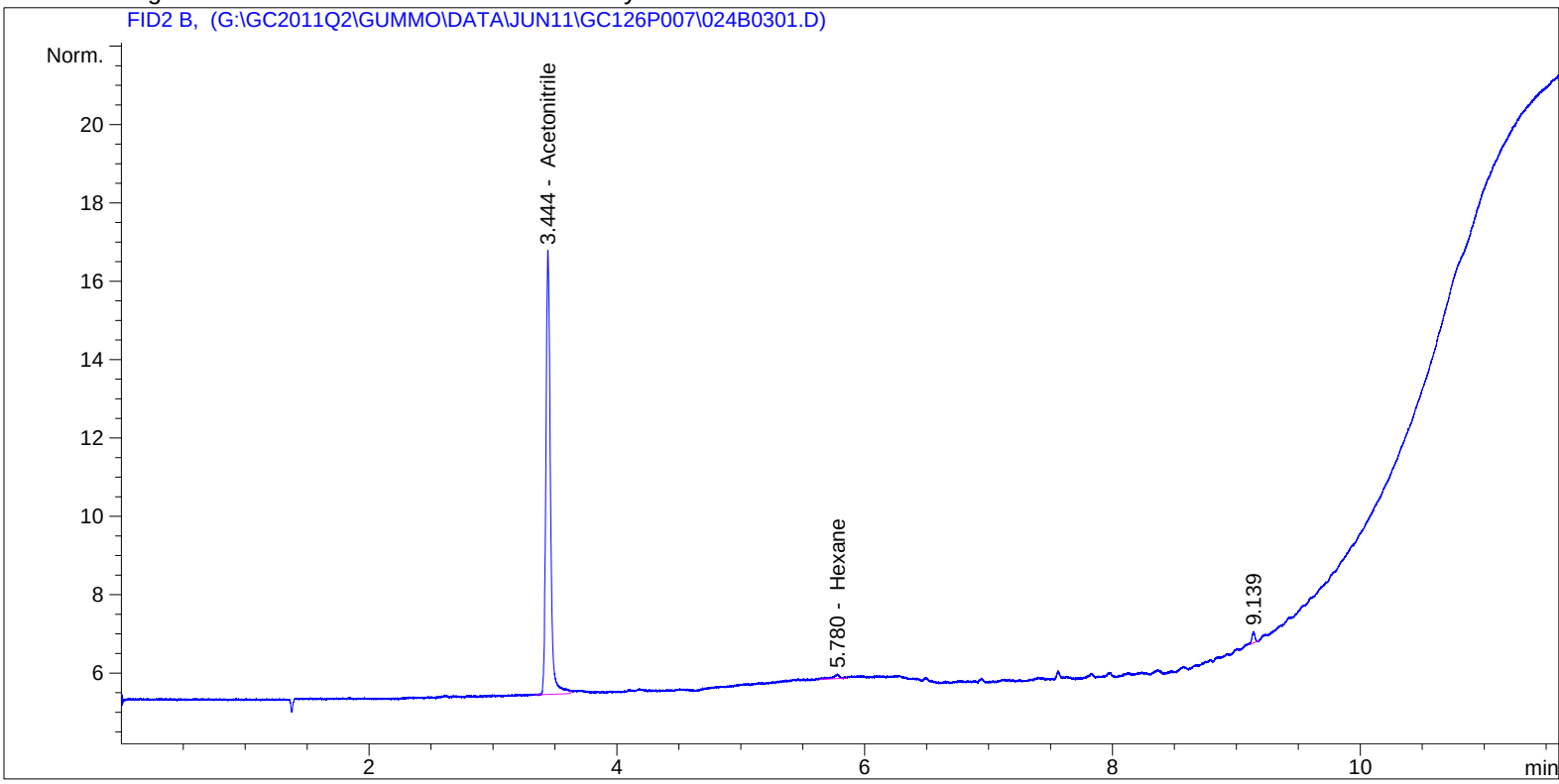
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0301.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 10:35:57                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                 [ppm]
-------|------|----------|----------|----------|--|------------------
  2.620            -          -          -          1-3 Butadiene
  3.444 BB       28.82831    3.54705  102.25559     Acetonitrile
  3.591            -          -          -          Acrolein
  3.700            -          -          -          Acetone
  4.107            -          -          -          Acrylonitrile
  4.191            -          -          -          Pentane
  4.508            -          -          -          Methylene chloride
  5.780 BB     4.28392e-1 9.89631e-1 4.23949e-1     Hexane
  6.497            -          -          -          Benzene
  6.890            -          -          -          Trichloroethene
  7.565            -          -          -          Toluene
  7.836            -          -          -          1,2 Dibromoethane
  7.981            -          -          -          Tetrachloroethene
```

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0301.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				102.67954		

2 Warnings or Errors :

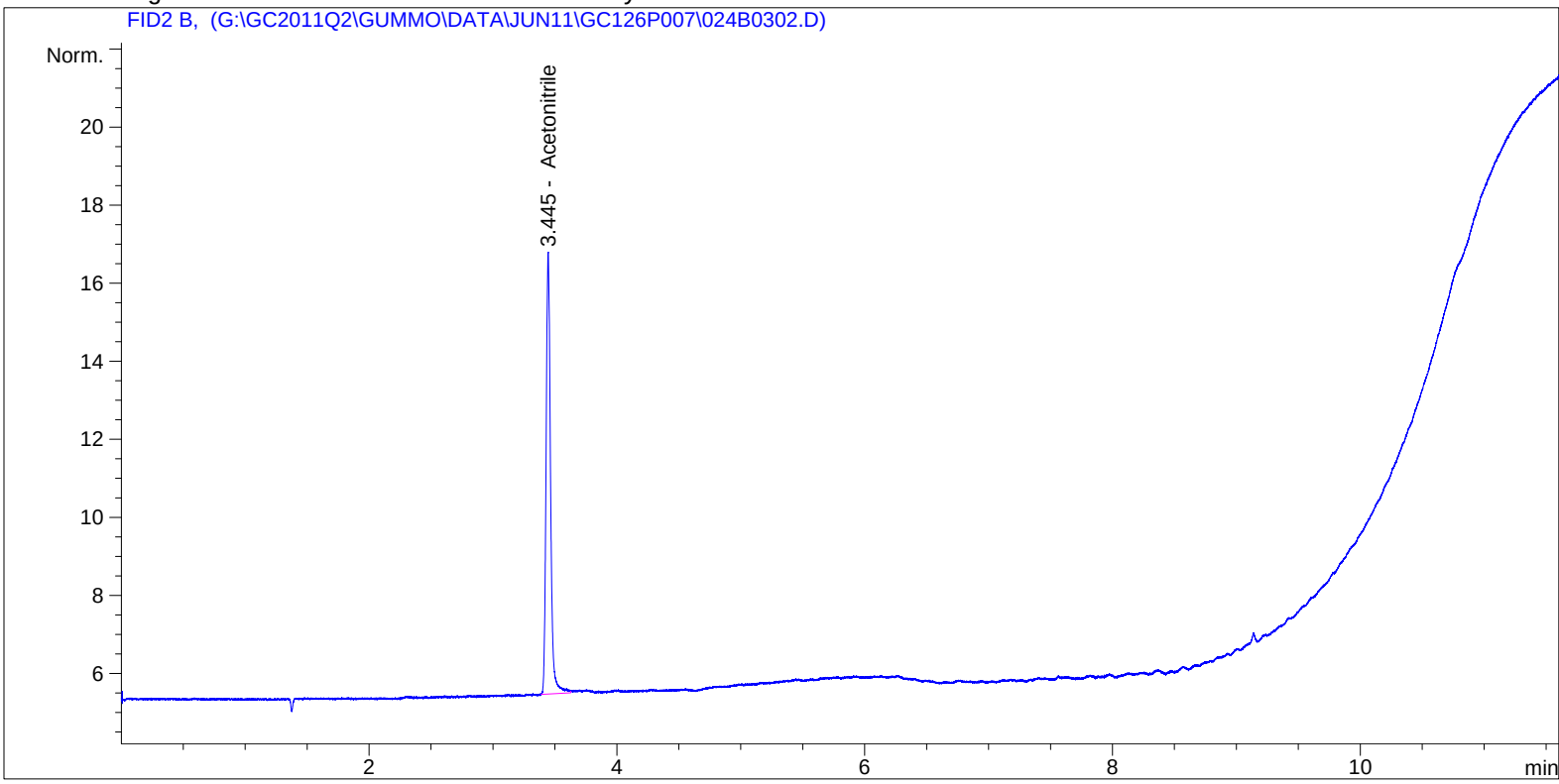
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0302.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==================================================================
Acq. Operator   : MGM                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 10:56:50                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.445	BB	28.66075	3.54720	101.66547		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0302.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				101.66547		

2 Warnings or Errors :

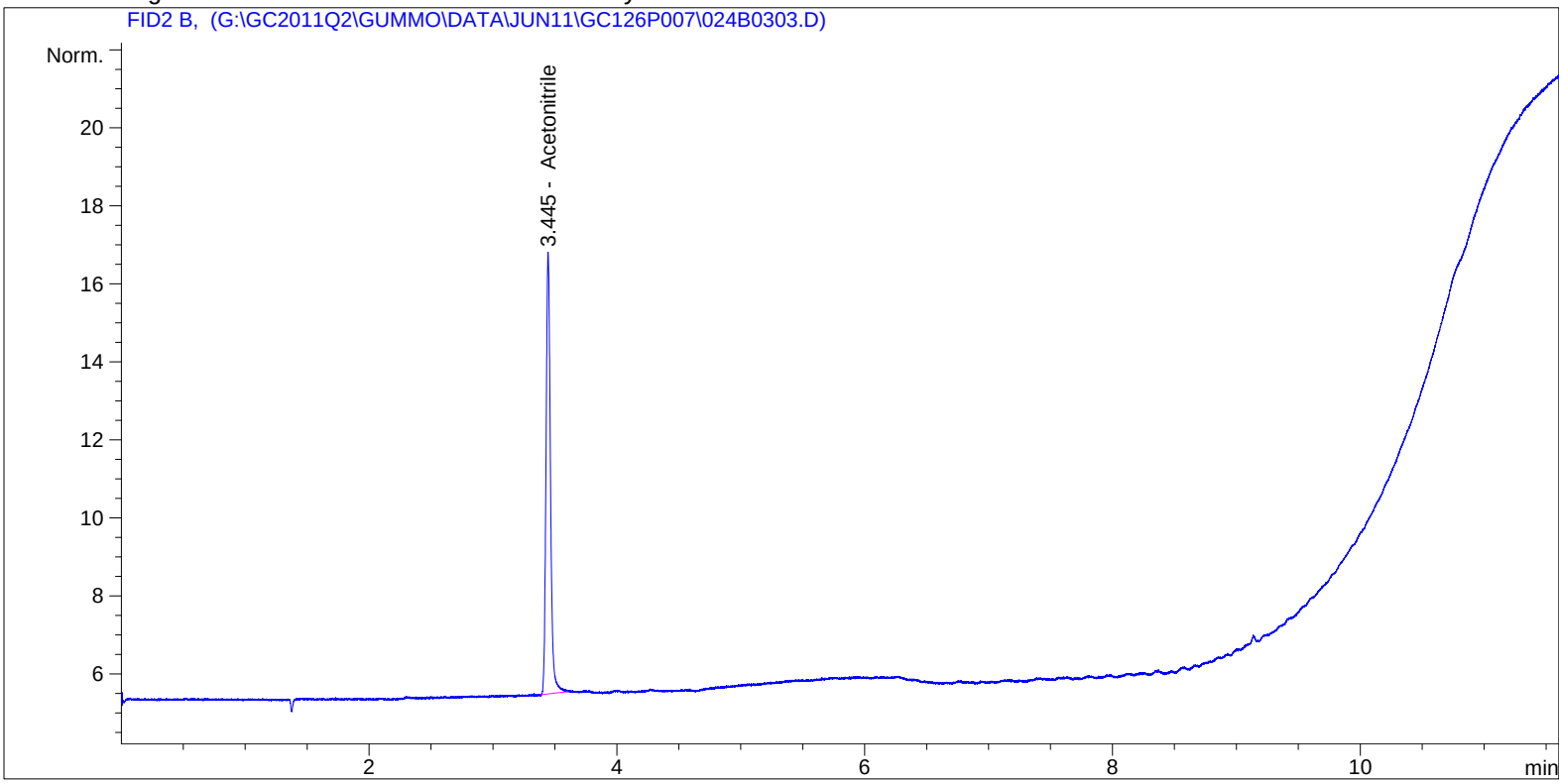
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0303.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 11:17:38              Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.445	BB	28.23955	3.54758	100.18209		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0303.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				100.18209		

2 Warnings or Errors :

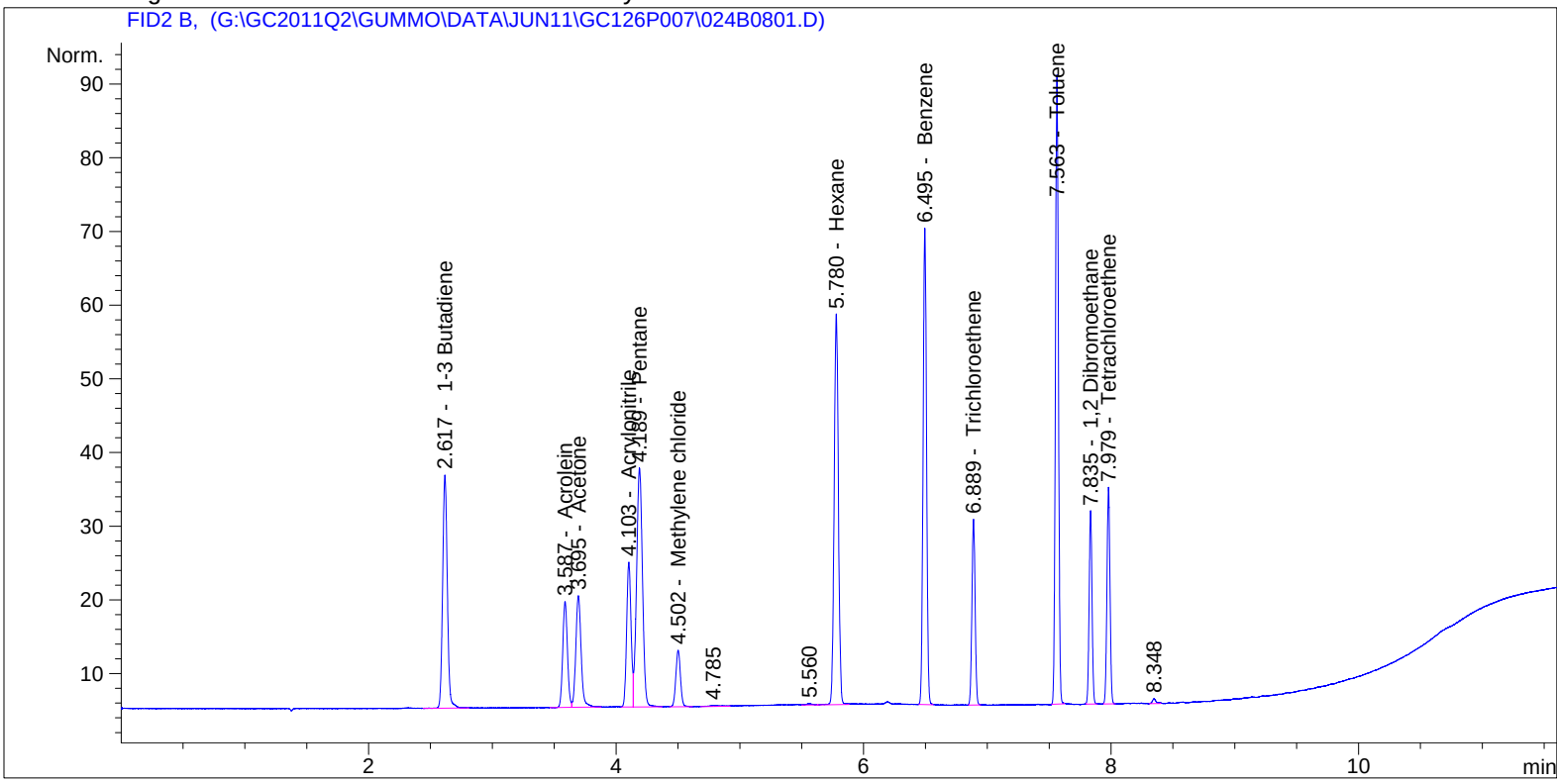
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0801.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   8
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 14:51:47               Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	VB	83.34162	1.21217	101.02459		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.587	BV	37.86522	2.67090	101.13413		Acrolein
3.695	VB	44.99248	2.22349	100.04040		Acetone
4.103	VV	48.99747	2.03244	99.58423		Acrylonitrile
4.189	VB	107.31130	9.56619e-1	102.65603		Pentane
4.502	VB	19.87055	5.11129	101.56418		Methylene chloride
5.780	VV	126.14157	8.10007e-1	102.17555		Hexane
6.495	BB	126.13739	8.11686e-1	102.38399		Benzene
6.889	BB	45.75427	2.17560	99.54312		Trichloroethene
7.563	BB	145.04164	6.89450e-1	99.99893		Toluene
7.835	BB	43.00603	2.36456	101.69014		1,2 Dibromoethane
7.979	BB	50.73730	1.97722	100.31879		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0801.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1212.11407		

2 Warnings or Errors :

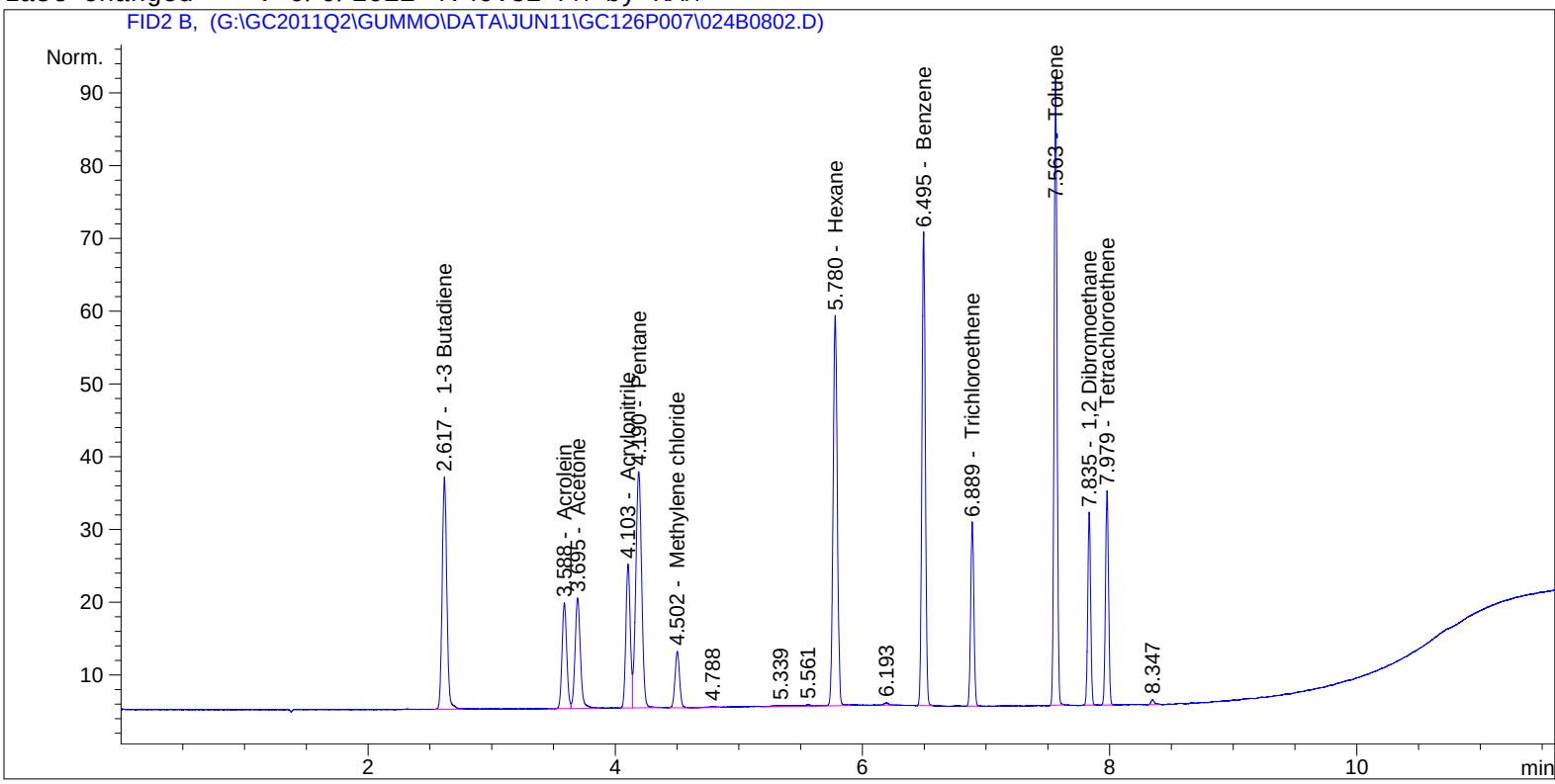
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0802.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   8
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 15:11:05               Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	BB	83.66019	1.21215	101.40878		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.588	BV	38.12081	2.67081	101.81325		Acrolein
3.695	VB	45.24812	2.22336	100.60276		Acetone
4.103	BV	49.29305	2.03229	100.17797		Acrylonitrile
4.190	VB	107.31164	9.56619e-1	102.65635		Pentane
4.502	BV	19.85468	5.11131	101.48345		Methylene chloride
5.780	VB	127.05494	8.09980e-1	102.91194		Hexane
6.495	BB	126.78091	8.11667e-1	102.90388		Benzene
6.889	BB	46.02674	2.17542	100.12769		Trichloroethene
7.563	BB	146.06288	6.89384e-1	100.69348		Toluene
7.835	BB	43.27293	2.36442	102.31551		1,2 Dibromoethane
7.979	BB	51.21269	1.97703	101.24880		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0802.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1218.34386		

2 Warnings or Errors :

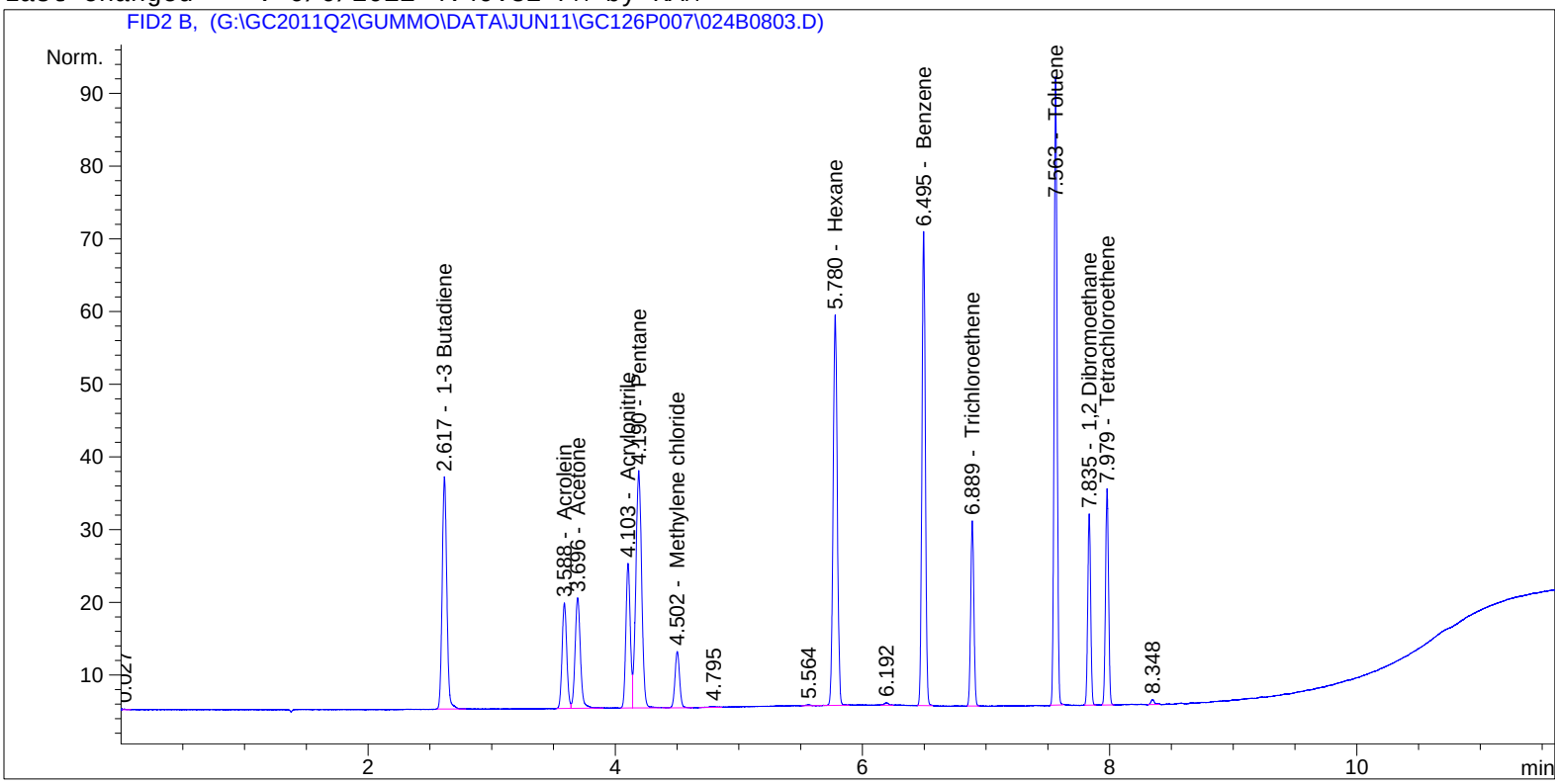
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0803.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   8
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 15:30:22               Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	BB	83.29002	1.21218	100.96236		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.588	BV	38.19130	2.67078	102.00054		Acrolein
3.696	VB	45.30896	2.22333	100.73659		Acetone
4.103	BV	49.39736	2.03224	100.38750		Acrylonitrile
4.190	VB	107.64534	9.56609e-1	102.97446		Pentane
4.502	BB	20.03129	5.11109	102.38166		Methylene chloride
5.780	BB	126.21944	8.10005e-1	102.23834		Hexane
6.495	BB	126.97029	8.11661e-1	103.05688		Benzene
6.889	BB	46.10718	2.17537	100.30025		Trichloroethene
7.563	BB	146.44202	6.89360e-1	100.95133		Toluene
7.835	BB	43.47077	2.36433	102.77906		1,2 Dibromoethane
7.979	BB	51.32452	1.97698	101.46758		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0803.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1220.23656		

2 Warnings or Errors :

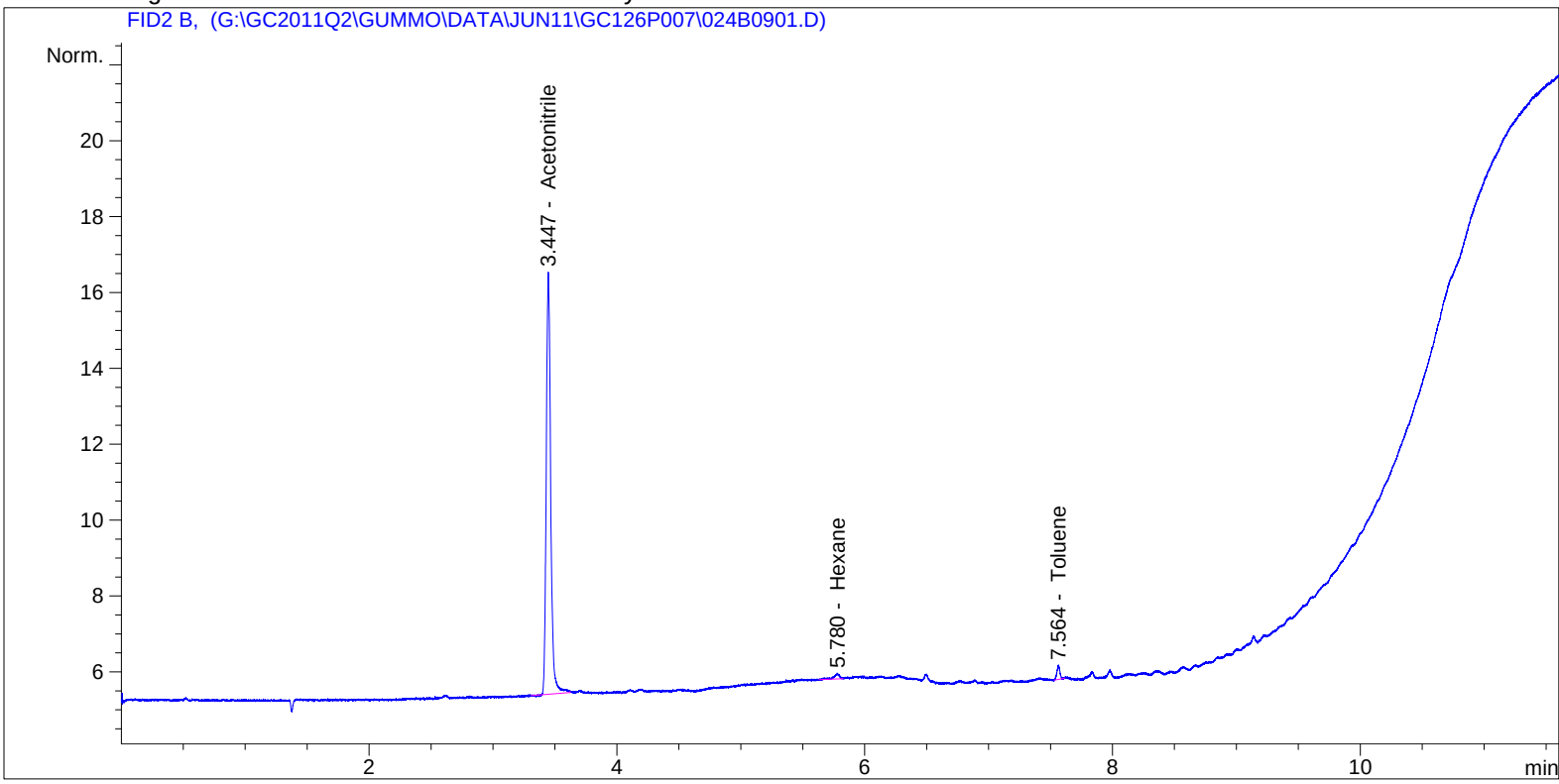
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0901.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==================================================================
Acq. Operator   : MGM                          Seq. Line :   9
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 15:49:43                Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.447	BB	27.82303	3.54797	98.71519		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.780	BV	4.64003e-1	9.89631e-1	4.59192e-1		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.564	BB	6.07162e-1	9.35231e-1	5.67837e-1		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0901.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				99.74222		

2 Warnings or Errors :

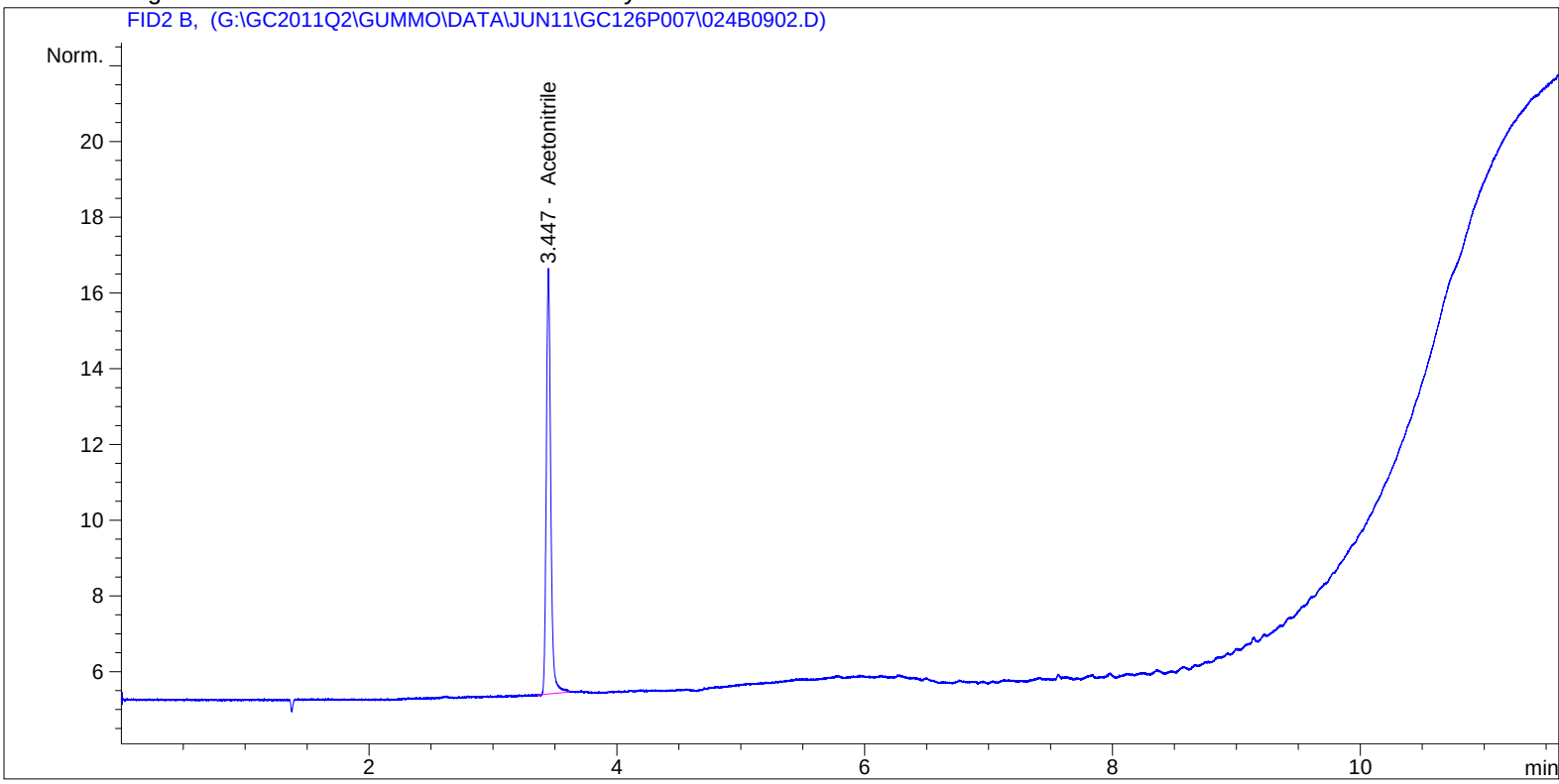
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0902.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==================================================================
Acq. Operator   : MGM                          Seq. Line :   9
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 16:09:01                Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.447	BB	28.05213	3.54775	99.52203		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0902.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				99.52203		

2 Warnings or Errors :

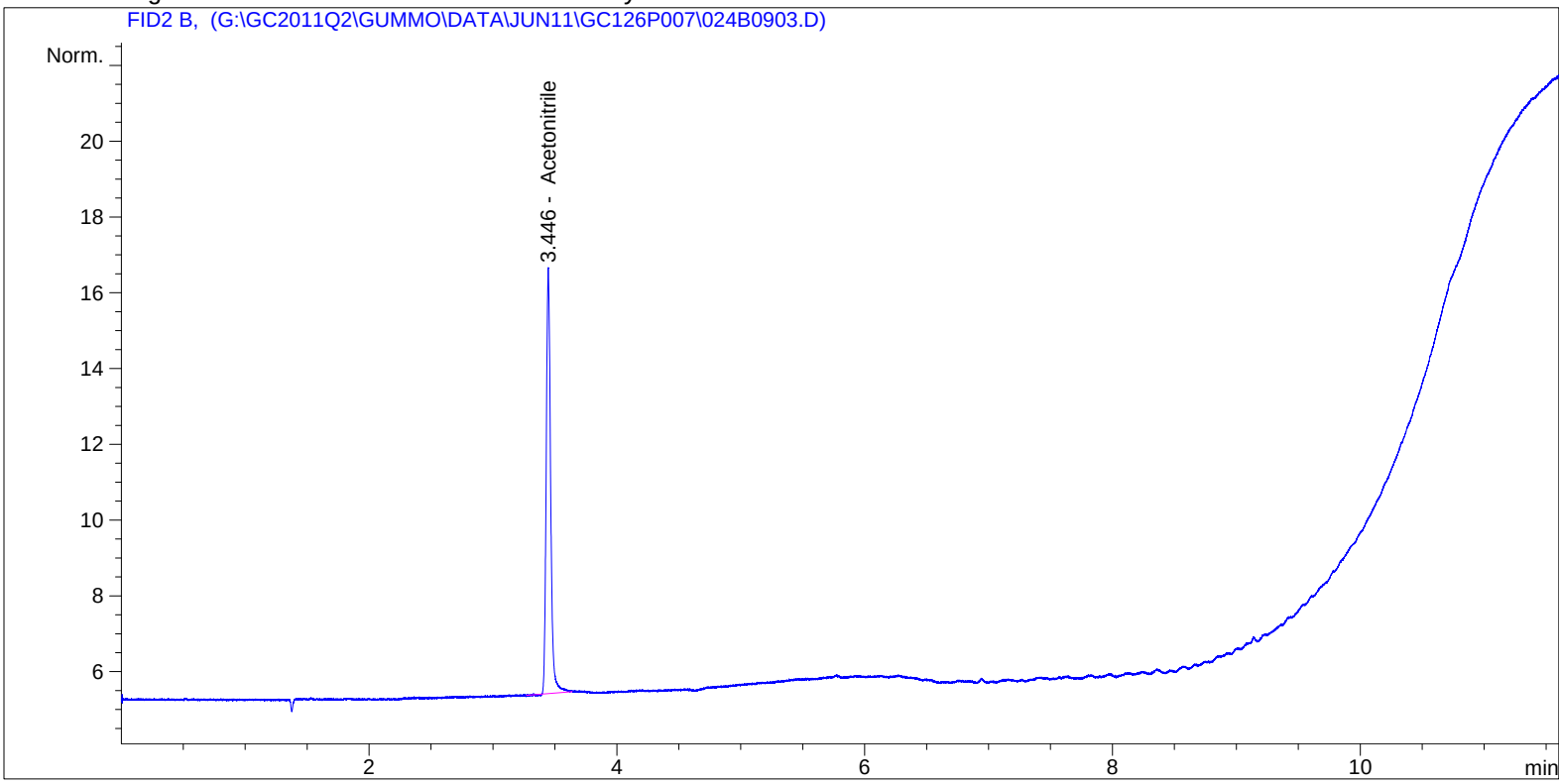
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0903.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

```
==================================================================
Acq. Operator   : MGM                          Seq. Line :   9
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 01-Jul-11, 16:28:26                Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.620		-	-	-		1-3 Butadiene
3.446	BB	28.04692	3.54776	99.50366		Acetonitrile
3.591		-	-	-		Acrolein
3.700		-	-	-		Acetone
4.107		-	-	-		Acrylonitrile
4.191		-	-	-		Pentane
4.508		-	-	-		Methylene chloride
5.781		-	-	-		Hexane
6.497		-	-	-		Benzene
6.890		-	-	-		Trichloroethene
7.565		-	-	-		Toluene
7.836		-	-	-		1,2 Dibromoethane
7.981		-	-	-		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007\024B0903.D
Sample Name: gc119p173 #AN4 ENV(1=600,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				99.50366		

2 Warnings or Errors :

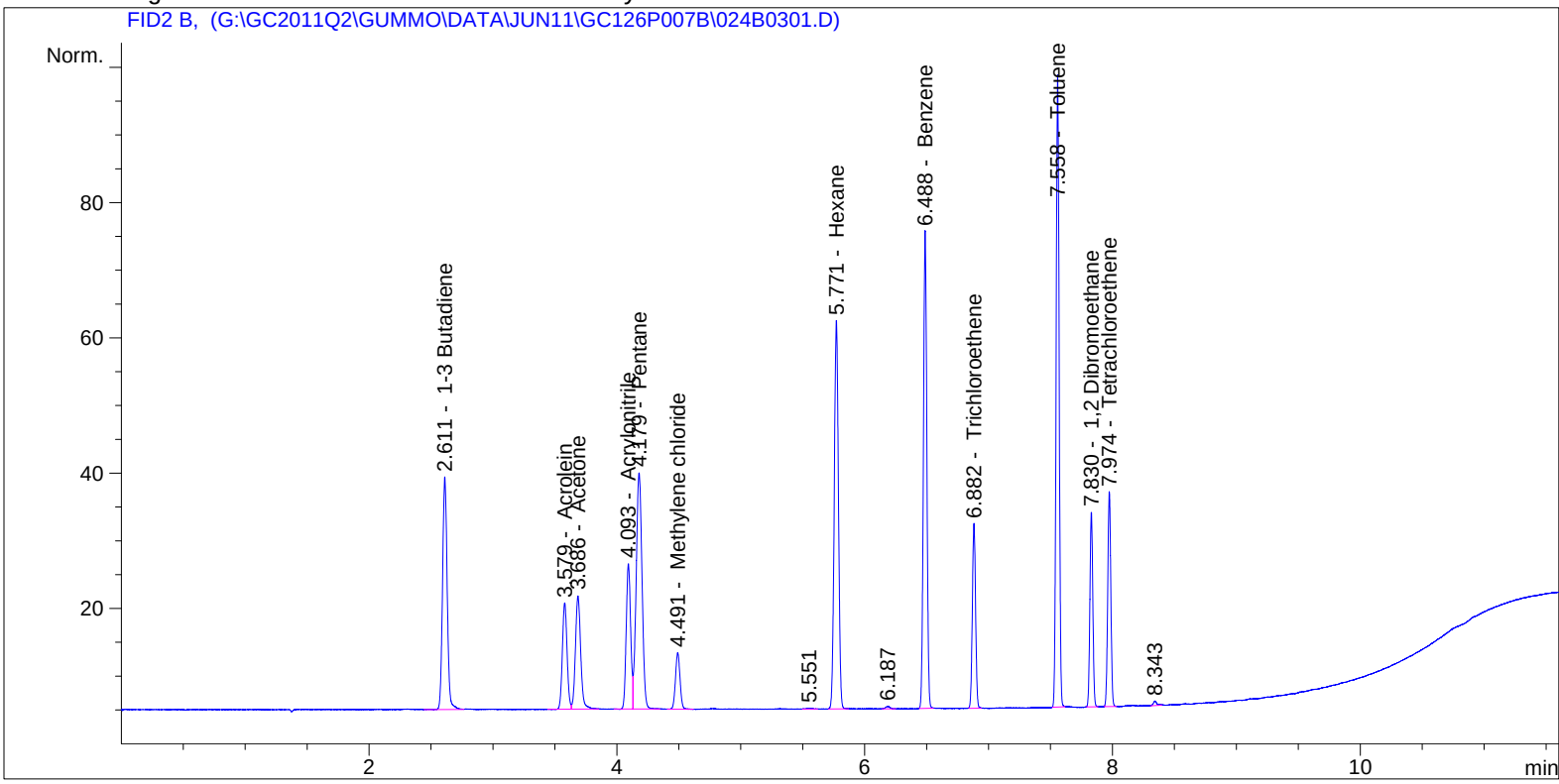
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0301.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                              Seq. Line :   3
Acq. Instrument : Gummo online                    Location : Vial 24
Injection Date  : 02-Jul-11, 16:04:24                  Inj :   1
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.611	BV	90.13199	1.21171	109.21373		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.579	BV	41.27703	2.66976	110.19967		Acrolein
3.686	VB	49.44053	2.22136	109.82538		Acetone
4.093	BV	53.63802	2.03039	108.90599		Acrylonitrile
4.179	VB	115.29295	9.56388e-1	110.26485		Pentane
4.491	BB	21.22753	5.10967	108.46568		Methylene chloride
5.771	BB	135.31041	8.09751e-1	109.56776		Hexane
6.488	BB	136.50703	8.11398e-1	110.76147		Benzene
6.882	BB	49.58416	2.17327	107.75980		Trichloroethene
7.558	BB	158.91919	6.88633e-1	109.43706		Toluene
7.830	BB	47.54566	2.36250	112.32683		1,2 Dibromoethane
7.974	BB	55.17970	1.97554	109.00959		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0301.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1315.73780		

2 Warnings or Errors :

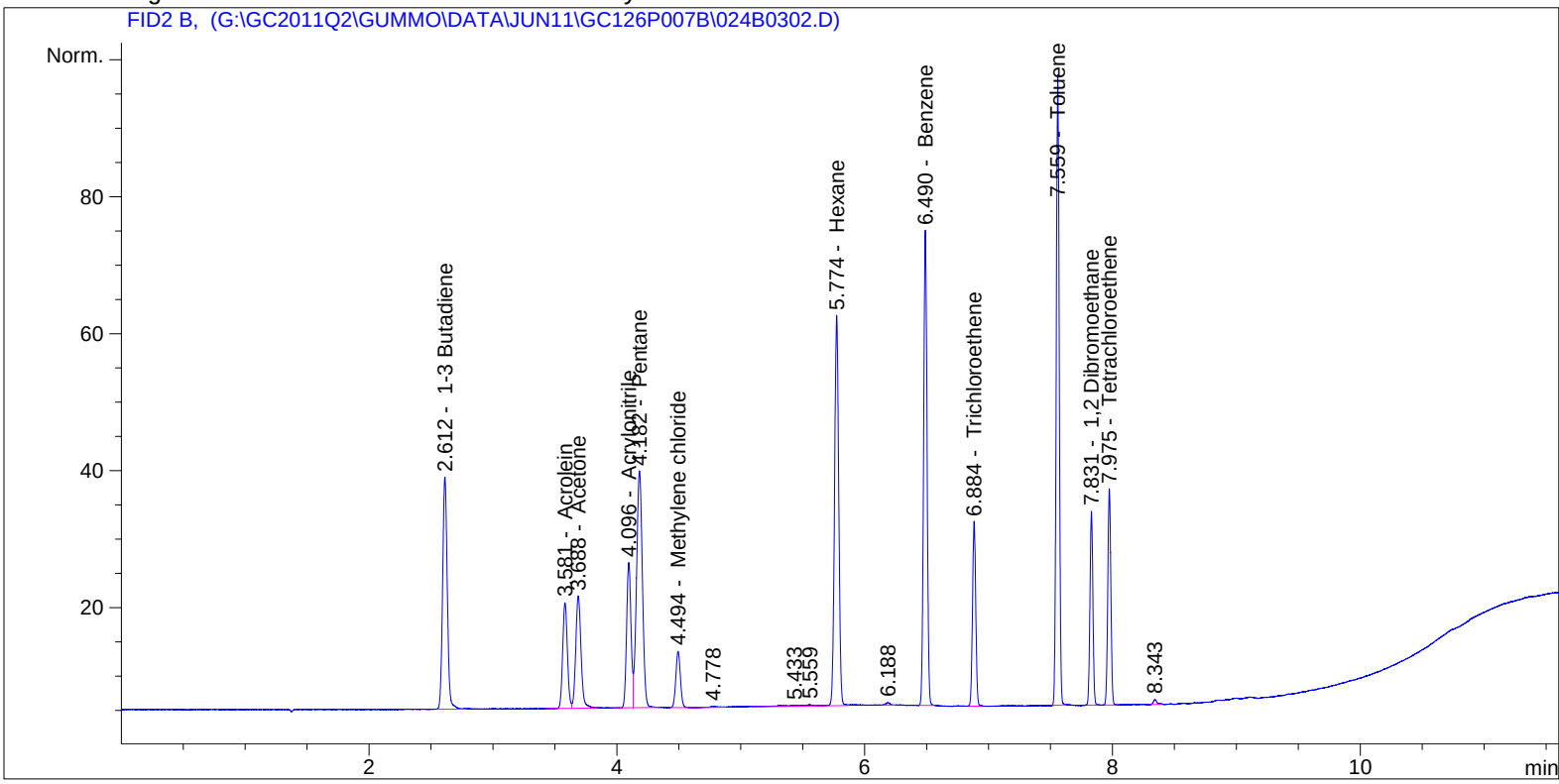
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0302.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   3
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 02-Jul-11, 16:23:32                Inj :   2
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.612	BB	88.71107	1.21180	107.50011		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.581	BV	40.74391	2.66992	108.78309		Acrolein
3.688	VV	48.69379	2.22169	108.18269		Acetone
4.096	BV	52.76261	2.03075	107.14750		Acrylonitrile
4.182	VB	113.73408	9.56431e-1	108.77879		Pentane
4.494	BB	20.98075	5.10995	107.21058		Methylene chloride
5.774	VV	134.77031	8.09765e-1	109.13231		Hexane
6.490	BB	134.83359	8.11441e-1	109.40952		Benzene
6.884	BB	49.03359	2.17358	106.57860		Trichloroethene
7.559	BB	156.58876	6.88760e-1	107.85213		Toluene
7.831	BB	46.68653	2.36286	110.31381		1,2 Dibromoethane
7.975	BB	54.57807	1.97575	107.83259		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0302.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1298.72174		

2 Warnings or Errors :

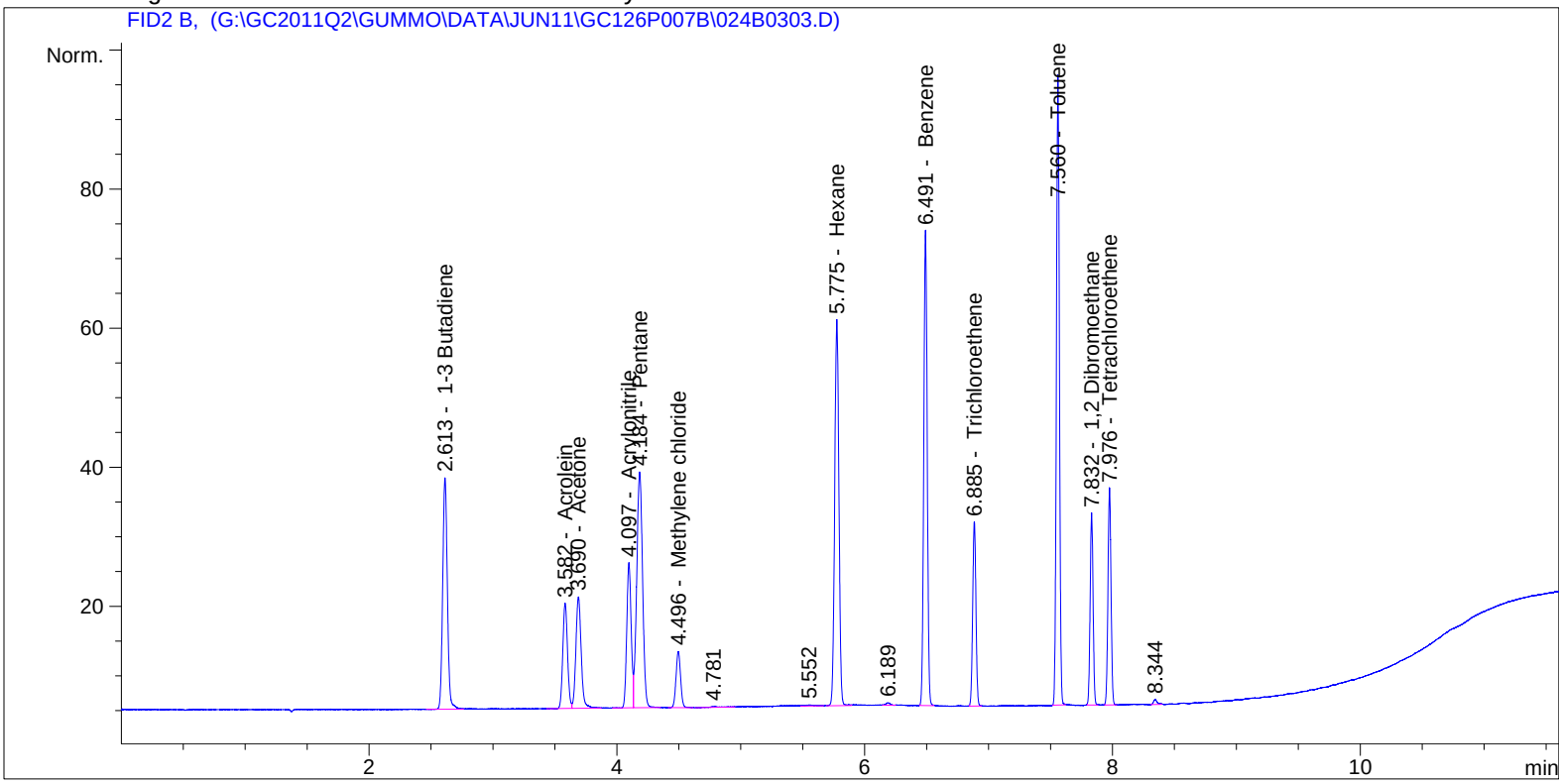
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0303.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                              Seq. Line :   3
Acq. Instrument : Gummo online                    Location : Vial 24
Injection Date  : 02-Jul-11, 16:42:46                  Inj :   3
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.613	BV	87.30603	1.21189	105.80564		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.582	BV	39.99952	2.67016	106.80519		Acrolein
3.690	VB	47.53572	2.22223	105.63512		Acetone
4.097	BV	51.68378	2.03121	104.98037		Acrylonitrile
4.184	VB	111.88076	9.56483e-1	107.01204		Pentane
4.496	BB	20.67810	5.11030	105.67130		Methylene chloride
5.775	BB	132.08414	8.09837e-1	106.96664		Hexane
6.491	BB	132.60852	8.11501e-1	107.61192		Benzene
6.885	BB	48.19691	2.17407	104.78358		Trichloroethene
7.560	BB	153.77222	6.88919e-1	105.93660		Toluene
7.832	BB	45.79723	2.36325	108.23013		1,2 Dibromoethane
7.976	BB	53.76205	1.97604	106.23619		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0303.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1275.67471		

2 Warnings or Errors :

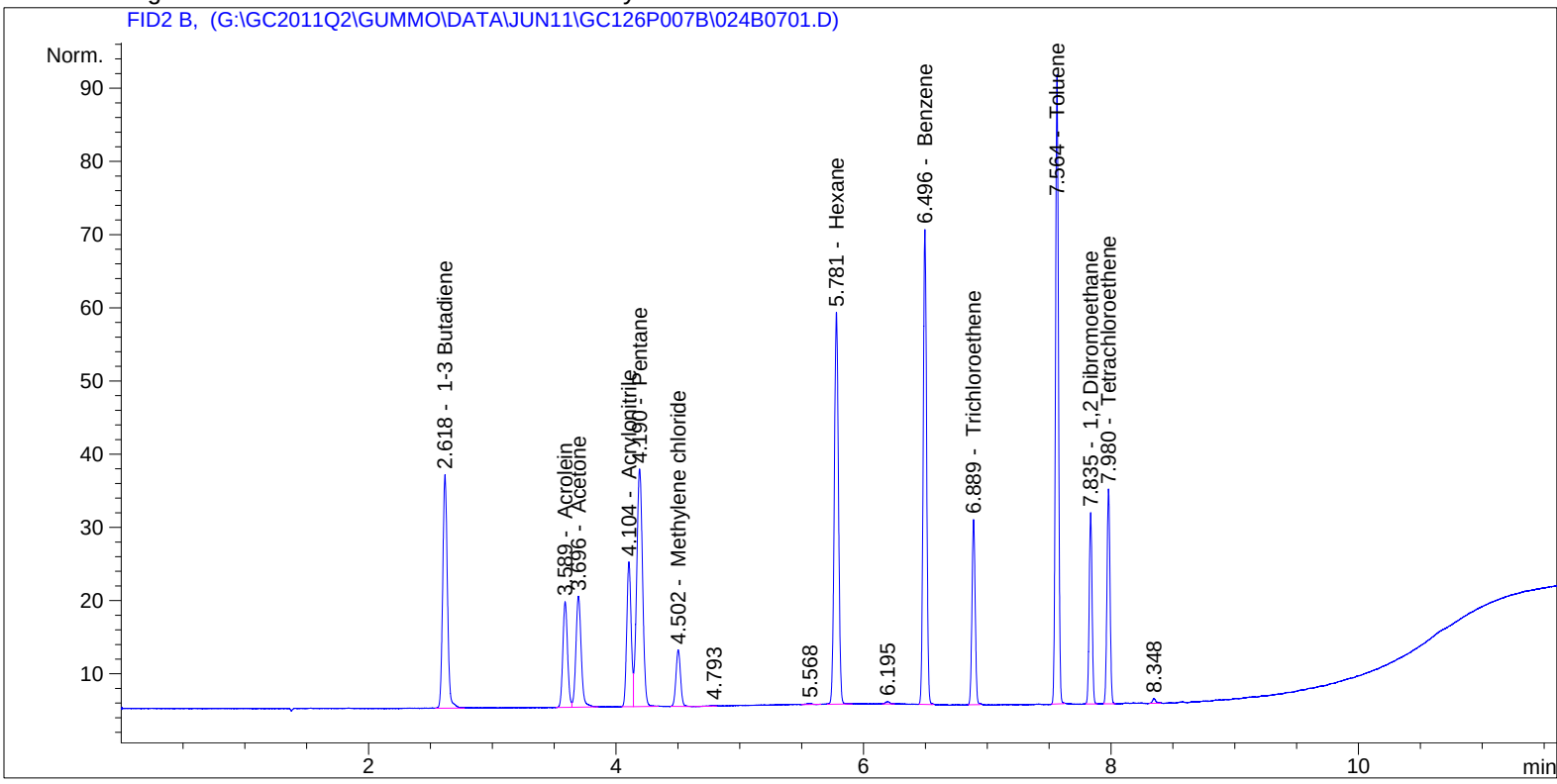
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0701.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                          Seq. Line :   7
Acq. Instrument : Gummo online                  Location : Vial 24
Injection Date  : 02-Jul-11, 19:37:35                Inj :   1
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	BV	83.72633	1.21215	101.48854		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.589	BV	38.04137	2.67083	101.60217		Acrolein
3.696	VB	44.85301	2.22356	99.73359		Acetone
4.104	BV	49.09695	2.03239	99.78404		Acrylonitrile
4.190	VB	107.10746	9.56625e-1	102.46171		Pentane
4.502	BB	19.69453	5.11152	100.66893		Methylene chloride
5.781	BV	126.26115	8.10003e-1	102.27196		Hexane
6.496	BB	126.64212	8.11671e-1	102.79175		Benzene
6.889	BB	45.89943	2.17551	99.85456		Trichloroethene
7.564	BB	145.76105	6.89404e-1	100.48820		Toluene
7.835	BB	43.19258	2.36446	102.12724		1,2 Dibromoethane
7.980	BB	50.99999	1.97711	100.83268		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0701.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1214.10537		

2 Warnings or Errors :

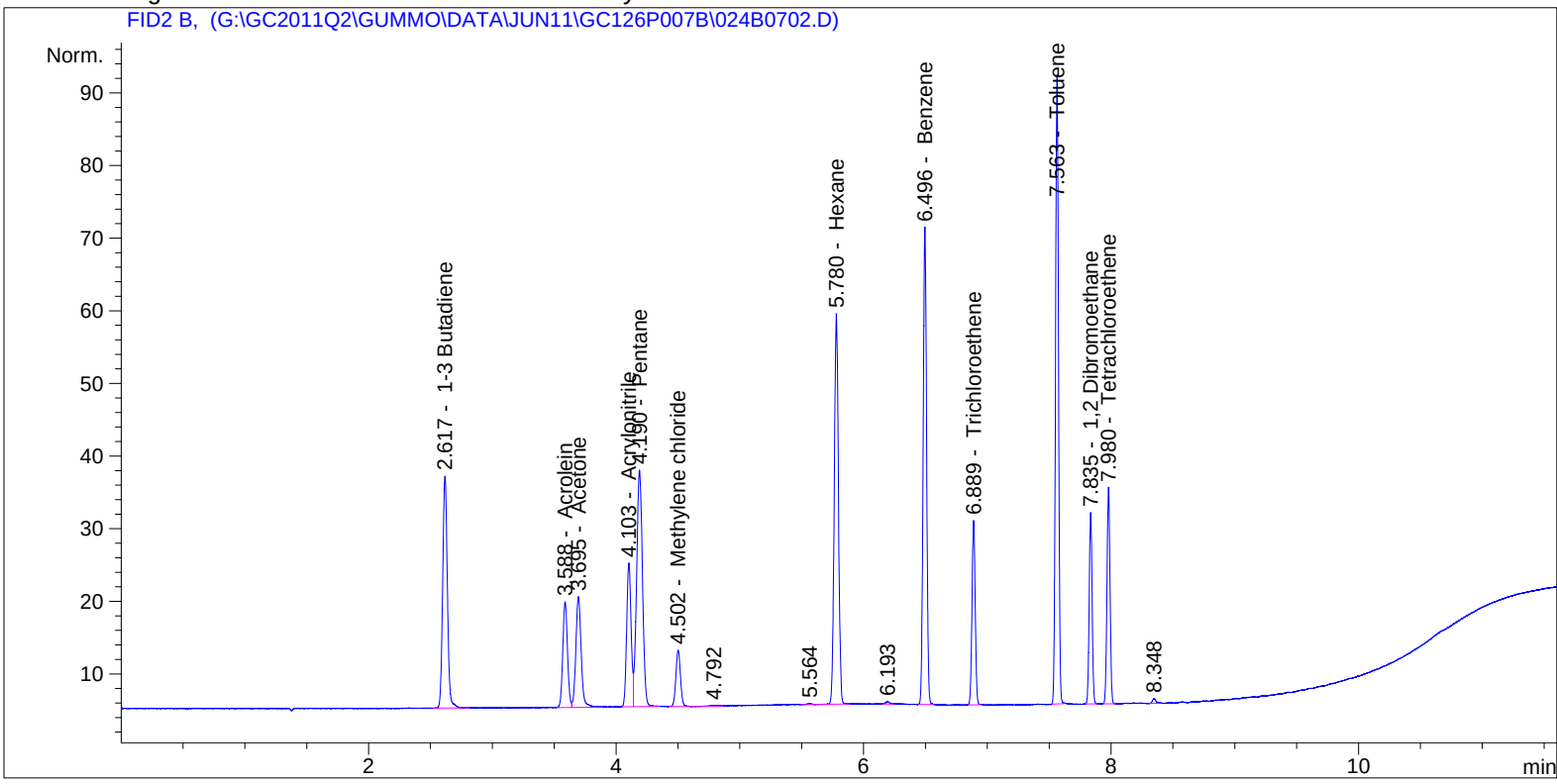
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0702.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                              Seq. Line :   7
Acq. Instrument : Gummo online                    Location : Vial 24
Injection Date  : 02-Jul-11, 19:57:00                  Inj :   2
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.617	VB	83.78152	1.21214	101.55511		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.588	BV	38.32517	2.67073	102.35626		Acrolein
3.695	VB	45.51923	2.22322	101.19917		Acetone
4.103	BV	49.39576	2.03225	100.38429		Acrylonitrile
4.190	VB	107.39346	9.56616e-1	102.73435		Pentane
4.502	BB	19.78037	5.11141	101.10550		Methylene chloride
5.780	VB	126.21233	8.10005e-1	102.23261		Hexane
6.496	BB	127.16620	8.11656e-1	103.21515		Benzene
6.889	BB	46.16823	2.17533	100.43123		Trichloroethene
7.563	BB	146.76709	6.89340e-1	101.17241		Toluene
7.835	BB	43.61209	2.36426	103.11019		1,2 Dibromoethane
7.980	BB	51.40103	1.97695	101.61725		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0702.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1221.11350		

2 Warnings or Errors :

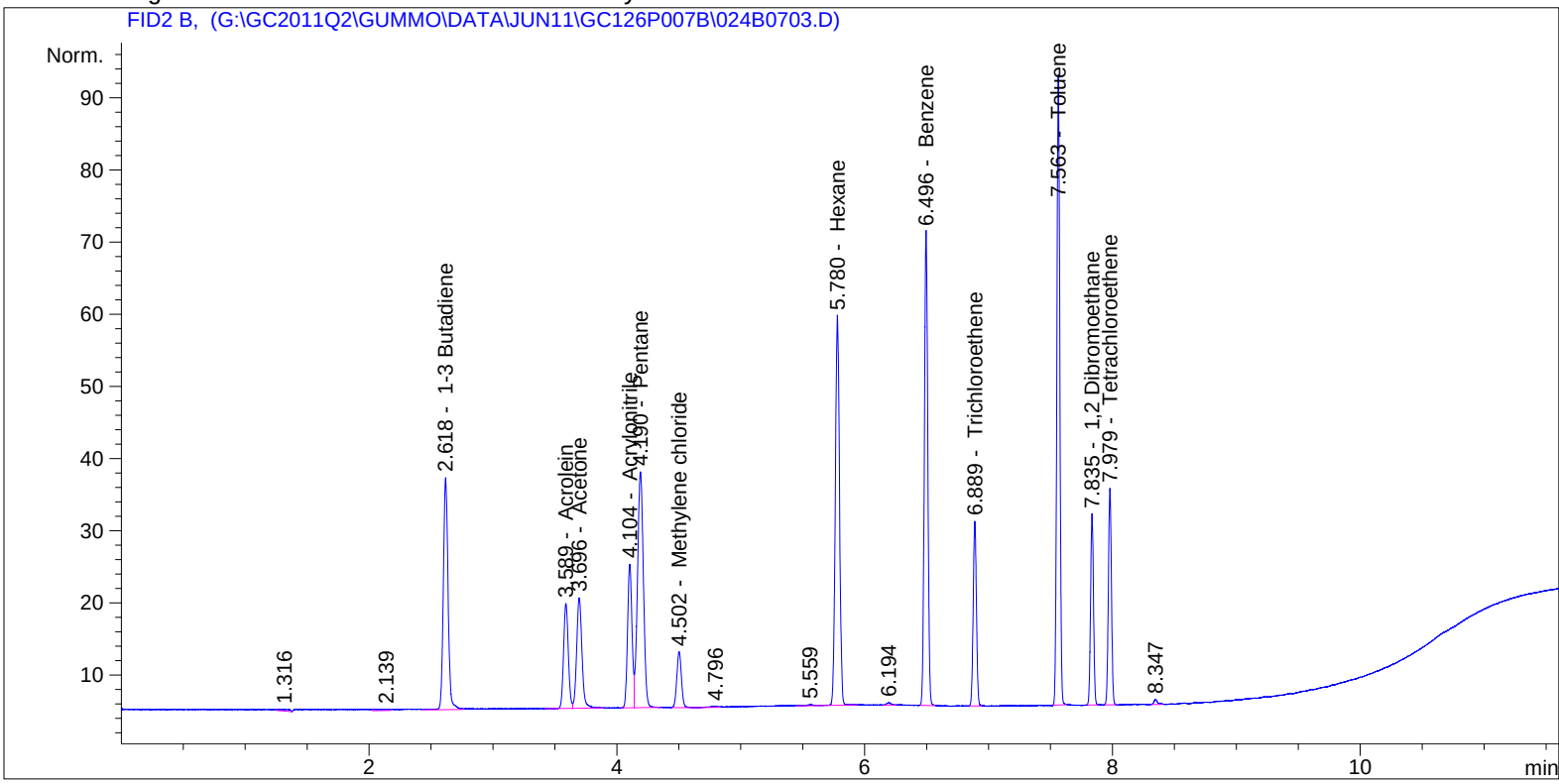
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0703.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

```
==========================================================================
Acq. Operator   : MGM                              Seq. Line :   7
Acq. Instrument : Gummo online                    Location : Vial 24
Injection Date  : 02-Jul-11, 20:16:11                  Inj :   3
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q2\GUMMO\METHODS\GC114P165.M
Last changed    : 11/15/2010 3:12:59 PM by tbo
Analysis Method : G:\GC2011Q3\GUMMO\METHODS\GC114P176R_ICR.M
Last changed    : 6/6/2011 4:49:32 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      6/6/2011 4:49:09 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.618	BV	85.76509	1.21200	103.94728		1-3 Butadiene
3.453		-	-	-		Acetonitrile
3.589	BV	38.37593	2.67071	102.49113		Acrolein
3.696	VB	45.40223	2.22328	100.94178		Acetone
4.104	BV	49.64131	2.03213	100.87754		Acrylonitrile
4.190	VB	107.90202	9.56601e-1	103.21915		Pentane
4.502	BB	20.03867	5.11108	102.41919		Methylene chloride
5.780	VB	127.10871	8.09978e-1	102.95529		Hexane
6.496	BB	127.79064	8.11637e-1	103.71963		Benzene
6.889	BB	46.42794	2.17516	100.98843		Trichloroethene
7.563	BB	147.47412	6.89296e-1	101.65326		Toluene
7.835	BB	43.83857	2.36415	103.64084		1,2 Dibromoethane
7.979	BB	51.67295	1.97684	102.14923		Tetrachloroethene

Data File G:\GC2011Q2\GUMMO\DATA\JUN11\GC126P007B\024B0703.D
Sample Name: gc119p176 #I4 ENV(1=600,3=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
Totals :				1229.00275		

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========

*** End of Report ***

method: G:\GC2010Q3\GUMMO\METHODS\GC114P165.M
Modified on: 7/14/2010 at 3:13:47 PM

==========

6890 GC METHOD

==========

OVEN
- Initial temp: 35 'C (On)
- Initial time: 2.20 min
- Maximum temp: 250 'C
- Equilibration time: 0.20 min
- Ramps:

#	Rate	Final temp	Final time
1	15.00	70	0.07
2	30.00	250	1.00
3	0.0(Off)		

- Post temp: 50 'C
- Post time: 0.00 min
- Run time: 11.60 min

FRONT INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 160 'C (On)
- Pressure: 5.00 psi (On)
- Split ratio: 5:1
- Split flow: 10.6 mL/min
- Total flow: 18.9 mL/min
- Gas saver: Off
- Gas type: Hydrogen

BACK INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 160 'C (On)
- Pressure: 5.12 psi (On)
- Split ratio: 5:1
- Split flow: 10.3 mL/min
- Total flow: 18.7 mL/min
- Gas saver: Off
- Gas type: Hydrogen

COLUMN 1
- Capillary Column
- Model Number: Restek 10970
- Rtx-624 30m x 0.32mm x 1.8um SN 92682
- Max temperature: 240 'C
- Nominal length: 30.0 m
- Nominal diameter: 320.00 um
- Nominal film thickness: 1.80 um
- Mode: constant flow
- Initial flow: 2.1 mL/min
- Nominal init pressure: 5.00 psi
- Average velocity: 40 cm/sec
- Inlet: Front Inlet
- Outlet: Front Detector
- Outlet pressure: ambient

COLUMN 2
- Capillary Column
- Model Number: Restek 10198
- Rtx-1 30m x 0.32mm x 4.0um
- Max temperature: 280 'C
- Nominal length: 30.0 m
- Nominal diameter: 320.00 um
- Nominal film thickness: 4.00 um
- Mode: constant flow
- Initial flow: 2.1 mL/min
- Nominal init pressure: 5.12 psi
- Average velocity: 39 cm/sec
- Inlet: Back Inlet
- Outlet: Back Detector
- Outlet pressure: ambient

FRONT DETECTOR (FID)
- Temperature: 250 'C (On)
- Hydrogen flow: 40.0 mL/min (On)
- Air flow: 450.0 mL/min (On)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: On
- Electrometer: On
- Lit offset: 2.0

BACK DETECTOR (FID)
- Temperature: 250 'C (On)
- Hydrogen flow: 40.0 mL/min (On)
- Air flow: 450.0 mL/min (On)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: On
- Electrometer: On
- Lit offset: 2.0

SIGNAL 1
- Data rate: 50 Hz
- Type: front detector
- Save Data: On
- Zero: 0.0 (Off)
- Range: 0
- Fast Peaks: Off
- Attenuation: 0

SIGNAL 2
- Data rate: 50 Hz
- Type: back detector
- Save Data: On
- Zero: 0.0 (Off)
- Range: 0
- Fast Peaks: Off
- Attenuation: 0

method: G:\GC2010Q3\GUMMO\METHODS\GC114P165.M
Modified on: 7/14/2010 at 3:13:47 PM

COLUMN COMP 1
Derive from front detector

COLUMN COMP 2
Derive from back detector

THERMAL AUX 1
Use: Valve Box Heater
Description:
Initial temp: 50 'C (Off)
Initial time: 0.00 min

#	Rate	Final temp	Final time
1	0.0	(Off)	

VALVES
Valve 1 Gas Sampling
Description:
Loop Volume: 0.250 mL
Load Time: 0.50 min
Inject Time: 0.50 min
Inlet: Front Inlet
Valve 2 Gas Sampling
Description:
Loop Volume: 0.250 mL
Load Time: 0.50 min
Inject Time: 0.50 min
Inlet: Back Inlet
Valve 7 Multiposition 1
Description:
BCD input: inverted
Switch Time: 1.0 sec

POST RUN
Post Time: 0.00 min

TIME TABLE

Time	Specifier	Parameter & Setpoint	
0.10		Multi-Valve Position:	1

Sequence: I:\gc2011q2\Gummo\sequence\gc119p172.txt
Sequence Table (Front Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 8	gc119p172 #C5 ENV(1=0,2=450)	GC114P165	4	Sample
2	Vial 8	gc119p172 #C4 ENV(1=600,2=400)	GC114P165	3	Sample
3	Vial 8	gc119p172 #C3 ENV(1=900,2=100)	GC114P165	3	Sample
4	Vial 8	gc119p172 #C2 ENV(1=950,2=50)	GC114P165	3	Sample
5	Vial 8	gc119p172 #C1 ENV(1=980,2=20)	GC114P165	3	Sample
6	Vial 8	gc119p172 #C0 ENV(1=3990,2=20)	GC114P165	8	Sample
7	Vial 8	gc119p172 #C11 ENV(1=0,3=377)	GC114P165	4	Sample
8	Vial 8	gc119p172 #C10 ENV(1=500,3=318.69)	GC114P165	3	Sample
9	Vial 8	gc119p172 #C9 ENV(1=0,3=474)	GC114P165	4	Sample
10	Vial 8	gc119p172 #C8 ENV(1=600,3=422.16)	GC114P165	3	Sample
11	Vial 8	gc119p172 #C7 ENV(1=900,3=105.54)	GC114P165	3	Sample
12	Vial 8	gc119p172 #C6 ENV(1=980,3=21.11)	GC114P165	3	Sample
13	Vial 8	gc119p172 #C14 ENV(1=0,4=492.93)	GC114P165	4	Sample
14	Vial 8	gc119p172 #C13 ENV(1=550,4=492.93)	GC114P165	3	Sample
15	Vial 8	gc119p172 #C12 ENV(1=750,4=273.85)	GC114P165	3	Sample
16	Vial 8	gc119p172 #A5 ENV(1=0,6=250)	GC114P165	4	Sample
17	Vial 8	gc119p172 #A4 ENV(1=700,6=300)	GC114P165	3	Sample
18	Vial 8	gc119p172 #A3 ENV(1=900,6=100)	GC114P165	3	Sample
19	Vial 8	gc119p172 #A2 ENV(1=680,6=20)	GC114P165	3	Sample
20	Vial 8	gc119p172 #A1 ENV(1=1980,6=20)	GC114P165	3	Sample
21	Vial 8	gc119p172 #H4 ENV(1=0,3=250)	GC114P165	4	Sample
22	Vial 8	gc119p172 #H3 ENV(1=600,3=400)	GC114P165	3	Sample
23	Vial 8	gc119p172 #H2 ENV(1=900,3=100)	GC114P165	3	Sample
24	Vial 8	gc119p172 #H1 ENV(1=980,3=20)	GC114P165	3	Sample
25	Vial 8	gc119p172 #D5 ENV(1=0,4=350)	GC114P165	4	Sample
26	Vial 8	gc119p172 #D4 ENV(1=600,4=400)	GC114P165	3	Sample
27	Vial 8	gc119p172 #D3 ENV(1=900,4=100)	GC114P165	3	Sample
28	Vial 8	gc119p172 #D2 ENV(1=960,4=40)	GC114P165	3	Sample
29	Vial 8	gc119p172 #D1 ENV(1=1010,4=20)	GC114P165	3	Sample
30	Vial 8	gc119p172 #AN5 ENV(1=0,2=350)	GC114P165	4	Sample
31	Vial 8	gc119p172 #AN4 ENV(1=600,2=400)	GC114P165	3	Sample
32	Vial 8	gc119p172 #AN3 ENV(1=900,2=100)	GC114P165	3	Sample
33	Vial 8	gc119p172 #AN2 ENV(1=960,2=40)	GC114P165	3	Sample
34	Vial 8	gc119p172 #AN1 ENV(1=1010,2=20)	GC114P165	3	Sample
35	Vial 8	gc119p172 #T5 ENV(1=0,6=350)	GC114P165	4	Sample
36	Vial 8	gc119p172 #T4 ENV(1=600,6=400)	GC114P165	3	Sample
37	Vial 8	gc119p172 #T3 ENV(1=900,6=100)	GC114P165	3	Sample
38	Vial 8	gc119p172 #T2 ENV(1=960,6=40)	GC114P165	3	Sample
39	Vial 8	gc119p172 #T1 ENV(1=1020,6=20)	GC114P165	3	Sample
40	Vial 8	gc119p172 #Br4 ENV(1=600,5=100)	GC114P165	4	Sample
41	Vial 8	gc119p172 #Br3 ENV(1=600,5=30)	GC114P165	3	Sample
42	Vial 8	gc119p172 #Br2 ENV(1=2200,5=30)	GC114P165	3	Sample
43	Vial 8	gc119p172 #Br1 ENV(1=3200,5=20)	GC114P165	3	Sample

Sequence: I:\gc2011q2\Gummo\sequence\gc119p172.txt
Sequence Table (Back Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 24	gc119p172 #C5 ENV(1=0,2=450)	GC114P165	4	Sample
2	Vial 24	gc119p172 #C4 ENV(1=600,2=400)	GC114P165	3	Sample
3	Vial 24	gc119p172 #C3 ENV(1=900,2=100)	GC114P165	3	Sample
4	Vial 24	gc119p172 #C2 ENV(1=950,2=50)	GC114P165	3	Sample
5	Vial 24	gc119p172 #C1 ENV(1=980,2=20)	GC114P165	3	Sample
6	Vial 24	gc119p172 #C0 ENV(1=3990,2=20)	GC114P165	8	Sample
7	Vial 24	gc114p102 #C11 ENV(1=0,3=377)	GC114P165	4	Sample
8	Vial 24	gc114p102 #C10 ENV(1=500,3=318.69)	GC114P165	3	Sample
9	Vial 24	gc114p102 #C9 ENV(1=0,3=474)	GC114P165	4	Sample
10	Vial 24	gc114p102 #C8 ENV(1=600,3=422.16)	GC114P165	3	Sample
11	Vial 24	gc114p102 #C7 ENV(1=900,3=105.54)	GC114P165	3	Sample
12	Vial 24	gc114p102 #C6 ENV(1=980,3=21.11)	GC114P165	3	Sample
13	Vial 24	gc119p172 #C14 ENV(1=0,4=492.93)	GC114P165	4	Sample
14	Vial 24	gc119p172 #C13 ENV(1=550,4=492.93)	GC114P165	3	Sample
15	Vial 24	gc119p172 #C12 ENV(1=750,4=273.85)	GC114P165	3	Sample
16	Vial 24	gc119p172 #A5 ENV(1=0,6=250)	GC114P165	4	Sample
17	Vial 24	gc119p172 #A4 ENV(1=700,6=300)	GC114P165	3	Sample
18	Vial 24	gc119p172 #A3 ENV(1=900,6=100)	GC114P165	3	Sample
19	Vial 24	gc119p172 #A2 ENV(1=680,6=20)	GC114P165	3	Sample
20	Vial 24	gc119p172 #A1 ENV(1=1980,6=20)	GC114P165	3	Sample
21	Vial 24	gc119p172 #H4 ENV(1=0,3=250)	GC114P165	4	Sample
22	Vial 24	gc119p172 #H3 ENV(1=600,3=400)	GC114P165	3	Sample
23	Vial 24	gc119p172 #H2 ENV(1=900,3=100)	GC114P165	3	Sample
24	Vial 24	gc119p172 #H1 ENV(1=980,3=20)	GC114P165	3	Sample
25	Vial 24	gc119p172 #D5 ENV(1=0,4=350)	GC114P165	4	Sample
26	Vial 24	gc119p172 #D4 ENV(1=600,4=400)	GC114P165	3	Sample
27	Vial 24	gc119p172 #D3 ENV(1=900,4=100)	GC114P165	3	Sample
28	Vial 24	gc119p172 #D2 ENV(1=960,4=40)	GC114P165	3	Sample
29	Vial 24	gc119p172 #D1 ENV(1=1010,4=20)	GC114P165	3	Sample
30	Vial 24	gc119p172 #AN5 ENV(1=0,2=350)	GC114P165	4	Sample
31	Vial 24	gc119p172 #AN4 ENV(1=600,2=400)	GC114P165	3	Sample
32	Vial 24	gc119p172 #AN3 ENV(1=900,2=100)	GC114P165	3	Sample
33	Vial 24	gc119p172 #AN2 ENV(1=960,2=40)	GC114P165	3	Sample
34	Vial 24	gc119p172 #AN1 ENV(1=1010,2=20)	GC114P165	3	Sample
35	Vial 24	gc119p172 #T5 ENV(1=0,6=350)	GC114P165	4	Sample
36	Vial 24	gc119p172 #T4 ENV(1=600,6=400)	GC114P165	3	Sample
37	Vial 24	gc119p172 #T3 ENV(1=900,6=100)	GC114P165	3	Sample
38	Vial 24	gc119p172 #T2 ENV(1=960,6=40)	GC114P165	3	Sample
39	Vial 24	gc119p172 #T1 ENV(1=1020,6=20)	GC114P165	3	Sample
40	Vial 24	gc119p172 #Br4 ENV(1=600,5=100)	GC114P165	4	Sample
41	Vial 24	gc119p172 #Br3 ENV(1=600,5=30)	GC114P165	3	Sample
42	Vial 24	gc119p172 #Br2 ENV(1=2200,5=30)	GC114P165	3	Sample
43	Vial 24	gc119p172 #Br1 ENV(1=3200,5=20)	GC114P165	3	Sample

Sequence: I:\gc2011q2\Gummo\sequence\gc119p176.txt
Sequence Table (Front Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 8	gc119p176 #I5 ENV(1=0,4=350)	GC114P165	4	Sample
2	Vial 8	gc119p176 #I4 ENV(1=600,4=400)	GC114P165	3	Sample
3	Vial 8	gc119p176 #I3 ENV(1=900,4=100)	GC114P165	3	Sample
4	Vial 8	gc119p176 #I2 ENV(1=960,4=40)	GC114P165	3	Sample
5	Vial 8	gc119p176 #I1 ENV(1=1010,4=20)	GC114P165	3	Sample
6	Vial 8	gc119p176 #I0 ENV(1=1980,4=20)	GC114P165	9	Sample
7	Vial 1	Pause	PAUSE	1	Sample
8	Vial 8	gc119p172 #C5 ENV(1=0,2=350)	GC114P165	4	Sample
9	Vial 8	gc119p172 #AN4 ENV(1=600,5=400)	GC114P165	4	Sample
10	Vial 1	Pause	PAUSE	1	Sample
11	Vial 2	NA	GC114P165	3	Sample
12	Vial 7	NA	GC114P165	3	Sample
13	Vial 1	Pause	PAUSE	1	Sample
14	Vial 8	gc119p176 #AN0 ENV(1=1980,5=20)	GC114P165	4	Sample
15	Vial 8	gc119p176 #I4 ENV(1=600,4=400)	GC114P165	3	Sample
16	Vial 8	gc119p176 #I4 ENV(1=600,4=400)	GC114P165	3	Sample
17	Vial 8	gc119p176 #I6 ENV(1=4980,4=20)	GC114P165	9	Sample
18	Vial 8	gc119p172 #C5 ENV(1=0,2=350)	GC114P165	3	Sample
19	Vial 1	Pause	PAUSE	1	Sample
20	Vial 8	gc119p172 #AN4 ENV(1=600,5=400)	GC114P165	4	Sample
21	Vial 8	gc119p176 #AN0 ENV(1=1980,5=20)	GC114P165	4	Sample

Sequence: I:\gc2011q2\Gummo\sequence\gc119p176.txt
Sequence Table (Back Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 24	gc119p176 #I5 ENV(1=0,4=350)	C114P172R	4	Sample
2	Vial 24	gc119p176 #I4 ENV(1=600,4=400)	C114P172R	3	Sample
3	Vial 24	gc119p176 #I3 ENV(1=900,4=100)	C114P172R	3	Sample
4	Vial 24	gc119p176 #I2 ENV(1=960,4=40)	C114P172R	3	Sample
5	Vial 24	gc119p176 #I1 ENV(1=1010,4=20)	C114P172R	3	Sample
6	Vial 24	gc119p176 #I0 ENV(1=1980,4=20)	C114P172R	9	Sample
7	Vial 17	Pause	PAUSE	1	Sample
8	Vial 24	gc119p172 #C5 ENV(1=0,2=350)	C114P172R	4	Sample
9	Vial 24	gc119p172 #AN4 ENV(1=600,5=400)	C114P172R	4	Sample
10	Vial 17	Pause	PAUSE	1	Sample
11	Vial 18	1-CR3 Outlet 0511-142	C114P172R	3	Sample
12	Vial 23	2-CR3 Outlet 0511-142	C114P172R	3	Sample
13	Vial 17	Pause	PAUSE	1	Sample
14	Vial 24	gc119p176 #AN0 ENV(1=1980,5=20)	C114P176R	4	Sample
15	Vial 24	gc119p176 #I4 ENV(1=600,4=400)	C114P172R	3	Sample
16	Vial 24	gc119p176 #I4 ENV(1=600,4=400)	C114P172R	3	Sample
17	Vial 24	gc119p176 #I6 ENV(1=4980,4=20)	C114P172R	9	Sample
18	Vial 24	gc119p172 #C5 ENV(1=0,2=350)	C114P172R	3	Sample
19	Vial 17	Pause	PAUSE	1	Sample
20	Vial 24	gc119p172 #AN4 ENV(1=600,5=400)	C114P172R	4	Sample
21	Vial 24	gc119p176 #AN0 ENV(1=1980,5=20)	C114P176R	4	Sample

Sequence: G:\GC2011Q2\gummo\SEQUENCE\gc126p005.txt
Sequence Table (Front Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 1	N2 Blank	GC114P165	1	Sample
2	Vial 8	gc119p176 #I4 ENV(1=600,3=400)	GC114P165	3	Sample
3	Vial 8	gc119p173 #AN4 ENV(1=600,6=400)	GC114P165	3	Sample
4	Vial 1	Pause	PAUSE	1	Sample
5	Vial 8	gc126p001 #E3 ENV(1=970,3=30)	GC114P165	3	Sample
6	Vial 8	gc119p174 #H4 ENV(1=600,6=400)	GC114P165	3	Sample
7	Vial 8	gc126p001 #E3 ENV(1=970,3=30)	GC114P165	3	Sample
8	Vial 2	NA	GC114P165	3	Sample
9	Vial 6	NA	GC114P165	3	Sample
10	Vial 8	gc126p001 #E3 ENV(1=970,3=30)	GC114P165	3	Sample
11	Vial 6	RTO Stack T2R3 S&R 0611-130	GC114P165	3	Sample
12	Vial 7	NA	GC114P165	3	Sample
13	Vial 8	gc119p176 #I4 ENV(1=600,3=400)	GC114P165	3	Sample
14	Vial 8	gc119p173 #AN4 ENV(1=600,6=400)	GC114P165	3	Sample
15	Vial 1	N2 Blank	GC114P165	1	Sample
16	Vial 8	gc126p001 #E3 ENV(1=970,3=30)	GC114P165	3	Sample
17	Vial 8	gc119p174 #H4 ENV(1=600,6=400)	GC114P165	3	Sample

Sequence: G:\GC2011Q2\gummo\SEQUENCE\gc126p005.txt
Sequence Table (Back Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 17	N2 Blank	4P176R_ICR	1	Sample
2	Vial 24	gc119p176 #I4 ENV(1=600,3=400)	4P176R_ICR	3	Sample
3	Vial 24	gc119p173 #AN4 ENV(1=600,6=400)	GC114P165	3	Sample
4	Vial 17	Pause	PAUSE	1	Sample
5	Vial 24	gc126p001 #E3 ENV(1=970,3=30)	GC114P165	3	Sample
6	Vial 24	gc119p174 #H4 ENV(1=600,6=400)	GC114P165	3	Sample
7	Vial 24	gc126p001 #E3 ENV(1=970,3=30)	GC114P165	3	Sample
8	Vial 18	CHV-Stk-ICR1-M18b-Bag A 0611-22	4P176R_ICR	3	Sample
9	Vial 22	gc119p176 #I4 LCS	4P176R_ICR	3	Sample
10	Vial 24	gc126p001 #E3 ENV(1=970,3=30)	GC114P165	3	Sample
11	Vial 22	gc119p176 #I4 LCS	4P176R_ICR	3	Sample
12	Vial 23	gc119p173 #AN4 LCS	4P176R_ICR	3	Sample
13	Vial 24	gc119p176 #I4 ENV(1=600,3=400)	4P176R_ICR	3	Sample
14	Vial 24	gc119p173 #AN4 ENV(1=600,6=400)	4P176R_ICR	3	Sample
15	Vial 17	N2 Blank	GC114P165	1	Sample
16	Vial 24	gc126p001 #E3 ENV(1=970,3=30)	GC114P165	3	Sample
17	Vial 24	gc119p174 #H4 ENV(1=600,6=400)	GC114P165	3	Sample

Sequence: G:\GC2011Q2\gummo\SEQUENCE\gc126p006.txt
Sequence Table (Front Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 2	NA	GC114P165	3	Sample
2	Vial 1	N2 Blank	GC114P165	3	Sample
3	Vial 6	NA	GC114P165	3	Sample
4	Vial 7	NA	GC114P165	3	Sample
5	Vial 8	gc119p176 #I4 ENV(1=600,3=400)	GC114P165	3	Sample
6	Vial 8	gc119p173 #AN4 ENV(1=600,6=400)	GC114P165	3	Sample
7	Vial 8	gc119p172 #C5 ENV(1=0,2=350)	GC114P165	3	Sample
8	Vial 2	NA	GC114P165	3	Sample
9	Vial 3	NA	GC114P165	3	Sample
10	Vial 4	NA	GC114P165	3	Sample
11	Vial 1	N2 Blank	GC114P165	3	Sample
12	Vial 5	NA	GC114P165	3	Sample
13	Vial 8	gc119p172 #C5 ENV(1=0,2=350)	GC114P165	3	Sample
14	Vial 1	Pause	PAUSE	1	Sample

Sequence: G:\GC2011Q2\gummo\SEQUENCE\gc126p006.txt
Sequence Table (Back Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 18	CHV-Stk-ICR2-Bag A Run 2 0611-22	4P176R_ICR	3	Sample
2	Vial 17	N2 Blank	4P176R_ICR	3	Sample
3	Vial 22	gc119p176 #I4 LCS	4P176R_ICR	3	Sample
4	Vial 23	gc119p173 #AN4 LCS	4P176R_ICR	3	Sample
5	Vial 24	gc119p176 #I4 ENV(1=600,3=400)	4P176R_ICR	3	Sample
6	Vial 24	gc119p173 #AN4 ENV(1=600,6=400)	4P176R_ICR	3	Sample
7	Vial 24	gc119p172 #C5 ENV(1=0,2=350)	4P176R_ICR	3	Sample
8	Vial 18	11159-Bag 1 0611-197	4P176R_ICR	3	Sample
9	Vial 19	11159-Bag 3 0611-197	4P176R_ICR	3	Sample
10	Vial 20	11159-Bag 2 0611-197	4P176R_ICR	3	Sample
11	Vial 17	N2 Blank	4P176R_ICR	3	Sample
12	Vial 21	gc119p172 #C5 LCS	4P176R_ICR	3	Sample
13	Vial 24	gc119p172 #C5 ENV(1=0,2=350)	4P176R_ICR	3	Sample
14	Vial 17	Pause	PAUSE	1	Sample

Sequence: G:\GC2011Q2\gummo\SEQUENCE\gc126p007.txt
Sequence Table (Front Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 1	N2 Blank	GC114P165	1	Sample
2	Vial 8	gc119p176 #I4 ENV(1=600,3=400)	GC114P165	3	Sample
3	Vial 8	gc119p173 #AN4 ENV(1=600,6=400)	GC114P165	3	Sample
4	Vial 2	NA	GC114P165	3	Sample
5	Vial 1	N2 Blank	GC114P165	3	Sample
6	Vial 6	NA	GC114P165	3	Sample
7	Vial 7	NA	GC114P165	3	Sample
8	Vial 8	gc119p176 #I4 ENV(1=600,3=400)	GC114P165	3	Sample
9	Vial 8	gc119p173 #AN4 ENV(1=600,6=400)	GC114P165	3	Sample
10	Vial 8	gc126p001 #E3 ENV(1=970,5=30)	GC114P165	8	Sample
11	Vial 1	Pause	PAUSE	1	Sample

Sequence: G:\GC2011Q2\gummo\SEQUENCE\gc126p007.txt
Sequence Table (Back Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 17	N2 Blank	4P176R_ICR	1	Sample
2	Vial 24	gc119p176 #I4 ENV(1=600,3=400)	4P176R_ICR	3	Sample
3	Vial 24	gc119p173 #AN4 ENV(1=600,6=400)	4P176R_ICR	3	Sample
4	Vial 18	STK-ICR3-M18b-Bag A Run1 0611-22	4P176R_ICR	3	Sample
5	Vial 17	N2 Blank	4P176R_ICR	3	Sample
6	Vial 22	gc119p176 #I4 LCS	4P176R_ICR	3	Sample
7	Vial 23	gc119p173 #AN4 LCS	4P176R_ICR	3	Sample
8	Vial 24	gc119p176 #I4 ENV(1=600,3=400)	4P176R_ICR	3	Sample
9	Vial 24	gc119p173 #AN4 ENV(1=600,6=400)	4P176R_ICR	3	Sample
10	Vial 24	gc126p001 #E3 ENV(1=970,5=30)	4P176R_ICR	8	Sample
11	Vial 17	Pause	PAUSE	1	Sample

Sequence: G:\GC2011Q2\gummo\SEQUENCE\gc126p007b.txt
Sequence Table (Front Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 8	gc126p001 #E1 ENV(1=4900,5=20)	GC114P165	8	Sample
2	Vial 1	Pause	PAUSE	1	Sample
3	Vial 8	gc119p176 #I4 ENV(1=600,3=400)	GC114P165	3	Sample
4	Vial 8	gc119p172 #C5 ENV(1=0,2=350)	GC114P165	3	Sample
5	Vial 2	NA	GC114P165	3	Sample
6	Vial 3	NA	GC114P165	3	Sample
7	Vial 8	gc119p176 #I4 ENV(1=600,3=400)	GC114P165	3	Sample
8	Vial 8	gc119p172 #C5 ENV(1=0,2=350)	GC114P165	3	Sample
9	Vial 1	Pause	PAUSE	1	Sample

Sequence: G:\GC2011Q2\gummo\SEQUENCE\gc126p007b.txt
Sequence Table (Back Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 24	gc126p001 #E1 ENV(1=4900,5=20)	4P176R_ICR	8	Sample
2	Vial 17	Pause	PAUSE	1	Sample
3	Vial 24	gc119p176 #I4 ENV(1=600,3=400)	4P176R_ICR	3	Sample
4	Vial 24	gc119p172 #C5 ENV(1=0,2=350)	4P176R_ICR	3	Sample
5	Vial 18	CHV-STK-ICR1-M18b- bag a R1 S&R 0611-22	4P176R_ICR	3	Sample
6	Vial 19	11159-Bag1 S&R 0611-197	4P176R_ICR	3	Sample
7	Vial 24	gc119p176 #I4 ENV(1=600,3=400)	4P176R_ICR	3	Sample
8	Vial 24	gc119p172 #C5 ENV(1=0,2=350)	4P176R_ICR	3	Sample
9	Vial 17	Pause	PAUSE	1	Sample

THE LINDE GROUP

Linde

SHIPPED TO: Enthalpy Analytical, Inc
2202 Ellis Road
Durham, NC 27703-5521

PAGE: 1 of 1

CERTIFICATE OF ANALYSIS

Sales#:	108129258	**Cylinder Size:**	2 (9" X 51")
Production#:	1178674	**Cylinder # :**	9166803
Certification Date:	May-20-2011	**Cylinder Pressure:**	500 psig
P.O.# :	C05031101GAT	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	44 Liter
Material#:	24090232	**Cylinder Material:**	Steel
Traceability:	NIST by weight	**Gas Volume:**	1500 Liter
Expiration Date:	May-20-2012	**Blend Tolerance:**	5% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	2% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
1,3-Butadiene	106-99-0	250 ppm	257 ppm
Acrolein	107-02-8	250 ppm	257 ppm
Acetone	67-64-1	250 ppm	257 ppm
Pentane	109-66-0	250 ppm	257 ppm
Acrylonitrile	107-13-1	250 ppm	256 ppm
Carbon Disulfide	75-15-0	250 ppm	258 ppm
Methylene Chloride	75-09-2	250 ppm	257 ppm
Hexane	110-54-3	250 ppm	257 ppm
Benzene	71-43-2	250 ppm	256 ppm
Trichloroethene	79-01-6	250 ppm	256 ppm
Toluene	108-88-3	250 ppm	256 ppm
1,2-Dibromoethane	106-93-4	250 ppm	257 ppm
Tetrachloroethene	127-18-4	250 ppm	257 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

DATE: May-20-2011

MATHESON TRI•GAS
ask. . .The Gas Professionals™

Certified Mixture Grade

Matheson Tri-Gas Inc.
6874 S. Main Street
Morrow GA 30260
Phone: 770-961 4606
Fax: 770-968 1268

TO: Enthalpy Analytical
2202 Ellis Rd Suite A
Durham, NC 27703

PHONE:
FAX:

TO AVOID BACKFILL, CYLINDER PRESSURE MUST BE GREATER THAN PROCESS PRESSURE

SALES ORDER NUMBER: 566239
P.O. NUMBER: CO4281105GAT
LOT NUMBER: 1051619101

PRODUCT:

CYLINDER NUMBER: SX48676
SIZE: 1R
CGA/DISS OUTLET: 350
CONTENT: 138.6 cu. ft.
PRESSURE: 2000 psig

FILL DATE: May 2, 2011
CERTIFICATION DATE: May 2, 2011
EXPIRATION DATE: May 2, 2012

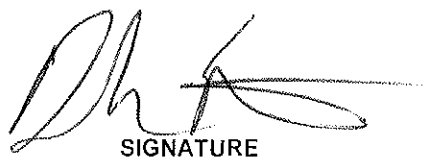
COMPONENT	REQUESTED CONCENTRATION	BLEND TOLERANCE (+/-)	CERTIFIED CONCENTRATION	CERTIFICATION ACCURACY
Acetonitrile	250 ppm	10 %	249.4 ppm	+/- 2%
Nitrogen, Balance				

TRACEABLE TO REFERENCE STANDARD SOURCE/NUMBER:
TRACEABLE TO NIST TRACEABLE WEIGHT CERTIFICATE: 513987

SPECIAL INFORMATION / ADDITIONAL COMMENTS

The product listed above and furnished under the referenced purchase order has been tested and found to contain the component concentration listed above. All values in mole/mole basis gas phase unless otherwise indicated. Matheson Tri-Gas Inc. warrants that the above product(s) conform at the time of shipment to the above description. Matheson Tri-Gas Inc. liability does not exceed the value of the product purchased.

Derek Stuck
ANALYST


SIGNATURE

May 2, 2011
DATE SIGNED

Sample Chromatograms

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\116B2701.D
Sample Name: M18 Bag A 0611-22

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  27
Acq. Instrument : Zeppo online                  Location : Vial 116
Injection Date  : 6/30/2011 9:23:16 AM               Inj :   1
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
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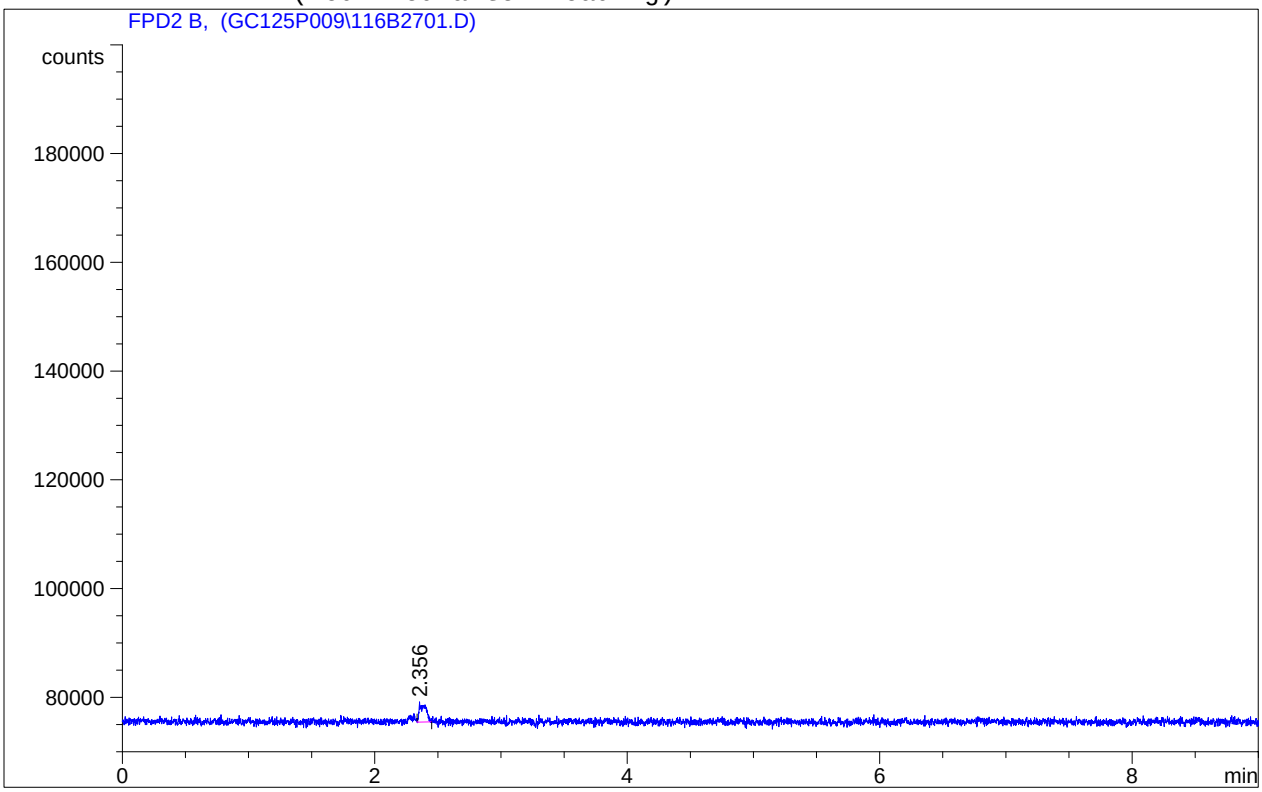



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.058            -          -          -         CS2

Totals :                                0.00000

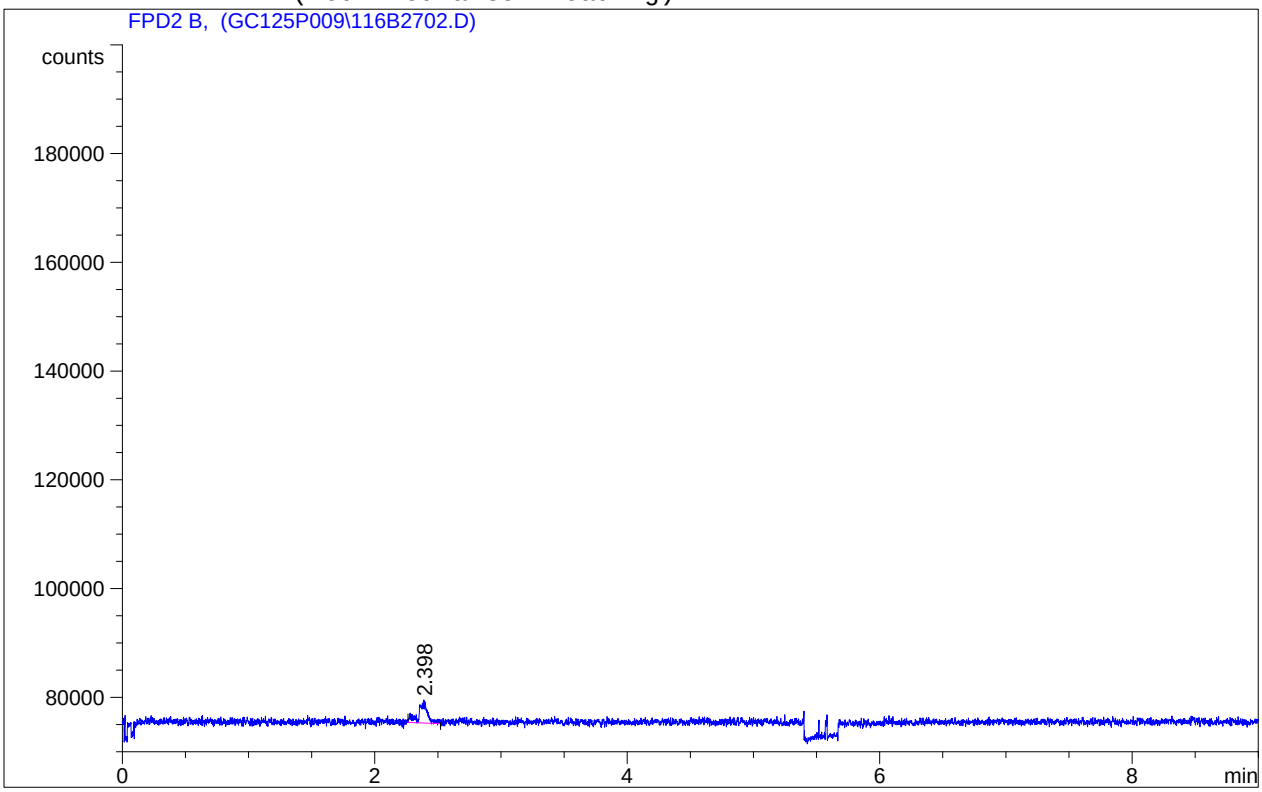

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\116B2702.D
Sample Name: M18 Bag A 0611-22

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  27
Acq. Instrument : Zeppo online                  Location : Vial 116
Injection Date  : 6/30/2011 9:42:09 AM               Inj :   2
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.058            -          -          -         CS2

Totals :                                0.00000

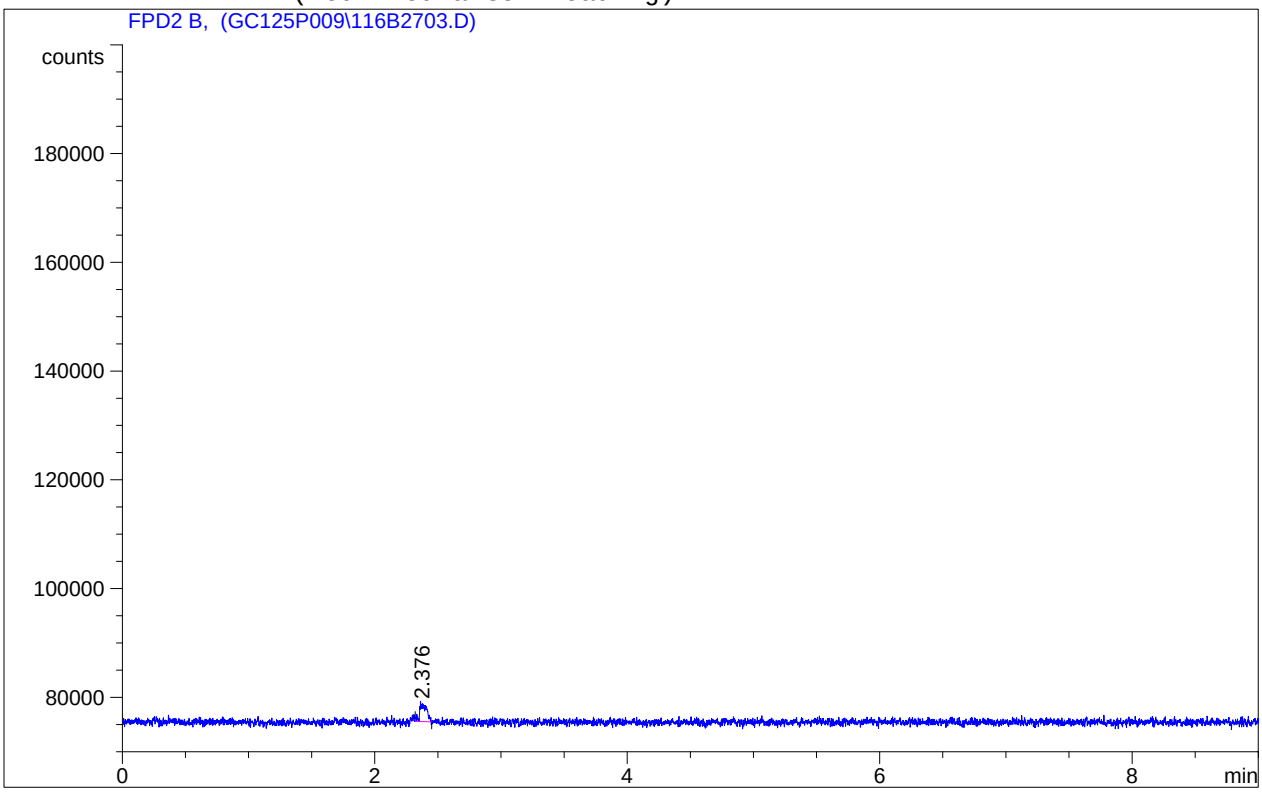

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\116B2703.D
Sample Name: M18 Bag A 0611-22

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  27
Acq. Instrument : Zeppo online                  Location : Vial 116
Injection Date  : 6/30/2011 10:00:58 AM              Inj :   3
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.058            -          -          -         CS2

Totals :                                0.00000

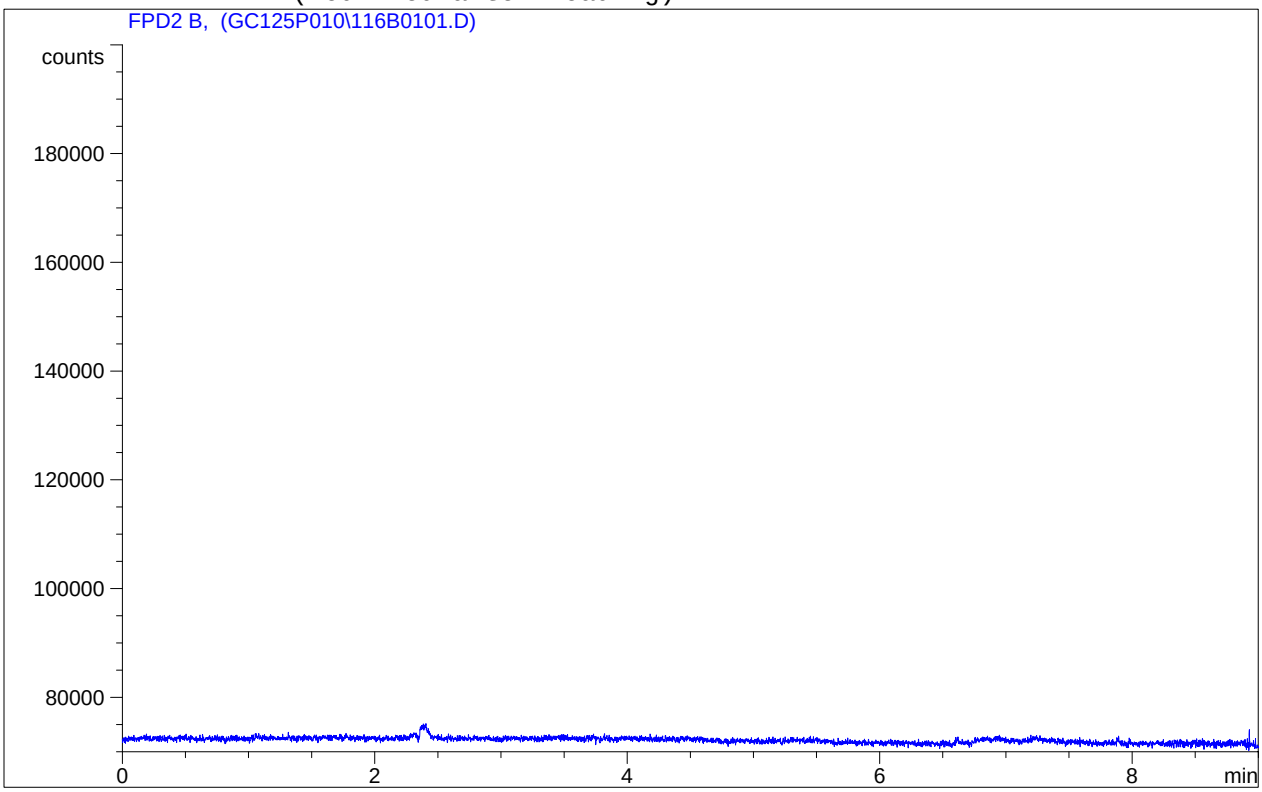

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\116B0101.D
Sample Name: M18 Bag A Run 2 0611-22

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   1
Acq. Instrument : Zeppo online                  Location : Vial 116
Injection Date  : 6/30/2011 5:58:06 PM               Inj :   1
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 3:50:17 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.058            -          -          -         CS2

Totals :                                0.00000

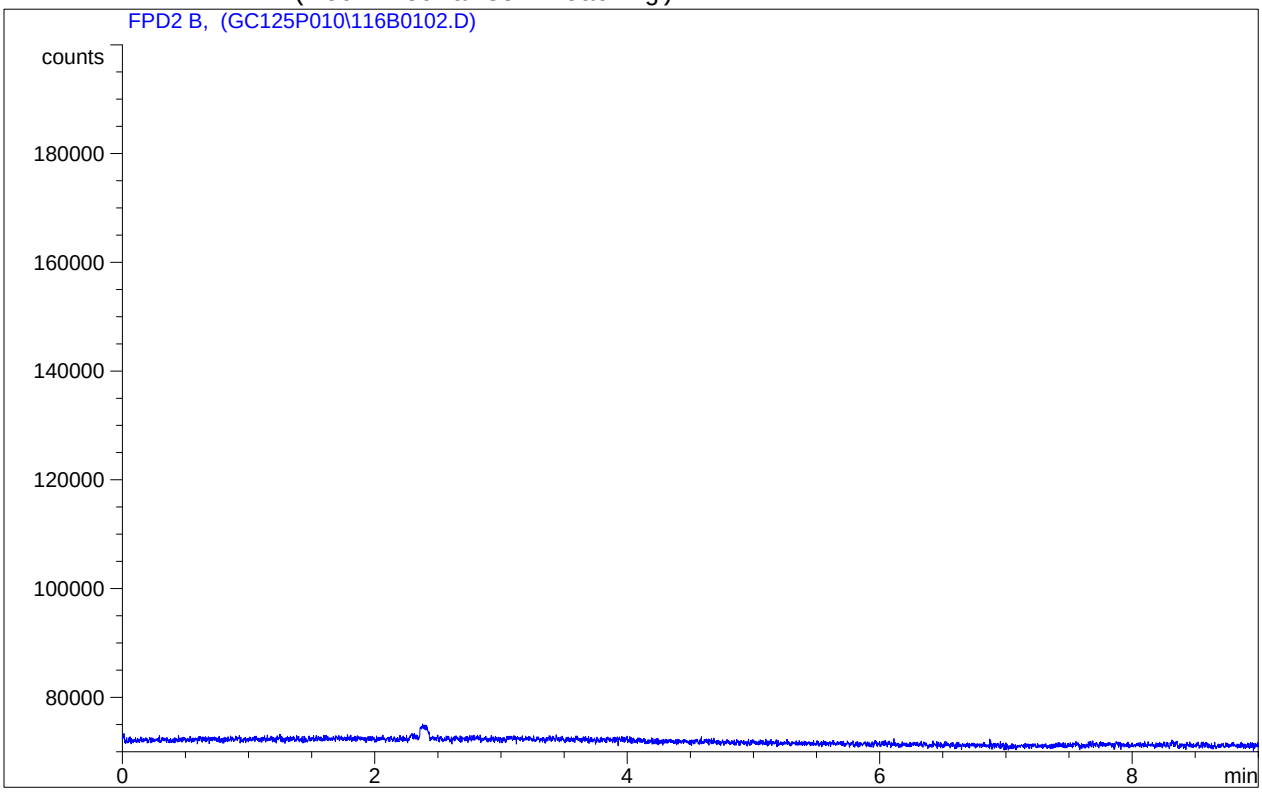

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\116B0102.D
Sample Name: M18 Bag A Run 2 0611-22

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   1
Acq. Instrument : Zeppo online                  Location : Vial 116
Injection Date  : 6/30/2011 6:13:47 PM               Inj :   2
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 3:50:17 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.058            -          -          -         CS2

Totals :                                0.00000

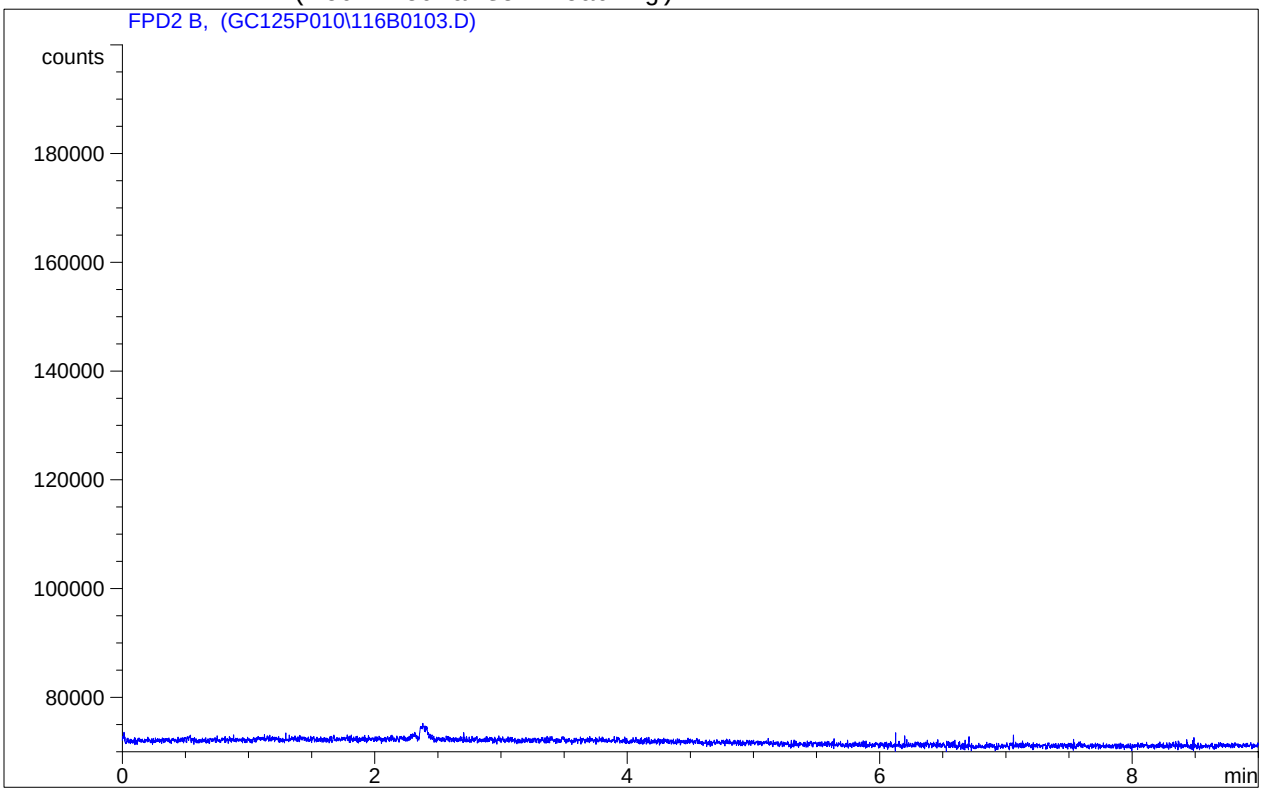

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\116B0103.D
Sample Name: M18 Bag A Run 2 0611-22

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   1
Acq. Instrument : Zeppo online                  Location : Vial 116
Injection Date  : 6/30/2011 6:29:29 PM               Inj :   3
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 3:50:17 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.058            -          -          -         CS2

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

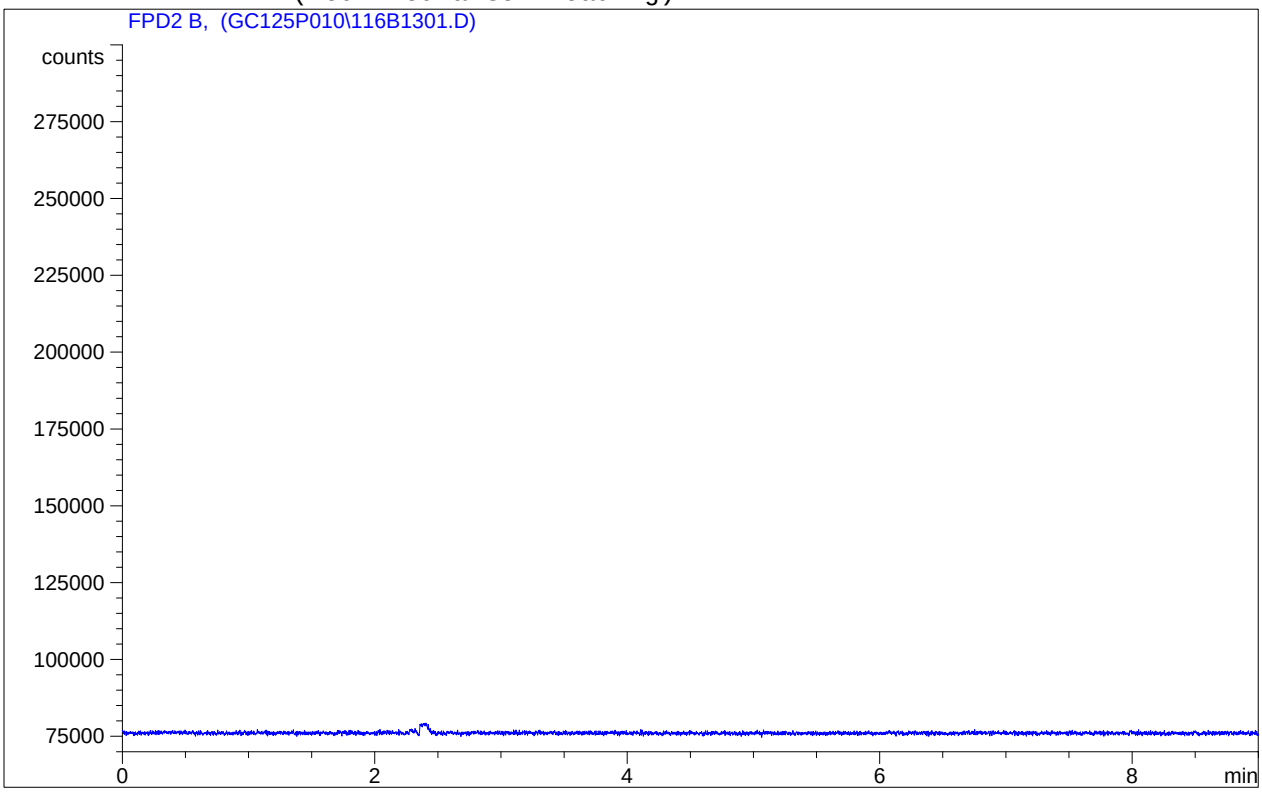
==========================================================================
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\116B1301.D
Sample Name: M18 Bag A Run 2 0611-22

3

==========

Acq. Operator : kmt Seq. Line : 13
Acq. Instrument : Zeppo online Location : Vial 116
Injection Date : 7/1/2011 1:42:43 PM Inj : 1
Inj Volume : External
Acq. Method : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed : 7/12/2011 4:33:56 PM by KAM
(modified after loading)



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Tuesday, July 12, 2011 3:53:31 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [ppmv]	Grp	Name
6.057		-	-	-		CS2

Totals : 0.00000

1 Warnings or Errors :

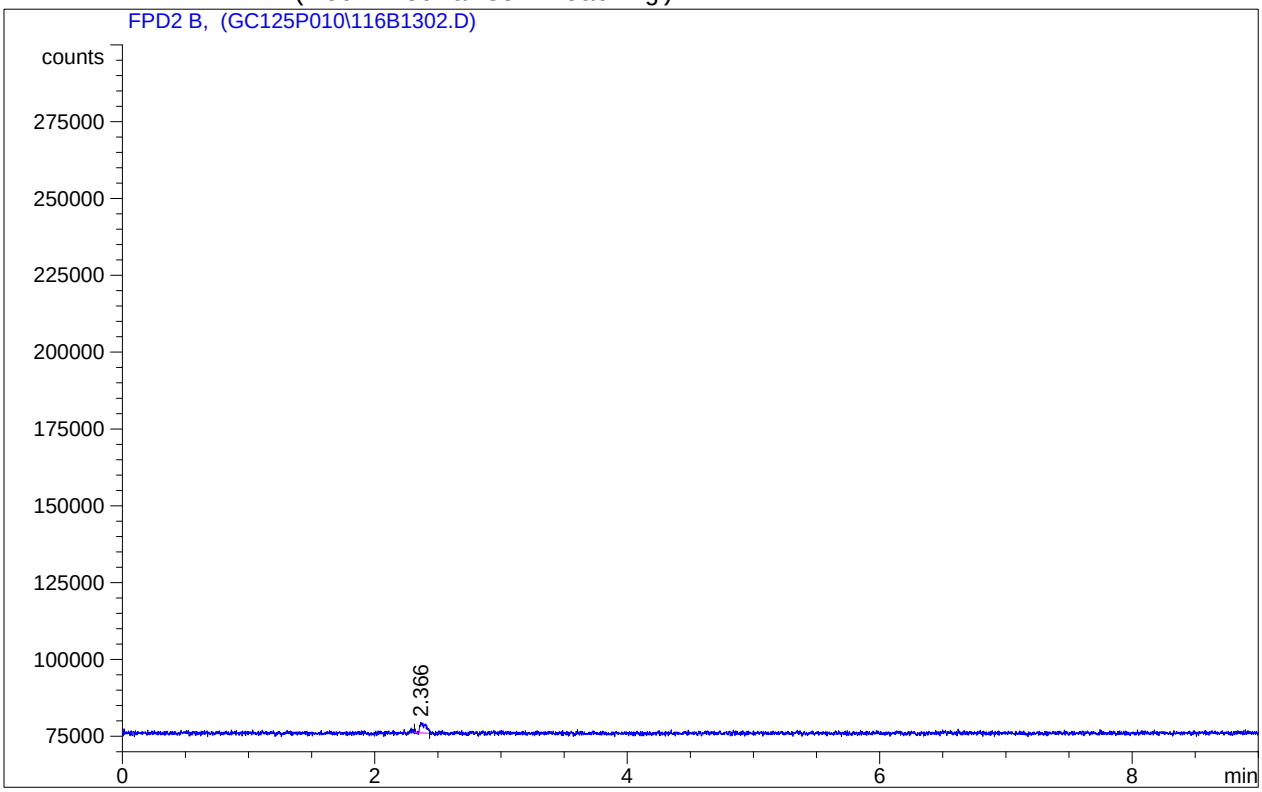
Warning : Calibrated compound(s) not found

==========

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\116B1302.D
Sample Name: M18 Bag A Run 2 0611-22

3

Acq. Operator : kmt Seq. Line : 13
Acq. Instrument : Zeppo online Location : Vial 116
Injection Date : 7/1/2011 1:58:29 PM Inj : 2
Inj Volume : External
Acq. Method : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed : 7/12/2011 4:33:56 PM by KAM
(modified after loading)



External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, July 12, 2011 3:53:31 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [ppmv]	Grp	Name
6.057		-	-	-		CS2

Totals : 0.00000

1 Warnings or Errors :

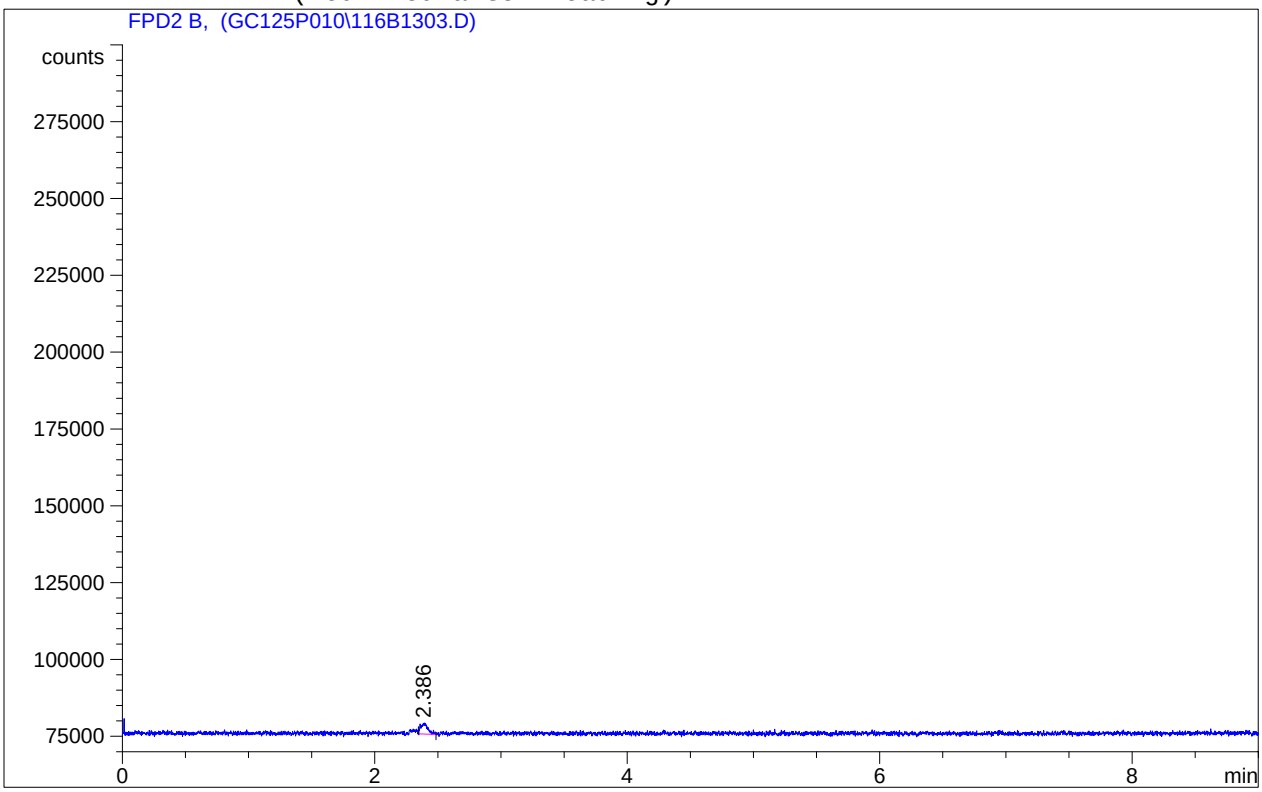
Warning : Calibrated compound(s) not found

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\116B1303.D
Sample Name: M18 Bag A Run 2 0611-22

3

==========

Acq. Operator : kmt Seq. Line : 13
Acq. Instrument : Zeppo online Location : Vial 116
Injection Date : 7/1/2011 2:14:16 PM Inj : 3
Inj Volume : External
Acq. Method : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed : 7/12/2011 4:33:56 PM by KAM
(modified after loading)



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Tuesday, July 12, 2011 3:53:31 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [ppmv]	Grp	Name
6.057		-	-	-		CS2

Totals : 0.00000

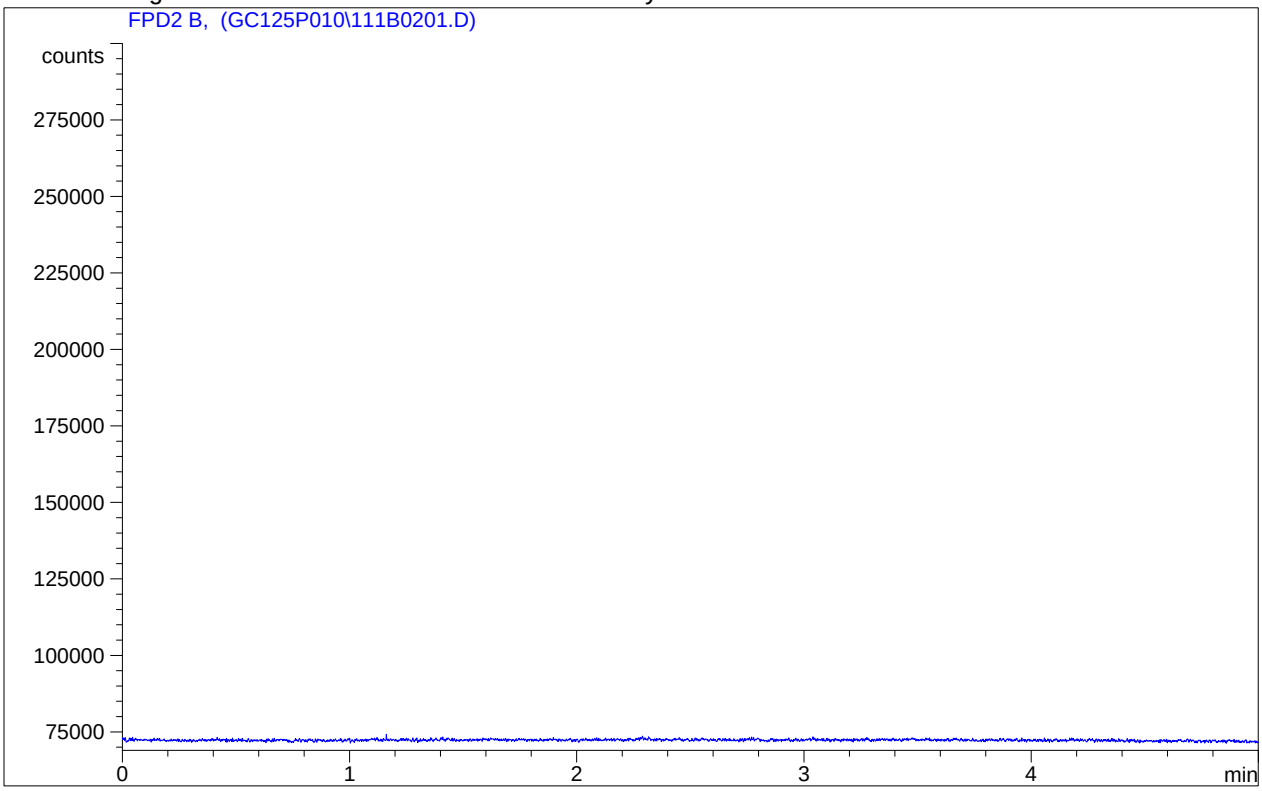
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\111B0201.D
Sample Name: N2 Blank

```
==========================================================================
Acq. Operator   : kmt                              Seq. Line :   2
Acq. Instrument : Zeppo online                      Location : Vial 111
Injection Date  : 6/30/2011 6:45:11 PM                   Inj :   1
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 4:37:08 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.058            -          -          -         CS2

Totals :                                0.00000

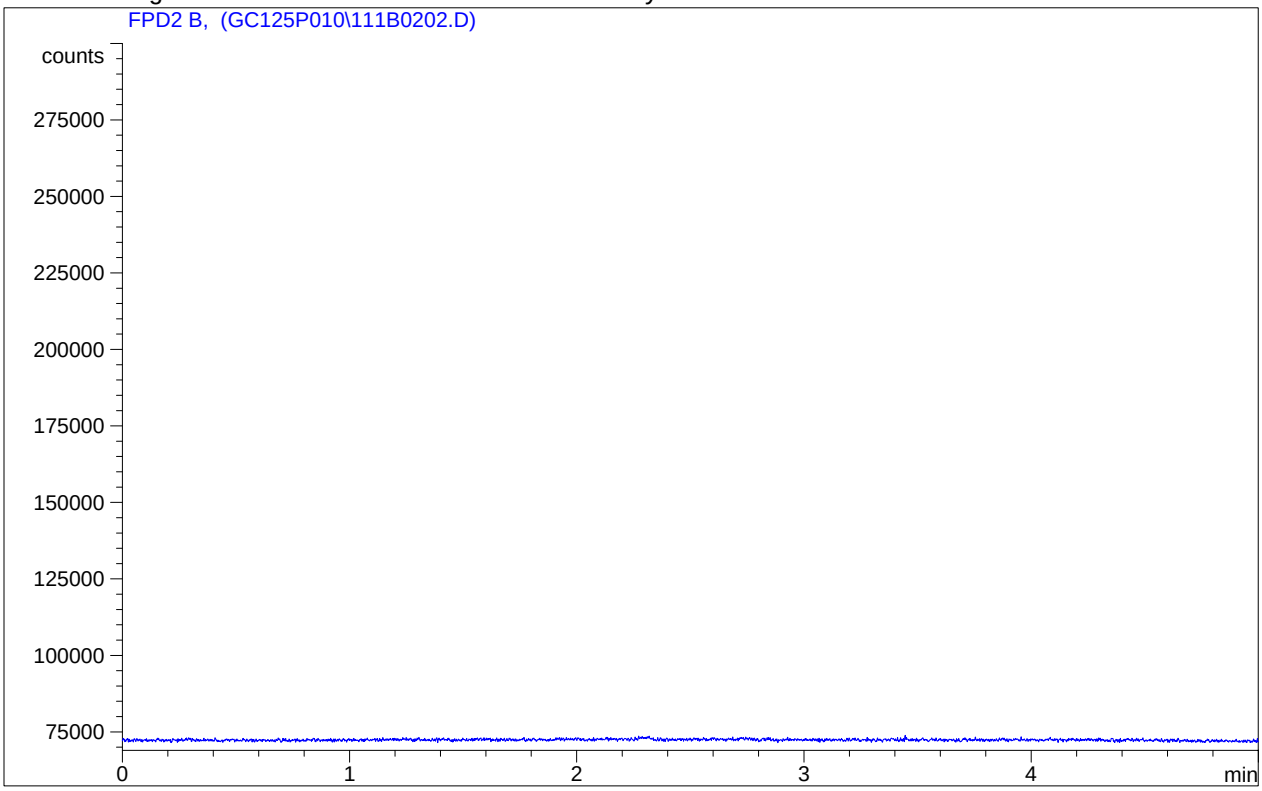

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\111B0202.D
Sample Name: N2 Blank

```
==========================================================================
Acq. Operator   : kmt                              Seq. Line :   2
Acq. Instrument : Zeppo online                      Location : Vial 111
Injection Date  : 6/30/2011 7:00:53 PM                   Inj :   2
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 4:37:08 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.058            -          -          -         CS2

Totals :                                0.00000

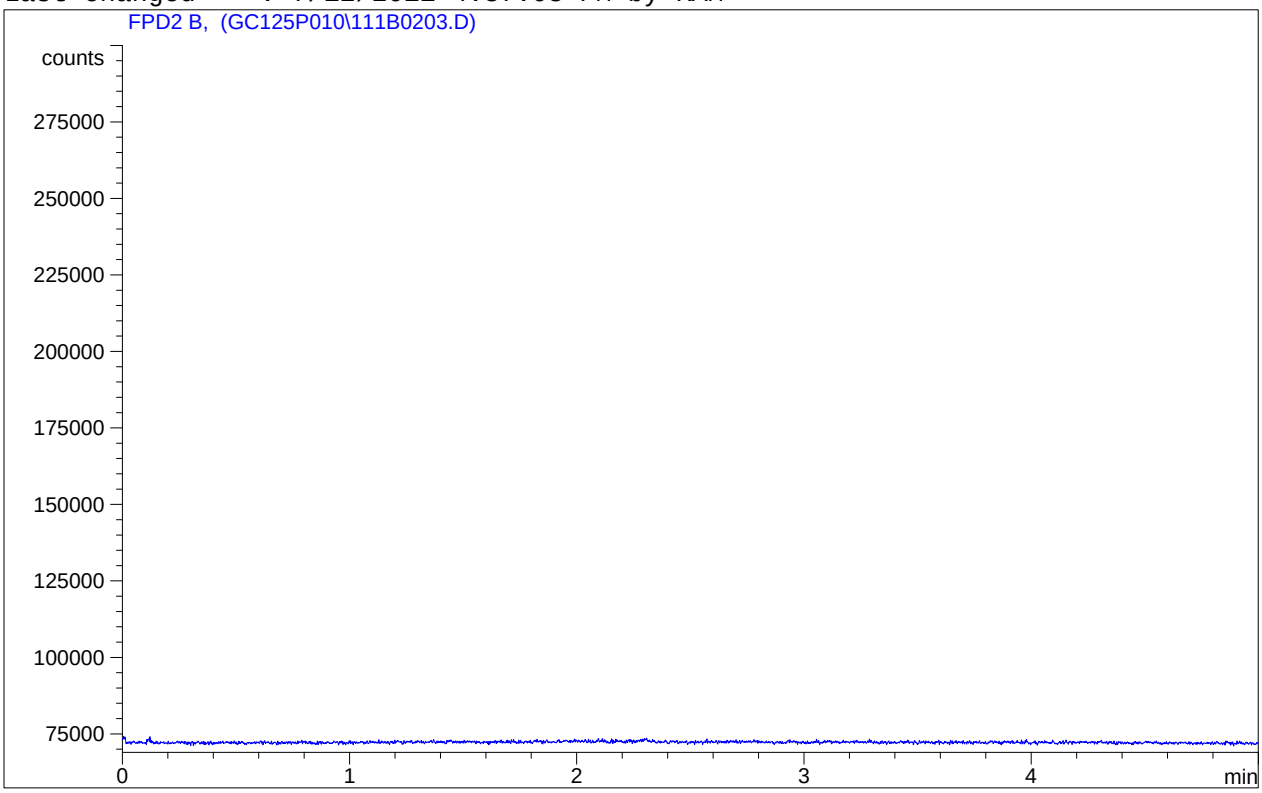

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\111B0203.D
Sample Name: N2 Blank

```
==========================================================================
Acq. Operator   : kmt                              Seq. Line :   2
Acq. Instrument : Zeppo online                      Location : Vial 111
Injection Date  : 6/30/2011 7:16:36 PM                   Inj :   3
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 4:37:08 PM by KAM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.058            -          -          -         CS2

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Calibration Curve Chromatograms

Calibration Table

Calib. Data Modified : Tuesday, July 12, 2011 3:31:54 PM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Power
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

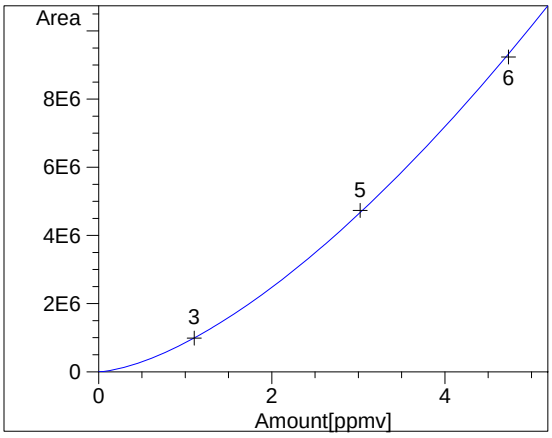
Signal 1: FID1 A,
Signal 2: FPD2 B,

RetTime [min]	Lvl Sig	Amount [ppmv]	Area	Amt/Area	Ref Grp	Name
6.058	2 3	1.10430	9.88491e5	1.11716e-6		CS2
	5	3.02000	4.73440e6	6.37885e-7		
	6	4.73380	9.23540e6	5.12571e-7		

Peak Sum Table

No Entries in table

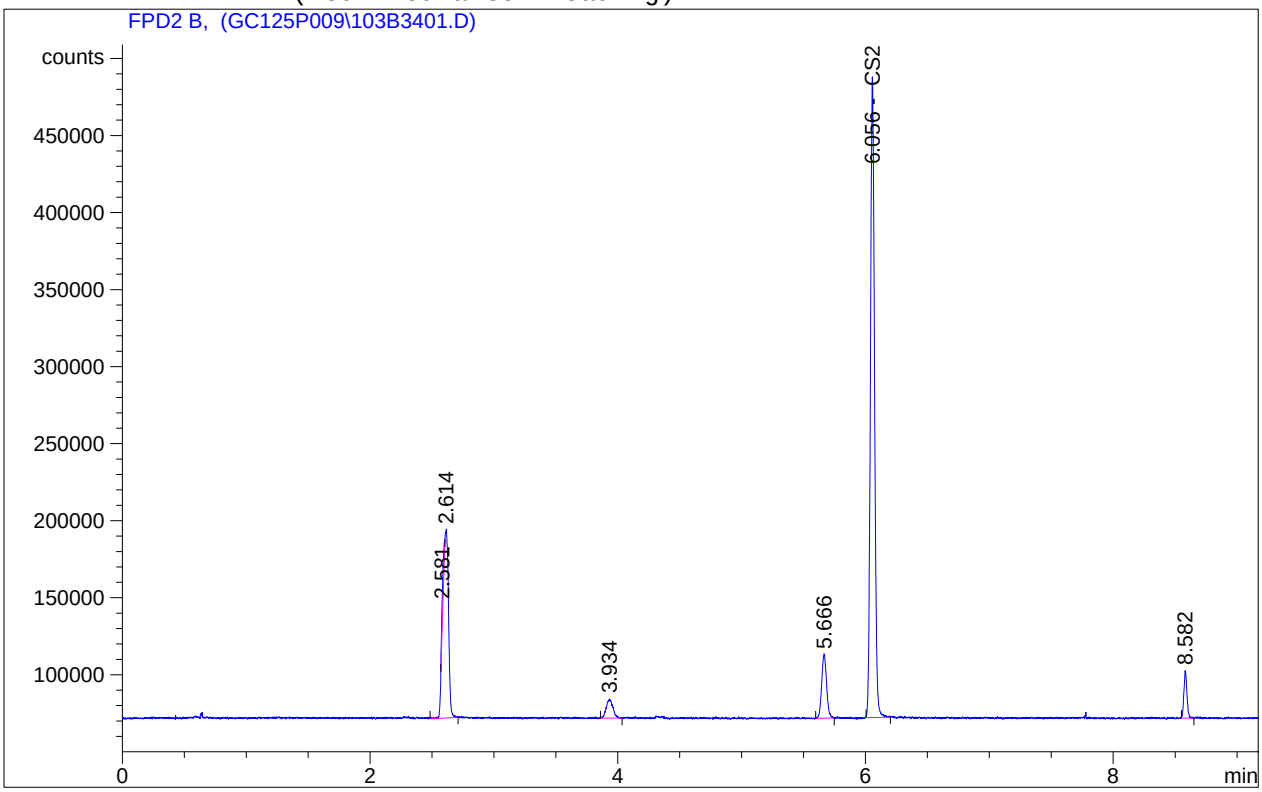
Calibration Curves



CS2 at exp. RT: 6.058
FPD2 B,
Correlation: 0.99989
Residual Std. Dev.: 110660.68303
Formula: y = b * x^m
m: 1.53893
b: 852176.80938
x: Amount
y: Area

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\103B3401.D
Sample Name: gc125p009 #3

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  34
Acq. Instrument : Zeppo online                  Location : Vial 103
Injection Date  : 6/30/2011 3:43:07 PM               Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:33:21 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

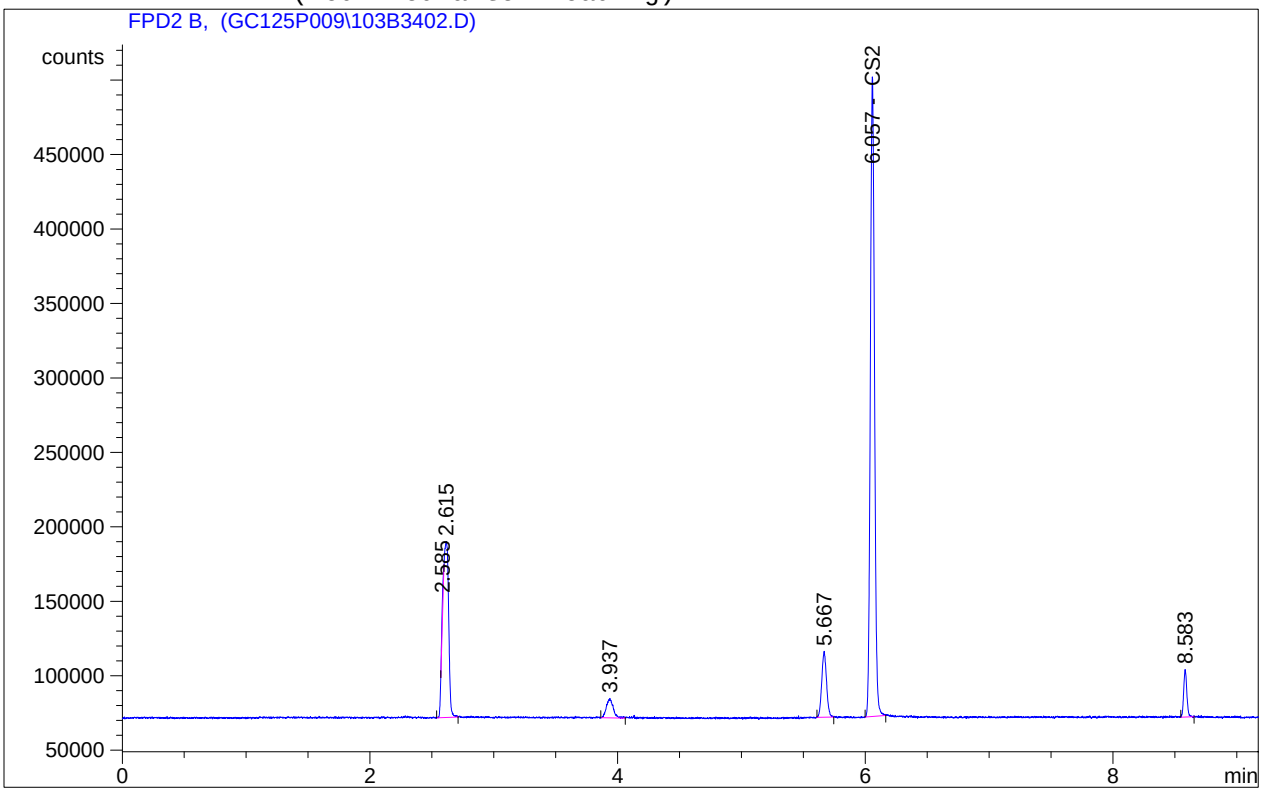
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.056 BB     9.55521e5  1.12736e-6    1.07721    CS2

Totals :                                 1.07721


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\103B3402.D
Sample Name: gc125p009 #3

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  34
Acq. Instrument : Zeppo online                  Location : Vial 103
Injection Date  : 6/30/2011 4:01:21 PM               Inj :   2
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:33:21 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

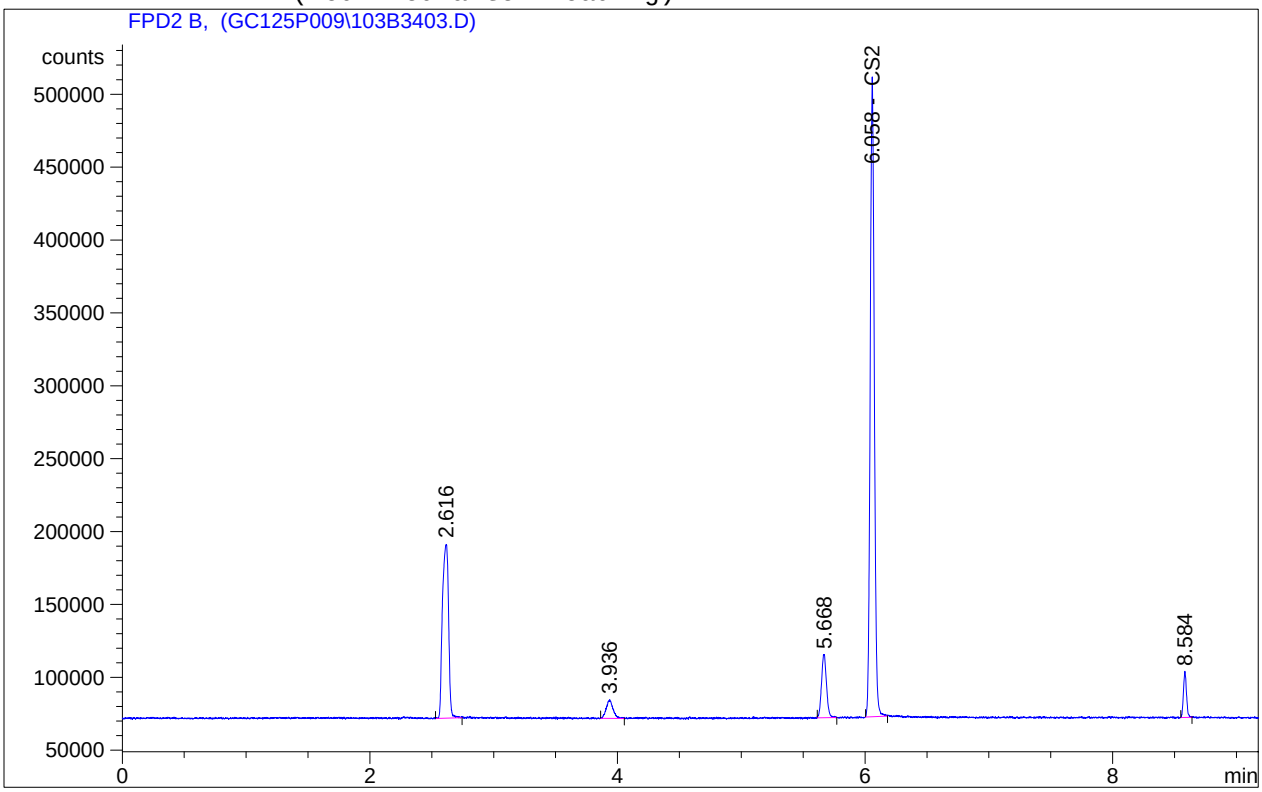
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.057 BB     9.99577e5  1.10970e-6    1.10923    CS2

Totals :                                 1.10923


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\103B3403.D
Sample Name: gc125p009 #3

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  34
Acq. Instrument : Zeppo online                  Location : Vial 103
Injection Date  : 6/30/2011 4:20:05 PM               Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:33:21 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

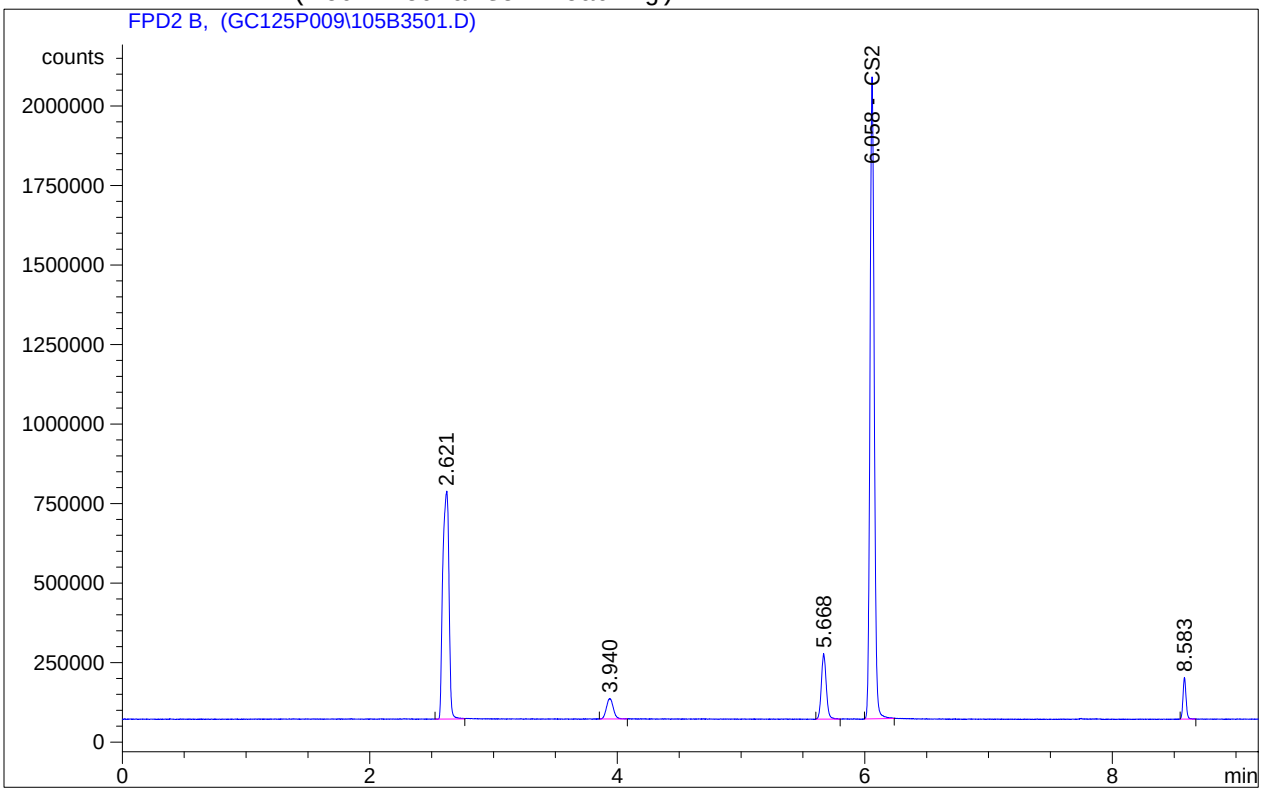
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.058 BB     1.01038e6  1.10553e-6    1.11700    CS2

Totals :                                 1.11700


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\105B3501.D
Sample Name: gc125p009 #5

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  35
Acq. Instrument : Zeppo online                  Location : Vial 105
Injection Date  : 6/30/2011 5:04:48 PM               Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:33:21 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

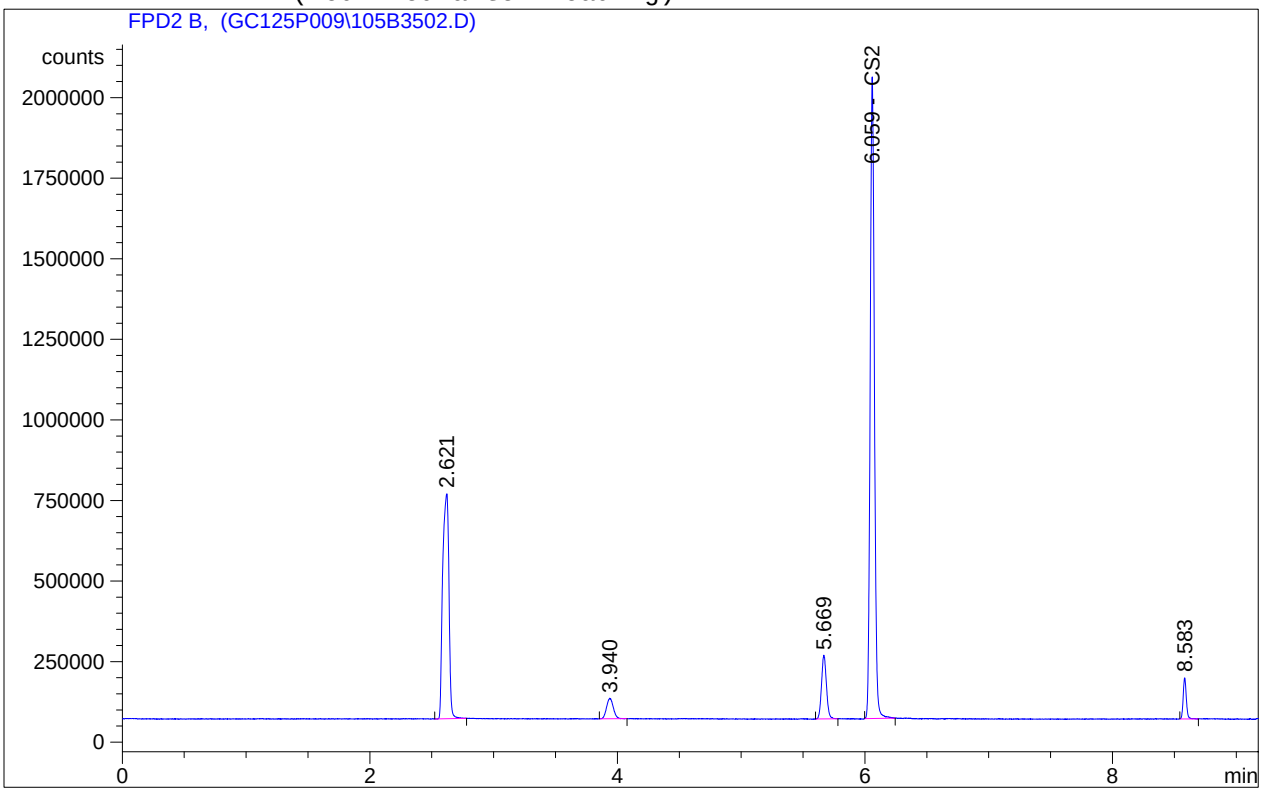
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.058 BB     4.79186e6  6.40960e-7    3.07139    CS2

Totals :                                 3.07139


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\105B3502.D
Sample Name: gc125p009 #5

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  35
Acq. Instrument : Zeppo online                  Location : Vial 105
Injection Date  : 6/30/2011 5:23:33 PM               Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:33:21 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

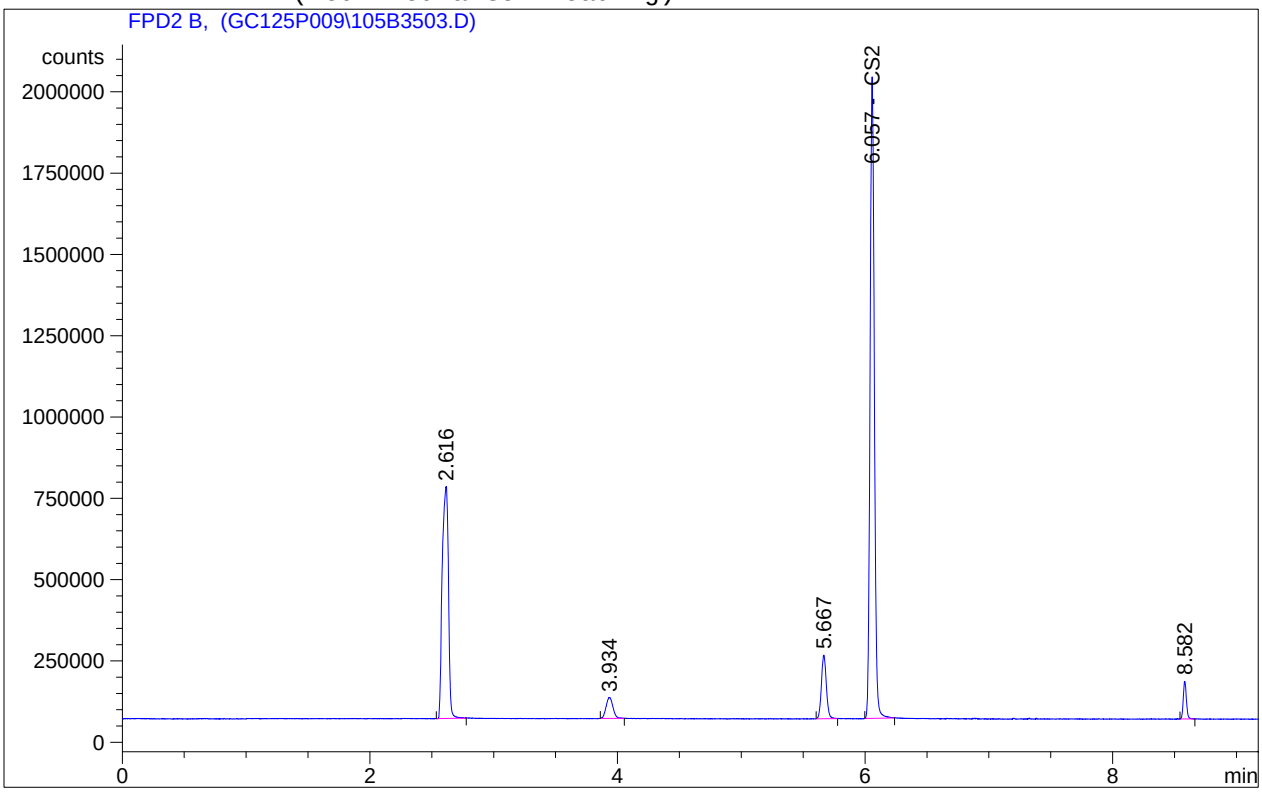
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.059 BB     4.71166e6  6.44760e-7    3.03789    CS2

Totals :                                3.03789


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\105B3503.D
Sample Name: gc125p009 #5

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  35
Acq. Instrument : Zeppo online                  Location : Vial 105
Injection Date  : 6/30/2011 5:42:18 PM               Inj :   3
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:33:21 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

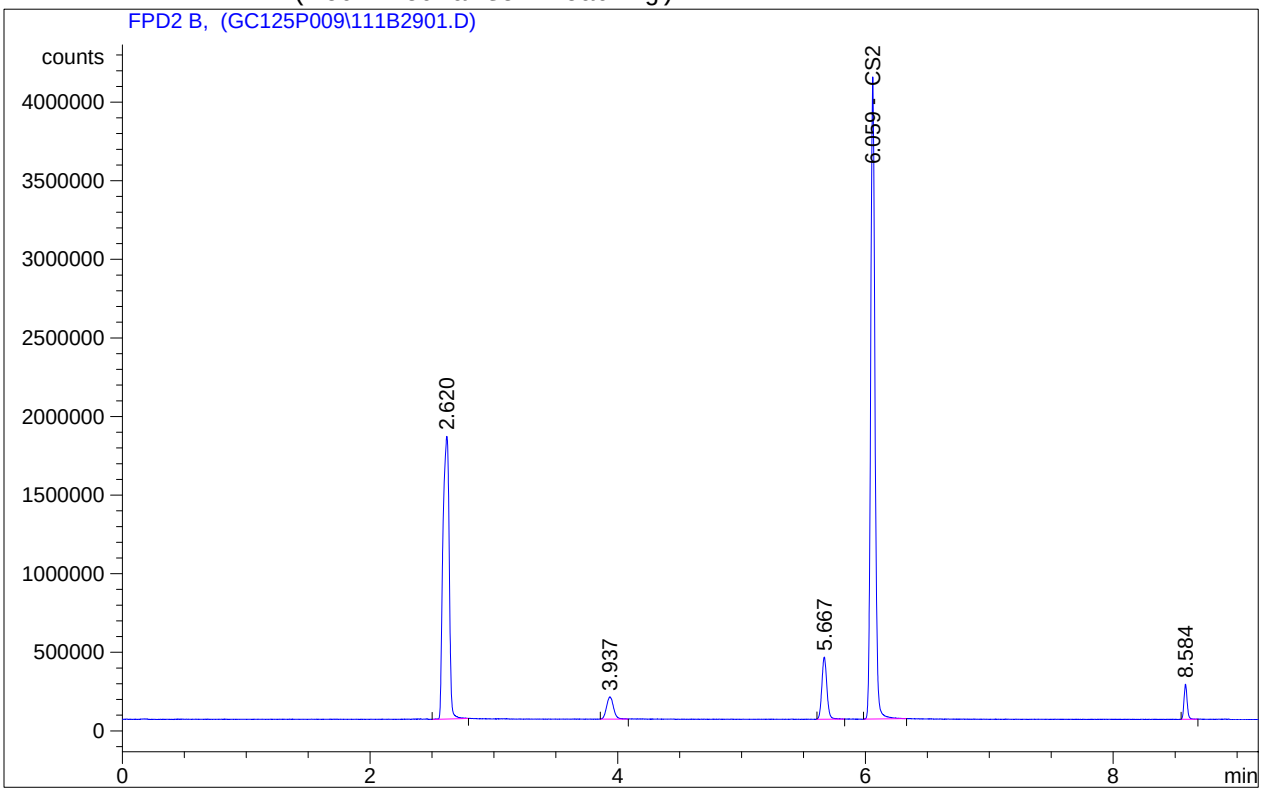
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.057 BB     4.69967e6  6.45336e-7    3.03286    CS2

Totals :                                 3.03286


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\111B2901.D
Sample Name: gc125p009 #6

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  29
Acq. Instrument : Zeppo online                  Location : Vial 111
Injection Date  : 6/30/2011 11:15:21 AM              Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:33:21 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

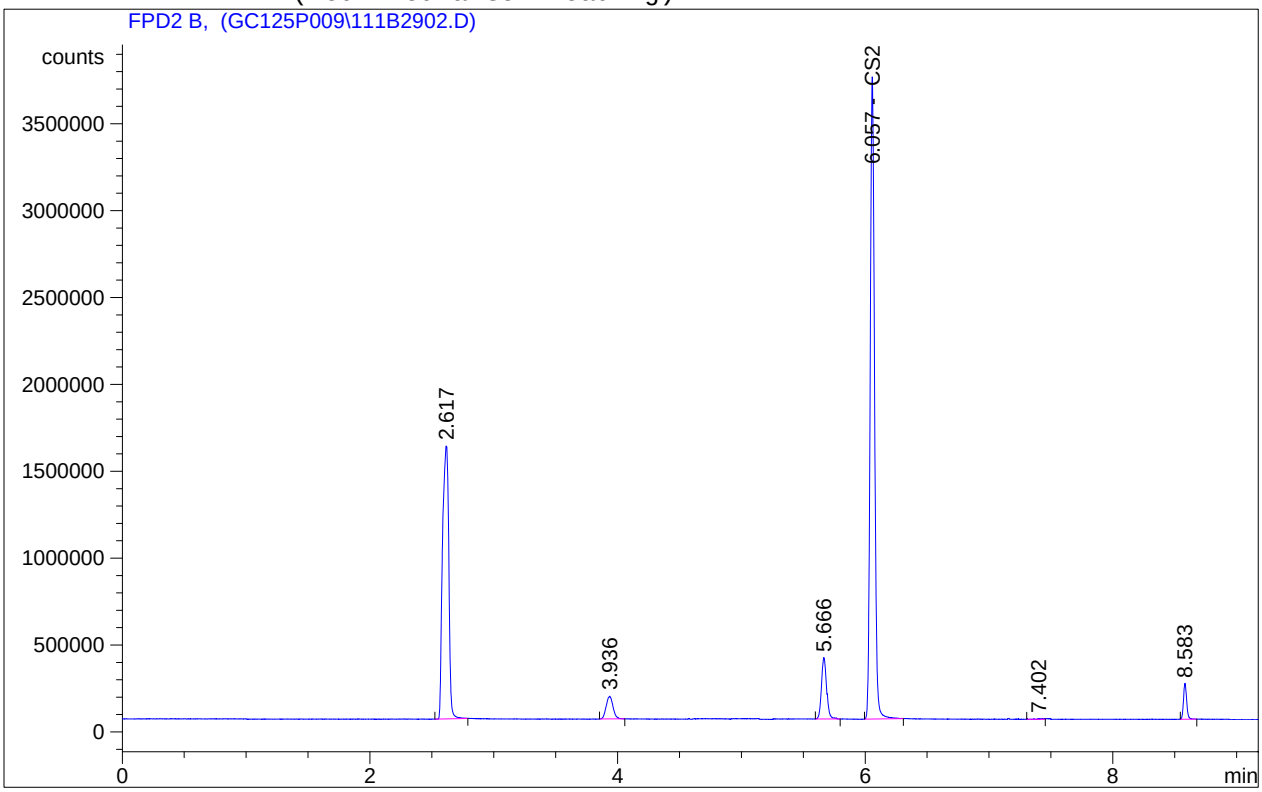
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.059 BB     9.88175e6  4.97455e-7    4.91573    CS2

Totals :                                 4.91573


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\111B2902.D
Sample Name: gc125p009 #6

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  29
Acq. Instrument : Zeppo online                  Location : Vial 111
Injection Date  : 6/30/2011 11:34:05 AM              Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:33:21 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

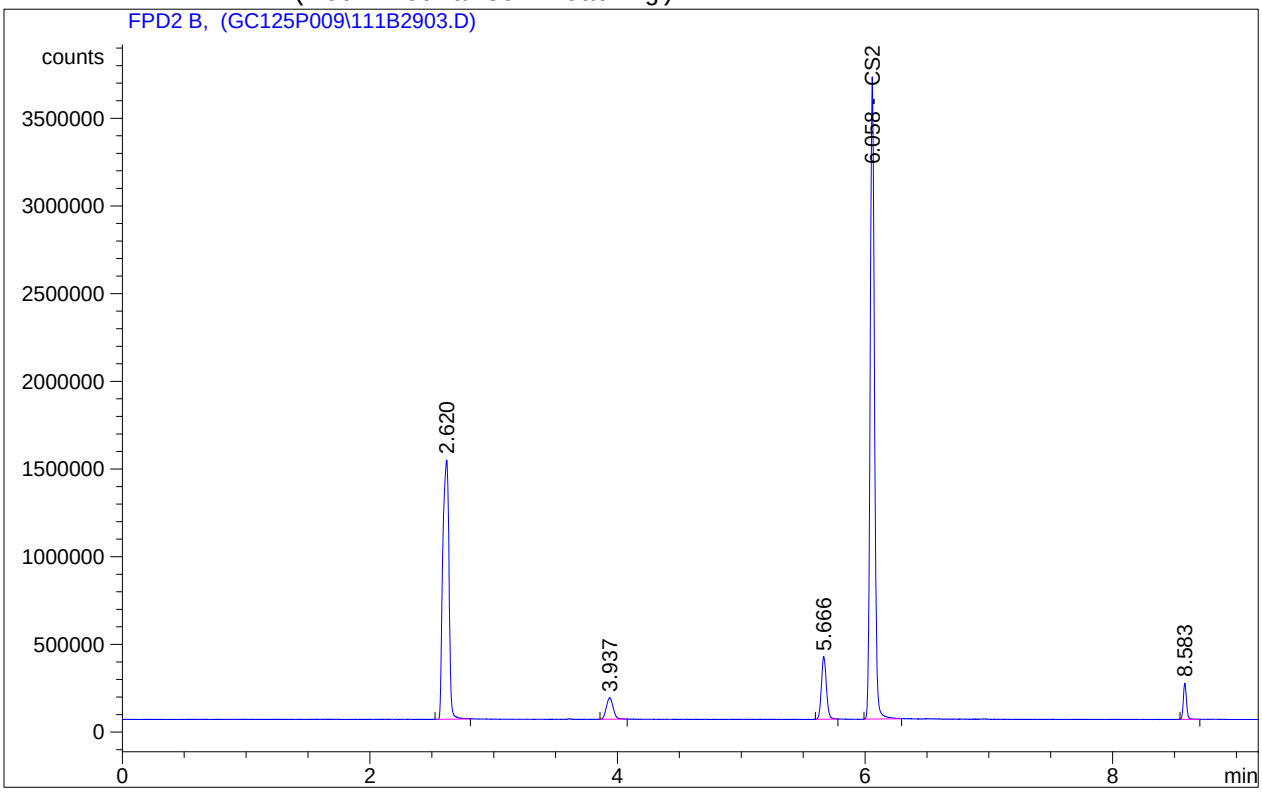
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.057 BB     8.98244e6  5.14358e-7    4.62019    CS2

Totals :                                 4.62019


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P009\111B2903.D
Sample Name: gc125p009 #6

```
==========================================================================
Acq. Operator   : kam                          Seq. Line :  29
Acq. Instrument : Zeppo online                  Location : Vial 111
Injection Date  : 6/30/2011 11:52:54 AM              Inj :   3
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:33:21 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

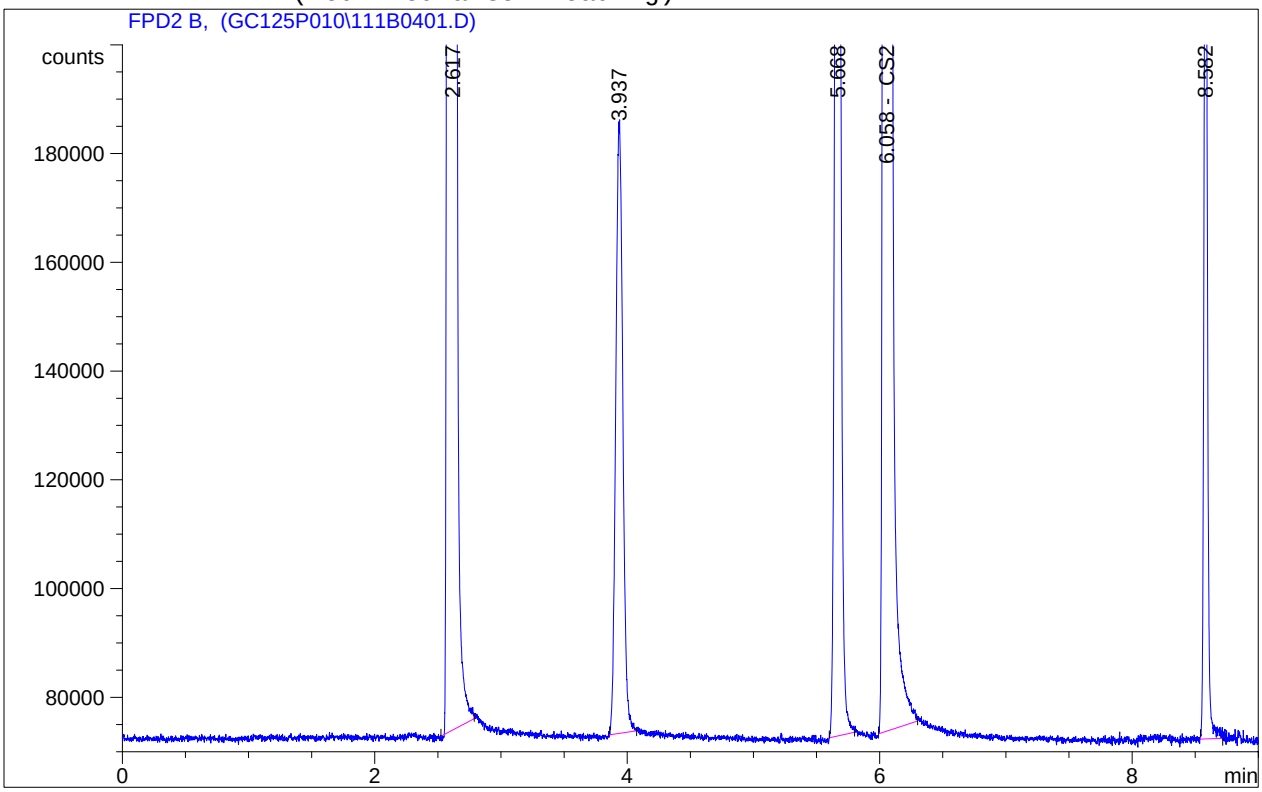
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.058 BB     8.84202e6  5.17204e-7    4.57313    CS2

Totals :                                 4.57313


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\111B0401.D
Sample Name: gc125p009 #6

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   4
Acq. Instrument : Zeppo online                  Location : Vial 111
Injection Date  : 6/30/2011 8:30:55 PM               Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

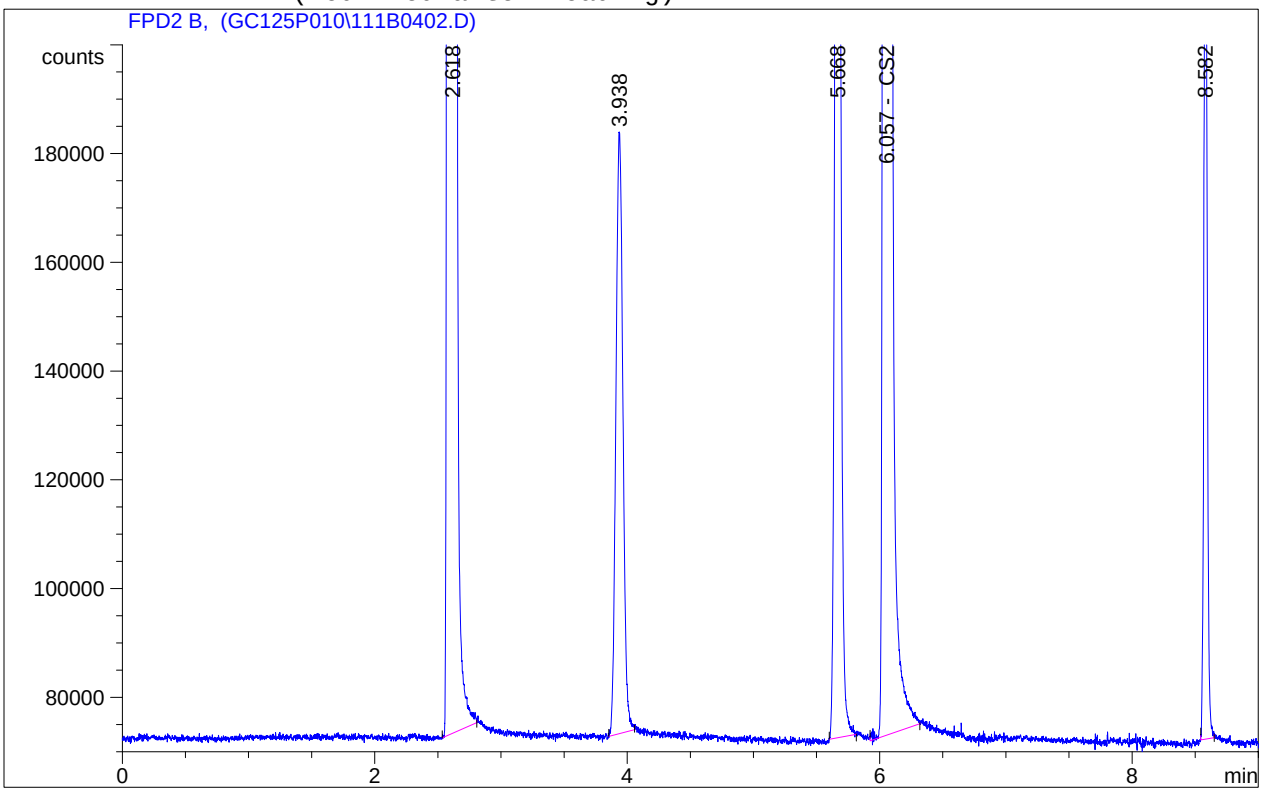
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.058 BB     8.00830e6  5.35457e-7    4.28810    CS2

Totals :                                 4.28810


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\111B0402.D
Sample Name: gc125p009 #6

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   4
Acq. Instrument : Zeppo online                  Location : Vial 111
Injection Date  : 6/30/2011 8:49:40 PM               Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

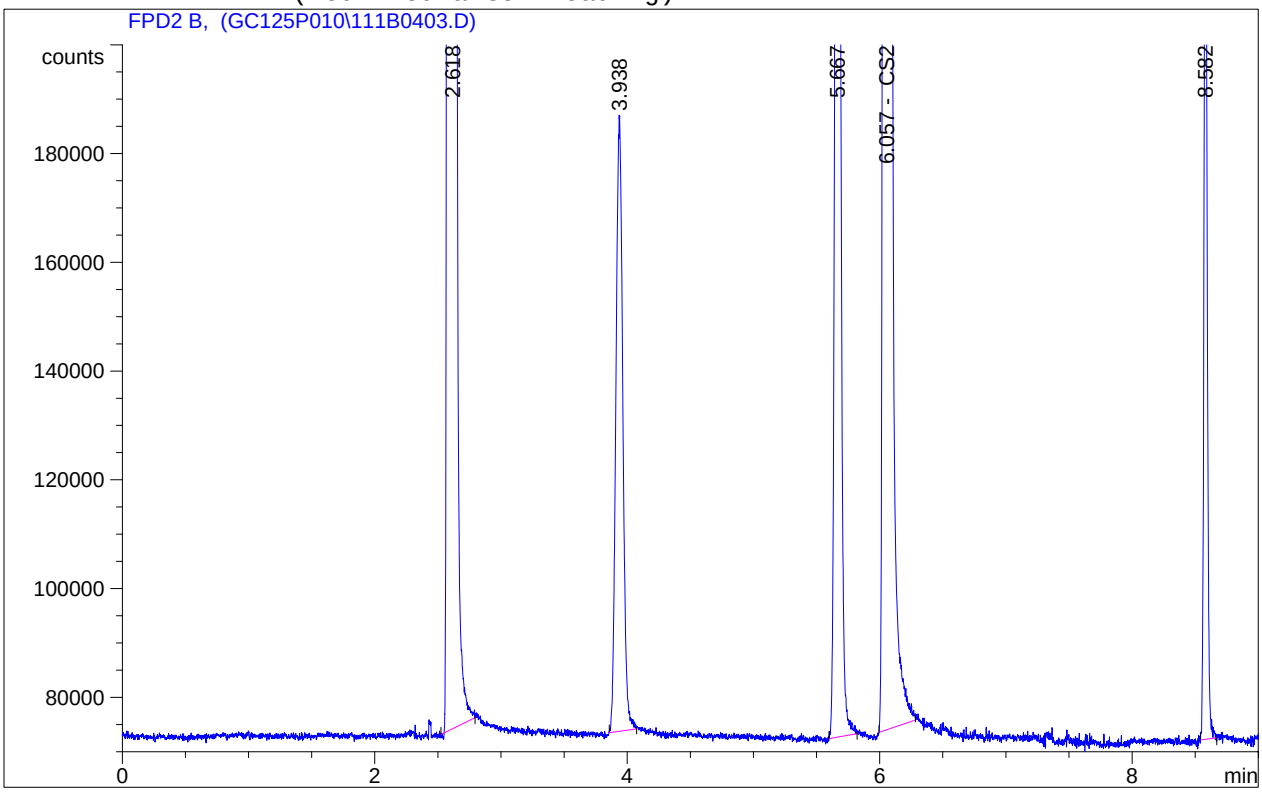
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.057 BB     7.79831e6  5.40463e-7    4.21470    CS2

Totals :                                 4.21470


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\111B0403.D
Sample Name: gc125p009 #6

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   4
Acq. Instrument : Zeppo online                  Location : Vial 111
Injection Date  : 6/30/2011 9:07:50 PM               Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

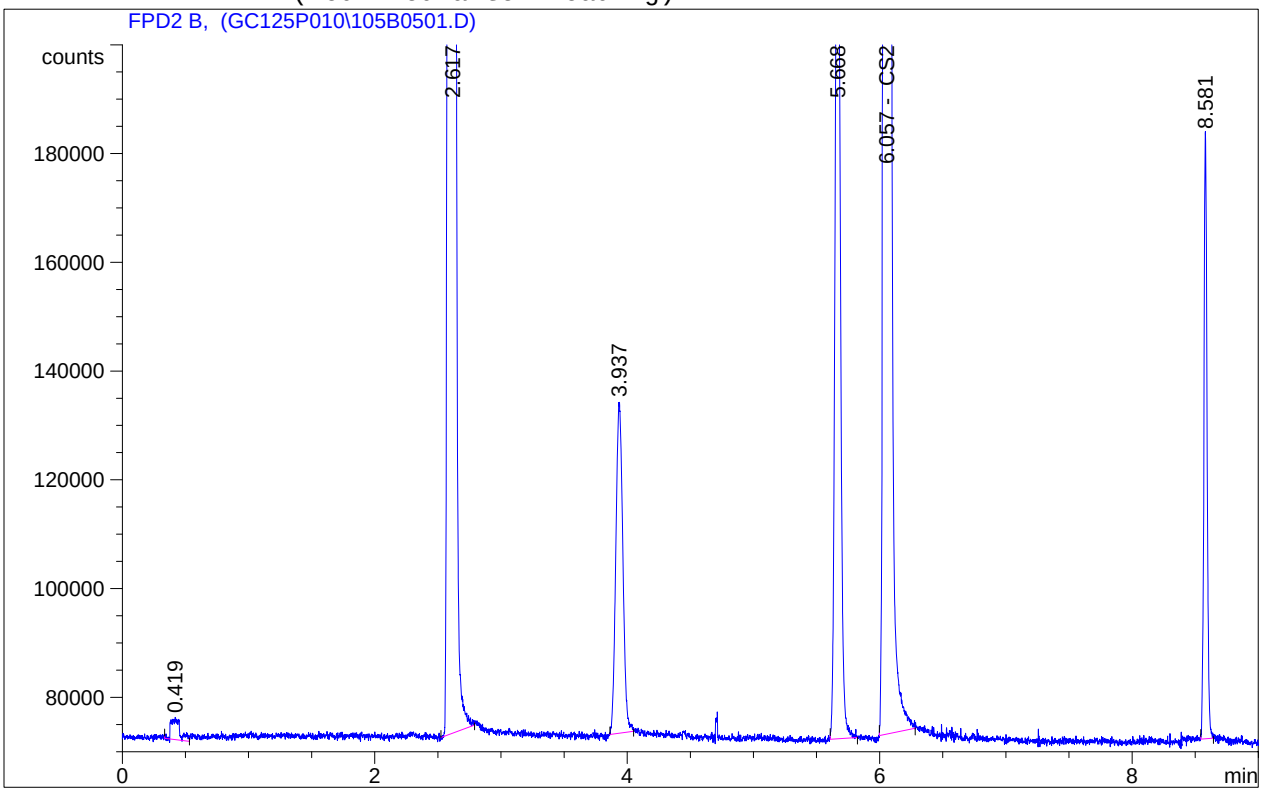
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.057 BB     7.73134e6  5.42098e-7    4.19114    CS2

Totals :                                 4.19114


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\105B0501.D
Sample Name: gc125p009 #5

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   5
Acq. Instrument : Zeppo online                  Location : Vial 105
Injection Date  : 6/30/2011 9:26:30 PM               Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

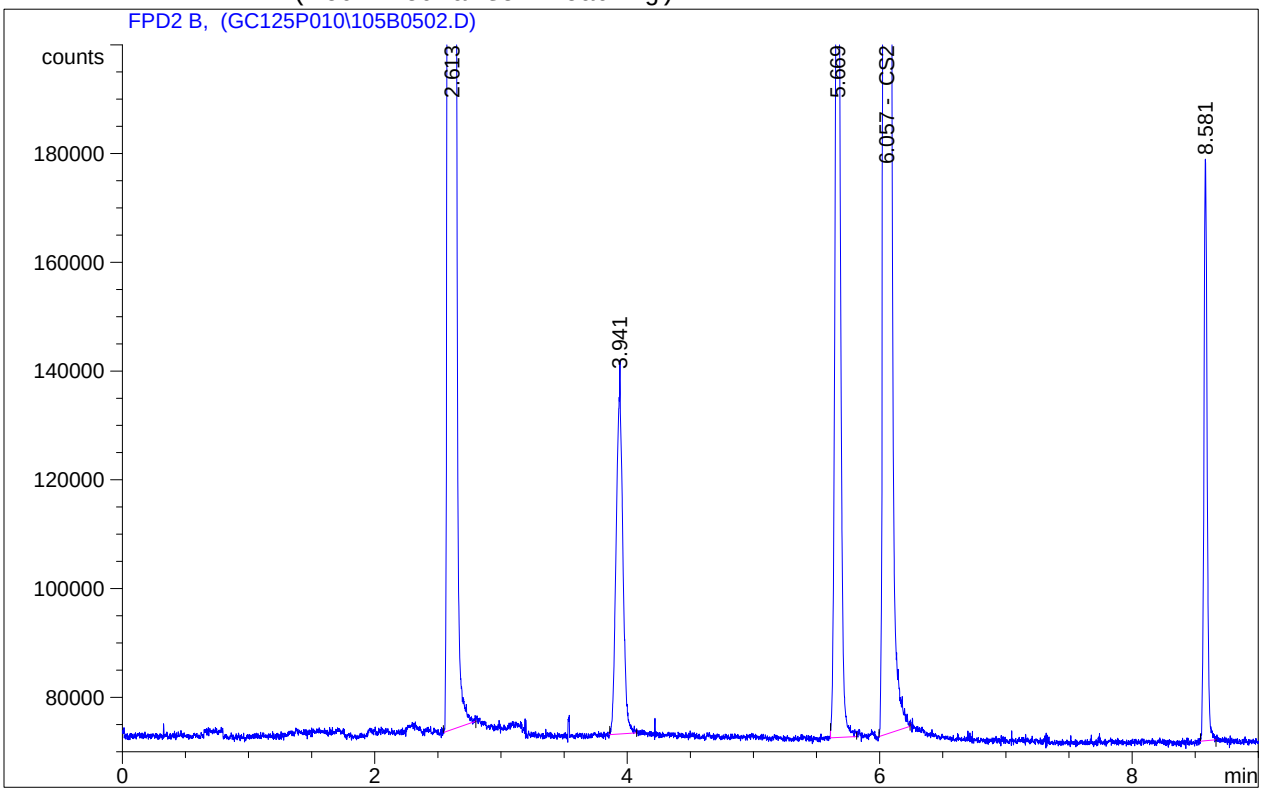
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.057 BB     4.46184e6  6.57180e-7    2.93223    CS2

Totals :                                 2.93223


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\105B0502.D
Sample Name: gc125p009 #5

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   5
Acq. Instrument : Zeppo online                  Location : Vial 105
Injection Date  : 6/30/2011 9:45:10 PM               Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

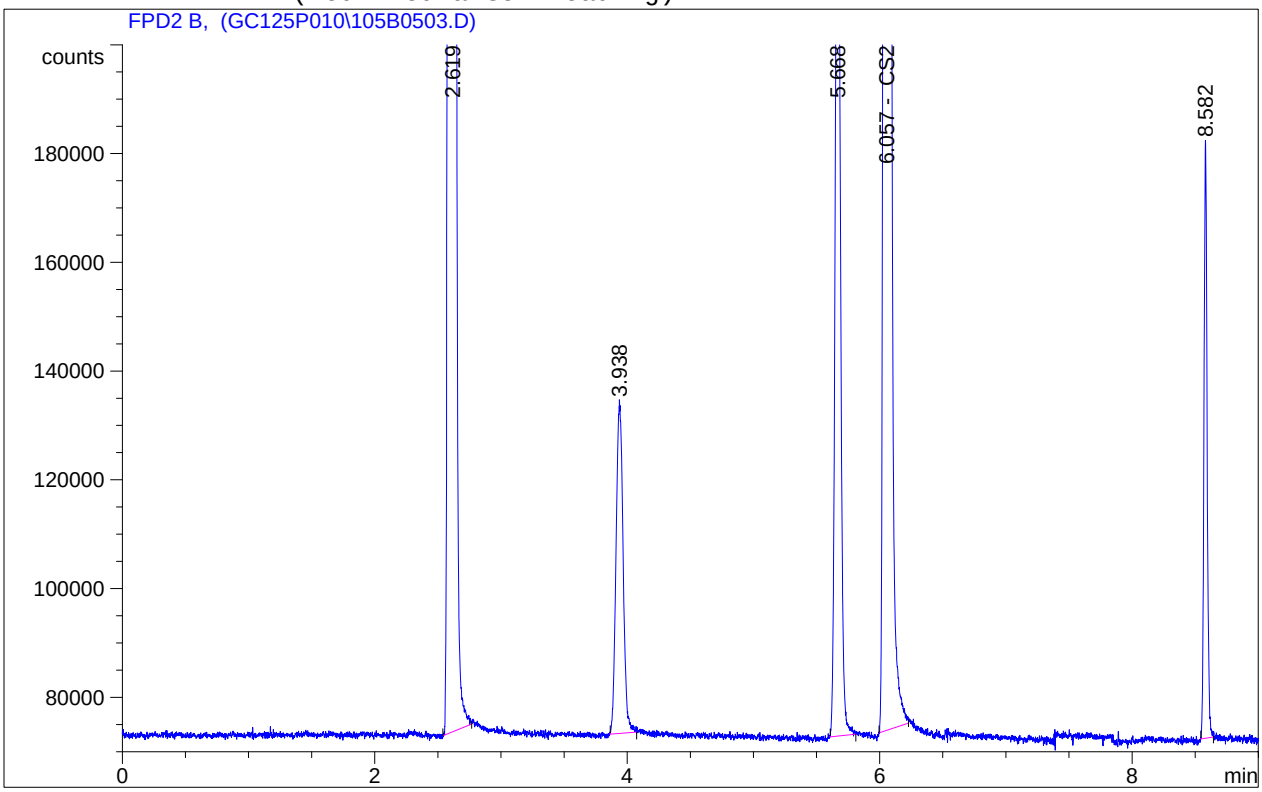
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.057 BB     4.36545e6  6.62225e-7    2.89091    CS2

Totals :                                2.89091


==========================================================================
                        *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\105B0503.D
Sample Name: gc125p009 #5

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   5
Acq. Instrument : Zeppo online                  Location : Vial 105
Injection Date  : 6/30/2011 10:03:51 PM              Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

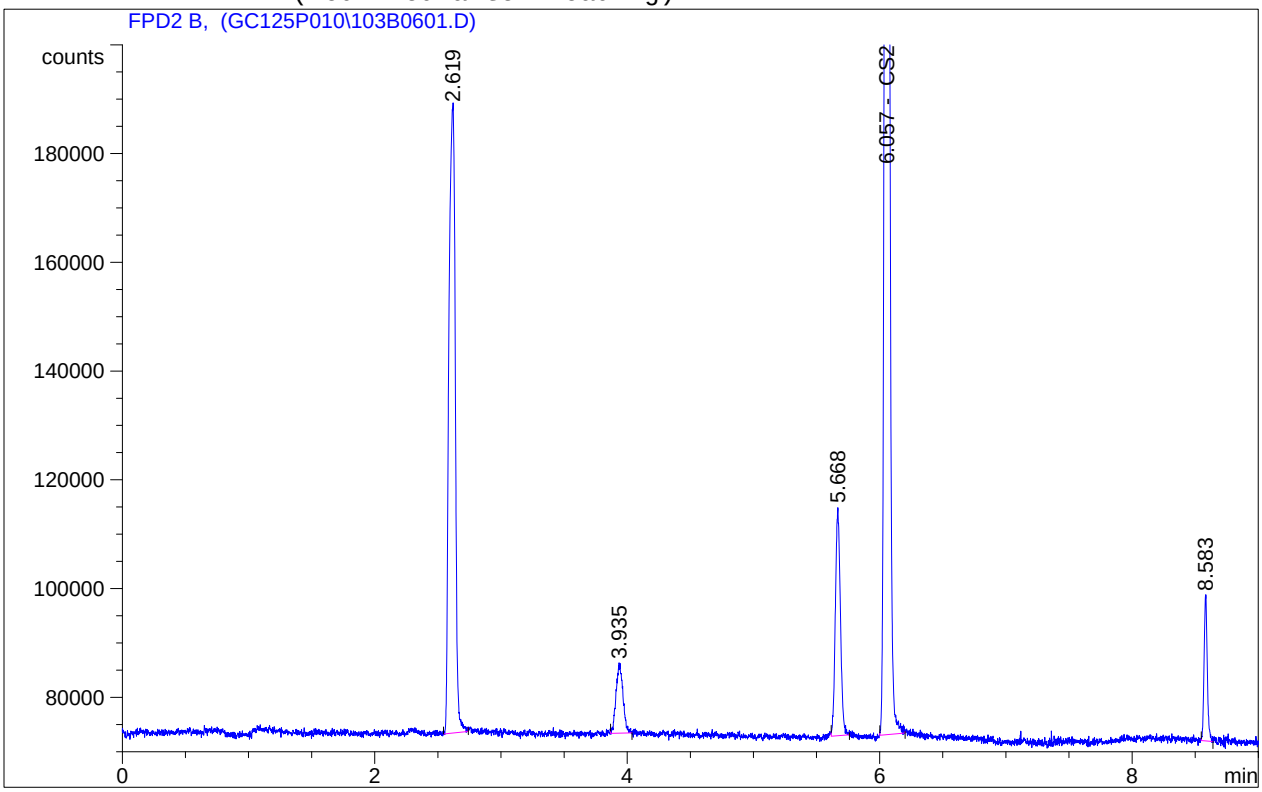
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.057 BB     4.51383e6  6.54519e-7    2.95438    CS2

Totals :                                2.95438


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\103B0601.D
Sample Name: gc125p009 #3

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   6
Acq. Instrument : Zeppo online                  Location : Vial 103
Injection Date  : 6/30/2011 10:22:31 PM              Inj :   1
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

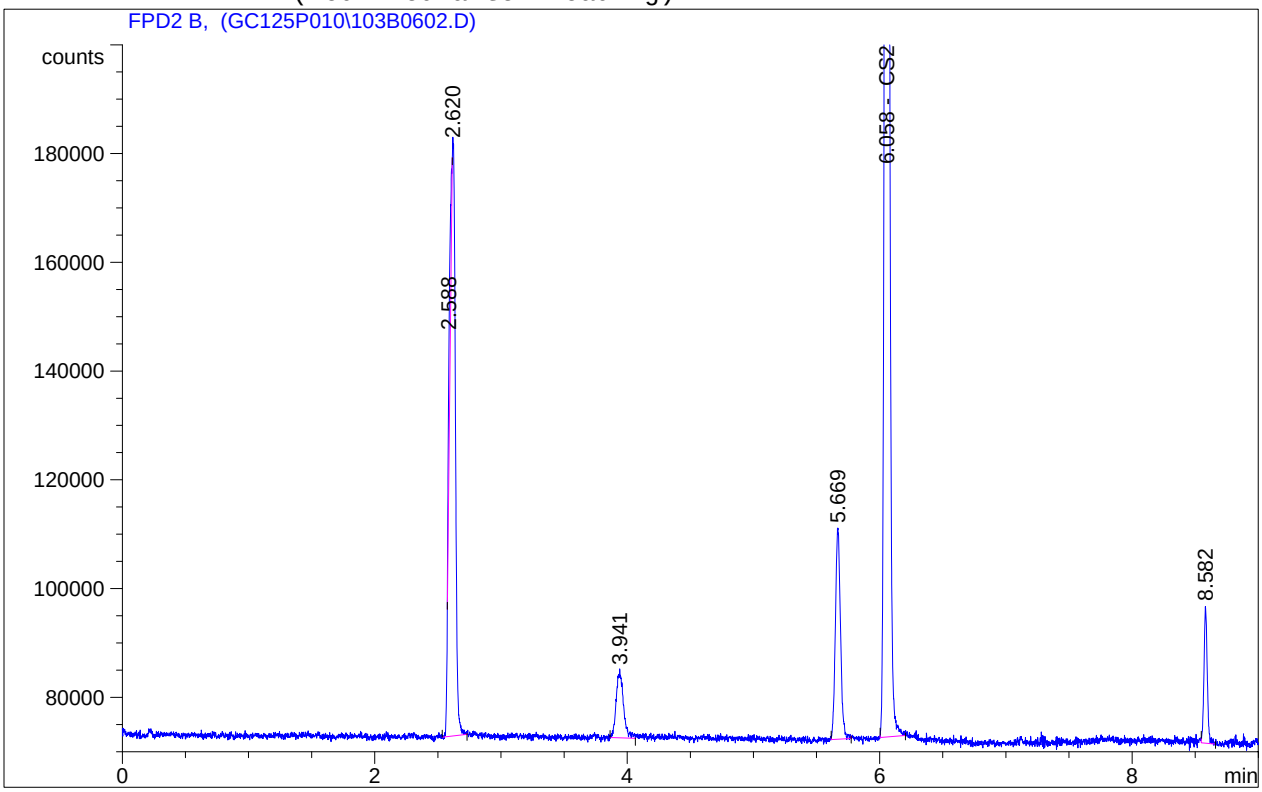
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.057 BB     9.51870e5  1.12887e-6    1.07454    CS2

Totals :                                 1.07454


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\103B0602.D
Sample Name: gc125p009 #3

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   6
Acq. Instrument : Zeppo online                  Location : Vial 103
Injection Date  : 6/30/2011 10:41:11 PM              Inj :   2
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

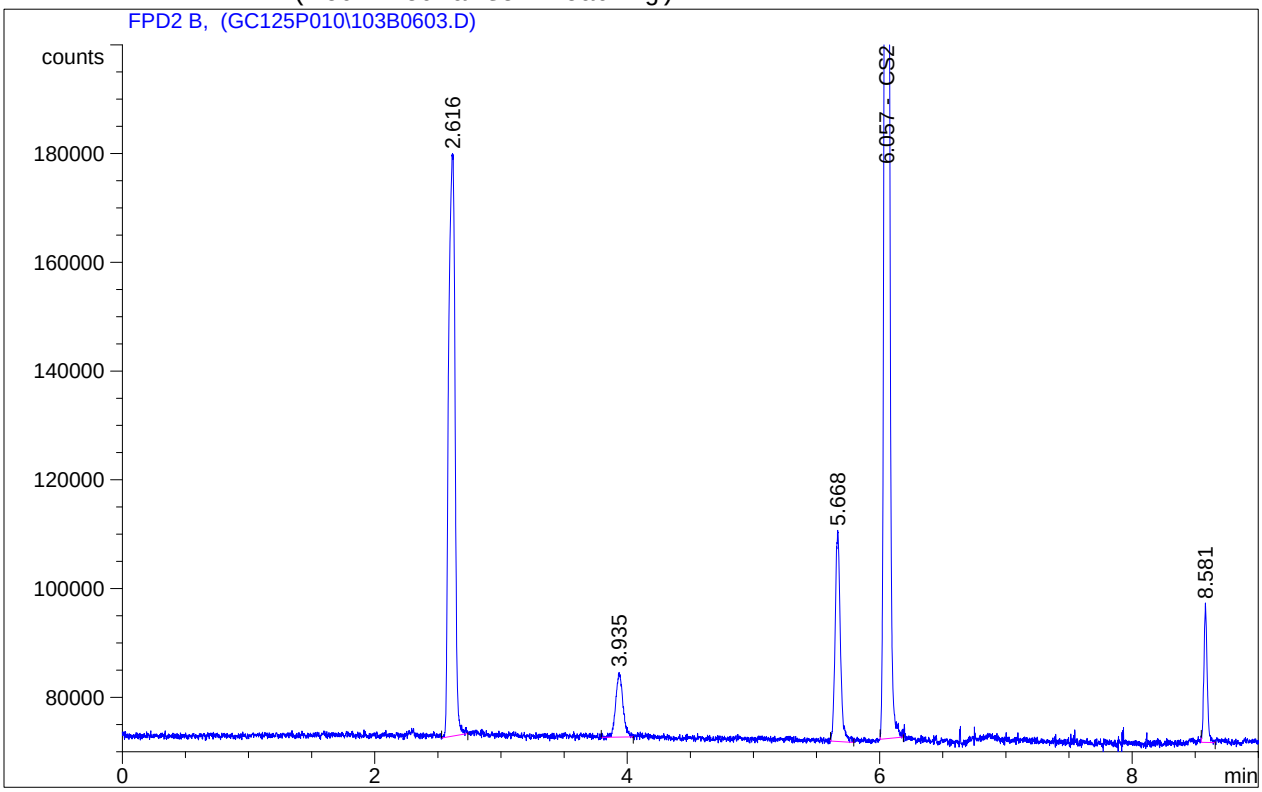
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.058 BB     9.07645e5  1.14784e-6    1.04183    CS2

Totals :                                 1.04183


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\103B0603.D
Sample Name: gc125p009 #3

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   6
Acq. Instrument : Zeppo online                  Location : Vial 103
Injection Date  : 6/30/2011 10:59:51 PM              Inj :   3
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P009B_0611-22.M
Last changed    : 7/12/2011 3:39:07 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:31:54 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.057 BB     8.68096e5  1.16588e-6    1.01210    CS2

Totals :                                 1.01210


==========================================================================
                         *** End of Report ***
```

Calibration Table

Calib. Data Modified : Tuesday, July 12, 2011 3:53:31 PM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Power
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

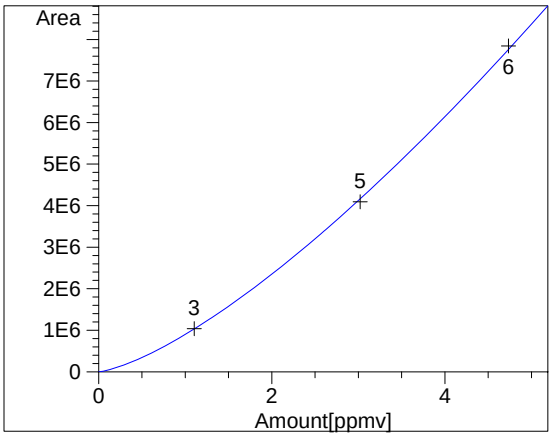
Signal 1: FID1 A,
Signal 2: FPD2 B,

RetTime [min]	Sig	Lvl	Amount [ppmv]	Area	Amt/Area	Ref	Grp	Name
6.057	2	3	1.10430	1.03638e6	1.06554e-6			CS2
		5	3.02000	4.09377e6	7.37706e-7			
		6	4.73380	7.84599e6	6.03340e-7			

Peak Sum Table

No Entries in table

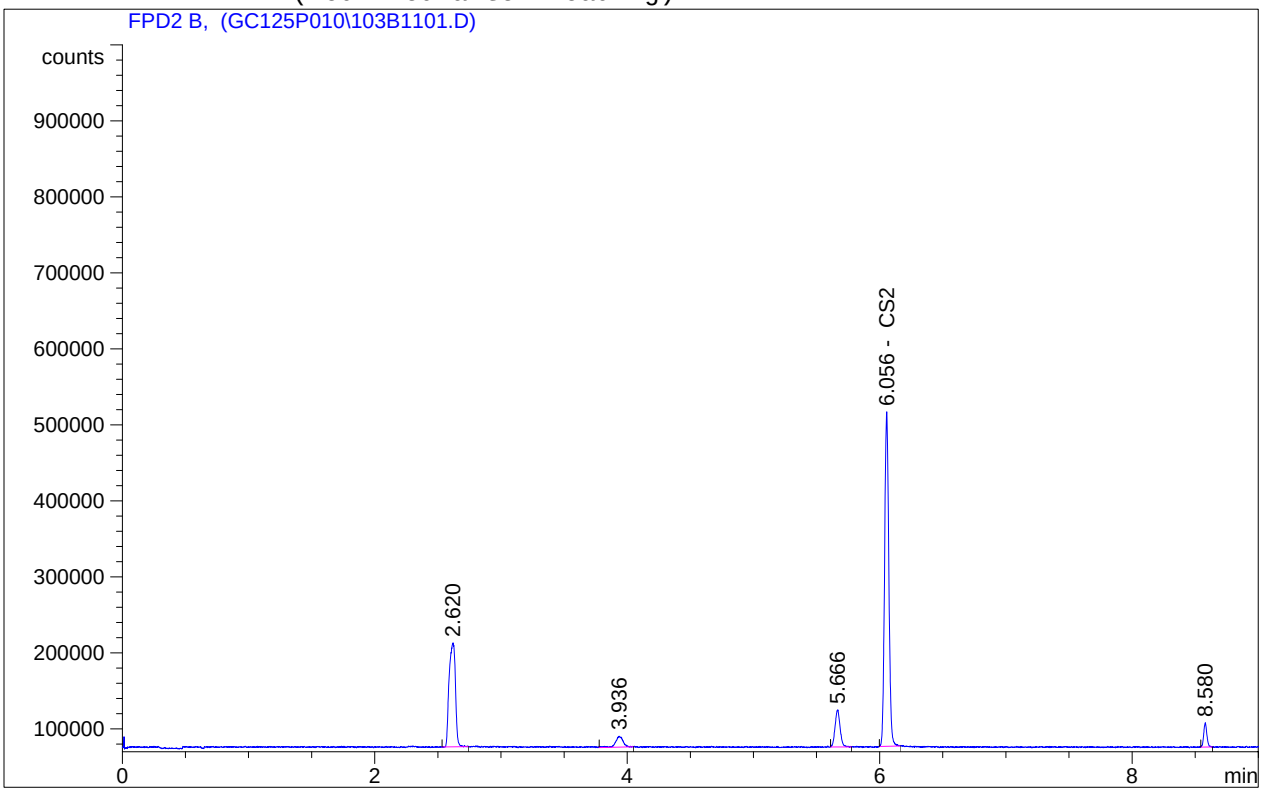
Calibration Curves



CS2 at exp. RT: 6.057
FPD2 B,
Correlation: 0.99983
Residual Std. Dev.: 109892.04101
Formula: y = b * x^m
m: 1.38651
b: 898687.52792
x: Amount
y: Area

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\103B1101.D
Sample Name: gc125p009 #3

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :  11
Acq. Instrument : Zeppo online                  Location : Vial 103
Injection Date  : 7/1/2011 11:57:42 AM               Inj :   1
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:09:35 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

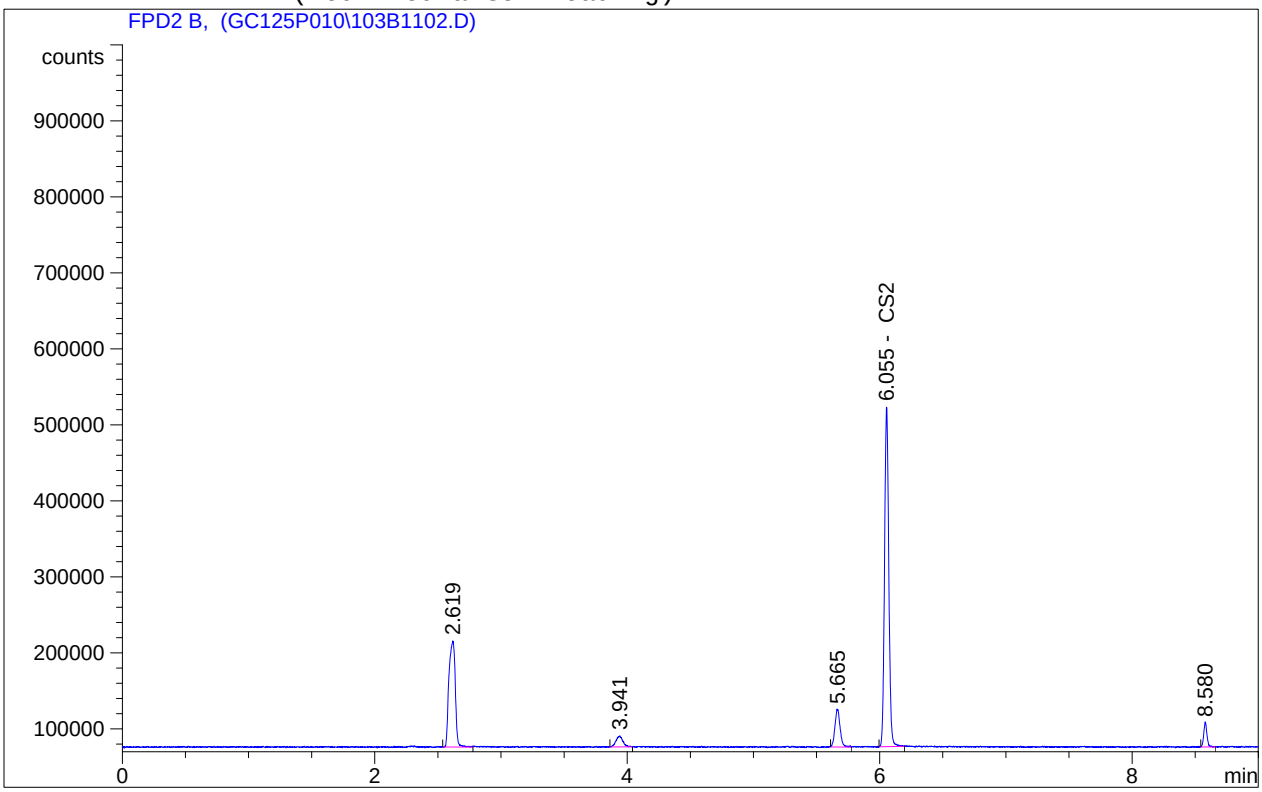
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.056 BB     1.02969e6  1.07132e-6    1.10312    CS2

Totals :                                 1.10312


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\103B1102.D
Sample Name: gc125p009 #3

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :  11
Acq. Instrument : Zeppo online                  Location : Vial 103
Injection Date  : 7/1/2011 12:16:27 PM               Inj :   2
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:09:35 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

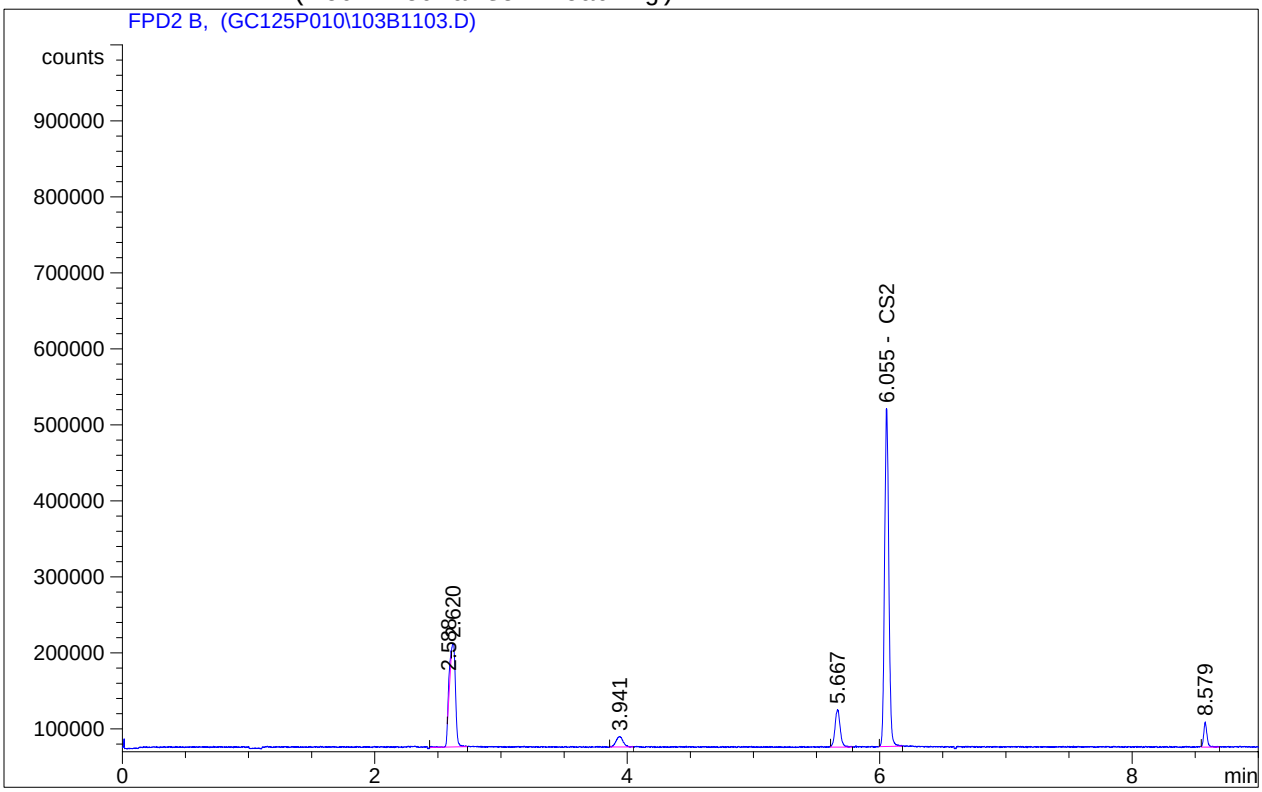
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.055 BB     1.04318e6  1.06743e-6    1.11353    CS2

Totals :                                 1.11353


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\103B1103.D
Sample Name: gc125p009 #3

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :  11
Acq. Instrument : Zeppo online                  Location : Vial 103
Injection Date  : 7/1/2011 12:35:12 PM               Inj :   3
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:09:35 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

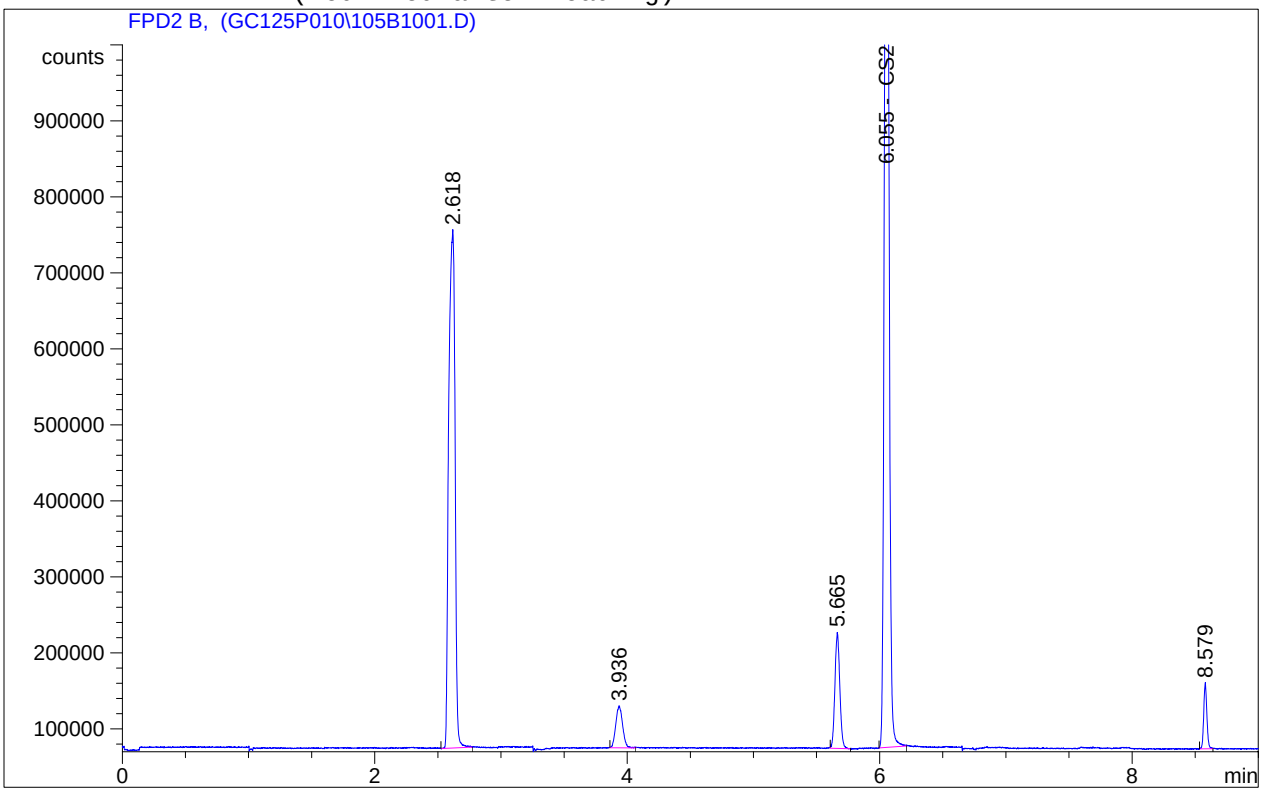
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.055 BB     1.03626e6  1.06942e-6    1.10819    CS2

Totals :                                 1.10819


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\105B1001.D
Sample Name: gc125p009 #5

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :  10
Acq. Instrument : Zeppo online                  Location : Vial 105
Injection Date  : 7/1/2011 11:01:24 AM               Inj :   1
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:09:35 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

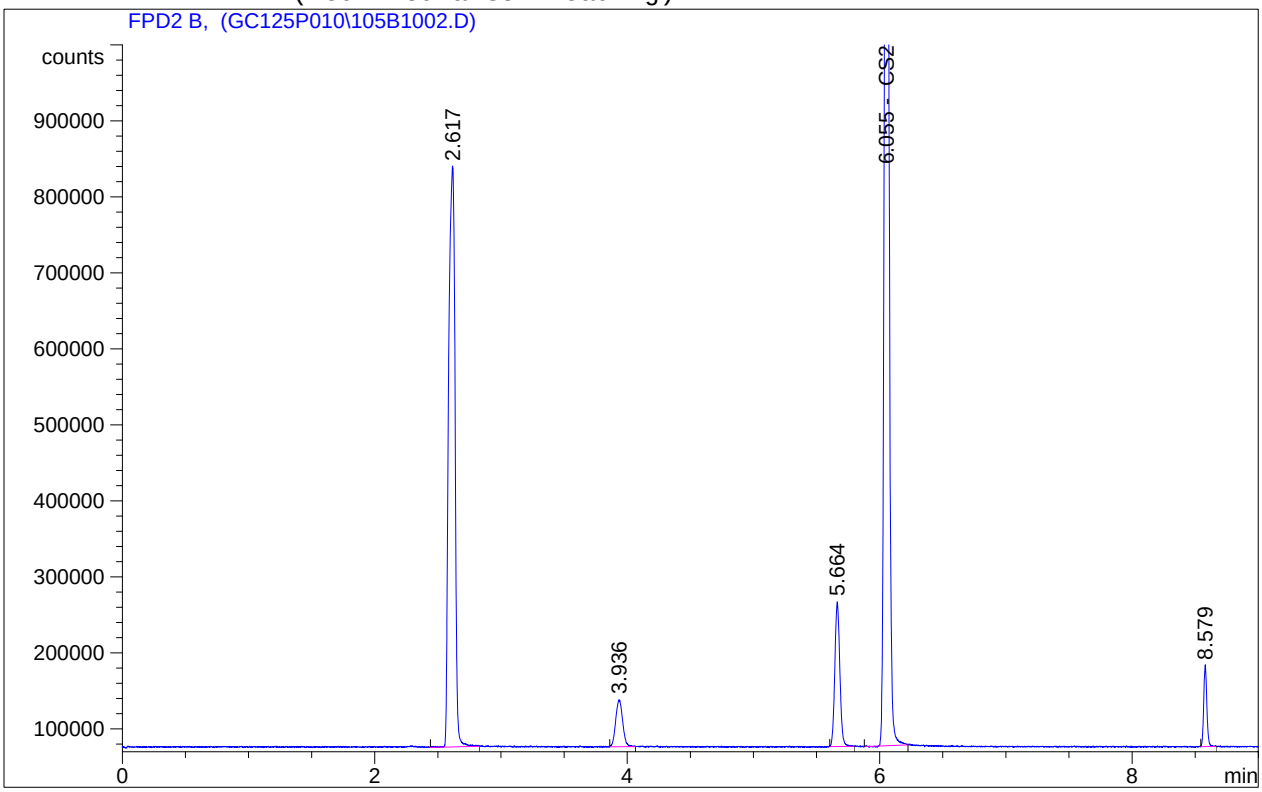
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.055 BB     3.74645e6  7.47401e-7    2.80010    CS2

Totals :                                2.80010


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\105B1002.D
Sample Name: gc125p009 #5

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :  10
Acq. Instrument : Zeppo online                  Location : Vial 105
Injection Date  : 7/1/2011 11:20:09 AM               Inj :   2
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:09:35 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

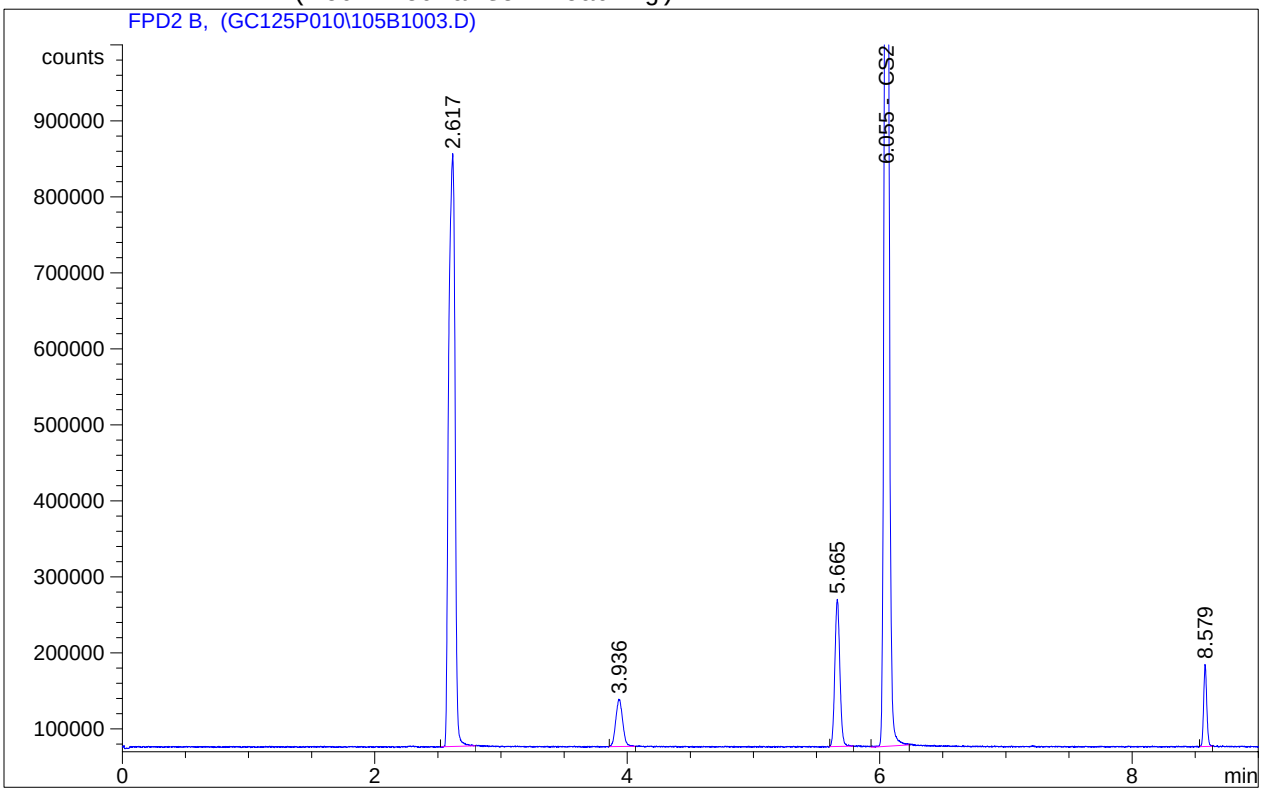
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  6.055 BB     4.26091e6  7.21067e-7    3.07240    CS2

Totals :                                3.07240


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\105B1003.D
Sample Name: gc125p009 #5

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :  10
Acq. Instrument : Zeppo online                  Location : Vial 105
Injection Date  : 7/1/2011 11:38:58 AM               Inj :   3
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:09:35 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.055 BB     4.27397e6  7.20452e-7    3.07919    CS2

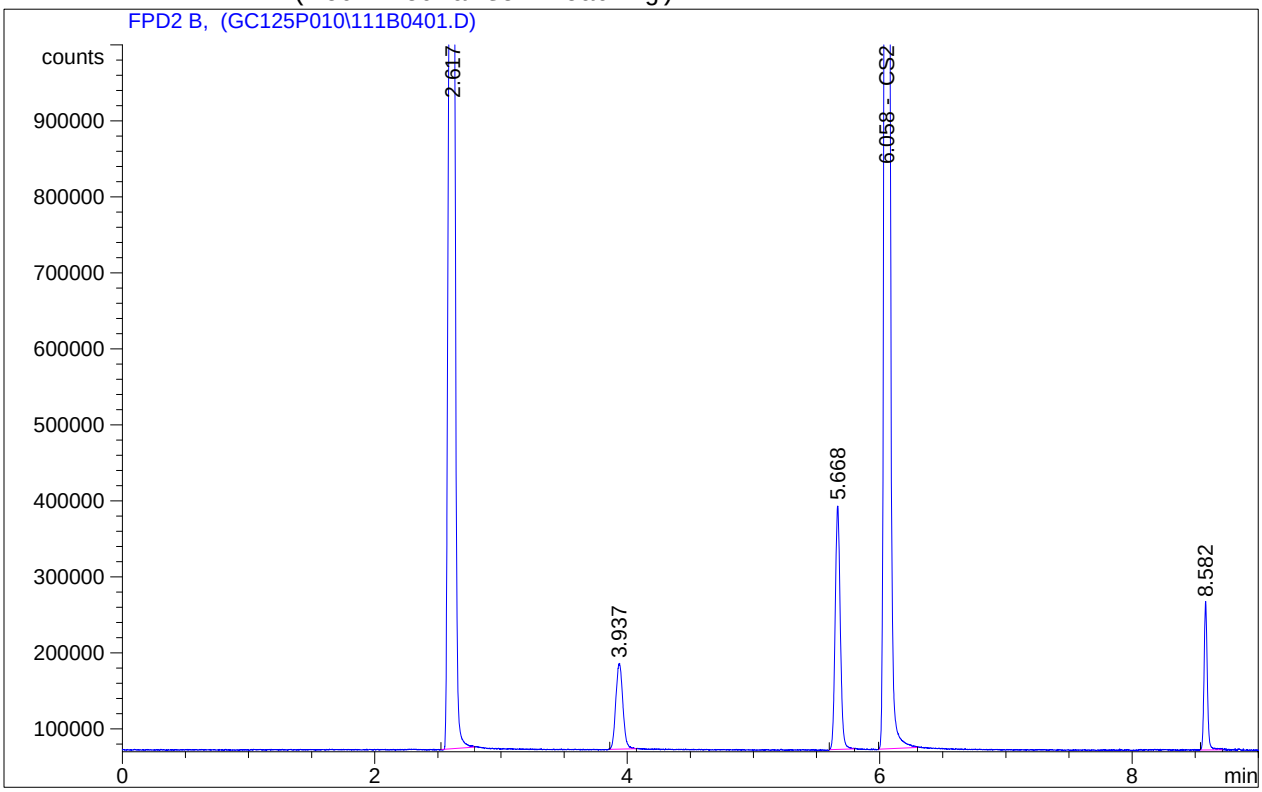
Totals :                                3.07919


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\111B0401.D
Sample Name: gc125p009 #6

==========

Acq. Operator : kmt Seq. Line : 4
Acq. Instrument : Zeppo online Location : Vial 111
Injection Date : 6/30/2011 8:30:55 PM Inj : 1
Inj Volume : External
Acq. Method : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed : 7/12/2011 4:09:35 PM by KAM
(modified after loading)



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Tuesday, July 12, 2011 3:53:31 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [ppmv]	Grp	Name
6.058	BB	8.00830e6	6.04760e-7	4.84310		CS2

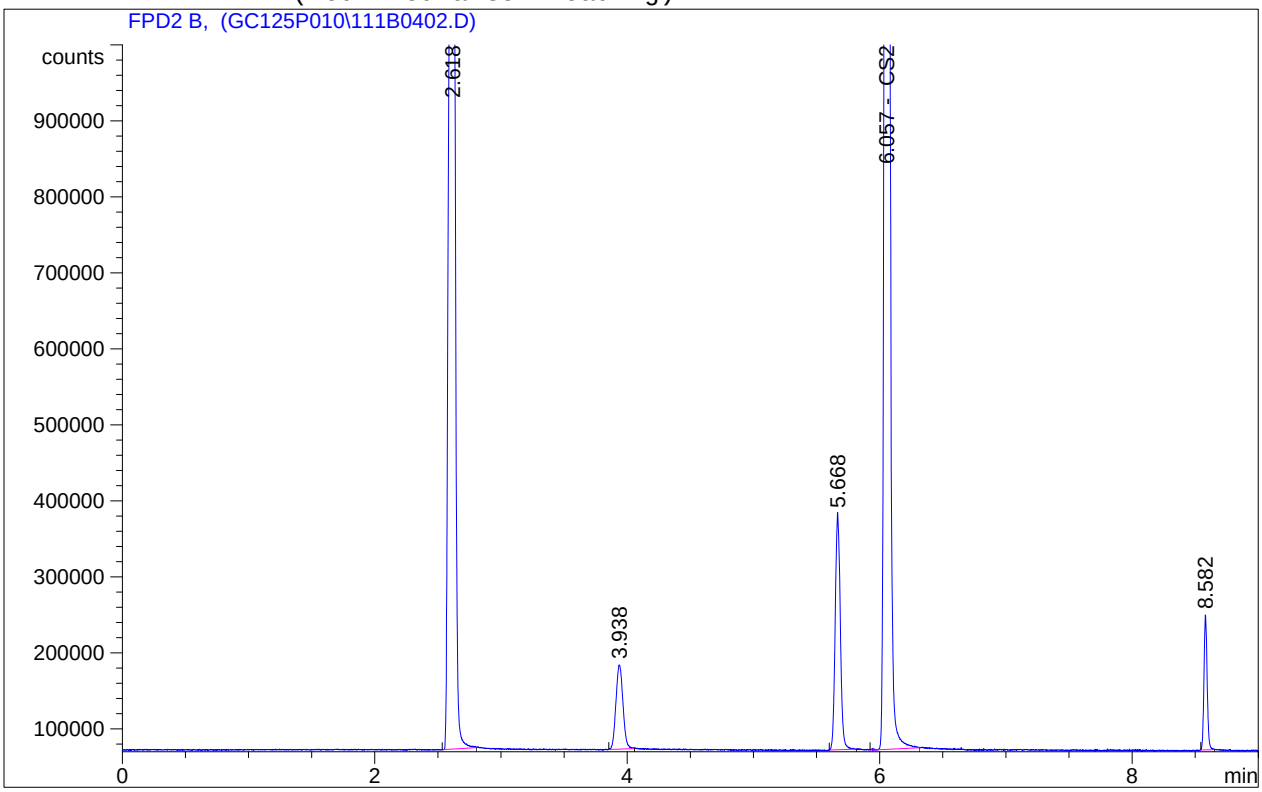
Totals : 4.84310

==========

*** End of Report ***

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\111B0402.D
Sample Name: gc125p009 #6

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   4
Acq. Instrument : Zeppo online                  Location : Vial 111
Injection Date  : 6/30/2011 8:49:40 PM               Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:09:35 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

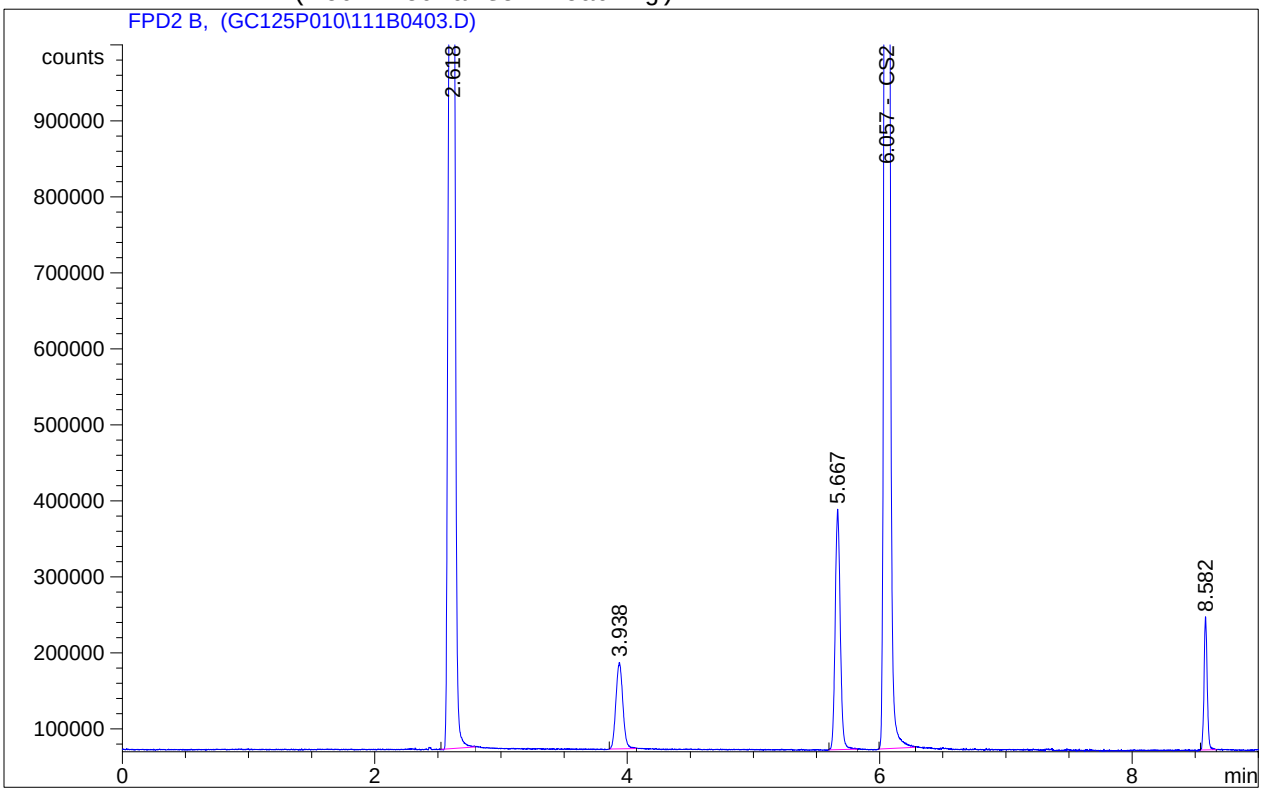
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.057 BB     7.79831e6  6.09256e-7    4.75117    CS2

Totals :                                 4.75117


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P010\111B0403.D
Sample Name: gc125p009 #6

```
==========================================================================
Acq. Operator   : kmt                          Seq. Line :   4
Acq. Instrument : Zeppo online                  Location : Vial 111
Injection Date  : 6/30/2011 9:07:50 PM               Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Last changed    : 6/27/2011 10:44:03 AM by kam
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:09:35 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

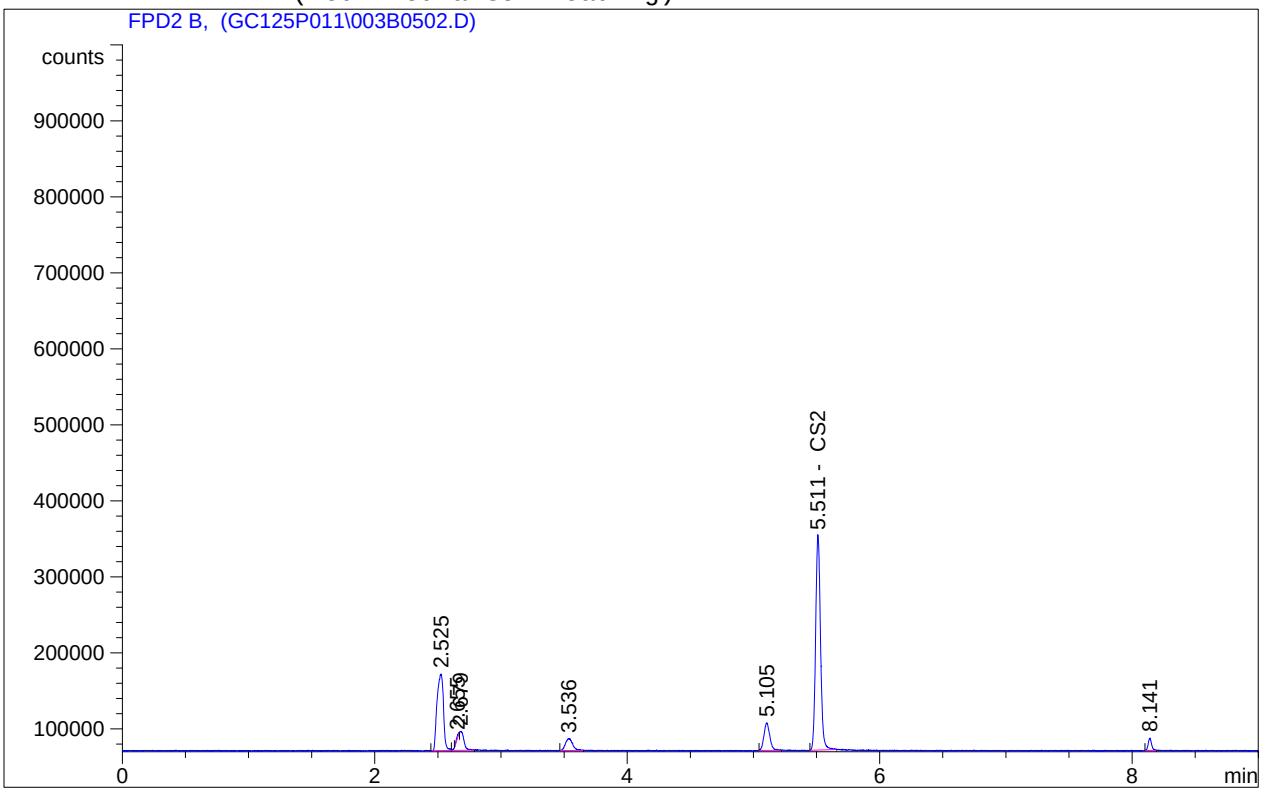
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  6.057 BB     7.73134e6  6.10723e-7    4.72171    CS2

Totals :                                 4.72171


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P011\003B0502.D
Sample Name: GC125p011 Std #3

```
==========================================================================
Acq. Operator   : sje                          Seq. Line :   5
Acq. Instrument : Zeppo online                  Location : Vial 3
Injection Date  : 7/2/2011 12:24:27 PM               Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST2.M
Last changed    : 7/1/2011 10:02:45 PM by sje
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:21:55 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

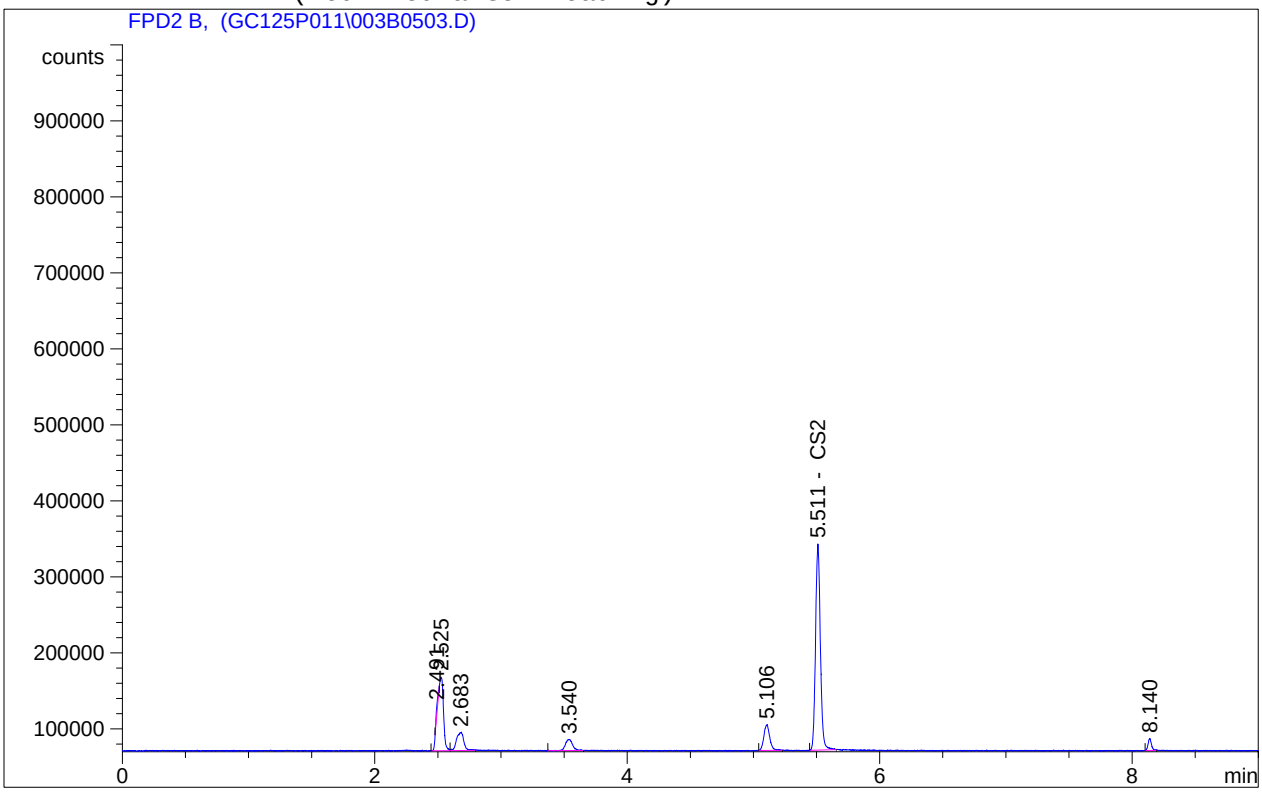
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  5.511 BB     7.57711e5  1.16694e-6 8.84205e-1    CS2

Totals :                              8.84205e-1


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P011\003B0503.D
Sample Name: GC125p011 Std #3

```
================================================================================
Acq. Operator   : sje                          Seq. Line :   5
Acq. Instrument : Zeppo online                  Location : Vial 3
Injection Date  : 7/2/2011 12:39:52 PM               Inj :   3
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST2.M
Last changed    : 7/1/2011 10:02:45 PM by sje
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:21:55 PM by KAM
                  (modified after loading)
```




```
================================================================================
                        External Standard Report
================================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

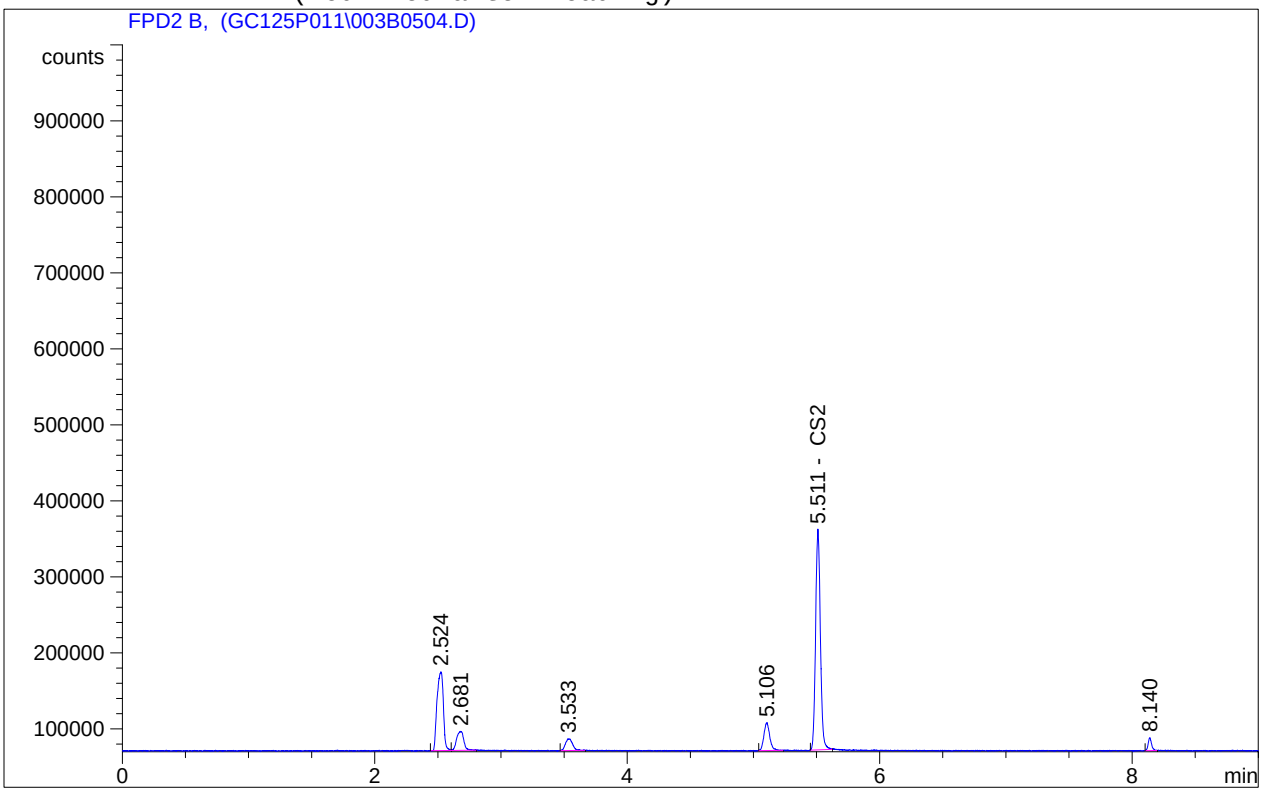
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|------------------
  5.511 BB     7.21532e5  1.18297e-6 8.53548e-1    CS2

Totals :                              8.53548e-1


================================================================================
                           *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P011\003B0504.D
Sample Name: GC125p011 Std #3

```
==========================================================================
Acq. Operator   : sje                          Seq. Line :   5
Acq. Instrument : Zeppo online                  Location : Vial 3
Injection Date  : 7/2/2011 12:55:21 PM               Inj :   4
                                               Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST2.M
Last changed    : 7/1/2011 10:02:45 PM by sje
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:21:55 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

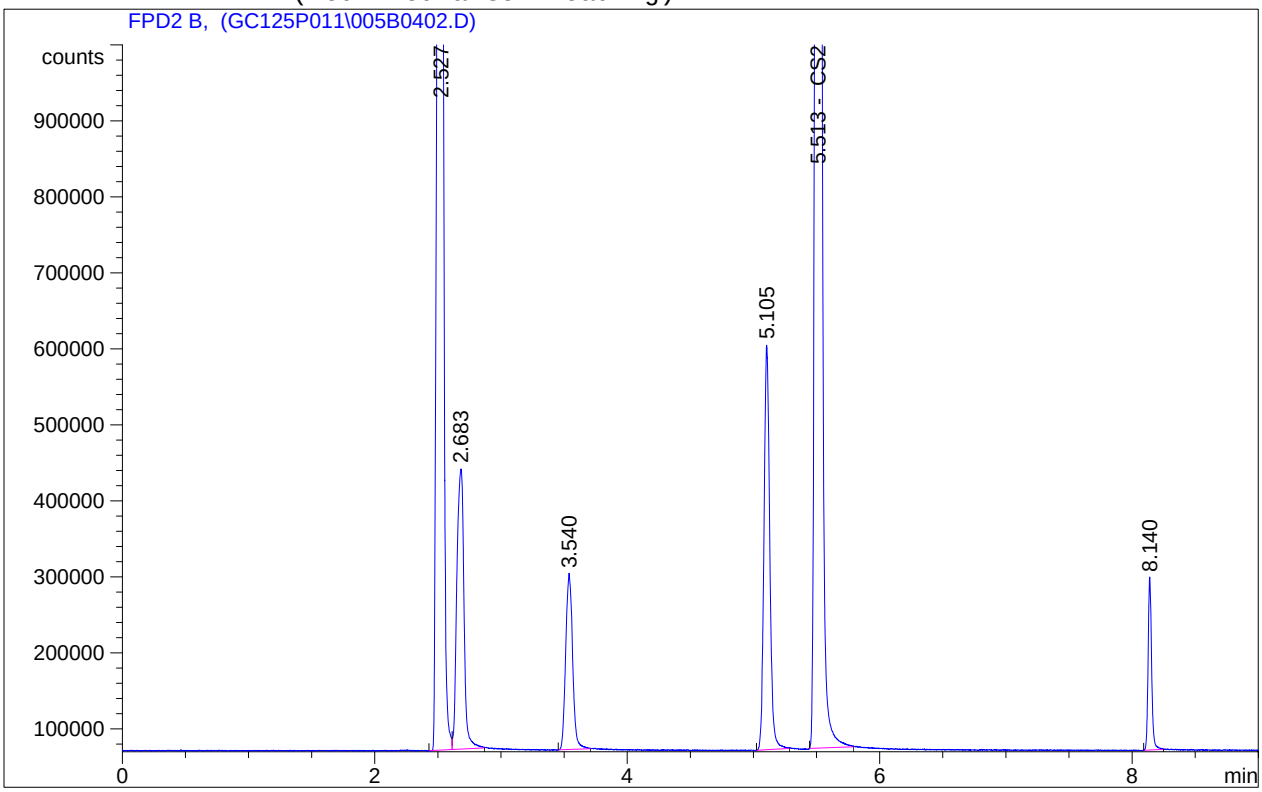
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  5.511 BB     7.66829e5  1.16306e-6 8.91866e-1    CS2

Totals :                              8.91866e-1


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P011\005B0402.D
Sample Name: GC125p011 Std #5

```
==========================================================================
Acq. Operator   : sje                          Seq. Line :   4
Acq. Instrument : Zeppo online                  Location : Vial 5
Injection Date  : 7/2/2011 11:22:42 AM               Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST2.M
Last changed    : 7/1/2011 10:02:45 PM by sje
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:21:55 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

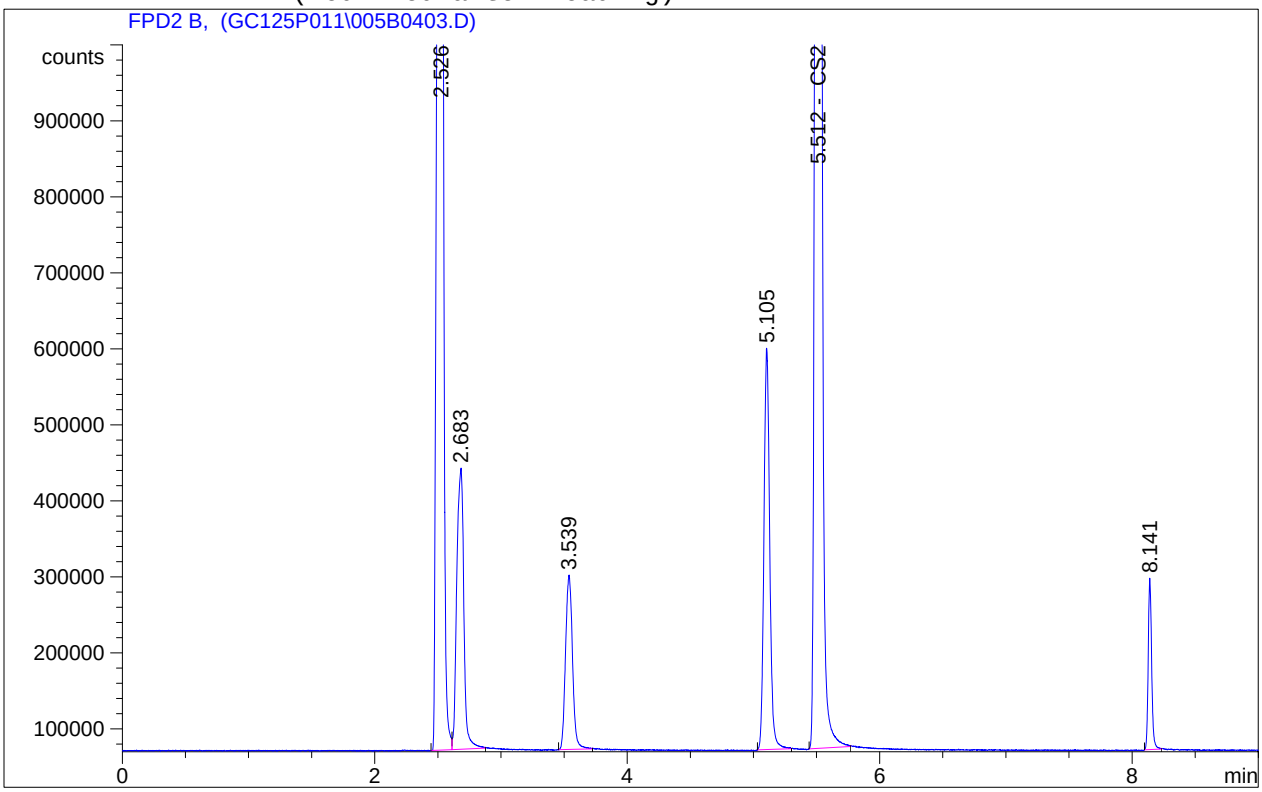
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  5.513 BB     1.19967e7  5.40324e-7    6.48208    CS2

Totals :                                 6.48208


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P011\005B0403.D
Sample Name: GC125p011 Std #5

```
==========================================================================
Acq. Operator   : sje                          Seq. Line :   4
Acq. Instrument : Zeppo online                  Location : Vial 5
Injection Date  : 7/2/2011 11:38:12 AM               Inj :   3
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST2.M
Last changed    : 7/1/2011 10:02:45 PM by sje
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:21:55 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

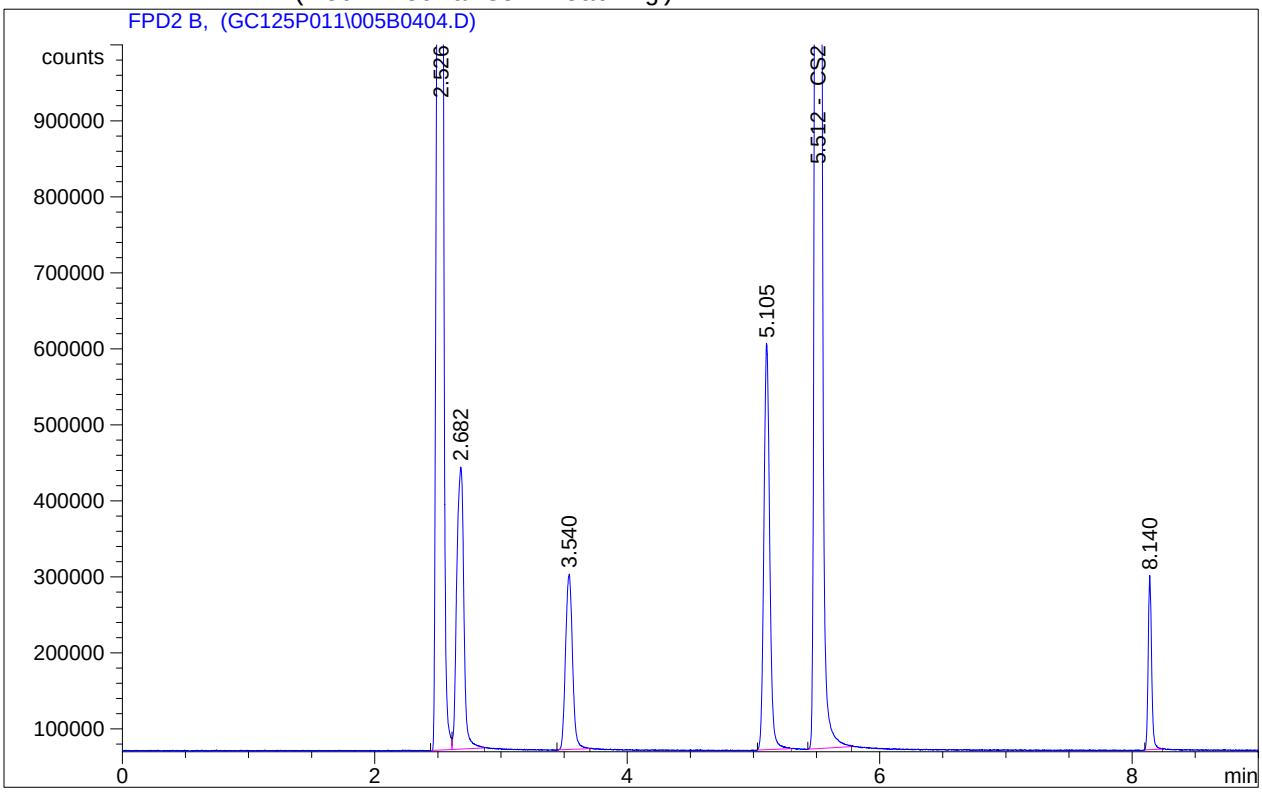
RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  5.512 BB     1.19041e7  5.41492e-7    6.44596    CS2

Totals :                                 6.44596


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P011\005B0404.D
Sample Name: GC125p011 Std #5

```
==========================================================================
Acq. Operator   : sje                          Seq. Line :   4
Acq. Instrument : Zeppo online                  Location : Vial 5
Injection Date  : 7/2/2011 11:53:36 AM               Inj :   4
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST2.M
Last changed    : 7/1/2011 10:02:45 PM by sje
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:21:55 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  5.512 BB     1.20303e7  5.39902e-7    6.49518    CS2

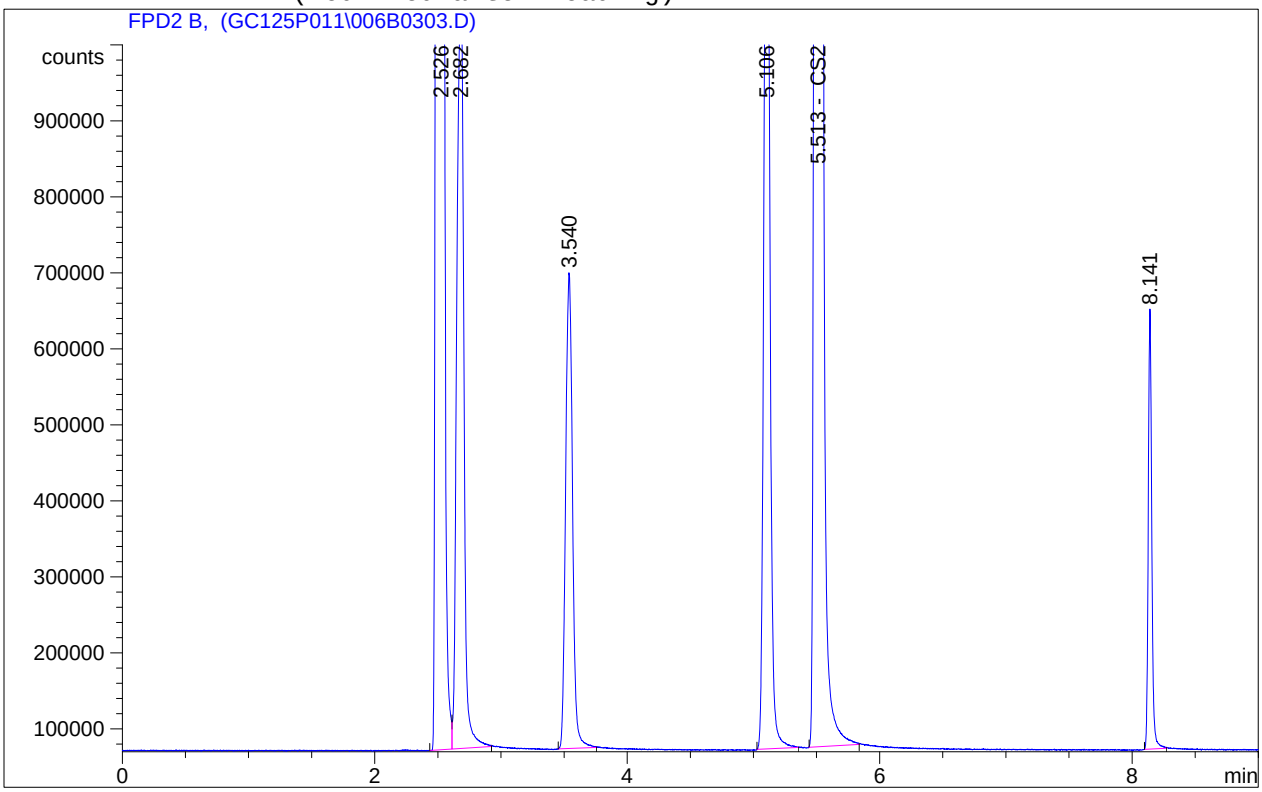
Totals :                                 6.49518


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P011\006B0303.D
Sample Name: GC125p011 Std #6

==========

Acq. Operator : sje Seq. Line : 3
Acq. Instrument : Zeppo online Location : Vial 6
Injection Date : 7/2/2011 10:36:27 AM Inj : 3
Inj Volume : External
Acq. Method : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST2.M
Last changed : 7/1/2011 10:02:45 PM by sje
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed : 7/12/2011 4:21:55 PM by KAM
(modified after loading)



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Tuesday, July 12, 2011 3:53:31 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [ppmv]	Grp	Name
5.513	BB	3.06417e7	4.16031e-7	12.74790		CS2

Totals : 12.74790

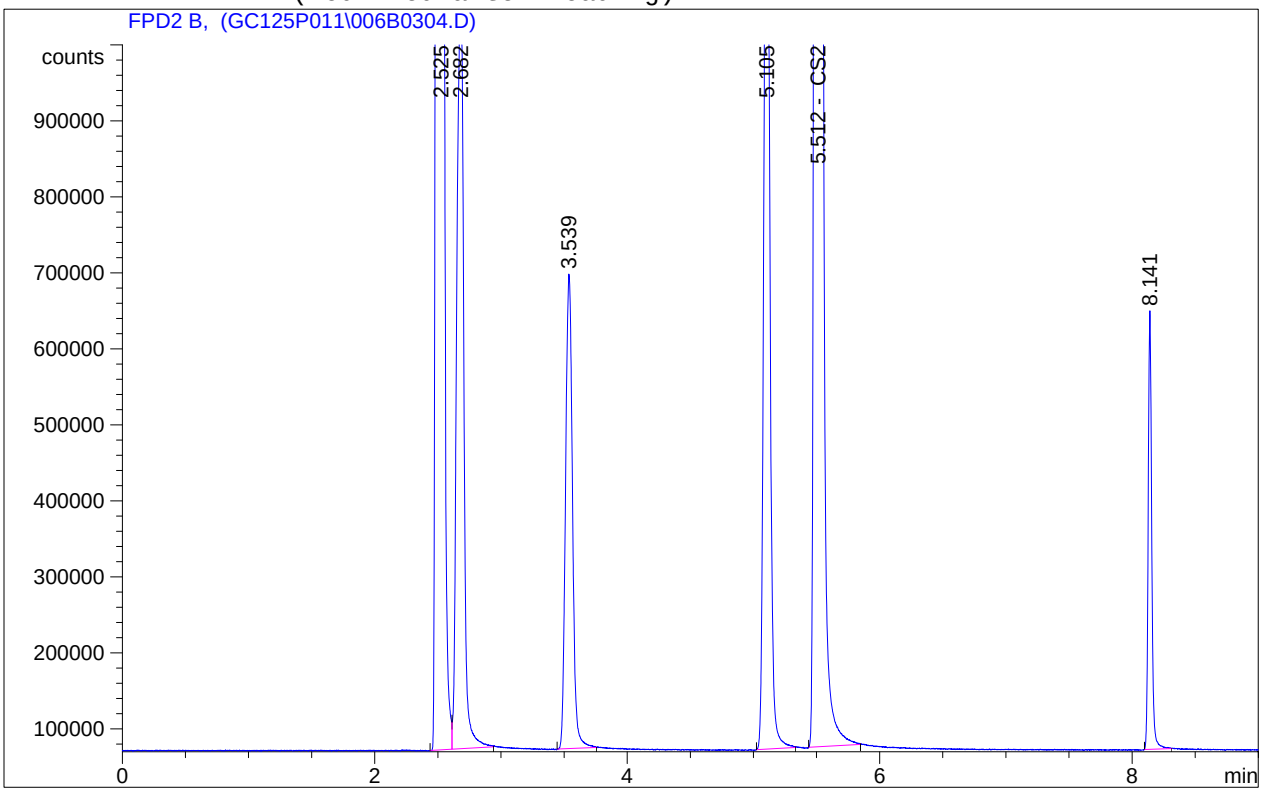
==========

*** End of Report ***

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P011\006B0304.D
Sample Name: GC125p011 Std #6

==========

Acq. Operator : sje Seq. Line : 3
Acq. Instrument : Zeppo online Location : Vial 6
Injection Date : 7/2/2011 10:51:52 AM Inj : 4
Inj Volume : External
Acq. Method : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST2.M
Last changed : 7/1/2011 10:02:45 PM by sje
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed : 7/12/2011 4:21:55 PM by KAM
(modified after loading)



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Tuesday, July 12, 2011 3:53:31 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [ppmv]	Grp	Name
5.512	BB	3.06297e7	4.16077e-7	12.74432		CS2

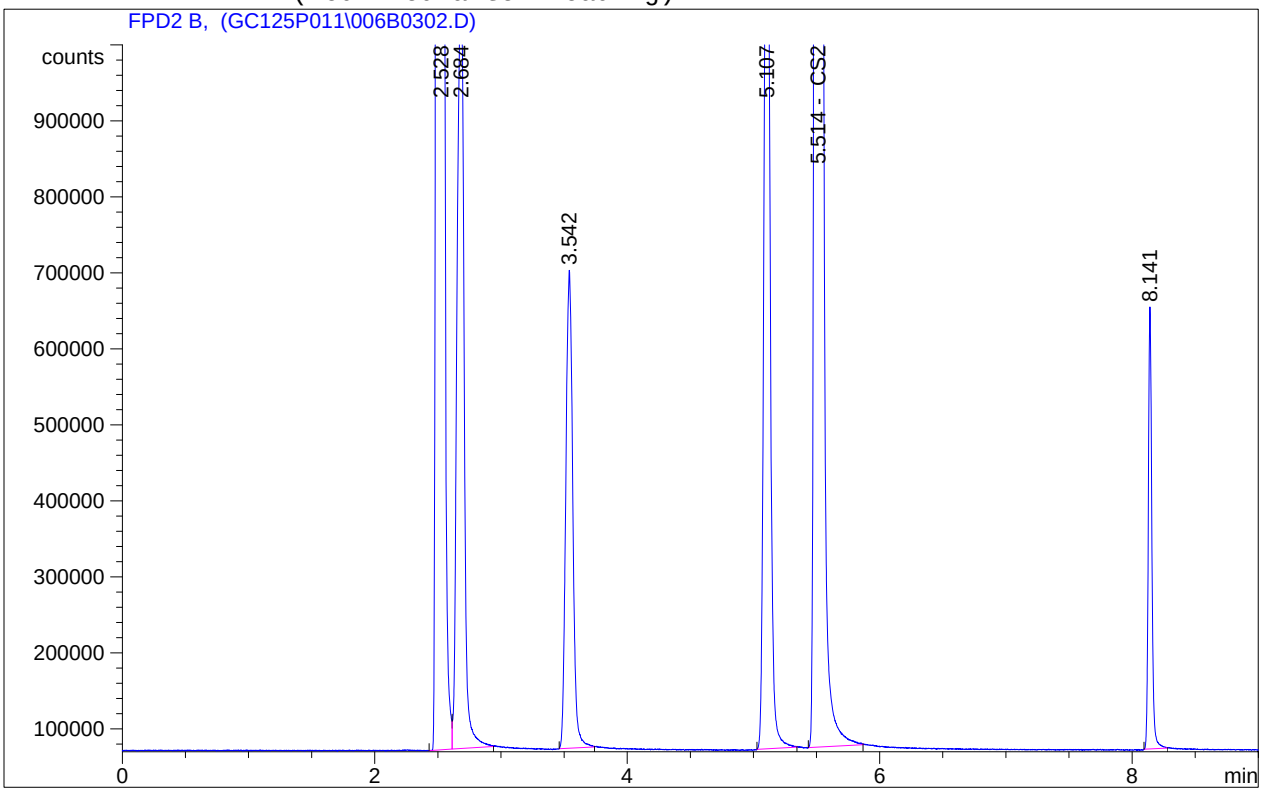
Totals : 12.74432

==========

*** End of Report ***

Data File I:\GC2011Q2\ZEPPO\DATA\JUN11\GC125P011\006B0302.D
Sample Name: GC125p011 Std #6

```
==========================================================================
Acq. Operator   : sje                          Seq. Line :   3
Acq. Instrument : Zeppo online                  Location : Vial 6
Injection Date  : 7/2/2011 10:21:02 AM               Inj :   2
                                              Inj Volume : External
Acq. Method     : G:\GC2011Q2\ZEPPO\METHODS\FPDTEST2.M
Last changed    : 7/1/2011 10:02:45 PM by sje
Analysis Method : I:\GC2011Q2\ZEPPO\METHODS\GC125P010_0611-22.M
Last changed    : 7/12/2011 4:21:55 PM by KAM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, July 12, 2011 3:53:31 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                 [ppmv]
-------|------|----------|----------|----------|--|-----------------
  5.514 BB     3.09058e7  4.15037e-7   12.82706    CS2

Totals :                               12.82706


==========================================================================
                         *** End of Report ***
```

method: G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Modified on: 6/27/2011 at 10:44:03 AM

OVEN\DET

Runtime (min): 9.2

Zone Temperatures:

	State	Setpoint
Inl. A	ON	175 C.
Inl. B	ON	175 C.
Det. A	ON	250 C.
Det. B	ON	250 C.
Aux.	OFF	120 C.

Oven Zone:

Oven max	260 C.
Equib Time	0.30 Min.
Oven State	ON
Cryo State	OFF
Ambient	25 C.
Cryo Blast	OFF

Oven Program:

	Setpoint
Initial Temp.:	40 C.
Initial Time:	4.00 Min.

Level	Rate (C/min.)	Final Temp.(C)	Final Time (min)
1	30.0	180	0.50

InletA Pressure Program Information

Constant Flow:	On
Pressure:	5.7 psi
Temperature:	50 C

Pressure Program:

	Setpoint
Initial Pres.:	0.0 psi
Initial Time:	650.00 min.

Level	Rate (psi/min.)	Final Pres.(psi)	Final Time (min)
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00

Total Program Time: 650.00

GC Pressure Units:psi

Entered Values:

Column Length:	30.00	m.
Column Diameter:	0.320	mm.
Gas:	H2	
Vacuum Comp:	Off	

InletB Pressure Program Information

Constant Flow:	On
Pressure:	4.0 psi

method: G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Modified on: 6/27/2011 at 10:44:03 AM
Temperature: 40 C.
Pressure Program:

	Setpoint		
Initial Pres.:	0.0 psi		
Initial Time:	650.00 min.		

Level	Rate (psi/min.)	Final Pres.(psi)	Final Time (min)
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00

Total Program Time: 650.00

GC Pressure Units:psi

Entered Values:

Column Length:	60.00	m.
Column Diameter:	0.530	mm.
Gas:	H2	
Vacuum Comp:	Off	

Inlet A Packed Column Information

Equation:---

Pressure-Flow Relationship:

	Pres.	Flow(psi) (ml/min)
1	---	0.0
2	---	0.0
3	---	0.0

Last pressure calibration:---

Packed Column Flow Setting (ml/min):0.0

Inlet B Packed Column Information

Equation:---

Pressure-Flow Relationship:

	Pres.	Flow(psi) (ml/min)
1	---	0.0
2	---	0.0
3	---	0.0

Last pressure calibration:---

Packed Column Flow Setting (ml/min):0.0

Purge Valve Settings

Purge A/B

	Init Value	On Time (Min.)	Off Time (Min.)
A (Valve 3)	On	0.00	0.00
B (Valve 4)	On	0.00	0.00

A - Splitless Injection: No
B - Splitless Injection: No

Valves/Relays Information

Initial Setpoints:
5890 Valves:

Valve 1:	Off
Valve 2:	Off
Valve 3 (Purge A):	On

method: G:\GC2011Q2\ZEPPO\METHODS\FPDTEST1.M
Modified on: 6/27/2011 at 10:44:03 AM
Valve 4 (Purge B): On

Valve/Relay Time Table:

Time	Name	State	Comment
0.01	Valve1	On	
0.10	Valve1	Off	
1.00	Valve2	On	
1.10	Valve2	Off	

Detector Information

Detector A:
Type FID
State ON

Detector B:
Type FPD
State ON

Signal Information

Save Data: Both

Signal 1:
Signal Det. A
Data rate 20.000 Hz.
Peakwidth 0.013 min.
Start Time 0.00 min.
Stop Time 650.00 min.

Signal 2:
Signal Det. B
Data rate 20.000 Hz.
Peakwidth 0.013 min.
Start Time 0.00 min.
Stop Time 650.00 min.

method: G:\GC2011Q3\ZEPPO\METHODS\FPDTEST2.M
Modified on: 7/8/2011 at 9:09:17 AM

OVEN\DET

Runtime (min): 11.3

Zone Temperatures:

	State	Setpoint
Inl. A	ON	175 C.
Inl. B	ON	175 C.
Det. A	ON	250 C.
Det. B	ON	250 C.
Aux.	OFF	120 C.

Oven Zone:

Oven max	260 C.
Equib Time	0.30 Min.
Oven State	ON
Cryo State	OFF
Ambient	25 C.
Cryo Blast	OFF

Oven Program:

	Setpoint
Initial Temp.:	50 C.
Initial Time:	4.00 Min.

Level	Rate (C/min.)	Final Temp.(C)	Final Time (min)
1	30.0	180	3.00

InletA Pressure Program Information

Constant Flow:	On
Pressure:	0.0 psi
Temperature:	50 C

Pressure Program:

	Setpoint
Initial Pres.:	0.0 psi
Initial Time:	650.00 min.

Level	Rate (psi/min.)	Final Pres.(psi)	Final Time (min)
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00

Total Program Time: 650.00

GC Pressure Units:psi

Entered Values:

Column Length:	30.00	m.
Column Diameter:	0.320	mm.
Gas:	H2	
Vacuum Comp:	Off	

InletB Pressure Program Information

Constant Flow:	On
Pressure:	4.0 psi

method: G:\GC2011Q3\ZEPPO\METHODS\FPDTEST2.M
Modified on: 7/8/2011 at 9:09:17 AM
Temperature: 40 C.
Pressure Program:

	Setpoint	Final Pres.(psi)	Final Time (min)
Initial Pres.:	0.0 psi		
Initial Time:	650.00 min.		
Level / Rate (psi/min.)			
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00
Total Program Time:	650.00		

GC Pressure Units:psi

Entered Values:

Column Length:	60.00	m.
Column Diameter:	0.530	mm.
Gas:	H2	
Vacuum Comp:	Off	

Inlet A Packed Column Information

Equation:---

Pressure-Flow Relationship:

	Pres.	Flow(psi) (ml/min)
1	---	0.0
2	---	0.0
3	---	0.0

Last pressure calibration:---

Packed Column Flow Setting (ml/min):0.0

Inlet B Packed Column Information

Equation:---

Pressure-Flow Relationship:

	Pres.	Flow(psi) (ml/min)
1	---	0.0
2	---	0.0
3	---	0.0

Last pressure calibration:---

Packed Column Flow Setting (ml/min):0.0

Purge Valve Settings

Purge A/B

	Init Value	On Time (Min.)	Off Time (Min.)
A (Valve 3)	On	0.00	0.00
B (Valve 4)	On	0.00	0.00

A - Splitless Injection: No
B - Splitless Injection: No

Valves/Relays Information

Initial Setpoints:
5890 Valves:

Valve 1:	Off
Valve 2:	Off
Valve 3 (Purge A):	On

method: G:\GC2011Q3\ZEPPO\METHODS\FPDTEST2.M
Modified on: 7/8/2011 at 9:09:17 AM
Valve 4 (Purge B): On

Valve/Relay Time Table:

Time	Name	State	Comment
0.01	Valve1	On	
0.10	Valve1	Off	
1.00	Valve2	On	
1.10	Valve2	Off	

Detector Information

Detector A:
Type FID
State ON

Detector B:
Type FPD
State ON

Signal Information

Save Data: Both

Signal 1:
Signal Det. A
Data rate 20.000 Hz.
Peakwidth 0.013 min.
Start Time 0.00 min.
Stop Time 650.00 min.

Signal 2:
Signal Det. B
Data rate 20.000 Hz.
Peakwidth 0.013 min.
Start Time 0.00 min.
Stop Time 650.00 min.

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
1	Vial 11	ENV(1=0,3=200)	FPDTEST1	3	Sample	
2	Vial 1	Pause	PAUSE	1	Sample	
3	Vial 11	ENV(1=0,3=0)	FPDTEST1	3	Sample	
4	Vial 11	ENV(1=0,3=200)	FPDTEST1	3	Sample	
5	Vial 11	ENV(1=0,3=400)	FPDTEST1	3	Sample	
6	Vial 11	ENV(1=0,1=1400)	FPDTEST1	3	Sample	
7	Vial 11	ENV(1=0,1=3500)	FPDTEST1	3	Sample	
8	Vial 1	Pause	PAUSE	1	Sample	
9	Vial 11	ENV(1=0,3=0)	FPDTEST1	3	Sample	
10	Vial 11	ENV(1=0,3=200)	FPDTEST1	3	Sample	
11	Vial 11	ENV(1=0,3=400)	FPDTEST1	3	Sample	
12	Vial 11	ENV(1=0,1=1400)	FPDTEST1	3	Sample	
13	Vial 11	ENV(1=0,1=3500)	FPDTEST1	3	Sample	
14	Vial 1	Pause	PAUSE	1	Sample	
15	Vial 11	ENV(1=0,3=0)	FPDTEST1	3	Sample	
16	Vial 11	ENV(1=0,3=200)	FPDTEST1	3	Sample	
17	Vial 11	ENV(1=0,3=400)	FPDTEST1	3	Sample	
18	Vial 11	ENV(1=0,1=1400)	FPDTEST1	3	Sample	
19	Vial 11	ENV(1=0,1=3500)	FPDTEST1	3	Sample	
20	Vial 1	Pause	PAUSE	1	Sample	
21	Vial 11	ENV(1=0,3=0)	FPDTEST1	3	Sample	
22	Vial 11	ENV(1=0,3=200)	FPDTEST1	3	Sample	
23	Vial 11	ENV(1=0,3=400)	FPDTEST1	3	Sample	
24	Vial 11	ENV(1=0,1=1400)	FPDTEST1	3	Sample	
25	Vial 11	ENV(1=0,1=3500)	FPDTEST1	3	Sample	
26	Vial 1	Pause	PAUSE	1	Sample	
27	Vial 6	ENV(1=0,3=0)	FPDTEST1	3	Sample	

Sequence: I:\GC2011Q2\ZEPPO\SEQUENCE\GC124P009.S

Line	Location	SampleName DataFile	Method LimsID	Inj	SampleType	InjVolume
28	Vial 11	ENV(1=0,3=0)	FPDTEST1	3	Sample	
29	Vial 11	ENV(1=0,3=200)	FPDTEST1	3	Sample	
30	Vial 11	ENV(1=0,3=400)	FPDTEST1	3	Sample	
31	Vial 11	ENV(1=0,1=1400)	FPDTEST1	3	Sample	
32	Vial 11	ENV(1=0,1=3500)	FPDTEST1	3	Sample	
33	Vial 1	Pause	PAUSE	1	Sample	
34	Vial 11	ENV(1=0,1=1400)	FPDTEST1	3	Sample	
35	Vial 11	ENV(1=0,3=400)	FPDTEST1	3	Sample	

Sequence Table (Back Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile	Method LimsID	Inj	SampleType	InjVolume
1	Vial 111	gc125p009 #6	FPDTEST1	3	Sample	
2	Vial 101	Pause	PAUSE	1	Sample	
3	Vial 107	gc125p009 #7	FPDTEST1	3	Sample	
4	Vial 111	gc125p009 #6	FPDTEST1	3	Sample	
5	Vial 105	gc125p009 #5	FPDTEST1	3	Sample	
6	Vial 103	gc125p009 #3	FPDTEST1	3	Sample	
7	Vial 101	gc125p009 #1	FPDTEST1	3	Sample	
8	Vial 101	Pause	PAUSE	1	Sample	
9	Vial 107	gc125p009 #7	FPDTEST1	3	Sample	
10	Vial 111	gc125p009 #6	FPDTEST1	3	Sample	
11	Vial 105	gc125p009 #5	FPDTEST1	3	Sample	
12	Vial 103	gc125p009 #3	FPDTEST1	3	Sample	
13	Vial 101	gc125p009 #1	FPDTEST1	3	Sample	
14	Vial 101	Pause	PAUSE	1	Sample	
15	Vial 107	gc125p009 #7	GC125P009	3	Sample	
16	Vial 111	gc125p009 #6	GC125P009	3	Sample	
17	Vial 105	gc125p009 #5	GC125P009	3	Sample	

Sequence: I:\GC2011Q2\ZEPPO\SEQUENCE\GC124P009.S

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
18	Vial 103	gc125p009 #3	GC125P009	3	Sample	
19	Vial 101	gc125p009 #1	GC125P009	3	Sample	
20	Vial 101	Pause	PAUSE	1	Sample	
21	Vial 107	gc125p009 #7	GC125P009	3	Sample	
22	Vial 111	gc125p009 #6	GC125P009	3	Sample	
23	Vial 105	gc125p009 #5	GC125P009	3	Sample	
24	Vial 103	gc125p009 #3	GC125P009	3	Sample	
25	Vial 101	gc125p009 #1	GC125P009	3	Sample	
26	Vial 101	Pause	PAUSE	1	Sample	
27	Vial 116	M18 Bag A 0611-22	GC125P009	3	Sample	
28	Vial 107	gc125p009 #7	GC125P009	3	Sample	
29	Vial 111	gc125p009 #6	GC125P009	3	Sample	
30	Vial 105	gc125p009 #5	GC125P009	3	Sample	
31	Vial 103	gc125p009 #3	GC125P009	3	Sample	
32	Vial 101	gc125p009 #1	GC125P009	3	Sample	
33	Vial 101	Pause	PAUSE	1	Sample	
34	Vial 103	gc125p009 #3	GC125P009	3	Sample	
35	Vial 105	gc125p009 #5	GC125P009	3	Sample	

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile	LimsID	Method	Inj	SampleType	InjVolume
1	Vial 6	NA		FPDTEST1	3	Sample	
2	Vial 1	NA		FPDTEST1	3	Sample	
3	Vial 11	ENV(1=0,3=0)		FPDTEST1	3	Sample	
4	Vial 11	ENV(1=0,3=200)		FPDTEST1	3	Sample	
5	Vial 11	ENV(1=0,3=400)		FPDTEST1	3	Sample	
6	Vial 11	ENV(1=0,1=1400)		FPDTEST1	3	Sample	
7	Vial 11	ENV(1=0,1=3500)		FPDTEST1	3	Sample	
8	Vial 1	Pause		PAUSE	1	Sample	
9	Vial 11	ENV(1=0,1=1400)		FPDTEST1	3	Sample	
10	Vial 11	ENV(1=0,3=400)		FPDTEST1	3	Sample	
11	Vial 11	ENV(1=0,1=1400)		FPDTEST1	3	Sample	
12	Vial 1	Pause		PAUSE	1	Sample	
13	Vial 6	NA		FPDTEST1	3	Sample	
14	Vial 1	NA		FPDTEST1	3	Sample	
15	Vial 1	Pause		PAUSE	1	Sample	

Sequence Table (Back Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile	LimsID	Method	Inj	SampleType	InjVolume
1	Vial 116	M18 Bag A Run 2 0611 -22		GC125P009	3	Sample	
2	Vial 111	N2 Blank		GC125P009	3	Sample	
3	Vial 107	gc125p009 #7		GC125P009	3	Sample	
4	Vial 111	gc125p009 #6		GC125P009	3	Sample	
5	Vial 105	gc125p009 #5		GC125P009	3	Sample	
6	Vial 103	gc125p009 #3		GC125P009	3	Sample	
7	Vial 101	gc125p009 #1		GC125P009	3	Sample	

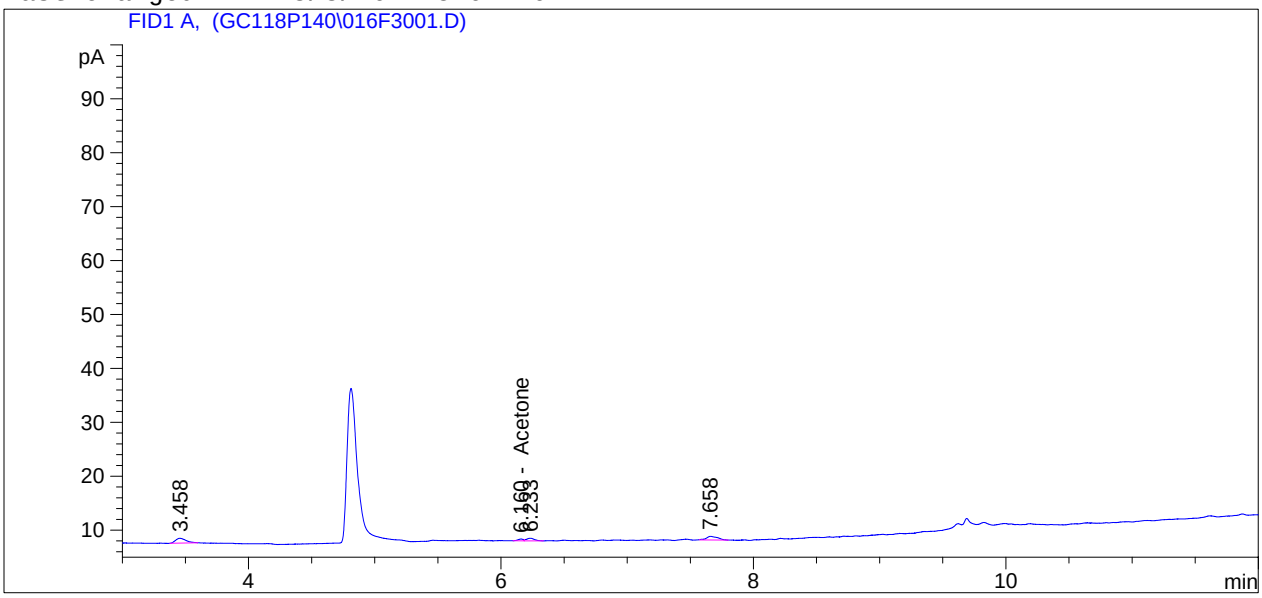
Sequence: I:\GC2011Q2\ZEPPO\SEQUENCE\GC124P010.S

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
8	Vial 101	Pause	PAUSE	1	Sample	
9	Vial 103	gc125p009 #3	GC125P009	3	Sample	
10	Vial 105	gc125p009 #5	GC125P009	3	Sample	
11	Vial 103	gc125p009 #3	GC125P009	3	Sample	
12	Vial 101	Pause	PAUSE	1	Sample	
13	Vial 116	M18 Bag A Run 2 0611 -22	GC125P009	3	Sample	
14	Vial 111	N2 Blank	GC125P009	3	Sample	
15	Vial 101	Pause	PAUSE	1	Sample	

Sample Chromatograms

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\016F3001.D
Sample Name: 0611-22 ICR1 Bag Cond A

```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  30
Acq. Instrument : Veronica                      Location : Vial 16
Injection Date  : 06-Aug-11, 05:35:30                Inj :   1
                                              Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449            -          -          -          1,3-Butadiene
  5.476            -          -          -          Pentane
  5.987            -          -          -          Acrolein
  6.160 BV     9.94744e-1 1.09262e-1 1.08688e-1    Acetone
  6.572            -          -          -          Dichloromethane
  6.932            -          -          -          Hexane
  8.405            -          -          -          Benzene
  8.870            -          -          -          Trichloroethylene
  9.851            -          -          -          Toluene
 10.276            -          -          -          Tetrachloroethylene
 10.696            -          -          -          1,2-Dibromoethane

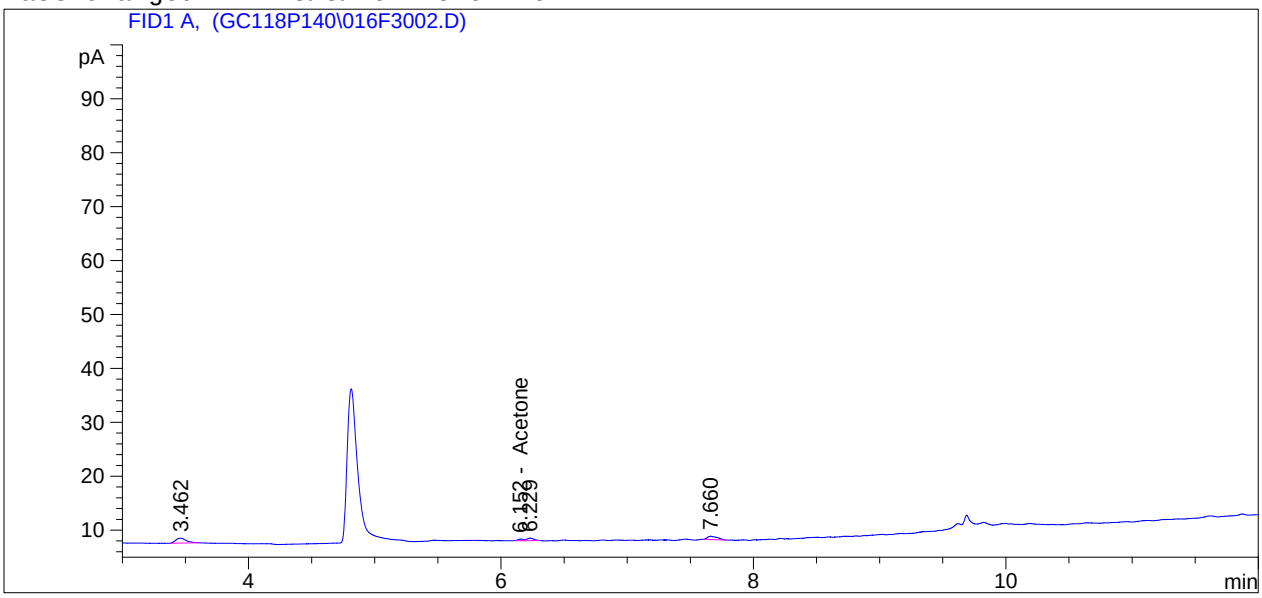
Totals :                           1.08688e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\016F3002.D
Sample Name: 0611-22 ICR1 Bag Cond A

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  30
Acq. Instrument : Veronica                          Location : Vial 16
Injection Date  : 06-Aug-11, 05:53:17                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449            -          -          -          1,3-Butadiene
  5.476            -          -          -          Pentane
  5.987            -          -          -          Acrolein
  6.152 BV     8.86780e-1 1.09262e-1 9.68913e-2    Acetone
  6.572            -          -          -          Dichloromethane
  6.932            -          -          -          Hexane
  8.405            -          -          -          Benzene
  8.870            -          -          -          Trichloroethylene
  9.851            -          -          -          Toluene
 10.276            -          -          -          Tetrachloroethylene
 10.696            -          -          -          1,2-Dibromoethane

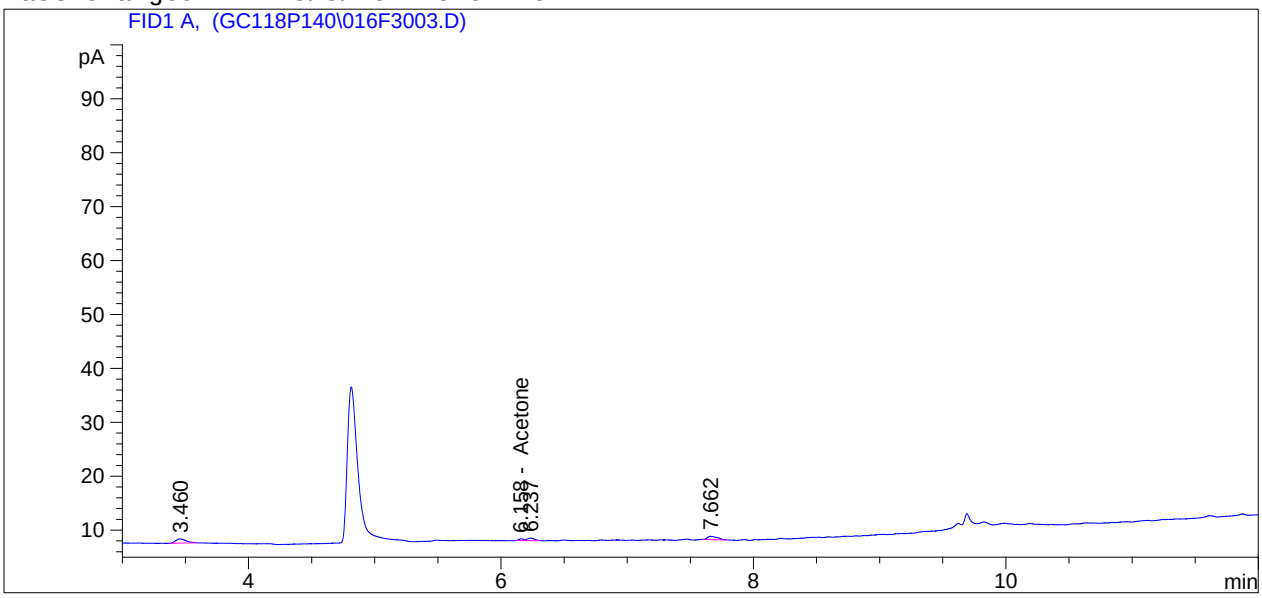
Totals :                           9.68913e-2


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\016F3003.D
Sample Name: 0611-22 ICR1 Bag Cond A

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  30
Acq. Instrument : Veronica                          Location : Vial 16
Injection Date  : 06-Aug-11, 06:11:01                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449            -          -          -          1,3-Butadiene
  5.476            -          -          -          Pentane
  5.987            -          -          -          Acrolein
  6.158 BV     8.78929e-1 1.09262e-1 9.60335e-2    Acetone
  6.572            -          -          -          Dichloromethane
  6.932            -          -          -          Hexane
  8.405            -          -          -          Benzene
  8.870            -          -          -          Trichloroethylene
  9.851            -          -          -          Toluene
 10.276            -          -          -          Tetrachloroethylene
 10.696            -          -          -          1,2-Dibromoethane

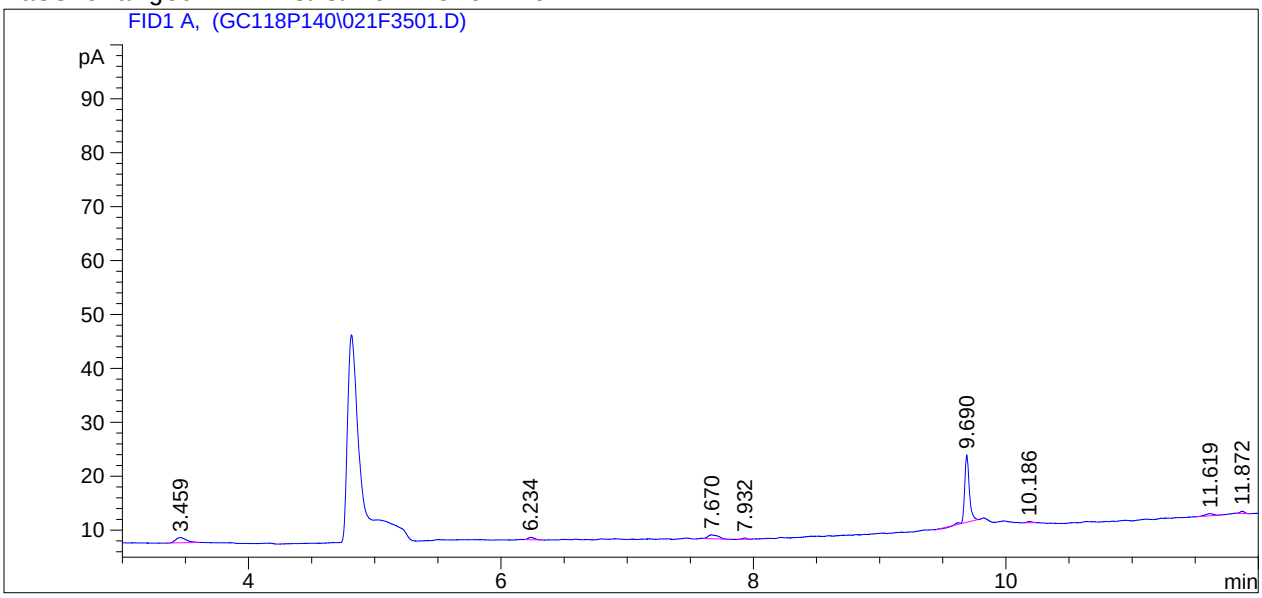
Totals :                           9.60335e-2


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\021F3501.D
Sample Name: 0611-22 ICR2 Bag Cond A

```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  35
Acq. Instrument : Veronica                      Location : Vial 21
Injection Date  : 06-Aug-11, 13:00:01                Inj :   1
                                              Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449           -          -          -          1,3-Butadiene
  5.476           -          -          -          Pentane
  5.987           -          -          -          Acrolein
  6.142           -          -          -          Acetone
  6.572           -          -          -          Dichloromethane
  6.932           -          -          -          Hexane
  8.405           -          -          -          Benzene
  8.870           -          -          -          Trichloroethylene
  9.851           -          -          -          Toluene
 10.276           -          -          -          Tetrachloroethylene
 10.696           -          -          -          1,2-Dibromoethane

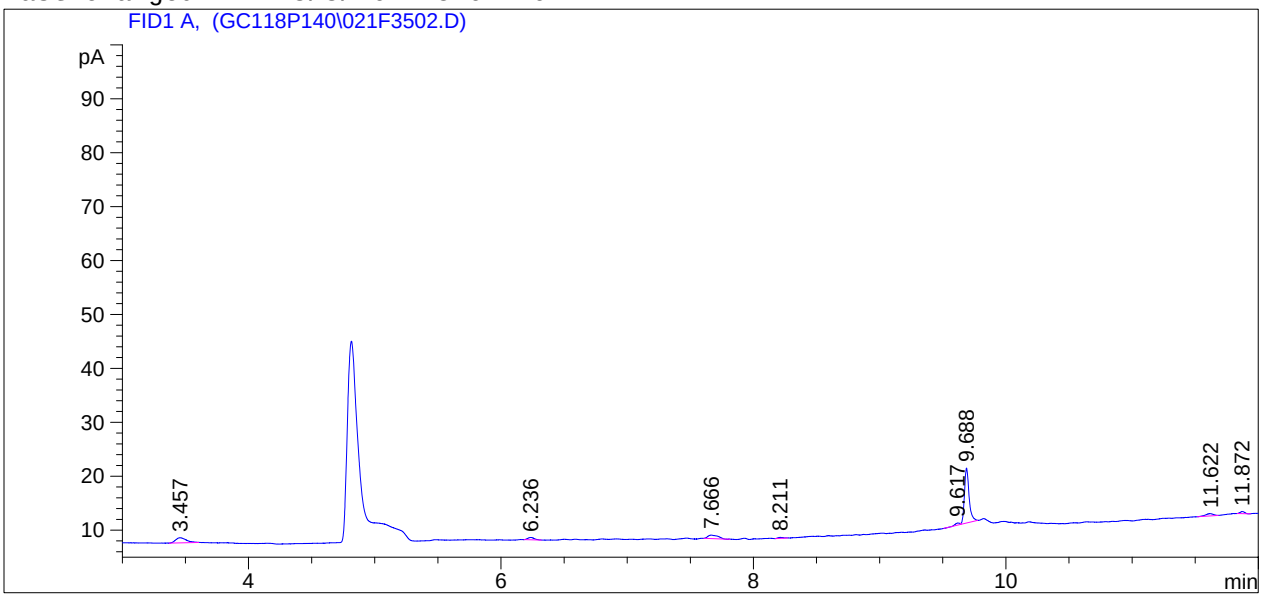
Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\021F3502.D
Sample Name: 0611-22 ICR2 Bag Cond A

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  35
Acq. Instrument : Veronica                          Location : Vial 21
Injection Date  : 06-Aug-11, 13:17:48                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449           -          -          -          1,3-Butadiene
  5.476           -          -          -          Pentane
  5.987           -          -          -          Acrolein
  6.142           -          -          -          Acetone
  6.572           -          -          -          Dichloromethane
  6.932           -          -          -          Hexane
  8.405           -          -          -          Benzene
  8.870           -          -          -          Trichloroethylene
  9.851           -          -          -          Toluene
 10.276           -          -          -          Tetrachloroethylene
 10.696           -          -          -          1,2-Dibromoethane

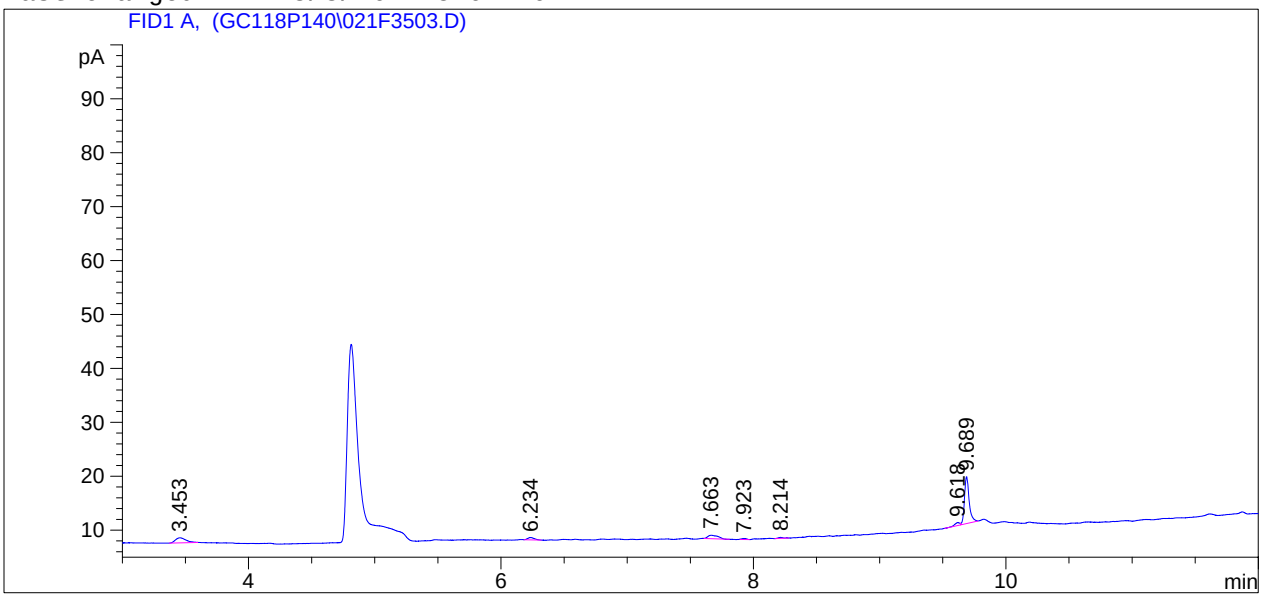
Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\021F3503.D
Sample Name: 0611-22 ICR2 Bag Cond A

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  35
Acq. Instrument : Veronica                          Location : Vial 21
Injection Date  : 06-Aug-11, 13:35:36                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449           -          -          -          1,3-Butadiene
  5.476           -          -          -          Pentane
  5.987           -          -          -          Acrolein
  6.142           -          -          -          Acetone
  6.572           -          -          -          Dichloromethane
  6.932           -          -          -          Hexane
  8.405           -          -          -          Benzene
  8.870           -          -          -          Trichloroethylene
  9.851           -          -          -          Toluene
 10.276           -          -          -          Tetrachloroethylene
 10.696           -          -          -          1,2-Dibromoethane

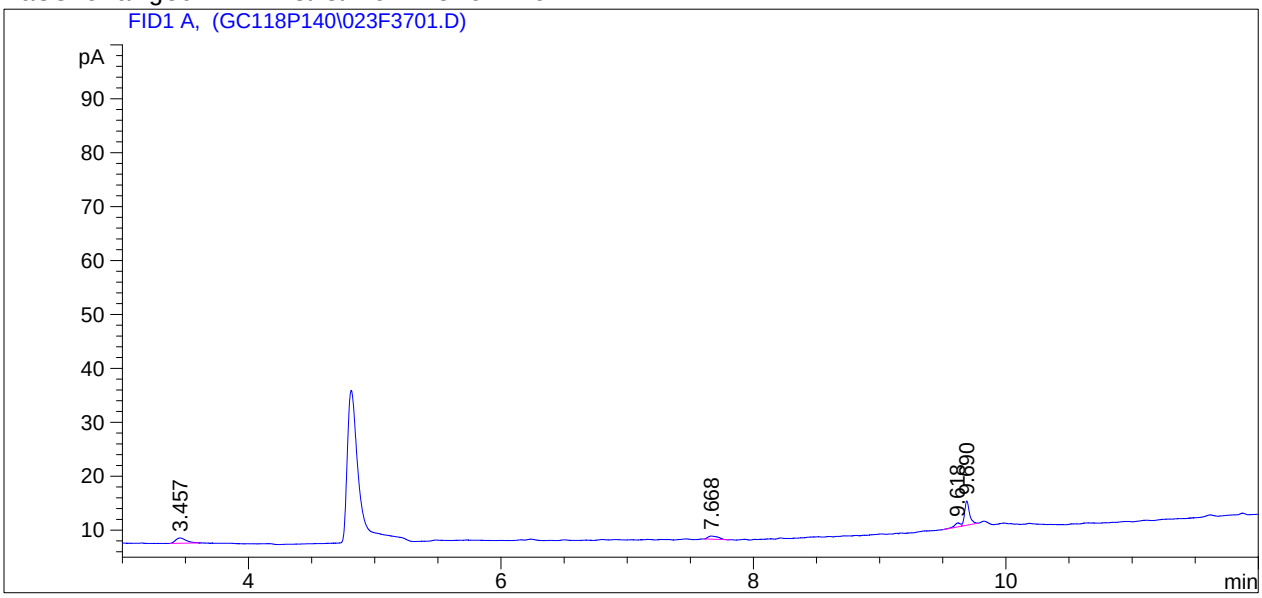
Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\023F3701.D
Sample Name: 0611-22 ICR3 Bag Cond A

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  37
Acq. Instrument : Veronica                          Location : Vial 23
Injection Date  : 06-Aug-11, 15:57:53                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449           -          -          -          1,3-Butadiene
  5.476           -          -          -          Pentane
  5.987           -          -          -          Acrolein
  6.142           -          -          -          Acetone
  6.572           -          -          -          Dichloromethane
  6.932           -          -          -          Hexane
  8.405           -          -          -          Benzene
  8.870           -          -          -          Trichloroethylene
  9.851           -          -          -          Toluene
 10.276           -          -          -          Tetrachloroethylene
 10.696           -          -          -          1,2-Dibromoethane

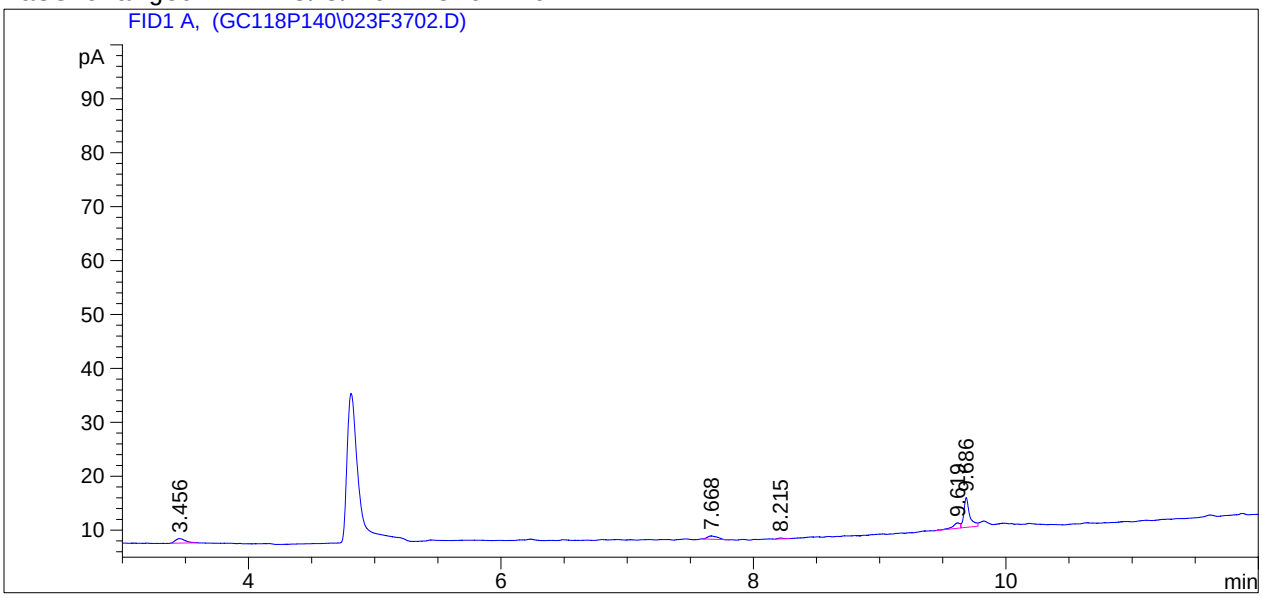
Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\023F3702.D
Sample Name: 0611-22 ICR3 Bag Cond A

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  37
Acq. Instrument : Veronica                          Location : Vial 23
Injection Date  : 06-Aug-11, 16:15:39                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449           -          -          -          1,3-Butadiene
  5.476           -          -          -          Pentane
  5.987           -          -          -          Acrolein
  6.142           -          -          -          Acetone
  6.572           -          -          -          Dichloromethane
  6.932           -          -          -          Hexane
  8.405           -          -          -          Benzene
  8.870           -          -          -          Trichloroethylene
  9.851           -          -          -          Toluene
 10.276           -          -          -          Tetrachloroethylene
 10.696           -          -          -          1,2-Dibromoethane

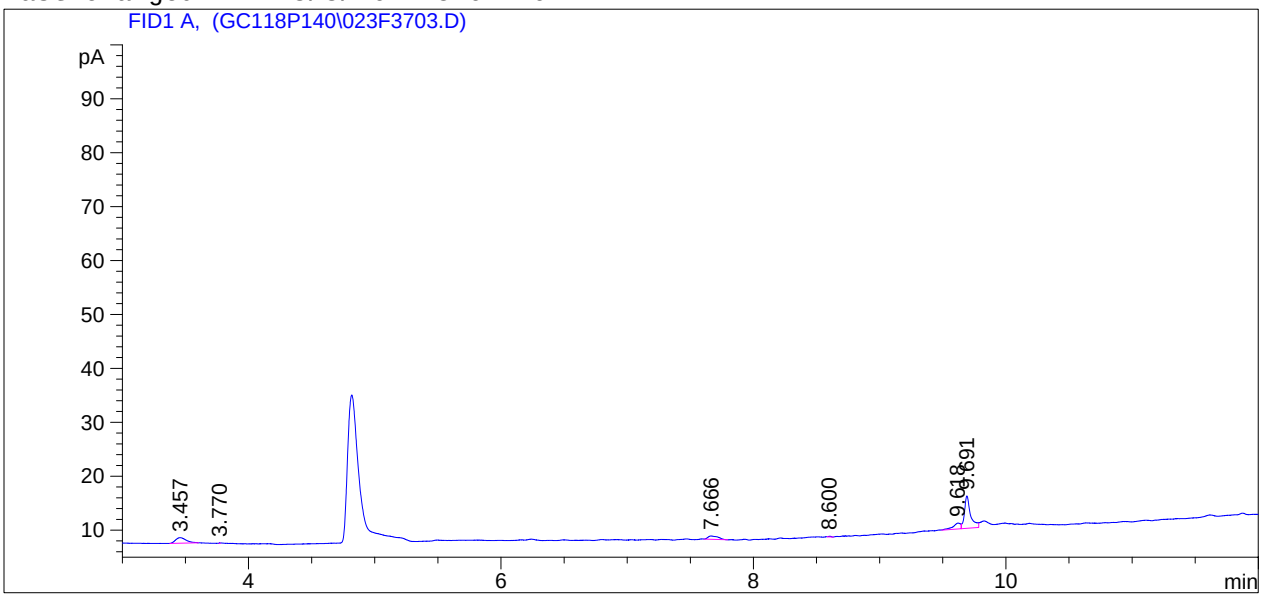
Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\023F3703.D
Sample Name: 0611-22 ICR3 Bag Cond A

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  37
Acq. Instrument : Veronica                          Location : Vial 23
Injection Date  : 06-Aug-11, 16:33:26                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449           -          -          -          1,3-Butadiene
  5.476           -          -          -          Pentane
  5.987           -          -          -          Acrolein
  6.142           -          -          -          Acetone
  6.572           -          -          -          Dichloromethane
  6.932           -          -          -          Hexane
  8.405           -          -          -          Benzene
  8.870           -          -          -          Trichloroethylene
  9.851           -          -          -          Toluene
 10.276           -          -          -          Tetrachloroethylene
 10.696           -          -          -          1,2-Dibromoethane

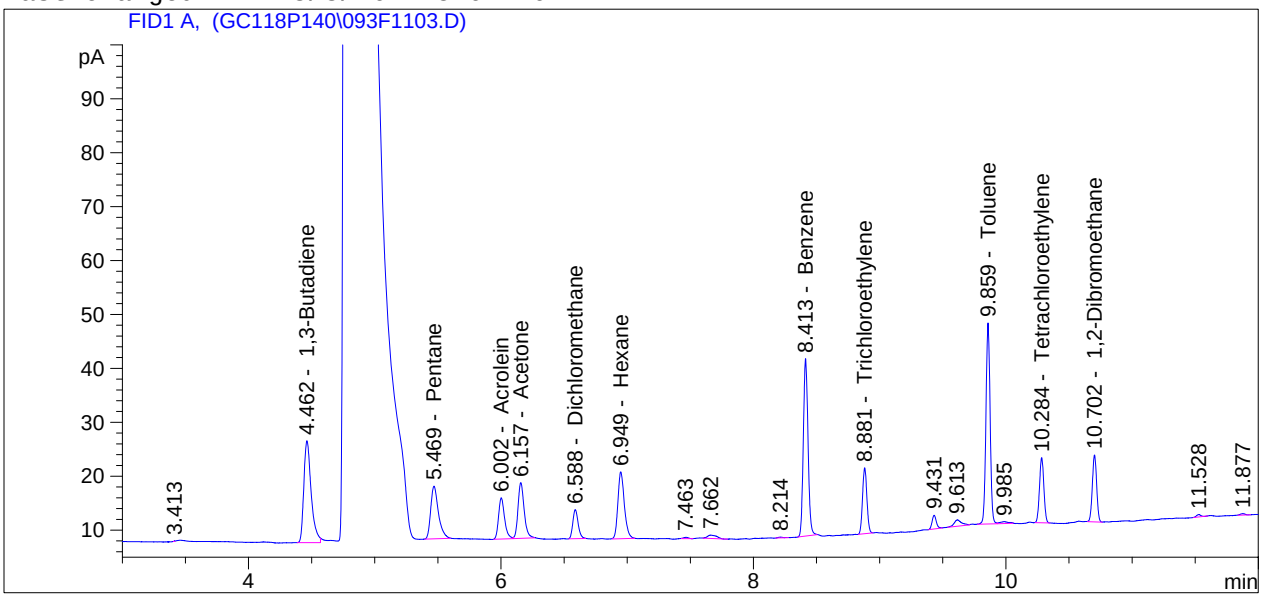
Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\093F1103.D
Sample Name: 0611-22 ICR1 Bag Cond A #MS

Acq. Operator	: JBB	Seq. Line	: 11
Acq. Instrument	: Veronica	Location	: Vial 93
Injection Date	: 04-Aug-11, 22:02:21	Inj	: 3
		Inj Volume	: 0.2 µl
Sequence File	: C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S		
Acq. Method	: C:\GC2011Q3\VERONICA\METHODS\GC118P140.M		
Last changed	: 8/4/2011 7:47:49 PM		
Analysis Method	: C:\GC2011Q3\VERONICA\METHODS\GC118P140.M		
Last changed	: 8/8/2011 5:07:20 PM		



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Monday, August 08, 2011 5:07:13 PM
Multiplier:	:	1.0000
Dilution:	:	1.0000

Use Multiplier & Dilution Factor with ISTDs

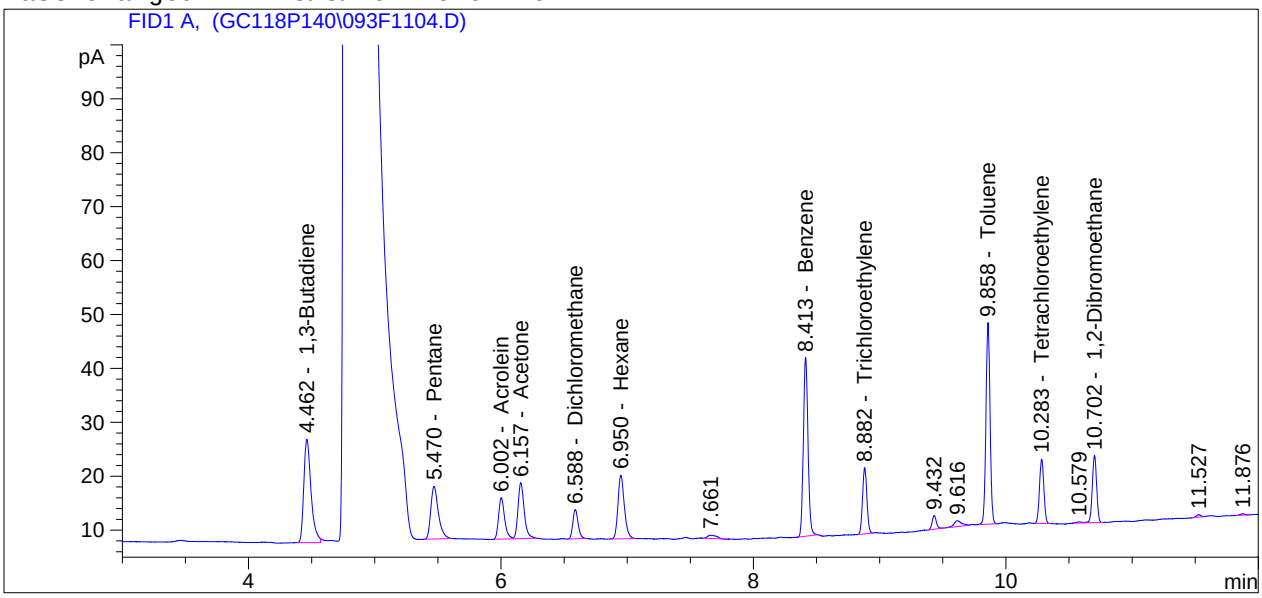
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.462	BBA	76.55964	1.50127e-1	11.49370		1,3-Butadiene
5.469	BB	41.33515	1.84223e-1	7.61489		Pentane
6.002	BB	25.23876	3.46305e-1	8.74031		Acrolein
6.157	BB	34.80702	1.75329e-1	6.10270		Acetone
6.588	BB	15.77224	8.20100e-1	12.93481		Dichloromethane
6.949	BB	43.92971	1.32293e-1	5.81161		Hexane
8.413	BB	84.94674	1.07695e-1	9.14832		Benzene
8.881	BB	29.27989	5.14269e-1	15.05775		Trichloroethylene
9.859	BB	86.08083	9.88927e-2	8.51277		Toluene
10.284	BB	29.10881	5.62595e-1	16.37646		Tetrachloroethylene
10.702	BB	29.40151	7.34527e-1	21.59619		1,2-Dibromoethane
Totals :				123.38951		

*** End of Report ***

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\093F1104.D
Sample Name: 0611-22 ICR1 Bag Cond A #MS

```
==================================================================
Acq. Operator   : JBB                          Seq. Line :  11
Acq. Instrument : Veronica                      Location : Vial 93
Injection Date  : 04-Aug-11, 22:20:20                Inj :   4
                                               Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/4/2011 7:47:49 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

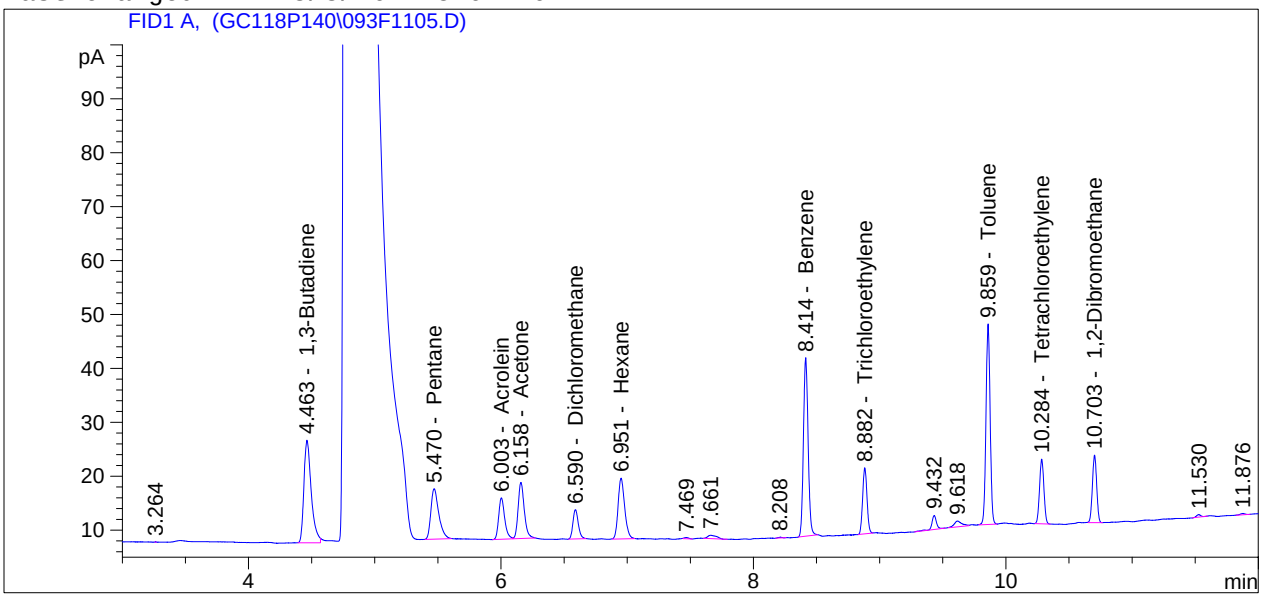
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.462	BBA	76.51004	1.50127e-1	11.48625		1,3-Butadiene
5.470	BB	40.77961	1.84491e-1	7.52349		Pentane
6.002	BB	25.50901	3.46237e-1	8.83215		Acrolein
6.157	BB	35.27845	1.75955e-1	6.20742		Acetone
6.588	BB	15.85269	8.20320e-1	13.00428		Dichloromethane
6.950	BB	41.46352	1.32362e-1	5.48818		Hexane
8.413	BB	85.00562	1.07697e-1	9.15481		Benzene
8.882	BB	29.28058	5.14269e-1	15.05811		Trichloroethylene
9.858	BB	85.17326	9.87774e-2	8.41319		Toluene
10.283	BB	28.87325	5.62520e-1	16.24179		Tetrachloroethylene
10.702	BB	29.66421	7.34732e-1	21.79524		1,2-Dibromoethane

Totals : 123.20491

```
==================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\093F1105.D
Sample Name: 0611-22 ICR1 Bag Cond A #MS

```
==================================================================
Acq. Operator   : JBB                          Seq. Line :  11
Acq. Instrument : Veronica                      Location : Vial 93
Injection Date  : 04-Aug-11, 22:38:17                Inj :   5
                                               Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/4/2011 7:47:49 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

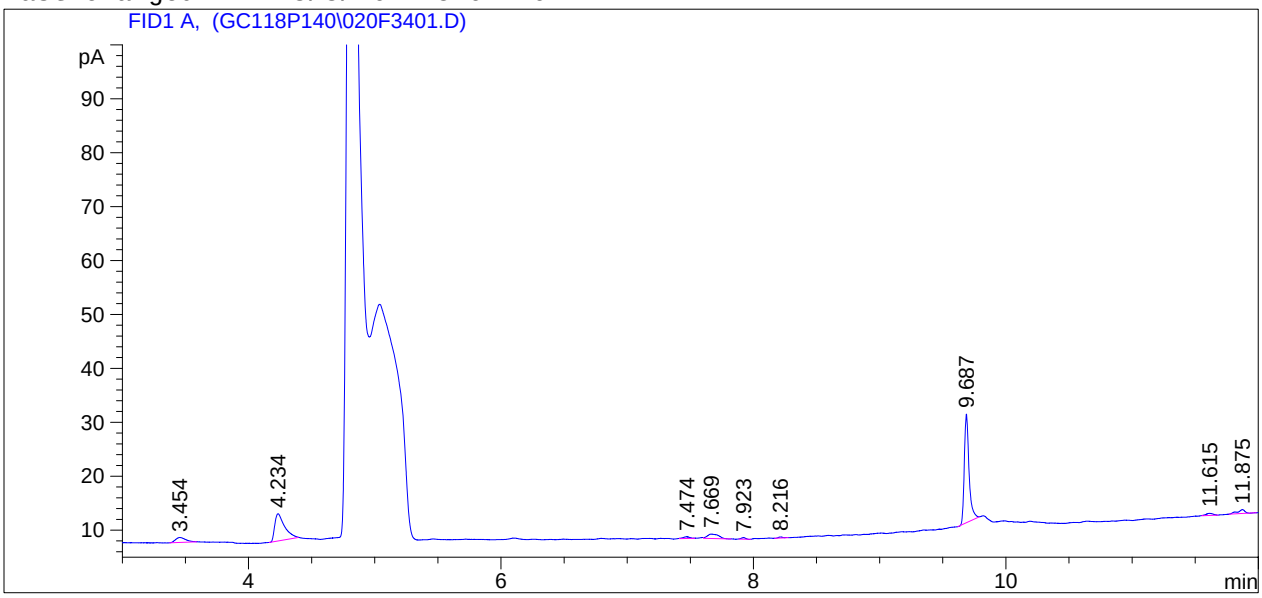
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.463	BBA	77.21802	1.50128e-1	11.59259		1,3-Butadiene
5.470	BB	40.44666	1.84656e-1	7.46870		Pentane
6.003	BB	25.41411	3.46260e-1	8.79990		Acrolein
6.158	BB	35.27390	1.75949e-1	6.20641		Acetone
6.590	BB	15.94602	8.20573e-1	13.08487		Dichloromethane
6.951	BB	40.61518	1.32387e-1	5.37692		Hexane
8.414	BB	85.52777	1.07712e-1	9.21240		Benzene
8.882	BB	29.44917	5.14321e-1	15.14632		Trichloroethylene
9.859	BB	85.67937	9.88420e-2	8.46872		Toluene
10.284	BB	29.02926	5.62570e-1	16.33098		Tetrachloroethylene
10.703	BB	29.44659	7.34562e-1	21.63035		1,2-Dibromoethane

Totals : 123.31817

```
==================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\020F3401.D
Sample Name: RB H2O

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  34
Acq. Instrument : Veronica                          Location : Vial 20
Injection Date  : 06-Aug-11, 11:30:59                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449           -          -          -         1,3-Butadiene
  5.476           -          -          -         Pentane
  5.987           -          -          -         Acrolein
  6.142           -          -          -         Acetone
  6.572           -          -          -         Dichloromethane
  6.932           -          -          -         Hexane
  8.405           -          -          -         Benzene
  8.870           -          -          -         Trichloroethylene
  9.851           -          -          -         Toluene
 10.276           -          -          -         Tetrachloroethylene
 10.696           -          -          -         1,2-Dibromoethane

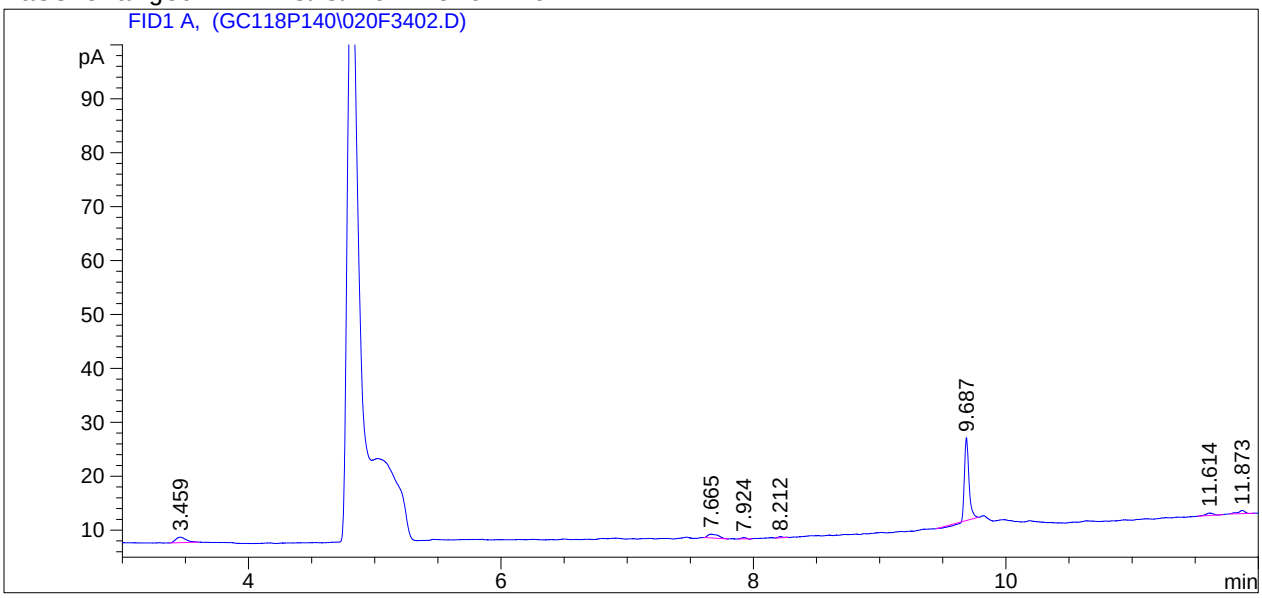
Totals :                              0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\020F3402.D
Sample Name: RB H2O

```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  34
Acq. Instrument : Veronica                      Location : Vial 20
Injection Date  : 06-Aug-11, 11:48:48                Inj :   2
                                              Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.449           -          -          -          1,3-Butadiene
  5.476           -          -          -          Pentane
  5.987           -          -          -          Acrolein
  6.142           -          -          -          Acetone
  6.572           -          -          -          Dichloromethane
  6.932           -          -          -          Hexane
  8.405           -          -          -          Benzene
  8.870           -          -          -          Trichloroethylene
  9.851           -          -          -          Toluene
 10.276           -          -          -          Tetrachloroethylene
 10.696           -          -          -          1,2-Dibromoethane

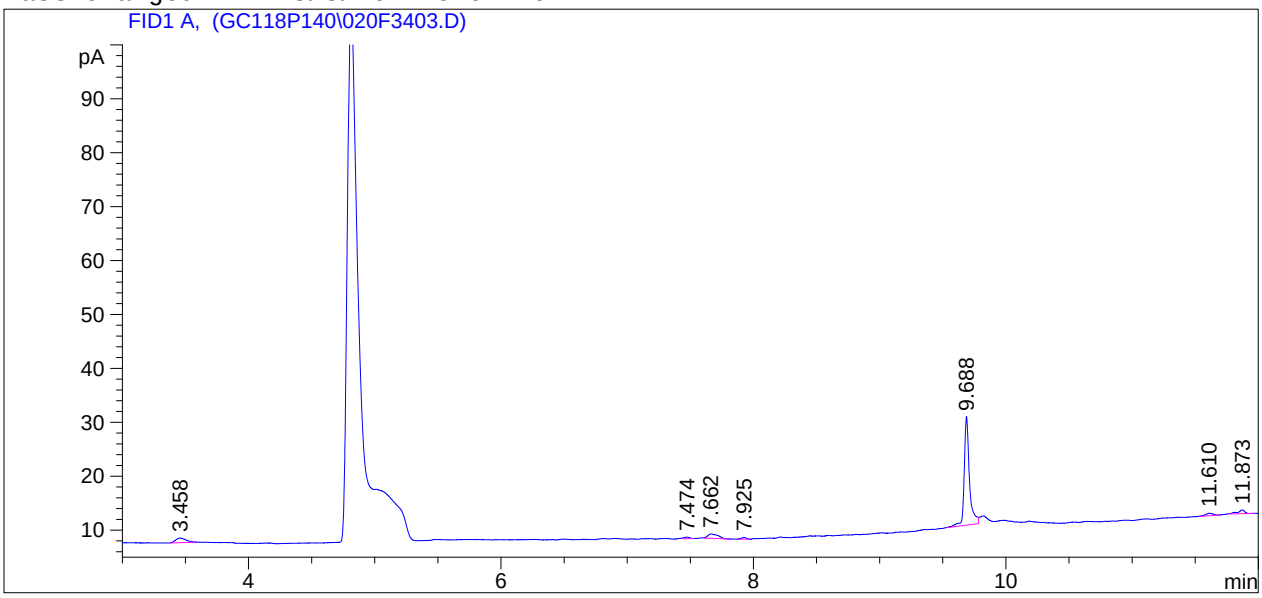
Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\020F3403.D
Sample Name: RB H2O

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  34
Acq. Instrument : Veronica                          Location : Vial 20
Injection Date  : 06-Aug-11, 12:06:37                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 5:07:20 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Monday, August 08, 2011 5:07:13 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.449		-	-	-		1,3-Butadiene
5.476		-	-	-		Pentane
5.987		-	-	-		Acrolein
6.142		-	-	-		Acetone
6.572		-	-	-		Dichloromethane
6.932		-	-	-		Hexane
8.405		-	-	-		Benzene
8.870		-	-	-		Trichloroethylene
9.851		-	-	-		Toluene
10.276		-	-	-		Tetrachloroethylene
10.696		-	-	-		1,2-Dibromoethane

```
Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found
```

Calibration Curve Chromatograms

Calibration Table

Calib. Data Modified : 8/8/2011 3:48:45 PM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A,
Signal 2: FPD2 B,

RetTime [min]	Sig	Lvl	Amount	Area	Amt/Area	Ref Grp	Name
4.410	1	1	2.19600	14.61563	1.50250e-1		1,3-Butadiene
		2	4.38300	29.15581	1.50330e-1		
		3	10.89100	74.59686	1.45998e-1		
		4	52.38300	331.99671	1.57782e-1		
		5	183.34000	1251.10034	1.46543e-1		
5.362	1	1	1.24700	2.83166	4.40377e-1		Pentane
		2	2.48900	9.41870	2.64261e-1		
		3	6.18600	32.53915	1.90109e-1		
		4	29.75000	171.71405	1.73253e-1		
		5	104.12500	659.62087	1.57856e-1		
5.944	1	1	1.65000	4.29279	3.84366e-1		Acrolein
		2	3.29300	9.25395	3.55848e-1		
		3	8.18400	25.61892	3.19451e-1		
		4	39.36000	109.80720	3.58446e-1		
		5	137.76000	395.29392	3.48500e-1		
6.101	1	1	1.57700	14.33864	1.09983e-1		Acetone
		2	3.14700	22.16728	1.41966e-1		
		3	7.82000	40.44277	1.93360e-1		
		4	37.61200	184.85108	2.03472e-1		
		5	131.64000	586.56504	2.24425e-1		
6.527	1	1	2.64400	3.82086	6.91990e-1		Dichloromethane
		2	5.27800	7.07045	7.46487e-1		
		3	13.11800	15.86576	8.26812e-1		
		4	63.08900	72.18132	8.74035e-1		
		5	220.81100	260.29853	8.48299e-1		
6.885	1	1	1.30900	9.58982	1.36499e-1		Hexane
		2	2.61200	19.54366	1.33649e-1		

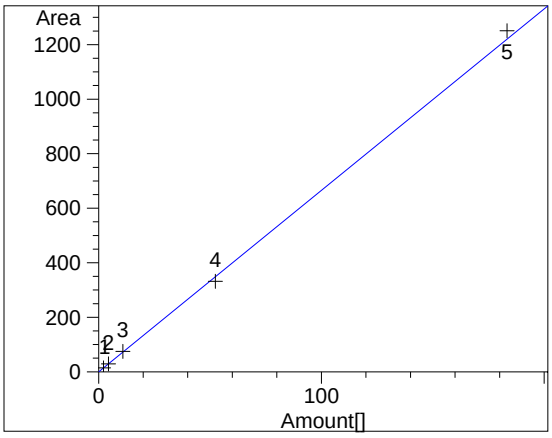
Method C:\GC2011Q3\VERONICA\METHODS\GC118P140.M

RetTime [min]	Sig	Lvl	Amount	Area	Amt/Area	Ref Grp	Name
		3	6.49200	49.34675	1.31559e-1		
		4	31.22400	233.96188	1.33458e-1		
		5	109.28400	842.25958	1.29751e-1		
8.380	1	1	1.74400	17.72487	9.83928e-2		Benzene
		2	3.48000	33.87357	1.02735e-1		
		3	8.64900	80.48781	1.07457e-1		
		4	41.59800	377.41448	1.10218e-1		
		5	145.59400	1320.42155	1.10263e-1		
8.837	1	1	2.92000	6.05215	4.82473e-1		Trichloroethylene
		2	5.82900	11.80121	4.93932e-1		
		3	14.48500	27.97445	5.17794e-1		
		4	69.66700	133.19106	5.23061e-1		
		5	243.83300	467.56150	5.21499e-1		
9.828	1	1	1.72300	24.16054	7.13146e-2		Toluene
		2	3.43900	39.84534	8.63087e-2		
		3	8.54700	87.35443	9.78428e-2		
		4	41.10800	382.25313	1.07541e-1		
		5	143.87800	1309.64054	1.09861e-1		
10.254	1	1	3.22300	6.05874	5.31959e-1		Tetrachloroethylene
		2	6.43400	11.78002	5.46179e-1		
		3	15.98900	29.20872	5.47405e-1		
		4	76.89900	133.70871	5.75123e-1		
		5	269.14800	463.62268	5.80532e-1		
10.676	1	1	4.30900	6.54973	6.57890e-1		1,2-Dibromoethane
		2	8.60000	12.18008	7.06071e-1		
		3	21.37300	30.56478	6.99269e-1		
		4	102.79400	134.60925	7.63647e-1		
		5	359.77900	463.99523	7.75394e-1		

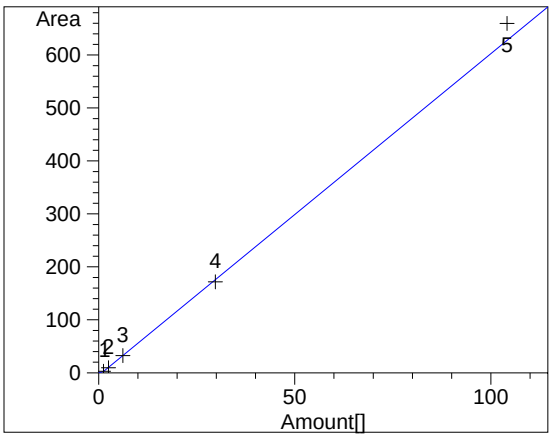
Peak Sum Table

No Entries in table

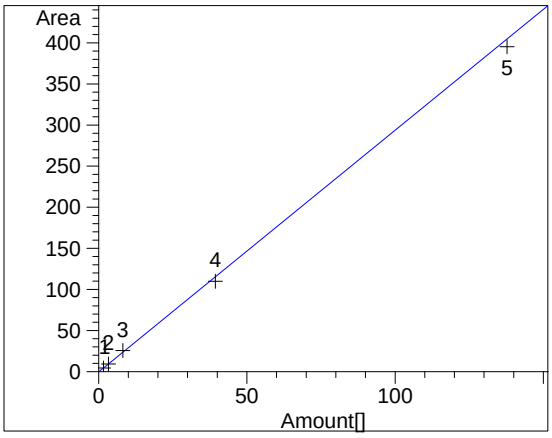
Calibration Curves



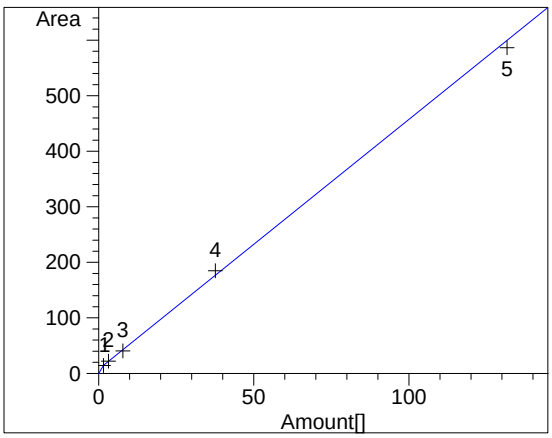
1,3-Butadiene at exp. RT: 4.410
FID1 A,
Correlation: 0.99928
Residual Std. Dev.: 20.10377
Formula: y = mx + b
m: 6.65773
b: 3.77100e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251028
Level 3 : 0.040656
Level 4 : 0.001757
Level 5 : 0.000143



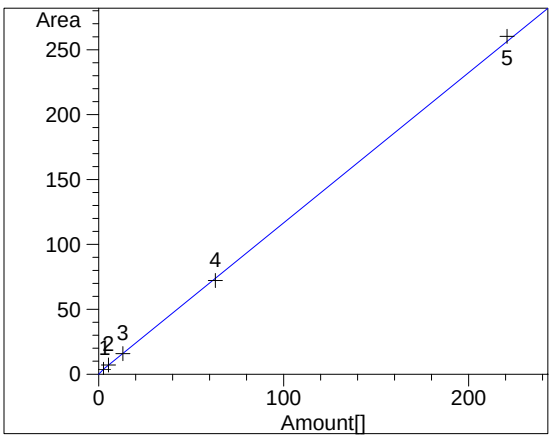
Pentane at exp. RT: 5.362
FID1 A,
Correlation: 0.99880
Residual Std. Dev.: 18.47830
Formula: y = mx + b
m: 6.07771
b: -4.94598
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251005
Level 3 : 0.040636
Level 4 : 0.001757
Level 5 : 0.000143



Acrolein at exp. RT: 5.944
FID1 A,
Correlation: 0.99806
Residual Std. Dev.: 6.50146
Formula: y = mx + b
m: 2.94260
b: -4.80451e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251064
Level 3 : 0.040648
Level 4 : 0.001757
Level 5 : 0.000143

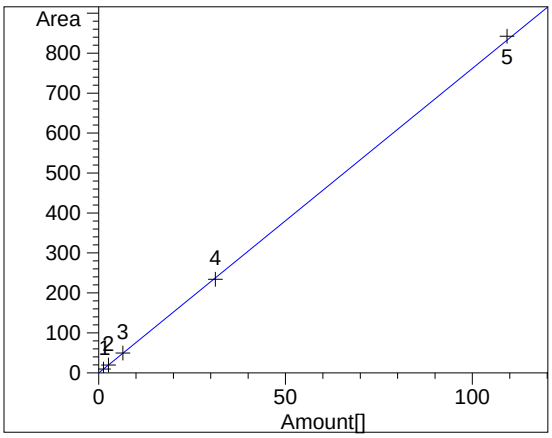


Acetone at exp. RT: 6.101
FID1 A,
Correlation: 0.99832
Residual Std. Dev.: 9.15066
Formula: y = mx + b
m: 4.50181
b: 7.33387
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251113
Level 3 : 0.040668
Level 4 : 0.001758
Level 5 : 0.000144

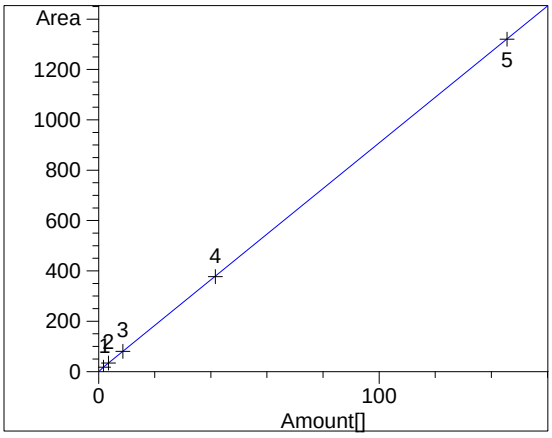


Dichloromethane at exp. RT: 6.527
FID1 A,
Correlation: 0.99968
Residual Std. Dev.: 2.39848
Formula: y = mx + b
m: 1.15804
b: 7.93230e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.250948
Level 3 : 0.040624
Level 4 : 0.001756

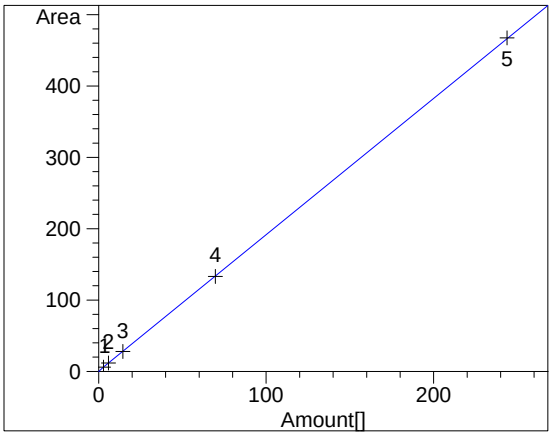
Level 5 : 0.000143



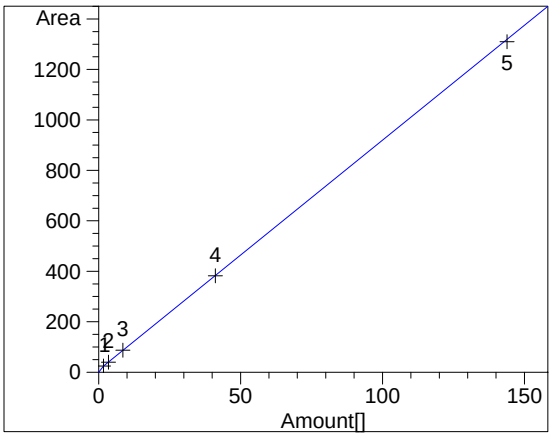
Hexane at exp. RT: 6.885
FID1 A,
Correlation: 0.99992
Residual Std. Dev.: 5.81030
Formula: y = mx + b
m: 7.62512
b: -3.84539e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25115
Level 3 : 0.040656
Level 4 : 0.001758
Level 5 : 0.000143



Benzene at exp. RT: 8.380
FID1 A,
Correlation: 0.99997
Residual Std. Dev.: 1.46711
Formula: y = mx + b
m: 9.06776
b: 1.99193
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251151
Level 3 : 0.040659
Level 4 : 0.001758
Level 5 : 0.000143

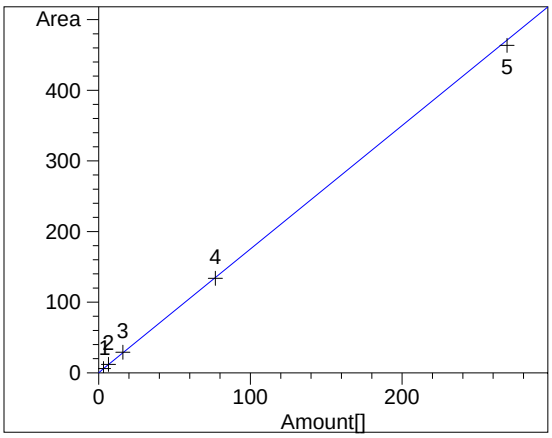


Trichloroethylene at exp. RT: 8.837
FID1 A,
Correlation: 0.99994
Residual Std. Dev.: 0.68204
Formula: y = mx + b
m: 1.91115
b: 5.02233e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.250944
Level 3 : 0.040638
Level 4 : 0.001757
Level 5 : 0.000143

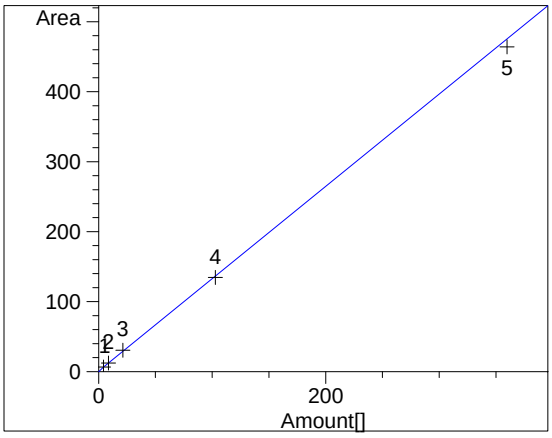


Toluene at exp. RT: 9.828
FID1 A,
Correlation: 0.99996
Residual Std. Dev.: 5.92010
Formula: y = mx + b
m: 9.11407
b: 8.49484
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251019
Level 3 : 0.040639
Level 4 : 0.001757

Level 5 : 0.000143



Tetrachloroethylene at exp. RT: 10.254
FID1 A,
Correlation: 0.99977
Residual Std. Dev.: 4.47172
Formula: y = mx + b
m: 1.74907
b: 4.65158e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.250933
Level 3 : 0.040633
Level 4 : 0.001757
Level 5 : 0.000143

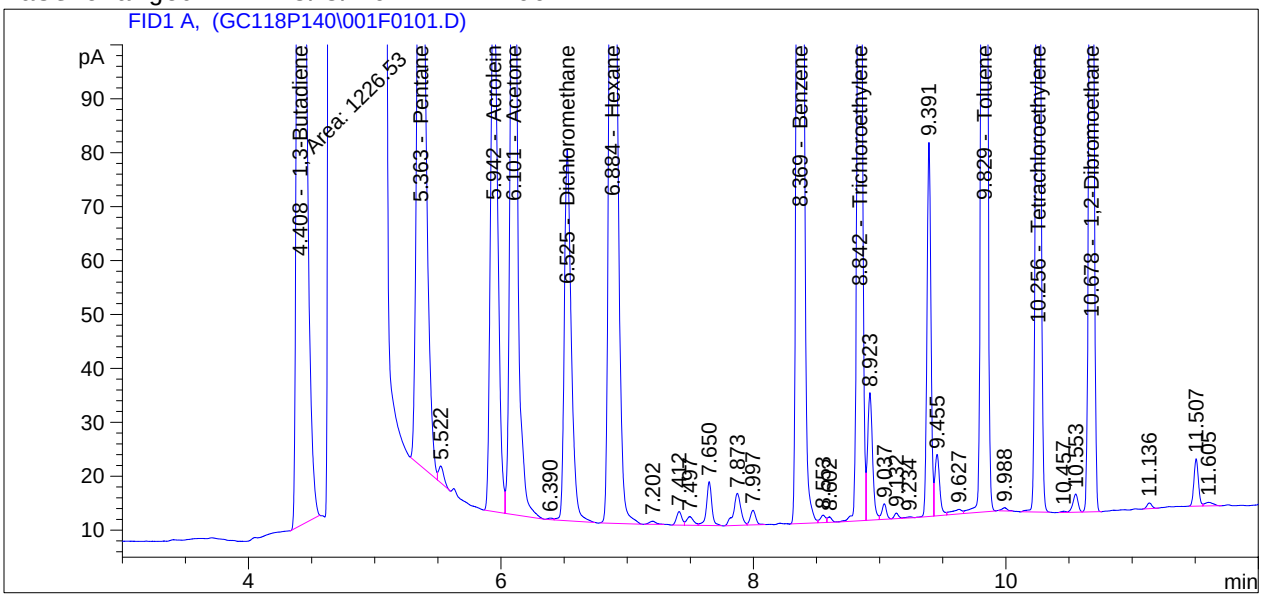


1,2-Dibromoethane at exp. RT: 10.676
FID1 A,
Correlation: 0.99932
Residual Std. Dev.: 6.91674
Formula: y = mx + b
m: 1.31977
b: 8.99545e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251048
Level 3 : 0.040646
Level 4 : 0.001757
Level 5 : 0.000143

==========

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\001F0101.D
Sample Name: gc118p137 #5

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   1
Acq. Instrument : Veronica                          Location : Vial 1
Injection Date  : 03-Aug-11, 20:12:25                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:11:04 PM by JBB
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

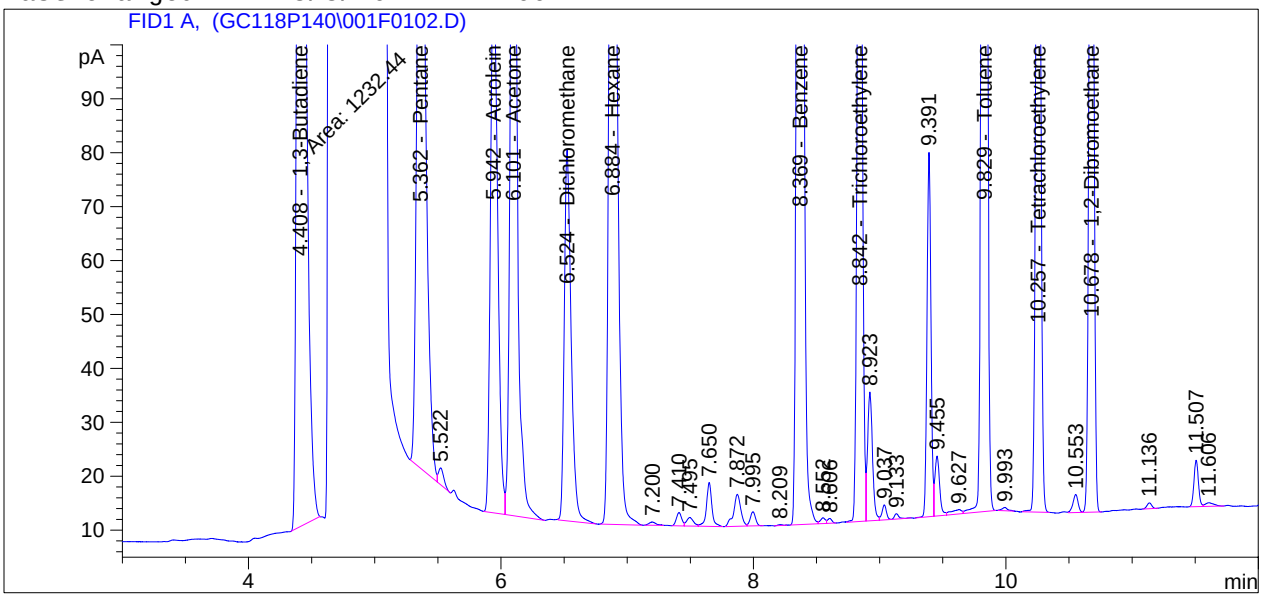
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.408	MM	1226.52844	1.50197e-1	184.22063		1,3-Butadiene
5.363	BV	659.69550	1.65769e-1	109.35715		Pentane
5.942	VV	396.10916	3.40248e-1	134.77540		Acrolein
6.101	VB	589.05688	2.19368e-1	129.21994		Acetone
6.525	VB	261.99146	8.60915e-1	225.55225		Dichloromethane
6.884	BB	842.12280	1.31205e-1	110.49096		Hexane
8.369	BV	1321.65991	1.10115e-1	145.53399		Benzene
8.842	VV	470.15738	5.22685e-1	245.74440		Trichloroethylene
9.829	VB	1312.40234	1.09010e-1	143.06532		Toluene
10.256	BB	465.51535	5.71160e-1	265.88364		Tetrachloroethylene
10.678	VB	464.56262	7.56242e-1	351.32166		1,2-Dibromoethane

Totals : 2045.16534

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\001F0102.D
Sample Name: gc118p137 #5

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   1
Acq. Instrument : Veronica                          Location : Vial 1
Injection Date  : 03-Aug-11, 20:30:16                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

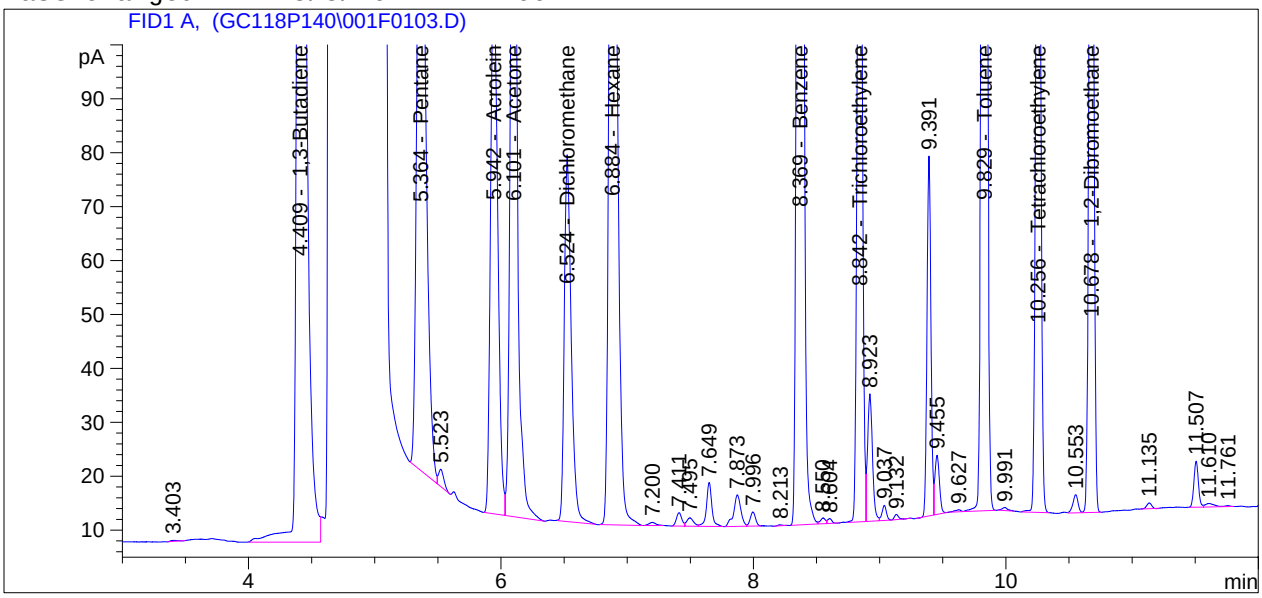
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.408 MM     1232.44055 1.50197e-1  185.10863    1,3-Butadiene
  5.362 BV      661.77423 1.65765e-1  109.69918    Pentane
  5.942 VV      395.07928 3.40249e-1  134.42541    Acrolein
  6.101 VB      585.15521 2.19349e-1  128.35325    Acetone
  6.524 BB      259.97644 8.60894e-1  223.81223    Dichloromethane
  6.884 BB      844.06824 1.31205e-1  110.74609    Hexane
  8.369 BB     1320.14880 1.10114e-1  145.36734    Benzene
  8.842 BV      465.96396 5.22680e-1  243.55022    Trichloroethylene
  9.829 VB     1307.94299 1.09008e-1  142.57604    Toluene
 10.257 BB      462.08960 5.71156e-1  263.92503    Tetrachloroethylene
 10.678 VB      462.43723 7.56235e-1  349.71123    1,2-Dibromoethane

Totals :                              2037.27466


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\001F0103.D
Sample Name: gc118p137 #5

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   1
Acq. Instrument : Veronica                          Location : Vial 1
Injection Date  : 03-Aug-11, 20:48:01                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

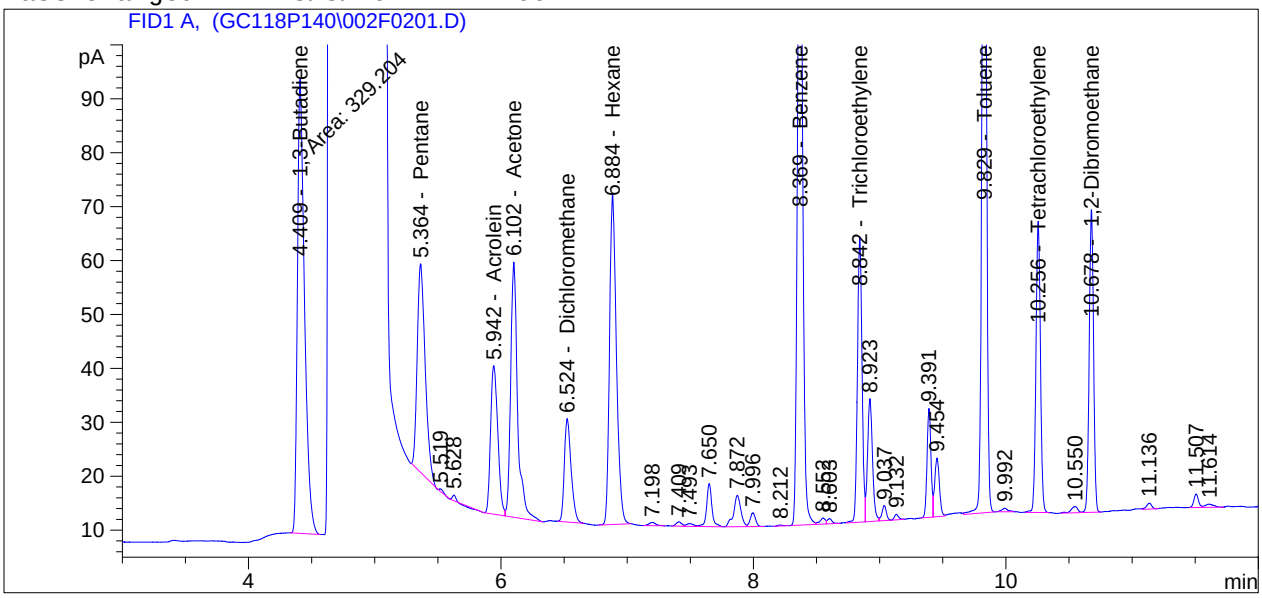
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.409 BBA    1294.33203 1.50197e-1  194.40482    1,3-Butadiene
  5.364 BV      657.39288 1.65773e-1  108.97829    Pentane
  5.942 VV      394.69333 3.40250e-1  134.29425    Acrolein
  6.101 VB      585.48303 2.19351e-1  128.42607    Acetone
  6.524 BB      258.92770 8.60884e-1  222.90661    Dichloromethane
  6.884 BB      840.58771 1.31205e-1  110.28963    Hexane
  8.369 BB     1319.45593 1.10114e-1  145.29093    Benzene
  8.842 BV      466.56317 5.22681e-1  243.86375    Trichloroethylene
  9.829 VB     1308.57629 1.09008e-1  142.64552    Toluene
 10.256 BB      463.26309 5.71157e-1  264.59595    Tetrachloroethylene
 10.678 VB      464.98584 7.56243e-1  351.64234    1,2-Dibromoethane

Totals :                             2047.33818


==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\002F0201.D
Sample Name: gc118p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   2
Acq. Instrument : Veronica                          Location : Vial 2
Injection Date  : 03-Aug-11, 21:05:47                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

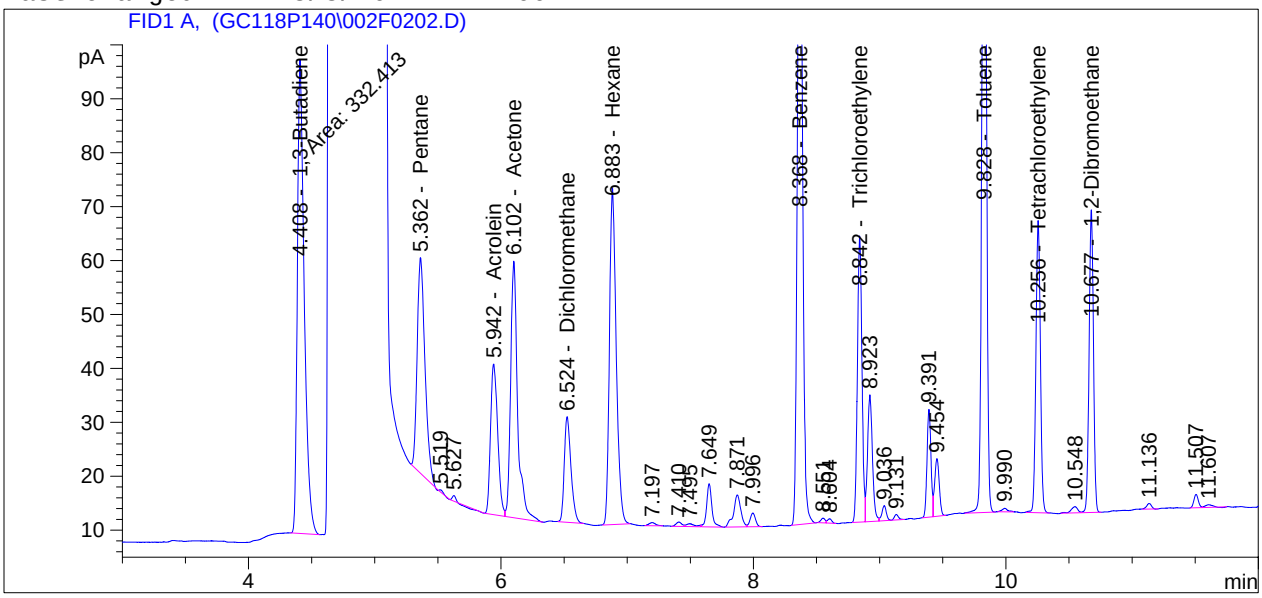
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	329.20374	1.50184e-1	49.44120		1,3-Butadiene
5.364	BV	169.86671	1.69326e-1	28.76290		Pentane
5.942	VV	109.56181	3.41326e-1	37.39631		Acrolein
6.102	VB	182.51233	2.13207e-1	38.91294		Acetone
6.524	BB	71.88898	8.54001e-1	61.39325		Dichloromethane
6.884	BB	232.96626	1.31362e-1	30.60288		Hexane
8.369	BB	377.39935	1.09699e-1	41.40022		Benzene
8.842	BV	133.90565	5.21282e-1	69.80259		Trichloroethylene
9.829	BB	383.58774	1.07291e-1	41.15536		Toluene
10.256	BB	133.85051	5.69744e-1	76.26055		Tetrachloroethylene
10.678	VB	134.94307	7.52658e-1	101.56598		1,2-Dibromoethane

Totals : 576.69417

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\002F0202.D
Sample Name: gc118p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   2
Acq. Instrument : Veronica                          Location : Vial 2
Injection Date  : 03-Aug-11, 21:23:35                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.408	MM	332.41293	1.50184e-1	49.92322		1,3-Butadiene
5.362	BB	171.98607	1.69267e-1	29.11161		Pentane
5.942	VV	110.16351	3.41318e-1	37.60079		Acrolein
6.102	VB	184.36771	2.13297e-1	39.32508		Acetone
6.524	BB	72.35897	8.54063e-1	61.79909		Dichloromethane
6.883	BB	233.88538	1.31361e-1	30.72342		Hexane
8.368	BB	376.74200	1.09698e-1	41.32772		Benzene
8.842	BV	132.95238	5.21268e-1	69.30379		Trichloroethylene
9.828	BB	381.85071	1.07280e-1	40.96477		Toluene
10.256	BB	133.92207	5.69745e-1	76.30146		Tetrachloroethylene
10.677	VB	134.79082	7.52652e-1	101.45062		1,2-Dibromoethane

Totals : 577.83159

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\002F0203.D
Sample Name: gc118p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   2
Acq. Instrument : Veronica                          Location : Vial 2
Injection Date  : 03-Aug-11, 21:41:26                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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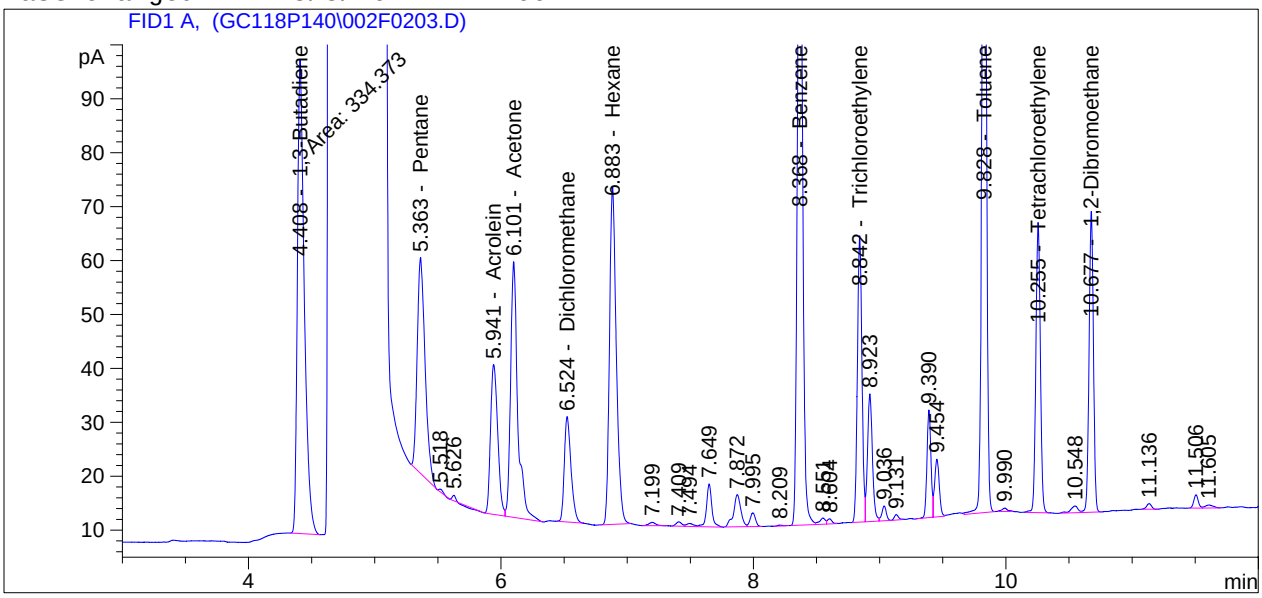


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.408	MM	334.37347	1.50184e-1	50.21770		1,3-Butadiene
5.363	BV	173.28935	1.69232e-1	29.32605		Pentane
5.941	VV	109.69628	3.41324e-1	37.44201		Acrolein
6.101	VB	187.67322	2.13453e-1	40.05934		Acetone
6.524	BB	72.29599	8.54054e-1	61.74471		Dichloromethane
6.883	BB	235.03400	1.31360e-1	30.87406		Hexane
8.368	BB	378.10208	1.09700e-1	41.47771		Benzene
8.842	BV	132.71515	5.21264e-1	69.17966		Trichloroethylene
9.828	BB	381.32095	1.07276e-1	40.90665		Toluene
10.255	BB	133.35356	5.69737e-1	75.97643		Tetrachloroethylene
10.677	VB	134.09386	7.52626e-1	100.92252		1,2-Dibromoethane

Totals : 578.12684

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\003F0301.D
Sample Name: gc118p137 #3

```
==================================================================
Acq. Operator   : JBB                          Seq. Line :   3
Acq. Instrument : Veronica                      Location : Vial 3
Injection Date  : 03-Aug-11, 22:03:34               Inj :   1
                                               Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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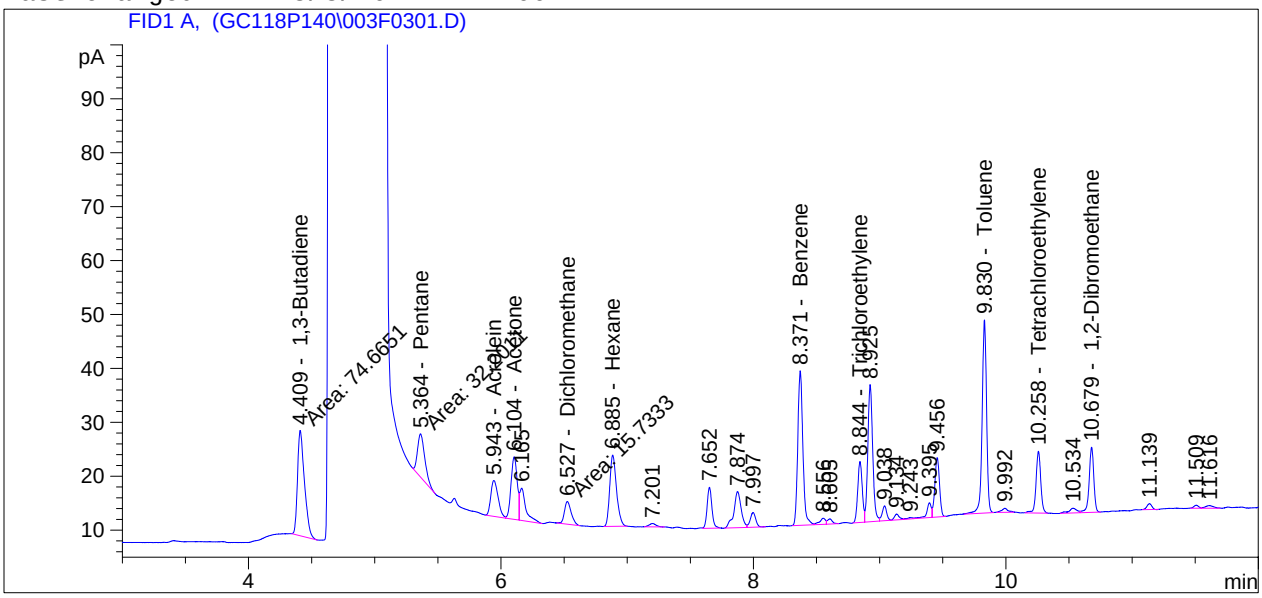


```
==================================================================
                     External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	74.66510	1.50126e-1	11.20914		1,3-Butadiene
5.364	MM	32.20111	1.89808e-1	6.11202		Pentane
5.943	BV	26.61576	3.45970e-1	9.20827		Acrolein
6.104	VV	39.45575	1.80844e-1	7.13533		Acetone
6.527	MM	15.73328	8.19992e-1	12.90117		Dichloromethane
6.885	BB	49.23299	1.32170e-1	6.50711		Hexane
8.371	BB	80.43694	1.07550e-1	8.65097		Benzene
8.844	BV	28.11043	5.13896e-1	14.44583		Trichloroethylene
9.830	BB	87.67273	9.90893e-2	8.68743		Toluene
10.258	BB	29.82384	5.62814e-1	16.78527		Tetrachloroethylene
10.679	VB	31.05643	7.35762e-1	22.85014		1,2-Dibromoethane

Totals : 124.49269

```
==================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\003F0302.D
Sample Name: gc118p137 #3

```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   3
Acq. Instrument : Veronica                      Location : Vial 3
Injection Date  : 03-Aug-11, 22:21:22                Inj :   2
                                              Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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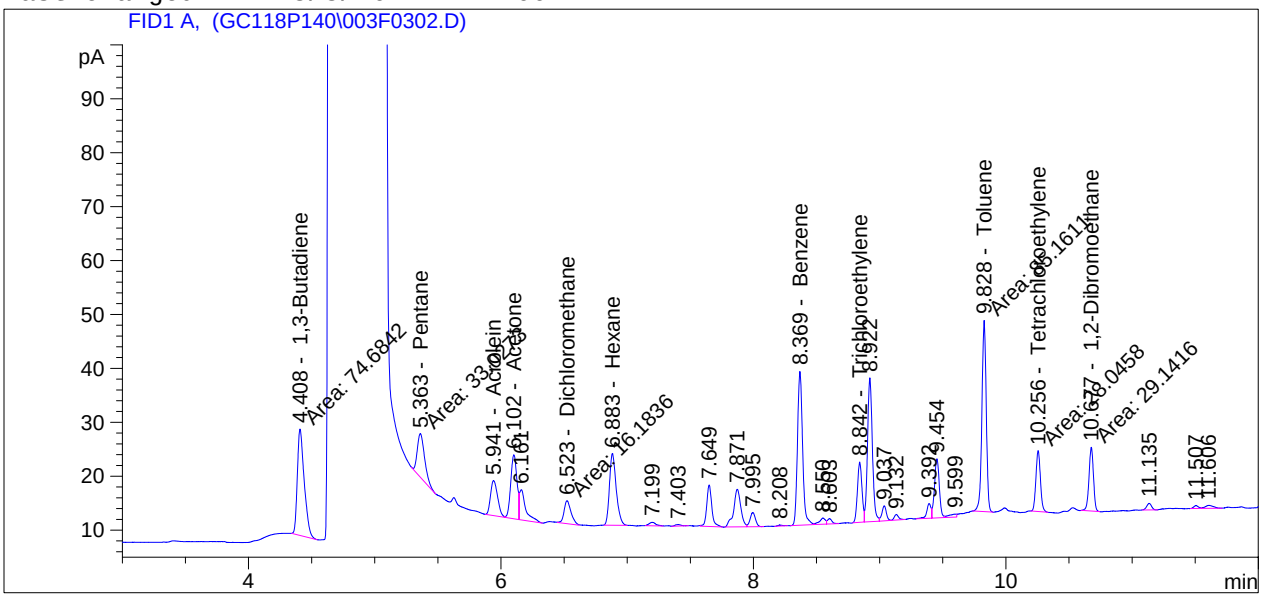


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.408 MM       74.68420 1.50126e-1   11.21201    1,3-Butadiene
  5.363 MM       33.02729 1.89175e-1    6.24795    Pentane
  5.941 VV       25.10314 3.46340e-1    8.69422    Acrolein
  6.102 VV       40.72352 1.82129e-1    7.41695    Acetone
  6.523 MM       16.18362 8.21204e-1   13.29005    Dichloromethane
  6.883 BB       49.46030 1.32165e-1    6.53692    Hexane
  8.369 BB       80.62607 1.07556e-1    8.67183    Benzene
  8.842 BV       27.87295 5.13816e-1   14.32157    Trichloroethylene
  9.828 MM       85.16109 9.87758e-2    8.41186    Toluene
 10.256 MM       28.04577 5.62249e-1   15.76869    Tetrachloroethylene
 10.677 MM       29.14163 7.34320e-1   21.39928    1,2-Dibromoethane

Totals :                               121.97134


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\003F0303.D
Sample Name: gc118p137 #3

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   3
Acq. Instrument : Veronica                          Location : Vial 3
Injection Date  : 03-Aug-11, 22:39:11                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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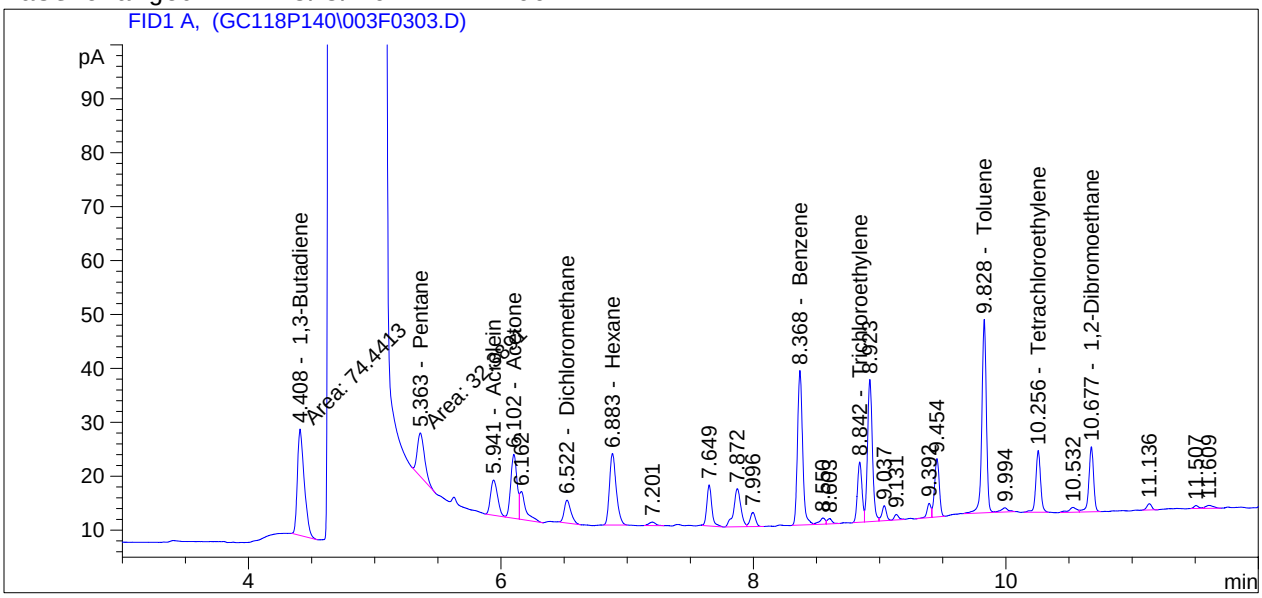


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.408	MM	74.44127	1.50125e-1	11.17552		1,3-Butadiene
5.363	MM	32.38907	1.89661e-1	6.14294		Pentane
5.941	VV	25.13787	3.46331e-1	8.70602		Acrolein
6.102	VV	41.14904	1.82543e-1	7.51147		Acetone
6.522	BB	15.68038	8.19845e-1	12.85549		Dichloromethane
6.883	BB	49.34695	1.32167e-1	6.52206		Hexane
8.368	BB	80.40044	1.07549e-1	8.64695		Benzene
8.842	BV	27.93996	5.13839e-1	14.35664		Trichloroethylene
9.828	BB	89.22945	9.92748e-2	8.85824		Toluene
10.256	BB	29.75654	5.62794e-1	16.74680		Tetrachloroethylene
10.677	VB	31.49629	7.36069e-1	23.18343		1,2-Dibromoethane

Totals : 124.70555

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\004F0401.D
Sample Name: gc118p137 #1

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   4
Acq. Instrument : Veronica                          Location : Vial 4
Injection Date  : 03-Aug-11, 23:12:41                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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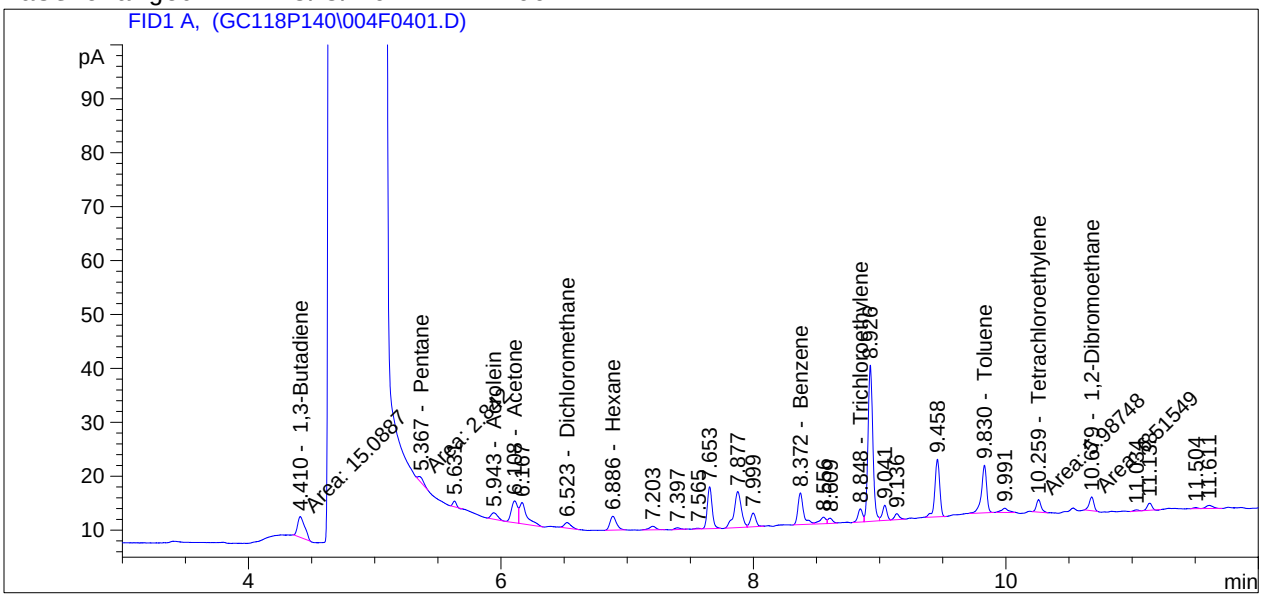



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

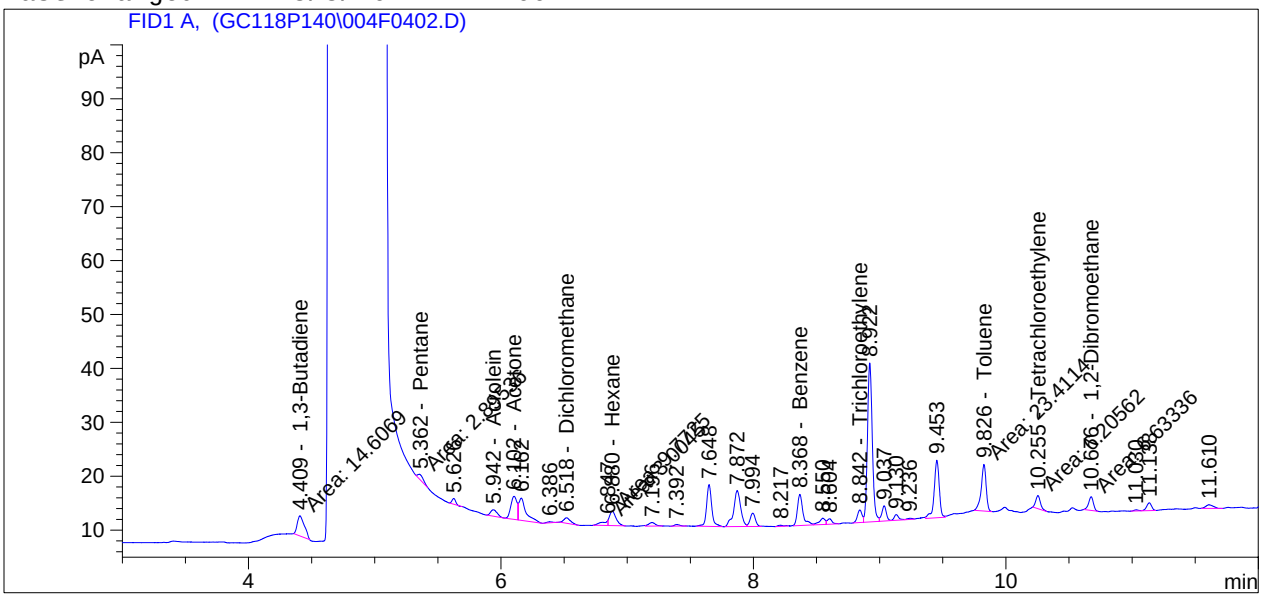
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.410	MM	15.08873	1.49826e-1	2.26068		1,3-Butadiene
5.367	MM	2.84200	4.50880e-1	1.28140		Pentane
5.943	BV	4.30224	3.77157e-1	1.62262		Acrolein
6.108	VV	13.75011	1.09262e-1	1.50236		Acetone
6.523	BB	3.89121	6.87497e-1	2.67520		Dichloromethane
6.886	BB	9.21334	1.36400e-1	1.25670		Hexane
8.372	BB	17.95813	9.80483e-2	1.76076		Benzene
8.848	BV	6.25874	4.81257e-1	3.01206		Trichloroethylene
9.830	BB	25.11224	7.26048e-2	1.82327		Toluene
10.259	MM	5.98748	5.28151e-1	3.16229		Tetrachloroethylene
10.679	MM	6.51549	6.54224e-1	4.26259		1,2-Dibromoethane

```
Totals :                          24.61994

==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\004F0402.D
Sample Name: gc118p137 #1

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   4
Acq. Instrument : Veronica                          Location : Vial 4
Injection Date  : 03-Aug-11, 23:30:21                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

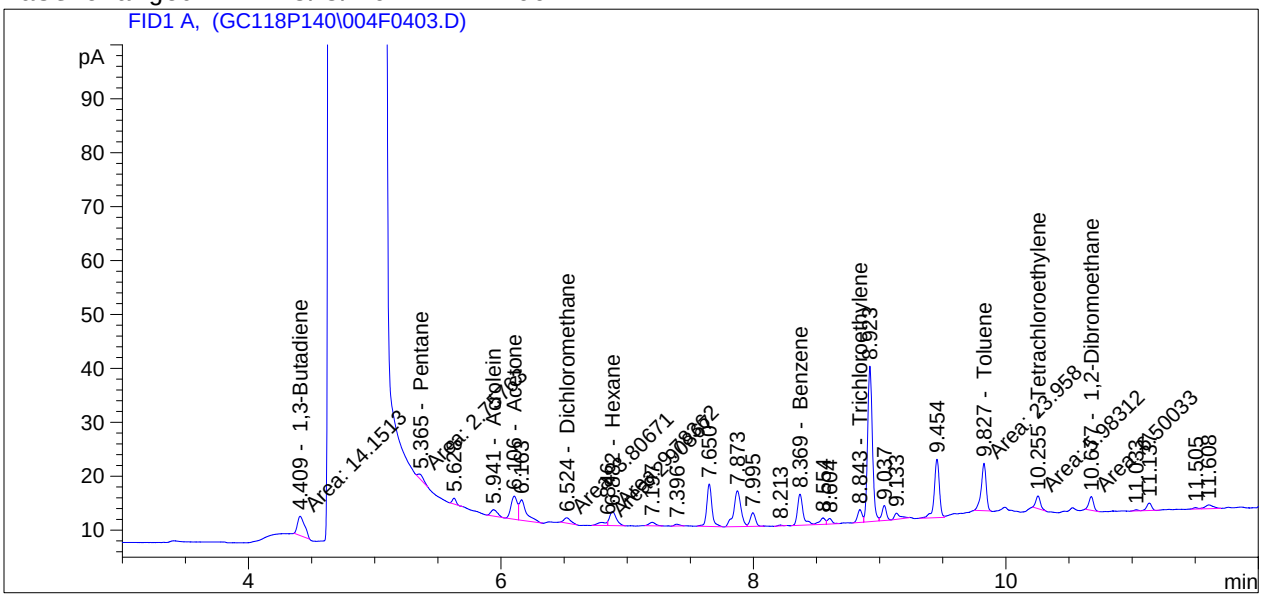
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	14.60688	1.49815e-1	2.18833		1,3-Butadiene
5.362	MM	2.89536	4.45602e-1	1.29018		Pentane
5.942	BV	4.29101	3.77157e-1	1.61839		Acrolein
6.102	VV	14.41507	1.09262e-1	1.57502		Acetone
6.518	BB	3.76467	6.85848e-1	2.58199		Dichloromethane
6.880	FM	9.77250	1.36306e-1	1.33205		Hexane
8.368	VB	17.54150	9.79439e-2	1.71808		Benzene
8.842	BV	5.97116	4.80042e-1	2.86641		Trichloroethylene
9.826	MM	23.41138	7.12031e-2	1.66696		Toluene
10.255	MM	6.20562	5.28876e-1	3.28200		Tetrachloroethylene
10.676	MM	6.63336	6.54957e-1	4.34456		1,2-Dibromoethane

Totals : 24.46397

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\004F0403.D
Sample Name: gc118p137 #1

```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   4
Acq. Instrument : Veronica                      Location : Vial 4
Injection Date  : 03-Aug-11, 23:48:06               Inj :   3
                                               Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

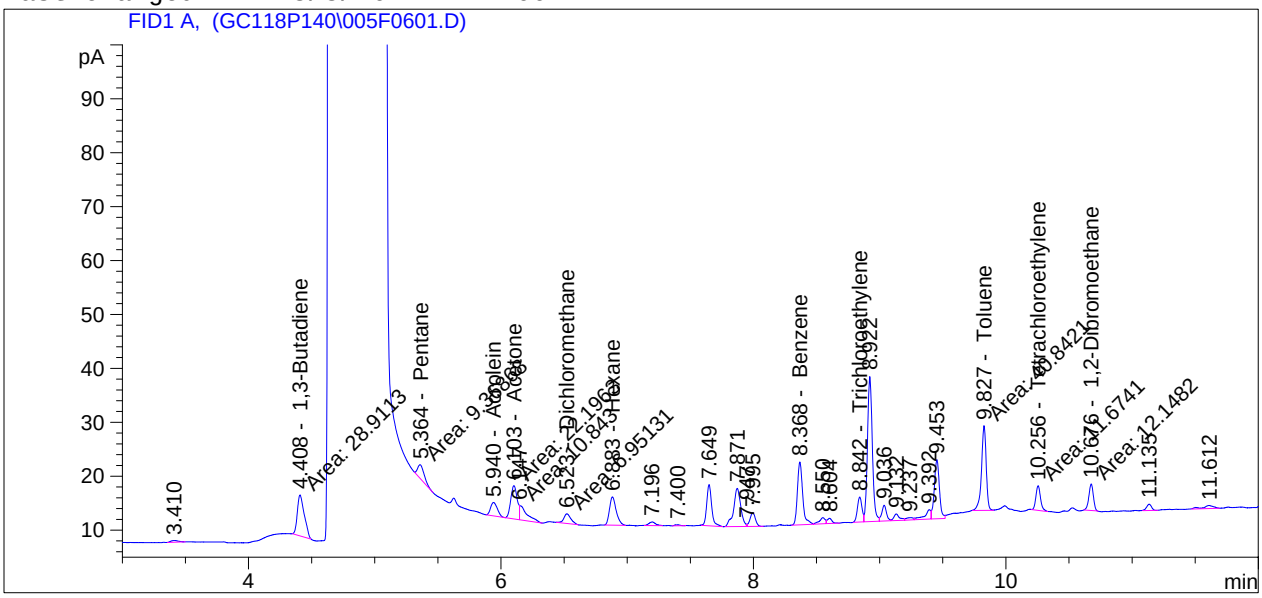
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	14.15128	1.49815e-1	2.12007		1,3-Butadiene
5.365	MM	2.75763	4.59640e-1	1.26752		Pentane
5.941	BV	4.28510	3.77157e-1	1.61616		Acrolein
6.106	VV	14.85074	1.12435e-1	1.66975		Acetone
6.524	MM	3.80671	6.85848e-1	2.61082		Dichloromethane
6.882	FM	9.78362	1.36300e-1	1.33351		Hexane
8.369	BB	17.67497	9.79439e-2	1.73116		Benzene
8.843	BV	5.92655	4.80042e-1	2.84499		Trichloroethylene
9.827	MM	23.95801	7.12031e-2	1.70588		Toluene
10.255	MM	5.98312	5.28151e-1	3.15999		Tetrachloroethylene
10.677	MM	6.50033	6.54224e-1	4.25268		1,2-Dibromoethane

Totals : 24.31253

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\005F0601.D
Sample Name: gc118p137 #2

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   6
Acq. Instrument : Veronica                          Location : Vial 5
Injection Date  : 04-Aug-11, 00:59:14                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

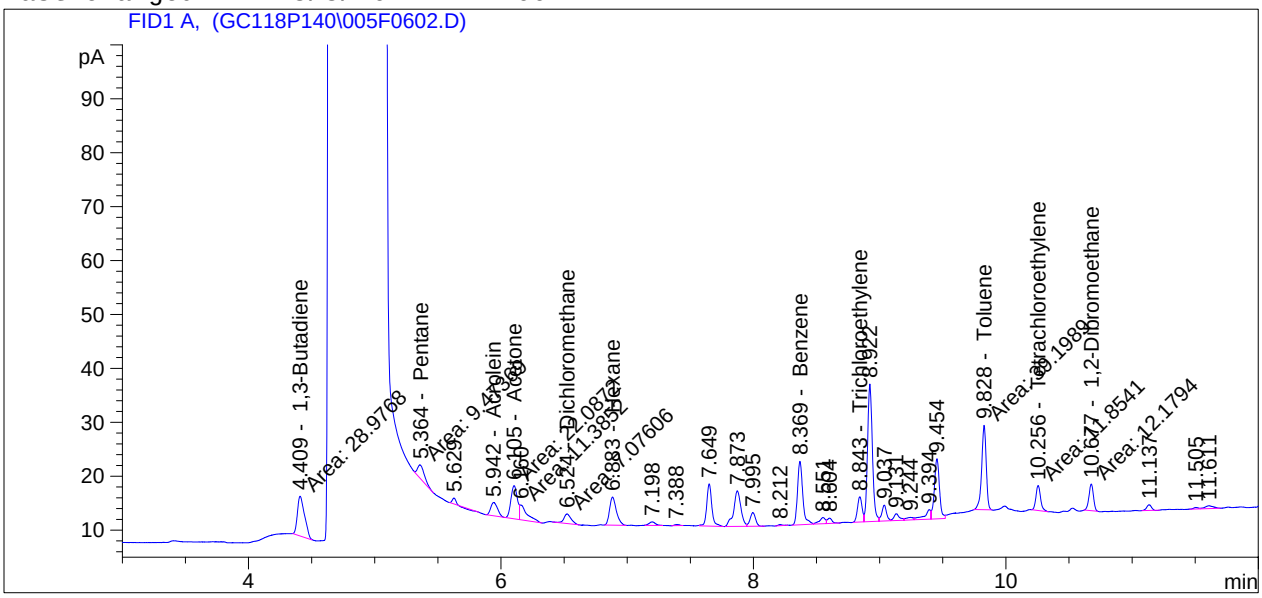
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.408	MM	28.91132	1.50005e-1	4.33686		1,3-Butadiene
5.364	MM	9.36868	2.51398e-1	2.35527		Pentane
5.940	VV	9.26349	3.57462e-1	3.31134		Acrolein
6.103	MF	22.19626	1.48738e-1	3.30143		Acetone
6.523	MM	6.95131	7.64990e-1	5.31768		Dichloromethane
6.883	BB	19.50779	1.33731e-1	2.60879		Hexane
8.368	BB	33.69397	1.03761e-1	3.49613		Benzene
8.842	BV	11.68691	5.00758e-1	5.85232		Trichloroethylene
9.827	MM	40.84208	8.68994e-2	3.54915		Toluene
10.256	MM	11.67411	5.48950e-1	6.40850		Tetrachloroethylene
10.676	MM	12.14825	7.01603e-1	8.52324		1,2-Dibromoethane

Totals : 49.06071

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\005F0602.D
Sample Name: gc118p137 #2

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   6
Acq. Instrument : Veronica                          Location : Vial 5
Injection Date  : 04-Aug-11, 01:16:59                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

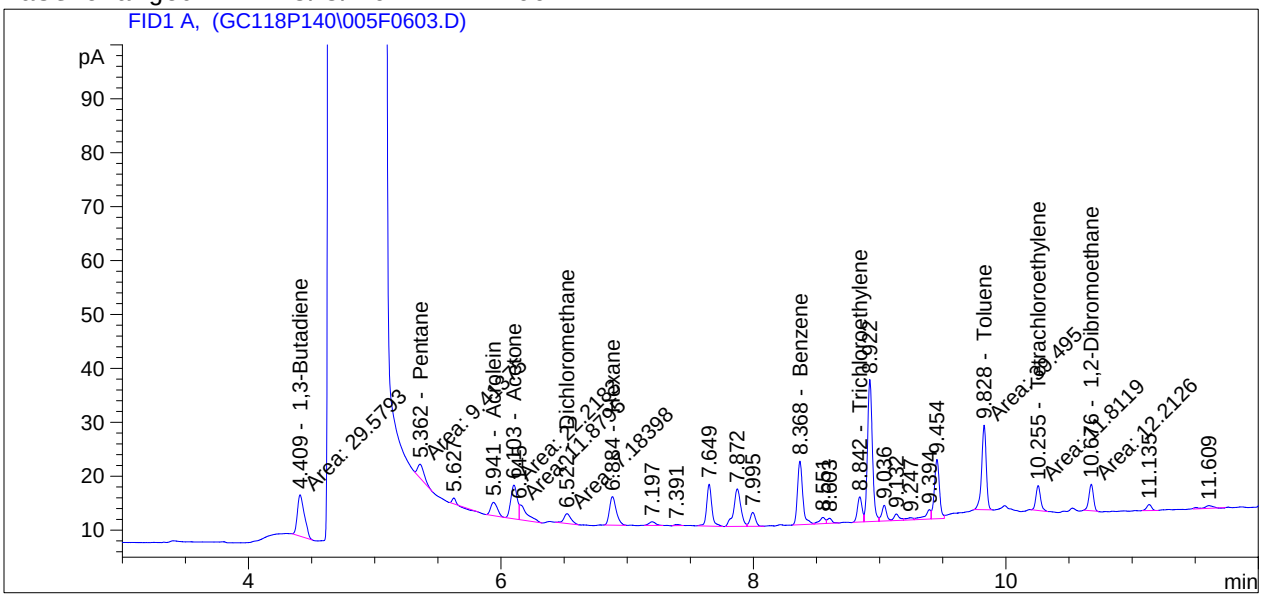
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	28.97683	1.50006e-1	4.34670		1,3-Butadiene
5.364	MM	9.47369	2.50436e-1	2.37255		Pentane
5.942	BV	9.27036	3.57448e-1	3.31367		Acrolein
6.105	MF	22.08724	1.48376e-1	3.27721		Acetone
6.524	MM	7.07606	7.66727e-1	5.42541		Dichloromethane
6.883	BB	19.48355	1.33734e-1	2.60561		Hexane
8.369	BB	33.95927	1.03812e-1	3.52538		Benzene
8.843	BV	11.89888	5.01159e-1	5.96323		Trichloroethylene
9.828	MM	39.19893	8.59428e-2	3.36887		Toluene
10.256	MM	11.85407	5.49296e-1	6.51139		Tetrachloroethylene
10.677	MM	12.17941	7.01746e-1	8.54685		1,2-Dibromoethane

Totals : 49.25687

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\005F0603.D
Sample Name: gc118p137 #2

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   6
Acq. Instrument : Veronica                          Location : Vial 5
Injection Date  : 04-Aug-11, 01:34:44                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

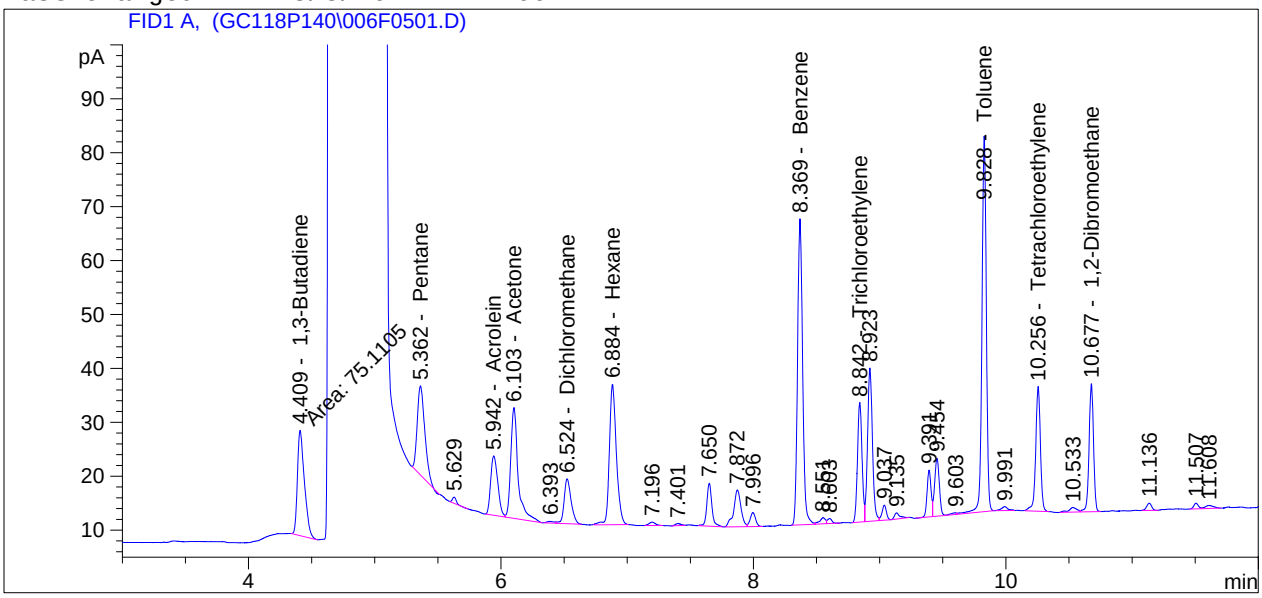
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	29.57927	1.50010e-1	4.43718		1,3-Butadiene
5.362	MM	9.41375	2.50982e-1	2.36269		Pentane
5.941	BV	9.22799	3.57529e-1	3.29928		Acrolein
6.103	MF	22.21833	1.48811e-1	3.30633		Acetone
6.522	MM	7.18398	7.68181e-1	5.51860		Dichloromethane
6.884	BB	19.63965	1.33713e-1	2.62608		Hexane
8.368	BB	33.96746	1.03814e-1	3.52629		Benzene
8.842	BV	11.81785	5.01008e-1	5.92083		Trichloroethylene
9.828	MM	39.49500	8.61211e-2	3.40135		Toluene
10.255	MM	11.81188	5.49216e-1	6.48727		Tetrachloroethylene
10.676	MM	12.21259	7.01898e-1	8.57200		1,2-Dibromoethane

Totals : 49.45790

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\006F0501.D
Sample Name: gc118p137 #3ss

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   5
Acq. Instrument : Veronica                          Location : Vial 6
Injection Date  : 04-Aug-11, 00:05:54                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

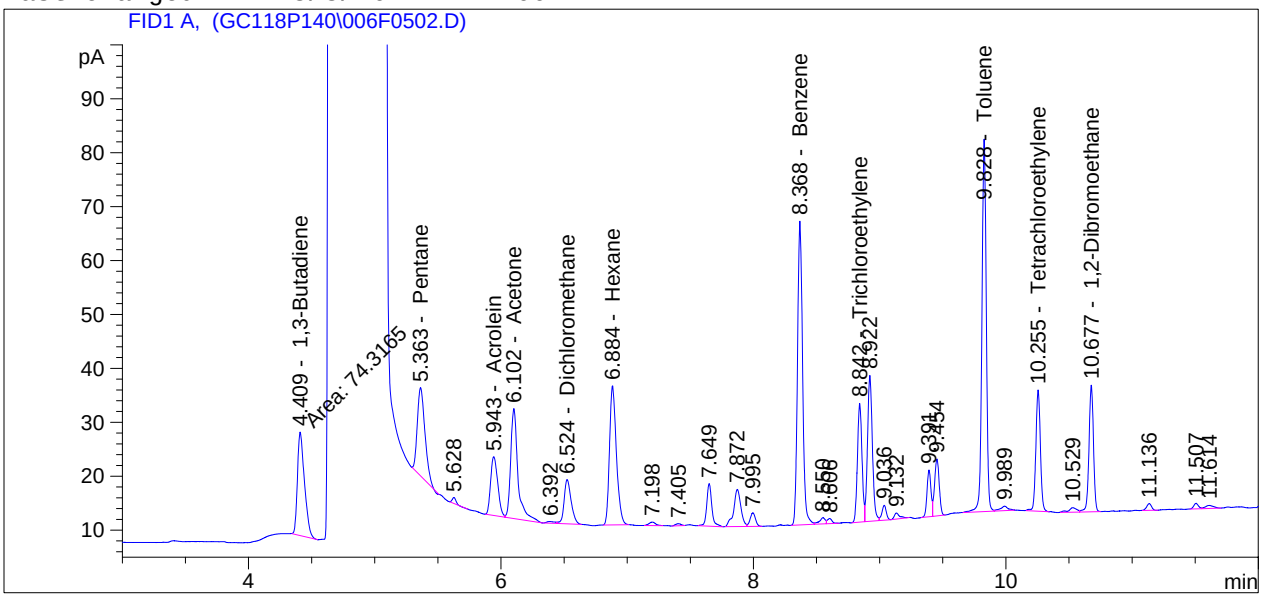
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	75.11055	1.50126e-1	11.27605		1,3-Butadiene
5.362	BB	68.55032	1.76407e-1	12.09275		Pentane
5.942	BV	43.16833	3.43618e-1	14.83342		Acrolein
6.103	VB	82.69247	2.02432e-1	16.73964		Acetone
6.524	VB	31.78969	8.41982e-1	26.76635		Dichloromethane
6.884	BB	100.40309	1.31648e-1	13.21783		Hexane
8.369	BB	158.65086	1.08896e-1	17.27647		Benzene
8.842	BV	55.50272	5.18510e-1	28.77869		Trichloroethylene
9.828	VB	167.92763	1.04170e-1	17.49304		Toluene
10.256	BB	60.22330	5.67315e-1	34.16559		Tetrachloroethylene
10.677	VB	58.67445	7.46092e-1	43.77657		1,2-Dibromoethane

Totals : 236.41639

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\006F0502.D
Sample Name: gc118p137 #3ss

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   5
Acq. Instrument : Veronica                          Location : Vial 6
Injection Date  : 04-Aug-11, 00:23:42                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	74.31646	1.50125e-1	11.15677		1,3-Butadiene
5.363	BB	68.42970	1.76428e-1	12.07291		Pentane
5.943	BV	42.64298	3.43665e-1	14.65489		Acrolein
6.102	VB	81.58979	2.02166e-1	16.49470		Acetone
6.524	VB	31.62698	8.41871e-1	26.62584		Dichloromethane
6.884	BB	97.50893	1.31663e-1	12.83828		Hexane
8.368	BB	157.42126	1.08885e-1	17.14087		Benzene
8.842	BV	55.07460	5.18473e-1	28.55468		Trichloroethylene
9.828	BV	166.22408	1.04113e-1	17.30612		Toluene
10.255	BB	56.42928	5.67018e-1	31.99643		Tetrachloroethylene
10.677	VB	58.22442	7.46003e-1	43.43557		1,2-Dibromoethane

Totals : 232.27705

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\006F0503.D
Sample Name: gc118p137 #3ss

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   5
Acq. Instrument : Veronica                          Location : Vial 6
Injection Date  : 04-Aug-11, 00:41:27                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/3/2011 8:27:48 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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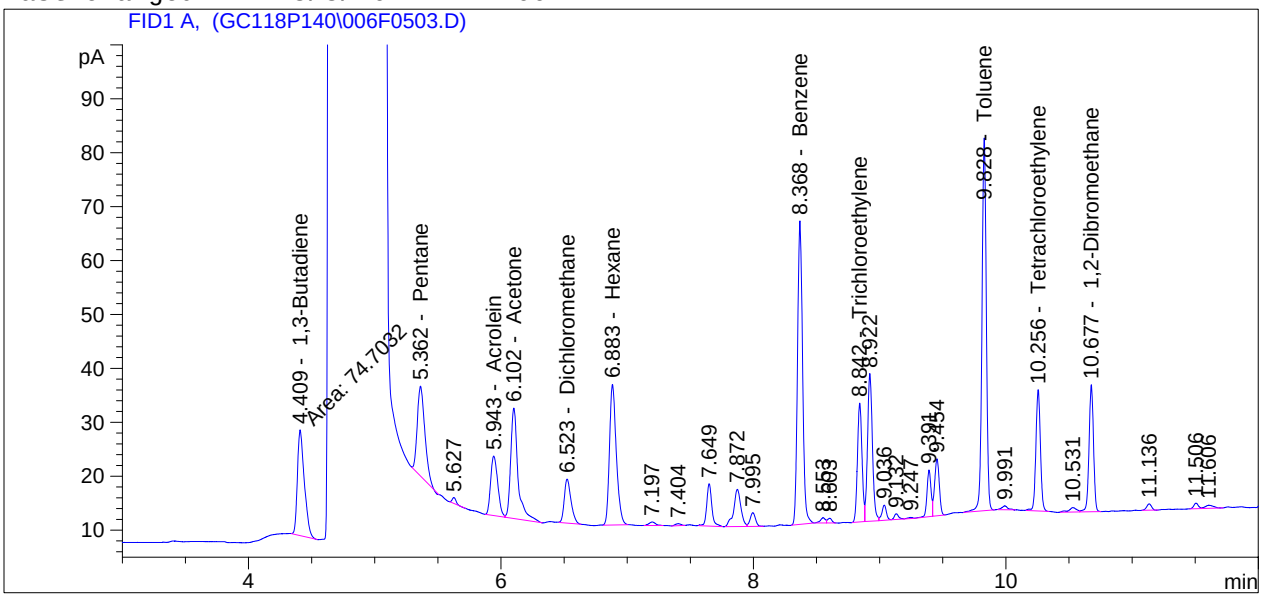



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

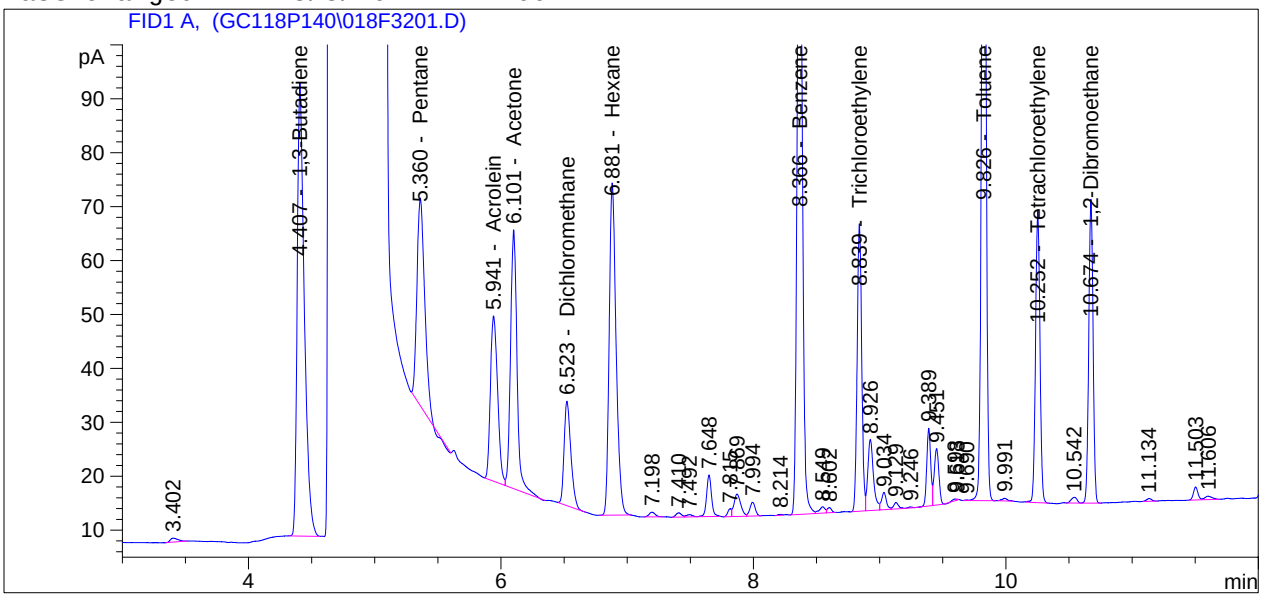
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	74.70323	1.50126e-1	11.21487		1,3-Butadiene
5.362	BB	69.28531	1.76281e-1	12.21369		Pentane
5.943	BV	42.94404	3.43638e-1	14.75720		Acrolein
6.102	VB	82.21667	2.02318e-1	16.63395		Acetone
6.523	BB	30.08709	8.40763e-1	25.29610		Dichloromethane
6.883	BB	97.71064	1.31662e-1	12.86473		Hexane
8.368	BB	156.37598	1.08876e-1	17.02559		Benzene
8.842	BV	55.04536	5.18470e-1	28.53938		Trichloroethylene
9.828	BB	165.10388	1.04075e-1	17.18321		Toluene
10.256	BB	56.44112	5.67019e-1	32.00320		Tetrachloroethylene
10.677	VB	58.03527	7.45964e-1	43.29225		1,2-Dibromoethane

Totals : 231.02417

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\018F3201.D
Sample Name: gc118p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  32
Acq. Instrument : Veronica                          Location : Vial 18
Injection Date  : 06-Aug-11, 08:33:12                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

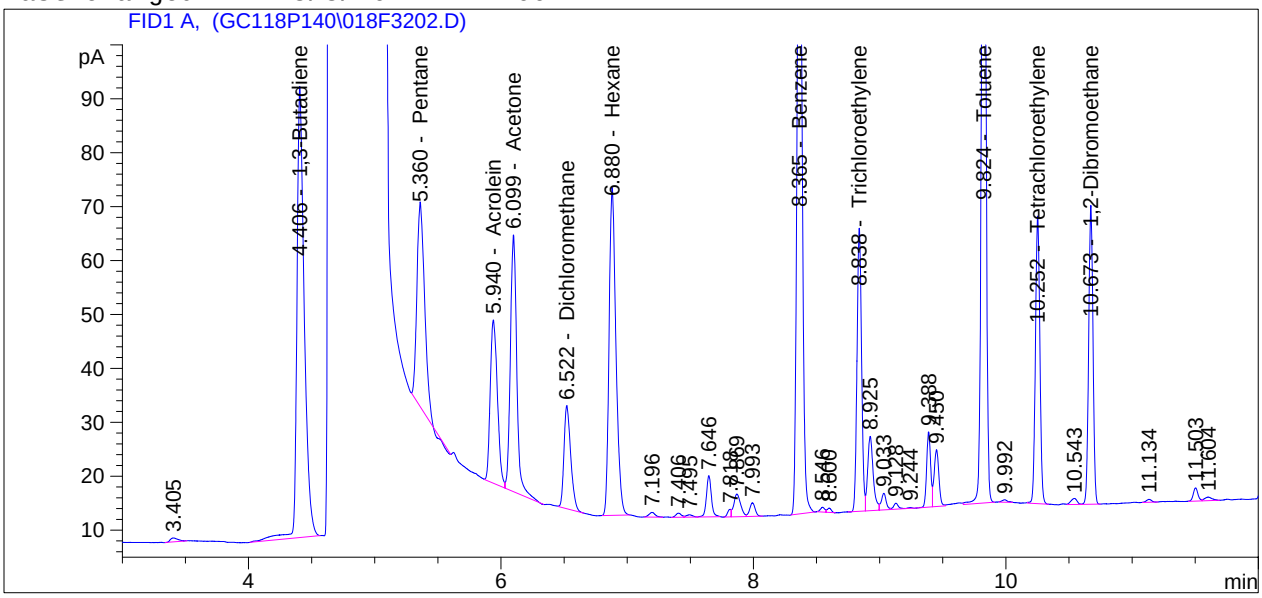
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.407	BB	328.76965	1.50184e-1	49.37600		1,3-Butadiene
5.360	BV	162.43253	1.69546e-1	27.53972		Pentane
5.941	VV	121.99685	3.41174e-1	41.62219		Acrolein
6.101	VB	171.27374	2.12621e-1	36.41647		Acetone
6.523	BB	72.09087	8.54027e-1	61.56758		Dichloromethane
6.881	BB	233.89307	1.31361e-1	30.72443		Hexane
8.366	BB	379.69095	1.09702e-1	41.65294		Benzene
8.839	BV	133.82567	5.21281e-1	69.76073		Trichloroethylene
9.826	VB	384.97369	1.07299e-1	41.30743		Toluene
10.252	BB	133.33574	5.69737e-1	75.96624		Tetrachloroethylene
10.674	VB	134.43591	7.52639e-1	101.18170		1,2-Dibromoethane

```
Totals :                          577.11542

==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\018F3202.D
Sample Name: gc118p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  32
Acq. Instrument : Veronica                          Location : Vial 18
Injection Date  : 06-Aug-11, 08:51:00                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```

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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.406	BB	340.36954	1.50185e-1	51.11832		1,3-Butadiene
5.360	BV	158.57910	1.69667e-1	26.90569		Pentane
5.940	VV	119.54715	3.41202e-1	40.78969		Acrolein
6.099	VB	168.63133	2.12472e-1	35.82951		Acetone
6.522	BB	70.89097	8.53867e-1	60.53143		Dichloromethane
6.880	BB	230.13512	1.31365e-1	30.23159		Hexane
8.365	BB	371.44177	1.09689e-1	40.74321		Benzene
8.838	BV	131.32126	5.21243e-1	68.45032		Trichloroethylene
9.824	BB	381.79694	1.07279e-1	40.95887		Toluene
10.252	BB	131.24866	5.69705e-1	74.77299		Tetrachloroethylene
10.673	VB	132.35098	7.52559e-1	99.60193		1,2-Dibromoethane

Totals : 569.93355

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\018F3203.D
Sample Name: gc118p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  32
Acq. Instrument : Veronica                          Location : Vial 18
Injection Date  : 06-Aug-11, 09:08:47                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/5/2011 2:13:15 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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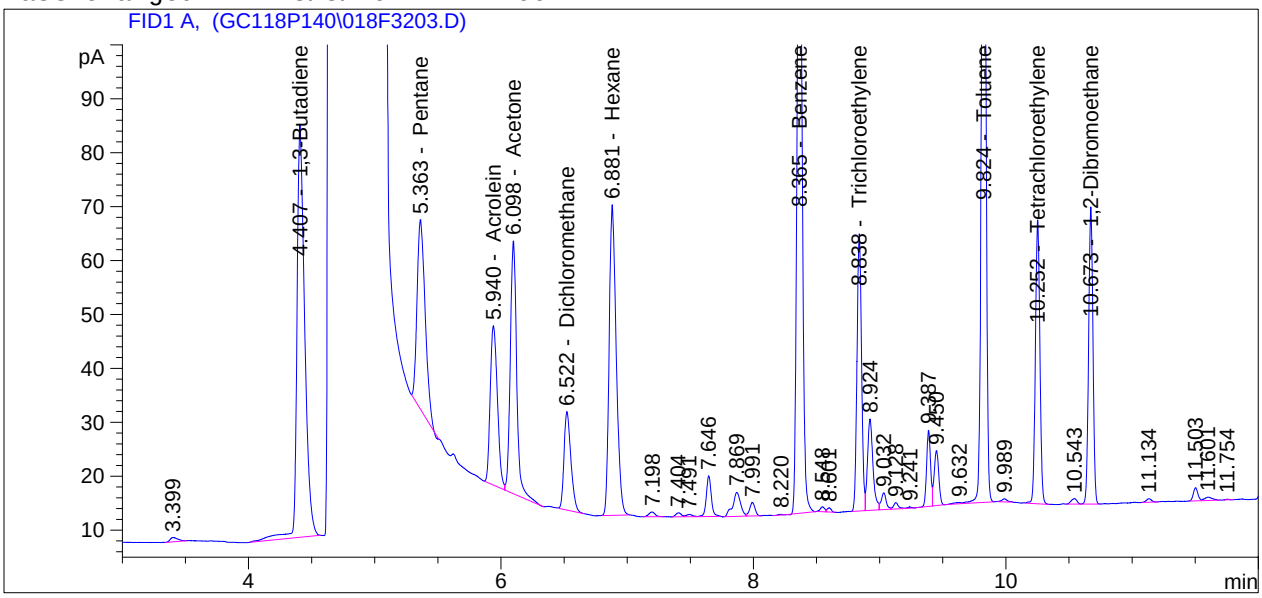



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

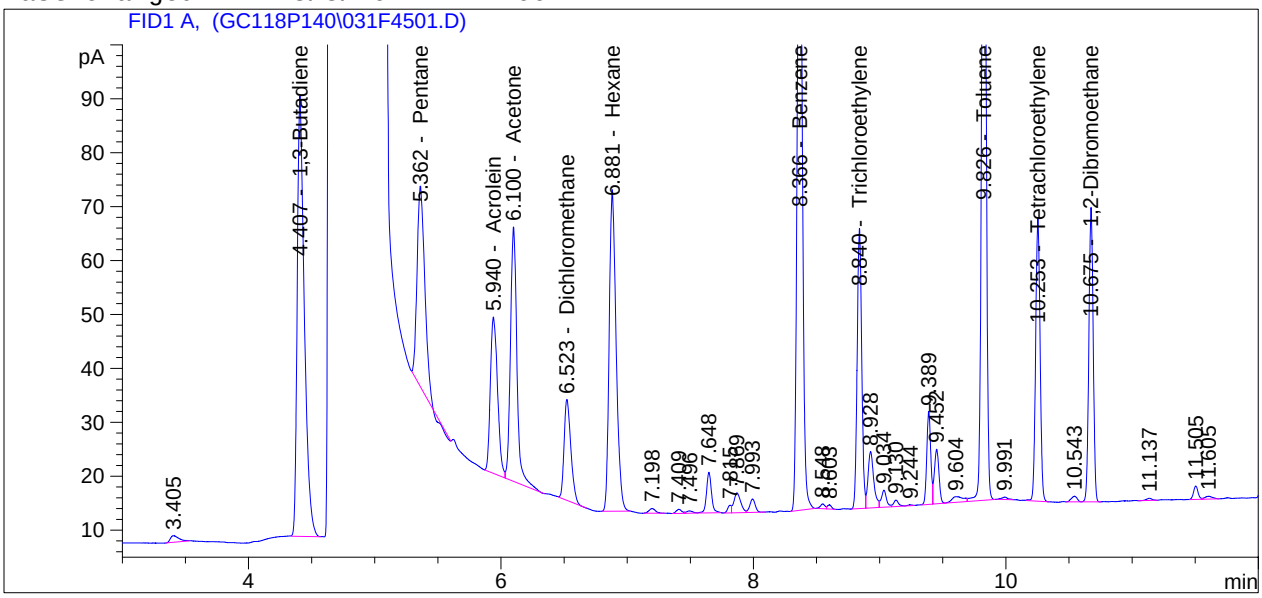
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.407 BB      329.58020 1.50184e-1   49.49774    1,3-Butadiene
  5.363 BB      156.57814 1.69733e-1   26.57646    Pentane
  5.940 BV      116.75988 3.41234e-1   39.84248    Acrolein
  6.098 VB      165.36565 2.12282e-1   35.10409    Acetone
  6.522 BB       69.11265 8.53618e-1   58.99580    Dichloromethane
  6.881 BB      224.22137 1.31370e-1   29.45603    Hexane
  8.365 VB      364.28815 1.09678e-1   39.95430    Benzene
  8.838 BV      129.10094 5.21209e-1   67.28855    Trichloroethylene
  9.824 VB      375.68359 1.07239e-1   40.28812    Toluene
 10.252 BB      130.21849 5.69689e-1   74.18401    Tetrachloroethylene
 10.673 VB      131.61671 7.52530e-1   99.04557    1,2-Dibromoethane

Totals :                              560.23315


==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\031F4501.D
Sample Name: gc118p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  45
Acq. Instrument : Veronica                          Location : Vial 31
Injection Date  : 07-Aug-11, 03:58:39                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

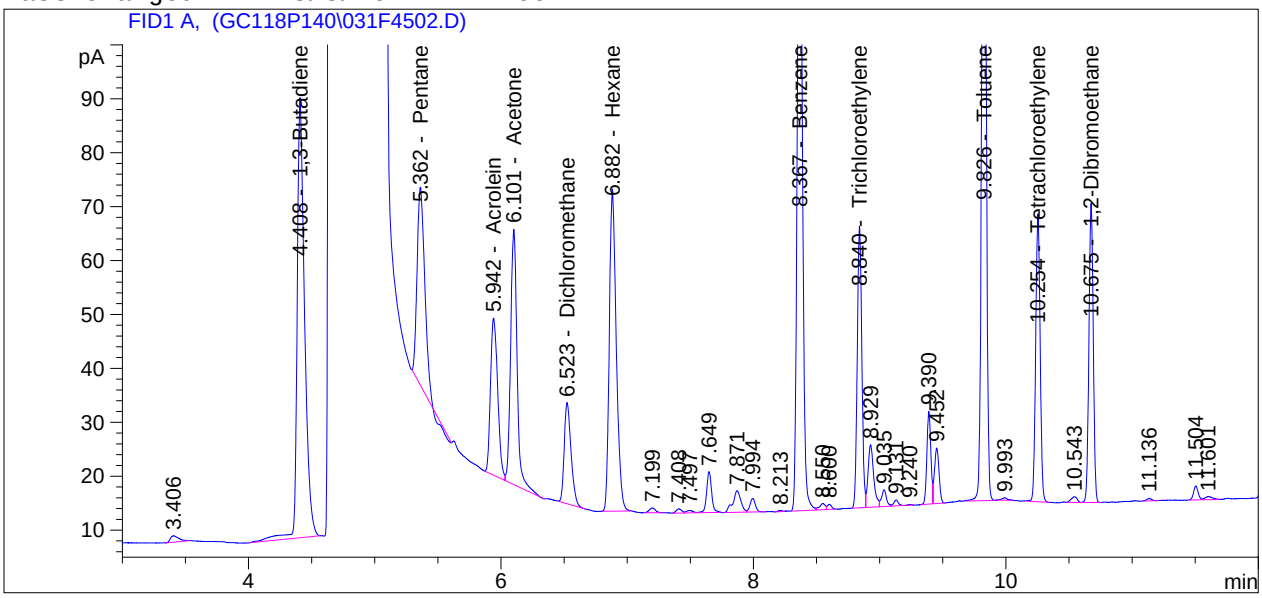
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.407	BB	319.82104	1.50184e-1	48.03191		1,3-Butadiene
5.362	BV	154.64316	1.69798e-1	26.25809		Pentane
5.940	VV	115.07146	3.41255e-1	39.26869		Acrolein
6.100	VB	168.54343	2.12467e-1	35.80998		Acetone
6.523	BB	69.77586	8.53712e-1	59.56850		Dichloromethane
6.881	BB	227.20953	1.31367e-1	29.84791		Hexane
8.366	BB	366.97281	1.09682e-1	40.25037		Benzene
8.840	BV	130.34361	5.21228e-1	67.93877		Trichloroethylene
9.826	VB	375.51675	1.07238e-1	40.26981		Toluene
10.253	BB	129.52890	5.69678e-1	73.78975		Tetrachloroethylene
10.675	VB	130.38617	7.52481e-1	98.11317		1,2-Dibromoethane

Totals : 559.14695

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\031F4502.D
Sample Name: gc118p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  45
Acq. Instrument : Veronica                          Location : Vial 31
Injection Date  : 07-Aug-11, 04:16:22                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

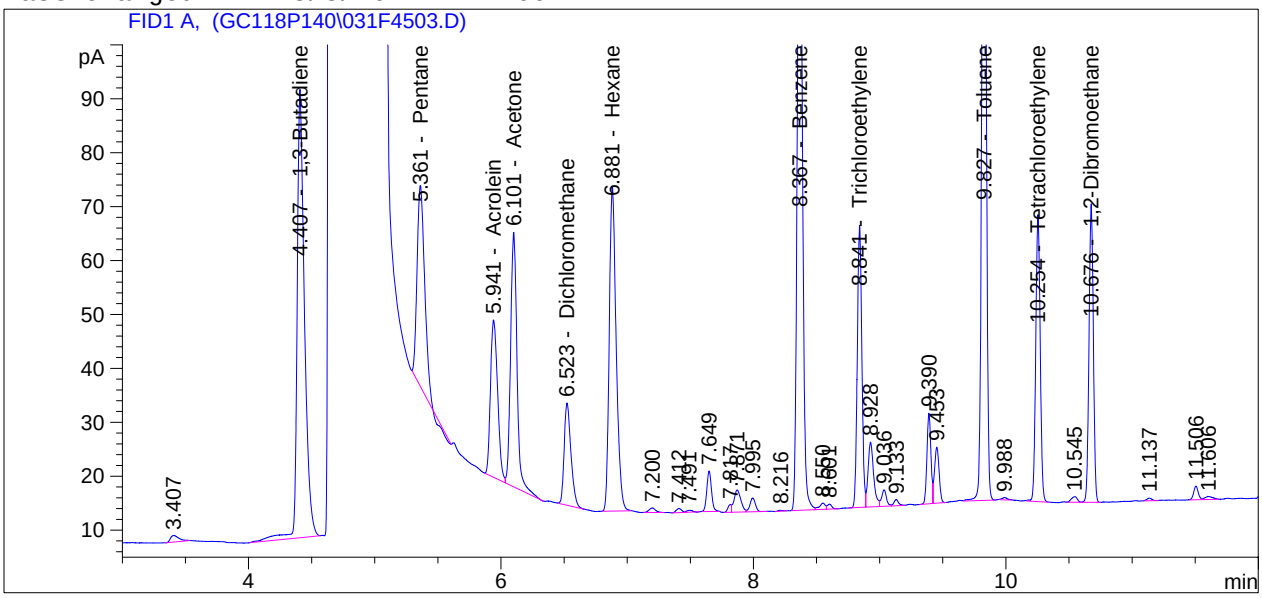
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.408	BB	336.97702	1.50185e-1	50.60876		1,3-Butadiene
5.362	BB	150.35803	1.69948e-1	25.55303		Pentane
5.942	VV	115.62033	3.41248e-1	39.45522		Acrolein
6.101	VB	169.19283	2.12504e-1	35.95423		Acetone
6.523	BB	70.57950	8.53824e-1	60.26247		Dichloromethane
6.882	BB	229.06569	1.31366e-1	30.09134		Hexane
8.367	BB	372.89200	1.09692e-1	40.90314		Benzene
8.840	BV	131.22165	5.21242e-1	68.39820		Trichloroethylene
9.826	BB	378.46243	1.07258e-1	40.59301		Toluene
10.254	BB	131.51465	5.69709e-1	74.92506		Tetrachloroethylene
10.675	VB	132.61778	7.52569e-1	99.80409		1,2-Dibromoethane

Totals : 566.54855

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\031F4503.D
Sample Name: gc118p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  45
Acq. Instrument : Veronica                          Location : Vial 31
Injection Date  : 07-Aug-11, 04:34:06                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

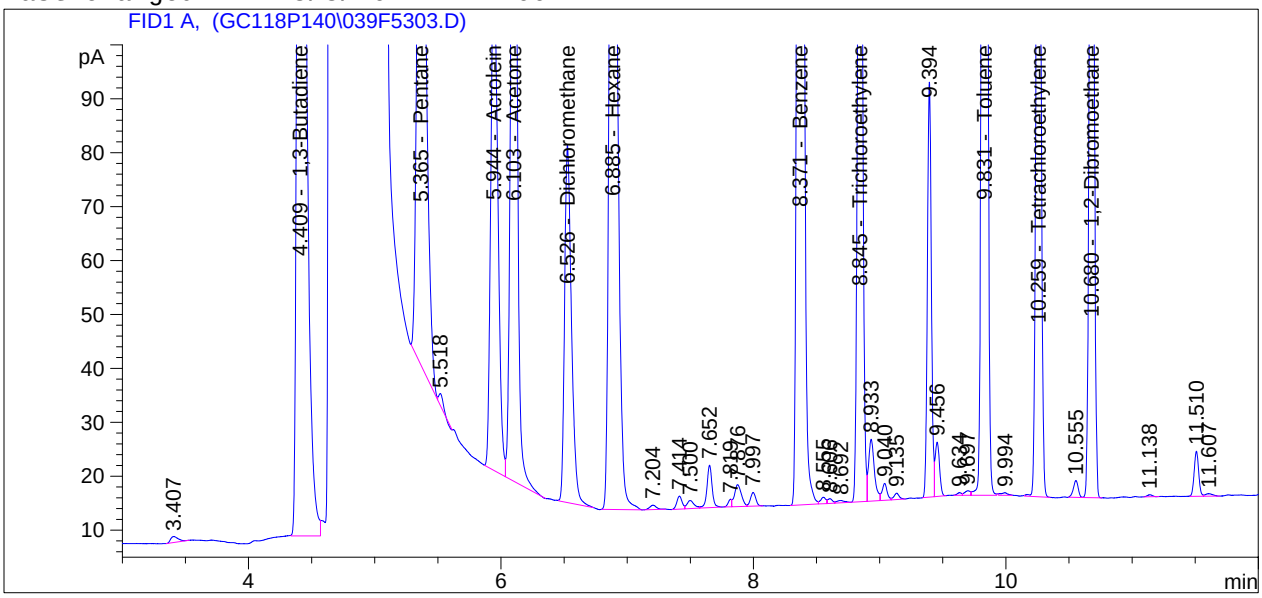
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.407	BB	338.97528	1.50185e-1	50.90890		1,3-Butadiene
5.361	BV	151.84717	1.69895e-1	25.79805		Pentane
5.941	VV	114.96237	3.41256e-1	39.23162		Acrolein
6.101	VB	167.06340	2.12382e-1	35.48122		Acetone
6.523	BB	70.70301	8.53841e-1	60.36913		Dichloromethane
6.881	BB	229.26949	1.31365e-1	30.11807		Hexane
8.367	BV	372.48227	1.09691e-1	40.85796		Benzene
8.841	BV	131.10507	5.21240e-1	68.33720		Trichloroethylene
9.827	BB	377.85132	1.07254e-1	40.52596		Toluene
10.254	BB	131.32066	5.69706e-1	74.81416		Tetrachloroethylene
10.676	VB	132.29642	7.52557e-1	99.56059		1,2-Dibromoethane

Totals : 566.00283

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\039F5303.D
Sample Name: gc116p137 #5

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  53
Acq. Instrument : Veronica                          Location : Vial 39
Injection Date  : 07-Aug-11, 16:37:33                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	BBA	1210.44641	1.50197e-1	181.80508		1,3-Butadiene
5.365	BV	624.32867	1.65839e-1	103.53805		Pentane
5.944	VV	363.21085	3.40285e-1	123.59537		Acrolein
6.103	VB	542.74976	2.19132e-1	118.93359		Acetone
6.526	BB	251.26018	8.60803e-1	216.28548		Dichloromethane
6.885	BB	820.44629	1.31207e-1	107.64818		Hexane
8.371	BV	1294.99207	1.10111e-1	142.59304		Benzene
8.845	VV	458.59564	5.22671e-1	239.69479		Trichloroethylene
9.831	VB	1287.58435	1.08997e-1	140.34228		Toluene
10.259	BB	454.39313	5.71146e-1	259.52472		Tetrachloroethylene
10.680	VB	457.07925	7.56218e-1	345.65145		1,2-Dibromoethane

```
Totals :                          1979.61204

==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\039F5401.D
Sample Name: gc116p137 #5

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  54
Acq. Instrument : Veronica                          Location : Vial 39
Injection Date  : 07-Aug-11, 17:31:18                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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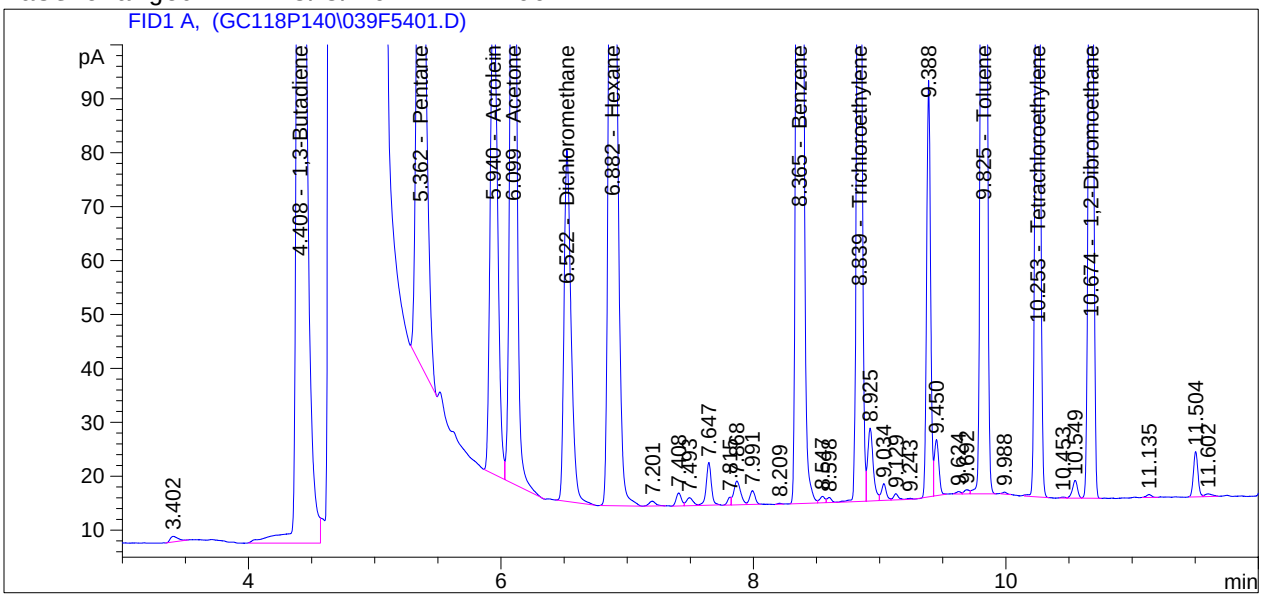


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.408 BBA    1249.15820 1.50197e-1  187.61965    1,3-Butadiene
  5.362 BV      614.31586 1.65860e-1  101.89059    Pentane
  5.940 VV      363.70468 3.40285e-1  123.76319    Acrolein
  6.099 VB      546.82672 2.19154e-1  119.83922    Acetone
  6.522 BB      252.43402 8.60816e-1  217.29913    Dichloromethane
  6.882 BB      819.67859 1.31207e-1  107.54750    Hexane
  8.365 BB     1299.79504 1.10112e-1  143.12272    Benzene
  8.839 VV      461.89297 5.22675e-1  241.42010    Trichloroethylene
  9.825 VB     1296.62573 1.09002e-1  141.33430    Toluene
 10.253 BB      458.04913 5.71150e-1  261.61497    Tetrachloroethylene
 10.674 VB      462.38330 7.56235e-1  349.67037    1,2-Dibromoethane

Totals :                             1995.12175


==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\039F5402.D
Sample Name: gc116p137 #5

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  54
Acq. Instrument : Veronica                          Location : Vial 39
Injection Date  : 07-Aug-11, 17:49:12                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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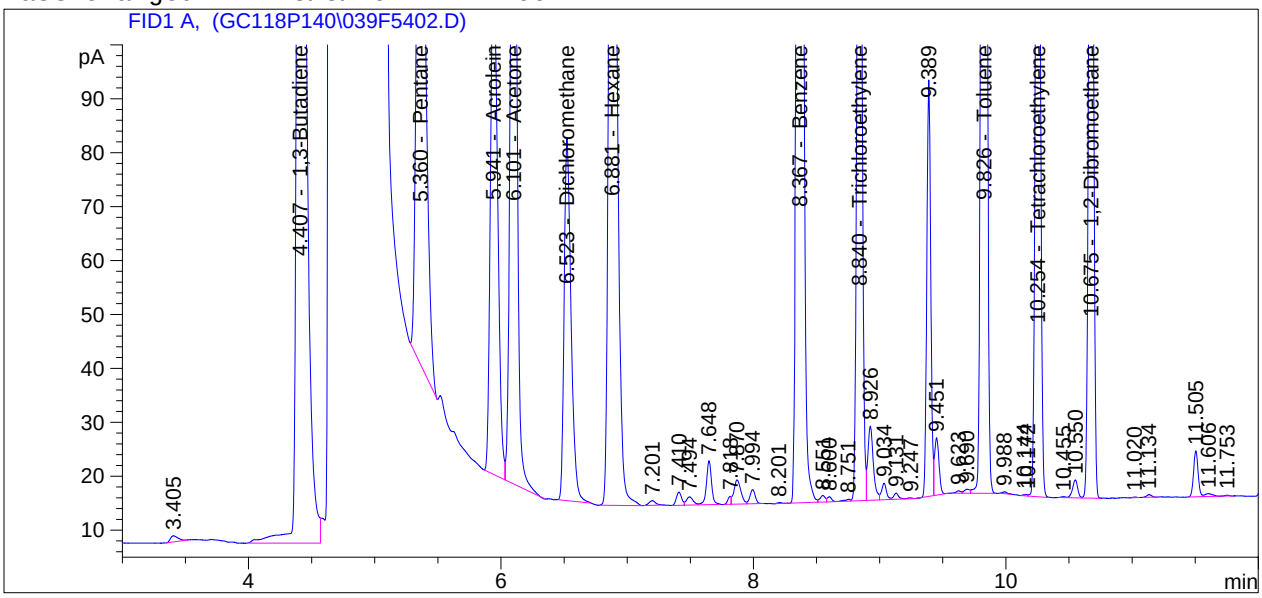


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.407 BBA    1281.11743 1.50197e-1  192.41997    1,3-Butadiene
  5.360 BV      636.75824 1.65814e-1  105.58316    Pentane
  5.941 VV      374.01251 3.40272e-1  127.26617    Acrolein
  6.101 VB      555.91901 2.19203e-1  121.85892    Acetone
  6.523 BB      256.32034 8.60857e-1  220.65508    Dichloromethane
  6.881 BB      839.33929 1.31205e-1  110.12591    Hexane
  8.367 BB     1326.20190 1.10115e-1  146.03489    Benzene
  8.840 VV      469.56604 5.22685e-1  245.43499    Trichloroethylene
  9.826 VB     1319.53064 1.09014e-1  143.84744    Toluene
 10.254 VV      466.24844 5.71161e-1  266.30277    Tetrachloroethylene
 10.675 VV      470.35065 7.56260e-1  355.70730    1,2-Dibromoethane

Totals :                              2035.23659


==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\040F5501.D
Sample Name: gc116p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  55
Acq. Instrument : Veronica                          Location : Vial 40
Injection Date  : 07-Aug-11, 18:07:06                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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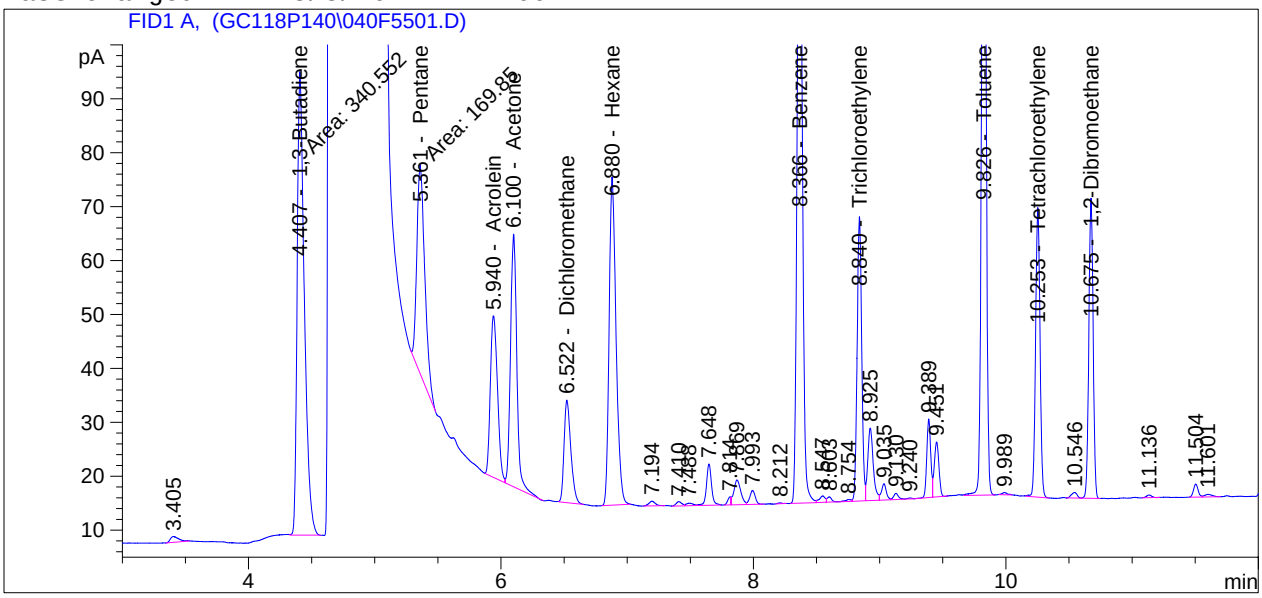


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.407 MM      340.55222 1.50185e-1   51.14576    1,3-Butadiene
  5.361 MM      169.85022 1.69327e-1   28.76019    Pentane
  5.940 VV      117.65128 3.41224e-1   40.14541    Acrolein
  6.100 VB      162.67693 2.12119e-1   34.50684    Acetone
  6.522 BB       71.09290 8.53894e-1   60.70580    Dichloromethane
  6.880 BB      232.46857 1.31362e-1   30.53761    Hexane
  8.366 BB      375.03680 1.09695e-1   41.13967    Benzene
  8.840 VV      132.52448 5.21261e-1   69.07989    Trichloroethylene
  9.826 BB      378.47531 1.07258e-1   40.59442    Toluene
 10.253 BB      132.42249 5.69723e-1   75.44410    Tetrachloroethylene
 10.675 VB      132.92320 7.52581e-1  100.03551    1,2-Dibromoethane

Totals :                              572.09520


==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\040F5502.D
Sample Name: gc116p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  55
Acq. Instrument : Veronica                          Location : Vial 40
Injection Date  : 07-Aug-11, 18:25:17                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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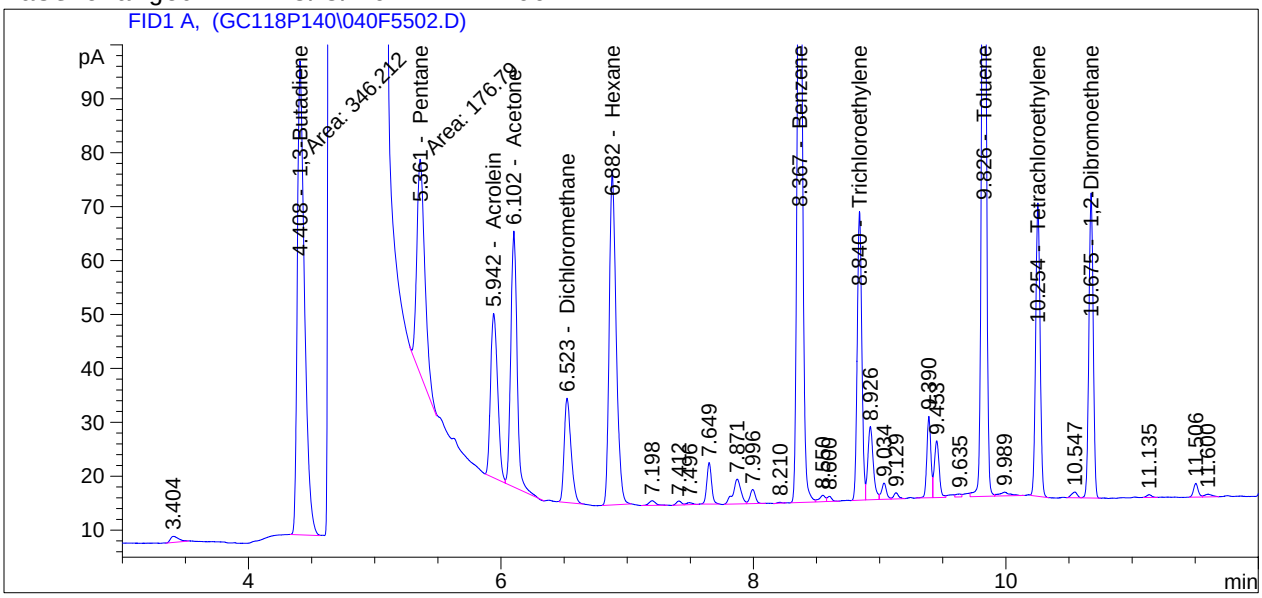


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.408	MM	346.21158	1.50185e-1	51.99580		1,3-Butadiene
5.361	MM	176.79001	1.69139e-1	29.90203		Pentane
5.942	VV	119.05019	3.41207e-1	40.62081		Acrolein
6.102	VB	164.47255	2.12228e-1	34.90570		Acetone
6.523	BB	72.43600	8.54073e-1	61.86561		Dichloromethane
6.882	BB	237.08691	1.31358e-1	31.14329		Hexane
8.367	BB	381.10651	1.09704e-1	41.80904		Benzene
8.840	BV	134.30956	5.21288e-1	70.01393		Trichloroethylene
9.826	BV	387.93839	1.07318e-1	41.63272		Toluene
10.254	BB	133.60457	5.69741e-1	76.11994		Tetrachloroethylene
10.675	VB	135.18585	7.52667e-1	101.74994		1,2-Dibromoethane

Totals : 581.75880

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\040F5503.D
Sample Name: gc116p137 #4

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  55
Acq. Instrument : Veronica                          Location : Vial 40
Injection Date  : 07-Aug-11, 18:43:10                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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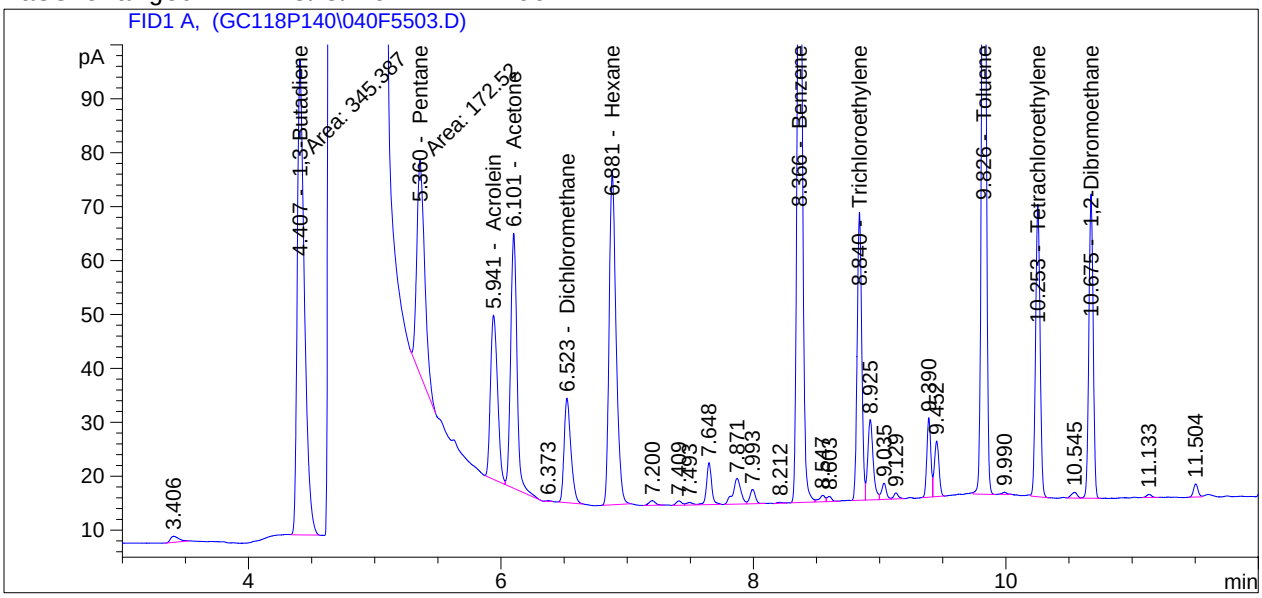


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```
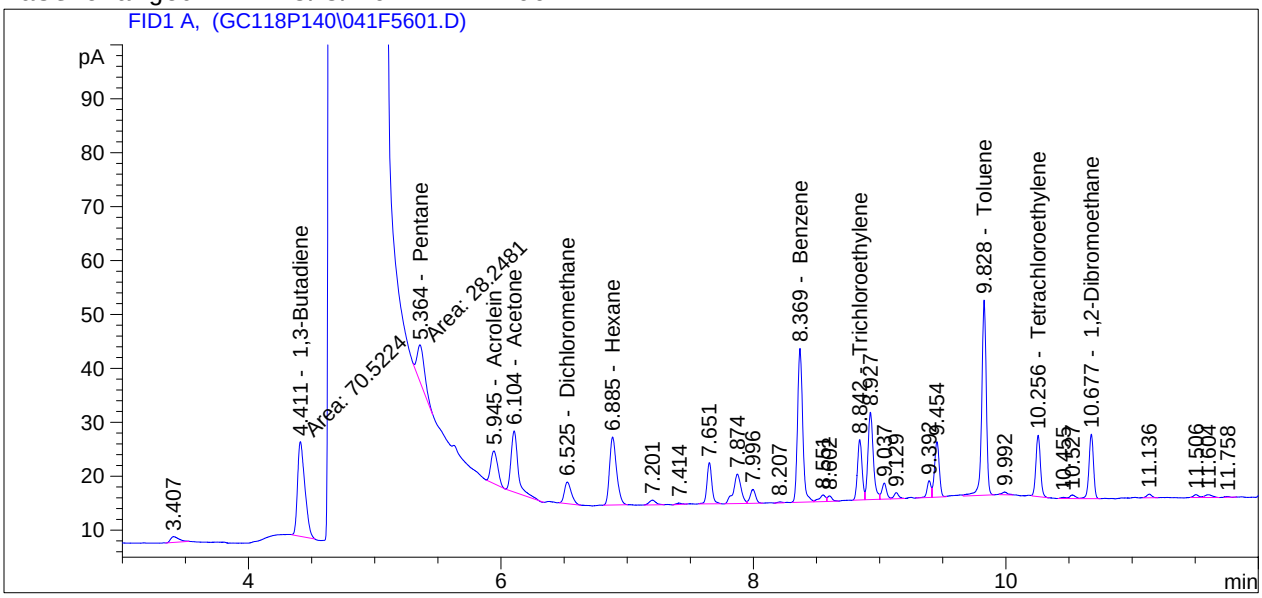

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.407	MM	345.38733	1.50185e-1	51.87200		1,3-Butadiene
5.360	MM	172.51982	1.69253e-1	29.19943		Pentane
5.941	VV	118.84547	3.41210e-1	40.55123		Acrolein
6.101	VB	164.67970	2.12241e-1	34.95172		Acetone
6.523	BB	72.24603	8.54048e-1	61.70156		Dichloromethane
6.881	BB	236.01823	1.31359e-1	31.00313		Hexane
8.366	BV	379.73434	1.09702e-1	41.65772		Benzene
8.840	BV	133.78088	5.21280e-1	69.73730		Trichloroethylene
9.826	BB	381.23514	1.07276e-1	40.89723		Toluene
10.253	BB	133.35751	5.69737e-1	75.97869		Tetrachloroethylene
10.675	VB	134.61635	7.52646e-1	101.31842		1,2-Dibromoethane

Totals : 578.86844

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\041F5601.D
Sample Name: gc116p137 #3

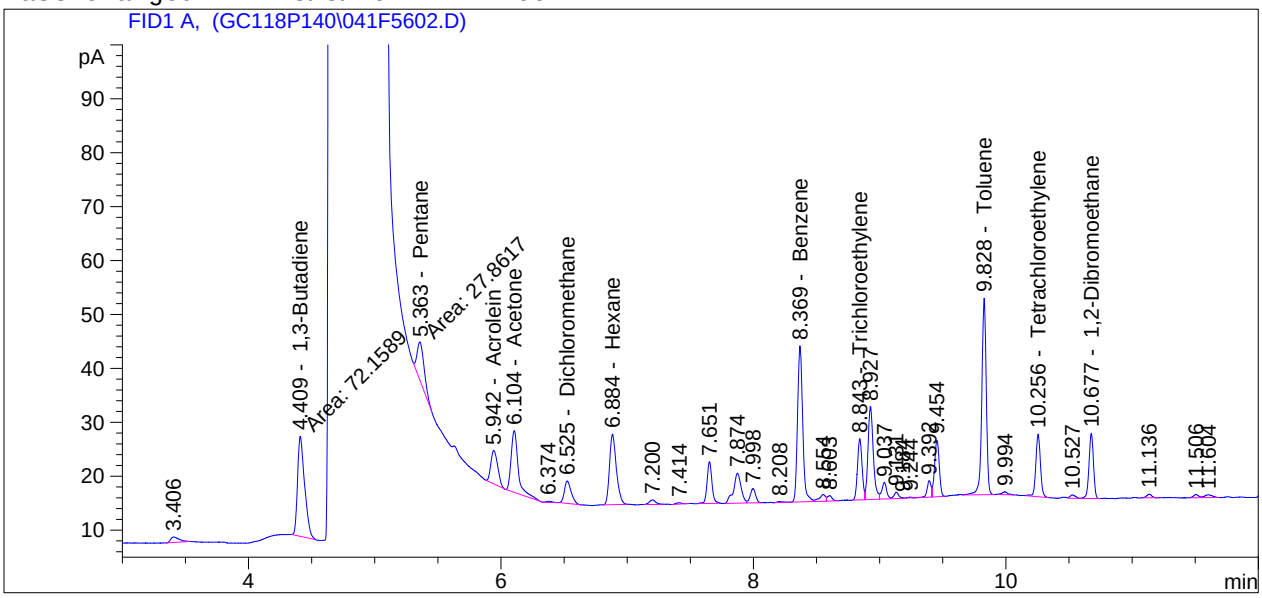
```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  56
Acq. Instrument : Veronica                          Location : Vial 41
Injection Date  : 07-Aug-11, 19:36:52                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.411 MM       70.52242 1.50121e-1   10.58690    1,3-Butadiene
  5.364 MM       28.24814 1.93344e-1    5.46161    Pentane
  5.945 VV       22.68368 3.47034e-1    7.87200    Acrolein
  6.104 VV       43.62578 1.84791e-1    8.06164    Acetone
  6.525 BB       15.41556 8.19095e-1   12.62681    Dichloromethane
  6.885 BB       48.48796 1.32185e-1    6.40940    Hexane
  8.369 BB       80.96056 1.07567e-1    8.70872    Benzene
  8.842 BV       28.13053 5.13903e-1   14.45635    Trichloroethylene
  9.828 BB       90.47380 9.94185e-2    8.99477    Toluene
 10.256 BB       28.33025 5.62344e-1   15.93134    Tetrachloroethylene
 10.677 VB       29.58226 7.34668e-1   21.73315    1,2-Dibromoethane

Totals :                               120.84269


==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\041F5602.D
Sample Name: gc116p137 #3

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  56
Acq. Instrument : Veronica                          Location : Vial 41
Injection Date  : 07-Aug-11, 19:54:44                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.409 MM       72.15893 1.50123e-1   10.83271    1,3-Butadiene
  5.363 MM       27.86174 1.93744e-1    5.39804    Pentane
  5.942 VV       23.31966 3.46838e-1    8.08813    Acrolein
  6.104 VV       44.47350 1.85502e-1    8.24994    Acetone
  6.525 BB       15.57475 8.19549e-1   12.76428    Dichloromethane
  6.884 BB       49.10918 1.32172e-1    6.49087    Hexane
  8.369 BB       82.20397 1.07608e-1    8.84585    Benzene
  8.843 BV       28.64065 5.14069e-1   14.72327    Trichloroethylene
  9.828 VB       89.95525 9.93591e-2    8.93787    Toluene
 10.256 BB       29.54892 5.62731e-1   16.62809    Tetrachloroethylene
 10.677 BB       29.56568 7.34655e-1   21.72059    1,2-Dibromoethane

Totals :                               122.67963


==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\041F5603.D
Sample Name: gc116p137 #3

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  56
Acq. Instrument : Veronica                          Location : Vial 41
Injection Date  : 07-Aug-11, 20:12:35                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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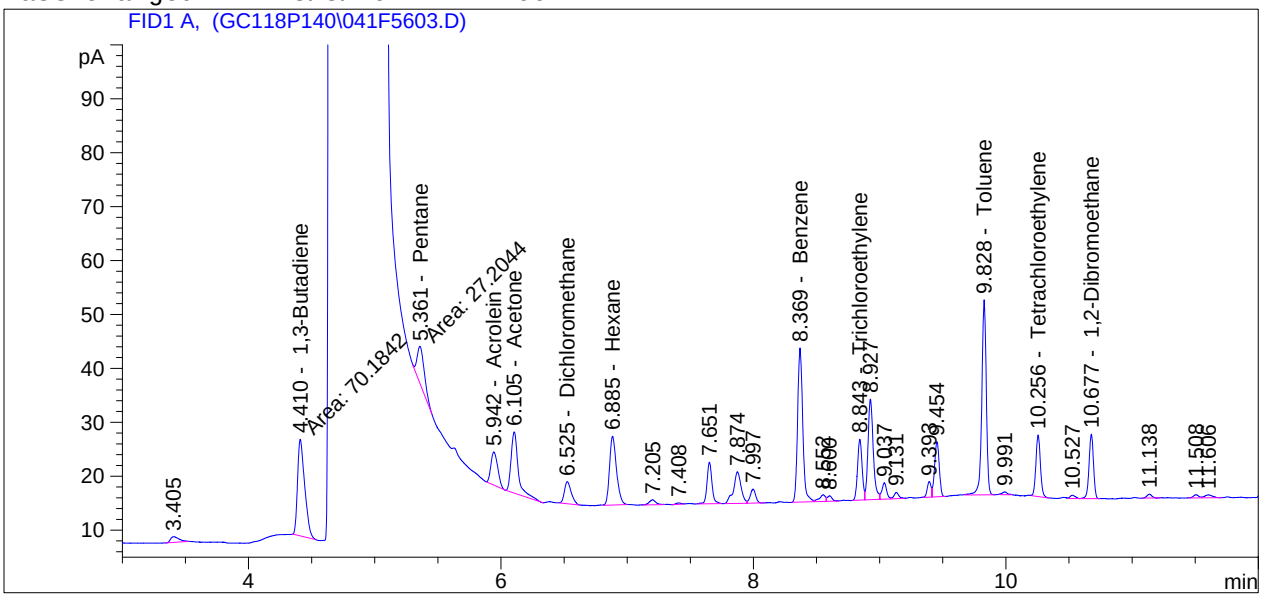


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.410	MM	70.18423	1.50121e-1	10.53611		1,3-Butadiene
5.361	MM	27.20439	1.94449e-1	5.28988		Pentane
5.942	VV	23.11012	3.46901e-1	8.01692		Acrolein
6.105	VV	44.54469	1.85561e-1	8.26575		Acetone
6.525	BB	15.42625	8.19126e-1	12.63604		Dichloromethane
6.885	BB	48.84595	1.32178e-1	6.45635		Hexane
8.369	BB	81.08231	1.07572e-1	8.72215		Benzene
8.843	BV	28.30105	5.13959e-1	14.54558		Trichloroethylene
9.828	BB	89.53070	9.93100e-2	8.89129		Toluene
10.256	BB	28.40261	5.62368e-1	15.97271		Tetrachloroethylene
10.677	VB	29.36428	7.34497e-1	21.56798		1,2-Dibromoethane

Totals : 120.90076

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\042F5701.D
Sample Name: gc116p137 #2

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  57
Acq. Instrument : Veronica                          Location : Vial 42
Injection Date  : 07-Aug-11, 21:06:13                    Inj :   1
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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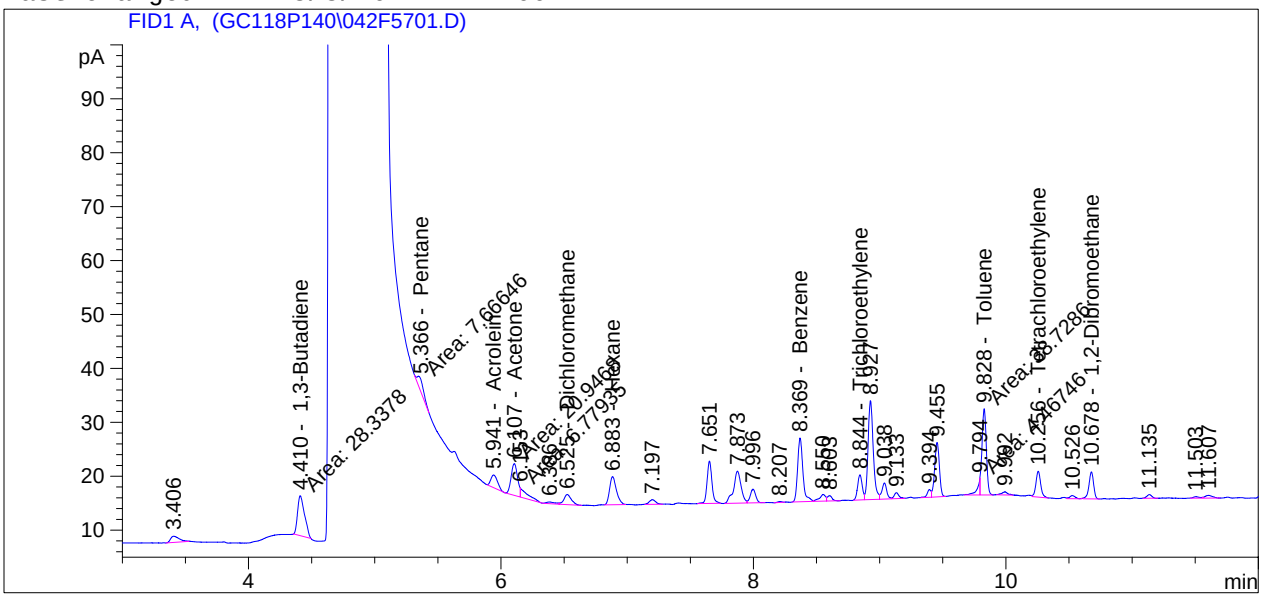



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.410	MM	28.33783	1.50002e-1	4.25072		1,3-Butadiene
5.366	MM	7.66646	2.70685e-1	2.07519		Pentane
5.941	VV	8.59891	3.58824e-1	3.08549		Acrolein
6.107	MF	20.94678	1.44360e-1	3.02388		Acetone
6.525	VV	7.61911	7.73627e-1	5.89435		Dichloromethane
6.883	BB	19.49557	1.33732e-1	2.60719		Hexane
8.369	BB	34.43260	1.03901e-1	3.57758		Benzene
8.844	BV	11.79727	5.00969e-1	5.91007		Trichloroethylene
9.828	FM	38.72859	8.56540e-2	3.31726		Toluene
10.256	BB	12.58762	5.50604e-1	6.93079		Tetrachloroethylene
10.678	BB	12.82191	7.04550e-1	9.03368		1,2-Dibromoethane

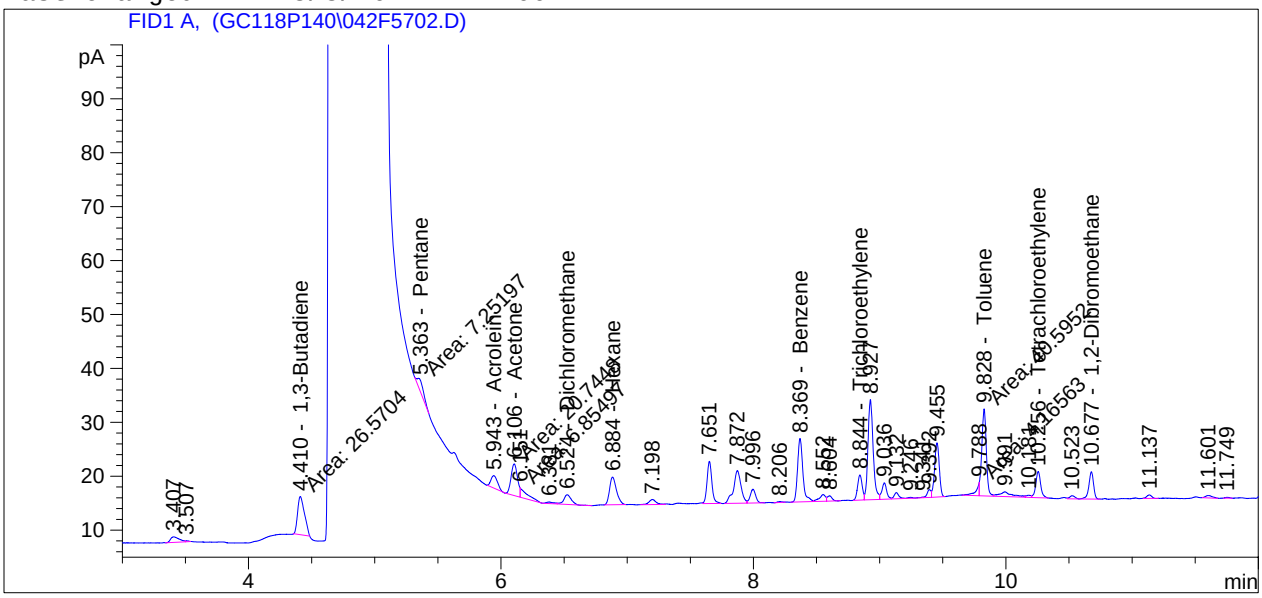
Totals : 49.70619

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\042F5702.D
Sample Name: gc116p137 #2

==========

Acq. Operator : JBB Seq. Line : 57
Acq. Instrument : Veronica Location : Vial 42
Injection Date : 07-Aug-11, 21:24:03 Inj : 2
Inj Volume : 0.2 µl
Sequence File : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed : 8/8/2011 4:47:00 PM



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 8/8/2011 3:48:45 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.410	MM	26.57038	1.49988e-1	3.98524		1,3-Butadiene
5.363	MM	7.25197	2.76752e-1	2.00700		Pentane
5.943	VV	8.30650	3.59492e-1	2.98612		Acrolein
6.106	MF	20.74478	1.43603e-1	2.97901		Acetone
6.524	VV	7.49140	7.72094e-1	5.78406		Dichloromethane
6.884	BB	19.59066	1.33720e-1	2.61965		Hexane
8.369	BV	34.35600	1.03887e-1	3.56913		Benzene
8.844	BV	11.86449	5.01095e-1	5.94524		Trichloroethylene
9.828	FM	40.59520	8.67606e-2	3.52207		Toluene
10.256	VB	13.09014	5.51415e-1	7.21810		Tetrachloroethylene
10.677	VB	13.12394	7.05774e-1	9.26254		1,2-Dibromoethane

Totals : 49.87816

==========

*** End of Report ***

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\042F5703.D
Sample Name: gc116p137 #2

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  57
Acq. Instrument : Veronica                          Location : Vial 42
Injection Date  : 07-Aug-11, 21:41:52                    Inj :   3
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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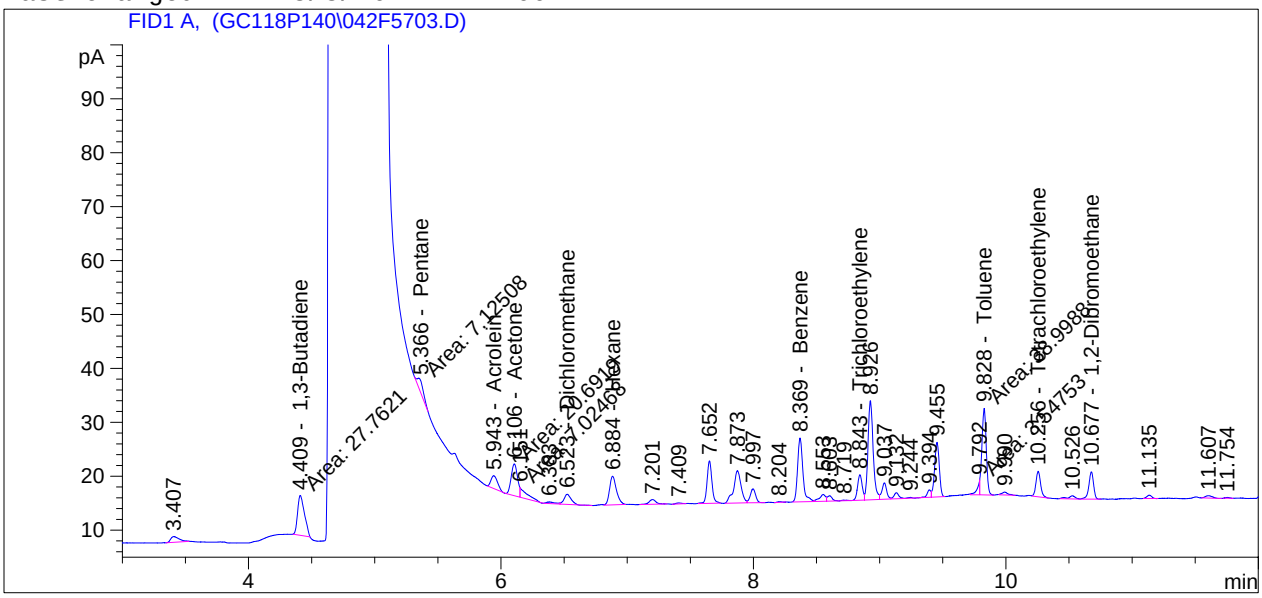


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]
-------|------|----------|----------|----------|--|-----------------
  4.409 MM       27.76211 1.49997e-1    4.16424    1,3-Butadiene
  5.366 MM        7.12508 2.78750e-1    1.98612    Pentane
  5.943 VV        8.60451 3.58811e-1    3.08740    Acrolein
  6.106 MF       20.69186 1.43402e-1    2.96725    Acetone
  6.523 BB        7.32882 7.70066e-1    5.64367    Dichloromethane
  6.884 BB       20.05870 1.33660e-1    2.68104    Hexane
  8.369 BB       34.75394 1.03960e-1    3.61302    Benzene
  8.843 VV       12.13254 5.01584e-1    6.08549    Trichloroethylene
  9.828 FM       38.99881 8.58208e-2    3.34691    Toluene
 10.256 BB       12.06950 5.49697e-1    6.63456    Tetrachloroethylene
 10.677 VB       13.06119 7.05524e-1    9.21498    1,2-Dibromoethane

Totals :                                49.42468


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\043F5801.D
Sample Name: gc116p137 #1

```
==================================================================
Acq. Operator   : JBB                          Seq. Line :  58
Acq. Instrument : Veronica                      Location : Vial 43
Injection Date  : 07-Aug-11, 22:35:17                Inj :   1
                                               Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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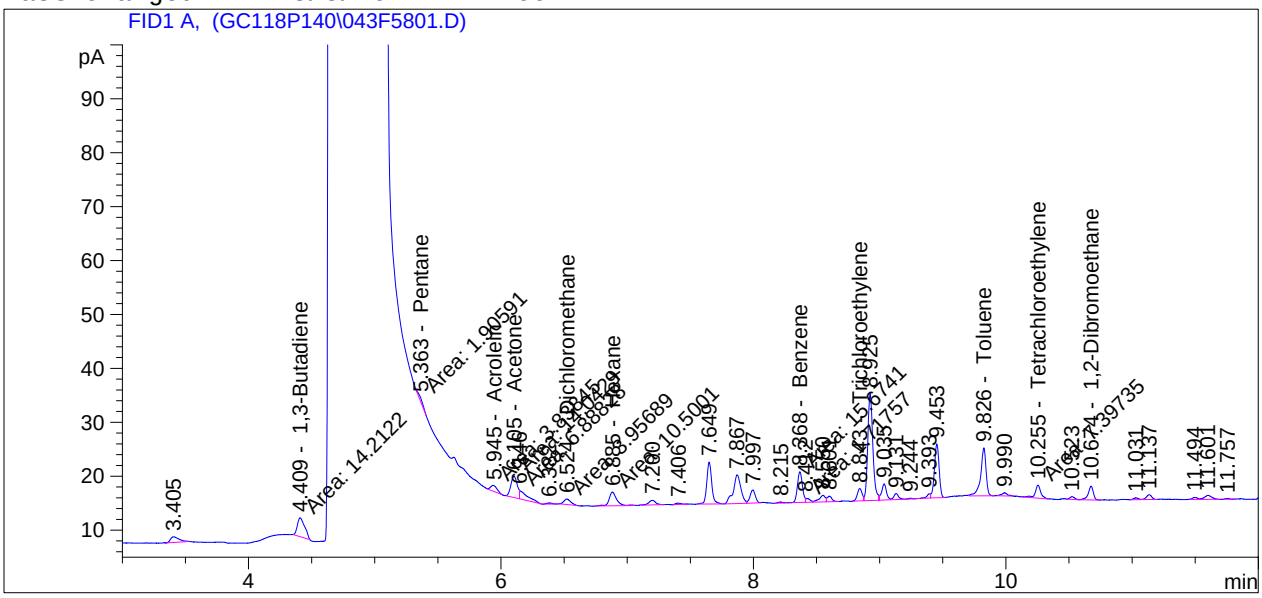


```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	14.21223	1.49815e-1	2.12920		1,3-Butadiene
5.363	MM	1.90591	4.73617e-1	9.02670e-1		Pentane
5.945	MM	3.83845	3.77157e-1	1.44770		Acrolein
6.105	MF	14.04291	1.09262e-1	1.53435		Acetone
6.524	MM	3.95689	6.90419e-1	2.73191		Dichloromethane
6.885	MM	10.50015	1.35948e-1	1.42748		Hexane
8.368	MF	15.67406	9.79439e-2	1.53518		Benzene
8.843	BV	6.01838	4.80042e-1	2.88908		Trichloroethylene
9.826	BB	26.28687	7.42633e-2	1.95215		Toluene
10.255	MM	7.39735	5.35780e-1	3.96335		Tetrachloroethylene
10.674	VV	7.14505	6.62315e-1	4.73227		1,2-Dibromoethane

Totals : 25.24535

```
==================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\043F5802.D
Sample Name: gc116p137 #1

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  58
Acq. Instrument : Veronica                          Location : Vial 43
Injection Date  : 07-Aug-11, 22:53:04                    Inj :   2
                                                  Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
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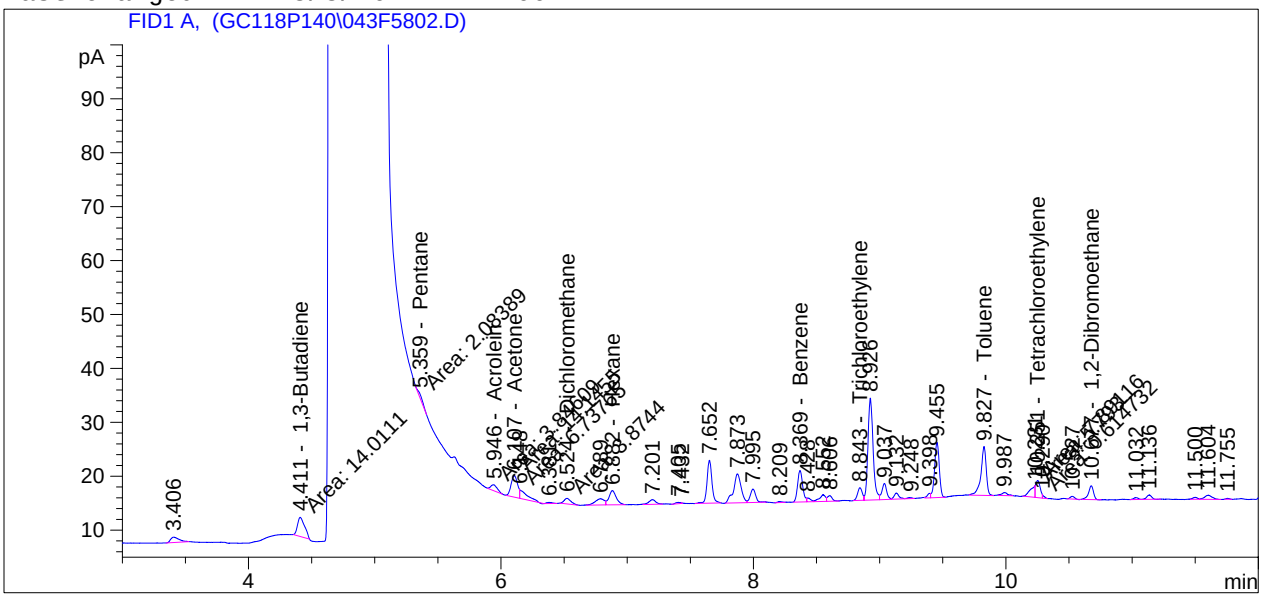


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```
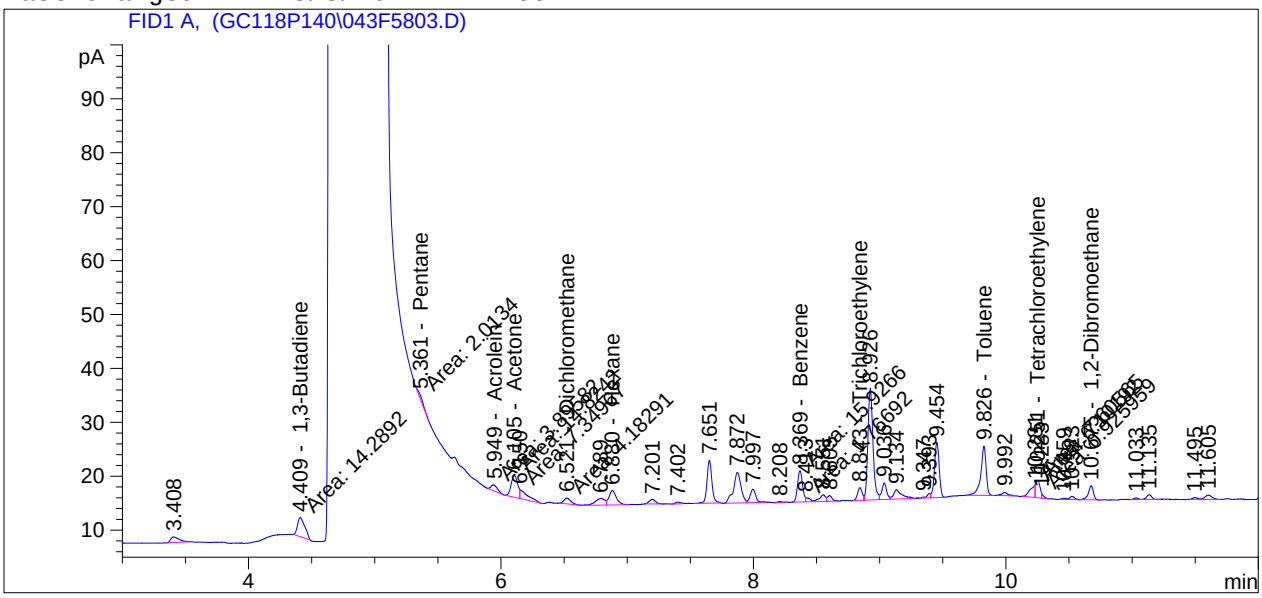

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.411	MM	14.01110	1.49815e-1	2.09907		1,3-Butadiene
5.359	MM	2.08389	4.73617e-1	9.86963e-1		Pentane
5.946	MM	3.84609	3.77157e-1	1.45058		Acrolein
6.107	MF	14.14552	1.09262e-1	1.54557		Acetone
6.524	MM	3.87440	6.86734e-1	2.66068		Dichloromethane
6.882	VB	10.62116	1.35894e-1	1.44335		Hexane
8.369	BV	16.23872	9.79439e-2	1.59048		Benzene
8.843	BV	6.08158	4.80042e-1	2.91941		Trichloroethylene
9.827	BB	26.53707	7.45976e-2	1.97960		Toluene
10.251	MF	7.89116	5.38029e-1	4.24568		Tetrachloroethylene
10.677	BB	6.96145	6.59799e-1	4.59316		1,2-Dibromoethane

Totals : 25.51455

```
==========================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\043F5803.D
Sample Name: gc116p137 #1

```
==================================================================
Acq. Operator   : JBB                          Seq. Line :  58
Acq. Instrument : Veronica                      Location : Vial 43
Injection Date  : 07-Aug-11, 23:10:50                Inj :   3
                                               Inj Volume : 0.2 µl
Sequence File   : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method     : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed    : 8/8/2011 4:47:00 PM
```



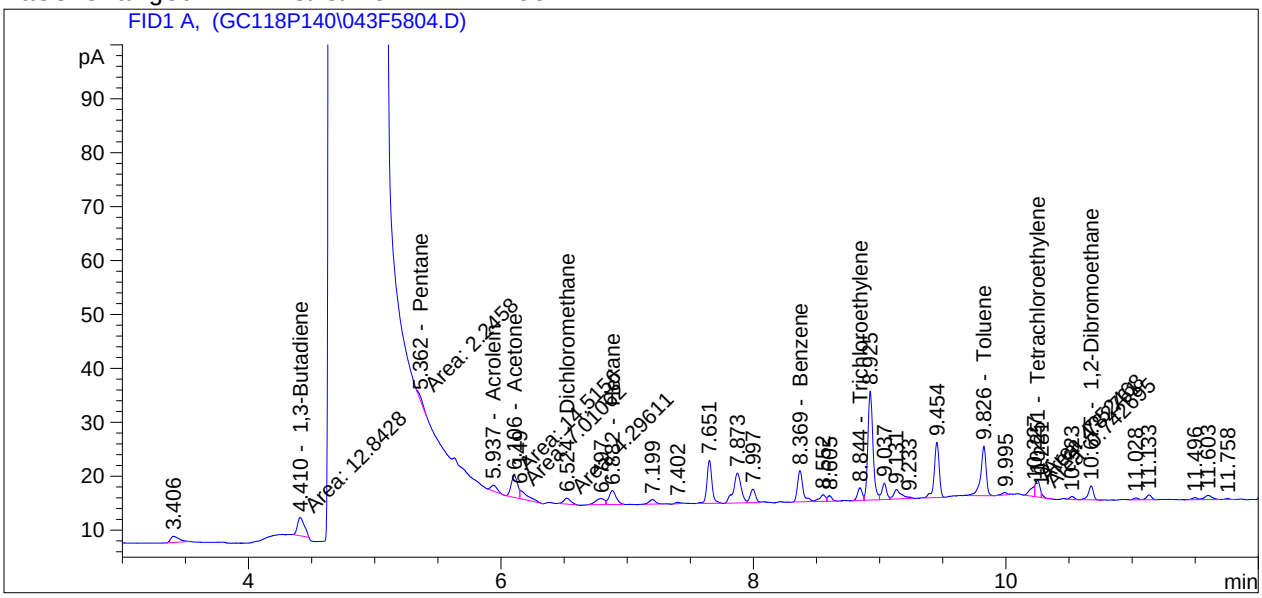

```
==================================================================
                      External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/8/2011 3:48:45 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.409	MM	14.28916	1.49815e-1	2.14073		1,3-Butadiene
5.361	MM	2.01340	4.73617e-1	9.53578e-1		Pentane
5.949	MM	3.89582	3.77157e-1	1.46934		Acrolein
6.105	MF	14.82419	1.12239e-1	1.66385		Acetone
6.521	MM	4.18291	6.99773e-1	2.92709		Dichloromethane
6.880	VV	10.85353	1.35792e-1	1.47382		Hexane
8.369	MF	15.92662	9.79439e-2	1.55991		Benzene
8.843	BV	6.01784	4.80042e-1	2.88882		Trichloroethylene
9.826	BB	26.92549	7.51043e-2	2.02222		Toluene
10.251	MF	7.60565	5.36764e-1	4.08244		Tetrachloroethylene
10.675	BB	7.25231	6.63726e-1	4.81355		1,2-Dibromoethane

```
Totals :                                25.99534

==================================================================
                        *** End of Report ***
```

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\043F5804.D
Sample Name: gc116p137 #1

Acq. Operator	: JBB	Seq. Line	: 58
Acq. Instrument	: Veronica	Location	: Vial 43
Injection Date	: 07-Aug-11, 23:28:37	Inj	: 4
		Inj Volume	: 0.2 µl
Sequence File	: C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S		
Acq. Method	: C:\GC2011Q3\VERONICA\METHODS\GC118P140.M		
Last changed	: 8/6/2011 5:52:32 PM		
Analysis Method	: C:\GC2011Q3\VERONICA\METHODS\GC118P140.M		
Last changed	: 8/8/2011 4:47:00 PM		



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	8/8/2011 3:48:45 PM
Multiplier:	:	1.0000
Dilution:	:	1.0000

Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

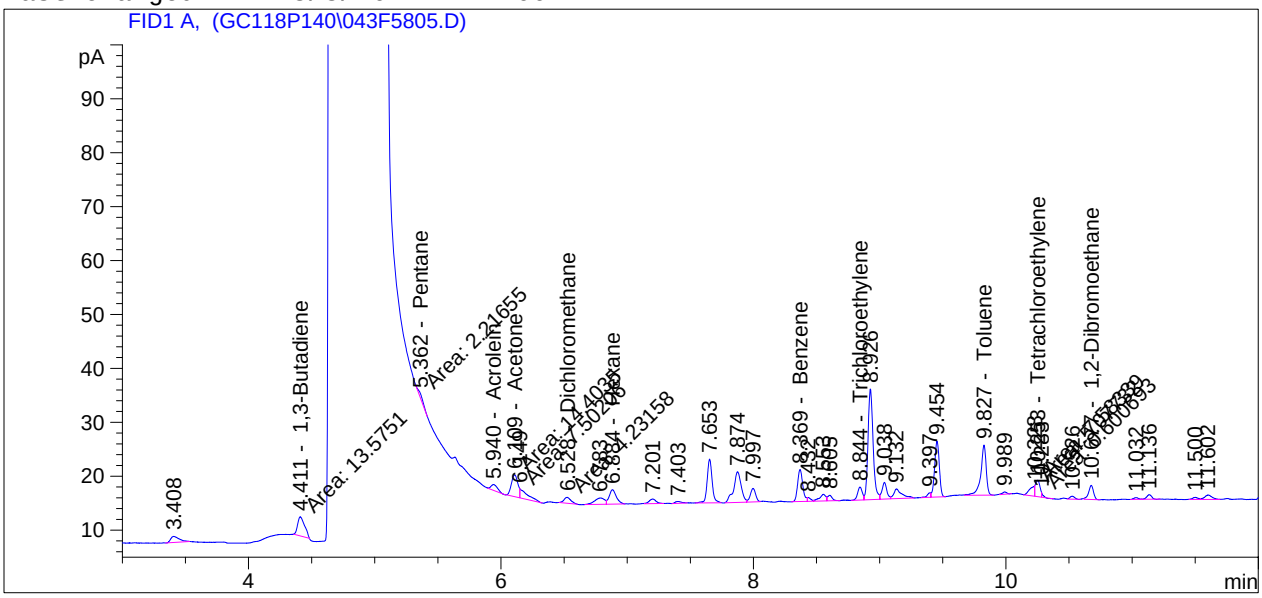
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.410	MM	12.84275	1.49815e-1	1.92404		1,3-Butadiene
5.362	MM	2.24580	4.73617e-1	1.06365		Pentane
5.937	BV	3.66205	3.77157e-1	1.38117		Acrolein
6.106	MF	14.51564	1.09903e-1	1.59531		Acetone
6.524	MM	4.29611	7.04088e-1	3.02484		Dichloromethane
6.882	VB	10.32735	1.36029e-1	1.40481		Hexane
8.369	BB	17.43364	9.79439e-2	1.70752		Benzene
8.844	BV	6.08336	4.80046e-1	2.92029		Trichloroethylene
9.826	BB	27.21523	7.54728e-2	2.05401		Toluene
10.251	MF	7.52468	5.36388e-1	4.03615		Tetrachloroethylene
10.675	VB	7.22124	6.63322e-1	4.79001		1,2-Dibromoethane
Totals :				25.90179		

*** End of Report ***

Data File C:\GC2011Q3\VERONICA\DATA\AUG11\GC118P140\043F5805.D
Sample Name: gc116p137 #1

==========

Acq. Operator : JBB Seq. Line : 58
Acq. Instrument : Veronica Location : Vial 43
Injection Date : 07-Aug-11, 23:46:26 Inj : 5
Inj Volume : 0.2 µl
Sequence File : C:\GC2011Q3\VERONICA\SEQUENCE\GC118P140.S
Acq. Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed : 8/6/2011 5:52:32 PM
Analysis Method : C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Last changed : 8/8/2011 4:47:00 PM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 8/8/2011 3:48:45 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount	Grp	Name
4.411	MM	13.57511	1.49815e-1	2.03376		1,3-Butadiene
5.362	MM	2.21655	4.73617e-1	1.04979		Pentane
5.940	BB	3.74707	3.77157e-1	1.41323		Acrolein
6.109	MF	14.40347	1.09262e-1	1.57375		Acetone
6.528	MM	4.23158	7.01657e-1	2.96912		Dichloromethane
6.884	VB	10.39065	1.35999e-1	1.41312		Hexane
8.369	BV	16.84610	9.79439e-2	1.64997		Benzene
8.844	BV	6.18330	4.80744e-1	2.97259		Trichloroethylene
9.827	BB	27.94884	7.63717e-2	2.13450		Toluene
10.253	MF	7.58339	5.36662e-1	4.06971		Tetrachloroethylene
10.677	BB	6.99804	6.60311e-1	4.62089		1,2-Dibromoethane

Totals : 25.90042

==========

*** End of Report ***

method: C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Modified on: 8/6/2011 at 5:52:32 PM

==========

6890 GC METHOD

==========

OVEN
- Initial temp: 40 'C (On)
- Initial time: 2.00 min
- Ramps:

#	Rate	Final temp	Final time
1	25.00	240	2.00
2	0.0(Off)		

- Post temp: 50 'C
- Post time: 0.00 min
- Run time: 12.00 min
- Maximum temp: 300 'C
- Equilibration time: 1.00 min

FRONT INLET (SPLIT/SPLITLESS)
- Mode: Splitless
- Initial temp: 225 'C (On)
- Pressure: 10.15 psi (On)
- Purge flow: 100.0 mL/min
- Purge time: 0.50 min
- Total flow: 116.6 mL/min
- Gas saver: On
- Saver flow: 20.0 mL/min
- Saver time: 5.00 min
- Gas type: Hydrogen

BACK INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 225 'C (On)
- Pressure: 5.13 psi (On)
- Split ratio: 1:1
- Split flow: 2.0 mL/min
- Total flow: 10.1 mL/min
- Gas saver: Off
- Gas type: Hydrogen

COLUMN 1
- Capillary Column
- Model Number: Restek 10975
- Rtx-624 105m x 0.53mm x 3.0um
- Max temperature: 240 'C
- Nominal length: 105.0 m
- Nominal diameter: 530.00 um
- Nominal film thickness: 3.00 um
- Mode: constant pressure
- Pressure: 10.15 psi
- Nominal initial flow: 10.4 mL/min
- Average velocity: 61 cm/sec
- Inlet: Front Inlet
- Outlet: Front Detector
- Outlet pressure: ambient

COLUMN 2
- Capillary Column
- Model Number: Restek 10198
- Rtx-1 30m x 0.32mm x 4.0um
- Max temperature: 350 'C
- Nominal length: 30.0 m
- Nominal diameter: 320.00 um
- Nominal film thickness: 4.00 um
- Mode: constant pressure
- Pressure: 5.13 psi
- Nominal initial flow: 2.0 mL/min
- Average velocity: 39 cm/sec
- Inlet: Back Inlet
- Outlet: Back Detector
- Outlet pressure: ambient

FRONT DETECTOR (FID)
- Temperature: 250 'C (On)
- Hydrogen flow: 40.0 mL/min (On)
- Air flow: 450.0 mL/min (On)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: On
- Electrometer: On
- Lit offset: 2.0

BACK DETECTOR (FID)
- Temperature: 250 'C (On)
- Hydrogen flow: 40.0 mL/min (Off)
- Air flow: 450.0 mL/min (Off)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: Off
- Electrometer: On
- Lit offset: 2.0

SIGNAL 1
- Data rate: 20 Hz
- Type: front detector
- Save Data: On
- Zero: 0.0 (Off)
- Range: 0
- Fast Peaks: Off
- Attenuation: 0

SIGNAL 2
- Data rate: 20 Hz
- Type: back detector
- Save Data: Off
- Zero: 0.0 (Off)
- Range: 0
- Fast Peaks: Off
- Attenuation: 0

method: C:\GC2011Q3\VERONICA\METHODS\GC118P140.M
Modified on: 8/6/2011 at 5:52:32 PM

COLUMN COMP 1
Derive from front detector

COLUMN COMP 2
Derive from back detector

POST RUN
Post Time: 0.00 min

TIME TABLE

Time	Specifier	Parameter & Setpoint

GC Injector

Front Injector:

Sample Washes	0
Sample Pumps	7
Injection Volume	0.20 microliters
Syringe Size	10.0 microliters
PreInj Solvent A Washes	0
PreInj Solvent B Washes	0
PostInj Solvent A Washes	3
PostInj Solvent B Washes	3
Viscosity Delay	2 seconds
Plunger Speed	Variable
Injection Speed	6000.00 microliters/minutes
Draw Speed	300.00 microliters/minutes
Dispense Speed	6000.00 microliters/minutes
PreInjection Dwell	0.00 minutes
PostInjection Dwell	0.00 minutes

Back Injector:
No parameters specified

Sequence: C:\GC2011Q3\VERONICA\SEQUENCE\gc118p140.txt
Sequence Table (Front Injector):

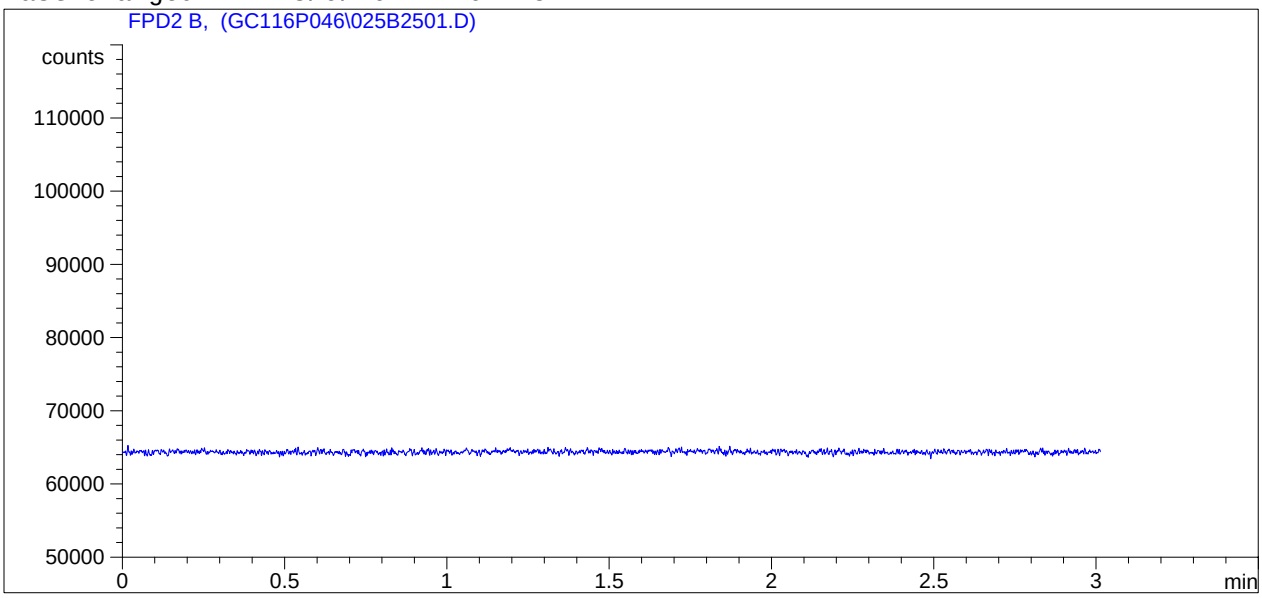
Line	Vial	Sample Name	Method	Inj	Type	
1	Vial 1	gc118p137 #5	GC118P140	3	Sample	
2	Vial 2	gc118p137 #4	GC118P140	3	Sample	
3	Vial 3	gc118p137 #3	GC118P140	3	Sample	
4	Vial 4	gc118p137 #2	GC118P140	3	Sample	
5	Vial 6	gc118p137 #3ss	GC118P140	3	Sample	
6	Vial 5	gc118p137 #1	GC118P140	7	Sample	
7	Vial 5	pause	PAUSE	1	Sample	
8	Vial 91	0611-12 R1 Bag Cond #MS	GC118P140	3	Sample	NR
9	Vial 92	0711-12 T1R1 Bag Cond #MS	GC118P140	3	Sample	123
10	Vial 91	0611-12 R1 Bag Cond #MS	GC118P140	5	Sample	345
11	Vial 93	0611-22 ICR1 Bag Cond A #MS	GC118P140	5	Sample	345
12	Vial 94	0611-161 R2 Bag COND #MS	GC118P140	5	Sample	345
13	Vial 95	0711-81 T1R1 Bag COND #MS	GC118P140	5	Sample	345
14	Vial 96	0711-64 R1 Bag COND #MS	GC118P140	5	Sample	NR
15	Vial 97	0711-08 Bag COND #MS	GC118P140	5	Sample	
16	Vial 98	gc116p137 #3	GC118P140	5	Sample	
17	Vial 99	gc116p137 #4	GC118P140	5	Sample	
18	Vial 100	RB H2O	GC118P140	5	Sample	
19	Vial 5	pause	PAUSE	1	Sample	
20	Vial 7	0711-64 R1 Bag COND #MS	GC118P140	5	Sample	123*
21	Vial 5	pause	PAUSE	1	Sample	
22	Vial 8	0711-64 R1 Bag COND #MS	GC118P140	5	Sample	
23	Vial 9	RB H2O	GC118P140	5	Sample	
24	Vial 10	0711-08 Bag COND	GC118P140	5	Sample	
25	Vial 11	0611-12 R1 Bag Cond	GC118P140	5	Sample	
26	Vial 12	0611-12 R2 Bag Cond	GC118P140	5	Sample	
27	Vial 13	0711-12 T2R1 Bag Cond	GC118P140	5	Sample	
28	Vial 14	0711-12 T2R2 Bag Cond	GC118P140	5	Sample	
29	Vial 15	0711-12 T2R3 Bag Cond	GC118P140	5	Sample	
30	Vial 16	0611-22 ICR1 Bag Cond A	GC118P140	5	Sample	
31	Vial 17	0611-22 ICR1 Bag Cond B	GC118P140	5	Sample	
32	Vial 18	gc118p137 #4	GC118P140	5	Sample	
33	Vial 19	gc118p137 #3	GC118P140	5	Sample	
34	Vial 20	RB H2O	GC118P140	5	Sample	
35	Vial 21	0611-22 ICR2 Bag Cond A	GC118P140	5	Sample	
36	Vial 22	0611-22 ICR2 Bag Cond B	GC118P140	5	Sample	
37	Vial 23	0611-22 ICR3 Bag Cond A	GC118P140	5	Sample	
38	Vial 24	0611-22 ICR3 Bag Cond B	GC118P140	5	Sample	
39	Vial 25	0611-161 R1 Bag COND	GC118P140	5	Sample	
40	Vial 26	0611-161 R2 Bag COND	GC118P140	5	Sample	
41	Vial 27	0611-161 R3 Bag COND	GC118P140	5	Sample	
42	Vial 28	0711-81 T1R01 Bag COND	GC118P140	5	Sample	
43	Vial 29	0711-81 T1R1 Bag COND	GC118P140	5	Sample	
44	Vial 30	0711-81 T1R2 Bag COND	GC118P140	5	Sample	
45	Vial 31	gc118p137 #4	GC118P140	5	Sample	
46	Vial 32	gc118p137 #3	GC118P140	5	Sample	
47	Vial 33	RB H2O	GC118P140	5	Sample	
48	Vial 34	0711-81 T1R3 Bag COND	GC118P140	5	Sample	
49	Vial 35	0711-64 Bag COND FB	GC118P140	5	Sample	
50	Vial 36	0711-64 R1 Bag COND	GC118P140	5	Sample	345
51	Vial 37	0711-64 R2 Bag COND	GC118P140	5	Sample	345
52	Vial 38	0711-64 R3 Bag COND	GC118P140	5	Sample	
53	Vial 39	gc116p137 #5	GC118P140	5	Sample	
54	Vial 40	gc116p137 #4	GC118P140	5	Sample	
55	Vial 41	gc116p137 #3	GC118P140	5	Sample	
56	Vial 42	gc116p137 #2	GC118P140	5	Sample	
57	Vial 43	gc116p137 #1	GC118P140	5	Sample	

123* = all compounds reproduce except PERC (inhomogenous sample)

Sample Chromatograms

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\025B2501.D
Sample Name: 0611-22 ICR1 Bag Cond A

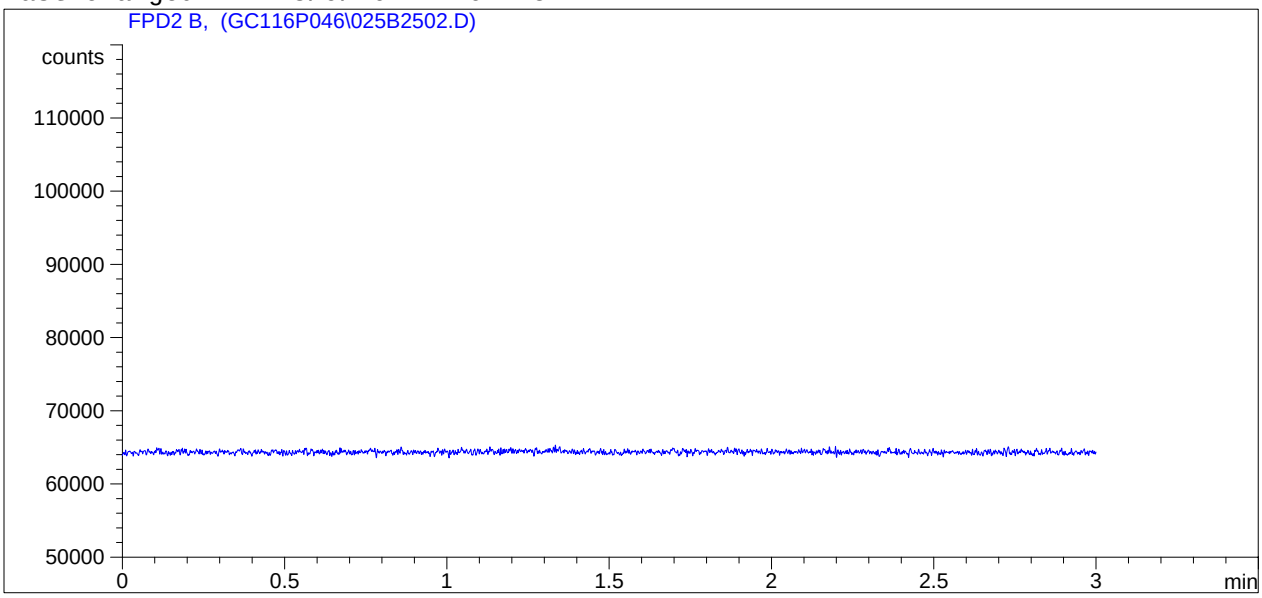
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  25
Acq. Instrument : Instrument 1                  Location : Vial 25
Injection Date  : 7/30/2011 2:20:13 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\025B2502.D
Sample Name: 0611-22 ICR1 Bag Cond A

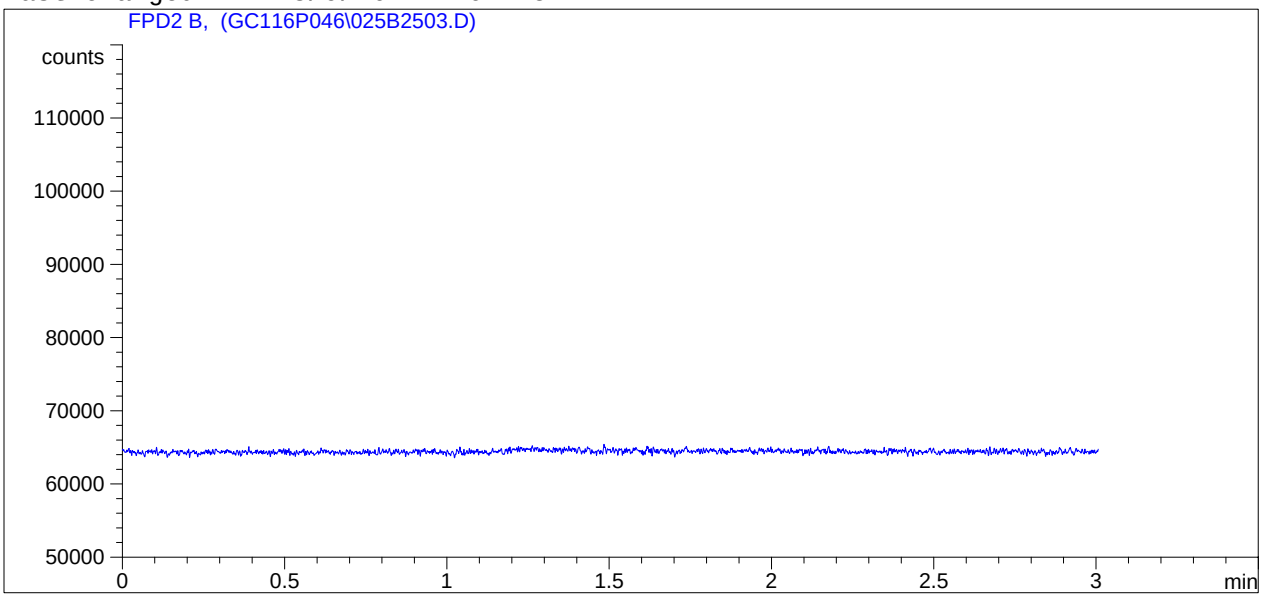
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  25
Acq. Instrument : Instrument 1                  Location : Vial 25
Injection Date  : 7/30/2011 2:24:30 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\025B2503.D
Sample Name: 0611-22 ICR1 Bag Cond A

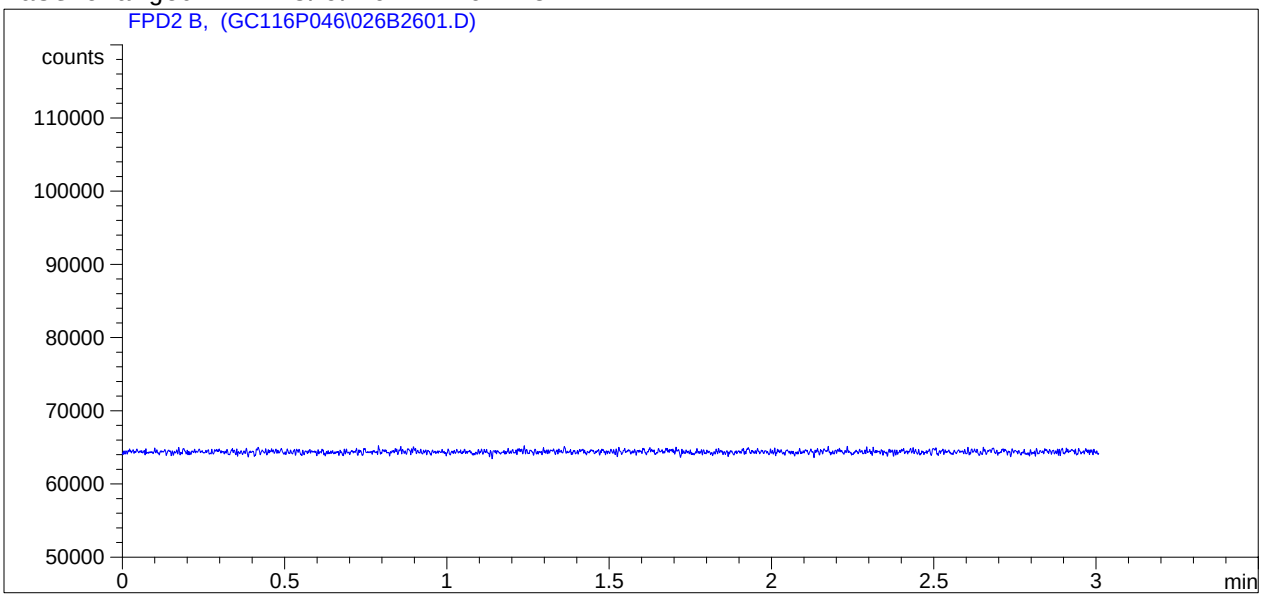
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  25
Acq. Instrument : Instrument 1                  Location : Vial 25
Injection Date  : 7/30/2011 2:28:41 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\026B2601.D
Sample Name: 0611-22 ICR1 Bag Cond B

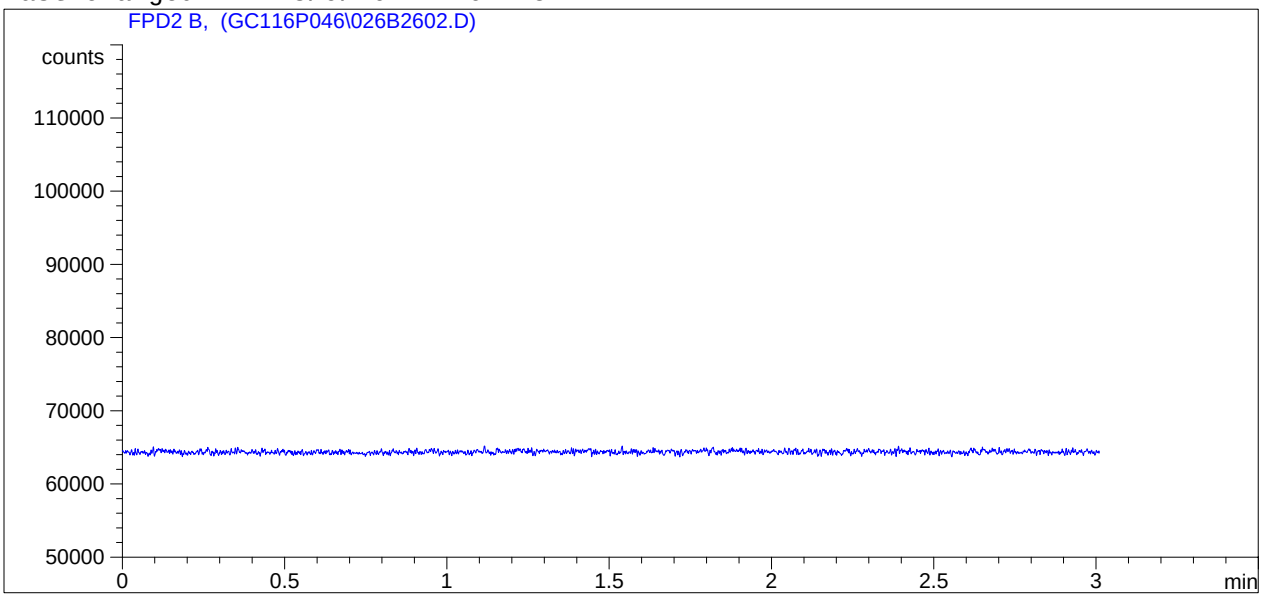
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  26
Acq. Instrument : Instrument 1                  Location : Vial 26
Injection Date  : 7/30/2011 2:41:20 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\026B2602.D
Sample Name: 0611-22 ICR1 Bag Cond B

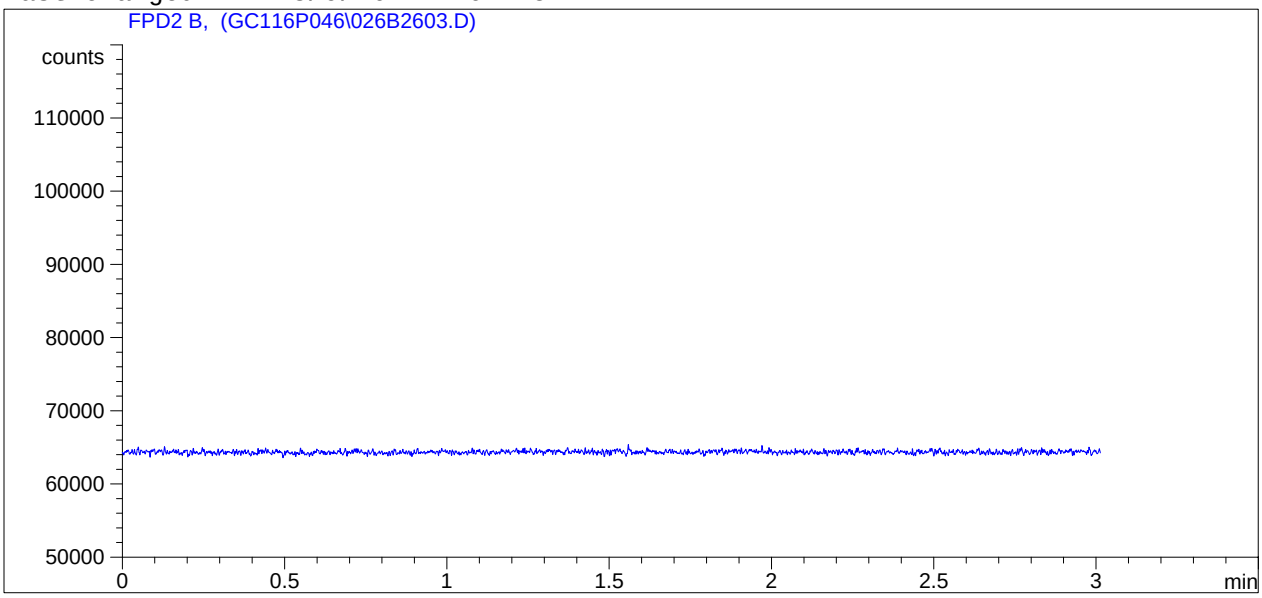
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  26
Acq. Instrument : Instrument 1                  Location : Vial 26
Injection Date  : 7/30/2011 2:45:35 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\026B2603.D
Sample Name: 0611-22 ICR1 Bag Cond B

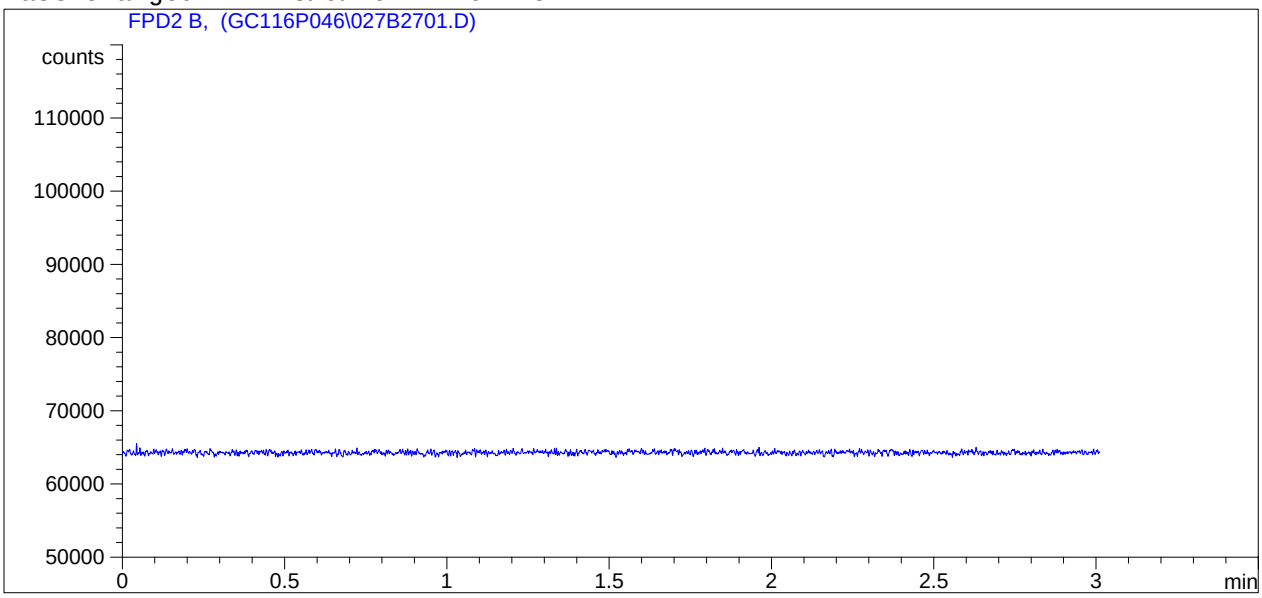
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  26
Acq. Instrument : Instrument 1                  Location : Vial 26
Injection Date  : 7/30/2011 2:49:44 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\027B2701.D
Sample Name: 0611-22 ICR2 Bag Cond A

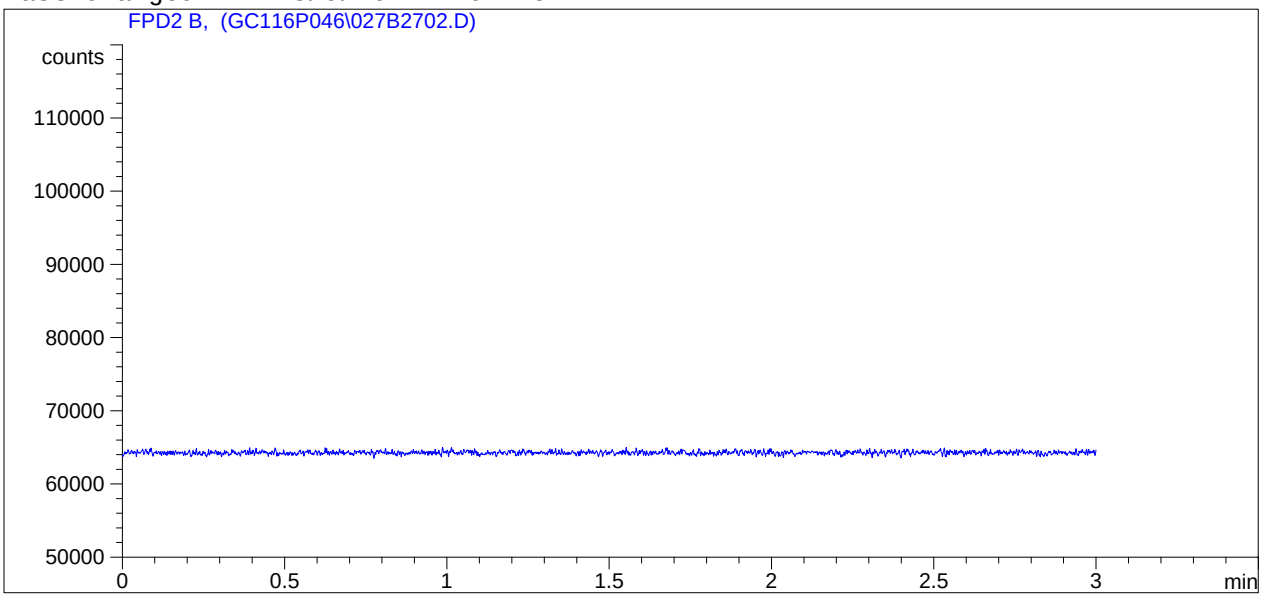
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  27
Acq. Instrument : Instrument 1                  Location : Vial 27
Injection Date  : 7/30/2011 3:02:27 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\027B2702.D
Sample Name: 0611-22 ICR2 Bag Cond A

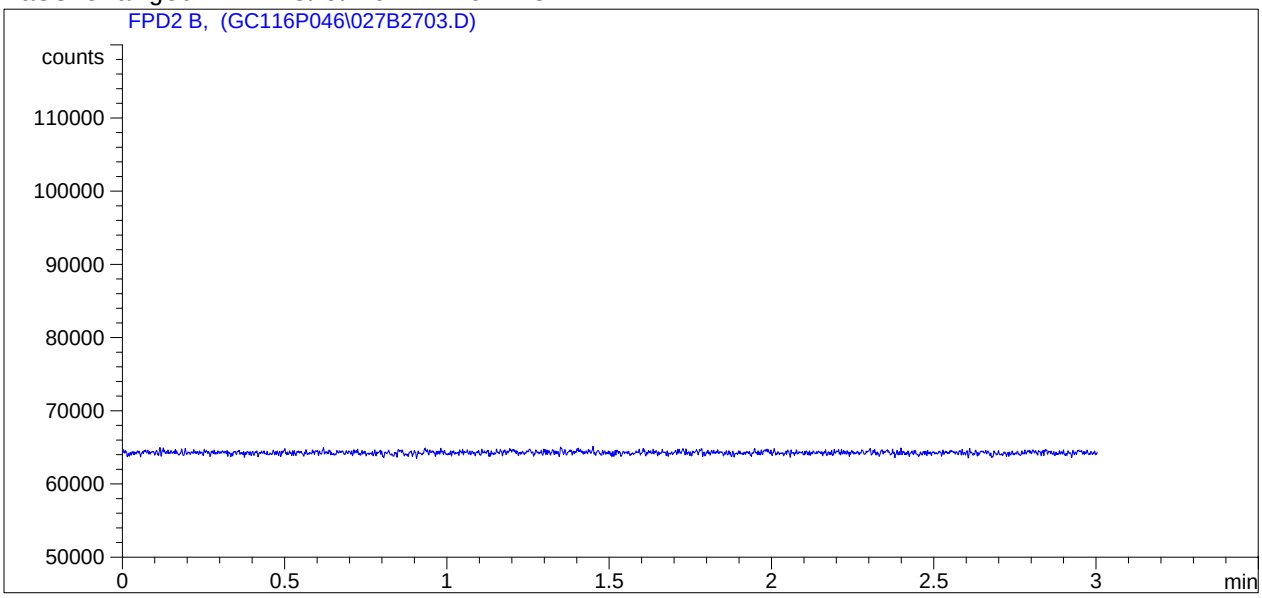
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  27
Acq. Instrument : Instrument 1                  Location : Vial 27
Injection Date  : 7/30/2011 3:06:38 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\027B2703.D
Sample Name: 0611-22 ICR2 Bag Cond A

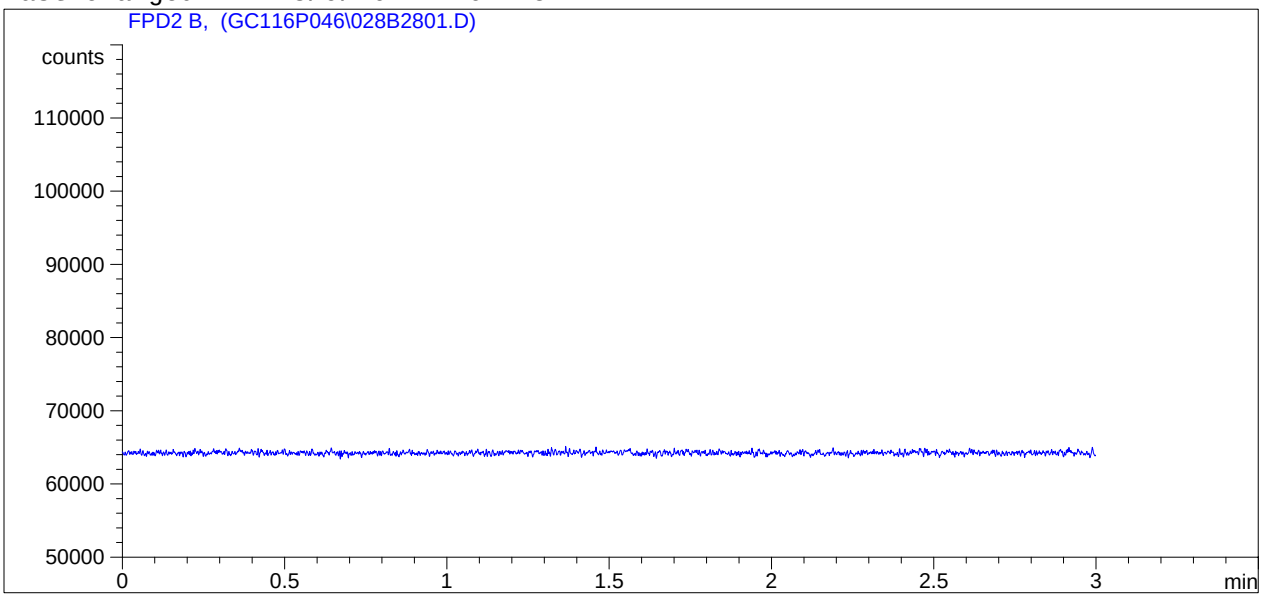
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  27
Acq. Instrument : Instrument 1                  Location : Vial 27
Injection Date  : 7/30/2011 3:10:50 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\028B2801.D
Sample Name: 0611-22 ICR2 Bag Cond B

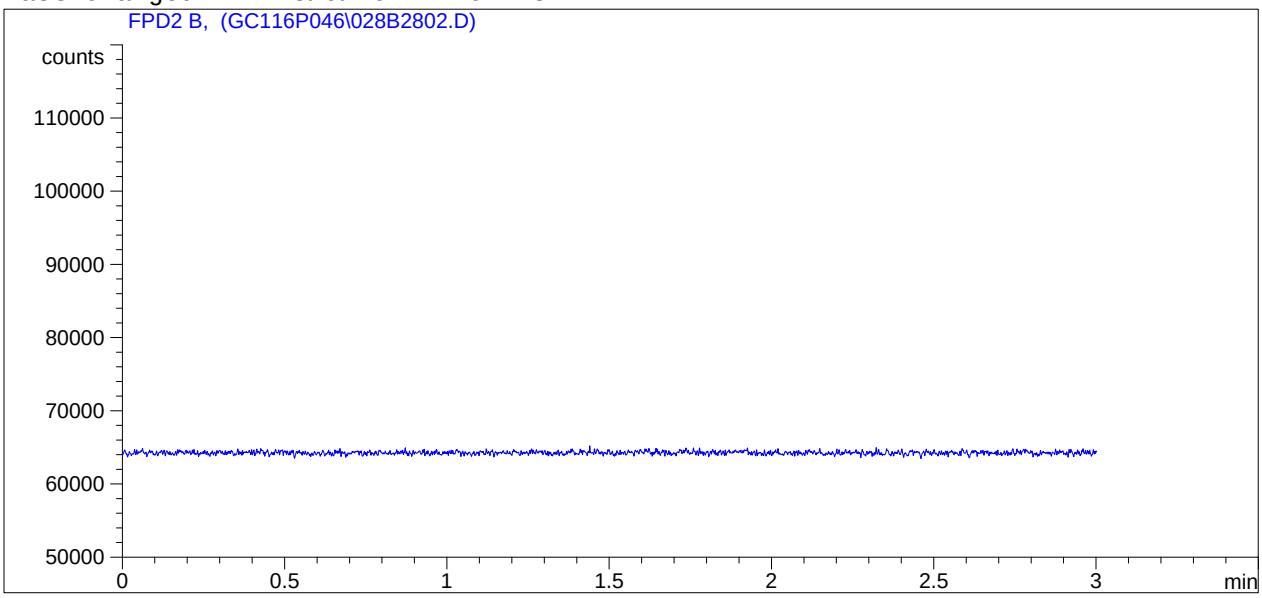
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  28
Acq. Instrument : Instrument 1                  Location : Vial 28
Injection Date  : 7/30/2011 3:23:24 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\028B2802.D
Sample Name: 0611-22 ICR2 Bag Cond B

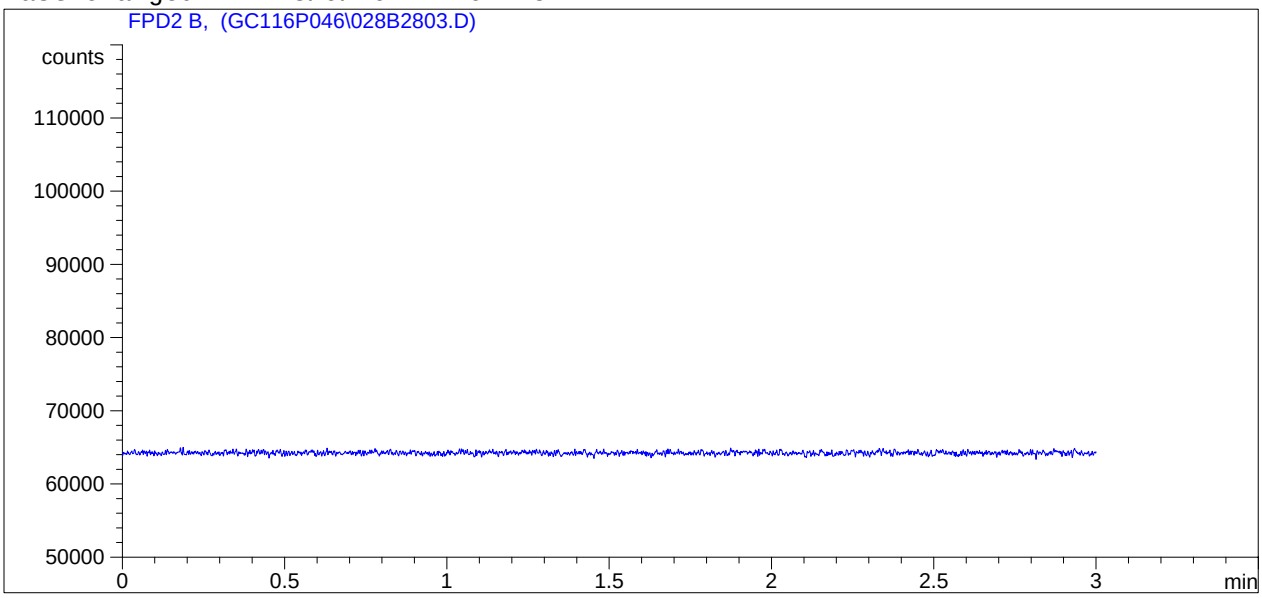
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  28
Acq. Instrument : Instrument 1                  Location : Vial 28
Injection Date  : 7/30/2011 3:27:39 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\028B2803.D
Sample Name: 0611-22 ICR2 Bag Cond B

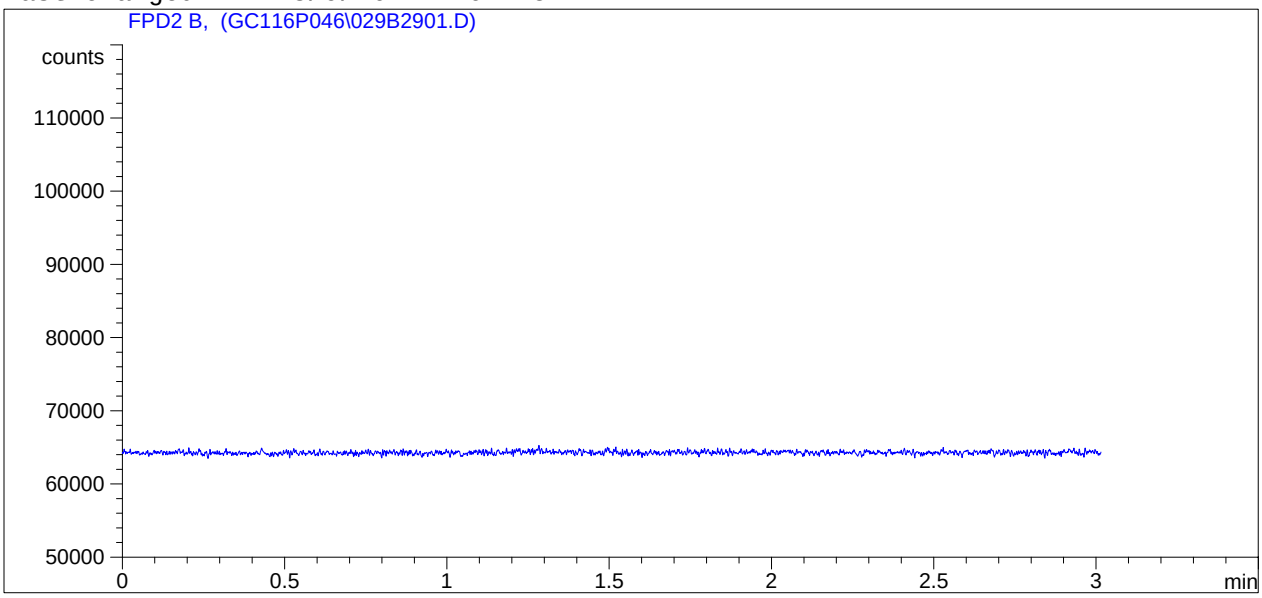
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  28
Acq. Instrument : Instrument 1                  Location : Vial 28
Injection Date  : 7/30/2011 3:31:46 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\029B2901.D
Sample Name: 0611-22 ICR3 Bag Cond A

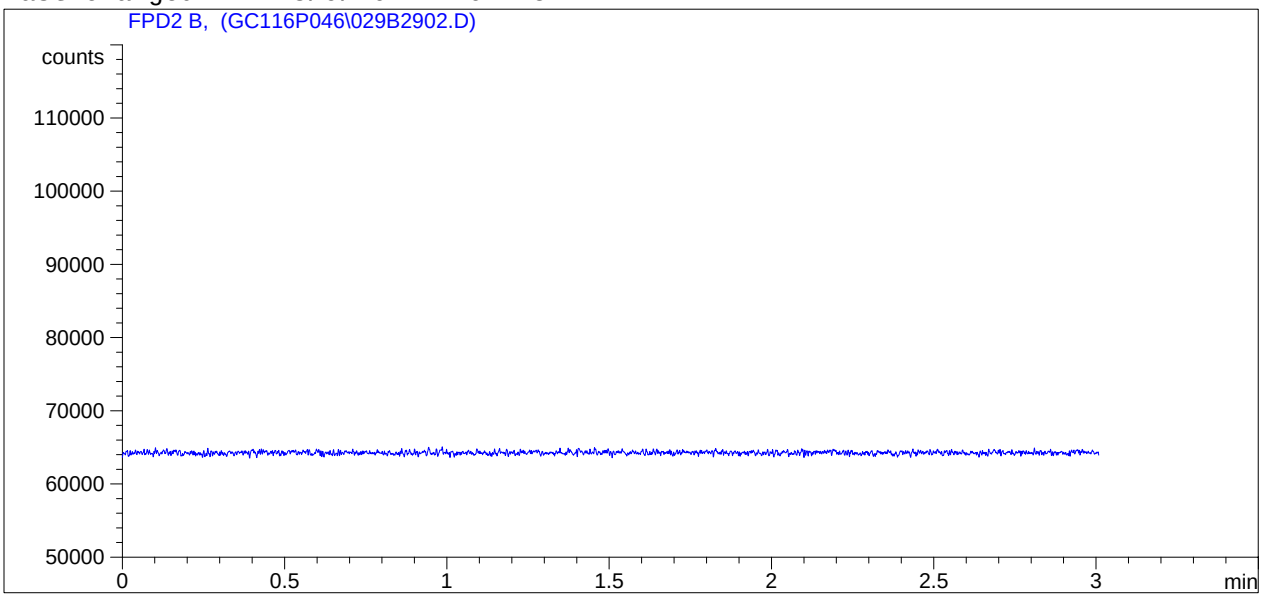
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  29
Acq. Instrument : Instrument 1                  Location : Vial 29
Injection Date  : 7/30/2011 3:44:29 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\029B2902.D
Sample Name: 0611-22 ICR3 Bag Cond A

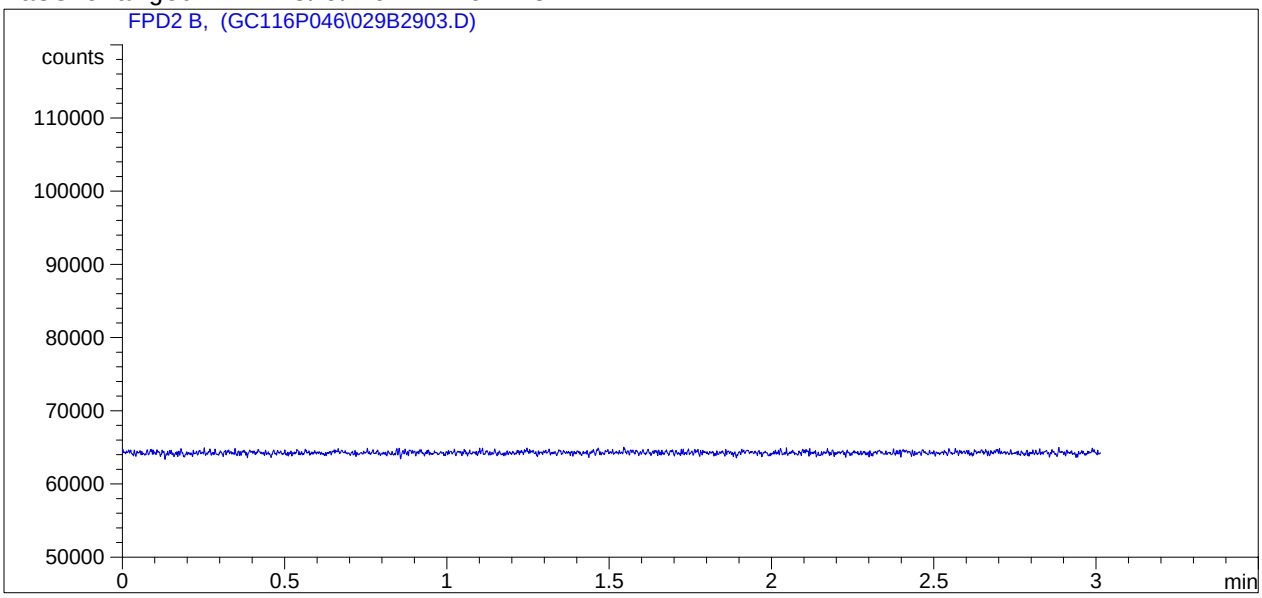
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  29
Acq. Instrument : Instrument 1                  Location : Vial 29
Injection Date  : 7/30/2011 3:48:40 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\029B2903.D
Sample Name: 0611-22 ICR3 Bag Cond A

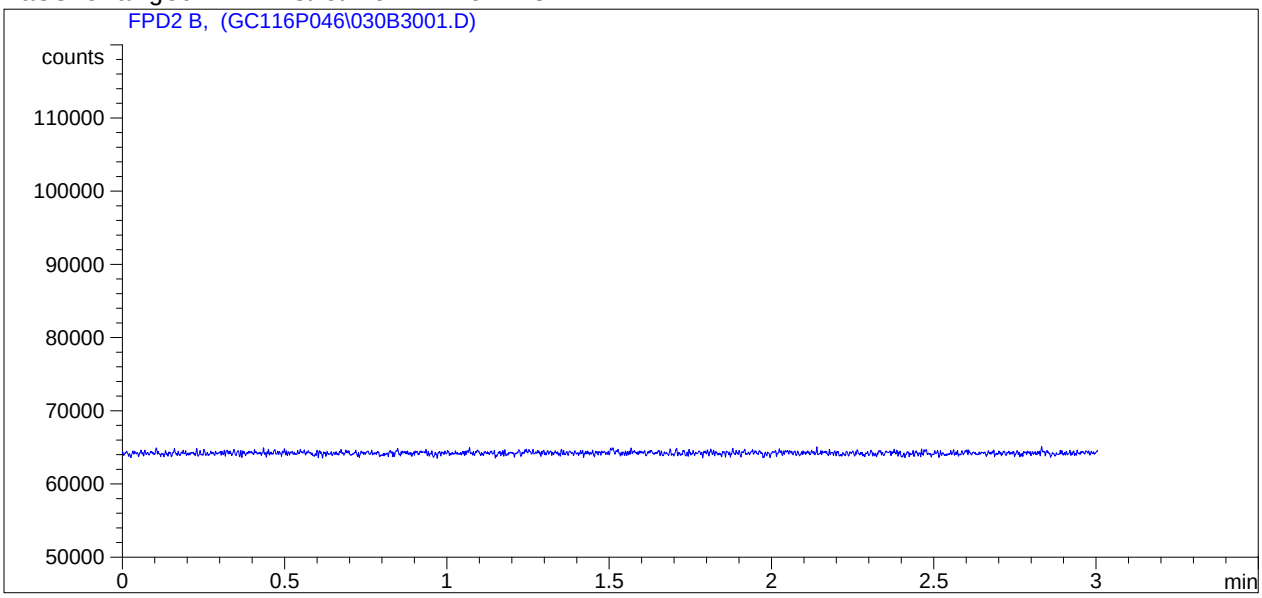
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  29
Acq. Instrument : Instrument 1                  Location : Vial 29
Injection Date  : 7/30/2011 3:52:52 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\030B3001.D
Sample Name: 0611-22 ICR3 Bag Cond B

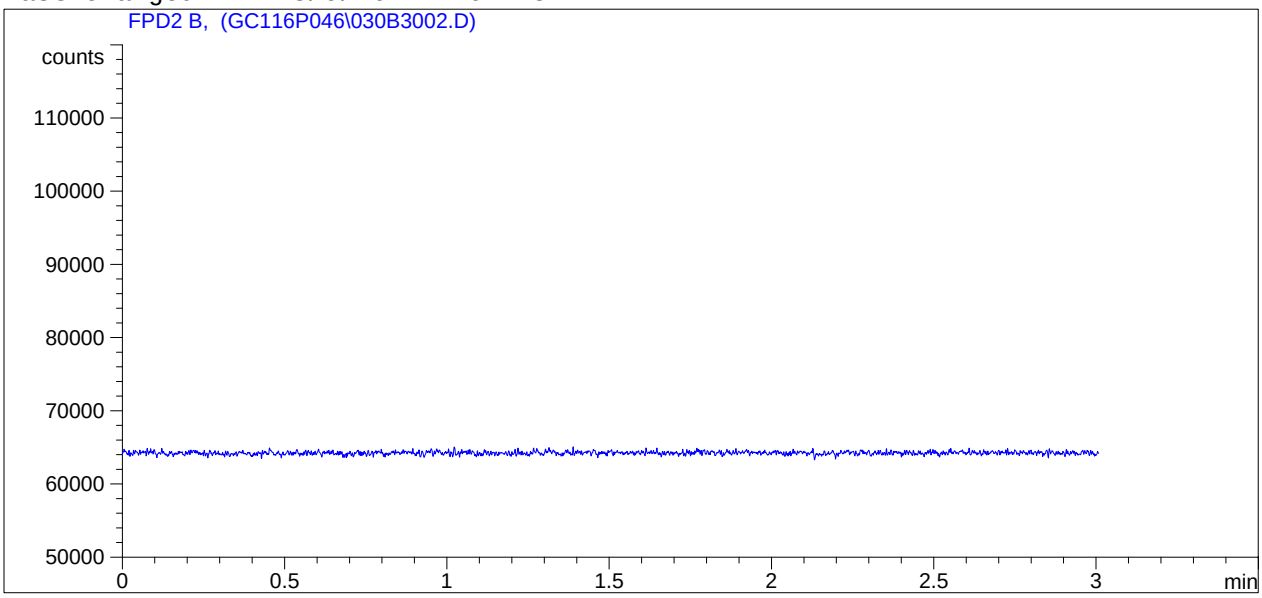
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  30
Acq. Instrument : Instrument 1                  Location : Vial 30
Injection Date  : 7/30/2011 4:05:26 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\030B3002.D
Sample Name: 0611-22 ICR3 Bag Cond B

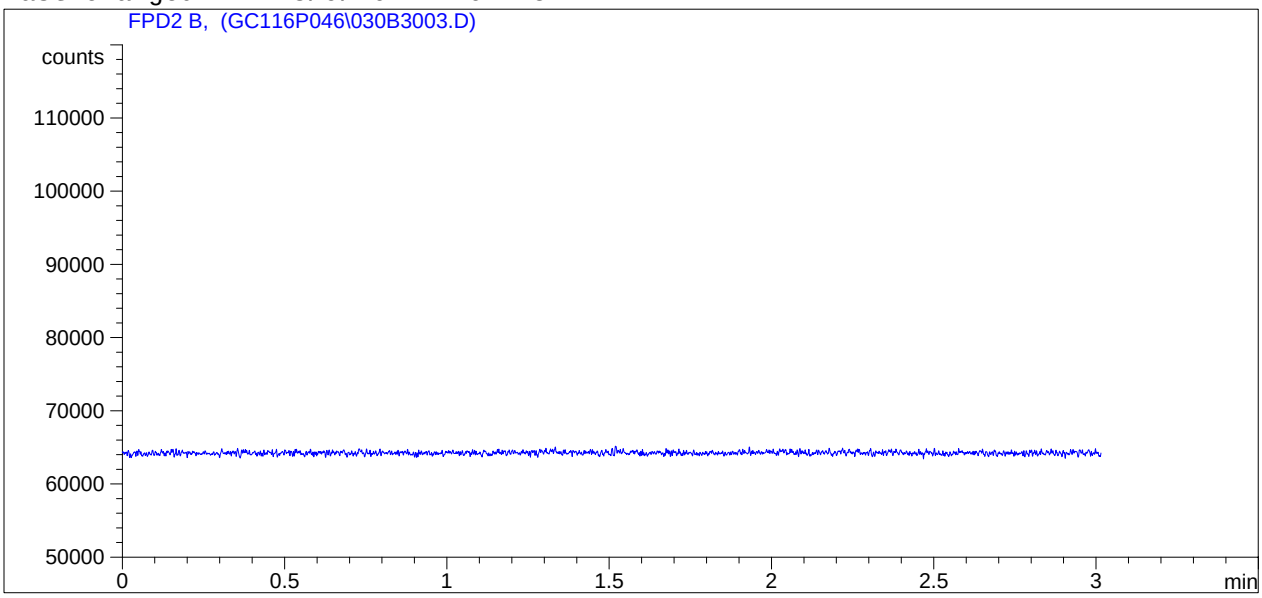
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  30
Acq. Instrument : Instrument 1                  Location : Vial 30
Injection Date  : 7/30/2011 4:09:42 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\030B3003.D
Sample Name: 0611-22 ICR3 Bag Cond B

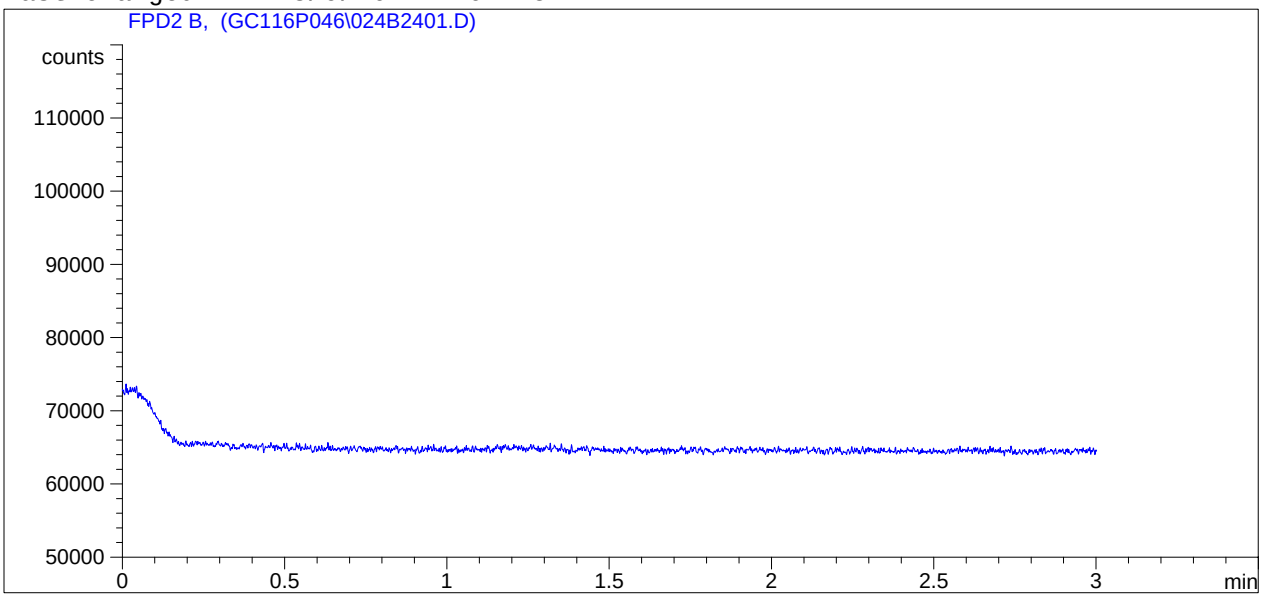
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  30
Acq. Instrument : Instrument 1                  Location : Vial 30
Injection Date  : 7/30/2011 4:13:52 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\024B2401.D
Sample Name: RB H2O

```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  24
Acq. Instrument : Instrument 1                  Location : Vial 24
Injection Date  : 7/30/2011 1:59:10 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```

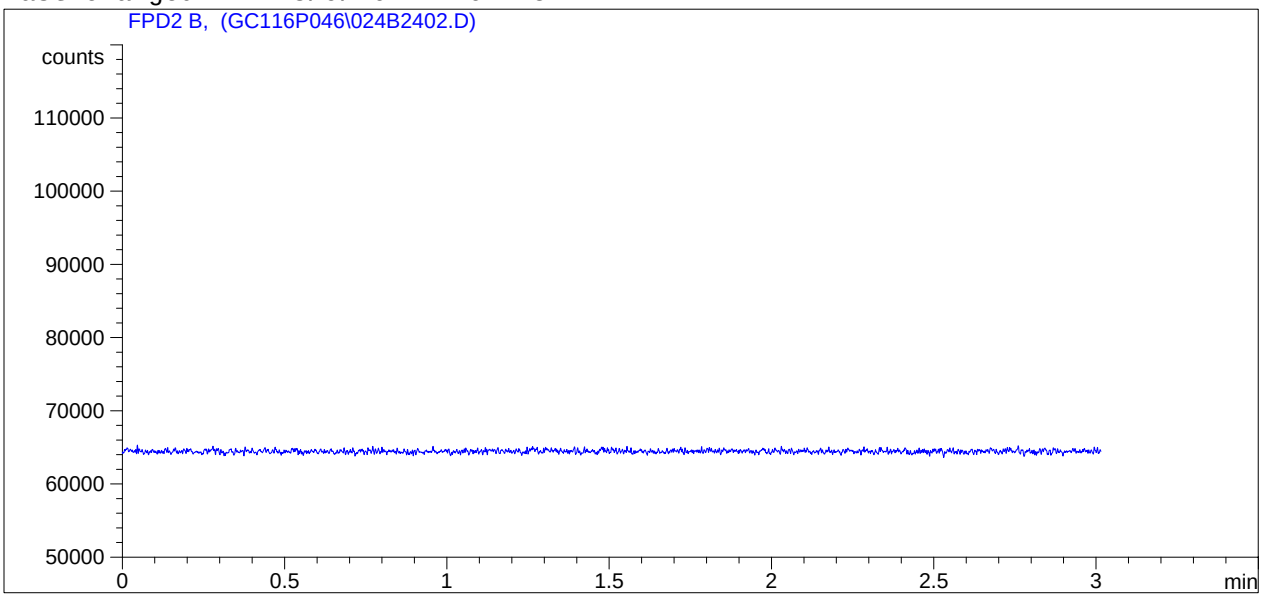



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\024B2402.D
Sample Name: RB H2O

==========

Acq. Operator : JBB Seq. Line : 24
Acq. Instrument : Instrument 1 Location : Vial 24
Injection Date : 7/30/2011 2:03:21 AM Inj : 2
Inj Volume : 1 µl
Sequence File : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed : 8/9/2011 4:04:15 PM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 8/9/2011 4:03:40 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount	Grp	Name
1.686		-	-	-		Carbon disulfide

Totals : 0.00000

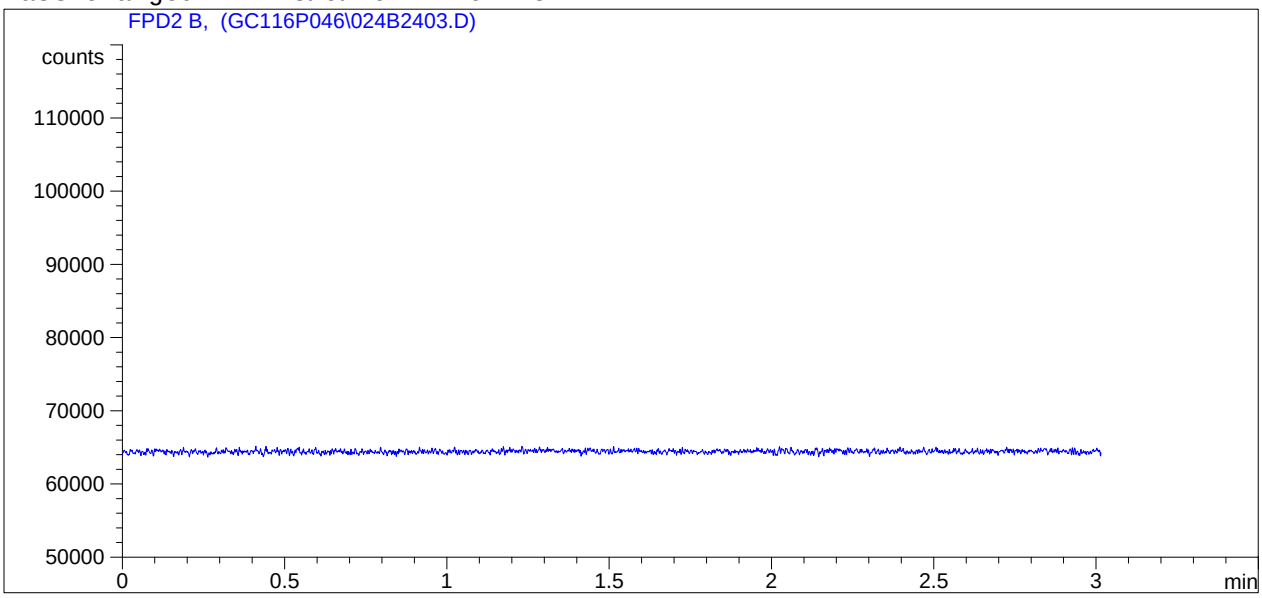
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\024B2403.D
Sample Name: RB H2O

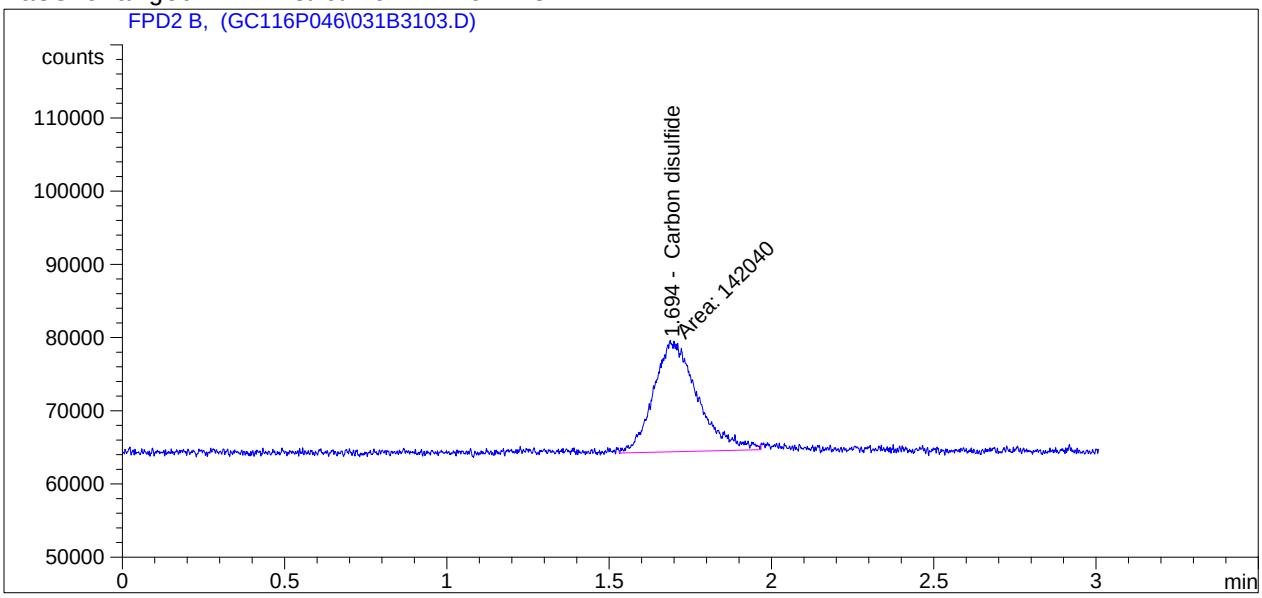
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  24
Acq. Instrument : Instrument 1                  Location : Vial 24
Injection Date  : 7/30/2011 2:07:31 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.686            -          -          -         Carbon disulfide

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\031B3103.D
Sample Name: 0611-22 ICR1 Bag Cond A #MS

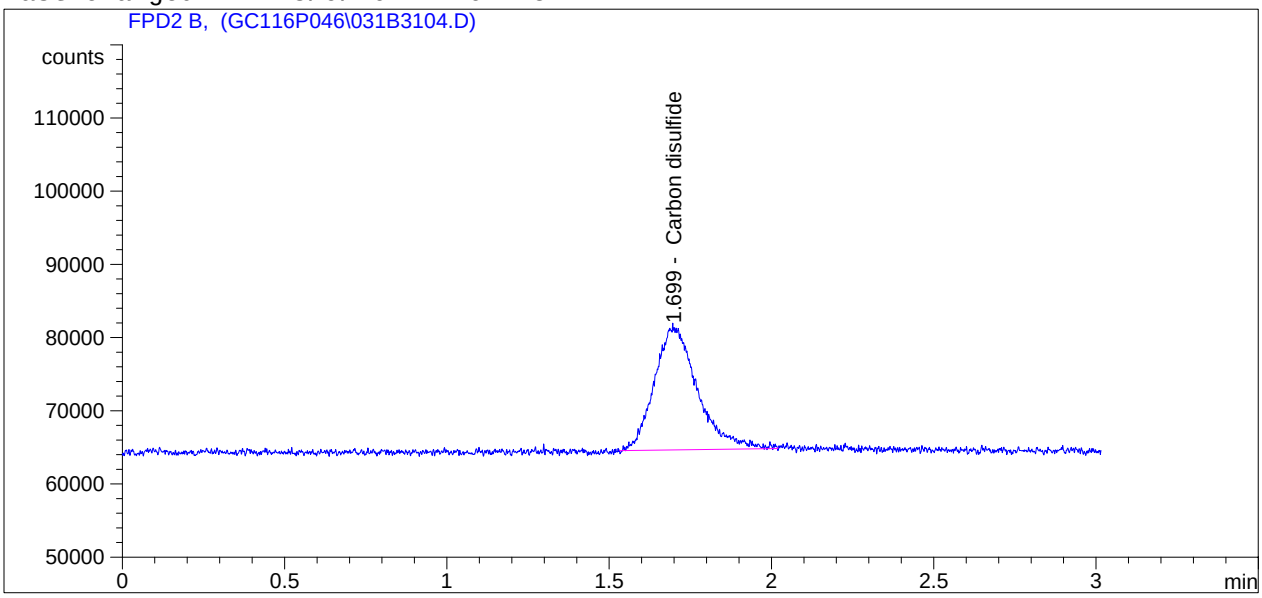
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  31
Acq. Instrument : Instrument 1                  Location : Vial 31
Injection Date  : 7/30/2011 4:35:02 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.694 MM     1.42040e5  1.32940e-5    1.88827    Carbon disulfide

Totals :                                 1.88827


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\031B3104.D
Sample Name: 0611-22 ICR1 Bag Cond A #MS

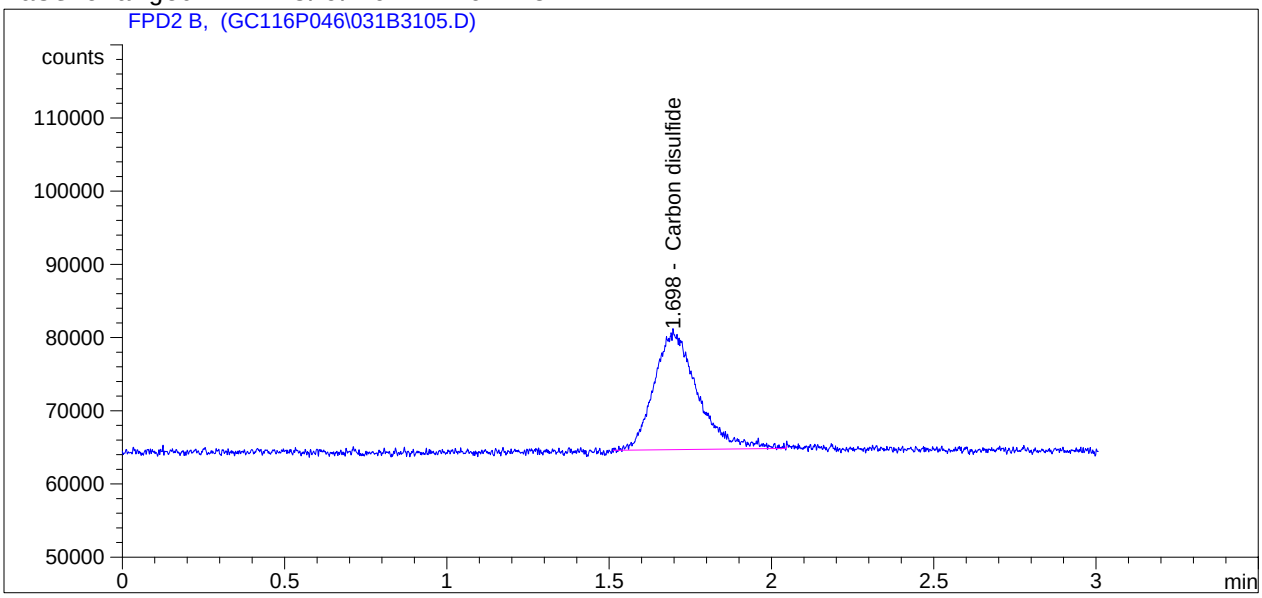
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  31
Acq. Instrument : Instrument 1                  Location : Vial 31
Injection Date  : 7/30/2011 4:39:13 AM               Inj :   4
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.699 BB     1.54936e5  1.28755e-5    1.99488    Carbon disulfide

Totals :                                 1.99488


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\031B3105.D
Sample Name: 0611-22 ICR1 Bag Cond A #MS

```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  31
Acq. Instrument : Instrument 1                  Location : Vial 31
Injection Date  : 7/30/2011 4:43:24 AM               Inj :   5
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.698 BB     1.49858e5  1.30353e-5    1.95345    Carbon disulfide

Totals :                                 1.95345


==========================================================================
                          *** End of Report ***
```

Calibration Curve Chromatograms

Calibration Table

Calib. Data Modified : 8/9/2011 3:57:42 PM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.200 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear (some peaks differ, see below)
Origin : Connected (some peaks differ, see below)
Weight : Quadratic (Amnt) (some peaks differ, see below)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A,
Signal 2: FPD2 B,

RetTime [min]	Sig	Lvl	Amount	Area	Amt/Area	Ref	Grp	Name
1.686	2	2	5.03000e-1	2.42838e4	2.07134e-5			Carbon disulfide
		3	1.00600	5.91999e4	1.69933e-5			
		4	2.00800	1.59048e5	1.26251e-5			
		5	4.98900	7.22502e5	6.90517e-6			
		6	9.88000	2.66378e6	3.70901e-6			

More compound-specific settings:

Compound: Carbon disulfide
Time Window : From 1.540 min To 1.786 min
Curve Type : Quadratic
Origin : Ignored
Calibration Level Weights:/
Level 2 : 1
Level 3 : 0.25
Level 4 : 0.062749
Level 5 : 0.010165
Level 6 : 0.002592

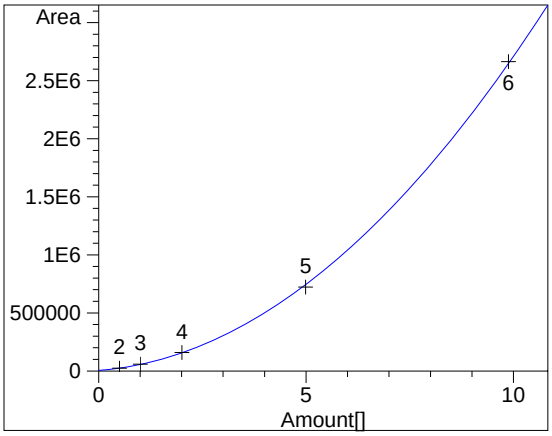
Peak Sum Table

No Entries in table

==========

Calibration Curves

==========

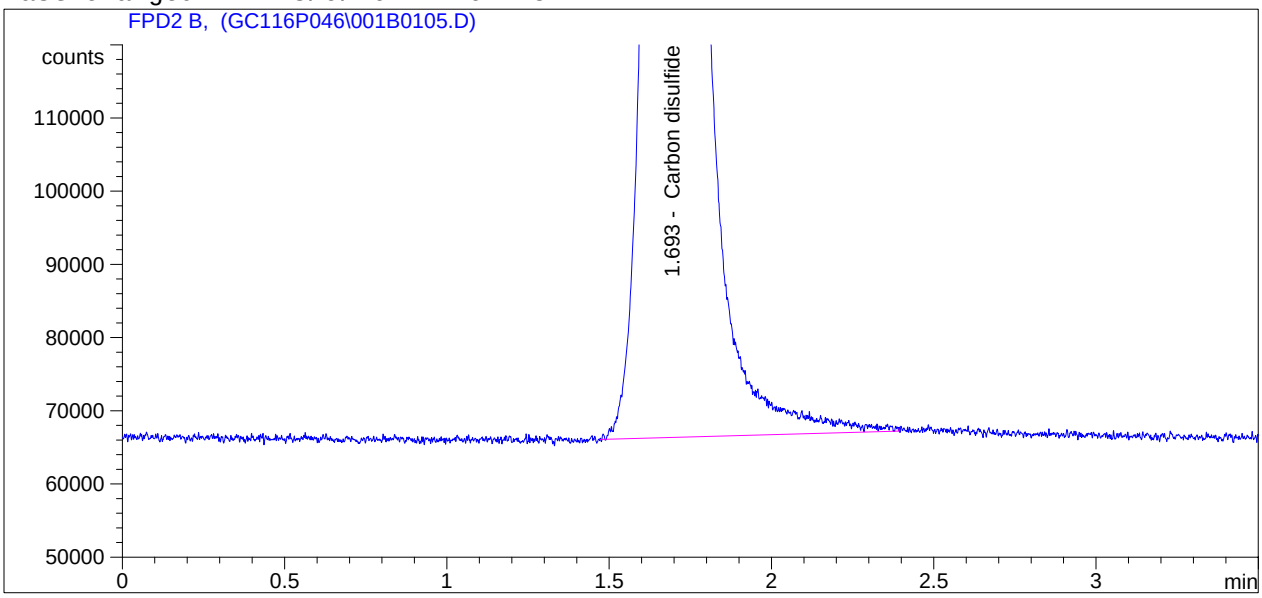


Carbon disulfide at exp. RT: 1.686
FPD2 B,
Correlation: 0.99984
Residual Std. Dev.: 15777.54037
Formula: $y = ax^2 + bx + c$
a: 24409.93285
b: 26179.47681
c: 5570.51141
x: Amount
y: Area
Calibration Level Weights:
Level 2 : 1
Level 3 : 0.25
Level 4 : 0.062749
Level 5 : 0.010165
Level 6 : 0.002592

==========

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\001B0105.D
Sample Name: gc116p46 #6

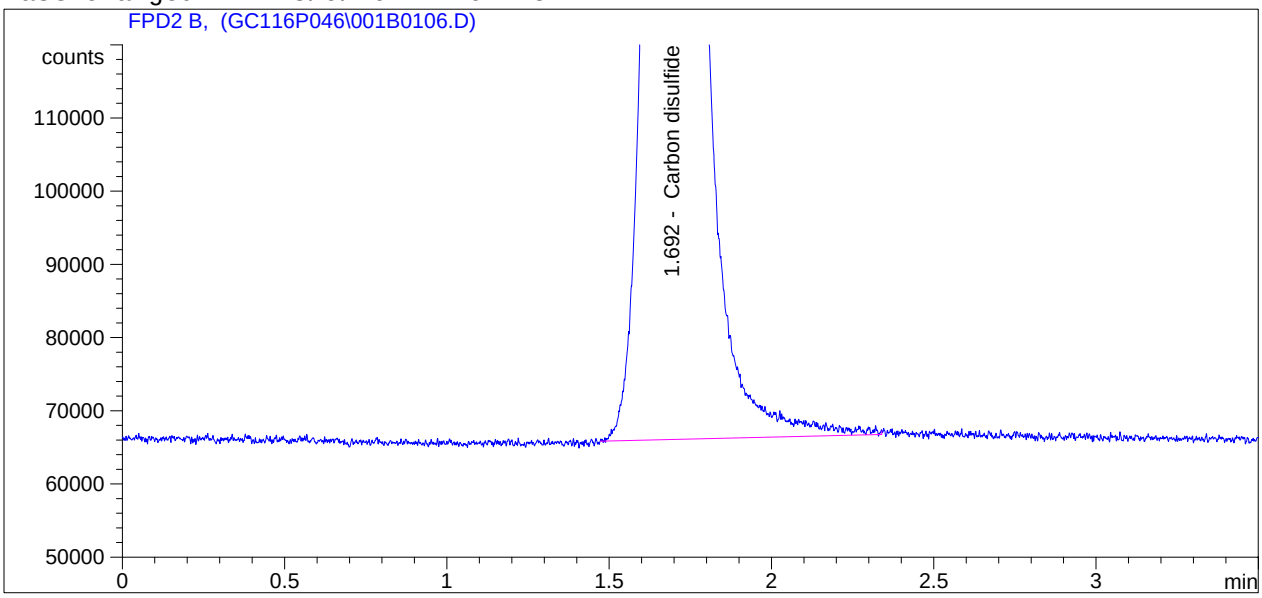
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   1
Acq. Instrument : Instrument 1                  Location : Vial 1
Injection Date  : 7/29/2011 1:46:52 AM               Inj :   5
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.693 BB     2.63100e6  3.74326e-6    9.84852    Carbon disulfide

Totals :                                 9.84852


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\001B0106.D
Sample Name: gc116p46 #6

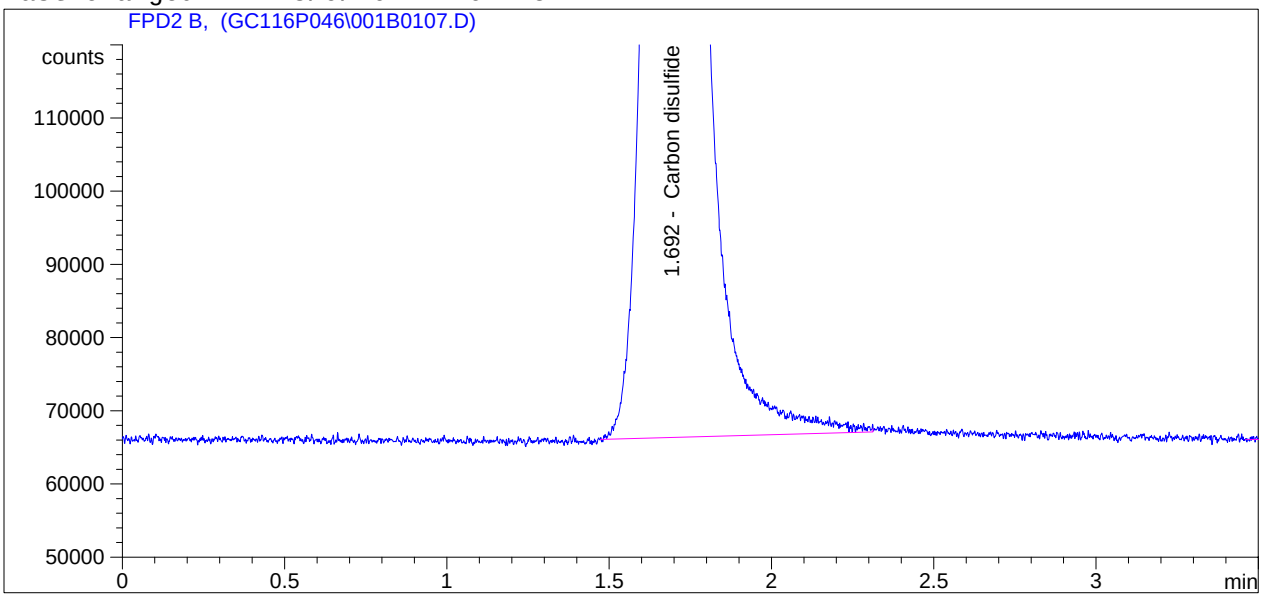
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   1
Acq. Instrument : Instrument 1                  Location : Vial 1
Injection Date  : 7/29/2011 1:53:06 AM               Inj :   6
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.692 BB     2.41812e6  3.89549e-6    9.41978    Carbon disulfide

Totals :                                 9.41978


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\001B0107.D
Sample Name: gc116p46 #6

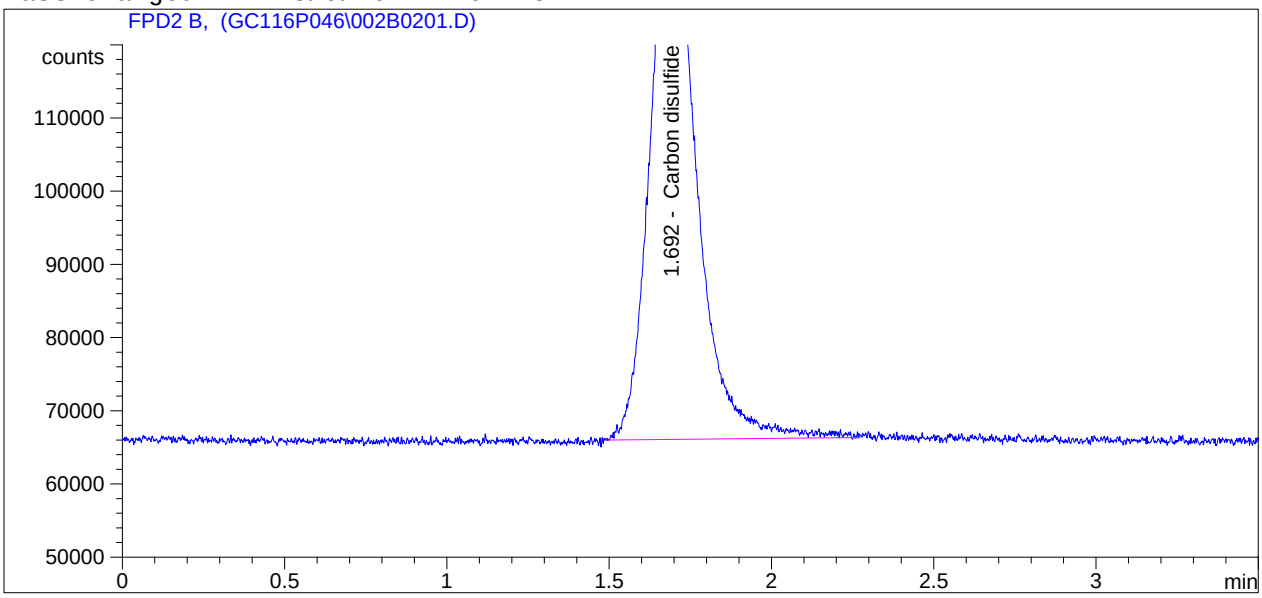
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   1
Acq. Instrument : Instrument 1                  Location : Vial 1
Injection Date  : 7/29/2011 1:59:19 AM               Inj :   7
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.692 BB     2.53207e6  3.81171e-6    9.65152    Carbon disulfide

Totals :                                 9.65152


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\002B0201.D
Sample Name: gc116p46 #5

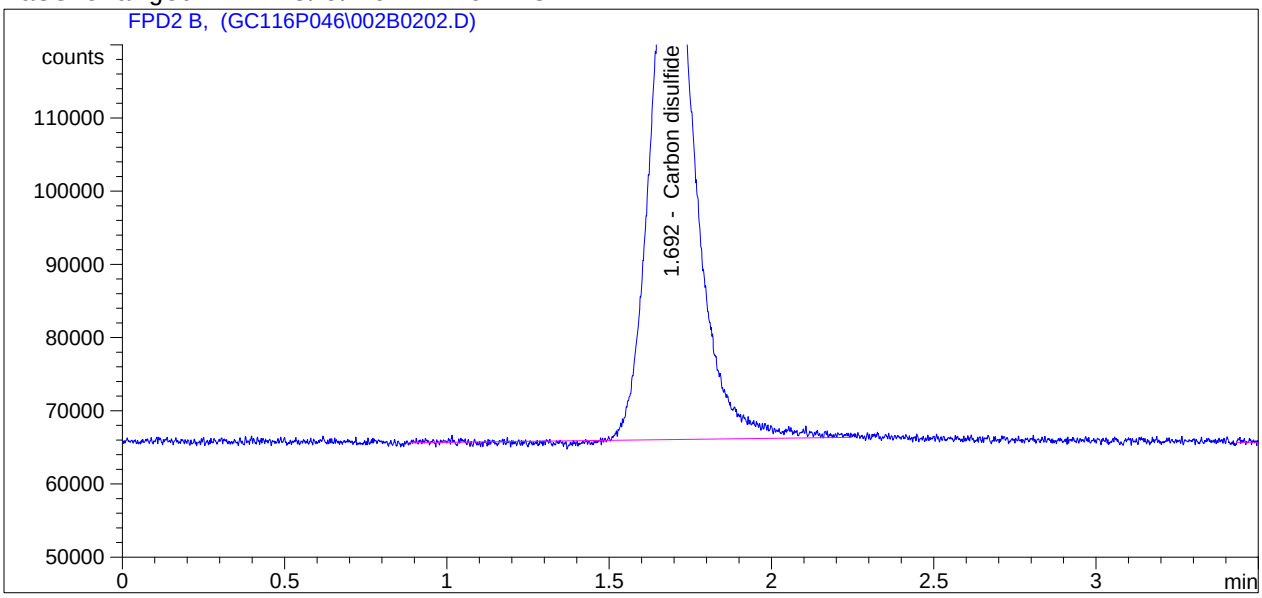
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   2
Acq. Instrument : Instrument 1                  Location : Vial 2
Injection Date  : 7/29/2011 2:05:38 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.692 BB     7.41109e5  6.71860e-6    4.97921    Carbon disulfide

Totals :                                 4.97921


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\002B0202.D
Sample Name: gc116p46 #5

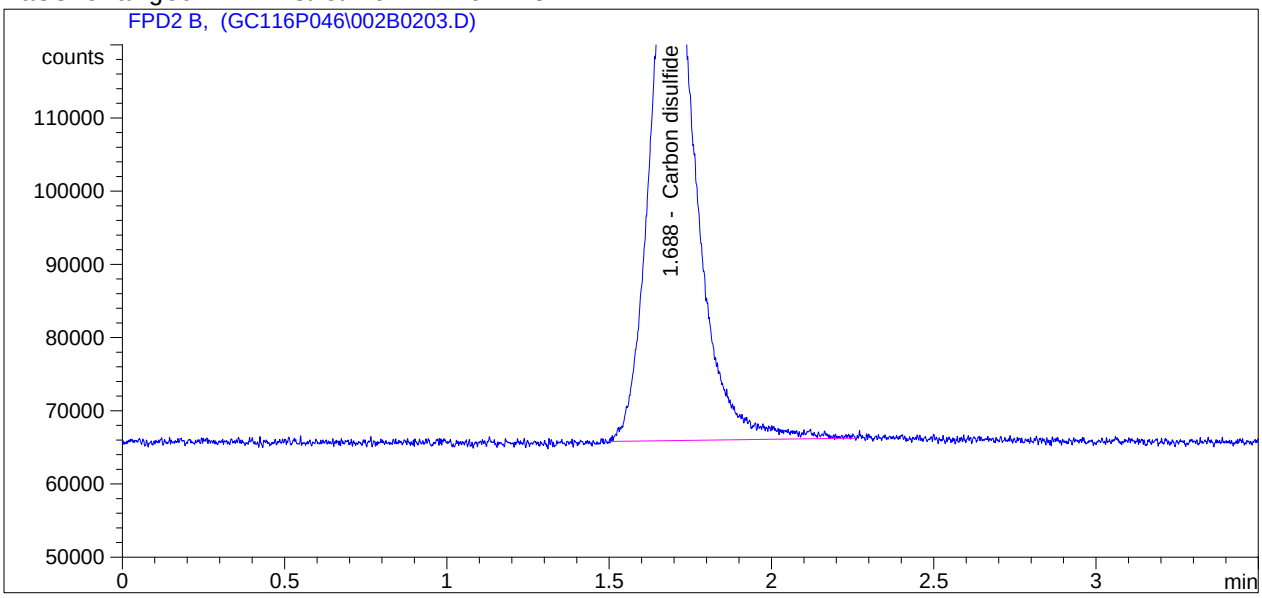
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   2
Acq. Instrument : Instrument 1                  Location : Vial 2
Injection Date  : 7/29/2011 2:11:52 AM               Inj :   2
                                              Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.692 BB     7.08677e5  6.85421e-6    4.85742    Carbon disulfide

Totals :                                 4.85742


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\002B0203.D
Sample Name: gc116p46 #5

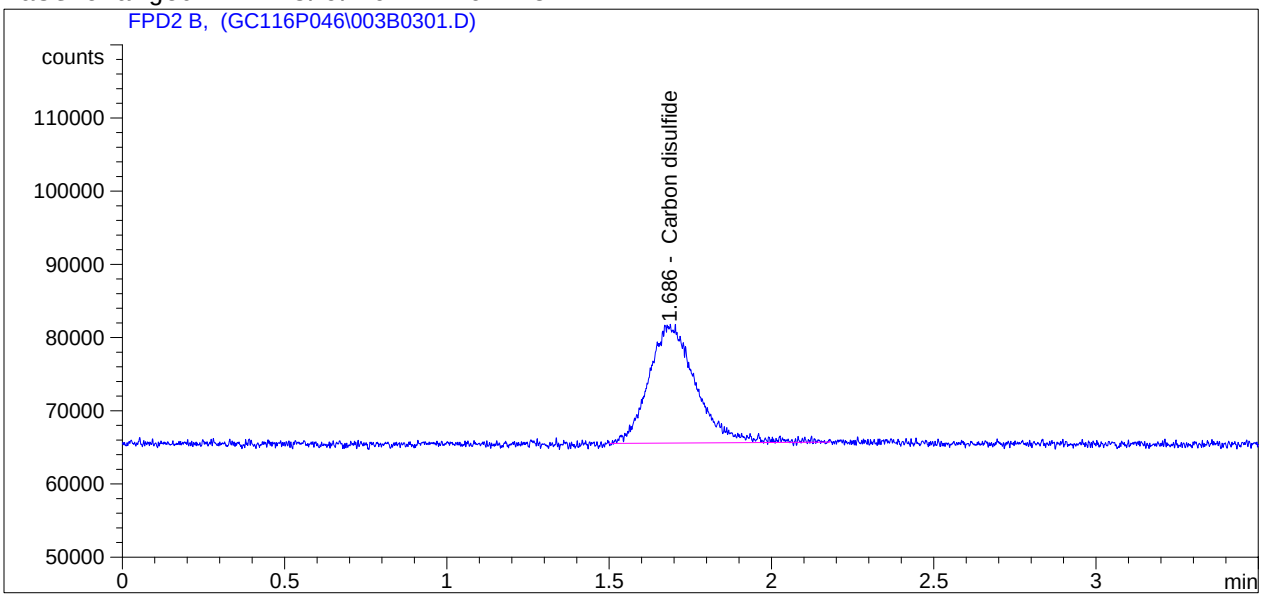
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   2
Acq. Instrument : Instrument 1                  Location : Vial 2
Injection Date  : 7/29/2011 2:18:06 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.688 BB     7.17721e5  6.81555e-6    4.89166    Carbon disulfide

Totals :                                 4.89166


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\003B0301.D
Sample Name: gc116p46 #4

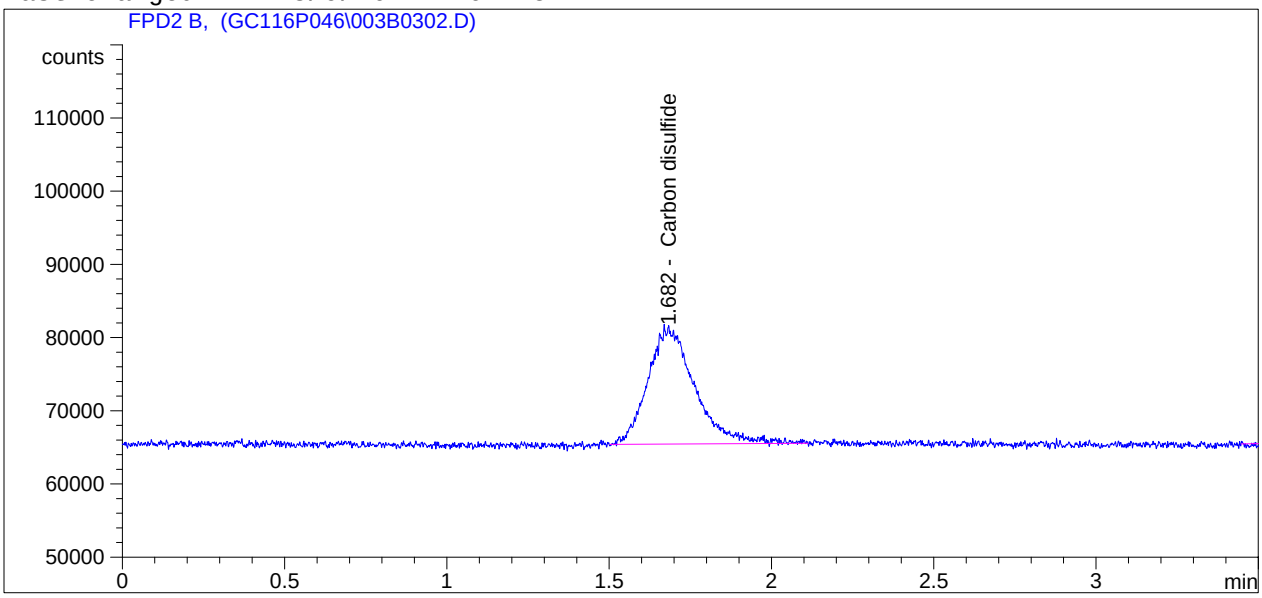
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   3
Acq. Instrument : Instrument 1                  Location : Vial 3
Injection Date  : 7/29/2011 2:49:22 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.686 BB     1.62479e5  1.26491e-5    2.05520    Carbon disulfide

Totals :                                2.05520


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\003B0302.D
Sample Name: gc116p46 #4

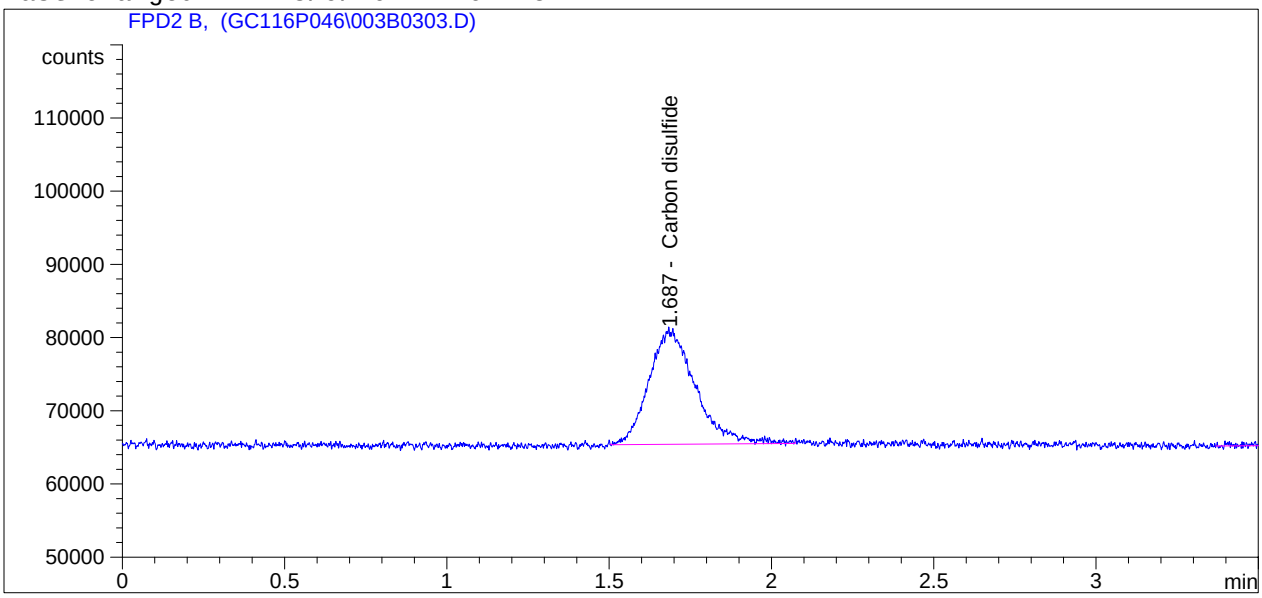
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   3
Acq. Instrument : Instrument 1                  Location : Vial 3
Injection Date  : 7/29/2011 2:55:37 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.682 BB     1.59396e5  1.27401e-5    2.03072    Carbon disulfide

Totals :                                2.03072


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\003B0303.D
Sample Name: gc116p46 #4

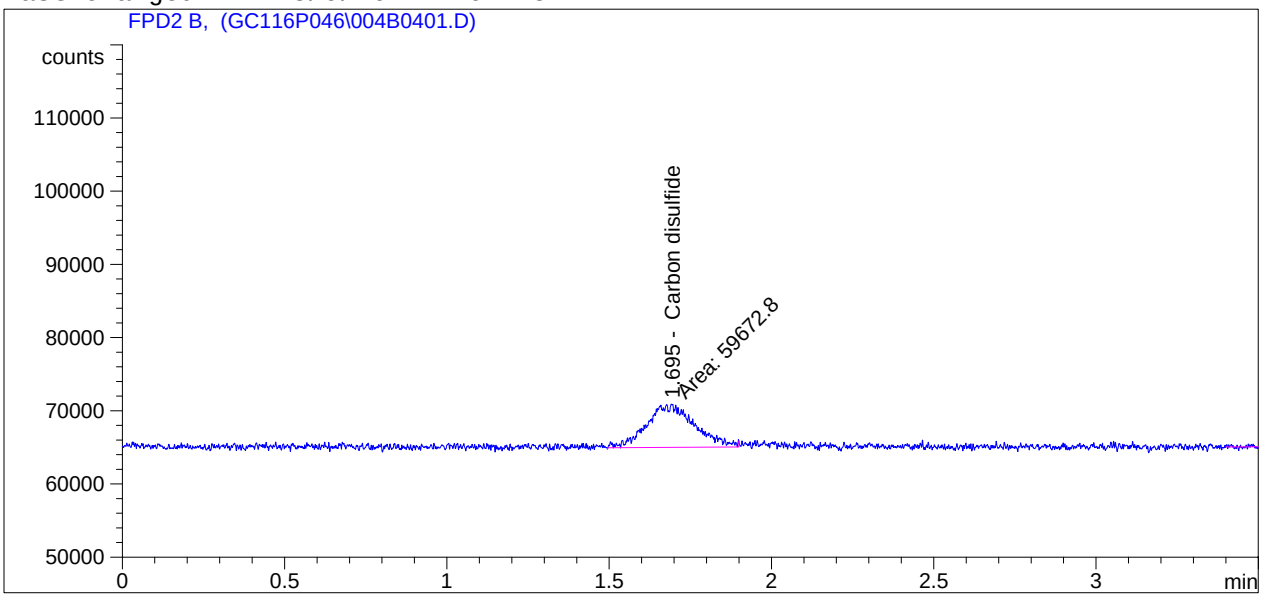
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   3
Acq. Instrument : Instrument 1                  Location : Vial 3
Injection Date  : 7/29/2011 3:01:53 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.687 BB     1.55270e5  1.28652e-5    1.99759    Carbon disulfide

Totals :                                 1.99759


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\004B0401.D
Sample Name: gc116p46 #3

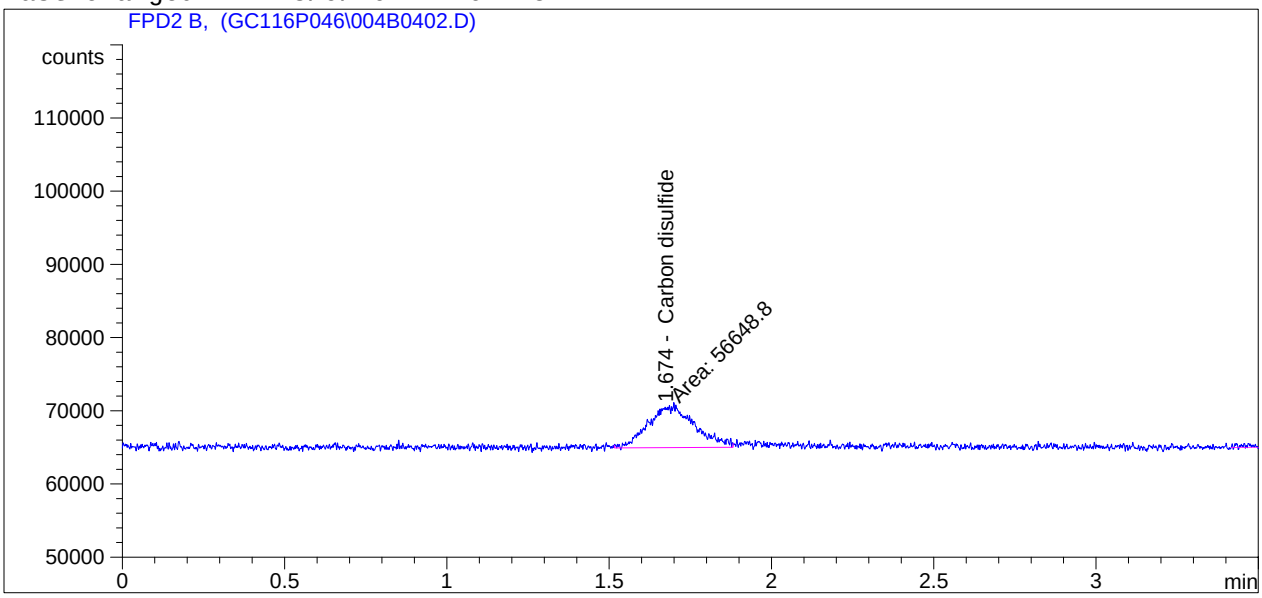
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   4
Acq. Instrument : Instrument 1                  Location : Vial 4
Injection Date  : 7/29/2011 3:33:07 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.695 MM     5.96728e4  1.75314e-5    1.04615    Carbon disulfide

Totals :                                 1.04615


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\004B0402.D
Sample Name: gc116p46 #3

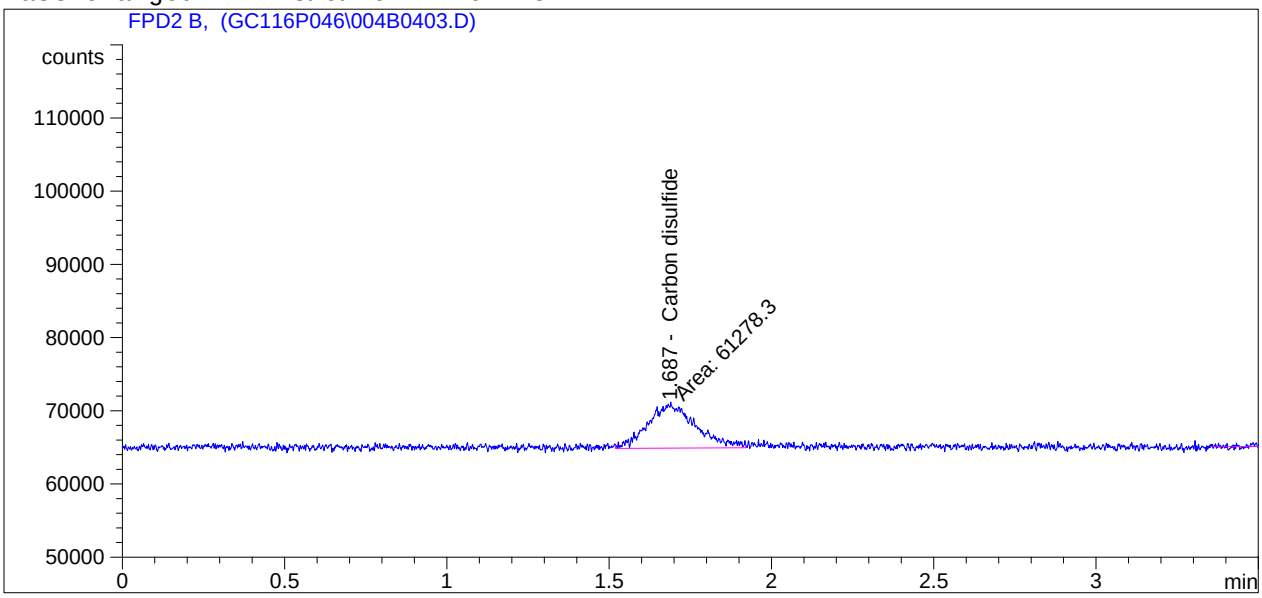
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   4
Acq. Instrument : Instrument 1                  Location : Vial 4
Injection Date  : 7/29/2011 3:39:20 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.674 MM     5.66488e4  1.77674e-5    1.00650    Carbon disulfide

Totals :                                 1.00650


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\004B0403.D
Sample Name: gc116p46 #3

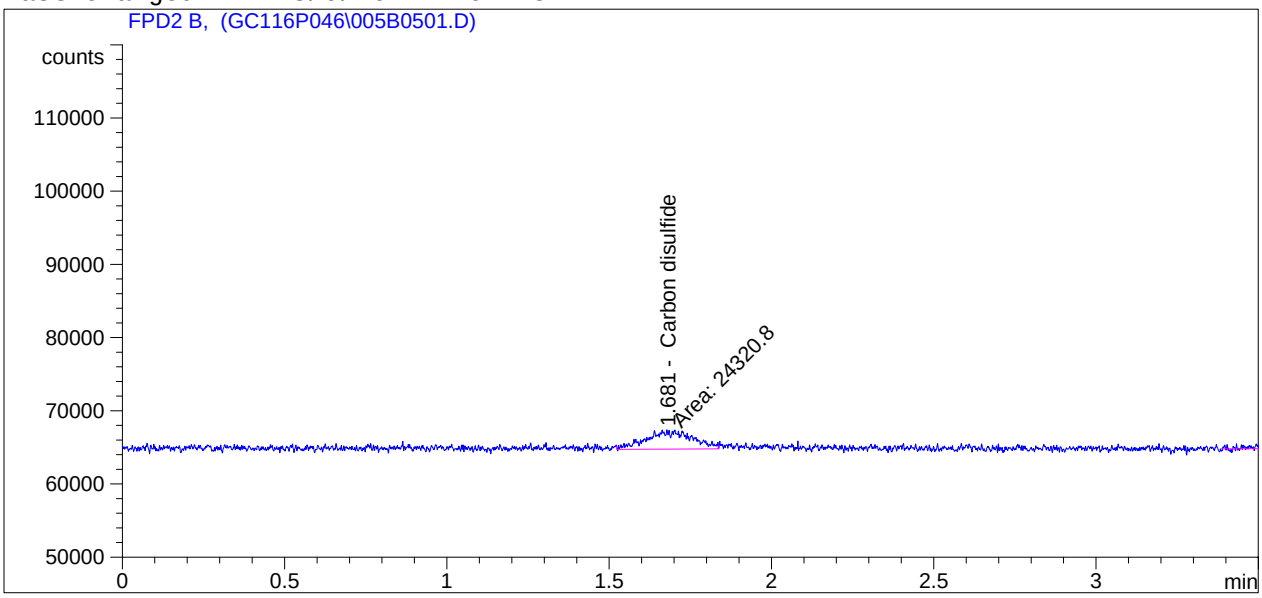
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   4
Acq. Instrument : Instrument 1                  Location : Vial 4
Injection Date  : 7/29/2011 3:45:35 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.687 MM     6.12783e4  1.74090e-5    1.06679    Carbon disulfide

Totals :                                 1.06679


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\005B0501.D
Sample Name: gc116p46 #2

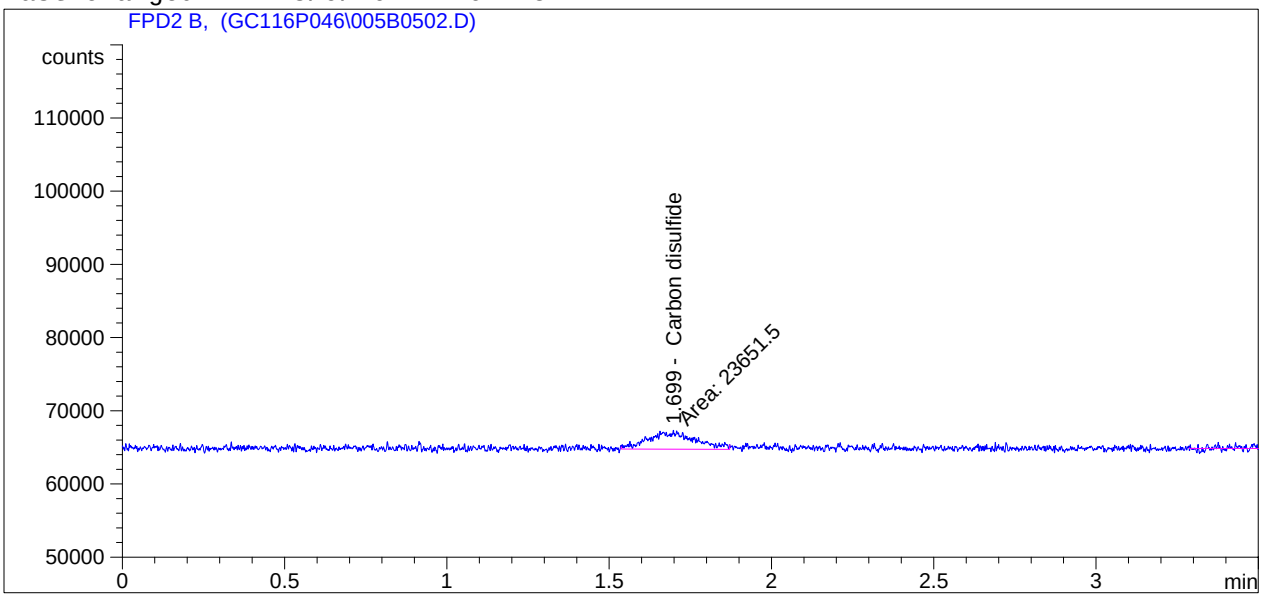
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   5
Acq. Instrument : Instrument 1                  Location : Vial 5
Injection Date  : 7/29/2011 4:16:51 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.681 MM     2.43208e4  2.01889e-5 4.91010e-1    Carbon disulfide

Totals :                              4.91010e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\005B0502.D
Sample Name: gc116p46 #2

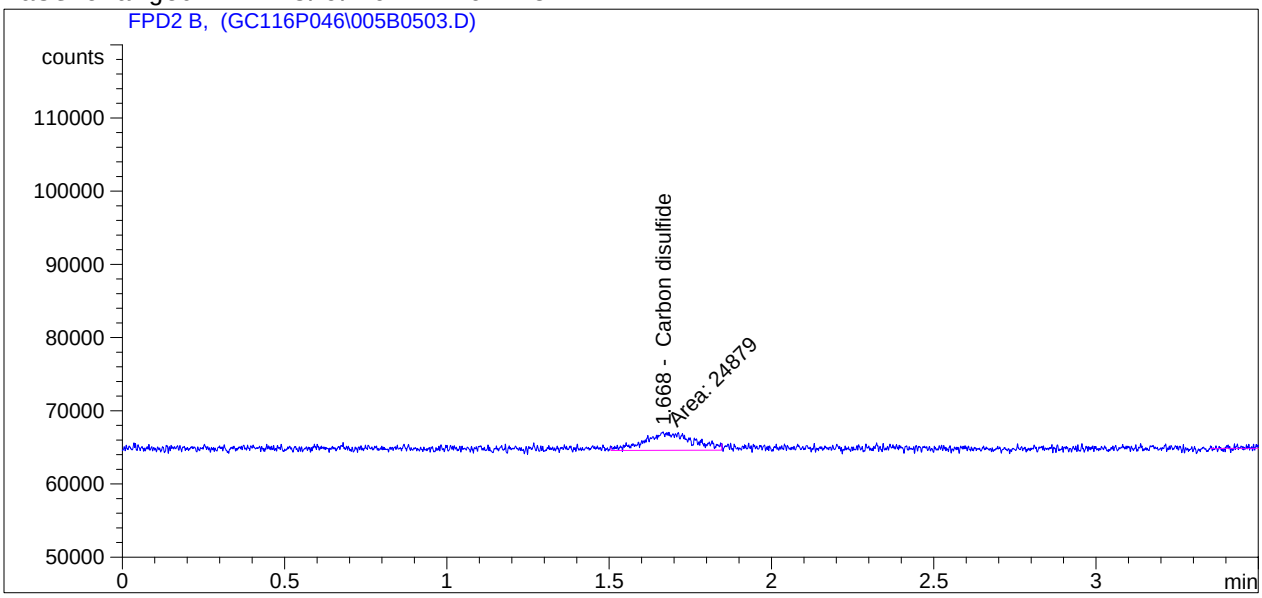
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   5
Acq. Instrument : Instrument 1                  Location : Vial 5
Injection Date  : 7/29/2011 4:23:06 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.699 MM     2.36515e4  2.01889e-5 4.77497e-1    Carbon disulfide

Totals :                              4.77497e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\005B0503.D
Sample Name: gc116p46 #2

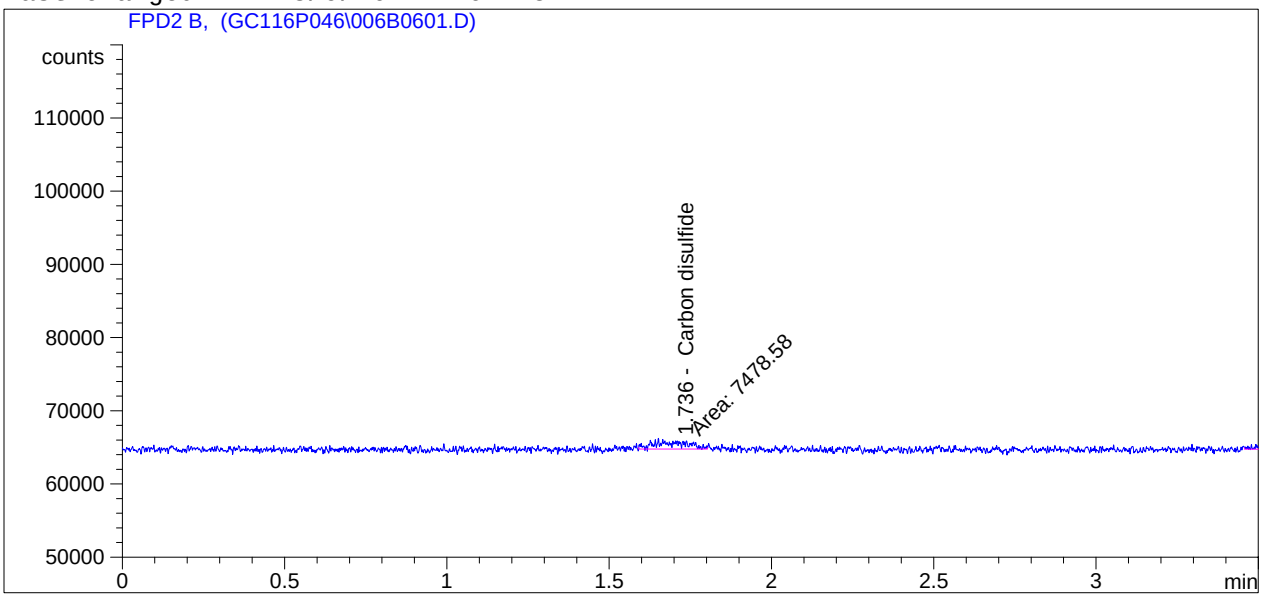
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   5
Acq. Instrument : Instrument 1                  Location : Vial 5
Injection Date  : 7/29/2011 4:29:22 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.668 MM     2.48790e4  2.01889e-5 5.02279e-1    Carbon disulfide

Totals :                              5.02279e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\006B0601.D
Sample Name: gc116p46 #1

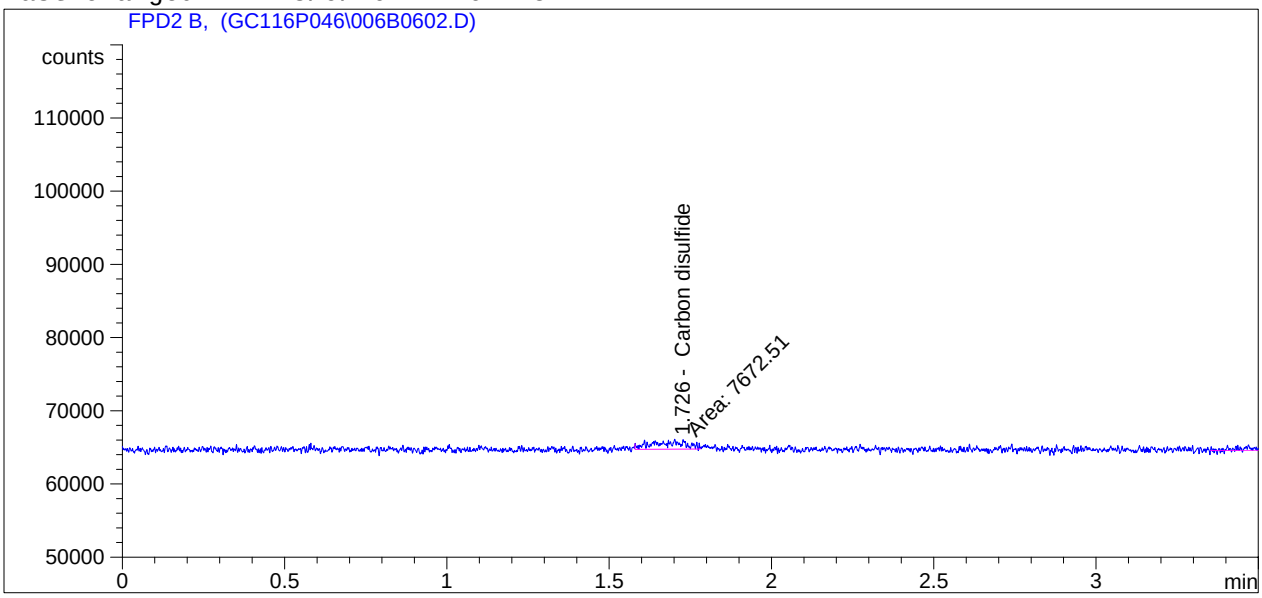
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   6
Acq. Instrument : Instrument 1                  Location : Vial 6
Injection Date  : 7/29/2011 5:00:40 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.736 MM     7478.57715 2.01889e-5 1.50984e-1    Carbon disulfide

Totals :                              1.50984e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\006B0602.D
Sample Name: gc116p46 #1

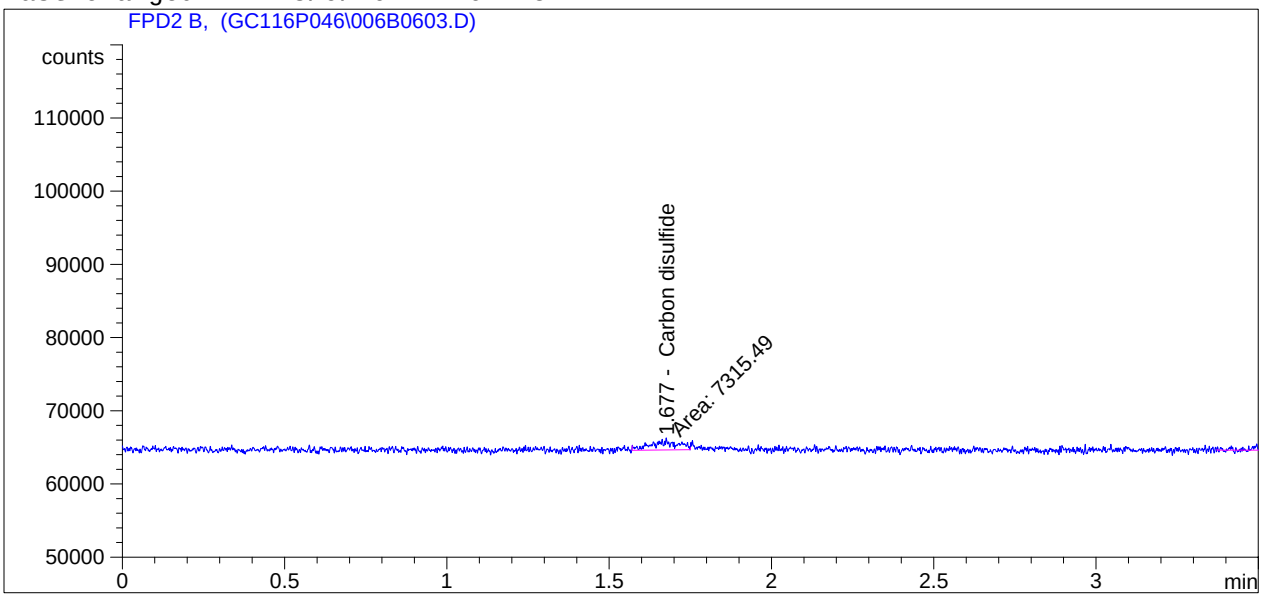
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   6
Acq. Instrument : Instrument 1                  Location : Vial 6
Injection Date  : 7/29/2011 5:06:56 AM               Inj :   2
                                              Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.726 MM     7672.51074 2.01889e-5 1.54899e-1    Carbon disulfide

Totals :                              1.54899e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\006B0603.D
Sample Name: gc116p46 #1

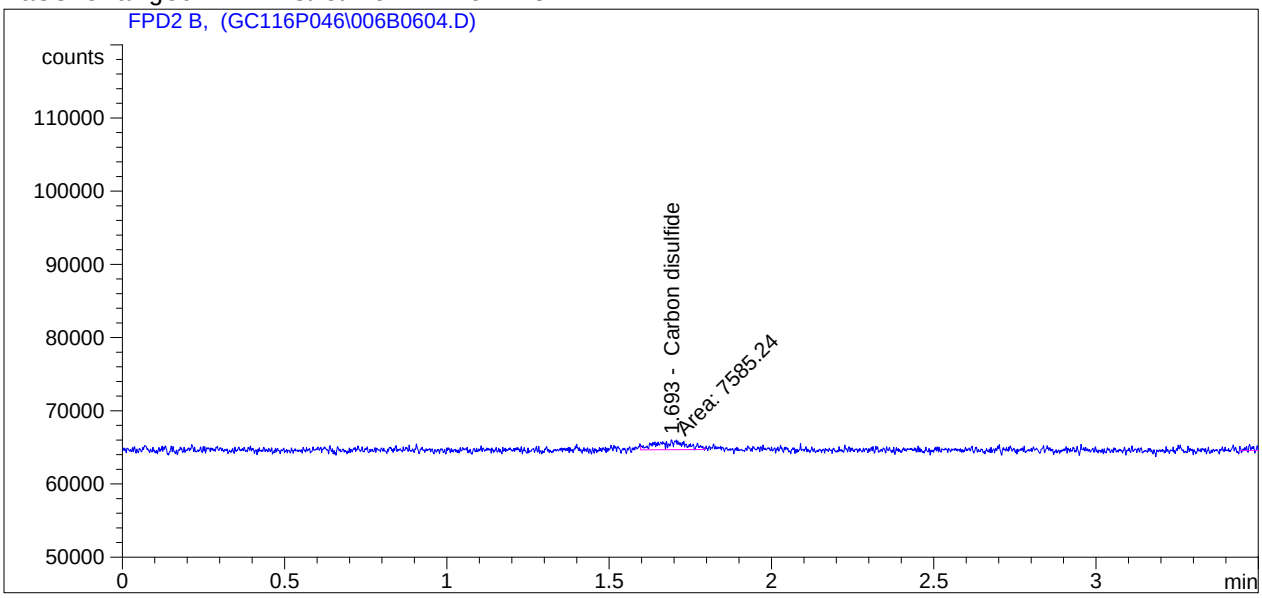
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   6
Acq. Instrument : Instrument 1                  Location : Vial 6
Injection Date  : 7/29/2011 5:13:10 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.677 MM     7315.49072 2.01889e-5 1.47691e-1    Carbon disulfide

Totals :                              1.47691e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\006B0604.D
Sample Name: gc116p46 #1

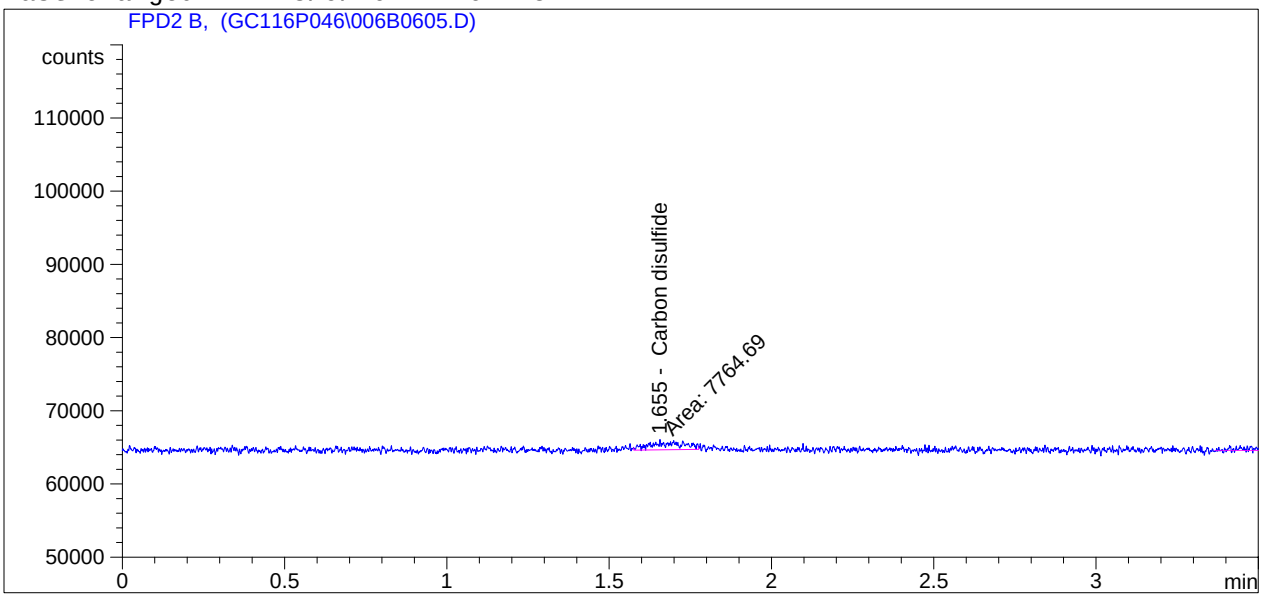
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   6
Acq. Instrument : Instrument 1                  Location : Vial 6
Injection Date  : 7/29/2011 5:19:25 AM               Inj :   4
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.693 MM     7585.24219 2.01889e-5 1.53137e-1    Carbon disulfide

Totals :                              1.53137e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\006B0605.D
Sample Name: gc116p46 #1

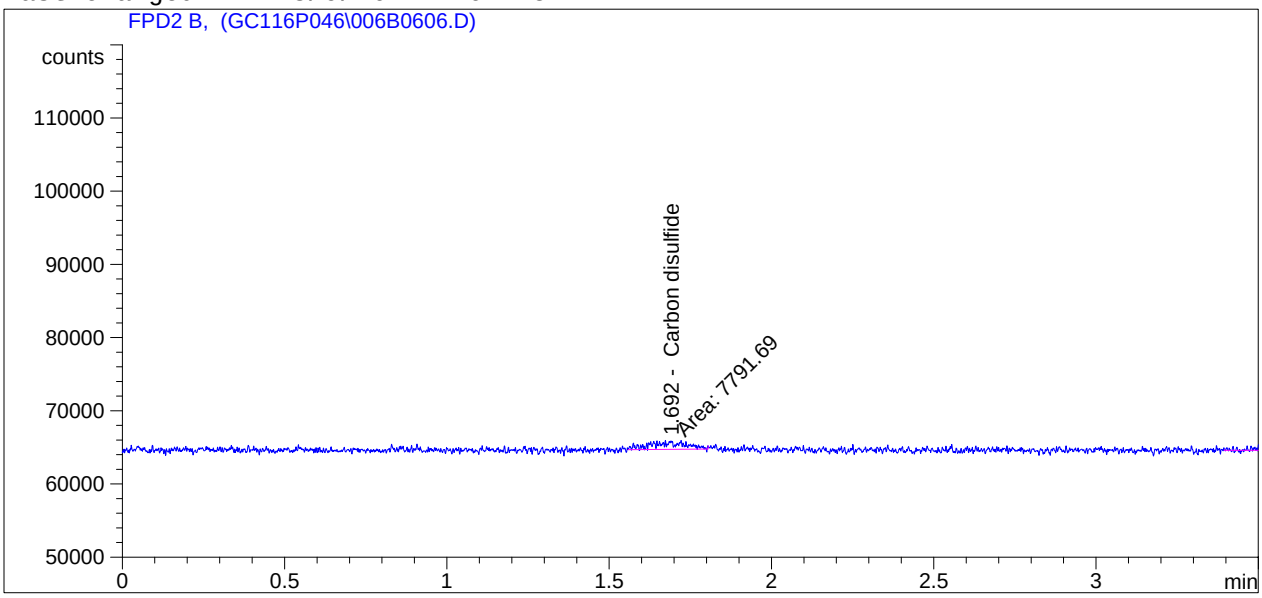
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   6
Acq. Instrument : Instrument 1                  Location : Vial 6
Injection Date  : 7/29/2011 5:25:40 AM               Inj :   5
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.655 MM     7764.69385 2.01889e-5 1.56760e-1    Carbon disulfide

Totals :                              1.56760e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\006B0606.D
Sample Name: gc116p46 #1

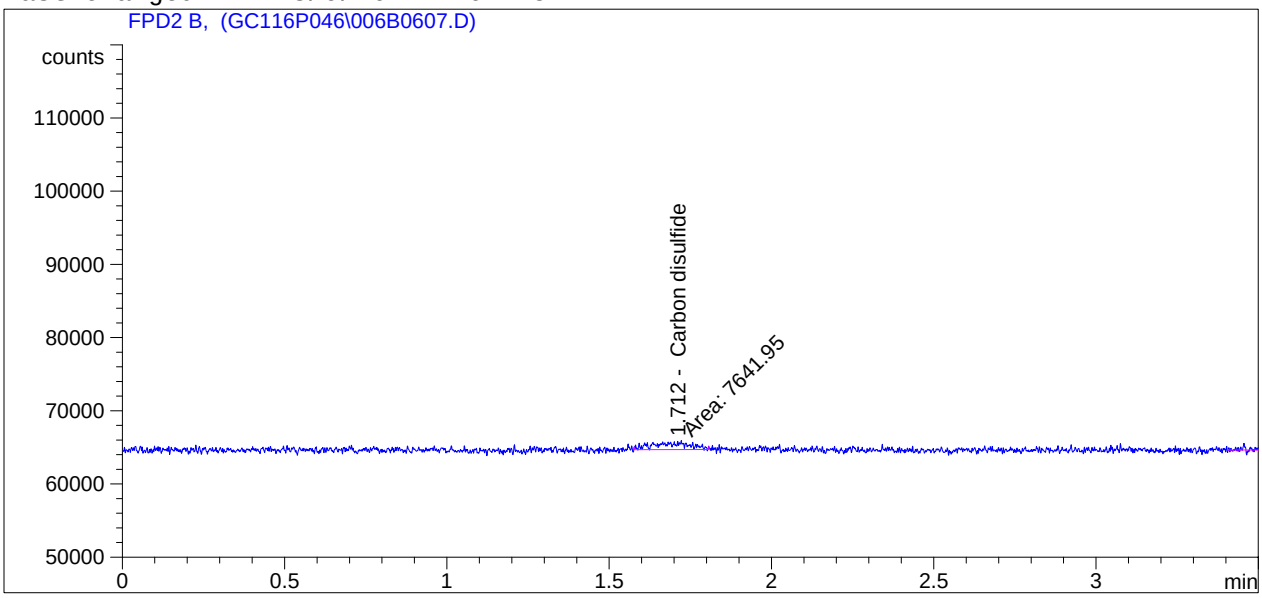
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   6
Acq. Instrument : Instrument 1                  Location : Vial 6
Injection Date  : 7/29/2011 5:31:56 AM               Inj :   6
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.692 MM     7791.68994 2.01889e-5 1.57305e-1    Carbon disulfide

Totals :                              1.57305e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\006B0607.D
Sample Name: gc116p46 #1

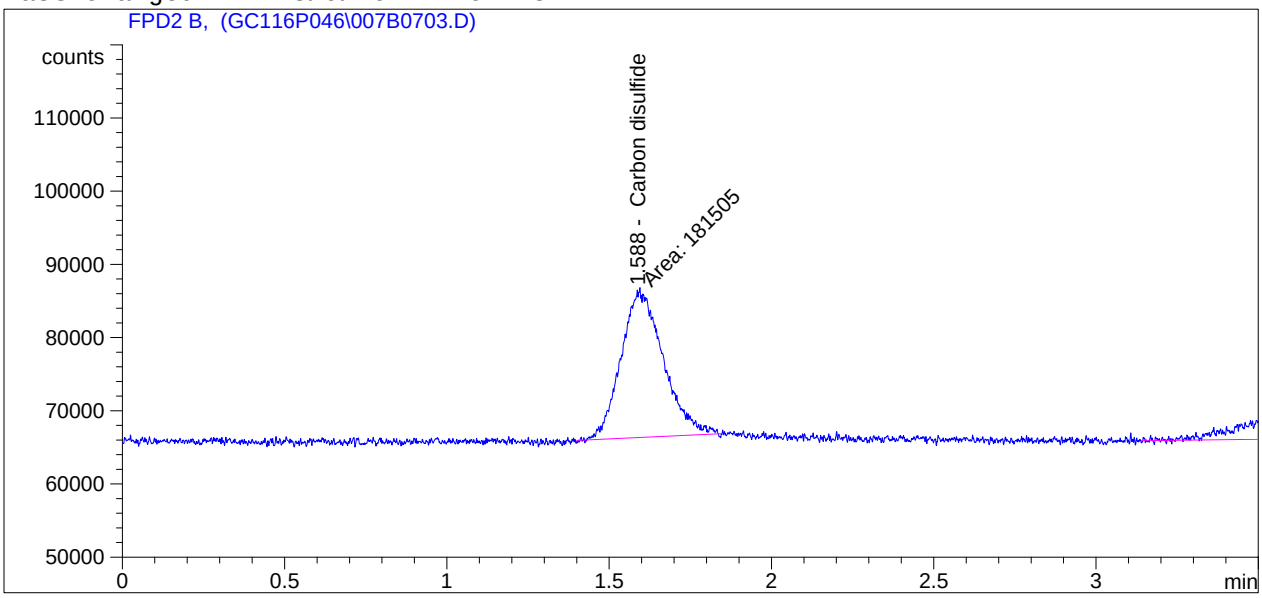
```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :   6
Acq. Instrument : Instrument 1                      Location : Vial 6
Injection Date  : 7/29/2011 5:38:12 AM                   Inj :   7
                                                  Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 12:48:03 AM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.712 MM     7641.94678 2.01889e-5 1.54282e-1    Carbon disulfide

Totals :                              1.54282e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\007B0703.D
Sample Name: gc116p46 #3ss

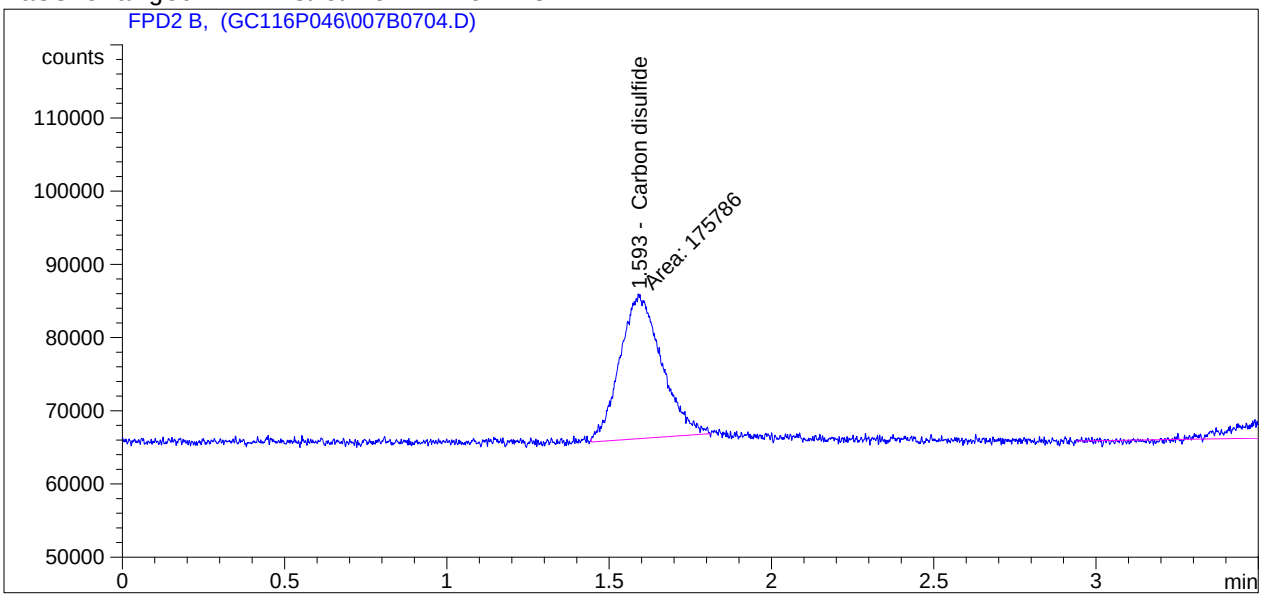
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   7
Acq. Instrument : Instrument 1                  Location : Vial 7
Injection Date  : 7/29/2011 5:22:17 PM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 5:03:51 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.588 MM     1.81505e5  1.21289e-5    2.20146    Carbon disulfide

Totals :                                2.20146


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\007B0704.D
Sample Name: gc116p46 #3ss

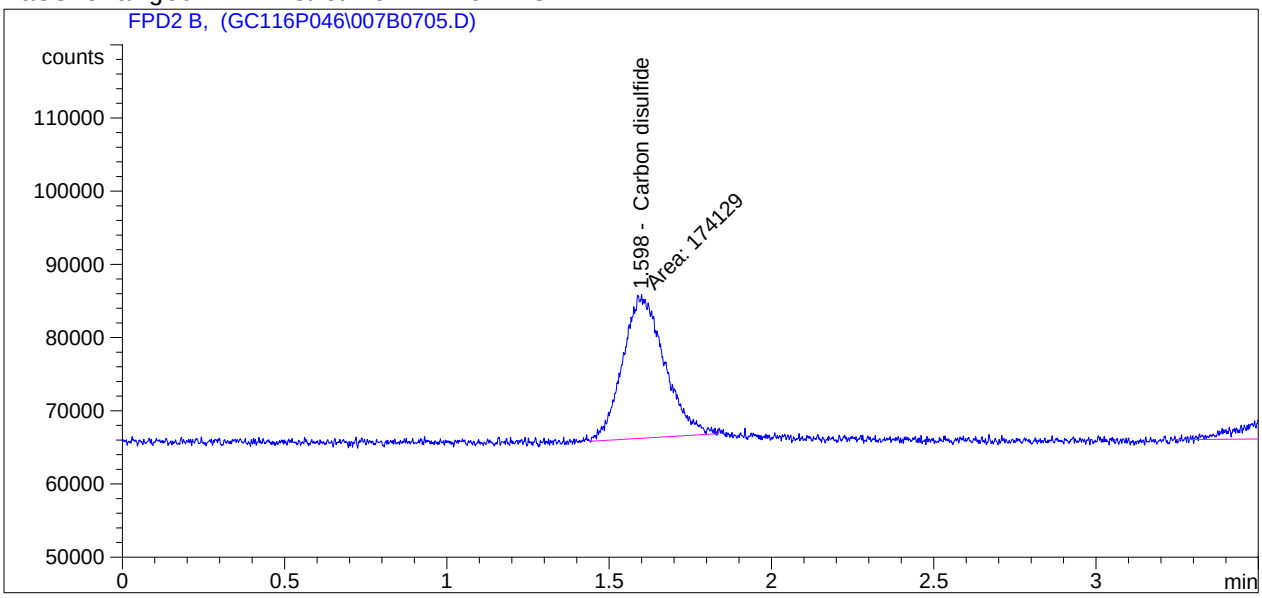
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   7
Acq. Instrument : Instrument 1                  Location : Vial 7
Injection Date  : 7/29/2011 5:28:28 PM               Inj :   4
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 5:03:51 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.593 MM     1.75786e5  1.22782e-5    2.15833    Carbon disulfide

Totals :                                2.15833


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\007B0705.D
Sample Name: gc116p46 #3ss

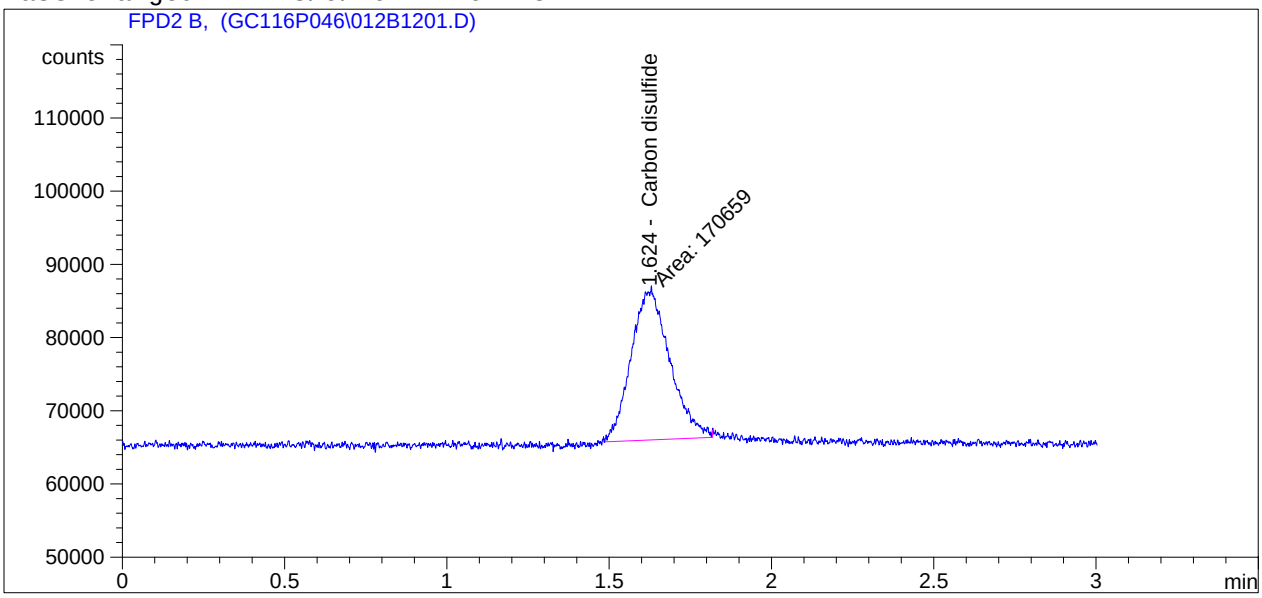
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :   7
Acq. Instrument : Instrument 1                  Location : Vial 7
Injection Date  : 7/29/2011 5:34:42 PM               Inj :   5
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 5:03:51 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.598 MM     1.74129e5  1.23225e-5    2.14571    Carbon disulfide

Totals :                                2.14571


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\012B1201.D
Sample Name: gc116p46 #4

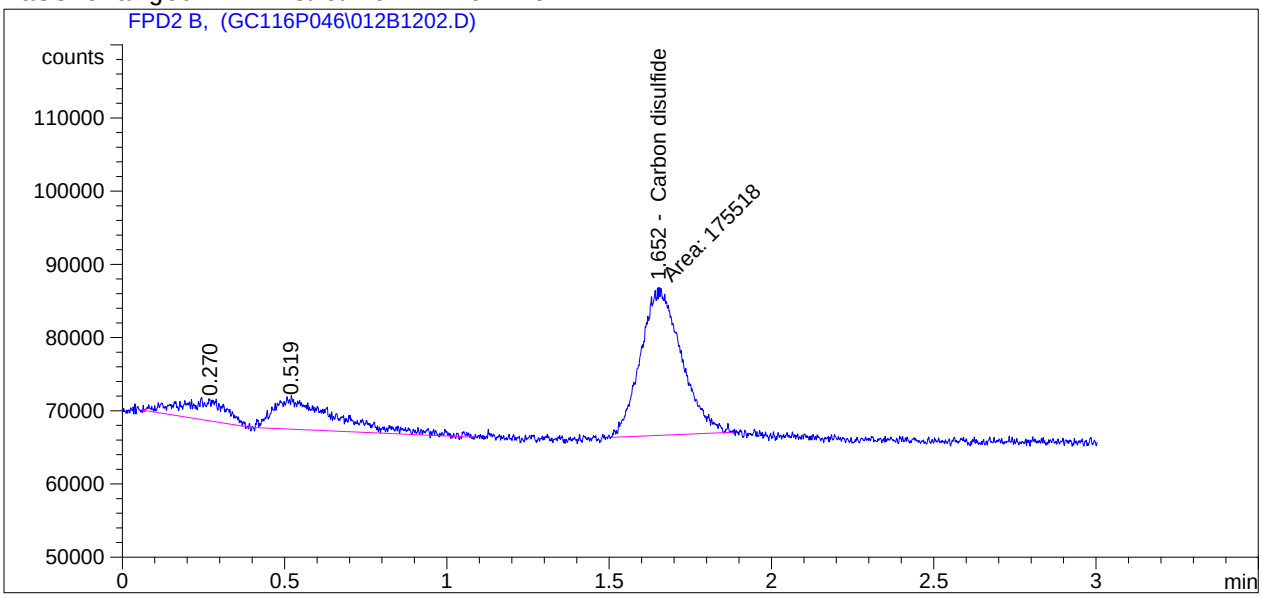
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  12
Acq. Instrument : Instrument 1                  Location : Vial 12
Injection Date  : 7/29/2011 9:46:11 PM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.624 MM     1.70659e5  1.24170e-5    2.11908    Carbon disulfide

Totals :                                2.11908


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\012B1202.D
Sample Name: gc116p46 #4

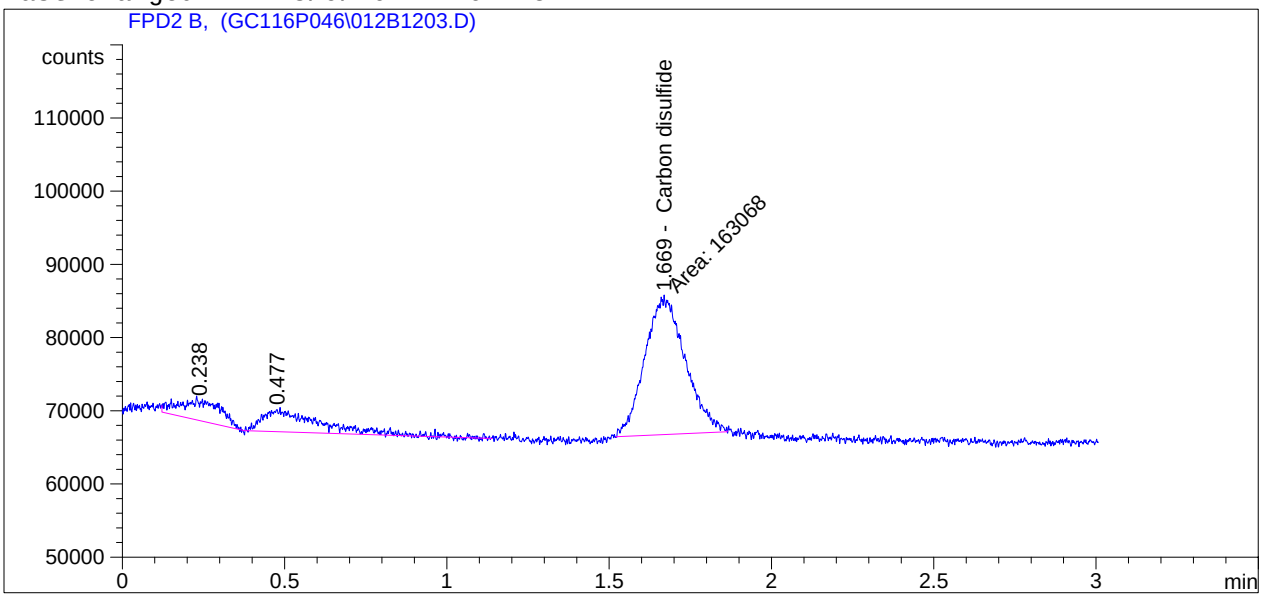
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  12
Acq. Instrument : Instrument 1                  Location : Vial 12
Injection Date  : 7/29/2011 9:50:22 PM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.652 MM     1.75518e5  1.22853e-5    2.15630    Carbon disulfide

Totals :                                2.15630


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\012B1203.D
Sample Name: gc116p46 #4

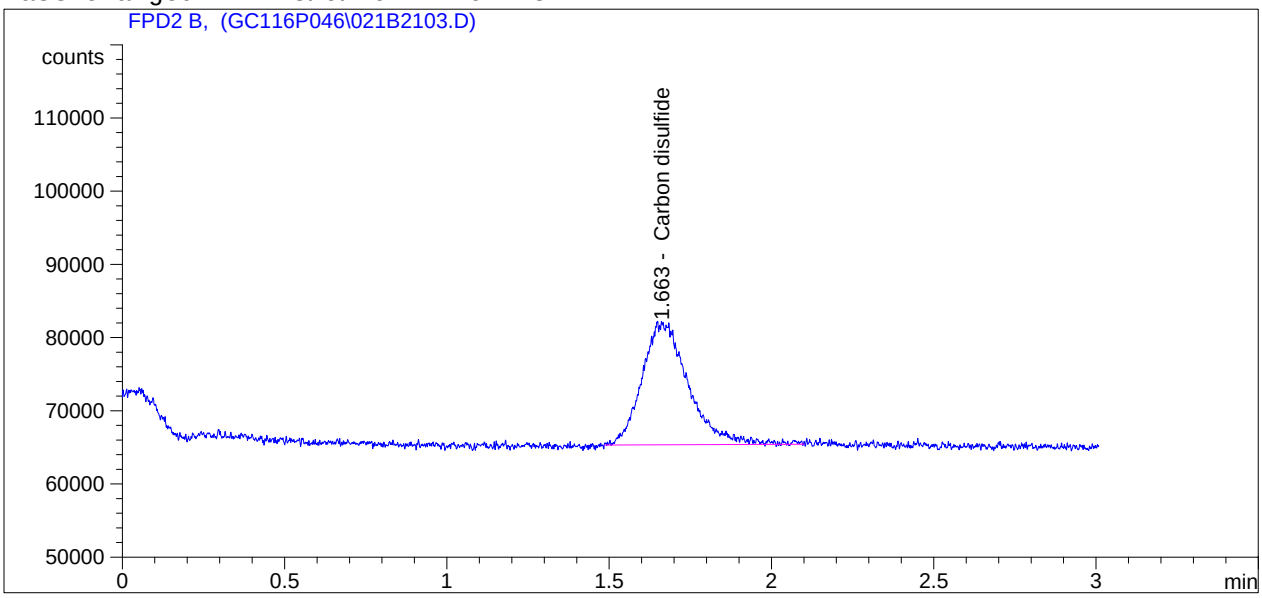
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  12
Acq. Instrument : Instrument 1                  Location : Vial 12
Injection Date  : 7/29/2011 9:54:34 PM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.669 MM     1.63068e5  1.26319e-5    2.05986    Carbon disulfide

Totals :                                2.05986


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\021B2103.D
Sample Name: gc116p46 #4

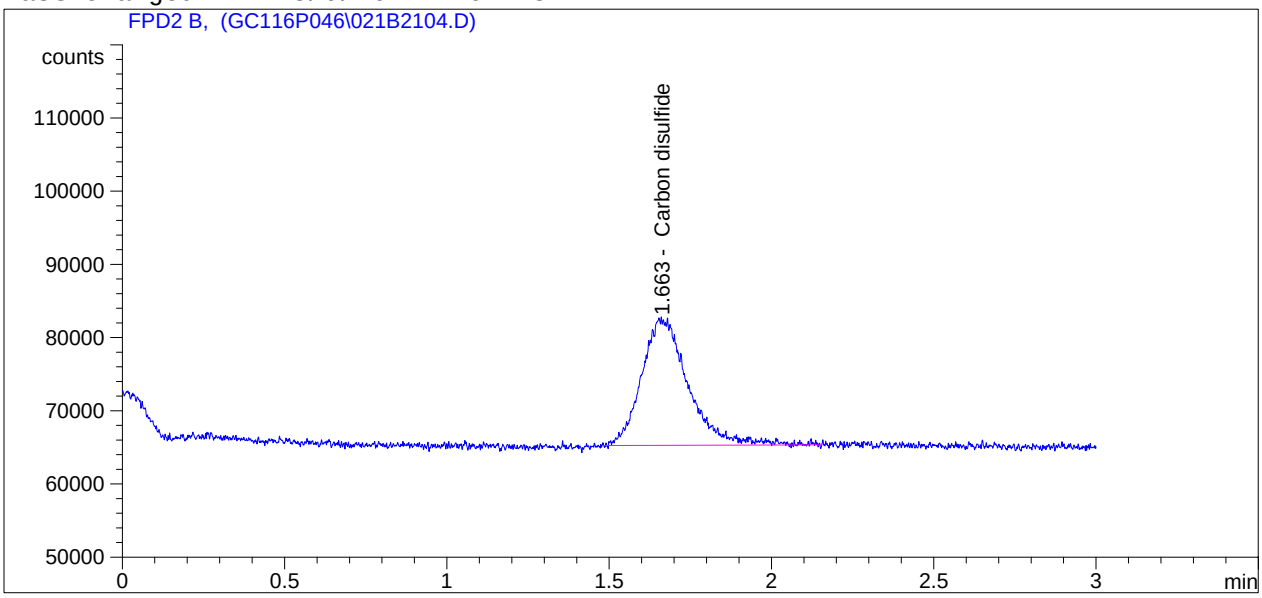
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  21
Acq. Instrument : Instrument 1                  Location : Vial 21
Injection Date  : 7/30/2011 1:04:25 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.663 BB     1.65739e5  1.25550e-5    2.08085    Carbon disulfide

Totals :                                2.08085


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\021B2104.D
Sample Name: gc116p46 #4

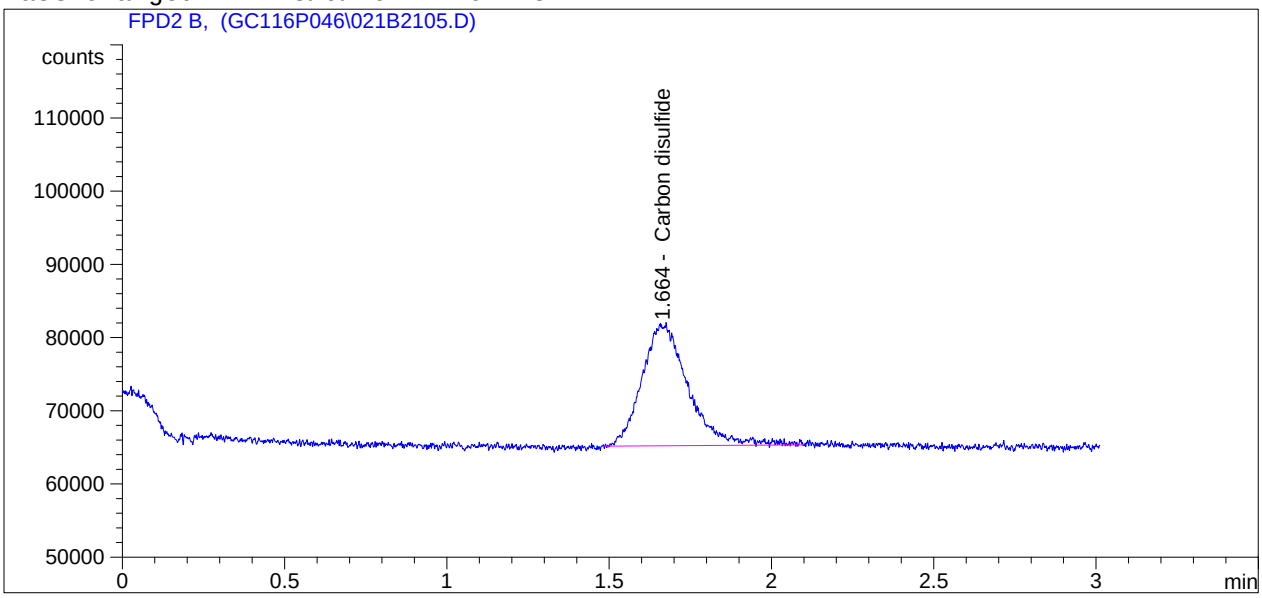
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  21
Acq. Instrument : Instrument 1                  Location : Vial 21
Injection Date  : 7/30/2011 1:08:37 AM               Inj :   4
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.663 BB     1.72038e5  1.23792e-5    2.12969    Carbon disulfide

Totals :                                2.12969


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\021B2105.D
Sample Name: gc116p46 #4

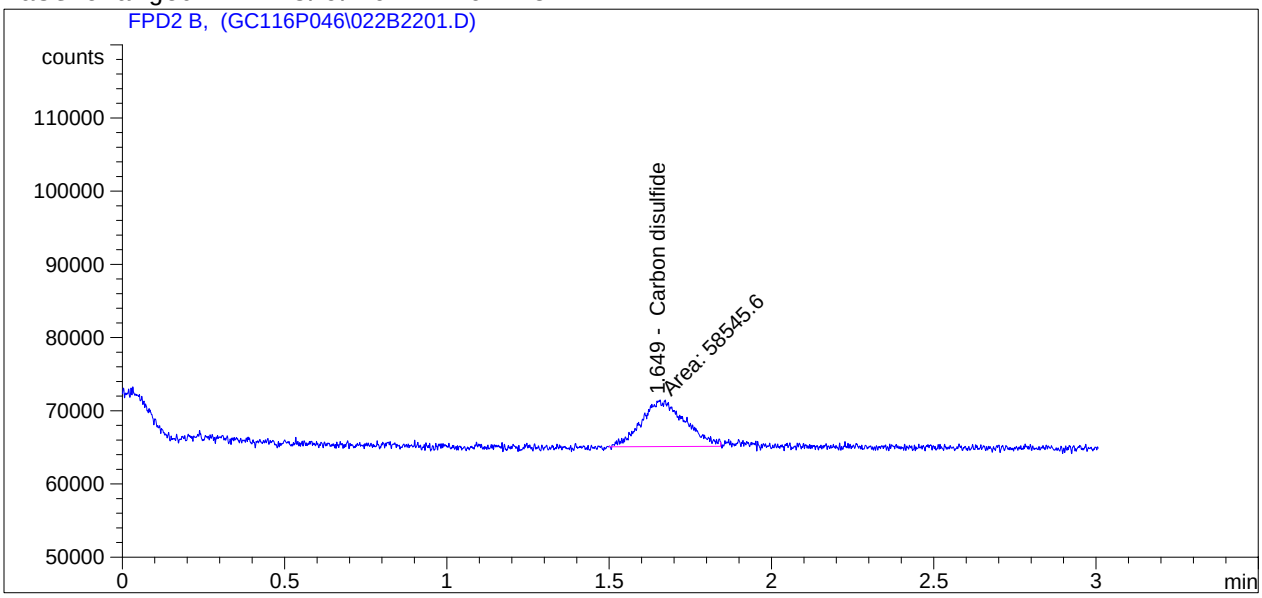
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  21
Acq. Instrument : Instrument 1                  Location : Vial 21
Injection Date  : 7/30/2011 1:12:54 AM               Inj :   5
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.664 BB     1.64306e5  1.25960e-5    2.06961    Carbon disulfide

Totals :                                2.06961


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\022B2201.D
Sample Name: gc116p46 #3

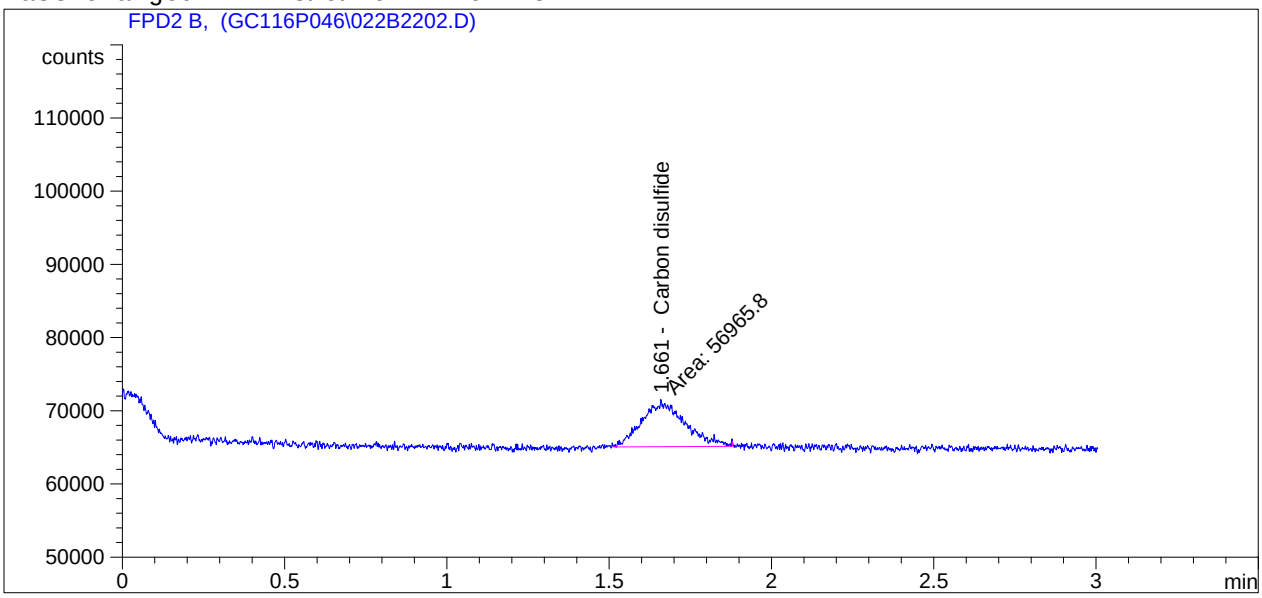
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  22
Acq. Instrument : Instrument 1                  Location : Vial 22
Injection Date  : 7/30/2011 1:17:05 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.649 MM     5.85456e4  1.76185e-5    1.03149    Carbon disulfide

Totals :                                 1.03149


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\022B2202.D
Sample Name: gc116p46 #3

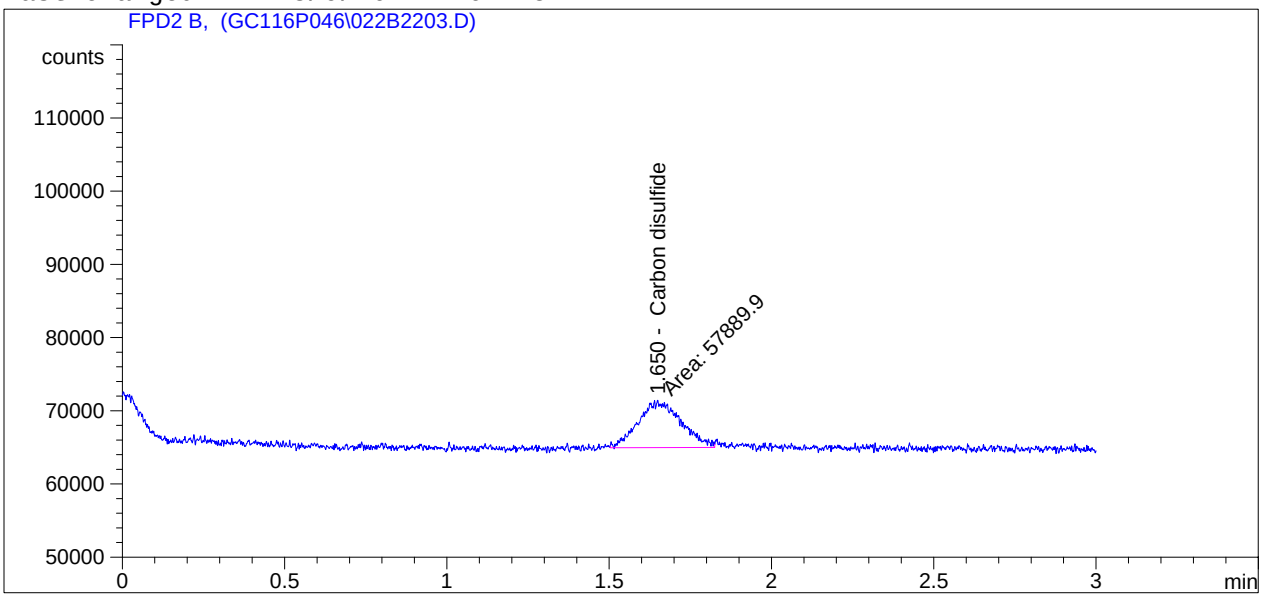
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  22
Acq. Instrument : Instrument 1                  Location : Vial 22
Injection Date  : 7/30/2011 1:21:16 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.661 MM     5.69658e4  1.77424e-5    1.01071    Carbon disulfide

Totals :                                 1.01071


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\022B2203.D
Sample Name: gc116p46 #3

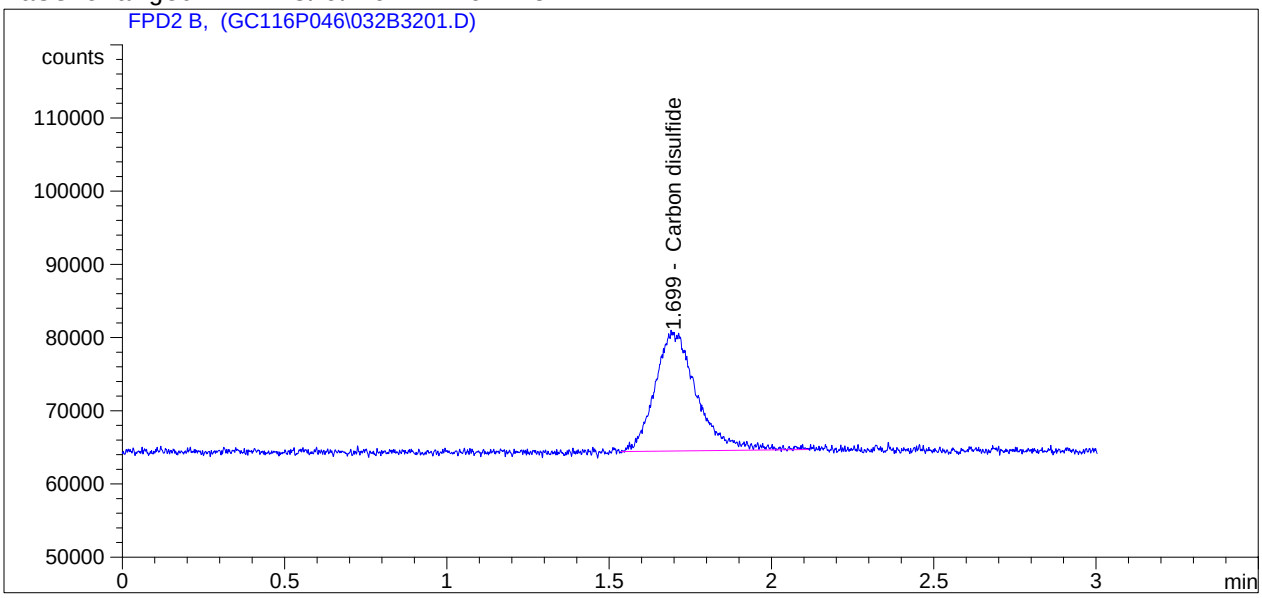
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  22
Acq. Instrument : Instrument 1                  Location : Vial 22
Injection Date  : 7/30/2011 1:25:27 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.650 MM     5.78899e4  1.76697e-5    1.02290    Carbon disulfide

Totals :                                 1.02290


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\032B3201.D
Sample Name: gc116p46 #4

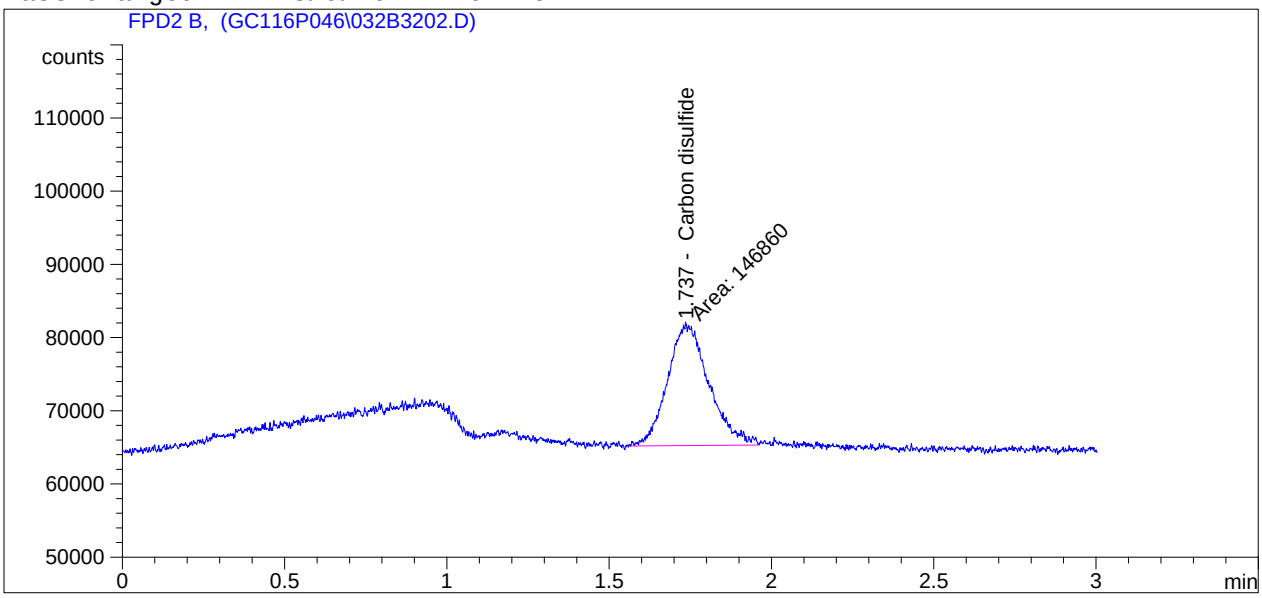
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  32
Acq. Instrument : Instrument 1                  Location : Vial 32
Injection Date  : 7/30/2011 4:47:34 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.699 BB     1.45771e5  1.31685e-5    1.91959    Carbon disulfide

Totals :                                 1.91959


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\032B3202.D
Sample Name: gc116p46 #4

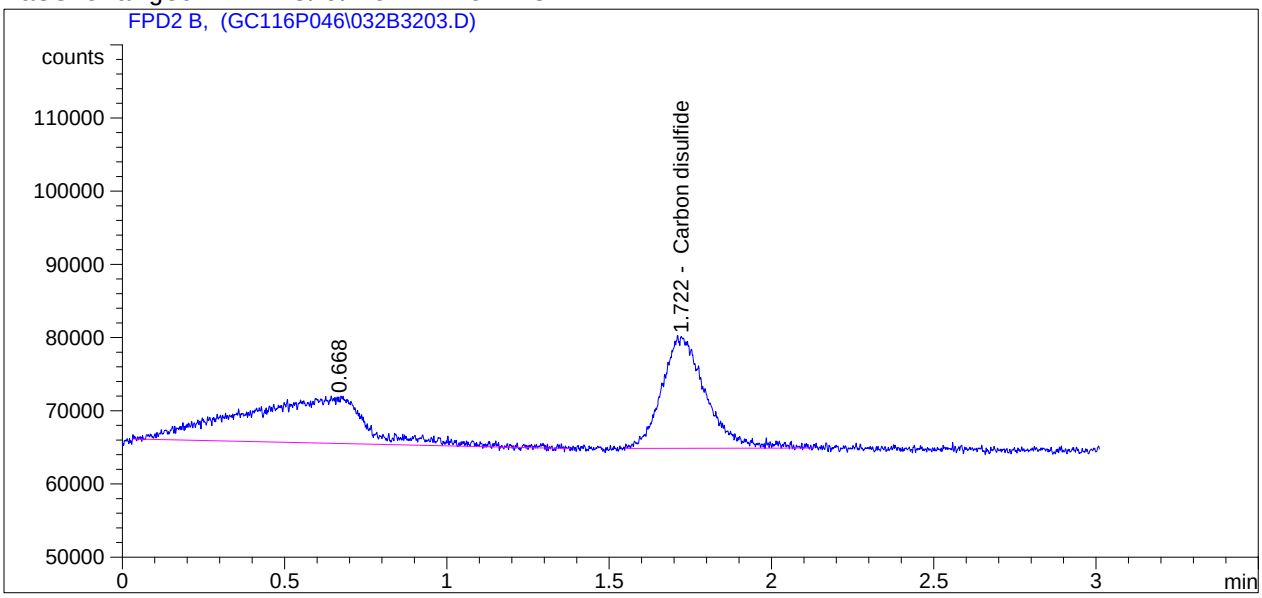
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  32
Acq. Instrument : Instrument 1                  Location : Vial 32
Injection Date  : 7/30/2011 4:51:50 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.737 MM     1.46860e5  1.31326e-5    1.92866    Carbon disulfide

Totals :                                 1.92866


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\032B3203.D
Sample Name: gc116p46 #4

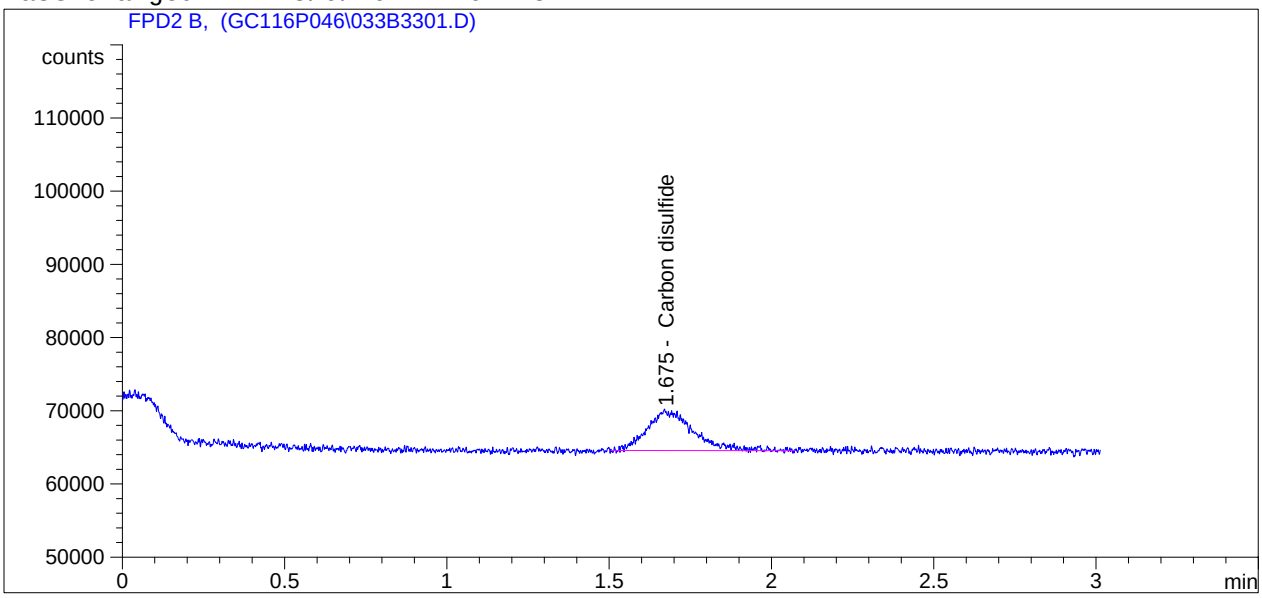
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  32
Acq. Instrument : Instrument 1                  Location : Vial 32
Injection Date  : 7/30/2011 4:55:56 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.722 BB     1.43878e5  1.32317e-5    1.90375    Carbon disulfide

Totals :                                 1.90375


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\033B3301.D
Sample Name: gc116p46 #3

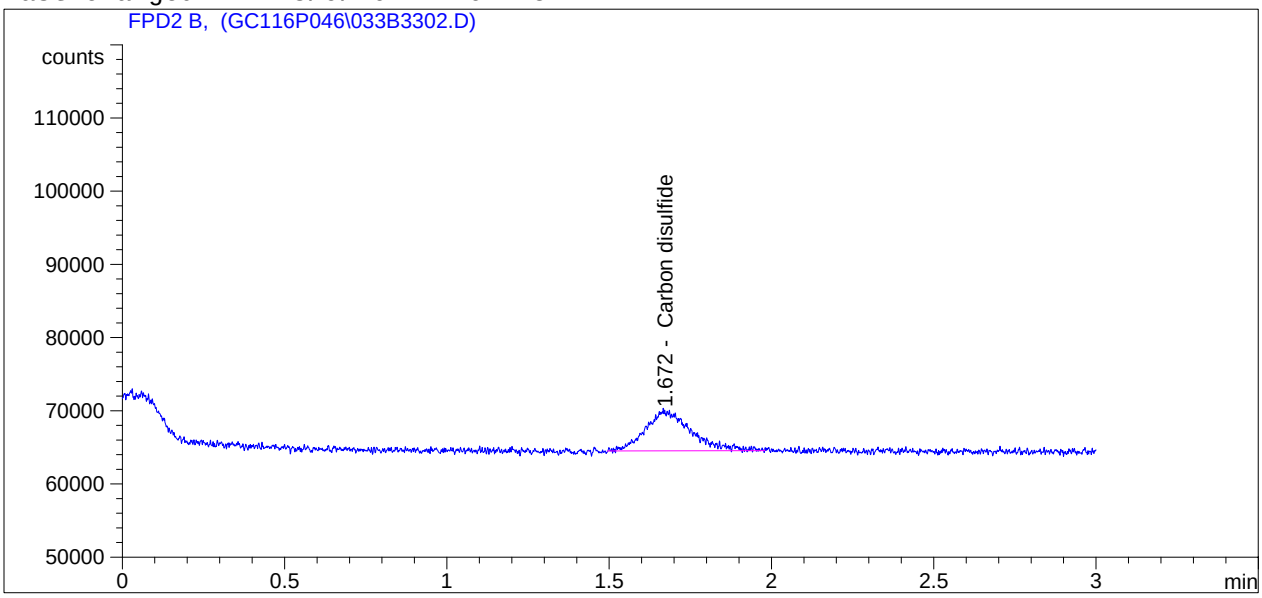
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  33
Acq. Instrument : Instrument 1                  Location : Vial 33
Injection Date  : 7/30/2011 5:08:36 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.675 BB     5.36960e4  1.80048e-5 9.66789e-1    Carbon disulfide

Totals :                              9.66789e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\033B3302.D
Sample Name: gc116p46 #3

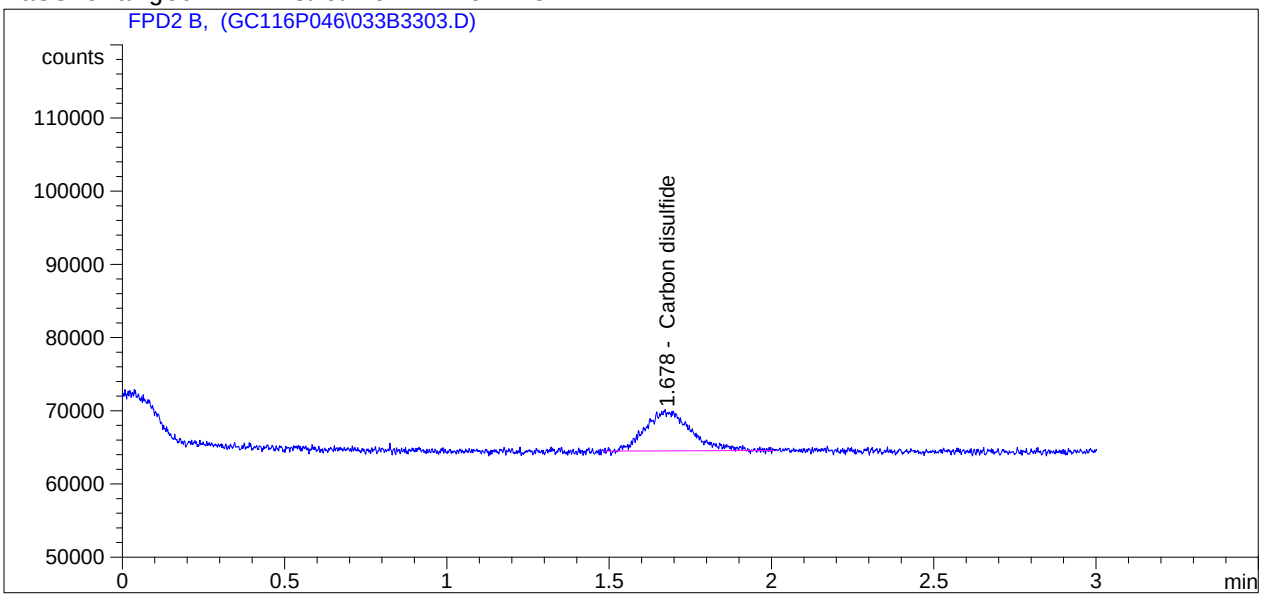
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  33
Acq. Instrument : Instrument 1                  Location : Vial 33
Injection Date  : 7/30/2011 5:12:47 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.672 BB     5.29115e4  1.80690e-5 9.56059e-1    Carbon disulfide

Totals :                              9.56059e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\033B3303.D
Sample Name: gc116p46 #3

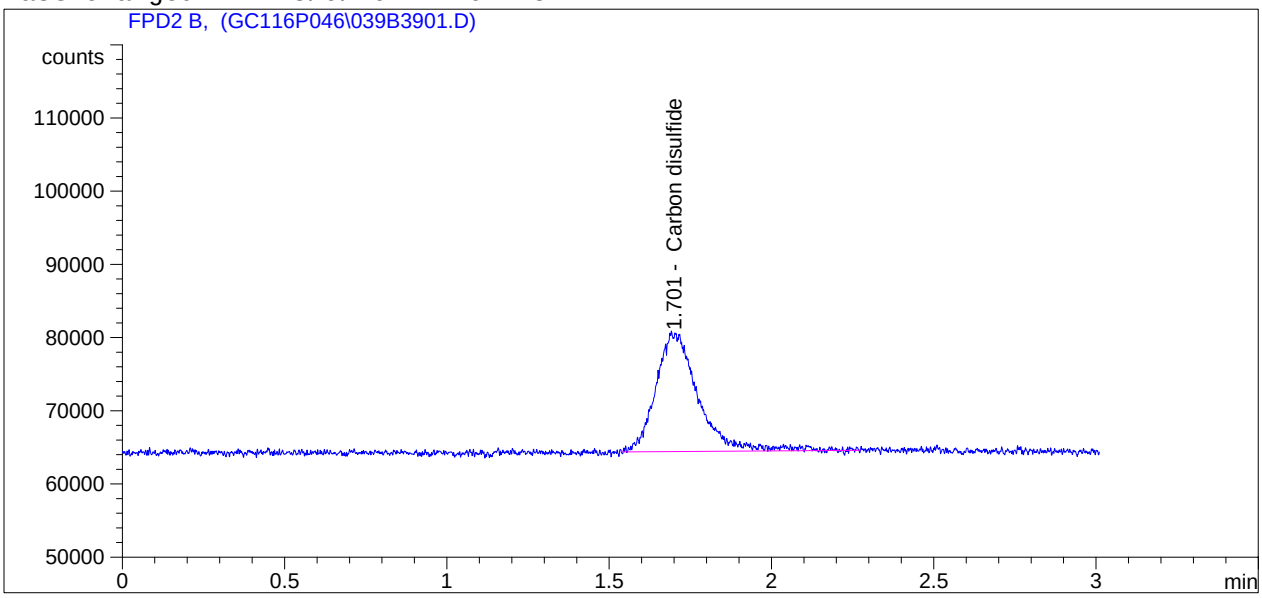
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  33
Acq. Instrument : Instrument 1                  Location : Vial 33
Injection Date  : 7/30/2011 5:17:04 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.678 BB     5.31017e4  1.80534e-5 9.58667e-1    Carbon disulfide

Totals :                              9.58667e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\039B3901.D
Sample Name: gc116p46 #4

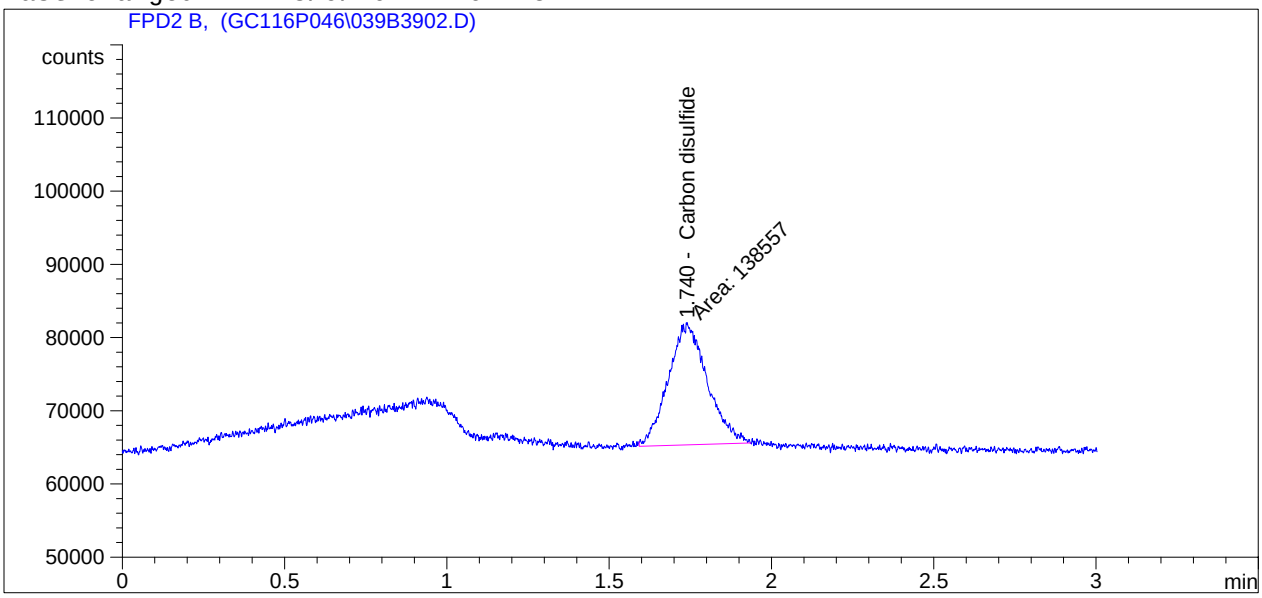
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  39
Acq. Instrument : Instrument 1                  Location : Vial 39
Injection Date  : 7/30/2011 7:14:53 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.701 BB     1.46718e5  1.31373e-5    1.92748    Carbon disulfide

Totals :                                 1.92748


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\039B3902.D
Sample Name: gc116p46 #4

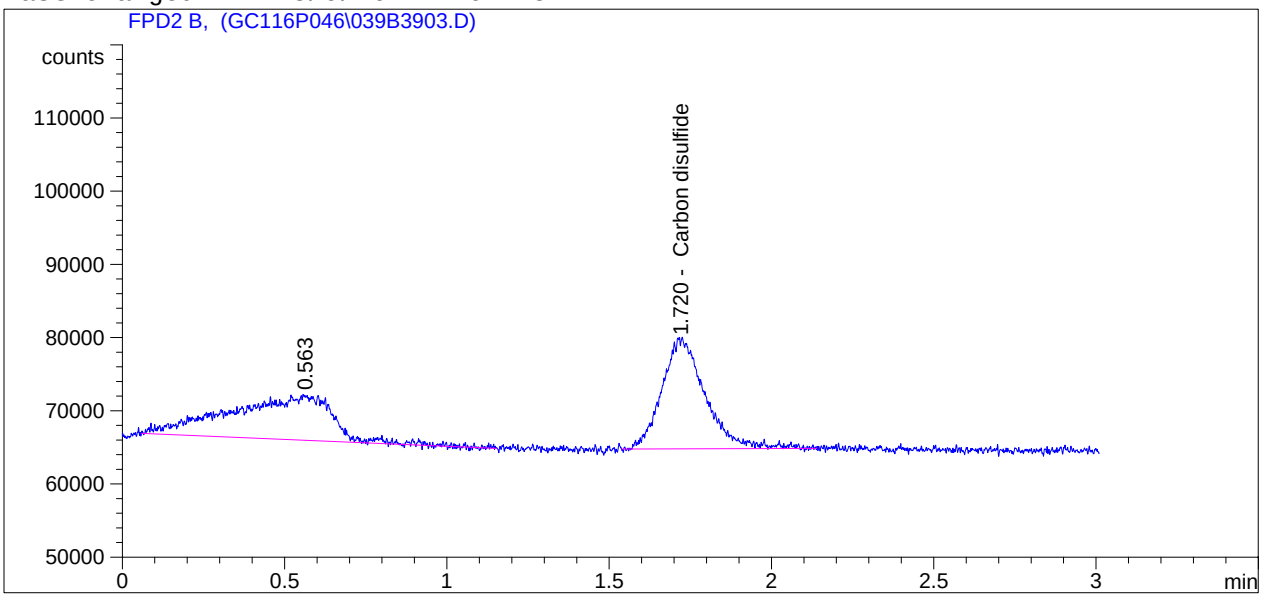
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  39
Acq. Instrument : Instrument 1                  Location : Vial 39
Injection Date  : 7/30/2011 7:19:05 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.740 MM     1.38557e5  1.34145e-5    1.85866    Carbon disulfide

Totals :                                 1.85866


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\039B3903.D
Sample Name: gc116p46 #4

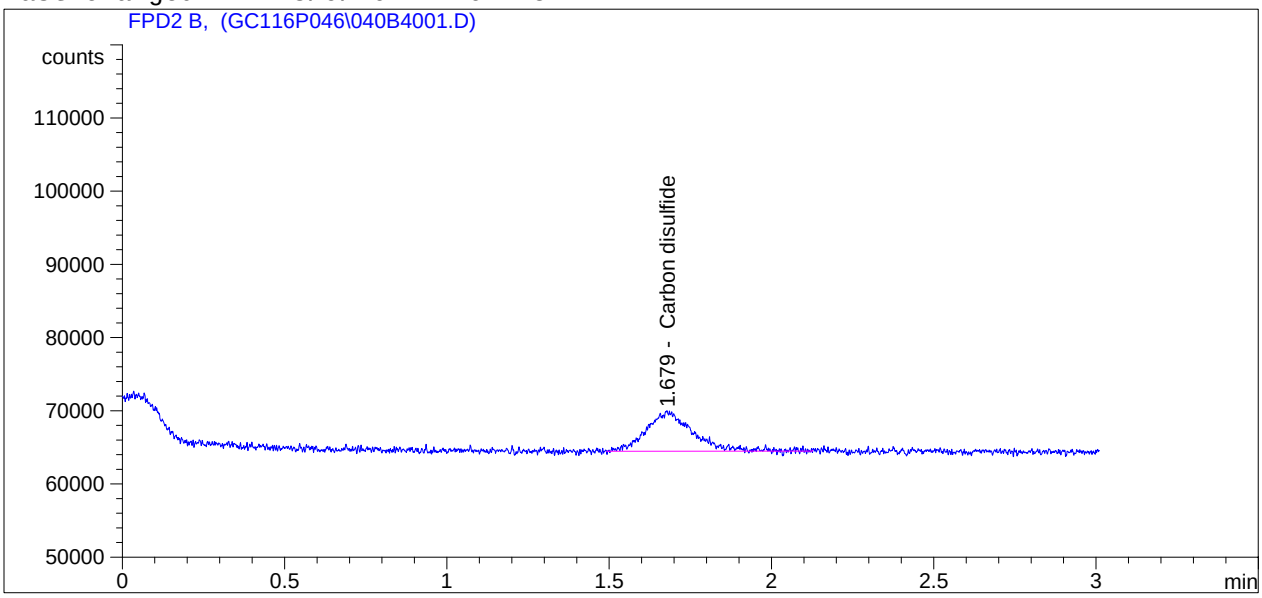
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  39
Acq. Instrument : Instrument 1                  Location : Vial 39
Injection Date  : 7/30/2011 7:23:17 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.720 BB     1.39682e5  1.33752e-5    1.86827    Carbon disulfide

Totals :                                 1.86827


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\040B4001.D
Sample Name: gc116p46 #3

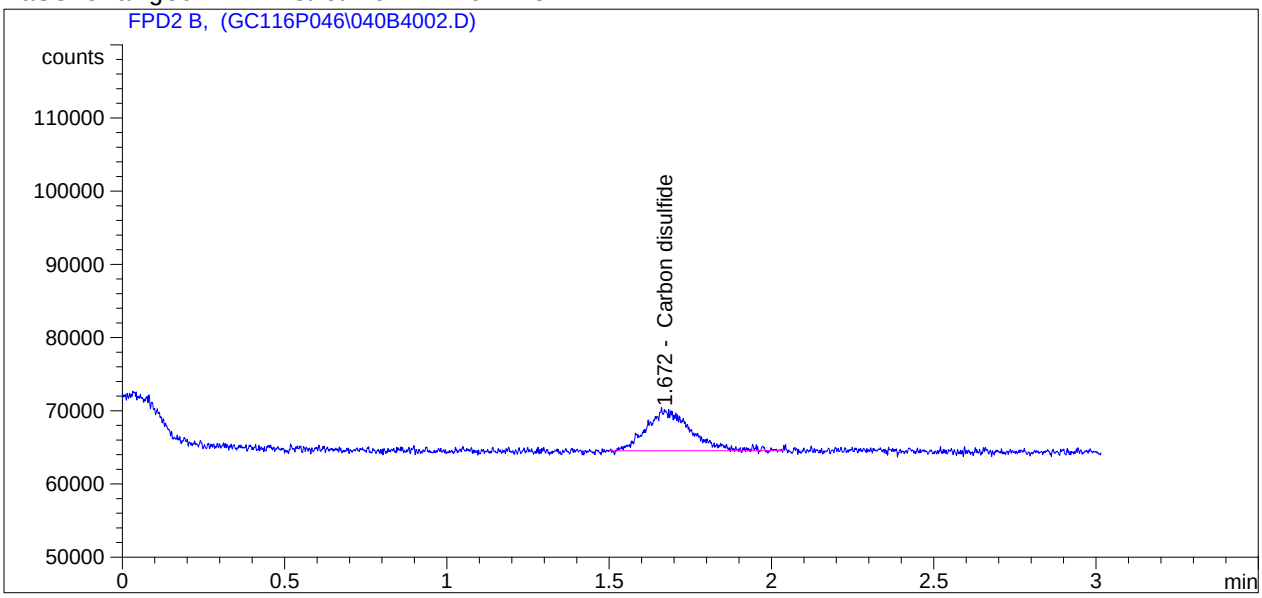
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  40
Acq. Instrument : Instrument 1                  Location : Vial 40
Injection Date  : 7/30/2011 7:35:56 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.679 BB     5.35006e4  1.80208e-5 9.64123e-1    Carbon disulfide

Totals :                              9.64123e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\040B4002.D
Sample Name: gc116p46 #3

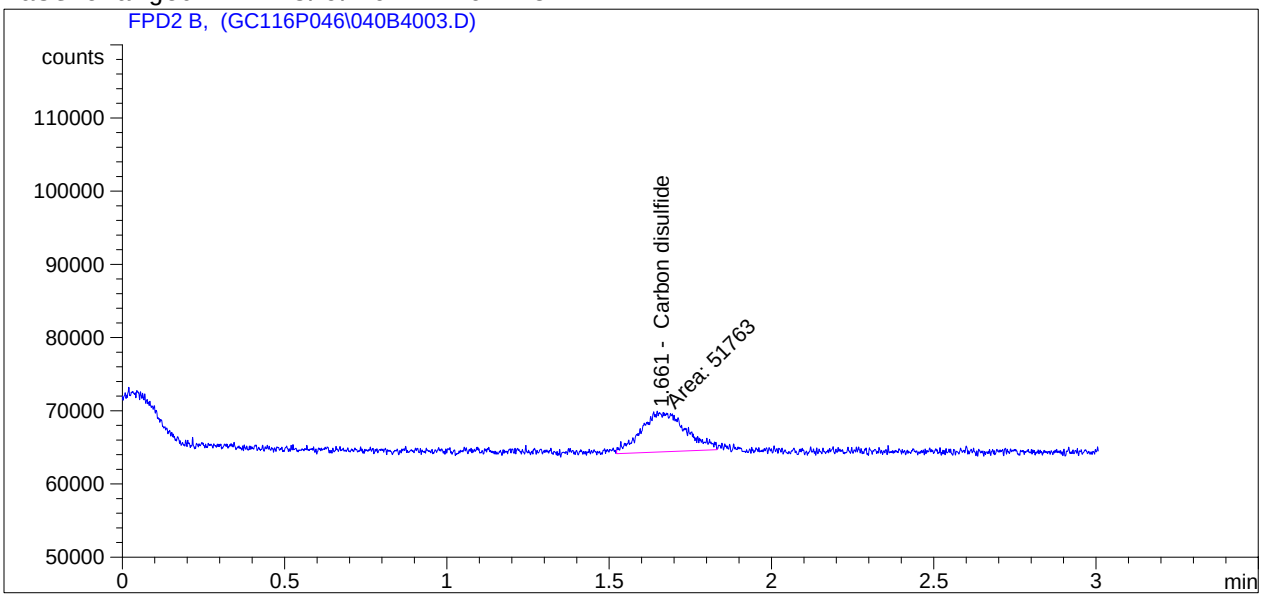
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  40
Acq. Instrument : Instrument 1                  Location : Vial 40
Injection Date  : 7/30/2011 7:40:07 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.672 BB     5.29623e4  1.80649e-5 9.56756e-1    Carbon disulfide

Totals :                              9.56756e-1


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\040B4003.D
Sample Name: gc116p46 #3

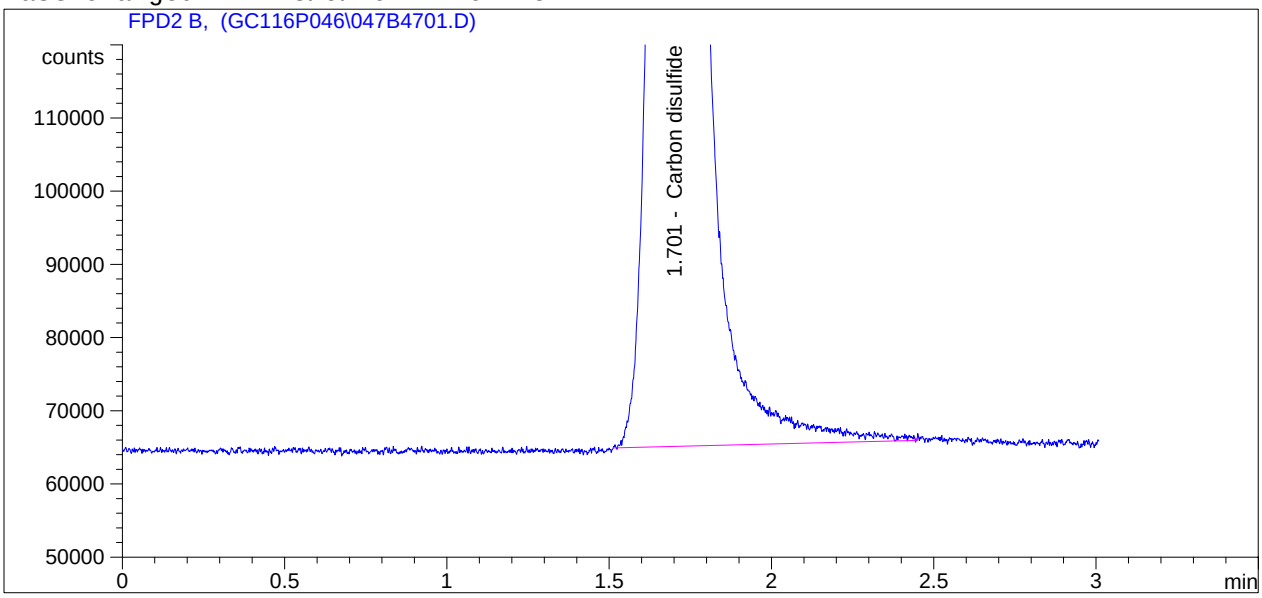
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  40
Acq. Instrument : Instrument 1                  Location : Vial 40
Injection Date  : 7/30/2011 7:44:18 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.661 MM     5.17630e4  1.81638e-5 9.40210e-1    Carbon disulfide

Totals :                              9.40210e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\047B4701.D
Sample Name: gc116p46 #6

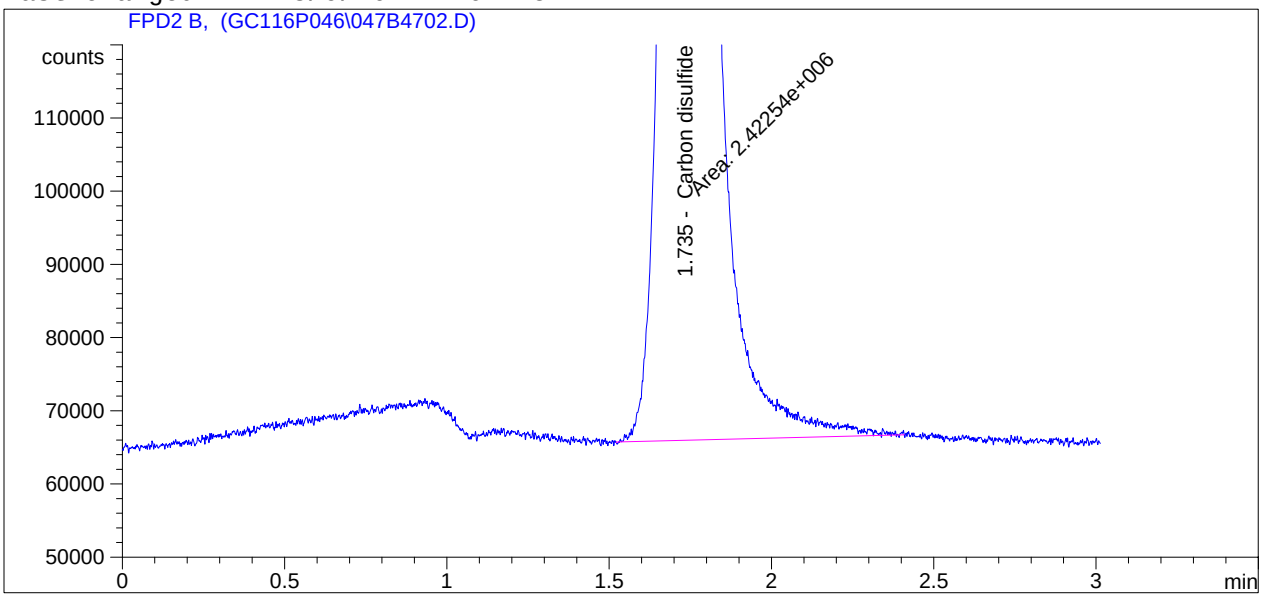
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  47
Acq. Instrument : Instrument 1                  Location : Vial 47
Injection Date  : 7/30/2011 10:03:20 AM              Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.701 BB     2.62694e6  3.74600e-6    9.84051    Carbon disulfide

Totals :                                 9.84051


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\047B4702.D
Sample Name: gc116p46 #6

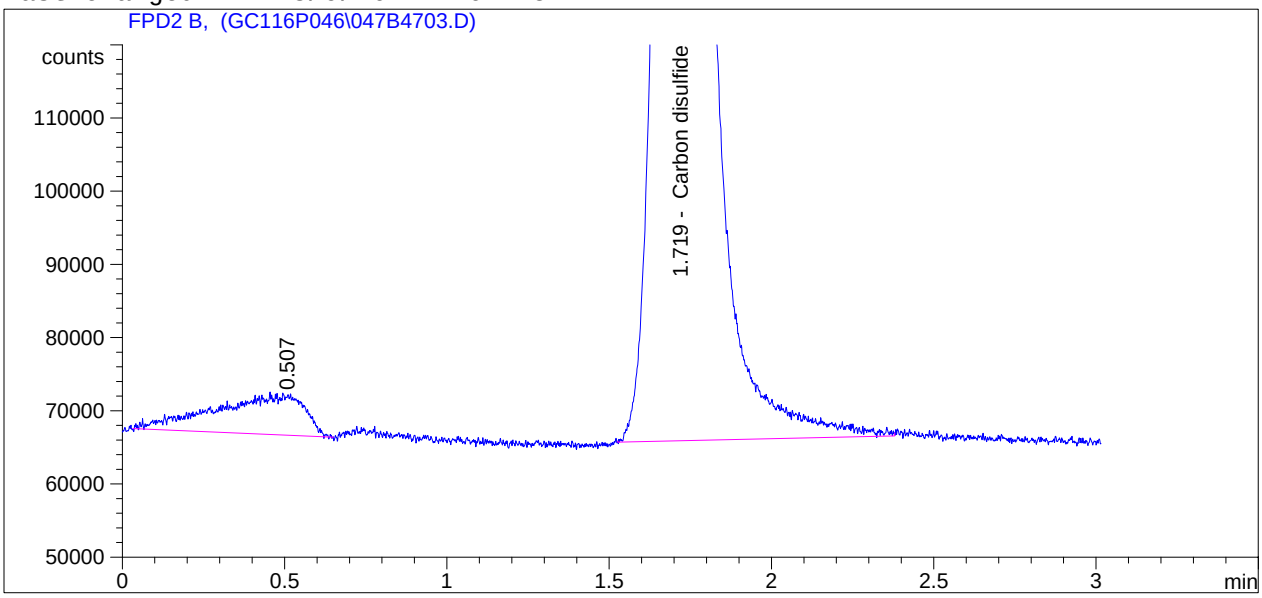
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  47
Acq. Instrument : Instrument 1                  Location : Vial 47
Injection Date  : 7/30/2011 10:07:31 AM              Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.735 MM     2.42254e6  3.89214e-6    9.42887    Carbon disulfide

Totals :                                 9.42887


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\047B4703.D
Sample Name: gc116p46 #6

```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  47
Acq. Instrument : Instrument 1                  Location : Vial 47
Injection Date  : 7/30/2011 10:11:47 AM              Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```

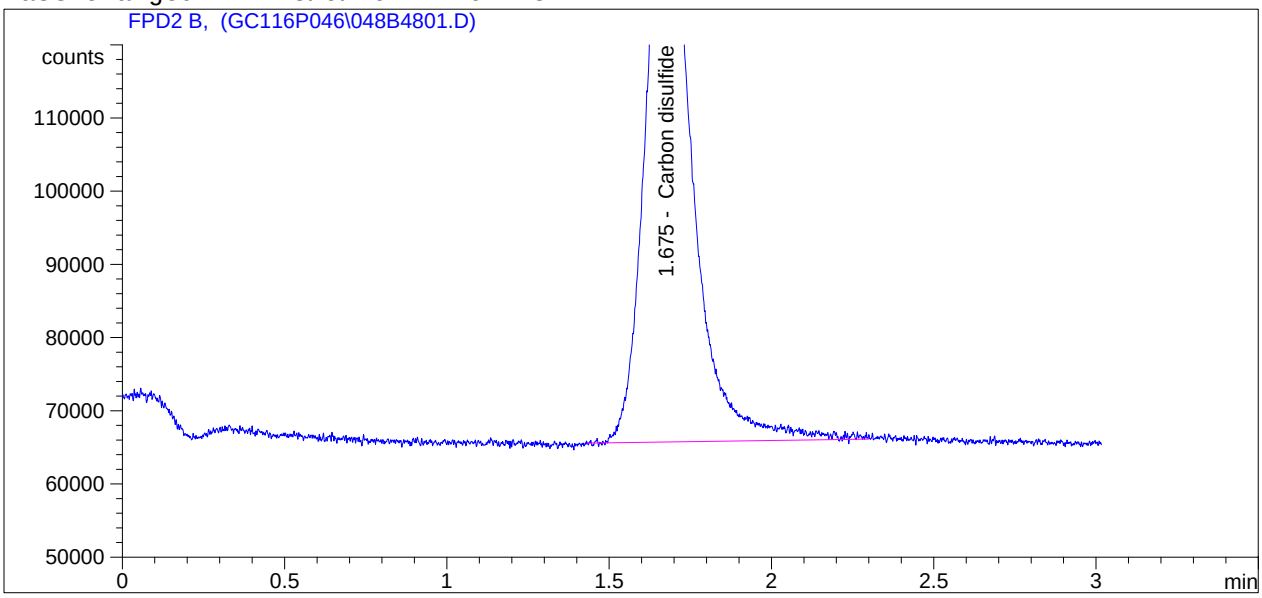



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.719 BB     2.49668e6  3.83714e-6    9.58010    Carbon disulfide

Totals :                                 9.58010


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\048B4801.D
Sample Name: gc116p46 #5

==========

Acq. Operator : JBB Seq. Line : 48
Acq. Instrument : Instrument 1 Location : Vial 48
Injection Date : 7/30/2011 10:24:21 AM Inj : 1
Inj Volume : 1 µl
Sequence File : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed : 8/9/2011 4:04:15 PM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 8/9/2011 4:03:40 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount	Grp	Name
1.675	BB	8.03065e5	6.48104e-6	5.20470		Carbon disulfide

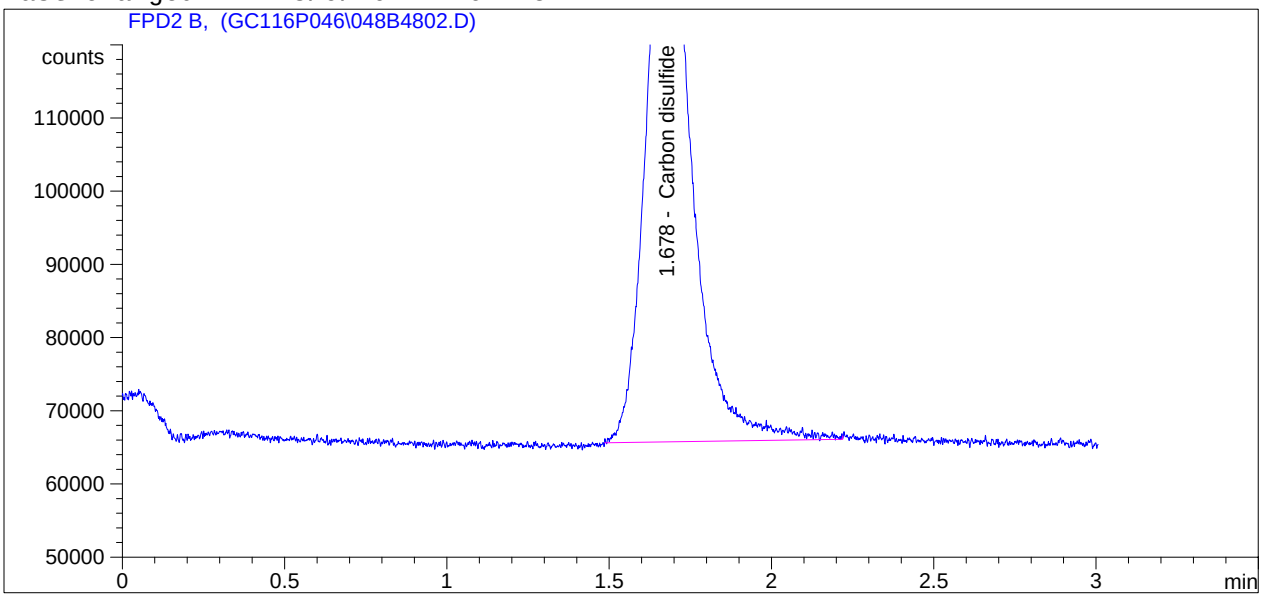
Totals : 5.20470

==========

*** End of Report ***

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\048B4802.D
Sample Name: gc116p46 #5

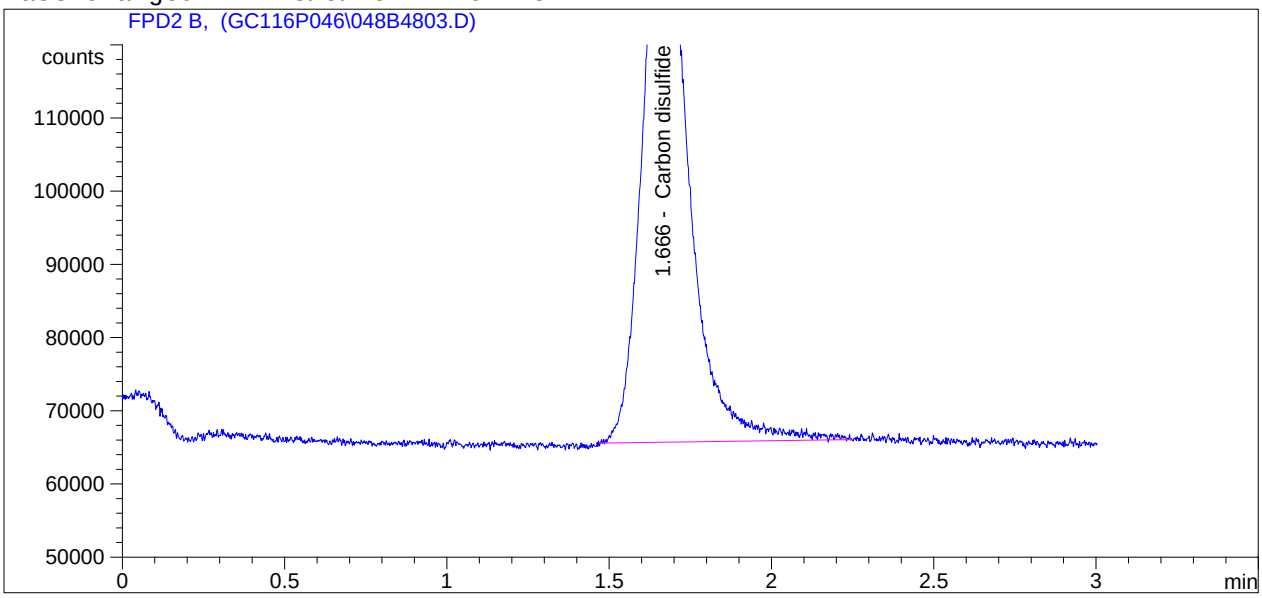
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  48
Acq. Instrument : Instrument 1                  Location : Vial 48
Injection Date  : 7/30/2011 10:28:38 AM              Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.678 BB     7.69959e5  6.60469e-6    5.08534    Carbon disulfide

Totals :                                5.08534


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\048B4803.D
Sample Name: gc116p46 #5

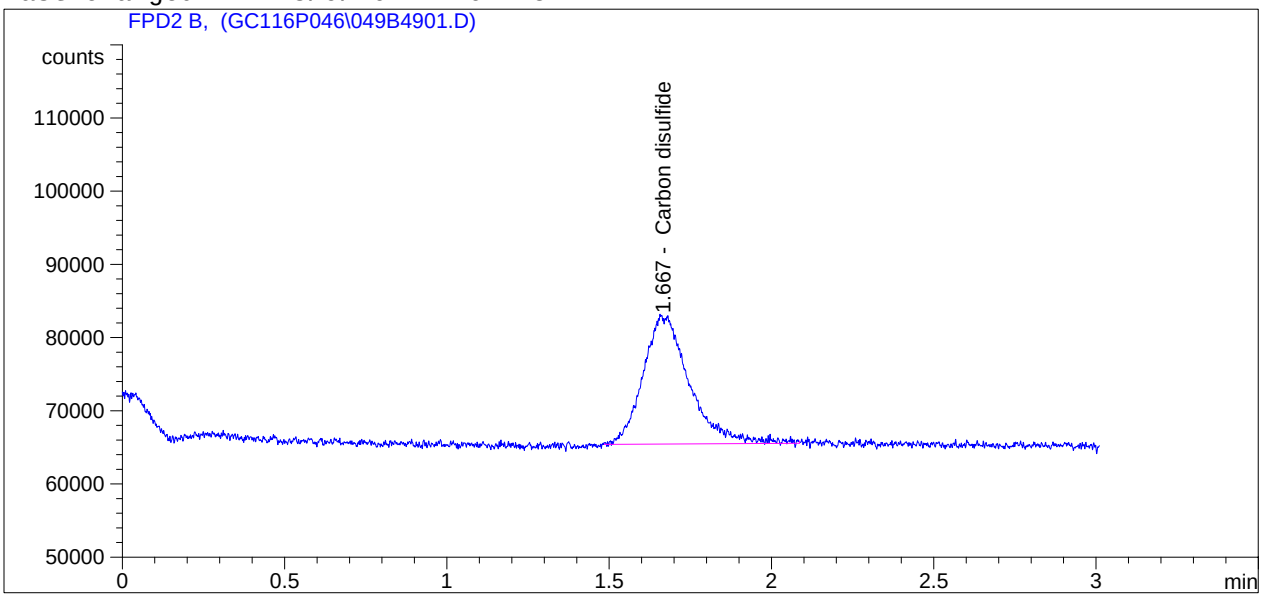
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  48
Acq. Instrument : Instrument 1                  Location : Vial 48
Injection Date  : 7/30/2011 10:32:45 AM              Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.666 BB     7.65346e5  6.62250e-6    5.06851    Carbon disulfide

Totals :                                 5.06851


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\049B4901.D
Sample Name: gc116p46 #4

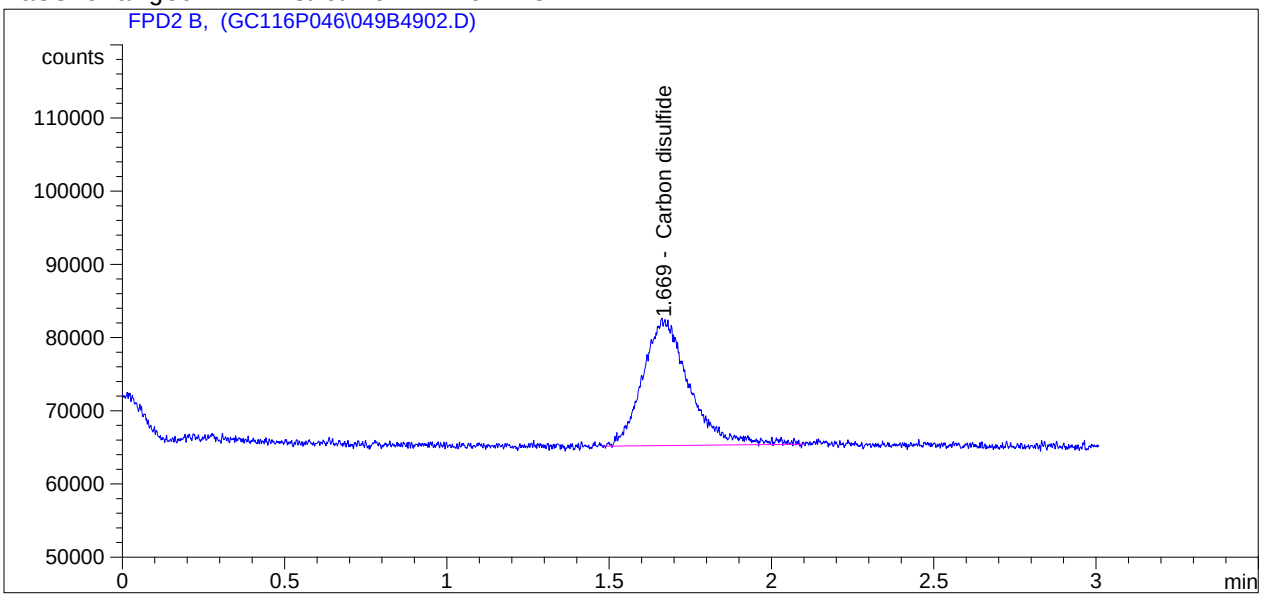
```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  49
Acq. Instrument : Instrument 1                      Location : Vial 49
Injection Date  : 7/30/2011 10:45:29 AM                  Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.667 BB     1.73708e5  1.23339e-5    2.14249    Carbon disulfide

Totals :                                 2.14249


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\049B4902.D
Sample Name: gc116p46 #4

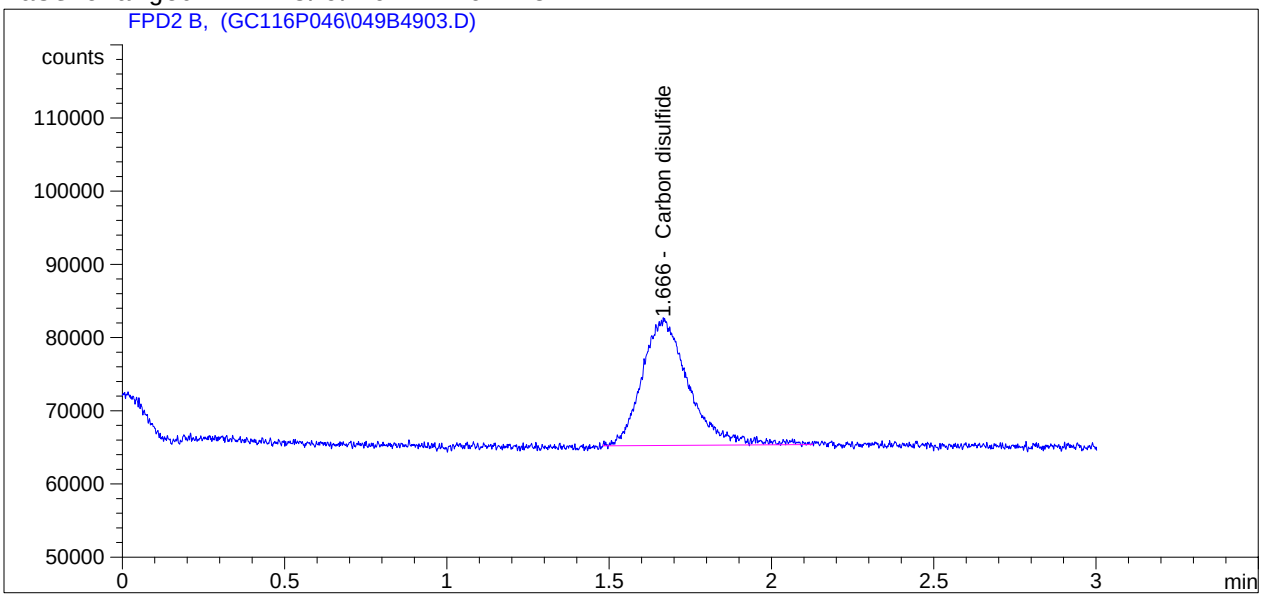
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  49
Acq. Instrument : Instrument 1                  Location : Vial 49
Injection Date  : 7/30/2011 10:49:40 AM              Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.669 BB     1.71082e5  1.24054e-5    2.12233    Carbon disulfide

Totals :                                 2.12233


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\049B4903.D
Sample Name: gc116p46 #4

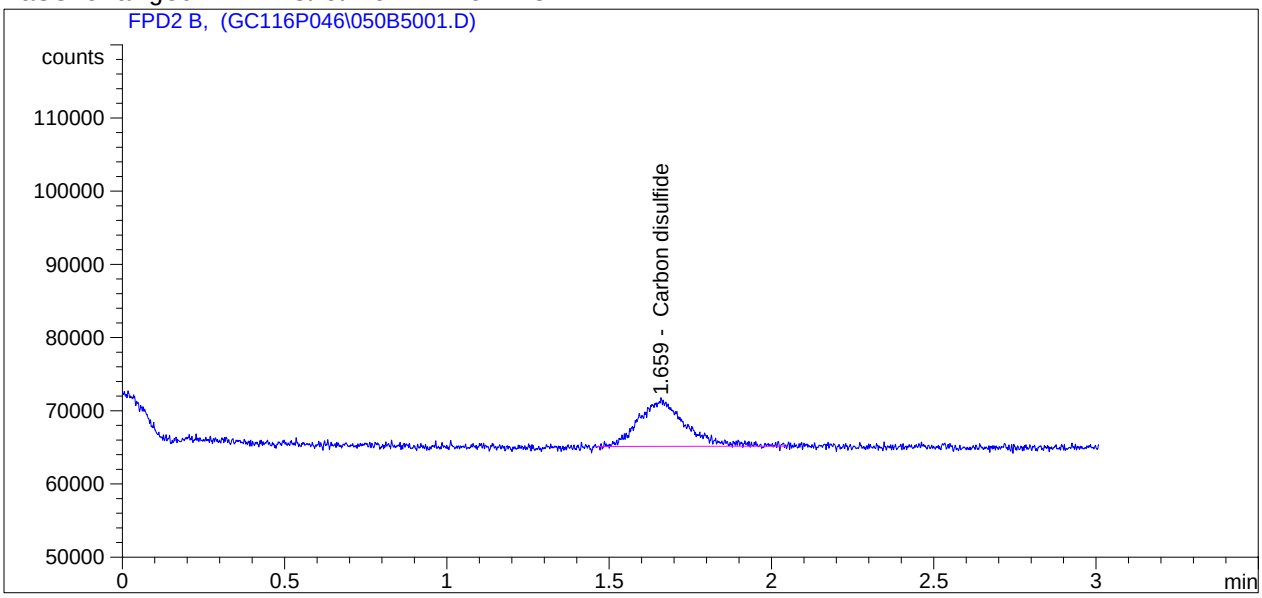
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  49
Acq. Instrument : Instrument 1                  Location : Vial 49
Injection Date  : 7/30/2011 10:53:56 AM              Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.666 BB     1.72265e5  1.23730e-5    2.13143    Carbon disulfide

Totals :                                2.13143


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\050B5001.D
Sample Name: gc116p46 #3

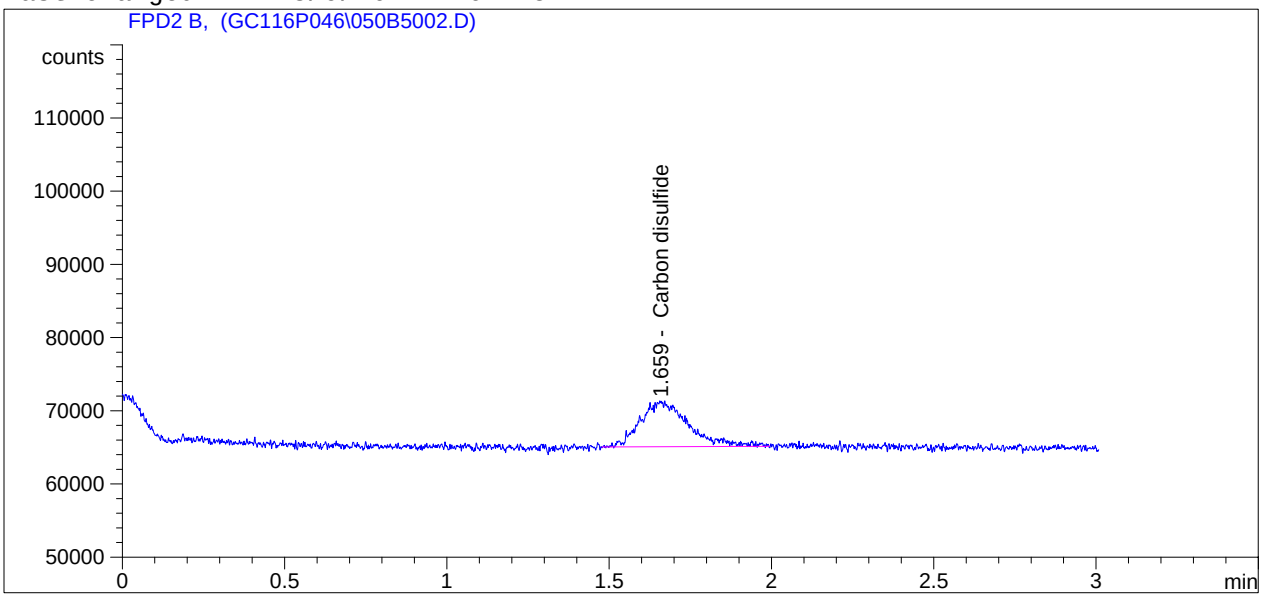
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  50
Acq. Instrument : Instrument 1                  Location : Vial 50
Injection Date  : 7/30/2011 11:06:28 AM              Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.659 BB     6.32645e4  1.72605e-5    1.09197    Carbon disulfide

Totals :                                 1.09197


==========================================================================
                         *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\050B5002.D
Sample Name: gc116p46 #3

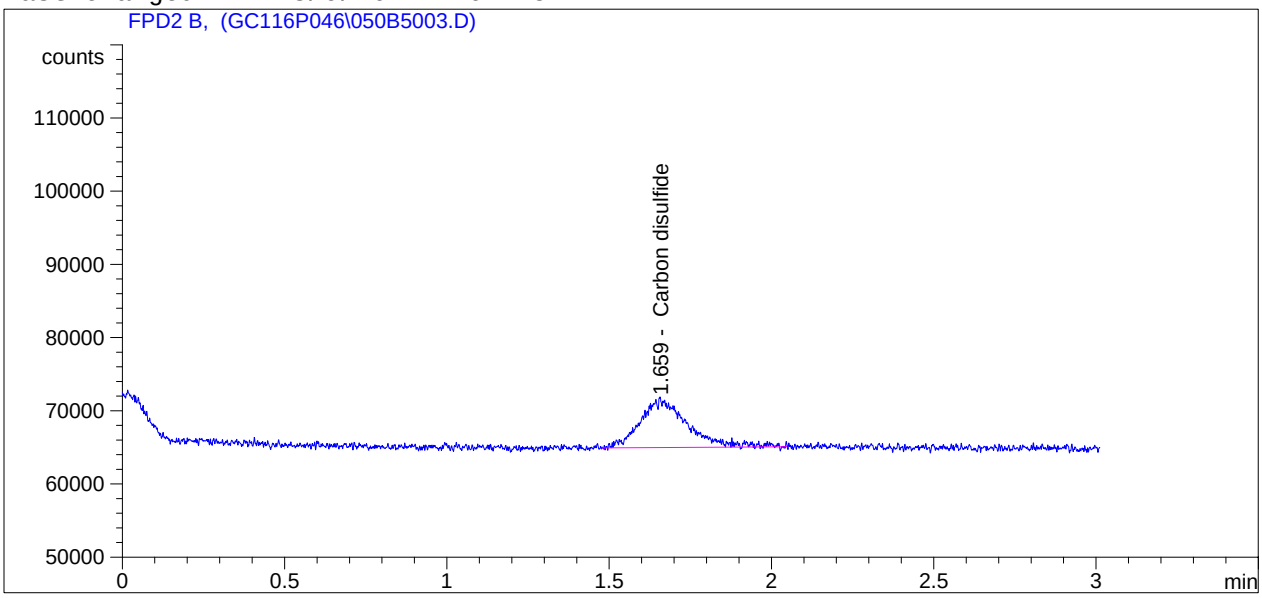
```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  50
Acq. Instrument : Instrument 1                      Location : Vial 50
Injection Date  : 7/30/2011 11:10:44 AM                  Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.659 BB     6.32117e4  1.72644e-5    1.09131    Carbon disulfide

Totals :                                 1.09131


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\050B5003.D
Sample Name: gc116p46 #3

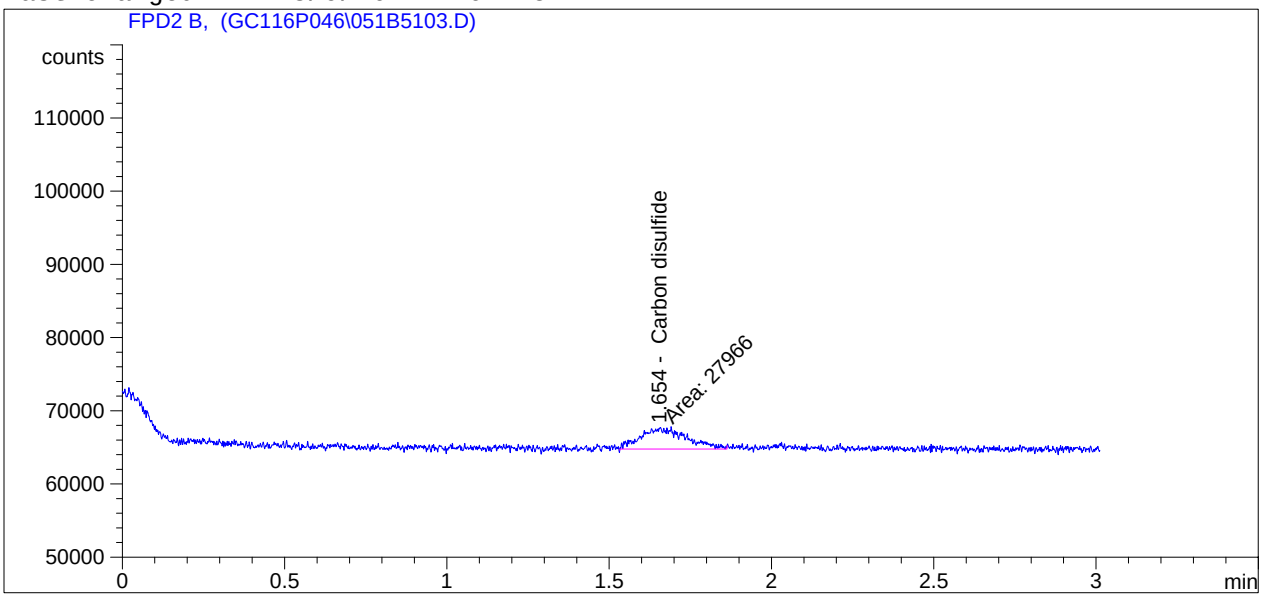
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  50
Acq. Instrument : Instrument 1                  Location : Vial 50
Injection Date  : 7/30/2011 11:14:56 AM              Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|------------------
  1.659 BB     6.63745e4  1.70343e-5    1.13064    Carbon disulfide

Totals :                                 1.13064


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\051B5103.D
Sample Name: gc116p46 #2

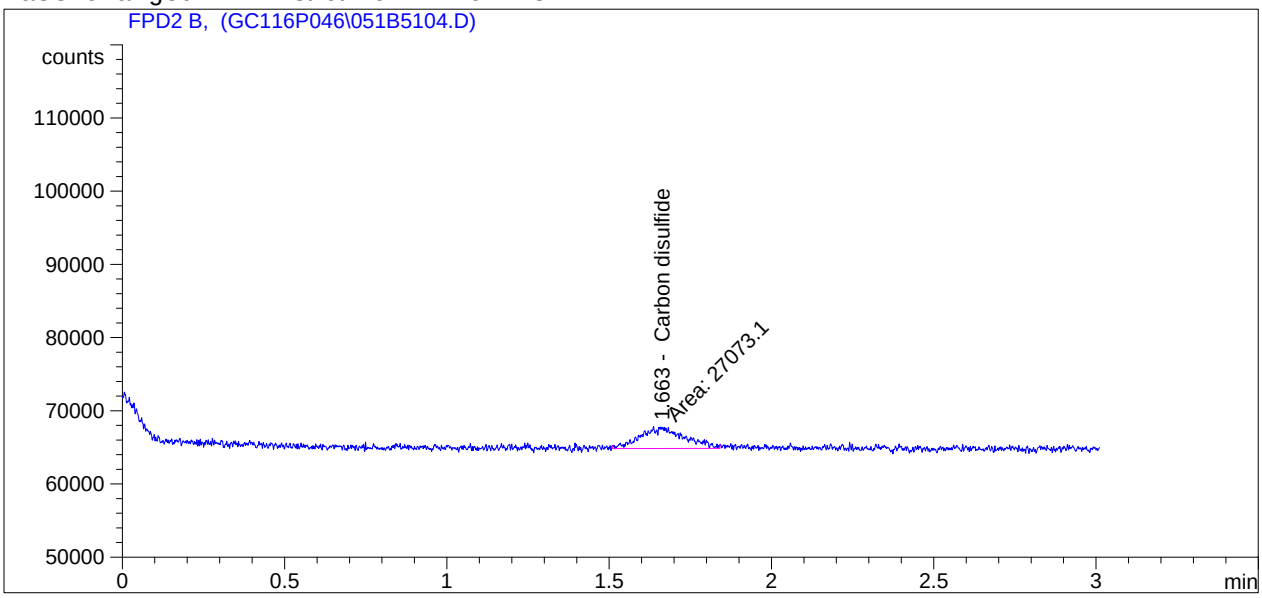
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  51
Acq. Instrument : Instrument 1                  Location : Vial 51
Injection Date  : 7/30/2011 11:35:56 AM              Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.654 MM     2.79660e4  2.00777e-5 5.61494e-1    Carbon disulfide

Totals :                              5.61494e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\051B5104.D
Sample Name: gc116p46 #2

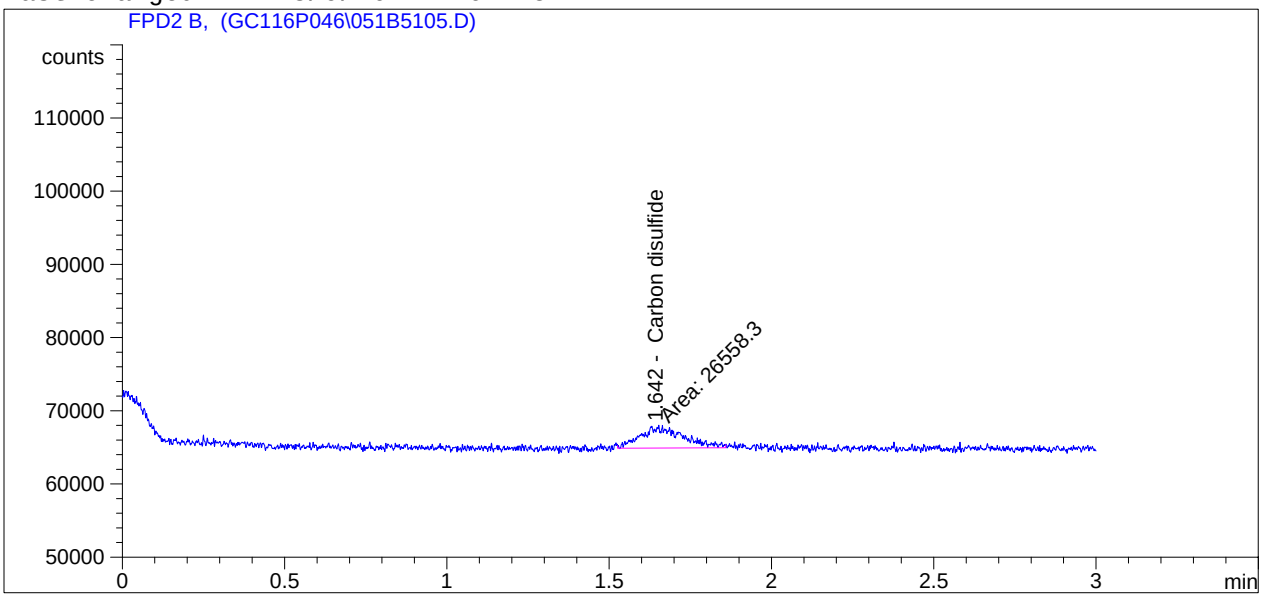
```
==========================================================================
Acq. Operator   : JBB                          Seq. Line :  51
Acq. Instrument : Instrument 1                  Location : Vial 51
Injection Date  : 7/30/2011 11:40:13 AM              Inj :   4
                                               Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.663 MM     2.70731e4  2.01198e-5 5.44704e-1    Carbon disulfide

Totals :                              5.44704e-1


==========================================================================
                          *** End of Report ***
```

Data File C:\GC2011Q3\OSCAR\DATA\JUL11\GC116P046\051B5105.D
Sample Name: gc116p46 #2

```
==========================================================================
Acq. Operator   : JBB                              Seq. Line :  51
Acq. Instrument : Instrument 1                      Location : Vial 51
Injection Date  : 7/30/2011 11:44:24 AM                  Inj :   5
                                                  Inj Volume : 1 µl
Sequence File   : C:\GC2011Q3\OSCAR\SEQUENCE\GC116P046.S
Acq. Method     : G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 7/29/2011 9:37:57 PM by JBB
Analysis Method : C:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Last changed    : 8/9/2011 4:04:15 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      8/9/2011 4:03:40 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FPD2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s
-------|------|----------|----------|----------|--|-----------------
  1.642 MM     2.65583e4  2.01408e-5 5.34906e-1    Carbon disulfide

Totals :                              5.34906e-1


==========================================================================
                          *** End of Report ***
```

method: G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Modified on: 7/29/2011 at 9:37:57 PM

OVEN\DET

Runtime (min): 3.0

Zone Temperatures:

	State	Setpoint
Inl. A	ON	200 C.
Inl. B	ON	225 C.
Det. A	ON	300 C.
Det. B	ON	175 C.
Aux.	OFF	50 C.

Oven Zone:

Oven max	280 C.
Equib Time	1.00 Min.
Oven State	ON
Cryo State	OFF
Ambient	25 C.
Cryo Blast	OFF

Oven Program:

	Setpoint
Initial Temp.:	40 C.
Initial Time:	3.00 Min.

Level	Rate (C/min.)	Final Temp.(C)	Final Time (min)
1	0.00	0	0.00

Purge Valve Settings

Purge A/B

	Init Value	On Time (Min.)	Off Time (Min.)
A (Valve 3)	On	0.00	100.00
B (Valve 4)	On	0.00	100.00

A - Splitless Injection: No
B - Splitless Injection: No

Valves/Relays Information

Initial Setpoints:
5890 Valves:

Valve 1:	Off
Valve 2:	Off
Valve 3 (Purge A):	On
Valve 4 (Purge B):	On

Detector Information

Detector A:
Type FID
State OFF

Detector B:
Type FPD

method: G:\GC2011Q3\OSCAR\METHODS\GC116P46.M
Modified on: 7/29/2011 at 9:37:57 PM
State ON

Signal Information

Save Data:	Signal 2
Signal 1:	
Signal	Testplot
Data rate	20.000 Hz.
Peakwidth	0.013 min.
Start Time	0.00 min.
Stop Time	650.00 min.
Signal 2:	
Signal	Det. B
Data rate	20.000 Hz.
Peakwidth	0.013 min.
Start Time	0.00 min.
Stop Time	650.00 min.

Sequence: C:\gc2011q3\Oscar\sequence\gc116p046.txt
Sequence Table (Back Injector):

Line	Vial	Sample Name	Method	Inj	Type	
1	Vial 1	gc116p46 #6	GC116P46	7	Sample	
2	Vial 2	gc116p46 #5	GC116P46	7	Sample	
3	Vial 3	gc116p46 #4	GC116P46	7	Sample	
4	Vial 4	gc116p46 #3	GC116P46	7	Sample	
5	Vial 5	gc116p46 #2	GC116P46	7	Sample	
6	Vial 6	gc116p46 #1	GC116P46	7	Sample	
7	Vial 7	gc116p46 #3ss	GC116P46	7	Sample	345
8	Vial 8	RB H2O	GC116P46	5	Sample	
9	Vial 9	0611-12 R1 Bag Cond	GC116P46	5	Sample	
10	Vial 10	0611-12 R2 Bag Cond	GC116P46	5	Sample	
11	Vial 11	0611-12 R1 Bag Cond #MS	GC116P46	5	Sample	234
12	Vial 12	gc116p46 #4	GC116P46	5	Sample	
13	Vial 13	gc116p46 #3	GC116P46	5	Sample	
14	Vial 14	RB H2O	GC116P46	5	Sample	
15	Vial 15	0711-12 T2R1 Bag Cond	GC116P46	5	Sample	
16	Vial 16	0711-12 T2R2 Bag Cond	GC116P46	5	Sample	
17	Vial 17	0711-12 T2R3 Bag Cond	GC116P46	5	Sample	
18	Vial 18	0711-12 T2R1 Bag Cond #MS	GC116P46	5	Sample	345
19	Vial 19	gc116p46 #6	GC116P46	5	Sample	
20	Vial 20	gc116p46 #5	GC116P46	5	Sample	
21	Vial 21	gc116p46 #4	GC116P46	5	Sample	345
22	Vial 22	gc116p46 #3	GC116P46	5	Sample	
23	Vial 23	gc116p46 #2	GC116P46	5	Sample	
24	Vial 24	RB H2O	GC116P46	5	Sample	
25	Vial 25	0611-22 ICR1 Bag Cond A	GC116P46	5	Sample	
26	Vial 26	0611-22 ICR1 Bag Cond B	GC116P46	5	Sample	
27	Vial 27	0611-22 ICR2 Bag Cond A	GC116P46	5	Sample	
28	Vial 28	0611-22 ICR2 Bag Cond B	GC116P46	5	Sample	
29	Vial 29	0611-22 ICR3 Bag Cond A	GC116P46	5	Sample	
30	Vial 30	0611-22 ICR3 Bag Cond B	GC116P46	5	Sample	
31	Vial 31	0611-22 ICR1 Bag Cond A #MS	GC116P46	5	Sample	345
32	Vial 32	gc116p46 #4	GC116P46	5	Sample	
33	Vial 33	gc116p46 #3	GC116P46	5	Sample	
34	Vial 34	RB H2O	GC116P46	5	Sample	
35	Vial 35	0611-161 R1 Bag COND	GC116P46	5	Sample	
36	Vial 36	0611-161 R2 Bag COND	GC116P46	5	Sample	
37	Vial 37	0611-161 R3 Bag COND	GC116P46	5	Sample	
38	Vial 38	0611-161 R1 Bag COND #MS	GC116P46	5	Sample	345
39	Vial 39	gc116p46 #4	GC116P46	5	Sample	
40	Vial 40	gc116p46 #3	GC116P46	5	Sample	
41	Vial 41	RB H2O	GC116P46	5	Sample	
42	Vial 42	0711-81 T1R01 Bag COND	GC116P46	5	Sample	
43	Vial 43	0711-81 T1R1 Bag COND	GC116P46	5	Sample	
44	Vial 44	0711-81 T1R2 Bag COND	GC116P46	5	Sample	
45	Vial 45	0711-81 T1R3 Bag COND	GC116P46	5	Sample	
46	Vial 46	0711-81 T1R1 Bag COND #MS	GC116P46	5	Sample	
47	Vial 47	gc116p46 #6	GC116P46	5	Sample	
48	Vial 48	gc116p46 #5	GC116P46	5	Sample	
49	Vial 49	gc116p46 #4	GC116P46	5	Sample	
50	Vial 50	gc116p46 #3	GC116P46	5	Sample	
51	Vial 51	gc116p46 #2	GC116P46	5	Sample	345
52	Vial 52	RB H2O	GC116P46	5	Sample	
53	Vial 53	0711-64 Bag COND FB	GC116P46	5	Sample	
54	Vial 54	0711-64 R1 Bag COND	GC116P46	5	Sample	
55	Vial 55	0711-64 R2 Bag COND	GC116P46	5	Sample	
56	Vial 56	0711-64 R3 Bag COND	GC116P46	5	Sample	
57	Vial 57	0711-64 R1 Bag COND #MS	GC116P46	5	Sample	345
58	Vial 58	gc116p46 #6	GC116P46	5	Sample	
59	Vial 46	0711-81 T1R1 Bag COND #MS	GC116P46	5	Sample	
60	Vial 58	gc116p46 #6	GC116P46	5	Sample	
61	Vial 59	gc116p46 #5	GC116P46	5	Sample	345
62	Vial 60	gc116p46 #4	GC116P46	5	Sample	345
63	Vial 61	gc116p46 #3	GC116P46	5	Sample	
64	Vial 62	gc116p46 #2	GC116P46	5	Sample	

Sample Chromatograms

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\015F1501.D
Sample Name: 0611-22 M18 ICR1 COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  15
Acq. Instrument : Lucy                              Location : Vial 15
Injection Date  : 12-Jul-11, 18:15:11                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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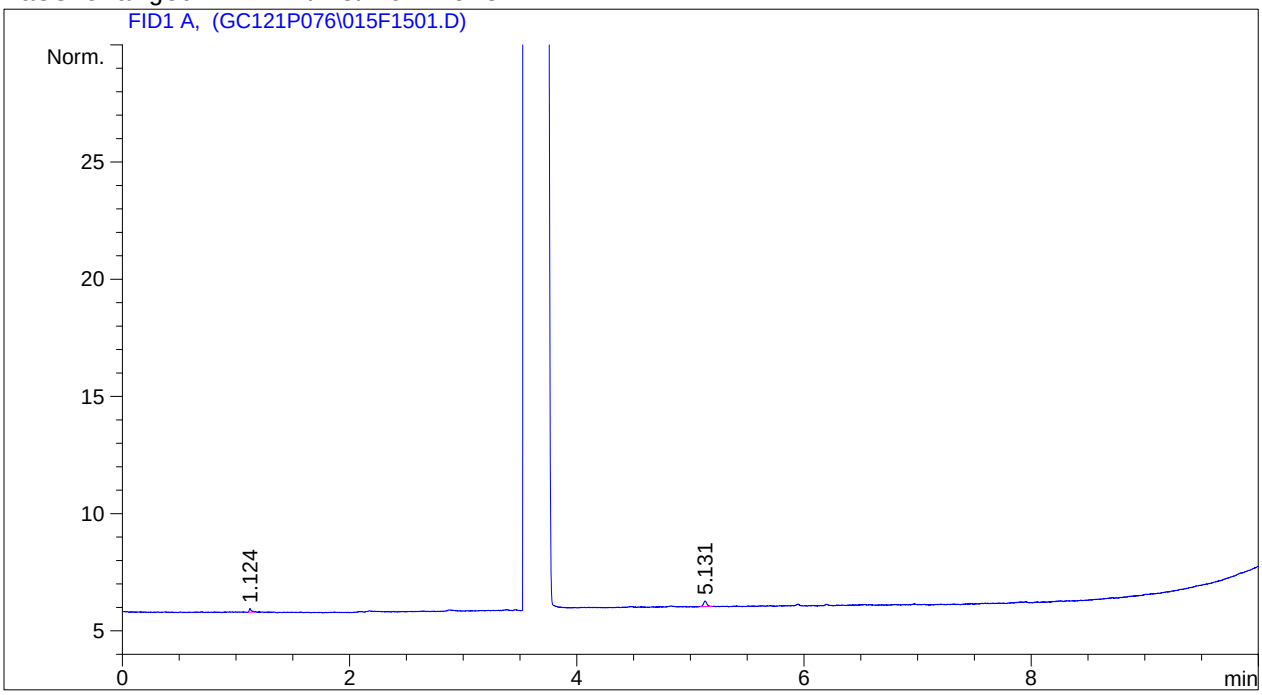



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

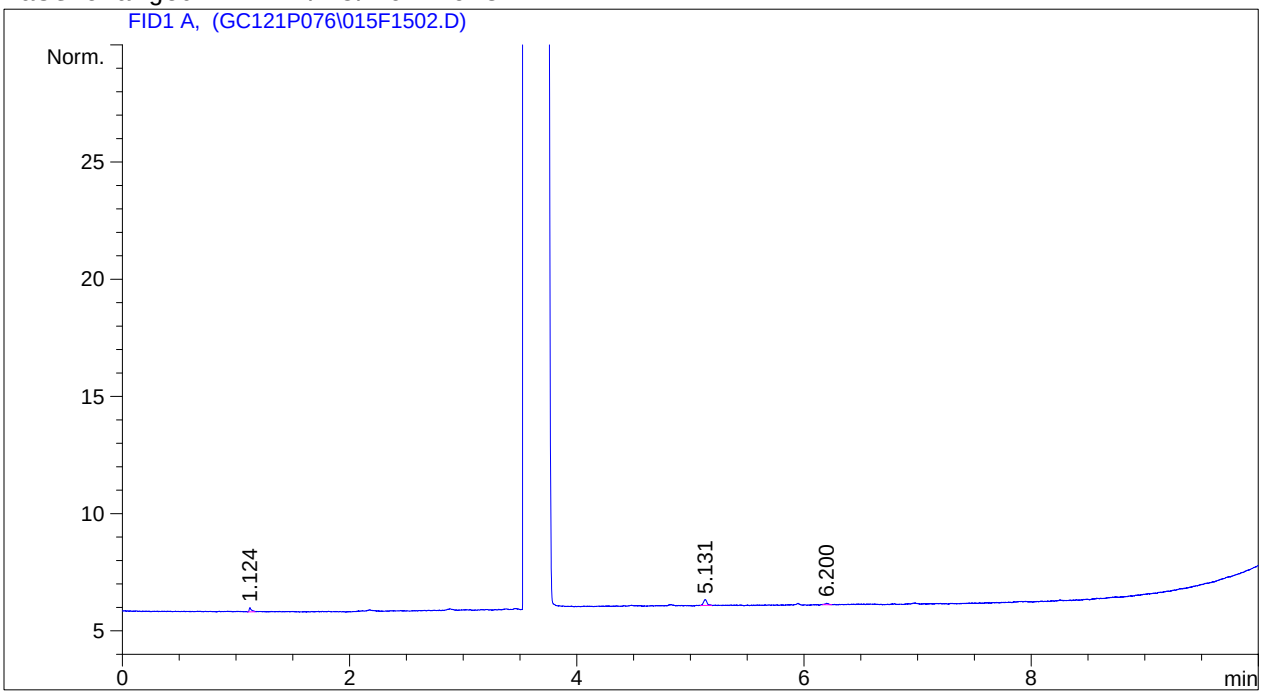
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\015F1502.D
Sample Name: 0611-22 M18 ICR1 COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  15
Acq. Instrument : Lucy                              Location : Vial 15
Injection Date  : 12-Jul-11, 18:36:42                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

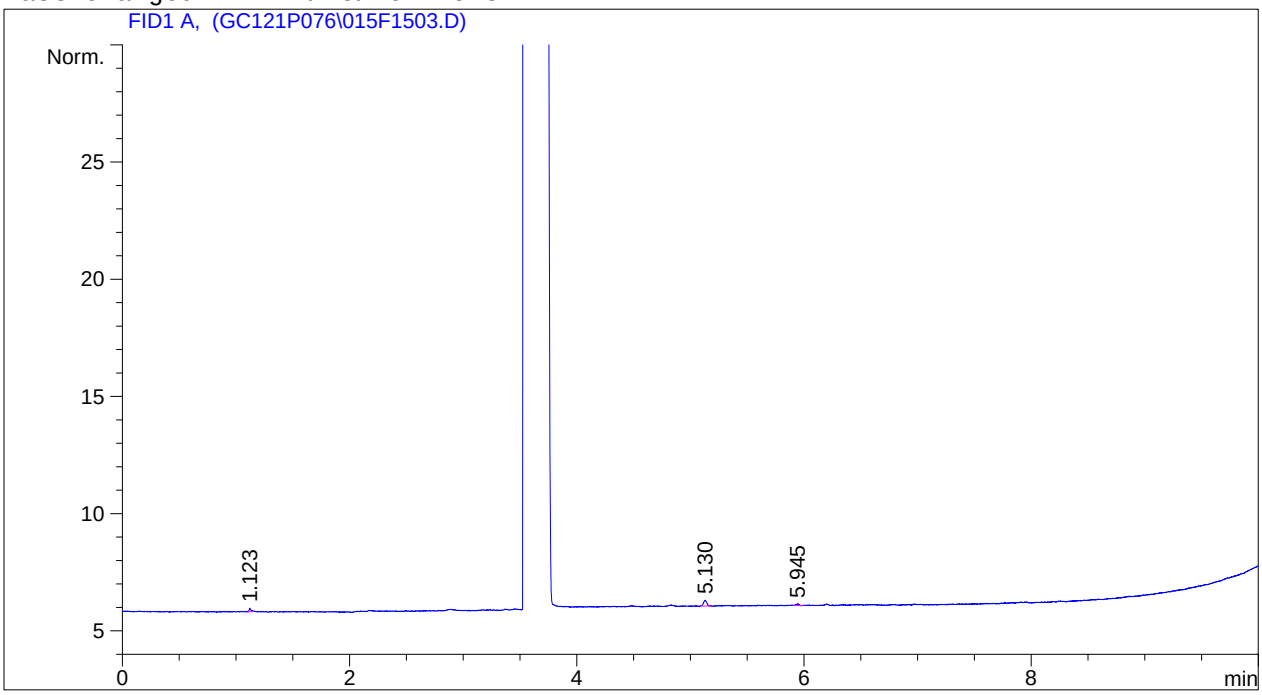
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\015F1503.D
Sample Name: 0611-22 M18 ICR1 COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  15
Acq. Instrument : Lucy                              Location : Vial 15
Injection Date  : 12-Jul-11, 18:58:03                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

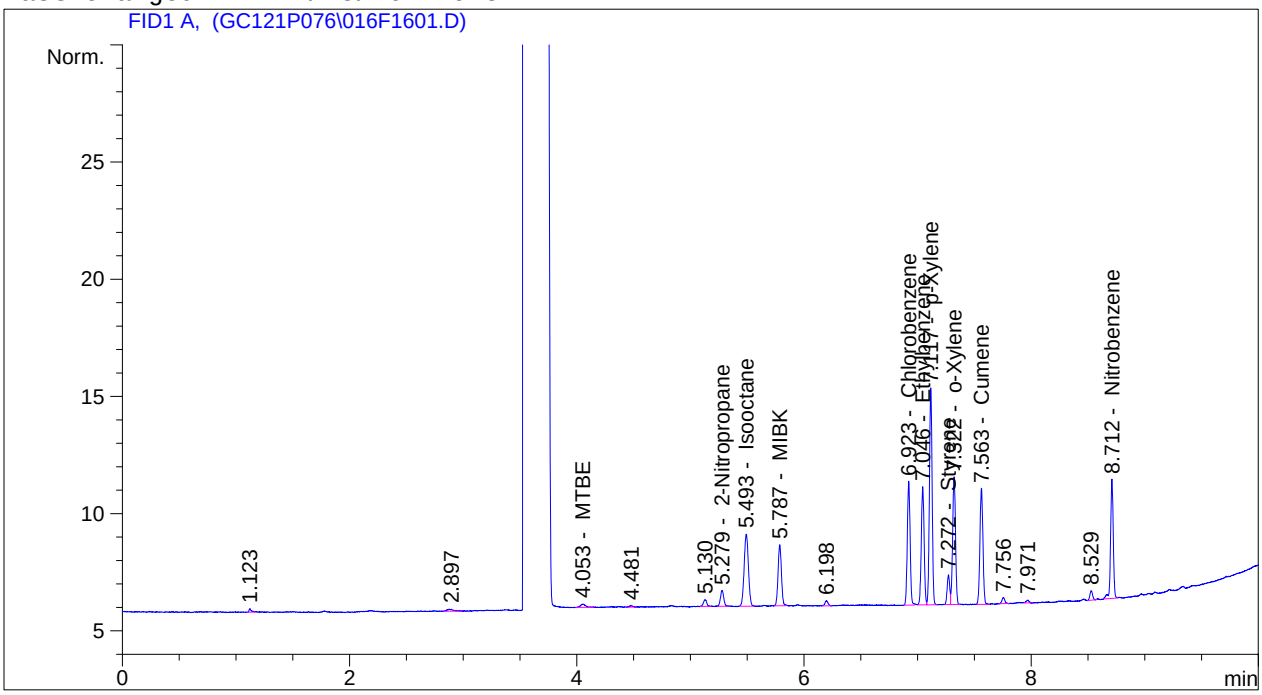
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\016F1601.D
Sample Name: 0611-22 M18 ICR1 XAD FH

Acq. Operator	:	Seq. Line	: 16
Acq. Instrument	: Lucy	Location	: Vial 16
Injection Date	: 12-Jul-11, 19:19:16	Inj	: 1
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

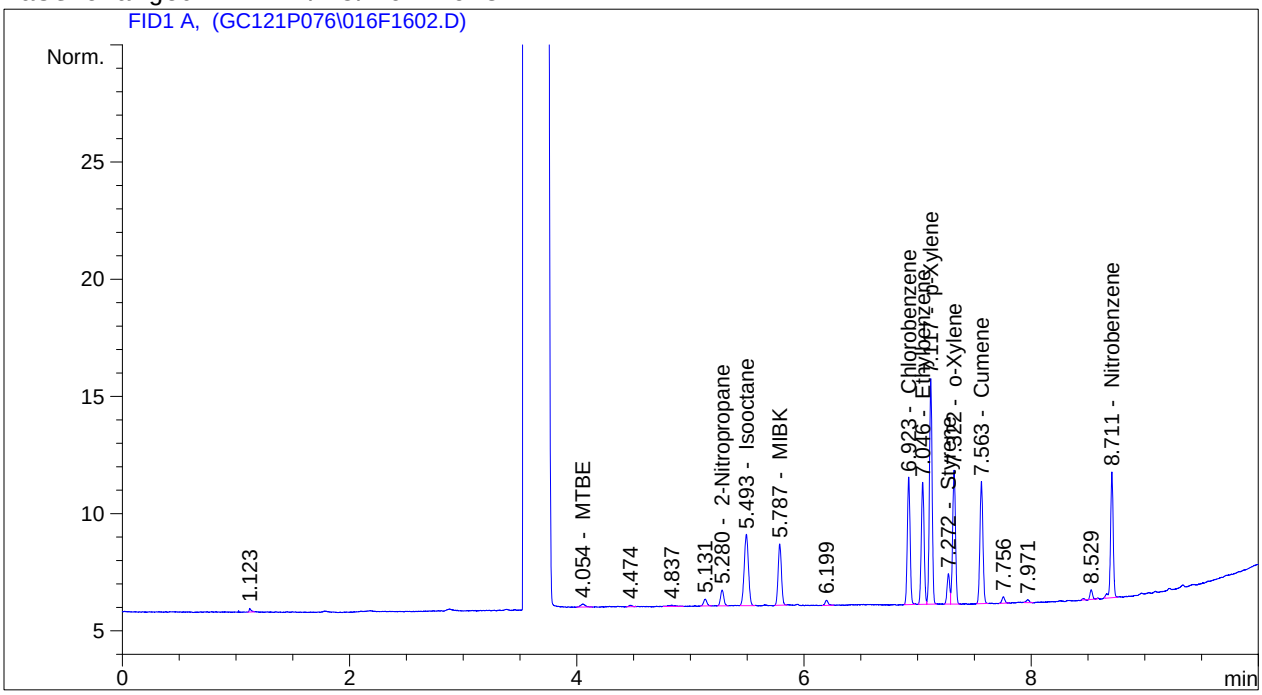
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.053	BB	4.53925e-1	1.00919	4.58095e-1		MTBE
5.279	BB	1.34608	1.29413	1.74200		2-Nitropropane
5.493	BB	7.99888	5.73236e-1	4.58525		Isooctane
5.787	BB	5.33286	7.98940e-1	4.26063		MIBK
6.923	BB	9.06566	6.96015e-1	6.30984		Chlorobenzene
7.046	BV	8.79787	4.99636e-1	4.39573		Ethylbenzene
7.117	VB	15.24713	4.97527e-1	7.58585		p-Xylene
7.272	BV	1.97535	4.87001e-1	9.61999e-1		Styrene
7.322	VB	9.62255	4.87399e-1	4.69002		o-Xylene
7.563	BB	9.18942	4.93995e-1	4.53952		Cumene
8.712	BB	8.34468	8.02939e-1	6.70027		Nitrobenzene

Totals : 46.22922

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\016F1602.D
Sample Name: 0611-22 M18 ICR1 XAD FH

Acq. Operator	:	Seq. Line	: 16
Acq. Instrument	: Lucy	Location	: Vial 16
Injection Date	: 12-Jul-11, 19:40:48	Inj	: 2
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

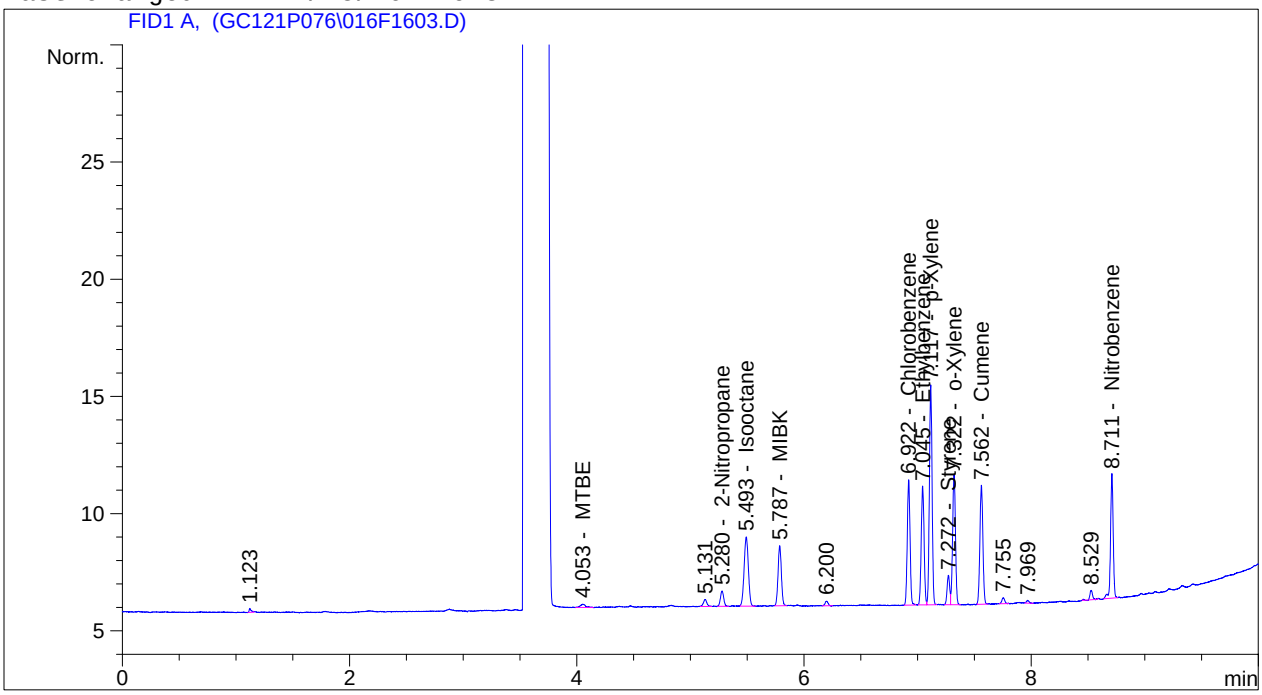
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.054	BB	3.54606e-1	1.00919	3.57863e-1		MTBE
5.280	BB	1.34513	1.29413	1.74078		2-Nitropropane
5.493	BB	7.87934	5.73176e-1	4.51625		Isooctane
5.787	BB	5.26534	7.99007e-1	4.20704		MIBK
6.923	BB	9.25101	6.96140e-1	6.44000		Chlorobenzene
7.046	BV	9.06384	4.99719e-1	4.52937		Ethylbenzene
7.117	VB	15.84129	4.97570e-1	7.88216		p-Xylene
7.272	BV	2.06724	4.87001e-1	1.00675		Styrene
7.322	VB	10.02186	4.87608e-1	4.88673		o-Xylene
7.563	BB	9.56634	4.94172e-1	4.72741		Cumene
8.711	BB	8.75915	8.02927e-1	7.03296		Nitrobenzene

Totals : 47.32731

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\016F1603.D
Sample Name: 0611-22 M18 ICR1 XAD FH

Acq. Operator	:	Seq. Line	: 16
Acq. Instrument	: Lucy	Location	: Vial 16
Injection Date	: 12-Jul-11, 20:02:46	Inj	: 3
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.053	BB	4.17770e-1	1.00919	4.21608e-1		MTBE
5.280	BB	1.30409	1.29413	1.68767		2-Nitropropane
5.493	BB	7.69354	5.73078e-1	4.40900		Isooctane
5.787	BB	5.20293	7.99069e-1	4.15750		MIBK
6.922	BB	9.05897	6.96011e-1	6.30514		Chlorobenzene
7.045	BV	8.86109	4.99656e-1	4.42750		Ethylbenzene
7.117	VB	15.47712	4.97544e-1	7.70055		p-Xylene
7.272	BV	1.98486	4.87001e-1	9.66632e-1		Styrene
7.322	VB	9.78299	4.87485e-1	4.76906		o-Xylene
7.562	BB	9.34833	4.94071e-1	4.61874		Cumene
8.711	BB	8.60644	8.02932e-1	6.91038		Nitrobenzene

Totals : 46.37377

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\017F1701.D
Sample Name: 0611-22 M18 ICR1 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  17
Acq. Instrument : Lucy                              Location : Vial 17
Injection Date  : 12-Jul-11, 20:24:10                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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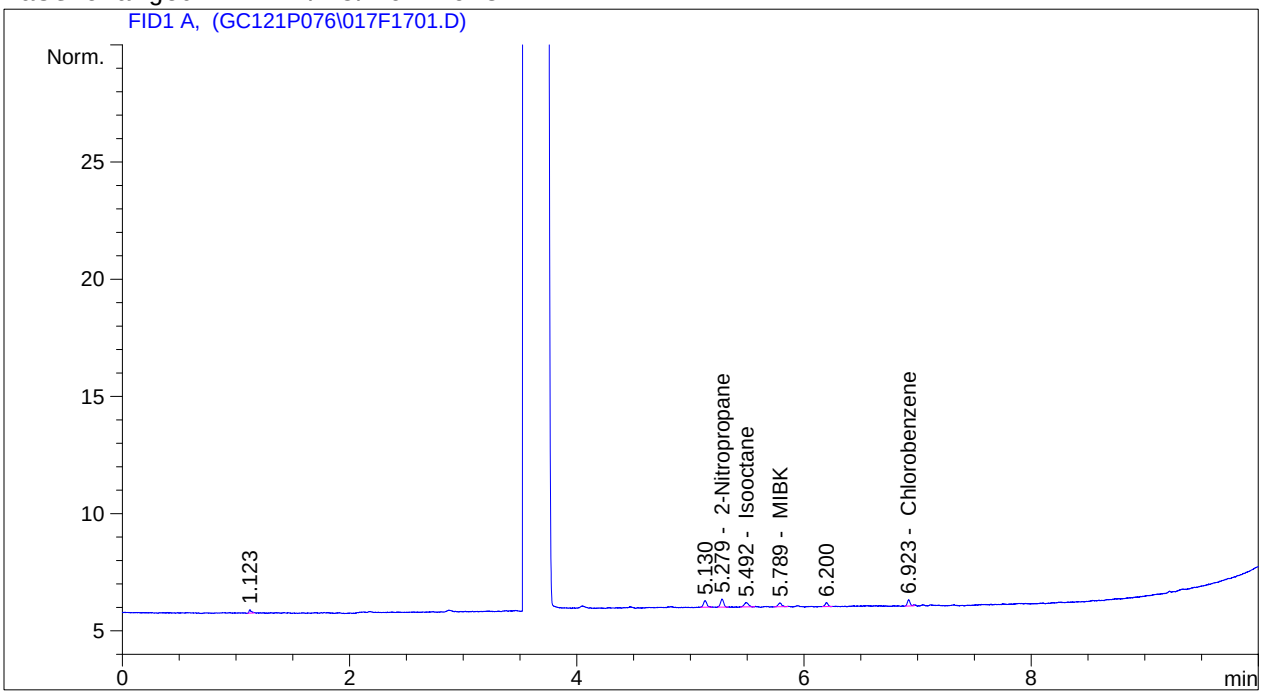


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.279 BB     6.58576e-1    1.29413 8.52285e-1    2-Nitropropane
  5.492 BB     4.93369e-1 5.64194e-1 2.78356e-1    Isooctane
  5.789 BB     3.66541e-1 8.07742e-1 2.96071e-1    MIBK
  6.923 BB     4.56641e-1 6.84762e-1 3.12690e-1    Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 1.73940
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\017F1702.D
Sample Name: 0611-22 M18 ICR1 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  17
Acq. Instrument : Lucy                              Location : Vial 17
Injection Date  : 12-Jul-11, 20:46:07                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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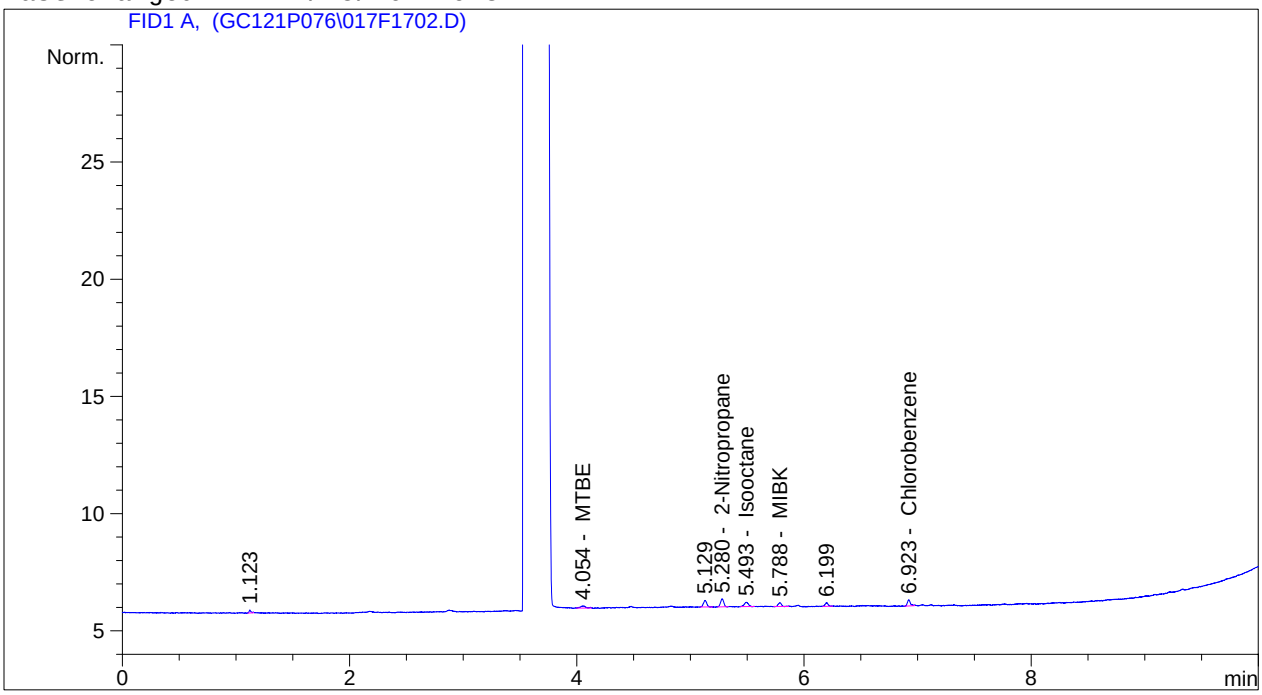


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.054 BB     2.89003e-1    1.00919 2.91658e-1    MTBE
  5.280 BB     6.62657e-1    1.29413 8.57567e-1    2-Nitropropane
  5.493 BB     4.57423e-1 5.64194e-1 2.58075e-1    Isooctane
  5.788 BB     3.04766e-1 8.07742e-1 2.46172e-1    MIBK
  6.923 BB     4.85689e-1 6.84762e-1 3.32581e-1    Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 1.98605
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\017F1703.D
Sample Name: 0611-22 M18 ICR1 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  17
Acq. Instrument : Lucy                              Location : Vial 17
Injection Date  : 12-Jul-11, 21:07:27                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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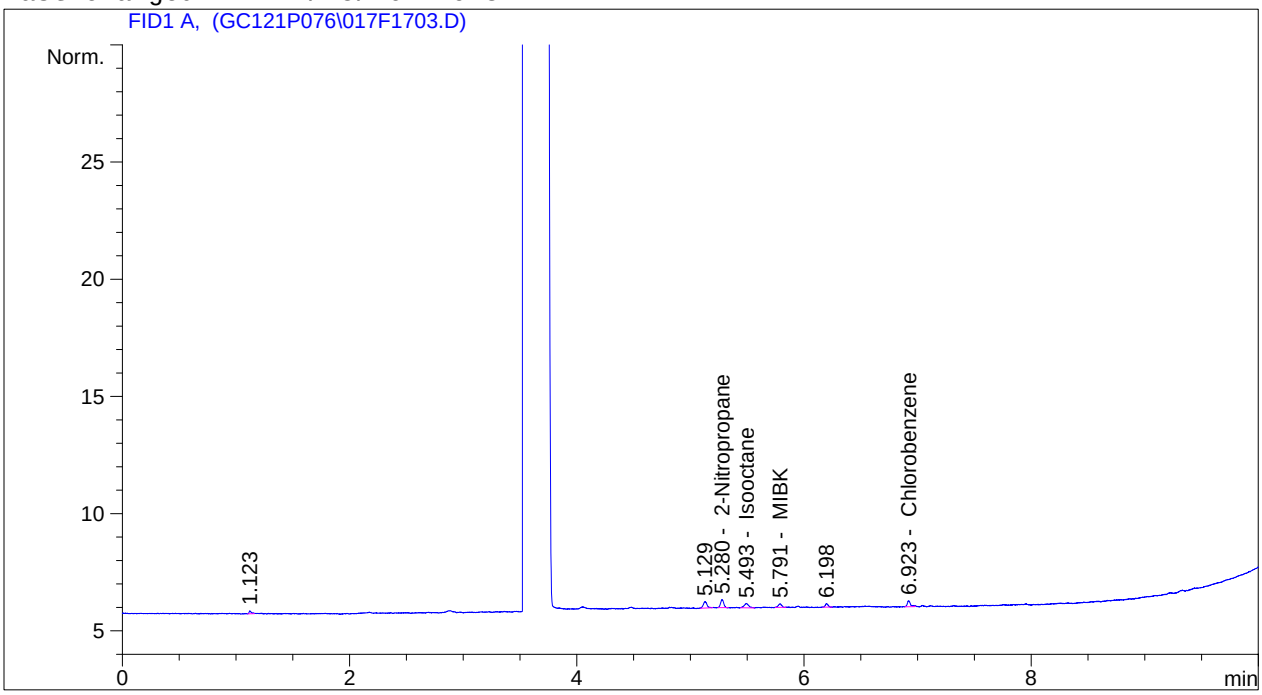


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.280 BB     6.54963e-1    1.29413 8.47610e-1    2-Nitropropane
  5.493 BB     5.16464e-1 5.64194e-1 2.91386e-1    Isooctane
  5.791 BB     2.93592e-1 8.07742e-1 2.37147e-1    MIBK
  6.923 BB     5.00918e-1 6.84762e-1 3.43010e-1    Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                  1.71915
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\018F1801.D
Sample Name: 0611-22 M18 ICR1 CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  18
Acq. Instrument : Lucy                              Location : Vial 18
Injection Date  : 12-Jul-11, 21:28:47                    Inj :   1
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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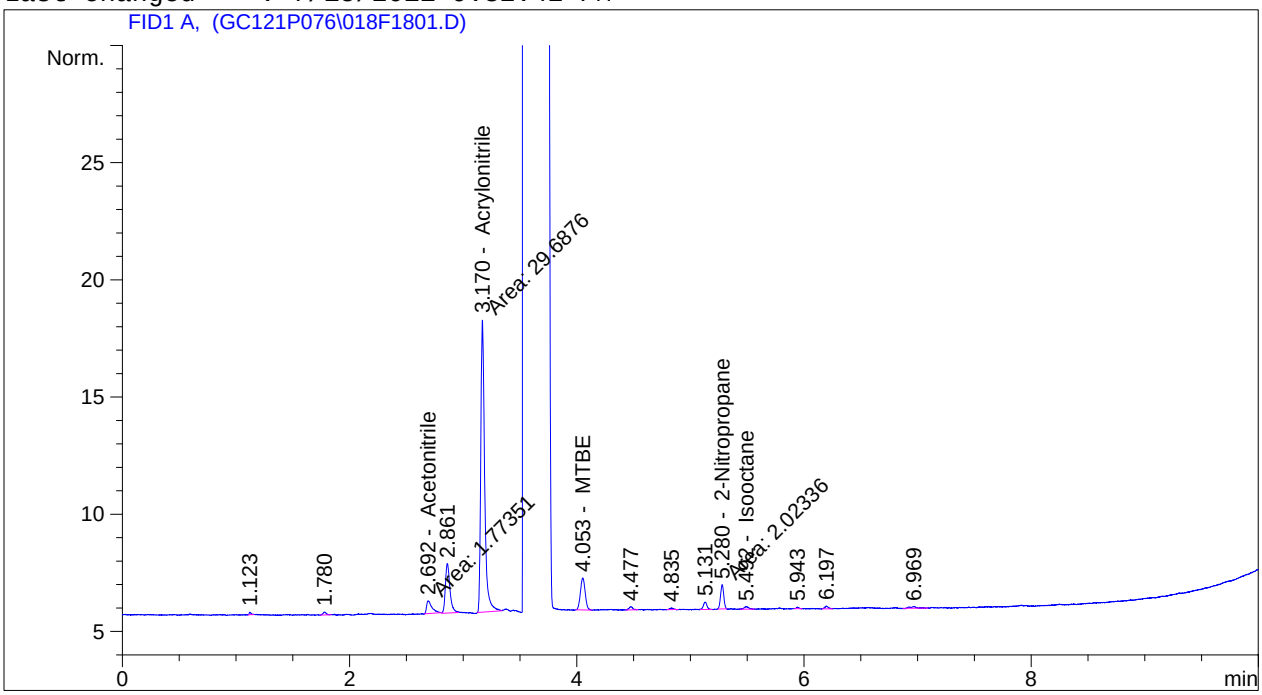



```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

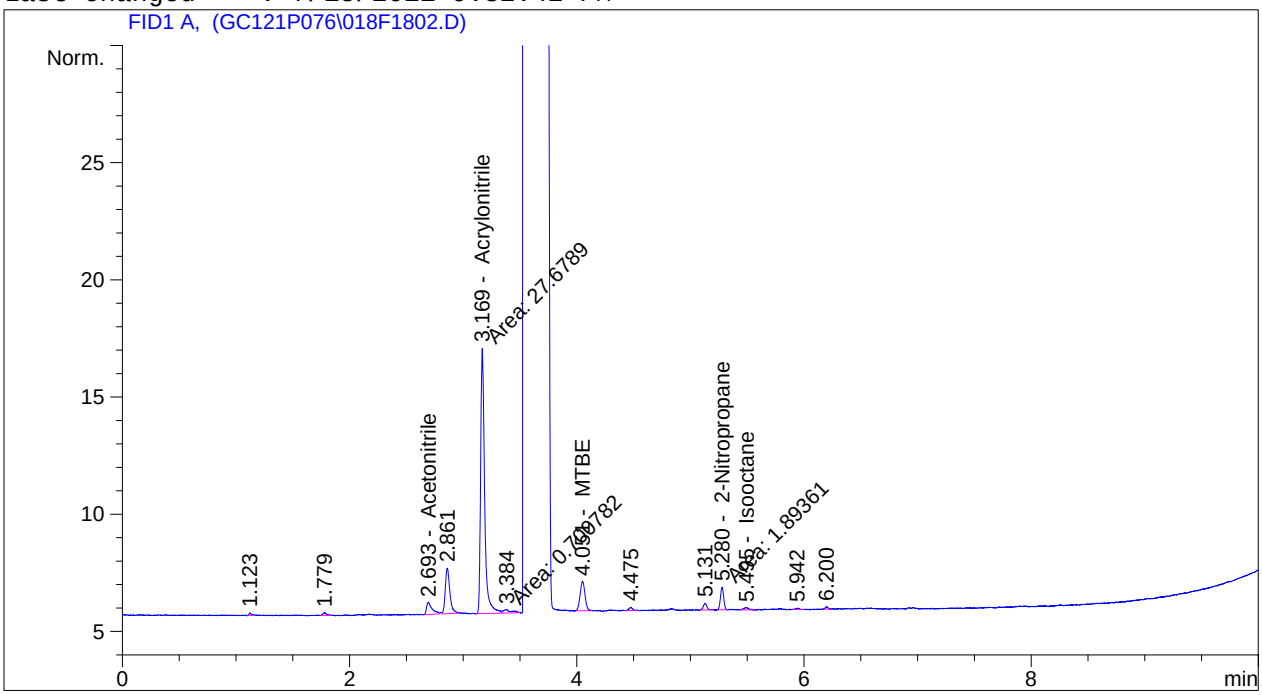
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.692	MM	1.77351	2.41424	4.28167		Acetonitrile
3.170	MM	29.68760	1.24909	37.08261		Acrylonitrile
4.053	BB	3.95477	1.01294	4.00593		MTBE
5.280	MM	2.02336	1.29562	2.62151		2-Nitropropane
5.492	BB	2.90138e-1	5.64194e-1	1.63694e-1		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 48.15542

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\018F1802.D
Sample Name: 0611-22 M18 ICR1 CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  18
Acq. Instrument : Lucy                              Location : Vial 18
Injection Date  : 12-Jul-11, 21:50:11                    Inj :   2
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

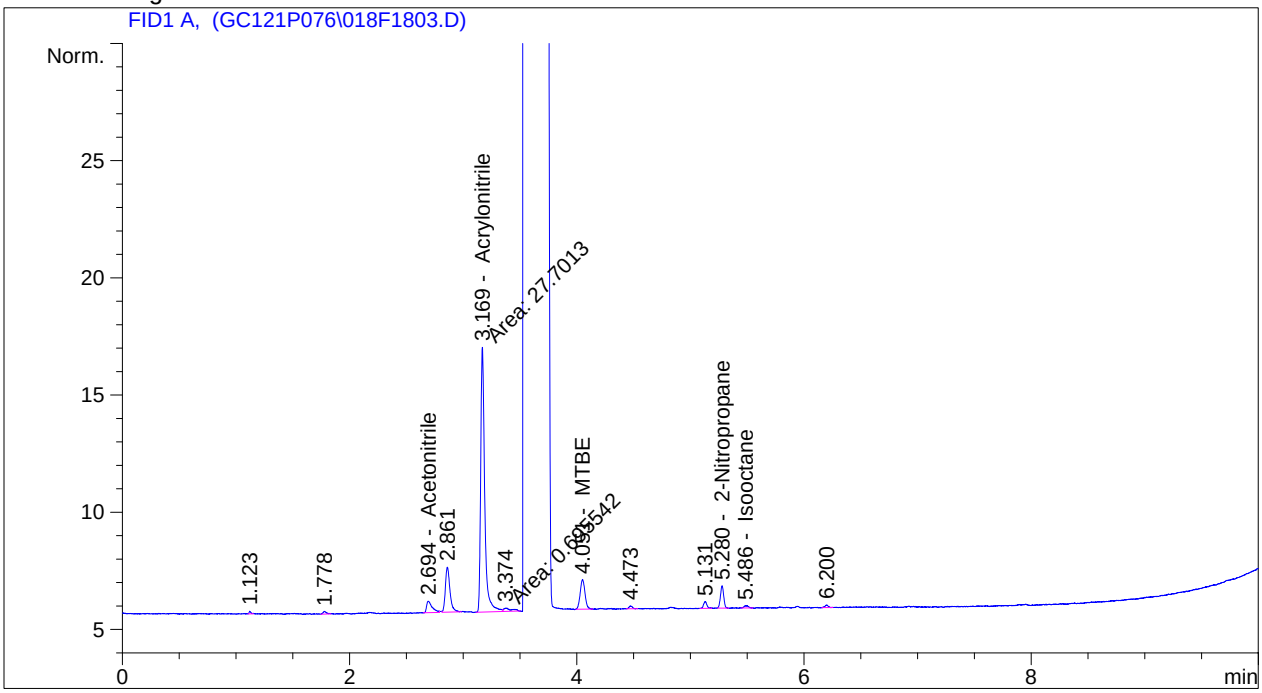
Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.693 BB        1.75432    2.41774    4.24148    Acetonitrile
  3.169 MF       27.67889    1.24983   34.59389    Acrylonitrile
  4.051 BB        3.70459    1.01279    3.75196    MTBE
  5.280 MM        1.89361    1.29533    2.45286    2-Nitropropane
  5.495 BB     2.83023e-1 5.64194e-1 1.59679e-1    Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                              45.19987
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\018F1803.D
Sample Name: 0611-22 M18 ICR1 CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  18
Acq. Instrument : Lucy                              Location : Vial 18
Injection Date  : 12-Jul-11, 22:11:30                    Inj :   3
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

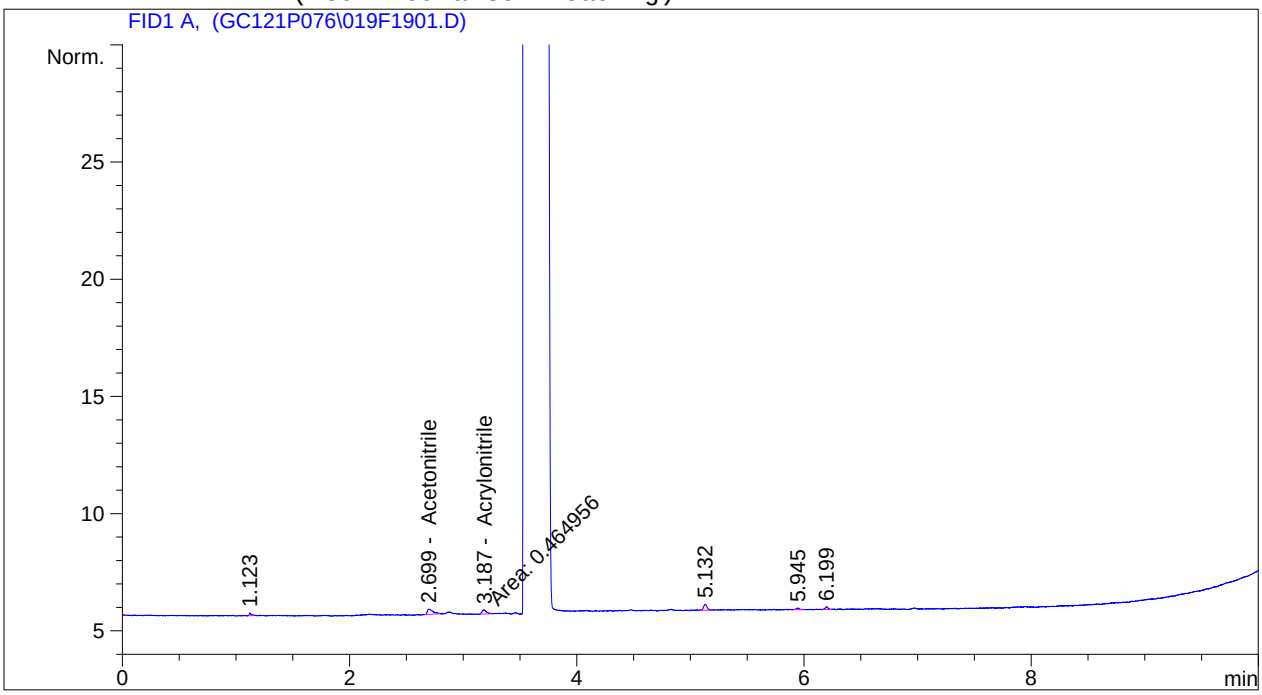
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.694	BB	1.65901	2.43635	4.04193		Acetonitrile
3.169	MF	27.70126	1.24982	34.62160		Acrylonitrile
4.051	BB	3.68896	1.01278	3.73610		MTBE
5.280	BB	1.87694	1.29529	2.43119		2-Nitropropane
5.486	BB	2.56241e-1	5.64194e-1	1.44570e-1		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 44.97539

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\019F1901.D
Sample Name: 0611-22 M18 ICR1 CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  19
Acq. Instrument : Lucy                              Location : Vial 19
Injection Date  : 12-Jul-11, 22:32:47                    Inj :   1
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/19/2011 10:23:03 PM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

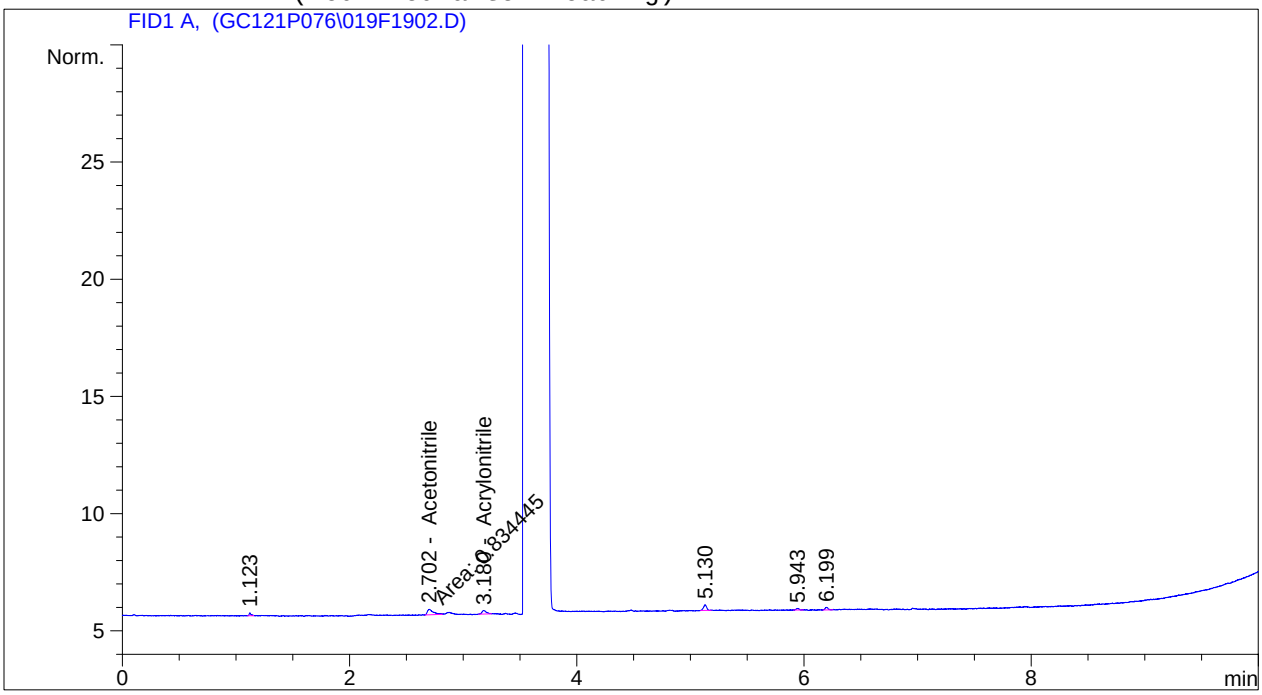
Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.699 BB     7.83691e-1    2.81890    2.20915    Acetonitrile
  3.187 MM     4.64956e-1    1.53275 7.12660e-1    Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 2.92181
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\019F1902.D
Sample Name: 0611-22 M18 ICR1 CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  19
Acq. Instrument : Lucy                              Location : Vial 19
Injection Date  : 12-Jul-11, 22:54:11                    Inj :   2
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/19/2011 10:23:03 PM
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.702 MM     8.34445e-1    2.77480    2.31542    Acetonitrile
  3.180 BB     4.13422e-1    1.53275 6.33672e-1    Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 2.94909
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\019F1903.D
Sample Name: 0611-22 M18 ICR1 CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  19
Acq. Instrument : Lucy                              Location : Vial 19
Injection Date  : 12-Jul-11, 23:15:27                    Inj :   3
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/19/2011 10:23:03 PM
                  (modified after loading)
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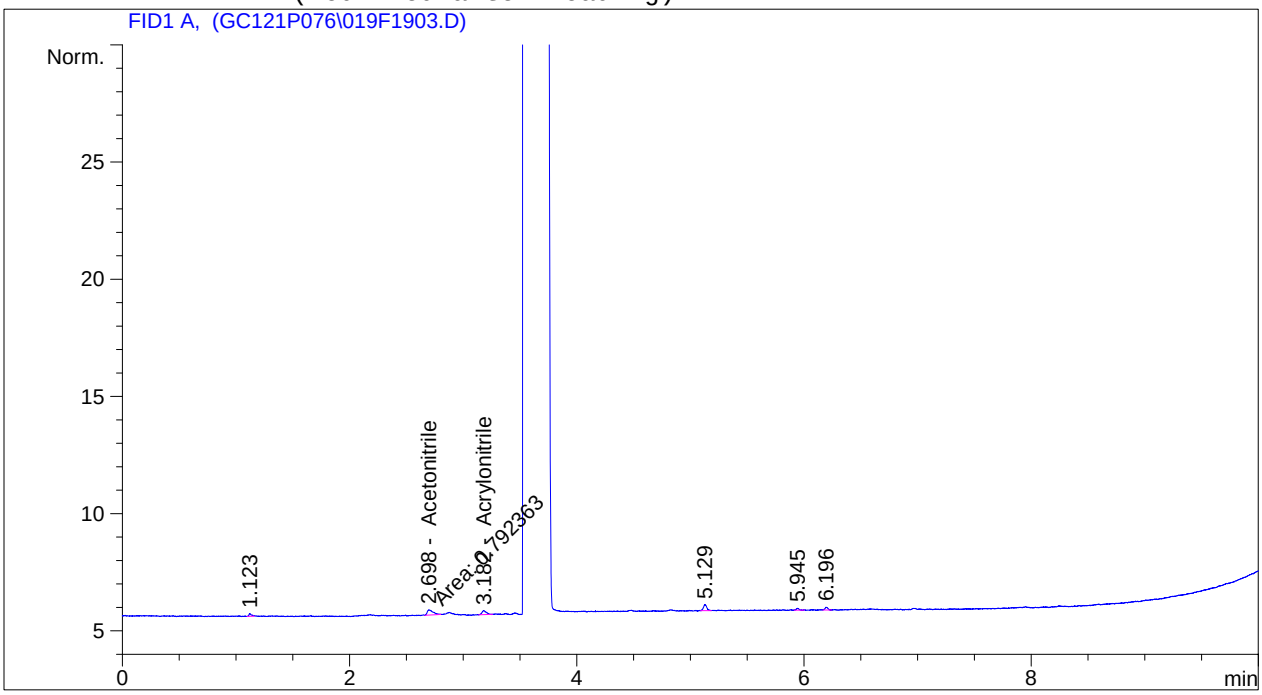
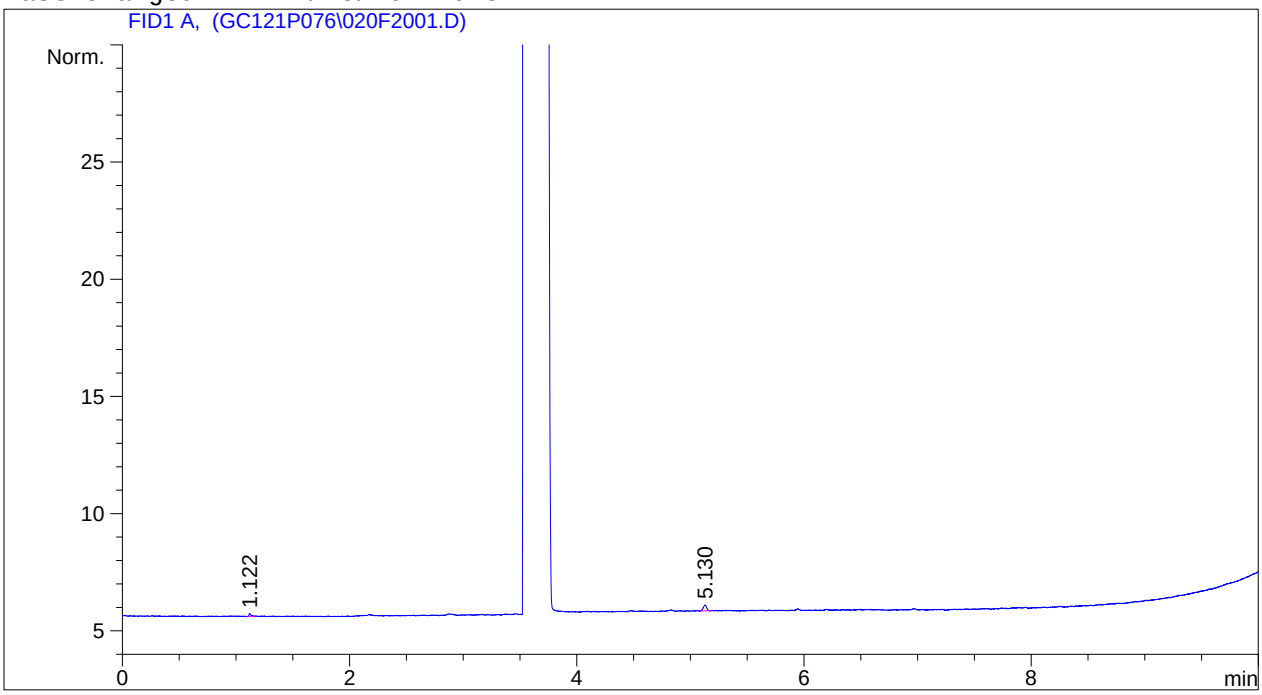



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.698 MM     7.92363e-1    2.81097    2.22731    Acetonitrile
  3.182 BB     4.31179e-1    1.53275 6.60889e-1    Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 2.88820
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\020F2001.D
Sample Name: 0611-22 M18 ICR1 SP COND EXT

```
=====================================================================
Acq. Operator   :                          Seq. Line :  20
Acq. Instrument : Lucy                      Location : Vial 20
Injection Date  : 12-Jul-11, 23:36:50            Inj :   1
                                          Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



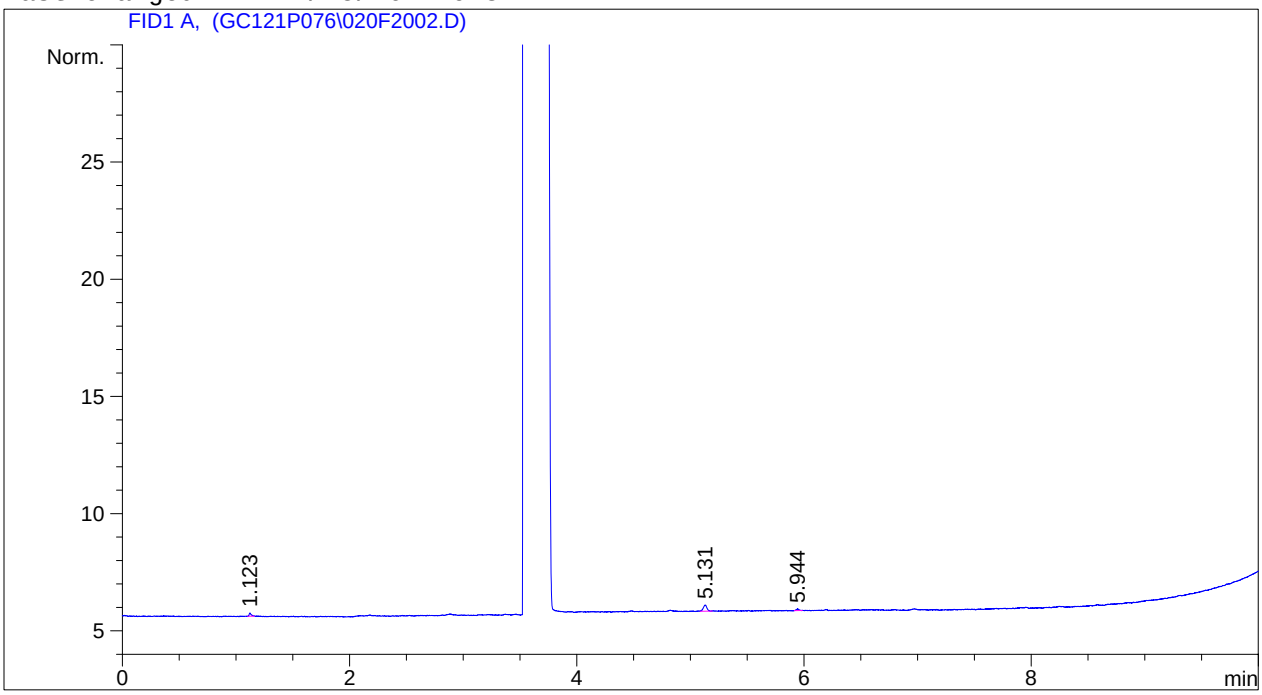

```
=====================================================================
                    External Standard Report
=====================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\020F2002.D
Sample Name: 0611-22 M18 ICR1 SP COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  20
Acq. Instrument : Lucy                              Location : Vial 20
Injection Date  : 12-Jul-11, 23:58:16                    Inj :   2
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



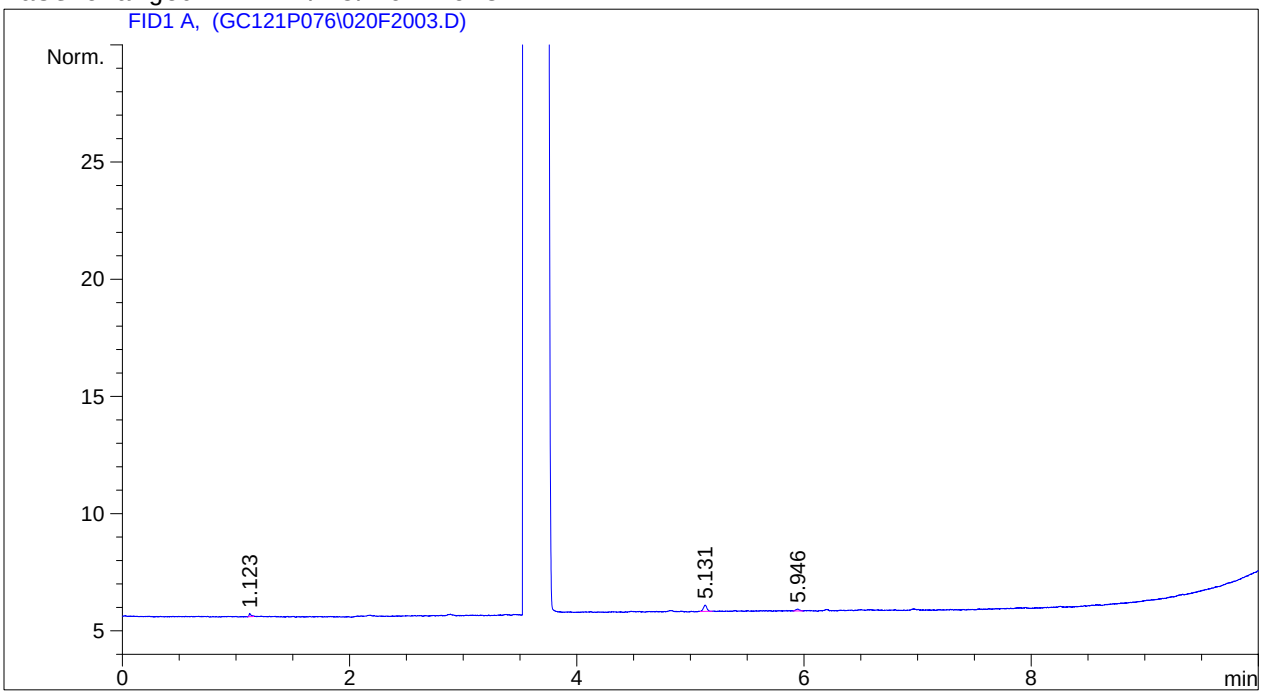

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\020F2003.D
Sample Name: 0611-22 M18 ICR1 SP COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  20
Acq. Instrument : Lucy                              Location : Vial 20
Injection Date  : 13-Jul-11, 00:19:34                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



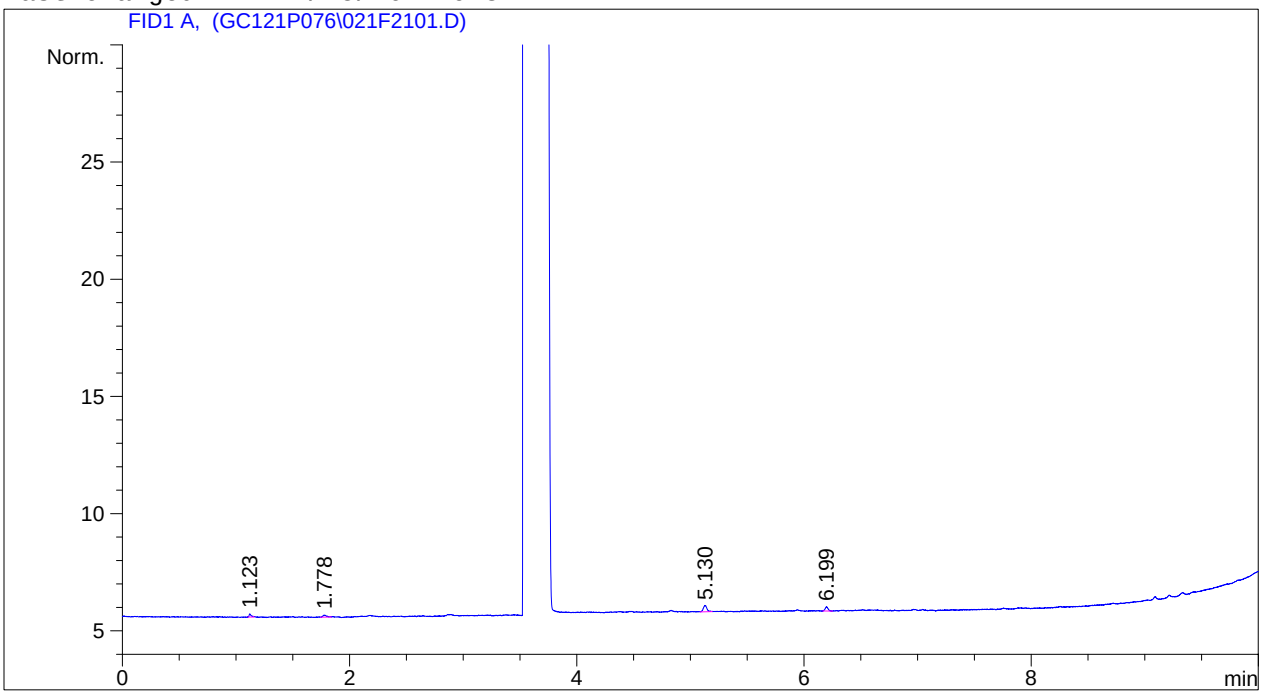

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

```
Totals :                                0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\021F2101.D
Sample Name: 0611-22 M18 ICR1 SP XAD FH

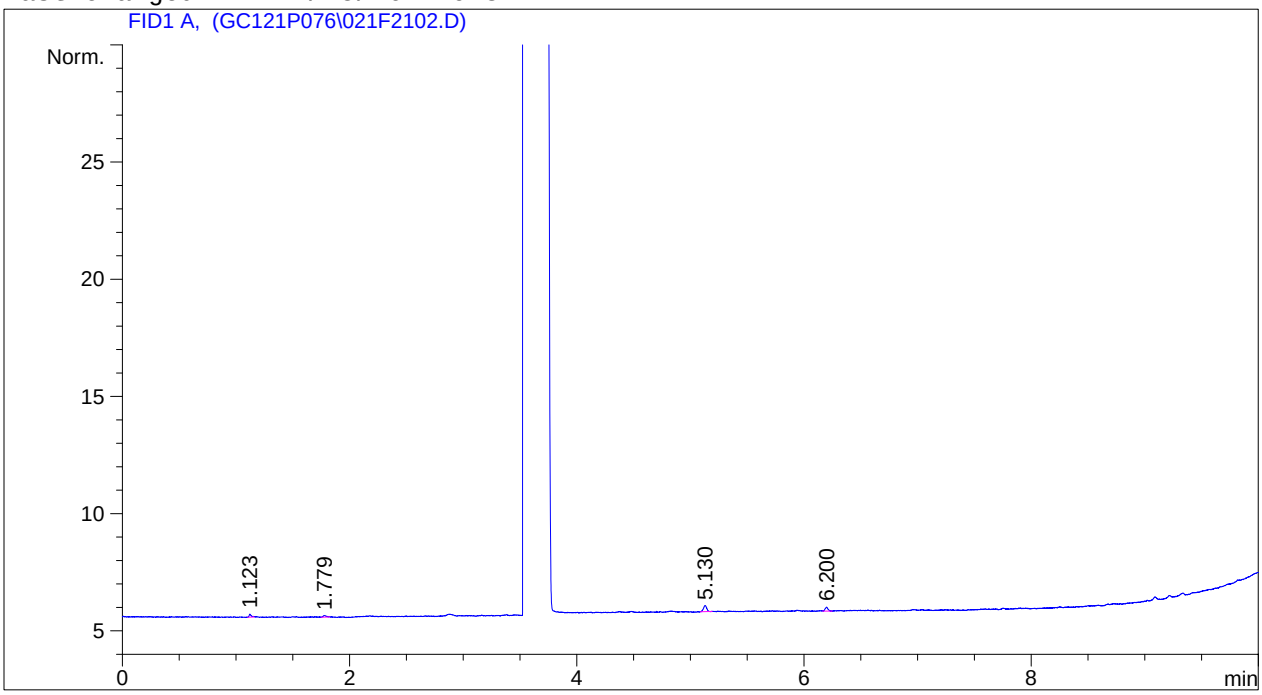
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  21
Acq. Instrument : Lucy                              Location : Vial 21
Injection Date  : 13-Jul-11, 00:40:49                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\021F2102.D
Sample Name: 0611-22 M18 ICR1 SP XAD FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  21
Acq. Instrument : Lucy                              Location : Vial 21
Injection Date  : 13-Jul-11, 01:02:10                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```

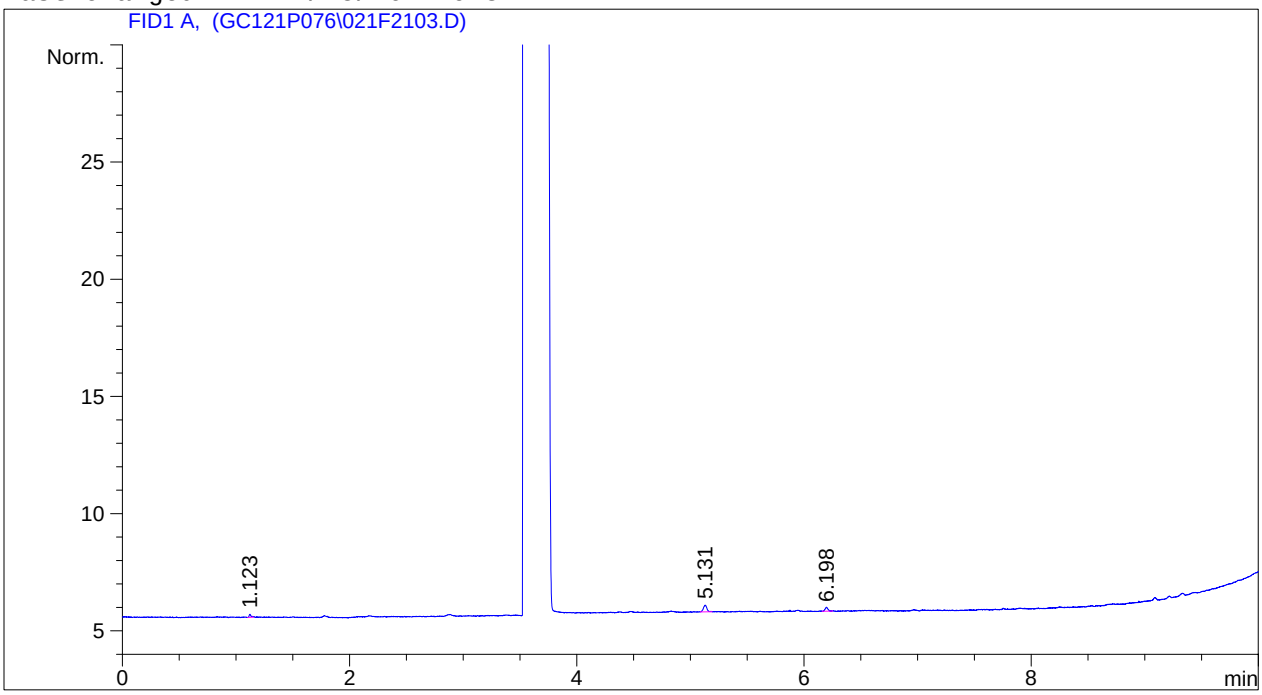



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\021F2103.D
Sample Name: 0611-22 M18 ICR1 SP XAD FH

==========

Acq. Operator : Seq. Line : 21
Acq. Instrument : Lucy Location : Vial 21
Injection Date : 13-Jul-11, 01:23:36 Inj : 3
Inj Volume : External
Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\022F2201.D
Sample Name: 0611-22 M18 ICR1 SP XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  22
Acq. Instrument : Lucy                              Location : Vial 22
Injection Date  : 13-Jul-11, 01:45:02                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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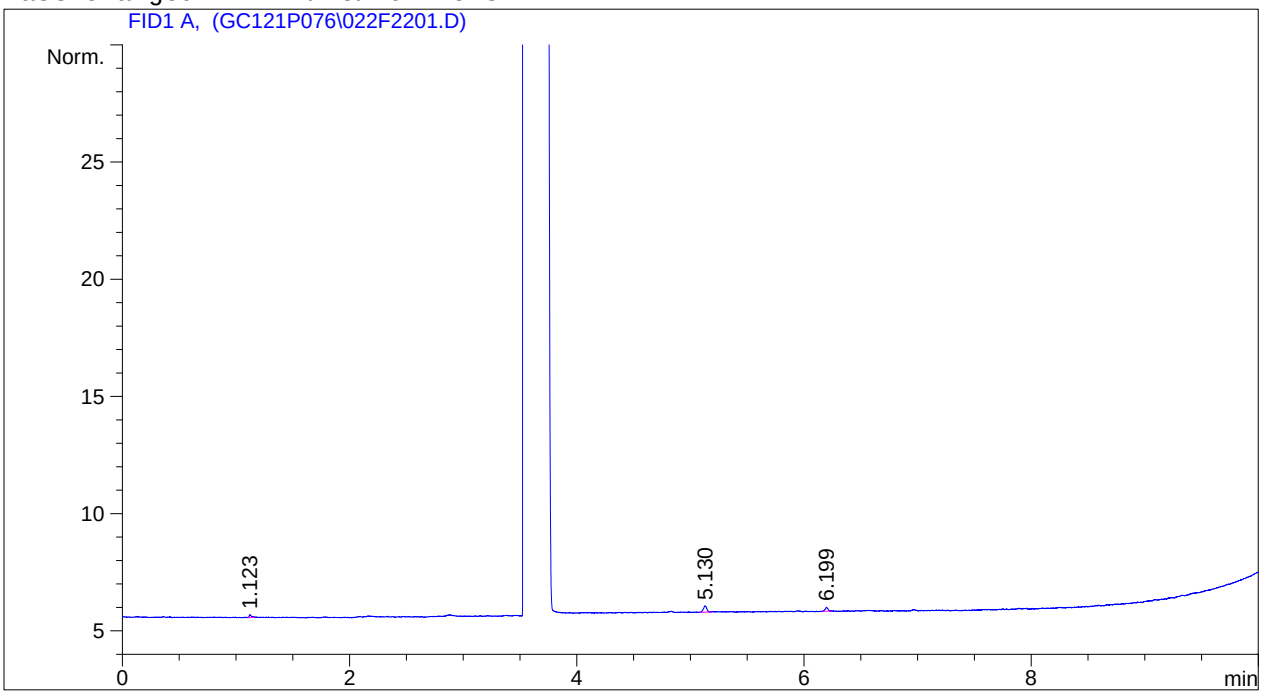



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

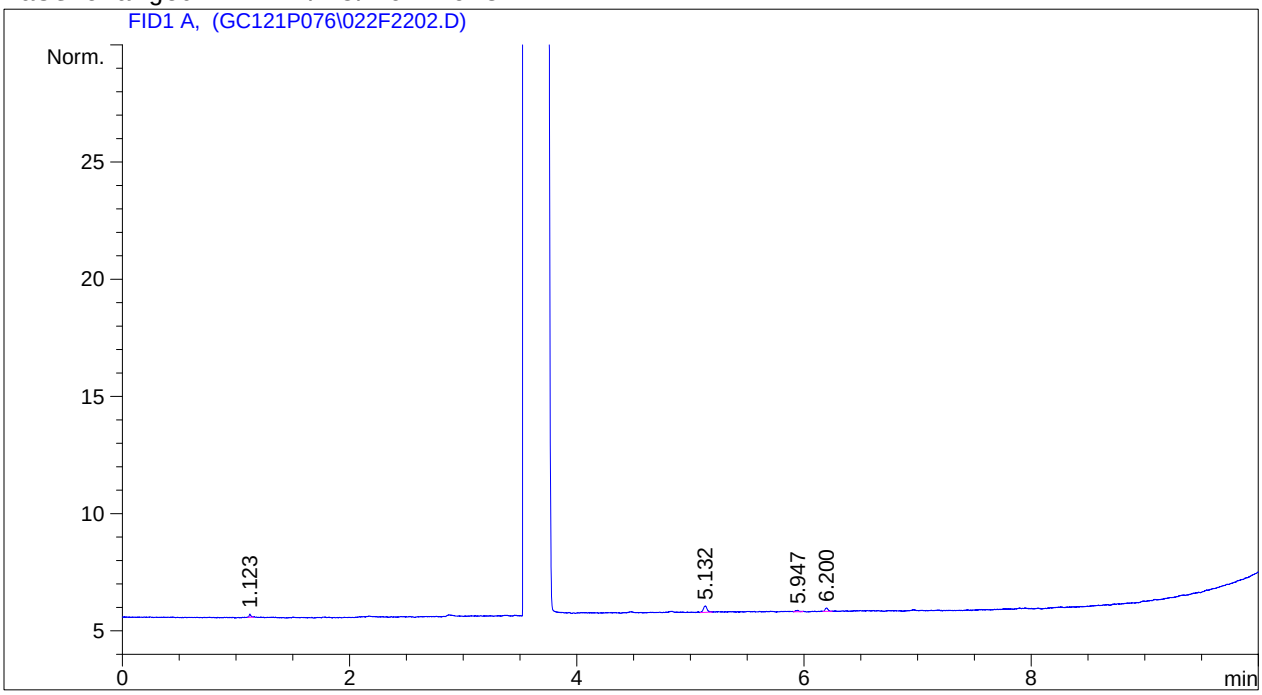
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\022F2202.D
Sample Name: 0611-22 M18 ICR1 SP XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  22
Acq. Instrument : Lucy                              Location : Vial 22
Injection Date  : 13-Jul-11, 02:06:29                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

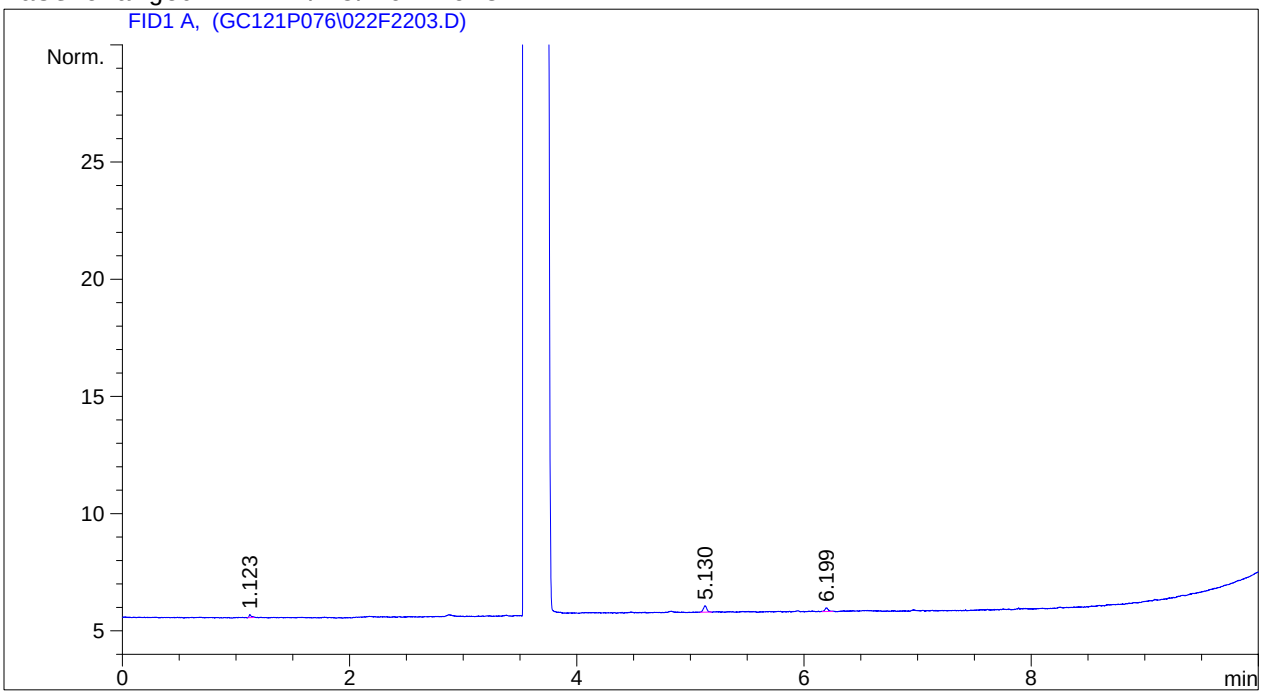
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\022F2203.D
Sample Name: 0611-22 M18 ICR1 SP XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  22
Acq. Instrument : Lucy                              Location : Vial 22
Injection Date  : 13-Jul-11, 02:27:54                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

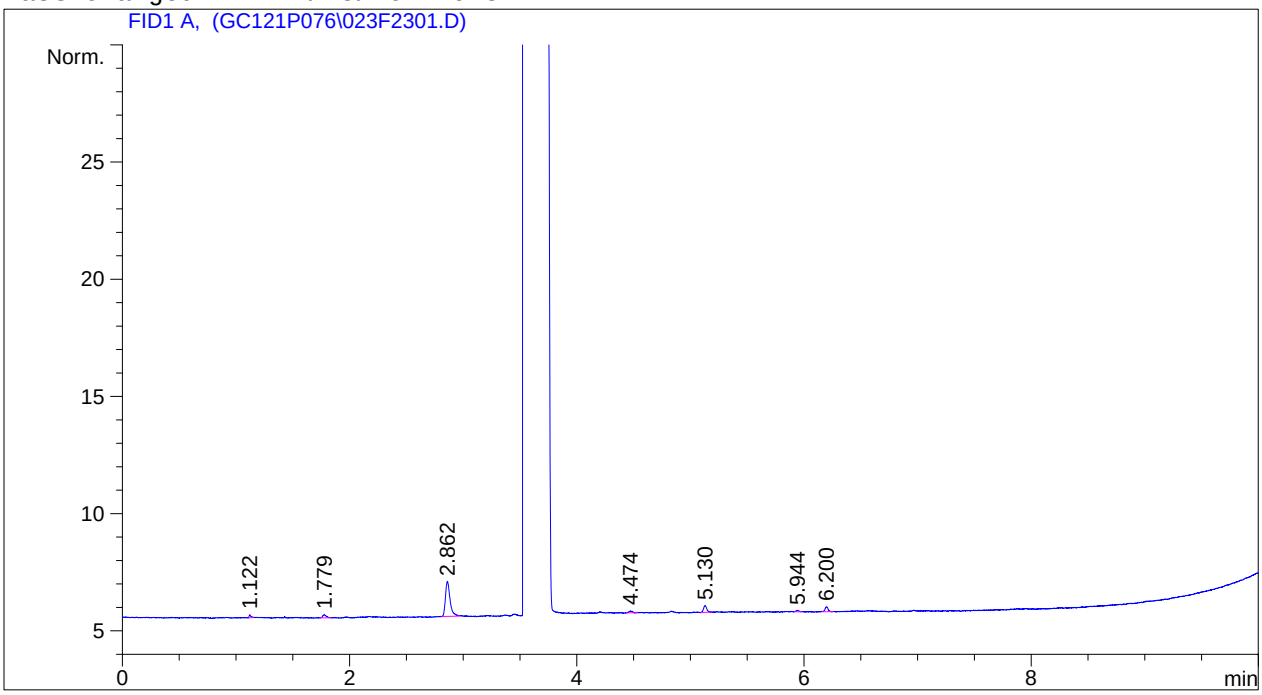
RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\023F2301.D
Sample Name: 0611-22 M18 ICR1 SP CT FH

==========

Acq. Operator : Seq. Line : 23
Acq. Instrument : Lucy Location : Vial 23
Injection Date : 13-Jul-11, 02:49:25 Inj : 1
Inj Volume : External
Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\023F2302.D
Sample Name: 0611-22 M18 ICR1 SP CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  23
Acq. Instrument : Lucy                              Location : Vial 23
Injection Date  : 13-Jul-11, 03:10:53                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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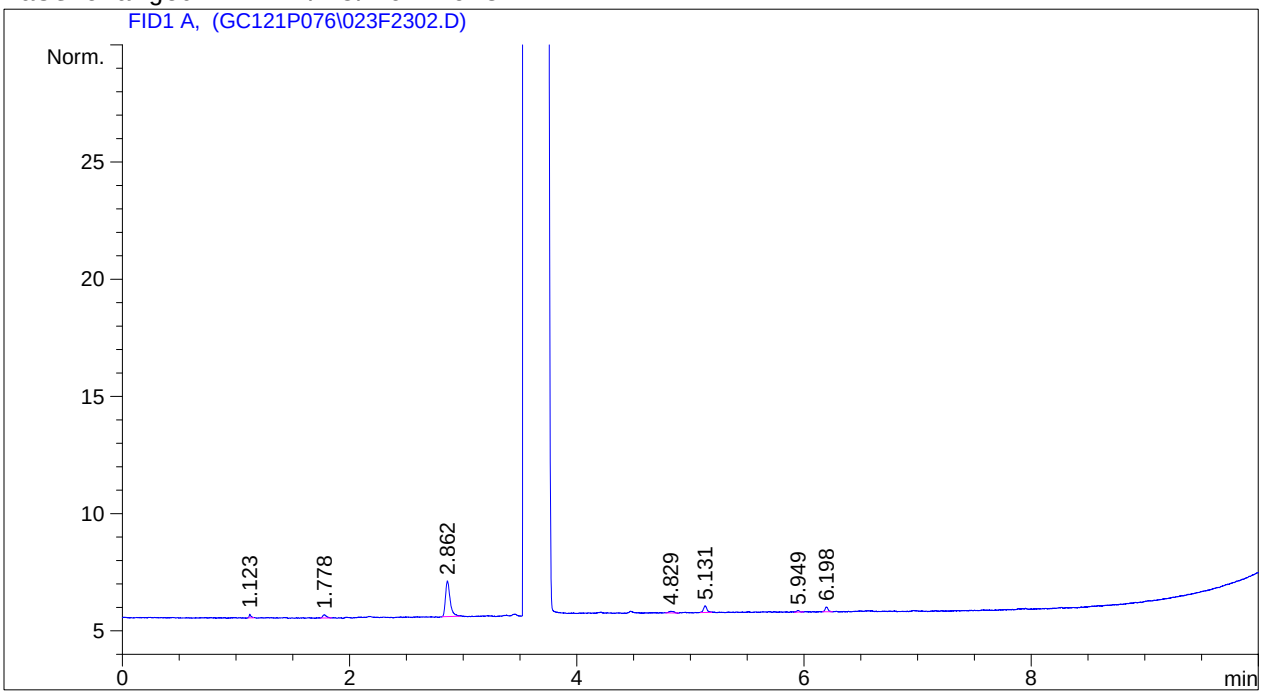
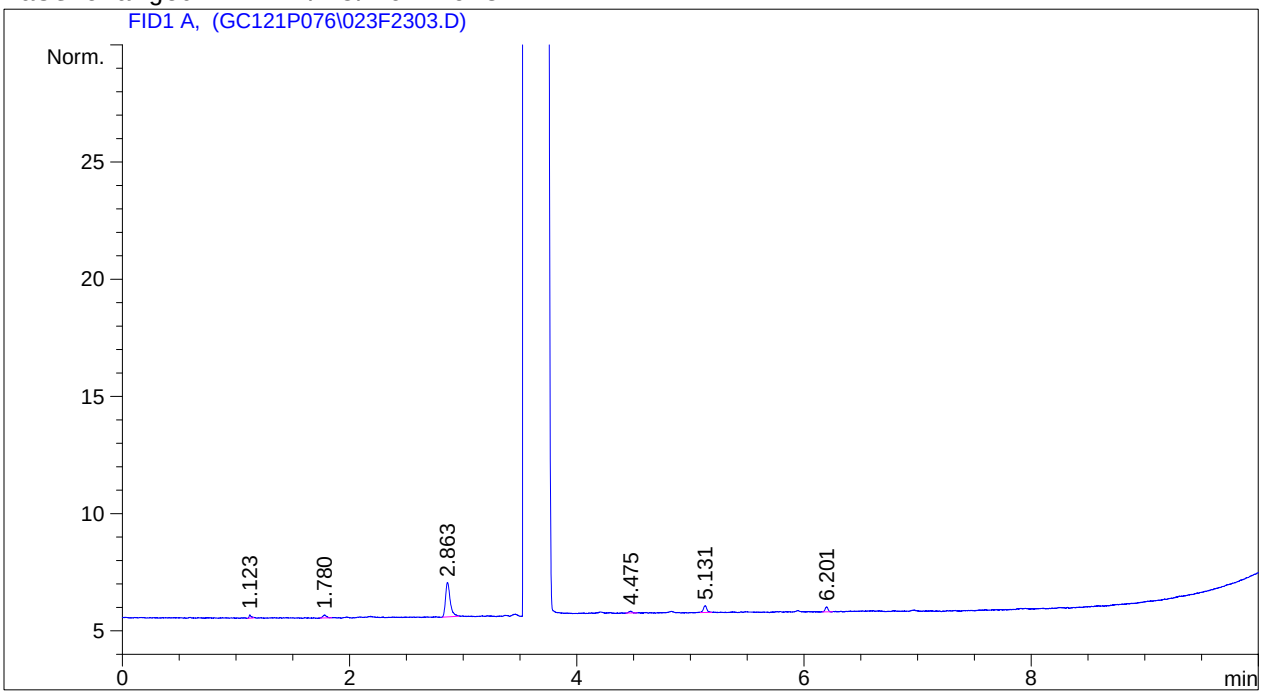



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\023F2303.D
Sample Name: 0611-22 M18 ICR1 SP CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  23
Acq. Instrument : Lucy                              Location : Vial 23
Injection Date  : 13-Jul-11, 03:32:20                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



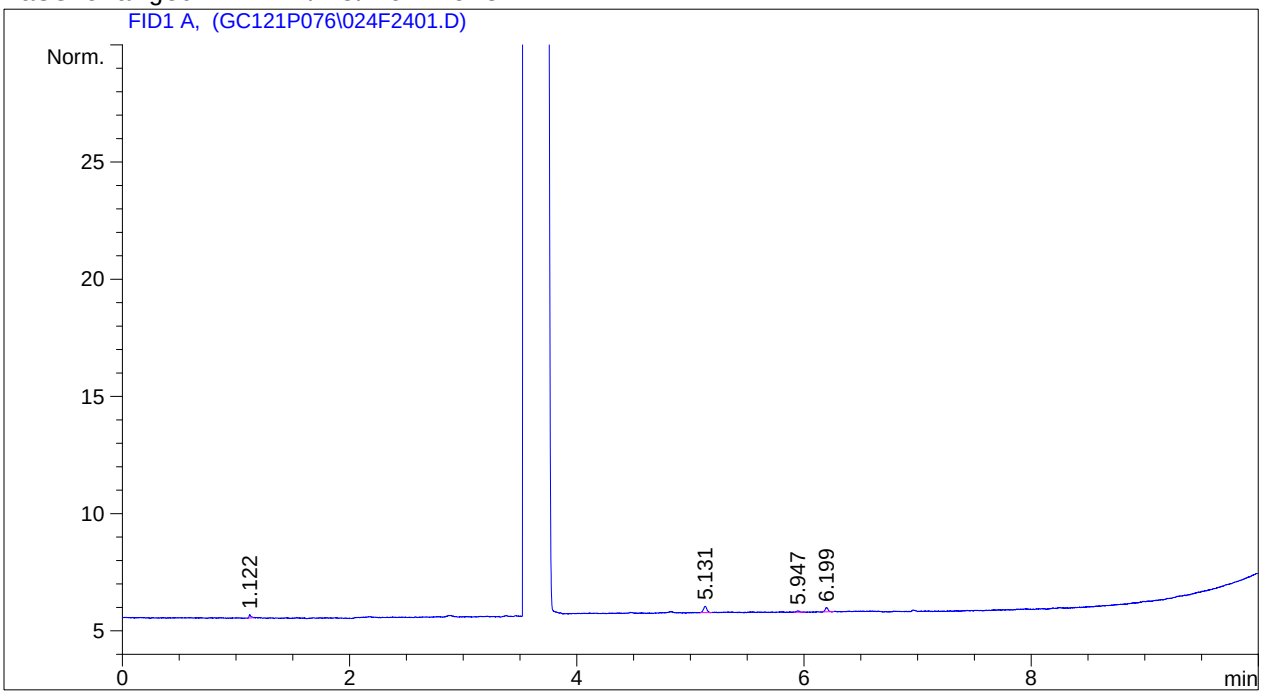

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\024F2401.D
Sample Name: 0611-22 M18 ICR1 SP CT BH

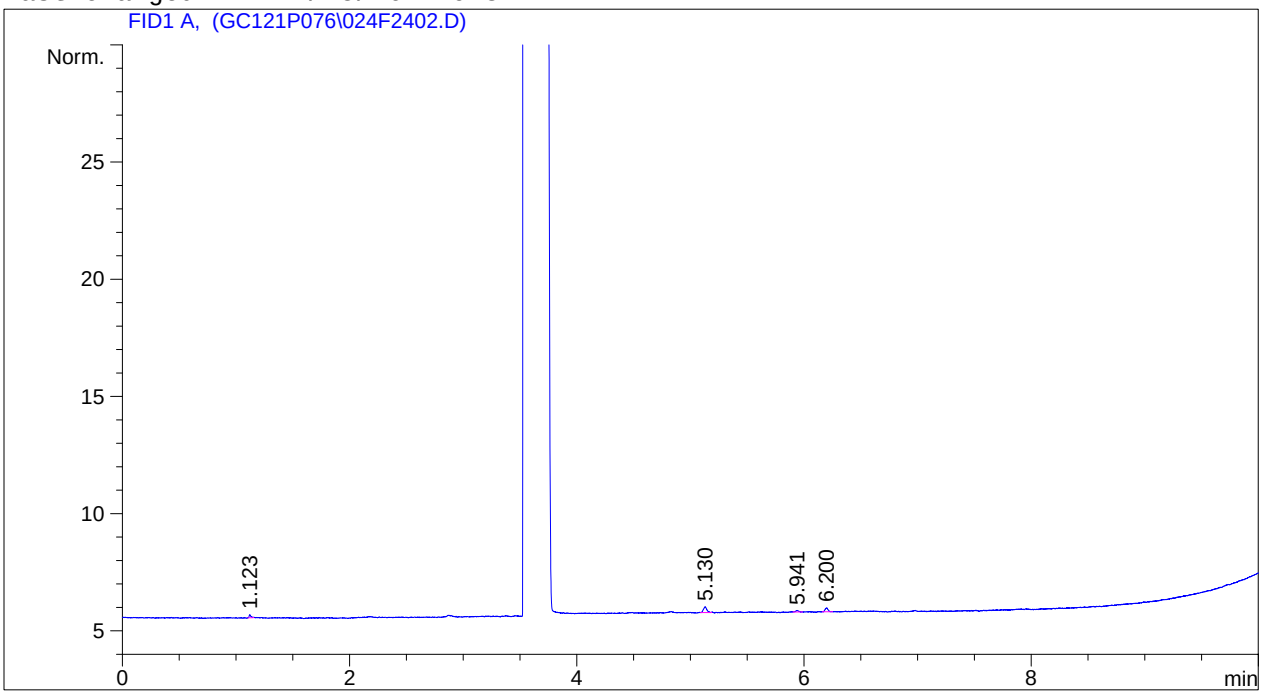
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  24
Acq. Instrument : Lucy                              Location : Vial 24
Injection Date  : 13-Jul-11, 03:53:45                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\024F2402.D
Sample Name: 0611-22 M18 ICR1 SP CT BH

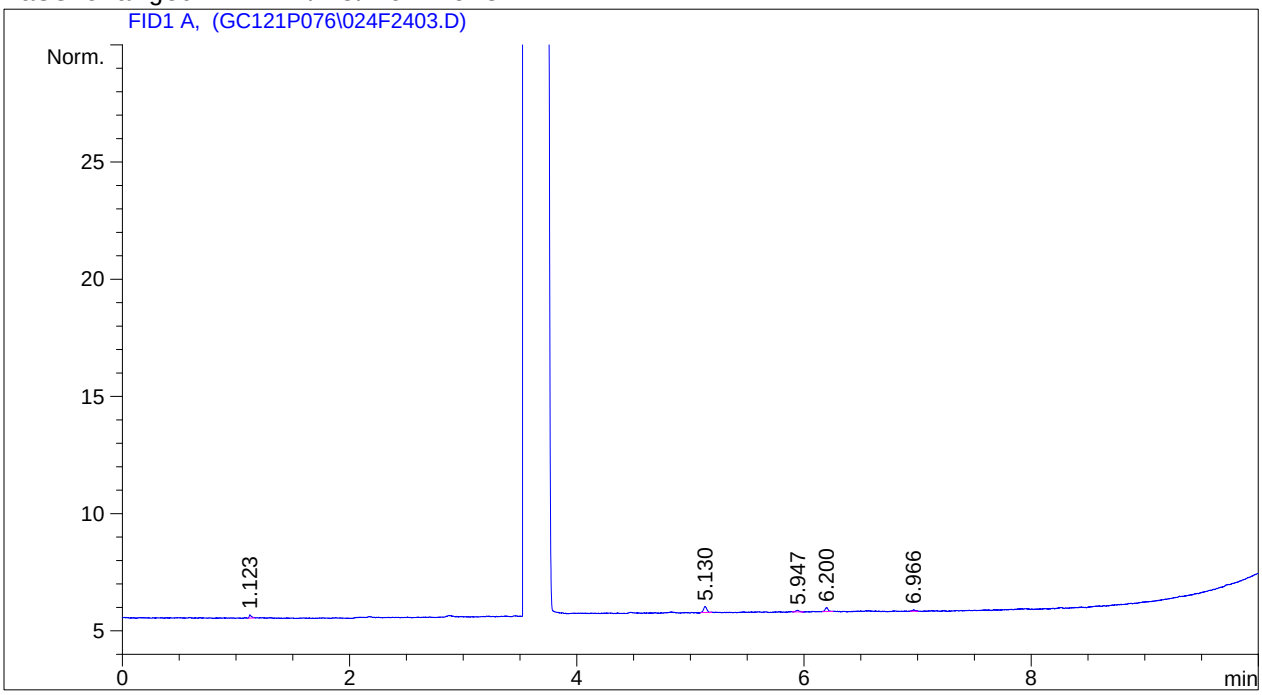
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  24
Acq. Instrument : Lucy                              Location : Vial 24
Injection Date  : 13-Jul-11, 04:15:08                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\024F2403.D
Sample Name: 0611-22 M18 ICR1 SP CT BH

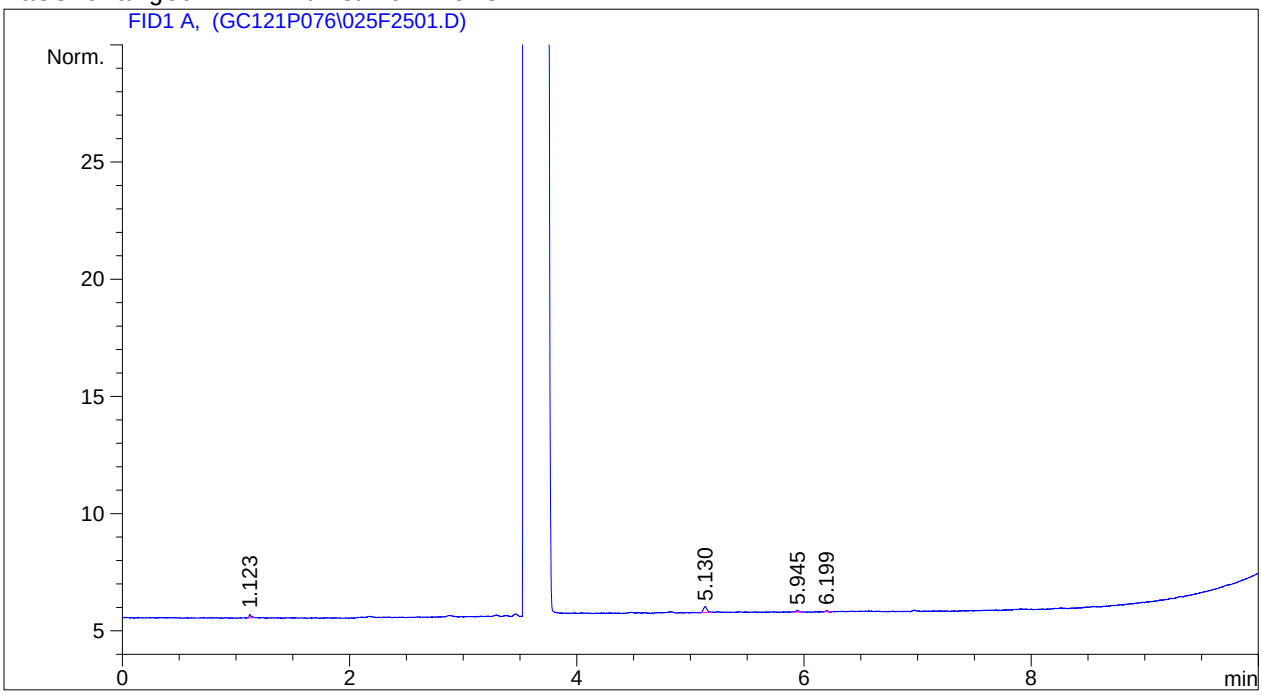
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  24
Acq. Instrument : Lucy                              Location : Vial 24
Injection Date  : 13-Jul-11, 04:36:38                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\025F2501.D
Sample Name: 0611-22 M18 ICR2 COND EXT

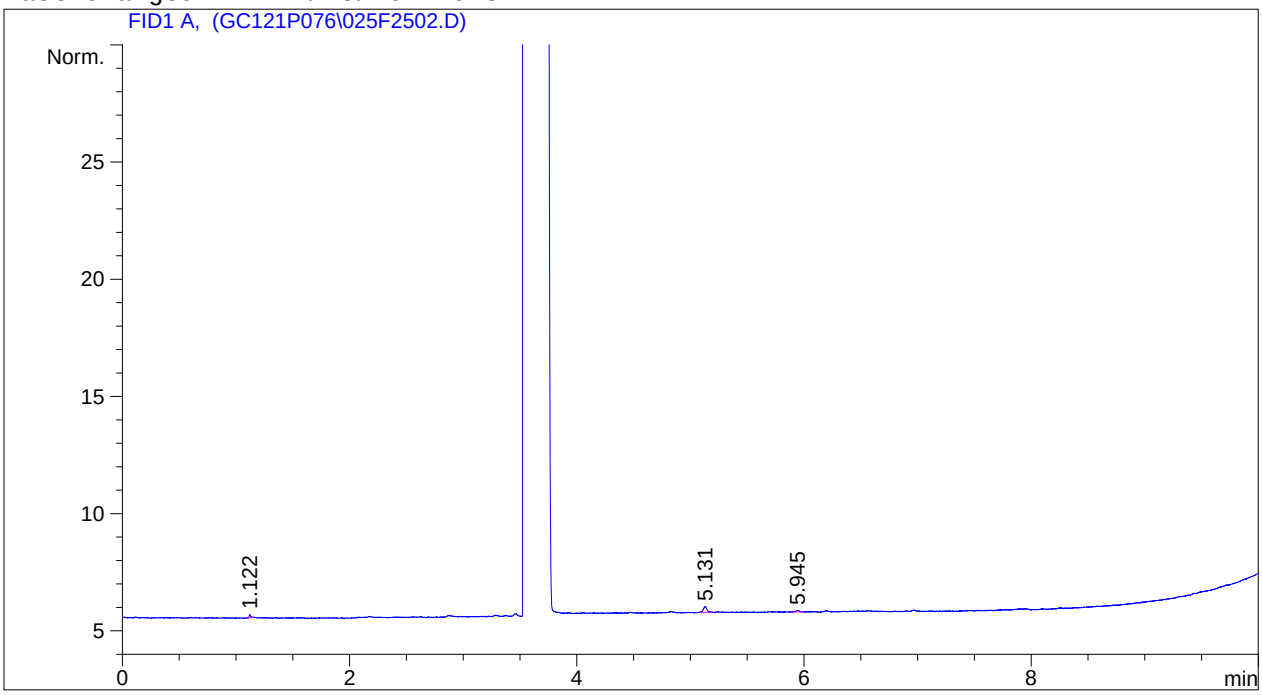
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  25
Acq. Instrument : Lucy                              Location : Vial 25
Injection Date  : 13-Jul-11, 04:58:11                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\025F2502.D
Sample Name: 0611-22 M18 ICR2 COND EXT

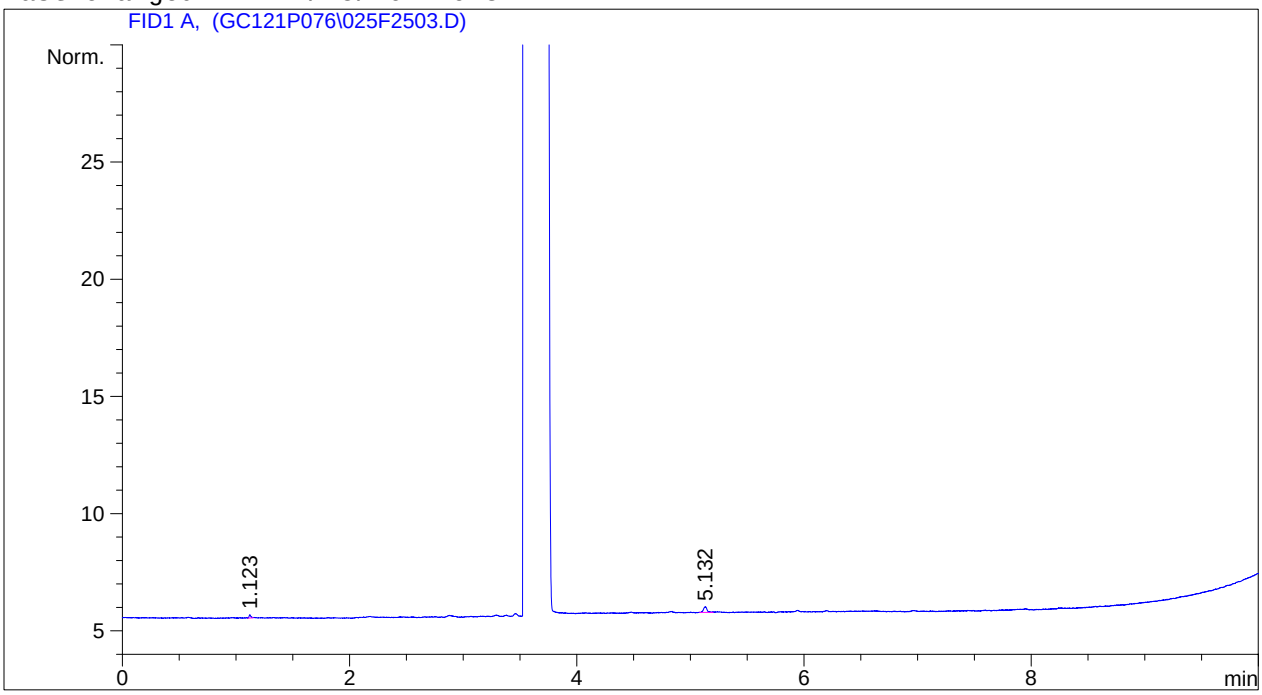
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  25
Acq. Instrument : Lucy                              Location : Vial 25
Injection Date  : 13-Jul-11, 05:19:53                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\025F2503.D
Sample Name: 0611-22 M18 ICR2 COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  25
Acq. Instrument : Lucy                              Location : Vial 25
Injection Date  : 13-Jul-11, 05:41:36                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



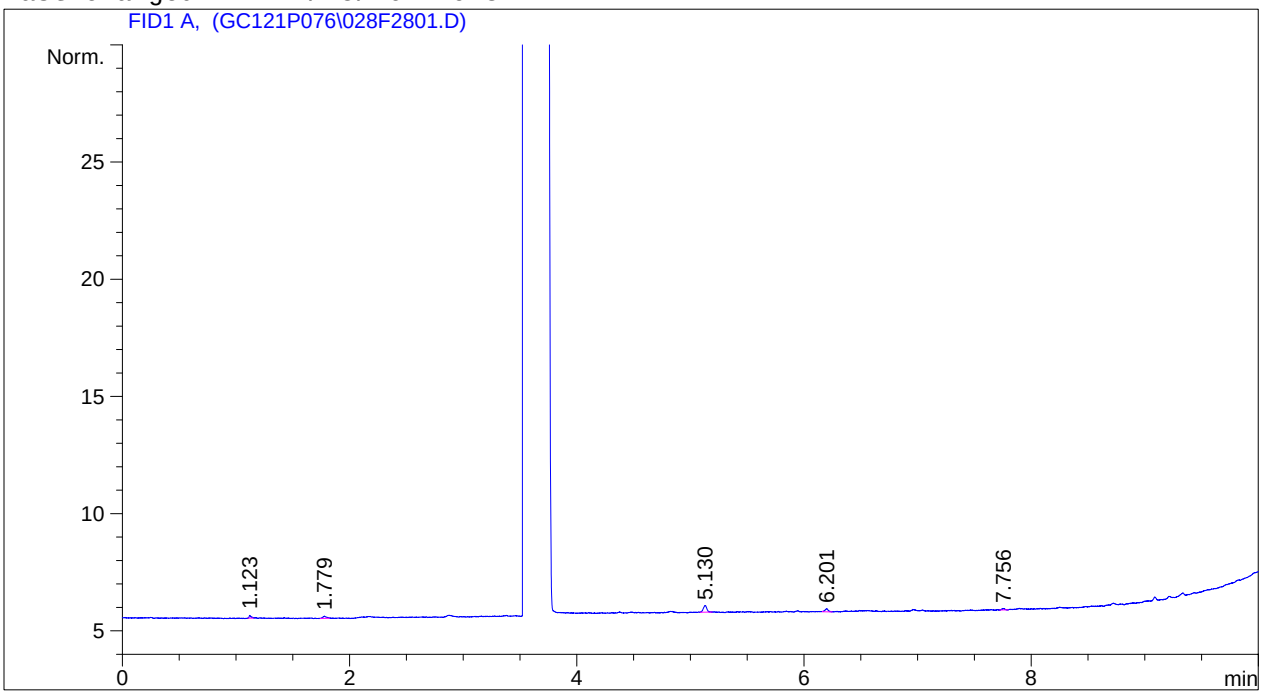

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\028F2801.D
Sample Name: 0611-22 M18 ICR2 XAD FH

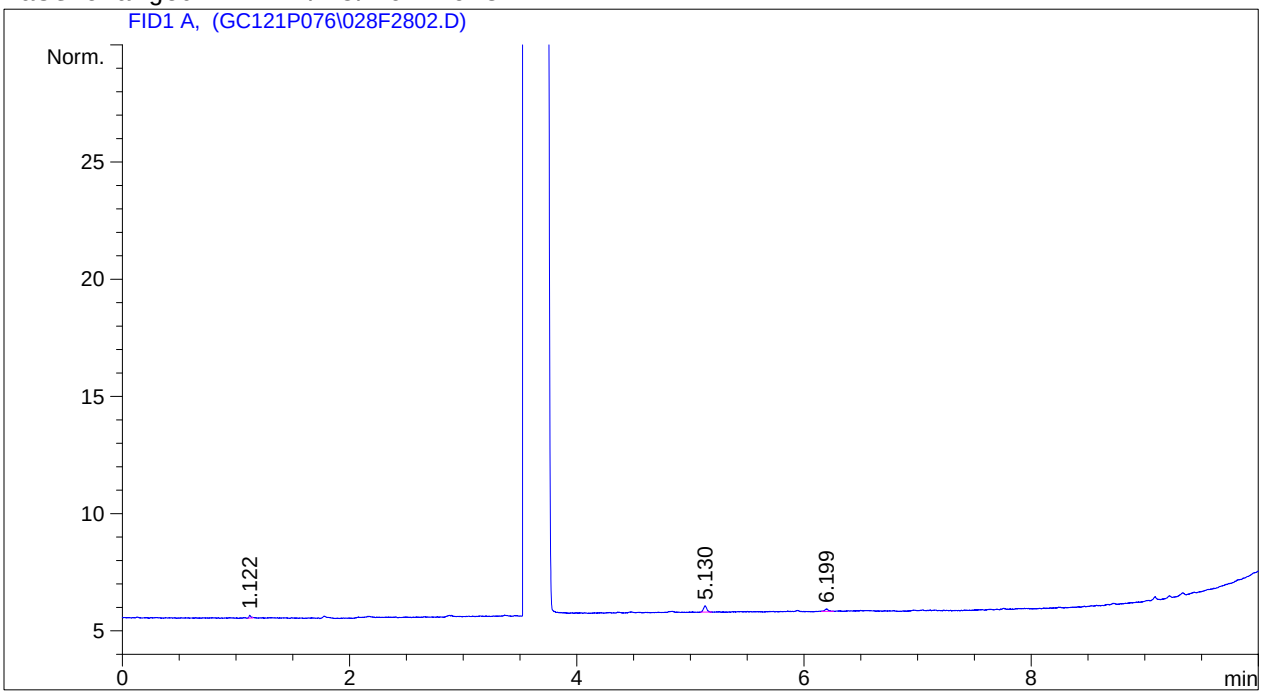
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  28
Acq. Instrument : Lucy                              Location : Vial 28
Injection Date  : 13-Jul-11, 08:13:48                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                  0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\028F2802.D
Sample Name: 0611-22 M18 ICR2 XAD FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  28
Acq. Instrument : Lucy                              Location : Vial 28
Injection Date  : 13-Jul-11, 08:35:44                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



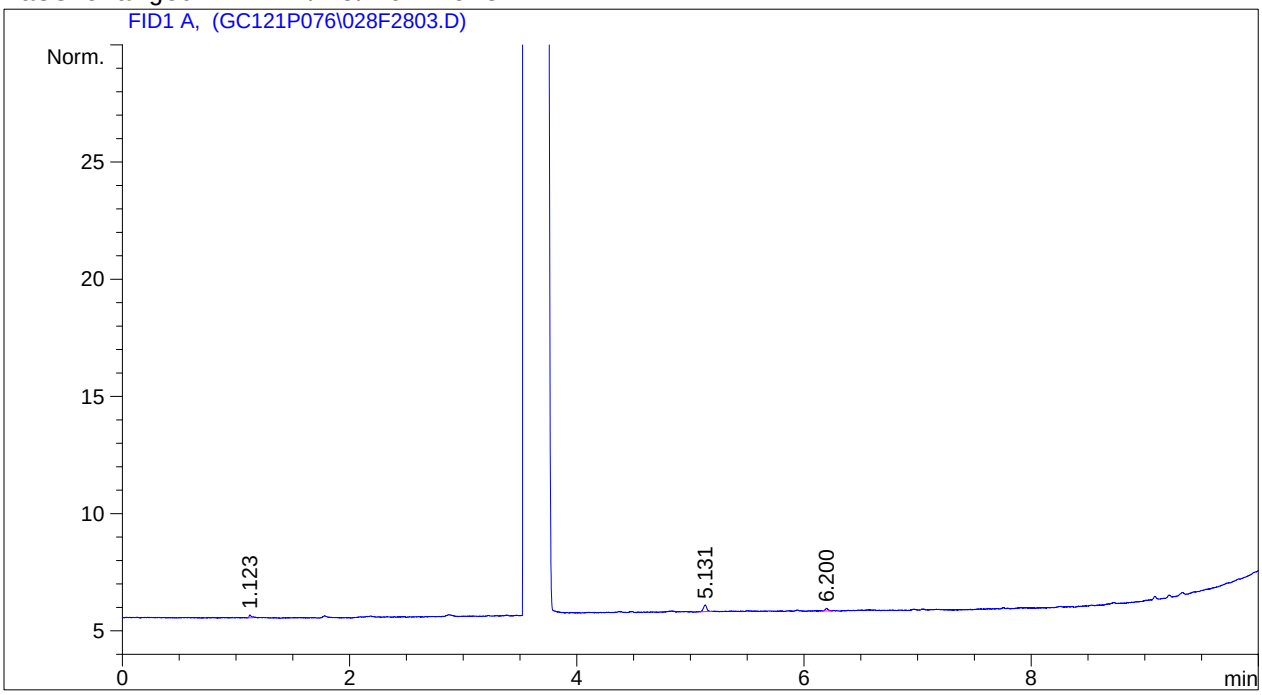

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\028F2803.D
Sample Name: 0611-22 M18 ICR2 XAD FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  28
Acq. Instrument : Lucy                              Location : Vial 28
Injection Date  : 13-Jul-11, 08:57:41                    Inj :   3
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



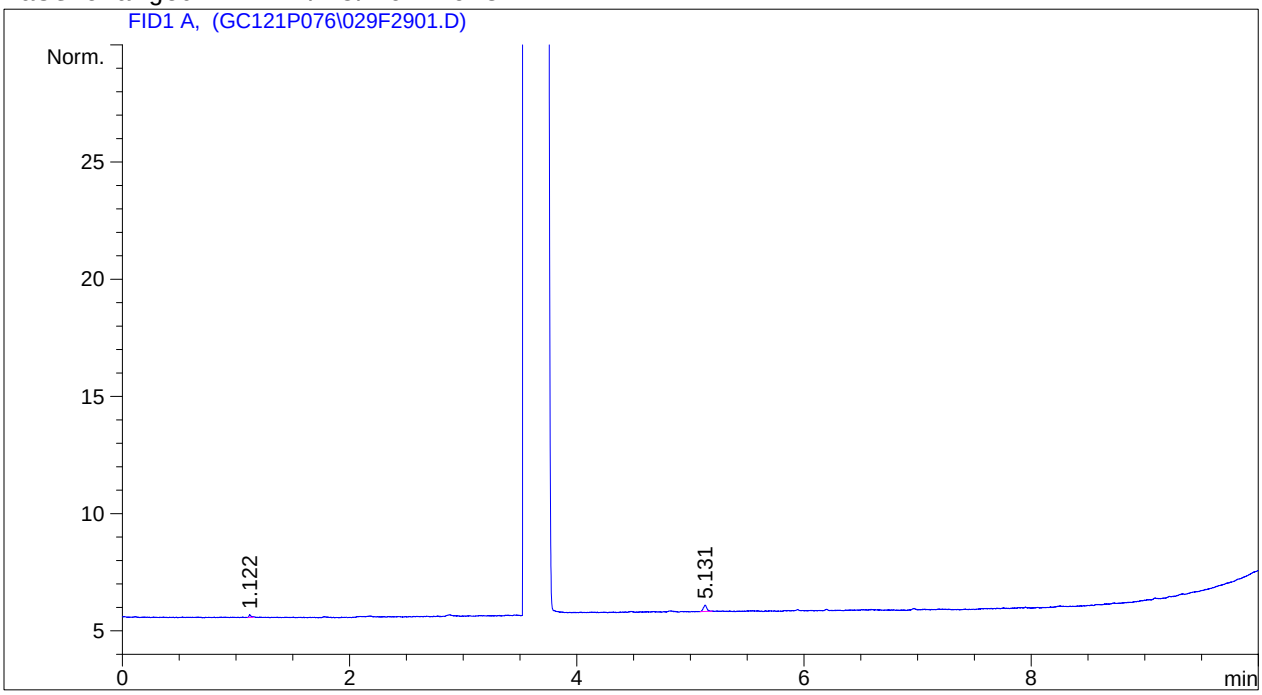

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\029F2901.D
Sample Name: 0611-22 M18 ICR2 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  29
Acq. Instrument : Lucy                              Location : Vial 29
Injection Date  : 13-Jul-11, 09:19:29                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



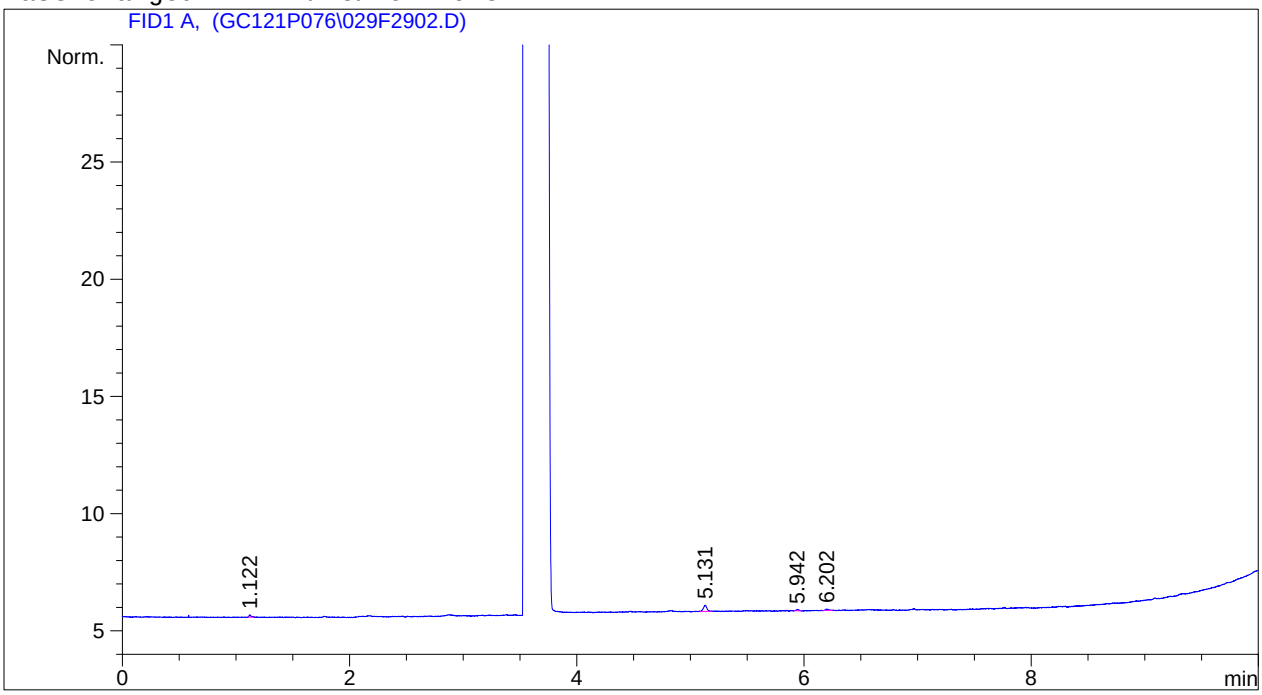

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\029F2902.D
Sample Name: 0611-22 M18 ICR2 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  29
Acq. Instrument : Lucy                              Location : Vial 29
Injection Date  : 13-Jul-11, 09:41:15                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```

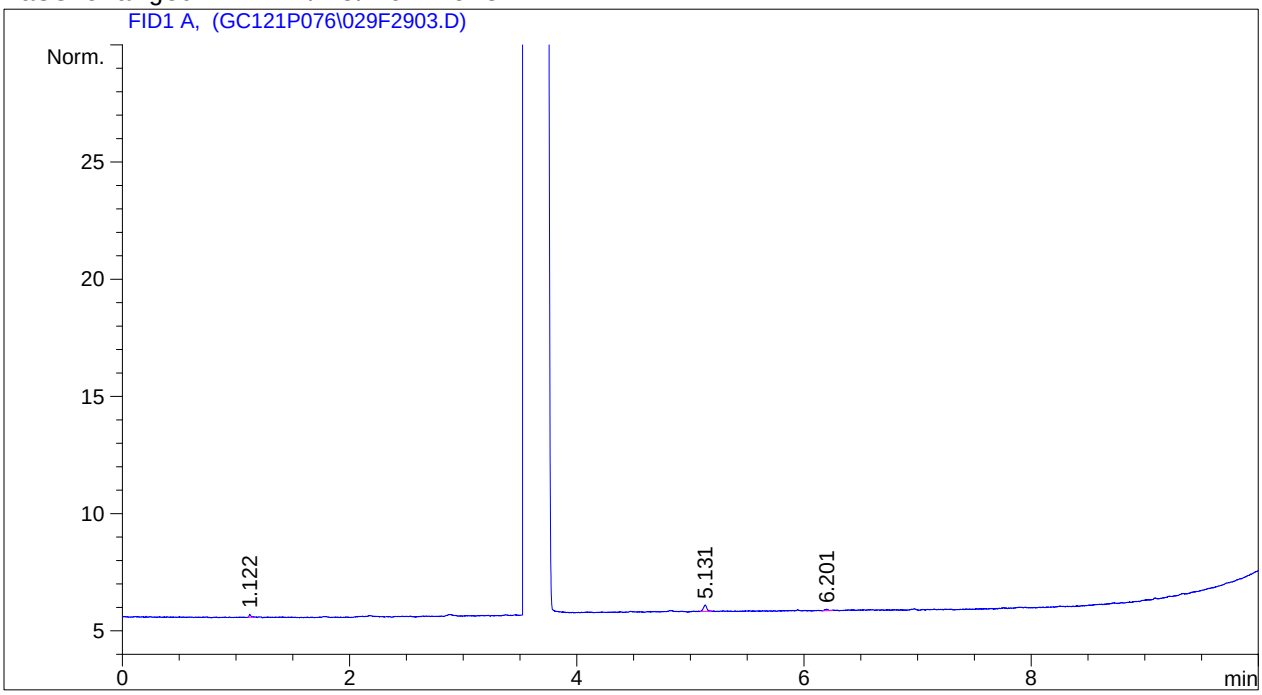



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\029F2903.D
Sample Name: 0611-22 M18 ICR2 XAD BH

==========

Acq. Operator : Seq. Line : 29
Acq. Instrument : Lucy Location : Vial 29
Injection Date : 13-Jul-11, 10:03:03 Inj : 3
Inj Volume : External
Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



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External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

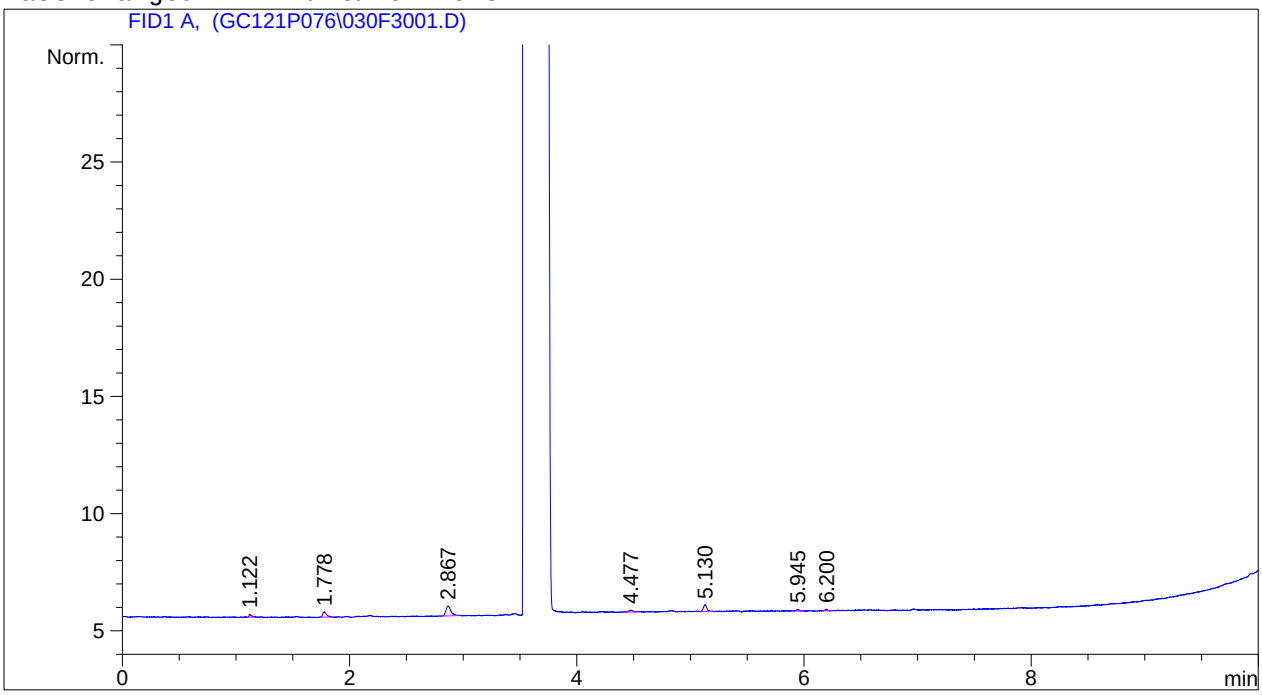
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\030F3001.D
Sample Name: 0611-22 M18 ICR2 CT FH

==========

Acq. Operator : Seq. Line : 30
Acq. Instrument : Lucy Location : Vial 30
Injection Date : 13-Jul-11, 10:24:55 Inj : 1
Inj Volume : External
Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



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External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

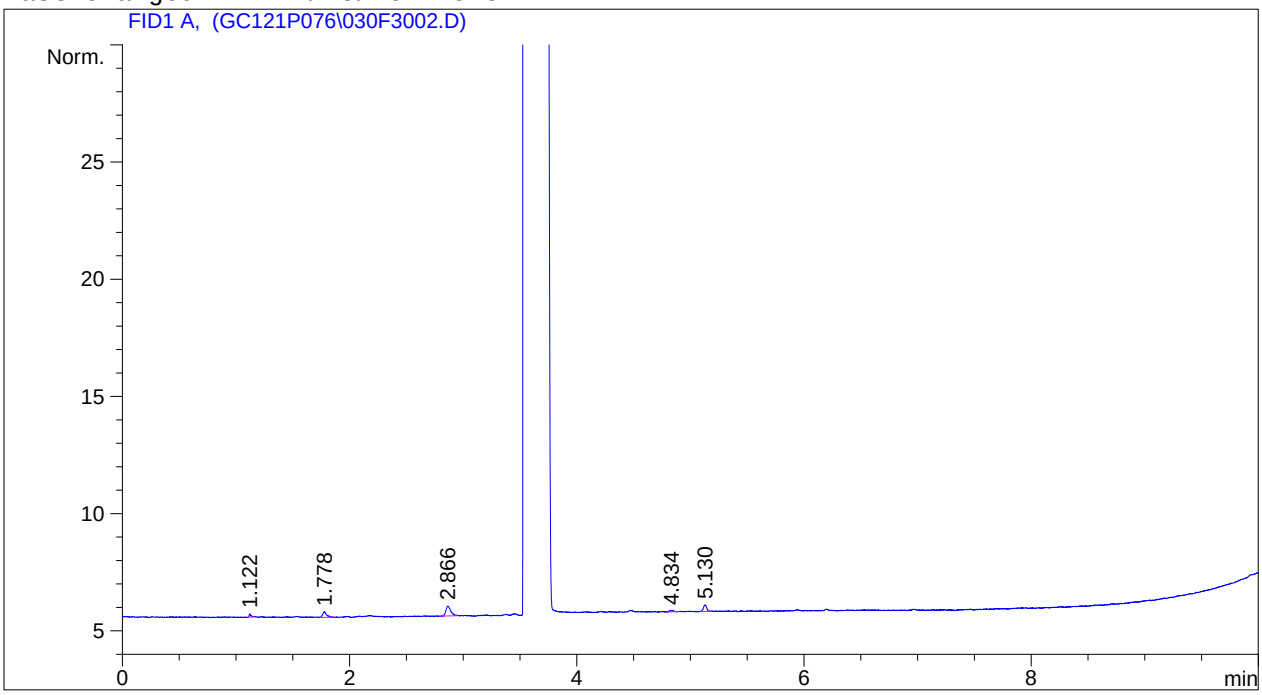
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\030F3002.D
Sample Name: 0611-22 M18 ICR2 CT FH

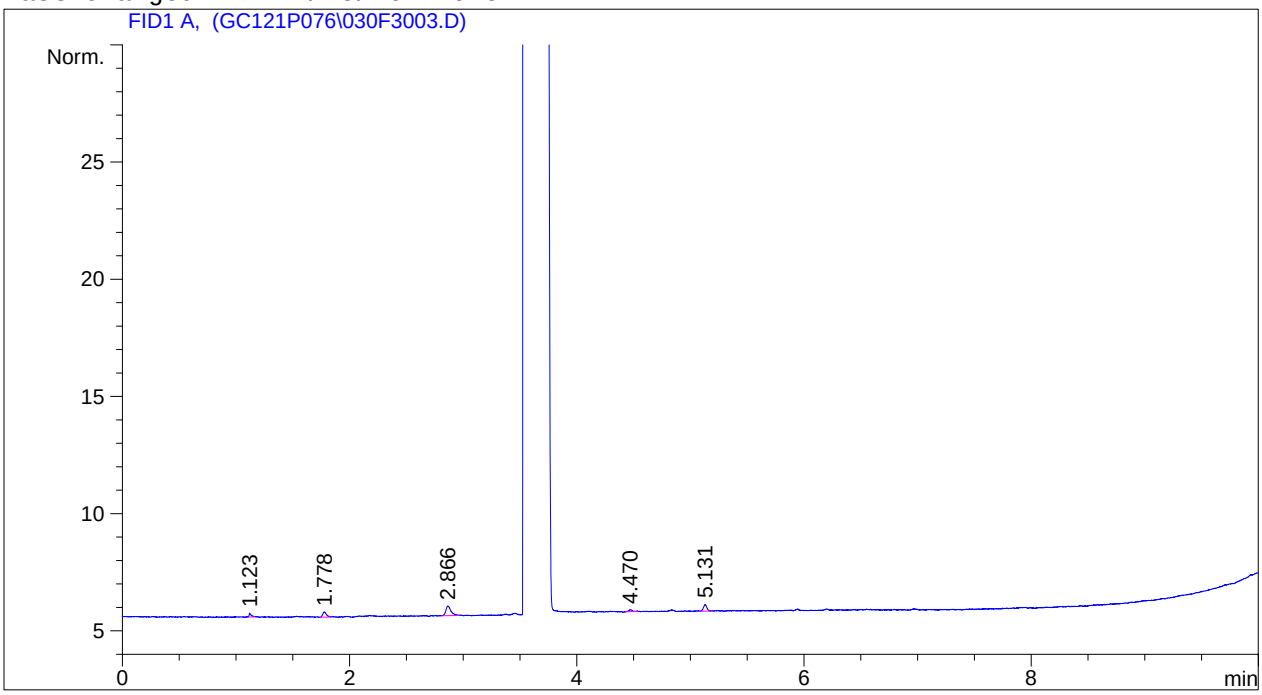
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  30
Acq. Instrument : Lucy                              Location : Vial 30
Injection Date  : 13-Jul-11, 10:46:45                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\030F3003.D
Sample Name: 0611-22 M18 ICR2 CT FH

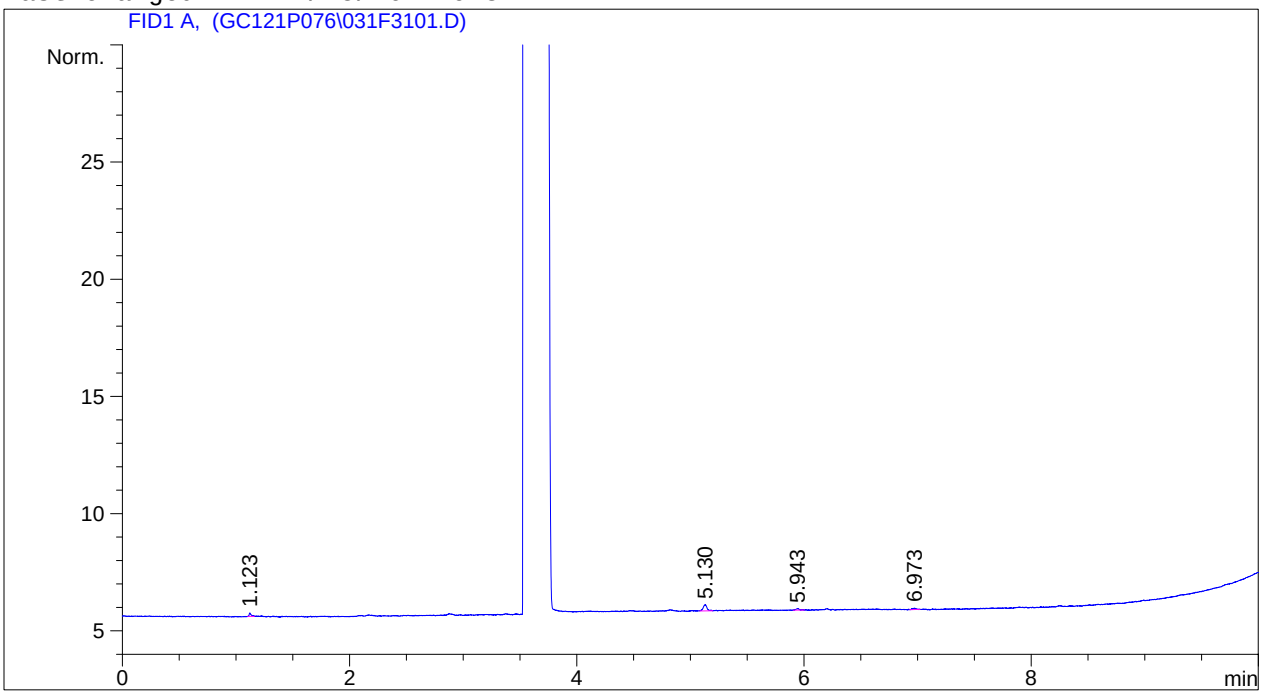
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  30
Acq. Instrument : Lucy                              Location : Vial 30
Injection Date  : 13-Jul-11, 11:08:52                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\031F3101.D
Sample Name: 0611-22 M18 ICR2 CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  31
Acq. Instrument : Lucy                              Location : Vial 31
Injection Date  : 13-Jul-11, 11:30:46                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```

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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

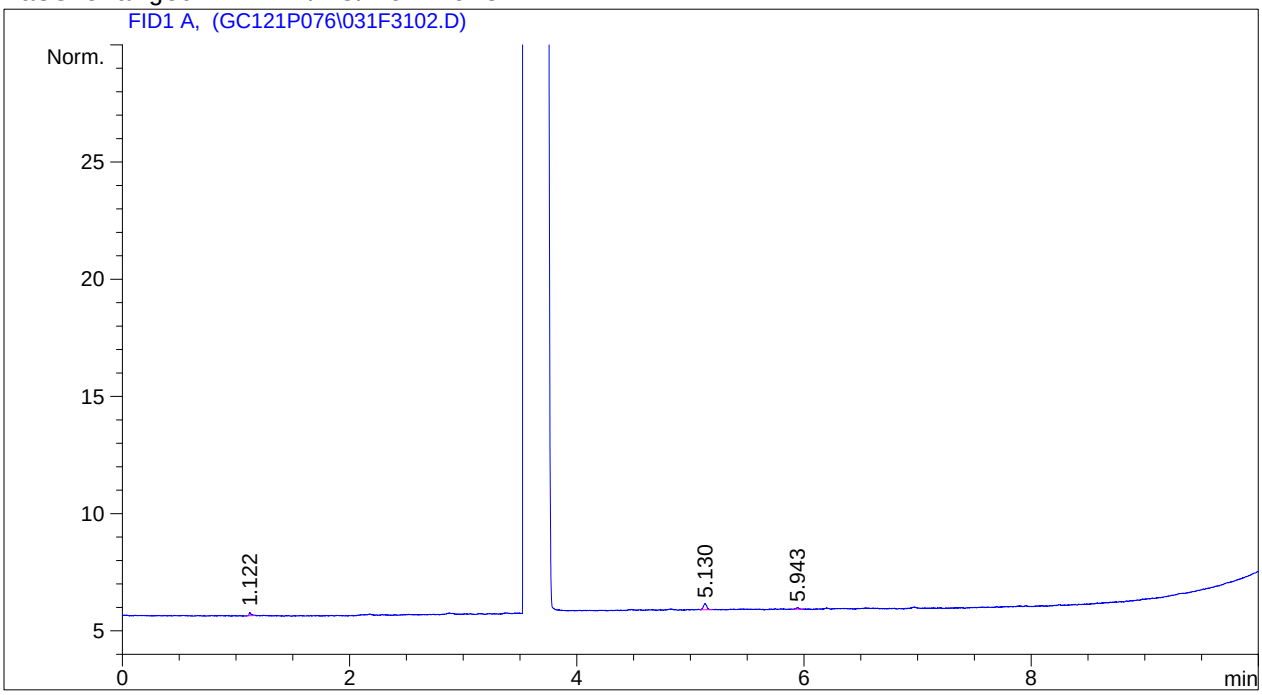
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\031F3102.D
Sample Name: 0611-22 M18 ICR2 CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  31
Acq. Instrument : Lucy                              Location : Vial 31
Injection Date  : 13-Jul-11, 11:52:37                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

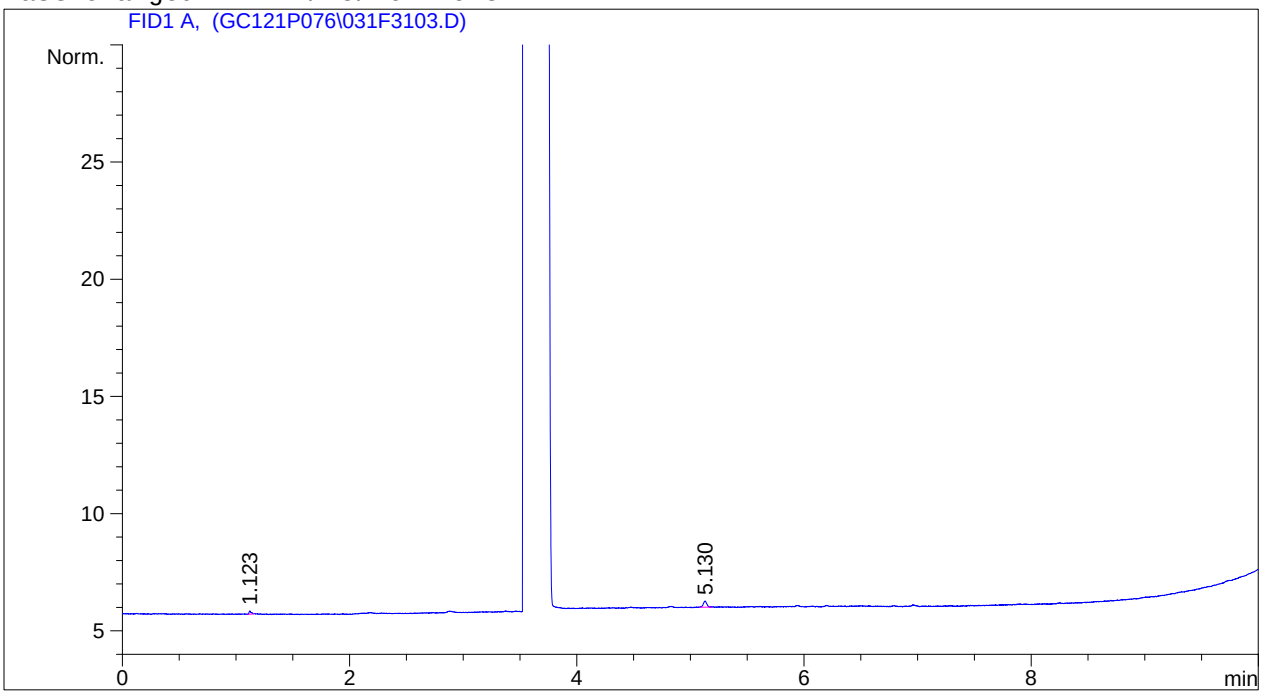
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\031F3103.D
Sample Name: 0611-22 M18 ICR2 CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  31
Acq. Instrument : Lucy                              Location : Vial 31
Injection Date  : 13-Jul-11, 12:15:16                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

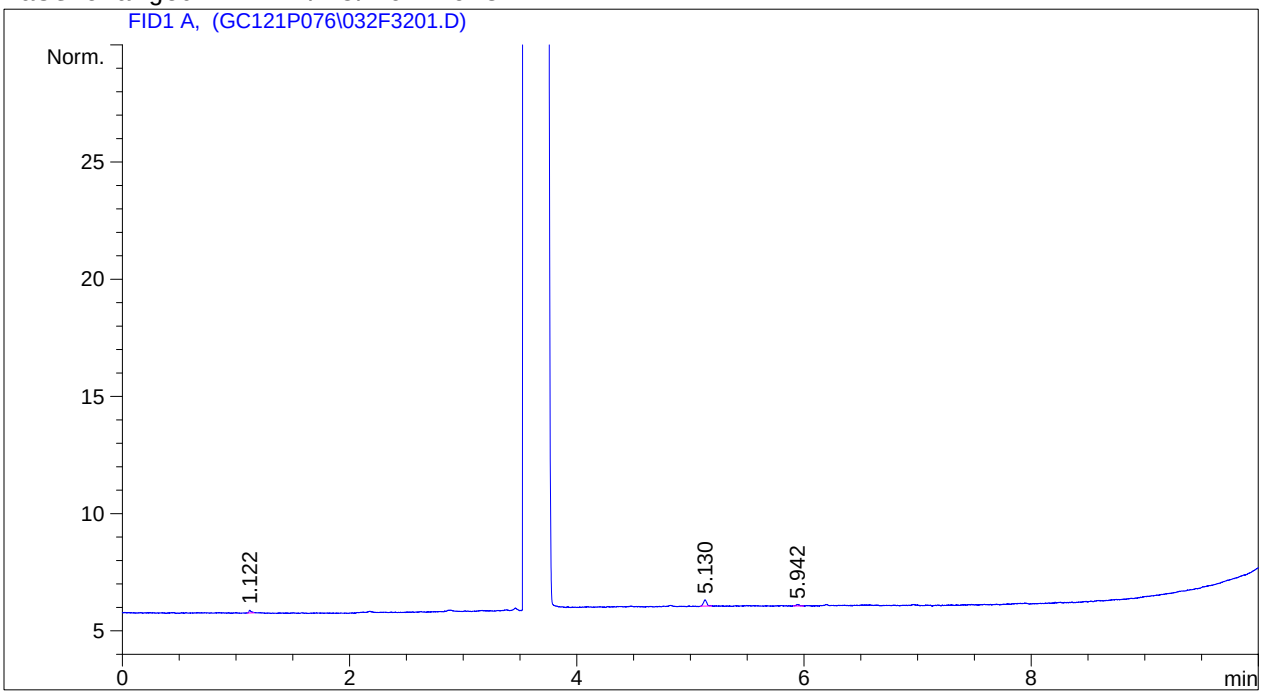
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\032F3201.D
Sample Name: 0611-22 M18 ICR2 SP COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  32
Acq. Instrument : Lucy                              Location : Vial 32
Injection Date  : 13-Jul-11, 12:37:53                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

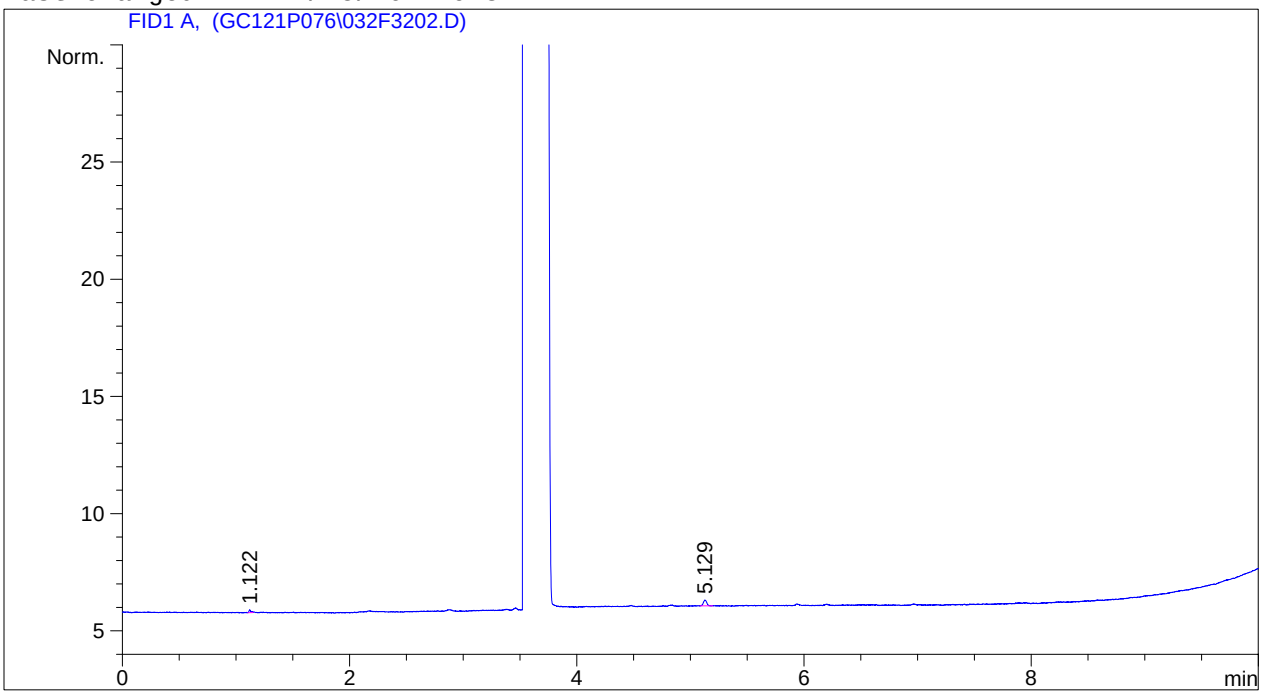
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\032F3202.D
Sample Name: 0611-22 M18 ICR2 SP COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  32
Acq. Instrument : Lucy                              Location : Vial 32
Injection Date  : 13-Jul-11, 13:00:24                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\032F3203.D
Sample Name: 0611-22 M18 ICR2 SP COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  32
Acq. Instrument : Lucy                              Location : Vial 32
Injection Date  : 13-Jul-11, 13:22:17                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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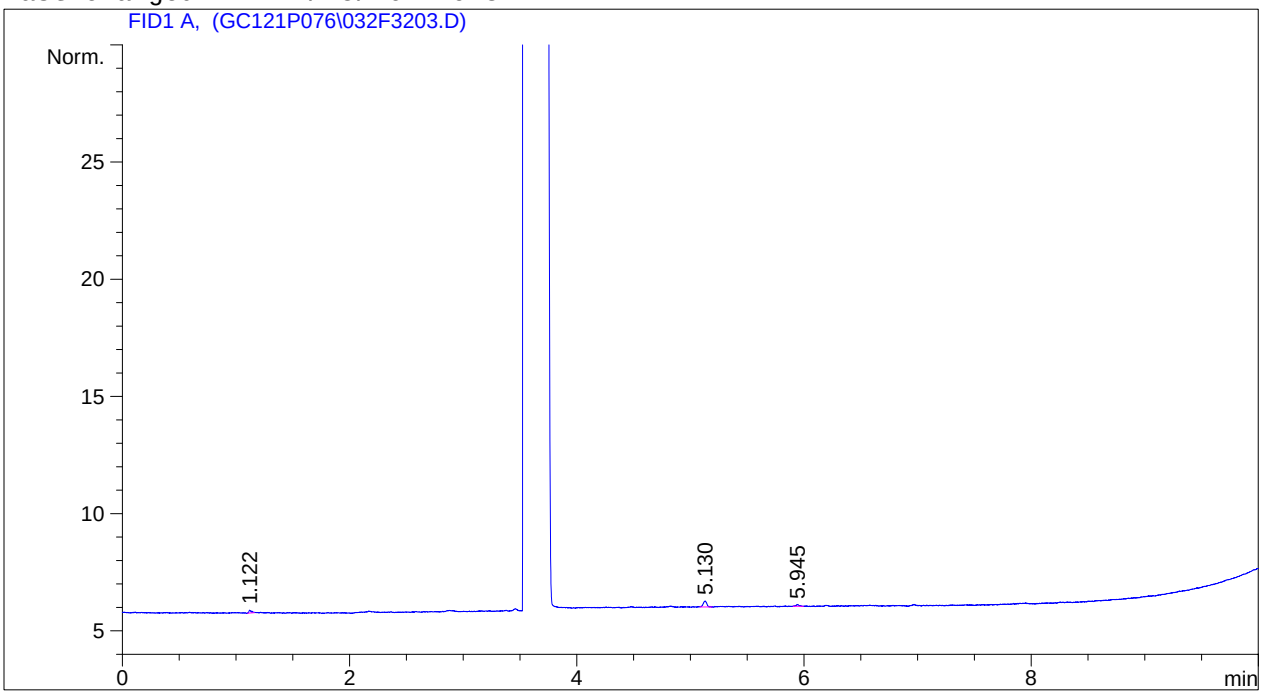
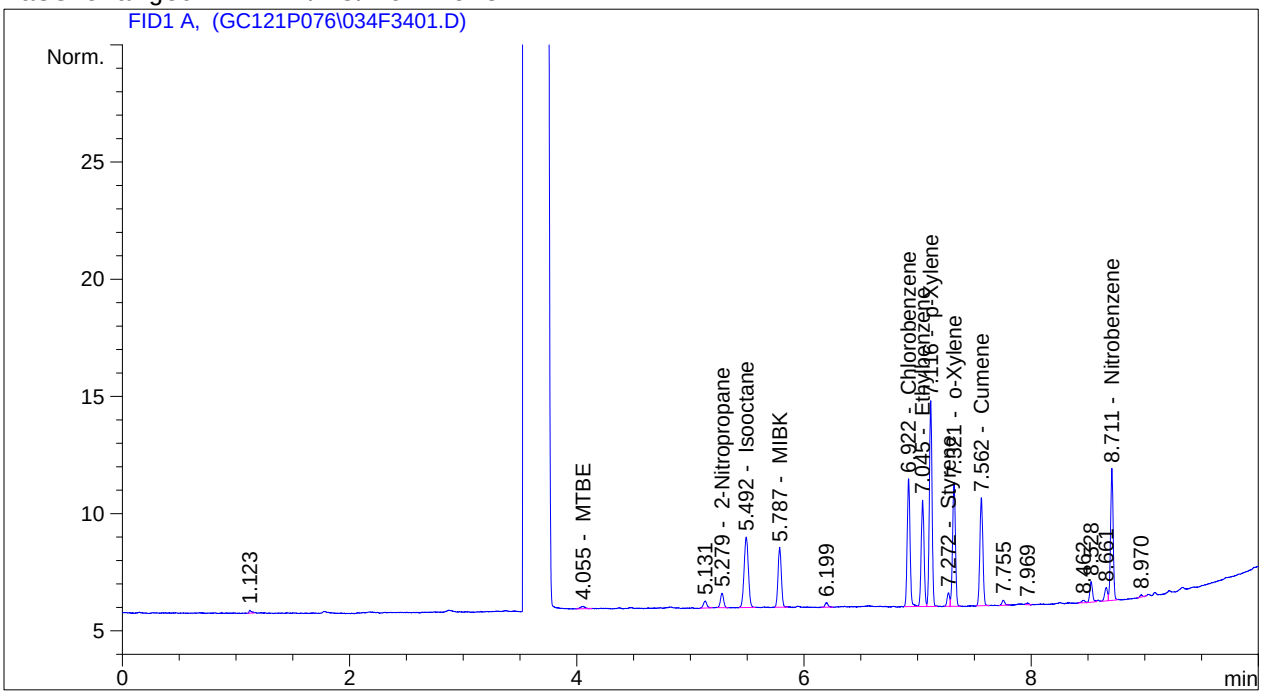



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\034F3401.D
Sample Name: 0611-22 M18 ICR2 SP XAD FH

Acq. Operator	:	Seq. Line	: 34
Acq. Instrument	: Lucy	Location	: Vial 34
Injection Date	: 13-Jul-11, 14:50:10	Inj	: 1
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

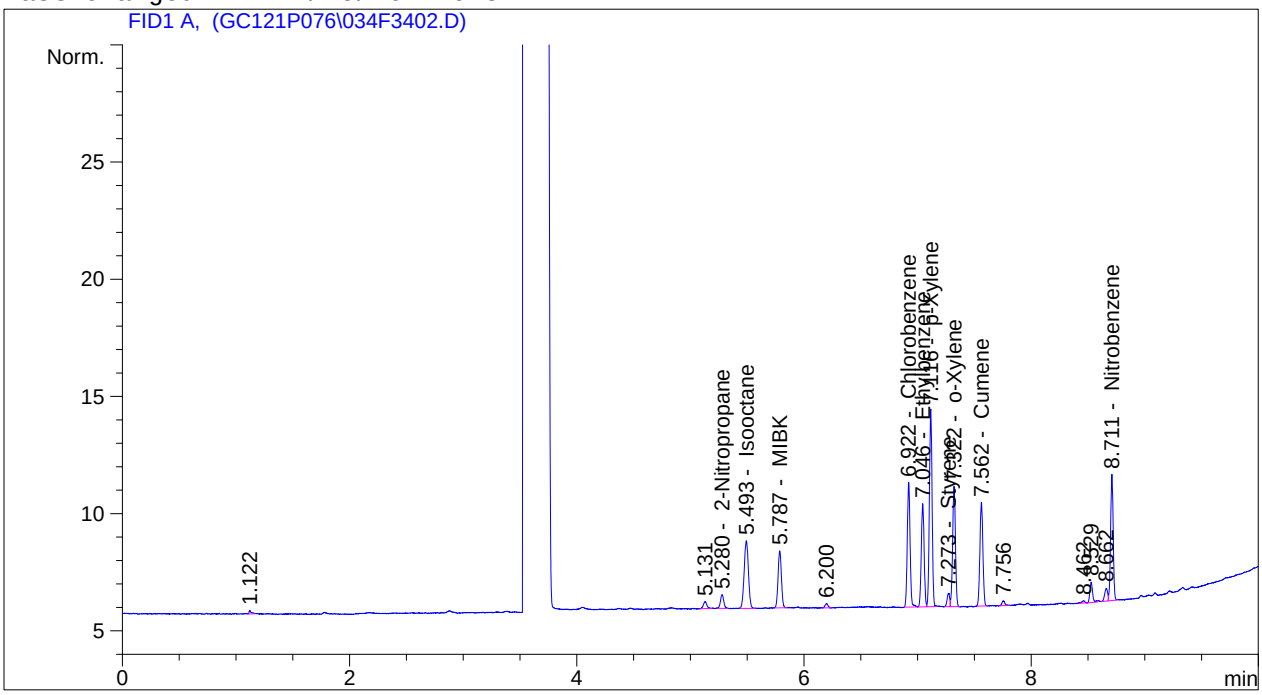
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.055	BB	2.97481e-1	1.00919	3.00213e-1		MTBE
5.279	BB	1.19018	1.29413	1.54026		2-Nitropropane
5.492	BB	7.84148	5.73156e-1	4.49439		Isooctane
5.787	BB	5.17640	7.99096e-1	4.13645		MIBK
6.922	BV	9.45509	6.96271e-1	6.58331		Chlorobenzene
7.045	VV	7.98810	4.99348e-1	3.98884		Ethylbenzene
7.116	VB	14.44302	4.97462e-1	7.18485		p-Xylene
7.272	BV	8.96381e-1	4.87001e-1	4.36539e-1		Styrene
7.321	VB	9.31496	4.87226e-1	4.53849		o-Xylene
7.562	BB	8.47919	4.93619e-1	4.18549		Cumene
8.711	VB	8.91550	8.02923e-1	7.15846		Nitrobenzene

Totals : 44.54729

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\034F3402.D
Sample Name: 0611-22 M18 ICR2 SP XAD FH

Acq. Operator	:	Seq. Line	: 34
Acq. Instrument	: Lucy	Location	: Vial 34
Injection Date	: 13-Jul-11, 15:11:47	Inj	: 2
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

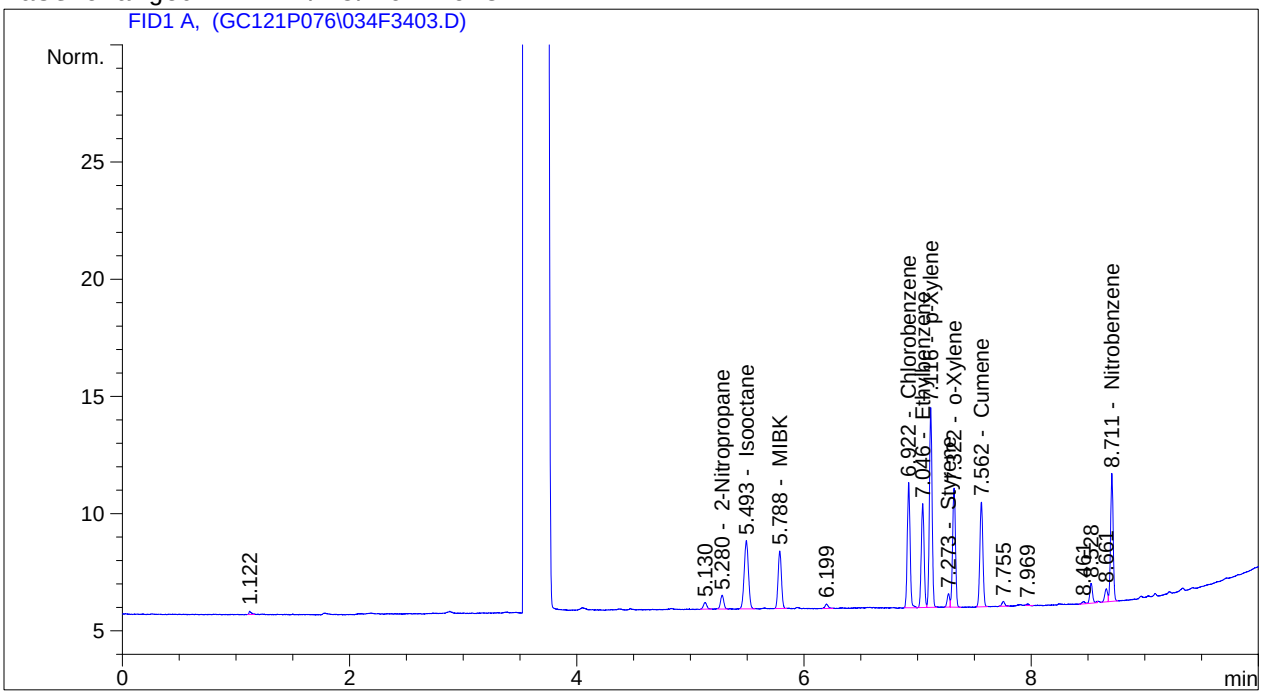
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.280	BB	1.17098	1.29413	1.51541		2-Nitropropane
5.493	BB	7.49039	5.72967e-1	4.29174		Isooctane
5.787	BB	4.97927	7.99307e-1	3.97997		MIBK
6.922	BV	9.10243	6.96040e-1	6.33566		Chlorobenzene
7.046	VV	7.63923	4.99206e-1	3.81354		Ethylbenzene
7.116	VB	13.93158	4.97417e-1	6.92980		p-Xylene
7.273	BV	8.80812e-1	4.87001e-1	4.28957e-1		Styrene
7.322	VB	8.94366	4.87002e-1	4.35558		o-Xylene
7.562	BB	8.14906	4.93422e-1	4.02093		Cumene
8.711	VB	8.57386	8.02932e-1	6.88423		Nitrobenzene

Totals : 42.55582

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\034F3403.D
Sample Name: 0611-22 M18 ICR2 SP XAD FH

Acq. Operator	:	Seq. Line	: 34
Acq. Instrument	: Lucy	Location	: Vial 34
Injection Date	: 13-Jul-11, 15:33:18	Inj	: 3
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.280	BB	1.17048	1.29413	1.51476		2-Nitropropane
5.493	BB	7.56248	5.73007e-1	4.33335		Isooctane
5.788	BB	4.99383	7.99290e-1	3.99152		MIBK
6.922	BB	9.14358	6.96068e-1	6.36456		Chlorobenzene
7.046	BV	7.73880	4.99248e-1	3.86358		Ethylbenzene
7.116	VB	14.09226	4.97432e-1	7.00993		p-Xylene
7.273	BV	8.79950e-1	4.87001e-1	4.28537e-1		Styrene
7.322	VB	8.99484	4.87034e-1	4.38079		o-Xylene
7.562	BB	8.26549	4.93494e-1	4.07896		Cumene
8.711	VB	8.67667	8.02930e-1	6.96676		Nitrobenzene

Totals : 42.93275

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\036F3601.D
Sample Name: 0611-22 M18 ICR2 SP XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  36
Acq. Instrument : Lucy                              Location : Vial 36
Injection Date  : 13-Jul-11, 17:00:59                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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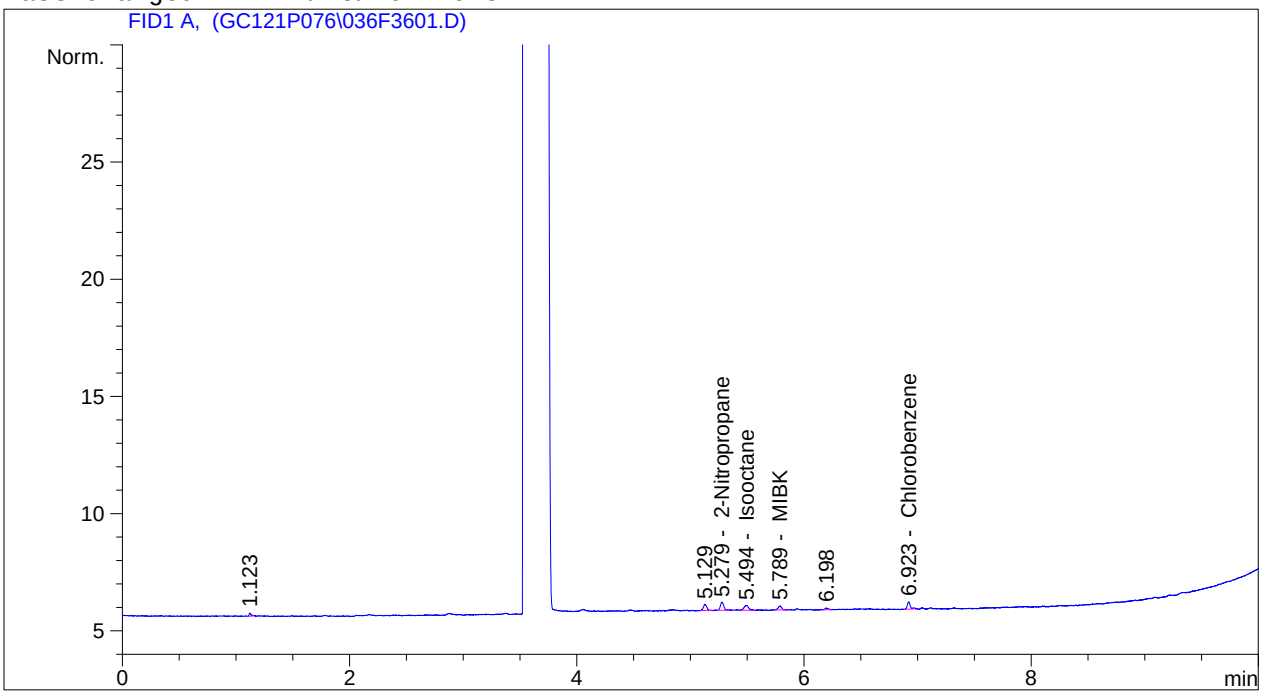



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

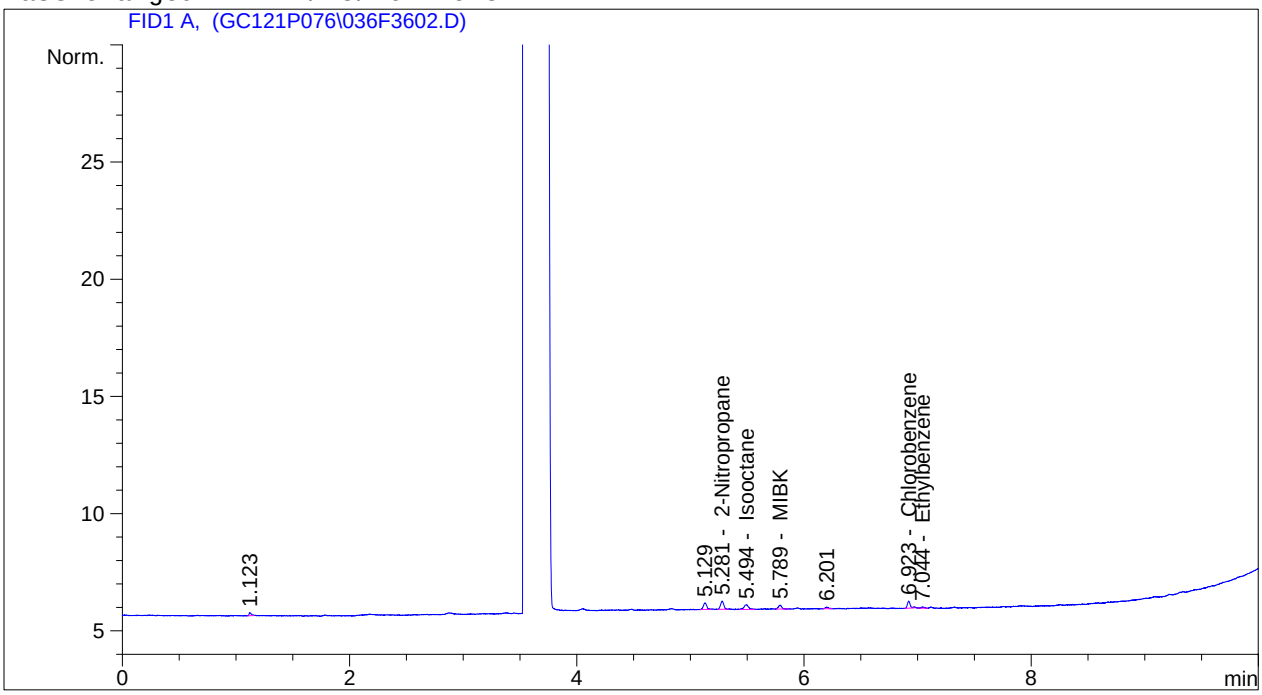
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.279	BB	6.92268e-1	1.29413	8.95887e-1		2-Nitropropane
5.494	BB	5.84476e-1	5.64194e-1	3.29757e-1		Isooctane
5.789	BB	3.50522e-1	8.07742e-1	2.83131e-1		MIBK
6.923	BB	5.61912e-1	6.84762e-1	3.84776e-1		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 1.89355

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\036F3602.D
Sample Name: 0611-22 M18 ICR2 SP XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  36
Acq. Instrument : Lucy                              Location : Vial 36
Injection Date  : 13-Jul-11, 17:23:23                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

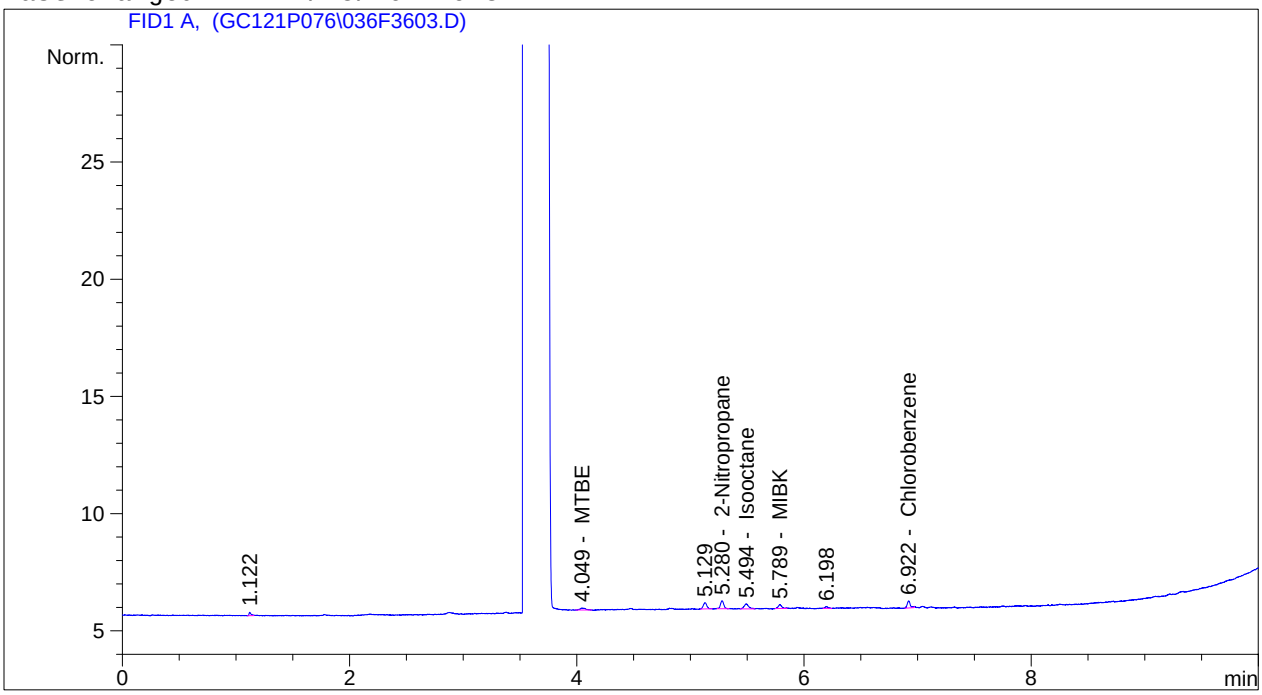
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.281	BB	6.99032e-1	1.29413	9.04641e-1		2-Nitropropane
5.494	BB	5.44430e-1	5.64194e-1	3.07164e-1		Isooctane
5.789	BB	3.35442e-1	8.07742e-1	2.70950e-1		MIBK
6.923	BB	5.33665e-1	6.84762e-1	3.65434e-1		Chlorobenzene
7.044	BV	9.10082e-2	4.95328e-1	4.50789e-2		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 1.89327

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\036F3603.D
Sample Name: 0611-22 M18 ICR2 SP XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  36
Acq. Instrument : Lucy                              Location : Vial 36
Injection Date  : 13-Jul-11, 17:45:57                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

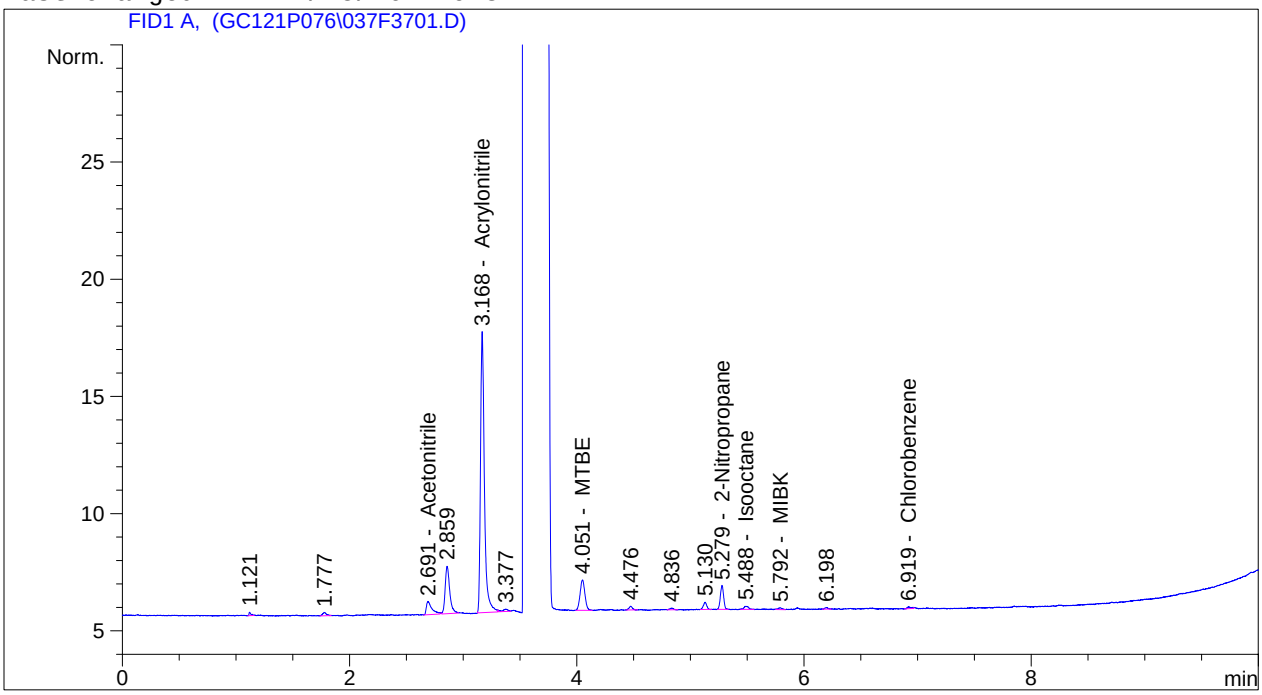
Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.049 BB     2.76382e-1    1.00919 2.78921e-1     MTBE
  5.280 BB     6.89857e-1    1.29413 8.92767e-1     2-Nitropropane
  5.494 BB     5.91817e-1 5.64194e-1 3.33899e-1     Isooctane
  5.789 BB     3.38113e-1 8.07742e-1 2.73108e-1     MIBK
  6.922 BB     5.65331e-1 6.84762e-1 3.87117e-1     Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                  2.16581
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\037F3701.D
Sample Name: 0611-22 M18 ICR2 SP CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  37
Acq. Instrument : Lucy                              Location : Vial 37
Injection Date  : 13-Jul-11, 18:08:12                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

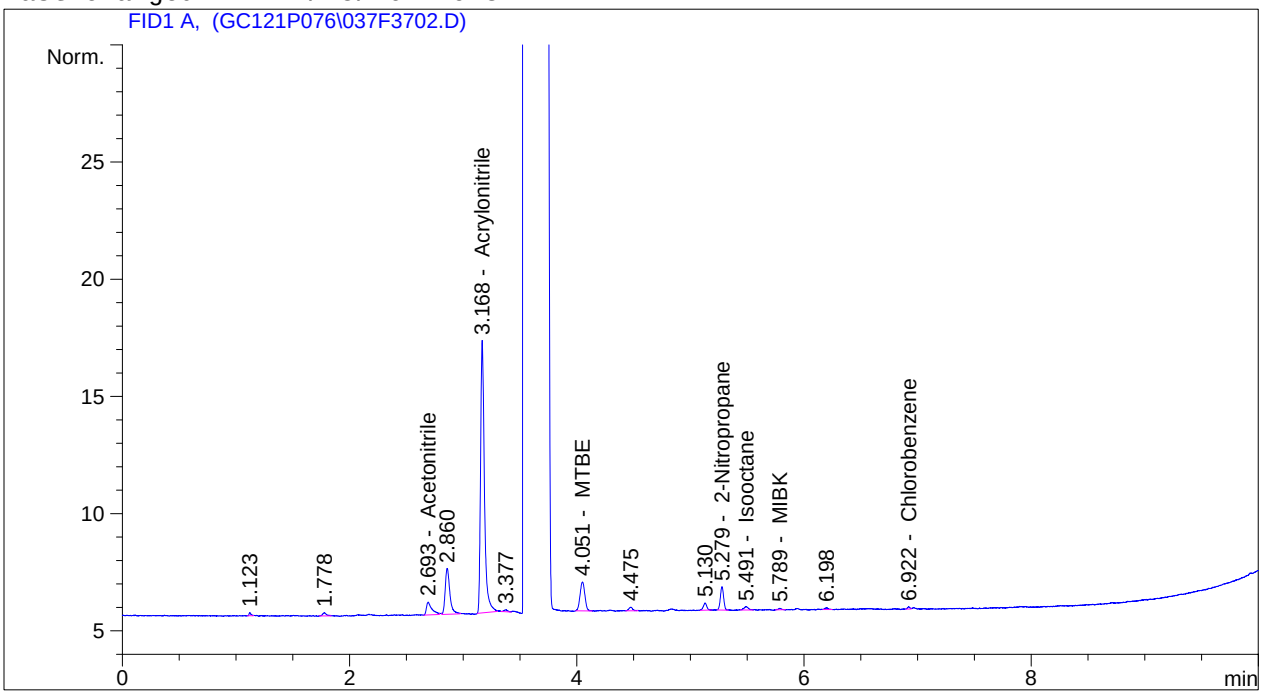
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.691	BB	1.89849	2.39314	4.54336		Acetonitrile
3.168	BB	28.55928	1.24949	35.68466		Acrylonitrile
4.051	BB	3.79559	1.01284	3.84433		MTBE
5.279	BB	2.03436	1.29564	2.63580		2-Nitropropane
5.488	BB	3.68056e-1	5.64194e-1	2.07655e-1		Isooctane
5.792	BB	1.68937e-1	8.07742e-1	1.36458e-1		MIBK
6.919	BB	1.63958e-1	6.84762e-1	1.12272e-1		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 47.16454

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\037F3702.D
Sample Name: 0611-22 M18 ICR2 SP CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  37
Acq. Instrument : Lucy                              Location : Vial 37
Injection Date  : 13-Jul-11, 18:29:36                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

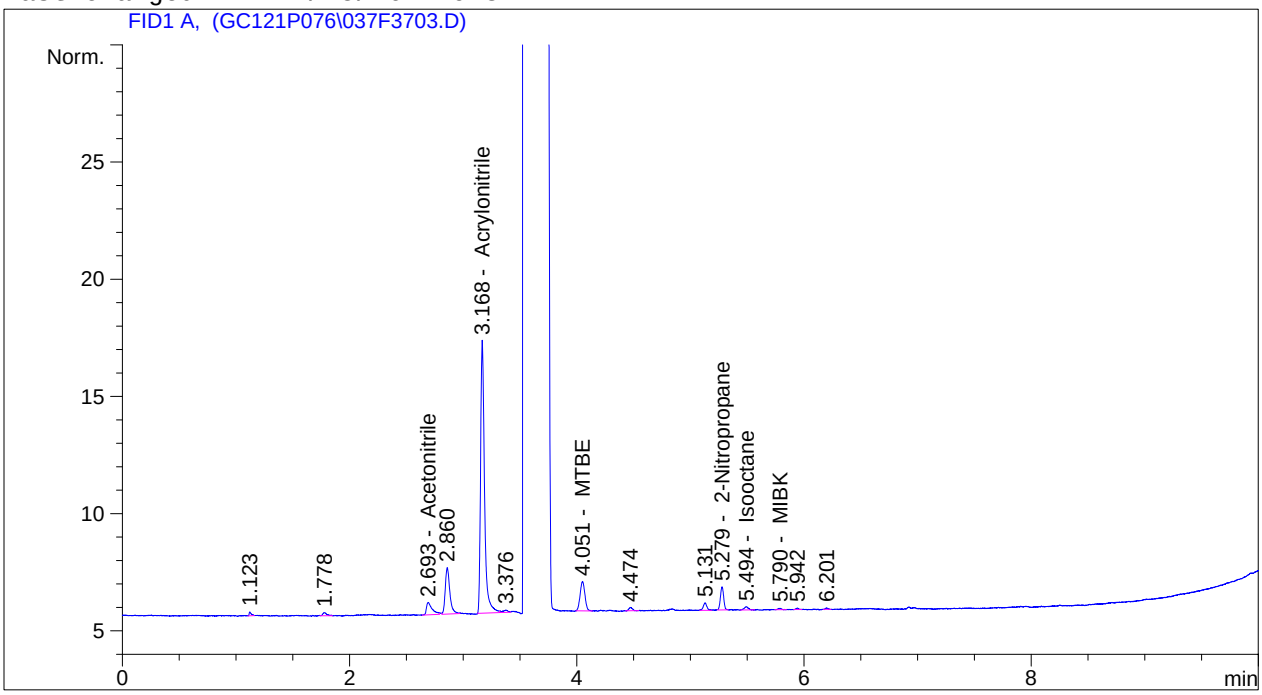
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.693	BB	1.80352	2.40890	4.34451		Acetonitrile
3.168	BB	27.43483	1.24993	34.29151		Acrylonitrile
4.051	BB	3.59952	1.01272	3.64531		MTBE
5.279	BB	1.98353	1.29554	2.56974		2-Nitropropane
5.491	BB	3.88736e-1	5.64194e-1	2.19322e-1		Isooctane
5.789	BB	1.16223e-1	8.07742e-1	9.38786e-2		MIBK
6.922	BV	1.44330e-1	6.84762e-1	9.88317e-2		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 45.26310

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\037F3703.D
Sample Name: 0611-22 M18 ICR2 SP CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  37
Acq. Instrument : Lucy                              Location : Vial 37
Injection Date  : 13-Jul-11, 18:50:59                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.693 BB        1.82655    2.40493    4.39273    Acetonitrile
  3.168 BB       28.00118    1.24970   34.99320    Acrylonitrile
  4.051 BB        3.66312    1.01276    3.70986    MTBE
  5.279 BB        1.96023    1.29549    2.53945    2-Nitropropane
  5.494 BB     3.44728e-1 5.64194e-1 1.94493e-1    Isooctane
  5.790 BB     1.23354e-1 8.07742e-1 9.96386e-2    MIBK
  6.911             -          -          -        Chlorobenzene
  7.034             -          -          -        Ethylbenzene
  7.105             -          -          -        p-Xylene
  7.260             -          -          -        Styrene
  7.310             -          -          -        o-Xylene
  7.550             -          -          -        Cumene
  8.698             -          -          -        Nitrobenzene

Totals :                              45.92937
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\041F4101.D
Sample Name: 0611-22 M18 ICR2 SP CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  41
Acq. Instrument : Lucy                              Location : Vial 41
Injection Date  : 13-Jul-11, 22:25:03                    Inj :   1
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/19/2011 10:23:03 PM
                  (modified after loading)
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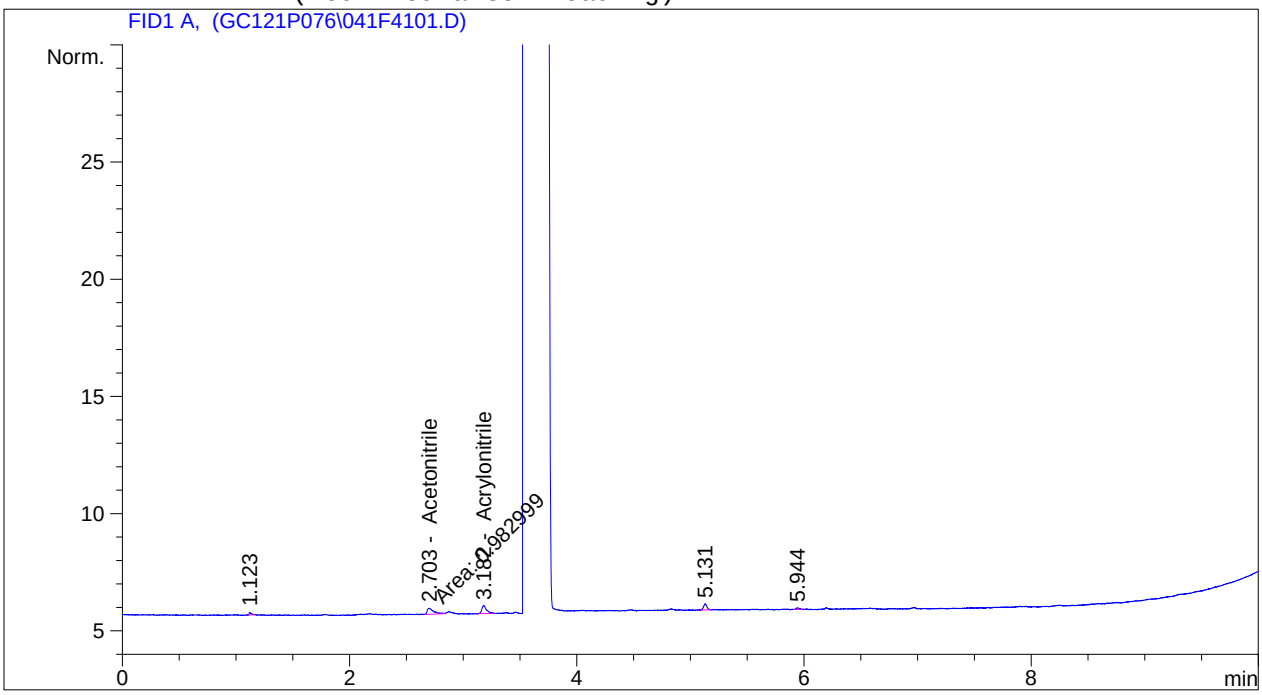



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

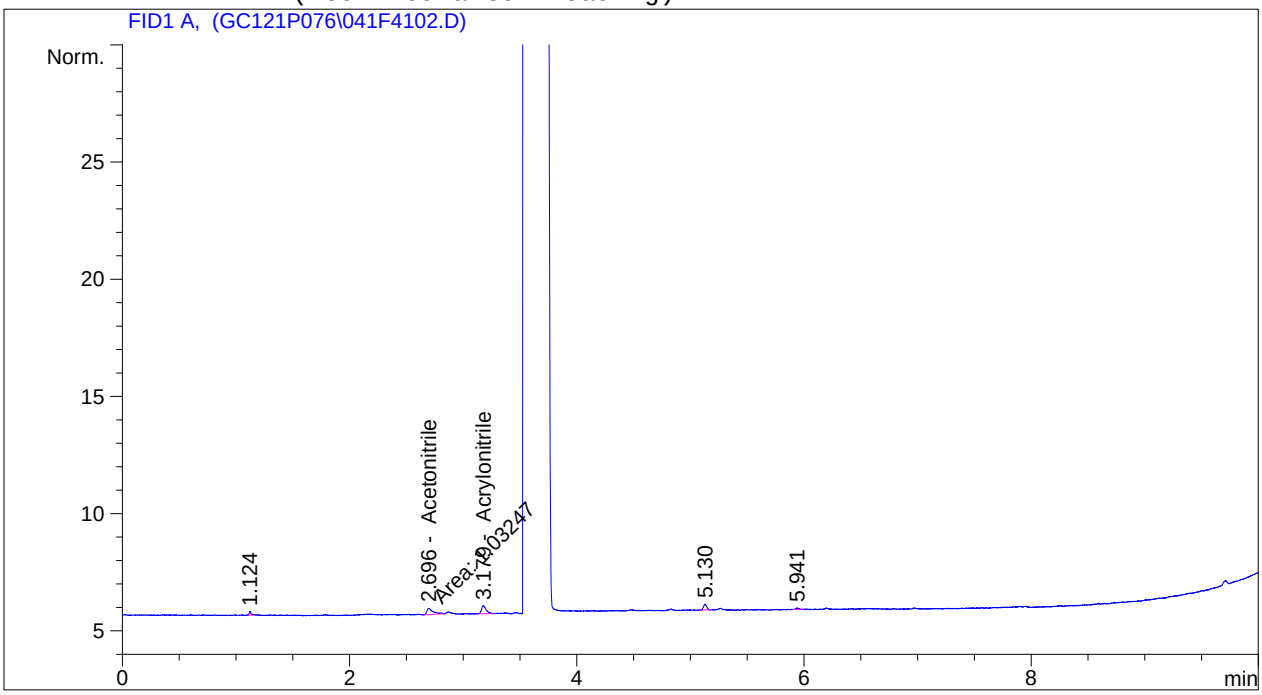
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.703	MM	9.82999e-1	2.67189	2.62647		Acetonitrile
3.182	BB	9.77515e-1	1.53275	1.49829		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 4.12475

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\041F4102.D
Sample Name: 0611-22 M18 ICR2 SP CT BH

==========

Acq. Operator : Seq. Line : 41
Acq. Instrument : Lucy Location : Vial 41
Injection Date : 13-Jul-11, 22:46:29 Inj : 2
Inj Volume : External
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/19/2011 10:23:03 PM
(modified after loading)



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

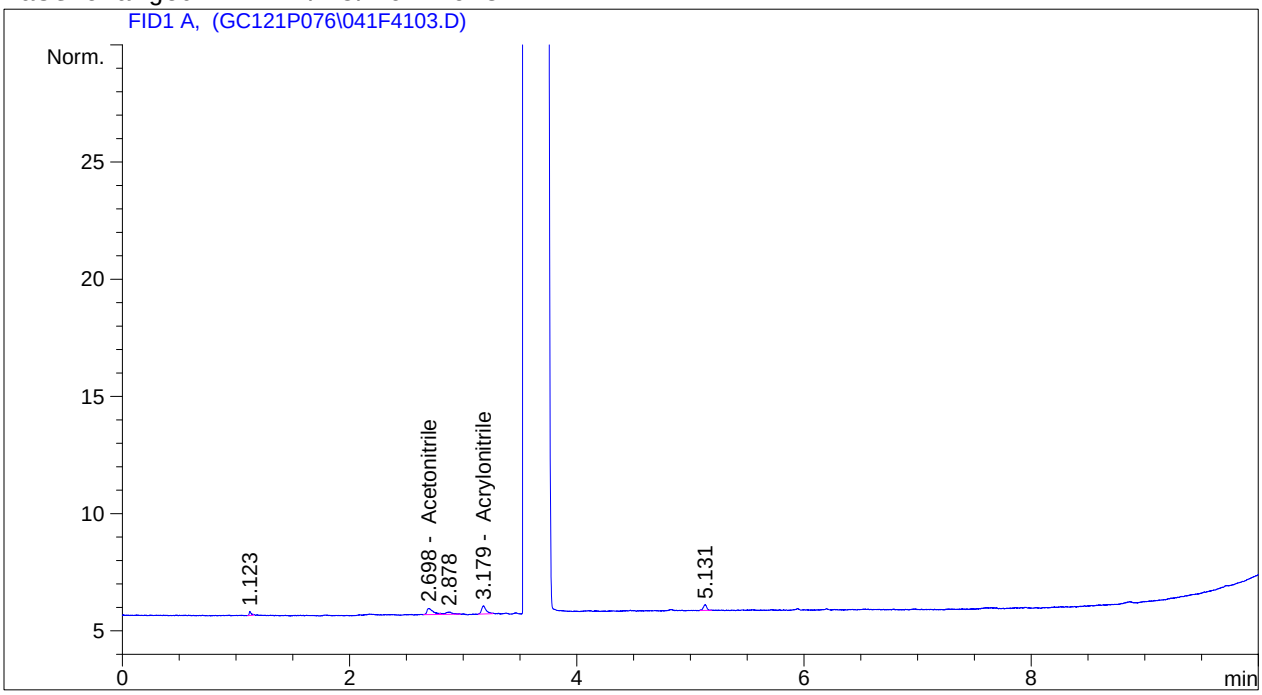
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.696	MM	1.03247	2.64420	2.73005		Acetonitrile
3.179	BB	9.70547e-1	1.53275	1.48760		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 4.21765

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\041F4103.D
Sample Name: 0611-22 M18 ICR2 SP CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  41
Acq. Instrument : Lucy                              Location : Vial 41
Injection Date  : 13-Jul-11, 23:07:53                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.698	BB	9.76721e-1	2.67561	2.61332		Acetonitrile
3.179	BB	9.68309e-1	1.53275	1.48417		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

```
Totals :                                4.09750
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\042F4201.D
Sample Name: 0611-22 M18 ICR3 COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  42
Acq. Instrument : Lucy                              Location : Vial 42
Injection Date  : 13-Jul-11, 23:29:14                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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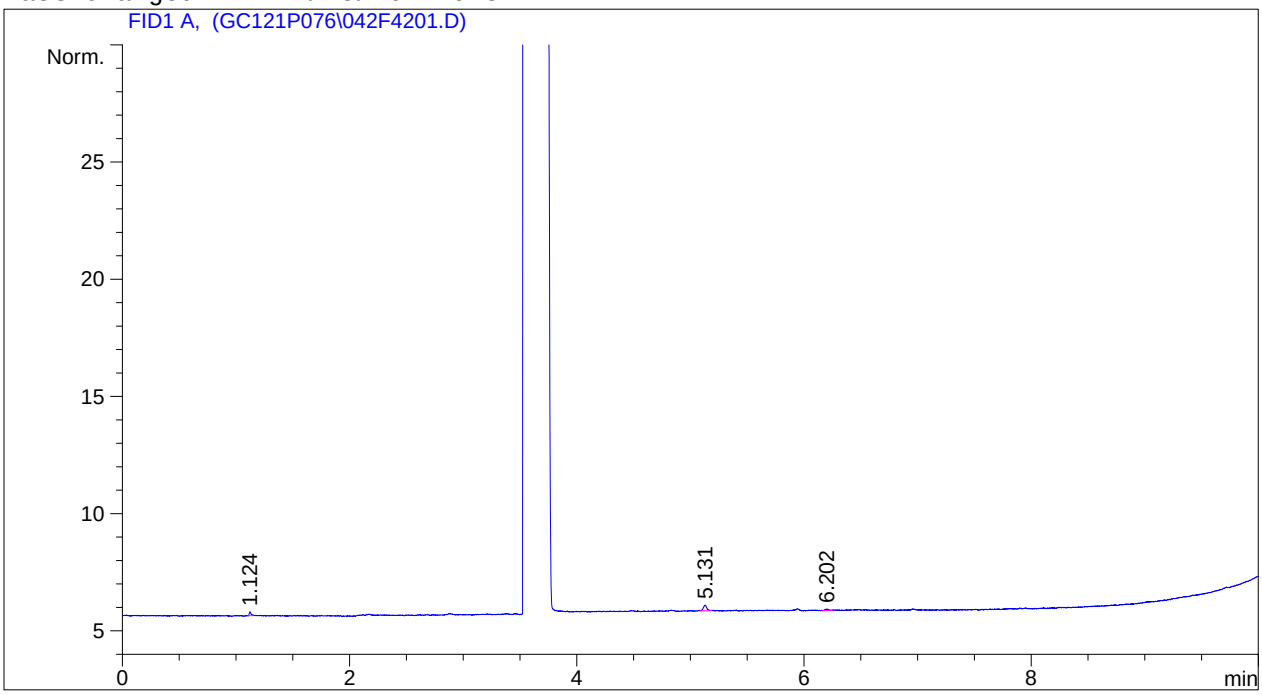


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

```
Totals :                                0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\042F4202.D
Sample Name: 0611-22 M18 ICR3 COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  42
Acq. Instrument : Lucy                              Location : Vial 42
Injection Date  : 13-Jul-11, 23:50:34                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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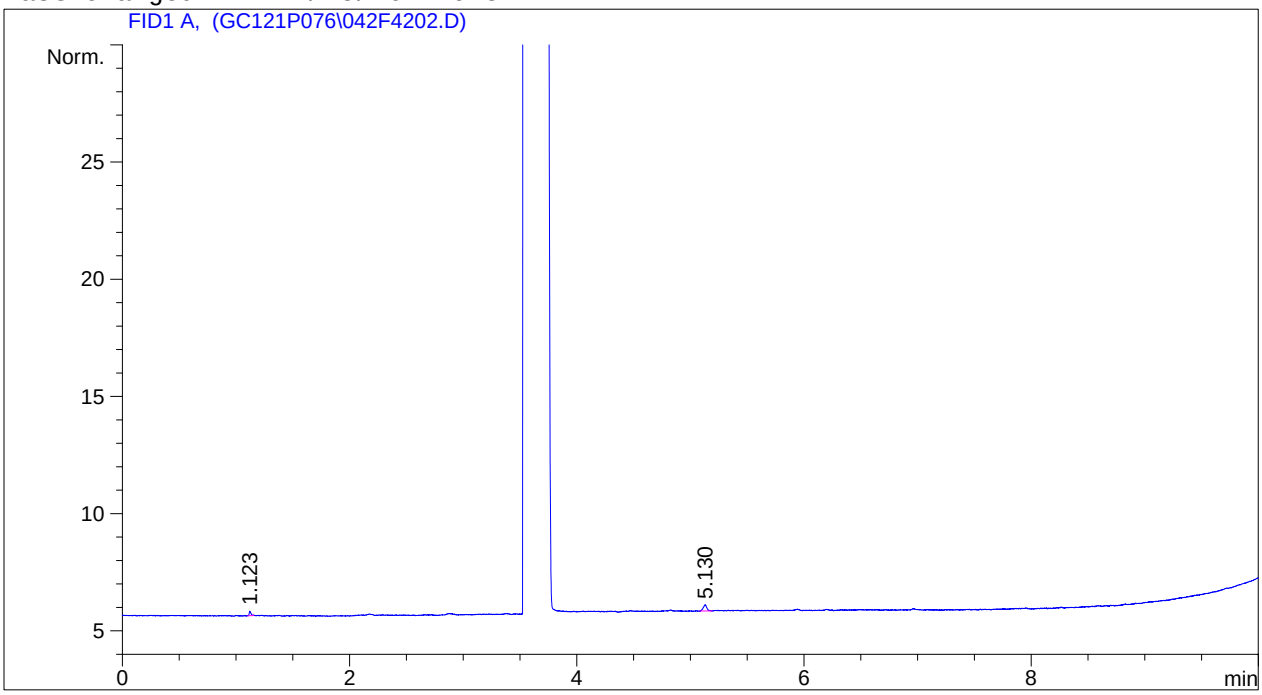


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\042F4203.D
Sample Name: 0611-22 M18 ICR3 COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  42
Acq. Instrument : Lucy                              Location : Vial 42
Injection Date  : 14-Jul-11, 00:12:00                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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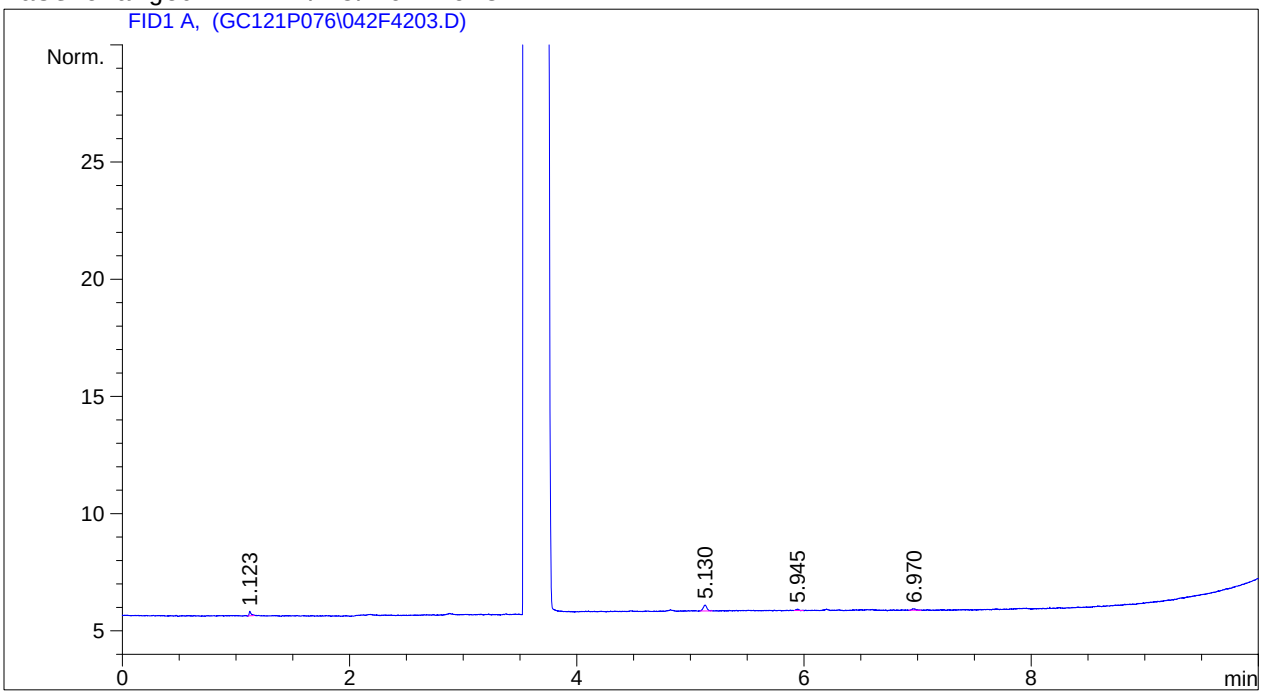



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

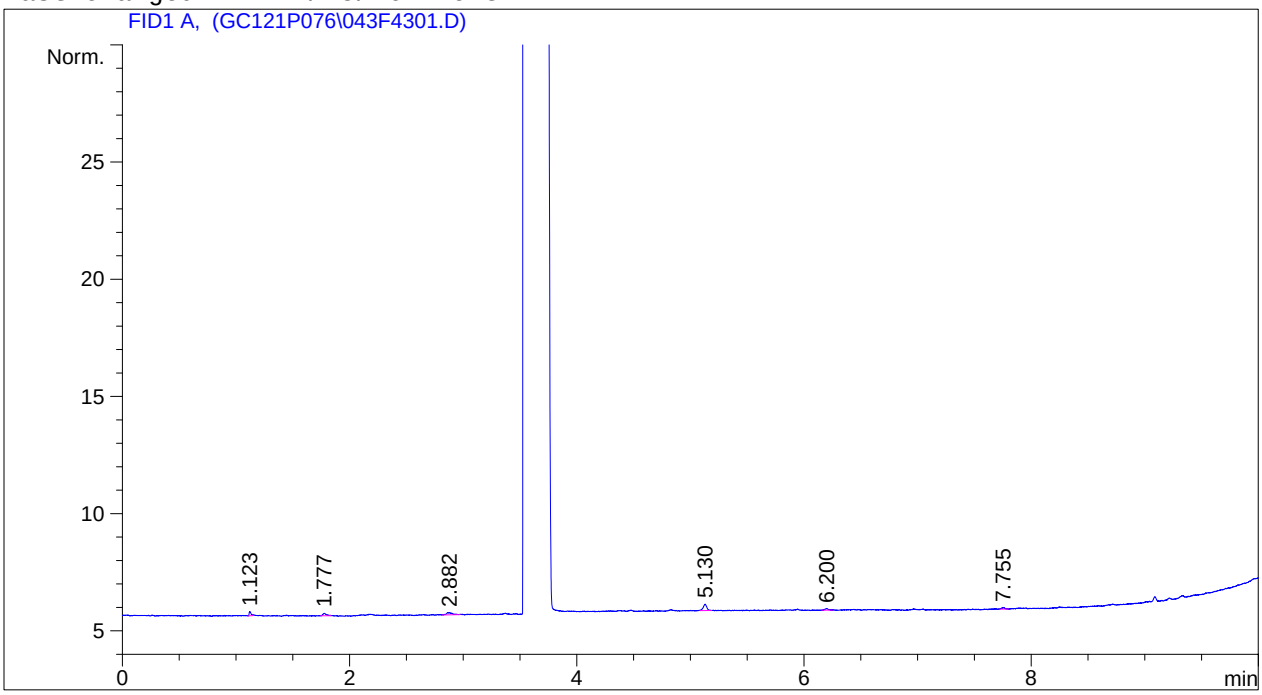
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\043F4301.D
Sample Name: 0611-22 M18 ICR3 XAD FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  43
Acq. Instrument : Lucy                              Location : Vial 43
Injection Date  : 14-Jul-11, 00:33:33                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

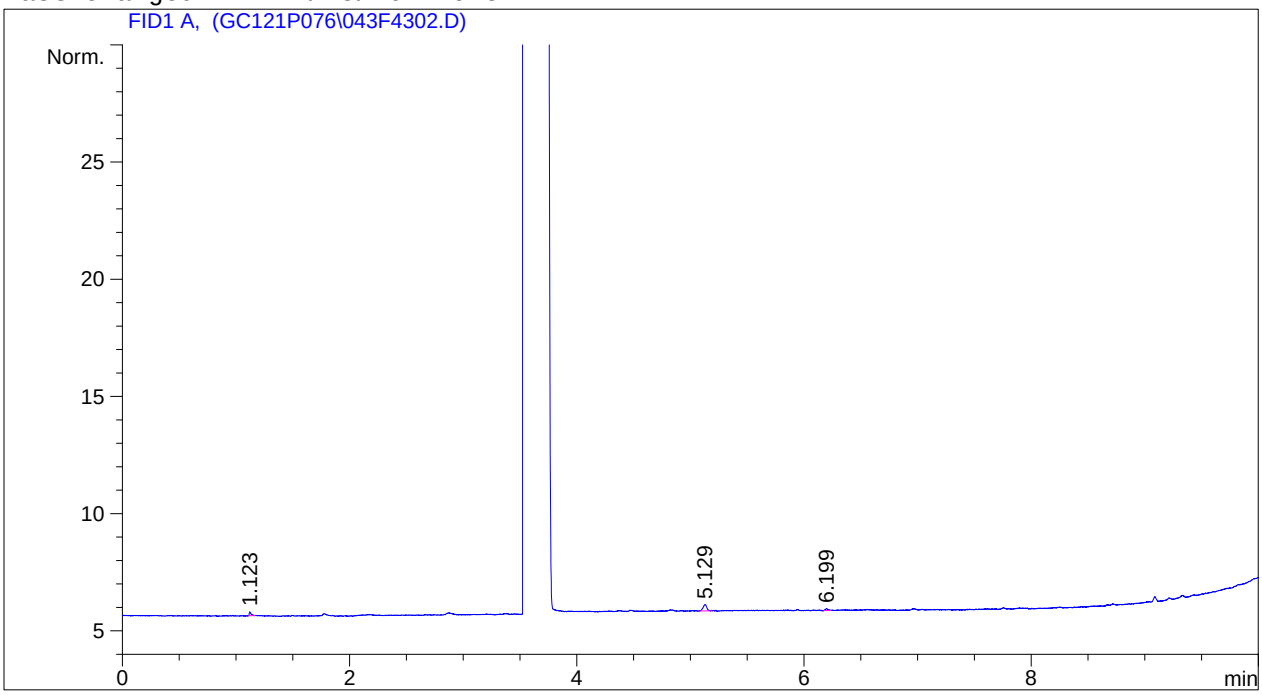
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\043F4302.D
Sample Name: 0611-22 M18 ICR3 XAD FH

==========

Acq. Operator : Seq. Line : 43
Acq. Instrument : Lucy Location : Vial 43
Injection Date : 14-Jul-11, 00:55:05 Inj : 2
Inj Volume : External
Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

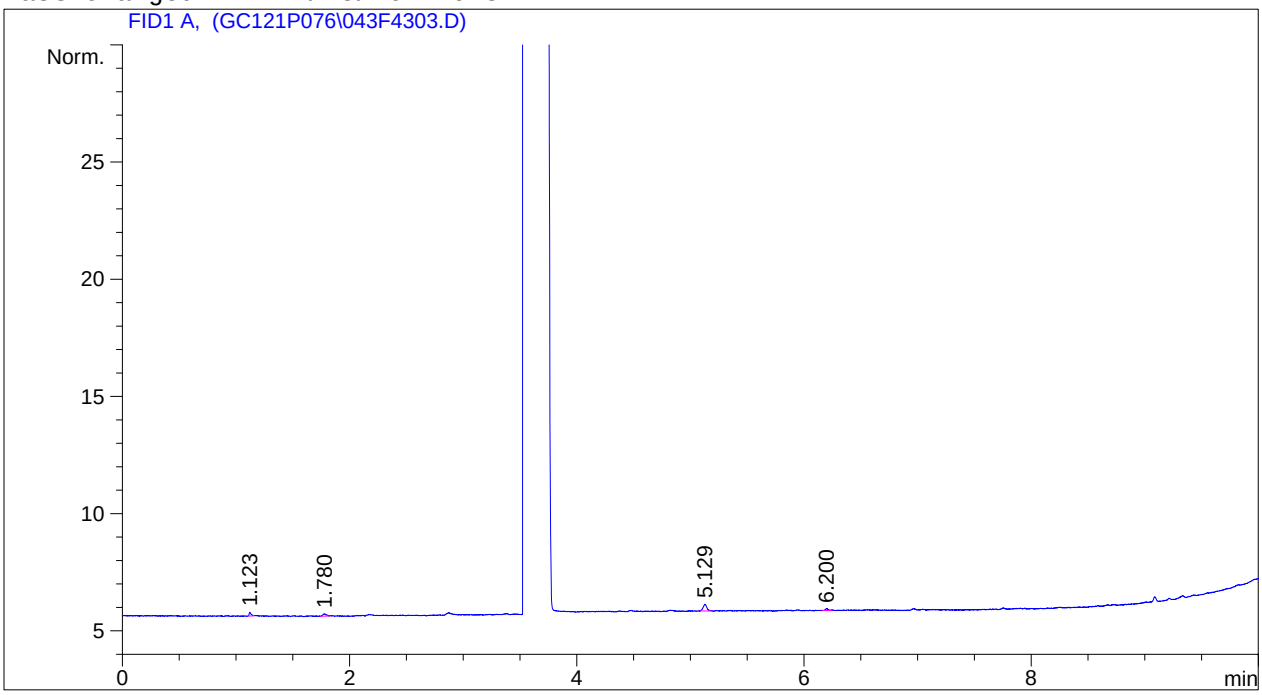
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\043F4303.D
Sample Name: 0611-22 M18 ICR3 XAD FH

==========

Acq. Operator : Seq. Line : 43
Acq. Instrument : Lucy Location : Vial 43
Injection Date : 14-Jul-11, 01:16:37 Inj : 3
Inj Volume : External
Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

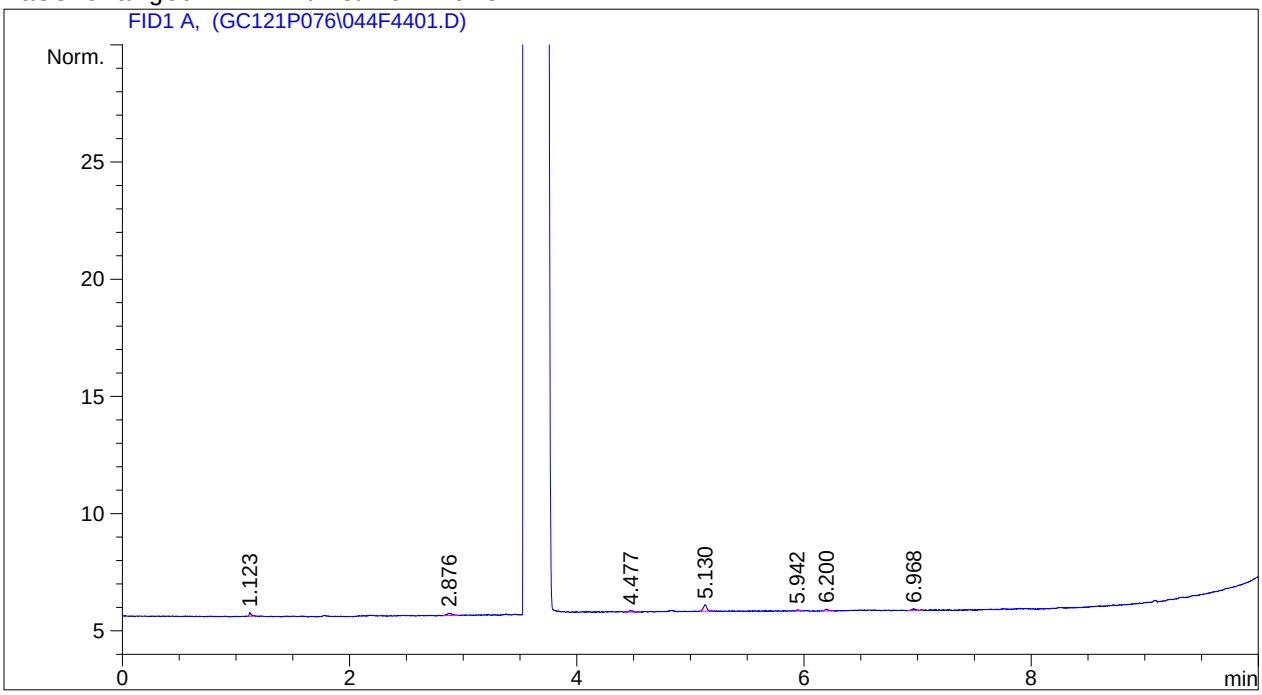
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\044F4401.D
Sample Name: 0611-22 M18 ICR3 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  44
Acq. Instrument : Lucy                              Location : Vial 44
Injection Date  : 14-Jul-11, 01:38:05                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

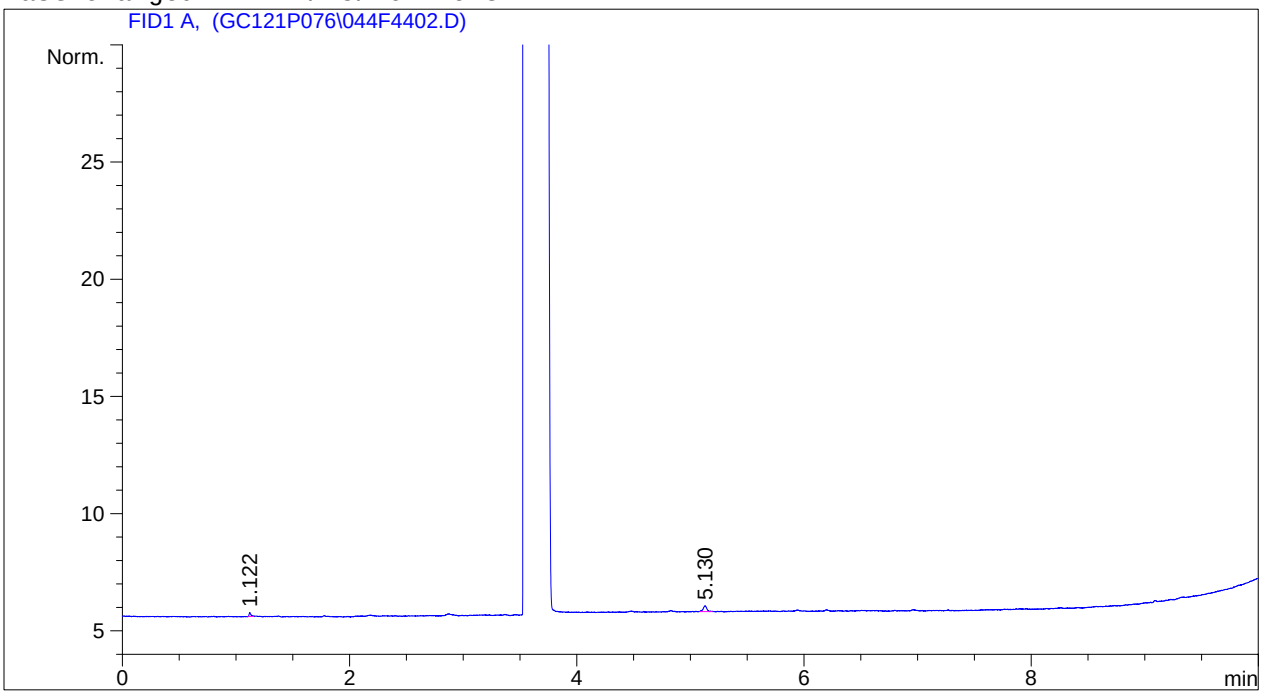
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\044F4402.D
Sample Name: 0611-22 M18 ICR3 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  44
Acq. Instrument : Lucy                              Location : Vial 44
Injection Date  : 14-Jul-11, 01:59:39                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

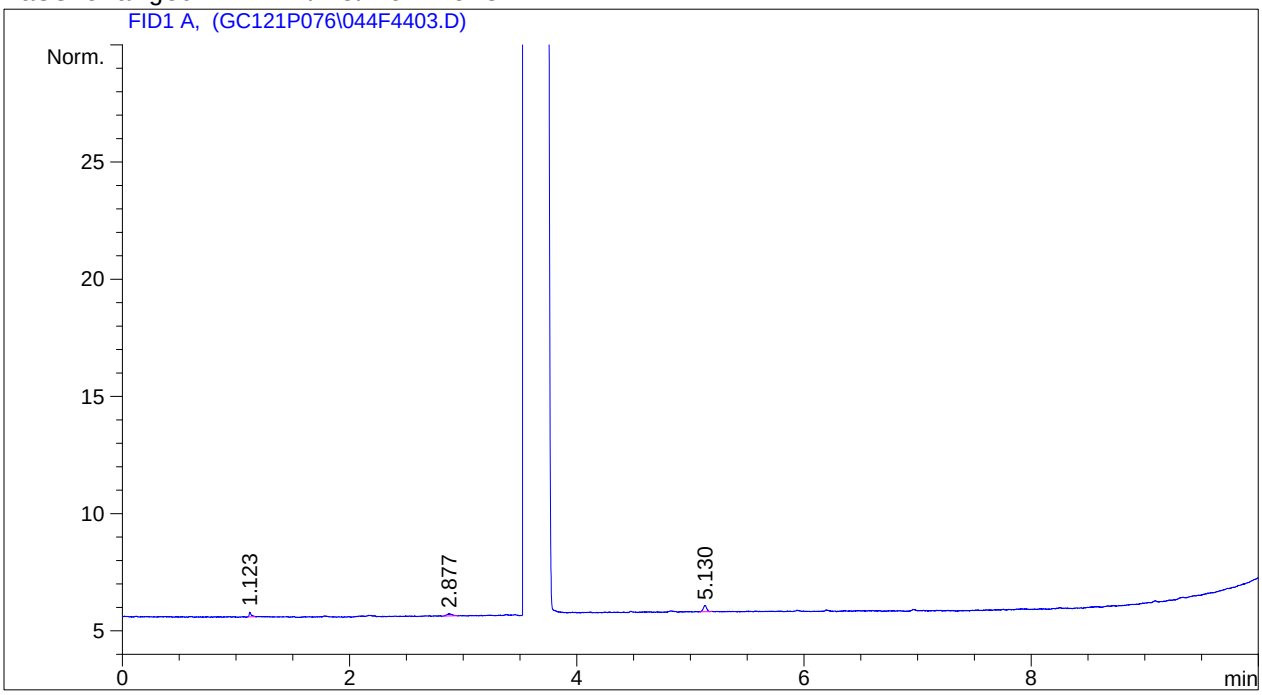
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\044F4403.D
Sample Name: 0611-22 M18 ICR3 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  44
Acq. Instrument : Lucy                              Location : Vial 44
Injection Date  : 14-Jul-11, 02:21:16                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

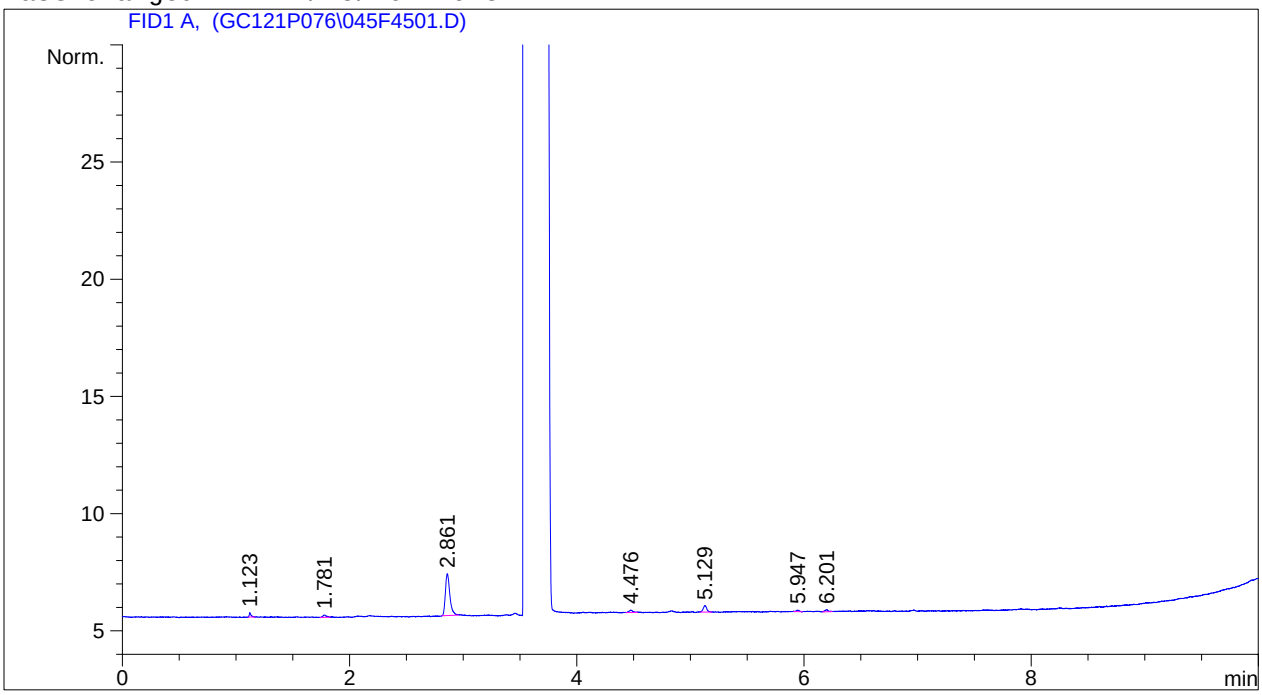
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\045F4501.D
Sample Name: 0611-22 M18 ICR3 CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  45
Acq. Instrument : Lucy                              Location : Vial 45
Injection Date  : 14-Jul-11, 02:42:56                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

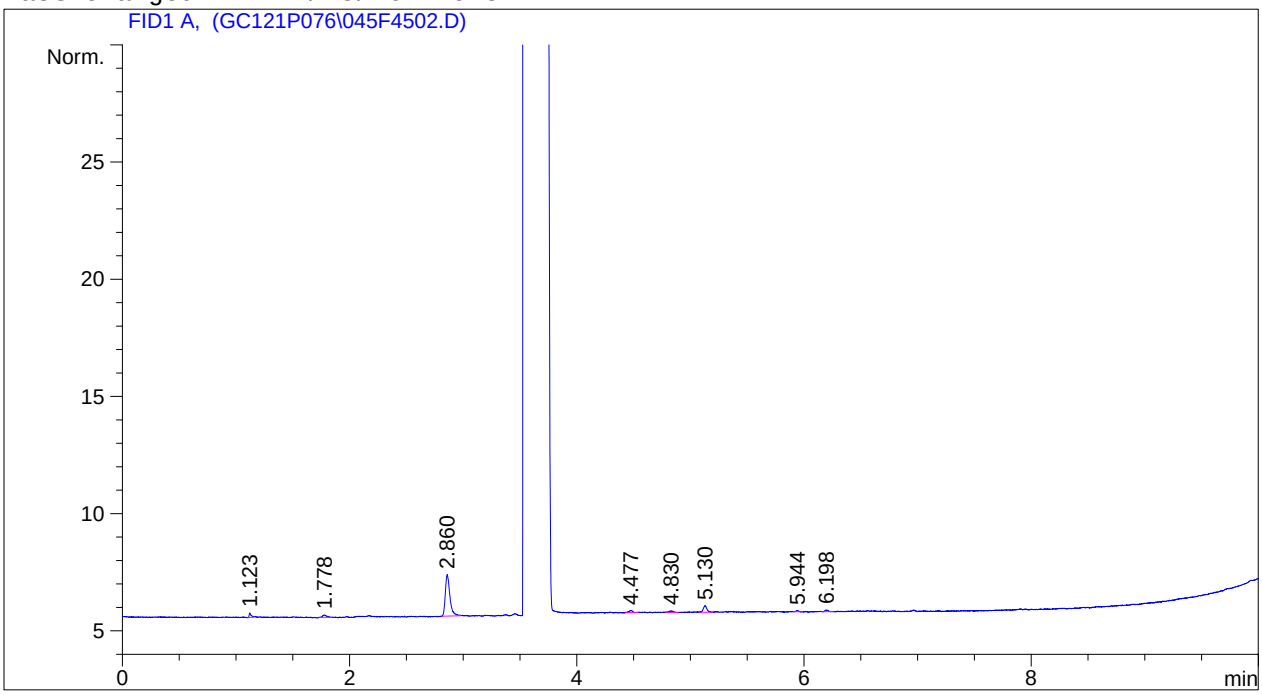
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\045F4502.D
Sample Name: 0611-22 M18 ICR3 CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  45
Acq. Instrument : Lucy                              Location : Vial 45
Injection Date  : 14-Jul-11, 03:04:41                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

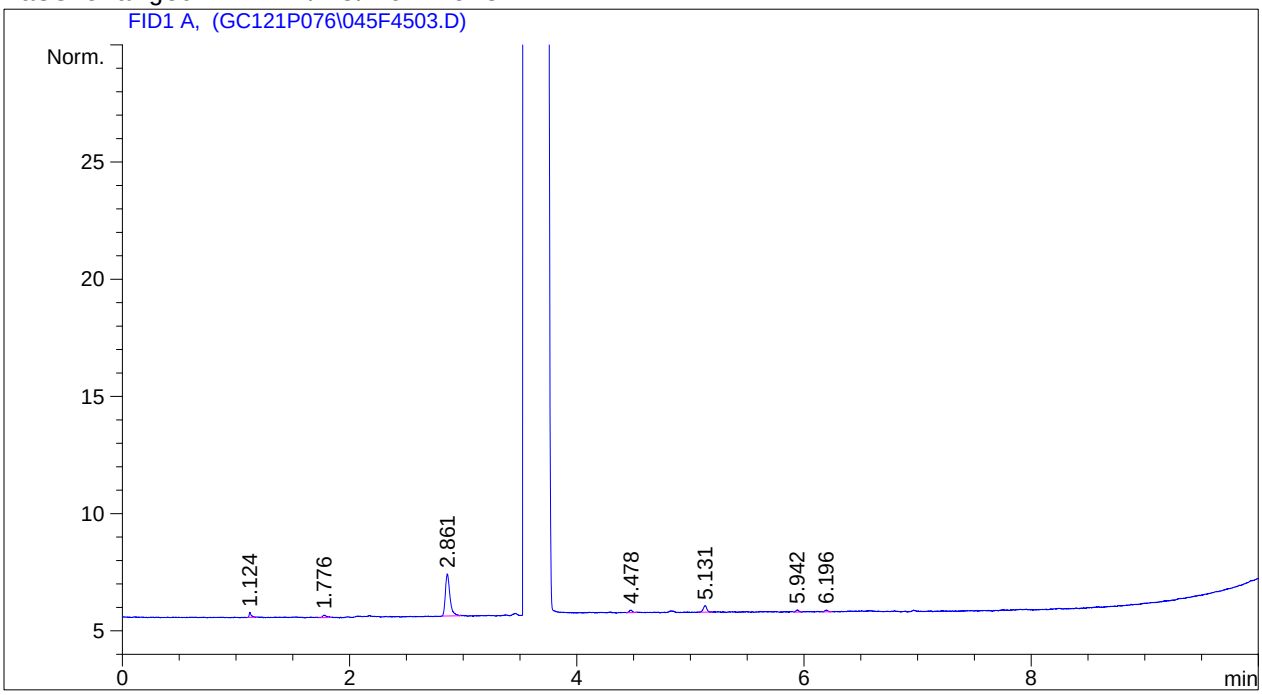
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\045F4503.D
Sample Name: 0611-22 M18 ICR3 CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  45
Acq. Instrument : Lucy                              Location : Vial 45
Injection Date  : 14-Jul-11, 03:26:25                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

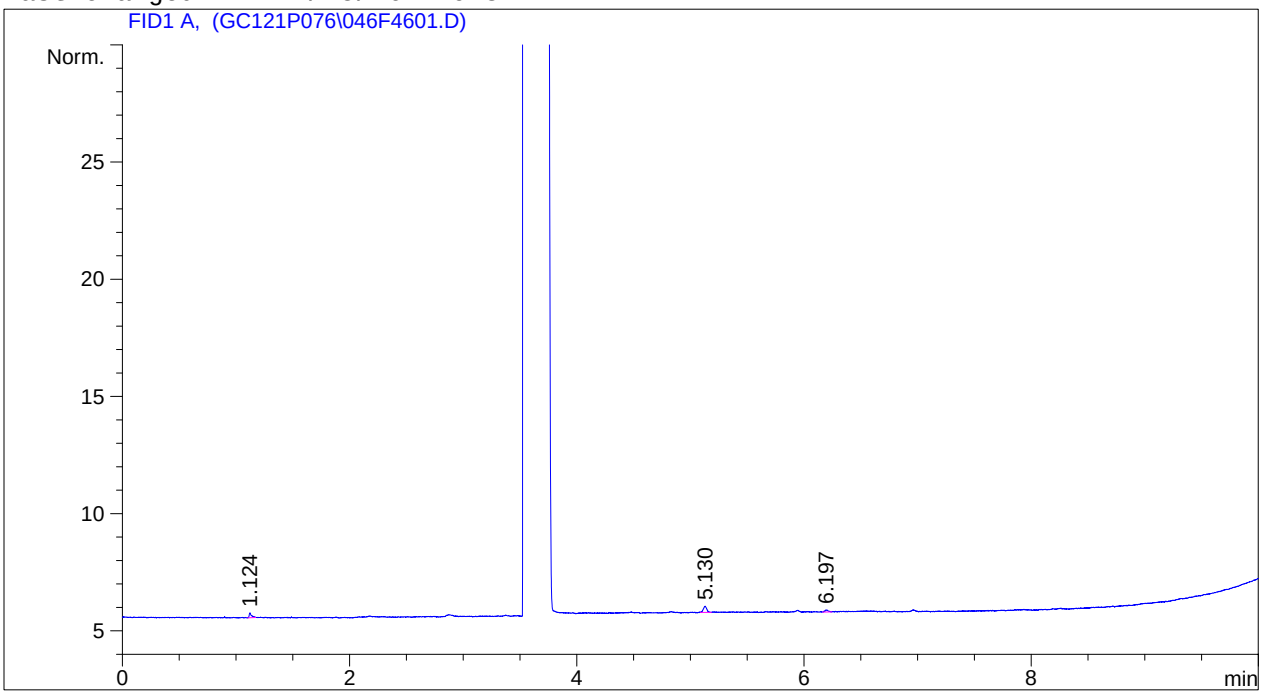
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\046F4601.D
Sample Name: 0611-22 M18 ICR3 CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  46
Acq. Instrument : Lucy                              Location : Vial 46
Injection Date  : 14-Jul-11, 03:48:10                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

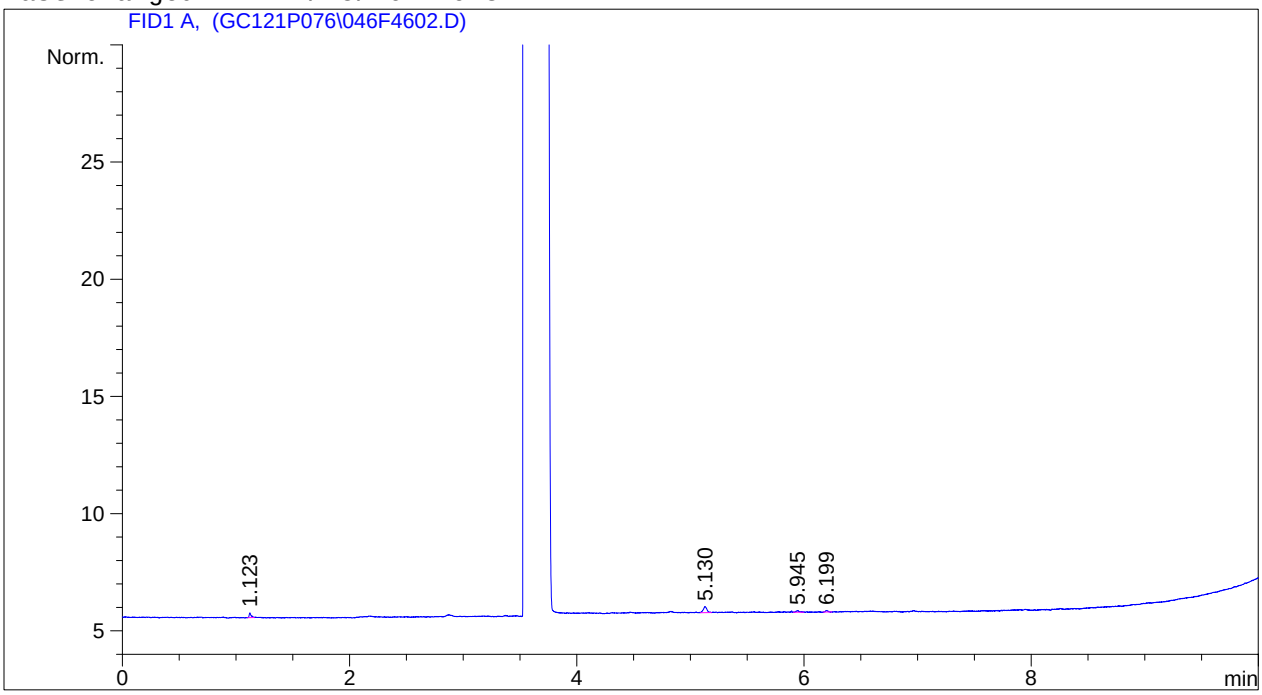
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\046F4602.D
Sample Name: 0611-22 M18 ICR3 CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  46
Acq. Instrument : Lucy                              Location : Vial 46
Injection Date  : 14-Jul-11, 04:09:48                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

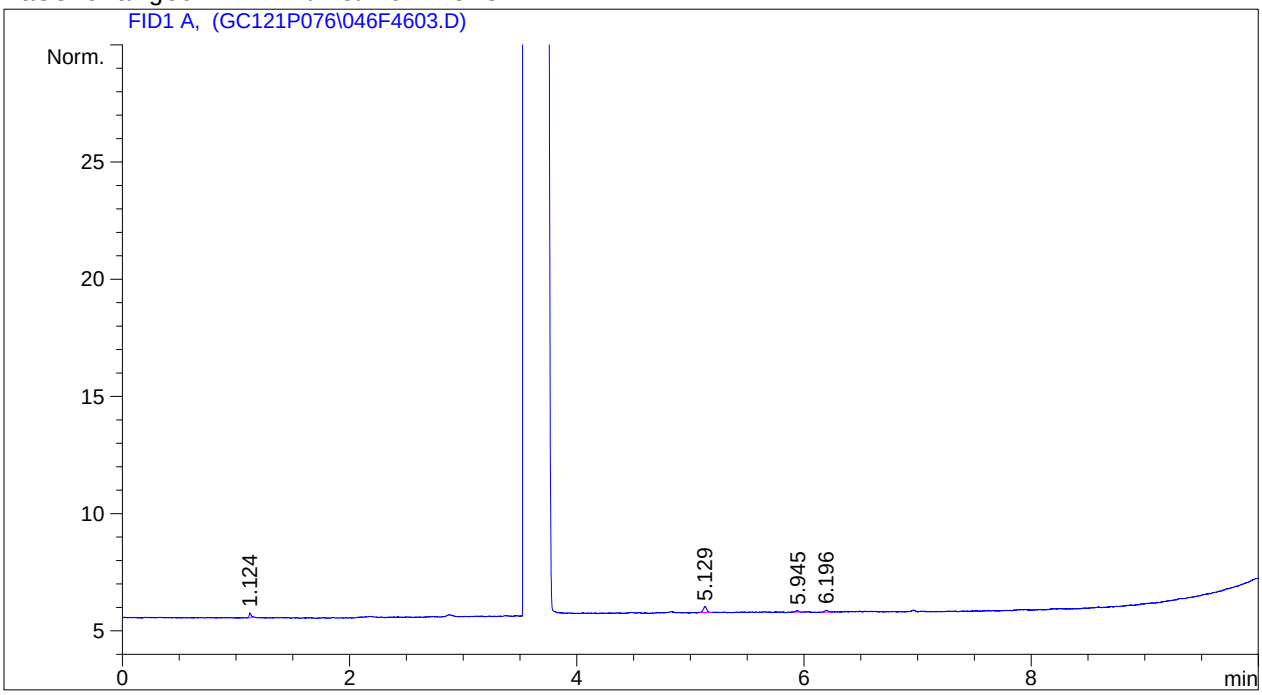
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\046F4603.D
Sample Name: 0611-22 M18 ICR3 CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  46
Acq. Instrument : Lucy                              Location : Vial 46
Injection Date  : 14-Jul-11, 04:31:30                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

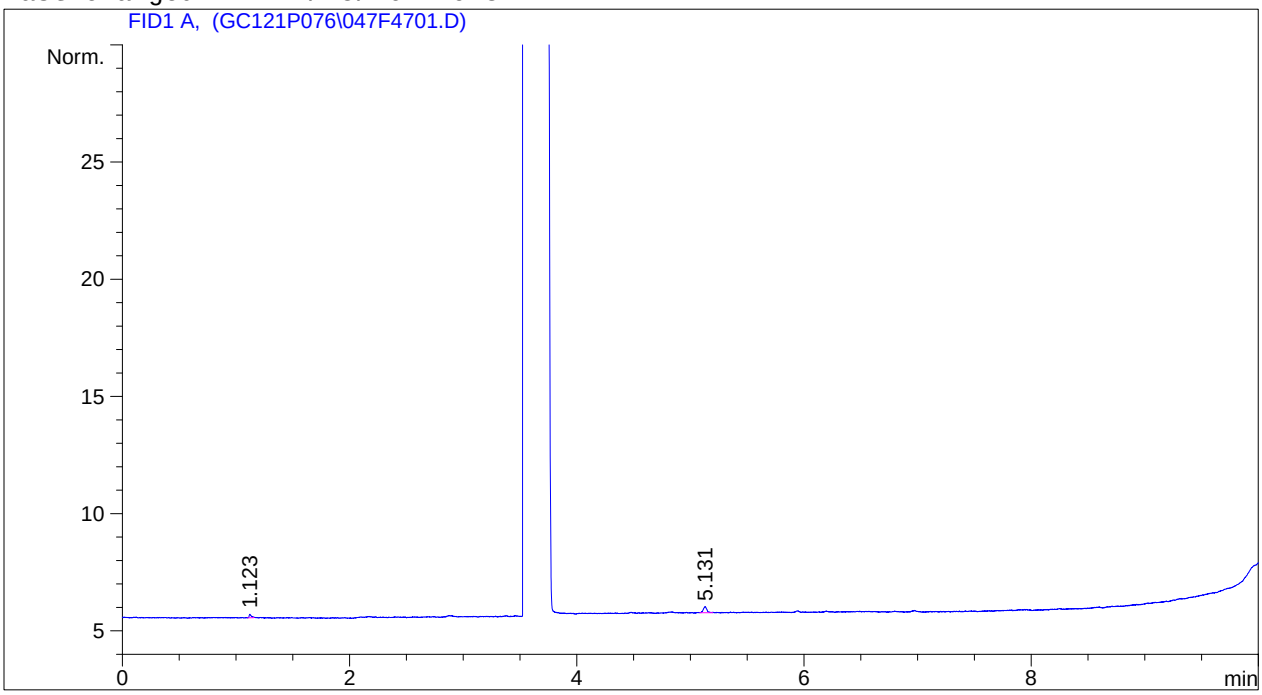
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\047F4701.D
Sample Name: 0611-22 M18 ICR3 SP COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  47
Acq. Instrument : Lucy                              Location : Vial 47
Injection Date  : 14-Jul-11, 04:53:05                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

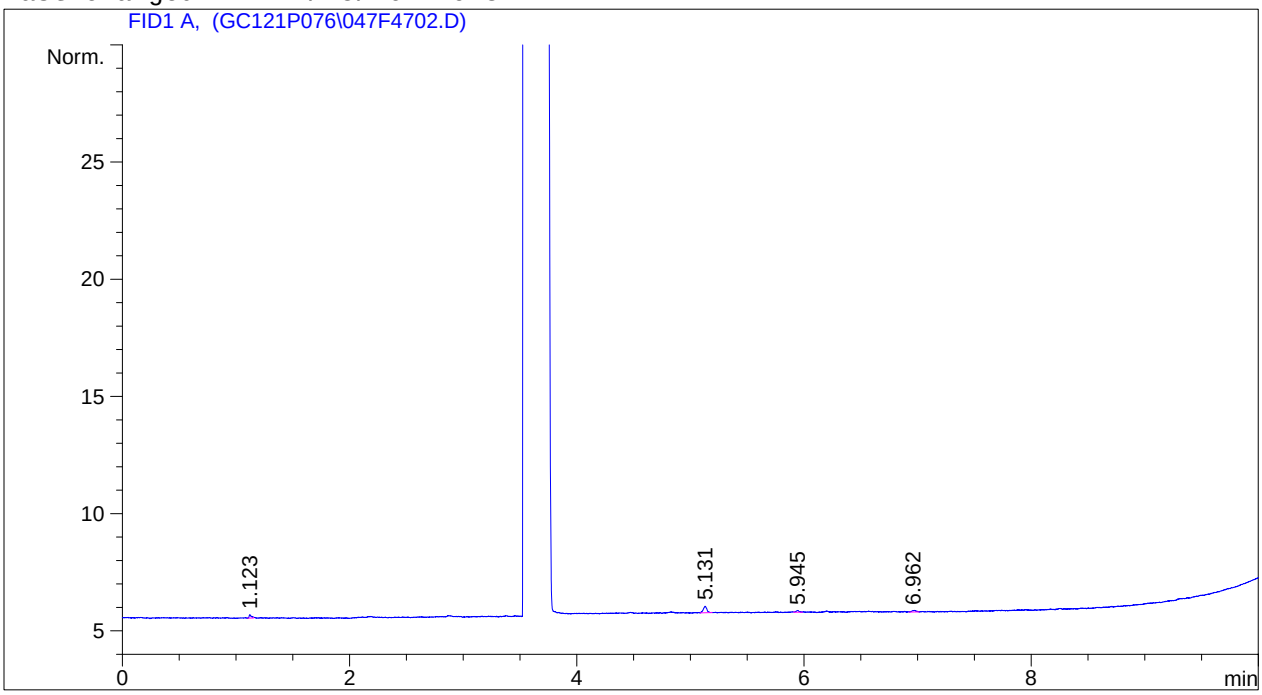
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\047F4702.D
Sample Name: 0611-22 M18 ICR3 SP COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  47
Acq. Instrument : Lucy                              Location : Vial 47
Injection Date  : 14-Jul-11, 05:14:37                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

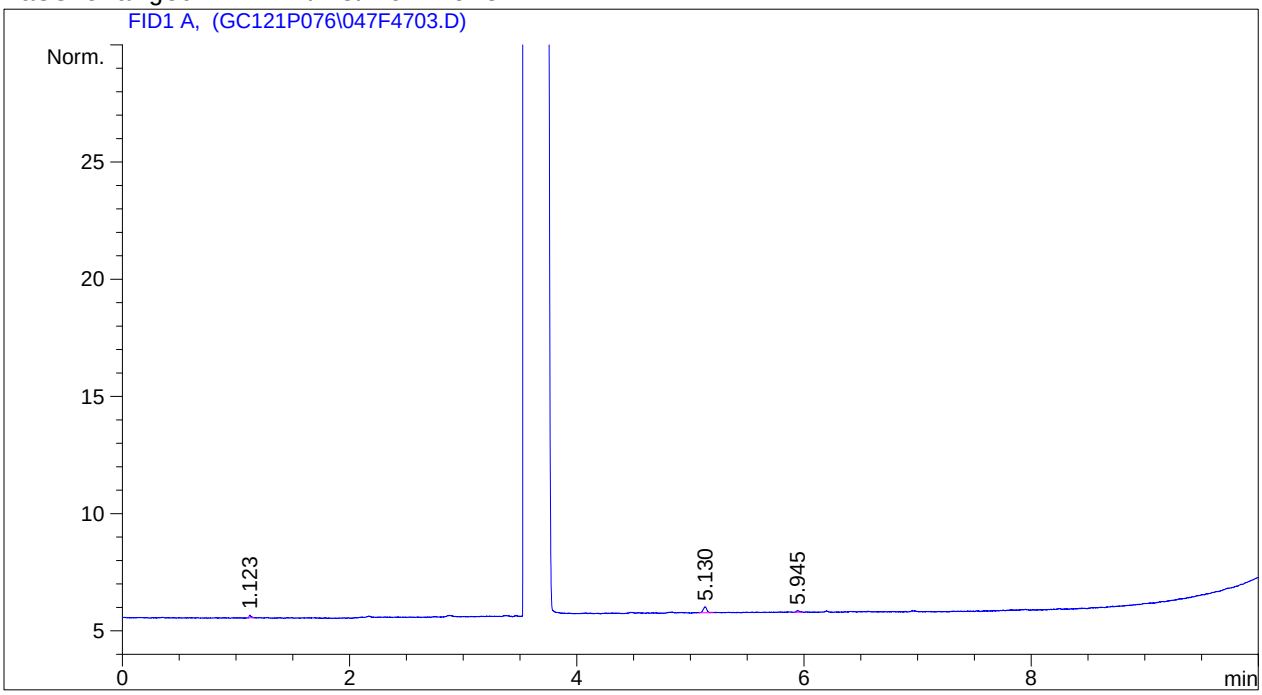
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                  0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\047F4703.D
Sample Name: 0611-22 M18 ICR3 SP COND EXT

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  47
Acq. Instrument : Lucy                              Location : Vial 47
Injection Date  : 14-Jul-11, 05:36:20                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

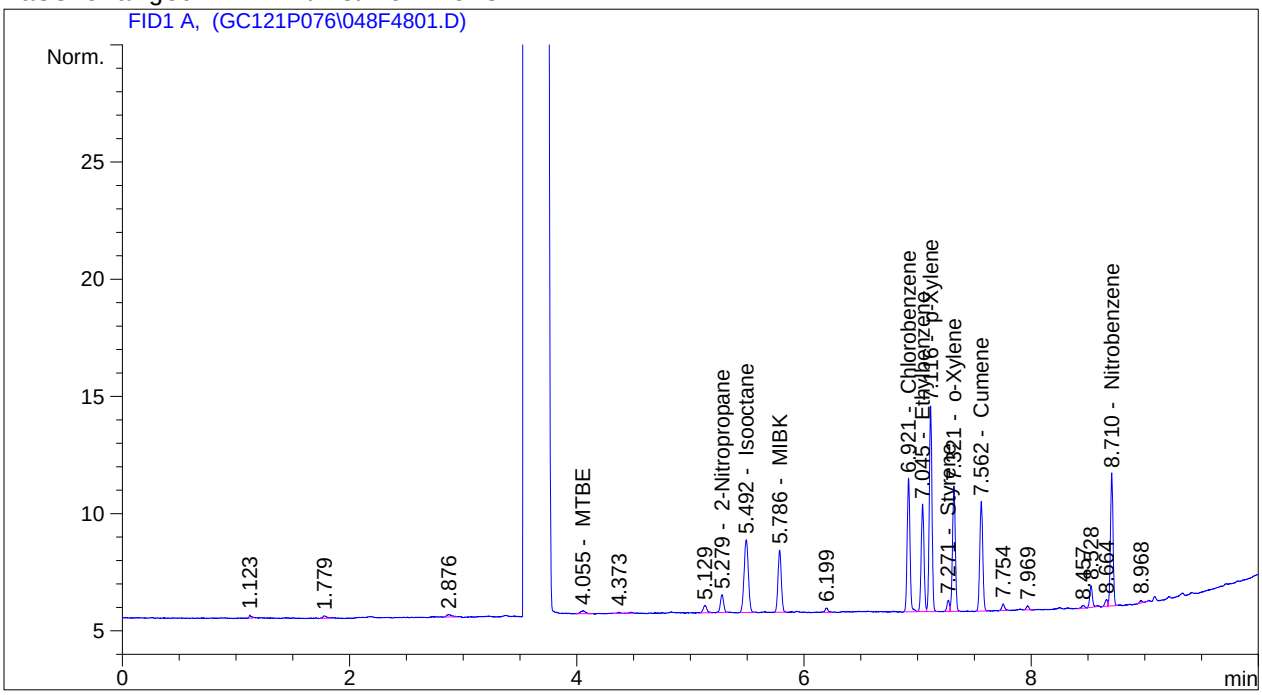
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\048F4801.D
Sample Name: 0611-22 M18 ICR3 SP XAD FH

Acq. Operator	:	Seq. Line	: 48
Acq. Instrument	: Lucy	Location	: Vial 48
Injection Date	: 14-Jul-11, 05:58:01	Inj	: 1
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

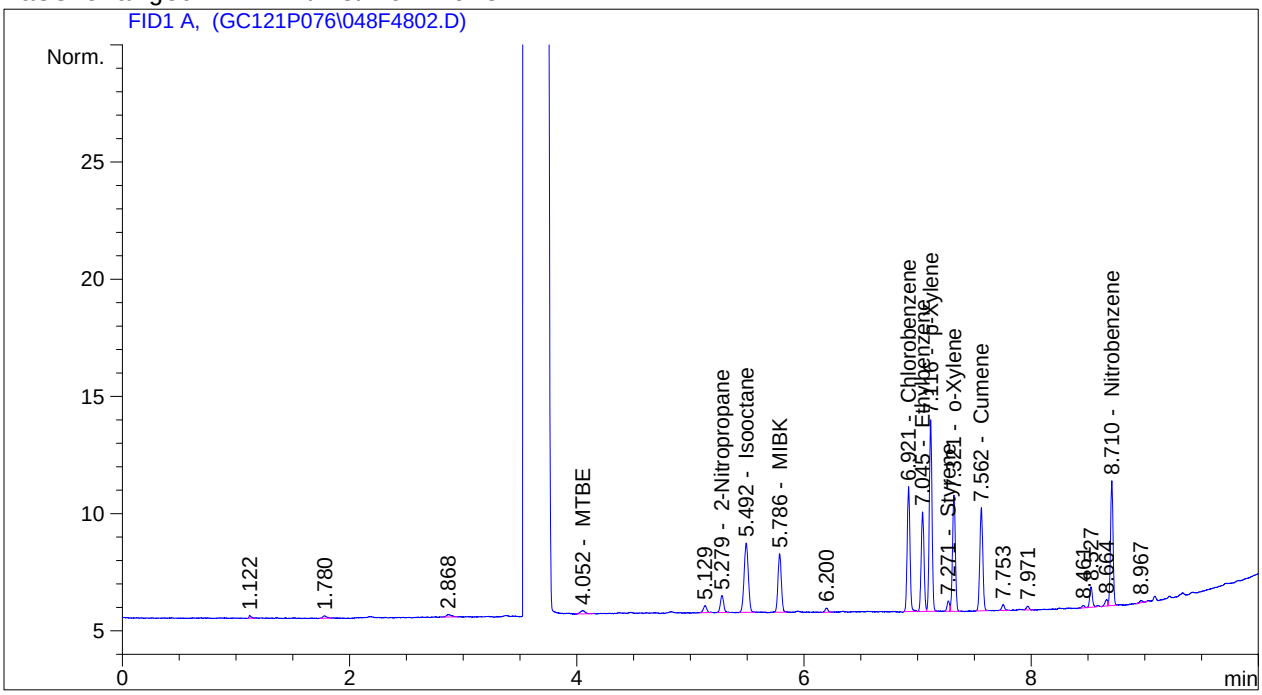
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.055	BB	3.72724e-1	1.00919	3.76148e-1		MTBE
5.279	BB	1.50390	1.29417	1.94630		2-Nitropropane
5.492	BB	8.08058	5.73276e-1	4.63240		Isooctane
5.786	BB	5.36038	7.98914e-1	4.28248		MIBK
6.921	BB	9.84863	6.96510e-1	6.85967		Chlorobenzene
7.045	BV	7.96708	4.99340e-1	3.97828		Ethylbenzene
7.116	VB	14.43960	4.97462e-1	7.18315		p-Xylene
7.271	BV	7.31304e-1	4.87001e-1	3.56146e-1		Styrene
7.321	VB	9.35034	4.87247e-1	4.55592		o-Xylene
7.562	BB	8.62790	4.93703e-1	4.25962		Cumene
8.710	VB	8.95560	8.02922e-1	7.19065		Nitrobenzene

Totals : 45.62077

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\048F4802.D
Sample Name: 0611-22 M18 ICR3 SP XAD FH

Acq. Operator	:	Seq. Line	: 48
Acq. Instrument	: Lucy	Location	: Vial 48
Injection Date	: 14-Jul-11, 06:19:34	Inj	: 2
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

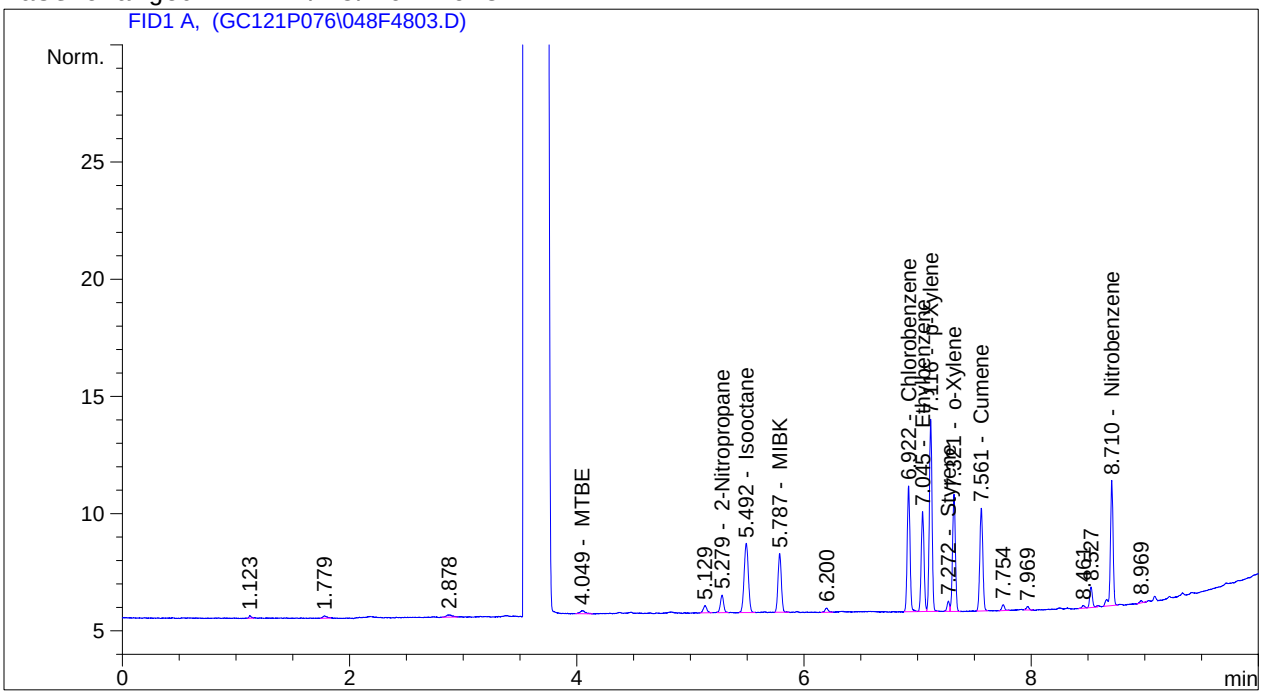
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.052	BB	4.15608e-1	1.00919	4.19426e-1		MTBE
5.279	BB	1.47086	1.29413	1.90349		2-Nitropropane
5.492	BB	7.62325	5.73040e-1	4.36843		Isooctane
5.786	BB	5.12532	7.99149e-1	4.09590		MIBK
6.921	BB	9.12893	6.96058e-1	6.35427		Chlorobenzene
7.045	BV	7.40925	4.99104e-1	3.69799		Ethylbenzene
7.116	VB	13.45408	4.97372e-1	6.69168		p-Xylene
7.271	BV	6.67675e-1	4.87001e-1	3.25159e-1		Styrene
7.321	VB	8.69565	4.86841e-1	4.23340		o-Xylene
7.562	BB	8.04486	4.93357e-1	3.96899		Cumene
8.710	VB	8.40691	8.02937e-1	6.75022		Nitrobenzene

Totals : 42.80895

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\048F4803.D
Sample Name: 0611-22 M18 ICR3 SP XAD FH

Acq. Operator	:	Seq. Line	: 48
Acq. Instrument	: Lucy	Location	: Vial 48
Injection Date	: 14-Jul-11, 06:41:21	Inj	: 3
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.049	BB	4.23830e-1	1.00919	4.27723e-1		MTBE
5.279	BB	1.48584	1.29413	1.92288		2-Nitropropane
5.492	BB	7.63591	5.73047e-1	4.37574		Isooctane
5.787	BB	5.10479	7.99171e-1	4.07960		MIBK
6.922	BB	9.17253	6.96088e-1	6.38489		Chlorobenzene
7.045	BV	7.43399	4.99115e-1	3.71042		Ethylbenzene
7.116	VB	13.53226	4.97379e-1	6.73067		p-Xylene
7.272	BV	6.51956e-1	4.87001e-1	3.17503e-1		Styrene
7.321	VB	8.68157	4.86832e-1	4.22646		o-Xylene
7.561	BB	8.06726	4.93371e-1	3.98015		Cumene
8.710	BB	8.89320	8.02924e-1	7.14056		Nitrobenzene

Totals : 43.29659

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\049F4901.D
Sample Name: 0611-22 M18 ICR3 SP XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  49
Acq. Instrument : Lucy                              Location : Vial 49
Injection Date  : 14-Jul-11, 07:03:03                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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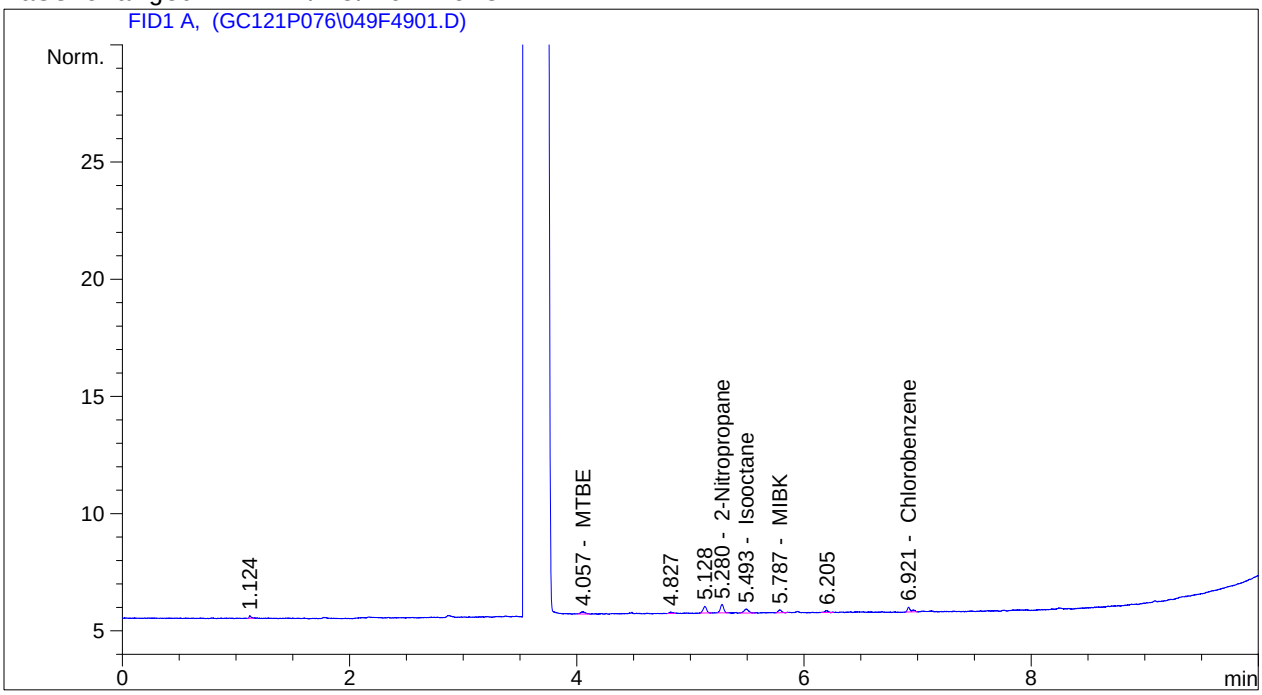


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.057 BB     2.92951e-1    1.00919 2.95642e-1    MTBE
  5.280 BB     7.47532e-1    1.29413 9.67407e-1    2-Nitropropane
  5.493 BB     4.91988e-1 5.64194e-1 2.77576e-1    Isooctane
  5.787 BB     2.50716e-1 8.07742e-1 2.02514e-1    MIBK
  6.921 BB     4.45630e-1 6.84762e-1 3.05150e-1    Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 2.04829
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\049F4902.D
Sample Name: 0611-22 M18 ICR3 SP XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  49
Acq. Instrument : Lucy                              Location : Vial 49
Injection Date  : 14-Jul-11, 07:24:41                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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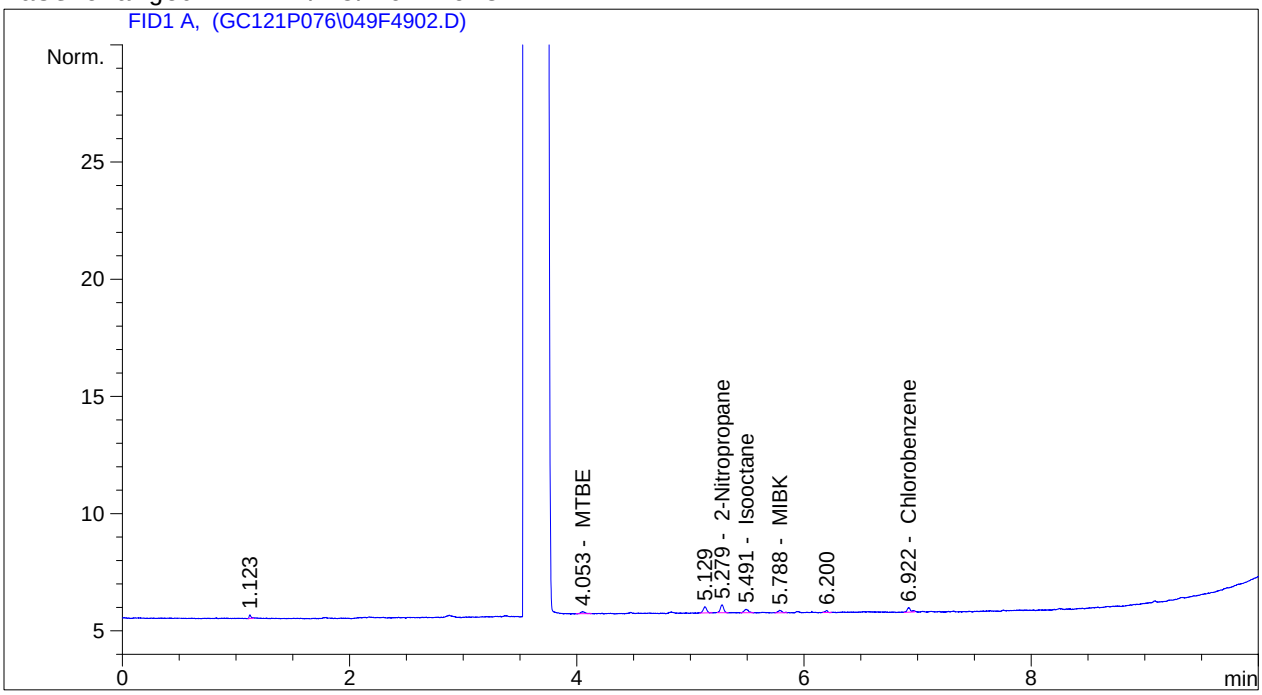


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.053 BB     2.24774e-1    1.00919 2.26839e-1    MTBE
  5.279 BB     6.70628e-1    1.29413 8.67883e-1    2-Nitropropane
  5.491 BB     3.68682e-1 5.64194e-1 2.08008e-1    Isooctane
  5.788 BB     2.50165e-1 8.07742e-1 2.02069e-1    MIBK
  6.922 BB     4.45653e-1 6.84762e-1 3.05166e-1    Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 1.80996
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\049F4903.D
Sample Name: 0611-22 M18 ICR3 SP XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  49
Acq. Instrument : Lucy                              Location : Vial 49
Injection Date  : 14-Jul-11, 07:46:28                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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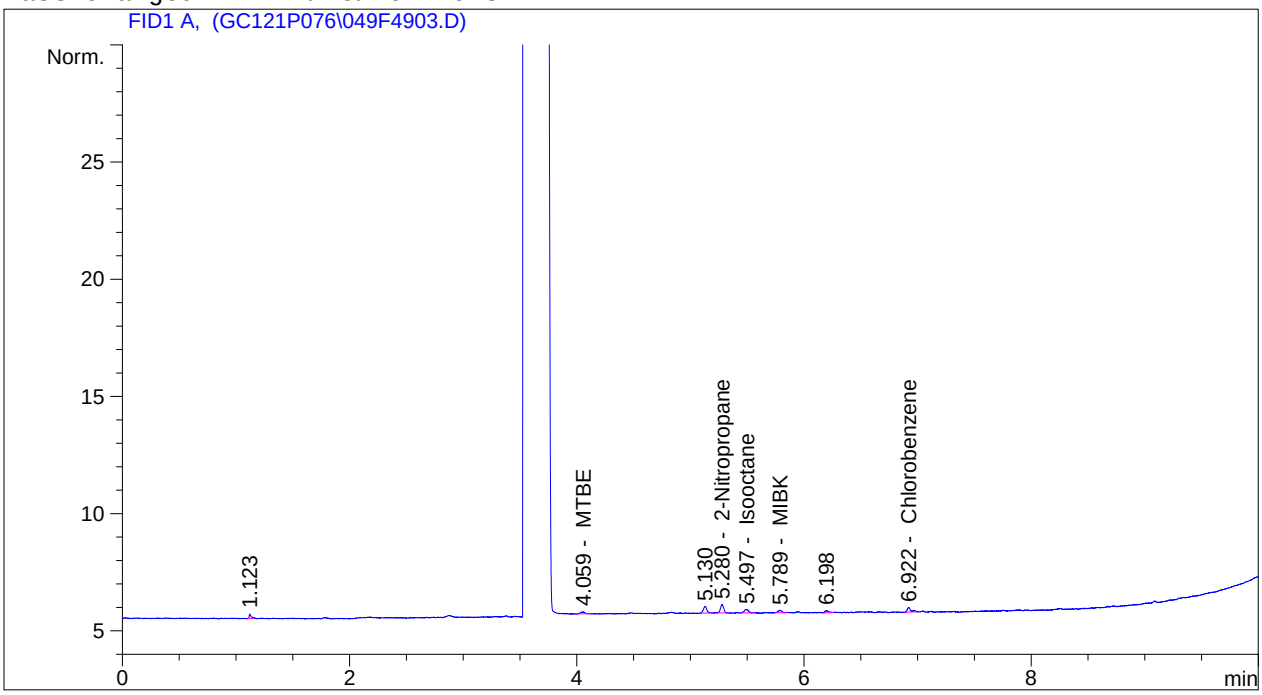
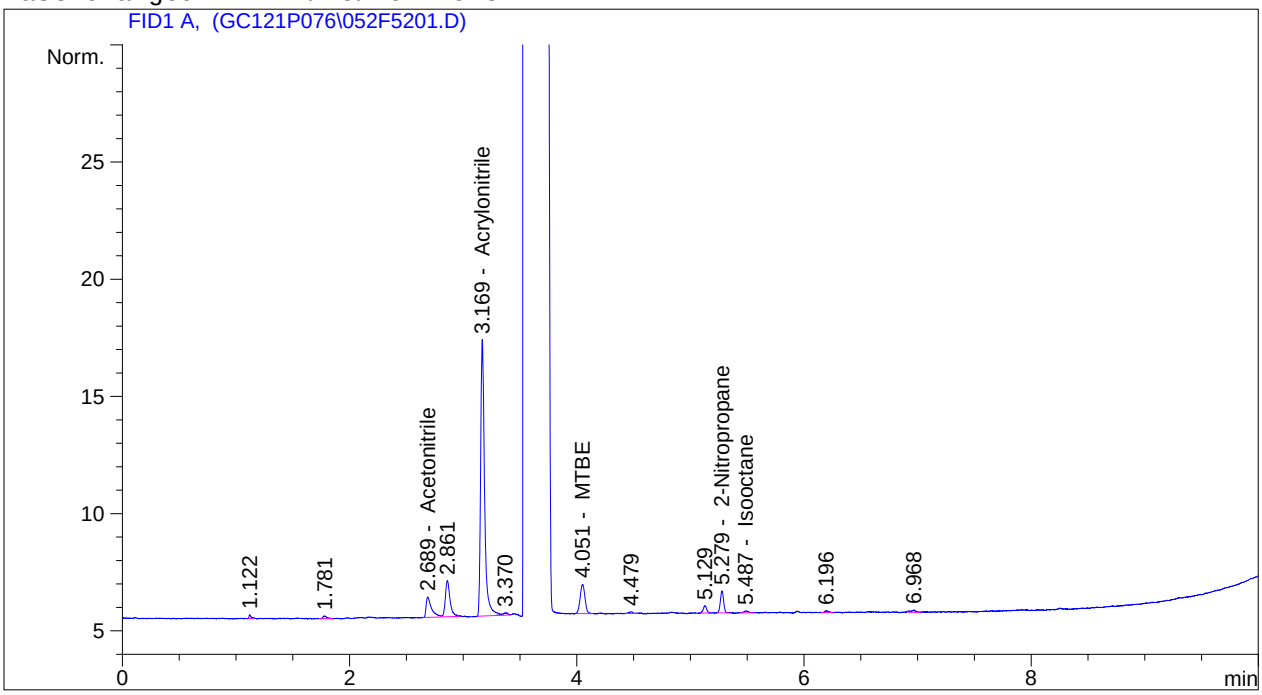



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.059 BB     2.08641e-1    1.00919 2.10558e-1     MTBE
  5.280 BB     7.02432e-1    1.29413 9.09041e-1     2-Nitropropane
  5.497 BB     3.92548e-1 5.64194e-1 2.21473e-1     Isooctane
  5.789 BB     2.24892e-1 8.07742e-1 1.81655e-1     MIBK
  6.922 BB     4.17276e-1 6.84762e-1 2.85735e-1     Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 1.80846
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\052F5201.D
Sample Name: 0611-22 M18 ICR3 SP CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  52
Acq. Instrument : Lucy                              Location : Vial 52
Injection Date  : 14-Jul-11, 10:18:49                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



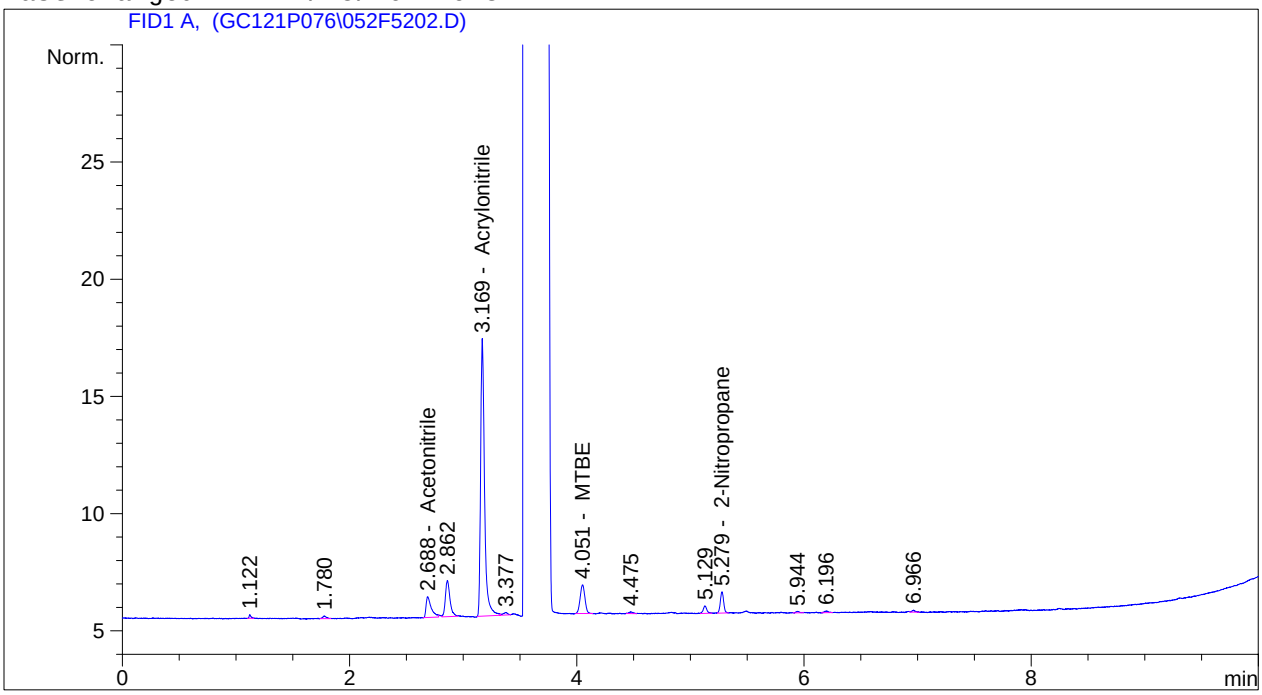

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.689	BB	2.83899	2.29399	6.51260		Acetonitrile
3.169	BB	28.24205	1.24961	35.29163		Acrylonitrile
4.051	BB	3.64786	1.01275	3.69438		MTBE
5.279	BB	1.86435	1.29526	2.41483		2-Nitropropane
5.487	BB	2.13066e-1	5.64194e-1	1.20210e-1		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 48.03365

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\052F5202.D
Sample Name: 0611-22 M18 ICR3 SP CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  52
Acq. Instrument : Lucy                              Location : Vial 52
Injection Date  : 14-Jul-11, 10:40:37                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



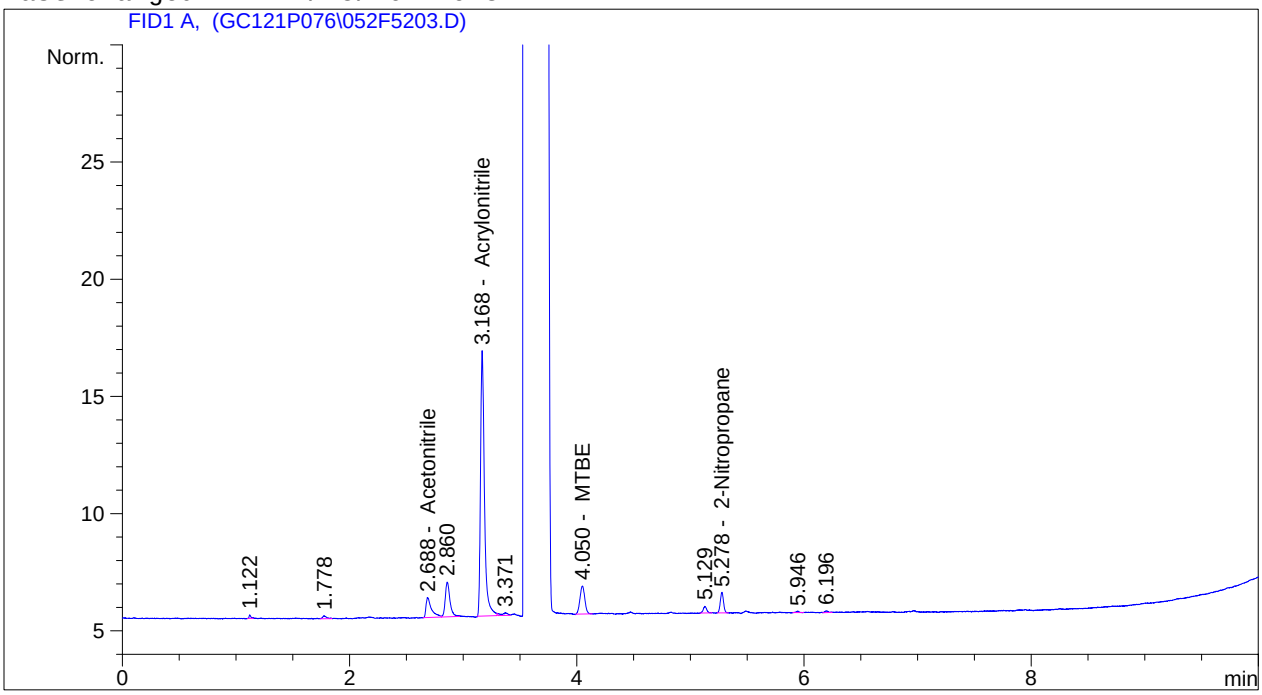

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.688	BB	2.80310	2.29655	6.43746		Acetonitrile
3.169	BB	28.39422	1.24956	35.48016		Acrylonitrile
4.051	BB	3.55339	1.01269	3.59848		MTBE
5.279	BB	1.82526	1.29517	2.36402		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 47.88012

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\052F5203.D
Sample Name: 0611-22 M18 ICR3 SP CT FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  52
Acq. Instrument : Lucy                              Location : Vial 52
Injection Date  : 14-Jul-11, 11:02:16                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```



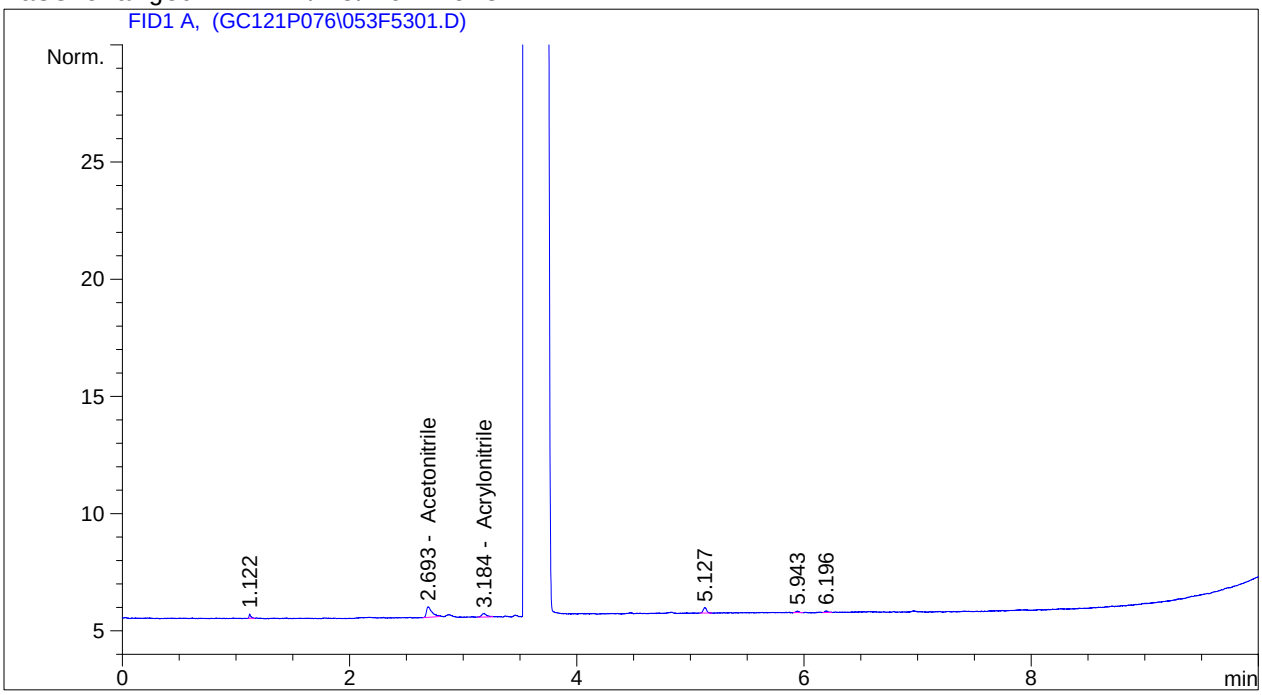

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.688	BV	2.78796	2.29765	6.40576		Acetonitrile
3.168	BB	27.17917	1.25003	33.97476		Acrylonitrile
4.050	BB	3.51252	1.01266	3.55698		MTBE
5.278	BB	1.72434	1.29489	2.23283		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 46.17033

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\053F5301.D
Sample Name: 0611-22 M18 ICR3 SP CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  53
Acq. Instrument : Lucy                              Location : Vial 53
Injection Date  : 14-Jul-11, 11:23:54                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.693	BB	1.48089	2.47755	3.66897		Acetonitrile
3.184	BB	4.58299e-1	1.53275	7.02457e-1		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 4.37143

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\053F5302.D
Sample Name: 0611-22 M18 ICR3 SP CT BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  53
Acq. Instrument : Lucy                              Location : Vial 53
Injection Date  : 14-Jul-11, 11:45:25                    Inj :   2
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/19/2011 10:23:03 PM
                  (modified after loading)
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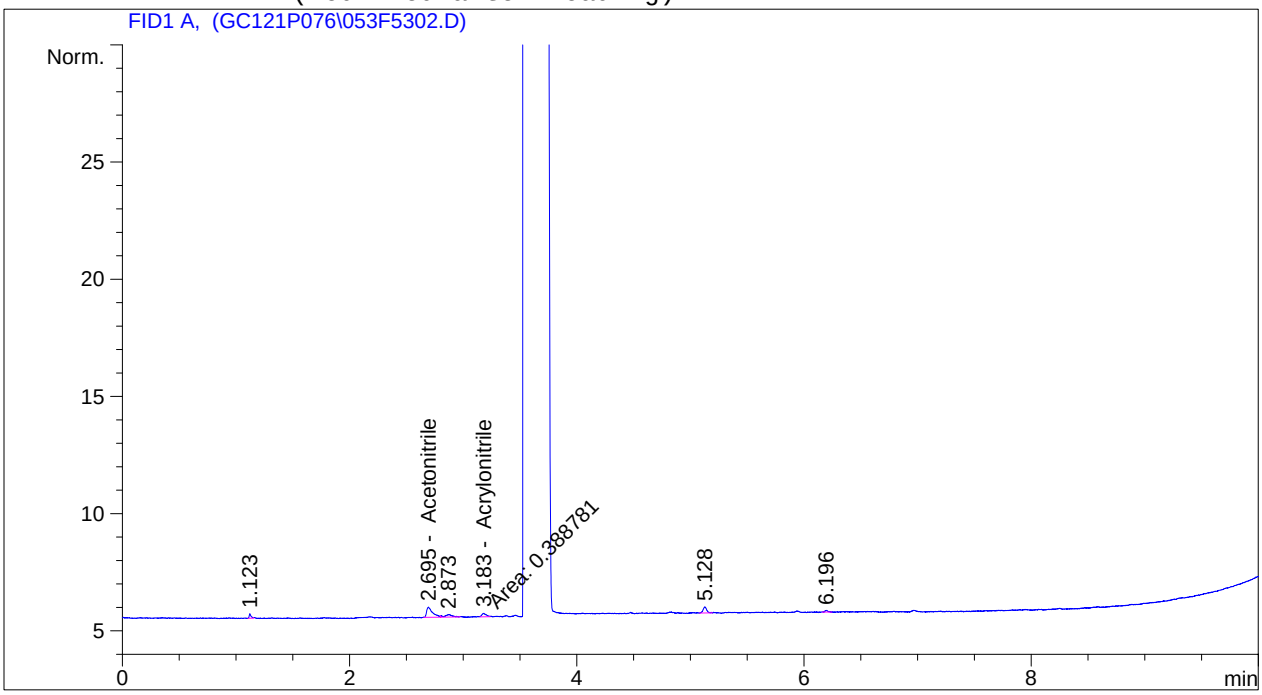


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.695	BB	1.55911	2.45829	3.83276		Acetonitrile
3.183	MM	3.88781e-1	1.53275	5.95904e-1		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 4.42866

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\053F5303.D
Sample Name: 0611-22 M18 ICR3 SP CT BH

```
Acq. Operator   :                                   Seq. Line :  53
Acq. Instrument : Lucy                               Location : Vial 53
Injection Date  : 14-Jul-11, 12:06:54                     Inj :   3
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/19/2011 10:23:03 PM
                  (modified after loading)
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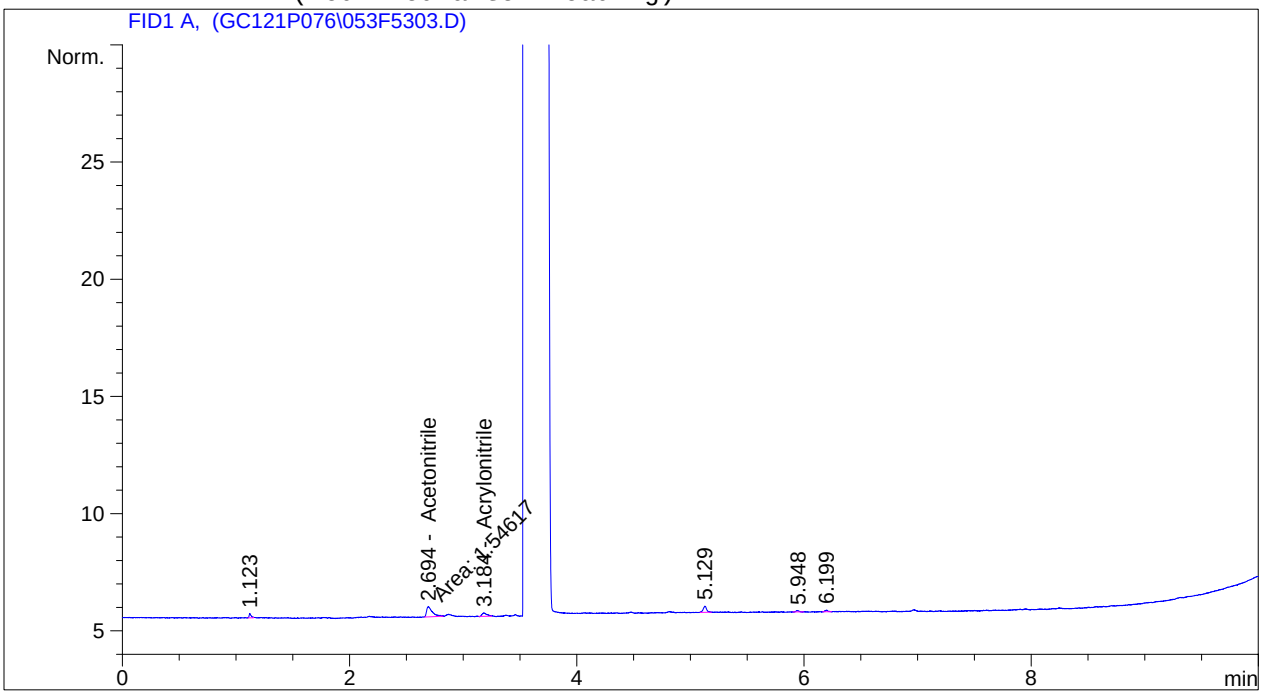


External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

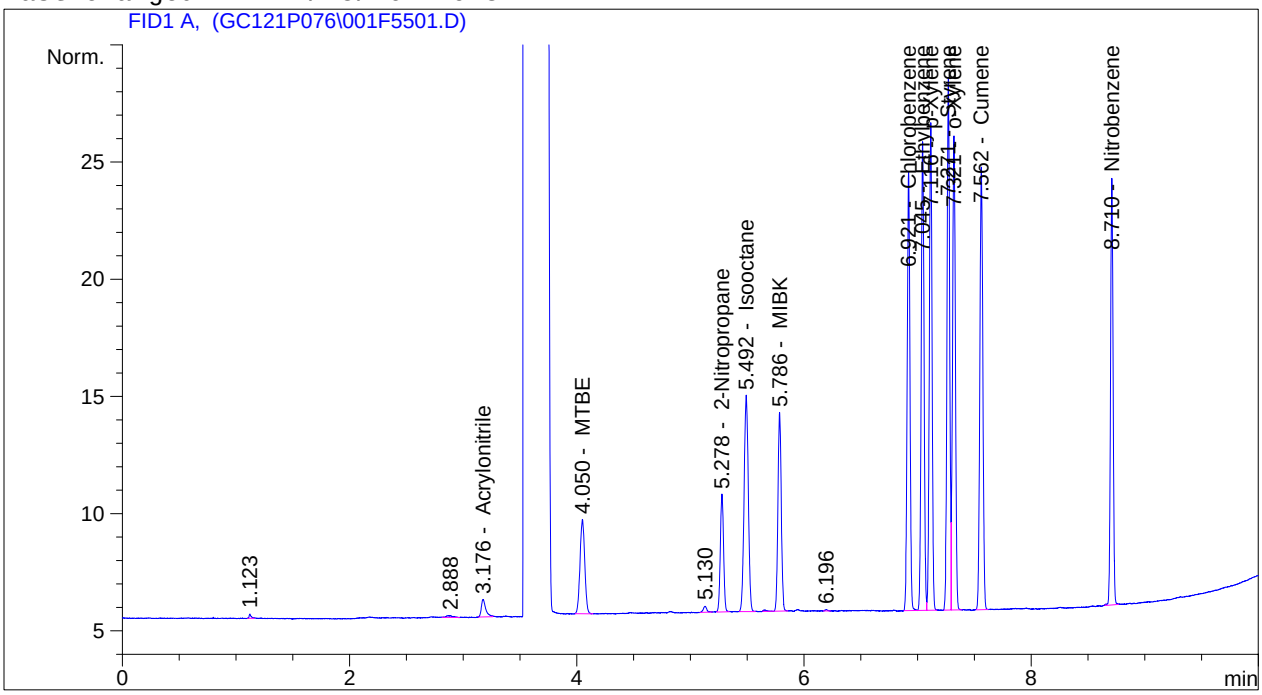
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.694	MM	1.54617	2.46134	3.80566		Acetonitrile
3.184	BB	4.45869e-1	1.53275	6.83405e-1		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 4.48907

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\001F5501.D
Sample Name: 0611-22 AQ LCS-3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  55
Acq. Instrument : Lucy                              Location : Vial 1
Injection Date  : 14-Jul-11, 12:41:29                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176 BB        2.00395    1.38903    2.78355    Acrylonitrile
  4.050 BB       11.64268    1.01439   11.81019    MTBE
  5.278 BB       10.01917    1.29898   13.01466    2-Nitropropane
  5.492 BB       24.01946 5.75881e-1   13.83236    Isooctane
  5.786 BB       17.44196 7.95362e-1   13.87267    MIBK
  6.921 BV       31.59091 7.00451e-1   22.12788    Chlorobenzene
  7.045 VV       34.80014 5.01755e-1   17.46113    Ethylbenzene
  7.116 VB       34.67569 4.98178e-1   17.27467    p-Xylene
  7.271 BV       37.11898 4.87407e-1   18.09207    Styrene
  7.321 VB       35.44262 4.91212e-1   17.40983    o-Xylene
  7.562 BB       34.77401 4.97294e-1   17.29292    Cumene
  8.710 BB       28.53297 8.02762e-1   22.90519    Nitrobenzene

Totals :                               187.87712
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\001F5502.D
Sample Name: 0611-22 AQ LCS-3

```
==================================================================
Acq. Operator   :                                Seq. Line :  55
Acq. Instrument : Lucy                            Location : Vial 1
Injection Date  : 14-Jul-11, 13:02:58                  Inj :   2
                                                Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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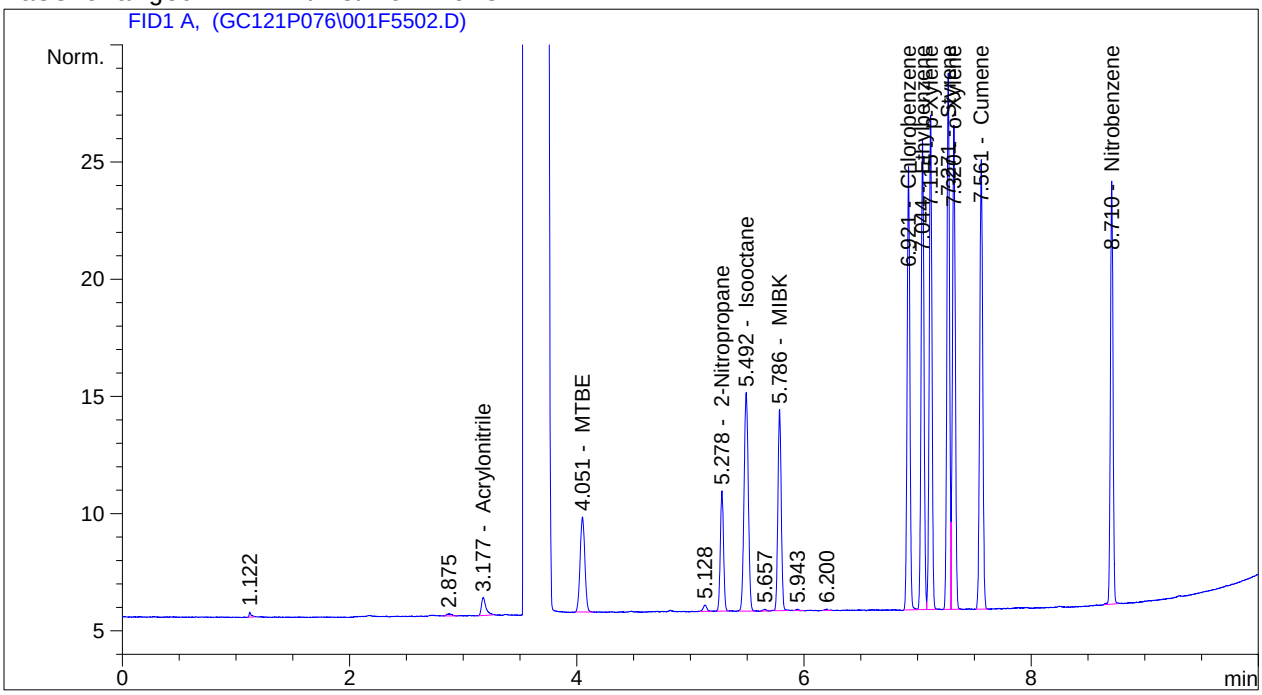


```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.177	BB	2.10021	1.38216	2.90282		Acrylonitrile
4.051	BB	11.83099	1.01440	12.00135		MTBE
5.278	BB	10.14617	1.29899	13.17974		2-Nitropropane
5.492	BB	24.23840	5.75893e-1	13.95873		Isooctane
5.786	BB	17.45845	7.95360e-1	13.88576		MIBK
6.921	BV	31.88380	7.00467e-1	22.33356		Chlorobenzene
7.044	VV	35.06959	5.01760e-1	17.59652		Ethylbenzene
7.115	VB	34.95867	4.98182e-1	17.41579		p-Xylene
7.271	BV	37.42472	4.87408e-1	18.24110		Styrene
7.320	VB	35.72071	4.91223e-1	17.54683		o-Xylene
7.561	BB	35.02713	4.97303e-1	17.41909		Cumene
8.710	BB	28.65973	8.02762e-1	23.00693		Nitrobenzene

```
Totals :                                  189.48823
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\001F5503.D
Sample Name: 0611-22 AQ LCS-3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  55
Acq. Instrument : Lucy                              Location : Vial 1
Injection Date  : 14-Jul-11, 13:25:00                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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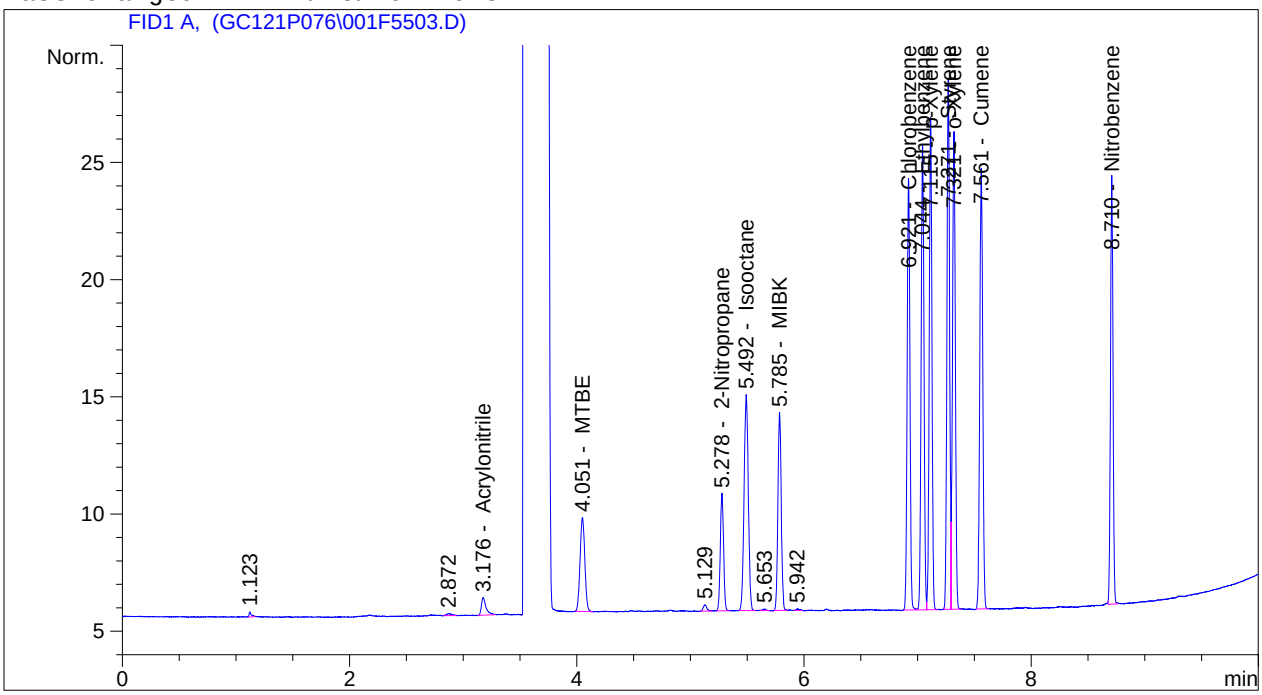


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176	BB	2.09545	1.38248	2.89692		Acrylonitrile
4.051	BB	11.64951	1.01439	11.81711		MTBE
5.278	BB	10.03507	1.29898	13.03532		2-Nitropropane
5.492	BB	23.89909	5.75875e-1	13.76288		Isooctane
5.785	BB	17.21795	7.95382e-1	13.69485		MIBK
6.921	BV	31.59409	7.00451e-1	22.13011		Chlorobenzene
7.044	VV	34.72174	5.01753e-1	17.42174		Ethylbenzene
7.115	VB	34.54107	4.98176e-1	17.20754		p-Xylene
7.271	BV	37.03188	4.87407e-1	18.04961		Styrene
7.321	VB	35.31529	4.91207e-1	17.34711		o-Xylene
7.561	BB	34.58327	4.97288e-1	17.19784		Cumene
8.710	BB	28.27005	8.02763e-1	22.69414		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\002F5601.D
Sample Name: 0611-22 AQ LCS-4

```
==================================================================
Acq. Operator   :                                Seq. Line :  56
Acq. Instrument : Lucy                            Location : Vial 2
Injection Date  : 14-Jul-11, 13:47:09                  Inj :   1
                                                Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/19/2011 10:23:03 PM
                  (modified after loading)
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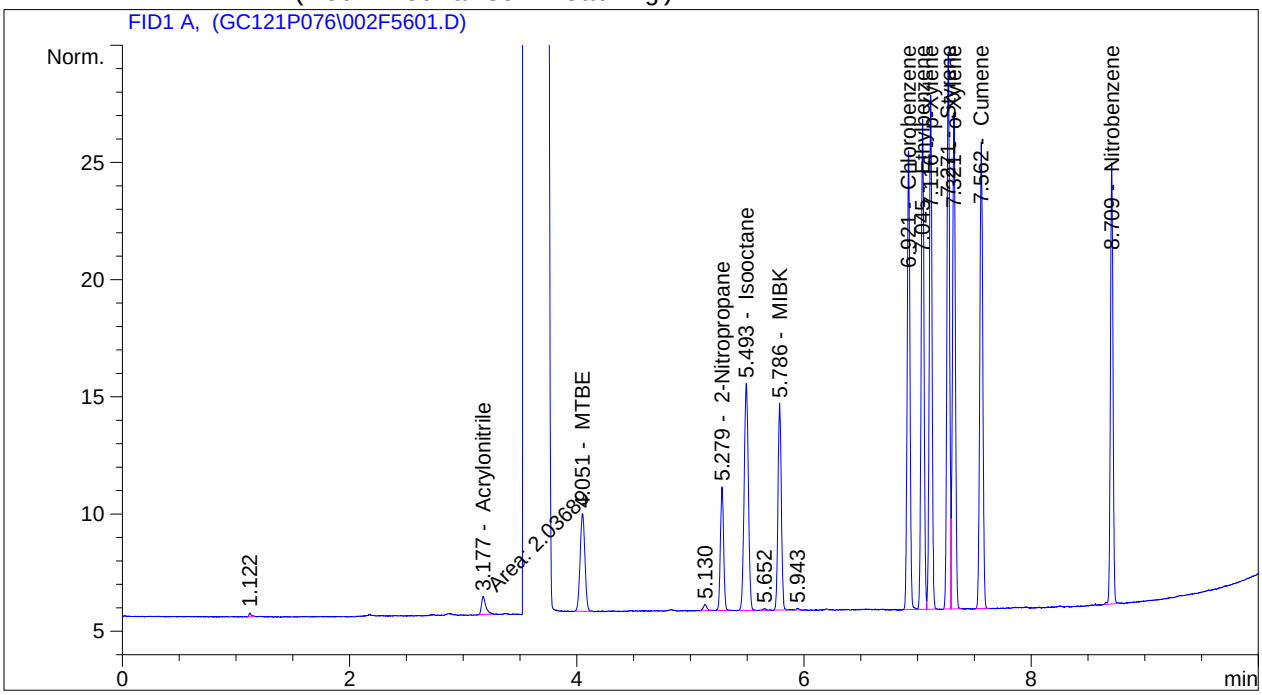



```
==================================================================
                    External Standard Report
==================================================================

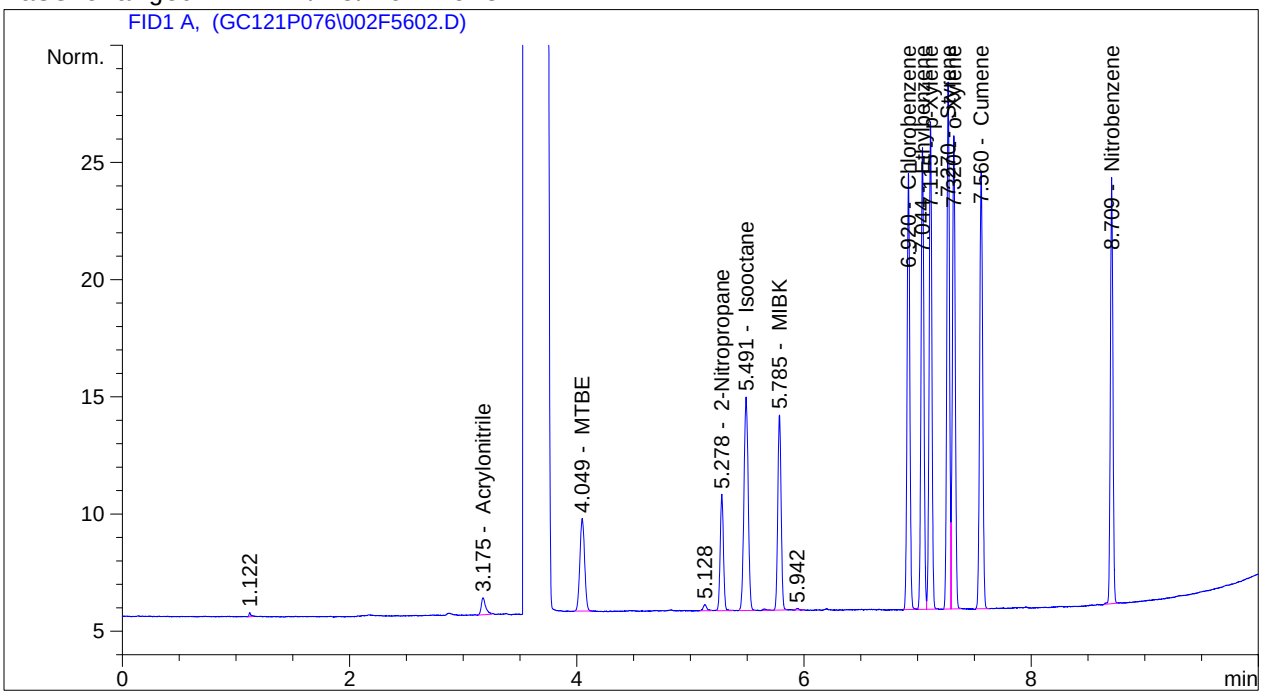
Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.177	MM	2.03689	1.38661	2.82437		Acrylonitrile
4.051	BB	12.20414	1.01442	12.38014		MTBE
5.279	BB	10.43258	1.29901	13.55202		2-Nitropropane
5.493	BB	25.13926	5.75940e-1	14.47871		Isooctane
5.786	BB	18.00651	7.95312e-1	14.32080		MIBK
6.921	BV	33.05771	7.00530e-1	23.15792		Chlorobenzene
7.045	VV	36.36542	5.01785e-1	18.24764		Ethylbenzene
7.116	VB	36.23586	4.98200e-1	18.05272		p-Xylene
7.271	BV	38.78309	4.87409e-1	18.90324		Styrene
7.321	VB	37.02859	4.91273e-1	18.19114		o-Xylene
7.562	BB	36.27233	4.97343e-1	18.03980		Cumene
8.709	BB	29.61220	8.02759e-1	23.77147		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\002F5602.D
Sample Name: 0611-22 AQ LCS-4

```
==================================================================
Acq. Operator   :                                Seq. Line :  56
Acq. Instrument : Lucy                            Location : Vial 2
Injection Date  : 14-Jul-11, 14:09:07                  Inj :   2
                                                Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```

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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```
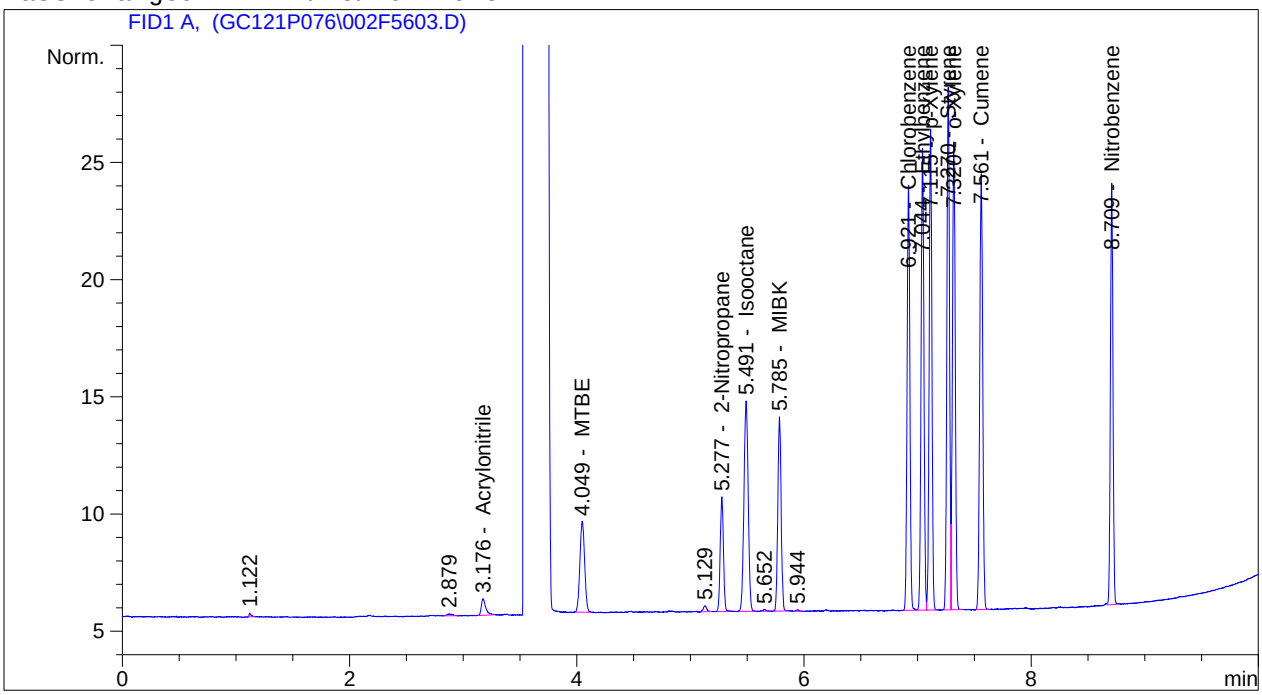

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.175	BB	1.93751	1.39418	2.70124		Acrylonitrile
4.049	BB	11.48135	1.01438	11.64642		MTBE
5.278	BB	9.87619	1.29896	12.82881		2-Nitropropane
5.491	BB	23.75076	5.75866e-1	13.67727		Isooctane
5.785	BB	17.08620	7.95395e-1	13.59028		MIBK
6.920	BB	31.24266	7.00431e-1	21.88333		Chlorobenzene
7.044	BV	34.45090	5.01747e-1	17.28565		Ethylbenzene
7.115	VB	34.37165	4.98174e-1	17.12306		p-Xylene
7.270	BV	36.82138	4.87407e-1	17.94700		Styrene
7.320	VB	35.15915	4.91200e-1	17.27019		o-Xylene
7.560	BB	34.45303	4.97283e-1	17.13291		Cumene
8.709	BB	28.34951	8.02762e-1	22.75792		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\002F5603.D
Sample Name: 0611-22 AQ LCS-4

```
==================================================================
Acq. Operator   :                                Seq. Line :  56
Acq. Instrument : Lucy                            Location : Vial 2
Injection Date  : 14-Jul-11, 14:30:47                  Inj :   3
                                                Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```

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==================================================================
                    External Standard Report
==================================================================

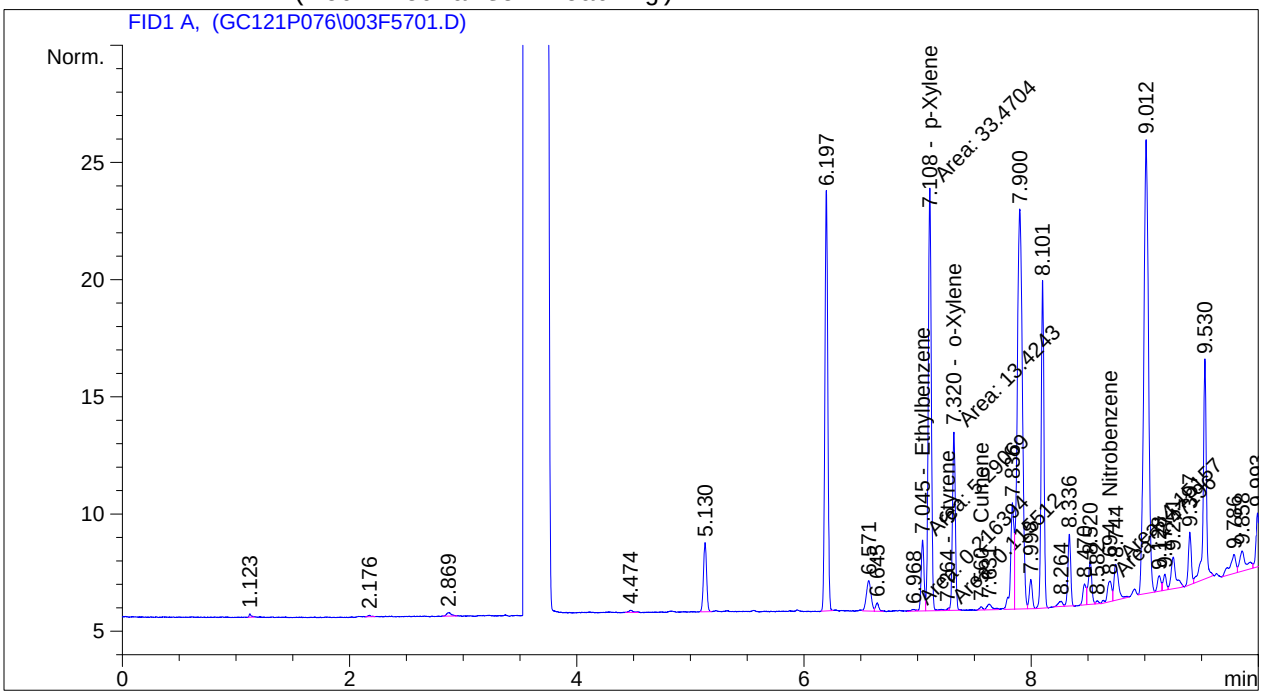
Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176	BB	1.89766	1.39744	2.65186		Acrylonitrile
4.049	BB	11.25941	1.01436	11.42112		MTBE
5.277	BB	9.65763	1.29894	12.54472		2-Nitropropane
5.491	BB	23.41915	5.75847e-1	13.48586		Isooctane
5.785	BB	16.82768	7.95419e-1	13.38506		MIBK
6.921	BV	31.05567	7.00420e-1	21.75201		Chlorobenzene
7.044	VV	34.22692	5.01743e-1	17.17311		Ethylbenzene
7.115	VB	34.09746	4.98170e-1	16.98632		p-Xylene
7.270	BV	36.58247	4.87407e-1	17.83055		Styrene
7.320	VB	34.88765	4.91189e-1	17.13644		o-Xylene
7.561	BB	34.24909	4.97276e-1	17.03125		Cumene
8.709	BB	28.02839	8.02763e-1	22.50016		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\003F5701.D
Sample Name: 0611-107 Pre1 XAD FH

Acq. Operator	:	Seq. Line	: 57
Acq. Instrument	: Lucy	Location	: Vial 3
Injection Date	: 14-Jul-11, 14:52:10	Inj	: 1
		Inj Volume	: External
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/14/2011 1:34:41 PM (modified after loading)		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/19/2011 10:23:03 PM (modified after loading)		



External Standard Report

Sorted By	: Signal
Calib. Data Modified	: 7/15/2011 9:32:30 PM
Multiplier:	: 1.0000
Dilution:	: 1.0000

Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.045	MF	5.29069	4.97756e-1	2.63347		Ethylbenzene
7.108	FM	33.47044	4.98160e-1	16.67363		p-Xylene
7.264	MF	1.15512e-1	4.87001e-1	5.62543e-2		Styrene
7.320	FM	13.42433	4.88881e-1	6.56290		o-Xylene
7.560	BV	2.57807e-1	4.86895e-1	1.25525e-1		Cumene
8.694	MF	2.47196	8.03388e-1	1.98595		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\003F5702.D
Sample Name: 0611-107 Pre1 XAD FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  57
Acq. Instrument : Lucy                              Location : Vial 3
Injection Date  : 14-Jul-11, 15:13:44                    Inj :   2
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/19/2011 10:23:03 PM
                  (modified after loading)
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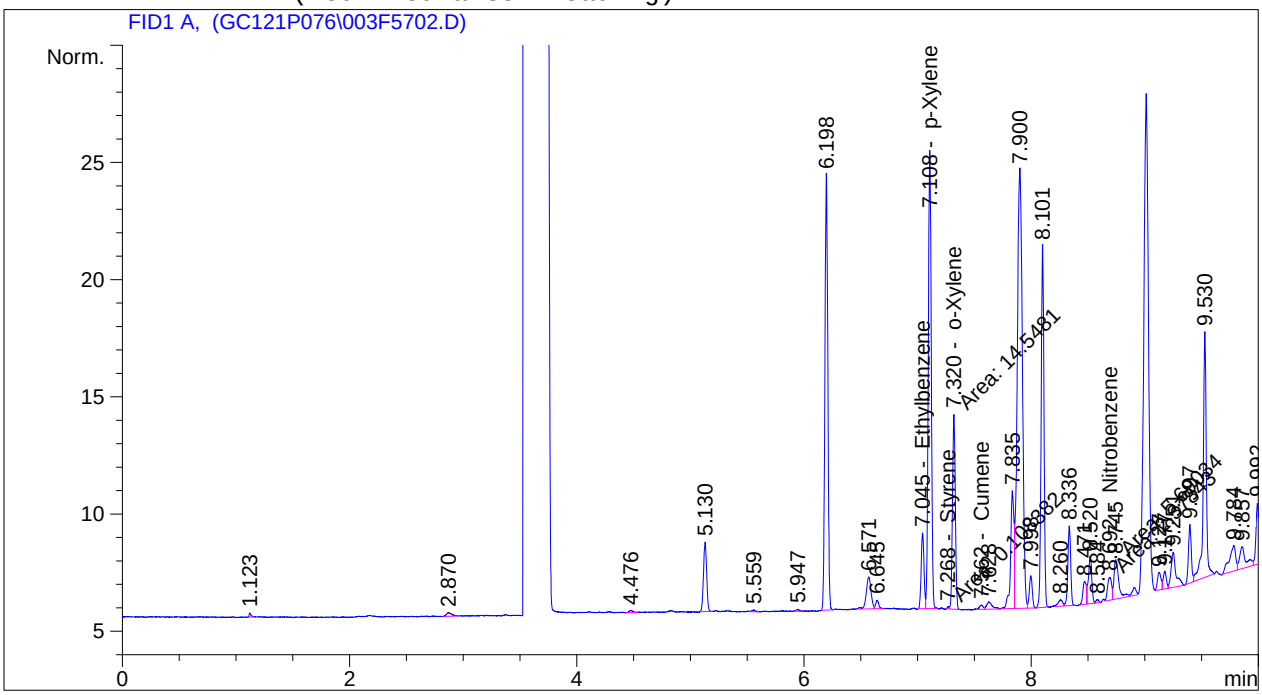
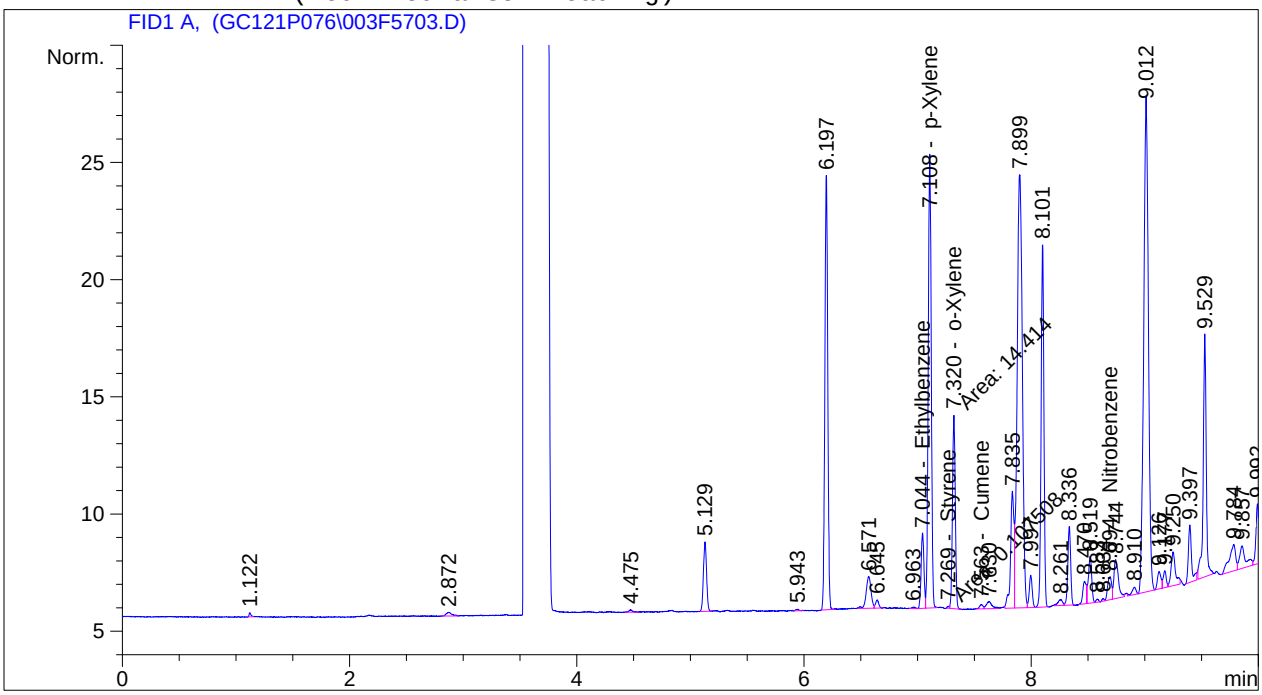



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.045	BV	5.52437	4.97955e-1	2.75089		Ethylbenzene
7.108	VB	36.20058	4.98200e-1	18.03512		p-Xylene
7.268	MF	1.08382e-1	4.87001e-1	5.27821e-2		Styrene
7.320	FM	14.54807	4.89171e-1	7.11649		o-Xylene
7.562	BV	4.07991e-1	4.86895e-1	1.98649e-1		Cumene
8.692	MF	2.37843	8.03388e-1	1.91080		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\003F5703.D
Sample Name: 0611-107 Pre1 XAD FH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  57
Acq. Instrument : Lucy                              Location : Vial 3
Injection Date  : 14-Jul-11, 15:35:29                    Inj :   3
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/19/2011 10:23:03 PM
                  (modified after loading)
```

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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.044	VV	5.57099	4.97993e-1	2.77431		Ethylbenzene
7.108	VB	36.00953	4.98197e-1	17.93985		p-Xylene
7.269	MF	1.07508e-1	4.87001e-1	5.23565e-2		Styrene
7.320	FM	14.41397	4.89139e-1	7.05043		o-Xylene
7.563	BV	3.99134e-1	4.86895e-1	1.94336e-1		Cumene
8.694	VV	2.41194	8.03388e-1	1.93773		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\004F5801.D
Sample Name: 0611-107 Pre1 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  58
Acq. Instrument : Lucy                              Location : Vial 4
Injection Date  : 14-Jul-11, 15:57:20                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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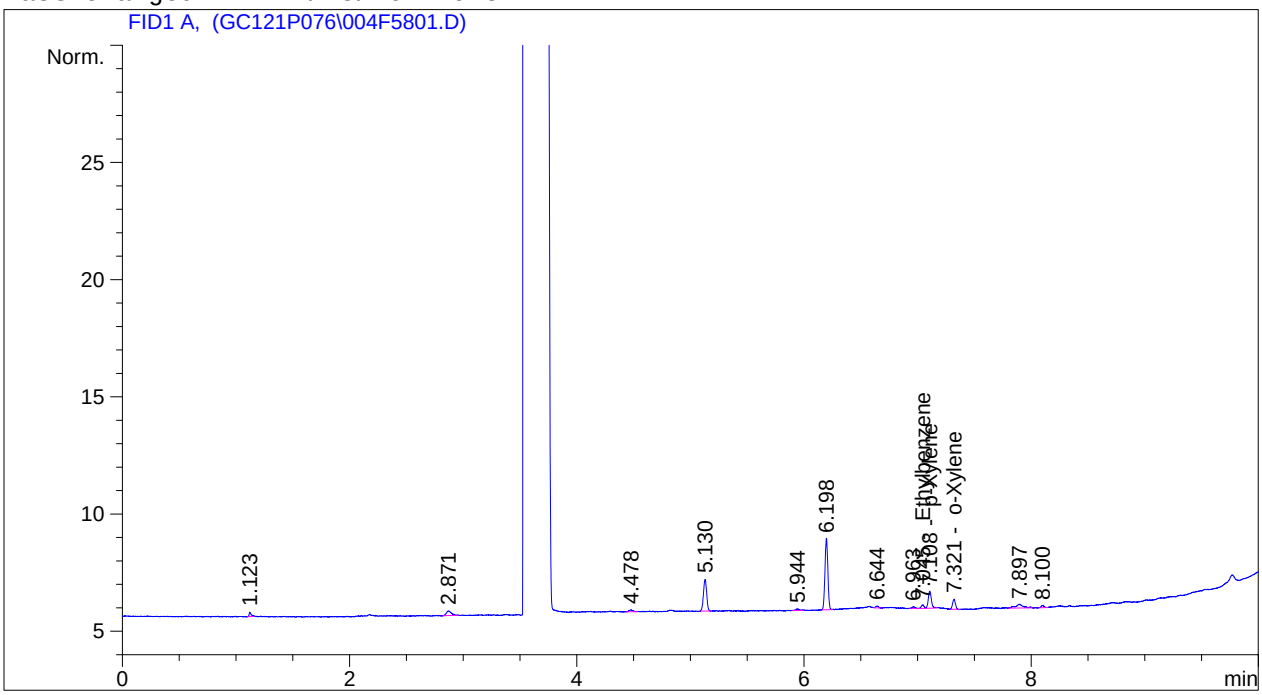


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.045	BV	2.38069e-1	4.95328e-1	1.17922e-1		Ethylbenzene
7.108	VB	1.35528	4.93593e-1	6.68958e-1		p-Xylene
7.260		-	-	-		Styrene
7.321	BB	7.28920e-1	4.78890e-1	3.49073e-1		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\004F5802.D
Sample Name: 0611-107 Pre1 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  58
Acq. Instrument : Lucy                              Location : Vial 4
Injection Date  : 14-Jul-11, 16:18:53                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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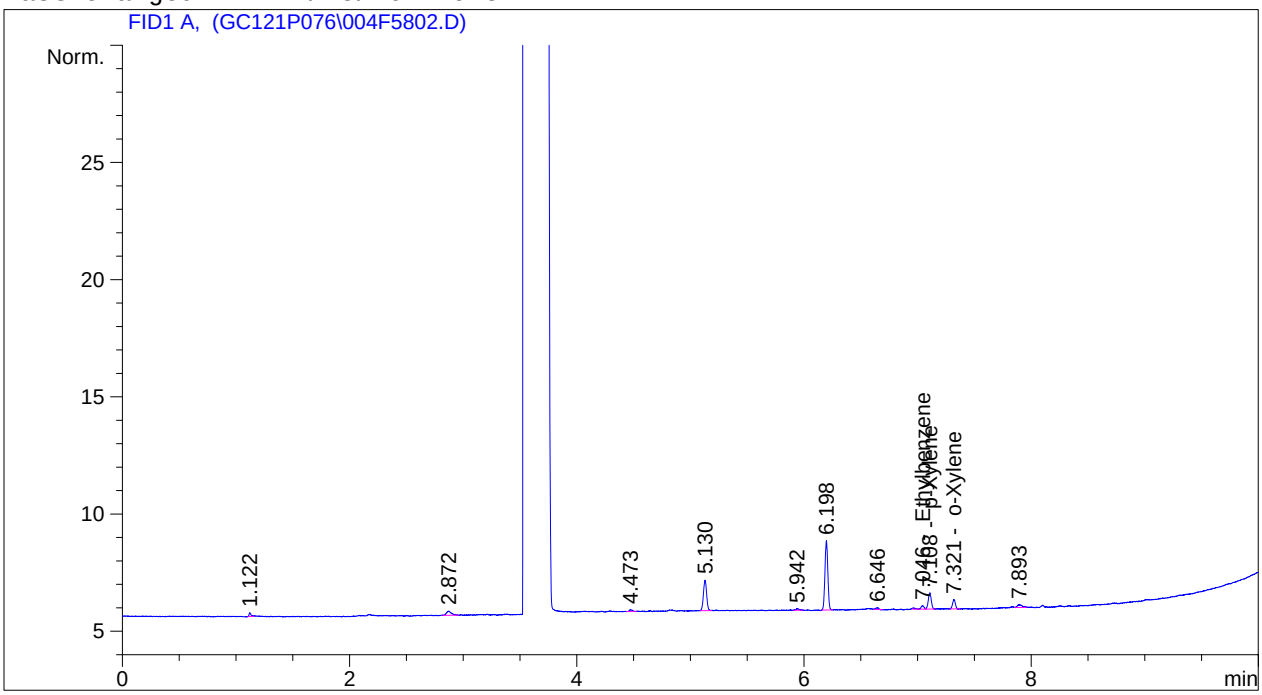


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.046	BV	3.51431e-1	4.95328e-1	1.74074e-1		Ethylbenzene
7.108	VB	1.26691	4.93593e-1	6.25338e-1		p-Xylene
7.260		-	-	-		Styrene
7.321	BB	6.75707e-1	4.78890e-1	3.23590e-1		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\004F5803.D
Sample Name: 0611-107 Pre1 XAD BH

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  58
Acq. Instrument : Lucy                              Location : Vial 4
Injection Date  : 14-Jul-11, 16:40:26                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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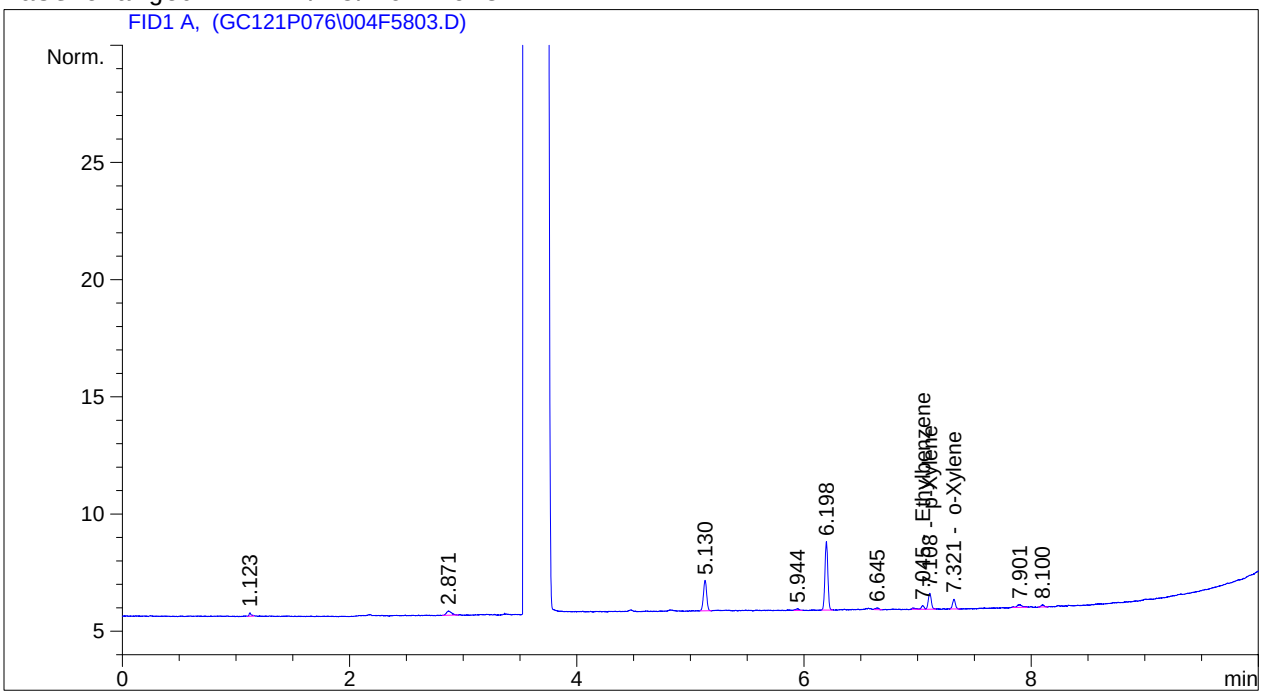


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.045	BV	3.54328e-1	4.95328e-1	1.75509e-1		Ethylbenzene
7.108	VB	1.26619	4.93593e-1	6.24985e-1		p-Xylene
7.260		-	-	-		Styrene
7.321	BB	7.24561e-1	4.78890e-1	3.46985e-1		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\001F5501.D
Sample Name: 0611-22 AQ LCS-3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  55
Acq. Instrument : Lucy                              Location : Vial 1
Injection Date  : 14-Jul-11, 12:41:29                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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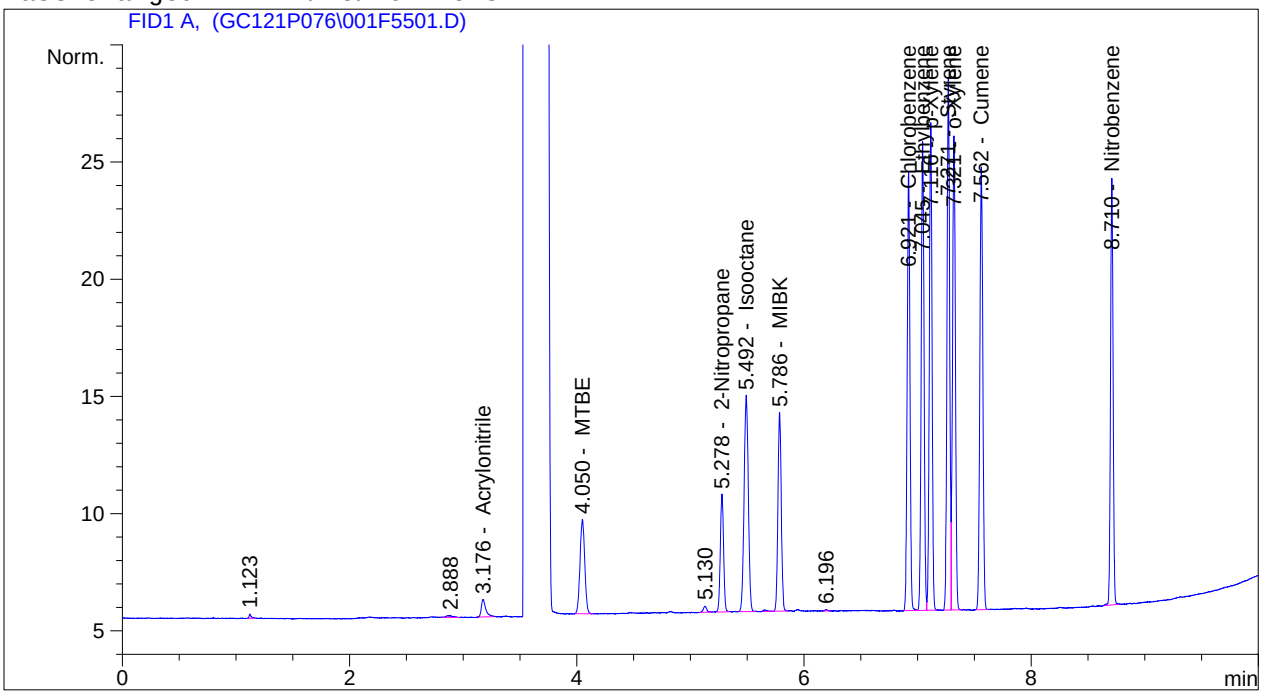


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176 BB        2.00395    1.38903    2.78355    Acrylonitrile
  4.050 BB       11.64268    1.01439   11.81019    MTBE
  5.278 BB       10.01917    1.29898   13.01466    2-Nitropropane
  5.492 BB       24.01946 5.75881e-1   13.83236    Isooctane
  5.786 BB       17.44196 7.95362e-1   13.87267    MIBK
  6.921 BV       31.59091 7.00451e-1   22.12788    Chlorobenzene
  7.045 VV       34.80014 5.01755e-1   17.46113    Ethylbenzene
  7.116 VB       34.67569 4.98178e-1   17.27467    p-Xylene
  7.271 BV       37.11898 4.87407e-1   18.09207    Styrene
  7.321 VB       35.44262 4.91212e-1   17.40983    o-Xylene
  7.562 BB       34.77401 4.97294e-1   17.29292    Cumene
  8.710 BB       28.53297 8.02762e-1   22.90519    Nitrobenzene

Totals :                               187.87712
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\001F5502.D
Sample Name: 0611-22 AQ LCS-3

```
==================================================================
Acq. Operator   :                                Seq. Line :  55
Acq. Instrument : Lucy                            Location : Vial 1
Injection Date  : 14-Jul-11, 13:02:58                  Inj :   2
                                                Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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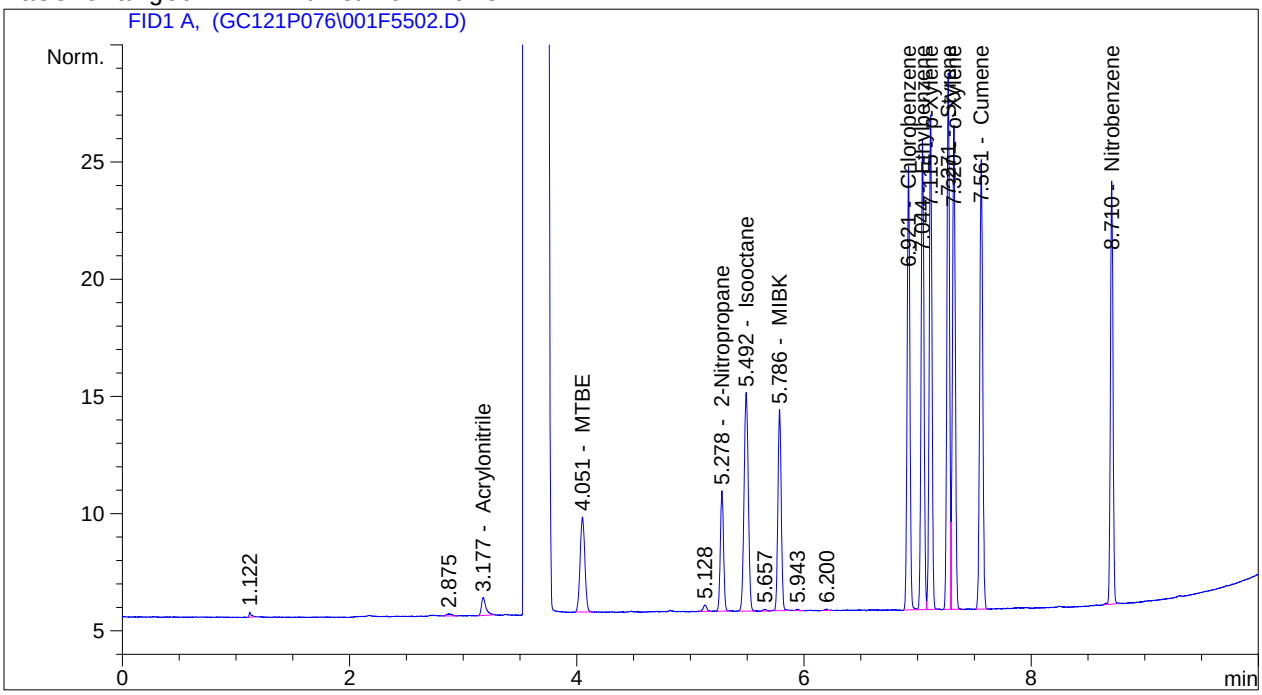


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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

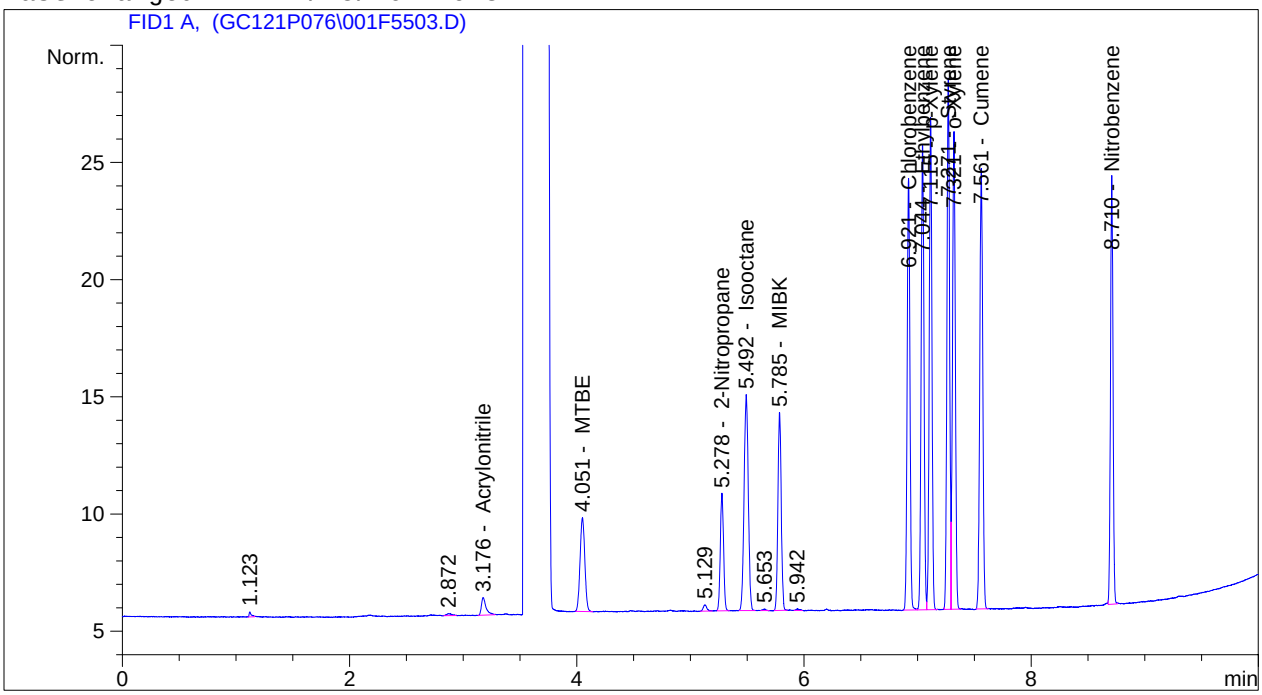
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.177	BB	2.10021	1.38216	2.90282		Acrylonitrile
4.051	BB	11.83099	1.01440	12.00135		MTBE
5.278	BB	10.14617	1.29899	13.17974		2-Nitropropane
5.492	BB	24.23840	5.75893e-1	13.95873		Isooctane
5.786	BB	17.45845	7.95360e-1	13.88576		MIBK
6.921	BV	31.88380	7.00467e-1	22.33356		Chlorobenzene
7.044	VV	35.06959	5.01760e-1	17.59652		Ethylbenzene
7.115	VB	34.95867	4.98182e-1	17.41579		p-Xylene
7.271	BV	37.42472	4.87408e-1	18.24110		Styrene
7.320	VB	35.72071	4.91223e-1	17.54683		o-Xylene
7.561	BB	35.02713	4.97303e-1	17.41909		Cumene
8.710	BB	28.65973	8.02762e-1	23.00693		Nitrobenzene

```
Totals :                                  189.48823
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\001F5503.D
Sample Name: 0611-22 AQ LCS-3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  55
Acq. Instrument : Lucy                              Location : Vial 1
Injection Date  : 14-Jul-11, 13:25:00                    Inj :   3
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/14/2011 1:34:41 PM
                  (modified after loading)
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```

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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176	BB	2.09545	1.38248	2.89692		Acrylonitrile
4.051	BB	11.64951	1.01439	11.81711		MTBE
5.278	BB	10.03507	1.29898	13.03532		2-Nitropropane
5.492	BB	23.89909	5.75875e-1	13.76288		Isooctane
5.785	BB	17.21795	7.95382e-1	13.69485		MIBK
6.921	BV	31.59409	7.00451e-1	22.13011		Chlorobenzene
7.044	VV	34.72174	5.01753e-1	17.42174		Ethylbenzene
7.115	VB	34.54107	4.98176e-1	17.20754		p-Xylene
7.271	BV	37.03188	4.87407e-1	18.04961		Styrene
7.321	VB	35.31529	4.91207e-1	17.34711		o-Xylene
7.561	BB	34.58327	4.97288e-1	17.19784		Cumene
8.710	BB	28.27005	8.02763e-1	22.69414		Nitrobenzene

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\005F0501.D
Sample Name: 0611-22 XAD LCS1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   5
Acq. Instrument : Lucy                              Location : Vial 5
Injection Date  : 12-Jul-11, 03:52:53                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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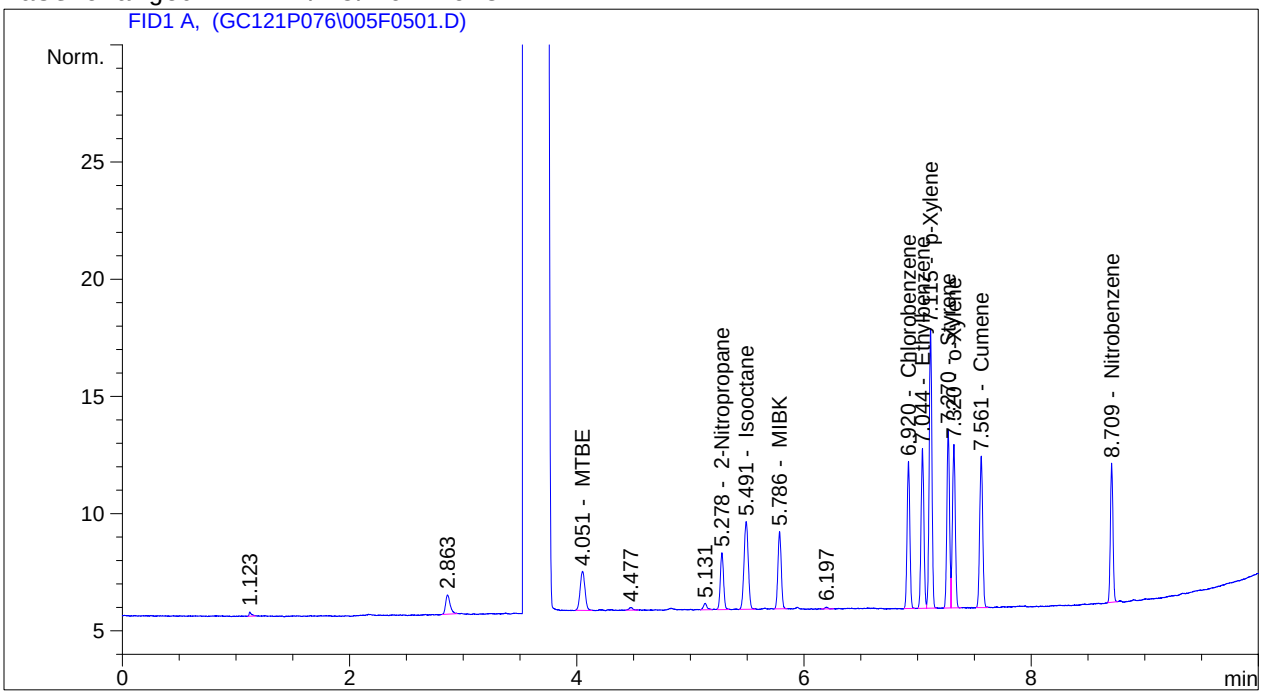


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.051 BB        4.88910    1.01336    4.95440    MTBE
  5.278 BB        4.82712    1.29806    6.26590    2-Nitropropane
  5.491 BB        9.73698 5.73944e-1    5.58848    Isooctane
  5.786 BB        6.68528 7.97898e-1    5.33417    MIBK
  6.920 BB       10.63516 6.96933e-1    7.41199    Chlorobenzene
  7.044 BV       11.79203 5.00356e-1    5.90021    Ethylbenzene
  7.115 VB       19.78459 4.97793e-1    9.84864    p-Xylene
  7.270 BV       12.47596 4.87318e-1    6.07976    Styrene
  7.320 VB       12.18790 4.88501e-1    5.95380    o-Xylene
  7.561 BB       11.98156 4.95040e-1    5.93135    Cumene
  8.709 BB        9.46696 8.02909e-1    7.60111    Nitrobenzene

Totals :                               70.86982
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\005F0502.D
Sample Name: 0611-22 XAD LCS1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   5
Acq. Instrument : Lucy                              Location : Vial 5
Injection Date  : 12-Jul-11, 04:14:22                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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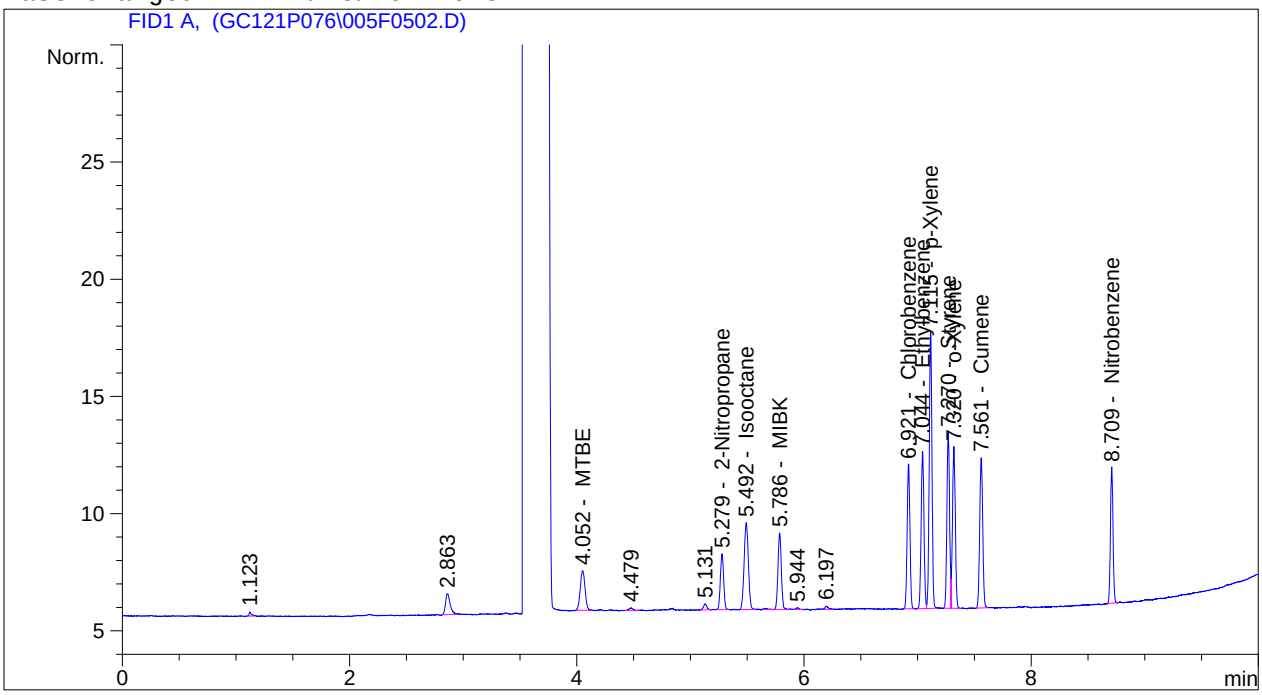



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

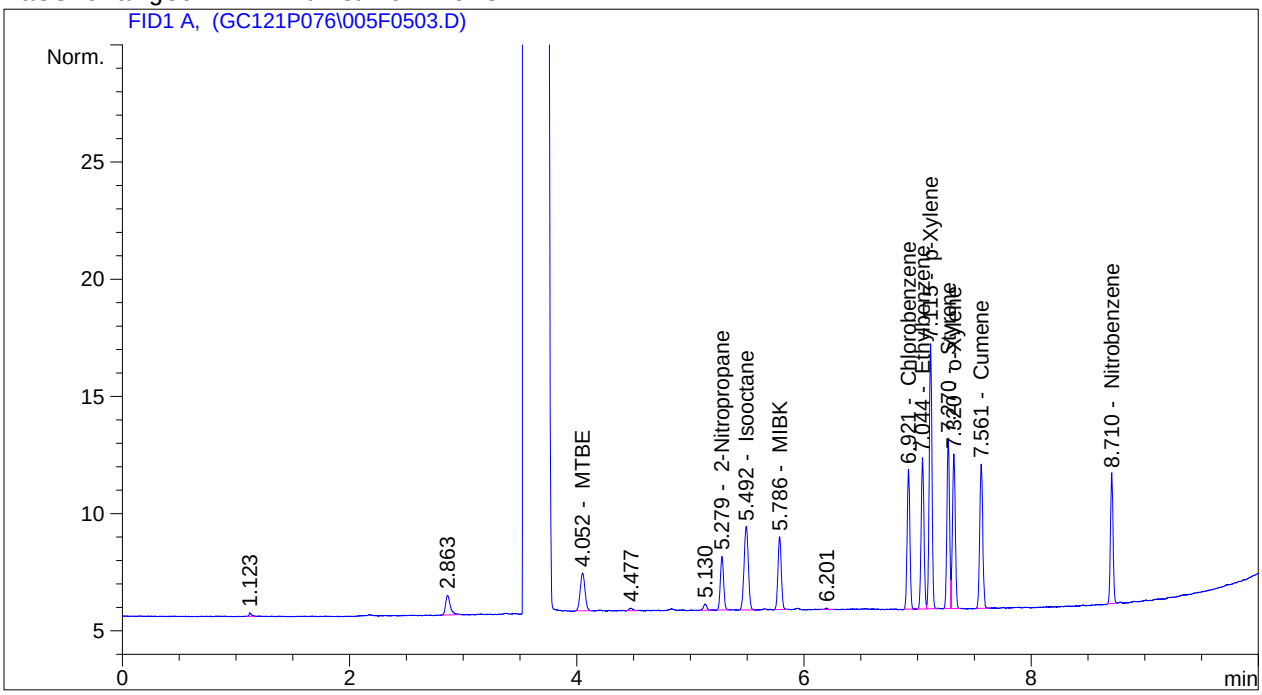
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.052 BB        4.93371    1.01337    4.99968    MTBE
  5.279 BB        4.76057    1.29804    6.17940    2-Nitropropane
  5.492 BB        9.64292 5.73912e-1    5.53419    Isooctane
  5.786 BB        6.72615 7.97873e-1    5.36661    MIBK
  6.921 BB       10.47172 6.96851e-1    7.29723    Chlorobenzene
  7.044 BV       11.63753 5.00328e-1    5.82258    Ethylbenzene
  7.115 VB       19.57621 4.97784e-1    9.74472    p-Xylene
  7.270 BV       12.28682 4.87316e-1    5.98757    Styrene
  7.320 VB       12.01509 4.88441e-1    5.86867    o-Xylene
  7.561 BB       11.84456 4.95000e-1    5.86306    Cumene
  8.709 BB        9.15569 8.02917e-1    7.35126    Nitrobenzene

Totals :                               70.01496
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\005F0503.D
Sample Name: 0611-22 XAD LCS1

Acq. Operator	:	Seq. Line	: 5
Acq. Instrument	: Lucy	Location	: Vial 5
Injection Date	: 12-Jul-11, 04:35:54	Inj	: 3
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/11/2011 11:30:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.052	BB	4.67001	1.01327	4.73199		MTBE
5.279	BB	4.55647	1.29796	5.91411		2-Nitropropane
5.492	BB	9.28871	5.73787e-1	5.32974		Isooctane
5.786	BB	6.36435	7.98105e-1	5.07942		MIBK
6.921	BB	10.05836	6.96629e-1	7.00694		Chlorobenzene
7.044	BV	11.20025	5.00244e-1	5.60286		Ethylbenzene
7.115	VB	18.82115	4.97748e-1	9.36818		p-Xylene
7.270	BV	11.84522	4.87311e-1	5.77231		Styrene
7.320	VB	11.55877	4.88276e-1	5.64387		o-Xylene
7.561	BB	11.41872	4.94870e-1	5.65079		Cumene
8.710	BB	8.86284	8.02924e-1	7.11619		Nitrobenzene
Totals :				67.21639		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\006F0601.D
Sample Name: 0611-22 XAD LCS2

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   6
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 12-Jul-11, 04:57:22                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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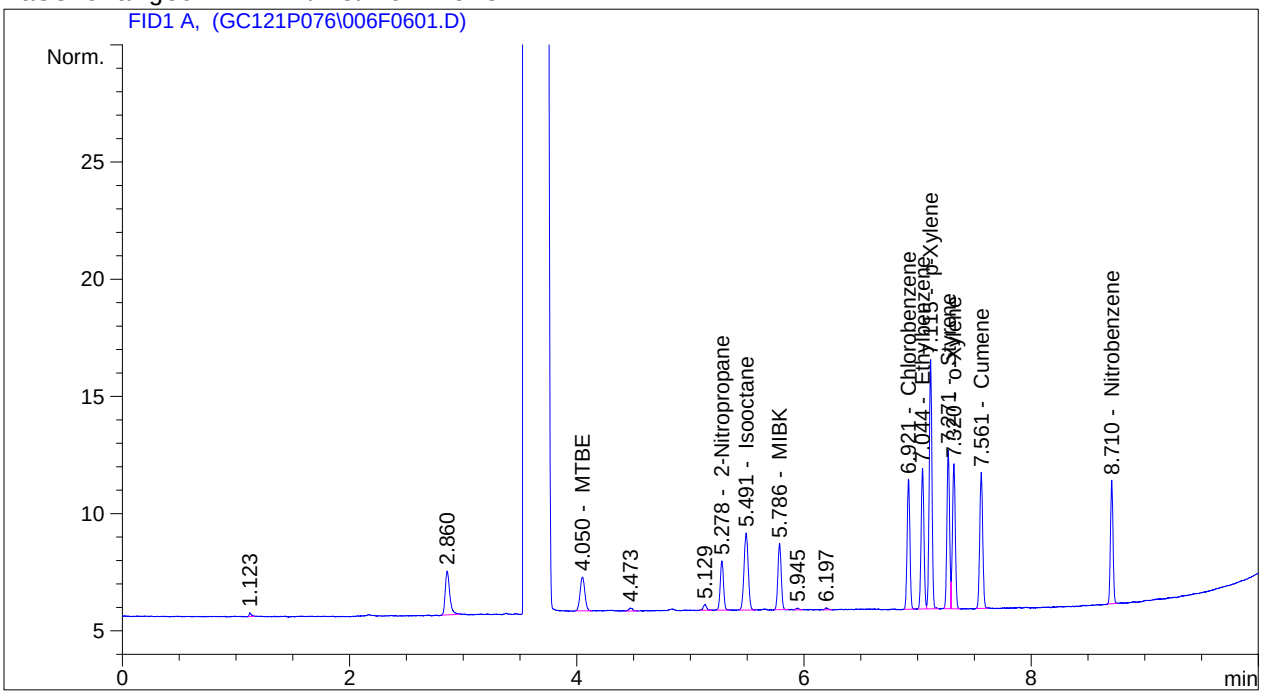


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.050 BB        4.16982    1.01305    4.22423    MTBE
  5.278 BB        4.21717    1.29781    5.47308    2-Nitropropane
  5.491 BB        8.51255 5.73475e-1    4.88173    Isooctane
  5.786 BB        5.73555 7.98579e-1    4.58029    MIBK
  6.921 BB        9.40452 6.96239e-1    6.54780    Chlorobenzene
  7.044 BV       10.40447 5.00074e-1    5.20300    Ethylbenzene
  7.115 VB       17.60338 4.97682e-1    8.76089    p-Xylene
  7.271 BV       11.08957 4.87302e-1    5.40396    Styrene
  7.320 VB       10.81412 4.87976e-1    5.27703    o-Xylene
  7.561 BB       10.69109 4.94625e-1    5.28808    Cumene
  8.710 BB        8.26334 8.02942e-1    6.63498    Nitrobenzene

Totals :                               62.27508
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\006F0602.D
Sample Name: 0611-22 XAD LCS2

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   6
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 12-Jul-11, 05:18:48                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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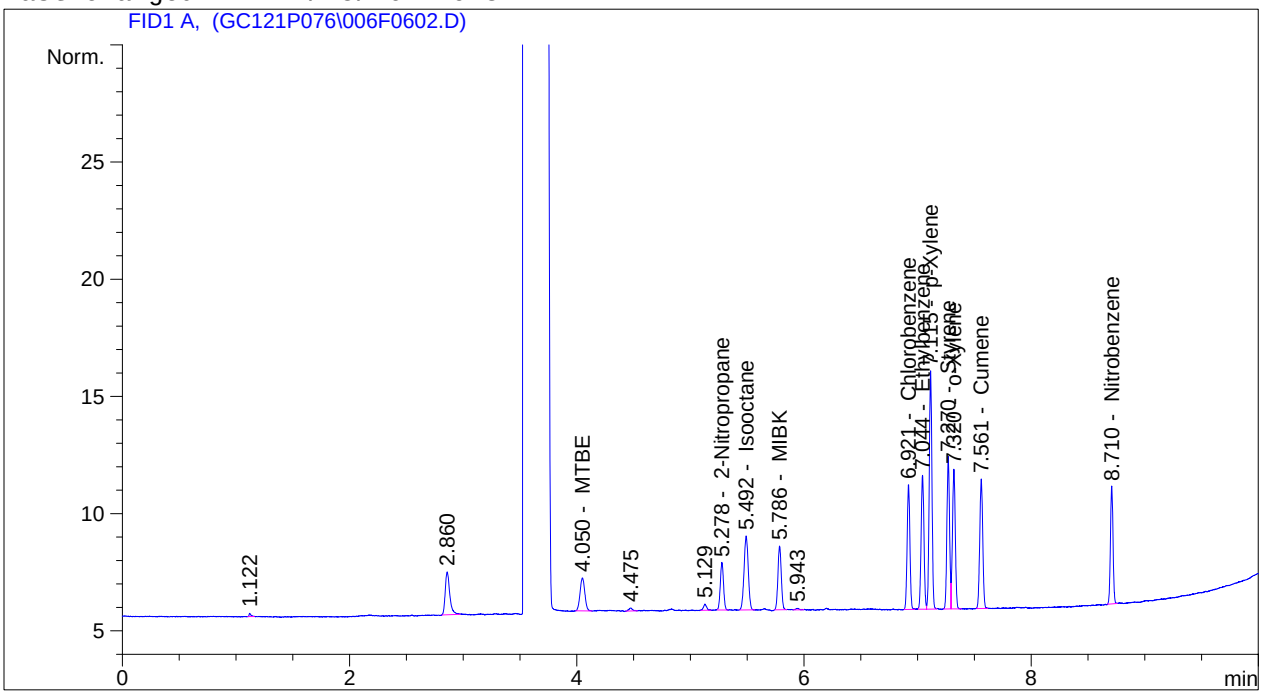


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.050 BB        4.10619    1.01302    4.15964    MTBE
  5.278 BB        4.00694    1.29770    5.19982    2-Nitropropane
  5.492 BB        8.15762 5.73313e-1    4.67687    Isooctane
  5.786 BB        5.56459 7.98726e-1    4.44458    MIBK
  6.921 BB        9.01132 6.95978e-1    6.27168    Chlorobenzene
  7.044 BV       10.01441 4.99980e-1    5.00701    Ethylbenzene
  7.115 VB       16.88535 4.97640e-1    8.40282    p-Xylene
  7.270 BV       10.60332 4.87295e-1    5.16694    Styrene
  7.320 VB       10.36544 4.87774e-1    5.05599    o-Xylene
  7.561 BB       10.22985 4.94451e-1    5.05816    Cumene
  8.710 BB        7.92833 8.02952e-1    6.36607    Nitrobenzene

Totals :                               59.80957
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\006F0603.D
Sample Name: 0611-22 XAD LCS2

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   6
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 12-Jul-11, 05:40:19                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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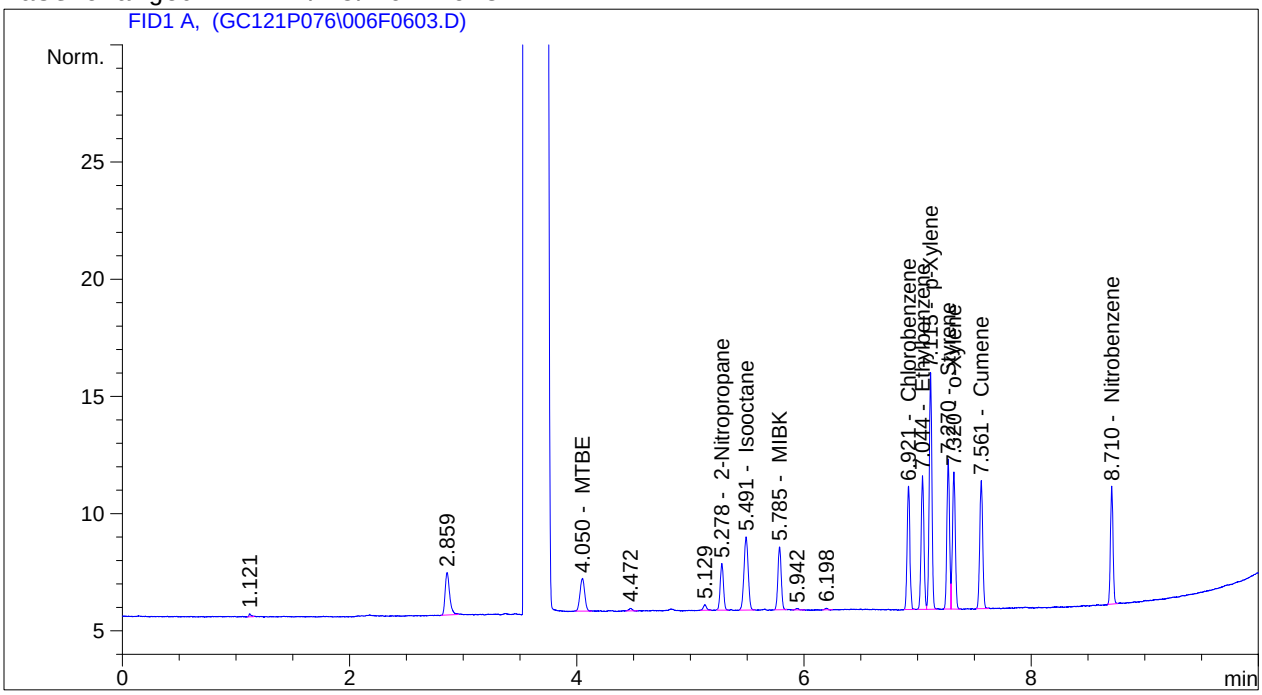


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.050 BB        3.97213    1.01295    4.02355    MTBE
  5.278 BB        3.95818    1.29768    5.13644    2-Nitropropane
  5.491 BB        8.05574 5.73264e-1    4.61807    Isooctane
  5.785 BB        5.48069 7.98801e-1    4.37799    MIBK
  6.921 BB        8.88640 6.95890e-1    6.18395    Chlorobenzene
  7.044 BV        9.90478 4.99953e-1    4.95192    Ethylbenzene
  7.115 VB       16.63721 4.97624e-1    8.27907    p-Xylene
  7.270 BV       10.50756 4.87293e-1    5.12026    Styrene
  7.320 VB       10.22340 4.87707e-1    4.98602    o-Xylene
  7.561 BB       10.09237 4.94396e-1    4.98963    Cumene
  8.710 BB        7.95587 8.02951e-1    6.38817    Nitrobenzene

Totals :                               59.05507
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\007F0701.D
Sample Name: 0611-22 H2O EXT MB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   7
Acq. Instrument : Lucy                              Location : Vial 7
Injection Date  : 12-Jul-11, 06:01:56                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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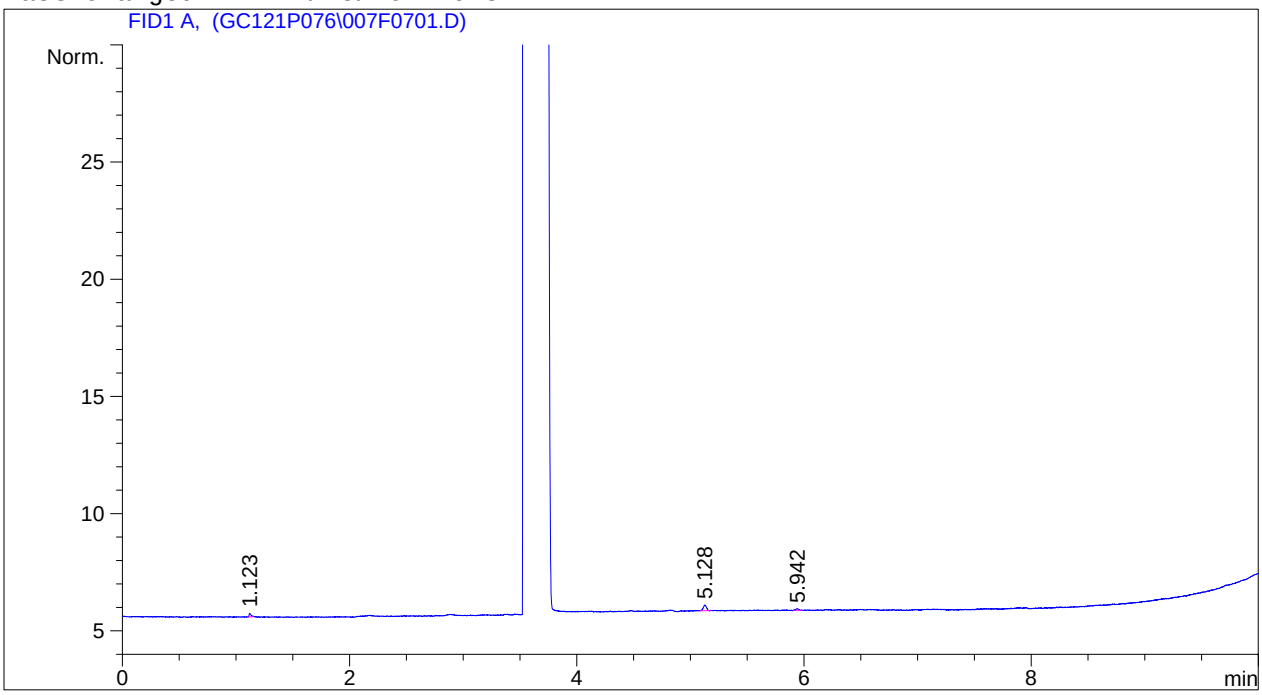


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\007F0702.D
Sample Name: 0611-22 H2O EXT MB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   7
Acq. Instrument : Lucy                              Location : Vial 7
Injection Date  : 12-Jul-11, 06:23:50                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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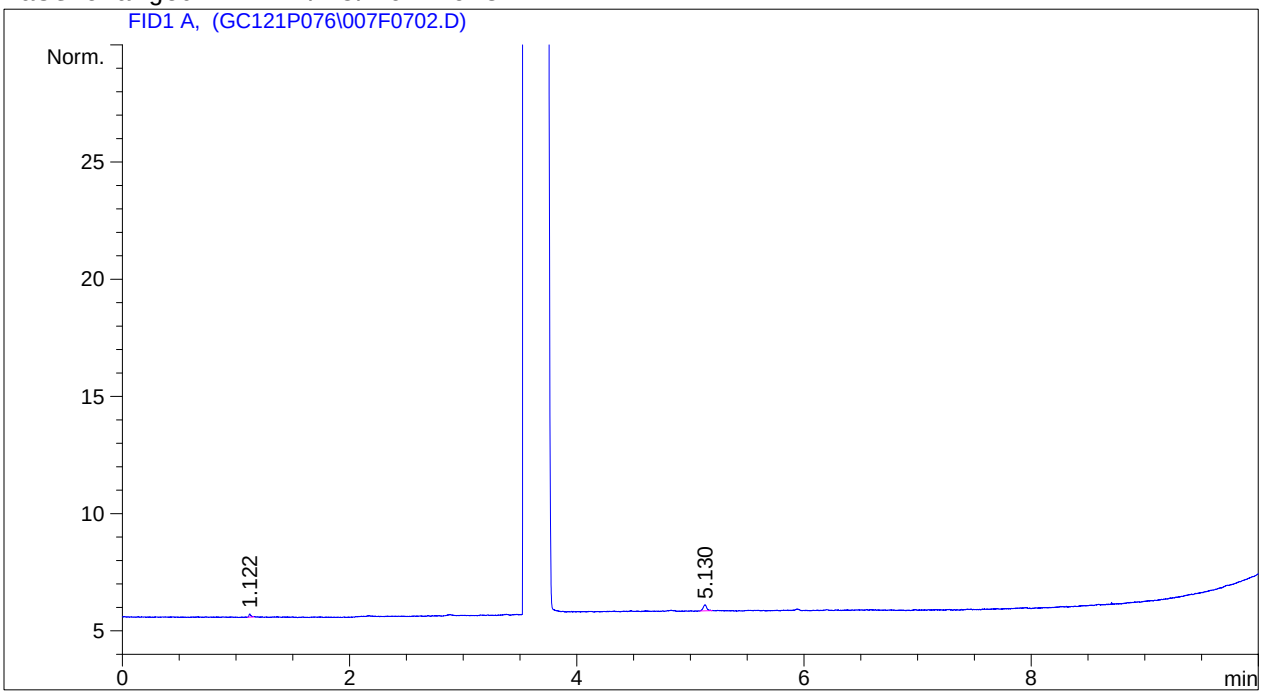



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

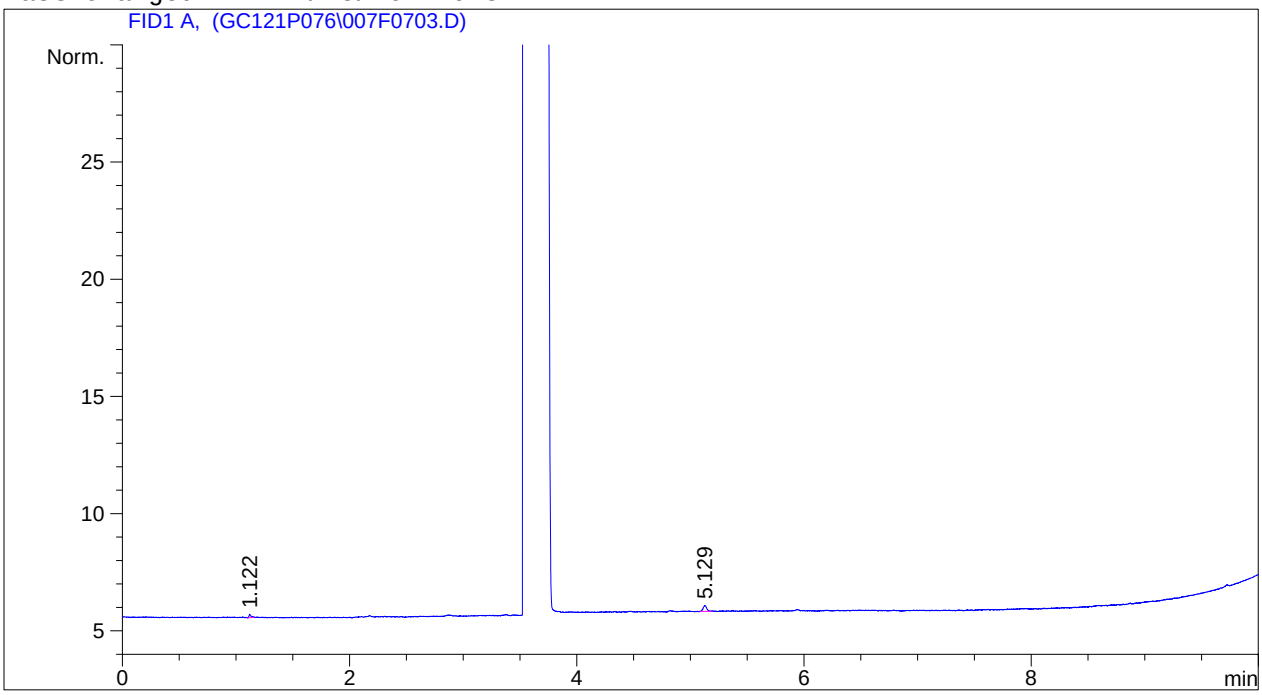
RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\007F0703.D
Sample Name: 0611-22 H2O EXT MB

==========

Acq. Operator : Seq. Line : 7
Acq. Instrument : Lucy Location : Vial 7
Injection Date : 12-Jul-11, 06:45:32 Inj : 3
Inj Volume : External
Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

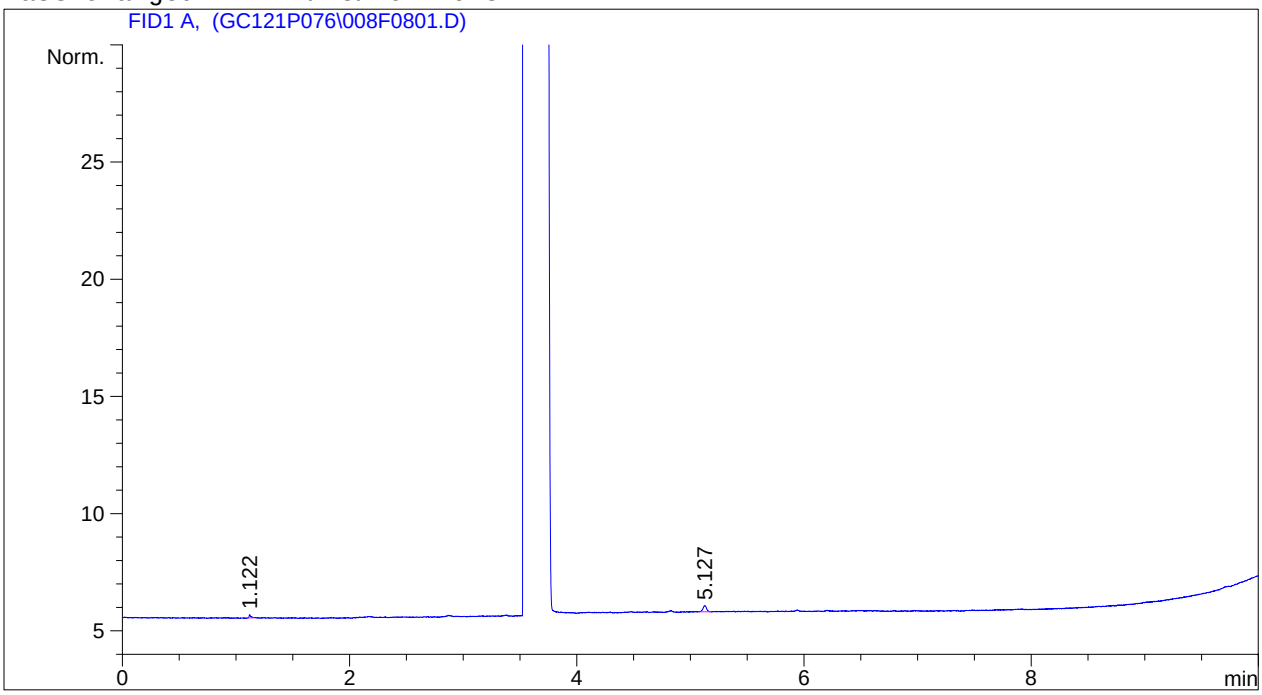
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\008F0801.D
Sample Name: 0611-22 CT MB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   8
Acq. Instrument : Lucy                              Location : Vial 8
Injection Date  : 12-Jul-11, 07:07:19                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

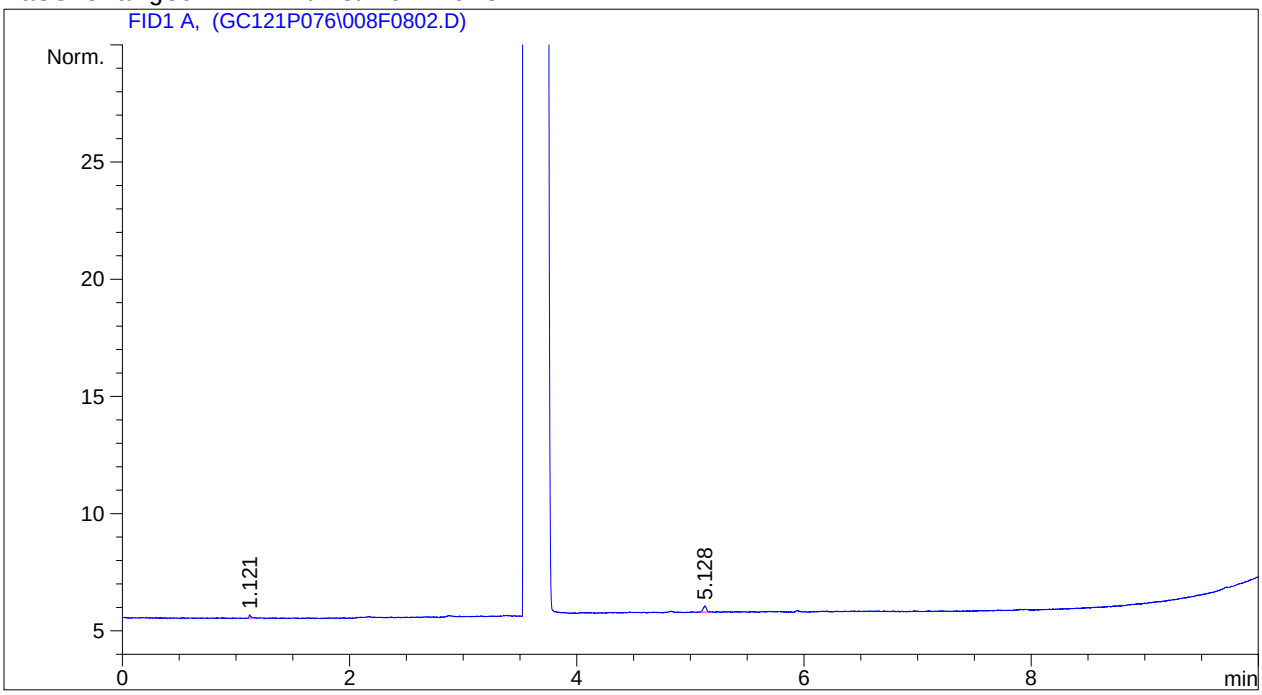
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\008F0802.D
Sample Name: 0611-22 CT MB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   8
Acq. Instrument : Lucy                              Location : Vial 8
Injection Date  : 12-Jul-11, 07:29:01                    Inj :   2
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

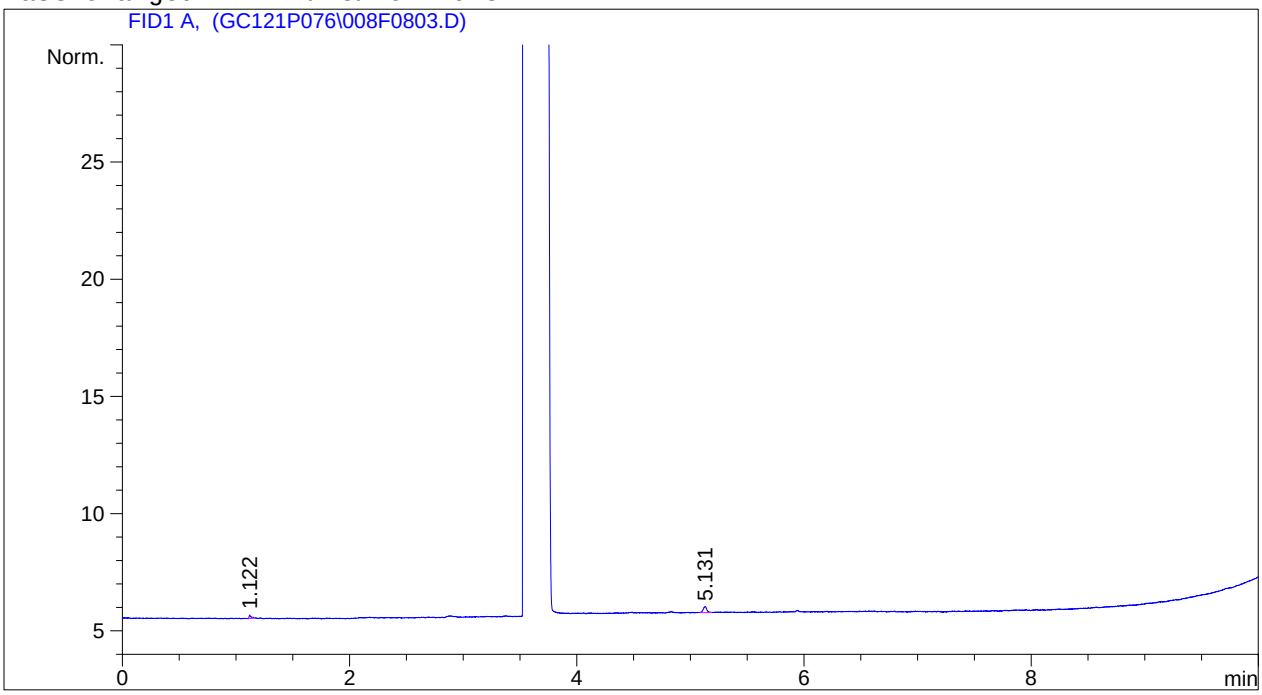
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\008F0803.D
Sample Name: 0611-22 CT MB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   8
Acq. Instrument : Lucy                              Location : Vial 8
Injection Date  : 12-Jul-11, 07:50:45                    Inj :   3
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

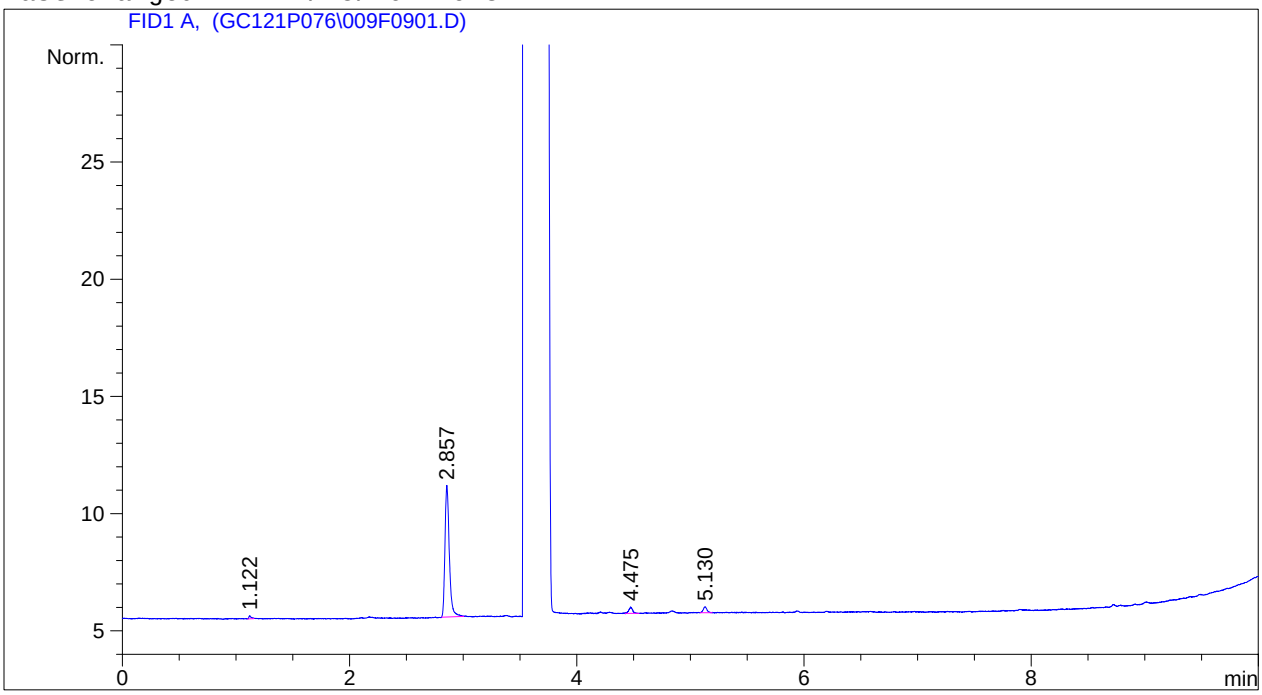
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F0901.D
Sample Name: 0611-22 XAD MB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   9
Acq. Instrument : Lucy                              Location : Vial 9
Injection Date  : 12-Jul-11, 08:12:22                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

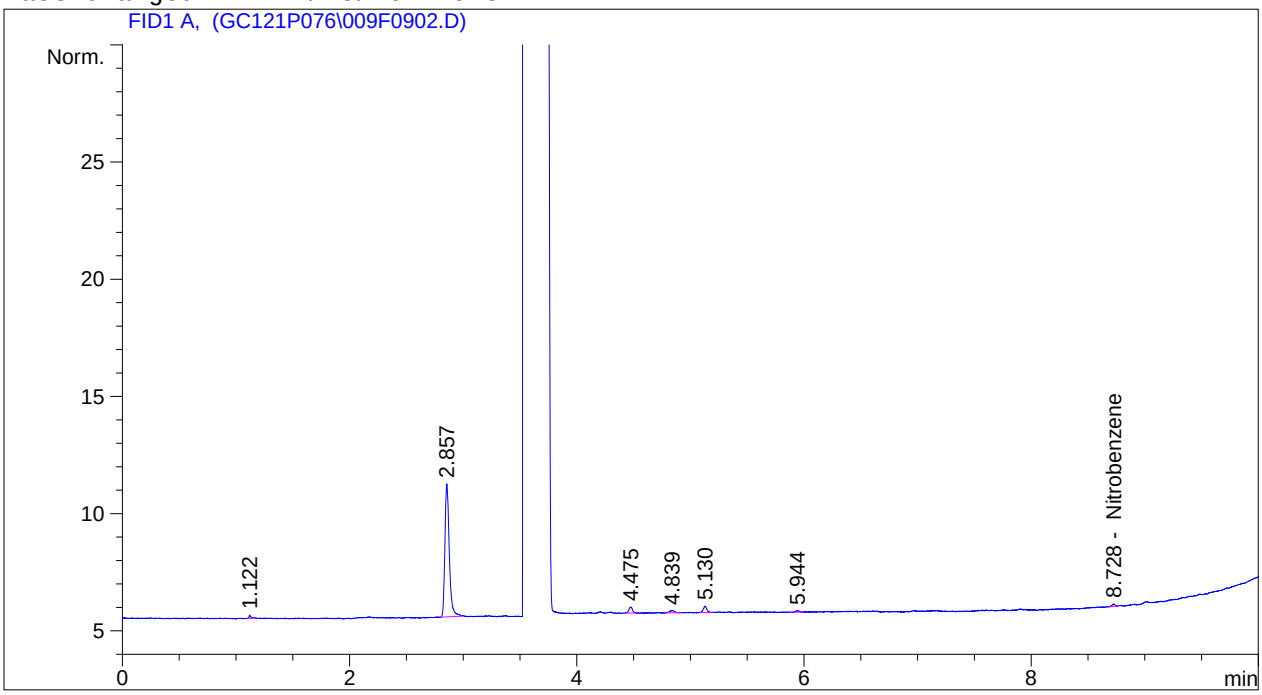
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F0902.D
Sample Name: 0611-22 XAD MB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   9
Acq. Instrument : Lucy                              Location : Vial 9
Injection Date  : 12-Jul-11, 08:34:00                    Inj :   2
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

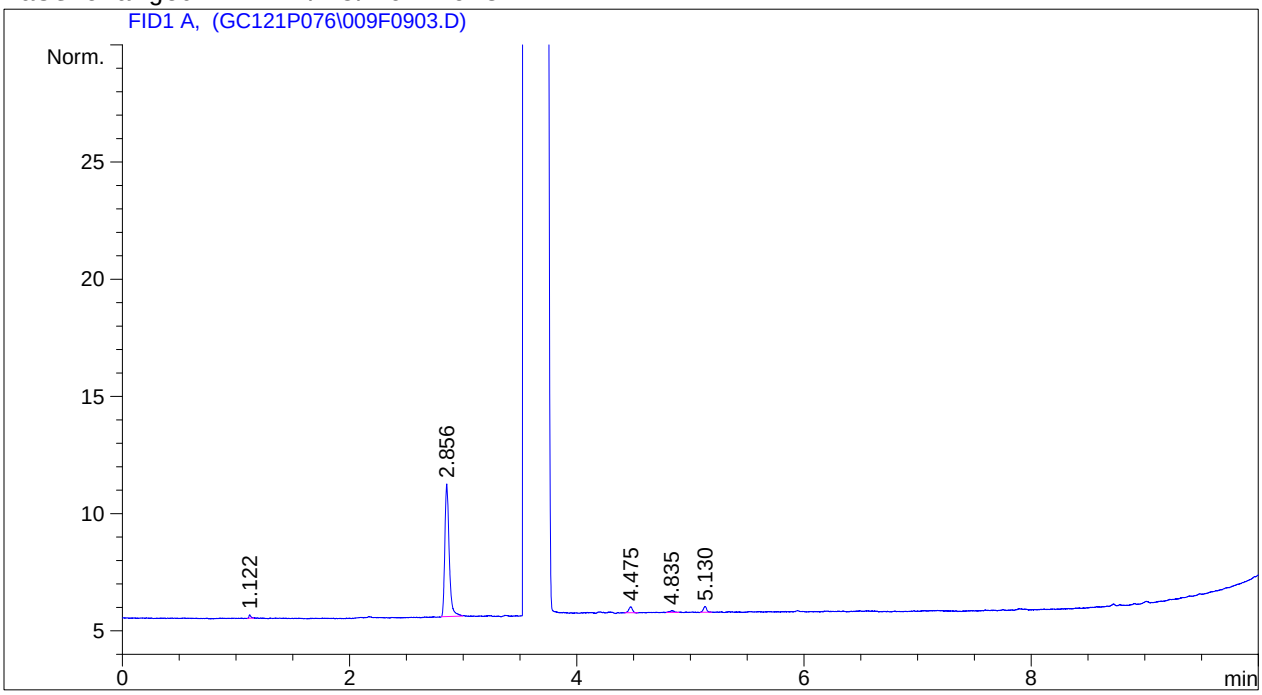
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.728	BB	1.86949e-1	8.03388e-1	1.50192e-1		Nitrobenzene

Totals : 1.50192e-1

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F0903.D
Sample Name: 0611-22 XAD MB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   9
Acq. Instrument : Lucy                              Location : Vial 9
Injection Date  : 12-Jul-11, 08:55:49                    Inj :   3
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

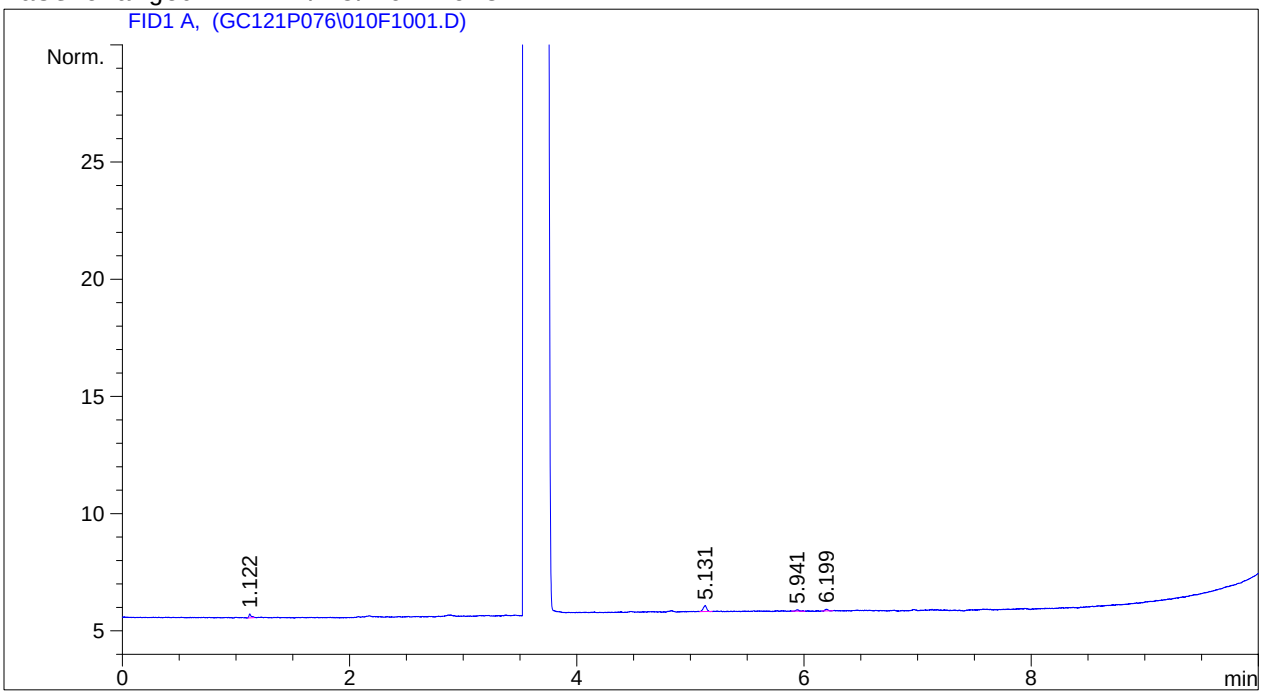
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\010F1001.D
Sample Name: 0611-22 M18 COND EXT FB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  10
Acq. Instrument : Lucy                              Location : Vial 10
Injection Date  : 12-Jul-11, 09:17:31                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

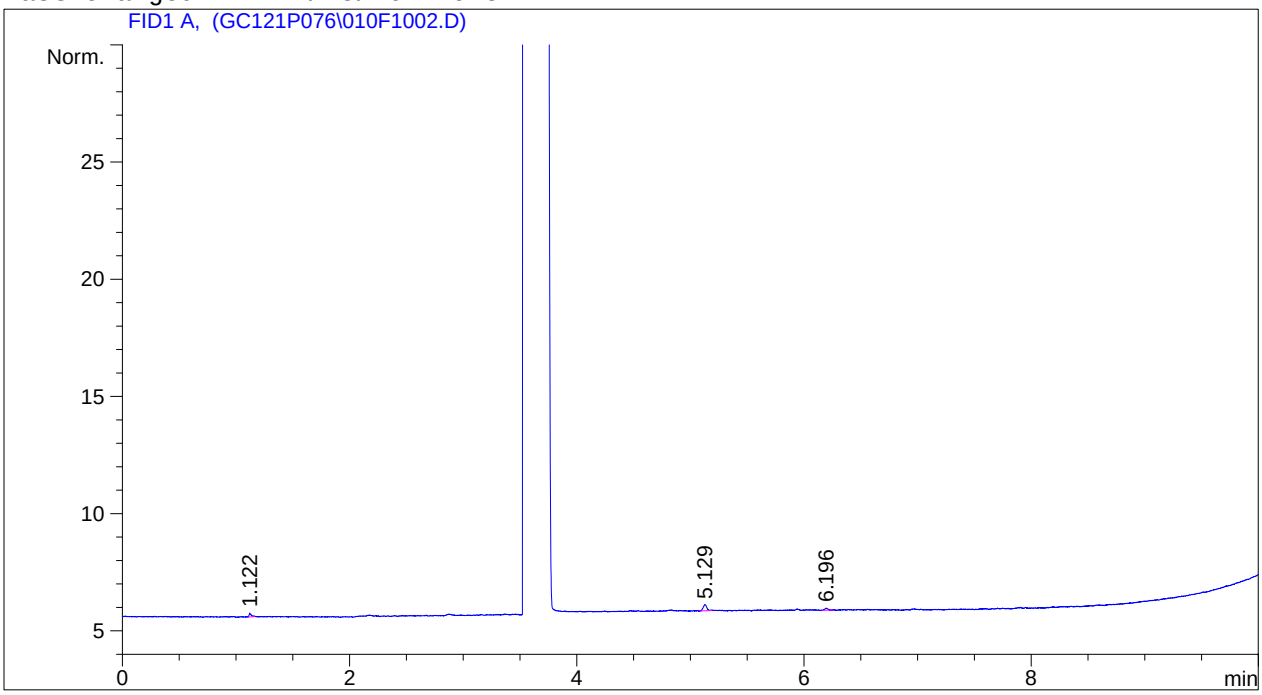
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\010F1002.D
Sample Name: 0611-22 M18 COND EXT FB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  10
Acq. Instrument : Lucy                              Location : Vial 10
Injection Date  : 12-Jul-11, 09:39:16                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\010F1003.D
Sample Name: 0611-22 M18 COND EXT FB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  10
Acq. Instrument : Lucy                              Location : Vial 10
Injection Date  : 12-Jul-11, 10:00:55                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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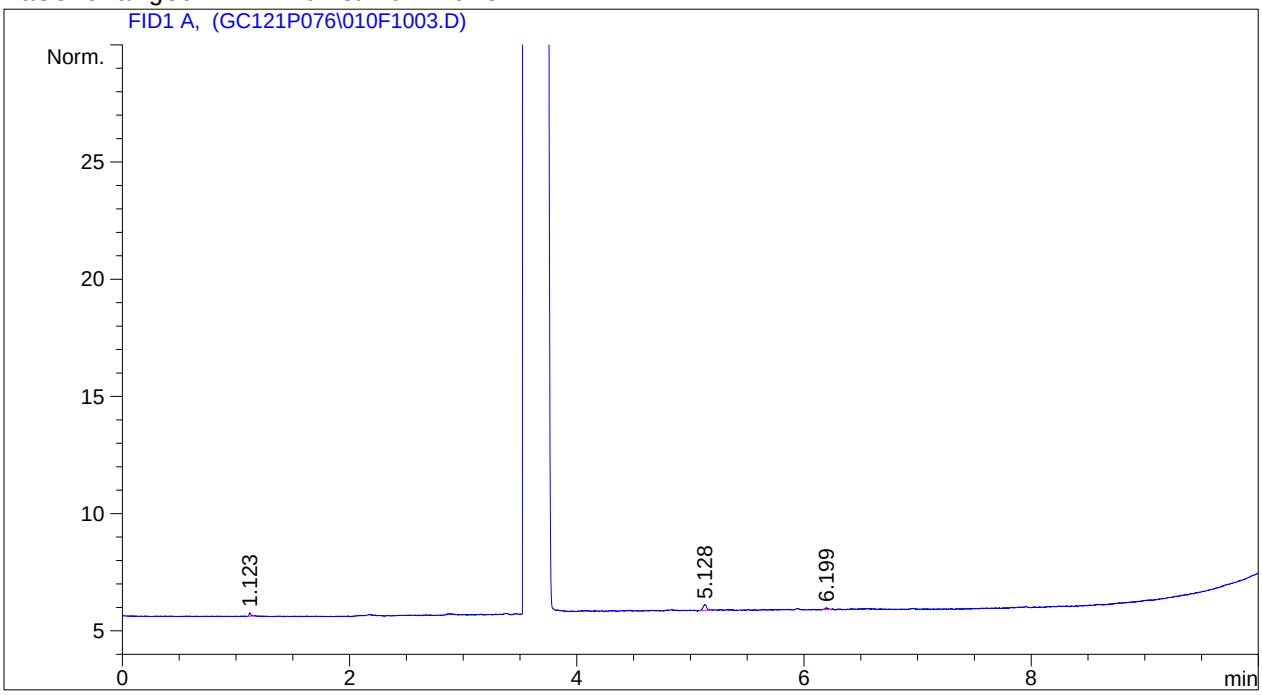


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\011F1101.D
Sample Name: 0611-22 M18 XAD FB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  11
Acq. Instrument : Lucy                              Location : Vial 11
Injection Date  : 12-Jul-11, 10:22:37                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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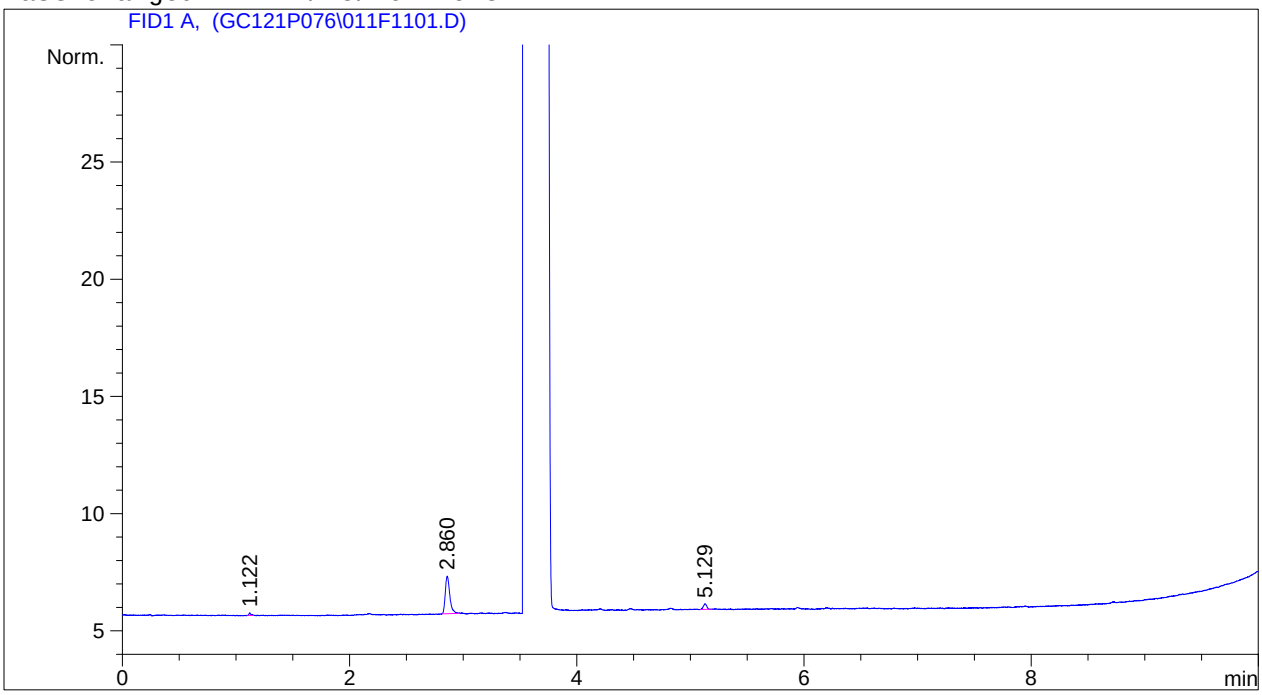



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

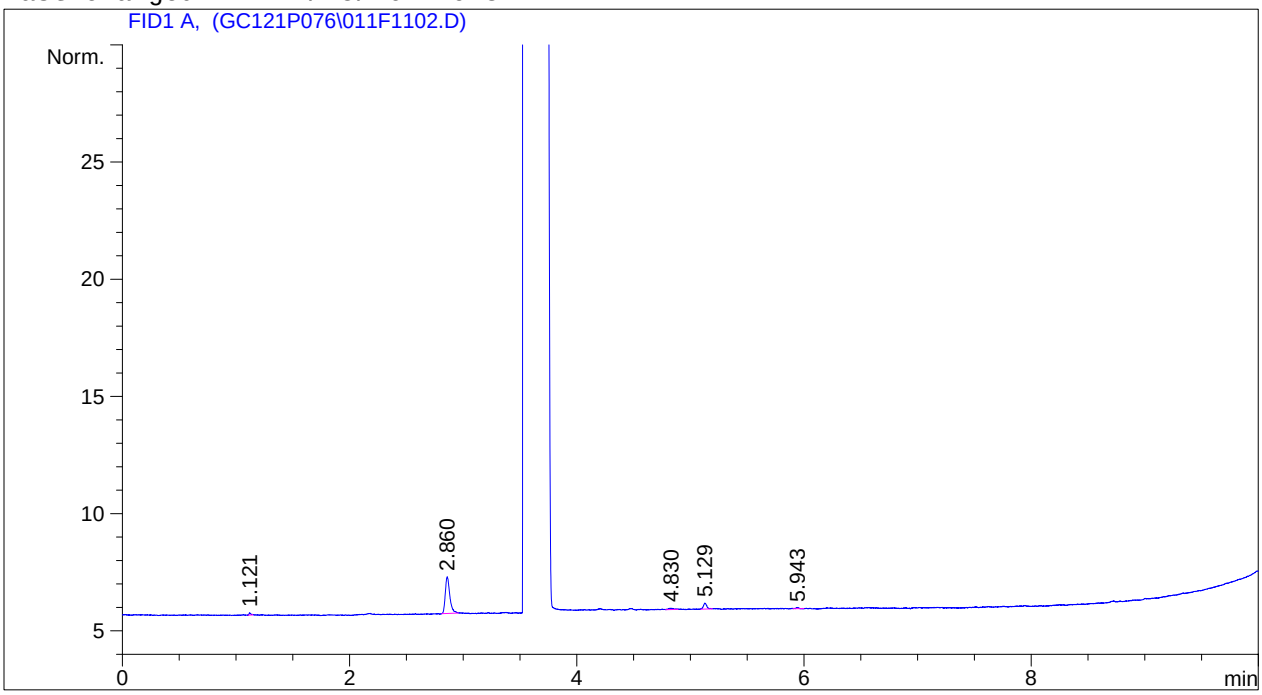
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\011F1102.D
Sample Name: 0611-22 M18 XAD FB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  11
Acq. Instrument : Lucy                              Location : Vial 11
Injection Date  : 12-Jul-11, 10:44:12                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

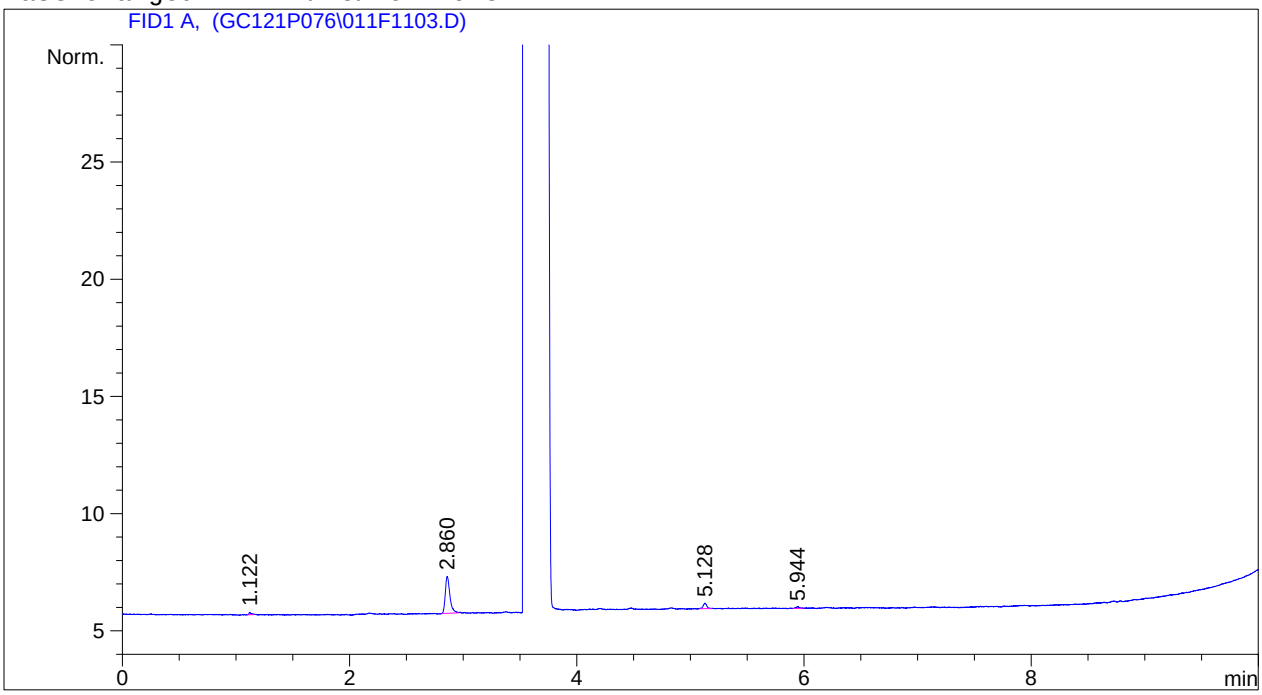
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\011F1103.D
Sample Name: 0611-22 M18 XAD FB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  11
Acq. Instrument : Lucy                              Location : Vial 11
Injection Date  : 12-Jul-11, 11:05:54                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

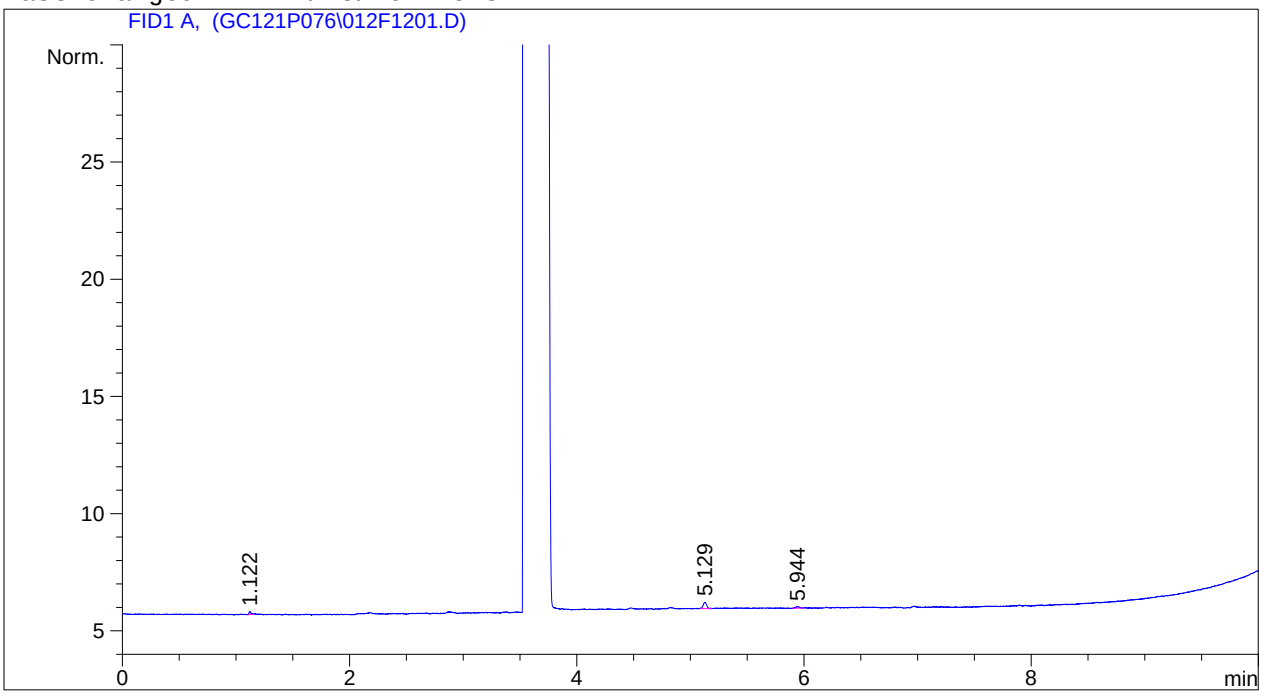
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\012F1201.D
Sample Name: 0611-22 M18 CT FB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  12
Acq. Instrument : Lucy                              Location : Vial 12
Injection Date  : 12-Jul-11, 11:27:31                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

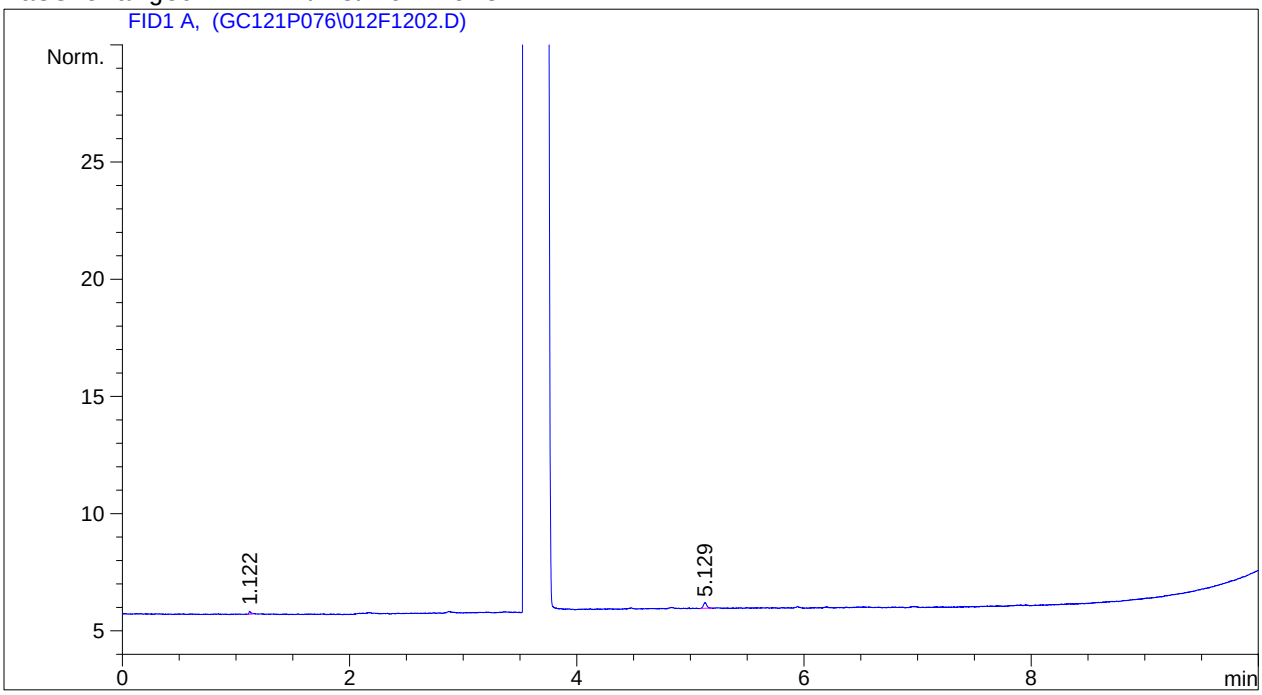
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\012F1202.D
Sample Name: 0611-22 M18 CT FB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  12
Acq. Instrument : Lucy                              Location : Vial 12
Injection Date  : 12-Jul-11, 11:49:12                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

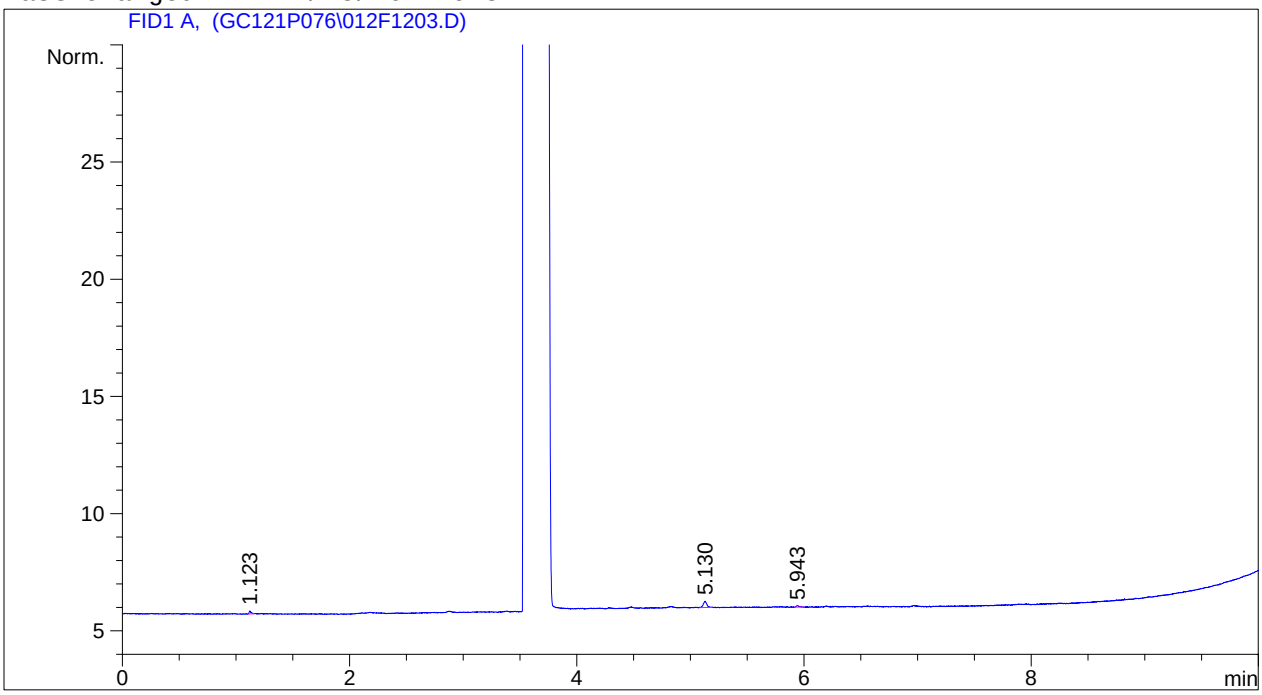
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\012F1203.D
Sample Name: 0611-22 M18 CT FB

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  12
Acq. Instrument : Lucy                              Location : Vial 12
Injection Date  : 12-Jul-11, 12:11:06                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

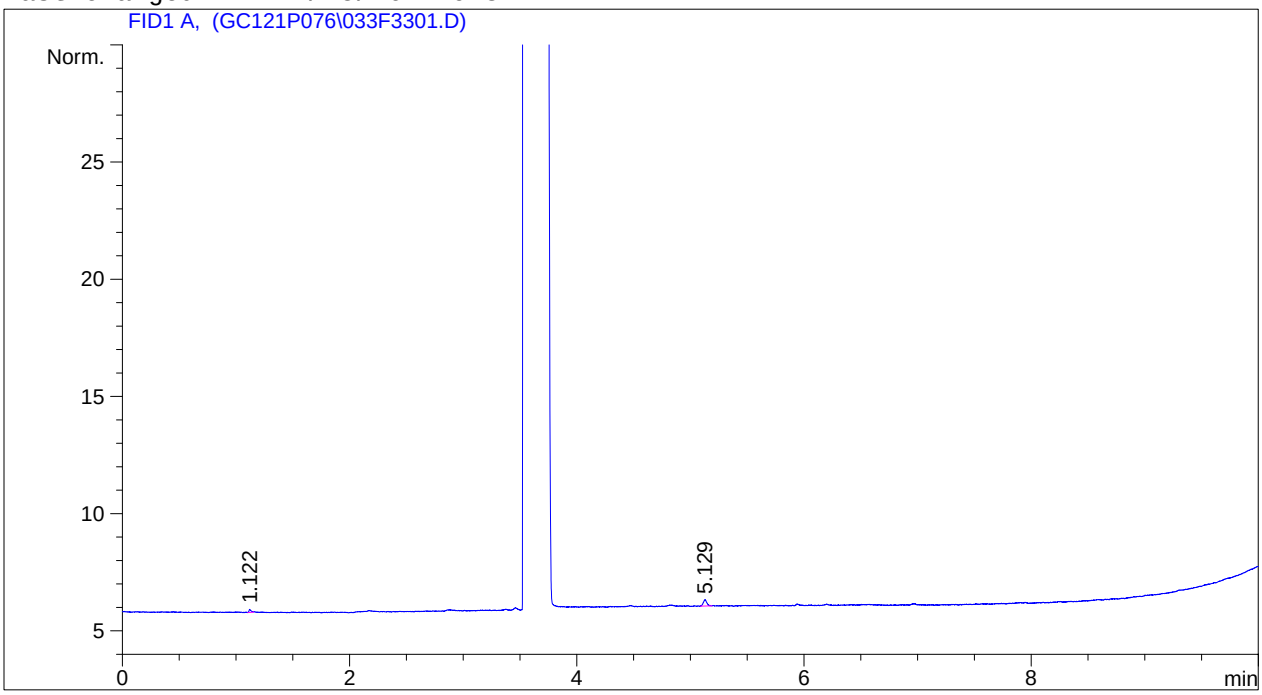
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.046		-	-	-		MTBE
5.271		-	-	-		2-Nitropropane
5.483		-	-	-		Isooctane
5.778		-	-	-		MIBK
6.911		-	-	-		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 0.00000

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\033F3301.D
Sample Name: 0611-22 M18 ICR2 SP COND EXT LD

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  33
Acq. Instrument : Lucy                              Location : Vial 33
Injection Date  : 13-Jul-11, 13:44:30                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

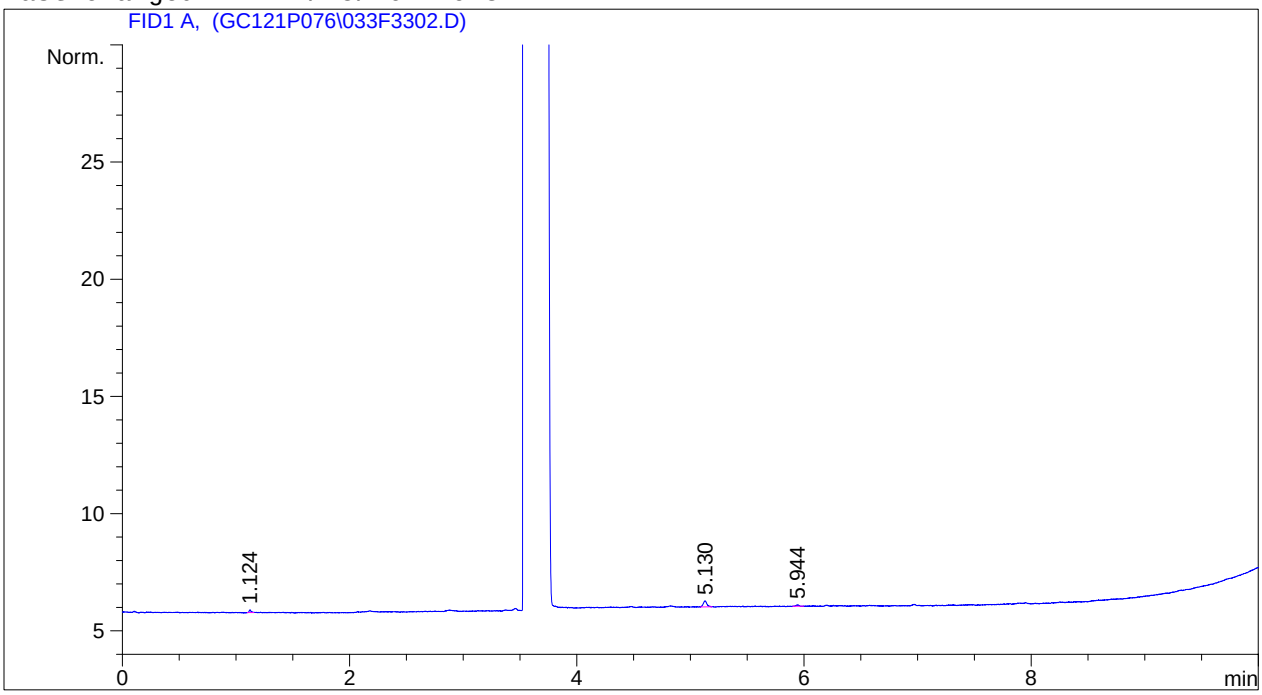
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -         Acetonitrile
  3.176            -          -          -         Acrylonitrile
  4.046            -          -          -         MTBE
  5.271            -          -          -         2-Nitropropane
  5.483            -          -          -         Isooctane
  5.778            -          -          -         MIBK
  6.911            -          -          -         Chlorobenzene
  7.034            -          -          -         Ethylbenzene
  7.105            -          -          -         p-Xylene
  7.260            -          -          -         Styrene
  7.310            -          -          -         o-Xylene
  7.550            -          -          -         Cumene
  8.698            -          -          -         Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\033F3302.D
Sample Name: 0611-22 M18 ICR2 SP COND EXT LD

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  33
Acq. Instrument : Lucy                              Location : Vial 33
Injection Date  : 13-Jul-11, 14:06:09                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

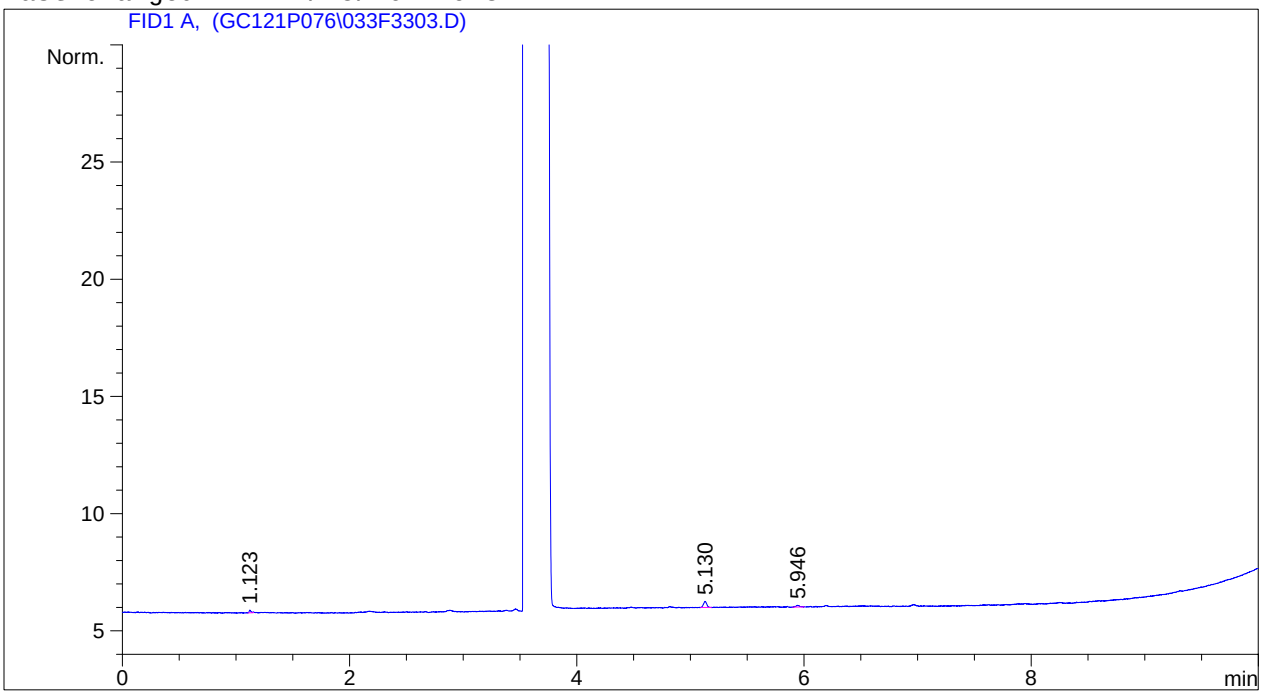
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\033F3303.D
Sample Name: 0611-22 M18 ICR2 SP COND EXT LD

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  33
Acq. Instrument : Lucy                              Location : Vial 33
Injection Date  : 13-Jul-11, 14:27:54                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

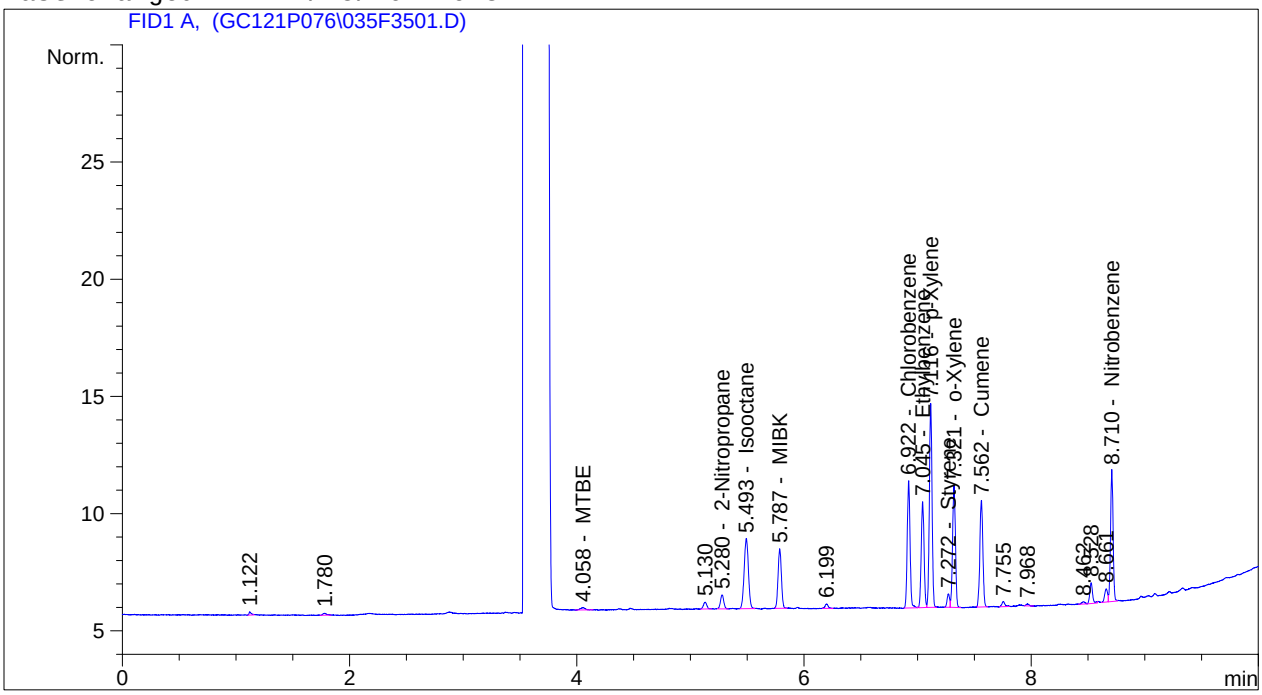
Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.708            -          -          -          Acetonitrile
  3.176            -          -          -          Acrylonitrile
  4.046            -          -          -          MTBE
  5.271            -          -          -          2-Nitropropane
  5.483            -          -          -          Isooctane
  5.778            -          -          -          MIBK
  6.911            -          -          -          Chlorobenzene
  7.034            -          -          -          Ethylbenzene
  7.105            -          -          -          p-Xylene
  7.260            -          -          -          Styrene
  7.310            -          -          -          o-Xylene
  7.550            -          -          -          Cumene
  8.698            -          -          -          Nitrobenzene

Totals :                                 0.00000
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\035F3501.D
Sample Name: 0611-22 M18 ICR2 SP XAD FH LD

Acq. Operator	:	Seq. Line	: 35
Acq. Instrument	: Lucy	Location	: Vial 35
Injection Date	: 13-Jul-11, 15:55:15	Inj	: 1
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By	:	Signal	
Calib. Data Modified	:	7/15/2011 9:32:30 PM	
Multiplier:	:	1.0000	
Dilution:	:	1.0000	

Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

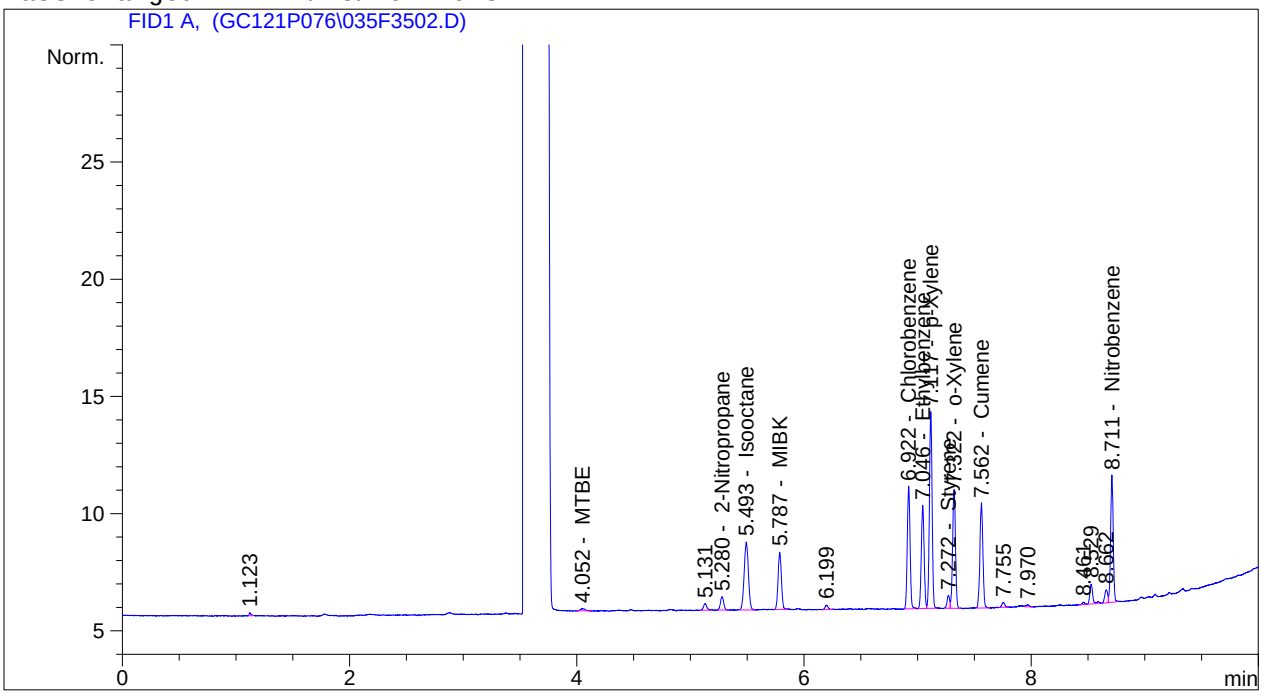
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.058	BB	3.03123e-1	1.00919	3.05907e-1		MTBE
5.280	BB	1.20683	1.29413	1.56181		2-Nitropropane
5.493	BB	7.83249	5.73152e-1	4.48920		Isooctane
5.787	BB	5.19490	7.99077e-1	4.15113		MIBK
6.922	BB	9.36099	6.96212e-1	6.51723		Chlorobenzene
7.045	BV	7.87839	4.99305e-1	3.93372		Ethylbenzene
7.116	VB	14.33561	4.97453e-1	7.13129		p-Xylene
7.272	BV	8.75988e-1	4.87001e-1	4.26607e-1		Styrene
7.321	VB	9.18675	4.87151e-1	4.47533		o-Xylene
7.562	BB	8.38692	4.93566e-1	4.13949		Cumene
8.710	VB	8.86800	8.02924e-1	7.12034		Nitrobenzene

Totals : 44.25205

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\035F3502.D
Sample Name: 0611-22 M18 ICR2 SP XAD FH LD

Acq. Operator	:	Seq. Line	: 35
Acq. Instrument	: Lucy	Location	: Vial 35
Injection Date	: 13-Jul-11, 16:16:54	Inj	: 2
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

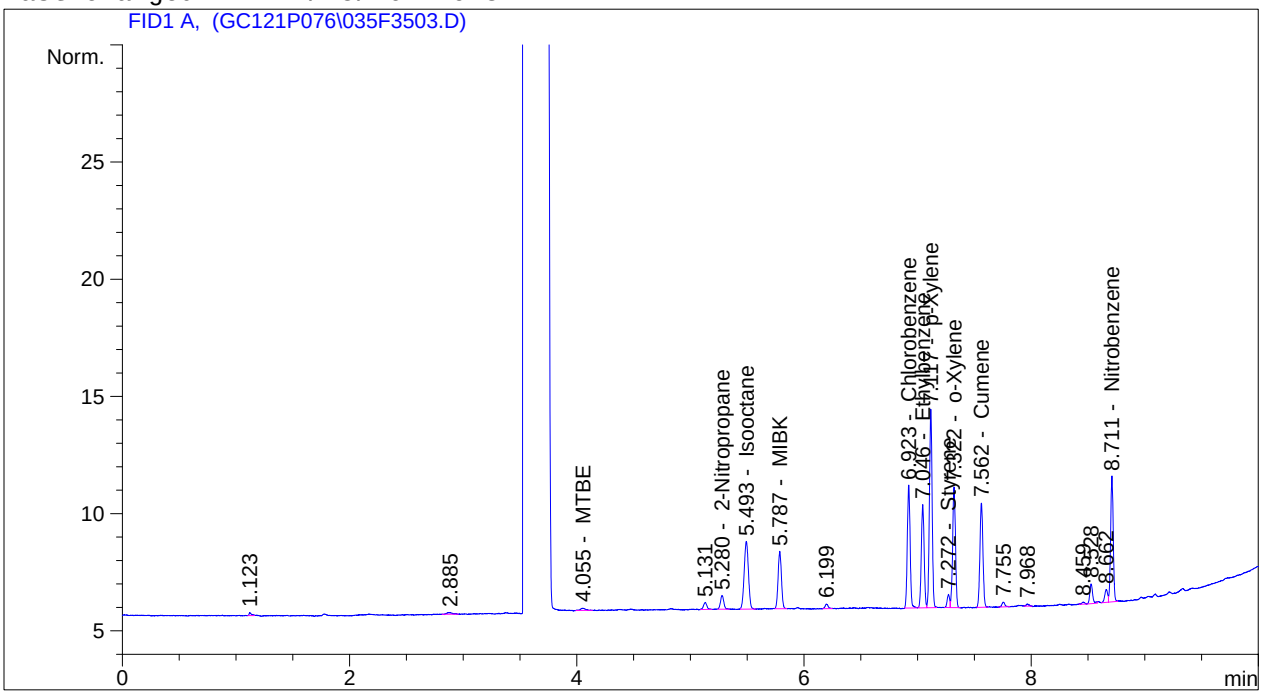
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.052	BB	2.63161e-1	1.00919	2.65578e-1		MTBE
5.280	BB	1.13136	1.29413	1.46413		2-Nitropropane
5.493	BB	7.53632	5.72992e-1	4.31826		Isooctane
5.787	BB	4.94581	7.99344e-1	3.95340		MIBK
6.922	BB	8.92237	6.95915e-1	6.20921		Chlorobenzene
7.046	BV	7.62362	4.99199e-1	3.80570		Ethylbenzene
7.117	VB	13.93117	4.97417e-1	6.92960		p-Xylene
7.272	BV	8.57102e-1	4.87001e-1	4.17410e-1		Styrene
7.322	VB	8.91238	4.86982e-1	4.34017		o-Xylene
7.562	BB	8.18890	4.93447e-1	4.04079		Cumene
8.711	VB	8.65534	8.02930e-1	6.94963		Nitrobenzene

Totals : 42.69388

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\035F3503.D
Sample Name: 0611-22 M18 ICR2 SP XAD FH LD

Acq. Operator	:	Seq. Line	: 35
Acq. Instrument	: Lucy	Location	: Vial 35
Injection Date	: 13-Jul-11, 16:39:06	Inj	: 3
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By	:	Signal	
Calib. Data Modified	:	7/15/2011 9:32:30 PM	
Multiplier:	:	1.0000	
Dilution:	:	1.0000	

Do not use Multiplier & Dilution Factor with ISTDs

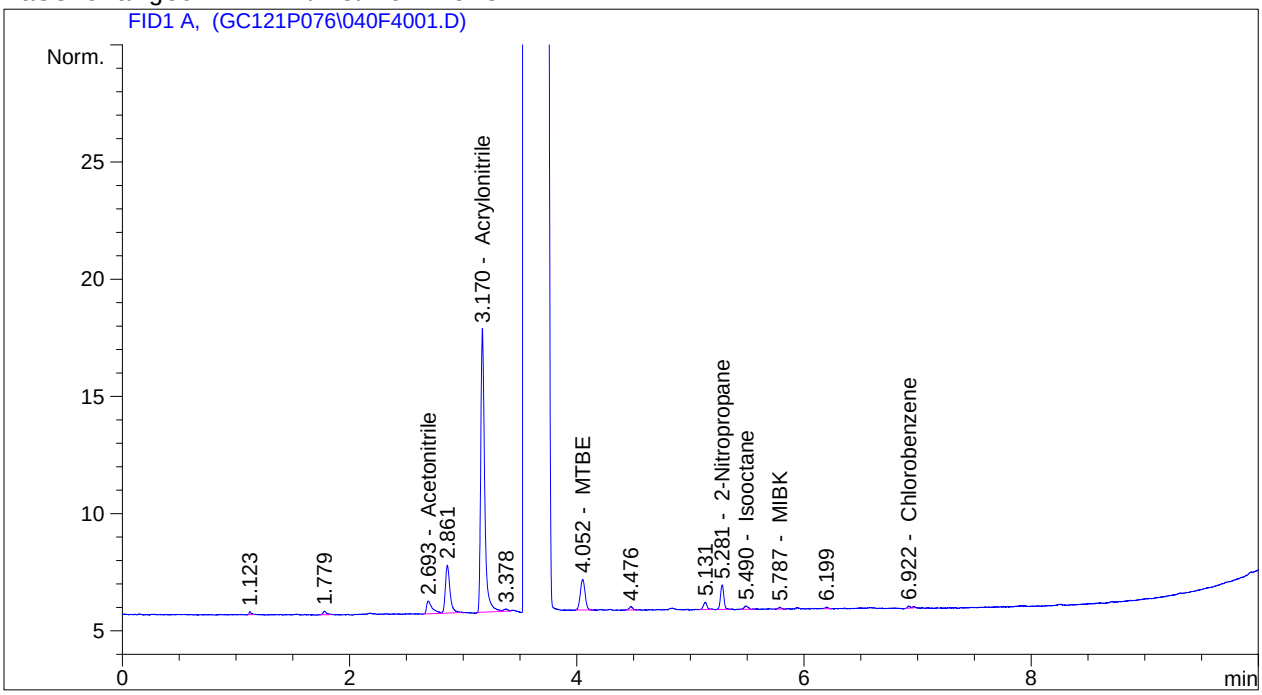
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708		-	-	-		Acetonitrile
3.176		-	-	-		Acrylonitrile
4.055	BB	2.90648e-1	1.00919	2.93318e-1		MTBE
5.280	BB	1.17844	1.29413	1.52506		2-Nitropropane
5.493	BB	7.49782	5.72971e-1	4.29603		Isooctane
5.787	BB	4.99800	7.99286e-1	3.99483		MIBK
6.923	BB	9.04478	6.96001e-1	6.29517		Chlorobenzene
7.046	BV	7.65524	4.99212e-1	3.82159		Ethylbenzene
7.117	VB	13.96475	4.97420e-1	6.94635		p-Xylene
7.272	BV	8.42131e-1	4.87001e-1	4.10119e-1		Styrene
7.322	VB	8.92820	4.86992e-1	4.34796		o-Xylene
7.562	BB	8.18919	4.93447e-1	4.04093		Cumene
8.711	VB	8.63579	8.02931e-1	6.93394		Nitrobenzene

Totals : 42.90529

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\040F4001.D
Sample Name: 0611-22 M18 ICR2 SP CT FH LD

Acq. Operator	:	Seq. Line	: 40
Acq. Instrument	: Lucy	Location	: Vial 40
Injection Date	: 13-Jul-11, 21:20:56	Inj	: 1
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.693	BV	1.92116	2.38961	4.59083		Acetonitrile
3.170	BB	28.89594	1.24937	36.10177		Acrylonitrile
4.052	BB	3.80752	1.01285	3.85645		MTBE
5.281	BB	2.10913	1.29579	2.73300		2-Nitropropane
5.490	BB	3.32350e-1	5.64194e-1	1.87510e-1		Isooctane
5.787	BB	1.34751e-1	8.07742e-1	1.08844e-1		MIBK
6.922	BB	2.29339e-1	6.84762e-1	1.57042e-1		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 47.73544

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\040F4002.D
Sample Name: 0611-22 M18 ICR2 SP CT FH LD

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  40
Acq. Instrument : Lucy                              Location : Vial 40
Injection Date  : 13-Jul-11, 21:42:17                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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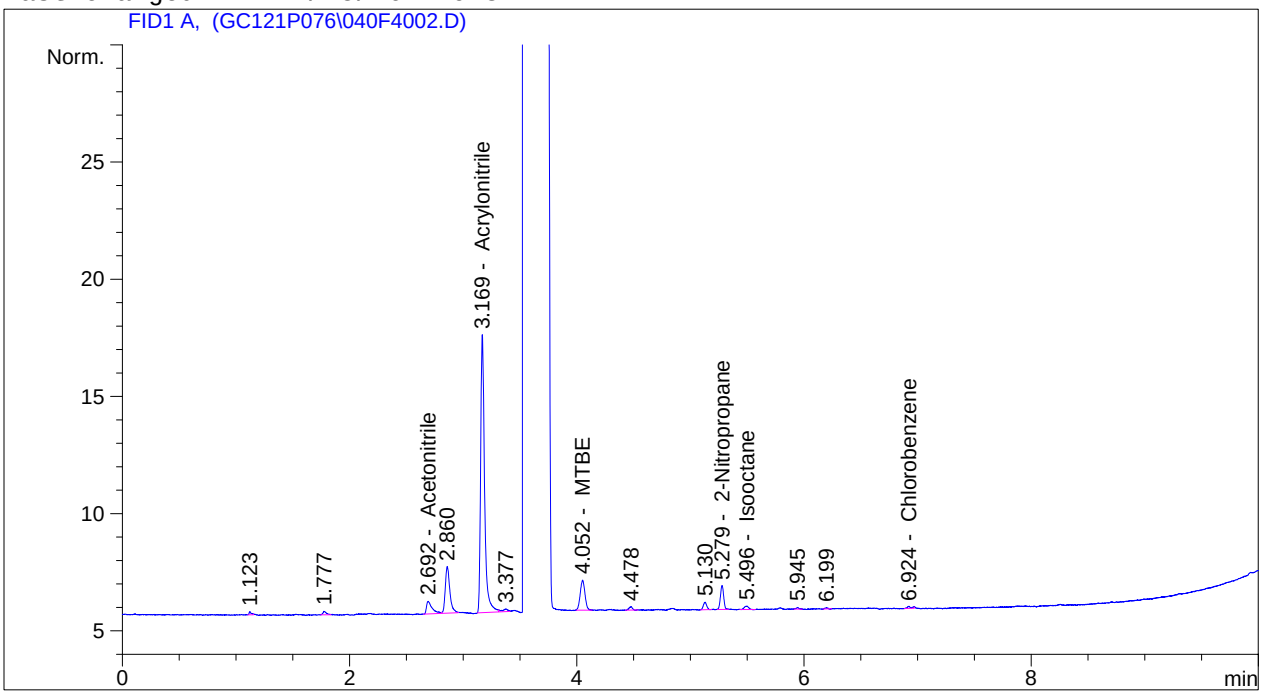


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.692	BB	1.84125	2.40245	4.42350		Acetonitrile
3.169	BB	28.42371	1.24954	35.51670		Acrylonitrile
4.052	BB	3.69433	1.01278	3.74154		MTBE
5.279	BB	2.00267	1.29558	2.59462		2-Nitropropane
5.496	BB	3.81903e-1	5.64194e-1	2.15467e-1		Isooctane
5.778		-	-	-		MIBK
6.924	BB	2.19675e-1	6.84762e-1	1.50425e-1		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 46.64226

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\040F4003.D
Sample Name: 0611-22 M18 ICR2 SP CT FH LD

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  40
Acq. Instrument : Lucy                              Location : Vial 40
Injection Date  : 13-Jul-11, 22:03:40                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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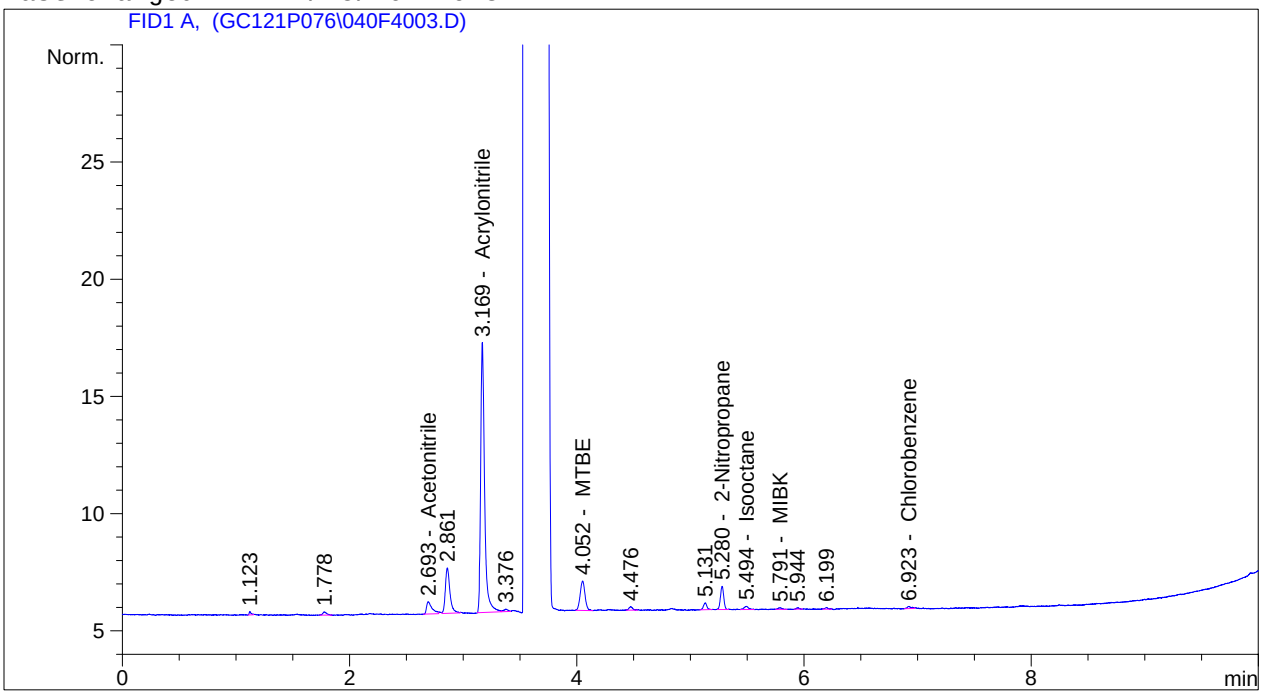



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.693	BB	1.75024	2.41850	4.23294		Acetonitrile
3.169	BB	27.63314	1.24985	34.53721		Acrylonitrile
4.052	BB	3.70299	1.01279	3.75033		MTBE
5.280	BB	1.97566	1.29552	2.55951		2-Nitropropane
5.494	BB	3.46614e-1	5.64194e-1	1.95557e-1		Isooctane
5.791	BB	1.36130e-1	8.07742e-1	1.09958e-1		MIBK
6.923	BB	2.18917e-1	6.84762e-1	1.49906e-1		Chlorobenzene
7.034		-	-	-		Ethylbenzene
7.105		-	-	-		p-Xylene
7.260		-	-	-		Styrene
7.310		-	-	-		o-Xylene
7.550		-	-	-		Cumene
8.698		-	-	-		Nitrobenzene

Totals : 45.53542

Calibration Curve Chromatograms

Calibration Table

Calib. Data Modified : Friday, July 15, 2011 9:27:40 PM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.050 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Resp)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A,

RetTime [min]	Sig	Lvl	Amount [ug/mL]	Area	Amt/Area	Ref Grp	Name
2.708	1	1	1.56700	4.87553e-1	3.21401		Acetonitrile
		2	3.13100	1.16813	2.68034		
		3	15.53300	6.94444	2.23675		
		4	74.70700	35.88755	2.08170		
		5	261.47600	130.89872	1.99754		
3.176	1	1	1.56900	1.02616	1.52900		Acrylonitrile
		2	3.13600	2.28356	1.37329		
		3	15.55500	12.07086	1.28864		
		4	74.81200	60.69870	1.23251		
		5	261.84300	213.46253	1.22665		
4.046	1	1	1.47500	1.44844	1.01833		MTBE
		2	2.94600	2.95400	9.97291e-1		
		3	14.61500	14.70268	9.94037e-1		
		4	70.29300	69.38785	1.01304		
		5	246.02500	236.14495	1.04184		
5.271	1	1	1.93400	1.47220	1.31368		2-Nitropropane
		2	3.86500	3.06407	1.26139		
		3	19.17200	15.08370	1.27104		
		4	92.20900	70.94080	1.29980		
		5	322.73100	240.70808	1.34076		
5.483	1	1	1.37600	2.39376	5.74827e-1		Isooctane
		2	2.74900	4.98947	5.50960e-1		
		3	13.63600	24.31134	5.60890e-1		
		4	65.58300	113.66428	5.76989e-1		
		5	229.54000	383.23197	5.98958e-1		
5.778	1	1	1.59100	1.93864	8.20676e-1		MIBK
		2	3.17900	4.08995	7.77271e-1		
		3	15.76700	20.32706	7.75665e-1		

RetTime [min]	Sig	Lvl	Amount [ug/mL]	Area	Amt/Area	Ref Grp	Name
		4	75.83200	95.54764	7.93656e-1		
		5	265.41300	322.91343	8.21932e-1		
6.911	1	1	2.21000	3.16238	6.98841e-1		Chlorobenzene
		2	4.41500	6.61269	6.67656e-1		
		3	21.89900	32.28443	6.78315e-1		
		4	105.32300	150.04581	7.01939e-1		
		5	368.63100	503.21511	7.32552e-1		
7.034	1	1	1.73000	3.42743	5.04751e-1		Ethylbenzene
		2	3.45600	7.17041	4.81981e-1		
		3	17.14300	35.29047	4.85769e-1		
		4	82.45000	164.28465	5.01873e-1		
		5	288.57400	550.59037	5.24117e-1		
7.105	1	1	1.71700	3.40685	5.03985e-1		p-Xylene
		2	3.43000	7.19119	4.76973e-1		
		3	17.01500	35.26310	4.82516e-1		
		4	81.83600	164.15950	4.98515e-1		
		5	286.42600	550.06299	5.20715e-1		
7.260	1	1	1.80800	3.64634	4.95839e-1		Styrene
		2	3.61300	7.66360	4.71449e-1		
		3	17.92300	37.94816	4.72302e-1		
		4	86.19900	177.02438	4.86933e-1		
		5	301.69800	593.89606	5.07998e-1		
7.310	1	1	1.75500	3.58857	4.89053e-1		o-Xylene
		2	3.50600	7.50549	4.67125e-1		
		3	17.39100	36.62127	4.74888e-1		
		4	83.64200	169.94596	4.92168e-1		
		5	292.74700	568.52275	5.14926e-1		
7.550	1	1	1.73200	3.48488	4.97004e-1		Cumene
		2	3.46000	7.29681	4.74180e-1		
		3	17.16300	35.66562	4.81220e-1		
		4	82.54700	165.83451	4.97767e-1		
		5	288.91300	554.71474	5.20832e-1		
8.698	1	1	2.40100	2.93851	8.17082e-1		Nitrobenzene
		2	4.79800	6.15989	7.78911e-1		
		3	23.79800	30.58022	7.78215e-1		
		4	114.45700	142.76735	8.01703e-1		
		5	400.59900	479.40827	8.35611e-1		

More compound-specific settings:

Compound: Isooctane
  Time Window : From 5.458 min To 5.532 min

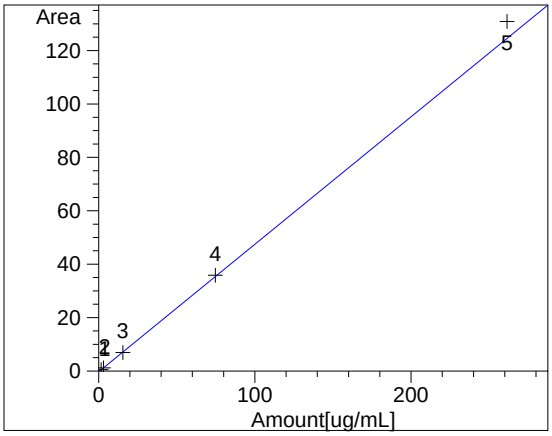
2 Warnings or Errors :

Warning : Overlapping peak time windows at 7.034 min, signal 1
Warning : Overlapping peak time windows at 7.26 min, signal 1

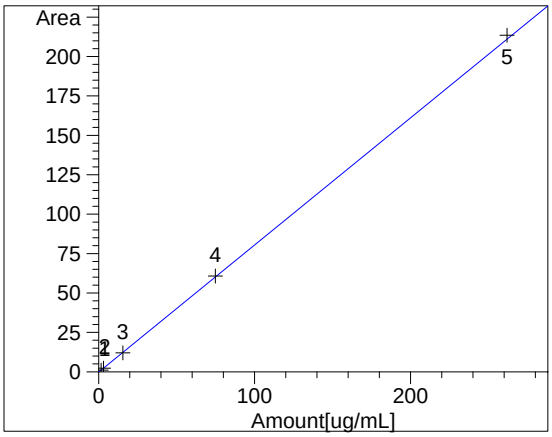
Peak Sum Table

No Entries in table

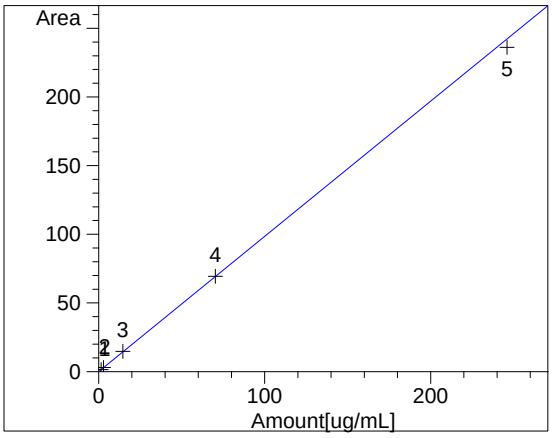
Calibration Curves



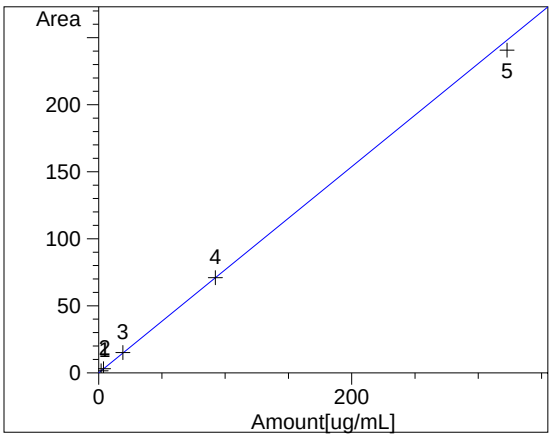
Acetonitrile at exp. RT: 2.708
FID1 A,
Correlation: 0.99901
Residual Std. Dev.: 3.64484
Formula: y = mx + b
m: 4.77592e-1
b: -2.71381e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.174204
Level 3 : 0.004929
Level 4 : 0.000185
Level 5 : 0.000014



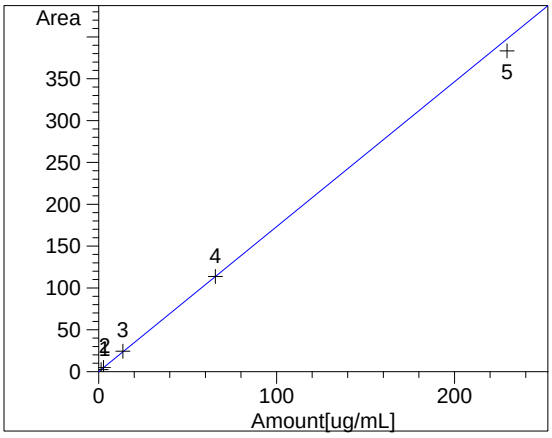
Acrylonitrile at exp. RT: 3.176
FID1 A,
Correlation: 0.99990
Residual Std. Dev.: 1.40994
Formula: y = mx + b
m: 8.07126e-1
b: -2.42729e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.201932
Level 3 : 0.007227
Level 4 : 0.000286
Level 5 : 0.000023



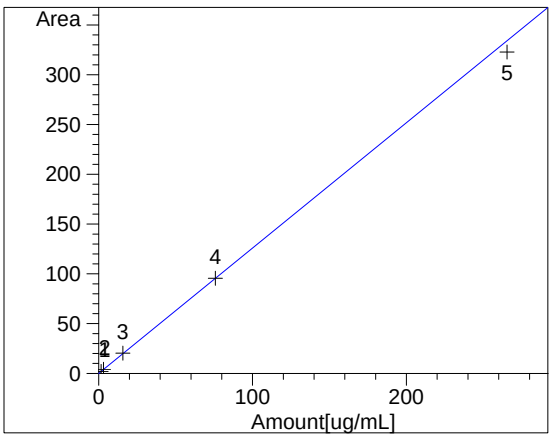
MTBE at exp. RT: 4.046
FID1 A,
Correlation: 0.99976
Residual Std. Dev.: 3.59661
Formula: y = mx + b
m: 9.85092e-1
b: 8.56371e-3
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.240426
Level 3 : 0.009705
Level 4 : 0.000436
Level 5 : 0.000038



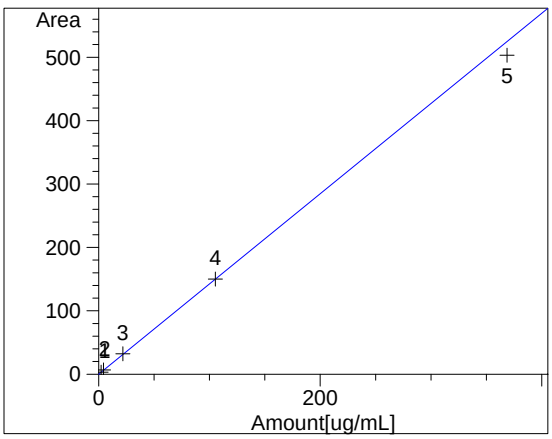
2-Nitropropane at exp. RT: 5.271
FID1 A,
Correlation: 0.99958
Residual Std. Dev.: 4.38444
Formula: y = mx + b
m: 7.69334e-1
b: 6.54264e-3
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.230853
Level 3 : 0.009526
Level 4 : 0.000431
Level 5 : 0.000037



Isooctane at exp. RT: 5.483
FID1 A,
Correlation: 0.99938
Residual Std. Dev.: 8.38012
Formula: y = mx + b
m: 1.73250
b: 5.49661e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.230172
Level 3 : 0.009695
Level 4 : 0.000444
Level 5 : 0.000039

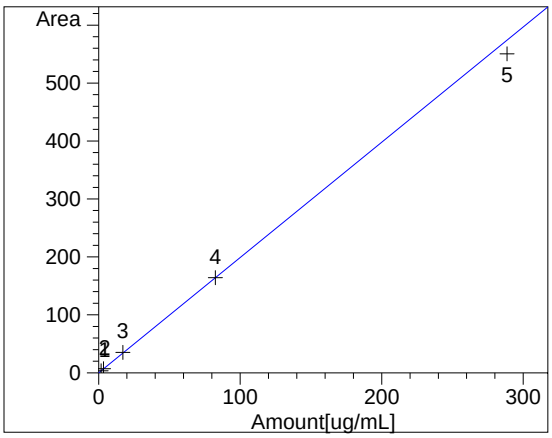


MIBK at exp. RT: 5.778
FID1 A,
Correlation: 0.99950
Residual Std. Dev.: 6.59742
Formula: y = mx + b
m: 1.25979
b: -3.46299e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.224678
Level 3 : 0.009096
Level 4 : 0.000412
Level 5 : 0.000036

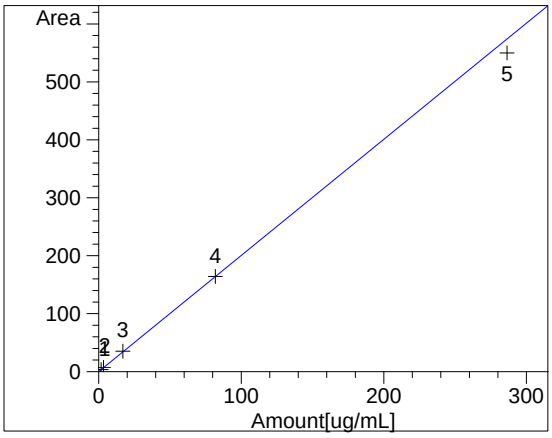


Chlorobenzene at exp. RT: 6.911
FID1 A,
Correlation: 0.99920
Residual Std. Dev.: 12.60321
Formula: y = mx + b
m: 1.42402
b: 8.03080e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.228703
Level 3 : 0.009595
Level 4 : 0.000444

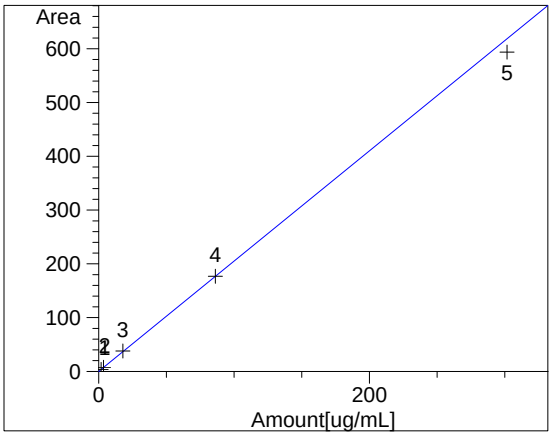
Level 5 : 0.000039



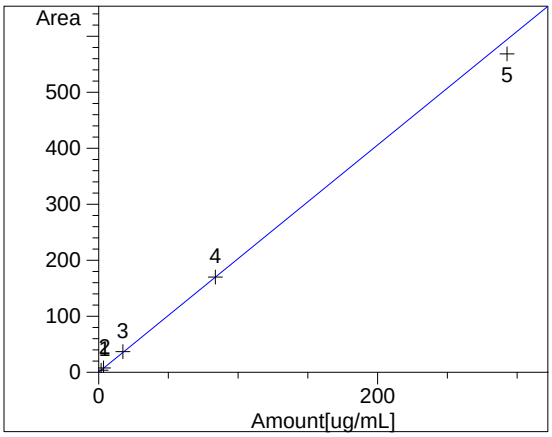
Ethylbenzene at exp. RT: 7.034
FID1 A,
Correlation: 0.99925
Residual Std. Dev.: 13.73904
Formula: y = mx + b
m: 1.99016
b: 4.96544e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.228481
Level 3 : 0.009432
Level 4 : 0.000435
Level 5 : 0.000039



p-Xylene at exp. RT: 7.105
FID1 A,
Correlation: 0.99917
Residual Std. Dev.: 14.06237
Formula: y = mx + b
m: 2.00526
b: 3.55524e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.224442
Level 3 : 0.009334
Level 4 : 0.000431
Level 5 : 0.000038

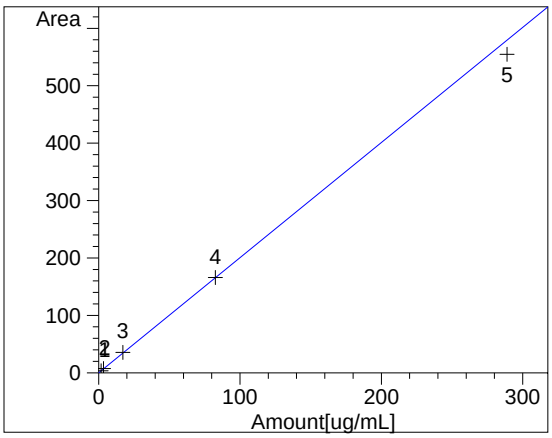


Styrene at exp. RT: 7.260
FID1 A,
Correlation: 0.99930
Residual Std. Dev.: 14.47124
Formula: y = mx + b
m: 2.05148
b: 3.43628e-3
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.226386
Level 3 : 0.009233
Level 4 : 0.000424
Level 5 : 0.000038

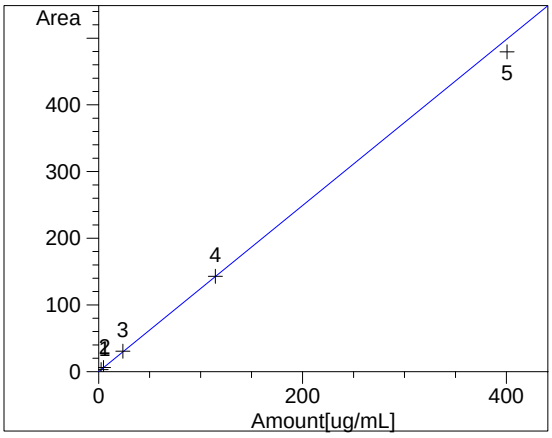


o-Xylene at exp. RT: 7.310
FID1 A,
Correlation: 0.99913
Residual Std. Dev.: 14.93020
Formula: y = mx + b
m: 2.02991
b: 1.02231e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.228605
Level 3 : 0.009602
Level 4 : 0.000446

Level 5 : 0.00004



Cumene at exp. RT: 7.550
FID1 A,
Correlation: 0.99916
Residual Std. Dev.: 14.42528
Formula: y = mx + b
m: 2.00610
b: 8.26714e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.228092
Level 3 : 0.009547
Level 4 : 0.000442
Level 5 : 0.000039



Nitrobenzene at exp. RT: 8.698
FID1 A,
Correlation: 0.99935
Residual Std. Dev.: 11.36483
Formula: y = mx + b
m: 1.24581
b: -2.60237e-3
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.227566
Level 3 : 0.009234
Level 4 : 0.000424
Level 5 : 0.000038

==========

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\001F0101.D
Sample Name: gc121p67 #6

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   1
Acq. Instrument : Lucy                              Location : Vial 1
Injection Date  : 03-Jun-11, 18:07:36                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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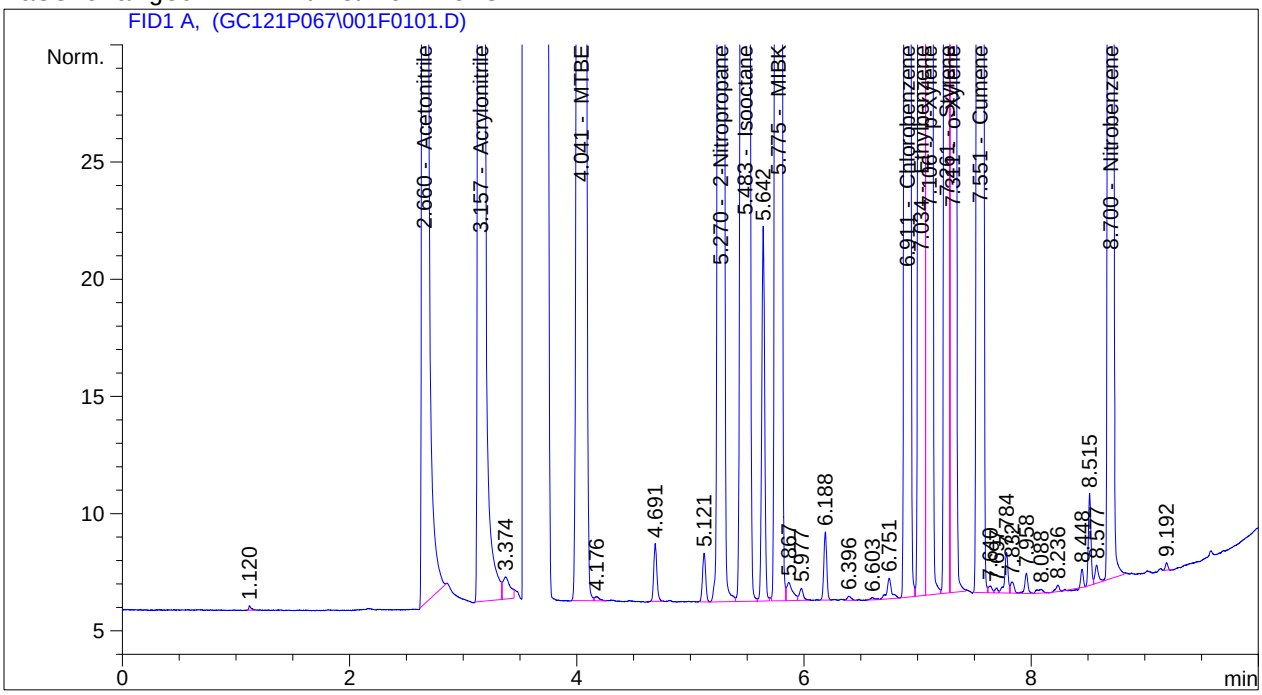
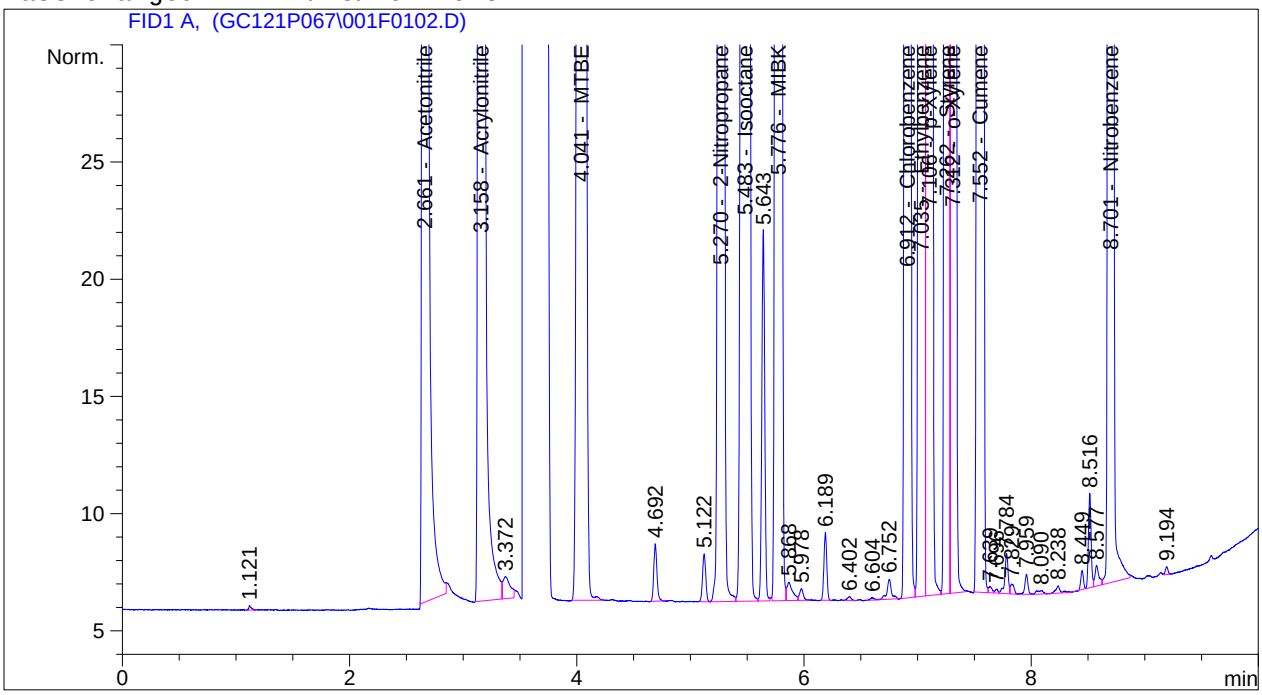



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.660	BB	906.50867	2.09447	1898.65071		Acetonitrile
3.157	BV	1406.76465	1.23918	1743.23193		Acrylonitrile
4.041	BV	1506.57727	1.01513	1529.36887		MTBE
5.270	VV	1536.85767	1.29982	1997.63742		2-Nitropropane
5.483	VV	2430.63794	5.77189e-1	1402.93780		Isooctane
5.775	BV	2055.23950	7.93799e-1	1631.44761		MIBK
6.911	VV	3181.42236	7.02218e-1	2234.05293		Chlorobenzene
7.034	VV	3476.58423	5.02464e-1	1746.85975		Ethylbenzene
7.106	VV	3470.24121	4.98685e-1	1730.55553		p-Xylene
7.261	VV	3752.33594	4.87452e-1	1829.08405		Styrene
7.311	VB	3580.26270	4.92619e-1	1763.70432		o-Xylene
7.551	BV	3495.05127	4.98468e-1	1742.16959		Cumene
8.700	VB	3030.69824	8.02689e-1	2432.70959		Nitrobenzene
Totals :				2.36824e4		

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\001F0102.D
Sample Name: gc121p67 #6

Acq. Operator	:	Seq. Line	: 1
Acq. Instrument	: Lucy	Location	: Vial 1
Injection Date	: 03-Jun-11, 18:29:53	Inj	: 2
		Inj Volume	: External
Sequence File	: G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S		
Acq. Method	: D:\GC2011Q2\LUCY\METHODS\GC121P067.M		
Last changed	: 6/3/2011 5:55:35 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

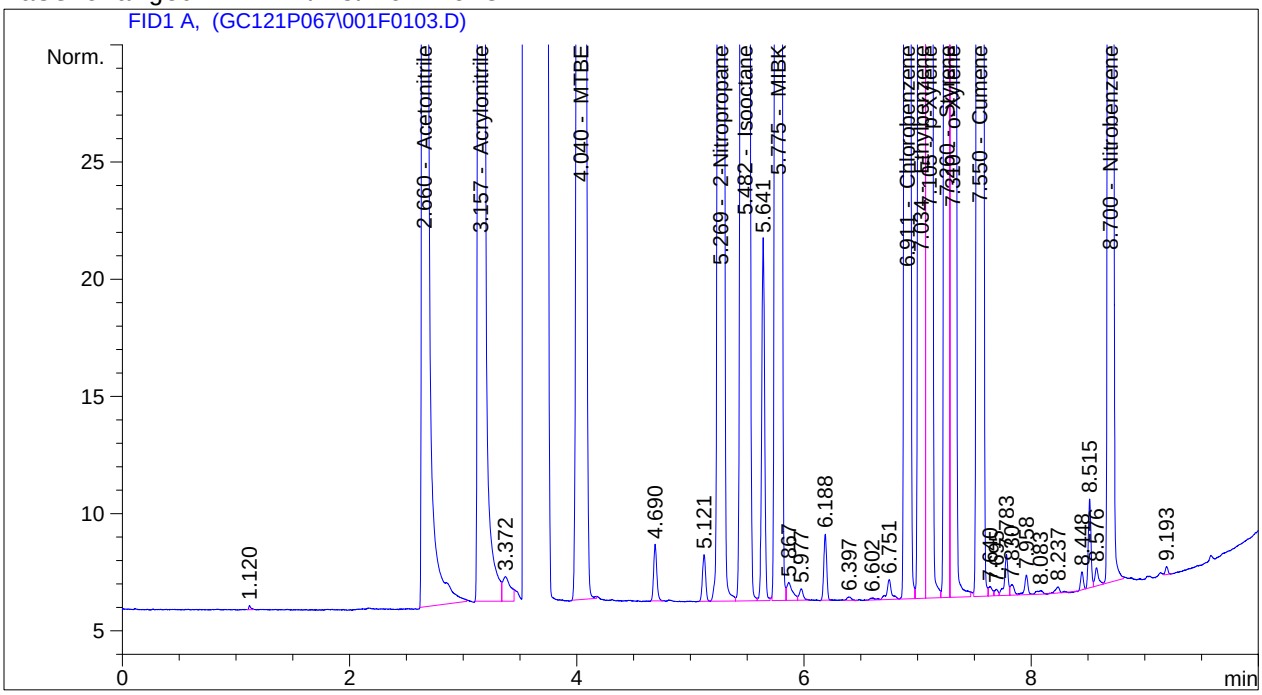
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.661	BB	899.76379	2.09447	1884.52804		Acetonitrile
3.158	BV	1392.04114	1.23918	1724.99002		Acrylonitrile
4.041	BB	1489.24316	1.01513	1511.77243		MTBE
5.270	VV	1522.27600	1.29982	1978.68381		2-Nitropropane
5.483	VV	2407.95630	5.77189e-1	1389.84590		Isooctane
5.776	BV	2038.93921	7.93799e-1	1618.50866		MIBK
6.912	BV	3161.95435	7.02218e-1	2220.38179		Chlorobenzene
7.035	VV	3455.78369	5.02464e-1	1736.40807		Ethylbenzene
7.106	VV	3450.50391	4.98684e-1	1720.71274		p-Xylene
7.262	VV	3731.59595	4.87452e-1	1818.97429		Styrene
7.312	VB	3562.01465	4.92619e-1	1754.71473		o-Xylene
7.552	BV	3477.09058	4.98467e-1	1733.21656		Cumene
8.701	VB	3029.71631	8.02689e-1	2431.92140		Nitrobenzene
Totals :				2.35247e4		

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\001F0103.D
Sample Name: gc121p67 #6

==========

Acq. Operator : Seq. Line : 1
Acq. Instrument : Lucy Location : Vial 1
Injection Date : 03-Jun-11, 18:52:27 Inj : 3
Inj Volume : External
Sequence File : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.660	BB	910.04907	2.09446	1906.06375		Acetonitrile
3.157	BV	1391.46899	1.23918	1724.28116		Acrylonitrile
4.040	BB	1477.69482	1.01513	1500.04932		MTBE
5.269	BV	1497.14343	1.29982	1946.01587		2-Nitropropane
5.482	VV	2364.38281	5.77189e-1	1364.69519		Isooctane
5.775	BV	1996.88684	7.93800e-1	1585.12809		MIBK
6.911	VV	3083.56299	7.02218e-1	2165.33256		Chlorobenzene
7.034	VV	3368.06323	5.02464e-1	1692.33103		Ethylbenzene
7.105	VV	3362.49341	4.98684e-1	1676.82282		p-Xylene
7.260	VV	3633.73584	4.87452e-1	1771.27213		Styrene
7.310	VB	3472.36353	4.92618e-1	1710.54965		o-Xylene
7.550	BV	3386.34302	4.98467e-1	1687.98077		Cumene
8.700	VB	2940.03467	8.02689e-1	2359.93495		Nitrobenzene
Totals :				2.30905e4		

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\002F0201.D
Sample Name: gc121p67 #5

```
==================================================================
Acq. Operator   :                          Seq. Line :   2
Acq. Instrument : Lucy                      Location : Vial 2
Injection Date  : 03-Jun-11, 19:14:47            Inj :   1
                                          Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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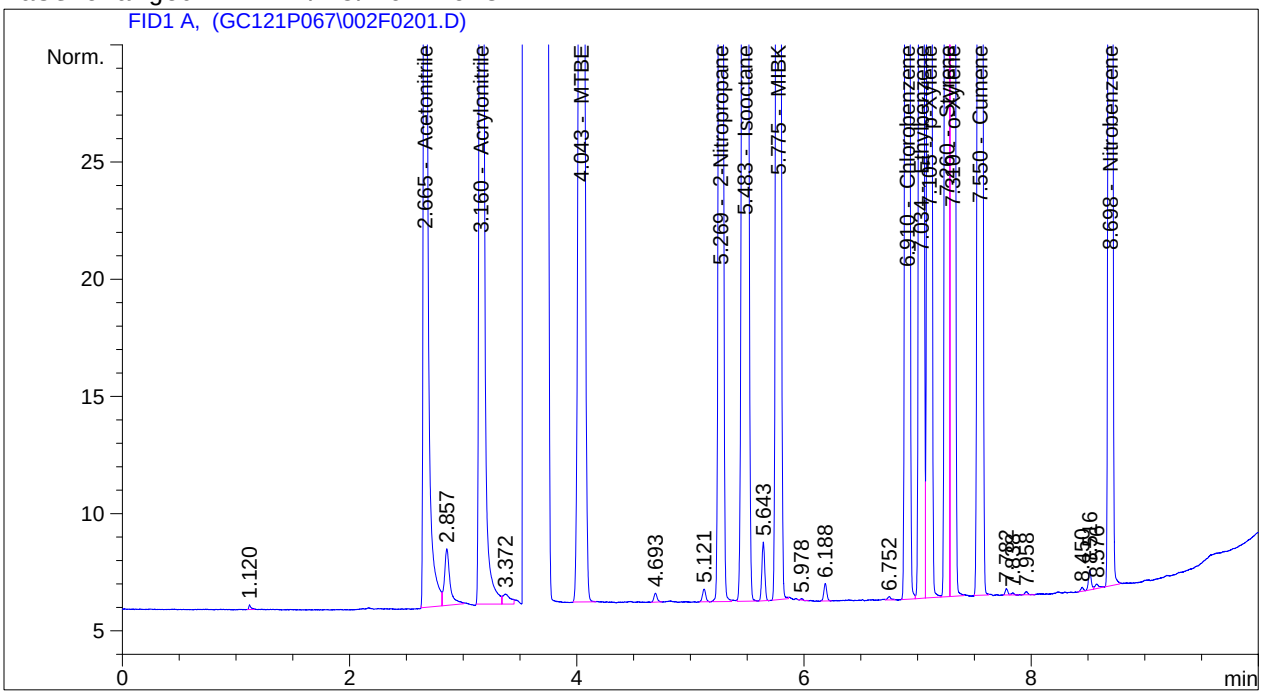


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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                 [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.665 BV      132.62952    2.09812  278.27298    Acetonitrile
  3.160 BV      216.56895    1.24035  268.62194    Acrylonitrile
  4.043 BB      240.50687    1.01510  244.13796    MTBE
  5.269 BB      245.16844    1.29979  318.66755    2-Nitropropane
  5.483 BB      391.09314 5.77121e-1  225.70809    Isooctane
  5.775 BB      329.01581 7.93869e-1  261.19560    MIBK
  6.910 BV      512.02032 7.02126e-1  359.50271    Chlorobenzene
  7.034 VV      560.43817 5.02427e-1  281.57929    Ethylbenzene
  7.105 VV      559.69287 4.98658e-1  279.09529    p-Xylene
  7.260 VV      603.78430 4.87450e-1  294.31452    Styrene
  7.310 VB      578.86377 4.92546e-1  285.11689    o-Xylene
  7.550 BB      564.77032 4.98406e-1  281.48512    Cumene
  8.698 BB      486.91000 8.02693e-1  390.83929    Nitrobenzene

Totals :                             3768.53723
```

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\002F0202.D
Sample Name: gc121p67 #5

```
==================================================================
Acq. Operator   :                                Seq. Line :   2
Acq. Instrument : Lucy                            Location : Vial 2
Injection Date  : 03-Jun-11, 19:37:15                  Inj :   2
                                                Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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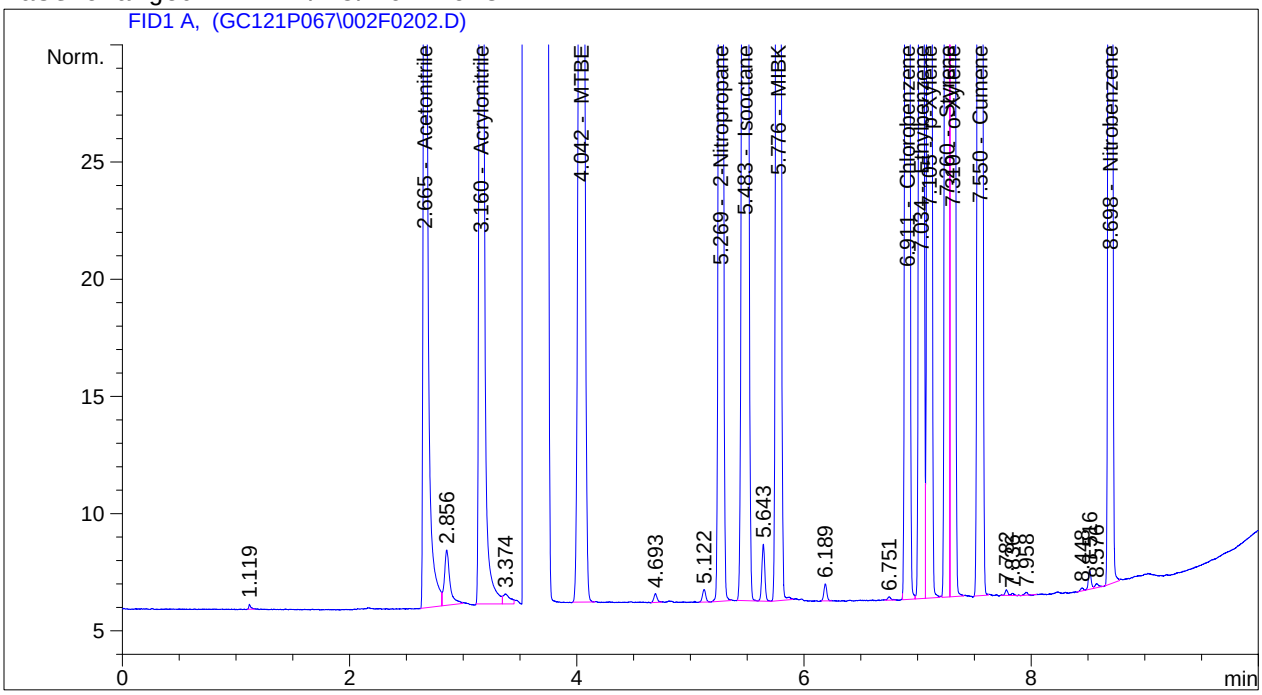


```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                 [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.665 BV      130.33386    2.09820  273.46625    Acetonitrile
  3.160 BB      212.25349    1.24038  263.27524    Acrylonitrile
  4.042 BB      234.41881    1.01510  237.95777    MTBE
  5.269 BB      238.64430    1.29979  310.18731    2-Nitropropane
  5.483 BB      379.50977 5.77119e-1  219.02214    Isooctane
  5.776 VB      320.37704 7.93872e-1  254.33827    MIBK
  6.911 BV      498.82996 7.02123e-1  350.23996    Chlorobenzene
  7.034 VV      545.61121 5.02426e-1  274.12916    Ethylbenzene
  7.105 VB      545.21289 4.98657e-1  271.87428    p-Xylene
  7.260 BV      588.98224 4.87450e-1  287.09922    Styrene
  7.310 VB      563.17505 4.92543e-1  277.38811    o-Xylene
  7.550 BB      549.61322 4.98404e-1  273.92962    Cumene
  8.698 BB      475.60797 8.02693e-1  381.76727    Nitrobenzene

Totals :                             3674.67460
```

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\002F0203.D
Sample Name: gc121p67 #5

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   2
Acq. Instrument : Lucy                              Location : Vial 2
Injection Date  : 03-Jun-11, 19:59:28                    Inj :   3
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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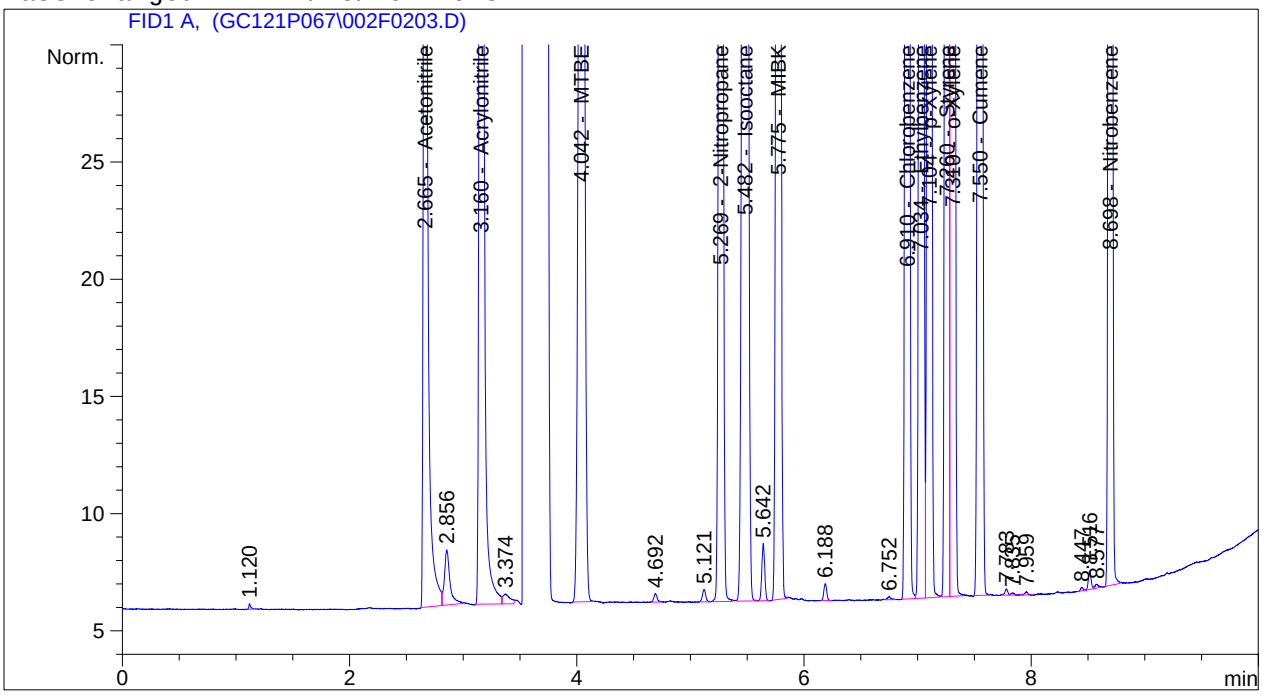


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                 [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.665 BV      129.73277    2.09822  272.20767    Acetonitrile
  3.160 BV      211.56514    1.24039  262.42239    Acrylonitrile
  4.042 BB      233.50917    1.01510  237.03437    MTBE
  5.269 BB      238.31149    1.29979  309.75472    2-Nitropropane
  5.482 BB      379.09302 5.77118e-1  218.78159    Isooctane
  5.775 BB      319.34744 7.93872e-1  253.52098    MIBK
  6.910 BV      498.79504 7.02123e-1  350.21544    Chlorobenzene
  7.034 VV      545.72174 5.02426e-1  274.18470    Ethylbenzene
  7.104 VB      545.28320 4.98657e-1  271.90934    p-Xylene
  7.260 BV      588.92163 4.87450e-1  287.06968    Styrene
  7.310 VB      563.52942 4.92543e-1  277.56269    o-Xylene
  7.550 BB      549.76068 4.98404e-1  274.00312    Cumene
  8.698 BB      475.70685 8.02693e-1  381.84664    Nitrobenzene

Totals :                             3670.51333
```

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\003F0301.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   3
Acq. Instrument : Lucy                              Location : Vial 3
Injection Date  : 03-Jun-11, 20:22:02                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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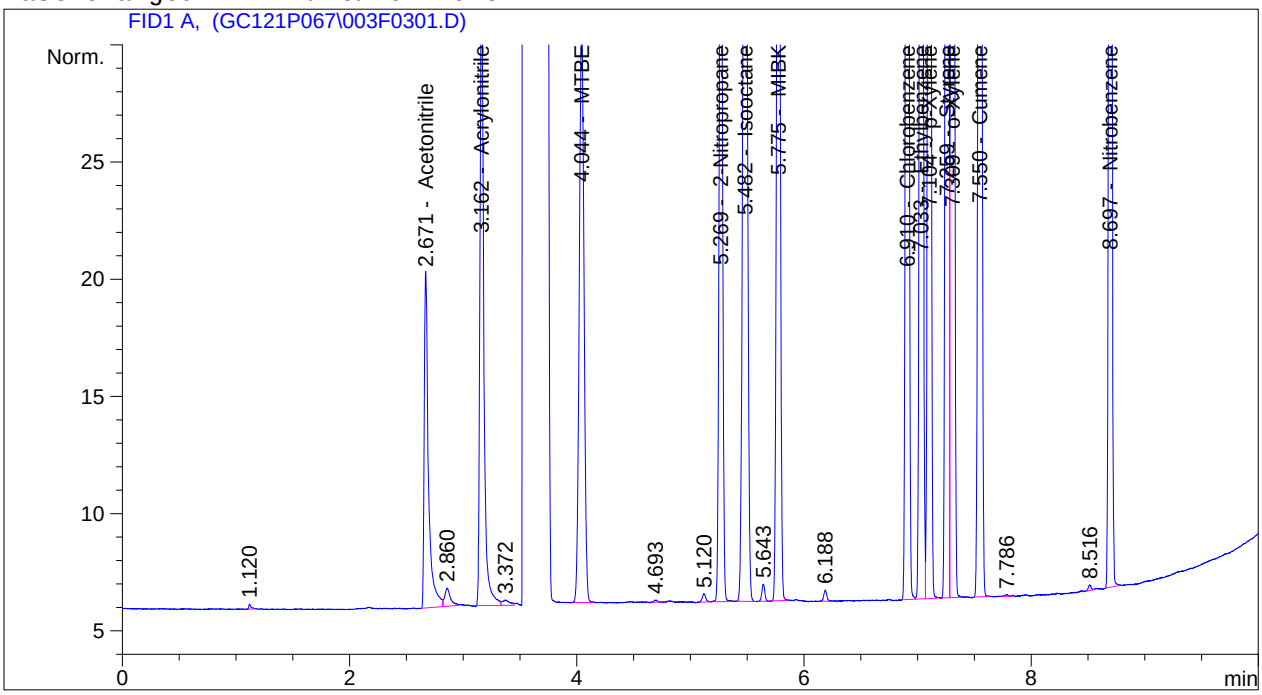


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.671 BV       36.97019    2.10921   77.97783    Acetonitrile
  3.162 BB       62.82383    1.24375   78.13722    Acrylonitrile
  4.044 BB       71.89221    1.01501   72.97152    MTBE
  5.269 BB       73.56025    1.29971   95.60694    2-Nitropropane
  5.482 BB      118.13439 5.76934e-1   68.15570    Isooctane
  5.775 BB       99.24931 7.94063e-1   78.81019    MIBK
  6.910 BV      155.63924 7.01874e-1  109.23908    Chlorobenzene
  7.033 VV      170.53943 5.02325e-1   85.66626    Ethylbenzene
  7.104 VB      170.28802 4.98586e-1   84.90314    p-Xylene
  7.259 BV      183.55896 4.87443e-1   89.47461    Styrene
  7.309 VB      176.49533 4.92347e-1   86.89702    o-Xylene
  7.550 BB      172.25983 4.98240e-1   85.82675    Cumene
  8.697 BB      147.70320 8.02703e-1  118.56179    Nitrobenzene

Totals :                             1132.22806
```

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\003F0302.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   3
Acq. Instrument : Lucy                              Location : Vial 3
Injection Date  : 03-Jun-11, 20:44:21                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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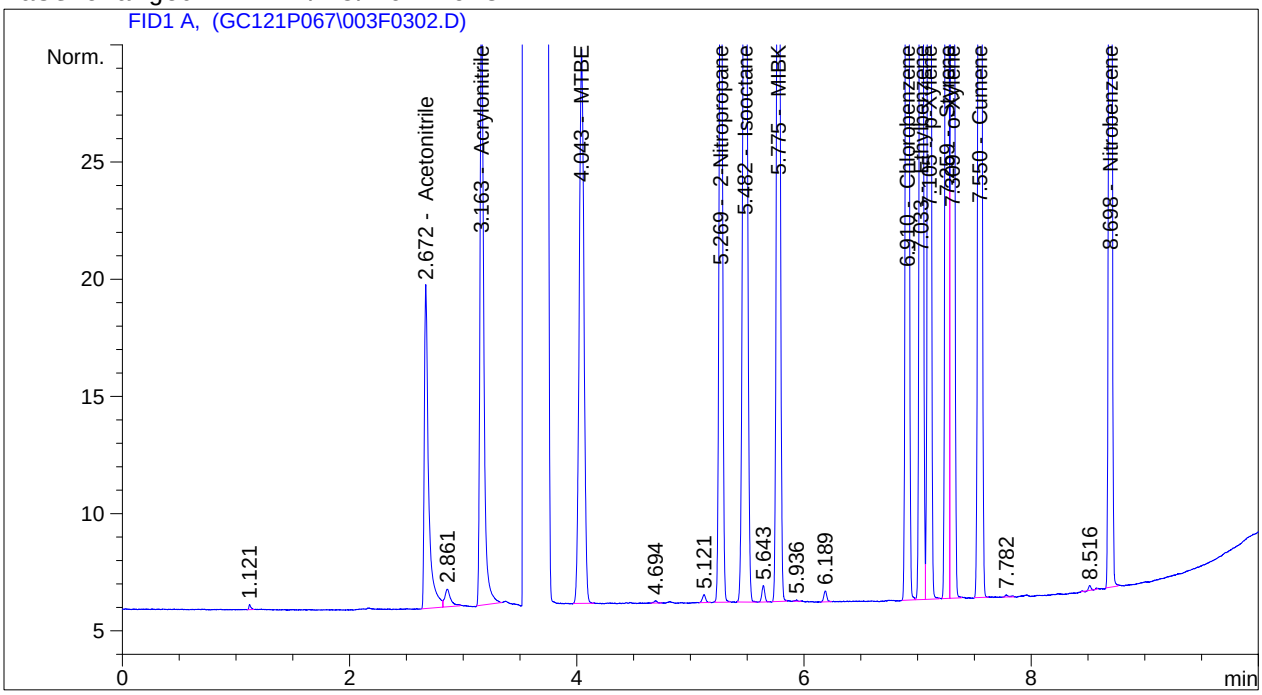


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.672	BV	35.67709	2.10977	75.27028		Acetonitrile
3.163	BB	59.49755	1.24402	74.01607		Acrylonitrile
4.043	BB	68.56981	1.01501	69.59884		MTBE
5.269	BB	69.93189	1.29970	90.89071		2-Nitropropane
5.482	BB	111.88756	5.76919e-1	64.55002		Isooctane
5.775	BB	93.98778	7.94078e-1	74.63366		MIBK
6.910	BV	147.48990	7.01854e-1	103.51632		Chlorobenzene
7.033	VV	161.45531	5.02317e-1	81.10175		Ethylbenzene
7.105	VB	161.40787	4.98580e-1	80.47470		p-Xylene
7.259	BV	174.05504	4.87443e-1	84.84190		Styrene
7.309	VB	167.10236	4.92331e-1	82.26973		o-Xylene
7.550	BB	162.94791	4.98226e-1	81.18495		Cumene
8.698	BB	140.48767	8.02704e-1	112.76997		Nitrobenzene
Totals :				1075.11891		

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\003F0303.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   3
Acq. Instrument : Lucy                              Location : Vial 3
Injection Date  : 03-Jun-11, 21:06:40                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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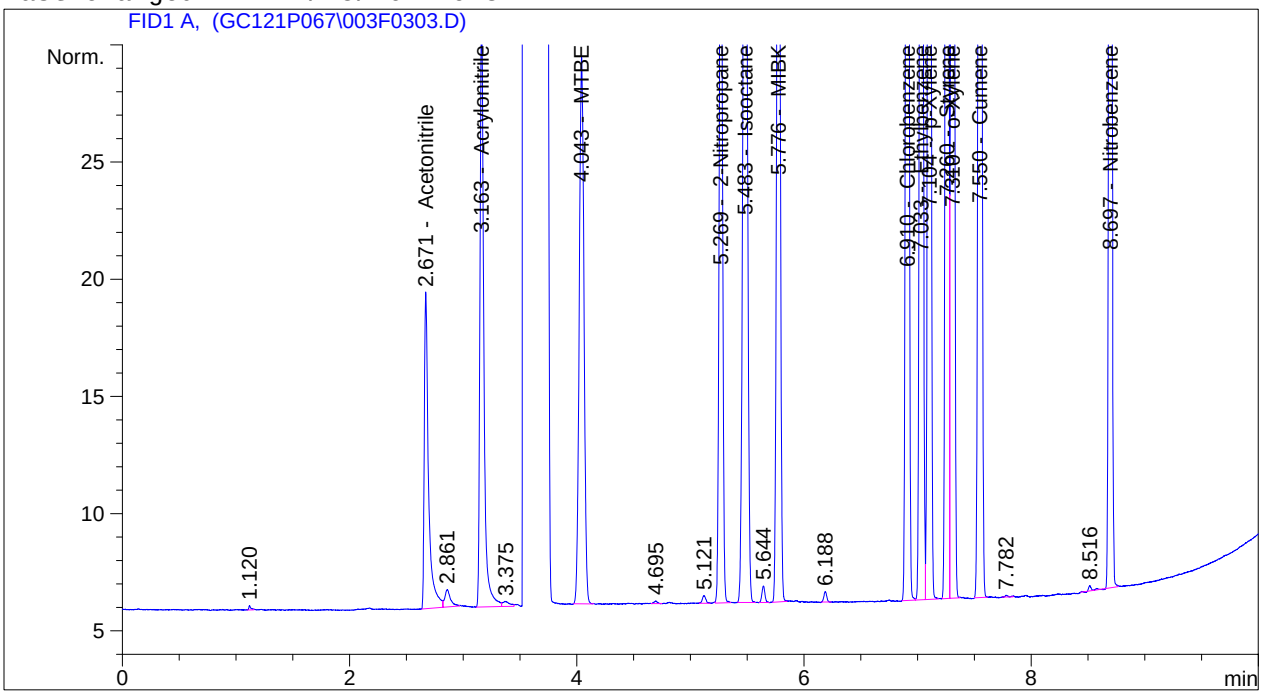


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.671	BV	35.01536	2.11007	73.88473		Acetonitrile
3.163	BB	59.77471	1.24400	74.35946		Acrylonitrile
4.043	BB	67.70152	1.01501	68.71741		MTBE
5.269	BB	69.33027	1.29970	90.10871		2-Nitropropane
5.483	BB	110.97089	5.76916e-1	64.02092		Isooctane
5.776	BB	93.40582	7.94080e-1	74.17171		MIBK
6.910	BV	147.00830	7.01852e-1	103.17813		Chlorobenzene
7.033	VV	160.85922	5.02316e-1	80.80223		Ethylbenzene
7.104	VB	160.78261	4.98579e-1	80.16289		p-Xylene
7.260	BV	173.45915	4.87443e-1	84.55143		Styrene
7.310	VB	166.24020	4.92330e-1	81.84501		o-Xylene
7.550	BB	162.29579	4.98225e-1	80.85989		Cumene
8.697	VB	140.11119	8.02704e-1	112.46777		Nitrobenzene

Totals : 1069.13028

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\004F0401.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   4
Acq. Instrument : Lucy                              Location : Vial 4
Injection Date  : 03-Jun-11, 21:29:04                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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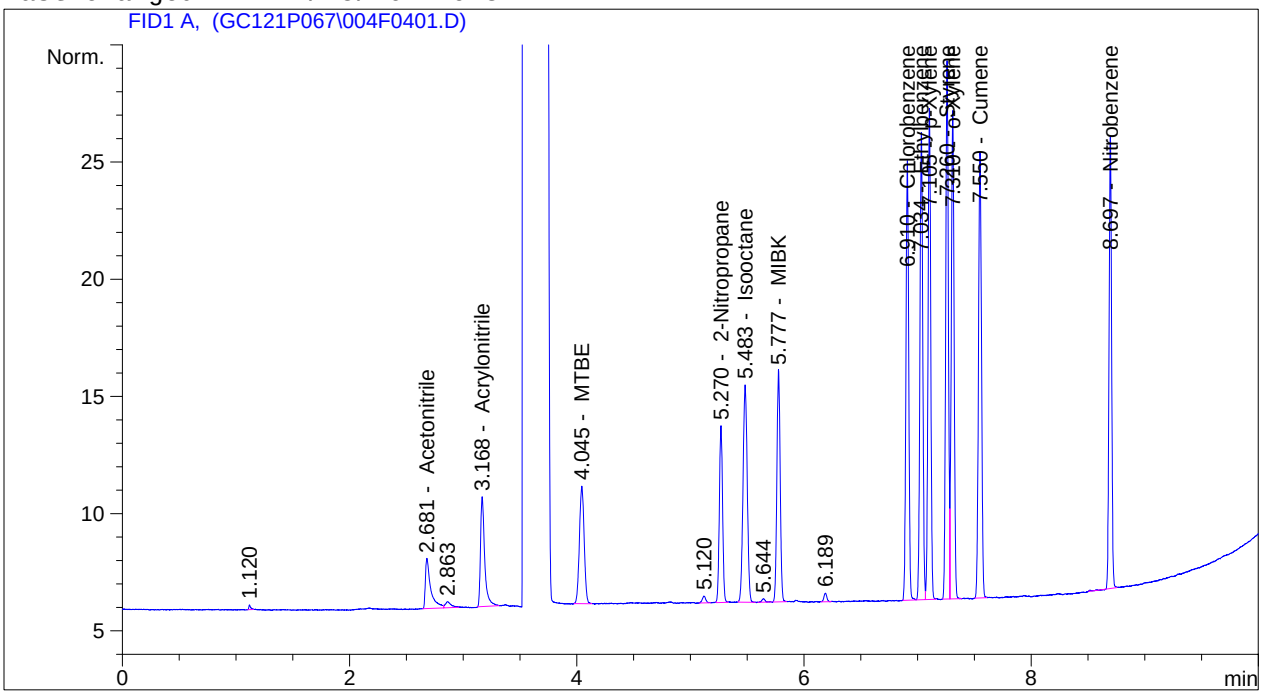


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```
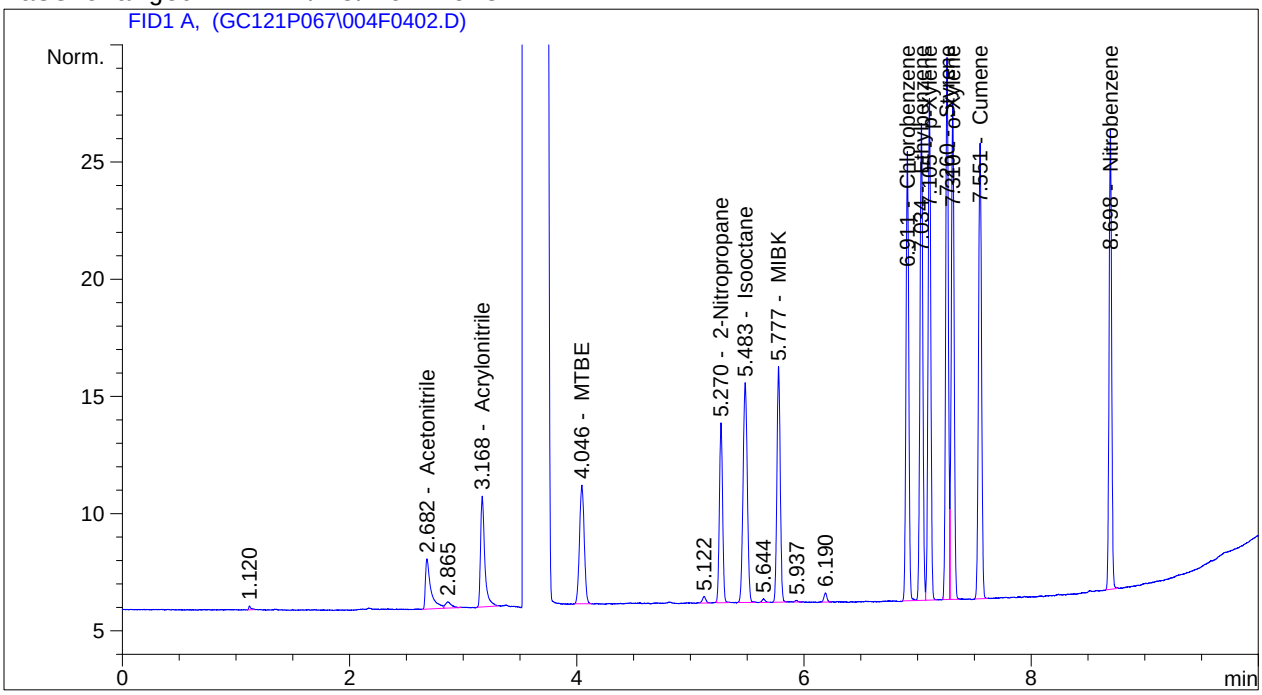

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.681	BV	6.90726	2.17610	15.03092		Acetonitrile
3.168	BB	11.95883	1.26411	15.11729		Acrylonitrile
4.045	BB	14.60070	1.01454	14.81297		MTBE
5.270	BB	14.96657	1.29926	19.44542		2-Nitropropane
5.483	BB	24.12131	5.75887e-1	13.89115		Isooctane
5.777	BB	20.13860	7.95151e-1	16.01323		MIBK
6.910	BV	31.94367	7.00471e-1	22.37560		Chlorobenzene
7.034	VV	34.90971	5.01757e-1	17.51619		Ethylbenzene
7.105	VB	34.85910	4.98181e-1	17.36614		p-Xylene
7.260	BV	37.54240	4.87408e-1	18.29846		Styrene
7.310	VB	36.22927	4.91243e-1	17.79737		o-Xylene
7.550	BB	35.24091	4.97310e-1	17.52566		Cumene
8.697	BB	30.28143	8.02758e-1	24.30866		Nitrobenzene
Totals :				229.49905		

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\004F0402.D
Sample Name: gc121p67 #3

Acq. Operator	:	Seq. Line	: 4
Acq. Instrument	: Lucy	Location	: Vial 4
Injection Date	: 03-Jun-11, 21:51:28	Inj	: 2
		Inj Volume	: External

Sequence File : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.682	BB	7.00227	2.17499	15.22985		Acetonitrile
3.168	BB	12.11961	1.26378	15.31649		Acrylonitrile
4.046	BB	14.69251	1.01454	14.90617		MTBE
5.270	BB	15.13042	1.29926	19.65839		2-Nitropropane
5.483	BB	24.37719	5.75901e-1	14.03884		Isooctane
5.777	BB	20.45107	7.95130e-1	16.26126		MIBK
6.911	BV	32.49714	7.00501e-1	22.76426		Chlorobenzene
7.034	VV	35.51176	5.01769e-1	17.81870		Ethylbenzene
7.105	VB	35.48539	4.98190e-1	17.67846		p-Xylene
7.260	BV	38.17268	4.87409e-1	18.60569		Styrene
7.310	VB	36.82682	4.91265e-1	18.09174		o-Xylene
7.551	BB	35.95034	4.97333e-1	17.87929		Cumene
8.698	BB	30.73142	8.02757e-1	24.66985		Nitrobenzene

Totals : 232.91900

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\004F0403.D
Sample Name: gc121p67 #3

```
==================================================================
Acq. Operator   :                          Seq. Line :   4
Acq. Instrument : Lucy                      Location : Vial 4
Injection Date  : 03-Jun-11, 22:13:57            Inj :   3
                                          Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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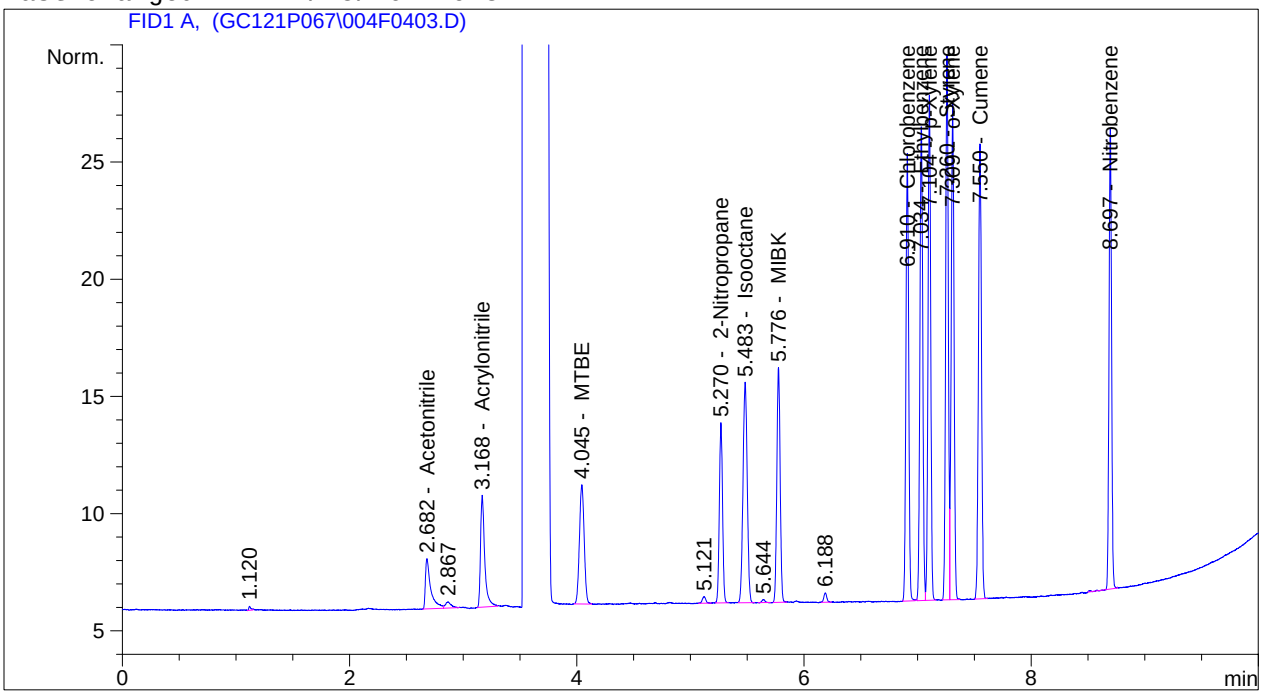



```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

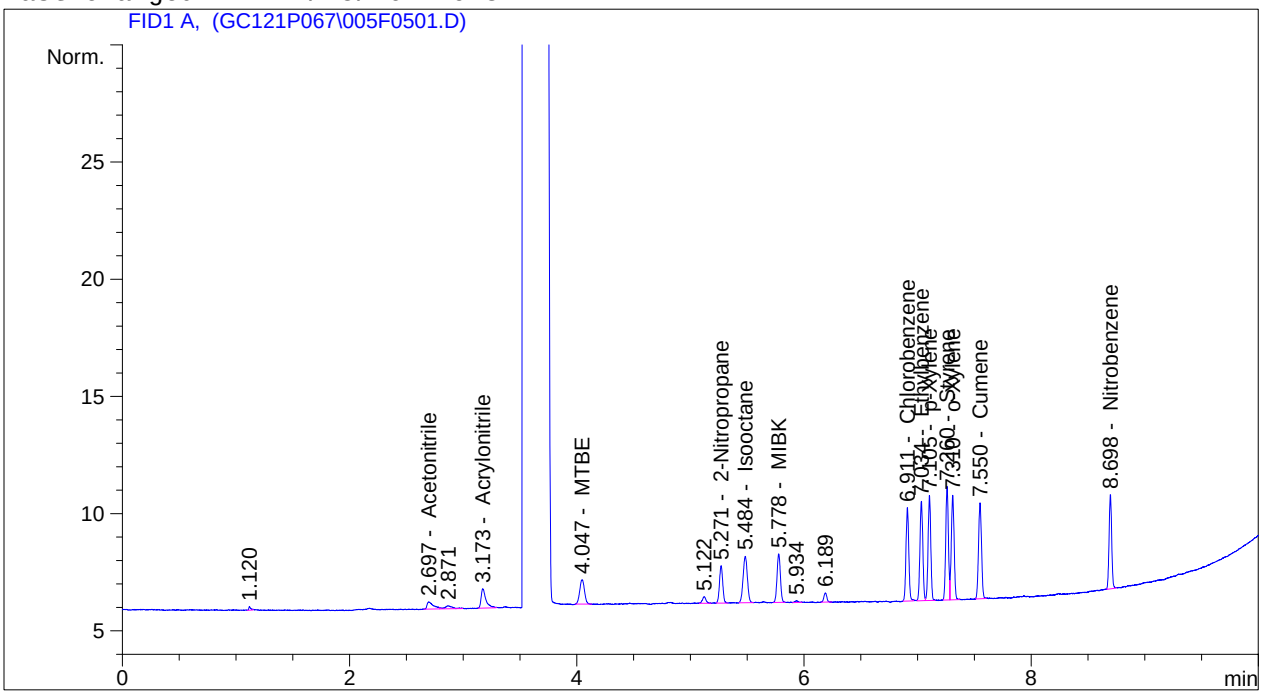
Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                 [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.682 BV        6.92380    2.17591   15.06554    Acetonitrile
  3.168 BB       12.13416    1.26375   15.33452    Acrylonitrile
  4.045 BB       14.81483    1.01455   15.03034    MTBE
  5.270 BB       15.15410    1.29926   19.68918    2-Nitropropane
  5.483 BB       24.43553 5.75904e-1   14.07251    Isooctane
  5.776 BB       20.39152 7.95134e-1   16.21399    MIBK
  6.910 BB       32.41248 7.00496e-1   22.70482    Chlorobenzene
  7.034 BV       35.44993 5.01768e-1   17.78763    Ethylbenzene
  7.104 VB       35.44481 4.98189e-1   17.65823    p-Xylene
  7.260 BV       38.12941 4.87409e-1   18.58460    Styrene
  7.309 VB       36.80771 4.91265e-1   18.08232    o-Xylene
  7.550 BB       35.80560 4.97328e-1   17.80714    Cumene
  8.697 BB       30.72782 8.02757e-1   24.66697    Nitrobenzene

Totals :                              232.69779
```

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\005F0501.D
Sample Name: gc121p67 #2

Acq. Operator	:	Seq. Line	: 5
Acq. Instrument	: Lucy	Location	: Vial 5
Injection Date	: 03-Jun-11, 22:36:15	Inj	: 1
		Inj Volume	: External
Sequence File	: G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S		
Acq. Method	: D:\GC2011Q2\LUCY\METHODS\GC121P067.M		
Last changed	: 6/3/2011 5:55:35 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	7/15/2011 9:32:30 PM
Multiplier:	:	1.0000
Dilution:	:	1.0000

Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.697	BB	1.18691	2.57258	3.05343		Acetonitrile
3.173	BB	2.39448	1.36456	3.26741		Acrylonitrile
4.047	BB	3.01823	1.01225	3.05522		MTBE
5.271	BB	3.16815	1.29714	4.10953		2-Nitropropane
5.484	BB	5.16930	5.71065e-1	2.95200		Isooctane
5.778	BB	4.24219	8.00266e-1	3.39488		MIBK
6.911	BB	6.86104	6.94016e-1	4.76167		Chlorobenzene
7.034	BV	7.42837	4.99113e-1	3.70760		Ethylbenzene
7.105	VB	7.41370	4.96298e-1	3.67941		p-Xylene
7.260	BV	7.95495	4.87242e-1	3.87599		Styrene
7.310	VB	7.80557	4.86181e-1	3.79492		o-Xylene
7.550	BB	7.54552	4.93018e-1	3.72007		Cumene
8.698	BB	6.39547	8.03015e-1	5.13566		Nitrobenzene
Totals :				48.50779		

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\005F0502.D
Sample Name: gc121p67 #2

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   5
Acq. Instrument : Lucy                              Location : Vial 5
Injection Date  : 03-Jun-11, 22:58:45                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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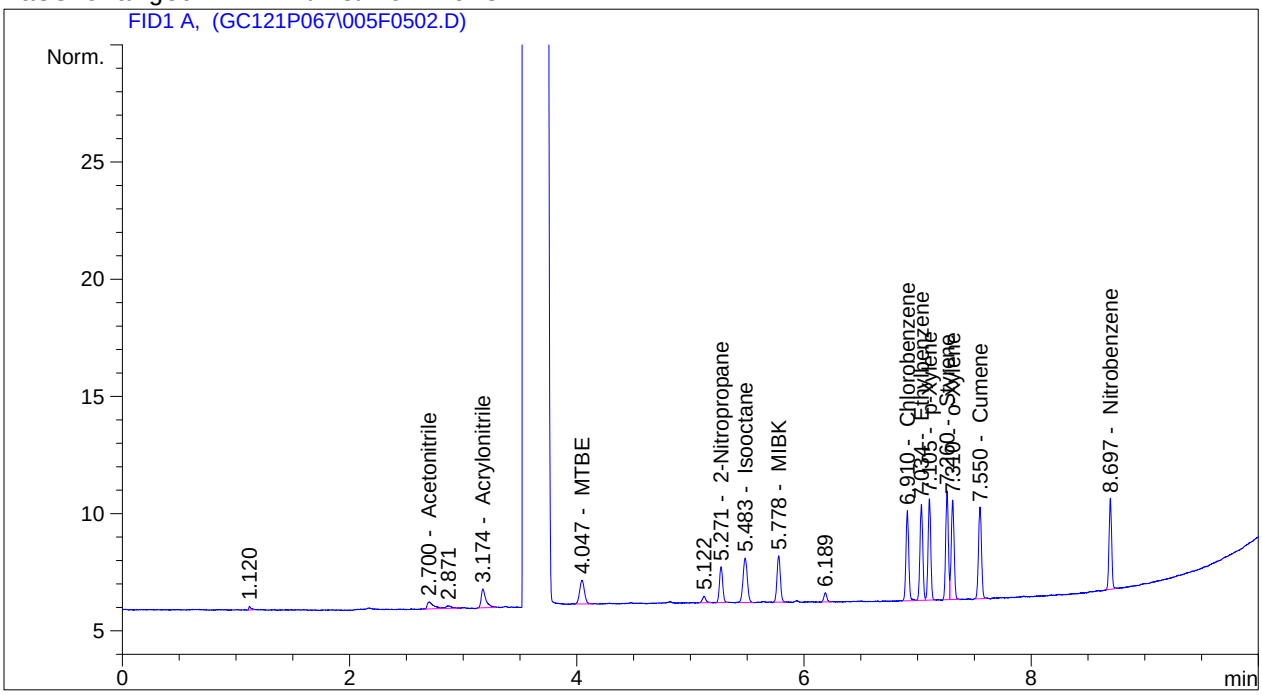


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.700	BB	1.12785	2.59765	2.92977		Acetonitrile
3.174	BB	2.27998	1.37087	3.12554		Acrylonitrile
4.047	BB	2.95867	1.01220	2.99475		MTBE
5.271	BB	3.03669	1.29702	3.93866		2-Nitropropane
5.483	BB	4.97883	5.70830e-1	2.84206		Isooctane
5.778	BB	4.06630	8.00546e-1	3.25526		MIBK
6.910	BB	6.56768	6.93649e-1	4.55567		Chlorobenzene
7.034	BV	7.11934	4.98967e-1	3.55232		Ethylbenzene
7.105	VB	7.14214	4.96207e-1	3.54398		p-Xylene
7.260	BV	7.63251	4.87233e-1	3.71881		Styrene
7.310	VB	7.47697	4.85897e-1	3.63304		o-Xylene
7.550	BB	7.29516	4.92830e-1	3.59528		Cumene
8.697	BB	6.14563	8.03029e-1	4.93512		Nitrobenzene

Totals : 46.62026

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\005F0503.D
Sample Name: gc121p67 #2

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   5
Acq. Instrument : Lucy                              Location : Vial 5
Injection Date  : 03-Jun-11, 23:21:18                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 5:55:35 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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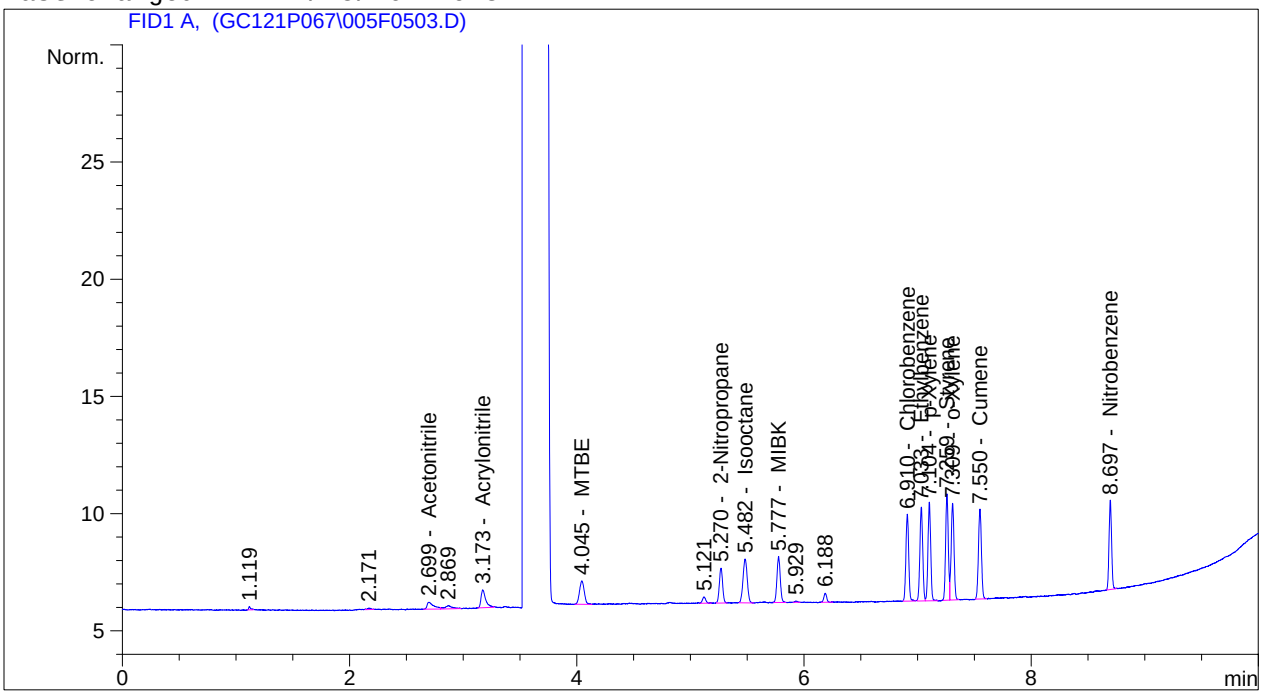


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.699	BB	1.18963	2.57149	3.05913		Acetonitrile
3.173	BB	2.17622	1.37715	2.99699		Acrylonitrile
4.045	BB	2.88511	1.01212	2.92008		MTBE
5.270	BB	2.98738	1.29698	3.87456		2-Nitropropane
5.482	BB	4.82029	5.70620e-1	2.75056		Isooctane
5.777	BB	3.96137	8.00725e-1	3.17197		MIBK
6.910	BB	6.40933	6.93437e-1	4.44447		Chlorobenzene
7.033	BV	6.96351	4.98889e-1	3.47402		Ethylbenzene
7.104	VB	7.01773	4.96163e-1	3.48194		p-Xylene
7.259	BV	7.40334	4.87226e-1	3.60710		Styrene
7.309	VB	7.23393	4.85671e-1	3.51331		o-Xylene
7.550	BB	7.04975	4.92634e-1	3.47294		Cumene
8.697	BB	5.93856	8.03041e-1	4.76890		Nitrobenzene
Totals :				45.53597		

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\006F0601.D
Sample Name: gc121p67 #1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   6
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 03-Jun-11, 23:49:16                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 11:37:30 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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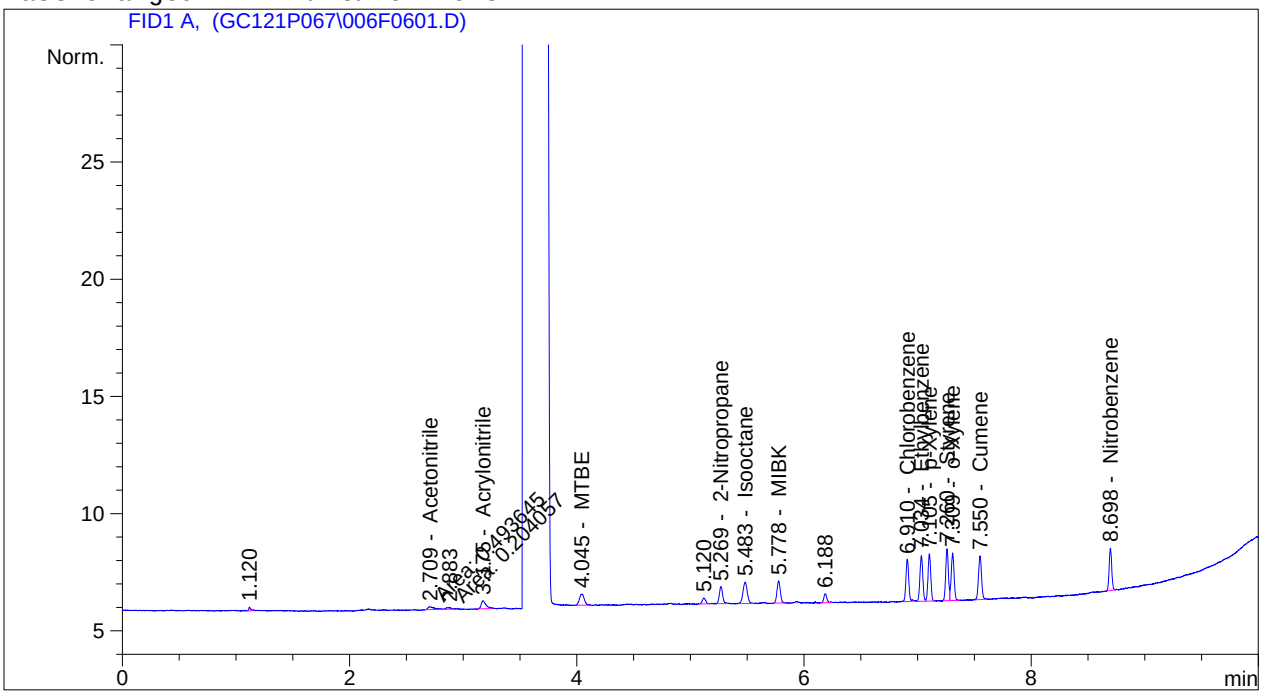


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.709	MF	4.93645e-1	3.24492	1.60184		Acetonitrile
3.175	BB	9.89568e-1	1.53275	1.51676		Acrylonitrile
4.045	BB	1.39358	1.00919	1.40638		MTBE
5.269	BB	1.45118	1.29413	1.87802		2-Nitropropane
5.483	BB	2.37983	5.64194e-1	1.34269		Isooctane
5.778	BB	1.92378	8.07742e-1	1.55392		MIBK
6.910	BB	3.09807	6.84762e-1	2.12144		Chlorobenzene
7.034	BV	3.40732	4.95328e-1	1.68774		Ethylbenzene
7.105	VB	3.36397	4.93593e-1	1.66043		p-Xylene
7.260	BV	3.60073	4.87001e-1	1.75356		Styrene
7.309	VB	3.56153	4.78890e-1	1.70558		o-Xylene
7.550	BB	3.48105	4.86895e-1	1.69490		Cumene
8.698	BB	2.84458	8.03388e-1	2.28530		Nitrobenzene

Totals : 22.20857

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\006F0602.D
Sample Name: gc121p67 #1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   6
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 04-Jun-11, 00:11:35                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 11:37:30 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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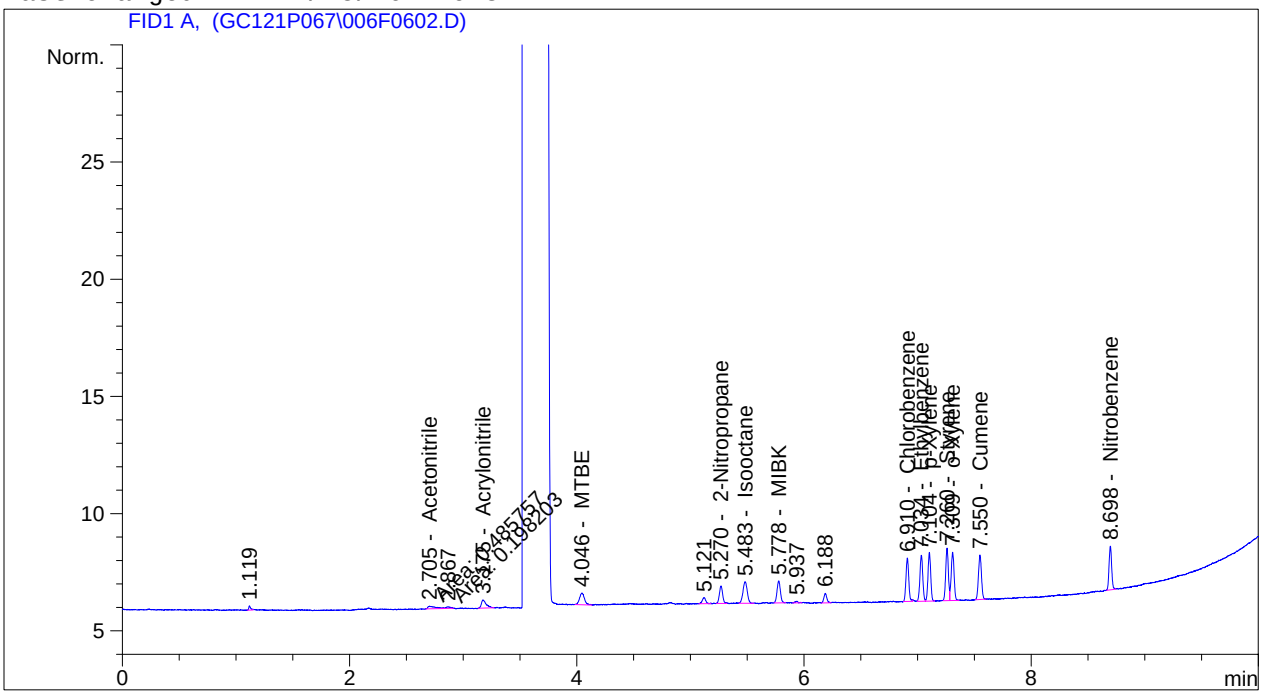


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.705	MF	4.85757e-1	3.26362	1.58532		Acetonitrile
3.175	BB	1.02998	1.53094	1.57684		Acrylonitrile
4.046	BB	1.51648	1.00940	1.53074		MTBE
5.270	BB	1.46629	1.29413	1.89758		2-Nitropropane
5.483	BB	2.40289	5.64194e-1	1.35570		Isooctane
5.778	BB	1.90488	8.07742e-1	1.53865		MIBK
6.910	BB	3.16053	6.84762e-1	2.16421		Chlorobenzene
7.034	BV	3.42157	4.95328e-1	1.69480		Ethylbenzene
7.104	VB	3.42314	4.93593e-1	1.68964		p-Xylene
7.260	BV	3.66532	4.87001e-1	1.78501		Styrene
7.309	VB	3.62818	4.78890e-1	1.73750		o-Xylene
7.550	BB	3.49803	4.86895e-1	1.70317		Cumene
8.698	BB	2.97223	8.03388e-1	2.38785		Nitrobenzene

Totals : 22.64702

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\006F0603.D
Sample Name: gc121p67 #1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   6
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 04-Jun-11, 00:33:49                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 11:37:30 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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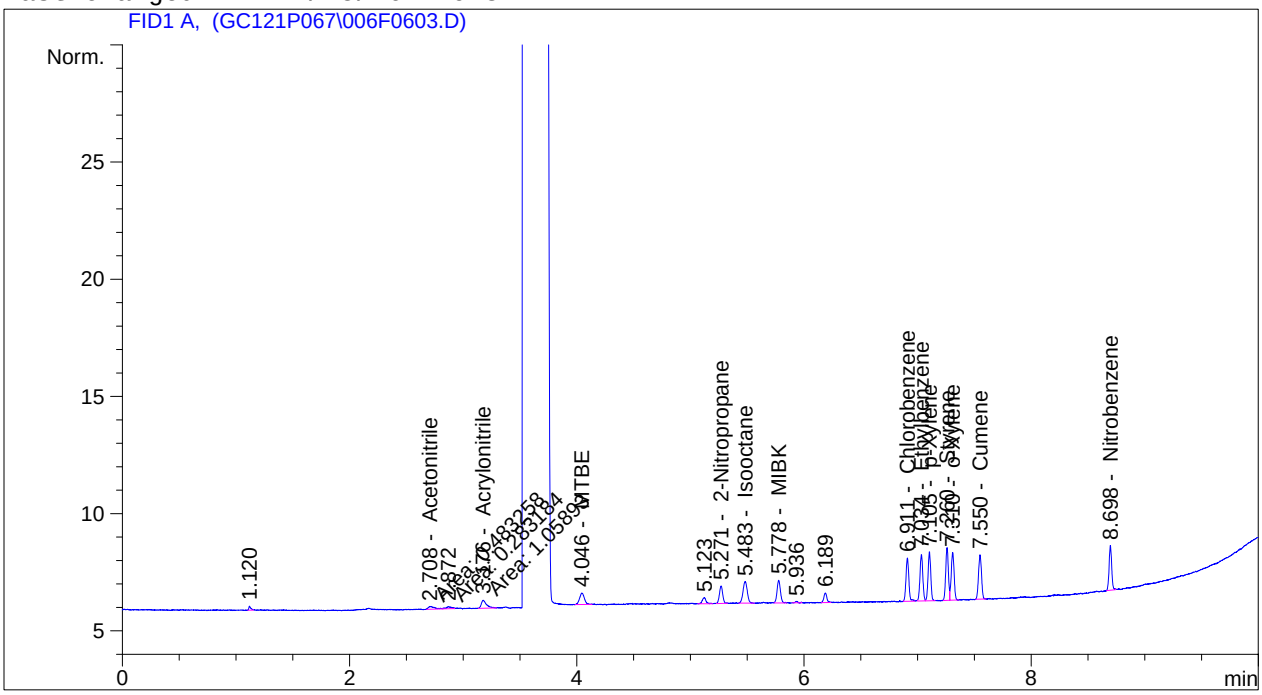


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.708	MF	4.83258e-1	3.26967	1.58009		Acetonitrile
3.176	MM	1.05893	1.52296	1.61272		Acrylonitrile
4.046	BB	1.43526	1.00919	1.44845		MTBE
5.271	BB	1.49913	1.29415	1.94010		2-Nitropropane
5.483	BB	2.39856	5.64194e-1	1.35325		Isooctane
5.778	BB	1.98728	8.07618e-1	1.60496		MIBK
6.911	BB	3.22854	6.84768e-1	2.21080		Chlorobenzene
7.034	BV	3.45340	4.95328e-1	1.71057		Ethylbenzene
7.105	VB	3.43344	4.93593e-1	1.69472		p-Xylene
7.260	BV	3.67298	4.87001e-1	1.78875		Styrene
7.310	VB	3.57600	4.78890e-1	1.71251		o-Xylene
7.550	BB	3.47557	4.86895e-1	1.69223		Cumene
8.698	BB	2.99871	8.03385e-1	2.40912		Nitrobenzene

Totals : 22.75826

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\006F0701.D
Sample Name: gc121p67 #1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   7
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 04-Jun-11, 00:56:08                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 11:37:30 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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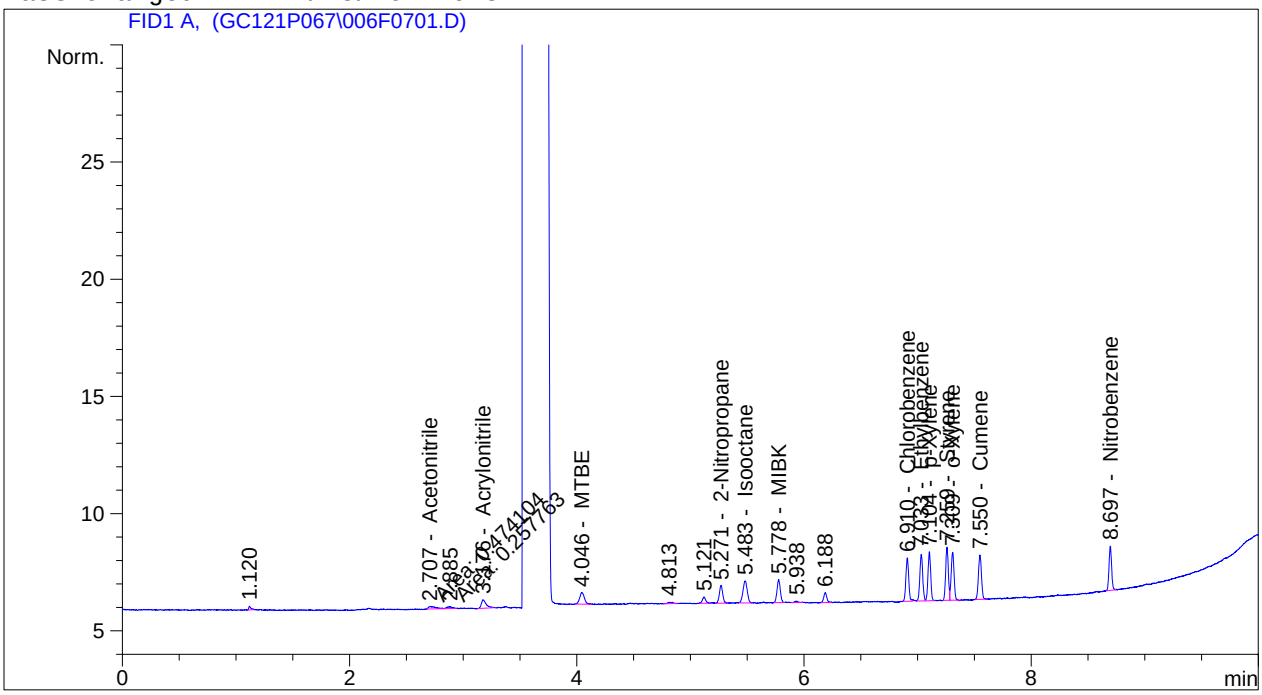


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.707	MF	4.74104e-1	3.28508	1.55747		Acetonitrile
3.176	BB	1.04977	1.52544	1.60136		Acrylonitrile
4.046	BB	1.44408	1.00919	1.45735		MTBE
5.271	BB	1.54200	1.29431	1.99583		2-Nitropropane
5.483	BB	2.44832	5.64244e-1	1.38145		Isooctane
5.778	BB	1.95294	8.07742e-1	1.57747		MIBK
6.910	BB	3.21387	6.84762e-1	2.20074		Chlorobenzene
7.033	BV	3.48225	4.95328e-1	1.72486		Ethylbenzene
7.104	VB	3.42126	4.93593e-1	1.68871		p-Xylene
7.259	BV	3.69593	4.87001e-1	1.79992		Styrene
7.309	VB	3.58952	4.78890e-1	1.71899		o-Xylene
7.550	BB	3.53994	4.86895e-1	1.72358		Cumene
8.697	BB	3.01169	8.03382e-1	2.41954		Nitrobenzene

Totals : 22.84725

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\006F0702.D
Sample Name: gc121p67 #1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   7
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 04-Jun-11, 01:18:46                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 11:37:30 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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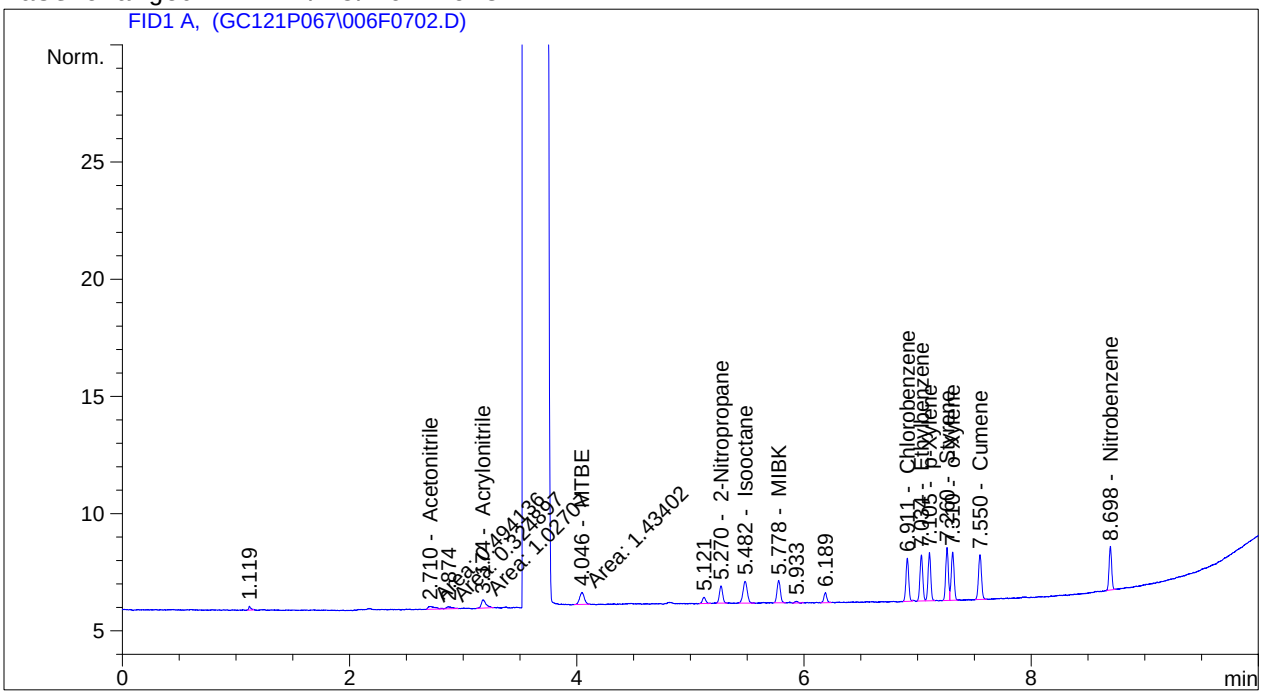


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.710	MF	4.94136e-1	3.24378	1.60287		Acetonitrile
3.174	MM	1.02707	1.53177	1.57323		Acrylonitrile
4.046	MM	1.43402	1.00919	1.44719		MTBE
5.270	BB	1.45889	1.29413	1.88800		2-Nitropropane
5.482	BB	2.40118	5.64194e-1	1.35473		Isooctane
5.778	BB	1.93421	8.07742e-1	1.56234		MIBK
6.911	BB	3.12064	6.84762e-1	2.13690		Chlorobenzene
7.034	BV	3.39777	4.95328e-1	1.68301		Ethylbenzene
7.105	VB	3.40926	4.93593e-1	1.68278		p-Xylene
7.260	BV	3.66541	4.87001e-1	1.78506		Styrene
7.310	VB	3.58148	4.78890e-1	1.71513		o-Xylene
7.550	BB	3.53619	4.86895e-1	1.72175		Cumene
8.698	BB	2.91927	8.03388e-1	2.34530		Nitrobenzene

Totals : 22.49830

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\006F0703.D
Sample Name: gc121p67 #1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   7
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 04-Jun-11, 01:41:12                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 11:37:30 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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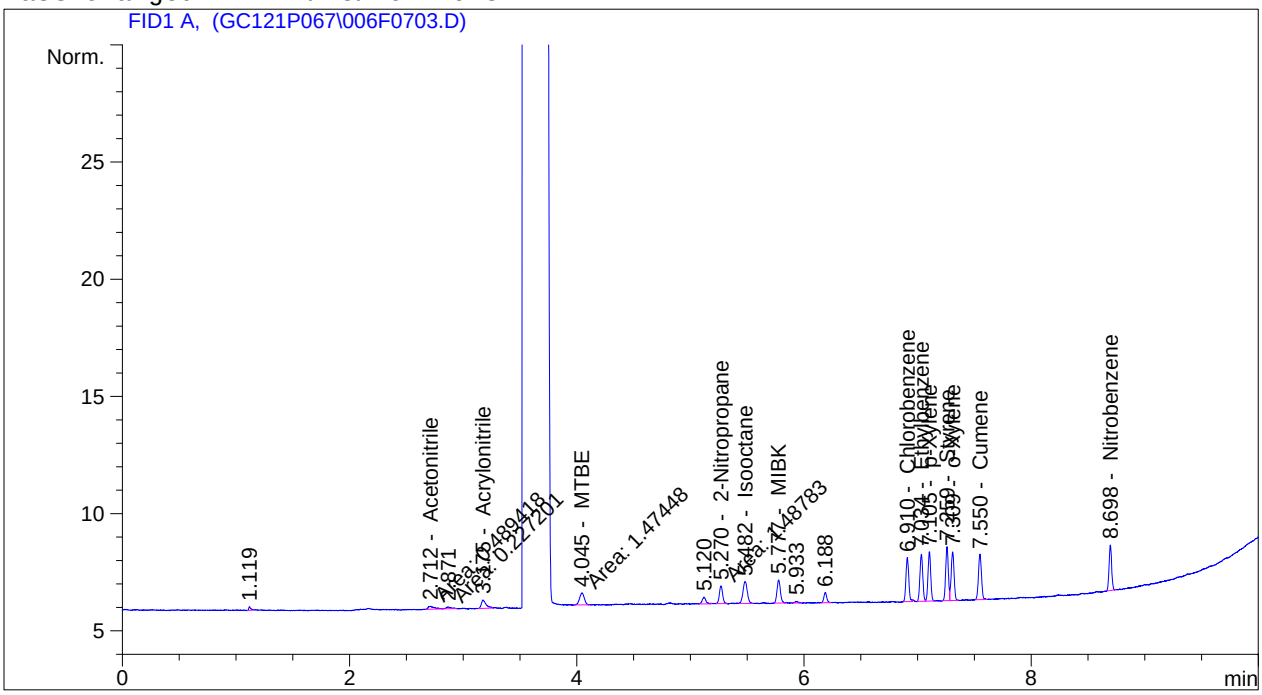


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.712	MF	4.89418e-1	3.25487	1.59299		Acetonitrile
3.175	BB	1.00950	1.53275	1.54732		Acrylonitrile
4.045	MM	1.47448	1.00924	1.48810		MTBE
5.270	MM	1.48783	1.29413	1.92545		2-Nitropropane
5.482	BB	2.43173	5.64194e-1	1.37197		Isooctane
5.777	BB	2.02564	8.07356e-1	1.63542		MIBK
6.910	BB	3.24360	6.84849e-1	2.22138		Chlorobenzene
7.034	BV	3.49978	4.95343e-1	1.73359		Ethylbenzene
7.105	VB	3.47667	4.93593e-1	1.71606		p-Xylene
7.259	BV	3.73155	4.87004e-1	1.81728		Styrene
7.309	VB	3.64923	4.78890e-1	1.74758		o-Xylene
7.550	BB	3.58924	4.86998e-1	1.74795		Cumene
8.698	BB	3.03454	8.03377e-1	2.43788		Nitrobenzene

Totals : 22.98296

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\006F0704.D
Sample Name: gc121p67 #1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   7
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 04-Jun-11, 02:03:26                    Inj :   4
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 11:37:30 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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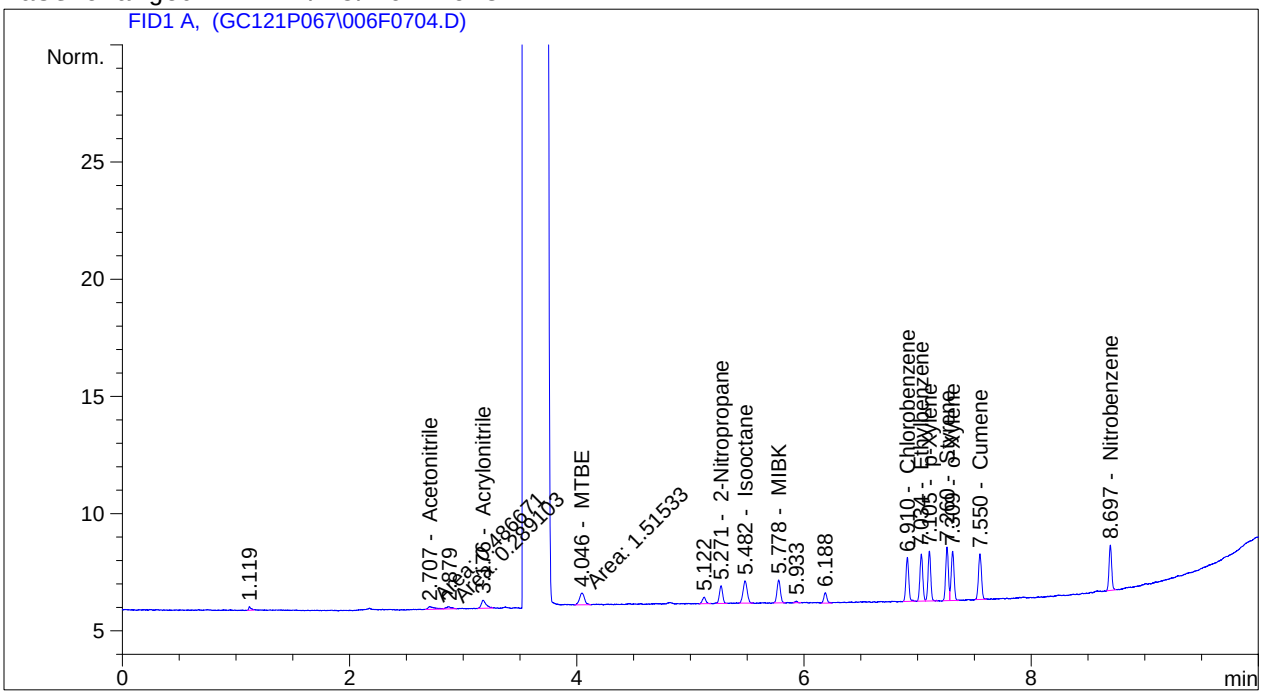


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.707	MF	4.86671e-1	3.26142	1.58724		Acetonitrile
3.176	BB	1.00115	1.53275	1.53450		Acrylonitrile
4.046	MM	1.51533	1.00940	1.52957		MTBE
5.271	BB	1.46704	1.29413	1.89854		2-Nitropropane
5.482	BB	2.41374	5.64194e-1	1.36182		Isooctane
5.778	BB	2.00973	8.07464e-1	1.62278		MIBK
6.910	BB	3.25984	6.84936e-1	2.23278		Chlorobenzene
7.034	BV	3.53087	4.95405e-1	1.74921		Ethylbenzene
7.105	VB	3.51935	4.93652e-1	1.73733		p-Xylene
7.260	BV	3.76734	4.87008e-1	1.83473		Styrene
7.309	VB	3.66644	4.78897e-1	1.75585		o-Xylene
7.550	BB	3.58027	4.86969e-1	1.74348		Cumene
8.697	BB	3.10929	8.03361e-1	2.49788		Nitrobenzene
Totals :				23.08572		

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\007F0801.D
Sample Name: gc121p67 #3ss

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   8
Acq. Instrument : Lucy                              Location : Vial 7
Injection Date  : 04-Jun-11, 02:25:41                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 11:37:30 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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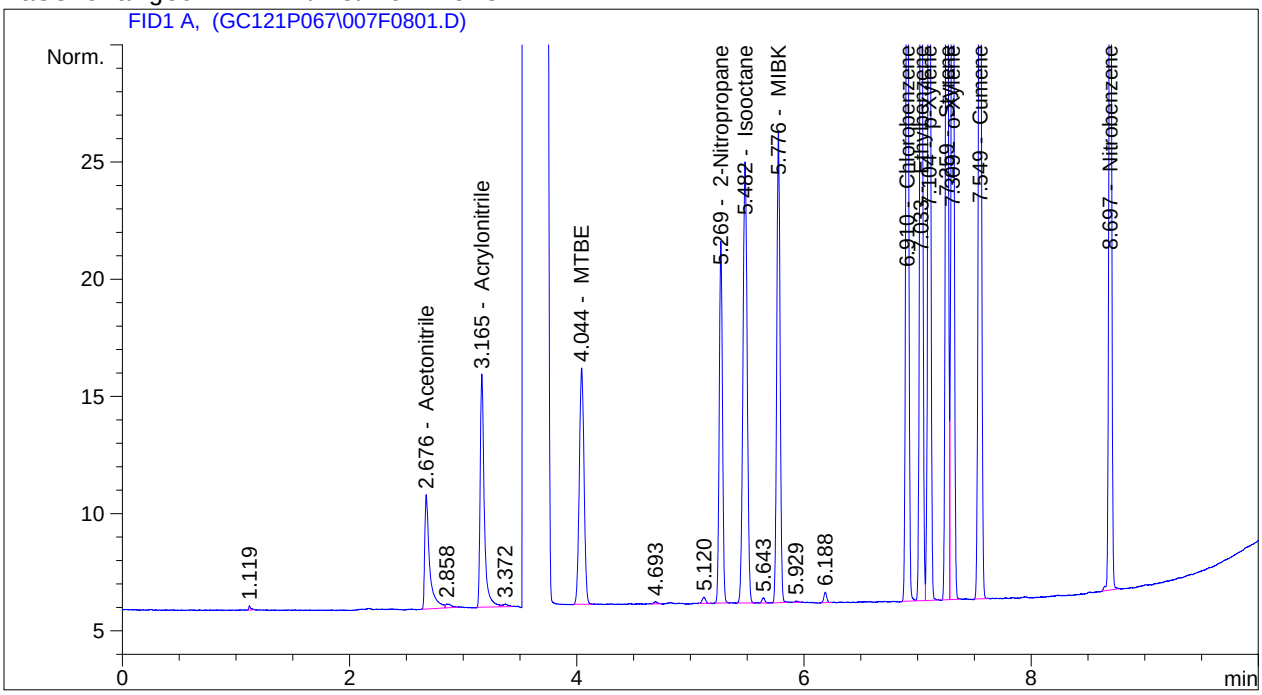
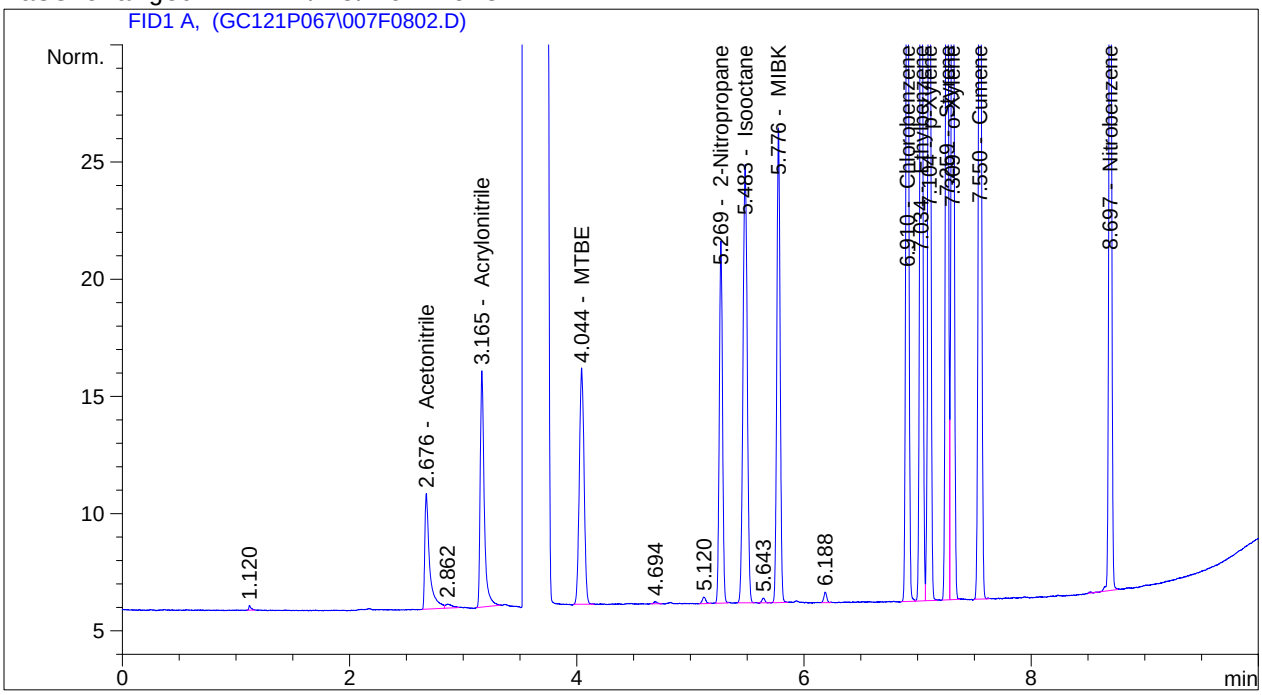



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                 [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.676 BB       14.43066    2.13321   30.78369    Acetonitrile
  3.165 BB       24.85816    1.25106   31.09910    Acrylonitrile
  4.044 BB       29.31986    1.01484   29.75489    MTBE
  5.269 BB       30.48339    1.29955   39.61457    2-Nitropropane
  5.482 BB       48.83760 5.76553e-1   28.15744    Isooctane
  5.776 BB       41.03481 7.94456e-1   32.60034    MIBK
  6.910 BV       64.26513 7.01358e-1   45.07289    Chlorobenzene
  7.033 VV       70.73199 5.02119e-1   35.51587    Ethylbenzene
  7.104 VB       70.50726 4.98438e-1   35.14351    p-Xylene
  7.259 BV       75.51397 4.87430e-1   36.80780    Styrene
  7.309 VB       72.04584 4.91934e-1   35.44178    o-Xylene
  7.549 BB       70.56918 4.97895e-1   35.13607    Cumene
  8.697 BB       61.22240 8.02723e-1   49.14463    Nitrobenzene

Totals :                               464.27257
```

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\007F0802.D
Sample Name: gc121p67 #3ss

Acq. Operator	:	Seq. Line	: 8
Acq. Instrument	: Lucy	Location	: Vial 7
Injection Date	: 04-Jun-11, 02:48:04	Inj	: 2
		Inj Volume	: External
Sequence File	: G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S		
Acq. Method	: D:\GC2011Q2\LUCY\METHODS\GC121P067.M		
Last changed	: 6/3/2011 11:37:30 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.676	BV	14.46551	2.13312	30.85667		Acetonitrile
3.165	BB	24.65752	1.25116	30.85053		Acrylonitrile
4.044	BB	29.38062	1.01484	29.81657		MTBE
5.269	BB	30.44323	1.29955	39.56236		2-Nitropropane
5.483	BB	48.81870	5.76552e-1	28.14654		Isooctane
5.776	BB	41.13283	7.94454e-1	32.67815		MIBK
6.910	BV	64.99385	7.01368e-1	45.58463		Chlorobenzene
7.034	VV	71.70203	5.02124e-1	36.00328		Ethylbenzene
7.104	VB	71.53478	4.98442e-1	35.65592		p-Xylene
7.259	BV	76.71327	4.87431e-1	37.39241		Styrene
7.309	VB	73.16462	4.91944e-1	35.99293		o-Xylene
7.550	BB	71.79586	4.97905e-1	35.74754		Cumene
8.697	BB	62.45907	8.02722e-1	50.13729		Nitrobenzene
Totals :				468.42480		

Data File G:\GC2011Q2\LUCY\DATA\MAY11\GC121P067\007F0803.D
Sample Name: gc121p67 #3ss

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   8
Acq. Instrument : Lucy                              Location : Vial 7
Injection Date  : 04-Jun-11, 03:10:27                    Inj :   3
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q2\LUCY\SEQUENCE\GC121P067.S
Acq. Method     : D:\GC2011Q2\LUCY\METHODS\GC121P067.M
Last changed    : 6/3/2011 11:37:30 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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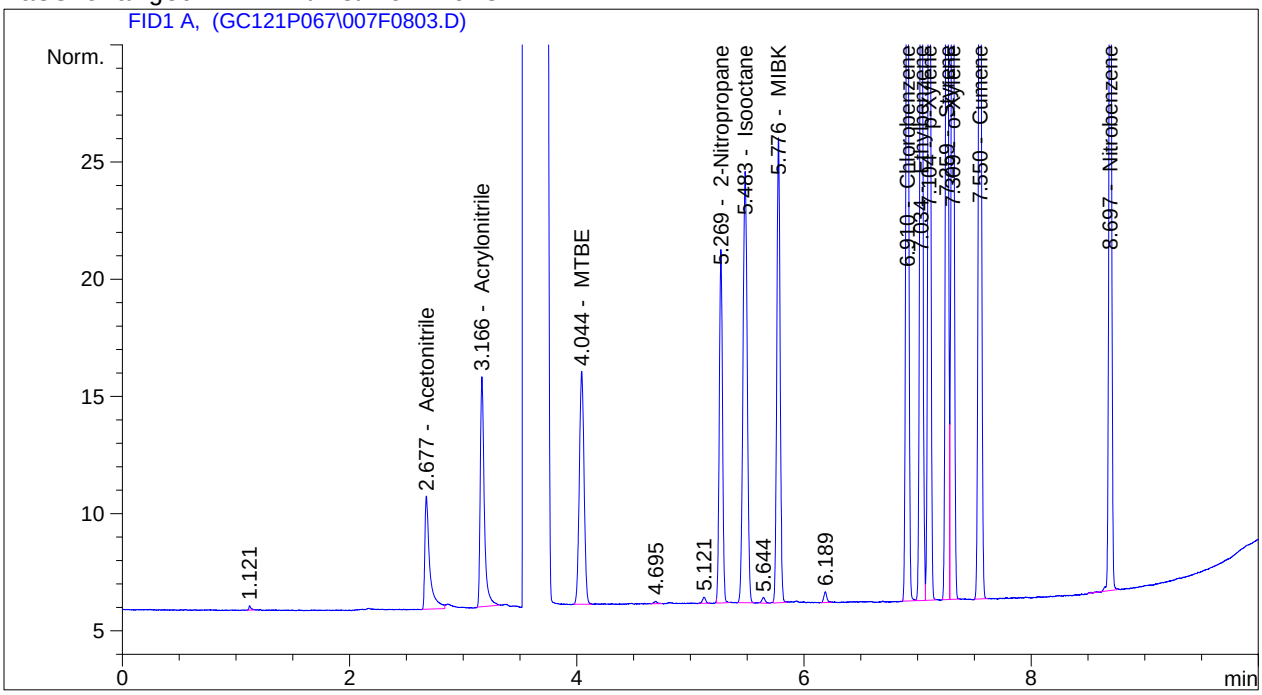


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.677 BB       14.24047    2.13374   30.38546    Acetonitrile
  3.166 BB       24.11562    1.25143   30.17913    Acrylonitrile
  4.044 BB       28.84187    1.01483   29.26966    MTBE
  5.269 BB       29.83507    1.29954   38.77186    2-Nitropropane
  5.483 BB       47.88691 5.76540e-1   27.60870    Isooctane
  5.776 BB       40.32996 7.94467e-1   32.04084    MIBK
  6.910 BB       63.53947 7.01348e-1   44.56331    Chlorobenzene
  7.034 BV       70.09353 5.02116e-1   35.19505    Ethylbenzene
  7.104 VB       69.84690 4.98436e-1   34.81419    p-Xylene
  7.259 BV       75.00527 4.87430e-1   36.55984    Styrene
  7.309 VB       71.58271 4.91929e-1   35.21363    o-Xylene
  7.550 BB       70.20603 4.97892e-1   34.95505    Cumene
  8.697 BB       61.02212 8.02723e-1   48.98386    Nitrobenzene

Totals :                               458.54058
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\001F0101.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   1
Acq. Instrument : Lucy                              Location : Vial 1
Injection Date  : 11-Jul-11, 23:36:31                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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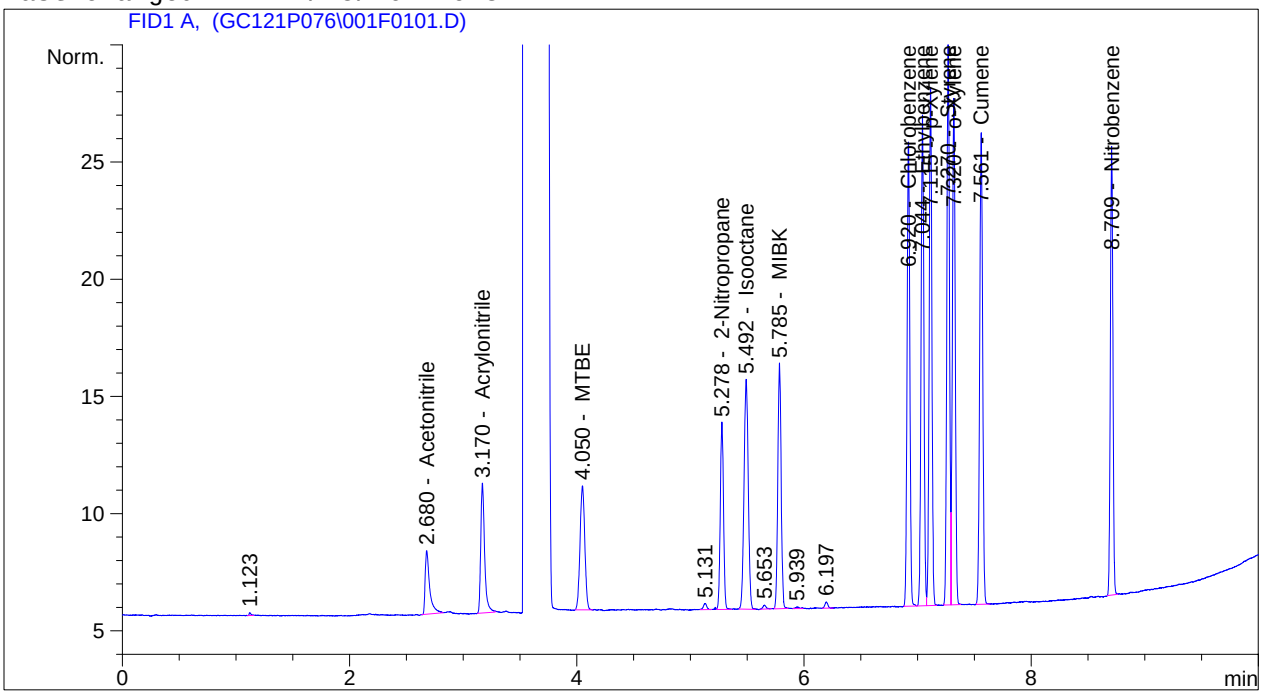


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.680 BB        7.40081    2.17062   16.06432    Acetonitrile
  3.170 BB       13.02787    1.26205   16.44180    Acrylonitrile
  4.050 BB       15.43411    1.01457   15.65899    MTBE
  5.278 BB       15.84067    1.29929   20.58159    2-Nitropropane
  5.492 BB       25.53118 5.75960e-1   14.70492    Isooctane
  5.785 BB       21.29524 7.95077e-1   16.93135    MIBK
  6.920 BV       33.50632 7.00553e-1   23.47295    Chlorobenzene
  7.044 VV       36.47958 5.01788e-1   18.30500    Ethylbenzene
  7.115 VB       36.37614 4.98202e-1   18.12268    p-Xylene
  7.270 BV       39.09670 4.87410e-1   19.05611    Styrene
  7.320 VB       37.62022 4.91294e-1   18.48259    o-Xylene
  7.561 BB       36.65300 4.97355e-1   18.22955    Cumene
  8.709 BB       30.12825 8.02758e-1   24.18570    Nitrobenzene

Totals :                               240.23756
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\001F0102.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   1
Acq. Instrument : Lucy                              Location : Vial 1
Injection Date  : 11-Jul-11, 23:57:53                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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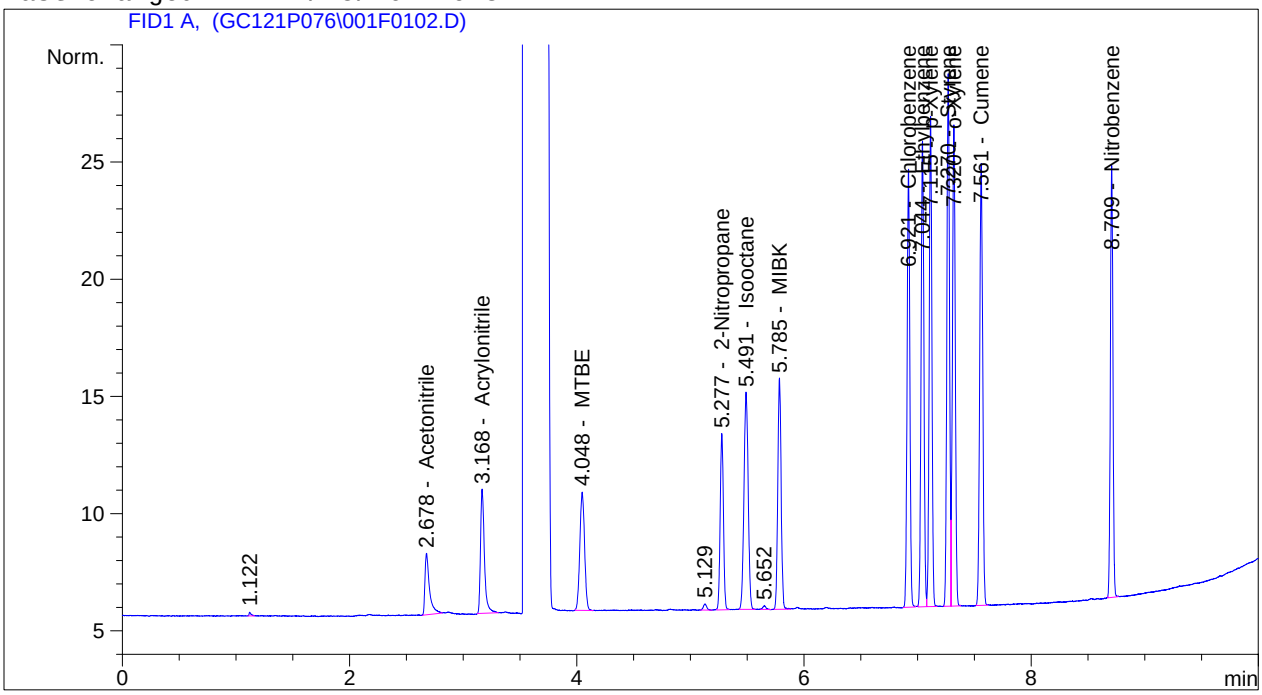


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.678	BB	7.18288	2.17295	15.60802		Acetonitrile
3.168	BB	12.65648	1.26273	15.98165		Acrylonitrile
4.048	BB	14.71453	1.01454	14.92853		MTBE
5.277	BB	15.03192	1.29926	19.53036		2-Nitropropane
5.491	BB	24.01927	5.75881e-1	13.83225		Isooctane
5.785	BB	20.19283	7.95147e-1	16.05627		MIBK
6.921	BB	31.61783	7.00452e-1	22.14678		Chlorobenzene
7.044	BV	34.46259	5.01748e-1	17.29152		Ethylbenzene
7.115	VB	34.40703	4.98174e-1	17.14070		p-Xylene
7.270	BV	37.04071	4.87407e-1	18.05391		Styrene
7.320	VB	35.59410	4.91218e-1	17.48446		o-Xylene
7.561	BB	34.62245	4.97289e-1	17.21736		Cumene
8.709	BB	28.84343	8.02761e-1	23.15438		Nitrobenzene

Totals : 228.42620

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\001F0103.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   1
Acq. Instrument : Lucy                              Location : Vial 1
Injection Date  : 12-Jul-11, 00:19:07                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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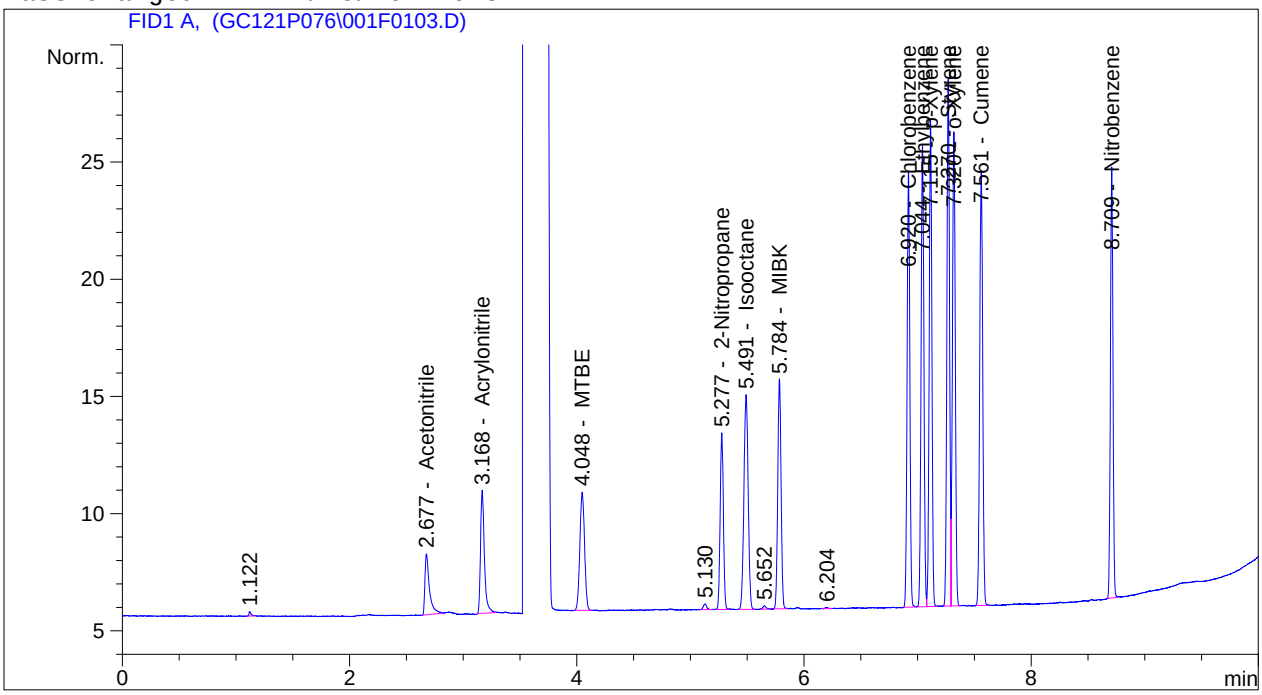


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.677	BB	7.14732	2.17334	15.53357		Acetonitrile
3.168	BB	12.38519	1.26325	15.64554		Acrylonitrile
4.048	BB	14.58767	1.01454	14.79975		MTBE
5.277	BB	14.86761	1.29925	19.31678		2-Nitropropane
5.491	BB	23.85754	5.75872e-1	13.73890		Isooctane
5.784	BB	19.90439	7.95167e-1	15.82731		MIBK
6.920	BB	31.35733	7.00438e-1	21.96385		Chlorobenzene
7.044	BV	34.22044	5.01742e-1	17.16985		Ethylbenzene
7.115	VB	34.11518	4.98170e-1	16.99516		p-Xylene
7.270	BV	36.72953	4.87407e-1	17.90223		Styrene
7.320	VB	35.30292	4.91206e-1	17.34101		o-Xylene
7.561	BB	34.41279	4.97282e-1	17.11285		Cumene
8.709	BB	28.62449	8.02762e-1	22.97865		Nitrobenzene
Totals :				226.32545		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\002F0201.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   2
Acq. Instrument : Lucy                              Location : Vial 2
Injection Date  : 12-Jul-11, 00:40:18                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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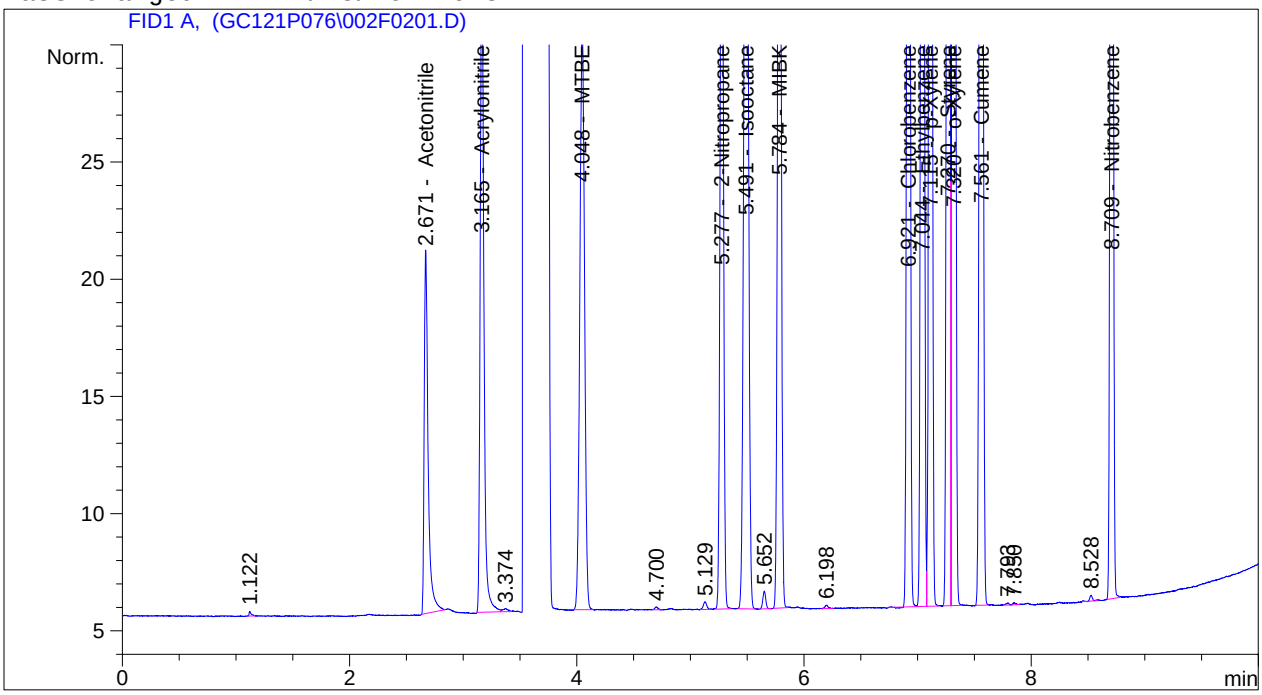


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.671 BB       36.98208    2.10920   78.00273    Acetonitrile
  3.165 BB       63.44843    1.24370   78.91108    Acrylonitrile
  4.048 BB       71.94273    1.01501   73.02280    MTBE
  5.277 BB       74.18710    1.29971   96.42174    2-Nitropropane
  5.491 BB      118.82151 5.76935e-1   68.55231    Isooctane
  5.784 BB       99.90219 7.94061e-1   79.32844    MIBK
  6.921 BV      156.57208 7.01876e-1  109.89416    Chlorobenzene
  7.044 VV      171.10445 5.02326e-1   85.95017    Ethylbenzene
  7.115 VB      170.78314 4.98586e-1   85.15005    p-Xylene
  7.270 BV      184.01680 4.87443e-1   89.69778    Styrene
  7.320 VB      176.46921 4.92347e-1   86.88415    o-Xylene
  7.561 BB      171.70647 4.98239e-1   85.55091    Cumene
  8.709 BB      143.77467 8.02703e-1  115.40841    Nitrobenzene

Totals :                             1132.77472
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\002F0202.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :   2
Acq. Instrument : Lucy                              Location : Vial 2
Injection Date  : 12-Jul-11, 01:01:37                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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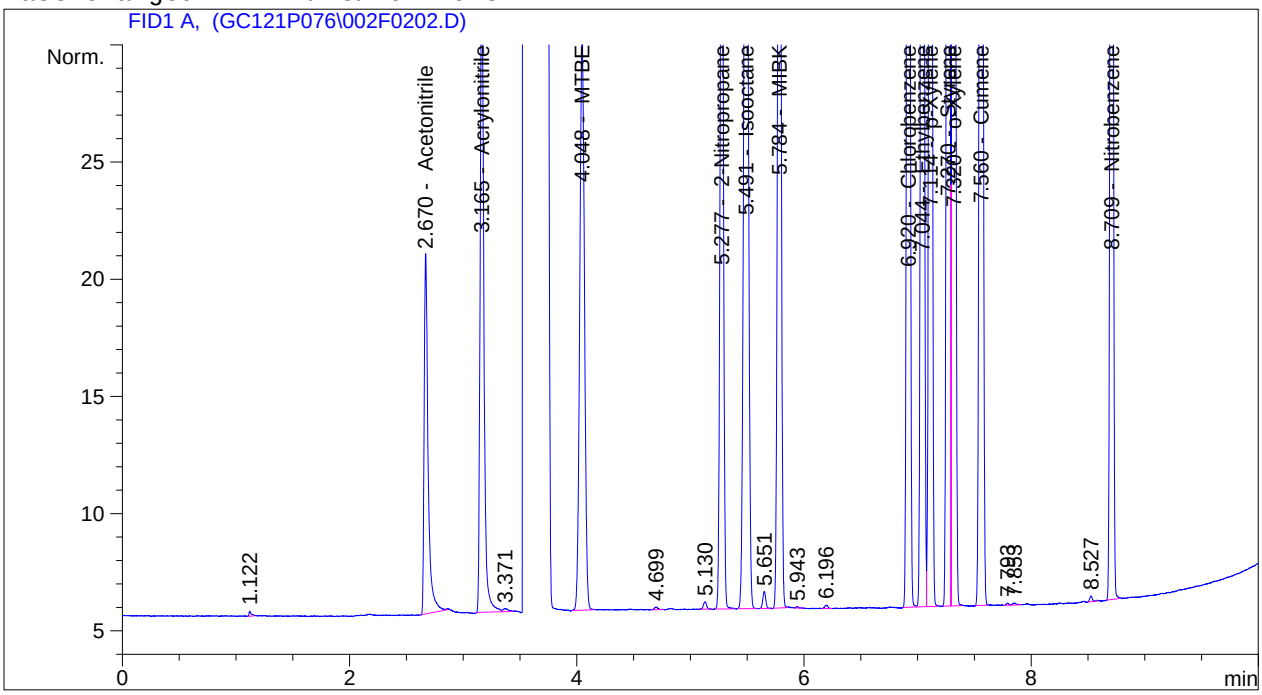


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

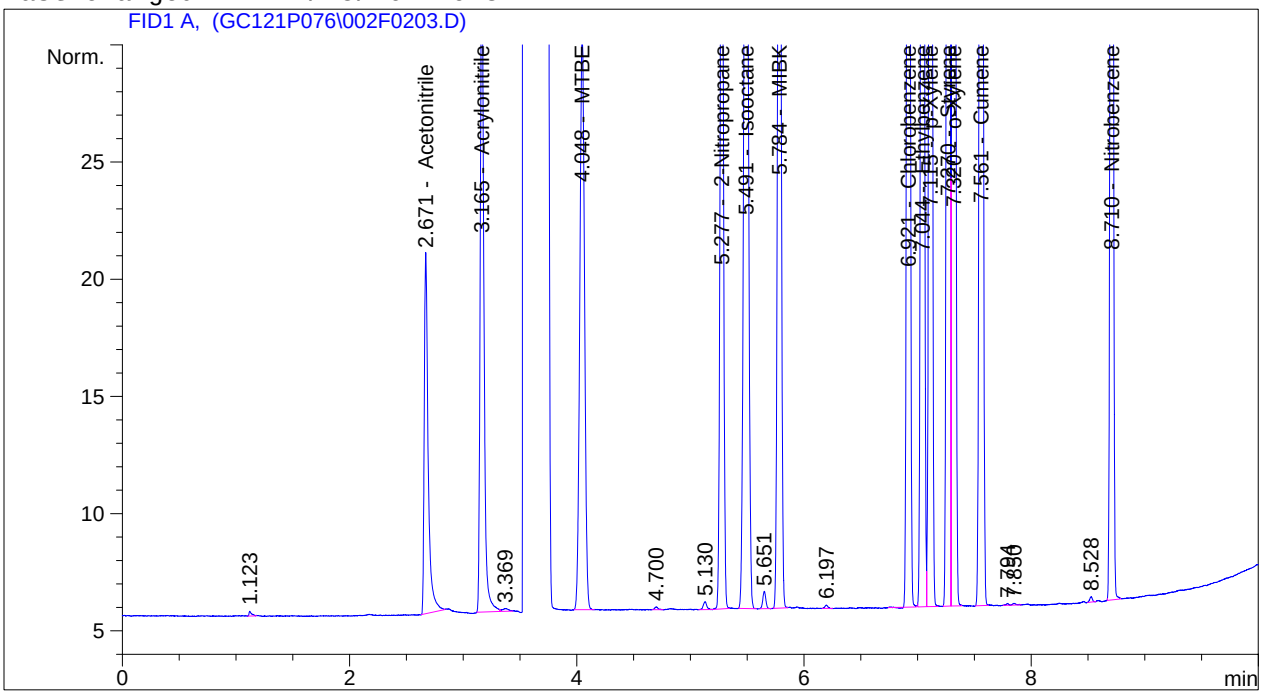
RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.670 BB       36.76680    2.10929   77.55197    Acetonitrile
  3.165 BB       62.78948    1.24375   78.09466    Acrylonitrile
  4.048 BB       71.09866    1.01501   72.16596    MTBE
  5.277 BB       72.99131    1.29971   94.86742    2-Nitropropane
  5.491 BB      116.87855 5.76931e-1   67.43083    Isooctane
  5.784 BB       98.34159 7.94065e-1   78.08966    MIBK
  6.920 BV      154.76593 7.01872e-1  108.62581    Chlorobenzene
  7.044 VV      169.14957 5.02324e-1   84.96790    Ethylbenzene
  7.114 VB      168.84389 4.98585e-1   84.18296    p-Xylene
  7.270 BV      181.95958 4.87443e-1   88.69499    Styrene
  7.320 VB      174.45549 4.92344e-1   85.89213    o-Xylene
  7.560 BB      169.85686 4.98237e-1   84.62892    Cumene
  8.709 BB      142.37247 8.02703e-1  114.28287    Nitrobenzene

Totals :                             1119.47606
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\002F0203.D
Sample Name: gc121p67 #4

Acq. Operator	:	Seq. Line	: 2
Acq. Instrument	: Lucy	Location	: Vial 2
Injection Date	: 12-Jul-11, 01:22:52	Inj	: 3
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.671	BB	36.79183	2.10928	77.60437		Acetonitrile
3.165	BB	62.84716	1.24375	78.16612		Acrylonitrile
4.048	BB	71.20066	1.01501	72.26951		MTBE
5.277	VB	73.39533	1.29971	95.39258		2-Nitropropane
5.491	BB	117.67712	5.76933e-1	67.89176		Isooctane
5.784	BB	99.25858	7.94063e-1	78.81755		MIBK
6.921	BB	156.60887	7.01876e-1	109.91999		Chlorobenzene
7.044	BV	171.31496	5.02326e-1	86.05594		Ethylbenzene
7.115	VB	171.01399	4.98586e-1	85.26517		p-Xylene
7.270	BV	184.45305	4.87443e-1	89.91043		Styrene
7.320	VB	176.76178	4.92348e-1	87.02828		o-Xylene
7.561	BB	172.13821	4.98240e-1	85.76613		Cumene
8.710	BB	144.33788	8.02703e-1	115.86048		Nitrobenzene

Totals : 1129.94832

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\013F1301.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  13
Acq. Instrument : Lucy                              Location : Vial 13
Injection Date  : 12-Jul-11, 12:33:36                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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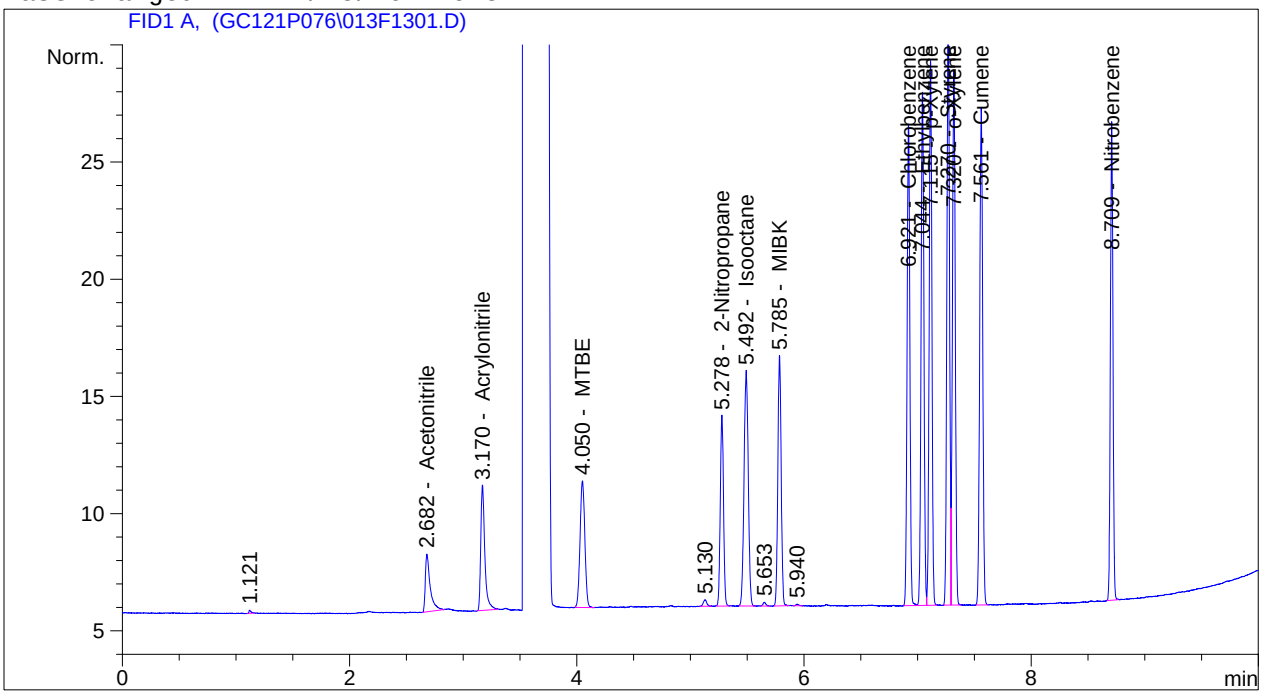
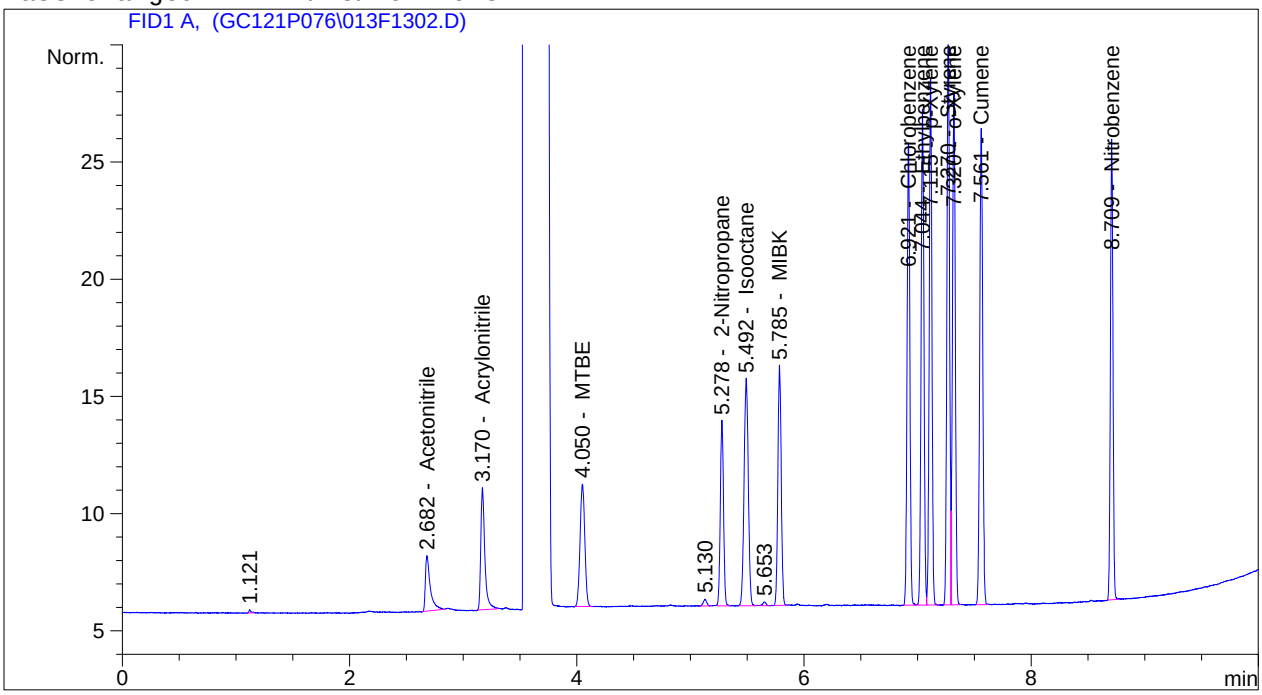



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.682 BB        7.29435    2.17174   15.84142    Acetonitrile
  3.170 BB       13.24698    1.26167   16.71327    Acrylonitrile
  4.050 BB       15.83149    1.01458   16.06239    MTBE
  5.278 BB       16.15176    1.29930   20.98596    2-Nitropropane
  5.492 BB       26.11464 5.75987e-1   15.04170    Isooctane
  5.785 BB       21.78673 7.95048e-1   17.32149    MIBK
  6.921 BV       35.03420 7.00626e-1   24.54588    Chlorobenzene
  7.044 VV       38.43254 5.01822e-1   19.28631    Ethylbenzene
  7.115 VB       38.37788 4.98228e-1   19.12092    p-Xylene
  7.270 BV       41.29091 4.87412e-1   20.12569    Styrene
  7.320 VB       39.71701 4.91365e-1   19.51554    o-Xylene
  7.561 BB       38.81598 4.97418e-1   19.30775    Cumene
  8.709 BB       31.93128 8.02754e-1   25.63297    Nitrobenzene

Totals :                               249.50128
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\013F1302.D
Sample Name: gc121p67 #3

Acq. Operator	:	Seq. Line	: 13
Acq. Instrument	: Lucy	Location	: Vial 13
Injection Date	: 12-Jul-11, 12:56:16	Inj	: 2
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

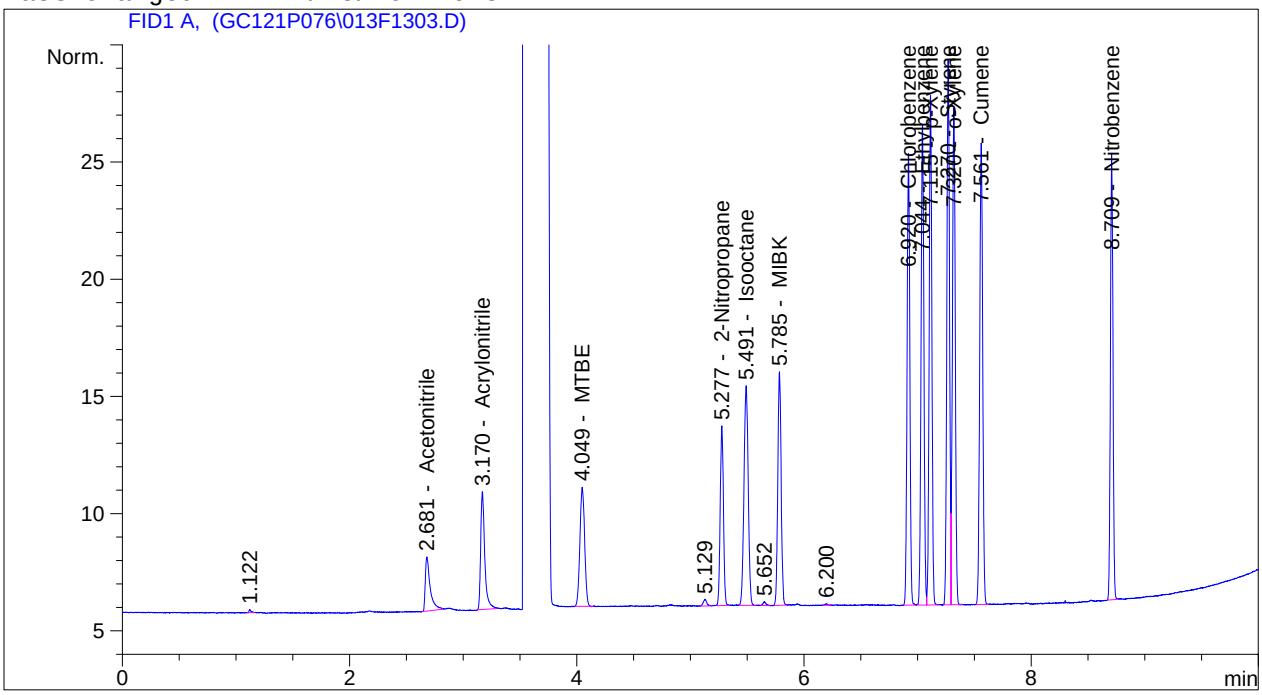
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.682	BB	7.04971	2.17444	15.32917		Acetonitrile
3.170	BB	12.81860	1.26242	16.18252		Acrylonitrile
4.050	BB	15.17710	1.01456	15.39809		MTBE
5.278	BB	15.67971	1.29928	20.37238		2-Nitropropane
5.492	BB	25.24163	5.75945e-1	14.53780		Isooctane
5.785	BB	20.99721	7.95095e-1	16.69478		MIBK
6.921	BB	33.72680	7.00564e-1	23.62778		Chlorobenzene
7.044	BV	36.93446	5.01796e-1	18.53357		Ethylbenzene
7.115	VB	36.88715	4.98209e-1	18.37751		p-Xylene
7.270	BV	39.73386	4.87410e-1	19.36670		Styrene
7.320	VB	38.21689	4.91315e-1	18.77653		o-Xylene
7.561	BB	37.28421	4.97374e-1	18.54420		Cumene
8.709	BB	30.68006	8.02757e-1	24.62863		Nitrobenzene

Totals : 240.36964

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\013F1303.D
Sample Name: gc121p67 #3

Acq. Operator	:	Seq. Line	: 13
Acq. Instrument	: Lucy	Location	: Vial 13
Injection Date	: 12-Jul-11, 13:19:02	Inj	: 3
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.681	BB	6.83012	2.17703	14.86939		Acetonitrile
3.170	BB	12.49856	1.26303	15.78600		Acrylonitrile
4.049	BB	14.77091	1.01455	14.98576		MTBE
5.277	BB	15.13995	1.29926	19.67078		2-Nitropropane
5.491	BB	24.37815	5.75901e-1	14.03940		Isooctane
5.785	BB	20.36392	7.95136e-1	16.19208		MIBK
6.920	BB	32.64950	7.00509e-1	22.87126		Chlorobenzene
7.044	BV	35.74479	5.01774e-1	17.93579		Ethylbenzene
7.115	VB	35.73394	4.98193e-1	17.80242		p-Xylene
7.270	BV	38.43900	4.87409e-1	18.73551		Styrene
7.320	VB	36.98980	4.91271e-1	18.17202		o-Xylene
7.561	BB	36.10051	4.97338e-1	17.95415		Cumene
8.709	BB	29.86044	8.02759e-1	23.97073		Nitrobenzene

Totals : 232.98528

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\014F1401.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  14
Acq. Instrument : Lucy                              Location : Vial 14
Injection Date  : 12-Jul-11, 13:41:37                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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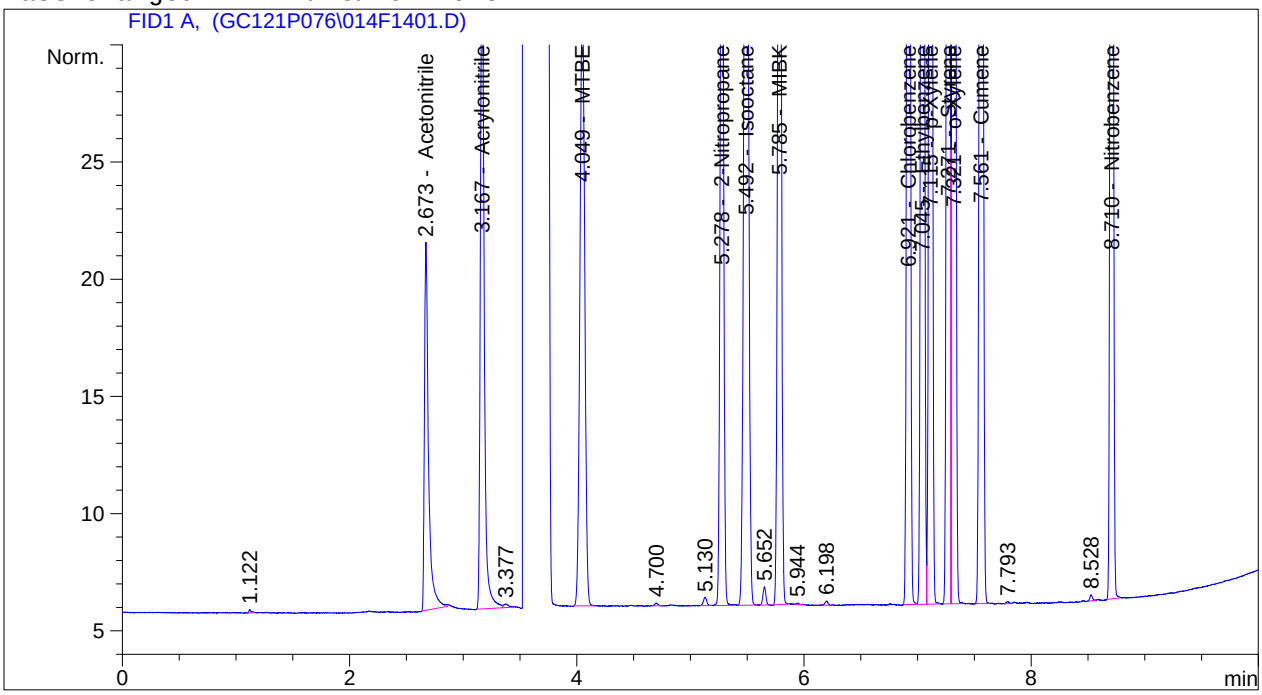


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.673	BB	38.96392	2.10842	82.15237		Acetonitrile
3.167	BV	66.80371	1.24347	83.06815		Acrylonitrile
4.049	BB	75.89743	1.01502	77.03736		MTBE
5.278	BB	77.97684	1.29972	101.34773		2-Nitropropane
5.492	BB	125.32272	5.76949e-1	72.30482		Isooctane
5.785	BB	105.00883	7.94048e-1	83.38202		MIBK
6.921	BV	166.87836	7.01898e-1	117.13160		Chlorobenzene
7.045	VV	182.99976	5.02335e-1	91.92722		Ethylbenzene
7.115	VB	182.77463	4.98593e-1	91.13008		p-Xylene
7.271	BV	197.00381	4.87444e-1	96.02834		Styrene
7.321	VB	189.06596	4.92366e-1	93.08972		o-Xylene
7.561	BB	184.62206	4.98256e-1	91.98907		Cumene
8.710	BB	153.59846	8.02702e-1	123.29385		Nitrobenzene

Totals : 1203.88233

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\014F1402.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  14
Acq. Instrument : Lucy                              Location : Vial 14
Injection Date  : 12-Jul-11, 14:03:49                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/11/2011 11:30:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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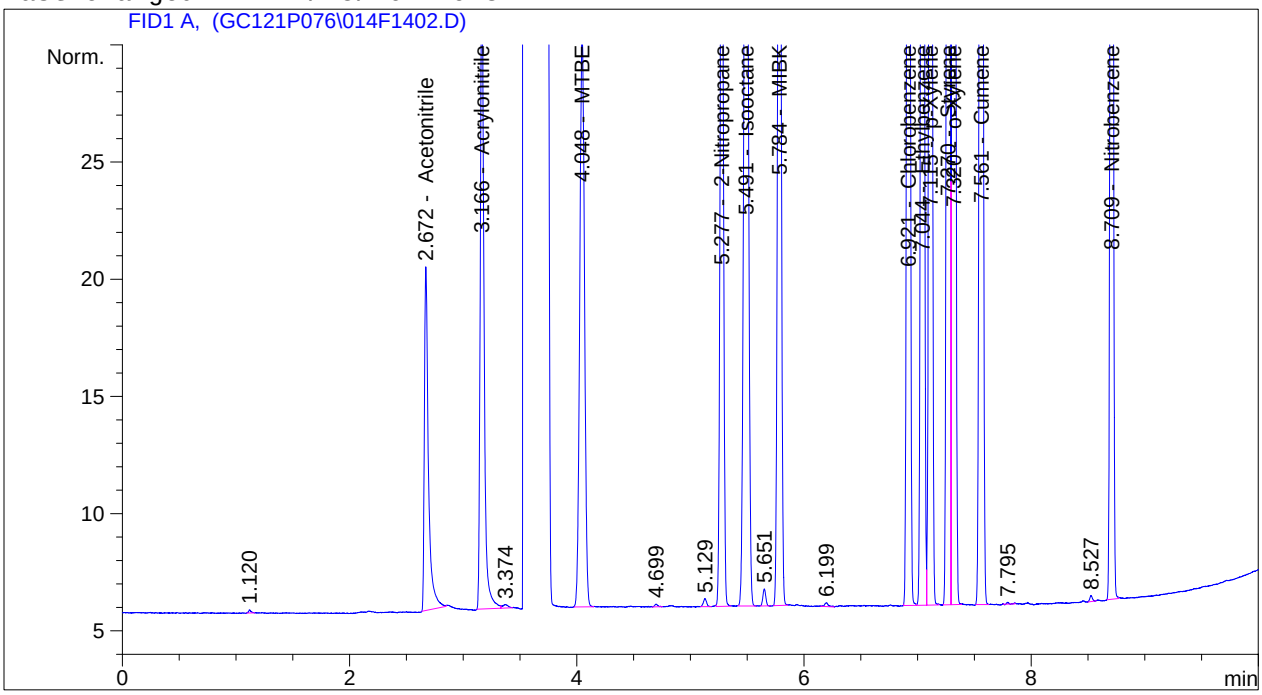


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                 [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.672 BB       36.28442    2.10950   76.54193    Acetonitrile
  3.166 BB       62.69463    1.24376   77.97714    Acrylonitrile
  4.048 BB       71.39835    1.01501   72.47018    MTBE
  5.277 BB       73.11555    1.29971   95.02891    2-Nitropropane
  5.491 BB      117.23735 5.76932e-1   67.63793    Isooctane
  5.784 BB       98.50634 7.94065e-1   78.22043    MIBK
  6.921 BV      156.29944 7.01875e-1  109.70270    Chlorobenzene
  7.044 VV      171.13065 5.02326e-1   85.96333    Ethylbenzene
  7.115 VB      170.87561 4.98586e-1   85.19616    p-Xylene
  7.270 BV      184.38817 4.87443e-1   89.87881    Styrene
  7.320 VB      176.72876 4.92348e-1   87.01201    o-Xylene
  7.561 BB      172.46309 4.98240e-1   85.92807    Cumene
  8.709 BB      144.98032 8.02703e-1  116.37616    Nitrobenzene

Totals :                              1127.93378
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\014F1403.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  14
Acq. Instrument : Lucy                              Location : Vial 14
Injection Date  : 12-Jul-11, 17:54:27                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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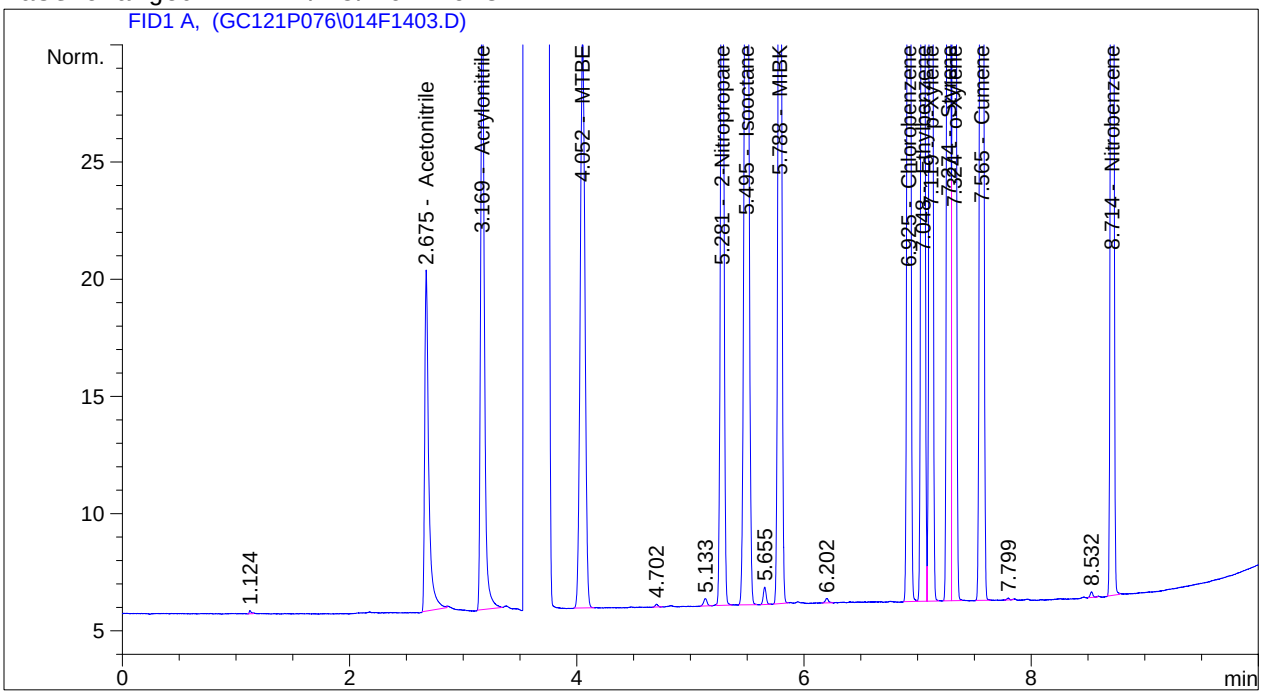


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.675	BB	35.74157	2.10974	75.40529		Acetonitrile
3.169	BB	61.33334	1.24387	76.29055		Acrylonitrile
4.052	BB	70.75893	1.01501	71.82109		MTBE
5.281	BB	72.61073	1.29971	94.37274		2-Nitropropane
5.495	BB	116.39806	5.76930e-1	67.15349		Isooctane
5.788	BB	97.81684	7.94067e-1	77.67312		MIBK
6.925	BV	155.34557	7.01873e-1	109.03285		Chlorobenzene
7.048	VV	170.22308	5.02325e-1	85.50731		Ethylbenzene
7.119	VB	169.97719	4.98585e-1	84.74813		p-Xylene
7.274	BV	183.60497	4.87443e-1	89.49703		Styrene
7.324	VB	175.87830	4.92346e-1	86.59305		o-Xylene
7.565	BB	171.86804	4.98240e-1	85.63146		Cumene
8.714	BB	144.33731	8.02703e-1	115.86003		Nitrobenzene
Totals :				1119.58613		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\026F2601.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  26
Acq. Instrument : Lucy                              Location : Vial 26
Injection Date  : 13-Jul-11, 06:03:12                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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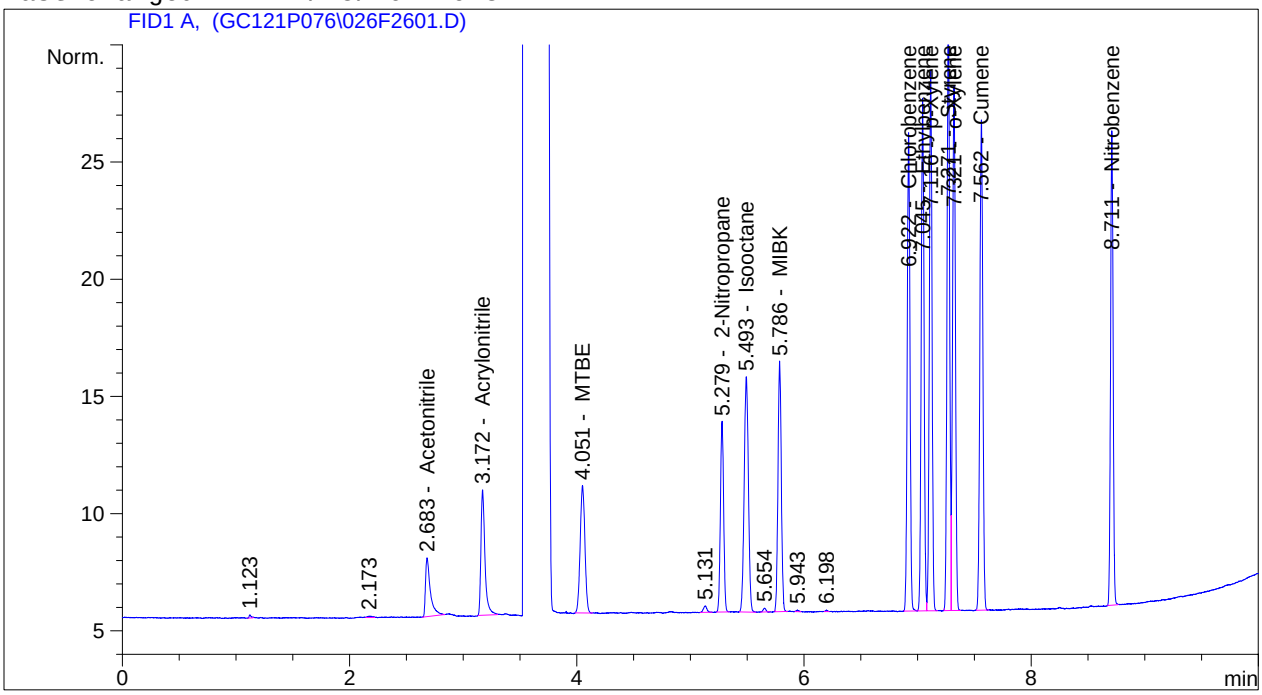


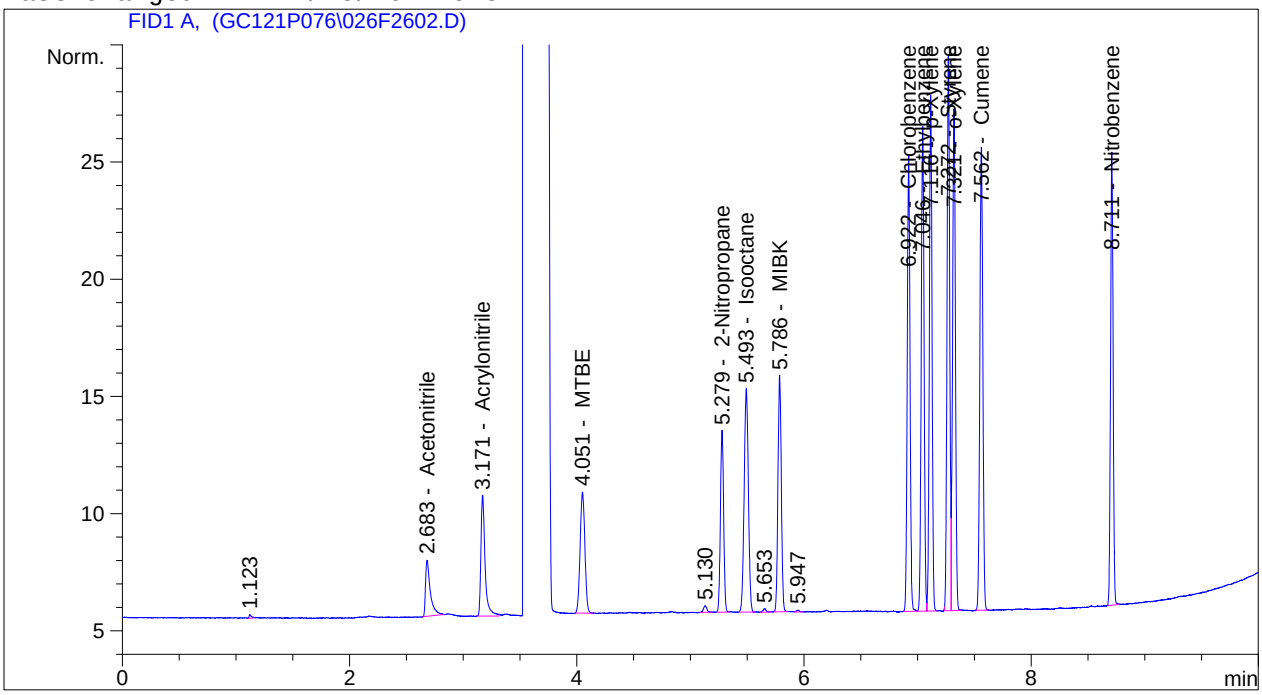

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.683	BB	7.36382	2.17100	15.98688		Acetonitrile
3.172	BB	13.19876	1.26175	16.65352		Acrylonitrile
4.051	BB	15.77642	1.01458	16.00649		MTBE
5.279	BB	16.12679	1.29930	20.95350		2-Nitropropane
5.493	BB	26.08106	5.75986e-1	15.02232		Isooctane
5.786	BB	21.67027	7.95054e-1	17.22905		MIBK
6.922	BB	34.71664	7.00612e-1	24.32288		Chlorobenzene
7.045	BV	38.03202	5.01816e-1	19.08506		Ethylbenzene
7.116	VB	37.94925	4.98222e-1	18.90717		p-Xylene
7.271	BV	40.86550	4.87412e-1	19.91832		Styrene
7.321	VB	39.34416	4.91353e-1	19.33186		o-Xylene
7.562	BB	38.44552	4.97407e-1	19.12309		Cumene
8.711	BB	31.70864	8.02755e-1	25.45426		Nitrobenzene

Totals : 247.99438

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\026F2602.D
Sample Name: gc121p67 #3

Acq. Operator	:	Seq. Line	: 26
Acq. Instrument	: Lucy	Location	: Vial 26
Injection Date	: 13-Jul-11, 06:24:52	Inj	: 2
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By	:	Signal	
Calib. Data Modified	:	7/15/2011 9:32:30 PM	
Multiplier:	:	1.0000	
Dilution:	:	1.0000	

Do not use Multiplier & Dilution Factor with ISTDs

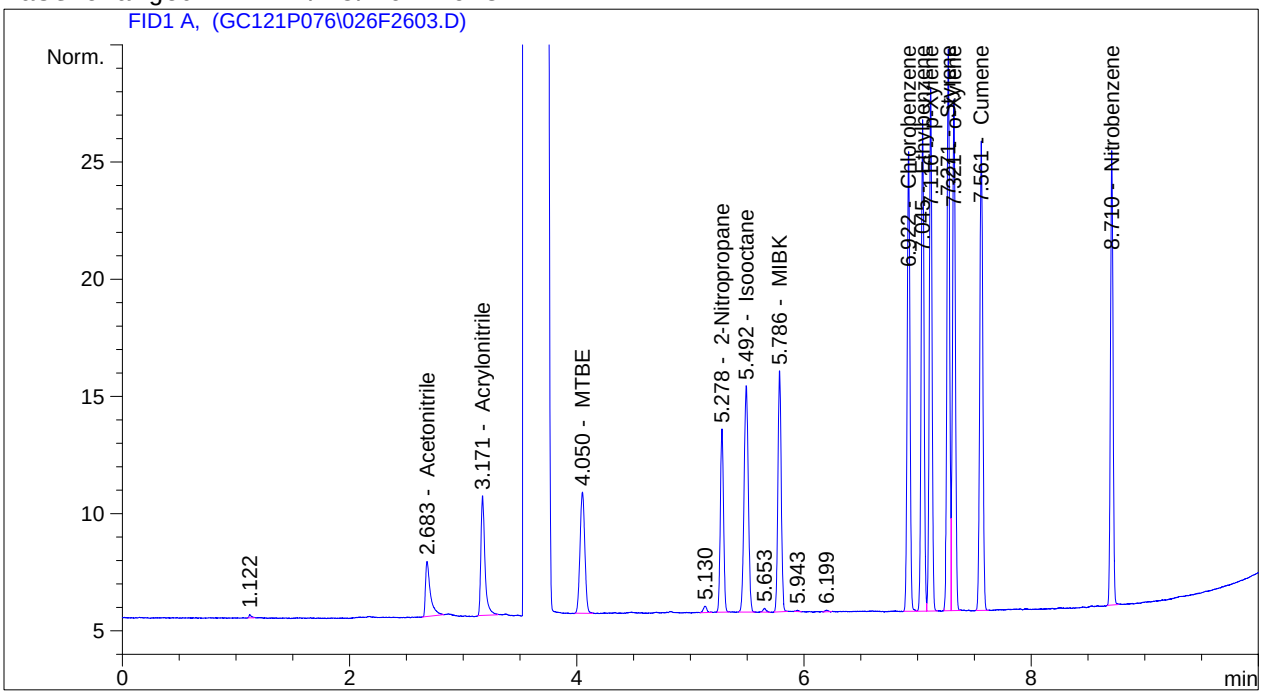
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.683	BB	7.01216	2.17487	15.25055		Acetonitrile
3.171	BB	13.12474	1.26188	16.56182		Acrylonitrile
4.051	BB	15.11474	1.01456	15.33479		MTBE
5.279	BB	15.33734	1.29927	19.92735		2-Nitropropane
5.493	BB	24.68774	5.75917e-1	14.21809		Isooctane
5.786	BB	20.65353	7.95117e-1	16.42197		MIBK
6.922	BV	33.06562	7.00530e-1	23.16348		Chlorobenzene
7.046	VV	36.09973	5.01780e-1	18.11414		Ethylbenzene
7.116	VB	36.03144	4.98198e-1	17.95077		p-Xylene
7.272	BV	38.77945	4.87409e-1	18.90147		Styrene
7.321	VB	37.30202	4.91283e-1	18.32584		o-Xylene
7.562	BB	36.40706	4.97347e-1	18.10696		Cumene
8.711	BB	30.18517	8.02758e-1	24.23139		Nitrobenzene
Totals :				236.50861		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\026F2603.D
Sample Name: gc121p67 #3

Acq. Operator	:	Seq. Line	: 26
Acq. Instrument	: Lucy	Location	: Vial 26
Injection Date	: 13-Jul-11, 06:46:34	Inj	: 3
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

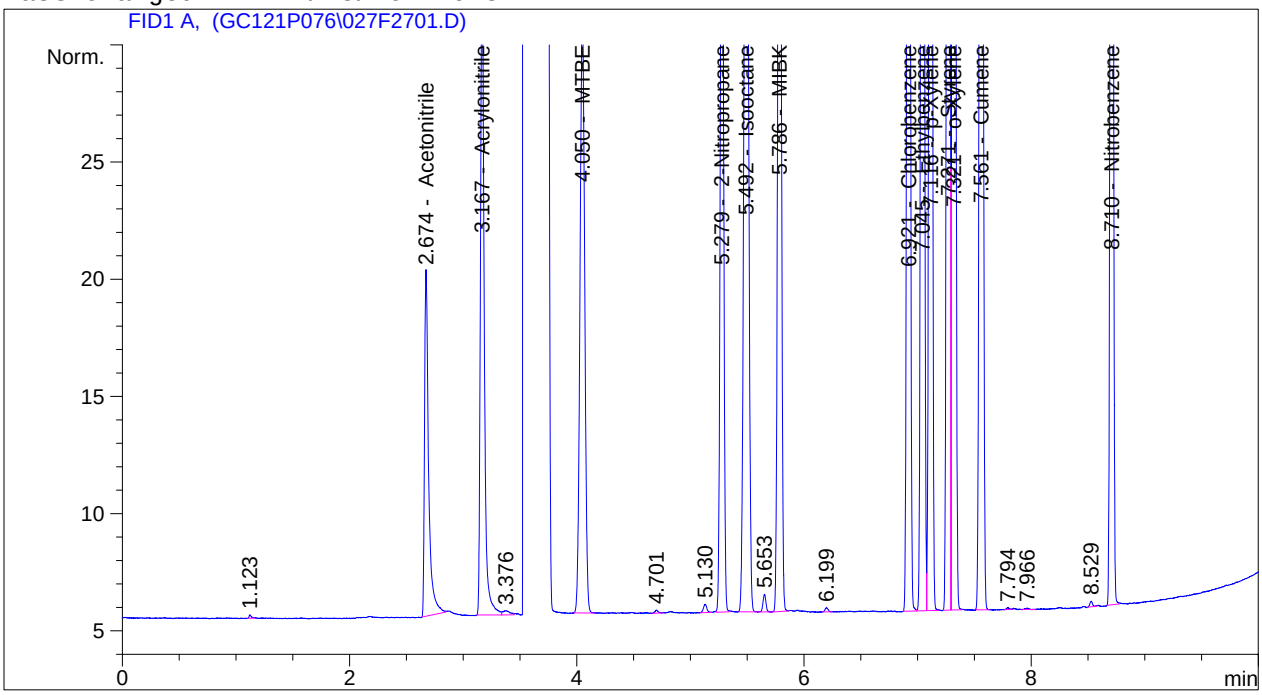
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.683	BB	6.91446	2.17602	15.04599		Acetonitrile
3.171	BB	12.61571	1.26280	15.93115		Acrylonitrile
4.050	BB	15.12334	1.01456	15.34352		MTBE
5.278	BB	15.46866	1.29928	20.09804		2-Nitropropane
5.492	BB	25.04720	5.75936e-1	14.42557		Isooctane
5.786	BB	20.83881	7.95105e-1	16.56904		MIBK
6.922	BV	33.45695	7.00550e-1	23.43828		Chlorobenzene
7.045	VV	36.60965	5.01790e-1	18.37036		Ethylbenzene
7.116	VB	36.59362	4.98205e-1	18.23113		p-Xylene
7.271	BV	39.33989	4.87410e-1	19.17465		Styrene
7.321	VB	37.84843	4.91302e-1	18.59501		o-Xylene
7.561	BB	36.95302	4.97364e-1	18.37911		Cumene
8.710	BB	30.55805	8.02757e-1	24.53069		Nitrobenzene

Totals : 238.13256

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\027F2701.D
Sample Name: gc121p67 #4

Acq. Operator	:	Seq. Line	: 27
Acq. Instrument	: Lucy	Location	: Vial 27
Injection Date	: 13-Jul-11, 07:08:17	Inj	: 1
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.674	BB	36.78660	2.10928	77.59341		Acetonitrile
3.167	BB	64.21432	1.24365	79.85999		Acrylonitrile
4.050	BB	73.55440	1.01502	74.65886		MTBE
5.279	BB	75.72999	1.29971	98.42722		2-Nitropropane
5.492	BB	122.09200	5.76942e-1	70.44004		Isooctane
5.786	BB	102.59071	7.94054e-1	81.46255		MIBK
6.921	BV	162.67247	7.01889e-1	114.17807		Chlorobenzene
7.045	VV	178.29991	5.02332e-1	89.56568		Ethylbenzene
7.116	VB	178.00676	4.98590e-1	88.75239		p-Xylene
7.271	BV	191.90071	4.87444e-1	93.54082		Styrene
7.321	VB	184.21719	4.92359e-1	90.70106		o-Xylene
7.561	BB	179.88341	4.98250e-1	89.62695		Cumene
8.710	BB	149.68973	8.02703e-1	120.15636		Nitrobenzene

Totals : 1168.96341

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\027F2702.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  27
Acq. Instrument : Lucy                              Location : Vial 27
Injection Date  : 13-Jul-11, 07:30:08                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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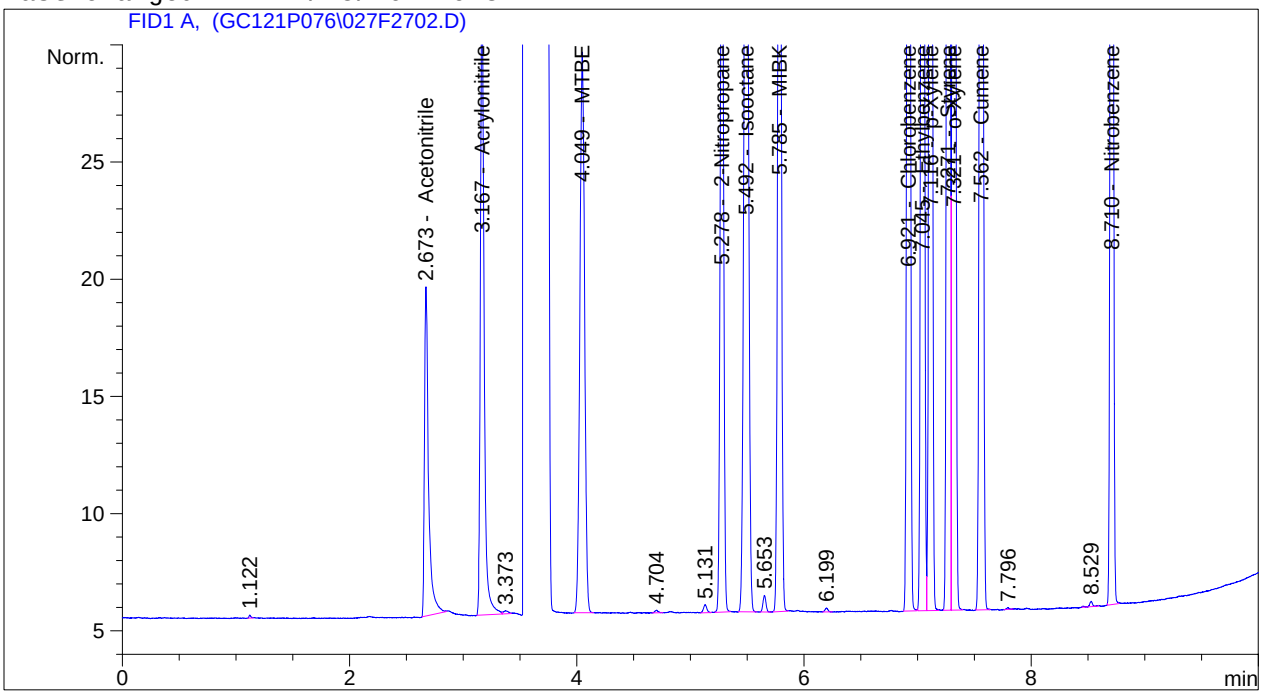


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.673	BB	34.79713	2.11017	73.42780		Acetonitrile
3.167	BB	60.88754	1.24390	75.73822		Acrylonitrile
4.049	BB	69.37531	1.01501	70.41653		MTBE
5.278	BB	71.22614	1.29971	92.57301		2-Nitropropane
5.492	BB	114.01958	5.76924e-1	65.78062		Isooctane
5.785	BB	95.89552	7.94073e-1	76.14800		MIBK
6.921	BB	151.60921	7.01864e-1	106.40905		Chlorobenzene
7.045	BV	165.85509	5.02321e-1	83.31251		Ethylbenzene
7.116	VB	165.73625	4.98583e-1	82.63322		p-Xylene
7.271	BV	178.73154	4.87443e-1	87.12147		Styrene
7.321	VB	171.40569	4.92339e-1	84.38969		o-Xylene
7.562	BB	167.12515	4.98233e-1	83.26722		Cumene
8.710	BB	140.31026	8.02704e-1	112.62756		Nitrobenzene

Totals : 1093.84491

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\027F2703.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  27
Acq. Instrument : Lucy                              Location : Vial 27
Injection Date  : 13-Jul-11, 07:51:59                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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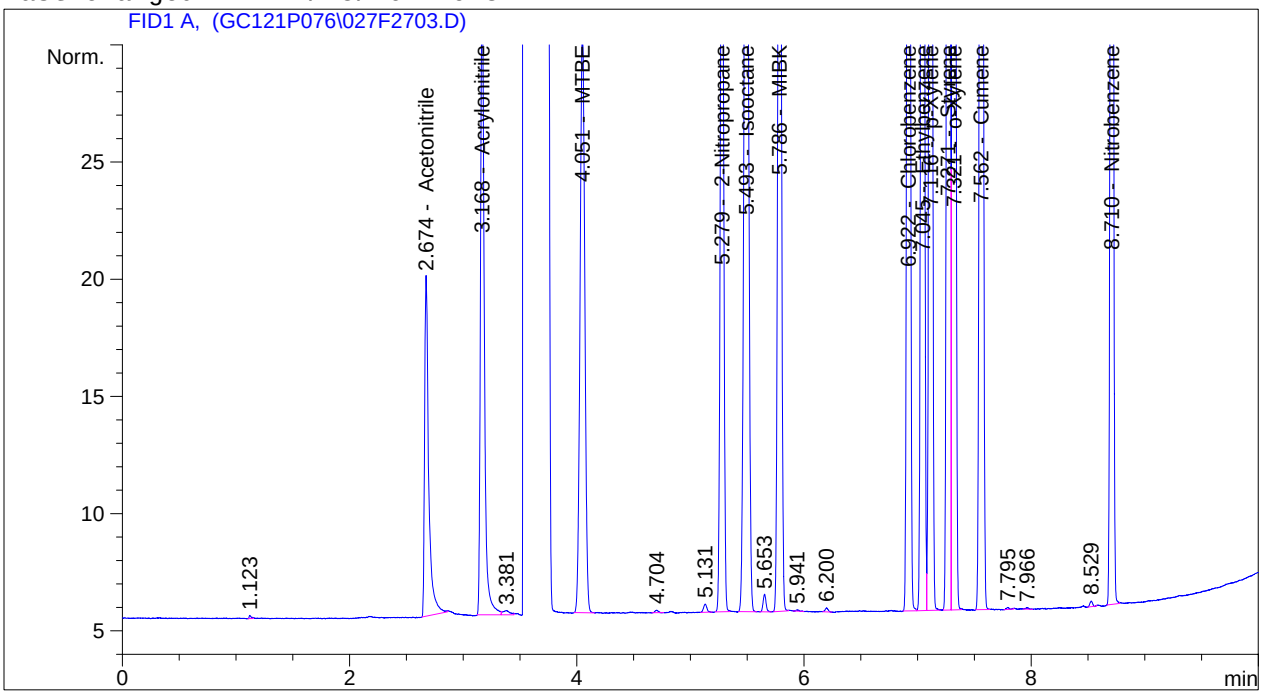


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.674	BB	36.24515	2.10952	76.45971		Acetonitrile
3.168	BB	63.10569	1.24373	78.48643		Acrylonitrile
4.051	BB	72.34718	1.01501	73.43338		MTBE
5.279	BB	74.61941	1.29971	96.98366		2-Nitropropane
5.493	BB	119.92298	5.76938e-1	69.18808		Isooctane
5.786	BB	100.92917	7.94058e-1	80.14364		MIBK
6.922	BV	160.22916	7.01884e-1	112.46229		Chlorobenzene
7.045	VV	175.41266	5.02329e-1	88.11492		Ethylbenzene
7.116	VB	175.21452	4.98588e-1	87.35993		p-Xylene
7.271	BV	188.94957	4.87444e-1	92.10227		Styrene
7.321	VB	181.06798	4.92355e-1	89.14965		o-Xylene
7.562	BB	176.64452	4.98246e-1	88.01243		Cumene
8.710	BB	147.23877	8.02703e-1	118.18900		Nitrobenzene
Totals :				1150.08540		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\038F3801.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  38
Acq. Instrument : Lucy                              Location : Vial 38
Injection Date  : 13-Jul-11, 19:12:31                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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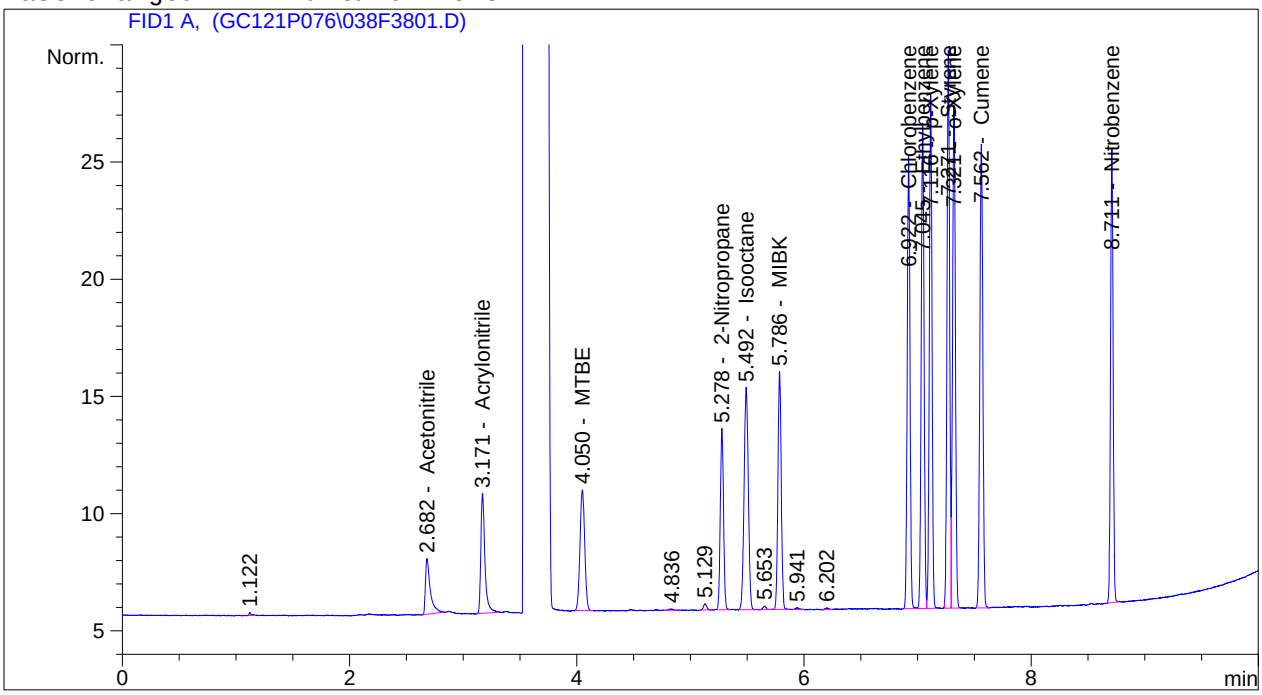


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```
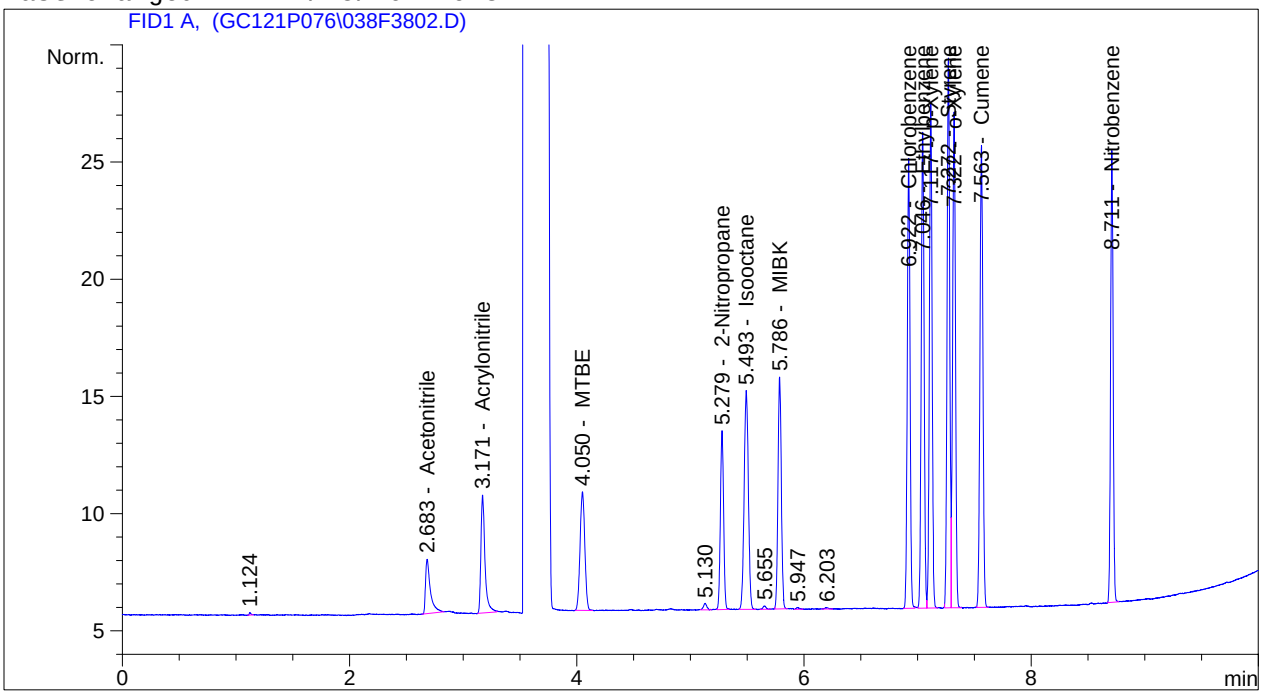

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.682	BB	7.00227	2.17499	15.22984		Acetonitrile
3.171	BB	12.69682	1.26265	16.03163		Acrylonitrile
4.050	BB	14.97631	1.01455	15.19426		MTBE
5.278	BB	15.32028	1.29927	19.90518		2-Nitropropane
5.492	BB	24.68011	5.75917e-1	14.21369		Isooctane
5.786	BB	20.65232	7.95117e-1	16.42101		MIBK
6.922	BB	33.06337	7.00530e-1	23.16189		Chlorobenzene
7.045	BV	36.15484	5.01781e-1	18.14183		Ethylbenzene
7.116	VB	36.17046	4.98199e-1	18.02010		p-Xylene
7.271	BV	38.90648	4.87409e-1	18.96339		Styrene
7.321	VB	37.45808	4.91288e-1	18.40271		o-Xylene
7.562	BB	36.64123	4.97355e-1	18.22369		Cumene
8.711	BB	30.52402	8.02757e-1	24.50337		Nitrobenzene

Totals : 236.41260

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\038F3802.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  38
Acq. Instrument : Lucy                              Location : Vial 38
Injection Date  : 13-Jul-11, 19:33:58                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```

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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

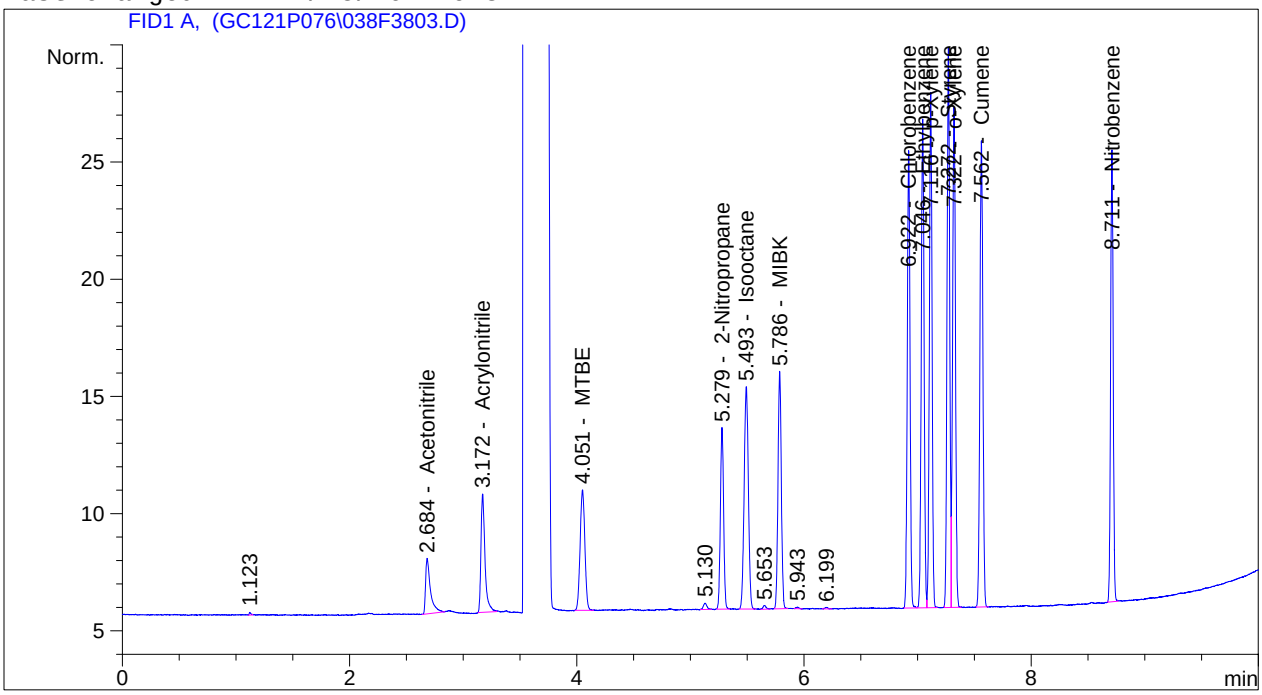
RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.683 BB        6.83440    2.17698   14.87835    Acetonitrile
  3.171 BB       12.52213    1.26298   15.81520    Acrylonitrile
  4.050 BB       14.72654    1.01454   14.94072    MTBE
  5.279 BB       15.11678    1.29926   19.64066    2-Nitropropane
  5.493 BB       24.32292 5.75898e-1   14.00751    Isooctane
  5.786 BB       20.23647 7.95144e-1   16.09092    MIBK
  6.922 BB       32.53385 7.00503e-1   22.79004    Chlorobenzene
  7.046 BV       35.59781 5.01771e-1   17.86193    Ethylbenzene
  7.117 VB       35.58723 4.98191e-1   17.72925    p-Xylene
  7.272 BV       38.31830 4.87409e-1   18.67668    Styrene
  7.322 VB       36.86250 4.91267e-1   18.10931    o-Xylene
  7.563 BB       35.98354 4.97334e-1   17.89584    Cumene
  8.711 BB       30.03003 8.02758e-1   24.10686    Nitrobenzene

Totals :                               232.54328
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\038F3803.D
Sample Name: gc121p67 #3

Acq. Operator	:	Seq. Line	: 38
Acq. Instrument	: Lucy	Location	: Vial 38
Injection Date	: 13-Jul-11, 19:55:20	Inj	: 3
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.684	BB	7.01069	2.17489	15.24748		Acetonitrile
3.172	BB	12.45877	1.26310	15.73670		Acrylonitrile
4.051	BB	14.96183	1.01455	15.17956		MTBE
5.279	BB	15.32984	1.29927	19.91761		2-Nitropropane
5.493	BB	24.66375	5.75916e-1	14.20424		Isooctane
5.786	BB	20.61120	7.95120e-1	16.38837		MIBK
6.922	BV	33.06346	7.00530e-1	23.16196		Chlorobenzene
7.046	VV	36.23714	5.01783e-1	18.18318		Ethylbenzene
7.116	VB	36.15564	4.98199e-1	18.01271		p-Xylene
7.272	BV	38.93889	4.87410e-1	18.97919		Styrene
7.322	VB	37.48458	4.91289e-1	18.41577		o-Xylene
7.562	BB	36.56757	4.97352e-1	18.18697		Cumene
8.711	BB	30.42053	8.02757e-1	24.42030		Nitrobenzene

Totals : 236.03404

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\039F3901.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  39
Acq. Instrument : Lucy                              Location : Vial 39
Injection Date  : 13-Jul-11, 20:16:40                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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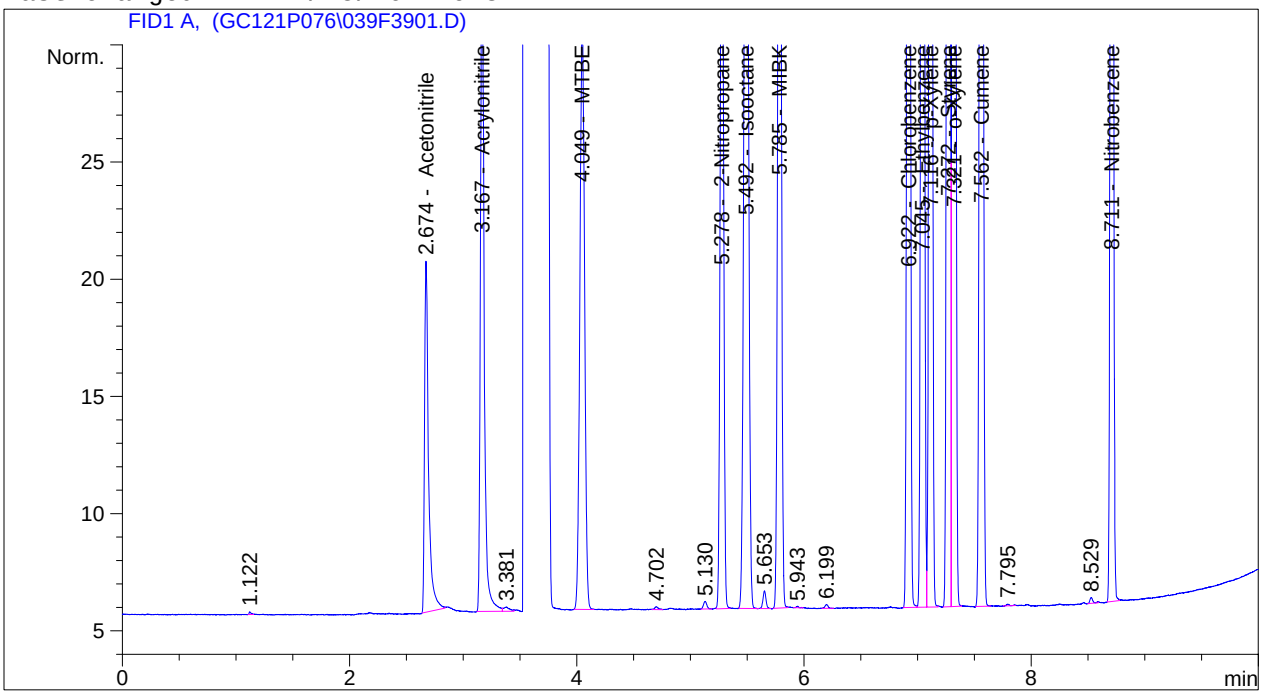


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

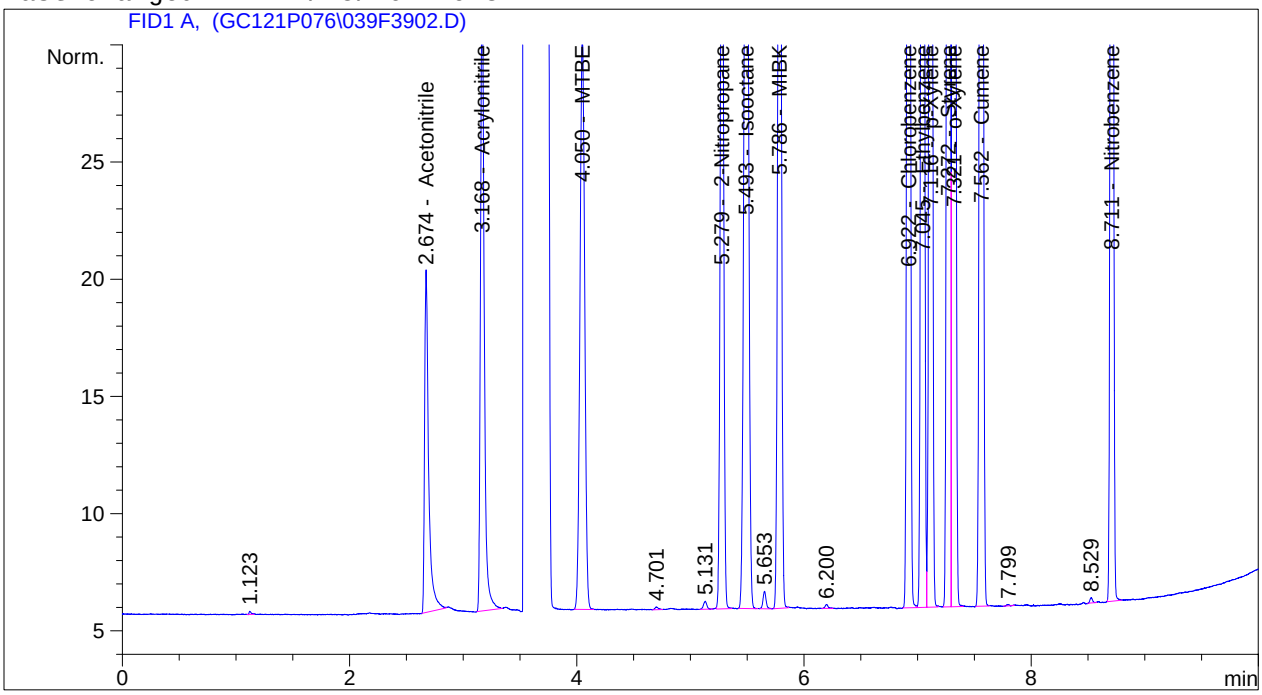
Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.674	BB	36.61136	2.10936	77.22649		Acetonitrile
3.167	BB	63.84569	1.24367	79.40327		Acrylonitrile
4.049	BB	72.31783	1.01501	73.40358		MTBE
5.278	BB	73.97053	1.29971	96.14023		2-Nitropropane
5.492	BB	119.22029	5.76936e-1	68.78249		Isooctane
5.785	BB	100.32653	7.94060e-1	79.66527		MIBK
6.922	BV	160.20686	7.01884e-1	112.44663		Chlorobenzene
7.045	VV	176.16815	5.02330e-1	88.49454		Ethylbenzene
7.116	VB	176.14867	4.98589e-1	87.82578		p-Xylene
7.272	BV	190.23451	4.87444e-1	92.72862		Styrene
7.321	VB	182.43890	4.92357e-1	89.82502		o-Xylene
7.562	BB	178.69374	4.98249e-1	89.03393		Cumene
8.711	BB	150.43654	8.02703e-1	120.75581		Nitrobenzene

Totals : 1155.73165

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\039F3902.D
Sample Name: gc121p67 #4

Acq. Operator	:	Seq. Line	: 39
Acq. Instrument	: Lucy	Location	: Vial 39
Injection Date	: 13-Jul-11, 20:38:10	Inj	: 2
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	7/15/2011 9:32:30 PM
Multiplier:	:	1.0000
Dilution:	:	1.0000

Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.674	BB	36.15488	2.10955	76.27070		Acetonitrile
3.168	BB	61.99483	1.24382	77.11012		Acrylonitrile
4.050	BB	71.04446	1.01501	72.11095		MTBE
5.279	BB	73.00150	1.29971	94.88067		2-Nitropropane
5.493	BB	117.10452	5.76931e-1	67.56126		Isooctane
5.786	BB	98.64980	7.94065e-1	78.33431		MIBK
6.922	BV	157.36699	7.01878e-1	110.45237		Chlorobenzene
7.045	VV	172.57034	5.02327e-1	86.68674		Ethylbenzene
7.116	VB	172.49551	4.98587e-1	86.00399		p-Xylene
7.272	BV	186.21275	4.87444e-1	90.76821		Styrene
7.321	VB	178.57050	4.92351e-1	87.91931		o-Xylene
7.562	BB	174.37177	4.98243e-1	86.87951		Cumene
8.711	BB	146.98711	8.02703e-1	117.98699		Nitrobenzene
Totals :				1132.96512		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\039F3903.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  39
Acq. Instrument : Lucy                              Location : Vial 39
Injection Date  : 13-Jul-11, 20:59:38                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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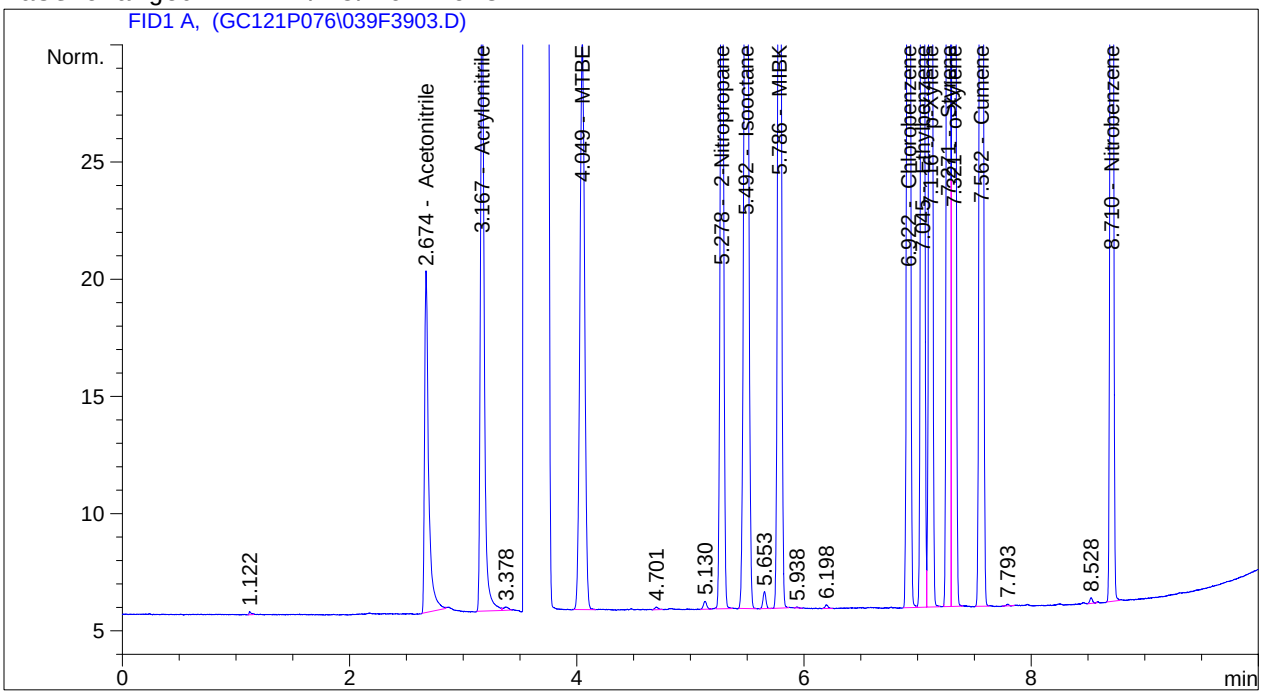


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.674 BB       35.89850    2.10967   75.73388    Acetonitrile
  3.167 BB       62.05420    1.24381   77.18368    Acrylonitrile
  4.049 BB       70.56588    1.01501   71.62512    MTBE
  5.278 BB       72.25038    1.29971   93.90434    2-Nitropropane
  5.492 BB      115.80999 5.76928e-1   66.81405    Isooctane
  5.786 BB       97.50445 7.94068e-1   77.42514    MIBK
  6.922 BV      155.35811 7.01873e-1  109.04166    Chlorobenzene
  7.045 VV      170.39229 5.02325e-1   85.59233    Ethylbenzene
  7.116 VB      170.29871 4.98586e-1   84.90847    p-Xylene
  7.271 BV      183.82988 4.87443e-1   89.60667    Styrene
  7.321 VB      176.23553 4.92347e-1   86.76903    o-Xylene
  7.562 BB      172.09608 4.98240e-1   85.74513    Cumene
  8.710 BB      145.07190 8.02703e-1  116.44968    Nitrobenzene

Totals :                             1120.79918
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\050F5001.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  50
Acq. Instrument : Lucy                              Location : Vial 50
Injection Date  : 14-Jul-11, 08:08:08                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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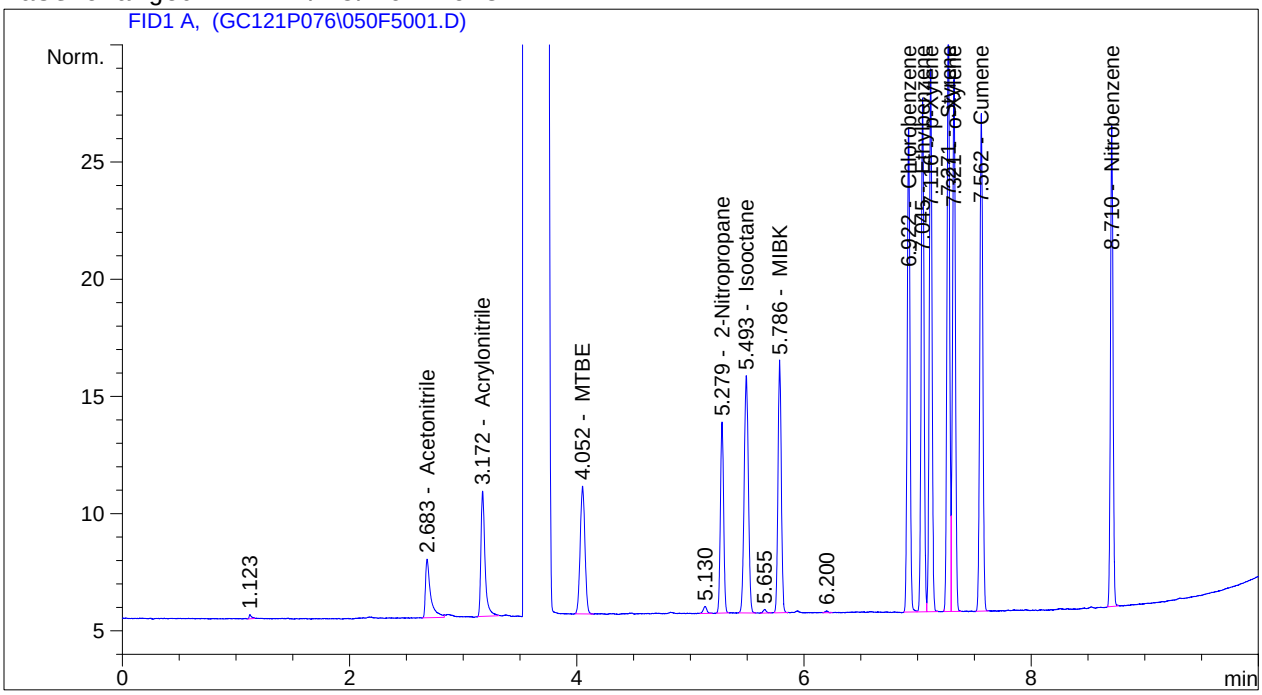


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.683 BB        7.75536    2.16711   16.80669    Acetonitrile
  3.172 BB       13.27992    1.26161   16.75408    Acrylonitrile
  4.052 BB       15.84707    1.01459   16.07820    MTBE
  5.279 BB       16.20753    1.29930   21.05845    2-Nitropropane
  5.493 BB       26.23218 5.75993e-1   15.10955    Isooctane
  5.786 BB       21.85886 7.95043e-1   17.37874    MIBK
  6.922 BV       35.00945 7.00625e-1   24.52850    Chlorobenzene
  7.045 VV       38.32923 5.01821e-1   19.23440    Ethylbenzene
  7.116 VB       38.32487 4.98227e-1   19.09449    p-Xylene
  7.271 BV       41.18073 4.87412e-1   20.07198    Styrene
  7.321 VB       39.66983 4.91363e-1   19.49230    o-Xylene
  7.562 BB       38.77345 4.97416e-1   19.28655    Cumene
  8.710 BB       31.99325 8.02754e-1   25.68271    Nitrobenzene

Totals :                               250.57664
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\050F5002.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  50
Acq. Instrument : Lucy                              Location : Vial 50
Injection Date  : 14-Jul-11, 08:29:48                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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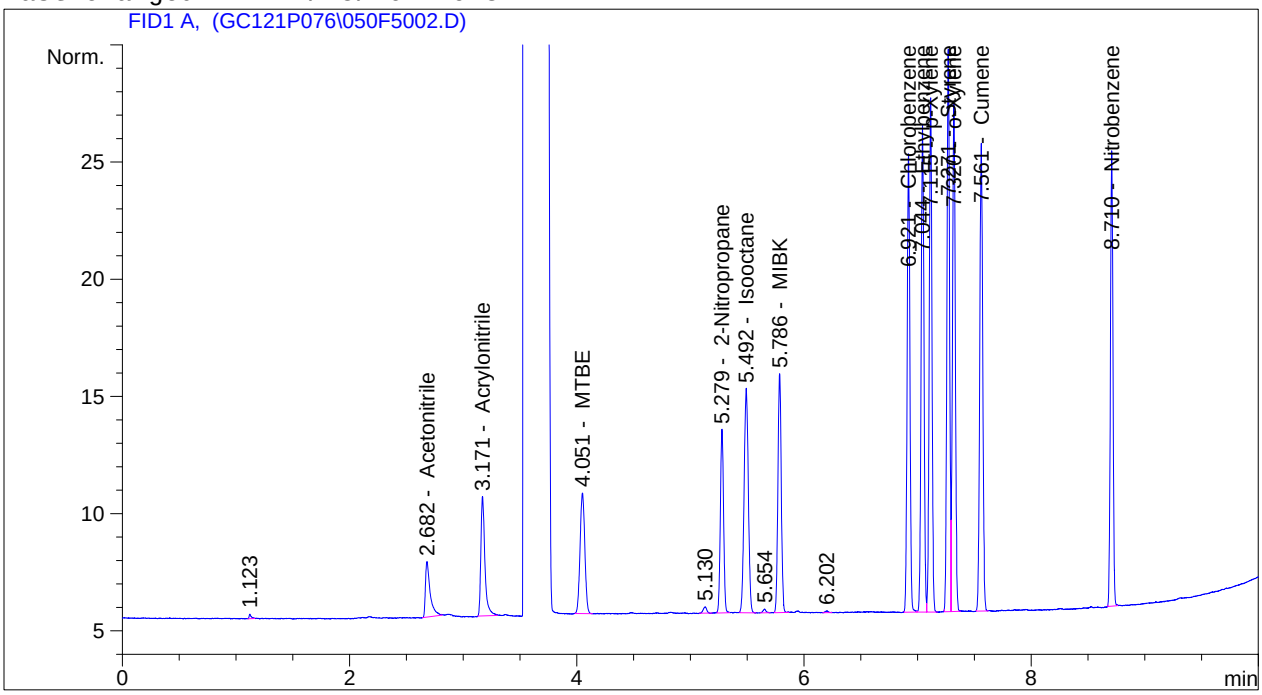


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.682	BB	6.82443	2.17710	14.85749		Acetonitrile
3.171	BB	12.54650	1.26293	15.84539		Acrylonitrile
4.051	BB	15.02099	1.01456	15.23962		MTBE
5.279	BB	15.46199	1.29927	20.08938		2-Nitropropane
5.492	BB	24.88366	5.75927e-1	14.33117		Isooctane
5.786	BB	20.78286	7.95109e-1	16.52463		MIBK
6.921	BV	33.29452	7.00542e-1	23.32422		Chlorobenzene
7.044	VV	36.44271	5.01787e-1	18.28647		Ethylbenzene
7.115	VB	36.34563	4.98202e-1	18.10746		p-Xylene
7.271	BV	39.08847	4.87410e-1	19.05210		Styrene
7.320	VB	37.60040	4.91293e-1	18.47282		o-Xylene
7.561	BB	36.67569	4.97356e-1	18.24086		Cumene
8.710	BB	30.39516	8.02758e-1	24.39994		Nitrobenzene

Totals : 236.77156

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\050F5003.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  50
Acq. Instrument : Lucy                              Location : Vial 50
Injection Date  : 14-Jul-11, 08:51:40                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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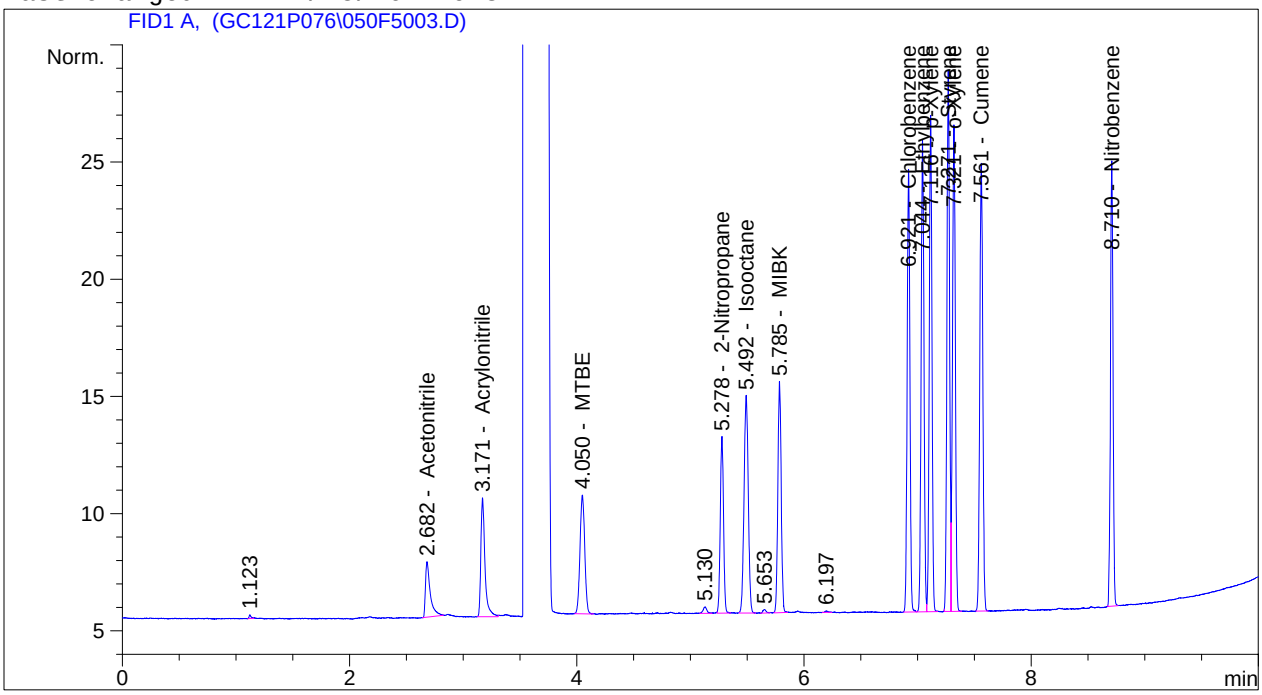


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.682 BB        6.87626    2.17647   14.96601    Acetonitrile
  3.171 BB       12.76337    1.26253   16.11409    Acrylonitrile
  4.050 BB       14.77397    1.01455   14.98887    MTBE
  5.278 BB       15.04692    1.29926   19.54986    2-Nitropropane
  5.492 BB       24.12205 5.75887e-1   13.89158    Isooctane
  5.785 BB       20.12296 7.95152e-1   16.00081    MIBK
  6.921 BV       32.04554 7.00476e-1   22.44713    Chlorobenzene
  7.044 VV       35.06878 5.01760e-1   17.59612    Ethylbenzene
  7.116 VB       35.02089 4.98183e-1   17.44682    p-Xylene
  7.271 BV       37.69979 4.87408e-1   18.37518    Styrene
  7.321 VB       36.27229 4.91244e-1   17.81855    o-Xylene
  7.561 BB       35.42647 4.97316e-1   17.61815    Cumene
  8.710 BB       29.76328 8.02759e-1   23.89274    Nitrobenzene

Totals :                               230.70591
```
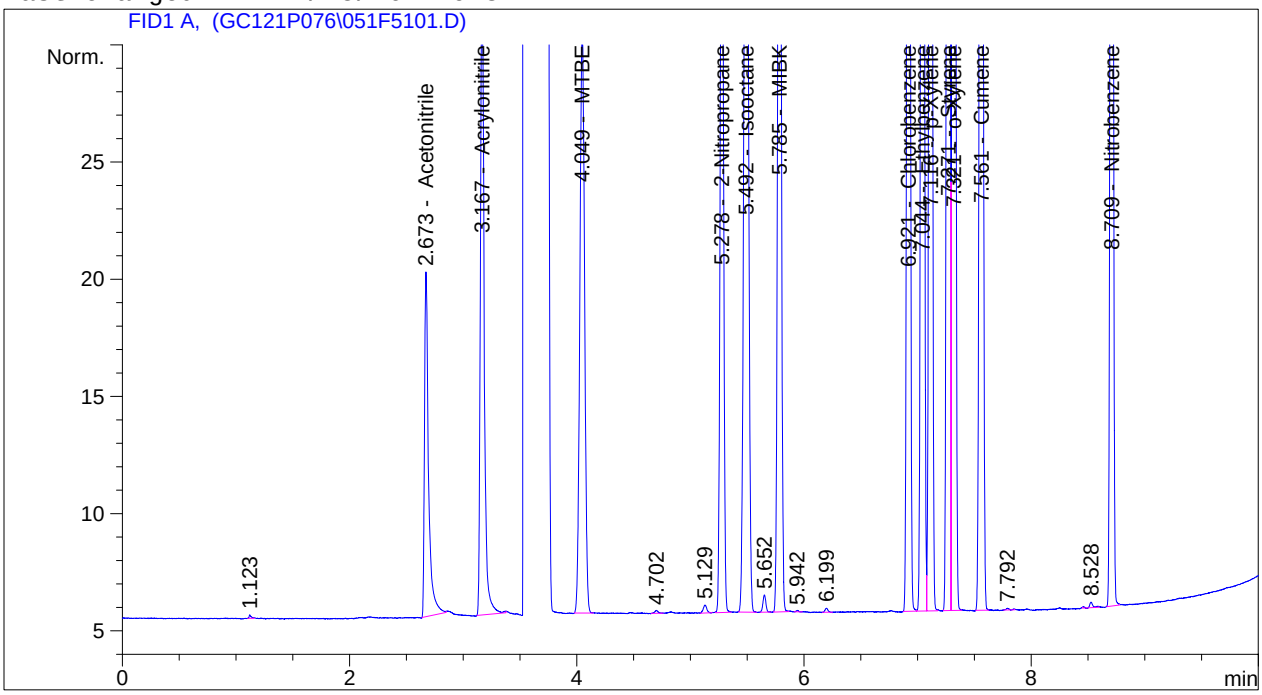

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\051F5101.D
Sample Name: gc121p67 #4

Acq. Operator	:	Seq. Line	: 51
Acq. Instrument	: Lucy	Location	: Vial 51
Injection Date	: 14-Jul-11, 09:13:20	Inj	: 1
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

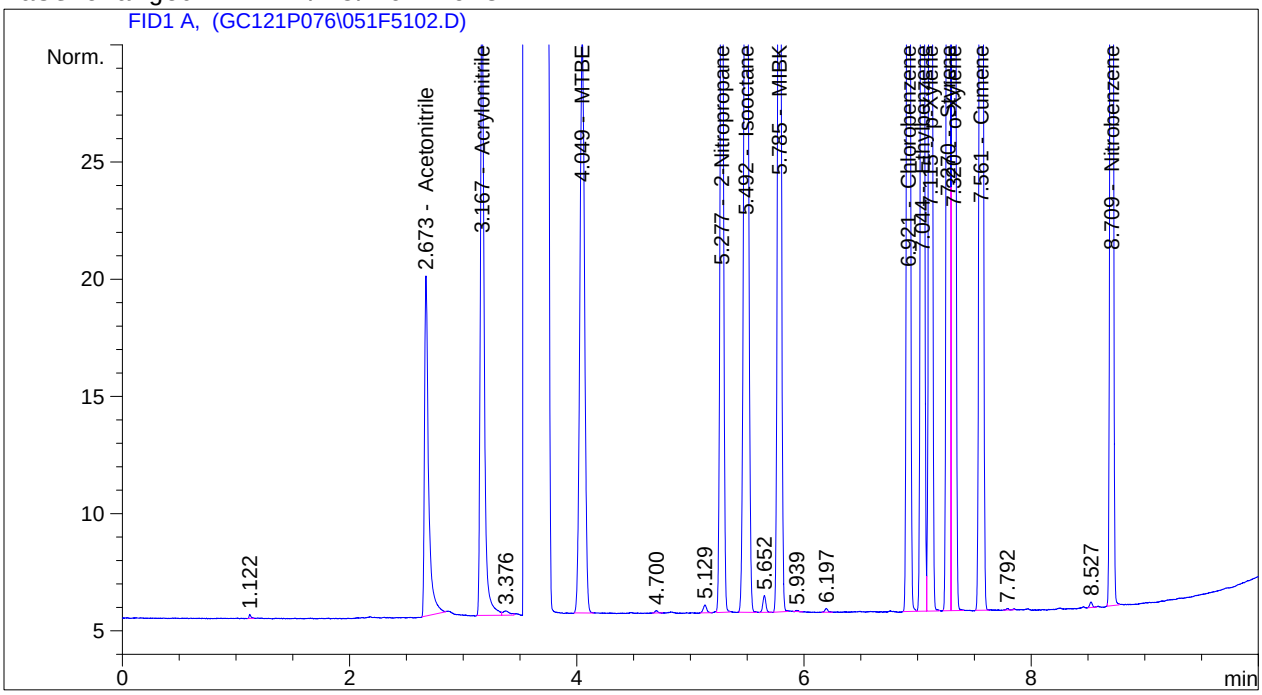
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.673	BB	36.37855	2.10946	76.73903		Acetonitrile
3.167	BB	63.05473	1.24373	78.42329		Acrylonitrile
4.049	BB	72.39684	1.01501	73.48378		MTBE
5.278	BB	73.99967	1.29971	96.17811		2-Nitropropane
5.492	BB	118.71989	5.76935e-1	68.49366		Isooctane
5.785	BB	99.78336	7.94061e-1	79.23411		MIBK
6.921	BV	157.17529	7.01877e-1	110.31775		Chlorobenzene
7.044	VV	172.40184	5.02327e-1	86.60207		Ethylbenzene
7.116	VB	172.25291	4.98587e-1	85.88301		p-Xylene
7.271	BV	185.74689	4.87444e-1	90.54112		Styrene
7.321	VB	178.25047	4.92350e-1	87.76166		o-Xylene
7.561	BB	174.33429	4.98243e-1	86.86083		Cumene
8.709	BB	147.27725	8.02703e-1	118.21989		Nitrobenzene

Totals : 1138.73832

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\051F5102.D
Sample Name: gc121p67 #4

==========

Acq. Operator : Seq. Line : 51
Acq. Instrument : Lucy Location : Vial 51
Injection Date : 14-Jul-11, 09:35:06 Inj : 2
Inj Volume : External
Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

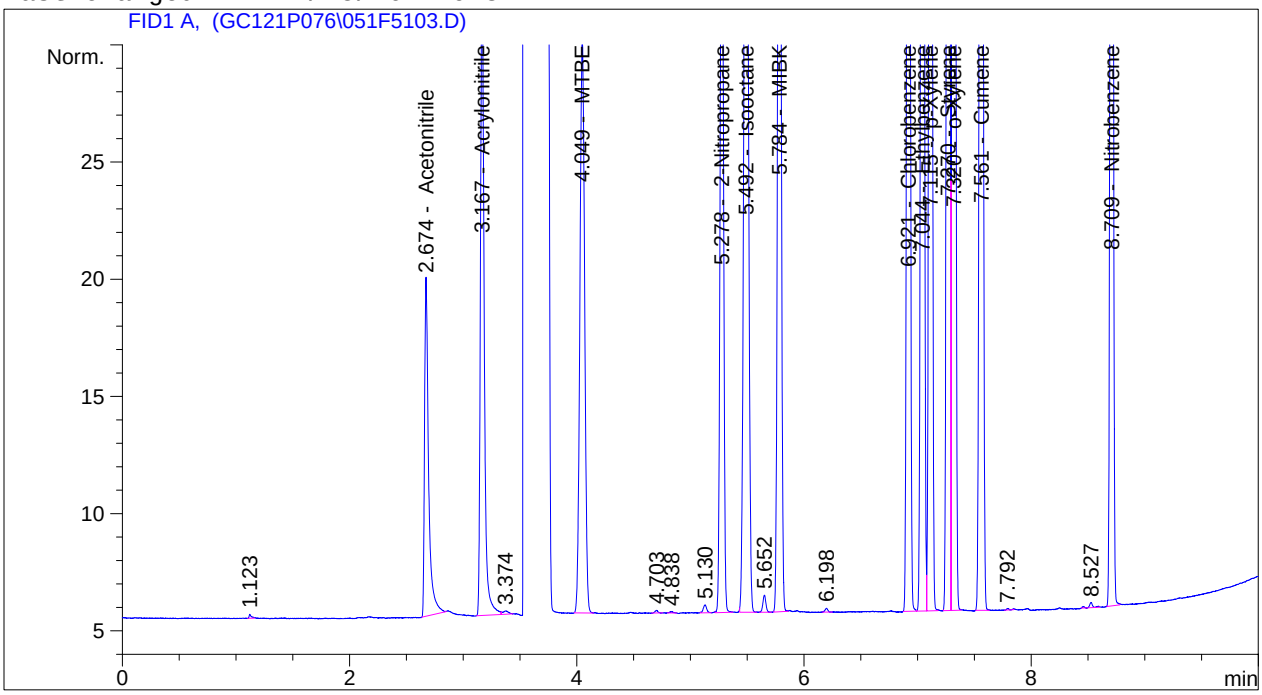
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.673	BB	35.62596	2.10979	75.16323		Acetonitrile
3.167	BB	62.78434	1.24375	78.08829		Acrylonitrile
4.049	BB	71.18100	1.01501	72.24955		MTBE
5.277	BB	72.92189	1.29971	94.77719		2-Nitropropane
5.492	BB	116.73500	5.76930e-1	67.34797		Isooctane
5.785	BB	98.17088	7.94066e-1	77.95414		MIBK
6.921	BV	155.02448	7.01872e-1	108.80737		Chlorobenzene
7.044	VV	169.96982	5.02325e-1	85.38005		Ethylbenzene
7.115	VB	169.87543	4.98585e-1	84.69738		p-Xylene
7.270	BV	183.30394	4.87443e-1	89.35030		Styrene
7.320	VB	175.80164	4.92346e-1	86.55528		o-Xylene
7.561	BB	171.74054	4.98239e-1	85.56790		Cumene
8.709	BB	145.44716	8.02703e-1	116.75089		Nitrobenzene

Totals : 1122.68954

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\051F5103.D
Sample Name: gc121p67 #4

Acq. Operator	:	Seq. Line	: 51
Acq. Instrument	: Lucy	Location	: Vial 51
Injection Date	: 14-Jul-11, 09:57:00	Inj	: 3
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

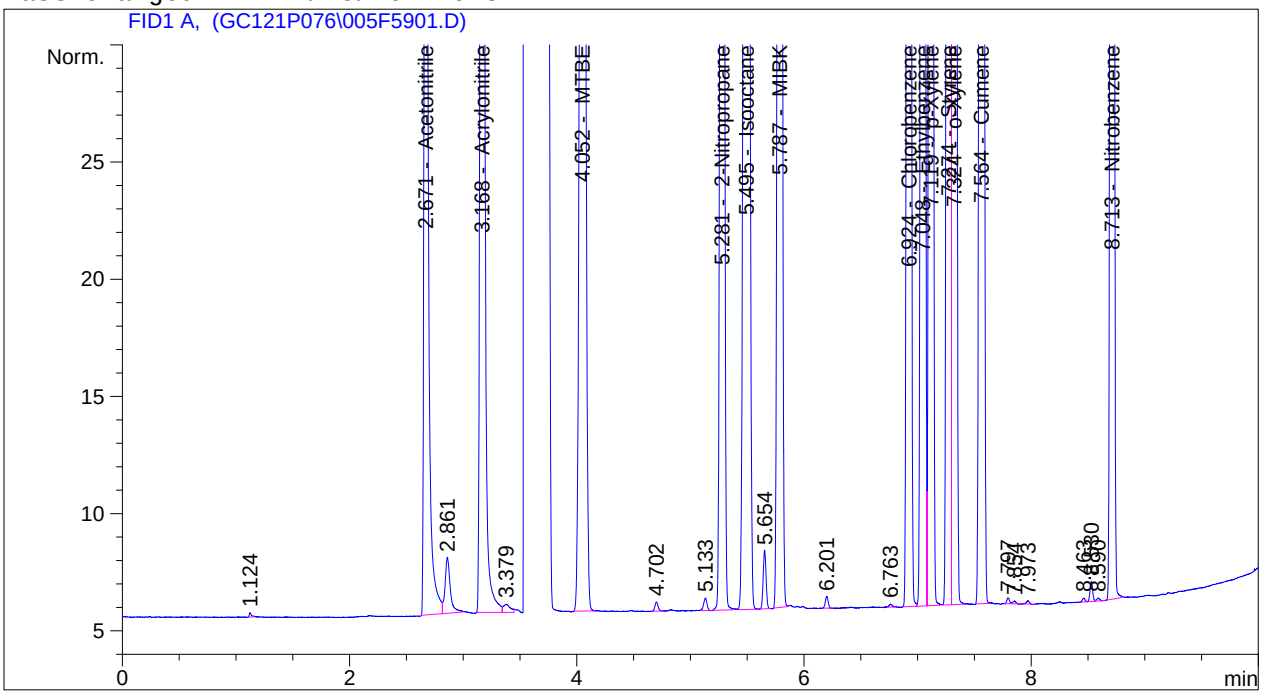
Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.674	BB	35.69555	2.10976	75.30893		Acetonitrile
3.167	BB	62.56278	1.24377	77.81379		Acrylonitrile
4.049	BB	71.36305	1.01501	72.43436		MTBE
5.278	BB	73.35256	1.29971	95.33699		2-Nitropropane
5.492	BB	117.29263	5.76932e-1	67.66984		Isooctane
5.784	BB	98.71509	7.94064e-1	78.38613		MIBK
6.921	BV	156.33315	7.01875e-1	109.72637		Chlorobenzene
7.044	VV	171.47673	5.02326e-1	86.13723		Ethylbenzene
7.115	VB	171.40244	4.98586e-1	85.45889		p-Xylene
7.270	BV	185.08072	4.87444e-1	90.21639		Styrene
7.320	VB	177.41322	4.92349e-1	87.34920		o-Xylene
7.561	BB	173.52596	4.98242e-1	86.45789		Cumene
8.709	BB	146.80887	8.02703e-1	117.84392		Nitrobenzene
Totals :				1130.13992		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\005F5901.D
Sample Name: gc121p67 #5

Acq. Operator	:	Seq. Line	: 59
Acq. Instrument	: Lucy	Location	: Vial 5
Injection Date	: 15-Jul-11, 00:40:39	Inj	: 1
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

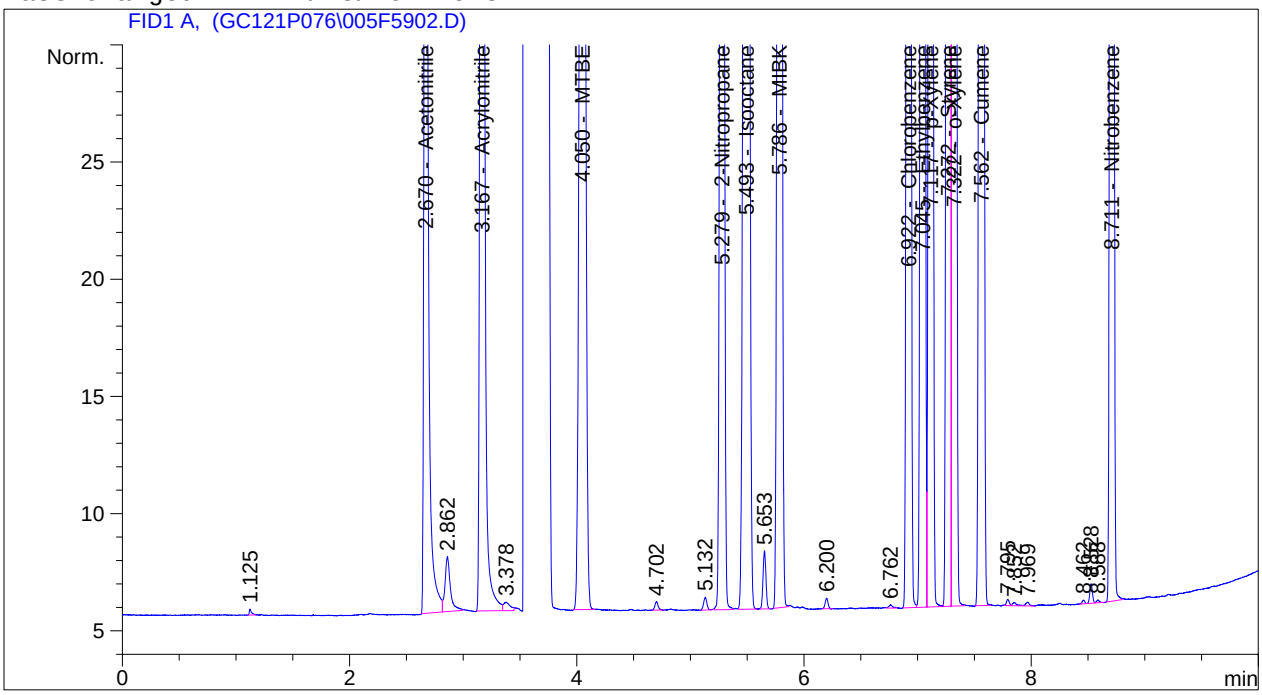
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.671	BV	125.89806	2.09835	264.17840		Acetonitrile
3.168	BV	209.40965	1.24040	259.75182		Acrylonitrile
4.052	BB	235.61864	1.01510	239.17576		MTBE
5.281	BB	243.16478	1.29979	316.06314		2-Nitropropane
5.495	BB	388.37836	5.77120e-1	224.14111		Isooctane
5.787	BB	327.55200	7.93870e-1	260.03365		MIBK
6.924	BV	513.97388	7.02126e-1	360.87457		Chlorobenzene
7.048	VV	561.98676	5.02427e-1	282.35741		Ethylbenzene
7.119	VB	561.27216	4.98658e-1	279.88287		p-Xylene
7.274	BV	606.11688	4.87450e-1	295.45155		Styrene
7.324	VB	579.69946	4.92546e-1	285.52858		o-Xylene
7.564	BB	565.41968	4.98406e-1	281.80881		Cumene
8.713	BB	478.29327	8.02693e-1	383.92274		Nitrobenzene

Totals : 3733.17039

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\005F5902.D
Sample Name: gc121p67 #5

Acq. Operator	:	Seq. Line	: 59
Acq. Instrument	: Lucy	Location	: Vial 5
Injection Date	: 15-Jul-11, 01:01:01	Inj	: 2
		Inj Volume	: External
Sequence File	: G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S		
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.670	BV	125.09289	2.09838	262.49250		Acetonitrile
3.167	BV	209.04077	1.24040	259.29479		Acrylonitrile
4.050	BB	236.30768	1.01510	239.87523		MTBE
5.279	BB	244.51544	1.29979	317.81877		2-Nitropropane
5.493	BB	390.84851	5.77121e-1	225.56689		Isooctane
5.786	BB	329.49884	7.93869e-1	261.57902		MIBK
6.922	BV	517.37518	7.02127e-1	363.26309		Chlorobenzene
7.045	VV	565.63910	5.02427e-1	284.19261		Ethylbenzene
7.117	VB	564.94769	4.98658e-1	281.71582		p-Xylene
7.272	BV	609.45087	4.87450e-1	297.07670		Styrene
7.322	VB	583.38879	4.92546e-1	287.34607		o-Xylene
7.562	BB	568.56708	4.98407e-1	283.37772		Cumene
8.711	BB	477.99371	8.02693e-1	383.68228		Nitrobenzene
Totals :				3747.28147		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\005F5903.D
Sample Name: gc121p67 #5

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  59
Acq. Instrument : Lucy                              Location : Vial 5
Injection Date  : 15-Jul-11, 01:22:02                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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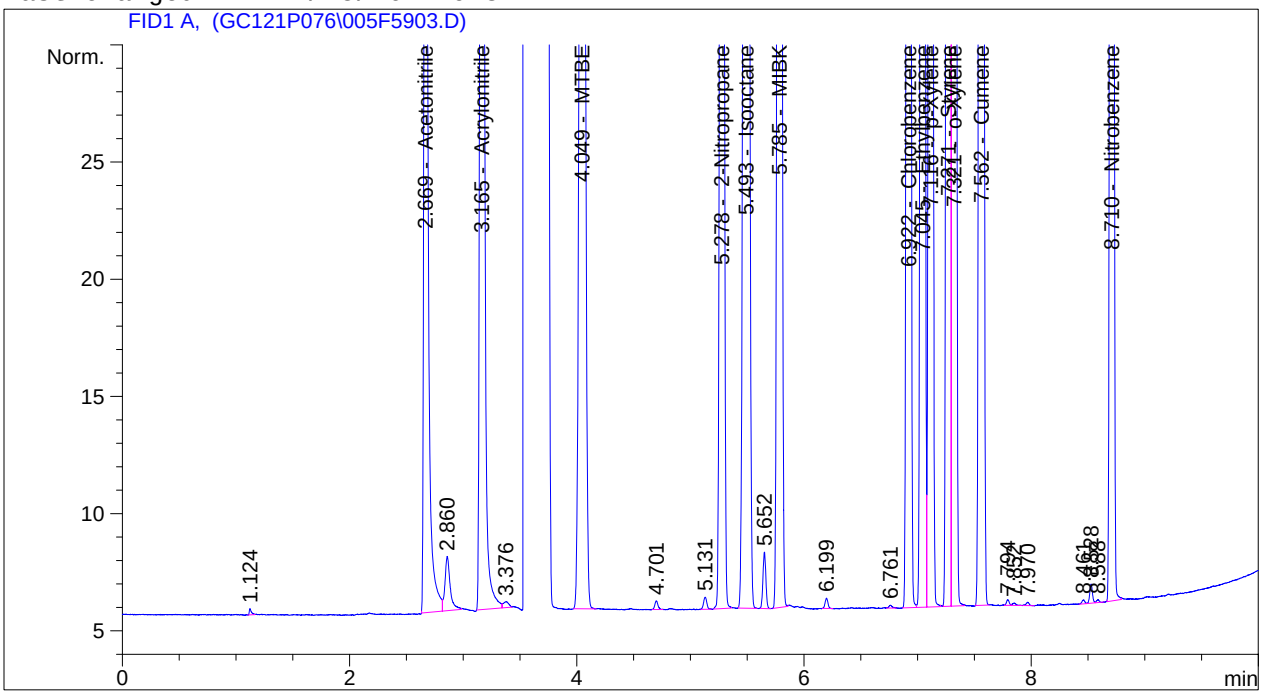


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                 [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.669 BV      124.48421    2.09840  261.21803    Acetonitrile
  3.165 BV      206.28271    1.24042  255.87765    Acrylonitrile
  4.049 BB      231.70216    1.01510  235.20001    MTBE
  5.278 BB      237.33327    1.29979  308.48320    2-Nitropropane
  5.493 BB      378.82257 5.77118e-1  218.62549    Isooctane
  5.785 BB      319.23376 7.93872e-1  253.43075    MIBK
  6.922 BV      499.24738 7.02123e-1  350.53309    Chlorobenzene
  7.045 VV      545.72583 5.02426e-1  274.18676    Ethylbenzene
  7.116 VB      544.95215 4.98657e-1  271.74425    p-Xylene
  7.271 BV      588.23657 4.87450e-1  286.73574    Styrene
  7.321 VB      562.65240 4.92543e-1  277.13064    o-Xylene
  7.562 BB      548.50293 4.98404e-1  273.37616    Cumene
  8.710 BB      464.54547 8.02693e-1  372.88753    Nitrobenzene

Totals :                             3639.42930
```
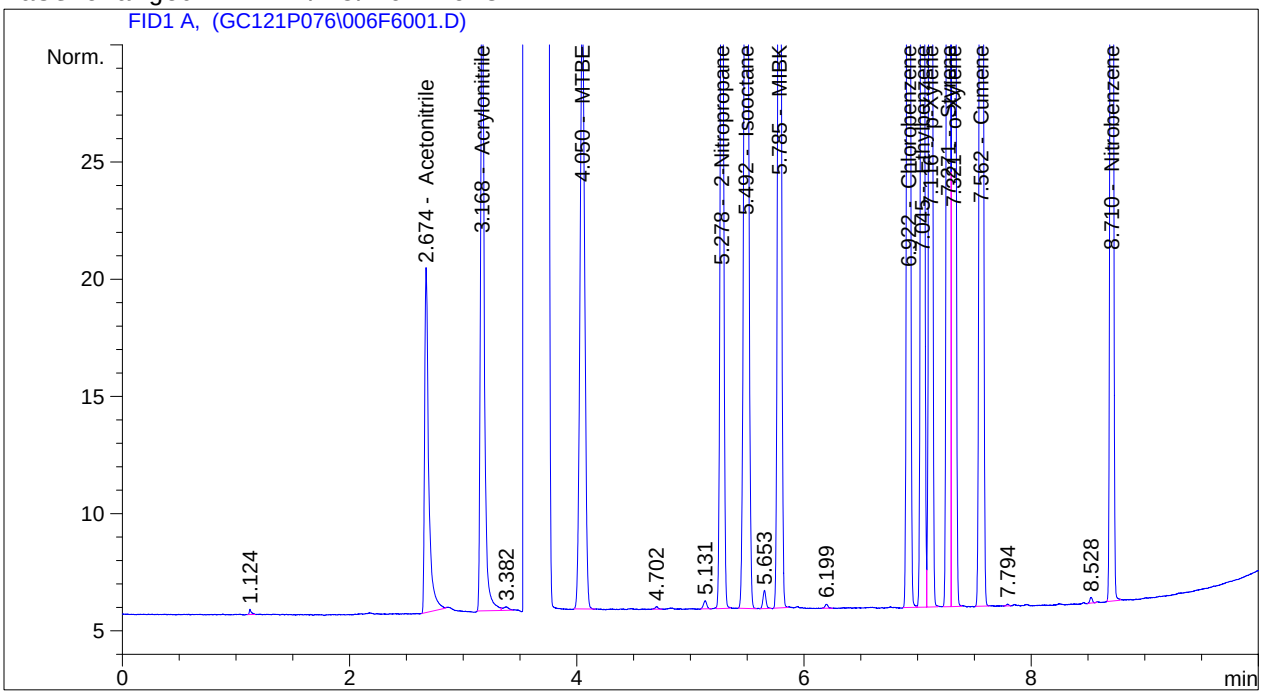

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\006F6001.D
Sample Name: gc121p67 #4

Acq. Operator	:	Seq. Line	: 60
Acq. Instrument	: Lucy	Location	: Vial 6
Injection Date	: 15-Jul-11, 01:43:08	Inj	: 1
		Inj Volume	: External

Sequence File : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.674	BB	36.27526	2.10950	76.52275		Acetonitrile
3.168	BB	63.74703	1.24368	79.28103		Acrylonitrile
4.050	BB	74.01244	1.01502	75.12383		MTBE
5.278	BB	76.16031	1.29971	98.98656		2-Nitropropane
5.492	BB	122.49712	5.76943e-1	70.67388		Isooctane
5.785	BB	102.67236	7.94054e-1	81.52736		MIBK
6.922	BV	161.37973	7.01887e-1	113.27026		Chlorobenzene
7.045	VV	176.52345	5.02330e-1	88.67306		Ethylbenzene
7.116	VB	176.05264	4.98589e-1	87.77790		p-Xylene
7.271	BV	189.75264	4.87444e-1	92.49373		Styrene
7.321	VB	181.96471	4.92356e-1	89.59141		o-Xylene
7.562	BB	177.45734	4.98247e-1	88.41760		Cumene
8.710	BB	147.97478	8.02703e-1	118.77978		Nitrobenzene

Totals : 1161.11917

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\006F6002.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  60
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 15-Jul-11, 02:04:26                    Inj :   2
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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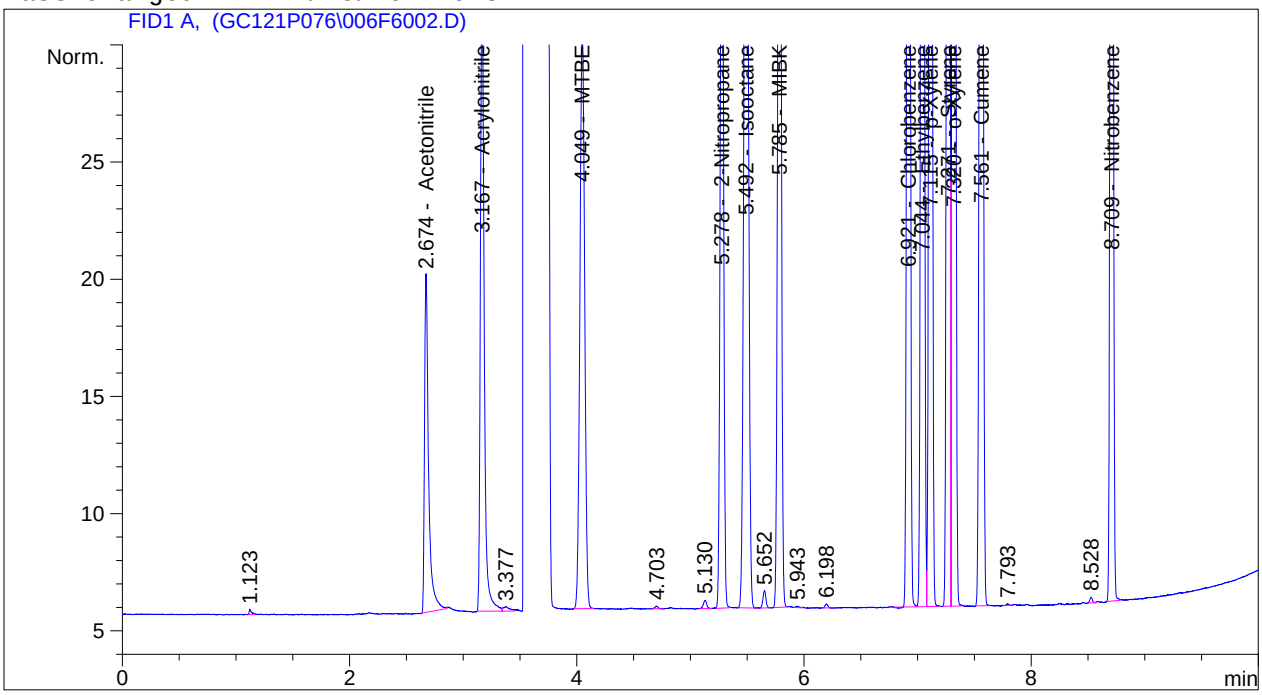


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.674 BB       35.79277    2.10971   75.51251    Acetonitrile
  3.167 BB       62.73399    1.24376   78.02591    Acrylonitrile
  4.049 BB       71.73475    1.01501   72.81168    MTBE
  5.278 BB       73.76321    1.29971   95.87075    2-Nitropropane
  5.492 BB      118.20197 5.76934e-1   68.19471    Isooctane
  5.785 BB       99.36720 7.94063e-1   78.90377    MIBK
  6.921 BV      156.24777 7.01875e-1  109.66642    Chlorobenzene
  7.044 VV      170.92693 5.02326e-1   85.86097    Ethylbenzene
  7.115 VB      170.57570 4.98586e-1   85.04660    p-Xylene
  7.271 BV      184.16153 4.87443e-1   89.76833    Styrene
  7.320 VB      176.29797 4.92347e-1   86.79979    o-Xylene
  7.561 BB      171.95039 4.98240e-1   85.67251    Cumene
  8.709 BB      144.62607 8.02703e-1  116.09181    Nitrobenzene

Totals :                             1128.22575
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\006F6003.D
Sample Name: gc121p67 #4

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  60
Acq. Instrument : Lucy                              Location : Vial 6
Injection Date  : 15-Jul-11, 02:25:45                    Inj :   3
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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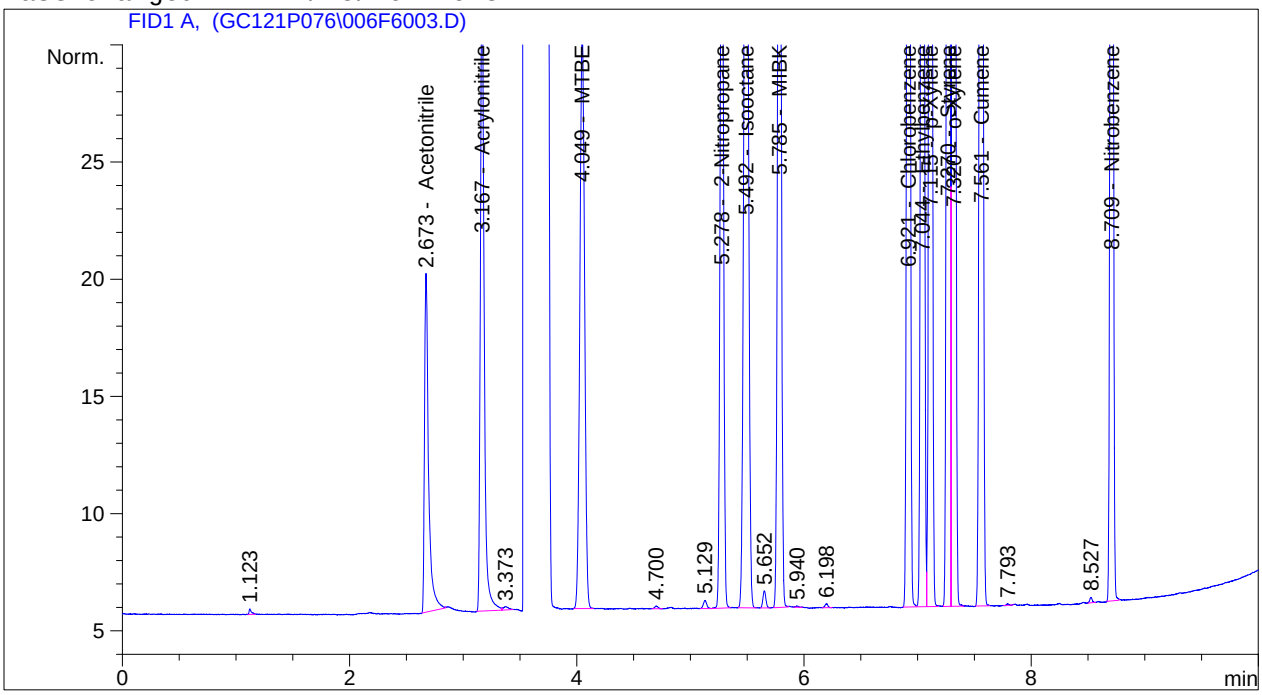


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.673	BB	35.84332	2.10969	75.61834		Acetonitrile
3.167	BB	62.77184	1.24376	78.07280		Acrylonitrile
4.049	BB	71.48092	1.01501	72.55401		MTBE
5.278	VB	73.22617	1.29971	95.17269		2-Nitropropane
5.492	BB	116.97592	5.76931e-1	67.48703		Isooctane
5.785	BB	98.29034	7.94066e-1	78.04897		MIBK
6.921	BV	154.38960	7.01871e-1	108.36154		Chlorobenzene
7.044	VV	168.76537	5.02324e-1	84.77485		Ethylbenzene
7.115	VB	168.47198	4.98584e-1	83.99750		p-Xylene
7.270	BV	181.75447	4.87443e-1	88.59501		Styrene
7.320	VB	174.25166	4.92344e-1	85.79171		o-Xylene
7.561	BB	169.92949	4.98237e-1	84.66513		Cumene
8.709	BB	143.65802	8.02703e-1	115.31477		Nitrobenzene
Totals :				1118.45435		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\007F6101.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  61
Acq. Instrument : Lucy                              Location : Vial 7
Injection Date  : 15-Jul-11, 02:47:12                    Inj :   1
                                                  Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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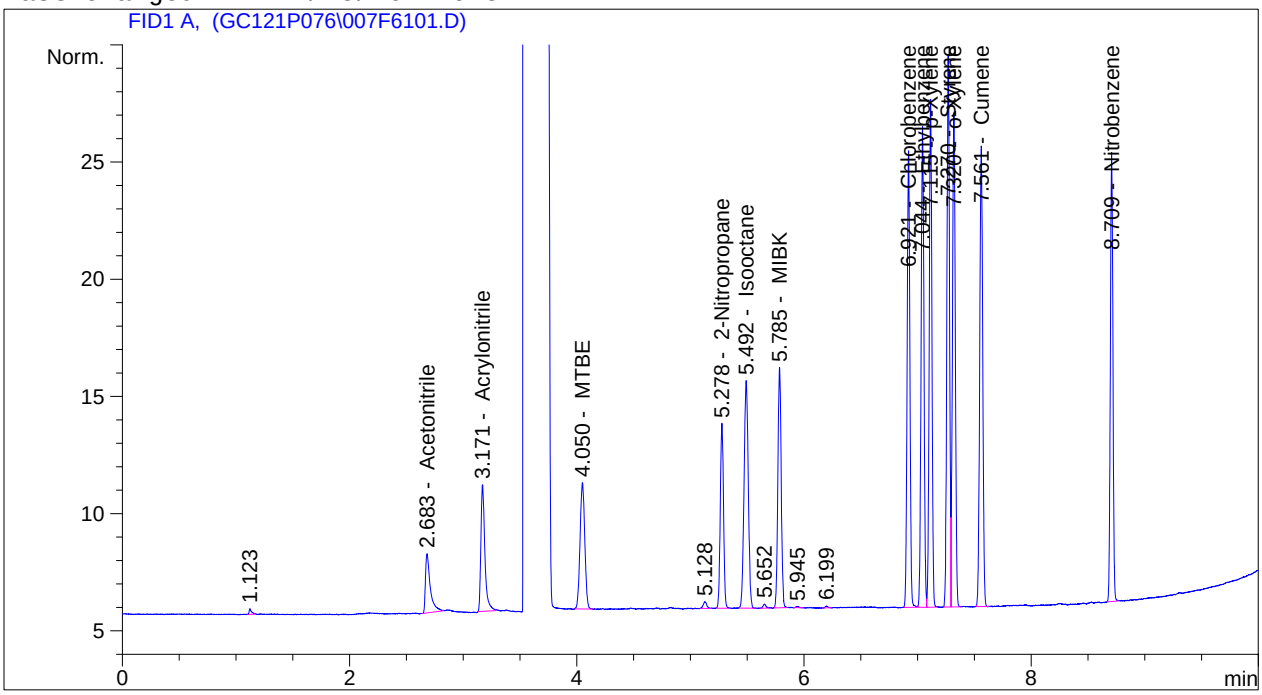


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.683 BB        7.35346    2.17111   15.96519    Acetonitrile
  3.171 BB       13.16890    1.26180   16.61653    Acrylonitrile
  4.050 BB       15.62017    1.01458   15.84787    MTBE
  5.278 BB       15.71455    1.29928   20.41766    2-Nitropropane
  5.492 BB       25.14709 5.75941e-1   14.48323    Isooctane
  5.785 BB       20.90967 7.95101e-1   16.62529    MIBK
  6.921 BB       32.91252 7.00523e-1   23.05596    Chlorobenzene
  7.044 BV       35.84805 5.01776e-1   17.98768    Ethylbenzene
  7.115 VB       35.76090 4.98194e-1   17.81586    p-Xylene
  7.270 BV       38.45337 4.87409e-1   18.74252    Styrene
  7.320 VB       37.01657 4.91272e-1   18.18521    o-Xylene
  7.561 BB       36.09976 4.97338e-1   17.95378    Cumene
  8.709 BB       30.45221 8.02757e-1   24.44573    Nitrobenzene

Totals :                              238.14251
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\007F6102.D
Sample Name: gc121p67 #3

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  61
Acq. Instrument : Lucy                              Location : Vial 7
Injection Date  : 15-Jul-11, 03:08:50                    Inj :   2
                                                 Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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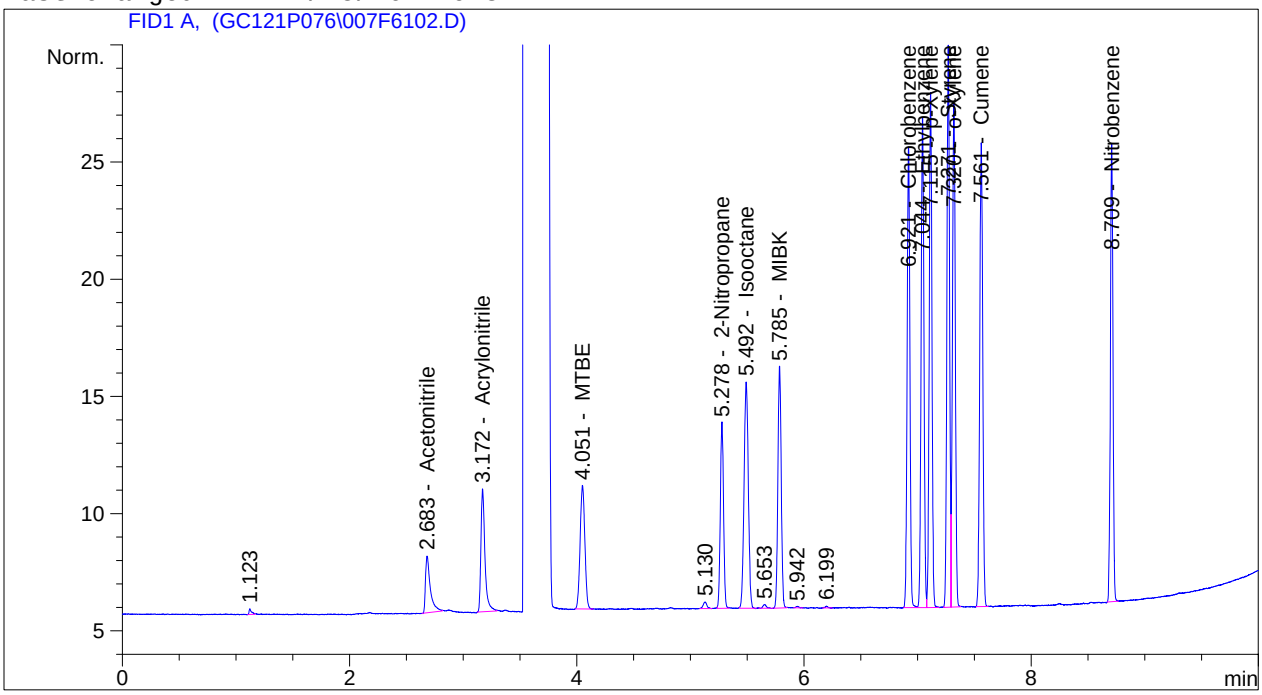


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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.683	BB	7.08648	2.17402	15.40618		Acetonitrile
3.172	BB	12.91408	1.26225	16.30081		Acrylonitrile
4.051	BB	15.30145	1.01457	15.52433		MTBE
5.278	BB	15.67319	1.29928	20.36390		2-Nitropropane
5.492	BB	25.16634	5.75942e-1	14.49434		Isooctane
5.785	BB	21.05174	7.95092e-1	16.73806		MIBK
6.921	BV	33.49813	7.00552e-1	23.46720		Chlorobenzene
7.044	VV	36.53549	5.01789e-1	18.33309		Ethylbenzene
7.115	VB	36.52333	4.98204e-1	18.19608		p-Xylene
7.271	BV	39.24328	4.87410e-1	19.12756		Styrene
7.320	VB	37.68878	4.91296e-1	18.51636		o-Xylene
7.561	BB	36.73232	4.97357e-1	18.26909		Cumene
8.709	BB	30.67529	8.02757e-1	24.62480		Nitrobenzene
Totals :				239.36181		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\007F6103.D
Sample Name: gc121p67 #3

```
==================================================================
Acq. Operator   :                          Seq. Line :  61
Acq. Instrument : Lucy                      Location : Vial 7
Injection Date  : 15-Jul-11, 03:30:35            Inj :   3
                                          Inj Volume : External
Sequence File   : G:\GC2011Q3\LUCY\SEQUENCE\GC121P076.S
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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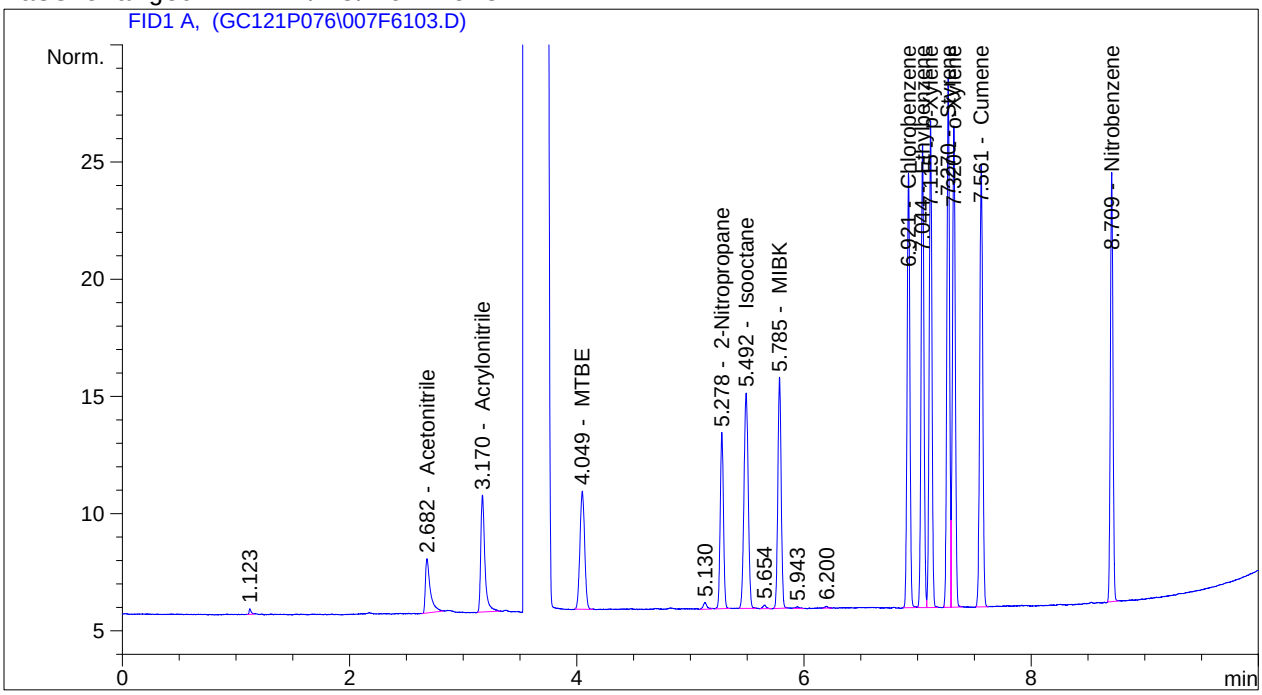


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==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```
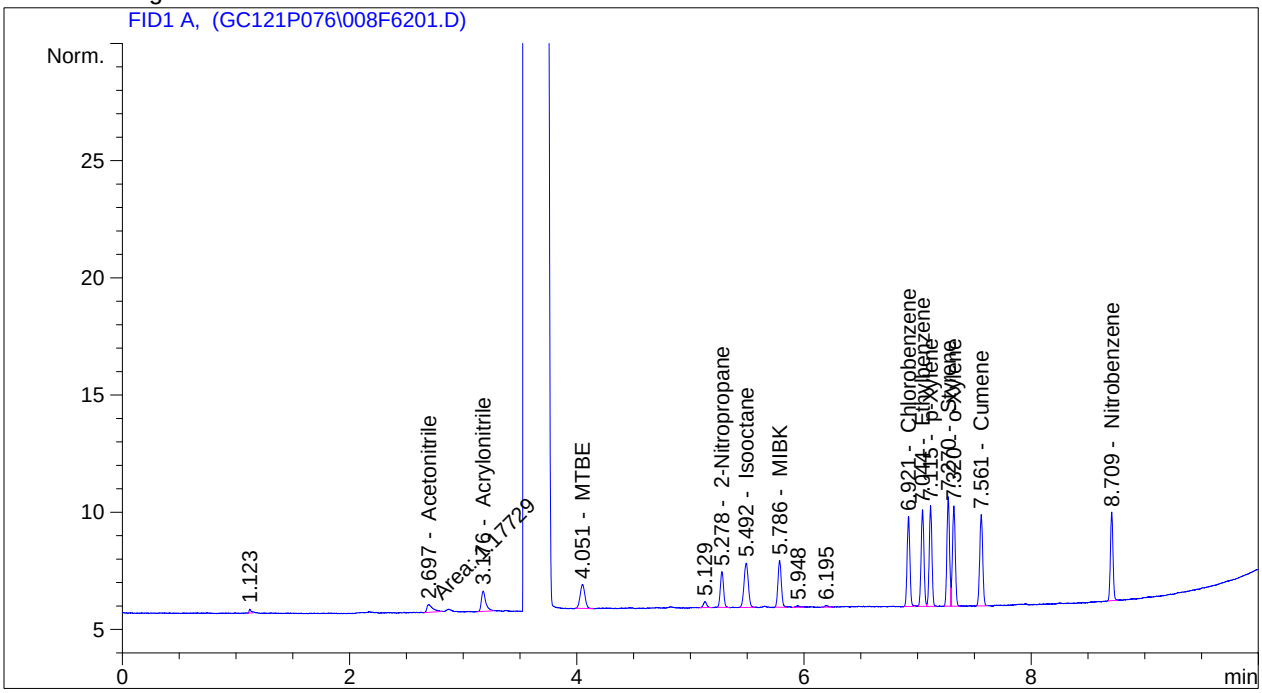

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.682	BB	6.85007	2.17679	14.91117		Acetonitrile
3.170	BB	12.47817	1.26307	15.76074		Acrylonitrile
4.049	BB	14.60933	1.01454	14.82173		MTBE
5.278	BB	14.95037	1.29926	19.42435		2-Nitropropane
5.492	BB	23.93582	5.75877e-1	13.78408		Isooctane
5.785	BB	20.03448	7.95158e-1	15.93058		MIBK
6.921	BB	31.54125	7.00448e-1	22.09300		Chlorobenzene
7.044	BV	34.38507	5.01746e-1	17.25257		Ethylbenzene
7.115	VB	34.35623	4.98174e-1	17.11537		p-Xylene
7.270	BV	36.99857	4.87407e-1	18.03337		Styrene
7.320	VB	35.57852	4.91217e-1	17.47678		o-Xylene
7.561	BB	34.62651	4.97289e-1	17.21939		Cumene
8.709	BB	28.97841	8.02761e-1	23.26273		Nitrobenzene

Totals : 227.08586

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\008F6201.D
Sample Name: gc121p67 #2

Acq. Operator : Seq. Line : 62
Acq. Instrument : Lucy Location : Vial 8
Injection Date : 15-Jul-11, 03:52:11 Inj : 1
Inj Volume : External
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.697	MM	1.17729	2.57649	3.03329		Acetonitrile
3.176	BB	2.30142	1.36964	3.15211		Acrylonitrile
4.051	BB	2.95936	1.01220	2.99545		MTBE
5.278	BB	3.01364	1.29700	3.90871		2-Nitropropane
5.492	BB	4.95721	5.70802e-1	2.82959		Isooctane
5.786	BB	4.10870	8.00476e-1	3.28892		MIBK
6.921	BB	6.51825	6.93584e-1	4.52096		Chlorobenzene
7.044	BV	7.13800	4.98976e-1	3.56169		Ethylbenzene
7.115	VB	7.11600	4.96198e-1	3.53095		p-Xylene
7.270	BV	7.61345	4.87233e-1	3.70952		Styrene
7.320	VB	7.40560	4.85832e-1	3.59788		o-Xylene
7.561	BB	7.20470	4.92759e-1	3.55018		Cumene
8.709	BB	5.98512	8.03038e-1	4.80628		Nitrobenzene

Totals : 46.48552

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\008F6202.D
Sample Name: gc121p67 #2

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  62
Acq. Instrument : Lucy                              Location : Vial 8
Injection Date  : 15-Jul-11, 04:13:46                    Inj :   2
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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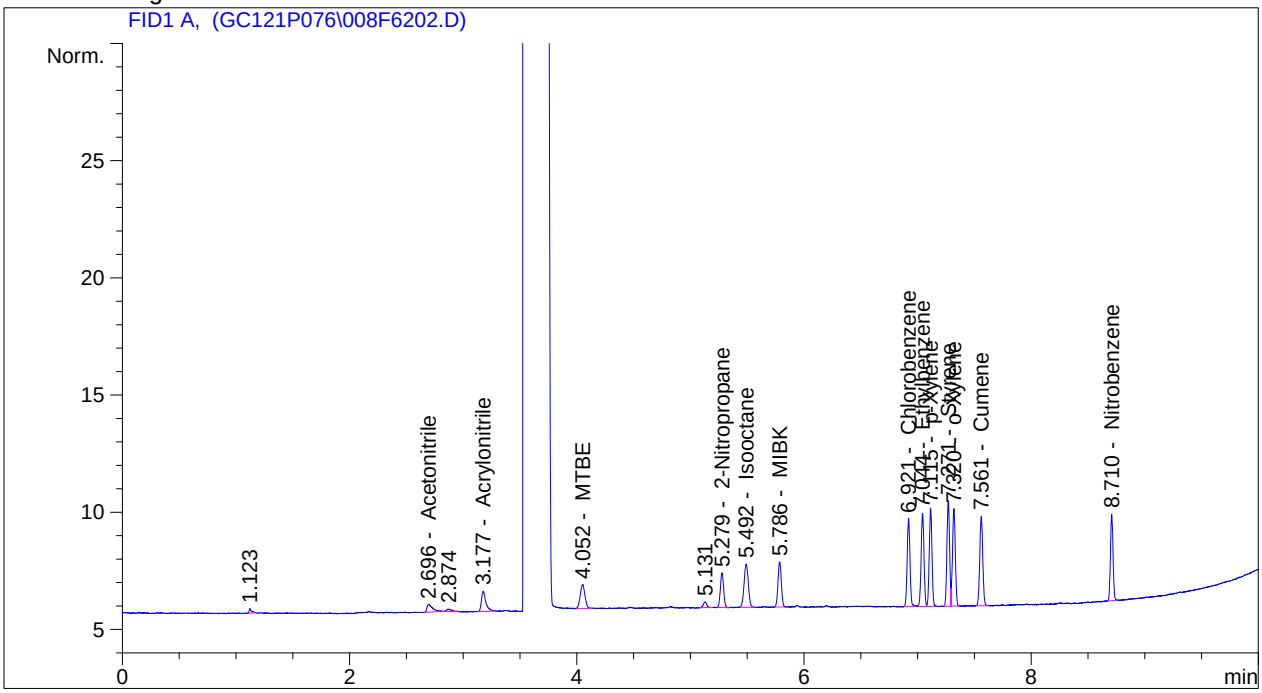


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==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                 [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.696 BB        1.11392    2.60395    2.90060    Acetonitrile
  3.177 BB        2.35305    1.36677    3.21608    Acrylonitrile
  4.052 BB        2.99011    1.01223    3.02666    MTBE
  5.279 BB        2.96570    1.29696    3.84638    2-Nitropropane
  5.492 BB        4.79763 5.70589e-1    2.73748    Isooctane
  5.786 BB        3.95569 8.00735e-1    3.16746    MIBK
  6.921 BB        6.41858 6.93450e-1    4.45096    Chlorobenzene
  7.044 BV        6.94507 4.98879e-1    3.46475    Ethylbenzene
  7.115 VB        6.96234 4.96143e-1    3.45431    p-Xylene
  7.271 BV        7.44020 4.87227e-1    3.62507    Styrene
  7.320 VB        7.21008 4.85648e-1    3.50156    o-Xylene
  7.561 BB        7.03692 4.92623e-1    3.46655    Cumene
  8.710 BB        5.82816 8.03047e-1    4.68029    Nitrobenzene

Totals :                                45.53814
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\008F6203.D
Sample Name: gc121p67 #2

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  62
Acq. Instrument : Lucy                              Location : Vial 8
Injection Date  : 15-Jul-11, 04:35:18                    Inj :   3
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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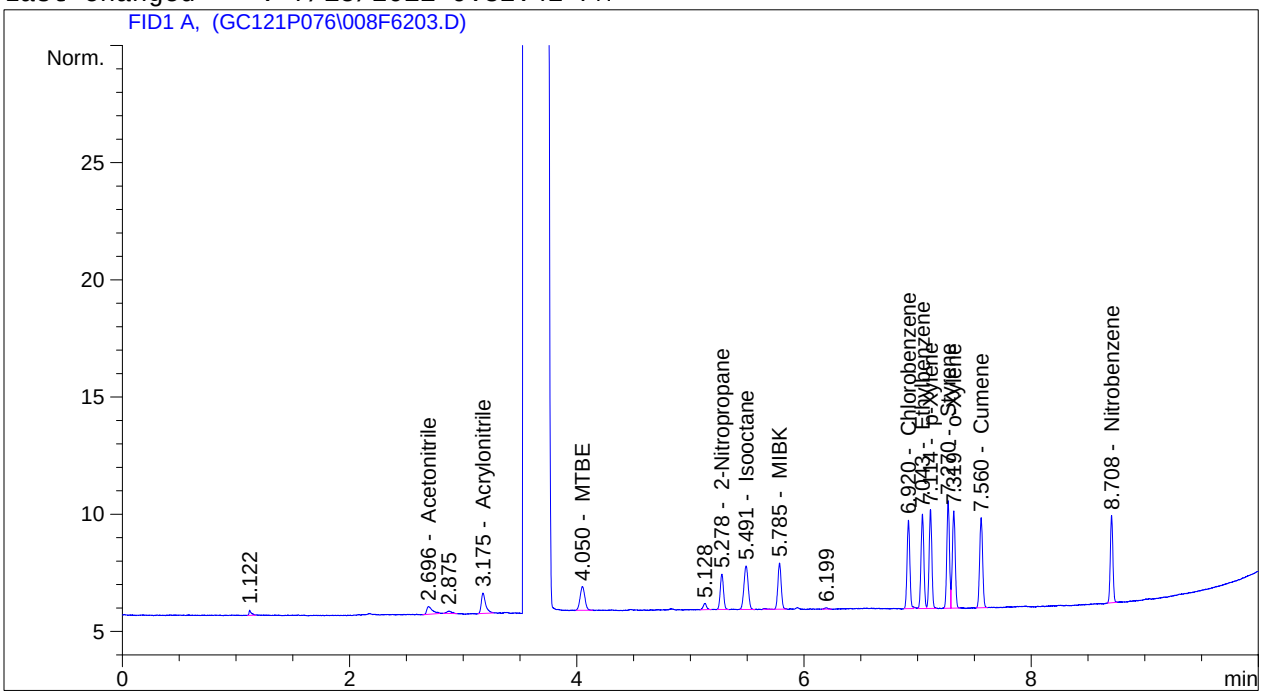


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==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```
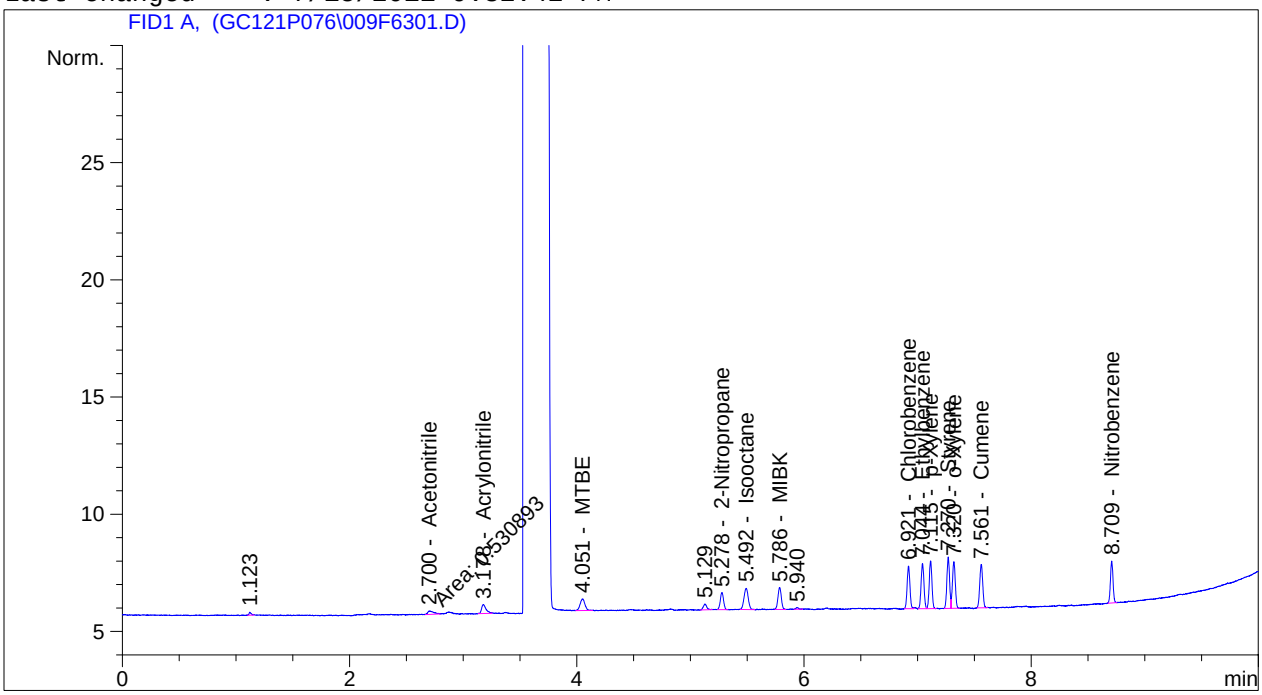

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.696	BB	1.14090	2.59189	2.95710		Acetonitrile
3.175	BB	2.28368	1.37065	3.13013		Acrylonitrile
4.050	BB	2.93938	1.01218	2.97517		MTBE
5.278	BB	2.99108	1.29698	3.87937		2-Nitropropane
5.491	BB	4.81037	5.70607e-1	2.74483		Isooctane
5.785	BB	4.03858	8.00592e-1	3.23326		MIBK
6.920	BB	6.46248	6.93509e-1	4.48179		Chlorobenzene
7.043	BV	7.01783	4.98916e-1	3.50131		Ethylbenzene
7.114	VB	7.01936	4.96164e-1	3.48275		p-Xylene
7.270	BV	7.53848	4.87230e-1	3.67298		Styrene
7.319	VB	7.30183	4.85736e-1	3.54676		o-Xylene
7.560	BB	7.07969	4.92658e-1	3.48787		Cumene
8.708	BB	5.87521	8.03044e-1	4.71806		Nitrobenzene

Totals : 45.81137

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F6301.D
Sample Name: gc121p67 #1

Acq. Operator	:	Seq. Line	: 63
Acq. Instrument	: Lucy	Location	: Vial 9
Injection Date	: 15-Jul-11, 04:56:58	Inj	: 1
		Inj Volume	: External
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By	:	Signal	
Calib. Data Modified	:	7/15/2011 9:32:30 PM	
Multiplier:	:	1.0000	
Dilution:	:	1.0000	

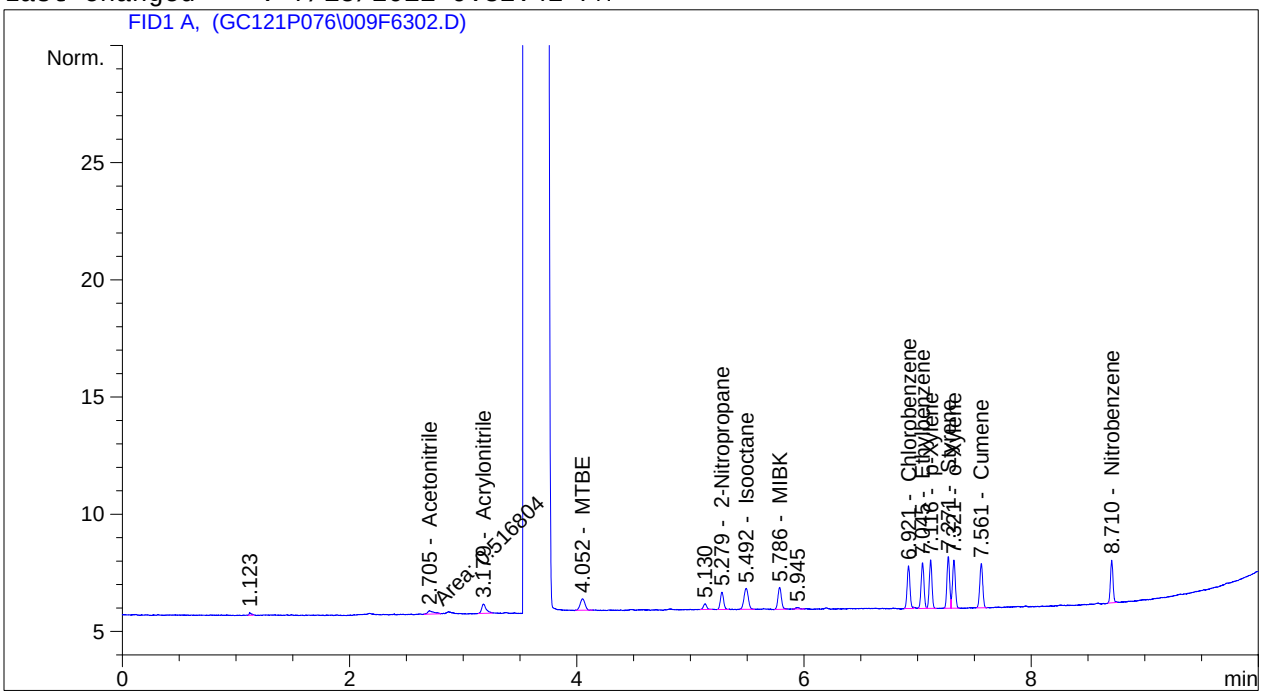
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.700	MM	5.30893e-1	3.16416	1.67983		Acetonitrile
3.178	BB	1.04458	1.52686	1.59493		Acrylonitrile
4.051	BB	1.45175	1.00919	1.46508		MTBE
5.278	BB	1.44061	1.29413	1.86434		2-Nitropropane
5.492	BB	2.35523	5.64194e-1	1.32881		Isooctane
5.786	BB	1.92331	8.07742e-1	1.55354		MIBK
6.921	BB	3.12654	6.84762e-1	2.14094		Chlorobenzene
7.044	BV	3.37364	4.95328e-1	1.67106		Ethylbenzene
7.115	VB	3.39114	4.93593e-1	1.67384		p-Xylene
7.270	BV	3.62937	4.87001e-1	1.76751		Styrene
7.320	VB	3.49361	4.78890e-1	1.67306		o-Xylene
7.561	BB	3.40402	4.86895e-1	1.65740		Cumene
8.709	BB	2.82648	8.03388e-1	2.27076		Nitrobenzene
Totals :				22.34109		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F6302.D
Sample Name: gc121p67 #1

Acq. Operator	:	Seq. Line	: 63
Acq. Instrument	: Lucy	Location	: Vial 9
Injection Date	: 15-Jul-11, 05:18:46	Inj	: 2
		Inj Volume	: External
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By	:	Signal	
Calib. Data Modified	:	7/15/2011 9:32:30 PM	
Multiplier:	:	1.0000	
Dilution:	:	1.0000	

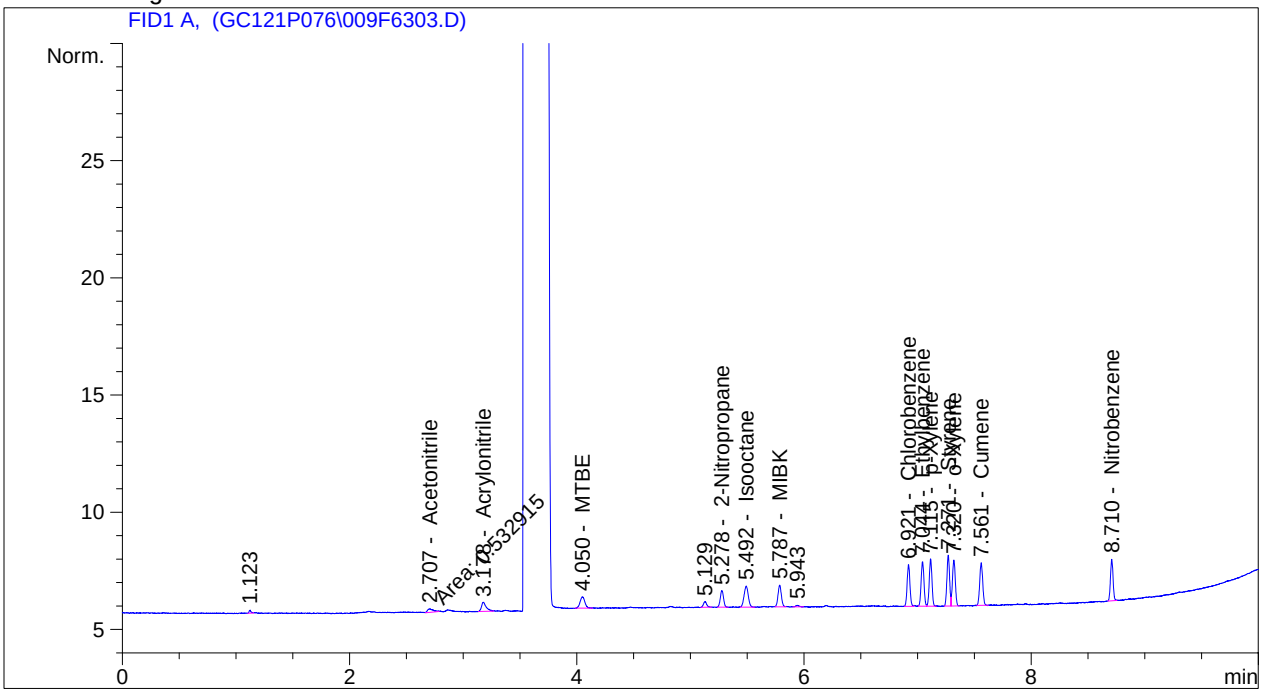
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.705	MM	5.16804e-1	3.19334	1.65033		Acetonitrile
3.179	BB	1.08645	1.51577	1.64681		Acrylonitrile
4.052	BB	1.42562	1.00919	1.43872		MTBE
5.279	BB	1.46147	1.29413	1.89134		2-Nitropropane
5.492	BB	2.35247	5.64194e-1	1.32725		Isooctane
5.786	BB	1.96686	8.07742e-1	1.58872		MIBK
6.921	BB	3.15419	6.84762e-1	2.15987		Chlorobenzene
7.045	BV	3.41467	4.95328e-1	1.69138		Ethylbenzene
7.116	VB	3.37482	4.93593e-1	1.66579		p-Xylene
7.271	BV	3.65880	4.87001e-1	1.78184		Styrene
7.321	VB	3.52625	4.78890e-1	1.68869		o-Xylene
7.561	BB	3.43785	4.86895e-1	1.67387		Cumene
8.710	BB	2.84078	8.03388e-1	2.28225		Nitrobenzene
Totals :				22.48684		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F6303.D
Sample Name: gc121p67 #1

Acq. Operator	:	Seq. Line	: 63
Acq. Instrument	: Lucy	Location	: Vial 9
Injection Date	: 15-Jul-11, 05:40:32	Inj	: 3
		Inj Volume	: External
Acq. Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/12/2011 2:17:24 PM		
Analysis Method	: G:\GC2011Q3\LUCY\METHODS\GC121P076.M		
Last changed	: 7/15/2011 9:32:42 PM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.707	MM	5.32915e-1	3.16010	1.68407		Acetonitrile
3.178	BB	1.12291	1.50678	1.69198		Acrylonitrile
4.050	BB	1.38246	1.00919	1.39516		MTBE
5.278	BB	1.39758	1.29413	1.80866		2-Nitropropane
5.492	BB	2.32694	5.64194e-1	1.31284		Isooctane
5.787	BB	1.88408	8.07742e-1	1.52185		MIBK
6.921	BB	3.04967	6.84762e-1	2.08830		Chlorobenzene
7.044	BV	3.33274	4.95328e-1	1.65080		Ethylbenzene
7.115	VB	3.33392	4.93593e-1	1.64560		p-Xylene
7.271	BV	3.53676	4.87001e-1	1.72241		Styrene
7.320	VB	3.44777	4.78890e-1	1.65111		o-Xylene
7.561	BB	3.34765	4.86895e-1	1.62995		Cumene
8.710	BB	2.79700	8.03388e-1	2.24708		Nitrobenzene
Totals :				22.04979		

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F6304.D
Sample Name: gc121p67 #1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  63
Acq. Instrument : Lucy                              Location : Vial 9
Injection Date  : 15-Jul-11, 06:02:08                    Inj :   4
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
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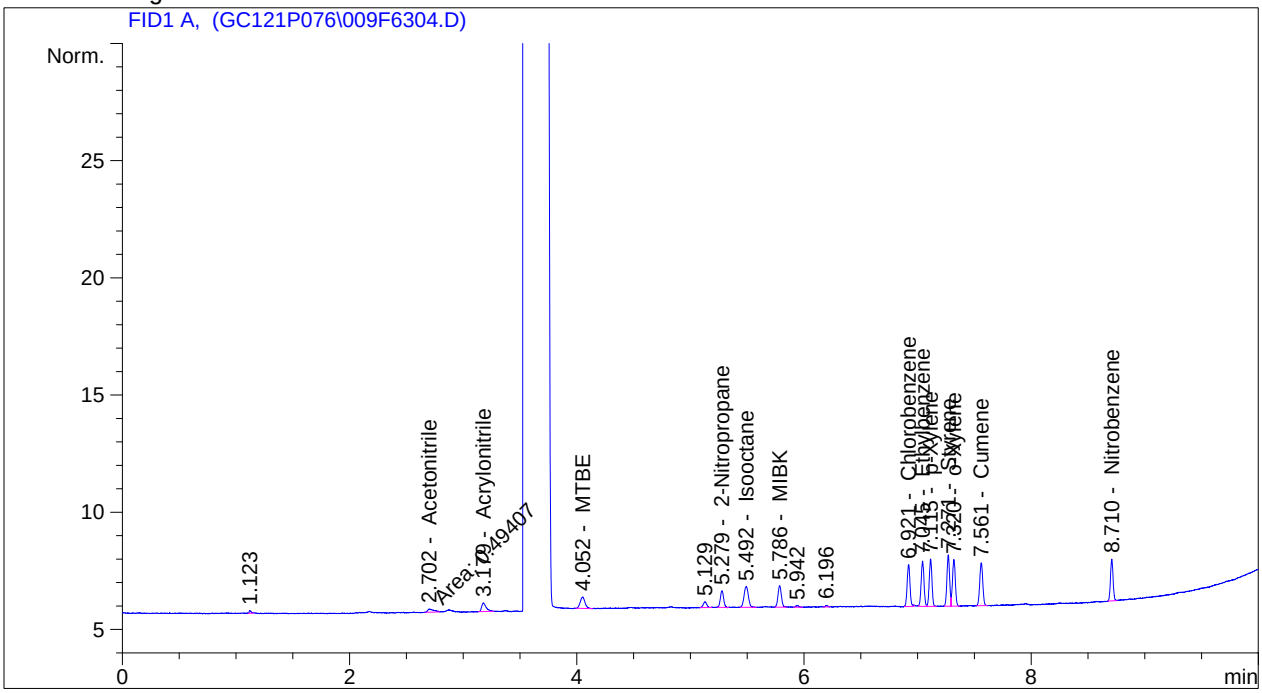


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==========================================================================
                        External Standard Report
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Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,
```

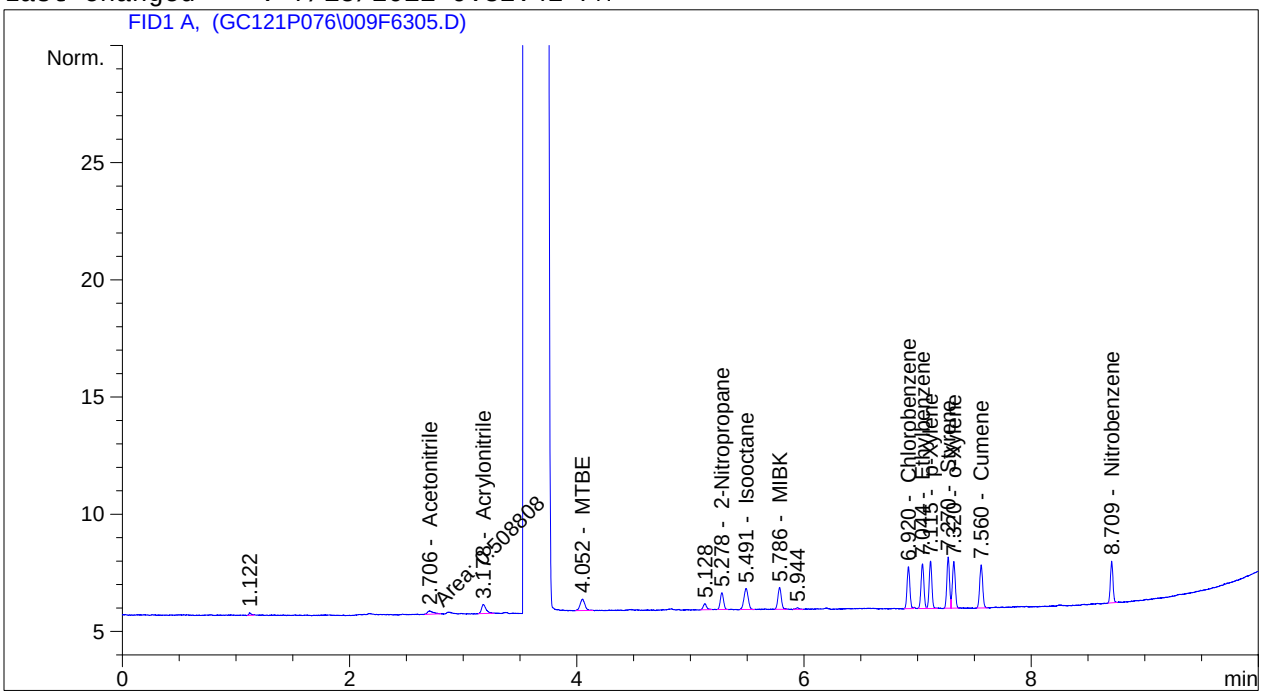
RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.702	MM	4.94070e-1	3.24393	1.60273		Acetonitrile
3.179	BB	1.03981	1.52818	1.58902		Acrylonitrile
4.052	BB	1.41353	1.00919	1.42652		MTBE
5.279	BB	1.40983	1.29413	1.82451		2-Nitropropane
5.492	BB	2.33847	5.64194e-1	1.31935		Isooctane
5.786	BB	1.90316	8.07742e-1	1.53726		MIBK
6.921	BB	3.12253	6.84762e-1	2.13819		Chlorobenzene
7.045	BV	3.35036	4.95328e-1	1.65952		Ethylbenzene
7.115	VB	3.35927	4.93593e-1	1.65811		p-Xylene
7.271	BV	3.59537	4.87001e-1	1.75095		Styrene
7.320	VB	3.45921	4.78890e-1	1.65658		o-Xylene
7.561	BB	3.40979	4.86895e-1	1.66021		Cumene
8.710	BB	2.81562	8.03388e-1	2.26203		Nitrobenzene

Totals : 22.08499

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F6305.D
Sample Name: gc121p67 #1

==========

Acq. Operator : Seq. Line : 63
Acq. Instrument : Lucy Location : Vial 9
Injection Date : 15-Jul-11, 06:24:03 Inj : 5
Inj Volume : External
Acq. Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed : 7/15/2011 9:32:42 PM



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 7/15/2011 9:32:30 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

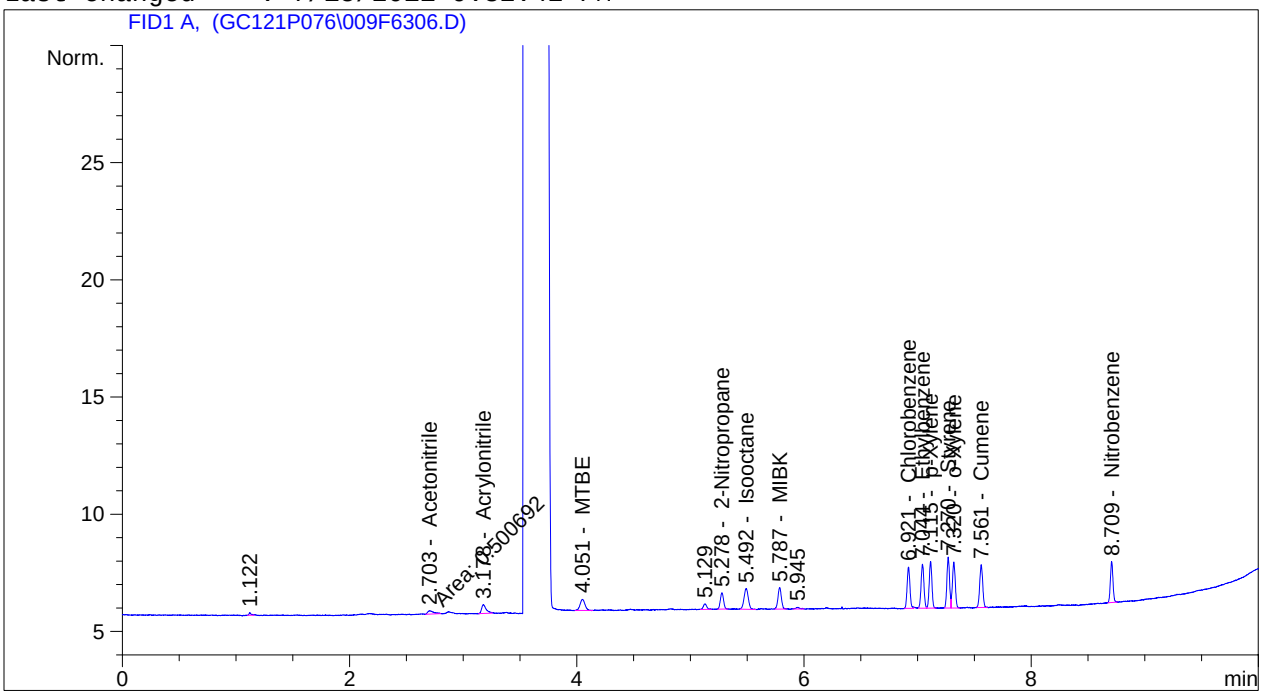
Signal 1: FID1 A,

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ug/mL]	Grp	Name
2.706	MM	5.08808e-1	3.21062	1.63359		Acetonitrile
3.178	BB	1.05794	1.52323	1.61148		Acrylonitrile
4.052	BB	1.39972	1.00919	1.41258		MTBE
5.278	BB	1.42348	1.29413	1.84217		2-Nitropropane
5.491	BB	2.31695	5.64194e-1	1.30721		Isooctane
5.786	BB	1.93813	8.07742e-1	1.56550		MIBK
6.920	BB	3.06977	6.84762e-1	2.10206		Chlorobenzene
7.044	BV	3.34983	4.95328e-1	1.65926		Ethylbenzene
7.115	VB	3.34313	4.93593e-1	1.65014		p-Xylene
7.270	BV	3.57496	4.87001e-1	1.74101		Styrene
7.320	VB	3.47045	4.78890e-1	1.66196		o-Xylene
7.560	BB	3.38411	4.86895e-1	1.64771		Cumene
8.709	BB	2.79790	8.03388e-1	2.24780		Nitrobenzene

Totals : 22.08247

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F6306.D
Sample Name: gc121p67 #1

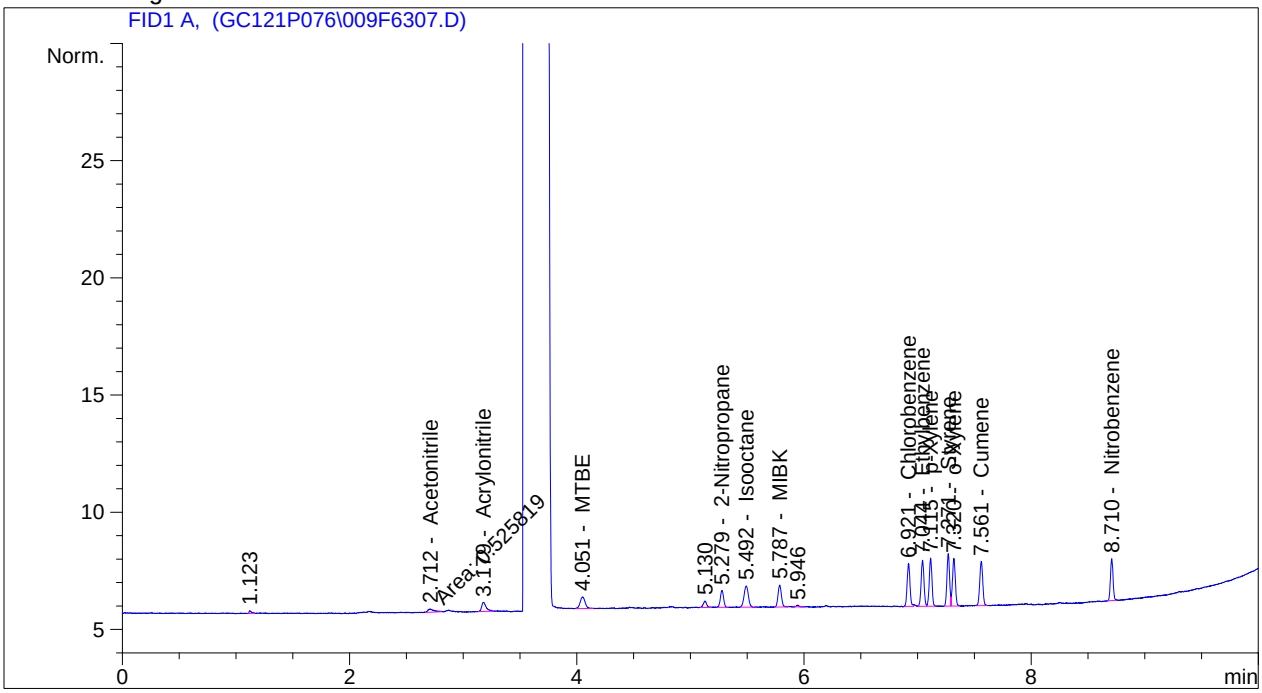
```
==========================================================================
Acq. Operator   :                                  Seq. Line :  63
Acq. Instrument : Lucy                              Location : Vial 9
Injection Date  : 15-Jul-11, 06:45:50                    Inj :   6
                                                 Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.703 MM     5.00692e-1    3.22872    1.61660    Acetonitrile
  3.178 BB        1.06801    1.52055    1.62396    Acrylonitrile
  4.051 BB        1.38487    1.00919    1.39759    MTBE
  5.278 BB        1.37240    1.29413    1.77606    2-Nitropropane
  5.492 BB        2.32343 5.64194e-1    1.31086    Isooctane
  5.787 BB        1.92725 8.07742e-1    1.55672    MIBK
  6.921 BB        3.04747 6.84762e-1    2.08679    Chlorobenzene
  7.044 BV        3.28592 4.95328e-1    1.62761    Ethylbenzene
  7.115 VB        3.29388 4.93593e-1    1.62583    p-Xylene
  7.270 BV        3.52565 4.87001e-1    1.71700    Styrene
  7.320 VB        3.43218 4.78890e-1    1.64364    o-Xylene
  7.561 BB        3.35623 4.86895e-1    1.63413    Cumene
  8.709 BB        2.76478 8.03388e-1    2.22119    Nitrobenzene

Totals :                                21.83800
```

Data File G:\GC2011Q3\LUCY\DATA\JUL11\GC121P076\009F6307.D
Sample Name: gc121p67 #1

```
==========================================================================
Acq. Operator   :                                  Seq. Line :  63
Acq. Instrument : Lucy                              Location : Vial 9
Injection Date  : 15-Jul-11, 07:07:25                    Inj :   7
                                                  Inj Volume : External
Acq. Method     : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/12/2011 2:17:24 PM
Analysis Method : G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Last changed    : 7/15/2011 9:32:42 PM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/15/2011 9:32:30 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [pA*s]                [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.712 MM     5.25819e-1    3.17449    1.66921    Acetonitrile
  3.179 BB        1.06668    1.52090    1.62232    Acrylonitrile
  4.051 BB        1.47969    1.00926    1.49339    MTBE
  5.279 BB        1.41957    1.29413    1.83711    2-Nitropropane
  5.492 BB        2.34284 5.64194e-1    1.32182    Isooctane
  5.787 BB        1.94247 8.07742e-1    1.56901    MIBK
  6.921 BB        3.18511 6.84762e-1    2.18104    Chlorobenzene
  7.044 BV        3.43903 4.95328e-1    1.70345    Ethylbenzene
  7.115 VB        3.38011 4.93593e-1    1.66840    p-Xylene
  7.271 BV        3.65510 4.87001e-1    1.78004    Styrene
  7.320 VB        3.56802 4.78890e-1    1.70869    o-Xylene
  7.561 BB        3.46311 4.86895e-1    1.68617    Cumene
  8.710 BB        2.85436 8.03388e-1    2.29315    Nitrobenzene

Totals :                                22.53380
```

method: G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Modified on: 7/15/2011 at 9:32:42 PM

==========

6890 GC METHOD

==========

OVEN
- Initial temp: 40 'C (On)
- Initial time: 2.00 min
- Maximum temp: 300 'C
- Equilibration time: 1.00 min
- Ramps:

#	Rate	Final temp	Final time
1	25.00	240	1.00
2	0.0(Off)		

- Post temp: 50 'C
- Post time: 0.00 min
- Run time: 11.00 min

FRONT INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 225 'C (On)
- Pressure: 6.45 psi (On)
- Split ratio: 10:1
- Split flow: 26.3 mL/min
- Total flow: 37.6 mL/min
- Gas saver: Off
- Gas type: Hydrogen

BACK INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 225 'C (On)
- Pressure: 0.97 psi (Off)
- Total flow: 50.0 mL/min
- Gas saver: Off
- Gas type: Hydrogen

COLUMN 1
- Capillary Column
- Model Number: Restek 10198
- Rtx-1 30m x 0.32mm x 4.0um
- Max temperature: 300 'C
- Nominal length: 30.0 m
- Nominal diameter: 320.00 um
- Nominal film thickness: 4.00 um
- Mode: constant flow
- Initial flow: 2.6 mL/min
- Nominal init pressure: 6.45 psi
- Average velocity: 49 cm/sec
- Inlet: Front Inlet
- Outlet: Front Detector
- Outlet pressure: ambient

COLUMN 2
- (not installed)

FRONT DETECTOR (FID)
- Temperature: 300 'C (On)
- Hydrogen flow: 40.0 mL/min (On)
- Air flow: 450.0 mL/min (On)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: On
- Electrometer: On
- Lit offset: 2.0

BACK DETECTOR (FID)
- Temperature: 300 'C (Off)
- Hydrogen flow: 40.0 mL/min (Off)
- Air flow: 450.0 mL/min (Off)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (Off)
- Makeup Gas Type: Nitrogen
- Flame: Off
- Electrometer: Off
- Lit offset: 2.0

SIGNAL 1
- Data rate: 20 Hz
- Type: front detector
- Save Data: On
- Zero: 0.0 (Off)
- Range: 0
- Fast Peaks: Off
- Attenuation: 0

SIGNAL 2
- Data rate: 20 Hz
- Type: back detector
- Save Data: Off
- Zero: 0.0 (Off)
- Range: 0
- Fast Peaks: Off
- Attenuation: 0

COLUMN COMP 1

COLUMN COMP 2

method: G:\GC2011Q3\LUCY\METHODS\GC121P076.M
Modified on: 7/15/2011 at 9:32:42 PM
Derive from back detector Derive from front detector

POST RUN
Post Time: 0.00 min

TIME TABLE

Time	Specifier	Parameter & Setpoint

method: G:\GC2011Q2\LUCY\METHODS\GC121P067.M
Modified on: 6/17/2011 at 10:40:50 AM

==========

6890 GC METHOD

==========

OVEN
- Initial temp: 40 'C (On)
- Initial time: 2.00 min
- Maximum temp: 300 'C
- Equilibration time: 1.00 min
- Ramps:

#	Rate	Final temp	Final time
1	25.00	240	1.00
2	0.0(Off)		

- Post temp: 50 'C
- Post time: 0.00 min
- Run time: 11.00 min

FRONT INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 225 'C (On)
- Pressure: 6.45 psi (On)
- Split ratio: 10:1
- Split flow: 26.3 mL/min
- Total flow: 37.6 mL/min
- Gas saver: Off
- Gas type: Hydrogen

BACK INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 225 'C (On)
- Pressure: 0.97 psi (On)
- Total flow: 50.0 mL/min
- Gas saver: Off
- Gas type: Hydrogen

COLUMN 1
- Capillary Column
- Model Number: Restek 10198
- Rtx-1 30m x 0.32mm x 4.0um
- Max temperature: 300 'C
- Nominal length: 30.0 m
- Nominal diameter: 320.00 um
- Nominal film thickness: 4.00 um
- Mode: constant flow
- Initial flow: 2.6 mL/min
- Nominal init pressure: 6.45 psi
- Average velocity: 49 cm/sec
- Inlet: Front Inlet
- Outlet: Back Detector
- Outlet pressure: ambient

COLUMN 2
- (not installed)

FRONT DETECTOR (FID)
- Temperature: 300 'C (On)
- Hydrogen flow: 40.0 mL/min (On)
- Air flow: 450.0 mL/min (On)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: On
- Electrometer: On
- Lit offset: 2.0

BACK DETECTOR (FID)
- Temperature: 300 'C (On)
- Hydrogen flow: 40.0 mL/min (Off)
- Air flow: 450.0 mL/min (Off)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: Off
- Electrometer: Off
- Lit offset: 2.0

SIGNAL 1
- Data rate: 20 Hz
- Type: front detector
- Save Data: On
- Zero: 0.0 (Off)
- Range: 0
- Fast Peaks: Off
- Attenuation: 0

SIGNAL 2
- Data rate: 20 Hz
- Type: front detector
- Save Data: Off
- Zero: 0.0 (Off)
- Range: 0
- Fast Peaks: Off
- Attenuation: 0

COLUMN COMP 1

COLUMN COMP 2

method: G:\GC2011Q2\LUCY\METHODS\GC121P067.M
Modified on: 6/17/2011 at 10:40:50 AM
Derive from back detector Derive from front detector

POST RUN
Post Time: 0.00 min

TIME TABLE

Time	Specifier	Parameter & Setpoint

Sequence: G:\GC2011Q2\lucy\SEQUENCE\gc121p067.txt
Sequence Table (Front Injector):

Line	Vial	Sample Name	Method	Inj	Type
1	Vial 1	gc121p67 #6	GC121P067	3	Sample
2	Vial 2	gc121p67 #5	GC121P067	3	Sample
3	Vial 3	gc121p67 #4	GC121P067	3	Sample
4	Vial 4	gc121p67 #3	GC121P067	3	Sample
5	Vial 5	gc121p67 #2	GC121P067	3	Sample
6	Vial 6	gc121p67 #1	GC121P067	3	Sample
7	Vial 6	gc121p67 #1	GC121P067	4	Sample
8	Vial 7	gc121p67 #3ss	GC121P067	3	Sample
9	Vial 8	0511-120 XAD LCS	GC121P067	3	Sample
10	Vial 9	0511-120 XAD MB	GC121P067	3	Sample
11	Vial 10	0511-120 CT MB	GC121P067	3	Sample
12	Vial 11	0511-120 R1 XAD FH	GC121P067	3	Sample
13	Vial 12	0511-120 R1 XAD FH LD	GC121P067	3	Sample
14	Vial 13	0511-120 R1 XAD BH	GC121P067	3	Sample
15	Vial 14	0511-120 R1 CT FH	GC121P067	3	Sample
16	Vial 15	0511-120 R1 CT BH	GC121P067	3	Sample
17	Vial 16	0511-120 R2 XAD FH	GC121P067	3	Sample
18	Vial 17	0511-120 R2 XAD BH	GC121P067	3	Sample
19	Vial 18	gc121p67 #4	GC121P067	3	Sample
20	Vial 19	gc121p67 #3	GC121P067	3	Sample
21	Vial 20	0511-120 R2 CT FH	GC121P067	3	Sample
22	Vial 21	0511-120 R2 CT BH	GC121P067	3	Sample
23	Vial 22	0511-142 XAD LCS	GC121P067	3	Sample
24	Vial 23	0511-142 XAD MB	GC121P067	3	Sample
25	Vial 24	0511-142 CT MB	GC121P067	3	Sample
26	Vial 25	0511-142 R1 XAD FH	GC121P067	3	Sample
27	Vial 26	0511-142 R1 XAD FH LD	GC121P067	3	Sample
28	Vial 27	0511-142 R1 XAD BH	GC121P067	3	Sample
29	Vial 28	0511-142 R1 CT FH	GC121P067	3	Sample
30	Vial 29	0511-142 R1 CT BH	GC121P067	3	Sample
31	Vial 30	gc121p67 #4	GC121P067	3	Sample
32	Vial 31	gc121p67 #3	GC121P067	3	Sample
33	Vial 32	0511-142 R2 XAD FH	GC121P067	3	Sample
34	Vial 33	0511-142 R2 XAD BH	GC121P067	3	Sample
35	Vial 34	0511-142 R2 CT FH	GC121P067	3	Sample
36	Vial 35	0511-142 R2 CT BH	GC121P067	3	Sample
37	Vial 36	gc121p67 #4	GC121P067	3	Sample
38	Vial 37	gc121p67 #3	GC121P067	3	Sample

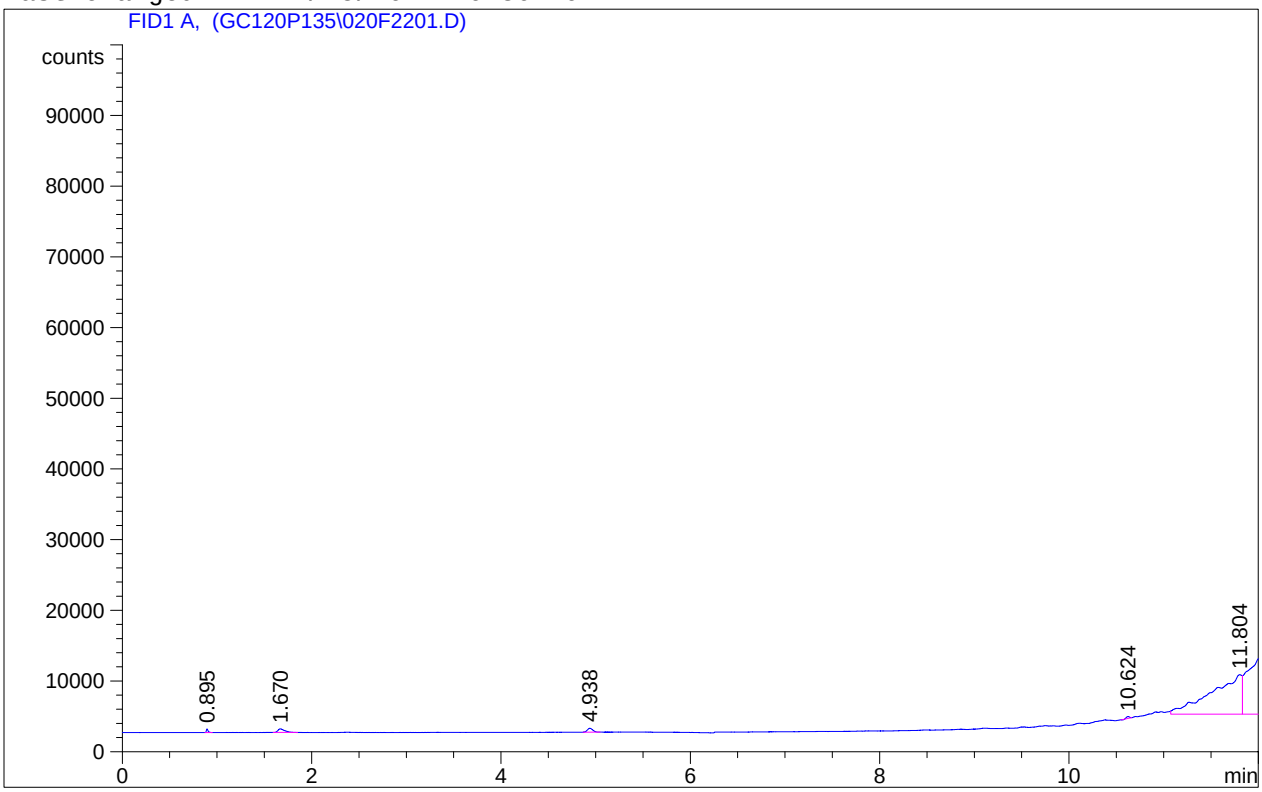
Sequence: G:\GC2011Q3\lucy\SEQUENCE\gc121p076.txt
Sequence Table (Front Injector):

Line	Vial	Sample Name	Method	Inj	Type	
1	Vial 1	gc121p67 #3	GC121P076	3	Sample	
2	Vial 2	gc121p67 #4	GC121P076	3	Sample	
3	Vial 3	0611-22 AQ LCS1	GC121P076	3	Sample	
4	Vial 4	0611-22 AQ LCS2	GC121P076	3	Sample	
5	Vial 5	0611-22 XAD LCS1	GC121P076	3	Sample	
6	Vial 6	0611-22 XAD LCS2	GC121P076	3	Sample	
7	Vial 7	0611-22 H2O EXT MB	GC121P076	3	Sample	
8	Vial 8	0611-22 CT MB	GC121P076	3	Sample	
9	Vial 9	0611-22 XAD MB	GC121P076	3	Sample	
10	Vial 10	0611-22 M18 COND EXT FB	GC121P076	3	Sample	
11	Vial 11	0611-22 M18 XAD FB	GC121P076	3	Sample	
12	Vial 12	0611-22 M18 CT FB	GC121P076	3	Sample	
13	Vial 13	gc121p67 #3	GC121P076	3	Sample	
14	Vial 14	gc121p67 #4	GC121P076	3	Sample	
15	Vial 15	0611-22 M18 ICR1 COND EXT	GC121P076	3	Sample	
16	Vial 16	0611-22 M18 ICR1 XAD FH	GC121P076	3	Sample	
17	Vial 17	0611-22 M18 ICR1 XAD BH	GC121P076	3	Sample	
18	Vial 18	0611-22 M18 ICR1 CT FH	GC121P076	3	Sample	NR
19	Vial 19	0611-22 M18 ICR1 CT BH	GC121P076	3	Sample	
20	Vial 20	0611-22 M18 ICR1 SP COND EXT	GC121P076	3	Sample	
21	Vial 21	0611-22 M18 ICR1 SP XAD FH	GC121P076	3	Sample	
22	Vial 22	0611-22 M18 ICR1 SP XAD BH	GC121P076	3	Sample	
23	Vial 23	0611-22 M18 ICR1 SP CT FH	GC121P076	3	Sample	
24	Vial 24	0611-22 M18 ICR1 SP CT BH	GC121P076	3	Sample	
25	Vial 25	0611-22 M18 ICR2 COND EXT	GC121P076	3	Sample	
26	Vial 26	gc121p67 #3	GC121P076	3	Sample	
27	Vial 27	gc121p67 #4	GC121P076	3	Sample	
28	Vial 28	0611-22 M18 ICR2 XAD FH	GC121P076	3	Sample	
29	Vial 29	0611-22 M18 ICR2 XAD BH	GC121P076	3	Sample	
30	Vial 30	0611-22 M18 ICR2 CT FH	GC121P076	3	Sample	
31	Vial 31	0611-22 M18 ICR2 CT BH	GC121P076	3	Sample	
32	Vial 32	0611-22 M18 ICR2 SP COND EXT	GC121P076	3	Sample	
33	Vial 33	0611-22 M18 ICR2 SP COND EXT LD	GC121P076	3	Sample	
34	Vial 34	0611-22 M18 ICR2 SP XAD FH	GC121P076	3	Sample	
35	Vial 35	0611-22 M18 ICR2 SP XAD FH LD	GC121P076	3	Sample	
36	Vial 36	0611-22 M18 ICR2 SP XAD BH	GC121P076	3	Sample	
37	Vial 37	0611-22 M18 ICR2 SP CT FH	GC121P076	3	Sample	
38	Vial 38	gc121p67 #3	GC121P076	3	Sample	
39	Vial 39	gc121p67 #4	GC121P076	3	Sample	
40	Vial 40	0611-22 M18 ICR2 SP CT FH LD	GC121P076	3	Sample	
41	Vial 41	0611-22 M18 ICR2 SP CT BH	GC121P076	3	Sample	
42	Vial 42	0611-22 M18 ICR3 COND EXT	GC121P076	3	Sample	
43	Vial 43	0611-22 M18 ICR3 XAD FH	GC121P076	3	Sample	
44	Vial 44	0611-22 M18 ICR3 XAD BH	GC121P076	3	Sample	
45	Vial 45	0611-22 M18 ICR3 CT FH	GC121P076	3	Sample	
46	Vial 46	0611-22 M18 ICR3 CT BH	GC121P076	3	Sample	
47	Vial 47	0611-22 M18 ICR3 SP COND EXT	GC121P076	3	Sample	
48	Vial 48	0611-22 M18 ICR3 SP XAD FH	GC121P076	3	Sample	
49	Vial 49	0611-22 M18 ICR3 SP XAD BH	GC121P076	3	Sample	
50	Vial 50	gc121p67 #3	GC121P076	3	Sample	
51	Vial 51	gc121p67 #4	GC121P076	3	Sample	
52	Vial 52	0611-22 M18 ICR3 SP CT FH	GC121P076	3	Sample	
53	Vial 53	0611-22 M18 ICR3 SP CT BH	GC121P076	3	Sample	
54	Vial 18	0611-22 M18 ICR1 CT FH	GC121P076	3	Sample	
55	Vial 1	0611-22 AQ LCS-3	GC121P076	3	Sample	
56	Vial 2	0611-22 AQ LCS-4	GC121P076	3	Sample	
57	Vial 3	0611-107 Pre1 XAD FH	GC121P076	3	Sample	
58	Vial 4	0611-107 Pre1 XAD BH	GC121P076	3	Sample	
59	Vial 5	gc121p67 #5	GC121P076	3	Sample	
60	Vial 6	gc121p67 #4	GC121P076	3	Sample	
61	Vial 7	gc121p67 #3	GC121P076	3	Sample	
62	Vial 8	gc121p67 #2	GC121P076	3	Sample	
63	Vial 9	gc121p67 #1	GC121P076	7	Sample	
64	Vial 10	gc121p67 #3SS	GC121P076	3	Sample	

Sample Chromatograms

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\020F2201.D
Sample Name: M18 Stk-ICR1 Cond Raff 0611-22

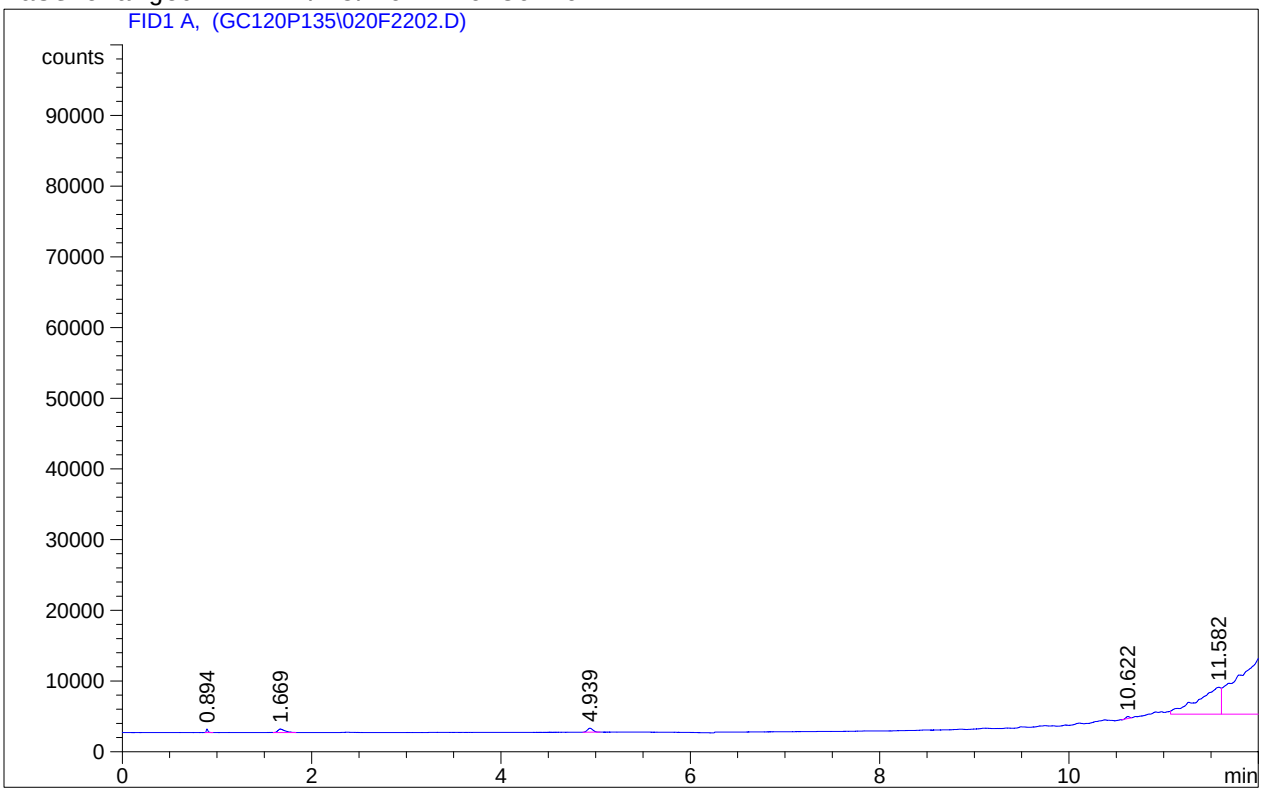
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  22
Acq. Instrument : Penn online                   Location : Vial 20
Injection Date  : 7/20/2011 7:28:08 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\020F2202.D
Sample Name: M18 Stk-ICR1 Cond Raff 0611-22

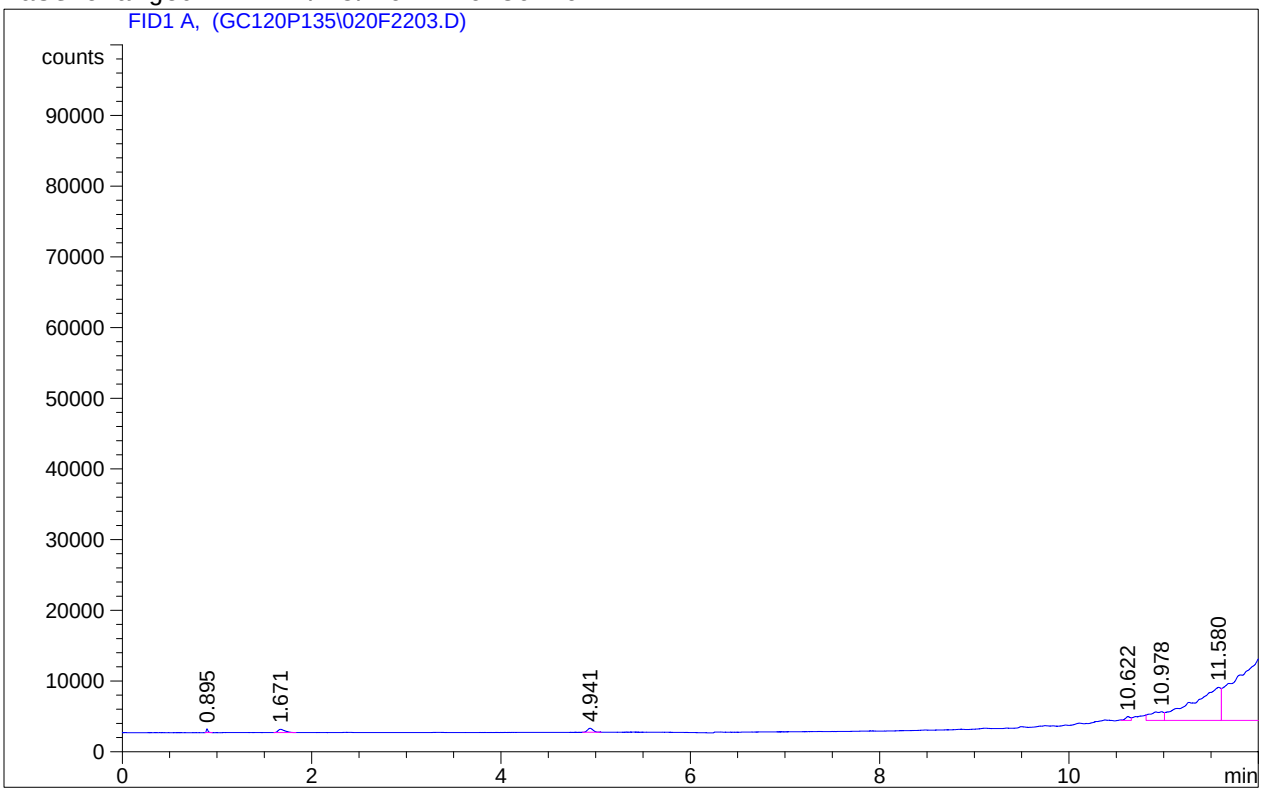
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  22
Acq. Instrument : Penn online                   Location : Vial 20
Injection Date  : 7/20/2011 7:48:33 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\020F2203.D
Sample Name: M18 Stk-ICR1 Cond Raff 0611-22

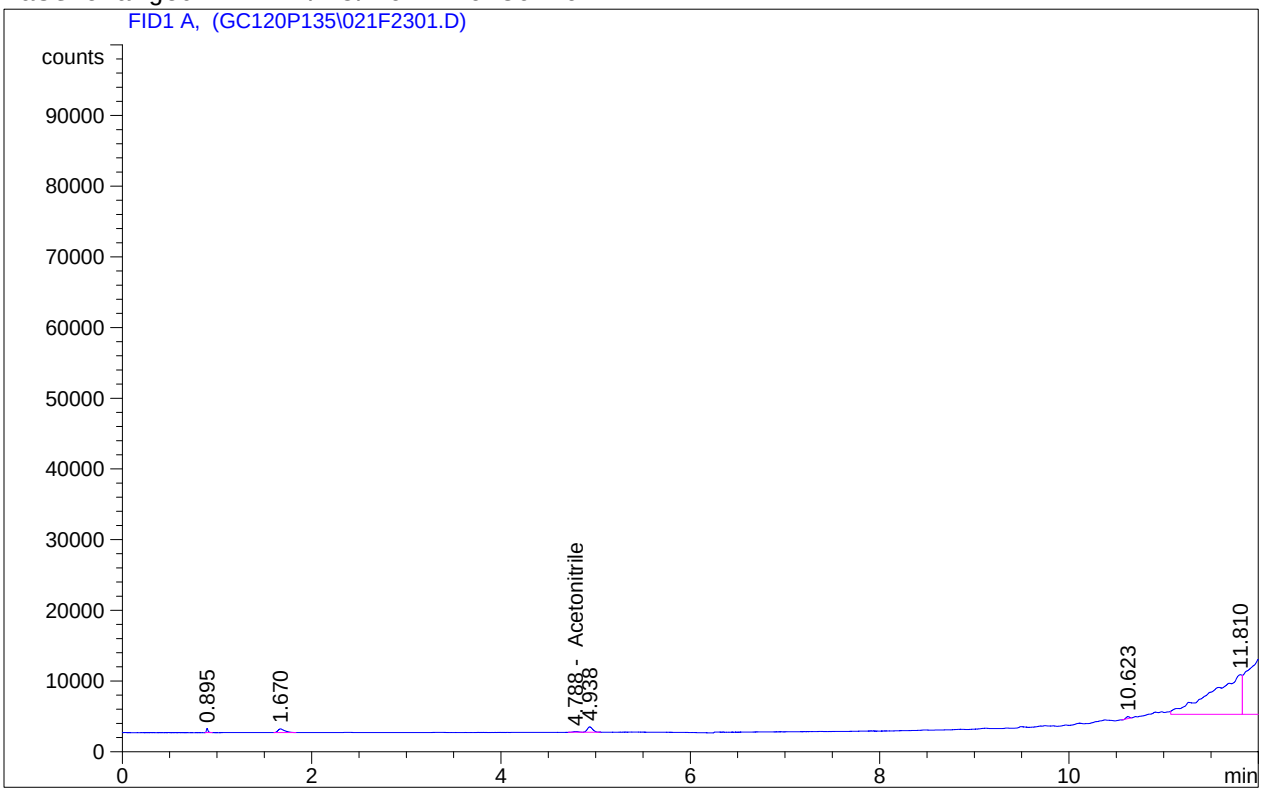
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  22
Acq. Instrument : Penn online                   Location : Vial 20
Injection Date  : 7/20/2011 8:09:03 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\021F2301.D
Sample Name: M18 Stk-ICR1S Cond Raff 0611-22

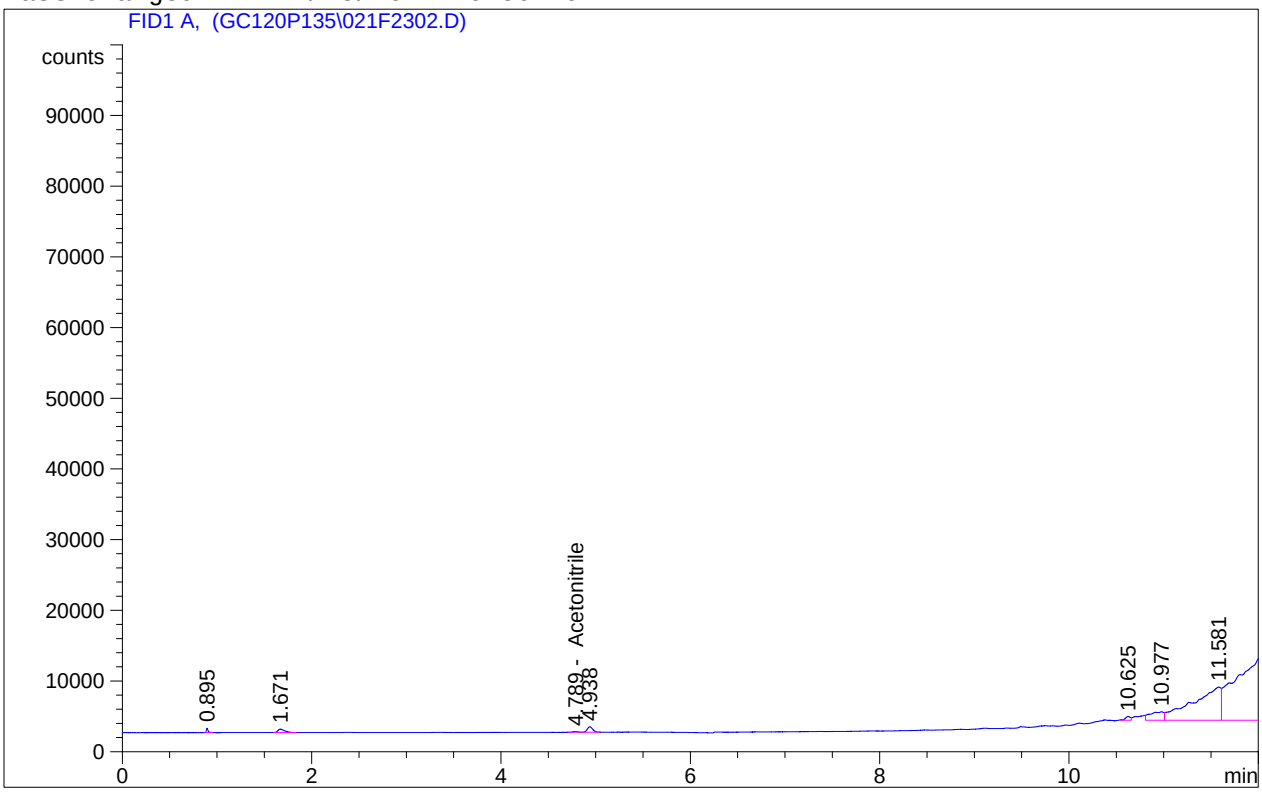
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  23
Acq. Instrument : Penn online                   Location : Vial 21
Injection Date  : 7/20/2011 8:29:28 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.788 BV      429.86523 9.52678e-4 4.09523e-1    Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                              4.09523e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\021F2302.D
Sample Name: M18 Stk-ICR1S Cond Raff 0611-22

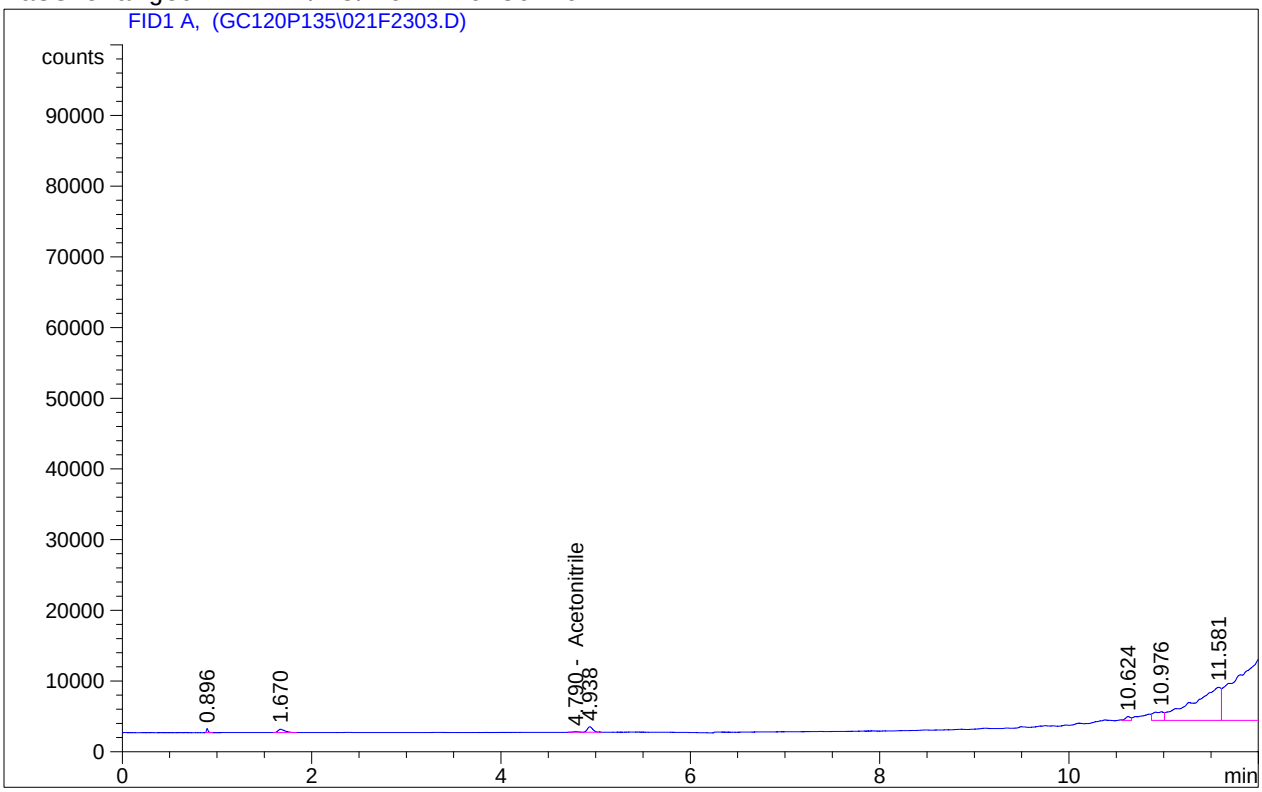
```
==================================================================
Acq. Operator   : KMT                          Seq. Line :  23
Acq. Instrument : Penn online                   Location : Vial 21
Injection Date  : 7/20/2011 8:49:54 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==================================================================
                     External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.789 BV      436.11380 9.52678e-4 4.15476e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              4.15476e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\021F2303.D
Sample Name: M18 Stk-ICR1S Cond Raff 0611-22

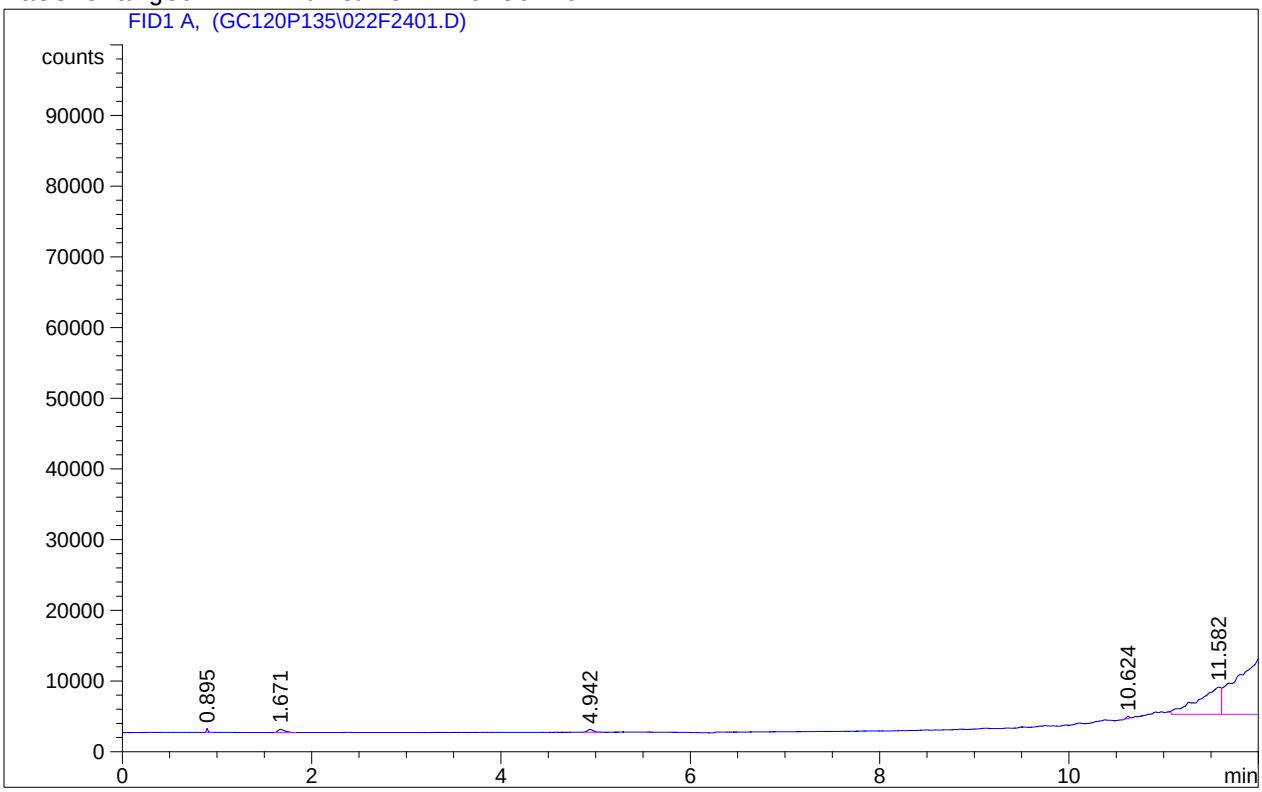
```
==================================================================
Acq. Operator   : KMT                          Seq. Line :  23
Acq. Instrument : Penn online                   Location : Vial 21
Injection Date  : 7/20/2011 9:10:24 AM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==================================================================
                     External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.790 BV      419.80527 9.52678e-4 3.99939e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              3.99939e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\022F2401.D
Sample Name: M18 Stk-ICR2 Cond Raff 0611-22

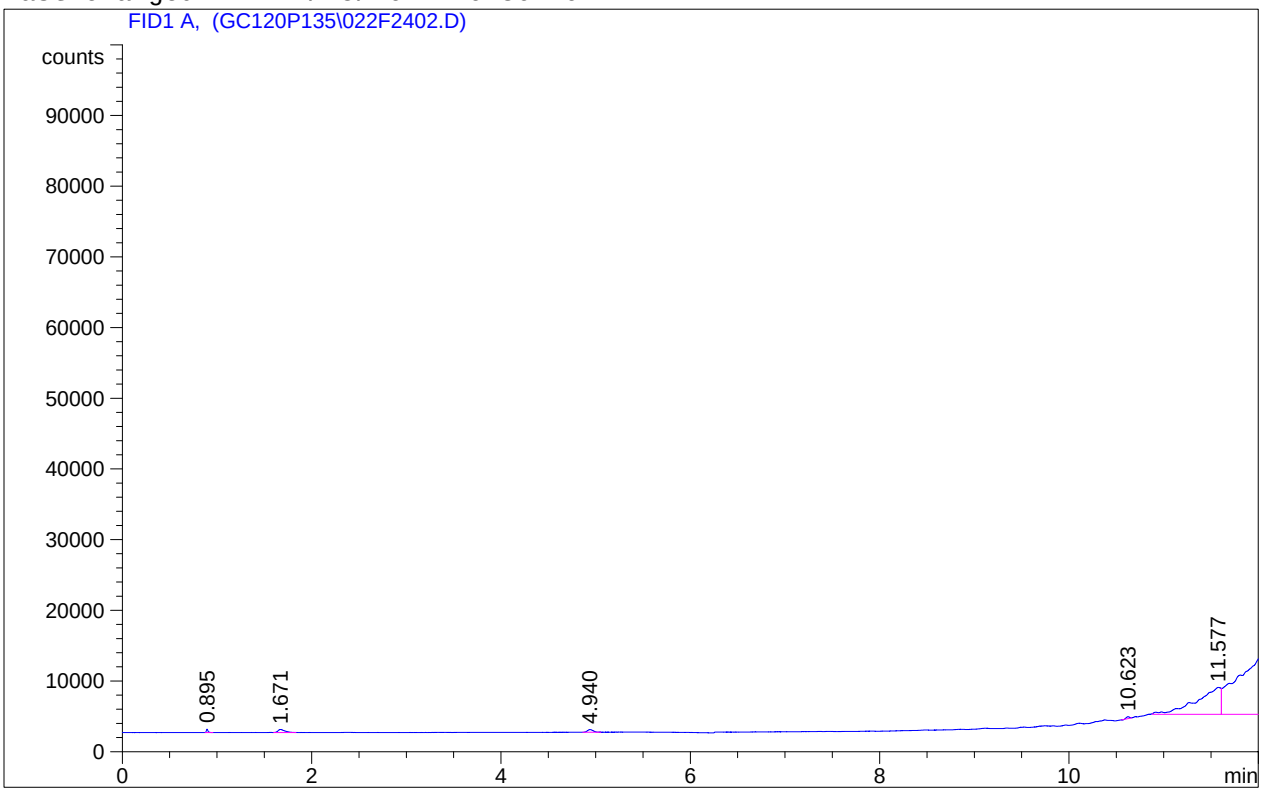
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  24
Acq. Instrument : Penn online                   Location : Vial 22
Injection Date  : 7/20/2011 9:30:49 AM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\022F2402.D
Sample Name: M18 Stk-ICR2 Cond Raff 0611-22

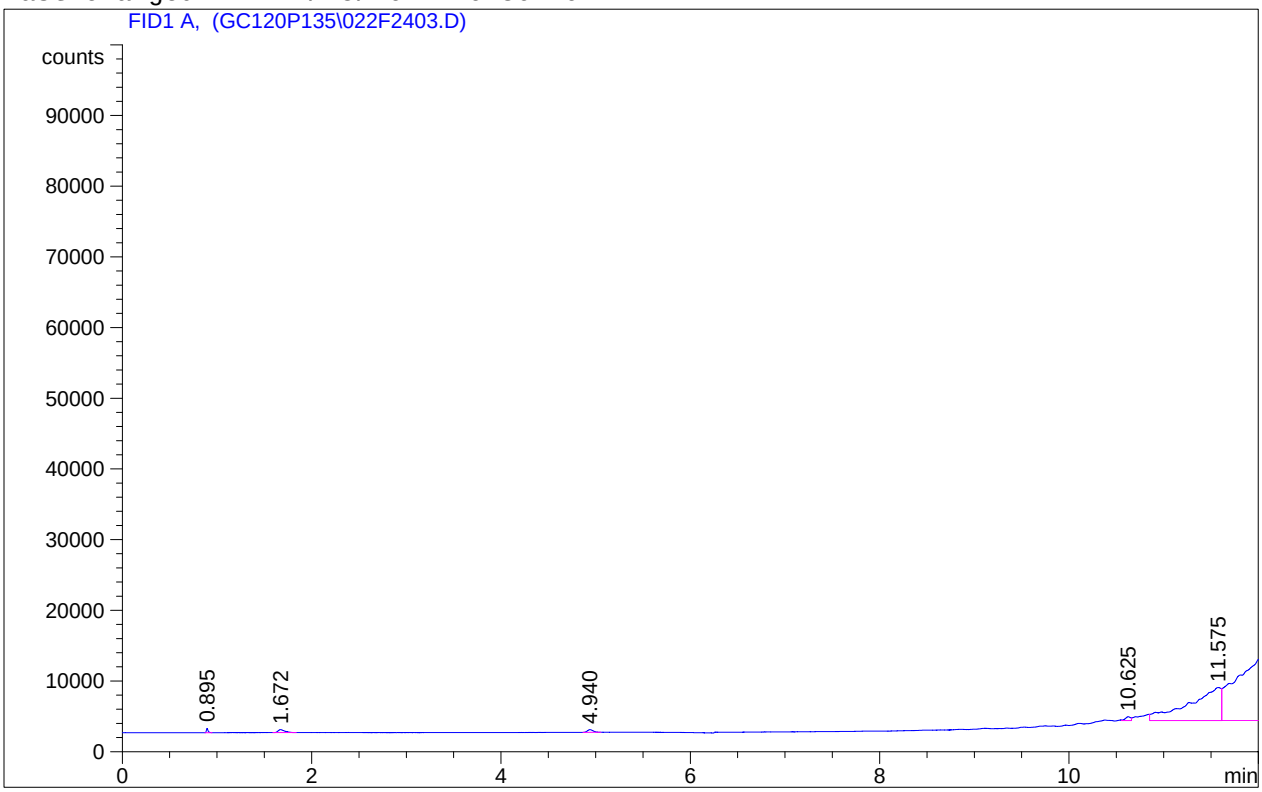
```
==================================================================
Acq. Operator   : KMT                          Seq. Line :  24
Acq. Instrument : Penn online                   Location : Vial 22
Injection Date  : 7/20/2011 9:51:14 AM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\022F2403.D
Sample Name: M18 Stk-ICR2 Cond Raff 0611-22

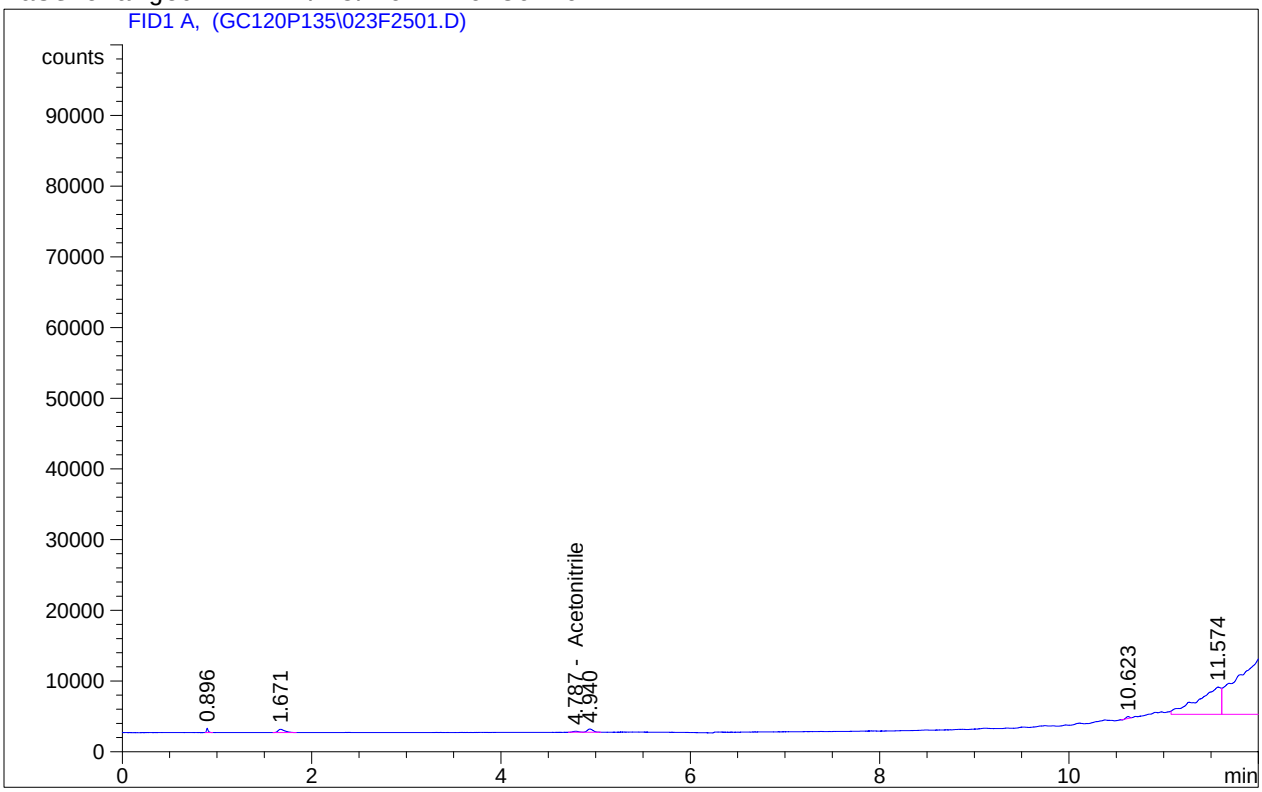
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  24
Acq. Instrument : Penn online                   Location : Vial 22
Injection Date  : 7/20/2011 10:11:48 AM              Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\023F2501.D
Sample Name: M18 Stk-ICR2S Cond Raff 0611-22

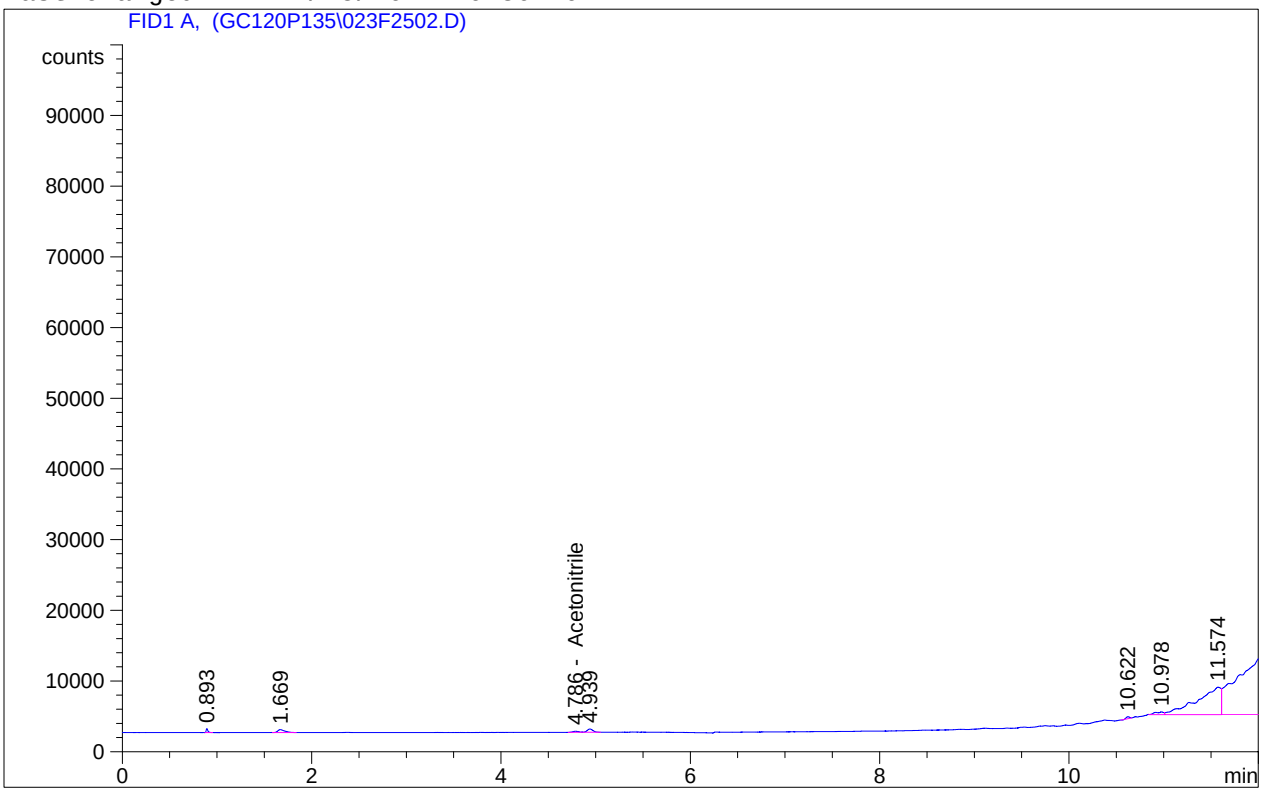
```
==================================================================
Acq. Operator   : KMT                          Seq. Line :  25
Acq. Instrument : Penn online                   Location : Vial 23
Injection Date  : 7/20/2011 10:32:13 AM              Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==================================================================
                     External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.787 BV      626.78320 9.52678e-4 5.97122e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              5.97122e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\023F2502.D
Sample Name: M18 Stk-ICR2S Cond Raff 0611-22

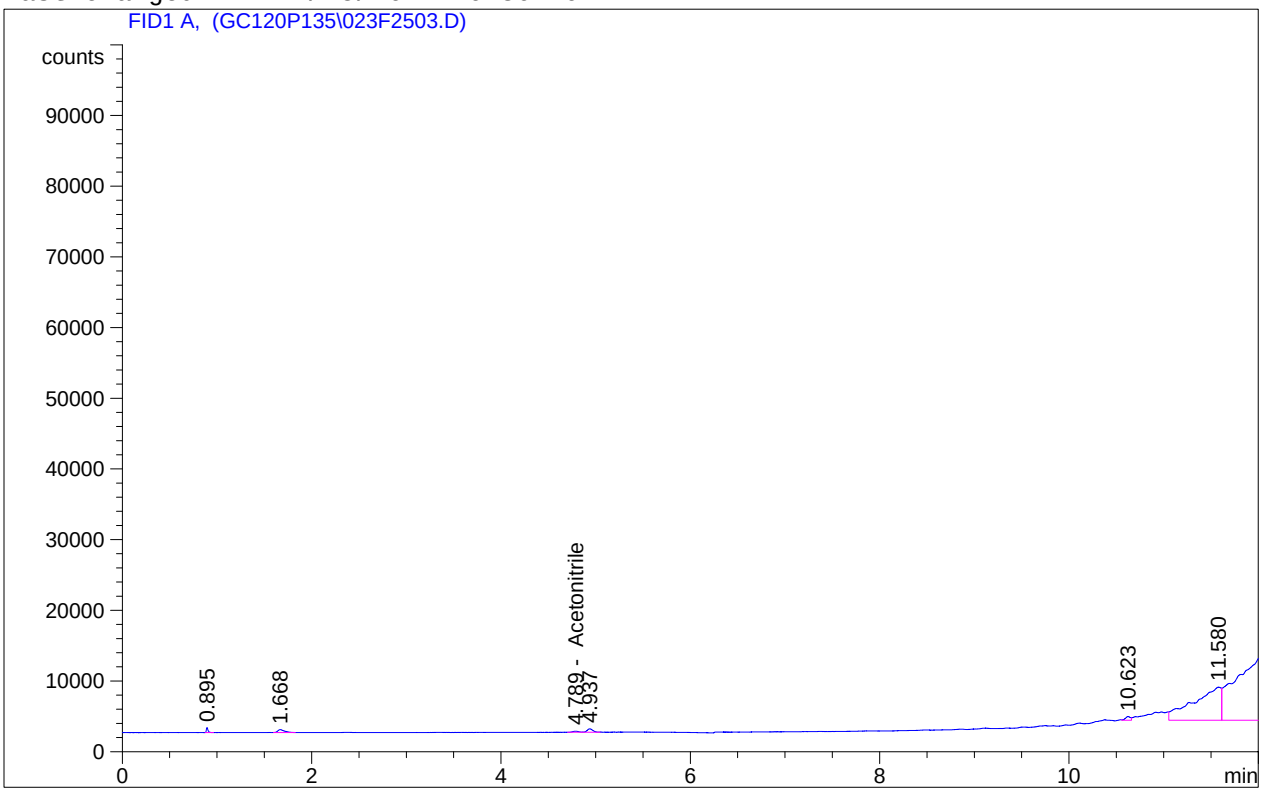
```
==================================================================
Acq. Operator   : KMT                          Seq. Line :  25
Acq. Instrument : Penn online                   Location : Vial 23
Injection Date  : 7/20/2011 10:52:34 AM              Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==================================================================
                     External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.786 BV      636.52209 9.52678e-4 6.06400e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              6.06400e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\023F2503.D
Sample Name: M18 Stk-ICR2S Cond Raff 0611-22

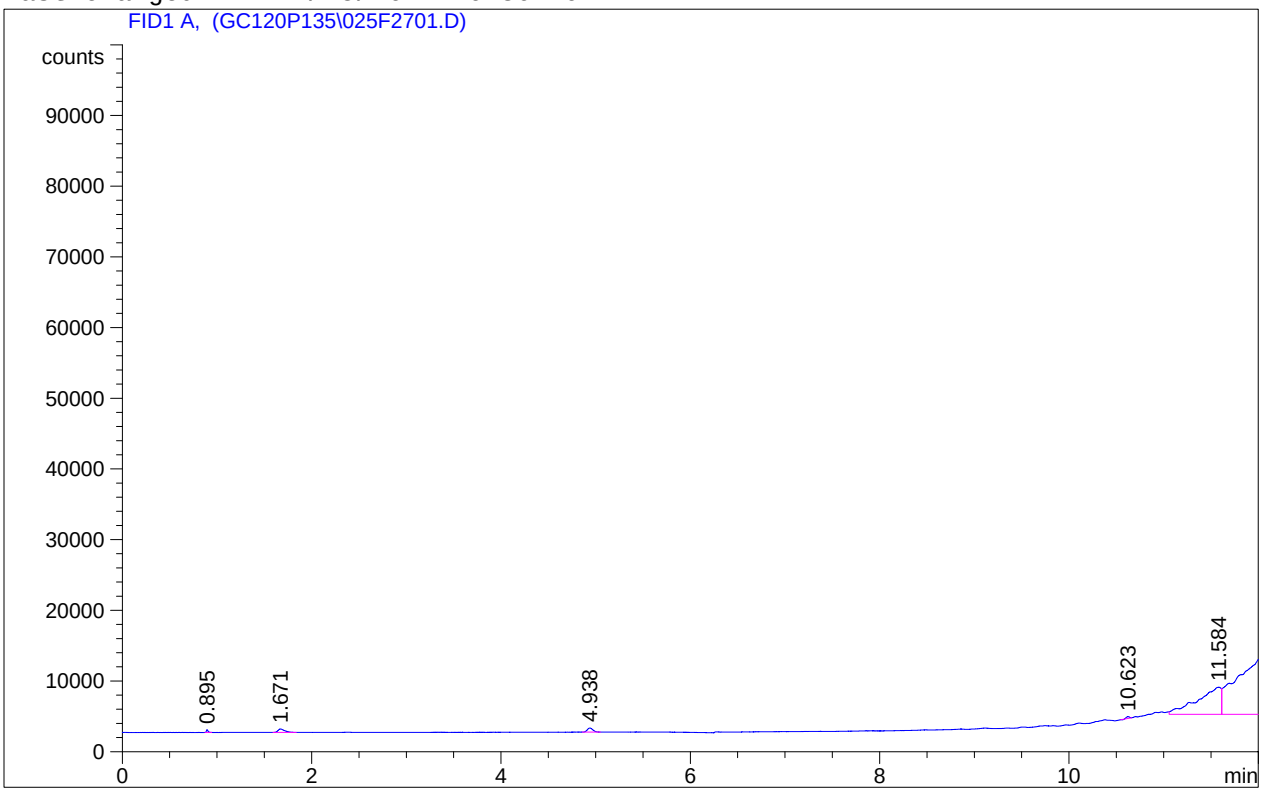
```
==================================================================
Acq. Operator   : KMT                          Seq. Line :  25
Acq. Instrument : Penn online                   Location : Vial 23
Injection Date  : 7/20/2011 11:13:00 AM              Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==================================================================
                     External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.789 BV      636.71790 9.52678e-4 6.06587e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              6.06587e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\025F2701.D
Sample Name: M18 Stk-ICR3 Cond Raff 0611-22

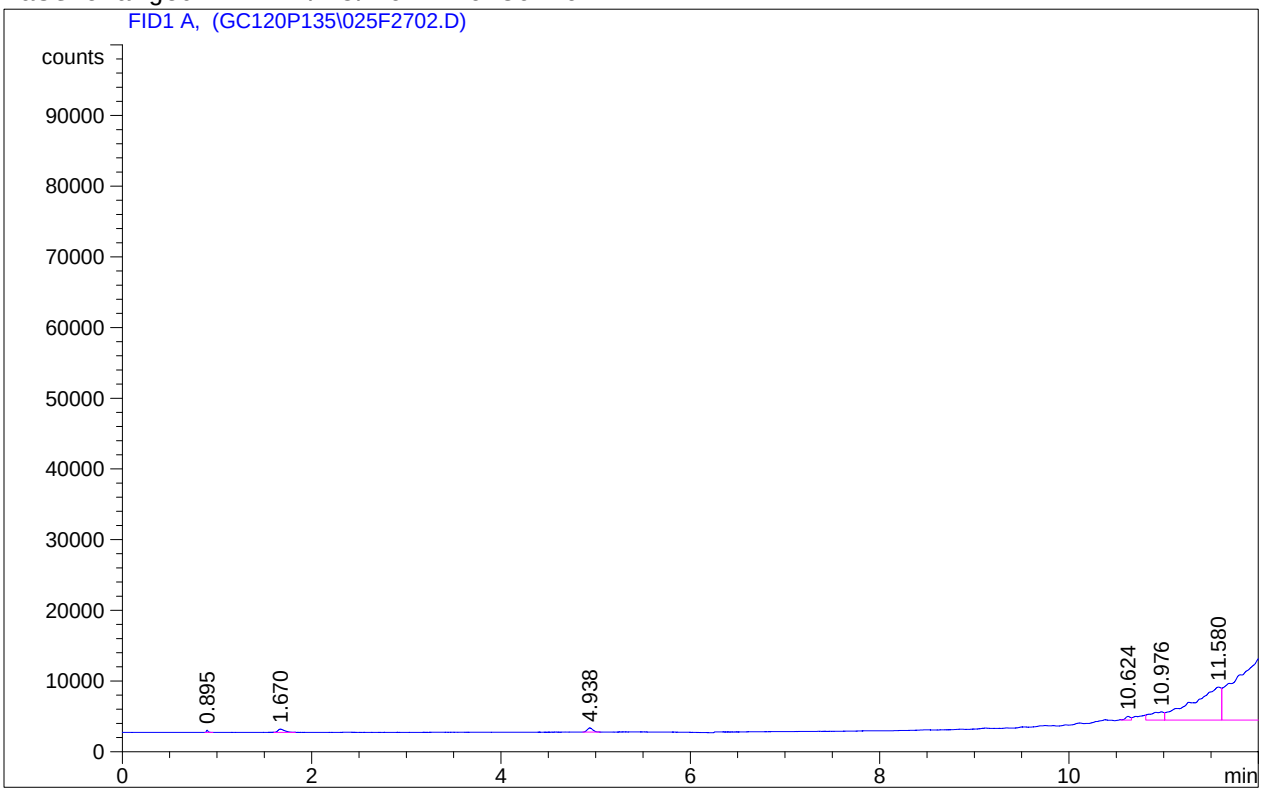
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  27
Acq. Instrument : Penn online                   Location : Vial 25
Injection Date  : 7/20/2011 12:34:46 PM              Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\025F2702.D
Sample Name: M18 Stk-ICR3 Cond Raff 0611-22

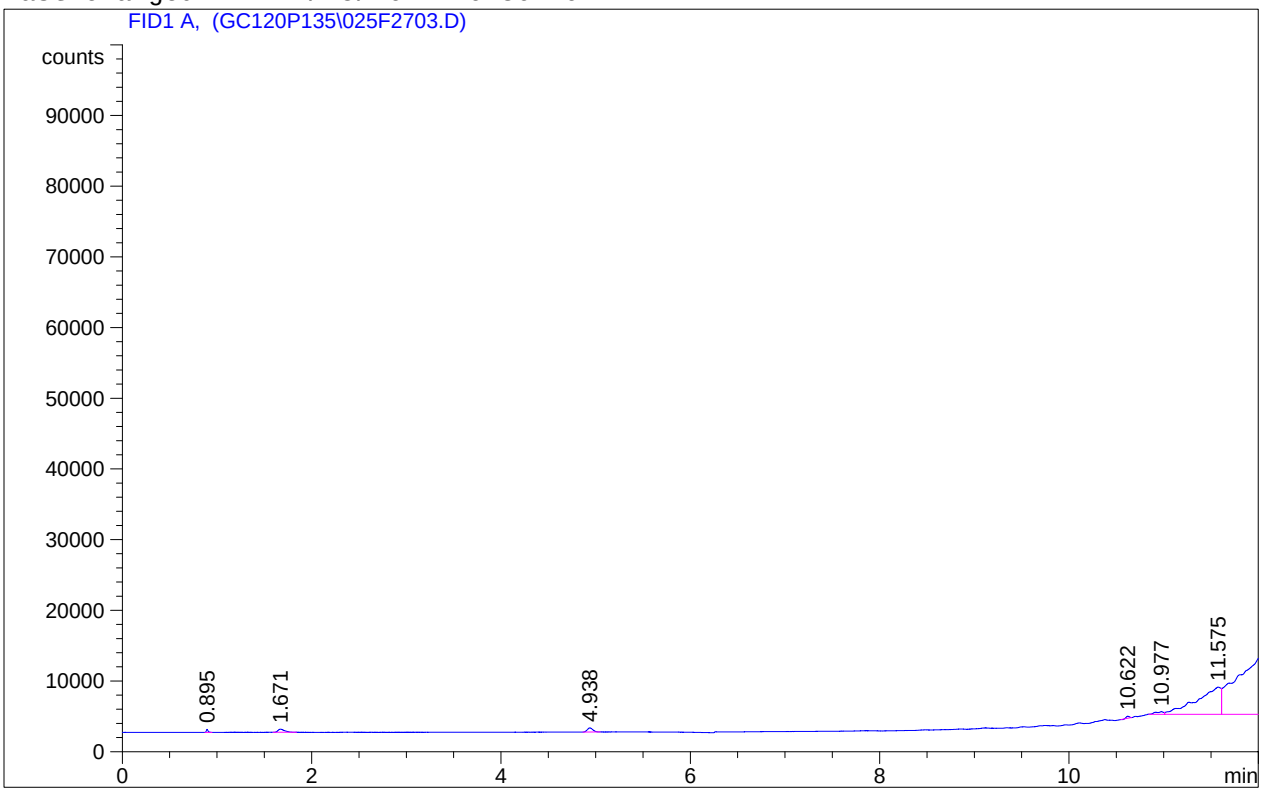
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  27
Acq. Instrument : Penn online                   Location : Vial 25
Injection Date  : 7/20/2011 12:55:07 PM              Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\025F2703.D
Sample Name: M18 Stk-ICR3 Cond Raff 0611-22

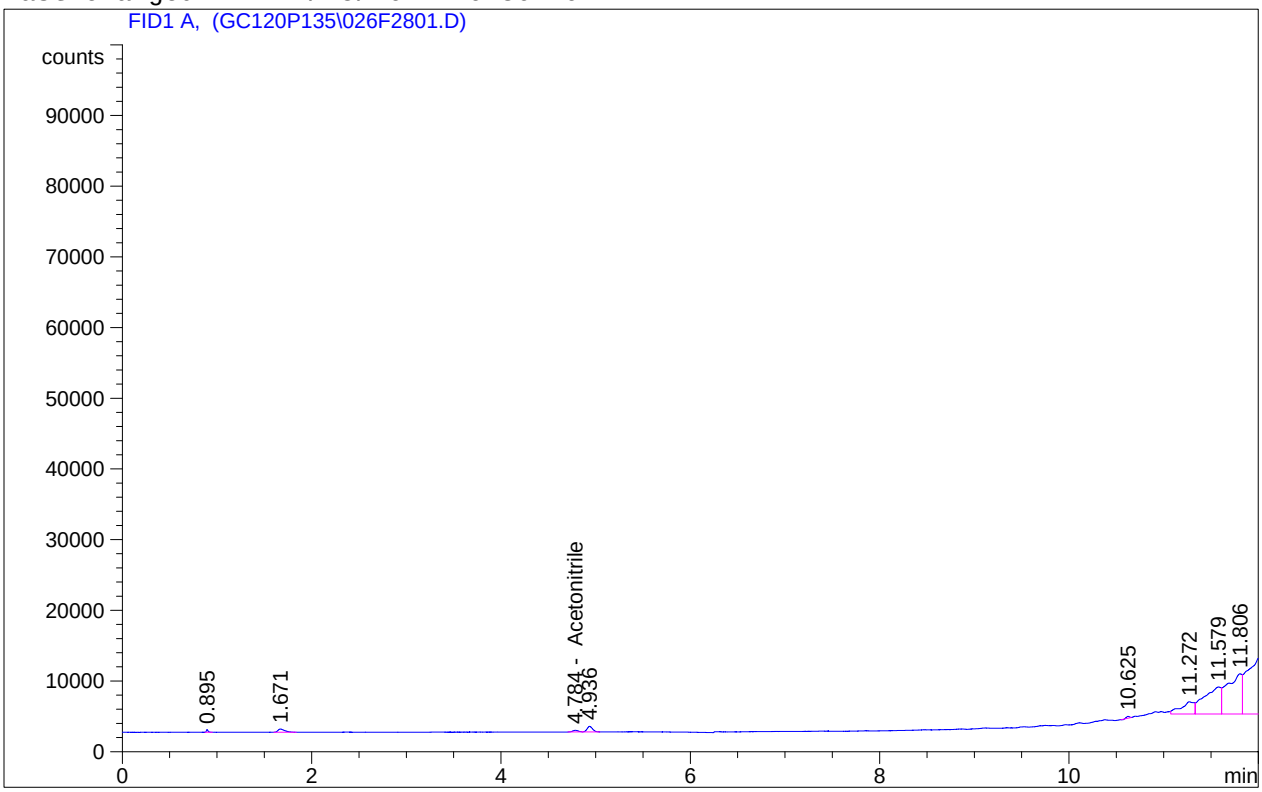
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  27
Acq. Instrument : Penn online                   Location : Vial 25
Injection Date  : 7/20/2011 1:15:36 PM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\026F2801.D
Sample Name: M18 Stk-ICR3S Cond Raff 0611-22

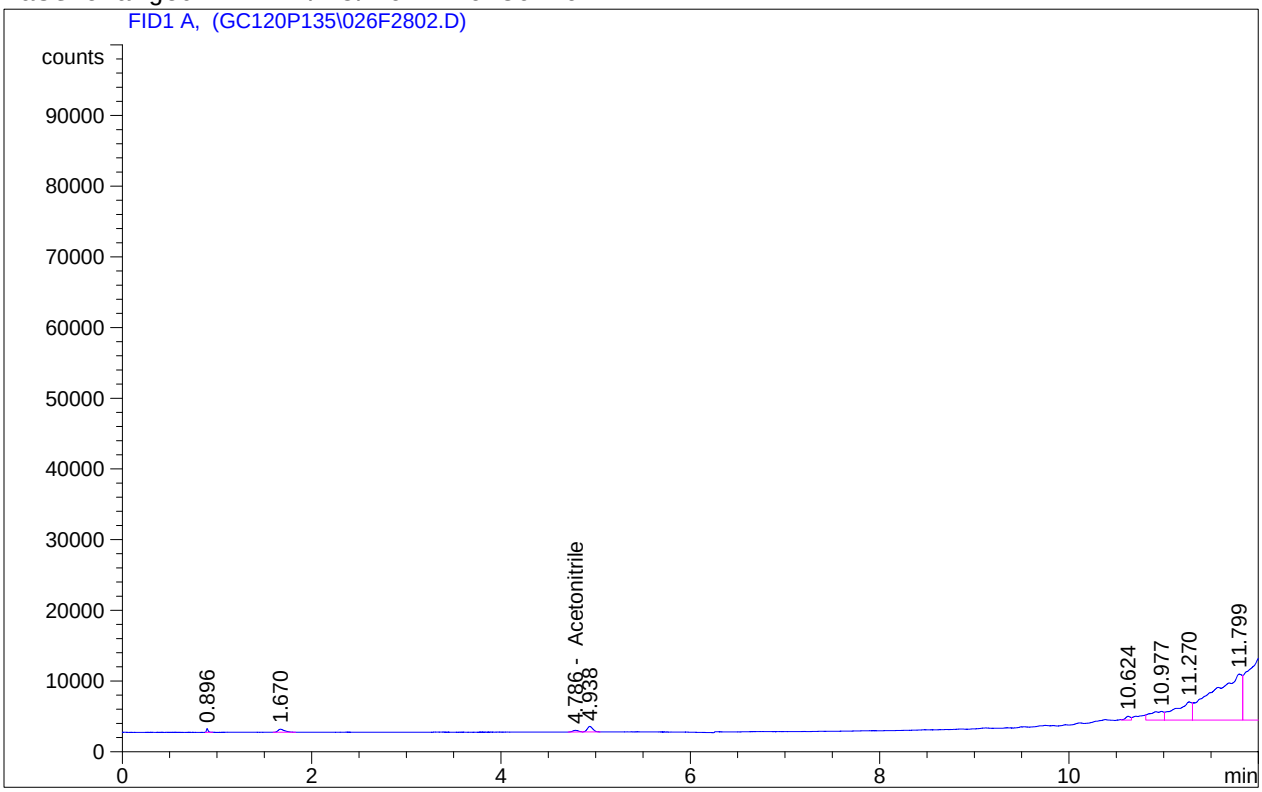
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  28
Acq. Instrument : Penn online                   Location : Vial 26
Injection Date  : 7/20/2011 1:35:57 PM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.784 BV      964.49426 9.52678e-4 9.18852e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              9.18852e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\026F2802.D
Sample Name: M18 Stk-ICR3S Cond Raff 0611-22

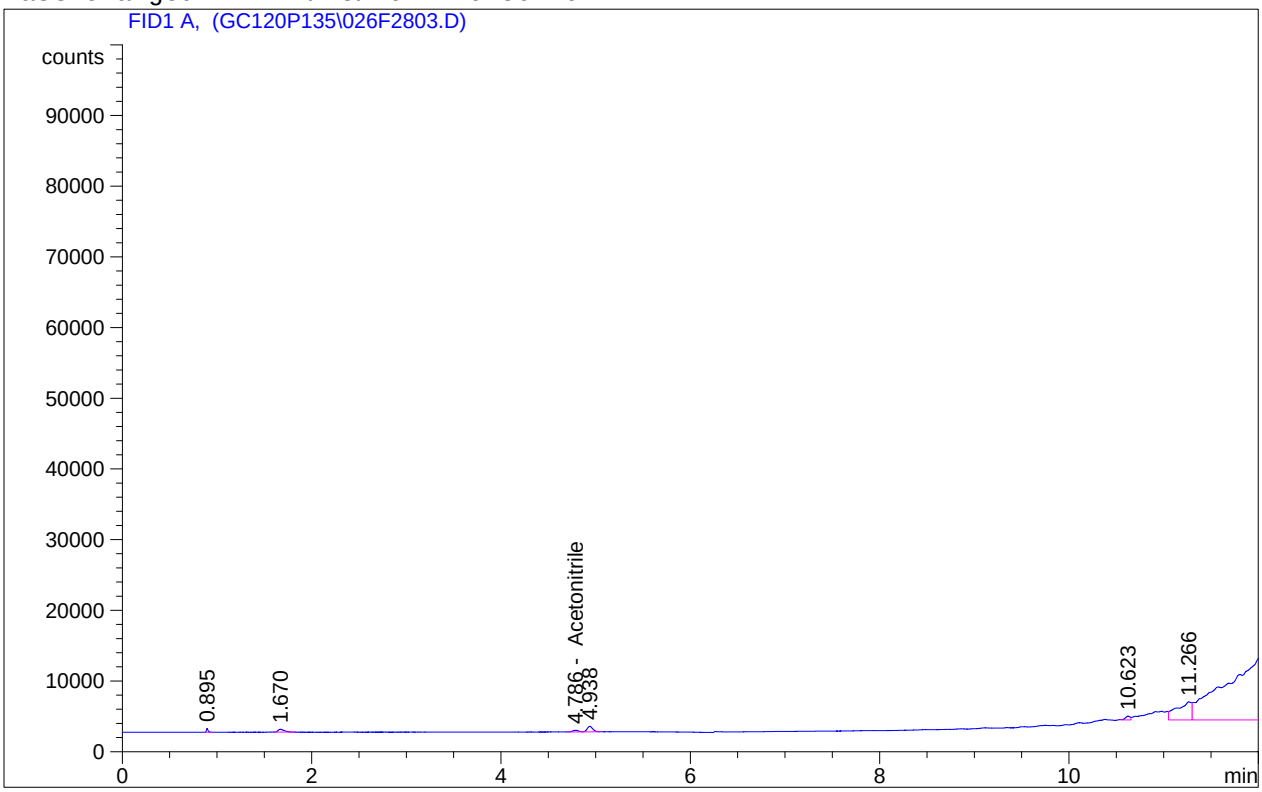
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  28
Acq. Instrument : Penn online                   Location : Vial 26
Injection Date  : 7/20/2011 1:56:27 PM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.786 BV      968.96307 9.52678e-4 9.23110e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              9.23110e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\026F2803.D
Sample Name: M18 Stk-ICR3S Cond Raff 0611-22

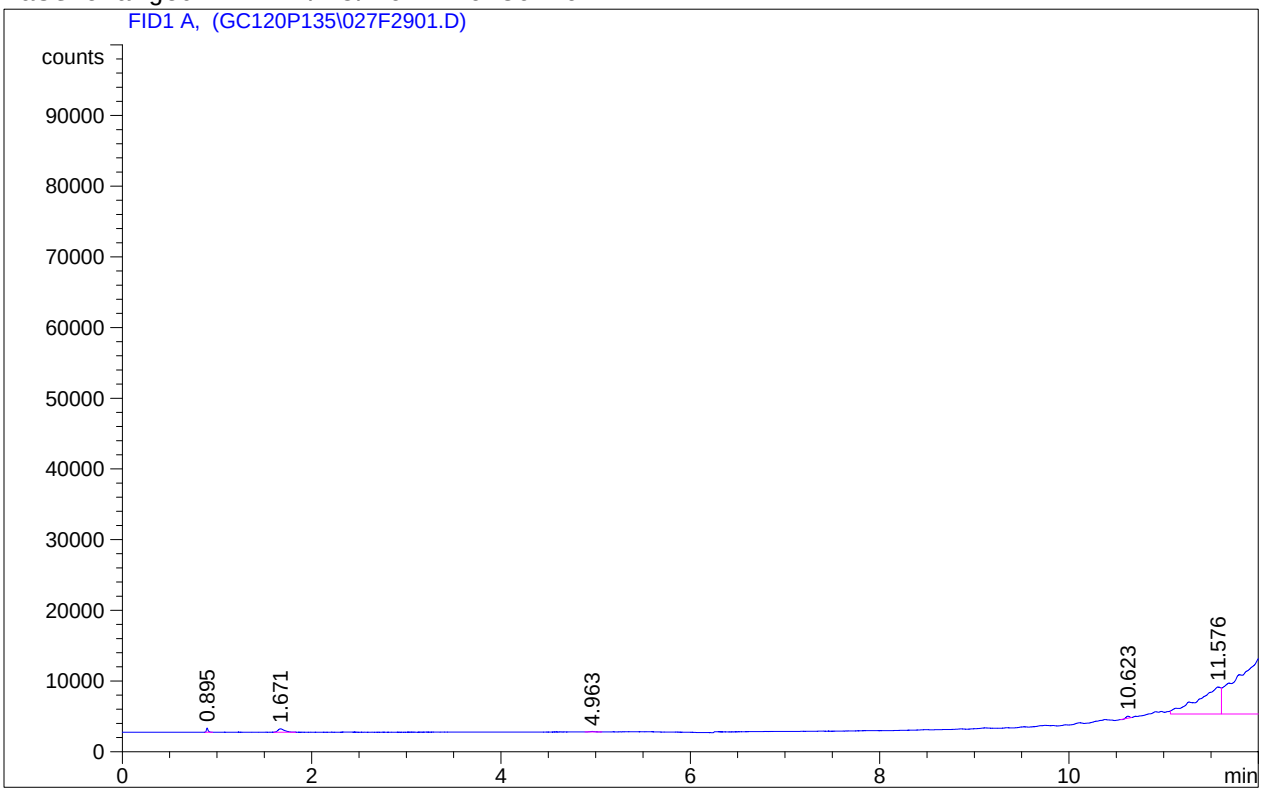
```
==================================================================
Acq. Operator   : KMT                          Seq. Line :  28
Acq. Instrument : Penn online                   Location : Vial 26
Injection Date  : 7/20/2011 2:16:52 PM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.786 BV      964.25507 9.52678e-4 9.18624e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              9.18624e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\027F2901.D
Sample Name: M18 Stk-ICR Cond FB Raff 0611-22

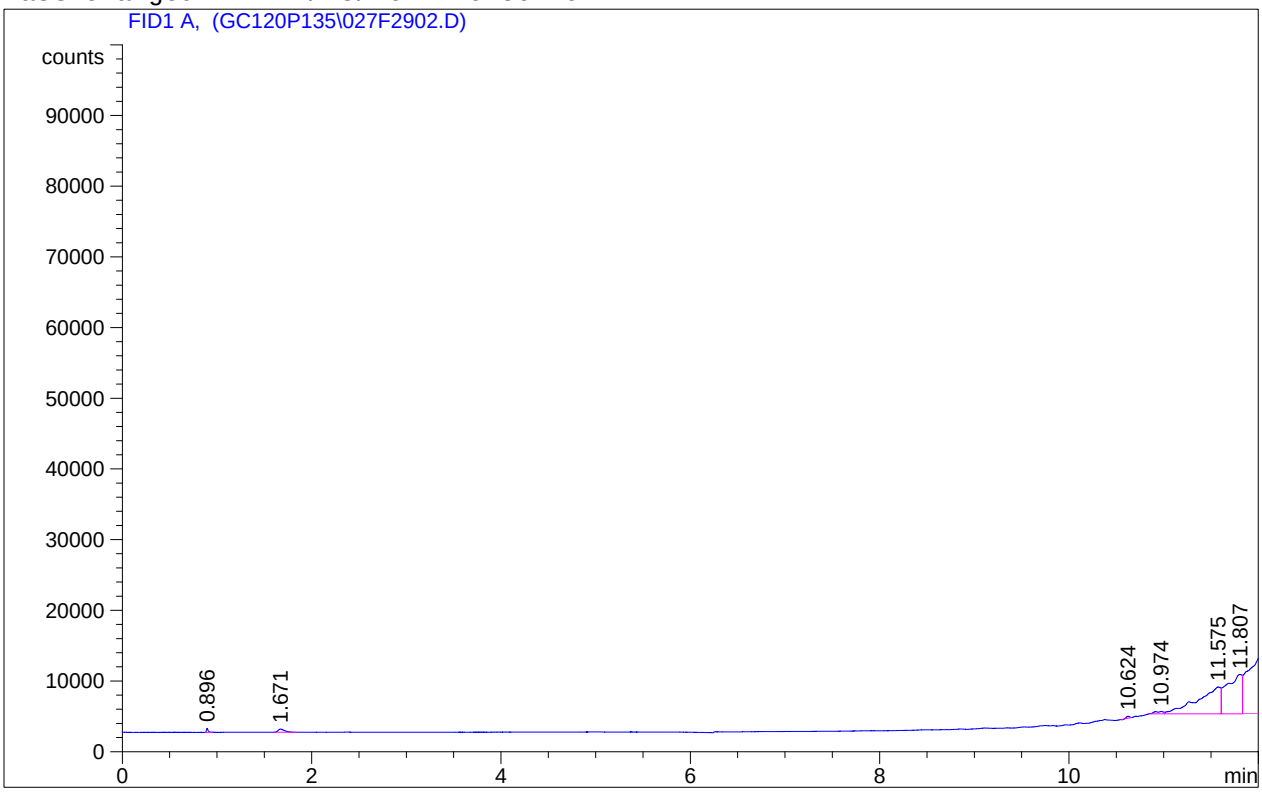
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  29
Acq. Instrument : Penn online                   Location : Vial 27
Injection Date  : 7/20/2011 2:37:22 PM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\027F2902.D
Sample Name: M18 Stk-ICR Cond FB Raff 0611-22

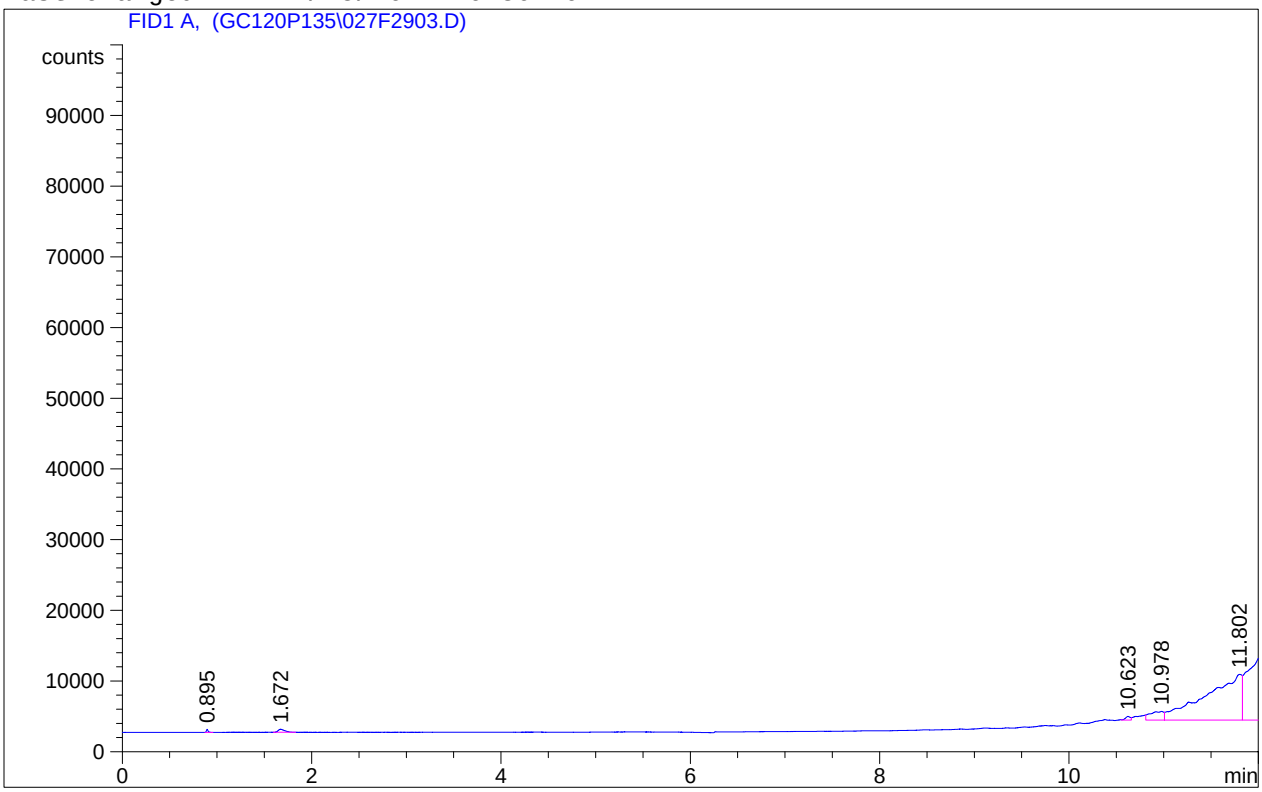
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  29
Acq. Instrument : Penn online                   Location : Vial 27
Injection Date  : 7/20/2011 2:57:55 PM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\027F2903.D
Sample Name: M18 Stk-ICR Cond FB Raff 0611-22

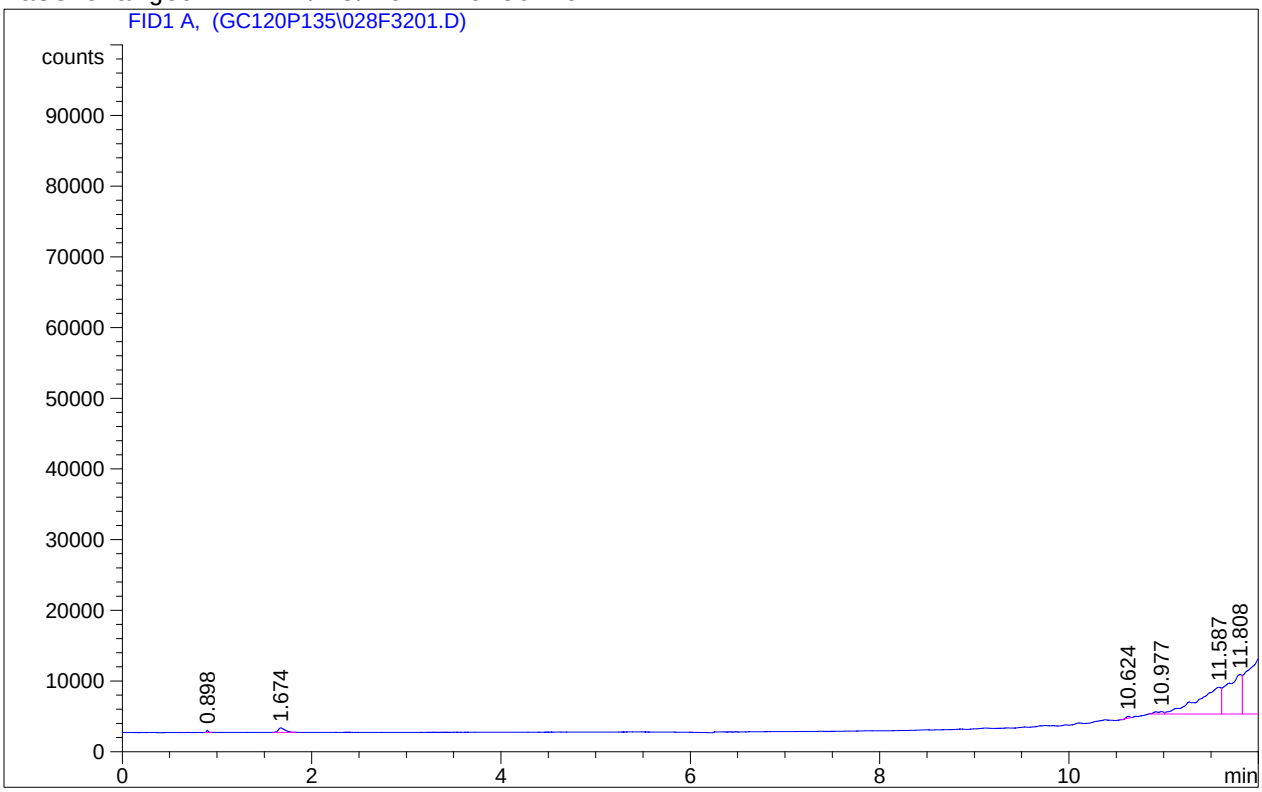
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  29
Acq. Instrument : Penn online                   Location : Vial 27
Injection Date  : 7/20/2011 3:18:25 PM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\028F3201.D
Sample Name: M18 ICR Cond LB Raff 0611-22

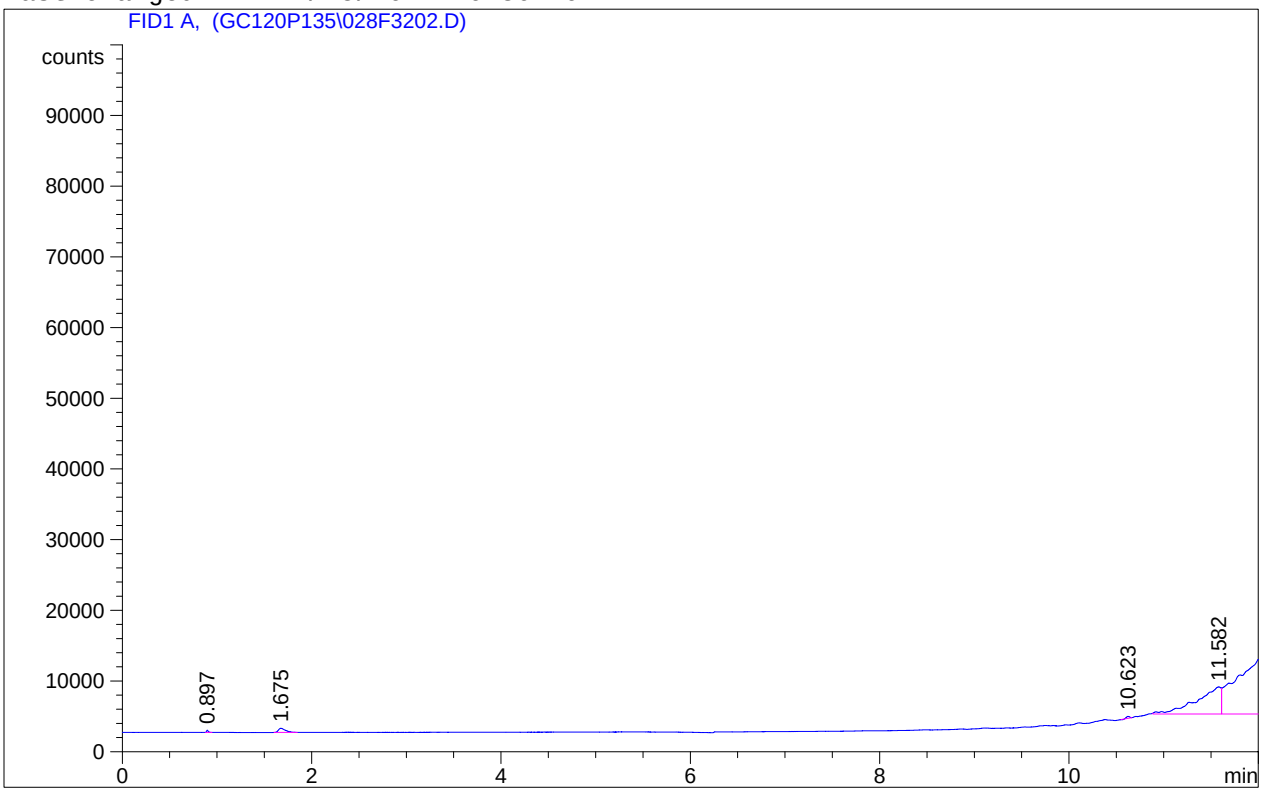
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  32
Acq. Instrument : Penn online                   Location : Vial 28
Injection Date  : 7/20/2011 5:42:53 PM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\028F3202.D
Sample Name: M18 ICR Cond LB Raff 0611-22

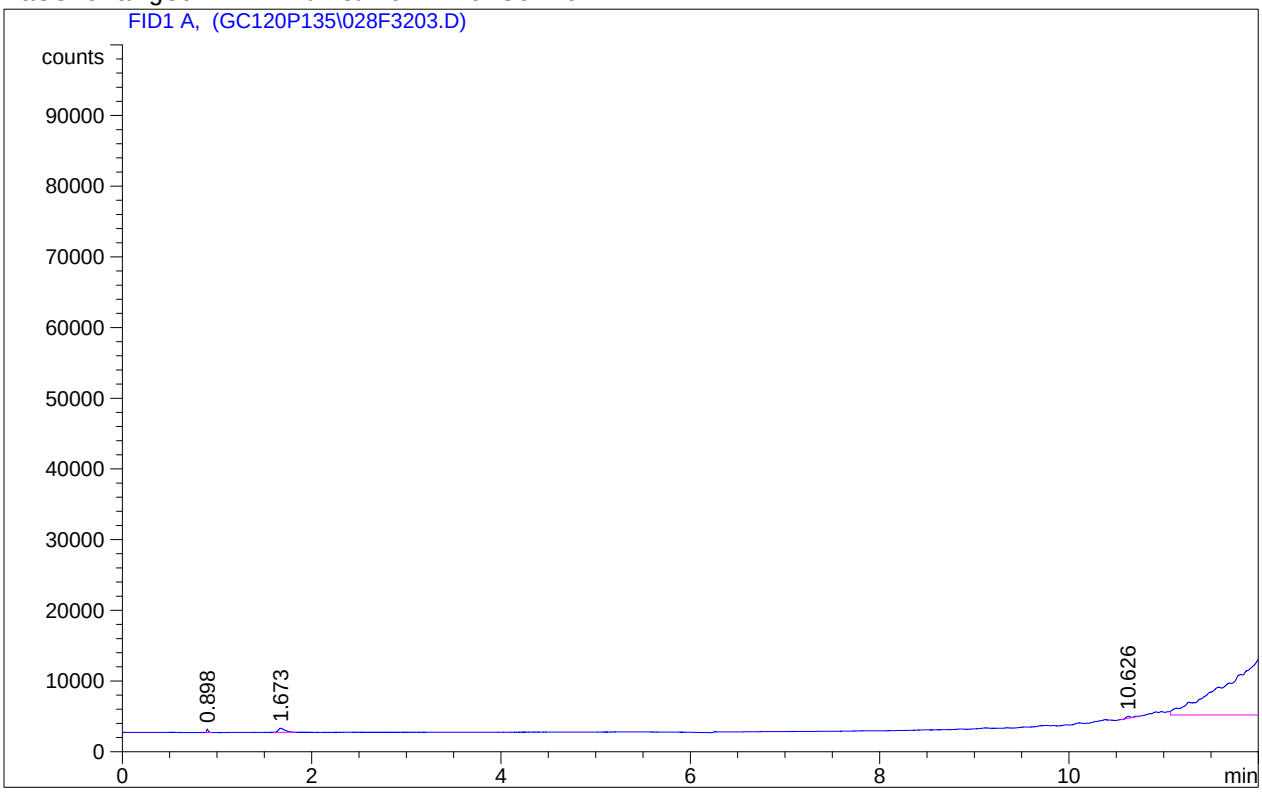
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  32
Acq. Instrument : Penn online                   Location : Vial 28
Injection Date  : 7/20/2011 6:03:31 PM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\028F3203.D
Sample Name: M18 ICR Cond LB Raff 0611-22

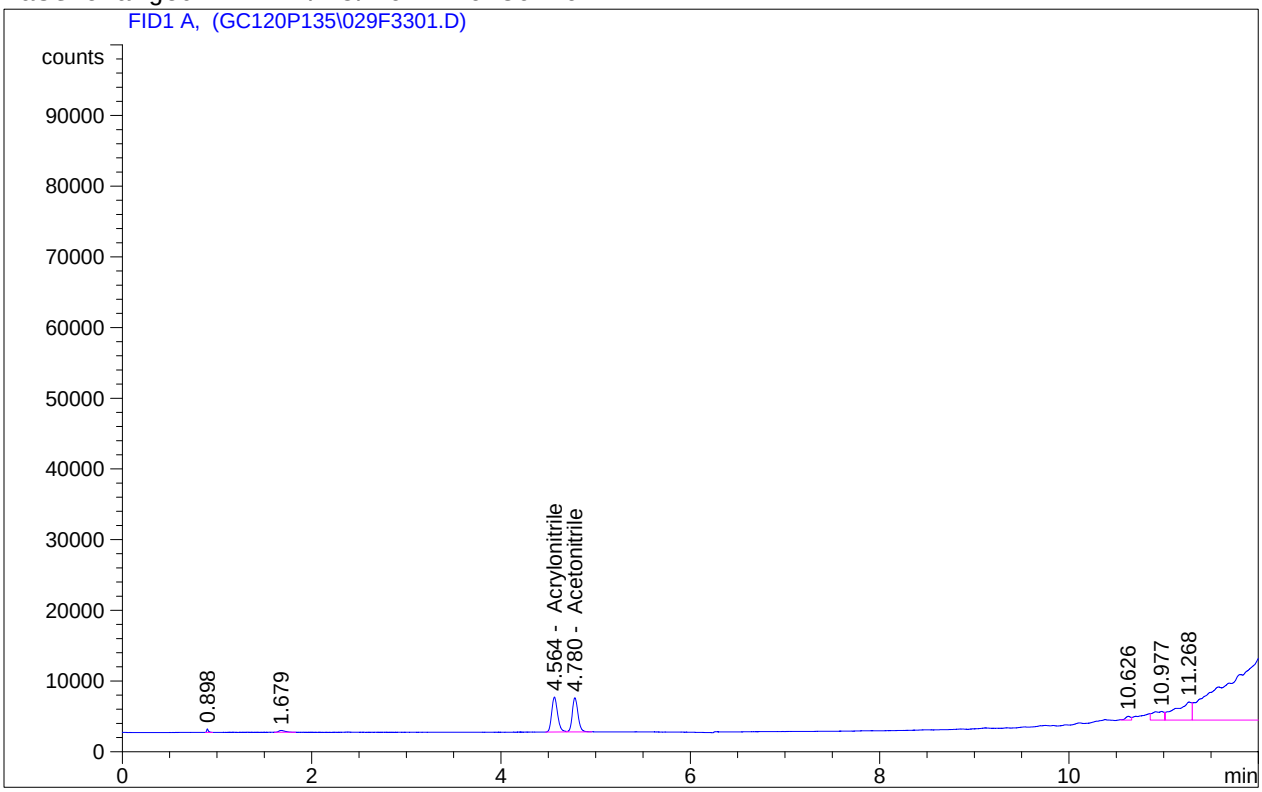
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  32
Acq. Instrument : Penn online                   Location : Vial 28
Injection Date  : 7/20/2011 6:24:13 PM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566            -          -          -         Acrylonitrile
  4.784            -          -          -         Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\029F3301.D
Sample Name: M18 AQ LCS 1 Raff 0611-22

```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  33
Acq. Instrument : Penn online                   Location : Vial 29
Injection Date  : 7/20/2011 6:44:51 PM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```

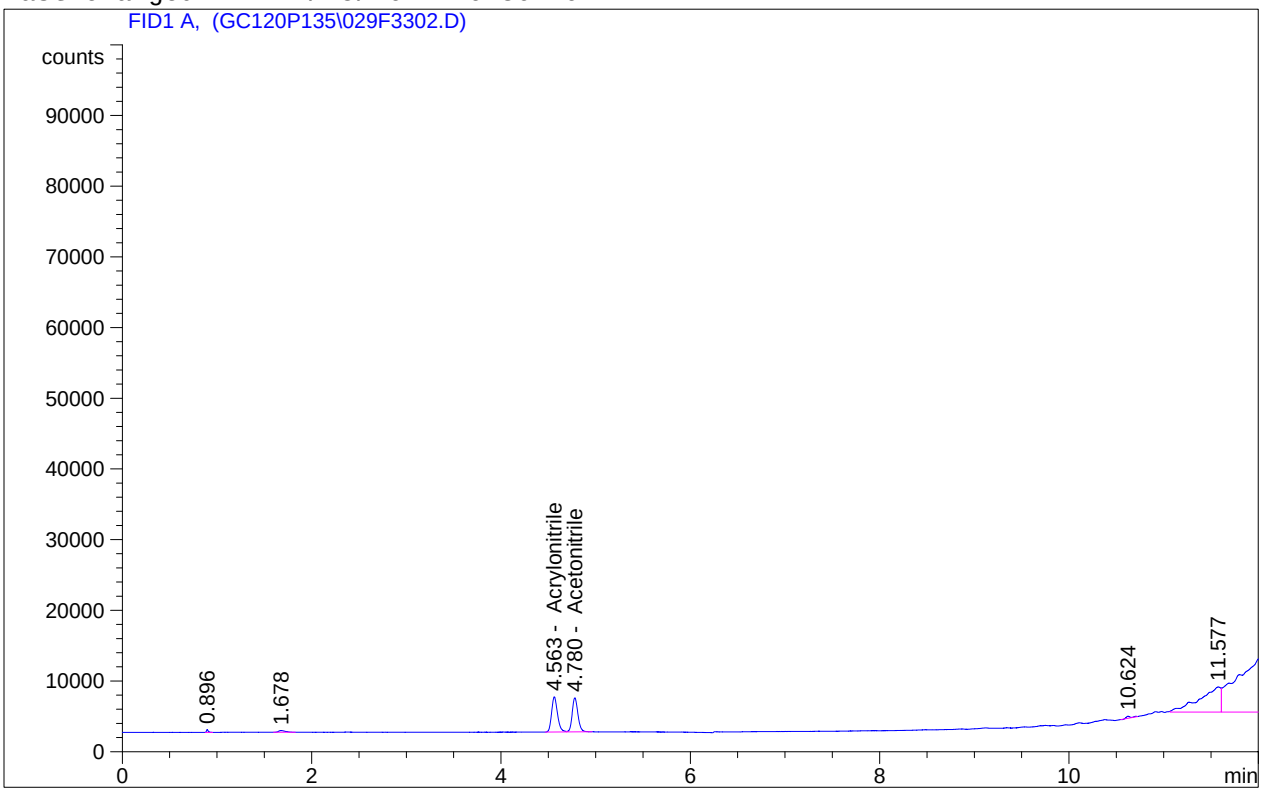



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.564 BV     2.15383e4  8.64542e-4   18.62073    Acrylonitrile
  4.780 VB     2.02140e4  1.05690e-3   21.36409    Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                               39.98482


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

EPA Method 18
LCS 10mL H2O
after extraction
with 2 mL CS2
Tag:
235.7ug
235.3ug

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\029F3302.D
Sample Name: M18 AQ LCS 1 Raff 0611-22

```
==================================================================
Acq. Operator   : KMT                          Seq. Line :  33
Acq. Instrument : Penn online                   Location : Vial 29
Injection Date  : 7/20/2011 7:05:34 PM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```

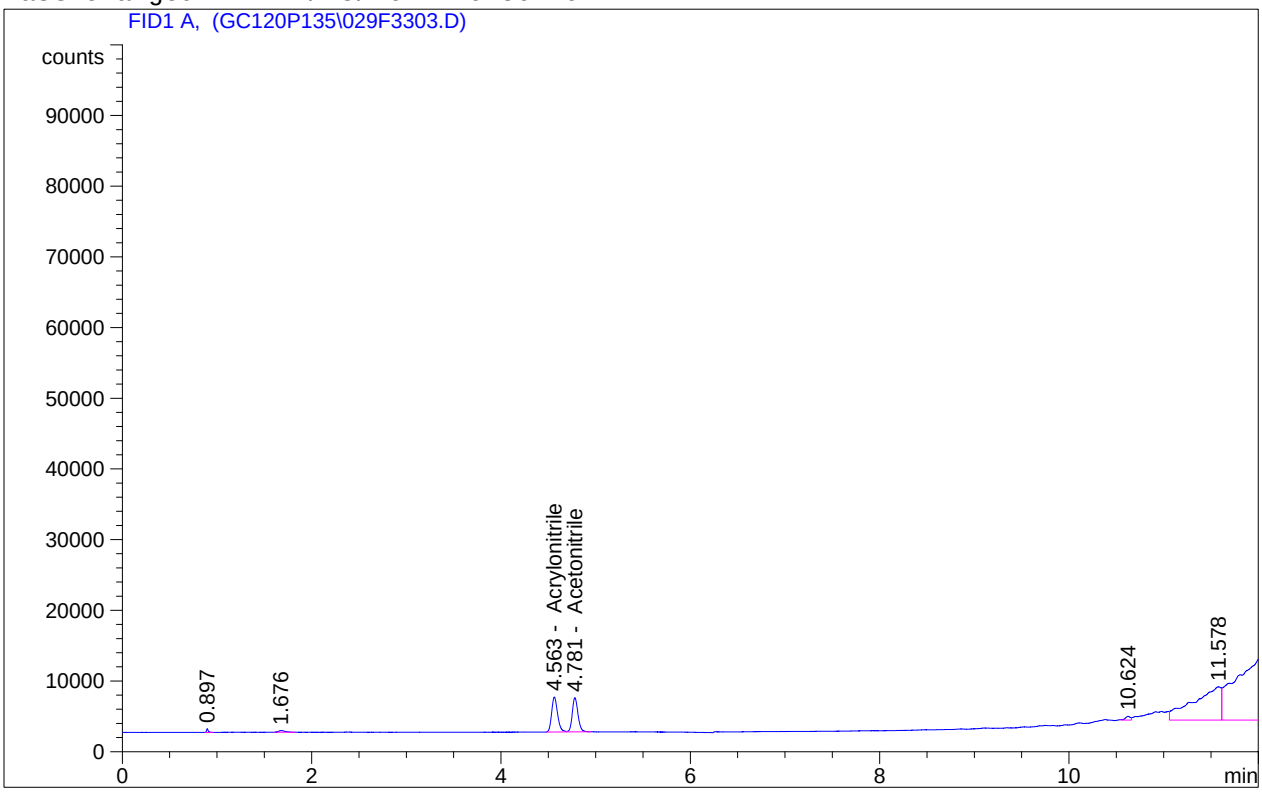



```
==================================================================
                      External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|---------------
  4.563 BV     2.15656e4  8.64562e-4   18.64476    Acrylonitrile
  4.780 VB     2.02422e4  1.05692e-3   21.39429    Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                               40.03905


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==================================================================
```

EPA Method 18
LCS 10mL H2O
after extraction
with 2 mL CS2
Tag:
235.7ug
235.3ug

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\029F3303.D
Sample Name: M18 AQ LCS 1 Raff 0611-22

```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  33
Acq. Instrument : Penn online                   Location : Vial 29
Injection Date  : 7/20/2011 7:26:16 PM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```



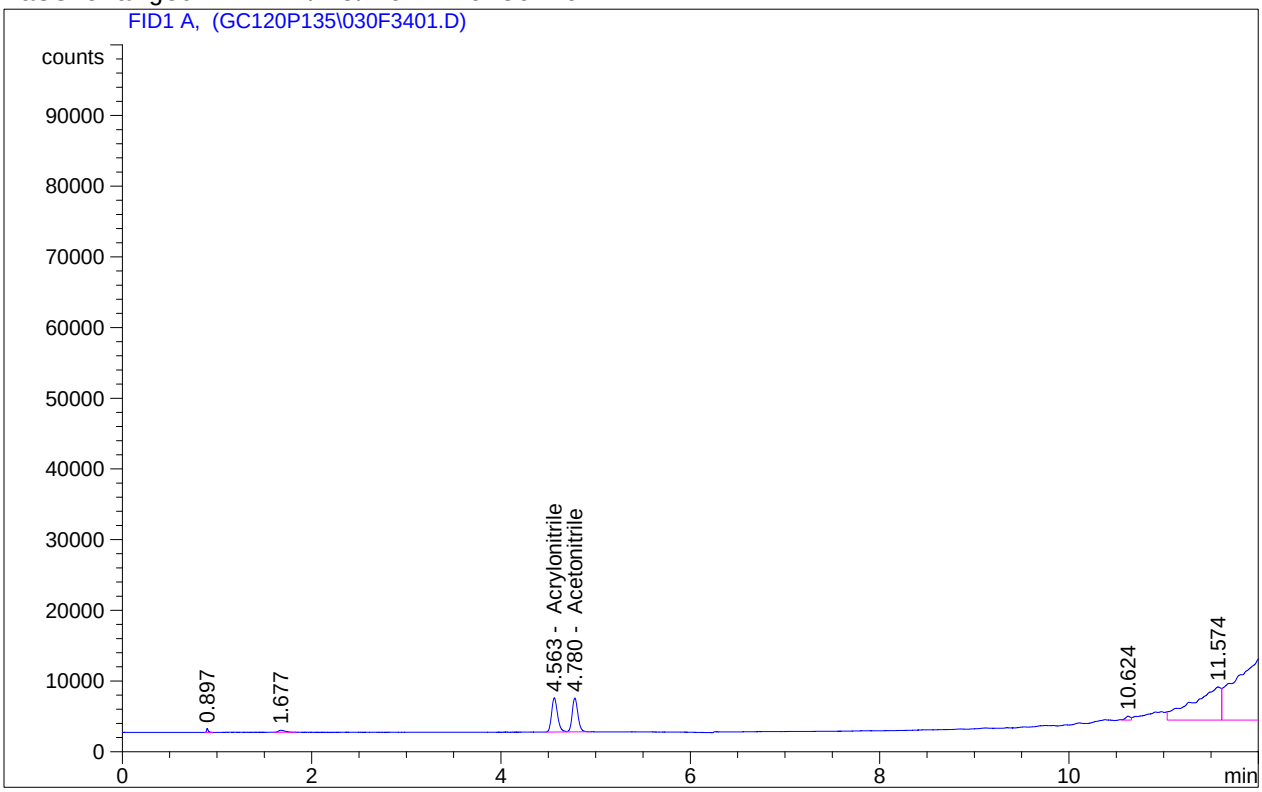

```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|----------------
  4.563 BV     2.15747e4  8.64569e-4   18.65281    Acrylonitrile
  4.781 VB     2.02111e4  1.05690e-3   21.36109    Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                               40.01390


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

EPA Method 18
LCS 10mL H2O
after extraction
with 2 mL CS2
Tag:
235.7ug
235.3ug

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\030F3401.D
Sample Name: M18 AQ LCS 2 Raff 0611-22

==========

Acq. Operator : KMT Seq. Line : 34
Acq. Instrument : Penn online Location : Vial 30
Injection Date : 7/20/2011 7:46:54 PM Inj : 1
Inj Volume : 1 µl
Sequence File : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed : 7/25/2011 10:36:10 AM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/25/2011 10:35:08 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [µg/mL]	Grp	Name
4.563	BV	2.11062e4	8.64217e-4	18.24037		Acrylonitrile
4.780	VB	2.00289e4	1.05679e-3	21.16628		Acetonitrile
6.245		-	-	-		2-Nitropropane

Totals : 39.40666

1 Warnings or Errors :

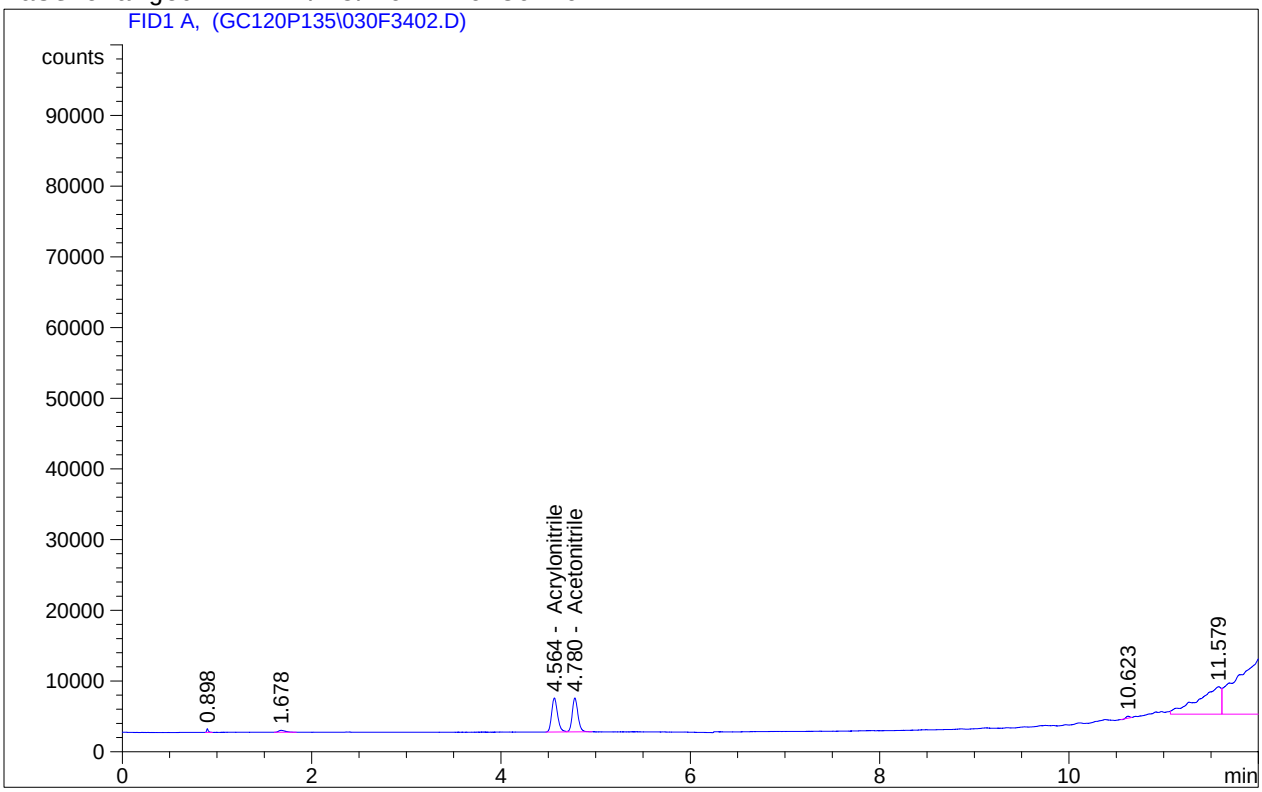
Warning : Calibrated compound(s) not found

==========

EPA Method 18
LCS 10mL H2O
after extraction
with 2 mL CS2
Tag:
235.7ug
235.3ug

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\030F3402.D
Sample Name: M18 AQ LCS 2 Raff 0611-22

```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  34
Acq. Instrument : Penn online                   Location : Vial 30
Injection Date  : 7/20/2011 8:07:33 PM               Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```

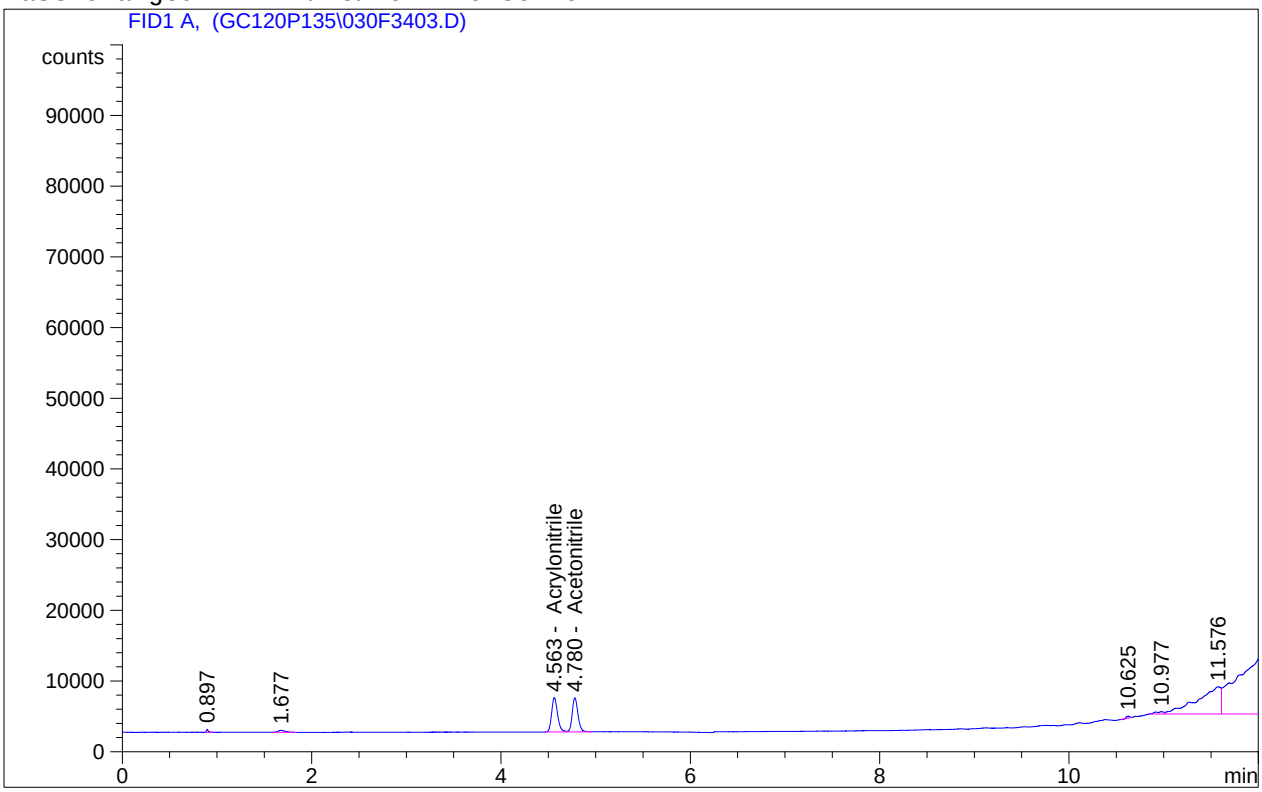



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|----------------
  4.564 BV     2.09073e4  8.64063e-4   18.06525    Acrylonitrile
  4.780 VB     1.99464e4  1.05674e-3   21.07805    Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                                39.14329


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

EPA Method 18
LCS 10mL H2O
after extraction
with 2 mL CS2
Tag:
235.7ug
235.3ug

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\030F3403.D
Sample Name: M18 AQ LCS 2 Raff 0611-22

```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  34
Acq. Instrument : Penn online                   Location : Vial 30
Injection Date  : 7/20/2011 8:28:11 PM               Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```

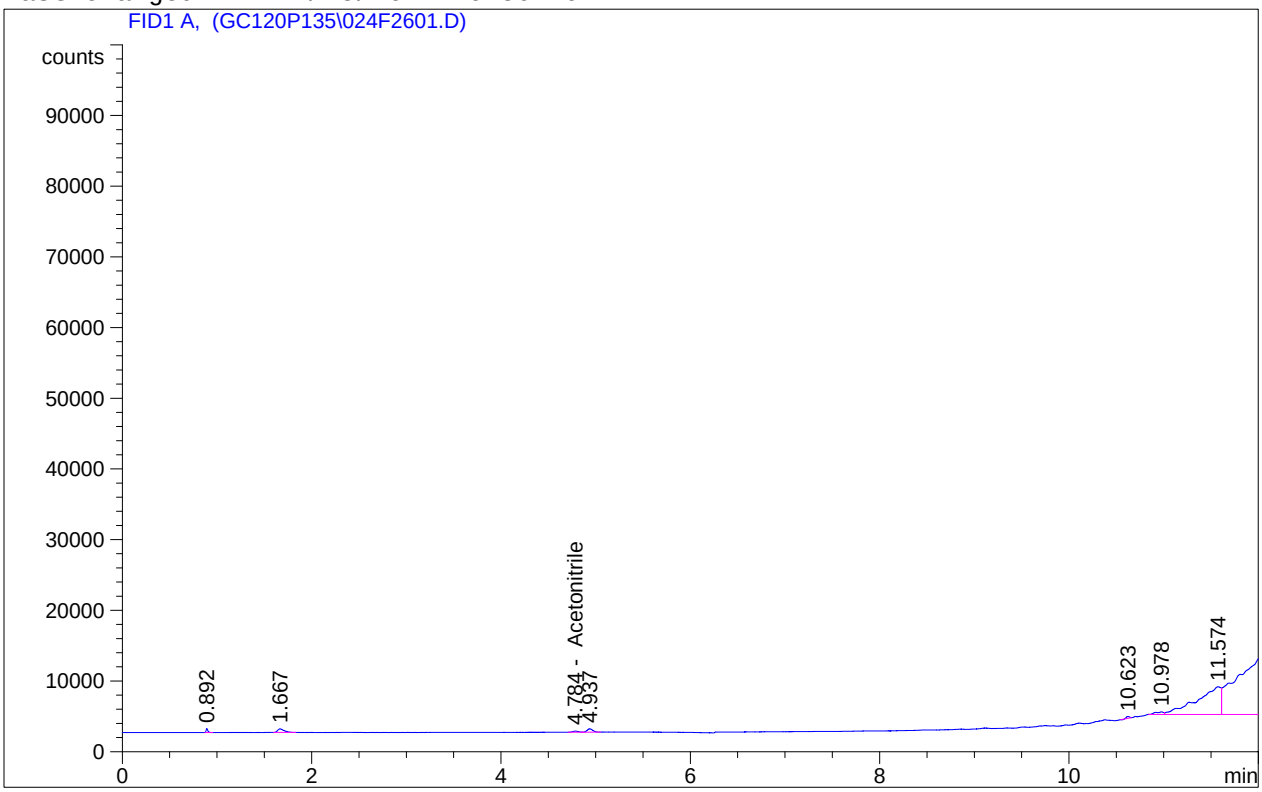



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.563 BV     2.11890e4  8.64281e-4   18.31325    Acrylonitrile
  4.780 VB     2.02058e4  1.05689e-3   21.35539    Acetonitrile
  6.245            -          -          -         2-Nitropropane

Totals :                               39.66864


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

EPA Method 18
LCS 10mL H2O
after extraction
with 2 mL CS2
Tag:
235.7ug
235.3ug

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\024F2601.D
Sample Name: M18 Stk-ICR2S Cond Raff-LD 0611-22

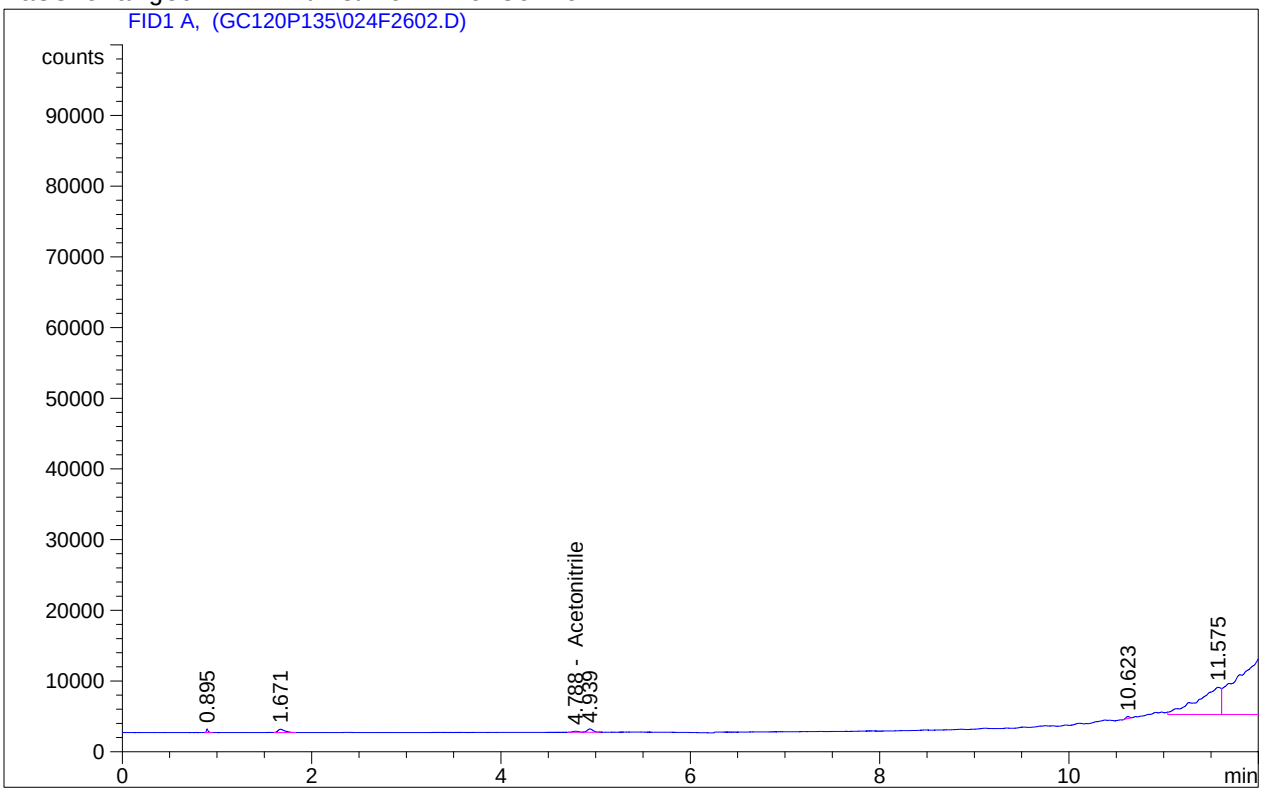
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  26
Acq. Instrument : Penn online                   Location : Vial 24
Injection Date  : 7/20/2011 11:33:21 AM              Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.784 BV      646.55597 9.52678e-4 6.15960e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              6.15960e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\024F2602.D
Sample Name: M18 Stk-ICR2S Cond Raff-LD 0611-22

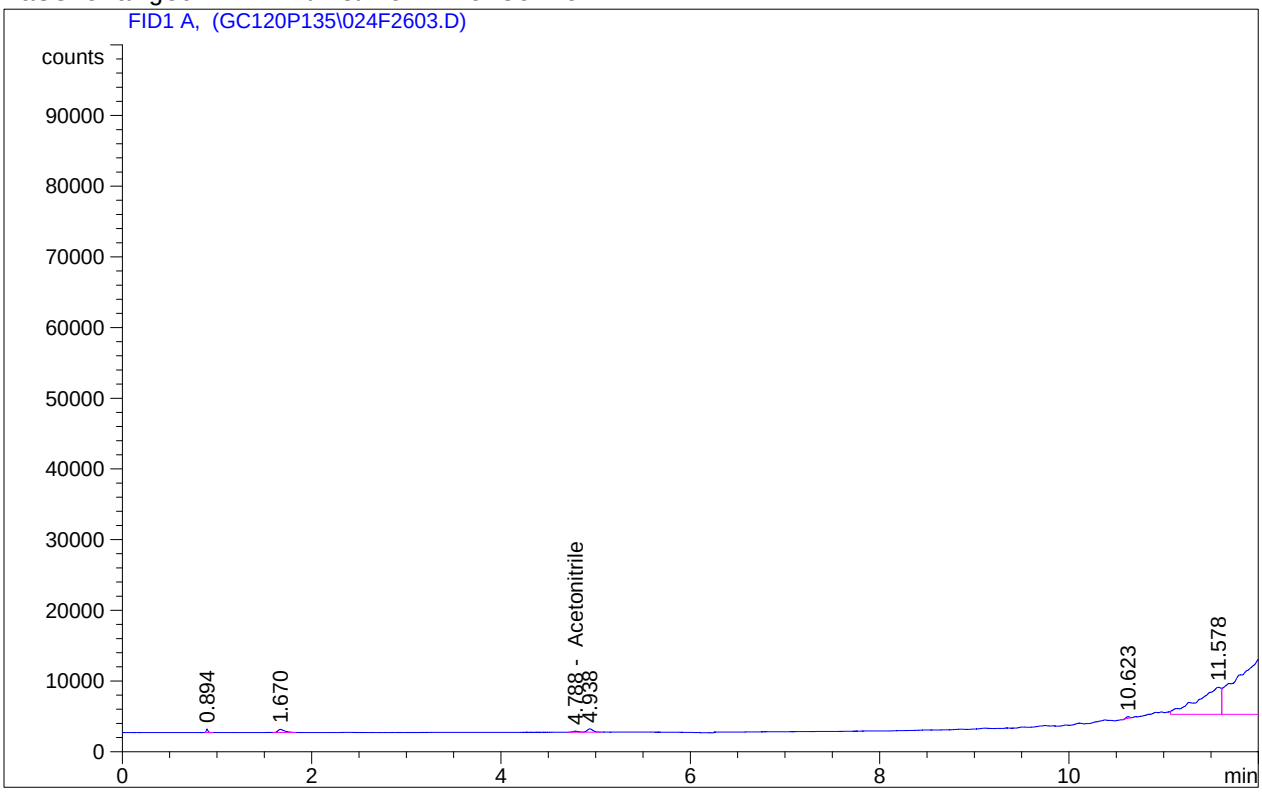
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  26
Acq. Instrument : Penn online                   Location : Vial 24
Injection Date  : 7/20/2011 11:53:51 AM              Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.788 BV      622.83929 9.52678e-4 5.93365e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              5.93365e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\024F2603.D
Sample Name: M18 Stk-ICR2S Cond Raff-LD 0611-22

```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  26
Acq. Instrument : Penn online                   Location : Vial 24
Injection Date  : 7/20/2011 12:14:17 PM              Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566           -          -          -         Acrylonitrile
  4.788 BV      623.29126 9.52678e-4 5.93796e-1    Acetonitrile
  6.245           -          -          -         2-Nitropropane

Totals :                              5.93796e-1


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
```

Calibration Curve Chromatograms

Calibration Table

Calib. Data Modified : 7/25/2011 10:35:08 AM

Rel. Reference Window : 1.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 1.000 %
Abs. Non-ref. Window : 0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

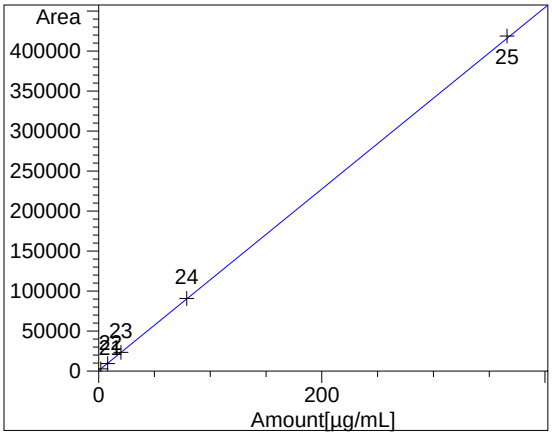
Signal 1: FID1 A,
Signal 2: FID2 B,

RetTime [min]	Sig	Lvl	Amount [µg/mL]	Area	Amt/Area	Ref	Grp	Name
4.566	1	21	1.96400	2632.56372	7.46041e-4			Acrylonitrile
		22	8.03600	9241.47493	8.69558e-4			
		23	20.03000	2.33451e4	8.57997e-4			
		24	78.94100	9.07867e4	8.69522e-4			
		25	366.00000	4.18844e5	8.73833e-4			
4.784	1	21	2.01200	2113.13501	9.52140e-4			Acetonitrile
		22	7.84300	7499.26465	1.04584e-3			
		23	19.54800	1.88339e4	1.03791e-3			
		24	77.04300	7.21746e4	1.06745e-3			
		25	357.20000	3.31936e5	1.07611e-3			
6.245	1	21	2.41900	2346.78703	1.03077e-3			2-Nitropropane
		22	9.66300	7753.89160	1.24621e-3			
		23	24.08400	1.98251e4	1.21482e-3			
		24	94.92100	7.76083e4	1.22308e-3			
		25	440.10000	3.59707e5	1.22350e-3			

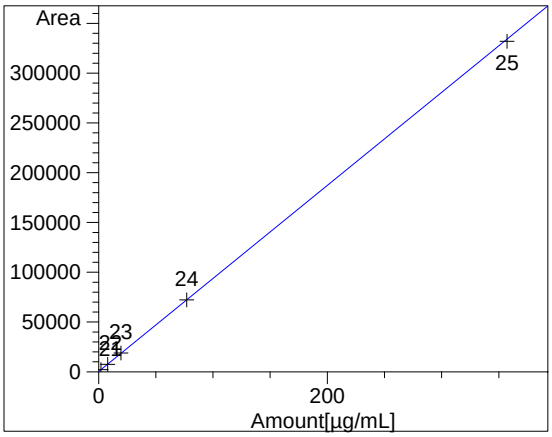
Peak Sum Table

No Entries in table

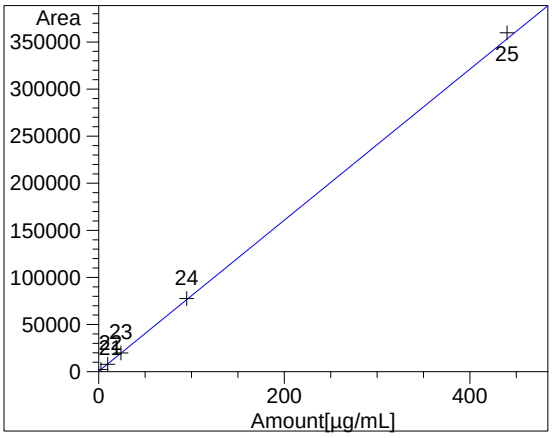
Calibration Curves



Acrylonitrile at exp. RT: 4.566
FID1 A,
Correlation: 0.99983
Residual Std. Dev.: 1646.85889
Formula: y = mx + b
m: 1135.85067
b: 387.89386
x: Amount
y: Area
Calibration Level Weights:
Level 21 : 1
Level 22 : 0.059731
Level 23 : 0.009614
Level 24 : 0.000619
Level 25 : 0.000029



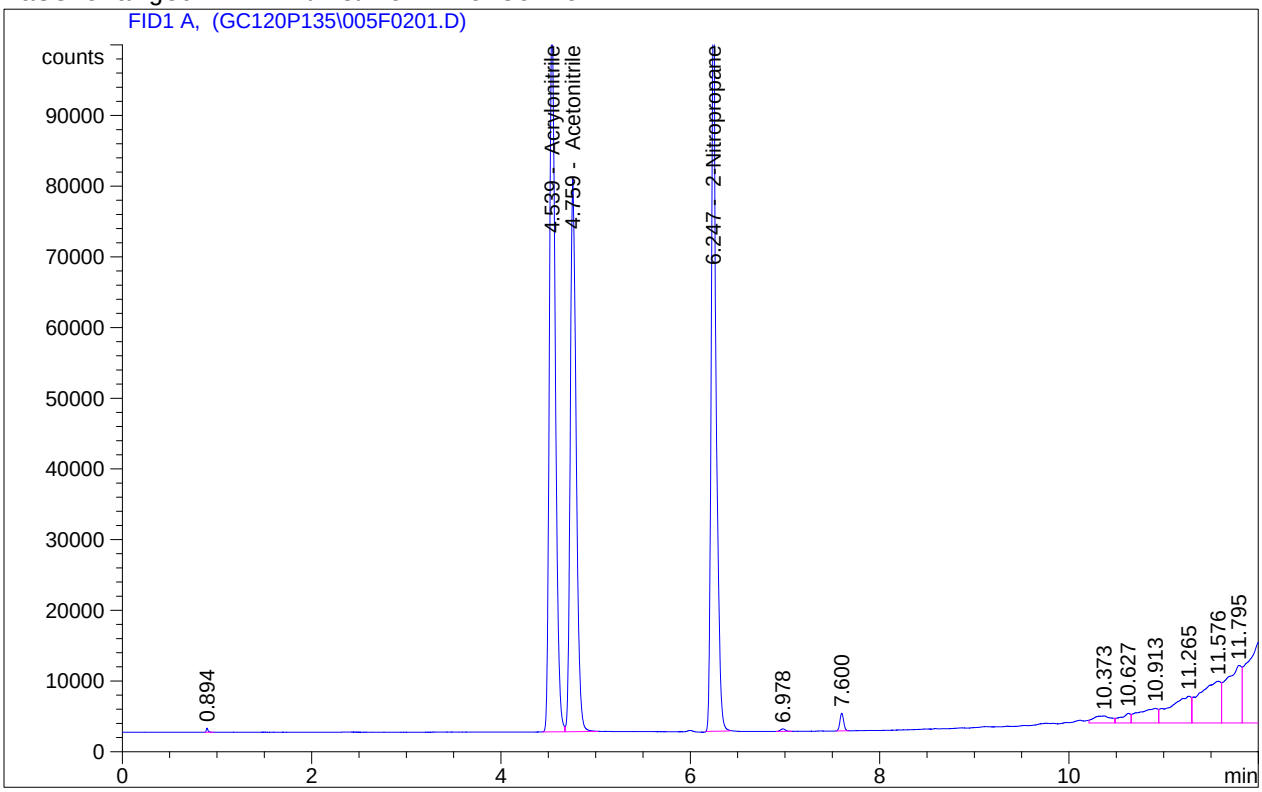
Acetonitrile at exp. RT: 4.784
FID1 A,
Correlation: 0.99993
Residual Std. Dev.: 1411.68566
Formula: y = mx + b
m: 935.40346
b: 229.91001
x: Amount
y: Area
Calibration Level Weights:
Level 21 : 1
Level 22 : 0.06581
Level 23 : 0.010594
Level 24 : 0.000682
Level 25 : 0.000032



2-Nitropropane at exp. RT: 6.245
FID1 A,
Correlation: 0.99952
Residual Std. Dev.: 3675.12099
Formula: y = mx + b
m: 802.23061
b: 384.32422
x: Amount
y: Area
Calibration Level Weights:
Level 21 : 1
Level 22 : 0.062668
Level 23 : 0.010088
Level 24 : 0.000649
Level 25 : 0.00003

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\005F0201.D
Sample Name: gc120p135 #5

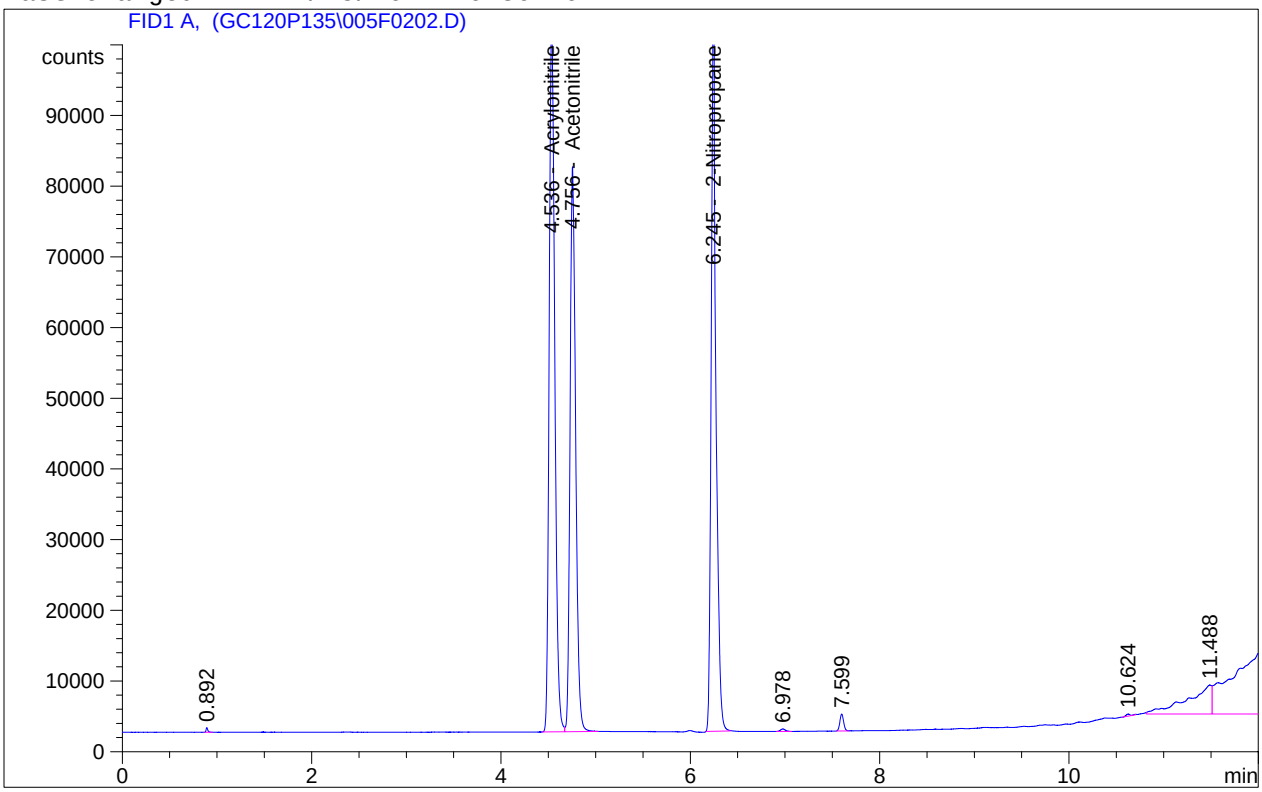
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   2
Acq. Instrument : Penn online                       Location : Vial 5
Injection Date  : 7/19/2011 11:02:49 AM                  Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.539 BV     4.34212e5  8.79611e-4  381.93732    Acrylonitrile
  4.759 VB     3.40628e5  1.06834e-3  363.90483    Acetonitrile
  6.247 BB     3.73172e5  1.24524e-3  464.68935    2-Nitropropane

Totals :                              1210.53150


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\005F0202.D
Sample Name: gc120p135 #5

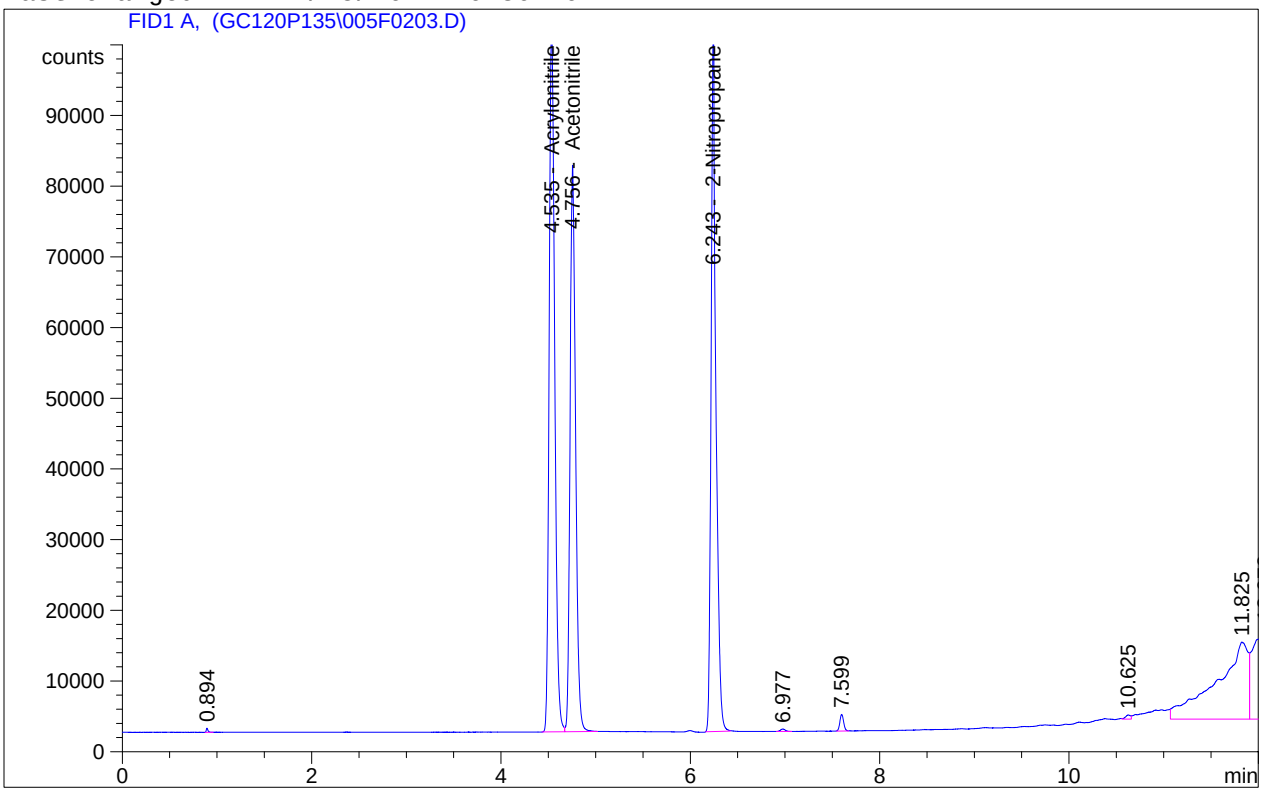
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   2
Acq. Instrument : Penn online                       Location : Vial 5
Injection Date  : 7/19/2011 11:23:15 AM                  Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.536 BV     4.13706e5  8.79572e-4  363.88430    Acrylonitrile
  4.756 VB     3.29137e5  1.06831e-3  351.62013    Acetonitrile
  6.245 BB     3.54982e5  1.24517e-3  442.01480    2-Nitropropane

Totals :                              1157.51923


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\005F0203.D
Sample Name: gc120p135 #5

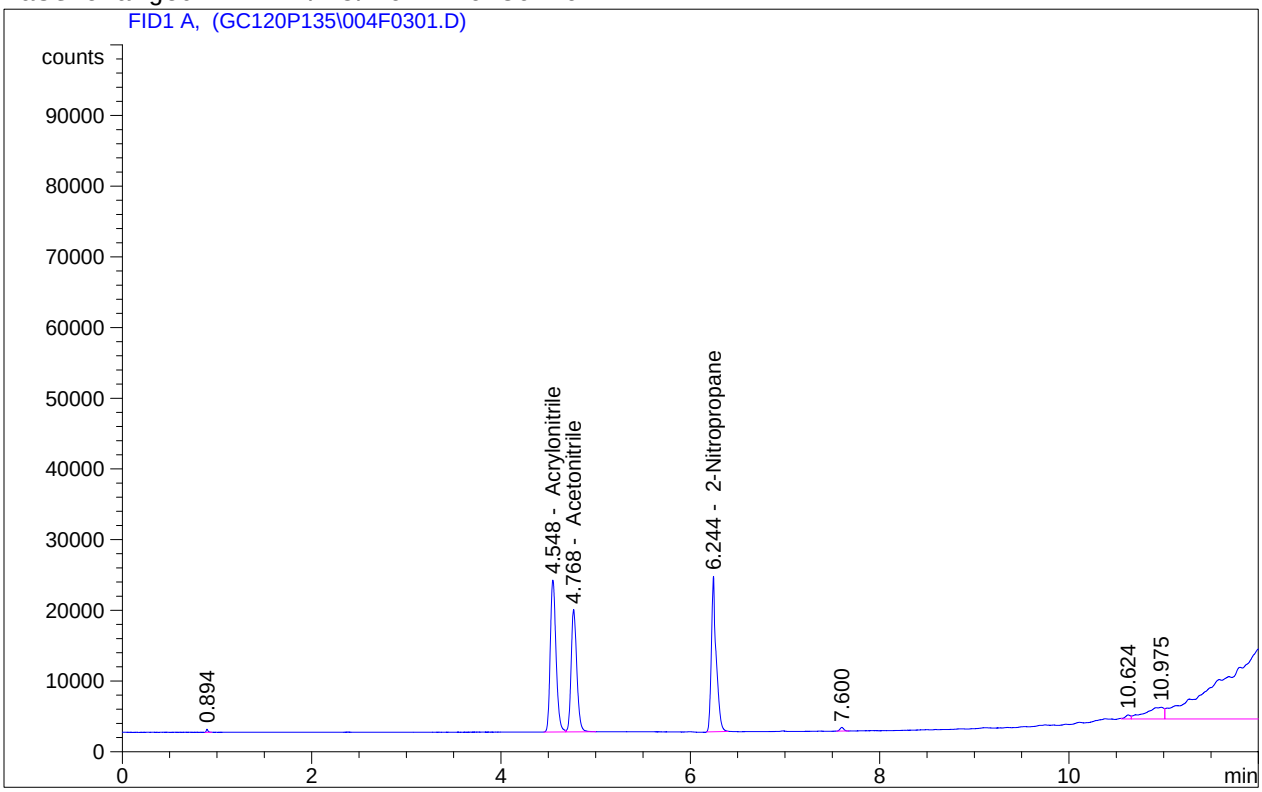
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   2
Acq. Instrument : Penn online                       Location : Vial 5
Injection Date  : 7/19/2011 11:43:44 AM                  Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.535 BV     4.08615e5  8.79562e-4  359.40215    Acrylonitrile
  4.756 VB     3.26043e5  1.06830e-3  348.31283    Acetonitrile
  6.243 BB     3.50967e5  1.24516e-3  437.00984    2-Nitropropane

Totals :                              1144.72482


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F0301.D
Sample Name: gc120p135 #4

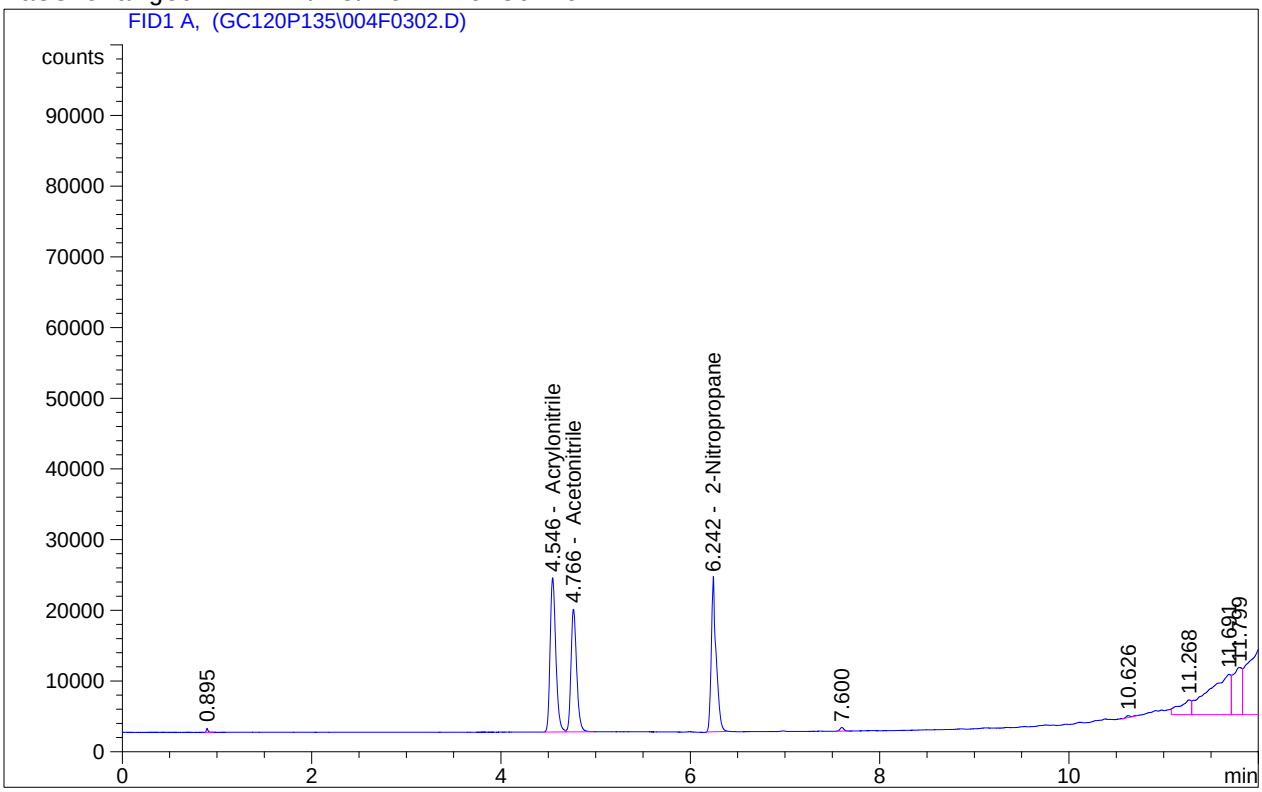
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   3
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/19/2011 12:04:05 PM                  Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.548 BV     9.08176e4  8.76637e-4   79.61406    Acrylonitrile
  4.768 VB     7.23252e4  1.06566e-3   77.07405    Acetonitrile
  6.244 BB     7.76450e4  1.24035e-3   96.30737    2-Nitropropane

Totals :                               252.99548


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F0302.D
Sample Name: gc120p135 #4

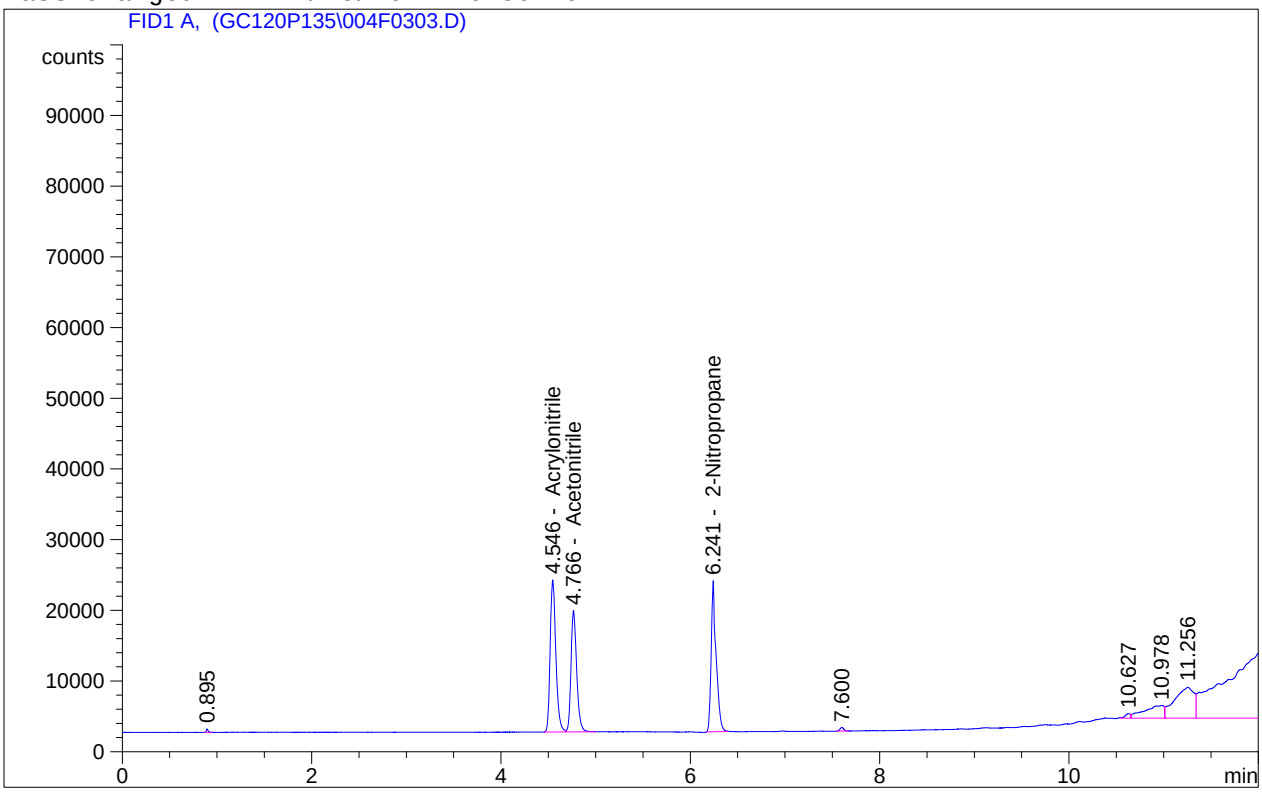
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :   3
Acq. Instrument : Penn online                   Location : Vial 4
Injection Date  : 7/19/2011 12:24:30 PM              Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.546 BV     9.12785e4  8.76656e-4   80.01987    Acrylonitrile
  4.766 VB     7.23772e4  1.06566e-3   77.12962    Acetonitrile
  6.242 BB     7.80082e4  1.24038e-3   96.76003    2-Nitropropane

Totals :                               253.90952


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F0303.D
Sample Name: gc120p135 #4

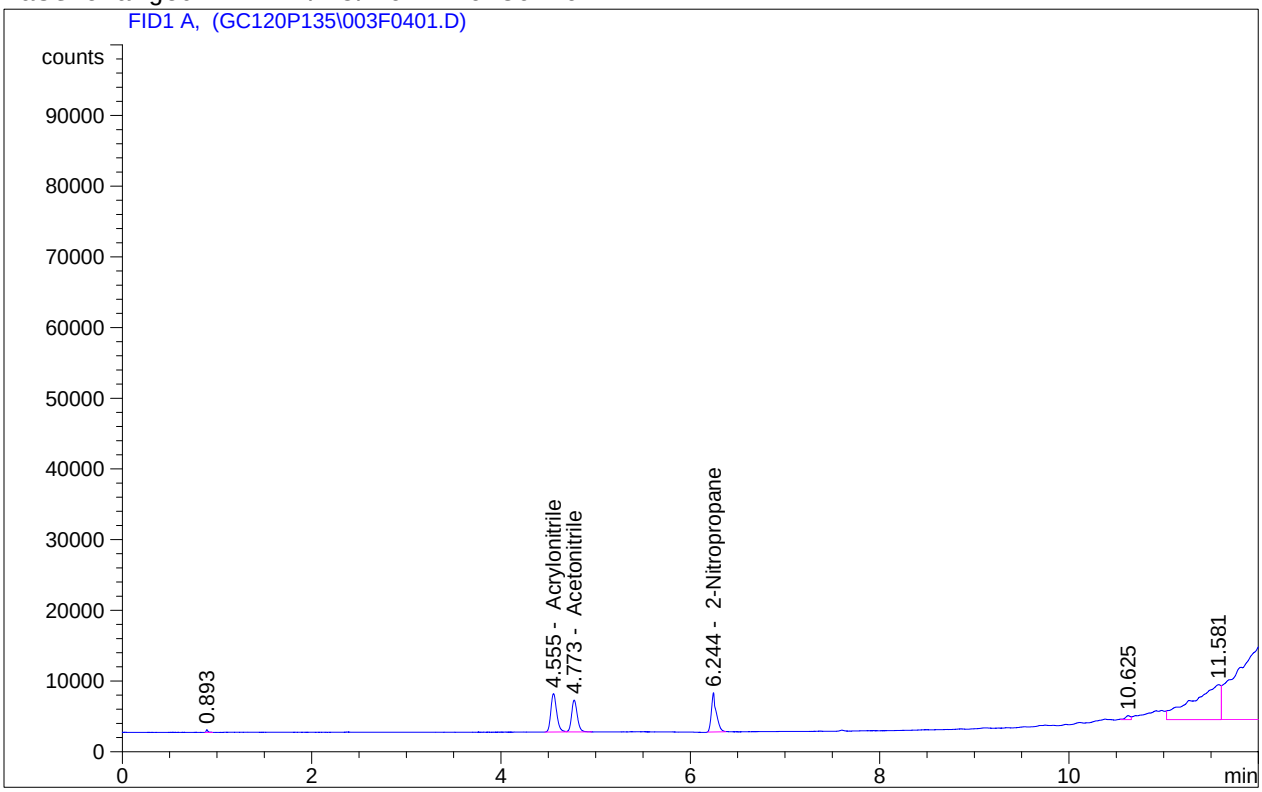
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :   3
Acq. Instrument : Penn online                   Location : Vial 4
Injection Date  : 7/19/2011 12:44:55 PM              Inj :   3
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.546 BV     9.02640e4  8.76614e-4   79.12666    Acrylonitrile
  4.766 VB     7.18212e4  1.06564e-3   76.53524    Acetonitrile
  6.241 BB     7.71717e4  1.24032e-3   95.71739    2-Nitropropane

Totals :                               251.37929


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F0401.D
Sample Name: gc120p135 #3

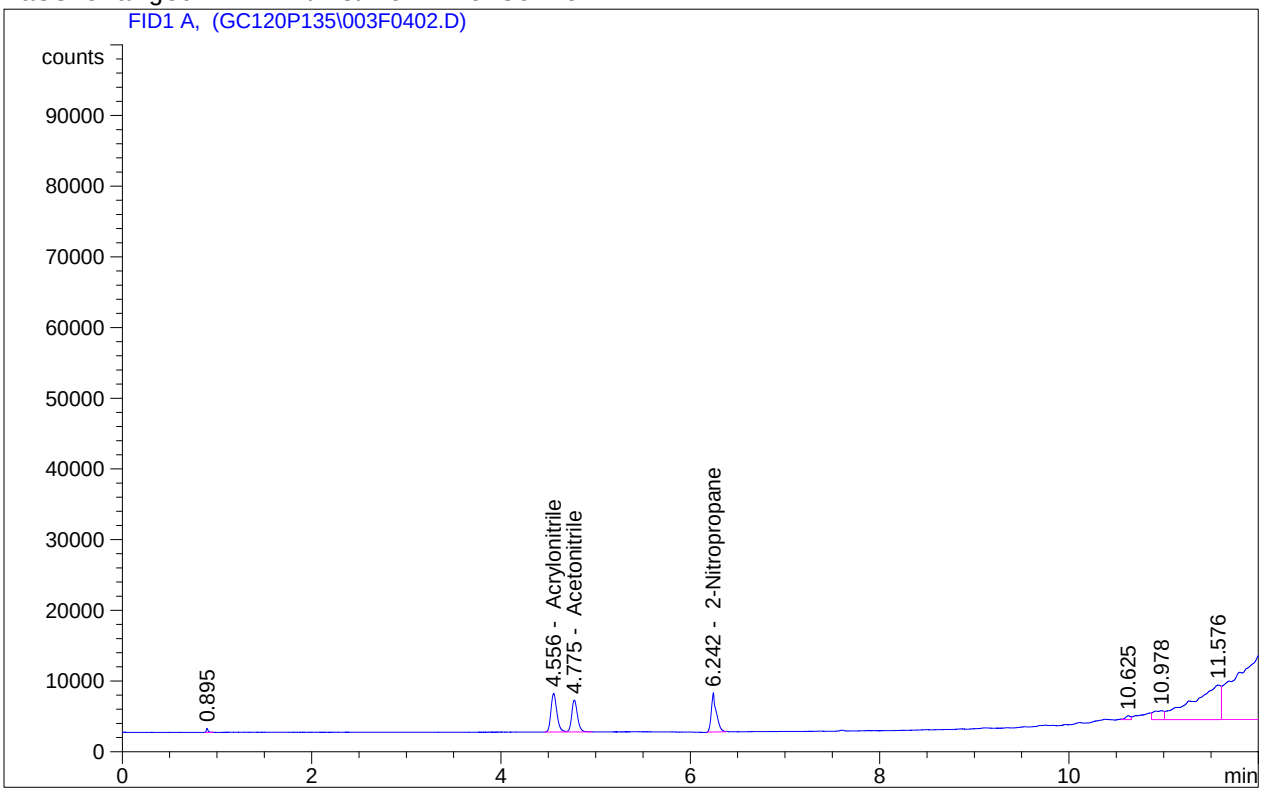
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   4
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/19/2011 1:05:20 PM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.555 BV     2.32949e4  8.65738e-4   20.16726    Acrylonitrile
  4.773 VB     1.87954e4  1.05598e-3   19.84761    Acetonitrile
  6.244 BB     1.97737e4  1.22230e-3   24.16927    2-Nitropropane

Totals :                               64.18415


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F0402.D
Sample Name: gc120p135 #3

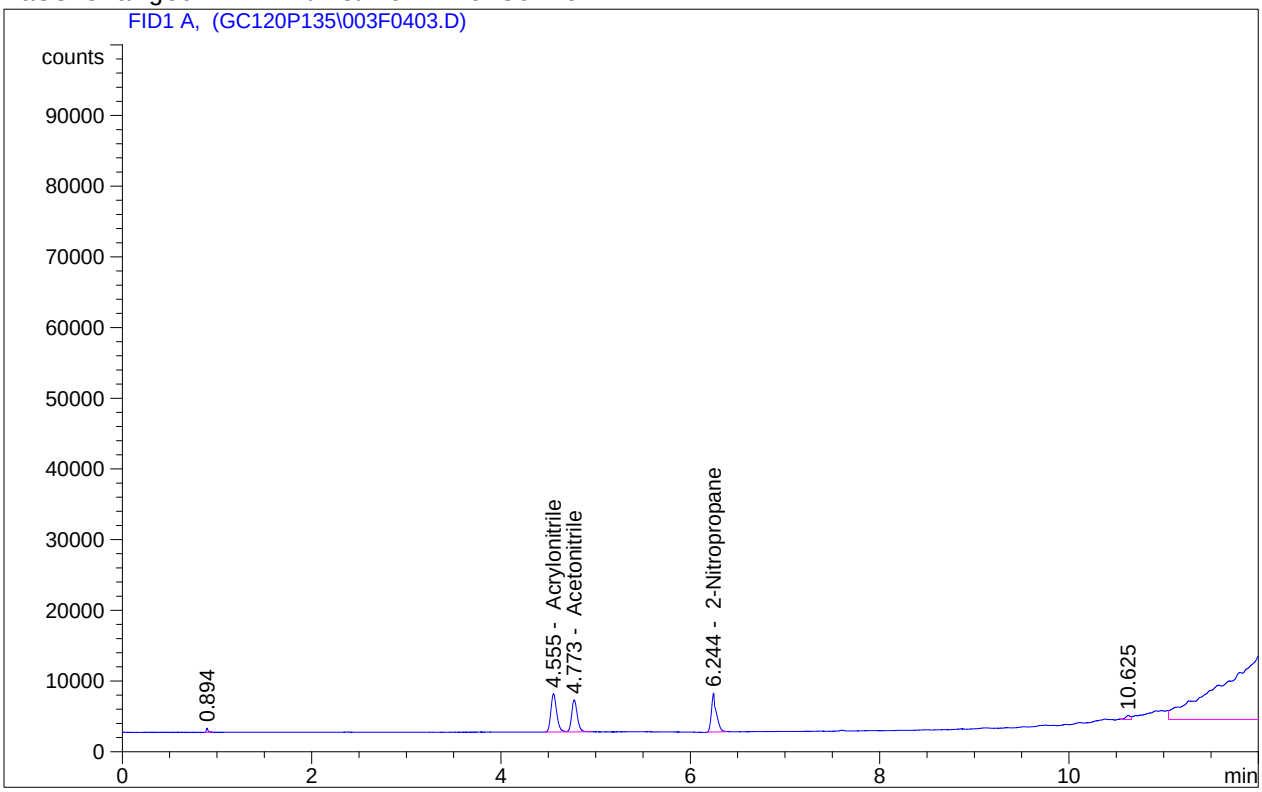
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   4
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/19/2011 1:25:50 PM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.556 BV     2.36399e4  8.65951e-4   20.47100    Acrylonitrile
  4.775 VB     1.90046e4  1.05612e-3   20.07126    Acetonitrile
  6.242 BB     2.00815e4  1.22267e-3   24.55305    2-Nitropropane

Totals :                               65.09531


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F0403.D
Sample Name: gc120p135 #3

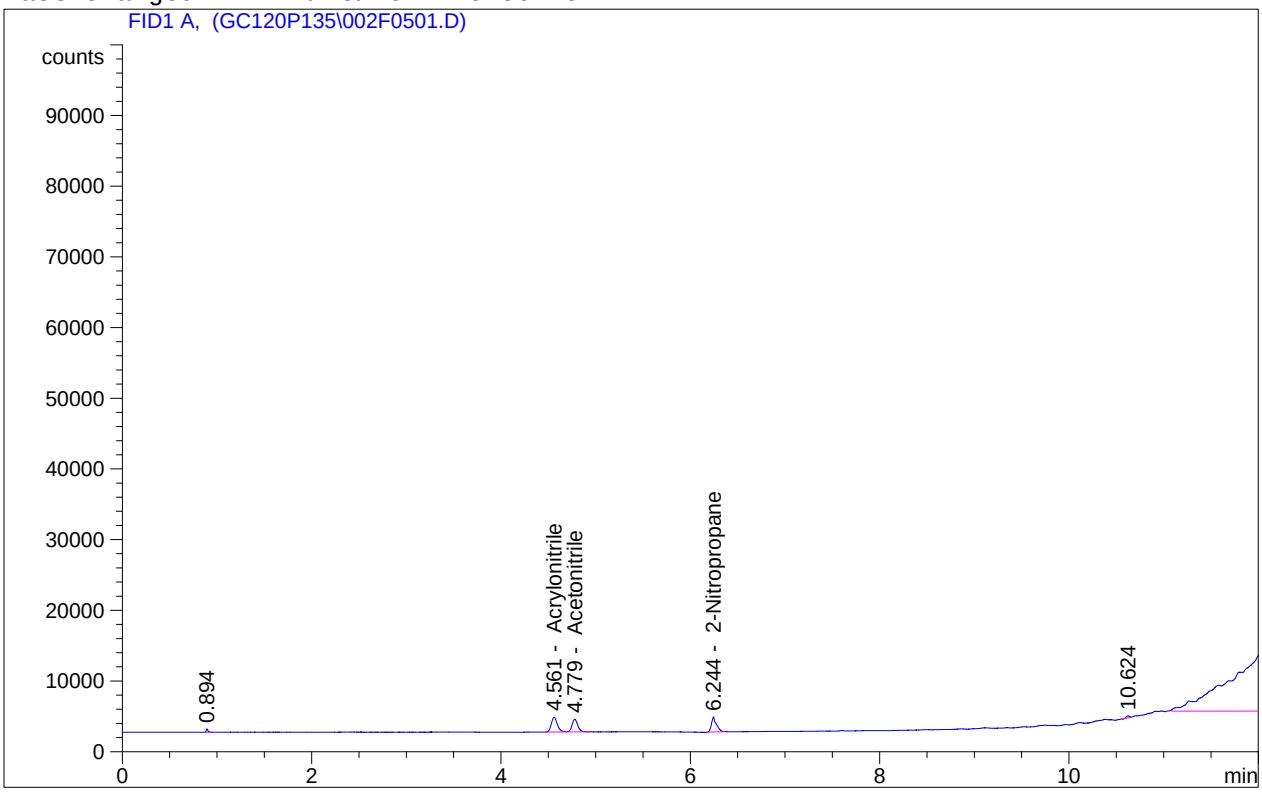
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   4
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/19/2011 1:46:19 PM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.555 BV     2.31004e4  8.65614e-4   19.99602    Acrylonitrile
  4.773 VB     1.87017e4  1.05591e-3   19.74741    Acetonitrile
  6.244 BB     1.96201e4  1.22211e-3   23.97782    2-Nitropropane

Totals :                               63.72125


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\002F0501.D
Sample Name: gc120p135 #2

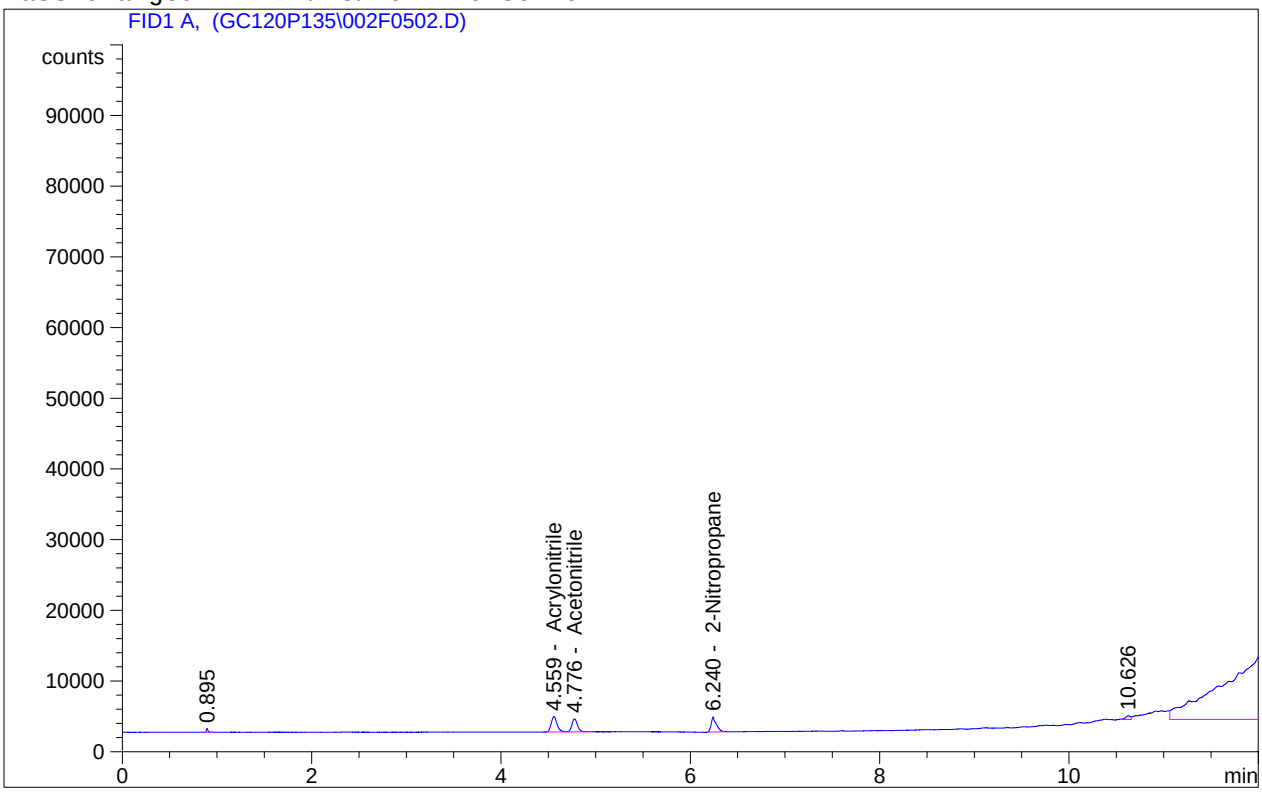
```
==================================================================
Acq. Operator   : KMT                          Seq. Line :   5
Acq. Instrument : Penn online                   Location : Vial 2
Injection Date  : 7/19/2011 2:06:44 PM               Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.561 BV     9198.37402 8.43271e-4    7.75672    Acrylonitrile
  4.779 VB     7517.08789 1.03636e-3    7.79041    Acetonitrile
  6.244 BB     7665.63818 1.18403e-3    9.07634    2-Nitropropane

Totals :                                24.62347


==================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\002F0502.D
Sample Name: gc120p135 #2

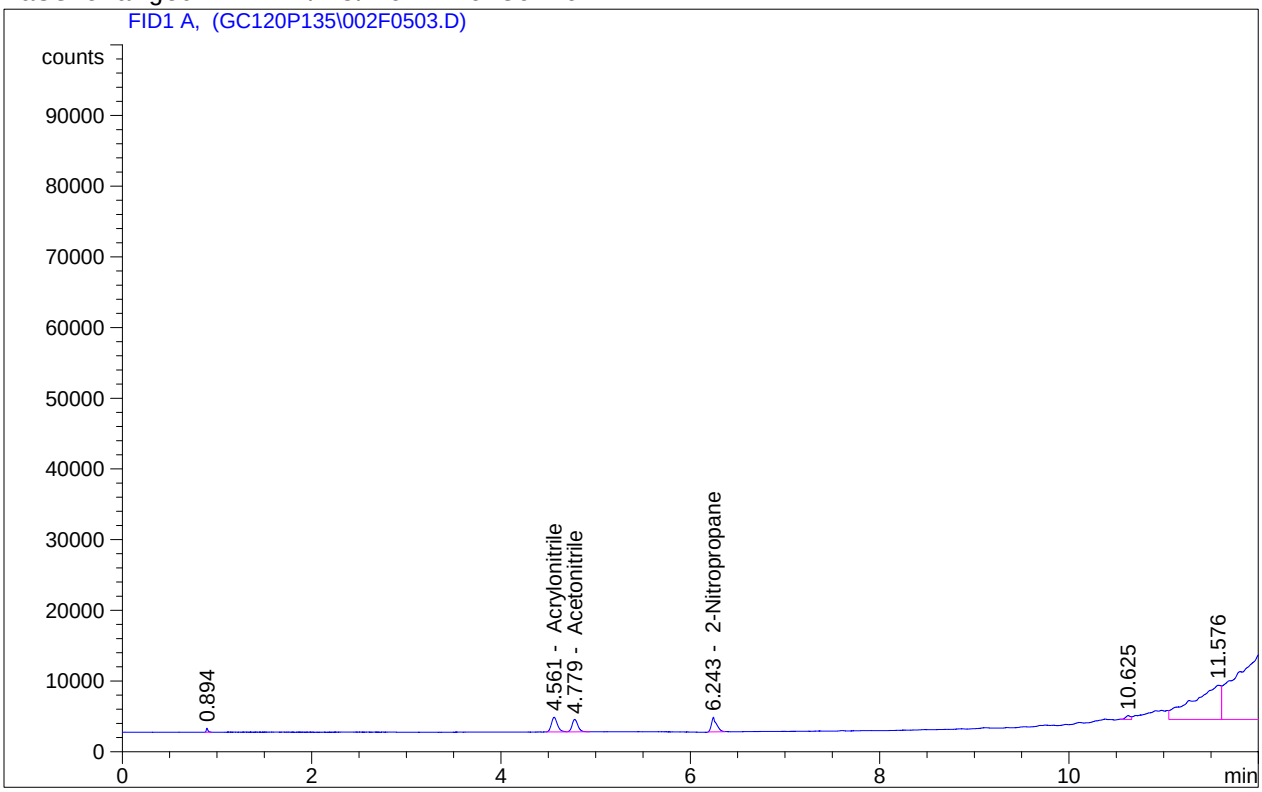
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   5
Acq. Instrument : Penn online                       Location : Vial 2
Injection Date  : 7/19/2011 2:27:10 PM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.559 BV     9352.16504 8.43882e-4    7.89212    Acrylonitrile
  4.776 VB     7520.83936 1.03638e-3    7.79442    Acetonitrile
  6.240 BB     7870.32520 1.18565e-3    9.33148    2-Nitropropane

Totals :                                25.01803


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\002F0503.D
Sample Name: gc120p135 #2

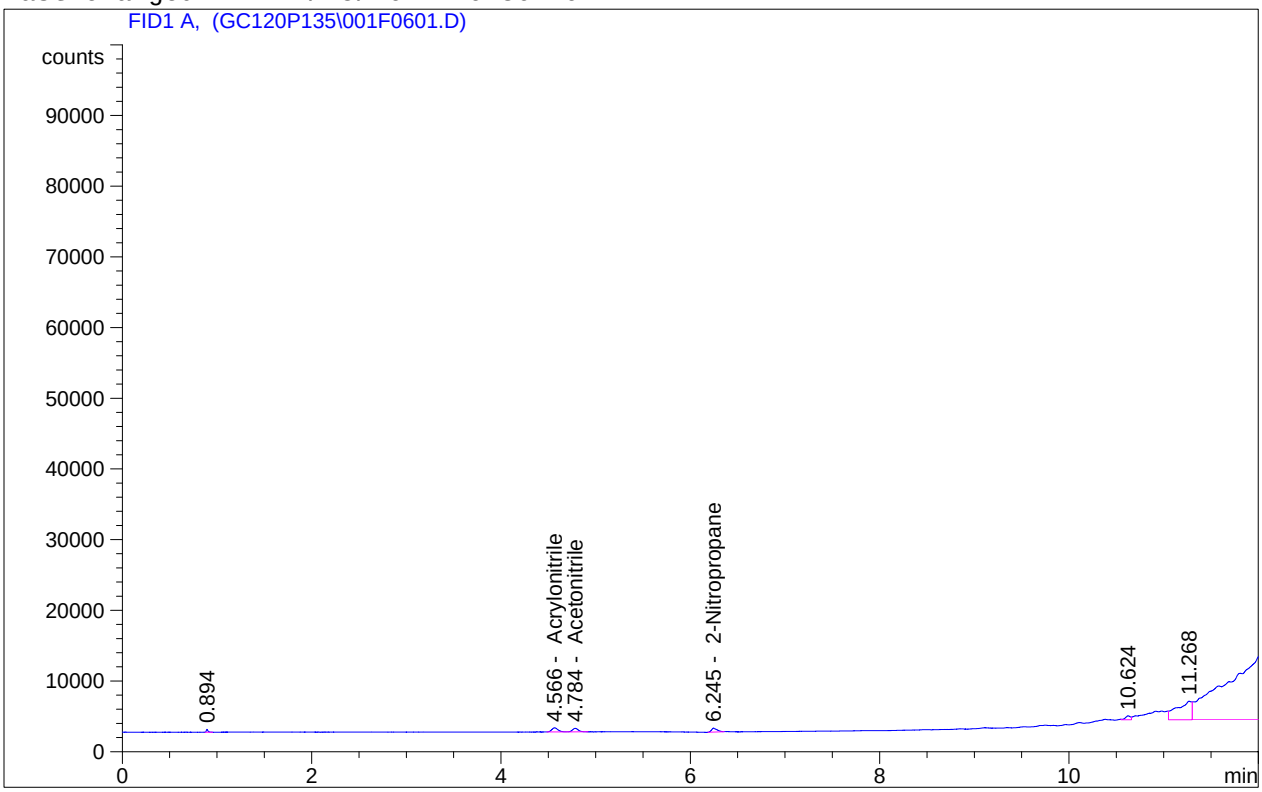
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   5
Acq. Instrument : Penn online                       Location : Vial 2
Injection Date  : 7/19/2011 2:47:35 PM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.561 BV     9173.88574 8.43172e-4    7.73516    Acrylonitrile
  4.779 VB     7459.86670 1.03611e-3    7.72924    Acetonitrile
  6.243 BB     7725.71143 1.18451e-3    9.15122    2-Nitropropane

Totals :                                24.61562


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\001F0601.D
Sample Name: gc120p135 #1

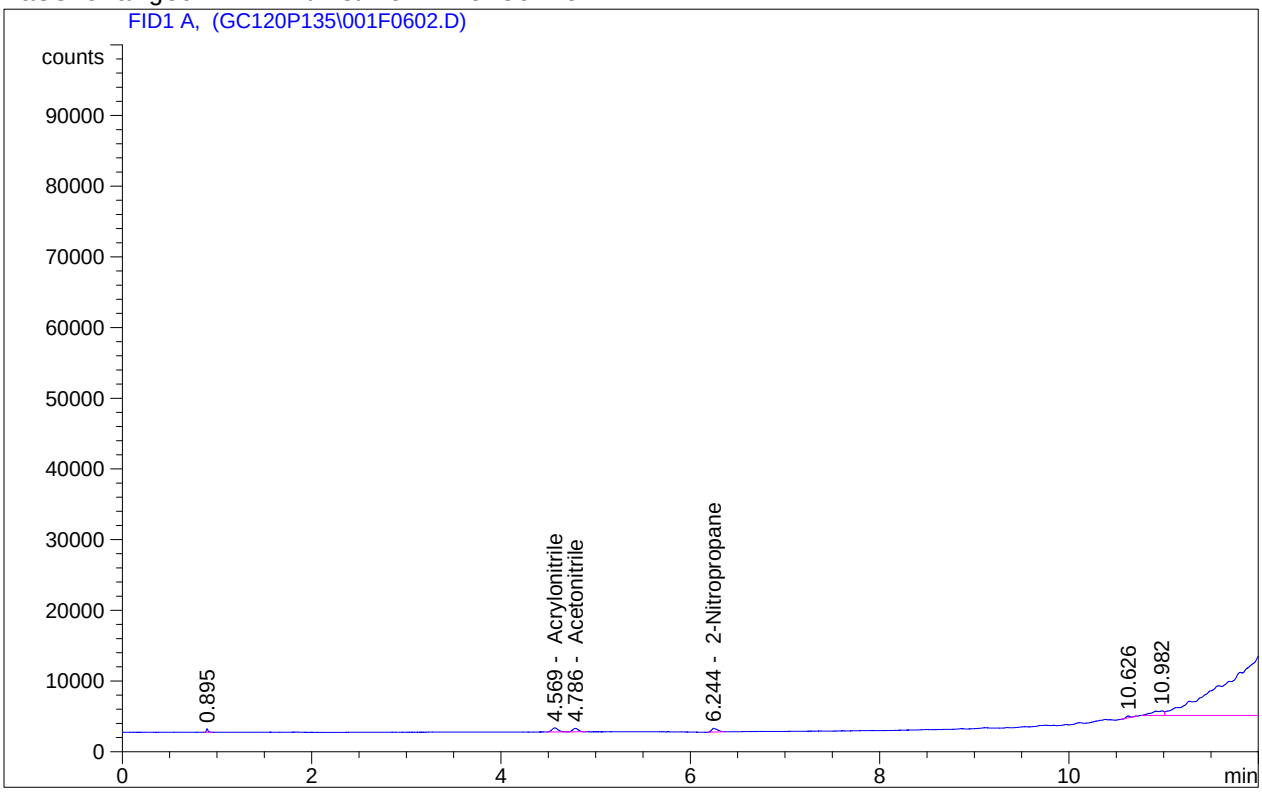
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   6
Acq. Instrument : Penn online                       Location : Vial 1
Injection Date  : 7/19/2011 3:08:05 PM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.566 BB     2651.20459 7.51588e-4    1.99261    Acrylonitrile
  4.784 BB     2142.50952 9.54338e-4    2.04468    Acetonitrile
  6.245 BB     2270.70020 1.04047e-3    2.36259    2-Nitropropane

Totals :                                6.39988


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\001F0602.D
Sample Name: gc120p135 #1

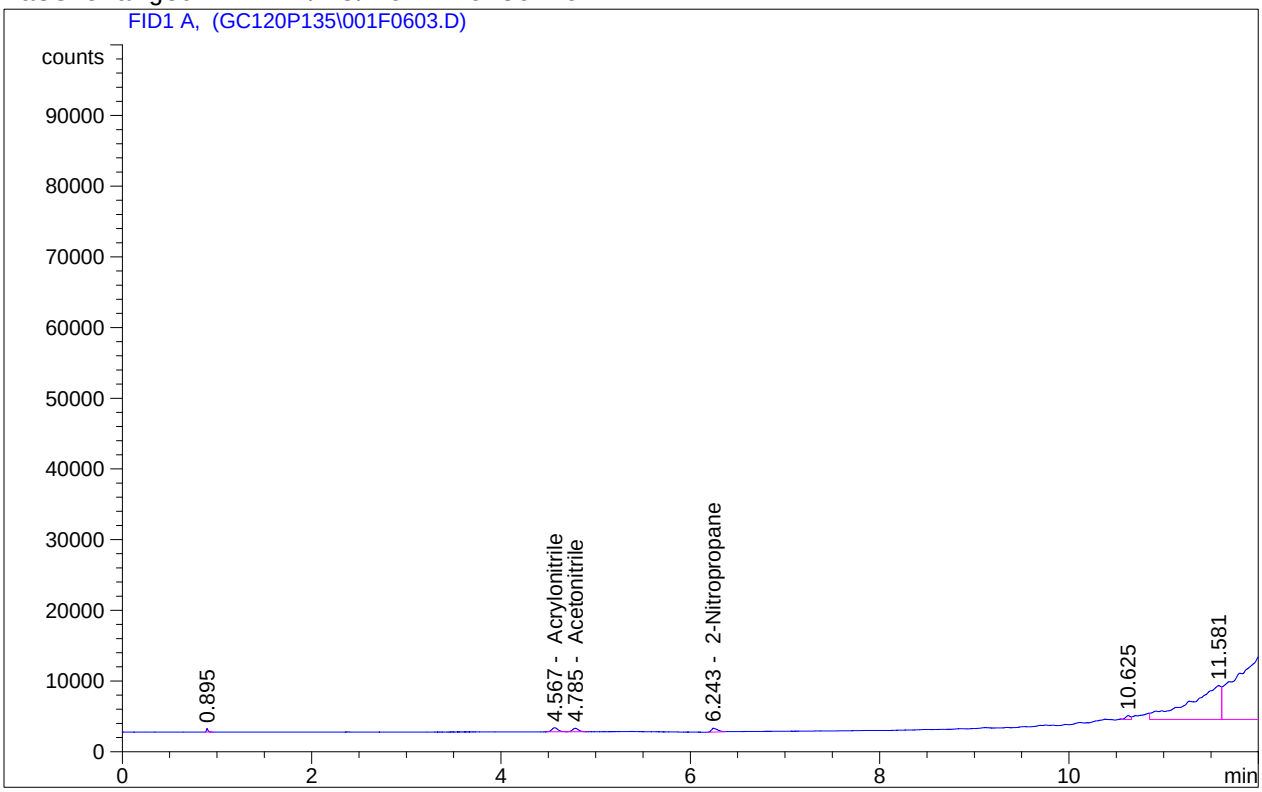
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   6
Acq. Instrument : Penn online                       Location : Vial 1
Injection Date  : 7/19/2011 3:28:39 PM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.569 BB     2601.20459 7.49989e-4    1.95088    Acrylonitrile
  4.786 BB     2079.34009 9.52678e-4    1.98094    Acetonitrile
  6.244 BB     2364.64258 1.04393e-3    2.46852    2-Nitropropane

Totals :                                6.40033


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\001F0603.D
Sample Name: gc120p135 #1

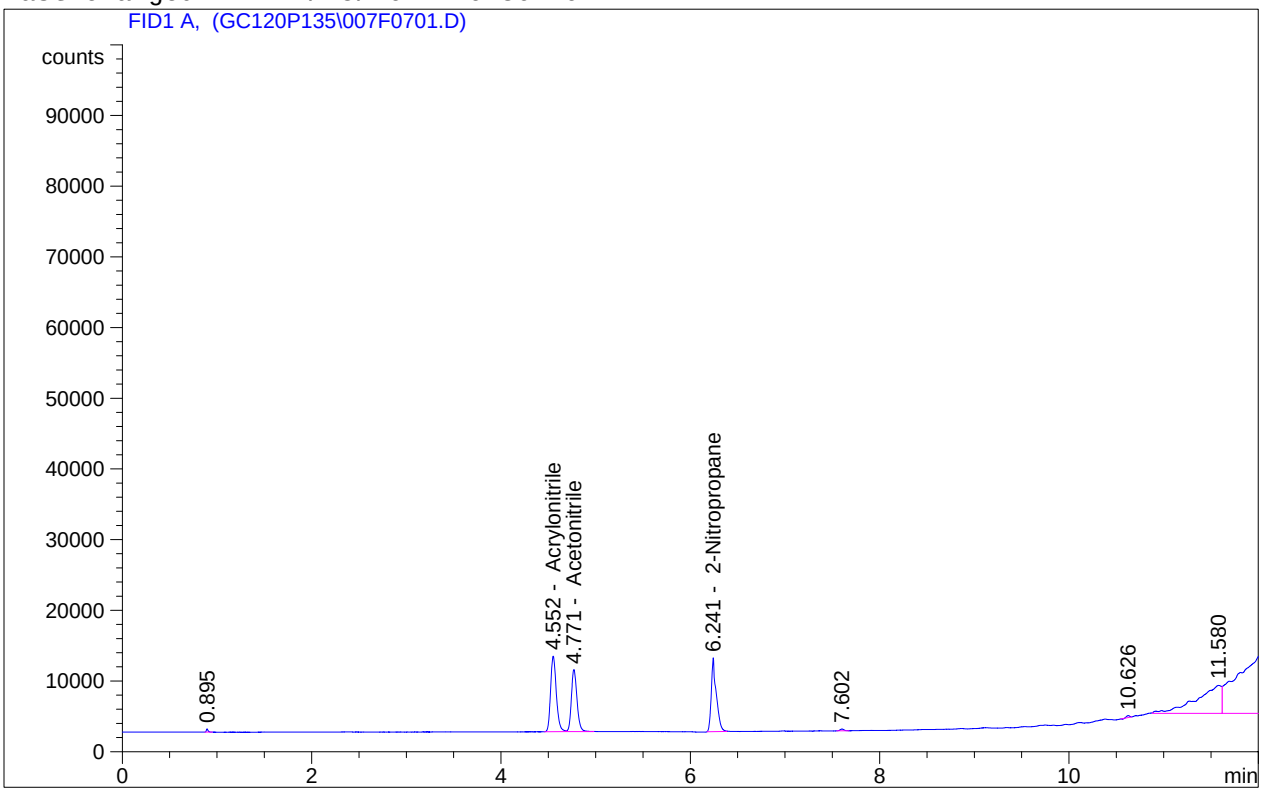
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   6
Acq. Instrument : Penn online                       Location : Vial 1
Injection Date  : 7/19/2011 3:49:08 PM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.567 BB     2645.28198 7.51299e-4    1.98740    Acrylonitrile
  4.785 BB     2117.55542 9.52986e-4    2.01800    Acetonitrile
  6.243 BB     2405.01831 1.04733e-3    2.51884    2-Nitropropane

Totals :                                6.52424


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\007F0701.D
Sample Name: gc120p135 #3ss

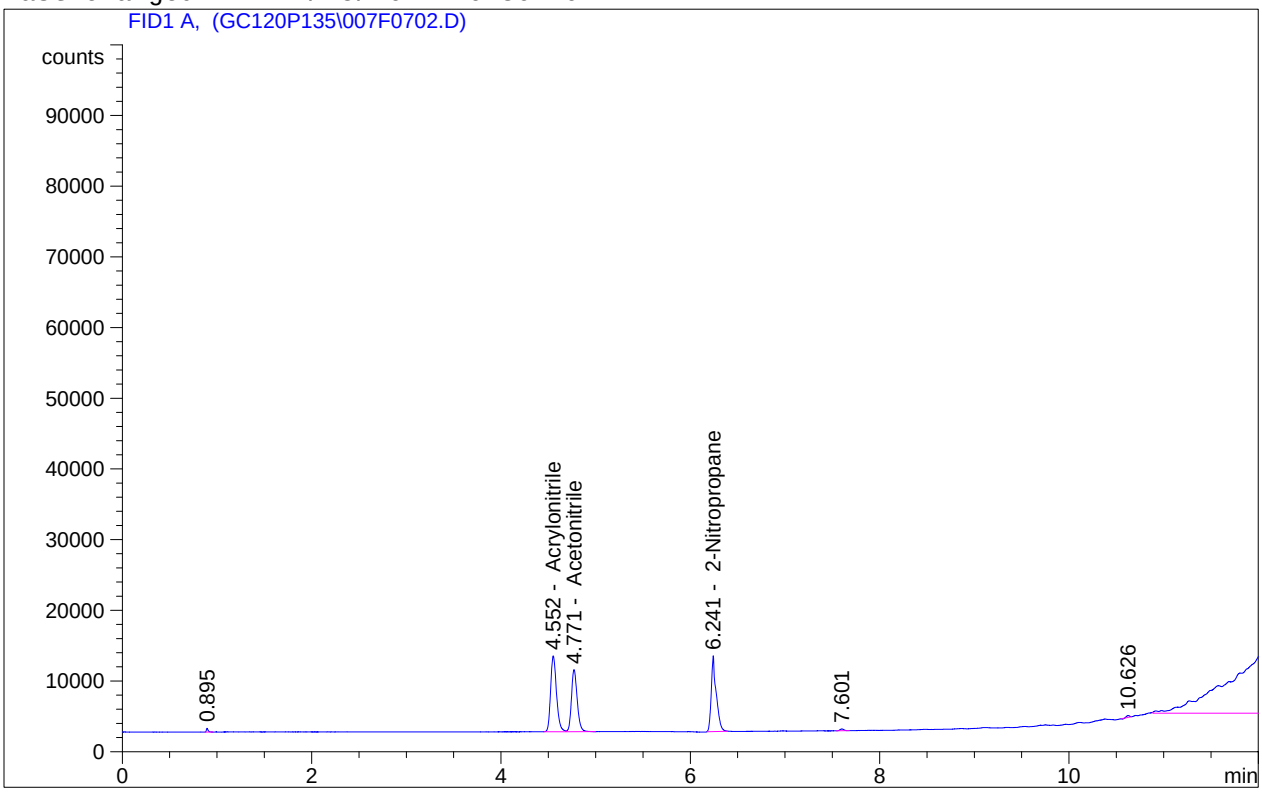
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   7
Acq. Instrument : Penn online                       Location : Vial 7
Injection Date  : 7/19/2011 4:09:38 PM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.552 BV     4.50440e4  8.72816e-4   39.31514    Acrylonitrile
  4.771 VB     3.62264e4  1.06227e-3   38.48228    Acetonitrile
  6.241 BB     3.81316e4  1.23396e-3   47.05290    2-Nitropropane

Totals :                               124.85033


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\007F0702.D
Sample Name: gc120p135 #3ss

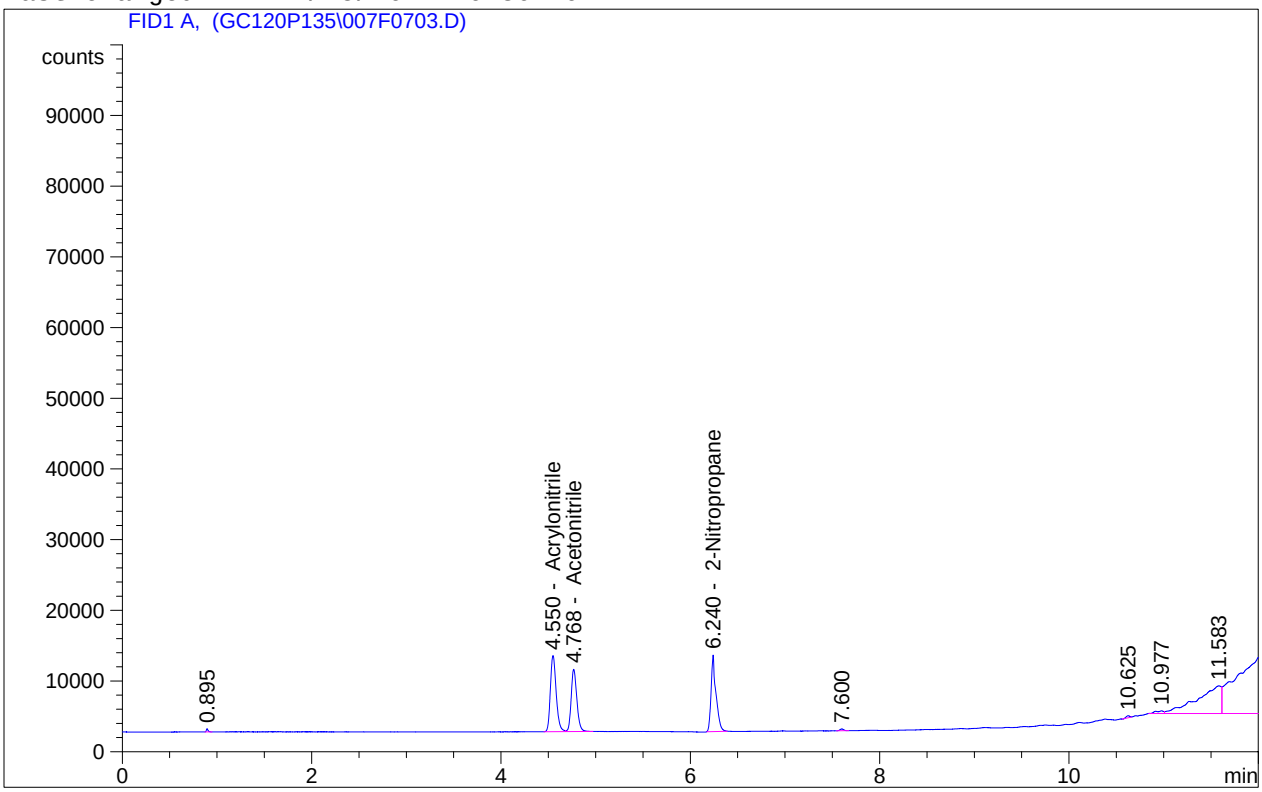
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   7
Acq. Instrument : Penn online                       Location : Vial 7
Injection Date  : 7/19/2011 4:30:07 PM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.552 BV     4.63491e4  8.73029e-4   40.46417    Acrylonitrile
  4.771 VB     3.70015e4  1.06241e-3   39.31095    Acetonitrile
  6.241 BB     3.88523e4  1.23419e-3   47.95126    2-Nitropropane

Totals :                               127.72637


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\007F0703.D
Sample Name: gc120p135 #3ss

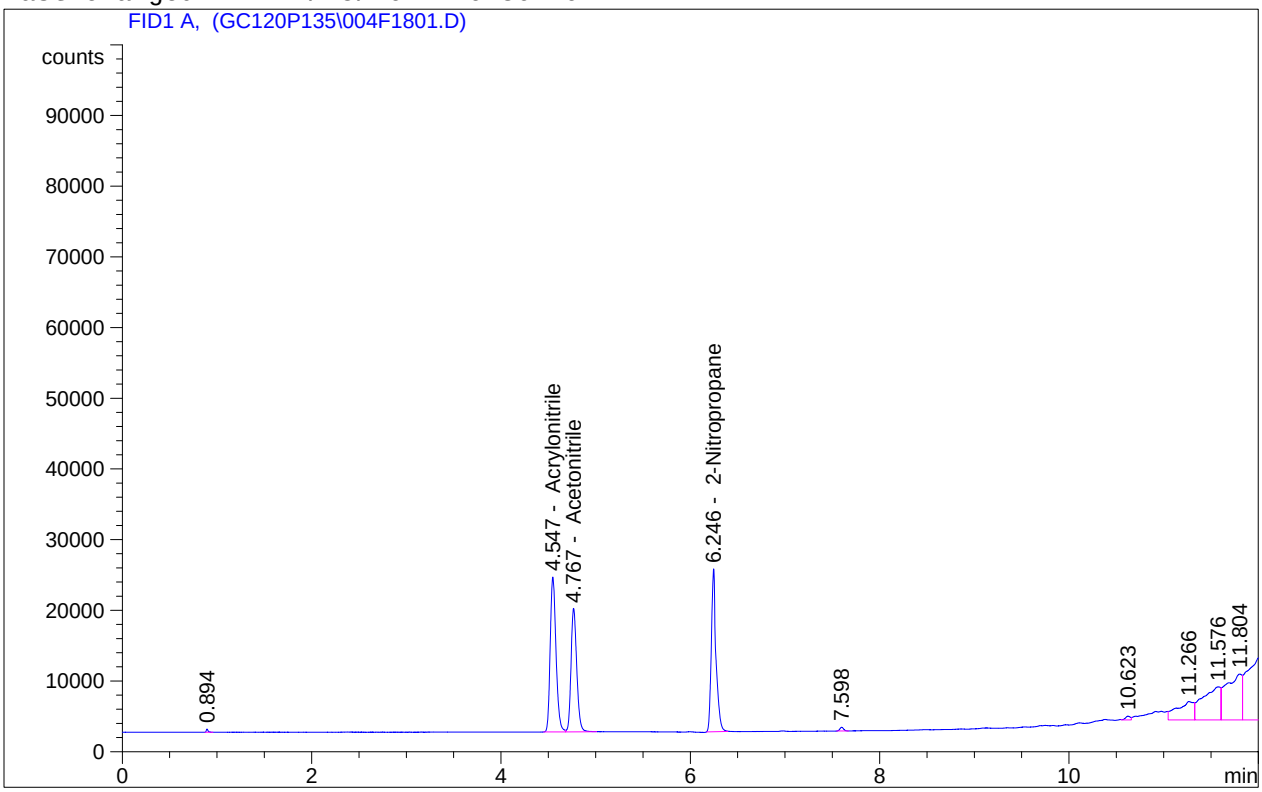
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :   7
Acq. Instrument : Penn online                       Location : Vial 7
Injection Date  : 7/19/2011 4:50:41 PM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.550 BV     4.58105e4  8.72943e-4   39.98995    Acrylonitrile
  4.768 VB     3.66834e4  1.06236e-3   38.97083    Acetonitrile
  6.240 BB     3.87672e4  1.23417e-3   47.84515    2-Nitropropane

Totals :                               126.80594


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F1801.D
Sample Name: gc120p135 #4

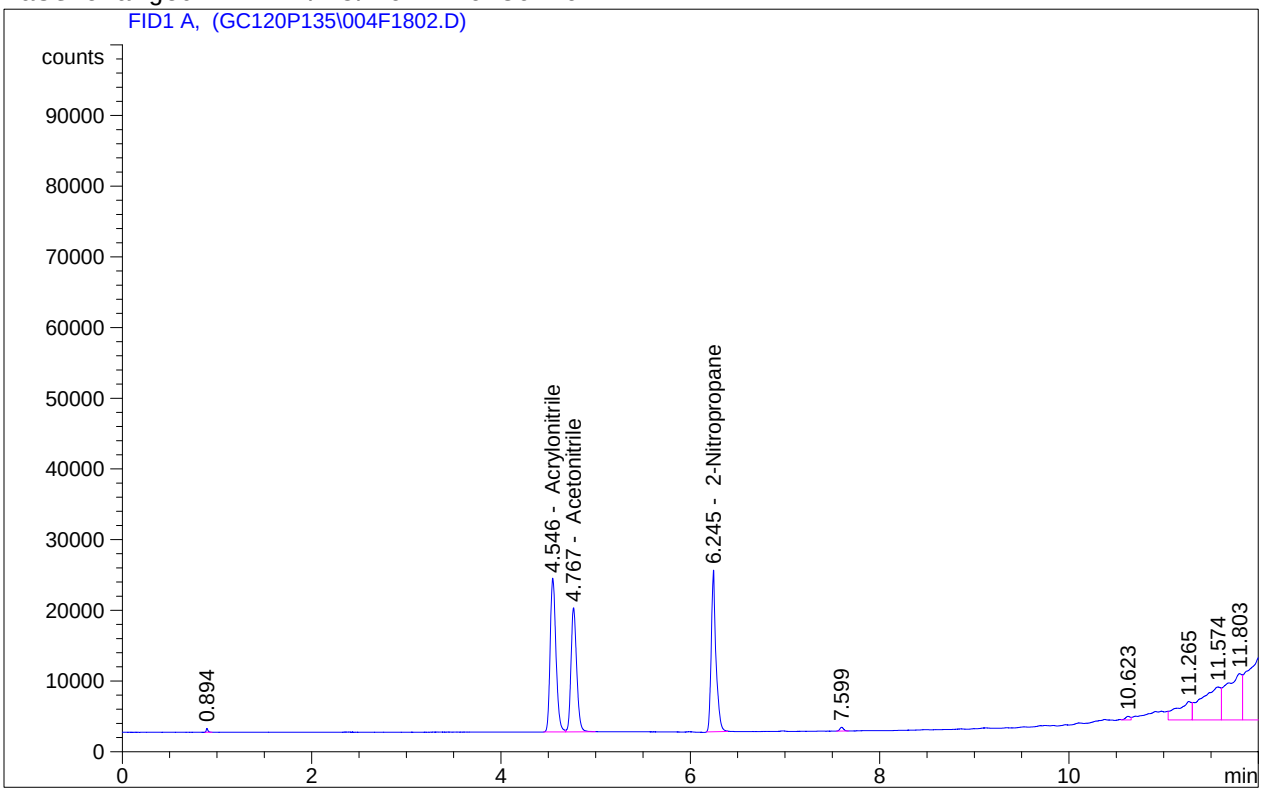
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  18
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/20/2011 3:23:14 AM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.547 BV     9.31637e4  8.76732e-4   81.67961    Acrylonitrile
  4.767 VB     7.34639e4  1.06571e-3   78.29130    Acetonitrile
  6.246 BB     7.96328e4  1.24051e-3   98.78512    2-Nitropropane

Totals :                               258.75604


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F1802.D
Sample Name: gc120p135 #4

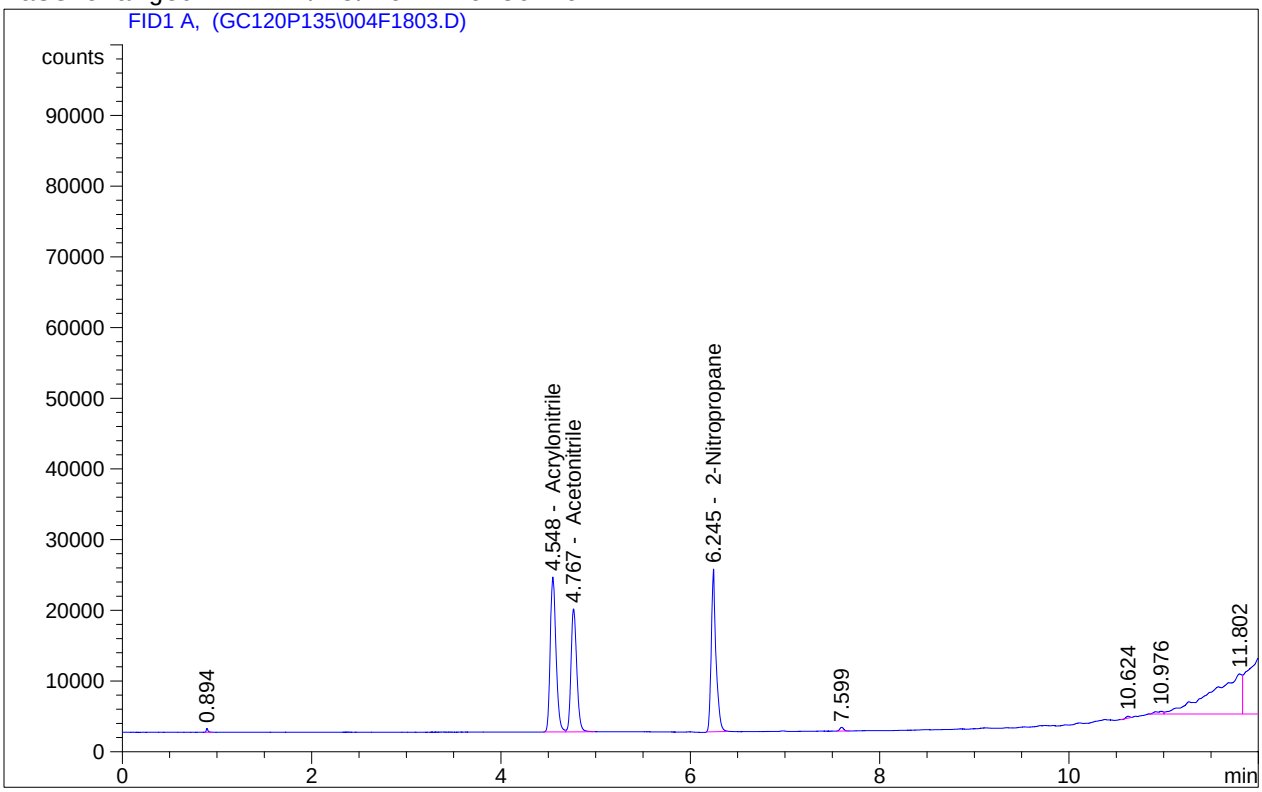
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  18
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/20/2011 3:43:35 AM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.546 BV     9.26615e4  8.76712e-4   81.23747    Acrylonitrile
  4.767 VB     7.32881e4  1.06570e-3   78.10338    Acetonitrile
  6.245 BB     7.91504e4  1.24047e-3   98.18383    2-Nitropropane

Totals :                               257.52468


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F1803.D
Sample Name: gc120p135 #4

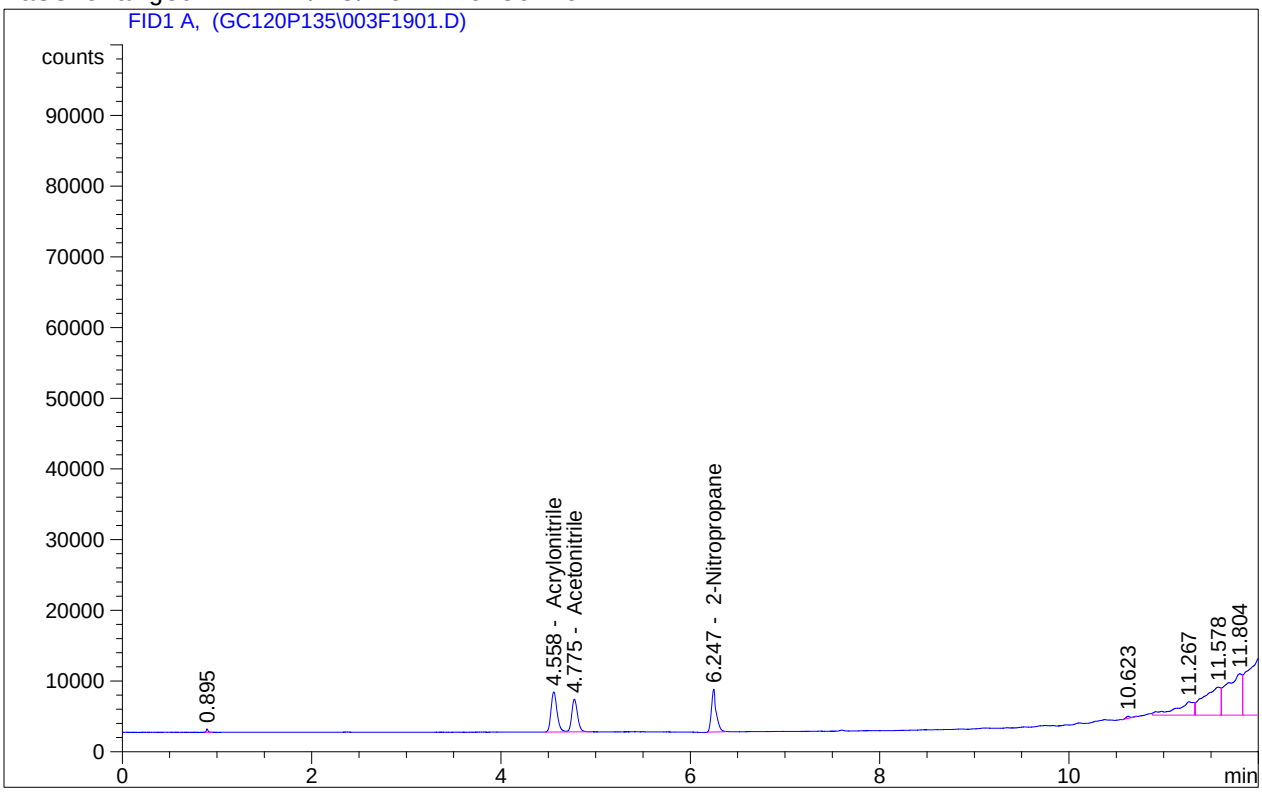
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  18
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/20/2011 4:04:00 AM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.548 BV     9.35328e4  8.76746e-4   82.00457    Acrylonitrile
  4.767 VB     7.35181e4  1.06571e-3   78.34931    Acetonitrile
  6.245 BB     7.99009e4  1.24053e-3   99.11934    2-Nitropropane

Totals :                               259.47321


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F1901.D
Sample Name: gc120p135 #3

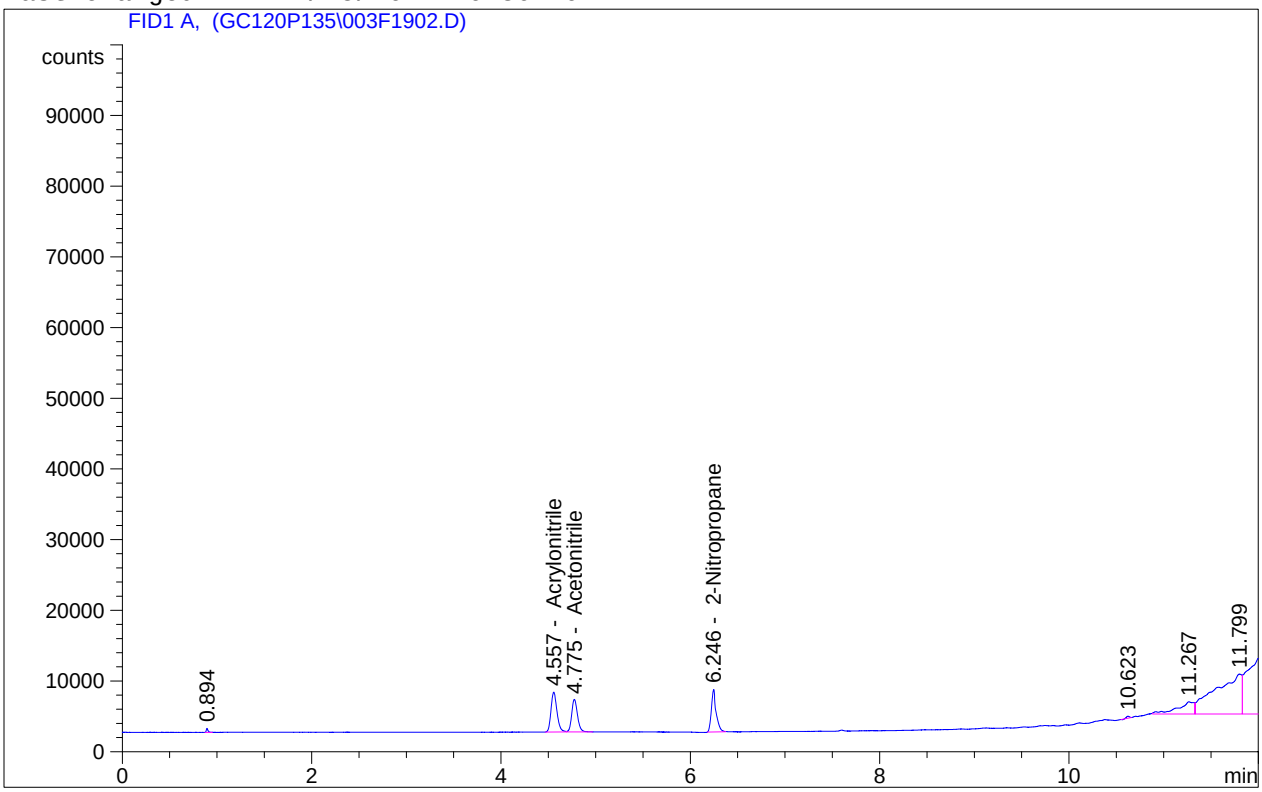
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  19
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/20/2011 4:24:21 AM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.558 BV     2.48802e4  8.66672e-4   21.56293    Acrylonitrile
  4.775 VB     1.96291e4  1.05654e-3   20.73887    Acetonitrile
  6.247 BB     2.10763e4  1.22379e-3   25.79302    2-Nitropropane

Totals :                               68.09482


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F1902.D
Sample Name: gc120p135 #3

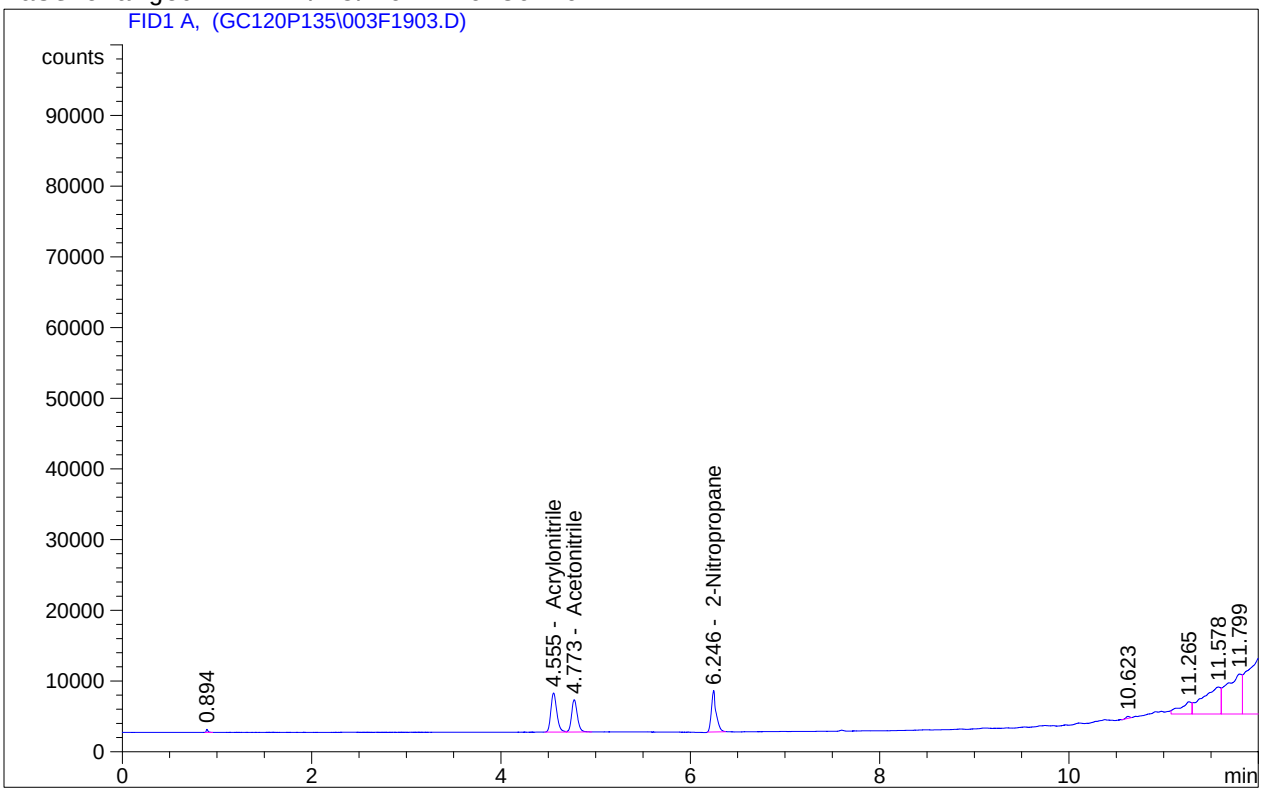
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  19
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/20/2011 4:44:42 AM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.557 BV     2.46623e4  8.66550e-4   21.37112    Acrylonitrile
  4.775 VB     1.95509e4  1.05649e-3   20.65524    Acetonitrile
  6.246 BB     2.08838e4  1.22358e-3   25.55315    2-Nitropropane

Totals :                               67.57950


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F1903.D
Sample Name: gc120p135 #3

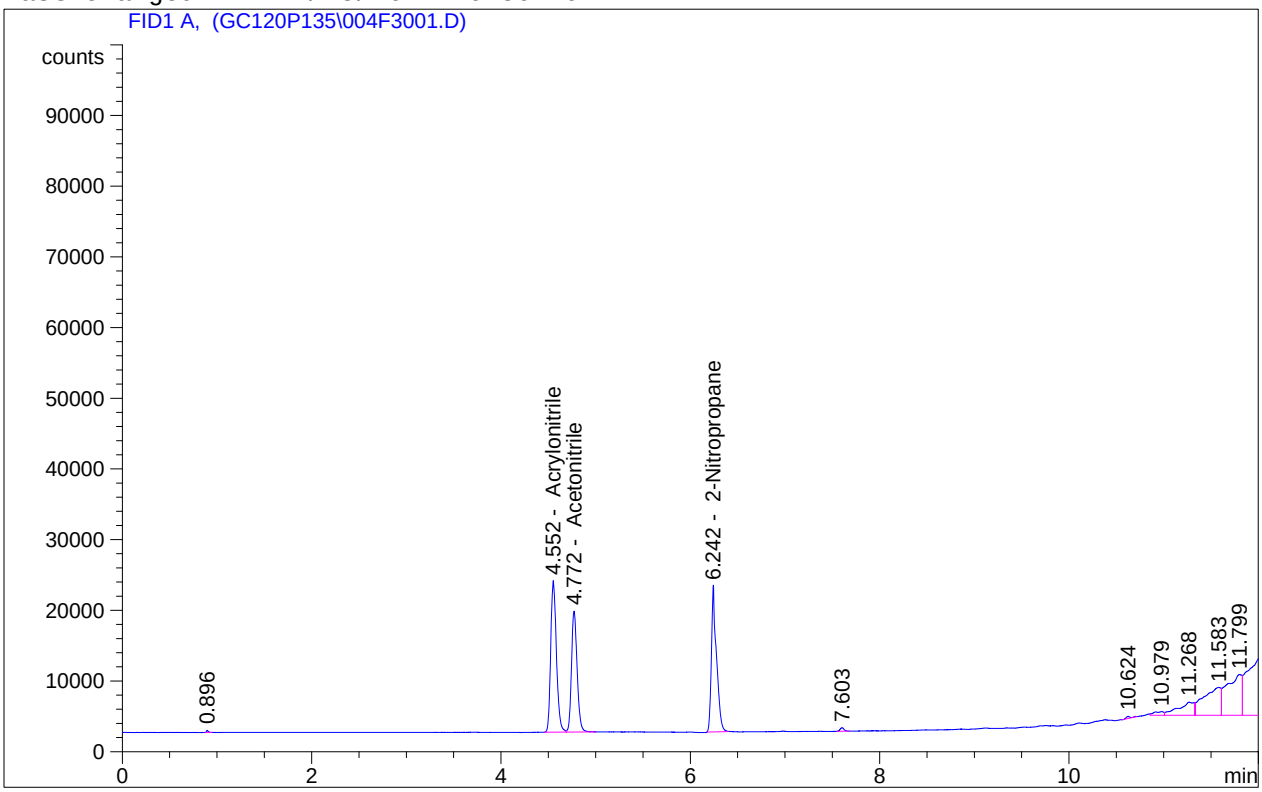
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  19
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/20/2011 5:05:12 AM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/19/2011 9:58:37 AM by KMT
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.555 BV     2.40527e4  8.66199e-4   20.83442    Acrylonitrile
  4.773 VB     1.91789e4  1.05624e-3   20.25752    Acetonitrile
  6.246 BB     2.03851e4  1.22302e-3   24.93149    2-Nitropropane

Totals :                                66.02343


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F3001.D
Sample Name: gc120p135 #4

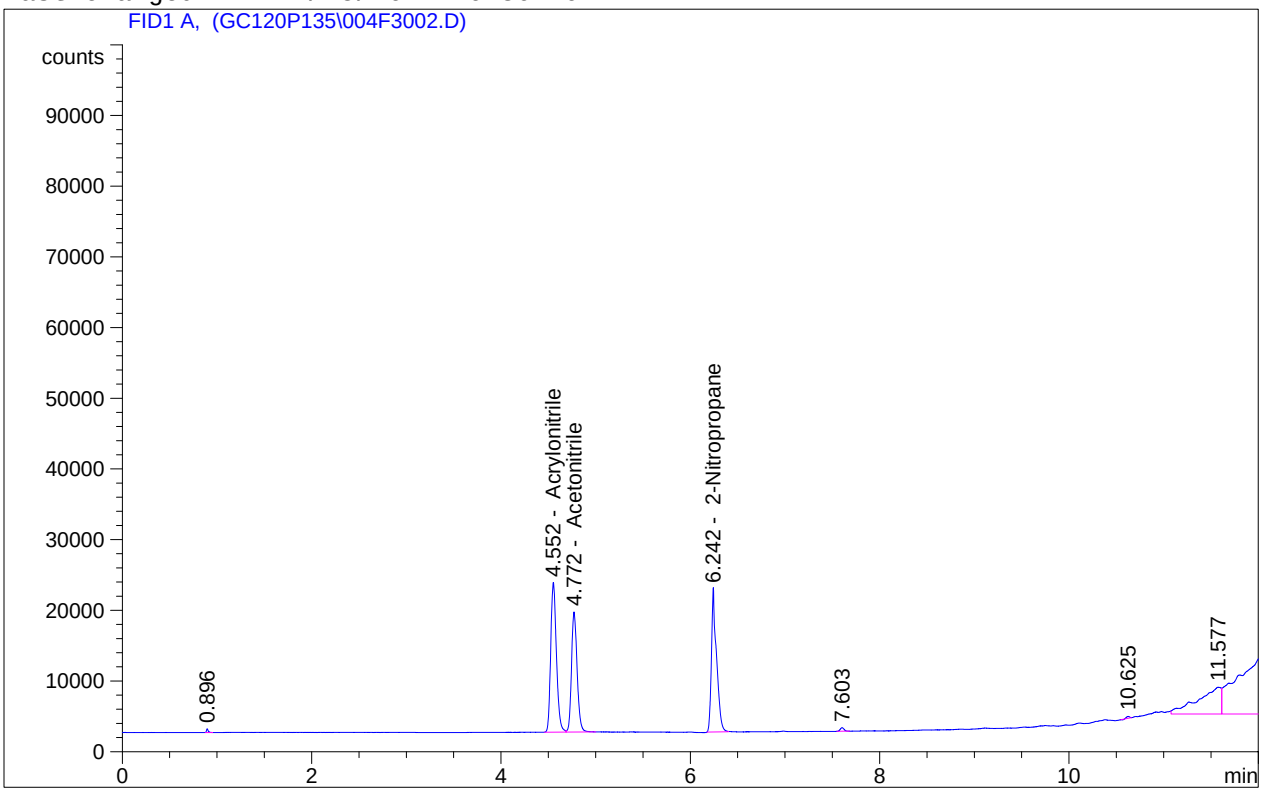
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  30
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/20/2011 3:39:05 PM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.552 BV     9.00465e4  8.76605e-4   78.93523    Acrylonitrile
  4.772 VB     7.06624e4  1.06558e-3   75.29641    Acetonitrile
  6.242 BB     7.68511e4  1.24029e-3   95.31771    2-Nitropropane

Totals :                               249.54934


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F3002.D
Sample Name: gc120p135 #4

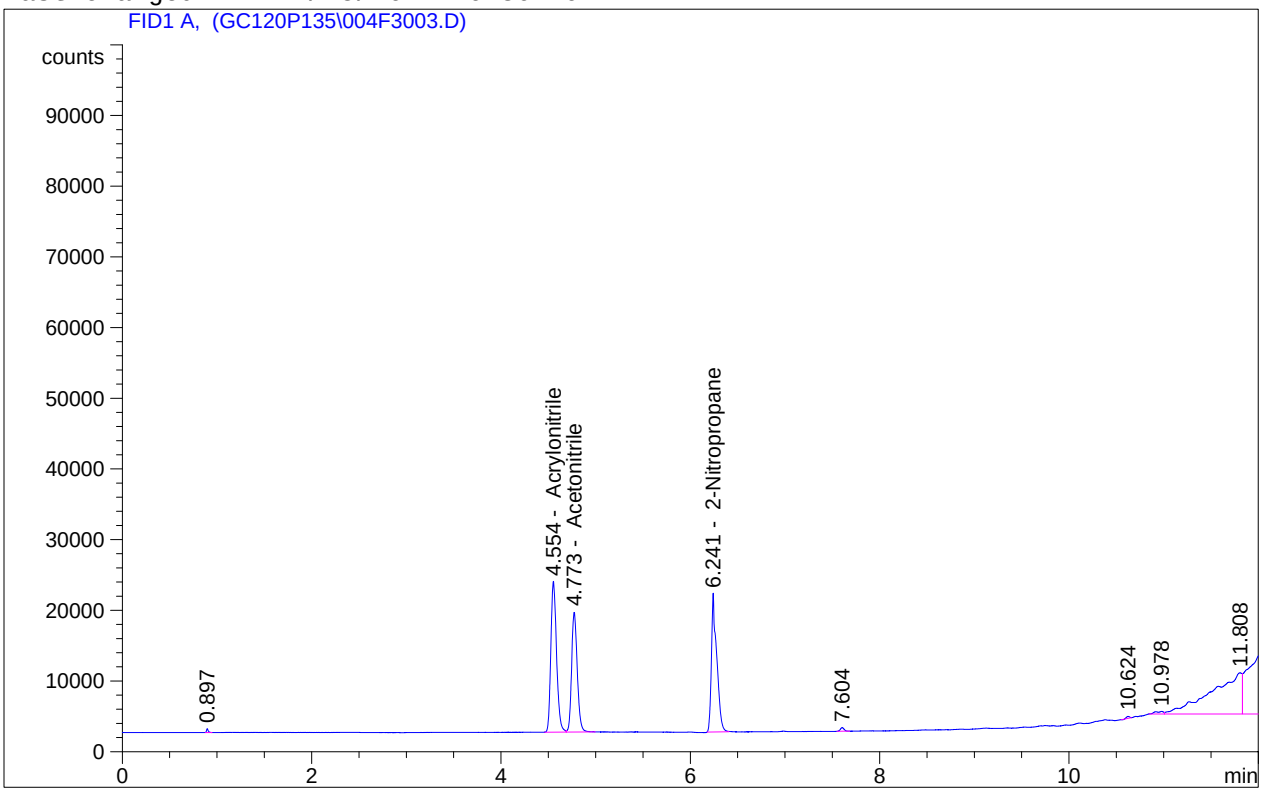
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  30
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/20/2011 3:59:42 PM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.552 BV     8.88934e4  8.76556e-4   77.92006    Acrylonitrile
  4.772 VB     7.02395e4  1.06556e-3   74.84431    Acetonitrile
  6.242 BB     7.59914e4  1.24022e-3   94.24612    2-Nitropropane

Totals :                               247.01049


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F3003.D
Sample Name: gc120p135 #4

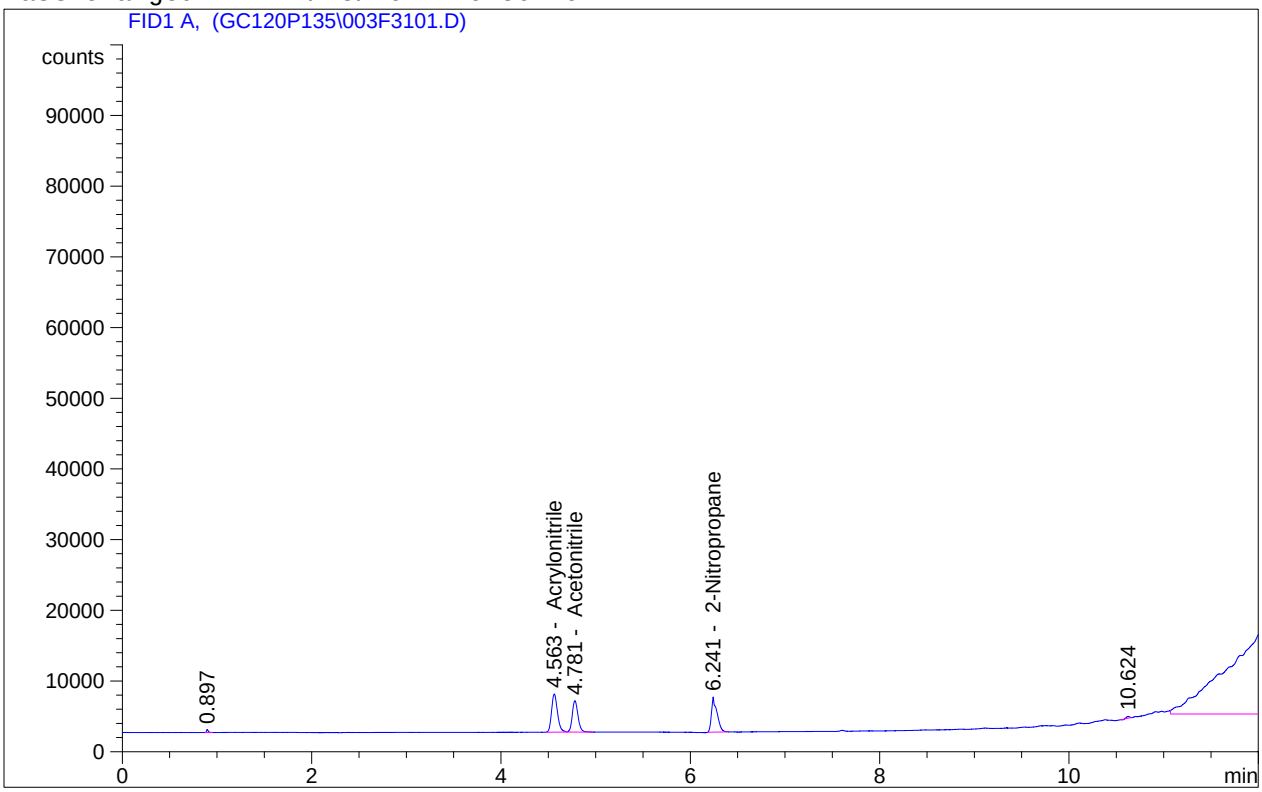
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  30
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/20/2011 4:20:15 PM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.554 BV     8.95246e4  8.76583e-4   78.47573    Acrylonitrile
  4.773 VB     7.02712e4  1.06556e-3   74.87817    Acetonitrile
  6.241 BB     7.65442e4  1.24027e-3   94.93517    2-Nitropropane

Totals :                               248.28907


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F3101.D
Sample Name: gc120p135 #3

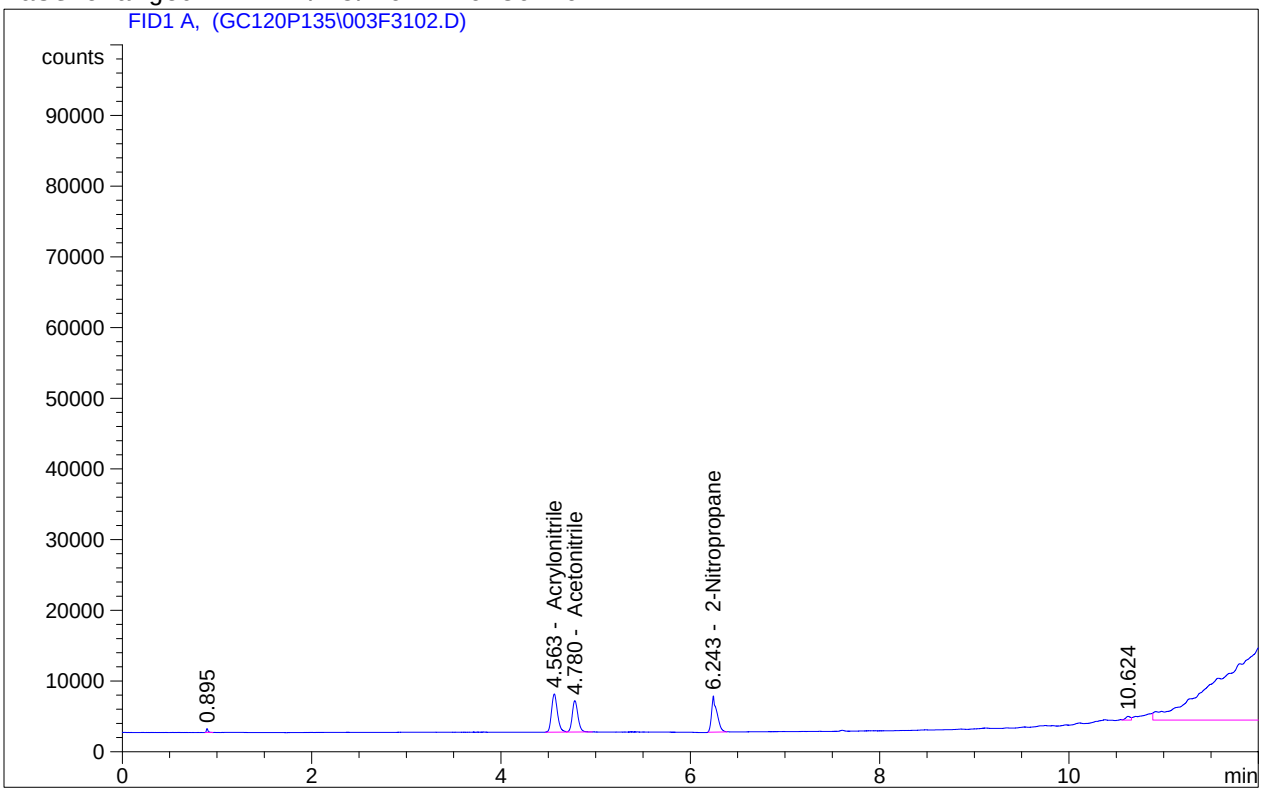
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  31
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/20/2011 4:40:54 PM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.563 BV     2.35295e4  8.65884e-4   20.37379    Acrylonitrile
  4.781 VB     1.86291e4  1.05586e-3   19.66979    Acetonitrile
  6.241 BB     2.00592e4  1.22264e-3   24.52527    2-Nitropropane

Totals :                               64.56885


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F3102.D
Sample Name: gc120p135 #3

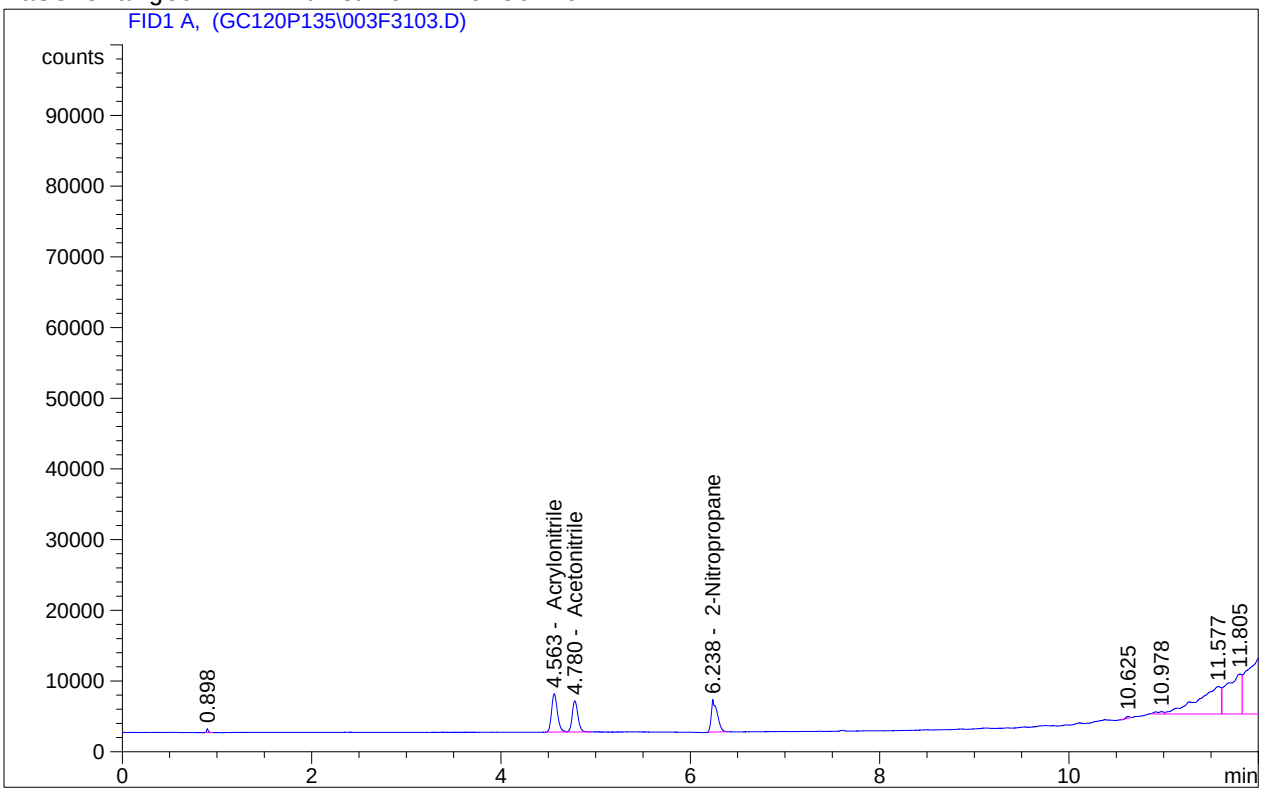
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  31
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/20/2011 5:01:28 PM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.563 BV     2.33882e4  8.65796e-4   20.24937    Acrylonitrile
  4.780 VB     1.85769e4  1.05583e-3   19.61403    Acetonitrile
  6.243 BB     1.99129e4  1.22247e-3   24.34285    2-Nitropropane

Totals :                               64.20624


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F3103.D
Sample Name: gc120p135 #3

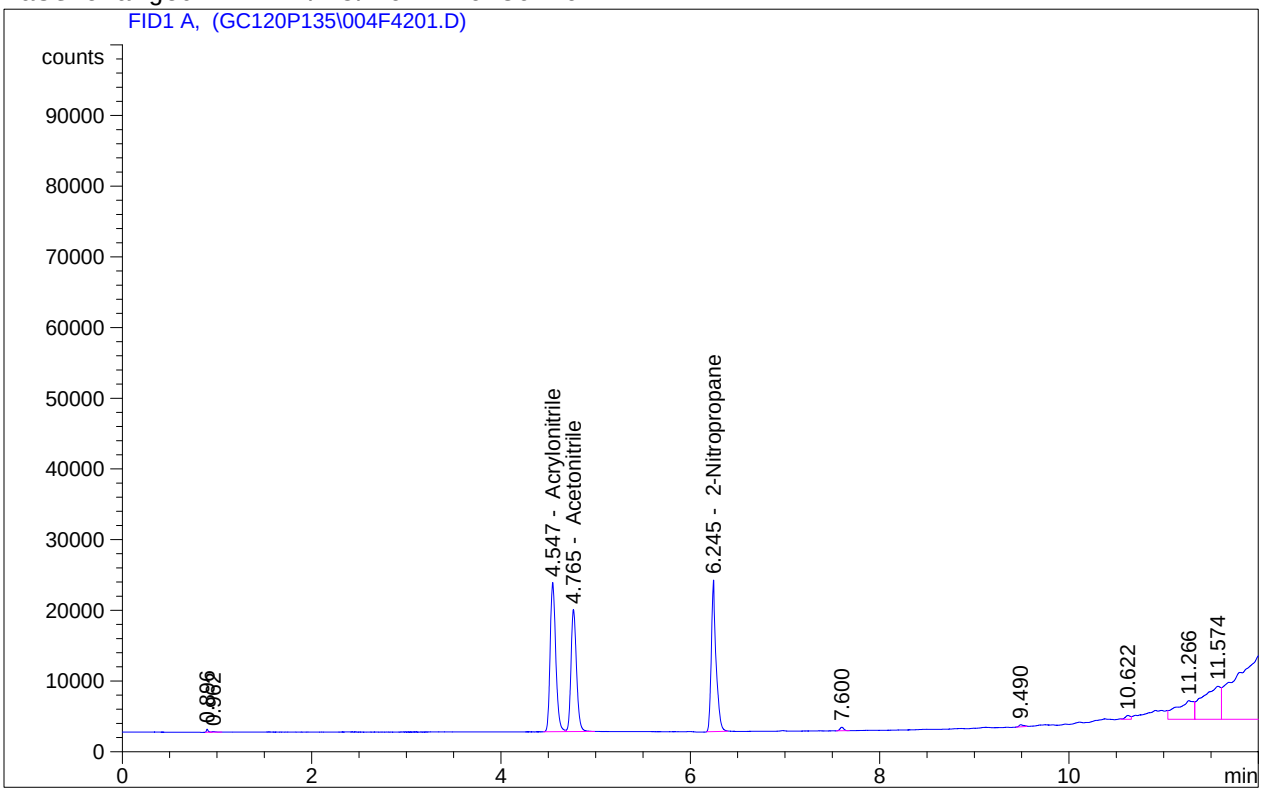
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  31
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/20/2011 5:22:10 PM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.563 BV     2.33781e4  8.65790e-4   20.24049    Acrylonitrile
  4.780 VB     1.84520e4  1.05574e-3   19.48042    Acetonitrile
  6.238 BB     1.99293e4  1.22249e-3   24.36326    2-Nitropropane

Totals :                               64.08418


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F4201.D
Sample Name: gc120p135 #4

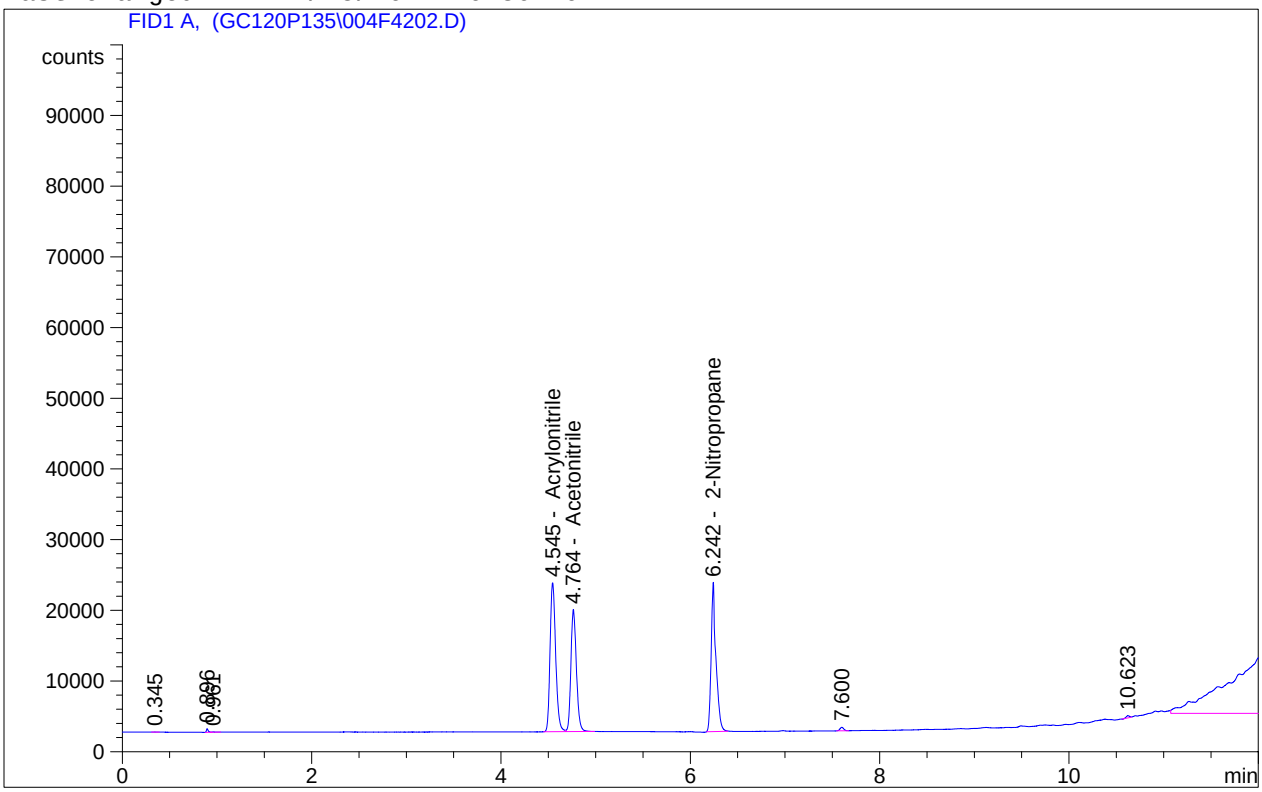
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  42
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/21/2011 3:57:58 AM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.547 BV     8.70567e4  8.76475e-4   76.30303    Acrylonitrile
  4.765 VB     7.03231e4  1.06556e-3   74.93369    Acetonitrile
  6.245 BB     7.43437e4  1.24008e-3   92.19222    2-Nitropropane

Totals :                               243.42893


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F4202.D
Sample Name: gc120p135 #4

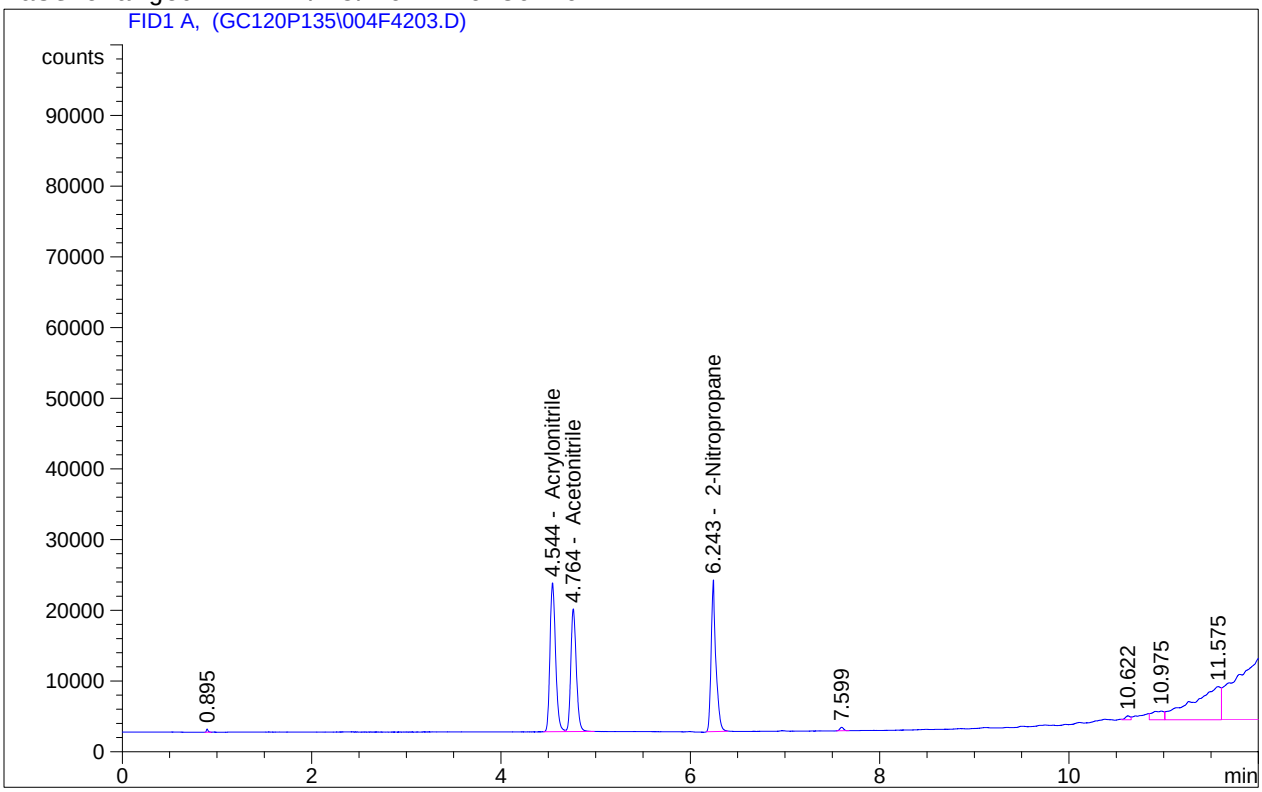
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  42
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/21/2011 4:18:28 AM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.545 BV     8.68899e4  8.76467e-4   76.15612    Acrylonitrile
  4.764 VB     7.01253e4  1.06555e-3   74.72220    Acetonitrile
  6.242 BB     7.41597e4  1.24006e-3   91.96286    2-Nitropropane

Totals :                               242.84117


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F4203.D
Sample Name: gc120p135 #4

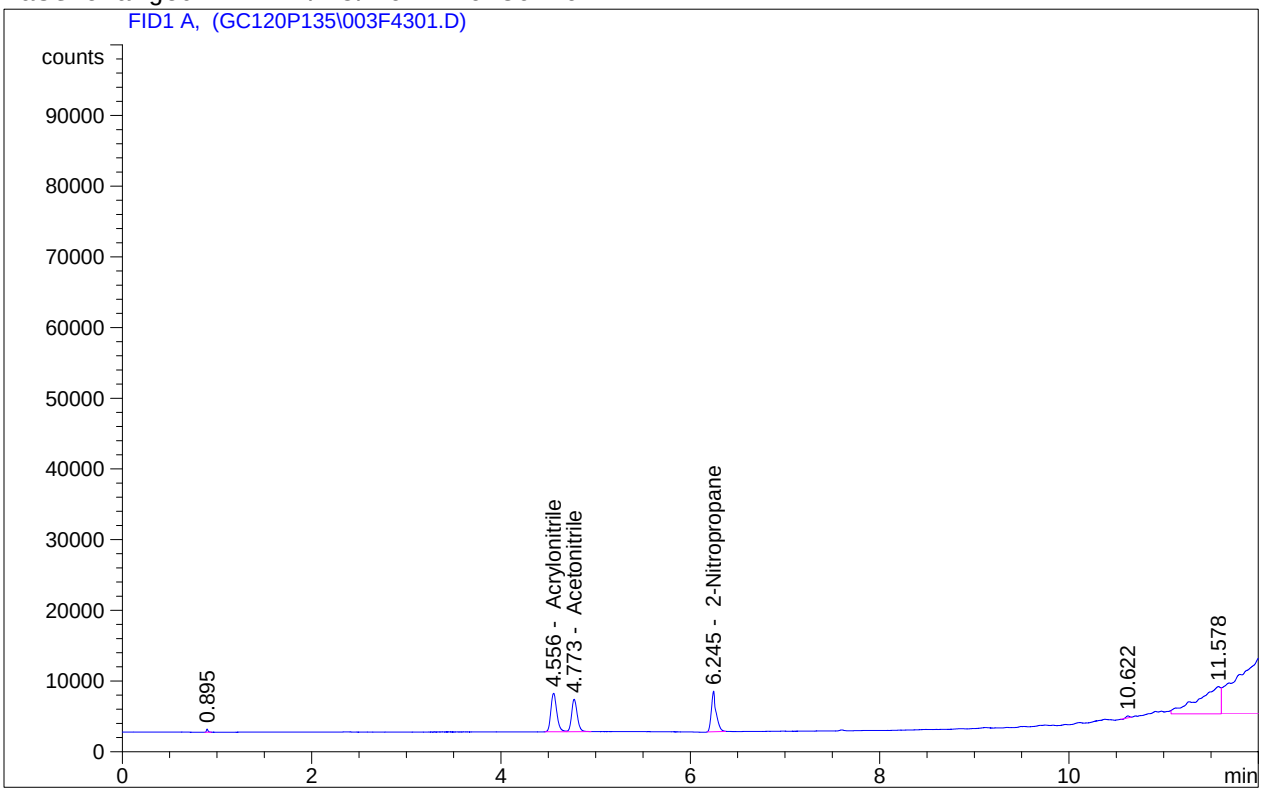
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  42
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/21/2011 4:38:53 AM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.544 BV     8.69468e4  8.76470e-4   76.20622    Acrylonitrile
  4.764 VB     7.04543e4  1.06557e-3   75.07388    Acetonitrile
  6.243 BB     7.42576e4  1.24007e-3   92.08482    2-Nitropropane

Totals :                               243.36492


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F4301.D
Sample Name: gc120p135 #3

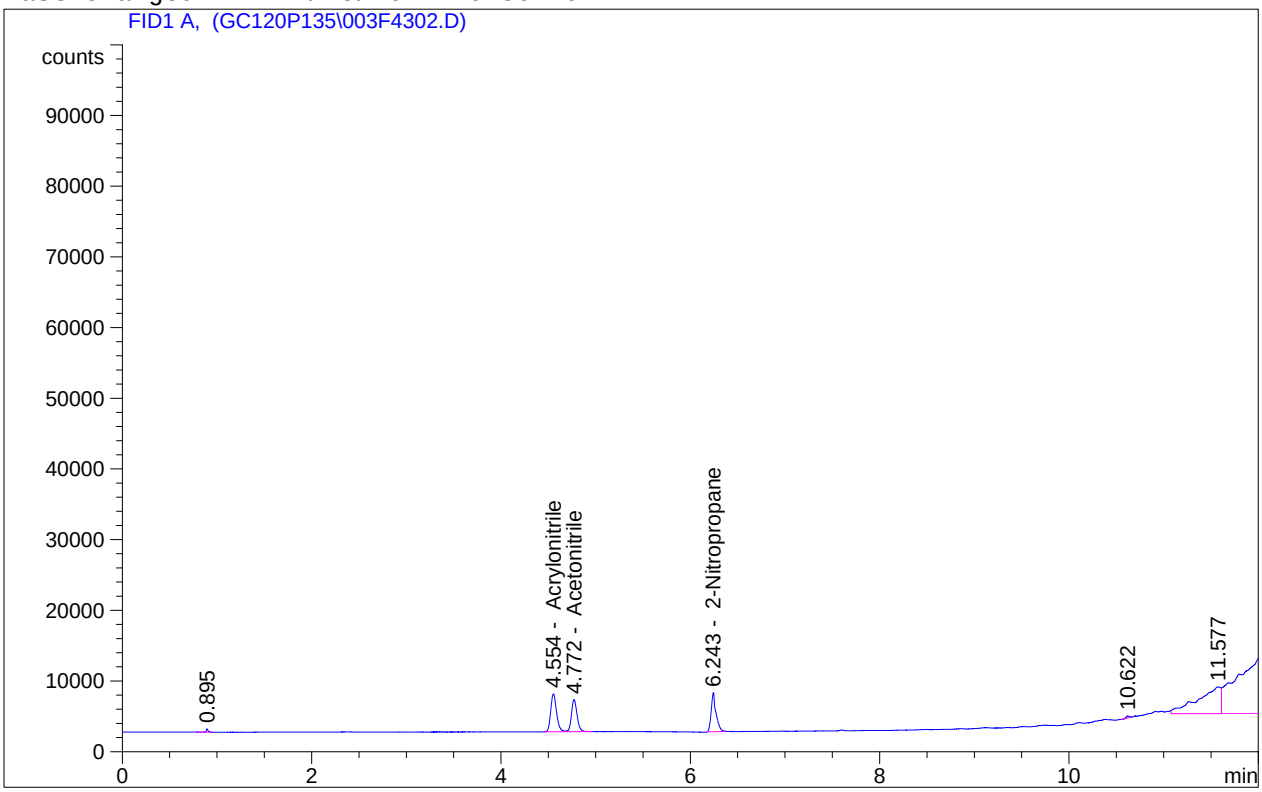
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  43
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/21/2011 4:59:18 AM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.556 BV     2.35818e4  8.65916e-4   20.41982    Acrylonitrile
  4.773 VB     1.89706e4  1.05610e-3   20.03492    Acetonitrile
  6.245 BB     2.00232e4  1.22260e-3   24.48040    2-Nitropropane

Totals :                                64.93513


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F4302.D
Sample Name: gc120p135 #3

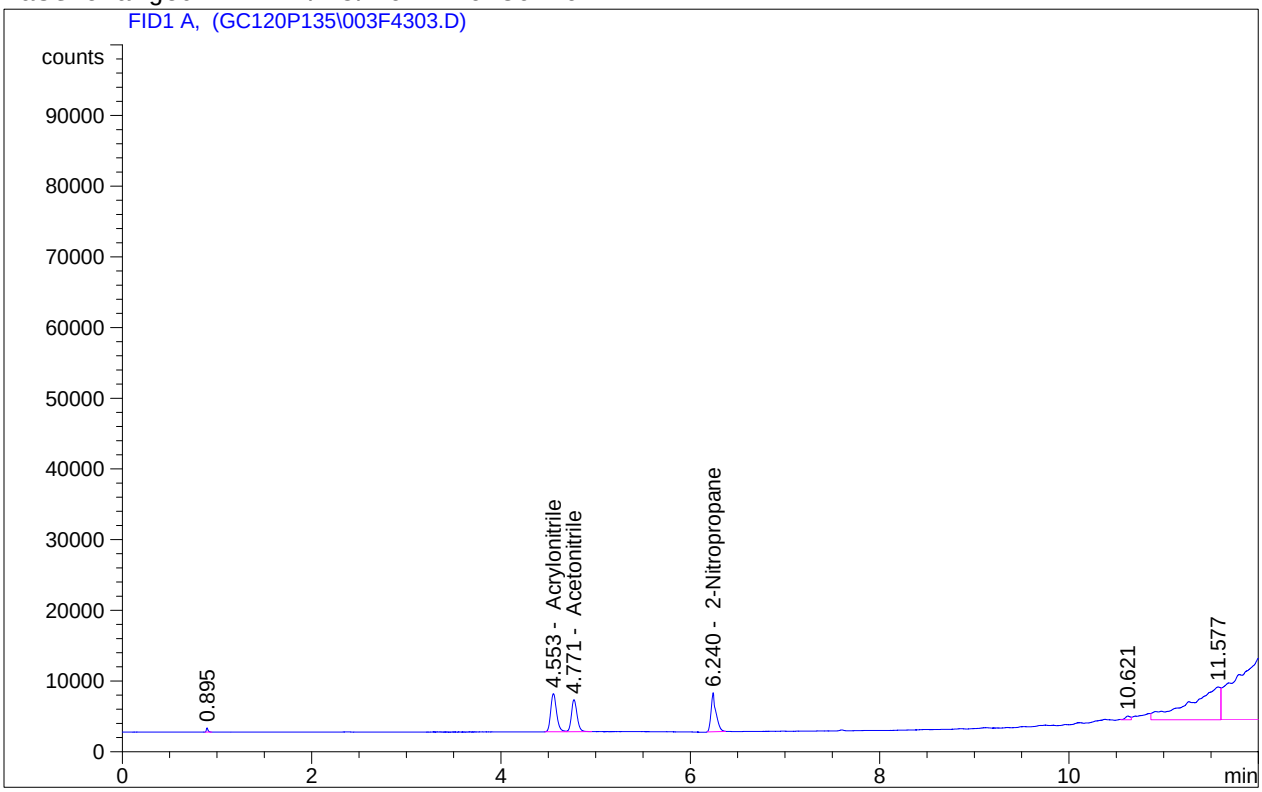
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  43
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/21/2011 5:19:44 AM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.554 BV     2.29385e4  8.65510e-4   19.85349    Acrylonitrile
  4.772 VB     1.86757e4  1.05590e-3   19.71957    Acetonitrile
  6.243 BB     1.94160e4  1.22185e-3   23.72341    2-Nitropropane

Totals :                               63.29647


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F4303.D
Sample Name: gc120p135 #3

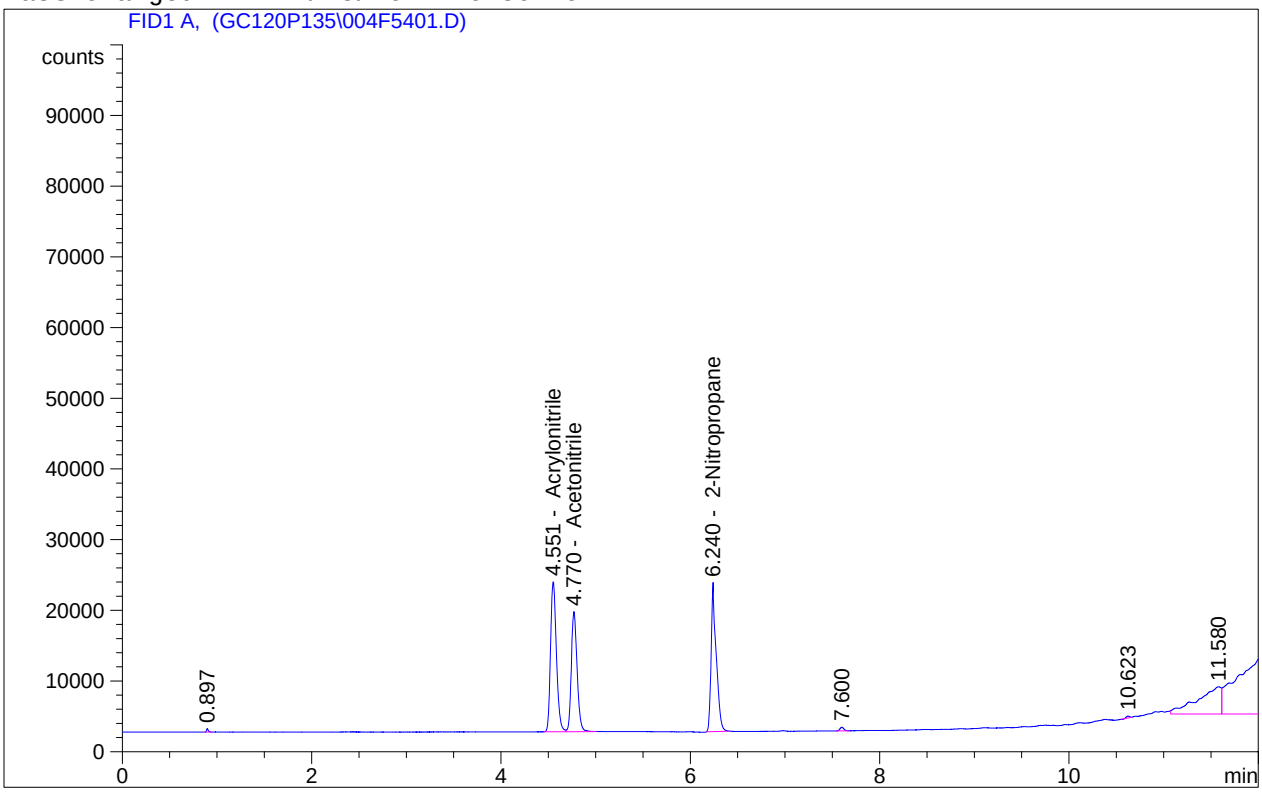
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  43
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/21/2011 5:40:09 AM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.553 BV     2.32317e4  8.65698e-4   20.11163    Acrylonitrile
  4.771 VB     1.87266e4  1.05593e-3   19.77398    Acetonitrile
  6.240 BB     1.97061e4  1.22221e-3   24.08501    2-Nitropropane

Totals :                               63.97062


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F5401.D
Sample Name: gc120p135 #4

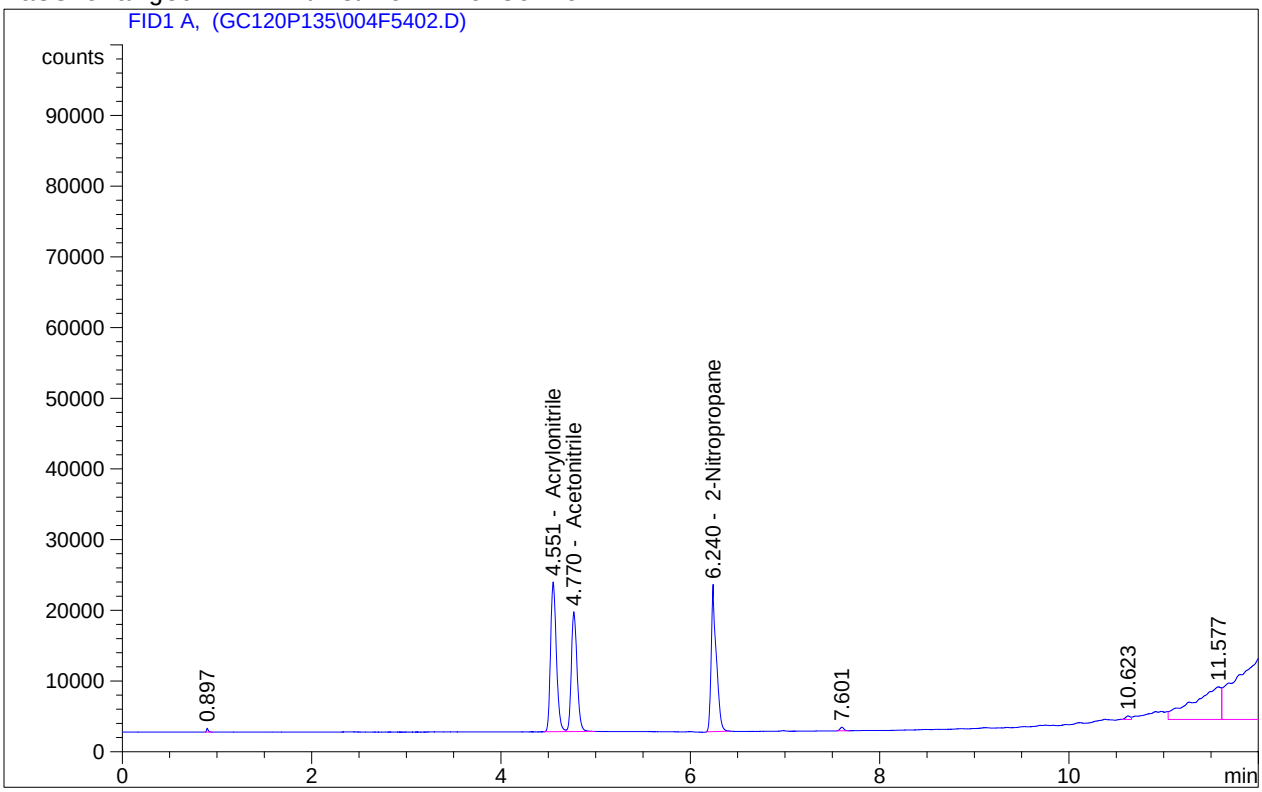
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  54
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/21/2011 4:17:31 PM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.551 BV     9.14823e4  8.76664e-4   80.19930    Acrylonitrile
  4.770 VB     7.21563e4  1.06565e-3   76.89345    Acetonitrile
  6.240 BB     7.78791e4  1.24037e-3   96.59919    2-Nitropropane

Totals :                               253.69194


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F5402.D
Sample Name: gc120p135 #4

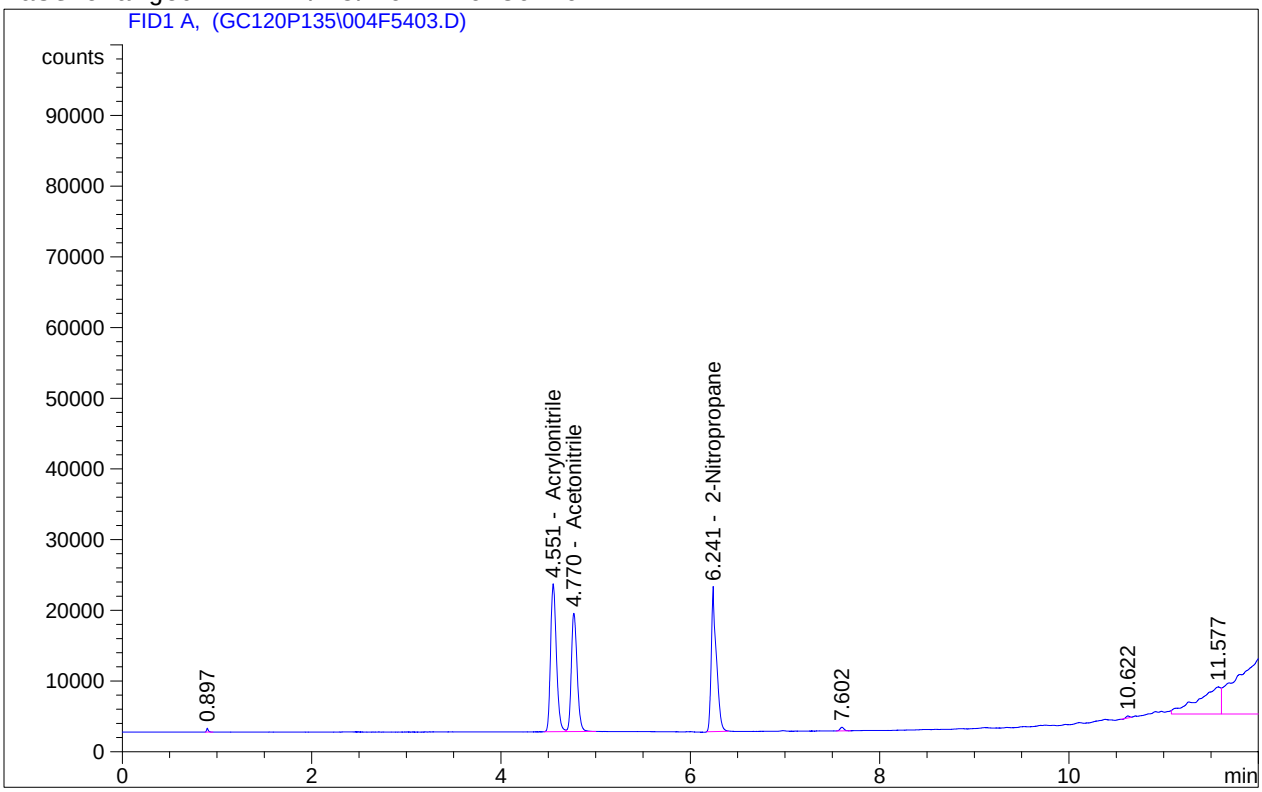
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  54
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/21/2011 4:38:06 PM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.551 BV     9.06404e4  8.76630e-4   79.45803    Acrylonitrile
  4.770 VB     7.19052e4  1.06564e-3   76.62498    Acetonitrile
  6.240 BB     7.72260e4  1.24032e-3   95.78506    2-Nitropropane

Totals :                               251.86807


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F5403.D
Sample Name: gc120p135 #4

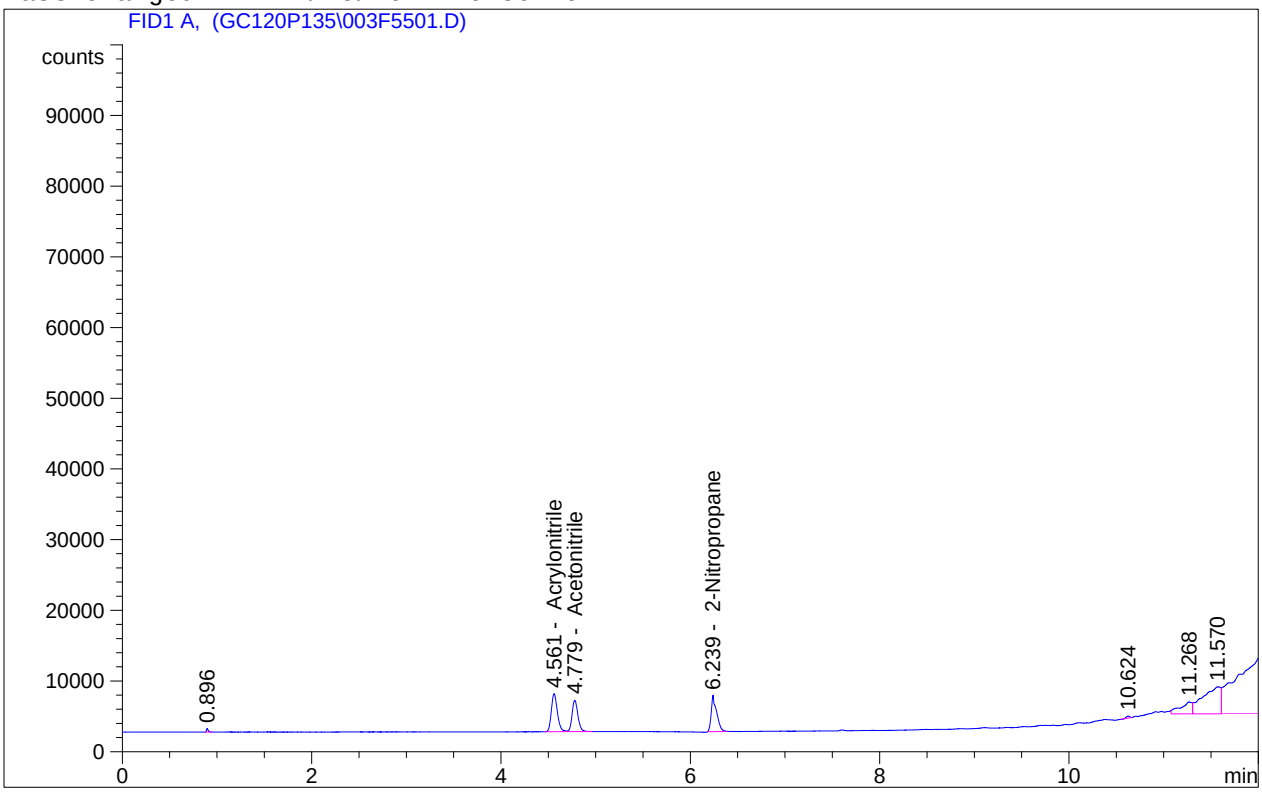
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  54
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/21/2011 4:58:44 PM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.551 BV     8.96936e4  8.76590e-4   78.62456    Acrylonitrile
  4.770 VB     7.13390e4  1.06561e-3   76.01973    Acetonitrile
  6.241 BB     7.63412e4  1.24025e-3   94.68209    2-Nitropropane

Totals :                               249.32638


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F5501.D
Sample Name: gc120p135 #3

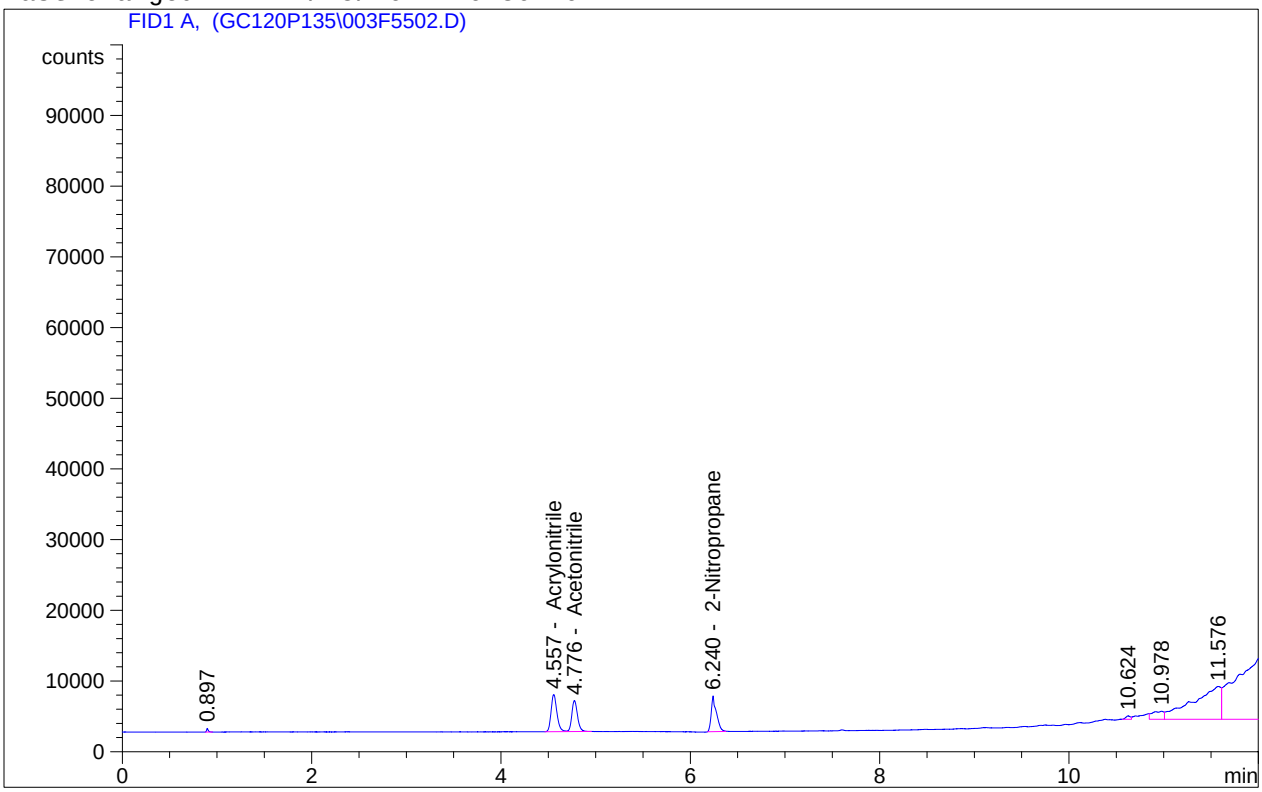
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  55
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/21/2011 5:19:18 PM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.561 BV     2.37958e4  8.66046e-4   20.60830    Acrylonitrile
  4.779 VB     1.90116e4  1.05613e-3   20.07874    Acetonitrile
  6.239 BB     2.02376e4  1.22285e-3   24.74759    2-Nitropropane

Totals :                                65.43462


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F5502.D
Sample Name: gc120p135 #3

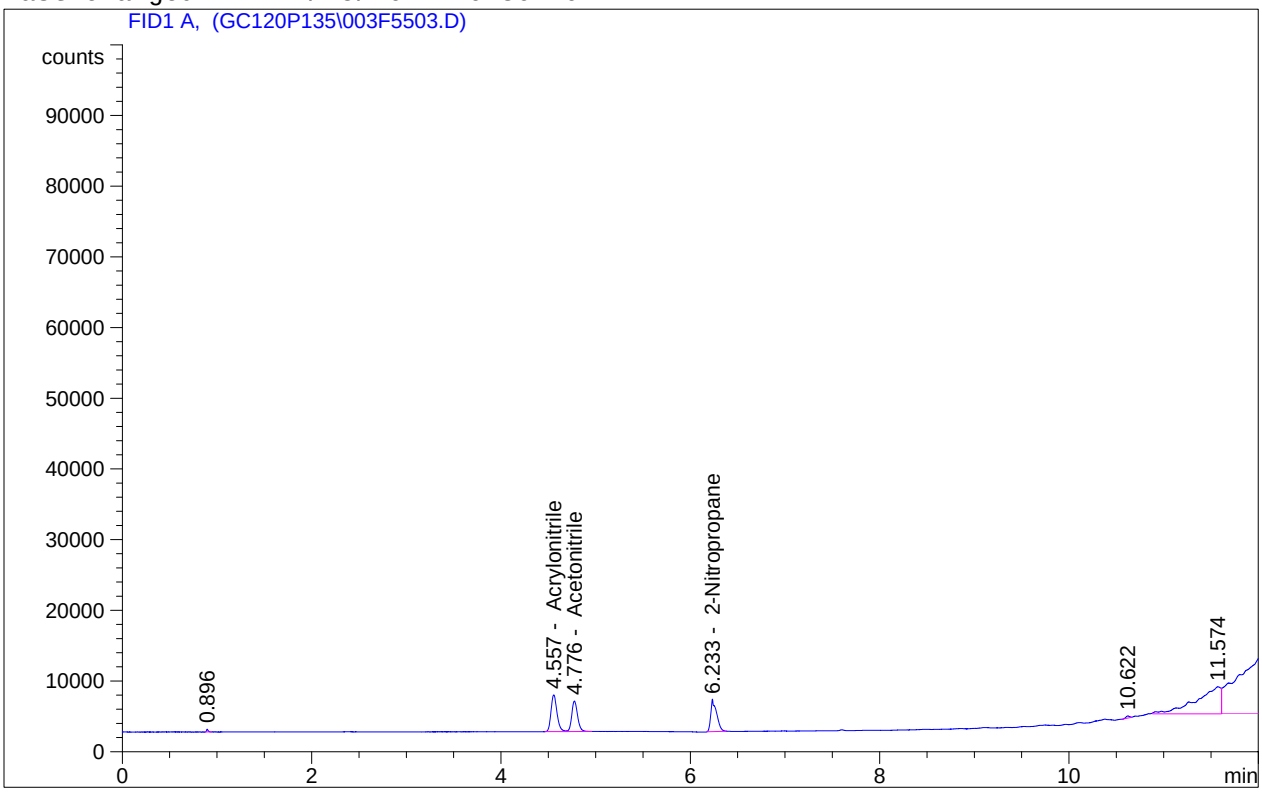
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  55
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/21/2011 5:39:52 PM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.557 BV     2.25112e4  8.65227e-4   19.47728    Acrylonitrile
  4.776 VB     1.82820e4  1.05561e-3   19.29867    Acetonitrile
  6.240 BB     1.91152e4  1.22146e-3   23.34844    2-Nitropropane

Totals :                               62.12439


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F5503.D
Sample Name: gc120p135 #3

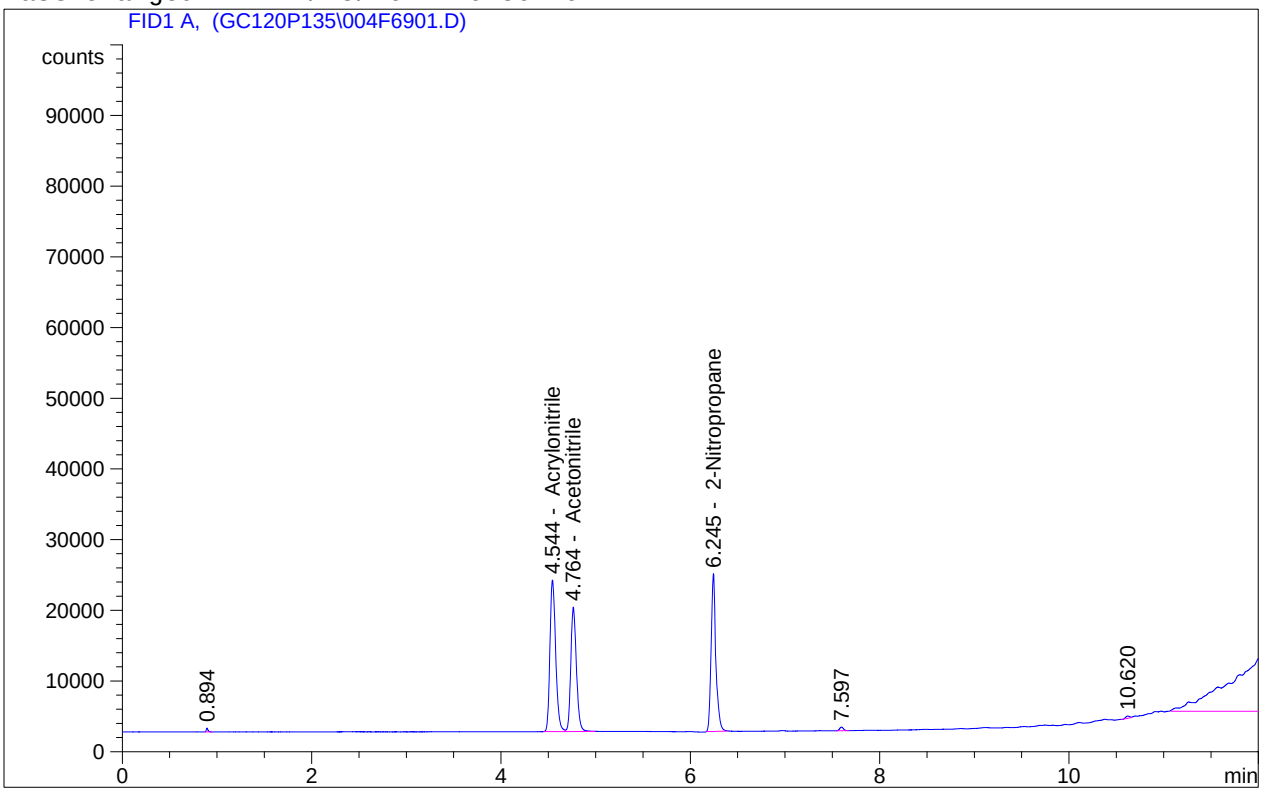
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  55
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/21/2011 6:00:43 PM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.557 BV     2.28397e4  8.65445e-4   19.76655    Acrylonitrile
  4.776 VB     1.84256e4  1.05572e-3   19.45226    Acetonitrile
  6.233 BB     1.94084e4  1.22184e-3   23.71399    2-Nitropropane

Totals :                                62.93280


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F6901.D
Sample Name: gc120p135 #4

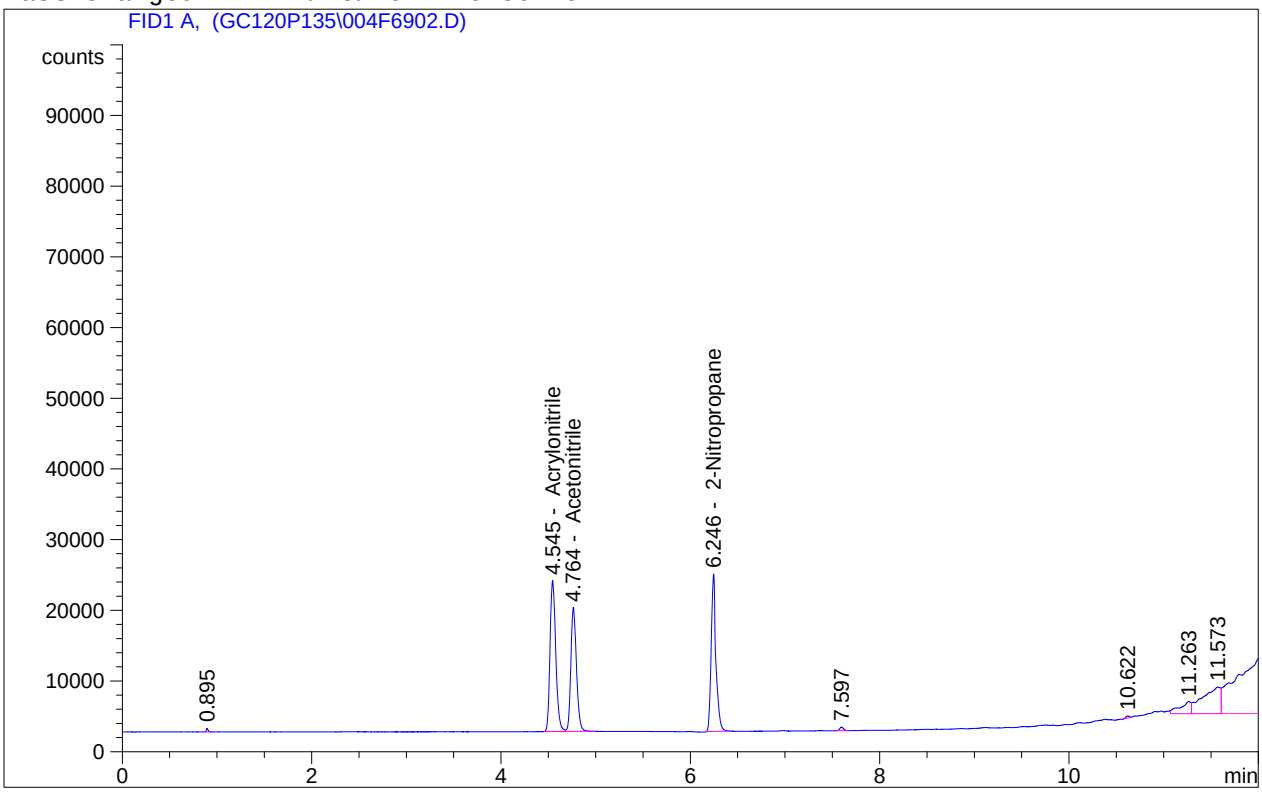
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  69
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/22/2011 7:37:12 AM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.544 BV     9.05663e4  8.76627e-4   79.39285    Acrylonitrile
  4.764 VB     7.28900e4  1.06569e-3   77.67779    Acetonitrile
  6.245 BB     7.71222e4  1.24031e-3   95.65565    2-Nitropropane

Totals :                               252.72630


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F6902.D
Sample Name: gc120p135 #4

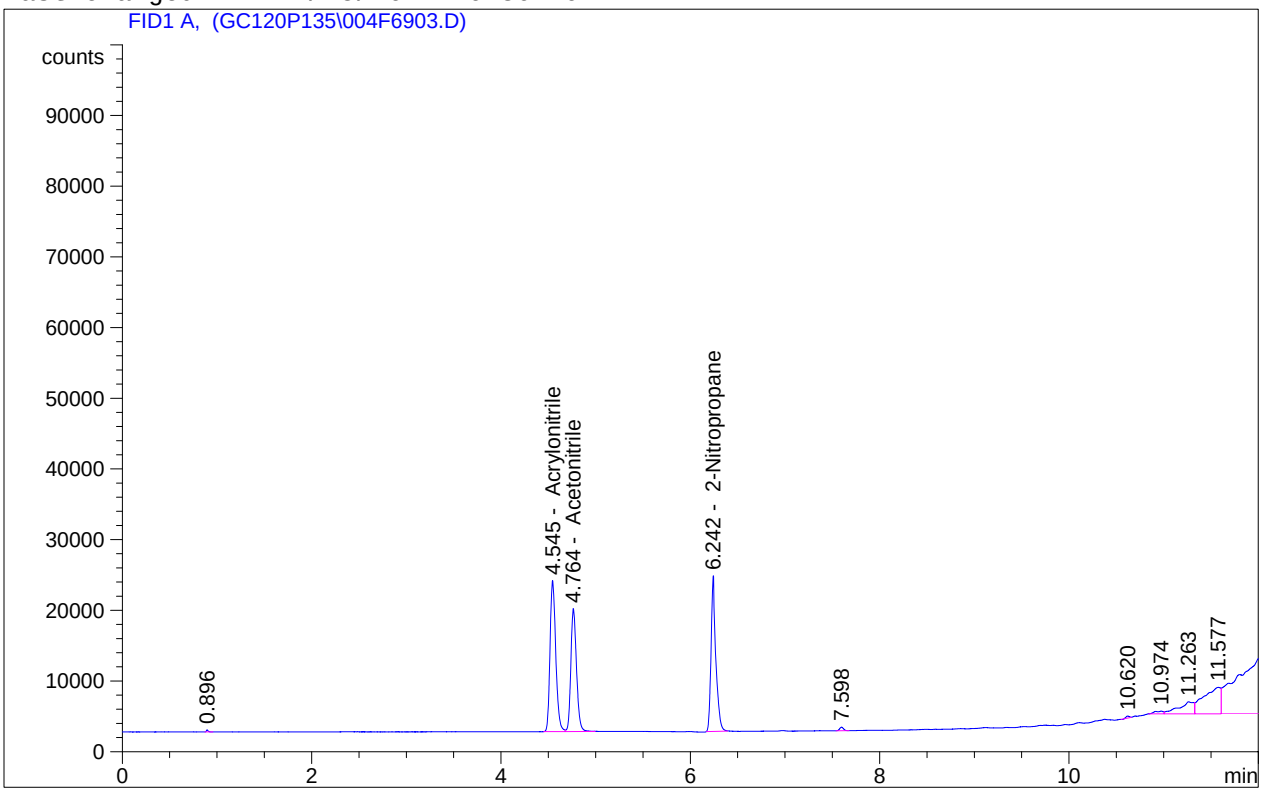
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  69
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/22/2011 7:57:33 AM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.545 BV     9.04485e4  8.76622e-4   79.28912    Acrylonitrile
  4.764 VB     7.28117e4  1.06568e-3   77.59412    Acetonitrile
  6.246 BB     7.69638e4  1.24030e-3   95.45818    2-Nitropropane

Totals :                               252.34142


==========================================================================
                         *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\004F6903.D
Sample Name: gc120p135 #4

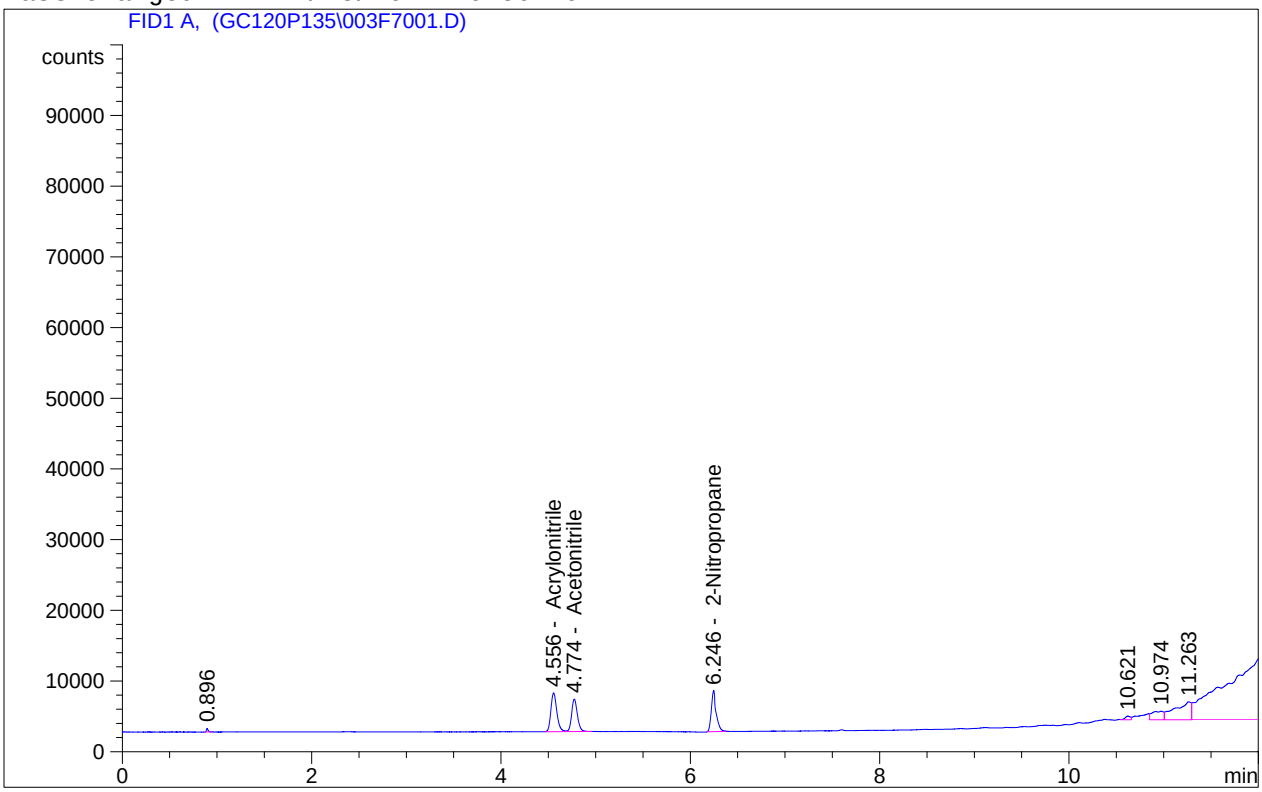
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  69
Acq. Instrument : Penn online                       Location : Vial 4
Injection Date  : 7/22/2011 8:17:58 AM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.545 BV     9.01597e4  8.76610e-4   79.03483    Acrylonitrile
  4.764 VB     7.22691e4  1.06566e-3   77.01400    Acetonitrile
  6.242 BB     7.66829e4  1.24028e-3   95.10805    2-Nitropropane

Totals :                               251.15688


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F7001.D
Sample Name: gc120p135 #3

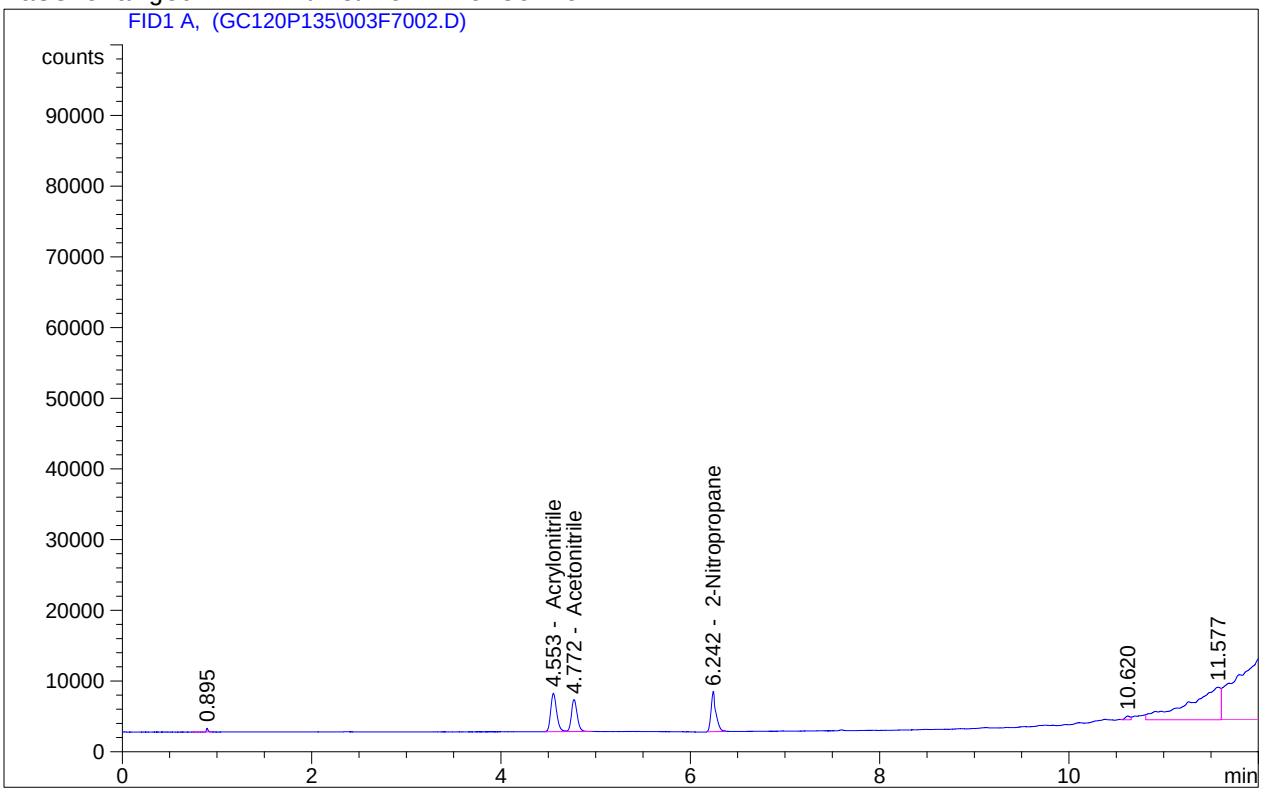
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  70
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/22/2011 8:38:28 AM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.556 BV     2.39794e4  8.66156e-4   20.76988    Acrylonitrile
  4.774 VB     1.93841e4  1.05638e-3   20.47688    Acetonitrile
  6.246 BB     2.02998e4  1.22292e-3   24.82518    2-Nitropropane

Totals :                               66.07195


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F7002.D
Sample Name: gc120p135 #3

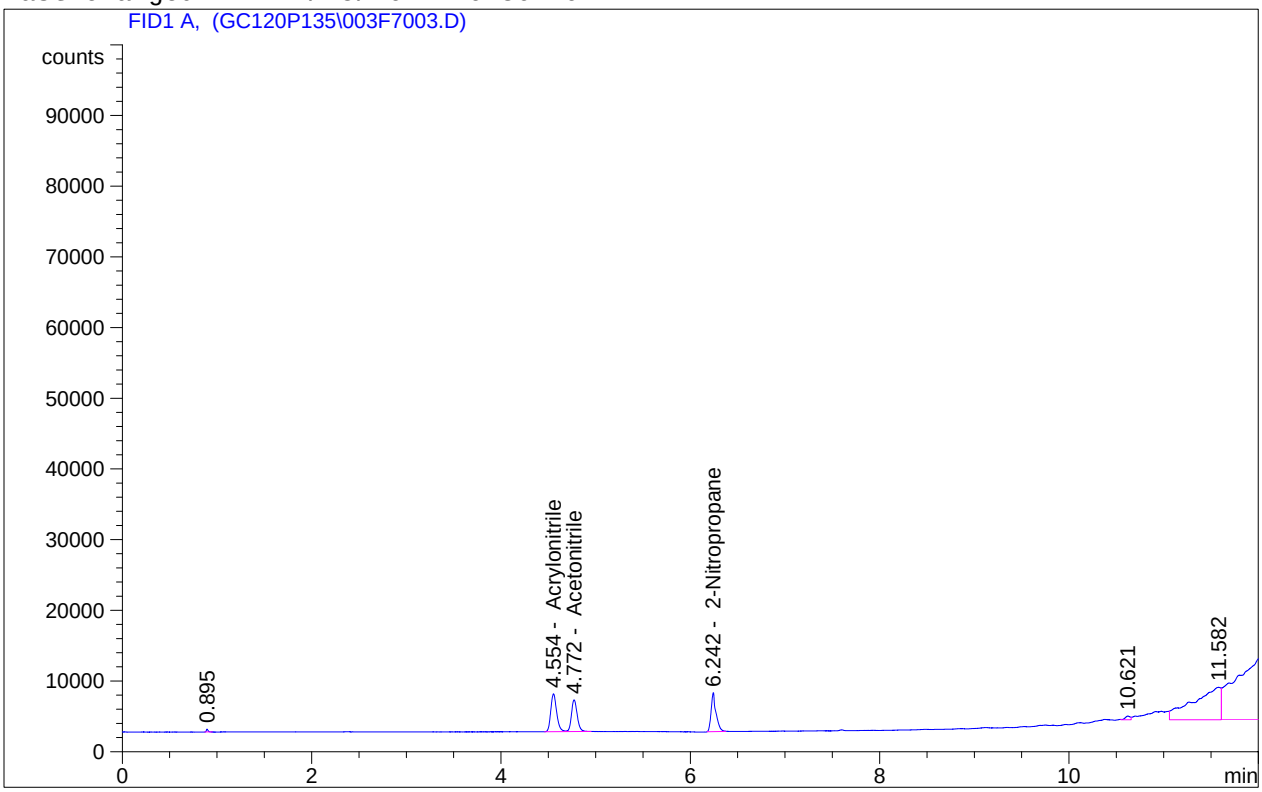
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  70
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/22/2011 8:58:53 AM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.553 BV     2.36842e4  8.65978e-4   20.50999    Acrylonitrile
  4.772 VB     1.91960e4  1.05625e-3   20.27579    Acetonitrile
  6.242 BB     1.99778e4  1.22254e-3   24.42370    2-Nitropropane

Totals :                                65.20948


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\003F7003.D
Sample Name: gc120p135 #3

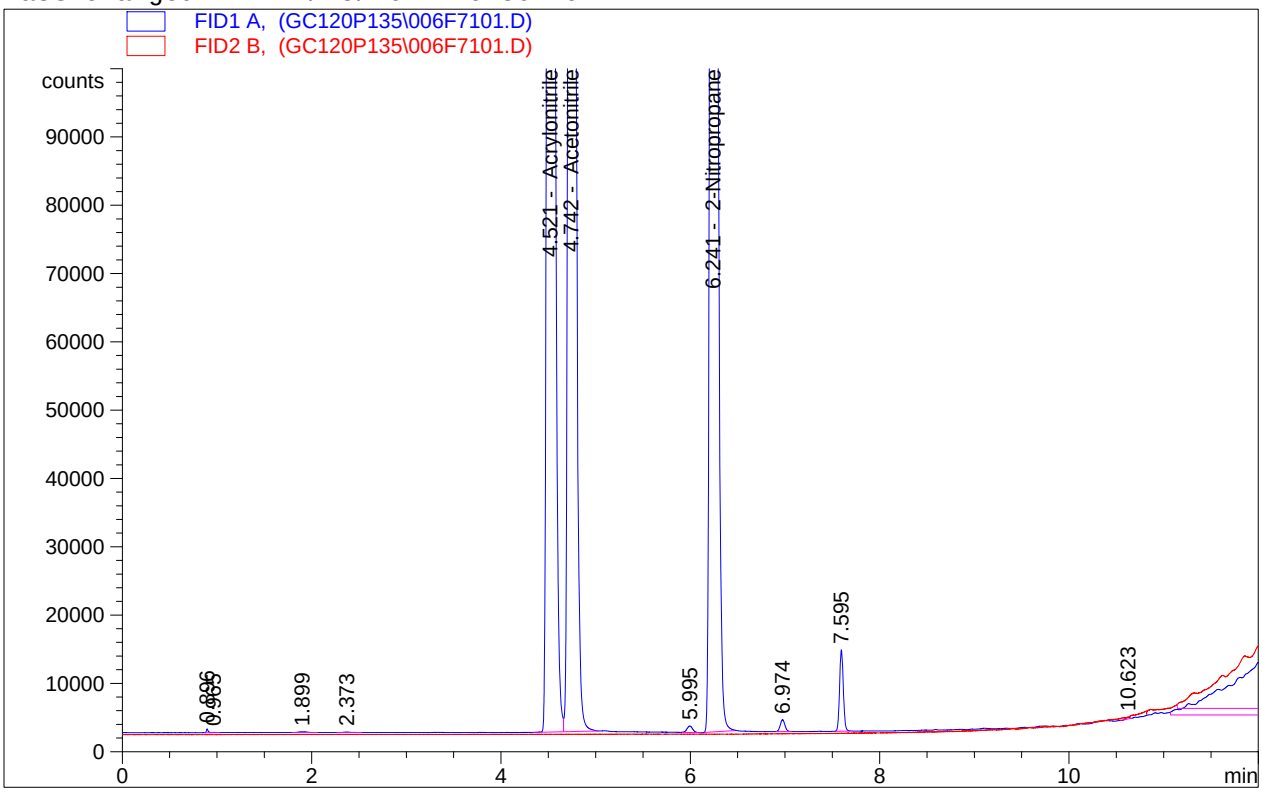
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  70
Acq. Instrument : Penn online                       Location : Vial 3
Injection Date  : 7/22/2011 9:19:23 AM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.554 BV     2.31465e4  8.65644e-4   20.03662    Acrylonitrile
  4.772 VB     1.88699e4  1.05603e-3   19.92723    Acetonitrile
  6.242 BB     1.95890e4  1.22207e-3   23.93913    2-Nitropropane

Totals :                               63.90297


==========================================================================
                          *** End of Report ***
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\006F7101.D
Sample Name: gc120p135 #6

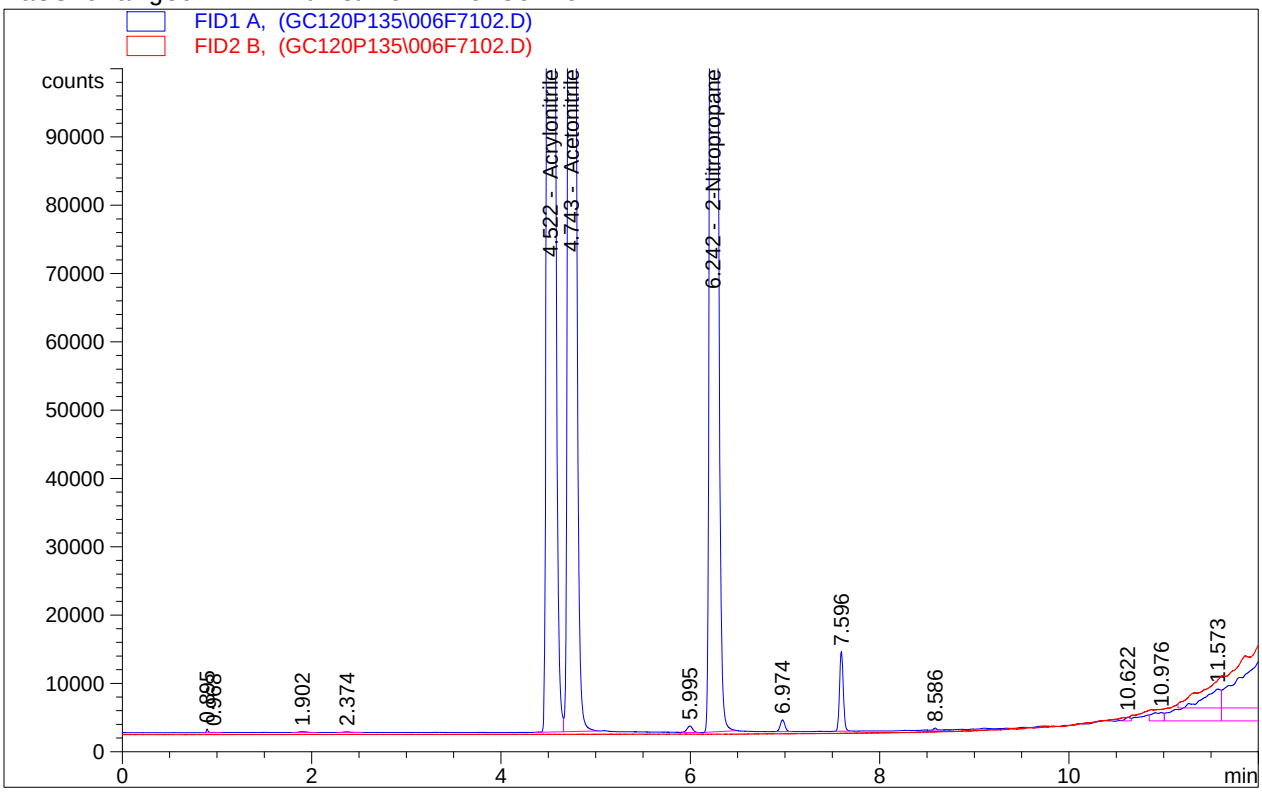
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  71
Acq. Instrument : Penn online                       Location : Vial 6
Injection Date  : 7/22/2011 9:39:52 AM                   Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.521 BV     2.12602e6  8.80237e-4 1871.39684    Acrylonitrile
  4.742 VB     1.76900e6  1.06892e-3 1890.92011    Acetonitrile
  6.241 BB     1.81683e6  1.24626e-3 2264.23754    2-Nitropropane

Totals :                              6026.55450
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\006F7102.D
Sample Name: gc120p135 #6

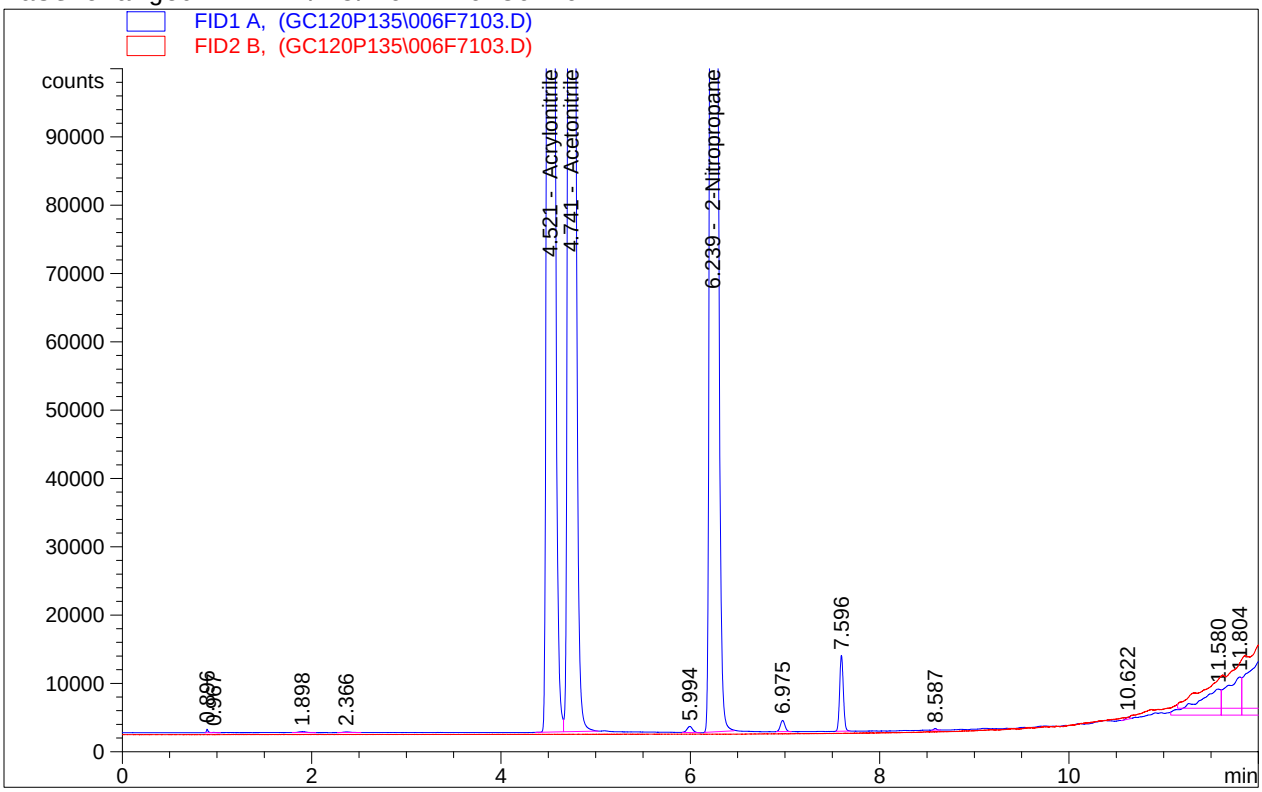
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  71
Acq. Instrument : Penn online                       Location : Vial 6
Injection Date  : 7/22/2011 10:00:22 AM                  Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.522 BV     2.09628e6  8.80235e-4 1845.22010    Acrylonitrile
  4.743 VB     1.75399e6  1.06892e-3 1874.87503    Acetonitrile
  6.242 BB     1.79366e6  1.24626e-3 2235.35885    2-Nitropropane

Totals :                              5955.45397
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\006F7103.D
Sample Name: gc120p135 #6

```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  71
Acq. Instrument : Penn online                       Location : Vial 6
Injection Date  : 7/22/2011 10:20:52 AM                  Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```

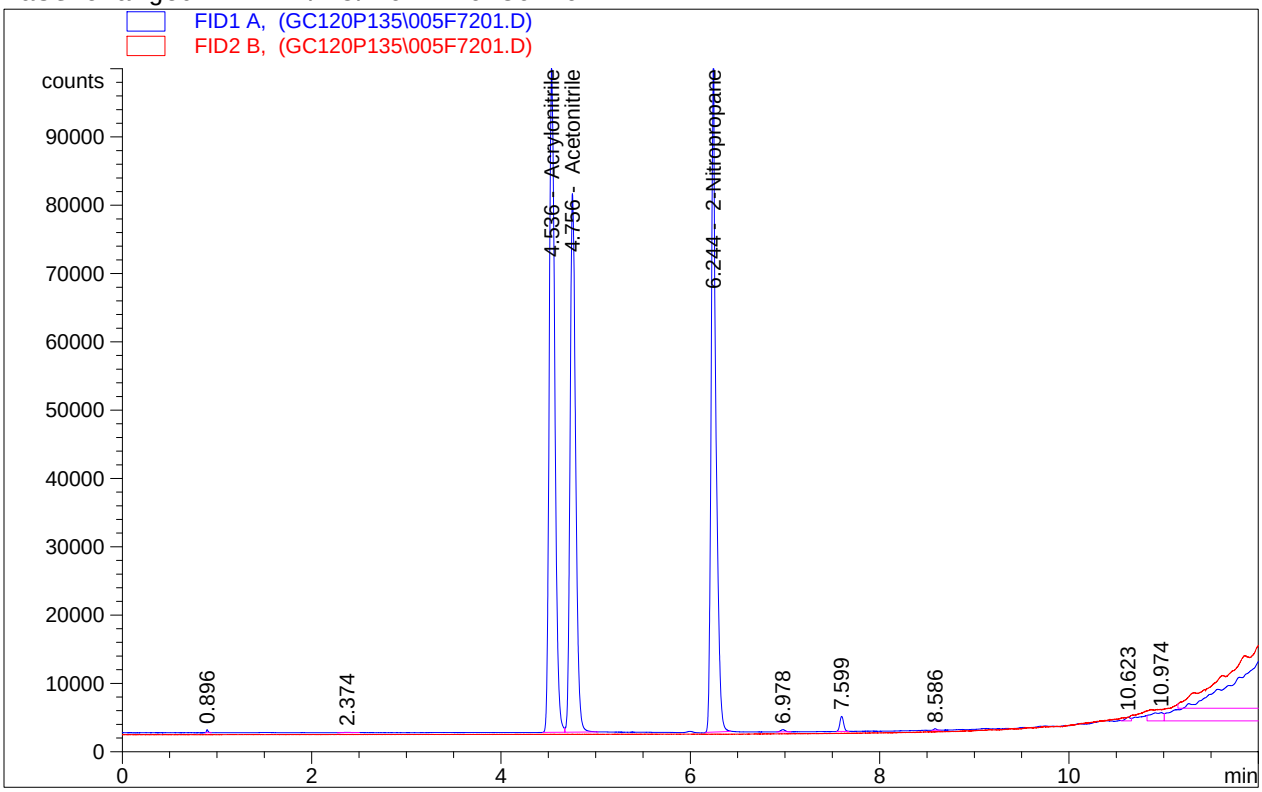



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.521 BV     1.97564e6  8.80225e-4 1739.00268    Acrylonitrile
  4.741 VB     1.68326e6  1.06891e-3 1799.25245    Acetonitrile
  6.239 BB     1.68696e6  1.24624e-3 2102.35766    2-Nitropropane

Totals :                              5640.61279
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\005F7201.D
Sample Name: gc120p135 #5

==========

Acq. Operator	: KMT	Seq. Line	: 72
Acq. Instrument	: Penn online	Location	: Vial 5
Injection Date	: 7/22/2011 10:41:26 AM	Inj	: 1
		Inj Volume	: 1 µl
Sequence File	: I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S		
Acq. Method	: G:\GC2011Q3\PENN\METHODS\GC120P135.M		
Last changed	: 7/20/2011 8:46:49 AM by cld		
Analysis Method	: I:\GC2011Q3\PENN\METHODS\GC120P135-R.M		
Last changed	: 7/25/2011 10:36:10 AM		



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/25/2011 10:35:08 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

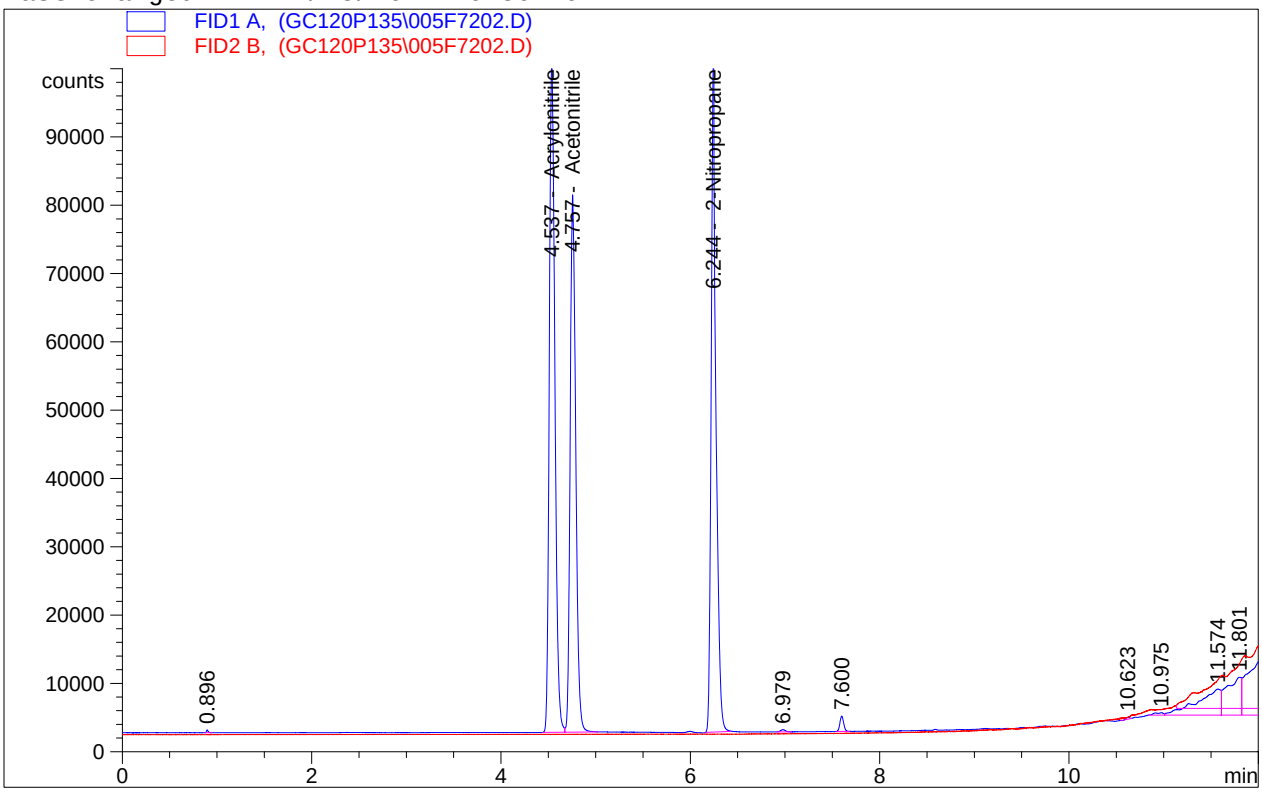
Signal 1: FID1 A,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [µg/mL]	Grp	Name
4.536	BV	3.98995e5	8.79542e-4	350.93250		Acrylonitrile
4.756	VB	3.21941e5	1.06829e-3	343.92752		Acetonitrile
6.244	BB	3.41640e5	1.24512e-3	425.38371		2-Nitropropane

Totals : 1120.24373

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\005F7202.D
Sample Name: gc120p135 #5

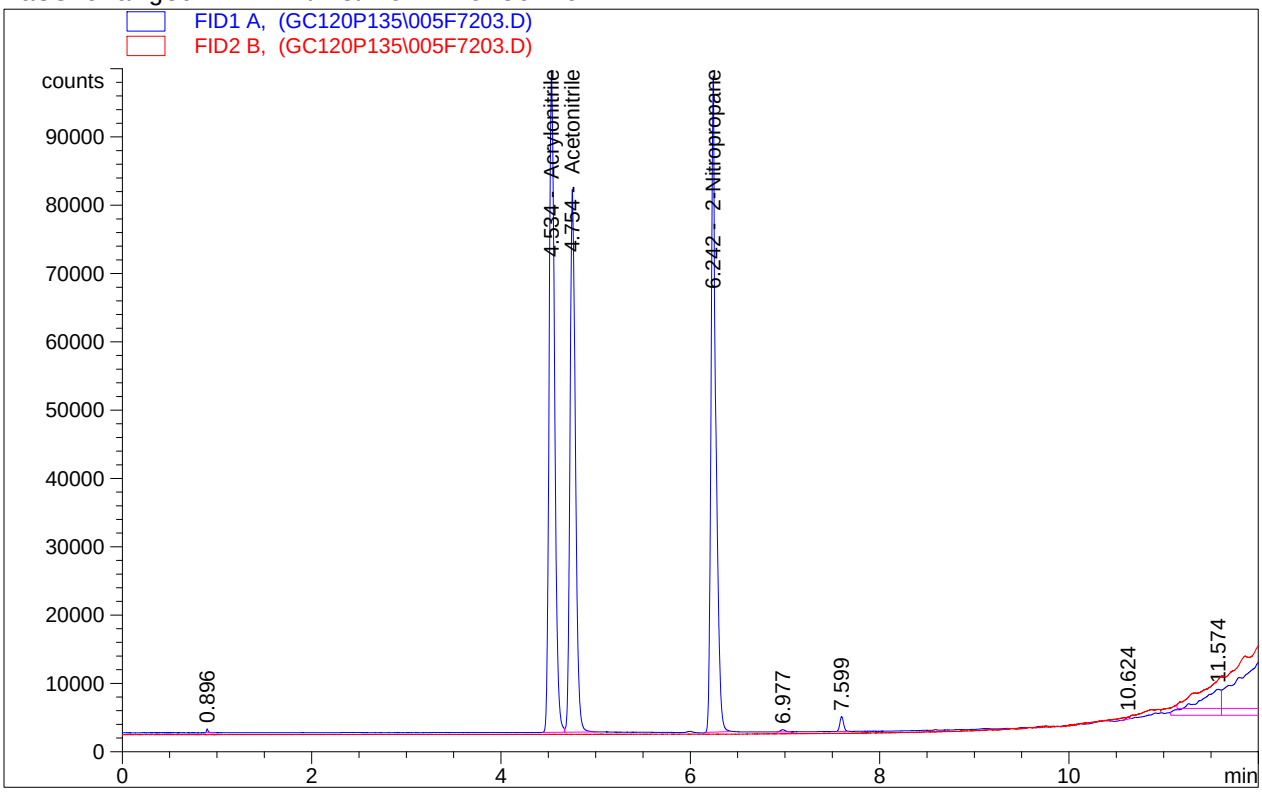
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  72
Acq. Instrument : Penn online                       Location : Vial 5
Injection Date  : 7/22/2011 11:02:00 AM                  Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.537 BV     4.03910e5  8.79552e-4  355.26015    Acrylonitrile
  4.757 VB     3.24373e5  1.06830e-3  346.52794    Acetonitrile
  6.244 BB     3.45418e5  1.24514e-3  430.09343    2-Nitropropane

Totals :                              1131.88152
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\005F7203.D
Sample Name: gc120p135 #5

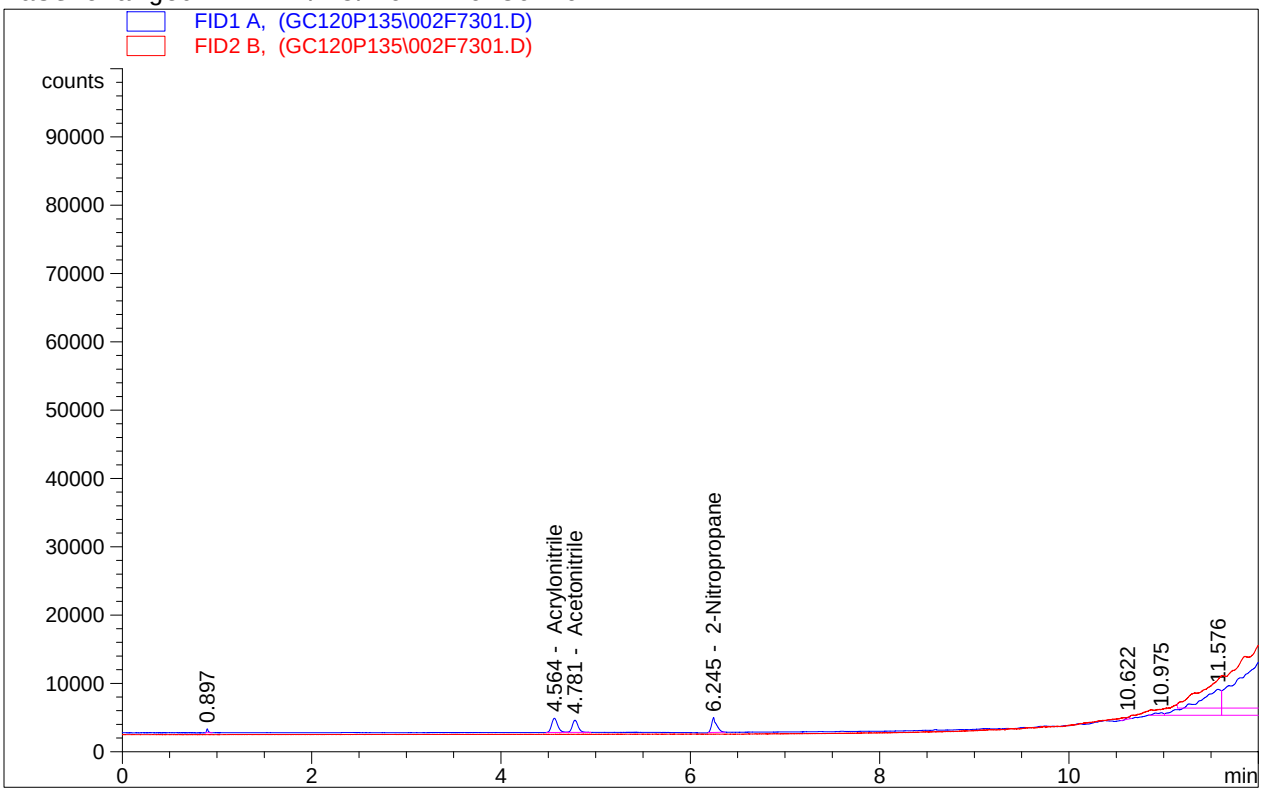
```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  72
Acq. Instrument : Penn online                       Location : Vial 5
Injection Date  : 7/22/2011 11:22:39 AM                  Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.534 BV     3.89447e5  8.79521e-4  342.52683    Acrylonitrile
  4.754 VB     3.16803e5  1.06828e-3  338.43501    Acetonitrile
  6.242 BB     3.33299e5  1.24509e-3  414.98617    2-Nitropropane

Totals :                              1095.94801
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\002F7301.D
Sample Name: gc120p135 #2

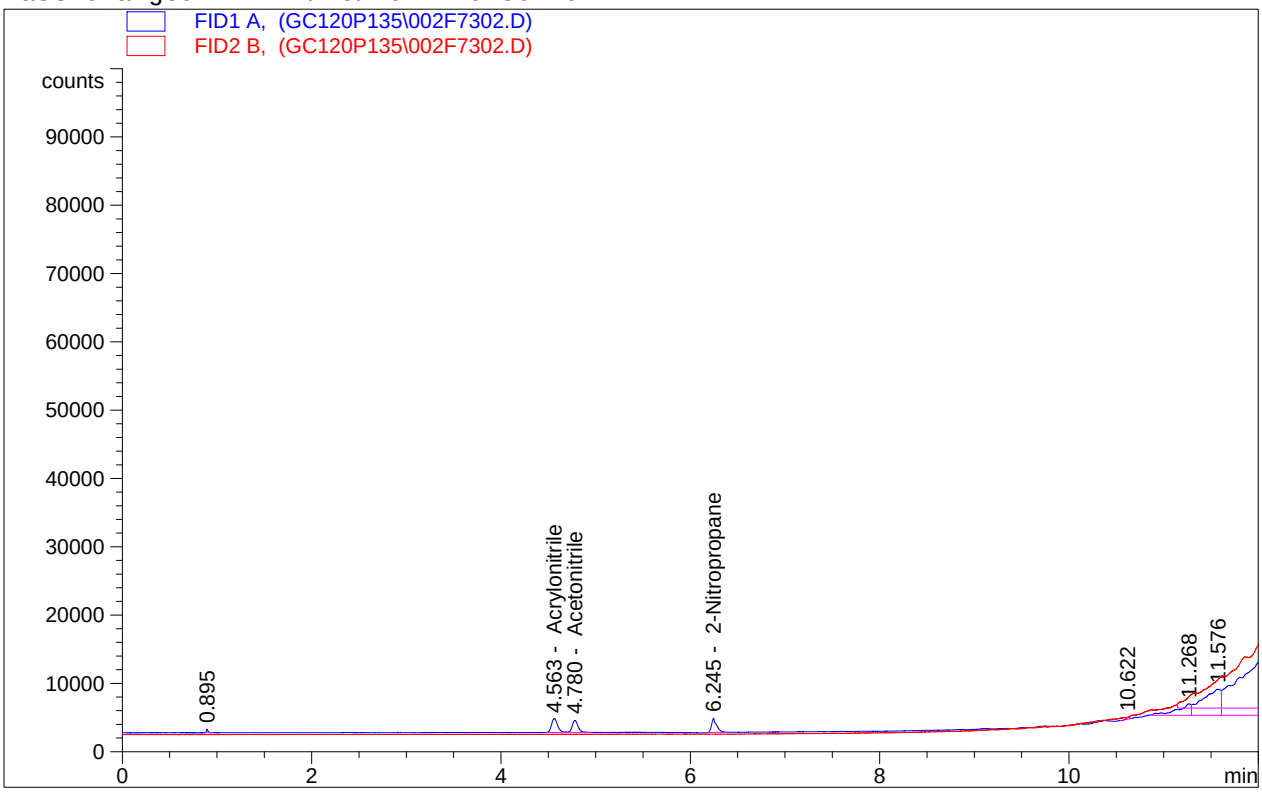
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  73
Acq. Instrument : Penn online                   Location : Vial 2
Injection Date  : 7/22/2011 11:43:17 AM              Inj :   1
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.564 BV     9309.87109 8.43716e-4    7.85489    Acrylonitrile
  4.781 VB     7596.01367 1.03670e-3    7.87479    Acetonitrile
  6.245 BB     7918.95117 1.18603e-3    9.39210    2-Nitropropane

Totals :                                25.12177
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\002F7302.D
Sample Name: gc120p135 #2

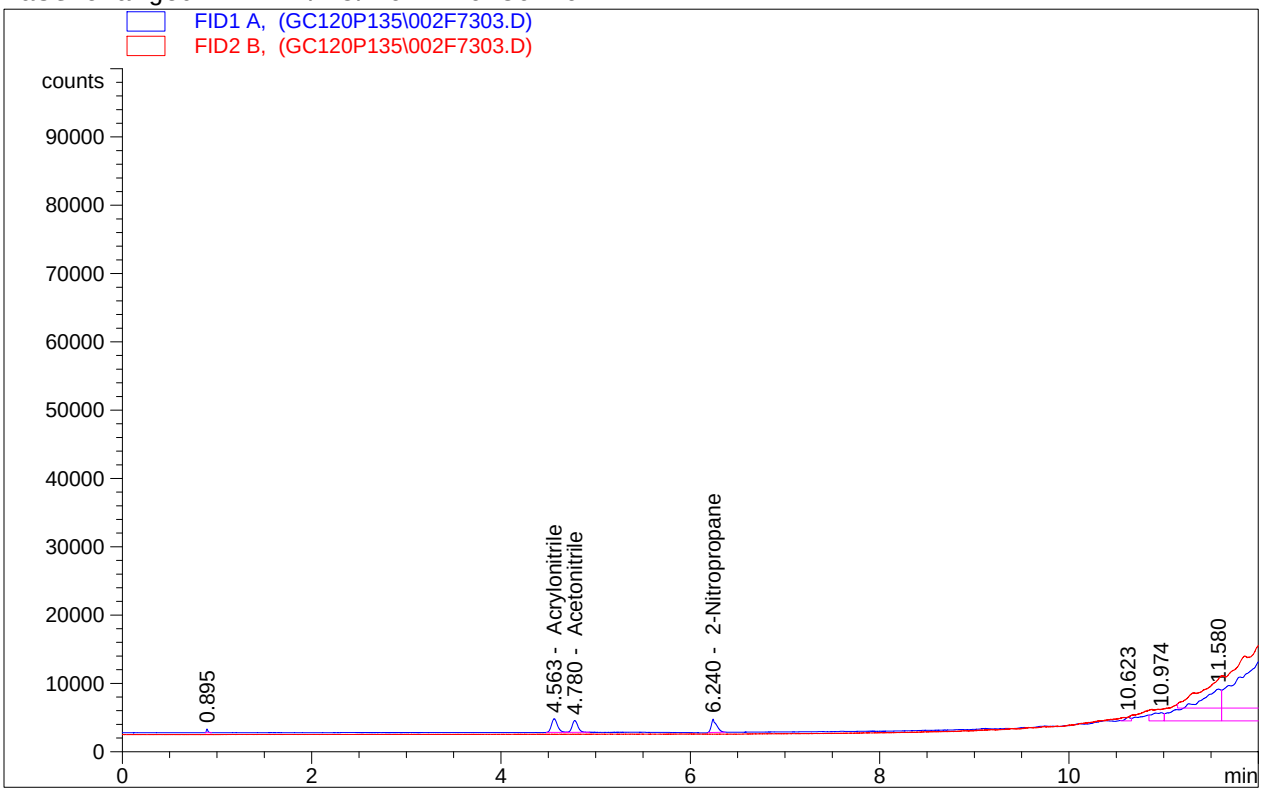
```
==========================================================================
Acq. Operator   : KMT                          Seq. Line :  73
Acq. Instrument : Penn online                   Location : Vial 2
Injection Date  : 7/22/2011 12:03:51 PM              Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.563 BV     9080.42773 8.42789e-4    7.65288    Acrylonitrile
  4.780 VB     7427.05811 1.03596e-3    7.69416    Acetonitrile
  6.245 BB     7638.45215 1.18381e-3    9.04245    2-Nitropropane

Totals :                                24.38950
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\002F7303.D
Sample Name: gc120p135 #2

```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  73
Acq. Instrument : Penn online                       Location : Vial 2
Injection Date  : 7/22/2011 12:24:29 PM                  Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```

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==========================================================================
                      External Standard Report
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Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

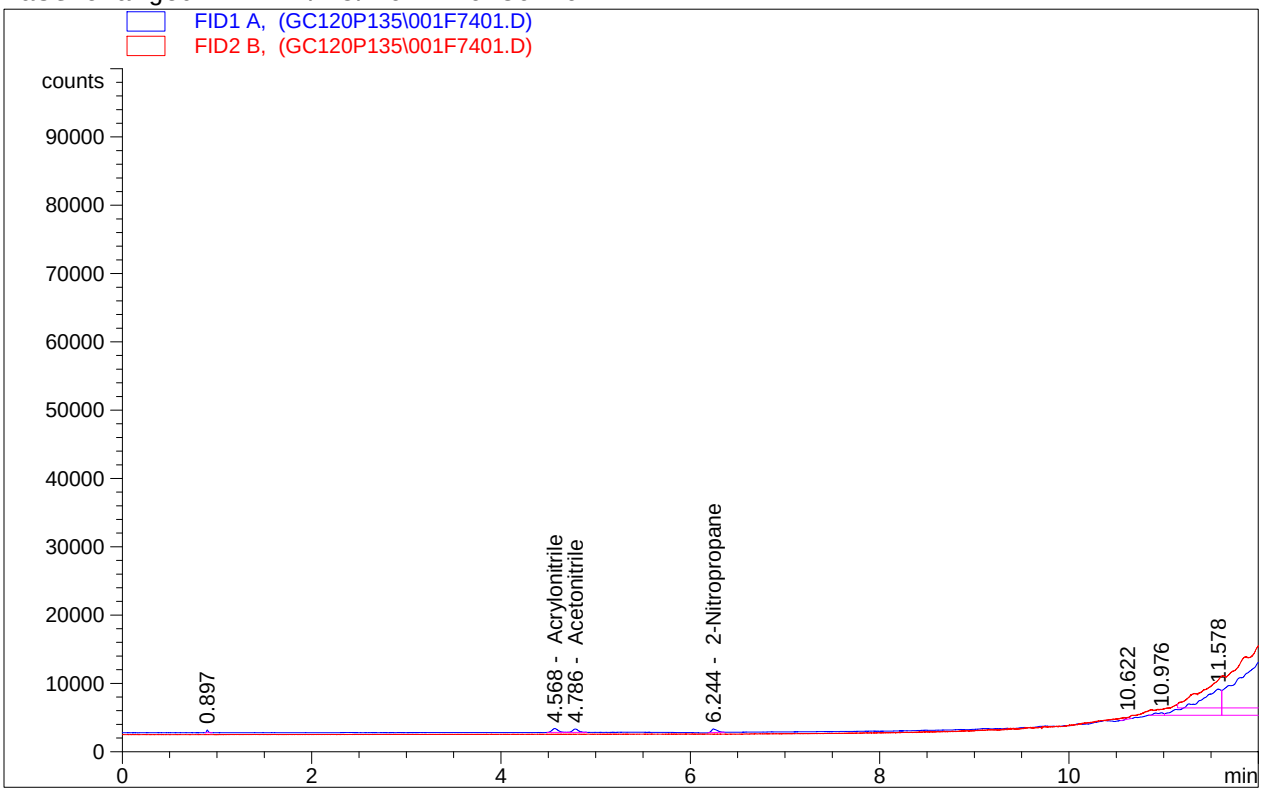
Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.563 BV     8928.02051 8.42147e-4    7.51871    Acrylonitrile
  4.780 VB     7316.87451 1.03547e-3    7.57637    Acetonitrile
  6.240 BB     7506.89355 1.18271e-3    8.87846    2-Nitropropane

Totals :                                23.97353
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\001F7401.D
Sample Name: gc120p135 #1

```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  74
Acq. Instrument : Penn online                       Location : Vial 1
Injection Date  : 7/22/2011 12:45:06 PM                  Inj :   1
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```

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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.568 BB     2582.45117 7.49989e-4    1.93681    Acrylonitrile
  4.786 BB     2073.01001 9.52678e-4    1.97491    Acetonitrile
  6.244 BB     2287.53296 1.04047e-3    2.38010    2-Nitropropane

Totals :                                6.29182
```
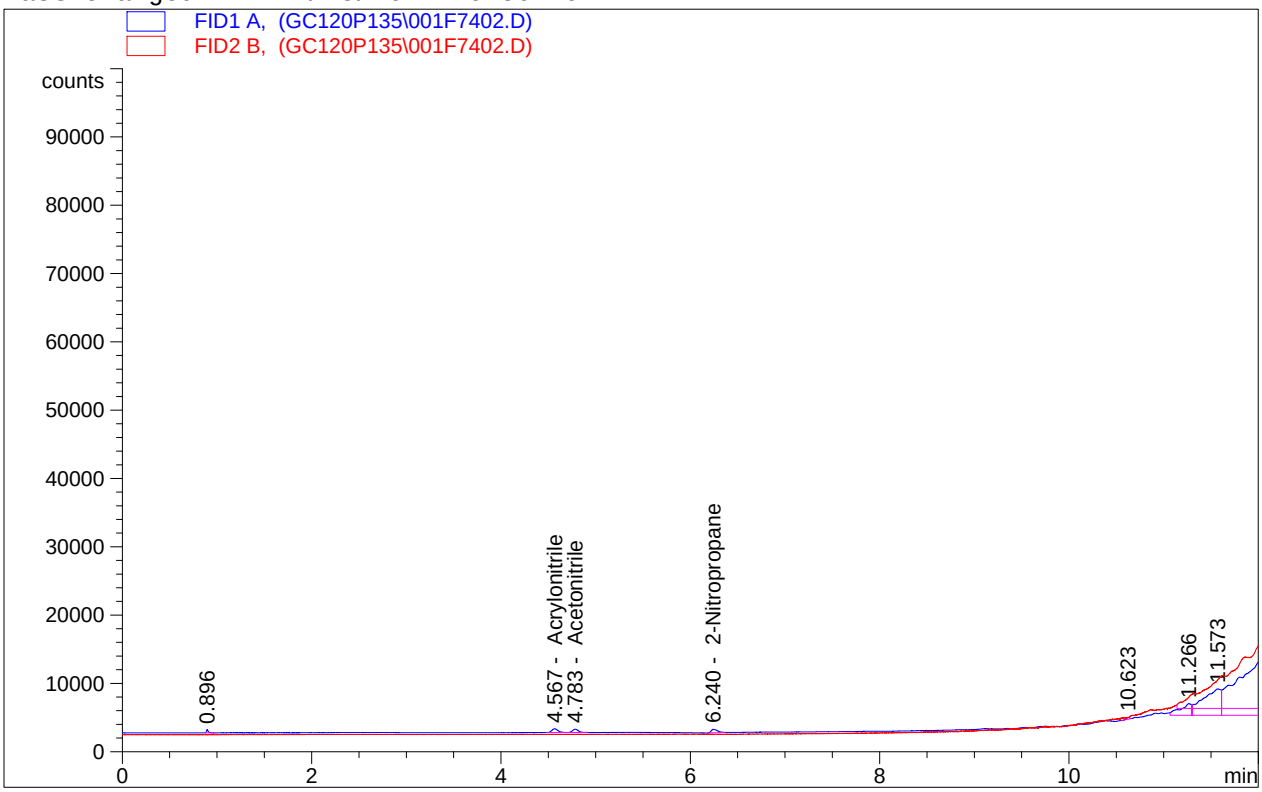

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\001F7402.D
Sample Name: gc120p135 #1

```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  74
Acq. Instrument : Penn online                       Location : Vial 1
Injection Date  : 7/22/2011 1:05:45 PM                   Inj :   2
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```

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==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

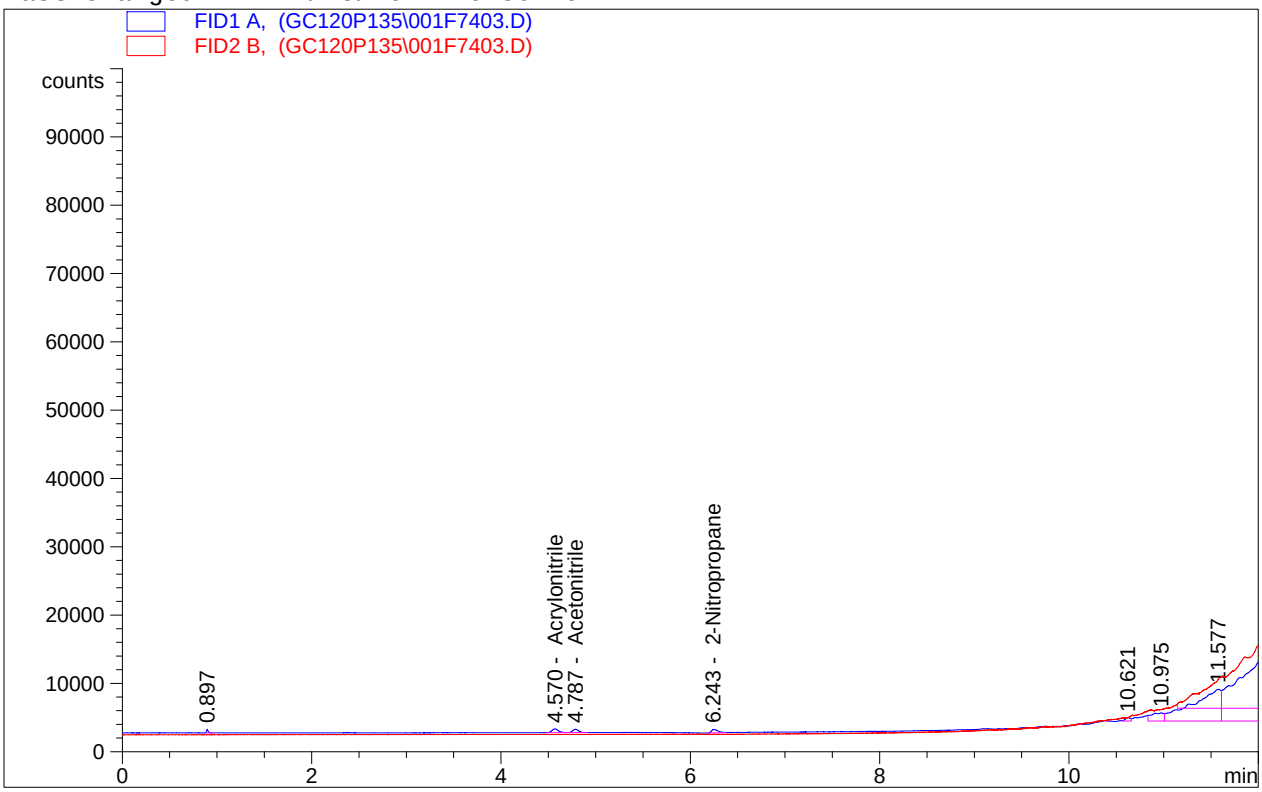
Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.567 BB     2556.75269 7.49989e-4    1.91754    Acrylonitrile
  4.783 BB     2059.41211 9.52678e-4    1.96196    Acetonitrile
  6.240 BB     2336.52637 1.04149e-3    2.43347    2-Nitropropane

Totals :                                6.31296
```

Data File I:\GC2011Q3\PENN\DATA\JUL11\GC120P135\001F7403.D
Sample Name: gc120p135 #1

```
==========================================================================
Acq. Operator   : KMT                              Seq. Line :  74
Acq. Instrument : Penn online                       Location : Vial 1
Injection Date  : 7/22/2011 1:26:28 PM                   Inj :   3
                                                  Inj Volume : 1 µl
Sequence File   : I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P135.M
Last changed    : 7/20/2011 8:46:49 AM by cld
Analysis Method : I:\GC2011Q3\PENN\METHODS\GC120P135-R.M
Last changed    : 7/25/2011 10:36:10 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/25/2011 10:35:08 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  4.570 BB     2553.53760 7.49989e-4    1.91513    Acrylonitrile
  4.787 BB     2060.10620 9.52678e-4    1.96262    Acetonitrile
  6.243 BB     2342.06396 1.04197e-3    2.44037    2-Nitropropane

Totals :                                6.31811
```

method: G:\GC2011Q3\PENN\METHODS\GC120P135.M
Modified on: 7/20/2011 at 8:46:49 AM

OVEN\DET

Runtime (min): 13.1

Zone Temperatures:

	State	Setpoint
Inl. A	ON	225 C.
Inl. B	ON	225 C.
Det. A	ON	300 C.
Det. B	ON	300 C.
Aux.	OFF	50 C.

Oven Zone:

Oven max	250 C.
Equib Time	2.00 Min.
Oven State	ON
Cryo State	OFF
Ambient	25 C.
Cryo Blast	OFF

Oven Program:

	Setpoint
Initial Temp.:	40 C.
Initial Time:	1.00 Min.

Level	Rate (C/min.)	Final Temp.(C)	Final Time (min)
1	10.0	90	0.50
2(A)	25.0	230	1.00

InletA Pressure Program Information

Constant Flow:	On
Pressure:	2.0 psi
Temperature:	35 C

Pressure Program:

	Setpoint
Initial Pres.:	0.0 psi
Initial Time:	650.00 min.

Level	Rate (psi/min.)	Final Pres.(psi)	Final Time (min)
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00

Total Program Time: 650.00

GC Pressure Units:psi

Entered Values:

Column Length:	30.00	m.
Column Diameter:	0.530	mm.
Gas:	H2	
Vacuum Comp:	Off	

InletB Pressure Program Information

Constant Flow: On

method: G:\GC2011Q3\PENN\METHODS\GC120P135.M
Modified on: 7/20/2011 at 8:46:49 AM
Pressure: 2.0 psi
Temperature: 35 C.
Pressure Program:

	Setpoint
Initial Pres.:	0.0 psi
Initial Time:	650.00 min.

Level	Rate (psi/min.)	Final Pres.(psi)	Final Time (min)
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00

Total Program Time: 650.00

GC Pressure Units:psi

Entered Values:

Column Length:	30.00	m.
Column Diameter:	0.530	mm.
Gas:	H2	
Vacuum Comp:	Off	

Inlet A Packed Column Information

Equation:---

Pressure-Flow Relationship:

	Pres.	Flow(psi) (ml/min)
1	---	0.0
2	---	0.0
3	---	0.0

Last pressure calibration:---

Packed Column Flow Setting (ml/min):0.0

Inlet B Packed Column Information

Equation:---

Pressure-Flow Relationship:

	Pres.	Flow(psi) (ml/min)
1	---	0.0
2	---	0.0
3	---	0.0

Last pressure calibration:---

Packed Column Flow Setting (ml/min):0.0

Purge Valve Settings

Purge A/B

	Init Value	On Time (Min.)	Off Time (Min.)
A (Valve 3)	On	0.00	100.00
B (Valve 4)	On	0.00	100.00

A - Splitless Injection: No
B - Splitless Injection: No

Valves/Relays Information

Initial Setpoints:
5890 Valves:
Valve 1: Off
Valve 2: Off

method: G:\GC2011Q3\PENN\METHODS\GC120P135.M
Modified on: 7/20/2011 at 8:46:49 AM

Valve 3 (Purge A):	On
Valve 4 (Purge B):	On

Detector Information

Detector A:

Type	FID
State	ON

Detector B:

Type	FID
State	ON

Signal Information

Save Data:	Both

Signal 1:

Signal	Det. A
Data rate	20.000 Hz.
Peakwidth	0.013 min.
Start Time	0.00 min.
Stop Time	650.00 min.

Signal 2:

Signal	Det. B
Data rate	20.000 Hz.
Peakwidth	0.013 min.
Start Time	0.00 min.
Stop Time	650.00 min.

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile	LimsID	Method	Inj	SampleType	InjVolume
1	Vial 6	gc120p135 #6		GC120P135	3	Sample	
2	Vial 5	gc120p135 #5		GC120P135	3	Sample	
3	Vial 4	gc120p135 #4		GC120P135	3	Sample	
4	Vial 3	gc120p135 #3		GC120P135	3	Sample	
5	Vial 2	gc120p135 #2		GC120P135	3	Sample	
6	Vial 1	gc120p135 #1		GC120P135	3	Sample	
7	Vial 7	gc120p135 #3ss		GC120P135	3	Sample	
8	Vial 8	Lab Blank H2O		GC120P135	3	Sample	
9	Vial 9	M18 R1 Spkd Cond Raf f 0611-126		GC120P135	3	Sample	
10	Vial 10	M18 R1 Spkd Cond Raf f-LD 0611-126		GC120P135	3	Sample	
11	Vial 11	M18 R2 Spkd Cond Raf f 0611-126		GC120P135	3	Sample	
12	Vial 12	M18 R3 Spkd Cond Raf f 0611-126		GC120P135	3	Sample	
13	Vial 13	M18 R1 Cond Raff 06 11-126		GC120P135	3	Sample	
14	Vial 14	M18 R2 Cond Raff 06 11-126		GC120P135	3	Sample	
15	Vial 15	M18 R3 Cond Raff 06 11-126		GC120P135	3	Sample	
16	Vial 16	M18 H2O FB Raff 061 1-126		GC120P135	3	Sample	
17	Vial 17	M18 H2O RB Raff 061 1-126		GC120P135	3	Sample	
18	Vial 4	gc120p135 #4		GC120P135	3	Sample	
19	Vial 3	gc120p135 #3		GC120P135	3	Sample	
20	Vial 18	AQ LCS 1 Raff 0611- 126		GC120P135	3	Sample	
21	Vial 19	AQ LCS 2 Raff 0611- 126		GC120P135	3	Sample	
22	Vial 20	M18 Stk-ICR1 Cond Ra ff 0611-22		GC120P135	3	Sample	

23	Vial 21	M18 Stk-ICR1S Cond R aff 0611-22	GC120P135	3	Sample
24	Vial 22	M18 Stk-ICR2 Cond Ra ff 0611-22	GC120P135	3	Sample
25	Vial 23	M18 Stk-ICR2S Cond R aff 0611-22	GC120P135	3	Sample
26	Vial 24	M18 Stk-ICR2S Cond R aff-LD 0611-22	GC120P135	3	Sample
27	Vial 25	M18 Stk-ICR3 Cond Ra ff 0611-22	GC120P135	3	Sample
28	Vial 26	M18 Stk-ICR3S Cond R aff 0611-22	GC120P135	3	Sample
29	Vial 27	M18 Stk-ICR Cond FB Raff 0611-22	GC120P135	3	Sample
30	Vial 4	gc120p135 #4	GC120P135	3	Sample
31	Vial 3	gc120p135 #3	GC120P135	3	Sample
32	Vial 28	M18 ICR Cond LD Raff 0611-22	GC120P135	3	Sample
33	Vial 29	M18 AQ LCS 1 Raff 0 611-22	GC120P135	3	Sample
34	Vial 30	M18 AQ LCS 2 Raff 0 611-22	GC120P135	3	Sample
35	Vial 31	M18 R1A-Unspkd Cond Raff 0611-101	GC120P135	3	Sample
36	Vial 32	M18 R1B-Spkd Cond Ra ff 0611-101	GC120P135	3	Sample
37	Vial 33	M18 R1B-Spkd Cond Ra ff-LD 0611-101	GC120P135	3	Sample
38	Vial 34	M18 R2A-Unspkd Cond Raff 0611-101	GC120P135	3	Sample
39	Vial 35	M18 R2B-Spkd Cond Ra ff 0611-101	GC120P135	3	Sample
40	Vial 36	M18 R3A-Unspkd Cond Raff 0611-101	GC120P135	3	Sample
41	Vial 37	M18 R3B-Spkd Cond Ra ff 0611-101	GC120P135	3	Sample
42	Vial 4	gc120p135 #4	GC120P135	3	Sample
43	Vial 3	gc120p135 #3	GC120P135	3	Sample
44	Vial 38	M18-UnSpkd Cond FB Raff 0611-101	GC120P135	3	Sample
45	Vial 39	M18 H2O RB Raff 061 1-101	GC120P135	3	Sample

46	Vial 40	M18 AQ LCS 1 Raff 0 611-101	GC120P135	3	Sample
47	Vial 41	M18 AQ LCS 2 Raff 0 611-101	GC120P135	3	Sample
48	Vial 42	M18 T2R1-Spkd Cond Raff 0711-12	GC120P135	3	Sample
49	Vial 43	M18 T2R1-Spkd Cond Raff-LD 0711-12	GC120P135	3	Sample
50	Vial 44	M18 T2R1-UnSpkd Cond Raff 0711-12	GC120P135	3	Sample
51	Vial 45	M18 T2R2-Spkd Cond Raff 0711-12	GC120P135	3	Sample
52	Vial 46	M18 T2R2-UnSpkd Cond Raff 0711-12	GC120P135	3	Sample
53	Vial 47	M18 T2R3-Spkd Cond Raff 0711-12	GC120P135	3	Sample
54	Vial 4	gc120p135 #4	GC120P135	3	Sample
55	Vial 3	gc120p135 #3	GC120P135	3	Sample
56	Vial 48	M18 T2R3-UnSpkd Cond Raff 0711-12	GC120P135	3	Sample
57	Vial 49	M18 H2O RB Raff 071 1-12	GC120P135	3	Sample
58	Vial 50	M18 AQ LCS 1 Raff 0 711-12	GC120P135	3	Sample
59	Vial 51	M18 AQ LCS 2 Raff 0 711-12	GC120P135	3	Sample
60	Vial 52	M18 R1US Cond Raff 0611-12	GC120P135	3	Sample
61	Vial 53	M18 R1S Cond Raff 0 611-12	GC120P135	3	Sample
62	Vial 54	M18 R2US Cond Raff 0611-12	GC120P135	3	Sample
63	Vial 55	M18 R2S Cond Raff 0 611-12	GC120P135	3	Sample
64	Vial 56	M18 R3US Cond Raff 0611-12	GC120P135	3	Sample
65	Vial 57	M18 R3S Cond Raff 0 611-12	GC120P135	3	Sample
66	Vial 4	gc120p135 #4	GC120P135	3	Sample
67	Vial 3	gc120p135 #3	GC120P135	3	Sample
68	Vial 58	M18 H2O-RB Raff 061 1-12	GC120P135	3	Sample

69	Vial 4	gc120p135 #4	GC120P135	3	Sample
70	Vial 3	gc120p135 #3	GC120P135	3	Sample
71	Vial 6	gc120p135 #6	GC120P135	3	Sample
72	Vial 5	gc120p135 #5	GC120P135	3	Sample
73	Vial 2	gc120p135 #2	GC120P135	3	Sample
74	Vial 1	gc120p135 #1	GC120P135	3	Sample

Sequence Table (Back Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
1	none	NA	GC120P135	3	Sample	
2	none	NA	GC120P135	3	Sample	
3	none	NA	GC120P135	3	Sample	
4	none	NA	GC120P135	3	Sample	
5	none	NA	GC120P135	3	Sample	
6	none	NA	GC120P135	3	Sample	
7	none	NA	GC120P135	3	Sample	
8	none	NA	GC120P135	3	Sample	
9	none	NA	GC120P135	3	Sample	
10	none	NA	GC120P135	3	Sample	
11	none	NA	GC120P135	3	Sample	
12	none	NA	GC120P135	3	Sample	
13	none	NA	GC120P135	3	Sample	
14	none	NA	GC120P135	3	Sample	
15	none	NA	GC120P135	3	Sample	
16	none	NA	GC120P135	3	Sample	
17	none	NA	GC120P135	3	Sample	
18	none	NA	GC120P135	3	Sample	
19	none	NA	GC120P135	3	Sample	
20	none	NA	GC120P135	3	Sample	
21	none	NA	GC120P135	3	Sample	

Sequence: I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
22	none	NA	GC120P135	3	Sample	
23	none	NA	GC120P135	3	Sample	
24	none	NA	GC120P135	3	Sample	
25	none	NA	GC120P135	3	Sample	
26	none	NA	GC120P135	3	Sample	
27	none	NA	GC120P135	3	Sample	
28	none	NA	GC120P135	3	Sample	
29	none	NA	GC120P135	3	Sample	
30	none	NA	GC120P135	3	Sample	
31	none	NA	GC120P135	3	Sample	
32	none	NA	GC120P135	3	Sample	
33	none	NA	GC120P135	3	Sample	
34	none	NA	GC120P135	3	Sample	
35	none	NA	GC120P135	3	Sample	
36	none	NA	GC120P135	3	Sample	
37	none	NA	GC120P135	3	Sample	
38	none	NA	GC120P135	3	Sample	
39	none	NA	GC120P135	3	Sample	
40	none	NA	GC120P135	3	Sample	
41	none	NA	GC120P135	3	Sample	
42	none	NA	GC120P135	3	Sample	
43	none	NA	GC120P135	3	Sample	
44	none	NA	GC120P135	3	Sample	
45	none	NA	GC120P135	3	Sample	
46	none	NA	GC120P135	3	Sample	
47	none	NA	GC120P135	3	Sample	
48	none	NA	GC120P135	3	Sample	
49	none	NA	GC120P135	3	Sample	
50	none	NA	GC120P135	3	Sample	
51	none	NA	GC120P135	3	Sample	

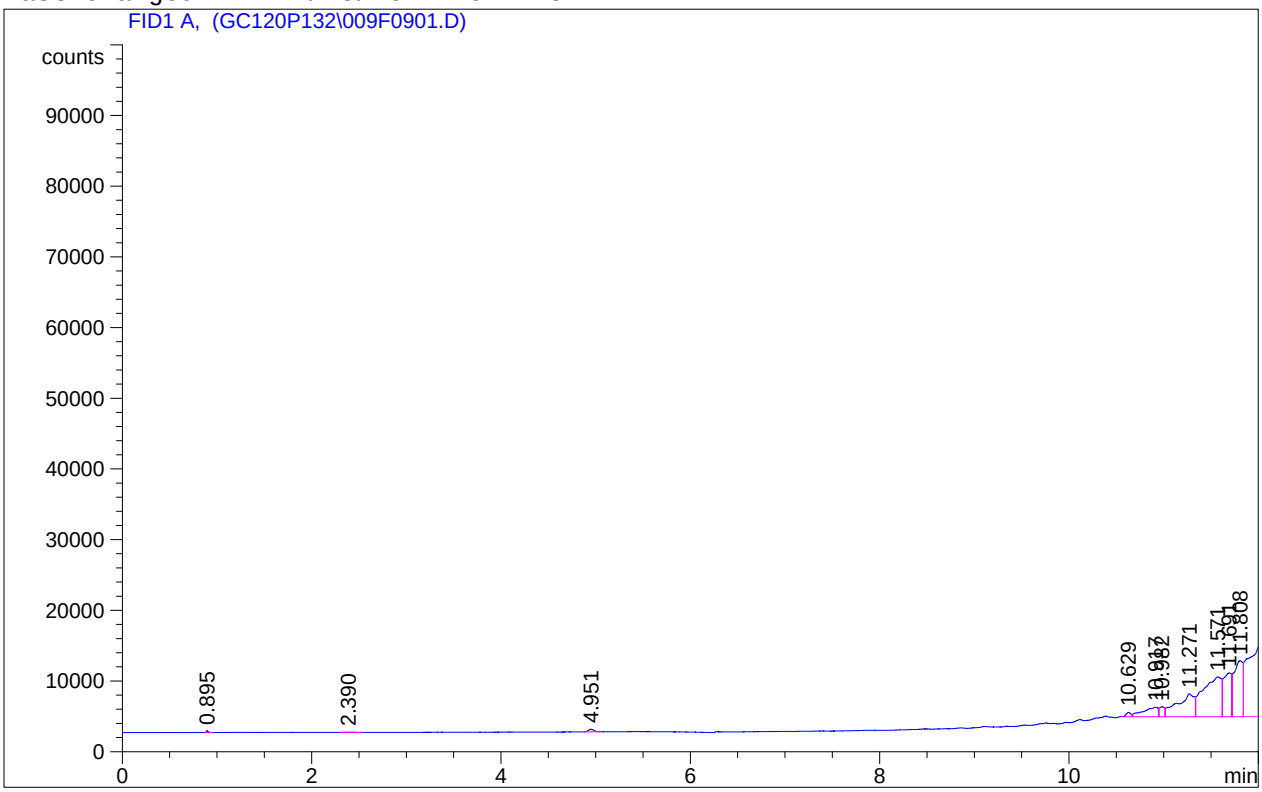
Sequence: I:\GC2011Q3\PENN\SEQUENCE\GC120P135.S

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
52	none	NA	GC120P135	3	Sample	
53	none	NA	GC120P135	3	Sample	
54	none	NA	GC120P135	3	Sample	
55	none	NA	GC120P135	3	Sample	
56	none	NA	GC120P135	3	Sample	
57	none	NA	GC120P135	3	Sample	
58	none	NA	GC120P135	3	Sample	
59	none	NA	GC120P135	3	Sample	
60	none	NA	GC120P135	3	Sample	
61	none	NA	GC120P135	3	Sample	
62	none	NA	GC120P135	3	Sample	
63	none	NA	GC120P135	3	Sample	
64	none	NA	GC120P135	3	Sample	
65	none	NA	GC120P135	3	Sample	
66	none	NA	GC120P135	3	Sample	
67	none	NA	GC120P135	3	Sample	
68	none	NA	GC120P135	3	Sample	
69	none	NA	GC120P135	3	Sample	
70	none	NA	GC120P135	3	Sample	

Sample Chromatograms

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\009F0901.D
Sample Name: stk-icr1-m308-condA 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   9
Acq. Instrument : Penn online                     Location : Vial 9
Injection Date  : 7/14/2011 3:15:33 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

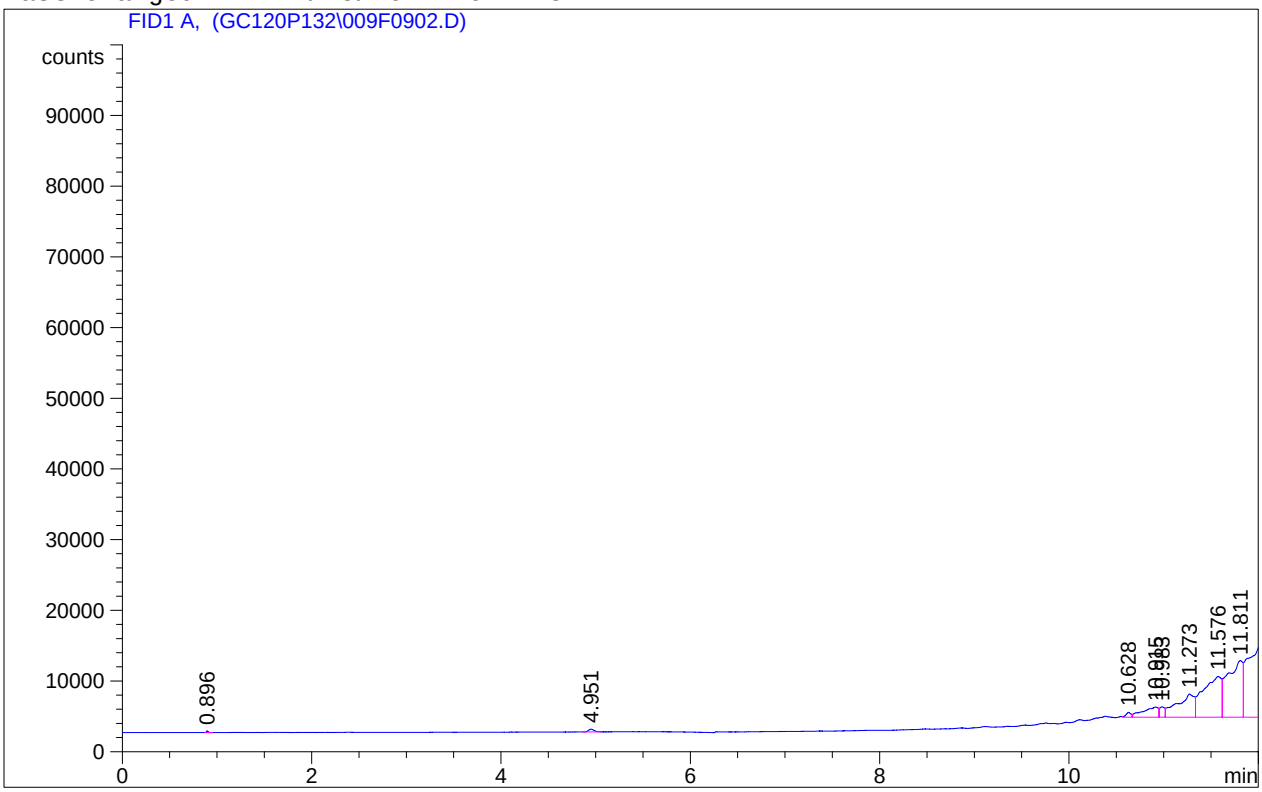
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\009F0902.D
Sample Name: stk-icr1-m308-condA 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   9
Acq. Instrument : Penn online                     Location : Vial 9
Injection Date  : 7/14/2011 3:36:41 AM                 Inj :   2
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

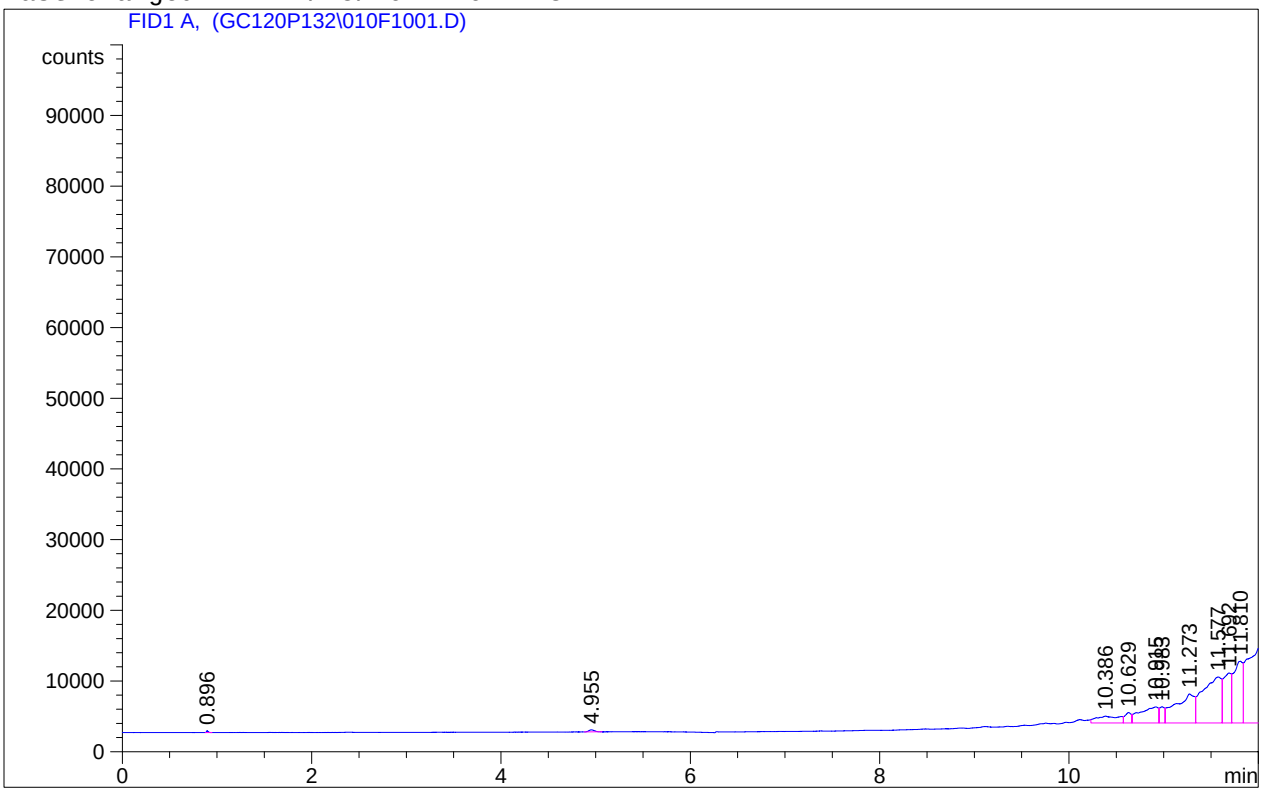
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\010F1001.D
Sample Name: stk-icr1-m308-condB 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  10
Acq. Instrument : Penn online                    Location : Vial 10
Injection Date  : 7/14/2011 3:57:54 AM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

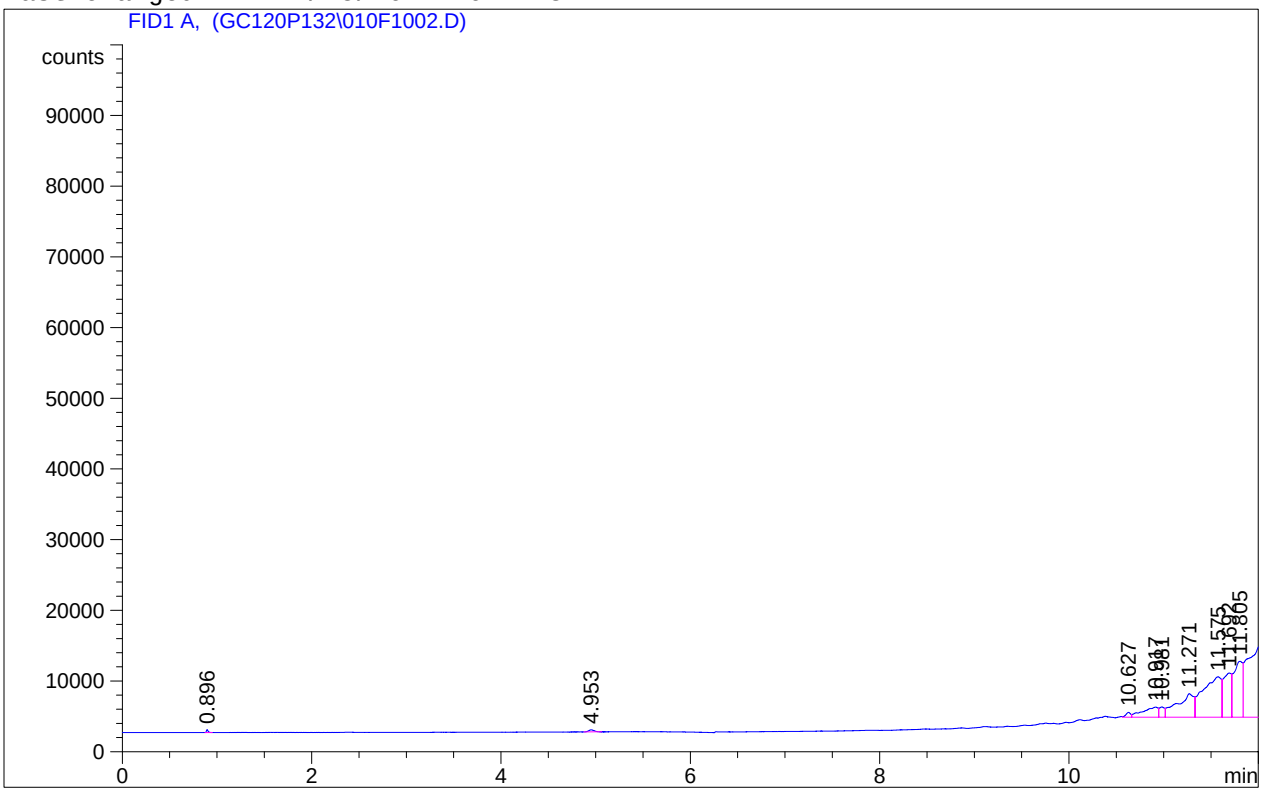
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\010F1002.D
Sample Name: stk-icr1-m308-condB 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  10
Acq. Instrument : Penn online                    Location : Vial 10
Injection Date  : 7/14/2011 4:19:03 AM                Inj :   2
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

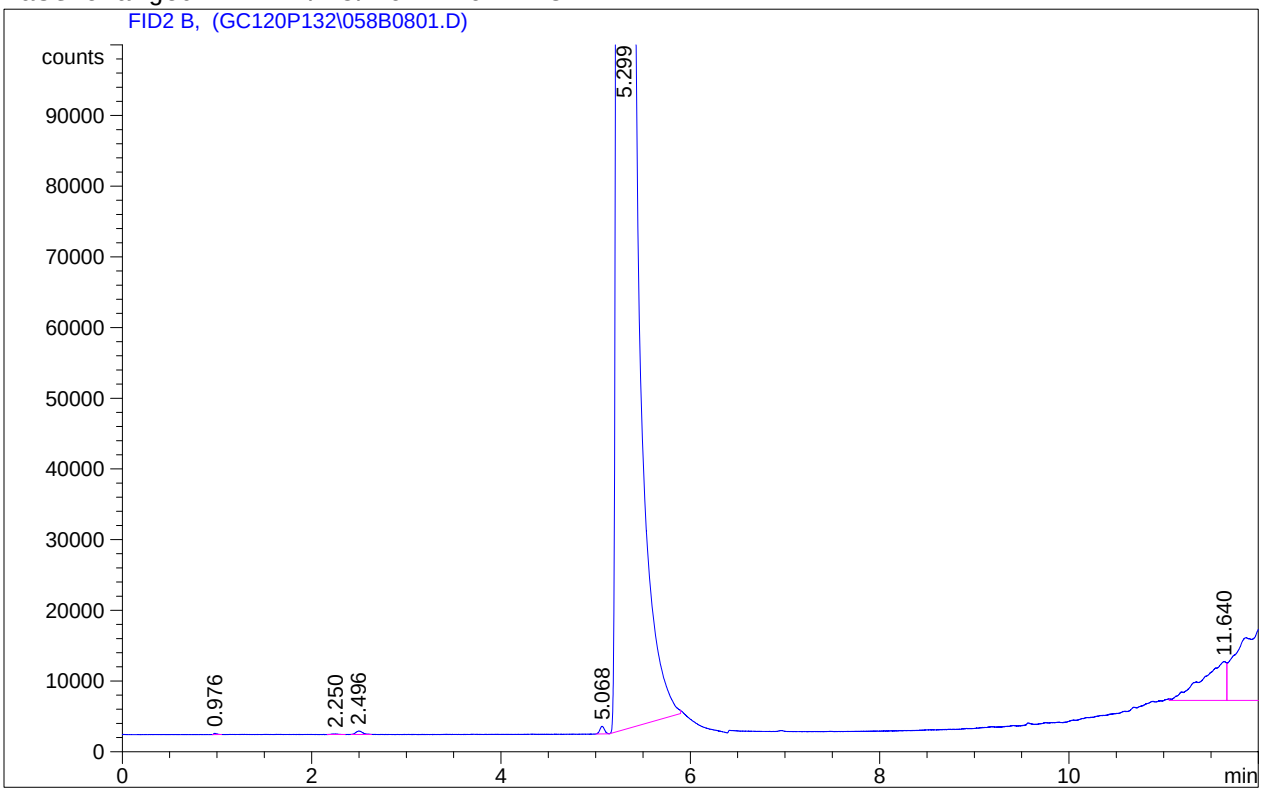
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\058B0801.D
Sample Name: stk-icr1-m308-silica-fh 0611-22

Acq. Operator	: KMT/CLD	Seq. Line	: 8
Acq. Instrument	: Penn online	Location	: Vial 58
Injection Date	: 7/14/2011 2:12:03 AM	Inj	: 1
		Inj Volume	: 1 µl
Sequence File	: G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S		
Acq. Method	: G:\GC2011Q3\PENN\METHODS\GC120P132.M		
Last changed	: 7/13/2011 3:39:30 PM by KMT/CLD		
Analysis Method	: G:\GC2011Q3\PENN\METHODS\GC120P132.M		
Last changed	: 7/15/2011 10:27:34 AM		



External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, July 14, 2011 3:08:44 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

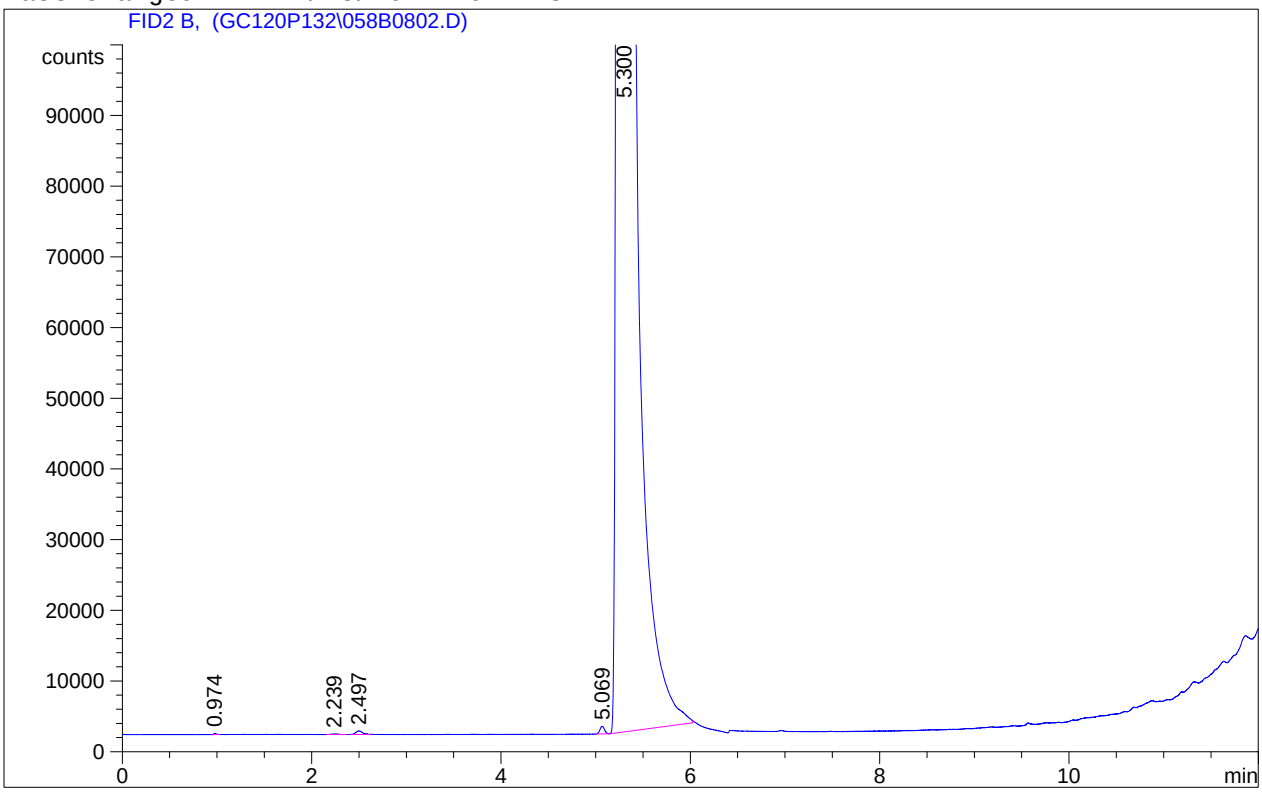
RetTime [min]	Type	Area counts*s	Amt/Area	Amount [µg/mL]	Grp	Name
3.429		-	-	-		Methanol

Totals : 0.00000

Signal 2: FID1 A, not found

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\058B0802.D
Sample Name: stk-icr1-m308-silica-fh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   8
Acq. Instrument : Penn online                     Location : Vial 58
Injection Date  : 7/14/2011 2:33:11 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

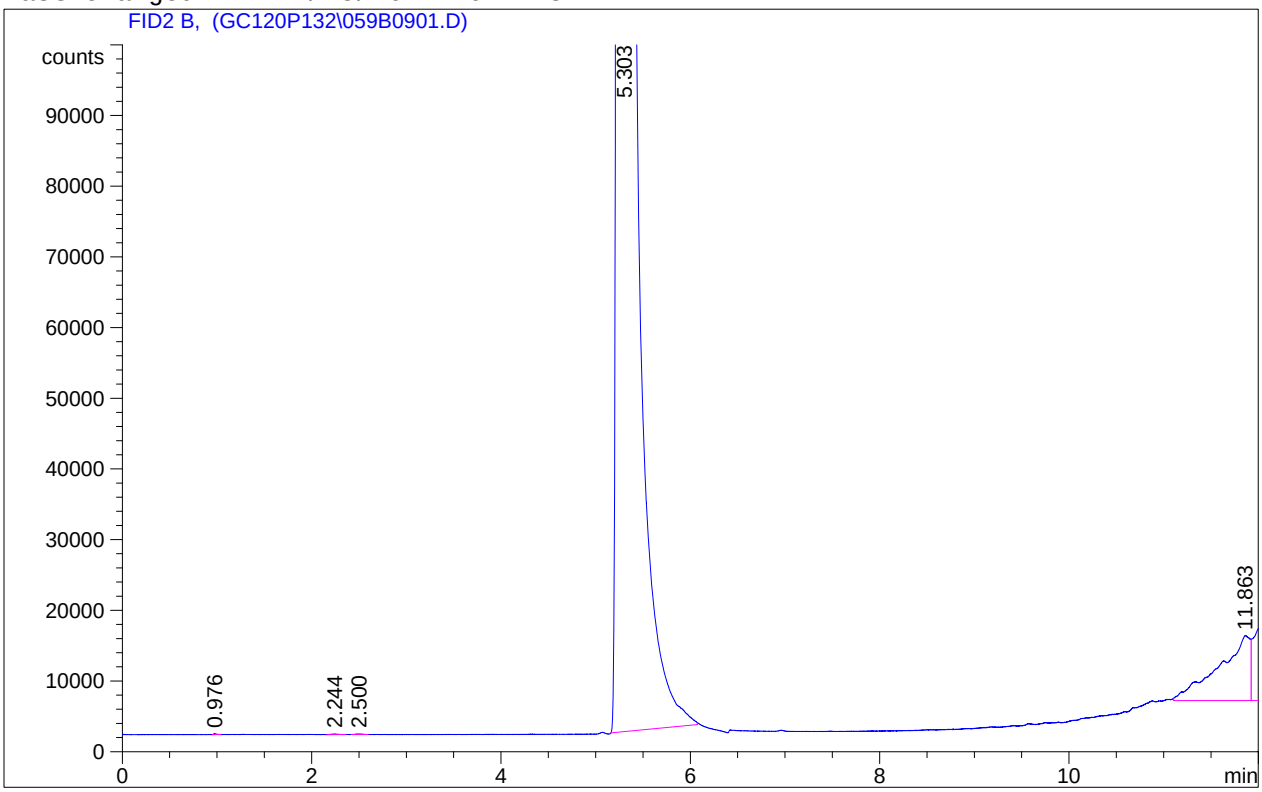
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\059B0901.D
Sample Name: stk-icr1-m308-silica-bh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   9
Acq. Instrument : Penn online                     Location : Vial 59
Injection Date  : 7/14/2011 2:54:20 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

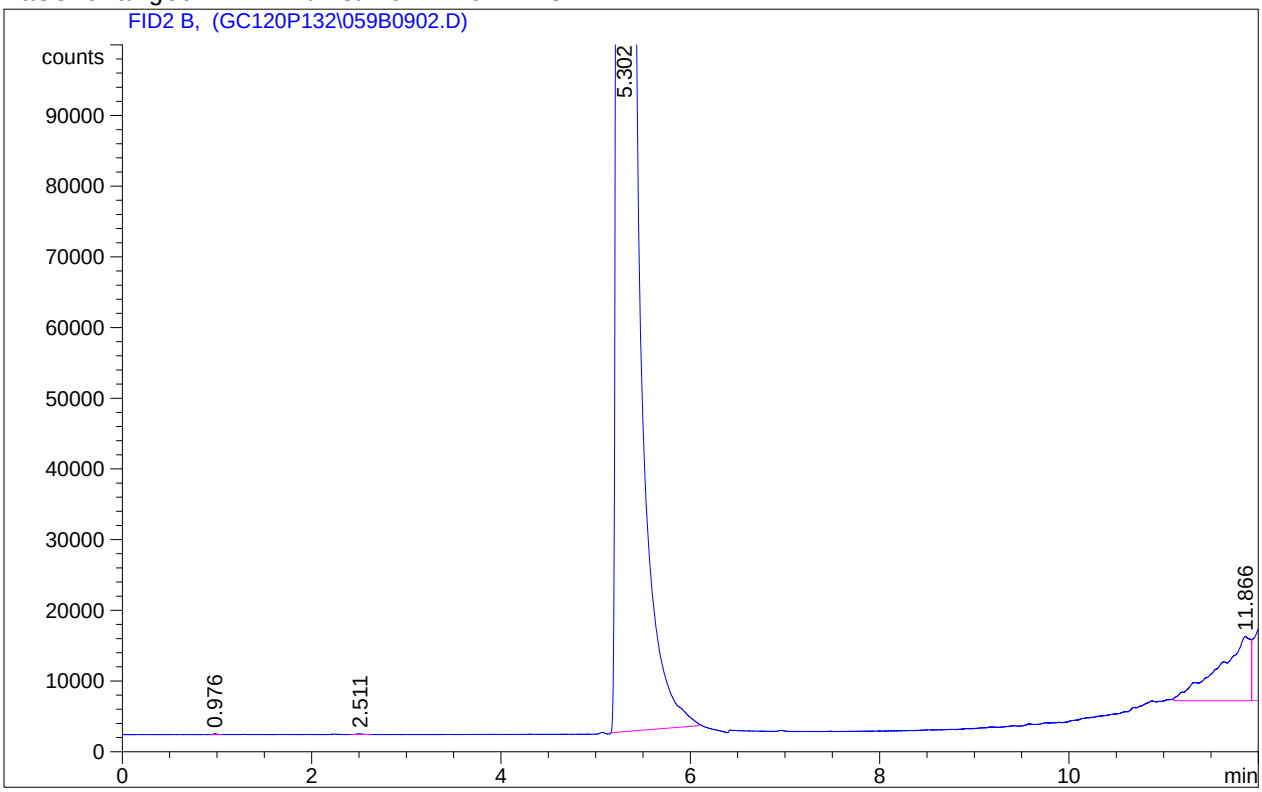
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\059B0902.D
Sample Name: stk-icr1-m308-silica-bh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   9
Acq. Instrument : Penn online                     Location : Vial 59
Injection Date  : 7/14/2011 3:15:33 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

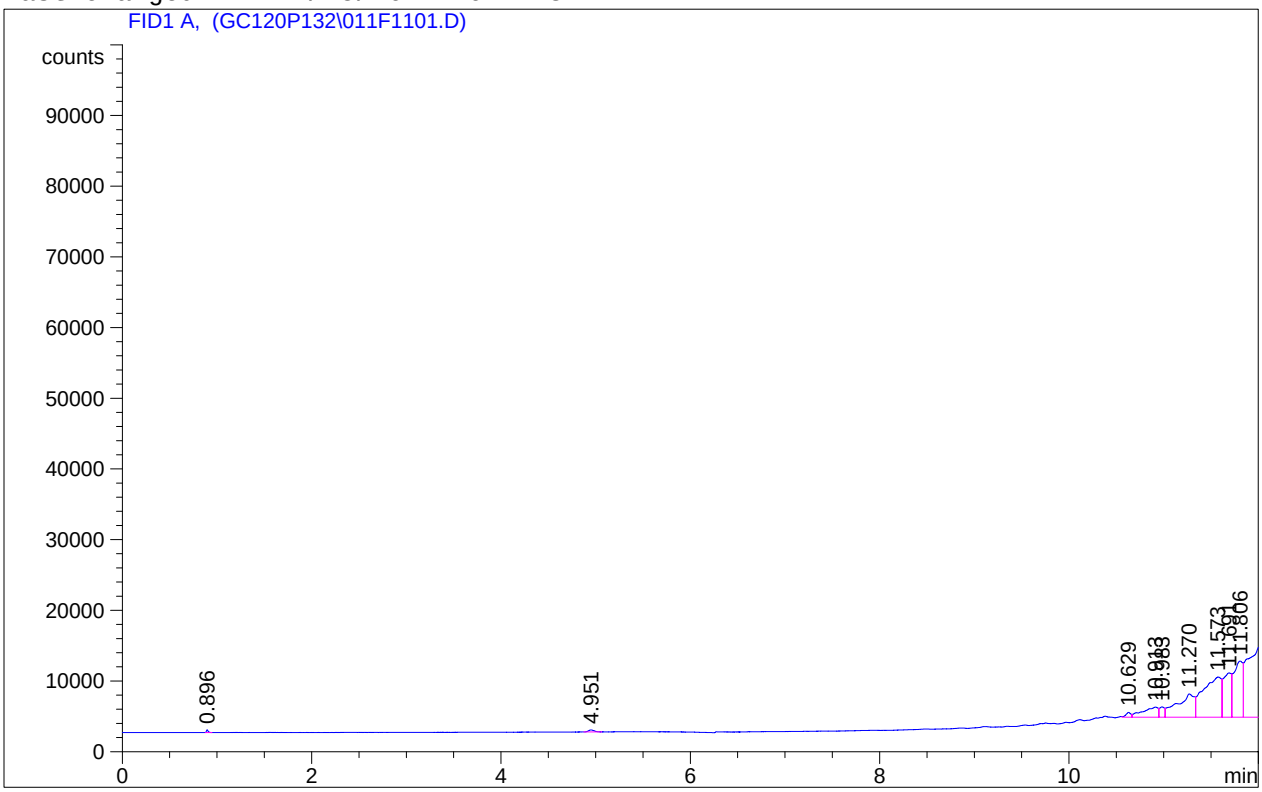
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\011F1101.D
Sample Name: stk-icr2-m308-condA 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  11
Acq. Instrument : Penn online                    Location : Vial 11
Injection Date  : 7/14/2011 4:40:13 AM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

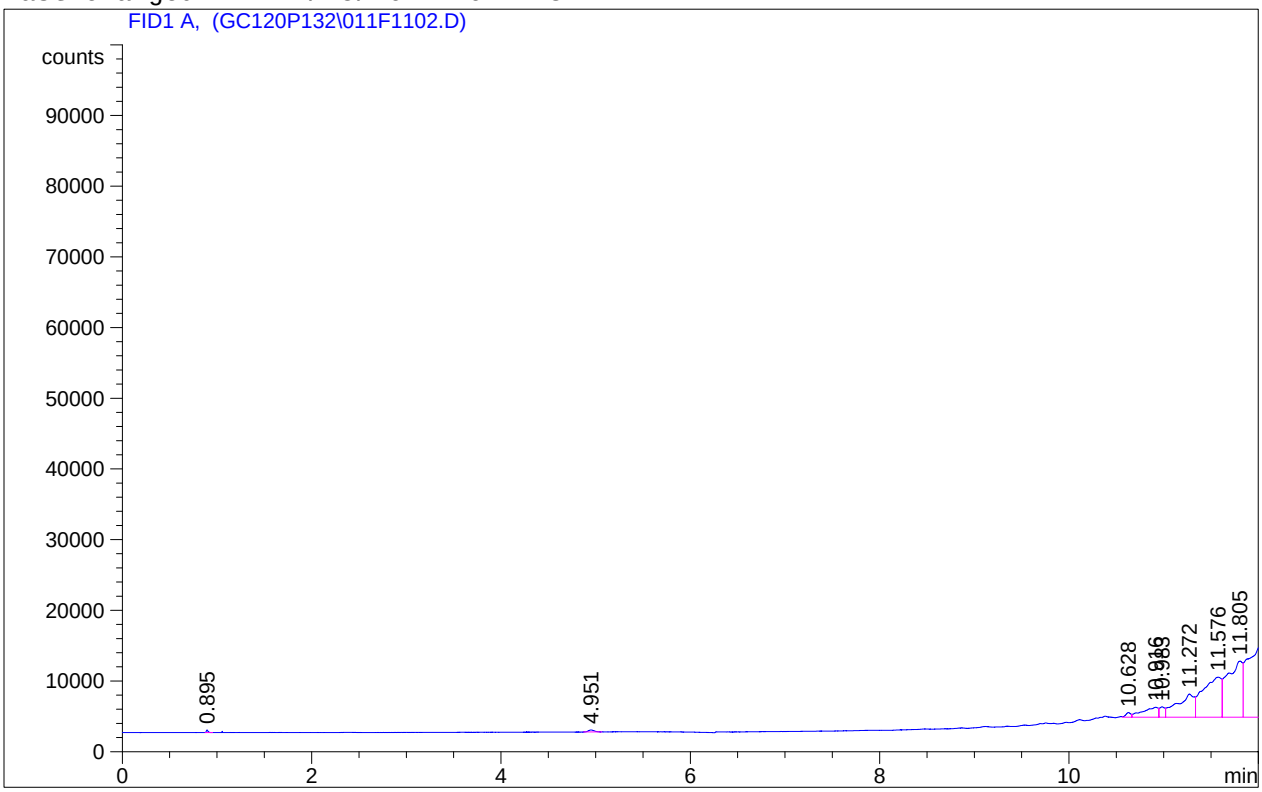
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\011F1102.D
Sample Name: stk-icr2-m308-condA 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  11
Acq. Instrument : Penn online                    Location : Vial 11
Injection Date  : 7/14/2011 5:01:22 AM                Inj :   2
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

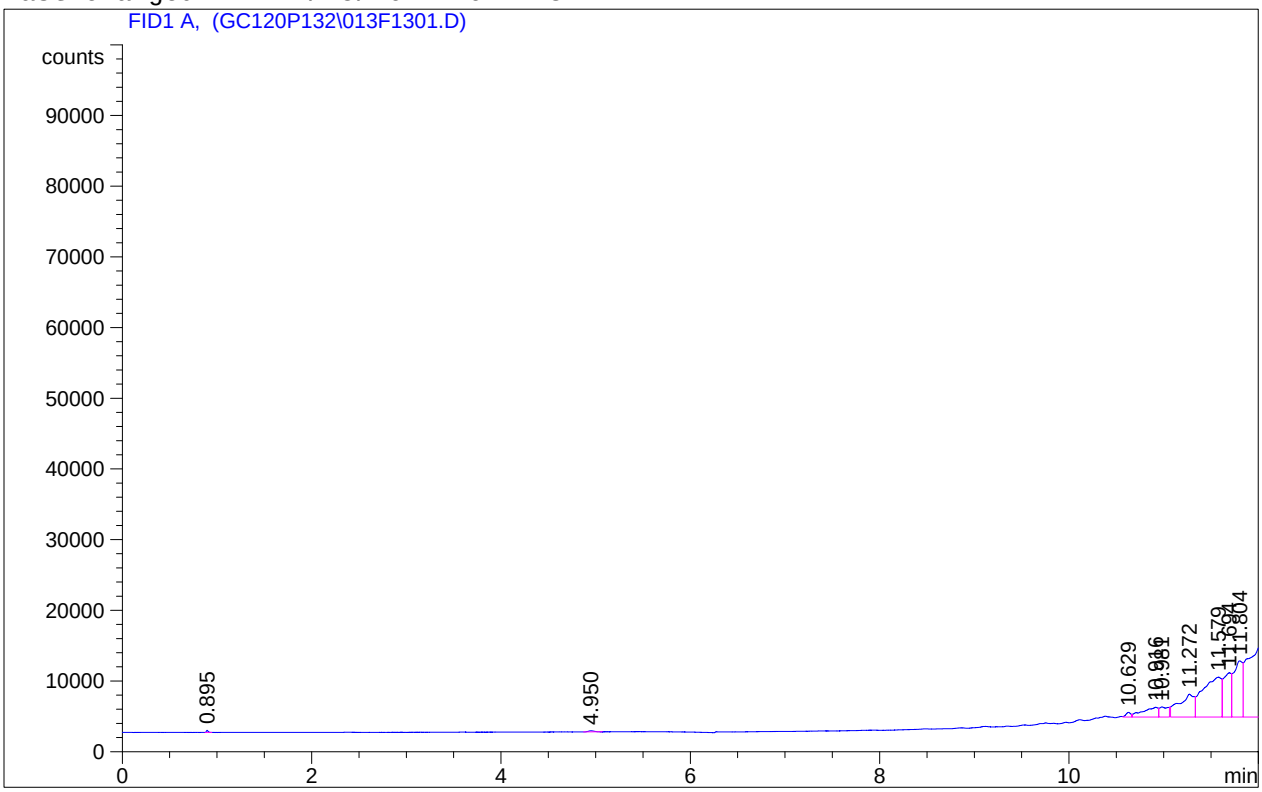
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\013F1301.D
Sample Name: stk-icr2-m308-condB 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  13
Acq. Instrument : Penn online                    Location : Vial 13
Injection Date  : 7/14/2011 6:04:56 AM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

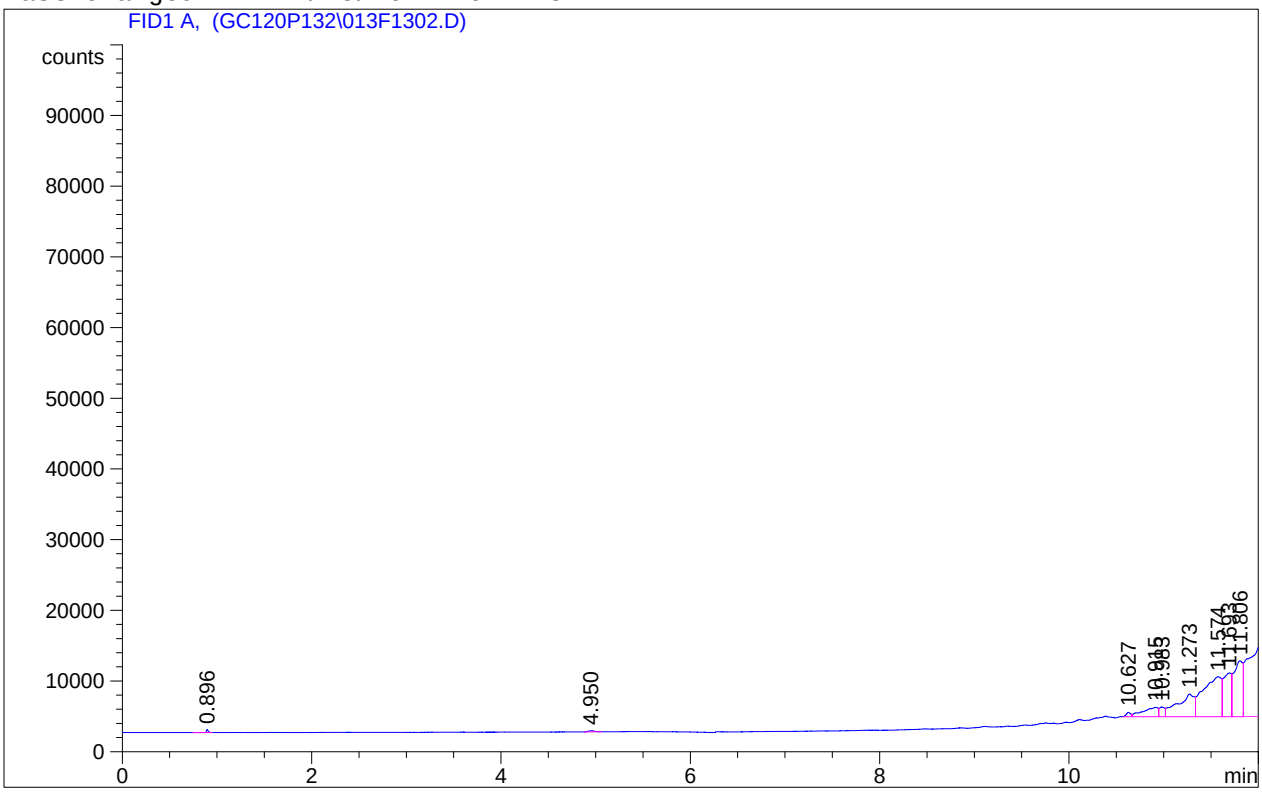
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\013F1302.D
Sample Name: stk-icr2-m308-condB 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  13
Acq. Instrument : Penn online                    Location : Vial 13
Injection Date  : 7/14/2011 6:26:04 AM                Inj :   2
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

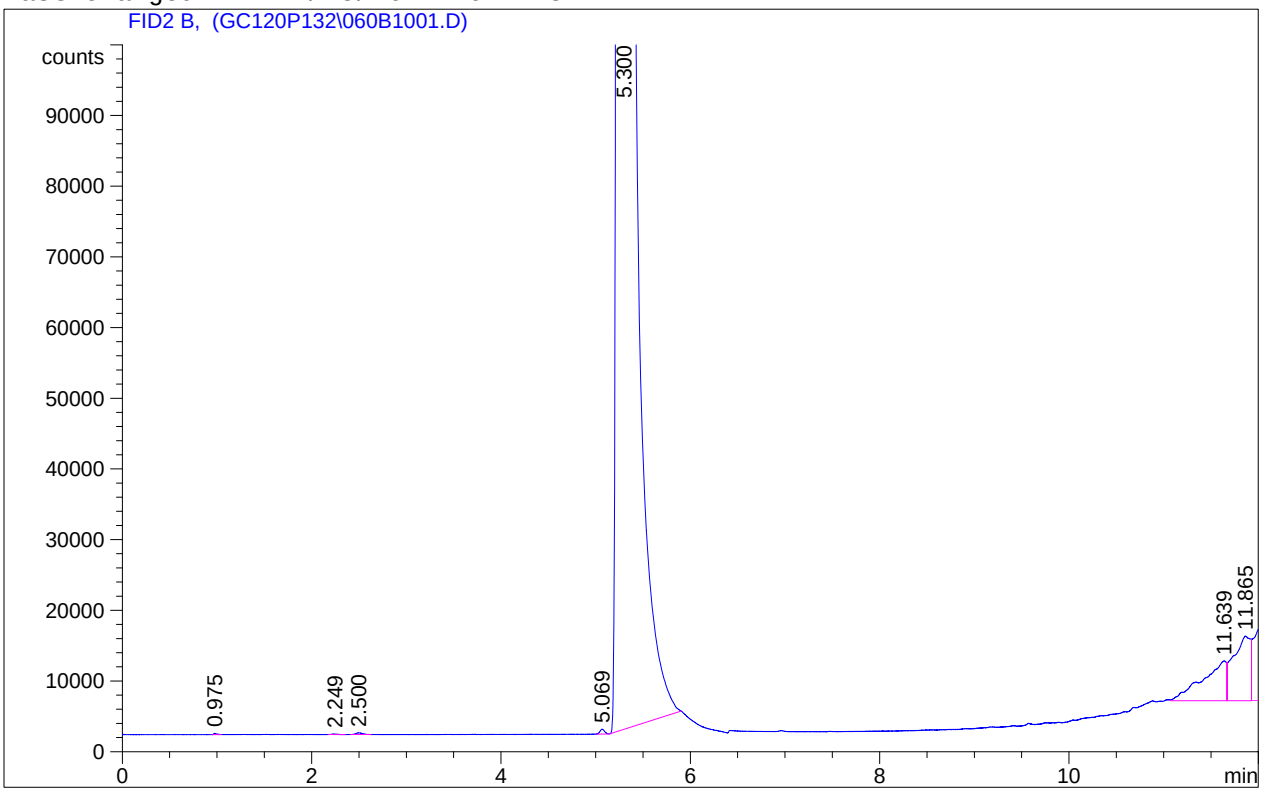
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\060B1001.D
Sample Name: stk-icr2-m308-silica-fh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  10
Acq. Instrument : Penn online                     Location : Vial 60
Injection Date  : 7/14/2011 3:36:41 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

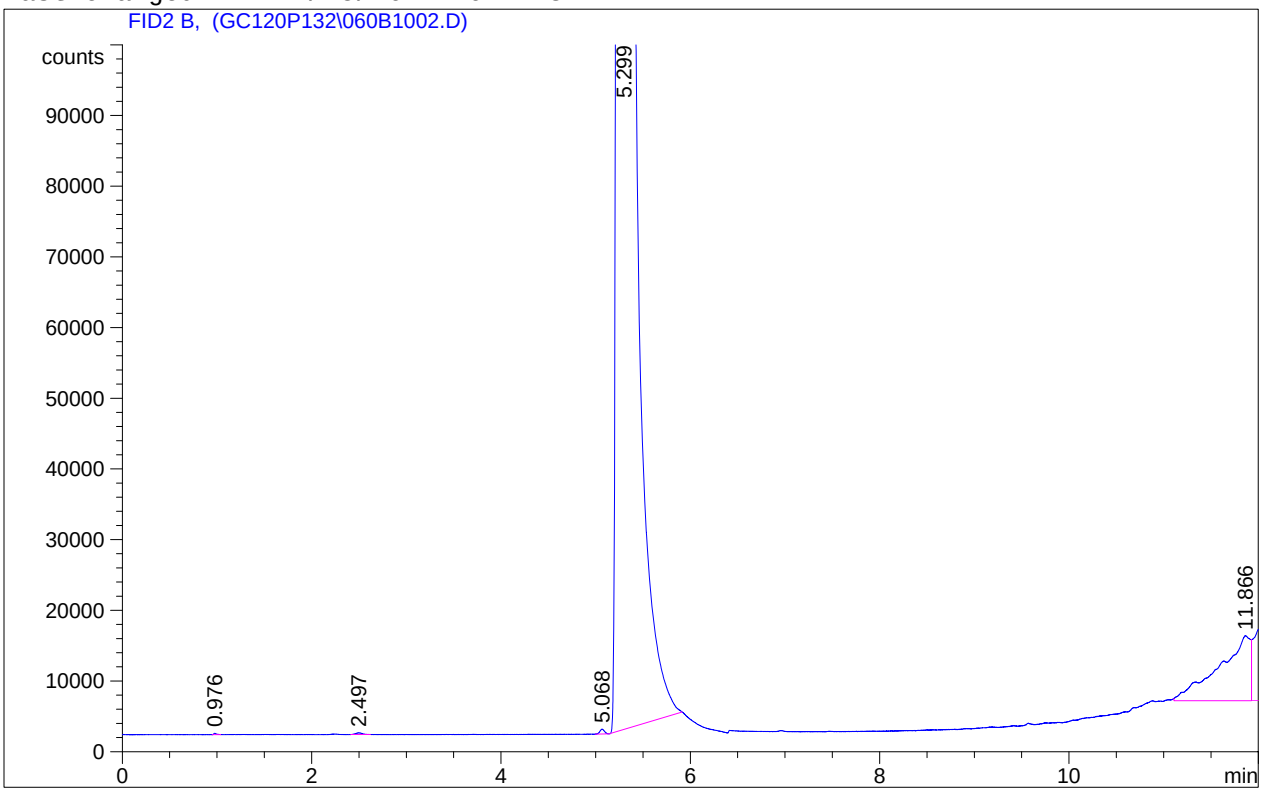
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\060B1002.D
Sample Name: stk-icr2-m308-silica-fh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  10
Acq. Instrument : Penn online                     Location : Vial 60
Injection Date  : 7/14/2011 3:57:54 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

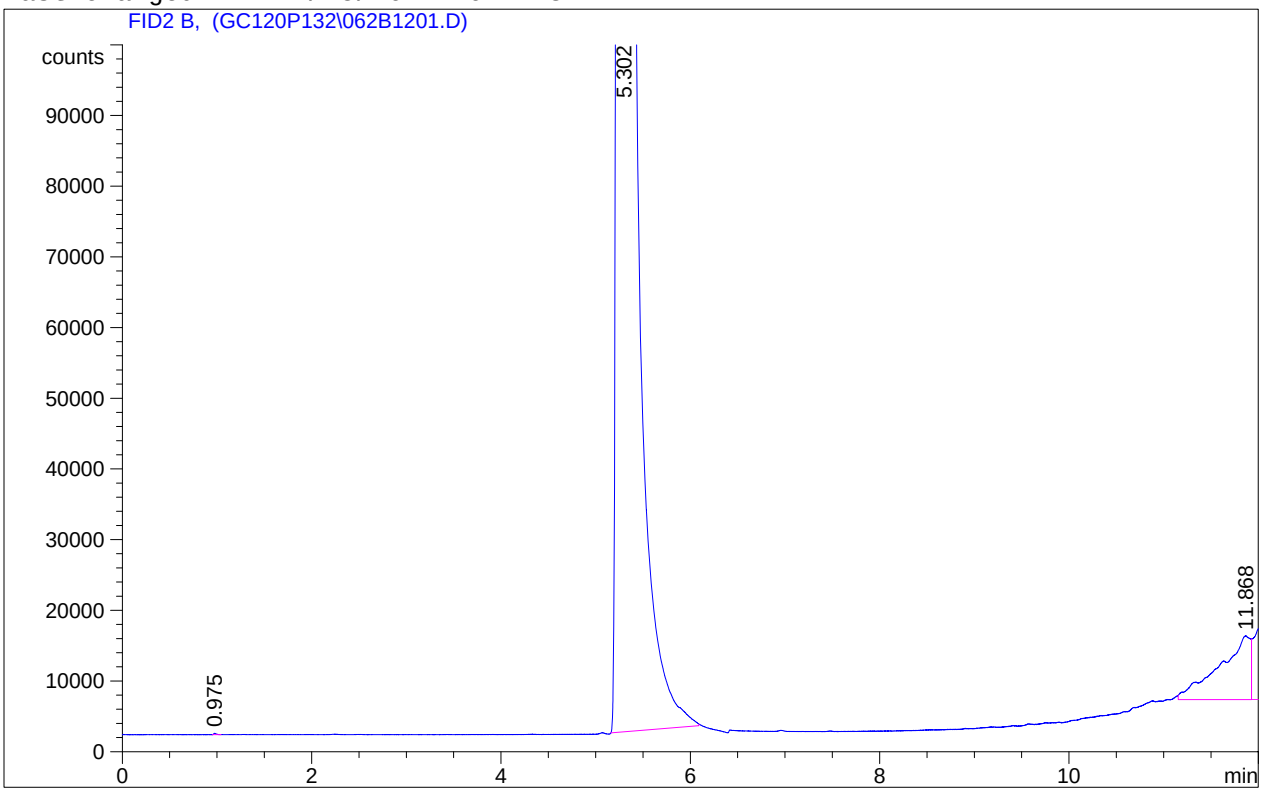
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\062B1201.D
Sample Name: stk-icr2-m308-silica-bh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  12
Acq. Instrument : Penn online                     Location : Vial 62
Injection Date  : 7/14/2011 5:01:22 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

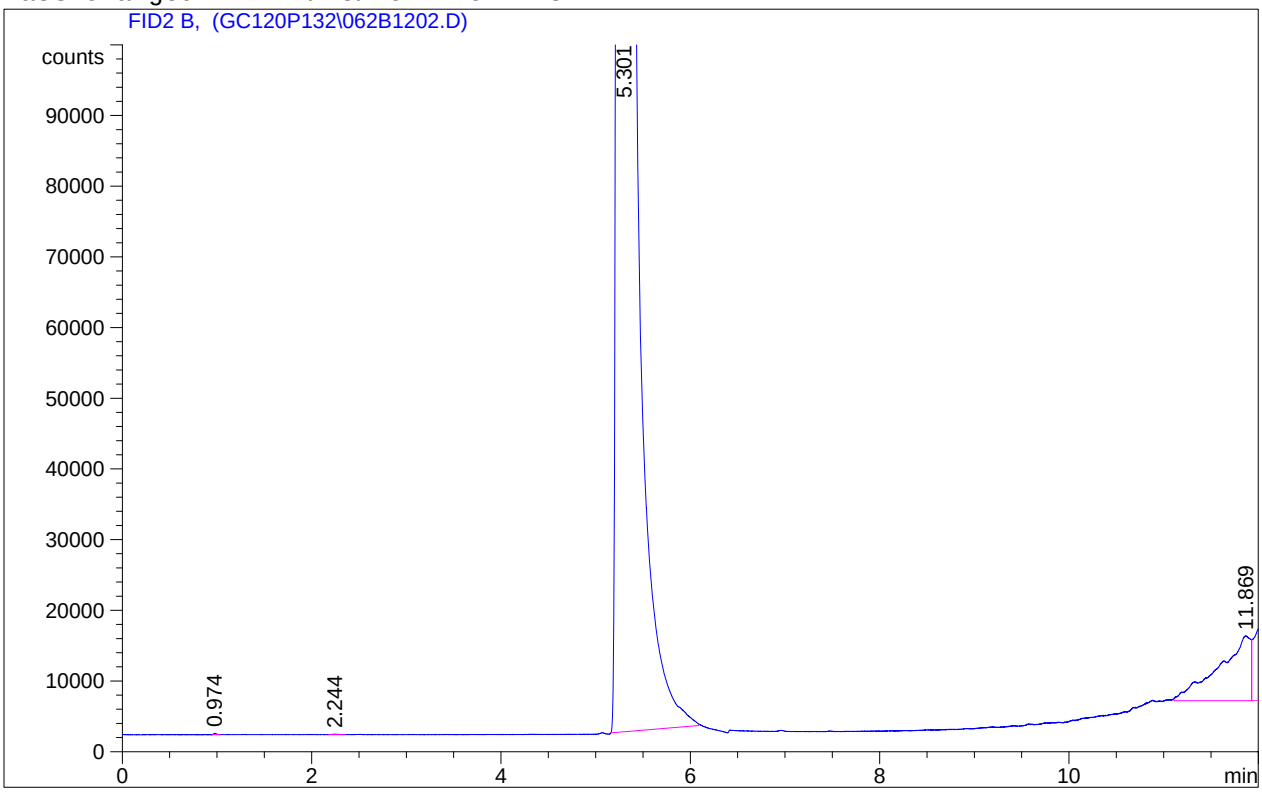
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\062B1202.D
Sample Name: stk-icr2-m308-silica-bh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  12
Acq. Instrument : Penn online                     Location : Vial 62
Injection Date  : 7/14/2011 5:22:34 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

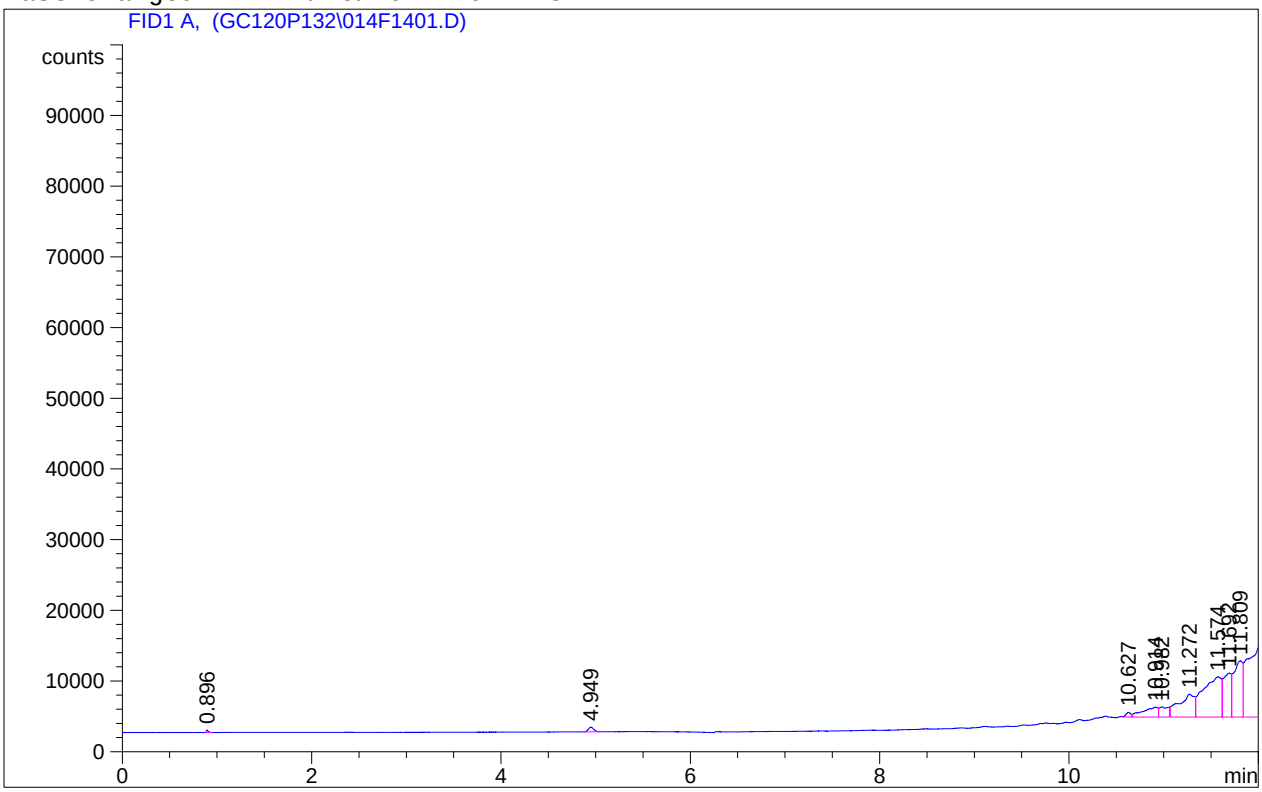
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\014F1401.D
Sample Name: stk-icr3-m308-condA 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  14
Acq. Instrument : Penn online                    Location : Vial 14
Injection Date  : 7/14/2011 6:47:22 AM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

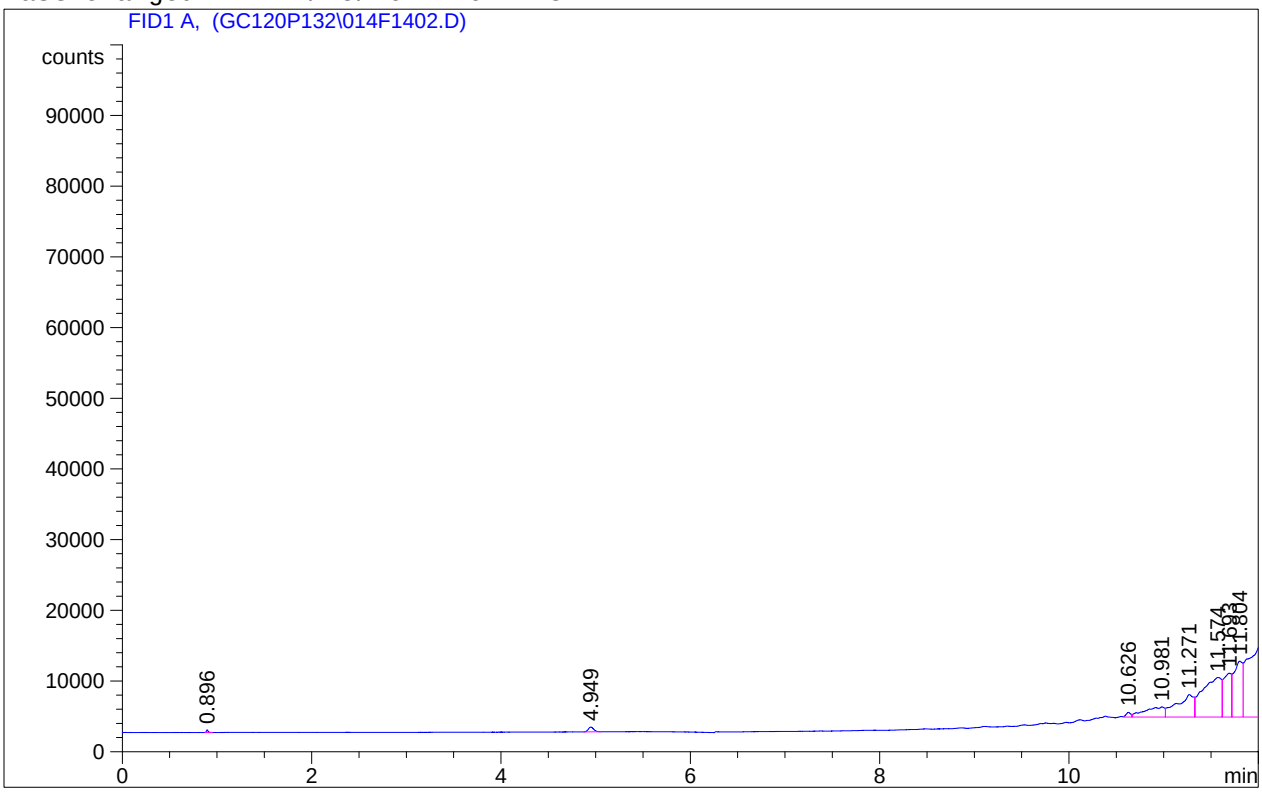
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\014F1402.D
Sample Name: stk-icr3-m308-condA 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  14
Acq. Instrument : Penn online                    Location : Vial 14
Injection Date  : 7/14/2011 7:08:27 AM                Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

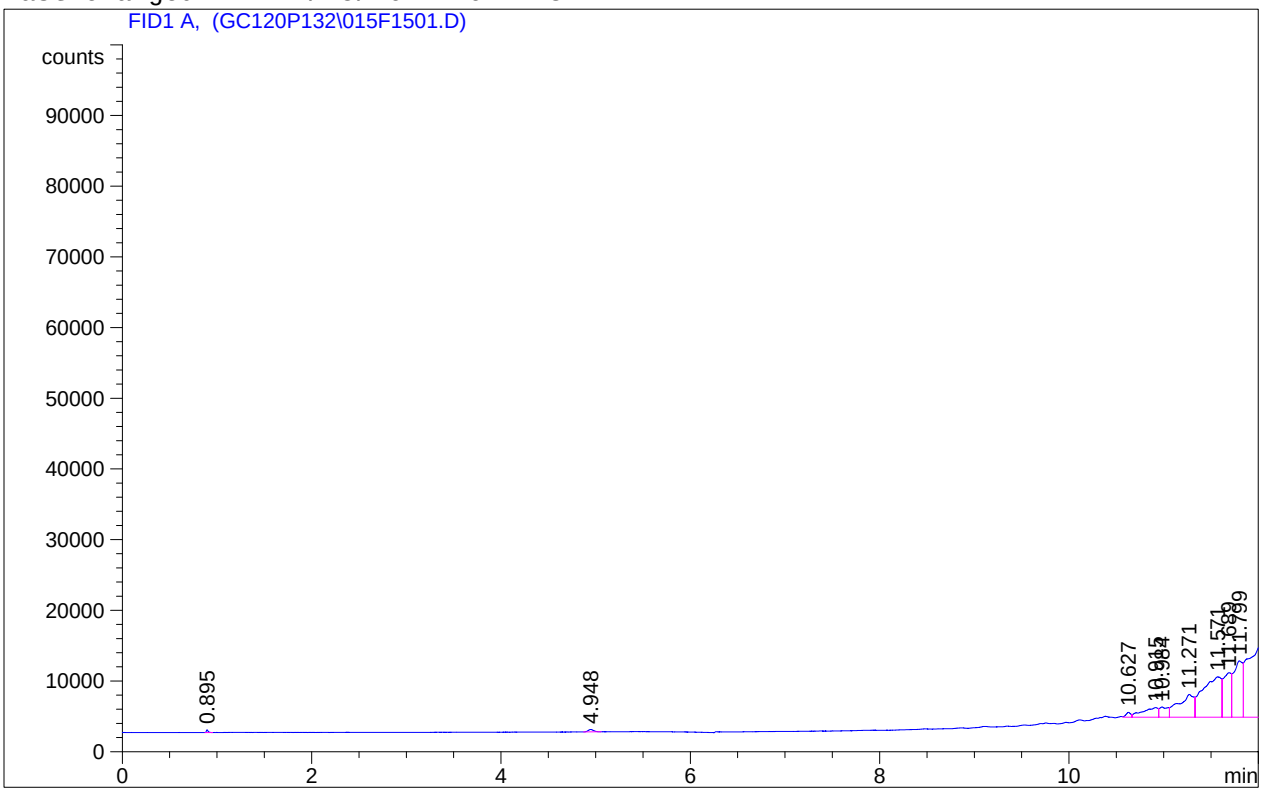
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\015F1501.D
Sample Name: stk-icr3-m308-condB 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  15
Acq. Instrument : Penn online                    Location : Vial 15
Injection Date  : 7/14/2011 7:29:41 AM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

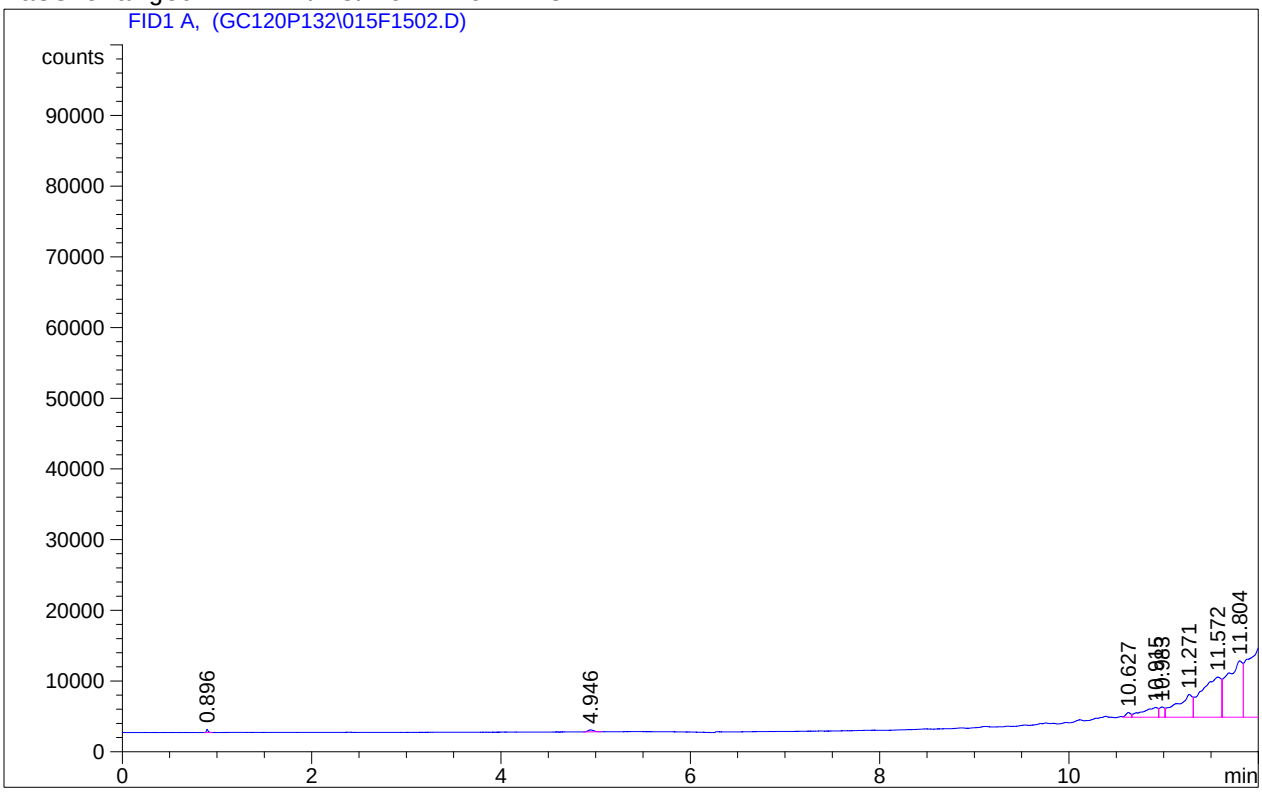
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\015F1502.D
Sample Name: stk-icr3-m308-condB 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  15
Acq. Instrument : Penn online                     Location : Vial 15
Injection Date  : 7/14/2011 7:50:57 AM                 Inj :   2
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s               [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -         Methanol

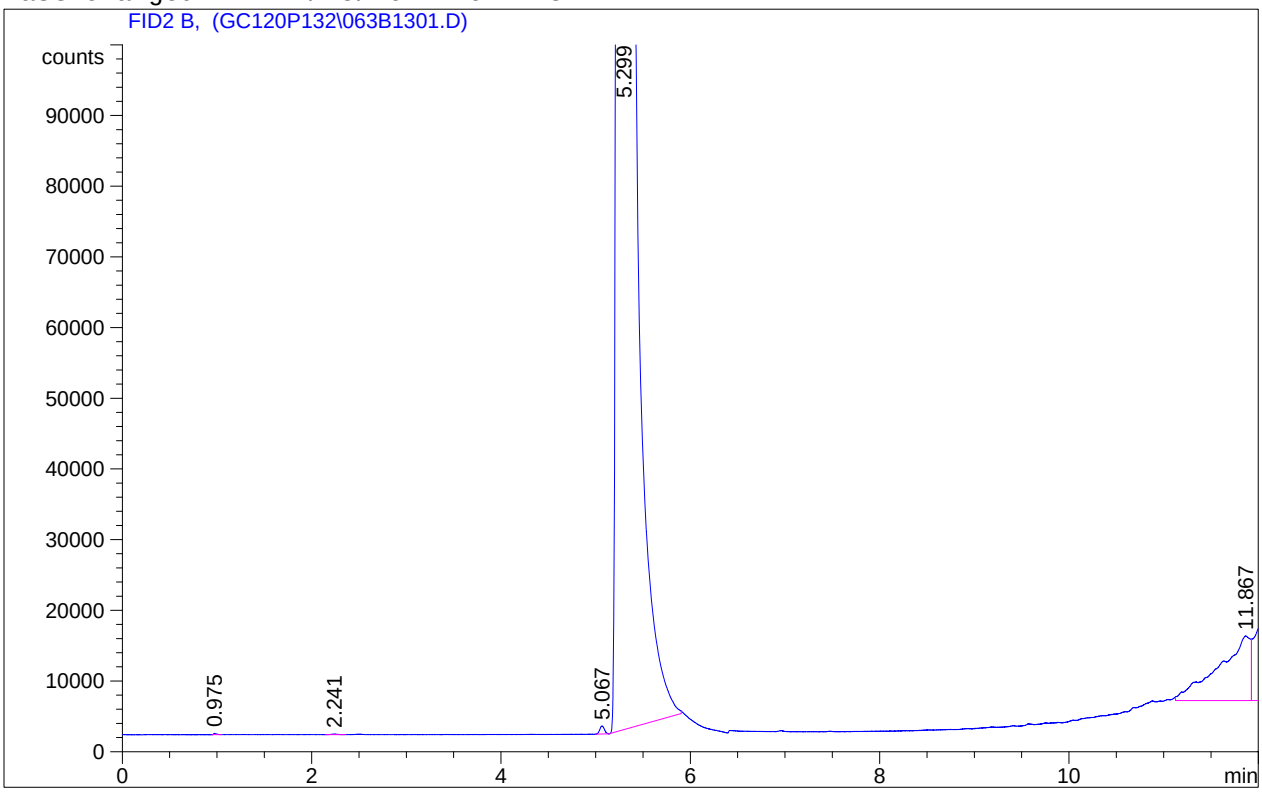
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\063B1301.D
Sample Name: stk-icr3-m308-silica-fh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  13
Acq. Instrument : Penn online                     Location : Vial 63
Injection Date  : 7/14/2011 5:43:42 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

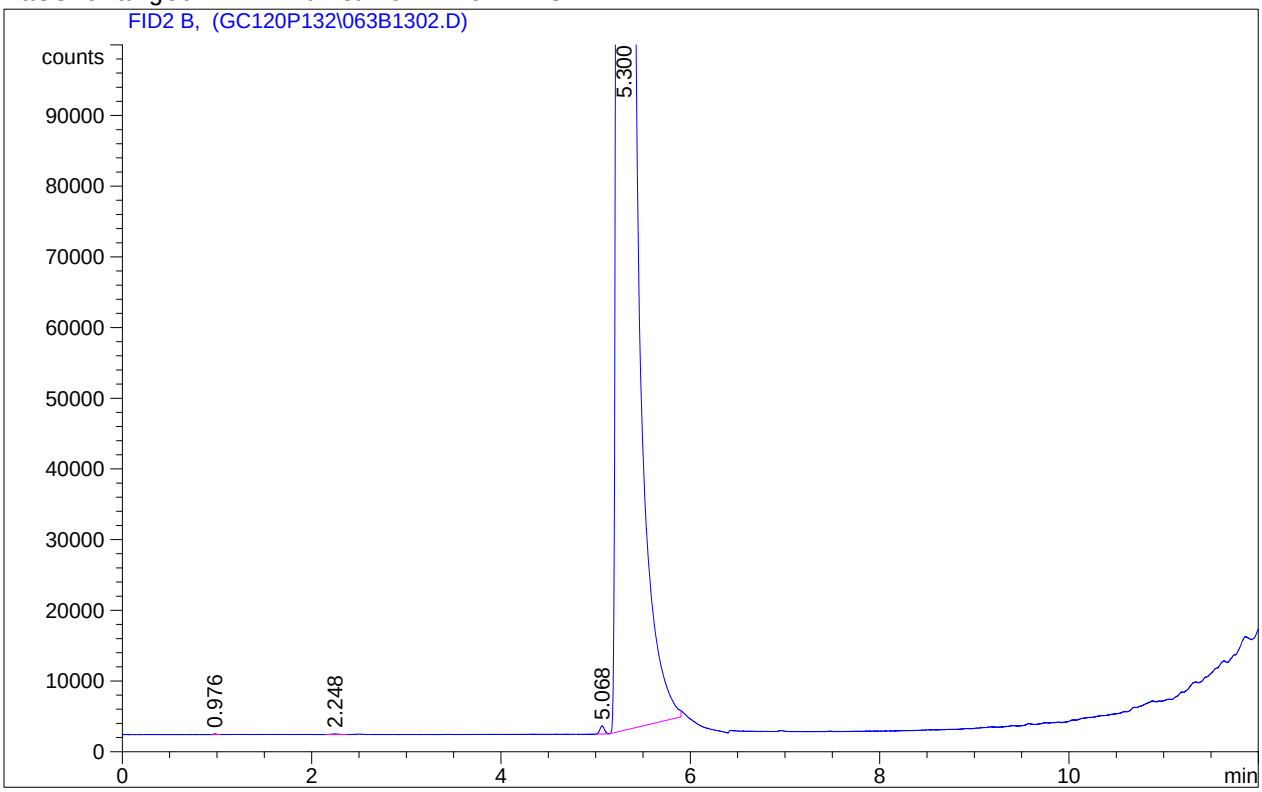
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\063B1302.D
Sample Name: stk-icr3-m308-silica-fh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  13
Acq. Instrument : Penn online                     Location : Vial 63
Injection Date  : 7/14/2011 6:04:56 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

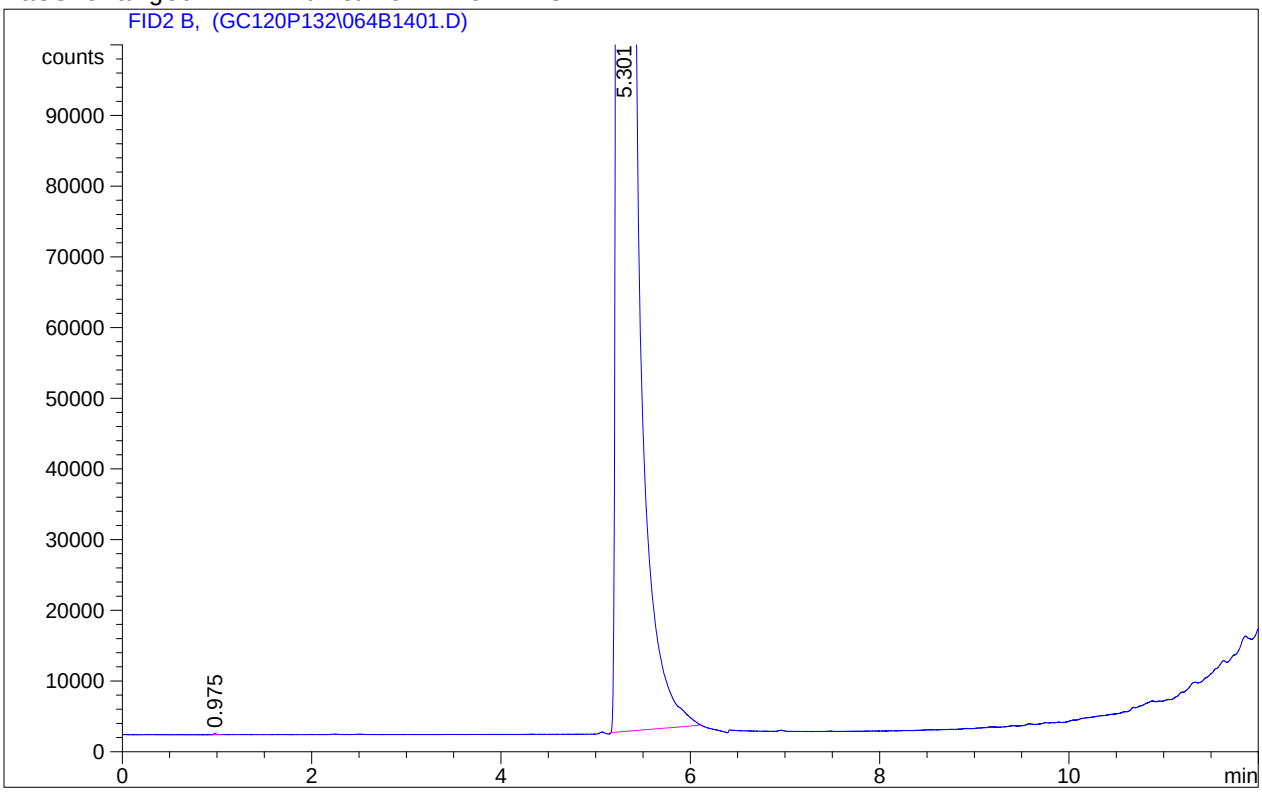
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\064B1401.D
Sample Name: stk-icr3-m308-silica-bh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  14
Acq. Instrument : Penn online                    Location : Vial 64
Injection Date  : 7/14/2011 6:26:04 AM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s               [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

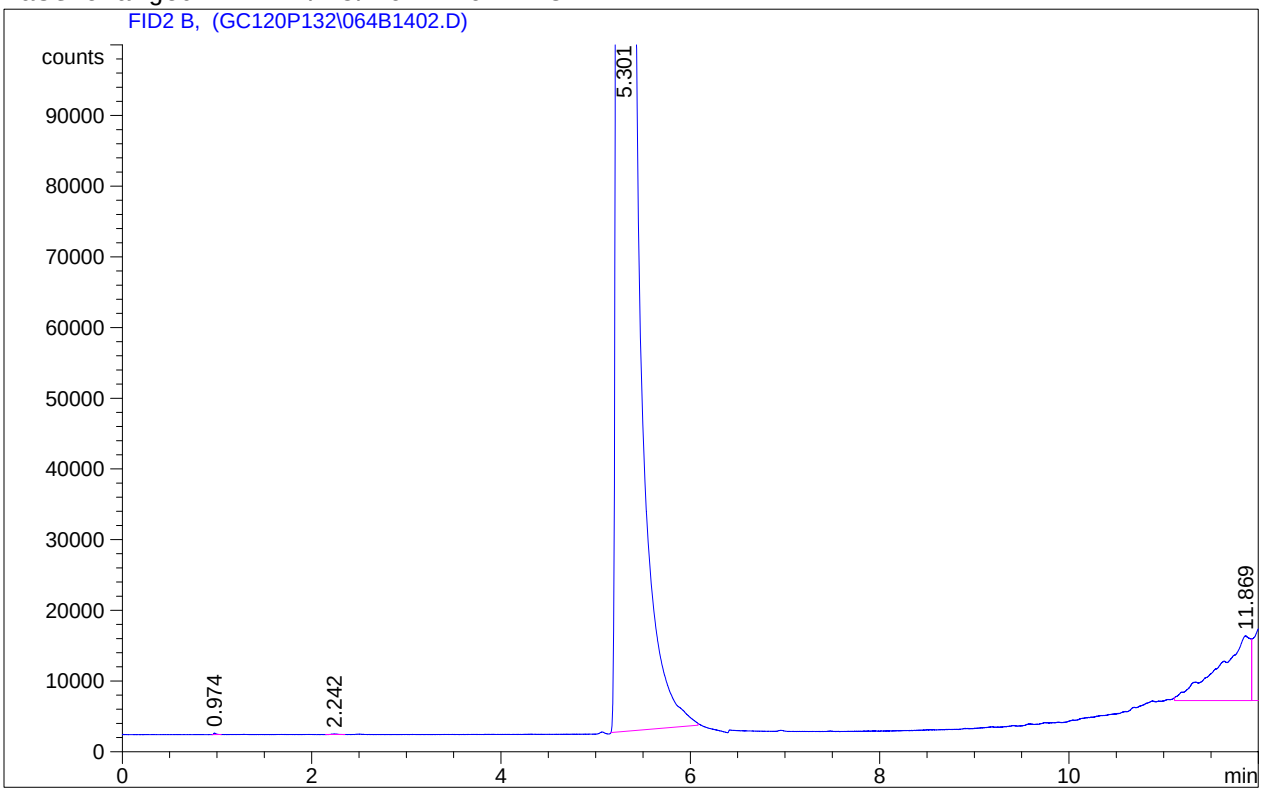
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\064B1402.D
Sample Name: stk-icr3-m308-silica-bh 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  14
Acq. Instrument : Penn online                     Location : Vial 64
Injection Date  : 7/14/2011 6:47:22 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

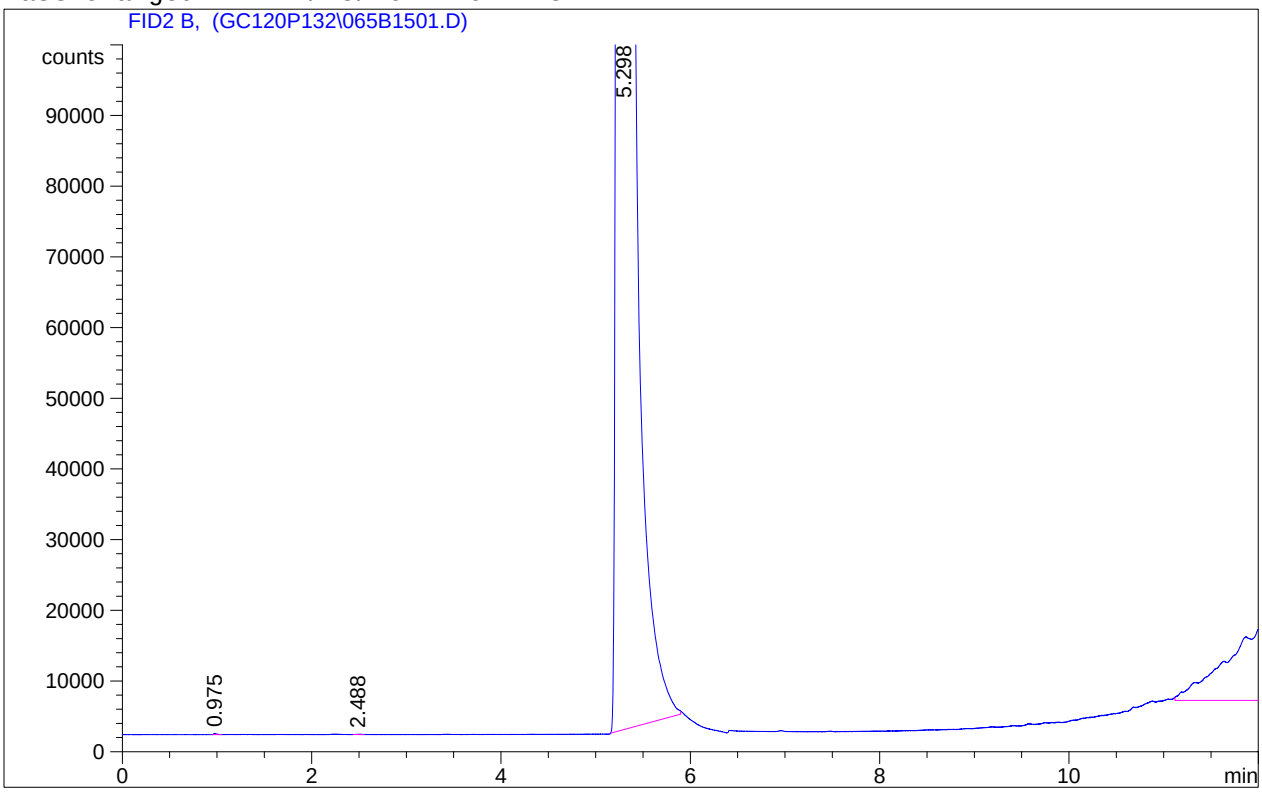
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\065B1501.D
Sample Name: stk-icr-m308-silica-fb 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  15
Acq. Instrument : Penn online                     Location : Vial 65
Injection Date  : 7/14/2011 7:08:27 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

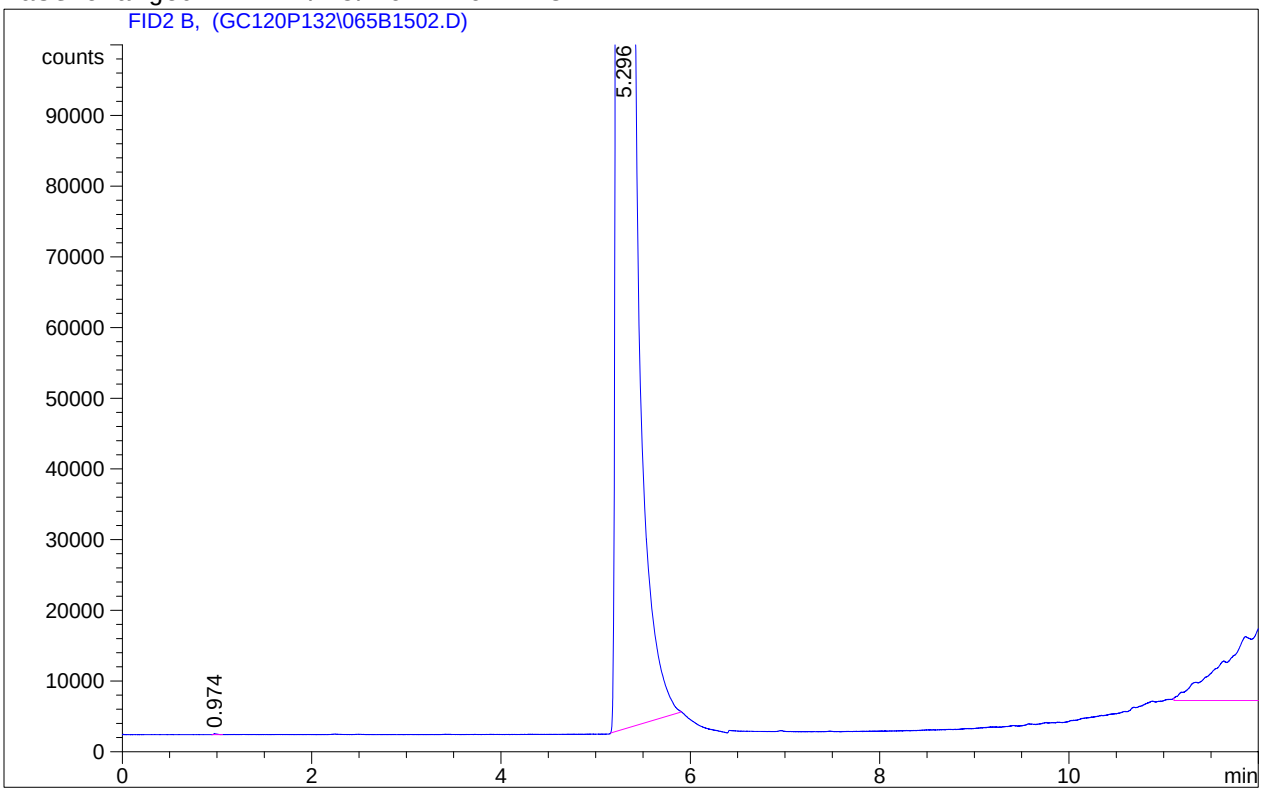
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\065B1502.D
Sample Name: stk-icr-m308-silica-fb 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  15
Acq. Instrument : Penn online                     Location : Vial 65
Injection Date  : 7/14/2011 7:29:41 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s               [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

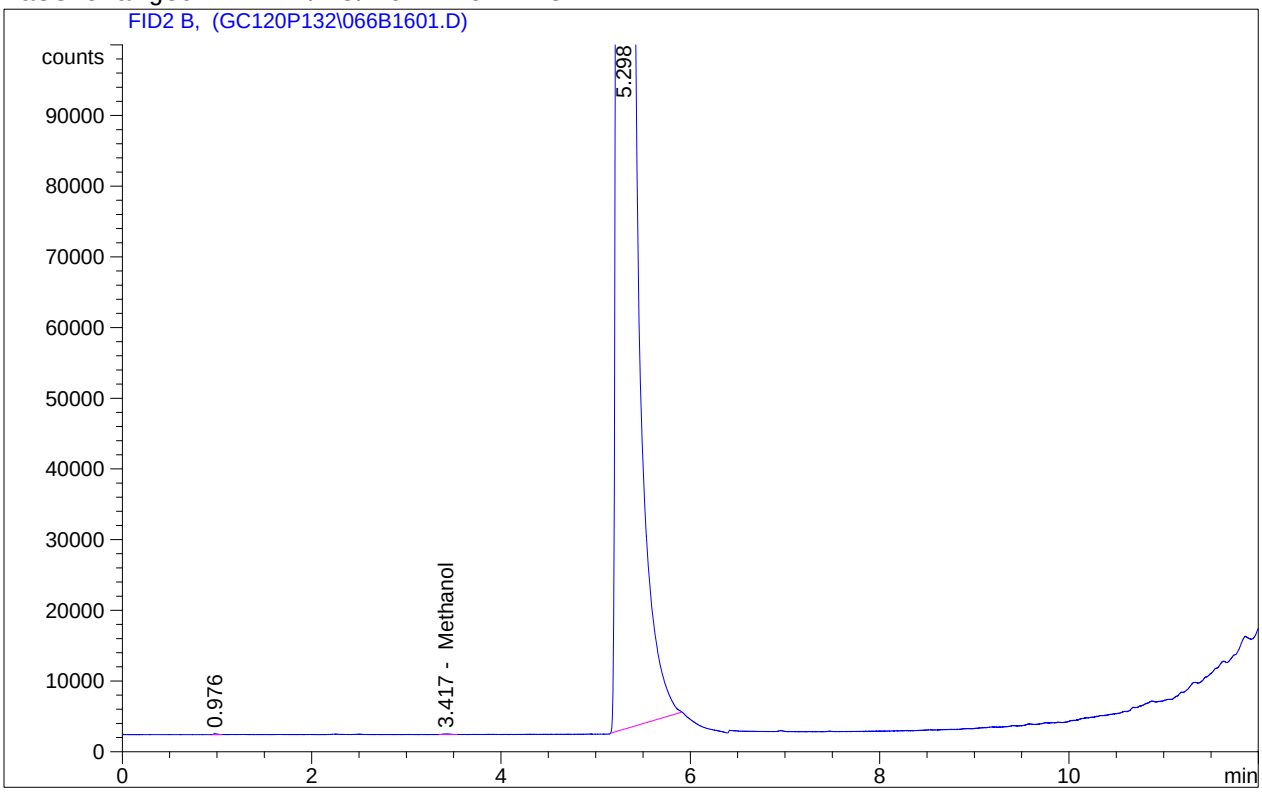
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\066B1601.D
Sample Name: m308-silica-lb 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  16
Acq. Instrument : Penn online                     Location : Vial 66
Injection Date  : 7/14/2011 7:50:57 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.417 BB      422.66711 1.26889e-3 5.36319e-1    Methanol

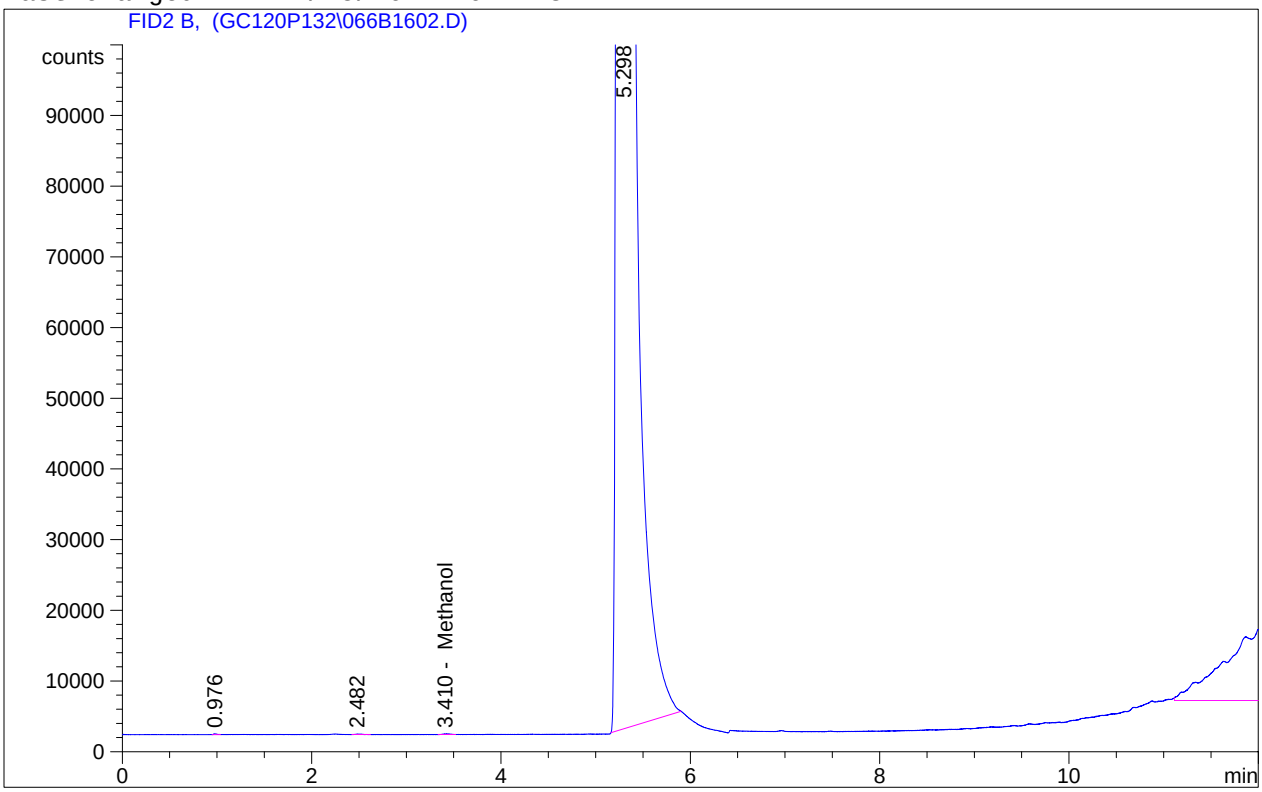
Totals :                              5.36319e-1



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\066B1602.D
Sample Name: m308-silica-lb 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  16
Acq. Instrument : Penn online                     Location : Vial 66
Injection Date  : 7/14/2011 8:12:06 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.410 BB      390.08762 1.26889e-3 4.94979e-1    Methanol

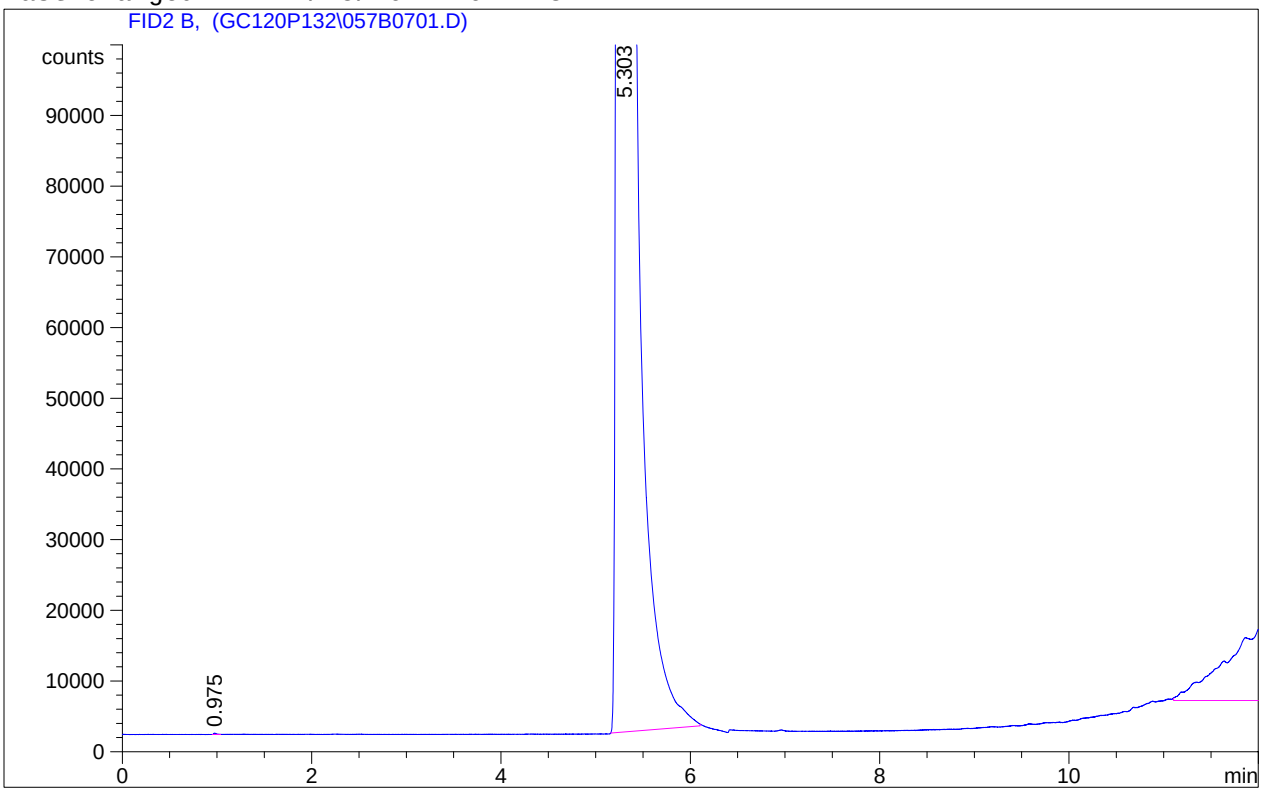
Totals :                              4.94979e-1



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\057B0701.D
Sample Name: lab blank 3%

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   7
Acq. Instrument : Penn online                     Location : Vial 57
Injection Date  : 7/14/2011 1:08:24 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

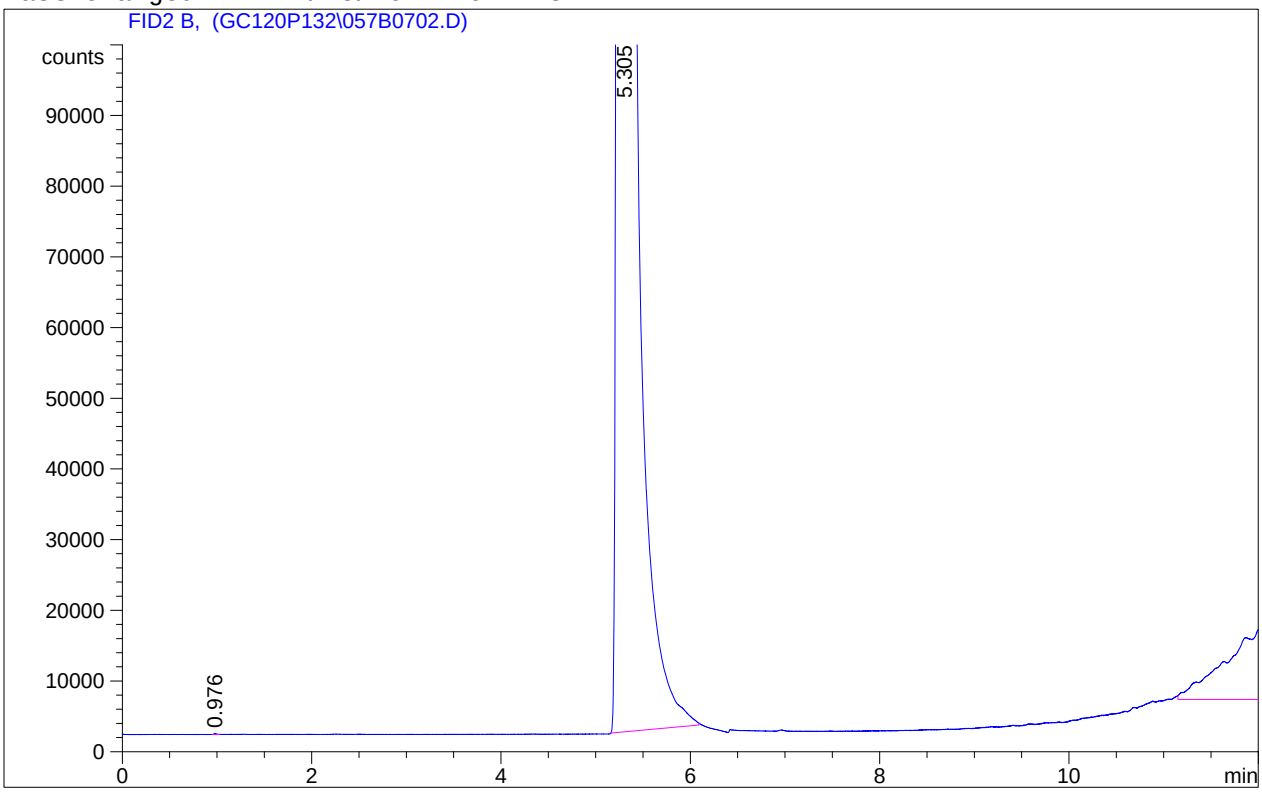
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\057B0702.D
Sample Name: lab blank 3%

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   7
Acq. Instrument : Penn online                     Location : Vial 57
Injection Date  : 7/14/2011 1:29:32 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

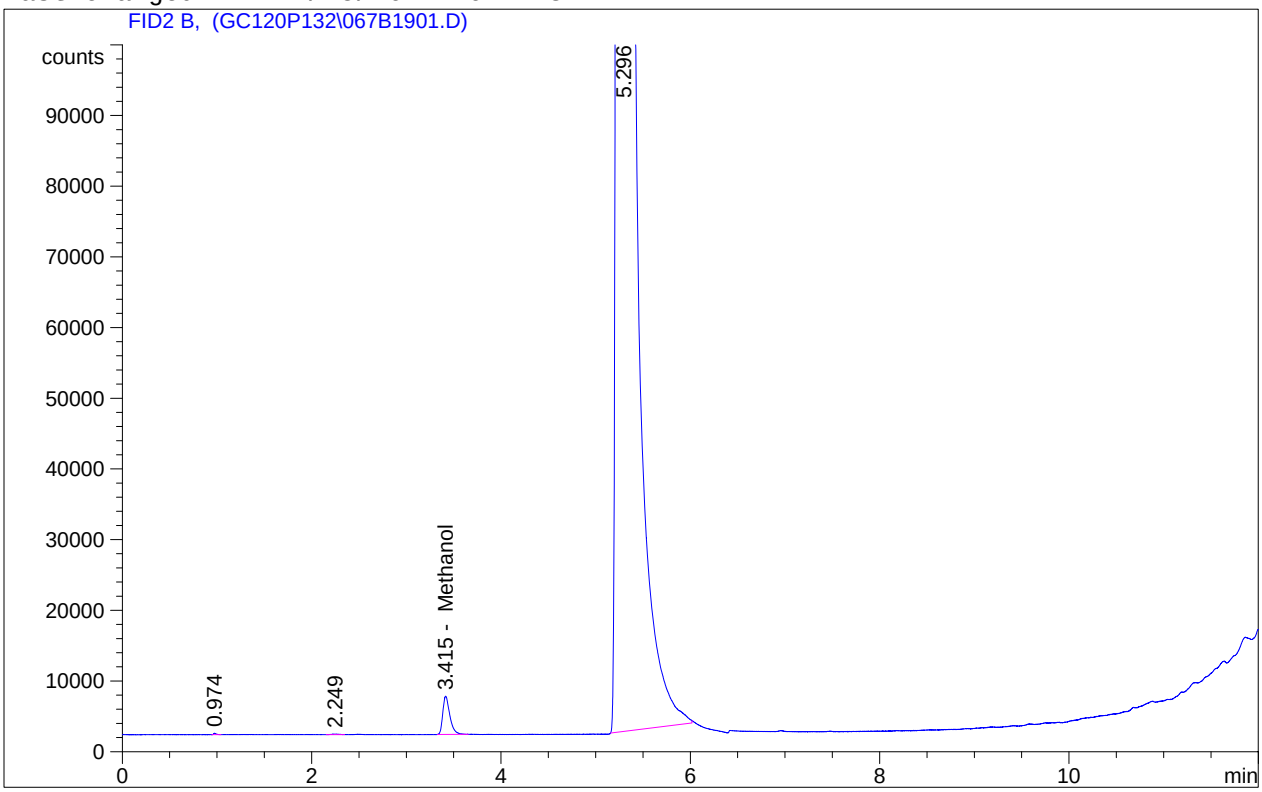
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\067B1901.D
Sample Name: m308-silica-lcs 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  19
Acq. Instrument : Penn online                     Location : Vial 67
Injection Date  : 7/14/2011 9:58:21 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.415 BB     2.79900e4  1.35803e-3   38.01120    Methanol

Totals :                                38.01120

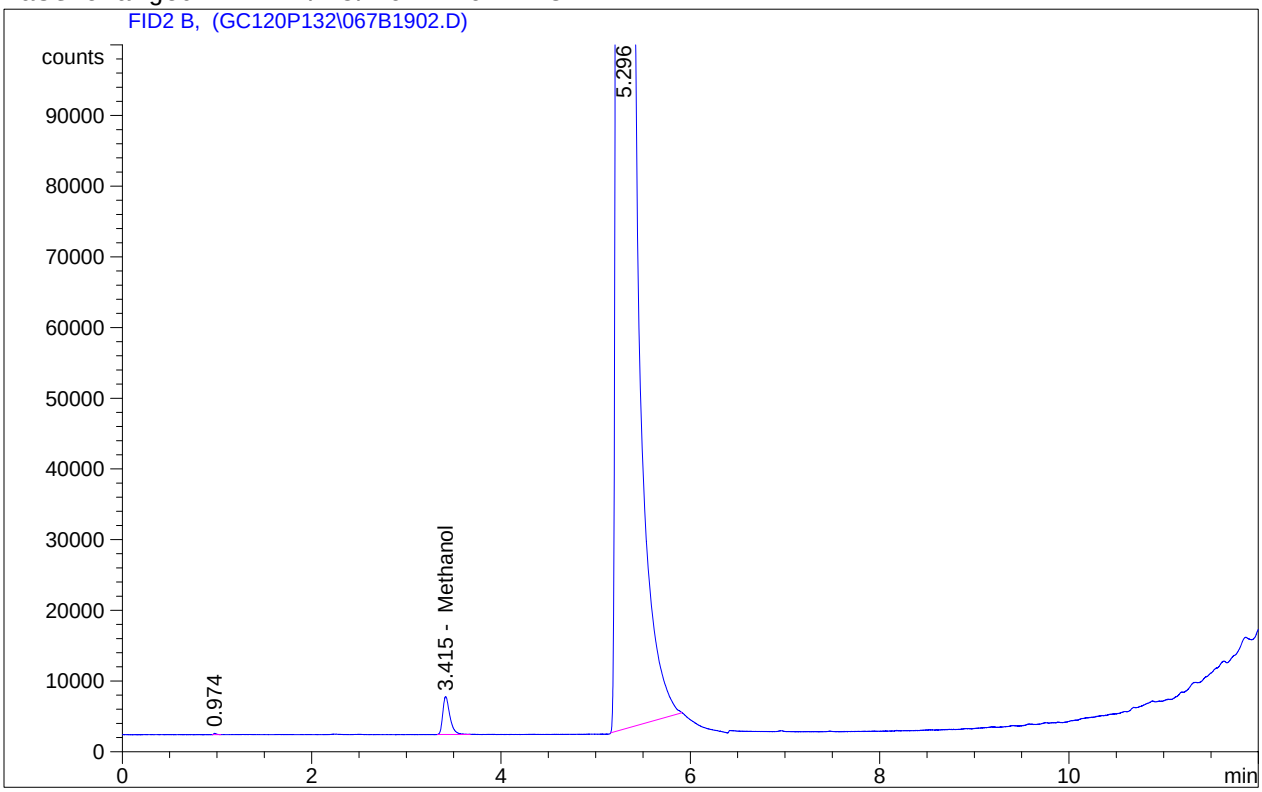

Signal 2: FID1 A,    not found
```

M308

EPA Method 308 silica gel in 3% n-propanol, 5mL and 197.73uG total

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\067B1902.D
Sample Name: m308-silica-lcs 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  19
Acq. Instrument : Penn online                    Location : Vial 67
Injection Date  : 7/14/2011 10:19:38 AM               Inj :   2
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|----------
  3.415 BB     2.78330e4  1.35800e-3   37.79725    Methanol

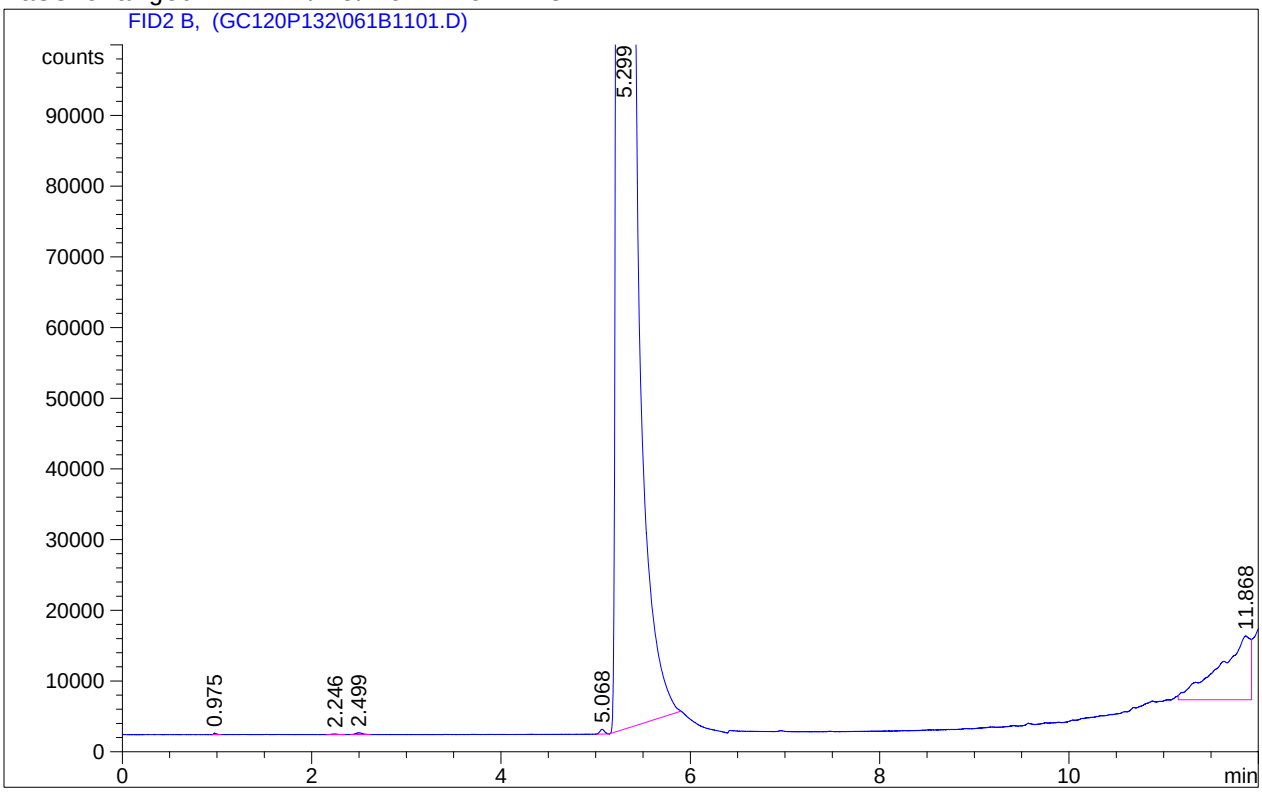
Totals :                                37.79725


Signal 2: FID1 A,    not found
```

EPA method 308 for Silica gel in 3% n-propanol, 5mL with 197.73Ug total

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\061B1101.D
Sample Name: stk-icr2-m308-silica-fh-ld 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  11
Acq. Instrument : Penn online                     Location : Vial 61
Injection Date  : 7/14/2011 4:19:03 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

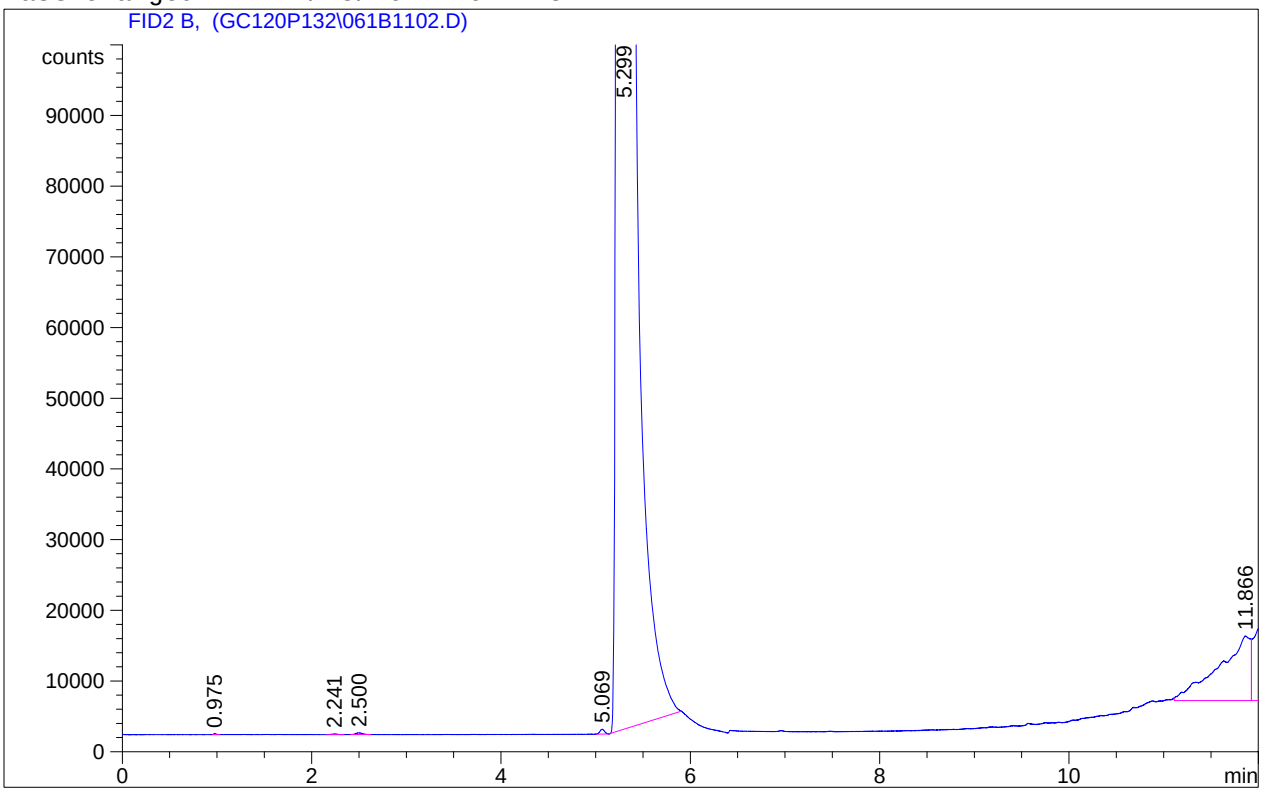
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\061B1102.D
Sample Name: stk-icr2-m308-silica-fh-ld 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  11
Acq. Instrument : Penn online                     Location : Vial 61
Injection Date  : 7/14/2011 4:40:13 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429            -          -          -         Methanol

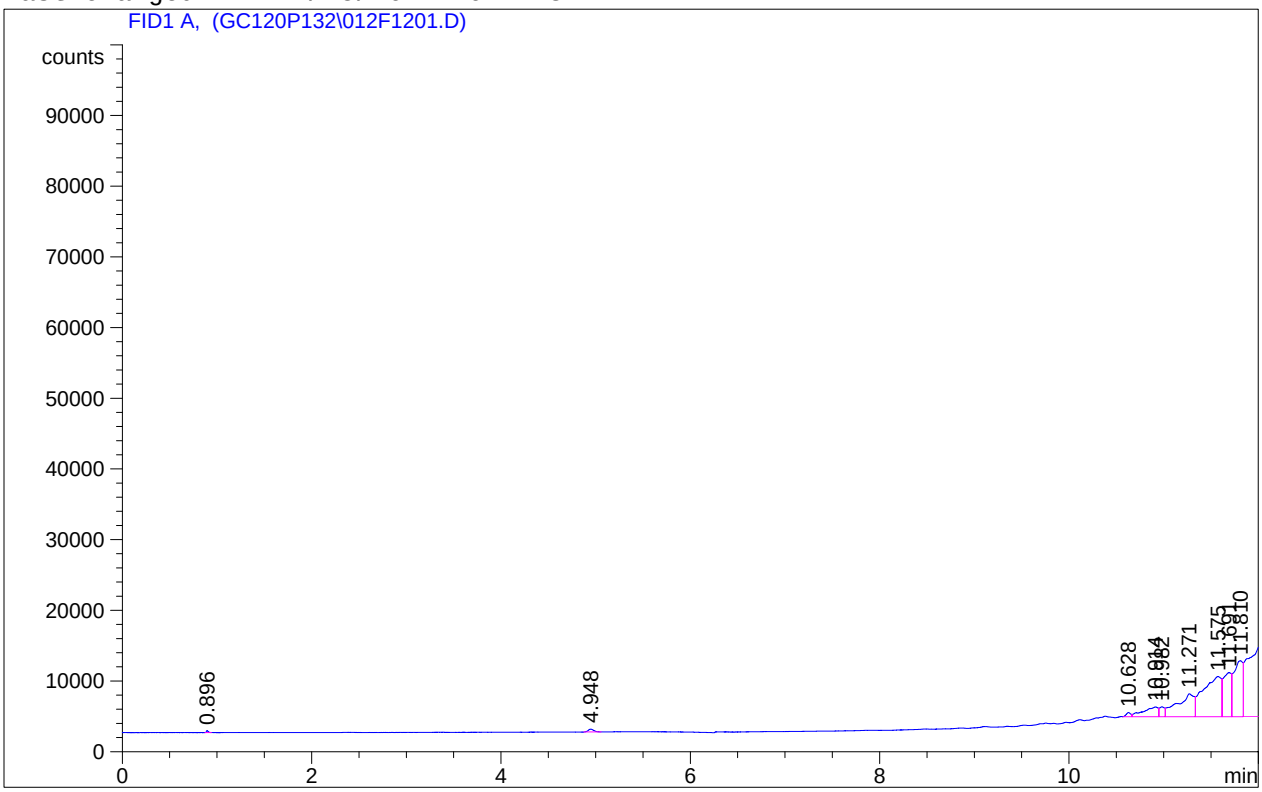
Totals :                                0.00000



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\012F1201.D
Sample Name: stk-icr2-m308-condA-LD 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  12
Acq. Instrument : Penn online                     Location : Vial 12
Injection Date  : 7/14/2011 5:22:34 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -          Methanol

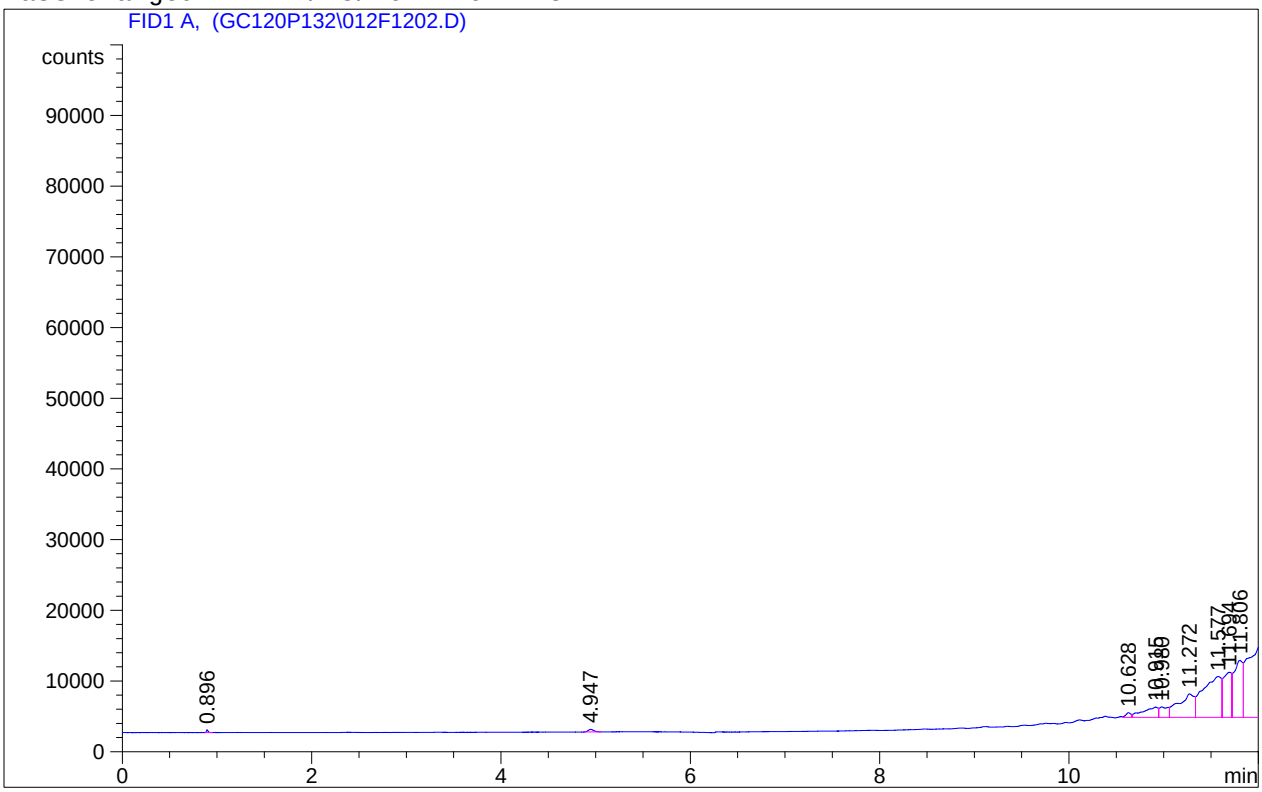
Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\012F1202.D
Sample Name: stk-icr2-m308-condA-LD 0611-22

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  12
Acq. Instrument : Penn online                     Location : Vial 12
Injection Date  : 7/14/2011 5:43:42 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.345            -          -          -          Methanol

Totals :                                0.00000



Signal 2: FID2 B,    not found
```

Calibration Curve Chromatograms

Calibration Table

Calib. Data Modified : Thursday, July 14, 2011 3:08:44 PM

Rel. Reference Window : 1.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 1.000 %
Abs. Non-ref. Window : 0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A,
Signal 2: FID2 B,

RetTime [min]	Sig	Lvl	Amount [µg/mL]	Area	Amt/Area	Ref Grp	Name
3.345	1	1	1.58000	1011.83691	1.56152e-3		Methanol
		2	3.15800	2053.55249	1.53782e-3		
		3	15.72600	9789.70850	1.60638e-3		
		4	61.97700	3.80838e4	1.62738e-3		
		5	287.30000	1.77462e5	1.61894e-3		
		6	3160.80000	2.02733e6	1.55909e-3		
3.429	2	11	1.58000	1213.42151	1.30210e-3		Methanol
		12	3.15800	2525.09705	1.25065e-3		
		13	15.72600	1.17767e4	1.33535e-3		
		14	61.97700	4.58029e4	1.35312e-3		
		15	287.30000	2.02027e5	1.42209e-3		

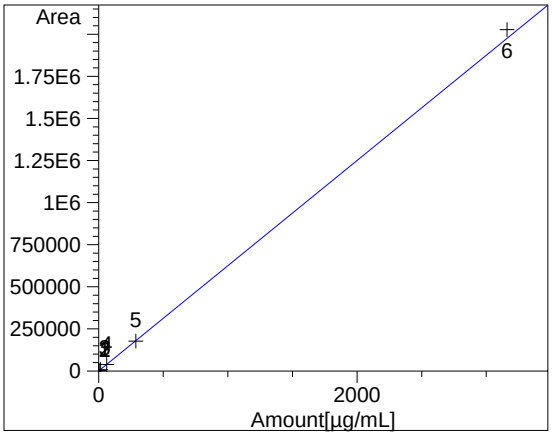
Peak Sum Table

No Entries in table

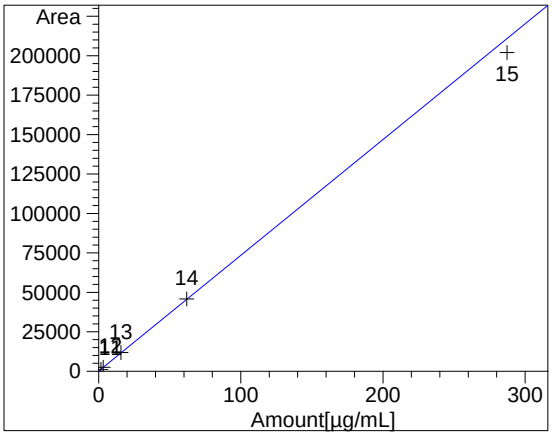
==========

Calibration Curves

==========



Methanol at exp. RT: 3.345
FID1 A,
Correlation: 0.99976
Residual Std. Dev.: 25450.05007
Formula: y = mx + b
m: 625.30166
b: 33.83304
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.250317
Level 3 : 0.010094
Level 4 : 0.00065
Level 5 : 0.00003
Level 6 : 2.49873e-007

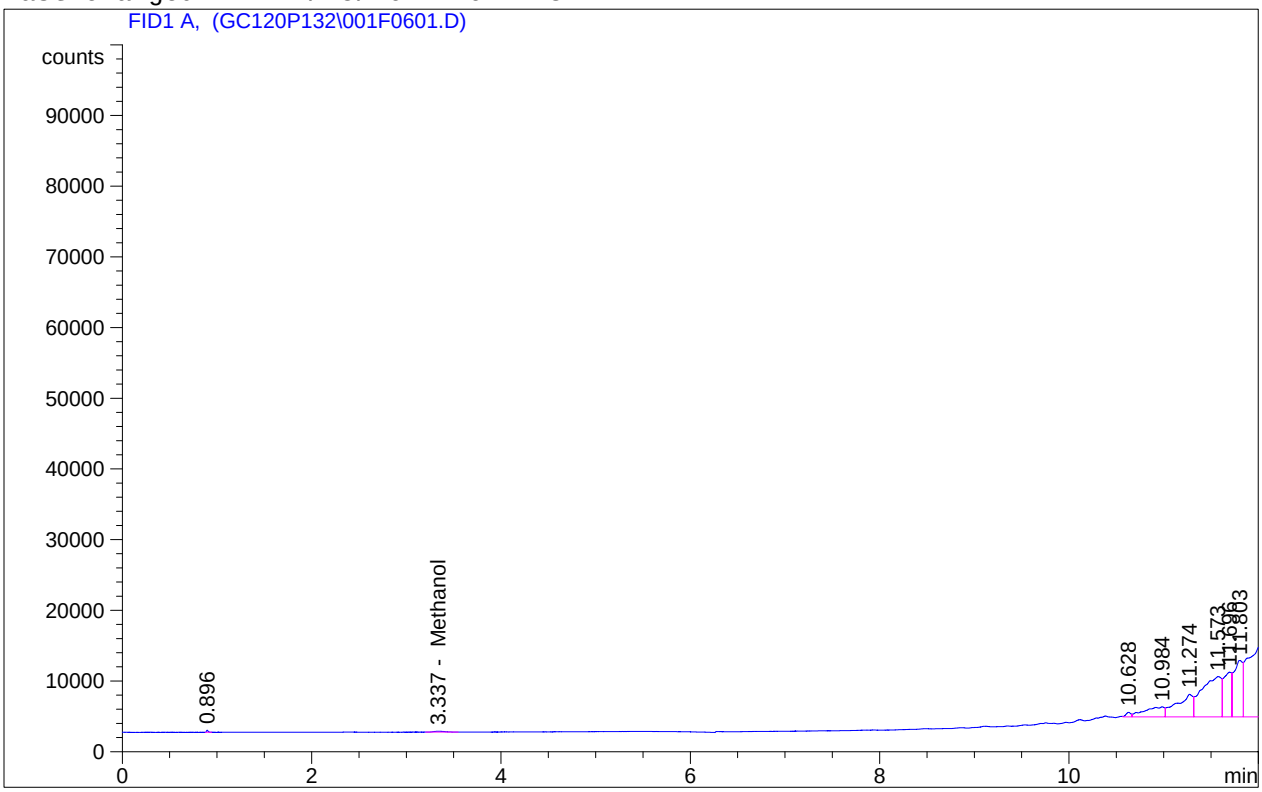


Methanol at exp. RT: 3.429
FID2 B,
Correlation: 0.99905
Residual Std. Dev.: 5182.27787
Formula: y = mx + b
m: 734.11944
b: 85.27160
x: Amount
y: Area
Calibration Level Weights:
Level 11 : 1
Level 12 : 0.250317
Level 13 : 0.010094
Level 14 : 0.00065
Level 15 : 0.00003

==========

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\001F0601.D
Sample Name: gc120p132 #1

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   6
Acq. Instrument : Penn online                     Location : Vial 1
Injection Date  : 7/13/2011 10:18:33 PM               Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.337 BB     1012.55652 1.54628e-3    1.56569    Methanol

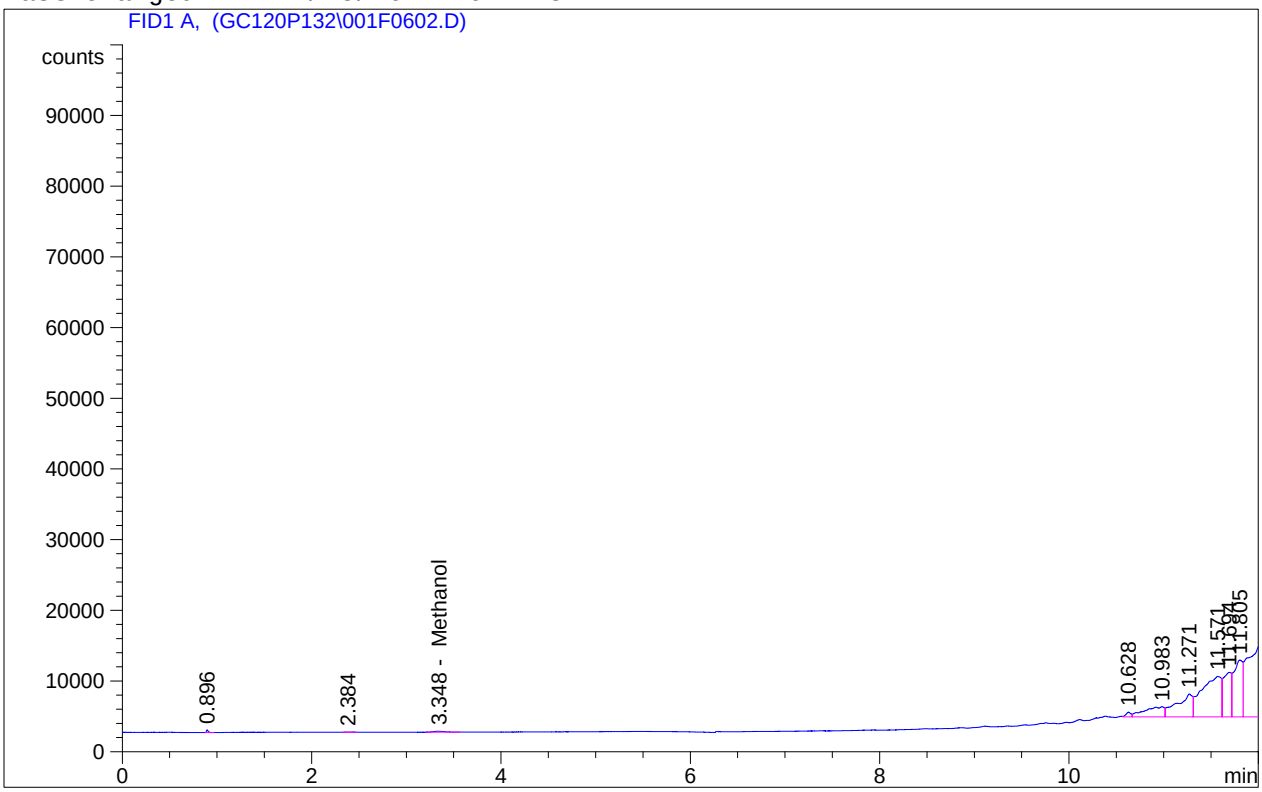
Totals :                                1.56569



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\001F0602.D
Sample Name: gc120p132 #1

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   6
Acq. Instrument : Penn online                     Location : Vial 1
Injection Date  : 7/13/2011 10:39:47 PM                Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.348 BB     1011.11731 1.54628e-3    1.56347    Methanol

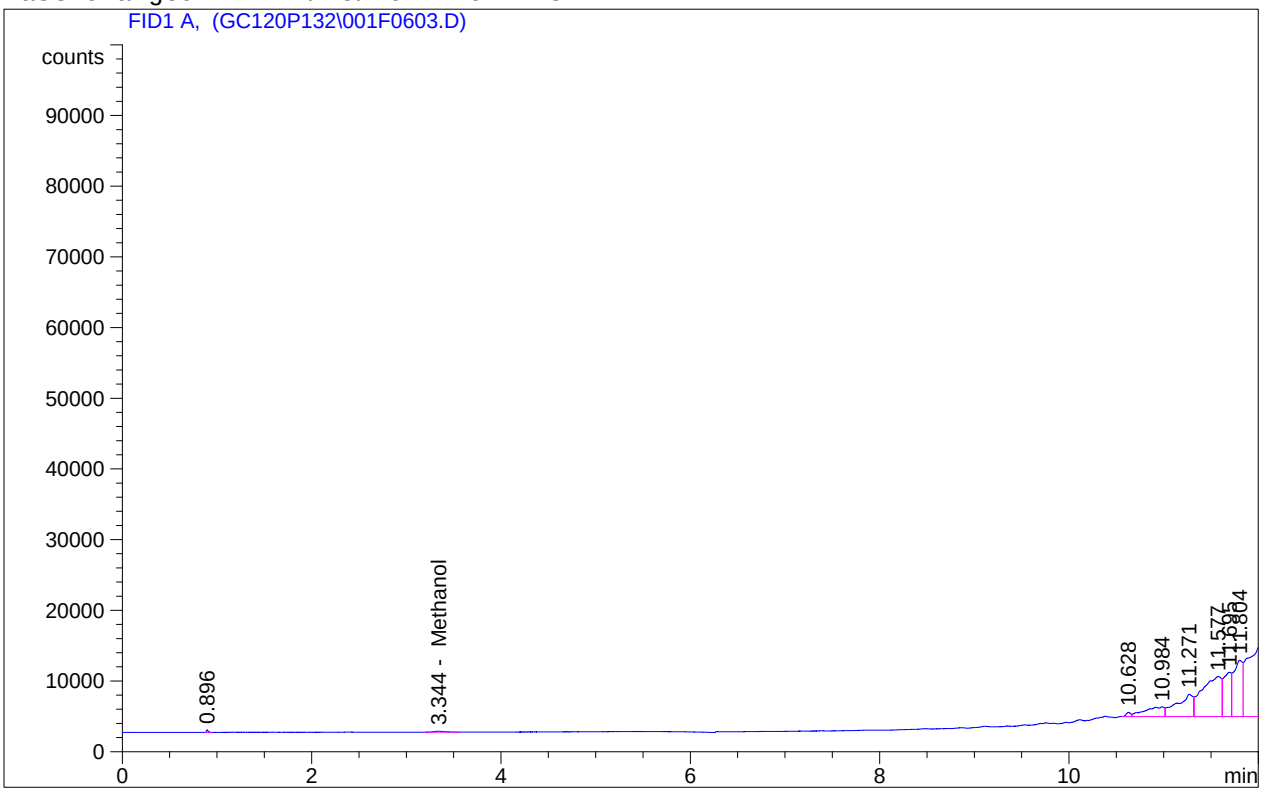
Totals :                                1.56347



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\001F0603.D
Sample Name: gc120p132 #1

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   6
Acq. Instrument : Penn online                     Location : Vial 1
Injection Date  : 7/13/2011 11:00:56 PM                Inj :   3
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.344 BB     1042.28320 1.54732e-3    1.61274    Methanol

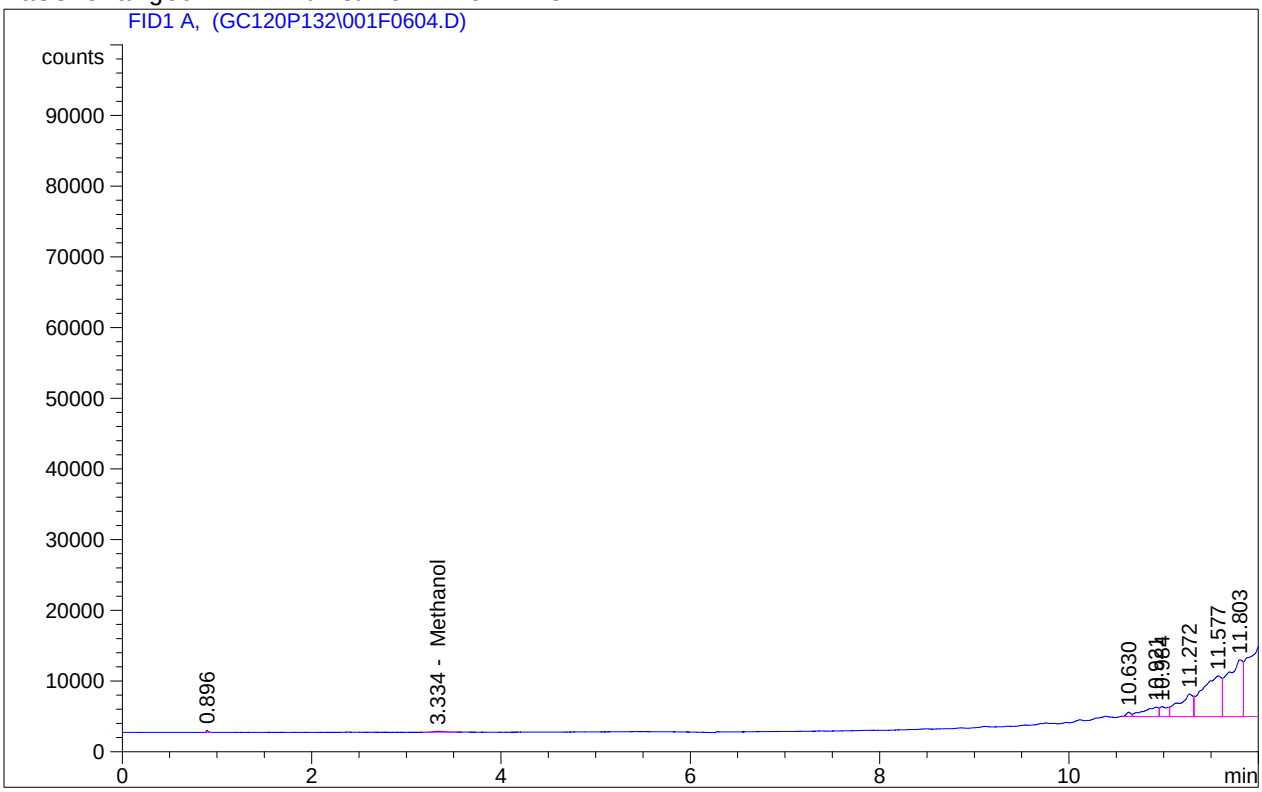
Totals :                                1.61274



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\001F0604.D
Sample Name: gc120p132 #1

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :   6
Acq. Instrument : Penn online                    Location : Vial 1
Injection Date  : 7/13/2011 11:22:13 PM               Inj :   4
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.334 BB     1052.38208 1.54781e-3    1.62889    Methanol

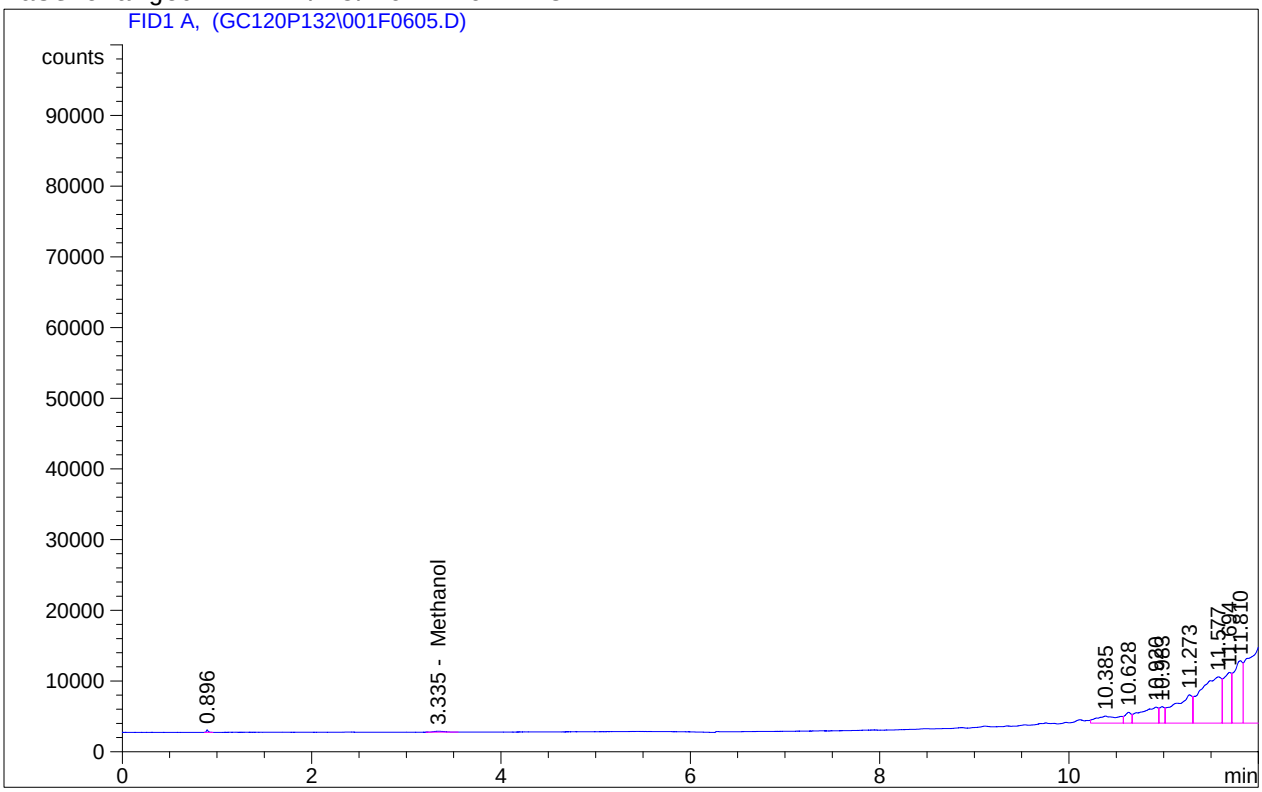
Totals :                                1.62889



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\001F0605.D
Sample Name: gc120p132 #1

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   6
Acq. Instrument : Penn online                     Location : Vial 1
Injection Date  : 7/13/2011 11:43:26 PM                Inj :   5
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.335 BB     1022.68097 1.54632e-3    1.58139    Methanol

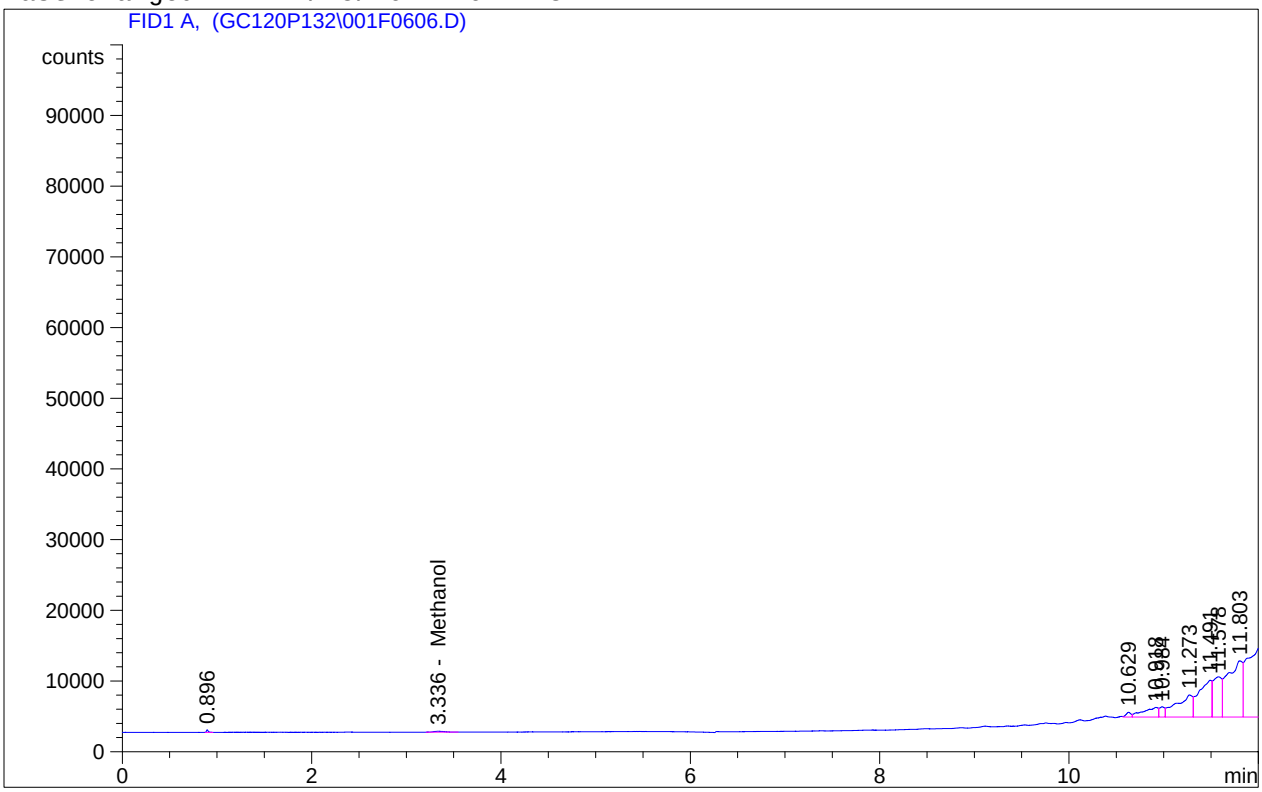
Totals :                                1.58139



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\001F0606.D
Sample Name: gc120p132 #1

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   6
Acq. Instrument : Penn online                     Location : Vial 1
Injection Date  : 7/14/2011 12:04:44 AM                Inj :   6
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.336 BB     1026.54456 1.54652e-3    1.58757    Methanol

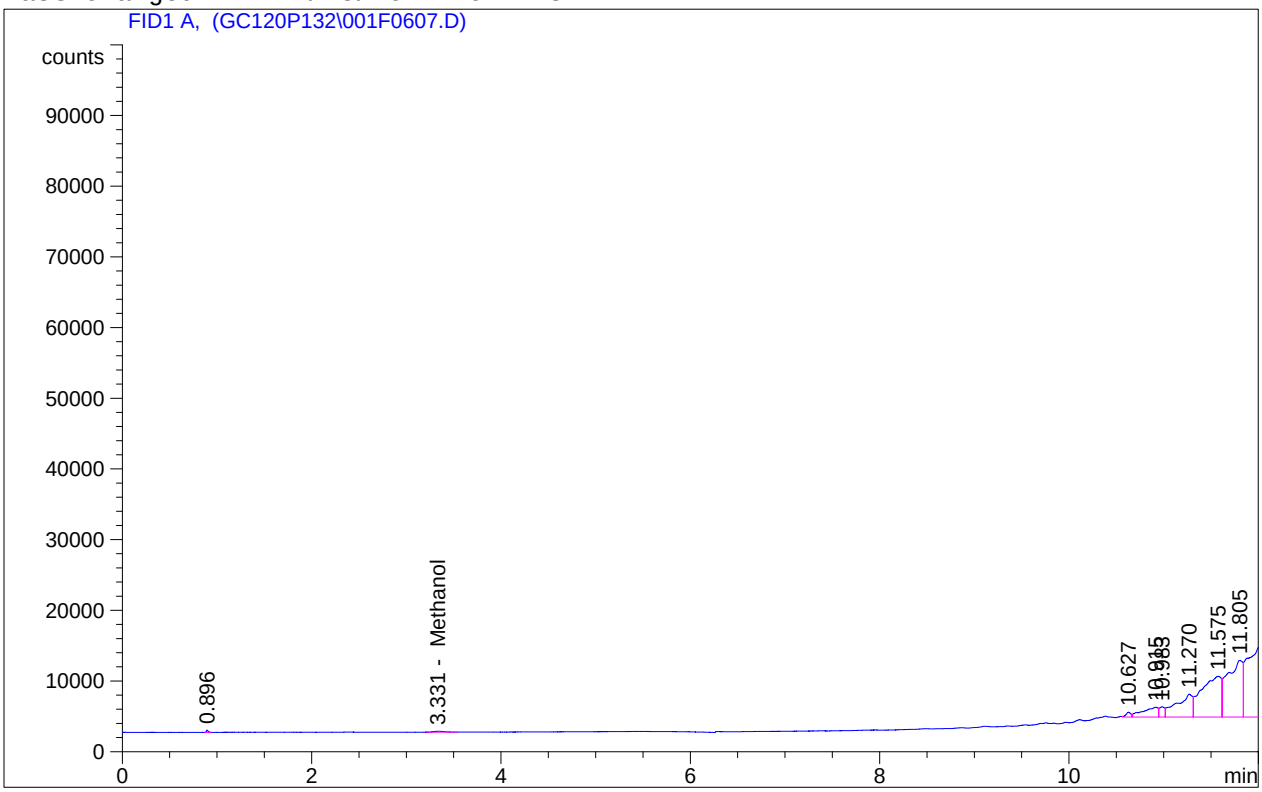
Totals :                                1.58757



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\001F0607.D
Sample Name: gc120p132 #1

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   6
Acq. Instrument : Penn online                     Location : Vial 1
Injection Date  : 7/14/2011 12:25:53 AM                Inj :   7
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.331 BB      988.24408 1.54628e-3    1.52810    Methanol

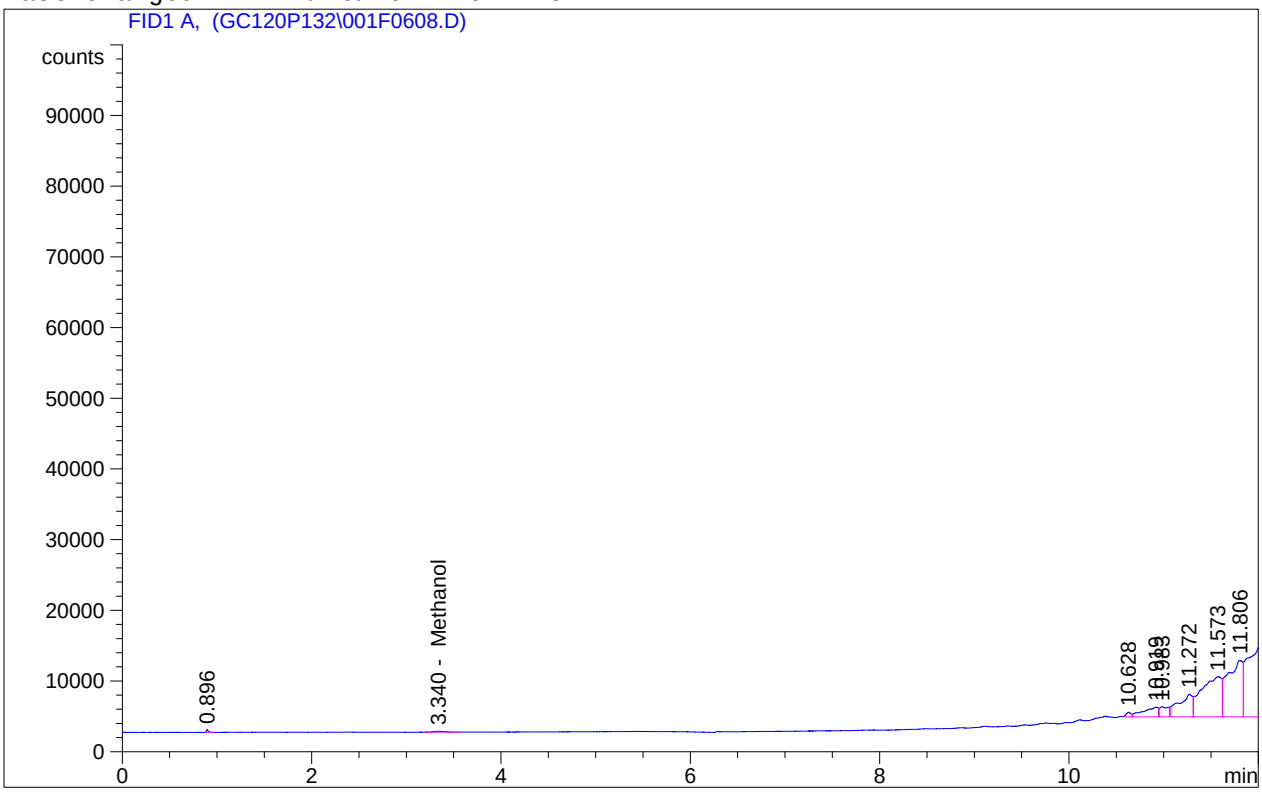
Totals :                                1.52810



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\001F0608.D
Sample Name: gc120p132 #1

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   6
Acq. Instrument : Penn online                     Location : Vial 1
Injection Date  : 7/14/2011 12:47:10 AM                Inj :   8
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.340 BB     1032.69580 1.54683e-3    1.59741    Methanol

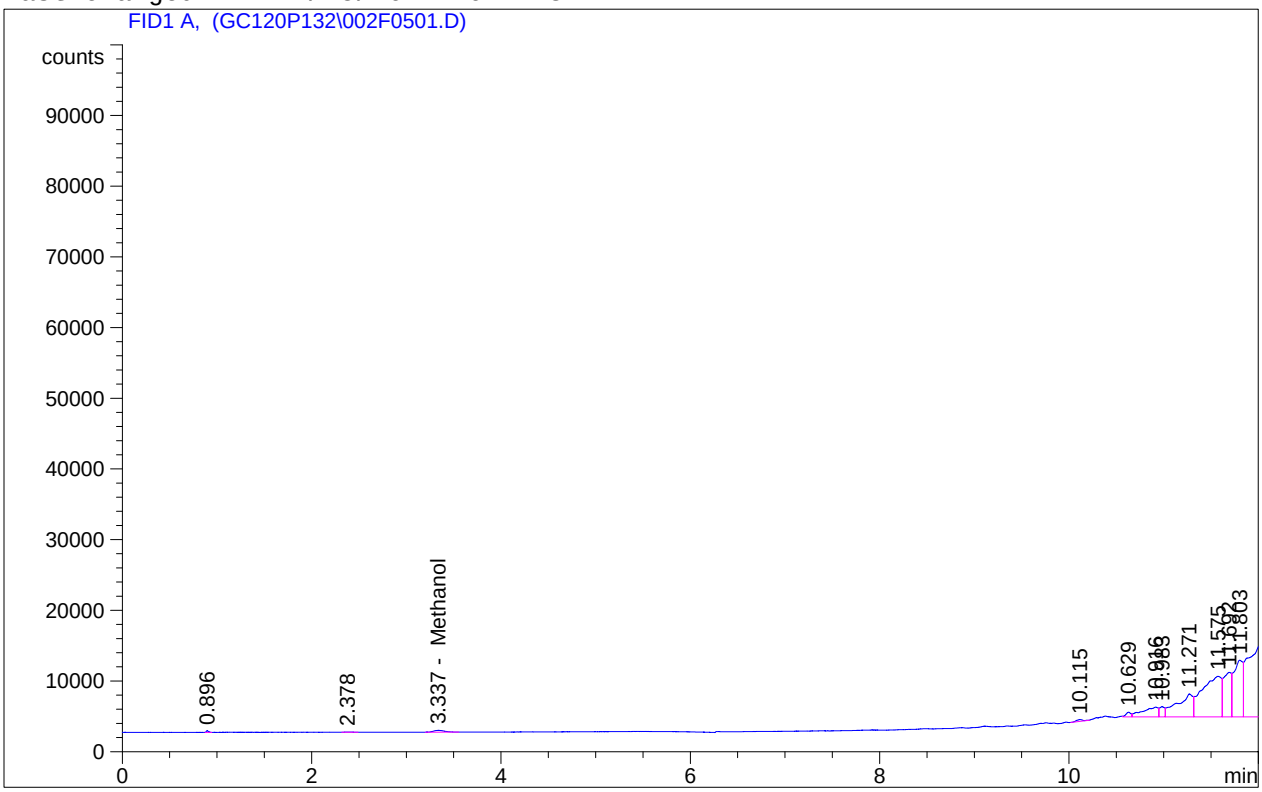
Totals :                                1.59741



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\002F0501.D
Sample Name: gc120p132 #2

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   5
Acq. Instrument : Penn online                     Location : Vial 2
Injection Date  : 7/13/2011 9:14:50 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.337 BB     2045.32007 1.57277e-3    3.21683    Methanol

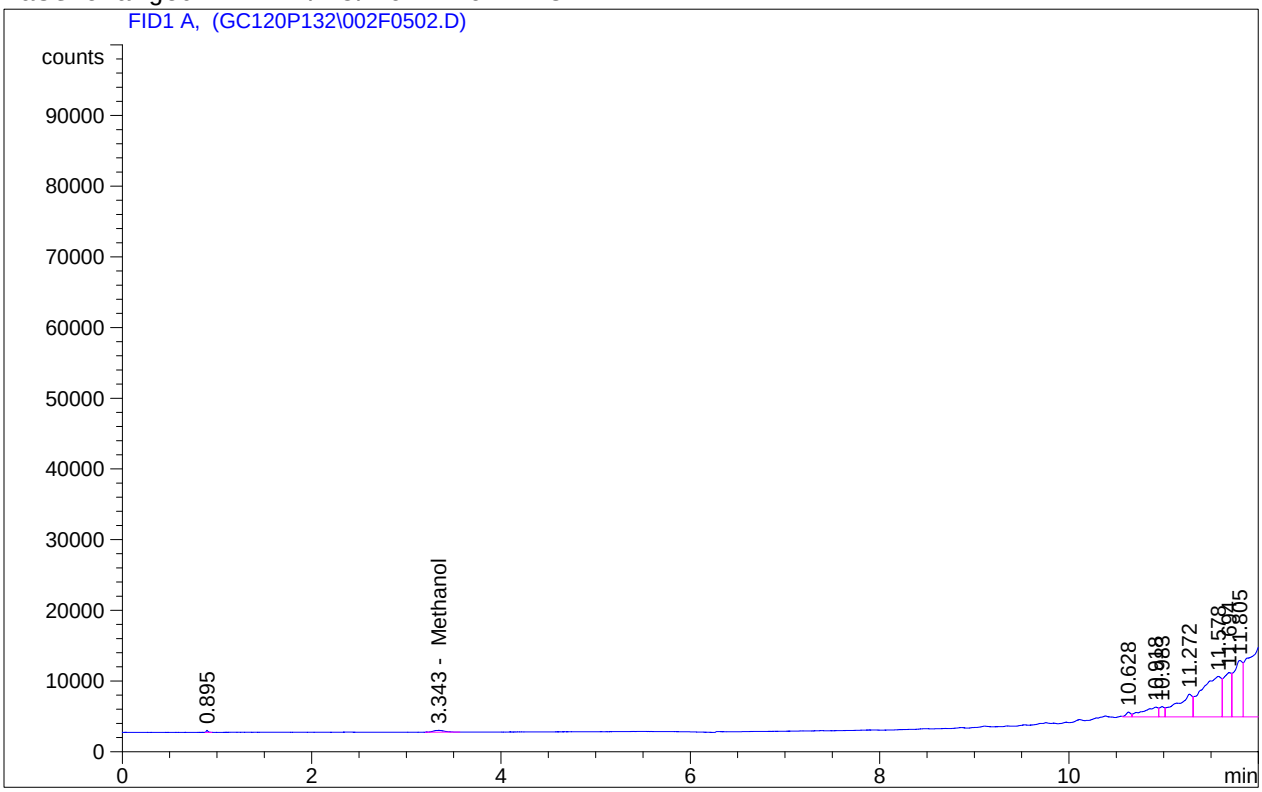
Totals :                                3.21683



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\002F0502.D
Sample Name: gc120p132 #2

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   5
Acq. Instrument : Penn online                     Location : Vial 2
Injection Date  : 7/13/2011 9:36:02 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.343 BB     2061.78491 1.57299e-3    3.24316    Methanol

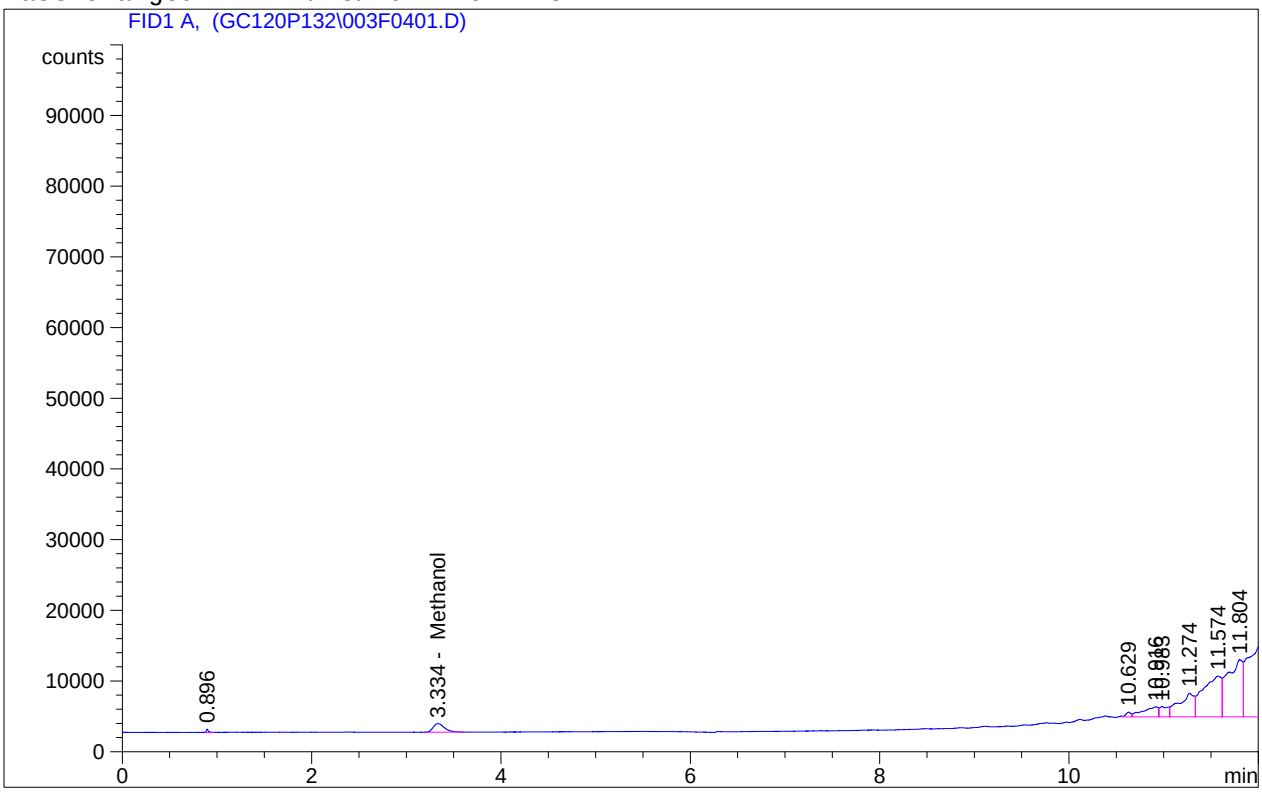
Totals :                                3.24316



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\003F0401.D
Sample Name: gc120p132 #3

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   4
Acq. Instrument : Penn online                     Location : Vial 3
Injection Date  : 7/13/2011 8:11:11 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.334 BB     9809.50098 1.59371e-3   15.63352    Methanol

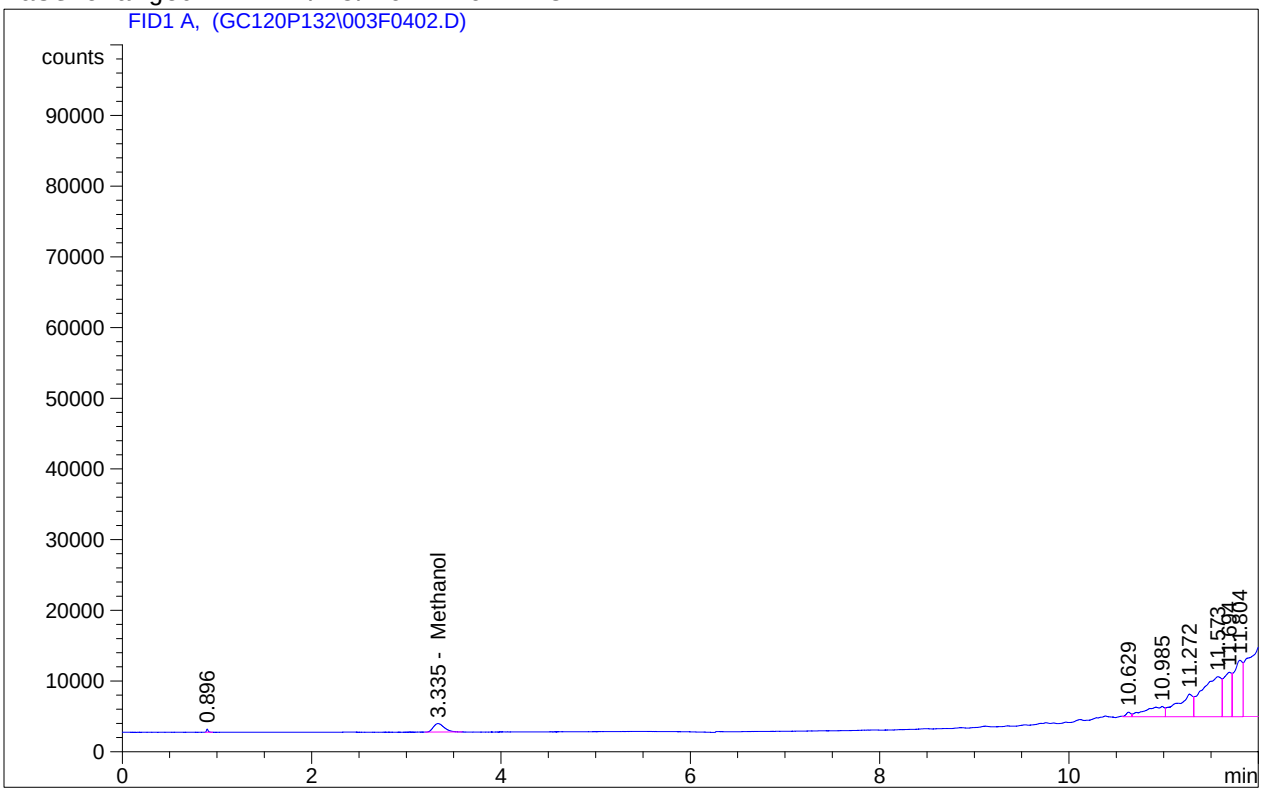
Totals :                               15.63352



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\003F0402.D
Sample Name: gc120p132 #3

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   4
Acq. Instrument : Penn online                     Location : Vial 3
Injection Date  : 7/13/2011 8:32:19 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.335 BB     9769.91602 1.59369e-3   15.57022    Methanol

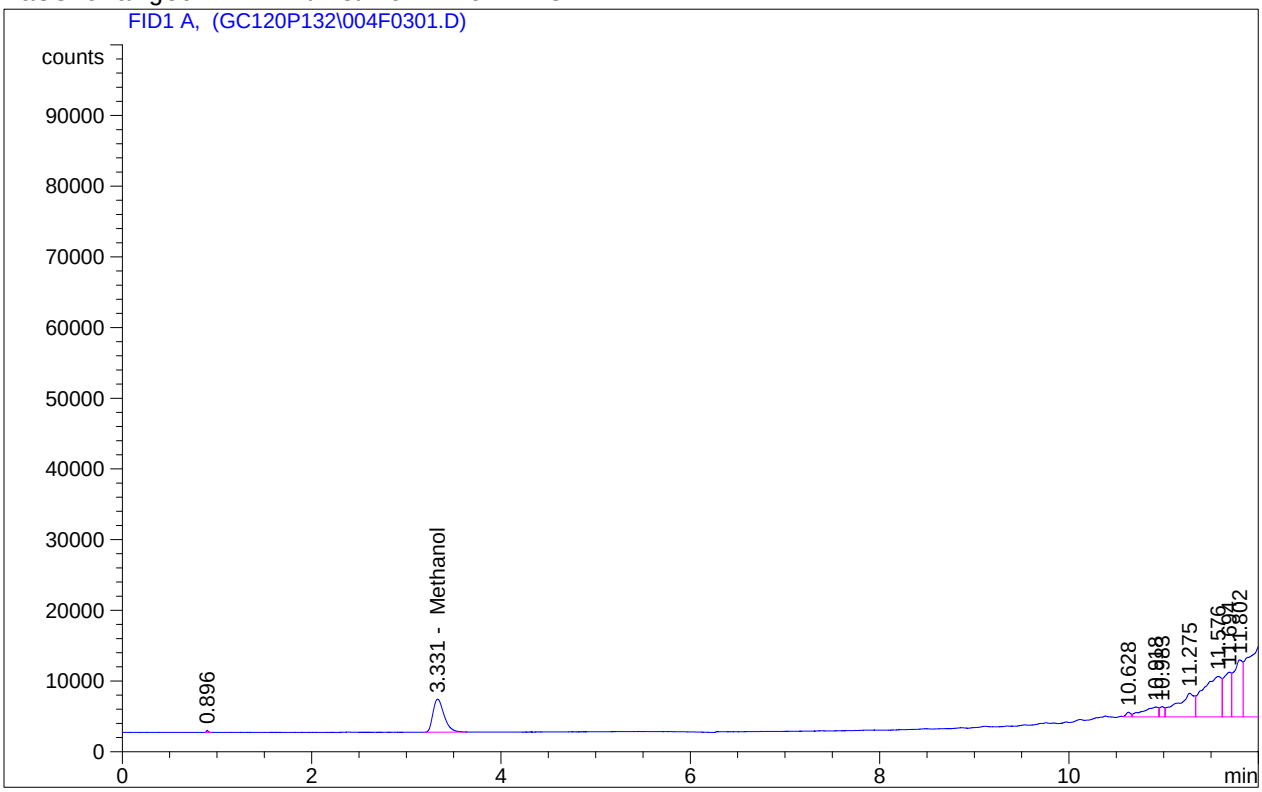
Totals :                               15.57022



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\004F0301.D
Sample Name: gc120p132 #4

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   3
Acq. Instrument : Penn online                     Location : Vial 4
Injection Date  : 7/13/2011 7:07:31 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.331 BB     3.80295e4  1.59781e-3   60.76372    Methanol

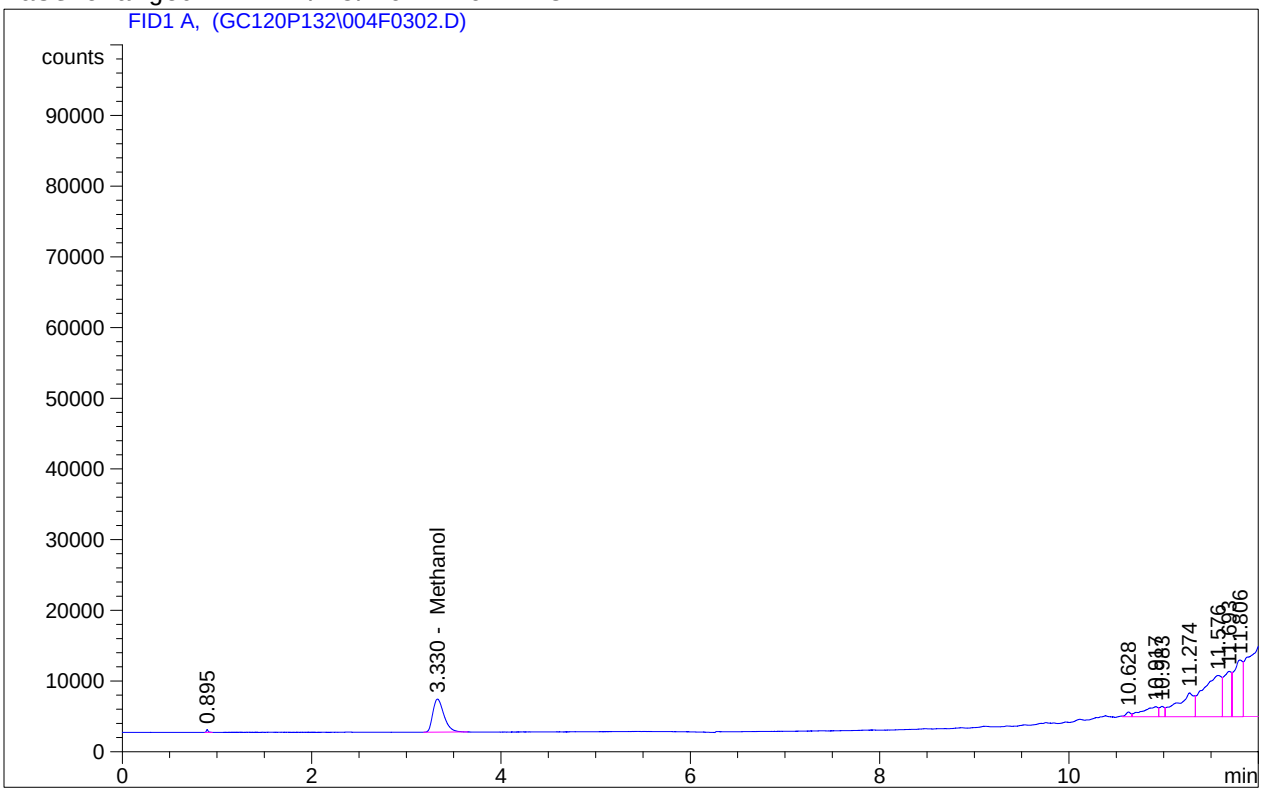
Totals :                               60.76372



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\004F0302.D
Sample Name: gc120p132 #4

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   3
Acq. Instrument : Penn online                     Location : Vial 4
Injection Date  : 7/13/2011 7:28:44 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.330 BB     3.81382e4  1.59781e-3   60.93754    Methanol

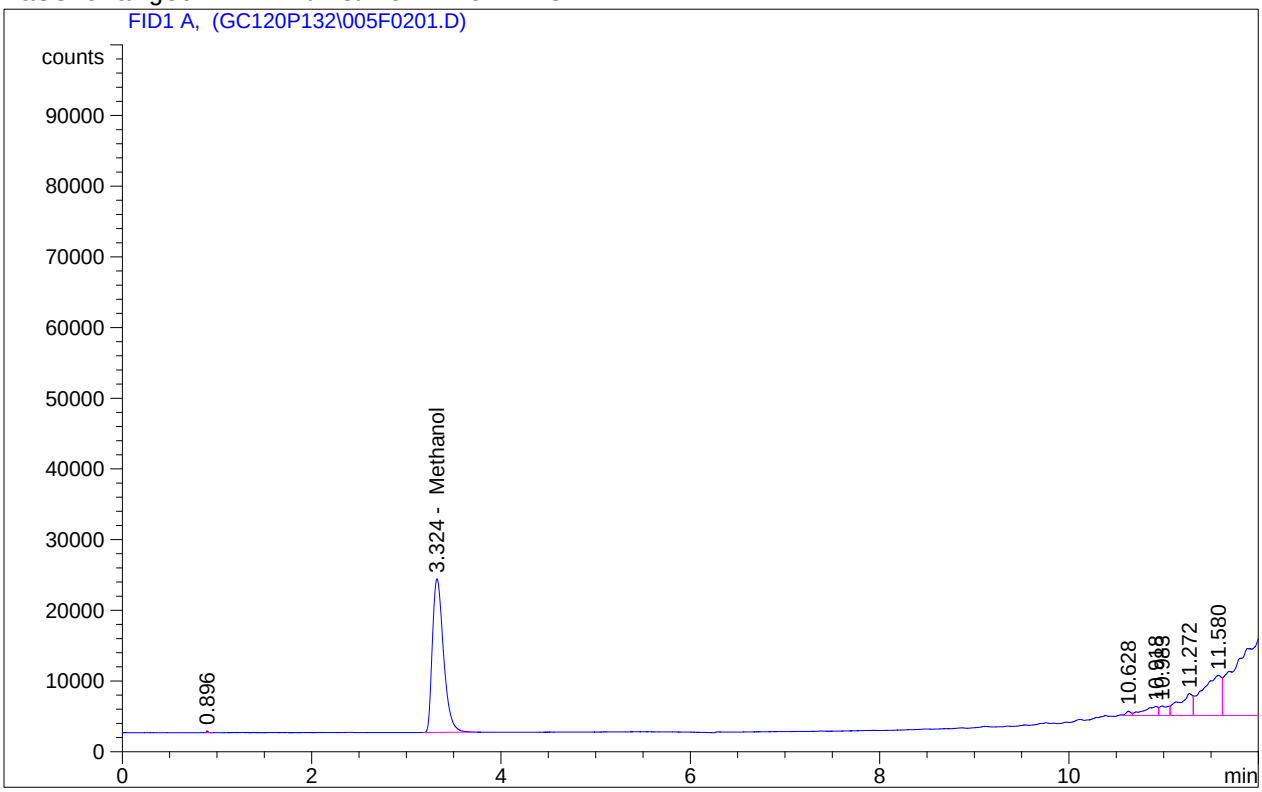
Totals :                               60.93754



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\005F0201.D
Sample Name: gc120p132 #5

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   2
Acq. Instrument : Penn online                     Location : Vial 5
Injection Date  : 7/13/2011 6:04:14 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.324 BB     1.77755e5  1.59892e-3  284.21609    Methanol

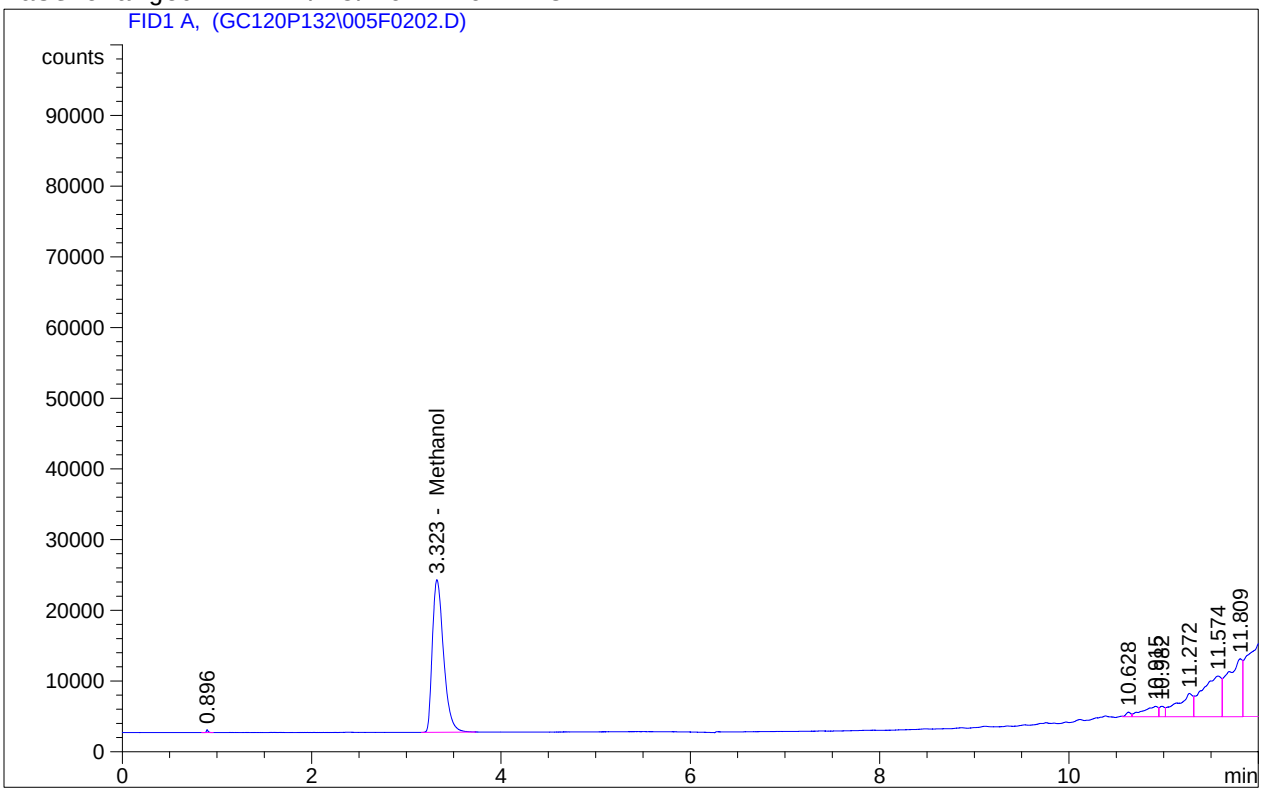
Totals :                               284.21609



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\005F0202.D
Sample Name: gc120p132 #5

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   2
Acq. Instrument : Penn online                     Location : Vial 5
Injection Date  : 7/13/2011 6:25:18 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.323 BB     1.77170e5  1.59892e-3  283.28096    Methanol

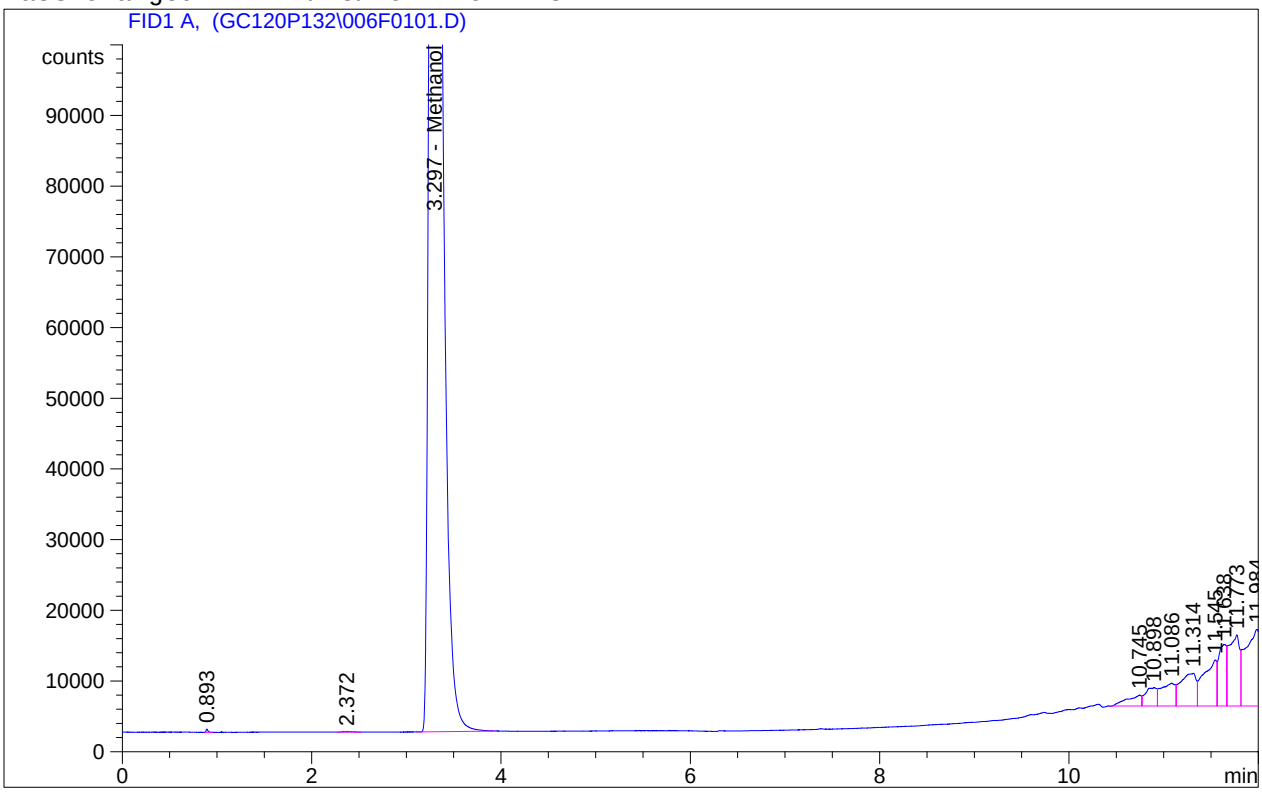
Totals :                              283.28096



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\006F0101.D
Sample Name: gc120p132 #6

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :   1
Acq. Instrument : Penn online                    Location : Vial 6
Injection Date  : 7/13/2011 5:00:22 PM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.297 BB     2.05647e6  1.59920e-3 3288.71034    Methanol

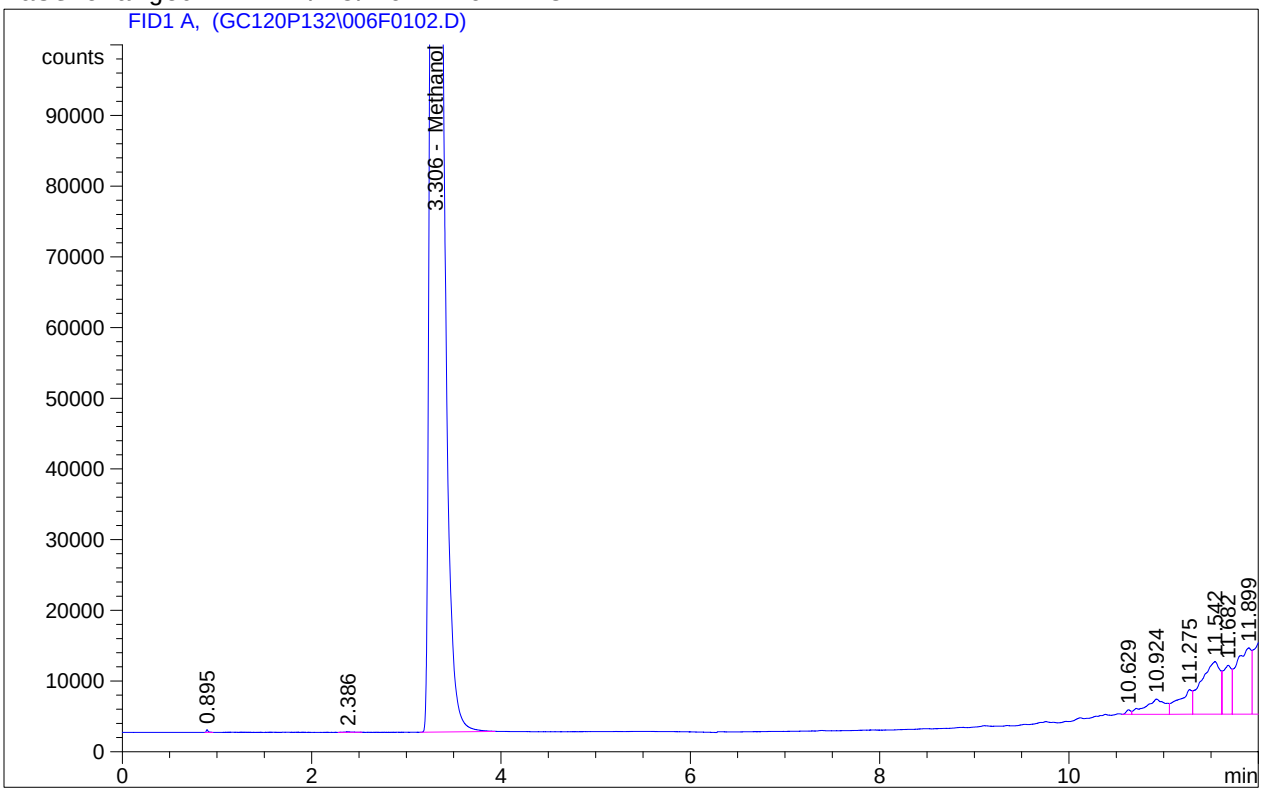
Totals :                              3288.71034



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\006F0102.D
Sample Name: gc120p132 #6

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   1
Acq. Instrument : Penn online                     Location : Vial 6
Injection Date  : 7/13/2011 5:21:39 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.306 BB     1.99820e6  1.59920e-3 3195.52052    Methanol

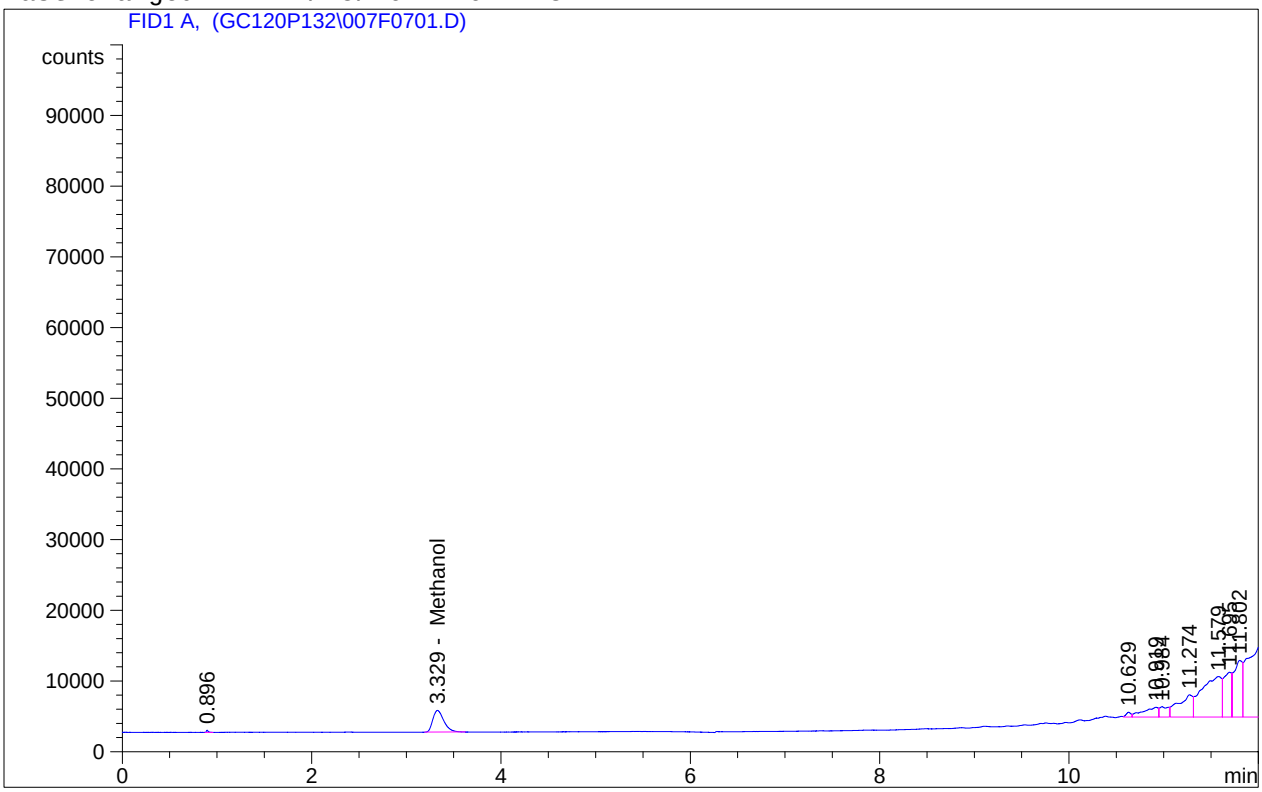
Totals :                              3195.52052



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\007F0701.D
Sample Name: gc120p132 #3ss

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :   7
Acq. Instrument : Penn online                    Location : Vial 7
Injection Date  : 7/14/2011 1:08:24 AM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|--------------------
  3.329 BB     2.48594e4  1.59705e-3   39.70172    Methanol

Totals :                               39.70172

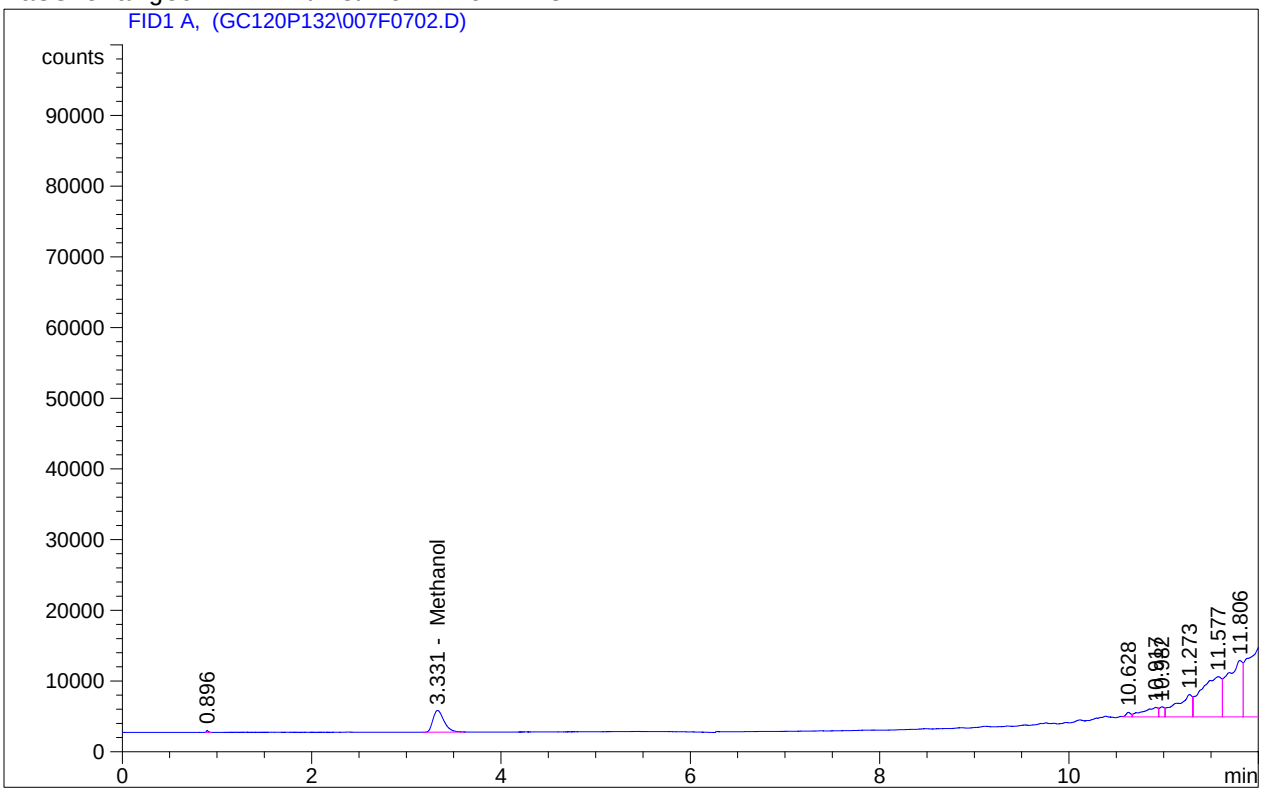


Signal 2: FID2 B,    not found
```

tag value 39.3ug/ml

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\007F0702.D
Sample Name: gc120p132 #3ss

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :   7
Acq. Instrument : Penn online                    Location : Vial 7
Injection Date  : 7/14/2011 1:29:32 AM                Inj :   2
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.331 BB     2.49225e4  1.59706e-3   39.80268    Methanol

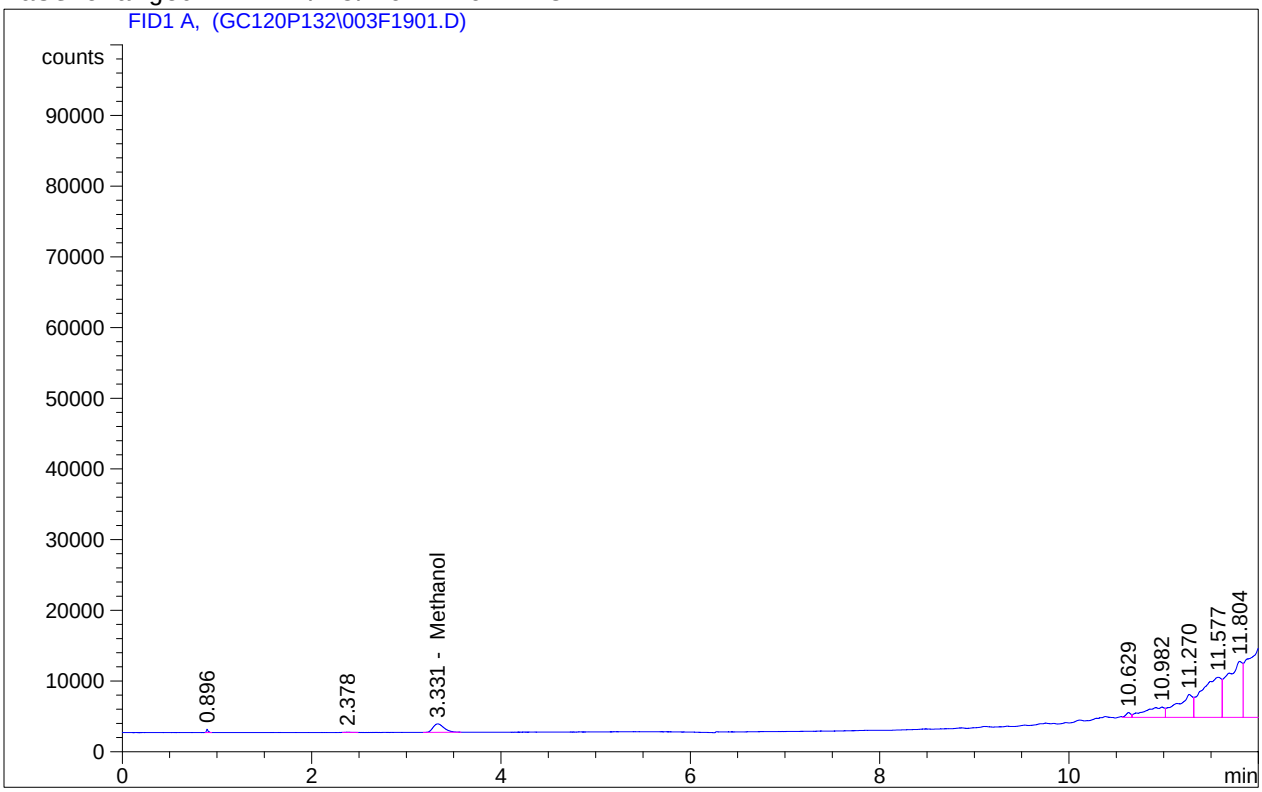
Totals :                                39.80268


Signal 2: FID2 B,    not found
```

tag value 39.3ug/ml

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\003F1901.D
Sample Name: gc120p132 #3

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  19
Acq. Instrument : Penn online                     Location : Vial 3
Injection Date  : 7/14/2011 10:19:38 AM                Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.331 BB     9701.09180 1.59365e-3   15.46015    Methanol

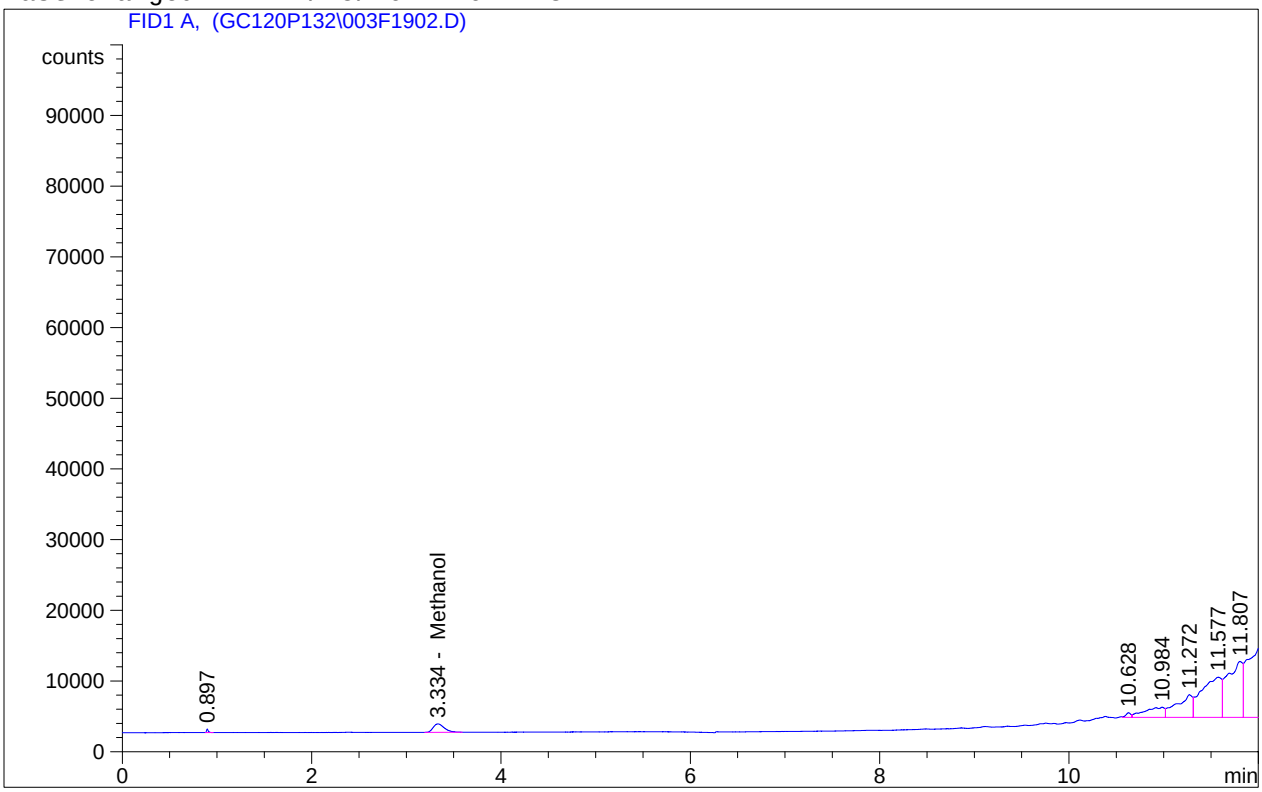
Totals :                               15.46015



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\003F1902.D
Sample Name: gc120p132 #3

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  19
Acq. Instrument : Penn online                     Location : Vial 3
Injection Date  : 7/14/2011 10:40:51 AM                Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.334 BB     9733.84375 1.59367e-3   15.51253    Methanol

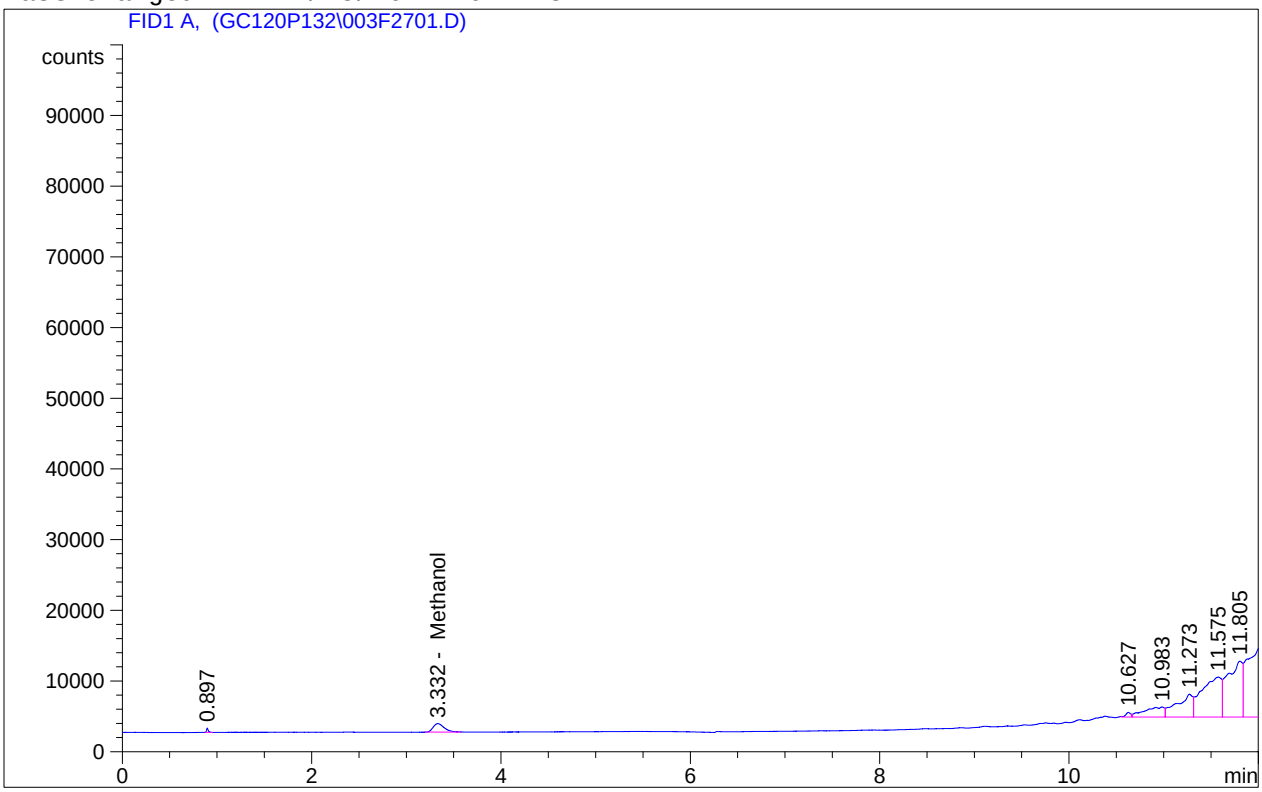
Totals :                               15.51253



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\003F2701.D
Sample Name: gc120p132 #3

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  27
Acq. Instrument : Penn online                     Location : Vial 3
Injection Date  : 7/14/2011 3:59:03 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:08:57 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.332 BB     9714.48047 1.59366e-3   15.48156    Methanol

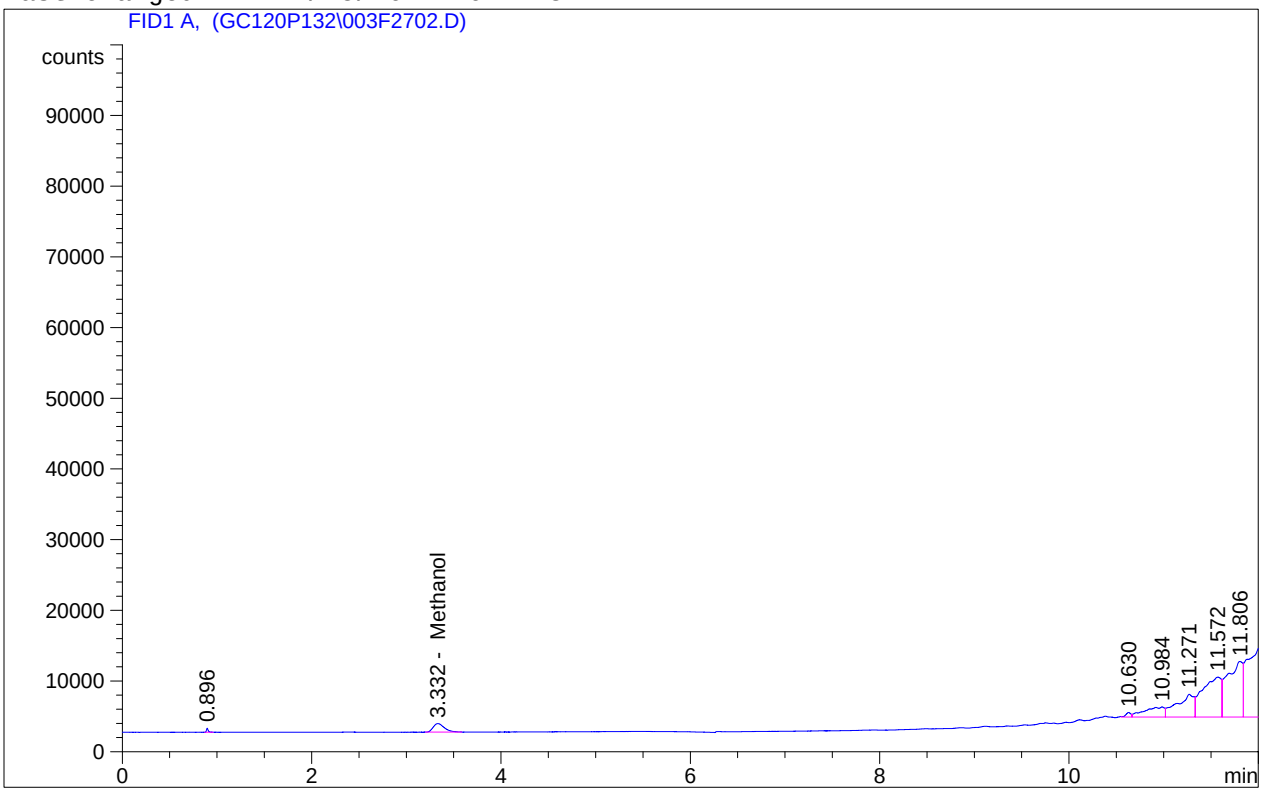
Totals :                               15.48156



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\003F2702.D
Sample Name: gc120p132 #3

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  27
Acq. Instrument : Penn online                     Location : Vial 3
Injection Date  : 7/14/2011 4:20:12 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:08:57 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.332 BB     9763.47168 1.59369e-3   15.55991    Methanol

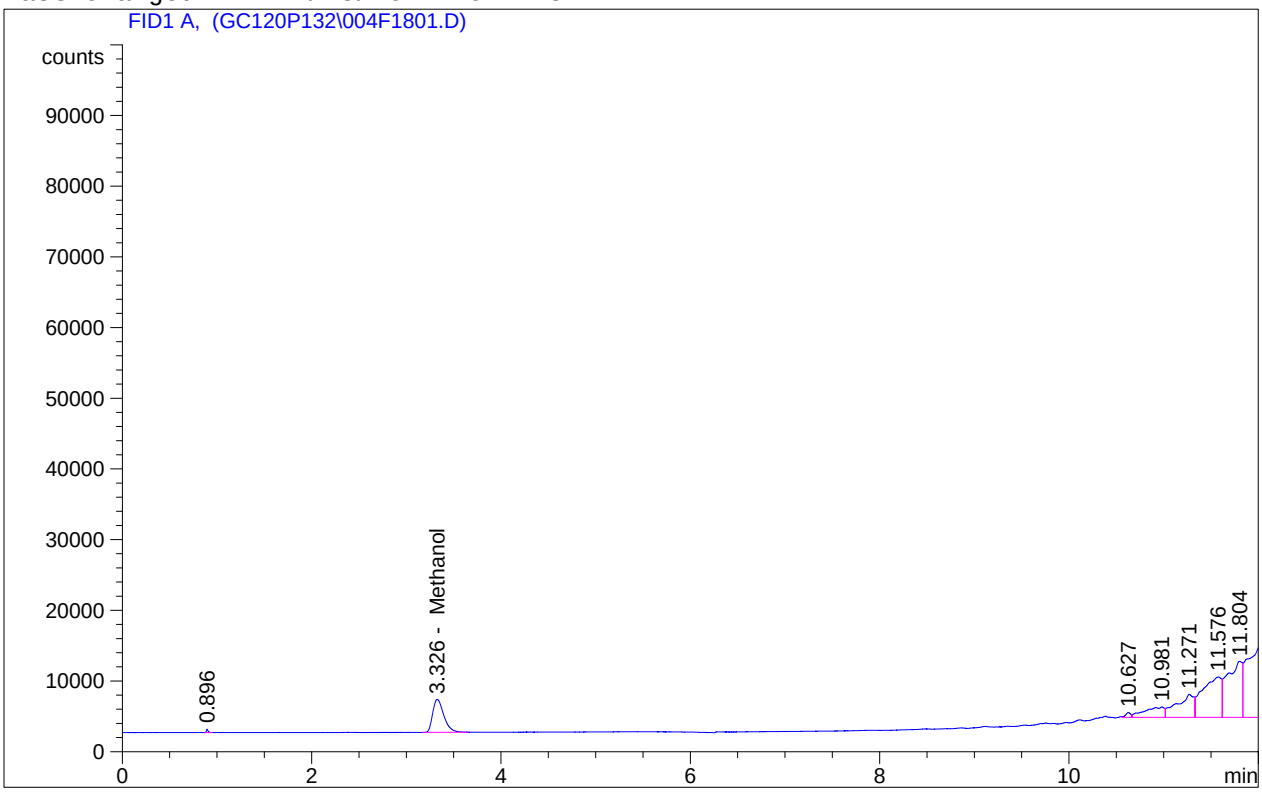
Totals :                               15.55991



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\004F1801.D
Sample Name: gc120p132 #4

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  18
Acq. Instrument : Penn online                    Location : Vial 4
Injection Date  : 7/14/2011 9:36:59 AM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.326 BB     3.80087e4  1.59780e-3   60.73046    Methanol

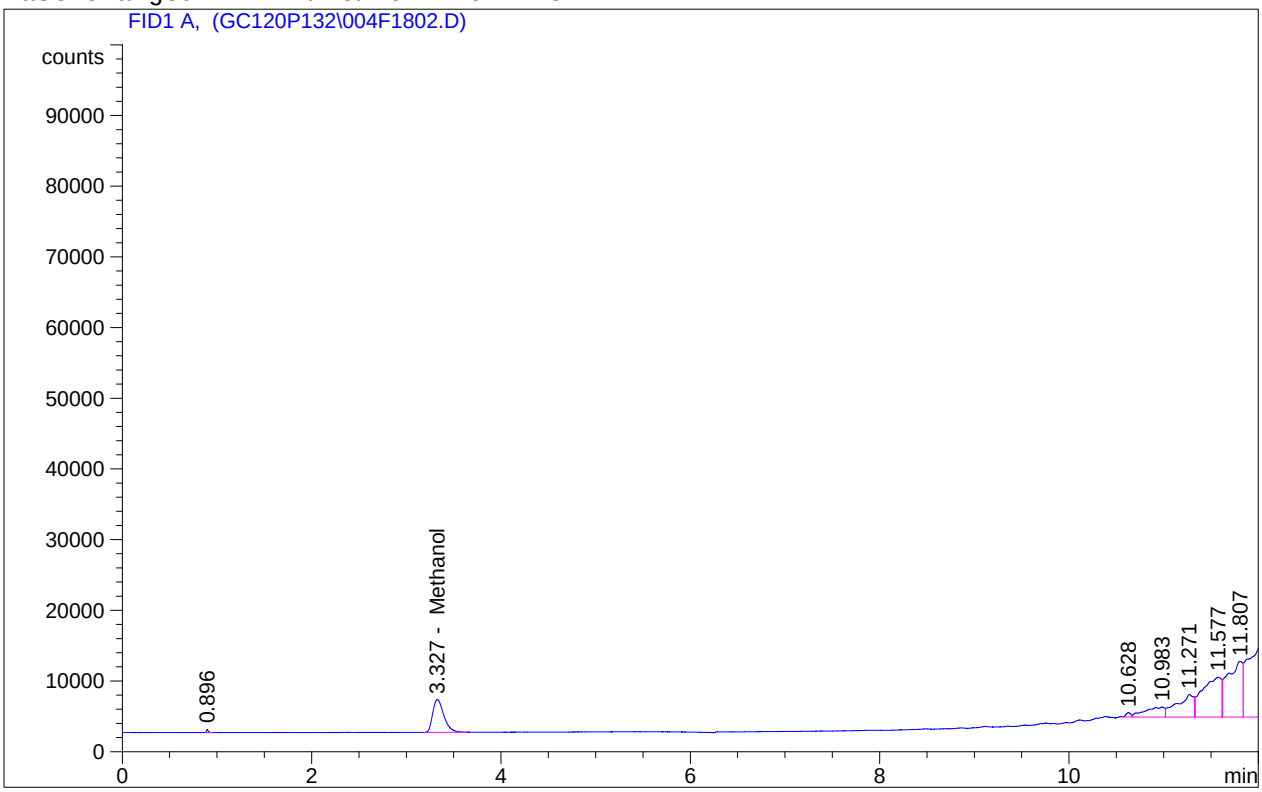
Totals :                               60.73046



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\004F1802.D
Sample Name: gc120p132 #4

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  18
Acq. Instrument : Penn online                     Location : Vial 4
Injection Date  : 7/14/2011 9:58:21 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.327 BB     3.79213e4  1.59780e-3   60.59064    Methanol

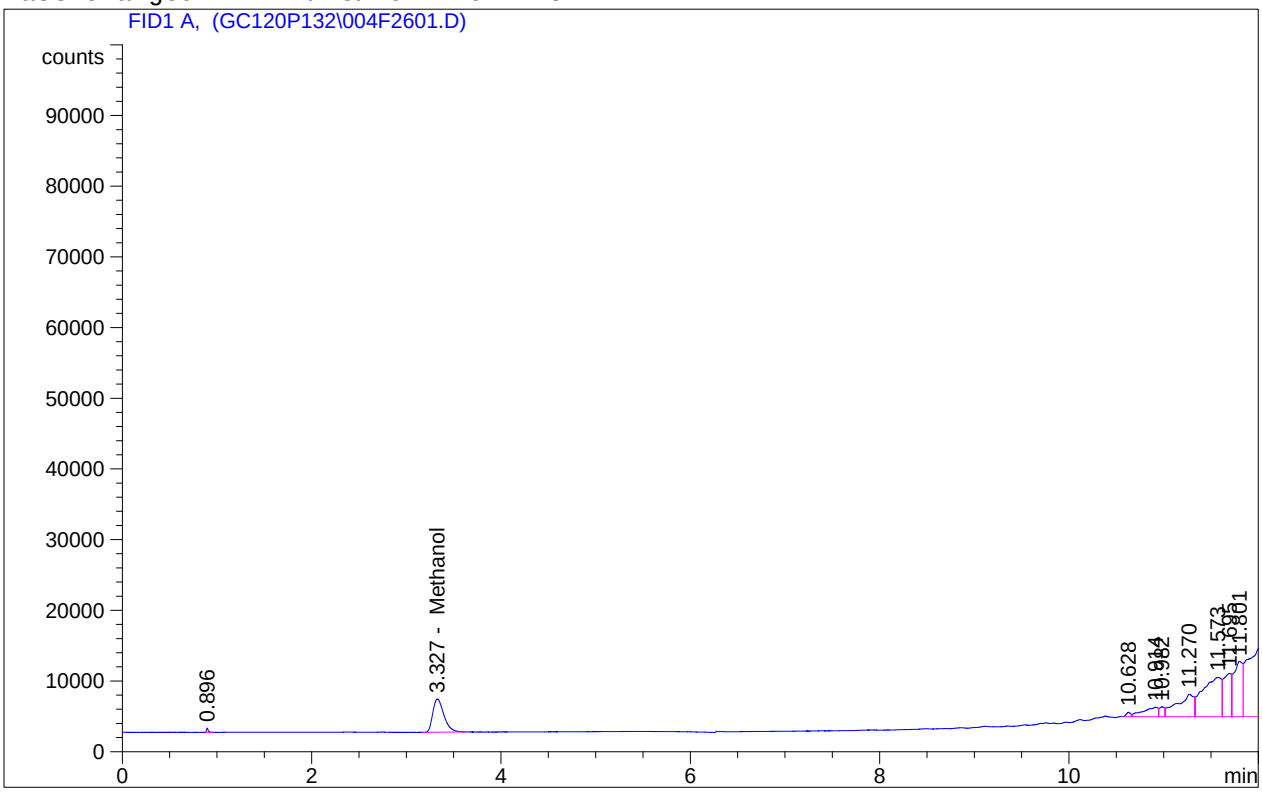
Totals :                               60.59064



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\004F2601.D
Sample Name: gc120p132 #4

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  26
Acq. Instrument : Penn online                     Location : Vial 4
Injection Date  : 7/14/2011 3:16:23 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:02:20 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.327 BB     3.82846e4  1.59781e-3   61.17175    Methanol

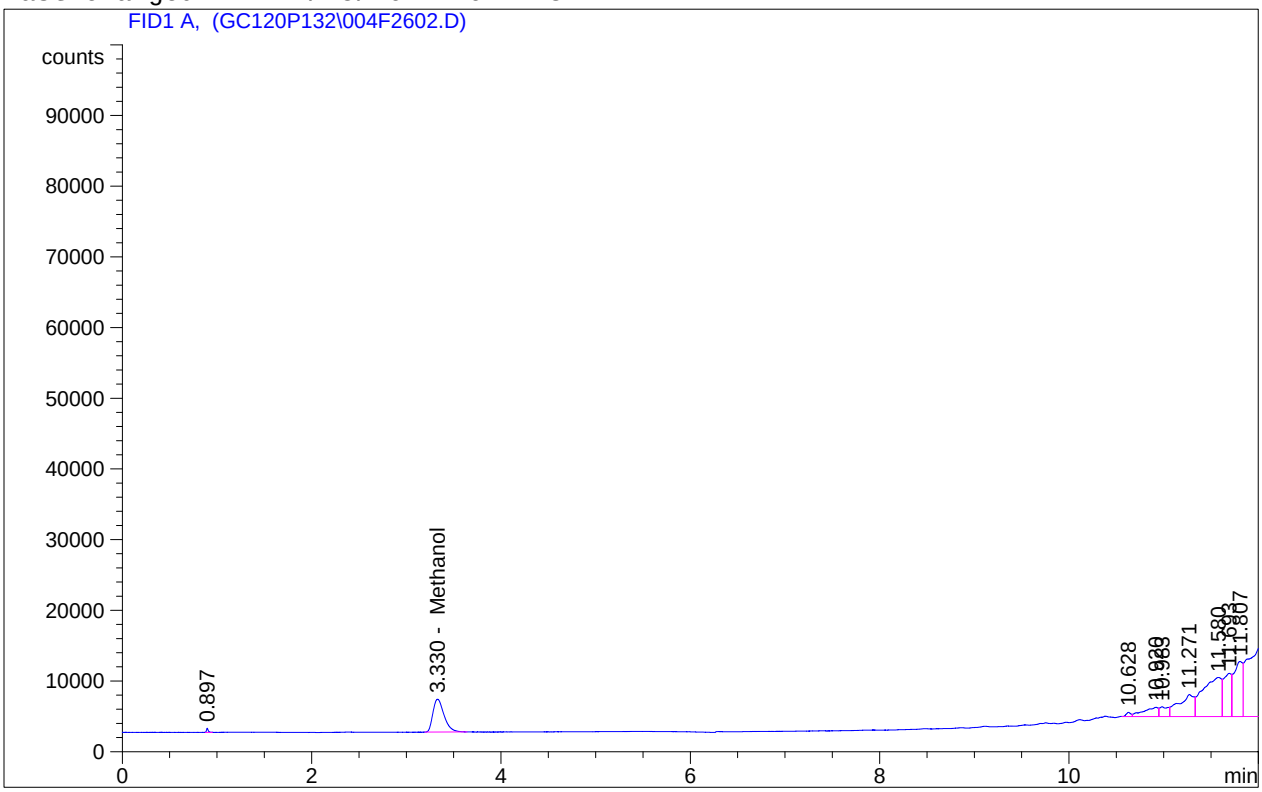
Totals :                               61.17175



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\004F2602.D
Sample Name: gc120p132 #4

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  26
Acq. Instrument : Penn online                     Location : Vial 4
Injection Date  : 7/14/2011 3:37:37 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:08:57 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.330 BB     3.79716e4  1.59780e-3   60.67110    Methanol

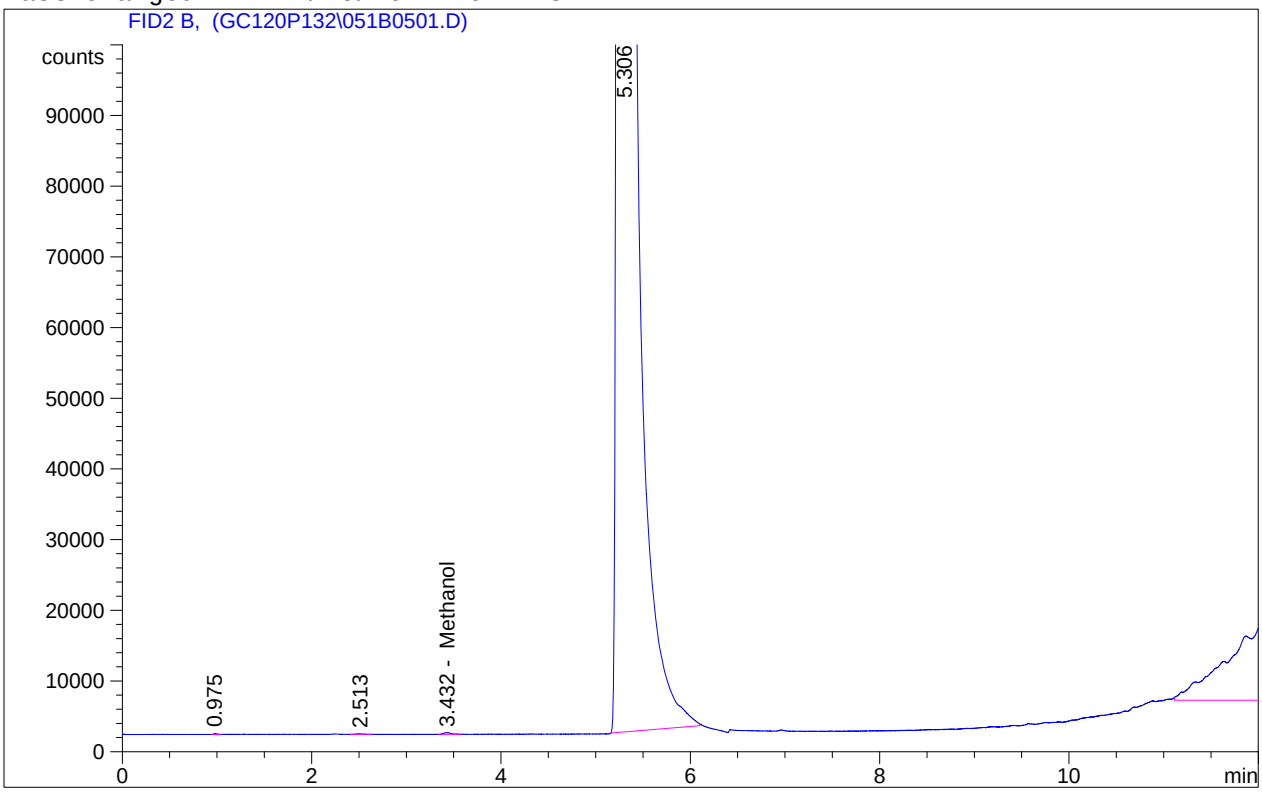
Totals :                               60.67110



Signal 2: FID2 B,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\051B0501.D
Sample Name: gc120p132 #1p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   5
Acq. Instrument : Penn online                     Location : Vial 51
Injection Date  : 7/13/2011 9:14:50 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.432 BB     1224.95227 1.26889e-3    1.55433    Methanol

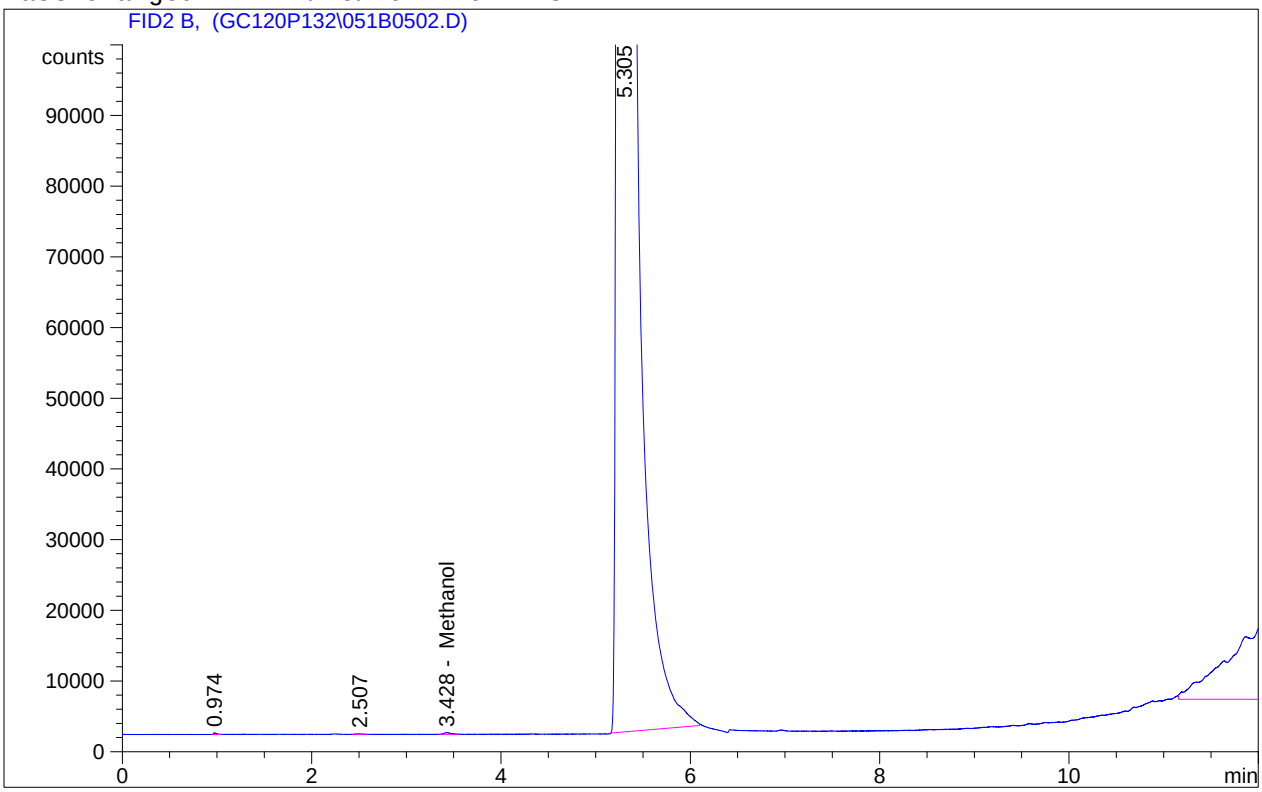
Totals :                                1.55433



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\051B0502.D
Sample Name: gc120p132 #1p

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :   5
Acq. Instrument : Penn online                    Location : Vial 51
Injection Date  : 7/13/2011 9:36:02 PM                Inj :   2
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.428 BB     1201.89075 1.26889e-3    1.52507    Methanol

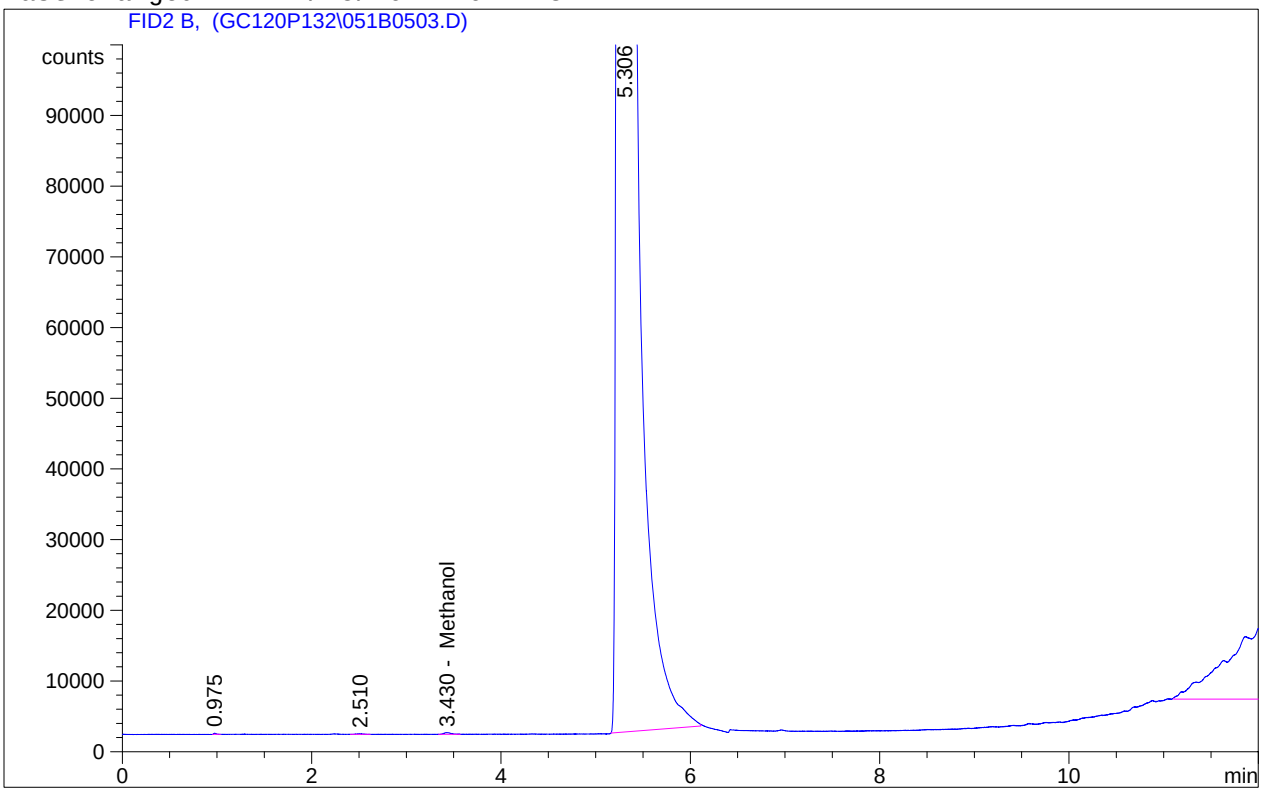
Totals :                                1.52507



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\051B0503.D
Sample Name: gc120p132 #1p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   5
Acq. Instrument : Penn online                     Location : Vial 51
Injection Date  : 7/13/2011 9:57:20 PM                 Inj :   3
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.430 BB     1242.82446 1.26889e-3    1.57701    Methanol

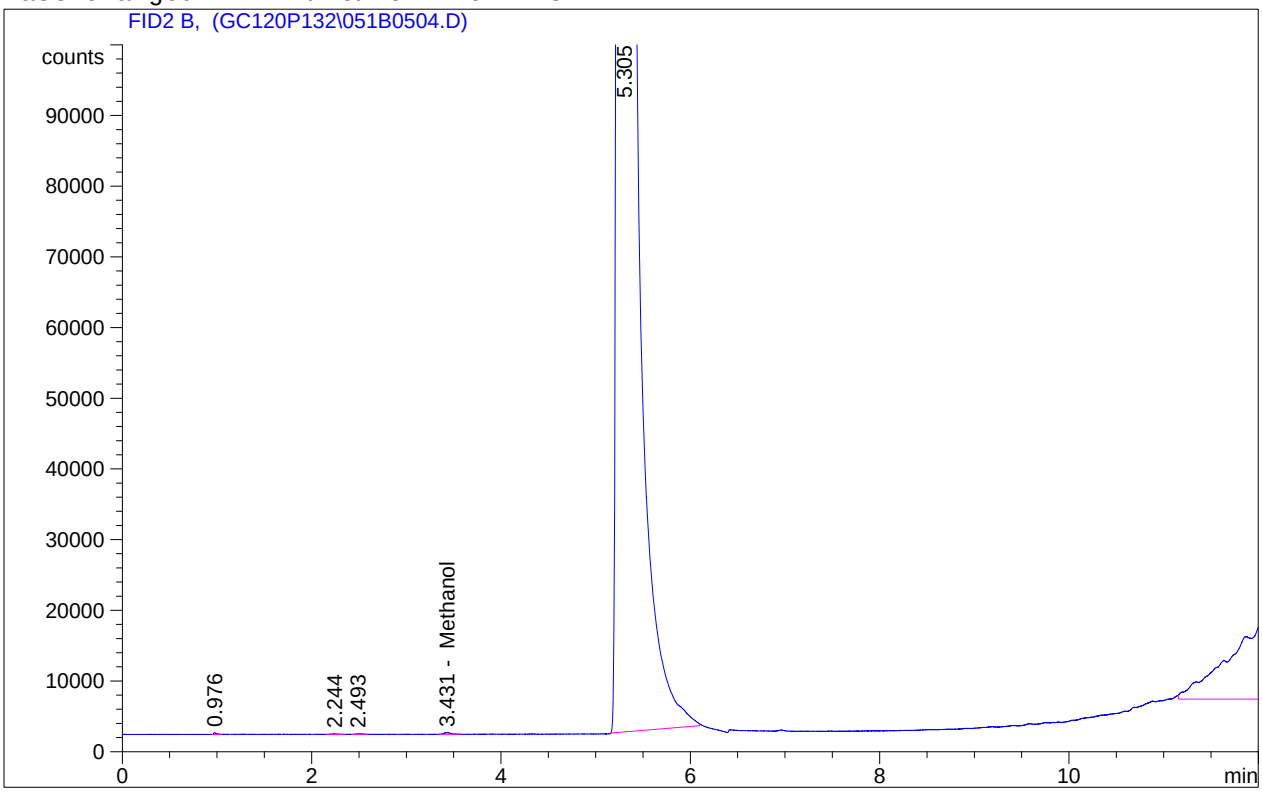
Totals :                                1.57701



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\051B0504.D
Sample Name: gc120p132 #1p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   5
Acq. Instrument : Penn online                     Location : Vial 51
Injection Date  : 7/13/2011 10:18:33 PM                Inj :   4
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.431 BB     1286.84839 1.27191e-3    1.63676    Methanol

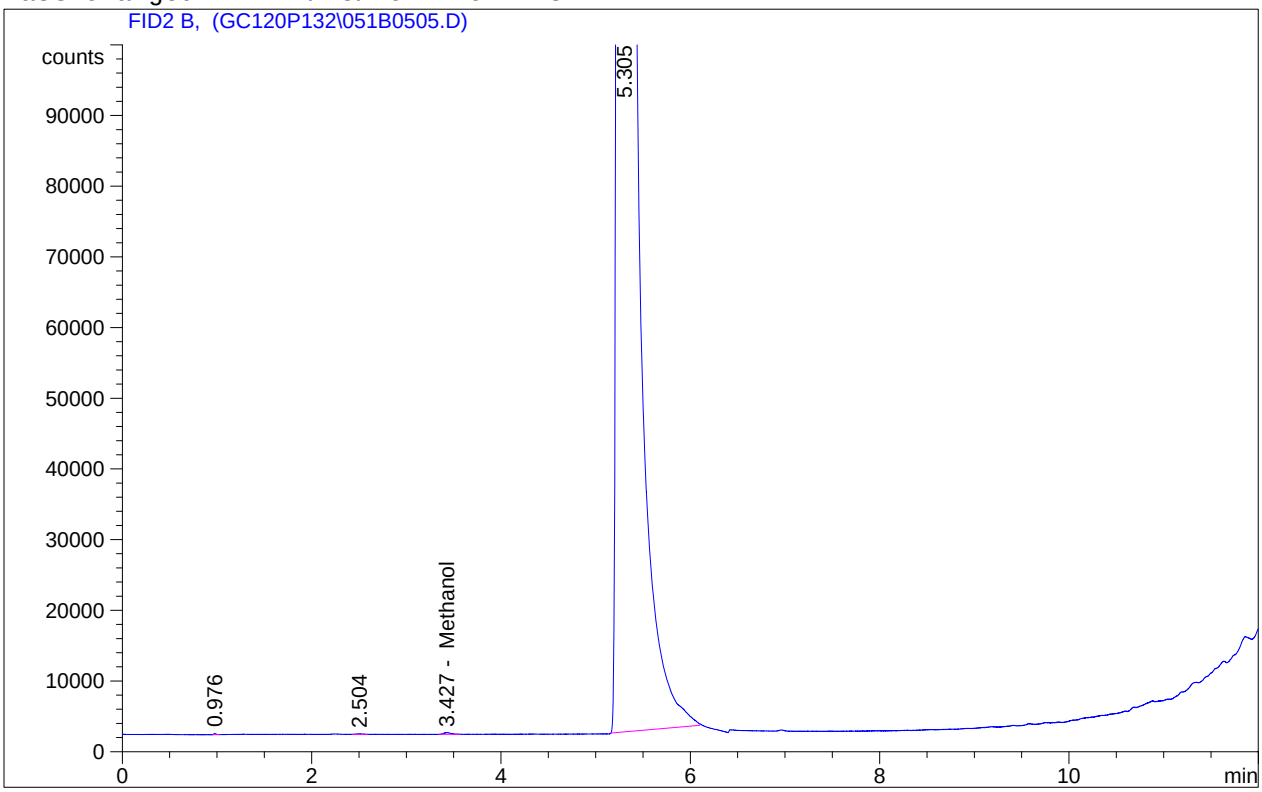
Totals :                                1.63676



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\051B0505.D
Sample Name: gc120p132 #1p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   5
Acq. Instrument : Penn online                     Location : Vial 51
Injection Date  : 7/13/2011 10:39:47 PM                Inj :   5
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.427 BB     1259.02319 1.26992e-3    1.59886    Methanol

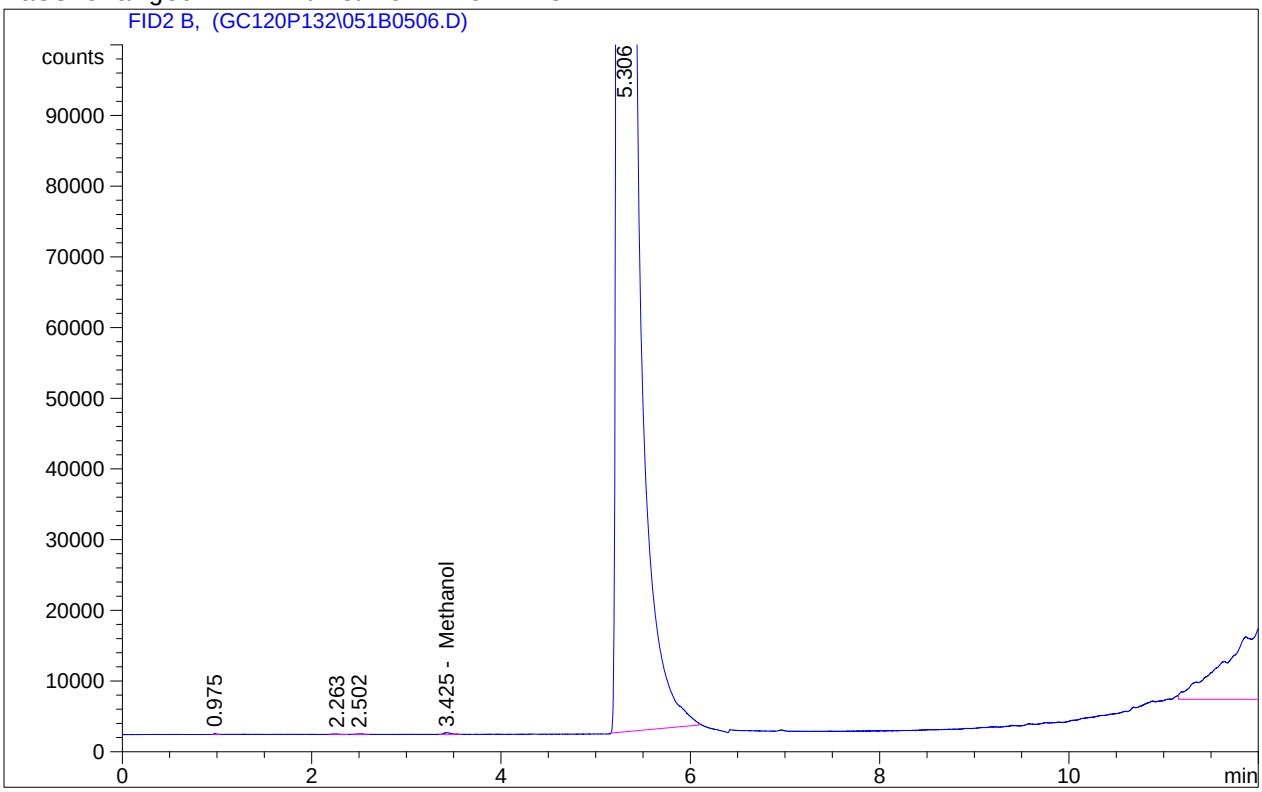
Totals :                                1.59886



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\051B0506.D
Sample Name: gc120p132 #1p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   5
Acq. Instrument : Penn online                     Location : Vial 51
Injection Date  : 7/13/2011 11:00:56 PM                Inj :   6
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.425 BB     1226.42578 1.26889e-3    1.55620    Methanol

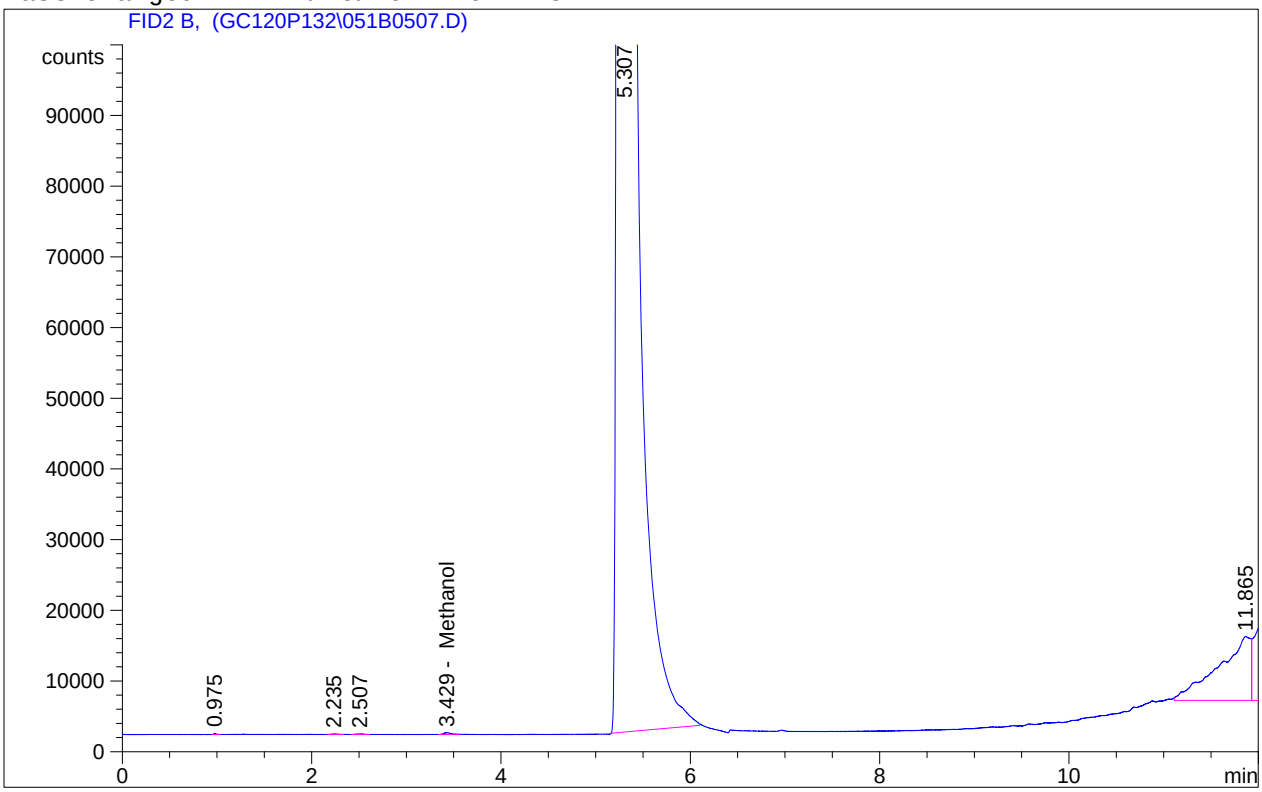
Totals :                                1.55620



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\051B0507.D
Sample Name: gc120p132 #1p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   5
Acq. Instrument : Penn online                     Location : Vial 51
Injection Date  : 7/13/2011 11:22:13 PM                Inj :   7
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429 BB     1261.41638 1.27009e-3    1.60212    Methanol

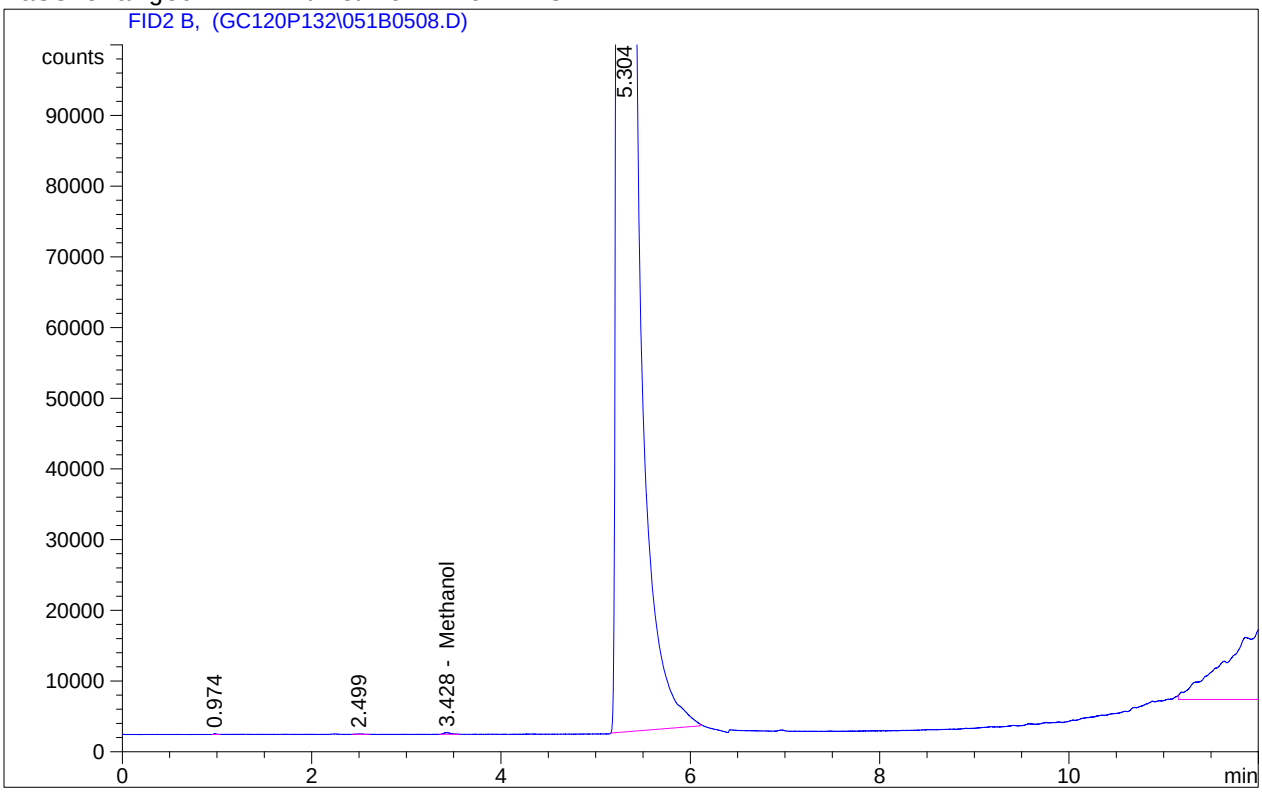
Totals :                                1.60212



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\051B0508.D
Sample Name: gc120p132 #1p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   5
Acq. Instrument : Penn online                     Location : Vial 51
Injection Date  : 7/13/2011 11:43:26 PM                Inj :   8
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.428 BB     1248.10706 1.26911e-3    1.58399    Methanol

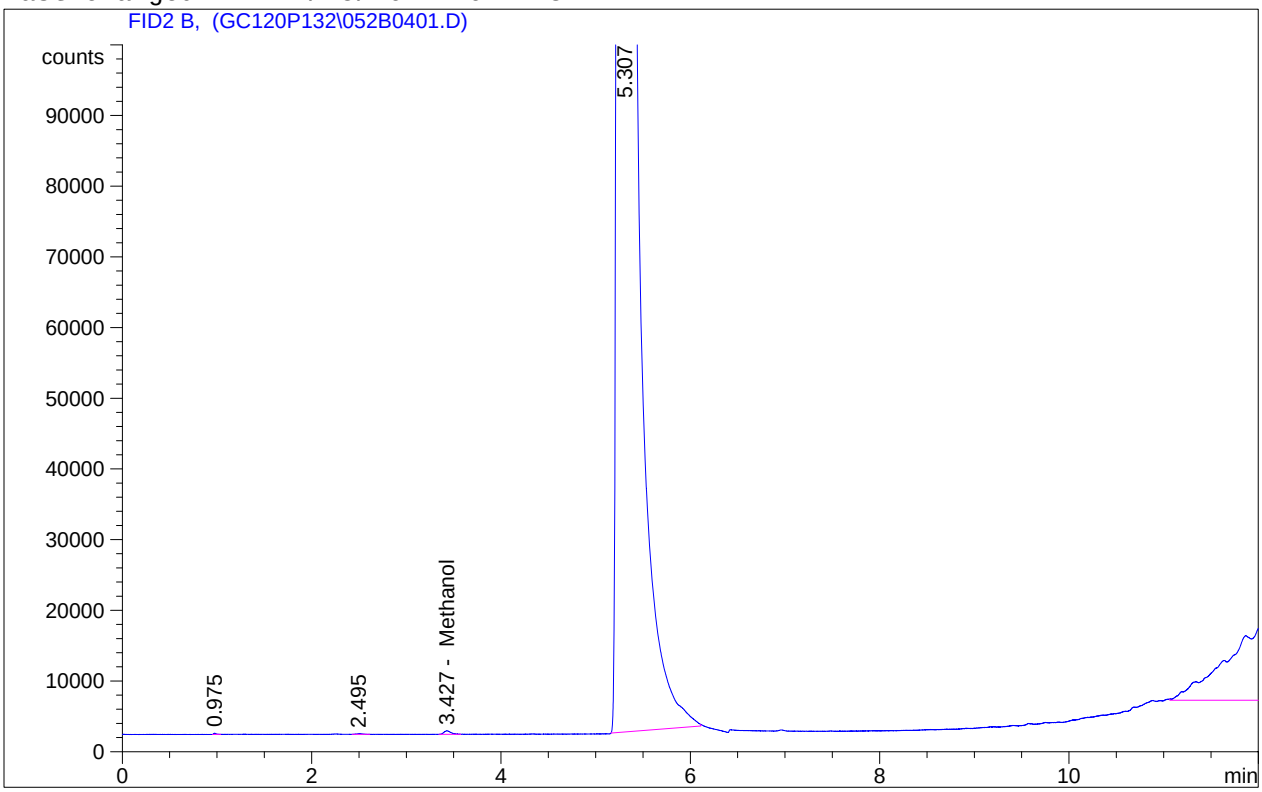
Totals :                                1.58399



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\052B0401.D
Sample Name: gc120p132 #2p

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :   4
Acq. Instrument : Penn online                    Location : Vial 52
Injection Date  : 7/13/2011 8:11:11 PM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.427 BB     2506.29712 1.31583e-3    3.29786    Methanol

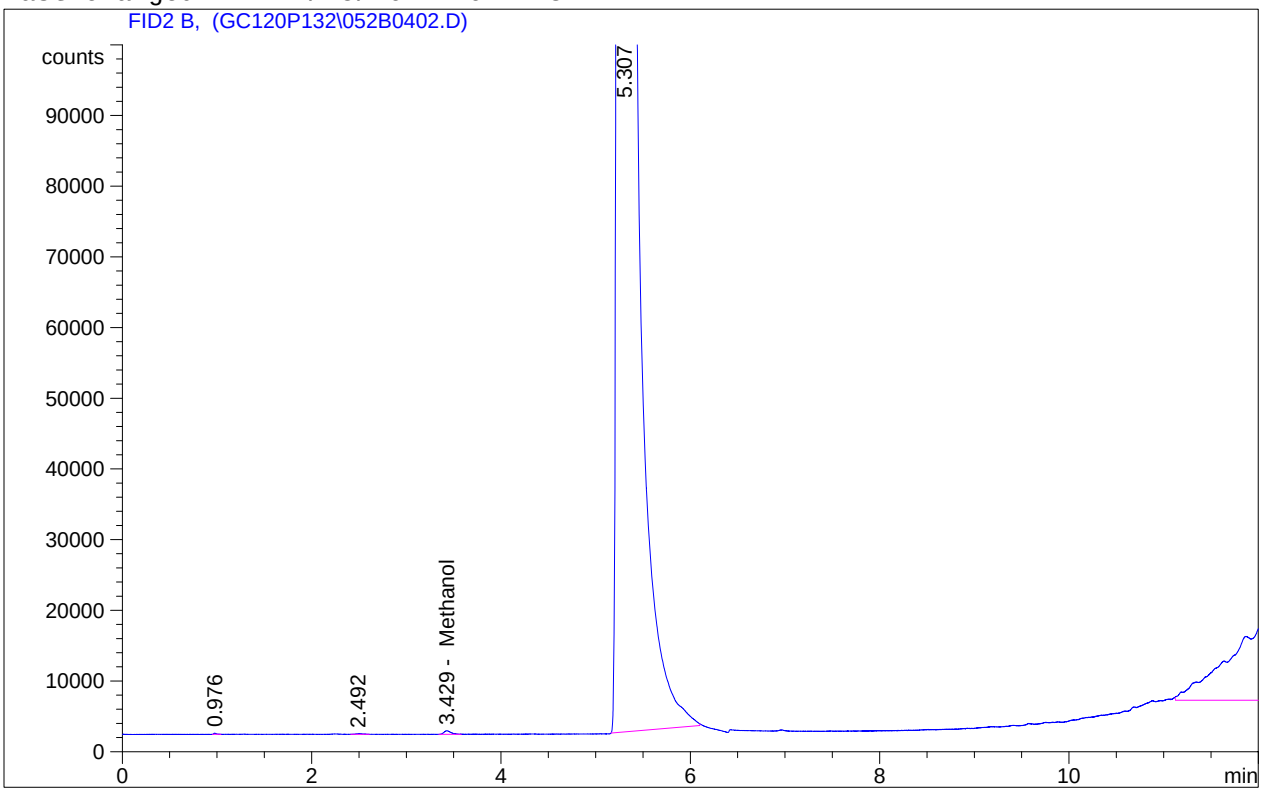
Totals :                                3.29786



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\052B0402.D
Sample Name: gc120p132 #2p

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :   4
Acq. Instrument : Penn online                    Location : Vial 52
Injection Date  : 7/13/2011 8:32:19 PM                Inj :   2
                                               Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.429 BB     2543.89697 1.31652e-3    3.34908    Methanol

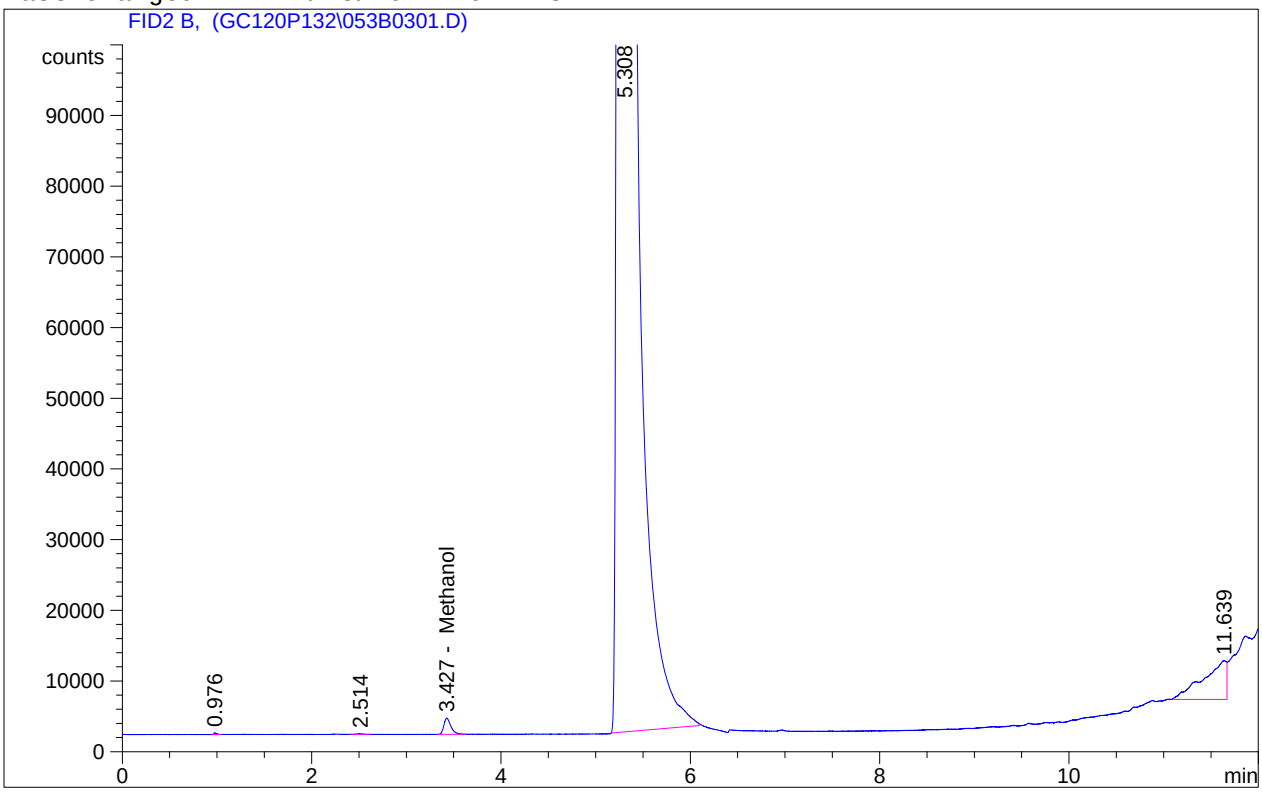
Totals :                                3.34908



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\053B0301.D
Sample Name: gc120p132 #3p

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :   3
Acq. Instrument : Penn online                    Location : Vial 53
Injection Date  : 7/13/2011 7:07:31 PM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.427 BB     1.17047e4  1.35225e-3   15.82770    Methanol

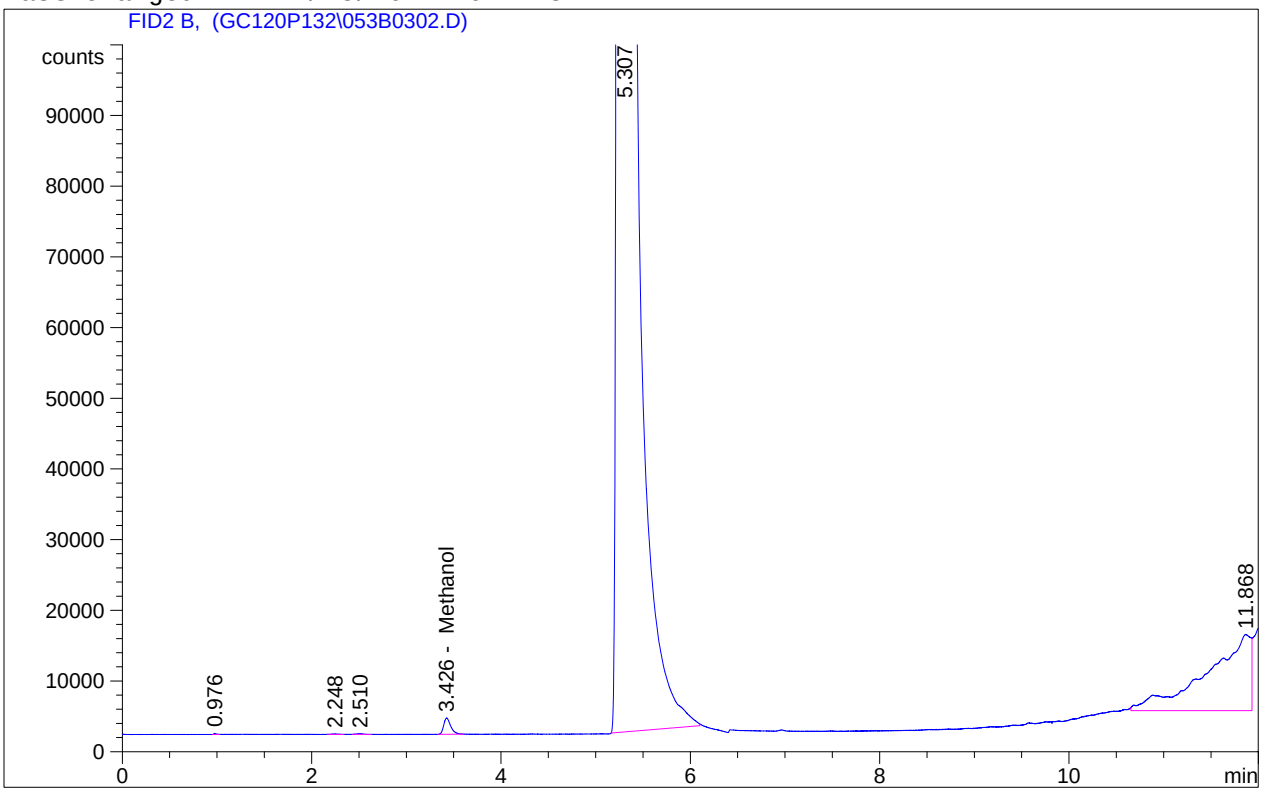
Totals :                               15.82770



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\053B0302.D
Sample Name: gc120p132 #3p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   3
Acq. Instrument : Penn online                     Location : Vial 53
Injection Date  : 7/13/2011 7:28:44 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.426 BB     1.18486e4  1.35237e-3   16.02377    Methanol

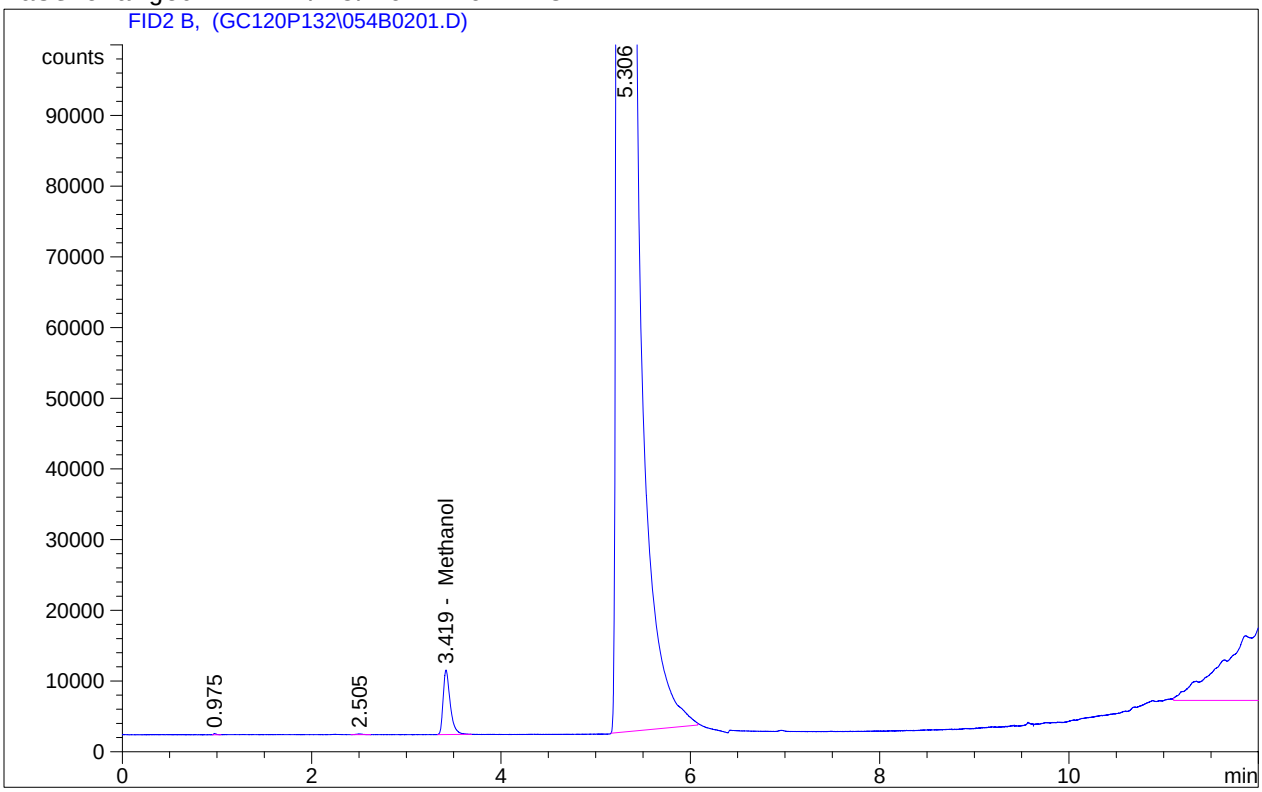
Totals :                               16.02377



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\054B0201.D
Sample Name: gc120p132 #4p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   2
Acq. Instrument : Penn online                     Location : Vial 54
Injection Date  : 7/13/2011 6:04:14 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.419 BB     4.68708e4  1.35970e-3   63.73011    Methanol

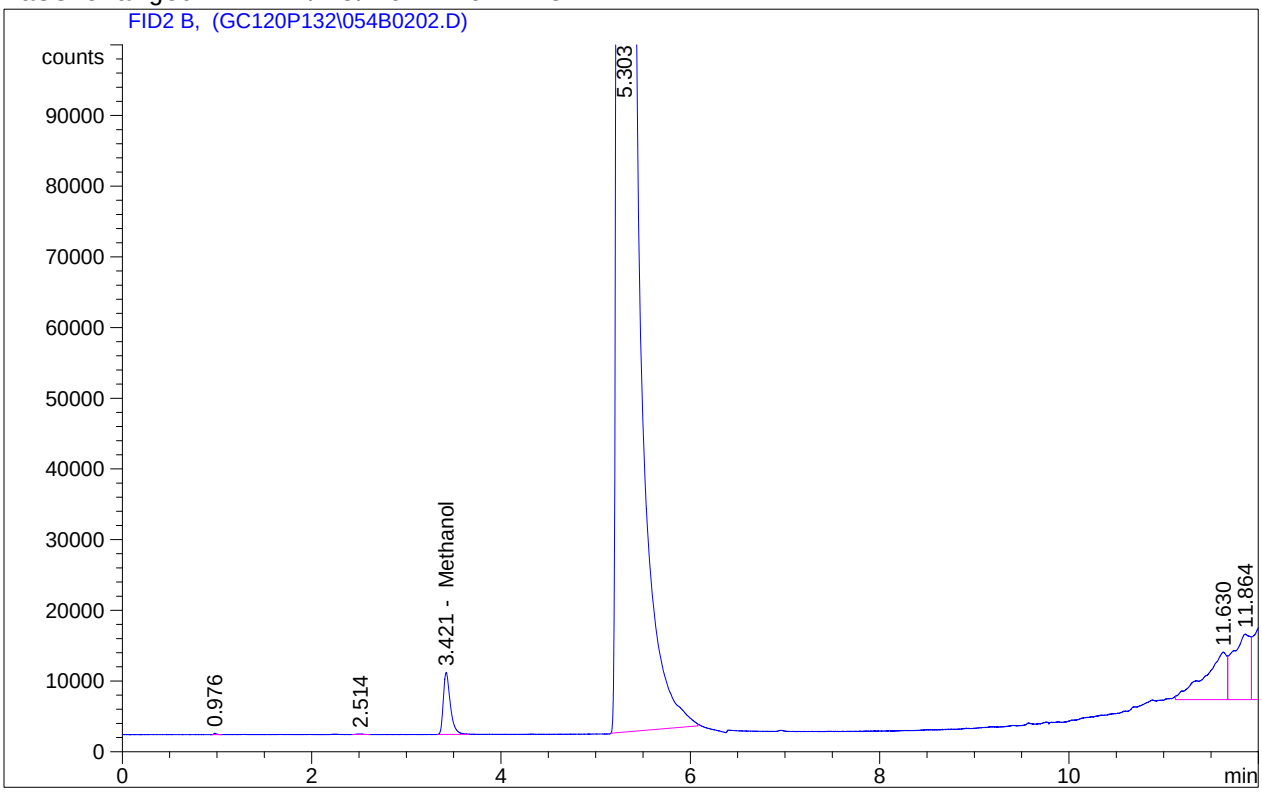
Totals :                               63.73011



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\054B0202.D
Sample Name: gc120p132 #4p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   2
Acq. Instrument : Penn online                     Location : Vial 54
Injection Date  : 7/13/2011 6:25:18 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.421 BB     4.47351e4  1.35958e-3   60.82095    Methanol

Totals :                               60.82095

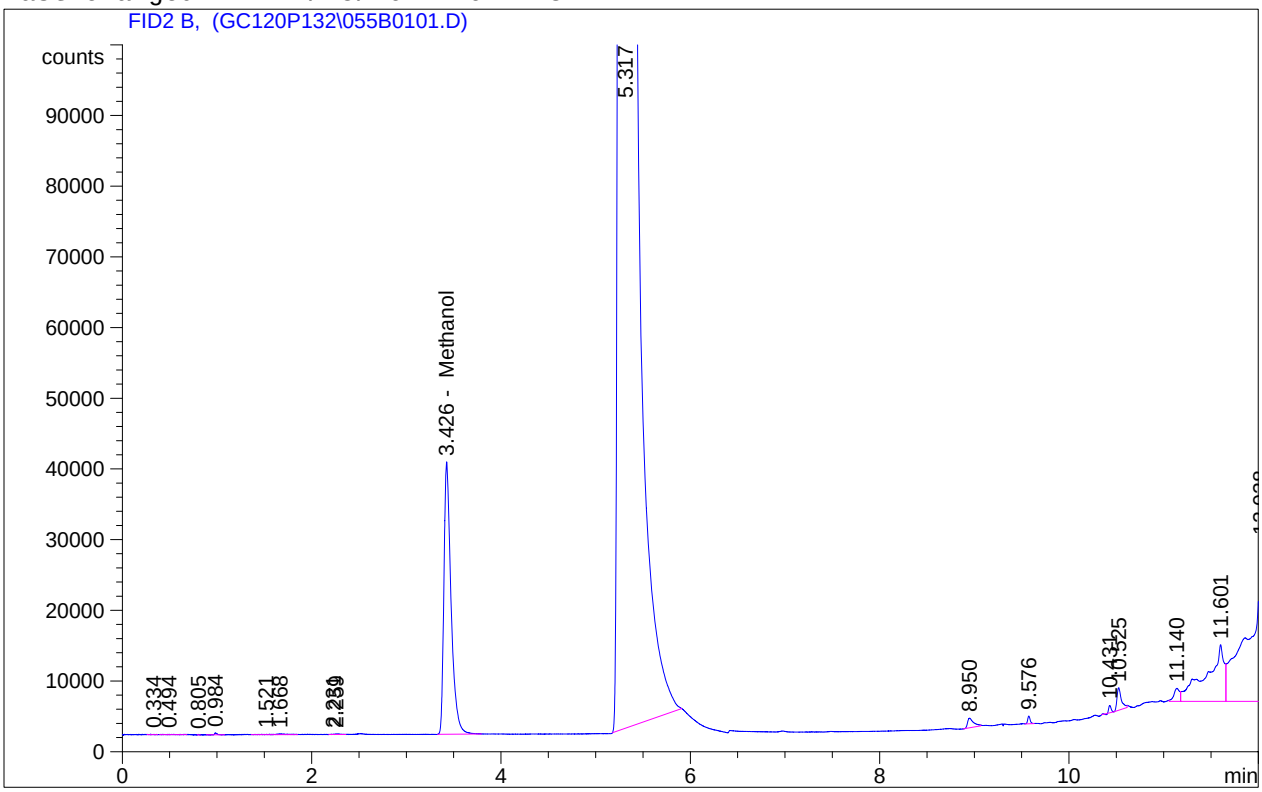


Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\055B0101.D
Sample Name: gc120p132 #5p

==========

Acq. Operator : KMT/CLD Seq. Line : 1
Acq. Instrument : Penn online Location : Vial 55
Injection Date : 7/13/2011 5:00:22 PM Inj : 1
Inj Volume : 1 µl
Sequence File : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed : 7/15/2011 10:27:34 AM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Thursday, July 14, 2011 3:08:44 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

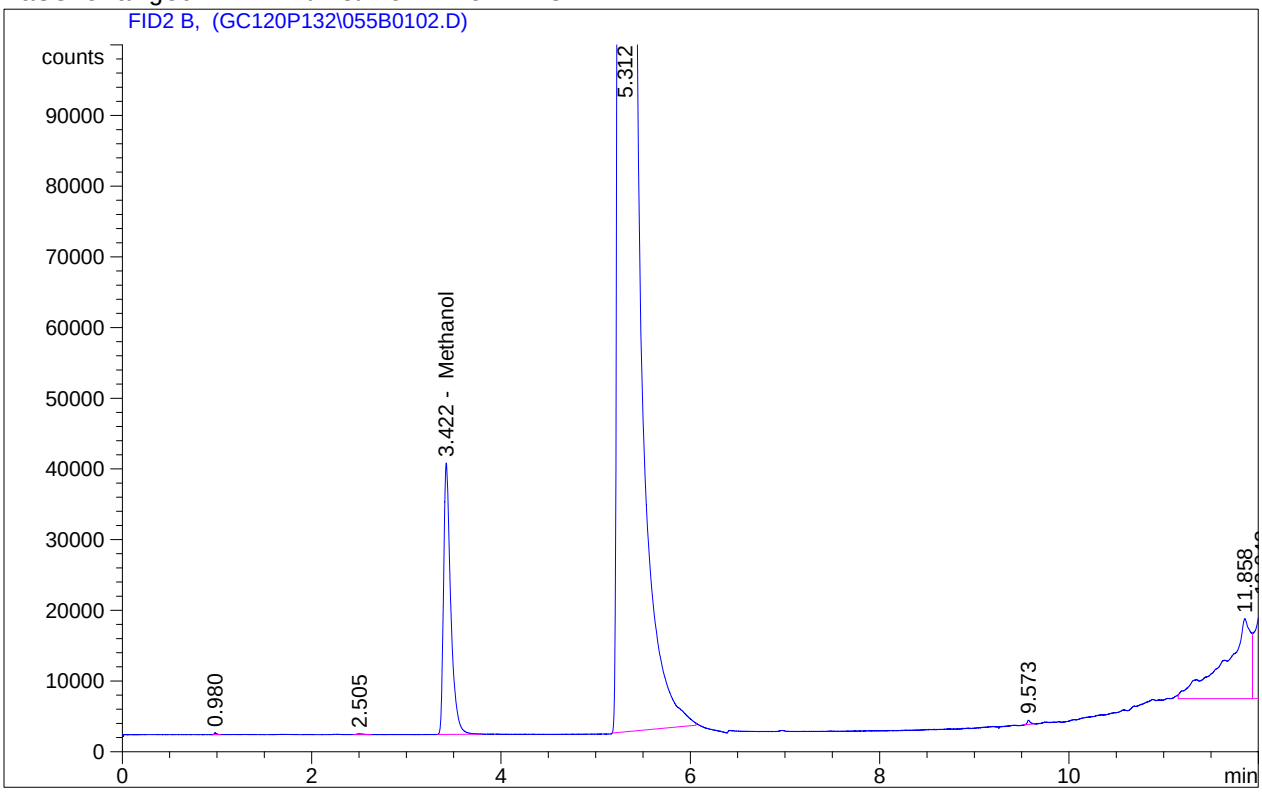
RetTime [min]	Type	Area counts*s	Amt/Area	Amount [µg/mL]	Grp	Name
3.426	BB	2.02040e5	1.36160e-3	275.09843		Methanol

Totals : 275.09843

Signal 2: FID1 A, not found

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\055B0102.D
Sample Name: gc120p132 #5p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :   1
Acq. Instrument : Penn online                     Location : Vial 55
Injection Date  : 7/13/2011 5:21:39 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.422 BB     2.02013e5  1.36160e-3  275.06082    Methanol

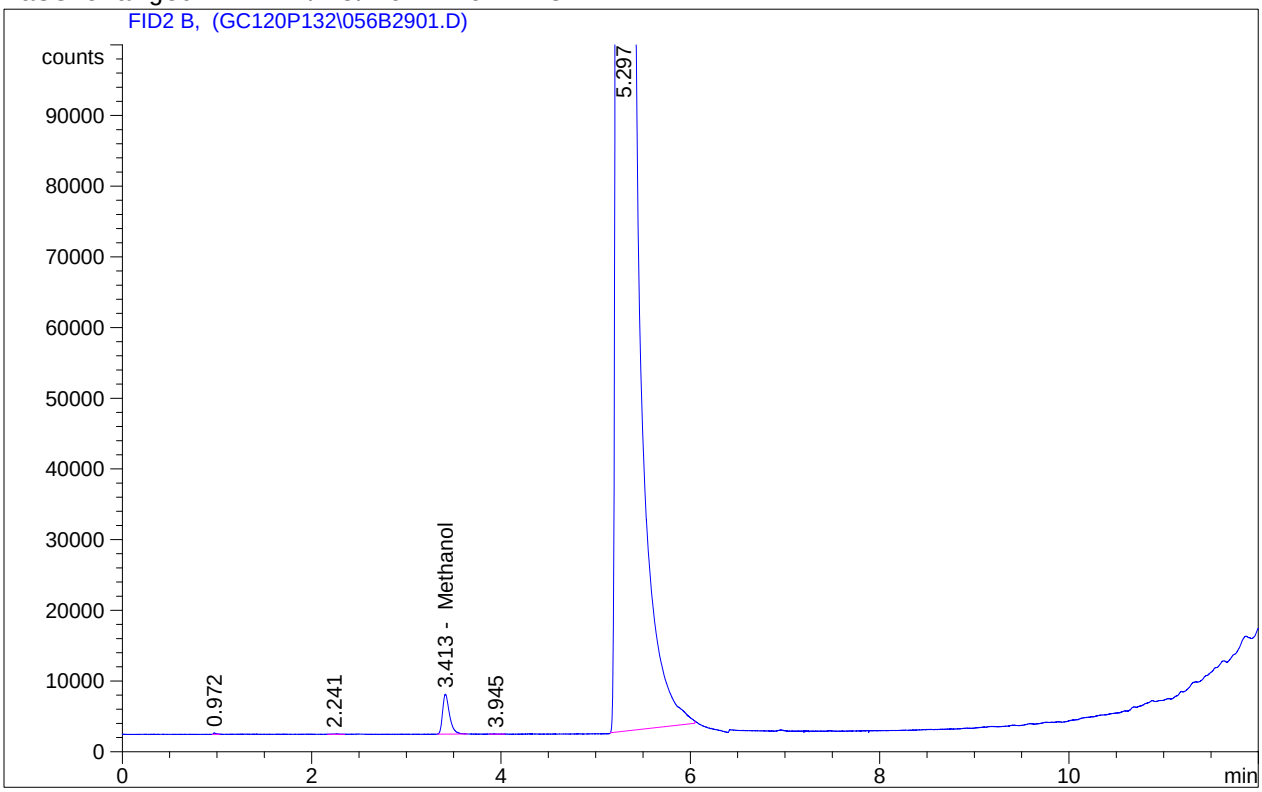
Totals :                               275.06082



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\056B2901.D
Sample Name: gc120p132 #3ssp

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  29
Acq. Instrument : Penn online                     Location : Vial 56
Injection Date  : 7/14/2011 5:02:08 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:08:57 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.413 BB     2.86453e4  1.35812e-3   38.90384    Methanol

Totals :                               38.90384

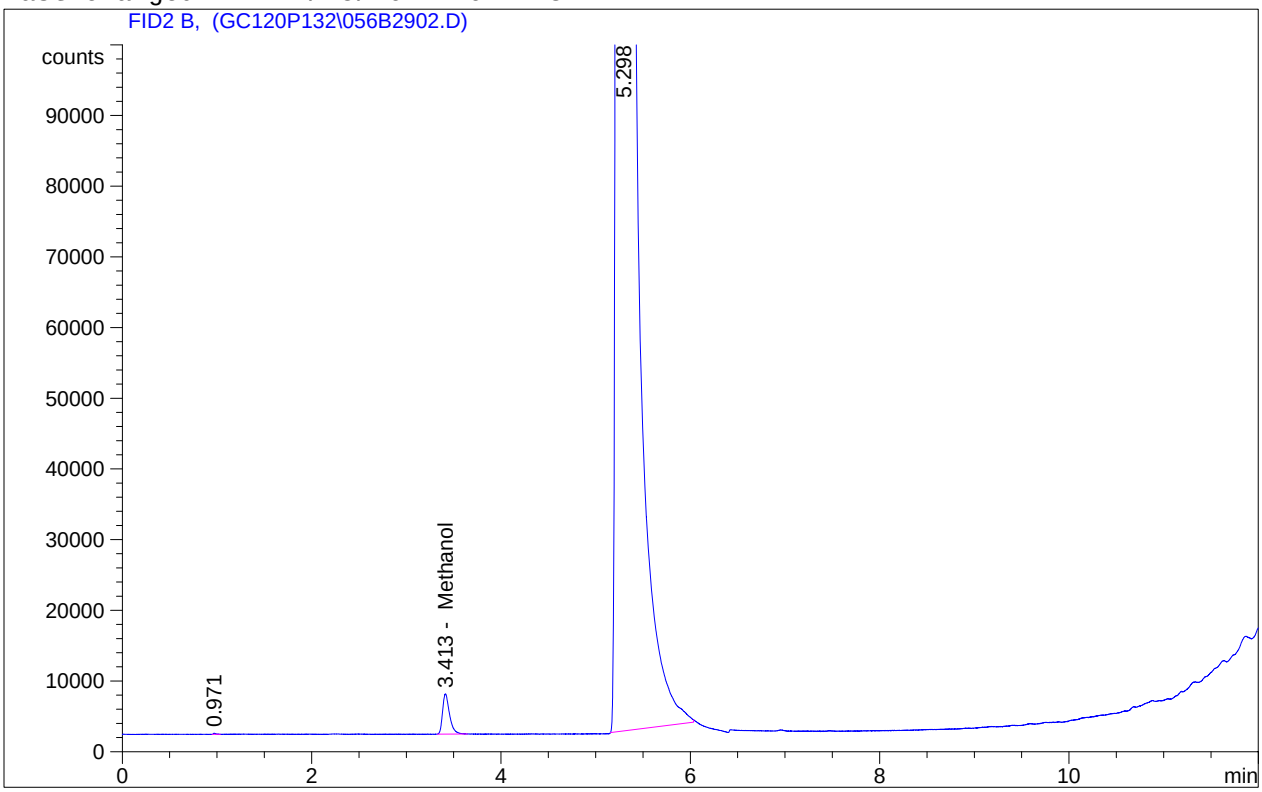


Signal 2: FID1 A,    not found
```

tag value 39.3 ug/ml

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\056B2902.D
Sample Name: gc120p132 #3ssp

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  29
Acq. Instrument : Penn online                     Location : Vial 56
Injection Date  : 7/14/2011 5:23:08 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:08:57 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.413 BB     2.90398e4  1.35818e-3   39.44119    Methanol    tag value 39.3 ug/ml

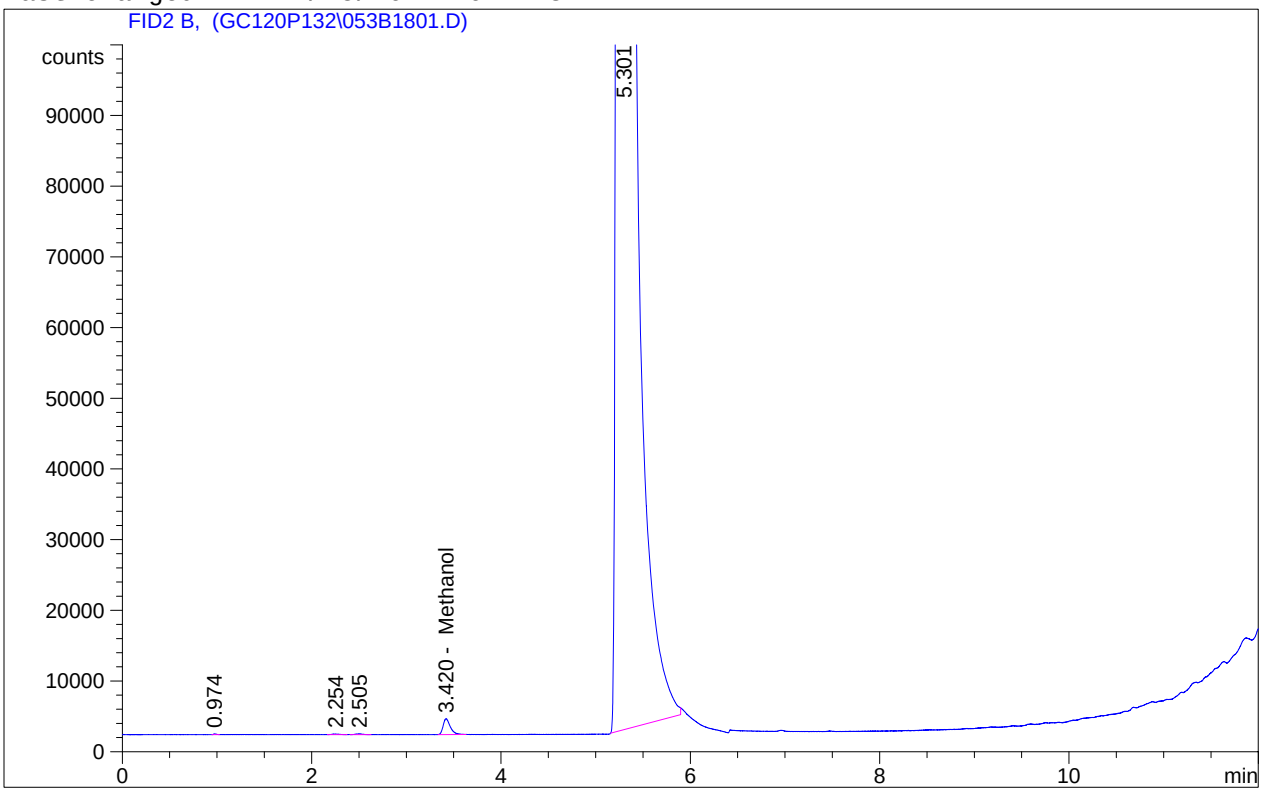
Totals :                               39.44119



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\053B1801.D
Sample Name: gc120p132 #3p

```
==========================================================================
Acq. Operator   : KMT/CLD                       Seq. Line :  18
Acq. Instrument : Penn online                    Location : Vial 53
Injection Date  : 7/14/2011 9:15:41 AM                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.420 BB     1.16426e4  1.35220e-3   15.74305    Methanol

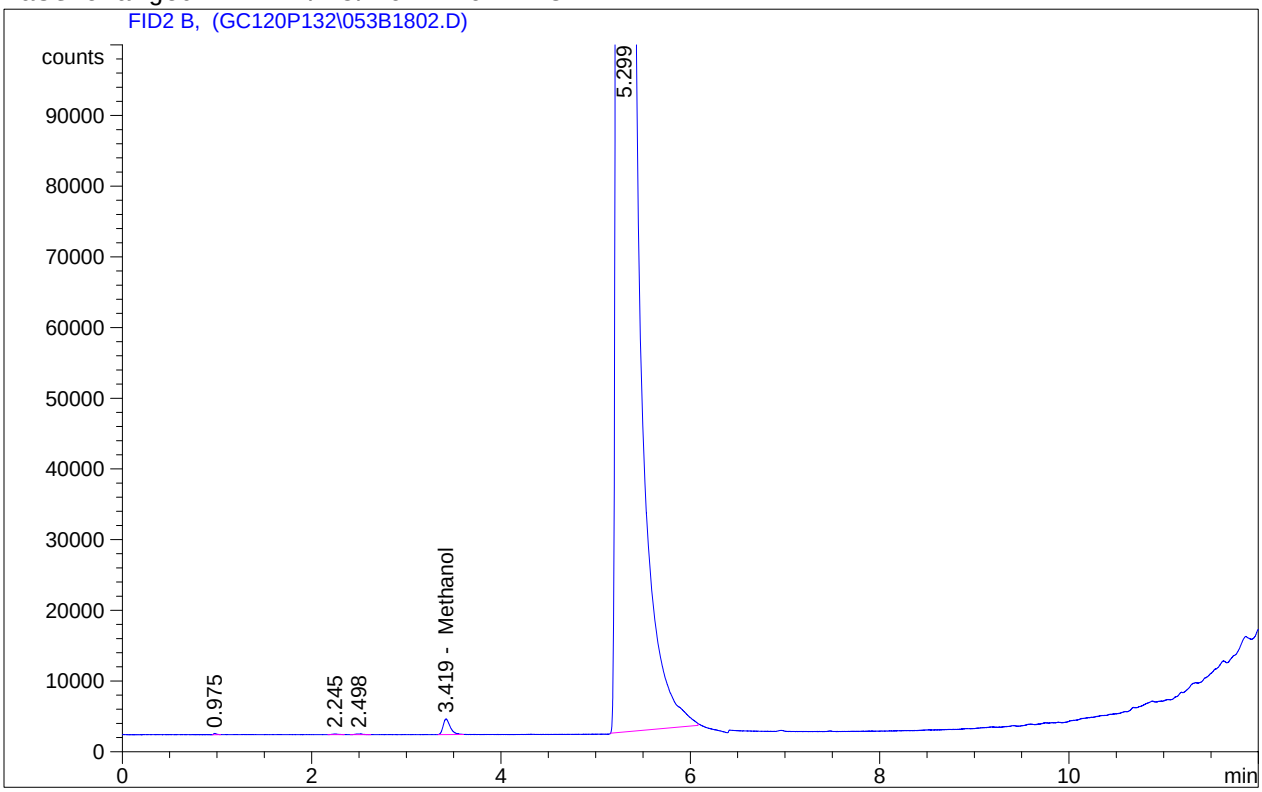
Totals :                               15.74305



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\053B1802.D
Sample Name: gc120p132 #3p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  18
Acq. Instrument : Penn online                     Location : Vial 53
Injection Date  : 7/14/2011 9:36:59 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.419 BB     1.13517e4  1.35194e-3   15.34682    Methanol

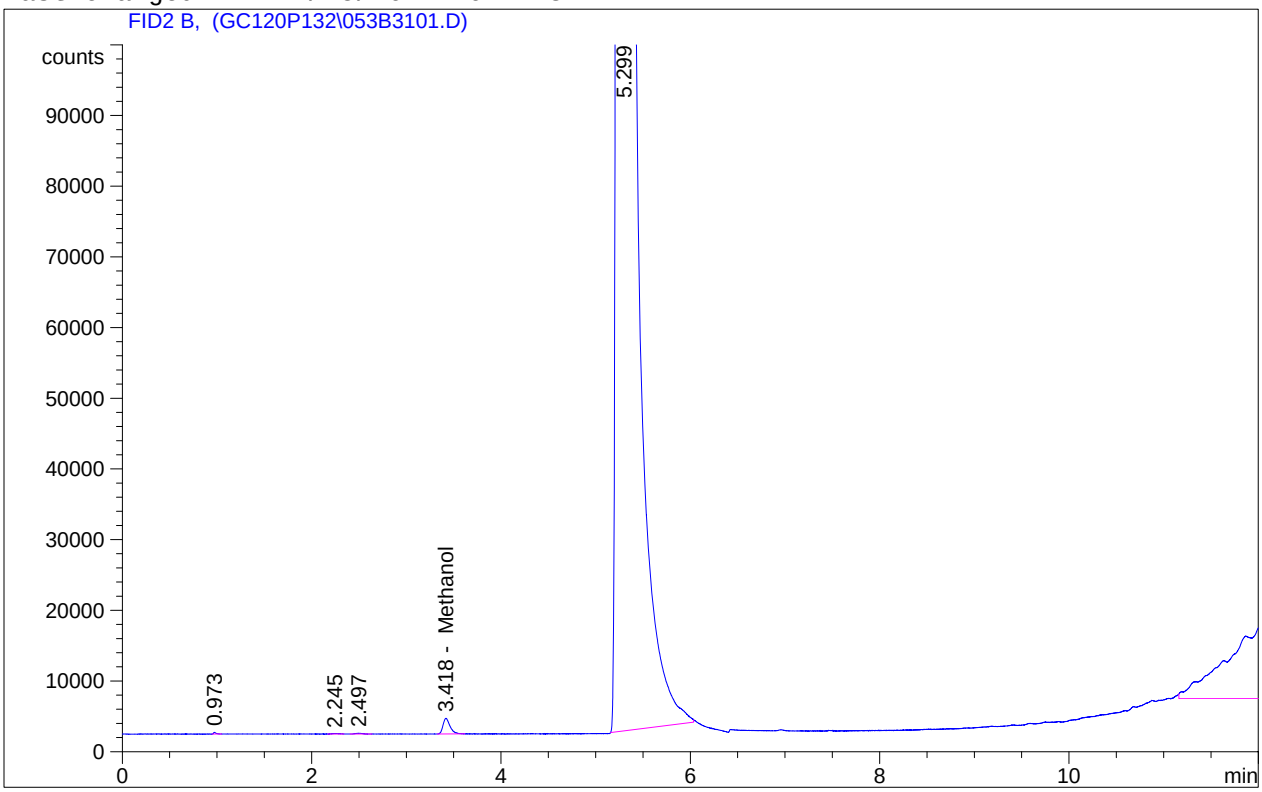
Totals :                               15.34682



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\053B3101.D
Sample Name: gc120p132 #3p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  31
Acq. Instrument : Penn online                     Location : Vial 53
Injection Date  : 7/14/2011 6:46:56 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:08:57 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.418 BB     1.13341e4  1.35193e-3   15.32293    Methanol

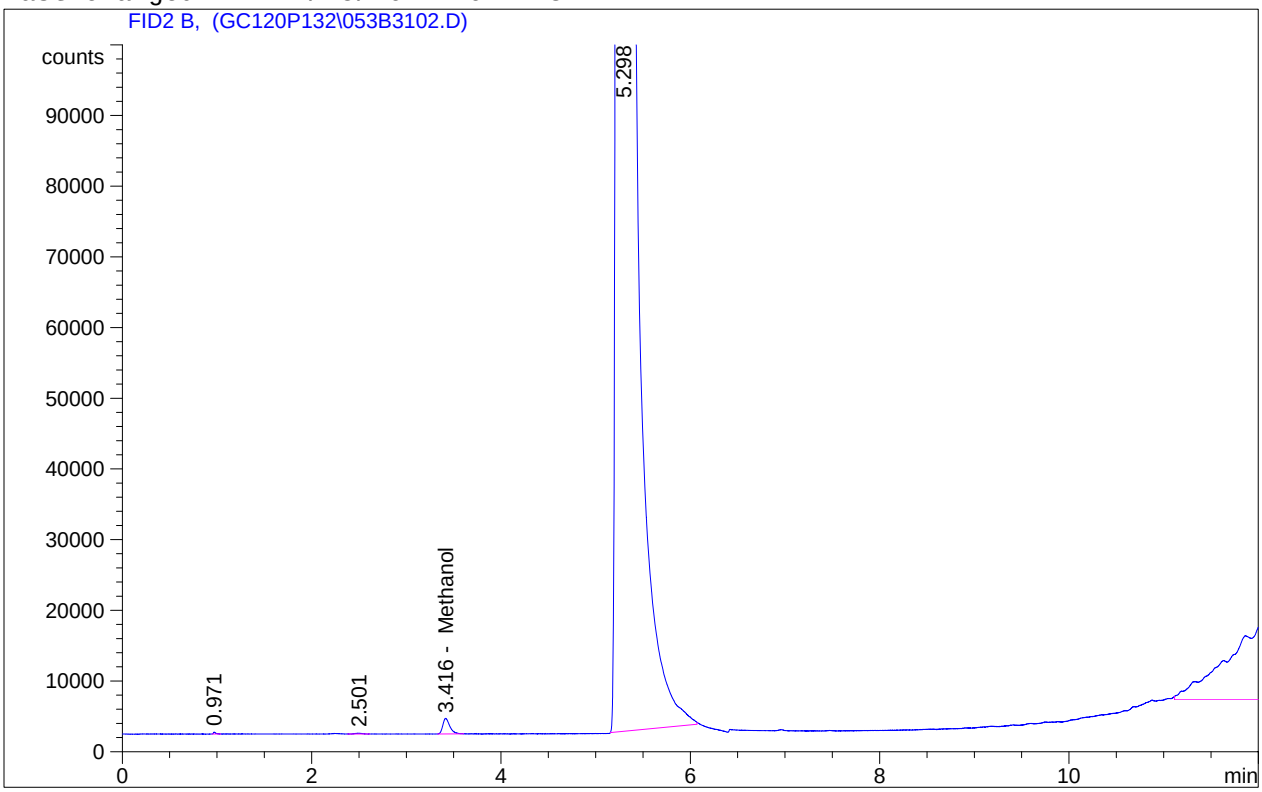
Totals :                                15.32293



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\053B3102.D
Sample Name: gc120p132 #3p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  31
Acq. Instrument : Penn online                     Location : Vial 53
Injection Date  : 7/14/2011 7:07:47 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:08:57 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.416 BB     1.12172e4  1.35182e-3   15.16370    Methanol

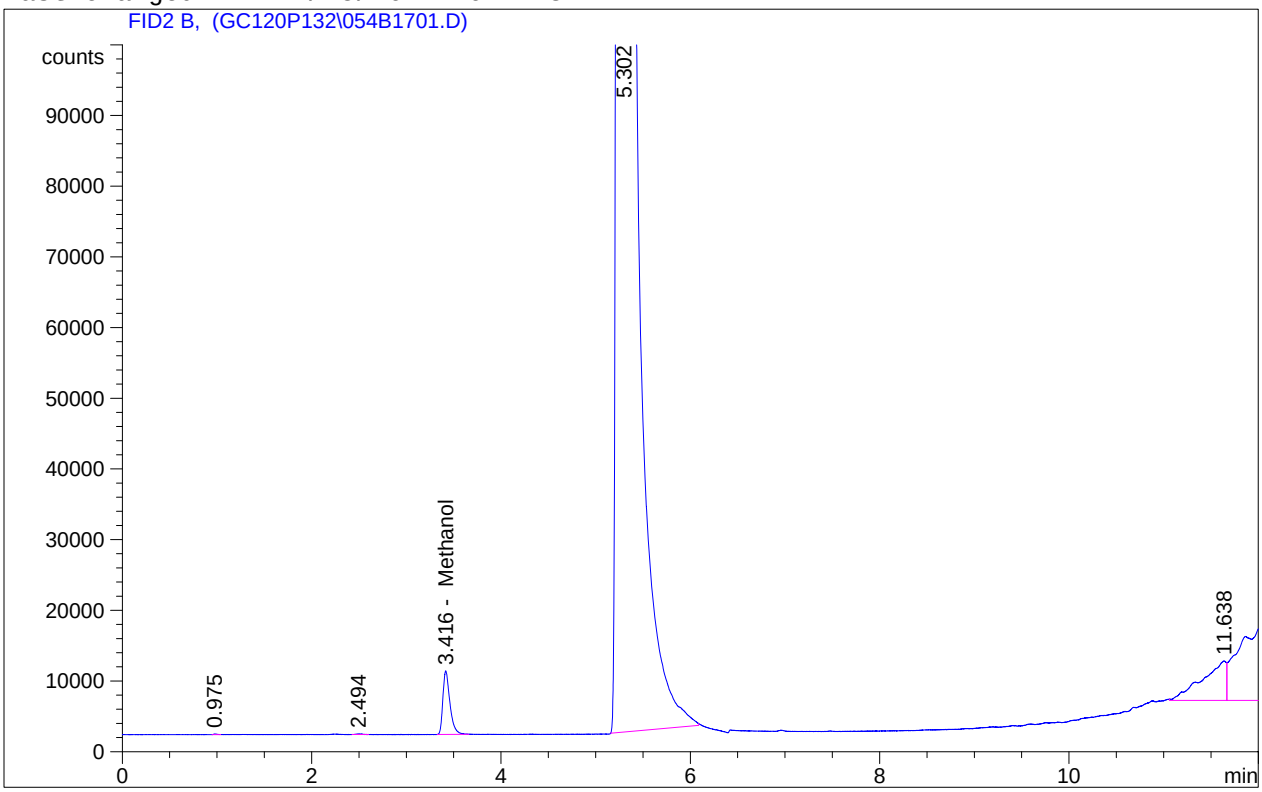
Totals :                               15.16370



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\054B1701.D
Sample Name: gc120p132 #4p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  17
Acq. Instrument : Penn online                     Location : Vial 54
Injection Date  : 7/14/2011 8:33:19 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.416 BB     4.64195e4  1.35967e-3   63.11541    Methanol

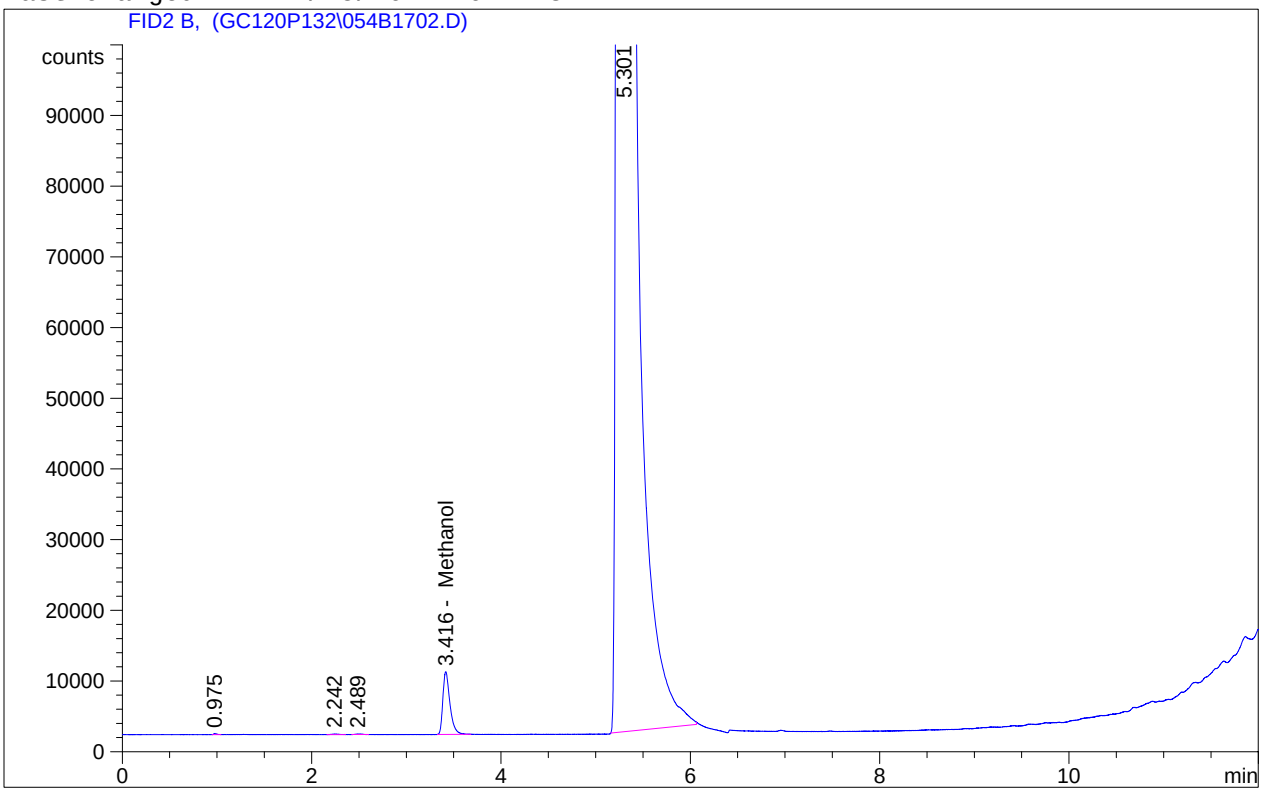
Totals :                               63.11541



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\054B1702.D
Sample Name: gc120p132 #4p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  17
Acq. Instrument : Penn online                     Location : Vial 54
Injection Date  : 7/14/2011 8:54:36 AM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/13/2011 3:39:30 PM by KMT/CLD
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.416 BB     4.60156e4  1.35965e-3   62.56514    Methanol

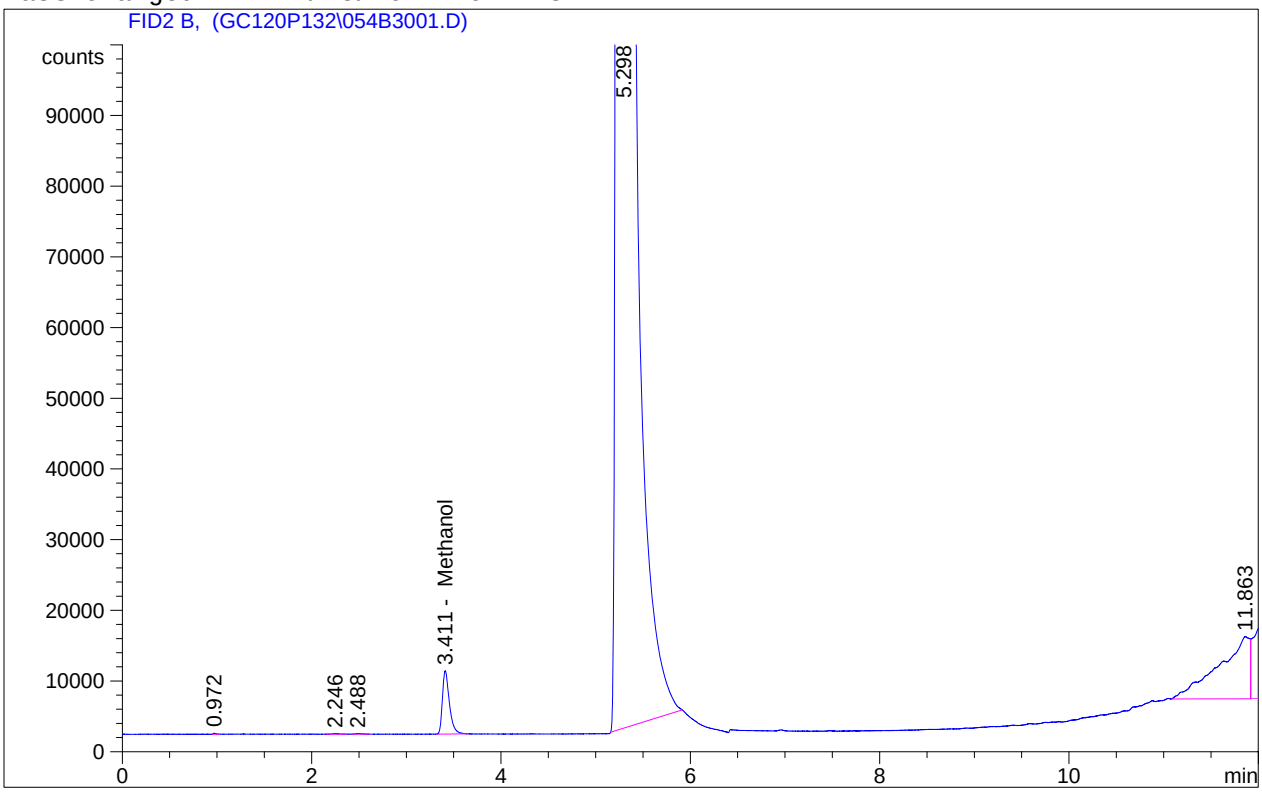
Totals :                               62.56514



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\054B3001.D
Sample Name: gc120p132 #4p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  30
Acq. Instrument : Penn online                     Location : Vial 54
Injection Date  : 7/14/2011 6:05:08 PM                 Inj :   1
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:08:57 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.411 BB     4.57184e4  1.35964e-3   62.16041    Methanol

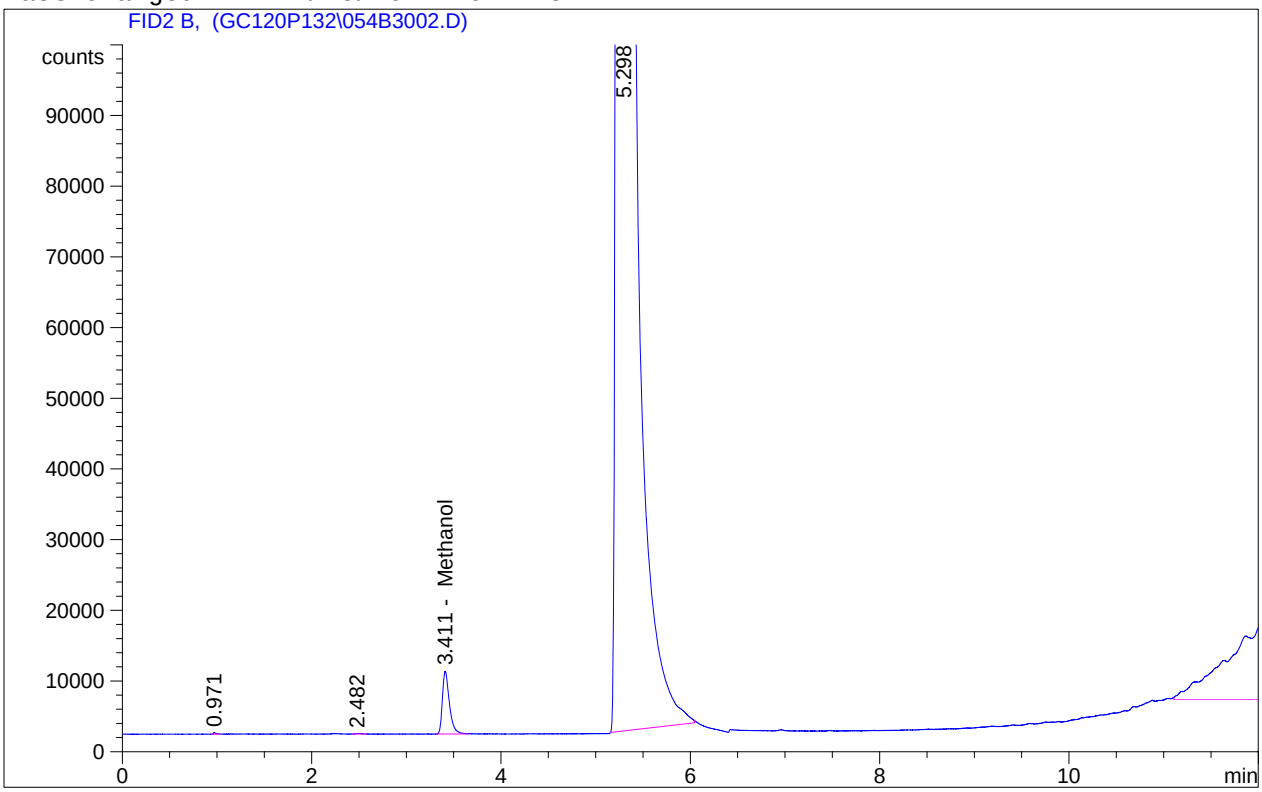
Totals :                               62.16041



Signal 2: FID1 A,    not found
```

Data File G:\GC2011Q3\PENN\DATA\JUL11\GC120P132\054B3002.D
Sample Name: gc120p132 #4p

```
==========================================================================
Acq. Operator   : KMT/CLD                        Seq. Line :  30
Acq. Instrument : Penn online                     Location : Vial 54
Injection Date  : 7/14/2011 6:26:00 PM                 Inj :   2
                                                 Inj Volume : 1 µl
Sequence File   : G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S
Acq. Method     : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/14/2011 3:08:57 PM by JBB
Analysis Method : G:\GC2011Q3\PENN\METHODS\GC120P132.M
Last changed    : 7/15/2011 10:27:34 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Thursday, July 14, 2011 3:08:44 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B,

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         counts*s                [µg/mL]
-------|------|----------|----------|----------|--|------------------
  3.411 BV     4.56325e4  1.35963e-3   62.04333    Methanol

Totals :                               62.04333



Signal 2: FID1 A,    not found
```

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
1	Vial 6	gc120p132 #6	GC120P132	3	Sample	
2	Vial 5	gc120p132 #5	GC120P132	3	Sample	
3	Vial 4	gc120p132 #4	GC120P132	3	Sample	
4	Vial 3	gc120p132 #3	GC120P132	3	Sample	
5	Vial 2	gc120p132 #2	GC120P132	3	Sample	
6	Vial 1	gc120p132 #1	GC120P132	8	Sample	
7	Vial 7	gc120p132 #3ss	GC120P132	3	Sample	
8	Vial 8	Lab Blank H2O	GC120P132	3	Sample	
9	Vial 9	stk-icr1-m308-condA 0611-22	GC120P132	2	Sample	
10	Vial 10	stk-icr1-m308-condB 0611-22	GC120P132	2	Sample	
11	Vial 11	stk-icr2-m308-condA 0611-22	GC120P132	2	Sample	
12	Vial 12	stk-icr2-m308-condA-LD 0611-22	GC120P132	2	Sample	
13	Vial 13	stk-icr2-m308-condB 0611-22	GC120P132	2	Sample	
14	Vial 14	stk-icr3-m308-condA 0611-22	GC120P132	2	Sample	
15	Vial 15	stk-icr3-m308-condB 0611-22	GC120P132	2	Sample	
16	Vial 16	stk-icrH2O rb-m308 0611-22	GC120P132	2	Sample	
17	Vial 17	m308-H2OLB 0611-22	GC120P132	2	Sample	
18	Vial 4	gc120p132 #4	GC120P132	2	Sample	
19	Vial 3	gc120p132 #3	GC120P132	2	Sample	
20	Vial 18	860 ttu-r1 0711-44	GC120P132	2	Sample	
21	Vial 19	860 ttu-r2 0711-44	GC120P132	2	Sample	
22	Vial 20	860 ttu-r3 0711-44	GC120P132	2	Sample	
23	Vial 21	860 ttu-r3-ld 0711-44	GC120P132	2	Sample	

Sequence: G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S

Line	Location	SampleName DataFile	LimsID	Method	Inj	SampleType	InjVolume
24	Vial 22	H2O-fb 0711-44		GC120P132	2	Sample	
25	Vial 23	H2O lb 0711-44		GC120P132	2	Sample	
26	Vial 4	gc120p132 #4		GC120P132	2	Sample	
27	Vial 3	gc120p132 #3		GC120P132	2	Sample	
28	none	NA		GC120P132	2	Sample	
29	none	NA		GC120P132	2	Sample	
30	none	NA		GC120P132	2	Sample	
31	none	NA		GC120P132	2	Sample	

Sequence Table (Back Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile	LimsID	Method	Inj	SampleType	InjVolume
1	Vial 55	gc120p132 #5p		GC120P132	3	Sample	
2	Vial 54	gc120p132 #4p		GC120P132	3	Sample	
3	Vial 53	gc120p132 #3p		GC120P132	3	Sample	
4	Vial 52	gc120p132 #2p		GC120P132	3	Sample	
5	Vial 51	gc120p132 #1p		GC120P132	8	Sample	
6	Vial 56	gc120p132 #3ssp		GC120P132	3	Sample	
7	Vial 57	lab blank 3%		GC120P132	3	Sample	
8	Vial 58	stk-icr1-m308-silica -fh 0611-22		GC120P132	2	Sample	
9	Vial 59	stk-icr1-m308-silica -bh 0611-22		GC120P132	2	Sample	
10	Vial 60	stk-icr2-m308-silica -fh 0611-22		GC120P132	2	Sample	
11	Vial 61	stk-icr2-m308-silica -fh-ld 0611-22		GC120P132	2	Sample	
12	Vial 62	stk-icr2-m308-silica -bh 0611-22		GC120P132	2	Sample	
13	Vial 63	stk-icr3-m308-silica -fh 0611-22		GC120P132	2	Sample	
14	Vial 64	stk-icr3-m308-silica -bh 0611-22		GC120P132	2	Sample	

Sequence: G:\GC2011Q3\PENN\SEQUENCE\GC120P132.S

Line	Location	SampleName	Method	Inj	SampleType	InjVolume
		DataFile	LimsID			
15	Vial 65	stk-icr-m308-silica-fb 0611-22	GC120P132	2	Sample	
16	Vial 66	m308-silica-lb 0611-22	GC120P132	2	Sample	
17	Vial 54	gc120p132 #4p	GC120P132	2	Sample	
18	Vial 53	gc120p132 #3p	GC120P132	2	Sample	
19	Vial 67	m308-silica-lcs 0611-22	GC120P132	2	Sample	
20	Vial 68	m308-r1-si-gel-fh 0611-12	GC120P132	2	Sample	
21	Vial 69	m308-r1-si-gel-fh-ld 0611-12	GC120P132	2	Sample	
22	Vial 70	m308-r1-si-gel-bh 0611-12	GC120P132	2	Sample	
23	Vial 71	m308-r2-si-gel-fh 0611-12	GC120P132	2	Sample	
24	Vial 72	m308-r2-si-gel-bh 0611-12	GC120P132	2	Sample	
25	Vial 73	m308-r3-si-gel-fh 0611-12	GC120P132	2	Sample	
26	Vial 74	m308-r3-si-gel-bh 0611-12	GC120P132	2	Sample	
27	Vial 75	m308-lb 0611-12	GC120P132	2	Sample	
28	Vial 76	m308-lcs 0611-12	GC120P132	2	Sample	
29	Vial 56	gc120p132 #3ssp	GC120P132	3	Sample	
30	Vial 54	gc120p132 #4p	GC120P132	2	Sample	
31	Vial 53	gc120p132 #3p	GC120P132	2	Sample	

method: G:\GC2011Q3\PENN\METHODS\GC120P132.M
Modified on: 7/14/2011 at 3:08:57 PM

OVEN\DET

Runtime (min): 13.5

Zone Temperatures:

	State	Setpoint
Inl. A	ON	225 C.
Inl. B	ON	225 C.
Det. A	ON	300 C.
Det. B	ON	300 C.
Aux.	OFF	50 C.

Oven Zone:

Oven max	250 C.
Equib Time	2.00 Min.
Oven State	ON
Cryo State	OFF
Ambient	25 C.
Cryo Blast	OFF

Oven Program:

	Setpoint
Initial Temp.:	40 C.
Initial Time:	1.00 Min.

Level	Rate (C/min.)	Final Temp.(C)	Final Time (min)
1	10.0	90	0.50
2(A)	25.0	240	1.00

InletA Pressure Program Information

Constant Flow:	On
Pressure:	2.0 psi
Temperature:	35 C

Pressure Program:

	Setpoint
Initial Pres.:	0.0 psi
Initial Time:	650.00 min.

Level	Rate (psi/min.)	Final Pres.(psi)	Final Time (min)
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00

Total Program Time: 650.00

GC Pressure Units:psi

Entered Values:

Column Length:	30.00	m.
Column Diameter:	0.530	mm.
Gas:	H2	
Vacuum Comp:	Off	

InletB Pressure Program Information

Constant Flow: On

method: G:\GC2011Q3\PENN\METHODS\GC120P132.M
Modified on: 7/14/2011 at 3:08:57 PM
Pressure: 2.0 psi
Temperature: 35 C.
Pressure Program:

	Setpoint
Initial Pres.:	0.0 psi
Initial Time:	650.00 min.

Level	Rate (psi/min.)	Final Pres.(psi)	Final Time (min)
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00

Total Program Time: 650.00

GC Pressure Units:psi

Entered Values:

Column Length:	30.00	m.
Column Diameter:	0.530	mm.
Gas:	H2	
Vacuum Comp:	Off	

Inlet A Packed Column Information

Equation:---

Pressure-Flow Relationship:

	Pres.	Flow(psi) (ml/min)
1	---	0.0
2	---	0.0
3	---	0.0

Last pressure calibration:---

Packed Column Flow Setting (ml/min):0.0

Inlet B Packed Column Information

Equation:---

Pressure-Flow Relationship:

	Pres.	Flow(psi) (ml/min)
1	---	0.0
2	---	0.0
3	---	0.0

Last pressure calibration:---

Packed Column Flow Setting (ml/min):0.0

Purge Valve Settings

Purge A/B

	Init Value	On Time (Min.)	Off Time (Min.)
A (Valve 3)	On	0.00	100.00
B (Valve 4)	On	0.00	100.00

A - Splitless Injection: No
B - Splitless Injection: No

Valves/Relays Information

Initial Setpoints:
5890 Valves:
Valve 1: Off
Valve 2: Off

method: G:\GC2011Q3\PENN\METHODS\GC120P132.M
Modified on: 7/14/2011 at 3:08:57 PM

Valve 3 (Purge A):	On
Valve 4 (Purge B):	On

Detector Information

Detector A:

Type	FID
State	ON

Detector B:

Type	FID
State	ON

Signal Information

Save Data:	Both

Signal 1:

Signal	Det. A
Data rate	20.000 Hz.
Peakwidth	0.013 min.
Start Time	0.00 min.
Stop Time	650.00 min.

Signal 2:

Signal	Det. B
Data rate	20.000 Hz.
Peakwidth	0.013 min.
Start Time	0.00 min.
Stop Time	650.00 min.

This Is The Last Page Of This Report.

Appendix H

Report for PCDDs/PCDFs and PCBs Analysis

H1G050439 Analytical Report 1

Sample Receipt Documentation 55

Trace Level Organics -SW846 0023A/8290 65
Raw Sample Data 66
Standards Data 295
Initial Calibration 091210iepa.pdf 296
Continuing Calibration 110714s3.pdf 544
Continuing Calibration 110714w1.pdf 577
Continuing Calibration 110714s4.pdf 622
Continuing Calibration 110714s5.pdf 656
Continuing Calibration 110714w2.pdf 689
Continuing Calibration 110715s1.pdf 738
Continuing Calibration 110715w1.pdf 771
Continuing Calibration 110715s2.pdf 817
Raw QC Data 853
Miscellaneous Data 953

Trace Level Organics - EPA-22 1668A 962
Raw Sample Data 963
Standards Data 1243
Raw QC Data 3051
Initial Calibration 080624iepa.pdf 1244
Continuing Calibration 110713s1.pdf 2874
Miscellaneous Data 3367

Sample Receipt Documentation 3377

Total Number of Pages 3386

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 40942312

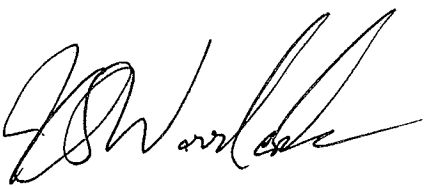
Chevron - M23

Lot #: H1G050439

Chris Weber

URS Corporation
9400 Amberglen Boulevard
Austin, TX 78729

TESTAMERICA LABORATORIES, INC.



Kevin S. Woodcock
Project Manager

July 18, 2011

ANALYTICAL METHODS SUMMARY

H1G050439

PARAMETER	ANALYTICAL METHOD
PCBs, HRGC/HRMS	EPA-22 1668A
0023A Airtrains 8290	SW846 0023A/8290

References:

EPA-22 "METHOD 1668, REVISION A: CHLORINATED BIPHENYL CONGENERS IN WATER, SOIL, SEDIMENT, AND TISSUE BY HRGC/HRMS" EPA-821-R-00-002 12/99

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

H1G050439

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MKM55	001	CHV-STK-ICR1-M23-COMBINED	06/22/11	16:36
MKM6A	003	CHV-STK-ICR2-M23-COMBINED	06/23/11	13:06
MKM6F	005	CHV-STK-ICR3-M23-COMBINED	06/27/11	13:38
MKM6M	007	CHV-STK-ICRFB-M23-COMBINED	06/26/11	11:35
MKM60	015	A-6443,A-6444 MEDIA CHECK	06/22/11	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

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The original chain of custody documentation is included with this report.

Sample Receipt

The temperature of one cooler was outside of temperature specifications at 27 °C. The following samples were affected: CHV-Stk-ICR2-M23+-ImpsA and CHV-Stk-ICR3-M23+-Imps A.

All samples were received on 7/2/11 except CHV-Stk-ICR2-M23+-ImpsA and CHV-Stk-ICR3-M23+-Imps A, which were received on 7/5/11.

Custody seals were not present.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

Trace Level Organics – Method SW846 0023A/8290

Samples CHV-STK-ICR2-M23-COMBINED and CHV-STK-ICRFB-M23-COMBINED were diluted 2-fold due to sample matrix interferences which made it impossible for the HR instrument to obtain the MID 4 lock mass during the undiluted analyses.

Dioxins/Furans

The following flags are used to qualify results for chlorinated dioxin and furan results:

> **J** – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report, the ML is qualitatively defined as described above, and quantitatively defined as follows:

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Minimum Level: The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the Upper Calibration Level (UCL) described below. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example: The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this example, all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a detectable level. For this analysis, there is no method specified reporting level other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of $\geq$2.5 to 1. Therefore, the presence of any reportable amount of the analyte in the blank will result in a B qualifier on all associated samples.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. These criteria include the following:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio).
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).

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- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer.

X – Other. See explanation in narrative.

Laboratory studies supporting risk assessment and Total Maximum Daily Load (TMDL) evaluations, frequently use qualified data reported as low as the Method Detection Limit (MDL), or the Estimated Detection Limit (EDL). Several of EPA's isotope dilution methods employ the EDL.[1,2,3] The EDL is based on a direct measurement of the signal-to-noise (S/N) ratio acquired during sample analysis. This S/N measurement is used to calculate the concentration in the sample corresponding to the minimum intensity of the smallest quantifiable peak. The EDL reflects the amount of the particular analyte which would be required to cause a positive result for the particular analysis. Because the S/N obtained covaries with recovery, instrument sensitivity and sample-specific cleanup efficacy, the EDL is a more valid measure of the sensitivity of the entire analytical process for the specific sample than is an MDL run periodically on a reference matrix.

The EDL is typically calculated according to the following equation:

$$\text{Estimated Detection Limit} = \frac{N \times 2.5 \times Qis}{His \times RRF \times W \times S}$$

Where:

N	=	peak to peak noise of quantitation ion signal in the region of the ion chromatogram where the compound of interest is expected to elute
His	=	peak height of quantitation ion for appropriate internal standard
Qis	=	ng of internal standard added to sample
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

(The area of the internal standard is sometimes used instead of height, along with an area-to-height conversion factor.)

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This method of estimating the detection limit differs from the MDL in that it does not carry the requirement that the sample be statistically distinguished as being from a contaminated population. As results approach the EDL, the risk of false positives and the analytical uncertainty increase significantly. However, a low false positive well below the ML or MDL is often closer to the true value than an assumption that the target analyte is present at the detection or reporting limits. For relatively clean samples, MDL studies may give an elevated estimate of the detection limit. Additionally, on contaminated samples, the MDL may give a falsely low estimate of the detection limit.

$$\text{Analyte Concentration} = \frac{As \times Qis}{Ais \times RRF \times W \times S}$$

Where:

As	=	Sum of areas of the target peaks
Qis	=	ng of internal standard added to sample
Ais	=	Sum of areas of the internal standard peaks
RRF	=	mean relative response factor of compound obtained during initial calibration
W	=	amount of sample extracted (grams or liters)
S	=	percent solids (optional, if results are requested to be reported on dry weight basis)

In sample data, peaks must have an intensity of $\geq$2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 times the noise on the calibration. This is the result of normal variability. Because the source methods for the EDL (SW-846 8290 and 8280A) do not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

Footnotes:

1. Code of Federal Regulations, Part 136, Chapter 1, Appendix 1, October 1994: Method 1613 Tetra- Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution High Resolution Gas Chromatography/High Resolution Mass Spectrometry.
2. U.S. EPA. Test Methods for Evaluating Solid Waste, Volume II, SW-846, Update III, December 1996. Method 8280A: The Analysis of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/Low Resolution Mass Spectrometry.
3. U.S. EPA. Test Methods for Evaluating Solid Waste, SW-846. Third Edition. March 1995 Method 8290: Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

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Trace Level Organics –Method EPA-22 1668A

Nomenclature – The standardization strategy described in this report uses the naming convention of SW-846 Method 8290. This convention differs from Method 1668 in the following manner:

Standard Addition Occurs Prior to:	Method 1668	SW-846 Conventions Used in this Report
Sampling	None	Sampling Surrogate
Extraction	Labeled Toxics/LOC/Window Defining	Internal Standard
Cleanups	Labeled Cleanup Standard	Cleanup Standard*
Injection	Labeled Injection Internal Standard	Recovery Standard

* Cleanup Standard is also referred to as Surrogate Standard on report.

The shorthand notation used for congeners in this report is summarized in Table 2.

Qualifiers – The following flags are used to qualify results for HRMS PCB results:

J – The reported result is an estimate. The amount reported is below the Estimated Minimum Level (EML). EML is defined by the method as the lowest concentration at which an analyte can be measured reliably with common laboratory interferences present. This value has been determined for each congener by MDL and laboratory method blank studies. The value is adjusted to reflect sample specific initial and final volumes.

E – The reported result is an estimate. The amount reported is above the UCL described below.

The E qualifier is applied on the basis of the **Upper Calibration Level (UCL)**. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

B – The analyte is present in the associated method blank at a reportable level. For this analysis, there is no method specified reporting level, other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of 2.5-to-1. Therefore, the presence of any amount of the analyte present in the blank will result a B qualifier on all associated samples.

Note: Some laboratories do not report contamination in the blank unless it is above their lower calibration limit, or an established percentage of the level in the samples, or an established percentage of the regulatory limit. Likewise, some laboratories set a reporting

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limit at one half the lower calibration limit.

Q – Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. The criteria include the following areas:

- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio.)
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.

S – Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity, due to a matrix-borne interference.

C – Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer. When the C flag is followed by a number, the number indicates the lowest numbered congener among the coelution set. For example, if 100 pg/L is detected at the retention time of PCB 156, and PCB 157 is known to coelute with PCB 156, the results will be flagged as follows:

PCB 156 100 pg/L C

PCB 157 100 pg/L C156

In certain electronic deliverables the result field for PCB 157 will be null, with "C156" appearing in the qualifier field in accordance with the CARP EDD specification.

X – Other. See explanation in narrative.

Results – The results for the analyses are summarized in the following pages. Please see comments regarding qualifiers, above. Additional information regarding qualifiers is explained in the legends at the end of each result summary. A summary of the shorthand conventions used in this report is provided in Table 2.

Detection Limits – For all analyte results a sample specific detection limit is calculated for that analyte. This is done by first determining the GC/MS peak height of the noise or interferent in the expected region of the analyte signal. This value is multiplied by the number 2.5, which serves as a safety factor. The 2.5 safety factor is disregarded if the noise present in the analyte region is a result of chemical interferences. The resulting signal response value is then used to estimate the minimum detectable analyte amount. The result is the estimated sample detection limit.

When an analyte is not detected, an ND appears in place of the result. The value in the detection limit column is the estimated detection limit for the analyte in that particular sample.

EXAMPLE CALCULATIONS

The following formulas were used for sample calculations. Examples are given for calculating

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the percent recovery for internal standard $^{13}C_{12}$-PCB 1, the concentration of native PCB 1 and the EDL for PCB 1. All values used in the calculations below are typical (i.e. not extracted from a particular sample). Actual values are found on the IsoCalc Preliminary Sample Report (IPSR) at the position indicated (in parentheses, below):

INTERNAL STANDARD RECOVERY ($^{13}C_{12}$-PCB 1)

$$\text{Percent Recovery} = \frac{\Sigma A_{IS} \bullet W_{RS} \bullet 100\%}{\Sigma A_{RS} \bullet W_{IS} \bullet RRF}$$

ΣA_{IS} = Sum of areas for the Internal Standard quantitation ions. (IPSR – Column "Area", Row "13C12-PCB 1")

W_{RS} = Mass in ng of the Recovery Standard. (IPSR – Column "Std Amt", Row "13C12-PCB 9")

ΣA_{RS} = Sum of areas for the Recovery Standard quantitation ions. (IPSR – Column "Area", Row "13C12-PCB 9")

W_{IS} = Mass in ng of the Internal Standard. (IPSR – Column "Std Amt", Row "13C12-PCB 1")

RRF = Internal Standard mean relative response factor from the initial multipoint calibration. (IPSR - Column "RF", Row "13C12-PCB 1".)

Substituting typical values , $\frac{1106275 \bullet 2.000\ (ng) \bullet 100\%}{1205581 \bullet 2.000\ (ng) \bullet 1.412}$ = 65% Recovery

NATIVE ANALYTE QUANTITATION (PCB 1)

$$\text{Conc} = \frac{\Sigma A_X \bullet W_{IS}}{\Sigma A_{IS} \bullet V \bullet 0.001\ (mL/L) \bullet RRF}$$

ΣA_X = Sum of areas for analyte quantitation ions. (IPSR – Area Column "Area", Row "PCB 1")

W_{IS} = Mass in ng of Internal Standard. (IPSR – Column "Std Amt", Row "13C12-PCB 1")

ΣA_{IS} = Sum areas for the Internal Standard. (IPSR – Column "Area", Row 13C12-PCB 1)

V = Volume of sample extracted in mL. (IPSR – Header Column 2, Row "Initial Wt/Vol")

RRF = Native analyte mean relative response factor from the initial calibration, or daily response factor as appropriate. (IPSR – Column "RF", Row "PCB 1")

Substituting typical values, $\frac{8951 \bullet 2.000\ (ng)}{1106275 \bullet 2200\ (mL) \bullet 0.001\ (mL/L) \bullet 1.136}$ = 0.00647 ng/L = 6.47 pg/L

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CALCULATION OF SAMPLE SPECIFIC ESTIMATED DETECTION LIMIT

This calculation uses the noise values found on the IsoCalc Preliminary Peak Report (IPPR), which follows the IPSR. All the other values used in the equation are found on the IPSR.)

$$\frac{\Sigma I_X \bullet W_{IS} \bullet T_{SN}}{\Sigma I_{IS} \bullet V \bullet 0.001\ (mL/L) \bullet RRF}$$

ΣI_X = Sum of the intensities of the noise levels of the characteristic ions in the region of analyte elution. (IPPR – Columns "Height1" and "Height2", Row {mass} 188, Sub-Row "Noise").

W_{IS} = Mass in ng of the Internal Standard. (IPSR – Column "Std Amt", Row "13C12-PCB 1").

T_{SN} = Minimum Signal-to-Noise threshold. = 2.5. A constant, specified by the method.

ΣI_{IS} = Intensity of the corresponding ^{13}C ions. (IPSR – Column "Height", Row "13C12-PCB 9")

V = Volume of sample extracted in mL. (IPSR – Header Column 2, Row "Initial Wt/Vol")

RRF = Native analyte mean relative response factor from the initial calibration or daily standard as appropriate. (IPSR – Column "RF", Row "PCB 1")

Substituting typical values $\frac{79 \bullet 2000\ (pg) \bullet 2.5}{334600 \bullet 2200\ (mL) \bullet 0.001\ (mL/L) \bullet 1.136} = 0.466\ pg/L$

In sample data, peaks must have an intensity of 2.5 times the height of the background noise in order to be considered. Careful examination of the two equations above, and a bit of algebra reveals that for the concentration of the smallest peak detectable (per the EDL equation) to exactly equal the smallest peaks that are calculated, requires that the average height to area ratio obtained during the calibration must equal the area to height ratio for every peak obtained near 2.5 times the noise. When the area to height ratio on a peak in a sample is less than the average obtained during calibration, the calculated result will correspond to a peak that would have been less than 2.5 X the noise on the calibration. This is the result of normal variability. Because the source method for the EDL (EPA 1668) does not provide for censoring of results by any other magnitude standard than being 2.5 times the noise, the laboratory does not censor at the calculated EDL. Hence, detections may be reported below the estimated detection limits.

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Table 1							
Concentration of PCBs in Calibration Solutions							
		CS 0.5	CS 1	CS 2	CS 3[2]	CS 4	CS 5
Analyte Type	BZ/IUPAC[1]	ng/mL	ng/mL	ng/mL	ng/mL	ng/mL	ng/mL
Congeners							
2-MoCB	1	0.5	1.0	5.0	50	400	2000
4-MoCB	3	0.5	1.0	5.0	50	400	2000
2,2'-DiCB	4	0.5	1.0	5.0	50	400	2000
4,4'-DiCB	15	0.5	1.0	5.0	50	400	2000
2,2',6'-TrCB	19	0.5	1.0	5.0	50	400	2000
3,4,4'-TrCB	37	0.5	1.0	5.0	50	400	2000
2,2',6,6'-TeCB	54	0.5	1.0	5.0	50	400	2000
3,3',4,4'-TeCB	77	0.5	1.0	5.0	50	400	2000
3,4,4',5-TeCB	81	0.5	1.0	5.0	50	400	2000
2,2',4,6,6'-PeCB	104	0.5	1.0	5.0	50	400	2000
2,3,3',4,4'-PeCB	105	0.5	1.0	5.0	50	400	2000
2,3,4,4',5-PeCB	114	0.5	1.0	5.0	50	400	2000
2,3',4,4',5-PeCB	118	0.5	1.0	5.0	50	400	2000
2',3,4,4',5-PeCB	123	0.5	1.0	5.0	50	400	2000
3,3',4,4',5-PeCB	126	0.5	1.0	5.0	50	400	2000
2,2',4,4',6,6'-HxCB	155	0.5	1.0	5.0	50	400	2000
2,3,3',4,4',5-HxCB	156	0.5	1.0	5.0	50	400	2000
2,3,3',4,4',5'-HxCB	157	0.5	1.0	5.0	50	400	2000
2,3',4,4',5,5'-HxCB	167	0.5	1.0	5.0	50	400	2000
3,3',4,4',5,5'-HxCB	169	0.5	1.0	5.0	50	400	2000
2,2',3,4',5,6,6'-HpCB	188	0.5	1.0	5.0	50	400	2000
2,3,3',4,4',5,5'-HpCB	189	0.5	1.0	5.0	50	400	2000
2,2',3,3',5,5',6,6'-OcCB	202	0.5	1.0	5.0	50	400	2000
2,3,3',4,4',5,5',6-OcCB	205	0.5	1.0	5.0	50	400	2000
2,2',3,3',4,4',5,5',6-NoCB	206	0.5	1.0	5.0	50	400	2000
2,2',3,3',4',5,5',6,6'-NoCB	208	0.5	1.0	5.0	50	400	2000
DeCB	209	0.5	1.0	5.0	50	400	2000
All other CB congeners		0.5	1.0	5.0	50	400	2000
Labeled Congeners							
$^{13}C_{12}$-2-MoCB	1L	100	100	100	100	100	100
$^{13}C_{12}$-4-MoCB	3L	100	100	100	100	100	100
$^{13}C_{12}$-2,2'-DiCB	4L	100	100	100	100	100	100
$^{13}C_{12}$-4,4'-DiCB	15L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',6-TrCB	19L	100	100	100	100	100	100
$^{13}C_{12}$-3,4,4'-TrCB	37L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',6,6'-TeCB	54L	100	100	100	100	100	100
$^{13}C_{12}$-3,3',4,4'-TeCB	77L	100	100	100	100	100	100
$^{13}C_{12}$-3,4,4',5-TeCB	81L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',4,6,6'-PeCB	104L	100	100	100	100	100	100
$^{13}C_{12}$-2,3,3',4,4'-PeCB	105L	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,4',5-PeCB	114L	100	100	100	100	100	100
$^{13}C_{12}$-2,3',4,4',5-PeCB	118L	100	100	100	100	100	100
$^{13}C_{12}$-2',3,4,4',5-PeCB	123L	100	100	100	100	100	100
$^{13}C_{12}$-3,3',4,4',5-PeCB	126L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',4,4',6,6'-HxCB	155L	100	100	100	100	100	100
$^{13}C_{12}$-2,3,3',4,4',5-HxCB	156L	100	100	100	100	100	100
$^{13}C_{12}$-2,3,3',4,4',5'-HxCB	157L	100	100	100	100	100	100
$^{13}C_{12}$-2,3',4,4',5,5'-HxCB	167L	100	100	100	100	100	100
$^{13}C_{12}$-3,3',4,4',5,5'-HxCB	169L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',3,3',4,4',5-HpCB	170L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',3,4',5,6,6'-HpCB	188L	100	100	100	100	100	100
$^{13}C_{12}$-2,3,3',4,4',5,5'-HpCB	189L	100	100	100	100	100	100

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Table 1							
Concentration of PCBs in Calibration Solutions							
		CS 0.5	CS 1	CS 2	CS 3[2]	CS 4	CS 5
Analyte Type	BZ/IUPAC[1]	ng/mL	ng/mL	ng/mL	ng/mL	ng/mL	ng/mL
$^{13}C_{12}$-2,2',3,3',5,5',6,6'-OcCB	202L	100	100	100	100	100	100
$^{13}C_{12}$-2,3,3',4,4',5,5',6-OcCB	205L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',3,3',4,4',5,5',6-NoCB	206L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',3,3',4',5,5',6,6'-NoCB	208L	100	100	100	100	100	100
$^{13}C_{12}$-DeCB	209L	100	100	100	100	100	100
Cleanup Standards							
$^{13}C_{12}$-2,4,4'-TriCB	28L	0.5	1.0	5.0	50	400	--
$^{13}C_{12}$-2,3,3',5,5'-PeCB	111L	0.5	1.0	5.0	50	400	--
$^{13}C_{12}$-2,2',3,3',5,5',6-HpCB	178L	0.5	1.0	5.0	50	400	--
Recovery Standards							
$^{13}C_{12}$-2,5-DiCB	9L	100	100	100	100	100	100
$^{13}C_{12}$-2,4',5-TriCB	31L	100	100	100	100	100	100
$^{13}C_{12}$-2,4',6-TriCB	32L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',5,5'-TeCB	52L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',4',5,5'-PeCB	101L	100	100	100	100	100	100
$^{13}C_{12}$-3,3',4,5,5'-PeCB	127L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',3',4,4',5'-HxCB	138L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',3,4,4',5,5'-HpCB	180L	100	100	100	100	100	100
$^{13}C_{12}$-2,2',3,3',4,4',5,5'-OcCB	194L	100	100	100	100	100	100
Labeled Sampling Surrogates							
$^{13}C_{12}$-2,4'-DiCB	8L	0.5	1.0	5.0	50	400	--
$^{13}C_{12}$-3,3',4,5'-TeCB	79L	0.5	1.0	5.0	50	400	--
$^{13}C_{12}$-2,2',3,5',6-PeCB	95L	0.5	1.0	5.0	50	400	--
$^{13}C_{12}$-2,2',4,4',5,5'-HxCB	153L	0.5	1.0	5.0	50	400	--

1. Suffix "L" indicates labeled compound.
2. Calibration verification solution.

Table 2					
PCB Shorthand Nomenclature[4] Used in this Report					
BZ/IUPAC Number[1].	PCB Chemical Structure Name[2]	CAS Registry[3] Number	BZ/IUPAC Number[1].	PCB Chemical Structure Name[2]	CAS Registry[3] Number
1	2-monochlorobiphenyl	2051-60-7	106	2,3,3',4,5-pentachlorobiphenyl	70424-69-0
2	3-monochlorobiphenyl	2051-61-8	107/109	2,3,3',4',5-pentachlorobiphenyl	70424-68-9
3	4-monochlorobiphenyl	2051-62-9	108/107	2,3,3',4,5'-pentachlorobiphenyl	70362-41-3
4	2,2'-dichlorobiphenyl	13029-08-8	109/108	2,3,3',4,6-pentachlorobiphenyl	74472-35-8
5	2,3-dichlorobiphenyl	16605-91-7	110	2,3,3',4',6-pentachlorobiphenyl	38380-03-9
6	2,3'-dichlorobiphenyl	25569-80-6	111	2,3,3',5,5'-pentachlorobiphenyl	39635-32-0
7	2,4-dichlorobiphenyl	33284-50-3	112	2,3,3',5,6-pentachlorobiphenyl	74472-36-9
8	2,4'-dichlorobiphenyl	34883-43-7	113	2,3,3',5',6-pentachlorobiphenyl	68194-10-5
9	2,5-dichlorobiphenyl	34883-39-1	114	2,3,4,4',5-pentachlorobiphenyl	74472-37-0
10	2,6-dichlorobiphenyl	33146-45-1	115	2,3,4,4',6-pentachlorobiphenyl	74472-38-1
11	3,3'-dichlorobiphenyl	2050-67-1	116	2,3,4,5,6-pentachlorobiphenyl	18259-05-7
12	3,4-dichlorobiphenyl	2974-92-7	117	2,3,4',5,6-pentachlorobiphenyl	68194-11-6
13	3,4'-dichlorobiphenyl	2974-90-5	118	2,3',4,4',5-pentachlorobiphenyl	31508-00-6
14	3,5-dichlorobiphenyl	34883-41-5	119	2,3',4,4',6-pentachlorobiphenyl	56558-17-9
15	4,4'-dichlorobiphenyl	2050-68-2	120	2,3',4,5,5'-pentachlorobiphenyl	68194-12-7
16	2,2',3-trichlorobiphenyl	38444-78-9	121	2,3',4,5',6-pentachlorobiphenyl	56558-18-0
17	2,2',4-trichlorobiphenyl	37680-66-3	122	2',3,3',4,5-pentachlorobiphenyl (2,3,3',4',5'-pentachlorobiphenyl)	76842-07-4

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Table 2					
PCB Shorthand Nomenclature[4] Used in this Report					
BZ/IUPAC Number[1].	PCB Chemical Structure Name[2]	CAS Registry[3] Number	BZ/IUPAC Number[1].	PCB Chemical Structure Name[2]	CAS Registry[3] Number
18	2,2',5-trichlorobiphenyl	37680-65-2	123	2',3,4,4',5-pentachlorobiphenyl (2,3',4,4',5'-pentachlorobiphenyl)	65510-44-3
19	2,2',6-trichlorobiphenyl	38444-73-4	124	2',3,4,5,5'-pentachlorobiphenyl (2,3',4',5',5-pentachlorobiphenyl)	70424-70-3
20	2,3,3'-trichlorobiphenyl	38444-84-7	125	2',3,4,5,6'-pentachlorobiphenyl (2,3',4',5',6-pentachlorobiphenyl)	74472-39-2
21	2,3,4-trichlorobiphenyl	55702-46-0	126	3,3',4,4',5-pentachlorobiphenyl	57465-28-8
22	2,3,4'-trichlorobiphenyl	38444-85-8	127	3,3',4,5,5'-pentachlorobiphenyl	39635-33-1
23	2,3,5-trichlorobiphenyl	55720-44-0	128	2,2',3,3',4,4'-hexachlorobiphenyl	38380-07-3
24	2,3,6-trichlorobiphenyl	55702-45-9	129	2,2',3,3',4,5-hexachlorobiphenyl	55215-18-4
25	2,3',4-trichlorobiphenyl	55712-37-3	130	2,2',3,3',4,5'-hexachlorobiphenyl	52663-66-8
26	2,3',5-trichlorobiphenyl	38444-81-4	131	2,2',3,3',4,6-hexachlorobiphenyl	61798-70-7
27	2,3',6-trichlorobiphenyl	38444-76-7	132	2,2',3,3',4,6'-hexachlorobiphenyl	38380-05-1
28	2,4,4'-trichlorobiphenyl	7012-37-5	133	2,2',3,3',5,5'-hexachlorobiphenyl	35694-04-3
29	2,4,5-trichlorobiphenyl	15862-07-4	134	2,2',3,3',5,6-hexachlorobiphenyl	52704-70-8
30	2,4,6-trichlorobiphenyl	35693-92-6	135	2,2',3,3',5,6'-hexachlorobiphenyl	52744-13-5
31	2,4',5-trichlorobiphenyl	16606-02-3	136	2,2',3,3',6,6'-hexachlorobiphenyl	38411-22-2
32	2,4',6-trichlorobiphenyl	38444-77-8	137	2,2',3,4,4',5-hexachlorobiphenyl	35694-06-5
33	2',3,4-trichlorobiphenyl (2,3',4'-trichlorobiphenyl)	38444-86-9	138	2,2',3,4,4',5'-hexachlorobiphenyl	35065-28-2
34	2',3,5-trichlorobiphenyl (2,3',5'-trichlorobiphenyl)	37680-68-5	139	2,2',3,4,4',6-hexachlorobiphenyl	56030-56-9
35	3,3',4-trichlorobiphenyl	37680-69-6	140	2,2',3,4,4',6'-hexachlorobiphenyl	59291-64-4
36	3,3',5-trichlorobiphenyl	38444-87-0	141	2,2',3,4,5,5'-hexachlorobiphenyl	52712-04-6
37	3,4,4'-trichlorobiphenyl	38444-90-5	142	2,2',3,4,5,6-hexachlorobiphenyl	41411-61-4
38	3,4,5-trichlorobiphenyl	53555-66-1	143	2,2',3,4,5,6'-hexachlorobiphenyl	68194-15-0
39	3,4',5-trichlorobiphenyl	38444-88-1	144	2,2',3,4,5',6-hexachlorobiphenyl	68194-14-9
40	2,2',3,3'-tetrachlorobiphenyl	38444-93-8	145	2,2',3,4,6,6'-hexachlorobiphenyl	74472-40-5
41	2,2',3,4-tetrachlorobiphenyl	52663-59-9	146	2,2',3,4',5,5'-hexachlorobiphenyl	51908-16-8
42	2,2',3,4'-tetrachlorobiphenyl	36559-22-5	147	2,2',3,4',5,6-hexachlorobiphenyl	68194-13-8
43	2,2',3,5-tetrachlorobiphenyl	70362-46-8	148	2,2',3,4',5,6'-hexachlorobiphenyl	74472-41-6
44	2,2',3,5'-tetrachlorobiphenyl	41464-39-5	149	2,2',3,4',5',6-hexachlorobiphenyl	38380-04-0
45	2,2',3,6-tetrachlorobiphenyl	70362-45-7	150	2,2',3,4',6,6'-hexachlorobiphenyl	68194-08-1
46	2,2',3,6'-tetrachlorobiphenyl	41464-47-5	151	2,2',3,5,5',6-hexachlorobiphenyl	52663-63-5
47	2,2',4,4'-tetrachlorobiphenyl	2437-79-8	152	2,2',3,5,6,6'-hexachlorobiphenyl	68194-09-2
48	2,2',4,5-tetrachlorobiphenyl	70362-47-9	153	2,2',4,4',5,5'-hexachlorobiphenyl	35065-27-1
49	2,2',4,5'-tetrachlorobiphenyl	41464-40-8	154	2,2',4,4',5,6'-hexachlorobiphenyl	60145-22-4
50	2,2',4,6-tetrachlorobiphenyl	62796-65-0	155	2,2',4,4',6,6'-hexachlorobiphenyl	33979-03-2
51	2,2',4,6'-tetrachlorobiphenyl	68194-04-7	156	2,3,3',4,4',5-hexachlorobiphenyl	38380-08-4
52	2,2',5,5'-tetrachlorobiphenyl	35693-99-3	157	2,3,3',4,4',5'-hexachlorobiphenyl	69782-90-7
53	2,2',5,6'-tetrachlorobiphenyl	41464-41-9	158	2,3,3',4,4',6-hexachlorobiphenyl	74472-42-7
54	2,2',6,6'-tetrachlorobiphenyl	15968-05-5	159	2,3,3',4,5,5'-hexachlorobiphenyl	39635-35-3
55	2,3,3',4-tetrachlorobiphenyl	74338-24-2	160	2,3,3',4,5,6-hexachlorobiphenyl	41411-62-5
56	2,3,3',4'-tetrachlorobiphenyl	41464-43-1	161	2,3,3',4,5',6-hexachlorobiphenyl	74472-43-8
57	2,3,3',5-tetrachlorobiphenyl	70424-67-8	162	2,3,3',4',5,5'-hexachlorobiphenyl	39635-34-2
58	2,3,3',5'-tetrachlorobiphenyl	41464-49-7	163	2,3,3',4',5,6-hexachlorobiphenyl	74472-44-9
59	2,3,3',6-tetrachlorobiphenyl	74472-33-6	164	2,3,3',4',5',6-hexachlorobiphenyl	74472-45-0
60	2,3,4,4'-tetrachlorobiphenyl	33025-41-1	165	2,3,3',5,5',6-hexachlorobiphenyl	74472-46-1
61	2,3,4,5-tetrachlorobiphenyl	33284-53-6	166	2,3,4,4',5,6-hexachlorobiphenyl	41411-63-6
62	2,3,4,6-tetrachlorobiphenyl	54230-22-7	167	2,3',4,4',5,5'-hexachlorobiphenyl	52663-72-6
63	2,3,4',5-tetrachlorobiphenyl	74472-34-7	168	2,3',4,4',5',6-hexachlorobiphenyl	59291-65-5

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Table 2					
PCB Shorthand Nomenclature[4] Used in this Report					
BZ/IUPAC Number[1].	PCB Chemical Structure Name[2]	CAS Registry[3] Number	BZ/IUPAC Number[1].	PCB Chemical Structure Name[2]	CAS Registry[3] Number
64	2,3,4',6-tetrachlorobiphenyl	52663-58-8	169	3,3',4,4',5,5'-hexachlorobiphenyl	32774-16-6
65	2,3,5,6-tetrachlorobiphenyl	33284-54-7	170	2,2',3,3',4,4',5-heptachlorobiphenyl	35065-30-6
66	2,3',4,4'-tetrachlorobiphenyl	32598-10-0	171	2,2',3,3',4,4',6-heptachlorobiphenyl	52663-71-5
67	2,3',4,5-tetrachlorobiphenyl	73575-53-8	172	2,2',3,3',4,5,5'-heptachlorobiphenyl	52663-74-8
68	2,3',4,5'-tetrachlorobiphenyl	73575-52-7	173	2,2',3,3',4,5,6-heptachlorobiphenyl	68194-16-1
69	2,3',4,6-tetrachlorobiphenyl	60233-24-1	174	2,2',3,3',4,5,6'-heptachlorobiphenyl	38411-25-5
70	2,3',4',5-tetrachlorobiphenyl	32598-11-1	175	2,2',3,3',4,5',6-heptachlorobiphenyl	40186-70-7
71	2,3',4',6-tetrachlorobiphenyl	41464-46-4	176	2,2',3,3',4,6,6'-heptachlorobiphenyl	52663-65-7
72	2,3',5,5'-tetrachlorobiphenyl	41464-42-0	177	2,2',3,3',4',5,6-heptachlorobiphenyl (2,2',3,3',4,5',6'-heptachlorobiphenyl)	52663-70-4
73	2,3',5',6-tetrachlorobiphenyl	74338-23-1	178	2,2',3,3',5,5',6-heptachlorobiphenyl	52663-67-9
74	2,4,4',5-tetrachlorobiphenyl	32690-93-0	179	2,2',3,3',5,6,6'-heptachlorobiphenyl	52663-64-6
75	2,4,4',6-tetrachlorobiphenyl	32598-12-2	180	2,2',3,4,4',5,5'-heptachlorobiphenyl	35065-29-3
76	2',3,4,5-tetrachlorobiphenyl (2,3',4',5'-tetrachlorobiphenyl)	70362-48-0	181	2,2',3,4,4',5,6-heptachlorobiphenyl	74472-47-2
77	3,3',4,4'-tetrachlorobiphenyl	32598-13-3	182	2,2',3,4,4',5,6'-heptachlorobiphenyl	60145-23-5
78	3,3',4,5-tetrachlorobiphenyl	70362-49-1	183	2,2',3,4,4',5',6-heptachlorobiphenyl	52663-69-1
79	3,3',4,5'-tetrachlorobiphenyl	41464-48-6	184	2,2',3,4,4',6,6'-heptachlorobiphenyl	74472-48-3
80	3,3',5,5'-tetrachlorobiphenyl	33284-52-5	185	2,2',3,4,5,5',6-heptachlorobiphenyl	52712-05-7
81	3,4,4',5-tetrachlorobiphenyl	70362-50-4	186	2,2',3,4,5,6,6'-heptachlorobiphenyl	74472-49-4
82	2,2',3,3',4-pentachlorobiphenyl	52663-62-4	187	2,2',3,4',5,5',6-heptachlorobiphenyl	52663-68-0
83	2,2',3,3',5-pentachlorobiphenyl	60145-20-2	188	2,2',3,4',5,6,6'-heptachlorobiphenyl	74487-85-7
84	2,2',3,3',6-pentachlorobiphenyl	52663-60-2	189	2,3,3',4,4',5,5'-heptachlorobiphenyl	39635-31-9
85	2,2',3,4,4'-pentachlorobiphenyl	65510-45-4	190	2,3,3',4,4',5,6-heptachlorobiphenyl	41411-64-7
86	2,2',3,4,5-pentachlorobiphenyl	55312-69-1	191	2,3,3',4,4',5',6-heptachlorobiphenyl	74472-50-7
87	2,2',3,4,5'-pentachlorobiphenyl	38380-02-8	192	2,3,3',4,5,5',6-heptachlorobiphenyl	74472-51-8
88	2,2',3,4,6-pentachlorobiphenyl	55215-17-3	193	2,3,3',4',5,5',6-heptachlorobiphenyl	69782-91-8
89	2,2',3,4,6'-pentachlorobiphenyl	73575-57-2	194	2,2',3,3',4,4',5,5'-octachlorobiphenyl	35694-08-7
90	2,2',3,4',5-pentachlorobiphenyl	68194-07-0	195	2,2',3,3',4,4',5,6-octachlorobiphenyl	52663-78-2
91	2,2',3,4',6-pentachlorobiphenyl	68194-05-8	196	2,2',3,3',4,4',5,6'-octachlorobiphenyl	42740-50-1
92	2,2',3,5,5'-pentachlorobiphenyl	52663-61-3	197	2,2',3,3',4,4',6,6'-octachlorobiphenyl	33091-17-7
93	2,2',3,5,6-pentachlorobiphenyl	73575-56-1	198	2,2',3,3',4,5,5',6-octachlorobiphenyl	68194-17-2
94	2,2',3,5,6'-pentachlorobiphenyl	73575-55-0	199/200	2,2',3,3',4,5,6,6'-octachlorobiphenyl	52663-73-7
95	2,2',3,5',6-pentachlorobiphenyl	38379-99-6	200/201	2,2',3,3',4,5',6,6'-octachlorobiphenyl	40186-71-8
96	2,2',3,6,6'-pentachlorobiphenyl	73575-54-9	201/199	2,2',3,3',4,5,5',6'-octachlorobiphenyl	52663-75-9
97	2,2',3',4,5-pentachlorobiphenyl (2,2',3,4',5'-pentachlorobiphenyl)	41464-51-1	202	2,2',3,3',5,5',6,6'-octachlorobiphenyl	2136-99-4
98	2,2',3',4,6-pentachlorobiphenyl (2,2',3,4',6'-pentachlorobiphenyl)	60233-25-2	203	2,2',3,4,4',5,5',6-octachlorobiphenyl	52663-76-0
99	2,2',4,4',5-pentachlorobiphenyl	38380-01-7	204	2,2',3,4,4',5,6,6'-octachlorobiphenyl	74472-52-9
100	2,2',4,4',6-pentachlorobiphenyl	39485-83-1	205	2,3,3',4,4',5,5',6-octachlorobiphenyl	74472-53-0
101	2,2',4,5,5'-pentachlorobiphenyl	37680-73-2	206	2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	40186-72-9
102	2,2',4,5,6-pentachlorobiphenyl	68194-06-9	207	2,2',3,3',4,4',5,6,6'-nonachlorobiphenyl	52663-79-3
103	2,2',4,5',6-pentachlorobiphenyl	60145-21-3	208	2,2',3,3',4,5,5',6,6'-nonachlorobiphenyl	52663-77-1
104	2,2',4,6,6'-pentachlorobiphenyl	56558-16-8	209	2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	2051-24-3
105	2,3,3',4,4'-pentachlorobiphenyl	32598-14-4			

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1. The BZ number is from Ballschmiter and Zell (1980). The IUPAC number, when different from the BZ, follows the recommended changes to the BZ number per Schulte and Malisch (1983) and Guitart et al. (1993).
2. The chemical structure names are from Ballschmiter and Zell (1980). IUPAC nomenclature structure names are listed in parenthesis when different from the BZ name (source CAS Registry).
3. Chemical Abstract Service Registry number (source CAS Registry and 1668 Table 1).
4. A complete discussion of PCB Nomenclature may be found in Mills III, S.A. et al., A summary of the 209 PCB congener nomenclature, Chemosphere (2007), doi:10.1016/j.chemosphere.2007.03.052.

QC DATA ASSOCIATION SUMMARY

H1G050439

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AIR	EPA-22 1668A		1187028	
	AIR	SW846 0023A/8290		1187027	
003	AIR	EPA-22 1668A		1187028	
	AIR	SW846 0023A/8290		1187027	
005	AIR	EPA-22 1668A		1187028	
	AIR	SW846 0023A/8290		1187027	
007	AIR	EPA-22 1668A		1187028	
	AIR	SW846 0023A/8290		1187027	
015	AIR	EPA-22 1668A		1187028	
	AIR	SW846 0023A/8290		1187027	

Sample Data Summary

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AA	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		20	5.9	pg/sample
Total TCDD	**6.4**	**J**	**20**	**5.9**	**pg/sample**
1,2,3,7,8-PeCDD	ND		100	2.8	pg/sample
Total PeCDD	**2.1**	**Q J**	**100**	**2.8**	**pg/sample**
1,2,3,4,7,8-HxCDD	ND		100	2.7	pg/sample
1,2,3,6,7,8-HxCDD	ND		100	2.7	pg/sample
1,2,3,7,8,9-HxCDD	ND		100	2.7	pg/sample
Total HxCDD	**18**	**Q J**	**100**	**2.7**	**pg/sample**
1,2,3,4,6,7,8-HpCDD	**5.6**	**Q J**	**100**	**3.8**	**pg/sample**
Total HpCDD	**5.6**	**Q J**	**100**	**3.8**	**pg/sample**
OCDD	**47**	**J**	**200**	**3.2**	**pg/sample**
2,3,7,8-TCDF	ND		20	3.7	pg/sample
Total TCDF	ND		20	3.7	pg/sample
1,2,3,7,8-PeCDF	ND		100	2.1	pg/sample
2,3,4,7,8-PeCDF	ND		100	2.2	pg/sample
Total PeCDF	**9.6**	**Q J**	**100**	**2.1**	**pg/sample**
1,2,3,4,7,8-HxCDF	**6.3**	**J**	**100**	**1.4**	**pg/sample**
1,2,3,6,7,8-HxCDF	**2.9**	**Q J**	**100**	**1.3**	**pg/sample**
2,3,4,6,7,8-HxCDF	ND		100	1.3	pg/sample
1,2,3,7,8,9-HxCDF	ND		100	1.5	pg/sample
Total HxCDF	**27**	**Q J**	**100**	**1.4**	**pg/sample**
1,2,3,4,6,7,8-HpCDF	**42**	**J**	**100**	**1.8**	**pg/sample**
1,2,3,4,7,8,9-HpCDF	**9.2**	**Q J**	**100**	**2.4**	**pg/sample**
Total HpCDF	**68**	**J Q**	**100**	**2.0**	**pg/sample**
OCDF	**140**	**J**	**200**	**3.4**	**pg/sample**

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AA	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	40 - 135
13C-1,2,3,7,8-PeCDD	84	40 - 135
13C-1,2,3,6,7,8-HxCDD	89	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	82	40 - 135
13C-OCDD	69	40 - 135
13C-2,3,7,8-TCDF	79	40 - 135
13C-1,2,3,7,8-PeCDF	84	40 - 135
13C-1,2,3,6,7,8-HxCDF	89	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	83	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	70 - 130
13C-1,2,3,4,7,8-HxCDD	100	70 - 130
13C-2,3,4,7,8-PeCDF	95	70 - 130
13C-1,2,3,4,7,8-HxCDF	98	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	93	70 - 130

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AA	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	2
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		40	27	pg/sample
Total TCDD	ND		40	27	pg/sample
1,2,3,7,8-PeCDD	ND		200	12	pg/sample
Total PeCDD	**20**	**Q J**	**200**	**12**	**pg/sample**
1,2,3,4,7,8-HxCDD	ND		200	13	pg/sample
1,2,3,6,7,8-HxCDD	**17**	**Q J**	**200**	**13**	**pg/sample**
1,2,3,7,8,9-HxCDD	ND		200	13	pg/sample
Total HxCDD	**120**	**Q J**	**200**	**13**	**pg/sample**
1,2,3,4,6,7,8-HpCDD	ND		200	15	pg/sample
Total HpCDD	ND		200	15	pg/sample
OCDD	**45**	**J**	**400**	**15**	**pg/sample**
2,3,7,8-TCDF	ND		40	17	pg/sample
Total TCDF	ND		40	17	pg/sample
1,2,3,7,8-PeCDF	ND		200	11	pg/sample
2,3,4,7,8-PeCDF	**7.5**	**Q J**	**200**	**11**	**pg/sample**
Total PeCDF	**32**	**Q J**	**200**	**11**	**pg/sample**
1,2,3,4,7,8-HxCDF	ND		200	7.5	pg/sample
1,2,3,6,7,8-HxCDF	ND		200	6.7	pg/sample
2,3,4,6,7,8-HxCDF	ND		200	7.1	pg/sample
1,2,3,7,8,9-HxCDF	ND		200	8.1	pg/sample
Total HxCDF	ND		200	7.3	pg/sample
1,2,3,4,6,7,8-HpCDF	**30**	**Q J**	**200**	**10**	**pg/sample**
1,2,3,4,7,8,9-HpCDF	ND		200	13	pg/sample
Total HpCDF	**51**	**Q J**	**200**	**12**	**pg/sample**
OCDF	**68**	**Q J**	**400**	**18**	**pg/sample**

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AA	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	2
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	40 - 135
13C-1,2,3,7,8-PeCDD	84	40 - 135
13C-1,2,3,6,7,8-HxCDD	82	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	75	40 - 135
13C-OCDD	64	40 - 135
13C-2,3,7,8-TCDF	81	40 - 135
13C-1,2,3,7,8-PeCDF	77	40 - 135
13C-1,2,3,6,7,8-HxCDF	84	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	71	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	78	70 - 130
13C-1,2,3,4,7,8-HxCDD	100	70 - 130
13C-2,3,4,7,8-PeCDF	99	70 - 130
13C-1,2,3,4,7,8-HxCDF	93	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	96	70 - 130

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AA	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		20	5.2	pg/sample
Total TCDD	ND		20	5.2	pg/sample
1,2,3,7,8-PeCDD	ND		100	2.6	pg/sample
Total PeCDD	**2.4**	**Q J**	**100**	**2.6**	**pg/sample**
1,2,3,4,7,8-HxCDD	ND		100	2.9	pg/sample
1,2,3,6,7,8-HxCDD	ND		100	2.8	pg/sample
1,2,3,7,8,9-HxCDD	ND		100	2.8	pg/sample
Total HxCDD	**20**	**Q J**	**100**	**2.8**	**pg/sample**
1,2,3,4,6,7,8-HpCDD	ND		100	3.4	pg/sample
Total HpCDD	ND		100	3.4	pg/sample
OCDD	**13**	**Q J**	**200**	**3.9**	**pg/sample**
2,3,7,8-TCDF	ND		20	3.3	pg/sample
Total TCDF	ND		20	3.3	pg/sample
1,2,3,7,8-PeCDF	ND		100	2.3	pg/sample
2,3,4,7,8-PeCDF	ND		100	2.4	pg/sample
Total PeCDF	ND		100	2.3	pg/sample
1,2,3,4,7,8-HxCDF	ND		100	1.8	pg/sample
1,2,3,6,7,8-HxCDF	ND		100	1.6	pg/sample
2,3,4,6,7,8-HxCDF	ND		100	1.7	pg/sample
1,2,3,7,8,9-HxCDF	ND		100	2.0	pg/sample
Total HxCDF	**9.8**	**Q J**	**100**	**1.8**	**pg/sample**
1,2,3,4,6,7,8-HpCDF	**5.4**	**Q J**	**100**	**2.0**	**pg/sample**
1,2,3,4,7,8,9-HpCDF	ND		100	2.7	pg/sample
Total HpCDF	**5.4**	**Q J**	**100**	**2.3**	**pg/sample**
OCDF	**19**	**J**	**200**	**3.5**	**pg/sample**

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AA	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	40 - 135
13C-1,2,3,7,8-PeCDD	80	40 - 135
13C-1,2,3,6,7,8-HxCDD	82	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	77	40 - 135
13C-OCDD	64	40 - 135
13C-2,3,7,8-TCDF	78	40 - 135
13C-1,2,3,7,8-PeCDF	74	40 - 135
13C-1,2,3,6,7,8-HxCDF	80	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	77	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	70 - 130
13C-1,2,3,4,7,8-HxCDD	103	70 - 130
13C-2,3,4,7,8-PeCDF	98	70 - 130
13C-1,2,3,4,7,8-HxCDF	96	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	89	70 - 130

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AA	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	2
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		40	32	pg/sample
Total TCDD	ND		40	32	pg/sample
1,2,3,7,8-PeCDD	ND		200	16	pg/sample
Total PeCDD	ND		200	16	pg/sample
1,2,3,4,7,8-HxCDD	**13**	**J**	**200**	**13**	**pg/sample**
1,2,3,6,7,8-HxCDD	ND		200	12	pg/sample
1,2,3,7,8,9-HxCDD	ND		200	12	pg/sample
Total HxCDD	**170**	**J Q**	**200**	**12**	**pg/sample**
1,2,3,4,6,7,8-HpCDD	ND		200	15	pg/sample
Total HpCDD	ND		200	15	pg/sample
OCDD	**52**	**J**	**400**	**17**	**pg/sample**
2,3,7,8-TCDF	ND		40	21	pg/sample
Total TCDF	ND		40	21	pg/sample
1,2,3,7,8-PeCDF	ND		200	12	pg/sample
2,3,4,7,8-PeCDF	**8.8**	**Q J**	**200**	**13**	**pg/sample**
Total PeCDF	**27**	**Q J**	**200**	**12**	**pg/sample**
1,2,3,4,7,8-HxCDF	ND		200	7.0	pg/sample
1,2,3,6,7,8-HxCDF	ND		200	6.3	pg/sample
2,3,4,6,7,8-HxCDF	ND		200	6.6	pg/sample
1,2,3,7,8,9-HxCDF	ND		200	7.6	pg/sample
Total HxCDF	**14**	**Q J**	**200**	**6.8**	**pg/sample**
1,2,3,4,6,7,8-HpCDF	**13**	**Q J**	**200**	**9.9**	**pg/sample**
1,2,3,4,7,8,9-HpCDF	ND		200	13	pg/sample
Total HpCDF	**37**	**Q J**	**200**	**11**	**pg/sample**
OCDF	**60**	**J**	**400**	**21**	**pg/sample**

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AA	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	2
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	87	40 - 135
13C-1,2,3,7,8-PeCDD	87	40 - 135
13C-1,2,3,6,7,8-HxCDD	90	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	90	40 - 135
13C-OCDD	72	40 - 135
13C-2,3,7,8-TCDF	84	40 - 135
13C-1,2,3,7,8-PeCDF	81	40 - 135
13C-1,2,3,6,7,8-HxCDF	92	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	84	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	82	70 - 130
13C-1,2,3,4,7,8-HxCDD	104	70 - 130
13C-2,3,4,7,8-PeCDF	98	70 - 130
13C-1,2,3,4,7,8-HxCDF	95	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	91	70 - 130

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AA	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND	20	6.9	pg/sample
Total TCDD	ND	20	6.9	pg/sample
1,2,3,7,8-PeCDD	ND	100	2.6	pg/sample
Total PeCDD	ND	100	2.6	pg/sample
1,2,3,4,7,8-HxCDD	ND	100	2.8	pg/sample
1,2,3,6,7,8-HxCDD	ND	100	2.7	pg/sample
1,2,3,7,8,9-HxCDD	ND	100	2.8	pg/sample
Total HxCDD	ND	100	2.8	pg/sample
1,2,3,4,6,7,8-HpCDD	ND	100	4.3	pg/sample
Total HpCDD	ND	100	4.3	pg/sample
OCDD	ND	200	3.9	pg/sample
2,3,7,8-TCDF	ND	20	4.1	pg/sample
Total TCDF	ND	20	4.1	pg/sample
1,2,3,7,8-PeCDF	ND	100	2.1	pg/sample
2,3,4,7,8-PeCDF	ND	100	2.1	pg/sample
Total PeCDF	ND	100	2.1	pg/sample
1,2,3,4,7,8-HxCDF	ND	100	1.5	pg/sample
1,2,3,6,7,8-HxCDF	ND	100	1.4	pg/sample
2,3,4,6,7,8-HxCDF	ND	100	1.5	pg/sample
1,2,3,7,8,9-HxCDF	ND	100	1.7	pg/sample
Total HxCDF	ND	100	1.5	pg/sample
1,2,3,4,6,7,8-HpCDF	ND	100	1.8	pg/sample
1,2,3,4,7,8,9-HpCDF	ND	100	2.4	pg/sample
Total HpCDF	ND	100	2.1	pg/sample
OCDF	ND	200	3.6	pg/sample

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AA	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	40 - 135
13C-1,2,3,7,8-PeCDD	96	40 - 135
13C-1,2,3,6,7,8-HxCDD	87	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	82	40 - 135
13C-OCDD	71	40 - 135
13C-2,3,7,8-TCDF	79	40 - 135
13C-1,2,3,7,8-PeCDF	93	40 - 135
13C-1,2,3,6,7,8-HxCDF	82	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	87	40 - 135

QUALIFIERS

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....: H1G060000 - 027B **Work Order #....:** MKNTL1AA **Matrix....:** AIR
Dilution Factor: 1
Prep Date....: 07/06/11 **Analysis Date....:** 07/15/11
Prep Batch # ....: 1187027
Initial Wgt/Vol : 1 Sample **Instrument ID....:** M2A **Method:** SW846 0023A/8290
Analyst ID....: Patricia(Trish) M. Parsly

PARAMETER	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND	20	9.6	pg/sample
Total TCDD	ND	20	9.6	pg/sample
1,2,3,7,8-PeCDD	ND	100	3.6	pg/sample
Total PeCDD	ND	100	3.6	pg/sample
1,2,3,4,7,8-HxCDD	ND	100	3.5	pg/sample
1,2,3,6,7,8-HxCDD	ND	100	3.4	pg/sample
1,2,3,7,8,9-HxCDD	ND	100	3.5	pg/sample
Total HxCDD	ND	100	3.5	pg/sample
1,2,3,4,6,7,8-HpCDD	ND	100	5.4	pg/sample
Total HpCDD	ND	100	5.4	pg/sample
OCDD	ND	200	6.3	pg/sample
2,3,7,8-TCDF	ND	20	5.6	pg/sample
Total TCDF	ND	20	5.6	pg/sample
1,2,3,7,8-PeCDF	ND	100	3.4	pg/sample
2,3,4,7,8-PeCDF	ND	100	3.5	pg/sample
Total PeCDF	ND	100	3.4	pg/sample
1,2,3,4,7,8-HxCDF	ND	100	2.2	pg/sample
1,2,3,6,7,8-HxCDF	ND	100	1.9	pg/sample
2,3,4,6,7,8-HxCDF	ND	100	2.0	pg/sample
1,2,3,7,8,9-HxCDF	ND	100	2.3	pg/sample
Total HxCDF	ND	100	2.1	pg/sample
1,2,3,4,6,7,8-HpCDF	ND	100	2.4	pg/sample
1,2,3,4,7,8,9-HpCDF	ND	100	3.1	pg/sample
Total HpCDF	ND	100	2.7	pg/sample
OCDF	ND	200	4.6	pg/sample

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H1G060000 - 027B	**Work Order #....:**	MKNTL1AA	**Matrix....:**	AIR
Dilution Factor:	1				
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	68	40 - 135
13C-1,2,3,7,8-PeCDD	78	40 - 135
13C-1,2,3,6,7,8-HxCDD	93	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	84	40 - 135
13C-OCDD	73	40 - 135
13C-2,3,7,8-TCDF	75	40 - 135
13C-1,2,3,7,8-PeCDF	74	40 - 135
13C-1,2,3,6,7,8-HxCDF	92	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	96	40 - 135

QUALIFIERS

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H1G050439	**Work Order # ...:**	MKNTL1AC-LCS MKNTL1AD-LCSD	**Matrix .....:**	AIR
LCS Lot-Sample# :	H1G060000 - 027				
Prep Date .....:	07/06/11	**Analysis Date ..:**	07/15/11		
Prep Batch # ...:	1187027				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	SW846 0023A/8290
Initial Wgt/Vol:	1 Sample				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	**400**	**407**	**pg/sample**	**102**		**(70 - 130)**		
	400	**376**	**pg/sample**	**94**		**(70 - 130)**	**7.9**	**(0 - 50)**
1,2,3,7,8-PeCDD	**2000**	**1860**	**pg/sample**	**93**	**Q**	**(70 - 130)**		
	2000	**1890**	**pg/sample**	**94**	**Q**	**(70 - 130)**	**1.6**	**(0 - 50)**
1,2,3,4,7,8-HxCDD	**2000**	**1910**	**pg/sample**	**96**		**(70 - 130)**		
	2000	**1960**	**pg/sample**	**98**		**(70 - 130)**	**2.8**	**(0 - 50)**
1,2,3,6,7,8-HxCDD	**2000**	**1960**	**pg/sample**	**98**		**(70 - 130)**		
	2000	**1830**	**pg/sample**	**92**		**(70 - 130)**	**6.6**	**(0 - 50)**
1,2,3,7,8,9-HxCDD	**2000**	**2090**	**pg/sample**	**105**		**(70 - 130)**		
	2000	**2080**	**pg/sample**	**104**		**(70 - 130)**	**0.53**	**(0 - 50)**
1,2,3,4,6,7,8-HpCDD	**2000**	**1910**	**pg/sample**	**96**		**(70 - 130)**		
	2000	**1960**	**pg/sample**	**98**		**(70 - 130)**	**2.3**	**(0 - 50)**
OCDD	**4000**	**3740**	**pg/sample**	**93**		**(70 - 130)**		
	4000	**3820**	**pg/sample**	**96**		**(70 - 130)**	**2.3**	**(0 - 50)**
2,3,7,8-TCDF	**400**	**355**	**pg/sample**	**89**		**(70 - 130)**		
	400	**356**	**pg/sample**	**89**		**(70 - 130)**	**0.18**	**(0 - 50)**
1,2,3,7,8-PeCDF	**2000**	**1950**	**pg/sample**	**98**		**(70 - 130)**		
	2000	**1970**	**pg/sample**	**98**		**(70 - 130)**	**0.76**	**(0 - 50)**
2,3,4,7,8-PeCDF	**2000**	**1810**	**pg/sample**	**91**		**(70 - 130)**		
	2000	**1860**	**pg/sample**	**93**		**(70 - 130)**	**2.4**	**(0 - 50)**
1,2,3,4,7,8-HxCDF	**2000**	**2030**	**pg/sample**	**101**		**(70 - 130)**		
	2000	**2130**	**pg/sample**	**107**		**(70 - 130)**	**5.1**	**(0 - 50)**
1,2,3,6,7,8-HxCDF	**2000**	**1960**	**pg/sample**	**98**		**(70 - 130)**		
	2000	**1980**	**pg/sample**	**99**		**(70 - 130)**	**1.2**	**(0 - 50)**
2,3,4,6,7,8-HxCDF	**2000**	**1890**	**pg/sample**	**94**		**(70 - 130)**		
	2000	**1970**	**pg/sample**	**99**		**(70 - 130)**	**4.2**	**(0 - 50)**
1,2,3,7,8,9-HxCDF	**2000**	**1900**	**pg/sample**	**95**		**(70 - 130)**		
	2000	**2050**	**pg/sample**	**103**		**(70 - 130)**	**7.4**	**(0 - 50)**
1,2,3,4,6,7,8-HpCDF	**2000**	**1840**	**pg/sample**	**92**		**(70 - 130)**		
	2000	**1820**	**pg/sample**	**91**		**(70 - 130)**	**1.3**	**(0 - 50)**
1,2,3,4,7,8,9-HpCDF	**2000**	**1770**	**pg/sample**	**88**		**(70 - 130)**		
	2000	**1820**	**pg/sample**	**91**		**(70 - 130)**	**2.9**	**(0 - 50)**
OCDF	**4000**	**3980**	**pg/sample**	**100**		**(70 - 130)**		
	4000	**4090**	**pg/sample**	**102**		**(70 - 130)**	**2.6**	**(0 - 50)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(40 - 135)
	82	(40 - 135)
13C-1,2,3,7,8-PeCDD	93	(40 - 135)
	86	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	83	(40 - 135)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...: H1G050439 **Work Order # ...:** MKNTL1AC-LCS **Matrix .....:** AIR
LCS Lot-Sample# : H1G060000 - 027 MKNTL1AD-LCSD

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
	84	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	85	(40 - 135)
	85	(40 - 135)
13C-OCDD	72	(40 - 135)
	70	(40 - 135)
13C-2,3,7,8-TCDF	85	(40 - 135)
	86	(40 - 135)
13C-1,2,3,7,8-PeCDF	86	(40 - 135)
	83	(40 - 135)
13C-1,2,3,6,7,8-HxCDF	84	(40 - 135)
	80	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	87	(40 - 135)
	86	(40 - 135)

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Q Estimated maximum possible concentration (EMPC).

Sample Data Summary

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.022**	**B J**	**0.10**	**0.0061**	**ng/sample**
PCB 81 (BZ)	ND		0.10	0.0062	ng/sample
PCB 105 (BZ)	**0.10**	**Q J**	**0.10**	**0.0056**	**ng/sample**
PCB 114 (BZ)	ND		0.10	0.0054	ng/sample
PCB 118 (BZ)	**0.27**		**0.10**	**0.0056**	**ng/sample**
PCB 123 (BZ)	**0.014**	**J**	**0.10**	**0.0060**	**ng/sample**
PCB 126 (BZ)	ND		0.10	0.0059	ng/sample
PCB 156 (BZ)	ND		0.10	0.0099	ng/sample
PCB 157 (BZ)	ND		0.10	0.0099	ng/sample
PCB 167 (BZ)	ND		0.10	0.0067	ng/sample
PCB 169 (BZ)	ND		0.10	0.0069	ng/sample
PCB 189 (BZ)	ND		0.10	0.0056	ng/sample

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	60		30 - 140
13C12-PCB 3	66		30 - 140
13C12-PCB 4	76		30 - 140
13C12-PCB 15	80		30 - 140
13C12-PCB 19	82		30 - 140
13C12-PCB 37	85		30 - 140
13C12-PCB 54	108		30 - 140
13C12-PCB 77	94		30 - 140
13C12-PCB 81	90		30 - 140
13C12-PCB 104	88		30 - 140
13C12-PCB 105	91		30 - 140
13C12-PCB 114	91		30 - 140
13C12-PCB 118	89		30 - 140
13C12-PCB 123	86		30 - 140
13C12-PCB 126	89		30 - 140
13C12-PCB 155	99		30 - 140
13C12-PCB 156	107	C	30 - 140
13C12-PCB 157	107	C	30 - 140
13C12-PCB 167	105		30 - 140
13C12-PCB 169	97		30 - 140
13C12-PCB 170	101		30 - 140
13C12-PCB 188	101		30 - 140
13C12-PCB 189	105		30 - 140
13C12-PCB 202	108		30 - 140
13C12-PCB 205	106		30 - 140
13C12-PCB 206	105		30 - 140
13C12-PCB 208	98		30 - 140
13C12-PCB 209	92		30 - 140

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 8	106	50 - 150
13C12-PCB 28	84	40 - 125
13C12-PCB 79	110	50 - 150
13C12-PCB 95	104	50 - 150
13C12-PCB 111	99	40 - 125
13C12-PCB 153	114	50 - 150
13C12-PCB 178	90	40 - 125

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AC	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.015**	**B J**	**0.10**	**0.0048**	**ng/sample**
PCB 81 (BZ)	ND		0.10	0.0047	ng/sample
PCB 105 (BZ)	**0.067**	**Q J**	**0.10**	**0.0045**	**ng/sample**
PCB 114 (BZ)	ND		0.10	0.0043	ng/sample
PCB 118 (BZ)	**0.19**		**0.10**	**0.0045**	**ng/sample**
PCB 123 (BZ)	ND		0.10	0.0050	ng/sample
PCB 126 (BZ)	ND		0.10	0.0045	ng/sample
PCB 156 (BZ)	**0.012**	**Q C J**	**0.10**	**0.0073**	**ng/sample**
PCB 157 (BZ)	**0.012**	**Q C156 J**	**0.10**	**0.0073**	**ng/sample**
PCB 167 (BZ)	ND		0.10	0.0051	ng/sample
PCB 169 (BZ)	ND		0.10	0.0053	ng/sample
PCB 189 (BZ)	ND		0.10	0.0049	ng/sample

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AC	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	69		30 - 140
13C12-PCB 3	69		30 - 140
13C12-PCB 4	74		30 - 140
13C12-PCB 15	77		30 - 140
13C12-PCB 19	76		30 - 140
13C12-PCB 37	82		30 - 140
13C12-PCB 54	101		30 - 140
13C12-PCB 77	88		30 - 140
13C12-PCB 81	86		30 - 140
13C12-PCB 104	83		30 - 140
13C12-PCB 105	87		30 - 140
13C12-PCB 114	87		30 - 140
13C12-PCB 118	84		30 - 140
13C12-PCB 123	83		30 - 140
13C12-PCB 126	87		30 - 140
13C12-PCB 155	93		30 - 140
13C12-PCB 156	101	C	30 - 140
13C12-PCB 157	101	C	30 - 140
13C12-PCB 167	97		30 - 140
13C12-PCB 169	92		30 - 140
13C12-PCB 170	94		30 - 140
13C12-PCB 188	95		30 - 140
13C12-PCB 189	99		30 - 140
13C12-PCB 202	101		30 - 140
13C12-PCB 205	99		30 - 140
13C12-PCB 206	98		30 - 140
13C12-PCB 208	92		30 - 140
13C12-PCB 209	88		30 - 140

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AC	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 8	101	50 - 150
13C12-PCB 28	83	40 - 125
13C12-PCB 79	109	50 - 150
13C12-PCB 95	101	50 - 150
13C12-PCB 111	95	40 - 125
13C12-PCB 153	111	50 - 150
13C12-PCB 178	88	40 - 125

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AC	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.014**	**Q B J**	**0.10**	**0.0066**	**ng/sample**
PCB 81 (BZ)	ND		0.10	0.0067	ng/sample
PCB 105 (BZ)	**0.033**	**Q J**	**0.10**	**0.0064**	**ng/sample**
PCB 114 (BZ)	ND		0.10	0.0062	ng/sample
PCB 118 (BZ)	**0.11**		**0.10**	**0.0065**	**ng/sample**
PCB 123 (BZ)	ND		0.10	0.0071	ng/sample
PCB 126 (BZ)	ND		0.10	0.0064	ng/sample
PCB 156 (BZ)	ND		0.10	0.010	ng/sample
PCB 157 (BZ)	ND		0.10	0.010	ng/sample
PCB 167 (BZ)	ND		0.10	0.0069	ng/sample
PCB 169 (BZ)	ND		0.10	0.0070	ng/sample
PCB 189 (BZ)	ND		0.10	0.0063	ng/sample

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AC	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	62		30 - 140
13C12-PCB 3	66		30 - 140
13C12-PCB 4	74		30 - 140
13C12-PCB 15	71		30 - 140
13C12-PCB 19	75		30 - 140
13C12-PCB 37	77		30 - 140
13C12-PCB 54	100		30 - 140
13C12-PCB 77	81		30 - 140
13C12-PCB 81	79		30 - 140
13C12-PCB 104	82		30 - 140
13C12-PCB 105	82		30 - 140
13C12-PCB 114	82		30 - 140
13C12-PCB 118	80		30 - 140
13C12-PCB 123	78		30 - 140
13C12-PCB 126	85		30 - 140
13C12-PCB 155	90		30 - 140
13C12-PCB 156	102	C	30 - 140
13C12-PCB 157	102	C	30 - 140
13C12-PCB 167	95		30 - 140
13C12-PCB 169	93		30 - 140
13C12-PCB 170	88		30 - 140
13C12-PCB 188	87		30 - 140
13C12-PCB 189	95		30 - 140
13C12-PCB 202	92		30 - 140
13C12-PCB 205	96		30 - 140
13C12-PCB 206	96		30 - 140
13C12-PCB 208	89		30 - 140
13C12-PCB 209	86		30 - 140

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AC	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 8	105	50 - 150
13C12-PCB 28	79	40 - 125
13C12-PCB 79	108	50 - 150
13C12-PCB 95	97	50 - 150
13C12-PCB 111	90	40 - 125
13C12-PCB 153	109	50 - 150
13C12-PCB 178	79	40 - 125

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AC	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	ND		0.10	0.0057	ng/sample
PCB 81 (BZ)	ND		0.10	0.0060	ng/sample
PCB 105 (BZ)	**0.038**	**J**	**0.10**	**0.0057**	**ng/sample**
PCB 114 (BZ)	ND		0.10	0.0057	ng/sample
PCB 118 (BZ)	**0.068**	**Q J**	**0.10**	**0.0058**	**ng/sample**
PCB 123 (BZ)	ND		0.10	0.0061	ng/sample
PCB 126 (BZ)	ND		0.10	0.0052	ng/sample
PCB 156 (BZ)	ND		0.10	0.0088	ng/sample
PCB 157 (BZ)	ND		0.10	0.0088	ng/sample
PCB 167 (BZ)	ND		0.10	0.0066	ng/sample
PCB 169 (BZ)	ND		0.10	0.0063	ng/sample
PCB 189 (BZ)	ND		0.10	0.0056	ng/sample

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AC	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	81		30 - 140
13C12-PCB 3	75		30 - 140
13C12-PCB 4	77		30 - 140
13C12-PCB 15	72		30 - 140
13C12-PCB 19	77		30 - 140
13C12-PCB 37	77		30 - 140
13C12-PCB 54	98		30 - 140
13C12-PCB 77	86		30 - 140
13C12-PCB 81	83		30 - 140
13C12-PCB 104	82		30 - 140
13C12-PCB 105	86		30 - 140
13C12-PCB 114	83		30 - 140
13C12-PCB 118	82		30 - 140
13C12-PCB 123	82		30 - 140
13C12-PCB 126	92		30 - 140
13C12-PCB 155	91		30 - 140
13C12-PCB 156	107	C	30 - 140
13C12-PCB 157	107	C	30 - 140
13C12-PCB 167	97		30 - 140
13C12-PCB 169	98		30 - 140
13C12-PCB 170	94		30 - 140
13C12-PCB 188	89		30 - 140
13C12-PCB 189	98		30 - 140
13C12-PCB 202	99		30 - 140
13C12-PCB 205	105		30 - 140
13C12-PCB 206	99		30 - 140
13C12-PCB 208	95		30 - 140
13C12-PCB 209	93		30 - 140

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AC	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 8	103	50 - 150
13C12-PCB 28	74	40 - 125
13C12-PCB 79	108	50 - 150
13C12-PCB 95	100	50 - 150
13C12-PCB 111	89	40 - 125
13C12-PCB 153	104	50 - 150
13C12-PCB 178	80	40 - 125

QUALIFIERS

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.0081**	**B J**	**0.10**	**0.0046**	**ng/sample**
PCB 81 (BZ)	ND		0.10	0.0048	ng/sample
PCB 105 (BZ)	ND		0.10	0.0042	ng/sample
PCB 114 (BZ)	ND		0.10	0.0040	ng/sample
PCB 118 (BZ)	ND		0.10	0.0042	ng/sample
PCB 123 (BZ)	ND		0.10	0.0047	ng/sample
PCB 126 (BZ)	ND		0.10	0.0039	ng/sample
PCB 156 (BZ)	ND		0.10	0.0068	ng/sample
PCB 157 (BZ)	ND		0.10	0.0068	ng/sample
PCB 167 (BZ)	ND		0.10	0.0053	ng/sample
PCB 169 (BZ)	ND		0.10	0.0051	ng/sample
PCB 189 (BZ)	ND		0.10	0.0039	ng/sample

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	105		30 - 140
13C12-PCB 3	96		30 - 140
13C12-PCB 4	100		30 - 140
13C12-PCB 15	90		30 - 140
13C12-PCB 19	96		30 - 140
13C12-PCB 37	100		30 - 140
13C12-PCB 54	129		30 - 140
13C12-PCB 77	109		30 - 140
13C12-PCB 81	104		30 - 140
13C12-PCB 104	102		30 - 140
13C12-PCB 105	108		30 - 140
13C12-PCB 114	107		30 - 140
13C12-PCB 118	104		30 - 140
13C12-PCB 123	101		30 - 140
13C12-PCB 126	115		30 - 140
13C12-PCB 155	115		30 - 140
13C12-PCB 156	134	C	30 - 140
13C12-PCB 157	134	C	30 - 140
13C12-PCB 167	119		30 - 140
13C12-PCB 169	118		30 - 140
13C12-PCB 170	114		30 - 140
13C12-PCB 188	113		30 - 140
13C12-PCB 189	123		30 - 140
13C12-PCB 202	124		30 - 140
13C12-PCB 205	129		30 - 140
13C12-PCB 206	128		30 - 140
13C12-PCB 208	118		30 - 140
13C12-PCB 209	116		30 - 140

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 28	96	40 - 125
13C12-PCB 111	112	40 - 125
13C12-PCB 178	96	40 - 125

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

J Estimated Result.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....: H1G060000 - 028B **Work Order #....:** MKNTM1AA **Matrix....:** AIR
Dilution Factor: 1
Prep Date....: 07/06/11 **Analysis Date....:** 07/14/11
Prep Batch # ....: 1187028
Initial Wgt/Vol : 1 Sample **Instrument ID....:** M1D **Method:** EPA-22 1668A
Analyst ID....: Jon M. Nordquist

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.0062**	**Q J**	**0.20**	**0.0049**	**ng/sample**
PCB 81 (BZ)	ND		0.20	0.0052	ng/sample
PCB 105 (BZ)	ND		0.20	0.0049	ng/sample
PCB 114 (BZ)	ND		0.20	0.0048	ng/sample
PCB 118 (BZ)	ND		0.20	0.0050	ng/sample
PCB 123 (BZ)	ND		0.20	0.0056	ng/sample
PCB 126 (BZ)	ND		0.20	0.0046	ng/sample
PCB 156 (BZ)	ND		0.20	0.0086	ng/sample
PCB 157 (BZ)	ND		0.20	0.0086	ng/sample
PCB 167 (BZ)	ND		0.20	0.0060	ng/sample
PCB 169 (BZ)	ND		0.20	0.0057	ng/sample
PCB 189 (BZ)	ND		0.20	0.0050	ng/sample

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H1G060000 - 028B	**Work Order #....:**	MKNTM1AA	**Matrix....:**	AIR
Dilution Factor:	1				
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	91		30 - 140
13C12-PCB 3	83		30 - 140
13C12-PCB 4	86		30 - 140
13C12-PCB 15	79		30 - 140
13C12-PCB 19	85		30 - 140
13C12-PCB 37	87		30 - 140
13C12-PCB 54	115		30 - 140
13C12-PCB 77	96		30 - 140
13C12-PCB 81	92		30 - 140
13C12-PCB 104	90		30 - 140
13C12-PCB 105	93		30 - 140
13C12-PCB 114	91		30 - 140
13C12-PCB 118	89		30 - 140
13C12-PCB 123	86		30 - 140
13C12-PCB 126	98		30 - 140
13C12-PCB 155	100		30 - 140
13C12-PCB 156	108	C	30 - 140
13C12-PCB 157	108	C	30 - 140
13C12-PCB 167	105		30 - 140
13C12-PCB 169	109		30 - 140
13C12-PCB 170	102		30 - 140
13C12-PCB 188	99		30 - 140
13C12-PCB 189	106		30 - 140
13C12-PCB 202	109		30 - 140
13C12-PCB 205	109		30 - 140
13C12-PCB 206	109		30 - 140
13C12-PCB 208	104		30 - 140
13C12-PCB 209	99		30 - 140

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 28	83	40 - 125
13C12-PCB 111	98	40 - 125
13C12-PCB 178	84	40 - 125

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H1G060000 - 028B	**Work Order #....:**	MKNTM1AA	**Matrix....:**	AIR
Dilution Factor:	1				
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

QUALIFIERS

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H1G050439	**Work Order # ...:**	MKNTM1AC-LCS	**Matrix .....:**	AIR
LCS Lot-Sample# :	H1G060000 - 028		MKNTM1AD-LCSD		
Prep Date .....:	07/06/11	**Analysis Date ..:**	07/13/11		
Prep Batch # ...:	1187028				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M1D	**Method.....:**	EPA-22 1668A
Initial Wgt/Vol:	1 Sample				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS	RPD	RPD LIMITS
PCB 77 (BZ)	**10.0**	**9.77**	**ng/sample**	**98**	**B**	**(50 - 150)**		
	10.0	**9.91**	**ng/sample**	**99**	**B**	**(50 - 150)**	**1.4**	**(0 - 50)**
PCB 81 (BZ)	**10.0**	**9.94**	**ng/sample**	**99**		**(50 - 150)**		
	10.0	**9.71**	**ng/sample**	**97**		**(50 - 150)**	**2.3**	**(0 - 50)**
PCB 105 (BZ)	**10.0**	**11.2**	**ng/sample**	**112**		**(50 - 150)**		
	10.0	**11.0**	**ng/sample**	**110**		**(50 - 150)**	**1.7**	**(0 - 50)**
PCB 114 (BZ)	**10.0**	**11.4**	**ng/sample**	**114**		**(50 - 150)**		
	10.0	**11.4**	**ng/sample**	**114**		**(50 - 150)**	**0.060**	**(0 - 50)**
PCB 118 (BZ)	**10.0**	**11.2**	**ng/sample**	**112**		**(50 - 150)**		
	10.0	**11.4**	**ng/sample**	**114**		**(50 - 150)**	**1.8**	**(0 - 50)**
PCB 123 (BZ)	**10.0**	**12.8**	**ng/sample**	**128**		**(50 - 150)**		
	10.0	**12.3**	**ng/sample**	**123**		**(50 - 150)**	**4.0**	**(0 - 50)**
PCB 126 (BZ)	**10.0**	**10.6**	**ng/sample**	**106**		**(50 - 150)**		
	10.0	**10.7**	**ng/sample**	**107**		**(50 - 150)**	**1.5**	**(0 - 50)**
PCB 156 (BZ)	**20.0**	**22.5**	**ng/sample**	**113**	**C**	**(50 - 150)**		
	20.0	**22.5**	**ng/sample**	**113**	**C**	**(50 - 150)**	**0.0**	**(0 - 50)**
PCB 157 (BZ)	**20.0**	**22.5**	**ng/sample**	**113**	**C C156**	**(50 - 150)**		
	20.0	**22.5**	**ng/sample**	**113**	**C C156**	**(50 - 150)**	**0.0**	**(0 - 50)**
PCB 167 (BZ)	**10.0**	**11.6**	**ng/sample**	**116**		**(50 - 150)**		
	10.0	**11.6**	**ng/sample**	**116**		**(50 - 150)**	**0.37**	**(0 - 50)**
PCB 169 (BZ)	**10.0**	**10.4**	**ng/sample**	**104**		**(50 - 150)**		
	10.0	**10.5**	**ng/sample**	**105**		**(50 - 150)**	**0.76**	**(0 - 50)**
PCB 189 (BZ)	**10.0**	**11.4**	**ng/sample**	**114**		**(50 - 150)**		
	10.0	**11.3**	**ng/sample**	**113**		**(50 - 150)**	**0.93**	**(0 - 50)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 1	84	(30 - 140)
	90	(30 - 140)
13C12-PCB 3	78	(30 - 140)
	82	(30 - 140)
13C12-PCB 4	81	(30 - 140)
	86	(30 - 140)
13C12-PCB 15	80	(30 - 140)
	80	(30 - 140)
13C12-PCB 19	84	(30 - 140)
	86	(30 - 140)
13C12-PCB 37	92	(30 - 140)
	91	(30 - 140)
13C12-PCB 54	112	(30 - 140)
	115	(30 - 140)
13C12-PCB 77	102	(30 - 140)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...: H1G050439 **Work Order # ...:** MKNTM1AC-LCS **Matrix .....:** AIR
LCS Lot-Sample# : H1G060000 - 028 MKNTM1AD-LCSD

INTERNAL STANDARD	PERCENT RECOVERY		RECOVERY LIMITS
	99		(30 - 140)
13C12-PCB 81	98		(30 - 140)
	97		(30 - 140)
13C12-PCB 104	84		(30 - 140)
	88		(30 - 140)
13C12-PCB 105	92		(30 - 140)
	93		(30 - 140)
13C12-PCB 114	91		(30 - 140)
	93		(30 - 140)
13C12-PCB 118	88		(30 - 140)
	90		(30 - 140)
13C12-PCB 123	87		(30 - 140)
	88		(30 - 140)
13C12-PCB 126	96		(30 - 140)
	98		(30 - 140)
13C12-PCB 155	99		(30 - 140)
	101		(30 - 140)
13C12-PCB 156	110	**C**	(30 - 140)
	117	**C**	(30 - 140)
13C12-PCB 157	110	**C**	(30 - 140)
	117	**C**	(30 - 140)
13C12-PCB 167	107		(30 - 140)
	109		(30 - 140)
13C12-PCB 169	104		(30 - 140)
	106		(30 - 140)
13C12-PCB 170	101		(30 - 140)
	103		(30 - 140)
13C12-PCB 188	95		(30 - 140)
	99		(30 - 140)
13C12-PCB 189	108		(30 - 140)
	109		(30 - 140)
13C12-PCB 202	109		(30 - 140)
	112		(30 - 140)
13C12-PCB 205	108		(30 - 140)
	110		(30 - 140)
13C12-PCB 206	110		(30 - 140)
	110		(30 - 140)
13C12-PCB 208	101		(30 - 140)
	104		(30 - 140)
13C12-PCB 209	97		(30 - 140)
	99		(30 - 140)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 28	84	(40 - 125)
	85	(40 - 125)
13C12-PCB 111	97	(40 - 125)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...: H1G050439 **Work Order # ...:** MKNTM1AC-LCS **Matrix .....:** AIR
LCS Lot-Sample# : H1G060000 - 028 MKNTM1AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
	97	(40 - 125)
13C12-PCB 178	86	(40 - 125)
	89	(40 - 125)

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

Sample Receipt Documentation

H16D0434

URS

Chain of Custody Record

Page 1 of 2

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number
CHV-Stk-ICR1-M23+-PNR-Ace	PNR - Acetone	6/22/11 1636	X	X				12
CHV-Stk-ICR1-M23+-PNR-MeCl	PNR - Methylene Chloride	6/22/11 1636	X	X				11
CHV-Stk-ICR1-M23+-PNR-Tol	PNR - Toluene	6/22/11 1636	X	X				12
CHV-Stk-ICR1-M23+-Filt	Filter	6/22/11 1636	X	X				12
CHV-Stk-ICR1-M23+-CR-Ace	Condenser Rns - Acetone	6/22/11 1636	X	X				12
CHV-Stk-ICR1-M23+-CR-MeCl	Condenser Rns - Methylene Chloride	6/22/11 1636	X	X				11
CHV-Stk-ICR1-M23+-CR-Tol	Condenser Rns - Toluene	6/22/11 1636	X	X				12
CHV-Stk-ICR1-M23+-XAD	XAD Sorbent Cartridge	6/22/11 1636	X	X				14

Comments

7 Boxes Rec'd @ 3.8°C / 5.6°C, 4.1°C / 3.4°C, 4.6°C / 3.4°C, 5.3°C

3 coolers Rec'd @ 27.1°C / 27°C, 27.1°C

without custody seals CMH 7/2/11

7 Boxes Fed x #'s 8704 3537 3800, 8729 7187 3430, 3521, 3429, 3532, 3510, 3543

Combine for Single Analysis all fractions

3 coolers Fed x # 8729 7187 3602, 3278, 3598

~~Combine for Single Analysis~~ WDD 6/23/11

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Meagan DeLoss	6/23/11	1200		7/2/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

HIGDS0434

URS Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M23+-ImpsA	Impinger Catch - Bottle A	6/22/11 1636	X	X				11	~~Combine for Single Analysis (PCB Analysis Only)~~ MDD 6/23/11
CHV-Stk-ICR1-M23+-ImpsB	Impinger Catch - Bottle B								
CHV-Stk-ICR1-M23+-IR-Ace	Impinger Rinse - Acetone	6/22/11 1636	X	X				12	
CHV-Stk-ICR1-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride	6/22/11 1636	X	X				11	
CHV-Stk-ICR1-M23+-IR-Tol	Impinger Rinse - Toluene	6/22/11 1636	X	X				12	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Meagan DeCoster	6/23/11	1200		7/2/11	0:9:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

H16050439

URS

Chain of Custody Record

Page 1 of 2

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M23+-PNR-Ace	PNR - Acetone	6/23/11 1306	X	X				14	Combine for Single Analysis
CHV-Stk-ICR2-M23+-PNR-MeCl	PNR - Methylene Chloride		X	X				10	
CHV-Stk-ICR2-M23+-PNR-Tol	PNR - Toluene		X	X				9	
CHV-Stk-ICR2-M23+-Filt	Filter		X	X				12	
CHV-Stk-ICR2-M23+-CR-Ace	Condenser Rns - Acetone		X	X				14	~~Combine for Single Analysis~~
CHV-Stk-ICR2-M23+-CR-MeCl	Condenser Rns - Methylene Chloride		X	X				10	
CHV-Stk-ICR2-M23+-CR-Tol	Condenser Rns - Toluene		X	X				9	
CHV-Stk-ICR2-M23+-XAD	XAD Sorbent Cartridge		X	X				14	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

1716050439

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Page 2 of 2

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M23+-ImpsA	Impinger Catch - Bottle A	6/23/11 1306	X	X				23	Combine with Front-half fractions for single analysis ~~Combine for Single Analysis (PCB Analysis Only)~~
CHV-Stk-ICR2-M23+-ImpsB	Impinger Catch - Bottle B								
CHV-Stk-ICR2-M23+-IR-Ace	Impinger Rinse - Acetone	6/23/11 1306	X	X				14	
CHV-Stk-ICR2-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride	↓	X	X				10	
CHV-Stk-ICR2-M23+-IR-Tol	Impinger Rinse - Toluene	↓	X	X				9	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	6/29/11	1900		7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

HICRS0439

Page 1 of 2

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M23+-PNR-Ace	PNR - Acetone	6/27/11 1338	X	X				14	Combine for Single Analysis
CHV-Stk-ICR3-M23+-PNR-MeCl	PNR - Methylene Chloride		X	X				15	
CHV-Stk-ICR3-M23+-PNR-Tol	PNR - Toluene		X	X				16	
CHV-Stk-ICR3-M23+-Filt	Filter		X	X				12	
CHV-Stk-ICR3-M23+-CR-Ace	Condenser Rns - Acetone		X	X				14	~~Combine for Single~~ Analysis
CHV-Stk-ICR3-M23+-CR-MeCl	Condenser Rns - Methylene Chloride		X	X				15	
CHV-Stk-ICR3-M23+-CR-Tol	Condenser Rns - Toluene		X	X				16	
CHV-Stk-ICR3-M23+-XAD	XAD Sorbent Cartridge		X	X				11	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:00			
Received by:	Date	Time	~~Relinquished by:~~	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

HIGH050439

URS Chain of Custody Record

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Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M23+-ImpsA	Impinger Catch - Bottle A	6/27/11 1338	X	X				23	Combine with front-half fractions for single analysis
CHV-Stk-ICR3-M23+-ImpsB	Impinger Catch - Bottle B								
CHV-Stk-ICR3-M23+-IR-Ace	Impinger Rinse - Acetone	6/27/11 1338	X	X				14	~~Combine for Single Analysis~~ (PCB ~~Analysis~~ Only)
CHV-Stk-ICR3-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride		X	X				15	
CHV-Stk-ICR3-M23+-IR-Tol	Impinger Rinse - Toluene		X	X				16	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

H1160504 39

URS

Chain of Custody Record

Page 1 of 1

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M23+-PNR-Ace	PNR - Acetone	6/26/11 1135	X	X				14	Combine for Single Analysis
CHV-Stk-ICRFB-M23+-PNR-MeCl	PNR - Methylene Chloride		X	X				10	
CHV-Stk-ICRFB-M23+-PNR-Tol	PNR - Toluene		X	X				9	
CHV-Stk-ICRFB-M23+-Filt	Filter		X	X				12	
CHV-Stk-ICRFB-M23+-CR-Ace	Condenser Rns - Acetone		X	X				14	~~Combine for Single Analysis~~
CHV-Stk-ICRFB-M23+-CR-MeCl	Condenser Rns - Methylene Chloride		X	X				15	
CHV-Stk-ICRFB-M23+-CR-Tol	Condenser Rns - Toluene		X	X				16	
CHV-Stk-ICRFB-M23+-XAD	XAD Sorbent Cartridge		X	X				11	
CHV-Stk-ICRFB-M23+-Imps	Impinger Catch		X	X				23	~~Combine for Single Analysis~~ (~~PCB Analysis Only~~)
CHV-Stk-ICRFB-M23+-IR-Ace	Impinger Rinse - Acetone		X	X				14	
CHV-Stk-ICRFB-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride		X	X				10	
CHV-Stk-ICRFB-M23+-IR-Tol	Impinger Rinse - Toluene		X	X				9	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1400	[signature]	7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

Chain of Custody Record

1716250434

URS

Page 1 of 1

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M23+-Filt	Filter	6/26/11 1230	X	X				12	
CHV-Stk-ICRRB-M23+-XAD	XAD Sorbent Cartridge		X	X				14	
CHV-Stk-ICRRB-M23+-Ace	Acetone		X	X				12	
CHV-Stk-ICRRB-M23+-MeCl	Methylene Chloride		X	X				10	
CHV-Stk-ICRRB-M23+-Tol	Toluene		X	X				9	
CHV-Stk-ICRRB-M23+-Water	Water	↓	X	X				10	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/26/11	1900	[signature]	7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			
	6/29/11							

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H1G050439

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓	✓		☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	2B All Samples at proper temp except two samples: (CHV-Stk-ICR2-M23+-ImpsA 27°C) (CHV-Stk-ICR3-M23+-ImpsA 27°C) 1G All Samples Recieved on 7/2/11 except the Two Samples above they were Recieved on 7/5/11
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓	✓		☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = 27c ☐ **2c** Cooling initiated for recently collected samples, ice present.	4A
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: _____ Date: 7/5/11

QA026R22.doc, 012811

H-65

Trace Level Organics

Raw Sample Data

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AA	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		20	5.9	pg/sample
Total TCDD	**6.4**	**J**	**20**	**5.9**	**pg/sample**
1,2,3,7,8-PeCDD	ND		100	2.8	pg/sample
Total PeCDD	**2.1**	**Q J**	**100**	**2.8**	**pg/sample**
1,2,3,4,7,8-HxCDD	ND		100	2.7	pg/sample
1,2,3,6,7,8-HxCDD	ND		100	2.7	pg/sample
1,2,3,7,8,9-HxCDD	ND		100	2.7	pg/sample
Total HxCDD	**18**	**Q J**	**100**	**2.7**	**pg/sample**
1,2,3,4,6,7,8-HpCDD	**5.6**	**Q J**	**100**	**3.8**	**pg/sample**
Total HpCDD	**5.6**	**Q J**	**100**	**3.8**	**pg/sample**
OCDD	**47**	**J**	**200**	**3.2**	**pg/sample**
2,3,7,8-TCDF	ND		20	3.7	pg/sample
Total TCDF	ND		20	3.7	pg/sample
1,2,3,7,8-PeCDF	ND		100	2.1	pg/sample
2,3,4,7,8-PeCDF	ND		100	2.2	pg/sample
Total PeCDF	**9.6**	**Q J**	**100**	**2.1**	**pg/sample**
1,2,3,4,7,8-HxCDF	**6.3**	**J**	**100**	**1.4**	**pg/sample**
1,2,3,6,7,8-HxCDF	**2.9**	**Q J**	**100**	**1.3**	**pg/sample**
2,3,4,6,7,8-HxCDF	ND		100	1.3	pg/sample
1,2,3,7,8,9-HxCDF	ND		100	1.5	pg/sample
Total HxCDF	**27**	**Q J**	**100**	**1.4**	**pg/sample**
1,2,3,4,6,7,8-HpCDF	**42**	**J**	**100**	**1.8**	**pg/sample**
1,2,3,4,7,8,9-HpCDF	**9.2**	**Q J**	**100**	**2.4**	**pg/sample**
Total HpCDF	**68**	**J Q**	**100**	**2.0**	**pg/sample**
OCDF	**140**	**J**	**200**	**3.4**	**pg/sample**

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AA	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	40 - 135
13C-1,2,3,7,8-PeCDD	84	40 - 135
13C-1,2,3,6,7,8-HxCDD	89	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	82	40 - 135
13C-OCDD	69	40 - 135
13C-2,3,7,8-TCDF	79	40 - 135
13C-1,2,3,7,8-PeCDF	84	40 - 135
13C-1,2,3,6,7,8-HxCDF	89	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	83	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	70 - 130
13C-1,2,3,4,7,8-HxCDD	100	70 - 130
13C-2,3,4,7,8-PeCDF	95	70 - 130
13C-1,2,3,4,7,8-HxCDF	98	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	93	70 - 130

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM551AA	Prep Batch	1187027	Lot No	H1G050439-001
Data File	/20110715s1/btmkm55r.d	Prep Date	07/06/11	SDG No	
Analysis ID	133646	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/15/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	13:19	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Anal Exp Date	08/20/11	Extract Vol	40 uL	Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (pg/sample		DL (pg/samp
2,3,7,8-TCDD				1.172				ND		5.93
Total TCDD		3361	515	1.172		6.392255		6.392255	J	5.93
2,3,7,8-TCDF				1.081				ND		3.68
Total TCDF				1.081				ND		3.68
1,2,3,7,8-PeCDD				1.124				ND		2.76
Total PeCDD		1048	418	1.124		2.099929		2.099929	QJ	2.76
1,2,3,7,8-PeCDF				1.050				ND		2.11
2,3,4,7,8-PeCDF				1.030				ND		2.15
Total PeCDF		7706	890	1.040		9.575579		9.575579	QJ	2.13
1,2,3,4,7,8-HxCDD				0.990				ND		2.75
1,2,3,6,7,8-HxCDD				1.020				ND		2.67
1,2,3,7,8,9-HxCDD				1.003				ND		2.72
Total HxCDD		9505	1942	1.004		17.595931		17.595931	QJ	2.71
1,2,3,4,7,8-HxCDF	45:06	5120	1121	1.091		6.315537		6.315537	J	1.42
1,2,3,6,7,8-HxCDF	45:11	2645	659	1.226		2.904569		2.904569	QJ	1.27
2,3,4,6,7,8-HxCDF				1.160				ND		1.34
1,2,3,7,8,9-HxCDF				1.008				ND		1.54
Total HxCDF		14872	3775	1.121		27.072757		27.072757	QJ	1.38
1,2,3,4,6,7,8-HpCDD	51:01	2521	641	1.094		5.628618		5.628618	QJ	3.77
Total HpCDD				1.094		5.628618		5.628618	QJ	3.77
1,2,3,4,6,7,8-HpCDF	49:18	32681	7973	1.469		42.051073		42.051073	J	1.80
1,2,3,4,7,8,9-HpCDF	51:38	5469	900	1.127		9.173404		9.173404	QJ	2.35
Total HpCDF		11219	2274	1.298		67.562677		67.562677	JQ	2.04
OCDD	55:18	17698	4821	1.075		46.801179		46.801179	J	3.24
OCDF	55:25	59941	14556	1.258		135.516584		135.516584	J	3.35
13C-2,3,7,8-TCDD	31:36	897452	92868	1.006	2000	1616.71079	80.84	1616.71079		10.6
13C-2,3,7,8-TCDF	29:37	1505916	173655	1.719	2000	1587.88066	79.39	1587.88066		4.09
13C-1,2,3,7,8-PeCDD	41:45	888431	196807	0.953	2000	1689.67375	84.48	1689.67375		6.99
13C-1,2,3,7,8-PeCDF	39:53	1547107	300091	1.661	2000	1688.98407	84.45	1688.98407		4.87
13C-1,2,3,6,7,8-HxCDD	46:15	1075638	262575	1.035	2000	1776.62117	88.83	1776.62117		4.40
13C-1,2,3,6,7,8-HxCDF	45:12	1485837	399454	1.434	2000	1770.82251	88.54	1770.82251		2.15
13C-1,2,3,4,6,7,8-HpCDD	50:59	818884	153838	0.851	2000	1644.42230	82.22	1644.42230		2.81
13C-1,2,3,4,6,7,8-HpCDF	49:17	1058043	237594	1.094	2000	1653.53037	82.68	1653.53037		2.61
13C-OCDD	55:17	1406639	327399	0.867	4000	2772.53613	69.31	2772.53613		3.58
37Cl4-2,3,7,8-TCDD	31:39	1893089	204629	1.198	4000	3521.49004	88.04	3521.49004		4.94
13C-2,3,4,7,8-PeCDF	41:11	2930629	665044	0.994	4000	3813.21094	95.33	3813.21094		3.25
13C-1,2,3,4,7,8-HxCDD	46:07	1906052	533980	0.887	4000	3994.82295	99.87	3994.82295		5.65
13C-1,2,3,4,7,8-HxCDF	45:05	2586639	699353	0.891	4000	3908.35409	97.71	3908.35409		2.50
13C-1,2,3,7,8,9-HxCDF				1.321				ND		2.33
13C-1,2,3,4,7,8,9-HpCDF	51:37	1663867	320675	0.841	4000	3738.85191	93.47	3738.85191		4.13
13C-1,2,3,4-TCDD	31:07	2206354	240095	1.000	4000	4000.00000	100.00	4000.00000		10.6
13C-1,2,3,7,8,9-HxCDD	46:37	2340287	577366	1.000	4000	4000.00000	100.00	4000.00000		4.56

PMP by L 7-18-11

QC'd L 7-18-11

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM551AA	Prep Batch	1187027	Lot No	H1G050439-001
Data File	/20110715s1/btmkm55r.d	Prep Date	07/06/11	SDG No	
Analysis ID	133646	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	07/15/11 13:19	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	155	190	62	76	0.82	/	
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	205	218	82	87	0.94 *	/	
	13C-2,3,7,8-TCDF	29:37	29:37	0	658814	847102	75166	98489	0.78	ABV/AVV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	150	173	60	69	0.87	/	
	Unidentified	27:42	00:00	0	1407	1954	226	289	0.72	ABB/MVV	
328					327.8847		327.8847				
	Noise	00:00	00:00	0	275		110				
	37Cl4-2,3,7,8-TCDD	31:39	31:40	-1	1893089		204629			ABV	
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	273	365	109	146	0.75	/	
	13C-1,2,3,4-TCDD	31:07	31:06	1	985146	1221208	106788	133307	0.81	AVV/AVV	
	13C-2,3,7,8-TCDD	31:36	31:36	0	399600	497852	41366	51502	0.80	AVV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	140	193	56	77	0.73 *	/	
	Unidentified	38:21	00:00	0	2978	3130	300	580	0.95 *	MVV/MVV	RT
	Unidentified	39:23	00:00	0	1706	4557	241	682	0.37 *	MBV/MVV	R
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	205	280	82	112	0.73 *	/	
	13C-1,2,3,7,8-PeCDF	39:53	39:54	-1	946721	600386	183766	116325	1.58	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:11	41:11	0	1801212	1129417	408072	256972	1.59	ABV/ABV	
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	173	133	69	53	1.30 *	/	
	Unidentified	40:35	00:00	0	973	411	232	164	2.37 *	MVV/MVV	RT
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	205	195	82	78	1.05 *	/	
	13C-1,2,3,7,8-PeCDD	41:45	41:45	0	540027	348404	119628	77179	1.55	ABV/ABV	M
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	165	145	66	58	1.14	/	
	Unidentified	43:50	00:00	0	3355	2258	547	335	1.49 *	MBV/ABV	R
	Unidentified	44:02	00:00	0	2570	3200	710	808	0.80 *	AVB/AVB	R
	Unidentified	44:28	00:00	0	1037	623	331	306	1.66 *		RM
	Unidentified	44:51	00:00	0	961	1372	188	273	0.70 *	MVV/ABV	R
	1,2,3,4,7,8-HxCDF	45:06	45:06	0	3006	2114	638	483	1.42	ABV/AVB	
	1,2,3,6,7,8-HxCDF	45:11	45:13	-2	1464	2369	365	814	0.62 *	MVV/MVV	R
	Unidentified	45:51	00:00	0	1129	1181	397	198	0.96 *	ABV/MVV	R
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	190	255	76	102	0.75 *	/	
	13C-1,2,3,4,7,8-HxCDF	45:05	45:05	0	903592	1683047	242706	456647	0.54	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDF	45:12	45:12	0	517901	967936	139811	259643	0.54	AVV/AVV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM551AA	Prep Batch	1187027	Lot No	H1G050439-001
Data File	/20110715s1/btmkm55r.d	Prep Date	07/06/11	SDG No	
Analysis ID	133646	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	07/15/11 13:19	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

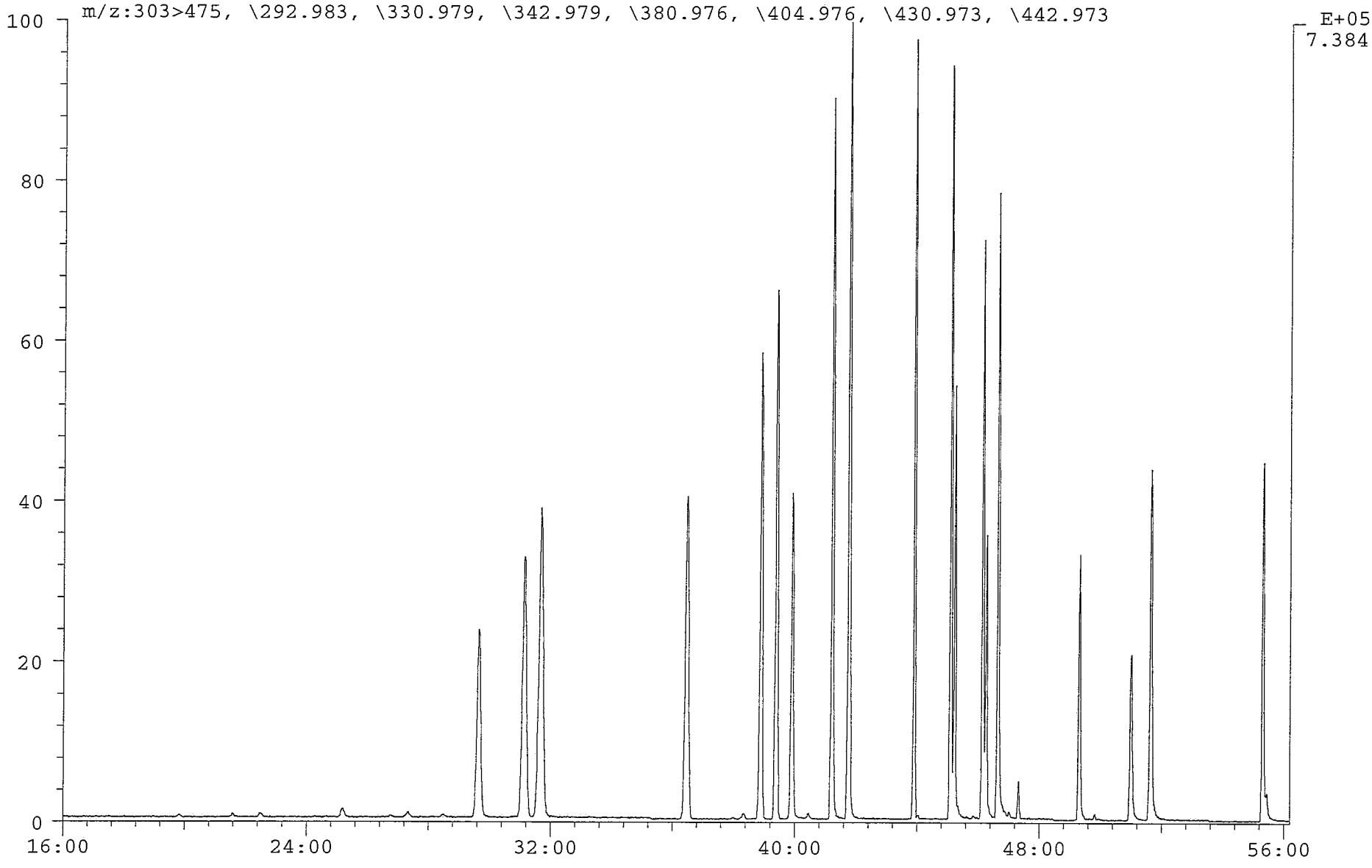
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	180	178	72	71	1.01 *	/	
	Unidentified	44:39	00:00	0	1321	1709	268	361	0.77 *	ABB/MVV	R
	Unidentified	45:05	00:00	0	2629	1571	490	343	1.67 *	ABV/AVV	RTM
	Unidentified	45:11	00:00	0	2631	1607	576	308	1.64 *	MVB/MVV	RT
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	375	283	150	113	1.33	/	
	13C-1,2,3,4,7,8-HxCDD	46:07	46:07	0	1075321	830731	300177	233803	1.29	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDD	46:15	46:15	0	585441	490197	149782	112793	1.19	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDD	46:37	46:37	0	1315004	1025283	319280	258086	1.28	AVV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	163	153	65	61	1.07	/	
	1,2,3,4,6,7,8-HpCDF	49:18	49:18	0	16202	16479	3881	4092	0.98	ABV/ABV	
	Unidentified	49:41	00:00	0	3187	3428	447	605	0.93	MVB/MBB	
	Unidentified	49:56	00:00	0	2843	2257	673	599	1.26 *	ABV/MBB	R
	1,2,3,4,7,8,9-HpCDF	51:38	51:38	0	3431	2681	674	441	1.28 *	MBV/ABB	RM
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	200	213	80	85	0.94 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:17	49:17	0	337198	720845	76239	161355	0.47	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:37	51:37	0	522290	1141577	96477	224198	0.46	ABV/ABV	
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	185	133	74	53	1.40 *	/	
	1,2,3,4,6,7,8-HpCDD	51:01	51:00	1	2053	1236	276	314	1.66 *	ABB/ABB	R
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	195	150	78	60	1.30 *	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:59	50:59	0	426077	392807	79135	74703	1.08	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	178	168	71	67	1.06 *	/	
	OCDF	55:25	55:26	-1	29438	30503	6997	7559	0.97	MBB/MVV	
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	135	150	54	60	0.90	/	
	OCDD	55:18	55:18	0	8726	8972	2217	2604	0.97	MBB/MBB	
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	263	185	105	74	1.42 *	/	
	13C-OCDD	55:17	55:17	0	670610	736029	156416	170983	0.91	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

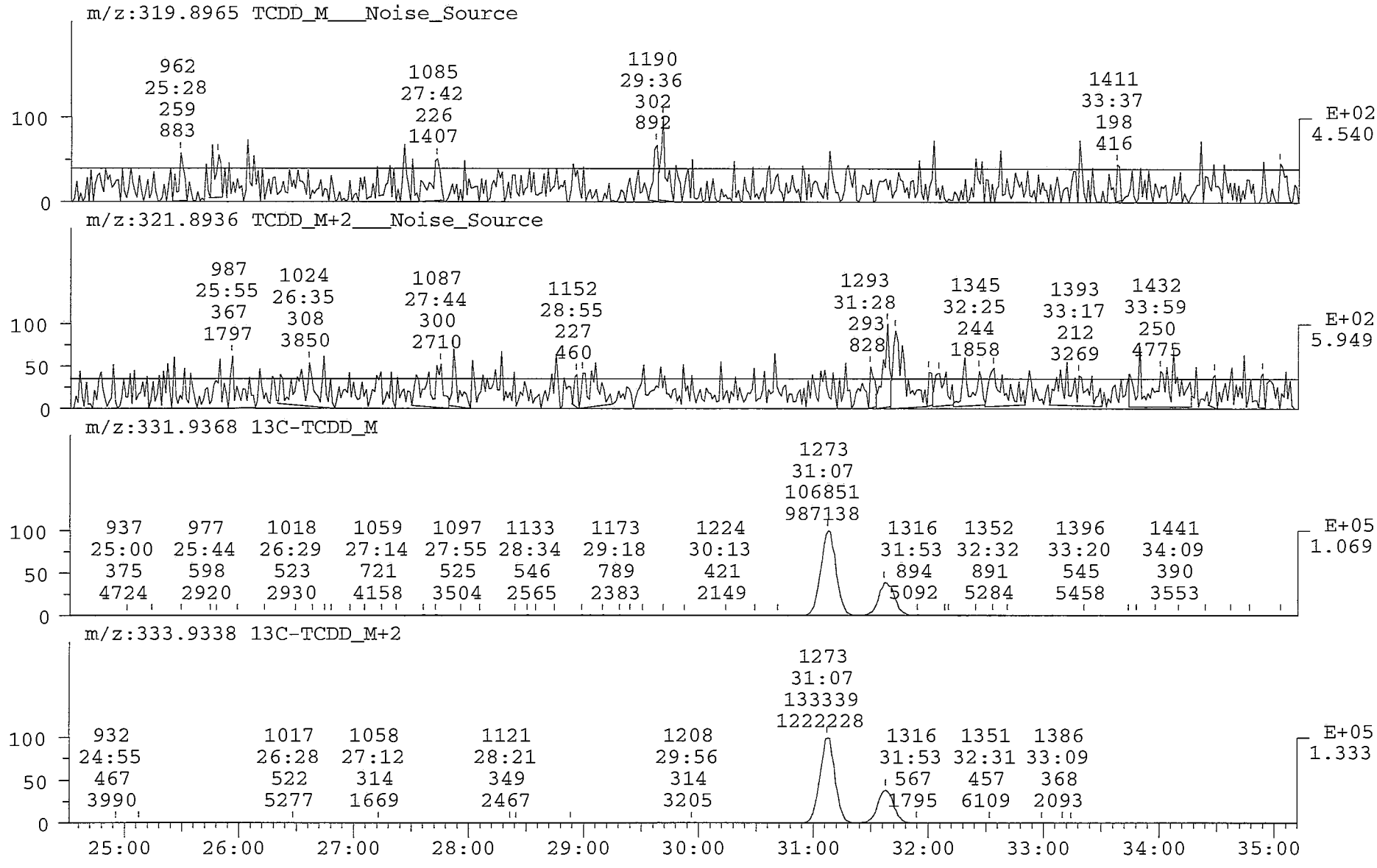
CHRO:	btmkm55r	15-Jul-11	Elapse:	08:00.4	1
Samp:	Vial 8 WO=mkm551aa Meth=X8 Dil=1		Start :	13:19:51	2677
Comm:	Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1				
Mode:	EI +VE +LMR ESCAN LR NRM		Study :	1187027 (air-2)	
Oper:	KBL	Client: H1G050439-001	Inlet :	GC Vial 8	
Peak:	100.00 ppm	Label wndw: 441 > 2677	Masses:	293 > 514	
Area:	5, 0.50, 0	Baseline : 100, 3	Label :	0, 0.0	
Disp:	Height Area				

Ut KM 7-15-11
Calc prep 7-16-10
Acd L 7-18-11
Rev MSD 7-18-11



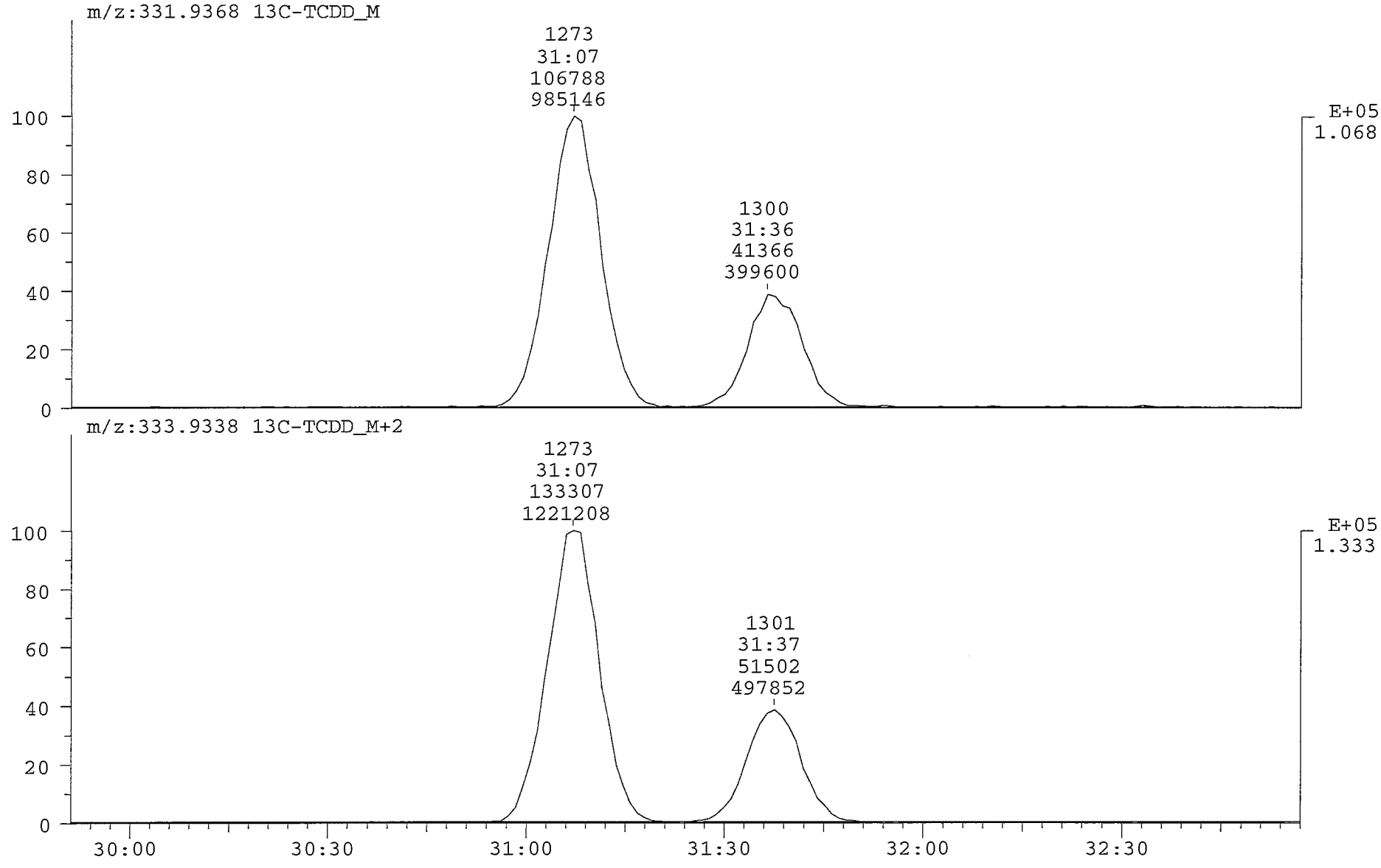
H-73

CHRO: btmkm55r 15-Jul-11 Elapse: 08:00.4 1
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 910 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



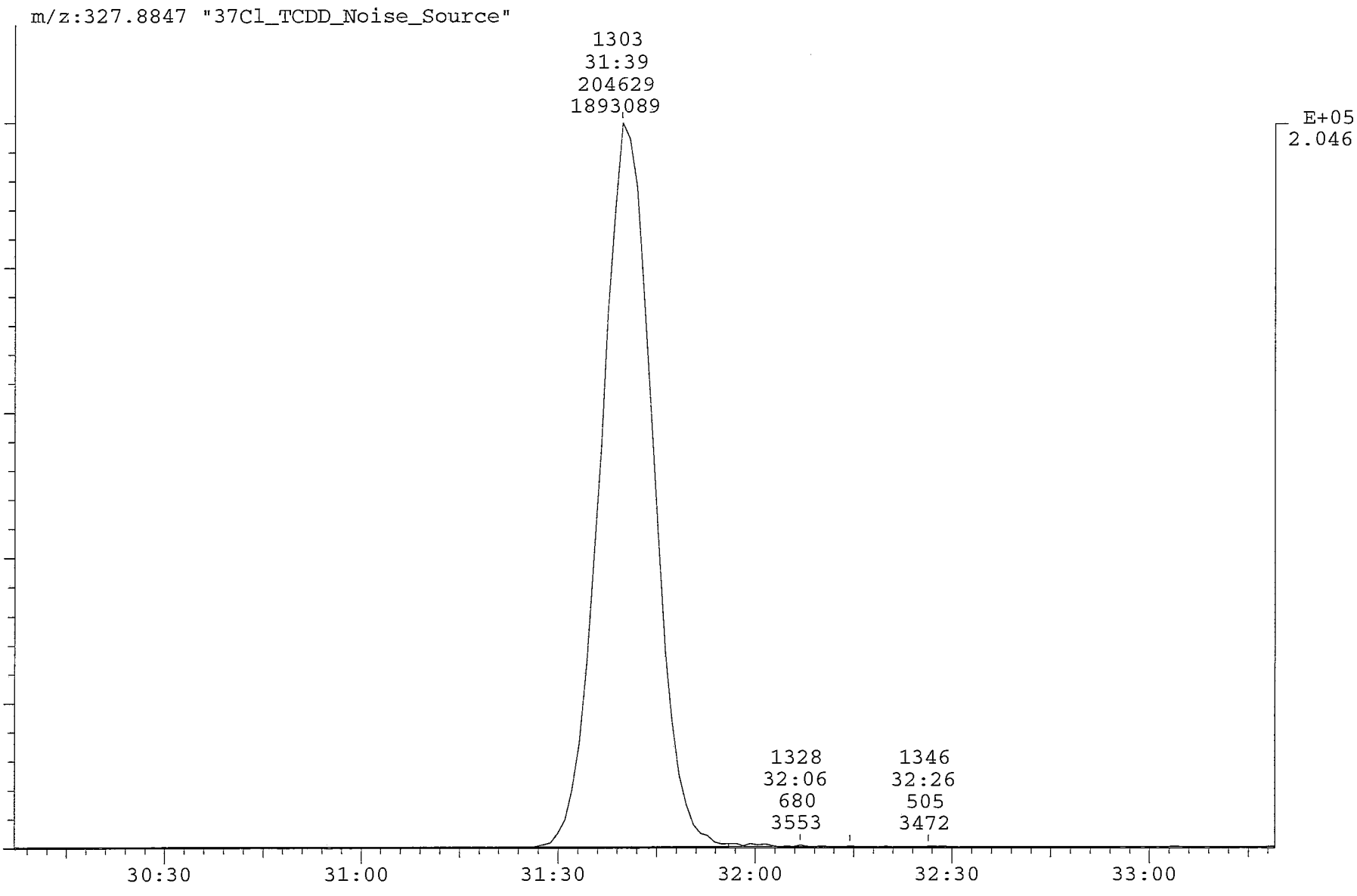
H-74

CHRO: btmkm55r 15-Jul-11 Elapse: 31:24 1289
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1203 > 1374 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



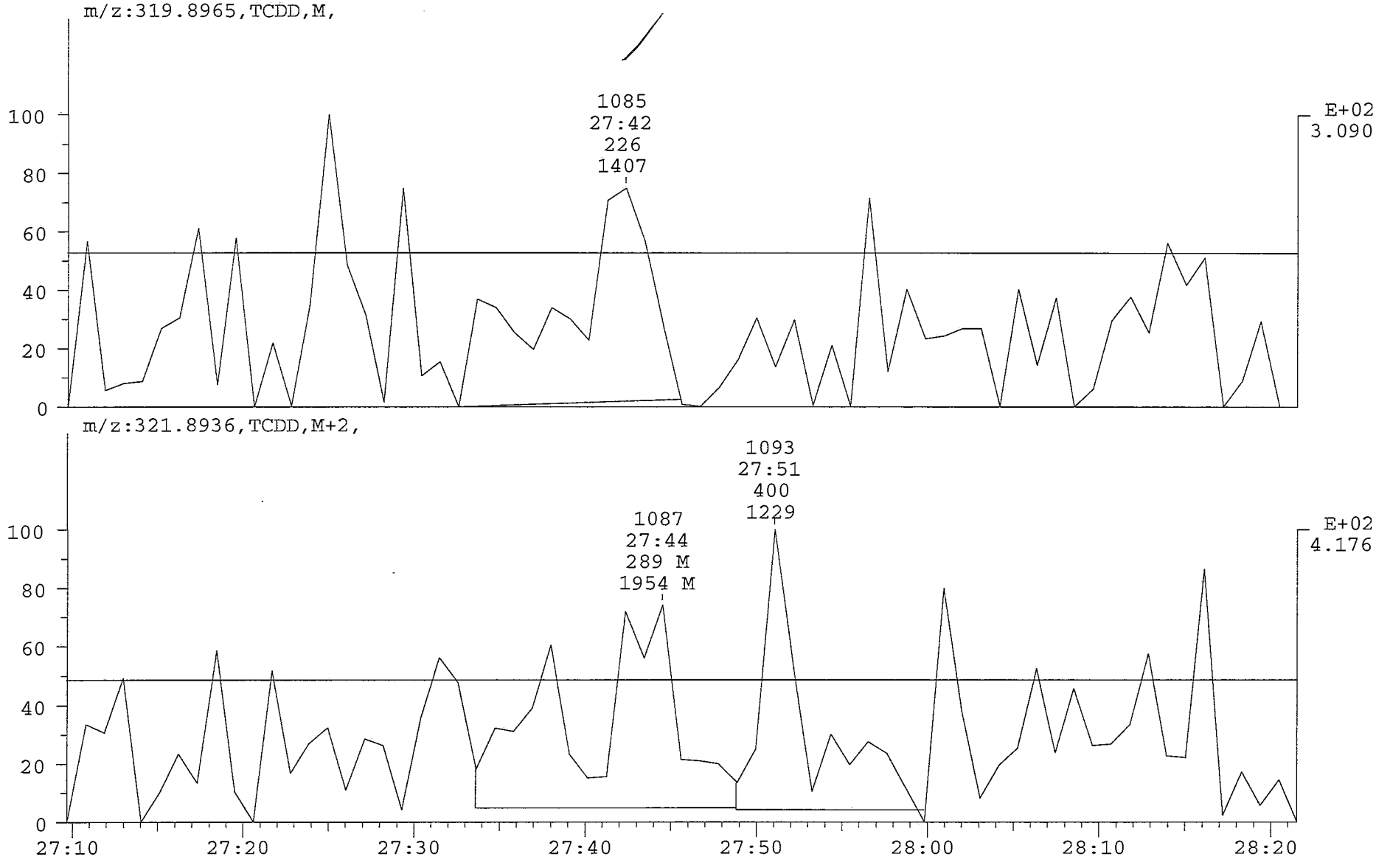
H-75

CHRO: btmkm55r 15-Jul-11 Elapse: 31:39 1303
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1218 > 1394 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



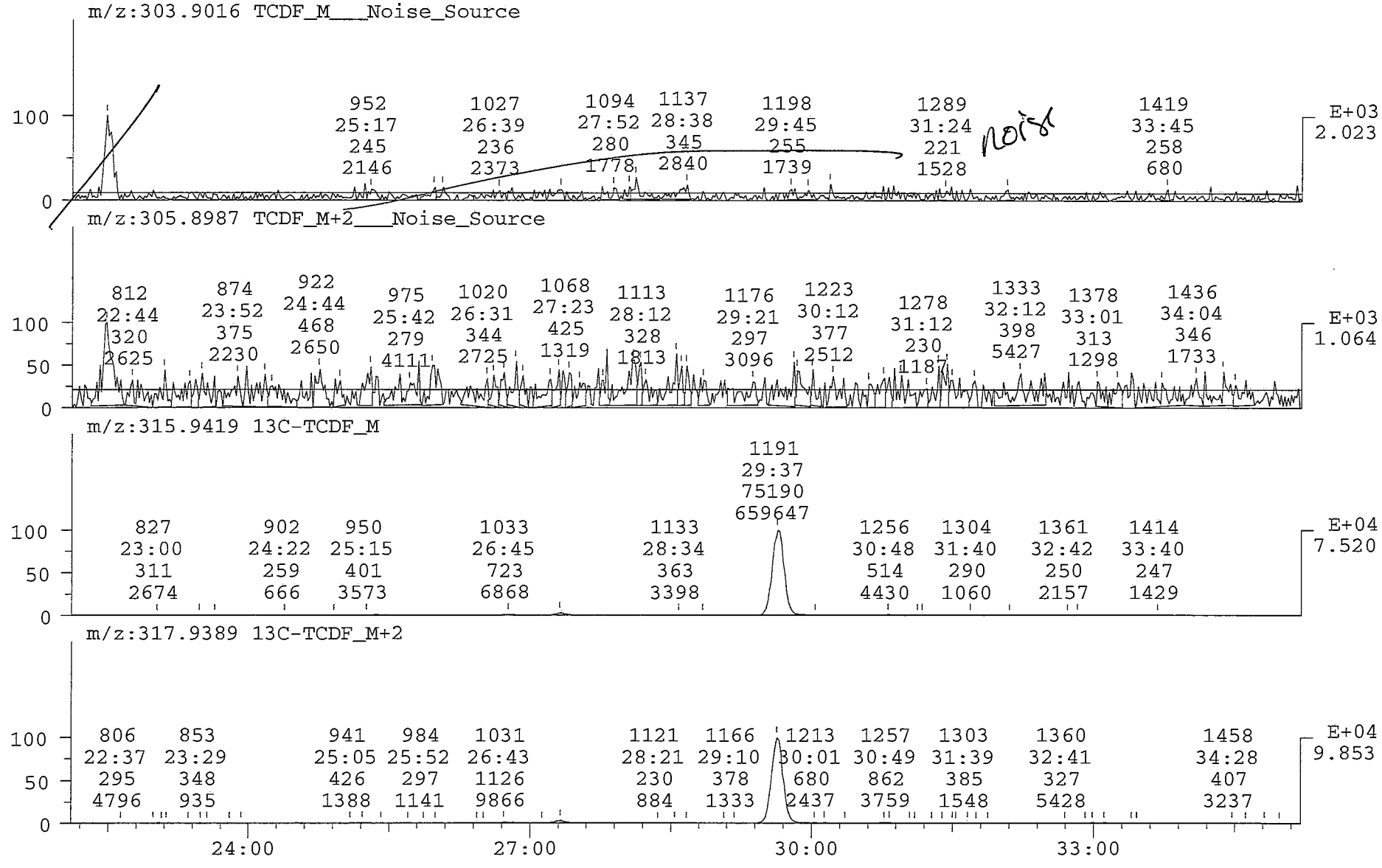
H-76

CHRO: btmkm55r 15-Jul-11 Elapse: 27:26 1070
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1055 > 1121 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-77

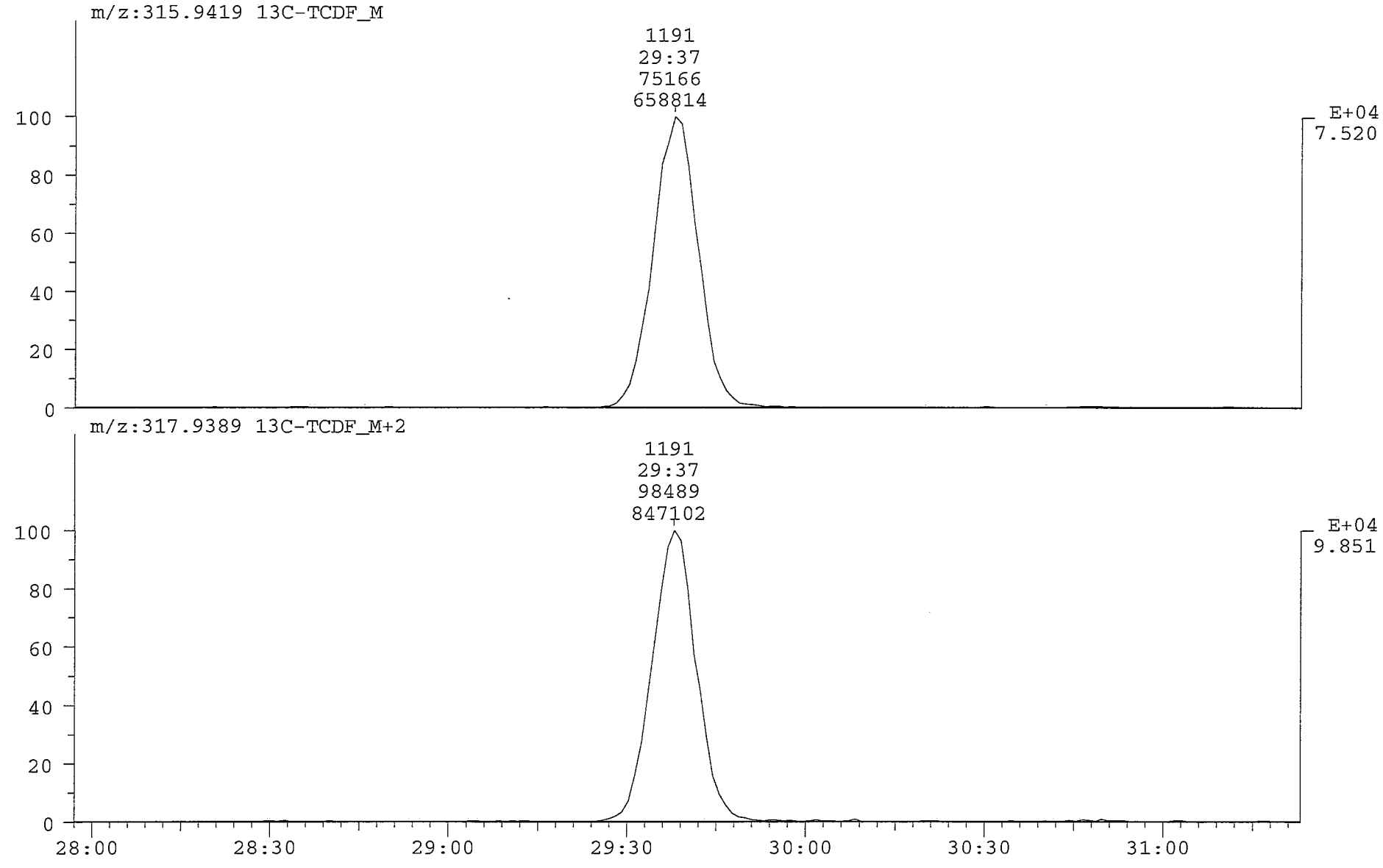
CHRO: btmkm55r 15-Jul-11 Elapse: 31:39 1303
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 777 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-78

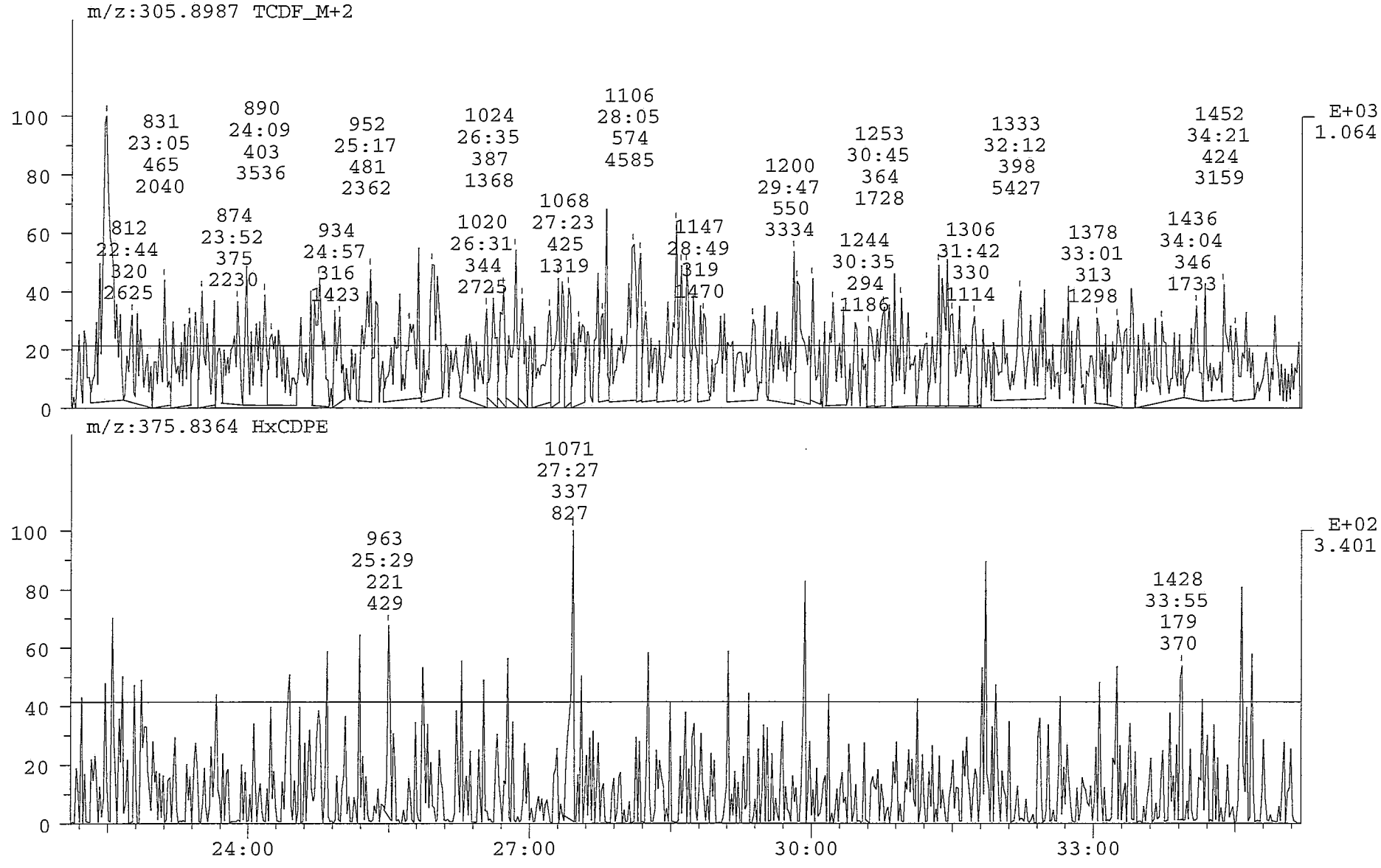
77

CHRO: btmkm55r 15-Jul-11 Elapse: 29:36 1190
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1098 > 1288 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



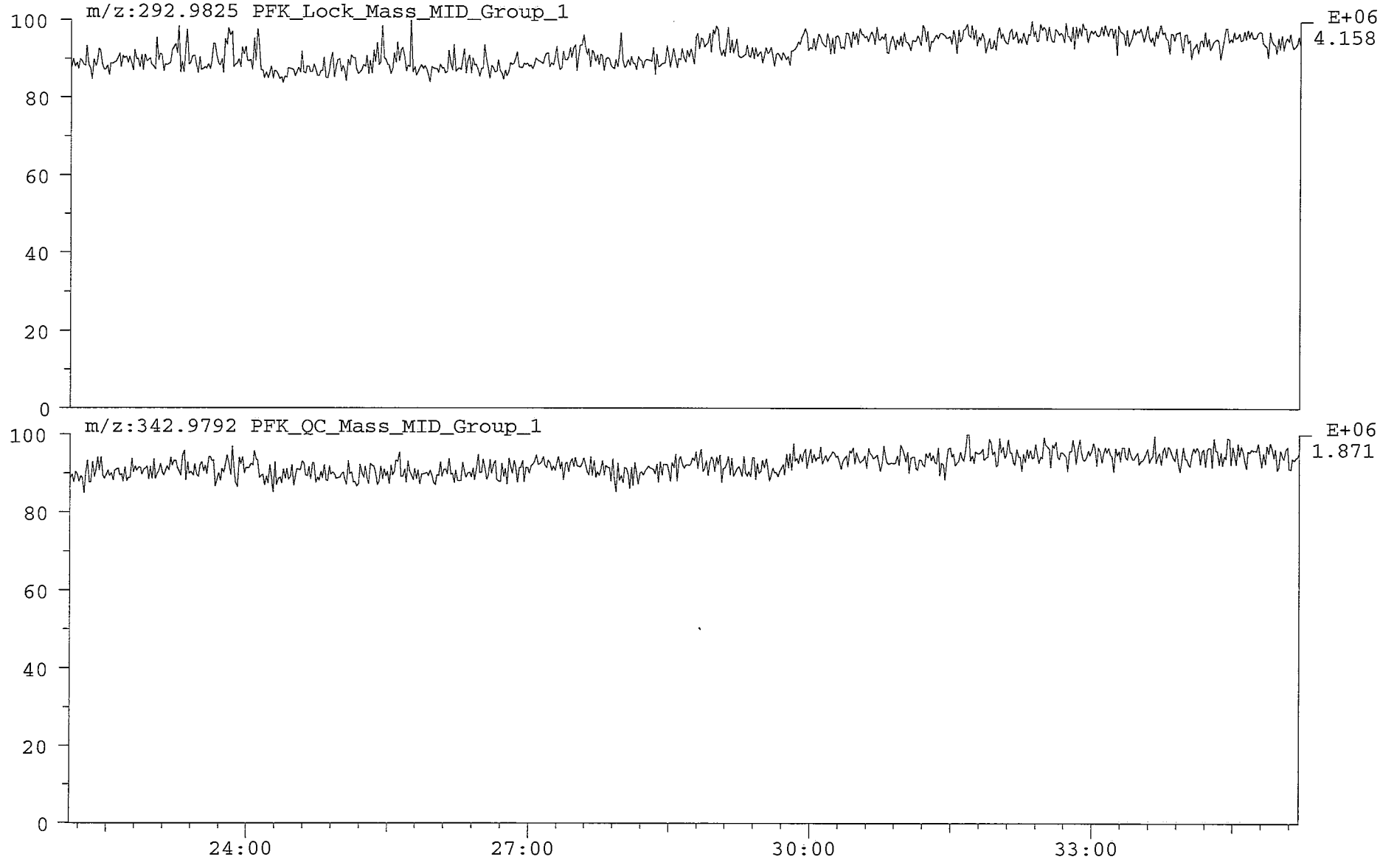
H-79

CHRO: btmkm55r 15-Jul-11 Elapse: 29:36 1190
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 777 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



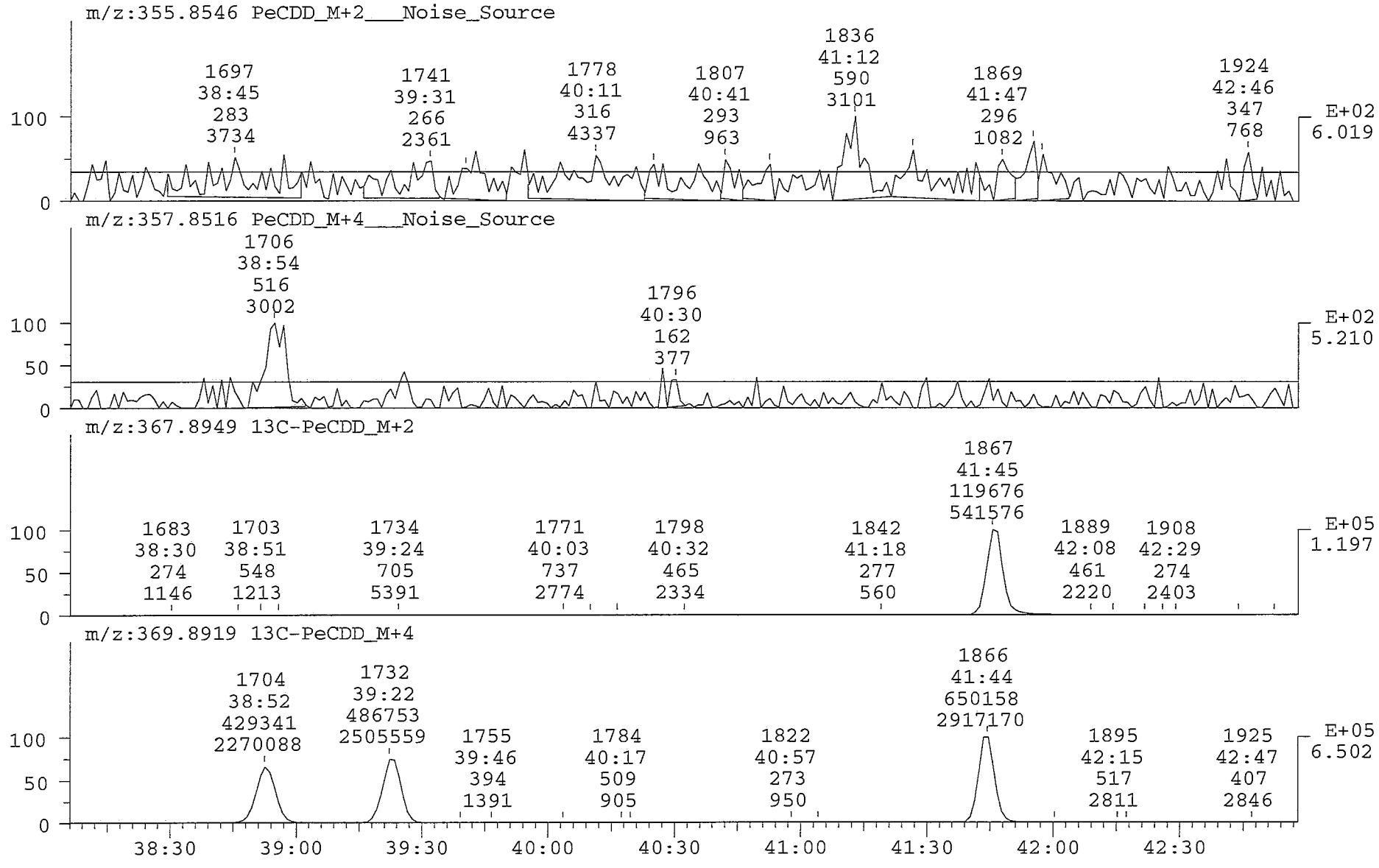
H-80

CHRO: btmkm55r 15-Jul-11 Elapse: 29:36 1190
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 777 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

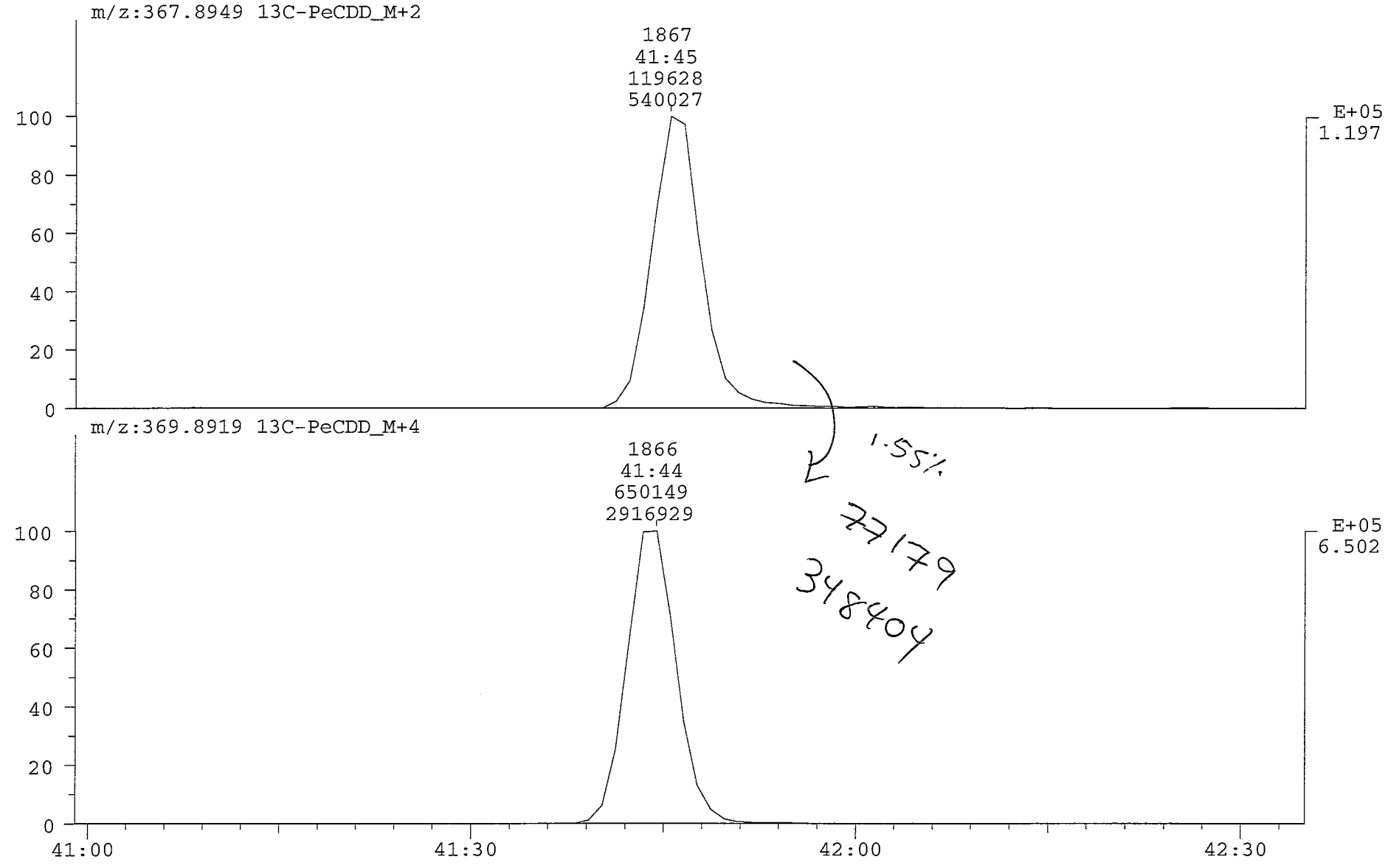


H-81

CHRO: btmkm55r 15-Jul-11 Elapse: 29:36 1190
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1660 > 1935 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

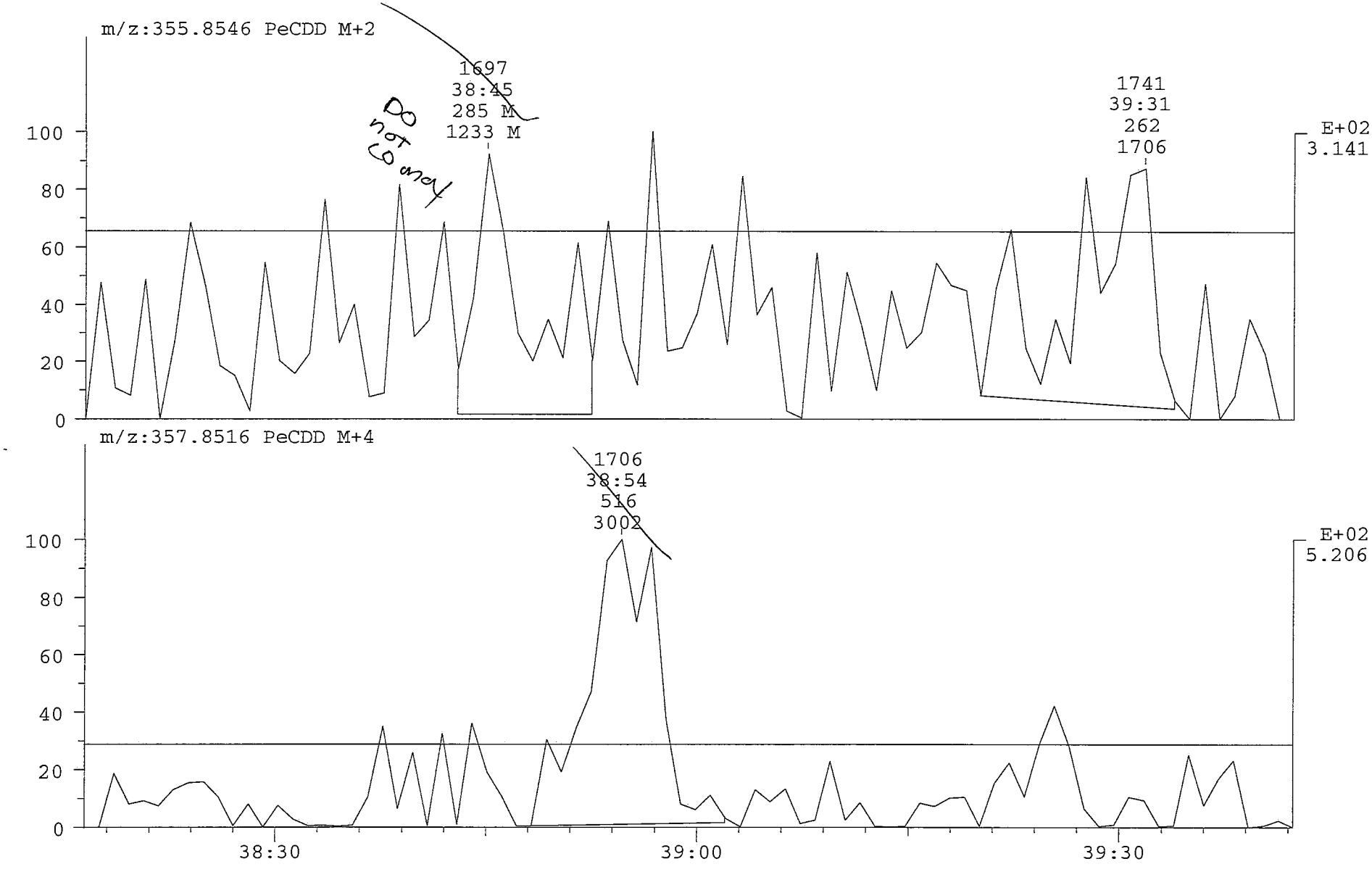


CHRO: btmkm55r 15-Jul-11 Elapse: 41:44 1866
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1823 > 1914 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



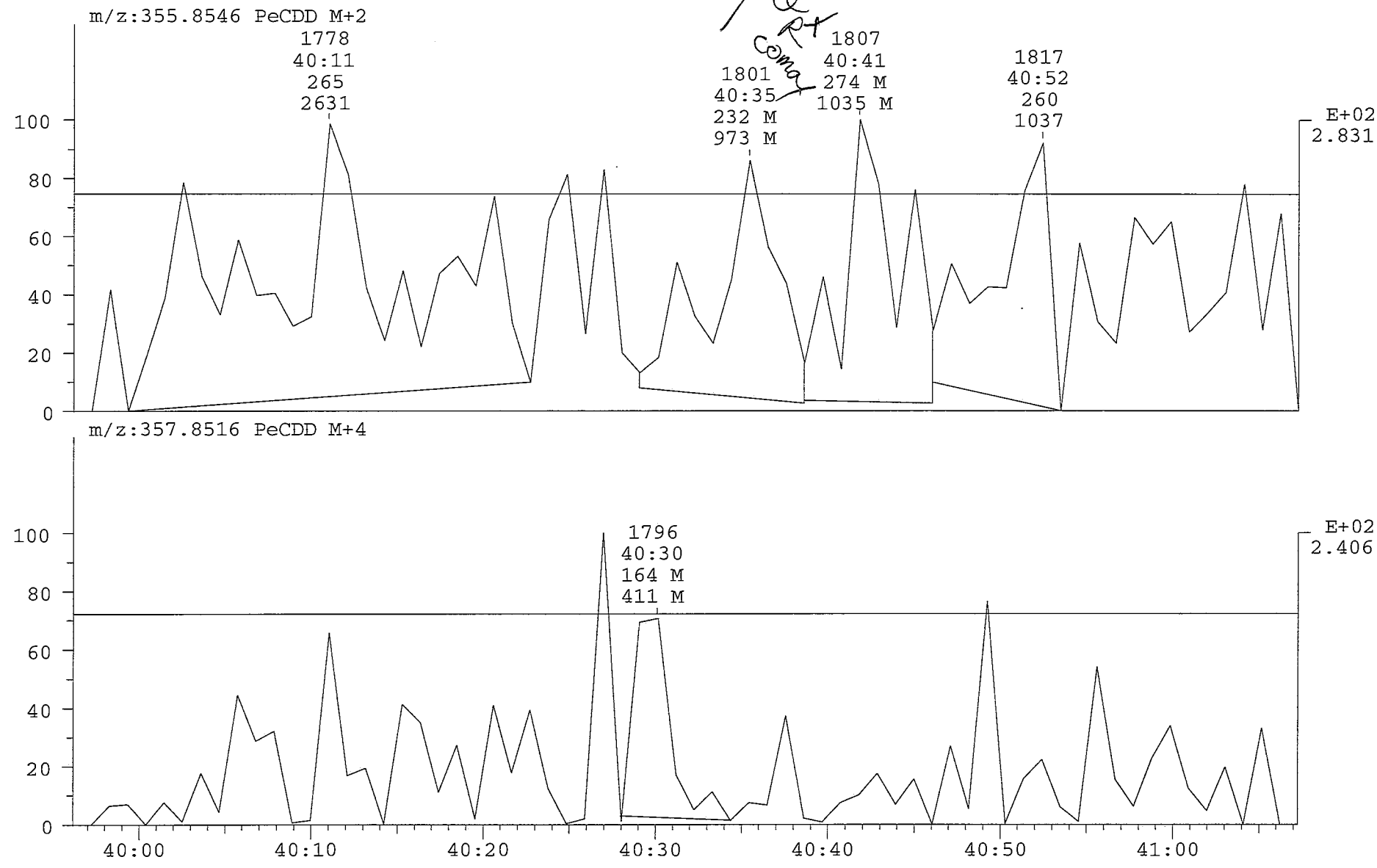
H-83

CHRO: btmkm55r 15-Jul-11 Elapse: 27:26 1070
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1670 > 1751 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



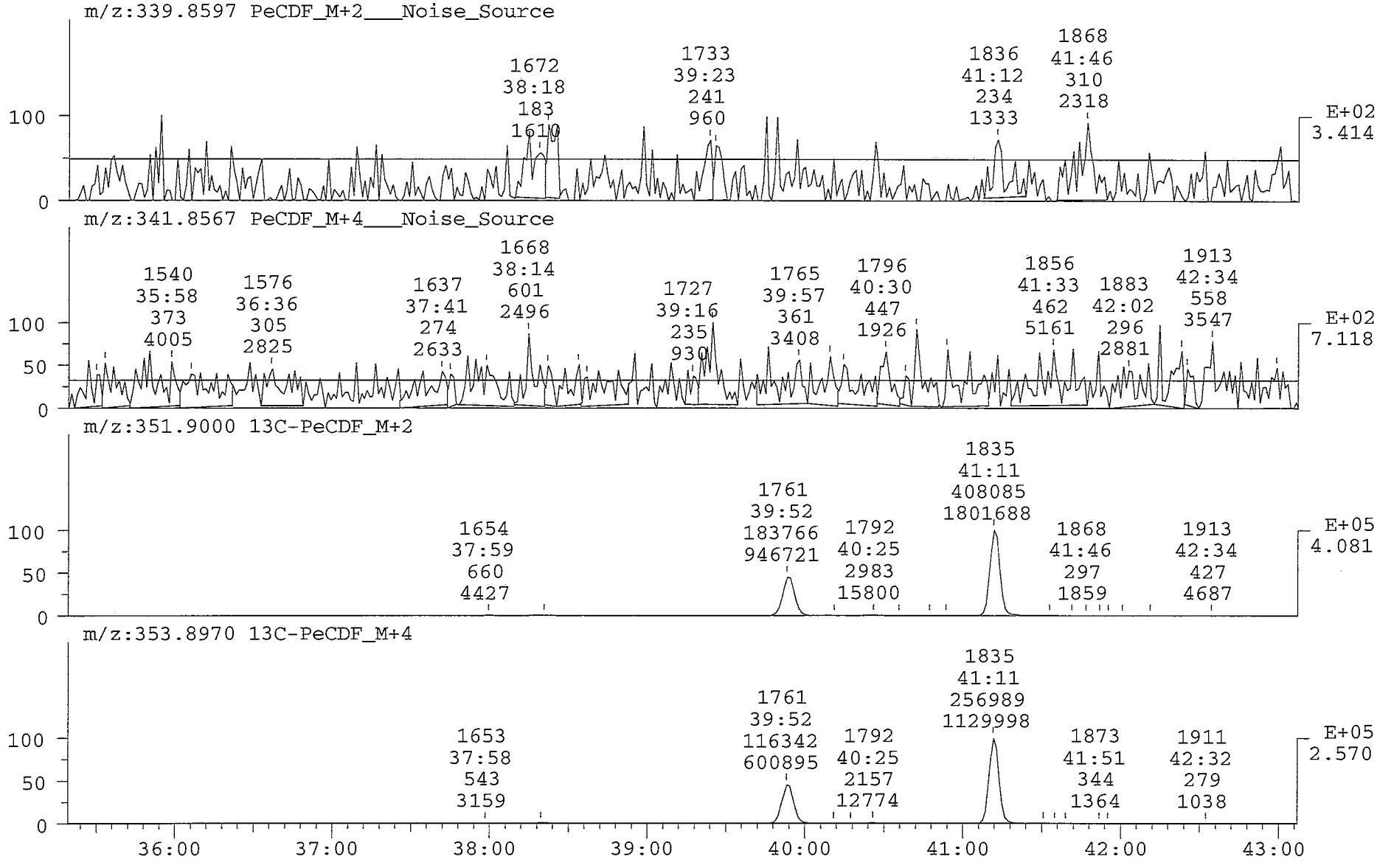
H-84

CHRO: btmkm55r 15-Jul-11 Elapse: 27:26 1070
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1764 > 1831 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



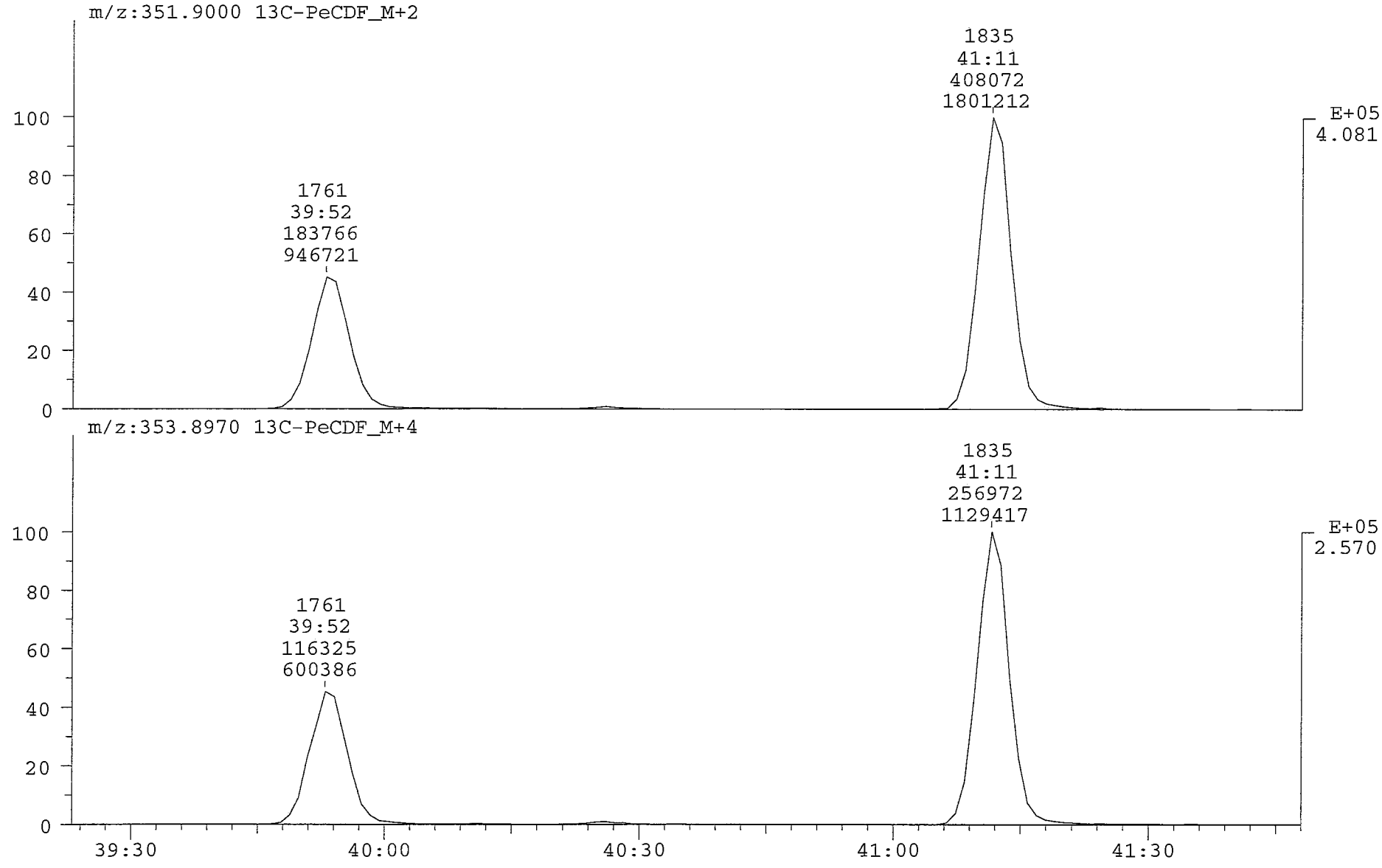
H-86

CHRO: btmkm55r 15-Jul-11 Elapse: 41:44 1866
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1503 > 1944 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



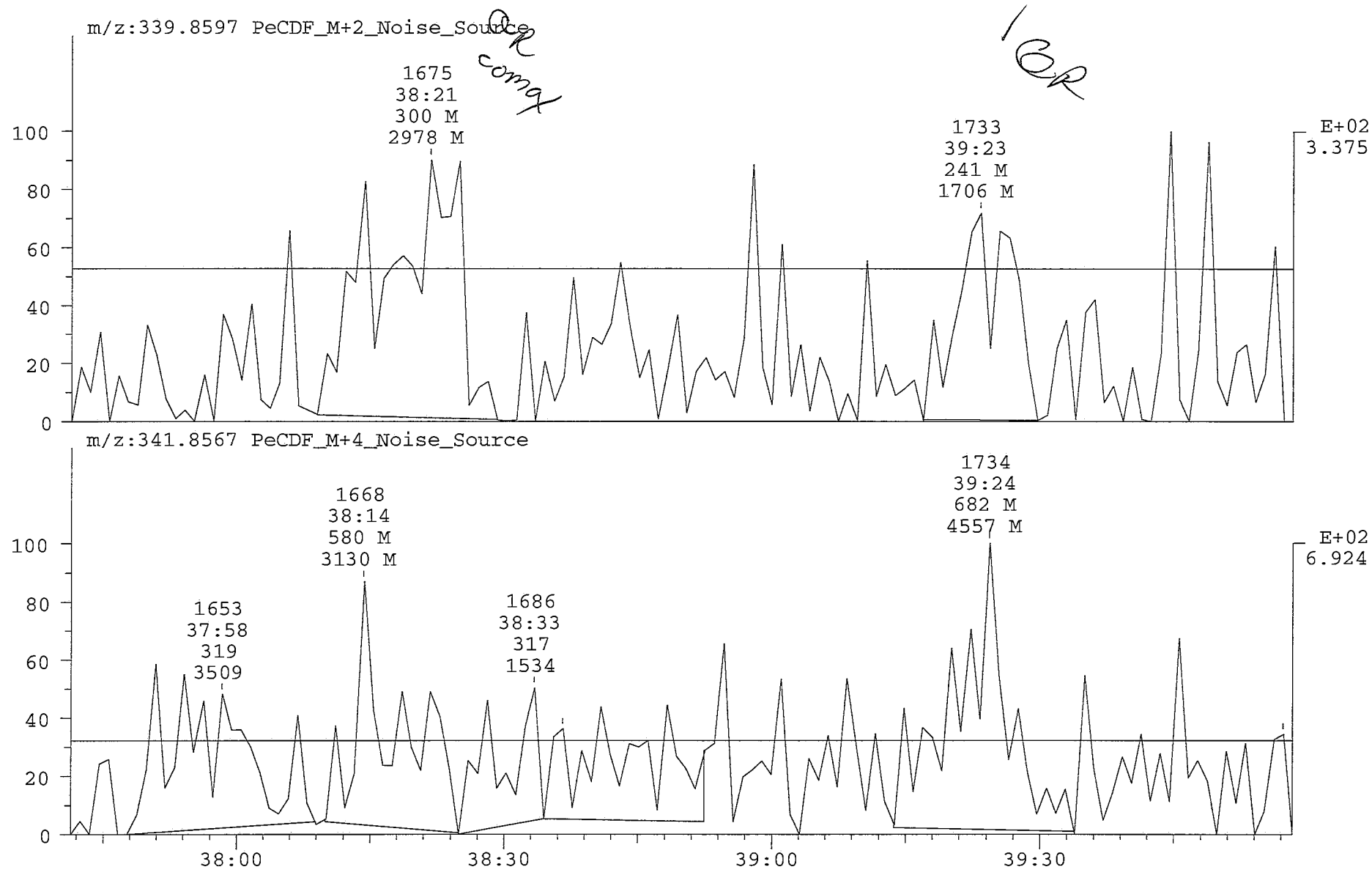
H-86

CHRO: btmkm55r 15-Jul-11 Elapse: 40:35 1801
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1733 > 1869 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-87

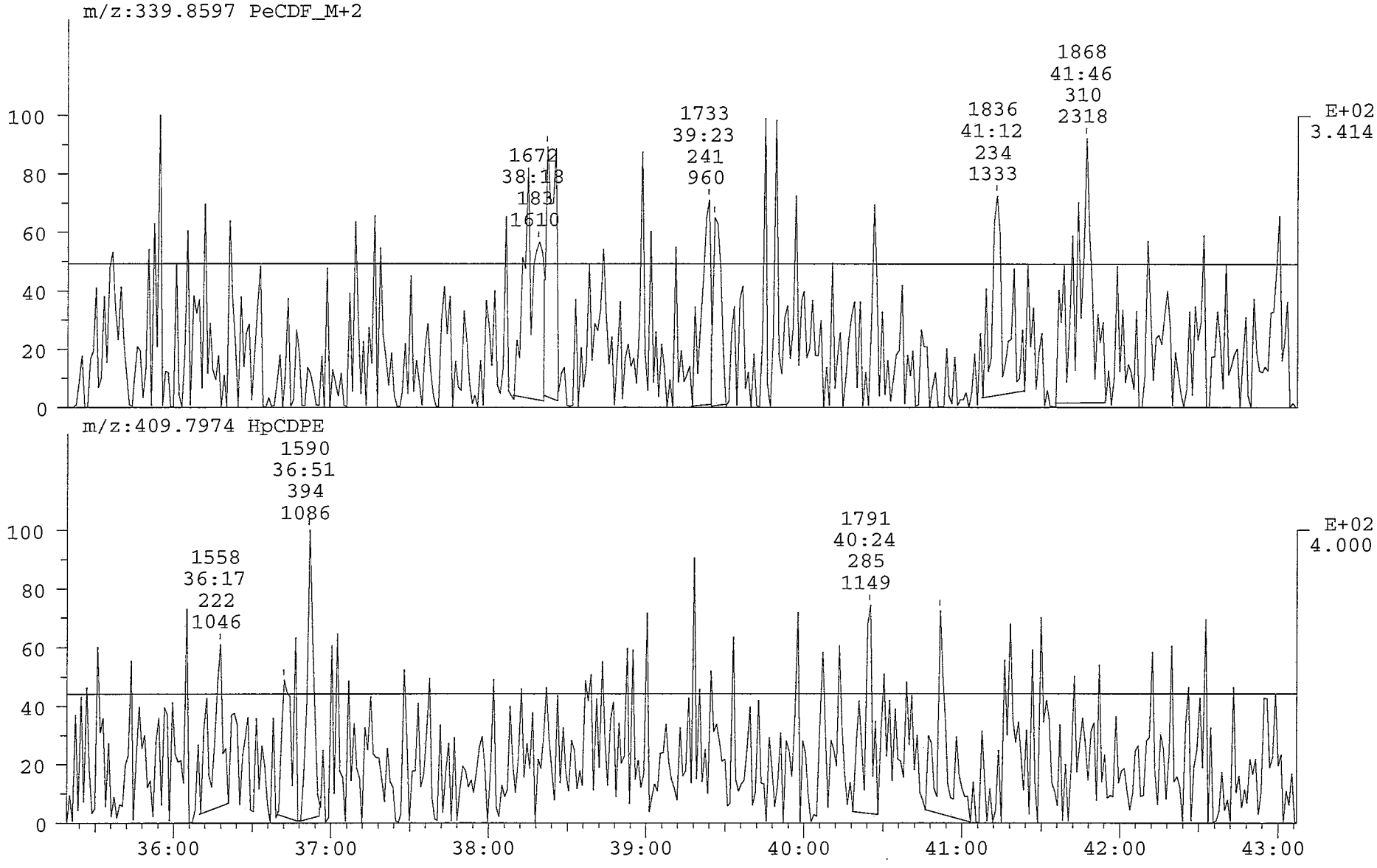
CHRO: btmkm55r 15-Jul-11 Elapse: 39:25 1735
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1637 > 1766 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-88

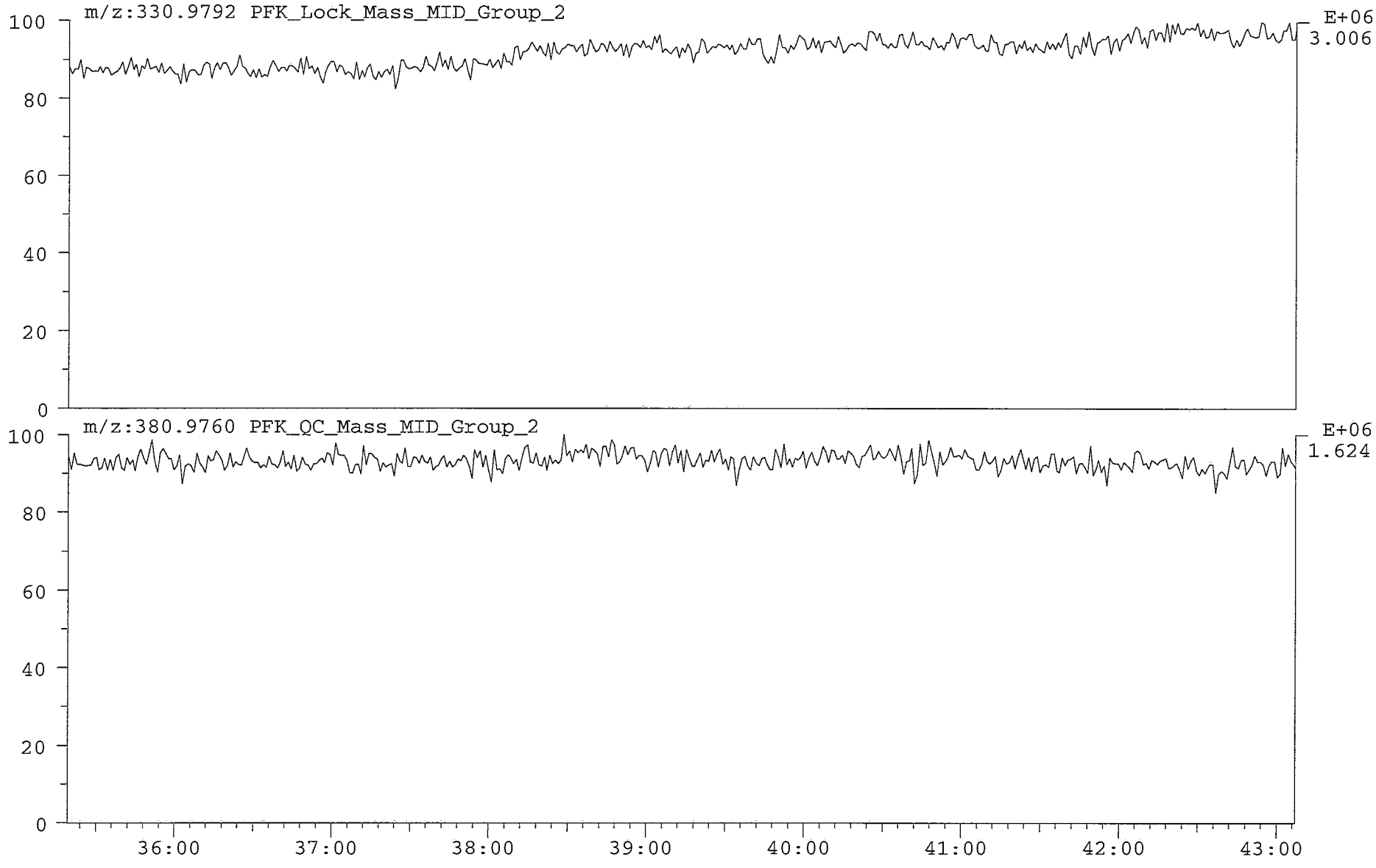
87

CHRO: btmkm55r 15-Jul-11 Elapse: 40:35 1801
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1503 > 1944 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



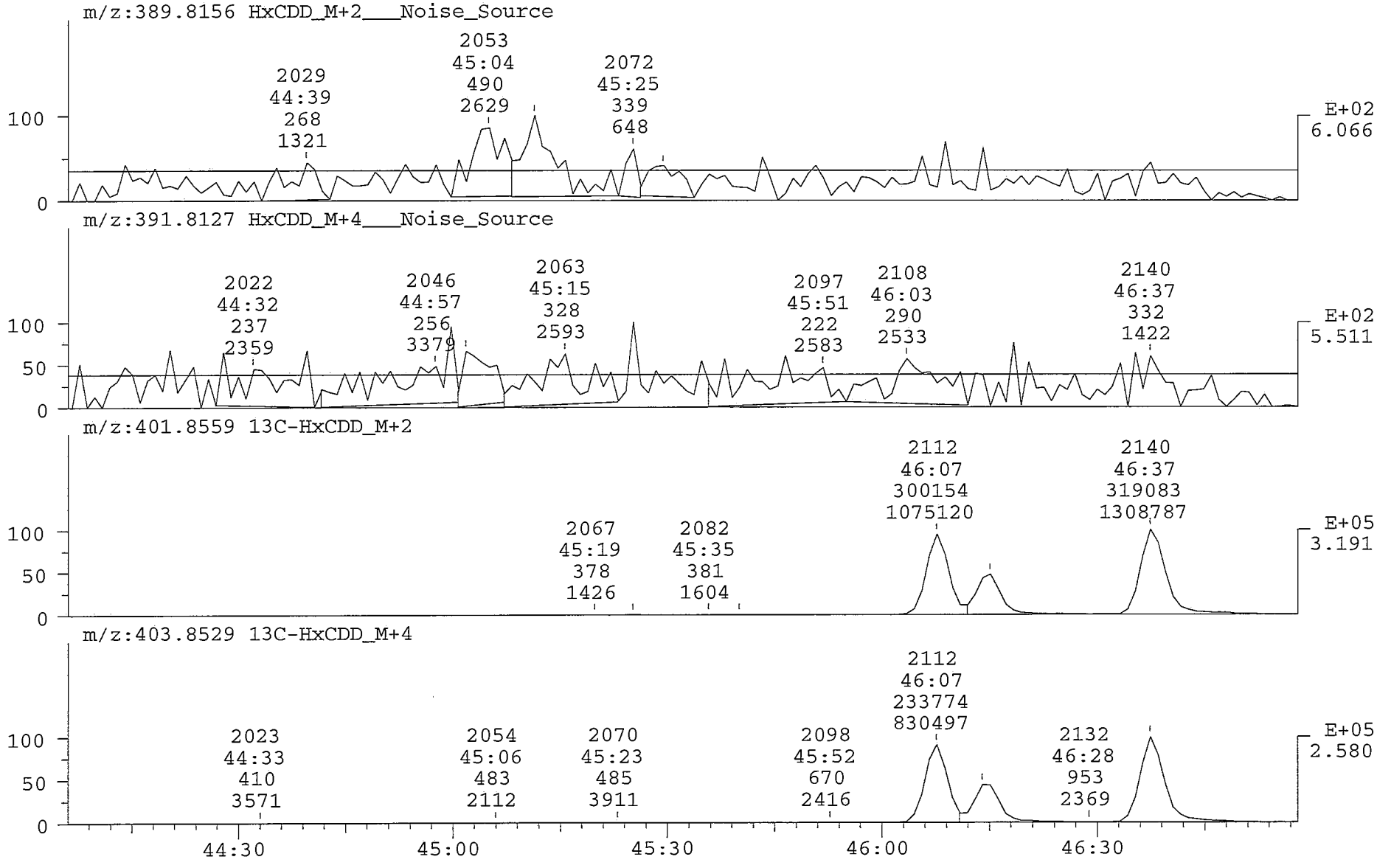
H-89

```
CHRO:  btmkm55r                              15-Jul-11   Elapse:  40:35      1801
Samp:  Vial 8 WO=mkm551aa Meth=X8 Dil=1                  Start :  13:19:51   2677
Comm:  Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode:  EI +VE +LMR  ESCAN LR NRM                         Study :  1187027 (air-2)
Oper:  KBL          Client:  H1G050439-001               Inlet :  GC     Vial  8
Peak:  100.00  ppm     Label wndw:   1503 > 1944         Masses:  293 > 514
Area:  5, 0.50, 15     Baseline  :   100, 3              Label :  0, 0.0
Disp:  Height  Area
```



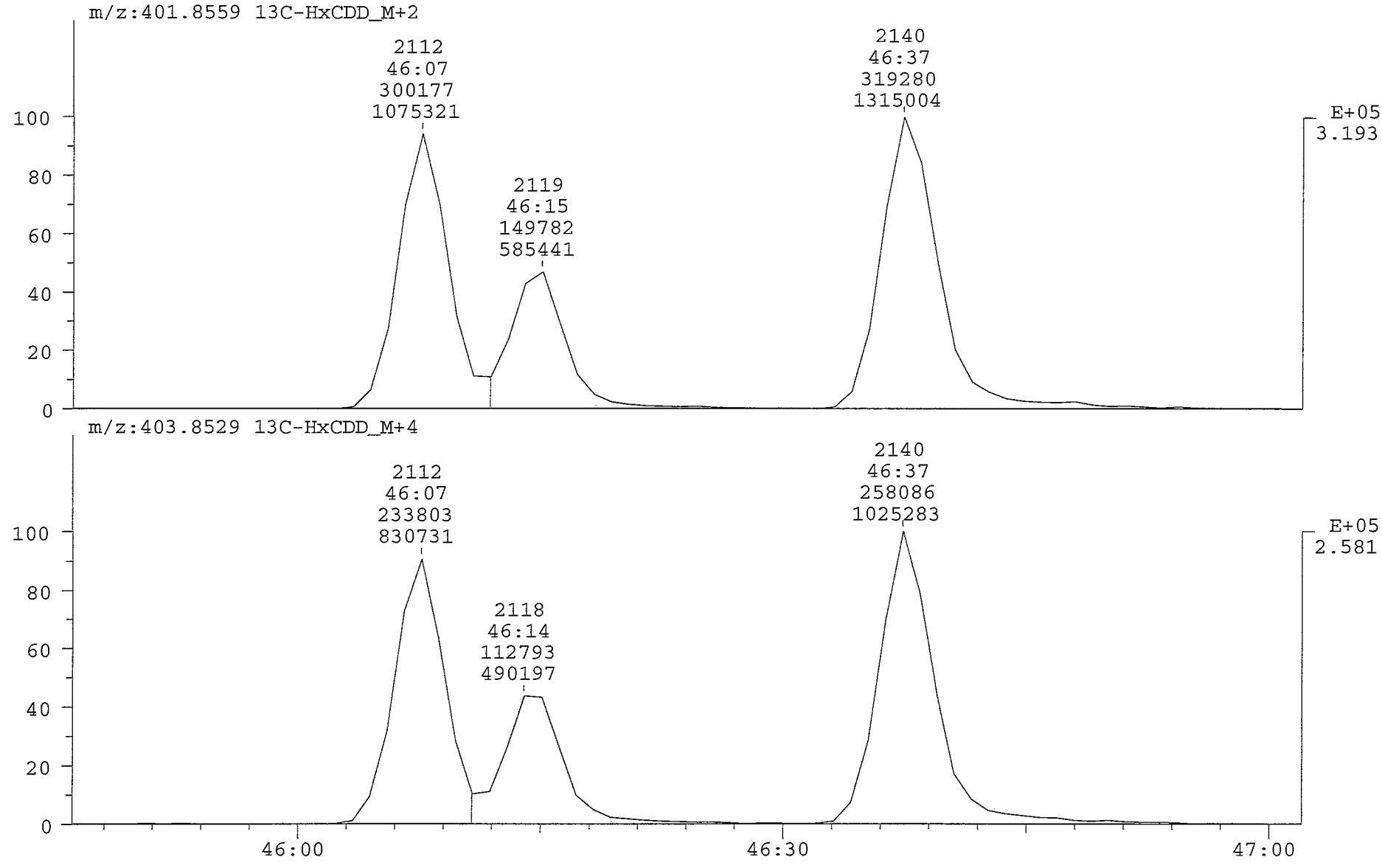
H-90

CHRO: btmkm55r 15-Jul-11 Elapse: 40:35 1801
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1998 > 2159 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



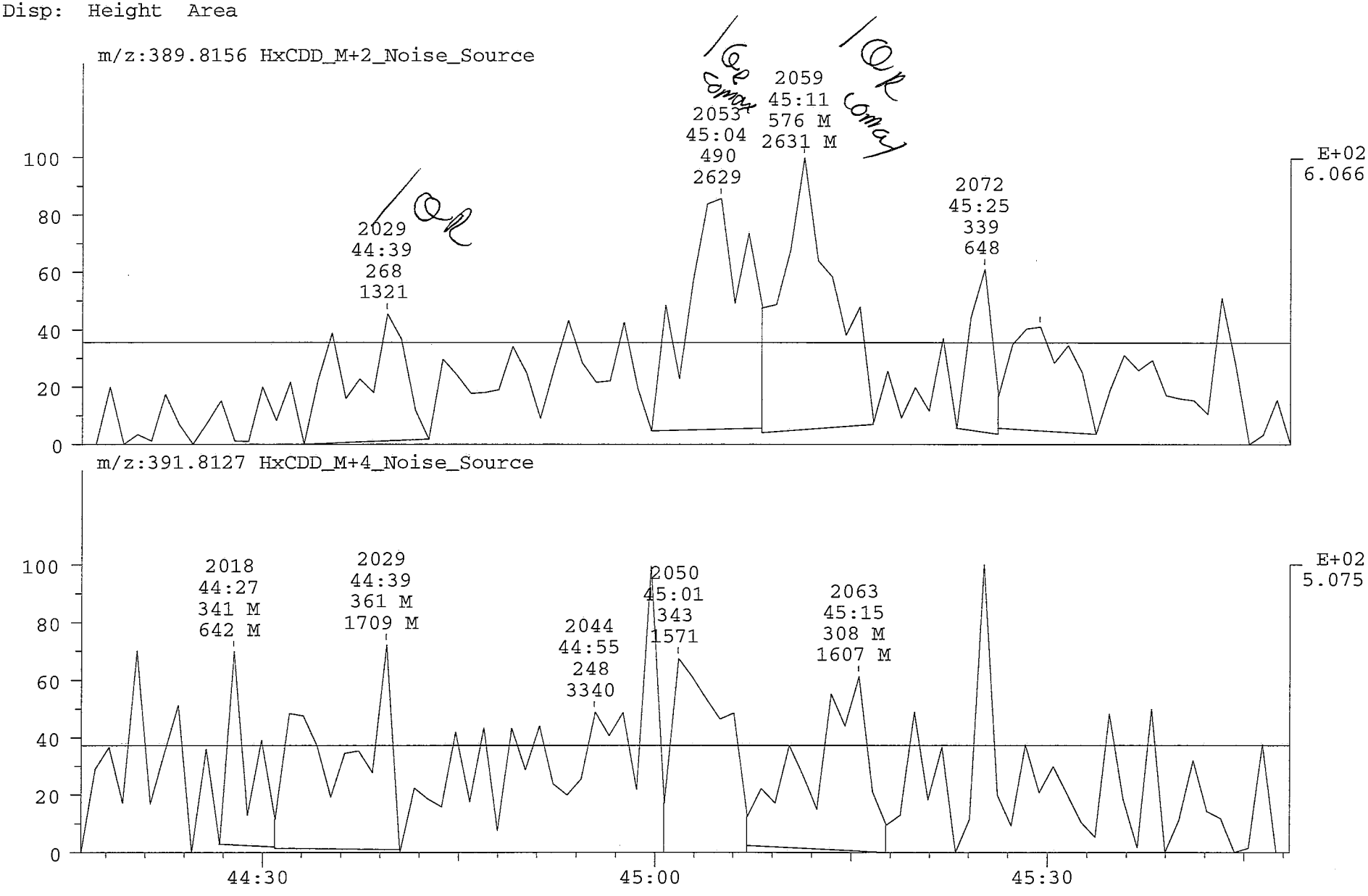
H-91

CHRO: btmkm55r 15-Jul-11 Elapse: 46:23 2127
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2092 > 2163 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

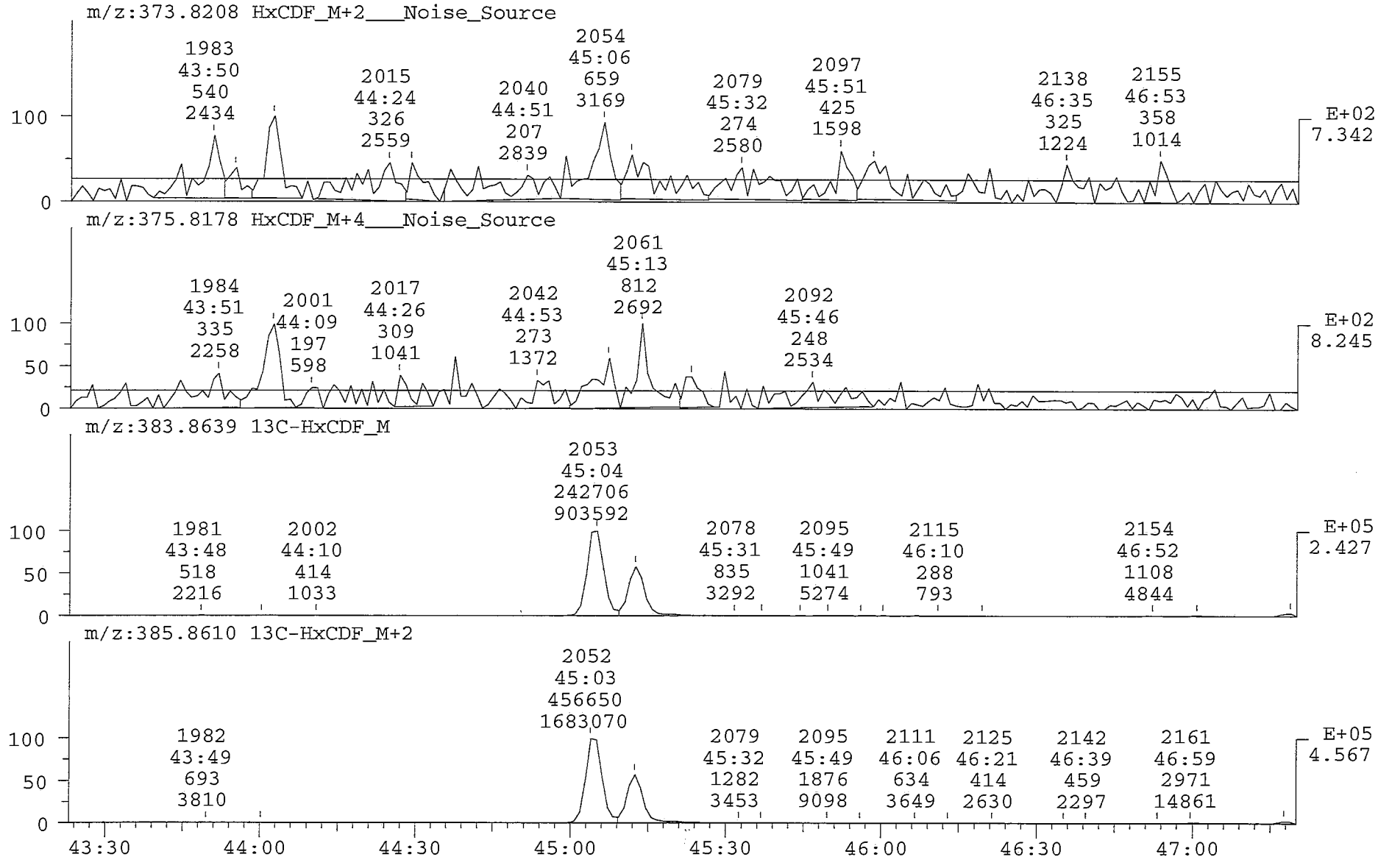


H-92

CHRO: btmkm55r 15-Jul-11 Elapse: 44:32 2022
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2007 > 2094 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

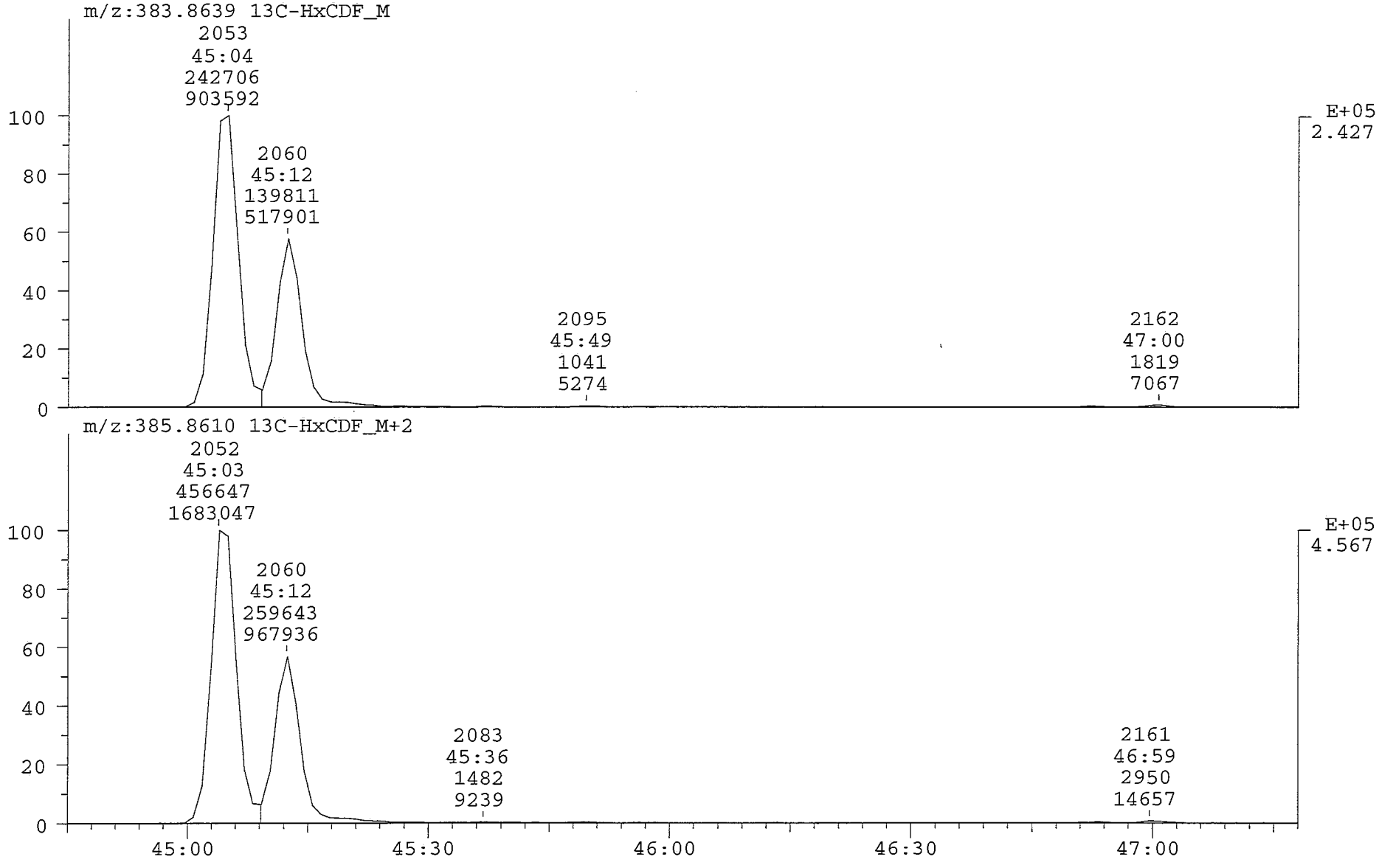


CHRO: btmkm55r 15-Jul-11 Elapse: 46:23 2127
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1957 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



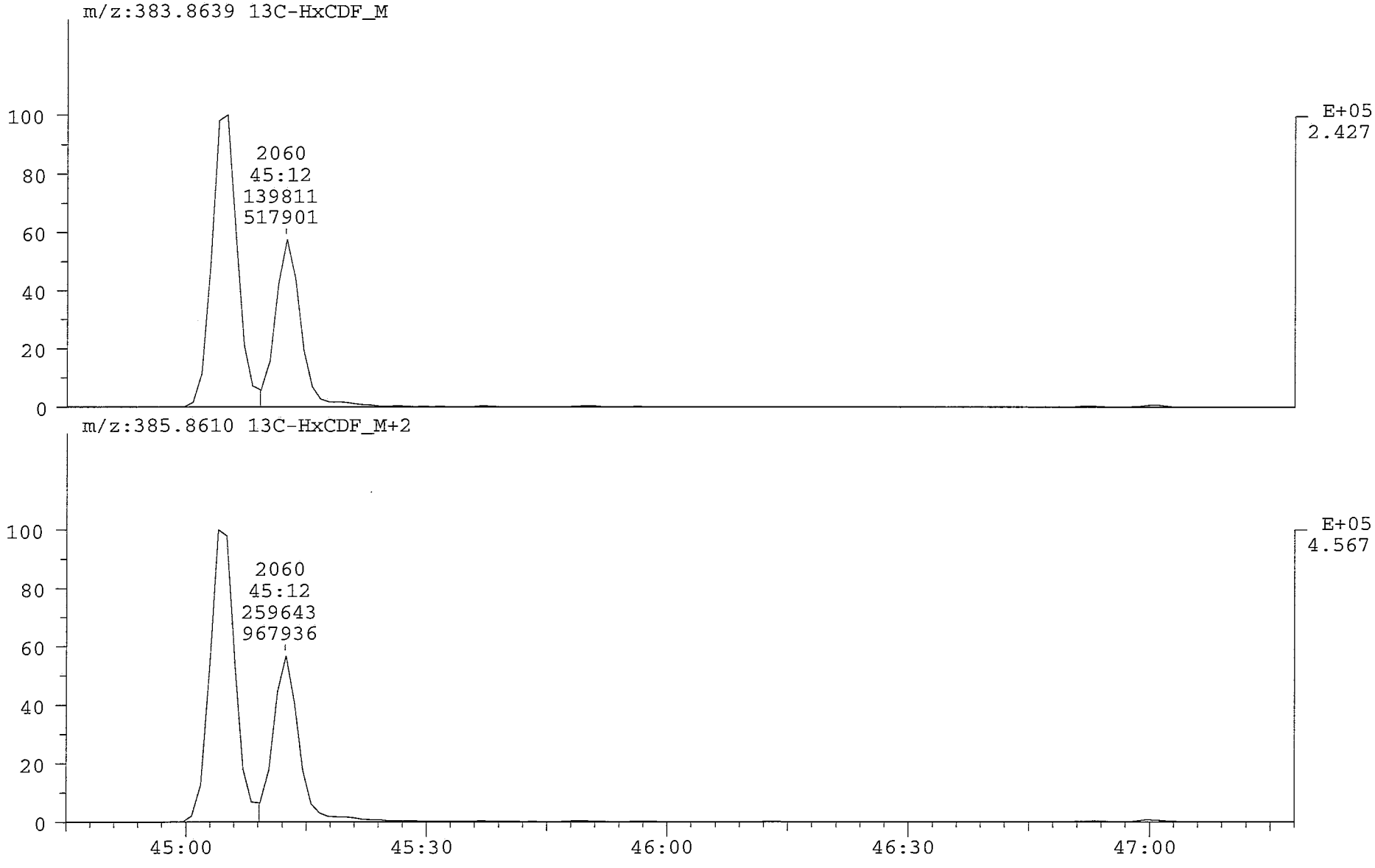
H-94

CHRO: btmkm55r 15-Jul-11 Elapse: 46:01 2106
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2034 > 2178 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



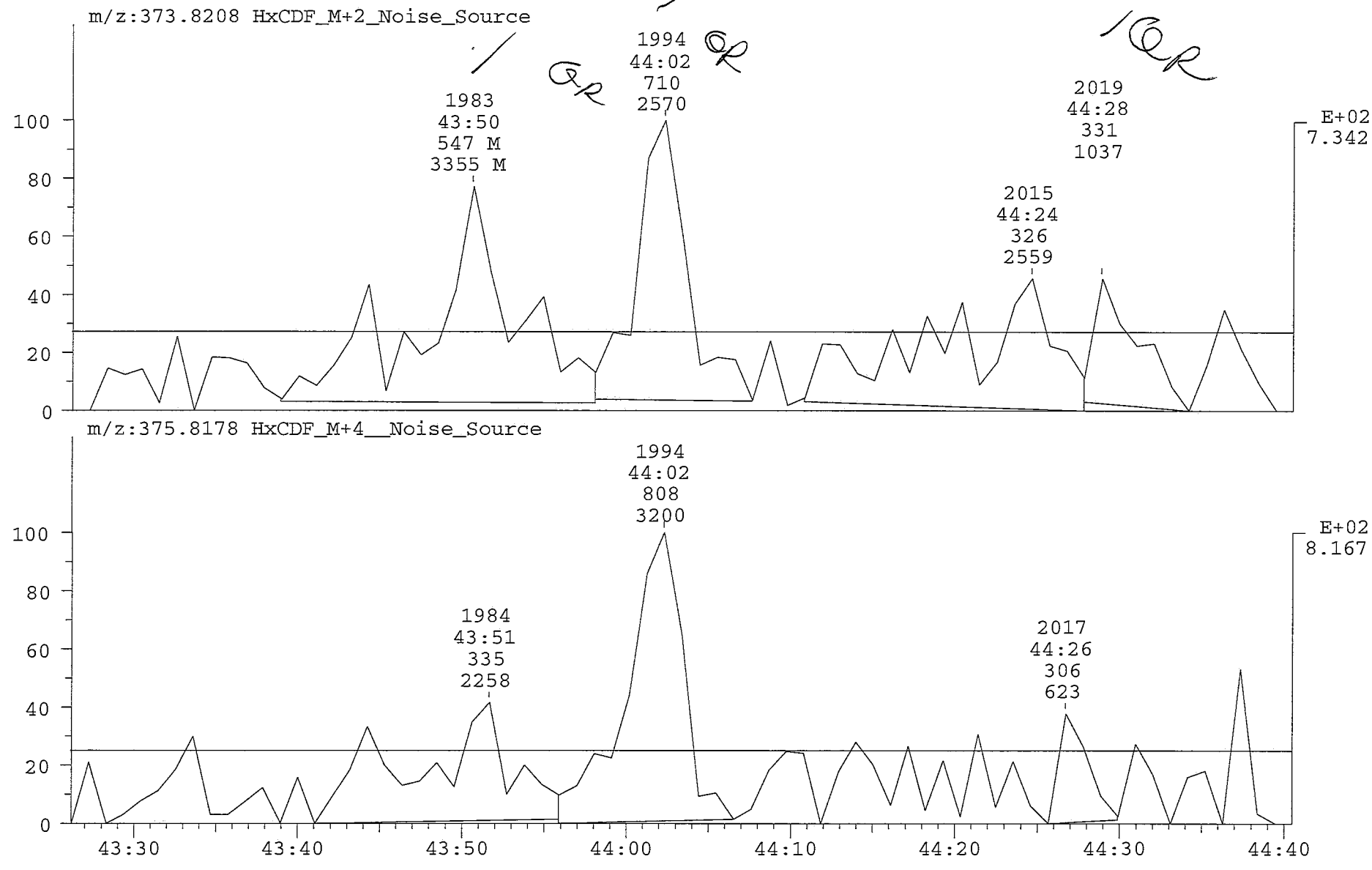
H-96

CHRO: btmkm55r 15-Jul-11 Elapse: 45:12 2060
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2056 > 2064 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



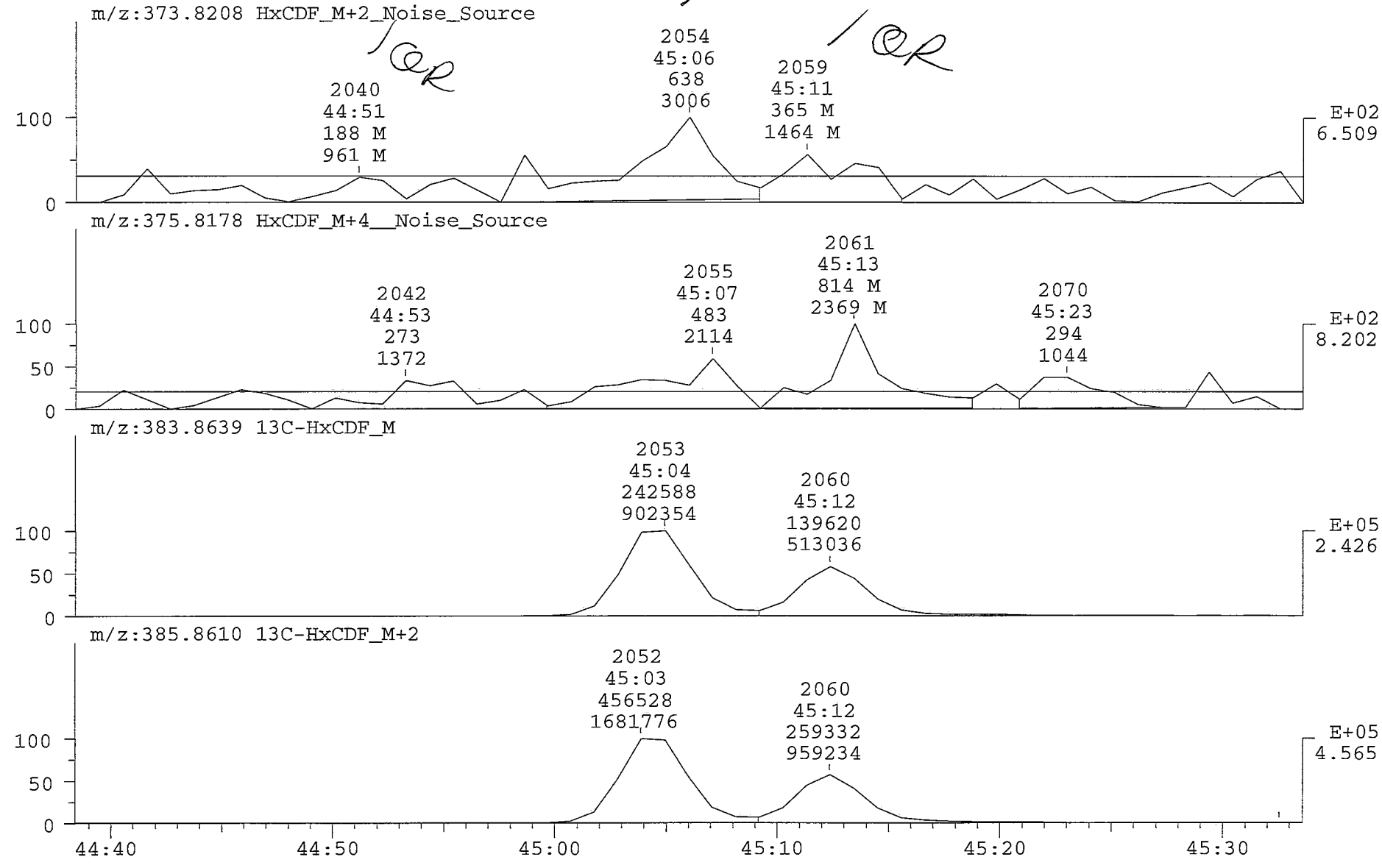
H-96

CHRO: btmkm55r 15-Jul-11 Elapse: 08:00.4 1
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1960 > 2030 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-97

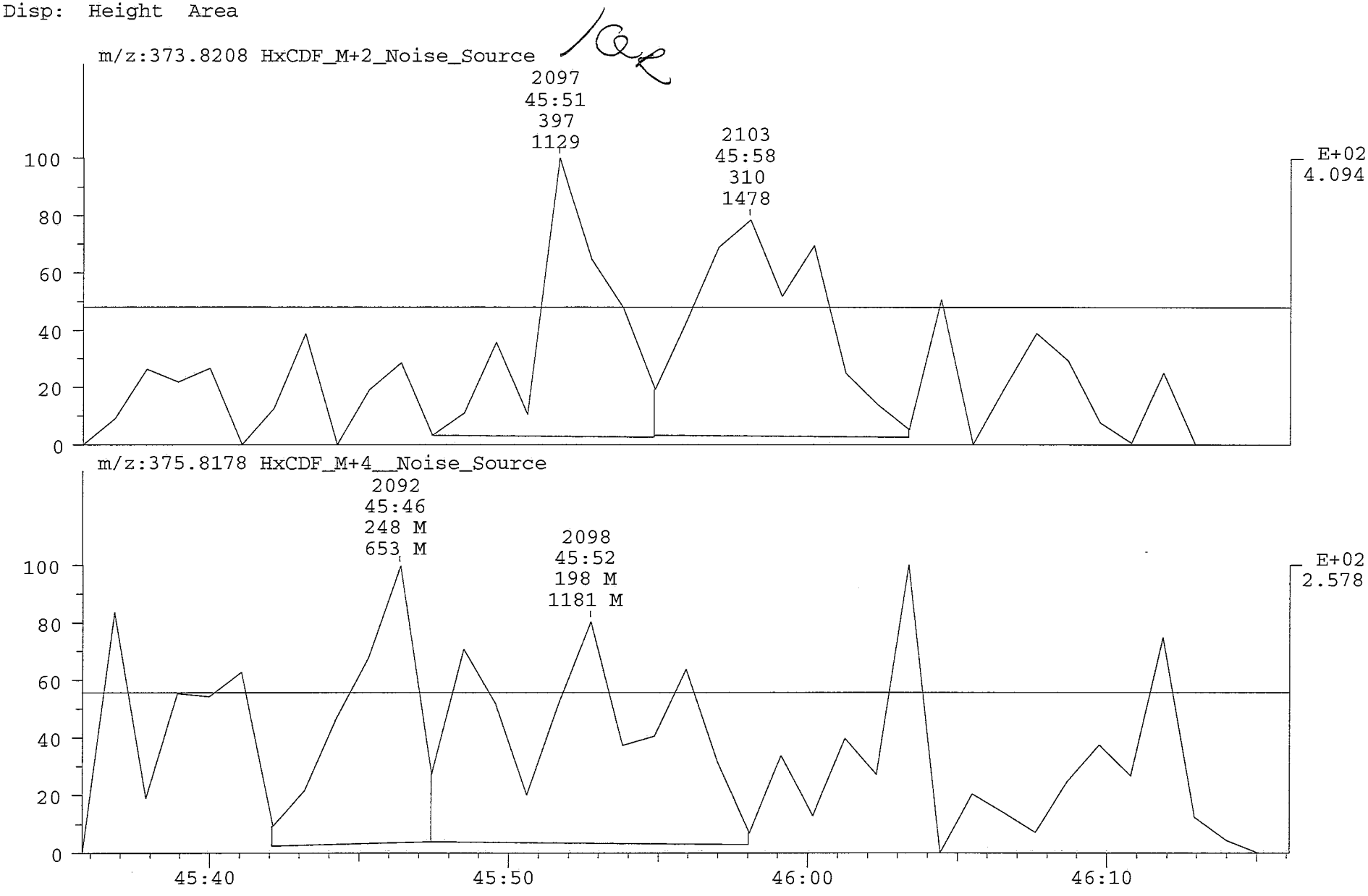
CHRO: btmkm55r 15-Jul-11 Elapse: 45:13 2061
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2028 > 2080 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-98

97

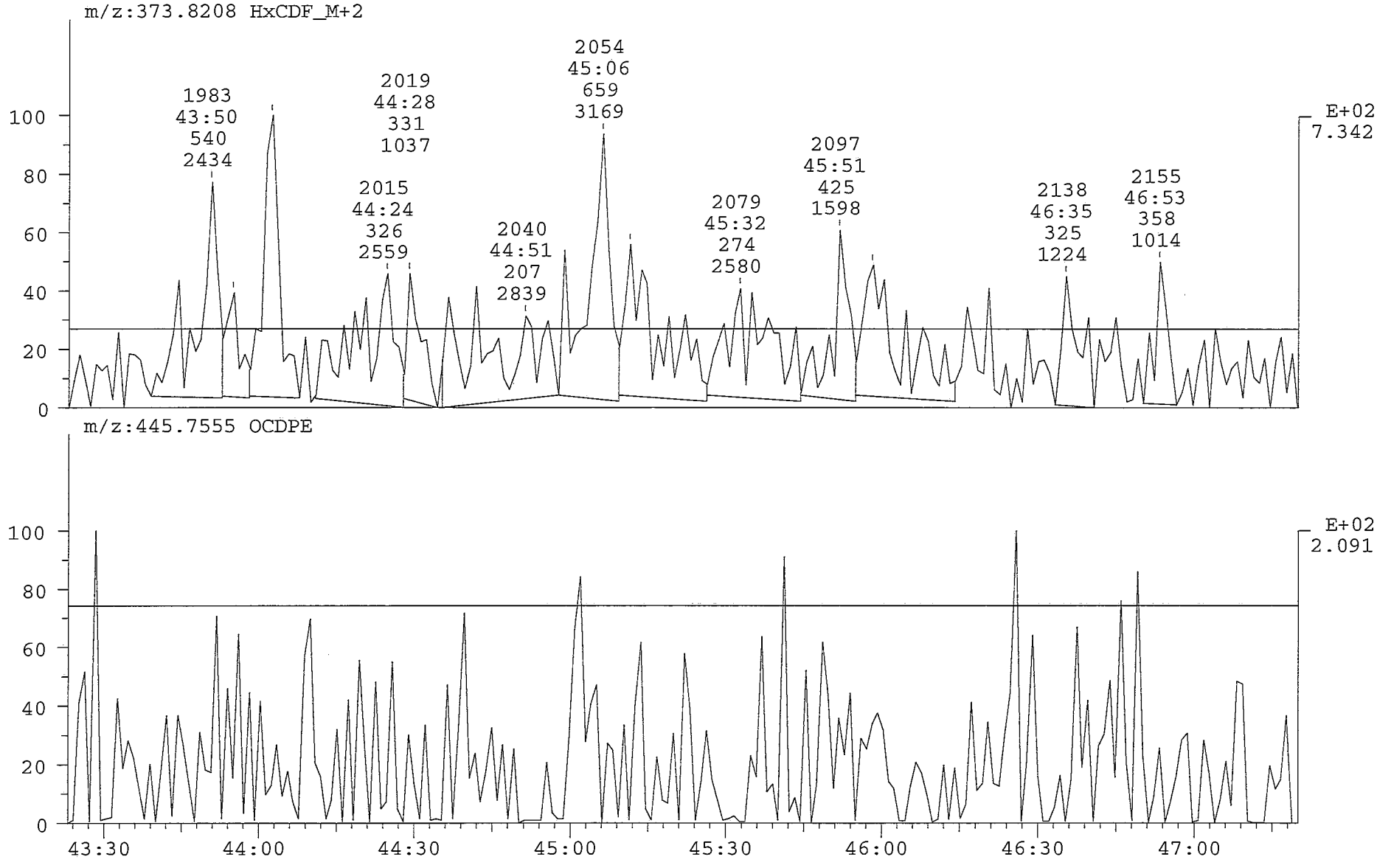
CHRO: btmkm55r 15-Jul-11 Elapse: 45:13 2061
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2082 > 2120 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-99

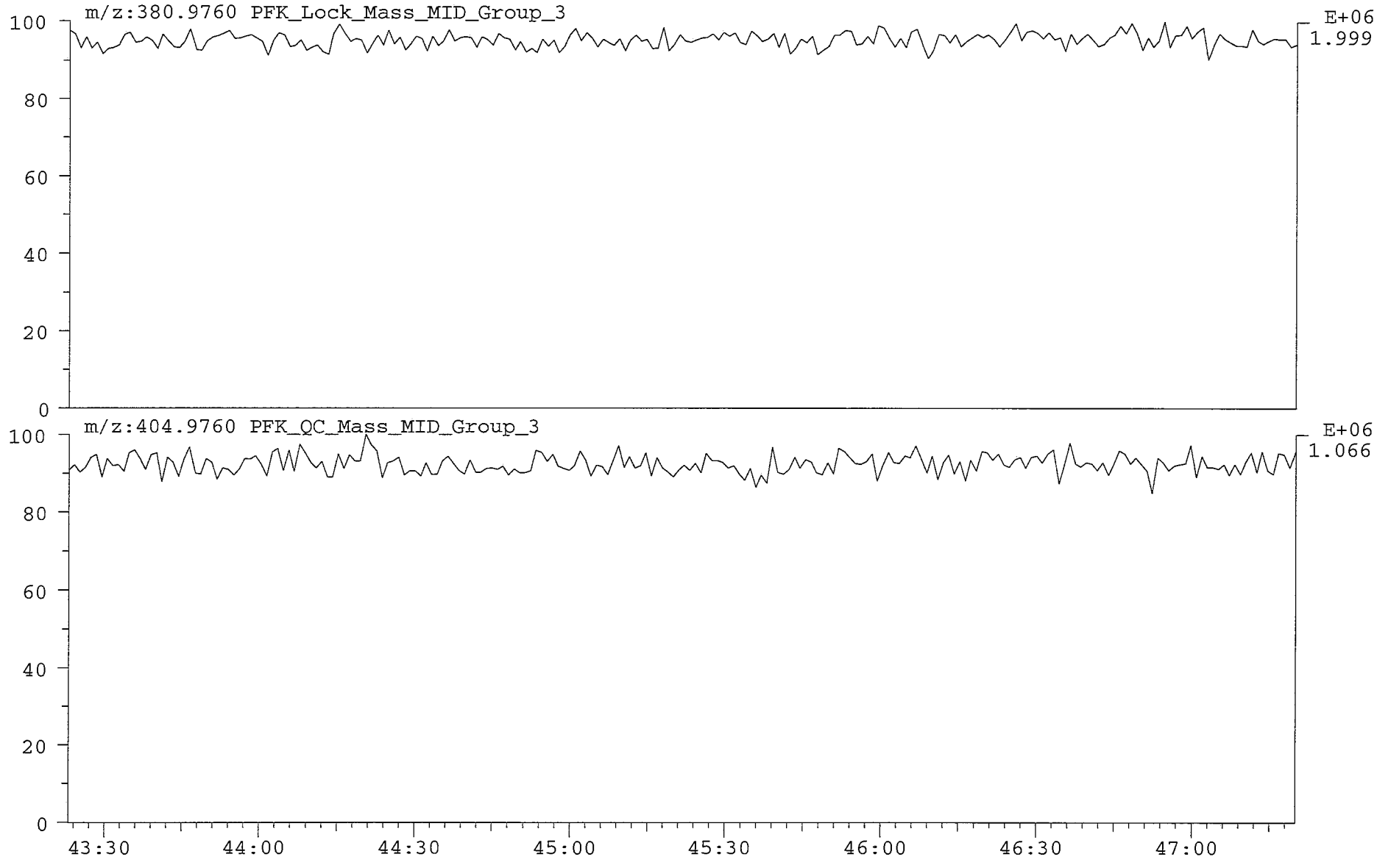
98

CHRO: btmkm55r 15-Jul-11 Elapse: 45:12 2060
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1957 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-100

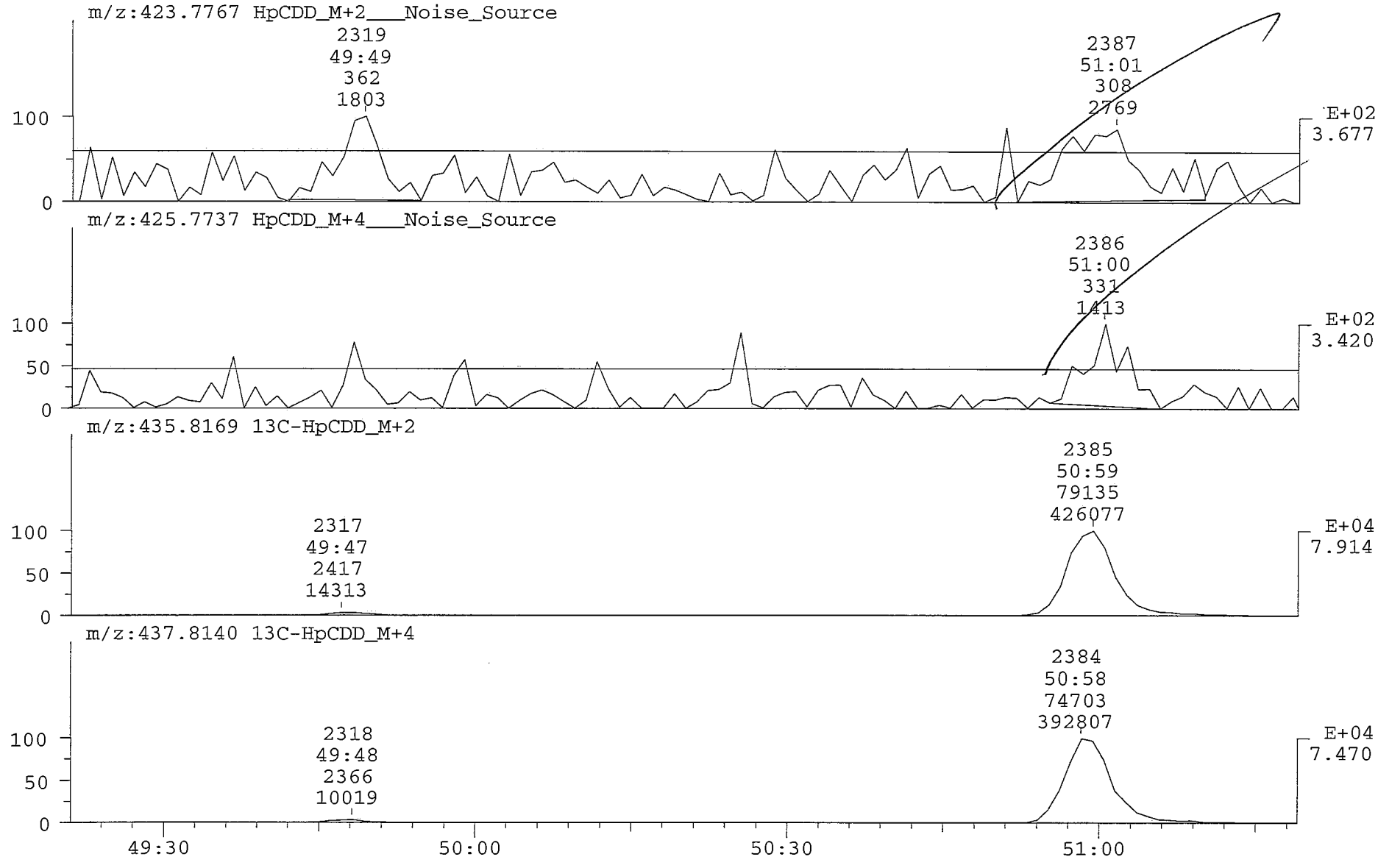
```
CHRO:  btmkm55r                                15-Jul-11   Elapse:   45:12      2060
Samp:  Vial 8 WO=mkm551aa Meth=X8 Dil=1                    Start :   13:19:51   2677
Comm:  Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode:  EI +VE +LMR  ESCAN LR NRM                           Study :   1187027 (air-2)
Oper:  KBL          Client:  H1G050439-001                 Inlet :   GC     Vial  8
Peak:  100.00  ppm     Label wndw:   1957 > 2180           Masses:   293 > 514
Area:  5, 0.50, 15     Baseline  :   100, 3                Label :   0, 0.0
Disp:  Height  Area
```



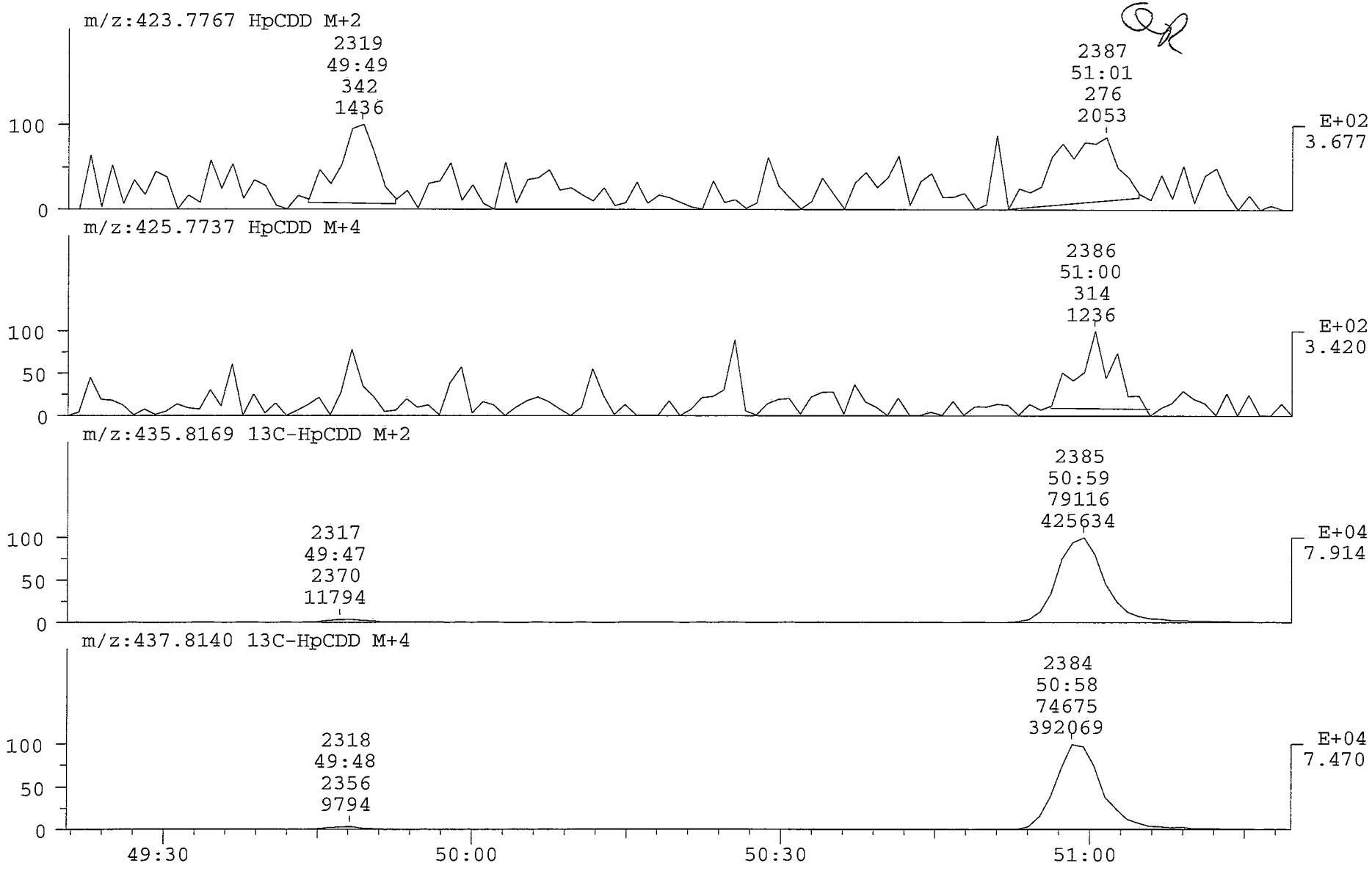
H-101

100

CHRO: btmkm55r 15-Jul-11 Elapse: 45:12 2060
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2292 > 2404 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

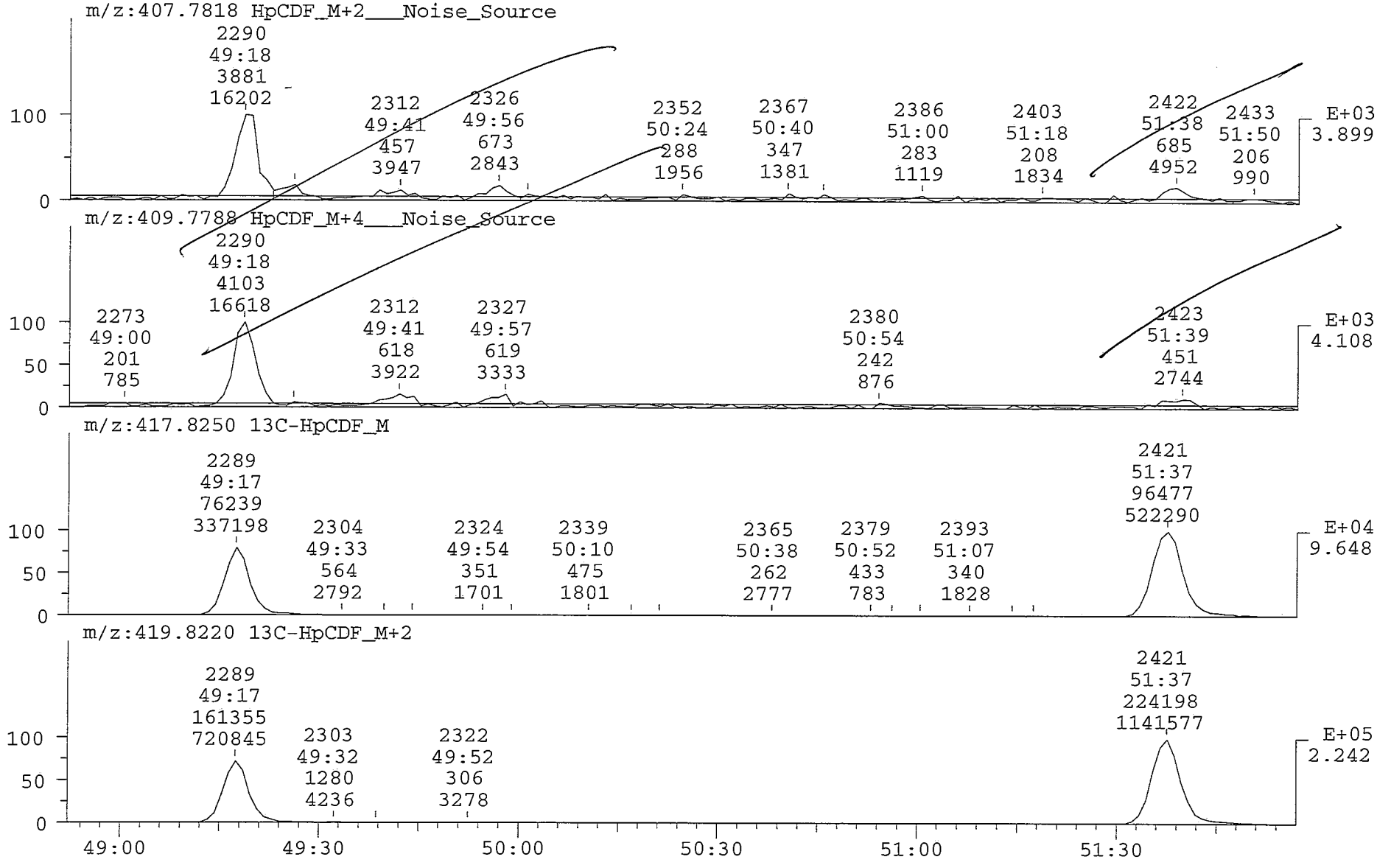


CHRO: btmkm55r 15-Jul-11 Elapse: 45:13 2061
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1 > 3000 Masses: 293 > 514
Area: 5, 1.00, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



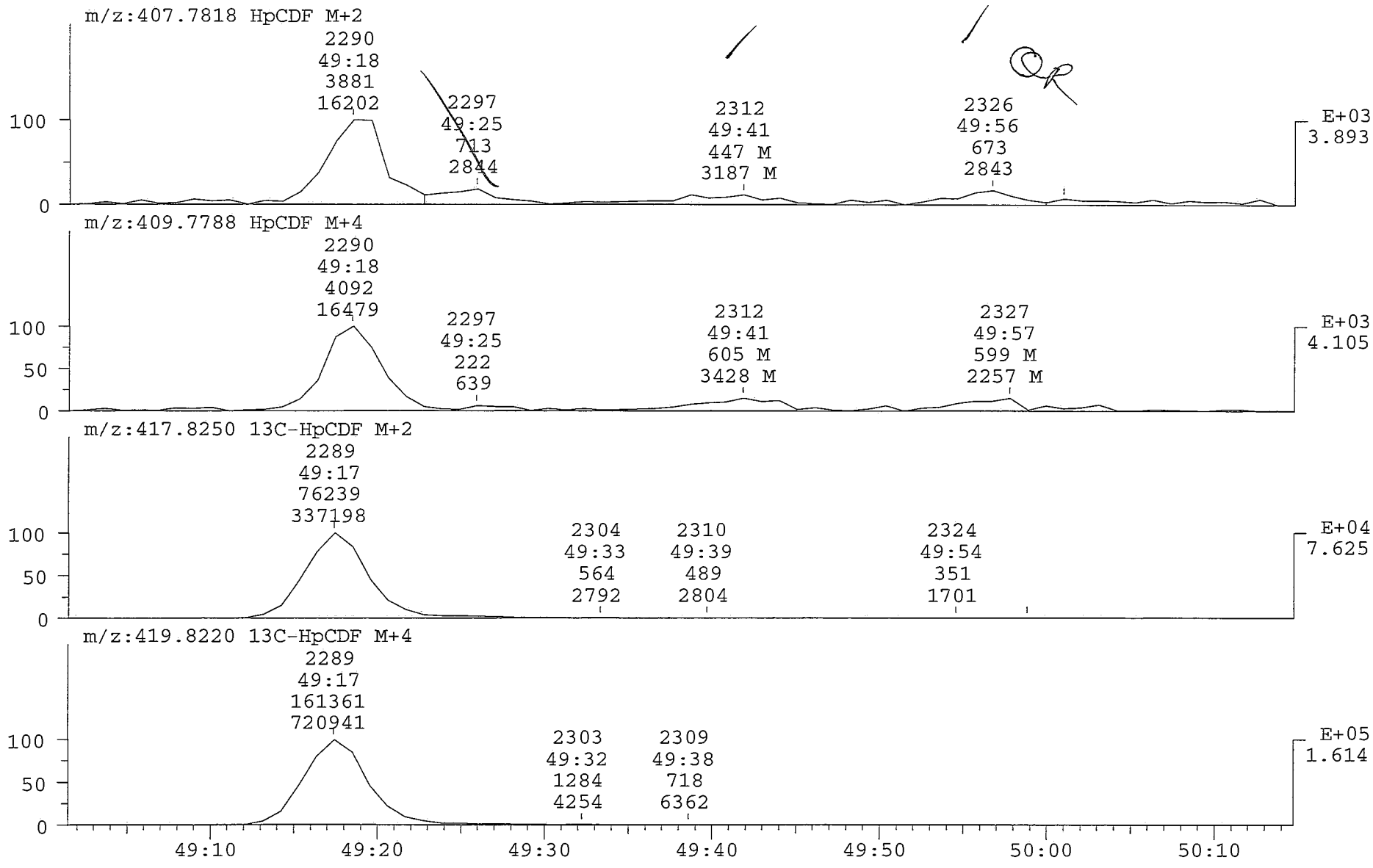
H-103

CHRO: btmkm55r 15-Jul-11 Elapse: 45:12 2060
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2265 > 2439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



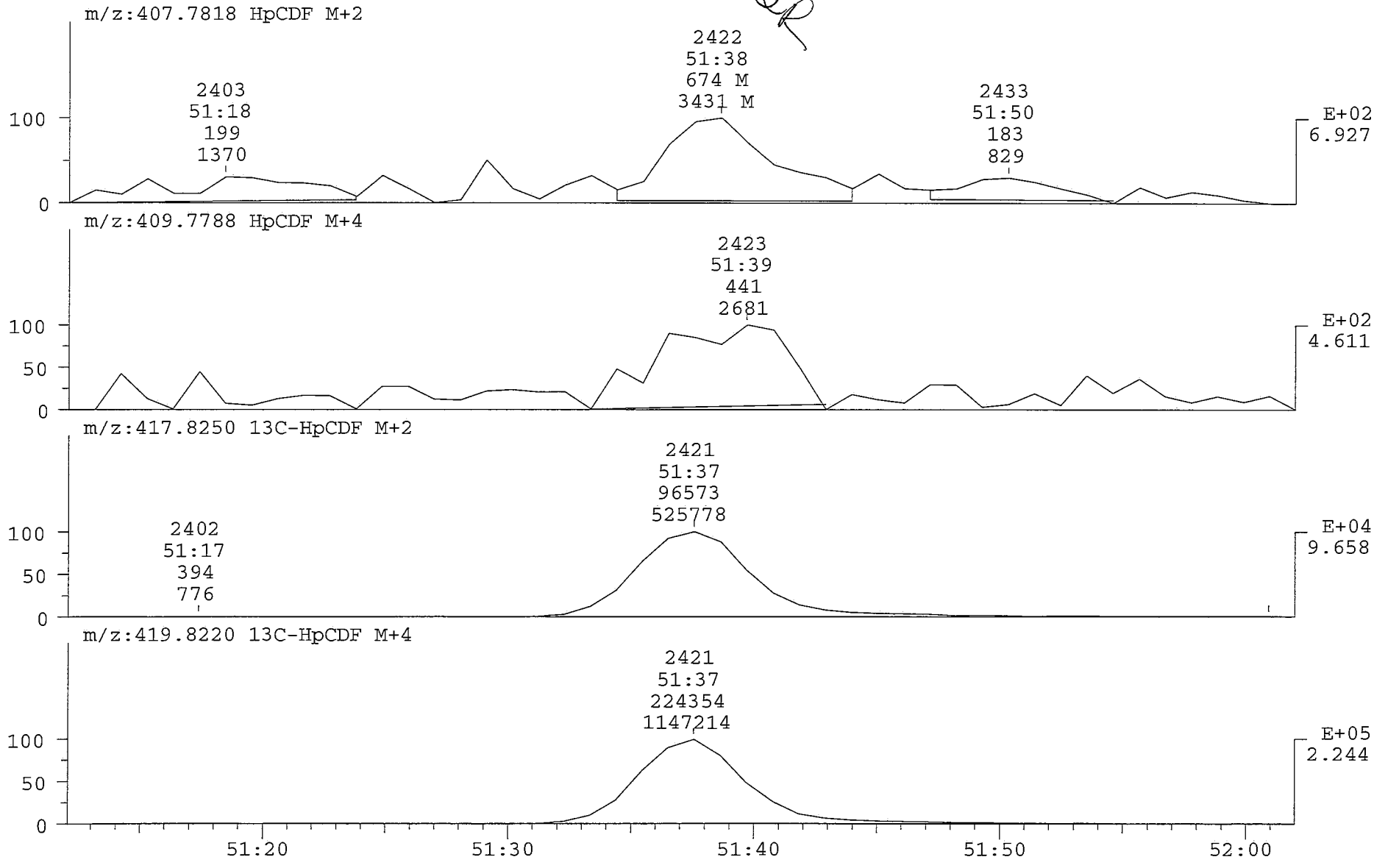
H-104

CHRO: btmkm55r 15-Jul-11 Elapse: 45:13 2061
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2274 > 2343 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



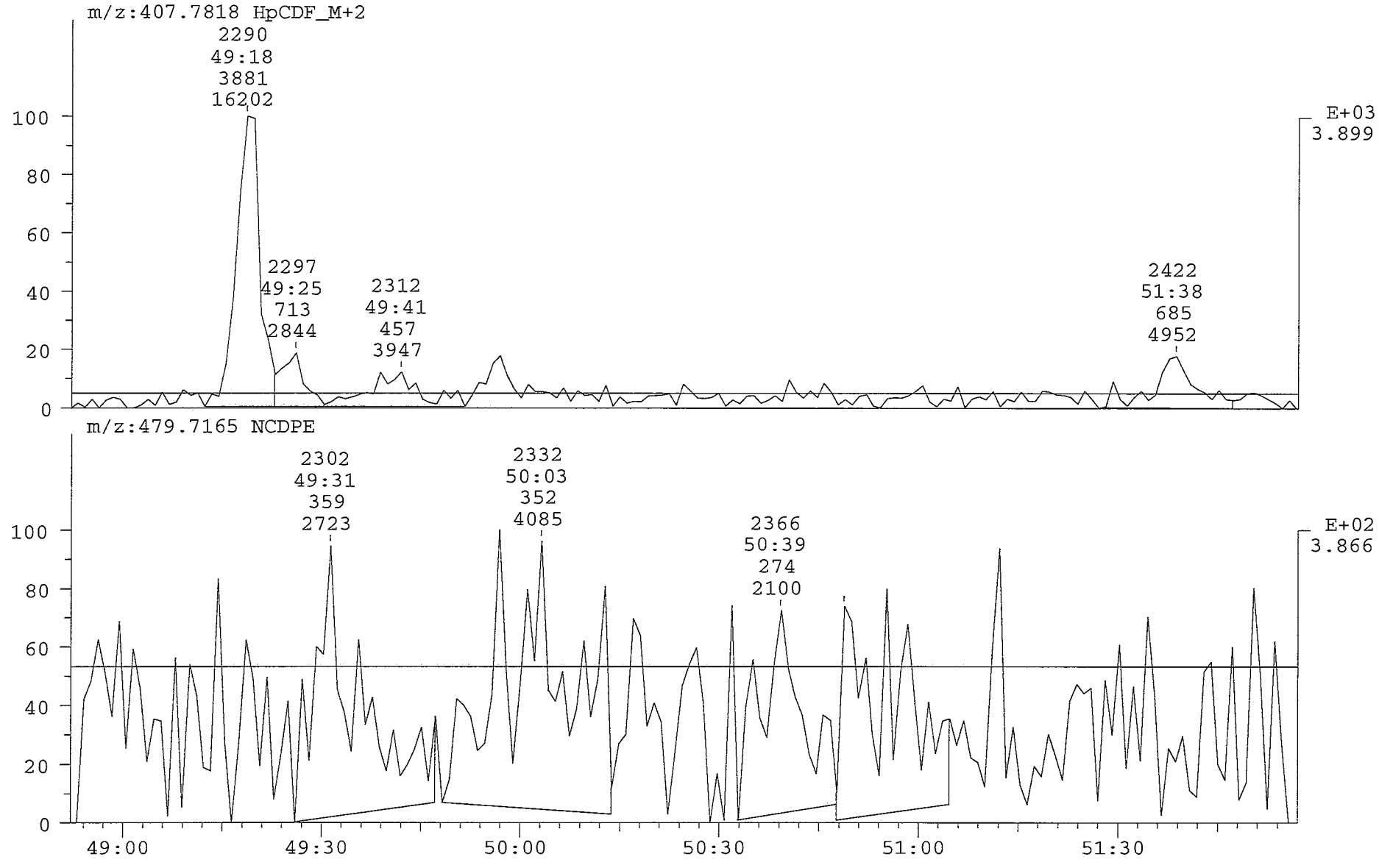
H-105

CHRO: btmkm55r 15-Jul-11 Elapse: 45:13 2061
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2397 > 2444 Masses: 293 > 514
Area: 5, 1.00, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



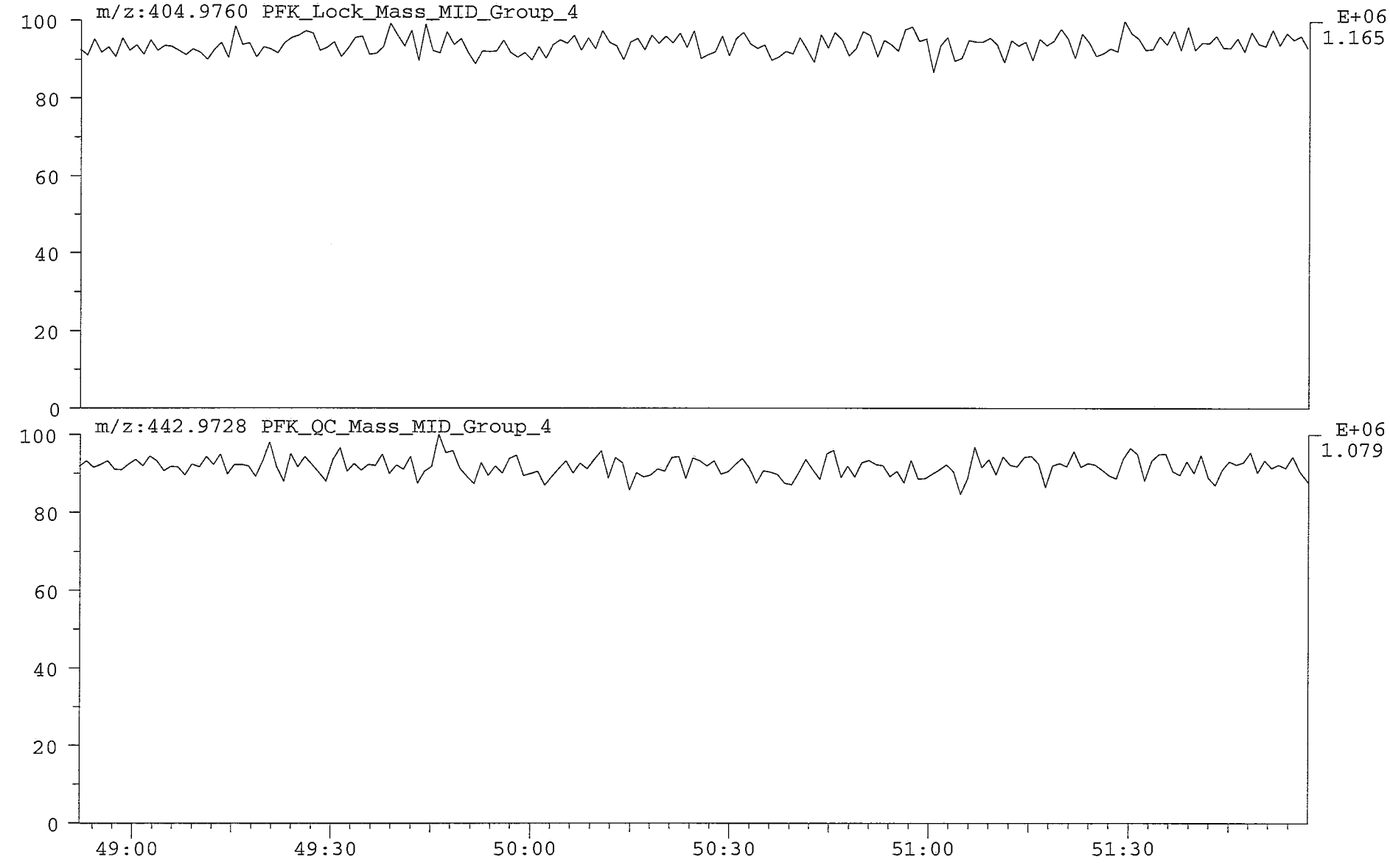
H-106

CHRO: btmkm55r 15-Jul-11 Elapse: 45:12 2060
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2265 > 2439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

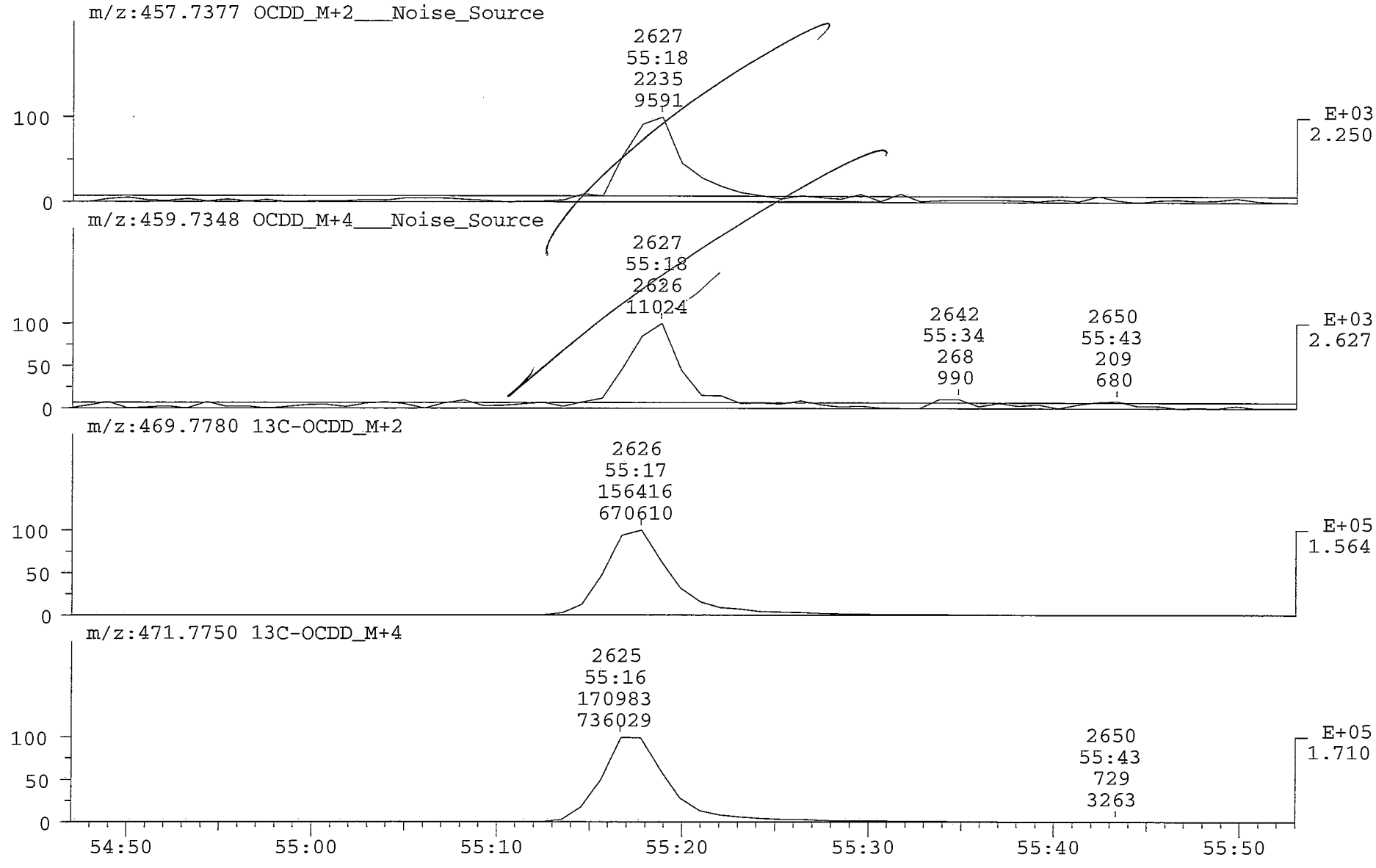


H-107

```
CHRO:  btmkm55r                                  15-Jul-11   Elapse:  45:12      2060
Samp:  Vial 8 WO=mkm551aa Meth=X8 Dil=1                      Start :  13:19:51   2677
Comm:  Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode:  EI +VE +LMR  ESCAN LR NRM                             Study :  1187027 (air-2)
Oper:  KBL           Client:  H1G050439-001                  Inlet :  GC     Vial  8
Peak:  100.00  ppm     Label wndw:   2265 > 2439             Masses:  293 > 514
Area:  5, 0.50, 15     Baseline  :   100, 3                  Label :  0, 0.0
Disp:  Height  Area
```

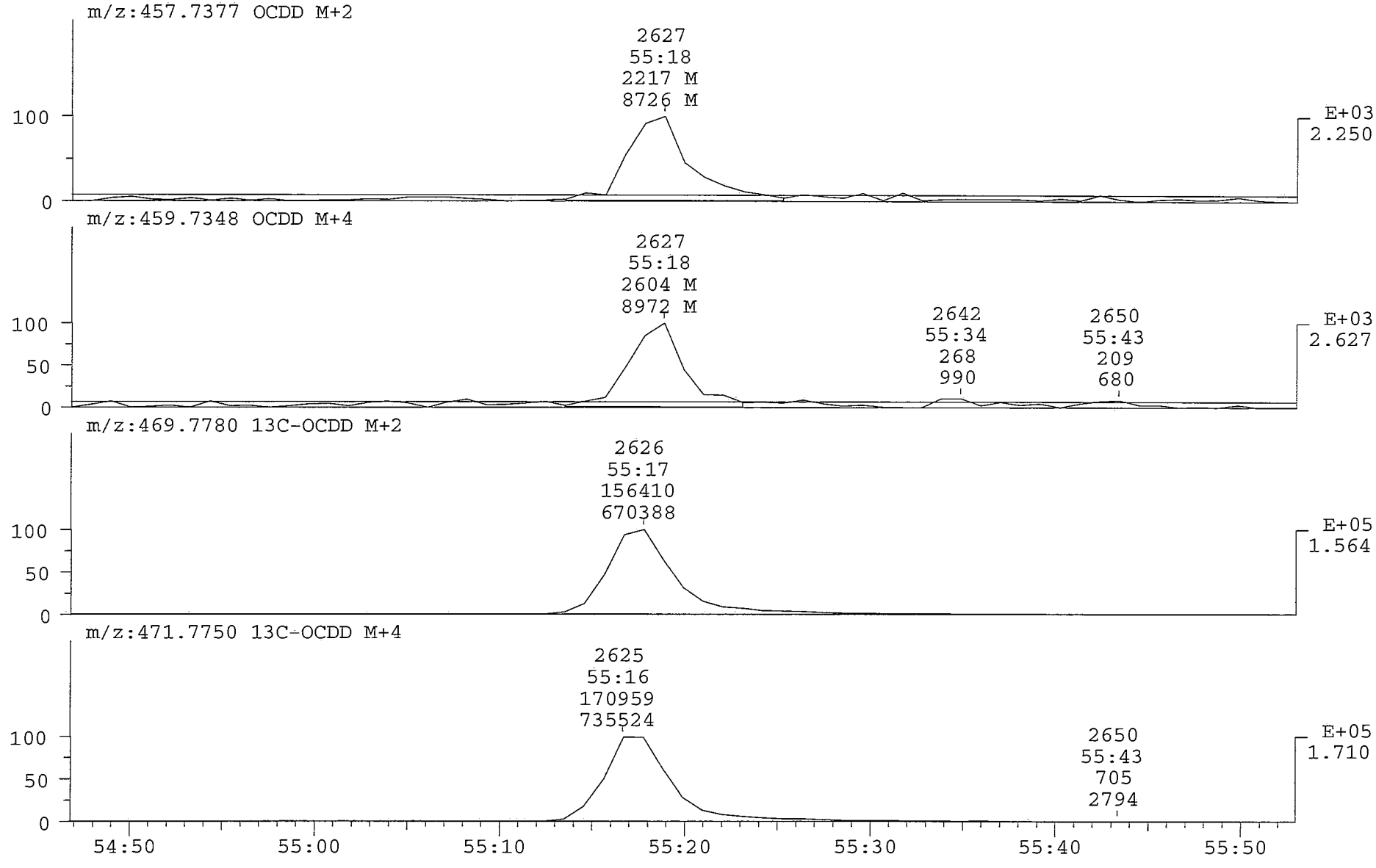


CHRO: btmkm55r 15-Jul-11 Elapse: 55:16 2625
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2597 > 2659 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



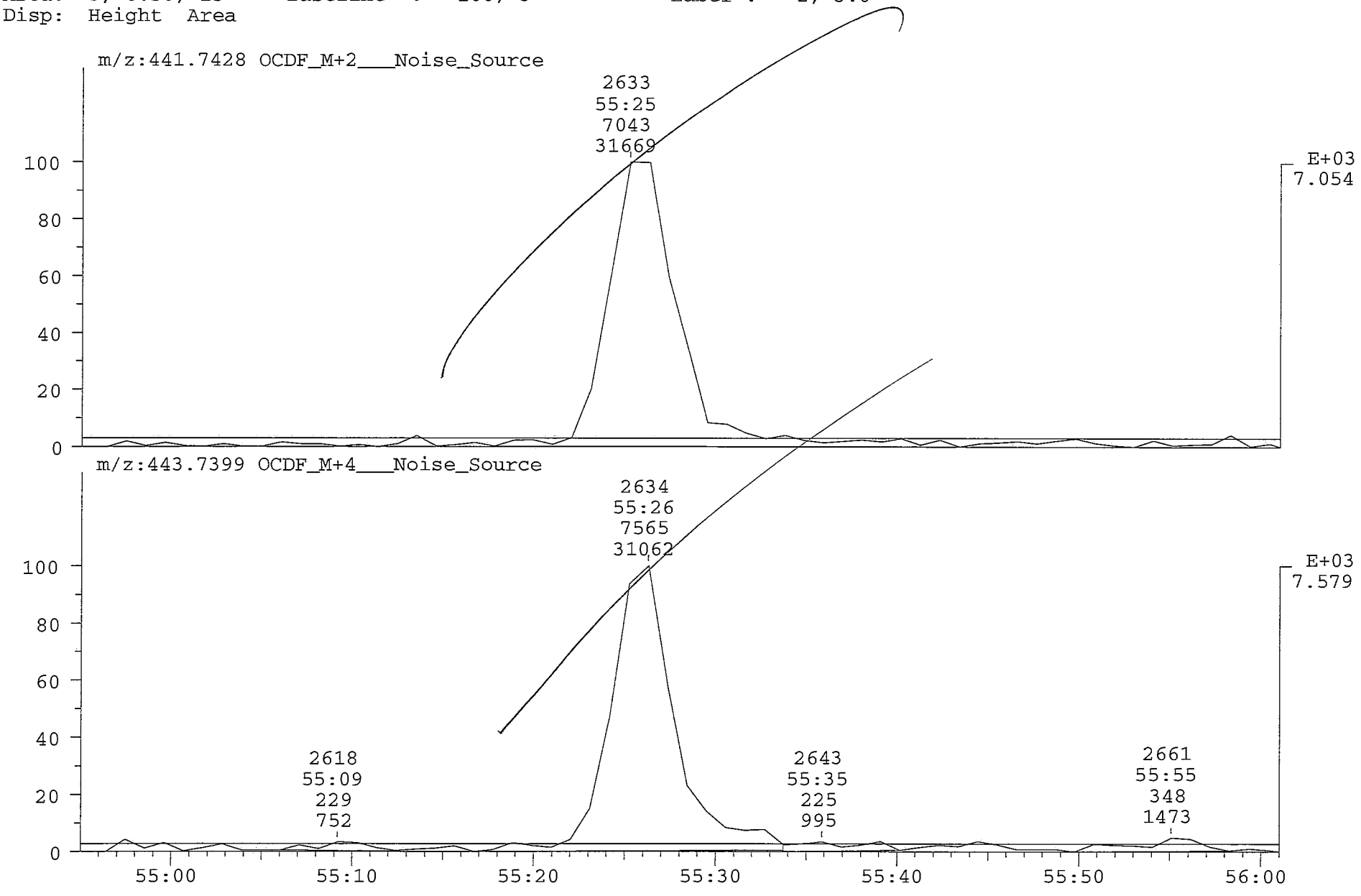
H-109

CHRO: btmkm55r 15-Jul-11 Elapse: 45:13 2061
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2597 > 2659 Masses: 293 > 514
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



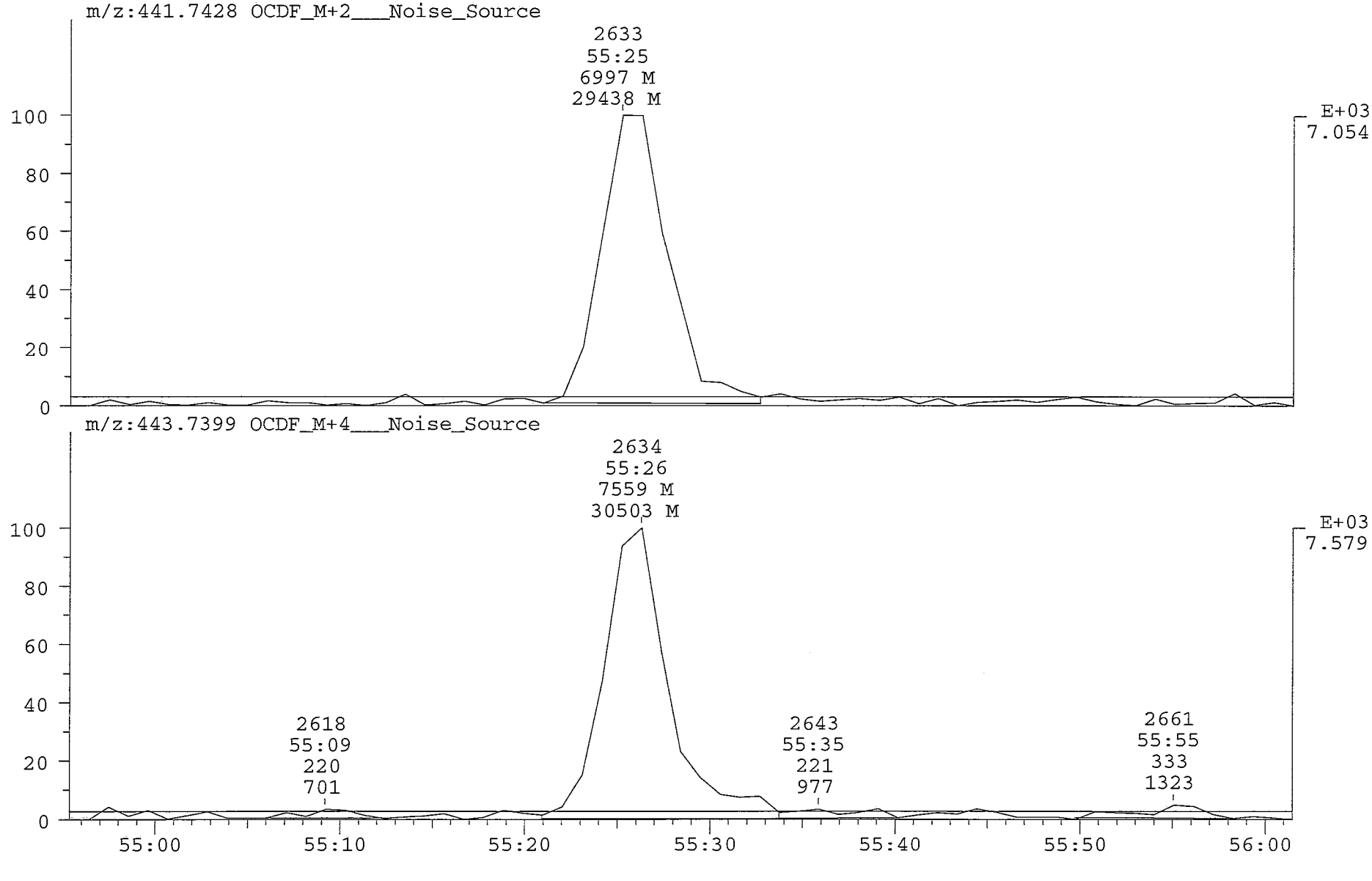
H-110

CHRO: btmkm55r 15-Jul-11 Elapse: 55:25 2633
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2605 > 2667 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



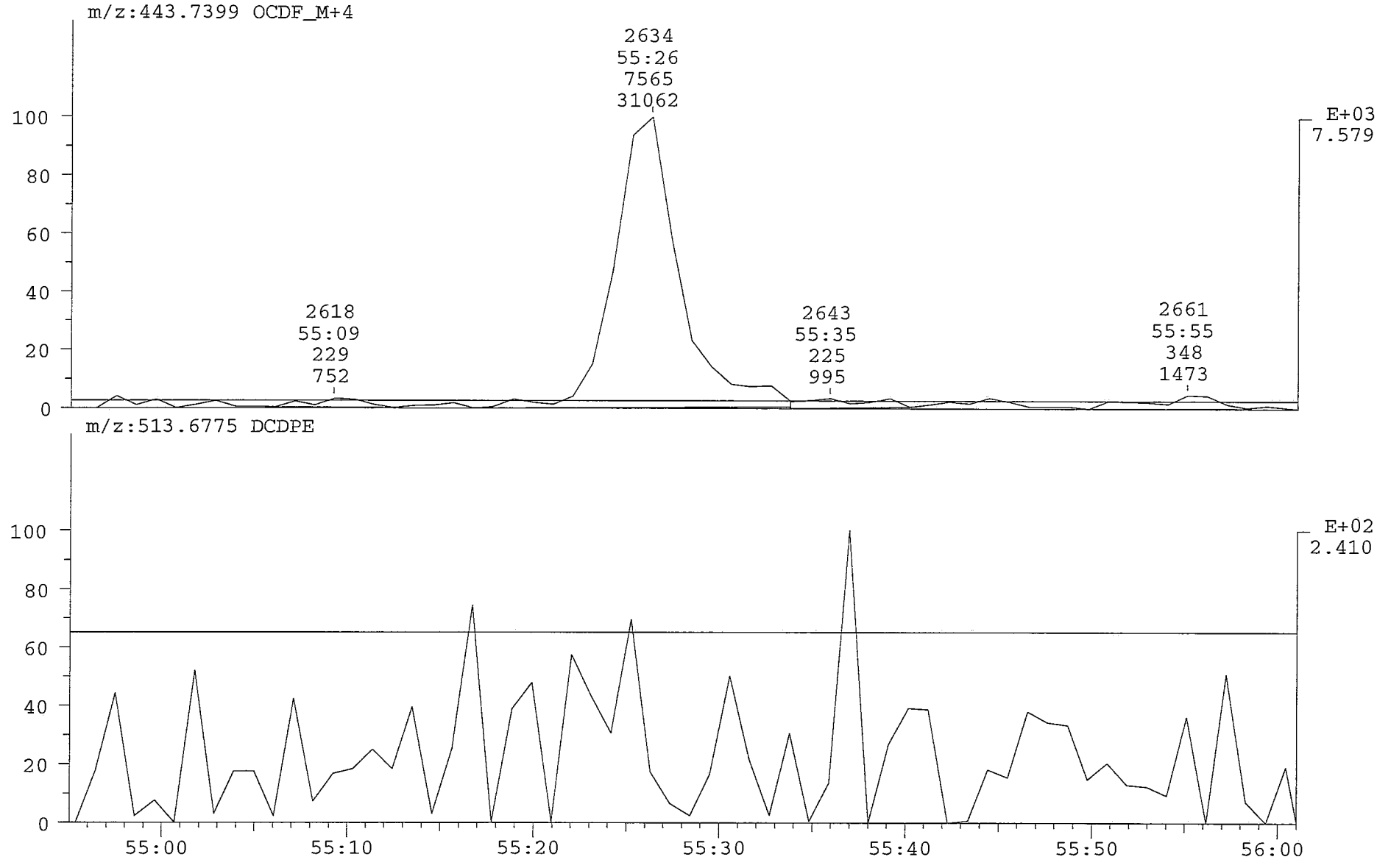
H-111

CHRO: btmkm55r 15-Jul-11 Elapse: 45:13 2061
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2605 > 2667 Masses: 293 > 514
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



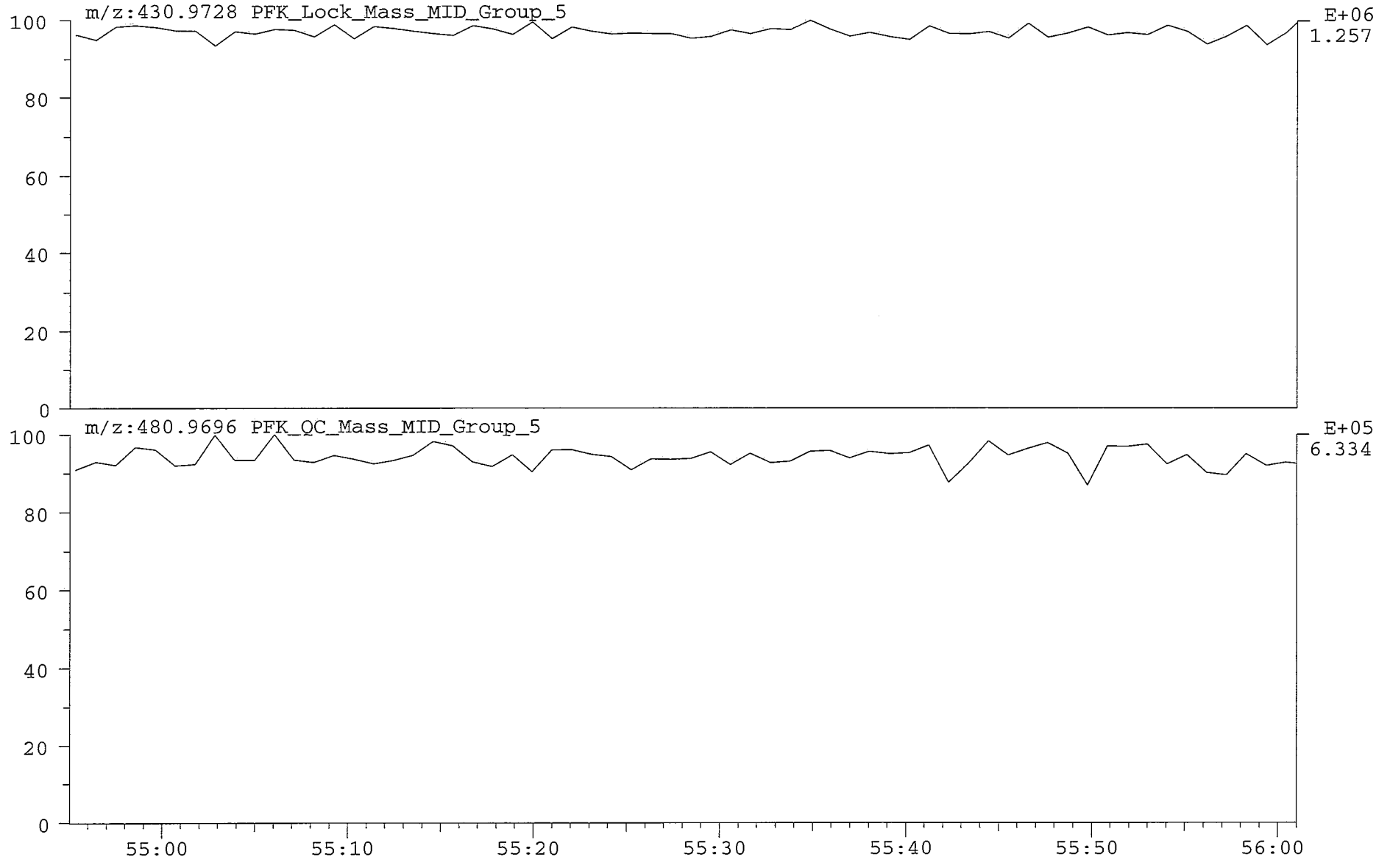
H-112

CHRO: btmkm55r 15-Jul-11 Elapse: 55:25 2633
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2605 > 2667 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-113

CHRO: btmkm55r 15-Jul-11 Elapse: 55:25 2633
Samp: Vial 8 WO=mkm551aa Meth=X8 Dil=1 Start : 13:19:51 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-001 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2605 > 2667 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-114

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: btmkm55r
Study: 1187027 (air-2)
Sample: WO=mkm551aa Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: H1G050439-001
Comments: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Injected volume:   2.0
Sample from Vial 8
Analysis will stop when MID run finishes
Tune file name: tune2
File 8 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1    8:00 min    27:13 min    35:13 min     1.00 sec
  # 2   35:13 min     7:54 min    43:08 min     1.00 sec
  # 3   43:08 min     5:17 min    48:25 min     1.00 sec
  # 4   48:25 min     5:05 min    53:30 min     1.00 sec
  # 5   53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 l   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 l   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8416.0000
BDEV	8289.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.3647
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.3907	DITSET	0.0000	DRAW	-20.8500
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	365.0000	FVINLET	845.0000
FVSRC	1058.0000	FWIN	0.7000	GCTC	137.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7059	HVANAL	1222.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4771.6680	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2760.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10106.3082	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7000	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 13:19:51.1

Autosampler has injected sample from vial 8
Analysis stopped at: 15-Jul-11 14:16:03.4 (run time 56.20 minutes)
Analysis stopped because MID run finished

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AA	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	2
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		40	27	pg/sample
Total TCDD	ND		40	27	pg/sample
1,2,3,7,8-PeCDD	ND		200	12	pg/sample
Total PeCDD	**20**	**Q J**	**200**	**12**	**pg/sample**
1,2,3,4,7,8-HxCDD	ND		200	13	pg/sample
1,2,3,6,7,8-HxCDD	**17**	**Q J**	**200**	**13**	**pg/sample**
1,2,3,7,8,9-HxCDD	ND		200	13	pg/sample
Total HxCDD	**120**	**Q J**	**200**	**13**	**pg/sample**
1,2,3,4,6,7,8-HpCDD	ND		200	15	pg/sample
Total HpCDD	ND		200	15	pg/sample
OCDD	**45**	**J**	**400**	**15**	**pg/sample**
2,3,7,8-TCDF	ND		40	17	pg/sample
Total TCDF	ND		40	17	pg/sample
1,2,3,7,8-PeCDF	ND		200	11	pg/sample
2,3,4,7,8-PeCDF	**7.5**	**Q J**	**200**	**11**	**pg/sample**
Total PeCDF	**32**	**Q J**	**200**	**11**	**pg/sample**
1,2,3,4,7,8-HxCDF	ND		200	7.5	pg/sample
1,2,3,6,7,8-HxCDF	ND		200	6.7	pg/sample
2,3,4,6,7,8-HxCDF	ND		200	7.1	pg/sample
1,2,3,7,8,9-HxCDF	ND		200	8.1	pg/sample
Total HxCDF	ND		200	7.3	pg/sample
1,2,3,4,6,7,8-HpCDF	**30**	**Q J**	**200**	**10**	**pg/sample**
1,2,3,4,7,8,9-HpCDF	ND		200	13	pg/sample
Total HpCDF	**51**	**Q J**	**200**	**12**	**pg/sample**
OCDF	**68**	**Q J**	**400**	**18**	**pg/sample**

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AA	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	2
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	40 - 135
13C-1,2,3,7,8-PeCDD	84	40 - 135
13C-1,2,3,6,7,8-HxCDD	82	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	75	40 - 135
13C-OCDD	64	40 - 135
13C-2,3,7,8-TCDF	81	40 - 135
13C-1,2,3,7,8-PeCDF	77	40 - 135
13C-1,2,3,6,7,8-HxCDF	84	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	71	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	78	70 - 130
13C-1,2,3,4,7,8-HxCDD	100	70 - 130
13C-2,3,4,7,8-PeCDF	99	70 - 130
13C-1,2,3,4,7,8-HxCDF	93	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	96	70 - 130

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM6A1AA	**Prep Batch**	1187027	**Lot No**	H1G050439-003
Data File	/20110715s1/btmkm6arr.d	**Prep Date**	07/06/11	**SDG No**	
Analysis ID	133647	**Prep Exp Date**	07/23/11	**Date Received**	07/02/11
Analysis Date	7/15/2011	**Matrix**	AIR	**Date Sampled**	06/23/11
Analysis Time	16:45	**Initial Wt/Vol**	1 Sample	**Lims Test Code**	XXSIPX801
Anal Exp Date	08/20/11	**Extract Vol**	40 uL	**Method**	0023/8290
Instrument	M2A	**Dil Factor**	2.00	**Code**	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (pg/sample		DL (pg/samp
2,3,7,8-TCDD				1.172				ND		27.1
Total TCDD				1.172				ND		27.1
2,3,7,8-TCDF				1.081				ND		16.9
Total TCDF				1.081				ND		16.9
1,2,3,7,8-PeCDD				1.124				ND		12.5
Total PeCDD		2555	643	1.124		19.918078		19.918078	QJ	12.5
1,2,3,7,8-PeCDF				1.050				ND		10.6
2,3,4,7,8-PeCDF	41:03	1400	271	1.030		7.470204		7.470204	QJ	10.9
Total PeCDF		4551	1076	1.040		31.513341		31.513341	QJ	10.7
1,2,3,4,7,8-HxCDD				0.990				ND		13.2
1,2,3,6,7,8-HxCDD	46:10	2323	578	1.020		17.336507		17.336507	QJ	12.8
1,2,3,7,8,9-HxCDD				1.003				ND		13.0
Total HxCDD		13603	3491	1.004		120.470499		120.470499	QJ	13.0
1,2,3,4,7,8-HxCDF				1.091				ND		7.50
1,2,3,6,7,8-HxCDF				1.226				ND		6.68
2,3,4,6,7,8-HxCDF				1.160				ND		7.05
1,2,3,7,8,9-HxCDF				1.008				ND		8.12
Total HxCDF				1.121				ND		7.30
1,2,3,4,6,7,8-HpCDD				1.094				ND		15.0
Total HpCDD				1.094				ND		15.0
1,2,3,4,6,7,8-HpCDF	49:10	5284	743	1.469		29.800071		29.800071	QJ	10.2
1,2,3,4,7,8,9-HpCDF				1.127				ND		13.3
Total HpCDF		3325	679	1.298		51.025801		51.025801	QJ	11.6
OCDD	55:11	4166	1145	1.075		44.791031		44.791031	J	15.1
OCDF	55:18	7411	1771	1.258		68.124744		68.124744	QJ	18.3
13C-2,3,7,8-TCDD	31:30	243311	24697	1.006	2000	1703.35027	85.17	1703.35027		53.9
13C-2,3,7,8-TCDF	29:32	394353	46498	1.719	2000	1615.93308	80.80	1615.93308		22.3
13C-1,2,3,7,8-PeCDD	41:39	228353	49893	0.953	2000	1687.74560	84.39	1687.74560		30.8
13C-1,2,3,7,8-PeCDF	39:46	363856	70200	1.661	2000	1543.67494	77.18	1543.67494		11.8
13C-1,2,3,6,7,8-HxCDD	46:07	262644	63668	1.035	2000	1632.41313	81.62	1632.41313		12.5
13C-1,2,3,6,7,8-HxCDF	45:05	373976	95899	1.434	2000	1677.18704	83.86	1677.18704		10.4
13C-1,2,3,4,6,7,8-HpCDD	50:51	199289	37527	0.851	2000	1505.94184	75.30	1505.94184		13.1
13C-1,2,3,4,6,7,8-HpCDF	49:10	241378	50272	1.094	2000	1419.51649	70.98	1419.51649		10.1
13C-OCDD	55:10	345974	84984	0.867	4000	2566.09022	64.15	2566.09022		12.7
37Cl4-2,3,7,8-TCDD	31:32	456251	48320	1.198	4000	3130.46425	78.26	3130.46425		18.8
13C-2,3,4,7,8-PeCDF	41:04	713678	154596	0.994	4000	3948.41785	98.71	3948.41785		8.75
13C-1,2,3,4,7,8-HxCDD	46:00	464602	128013	0.887	4000	3987.88402	99.70	3987.88402		17.3
13C-1,2,3,4,7,8-HxCDF	44:57	621419	170835	0.891	4000	3730.52578	93.26	3730.52578		13.1
13C-1,2,3,7,8,9-HxCDF				1.321				ND		11.2
13C-1,2,3,4,7,8,9-HpCDF	51:29	388047	74601	0.841	4000	3822.16665	95.55	3822.16665		19.6
13C-1,2,3,4-TCDD	31:00	567746	62281	1.000	4000	4000.00000	100.00	4000.00000		54.3
13C-1,2,3,7,8,9-HxCDD	46:30	621921	150774	1.000	4000	4000.00000	100.00	4000.00000		12.9

um for PMP 7-18-11

CMM 7-18-11

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM6A1AA	Prep Batch	1187027	Lot No	H1G050439-003
Data File	/20110715s1/btmkm6arr.	Prep Date	07/06/11	SDG No	
Analysis ID	133647	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	07/15/11 16:45	Matrix	AIR	Date Sampled	06/23/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	KBL	Diluton Factor	2.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	185	240	74	96	0.77	/	
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	265	333	106	133	0.80	/	
	13C-2,3,7,8-TCDF	29:32	29:32	0	173696	220657	20087	26411	0.79	AVV/ABV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	175	218	70	87	0.80	/	
328					327.8847		327.8847				
	Noise	00:00	00:00	0	278		111				
	37Cl4-2,3,7,8-TCDD	31:32	31:34	-2	456251		48320			AVV	
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	588	258	235	103	2.28 *	/	
	13C-1,2,3,4-TCDD	31:00	31:00	0	260745	307001	28368	33913	0.85	AVB/AVV	
	13C-2,3,7,8-TCDD	31:30	31:30	0	113351	129960	10788	13909	0.87	ABV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	150	243	60	97	0.62 *	/	
	Unidentified	37:22	00:00	0	1076	2275	193	492	0.47 *	MBB/AVB	R
	Unidentified	39:12	00:00	0	716	2284	189	394	0.31 *	ABB/AVB	RT
	2,3,4,7,8-PeCDF	41:03	41:05	-2	851	3086	165	711	0.28 *	MVV/ABV	R
	Unidentified	41:22	00:00	0	974	2634	272	460	0.37 *	MBB/MVB	RT
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	138	168	55	67	0.82 *	/	
	13C-1,2,3,7,8-PeCDF	39:46	39:47	-1	219101	144755	43275	26925	1.51	ABV/AVV	
	13C-2,3,4,7,8-PeCDF	41:04	41:04	0	435901	277777	94008	60588	1.57	ABV/ABV	
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	208	143	83	57	1.46	/	
	Unidentified	38:45	00:00	0	2318	1002	613	252	2.31 *	MVB/ABB	R
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	273	185	109	74	1.47	/	
	13C-1,2,3,7,8-PeCDD	41:39	41:38	1	138803	89550	30327	19566	1.55	ABV/ABV	M
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	205	188	82	75	1.09	/	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	238	323	95	129	0.74 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:57	44:58	-1	210429	410990	58762	112073	0.51	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDF	45:05	45:05	0	127731	246245	32092	63807	0.52	AVV/AVV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	188	228	75	91	0.82 *	/	
	Unidentified	44:54	00:00	0	1440	1821	333	370	0.79 *	MVV/ABV	R
	Unidentified	45:03	00:00	0	1967	3564	477	499	0.55 *	MVB/AVV	R
	Unidentified	45:12	00:00	0	1204	975	260	391	1.23	ABB/ABV	
	Unidentified	45:40	00:00	0	1014	2513	297	543	0.40 *	MVV/MVV	R
	Unidentified	45:55	00:00	0	1853	1585	376	464	1.17	MBB/MVV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM6A1AA	Prep Batch	1187027	Lot No	H1G050439-003
Data File	/20110715s1/btmkm6arr.	Prep Date	07/06/11	SDG No	
Analysis ID	133647	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	07/15/11 16:45	Matrix	AIR	Date Sampled	06/23/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	KBL	Diluton Factor	2.00	Code	X8

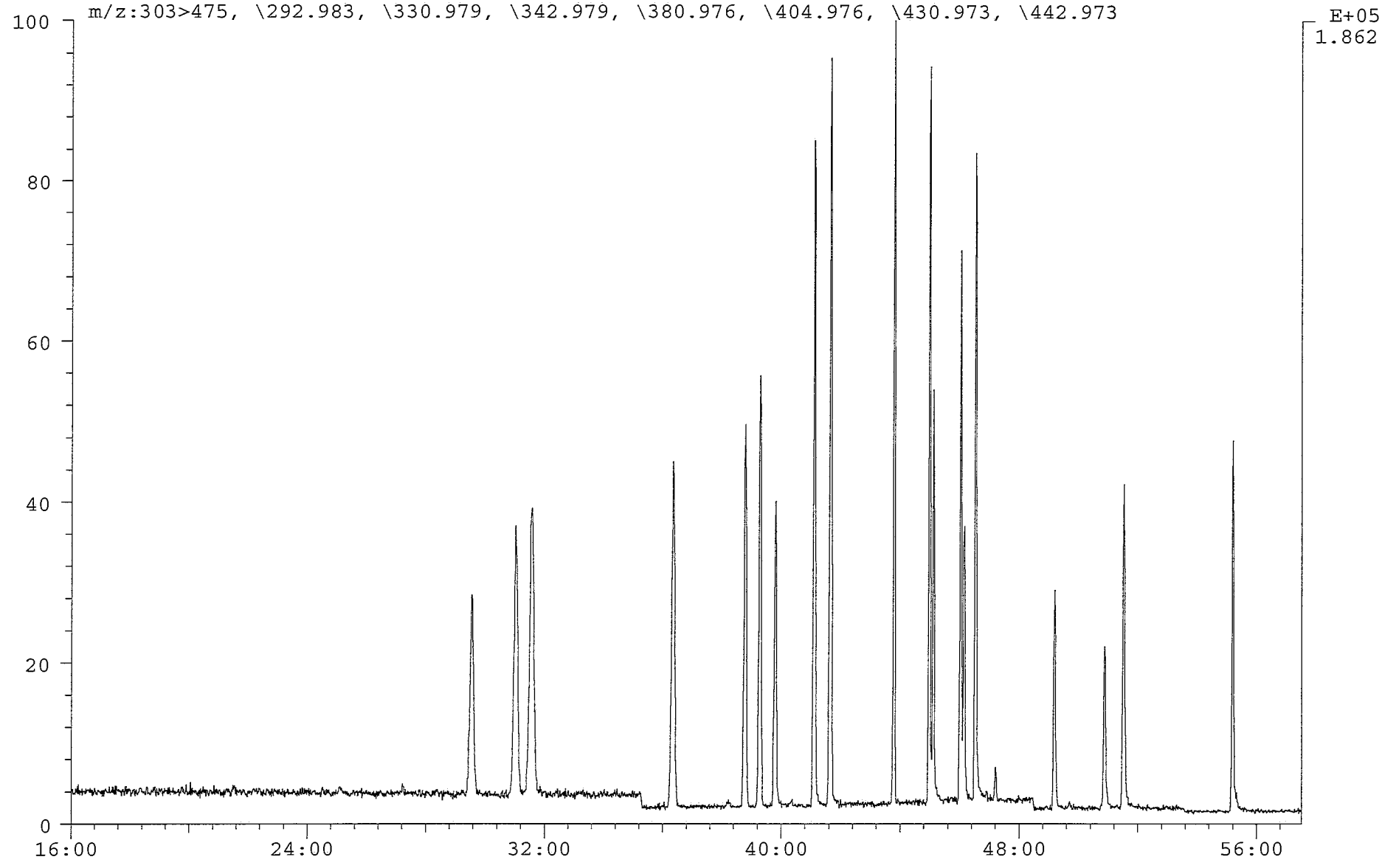
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,6,7,8-HxCDD	46:10	46:09	1	1286	1453	320	373	0.89 *	MVV/ABB	R
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	258	230	103	92	1.12	/	
	13C-1,2,3,4,7,8-HxCDD	46:00	46:00	0	258582	206020	72256	55757	1.26	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDD	46:07	46:08	-1	145456	117188	35350	28318	1.24	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDD	46:30	46:30	0	354187	267734	83944	66830	1.32	ABV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	195	183	78	73	1.07	/	
	1,2,3,4,6,7,8-HpCDF	49:10	49:11	-1	3666	2590	565	364	1.42 *	MBB/ABB	R
	Unidentified	49:48	00:00	0	2693	1630	728	333	1.65 *	MBV/ABB	RT
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	250	165	100	66	1.52 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:10	49:10	0	74589	166789	15985	34287	0.45	ABV/ABB	
	13C-1,2,3,4,7,8,9-HpCDF	51:29	51:30	-1	124658	263389	24551	50050	0.47	ABV/ABV	
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	150	158	60	63	0.95	/	
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	240	180	96	72	1.33 *	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:51	50:52	-1	102502	96787	19849	17678	1.06	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	210	280	84	112	0.75 *	/	
	OCDF	55:18	55:19	-1	3490	5022	834	889	0.69 *	MBB/MVV	R
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	148	198	59	79	0.75 *	/	
	OCDD	55:11	55:11	0	2092	2074	624	521	1.01	MBB/MBV	
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	210	205	84	82	1.02	/	
	13C-OCDD	55:10	55:10	0	165002	180972	41177	43807	0.91	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

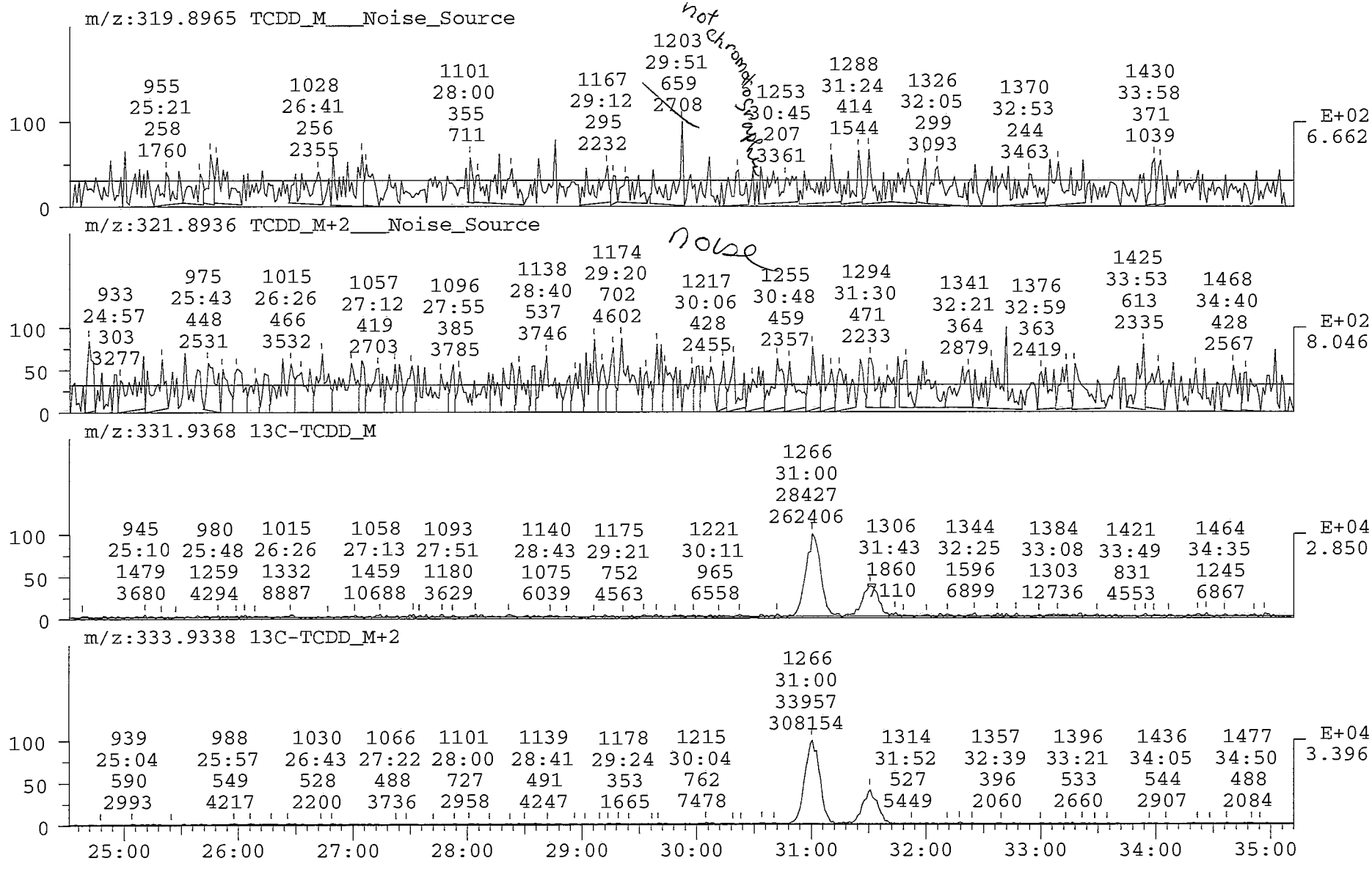
CHRO: btmkm6arr 15-Jul-11 Elapse: 55:29 2636
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 441 > 2749 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int PMP 7-15-11
Calc PMP 7-16-11
QC KM 7/18/11
Rev MSD 7-18-11

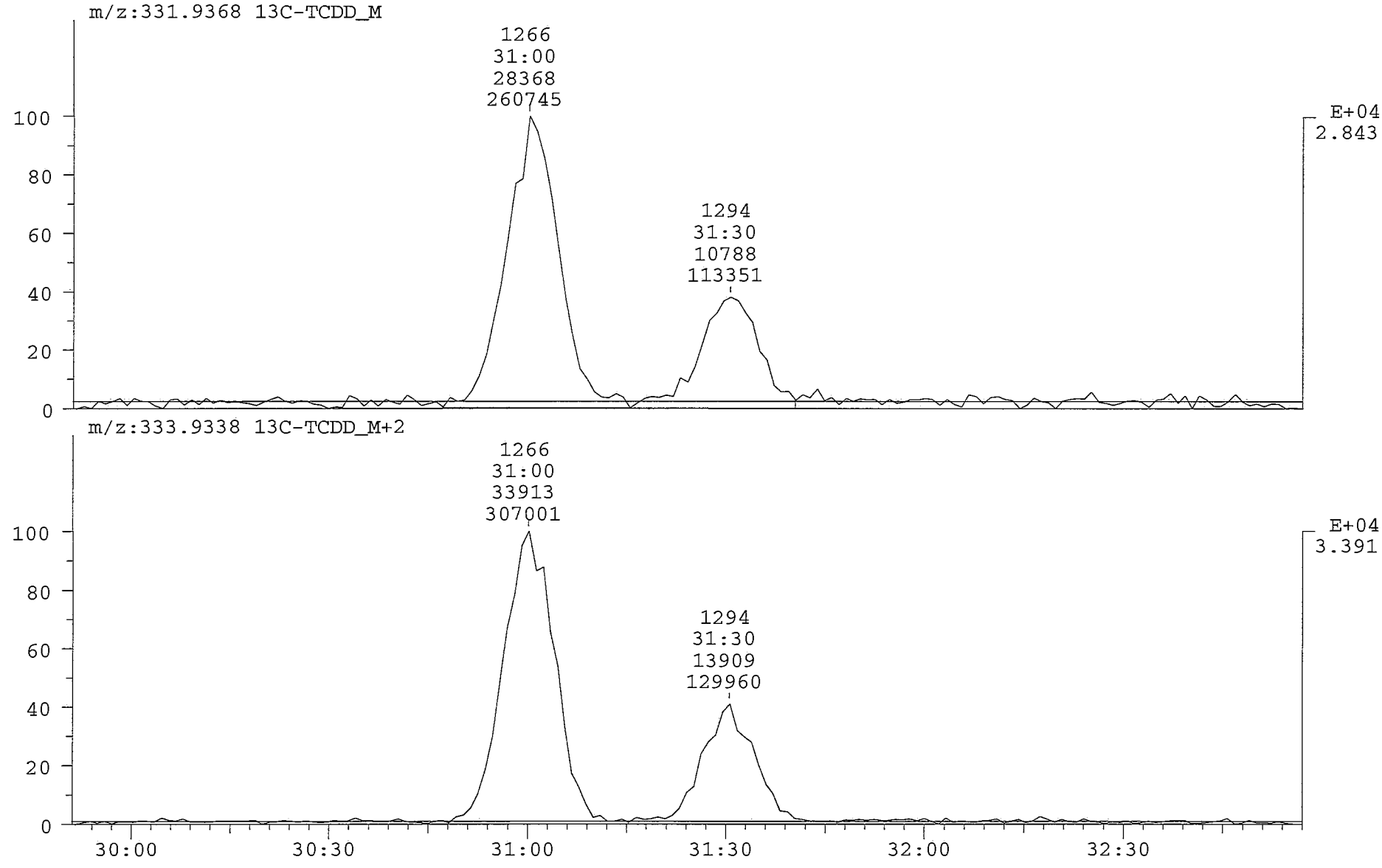


H-124

CHRO: btmkm6arr 15-Jul-11 Elapse: 55:29 2636
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 909 > 1497 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

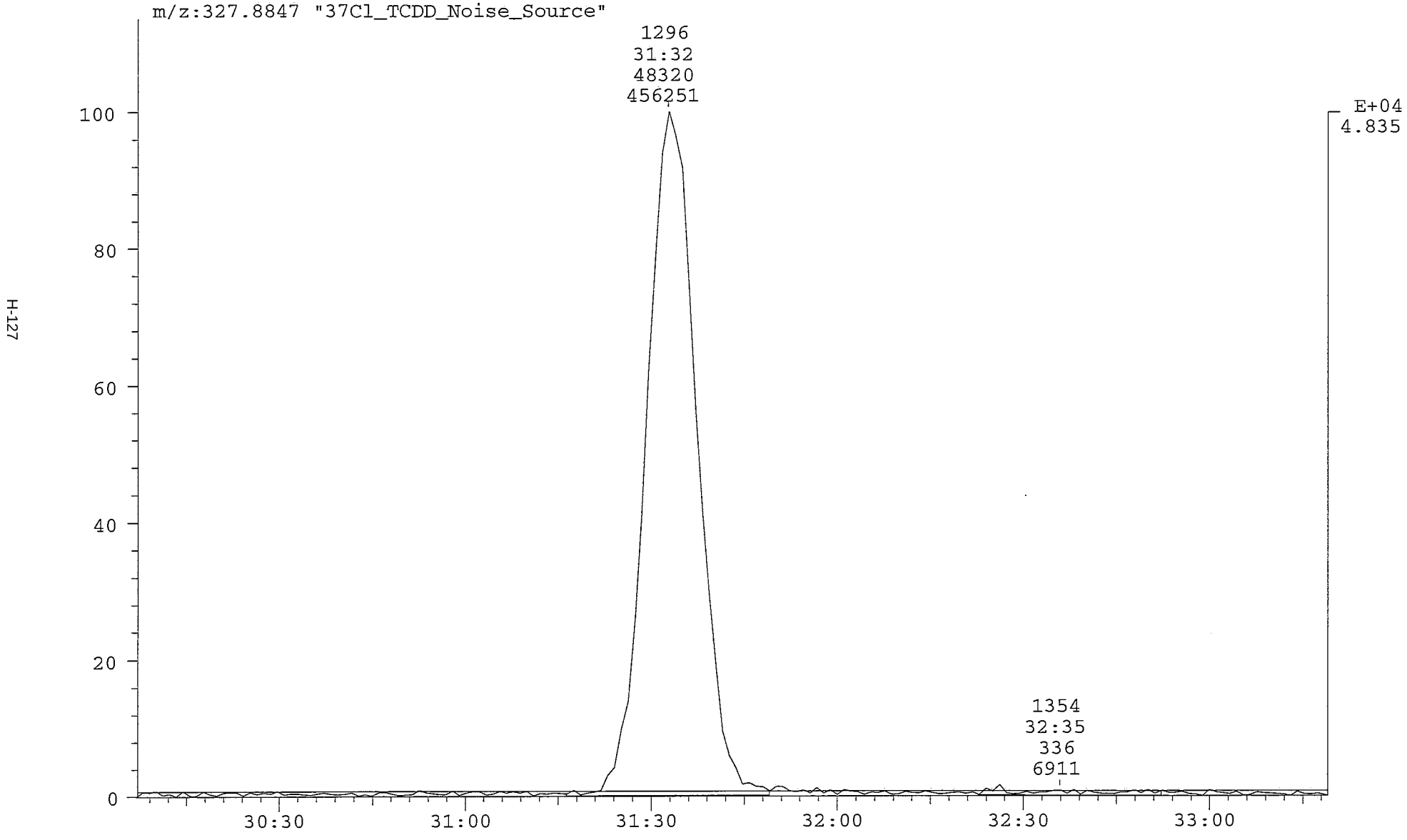


CHRO: btmkm6arr 15-Jul-11 Elapse: 31:24 1288
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1203 > 1373 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



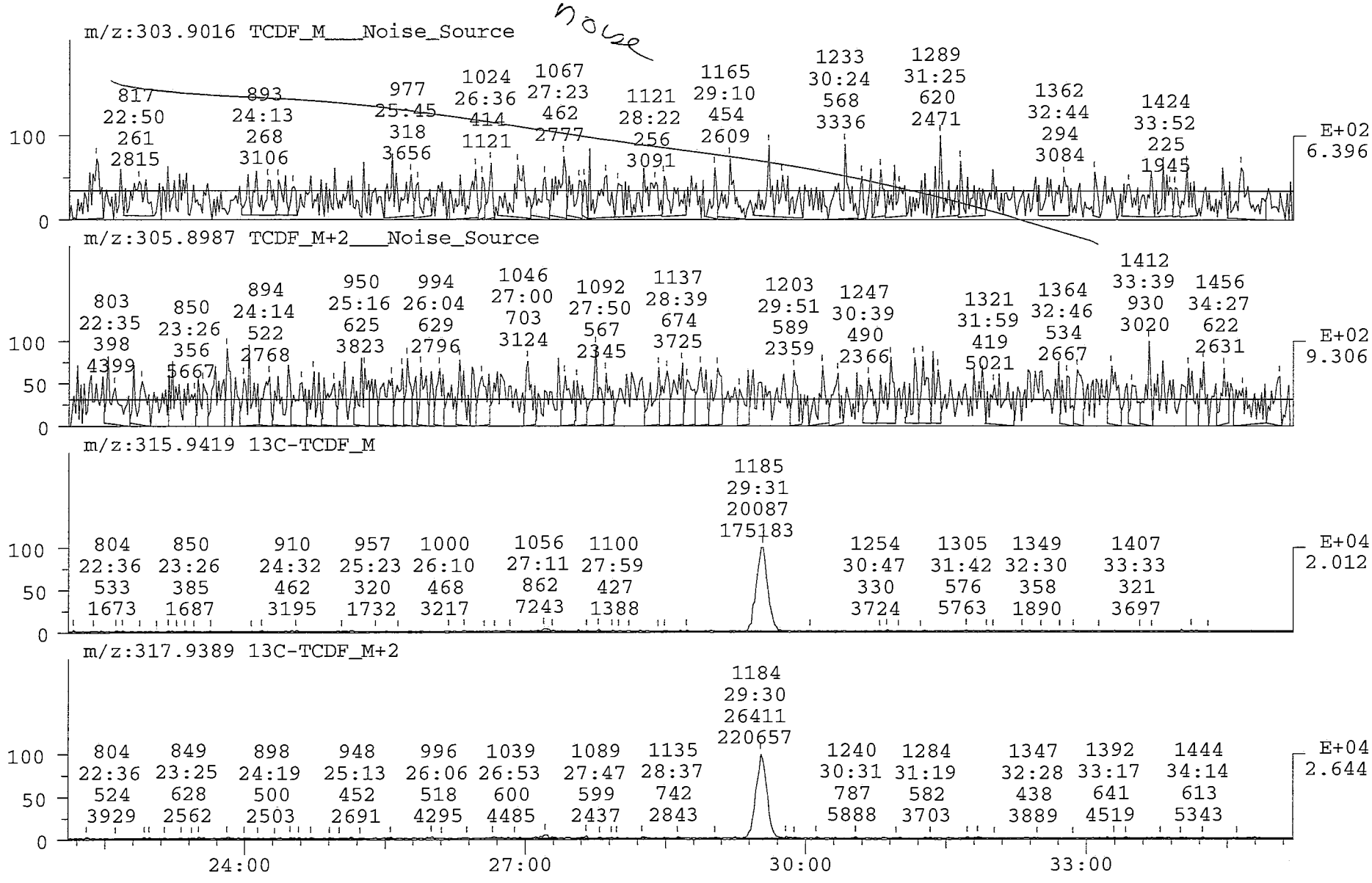
H-126

CHRO: btmkm6arr 15-Jul-11 Elapse: 31:40 1303
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1217 > 1394 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



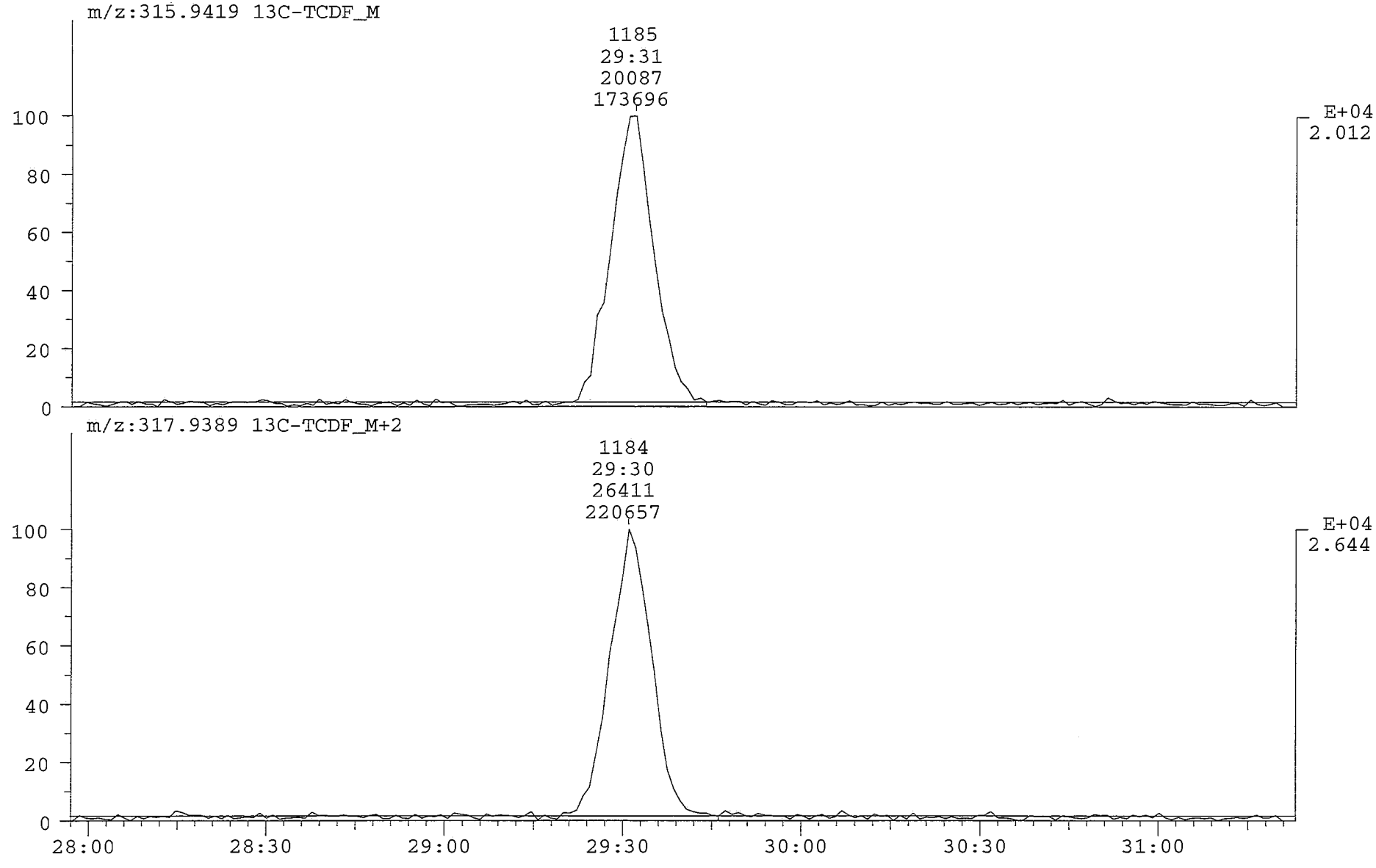
H-127

CHRO: btmkm6arr 15-Jul-11 Elapse: 31:40 1303
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 776 > 1497 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



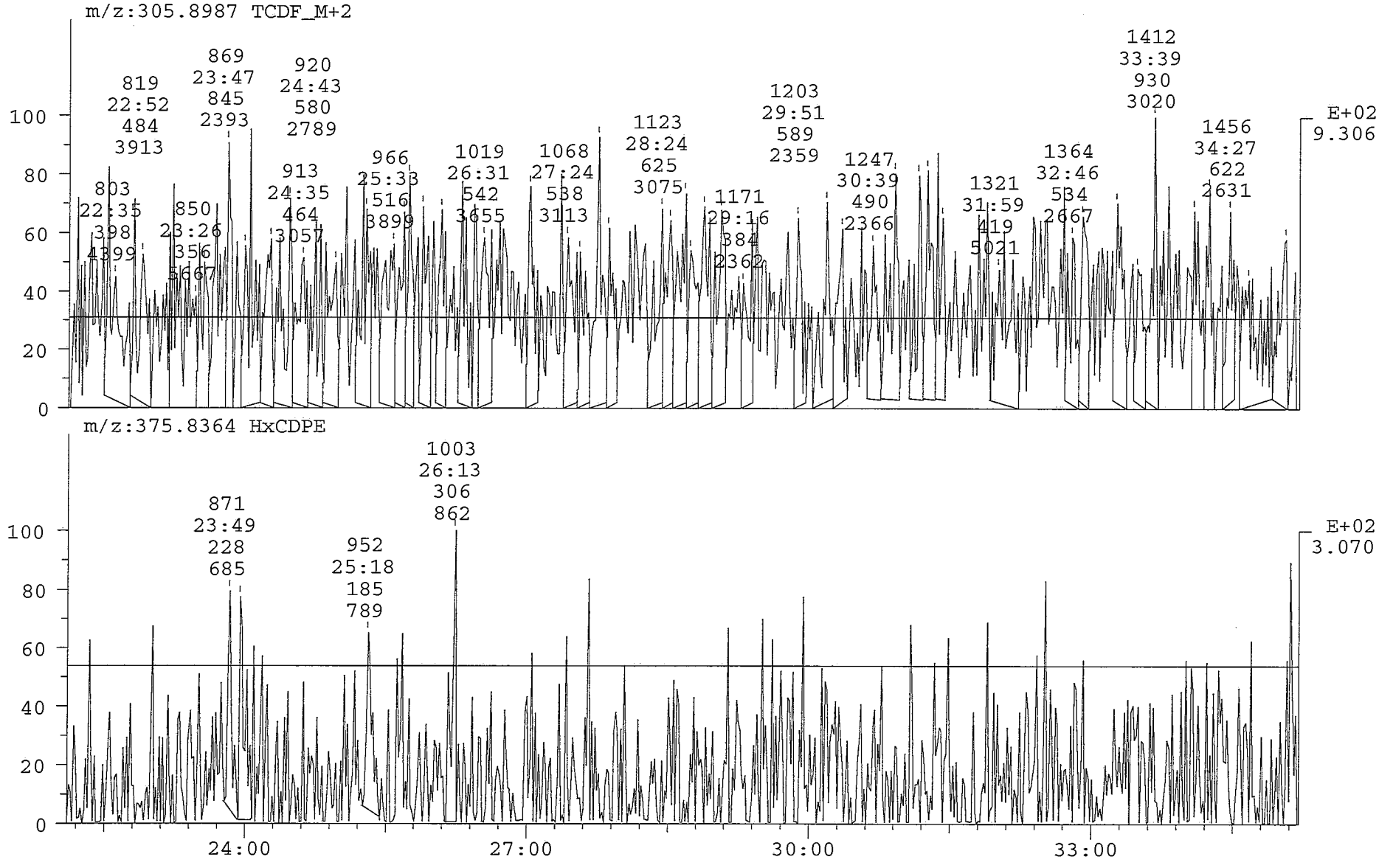
H-128

CHRO: btmkm6arr 15-Jul-11 Elapse: 29:37 1190
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1098 > 1287 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

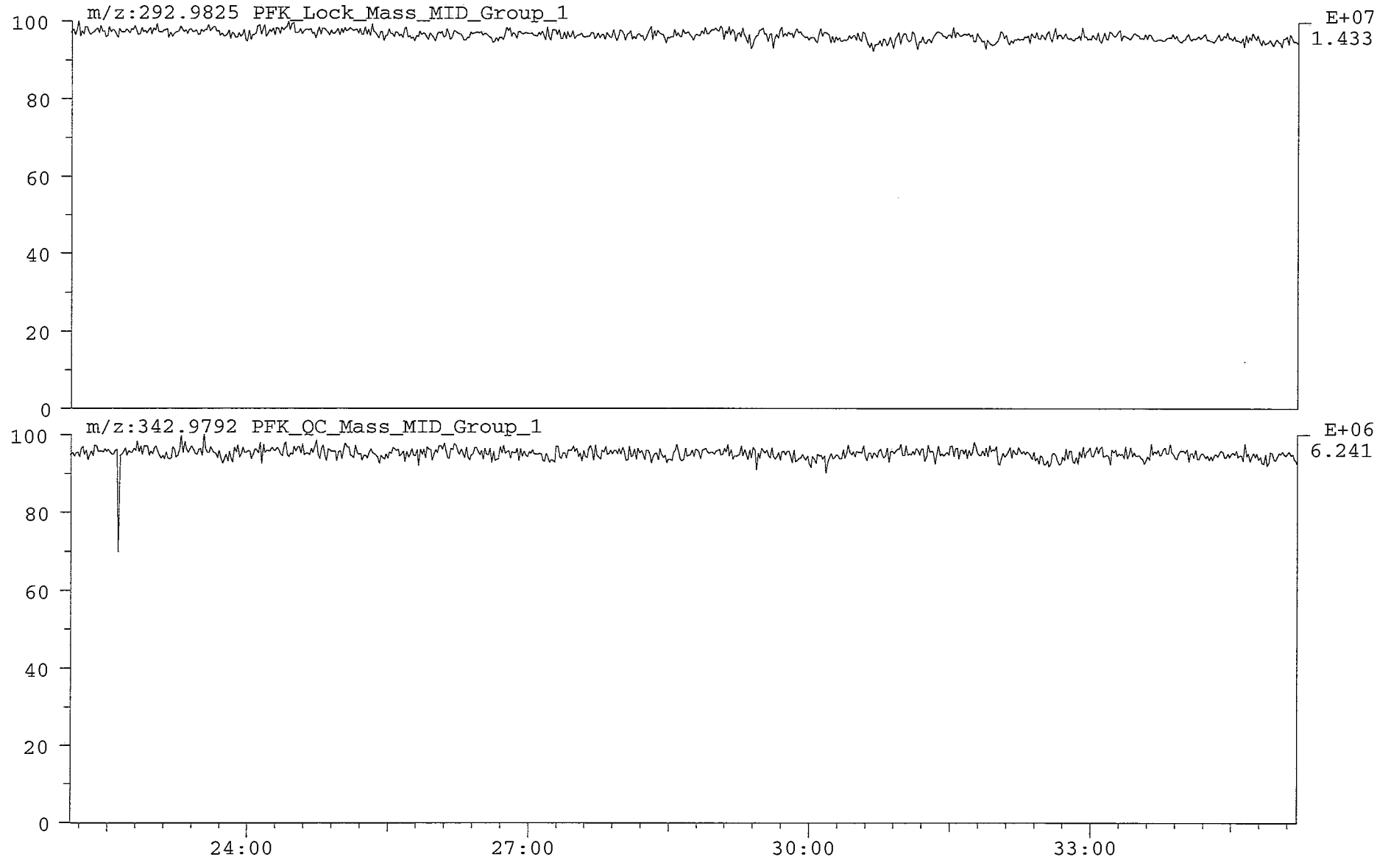


H-129

CHRO: btmkm6arr 15-Jul-11 Elapse: 29:37 1190
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 776 > 1497 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

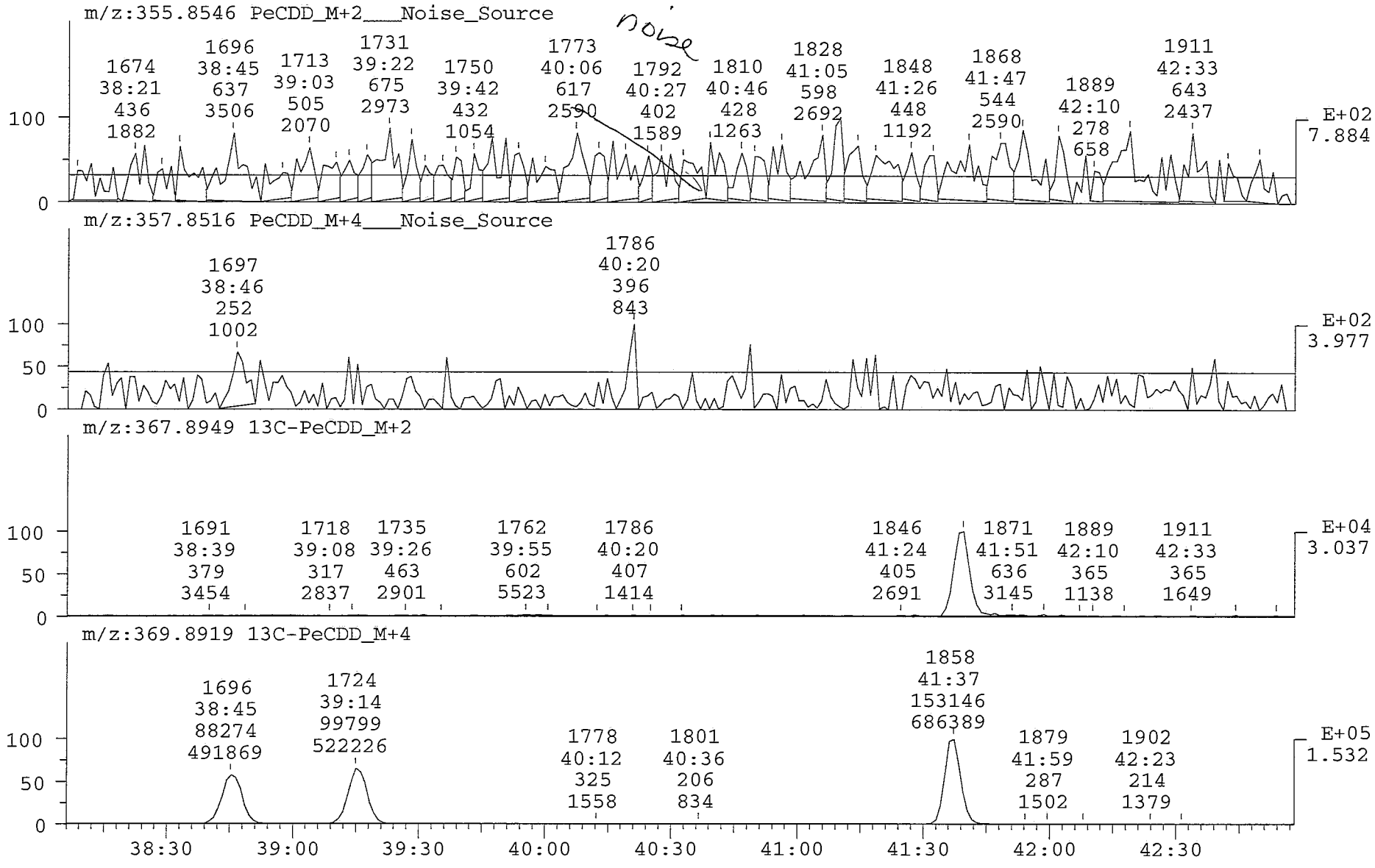


CHRO: btmkm6arr 15-Jul-11 Elapse: 29:37 1190
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 776 > 1497 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



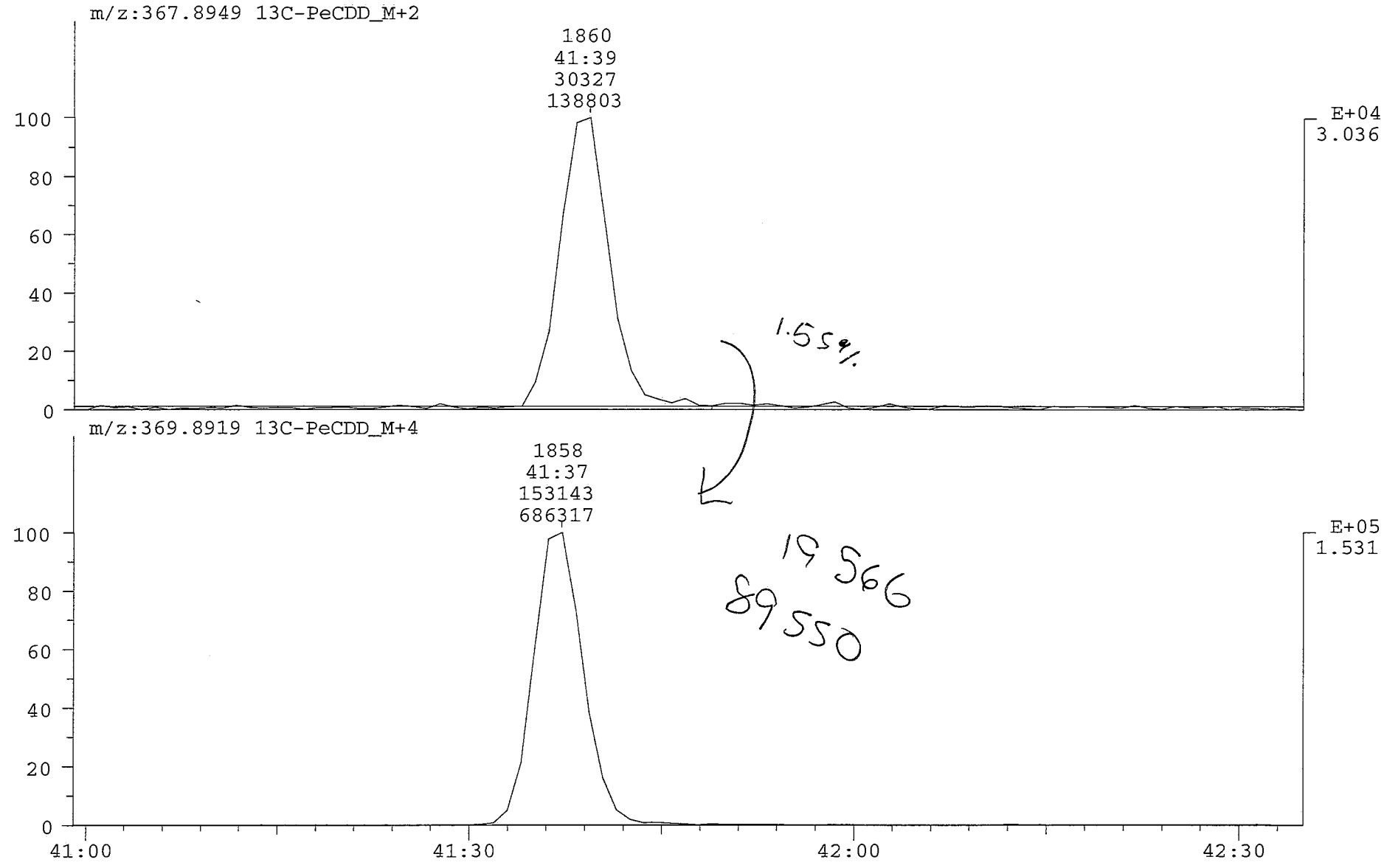
H-131

CHRO: btmkm6arr 15-Jul-11 Elapse: 29:37 1190
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1659 > 1934 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



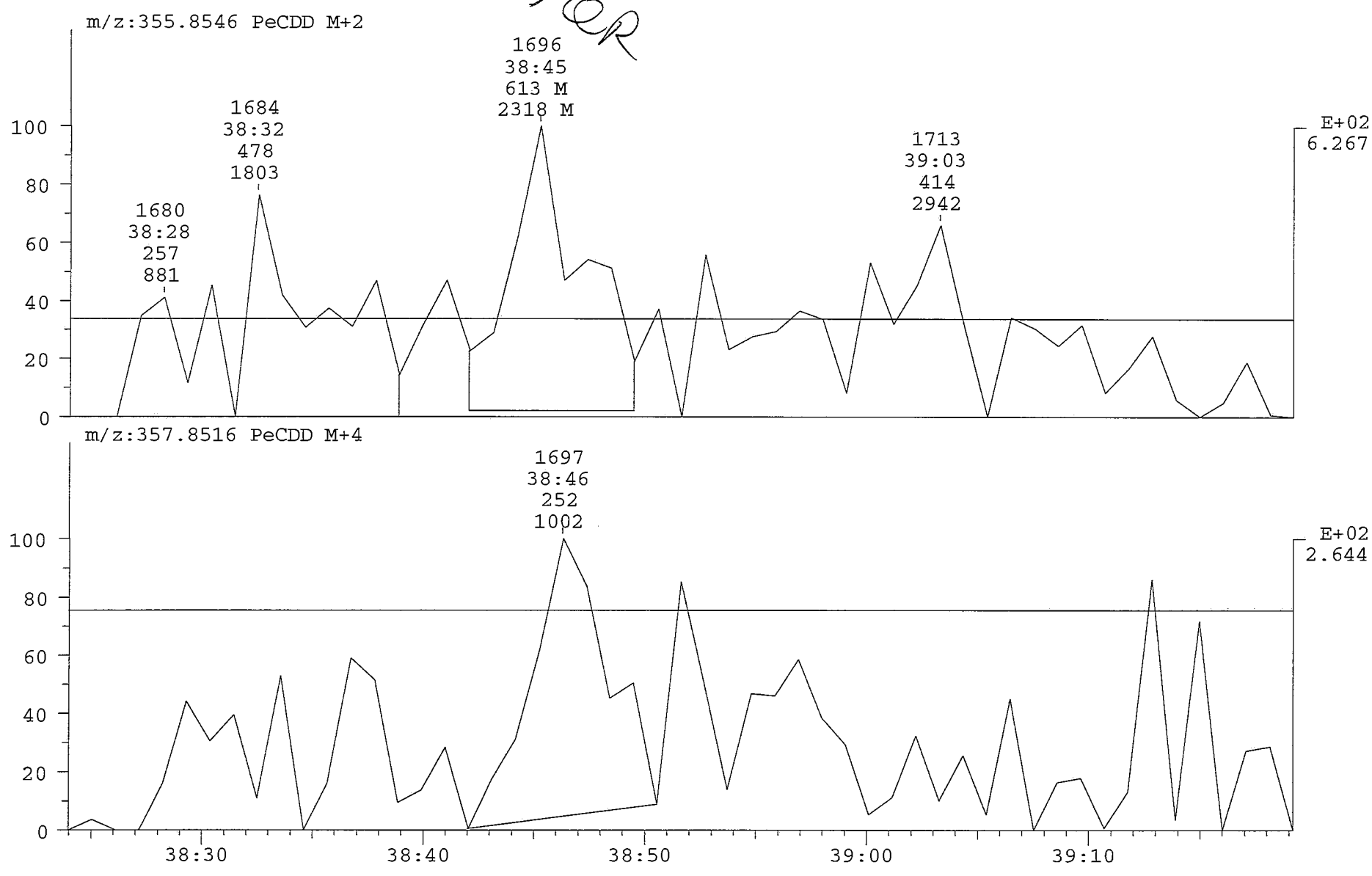
H-132

CHRO: btmkm6arr 15-Jul-11 Elapse: 41:43 1864
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1822 > 1912 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-133

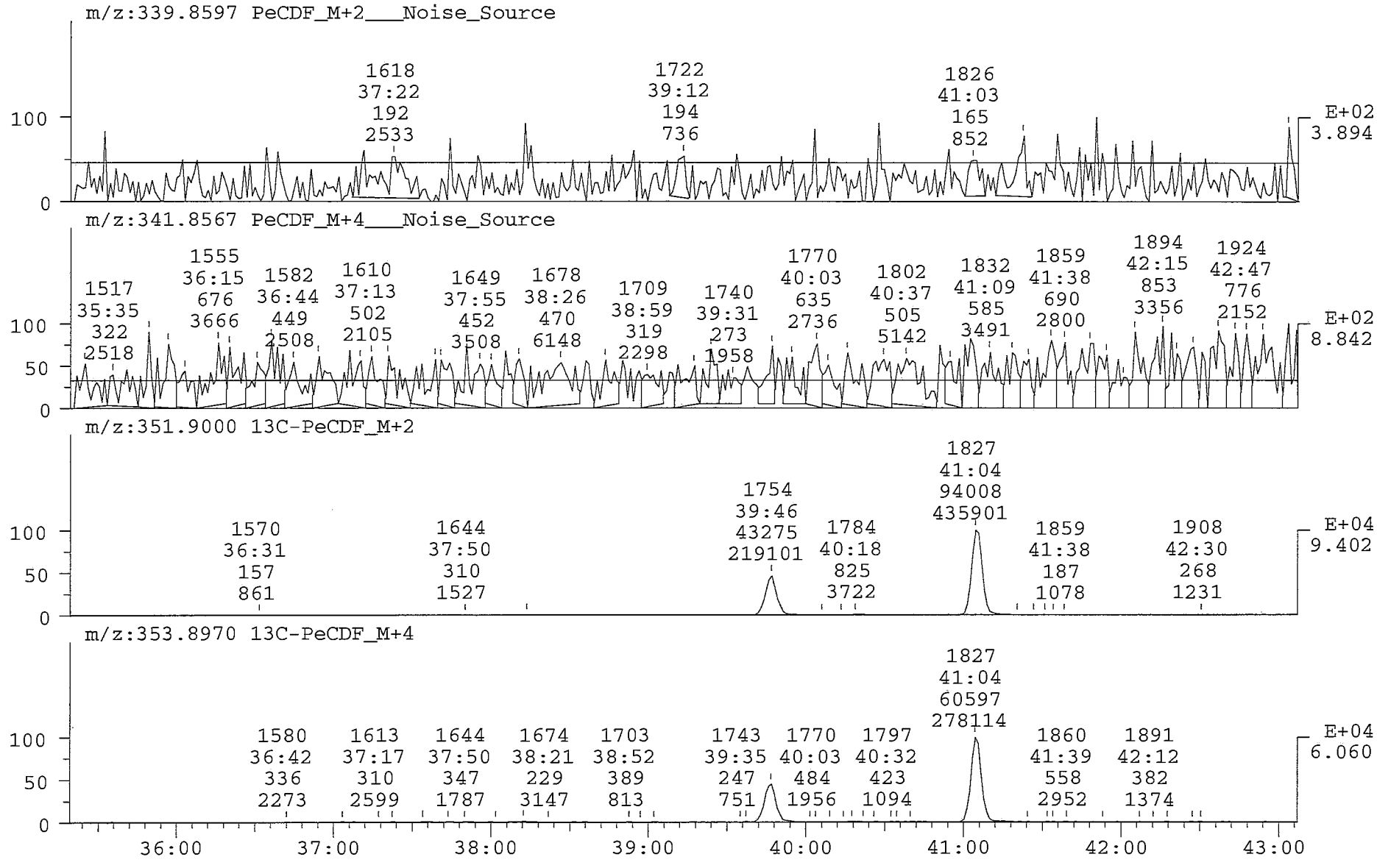
CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1676 > 1728 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



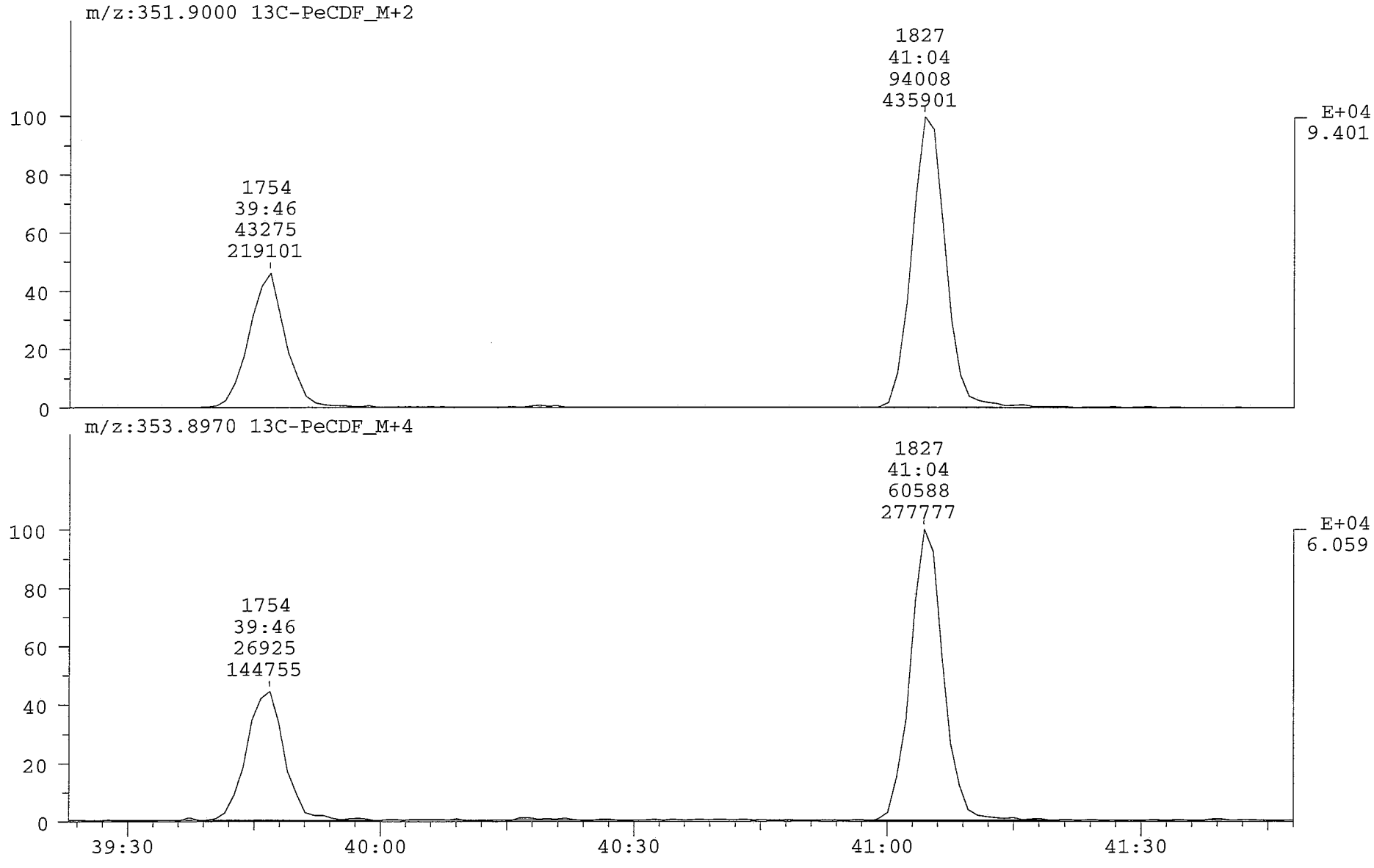
H-134

133

CHRO: btmkm6arr 15-Jul-11 Elapse: 41:43 1864
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1502 > 1943 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

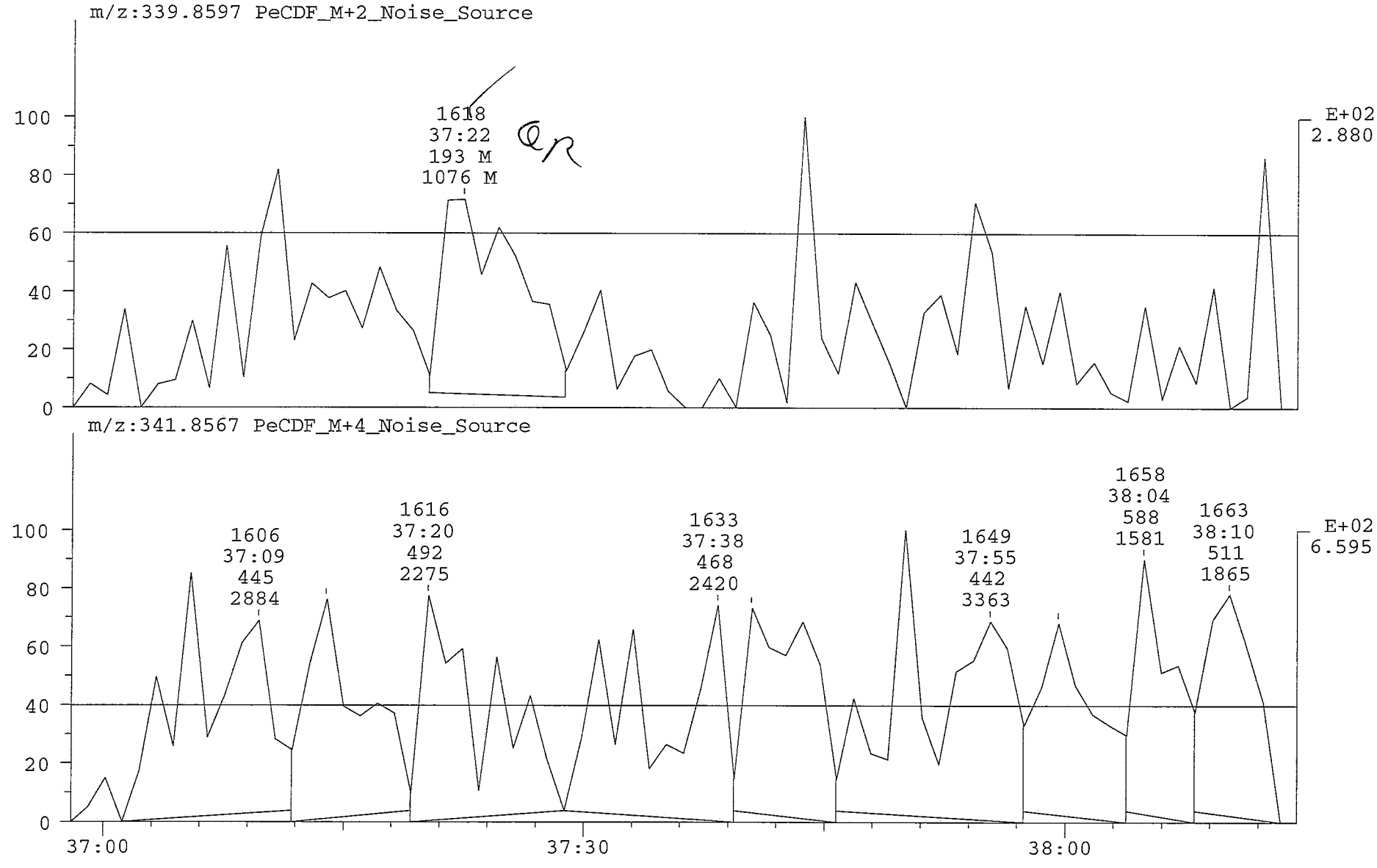


CHRO: btmkm6arr 15-Jul-11 Elapse: 40:34 1799
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1732 > 1868 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



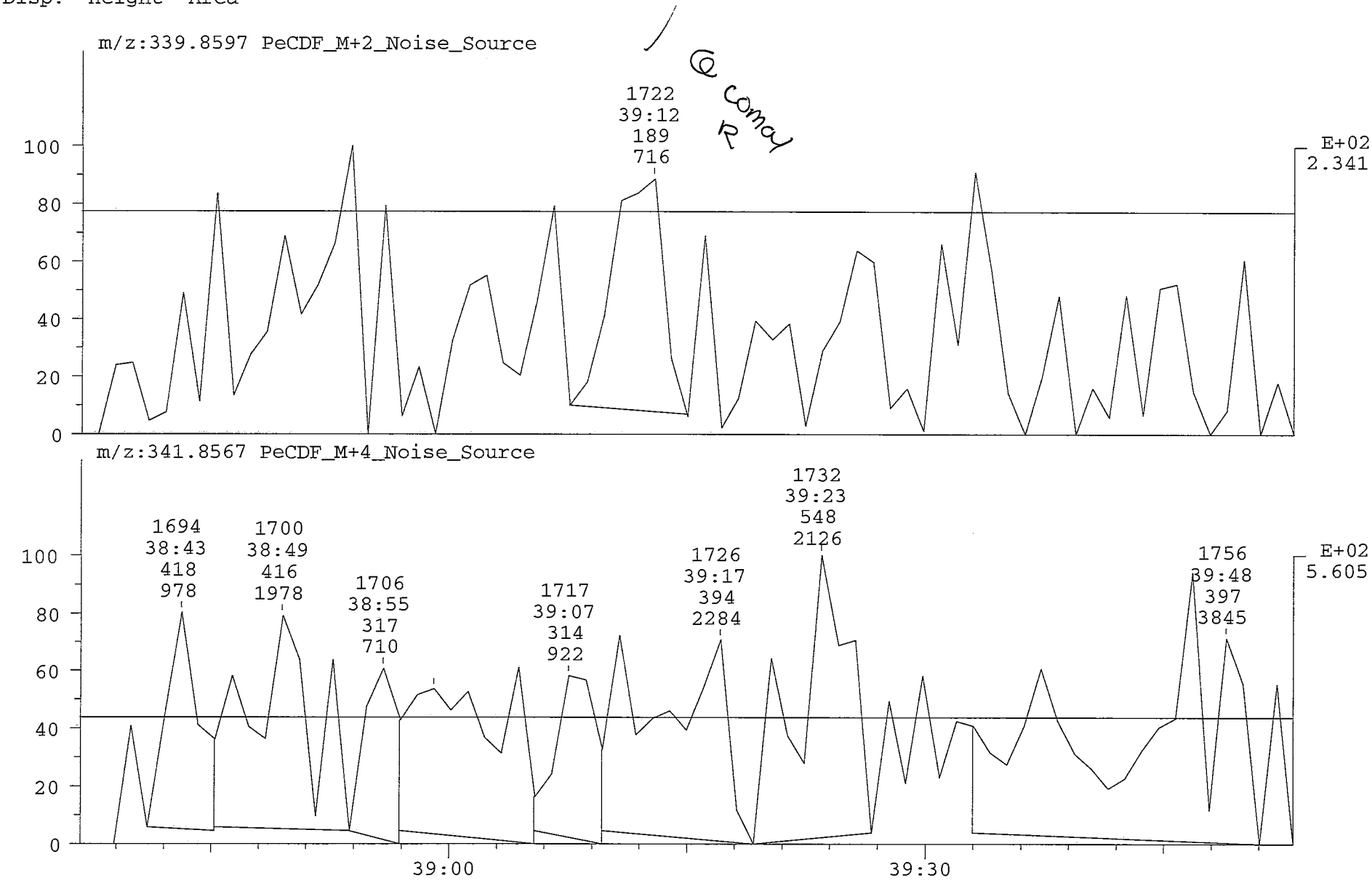
H-136

CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1595 > 1667 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

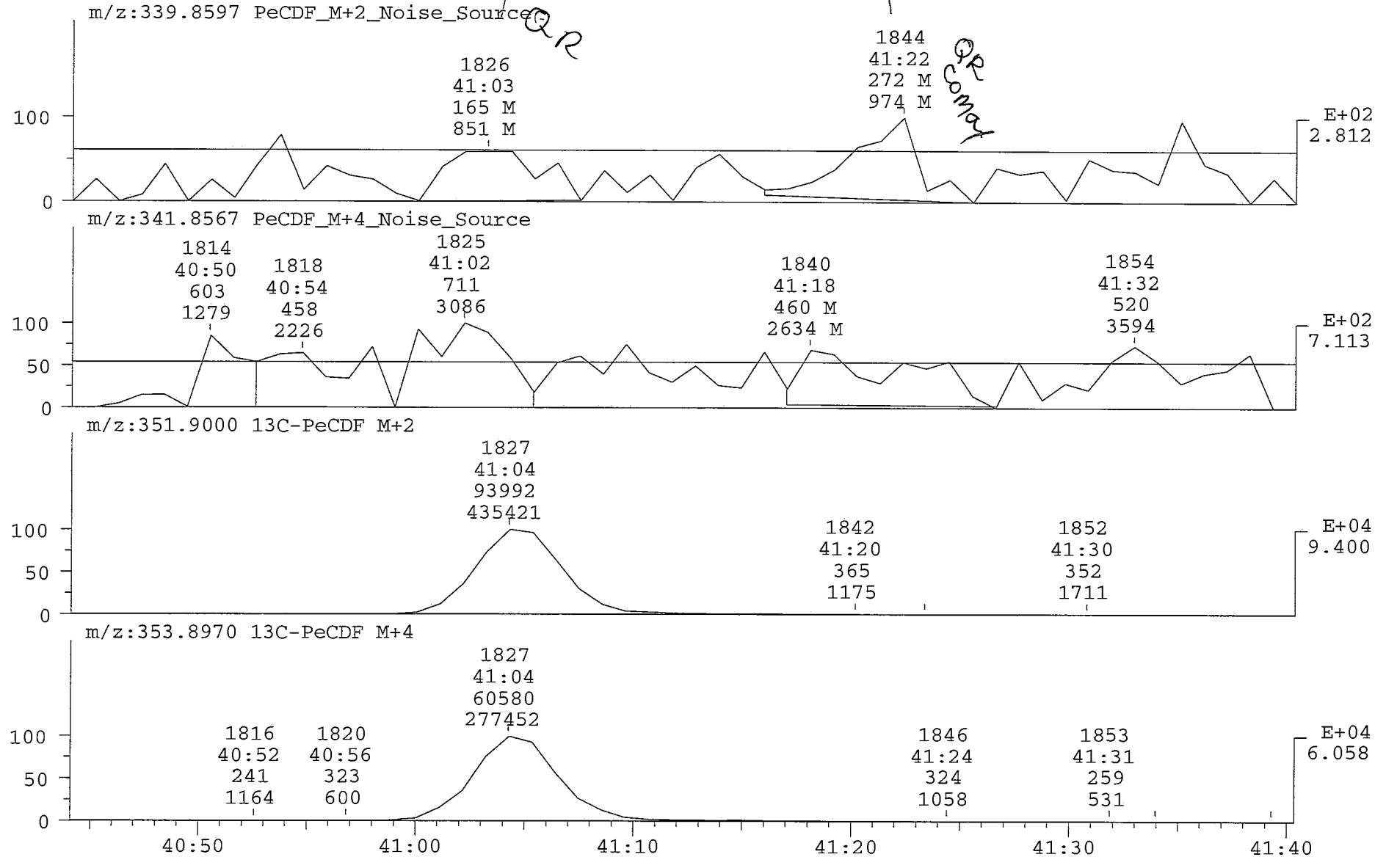


H-137

CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1688 > 1760 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

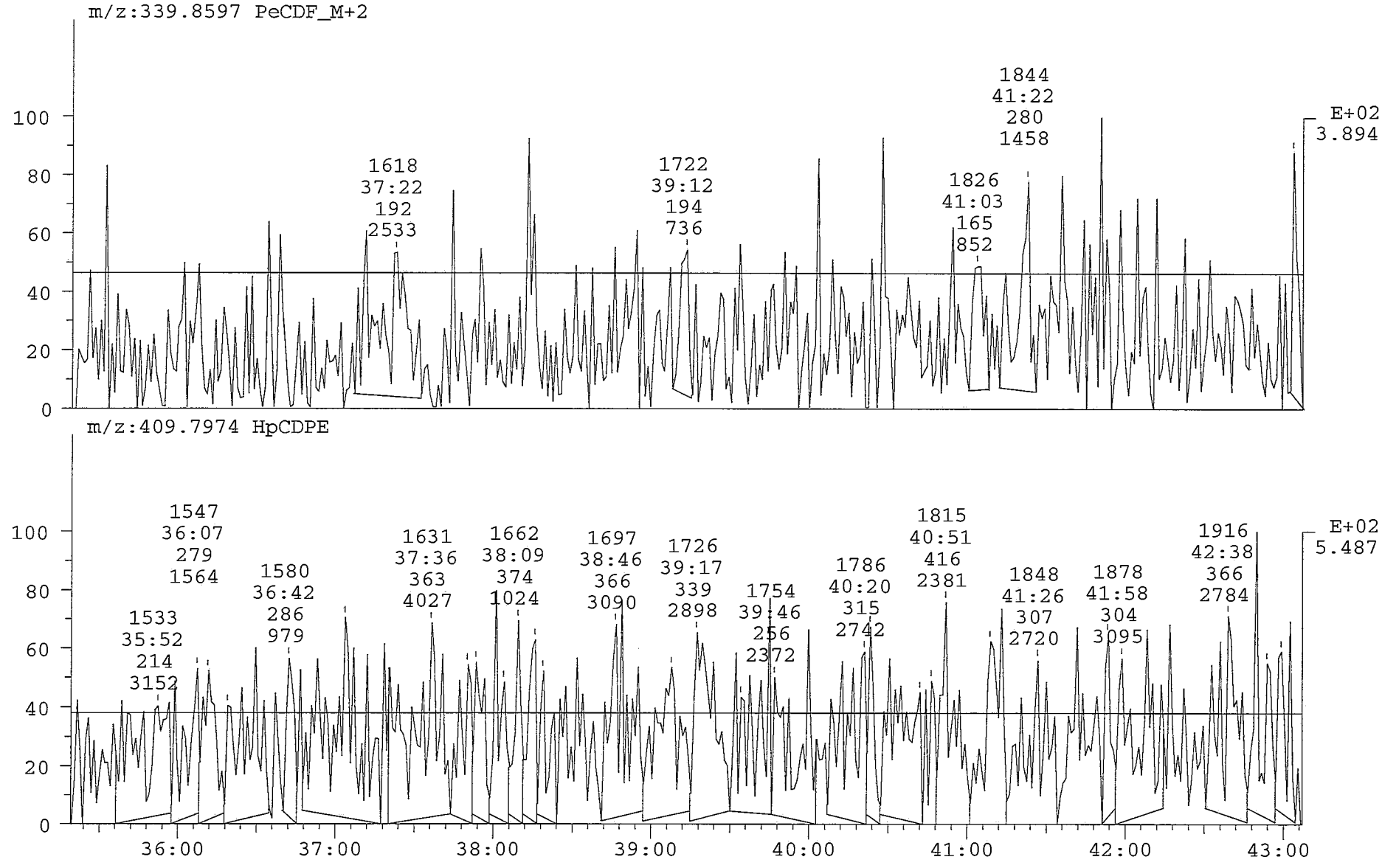


CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1808 > 1861 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

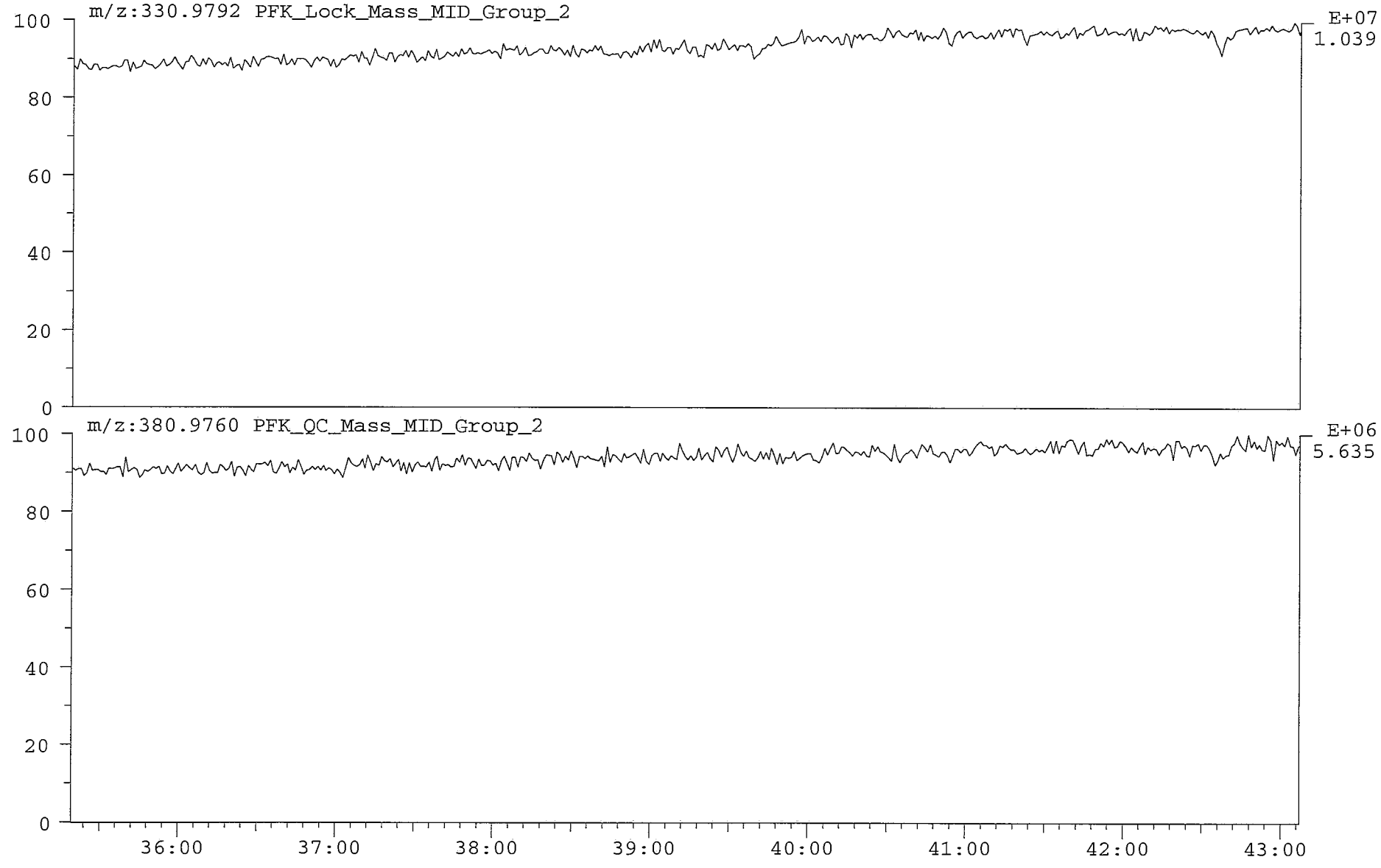


H-139

CHRO: btmkm6arr 15-Jul-11 Elapse: 40:34 1799
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1502 > 1943 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

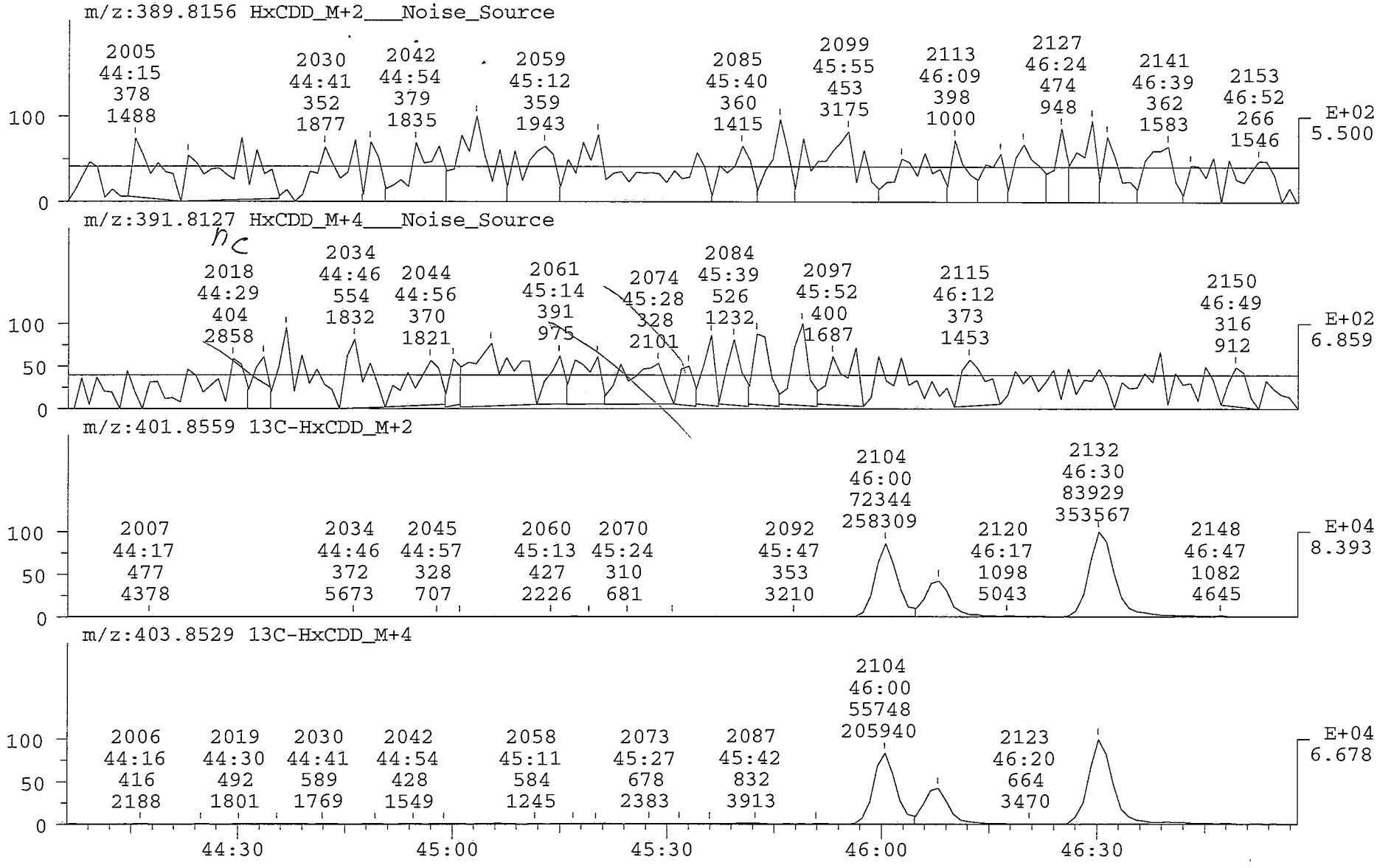


CHRO: btmkm6arr 15-Jul-11 Elapse: 40:34 1799
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1502 > 1943 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



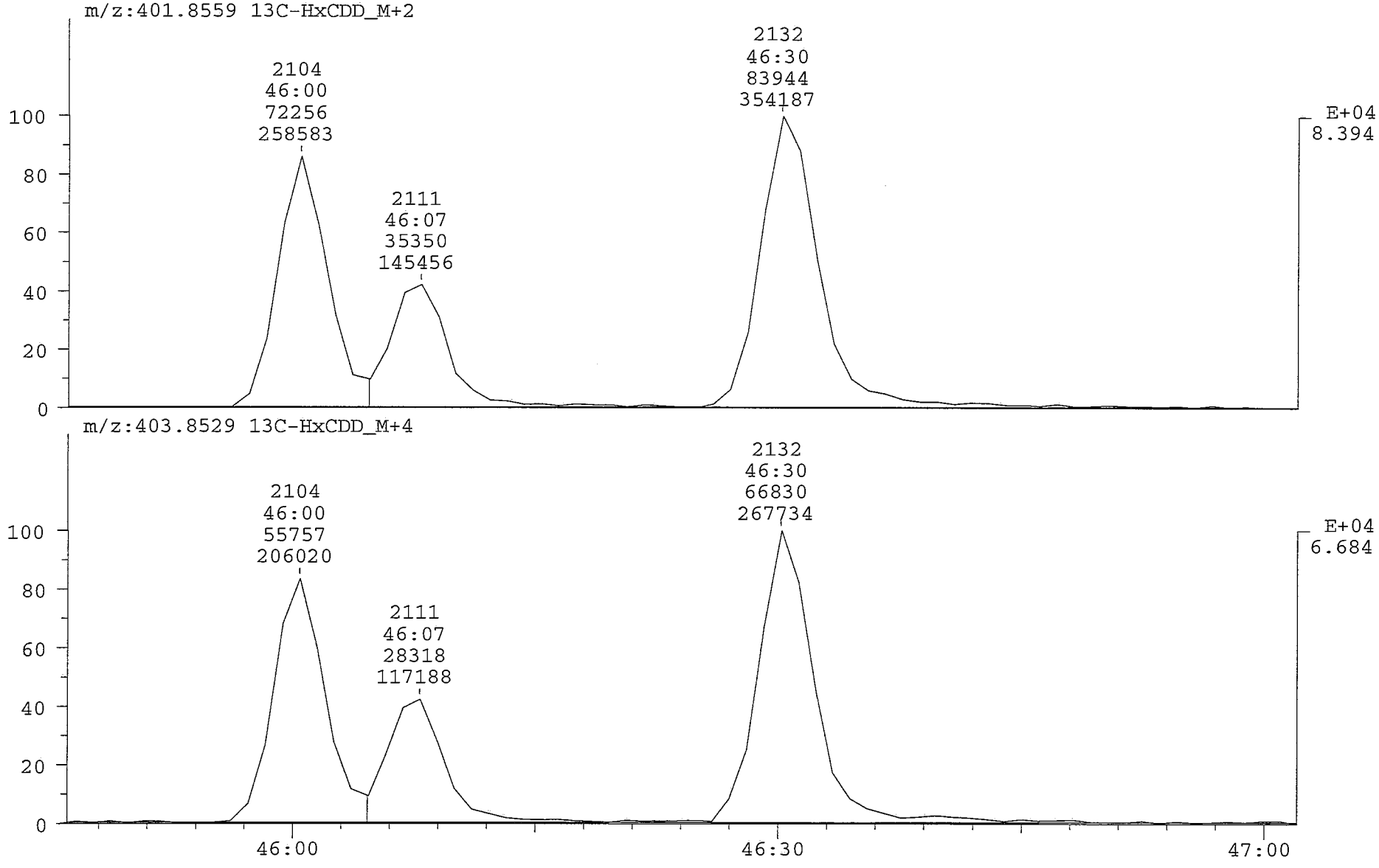
H-141

CHRO: btmkm6arr 15-Jul-11 Elapse: 40:34 1799
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1996 > 2158 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

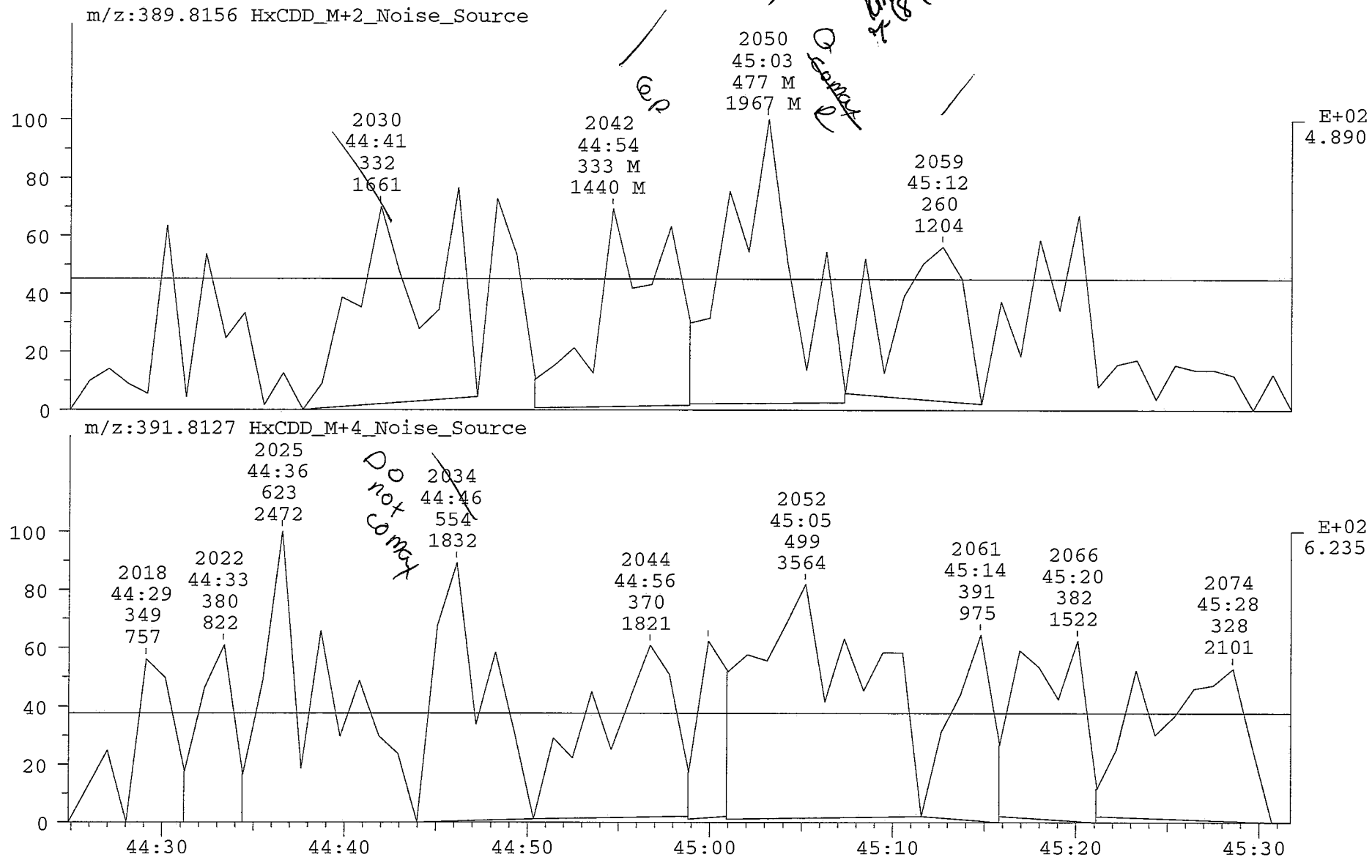


H-142

CHRO: btmkm6arr 15-Jul-11 Elapse: 46:23 2126
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2090 > 2162 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

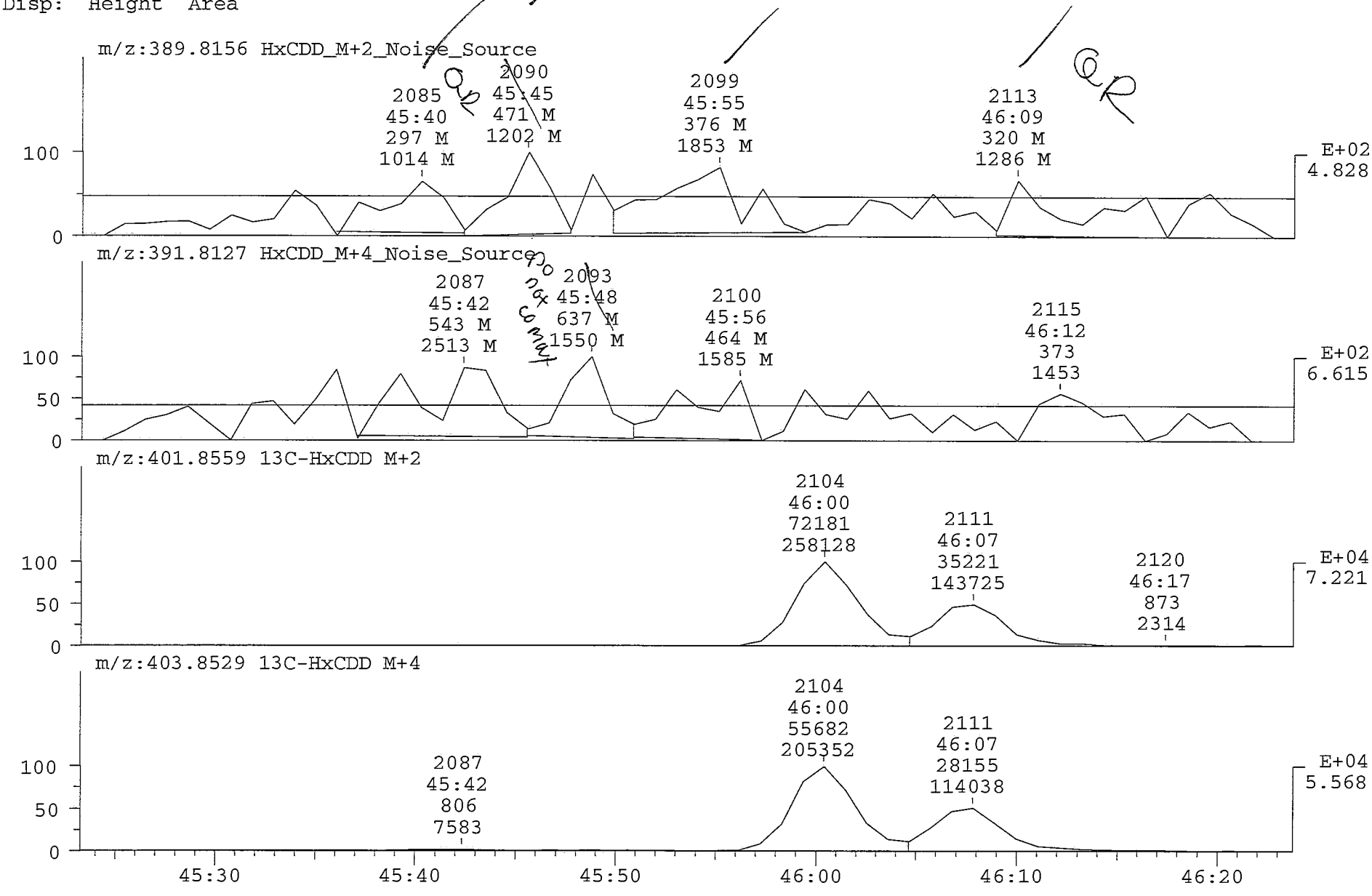


CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2014 > 2077 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



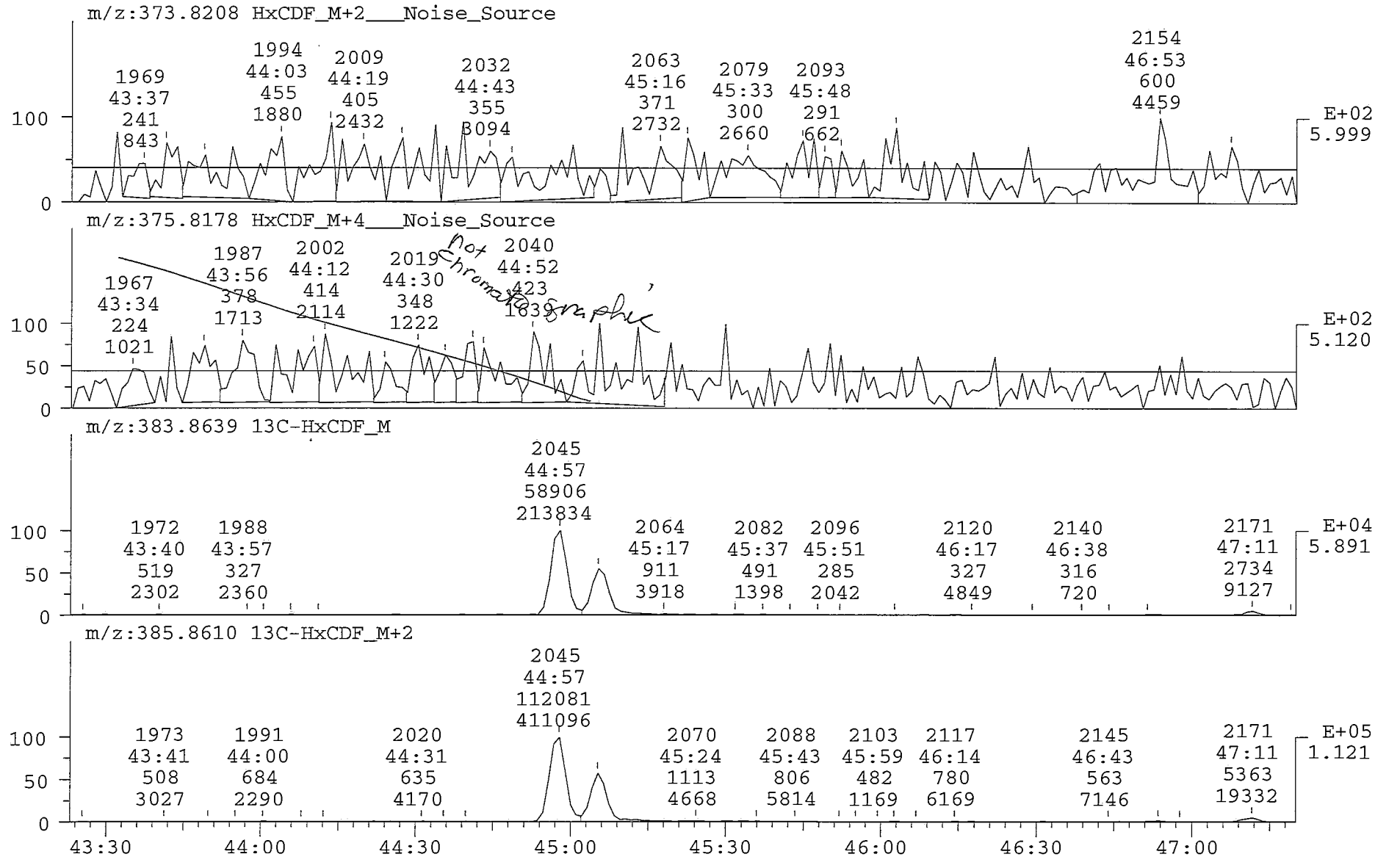
H-144

CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2069 > 2126 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area

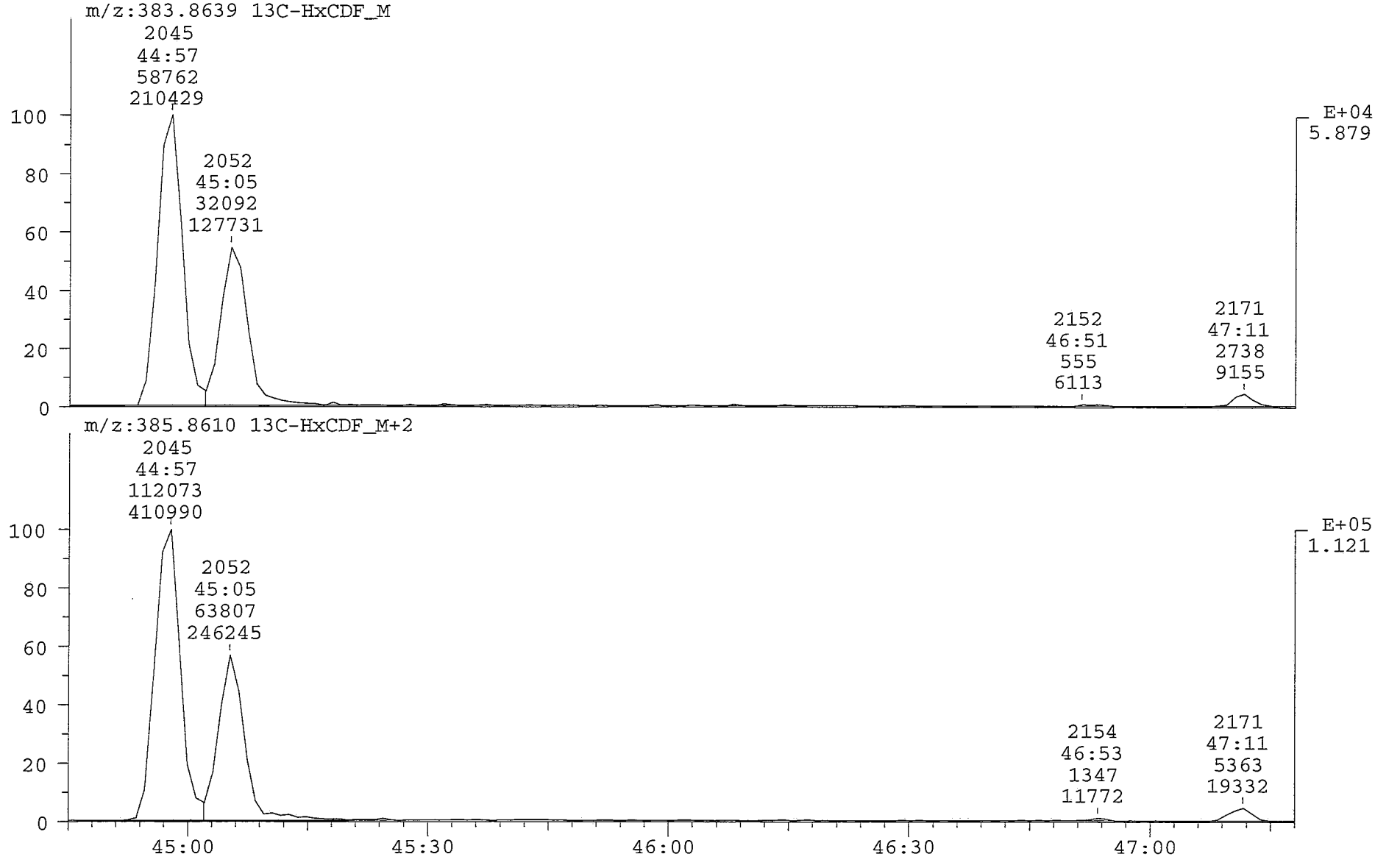


H-145

CHRO: btmkm6arr 15-Jul-11 Elapse: 46:23 2126
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1956 > 2179 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

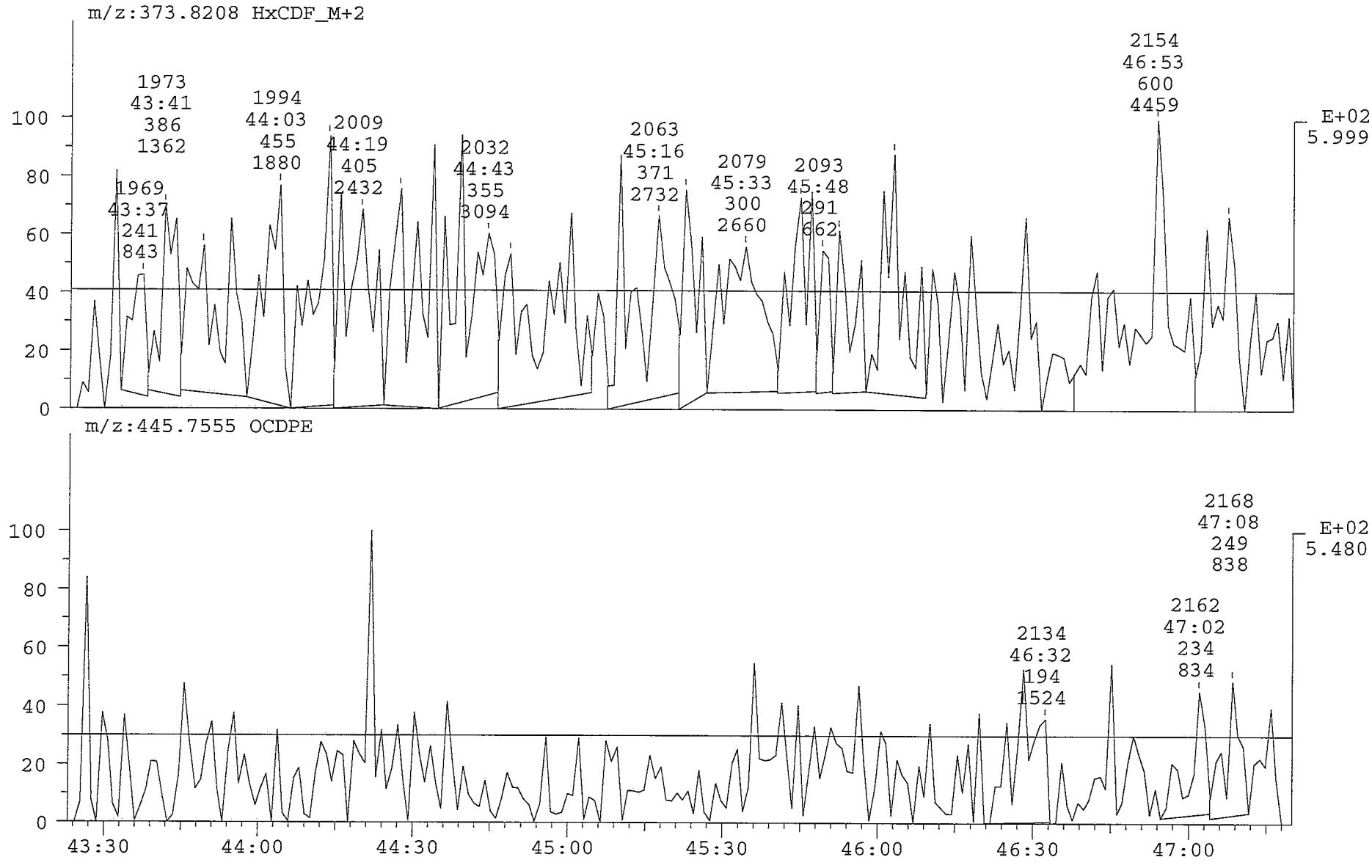


CHRO: btmkm6arr 15-Jul-11 Elapse: 46:01 2105
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2033 > 2177 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

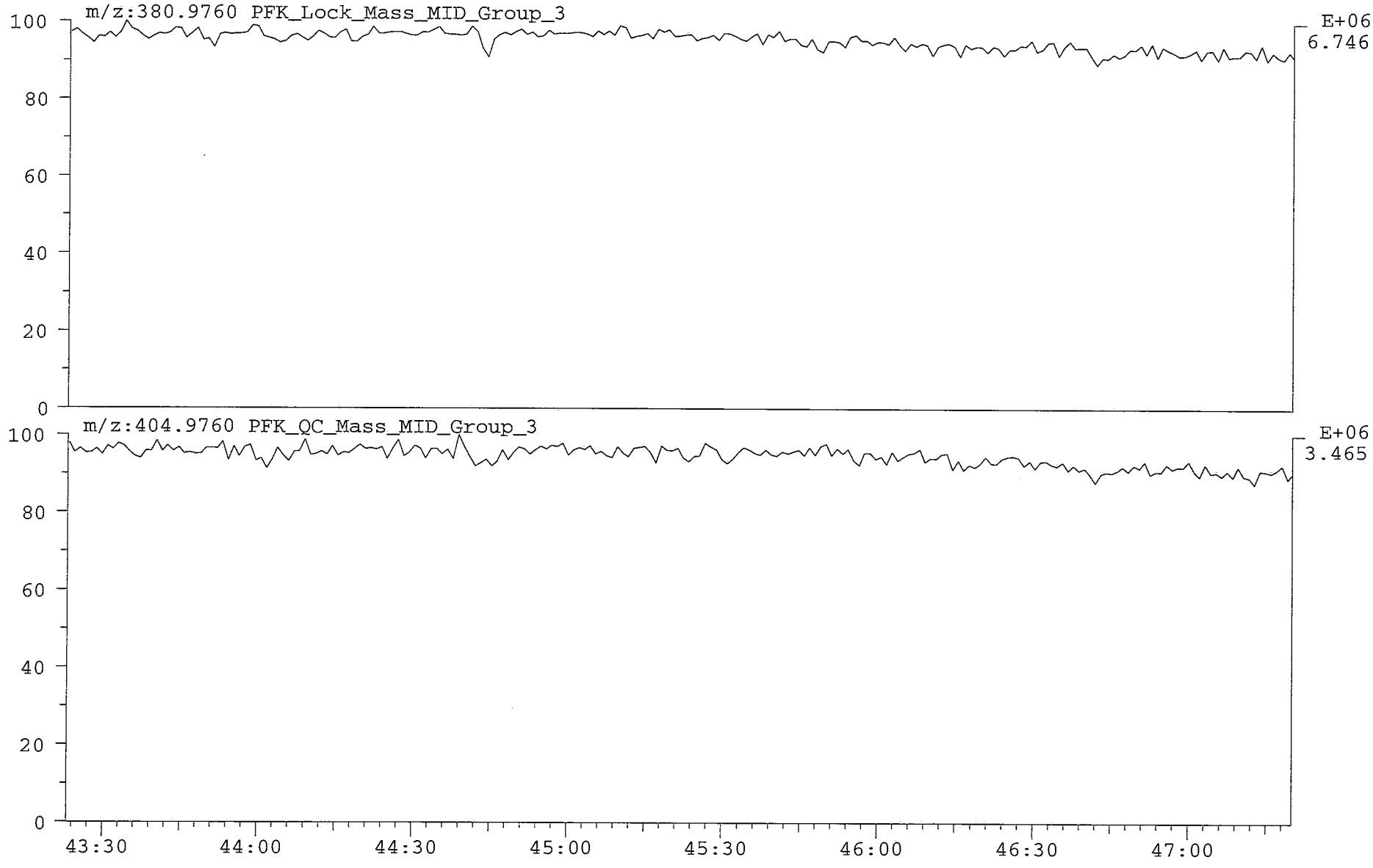


H-147

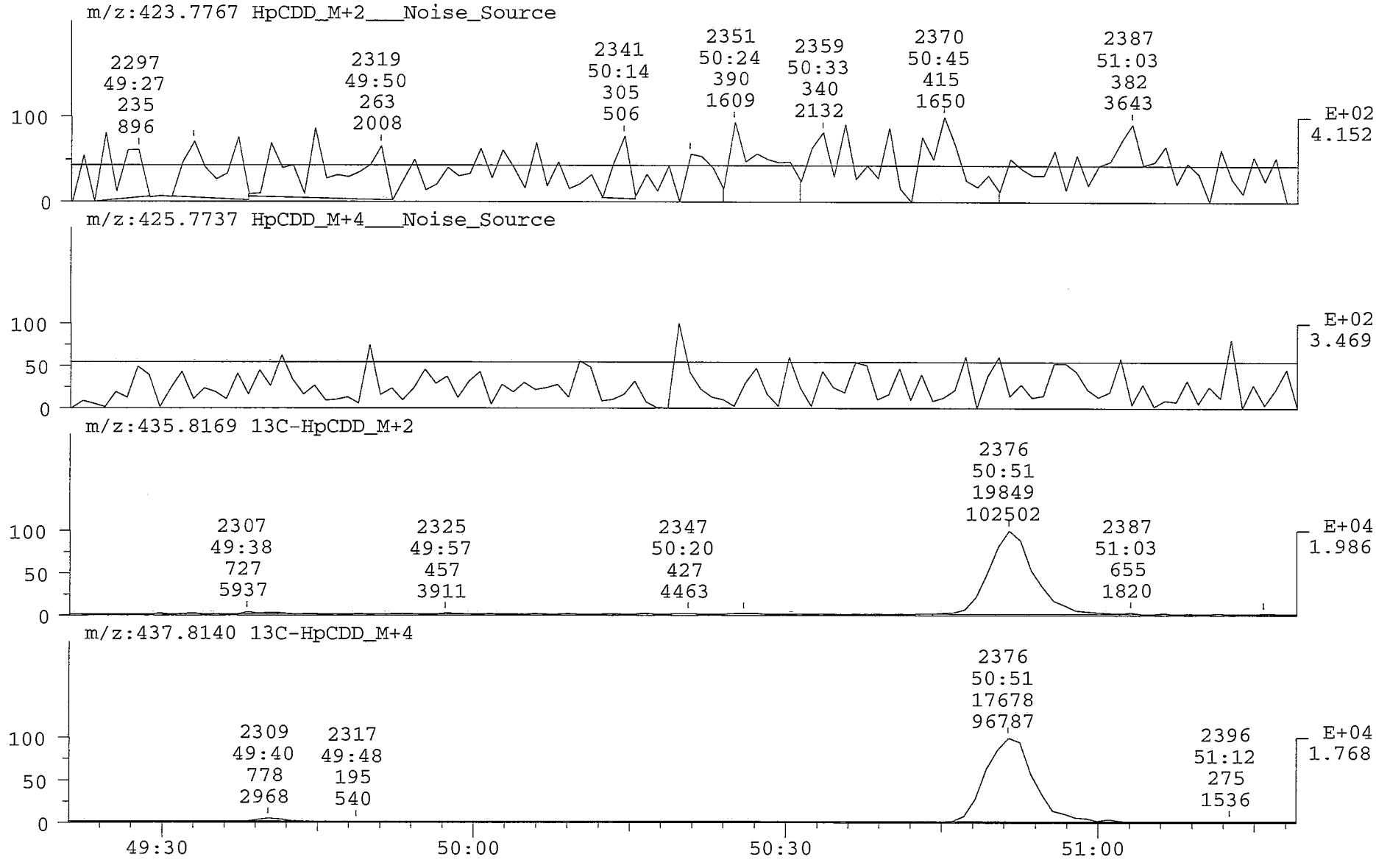
CHRO: btmkm6arr 15-Jul-11 Elapse: 45:11 2058
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1956 > 2179 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



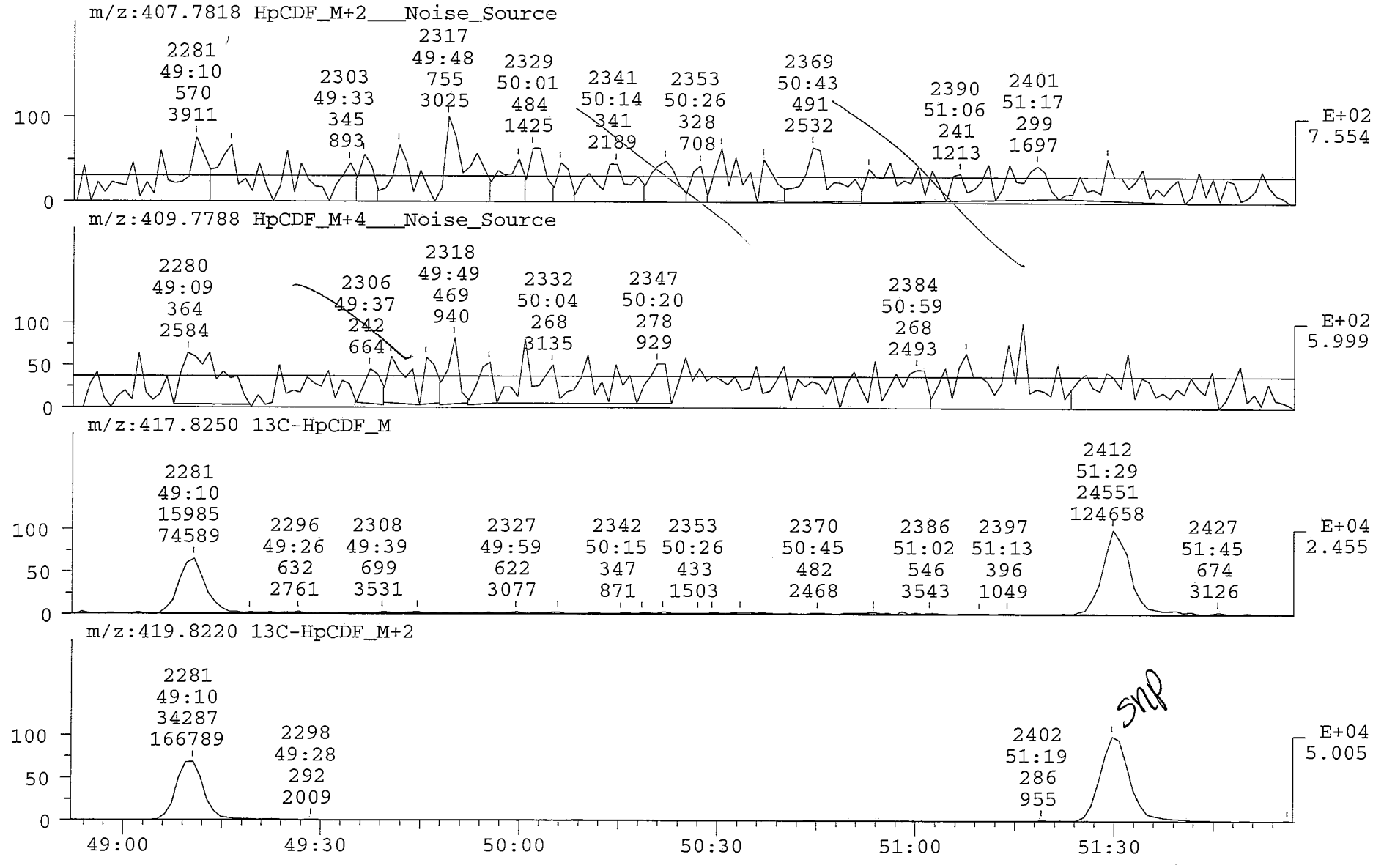
CHRO: btmkm6arr 15-Jul-11 Elapse: 45:11 2058
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1956 > 2179 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



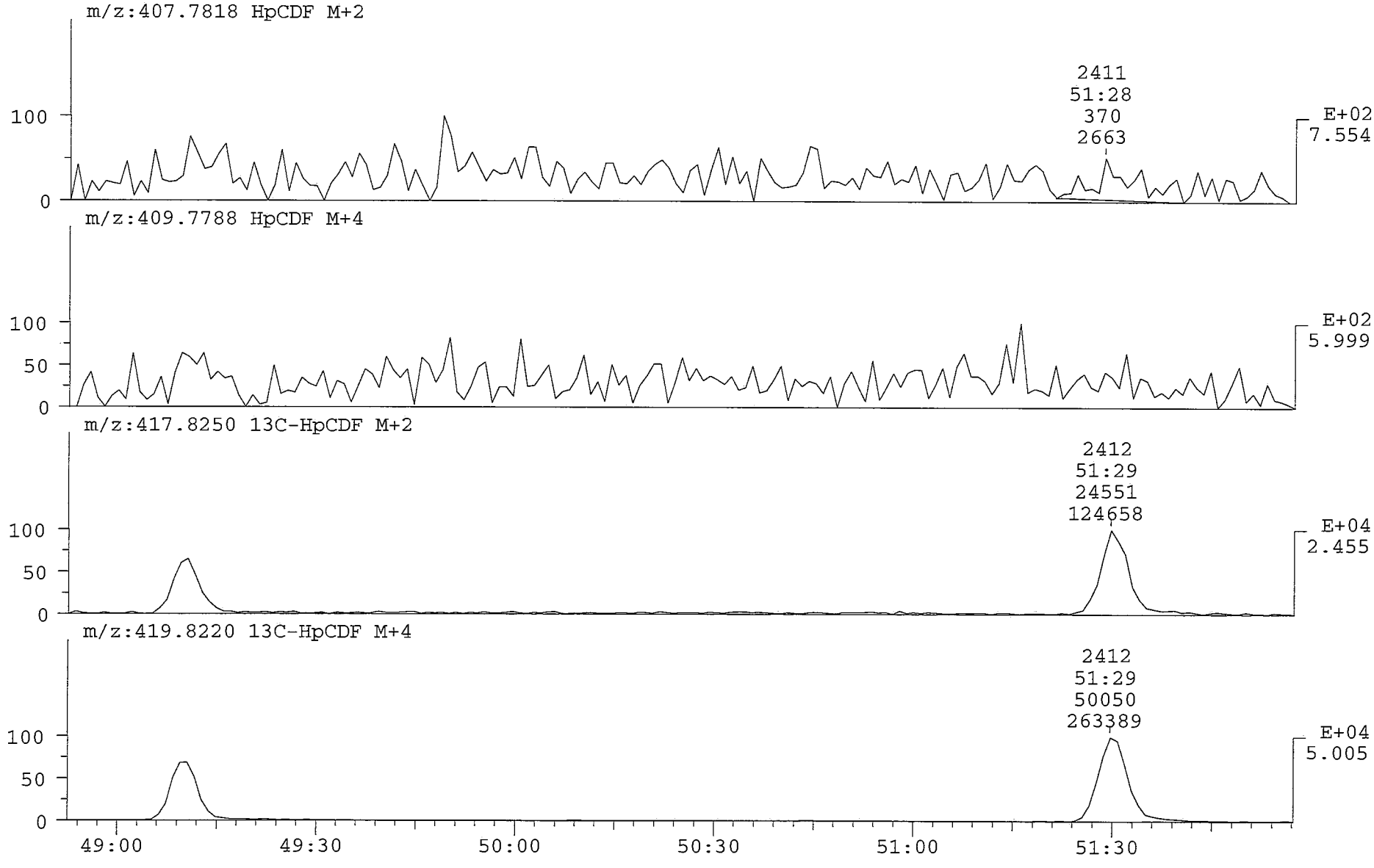
CHRO: btmkm6arr 15-Jul-11 Elapse: 45:11 2058
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2291 > 2402 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



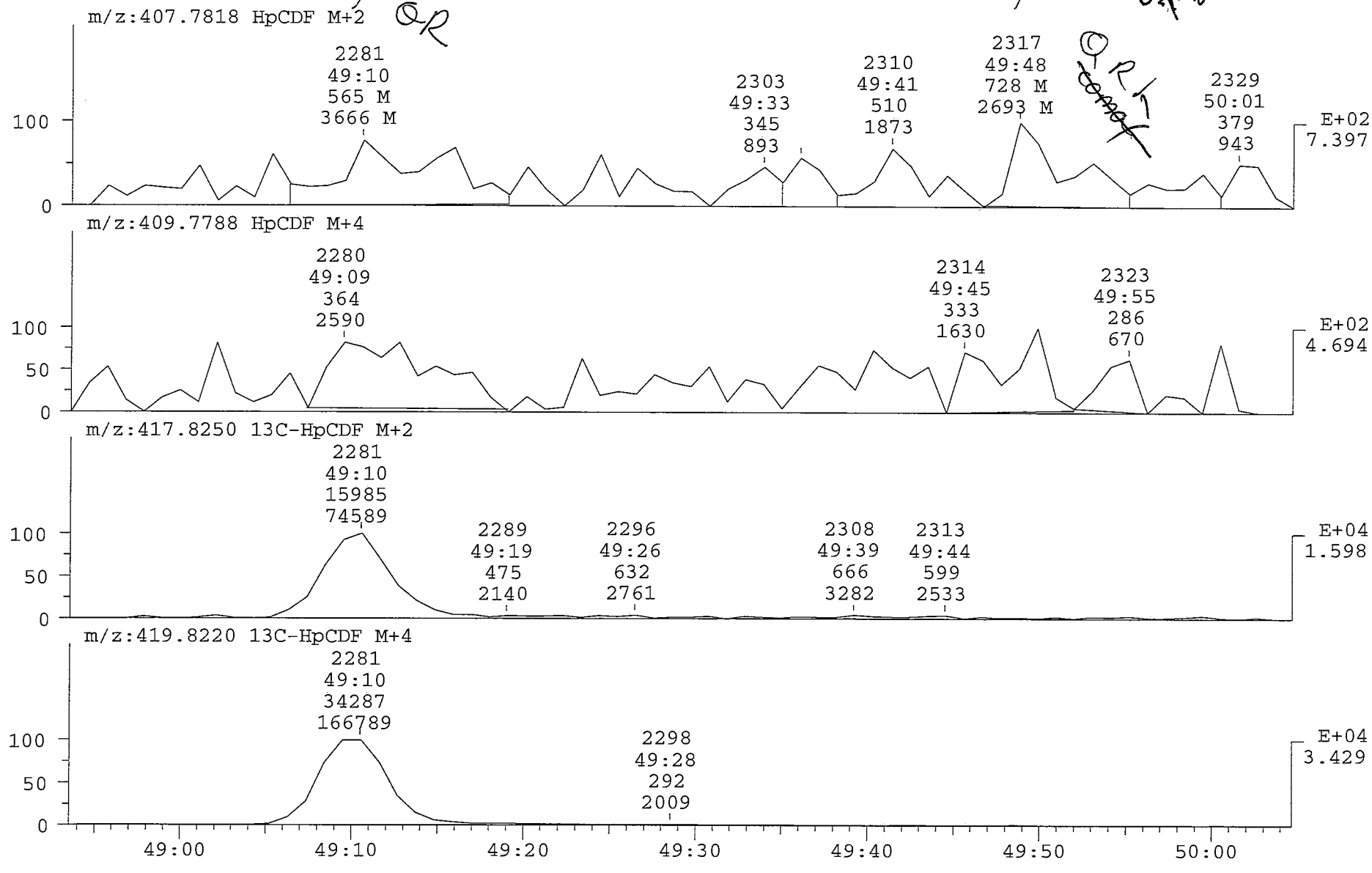
CHRO: btmkm6arr 15-Jul-11 Elapse: 45:11 2058
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2264 > 2438 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



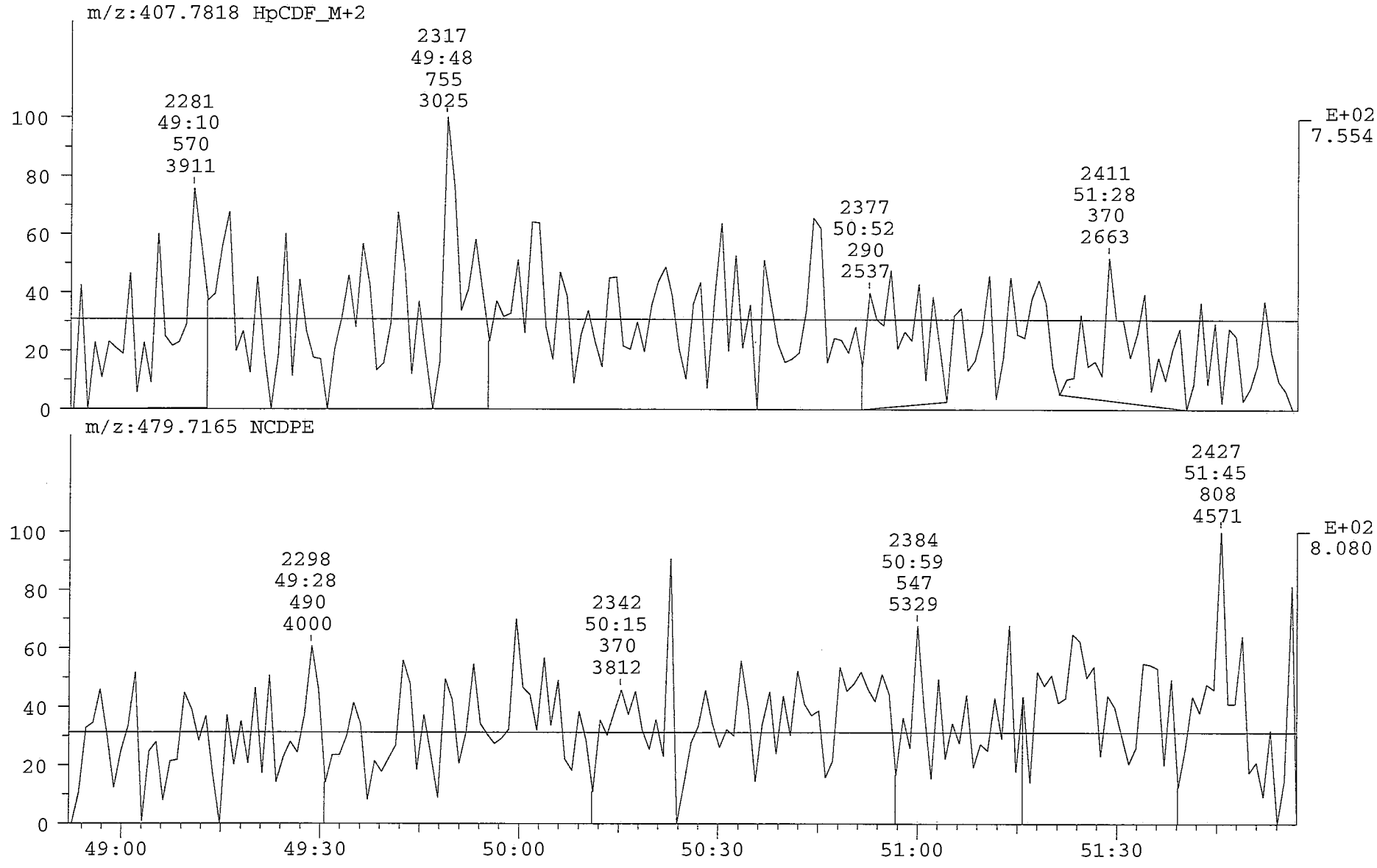
CHRO: btmkm6arr 15-Jul-11 Elapse: 51:29 2412
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2409 > 2415 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



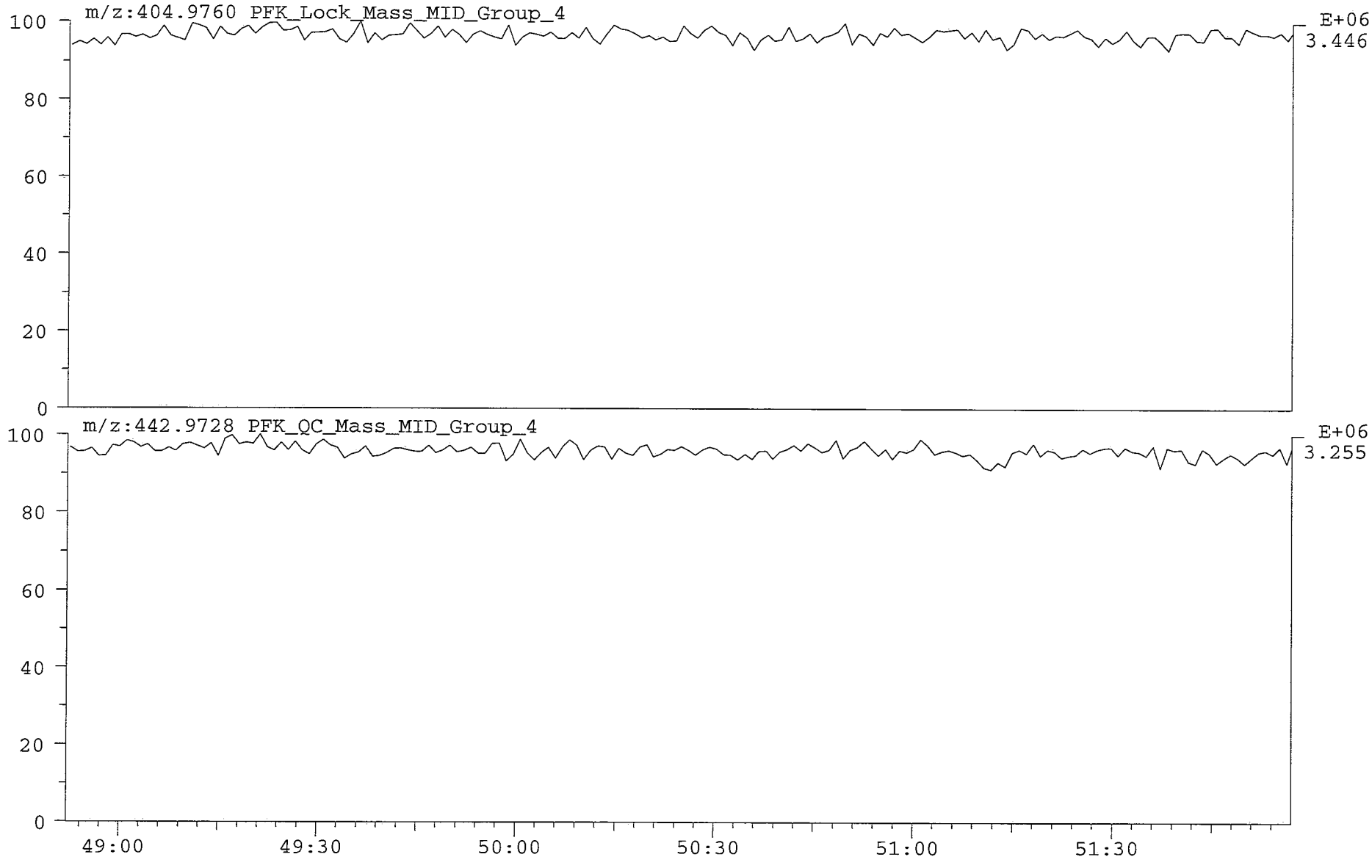
CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2265 > 2332 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 5 Label : 2, 3.0
Disp: Height Area



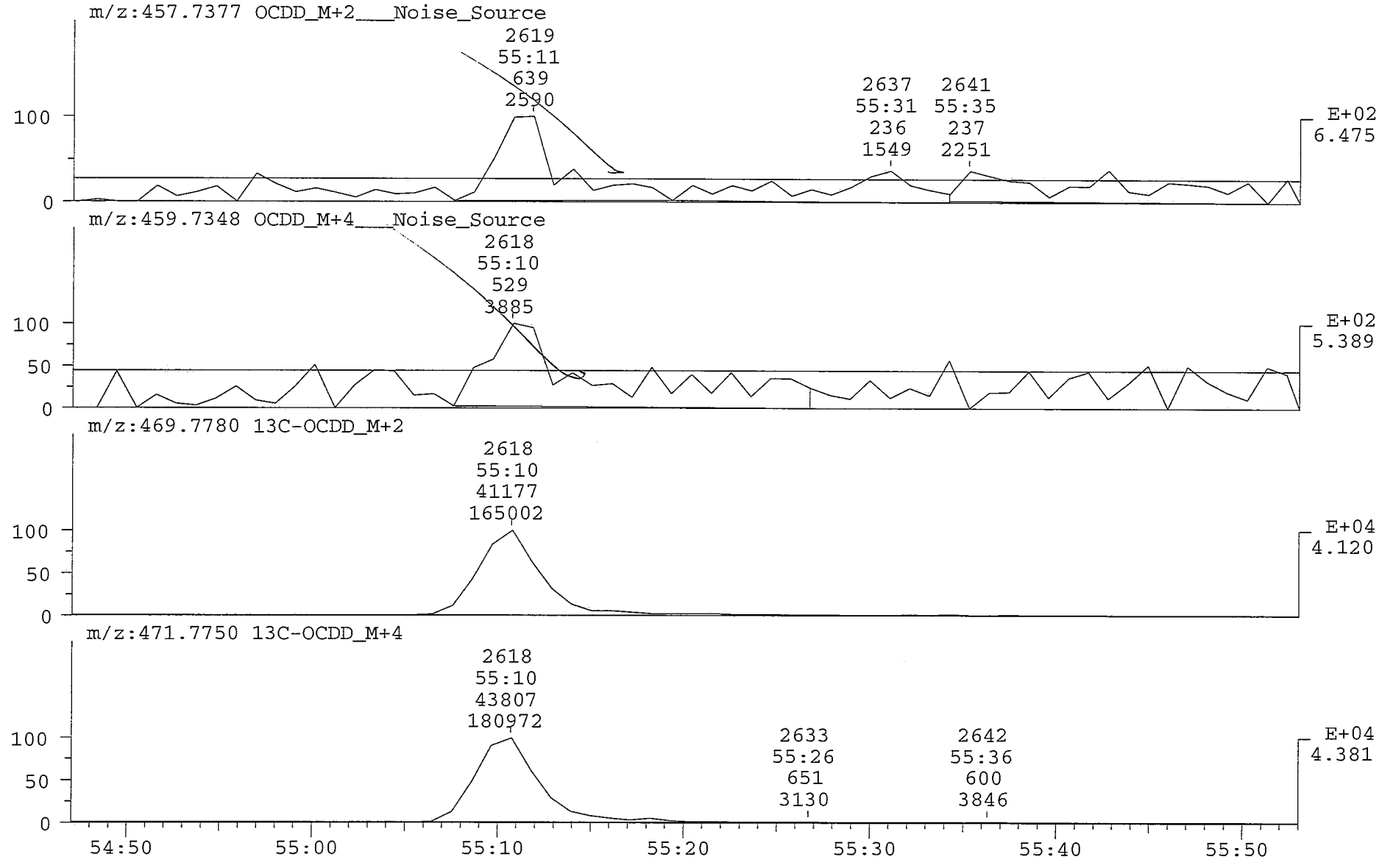
CHRO: btmkm6arr 15-Jul-11 Elapse: 45:11 2058
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2264 > 2438 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



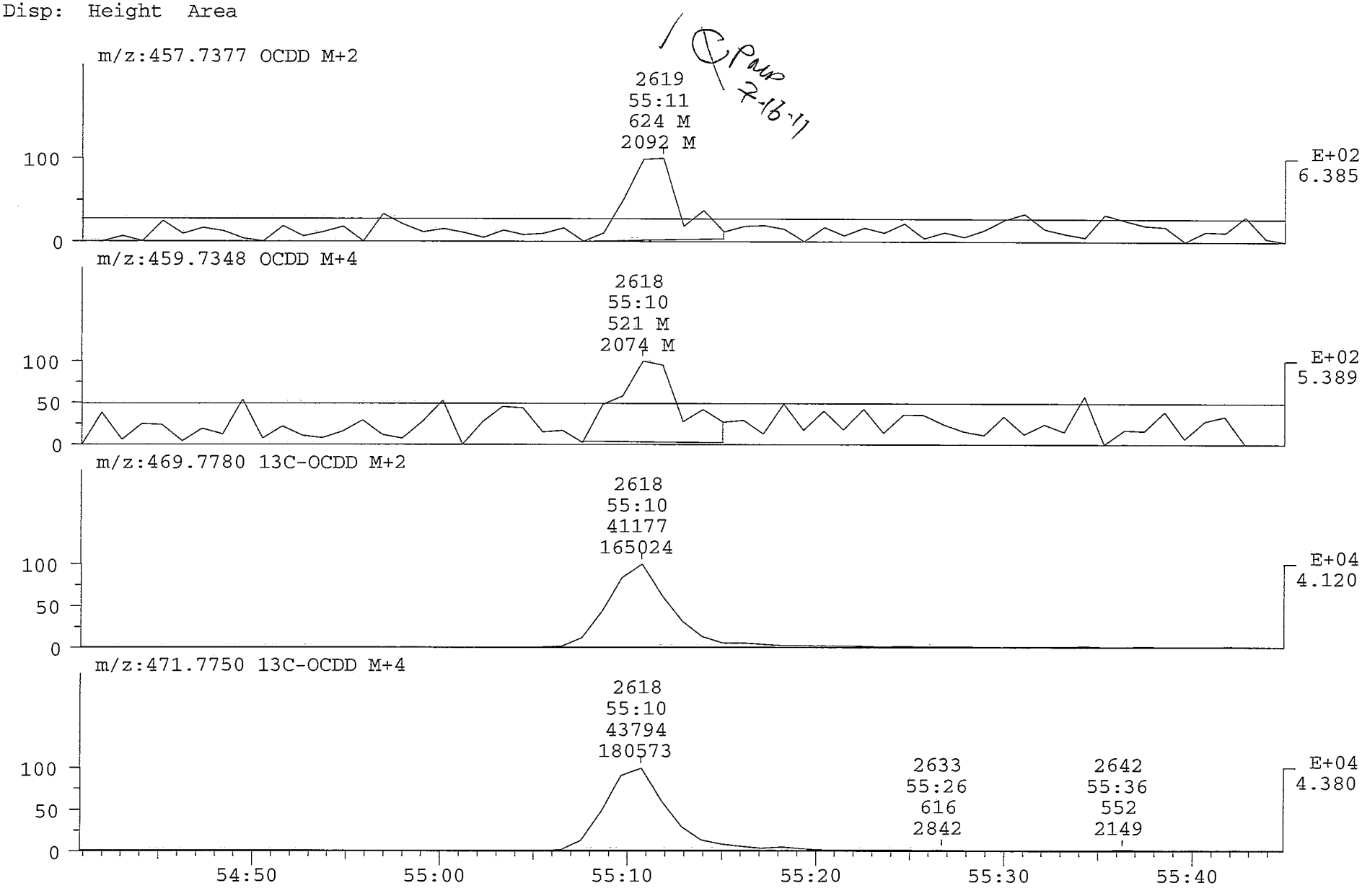
CHRO: btmkm6arr 15-Jul-11 Elapse: 45:11 2058
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2264 > 2438 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



CHRO: btmkm6arr 15-Jul-11 Elapse: 55:17 2624
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2596 > 2658 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



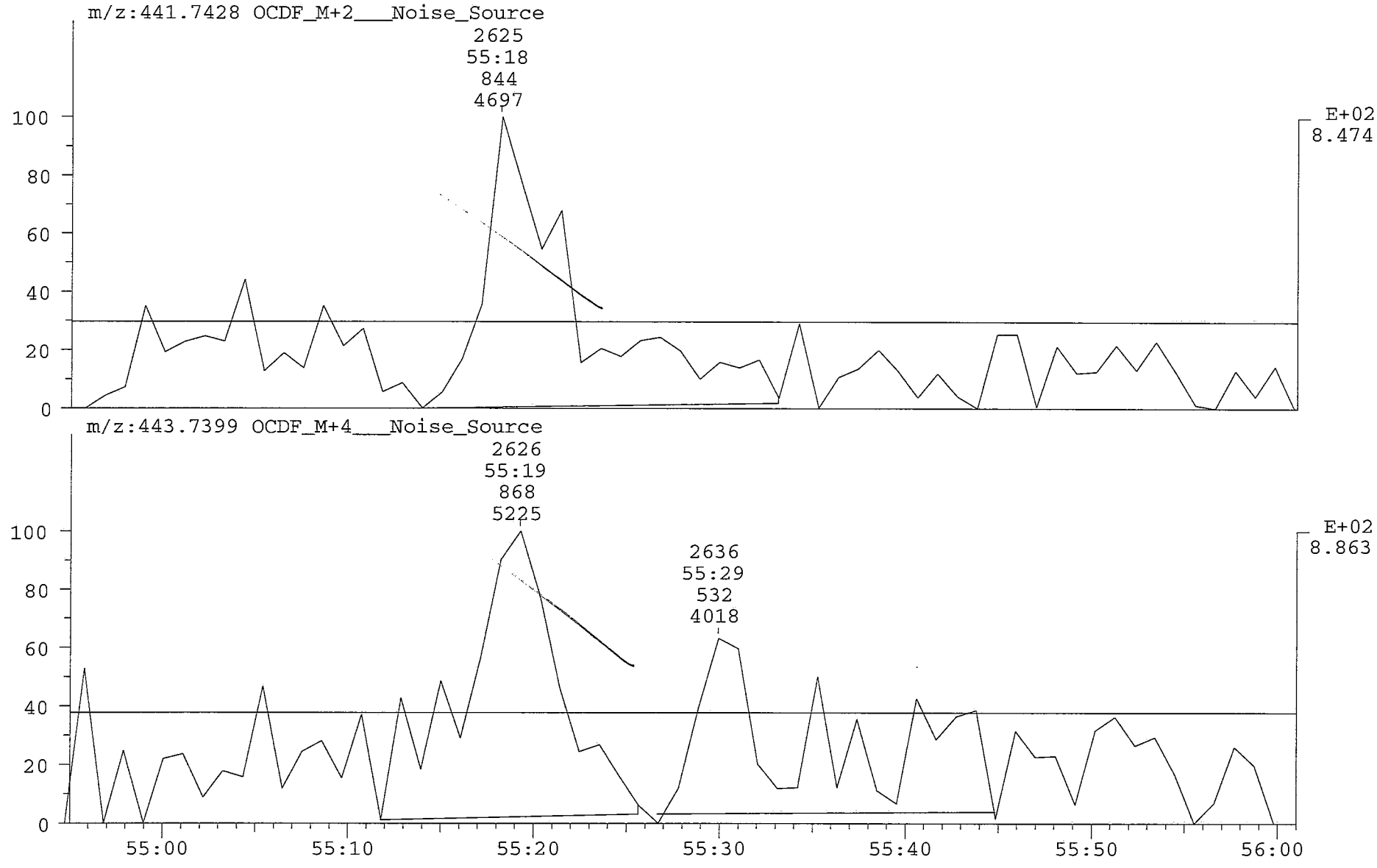
CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2590 > 2650 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



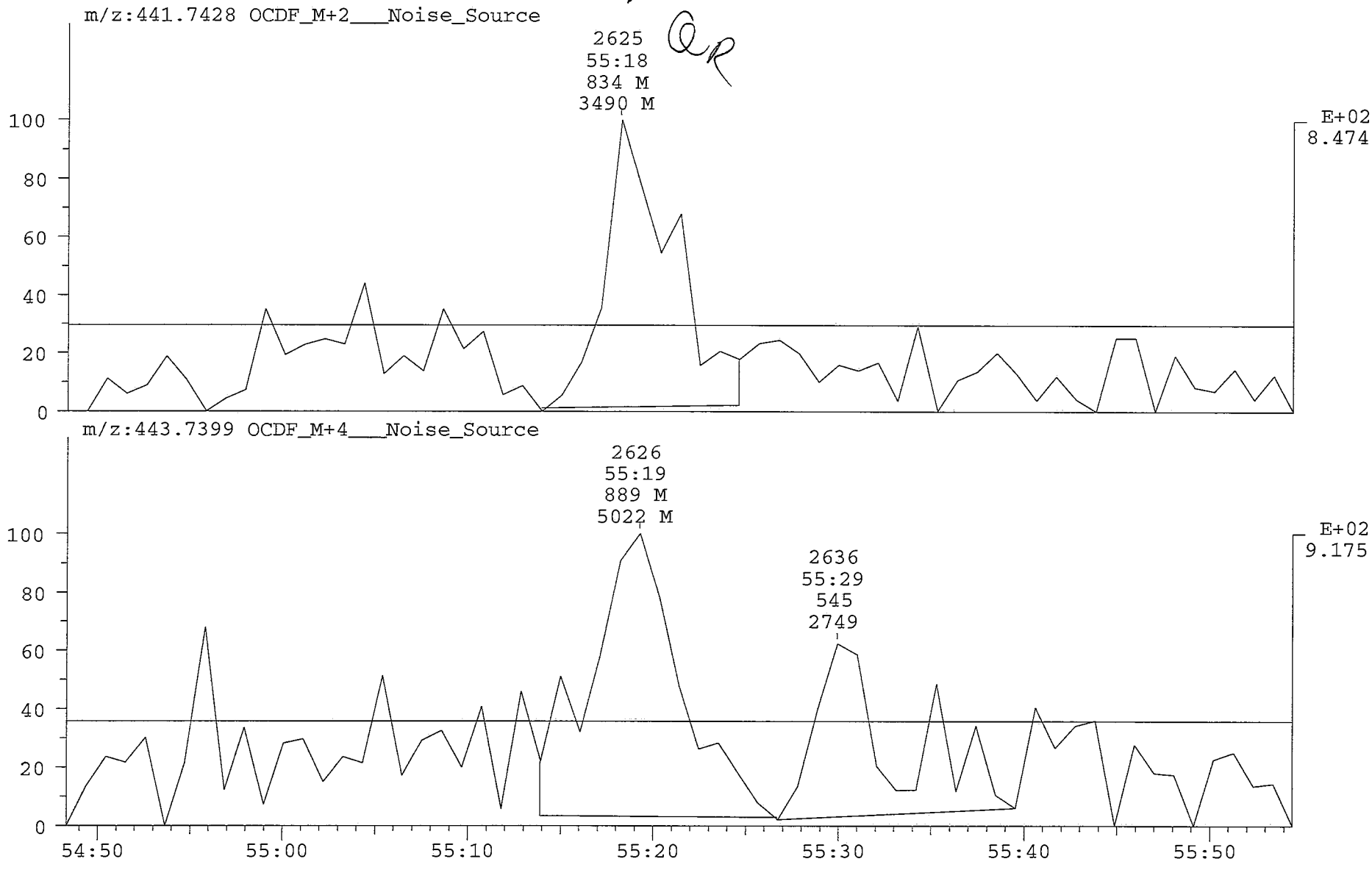
H-157

156

CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2603 > 2665 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



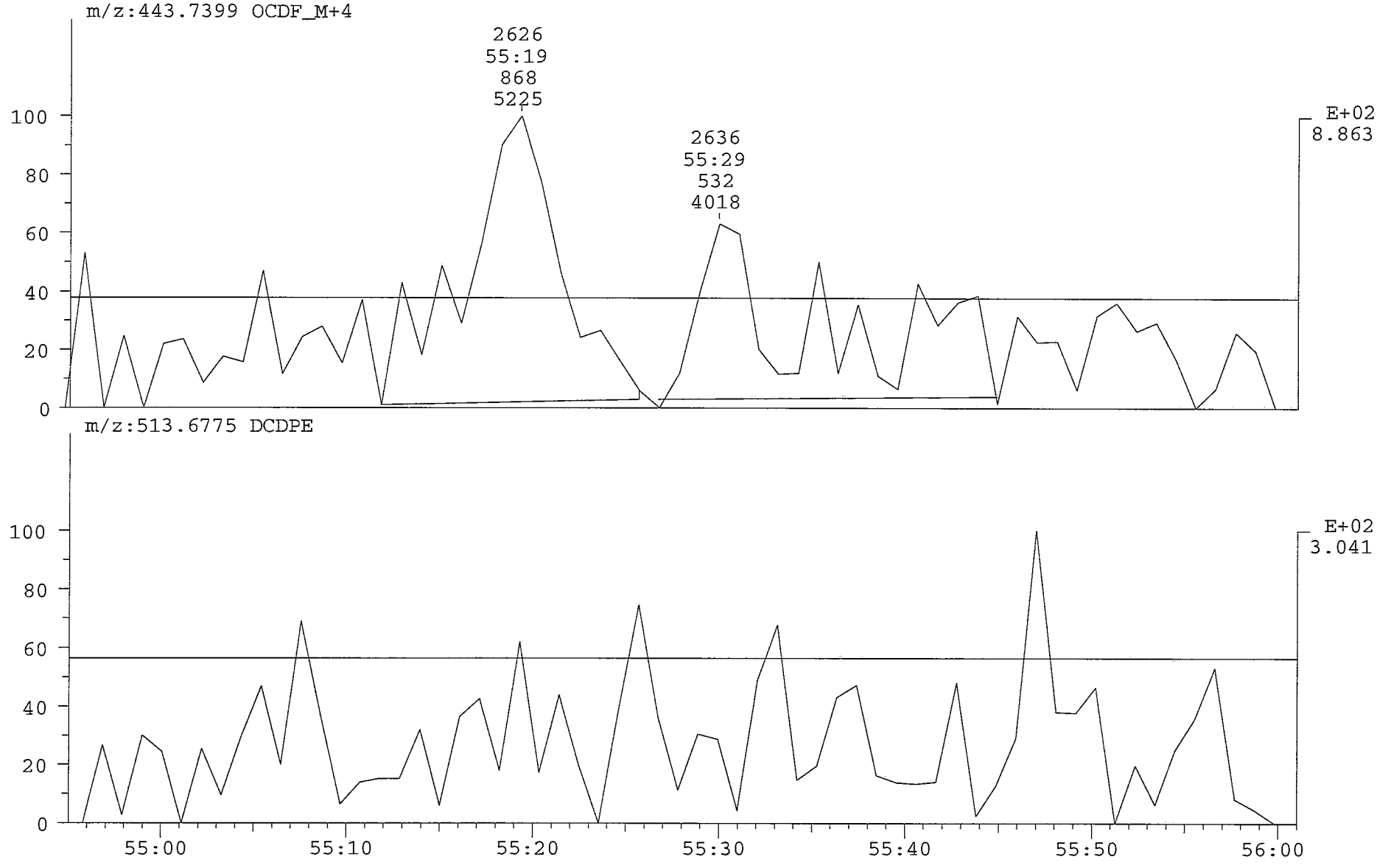
CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2597 > 2659 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-159

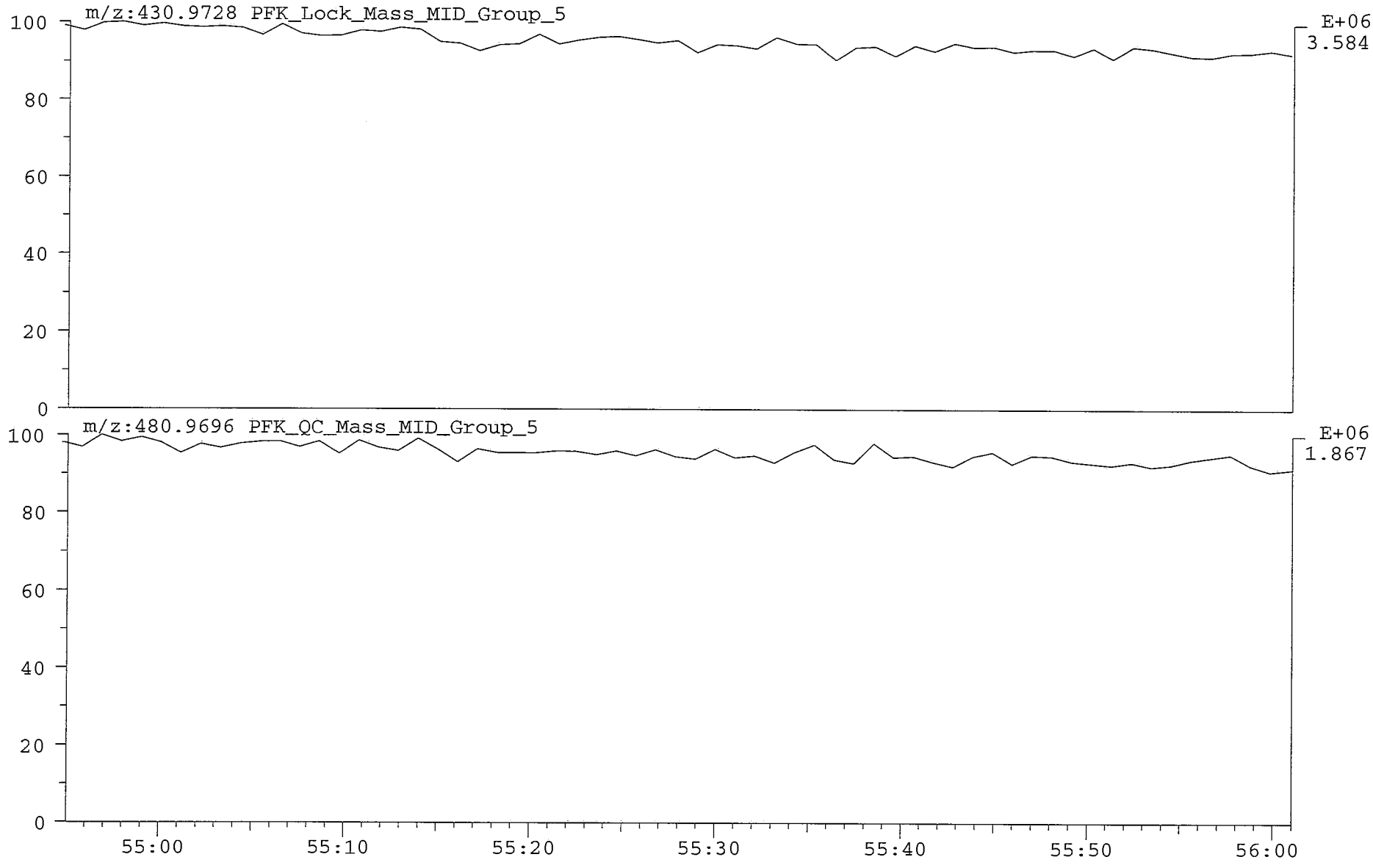
158

CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2603 > 2665 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-160

CHRO: btmkm6arr 15-Jul-11 Elapse: 55:24 2631
Samp: Vial 9 WO=mkm6a1aa Meth=X8 Dil=2 Start : 16:45:37 2749
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-003 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2603 > 2665 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



Instrument internet name - mat95s
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis3ms
ICIS Version 8.2.1

ICL Version: 10.500
File name: btmkm6arr
Study: 1187027 (air-2)
Sample: WO=mkm6a1aa Meth=X8 Dil=2
Amount: 0.0
Volume: 0.0
Operator: KBL
Client: H1G050439-003
Comments: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Injected volume: 2.0
Sample from Vial 9
Analysis will stop when MID run finishes
Tune file name: tune2
File 2 of list 110712
ICL procedure: sleep6xy
MID procedure: epa1613

MID Remarks: Tetra-Octa PCDD/F EPA Method 8290/1613B

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	TRUE
Width first lock	0.20 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	100 cts
Electric range	2 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	8:00 min	27:13 min	35:13 min	1.00 sec
# 2	35:13 min	7:54 min	43:08 min	1.00 sec
# 3	43:08 min	5:17 min	48:25 min	1.00 sec
# 4	48:25 min	5:05 min	53:30 min	1.00 sec
# 5	53:30 min	4:00 min	57:30 min	1.00 sec

Mid Masses:

Window # 1

mass	F	int	gr	time (ms)
292.9825	1	10	1	8.19
303.9016		1	2	81.92
305.8987		1	2	81.92
315.9419		1	3	81.92
317.9389		1	3	81.92
319.8965		1	3	81.92
321.8936		1	3	81.92
327.8847		1	4	81.92
331.9368		1	4	81.92
333.9338		1	4	81.92
342.9792	c	10	5	8.19
375.8364		1	6	81.92

Window # 2

mass	F	int	gr	time (ms)
330.9792	1	10	1	8.19
339.8597		1	2	91.48
341.8567		1	2	91.48

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:         270 deg                        300 deg max
  Transfer Line:    290 deg                        300 deg max
  Column:           140 deg at    0.0 minutes      330 deg max
                    140 deg at    3.0 minutes
                    210 deg at    6.5 minutes
                    210 deg at   34.5 minutes
                    280 deg at   44.5 minutes
                    280 deg at   51.0 minutes
                    325 deg at   57.5 minutes
  Inlet    :
  Pressure        18.0 psi
  Splitless mode
  Purge time       1.5 min
  Purge flow      40.0 mL/min

   Gas saver is on
   Saver time       3.0 min
   Saver flow      15.0 mL/min

  Stabilize time   0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8419.0000
BDEV	8289.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.3412
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-20.8500
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	600.9615
FSLOPE	36000000.0000	FVANAL	380.0000	FVINLET	852.0000
FVSRC	1062.0000	FWIN	0.7000	GCTC	140.0000
GCTI	270.0000	GCTL	290.0000	HACCU	156.0000
HCURR	1.7157	HVANAL	1219.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	304.9824
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180400.1832	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	200.0000	NSAM	200.0000	NSCAN	2919.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10106.3082	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	2.0000
SCIDLE	0.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7000	TCURR	0.9766	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 16:45:37.4

Autosampler has injected sample from vial 9
Analysis stopped at: 15-Jul-11 17:43:08.9 (run time 57.52 minutes)
Analysis stopped because MID run finished

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AA	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		20	5.2	pg/sample
Total TCDD	ND		20	5.2	pg/sample
1,2,3,7,8-PeCDD	ND		100	2.6	pg/sample
Total PeCDD	**2.4**	**Q J**	**100**	**2.6**	**pg/sample**
1,2,3,4,7,8-HxCDD	ND		100	2.9	pg/sample
1,2,3,6,7,8-HxCDD	ND		100	2.8	pg/sample
1,2,3,7,8,9-HxCDD	ND		100	2.8	pg/sample
Total HxCDD	**20**	**Q J**	**100**	**2.8**	**pg/sample**
1,2,3,4,6,7,8-HpCDD	ND		100	3.4	pg/sample
Total HpCDD	ND		100	3.4	pg/sample
OCDD	**13**	**Q J**	**200**	**3.9**	**pg/sample**
2,3,7,8-TCDF	ND		20	3.3	pg/sample
Total TCDF	ND		20	3.3	pg/sample
1,2,3,7,8-PeCDF	ND		100	2.3	pg/sample
2,3,4,7,8-PeCDF	ND		100	2.4	pg/sample
Total PeCDF	ND		100	2.3	pg/sample
1,2,3,4,7,8-HxCDF	ND		100	1.8	pg/sample
1,2,3,6,7,8-HxCDF	ND		100	1.6	pg/sample
2,3,4,6,7,8-HxCDF	ND		100	1.7	pg/sample
1,2,3,7,8,9-HxCDF	ND		100	2.0	pg/sample
Total HxCDF	**9.8**	**Q J**	**100**	**1.8**	**pg/sample**
1,2,3,4,6,7,8-HpCDF	**5.4**	**Q J**	**100**	**2.0**	**pg/sample**
1,2,3,4,7,8,9-HpCDF	ND		100	2.7	pg/sample
Total HpCDF	**5.4**	**Q J**	**100**	**2.3**	**pg/sample**
OCDF	**19**	**J**	**200**	**3.5**	**pg/sample**

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AA	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	40 - 135
13C-1,2,3,7,8-PeCDD	80	40 - 135
13C-1,2,3,6,7,8-HxCDD	82	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	77	40 - 135
13C-OCDD	64	40 - 135
13C-2,3,7,8-TCDF	78	40 - 135
13C-1,2,3,7,8-PeCDF	74	40 - 135
13C-1,2,3,6,7,8-HxCDF	80	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	77	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	70 - 130
13C-1,2,3,4,7,8-HxCDD	103	70 - 130
13C-2,3,4,7,8-PeCDF	98	70 - 130
13C-1,2,3,4,7,8-HxCDF	96	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	89	70 - 130

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM6F1AA	Prep Batch	1187027	Lot No	H1G050439-005
Data File	/20110714s5/btmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133631	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	7/15/2011	Matrix	AIR	Date Sampled	06/27/11
Analysis Time	06:08	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Anal Exp Date	08/20/11	Extract Vol	40 uL	Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	PMP				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (pg/sample		DL (pg/samp
2,3,7,8-TCDD				1.172				ND		5.24
Total TCDD				1.172				ND		5.24
2,3,7,8-TCDF				1.081				ND		3.30
Total TCDF				1.081				ND		3.30
1,2,3,7,8-PeCDD				1.124				ND		2.55
Total PeCDD		1130	436	1.124		2.405772		2.405772	QJ	2.55
1,2,3,7,8-PeCDF				1.050				ND		2.31
2,3,4,7,8-PeCDF				1.030				ND		2.35
Total PeCDF				1.040				ND		2.33
1,2,3,4,7,8-HxCDD				0.990				ND		2.86
1,2,3,6,7,8-HxCDD				1.020				ND		2.78
1,2,3,7,8,9-HxCDD				1.003				ND		2.83
Total HxCDD		9426	2477	1.004		20.476483		20.476483	QJ	2.82
1,2,3,4,7,8-HxCDF				1.091				ND		1.81
1,2,3,6,7,8-HxCDF				1.226				ND		1.61
2,3,4,6,7,8-HxCDF				1.160				ND		1.70
1,2,3,7,8,9-HxCDF				1.008				ND		1.96
Total HxCDF		6783	1759	1.121		9.774980		9.774980	QJ	1.76
1,2,3,4,6,7,8-HpCDD				1.094				ND		3.35
Total HpCDD				1.094				ND		3.35
1,2,3,4,6,7,8-HpCDF	49:12	3607	885	1.469		5.374482		5.374482	QJ	2.05
1,2,3,4,7,8,9-HpCDF				1.127				ND		2.67
Total HpCDF				1.298		5.374482		5.374482	QJ	2.32
OCDD	55:12	4262	1319	1.075		13.149445		13.149445	QJ	3.93
OCDF	55:20	7131	1769	1.258		18.809383		18.809383	J	3.47
13C-2,3,7,8-TCDD	31:35	903079	97634	1.006	2000	1643.27391	82.16	1643.27391		10.3
13C-2,3,7,8-TCDF	29:34	1458950	172315	1.719	2000	1553.89127	77.69	1553.89127		4.98
13C-1,2,3,7,8-PeCDD	41:40	835864	203857	0.953	2000	1605.74982	80.29	1605.74982		5.70
13C-1,2,3,7,8-PeCDF	39:48	1336340	260085	1.661	2000	1473.61922	73.68	1473.61922		3.67
13C-1,2,3,6,7,8-HxCDD	46:08	916592	250435	1.035	2000	1632.45381	81.62	1632.45381		6.89
13C-1,2,3,6,7,8-HxCDF	45:05	1237726	334700	1.434	2000	1590.61298	79.53	1590.61298		2.14
13C-1,2,3,4,6,7,8-HpCDD	50:53	714896	143151	0.851	2000	1547.99653	77.40	1547.99653		3.32
13C-1,2,3,4,6,7,8-HpCDF	49:11	913610	211167	1.094	2000	1539.59271	76.98	1539.59271		2.60
13C-OCDD	55:11	1205666	305059	0.867	4000	2562.46367	64.06	2562.46367		3.39
37Cl4-2,3,7,8-TCDD	31:37	1831370	198013	1.198	4000	3385.45476	84.64	3385.45476		3.76
13C-2,3,4,7,8-PeCDF	41:06	2596232	598089	0.994	4000	3910.90142	97.77	3910.90142		2.86
13C-1,2,3,4,7,8-HxCDD	46:01	1671853	464784	0.887	4000	4111.97963	102.80	4111.97963		8.57
13C-1,2,3,4,7,8-HxCDF	44:58	2127052	654493	0.891	4000	3858.18318	96.45	3858.18318		2.75
13C-1,2,3,7,8,9-HxCDF				1.321				ND		2.32
13C-1,2,3,4,7,8,9-HpCDF	51:31	1360712	278998	0.841	4000	3541.01971	88.53	3541.01971		4.28
13C-1,2,3,4-TCDD	31:03	2184299	243058	1.000	4000	4000.00000	100.00	4000.00000		10.4
13C-1,2,3,7,8,9-HxCDD	46:31	2170366	534153	1.000	4000	4000.00000	100.00	4000.00000		7.13

7-15-11

QDL 7-15-11

TestAmerica
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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM6F1AA	Prep Batch	1187027	Lot No	H1G050439-005
Data File	/20110714s5/btmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133631	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	07/15/11 06:08	Matrix	AIR	Date Sampled	06/27/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	PMP	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	150	158	60	63	0.95 *	/	
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	255	265	102	106	0.96 *	/	
	13C-2,3,7,8-TCDF	29:34	29:35	-1	644135	814815	76624	95691	0.79	ABV/ABV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	145	155	58	62	0.94 *	/	
328					327.8847		327.8847				
	Noise	00:00	00:00	0	220		88				
	37Cl4-2,3,7,8-TCDD	31:37	31:36	1	1831370		198013			AVV	
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	358	273	143	109	1.31 *	/	
	13C-1,2,3,4-TCDD	31:03	31:04	-1	984366	1199933	108278	134780	0.82	AVV/AVV	
	13C-2,3,7,8-TCDD	31:35	31:34	1	410141	492938	43102	54532	0.83	AVV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	143	173	57	69	0.83 *	/	
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	183	188	73	75	0.97 *	/	
	13C-1,2,3,7,8-PeCDF	39:48	39:48	0	818050	518290	159477	100608	1.58	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:06	41:06	0	1593541	1002691	366761	231328	1.59	ABV/ABV	
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	170	123	68	49	1.39	/	
	Unidentified	41:07	00:00	0	2451	443	533	171	5.53 *	MVV/ABB	R
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	170	160	68	64	1.06 *	/	
	13C-1,2,3,7,8-PeCDD	41:40	41:40	0	508074	327790	123913	79944	1.55	ABV/ABV	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	173	158	69	63	1.10	/	
	Unidentified	43:53	00:00	0	2422	1370	298	333	1.77 *	ABB/ABB	R
	Unidentified	44:26	00:00	0	1436	1048	196	248	1.37	ABB/ABB	T
	Unidentified	45:28	00:00	0	681	958	315	258	0.71 *	MVV/ABB	R
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	188	223	75	89	0.84 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:58	44:58	0	739416	1387636	228036	426457	0.53	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDF	45:05	45:06	-1	423673	814053	117198	217502	0.52	AVV/AVV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	175	180	70	72	0.97 *	/	
	Unidentified	44:46	00:00	0	2177	949	268	289	2.29 *	ABB/ABB	R
	Unidentified	44:59	00:00	0	2515	1225	634	318	2.05 *	ABV/ABV	R
	Unidentified	45:06	00:00	0	2251	1104	338	318	2.04 *		RM
	Unidentified	45:20	00:00	0	1153	1221	224	300	0.94 *	ABB/MVV	RT
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	278	675	111	270	0.41 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM6F1AA	Prep Batch	1187027	Lot No	H1G050439-005
Data File	/20110714s5/btmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133631	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	07/15/11 06:08	Matrix	AIR	Date Sampled	06/27/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	PMP	Diluton Factor	1.00	Code	X8

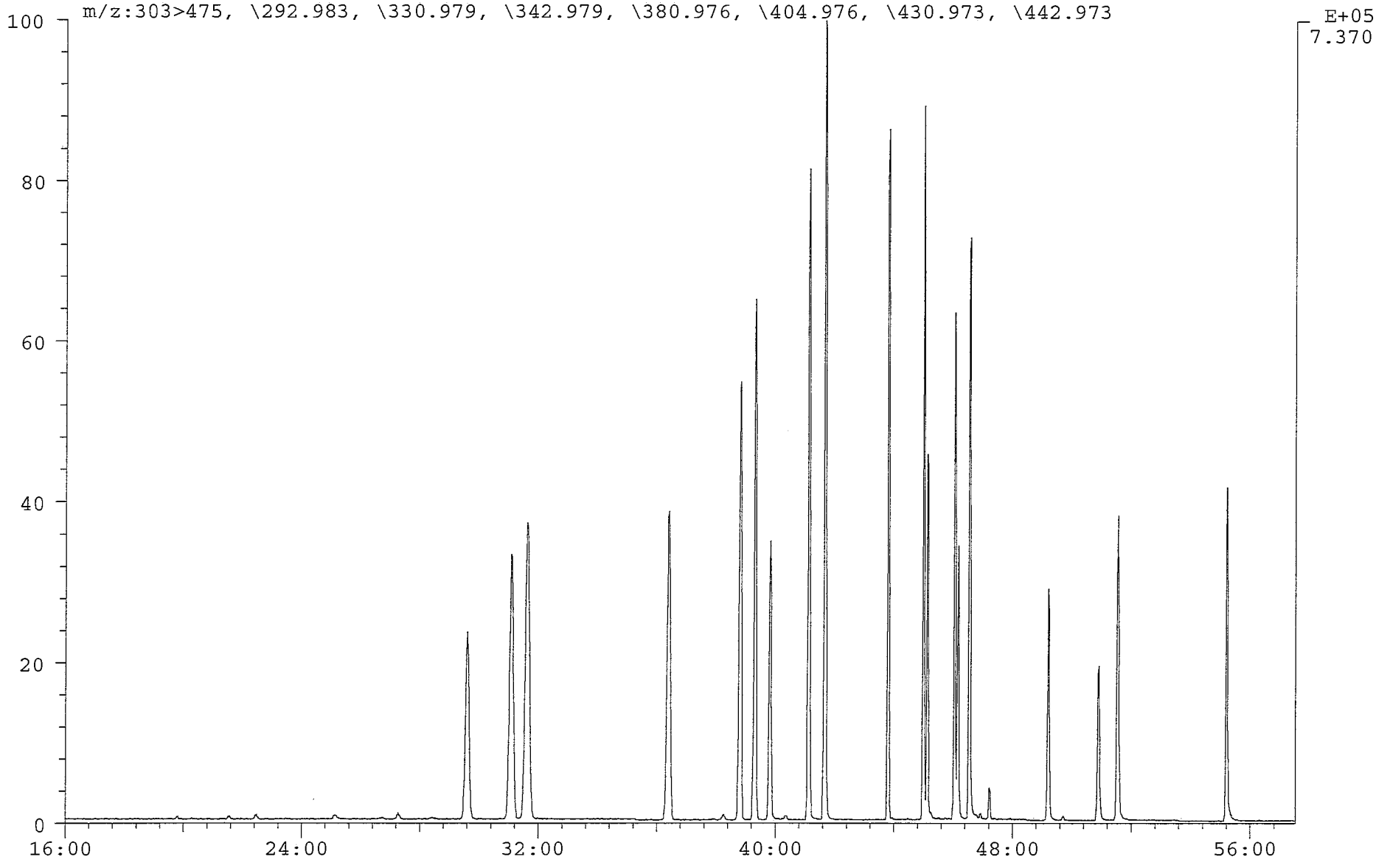
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	13C-1,2,3,4,7,8-HxCDD	46:01	46:02	-1	932275	739578	258514	206270	1.26	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDD	46:08	46:09	-1	506729	409863	139443	110992	1.24	AVV/AVB	
	13C-1,2,3,7,8,9-HxCDD	46:31	46:32	-1	1213085	957281	301763	232390	1.27	AVV/ABV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	163	155	65	62	1.05	/	
	1,2,3,4,6,7,8-HpCDF	49:12	49:13	-1	2305	1768	604	434	1.30 *	ABV/ABB	R
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	188	193	75	77	0.97 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:11	49:12	-1	287769	625841	66580	144587	0.46	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:31	51:32	-1	425698	935014	86204	192794	0.46	ABV/ABV	
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	145	118	58	47	1.23 *	/	
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	193	185	77	74	1.04	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:53	50:53	0	365881	349015	75200	67951	1.05	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	163	170	65	68	0.96	/	
	OCDF	55:20	55:20	0	3098	4033	734	1035	0.77	ABB/ABV	
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	163	160	65	64	1.02	/	
	OCDD	55:12	55:12	0	2007	2763	621	721	0.73 *	MBB/MBB	R
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	185	208	74	83	0.89	/	
	13C-OCDD	55:11	55:11	0	574999	630667	144688	160371	0.91	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

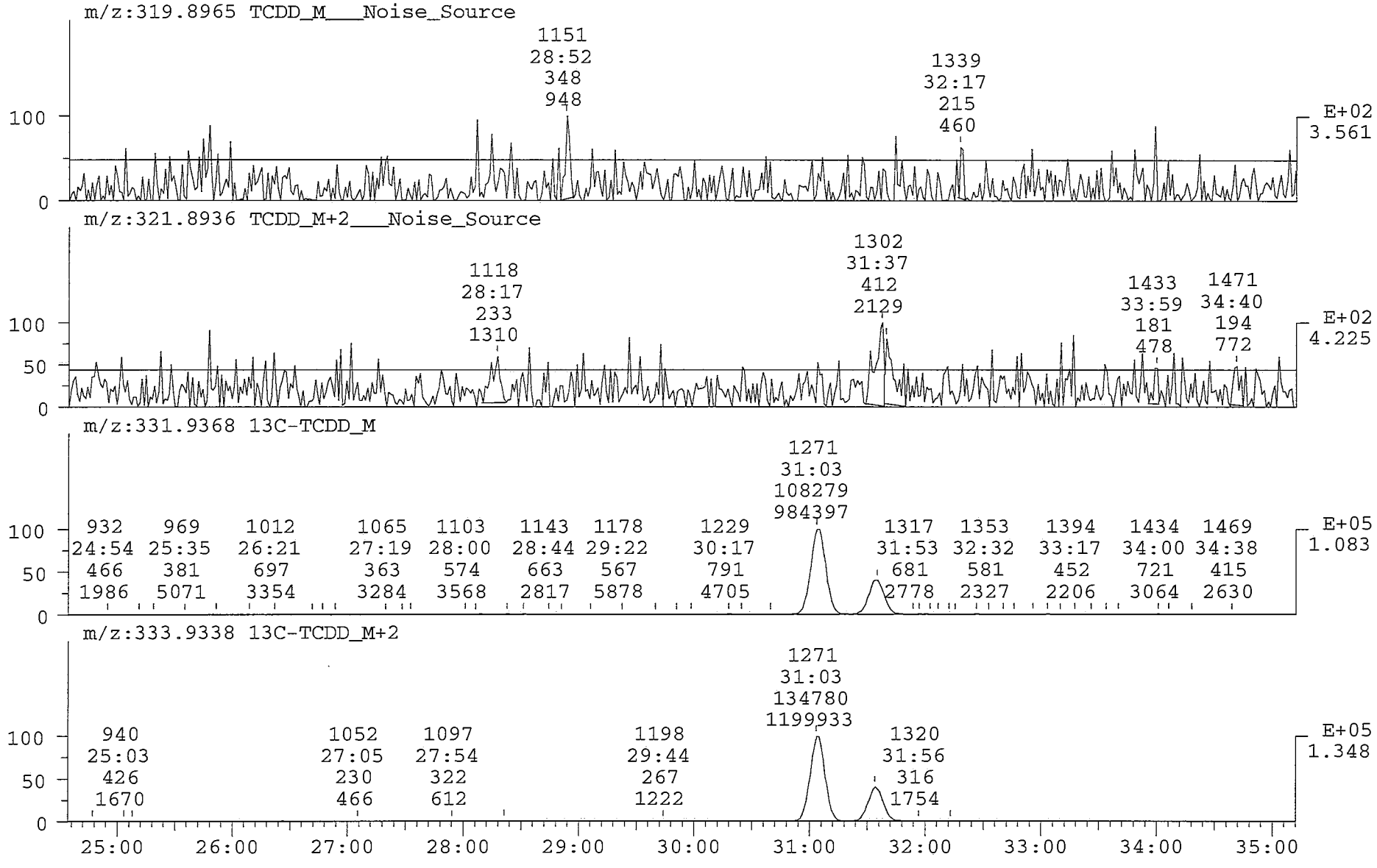
CHRO: btmkm6f 15-Jul-11 Elapse: 08:00.4 1
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 441 > 2752 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

cntr KM 7-15-11
Calc
acid L 7-15-11
Rev MSD 7-18-11

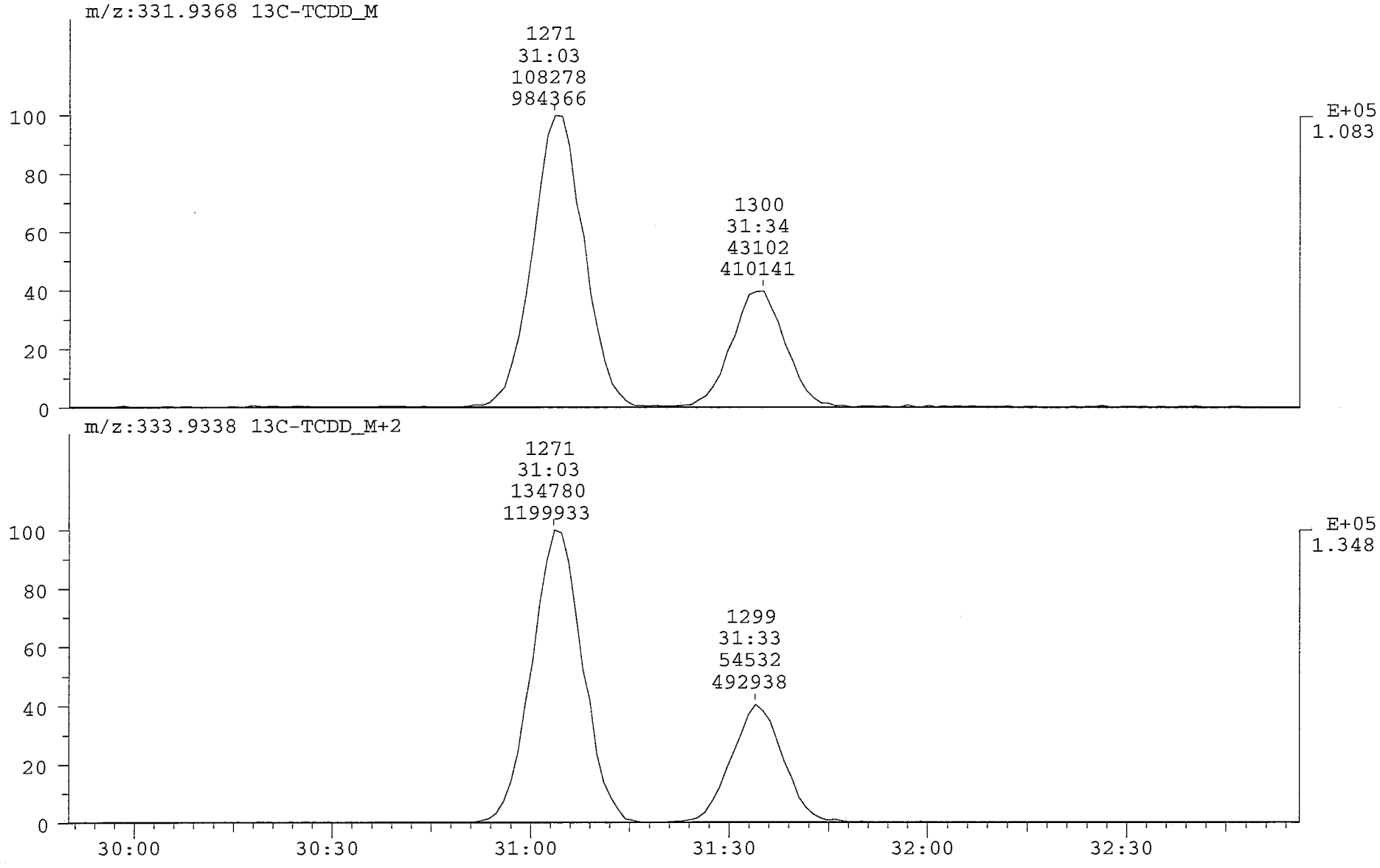


H-171

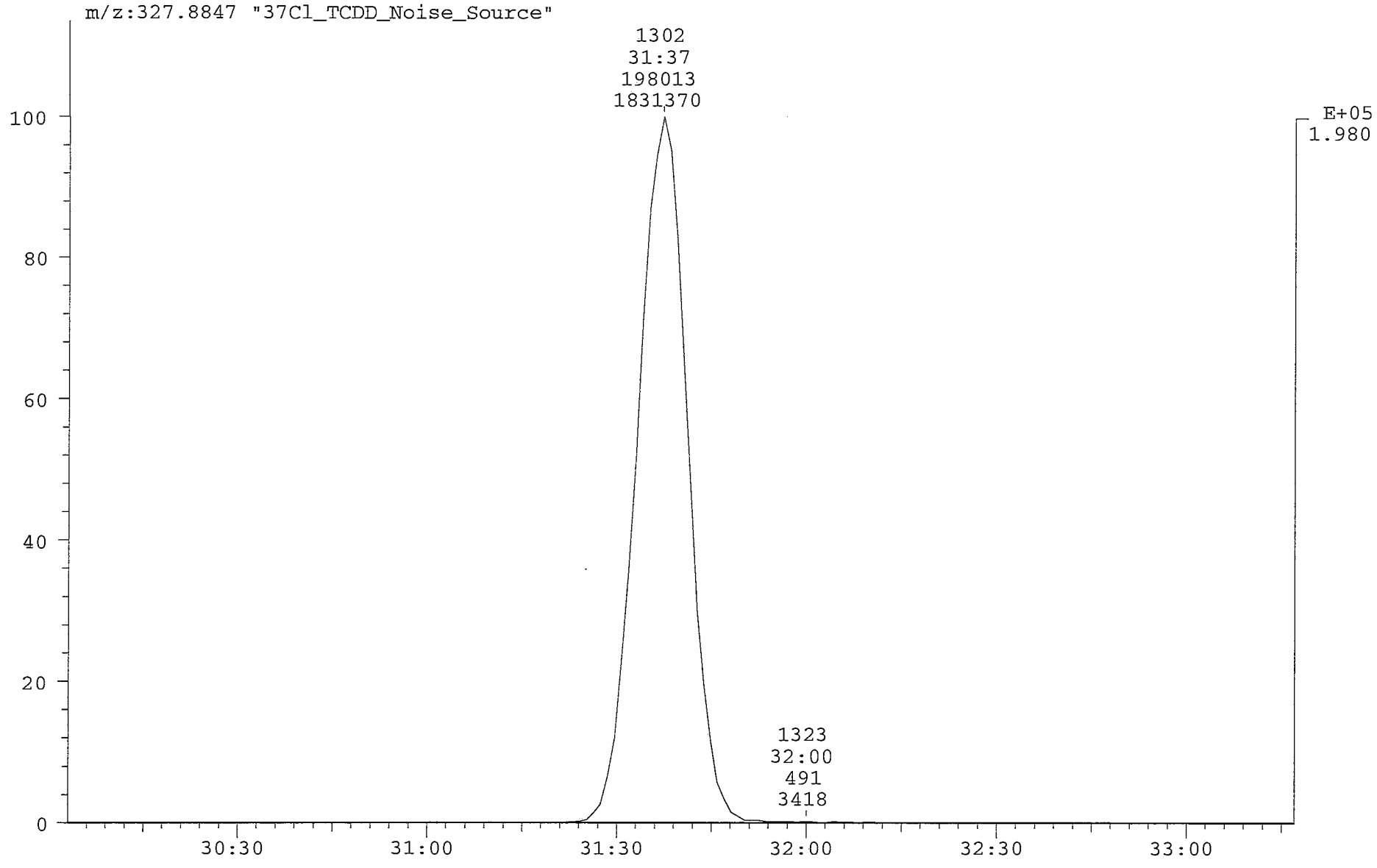
CHRO: btmkm6f 15-Jul-11 Elapse: 08:00.4 1
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 913 > 1500 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6f 15-Jul-11 Elapse: 31:23 1289
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1204 > 1375 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

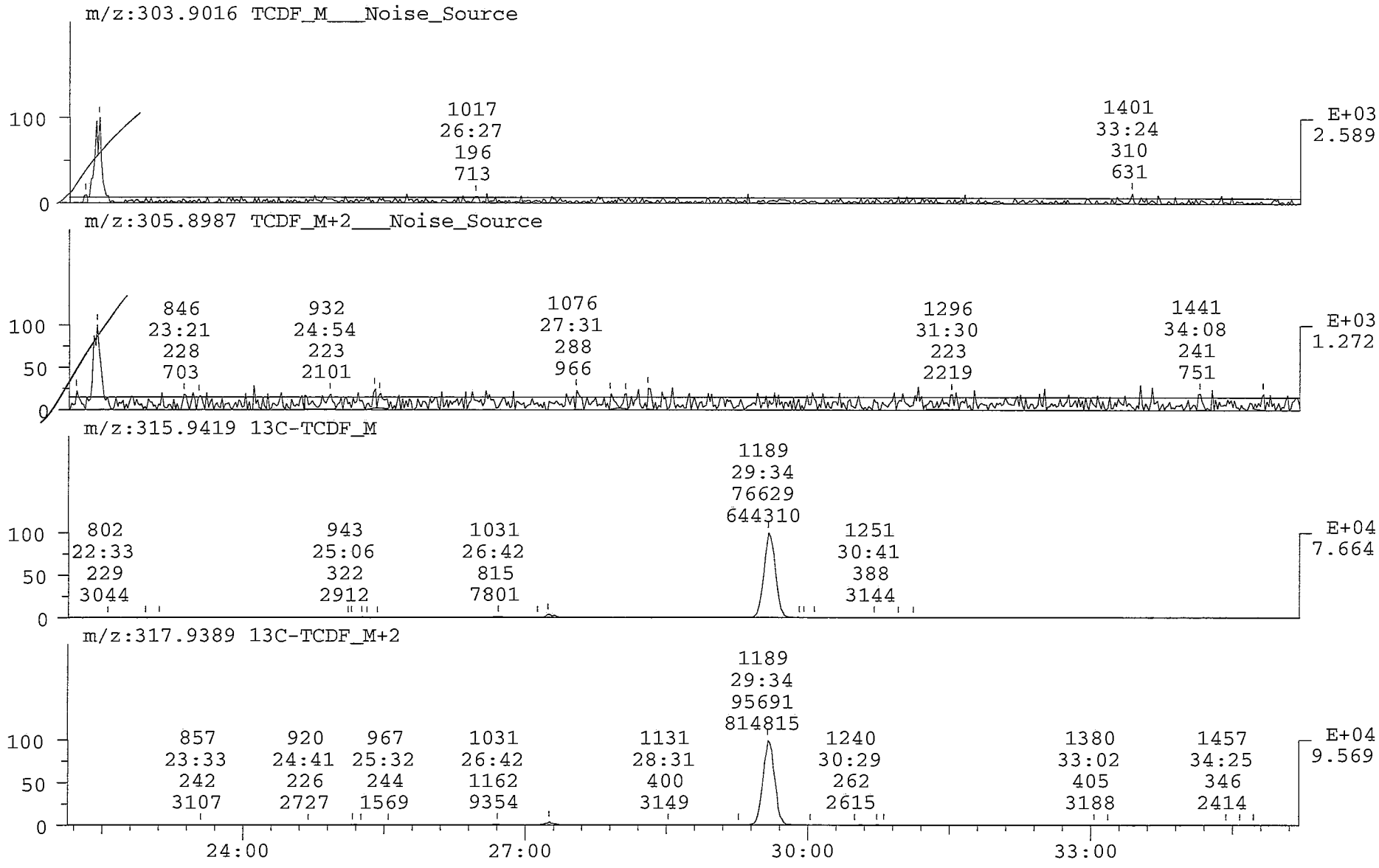


CHRO: btmkm6f 15-Jul-11 Elapse: 31:37 1302
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1215 > 1394 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



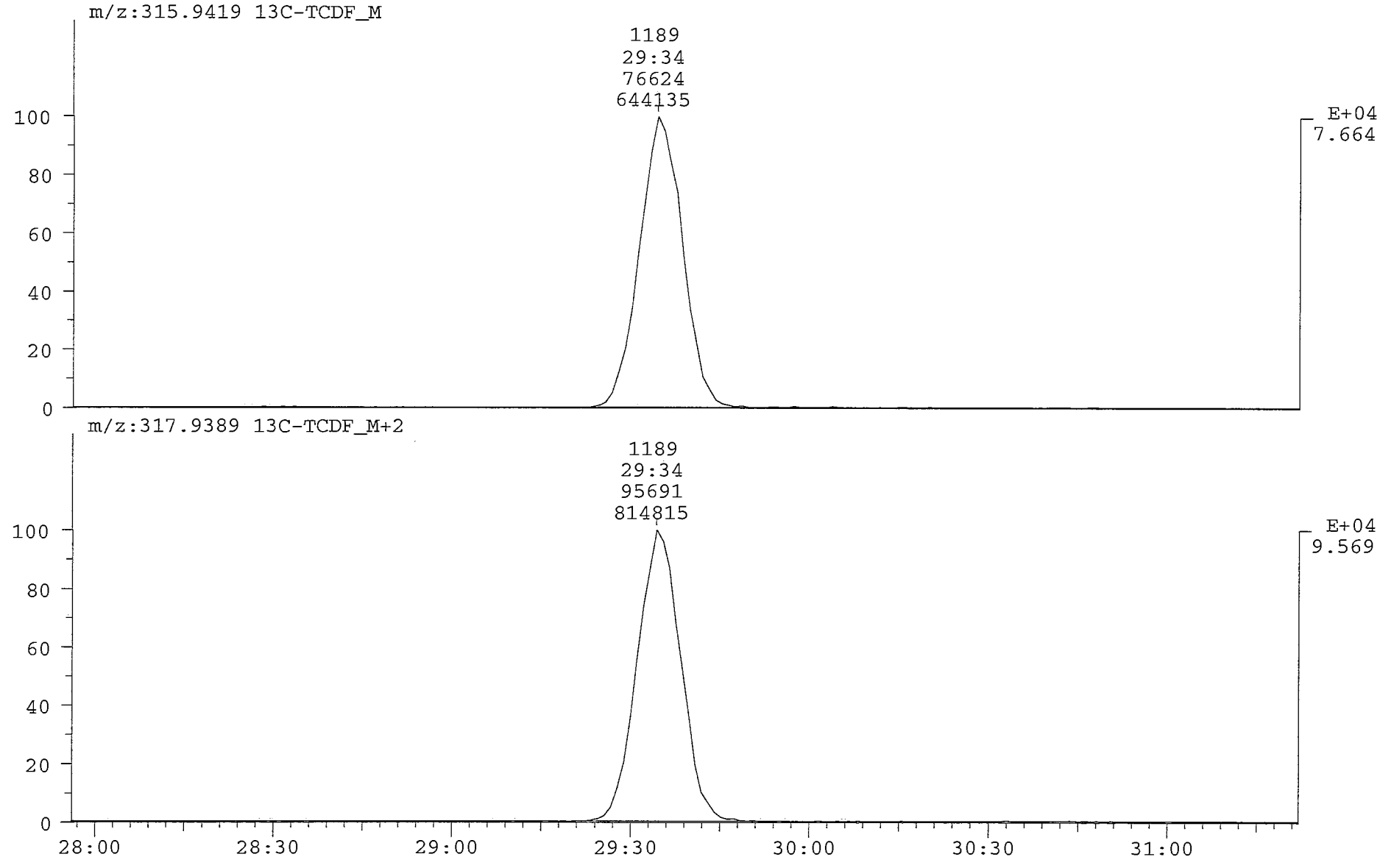
H-174

CHRO: btmkm6f 15-Jul-11 Elapse: 31:37 1302
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 779 > 1500 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

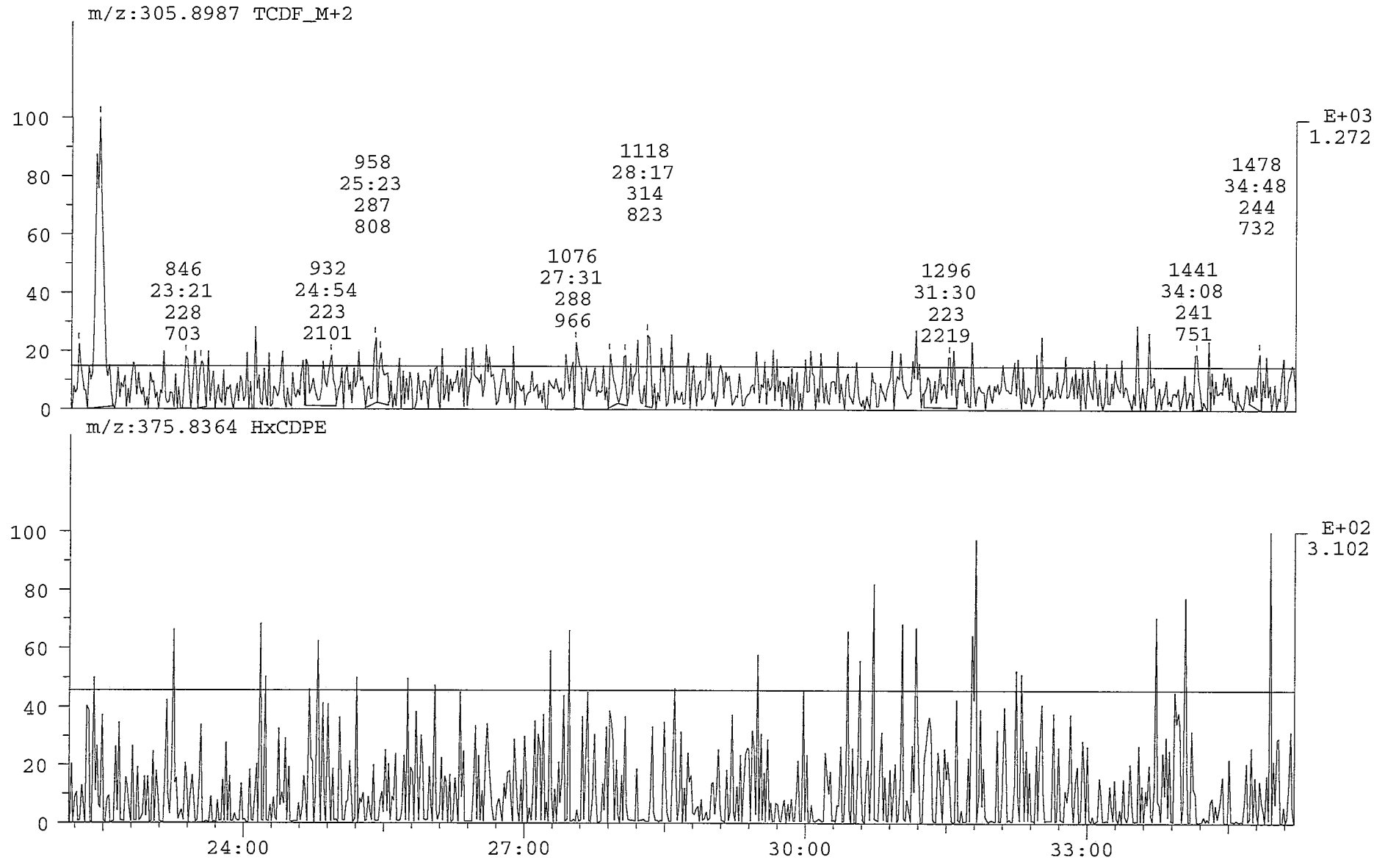


H-175

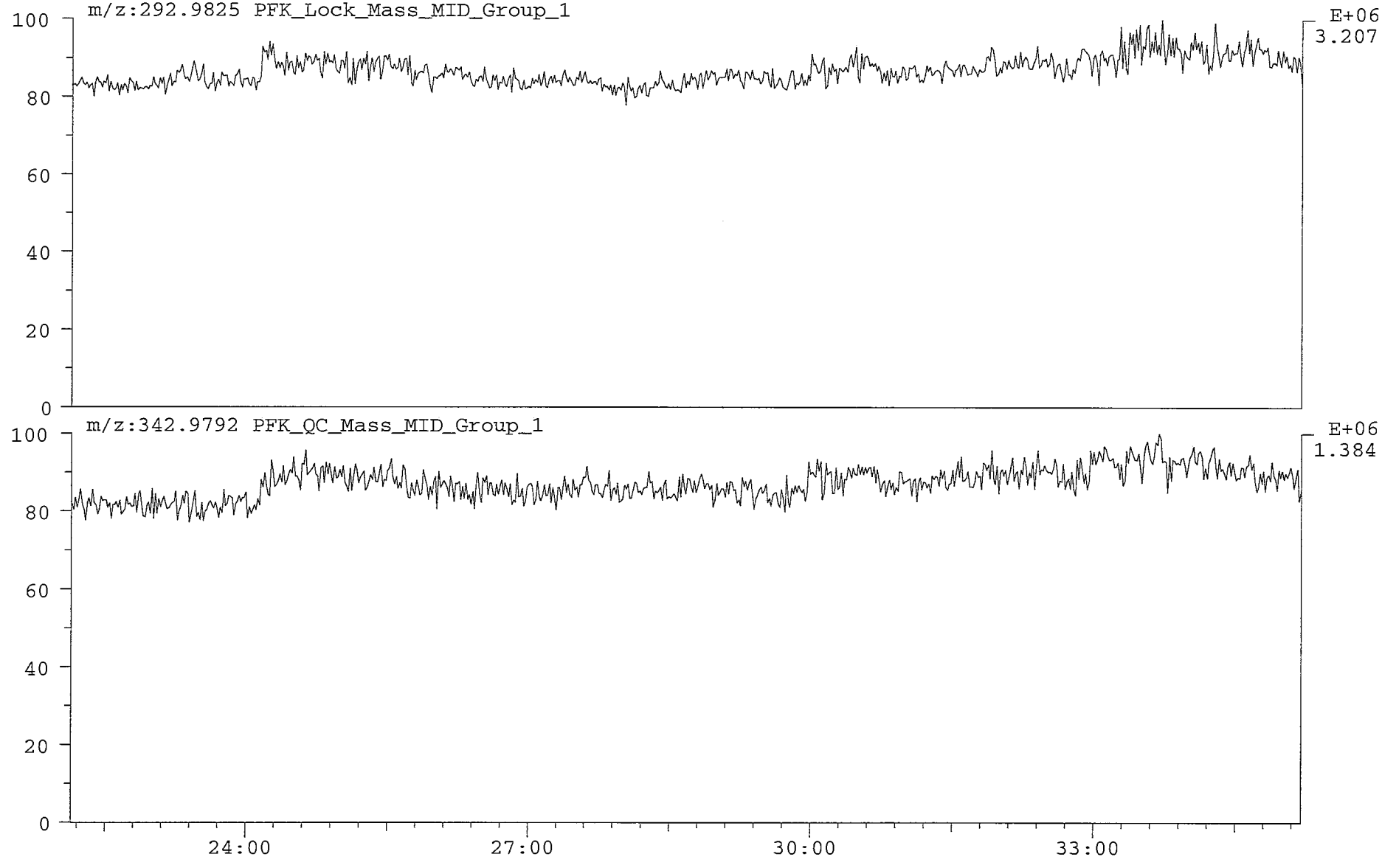
CHRO: btmkm6f 15-Jul-11 Elapse: 29:36 1191
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1099 > 1288 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



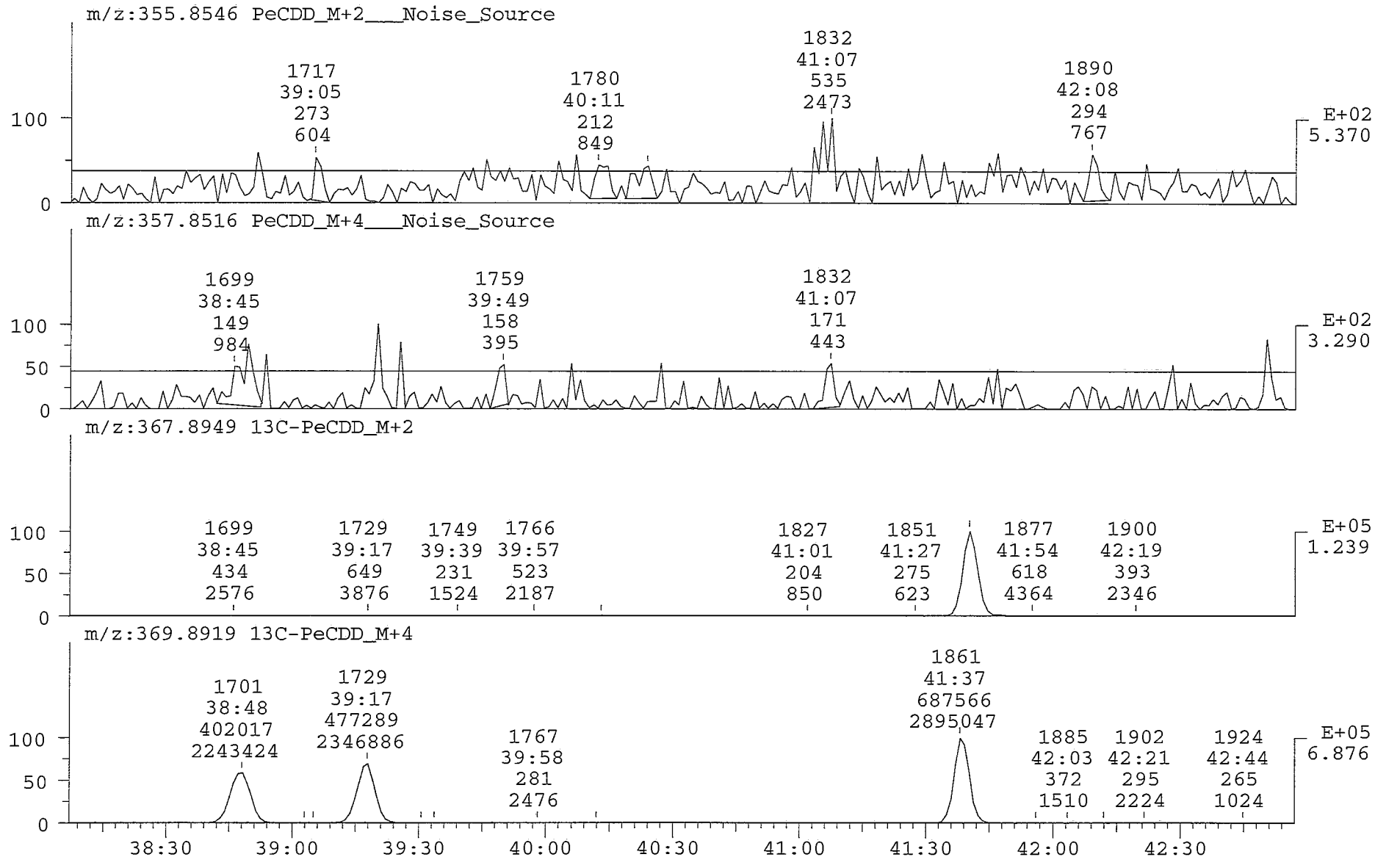
CHRO: btmkm6f 15-Jul-11 Elapse: 29:36 1191
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 779 > 1500 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6f 15-Jul-11 Elapse: 29:36 1191
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 779 > 1500 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

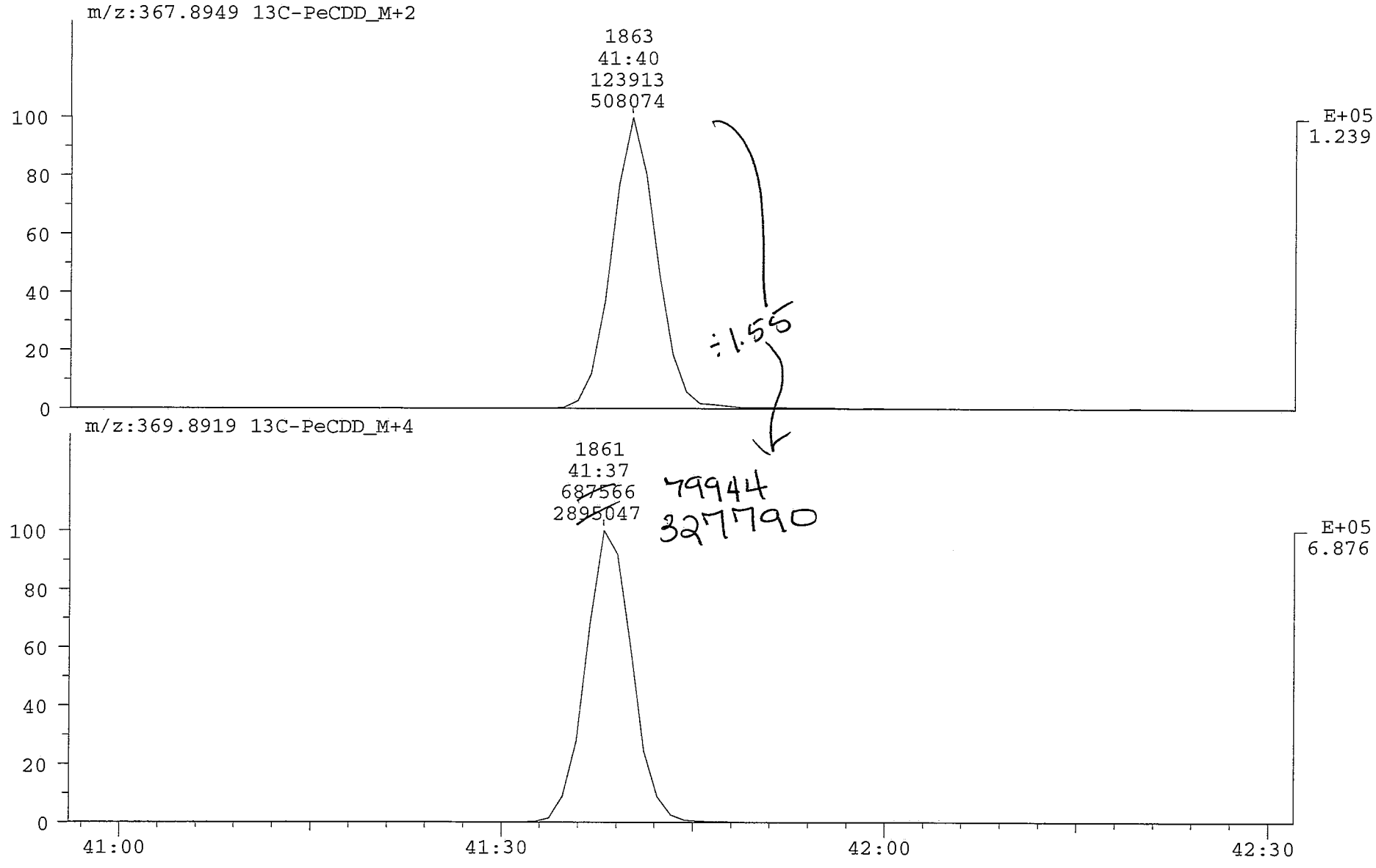


CHRO: btmkm6f 15-Jul-11 Elapse: 29:36 1191
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1662 > 1935 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-179

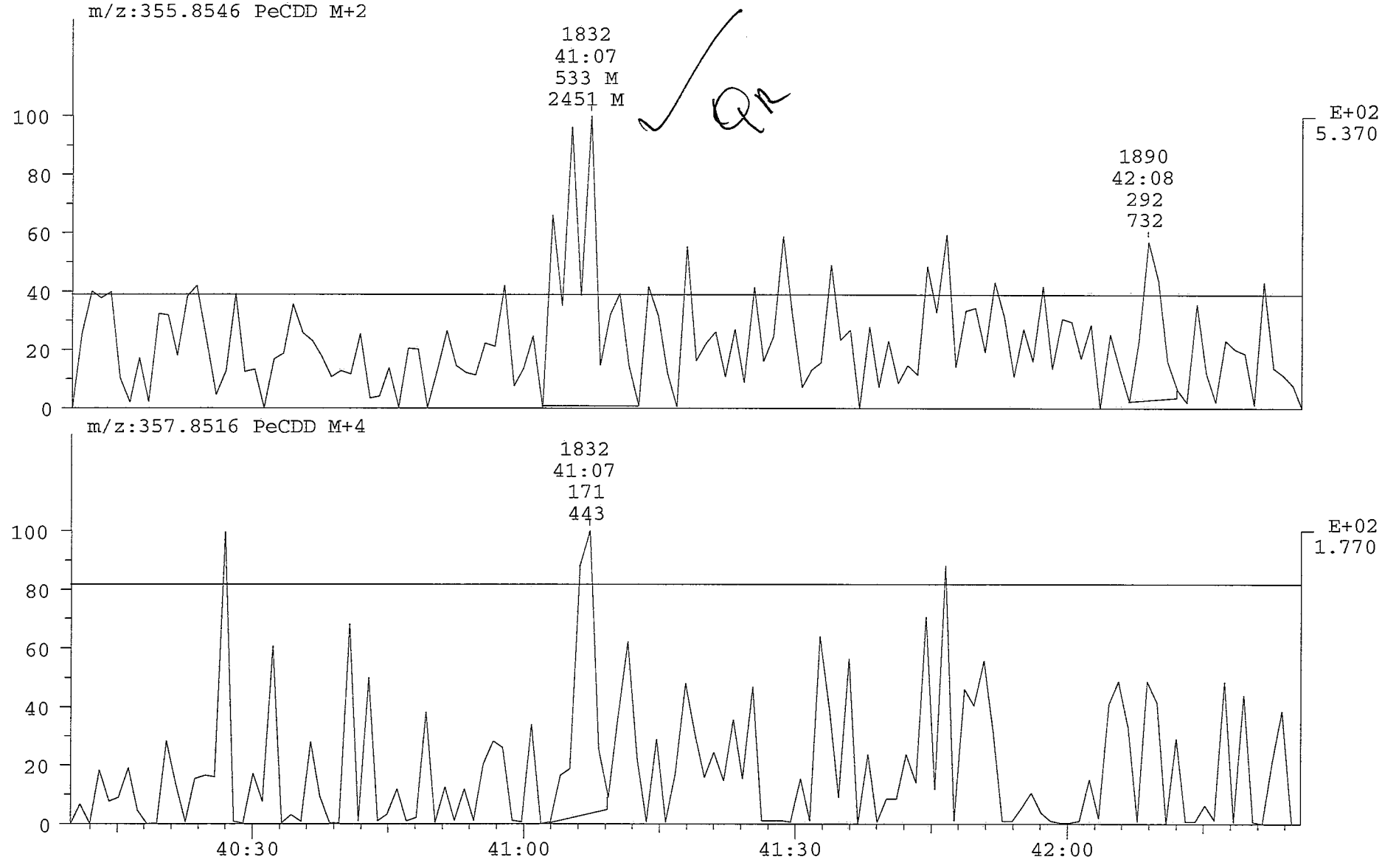
CHRO: btmkm6f 15-Jul-11 Elapse: 41:41 1864
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1822 > 1912 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-180

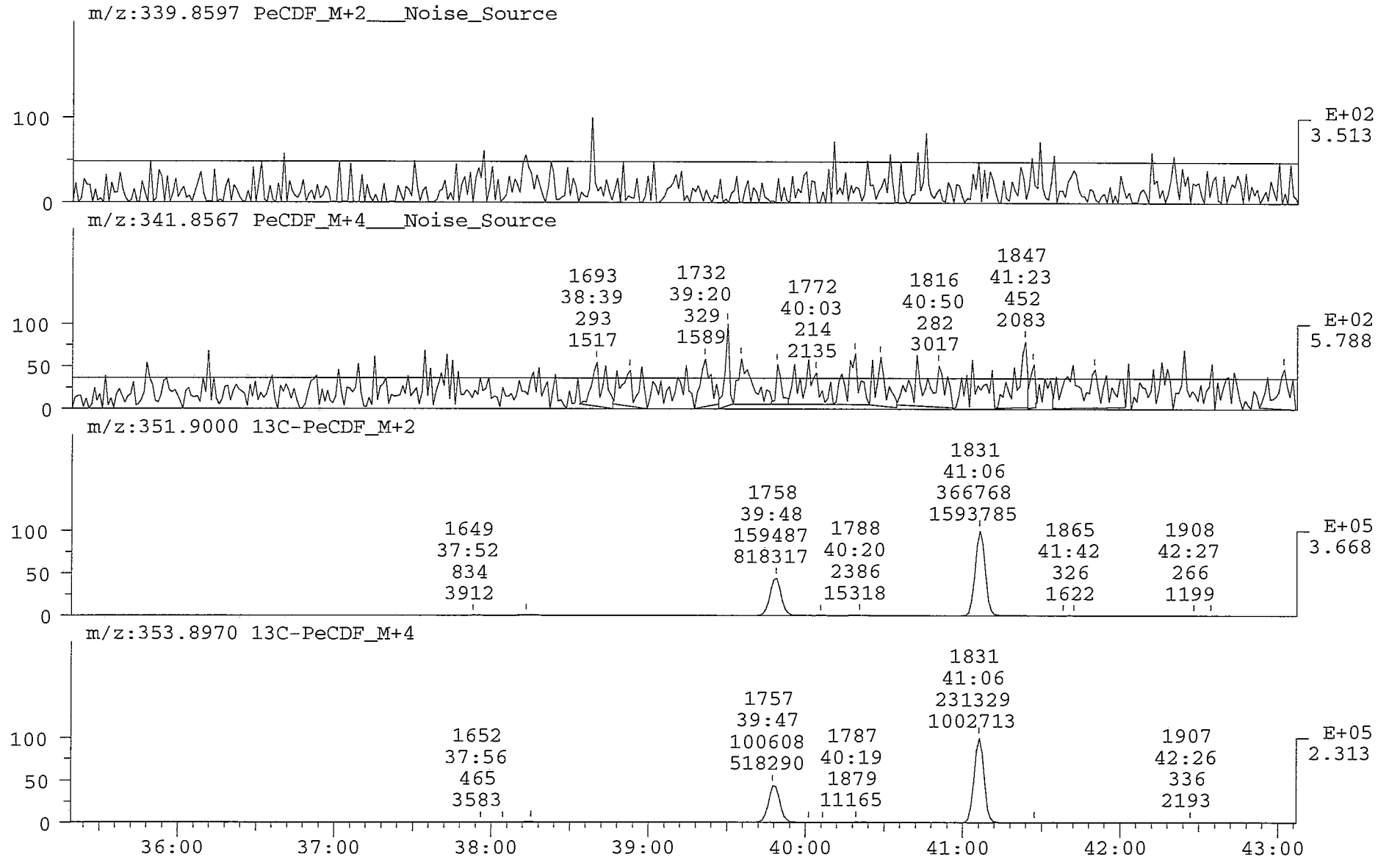
179

CHRO: btmkm6f 15-Jul-11 Elapse: 55:20 2629
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1778 > 1906 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

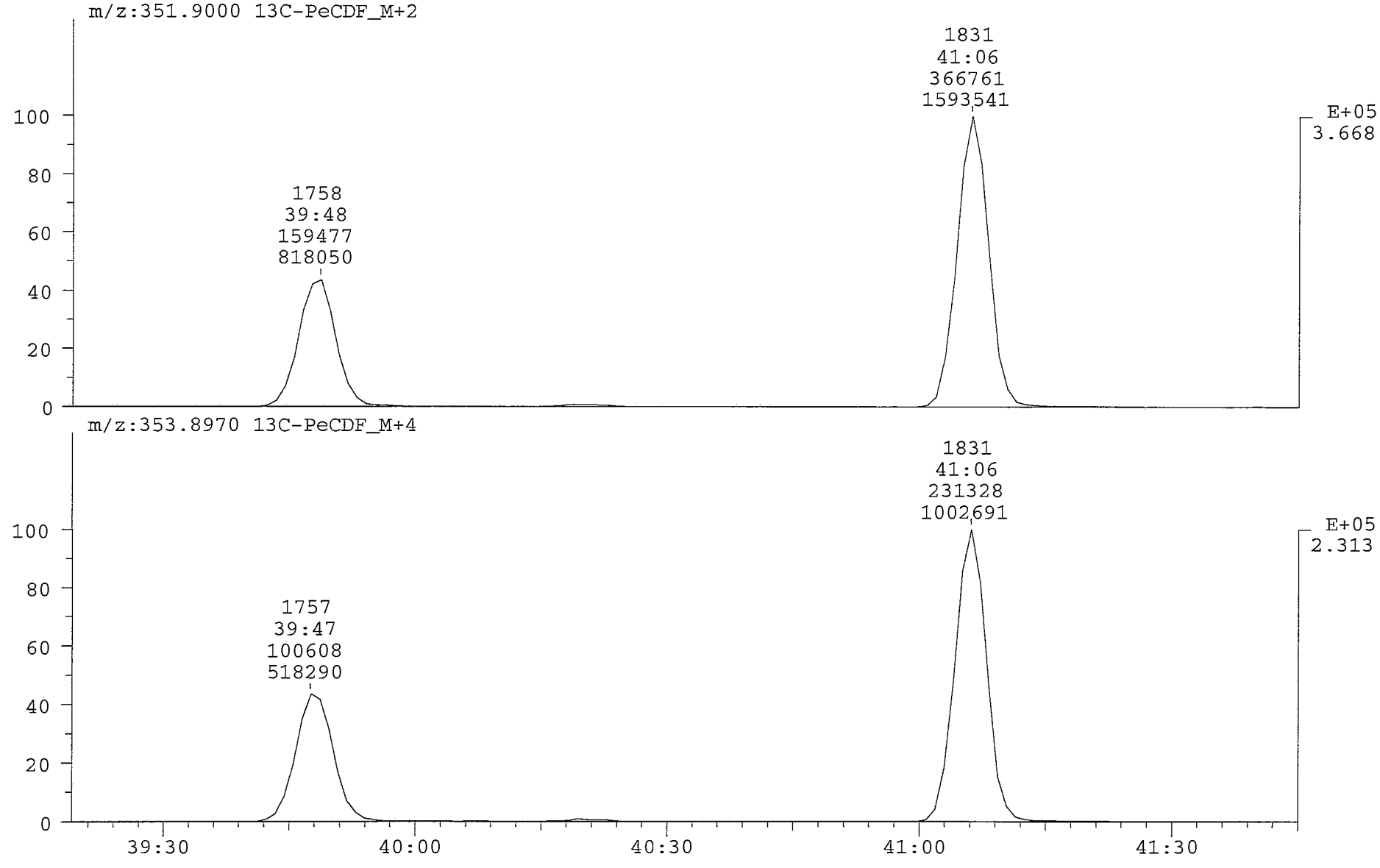


H-181

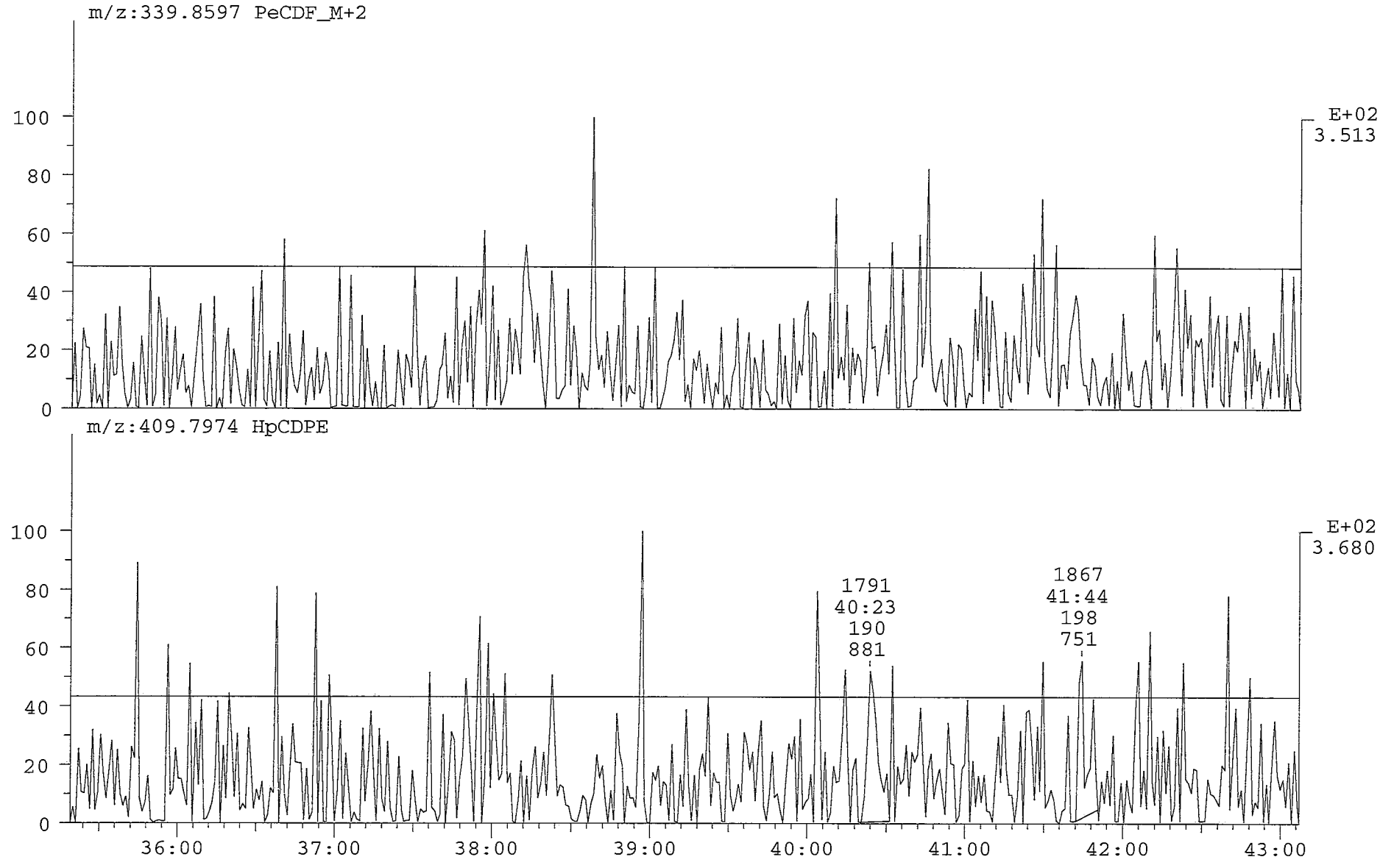
CHRO: btmkm6f 15-Jul-11 Elapse: 41:41 1864
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1504 > 1945 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



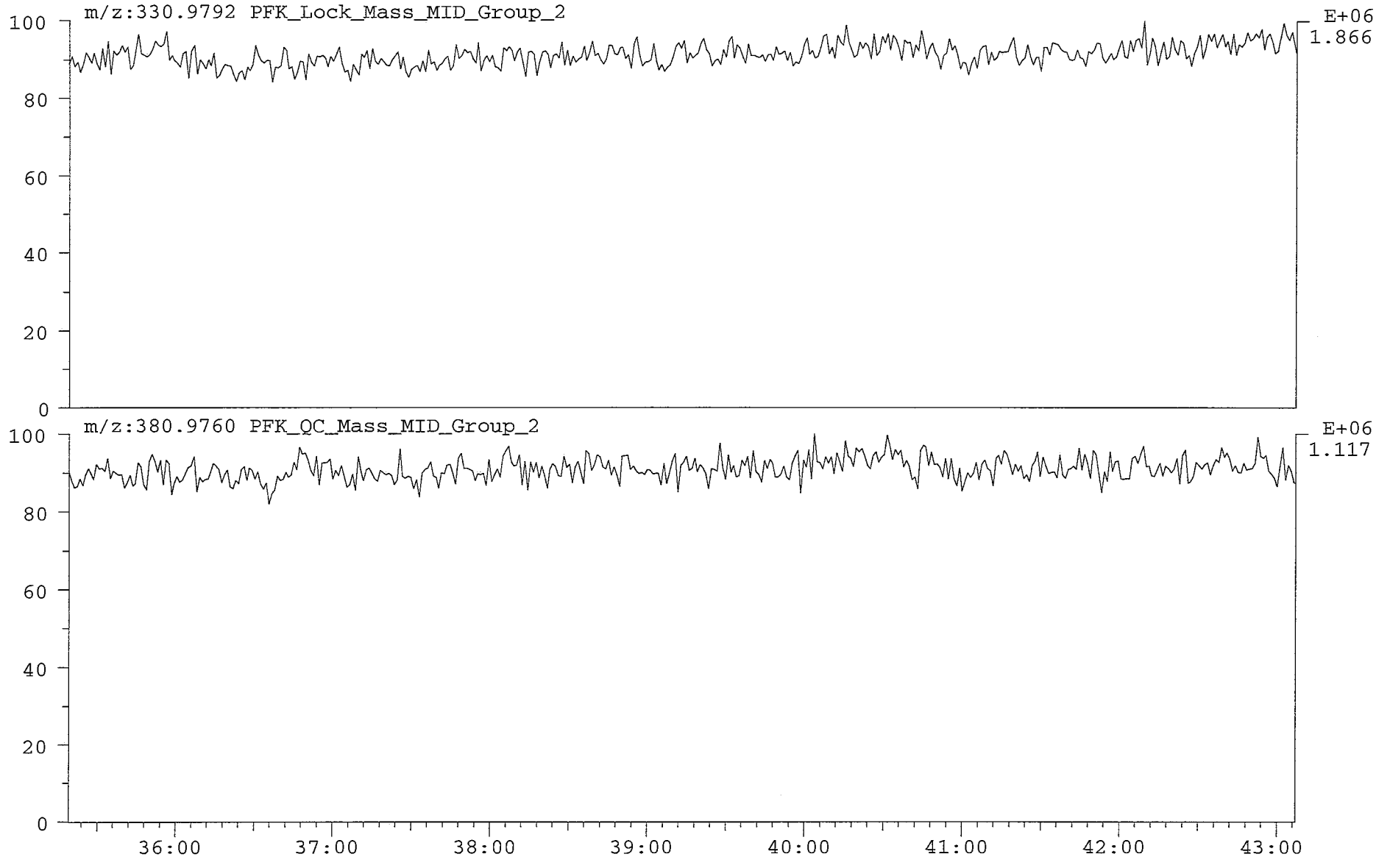
CHRO: btmkm6f 15-Jul-11 Elapse: 40:32 1799
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1730 > 1868 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



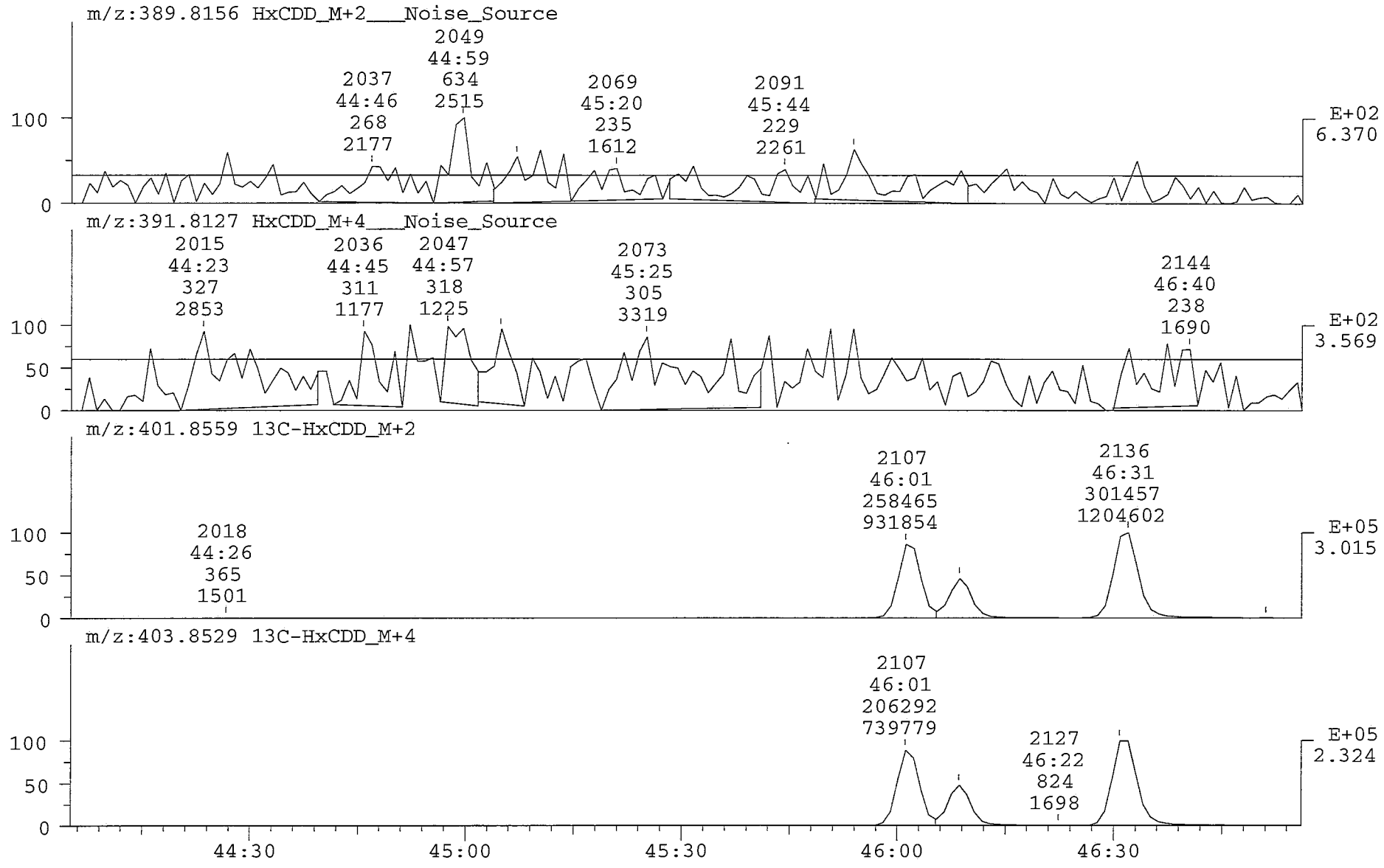
CHRO: btmkm6f 15-Jul-11 Elapse: 40:32 1799
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1504 > 1945 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



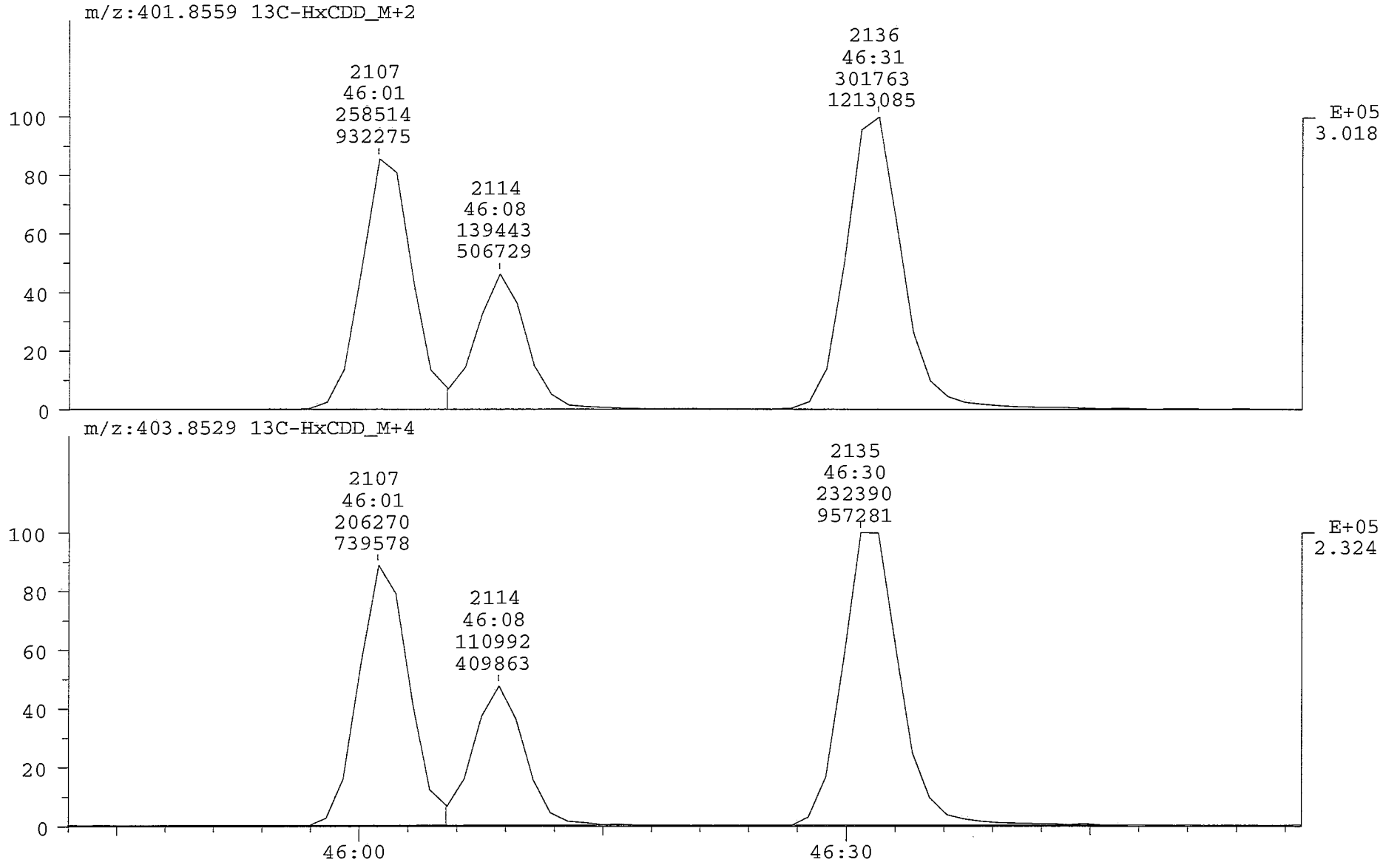
CHRO: btmkm6f 15-Jul-11 Elapse: 40:32 1799
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1504 > 1945 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



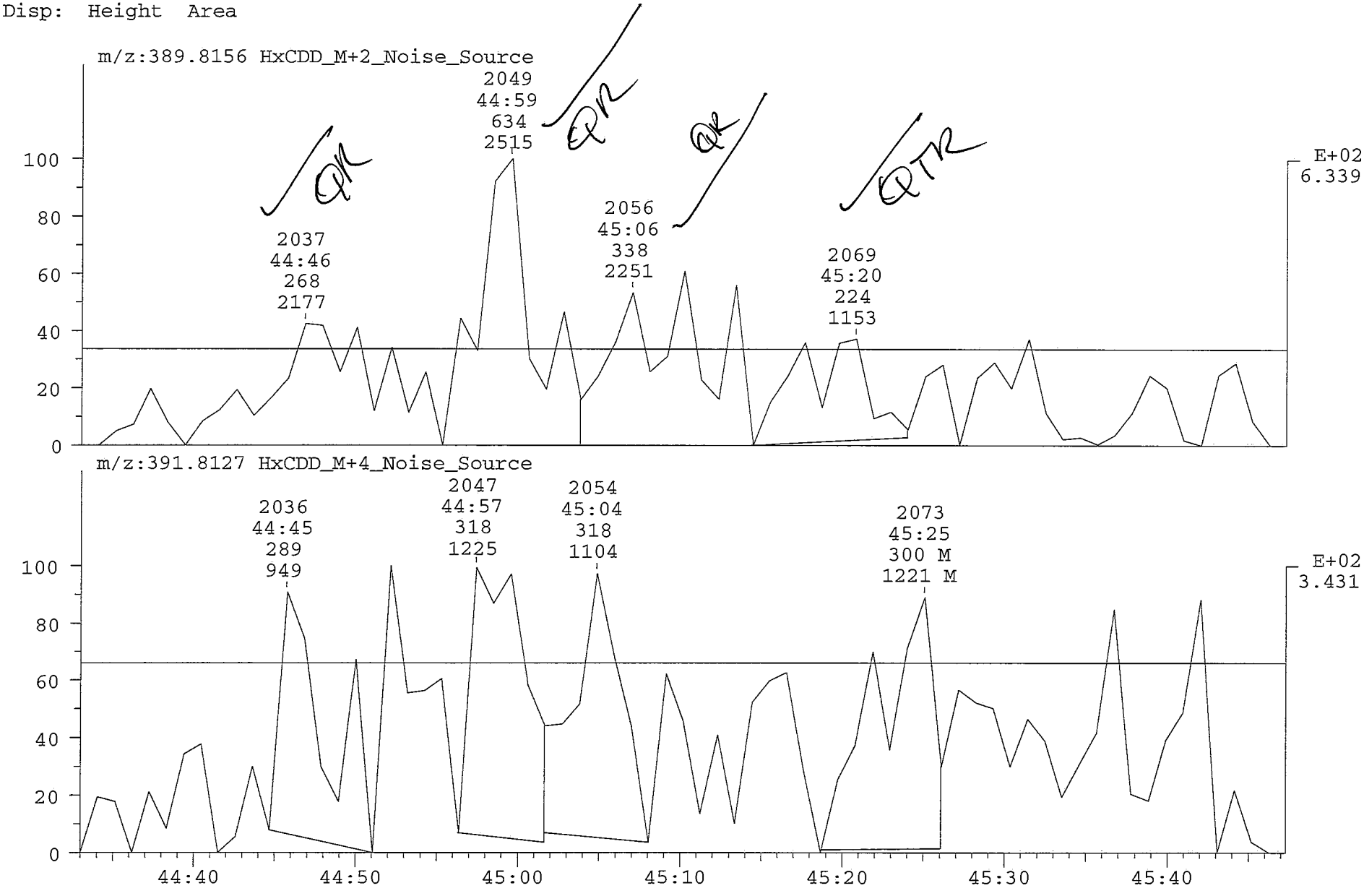
CHRO: btmkm6f 15-Jul-11 Elapse: 40:32 1799
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1998 > 2159 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



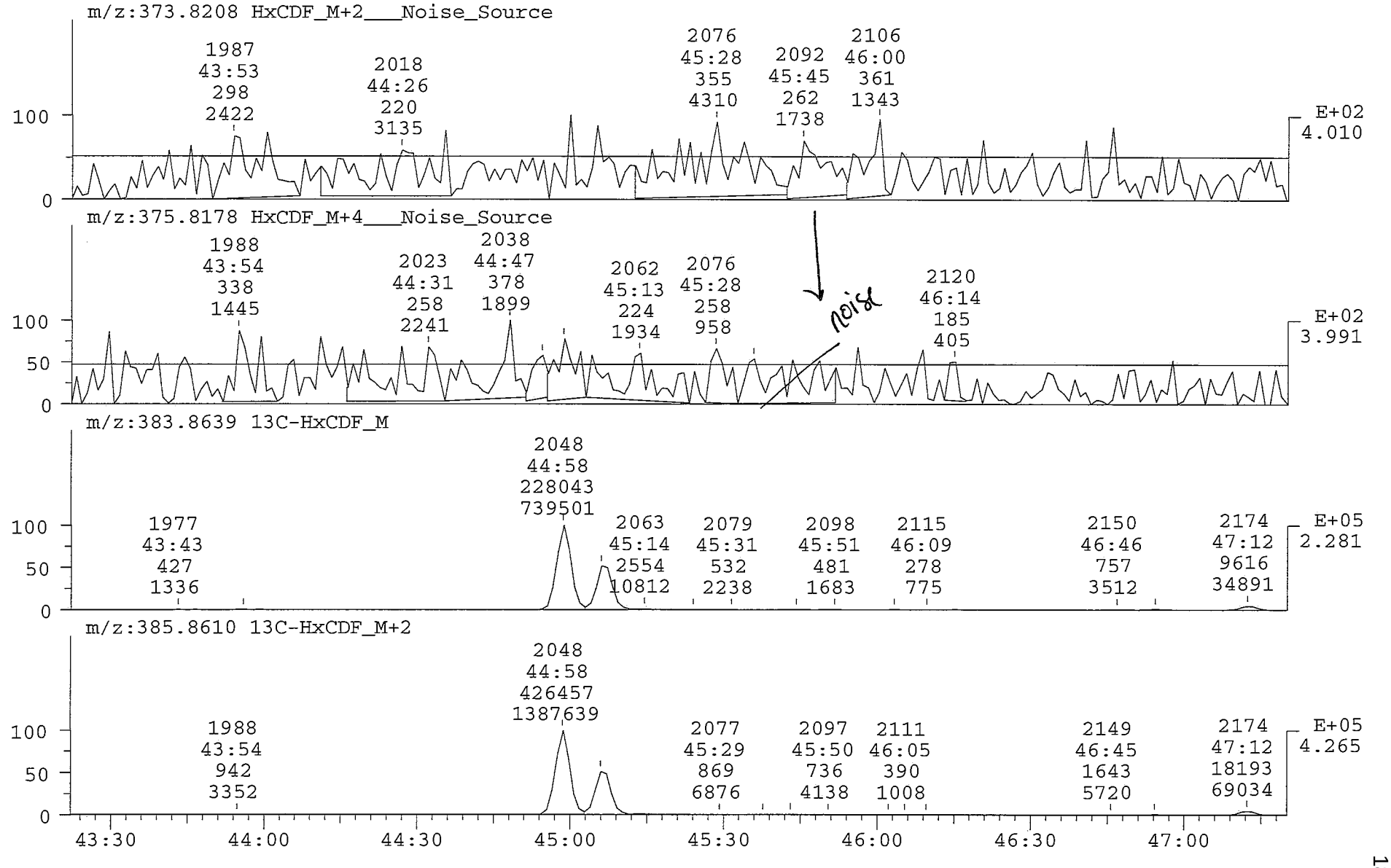
CHRO: btmkm6f 15-Jul-11 Elapse: 46:20 2125
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2089 > 2161 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



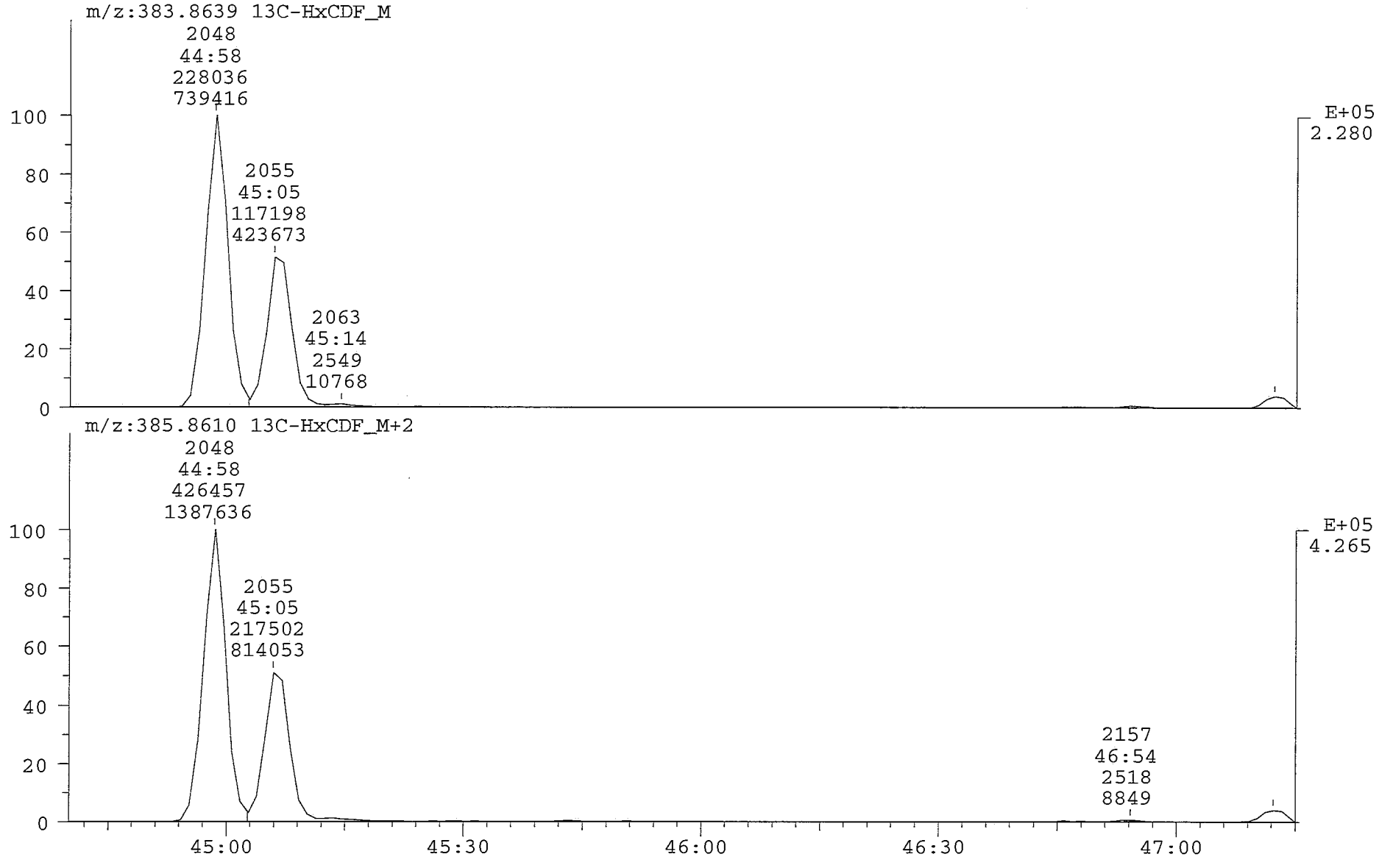
CHRO: btmkm6f 15-Jul-11 Elapse: 55:20 2629
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2024 > 2094 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



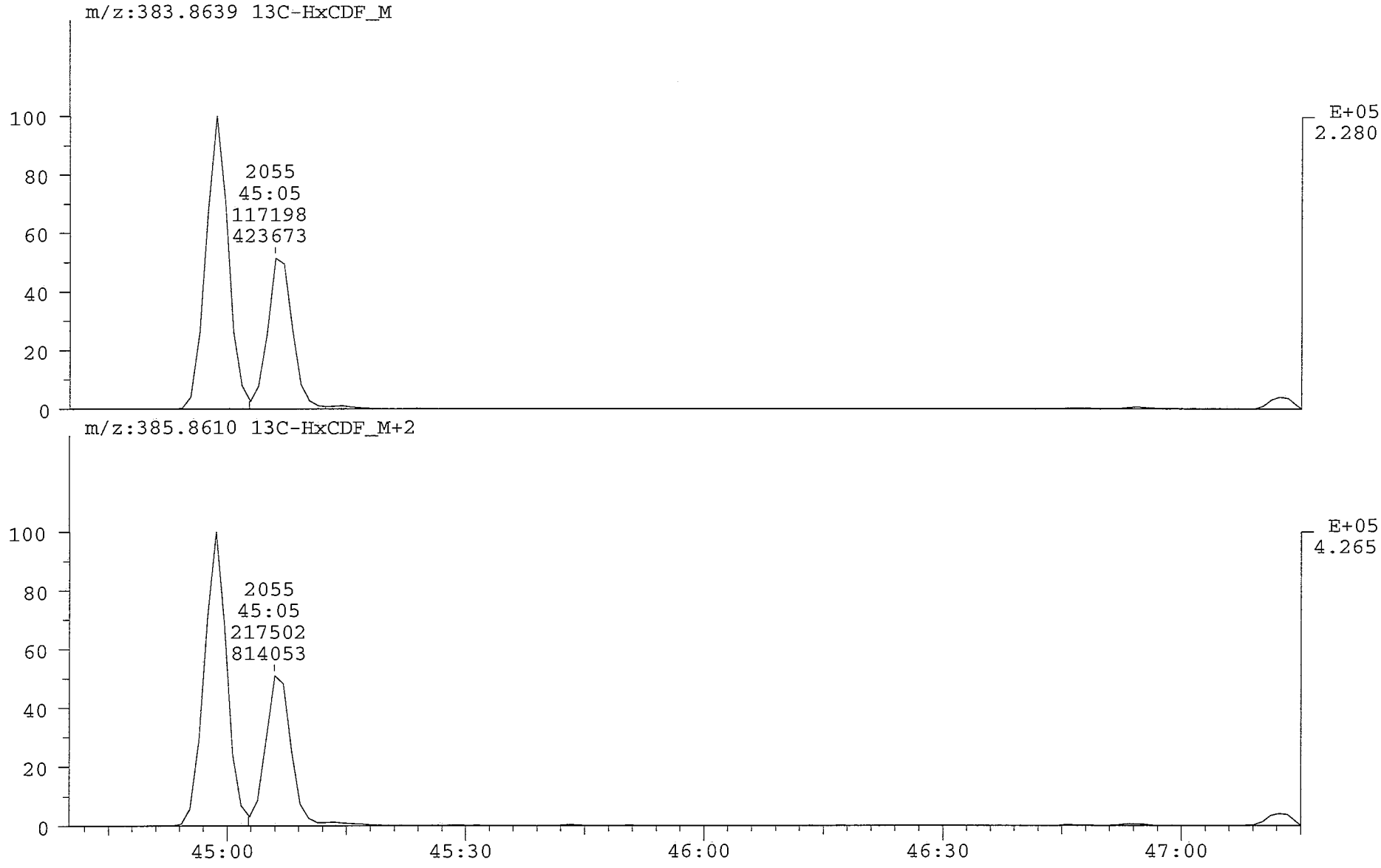
CHRO: btmkm6f 15-Jul-11 Elapse: 46:20 2125
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1957 > 2181 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6f 15-Jul-11 Elapse: 45:56 2103
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2031 > 2177 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

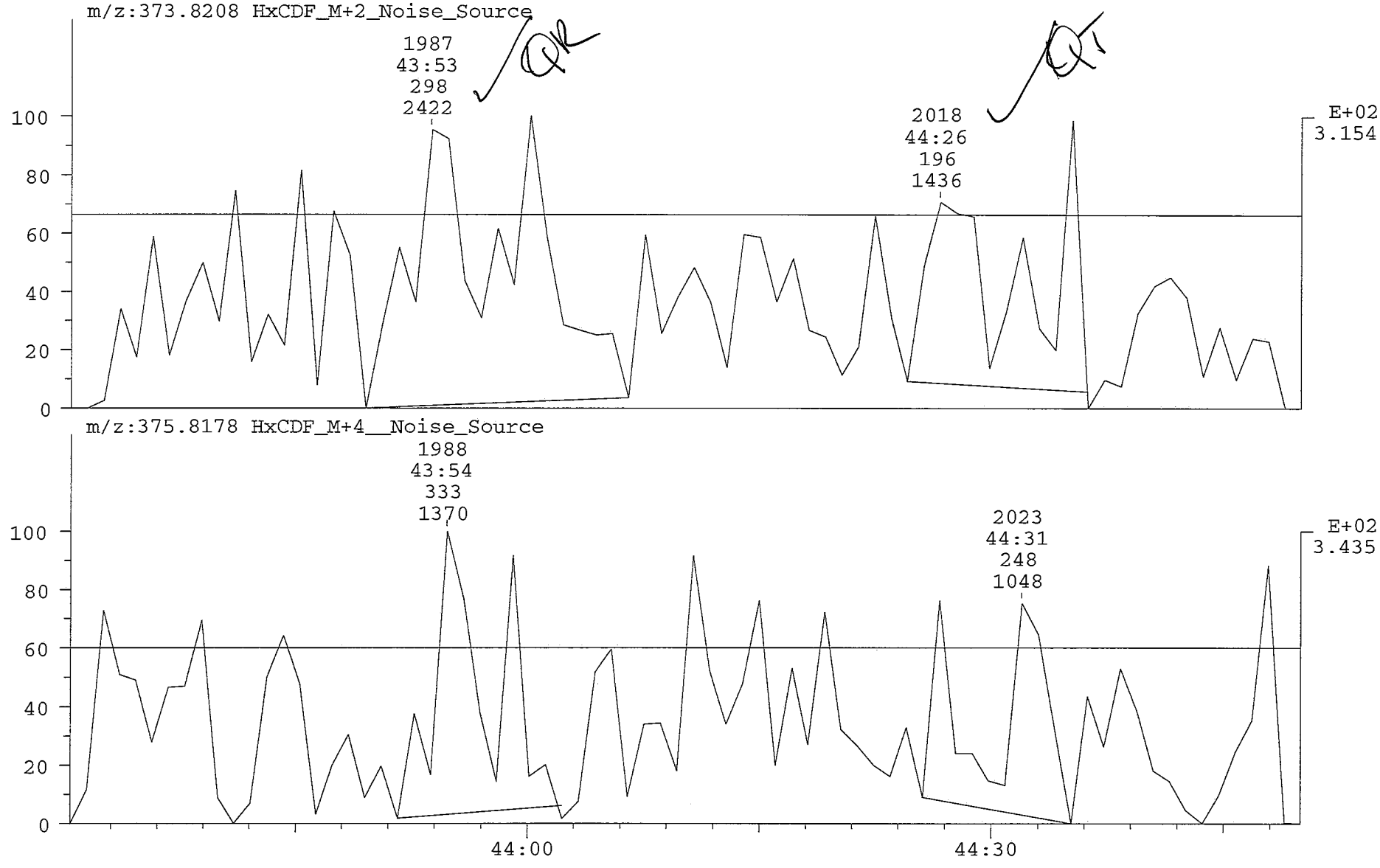


CHRO: btmkm6f 15-Jul-11 Elapse: 45:08 2057
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2053 > 2061 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



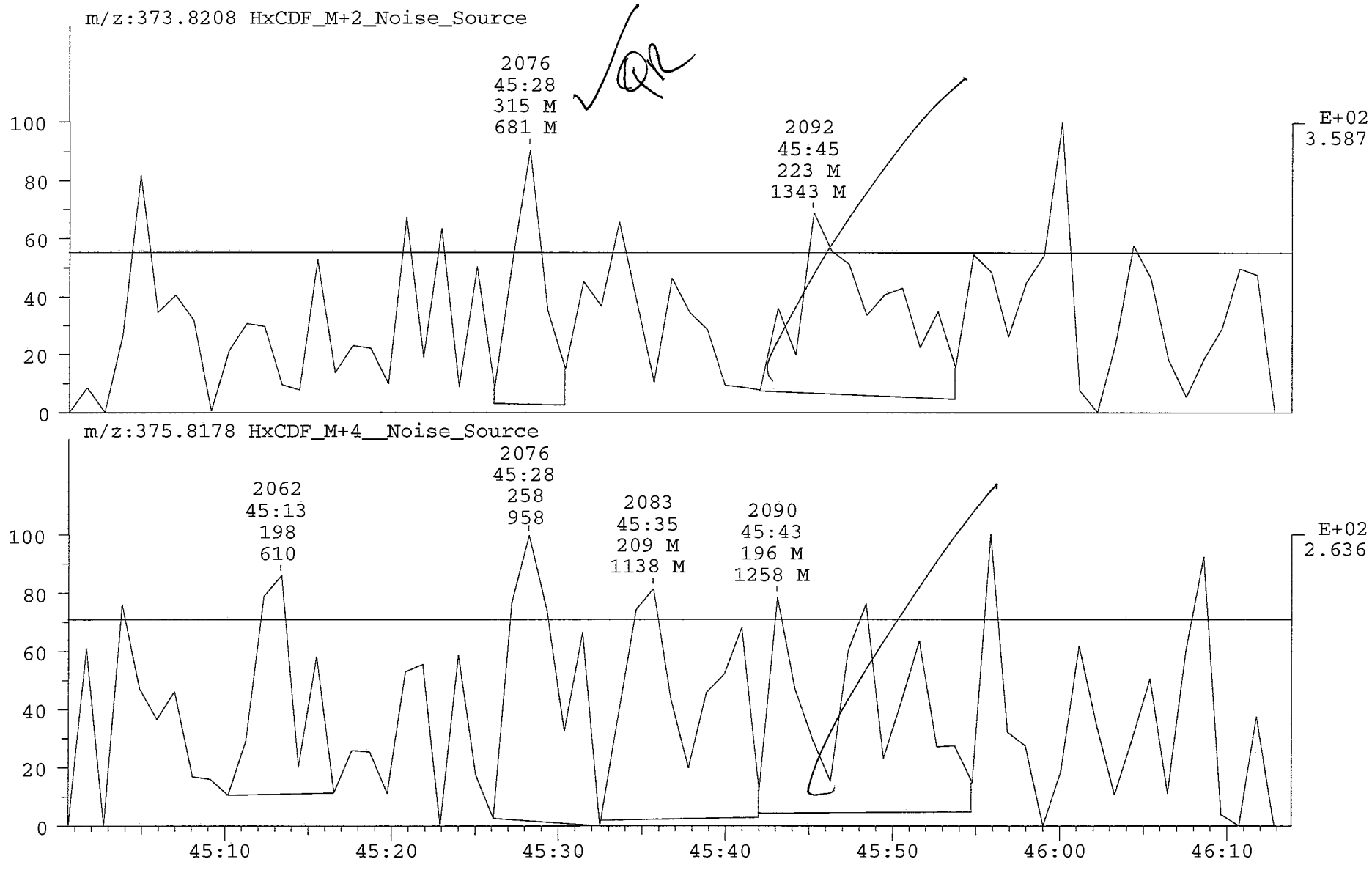
H-191

CHRO: btmkm6f 15-Jul-11 Elapse: 55:20 2629
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1965 > 2040 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

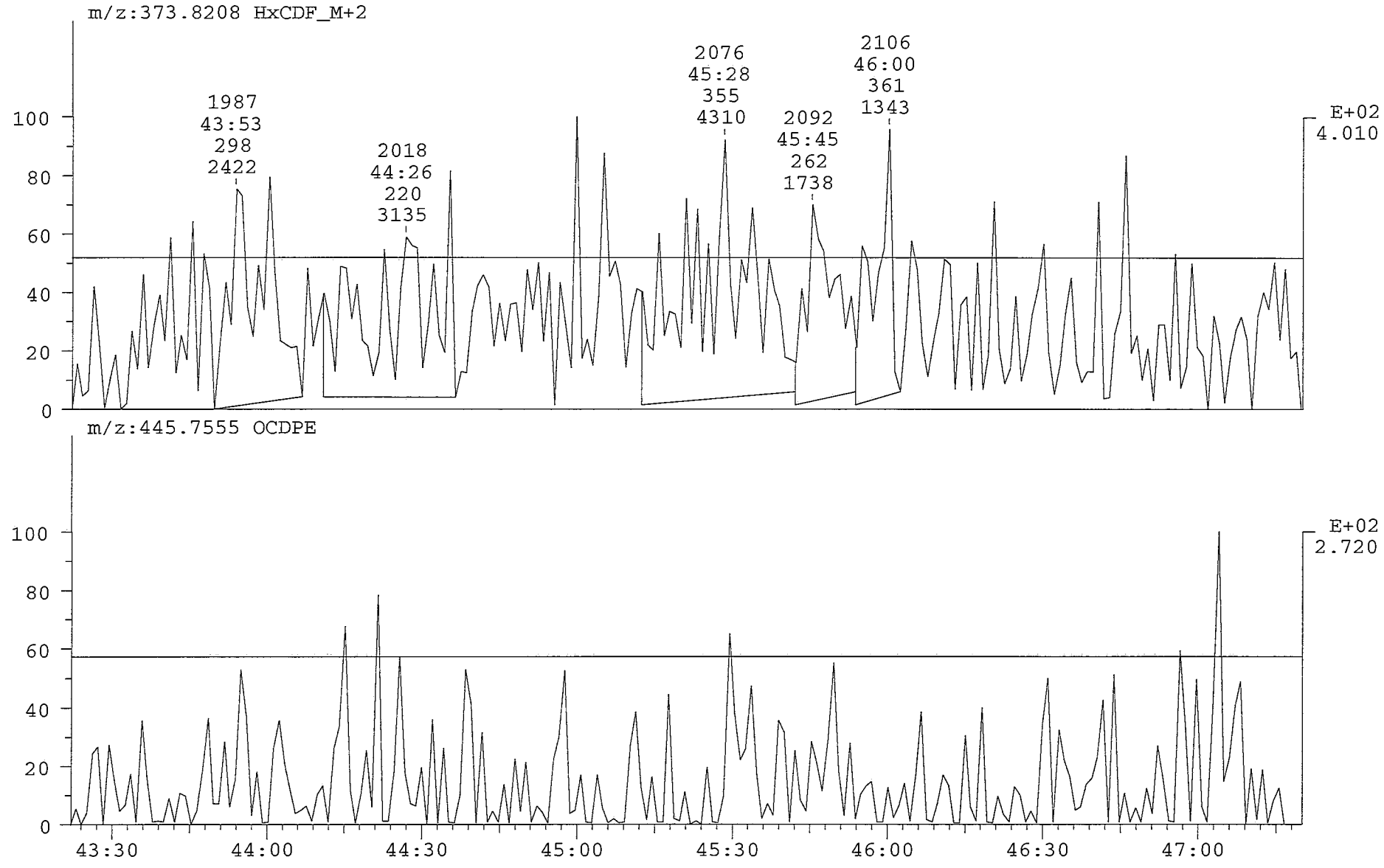


H-192

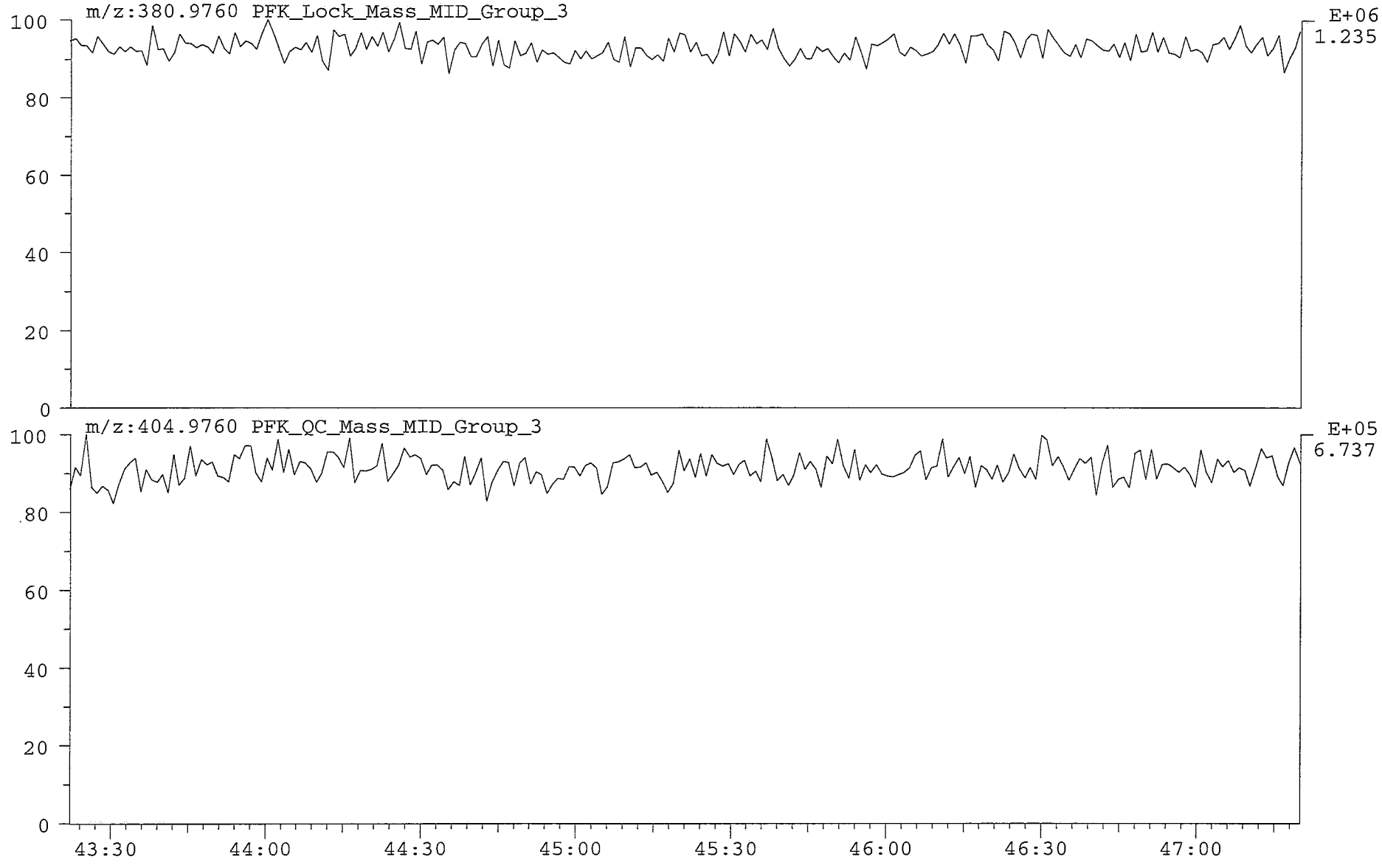
CHRO: btmkm6f 15-Jul-11 Elapse: 55:20 2629
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2050 > 2119 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



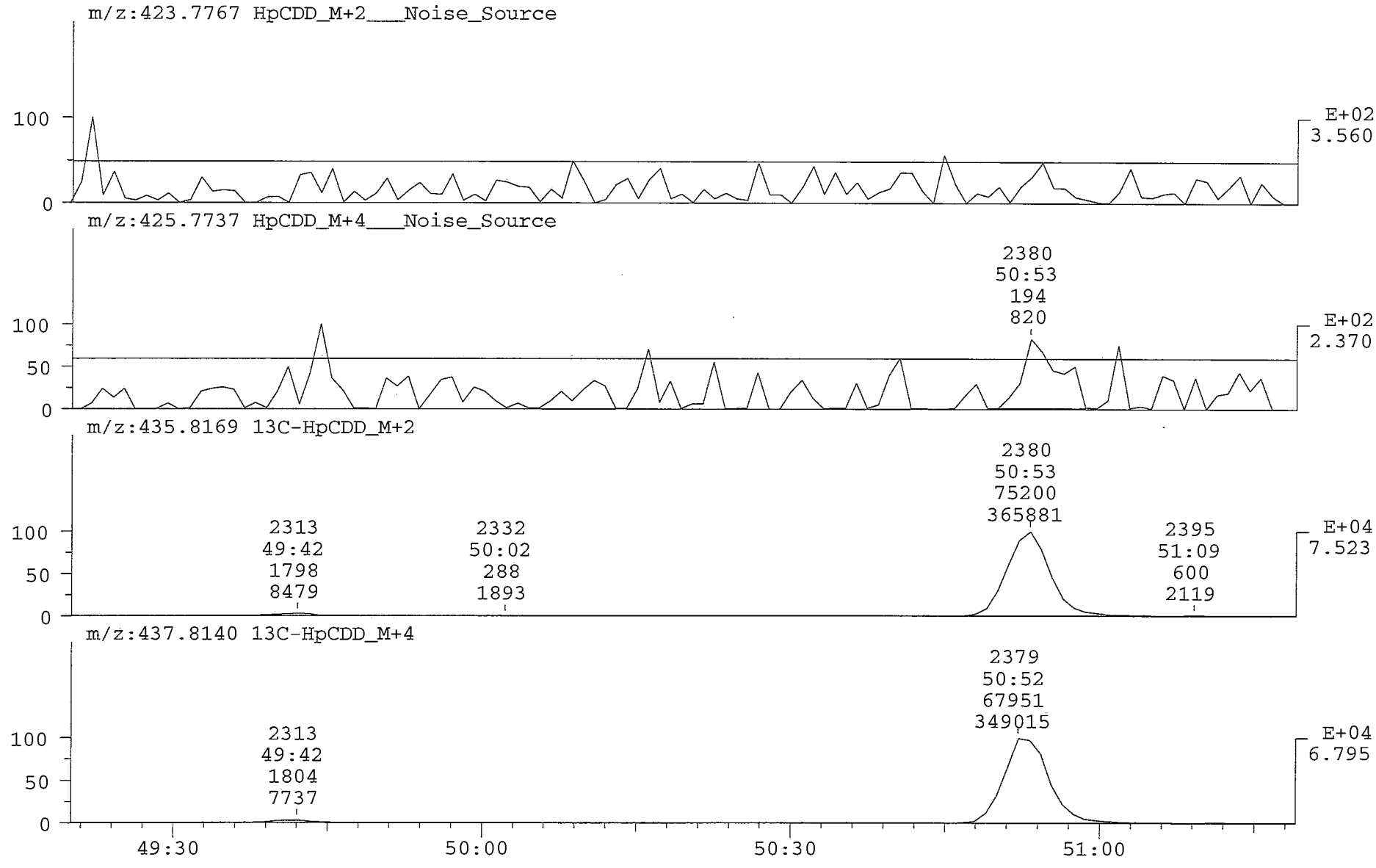
CHRO: btmkm6f 15-Jul-11 Elapse: 45:08 2057
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1957 > 2181 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



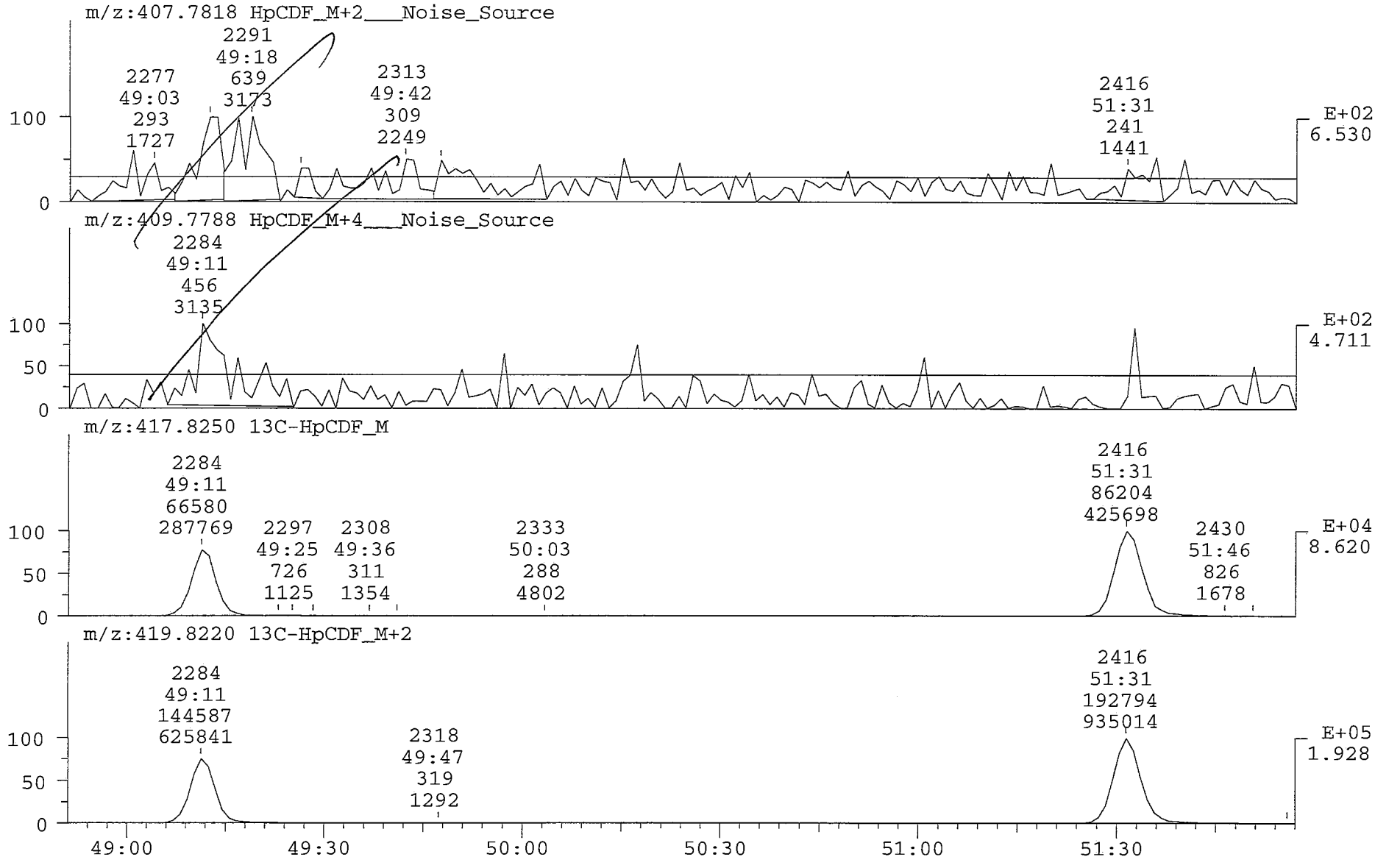
CHRO: btmkm6f 15-Jul-11 Elapse: 45:08 2057
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1957 > 2181 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



CHRO: btmkm6f 15-Jul-11 Elapse: 45:08 2057
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2292 > 2404 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

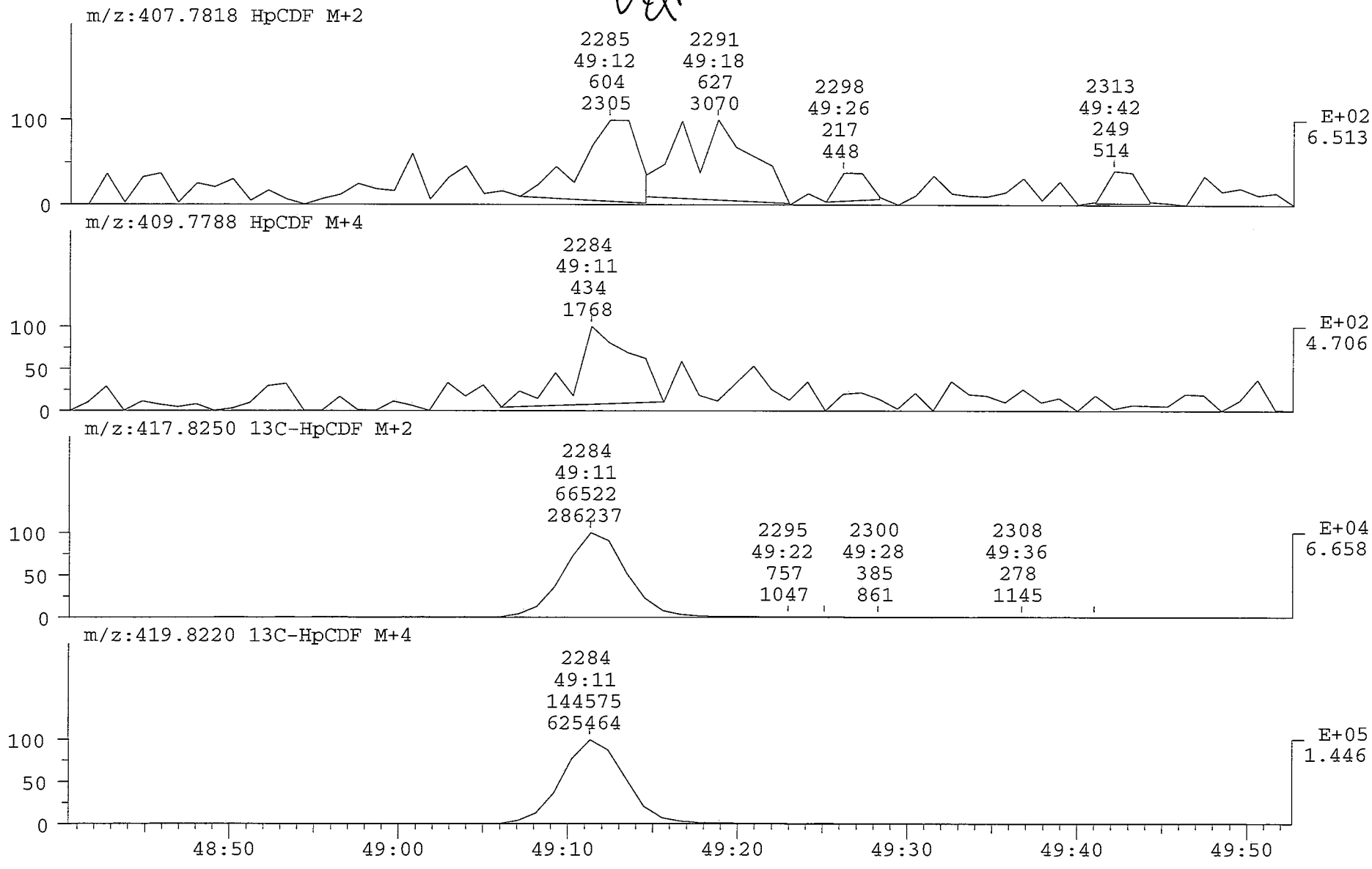


CHRO: btmkm6f 15-Jul-11 Elapse: 45:08 2057
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2265 > 2440 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

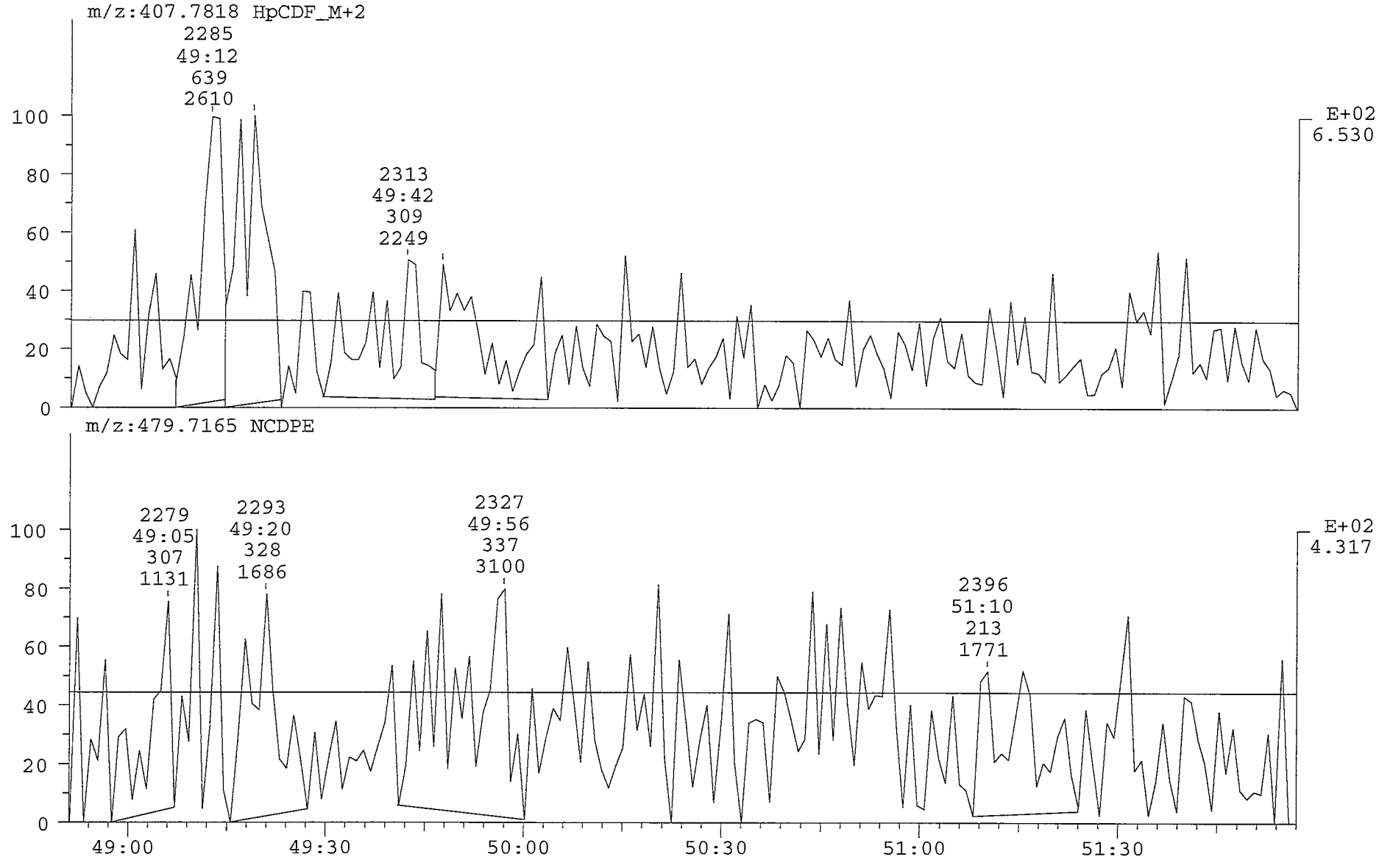


H-197

CHRO: btmkm6f 15-Jul-11 Elapse: 55:20 2629
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2255 > 2323 Masses: 293 > 514
Area: 5, 1.00, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

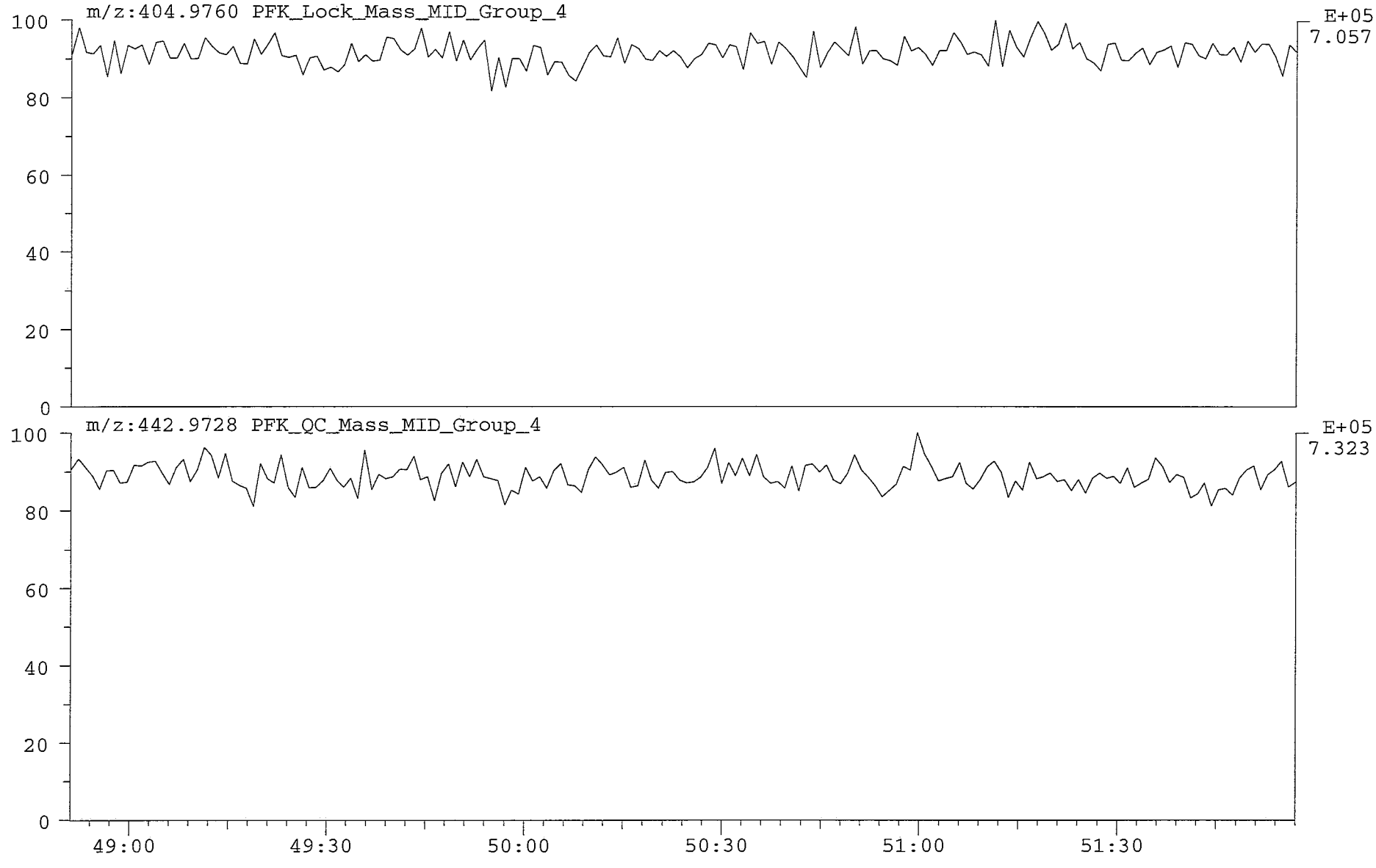


CHRO: btmkm6f 15-Jul-11 Elapse: 45:08 2057
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2265 > 2440 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



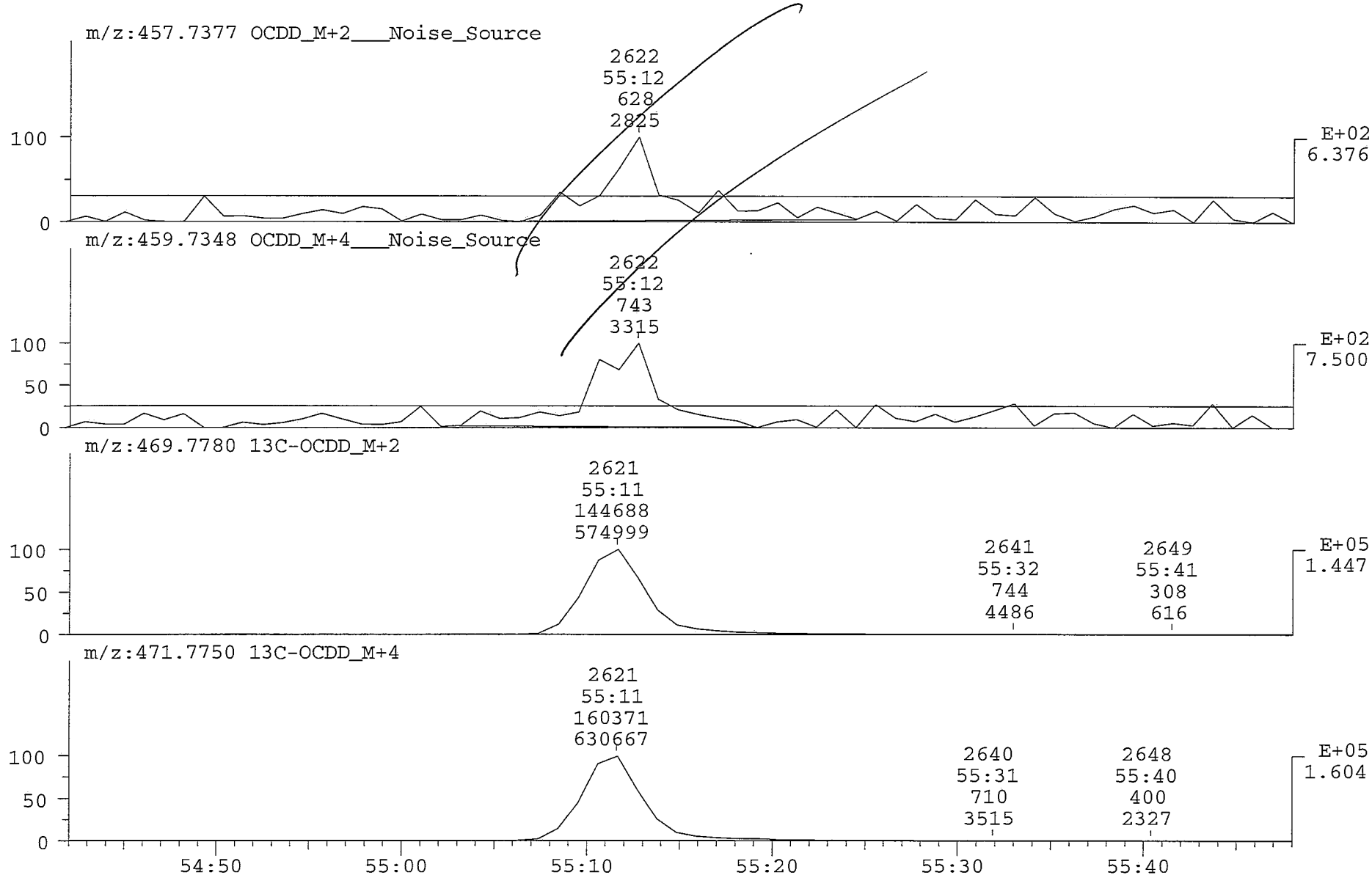
H-199

CHRO: btmkm6f 15-Jul-11 Elapse: 45:08 2057
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2265 > 2440 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



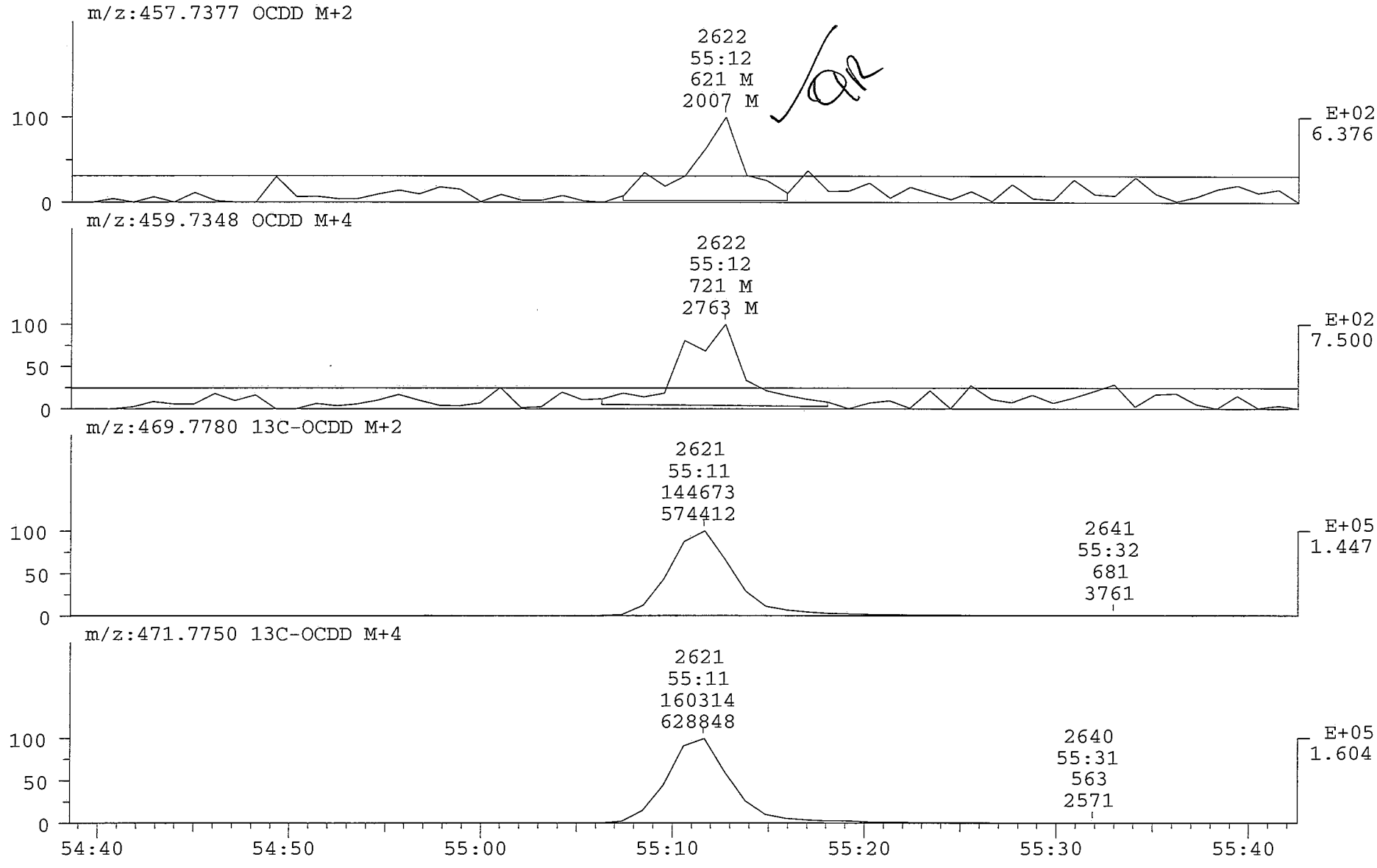
H-200

CHRO: btmkm6f 15-Jul-11 Elapse: 55:11 2621
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2593 > 2655 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-201

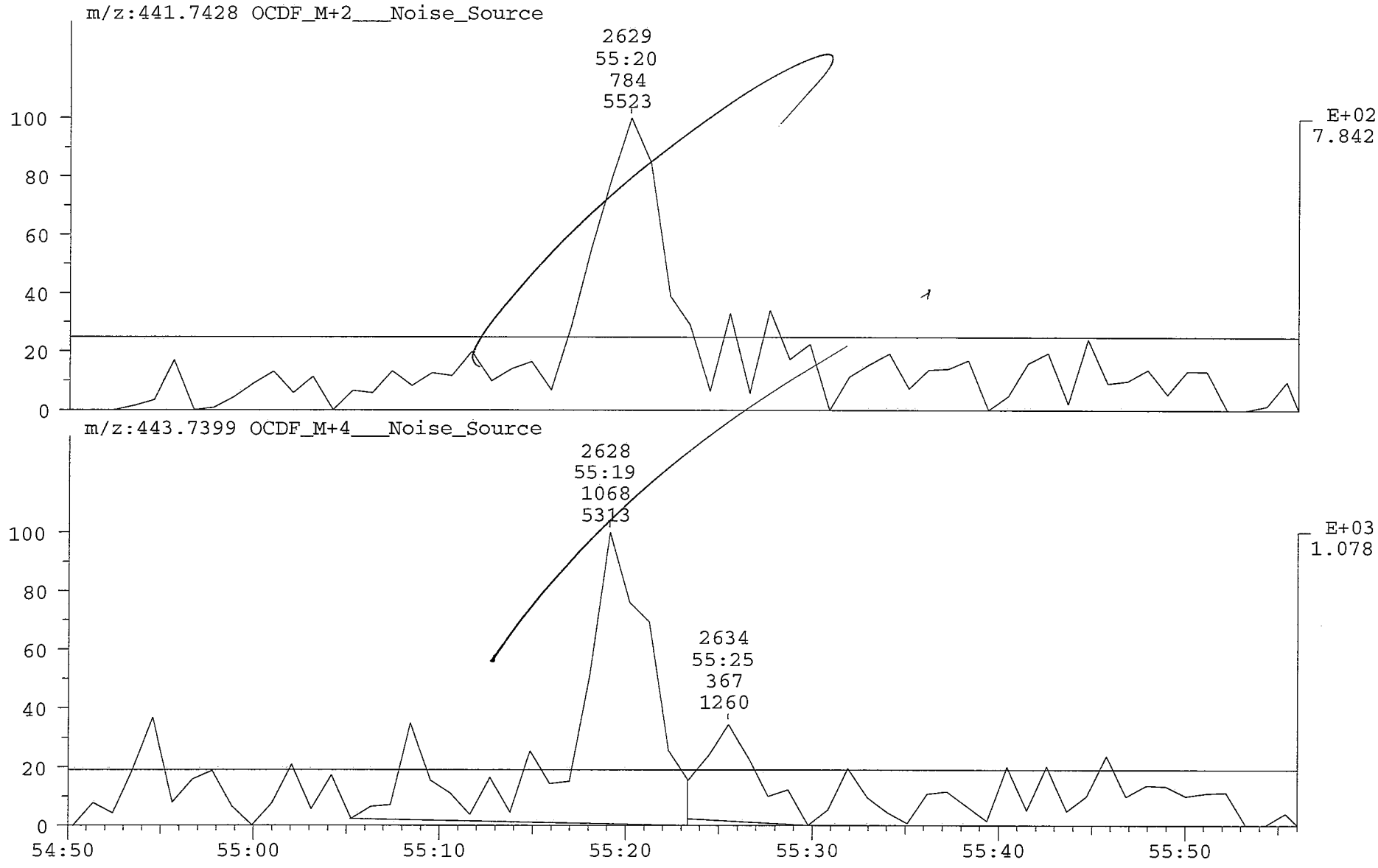
CHRO: btmkm6f 15-Jul-11 Elapse: 55:20 2629
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2590 > 2650 Masses: 293 > 514
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



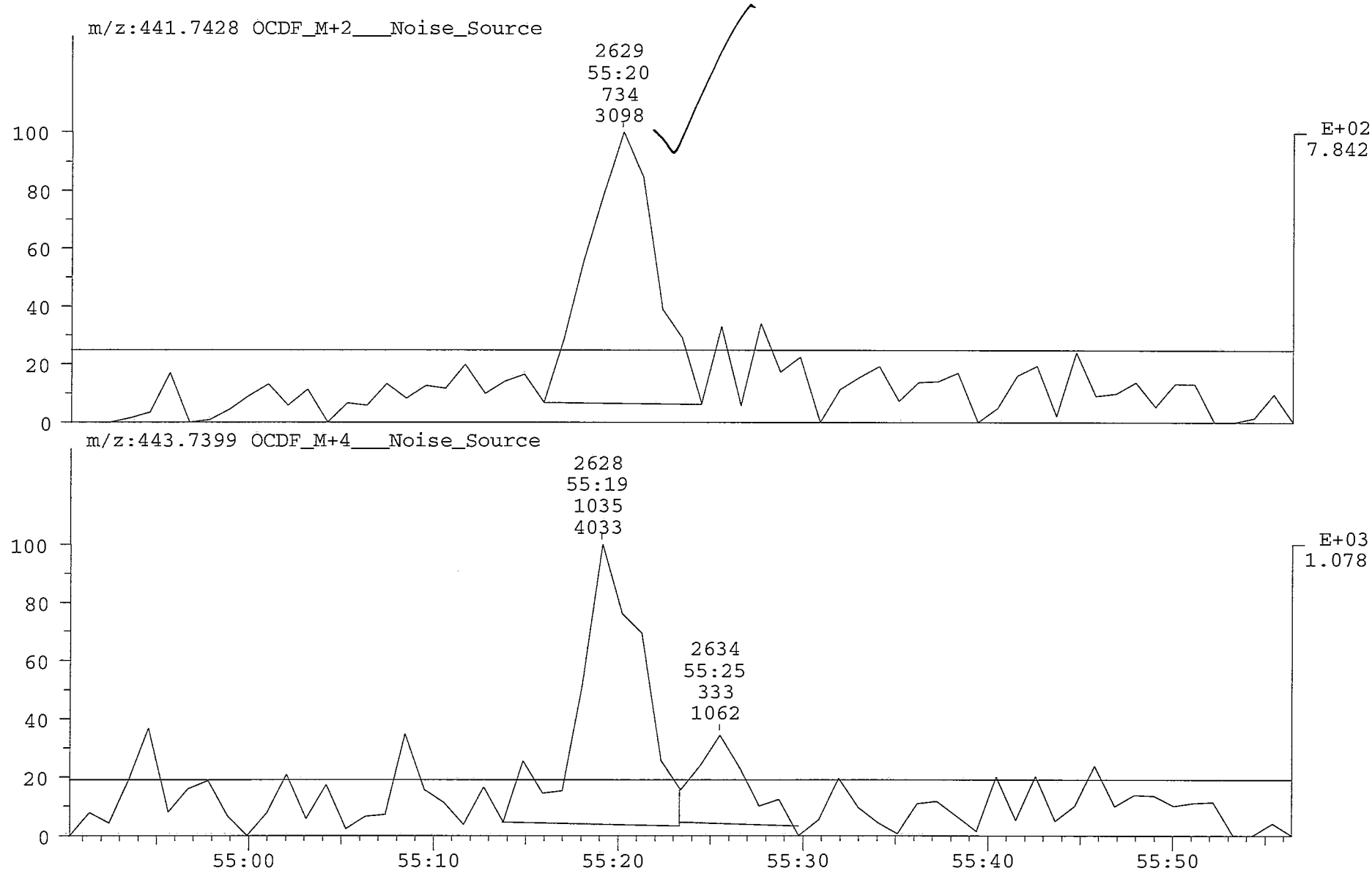
H-202

201

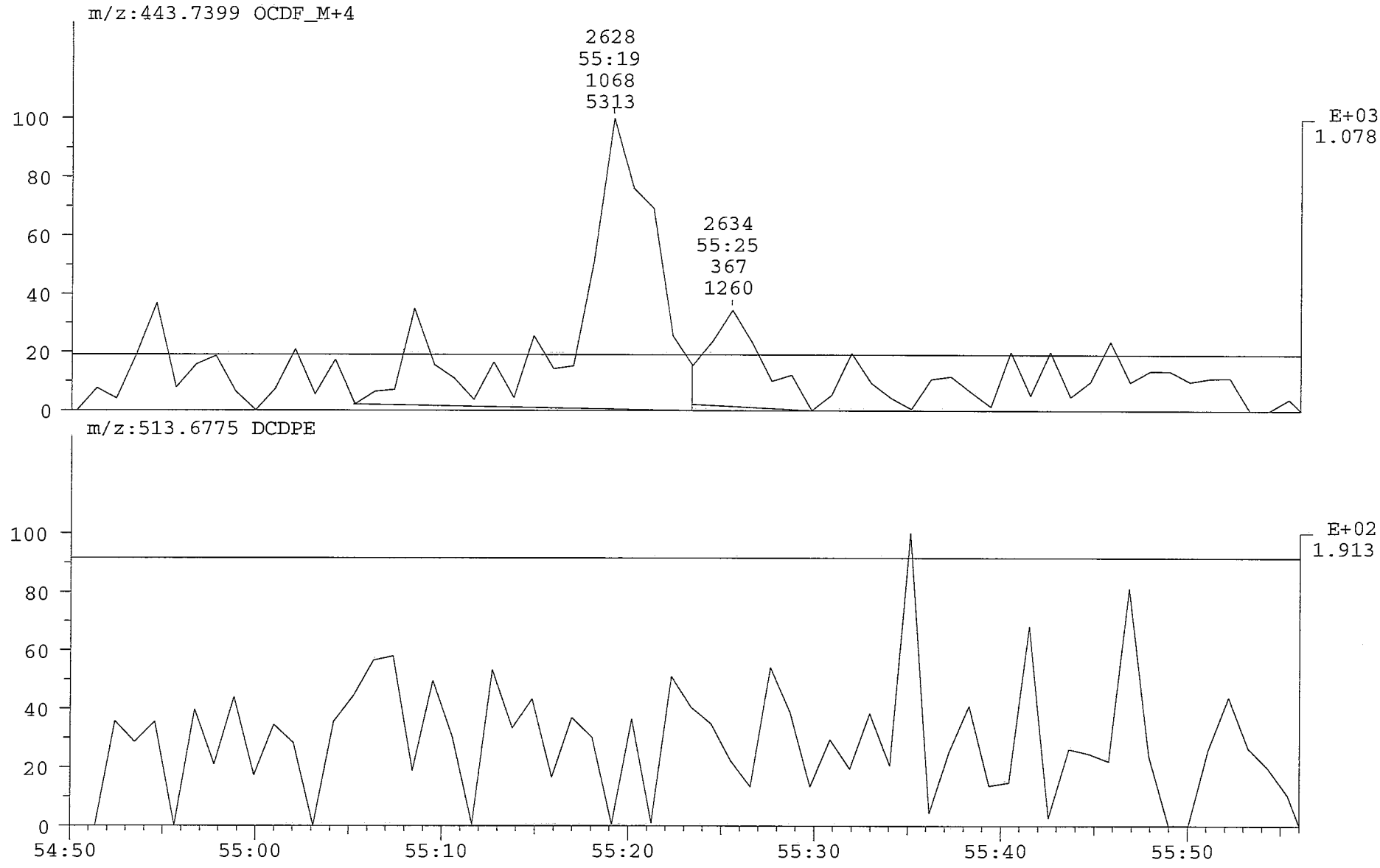
CHRO: btmkm6f 15-Jul-11 Elapse: 55:20 2629
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2601 > 2663 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



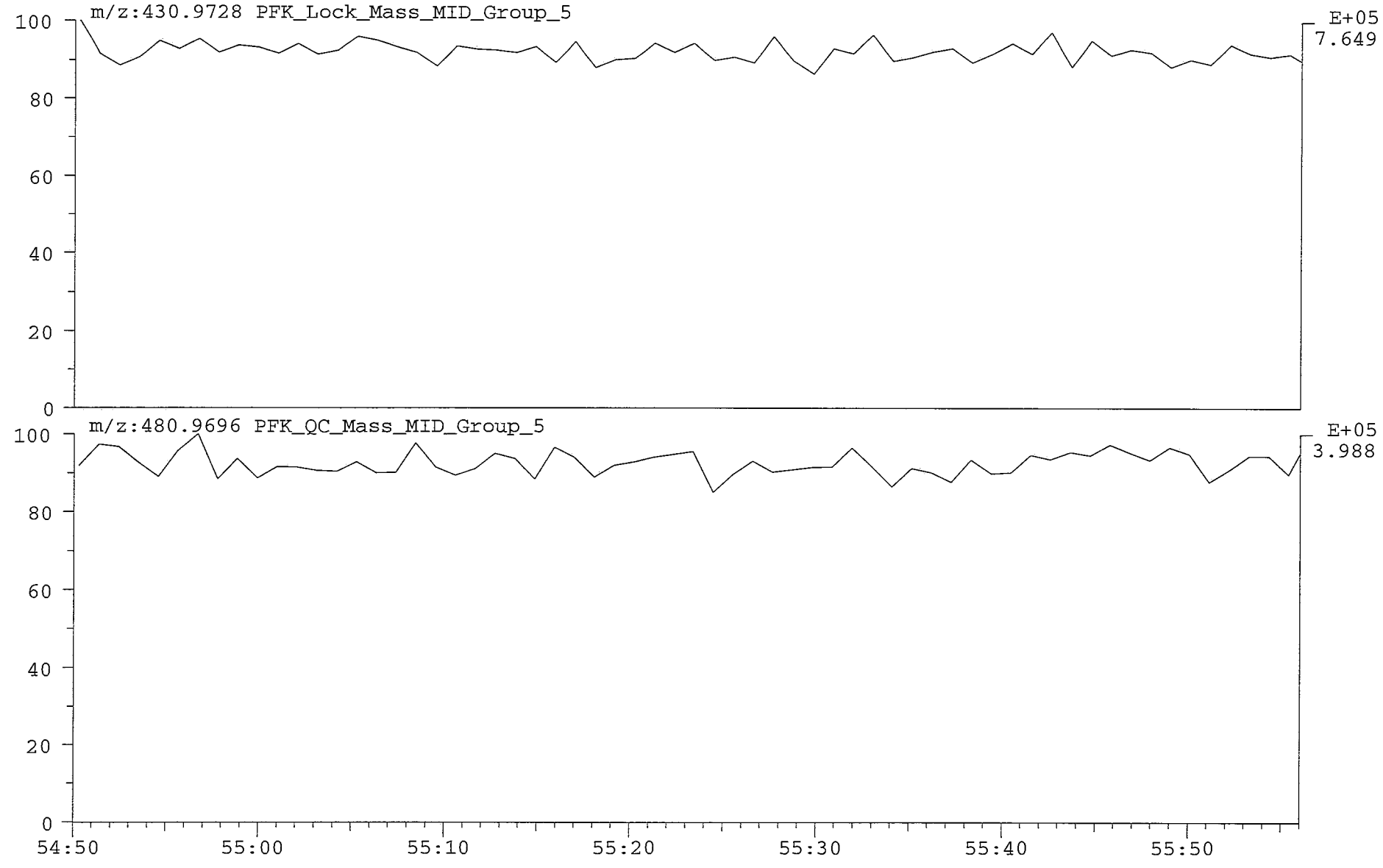
CHRO: btmkm6f 15-Jul-11 Elapse: 55:20 2629
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2601 > 2663 Masses: 293 > 514
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



```
CHRO:  btmkm6f                                  15-Jul-11   Elapse:   55:20      2629
Samp:  Vial 10 WO=mkm6f1aa Meth=X8 Dil=1                    Start :   06:08:56   2752
Comm:  Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :   1187027 (air-2)
Oper:  PMP           Client:  H1G050439-005                 Inlet :   GC     Vial  10
Peak:  100.00  ppm     Label wndw:   2601 > 2663            Masses:   293 > 514
Area:  5, 0.50, 15     Baseline  :   100, 3                 Label :   -2, 3.0
Disp:  Height  Area
```



CHRO: btmkm6f 15-Jul-11 Elapse: 55:20 2629
Samp: Vial 10 WO=mkm6f1aa Meth=X8 Dil=1 Start : 06:08:56 2752
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-005 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2601 > 2663 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-206

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: btmkm6f
Study: 1187027 (air-2)
Sample: WO=mkm6f1aa Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: PMP
Client: H1G050439-005
Comments: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Injected volume:   2.0
Sample from Vial 10
Analysis will stop when MID run finishes
Tune file name: tune2b
File 6 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1    8:00 min    27:13 min    35:13 min     1.00 sec
  # 2   35:13 min     7:54 min    43:08 min     1.00 sec
  # 3   43:08 min     5:17 min    48:25 min     1.00 sec
  # 4   48:25 min     5:05 min    53:30 min     1.00 sec
  # 5   53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 l   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 l   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                        300 deg max
  Transfer Line:     290 deg                        300 deg max
  Column:            140 deg at    0.0 minutes      330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8419.0000
BDEV	8304.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.3647
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-26.2250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9997
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	147.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.1000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	378.0000	FVINLET	851.0000
FVSRC	1059.0000	FWIN	0.7000	GCTC	140.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7157	HVANAL	1218.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2759.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10525.5743	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7000	TCURR	0.9766	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 06:08:56.5

Autosampler has injected sample from vial 10
Analysis stopped at: 15-Jul-11 07:06:28.9 (run time 57.53 minutes)
Analysis stopped because MID run finished

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AA	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	2
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		40	32	pg/sample
Total TCDD	ND		40	32	pg/sample
1,2,3,7,8-PeCDD	ND		200	16	pg/sample
Total PeCDD	ND		200	16	pg/sample
1,2,3,4,7,8-HxCDD	**13**	**J**	**200**	**13**	**pg/sample**
1,2,3,6,7,8-HxCDD	ND		200	12	pg/sample
1,2,3,7,8,9-HxCDD	ND		200	12	pg/sample
Total HxCDD	**170**	**J Q**	**200**	**12**	**pg/sample**
1,2,3,4,6,7,8-HpCDD	ND		200	15	pg/sample
Total HpCDD	ND		200	15	pg/sample
OCDD	**52**	**J**	**400**	**17**	**pg/sample**
2,3,7,8-TCDF	ND		40	21	pg/sample
Total TCDF	ND		40	21	pg/sample
1,2,3,7,8-PeCDF	ND		200	12	pg/sample
2,3,4,7,8-PeCDF	**8.8**	**Q J**	**200**	**13**	**pg/sample**
Total PeCDF	**27**	**Q J**	**200**	**12**	**pg/sample**
1,2,3,4,7,8-HxCDF	ND		200	7.0	pg/sample
1,2,3,6,7,8-HxCDF	ND		200	6.3	pg/sample
2,3,4,6,7,8-HxCDF	ND		200	6.6	pg/sample
1,2,3,7,8,9-HxCDF	ND		200	7.6	pg/sample
Total HxCDF	**14**	**Q J**	**200**	**6.8**	**pg/sample**
1,2,3,4,6,7,8-HpCDF	**13**	**Q J**	**200**	**9.9**	**pg/sample**
1,2,3,4,7,8,9-HpCDF	ND		200	13	pg/sample
Total HpCDF	**37**	**Q J**	**200**	**11**	**pg/sample**
OCDF	**60**	**J**	**400**	**21**	**pg/sample**

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AA	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	2
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Kathryn B. Lay				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	87	40 - 135
13C-1,2,3,7,8-PeCDD	87	40 - 135
13C-1,2,3,6,7,8-HxCDD	90	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	90	40 - 135
13C-OCDD	72	40 - 135
13C-2,3,7,8-TCDF	84	40 - 135
13C-1,2,3,7,8-PeCDF	81	40 - 135
13C-1,2,3,6,7,8-HxCDF	92	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	84	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	82	70 - 130
13C-1,2,3,4,7,8-HxCDD	104	70 - 130
13C-2,3,4,7,8-PeCDF	98	70 - 130
13C-1,2,3,4,7,8-HxCDF	95	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	91	70 - 130

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM6M1AA	**Prep Batch**	1187027	**Lot No**	H1G050439-007
Data File	/20110715s1/btmkm6mrr.d	**Prep Date**	07/06/11	**SDG No**	
Analysis ID	133648	**Prep Exp Date**	07/26/11	**Date Received**	07/02/11
Analysis Date	7/15/2011	**Matrix**	AIR	**Date Sampled**	06/26/11
Analysis Time	15:47	**Initial Wt/Vol**	1 Sample	**Lims Test Code**	XXSIPX801
Anal Exp Date	08/20/11	**Extract Vol**	40 uL	**Method**	0023/8290
Instrument	M2A	**Dil Factor**	2.00	**Code**	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (pg/sample		DL (pg/samp
2,3,7,8-TCDD				1.172				ND		31.7
Total TCDD				1.172				ND		31.7
2,3,7,8-TCDF				1.081				ND		20.7
Total TCDF				1.081				ND		20.7
1,2,3,7,8-PeCDD				1.124				ND		15.7
Total PeCDD				1.124				ND		15.7
1,2,3,7,8-PeCDF				1.050				ND		12.4
2,3,4,7,8-PeCDF	41:06	1472	373	1.030		8.793787		8.793787	QJ	12.6
Total PeCDF		3152	694	1.040		27.435441		27.435441	QJ	12.5
1,2,3,4,7,8-HxCDD	45:59	1597	758	0.990		13.418352		13.418352	J	12.5
1,2,3,6,7,8-HxCDD				1.020				ND		12.2
1,2,3,7,8,9-HxCDD				1.003				ND		12.4
Total HxCDD		19474	5525	1.004		174.732863		174.732863	JQ	12.3
1,2,3,4,7,8-HxCDF				1.091				ND		7.03
1,2,3,6,7,8-HxCDF				1.226				ND		6.26
2,3,4,6,7,8-HxCDF				1.160				ND		6.61
1,2,3,7,8,9-HxCDF				1.008				ND		7.62
Total HxCDF		2601	986	1.121		13.650314		13.650314	QJ	6.85
1,2,3,4,6,7,8-HpCDD				1.094				ND		15.1
Total HpCDD				1.094				ND		15.1
1,2,3,4,6,7,8-HpCDF	49:13	2211	598	1.469		12.703347		12.703347	QJ	9.91
1,2,3,4,7,8,9-HpCDF				1.127				ND		12.9
Total HpCDF		3753	1147	1.298		37.105484		37.105484	QJ	11.2
OCDD	55:11	4478	934	1.075		51.943215		51.943215	J	16.8
OCDF	55:18	6098	1093	1.258		60.473906		60.473906	J	21.4
13C-2,3,7,8-TCDD	31:29	210203	22069	1.006	2000	1732.17888	86.61	1732.17888		57.4
13C-2,3,7,8-TCDF	29:32	347339	40374	1.719	2000	1675.34163	83.77	1675.34163		22.6
13C-1,2,3,7,8-PeCDD	41:40	200891	44674	0.953	2000	1747.72200	87.39	1747.72200		29.9
13C-1,2,3,7,8-PeCDF	39:46	325072	61600	1.661	2000	1623.36989	81.17	1623.36989		18.3
13C-1,2,3,6,7,8-HxCDD	46:08	240389	61700	1.035	2000	1809.05545	90.45	1809.05545		17.7
13C-1,2,3,6,7,8-HxCDF	45:06	339826	92503	1.434	2000	1845.30884	92.27	1845.30884		10.5
13C-1,2,3,4,6,7,8-HpCDD	50:52	196224	38449	0.851	2000	1795.36059	89.77	1795.36059		14.0
13C-1,2,3,4,6,7,8-HpCDF	49:11	236988	49431	1.094	2000	1687.50009	84.38	1687.50009		14.1
13C-OCDD	55:11	320679	76480	0.867	4000	2879.87523	72.00	2879.87523		13.3
37Cl4-2,3,7,8-TCDD	31:35	411879	45023	1.198	4000	3271.12697	81.78	3271.12697		18.3
13C-2,3,4,7,8-PeCDF	41:05	632560	143548	0.994	4000	3917.17073	97.93	3917.17073		13.2
13C-1,2,3,4,7,8-HxCDD	46:01	445298	121145	0.887	4000	4176.04416	104.40	4176.04416		21.6
13C-1,2,3,4,7,8-HxCDF	44:58	576159	154853	0.891	4000	3806.40501	95.16	3806.40501		11.8
13C-1,2,3,7,8,9-HxCDF				1.321				ND		11.4
13C-1,2,3,4,7,8,9-HpCDF	51:30	361551	72139	0.841	4000	3627.15558	90.68	3627.15558		24.0
13C-1,2,3,4-TCDD	31:01	482328	52932	1.000	4000	4000.00000	100.00	4000.00000		57.8
13C-1,2,3,7,8,9-HxCDD	46:30	513642	129646	1.000	4000	4000.00000	100.00	4000.00000		18.3

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM6M1AA	Prep Batch	1187027	Lot No	H1G050439-007
Data File	/20110715s1/btmkm6mrr.	Prep Date	07/06/11	SDG No	
Analysis ID	133648	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	07/15/11 15:47	Matrix	AIR	Date Sampled	06/26/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	KBL	Diluton Factor	2.00	Code	X8
		View Small Peaks?	False	View deleted peaks?	False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	190	263	76	105	0.72	/	
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	208	308	83	123	0.67	/	
	13C-2,3,7,8-TCDF	29:32	29:32	0	152237	195102	16987	23387	0.78	AVV/AVV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	188	223	75	89	0.84	/	
328					327.8847		327.8847				
	Noise	00:00	00:00	0	243		97				
	37Cl4-2,3,7,8-TCDD	31:35	31:35	0	411879		45023			AVV	
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	433	333	173	133	1.30 *	/	
	13C-1,2,3,4-TCDD	31:01	31:01	0	219676	262652	23534	29398	0.84	AVV/AVV	
	13C-2,3,7,8-TCDD	31:29	31:31	-2	95705	114498	10142	11927	0.84	AVV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	145	255	58	102	0.57 *	/	
	Unidentified	36:41	00:00	0	885	1942	214	687	0.46 *	ABB/MVV	R
	Unidentified	38:09	00:00	0	1031	2564	208	501	0.40 *	MVV/MVV	R
	2,3,4,7,8-PeCDF	41:06	41:06	0	895	1490	227	446	0.60 *	MBB/AVV	R
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	203	200	81	80	1.01 *	/	
	13C-1,2,3,7,8-PeCDF	39:46	39:48	-2	196123	128949	36692	24908	1.52	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:05	41:05	0	384380	248180	86390	57158	1.55	ABV/ABV	
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	255	140	102	56	1.82 *	/	
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	190	188	76	75	1.01 *	/	
	13C-1,2,3,7,8-PeCDD	41:40	41:39	1	122110	78781	27155	17519	1.55	AVV/AVV	M
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	195	160	78	64	1.22	/	
	Unidentified	45:31	00:00	0	2126	1161	530	440	1.83 *	ABV/MVV	RT
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	230	258	92	103	0.89 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:58	44:59	-1	201173	374986	54914	99939	0.54	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDF	45:06	45:06	0	115353	224473	31825	60678	0.51	AVV/AVV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	155	228	62	91	0.68 *	/	
	Unidentified	44:24	00:00	0	1738	1437	291	508	1.21	ABB/ABB	
	Unidentified	44:43	00:00	0	1085	2042	311	584	0.53 *	MBV/MVV	R
	Unidentified	44:59	00:00	0	1569	2124	432	425	0.74 *	ABB/MVV	R
	Unidentified	45:16	00:00	0	1030	1305	227	375	0.79 *		RM
	Unidentified	45:38	00:00	0	1059	983	199	450	1.08	ABV/MVV	M
	Unidentified	45:45	00:00	0	765	1235	243	360	0.62 *	AVB/MVB	RXM

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM6M1AA	Prep Batch	1187027	Lot No	H1G050439-007
Data File	/20110715s1/btmkm6mrr.d	Prep Date	07/06/11	SDG No	
Analysis ID	133648	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	07/15/11 15:47	Matrix	AIR	Date Sampled	06/26/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	KBL	Diluton Factor	2.00	Code	X8

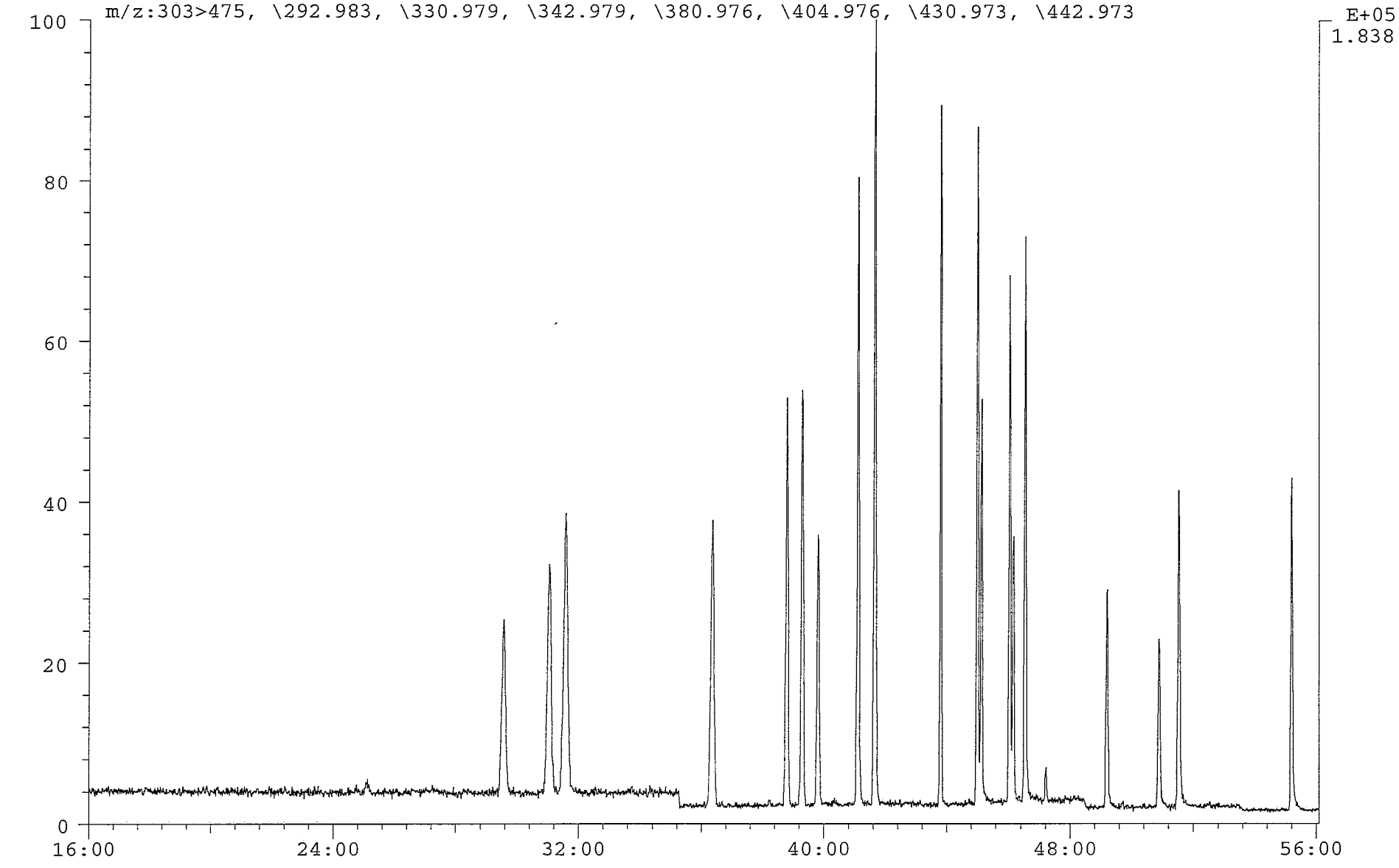
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,4,7,8-HxCDD	45:59	46:02	-3	896	701	438	320	1.28	ABV/MVV	M
	Unidentified	46:03	00:00	0	1173	802	575	258	1.46 *	AVB/ABV	RTM
	Unidentified	46:18	00:00	0	1523	1949	451	424	0.78 *	MBB/AVV	R
	Unidentified	46:28	00:00	0	926	1862	273	477	0.50 *	MVV/MVV	R
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	265	328	106	131	0.81 *	/	
	13C-1,2,3,4,7,8-HxCDD	46:01	46:01	0	243267	202031	65496	55649	1.20	ABV/AVV	
	13C-1,2,3,6,7,8-HxCDD	46:08	46:09	-1	136182	104207	33665	28035	1.31	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDD	46:30	46:31	-1	287776	225866	73939	55707	1.27	AVV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	205	155	82	62	1.32 *	/	
	1,2,3,4,6,7,8-HpCDF	49:13	49:12	1	2641	1084	653	293	2.44 *	MBV/MVV	R
	Unidentified	49:35	00:00	0	1402	836	369	217	1.68 *		RM
	Unidentified	49:47	00:00	0	1044	1301	359	274	0.80 *	ABB/ABB	R
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	315	185	126	74	1.70 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:11	49:11	0	76891	160097	15997	33434	0.48	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:30	51:31	-1	118778	242773	23339	48800	0.49		M
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	170	148	68	59	1.15	/	
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	233	155	93	62	1.50 *	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:52	50:53	-1	104607	91617	20254	18195	1.14	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	250	265	100	106	0.94	/	
	OCDF	55:18	55:20	-2	2856	3242	489	604	0.88	MVV/AVV	M
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	178	168	71	67	1.06 *	/	
	OCDD	55:11	55:12	-1	2045	2433	536	398	0.84	MVB/MBB	
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	168	205	67	82	0.82	/	
	13C-OCDD	55:11	55:11	0	151157	169522	36559	39921	0.89	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

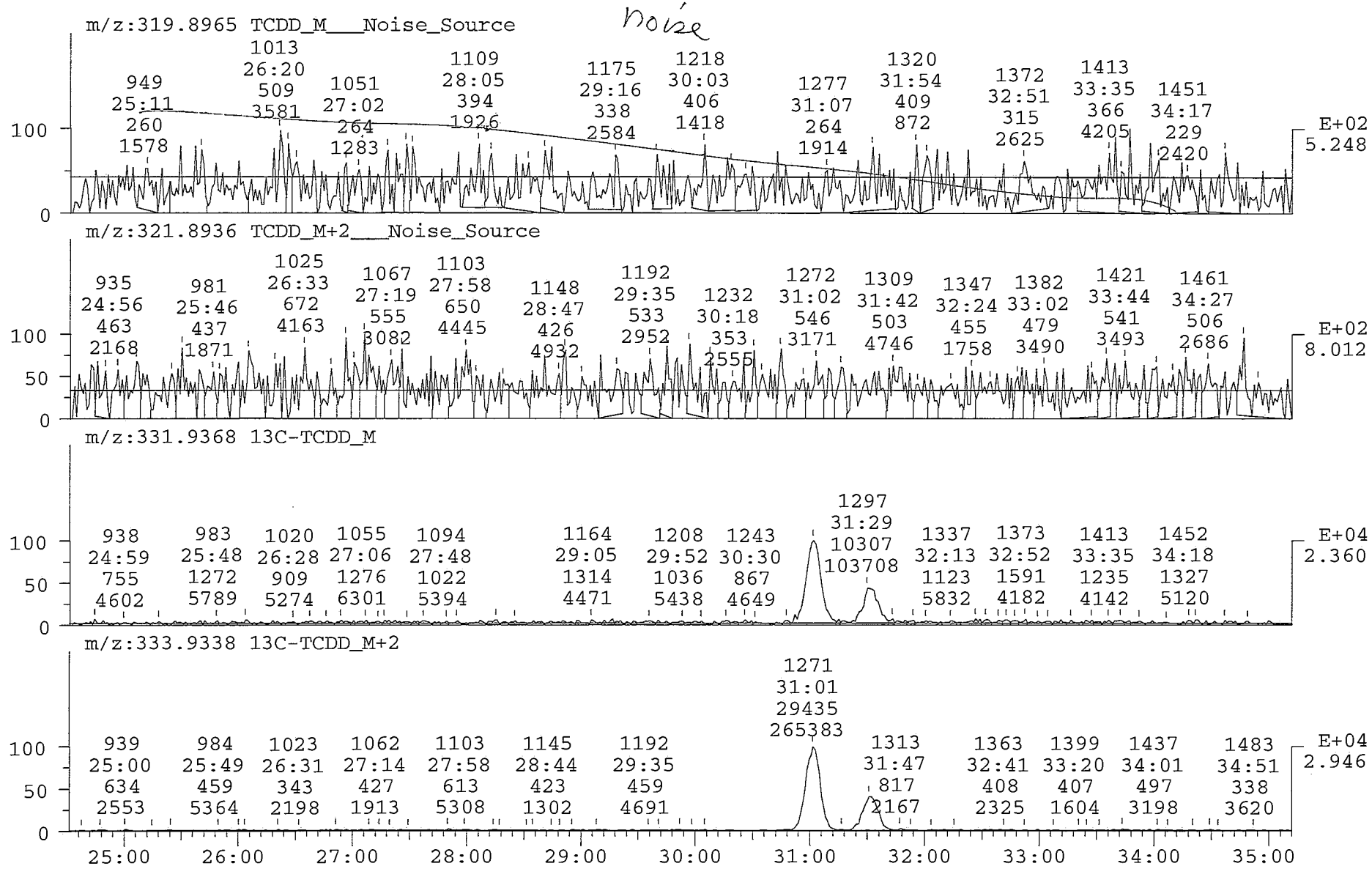
```
CHRO:  btmkm6mrr                                  15-Jul-11   Elapse:  45:12      2063
Samp:  Vial 11 WO=mkm6m1aa Meth=X8 Dil=2                      Start :  15:47:23   2674
Comm:  Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode:  EI +VE +LMR  ESCAN LR NRM                              Study :  1187027 (air-2)
Oper:  KBL            Client:  H1G050439-007                  Inlet :  GC     Vial  11
Peak:  100.00  ppm      Label wndw:   442 > 2674              Masses:  293 > 514
Area:  5, 0.50, 0       Baseline  :   100, 3                   Label :  0, 0.0
Disp:  Height  Area
```

Int Pmp 7-15-11
Calc Pmp 7-16-11
QC KM 7-18-11
Rev MSD 7-18-11

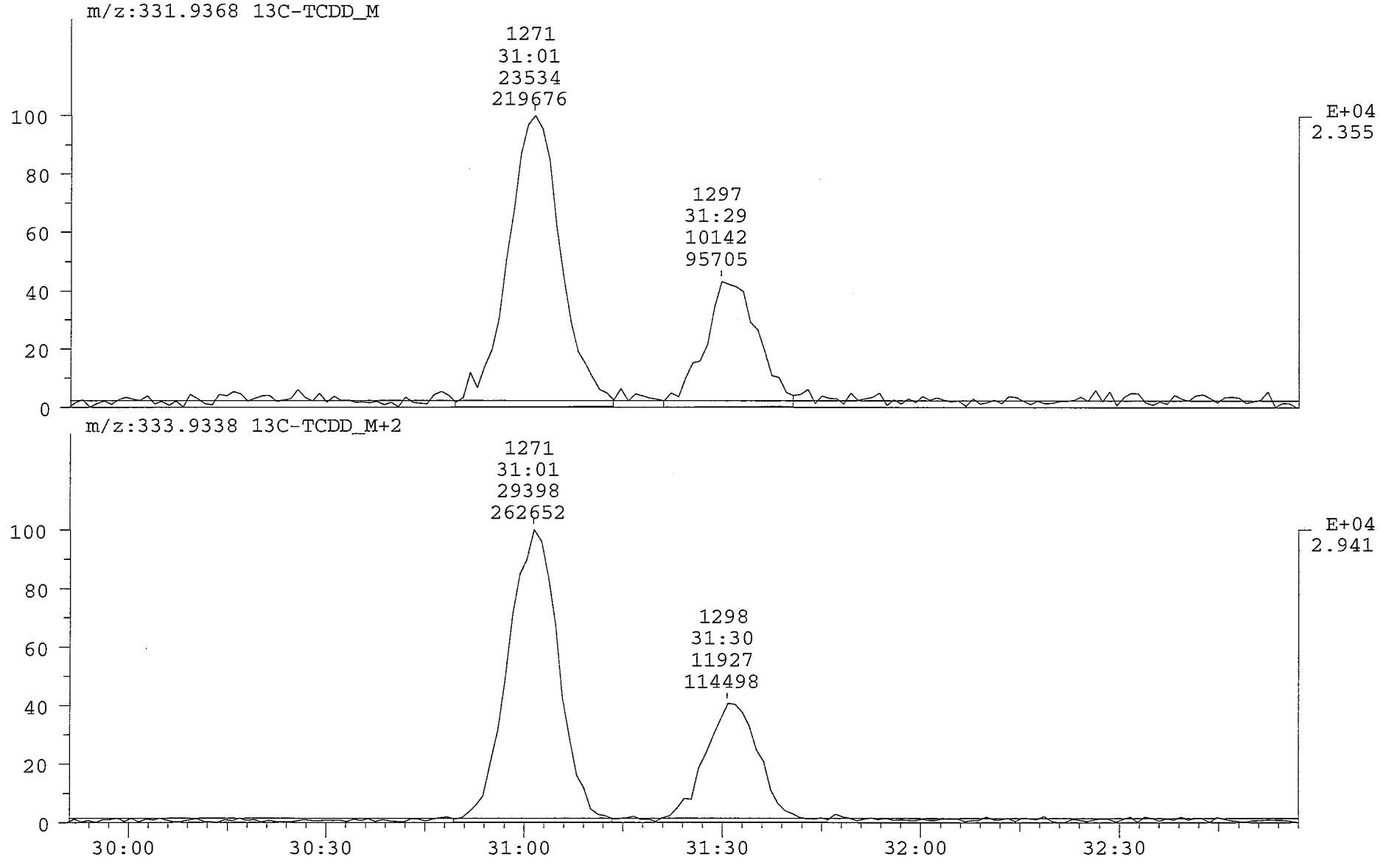


H-216

CHRO: btmkm6mrr 15-Jul-11 Elapse: 45:12 2063
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 912 > 1502 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

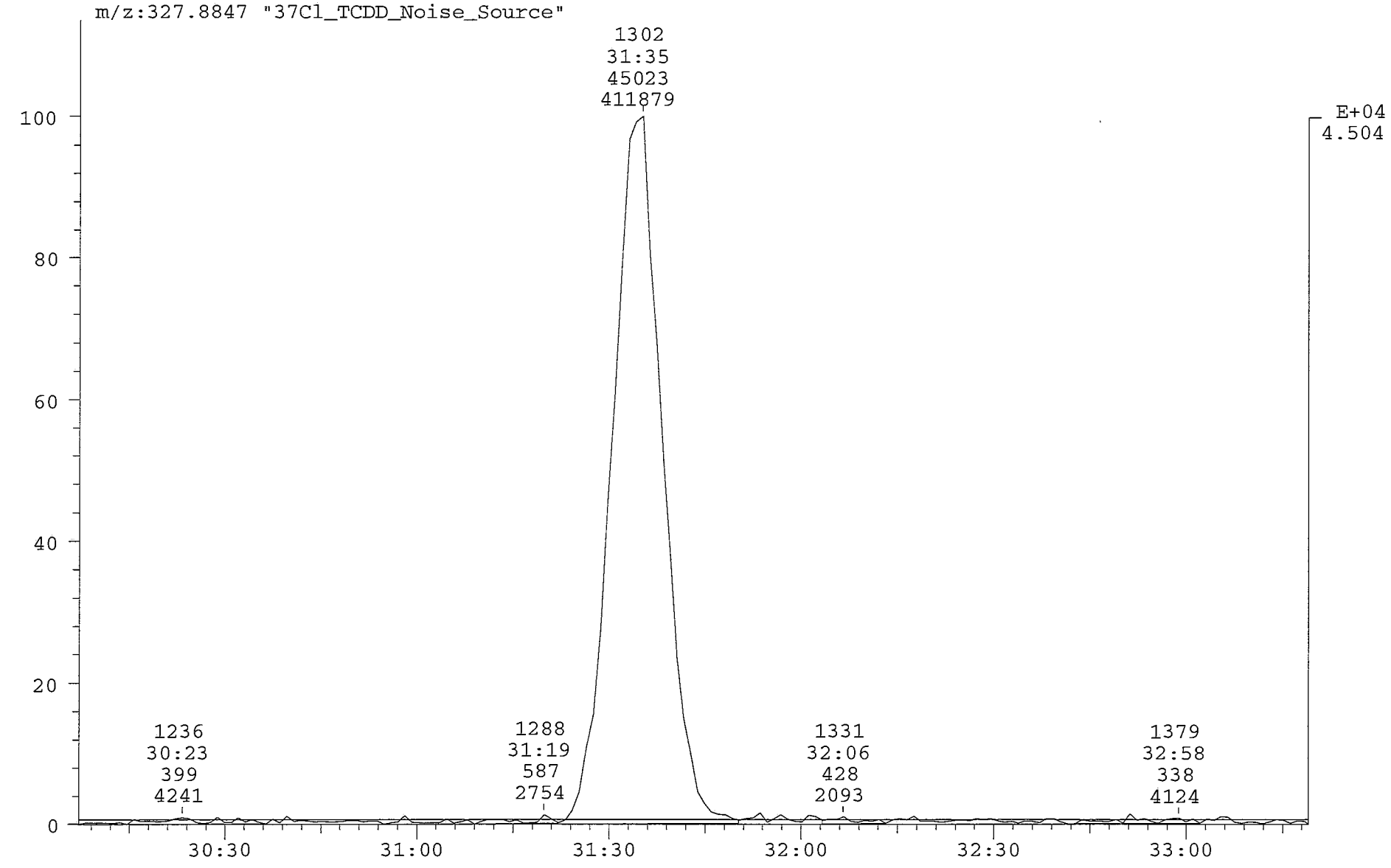


CHRO: btmkm6mrr 15-Jul-11 Elapse: 31:24 1292
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1206 > 1377 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



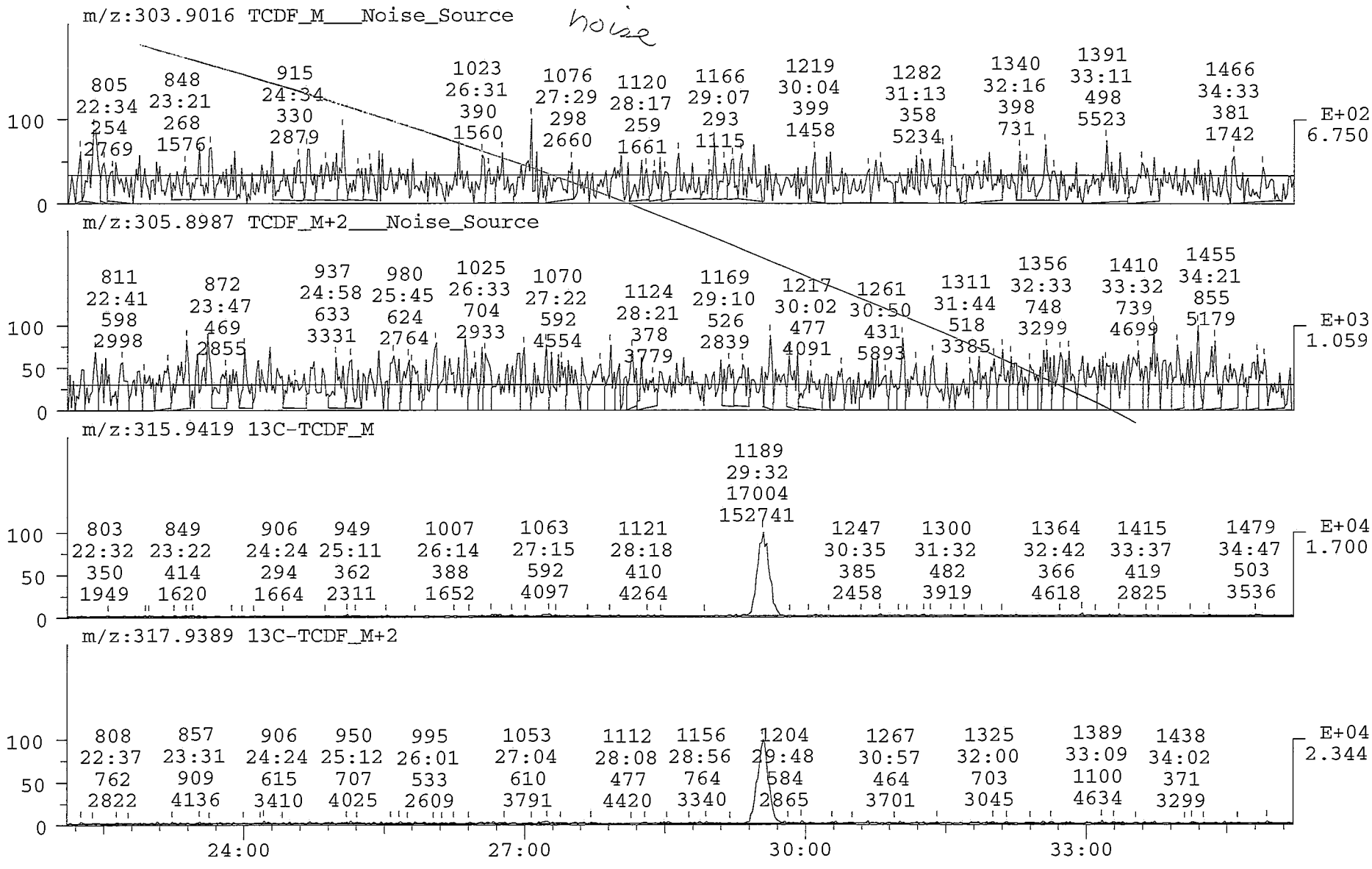
H-218

CHRO: btmkm6mrr 15-Jul-11 Elapse: 31:40 1307
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1221 > 1398 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

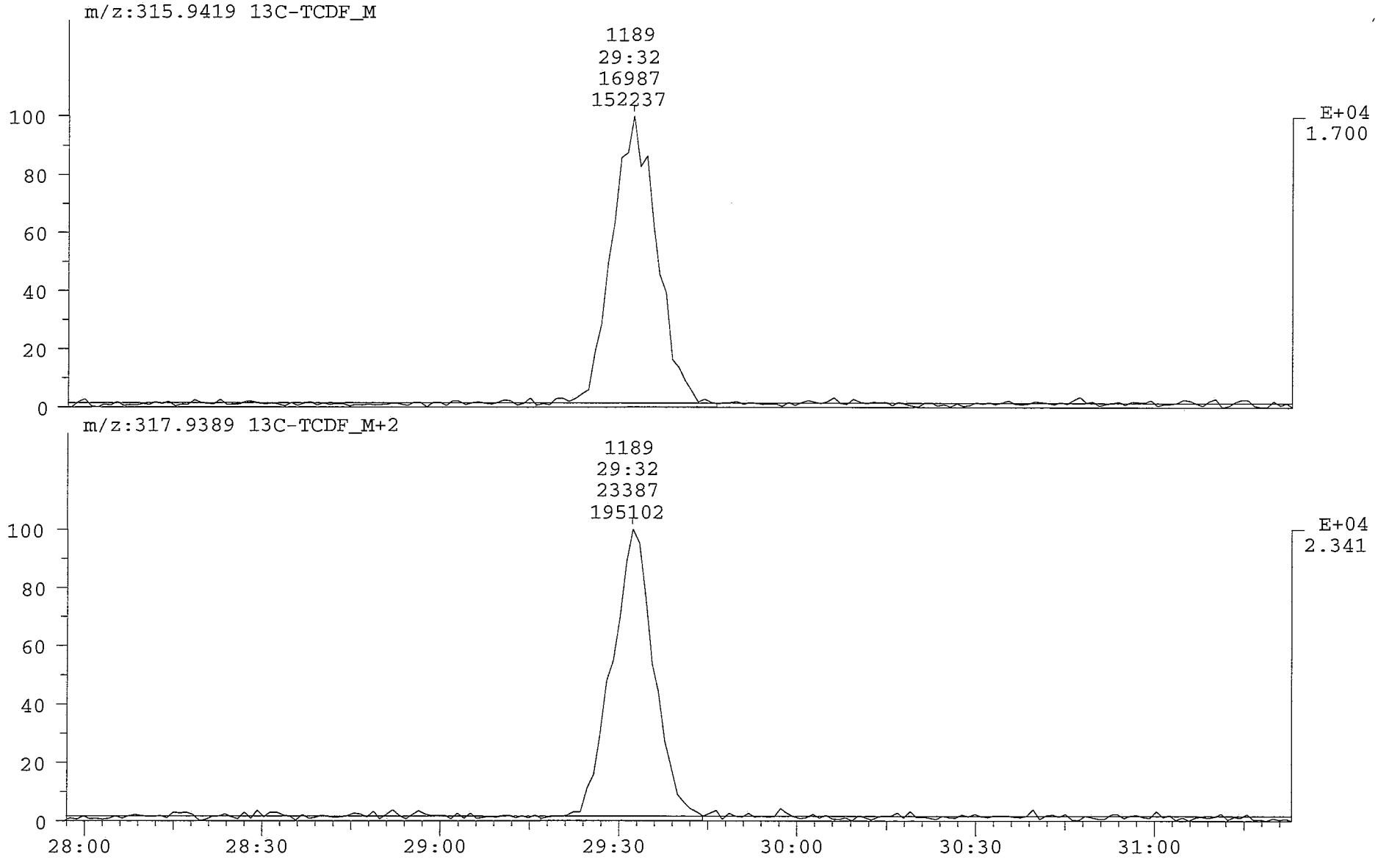


H-219

CHRO: btmkm6mrr 15-Jul-11 Elapse: 31:40 1307
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 779 > 1502 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

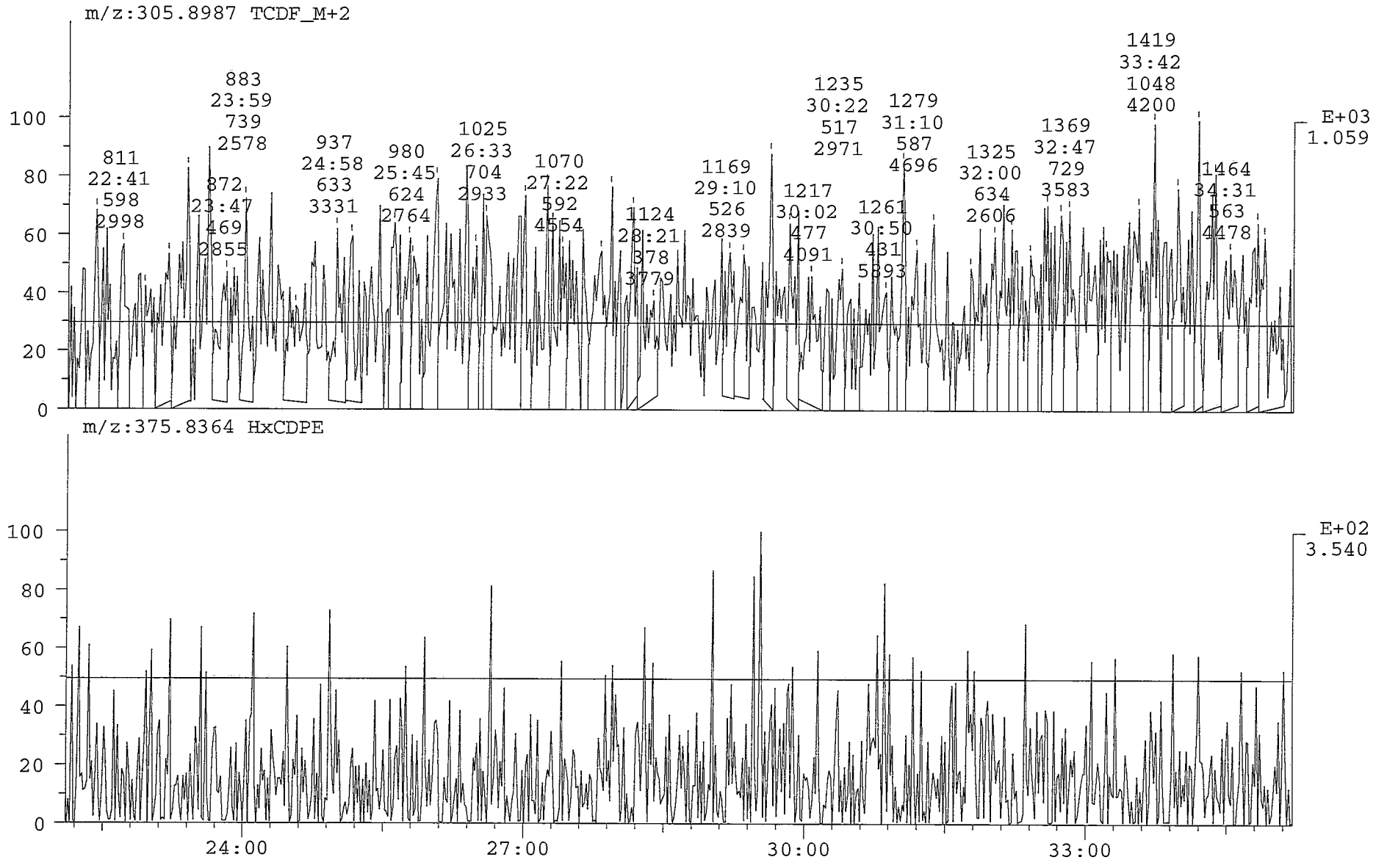


CHRO: btmkm6mrr 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1101 > 1291 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-221

CHRO: btmkm6mrr 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 779 > 1502 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



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CHRO:  btmkm6mrr                                15-Jul-11   Elapse:   29:36      1193
Samp:  Vial 11 WO=mkm6m1aa Meth=X8 Dil=2                    Start :   15:47:23   2674
Comm:  Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :   1187027 (air-2)
Oper:  KBL           Client:  H1G050439-007                 Inlet :   GC     Vial  11
Peak:  100.00  ppm     Label wndw:   779 > 1502              Masses:   293 > 514
Area:  5, 0.50, 15     Baseline  :   100, 3                  Label :   0, 0.0
Disp:  Height  Area
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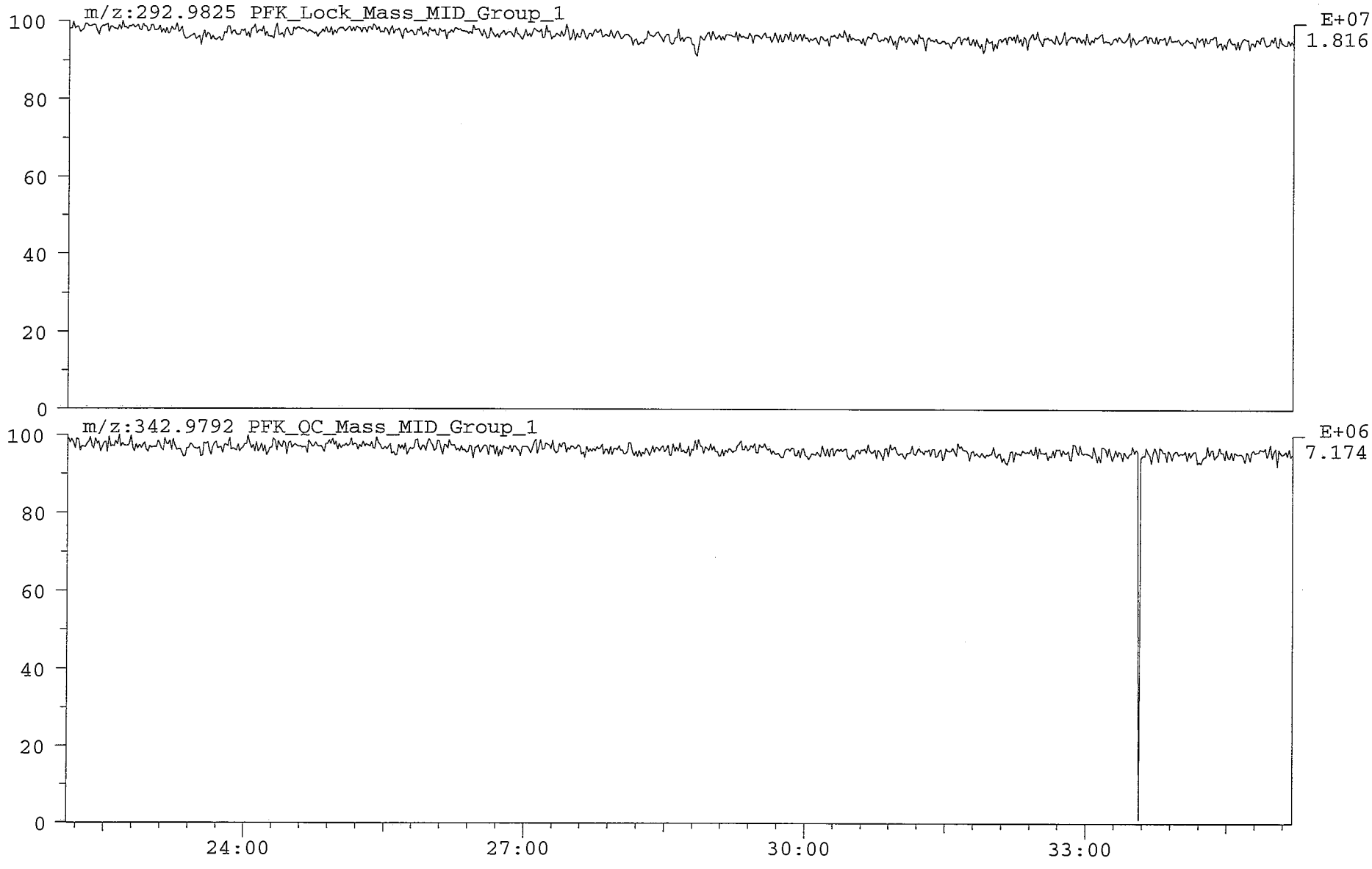
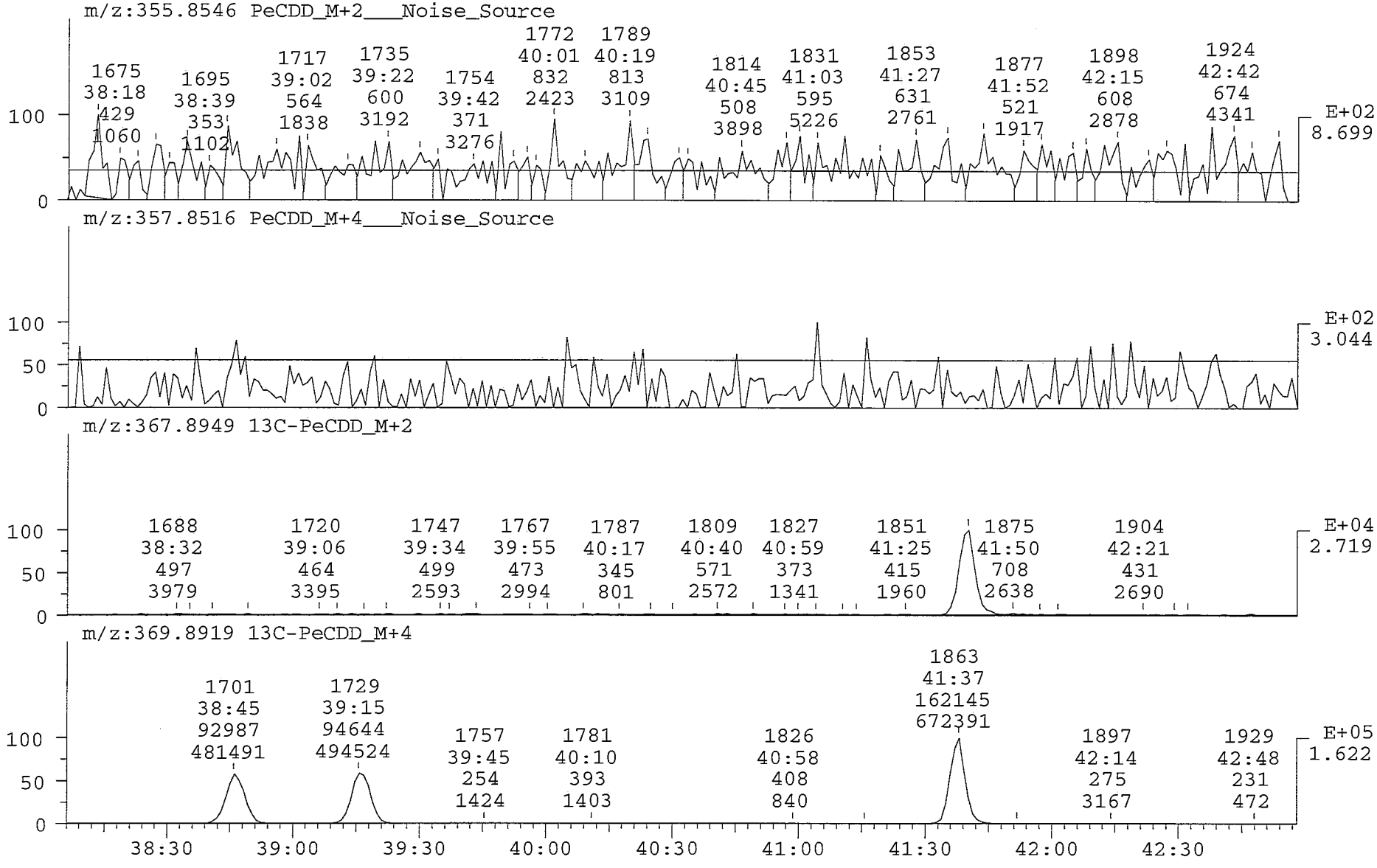
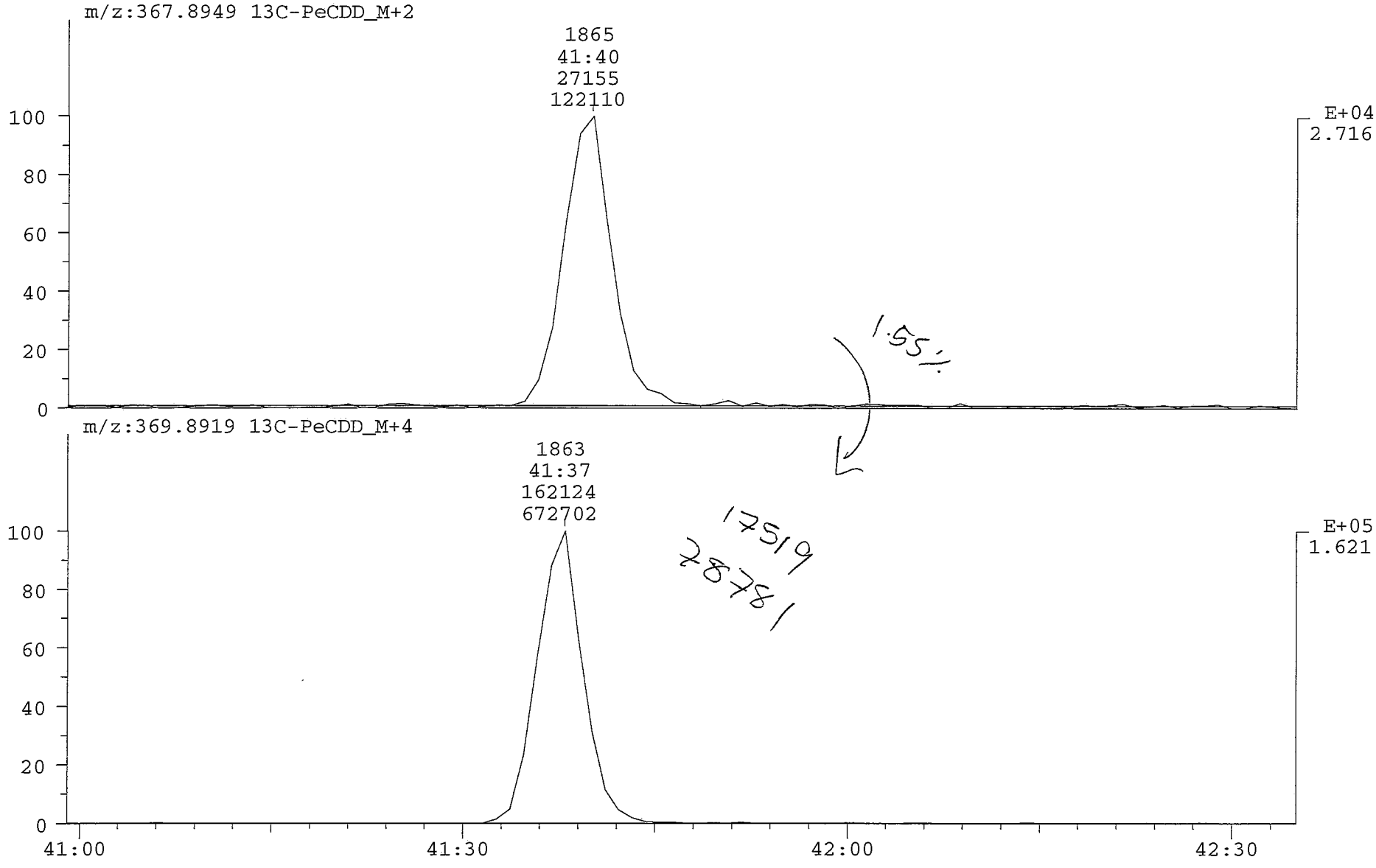


CHRO: btmkm6mrr 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1663 > 1938 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6mrr 15-Jul-11 Elapse: 41:44 1869
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1826 > 1917 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



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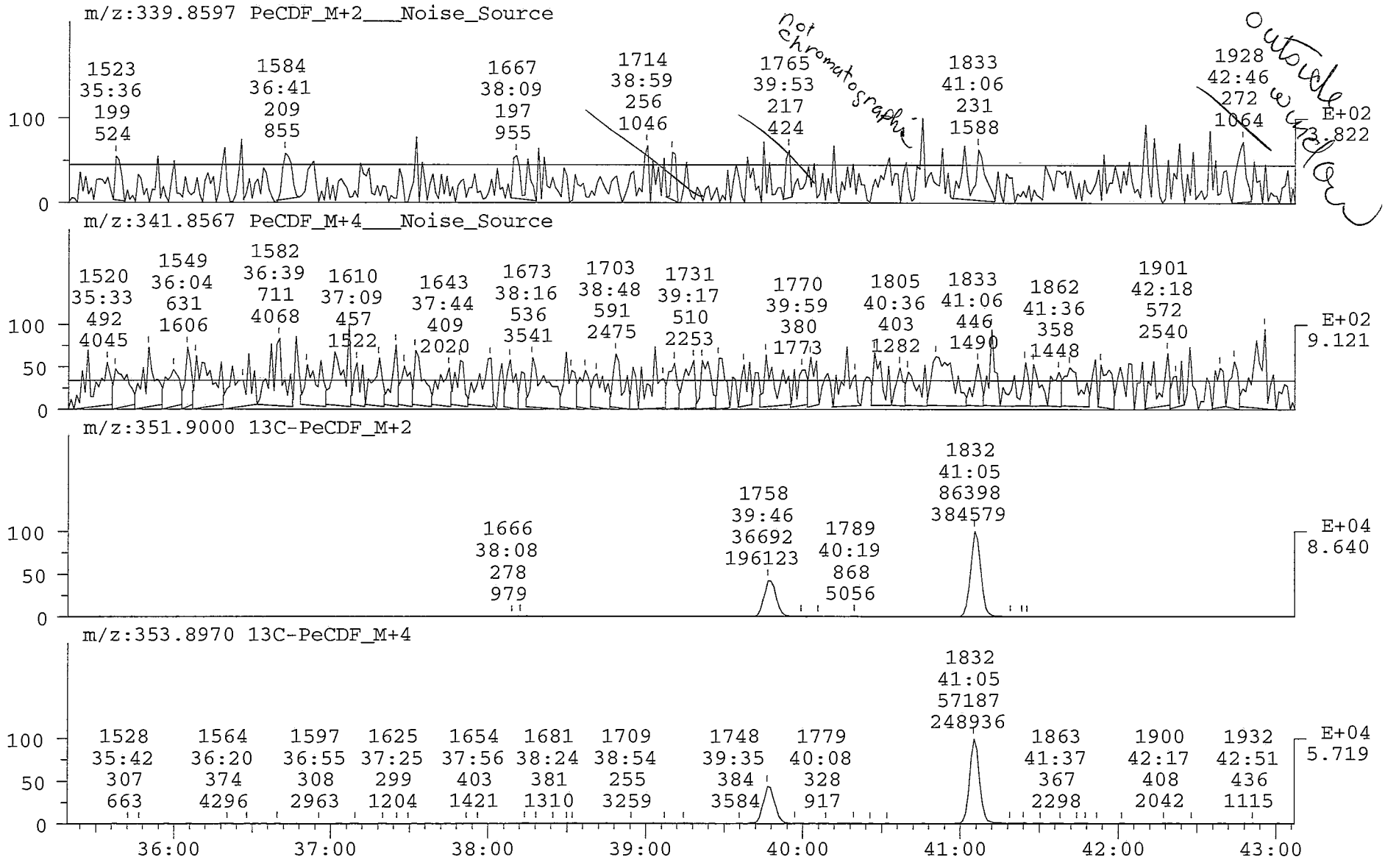
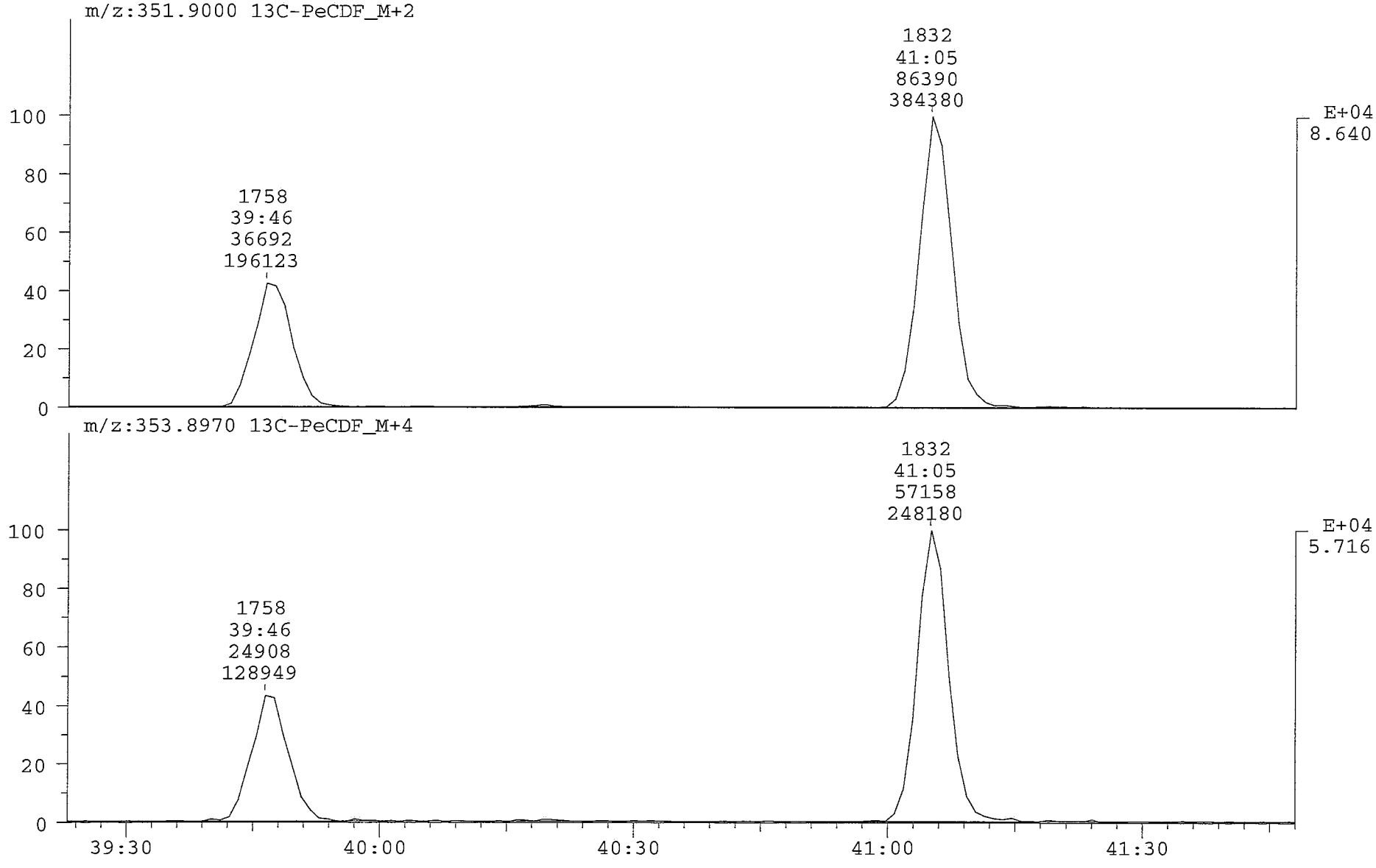
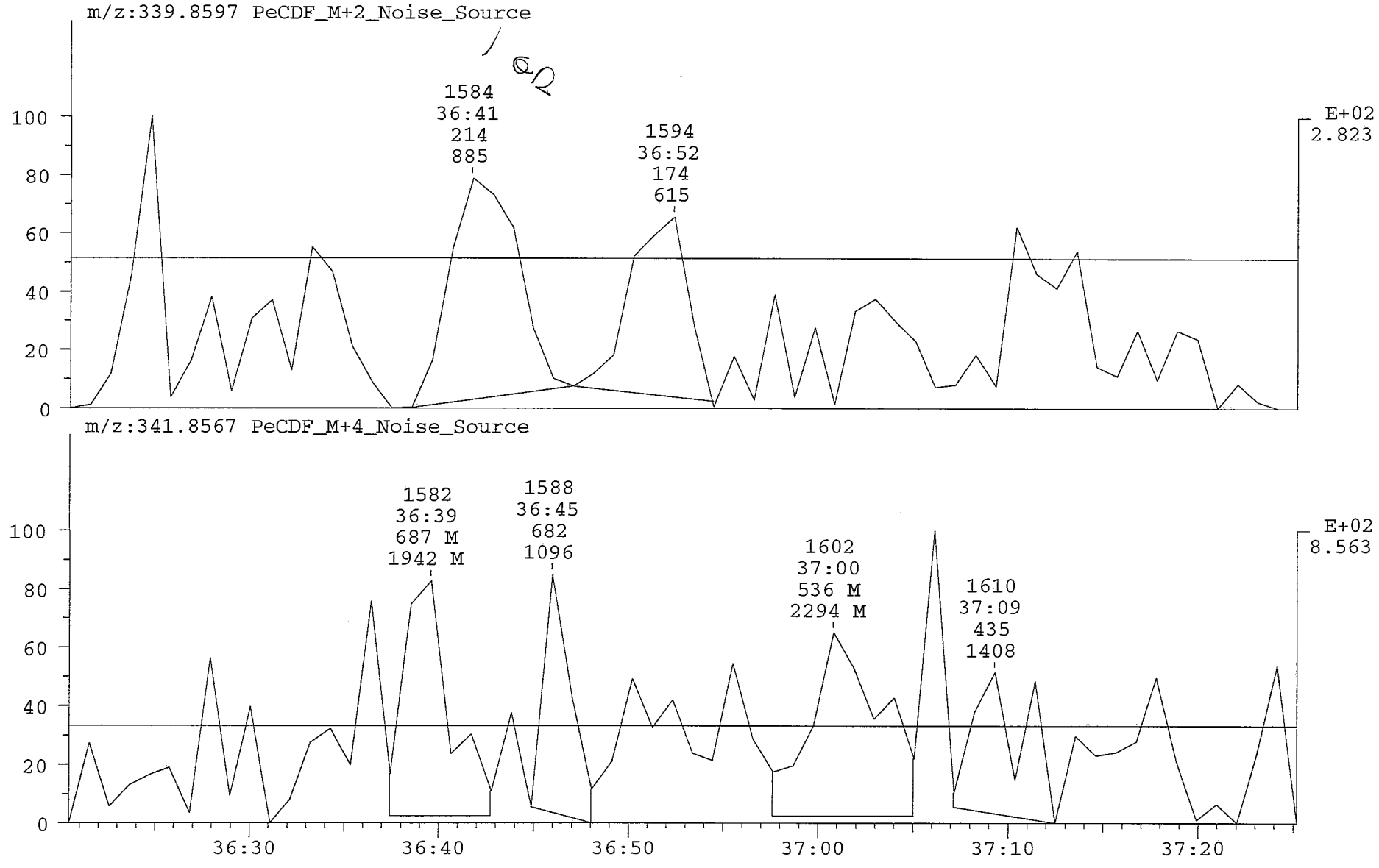
CHRO: btmkm6mrr 15-Jul-11 Elapse: 41:44 1869
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6mrr 15-Jul-11 Elapse: 40:35 1804
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1736 > 1873 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1564 > 1625 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



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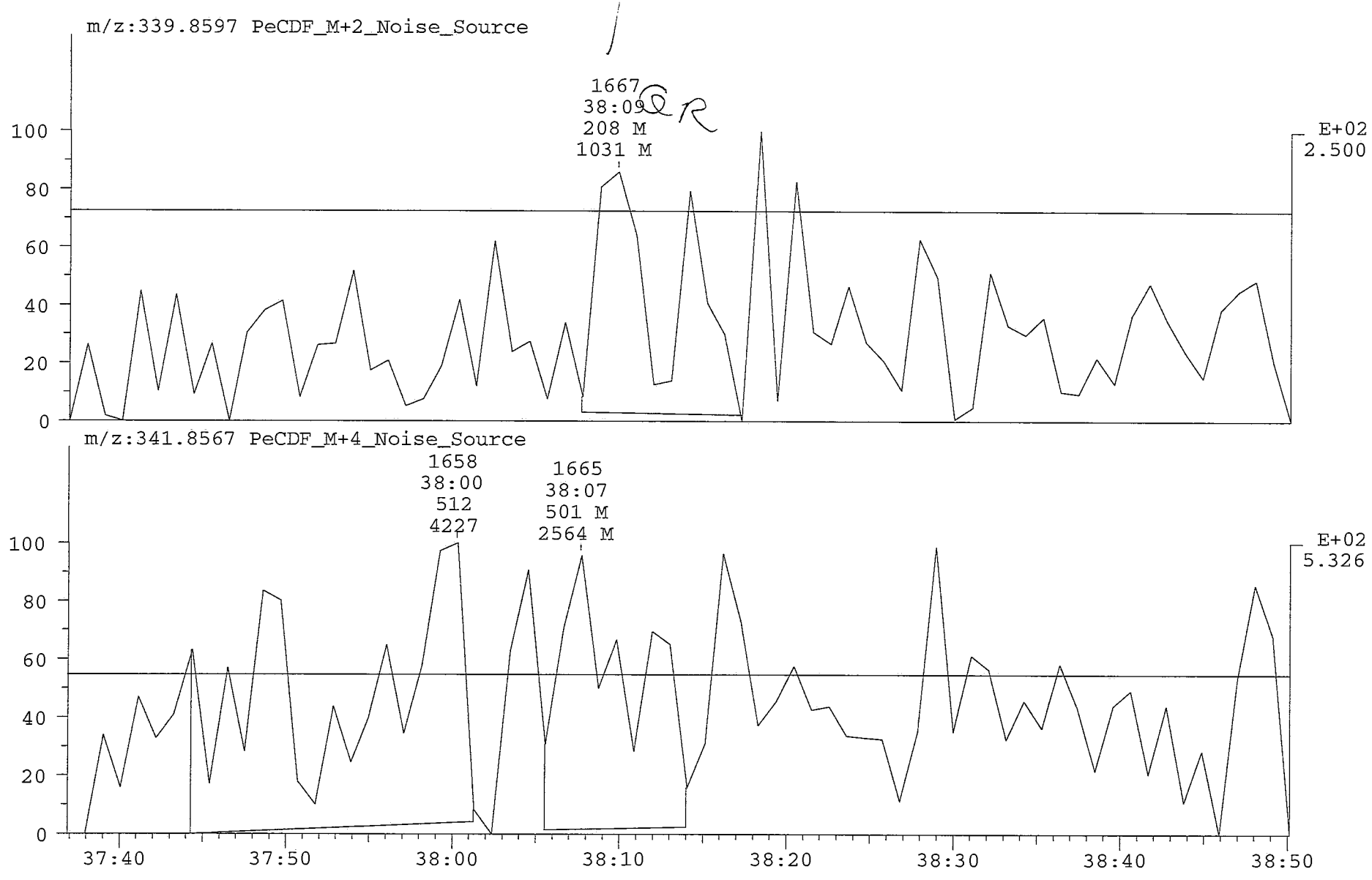
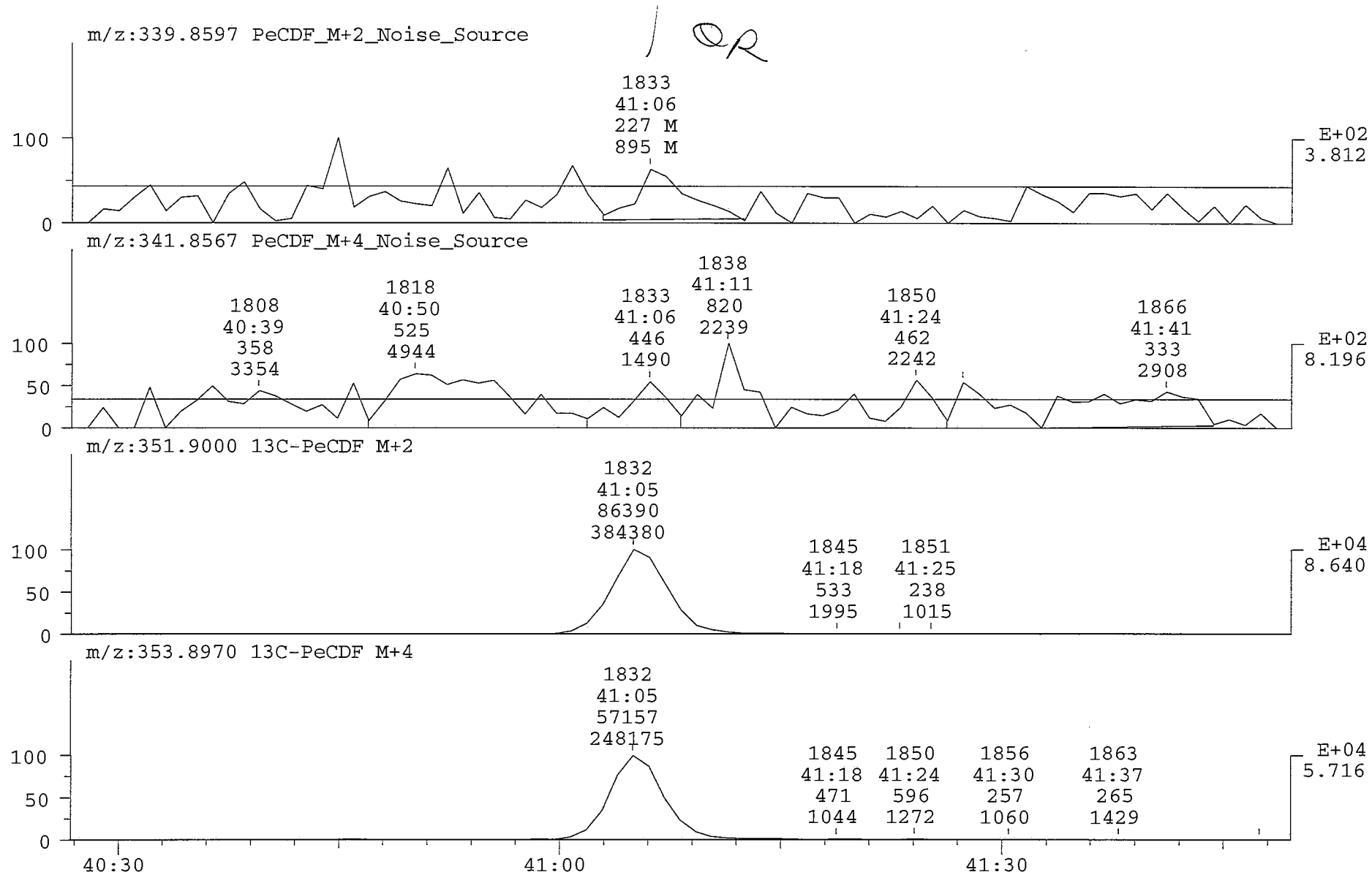
CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1636 > 1705 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-229

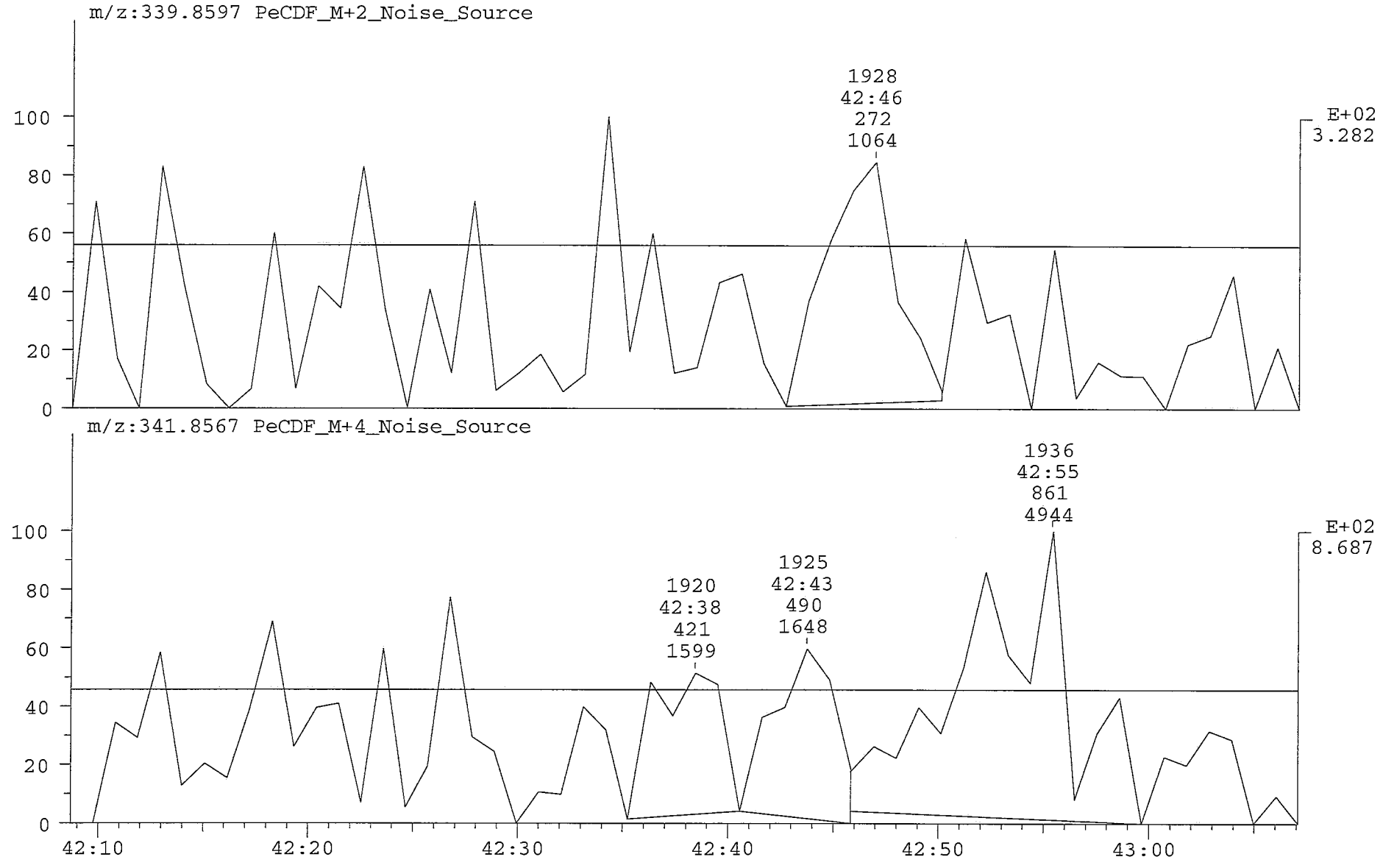
228

CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1796 > 1874 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



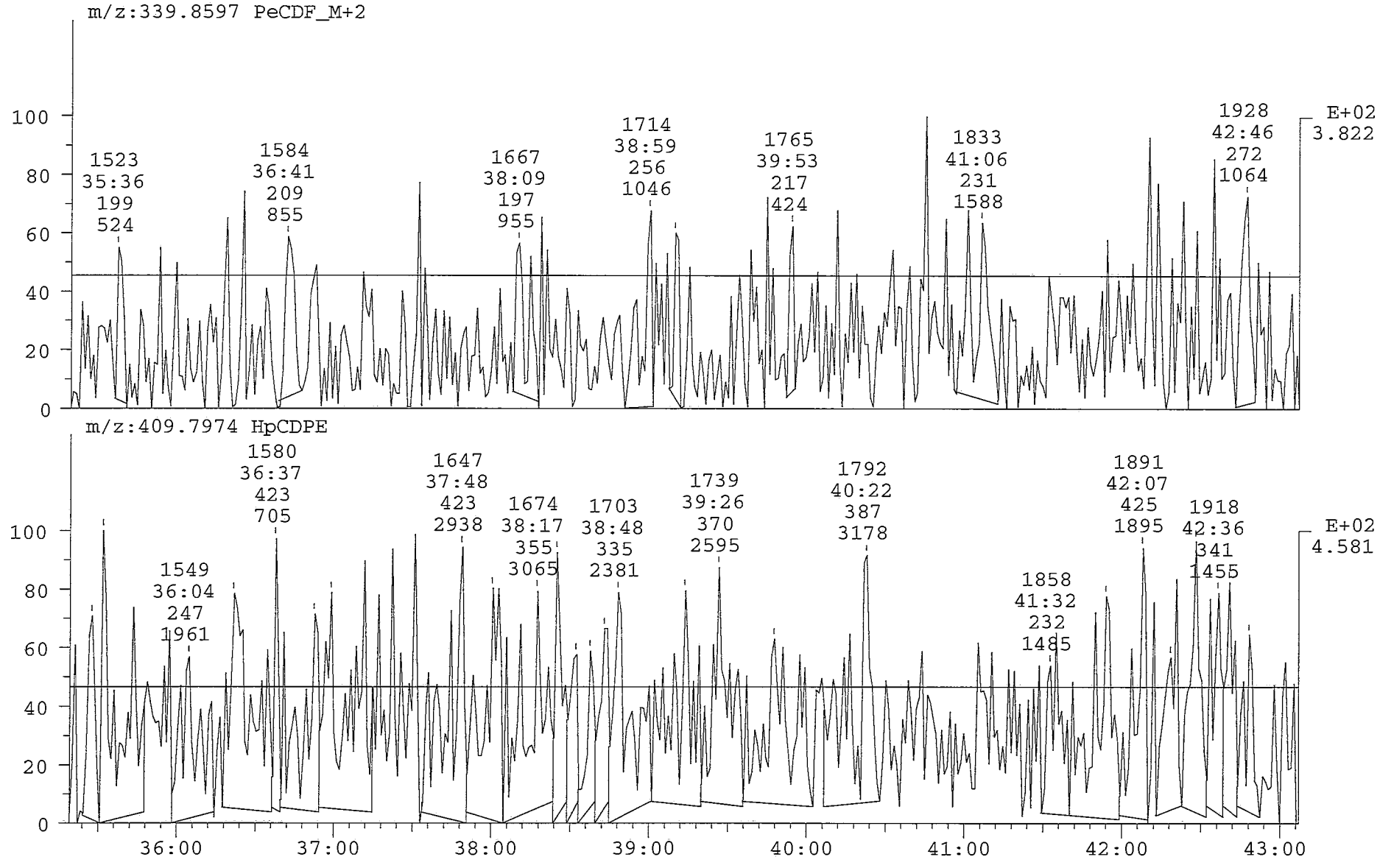
H-230

CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1892 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

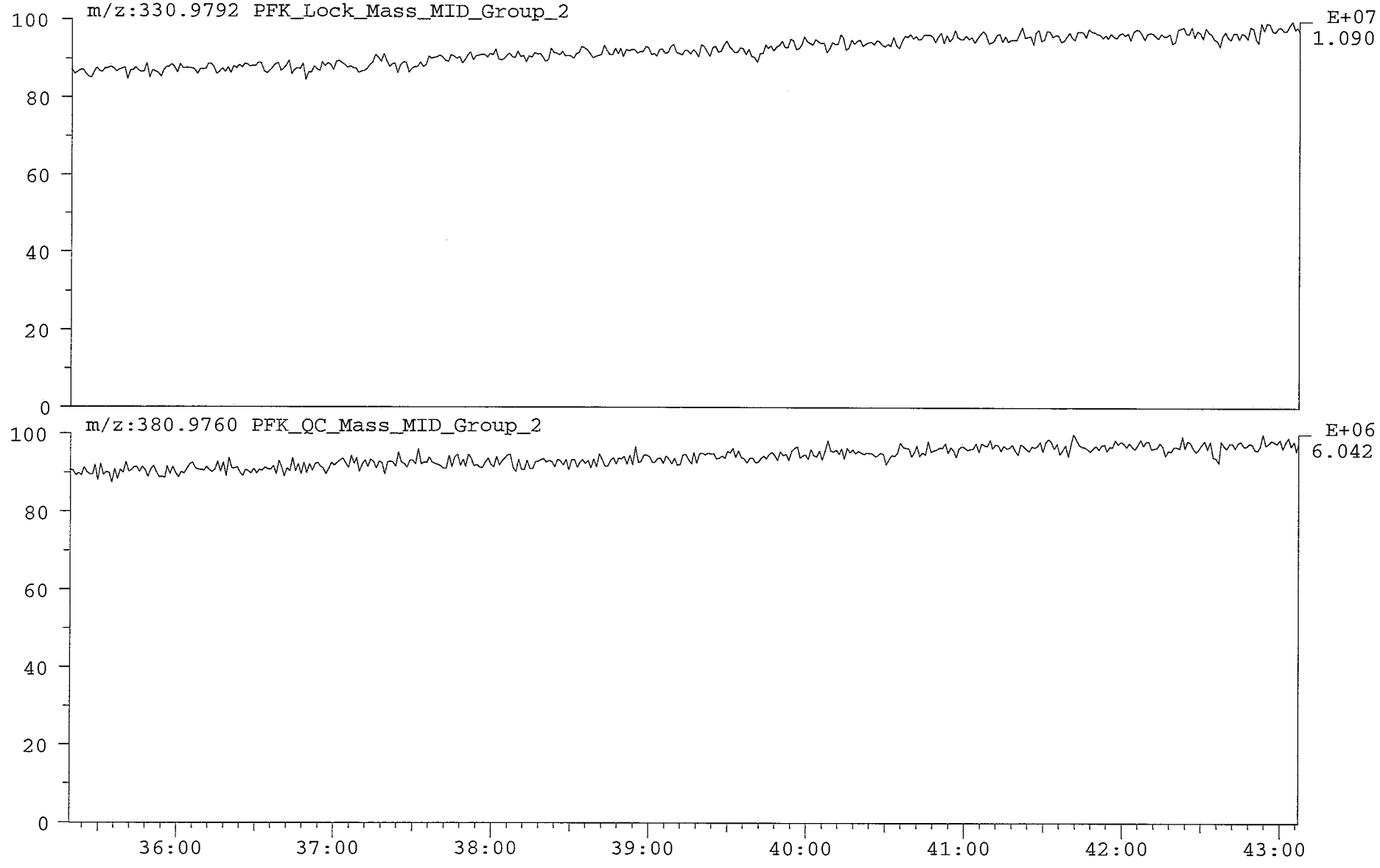


H-231

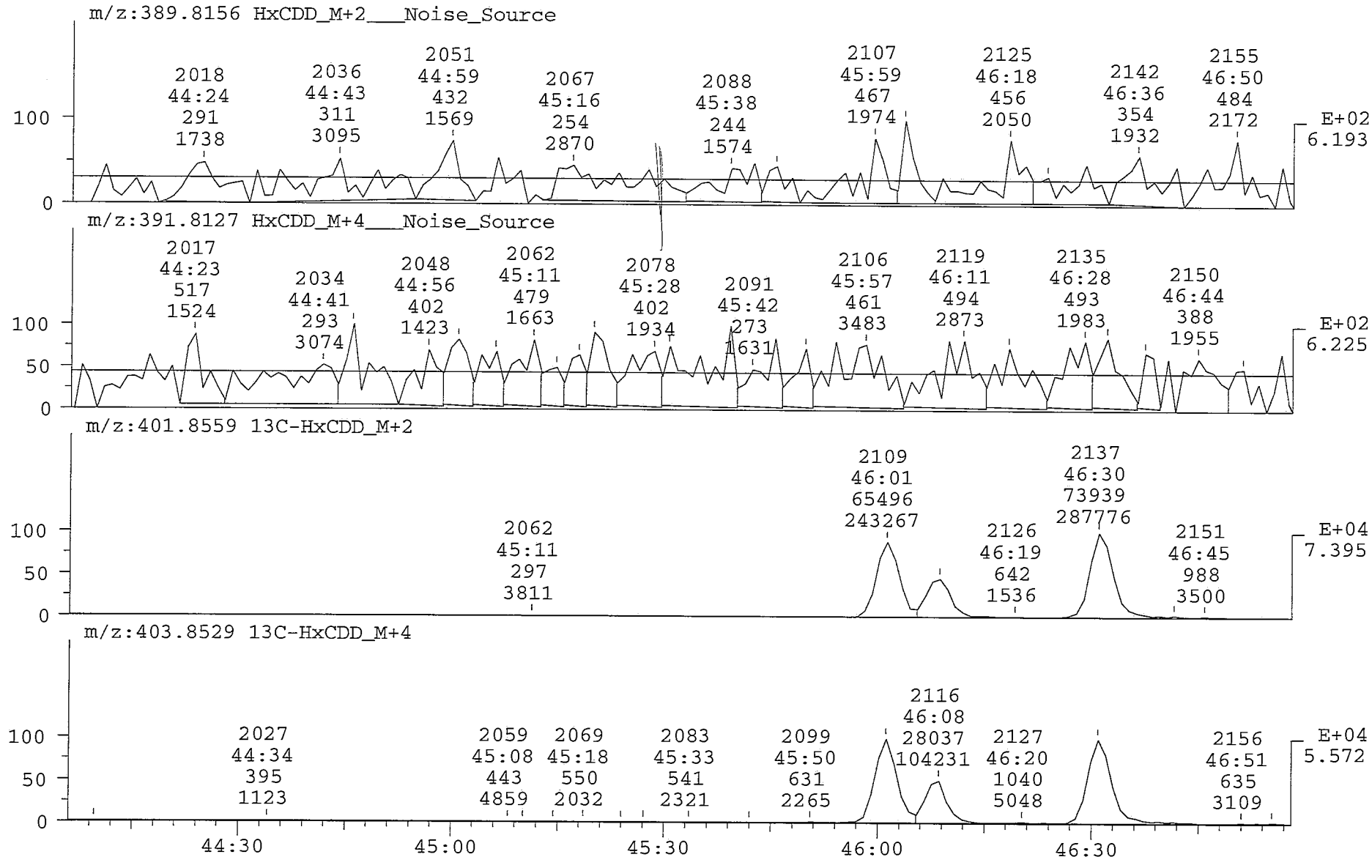
```
CHRO:  btmkm6mrr                                15-Jul-11   Elapse:  40:35      1804
Samp:  Vial 11 WO=mkm6m1aa Meth=X8 Dil=2                    Start :  15:47:23   2674
Comm:  Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :  1187027 (air-2)
Oper:  KBL          Client:  H1G050439-007                  Inlet :  GC     Vial  11
Peak:  100.00  ppm     Label wndw:   1506 > 1947            Masses:  293 > 514
Area:  5, 0.50, 15     Baseline  :   100, 3                 Label :  -2, 3.0
Disp:  Height  Area
```



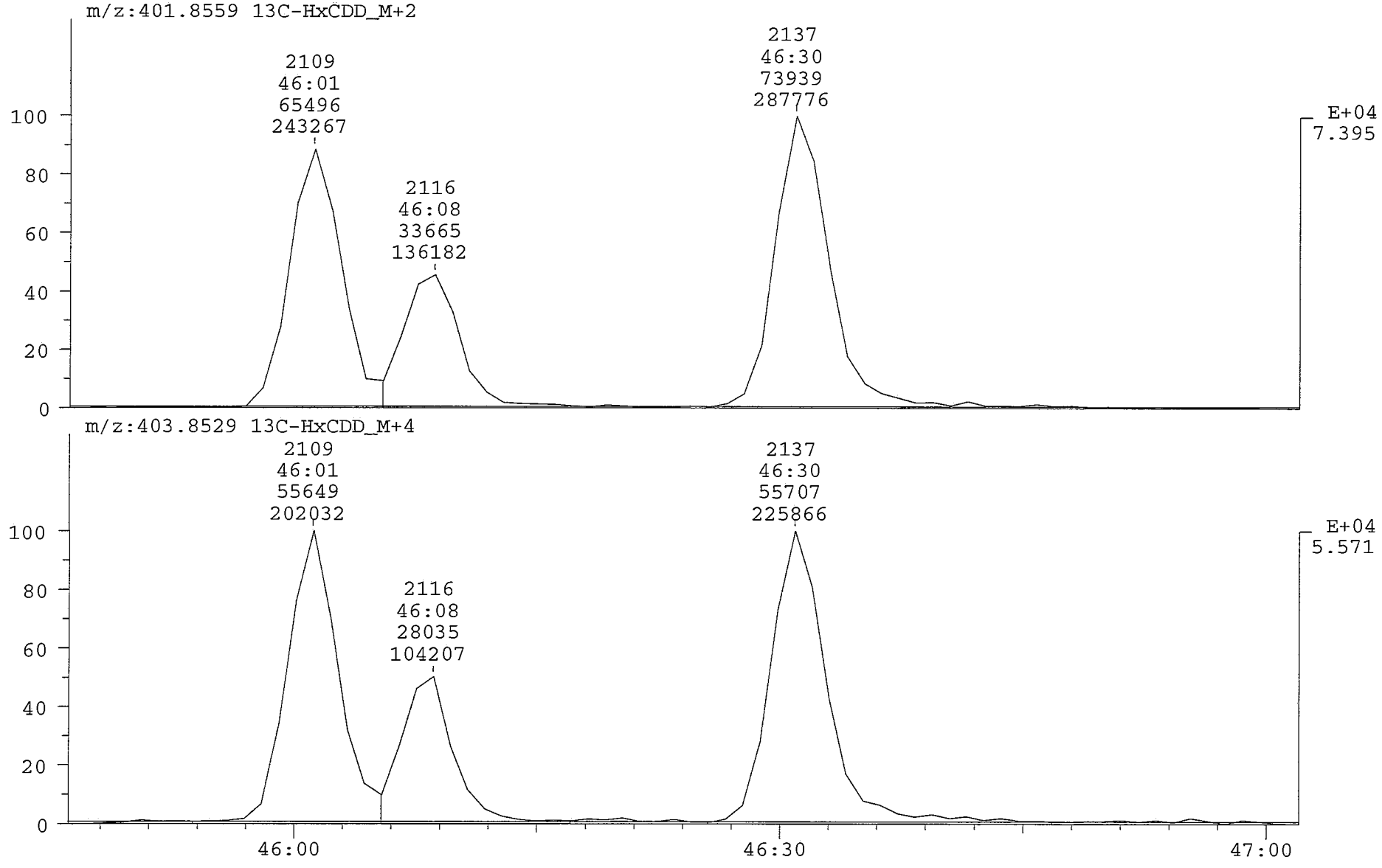
CHRO: btmkm6mrr 15-Jul-11 Elapse: 40:35 1804
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



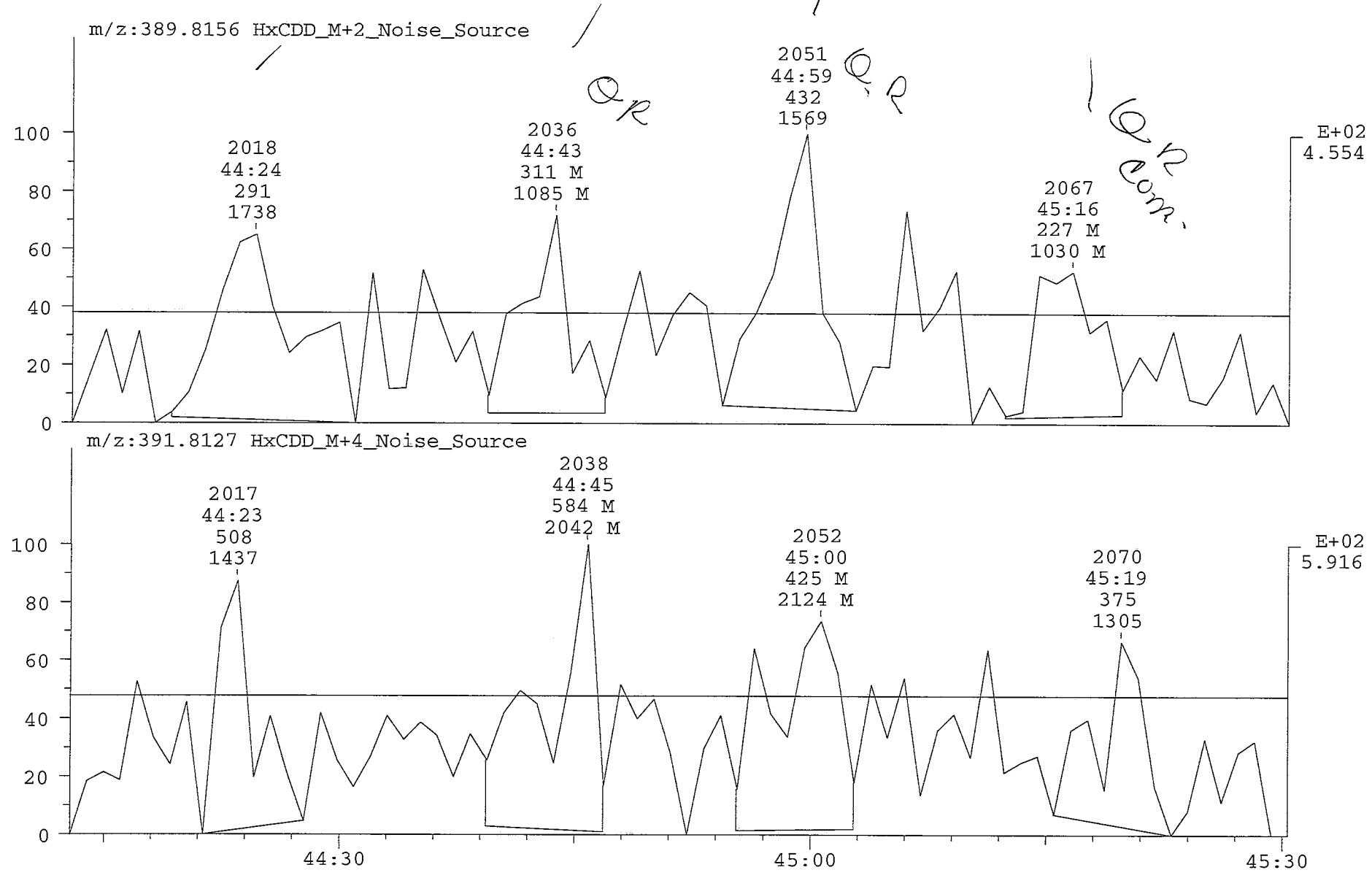
CHRO: btmkm6mrr 15-Jul-11 Elapse: 40:35 1804
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2001 > 2163 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



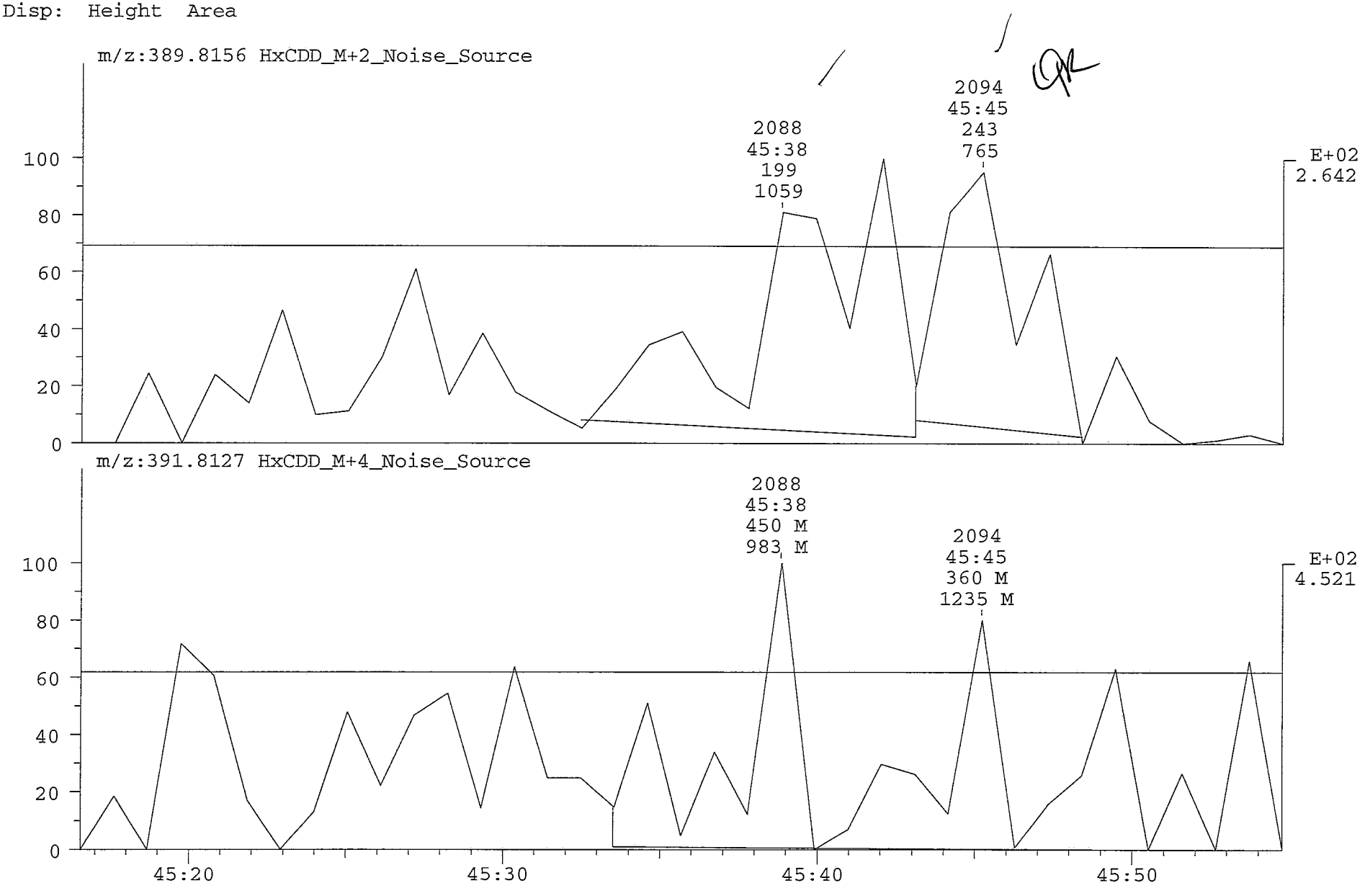
CHRO: btmkm6mrr 15-Jul-11 Elapse: 46:24 2131
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2095 > 2166 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2007 > 2080 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2067 > 2103 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



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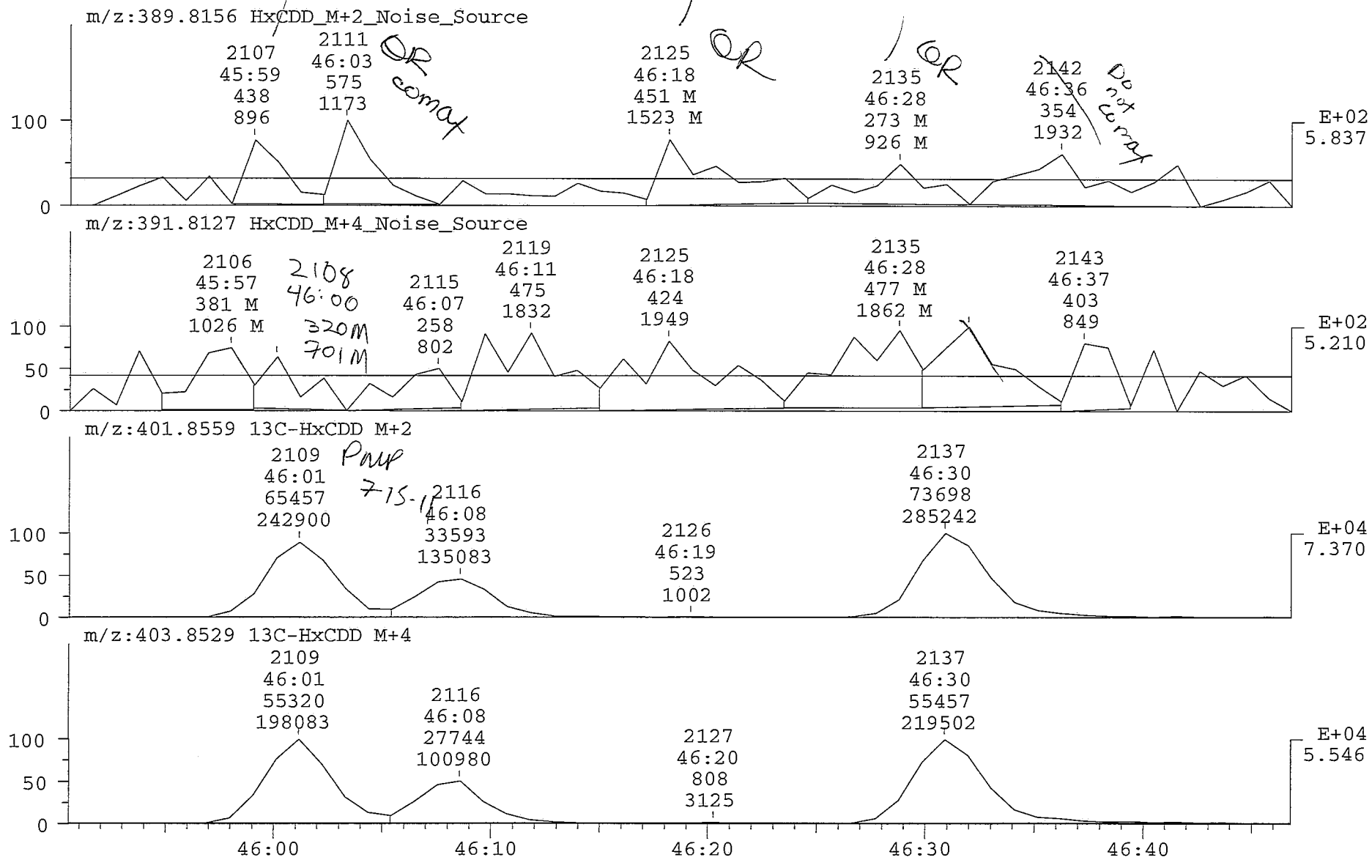
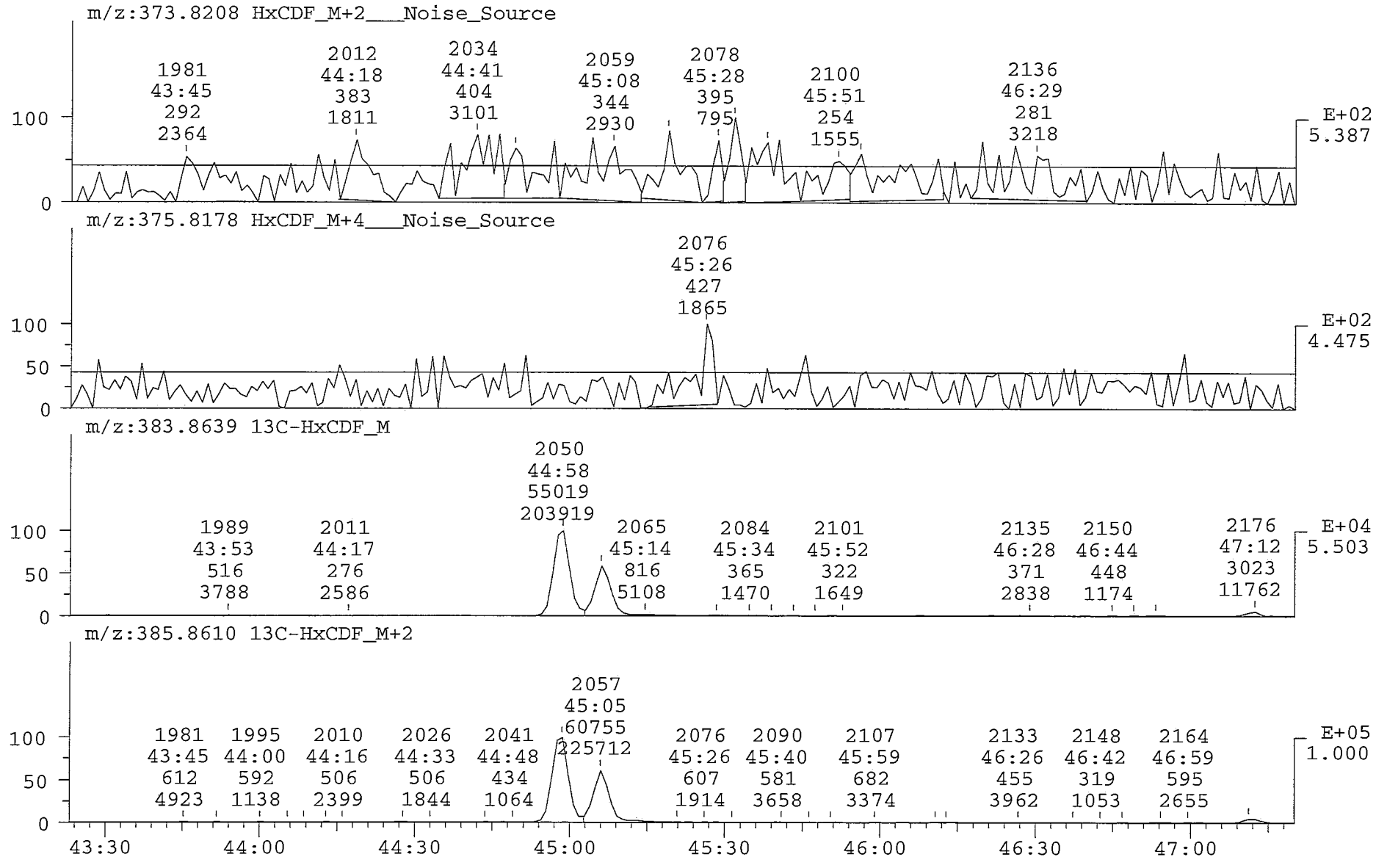
CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2099 > 2152 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



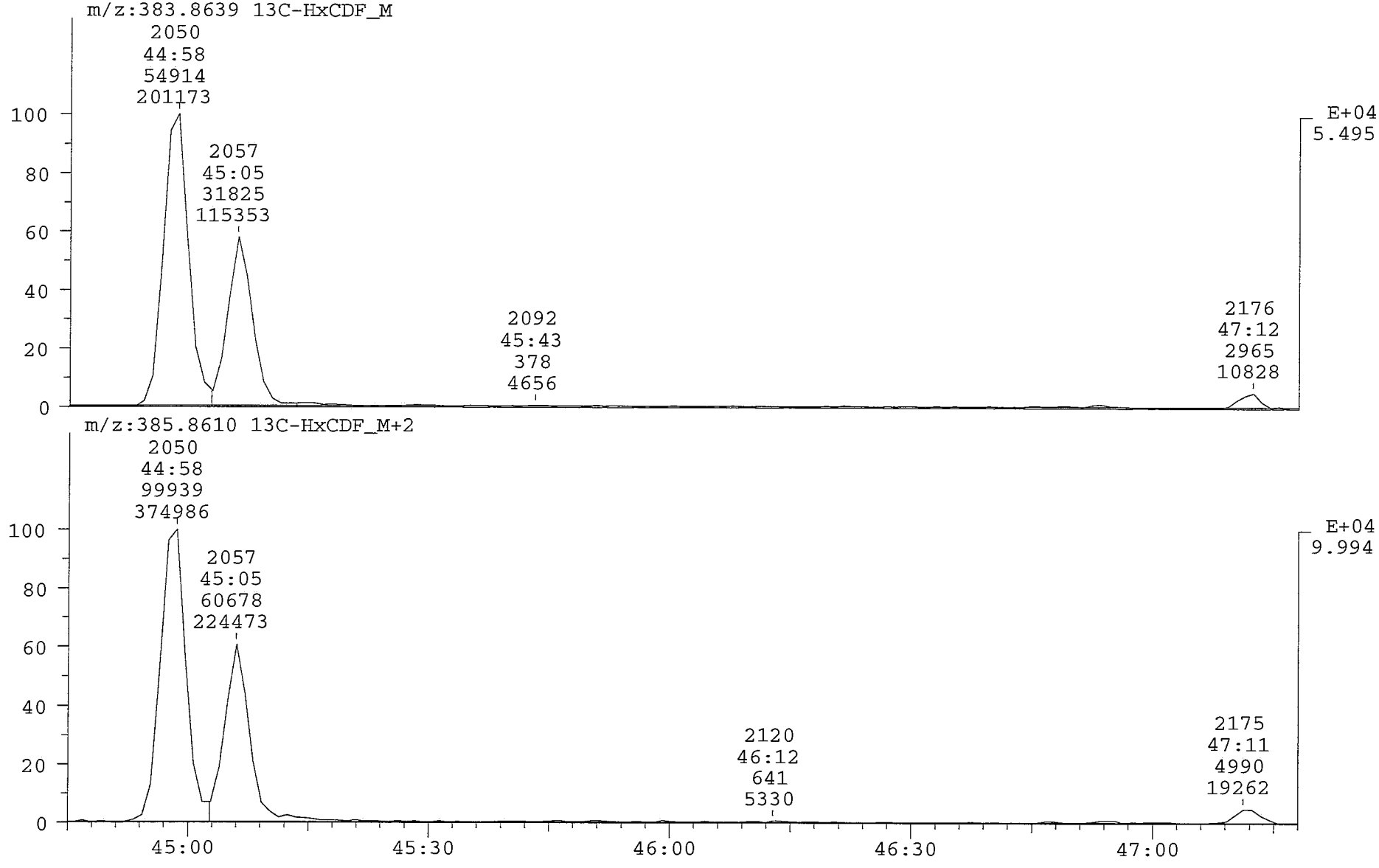
H-238

237

CHRO: btmkm6mrr 15-Jul-11 Elapse: 46:24 2131
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1960 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

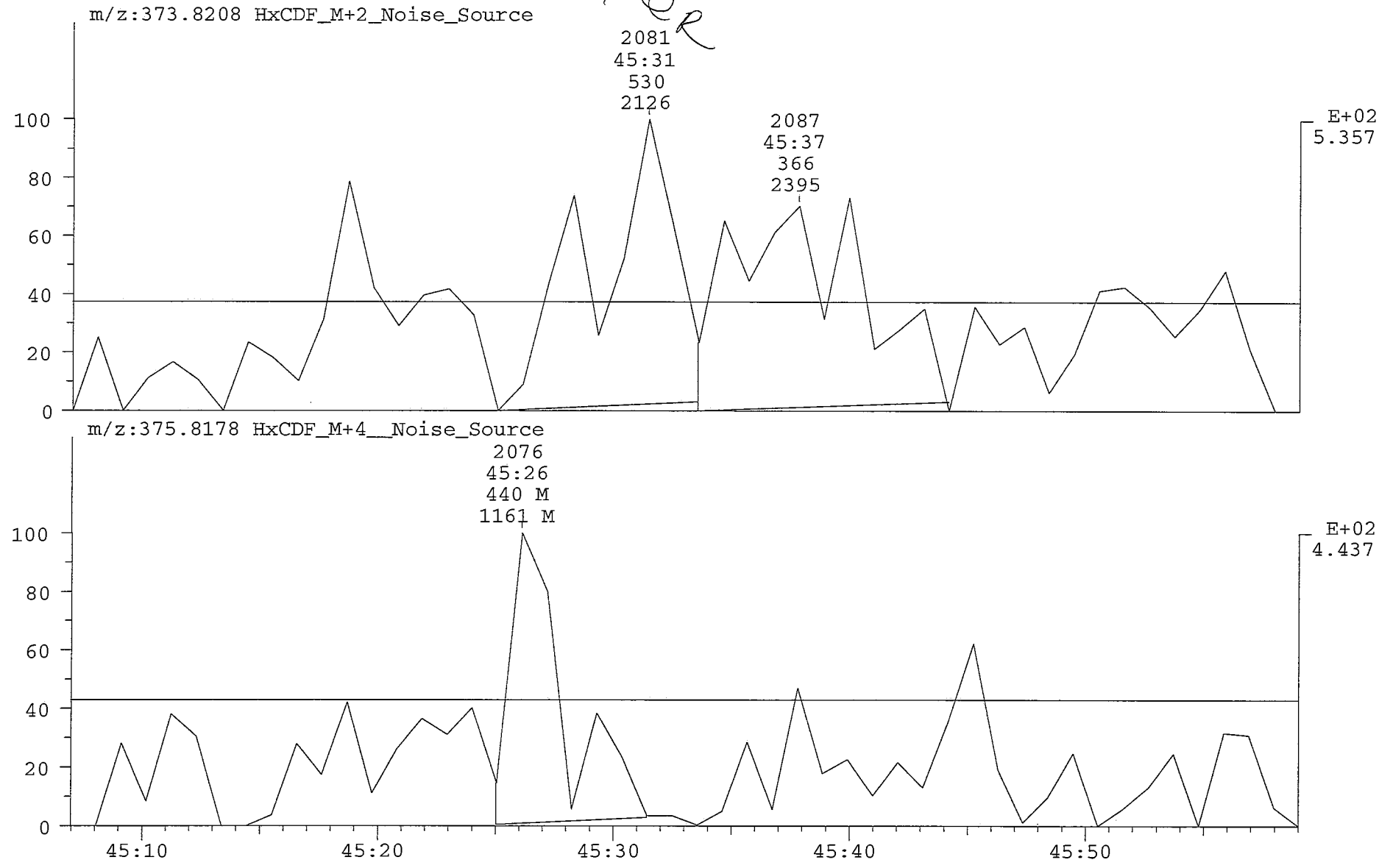


CHRO: btmkm6mrr 15-Jul-11 Elapse: 46:01 2109
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2037 > 2181 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



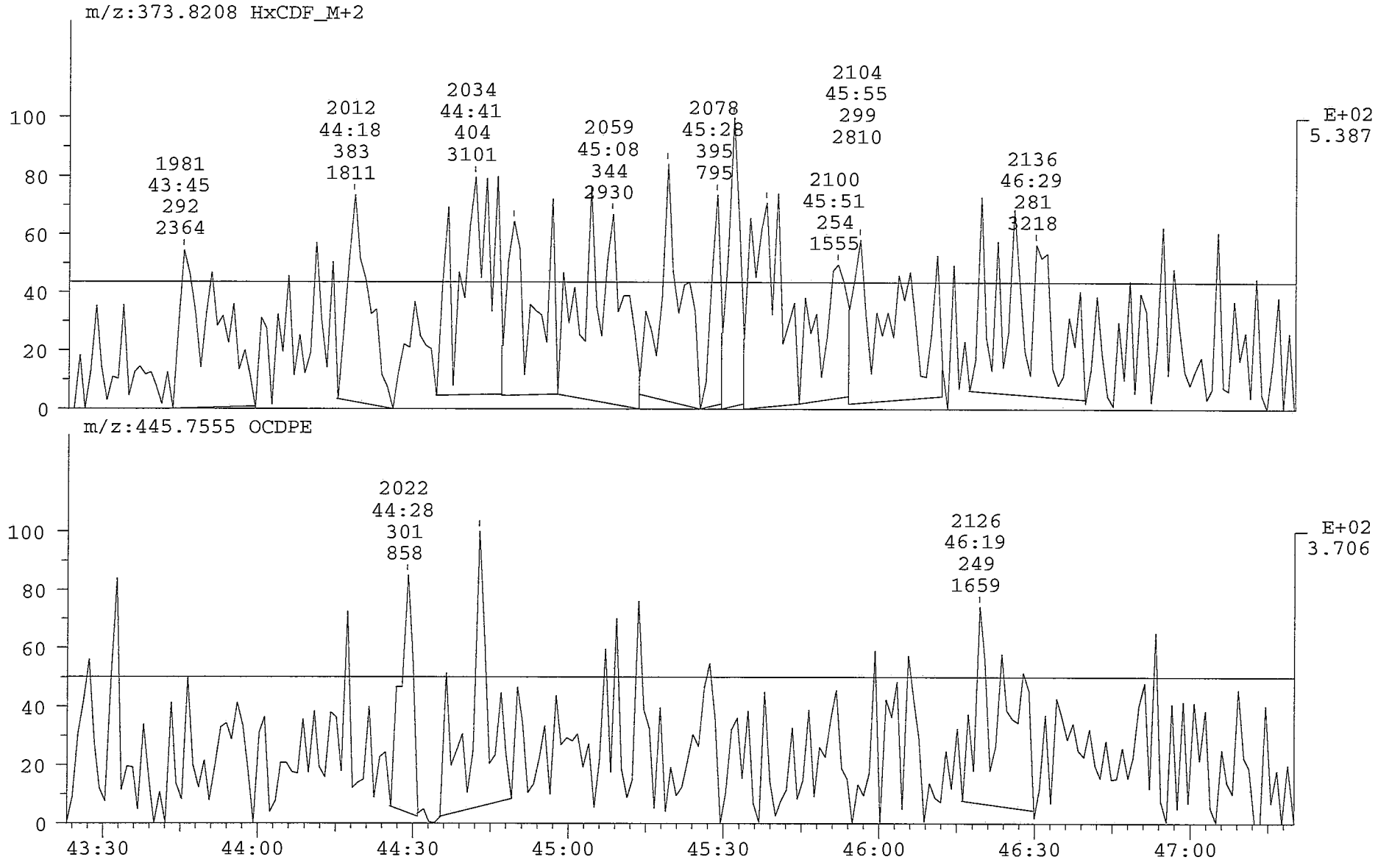
H-240

CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2058 > 2107 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area

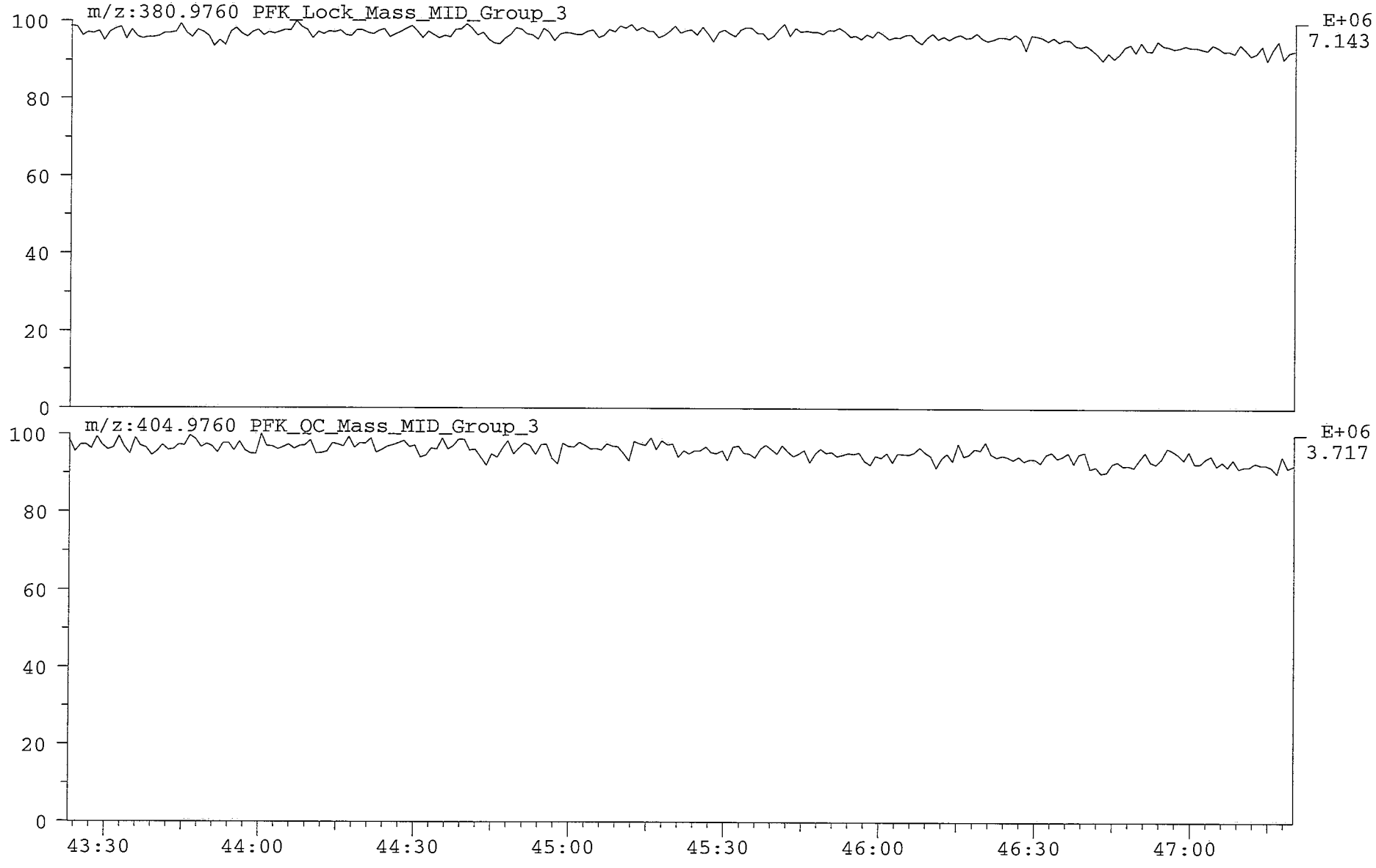


H-241

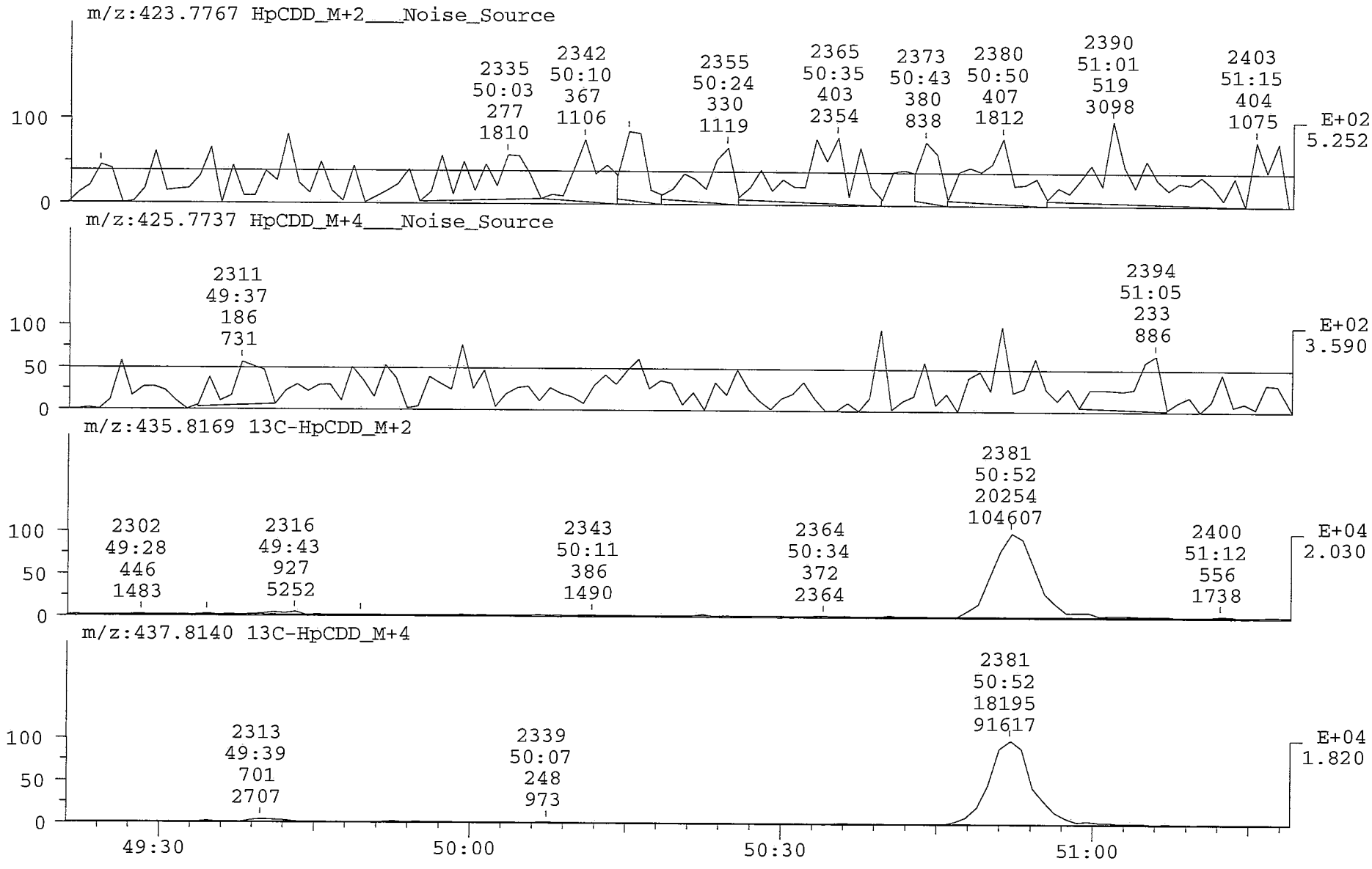
CHRO: btmkm6mrr 15-Jul-11 Elapse: 45:12 2063
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1960 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



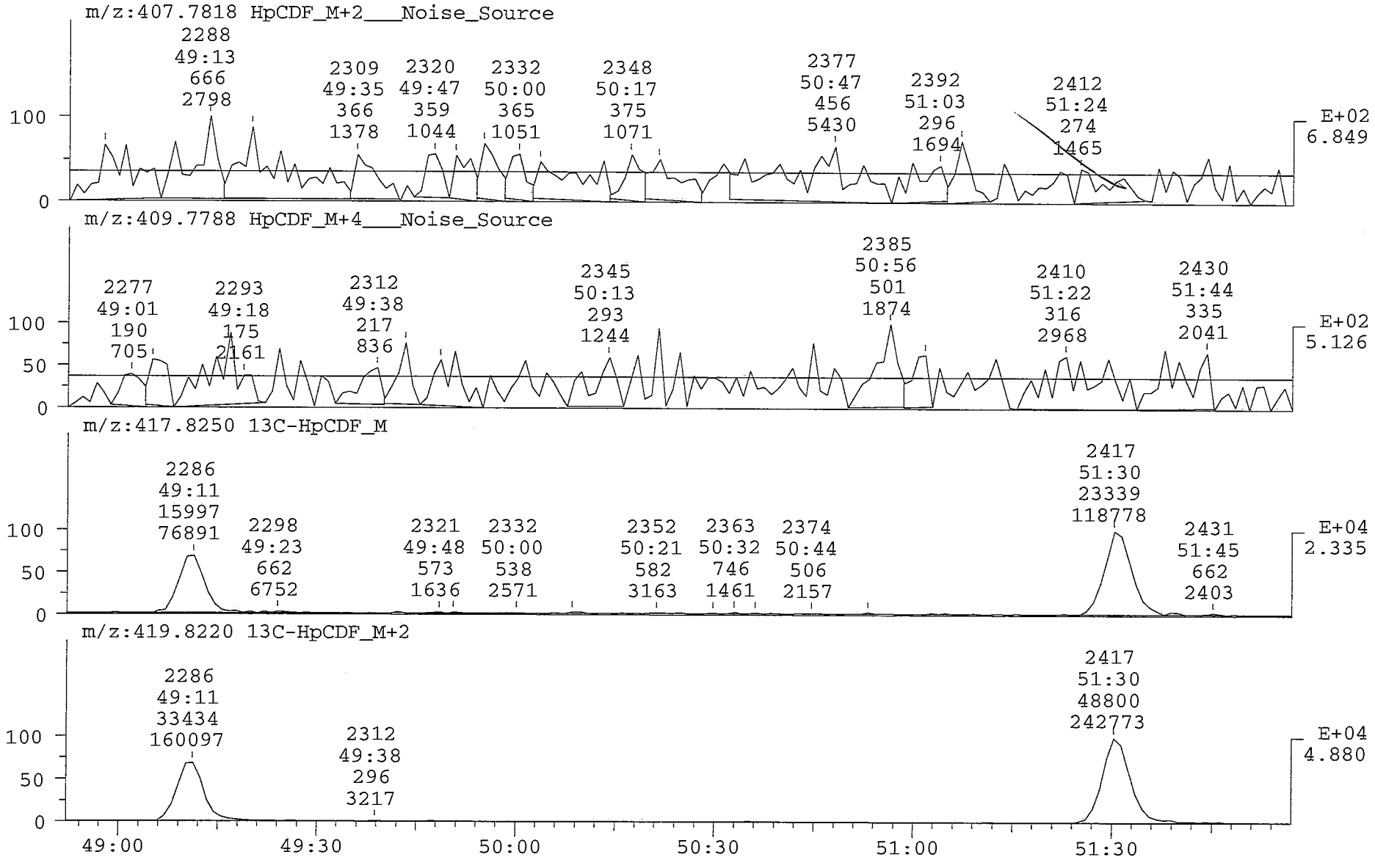
CHRO: btmkm6mrr 15-Jul-11 Elapse: 45:12 2063
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1960 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



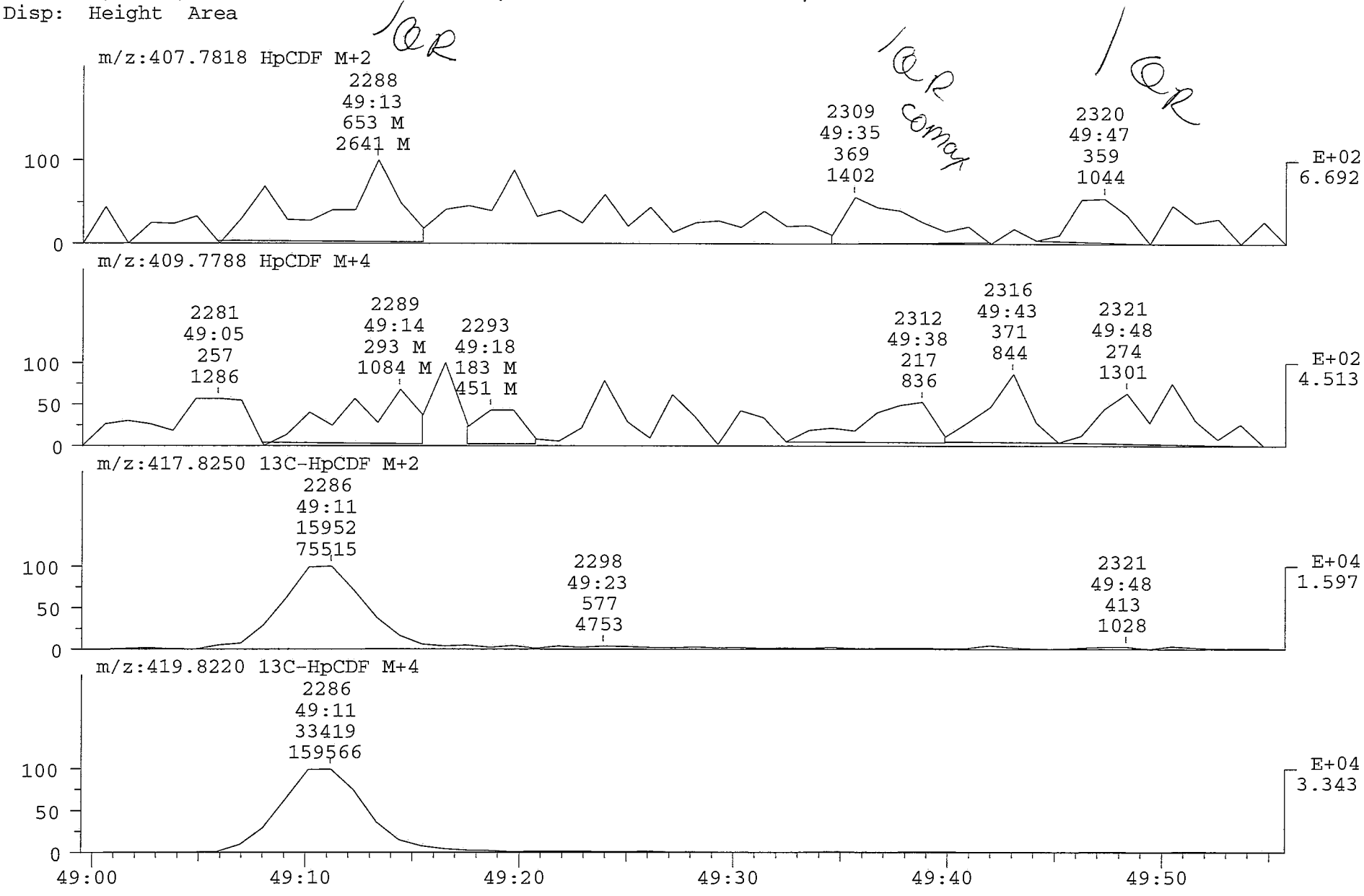
CHRO: btmkm6mrr 15-Jul-11 Elapse: 45:12 2063
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2295 > 2406 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6mrr 15-Jul-11 Elapse: 45:12 2063
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2268 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

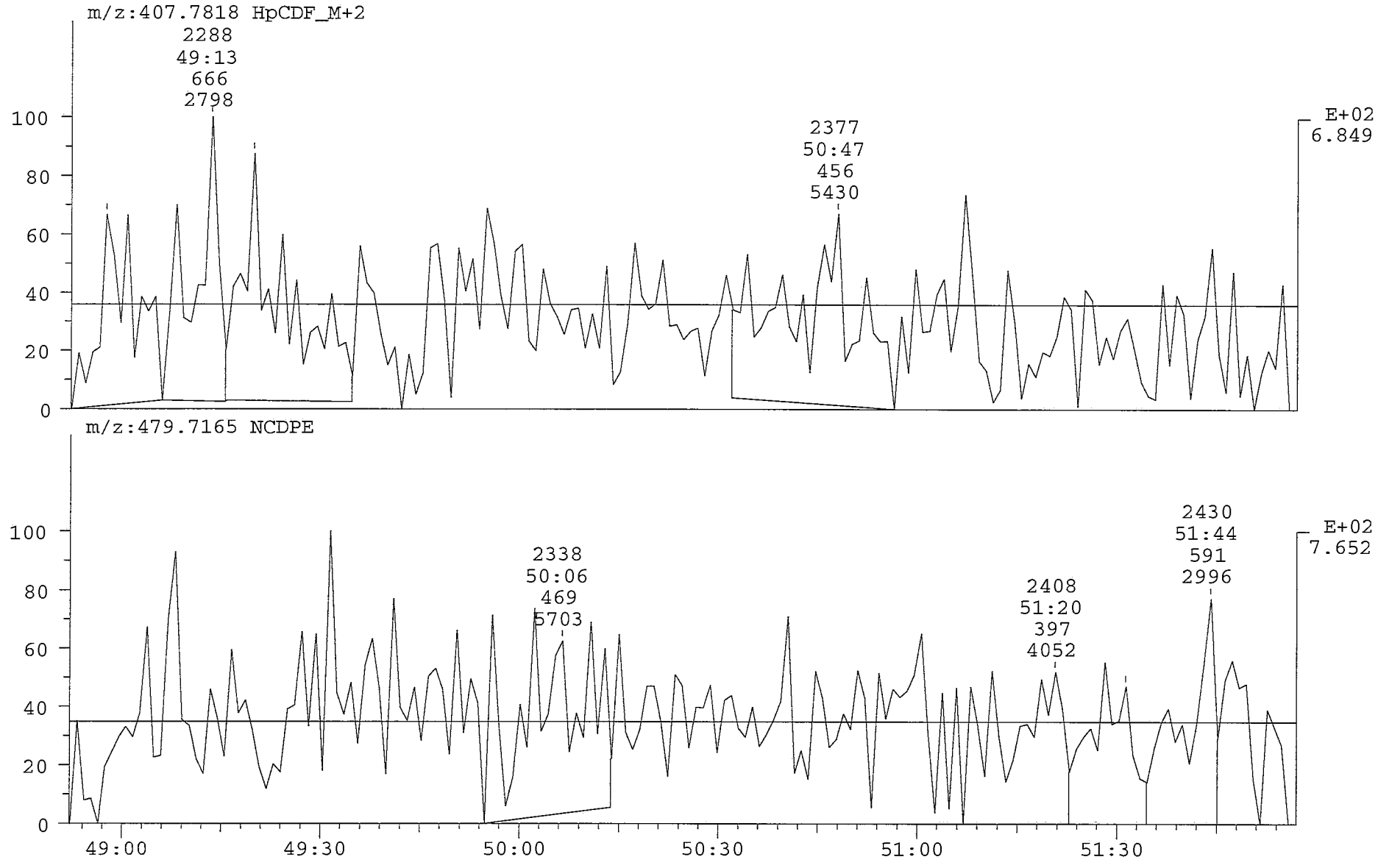


CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2275 > 2328 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

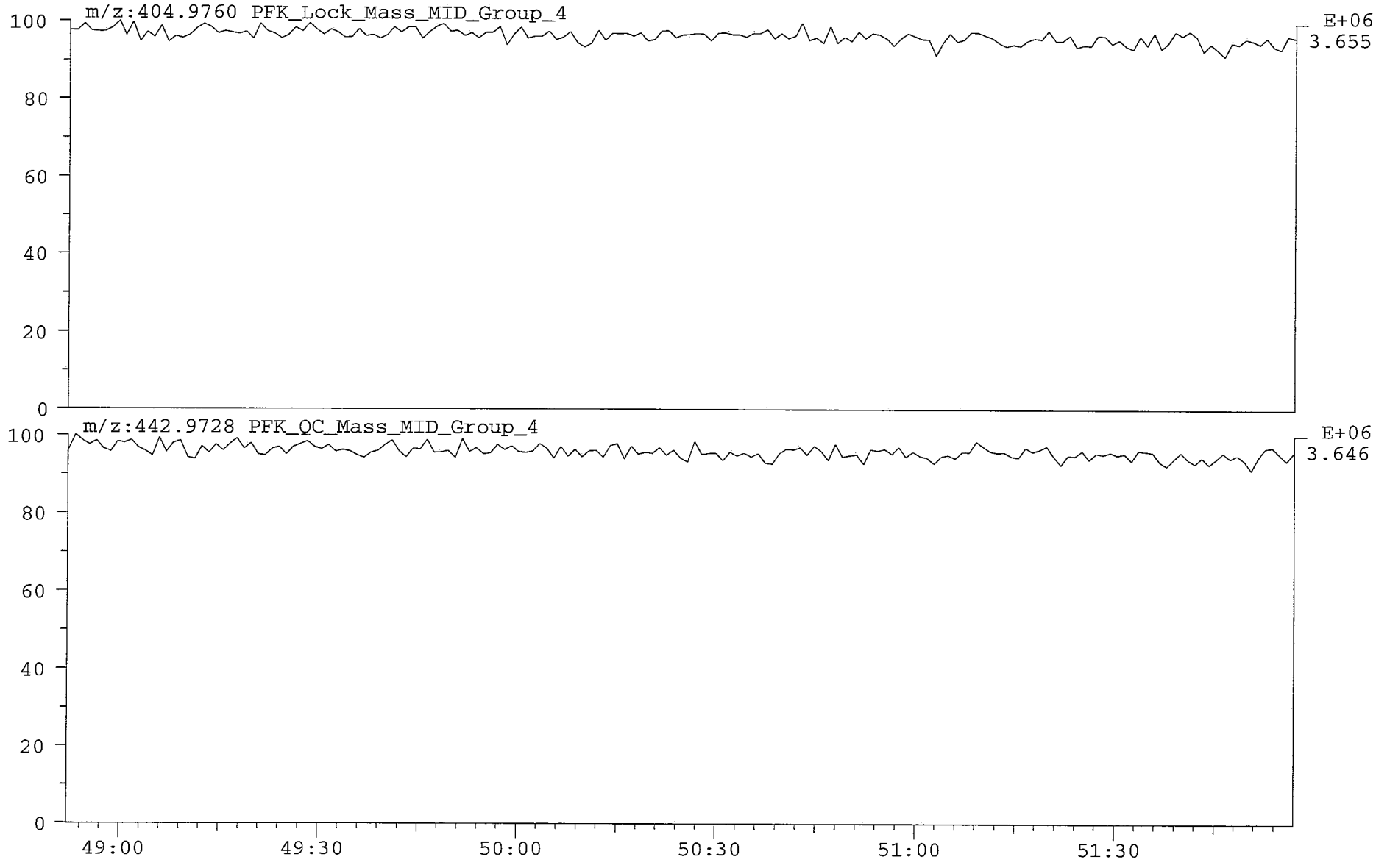


H-246

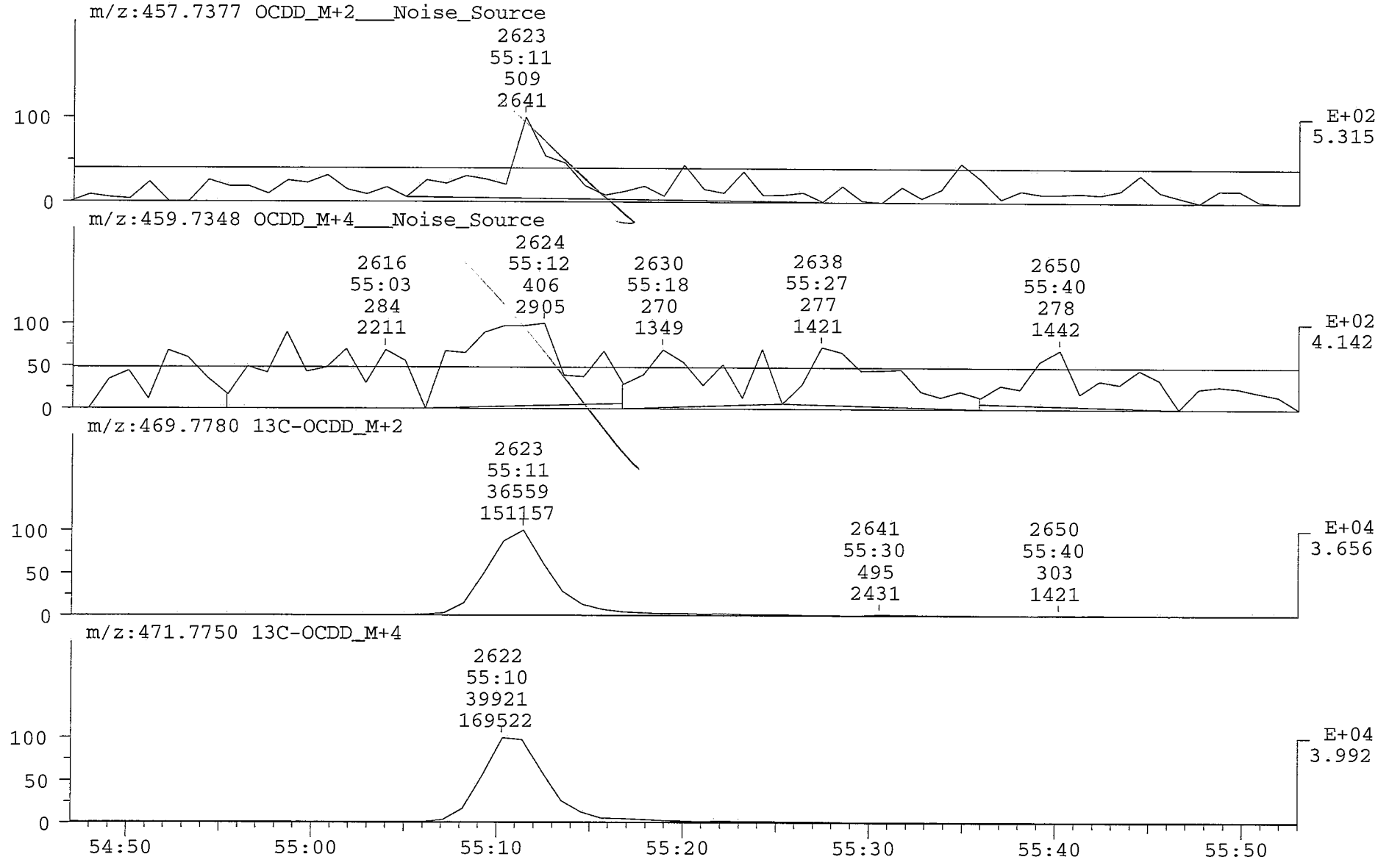
CHRO: btmkm6mrr 15-Jul-11 Elapse: 45:12 2063
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2268 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

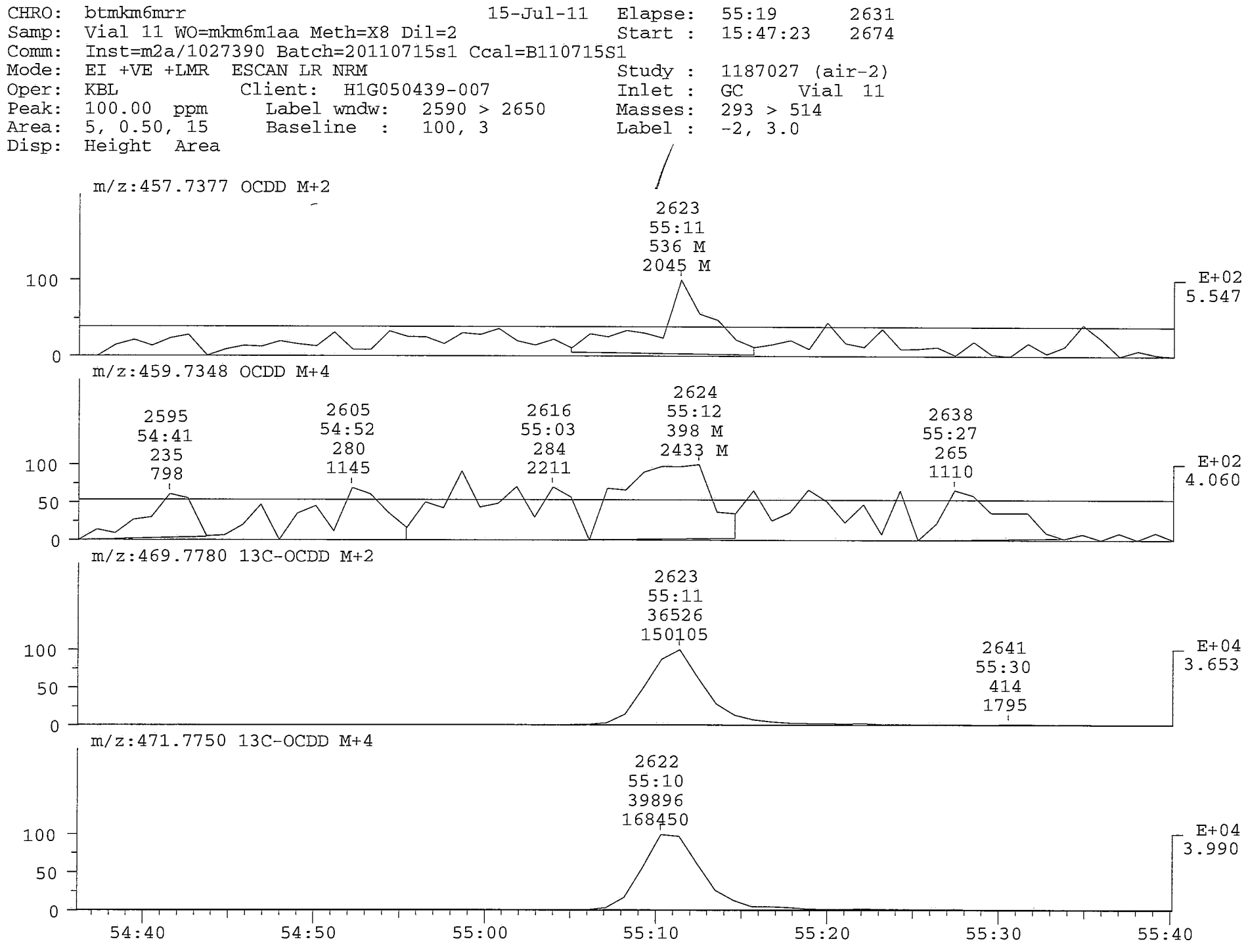


CHRO: btmkm6mrr 15-Jul-11 Elapse: 45:12 2063
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2268 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

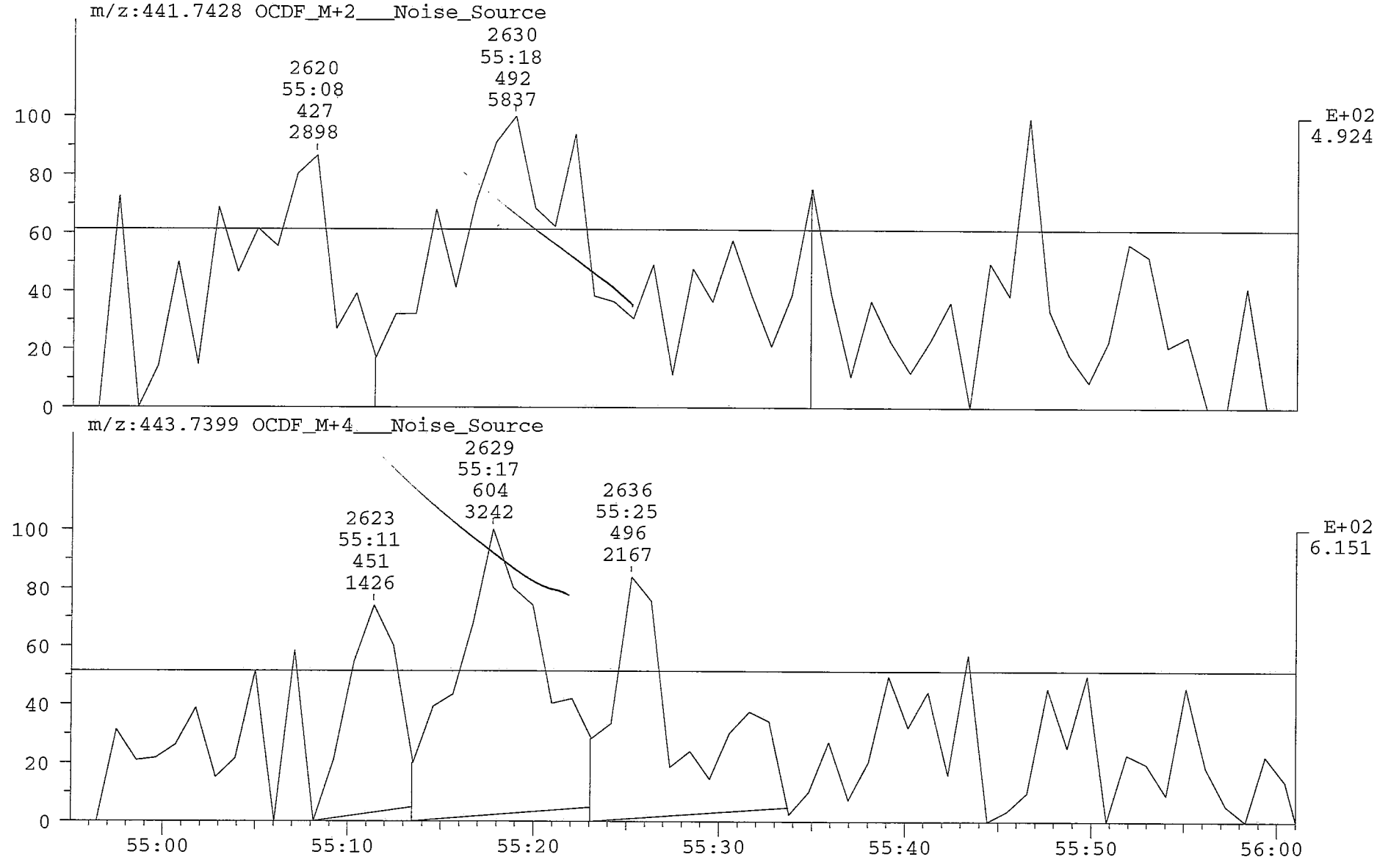


CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:16 2628
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2600 > 2662 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



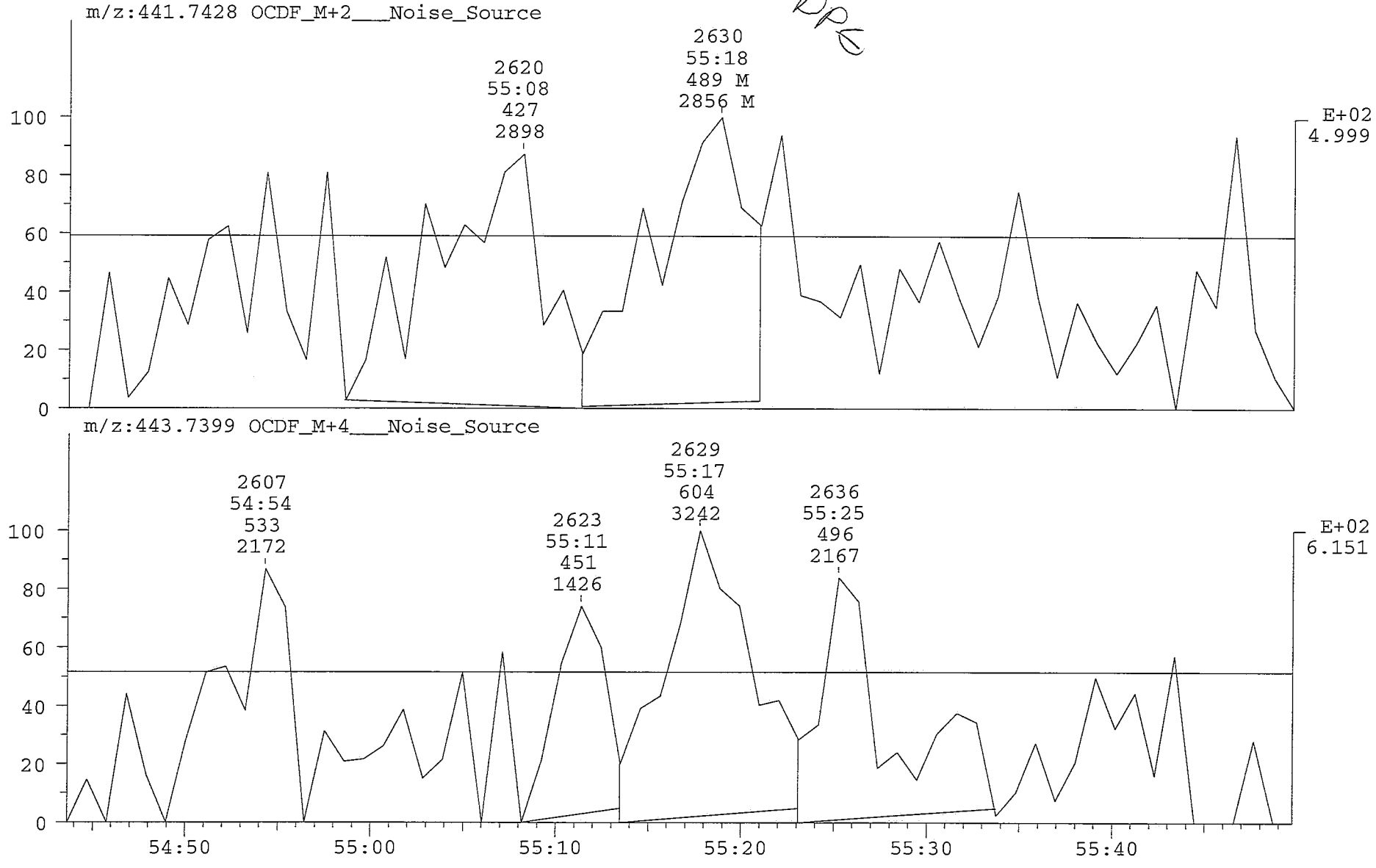

CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2590 > 2650 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area
m/z:457.7377 OCDD M+2
2623
55:11
536 M
2045 M
E+02
5.547
m/z:459.7348 OCDD M+4
2595
54:41
235
798
2605
54:52
280
1145
2616
55:03
284
2211
2624
55:12
398 M
2433 M
2638
55:27
265
1110
E+02
4.060
m/z:469.7780 13C-OCDD M+2
2623
55:11
36526
150105
2641
55:30
414
1795
E+04
3.653
m/z:471.7750 13C-OCDD M+4
2622
55:10
39896
168450
E+04
3.990
100
50
0
54:40
54:50
55:00
55:10
55:20
55:30
55:40

CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:25 2636
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2608 > 2670 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



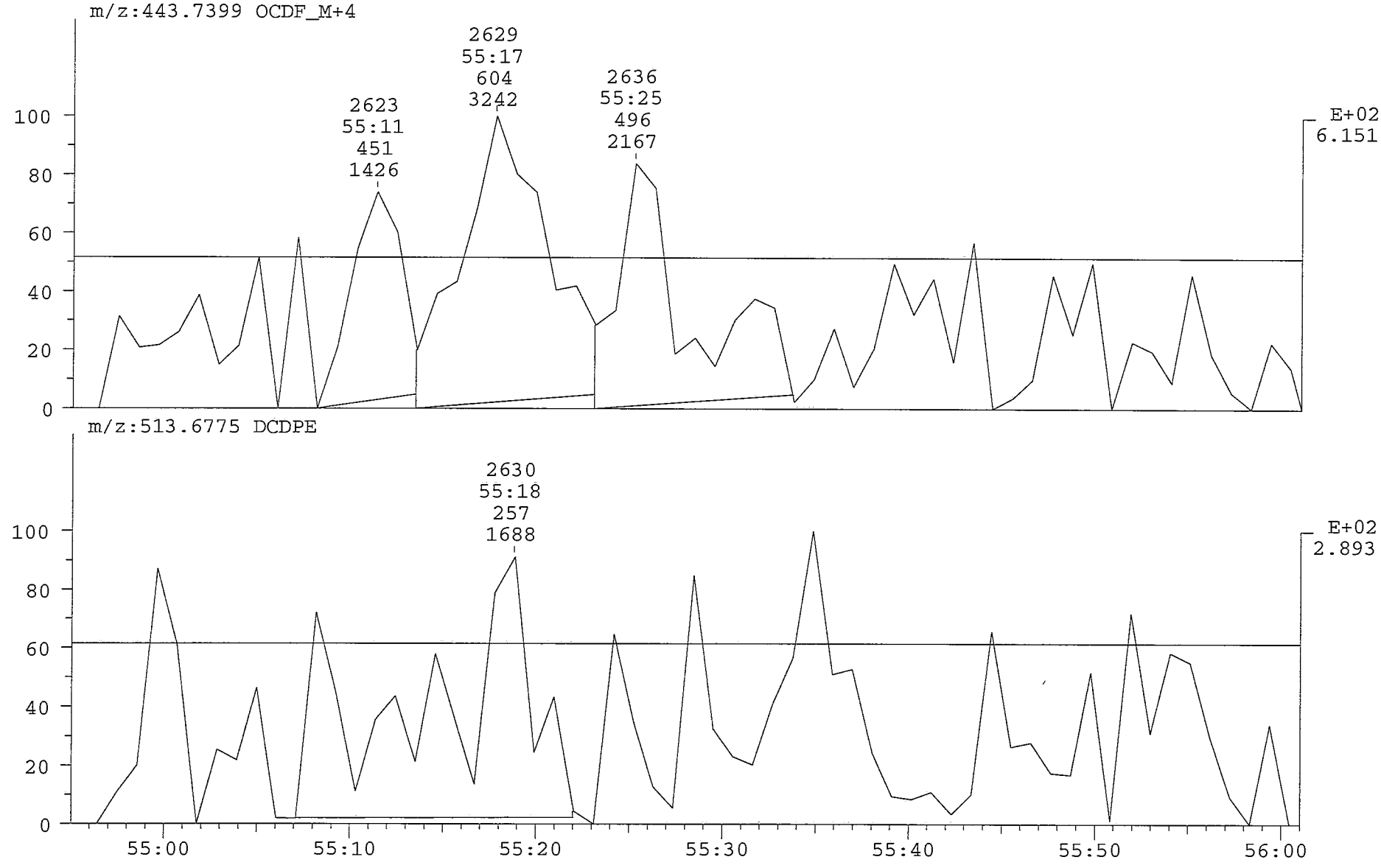
CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2597 > 2659 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

1 @ PPL

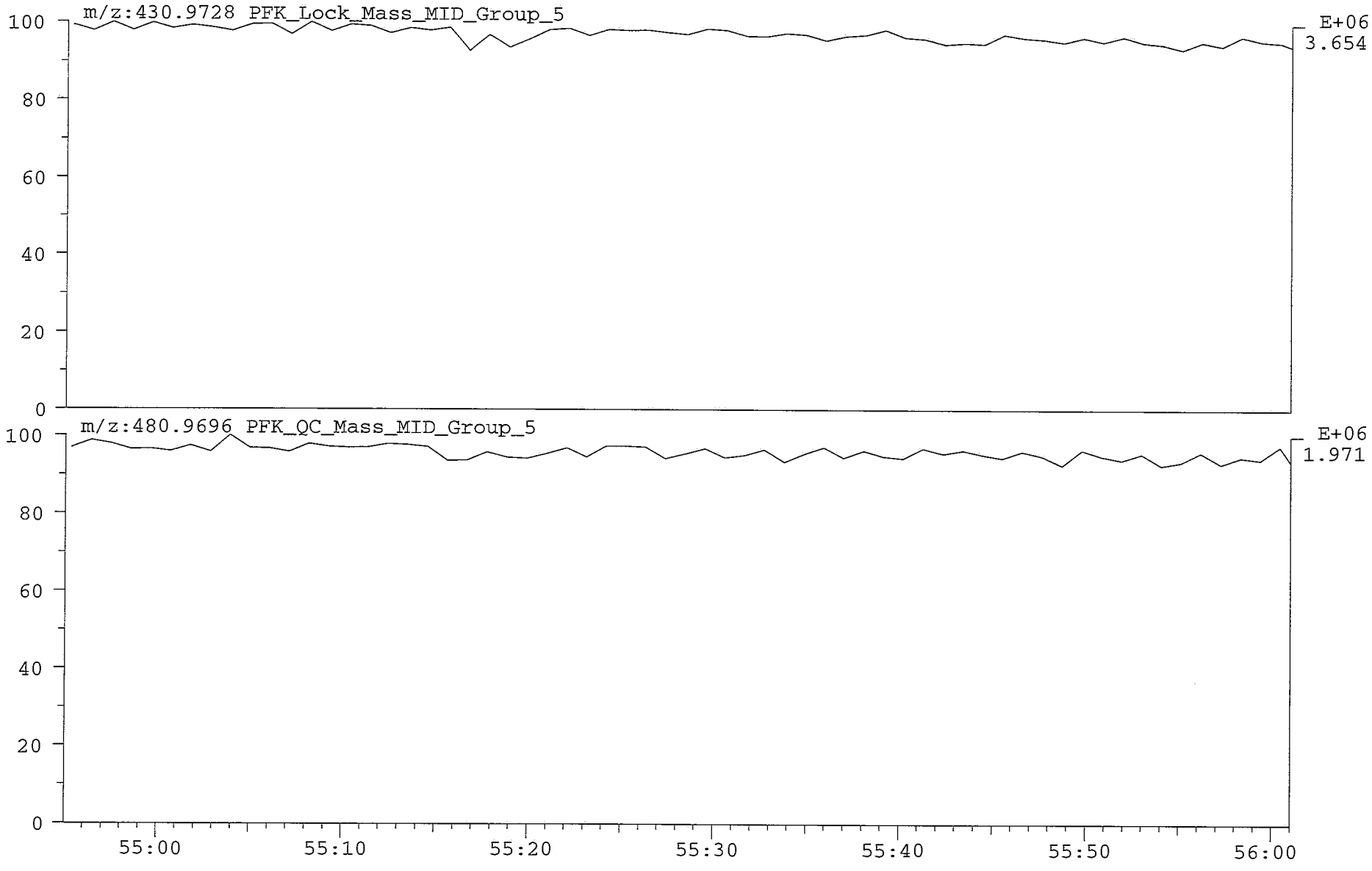


H-252

CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:25 2636
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2608 > 2670 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm6mrr 15-Jul-11 Elapse: 55:25 2636
Samp: Vial 11 WO=mkm6m1aa Meth=X8 Dil=2 Start : 15:47:23 2674
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G050439-007 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2608 > 2670 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: btmkm6mrr
Study: 1187027 (air-2)
Sample: WO=mkm6m1aa Meth=X8 Dil=2
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: H1G050439-007
Comments: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Injected volume:   2.0
Sample from Vial 11
Analysis will stop when MID run finishes
Tune file name: tune2
File 1 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1    8:00 min    27:13 min    35:13 min     1.00 sec
  # 2   35:13 min     7:54 min    43:08 min     1.00 sec
  # 3   43:08 min     5:17 min    48:25 min     1.00 sec
  # 4   48:25 min     5:05 min    53:30 min     1.00 sec
  # 5   53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 l   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 l   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	1	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	1	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	1	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A		
Normal Injection		
Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                        300 deg max
  Transfer Line:     290 deg                        300 deg max
  Column:            140 deg at    0.0 minutes      330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8416.0000
BDEV	8289.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.3412
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-20.8500
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	600.9615
FSLOPE	36000000.0000	FVANAL	382.0000	FVINLET	846.0000
FVSRC	1059.0000	FWIN	0.7000	GCTC	137.0000
GCTI	270.0000	GCTL	290.0000	HACCU	156.0000
HCURR	1.7059	HVANAL	1221.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4771.6680	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	304.9824
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180400.1832	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	200.0000	NSAM	200.0000	NSCAN	1353.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10106.3082	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	2.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7600	TCURR	0.9766	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 15:47:23.7

Autosampler has injected sample from vial 11
Analysis stopped at: 15-Jul-11 16:43:30.0 (run time 56.10 minutes)
Analysis stopped because MID run finished

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AA	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

PARAMETER	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND	20	6.9	pg/sample
Total TCDD	ND	20	6.9	pg/sample
1,2,3,7,8-PeCDD	ND	100	2.6	pg/sample
Total PeCDD	ND	100	2.6	pg/sample
1,2,3,4,7,8-HxCDD	ND	100	2.8	pg/sample
1,2,3,6,7,8-HxCDD	ND	100	2.7	pg/sample
1,2,3,7,8,9-HxCDD	ND	100	2.8	pg/sample
Total HxCDD	ND	100	2.8	pg/sample
1,2,3,4,6,7,8-HpCDD	ND	100	4.3	pg/sample
Total HpCDD	ND	100	4.3	pg/sample
OCDD	ND	200	3.9	pg/sample
2,3,7,8-TCDF	ND	20	4.1	pg/sample
Total TCDF	ND	20	4.1	pg/sample
1,2,3,7,8-PeCDF	ND	100	2.1	pg/sample
2,3,4,7,8-PeCDF	ND	100	2.1	pg/sample
Total PeCDF	ND	100	2.1	pg/sample
1,2,3,4,7,8-HxCDF	ND	100	1.5	pg/sample
1,2,3,6,7,8-HxCDF	ND	100	1.4	pg/sample
2,3,4,6,7,8-HxCDF	ND	100	1.5	pg/sample
1,2,3,7,8,9-HxCDF	ND	100	1.7	pg/sample
Total HxCDF	ND	100	1.5	pg/sample
1,2,3,4,6,7,8-HpCDF	ND	100	1.8	pg/sample
1,2,3,4,7,8,9-HpCDF	ND	100	2.4	pg/sample
Total HpCDF	ND	100	2.1	pg/sample
OCDF	ND	200	3.6	pg/sample

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AA	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	40 - 135
13C-1,2,3,7,8-PeCDD	96	40 - 135
13C-1,2,3,6,7,8-HxCDD	87	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	82	40 - 135
13C-OCDD	71	40 - 135
13C-2,3,7,8-TCDF	79	40 - 135
13C-1,2,3,7,8-PeCDF	93	40 - 135
13C-1,2,3,6,7,8-HxCDF	82	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	87	40 - 135

QUALIFIERS

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM601AA	Prep Batch	1187027	Lot No	H1G050439-015
Data File	/20110714s5/btmkm60a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133626	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/15/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	02:08	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Anal Exp Date	08/20/11	Extract Vol	40 uL	Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	PMP				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (pg/sample	DL (pg/samp
2,3,7,8-TCDD				1.172				ND	6.94
Total TCDD				1.172				ND	6.94
2,3,7,8-TCDF				1.081				ND	4.11
Total TCDF				1.081				ND	4.11
1,2,3,7,8-PeCDD				1.124				ND	2.61
Total PeCDD				1.124				ND	2.61
1,2,3,7,8-PeCDF				1.050				ND	2.09
2,3,4,7,8-PeCDF				1.030				ND	2.13
Total PeCDF				1.040				ND	2.11
1,2,3,4,7,8-HxCDD				0.990				ND	2.83
1,2,3,6,7,8-HxCDD				1.020				ND	2.74
1,2,3,7,8,9-HxCDD				1.003				ND	2.79
Total HxCDD				1.004				ND	2.79
1,2,3,4,7,8-HxCDF				1.091				ND	1.55
1,2,3,6,7,8-HxCDF				1.226				ND	1.38
2,3,4,6,7,8-HxCDF				1.160				ND	1.46
1,2,3,7,8,9-HxCDF				1.008				ND	1.68
Total HxCDF				1.121				ND	1.51
1,2,3,4,6,7,8-HpCDD				1.094				ND	4.29
Total HpCDD				1.094				ND	4.29
1,2,3,4,6,7,8-HpCDF				1.469				ND	1.82
1,2,3,4,7,8,9-HpCDF				1.127				ND	2.37
Total HpCDF				1.298				ND	2.06
OCDD				1.075				ND	3.92
OCDF				1.258				ND	3.63
13C-2,3,7,8-TCDD	31:34	635928	68874	1.006	2000	1517.42216	75.87	1517.42216	11.2
13C-2,3,7,8-TCDF	29:34	1133980	132939	1.719	2000	1583.79829	79.19	1583.79829	4.92
13C-1,2,3,7,8-PeCDD	41:40	763897	170481	0.953	2000	1924.38216	96.22	1924.38216	9.00
13C-1,2,3,7,8-PeCDF	39:48	1281507	255355	1.661	2000	1853.12003	92.66	1853.12003	4.24
13C-1,2,3,6,7,8-HxCDD	46:09	843902	219851	1.035	2000	1735.31078	86.77	1735.31078	4.69
13C-1,2,3,6,7,8-HxCDF	45:06	1111832	298627	1.434	2000	1649.67953	82.48	1649.67953	2.13
13C-1,2,3,4,6,7,8-HpCDD	50:53	652311	119302	0.851	2000	1630.80572	81.54	1630.80572	3.97
13C-1,2,3,4,6,7,8-HpCDF	49:11	895275	194760	1.094	2000	1741.89457	87.09	1741.89457	2.83
13C-OCDD	55:12	1153417	256303	0.867	4000	2830.33251	70.76	2830.33251	4.70
37Cl4-2,3,7,8-TCDD				1.198	4000			ND	3.39
13C-2,3,4,7,8-PeCDF				0.994	4000			ND	2.54
13C-1,2,3,4,7,8-HxCDD				0.887	4000			ND	5.31
13C-1,2,3,4,7,8-HxCDF				0.891	4000			ND	2.44
13C-1,2,3,7,8,9-HxCDF				1.321				ND	2.31
13C-1,2,3,4,7,8,9-HpCDF				0.841	4000			ND	4.03
13C-1,2,3,4-TCDD	31:05	1665704	183089	1.000	4000	4000.00000	100.00	4000.00000	11.3
13C-1,2,3,7,8,9-HxCDD	46:31	1879804	426533	1.000	4000	4000.00000	100.00	4000.00000	4.85

7-15-11

Qid L 7-15-11

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKM601AA	Prep Batch	1187027	Lot No	H1G050439-015
Data File	/20110714s5/btmkm60a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133626	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	07/15/11 02:08	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	PMP	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89	
	Noise	00:00	00:00	0	135	160	54	64	0.84	/
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89	
	Noise	00:00	00:00	0	163	225	65	90	0.72	/
	13C-2,3,7,8-TCDF	29:34	29:35	-1	500890	633090	56537	76402	0.79	ABV/ABV
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89	
	Noise	00:00	00:00	0	128	153	51	61	0.84	/
328					327.8847		327.8847			
	Noise	00:00	00:00	0	140		56			
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89	
	Noise	00:00	00:00	0	308	208	123	83	1.48 *	/
	13C-1,2,3,4-TCDD	31:05	31:04	1	746019	919685	83075	100014	0.81	AVV/ABV
	13C-2,3,7,8-TCDD	31:34	31:34	0	284104	351824	30247	38627	0.81	AVV/AVV
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78	
	Noise	00:00	00:00	0	120	160	48	64	0.75 *	/
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78	
	Noise	00:00	00:00	0	150	173	60	69	0.87 *	/
	13C-1,2,3,7,8-PeCDF	39:48	39:48	0	787368	494139	157070	98285	1.59	ABV/ABV
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78	
	Noise	00:00	00:00	0	145	105	58	42	1.38	/
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78	
	Noise	00:00	00:00	0	208	185	83	74	1.12 *	/
	13C-1,2,3,7,8-PeCDD	41:40	41:41	-1	464330	299567	103626	66855	1.55	ABV/ABV
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43	
	Noise	00:00	00:00	0	133	120	53	48	1.10	/
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59	
	Noise	00:00	00:00	0	153	173	61	69	0.88 *	/
	13C-1,2,3,6,7,8-HxCDF	45:06	45:07	-1	382627	729205	102380	196247	0.52	AVV/AVV
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43	
	Noise	00:00	00:00	0	148	160	59	64	0.92 *	/
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43	
	Noise	00:00	00:00	0	285	233	114	93	1.23	/
	13C-1,2,3,6,7,8-HxCDD	46:09	46:09	0	470005	373897	123601	96250	1.26	ABV/ABV
	13C-1,2,3,7,8,9-HxCDD	46:31	46:32	-1	1049393	830411	235822	190711	1.26	AVV/ABV
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20	
	Noise	00:00	00:00	0	135	125	54	50	1.08	/
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51	
	Noise	00:00	00:00	0	158	173	63	69	0.91 *	/
	13C-1,2,3,4,6,7,8-HpCDF	49:11	49:12	-1	287254	608021	62129	132631	0.47	ABV/ABV
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20	
	Noise	00:00	00:00	0	150	130	60	52	1.15	/
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

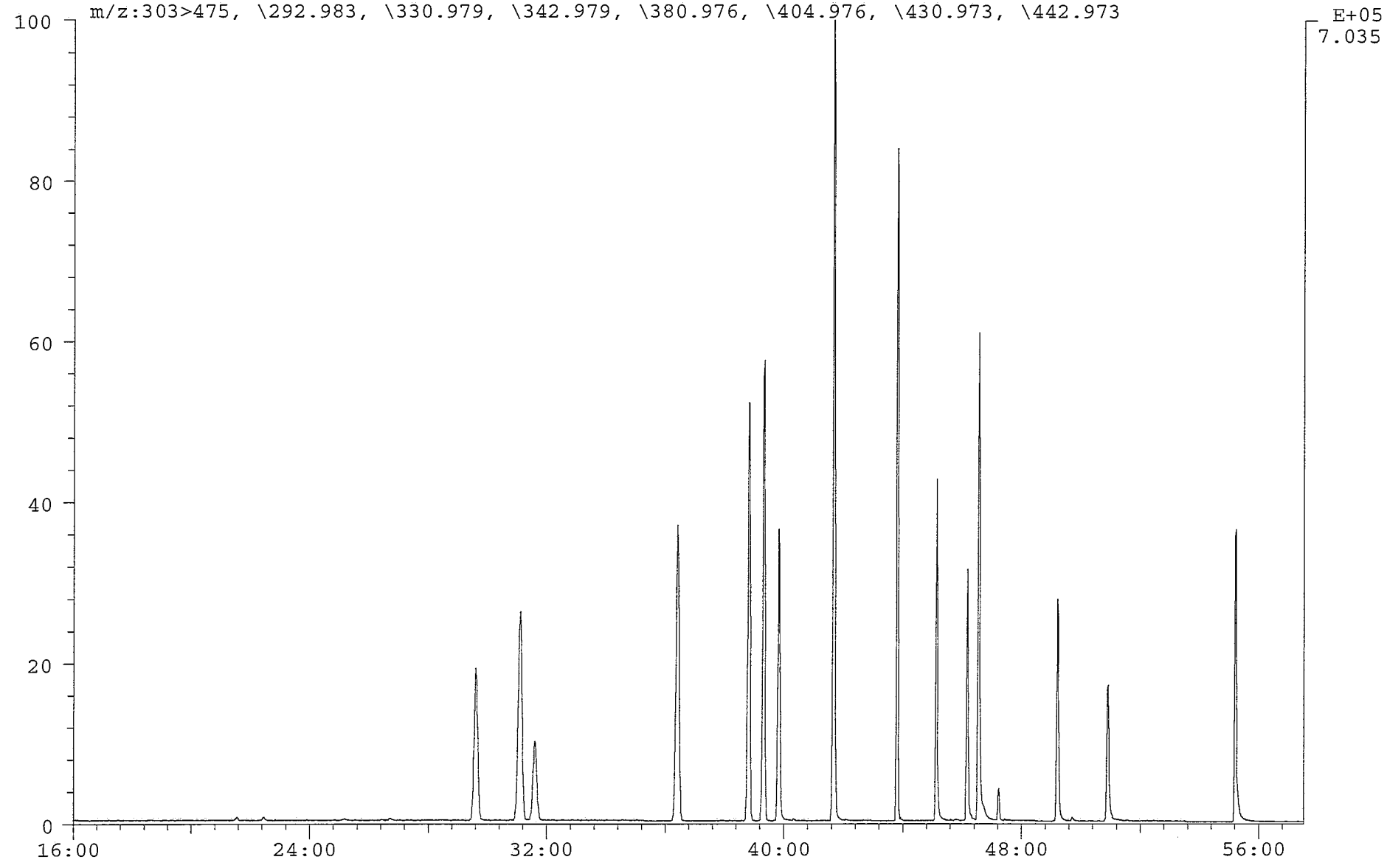
Workorder	MKM601AA	Prep Batch	1187027	Lot No	H1G050439-015
Data File	/20110714s5/btmkm60a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133626	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	07/15/11 02:08	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	PMP	Diluton Factor	1.00	Code	X8
		View Small Peaks?	False	View deleted peaks?	False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20	
	Noise	00:00	00:00	0	180	180	72	72	1.00	/
	13C-1,2,3,4,6,7,8-HpCDD	50:53	50:53	0	339160	313151	61788	57514	1.08	ABV/ABV
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02	
	Noise	00:00	00:00	0	138	155	55	62	0.89	/
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02	
	Noise	00:00	00:00	0	120	150	48	60	0.80	/
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02	
	Noise	00:00	00:00	0	180	255	72	102	0.71 *	/
	13C-OCDD	55:12	55:12	0	543808	609609	123047	133256	0.89	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

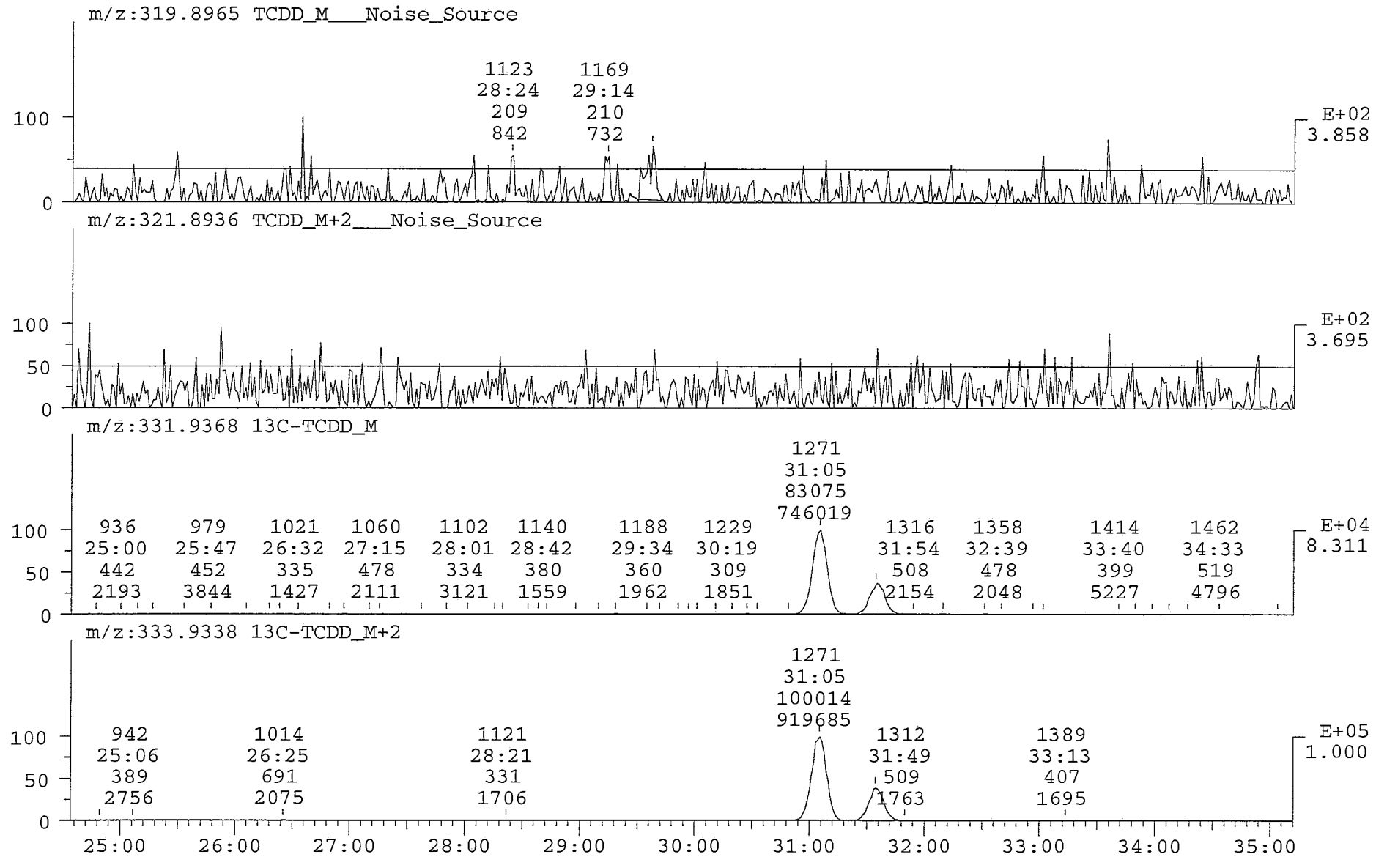
```
CHRO:  btmkm60a                                  15-Jul-11   Elapse:  29:31      1185
Samp:  Vial 12 WO=mkm601aa Meth=X8 Dil=1                     Start :  02:08:39   2750
Comm:  Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode:  EI +VE +LMR  ESCAN LR NRM                             Study :  1187027 (air-2)
Oper:  PMP           Client:  H1G050439-015                  Inlet :  GC     Vial  12
Peak:  100.00  ppm     Label wndw:   441 > 2750               Masses:  293 > 514
Area:  5, 0.50, 0      Baseline  :   100, 3                   Label :  0, 0.0
Disp:  Height  Area
```

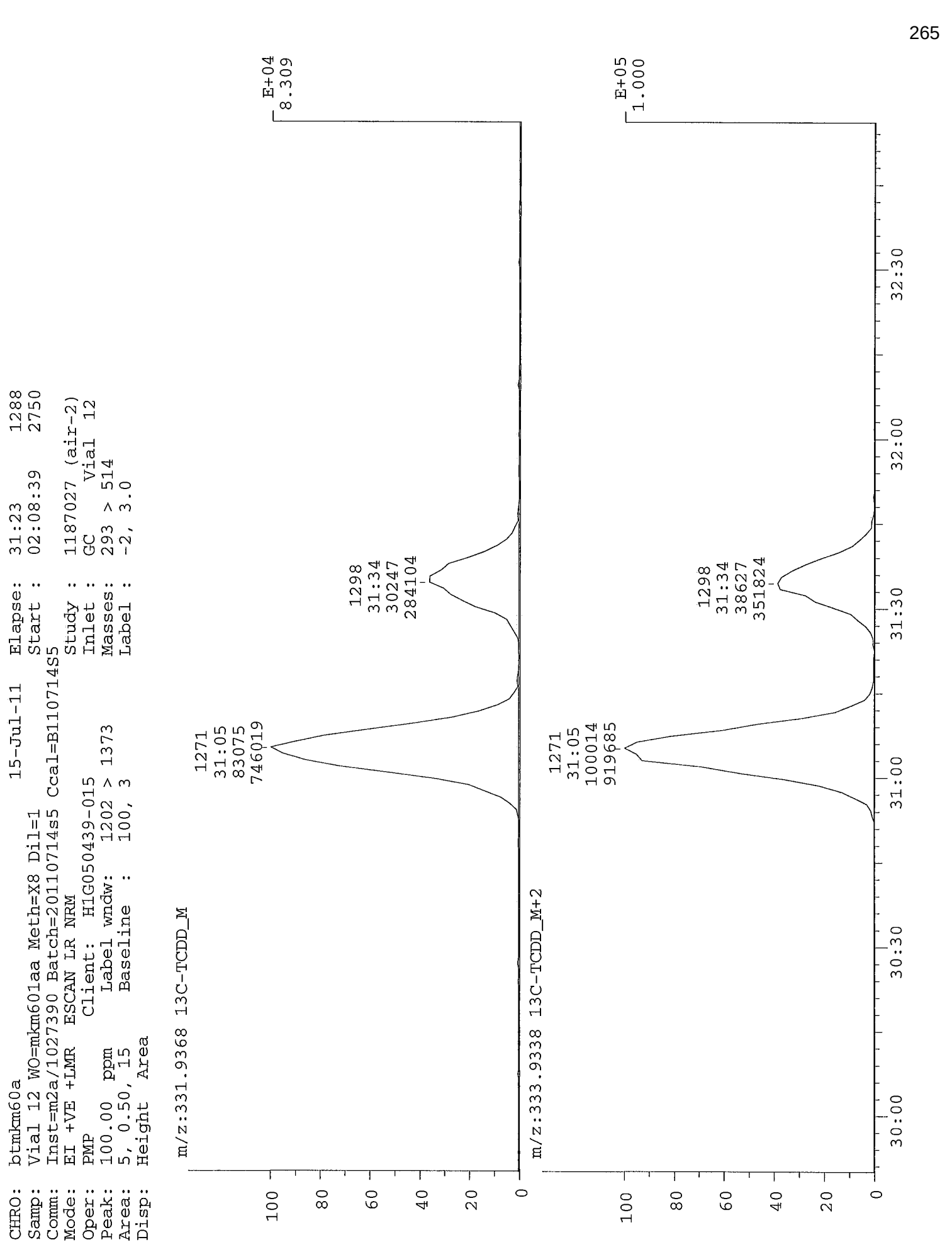
Int pmp 7-15-11
calc KM 7-15-11
Grd L 7-15-11
Rev MSP 7-18-11



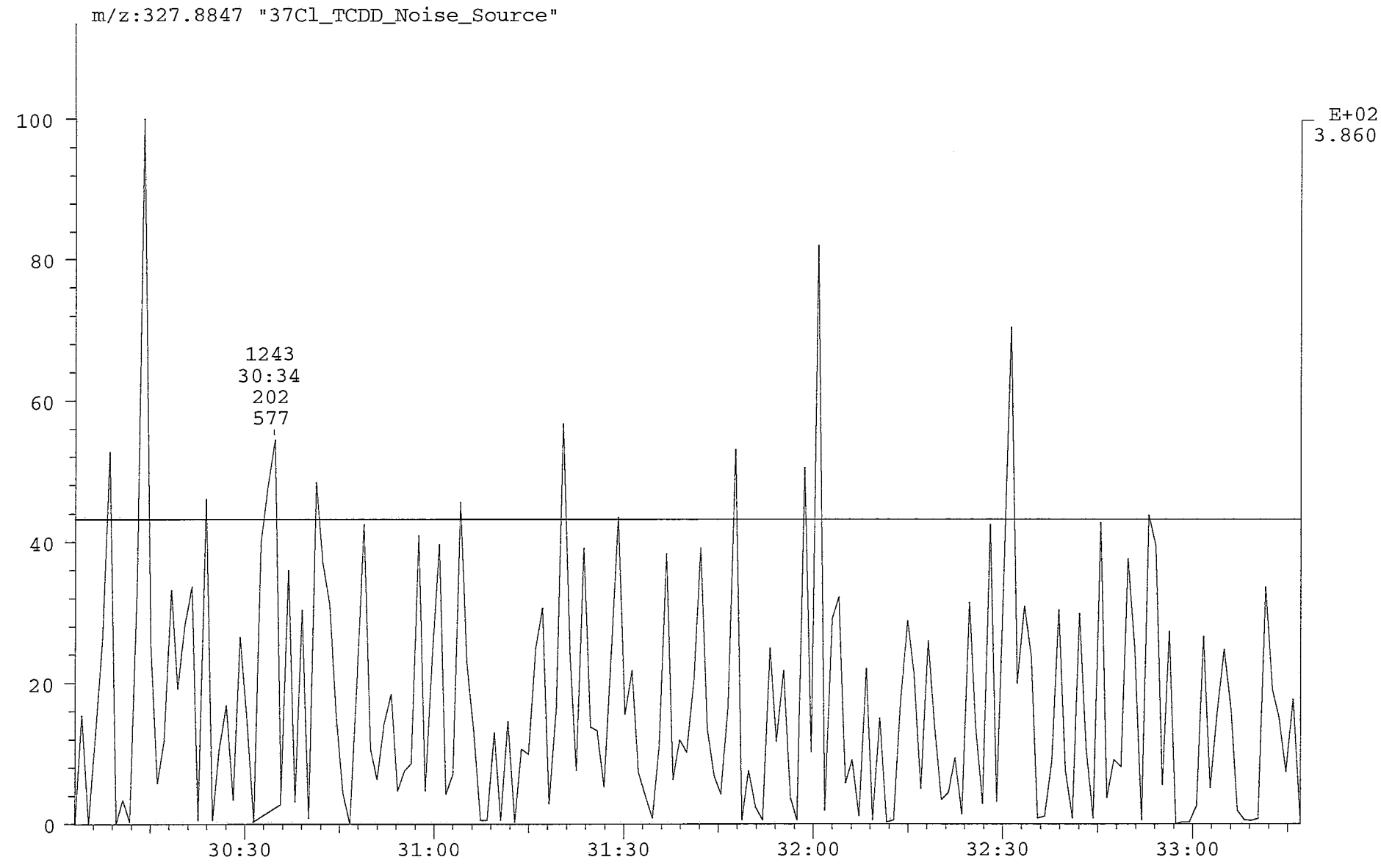
H-264

CHRO: btmkm60a 15-Jul-11 Elapse: 29:31 1185
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 912 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



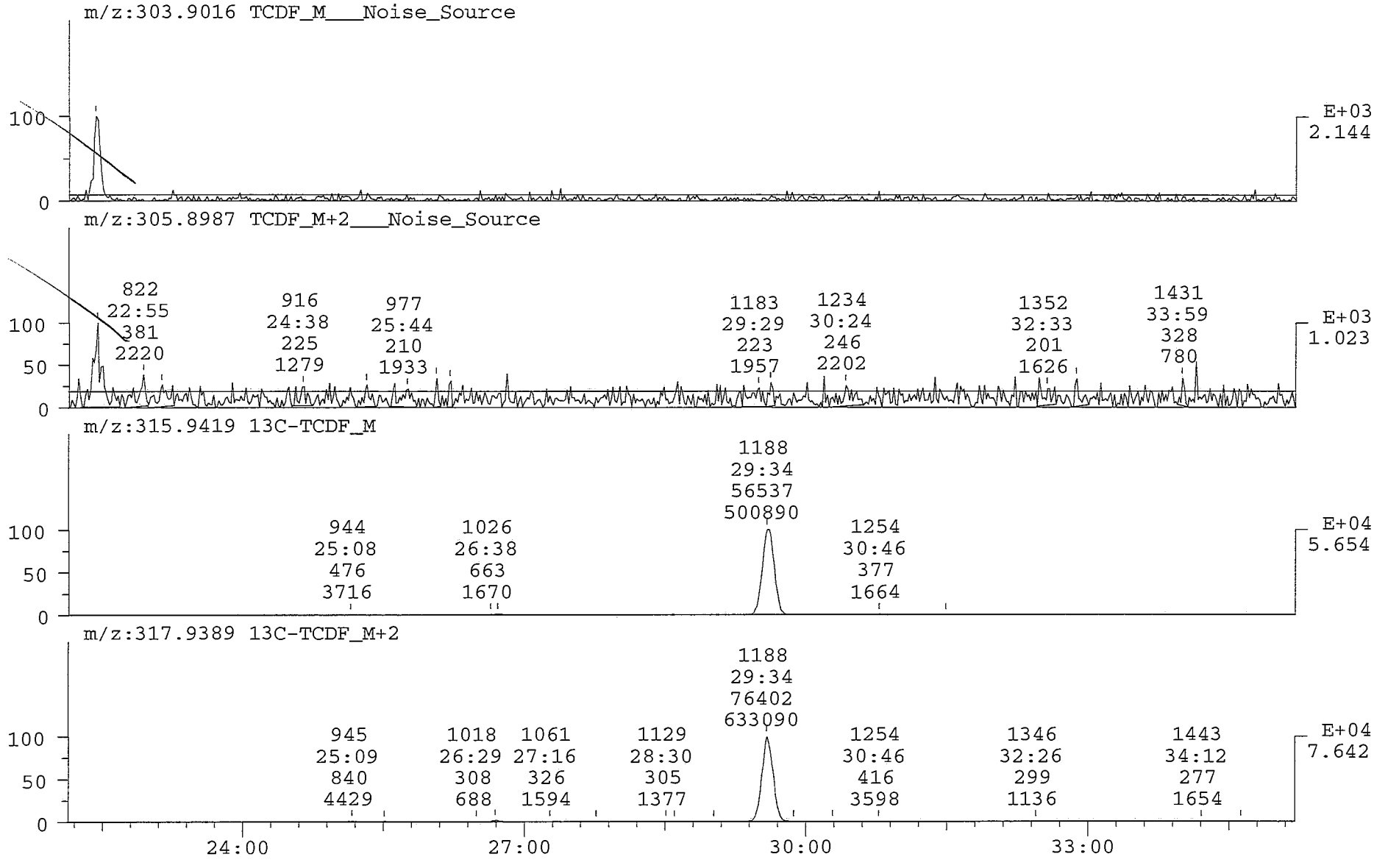

CHRO: btmkm60a 15-Jul-11 Elapse: 31:23 1288
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1202 > 1373 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area
m/z:331.9368 13C-TCDD_M
1271
31:05
83075
746019
1298
31:34
30247
284104
E+04
8.309
m/z:333.9338 13C-TCDD_M+2
1271
31:05
100014
919685
1298
31:34
38627
351824
E+05
1.000
100
80
60
40
20
0
30:00
30:30
31:00
31:30
32:00
32:30

CHRO: btmkm60a 15-Jul-11 Elapse: 31:36 1300
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1214 > 1392 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

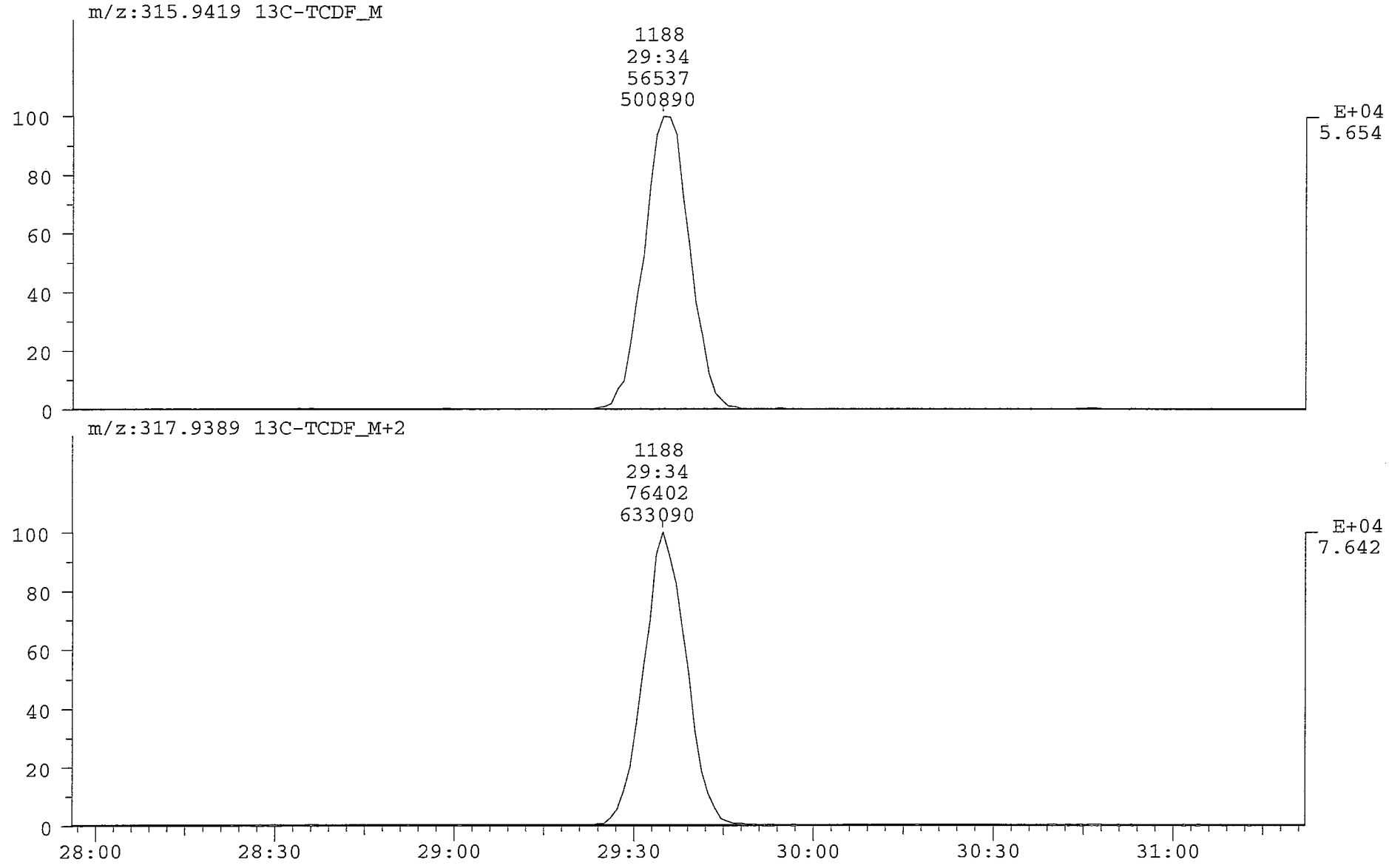


H-267

CHRO: btmkm60a 15-Jul-11 Elapse: 31:36 1300
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 778 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

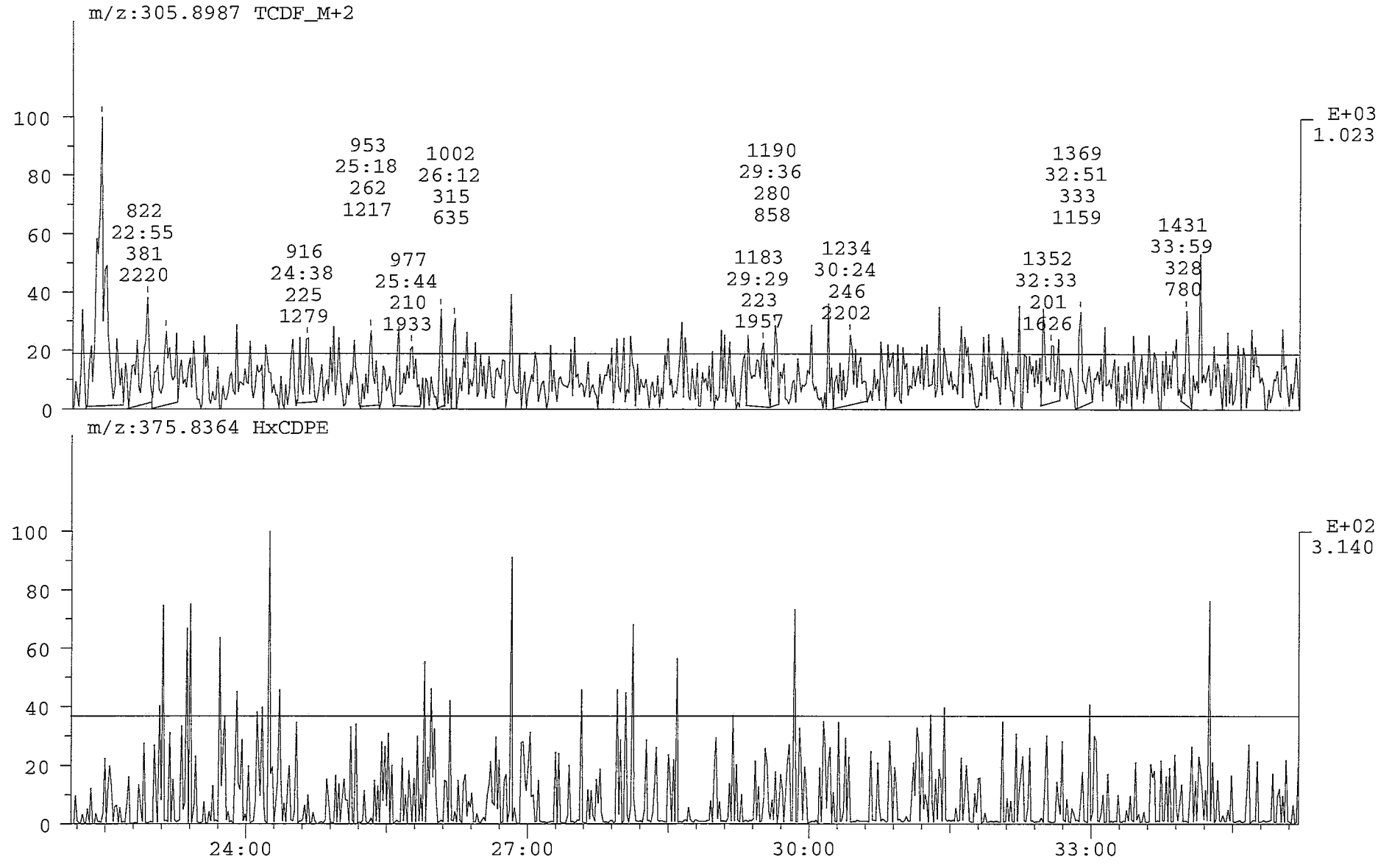


CHRO: btmkm60a 15-Jul-11 Elapse: 29:35 1189
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1097 > 1287 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



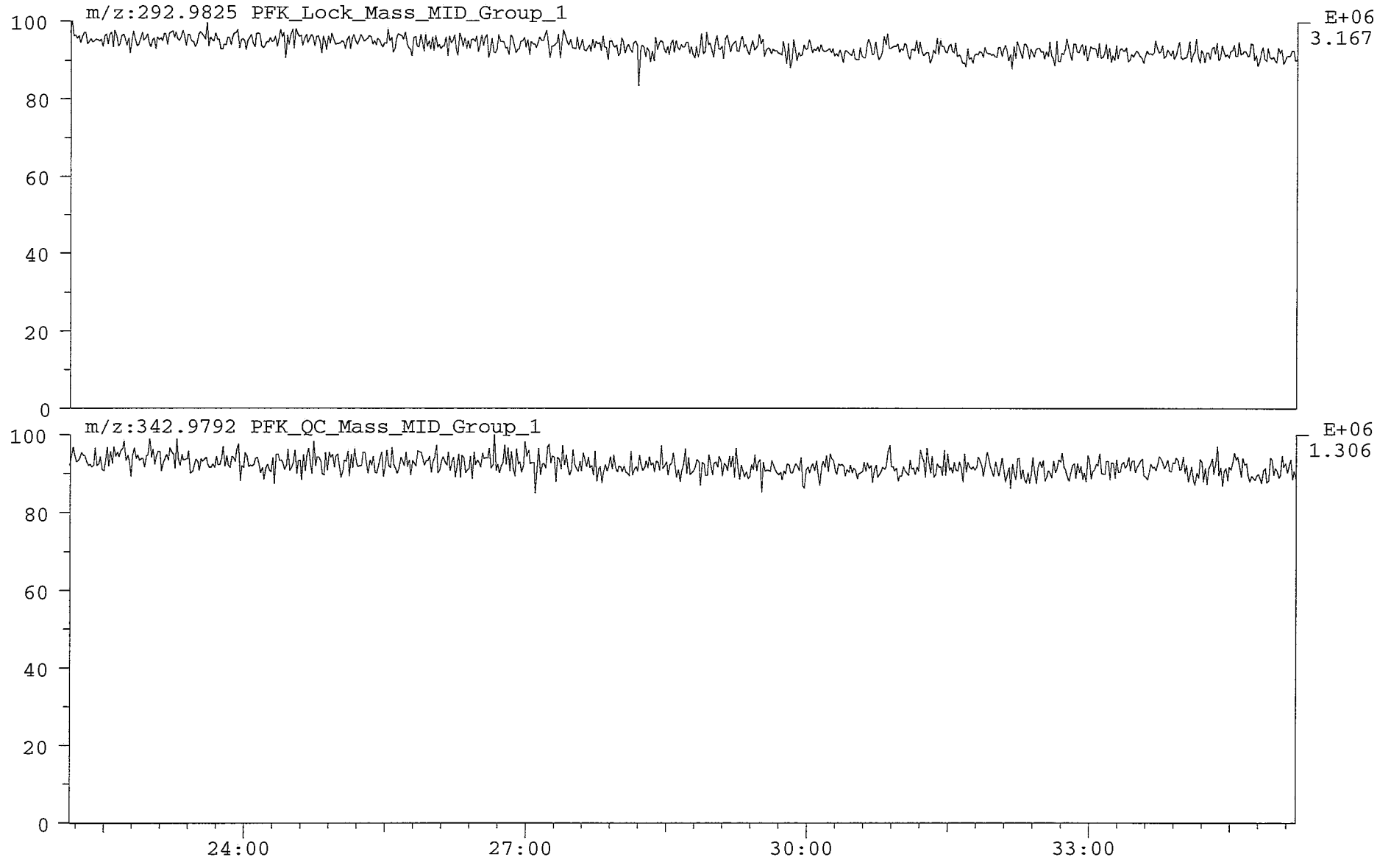
H-269

CHRO: btmkm60a 15-Jul-11 Elapse: 29:35 1189
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 778 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

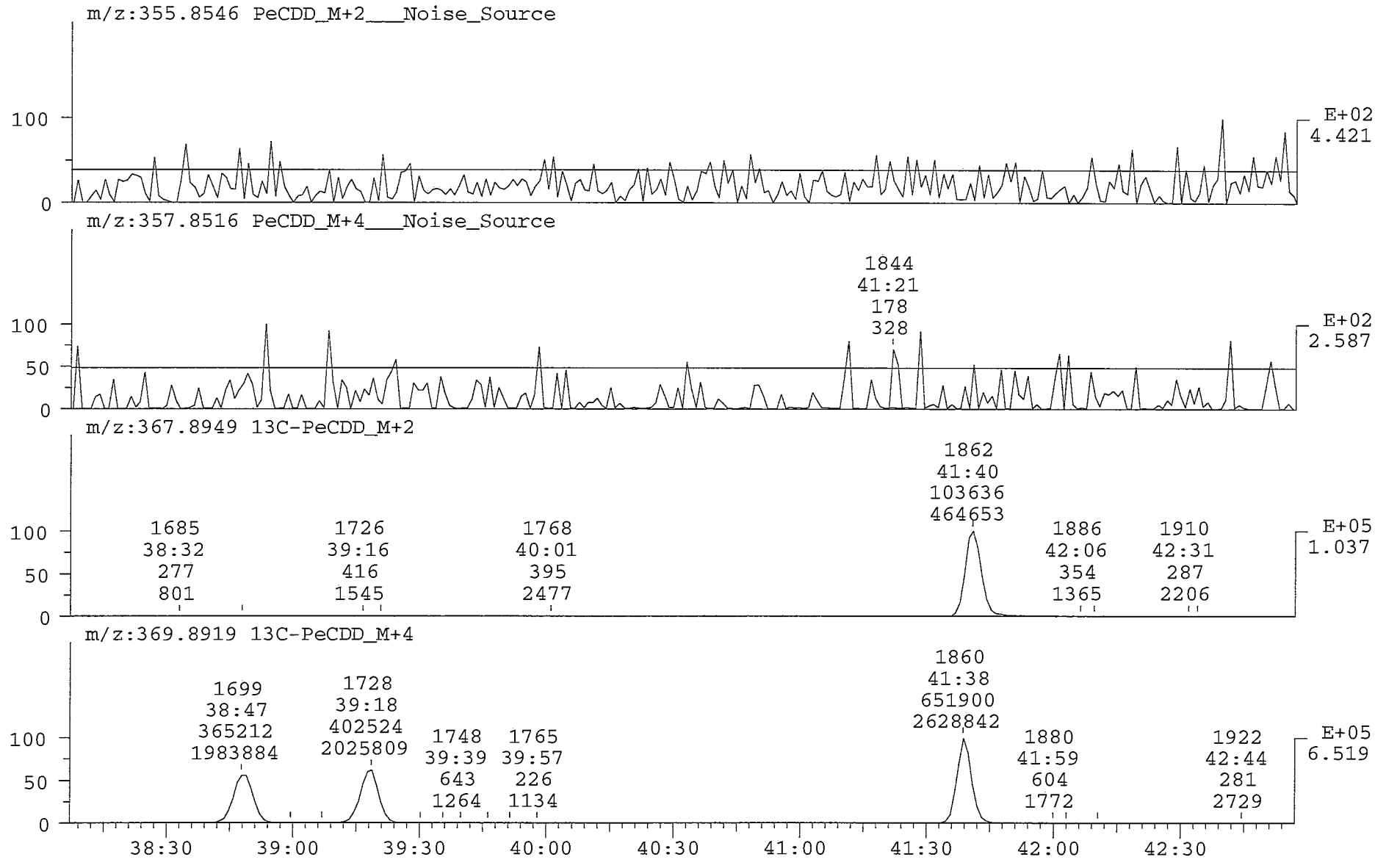


H-270

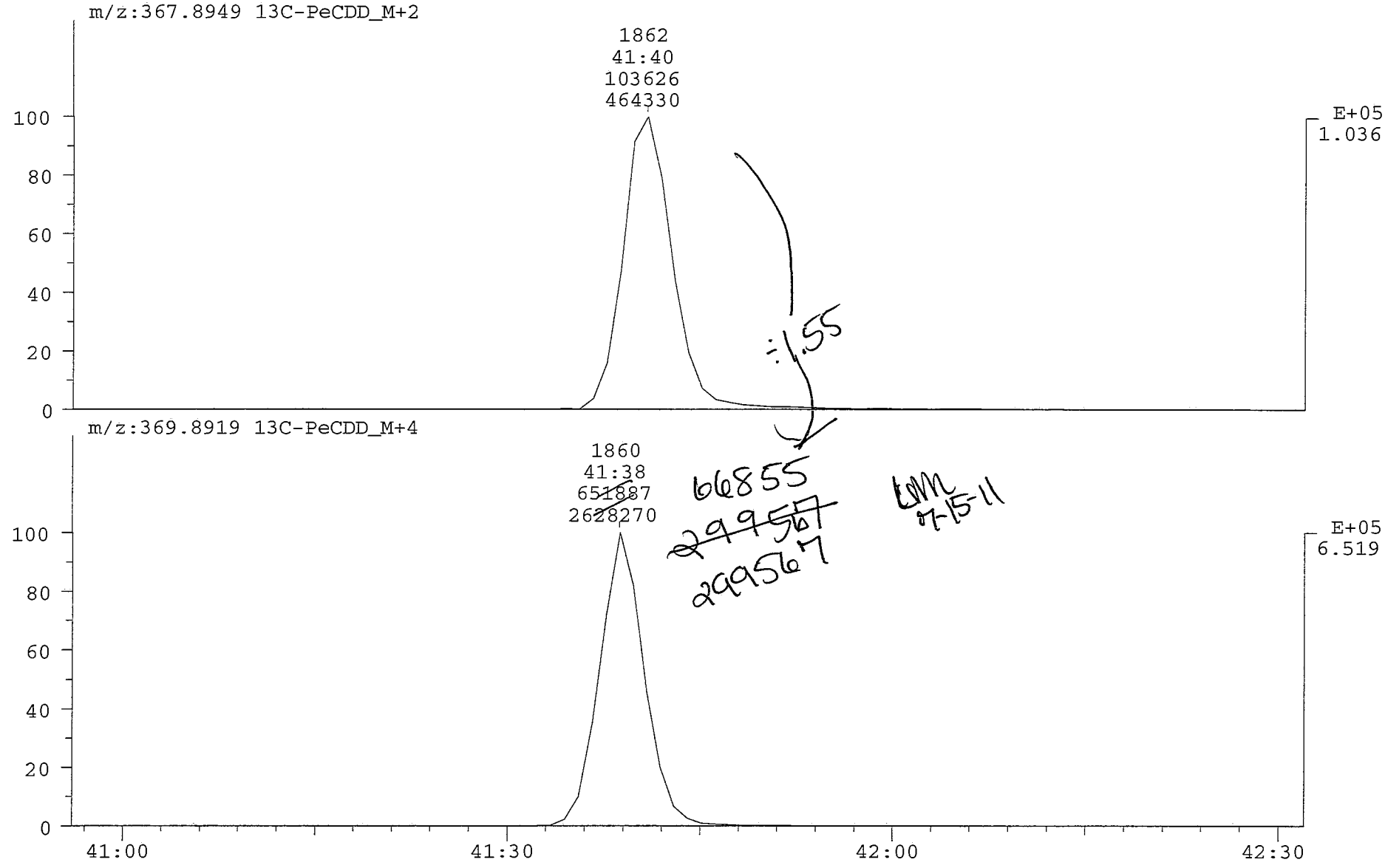
CHRO: btmkm60a 15-Jul-11 Elapse: 29:35 1189
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 778 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



CHRO: btmkm60a 15-Jul-11 Elapse: 29:35 1189
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1661 > 1934 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm60a 15-Jul-11 Elapse: 41:40 1862
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1820 > 1910 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



1.55

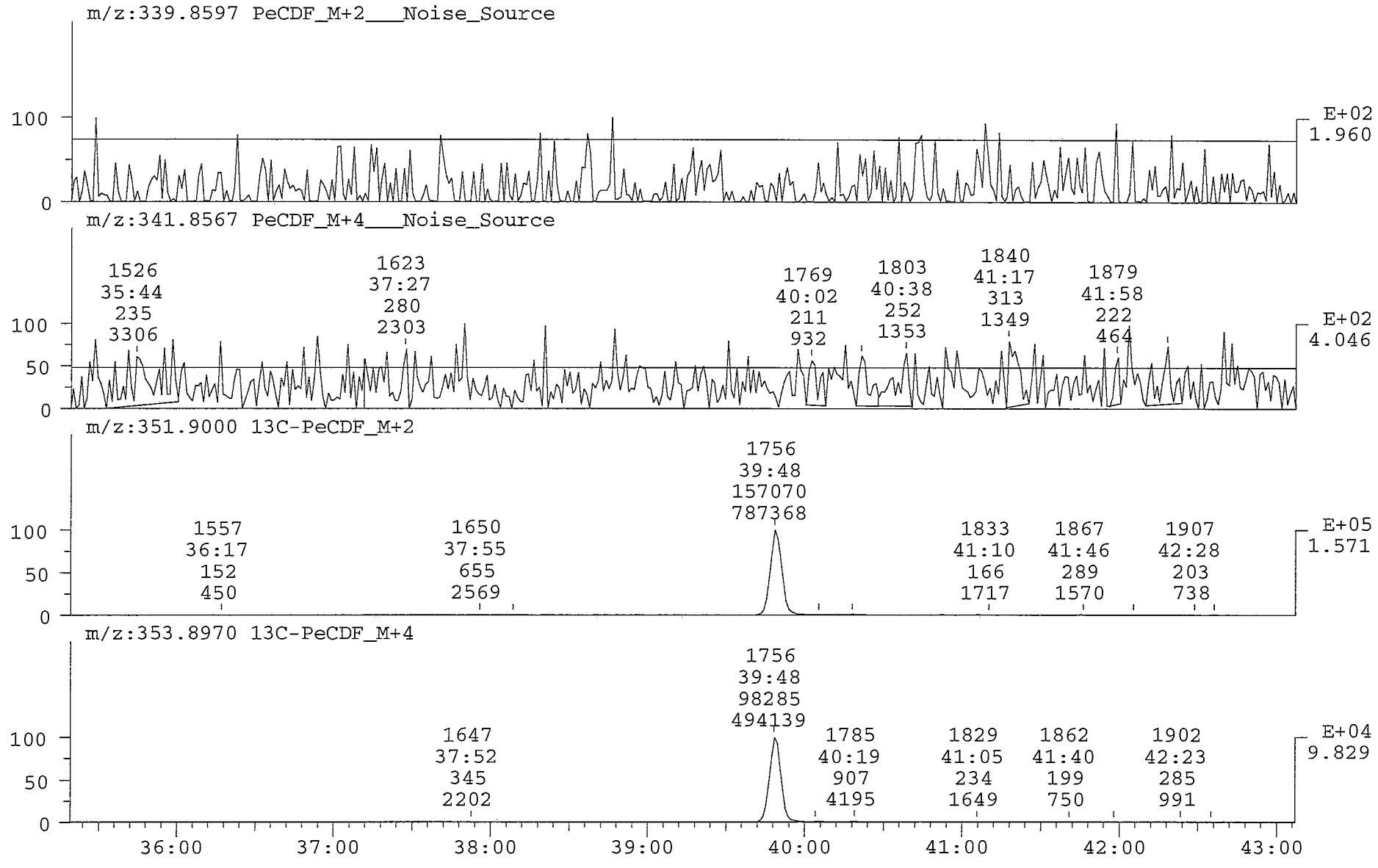
668 55
299567
299567

LMM 7-15-11

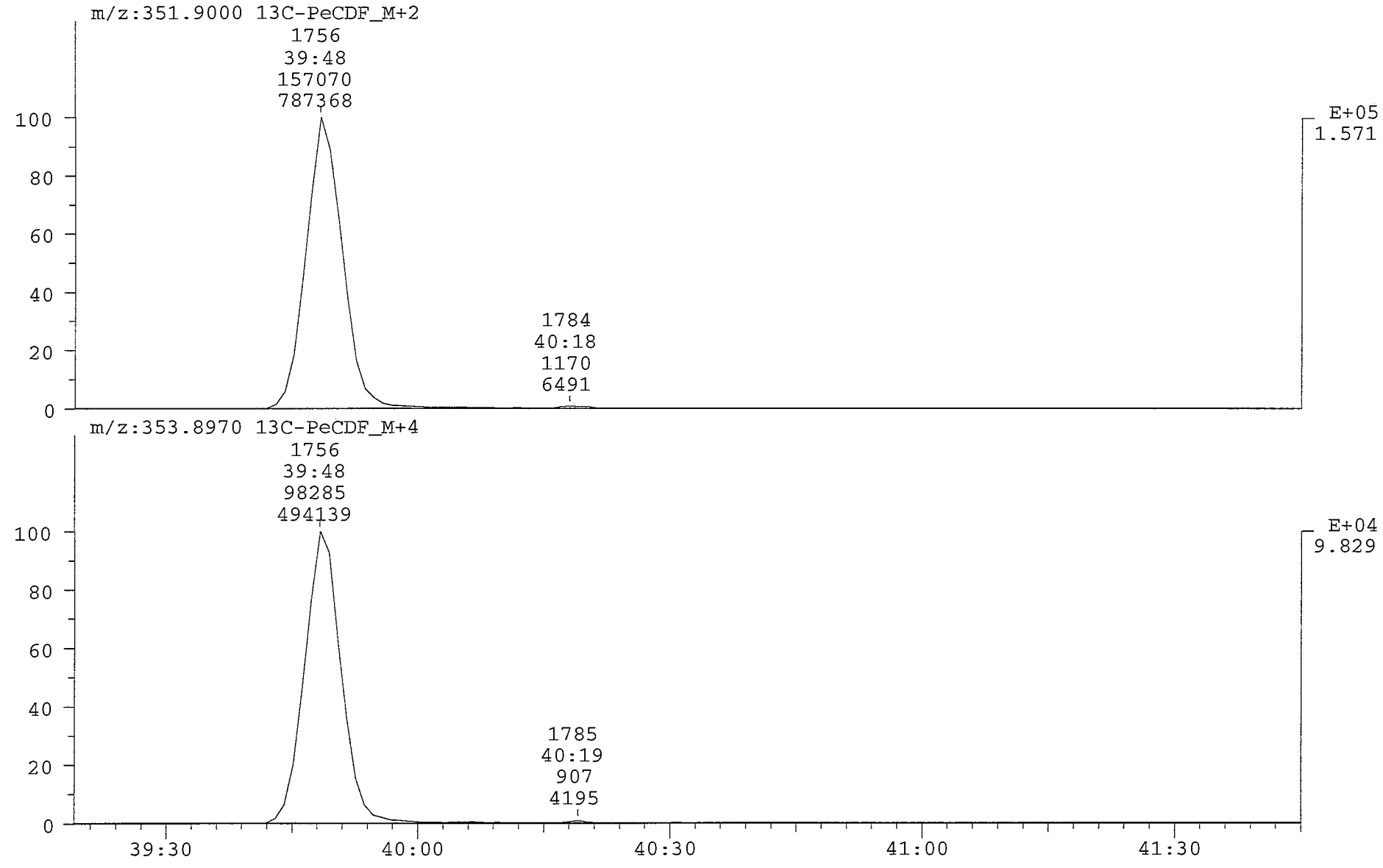
H-273

272

CHRO: btmkm60a 15-Jul-11 Elapse: 41:40 1862
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1502 > 1943 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

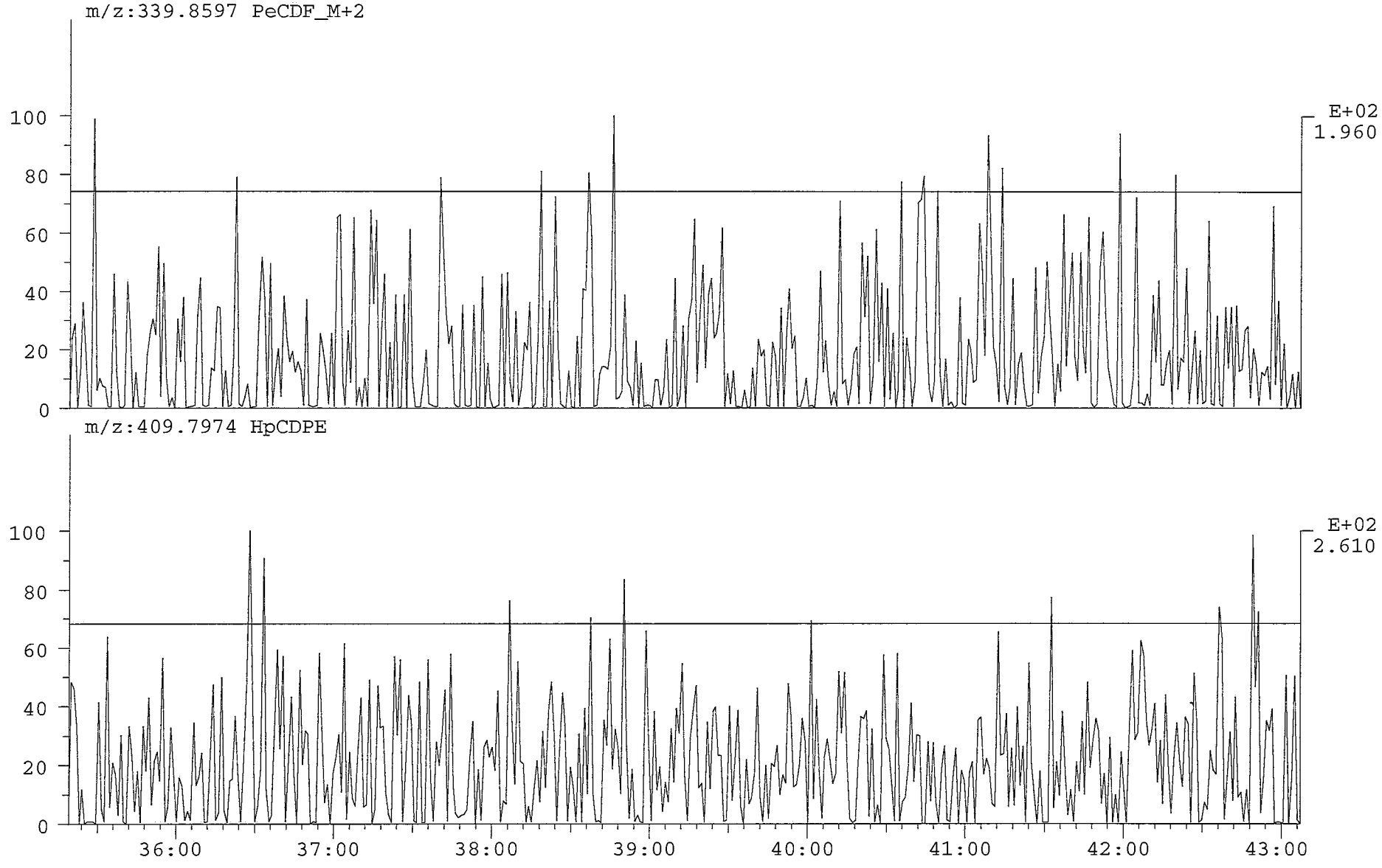


CHRO: btmkm60a 15-Jul-11 Elapse: 40:31 1797
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1728 > 1866 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

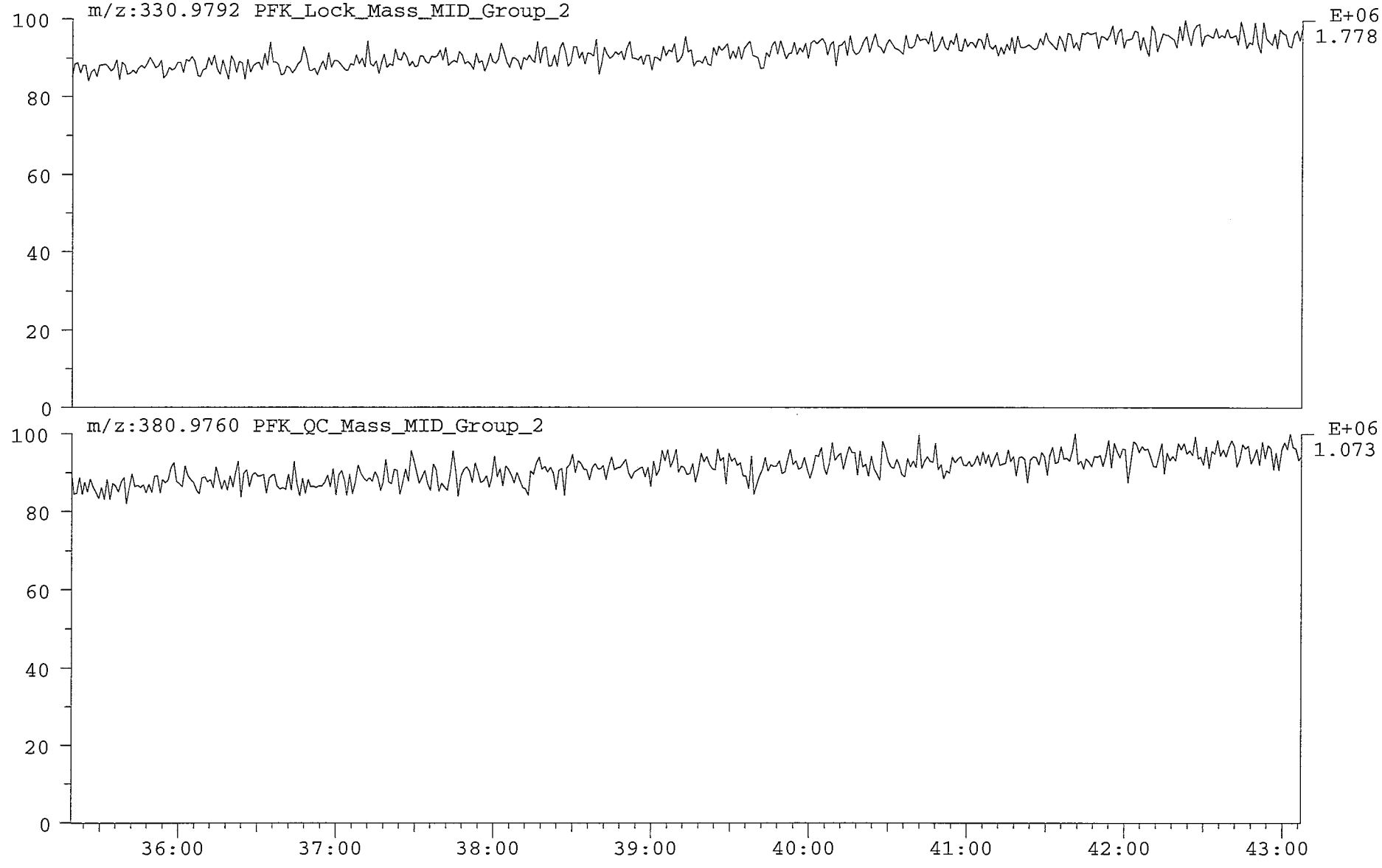


H-275

CHRO: btmkm60a 15-Jul-11 Elapse: 40:31 1797
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1502 > 1943 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm60a 15-Jul-11 Elapse: 40:31 1797
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1502 > 1943 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



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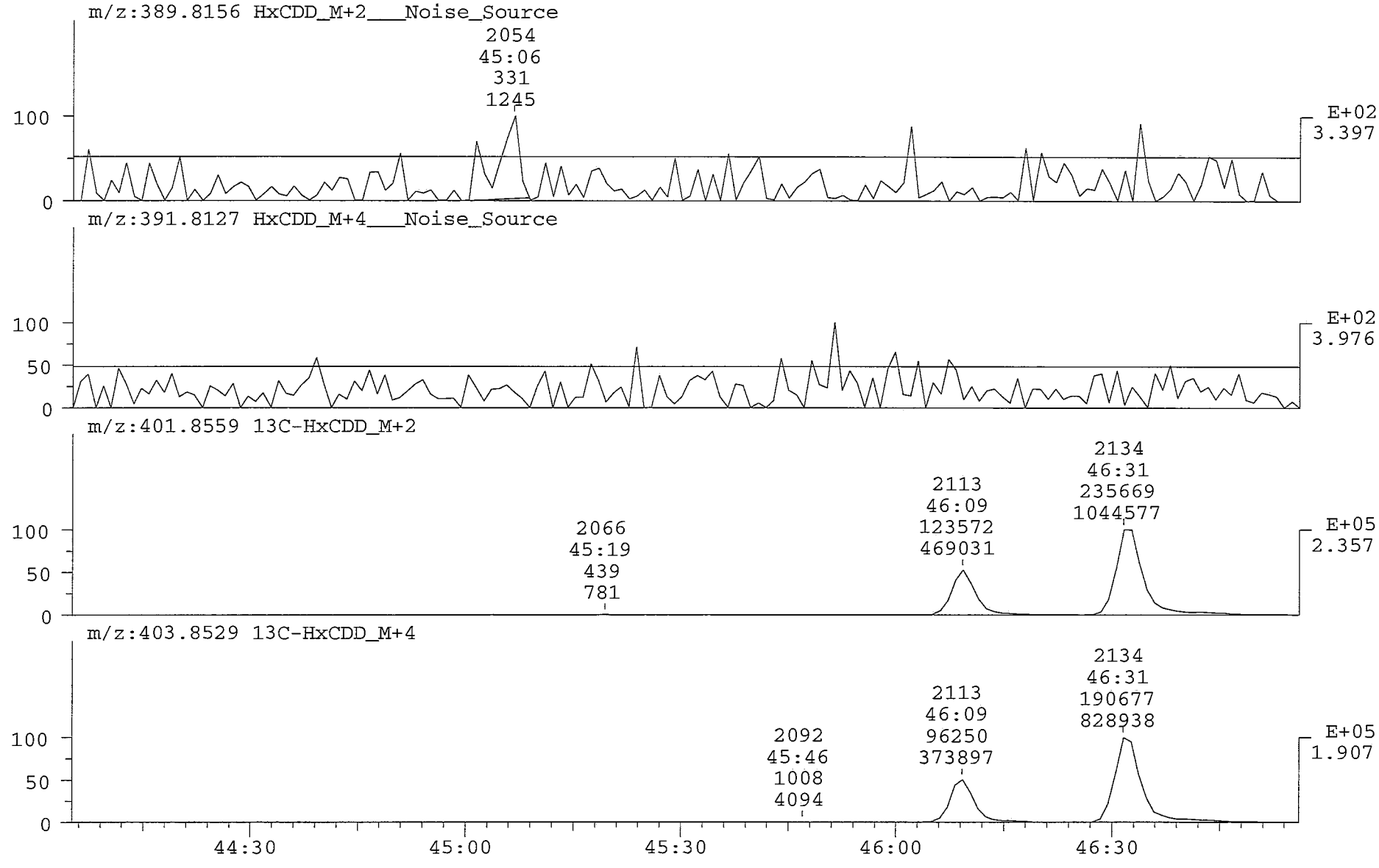
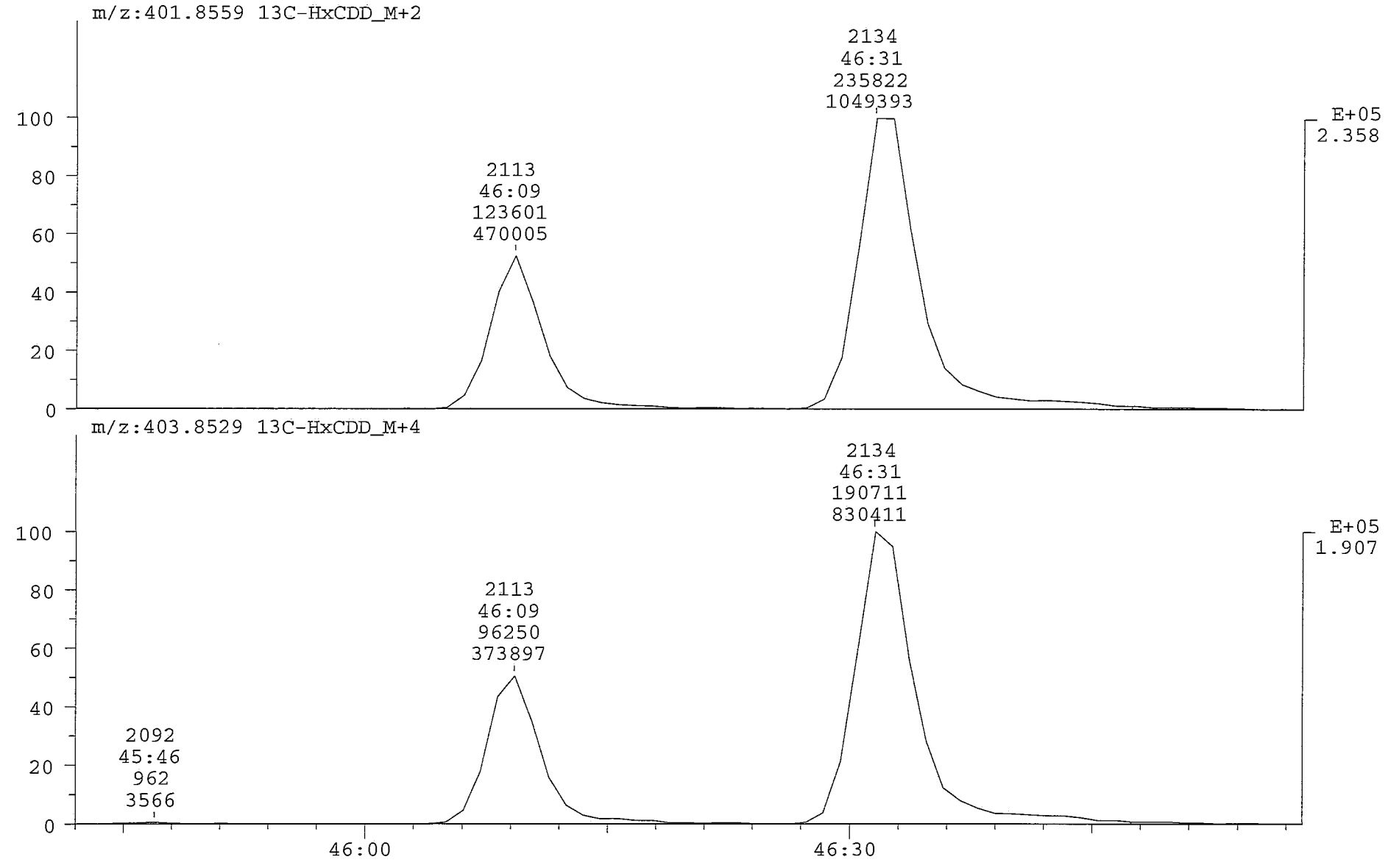
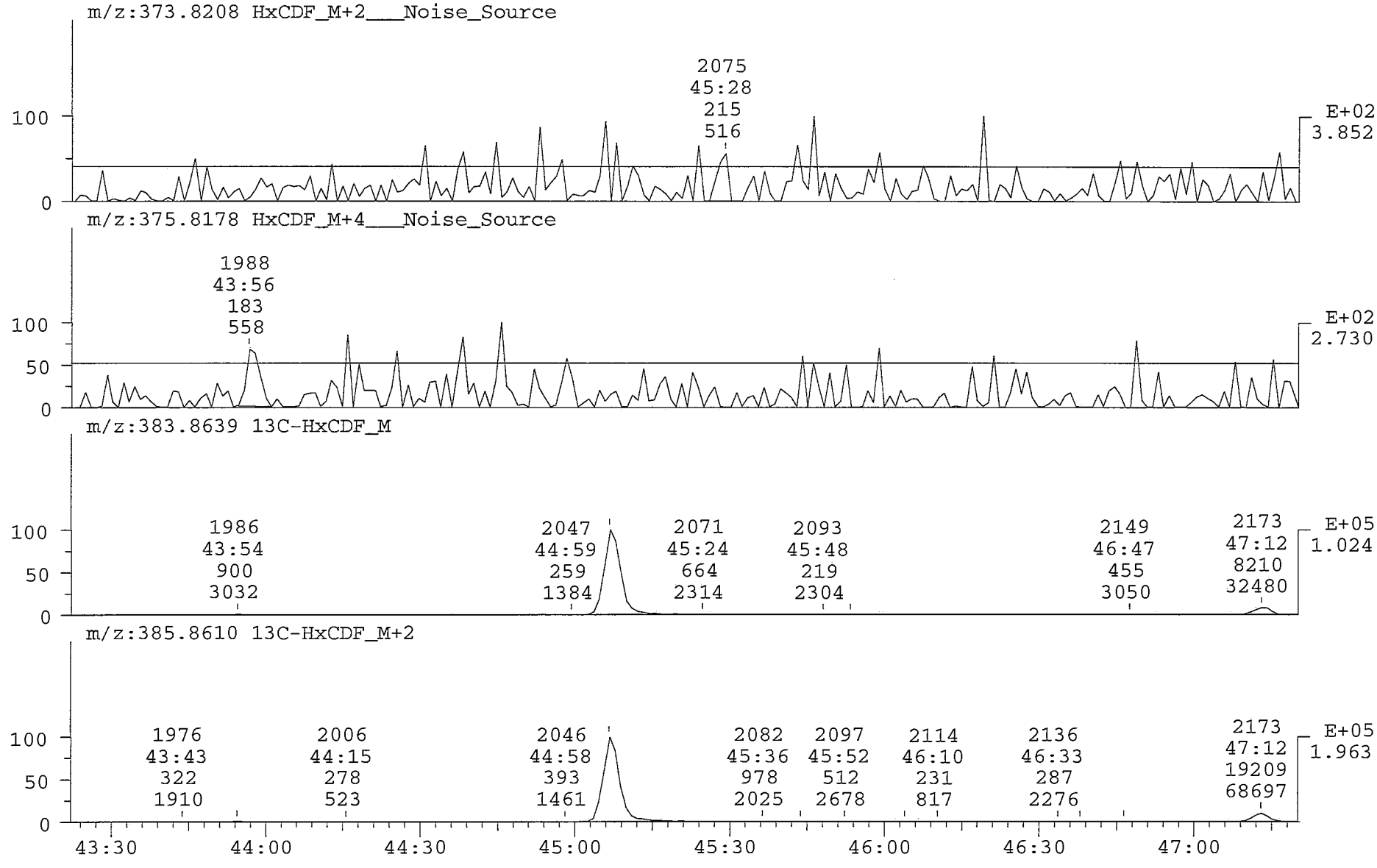
CHRO: btmkm60a 15-Jul-11 Elapse: 40:31 1797
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1996 > 2157 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



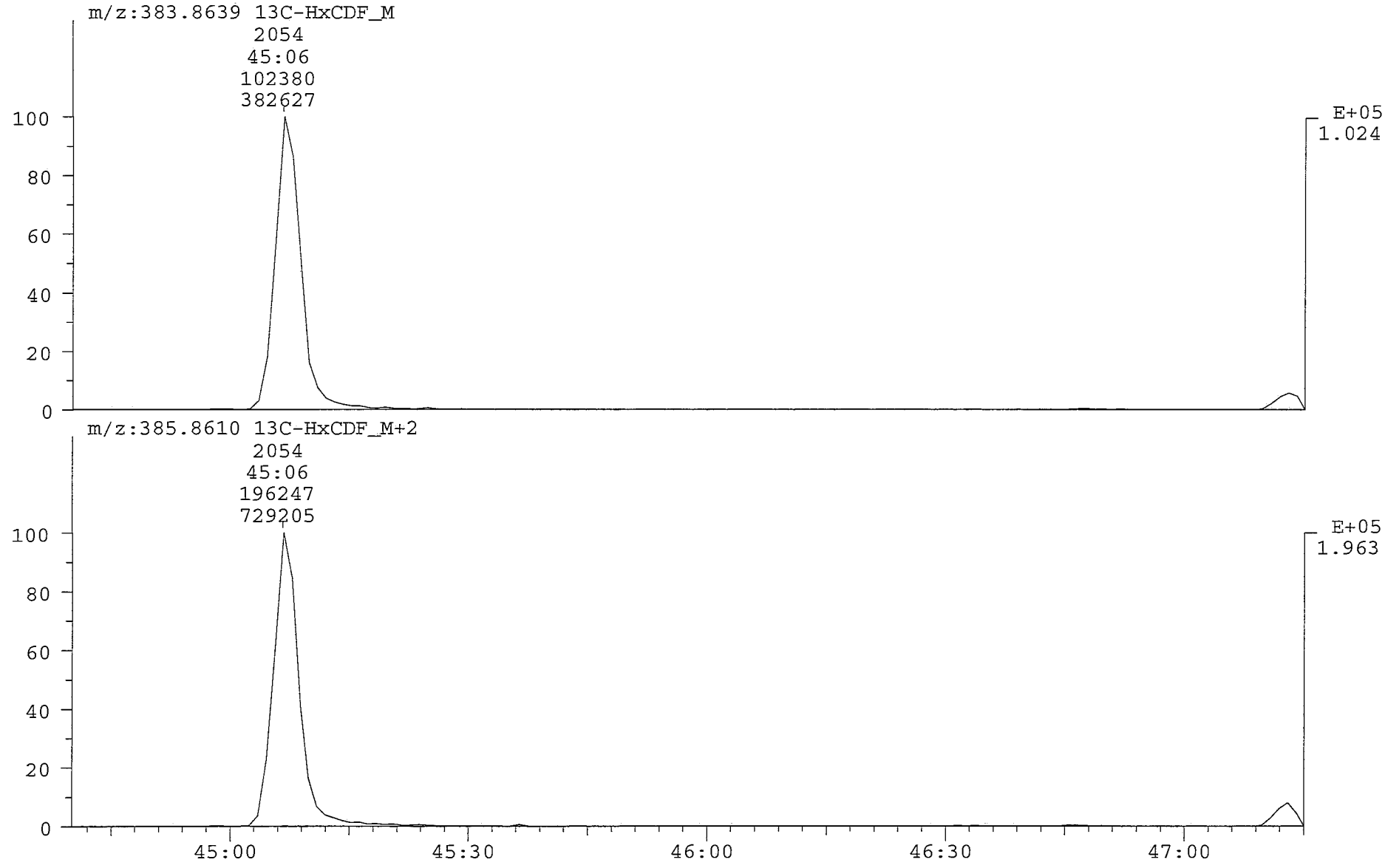
CHRO: btmkm60a 15-Jul-11 Elapse: 46:19 2123
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2087 > 2159 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm60a 15-Jul-11 Elapse: 46:19 2123
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1956 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm60a 15-Jul-11 Elapse: 45:07 2055
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2051 > 2059 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



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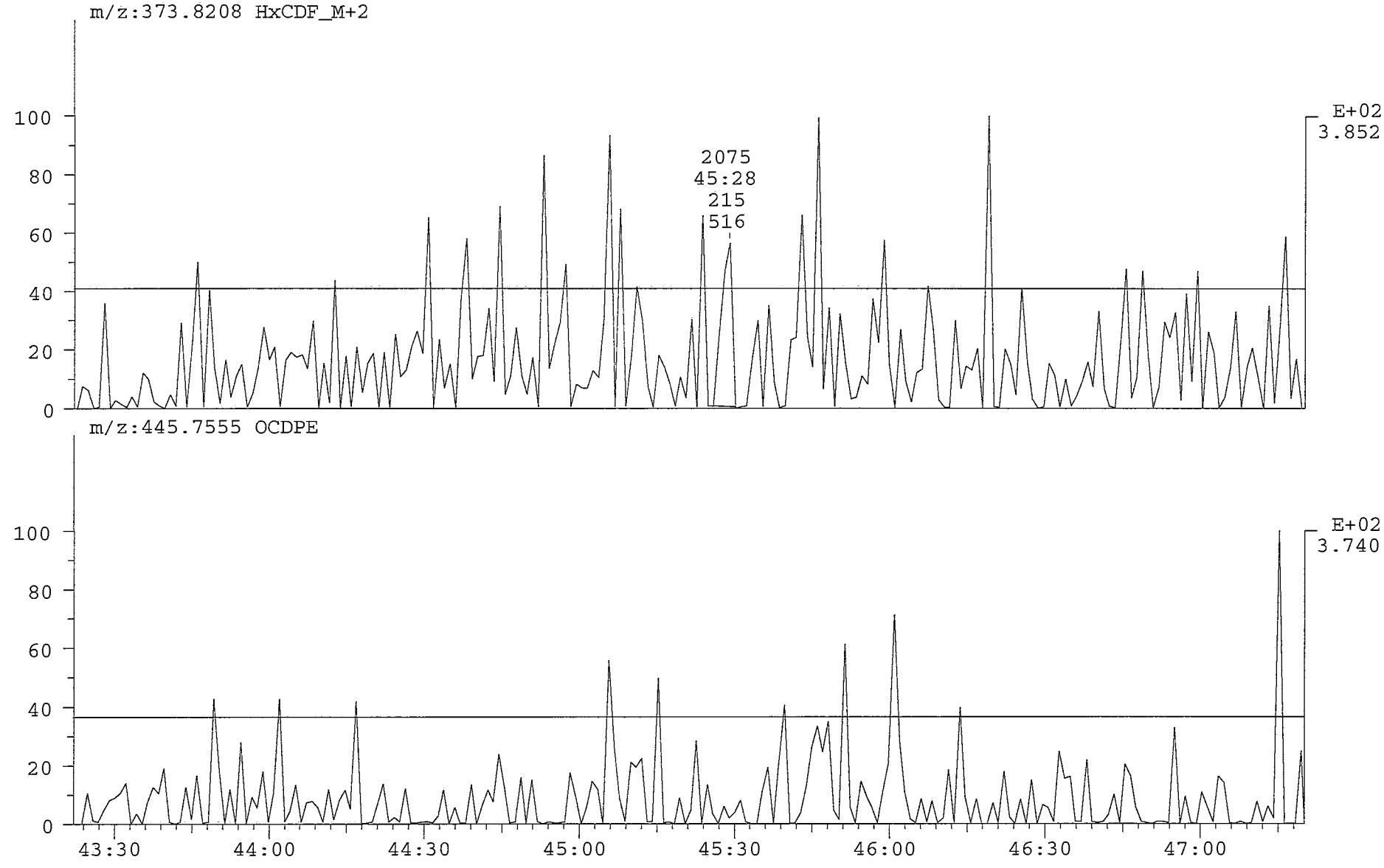
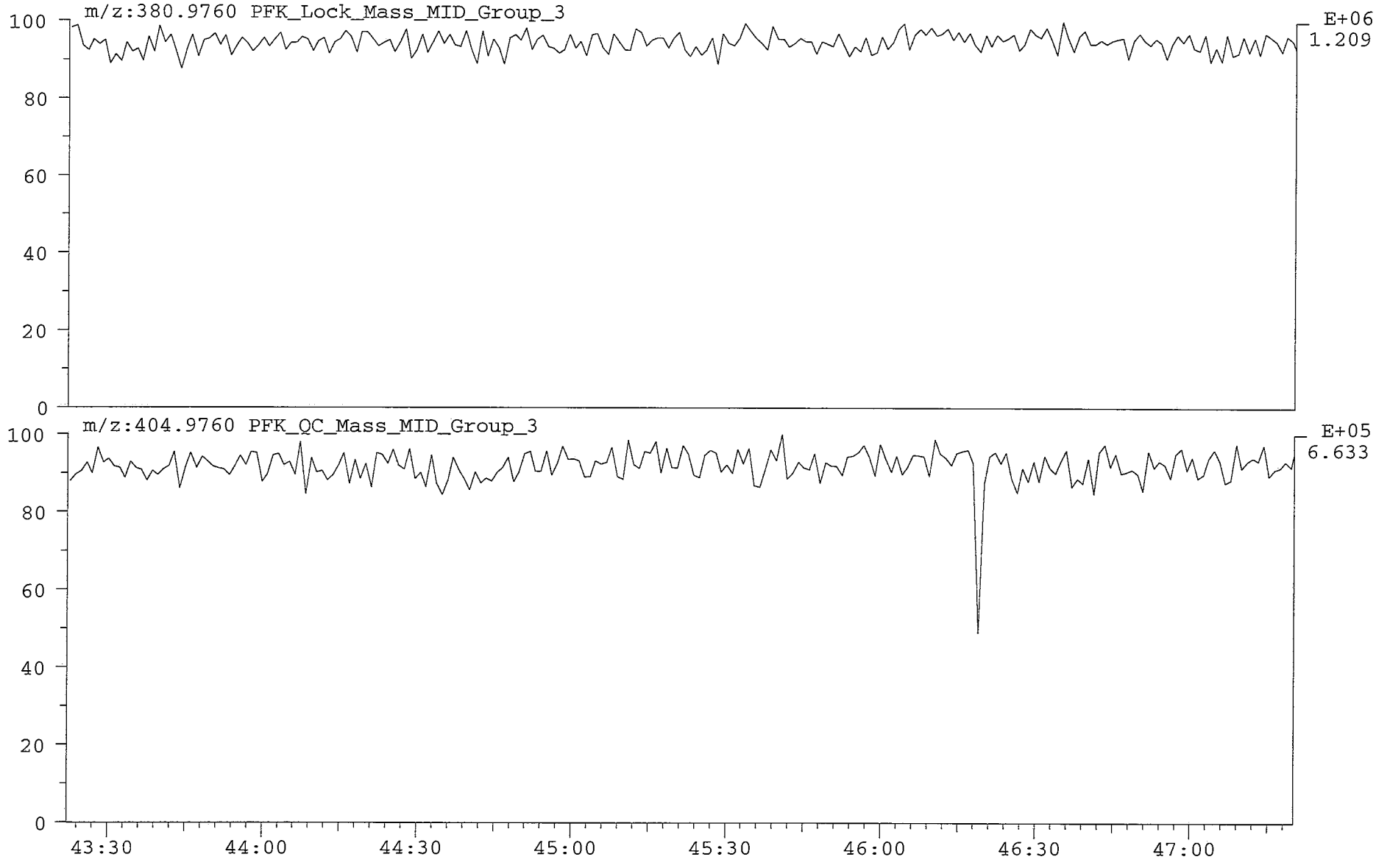
CHRO: btmkm60a 15-Jul-11 Elapse: 45:07 2055
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1956 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

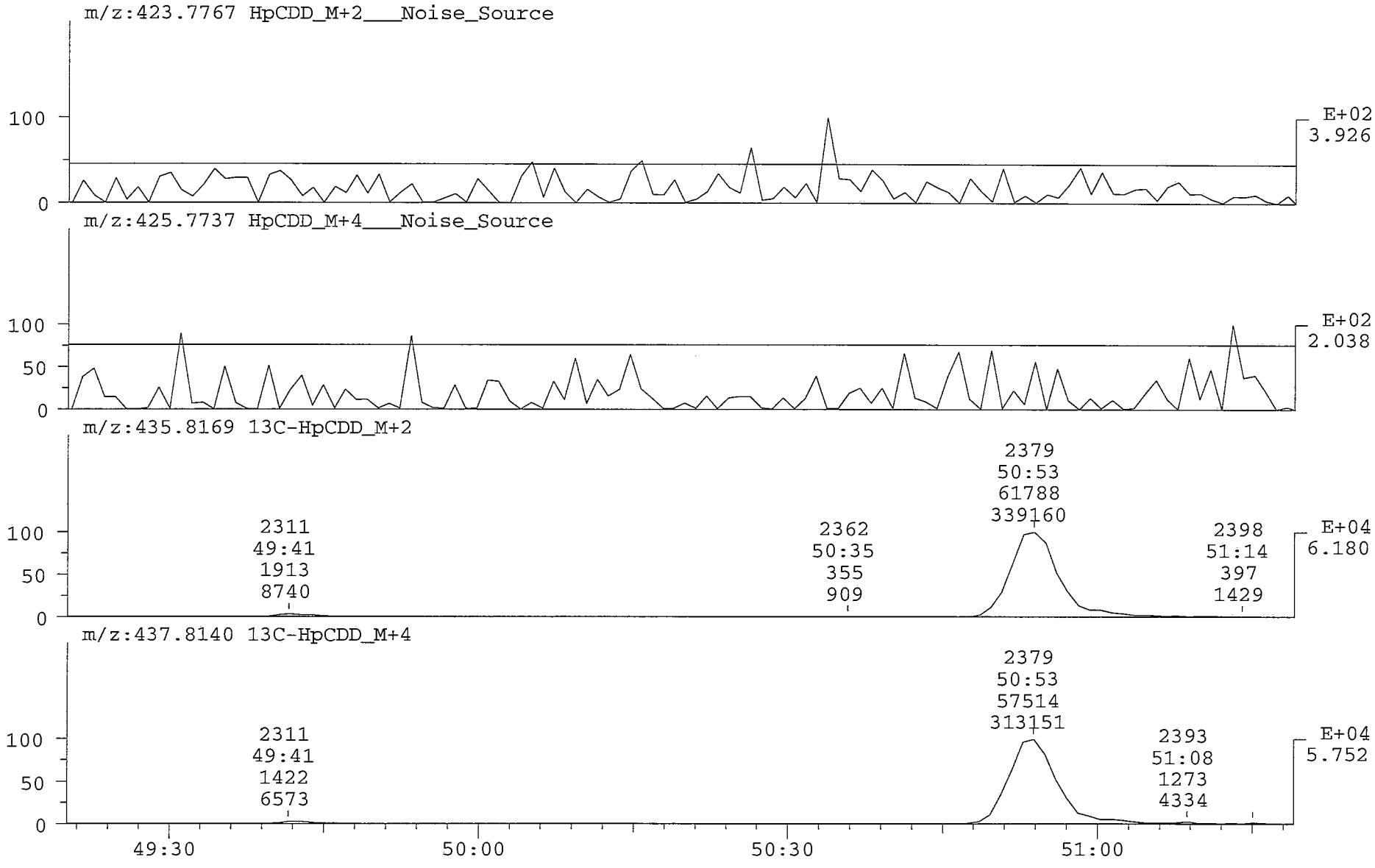


CHRO: btmkm60a 15-Jul-11 Elapse: 45:07 2055
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1956 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

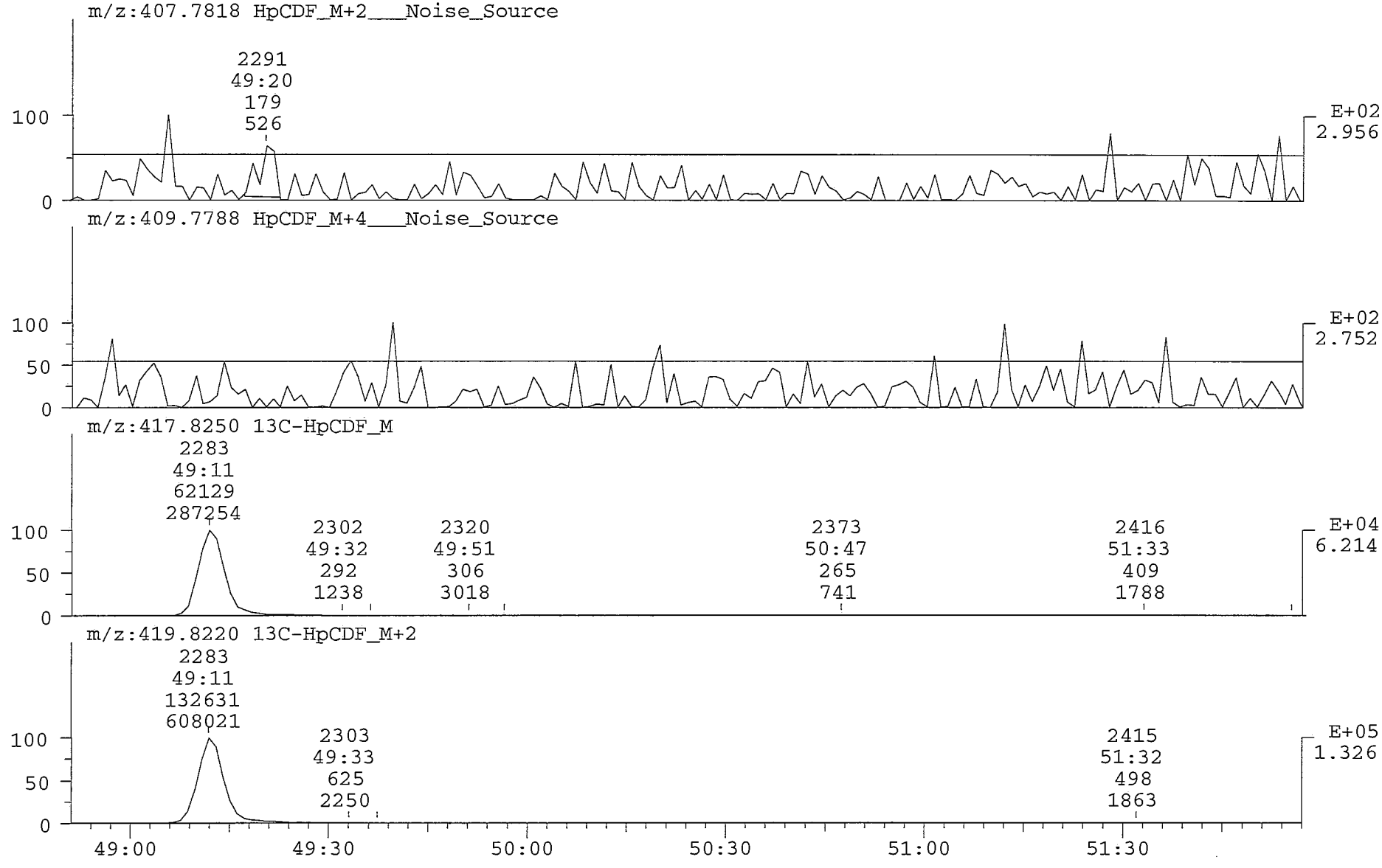


H-283

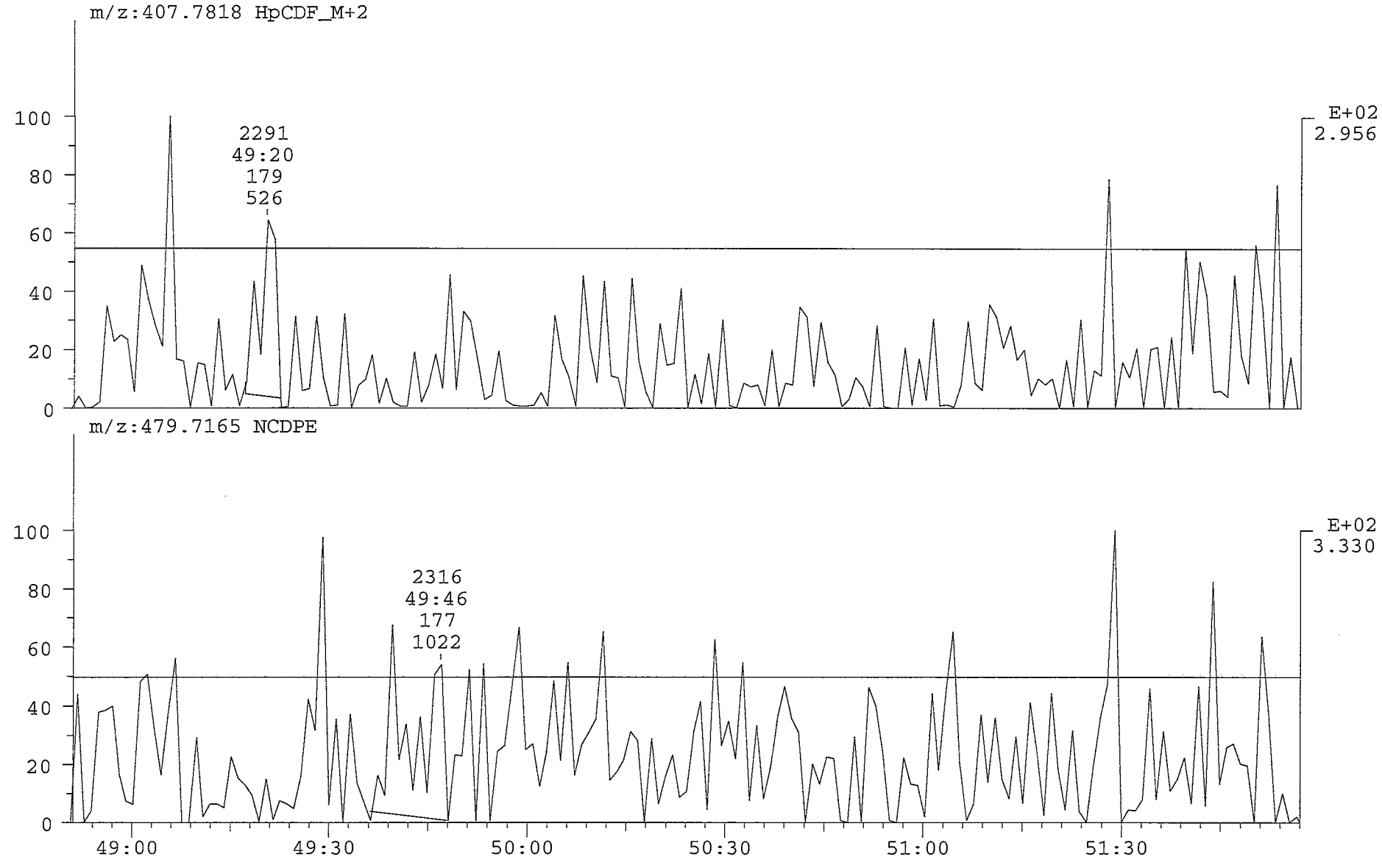
CHRO: btmkm60a 15-Jul-11 Elapse: 45:07 2055
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2291 > 2403 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm60a 15-Jul-11 Elapse: 45:07 2055
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2263 > 2439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm60a 15-Jul-11 Elapse: 45:07 2055
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2263 > 2439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



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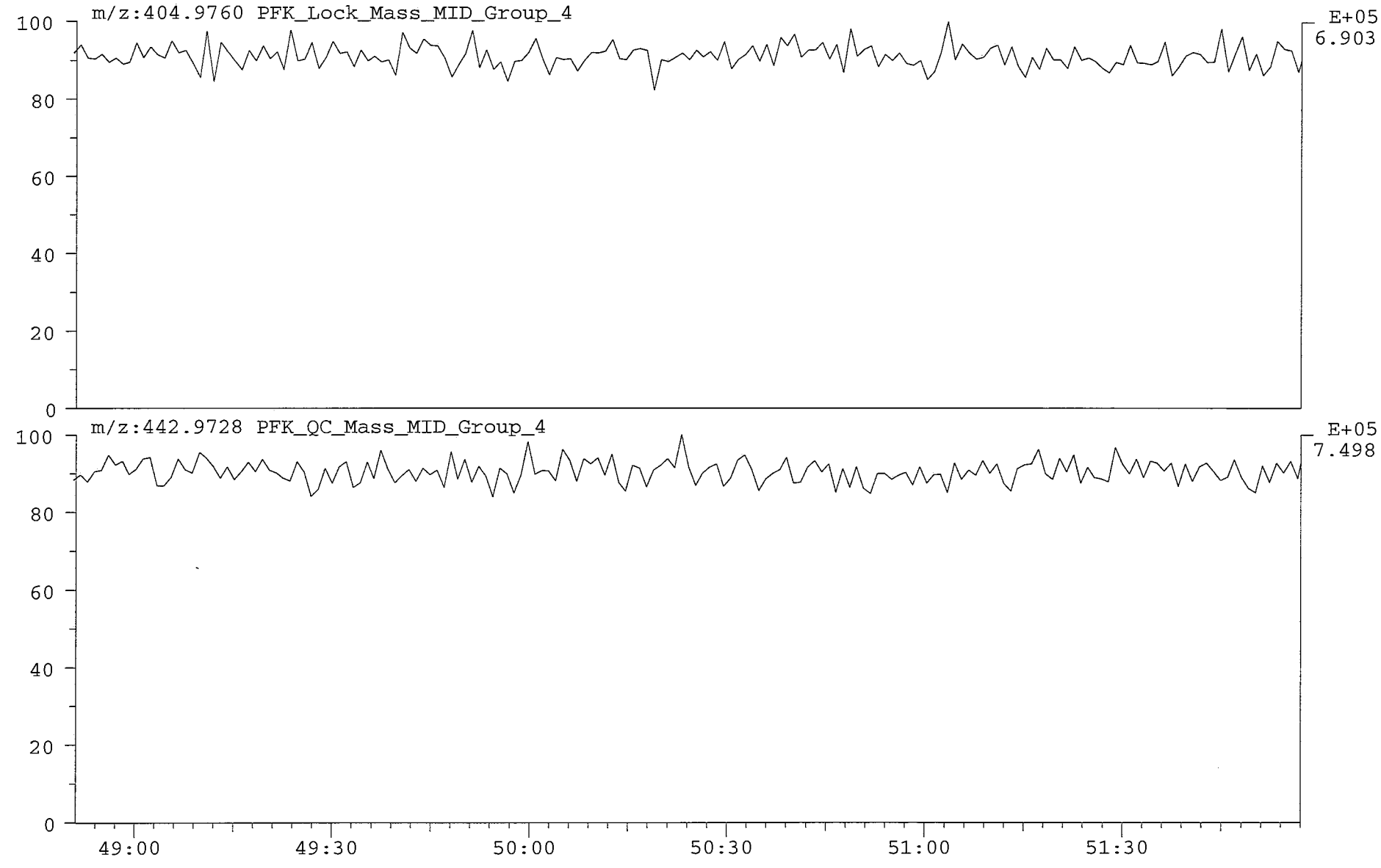
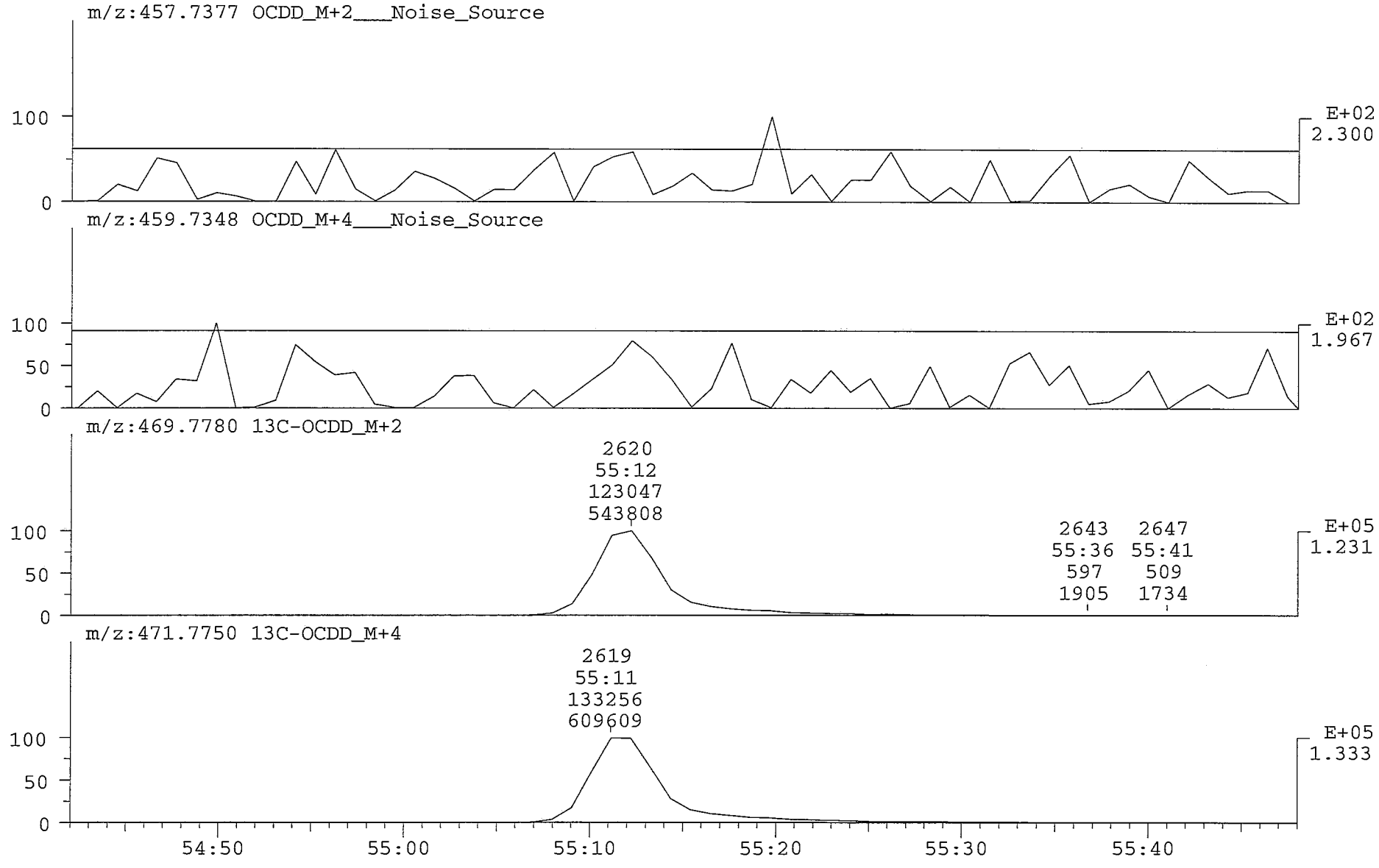
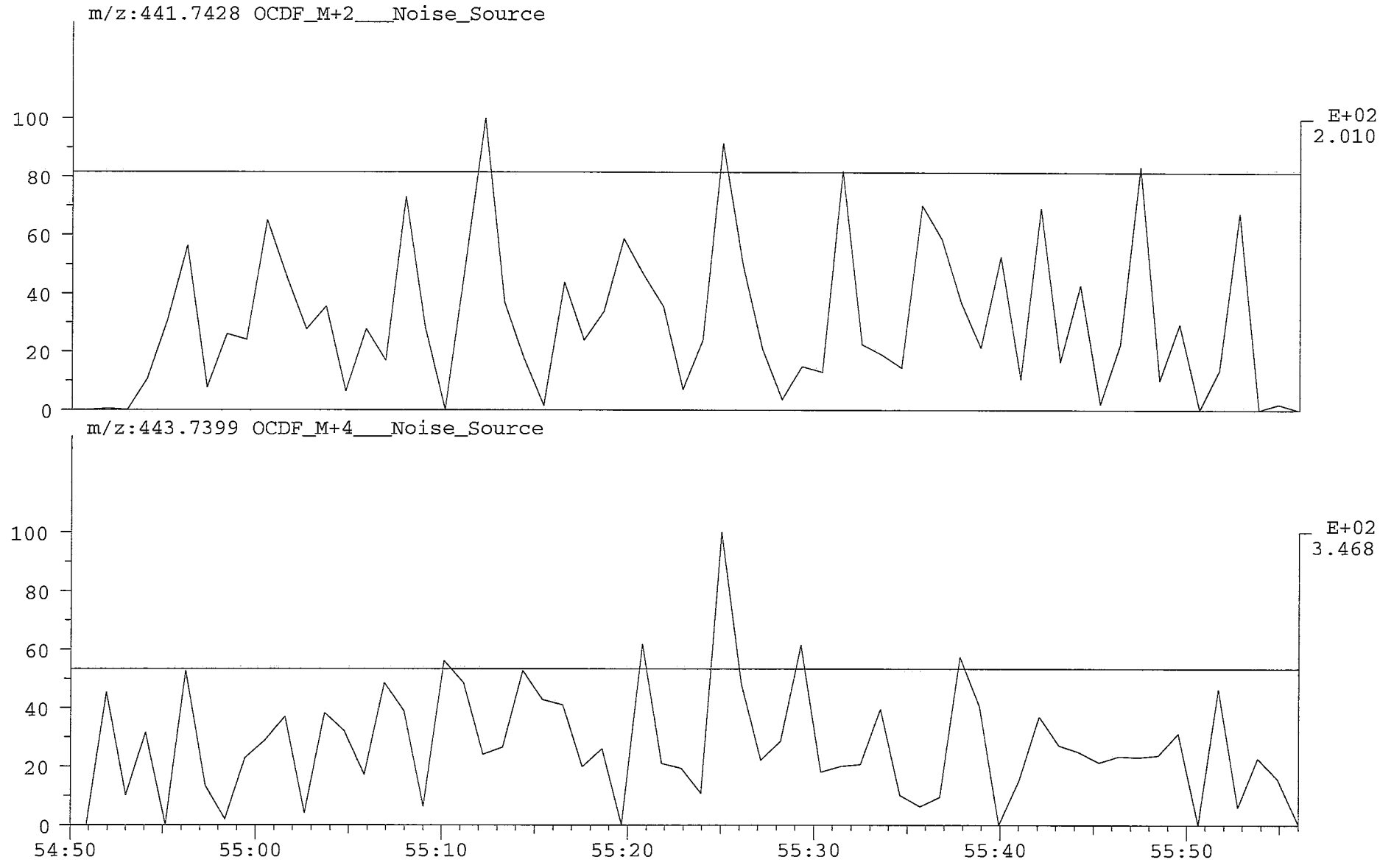
```
CHRO:  btmkm60a                                15-Jul-11   Elapse:   45:07      2055
Samp:  Vial 12 WO=mkm601aa Meth=X8 Dil=1                   Start :   02:08:39   2750
Comm:  Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode:  EI +VE +LMR  ESCAN LR NRM                           Study :   1187027 (air-2)
Oper:  PMP           Client:  H1G050439-015                Inlet :   GC     Vial  12
Peak:  100.00  ppm     Label wndw:   2263 > 2439           Masses:   293 > 514
Area:  5, 0.50, 15     Baseline  :   100, 3                Label :   0, 0.0
Disp:  Height  Area
```



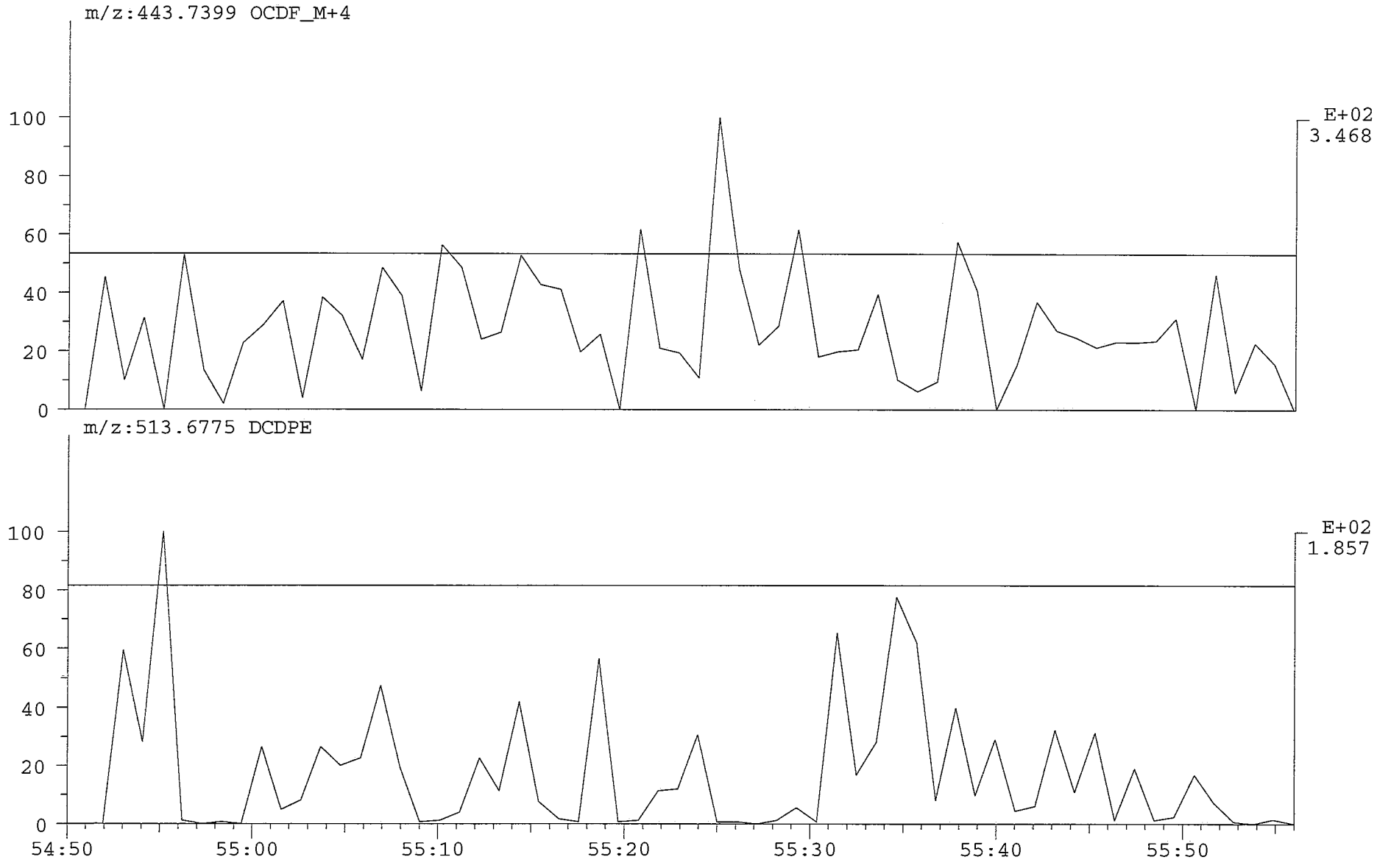
CHRO: btmkm60a 15-Jul-11 Elapse: 55:12 2620
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2592 > 2654 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: btmkm60a 15-Jul-11 Elapse: 55:19 2627
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2599 > 2661 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



```
CHRO:  btmkm60a                                  15-Jul-11   Elapse:  55:19      2627
Samp:  Vial 12 WO=mkm601aa Meth=X8 Dil=1                     Start :  02:08:39   2750
Comm:  Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode:  EI +VE +LMR  ESCAN LR NRM                             Study :  1187027 (air-2)
Oper:  PMP           Client:  H1G050439-015                  Inlet :  GC     Vial  12
Peak:  100.00  ppm     Label wndw:   2599 > 2661             Masses:  293 > 514
Area:  5, 0.50, 15     Baseline  :   100, 3                  Label :  -2, 3.0
Disp:  Height  Area
```



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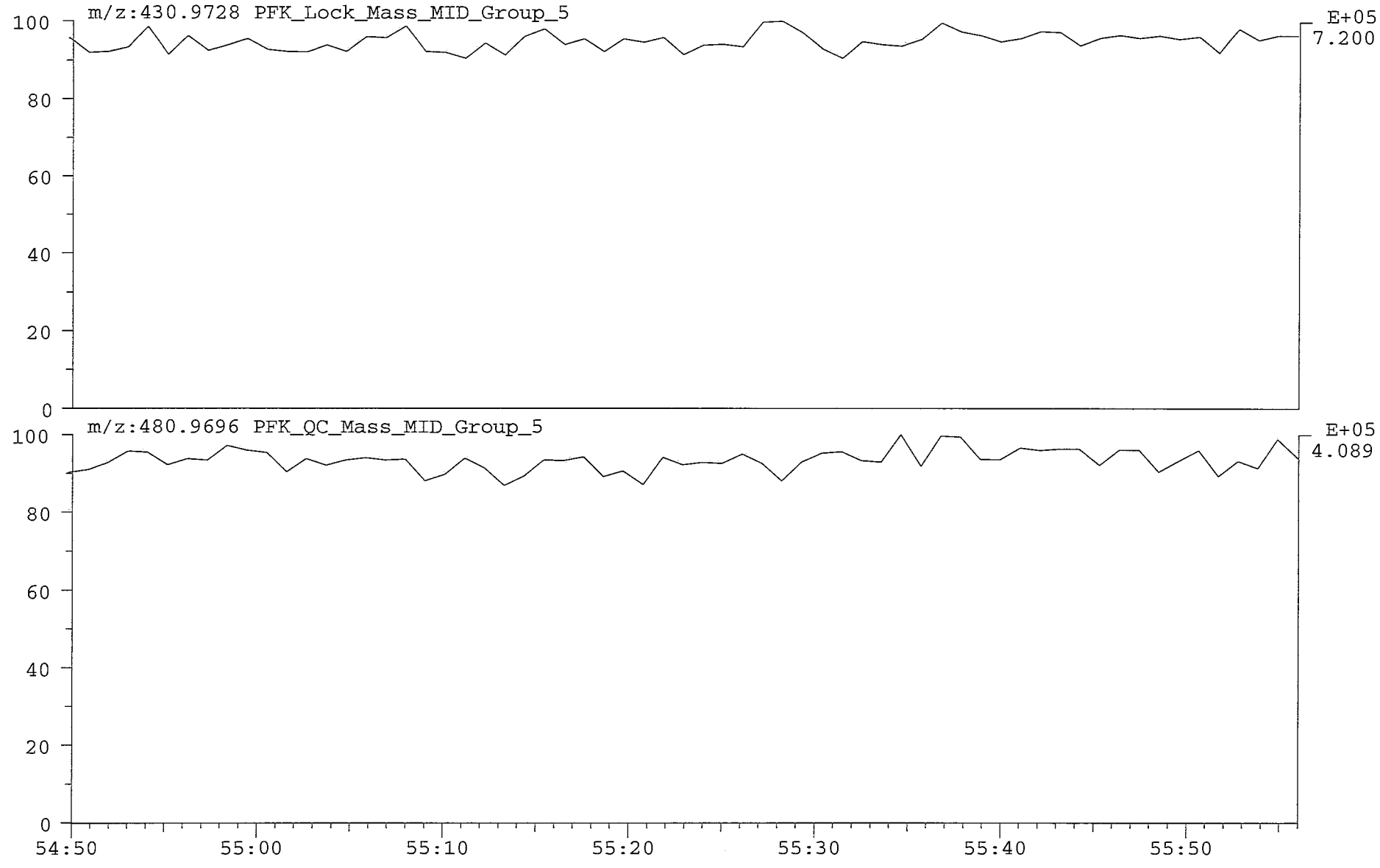
CHRO: btmkm60a 15-Jul-11 Elapse: 55:19 2627
Samp: Vial 12 WO=mkm601aa Meth=X8 Dil=1 Start : 02:08:39 2750
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G050439-015 Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2599 > 2661 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-291

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: btmkm60a
Study: 1187027 (air-2)
Sample: WO=mkm601aa Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: PMP
Client: H1G050439-015
Comments: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Injected volume:   2.0
Sample from Vial 12
Analysis will stop when MID run finishes
Tune file name: tune2b
File 2 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1    8:00 min    27:13 min    35:13 min     1.00 sec
  # 2   35:13 min     7:54 min    43:08 min     1.00 sec
  # 3   43:08 min     5:17 min    48:25 min     1.00 sec
  # 4   48:25 min     5:05 min    53:30 min     1.00 sec
  # 5   53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
Loop clean w slvnt B (LB):      0 times
Standard sample volume(X):    0.0 ul
Standard air volume   (Y):    0.0 ul
2nd Injection volume  (I):    0.0 ul
Air volume of 2nd inj (J):    0.0 ul
Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                        300 deg max
  Transfer Line:     290 deg                        300 deg max
  Column:            140 deg at    0.0 minutes      330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow      40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8418.0000
BDEV	8289.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.4118
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-26.2250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9997
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	147.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.1000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	373.0000	FVINLET	856.0000
FVSRC	1048.0000	FWIN	0.7000	GCTC	137.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.6961	HVANAL	1221.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2760.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10525.5743	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.6800	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 02:08:39.1

Autosampler has injected sample from vial 12
Analysis stopped at: 15-Jul-11 03:06:11.0 (run time 57.52 minutes)
Analysis stopped because MID run finished

Standards Data

TestAmerica Knoxville Dioxin GC/MS Initial Calibration Data Review / Narrative Checklist

Method: ~~4~~ 0023A/8290 ~~4~~ EPA 23 KNOX-ID-0004-R8

PFK Date/Time:	12/10/09 11:00	Inst:	HRMS5	Win Filename:	b091210w1	Col Perf Filename:	b091210w1

CS1 Filename	CS2 Filename	CS3 Filename	CS4 Filename	CS5 Filename
b091210i1	b091210i2	b091210i3	b091210i4	b091210i5

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Was the mass resolution documented before beginning the initial calibration?		✓			✓
2. Was the instrument resolution >10,000 (<100 ppm) on PFK m/z 304.9824 and m/z 380.9760 (at reduced voltage)?		✓			✓
3. Was the measured exact mass of m/z 380.9760 (PFK) within 5 ppm at reduced accelerating voltage?		✓			✓
4. Was the Window Defining Mixture analyzed and the MID switchpoints set to encompass the retention time windows of each congener group?		✓			✓
5. Was the Column Performance solution analyzed and the %Valley ≤25 for separation between 2378-TCDD/F and the closest eluting non-2378 isomer?		✓			✓
6. Were the five calibration standard solutions, at the concentrations specified in Table 6of the SOP, analyzed?		✓			✓
7. Was date/time of analysis verified between analysis header and logbook as correct?		✓			✓
8. Were the response factors calculated for each labeled standard and unlabeled native analyte using the SOP specified reference compound (Table 4), quantitation ions (Table 22), and formula (Section 10.2.6)?		✓			✓
9. Are the relative retention times of all PCDDs/PCDFs and all labeled compounds within the limits specified in Table 3?		✓			✓
10. Method 0023A: Are %RSD ≤20% for all unlabeled native analytes (≤ criteria in Table 6 for Method 23)?		✓			✓
11. Method 0023A: Are %RSD ≤35% for all labeled internal standards (≤ criteria in Table 6 for Method 23)?		✓			✓
12. Are all S/N ratios ≥10 for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		✓			✓
13. Are the ion abundance ratios for all labeled and unlabeled analytes within the control limits specified in Table 22 of the SOP? Cambridge HRSD 12/11/09		✓			✓
14. Was the second source (~~Wellington~~) ICV standard analyzed, and the %D calculated and within the acceptance criteria of < ±35%?		✓			✓
15. If manual integrations were performed, are they clearly identified, initialed and dated?		✓		CS1, CS2 letras	✓
16. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				✓
17. Does the ICAL folder contain **complete** data in the following order: Data review checklist, a **complete** runlog, Avg. %RSD summary, Ratio summary, Calculation summary, PFK resolution/peak match documentation; Total RIC, EICP's and manual integration - for window and all standards, in order from low to high standard, ICV Summary Table, Calculation Summary, and chromatograms?		✓			✓

Analyst:	Date: 12/11/09	2nd Level Reviewer:	Date: 12-11-09
Comments:		Comments:	

TestAmerica Knoxville Dioxin GC/MS Initial Calibration Data Review / Narrative Checklist
Method: TO-9A - KNOX-ID-0004-R8

PFK Date/Time:	12/10/09 11:00	Inst:	WATSS	Win Filename:	b091210w1	Col Perf Filename:	b091210w1

CS1 Filename	CS2 Filename	CS3 Filename	CS4 Filename	CS5 Filename
b091210i1	b091210i2	b091210i3	b091210i4	b091210i5

Review Items	NA	Yes	No	If No, why is data reportable?	2nd Level
1. Was the mass resolution documented before beginning the initial calibration?		✓			✓
2. Was the instrument resolution >10,000 (<100 ppm) on PFK m/z 304.9824 and m/z 380.9760 (at reduced voltage)?		✓			✓
3. Was the measured exact mass of m/z 380.9760 (PFK) within 5 ppm at reduced accelerating voltage?		✓			✓
4. Was the Window Defining Mixture analyzed and the MID switchpoints set to encompass the retention time windows of each congener group?		✓			✓
5. Was the Column Performance solution analyzed and the %Valley ≤25 for separation between 2378-TCDD/F and the closest eluting non-2378 isomer?		✓			✓
6. Were the five calibration standard solutions, at the concentrations specified in Table 6 of the SOP, analyzed?		✓			✓
7. Was date/time of analysis verified between analysis header and logbook as correct?		✓			✓
8. Were the response factors calculated for each labeled standard and unlabeled native analyte using the SOP specified reference compound (Table 4), quantitation ions (Table 22), and formula (Section 10.2.6)?		✓			✓
9. Are the relative retention times of all PCDDs/PCDFs and all labeled compounds within the limits specified in Table 3?		✓			✓
10. Are %RSD for all unlabeled native analytes ≤ criteria in Table 6?		✓			✓
11. Are %RSD for all labeled internal standards ≤ criteria in Table 6?		✓			✓
12. Are all S/N ratios ≥10 for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		✓			✓
13. Are the ion abundance ratios for all labeled and unlabeled analytes within the control limits specified in Table 22 of the SOP? Cambridge MS012/11/09		✓			✓
14. Was the second source (~~Wellington~~) ICV standard analyzed, and the %D calculated and within the acceptance criteria of < ±35%?		✓			✓
15. If manual integrations were performed, are they clearly identified, initialed and dated?		✓		CS1, CS2 letras	✓
16. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				✓
17. Does the ICAL folder contain **complete** data in the following order: Data review checklist, a **complete** runlog, Avg. %RSD summary, Ratio summary, Calculation summary, PFK resolution/peak match documentation; Total RIC, EICP's and manual integration - for window and all standards, in order from low to high standard, ICV Summary Table, Calculation Summary, and chromatograms?		✓			✓

Analyst:	Date: 12/11/09	2nd Level Reviewer:	Date: 12-11-09
Comments:		Comments:	

TESTAMERICA KNOXVILLE
SPECIALTY ORGANICS INSTRUMENT MAT 95S RUN LOG

KM 12-10-09x2

Date	Time	Opr	Sample ID	Filename	Code	Matrix	Type	Tape	Lot#/Comments
12-10-09	11:00	KM	PFK	b091210i01	OK	—	res		mass res chk
12-10-09	11:02	KM	~~b09~~ 4104:12	b091210i01	OK	—	win		win
12-10-09	12:02	KM	nonane	r	OK	—	QC		flush
12-10-09	12:17	KM	↓	r	OK	—	QC		↓
12-10-09	12:32	KM		r	OK	—	QC		
12-10-09	12:47	KM	↓	r	OK	—	QC		
12-10-09	13:02 / 15:45	KM	4104:14	b091210i1	RR/OK	—	CS1		ICAL 09,0023A
12-10-09	16:45	KM	↓	b091210i2	OK	—	CS2		epa23
12-10-09	17:46	KM		b091210i3	OK	—	CS3		↓
12-10-09	18:47	KM		b091210i4	OK	—	CS4		
12-10-09	19:48	KM	↓	b091210i5	OK	—	CS5		
12-10-09	20:48	KM	~~3848~~ nonane	r	OK	—	QC		flush
12-10-09	21:02	KM	↓	r	OK	—	QC		↓
12-10-09	21:16	KM	↓	r	OK	—	QC		
12-10-09	21:30	KM	3848:183	b091210SS	OK	—	SS ver		SS ver
12-10-09	22:30	PMP	PFK	—	OK	—	Res		Mass Res Chk

KM 12/10/09

KM 12/11/09

Read and Understood by: KM Date: 12/11/09

TestAmerica
Knoxville

IsoCalc Initial Calibration Report

PCDD/PCDF by EPA Method 0023/8290

ICAL ID: 34287 - 20091210I
Date: 12/10/09 15:45
Method: X8 - 0023/8290

Instrument: M2A
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um
Column S/N: 945352

Level	Filename	Date/Time	Sample ID	Result Directory
CS1:	b091210i1	12/10/09 15:45	4104:14CS1	/20091210i/b091210i1.d
CS2:	b091210i2	12/10/09 16:45	4104:14CS2	/20091210i/b091210i2.d
CS3:	b091210i3	12/10/09 17:46	4104:14CS3	/20091210i/b091210i3.d
CS4:	b091210i4	12/10/09 18:47	4104:14CS4	/20091210i/b091210i4.d
CS5:	b091210i5	12/10/09 19:47	4104:14CS5	/20091210i/b091210i5.d

	Response Factors								
Analyte	CS1	CS2	CS3	CS4	CS5	Mean RF	%RSD	Limit	Valid?
2,3,7,8-TCDD	1.259	1.120	1.201	1.143	1.135	1.172	4.9	20.0	True
Total TCDD						1.172	0.0	20.0	True
2,3,7,8-TCDF	1.180	1.007	1.101	1.060	1.056	1.081	6.0	20.0	True
Total TCDF						1.081	0.0	20.0	True
1,2,3,7,8-PeCDD	1.212	1.159	1.082	1.086	1.079	1.124	5.3	20.0	True
Total PeCDD						1.124	0.0	20.0	True
1,2,3,7,8-PeCDF	1.097	1.090	1.058	1.021	0.987	1.050	4.4	20.0	True
2,3,4,7,8-PeCDF	1.089	0.971	1.008	1.054	1.029	1.030	4.3	20.0	True
Total PeCDF						1.040	0.0	20.0	True
1,2,3,4,7,8-HxCDD	1.069	1.008	0.965	0.960	0.949	0.990	5.0	20.0	True
1,2,3,6,7,8-HxCDD	1.030	1.114	1.089	0.970	0.899	1.020	8.6	20.0	True
1,2,3,7,8,9-HxCDD	1.054	1.093	1.018	0.935	0.913	1.003	7.7	20.0	True
Total HxCDD						1.004	0.0	20.0	True
1,2,3,4,7,8-HxCDF	1.152	1.085	1.111	1.029	1.079	1.091	4.1	20.0	True
1,2,3,6,7,8-HxCDF	1.326	1.324	1.246	1.111	1.121	1.226	8.6	20.0	True
2,3,4,6,7,8-HxCDF	1.327	1.185	1.162	1.053	1.076	1.160	9.3	20.0	True
1,2,3,7,8,9-HxCDF	1.138	1.004	0.984	0.942	0.971	1.008	7.6	20.0	True
Total HxCDF						1.121	0.0	20.0	True
1,2,3,4,6,7,8-HpCDD	1.074	1.128	1.090	1.089	1.091	1.094	1.8	20.0	True
Total HpCDD						1.094	0.0	20.0	True
1,2,3,4,6,7,8-HpCDF	1.503	1.523	1.452	1.431	1.437	1.469	2.8	20.0	True
1,2,3,4,7,8,9-HpCDF	1.067	1.128	1.102	1.186	1.151	1.127	4.1	20.0	True
Total HpCDF						1.298	0.0	20.0	True
OCDD	1.078	1.144	1.080	1.039	1.036	1.075	4.1	20.0	True
OCDF	1.255	1.273	1.207	1.266	1.288	1.258	2.5	20.0	True
13C-2,3,7,8-TCDD	0.997	0.998	0.985	1.021	1.030	1.006	1.9	30.0	True
13C-2,3,7,8-TCDF	1.717	1.709	1.677	1.698	1.795	1.719	2.6	30.0	True
13C-1,2,3,7,8-PeCDD	0.972	0.891	0.972	0.983	0.948	0.953	3.9	30.0	True
13C-1,2,3,7,8-PeCDF	1.639	1.633	1.659	1.679	1.693	1.661	1.5	30.0	True
13C-1,2,3,6,7,8-HxCDD	0.993	0.966	1.029	1.091	1.095	1.035	5.6	30.0	True
13C-1,2,3,6,7,8-HxCDF	1.346	1.371	1.450	1.537	1.467	1.434	5.4	30.0	True
13C-1,2,3,4,6,7,8-HpCDD	0.829	0.841	0.872	0.866	0.848	0.851	2.1	30.0	True
13C-1,2,3,4,6,7,8-HpCDF	1.105	1.086	1.077	1.105	1.096	1.094	1.1	30.0	True
13C-OCDD	0.821	0.841	0.864	0.916	0.893	0.867	4.4	30.0	True
37Cl4-2,3,7,8-TCDD	1.424	1.135	1.160	1.141	1.130	1.198	10.6	30.0	True
13C-2,3,4,7,8-PeCDF	1.158	0.952	0.942	0.971	0.944	0.994	9.3	30.0	True
13C-1,2,3,4,7,8-HxCDD	0.837	0.910	0.933	0.893	0.863	0.887	4.3	30.0	True
13C-1,2,3,4,7,8-HxCDF	0.973	0.901	0.872	0.831	0.877	0.891	5.9	30.0	True
13C-1,2,3,7,8,9-HxCDF	1.605	1.313	1.235	1.236	1.216	1.321	12.4	30.0	True
13C-1,2,3,4,7,8,9-HpCDF	0.902	0.870	0.784	0.836	0.814	0.841	5.5	30.0	True
13C-1,2,3,4-TCDD	1.000	1.000	1.000	1.000	1.000	1.000	0.0	0.0	True
13C-1,2,3,7,8,9-HxCDD	1.000	1.000	1.000	1.000	1.000	1.000	0.0	0.0	True

USD 12/11/09

KM 12-11-09

TestAmerica
Knoxville

IsoCalc Initial Calibration Report

PCDD/PCDF by EPA Method 0023/8290

ICAL ID: 34287 - 20091210I
Date: 12/10/09 15:45
Method: X8 - 0023/8290

Instrument: M2A
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um
Column S/N: 945352

Level	Filename	Date/Time	Sample ID	Result Directory
CS1:	b091210i1	12/10/09 15:45	4104:14CS1	/20091210i/b091210i1.d
CS2:	b091210i2	12/10/09 16:45	4104:14CS2	/20091210i/b091210i2.d
CS3:	b091210i3	12/10/09 17:46	4104:14CS3	/20091210i/b091210i3.d
CS4:	b091210i4	12/10/09 18:47	4104:14CS4	/20091210i/b091210i4.d
CS5:	b091210i5	12/10/09 19:47	4104:14CS5	/20091210i/b091210i5.d

Ion Abundance Ratios

Analyte	M/Z's	CS1	CS2	CS3	CS4	CS5	Ratio Limits	Valid?
2,3,7,8-TCDD	M/M+2	0.83	0.89	0.78	0.77	0.79	0.65-0.89	True
2,3,7,8-TCDF	M/M+2	0.75	0.89	0.75	0.79	0.79	0.65-0.89	True
1,2,3,7,8-PeCDD	M+2/M+4	1.72	1.67	1.60	1.57	1.56	1.32-1.78	True
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.54	1.57	1.57	1.57	1.32-1.78	True
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.36	1.56	1.57	1.56	1.32-1.78	True
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.14	1.28	1.30	1.24	1.05-1.43	True
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.18	1.22	1.20	1.25	1.05-1.43	True
1,2,3,7,8,9-HxCDD	M+2/M+4	1.19	1.27	1.24	1.23	1.23	1.05-1.43	True
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.29	1.27	1.27	1.27	1.05-1.43	True
1,2,3,6,7,8-HxCDF	M+2/M+4	1.39	1.33	1.28	1.27	1.28	1.05-1.43	True
2,3,4,6,7,8-HxCDF	M+2/M+4	1.37	1.35	1.33	1.26	1.27	1.05-1.43	True
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.24	1.29	1.27	1.27	1.05-1.43	True
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.12	1.04	1.07	1.05	1.04	0.88-1.20	True
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.11	1.09	1.08	1.06	1.05	0.88-1.20	True
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.11	1.07	1.07	1.07	1.06	0.88-1.20	True
OCDD	M+2/M+4	0.90	0.87	0.91	0.91	0.90	0.76-1.02	True
OCDF	M+2/M+4	0.85	0.88	0.93	0.92	0.92	0.76-1.02	True
13C-2,3,7,8-TCDD	M/M+2	0.80	0.80	0.80	0.79	0.80	0.65-0.89	True
13C-2,3,7,8-TCDF	M/M+2	0.78	0.79	0.80	0.79	0.77	0.65-0.89	True
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.59	1.55	1.59	1.58	1.32-1.78	True
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.59	1.59	1.60	1.58	1.32-1.78	True
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.26	1.26	1.26	1.27	1.05-1.43	True
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.54	0.53	0.53	0.58	0.43-0.59	True
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	1.05	1.04	1.05	1.08	0.88-1.20	True
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.46	0.46	0.47	0.47	0.37-0.51	True
13C-OCDD	M+2/M+4	0.91	0.90	0.90	0.89	0.90	0.76-1.02	True
37Cl4-2,3,7,8-TCDD								
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.77	1.52	1.55	1.59	1.56	1.32-1.78	True
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.17	1.17	1.24	1.28	1.26	1.05-1.43	True
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.53	0.52	0.54	0.53	0.43-0.59	True
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.57	0.53	0.55	0.54	0.54	0.43-0.59	True
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.46	0.48	0.47	0.47	0.37-0.51	True
13C-1,2,3,4-TCDD	M/M+2	0.81	0.80	0.80	0.81	0.81	0.65-0.89	True
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.26	1.27	1.24	1.28	1.28	1.05-1.43	True

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCDD/PCDF by EPA Method 0023/8290

ICAL ID: 34287 - 20091210I
Date: 12/10/09 15:45
Method: X8 - 0023/8290

Instrument: M2A
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um
Column S/N: 945352

Level	Filename	Date/Time	Sample ID	Result Directory
CS1:	b091210i1	12/10/09 15:45	4104:14CS1	/20091210i/b091210i1.d
CS2:	b091210i2	12/10/09 16:45	4104:14CS2	/20091210i/b091210i2.d
CS3:	b091210i3	12/10/09 17:46	4104:14CS3	/20091210i/b091210i3.d
CS4:	b091210i4	12/10/09 18:47	4104:14CS4	/20091210i/b091210i4.d
CS5:	b091210i5	12/10/09 19:47	4104:14CS5	/20091210i/b091210i5.d

Relative Retention Time

Analyte	CS1	CS2	CS3	CS4	CS5	Mean RRT	Range	Window
2,3,7,8-TCDD	1.001	1.002	1.001	1.002	1.002	1.002	1.001-1.002	0.001
2,3,7,8-TCDF	1.002	1.001	1.001	1.001	1.002	1.001	1.001-1.002	0.001
1,2,3,7,8-PeCDD	1.000	1.000	1.000	1.000	1.001	1.000	1.000-1.000	0.000
1,2,3,7,8-PeCDF	1.001	1.000	1.000	1.001	1.001	1.001	1.000-1.001	0.001
2,3,4,7,8-PeCDF	1.036	1.036	1.036	1.036	1.035	1.036	1.036-1.036	0.000
1,2,3,4,7,8-HxCDD	0.998	0.998	0.998	0.998	0.998	0.998	0.998-0.998	0.000
1,2,3,6,7,8-HxCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
1,2,3,7,8,9-HxCDD	1.009	1.008	1.009	1.008	1.008	1.008	1.008-1.009	0.001
1,2,3,4,7,8-HxCDF	0.997	0.997	0.997	0.997	0.997	0.997	0.997-0.997	0.000
1,2,3,6,7,8-HxCDF	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
2,3,4,6,7,8-HxCDF	1.016	1.016	1.016	1.016	1.016	1.016	1.016-1.016	0.000
1,2,3,7,8,9-HxCDF	1.037	1.036	1.036	1.036	1.036	1.036	1.036-1.037	0.001
1,2,3,4,6,7,8-HpCDD	1.000	1.001	1.000	1.000	1.000	1.000	1.000-1.001	0.001
1,2,3,4,6,7,8-HpCDF	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
1,2,3,4,7,8,9-HpCDF	1.047	1.047	1.047	1.046	1.047	1.047	1.046-1.047	0.001
OCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
OCDF	1.002	1.003	1.002	1.002	1.002	1.002	1.002-1.003	0.001
13C-2,3,7,8-TCDD	1.018	1.017	1.017	1.017	1.017	1.017	1.017-1.018	0.001
13C-2,3,7,8-TCDF	0.954	0.954	0.954	0.953	0.953	0.954	0.953-0.954	0.001
13C-1,2,3,7,8-PeCDD	1.373	1.374	1.373	1.374	1.374	1.374	1.373-1.374	0.001
13C-1,2,3,7,8-PeCDF	1.307	1.308	1.308	1.308	1.308	1.308	1.307-1.308	0.001
13C-1,2,3,6,7,8-HxCDD	0.992	0.992	0.992	0.992	0.992	0.992	0.992-0.992	0.000
13C-1,2,3,6,7,8-HxCDF	0.970	0.971	0.971	0.971	0.971	0.971	0.970-0.971	0.001
13C-1,2,3,4,6,7,8-HpCDD	1.091	1.091	1.091	1.091	1.091	1.091	1.091-1.091	0.000
13C-1,2,3,4,6,7,8-HpCDF	1.056	1.056	1.056	1.056	1.056	1.056	1.056-1.056	0.000
13C-OCDD	1.188	1.187	1.188	1.187	1.188	1.188	1.187-1.188	0.001
37Cl4-2,3,7,8-TCDD	1.001	1.002	1.001	1.002	1.001	1.001	1.001-1.002	0.001
13C-2,3,4,7,8-PeCDF	1.035	1.035	1.035	1.035	1.035	1.035	1.035-1.035	0.000
13C-1,2,3,4,7,8-HxCDD	0.998	0.998	0.998	0.997	0.998	0.998	0.997-0.998	0.001
13C-1,2,3,4,7,8-HxCDF	0.997	0.997	0.997	0.997	0.997	0.997	0.997-0.997	0.000
13C-1,2,3,7,8,9-HxCDF	1.005	1.005	1.005	1.005	1.005	1.005	1.005-1.005	0.000
13C-1,2,3,4,7,8,9-HpCDF	1.047	1.047	1.046	1.046	1.046	1.046	1.046-1.047	0.001
13C-1,2,3,4-TCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
13C-1,2,3,7,8,9-HxCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000

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IsoCalc Initial Calibration Report

PCDD/PCDF by EPA Method 23

ICAL ID: 34288 - 20091210I
Date: 12/10/09 15:45
Method: KP2 - DX23_2

Instrument: M2A
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um
Column S/N: 945352

Level	Filename	Date/Time	Sample ID	Result Directory
CS1:	b091210i1	12/10/09 15:45	4104:14CS1	/20091210i/b091210i1.d
CS2:	b091210i2	12/10/09 16:45	4104:14CS2	/20091210i/b091210i2.d
CS3:	b091210i3	12/10/09 17:46	4104:14CS3	/20091210i/b091210i3.d
CS4:	b091210i4	12/10/09 18:47	4104:14CS4	/20091210i/b091210i4.d
CS5:	b091210i5	12/10/09 19:47	4104:14CS5	/20091210i/b091210i5.d

	Response Factors								
Analyte	CS1	CS2	CS3	CS4	CS5	Mean RF	%RSD	Limit	Valid?
2,3,7,8-TCDD	1.259	1.120	1.201	1.143	1.135	1.172	4.9	25.0	True
Total TCDD						1.172	0.0	25.0	True
2,3,7,8-TCDF	1.180	1.007	1.101	1.060	1.056	1.081	6.0	25.0	True
Total TCDF						1.081	0.0	25.0	True
1,2,3,7,8-PeCDD	1.212	1.159	1.082	1.086	1.079	1.124	5.3	25.0	True
Total PeCDD						1.124	0.0	25.0	True
1,2,3,7,8-PeCDF	1.097	1.090	1.058	1.021	0.987	1.050	4.4	25.0	True
2,3,4,7,8-PeCDF	1.089	0.971	1.008	1.054	1.029	1.030	4.3	25.0	True
Total PeCDF						1.040	0.0	25.0	True
1,2,3,4,7,8-HxCDD	1.069	1.008	0.965	0.960	0.949	0.990	5.0	25.0	True
1,2,3,6,7,8-HxCDD	1.030	1.114	1.089	0.970	0.899	1.020	8.6	25.0	True
1,2,3,7,8,9-HxCDD	1.054	1.093	1.018	0.935	0.913	1.003	7.7	25.0	True
Total HxCDD						1.004	0.0	25.0	True
1,2,3,4,7,8-HxCDF	1.152	1.085	1.111	1.029	1.079	1.091	4.1	25.0	True
1,2,3,6,7,8-HxCDF	1.326	1.324	1.246	1.111	1.121	1.226	8.6	25.0	True
2,3,4,6,7,8-HxCDF	1.327	1.185	1.162	1.053	1.076	1.160	9.3	25.0	True
1,2,3,7,8,9-HxCDF	1.138	1.004	0.984	0.942	0.971	1.008	7.6	25.0	True
Total HxCDF						1.121	0.0	25.0	True
1,2,3,4,6,7,8-HpCDD	1.074	1.128	1.090	1.089	1.091	1.094	1.8	25.0	True
Total HpCDD						1.094	0.0	25.0	True
1,2,3,4,6,7,8-HpCDF	1.503	1.523	1.452	1.431	1.437	1.469	2.8	25.0	True
1,2,3,4,7,8,9-HpCDF	1.067	1.128	1.102	1.186	1.151	1.127	4.1	25.0	True
Total HpCDF						1.298	0.0	25.0	True
OCDD	1.078	1.144	1.080	1.039	1.036	1.075	4.1	25.0	True
OCDF	1.255	1.273	1.207	1.266	1.288	1.258	2.5	30.0	True
13C-2,3,7,8-TCDD	0.997	0.998	0.985	1.021	1.030	1.006	1.9	25.0	True
13C-2,3,7,8-TCDF	1.717	1.709	1.677	1.698	1.795	1.719	2.6	30.0	True
13C-1,2,3,7,8-PeCDD	0.972	0.891	0.972	0.983	0.948	0.953	3.9	30.0	True
13C-1,2,3,7,8-PeCDF	1.639	1.633	1.659	1.679	1.693	1.661	1.5	30.0	True
13C-1,2,3,6,7,8-HxCDD	0.993	0.966	1.029	1.091	1.095	1.035	5.6	25.0	True
13C-1,2,3,6,7,8-HxCDF	1.346	1.371	1.450	1.537	1.467	1.434	5.4	30.0	True
13C-1,2,3,4,6,7,8-HpCDD	0.829	0.841	0.872	0.866	0.848	0.851	2.1	30.0	True
13C-1,2,3,4,6,7,8-HpCDF	1.105	1.086	1.077	1.105	1.096	1.094	1.1	30.0	True
13C-OCDD	0.821	0.841	0.864	0.916	0.893	0.867	4.4	30.0	True
37Cl4-2,3,7,8-TCDD	1.424	1.135	1.160	1.141	1.130	1.198	10.6	25.0	True
13C-2,3,4,7,8-PeCDF	1.158	0.952	0.942	0.971	0.944	0.994	9.3	25.0	True
13C-1,2,3,4,7,8-HxCDD	0.837	0.910	0.933	0.893	0.863	0.887	4.3	25.0	True
13C-1,2,3,4,7,8-HxCDF	0.973	0.901	0.872	0.831	0.877	0.891	5.9	25.0	True
13C-1,2,3,7,8,9-HxCDF	1.605	1.313	1.235	1.236	1.216	1.321	12.4	30.0	True
13C-1,2,3,4,7,8,9-HpCDF	0.902	0.870	0.784	0.836	0.814	0.841	5.5	25.0	True
13C-1,2,3,4-TCDD	1.000	1.000	1.000	1.000	1.000	1.000	0.0	0.0	True
13C-1,2,3,7,8,9-HxCDD	1.000	1.000	1.000	1.000	1.000	1.000	0.0	0.0	True

MSD 12/11/09

KM 12-11-09

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IsoCalc Initial Calibration Report

PCDD/PCDF by EPA Method 23

ICAL ID: 34288 - 20091210I
Date: 12/10/09 15:45
Method: KP2 - DX23_2

Instrument: M2A
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um
Column S/N: 945352

Level	Filename	Date/Time	Sample ID	Result Directory
CS1:	b091210i1	12/10/09 15:45	4104:14CS1	/20091210i/b091210i1.d
CS2:	b091210i2	12/10/09 16:45	4104:14CS2	/20091210i/b091210i2.d
CS3:	b091210i3	12/10/09 17:46	4104:14CS3	/20091210i/b091210i3.d
CS4:	b091210i4	12/10/09 18:47	4104:14CS4	/20091210i/b091210i4.d
CS5:	b091210i5	12/10/09 19:47	4104:14CS5	/20091210i/b091210i5.d

Ion Abundance Ratios

Analyte	M/Z's	CS1	CS2	CS3	CS4	CS5	Ratio Limits	Valid?
2,3,7,8-TCDD	M/M+2	0.83	0.89	0.78	0.77	0.79	0.65-0.89	True
2,3,7,8-TCDF	M/M+2	0.75	0.89	0.75	0.79	0.79	0.65-0.89	True
1,2,3,7,8-PeCDD	M+2/M+4	1.72	1.67	1.60	1.57	1.56	1.32-1.78	True
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.54	1.57	1.57	1.57	1.32-1.78	True
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.36	1.56	1.57	1.56	1.32-1.78	True
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.14	1.28	1.30	1.24	1.05-1.43	True
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.18	1.22	1.20	1.25	1.05-1.43	True
1,2,3,7,8,9-HxCDD	M+2/M+4	1.19	1.27	1.24	1.23	1.23	1.05-1.43	True
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.29	1.27	1.27	1.27	1.05-1.43	True
1,2,3,6,7,8-HxCDF	M+2/M+4	1.39	1.33	1.28	1.27	1.28	1.05-1.43	True
2,3,4,6,7,8-HxCDF	M+2/M+4	1.37	1.35	1.33	1.26	1.27	1.05-1.43	True
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.24	1.29	1.27	1.27	1.05-1.43	True
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.12	1.04	1.07	1.05	1.04	0.88-1.20	True
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.11	1.09	1.08	1.06	1.05	0.88-1.20	True
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.11	1.07	1.07	1.07	1.06	0.88-1.20	True
OCDD	M+2/M+4	0.90	0.87	0.91	0.91	0.90	0.76-1.02	True
OCDF	M+2/M+4	0.85	0.88	0.93	0.92	0.92	0.76-1.02	True
13C-2,3,7,8-TCDD	M/M+2	0.80	0.80	0.80	0.79	0.80	0.65-0.89	True
13C-2,3,7,8-TCDF	M/M+2	0.78	0.79	0.80	0.79	0.77	0.65-0.89	True
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.59	1.55	1.59	1.58	1.32-1.78	True
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.59	1.59	1.60	1.58	1.32-1.78	True
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.26	1.26	1.26	1.27	1.05-1.43	True
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.54	0.53	0.53	0.58	0.43-0.59	True
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	1.05	1.04	1.05	1.08	0.88-1.20	True
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.46	0.46	0.47	0.47	0.37-0.51	True
13C-OCDD	M+2/M+4	0.91	0.90	0.90	0.89	0.90	0.76-1.02	True
37Cl4-2,3,7,8-TCDD								
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.77	1.52	1.55	1.59	1.56	1.32-1.78	True
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.17	1.17	1.24	1.28	1.26	1.05-1.43	True
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.53	0.52	0.54	0.53	0.43-0.59	True
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.57	0.53	0.55	0.54	0.54	0.43-0.59	True
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.46	0.48	0.47	0.47	0.37-0.51	True
13C-1,2,3,4-TCDD	M/M+2	0.81	0.80	0.80	0.81	0.81	0.65-0.89	True
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.26	1.27	1.24	1.28	1.28	1.05-1.43	True

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IsoCalc Initial Calibration Report

PCDD/PCDF by EPA Method 23

ICAL ID: 34288 - 20091210I
Date: 12/10/09 15:45
Method: KP2 - DX23_2

Instrument: M2A
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um
Column S/N: 945352

Level	Filename	Date/Time	Sample ID	Result Directory
CS1:	b091210i1	12/10/09 15:45	4104:14CS1	/20091210i/b091210i1.d
CS2:	b091210i2	12/10/09 16:45	4104:14CS2	/20091210i/b091210i2.d
CS3:	b091210i3	12/10/09 17:46	4104:14CS3	/20091210i/b091210i3.d
CS4:	b091210i4	12/10/09 18:47	4104:14CS4	/20091210i/b091210i4.d
CS5:	b091210i5	12/10/09 19:47	4104:14CS5	/20091210i/b091210i5.d

Relative Retention Time

Analyte	CS1	CS2	CS3	CS4	CS5	Mean RRT	Range	Window
2,3,7,8-TCDD	1.001	1.002	1.001	1.002	1.002	1.002	1.001-1.002	0.001
2,3,7,8-TCDF	1.002	1.001	1.001	1.001	1.002	1.001	1.001-1.002	0.001
1,2,3,7,8-PeCDD	1.000	1.000	1.000	1.000	1.001	1.000	1.000-1.000	0.000
1,2,3,7,8-PeCDF	1.001	1.000	1.000	1.001	1.001	1.001	1.000-1.001	0.001
2,3,4,7,8-PeCDF	1.036	1.036	1.036	1.036	1.035	1.036	1.036-1.036	0.000
1,2,3,4,7,8-HxCDD	0.998	0.998	0.998	0.998	0.998	0.998	0.998-0.998	0.000
1,2,3,6,7,8-HxCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
1,2,3,7,8,9-HxCDD	1.009	1.008	1.009	1.008	1.008	1.008	1.008-1.009	0.001
1,2,3,4,7,8-HxCDF	0.997	0.997	0.997	0.997	0.997	0.997	0.997-0.997	0.000
1,2,3,6,7,8-HxCDF	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
2,3,4,6,7,8-HxCDF	1.016	1.016	1.016	1.016	1.016	1.016	1.016-1.016	0.000
1,2,3,7,8,9-HxCDF	1.037	1.036	1.036	1.036	1.036	1.036	1.036-1.037	0.001
1,2,3,4,6,7,8-HpCDD	1.000	1.001	1.000	1.000	1.000	1.000	1.000-1.001	0.001
1,2,3,4,6,7,8-HpCDF	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
1,2,3,4,7,8,9-HpCDF	1.047	1.047	1.047	1.046	1.047	1.047	1.046-1.047	0.001
OCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
OCDF	1.002	1.003	1.002	1.002	1.002	1.002	1.002-1.003	0.001
13C-2,3,7,8-TCDD	1.018	1.017	1.017	1.017	1.017	1.017	1.017-1.018	0.001
13C-2,3,7,8-TCDF	0.954	0.954	0.954	0.953	0.953	0.954	0.953-0.954	0.001
13C-1,2,3,7,8-PeCDD	1.373	1.374	1.373	1.374	1.374	1.374	1.373-1.374	0.001
13C-1,2,3,7,8-PeCDF	1.307	1.308	1.308	1.308	1.308	1.308	1.307-1.308	0.001
13C-1,2,3,6,7,8-HxCDD	0.992	0.992	0.992	0.992	0.992	0.992	0.992-0.992	0.000
13C-1,2,3,6,7,8-HxCDF	0.970	0.971	0.971	0.971	0.971	0.971	0.970-0.971	0.001
13C-1,2,3,4,6,7,8-HpCDD	1.091	1.091	1.091	1.091	1.091	1.091	1.091-1.091	0.000
13C-1,2,3,4,6,7,8-HpCDF	1.056	1.056	1.056	1.056	1.056	1.056	1.056-1.056	0.000
13C-OCDD	1.188	1.187	1.188	1.187	1.188	1.188	1.187-1.188	0.001
37Cl4-2,3,7,8-TCDD	1.001	1.002	1.001	1.002	1.001	1.001	1.001-1.002	0.001
13C-2,3,4,7,8-PeCDF	1.035	1.035	1.035	1.035	1.035	1.035	1.035-1.035	0.000
13C-1,2,3,4,7,8-HxCDD	0.998	0.998	0.998	0.997	0.998	0.998	0.997-0.998	0.001
13C-1,2,3,4,7,8-HxCDF	0.997	0.997	0.997	0.997	0.997	0.997	0.997-0.997	0.000
13C-1,2,3,7,8,9-HxCDF	1.005	1.005	1.005	1.005	1.005	1.005	1.005-1.005	0.000
13C-1,2,3,4,7,8,9-HpCDF	1.047	1.047	1.046	1.046	1.046	1.046	1.046-1.047	0.001
13C-1,2,3,4-TCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
13C-1,2,3,7,8,9-HxCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000

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IsoCalc Initial Calibration Report

PCDD/PCDF by EPA Method TO-9A

ICAL ID: 34290 - 20091210I
Date: 12/10/09 15:45
Method: 09 - TO-9A

Instrument: M2A
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um
Column S/N: 945352

Level	Filename	Date/Time	Sample ID	Result Directory
CS1:	b091210i1	12/10/09 15:45	4104:14CS1	/20091210i/b091210i1.d
CS2:	b091210i2	12/10/09 16:45	4104:14CS2	/20091210i/b091210i2.d
CS3:	b091210i3	12/10/09 17:46	4104:14CS3	/20091210i/b091210i3.d
CS4:	b091210i4	12/10/09 18:47	4104:14CS4	/20091210i/b091210i4.d
CS5:	b091210i5	12/10/09 19:47	4104:14CS5	/20091210i/b091210i5.d

	Response Factors								
Analyte	CS1	CS2	CS3	CS4	CS5	Mean RF	%RSD	Limit	Valid?
2,3,7,8-TCDD	1.259	1.120	1.201	1.143	1.135	1.172	4.9	25.0	True
Total TCDD						1.172	0.0	25.0	True
2,3,7,8-TCDF	1.180	1.007	1.101	1.060	1.056	1.081	6.0	25.0	True
Total TCDF						1.081	0.0	25.0	True
1,2,3,7,8-PeCDD	1.212	1.159	1.082	1.086	1.079	1.124	5.3	25.0	True
Total PeCDD						1.124	0.0	25.0	True
1,2,3,7,8-PeCDF	1.097	1.090	1.058	1.021	0.987	1.050	4.4	25.0	True
2,3,4,7,8-PeCDF	1.089	0.971	1.008	1.054	1.029	1.030	4.3	25.0	True
Total PeCDF						1.040	0.0	25.0	True
1,2,3,4,7,8-HxCDD	1.069	1.008	0.965	0.960	0.949	0.990	5.0	25.0	True
1,2,3,6,7,8-HxCDD	1.030	1.114	1.089	0.970	0.899	1.020	8.6	25.0	True
1,2,3,7,8,9-HxCDD	1.054	1.093	1.018	0.935	0.913	1.003	7.7	25.0	True
Total HxCDD						1.004	0.0	25.0	True
1,2,3,4,7,8-HxCDF	1.152	1.085	1.111	1.029	1.079	1.091	4.1	25.0	True
1,2,3,6,7,8-HxCDF	1.326	1.324	1.246	1.111	1.121	1.226	8.6	25.0	True
2,3,4,6,7,8-HxCDF	1.327	1.185	1.162	1.053	1.076	1.160	9.3	25.0	True
1,2,3,7,8,9-HxCDF	1.138	1.004	0.984	0.942	0.971	1.008	7.6	25.0	True
Total HxCDF						1.121	0.0	25.0	True
1,2,3,4,6,7,8-HpCDD	1.074	1.128	1.090	1.089	1.091	1.094	1.8	25.0	True
Total HpCDD						1.094	0.0	25.0	True
1,2,3,4,6,7,8-HpCDF	1.503	1.523	1.452	1.431	1.437	1.469	2.8	25.0	True
1,2,3,4,7,8,9-HpCDF	1.067	1.128	1.102	1.186	1.151	1.127	4.1	25.0	True
Total HpCDF						1.298	0.0	25.0	True
OCDD	1.078	1.144	1.080	1.039	1.036	1.075	4.1	25.0	True
OCDF	1.255	1.273	1.207	1.266	1.288	1.258	2.5	30.0	True
13C-2,3,7,8-TCDD	0.997	0.998	0.985	1.021	1.030	1.006	1.9	25.0	True
13C-2,3,7,8-TCDF	1.717	1.709	1.677	1.698	1.795	1.719	2.6	30.0	True
13C-1,2,3,7,8-PeCDD	0.972	0.891	0.972	0.983	0.948	0.953	3.9	30.0	True
13C-1,2,3,7,8-PeCDF	1.639	1.633	1.659	1.679	1.693	1.661	1.5	30.0	True
13C-1,2,3,6,7,8-HxCDD	0.993	0.966	1.029	1.091	1.095	1.035	5.6	25.0	True
13C-1,2,3,6,7,8-HxCDF	1.346	1.371	1.450	1.537	1.467	1.434	5.4	30.0	True
13C-1,2,3,4,6,7,8-HpCDD	0.829	0.841	0.872	0.866	0.848	0.851	2.1	30.0	True
13C-1,2,3,4,6,7,8-HpCDF	1.105	1.086	1.077	1.105	1.096	1.094	1.1	30.0	True
13C-OCDD	0.821	0.841	0.864	0.916	0.893	0.867	4.4	30.0	True
37Cl4-2,3,7,8-TCDD	1.424	1.135	1.160	1.141	1.130	1.198	10.6	25.0	True
13C-2,3,4,7,8-PeCDF	1.158	0.952	0.942	0.971	0.944	0.994	9.3	25.0	True
13C-1,2,3,4,7,8-HxCDD	0.837	0.910	0.933	0.893	0.863	0.887	4.3	25.0	True
13C-1,2,3,4,7,8-HxCDF	0.973	0.901	0.872	0.831	0.877	0.891	5.9	25.0	True
13C-1,2,3,7,8,9-HxCDF	1.605	1.313	1.235	1.236	1.216	1.321	12.4	30.0	True
13C-1,2,3,4,7,8,9-HpCDF	0.902	0.870	0.784	0.836	0.814	0.841	5.5	25.0	True
13C-1,2,3,4-TCDD	1.000	1.000	1.000	1.000	1.000	1.000	0.0	0.0	True
13C-1,2,3,7,8,9-HxCDD	1.000	1.000	1.000	1.000	1.000	1.000	0.0	0.0	True

MSD 12/11/09

KM 12-11-09

TestAmerica
Knoxville

IsoCalc Initial Calibration Report

PCDD/PCDF by EPA Method TO-9A

ICAL ID: 34290 - 20091210I
Date: 12/10/09 15:45
Method: 09 - TO-9A

Instrument: M2A
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um
Column S/N: 945352

Level	Filename	Date/Time	Sample ID	Result Directory
CS1:	b091210i1	12/10/09 15:45	4104:14CS1	/20091210i/b091210i1.d
CS2:	b091210i2	12/10/09 16:45	4104:14CS2	/20091210i/b091210i2.d
CS3:	b091210i3	12/10/09 17:46	4104:14CS3	/20091210i/b091210i3.d
CS4:	b091210i4	12/10/09 18:47	4104:14CS4	/20091210i/b091210i4.d
CS5:	b091210i5	12/10/09 19:47	4104:14CS5	/20091210i/b091210i5.d

Ion Abundance Ratios

Analyte	M/Z's	CS1	CS2	CS3	CS4	CS5	Ratio Limits	Valid?
2,3,7,8-TCDD	M/M+2	0.83	0.89	0.78	0.77	0.79	0.65-0.89	True
2,3,7,8-TCDF	M/M+2	0.75	0.89	0.75	0.79	0.79	0.65-0.89	True
1,2,3,7,8-PeCDD	M+2/M+4	1.72	1.67	1.60	1.57	1.56	1.32-1.78	True
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.54	1.57	1.57	1.57	1.32-1.78	True
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.36	1.56	1.57	1.56	1.32-1.78	True
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.14	1.28	1.30	1.24	1.05-1.43	True
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.18	1.22	1.20	1.25	1.05-1.43	True
1,2,3,7,8,9-HxCDD	M+2/M+4	1.19	1.27	1.24	1.23	1.23	1.05-1.43	True
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.29	1.27	1.27	1.27	1.05-1.43	True
1,2,3,6,7,8-HxCDF	M+2/M+4	1.39	1.33	1.28	1.27	1.28	1.05-1.43	True
2,3,4,6,7,8-HxCDF	M+2/M+4	1.37	1.35	1.33	1.26	1.27	1.05-1.43	True
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.24	1.29	1.27	1.27	1.05-1.43	True
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.12	1.04	1.07	1.05	1.04	0.88-1.20	True
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.11	1.09	1.08	1.06	1.05	0.88-1.20	True
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.11	1.07	1.07	1.07	1.06	0.88-1.20	True
OCDD	M+2/M+4	0.90	0.87	0.91	0.91	0.90	0.76-1.02	True
OCDF	M+2/M+4	0.85	0.88	0.93	0.92	0.92	0.76-1.02	True
13C-2,3,7,8-TCDD	M/M+2	0.80	0.80	0.80	0.79	0.80	0.65-0.89	True
13C-2,3,7,8-TCDF	M/M+2	0.78	0.79	0.80	0.79	0.77	0.65-0.89	True
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.59	1.55	1.59	1.58	1.32-1.78	True
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.59	1.59	1.60	1.58	1.32-1.78	True
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.26	1.26	1.26	1.27	1.05-1.43	True
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.54	0.53	0.53	0.58	0.43-0.59	True
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	1.05	1.04	1.05	1.08	0.88-1.20	True
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.46	0.46	0.47	0.47	0.37-0.51	True
13C-OCDD	M+2/M+4	0.91	0.90	0.90	0.89	0.90	0.76-1.02	True
37Cl4-2,3,7,8-TCDD								
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.77	1.52	1.55	1.59	1.56	1.32-1.78	True
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.17	1.17	1.24	1.28	1.26	1.05-1.43	True
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.48	0.53	0.52	0.54	0.53	0.43-0.59	True
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.57	0.53	0.55	0.54	0.54	0.43-0.59	True
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.46	0.48	0.47	0.47	0.37-0.51	True
13C-1,2,3,4-TCDD	M/M+2	0.81	0.80	0.80	0.81	0.81	0.65-0.89	True
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.26	1.27	1.24	1.28	1.28	1.05-1.43	True

TestAmerica
Knoxville

IsoCalc Initial Calibration Report

PCDD/PCDF by EPA Method TO-9A

ICAL ID: 34290 - 20091210I
Date: 12/10/09 15:45
Method: 09 - TO-9A

Instrument: M2A
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um
Column S/N: 945352

Level	Filename	Date/Time	Sample ID	Result Directory
CS1:	b091210i1	12/10/09 15:45	4104:14CS1	/20091210i/b091210i1.d
CS2:	b091210i2	12/10/09 16:45	4104:14CS2	/20091210i/b091210i2.d
CS3:	b091210i3	12/10/09 17:46	4104:14CS3	/20091210i/b091210i3.d
CS4:	b091210i4	12/10/09 18:47	4104:14CS4	/20091210i/b091210i4.d
CS5:	b091210i5	12/10/09 19:47	4104:14CS5	/20091210i/b091210i5.d

Relative Retention Time

Analyte	CS1	CS2	CS3	CS4	CS5	Mean RRT	Range	Window
2,3,7,8-TCDD	1.001	1.002	1.001	1.002	1.002	1.002	1.001-1.002	0.001
2,3,7,8-TCDF	1.002	1.001	1.001	1.001	1.002	1.001	1.001-1.002	0.001
1,2,3,7,8-PeCDD	1.000	1.000	1.000	1.000	1.001	1.000	1.000-1.000	0.000
1,2,3,7,8-PeCDF	1.001	1.000	1.000	1.001	1.001	1.001	1.000-1.001	0.001
2,3,4,7,8-PeCDF	1.036	1.036	1.036	1.036	1.035	1.036	1.036-1.036	0.000
1,2,3,4,7,8-HxCDD	0.998	0.998	0.998	0.998	0.998	0.998	0.998-0.998	0.000
1,2,3,6,7,8-HxCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
1,2,3,7,8,9-HxCDD	1.009	1.008	1.009	1.008	1.008	1.008	1.008-1.009	0.001
1,2,3,4,7,8-HxCDF	0.997	0.997	0.997	0.997	0.997	0.997	0.997-0.997	0.000
1,2,3,6,7,8-HxCDF	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
2,3,4,6,7,8-HxCDF	1.016	1.016	1.016	1.016	1.016	1.016	1.016-1.016	0.000
1,2,3,7,8,9-HxCDF	1.037	1.036	1.036	1.036	1.036	1.036	1.036-1.037	0.001
1,2,3,4,6,7,8-HpCDD	1.000	1.001	1.000	1.000	1.000	1.000	1.000-1.001	0.001
1,2,3,4,6,7,8-HpCDF	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
1,2,3,4,7,8,9-HpCDF	1.047	1.047	1.047	1.046	1.047	1.047	1.046-1.047	0.001
OCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
OCDF	1.002	1.003	1.002	1.002	1.002	1.002	1.002-1.003	0.001
13C-2,3,7,8-TCDD	1.018	1.017	1.017	1.017	1.017	1.017	1.017-1.018	0.001
13C-2,3,7,8-TCDF	0.954	0.954	0.954	0.953	0.953	0.954	0.953-0.954	0.001
13C-1,2,3,7,8-PeCDD	1.373	1.374	1.373	1.374	1.374	1.374	1.373-1.374	0.001
13C-1,2,3,7,8-PeCDF	1.307	1.308	1.308	1.308	1.308	1.308	1.307-1.308	0.001
13C-1,2,3,6,7,8-HxCDD	0.992	0.992	0.992	0.992	0.992	0.992	0.992-0.992	0.000
13C-1,2,3,6,7,8-HxCDF	0.970	0.971	0.971	0.971	0.971	0.971	0.970-0.971	0.001
13C-1,2,3,4,6,7,8-HpCDD	1.091	1.091	1.091	1.091	1.091	1.091	1.091-1.091	0.000
13C-1,2,3,4,6,7,8-HpCDF	1.056	1.056	1.056	1.056	1.056	1.056	1.056-1.056	0.000
13C-OCDD	1.188	1.187	1.188	1.187	1.188	1.188	1.187-1.188	0.001
37Cl4-2,3,7,8-TCDD	1.001	1.002	1.001	1.002	1.001	1.001	1.001-1.002	0.001
13C-2,3,4,7,8-PeCDF	1.035	1.035	1.035	1.035	1.035	1.035	1.035-1.035	0.000
13C-1,2,3,4,7,8-HxCDD	0.998	0.998	0.998	0.997	0.998	0.998	0.997-0.998	0.001
13C-1,2,3,4,7,8-HxCDF	0.997	0.997	0.997	0.997	0.997	0.997	0.997-0.997	0.000
13C-1,2,3,7,8,9-HxCDF	1.005	1.005	1.005	1.005	1.005	1.005	1.005-1.005	0.000
13C-1,2,3,4,7,8,9-HpCDF	1.047	1.047	1.046	1.046	1.046	1.046	1.046-1.047	0.001
13C-1,2,3,4-TCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000
13C-1,2,3,7,8,9-HxCDD	1.000	1.000	1.000	1.000	1.000	1.000	1.000-1.000	0.000

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS1	**Prep Batch**		**Lot No**	
Data File	/20091210i/b091210i1.d	**Prep Date**		**SDG No**	
Analysis ID	119257	**Prep Exp Date**		**Date Received**	
Analysis Date	12/10/2009	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	15:45	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	0023/8290
Instrument	M2A	**Dil Factor**	1.00	**Code**	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
2,3,7,8-TCDD	30:32	14058	2245	1.000	0.500	0.629744	125.95	0.629744	0.138
Total TCDD				1.000		0.629744		0.629744	0.138
2,3,7,8-TCDF	28:38	22689	2858	1.000	0.500	0.590249	118.05	0.590249	0.0759
Total TCDF				1.000		0.590249		0.590249	0.0759
1,2,3,7,8-PeCDD	41:09	65933	12256	1.000	2.500	3.028864	121.15	3.028864	0.0703
Total PeCDD				1.000		3.028864		3.028864	0.0703
1,2,3,7,8-PeCDF	39:12	100580	18579	1.000	2.500	2.741329	109.65	2.741329	0.0506
2,3,4,7,8-PeCDF	40:35	99875	17936	1.000	2.500	2.722114	108.88	2.722114	0.0506
Total PeCDF				1.000		5.463444		5.463444	0.0506
1,2,3,4,7,8-HxCDD	45:31	69188	19295	1.000	2.500	2.671277	106.85	2.671277	0.0581
1,2,3,6,7,8-HxCDD	45:38	66692	17071	1.000	2.500	2.574909	103.00	2.574909	0.0581
1,2,3,7,8,9-HxCDD	46:01	68240	16080	1.000	2.500	2.634676	105.39	2.634676	0.0581
Total HxCDD				1.000		7.880862		7.880862	0.0581
1,2,3,4,7,8-HxCDF	44:30	101127	28203	1.000	2.500	2.879879	115.20	2.879879	0.0407
1,2,3,6,7,8-HxCDF	44:38	116390	31181	1.000	2.500	3.314536	132.58	3.314536	0.0407
2,3,4,6,7,8-HxCDF	45:21	116471	29164	1.000	2.500	3.316843	132.67	3.316843	0.0407
1,2,3,7,8,9-HxCDF	46:15	99924	20769	1.000	2.500	2.845620	113.82	2.845620	0.0407
Total HxCDF				1.000		12.356877		12.356877	0.0407
1,2,3,4,6,7,8-HpCDD	50:11	58049	12084	1.000	2.500	2.683890	107.36	2.683890	0.0650
Total HpCDD				1.000		2.683890		2.683890	0.0650
1,2,3,4,6,7,8-HpCDF	48:33	108314	23675	1.000	2.500	3.756875	150.27	3.756875	0.0518
1,2,3,4,7,8,9-HpCDF	50:49	76890	14301	1.000	2.500	2.666932	106.68	2.666932	0.0518
Total HpCDF				1.000		6.423807		6.423807	0.0518
OCDD	54:38	115527	30538	1.000	5.000	5.392376	107.85	5.392376	0.0632
OCDF	54:45	134453	34200	1.000	5.000	6.275773	125.52	6.275773	0.0659
13C-2,3,7,8-TCDD	30:30	2232334	210611	1.000	100.0	99.726508	99.73	99.726508	0.455
13C-2,3,7,8-TCDF	28:35	3843974	408477	1.000	100.0	171.724349	171.72	171.724349	0.322
13C-1,2,3,7,8-PeCDD	41:08	2176823	437428	1.000	100.0	97.246629	97.25	97.246629	0.212
13C-1,2,3,7,8-PeCDF	39:10	3669023	612891	1.000	100.0	163.908650	163.91	163.908650	0.277
13C-1,2,3,6,7,8-HxCDD	45:37	2590072	666774	1.000	100.0	99.270060	99.27	99.270060	0.0976
13C-1,2,3,6,7,8-HxCDF	44:37	3511502	934624	1.000	100.0	134.585839	134.59	134.585839	0.0651
13C-1,2,3,4,6,7,8-HpCDD	50:10	2162868	419068	1.000	100.0	82.896551	82.90	82.896551	0.0722
13C-1,2,3,4,6,7,8-HpCDF	48:33	2883088	641624	1.000	100.0	110.500526	110.50	110.500526	0.0671
13C-OCDD	54:37	4284827	1091806	1.000	200.0	164.225177	82.11	164.225177	0.0766
37Cl4-2,3,7,8-TCDD	30:32	15889	1764	1.000	0.500	0.711766	142.35	0.711766	0.0831
13C-2,3,4,7,8-PeCDF	40:33	106249	19788	1.000	2.500	2.895839	115.83	2.895839	0.104
13C-1,2,3,4,7,8-HxCDD	45:31	54188	17046	1.000	2.500	2.092143	83.69	2.092143	0.0922
13C-1,2,3,4,7,8-HxCDF	44:29	85418	25096	1.000	2.500	2.432520	97.30	2.432520	0.0439
13C-1,2,3,7,8,9-HxCDF	46:14	104708	21650	1.000	2.500	4.013158	160.53	4.013158	0.0651
13C-1,2,3,4,7,8,9-HpCDF	50:49	65016	11131	1.000	2.500	2.255082	90.20	2.255082	0.0658
13C-1,2,3,4-TCDD	29:58	2238456	231290	1.000	100.0	100.000000	100.00	100.000000	0.455
13C-1,2,3,7,8,9-HxCDD	45:59	2609117	629875	1.000	100.0	100.000000	100.00	100.000000	0.0976

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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS1	Prep Batch		Lot No	
Data File	/20091210i/b091210i1.d	Prep Date		SDG No	
Analysis ID	119257	Prep Exp Date		Date Received	
Analysis Date	12/10/09 15:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					**303.9016**	**305.8987**	**303.9016**	**305.8987**	**0.65-0.89**		
	Noise	00:00	00:00	0	140	170	56	68	0.82	/	
	2,3,7,8-TCDF	28:38	00:00	0	9713	12976	1378	1480	0.75	ABB/ABB	M
316					**315.9419**	**317.9389**	**315.9419**	**317.9389**	**0.65-0.89**		
	Noise	00:00	00:00	0	330	415	132	166	0.80	/	
	13C-2,3,7,8-TCDF	28:35	00:00	0	1686617	2157357	181208	227269	0.78	ABV/ABV	
320					**319.8965**	**321.8936**	**319.8965**	**321.8936**	**0.65-0.89**		
	Noise	00:00	00:00	0	133	158	53	63	0.84	/	
	2,3,7,8-TCDD	30:32	00:00	0	6384	7674	982	1263	0.83	MVB/AVV	M
328					**327.8847**		**327.8847**				
	Noise	00:00	00:00	0	175		70				
	37Cl4-2,3,7,8-TCDD	30:32	00:00	0	15889		1764			ABV	M
332					**331.9368**	**333.9338**	**331.9368**	**333.9338**	**0.65-0.89**		
	Noise	00:00	00:00	0	620	433	248	173	1.43 *	/	
	13C-1,2,3,4-TCDD	29:58	00:00	0	1002378	1236078	103875	127415	0.81	AVV/ABV	
	13C-2,3,7,8-TCDD	30:30	00:00	0	995483	1236851	93799	116812	0.80	AVV/AVV	
340					**339.8597**	**341.8567**	**339.8597**	**341.8567**	**1.32-1.78**		
	Noise	00:00	00:00	0	158	153	63	61	1.03 *	/	
	1,2,3,7,8-PeCDF	39:12	00:00	0	61074	39506	11545	7034	1.55	ABB/ABV	M
	2,3,4,7,8-PeCDF	40:35	00:00	0	60651	39224	11220	6716	1.55	ABV/ABV	M
352					**351.9000**	**353.8970**	**351.9000**	**353.8970**	**1.32-1.78**		
	Noise	00:00	00:00	0	310	330	124	132	0.94 *	/	
	13C-1,2,3,7,8-PeCDF	39:10	00:00	0	2254552	1414471	381030	231861	1.59	ABV/ABV	M
	13C-2,3,4,7,8-PeCDF	40:33	00:00	0	67894	38355	12105	7683	1.77	AVV/ABV	M
356					**355.8546**	**357.8516**	**355.8546**	**357.8516**	**1.32-1.78**		
	Noise	00:00	00:00	0	168	140	67	56	1.20 *	/	
	1,2,3,7,8-PeCDD	41:09	00:00	0	41707	24226	7689	4567	1.72	ABV/ABV	M
368					**367.8949**	**369.8919**	**367.8949**	**369.8919**	**1.32-1.78**		
	Noise	00:00	00:00	0	203	288	81	115	0.70 *	/	
	13C-1,2,3,7,8-PeCDD	41:08	00:00	0	1327026	849797	269969	167459	1.56	ABV/ABV	
374					**373.8208**	**375.8178**	**373.8208**	**375.8178**	**1.05-1.43**		
	Noise	00:00	00:00	0	200	180	80	72	1.11	/	
	1,2,3,4,7,8-HxCDF	44:30	00:00	0	55944	45183	15361	12842	1.24	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	44:38	00:00	0	67608	48782	19302	11879	1.39	AVB/AVB	M
	2,3,4,6,7,8-HxCDF	45:21	00:00	0	67346	49125	16988	12176	1.37		M
	1,2,3,7,8,9-HxCDF	46:15	00:00	0	55555	44369	11315	9454	1.25	AVV/ABB	
384					**383.8639**	**385.8610**	**383.8639**	**385.8610**	**0.43-0.59**		
	Noise	00:00	00:00	0	173	238	69	95	0.73 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:29	00:00	0	27864	57554	8689	16407	0.48	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	44:37	00:00	0	1225941	2285561	322551	612073	0.54	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:14	00:00	0	37870	66838	7722	13928	0.57	ABV/AVB	
390					**389.8156**	**391.8127**	**389.8156**	**391.8127**	**1.05-1.43**		
	Noise	00:00	00:00	0	160	228	64	91	0.70 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS1	Prep Batch		Lot No	
Data File	/20091210i/b091210i1.d	Prep Date		SDG No	
Analysis ID	119257	Prep Exp Date		Date Received	
Analysis Date	12/10/09 15:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,4,7,8-HxCDD	45:31	00:00	0	38335	30853	10780	8515	1.24	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	45:38	00:00	0	37161	29531	9731	7340	1.26	AVB/AVV	M
	1,2,3,7,8,9-HxCDD	46:01	00:00	0	37128	31112	8801	7279	1.19	ABV/AVB	M
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	275	340	110	136	0.81 *	/	
	13C-1,2,3,4,7,8-HxCDD	45:31	00:00	0	29187	25001	9043	8003	1.17	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	45:37	00:00	0	1445865	1144207	372932	293842	1.26	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDD	45:59	00:00	0	1453609	1155508	351754	278121	1.26	AVV/AVV	M
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	173	160	69	64	1.08	/	
	1,2,3,4,6,7,8-HpCDF	48:33	00:00	0	56992	51322	12101	11574	1.11	ABV/ABB	M
	1,2,3,4,7,8,9-HpCDF	50:49	00:00	0	40444	36446	7763	6538	1.11	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	223	200	89	80	1.11 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	48:33	00:00	0	909373	1973715	199790	441834	0.46	ABV/ABV	M
	13C-1,2,3,4,7,8,9-HpCDF	50:49	00:00	0	19869	45147	3236	7895	0.44	ABV/ABV	M
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	125	148	50	59	0.85 *	/	
	1,2,3,4,6,7,8-HpCDD	50:11	00:00	0	30606	27443	6474	5610	1.12	ABV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	235	220	94	88	1.07	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:10	00:00	0	1100766	1062102	211527	207541	1.04	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	223	138	89	55	1.62 *	/	
	OCDF	54:45	00:00	0	61877	72576	15969	18231	0.85	ABV/ABV	M
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	175	170	70	68	1.03 *	/	
	OCDD	54:38	00:00	0	54680	60847	14594	15944	0.90	ABV/ABV	M
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	223	260	89	104	0.86	/	
	13C-OCDD	54:37	00:00	0	2041511	2243316	522950	568856	0.91	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS2	**Prep Batch**		**Lot No**	
Data File	/20091210i/b091210i2.d	**Prep Date**		**SDG No**	
Analysis ID	119260	**Prep Exp Date**		**Date Received**	
Analysis Date	12/10/2009	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	16:45	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	0023/8290
Instrument	M2A	**Dil Factor**	1.00	**Code**	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
2,3,7,8-TCDD	30:34	27079	3741	1.000	1.000	1.119525	111.95	1.119525	0.135
Total TCDD				1.000		1.119525		1.119525	0.135
2,3,7,8-TCDF	28:39	41698	4678	1.000	1.000	1.006854	100.69	1.006854	0.0770
Total TCDF				1.000		1.006854		1.006854	0.0770
1,2,3,7,8-PeCDD	41:14	125156	27036	1.000	5.000	5.794286	115.89	5.794286	0.0668
Total PeCDD				1.000		5.794286		5.794286	0.0668
1,2,3,7,8-PeCDF	39:16	215635	35183	1.000	5.000	5.448399	108.97	5.448399	0.0517
2,3,4,7,8-PeCDF	40:40	192182	36518	1.000	5.000	4.855818	97.12	4.855818	0.0517
Total PeCDF				1.000		10.304217		10.304217	0.0517
1,2,3,4,7,8-HxCDD	45:37	128983	33356	1.000	5.000	5.042454	100.85	5.042454	0.0602
1,2,3,6,7,8-HxCDD	45:43	142474	38536	1.000	5.000	5.569870	111.40	5.569870	0.0602
1,2,3,7,8,9-HxCDD	46:05	139846	36963	1.000	5.000	5.467132	109.34	5.467132	0.0602
Total HxCDD				1.000		16.079456		16.079456	0.0602
1,2,3,4,7,8-HxCDF	44:35	196886	52728	1.000	5.000	5.424301	108.49	5.424301	0.0404
1,2,3,6,7,8-HxCDF	44:44	240294	62080	1.000	5.000	6.620211	132.40	6.620211	0.0404
2,3,4,6,7,8-HxCDF	45:26	215014	51980	1.000	5.000	5.923735	118.47	5.923735	0.0404
1,2,3,7,8,9-HxCDF	46:20	182216	37983	1.000	5.000	5.020135	100.40	5.020135	0.0404
Total HxCDF				1.000		22.988382		22.988382	0.0404
1,2,3,4,6,7,8-HpCDD	50:17	125467	25532	1.000	5.000	5.638269	112.77	5.638269	0.0565
Total HpCDD				1.000		5.638269		5.638269	0.0565
1,2,3,4,6,7,8-HpCDF	48:39	218907	49269	1.000	5.000	7.614443	152.29	7.614443	0.0471
1,2,3,4,7,8,9-HpCDF	50:55	162153	30558	1.000	5.000	5.640316	112.81	5.640316	0.0471
Total HpCDF				1.000		13.254759		13.254759	0.0471
OCDD	54:43	254757	63127	1.000	10.00	11.437087	114.37	11.437087	0.0547
OCDF	54:51	283612	69643	1.000	10.00	12.732507	127.33	12.732507	0.0624
13C-2,3,7,8-TCDD	30:31	2418794	230059	1.000	100.0	99.820893	99.82	99.820893	0.323
13C-2,3,7,8-TCDF	28:38	4141416	444753	1.000	100.0	170.911555	170.91	170.911555	0.232
13C-1,2,3,7,8-PeCDD	41:13	2159990	422872	1.000	100.0	89.140345	89.14	89.140345	0.191
13C-1,2,3,7,8-PeCDF	39:15	3957768	648223	1.000	100.0	163.332610	163.33	163.332610	0.215
13C-1,2,3,6,7,8-HxCDD	45:42	2557941	685190	1.000	100.0	96.615253	96.62	96.615253	0.0809
13C-1,2,3,6,7,8-HxCDF	44:43	3629703	952992	1.000	100.0	137.096467	137.10	137.096467	0.0756
13C-1,2,3,4,6,7,8-HpCDD	50:15	2225275	437836	1.000	100.0	84.050221	84.05	84.050221	0.0569
13C-1,2,3,4,6,7,8-HpCDF	48:38	2874892	637426	1.000	100.0	108.586718	108.59	108.586718	0.0640
13C-OCDD	54:42	4454928	1105728	1.000	200.0	168.265803	84.13	168.265803	0.0768
37Cl4-2,3,7,8-TCDD	30:34	27457	3173	1.000	1.000	1.135152	113.52	1.135152	0.0750
13C-2,3,4,7,8-PeCDF	40:37	188341	33071	1.000	5.000	4.758768	95.18	4.758768	0.0845
13C-1,2,3,4,7,8-HxCDD	45:36	116450	33280	1.000	5.000	4.552490	91.05	4.552490	0.0788
13C-1,2,3,4,7,8-HxCDF	44:35	163584	45810	1.000	5.000	4.506815	90.14	4.506815	0.0530
13C-1,2,3,7,8,9-HxCDF	46:19	173777	33978	1.000	5.000	6.563681	131.27	6.563681	0.0756
13C-1,2,3,4,7,8,9-HpCDF	50:54	125098	21925	1.000	5.000	4.351398	87.03	4.351398	0.0671
13C-1,2,3,4-TCDD	30:00	2423134	255026	1.000	100.0	100.000000	100.00	100.000000	0.323
13C-1,2,3,7,8,9-HxCDD	46:04	2647554	667645	1.000	100.0	100.000000	100.00	100.000000	0.0809

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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS2	Prep Batch		Lot No	
Data File	/20091210i/b091210i2.d	Prep Date		SDG No	
Analysis ID	119260	Prep Exp Date		Date Received	
Analysis Date	12/10/09 16:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	168	175	67	70	0.96 *	/	
	2,3,7,8-TCDF	28:39	00:00	0	19601	22097	2168	2510	0.89 *	MBV/ABV	M
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	243	350	97	140	0.69	/	
	13C-2,3,7,8-TCDF	28:38	00:00	0	1826156	2315260	199626	245127	0.79	ABV/ABV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	138	173	55	69	0.80	/	
	2,3,7,8-TCDD	30:34	00:00	0	12754	14325	2204	1537	0.89	MBB/AVV	M
328					327.8847		327.8847				
	Noise	00:00	00:00	0	173		69				
	37Cl4-2,3,7,8-TCDD	30:34	00:00	0	27457		3173			ABV	M
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	465	360	186	144	1.29 *	/	
	13C-1,2,3,4-TCDD	30:00	00:00	0	1078202	1344932	114689	140337	0.80	ABV/ABV	
	13C-2,3,7,8-TCDD	30:31	00:00	0	1076031	1342763	100603	129456	0.80	AVV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	138	198	55	79	0.70 *	/	
	1,2,3,7,8-PeCDF	39:16	00:00	0	130638	84997	21294	13889	1.54	ABV/ABV	M
	2,3,4,7,8-PeCDF	40:40	00:00	0	110686	81496	20494	16024	1.36	ABV/AVV	M
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	293	255	117	102	1.15 *	/	
	13C-1,2,3,7,8-PeCDF	39:15	00:00	0	2431645	1526123	398096	250127	1.59	ABV/ABV	M
	13C-2,3,4,7,8-PeCDF	40:37	00:00	0	113628	74713	19316	13755	1.52	AVV/AVV	M
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	170	113	68	45	1.51	/	
	1,2,3,7,8-PeCDD	41:14	00:00	0	78266	46890	17240	9796	1.67	ABV/ABV	M
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	320	168	128	67	1.91 *	/	
	13C-1,2,3,7,8-PeCDD	41:13	00:00	0	1324870	835120	260038	162834	1.59	ABV/ABV	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	190	195	76	78	0.97 *	/	
	1,2,3,4,7,8-HxCDF	44:35	00:00	0	111017	85869	29984	22744	1.29	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	44:44	00:00	0	136949	103345	35195	26885	1.33	AVV/AVB	M
	2,3,4,6,7,8-HxCDF	45:26	00:00	0	123648	91366	30287	21693	1.35	AVV/ABB	M
	1,2,3,7,8,9-HxCDF	46:20	00:00	0	100995	81221	21530	16453	1.24	ABV/ABV	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	228	278	91	111	0.82 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:35	00:00	0	56919	106665	15096	30714	0.53	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	44:43	00:00	0	1274071	2355632	330502	622490	0.54	AVB/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:19	00:00	0	60416	113361	12287	21691	0.53	ABV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	190	223	76	89	0.85 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS2	Prep Batch		Lot No	
Data File	/20091210i/b091210i2.d	Prep Date		SDG No	
Analysis ID	119260	Prep Exp Date		Date Received	
Analysis Date	12/10/09 16:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					**389.8156**	**391.8127**	**389.8156**	**391.8127**	**1.05-1.43**		
	1,2,3,4,7,8-HxCDD	45:37	00:00	0	68601	60382	17616	15740	1.14	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	45:43	00:00	0	77189	65285	20518	18018	1.18	AVB/AVV	M
	1,2,3,7,8,9-HxCDD	46:05	00:00	0	78306	61540	20745	16218	1.27	ABV/AVB	M
402					**401.8559**	**403.8529**	**401.8559**	**403.8529**	**1.05-1.43**		
	Noise	00:00	00:00	0	273	268	109	107	1.02 *	/	
	13C-1,2,3,4,7,8-HxCDD	45:36	00:00	0	62840	53610	17831	15449	1.17	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	45:42	00:00	0	1427026	1130915	378160	307030	1.26	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDD	46:04	00:00	0	1481365	1166189	374795	292850	1.27	AVV/AVV	M
408					**407.7818**	**409.7788**	**407.7818**	**409.7788**	**0.88-1.20**		
	Noise	00:00	00:00	0	148	153	59	61	0.97	/	
	1,2,3,4,6,7,8-HpCDF	48:39	00:00	0	114120	104787	26467	22802	1.09	ABV/ABV	M
	1,2,3,4,7,8,9-HpCDF	50:55	00:00	0	83739	78414	15904	14654	1.07	ABV/ABV	M
418					**417.8250**	**419.8220**	**417.8250**	**419.8220**	**0.37-0.51**		
	Noise	00:00	00:00	0	208	220	83	88	0.94 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	48:38	00:00	0	906328	1968564	204826	432600	0.46	ABV/ABV	M
	13C-1,2,3,4,7,8,9-HpCDF	50:54	00:00	0	39335	85763	7159	14766	0.46	ABB/ABV	M
424					**423.7767**	**425.7737**	**423.7767**	**425.7737**	**0.88-1.20**		
	Noise	00:00	00:00	0	130	118	52	47	1.11	/	
	1,2,3,4,6,7,8-HpCDD	50:17	00:00	0	64106	61361	12910	12622	1.04	ABV/ABV	M
436					**435.8169**	**437.8140**	**435.8169**	**437.8140**	**0.88-1.20**		
	Noise	00:00	00:00	0	205	175	82	70	1.17	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:15	00:00	0	1137523	1087752	222080	215756	1.05	ABV/ABV	
442					**441.7428**	**443.7399**	**441.7428**	**443.7399**	**0.76-1.02**		
	Noise	00:00	00:00	0	163	183	65	73	0.89	/	
	OCDF	54:51	00:00	0	133024	150588	32152	37491	0.88	ABV/ABV	M
458					**457.7377**	**459.7348**	**457.7377**	**459.7348**	**0.76-1.02**		
	Noise	00:00	00:00	0	123	180	49	72	0.68 *	/	
	OCDD	54:43	00:00	0	118439	136318	30337	32790	0.87	ABV/ABV	M
470					**469.7780**	**471.7750**	**469.7780**	**471.7750**	**0.76-1.02**		
	Noise	00:00	00:00	0	248	265	99	106	0.93	/	
	13C-OCDD	54:42	00:00	0	2109967	2344961	525663	580065	0.90	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS3	Prep Batch		Lot No	
Data File	/20091210i/b091210i3.d	Prep Date		SDG No	
Analysis ID	119261	Prep Exp Date		Date Received	
Analysis Date	12/10/2009	Matrix	UNKNOWN	Date Sampled	
Analysis Time	17:46	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
2,3,7,8-TCDD	30:32	164457	15672	1.000	5.000	6.006495	120.13	6.006495	0.139
Total TCDD				1.000		6.006495		6.006495	0.139
2,3,7,8-TCDF	28:38	256767	28976	1.000	5.000	5.506259	110.13	5.506259	0.0756
Total TCDF				1.000		5.506259		5.506259	0.0756
1,2,3,7,8-PeCDD	41:13	730803	152032	1.000	25.00	27.050207	108.20	27.050207	0.0690
Total PeCDD				1.000		27.050207		27.050207	0.0690
1,2,3,7,8-PeCDF	39:15	1219822	206027	1.000	25.00	26.452325	105.81	26.452325	0.0633
2,3,4,7,8-PeCDF	40:38	1161502	222003	1.000	25.00	25.187633	100.75	25.187633	0.0633
Total PeCDF				1.000		51.639958		51.639958	0.0633
1,2,3,4,7,8-HxCDD	45:36	746180	216193	1.000	25.00	24.121928	96.49	24.121928	0.0601
1,2,3,6,7,8-HxCDD	45:42	842182	217936	1.000	25.00	27.225406	108.90	27.225406	0.0601
1,2,3,7,8,9-HxCDD	46:05	787222	203566	1.000	25.00	25.448702	101.79	25.448702	0.0601
Total HxCDD				1.000		76.796036		76.796036	0.0601
1,2,3,4,7,8-HxCDF	44:35	1211423	339102	1.000	25.00	27.782070	111.13	27.782070	0.0496
1,2,3,6,7,8-HxCDF	44:43	1358717	385379	1.000	25.00	31.160025	124.64	31.160025	0.0496
2,3,4,6,7,8-HxCDF	45:25	1266288	341224	1.000	25.00	29.040312	116.16	29.040312	0.0496
1,2,3,7,8,9-HxCDF	46:19	1072627	243026	1.000	25.00	24.599003	98.40	24.599003	0.0496
Total HxCDF				1.000		112.581411		112.581411	0.0496
1,2,3,4,6,7,8-HpCDD	50:16	714557	141491	1.000	25.00	27.239566	108.96	27.239566	0.0562
Total HpCDD				1.000		27.239566		27.239566	0.0562
1,2,3,4,6,7,8-HpCDF	48:38	1175147	276557	1.000	25.00	36.305311	145.22	36.305311	0.0616
1,2,3,4,7,8,9-HpCDF	50:53	892110	166376	1.000	25.00	27.561089	110.24	27.561089	0.0616
Total HpCDF				1.000		63.866400		63.866400	0.0616
OCDD	54:42	1402293	352119	1.000	50.00	53.996141	107.99	53.996141	0.0546
OCDF	54:50	1566746	377028	1.000	50.00	60.328503	120.66	60.328503	0.0725
13C-2,3,7,8-TCDD	30:30	2737986	269967	1.000	100.0	98.482824	98.48	98.482824	0.338
13C-2,3,7,8-TCDF	28:37	4663184	495905	1.000	100.0	167.730416	167.73	167.730416	0.268
13C-1,2,3,7,8-PeCDD	41:12	2701654	565319	1.000	100.0	97.175996	97.18	97.175996	0.133
13C-1,2,3,7,8-PeCDF	39:14	4611398	765869	1.000	100.0	165.867722	165.87	165.867722	0.239
13C-1,2,3,6,7,8-HxCDD	45:41	3093368	827198	1.000	100.0	102.878903	102.88	102.878903	0.0662
13C-1,2,3,6,7,8-HxCDF	44:42	4360449	1235096	1.000	100.0	145.019348	145.02	145.019348	0.0858
13C-1,2,3,4,6,7,8-HpCDD	50:15	2623232	520283	1.000	100.0	87.243170	87.24	87.243170	0.0436
13C-1,2,3,4,6,7,8-HpCDF	48:37	3236846	751160	1.000	100.0	107.650679	107.65	107.650679	0.0570
13C-OCDD	54:42	5194049	1290144	1.000	200.0	172.743128	86.37	172.743128	0.0662
37Cl4-2,3,7,8-TCDD	30:32	158847	15546	1.000	5.000	5.801600	116.03	5.801600	0.0667
13C-2,3,4,7,8-PeCDF	40:37	1086306	210653	1.000	25.00	23.556978	94.23	23.556978	0.0947
13C-1,2,3,4,7,8-HxCDD	45:35	721471	212352	1.000	25.00	23.323155	93.29	23.323155	0.0610
13C-1,2,3,4,7,8-HxCDF	44:34	951037	288353	1.000	25.00	21.810529	87.24	21.810529	0.0530
13C-1,2,3,7,8,9-HxCDF	46:18	928679	204310	1.000	25.00	30.885907	123.54	30.885907	0.0858
13C-1,2,3,4,7,8,9-HpCDF	50:52	634403	114404	1.000	25.00	19.599419	78.40	19.599419	0.0579
13C-1,2,3,4-TCDD	30:00	2780166	303569	1.000	100.0	100.000000	100.00	100.000000	0.338
13C-1,2,3,7,8,9-HxCDD	46:03	3006805	763363	1.000	100.0	100.000000	100.00	100.000000	0.0662

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS3	Prep Batch		Lot No	
Data File	/20091210i/b091210i3.d	Prep Date		SDG No	
Analysis ID	119261	Prep Exp Date		Date Received	
Analysis Date	12/10/09 17:46	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	168	208	67	83	0.81	/	
	2,3,7,8-TCDF	28:38	00:00	0	109812	146955	13156	15820	0.75	ABV/ABV	M
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	273	540	109	216	0.50 *	/	
	13C-2,3,7,8-TCDF	28:37	00:00	0	2074036	2589148	222609	273296	0.80	ABV/ABV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	153	223	61	89	0.69	/	
	2,3,7,8-TCDD	30:32	00:00	0	72137	92320	7069	8603	0.78	AVV/AVV	M
328					327.8847		327.8847				
	Noise	00:00	00:00	0	180		72				
	37Cl4-2,3,7,8-TCDD	30:32	00:00	0	158847		15546			ABV	M
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	568	458	227	183	1.24 *	/	
	13C-1,2,3,4-TCDD	30:00	00:00	0	1236872	1543294	132928	170641	0.80	AVV/ABV	
	13C-2,3,7,8-TCDD	30:30	00:00	0	1217840	1520146	118726	151241	0.80	AVB/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	245	240	98	96	1.02 *	/	
	1,2,3,7,8-PeCDF	39:15	00:00	0	744733	475089	127446	78581	1.57	ABV/ABV	M
	2,3,4,7,8-PeCDF	40:38	00:00	0	707753	453749	132196	89807	1.56	ABV/ABV	M
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	365	360	146	144	1.01 *	/	
	13C-1,2,3,7,8-PeCDF	39:14	00:00	0	2833528	1777870	469188	296681	1.59	ABV/ABV	M
	13C-2,3,4,7,8-PeCDF	40:37	00:00	0	659840	426466	126675	83978	1.55	AVV/ABV	M
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	185	205	74	82	0.90 *	/	
	1,2,3,7,8-PeCDD	41:13	00:00	0	449569	281234	93049	58983	1.60	ABV/ABV	M
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	235	168	94	67	1.40	/	
	13C-1,2,3,7,8-PeCDD	41:12	00:00	0	1642996	1058658	347482	217837	1.55	ABV/ABV	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	308	305	123	122	1.01 *	/	
	1,2,3,4,7,8-HxCDF	44:35	00:00	0	677408	534015	189490	149612	1.27	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	44:43	00:00	0	763063	595654	219452	165927	1.28	AVV/AVV	M
	2,3,4,6,7,8-HxCDF	45:25	00:00	0	723307	542981	196155	145069	1.33	AVV/AVV	M
	1,2,3,7,8,9-HxCDF	46:19	00:00	0	604980	467647	134718	108308	1.29	ABV/ABV	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	285	370	114	148	0.77 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:34	00:00	0	326803	624234	96875	191478	0.52	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	44:42	00:00	0	1512476	2847973	422241	812855	0.53	AVB/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:18	00:00	0	329768	598911	71371	132939	0.55	AVV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	220	278	88	111	0.79 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS3	Prep Batch		Lot No	
Data File	/20091210i/b091210i3.d	Prep Date		SDG No	
Analysis ID	119261	Prep Exp Date		Date Received	
Analysis Date	12/10/09 17:46	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,4,7,8-HxCDD	45:36	00:00	0	418902	327278	122052	94141	1.28	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	45:42	00:00	0	462868	379314	119298	98638	1.22	AVV/AVV	M
	1,2,3,7,8,9-HxCDD	46:05	00:00	0	436147	351075	111752	91814	1.24	AVV/AVV	M
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	305	200	122	80	1.53 *	/	
	13C-1,2,3,4,7,8-HxCDD	45:35	00:00	0	399876	321595	117656	94696	1.24	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	45:41	00:00	0	1725615	1367753	457607	369591	1.26	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDD	46:03	00:00	0	1667192	1339613	414226	349137	1.24	AVV/AVV	M
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	203	260	81	104	0.78 *	/	
	1,2,3,4,6,7,8-HpCDF	48:38	00:00	0	609251	565896	142138	134419	1.08	ABV/ABV	M
	1,2,3,4,7,8,9-HpCDF	50:53	00:00	0	461830	430280	86315	80061	1.07	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	233	203	93	81	1.15 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	48:37	00:00	0	1027233	2209613	236297	514863	0.46	ABV/ABV	M
	13C-1,2,3,4,7,8,9-HpCDF	50:52	00:00	0	205843	428560	38949	75455	0.48	ABV/ABV	M
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	155	138	62	55	1.13	/	
	1,2,3,4,6,7,8-HpCDD	50:16	00:00	0	369800	344757	73666	67825	1.07	ABV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	175	158	70	63	1.11	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:15	00:00	0	1336386	1286846	268829	251454	1.04	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	260	208	104	83	1.25 *	/	
	OCDF	54:50	00:00	0	754021	812725	178943	198085	0.93	ABV/ABV	M
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	188	165	75	66	1.14 *	/	
	OCDD	54:42	00:00	0	669500	732793	166506	185613	0.91	ABV/ABV	M
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	248	258	99	103	0.96	/	
	13C-OCDD	54:42	00:00	0	2464252	2729797	618096	672048	0.90	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS4	Prep Batch		Lot No	
Data File	/20091210i/b091210i4.d	Prep Date		SDG No	
Analysis ID	119262	Prep Exp Date		Date Received	
Analysis Date	12/10/2009	Matrix	UNKNOWN	Date Sampled	
Analysis Time	18:47	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
2,3,7,8-TCDD	30:32	1532128	157391	1.000	50.00	57.158867	114.32	57.158867	0.295
Total TCDD				1.000		57.158867		57.158867	0.295
2,3,7,8-TCDF	28:37	2361610	252661	1.000	50.00	52.987489	105.97	52.987489	0.122
Total TCDF				1.000		52.987489		52.987489	0.122
1,2,3,7,8-PeCDD	41:12	7003460	1508986	1.000	250.0	271.477507	108.59	271.477507	0.103
Total PeCDD				1.000		271.477507		271.477507	0.103
1,2,3,7,8-PeCDF	39:15	11249155	1991526	1.000	250.0	255.273901	102.11	255.273901	0.139
2,3,4,7,8-PeCDF	40:37	11612083	2440057	1.000	250.0	263.509724	105.40	263.509724	0.139
Total PeCDF				1.000		518.783625		518.783625	0.139
1,2,3,4,7,8-HxCDD	45:35	7767522	2312316	1.000	250.0	239.905971	95.96	239.905971	0.0992
1,2,3,6,7,8-HxCDD	45:42	7848387	2198027	1.000	250.0	242.403550	96.96	242.403550	0.0992
1,2,3,7,8,9-HxCDD	46:04	7568486	2016030	1.000	250.0	233.758589	93.50	233.758589	0.0992
Total HxCDD				1.000		716.068111		716.068111	0.0992
1,2,3,4,7,8-HxCDF	44:34	11726903	3454399	1.000	250.0	257.166331	102.87	257.166331	0.0815
1,2,3,6,7,8-HxCDF	44:43	12666073	3560335	1.000	250.0	277.761957	111.10	277.761957	0.0815
2,3,4,6,7,8-HxCDF	45:24	12001207	3429010	1.000	250.0	263.181709	105.27	263.181709	0.0815
1,2,3,7,8,9-HxCDF	46:18	10742194	2706608	1.000	250.0	235.572053	94.23	235.572053	0.0815
Total HxCDF				1.000		1033.68205		1033.68205	0.0815
1,2,3,4,6,7,8-HpCDD	50:15	6994393	1517386	1.000	250.0	272.280068	108.91	272.280068	0.0830
Total HpCDD				1.000		272.280068		272.280068	0.0830
1,2,3,4,6,7,8-HpCDF	48:38	11722944	2695985	1.000	250.0	357.716559	143.09	357.716559	0.0825
1,2,3,4,7,8,9-HpCDF	50:52	9718641	1918102	1.000	250.0	296.556805	118.62	296.556805	0.0825
Total HpCDF				1.000		654.273365		654.273365	0.0825
OCDD	54:42	14114036	3841238	1.000	500.0	519.265209	103.85	519.265209	0.0862
OCDF	54:49	17205811	4703078	1.000	500.0	633.013763	126.60	633.013763	0.101
13C-2,3,7,8-TCDD	30:29	2680473	267817	1.000	100.0	102.129831	102.13	102.129831	0.378
13C-2,3,7,8-TCDF	28:35	4456920	479473	1.000	100.0	169.814987	169.81	169.814987	0.233
13C-1,2,3,7,8-PeCDD	41:11	2579757	578150	1.000	100.0	98.292409	98.29	98.292409	0.124
13C-1,2,3,7,8-PeCDF	39:13	4406700	803391	1.000	100.0	167.901534	167.90	167.901534	0.231
13C-1,2,3,6,7,8-HxCDD	45:41	3237736	904937	1.000	100.0	109.127188	109.13	109.127188	0.0730
13C-1,2,3,6,7,8-HxCDF	44:42	4560046	1257894	1.000	100.0	153.695359	153.70	153.695359	0.0889
13C-1,2,3,4,6,7,8-HpCDD	50:14	2568823	547903	1.000	100.0	86.581621	86.58	86.581621	0.0583
13C-1,2,3,4,6,7,8-HpCDF	48:37	3277160	754410	1.000	100.0	110.455965	110.46	110.455965	0.0810
13C-OCDD	54:41	5436157	1415844	1.000	200.0	183.224489	91.61	183.224489	0.0947
37Cl4-2,3,7,8-TCDD	30:33	1528720	151683	1.000	50.00	57.031725	114.06	57.031725	0.117
13C-2,3,4,7,8-PeCDF	40:36	10699476	2230849	1.000	250.0	242.800191	97.12	242.800191	0.0809
13C-1,2,3,4,7,8-HxCDD	45:34	7225004	2060240	1.000	250.0	223.149880	89.26	223.149880	0.0633
13C-1,2,3,4,7,8-HxCDF	44:33	9469595	2750805	1.000	250.0	207.664462	83.07	207.664462	0.0554
13C-1,2,3,7,8,9-HxCDF	46:17	9165609	2278672	1.000	250.0	308.924858	123.57	308.924858	0.0889
13C-1,2,3,4,7,8,9-HpCDF	50:52	6845838	1353223	1.000	250.0	208.895446	83.56	208.895446	0.0842
13C-1,2,3,4-TCDD	29:59	2624574	281366	1.000	100.0	100.000000	100.00	100.000000	0.378
13C-1,2,3,7,8,9-HxCDD	46:03	2966938	784223	1.000	100.0	100.000000	100.00	100.000000	0.0730

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS4	Prep Batch		Lot No	
Data File	/20091210i/b091210i4.d	Prep Date		SDG No	
Analysis ID	119262	Prep Exp Date		Date Received	
Analysis Date	12/10/09 18:47	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	333	253	133	101	1.32 *	/	
	2,3,7,8-TCDF	28:37	00:00	0	1040718	1320892	111026	141635	0.79	ABV/ABV	M
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	258	398	103	159	0.65	/	
	13C-2,3,7,8-TCDF	28:35	00:00	0	1960805	2496115	211755	267718	0.79	ABV/ABV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	333	458	133	183	0.73	/	
	2,3,7,8-TCDD	30:32	00:00	0	667499	864629	68698	88693	0.77	AVV/AVV	M
328					327.8847		327.8847				
	Noise	00:00	00:00	0	313		125				
	37Cl4-2,3,7,8-TCDD	30:33	00:00	0	1528720		151683			AVV	M
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	533	530	213	212	1.00 *	/	
	13C-1,2,3,4-TCDD	29:59	00:00	0	1175023	1449551	124726	156640	0.81	ABV/ABV	
	13C-2,3,7,8-TCDD	30:29	00:00	0	1180880	1499593	117073	150744	0.79	AVV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	683	435	273	174	1.57	/	
	1,2,3,7,8-PeCDF	39:15	00:00	0	6867106	4382049	1216646	774880	1.57	ABV/ABV	M
	2,3,4,7,8-PeCDF	40:37	00:00	0	7099067	4513016	1479731	960326	1.57	ABV/ABV	M
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	288	363	115	145	0.79 *	/	
	13C-1,2,3,7,8-PeCDF	39:13	00:00	0	2709049	1697651	493118	310273	1.60	ABV/ABV	M
	13C-2,3,4,7,8-PeCDF	40:36	00:00	0	6575442	4124034	1371064	859785	1.59	AVV/ABV	M
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	365	230	146	92	1.59	/	
	1,2,3,7,8-PeCDD	41:12	00:00	0	4276718	2726742	924380	584606	1.57	ABV/ABV	M
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	193	155	77	62	1.24 *	/	
	13C-1,2,3,7,8-PeCDD	41:11	00:00	0	1581927	997830	351522	226628	1.59	ABV/ABV	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	480	545	192	218	0.88 *	/	
	1,2,3,4,7,8-HxCDF	44:34	00:00	0	6563326	5163577	1921310	1533089	1.27	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	44:43	00:00	0	7081506	5584567	1955417	1604918	1.27	AVV/AVV	M
	2,3,4,6,7,8-HxCDF	45:24	00:00	0	6698305	5302902	1907043	1521967	1.26	AVV/AVV	M
	1,2,3,7,8,9-HxCDF	46:18	00:00	0	6013377	4728817	1499872	1206736	1.27	ABV/ABV	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	273	425	109	170	0.64 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:33	00:00	0	3322236	6147359	959466	1791339	0.54	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	44:42	00:00	0	1588844	2971202	445127	812767	0.53	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:17	00:00	0	3203509	5962100	798280	1480392	0.54	ABV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	533	365	213	146	1.46 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS4	Prep Batch		Lot No	
Data File	/20091210i/b091210i4.d	Prep Date		SDG No	
Analysis ID	119262	Prep Exp Date		Date Received	
Analysis Date	12/10/09 18:47	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,4,7,8-HxCDD	45:35	00:00	0	4388070	3379452	1280085	1032231	1.30	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	45:42	00:00	0	4276270	3572117	1221661	976366	1.20	AVV/AVV	M
	1,2,3,7,8,9-HxCDD	46:04	00:00	0	4181082	3387404	1112194	903836	1.23	AVV/AVV	M
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	220	353	88	141	0.62 *	/	
	13C-1,2,3,4,7,8-HxCDD	45:34	00:00	0	4050937	3174067	1145370	914870	1.28	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	45:41	00:00	0	1805513	1432223	503561	401376	1.26	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDD	46:03	00:00	0	1666923	1300015	446364	337859	1.28	AVV/AVV	M
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	268	355	107	142	0.75 *	/	
	1,2,3,4,6,7,8-HpCDF	48:38	00:00	0	6032439	5690505	1391625	1304360	1.06	ABV/ABV	M
	1,2,3,4,7,8,9-HpCDF	50:52	00:00	0	5021924	4696717	988963	929139	1.07	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	373	263	149	105	1.42 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	48:37	00:00	0	1044097	2233063	243597	510813	0.47	ABV/ABV	M
	13C-1,2,3,4,7,8,9-HpCDF	50:52	00:00	0	2176419	4669419	430765	922458	0.47	ABV/ABV	M
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	225	230	90	92	0.98	/	
	1,2,3,4,6,7,8-HpCDD	50:15	00:00	0	3583125	3411268	775298	742088	1.05	ABV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	270	188	108	75	1.44 *	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:14	00:00	0	1317908	1250915	282090	265813	1.05	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	408	305	163	122	1.34 *	/	
	OCDF	54:49	00:00	0	8240791	8965020	2237840	2465238	0.92	ABV/ABV	M
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	340	270	136	108	1.26 *	/	
	OCDD	54:42	00:00	0	6714596	7399440	1818908	2022330	0.91	ABV/ABV	M
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	258	485	103	194	0.53 *	/	
	13C-OCDD	54:41	00:00	0	2554122	2882035	658258	757586	0.89	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS5	**Prep Batch**		**Lot No**	
Data File	/20091210i/b09121015.d	**Prep Date**		**SDG No**	
Analysis ID	119263	**Prep Exp Date**		**Date Received**	
Analysis Date	12/10/2009	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	19:47	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	0023/8290
Instrument	M2A	**Dil Factor**	1.00	**Code**	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
2,3,7,8-TCDD	30:31	2853634	285955	1.000	100.0	113.523614	113.52	113.523614	0.173
Total TCDD				1.000		113.523614		113.523614	0.173
2,3,7,8-TCDF	28:37	4625715	506398	1.000	100.0	105.626547	105.63	105.626547	0.134
Total TCDF				1.000		105.626547		105.626547	0.134
1,2,3,7,8-PeCDD	41:12	12477357	2766481	1.000	500.0	539.658464	107.93	539.658464	0.124
Total PeCDD				1.000		539.658464		539.658464	0.124
1,2,3,7,8-PeCDF	39:14	20387025	3666413	1.000	500.0	493.528364	98.71	493.528364	0.174
2,3,4,7,8-PeCDF	40:35	21258756	4500951	1.000	500.0	514.631197	102.93	514.631197	0.174
Total PeCDF				1.000		1008.15956		1008.15956	0.174
1,2,3,4,7,8-HxCDD	45:35	14810917	4252753	1.000	500.0	474.738549	94.95	474.738549	0.114
1,2,3,6,7,8-HxCDD	45:41	14029849	4190967	1.000	500.0	449.702754	89.94	449.702754	0.114
1,2,3,7,8,9-HxCDD	46:03	14237729	3849661	1.000	500.0	456.365991	91.27	456.365991	0.114
Total HxCDD				1.000		1380.80729		1380.80729	0.114
1,2,3,4,7,8-HxCDF	44:34	22549645	6672209	1.000	500.0	539.709093	107.94	539.709093	0.0961
1,2,3,6,7,8-HxCDF	44:42	23410702	7097596	1.000	500.0	560.317857	112.06	560.317857	0.0961
2,3,4,6,7,8-HxCDF	45:23	22481997	6204705	1.000	500.0	538.089989	107.62	538.089989	0.0961
1,2,3,7,8,9-HxCDF	46:17	20280453	5382348	1.000	500.0	485.397659	97.08	485.397659	0.0961
Total HxCDF				1.000		2123.51460		2123.51460	0.0961
1,2,3,4,6,7,8-HpCDD	50:14	13172005	2874868	1.000	500.0	545.277424	109.06	545.277424	0.100
Total HpCDD				1.000		545.277424		545.277424	0.100
1,2,3,4,6,7,8-HpCDF	48:37	22435329	5275005	1.000	500.0	718.337164	143.67	718.337164	0.112
1,2,3,4,7,8,9-HpCDF	50:52	17981739	3708272	1.000	500.0	575.741564	115.15	575.741564	0.112
Total HpCDF				1.000		1294.07873		1294.07873	0.112
OCDD	54:41	26370378	7000282	1.000	1000	1036.04957	103.60	1036.04957	0.0922
OCDF	54:48	32782154	8540015	1.000	1000	1287.95789	128.80	1287.95789	0.147
13C-2,3,7,8-TCDD	30:28	2513692	256746	1.000	100.0	103.031903	103.03	103.031903	0.392
13C-2,3,7,8-TCDF	28:34	4379311	471263	1.000	100.0	179.500410	179.50	179.500410	0.274
13C-1,2,3,7,8-PeCDD	41:10	2312084	507136	1.000	100.0	94.768338	94.77	94.768338	0.148
13C-1,2,3,7,8-PeCDF	39:12	4130872	729454	1.000	100.0	169.317324	169.32	169.317324	0.251
13C-1,2,3,6,7,8-HxCDD	45:40	3119805	868576	1.000	100.0	109.515452	109.52	109.515452	0.0856
13C-1,2,3,6,7,8-HxCDF	44:41	4178111	1264557	1.000	100.0	146.665485	146.67	146.665485	0.133
13C-1,2,3,4,6,7,8-HpCDD	50:13	2415652	517280	1.000	100.0	84.797357	84.80	84.797357	0.0410
13C-1,2,3,4,6,7,8-HpCDF	48:36	3123231	738981	1.000	100.0	109.635716	109.64	109.635716	0.0628
13C-OCDD	54:41	5090563	1328802	1.000	200.0	178.695561	89.35	178.695561	0.0576
37Cl4-2,3,7,8-TCDD	30:30	2841604	289237	1.000	100.0	113.045035	113.05	113.045035	0.110
13C-2,3,4,7,8-PeCDF	40:34	19499073	4187888	1.000	500.0	472.032854	94.41	472.032854	0.0891
13C-1,2,3,4,7,8-HxCDD	45:34	13460559	4040769	1.000	500.0	431.455139	86.29	431.455139	0.0757
13C-1,2,3,4,7,8-HxCDF	44:33	18316013	5495148	1.000	500.0	438.380239	87.68	438.380239	0.0807
13C-1,2,3,7,8,9-HxCDF	46:16	17320901	4505339	1.000	500.0	608.020788	121.60	608.020788	0.133
13C-1,2,3,4,7,8,9-HpCDF	50:51	12714738	2561256	1.000	500.0	407.102068	81.42	407.102068	0.0653
13C-1,2,3,4-TCDD	29:58	2439722	259233	1.000	100.0	100.000000	100.00	100.000000	0.392
13C-1,2,3,7,8,9-HxCDD	46:02	2848735	768270	1.000	100.0	100.000000	100.00	100.000000	0.0856

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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS5	Prep Batch		Lot No	
Data File	/20091210i/b091210i5.d	Prep Date		SDG No	
Analysis ID	119263	Prep Exp Date		Date Received	
Analysis Date	12/10/09 19:47	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					**303.9016**	**305.8987**	**303.9016**	**305.8987**	**0.65-0.89**		
	Noise	00:00	00:00	0	238	395	95	158	0.60 *	/	
	2,3,7,8-TCDF	28:37	00:00	0	2041160	2584555	230780	275618	0.79	ABV/ABV	M
316					**315.9419**	**317.9389**	**315.9419**	**317.9389**	**0.65-0.89**		
	Noise	00:00	00:00	0	268	443	107	177	0.60 *	/	
	13C-2,3,7,8-TCDF	28:34	00:00	0	1911139	2468172	204683	266580	0.77	ABV/ABV	
320					**319.8965**	**321.8936**	**319.8965**	**321.8936**	**0.65-0.89**		
	Noise	00:00	00:00	0	238	208	95	83	1.14 *	/	
	2,3,7,8-TCDD	30:31	00:00	0	1259746	1593888	126278	159677	0.79	AVV/AVV	M
328					**327.8847**		**327.8847**				
	Noise	00:00	00:00	0	283		113				
	37Cl4-2,3,7,8-TCDD	30:30	00:00	0	2841604		289237			ABV	M
332					**331.9368**	**333.9338**	**331.9368**	**333.9338**	**0.65-0.89**		
	Noise	00:00	00:00	0	448	568	179	227	0.79	/	
	13C-1,2,3,4-TCDD	29:58	00:00	0	1091211	1348511	114394	144839	0.81	AVV/ABV	
	13C-2,3,7,8-TCDD	30:28	00:00	0	1118007	1395685	113233	143513	0.80	AVV/AVV	
340					**339.8597**	**341.8567**	**339.8597**	**341.8567**	**1.32-1.78**		
	Noise	00:00	00:00	0	720	550	288	220	1.31 *	/	
	1,2,3,7,8-PeCDF	39:14	00:00	0	12458240	7928785	2247690	1418723	1.57	ABV/ABV	M
	2,3,4,7,8-PeCDF	40:35	00:00	0	12959077	8299679	2732615	1768336	1.56	ABV/ABV	M
352					**351.9000**	**353.8970**	**351.9000**	**353.8970**	**1.32-1.78**		
	Noise	00:00	00:00	0	305	345	122	138	0.88 *	/	
	13C-1,2,3,7,8-PeCDF	39:12	00:00	0	2532488	1598384	450035	279419	1.58	ABV/ABV	M
	13C-2,3,4,7,8-PeCDF	40:34	00:00	0	11887078	7611995	2537886	1650002	1.56	ABV/ABV	M
356					**355.8546**	**357.8516**	**355.8546**	**357.8516**	**1.32-1.78**		
	Noise	00:00	00:00	0	365	265	146	106	1.38	/	
	1,2,3,7,8-PeCDD	41:12	00:00	0	7601735	4875622	1685478	1081003	1.56	ABV/ABV	M
368					**367.8949**	**369.8919**	**367.8949**	**369.8919**	**1.32-1.78**		
	Noise	00:00	00:00	0	218	165	87	66	1.32	/	
	13C-1,2,3,7,8-PeCDD	41:10	00:00	0	1414275	897809	310713	196423	1.58	ABV/ABV	
374					**373.8208**	**375.8178**	**373.8208**	**375.8178**	**1.05-1.43**		
	Noise	00:00	00:00	0	620	595	248	238	1.04 *	/	
	1,2,3,4,7,8-HxCDF	44:34	00:00	0	12631780	9917865	3785860	2886349	1.27	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	44:42	00:00	0	13131635	10279067	4025474	3072122	1.28	AVV/AVV	M
	2,3,4,6,7,8-HxCDF	45:23	00:00	0	12564042	9917955	3420157	2784548	1.27	AVV/AVV	M
	1,2,3,7,8,9-HxCDF	46:17	00:00	0	11362440	8918013	2998718	2383630	1.27	ABV/ABV	
384					**383.8639**	**385.8610**	**383.8639**	**385.8610**	**0.43-0.59**		
	Noise	00:00	00:00	0	473	548	189	219	0.86 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:33	00:00	0	6367253	11948760	1916266	3578882	0.53	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	44:41	00:00	0	1527224	2650887	450653	813904	0.58	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:16	00:00	0	6038872	11282029	1551513	2953826	0.54	ABV/ABV	
390					**389.8156**	**391.8127**	**389.8156**	**391.8127**	**1.05-1.43**		
	Noise	00:00	00:00	0	488	505	195	202	0.97 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	4104:14CS5	Prep Batch		Lot No	
Data File	/20091210i/b091210i5.d	Prep Date		SDG No	
Analysis ID	119263	Prep Exp Date		Date Received	
Analysis Date	12/10/09 19:47	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					**389.8156**	**391.8127**	**389.8156**	**391.8127**	**1.05-1.43**		
	1,2,3,4,7,8-HxCDD	45:35	00:00	0	8203532	6607385	2376352	1876401	1.24	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	45:41	00:00	0	7804955	6224894	2341952	1849015	1.25	AVV/AVV	M
	1,2,3,7,8,9-HxCDD	46:03	00:00	0	7840150	6397579	2143545	1706116	1.23	AVV/AVV	M
402					**401.8559**	**403.8529**	**401.8559**	**403.8529**	**1.05-1.43**		
	Noise	00:00	00:00	0	308	350	123	140	0.88 *	/	
	13C-1,2,3,4,7,8-HxCDD	45:34	00:00	0	7499686	5960873	2262902	1777867	1.26	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	45:40	00:00	0	1744978	1374827	483716	384860	1.27	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDD	46:02	00:00	0	1600661	1248074	431653	336617	1.28	AVV/AVV	M
408					**407.7818**	**409.7788**	**407.7818**	**409.7788**	**0.88-1.20**		
	Noise	00:00	00:00	0	385	440	154	176	0.88	/	
	1,2,3,4,6,7,8-HpCDF	48:37	00:00	0	11492731	10942598	2734971	2540034	1.05	ABV/ABV	M
	1,2,3,4,7,8,9-HpCDF	50:52	00:00	0	9236701	8745038	1919012	1789260	1.06	ABV/ABV	M
418					**417.8250**	**419.8220**	**417.8250**	**419.8220**	**0.37-0.51**		
	Noise	00:00	00:00	0	228	255	91	102	0.89 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	48:36	00:00	0	993609	2129622	235972	503009	0.47	ABV/ABV	M
	13C-1,2,3,4,7,8,9-HpCDF	50:51	00:00	0	4036222	8678516	827361	1733895	0.47	ABV/ABV	M
424					**423.7767**	**425.7737**	**423.7767**	**425.7737**	**0.88-1.20**		
	Noise	00:00	00:00	0	183	335	73	134	0.54 *	/	
	1,2,3,4,6,7,8-HpCDD	50:14	00:00	0	6724963	6447042	1449298	1425570	1.04	ABV/ABV	M
436					**435.8169**	**437.8140**	**435.8169**	**437.8140**	**0.88-1.20**		
	Noise	00:00	00:00	0	183	133	73	53	1.38 *	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:13	00:00	0	1252987	1162665	260501	256779	1.08	ABV/ABV	
442					**441.7428**	**443.7399**	**441.7428**	**443.7399**	**0.76-1.02**		
	Noise	00:00	00:00	0	563	413	225	165	1.36 *	/	
	OCDF	54:48	00:00	0	15686934	17095220	4021070	4518945	0.92	ABV/ABV	
458					**457.7377**	**459.7348**	**457.7377**	**459.7348**	**0.76-1.02**		
	Noise	00:00	00:00	0	303	310	121	124	0.98	/	
	OCDD	54:41	00:00	0	12456651	13913727	3252869	3747413	0.90	ABV/ABV	M
470					**469.7780**	**471.7750**	**469.7780**	**471.7750**	**0.76-1.02**		
	Noise	00:00	00:00	0	220	223	88	89	0.99	/	
	13C-OCDD	54:41	00:00	0	2407277	2683286	640796	688006	0.90	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 1613B

Workorder	4104:12	Prep Batch		Lot No	
Data File	/20091210i/b091210w1.d	Prep Date		SDG No	
Analysis ID	119245	Prep Exp Date		Date Received	
Analysis Date	12/10/2009	Matrix	UNKNOWN	Date Sampled	
Analysis Time	11:02	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	DX1613B
Instrument	M2A	Dil Factor	1.00	Code	F8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
2,3,7,8-TCDD	30:36	309338	33974	1.201	10.00	9.465213	94.65	9.465213	E	0.116
Total TCDD		1439787	167205	1.201		53.520228		53.520228	E	0.116
2,3,7,8-TCDF	28:41	464795	53280	1.121	10.00	9.939662	99.40	9.939662	E	0.0623
Total TCDF		928246	125001	1.121		29.790244		29.790244	E	0.0623
1,2,3,7,8-PeCDD	41:09	1453823	349717	1.064	50.00	50.369777	100.74	50.369777	E	0.0556
Total PeCDD		2924601	605634	1.064		151.696760		151.696760	E	0.0556
1,2,3,7,8-PeCDF	39:14	2208995	424881	1.121	50.00	47.986970	95.97	47.986970	E	0.0502
2,3,4,7,8-PeCDF	40:35	2285335	506294	1.140	50.00	50.229360	100.46	50.229360	E	0.0413
Total PeCDF		4181467	713013	1.130		189.572950		189.572950	E	0.0454
1,2,3,4,7,8-HxCDD	45:31	1640533	467851	1.149	50.00	53.088759	106.18	53.088759	E	0.0541
1,2,3,6,7,8-HxCDD	45:39	1516615	454817	1.124	50.00	46.109374	92.22	46.109374	E	0.0483
1,2,3,7,8,9-HxCDD	46:01	1721595	461218	1.216	50.00	50.436915	100.87	50.436915	E	0.0477
Total HxCDD		1676361	515109	1.163		200.975042		200.975042	E	0.0499
1,2,3,4,7,8-HxCDF	44:31	2369792	711328	1.264	50.00	51.149349	102.30	51.149349	E	0.0312
1,2,3,6,7,8-HxCDF	44:39	2462901	724488	1.265	50.00	49.313687	98.63	49.313687	E	0.0291
2,3,4,6,7,8-HxCDF	45:21	2378422	669506	1.226	50.00	49.743865	99.49	49.743865	E	0.0313
1,2,3,7,8,9-HxCDF	46:15	2180065	600312	1.248	50.00	48.230399	96.46	48.230399	E	0.0344
Total HxCDF		4311731	1214592	1.251		289.543599		289.543599	E	0.0314
1,2,3,4,6,7,8-HpCDD	50:13	1596255	371988	1.027	50.00	52.350026	104.70	52.350026	E	0.0745
Total HpCDD		1598940	374638	1.027		104.788108		104.788108	E	0.0745
1,2,3,4,6,7,8-HpCDF	48:35	2254012	537747	1.501	50.00	49.050398	98.10	49.050398	E	0.0323
1,2,3,4,7,8,9-HpCDF	50:51	2064689	423346	1.487	50.00	49.824845	99.65	49.824845	E	0.0403
Total HpCDF				1.494		98.875243		98.875243	E	0.0359
OCDD	54:38	3214088	866847	1.022	100.0	111.249297	111.25	111.249297	E	0.0709
OCDF	54:46	3550068	919016	1.335	100.0	94.103888	94.10	94.103888	E	0.0483
13C-2,3,7,8-TCDD	30:33	2721507	301166	1.029	100.0	102.085764	102.09	102.085764		0.179
13C-2,3,7,8-TCDF	28:39	4170003	500749	1.614	100.0	99.752548	99.75	99.752548		0.0796
13C-1,2,3,7,8-PeCDD	41:08	2711912	646217	1.060	100.0	98.786379	98.79	98.786379		0.103
13C-1,2,3,7,8-PeCDF	39:11	4105597	754340	1.540	100.0	102.891235	102.89	102.891235		0.0733
13C-2,3,4,7,8-PeCDF	40:33	3992361	901956	1.605	100.0	96.028336	96.03	96.028336		0.0703
13C-1,2,3,4,7,8-HxCDD	45:31	2688676	759513	0.879	100.0	99.748677	99.75	99.748677		0.0448
13C-1,2,3,6,7,8-HxCDD	45:38	2925153	869809	0.956	100.0	99.776253	99.78	99.776253		0.0412
13C-1,2,3,4,7,8-HxCDF	44:30	3664170	1071326	1.320	100.0	90.483478	90.48	90.483478		0.0384
13C-1,2,3,6,7,8-HxCDF	44:38	3946680	1145692	1.393	100.0	92.324215	92.32	92.324215		0.0364
13C-2,3,4,6,7,8-HxCDF	45:20	3900622	1102661	1.324	100.0	96.018388	96.02	96.018388		0.0383
13C-1,2,3,7,8,9-HxCDF	46:14	3622702	985011	1.220	100.0	96.775540	96.78	96.775540		0.0416
13C-1,2,3,4,6,7,8-HpCDD	50:12	2969805	650544	0.945	100.0	102.380860	102.38	102.380860		0.0354
13C-1,2,3,4,6,7,8-HpCDF	48:34	3061696	728101	1.028	100.0	97.100342	97.10	97.100342		0.0553
13C-1,2,3,4,7,8,9-HpCDF	50:50	2786419	587744	0.908	100.0	99.994046	99.99	99.994046		0.0626
13C-OCDD	54:38	5651318	1489236	0.865	200.0	213.023774	106.51	213.023774		0.0600
37Cl4-2,3,7,8-TCDD	30:35	294558	31910	1.170	10.00	9.720443	97.20	9.720443	E	0.0512
13C-1,2,3,4-TCDD	30:02	2590484	287924	1.000	100.0	100.000000	100.00	100.000000		0.184
13C-1,2,3,7,8,9-HxCDD	46:00	3067953	858002	1.000	100.0	100.000000	100.00	100.000000		0.0393

TestAmerica
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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	4104:12	Prep Batch		Lot No	
Data File	/20091210i/b091210w1.d	Prep Date		SDG No	
Analysis ID	119245	Prep Exp Date		Date Received	
Analysis Date	12/10/09 11:02	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	KBL	Diluton Factor	1.00	Code	F8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					**303.9016**	**305.8987**	**303.9016**	**305.8987**	**0.65-0.89**		
	Noise	00:00	00:00	0	163	188	65	75	0.87	/	
	Unidentified	22:39	00:00	0	224451	284512	36776	46062	0.79	ABV/ABV	
	2,3,7,8-TCDF	28:41	28:39	2	206913	257882	22777	30503	0.80	ABV/AVV	
	Unidentified	33:26	00:00	0	184891	234392	19609	22554	0.79	ABV/AVV	
316					**315.9419**	**317.9389**	**315.9419**	**317.9389**	**0.65-0.89**		
	Noise	00:00	00:00	0	153	218	61	87	0.70	/	
	13C-2,3,7,8-TCDF	28:39	28:37	2	1870883	2299120	221535	279214	0.81	ABV/AVV	
320					**319.8965**	**321.8936**	**319.8965**	**321.8936**	**0.65-0.89**		
	Noise	00:00	00:00	0	215	205	86	82	1.05 *	/	
	Unidentified	24:58	00:00	0	123144	158443	18553	22204	0.78	ABV/ABB	
	Unidentified	30:06	00:00	0	123536	151800	14091	17351	0.81	ABV/ABV	
	Unidentified	30:19	00:00	0	123419	167863	13538	19559	0.74	AVB/AVV	DM
	2,3,7,8-TCDD	30:36	30:18	18	138124	171214	15210	18764	0.81	AVV/AVV	M
	Unidentified	31:01	00:00	0	133278	170813	14524	19074	0.78	AVV/AVV	
	Unidentified	33:36	00:00	0	128921	158570	11889	16422	0.81	ABV/AVV	
328					**327.8847**		**327.8847**				
	Noise	00:00	00:00	0	173		69				
	37Cl4-2,3,7,8-TCDD	30:35	30:18	17	294558		31910			AVB	M
332					**331.9368**	**333.9338**	**331.9368**	**333.9338**	**0.65-0.89**		
	Noise	00:00	00:00	0	303	228	121	91	1.33 *	/	
	13C-1,2,3,4-TCDD	30:02	29:47	15	1160790	1429694	130364	157560	0.81	ABV/AVV	
	13C-2,3,7,8-TCDD	30:33	30:16	17	1219018	1502489	136570	164596	0.81	AVV/AVV	
340					**339.8597**	**341.8567**	**339.8597**	**341.8567**	**1.32-1.78**		
	Noise	00:00	00:00	0	208	218	83	87	0.95 *	/	
	Unidentified	34:26	00:00	0	1245129	788860	119867	77925	1.58	ABB/ABB	
	1,2,3,7,8-PeCDF	39:14	39:14	0	1341262	867733	257838	167043	1.55	ABV/AVV	
	2,3,4,7,8-PeCDF	40:35	40:43	-8	1395513	889822	308841	197453	1.57	ABV/AVV	M
	Unidentified	41:57	00:00	0	1316288	831190	316573	198648	1.58	ABV/ABV	
352					**351.9000**	**353.8970**	**351.9000**	**353.8970**	**1.32-1.78**		
	Noise	00:00	00:00	0	163	163	65	65	1.00 *	/	
	13C-1,2,3,7,8-PeCDF	39:11	39:12	-1	2530936	1574661	463073	291267	1.61	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	40:33	40:42	-9	2461824	1530537	559029	342927	1.61	ABV/ABV	
356					**355.8546**	**357.8516**	**355.8546**	**357.8516**	**1.32-1.78**		
	Noise	00:00	00:00	0	228	155	91	62	1.47	/	
	Unidentified	37:58	00:00	0	837425	539418	119595	78976	1.55	ABV/ABV	
	1,2,3,7,8-PeCDD	41:09	41:20	-11	888161	565662	213090	136627	1.57	ABV/ABV	M
	Unidentified	41:51	00:00	0	944453	603305	249085	157978	1.57	ABV/AVB	
368					**367.8949**	**369.8919**	**367.8949**	**369.8919**	**1.32-1.78**		
	Noise	00:00	00:00	0	170	145	68	58	1.17 *	/	
	13C-1,2,3,7,8-PeCDD	41:08	41:19	-11	1672826	1039086	399256	246961	1.61	ABV/ABV	
374					**373.8208**	**375.8178**	**373.8208**	**375.8178**	**1.05-1.43**		
	Noise	00:00	00:00	0	220	203	88	81	1.09	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	4104:12	Prep Batch		Lot No	
Data File	/20091210i/b091210w1.d	Prep Date		SDG No	
Analysis ID	119245	Prep Exp Date		Date Received	
Analysis Date	12/10/09 11:02	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	KBL	Diluton Factor	1.00	Code	F8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
374					**373.8208**	**375.8178**	**373.8208**	**375.8178**	**1.05-1.43**		
	Unidentified	43:16	00:00	0	1272606	1006513	368407	294100	1.26	ABV/ABV	
	1,2,3,4,7,8-HxCDF	44:31	44:47	-16	1330514	1039278	397528	313800	1.28	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	44:39	44:54	-15	1385423	1077478	407266	317222	1.29	AVV/AVB	M
	2,3,4,6,7,8-HxCDF	45:21	45:35	-14	1334191	1044231	373281	296225	1.28	AVV/ABV	M
	1,2,3,7,8,9-HxCDF	46:15	46:22	-7	1225807	954258	336302	264010	1.28	ABV/ABV	M
	Unidentified	46:22	00:00	0	1144043	888569	306110	245975	1.29	AVV/AVV	DM
384					**383.8639**	**385.8610**	**383.8639**	**385.8610**	**0.43-0.59**		
	Noise	00:00	00:00	0	203	233	81	93	0.87 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:30	44:46	-16	1268472	2395698	374701	696625	0.53	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDF	44:38	44:54	-16	1385359	2561321	413059	732633	0.54	AVV/AVV	
	13C-2,3,4,6,7,8-HxCDF	45:20	45:34	-14	1357737	2542885	375778	726883	0.53	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDF	46:14	46:21	-7	1261757	2360945	339075	645936	0.53	AVV/ABV	
390					**389.8156**	**391.8127**	**389.8156**	**391.8127**	**1.05-1.43**		
	Noise	00:00	00:00	0	280	193	112	77	1.45 *	/	
	Unidentified	43:59	00:00	0	935112	741249	286913	228196	1.26	ABV/ABV	
	1,2,3,4,7,8-HxCDD	45:31	45:44	-13	918358	722175	259908	207943	1.27	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	45:39	45:50	-11	843973	672642	252139	202678	1.25	AVV/AVV	M
	1,2,3,7,8,9-HxCDD	46:01	46:10	-9	960594	761001	258293	202925	1.26	AVV/AVV	M
402					**401.8559**	**403.8529**	**401.8559**	**403.8529**	**1.05-1.43**		
	Noise	00:00	00:00	0	170	168	68	67	1.01 *	/	
	13C-1,2,3,4,7,8-HxCDD	45:31	45:44	-13	1499869	1188807	428948	330565	1.26	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDD	45:38	45:49	-11	1648658	1276495	493262	376547	1.29	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDD	46:00	46:09	-9	1724174	1343779	485713	372289	1.28	AVV/AVV	
408					**407.7818**	**409.7788**	**407.7818**	**409.7788**	**0.88-1.20**		
	Noise	00:00	00:00	0	183	170	73	68	1.07	/	
	1,2,3,4,6,7,8-HpCDF	48:35	48:28	7	1169506	1084506	277130	260617	1.08	ABV/ABV	M
	1,2,3,4,7,8,9-HpCDF	50:51	50:26	25	1059432	1005257	219210	204136	1.05	ABV/ABV	M
418					**417.8250**	**419.8220**	**417.8250**	**419.8220**	**0.37-0.51**		
	Noise	00:00	00:00	0	270	218	108	87	1.24 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	48:34	48:27	7	970809	2090887	231748	496353	0.46	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	50:50	50:25	25	869391	1917028	178930	408814	0.45	ABV/ABV	
424					**423.7767**	**425.7737**	**423.7767**	**425.7737**	**0.88-1.20**		
	Noise	00:00	00:00	0	308	190	123	76	1.62 *	/	
	Unidentified	49:05	00:00	0	819381	779559	189154	185484	1.05	ABV/ABV	
	1,2,3,4,6,7,8-HpCDD	50:13	49:54	19	818524	777731	191288	180700	1.05	ABV/ABV	M
436					**435.8169**	**437.8140**	**435.8169**	**437.8140**	**0.88-1.20**		
	Noise	00:00	00:00	0	130	158	52	63	0.83 *	/	
	Unidentified	49:03	00:00	0	25111	21808	5728	4947	1.15	ABB/ABB	
	13C-1,2,3,4,6,7,8-HpCDD	50:12	49:53	19	1521555	1448250	330012	320532	1.05	ABV/ABV	
442					**441.7428**	**443.7399**	**441.7428**	**443.7399**	**0.76-1.02**		
	Noise	00:00	00:00	0	228	253	91	101	0.90	/	
	OCDF	54:46	54:24	22	1703397	1846671	438031	480985	0.92	ABV/ABV	M

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	4104:12	Prep Batch		Lot No	
Data File	/20091210i/b091210w1.d	Prep Date		SDG No	
Analysis ID	119245	Prep Exp Date		Date Received	
Analysis Date	12/10/09 11:02	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	KBL	Diluton Factor	1.00	Code	F8

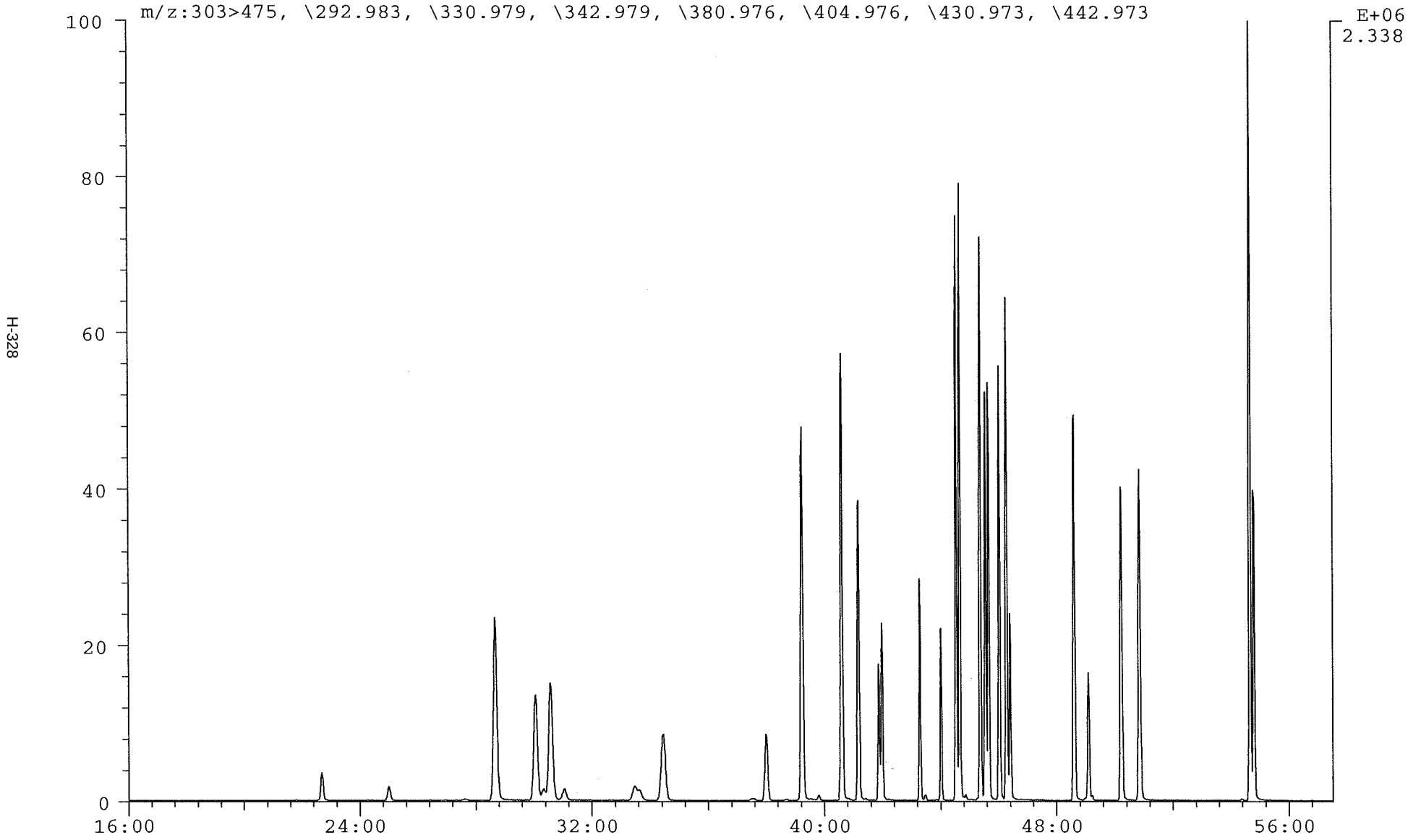
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
458					**457.7377**	**459.7348**	**457.7377**	**459.7348**	**0.76-1.02**		
	Noise	00:00	00:00	0	248	293	99	117	0.85	/	
	OCDD	54:38	54:17	21	1514715	1699373	404118	462729	0.89	AVV/ABV	M
470					**469.7780**	**471.7750**	**469.7780**	**471.7750**	**0.76-1.02**		
	Noise	00:00	00:00	0	198	248	79	99	0.80	/	
	13C-OCDD	54:38	54:16	22	2677169	2974149	708936	780300	0.90	ABV/ABV	

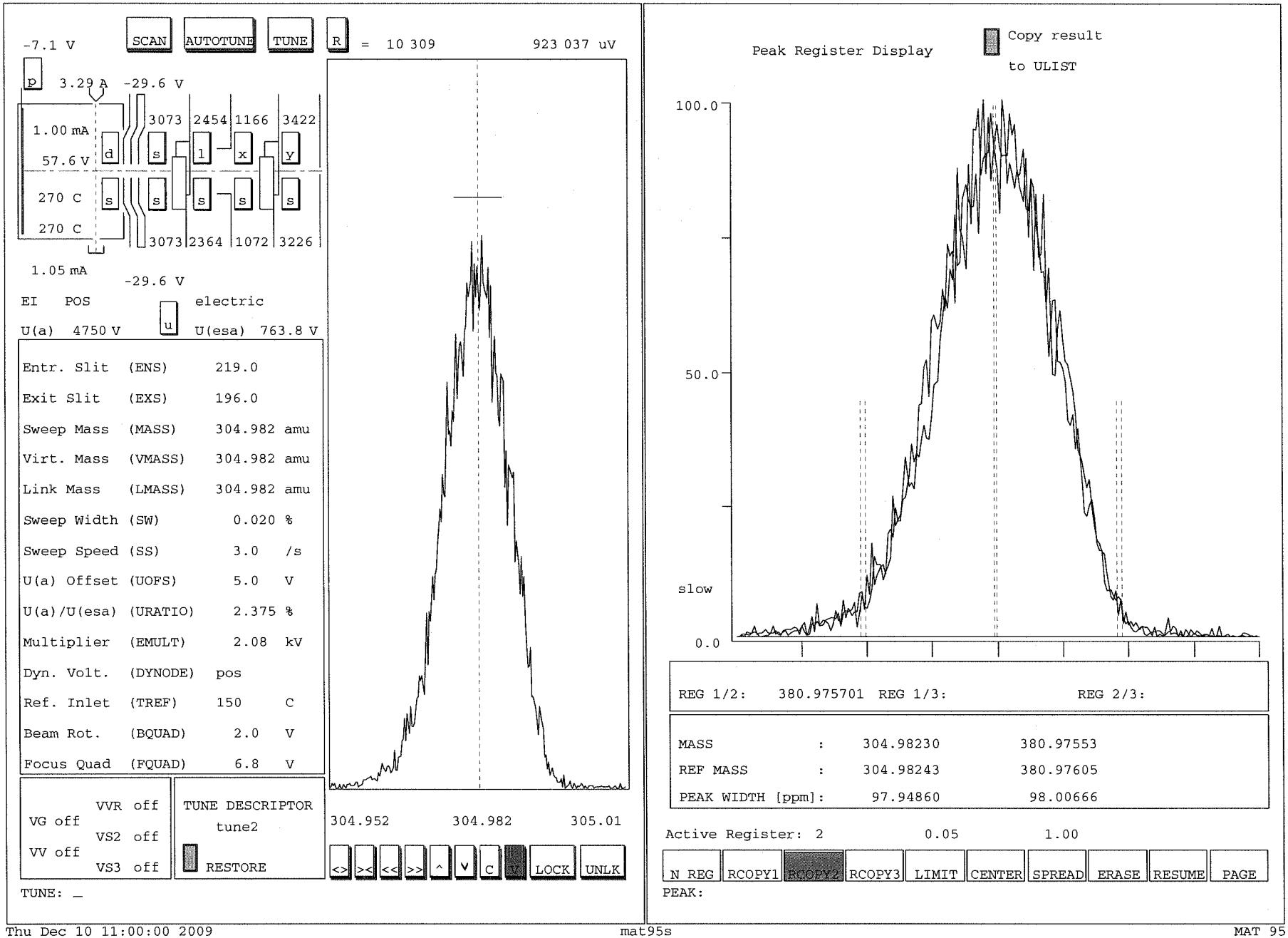
Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

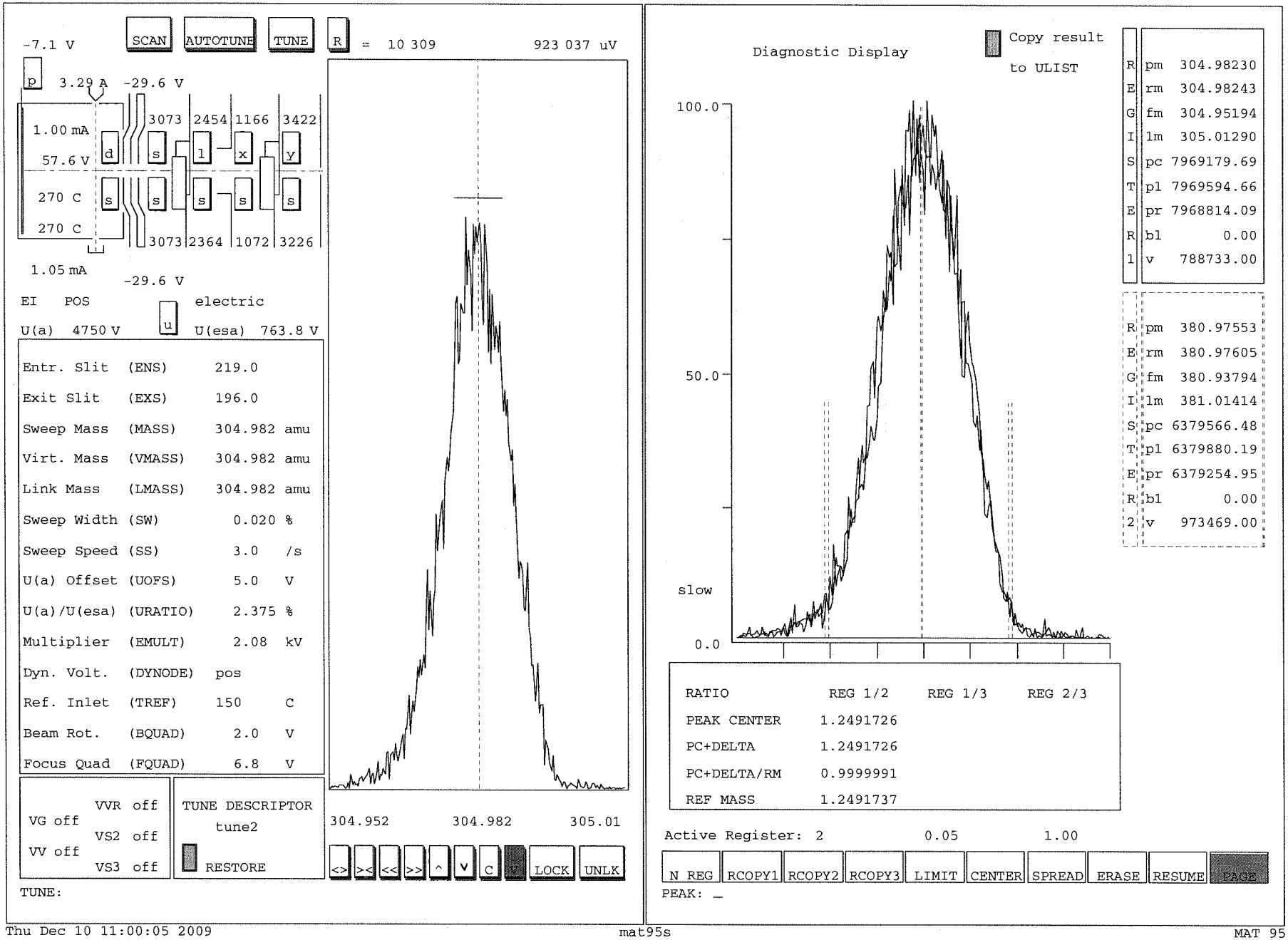
int/calc KM 12-10-09
QC MSD 12/11/09

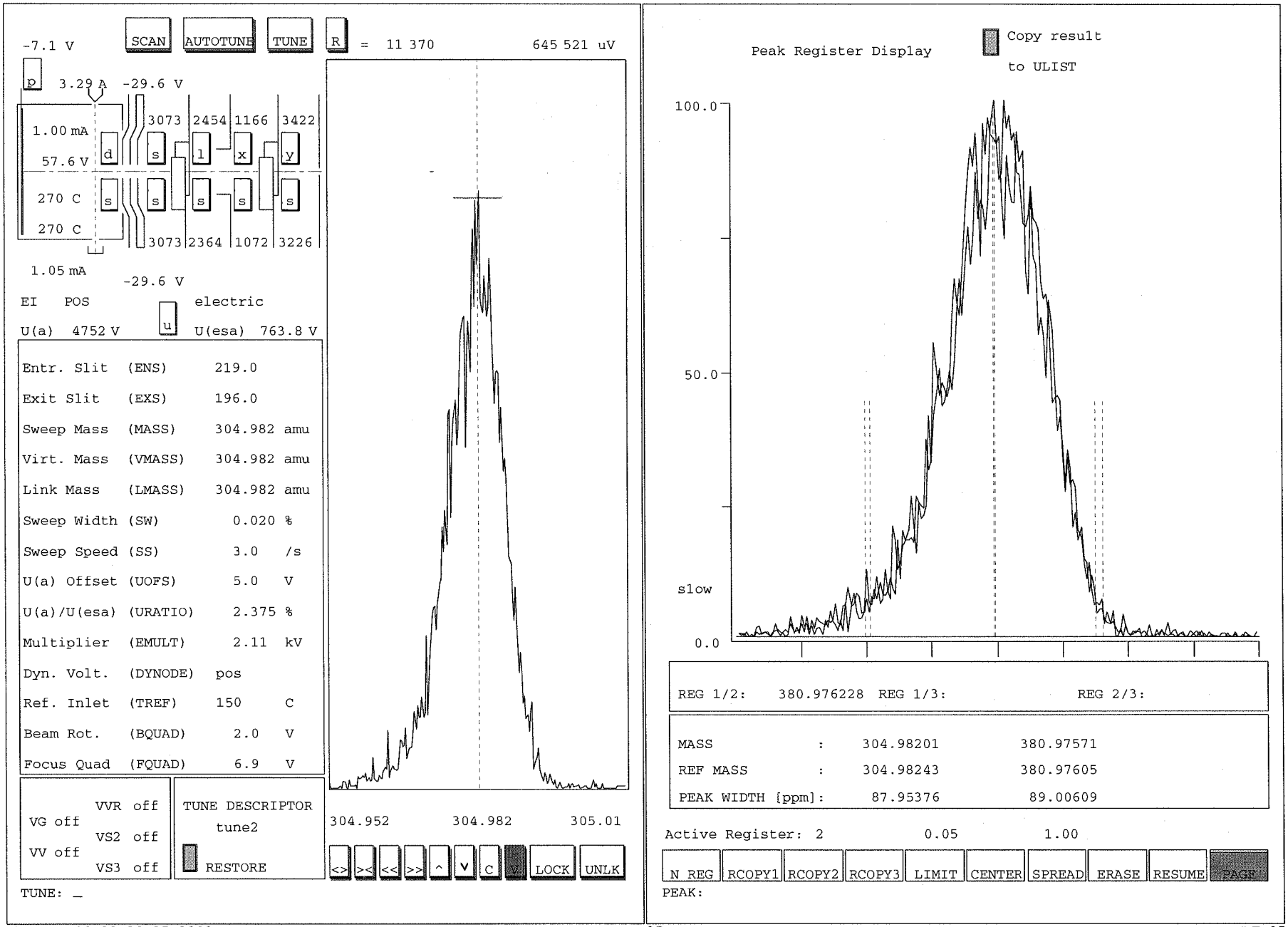
CHRO: b091210w1 10-Dec-09 Elapse: 54:52 2607
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 442 > 2755 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

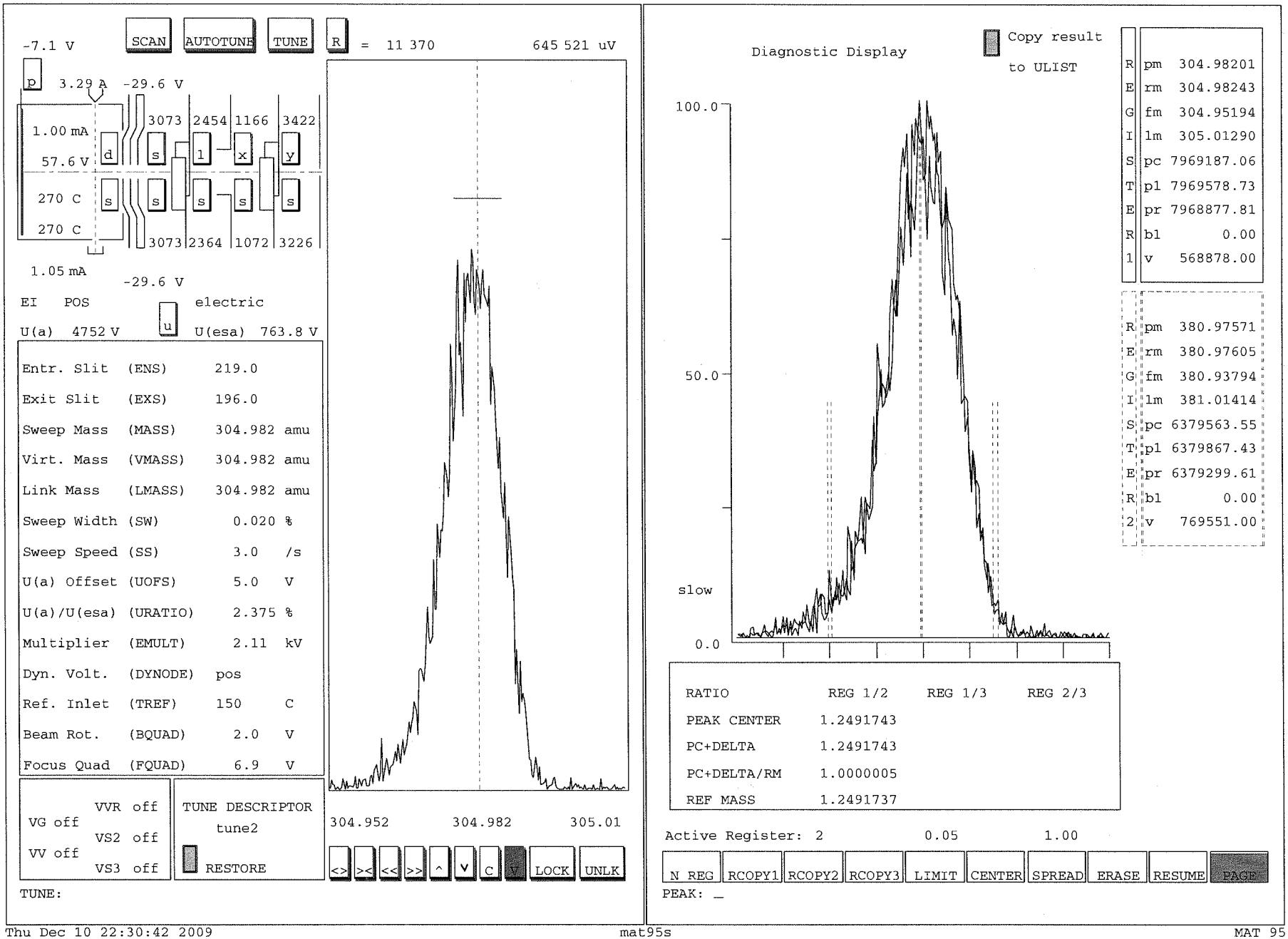


H-328


-7.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 309
923 037 uV
p
3.29 A
-29.6 V
1.00 mA
57.6 V
270 C
270 C
3073 2454 1166 3422
3073 2364 1072 3226
d
s
l
x
y
1.05 mA
-29.6 V
EI POS
electric
U(a) 4750 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 219.0
Exit Slit (EXS) 196.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.375 %
Multiplier (EMULT) 2.08 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.0 V
Focus Quad (FQUAD) 6.8 V
VG off
VVR off
VV off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
RESTORE
304.952
304.982
305.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 380.975701 REG 1/3: REG 2/3:
MASS : 304.98230 380.97553
REF MASS : 304.98243 380.97605
PEAK WIDTH [ppm]: 97.94860 98.00666
Active Register: 2 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Thu Dec 10 11:00:00 2009
mat95s
MAT 95

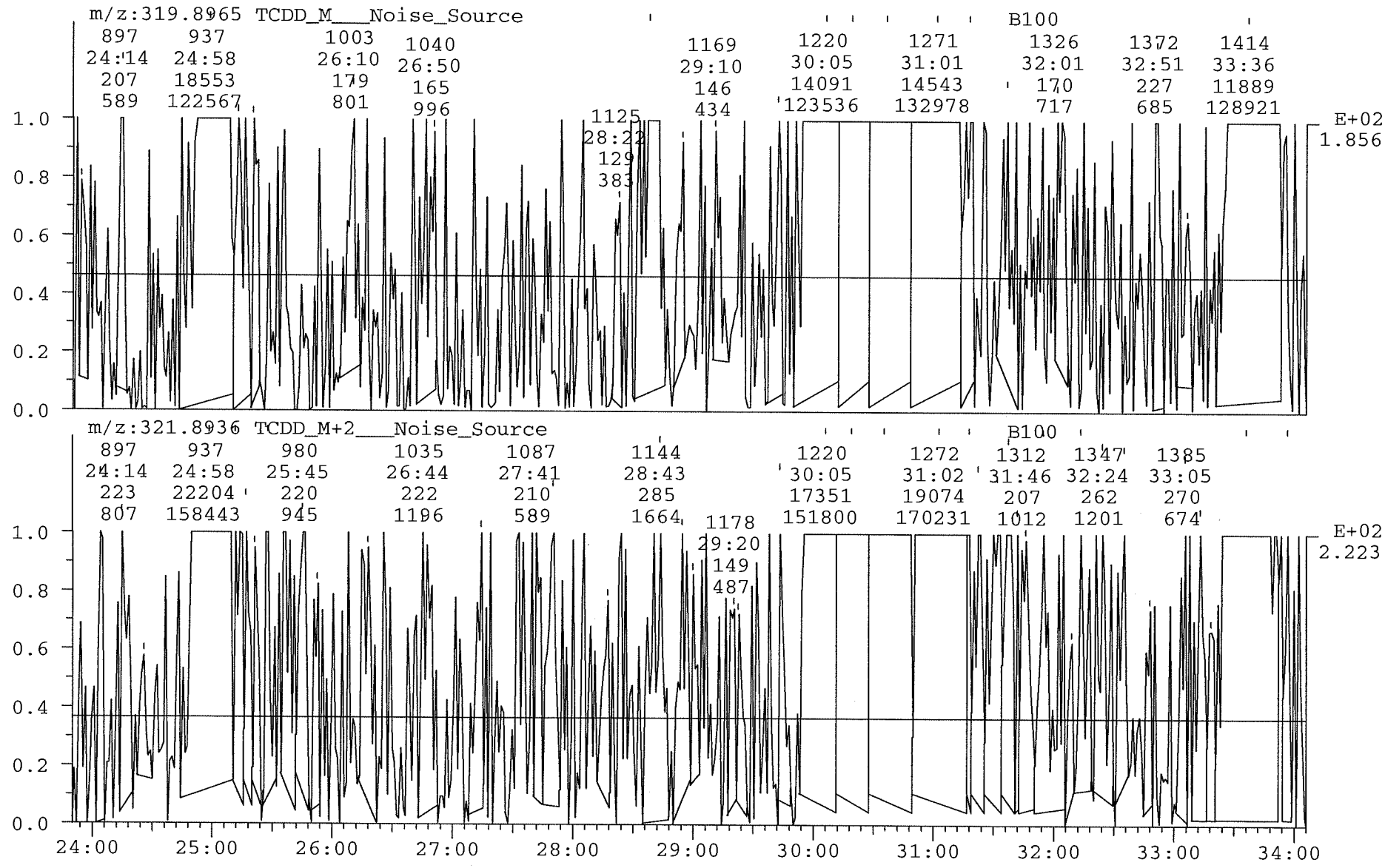

-7.1 V
SCAN
AUTOTUNE
TUNE
R = 10 309
923 037 uV
p
3.29 A
-29.6 V
1.00 mA
57.6 V
270 C
270 C
1.05 mA
-29.6 V
3073 2454 1166 3422
3073 2364 1072 3226
d s l x y
EI POS
electric
U(a) 4750 V
U(esa) 763.8 V
Entr. Slit (ENS) 219.0
Exit Slit (EXS) 196.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.375 %
Multiplier (EMULT) 2.08 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.0 V
Focus Quad (FQUAD) 6.8 V
VG off
VV off
VVR off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
RESTORE
304.952 304.982 305.01
LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 304.98230
E rm 304.98243
G fm 304.95194
I lm 305.01290
S pc 7969179.69
T pl 7969594.66
E pr 7968814.09
R bl 0.00
1 v 788733.00
R pm 380.97553
E rm 380.97605
G fm 380.93794
I lm 381.01414
S pc 6379566.48
T pl 6379880.19
E pr 6379254.95
R bl 0.00
2 v 973469.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.2491726
PC+DELTA 1.2491726
PC+DELTA/RM 0.9999991
REF MASS 1.2491737
Active Register: 2 0.05 1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK:
Thu Dec 10 11:00:05 2009
mat95s
MAT 95


-7.1 V
SCAN
AUTOTUNE
TUNE
R = 11 370
645 521 uV
p
3.29 A
-29.6 V
1.00 mA
57.6 V
270 C
270 C
3073 2454 1166 3422
3073 2364 1072 3226
d
s
l
x
y
1.05 mA
-29.6 V
EI POS
electric
U(a) 4752 V
U(esa) 763.8 V
u
Entr. Slit (ENS) 219.0
Exit Slit (EXS) 196.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.375 %
Multiplier (EMULT) 2.11 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.0 V
Focus Quad (FQUAD) 6.9 V
VVR off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
RESTORE
304.952
304.982
305.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 380.976228 REG 1/3: REG 2/3:
MASS : 304.98201 380.97571
REF MASS : 304.98243 380.97605
PEAK WIDTH [ppm]: 87.95376 89.00609
Active Register: 2 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Thu Dec 10 22:30:35 2009
mat95s
MAT 95



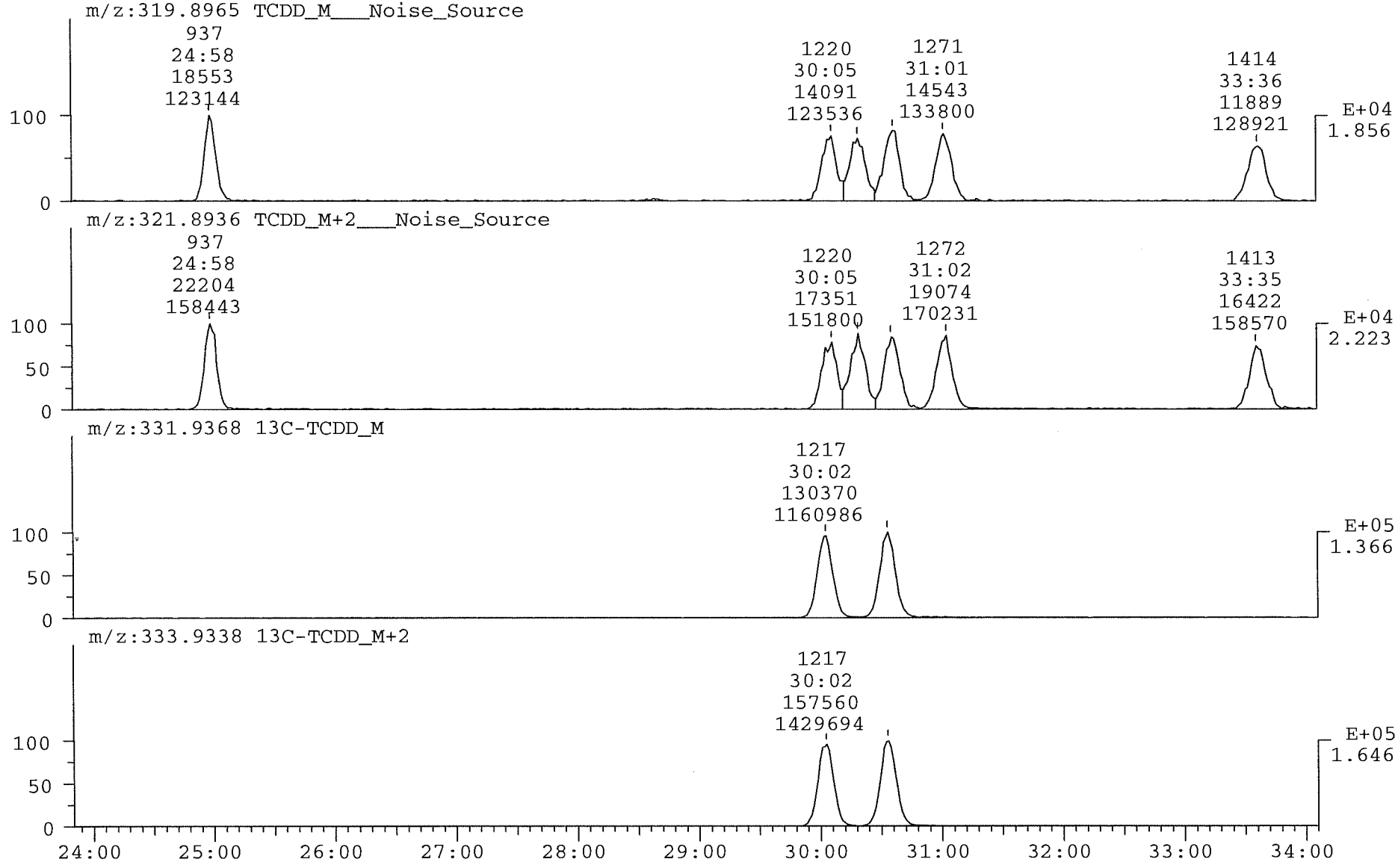
Thu Dec 10 22:30:42 2009 mat95s MAT 95

CHRO: b091210w1 10-Dec-09 Elapse: 54:52 2607
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 874 > 1441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



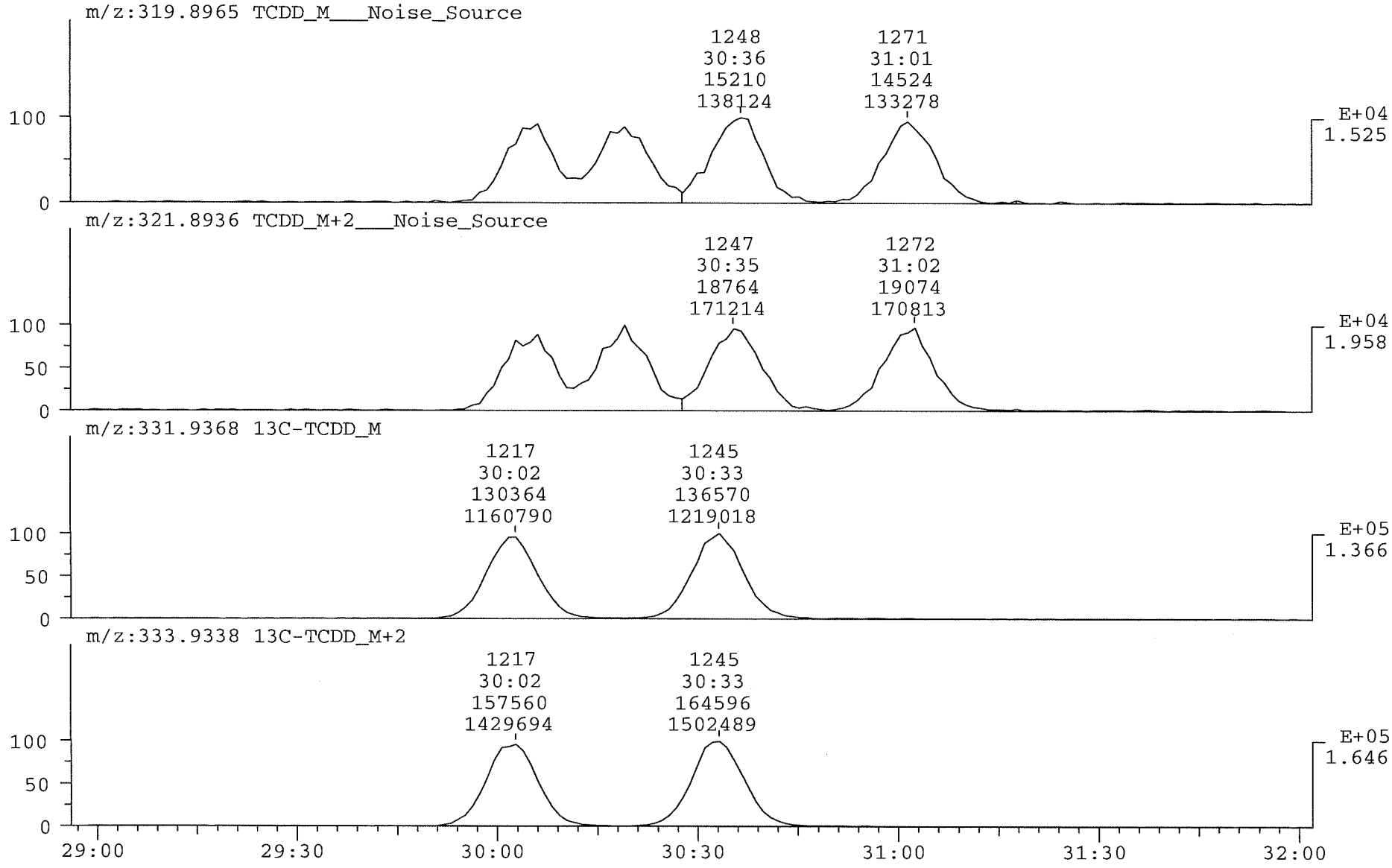
H-333

CHRO: b091210w1 10-Dec-09 Elapse: 54:52 2607
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 874 > 1441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

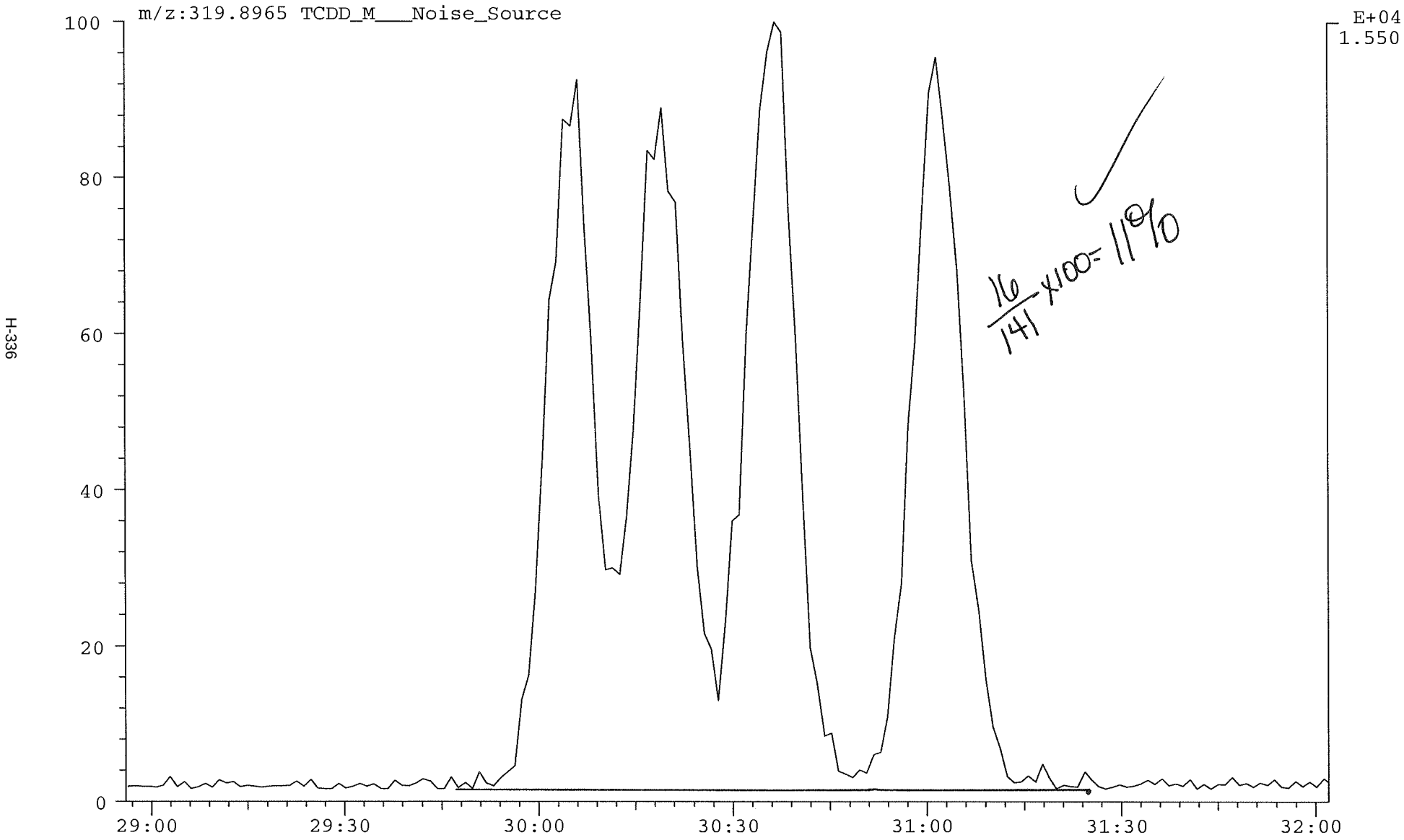


H-334

CHRO: b091210w1 10-Dec-09 Elapse: 30:28 1241
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1156 > 1327 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

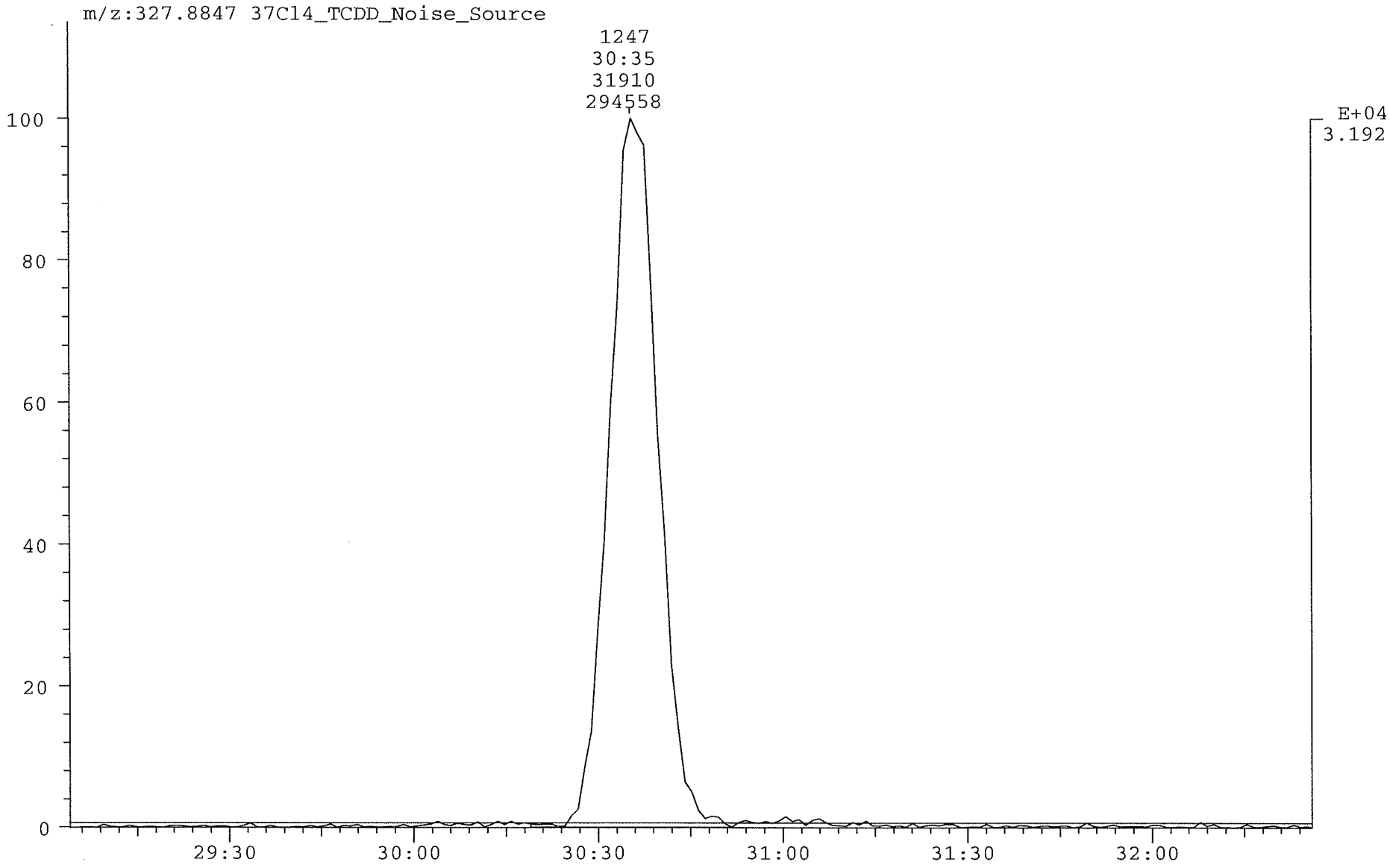


CHRO: b091210w1 10-Dec-09 Elapse: 30:28 1241
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1156 > 1327 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



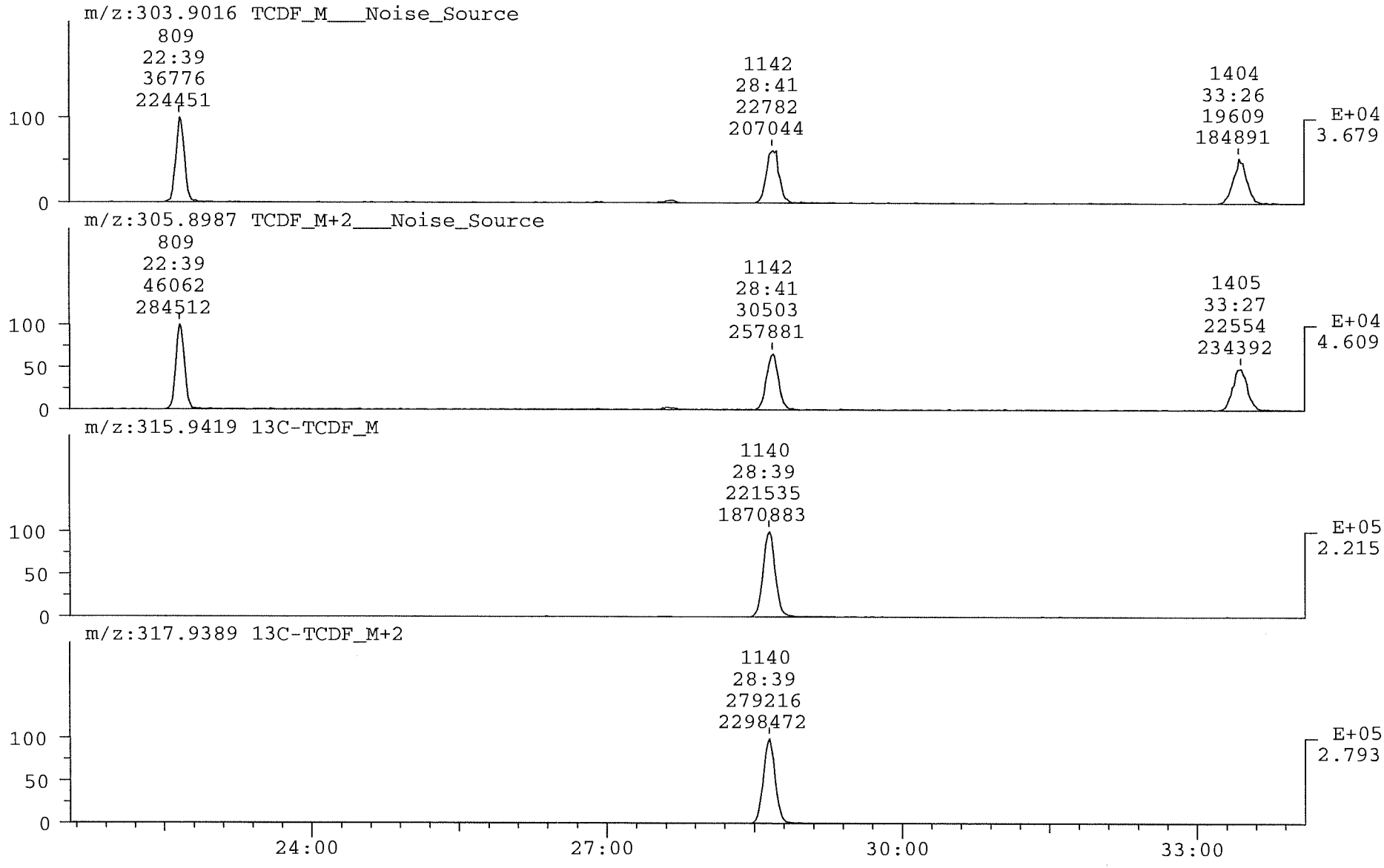
H-336

CHRO: b091210w1 10-Dec-09 Elapse: 30:41 1253
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1163 > 1349 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

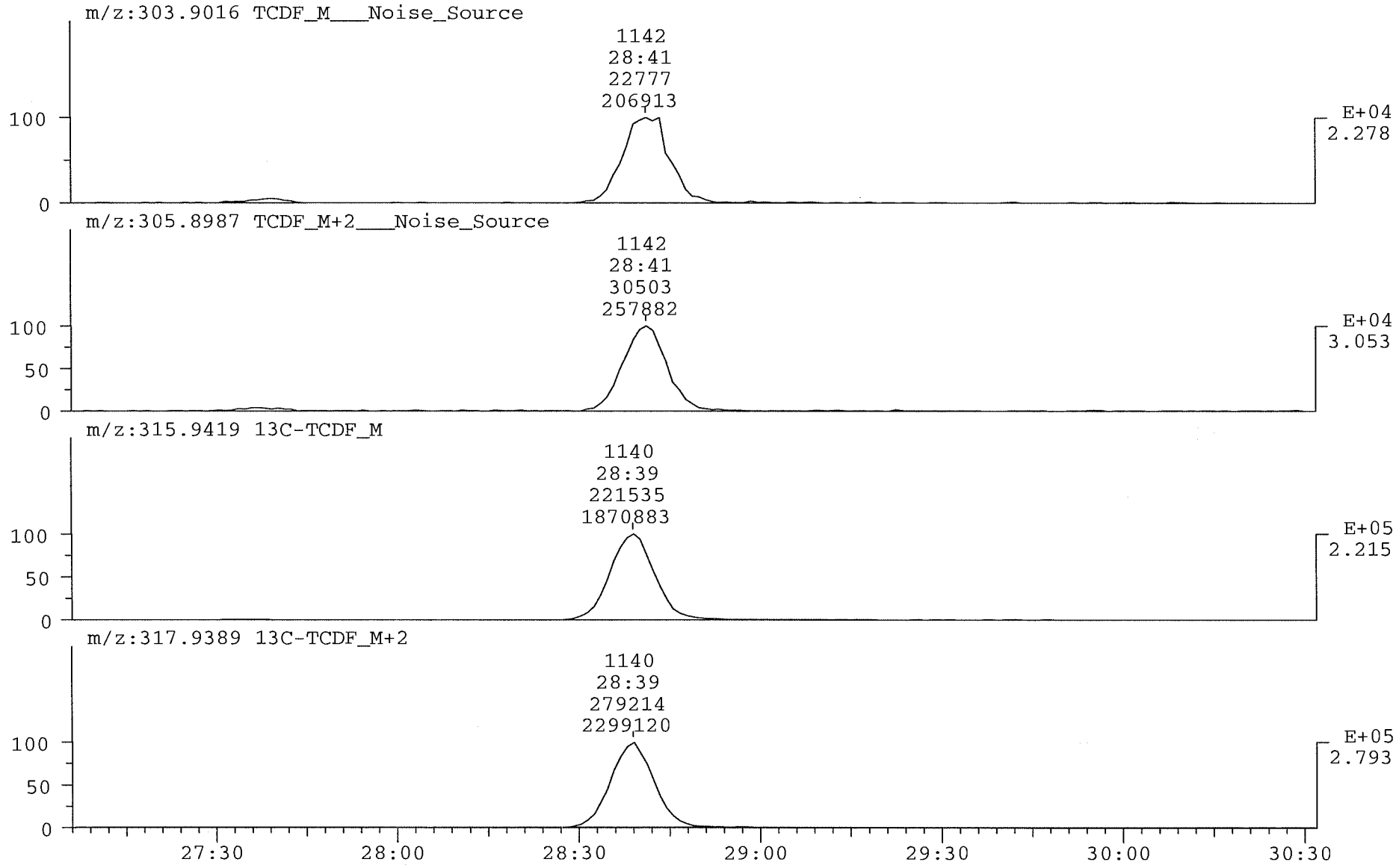


H-337

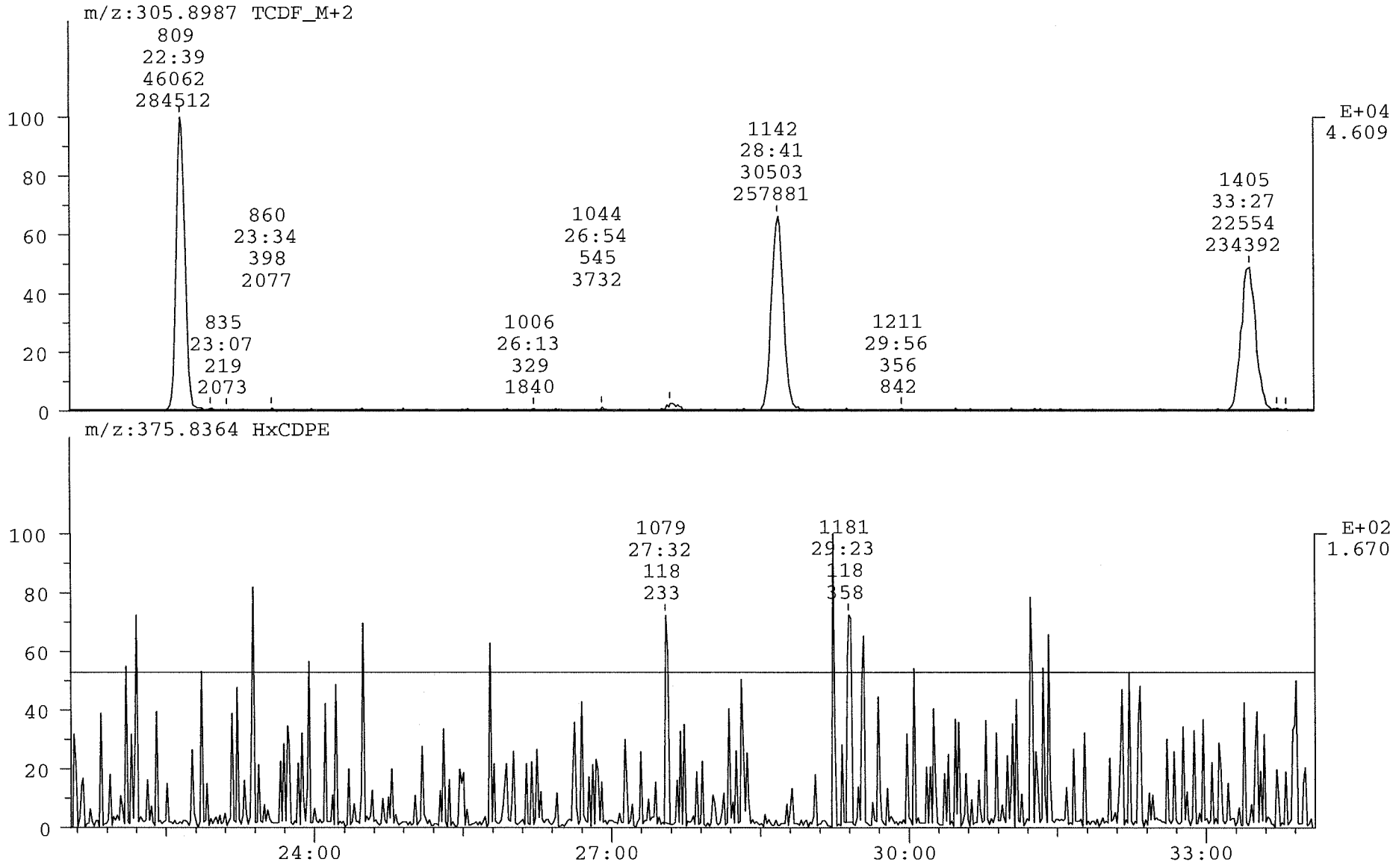
CHRO: b091210w1 10-Dec-09 Elapse: 30:41 1253
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 747 > 1441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



CHRO: b091210w1 10-Dec-09 Elapse: 28:45 1146
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1055 > 1244 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

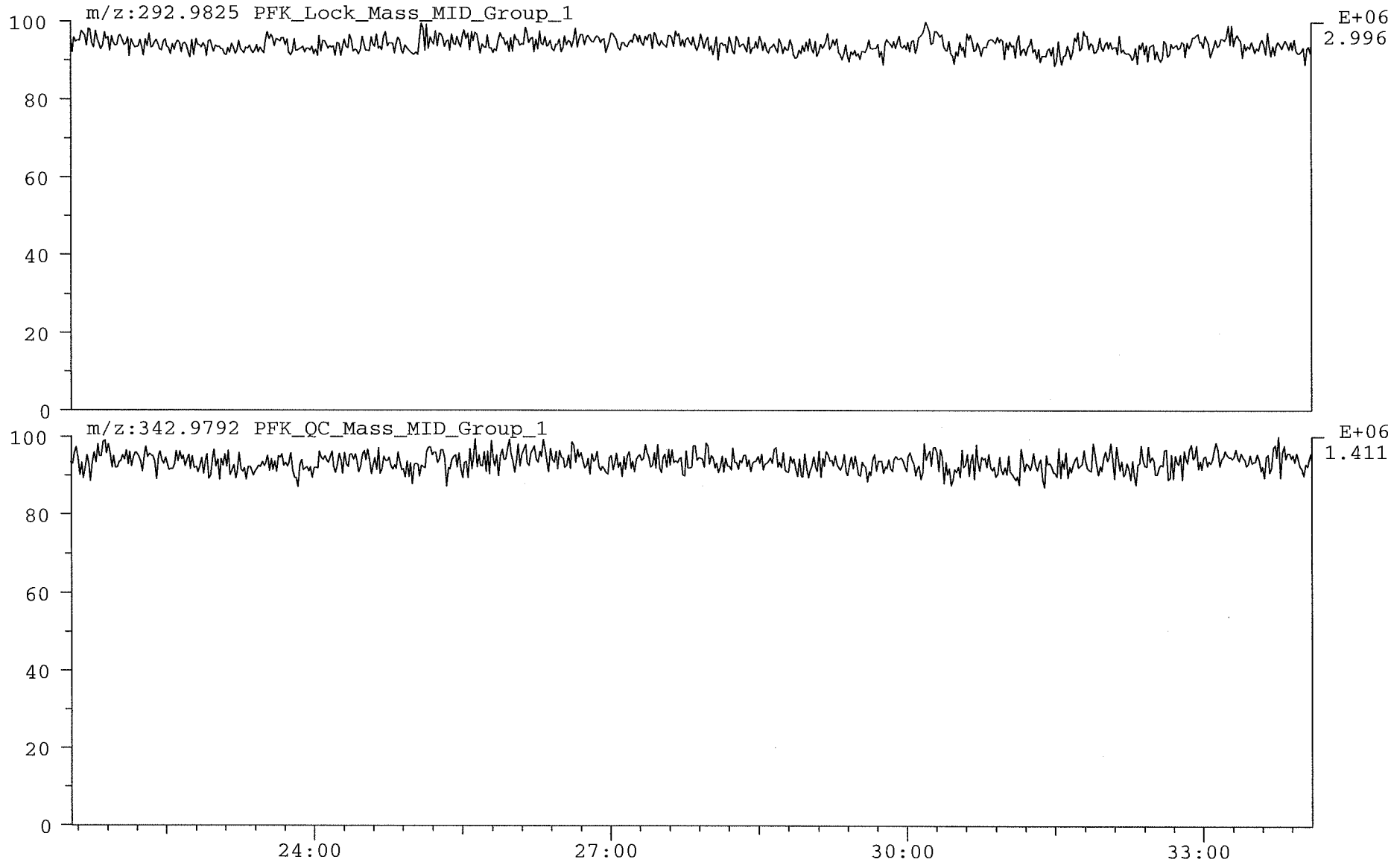


CHRO: b091210w1 10-Dec-09 Elapse: 28:45 1146
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 747 > 1441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

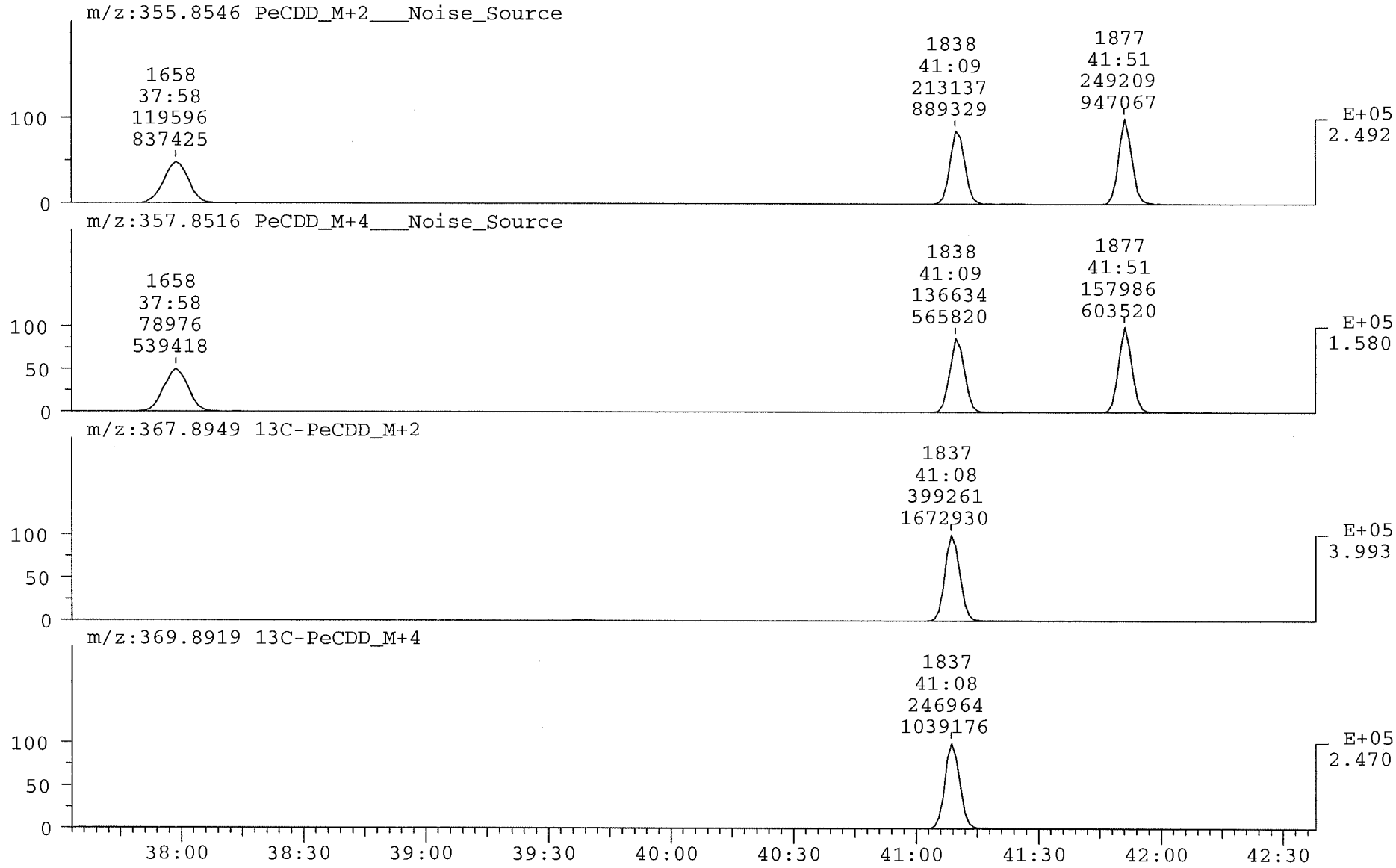


H-340

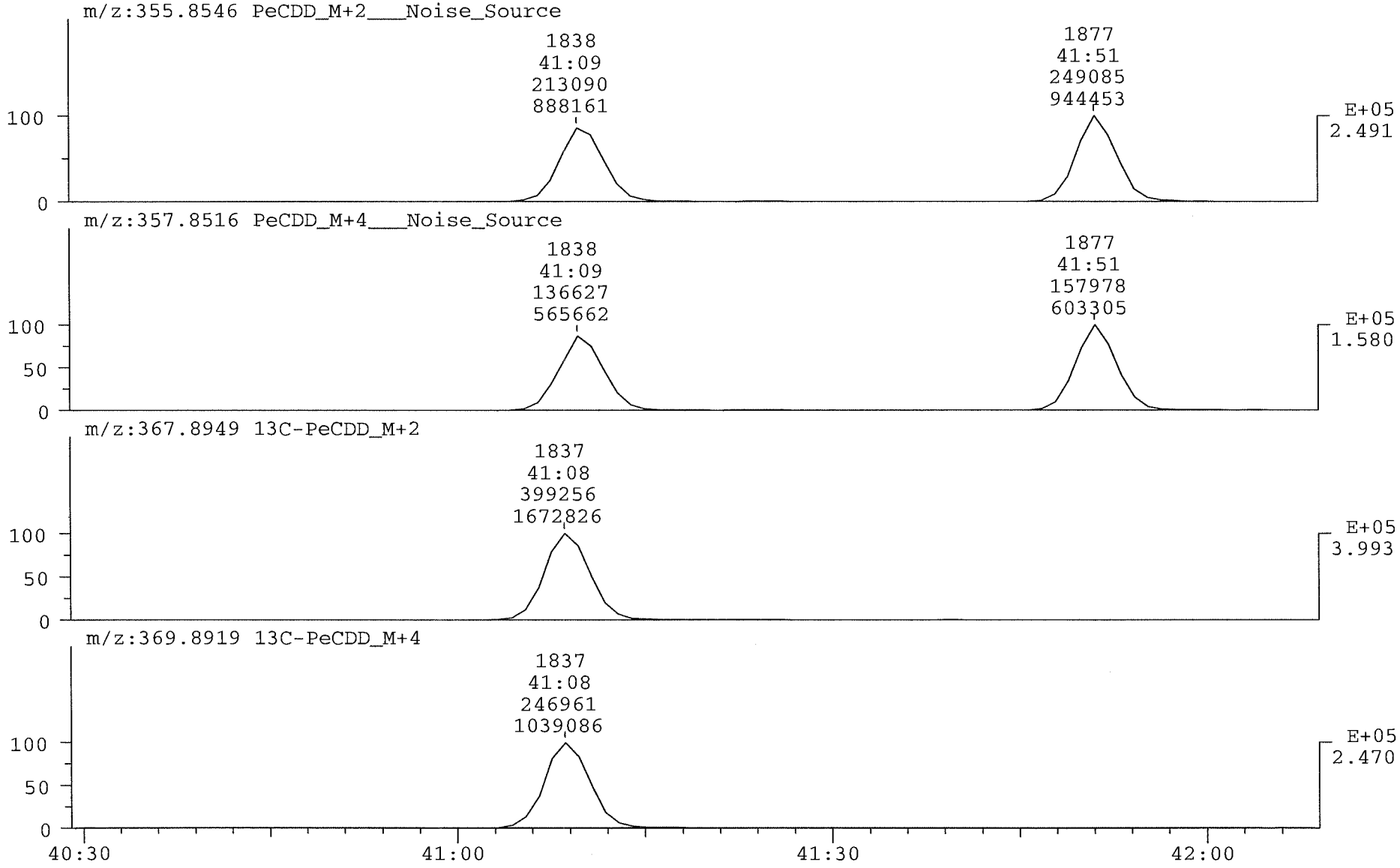
CHRO: b091210w1 10-Dec-09 Elapse: 28:45 1146
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 747 > 1441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



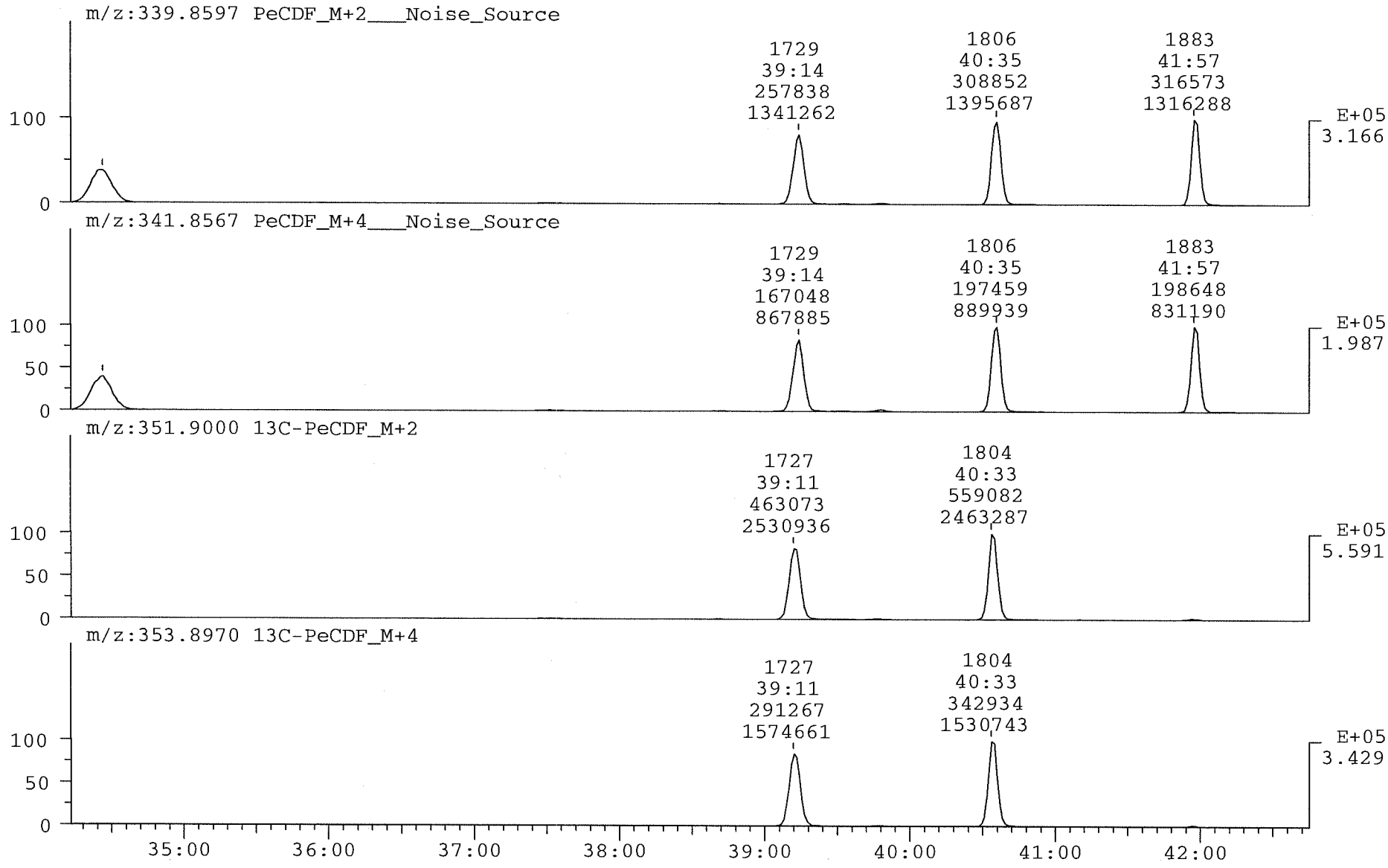
CHRO: b091210w1 10-Dec-09 Elapse: 28:45 1146
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1634 > 1921 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



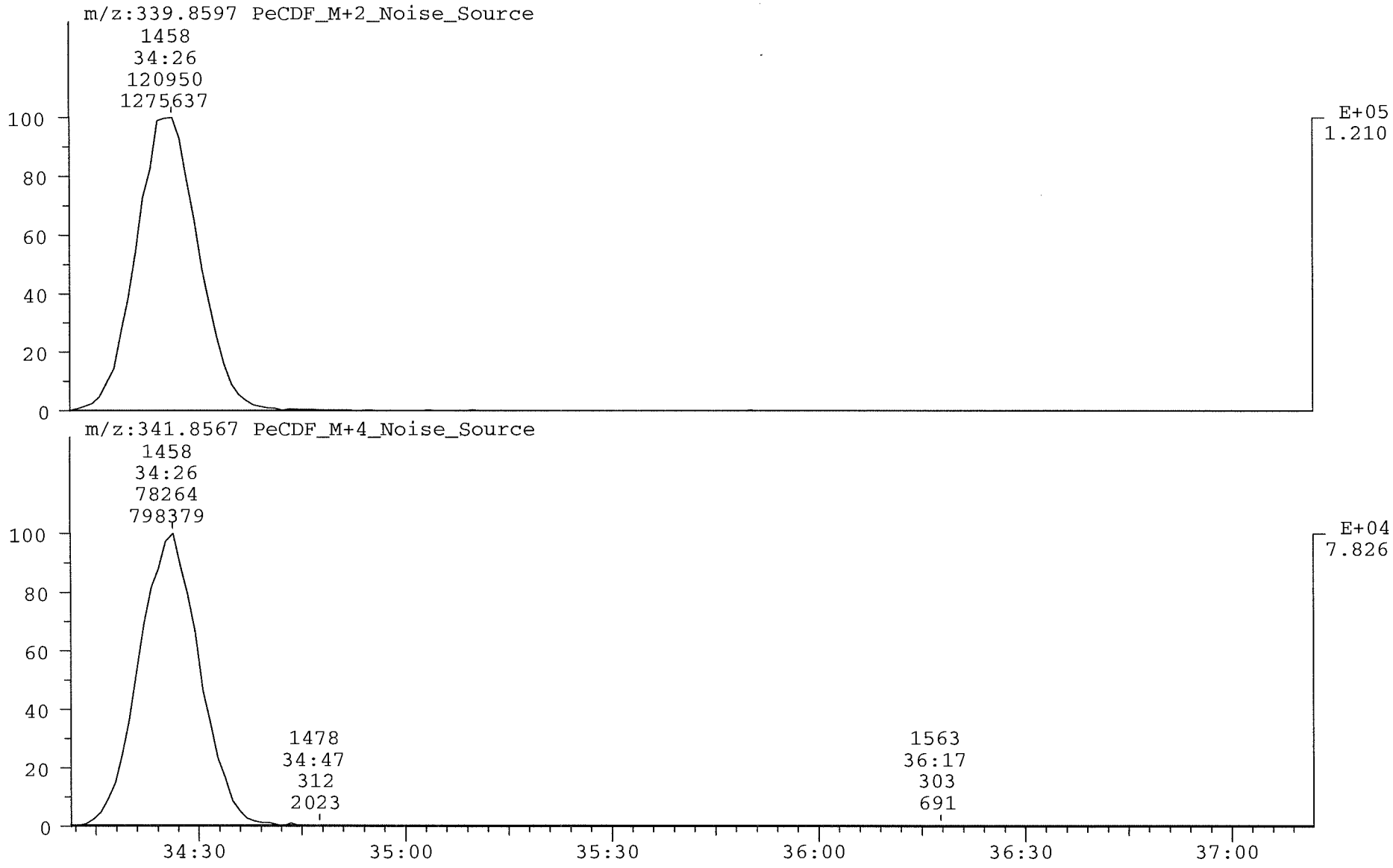
CHRO: b091210w1 10-Dec-09 Elapse: 41:16 1844
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1800 > 1894 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



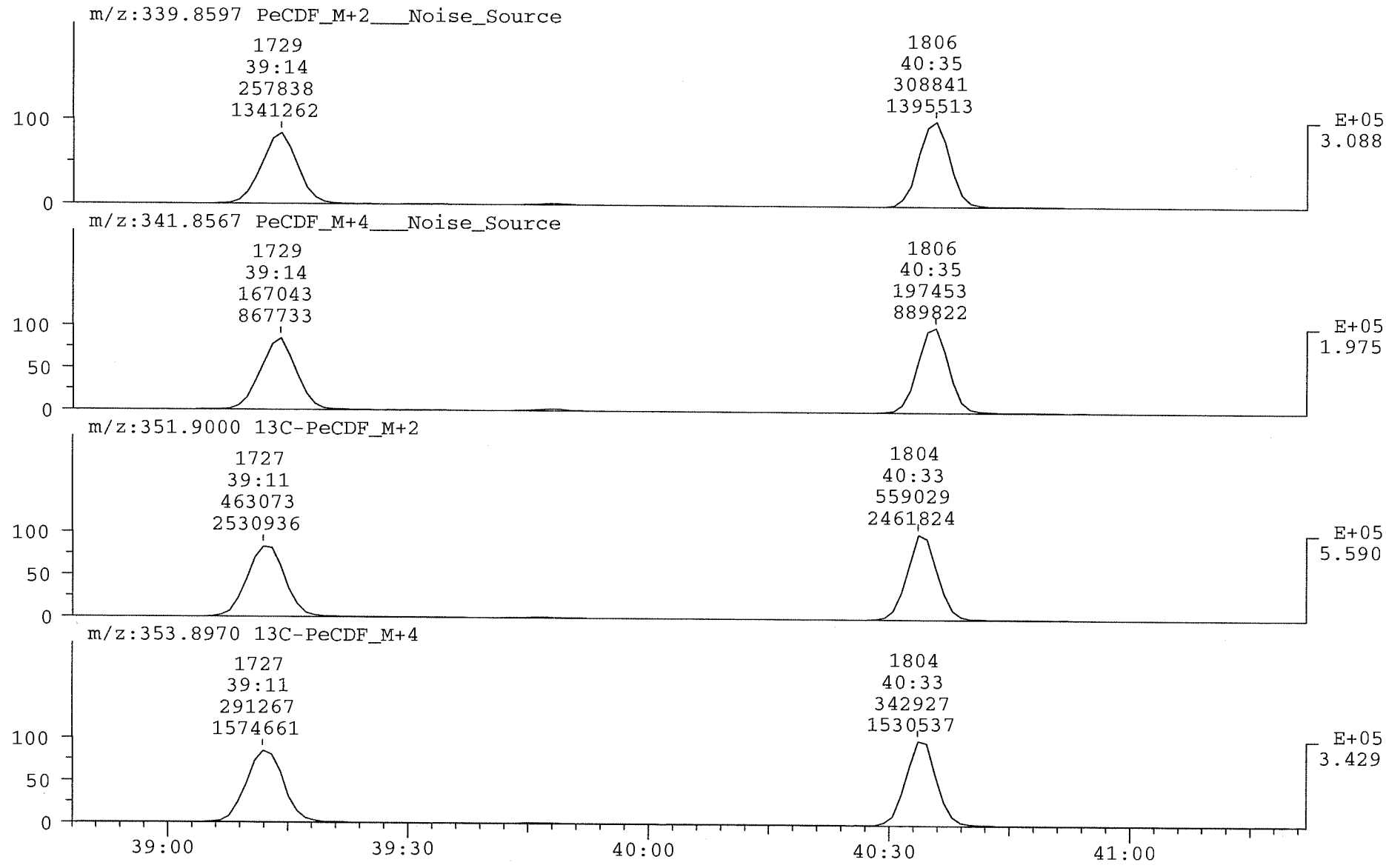
CHRO: b091210w1 10-Dec-09 Elapse: 41:16 1844
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1446 > 1928 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



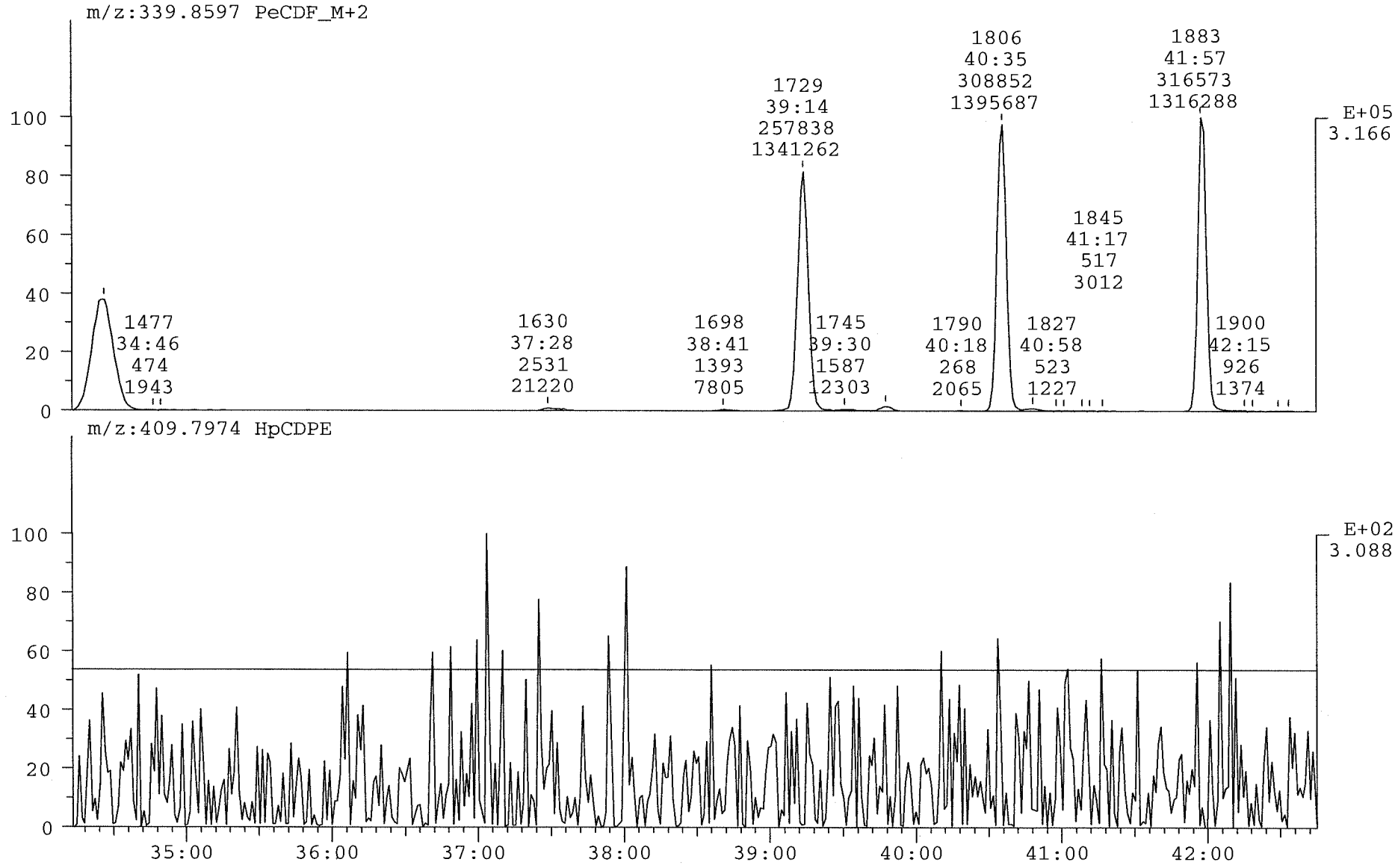
CHRO: b091210w1 10-Dec-09 Elapse: 54:53 2608
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1444 > 1614 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: b091210w1 10-Dec-09 Elapse: 40:04 1777
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1705 > 1850 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



CHRO: b091210w1 10-Dec-09 Elapse: 40:04 1777
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1446 > 1928 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



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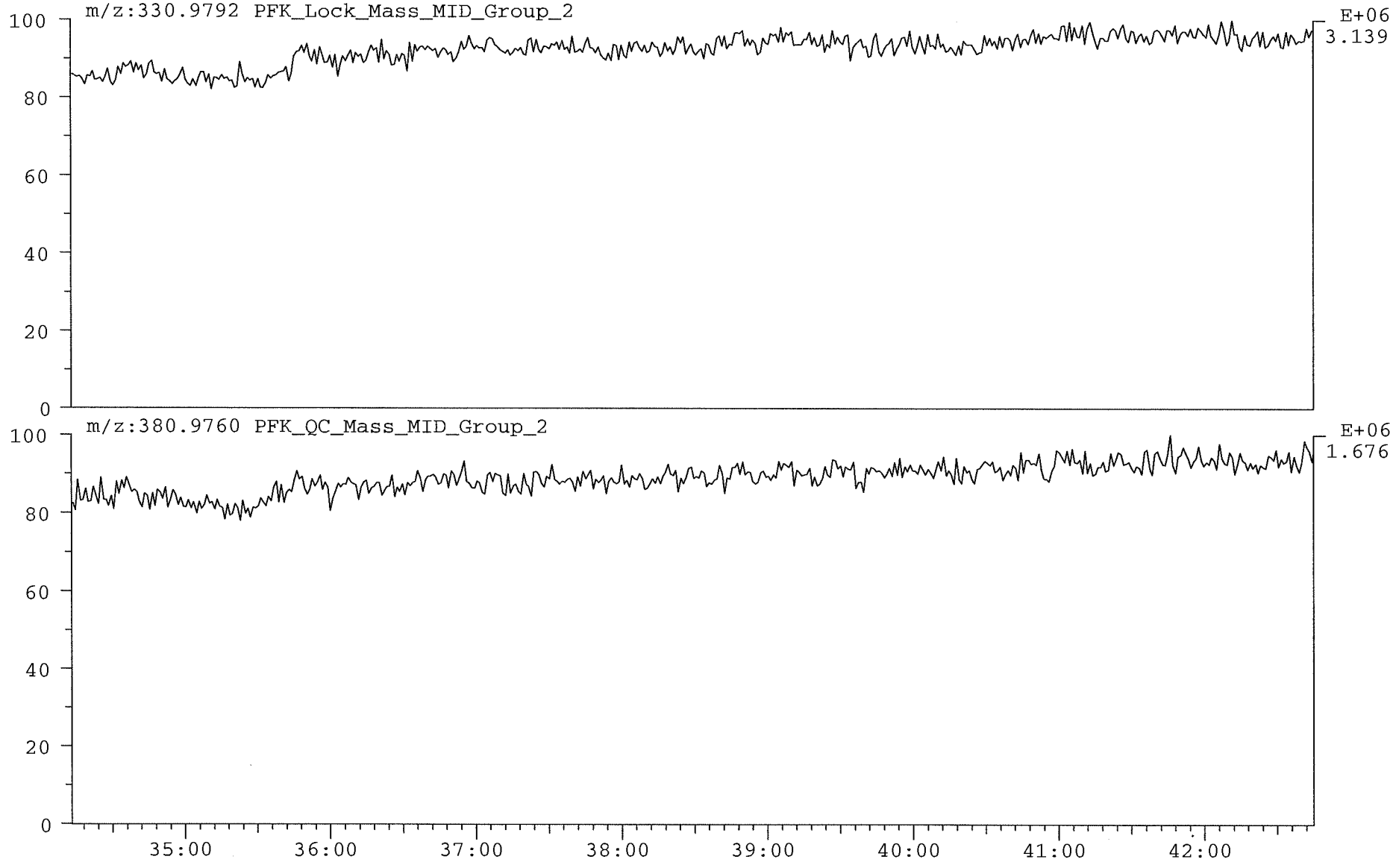
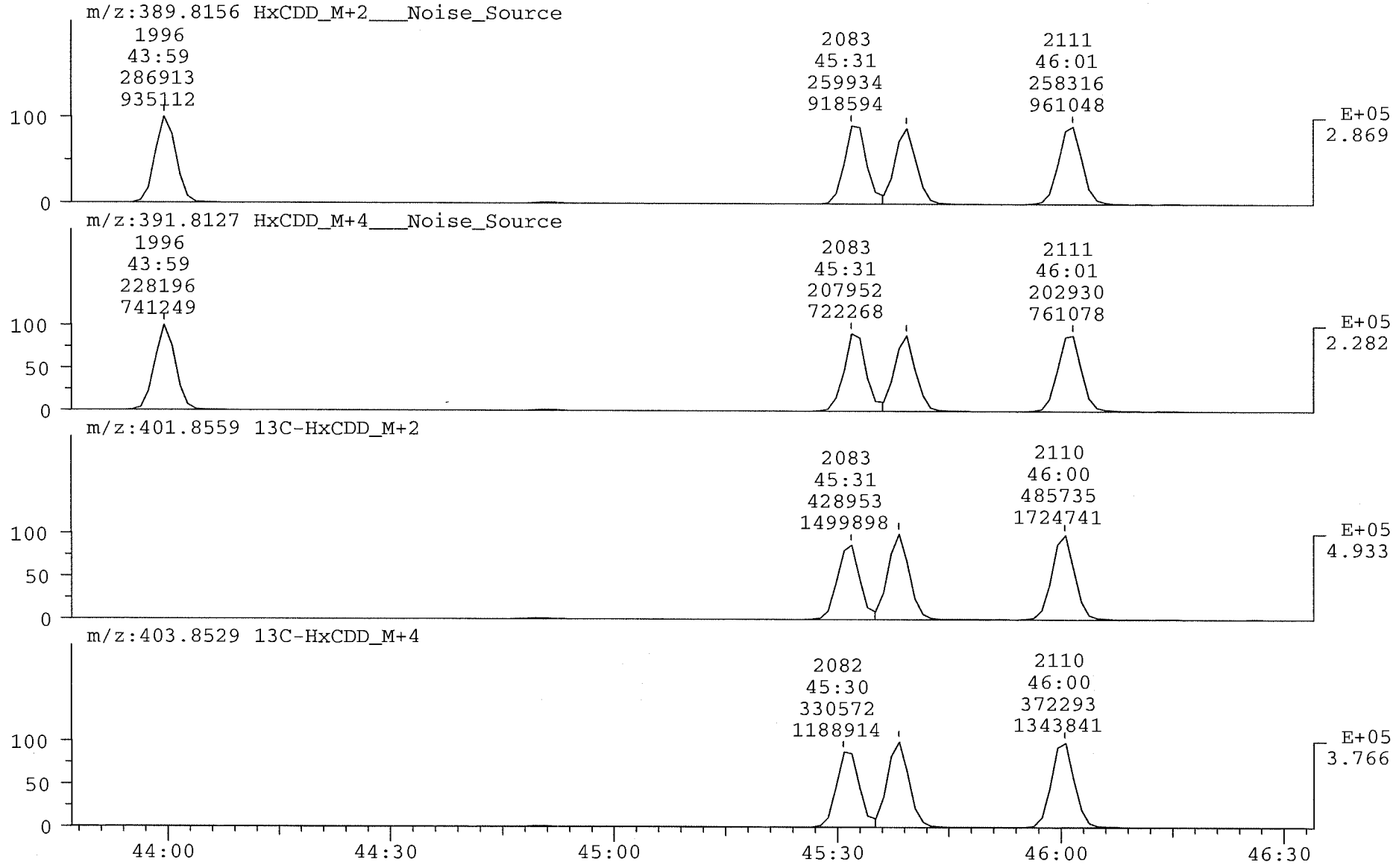
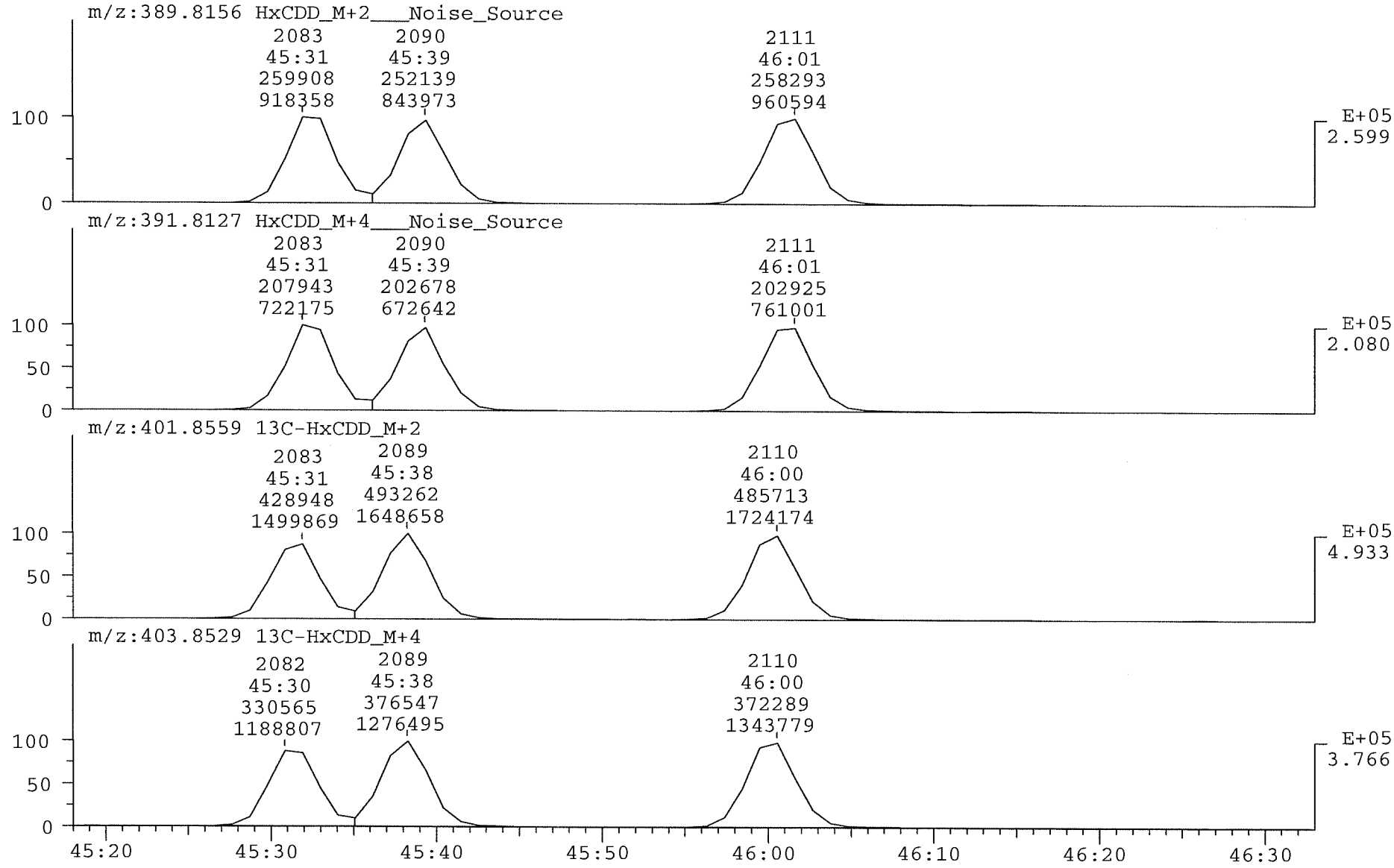
CHRO: b091210w1 10-Dec-09 Elapse: 40:04 1777
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1446 > 1928 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



CHRO: b091210w1 10-Dec-09 Elapse: 40:04 1777
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1984 > 2142 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



CHRO: b091210w1 10-Dec-09 Elapse: 45:55 2105
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2070 > 2141 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



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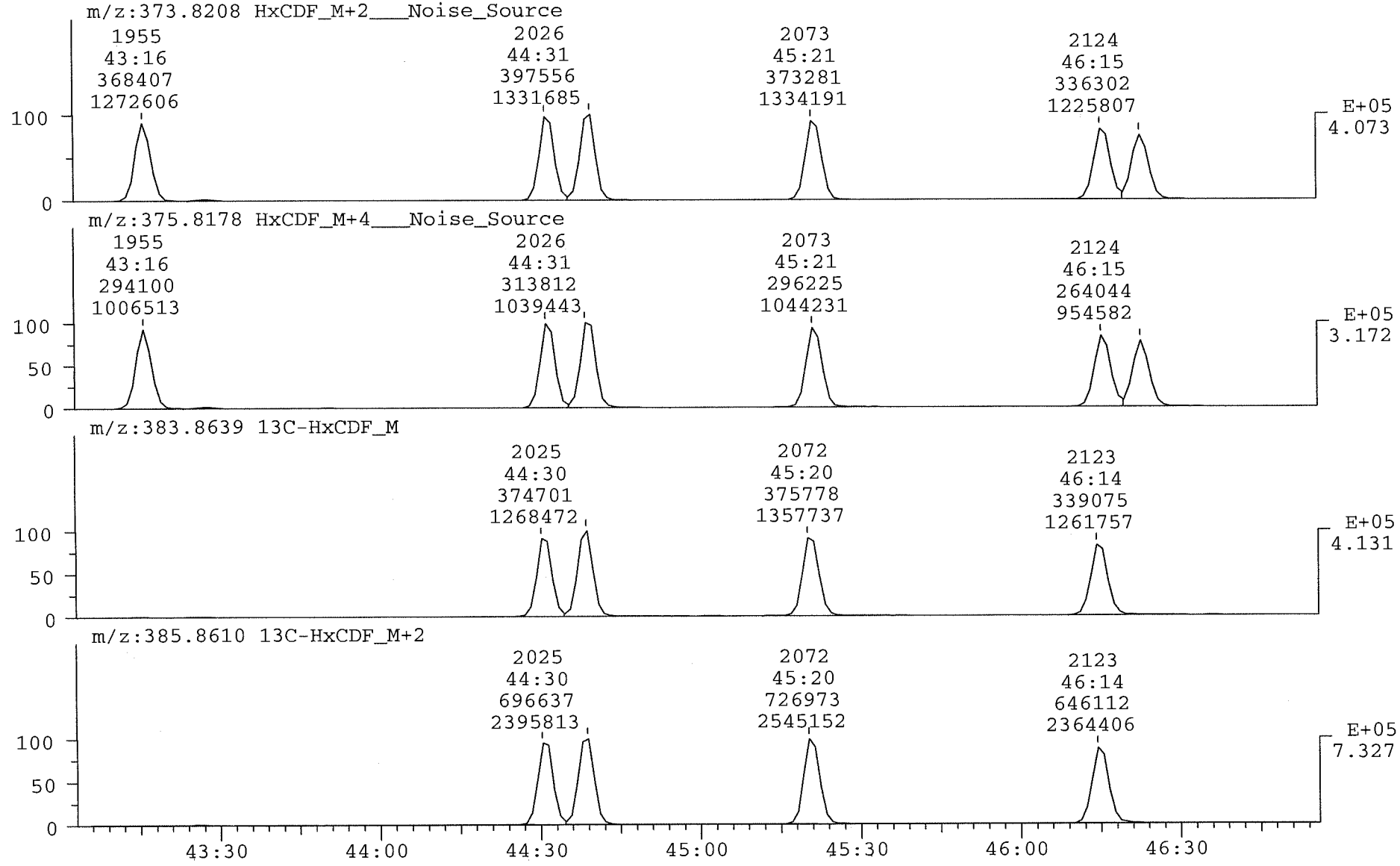
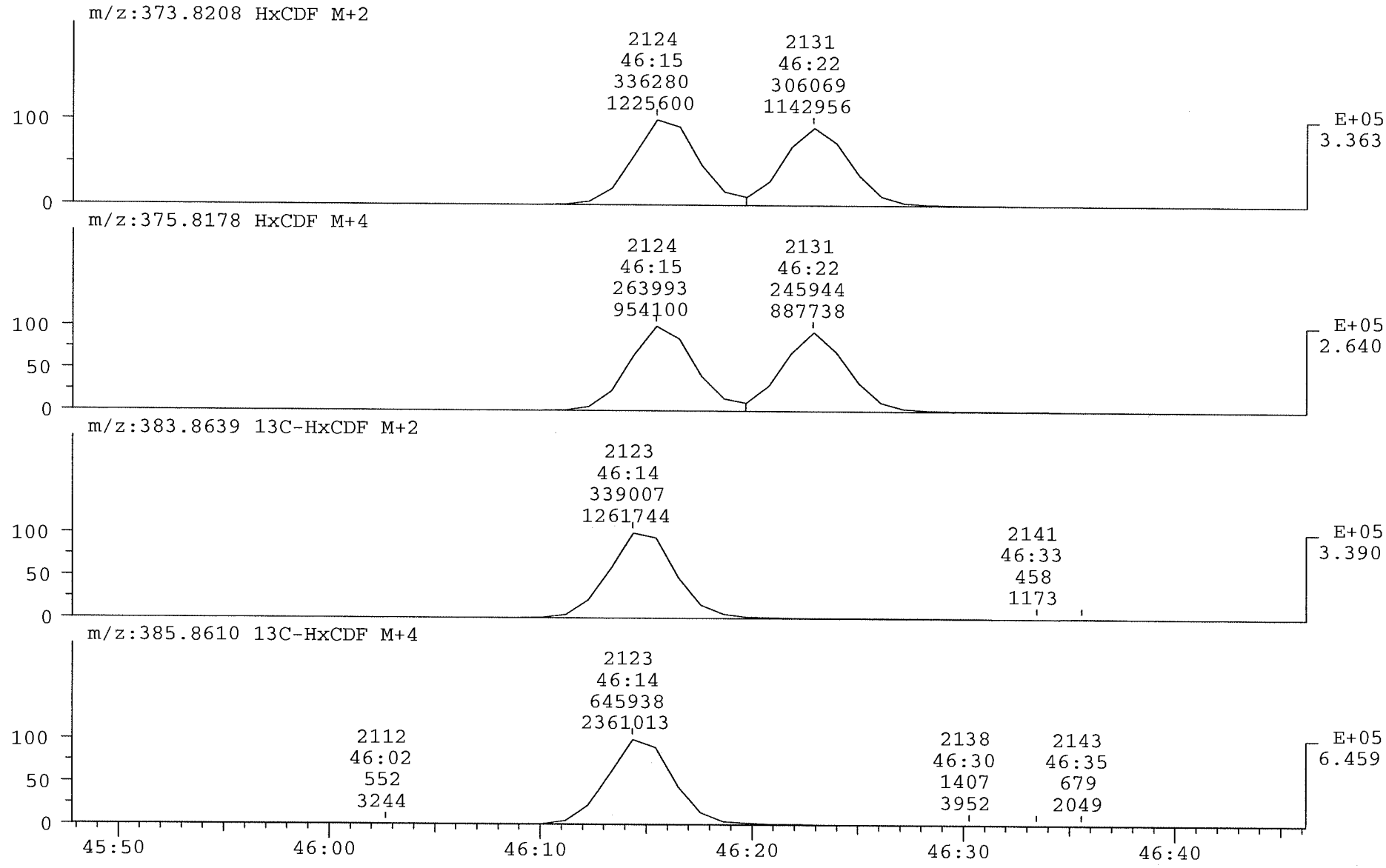
CHRO: b091210w1 10-Dec-09 Elapse: 45:55 2105
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1943 > 2162 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

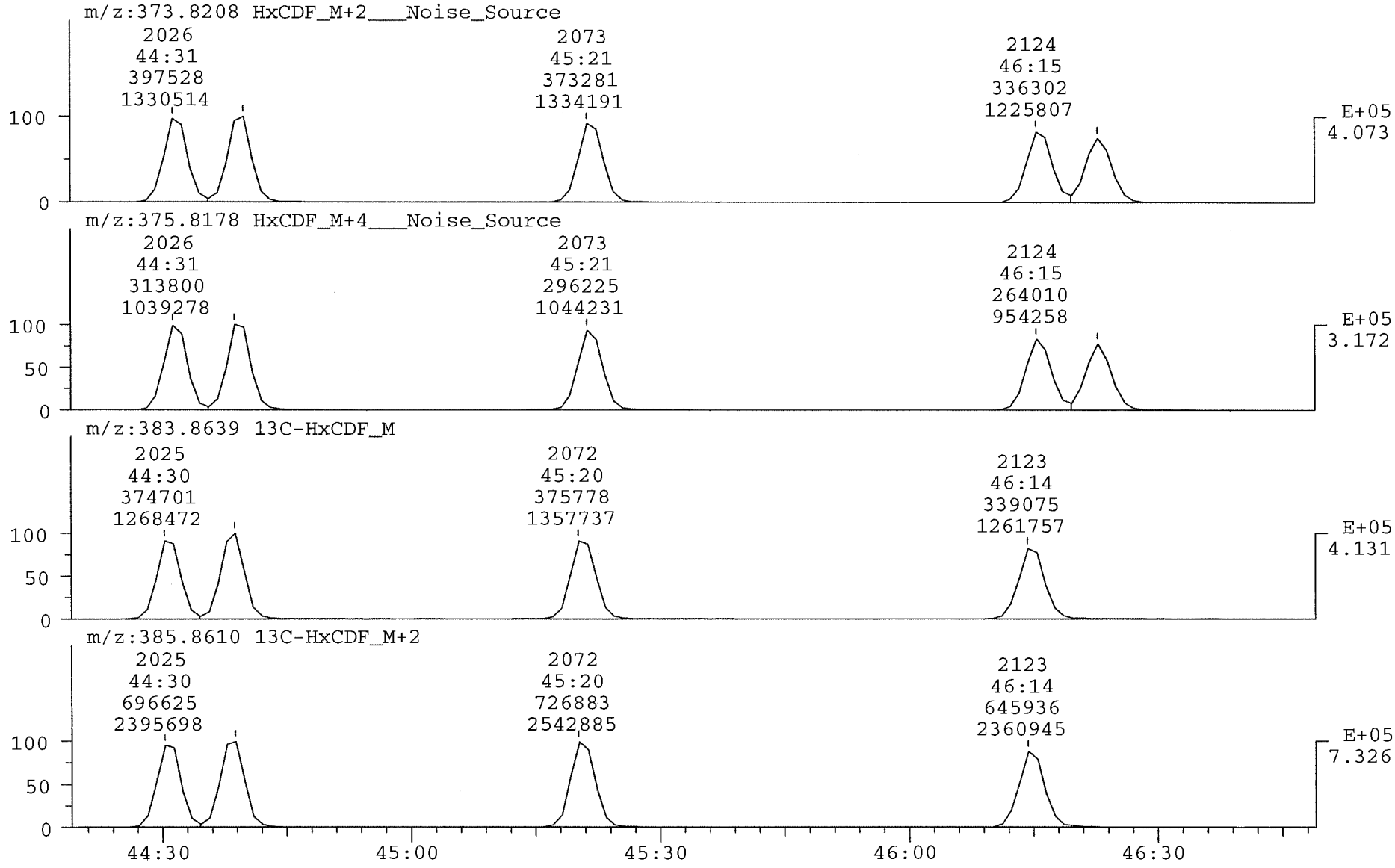


H-351

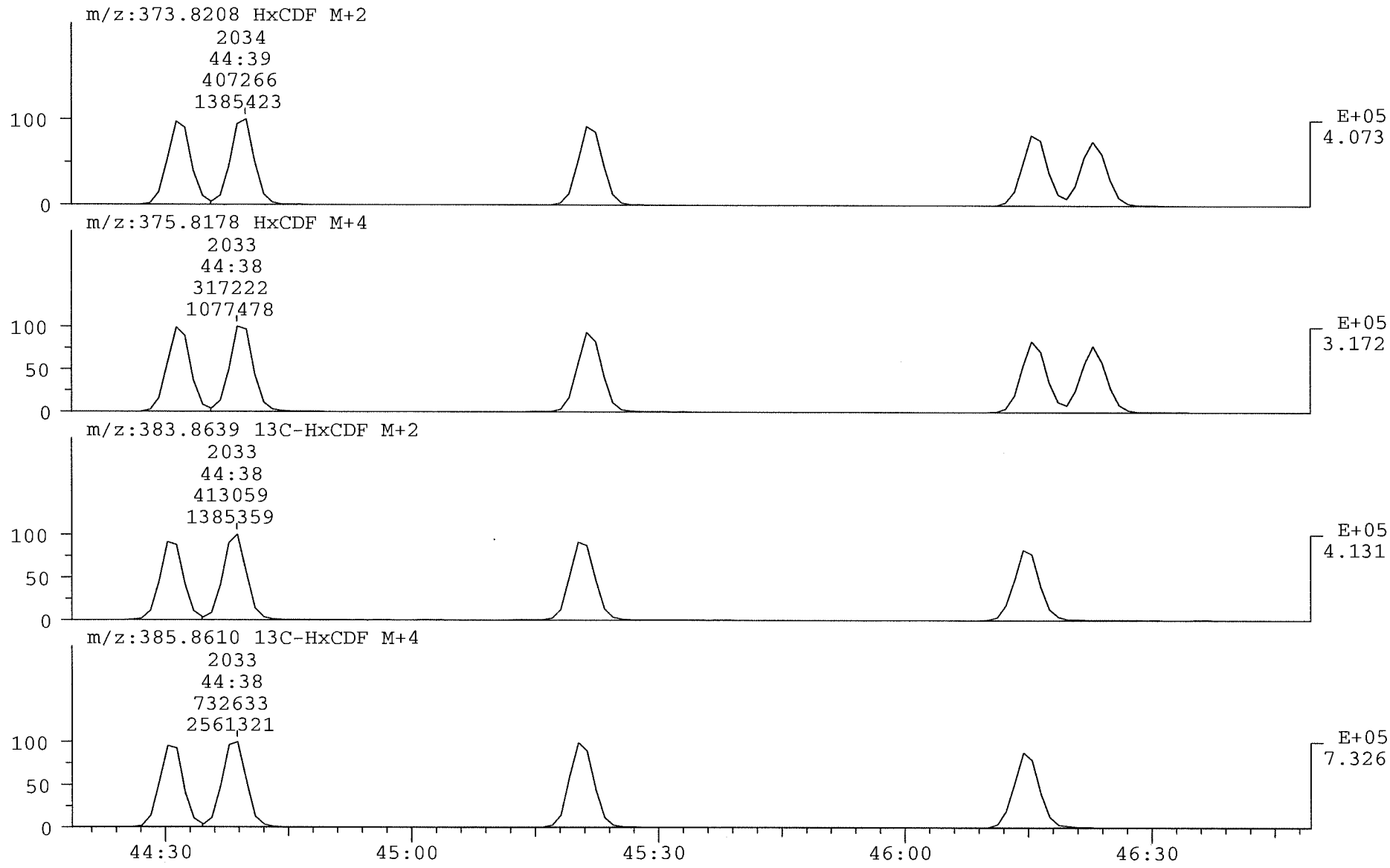
CHRO: b091210w1 10-Dec-09 Elapse: 54:53 2608
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2098 > 2153 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



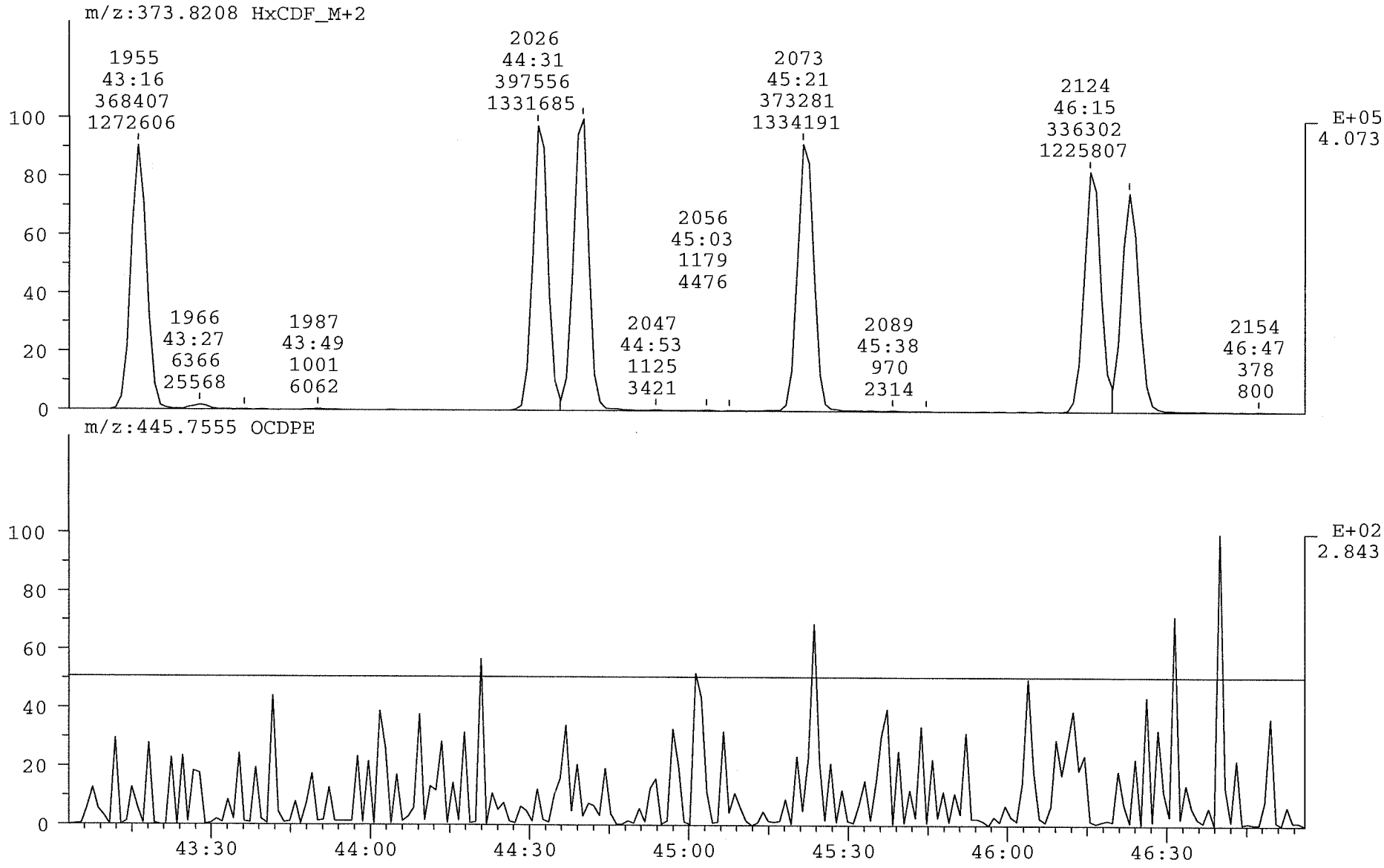
CHRO: b091210w1 10-Dec-09 Elapse: 45:34 2085
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2014 > 2156 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



CHRO: b091210w1 10-Dec-09 Elapse: 44:39 2034
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2031 > 2037 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: b091210w1 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1943 > 2162 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



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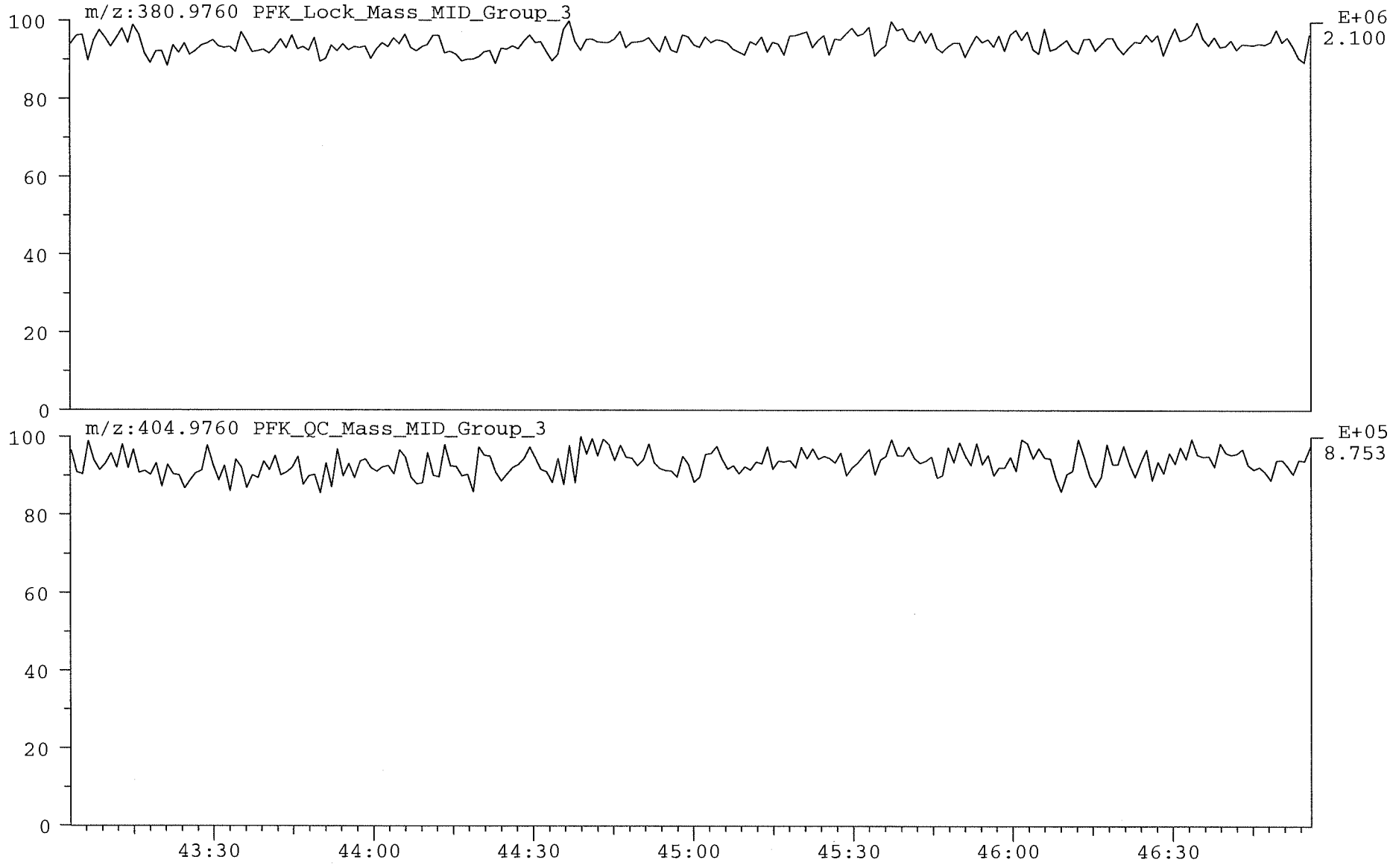
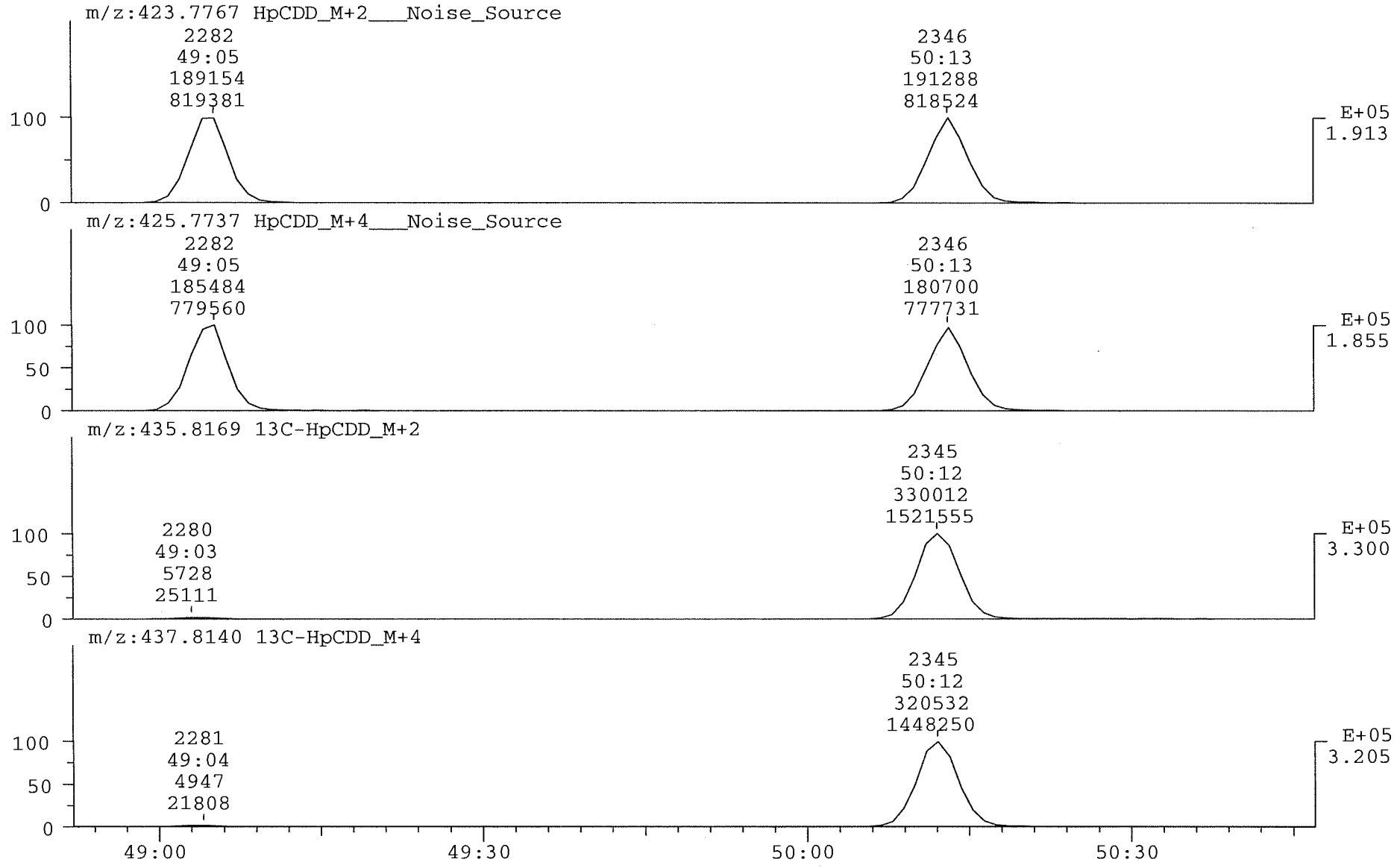
CHRO: b091210w1 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1943 > 2162 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

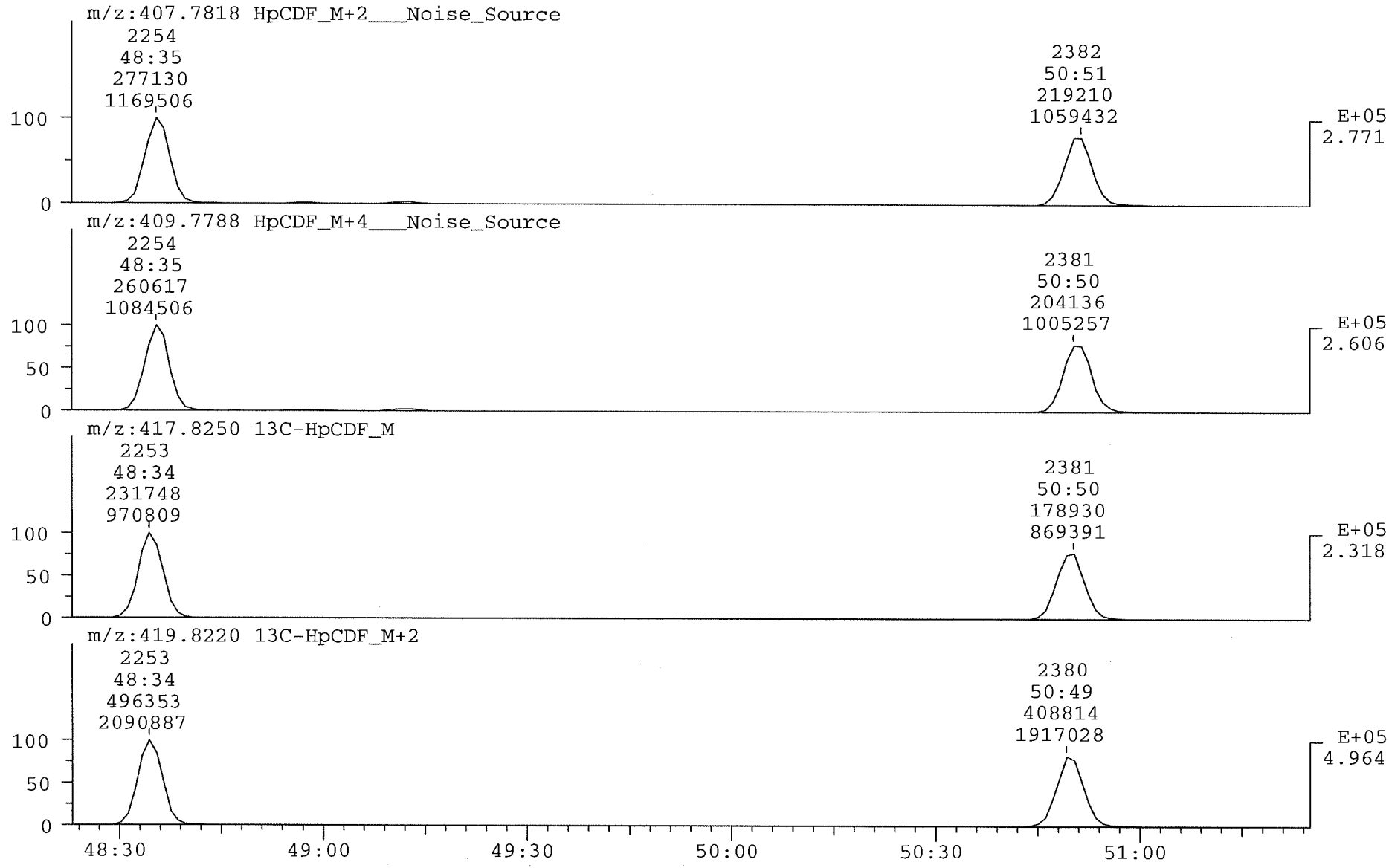


H-356

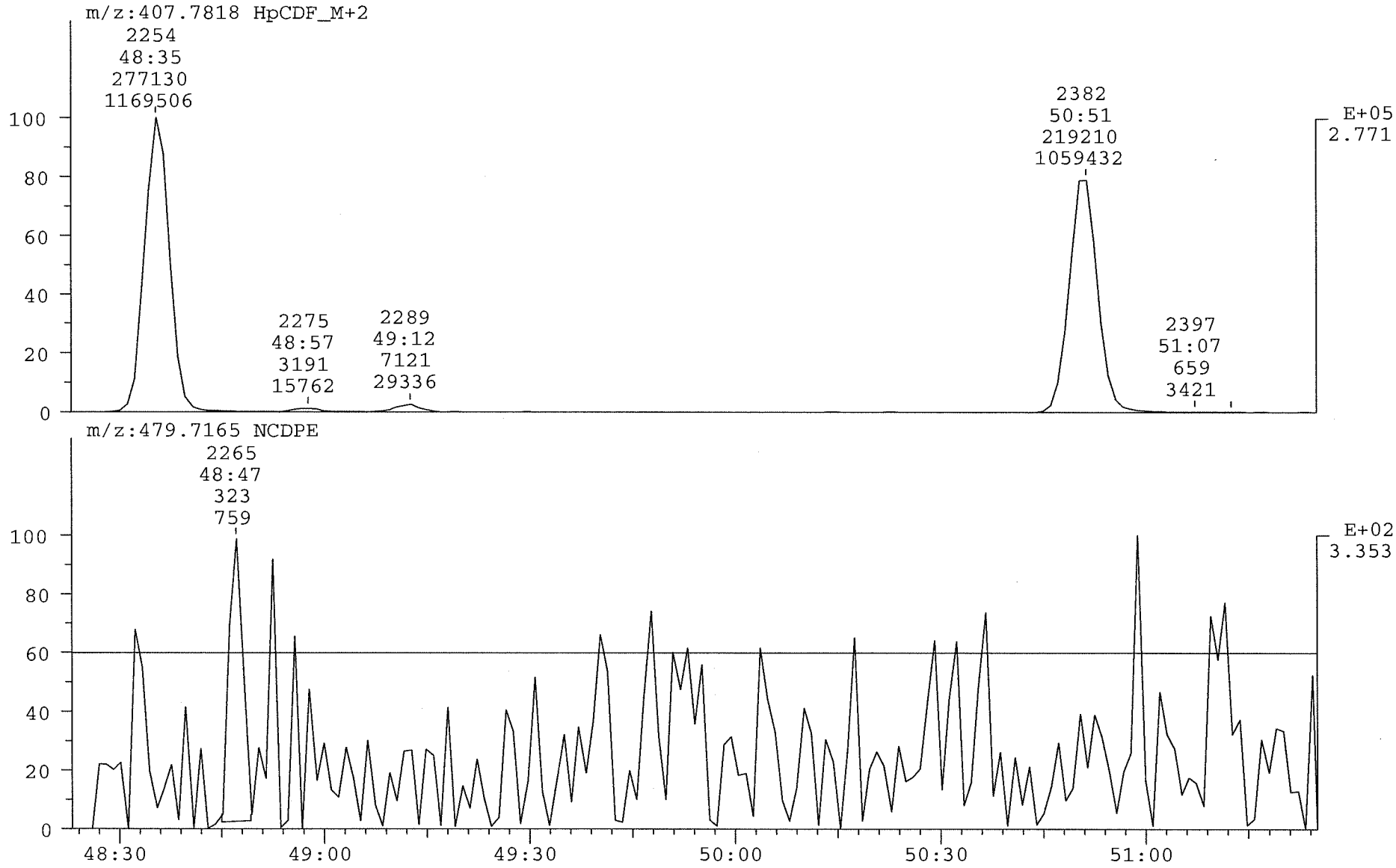
CHRO: b091210w1 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2270 > 2378 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: b091210w1 10-Dec-09 Elapse: 49:54 2328
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2242 > 2414 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: b091210w1 10-Dec-09 Elapse: 49:54 2328
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2242 > 2414 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



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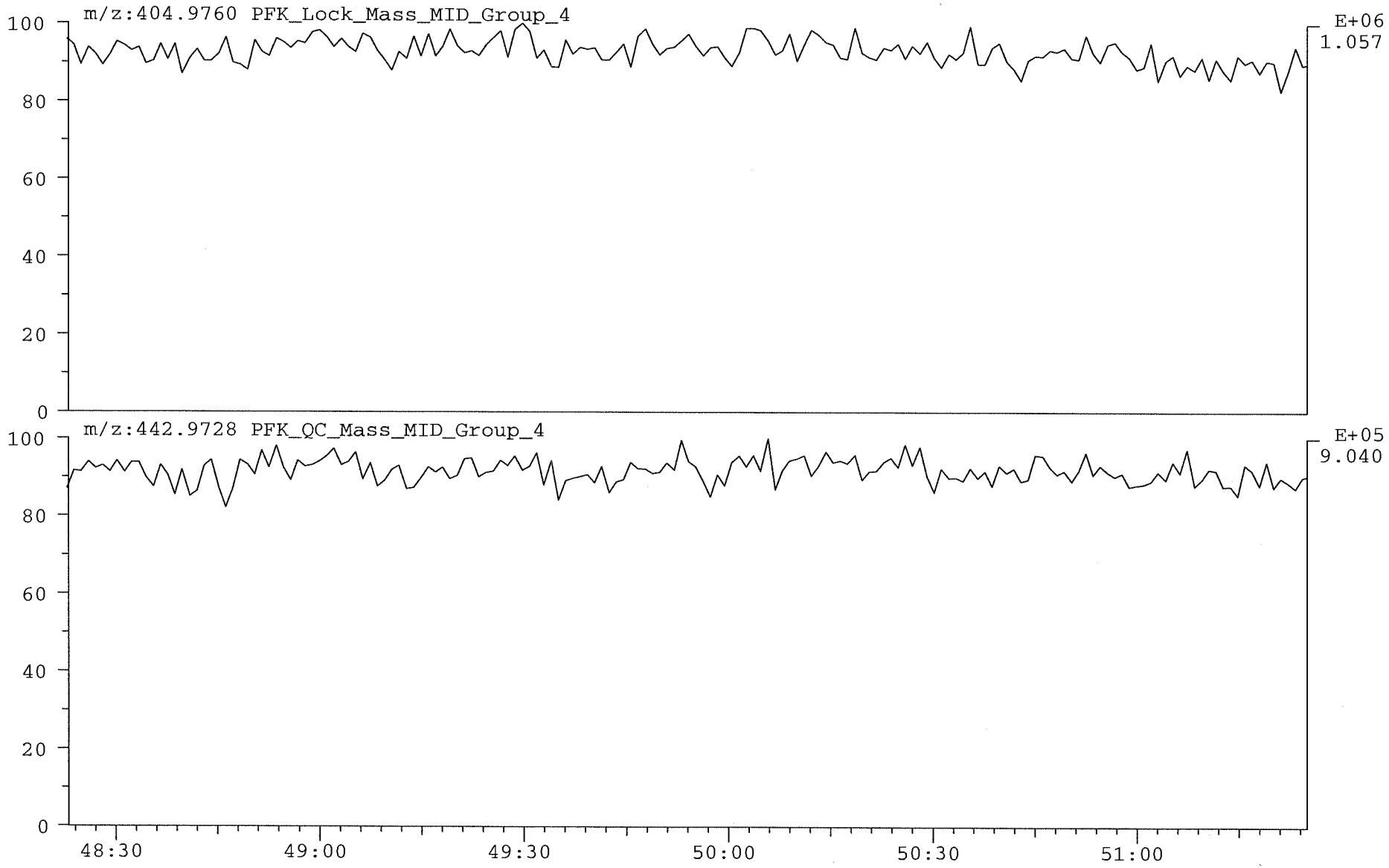
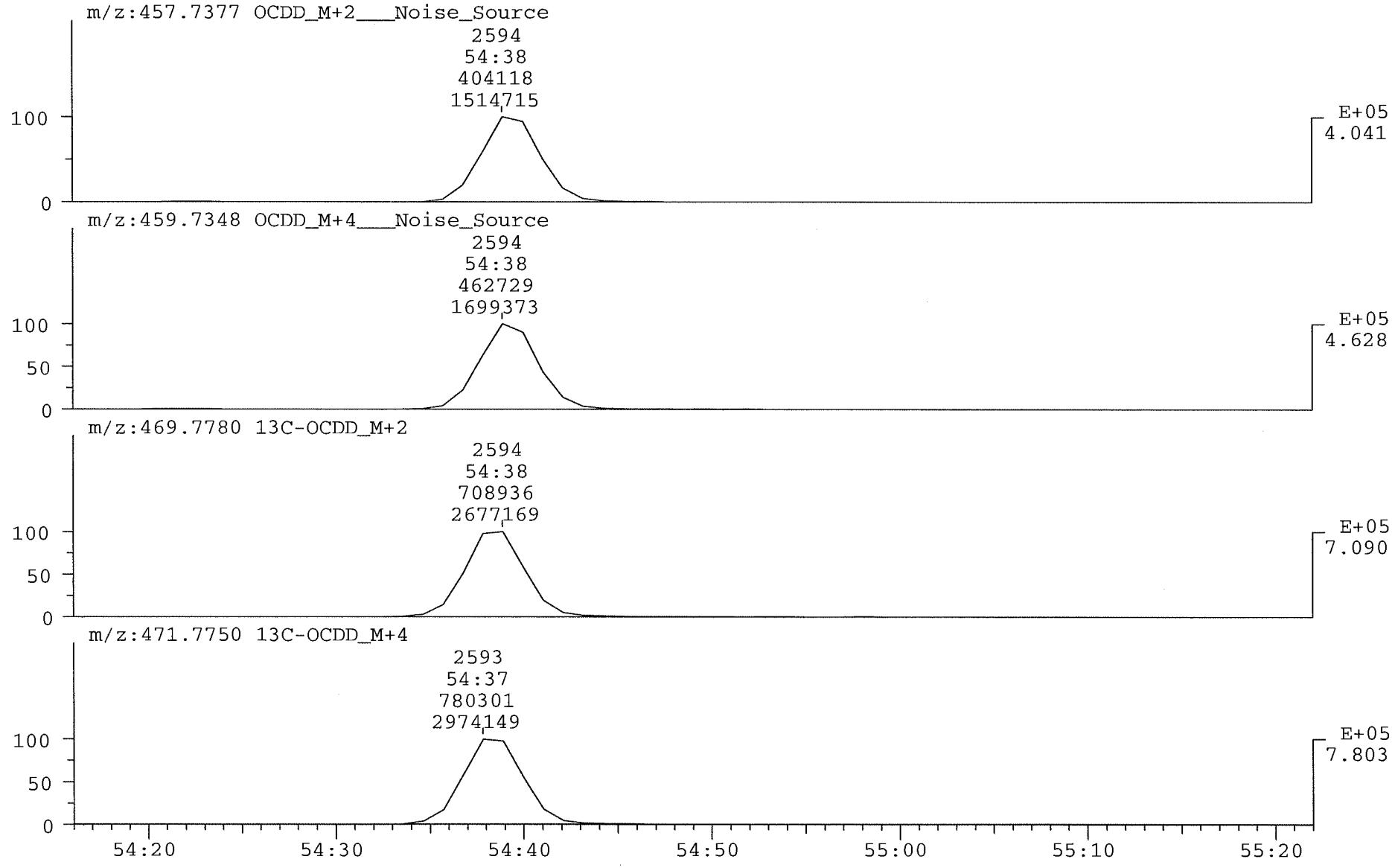
CHRO: b091210w1 10-Dec-09 Elapse: 49:54 2328
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2242 > 2414 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

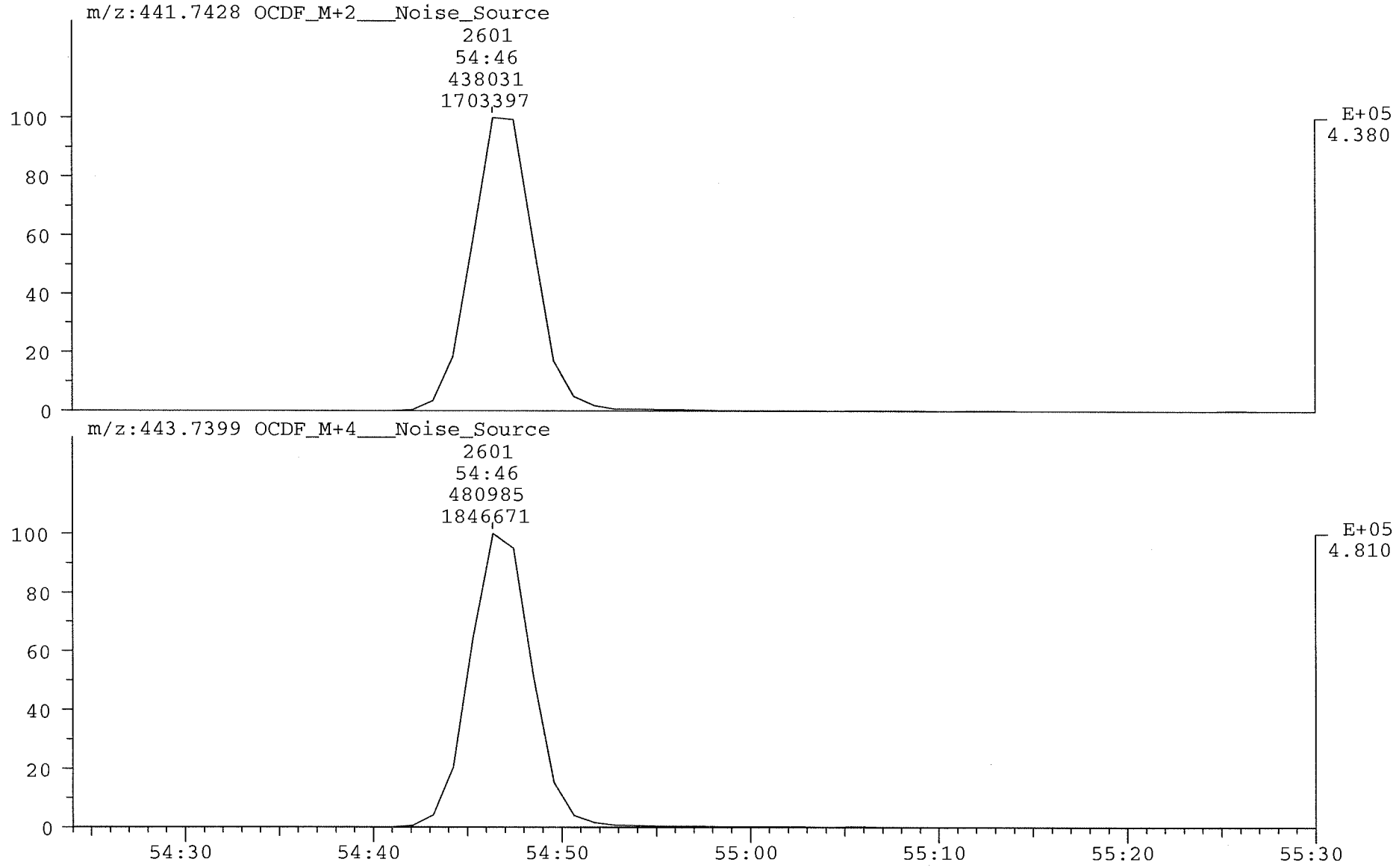


H-360

CHRO: b091210w1 10-Dec-09 Elapse: 54:46 2601
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2573 > 2634 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

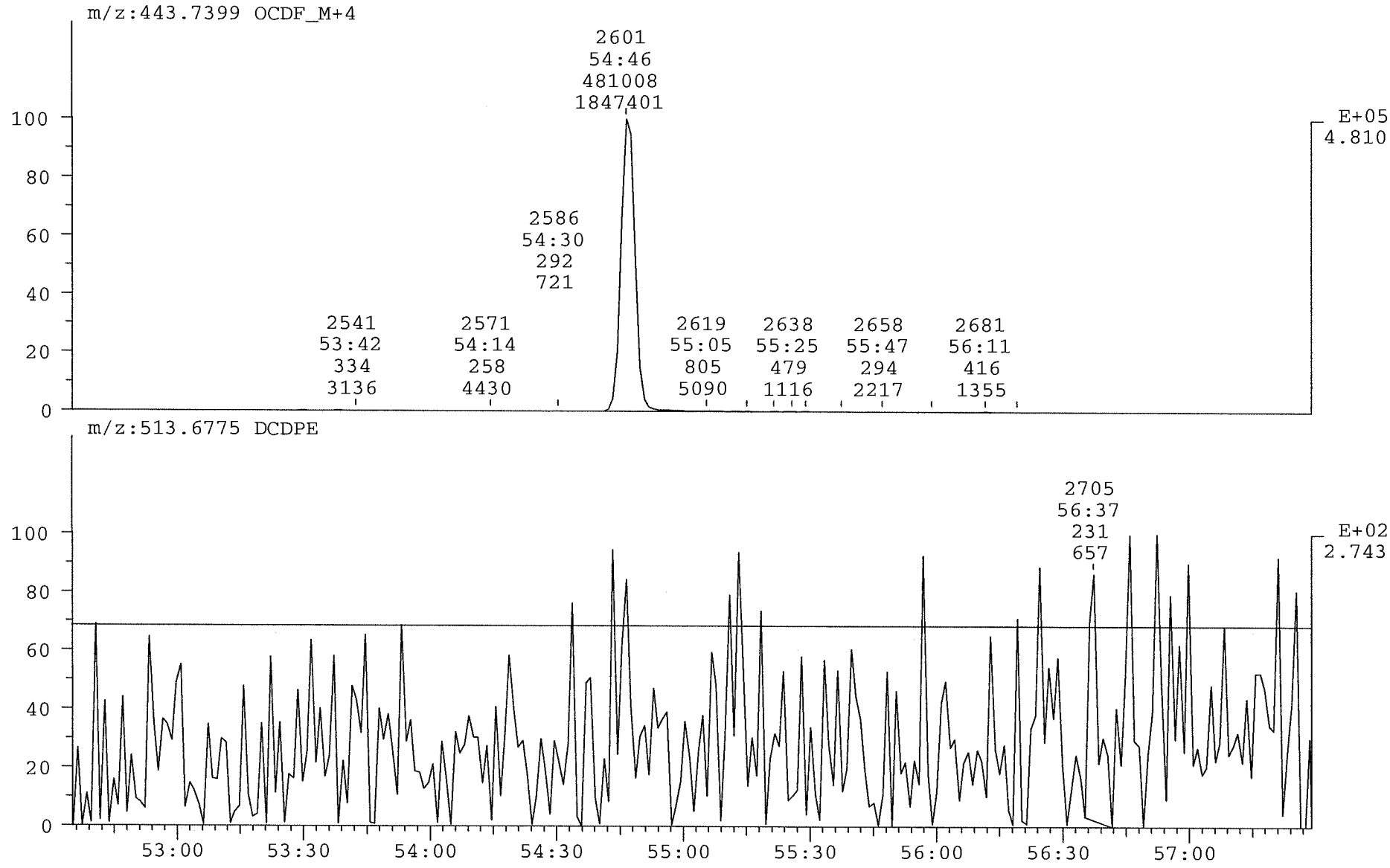


CHRO: b091210w1 10-Dec-09 Elapse: 54:53 2608
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2580 > 2642 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



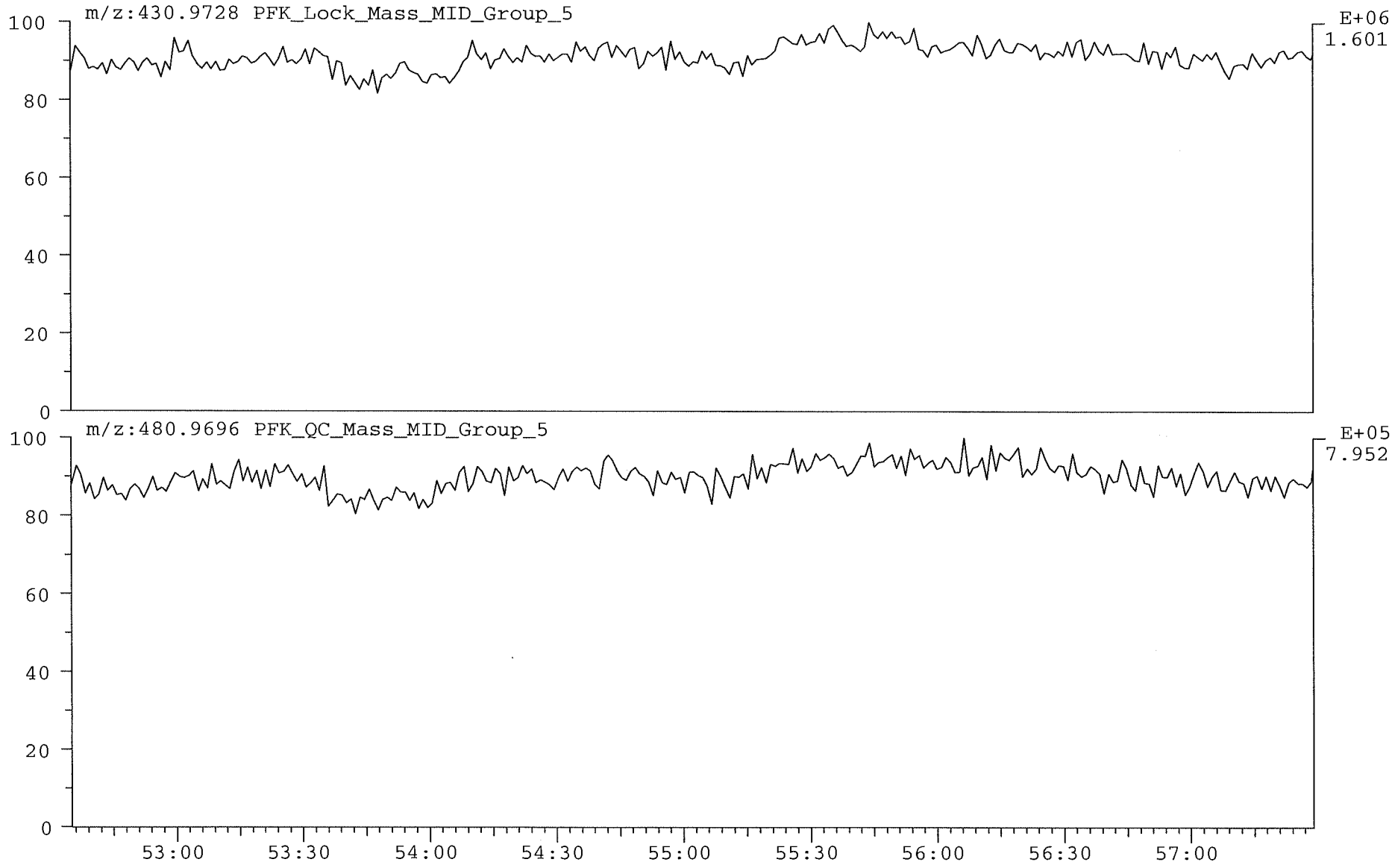
H-362

CHRO: b091210w1 10-Dec-09 Elapse: 54:53 2608
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2478 > 2754 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-363

CHRO: b091210w1 10-Dec-09 Elapse: 54:53 2608
Samp: Vial 1 WO=4104:12 Meth=F8 Dil=1 Start : 11:02:12 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Win
Oper: KBL Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2478 > 2754 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis2ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b091210w1
Study: M23 Win
Sample: WO=4104:12 Meth=F8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA Knoxville
Comments: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Injected volume:   2.0
Sample from Vial 1
Analysis will stop when MID run finishes
Tune file name: tune2
File 1 of list 091207
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.35 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1    8:00 min    26:07 min    34:07 min     1.00 sec
  # 2   34:07 min     8:39 min    42:46 min     1.00 sec
  # 3   42:46 min     4:49 min    47:36 min     1.00 sec
  # 4   47:36 min     4:52 min    52:29 min     1.00 sec
  # 5   52:29 min     5:01 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   1     81.92
    305.8987      1   1     81.92
    315.9419      1   1     81.92
    317.9389      1   1     81.92
    319.8965      1   1     81.92
    321.8936      1   1     81.92
    327.8847      1   1     81.92
    331.9368      1   1     81.92
    333.9338      1   1     81.92
    342.9792 c   10   1      8.19
    375.8364      1   1     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   1     91.48
    341.8567      1   1     91.48
```

```
  351.9000       1   1      91.48
  353.8970       1   1      91.48
  355.8546       1   1      91.48
  357.8516       1   1      91.48
  367.8949       1   1      91.48
  369.8919       1   1      91.48
  380.9760 c    10   1       8.19
  409.7974       1   1      91.48
 Window # 3
      mass F  int  gr  time (ms)
  373.8208       1   1      91.48
  375.8178       1   1      91.48
  380.9760 l    10   1       8.19
  383.8639       1   1      91.48
  385.8610       1   1      91.48
  389.8156       1   1      91.48
  391.8127       1   1      91.48
  401.8559       1   1      91.48
  403.8529       1   1      91.48
  404.9760 c    10   1       8.19
  445.7555       1   1      91.48
 Window # 4
      mass F  int  gr  time (ms)
  404.9760 l    10   1       8.19
  407.7818       1   1      91.48
  409.7788       1   1      91.48
  417.8250       1   1      91.48
  419.8220       1   1      91.48
  423.7767       1   1      91.48
  425.7737       1   1      91.48
  435.8169       1   1      91.48
  437.8140       1   1      91.48
  442.9728 c    10   1       8.19
  479.7165       1   1      91.48
 Window # 5
      mass F  int  gr  time (ms)
  430.9728 l    10   1      10.92
  441.7428       1   1     120.15
  443.7399       1   1     120.15
  457.7377       1   1     120.15
  459.7348       1   1     120.15
  469.7780       1   1     120.15
  471.7750       1   1     120.15
  480.9696 c    10   1      10.92
  513.6775       1   1     120.15

Auto Sampler descriptor: pcdd2ul
 Injector A
 Normal Injection
 Slvnt A cln before inj(K):      3 times
 Slvnt B cln before inj(L):      0 times
 Sample rinse cycles   (R):      0 times
 Syringe filling volume(F):    1.0 ul
 Pullup delay time     (D):      4 sec
 Sample pullup speed   (E):    5.0 ul/sec
 Slvnt aftr pre inj cln(U):    0.0 ul
 Air after pre inj cln (G):    2.0 ul
 Sample volume         (V):    2.0 ul
 Sample air volume     (A):    2.0 ul
 Sample pullup count   (P):      2 times
 Injection speed       (S):   10.0 ul/sec
 Injection wait time   (W):     10 sec
 Injection hold time   (H):      3 sec
 Solvent A clean cycles(C):     15 times
 Solvent B clean cycles(B):     20 times
 Loop clean w slvnt A (LC):      0 times
```

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                        300 deg max
  Transfer Line:     290 deg                        300 deg max
  Column:            140 deg at    0.0 minutes      330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8512.0000
BDEV	8293.0000	BFM	2.0000	BLM	1181.9425
BMASS	304.9824	BQUAD	2.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.2941
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.7814	DITSET	0.0000	DRAW	-29.5750
DRAWC	1.0000	DRAWS	0.0000	ECORR	1.0001
ECURR	1.0000	EDAC	7969177.0000	EDACG	0.9998
EDACR	20.0000	EDACZ	1898.0000	ELEN	57.6250
EMULT	2.0800	ENS	219.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	6.7500	FREQ	600.9615
FSLOPE	36000000.0000	FVANAL	553.0000	FVINLET	932.0000
FVSRC	992.0000	FWIN	0.7000	GCTC	137.0000
GCTI	270.0000	GCTL	290.0000	HACCU	156.0000
HCURR	1.7255	HVANAL	1090.0000	HVSRC	3076.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4749.6900	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2409.0000	LENSS	-44.6000	LKM	304.9824
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3237806.8854	MDACR	20.0000
MRANGE	1181.9425	MSFM	2.0000	MSLM	3790.0000
NPEAK	200.0000	NSAM	200.0000	NSCAN	12708.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-7.0750	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10308.5626	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	2.0000
SCIDLE	1.0000	SHIELD	3073.0000	SHIELDS	-0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7200	TCURR	1.0547	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.2000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.3750
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1119.0000	XLENSS	-46.6000
YLENS	3324.0000	YLENSS	-98.4000		

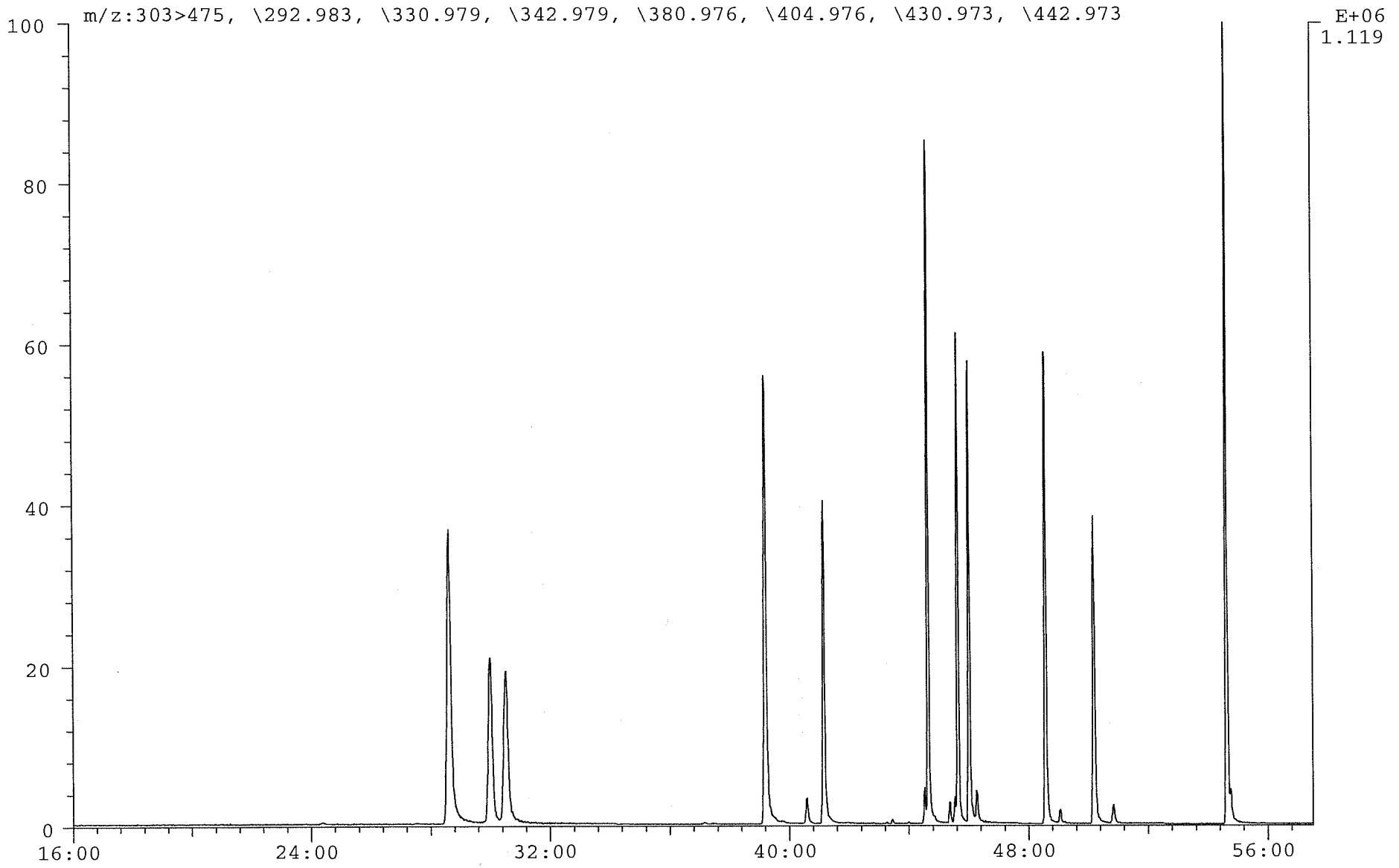
Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Dec-09 11:02:12.8

Autosampler has injected sample from vial 1
Analysis stopped at: 10-Dec-09 11:59:44.4 (run time 57.52 minutes)
Analysis stopped because MID run finished

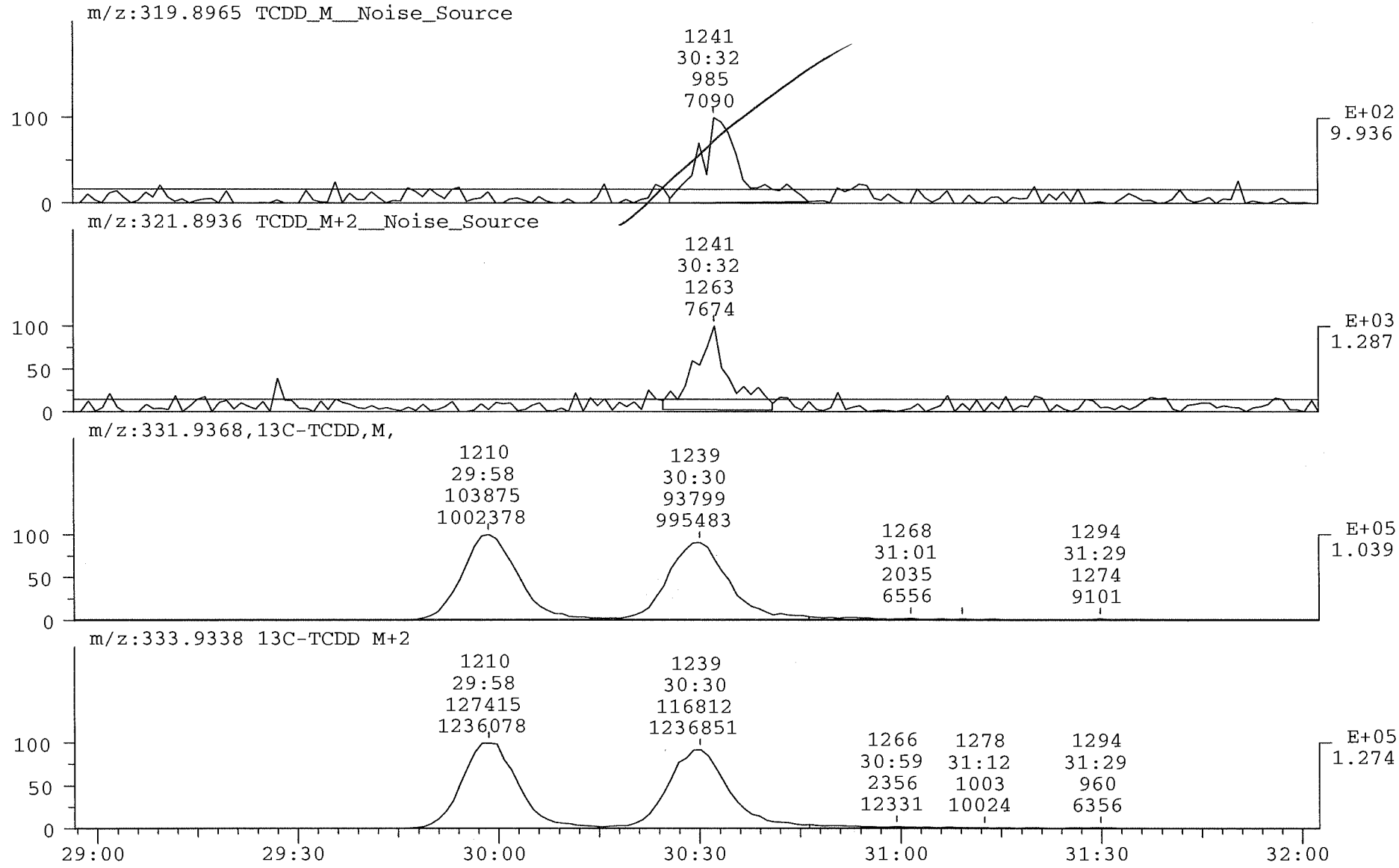
CHRO: b091210i1 10-Dec-09 Elapse: 08:00.5 1
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 441 > 2752 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Tet, Calc WSD12/10/09
QC ion 12-11-09

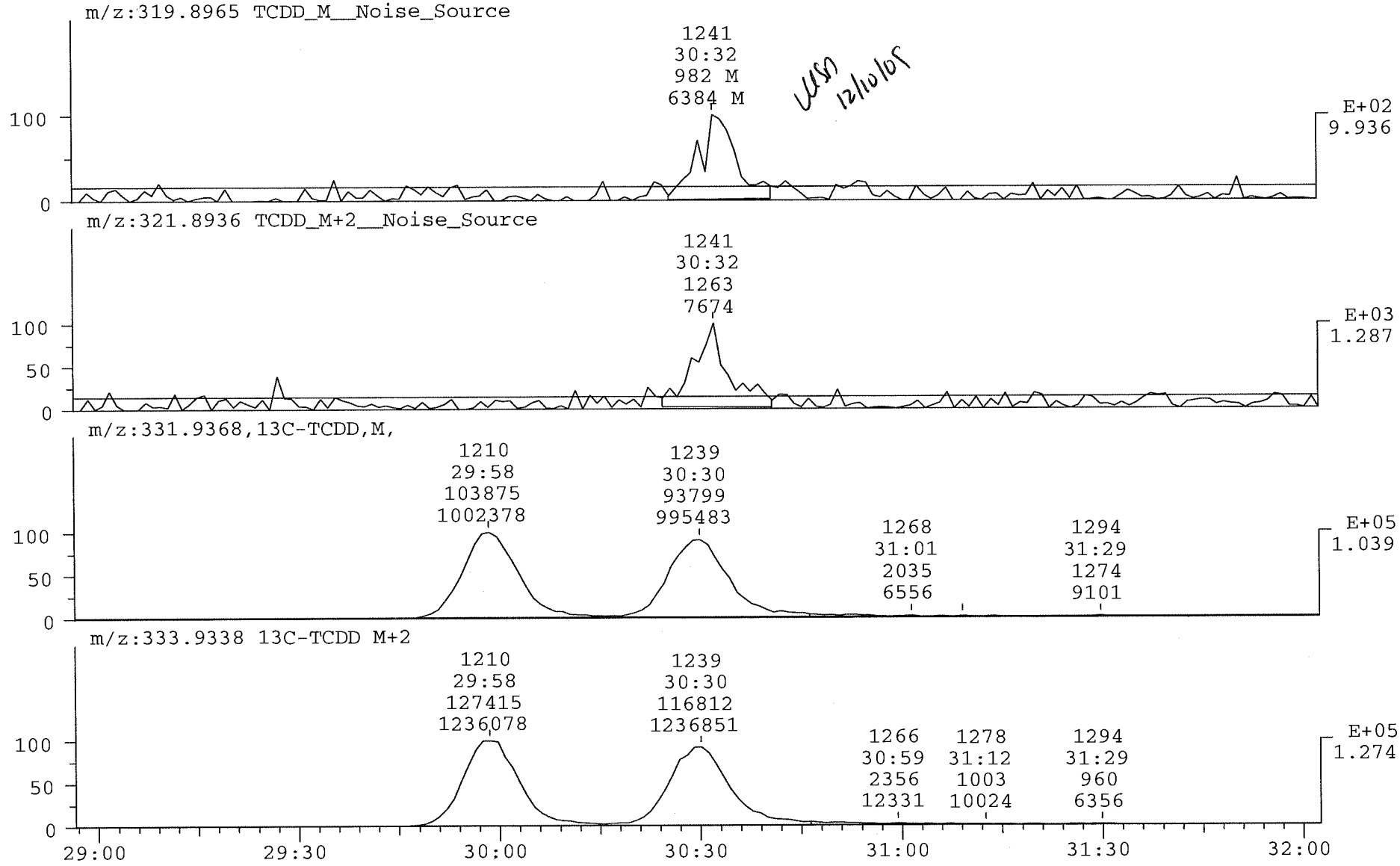


H-369

CHRO: b091210i1 10-Dec-09 Elapse: 54:54 2605
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1153 > 1324 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



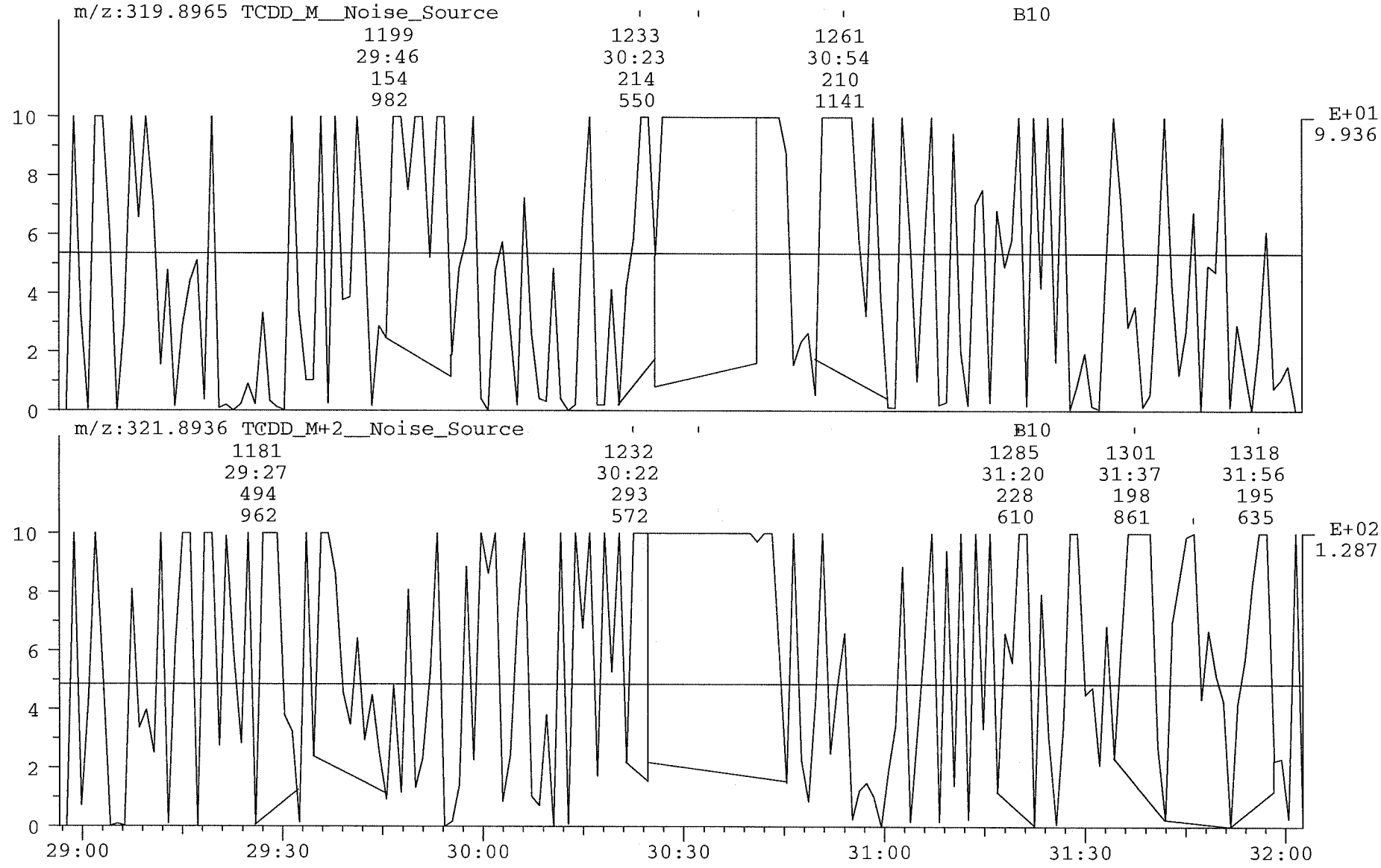
CHRO: b091210i1 10-Dec-09 Elapse: 54:54 2605
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1153 > 1324 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-371

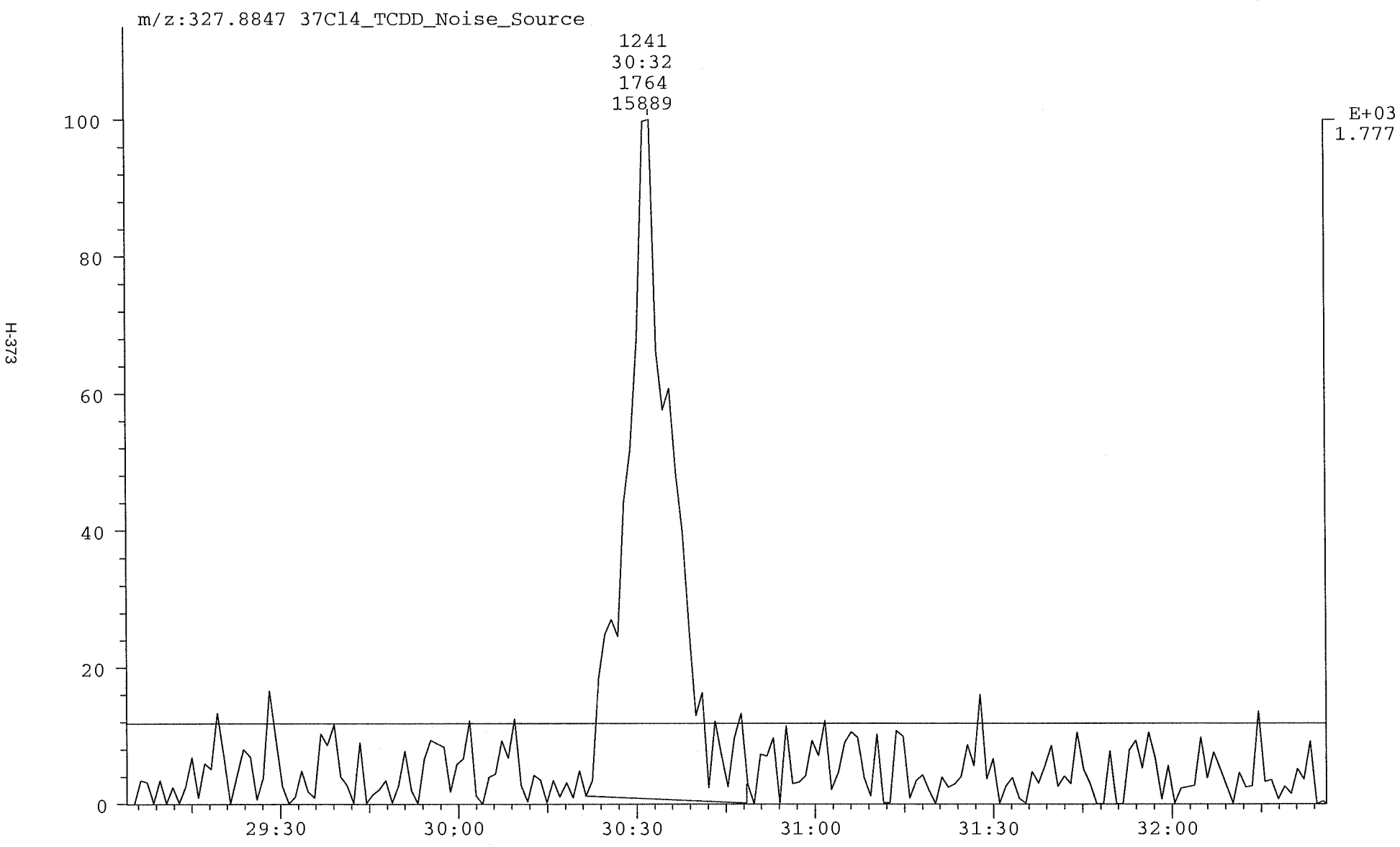
370

CHRO: b091210i1 10-Dec-09 Elapse: 54:54 2605
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1153 > 1324 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



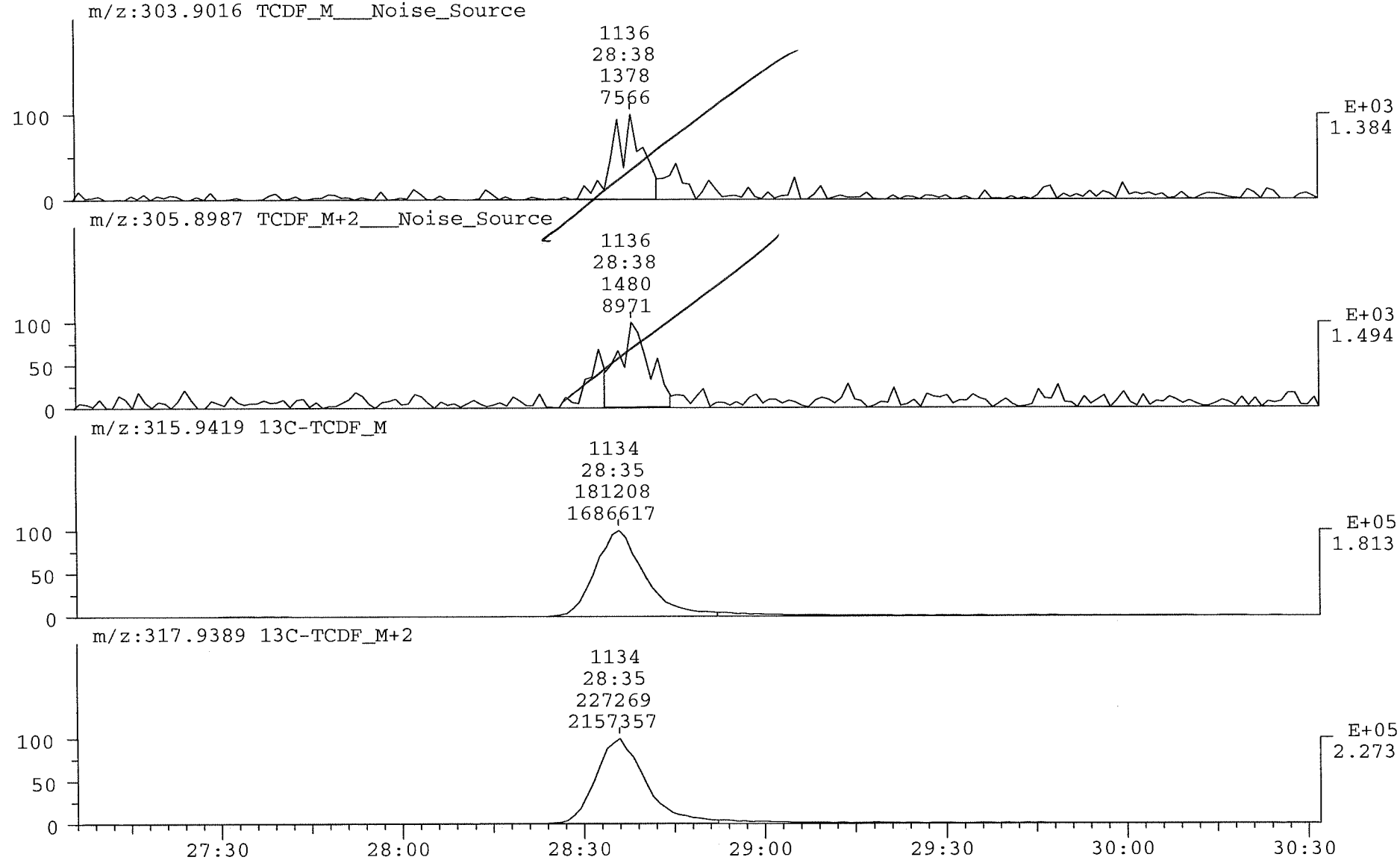
H-372

CHRO: b091210i1 10-Dec-09 Elapse: 30:42 1250
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1160 > 1346 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

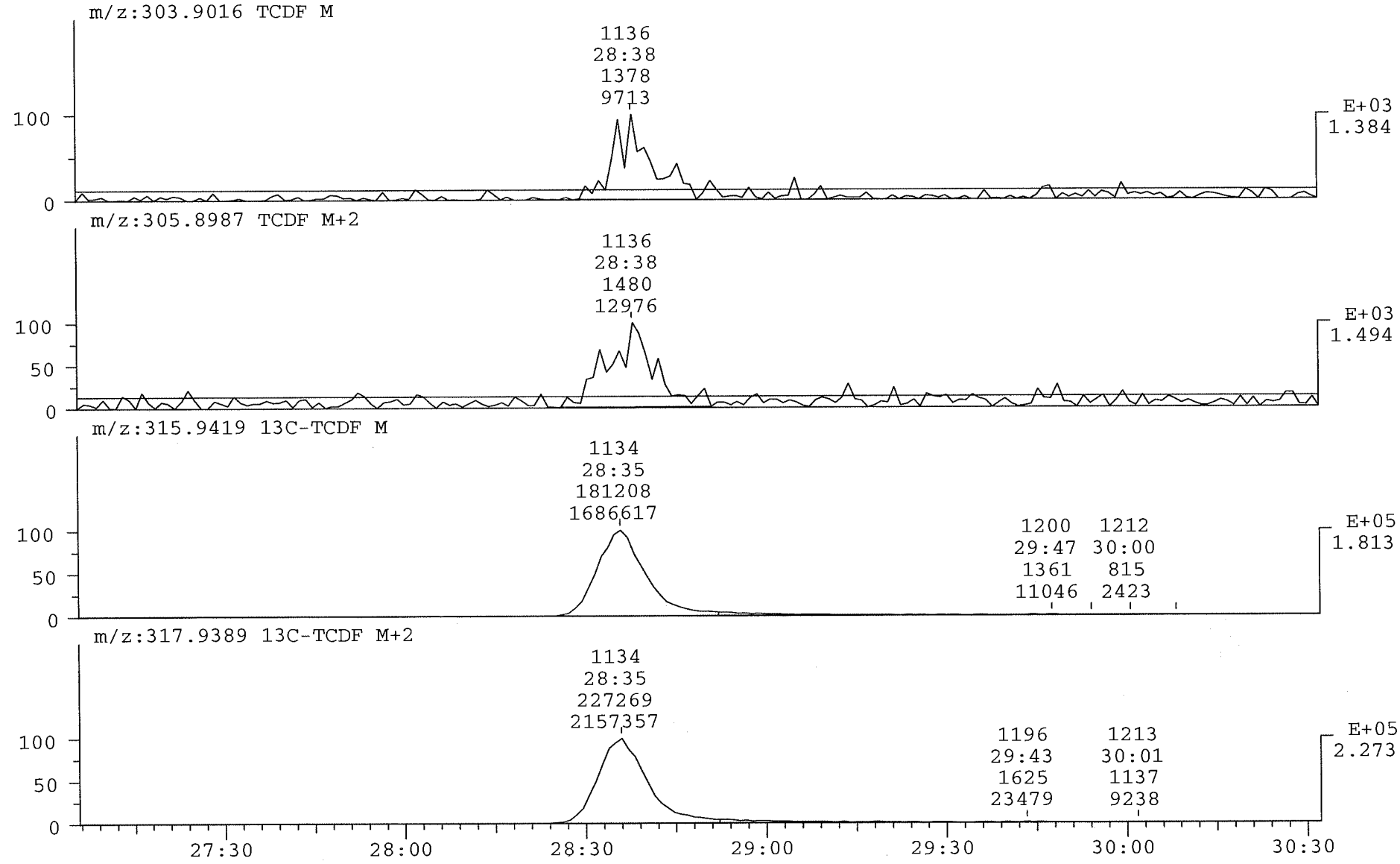


H-373

CHRO: b091210i1 10-Dec-09 Elapse: 28:45 1143
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1051 > 1241 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

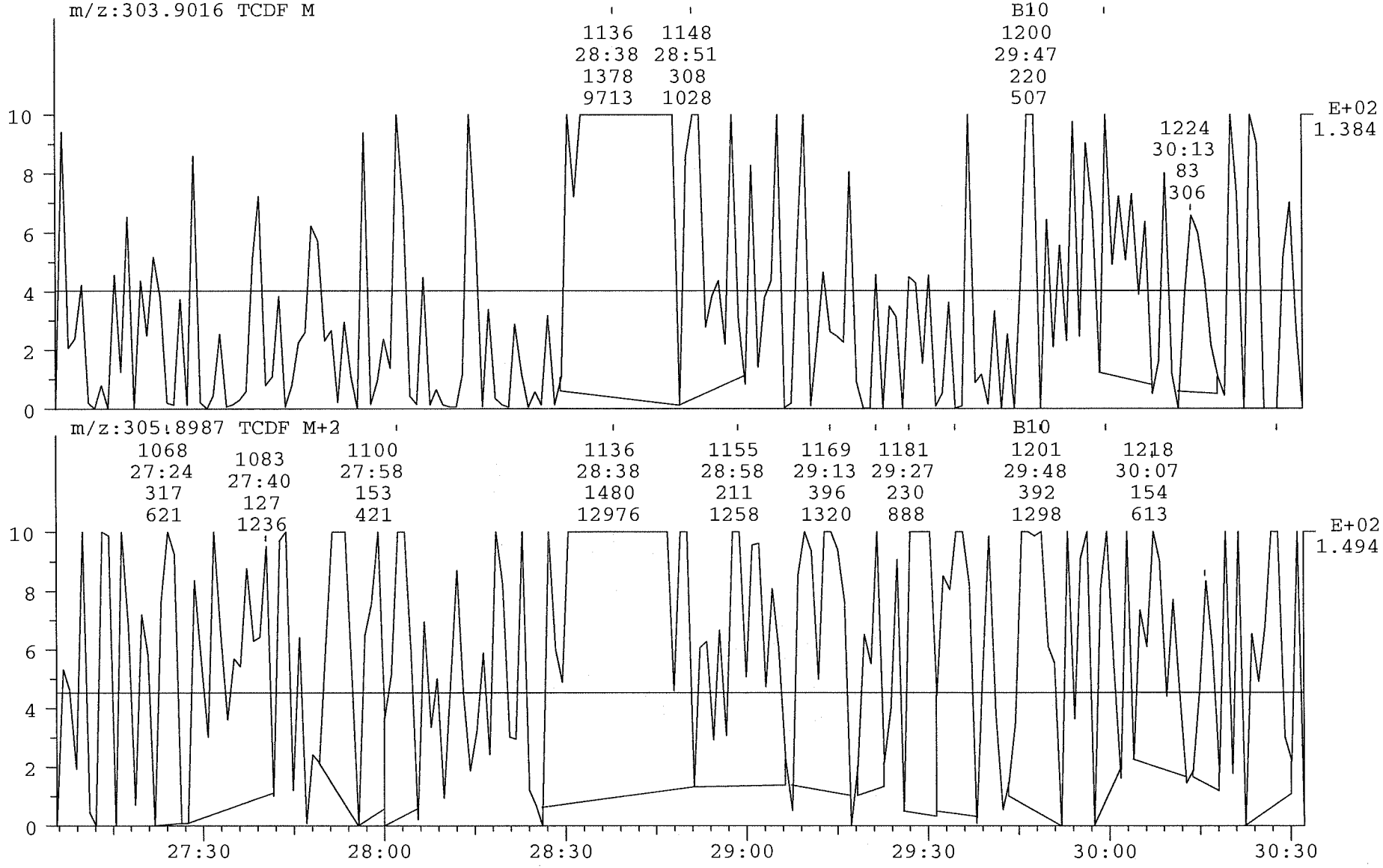


CHRO: b091210i1 10-Dec-09 Elapse: 54:54 2605
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1051 > 1241 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area

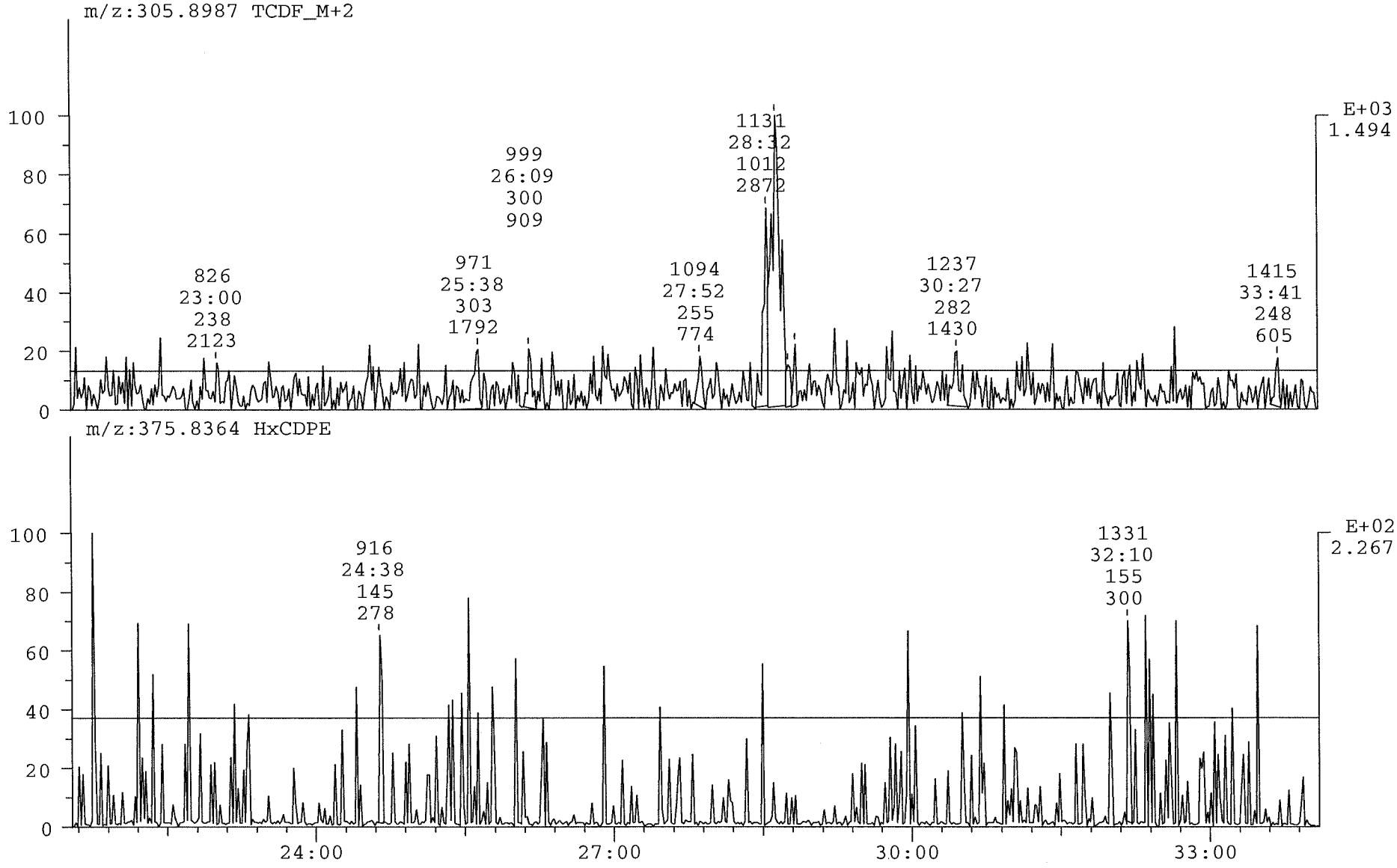


H-375

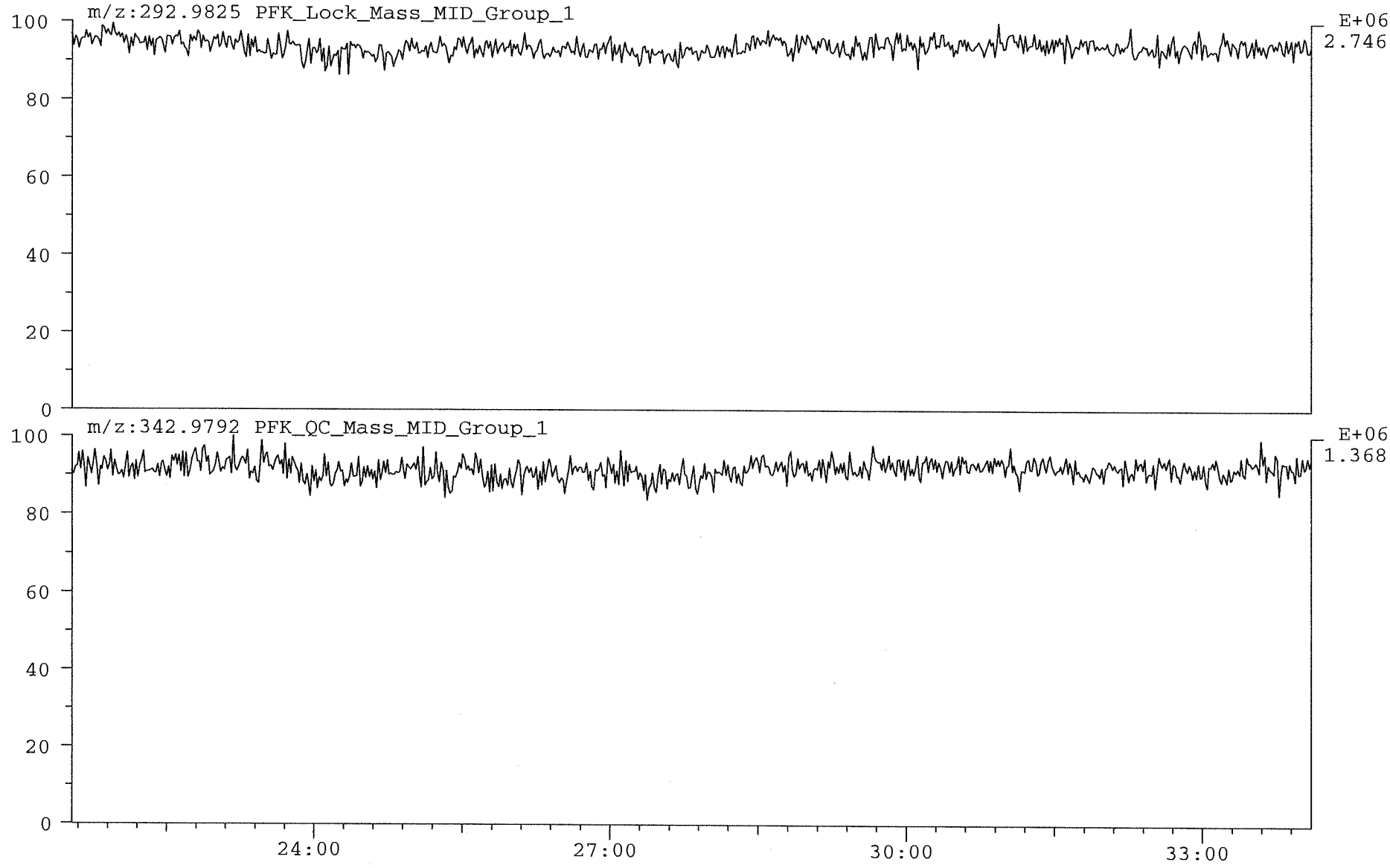
CHRO: b091210i1 10-Dec-09 Elapse: 54:54 2605
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1051 > 1241 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 1.0
Disp: Height Area



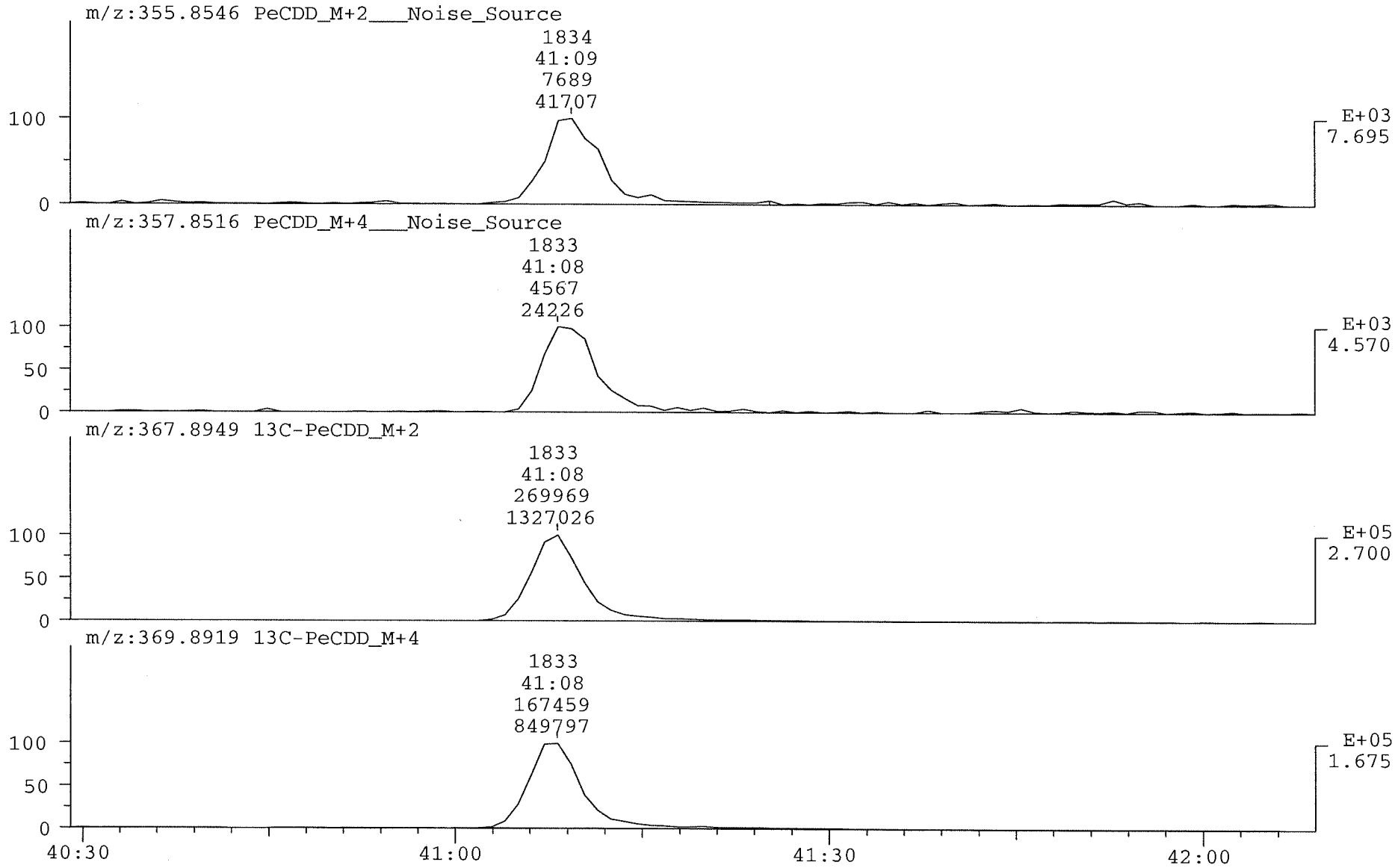
CHRO: b091210i1 10-Dec-09 Elapse: 28:45 1143
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 745 > 1437 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



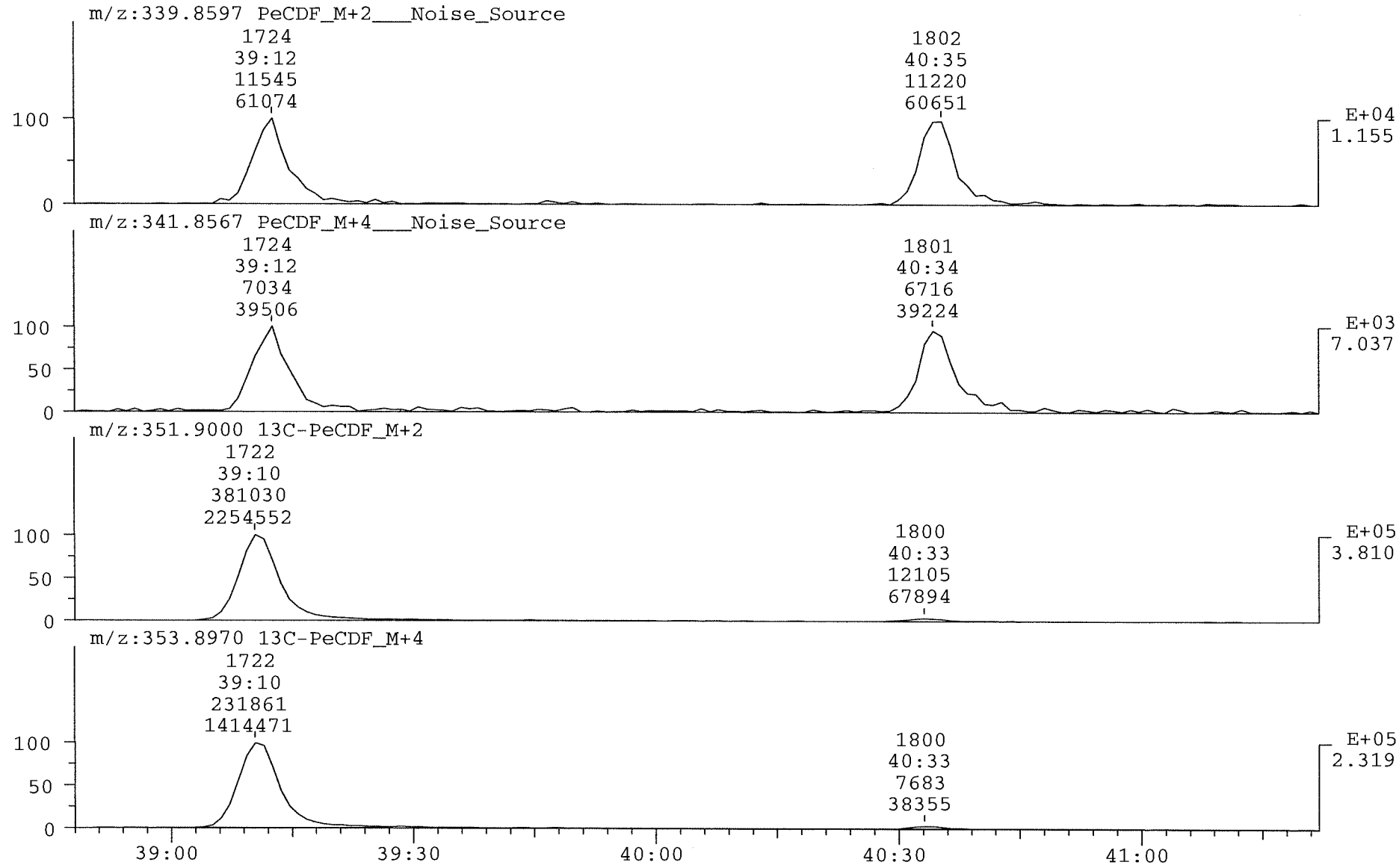
CHRO: b091210i1 10-Dec-09 Elapse: 28:45 1143
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 745 > 1437 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



CHRO: b091210i1 10-Dec-09 Elapse: 41:15 1840
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1796 > 1890 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

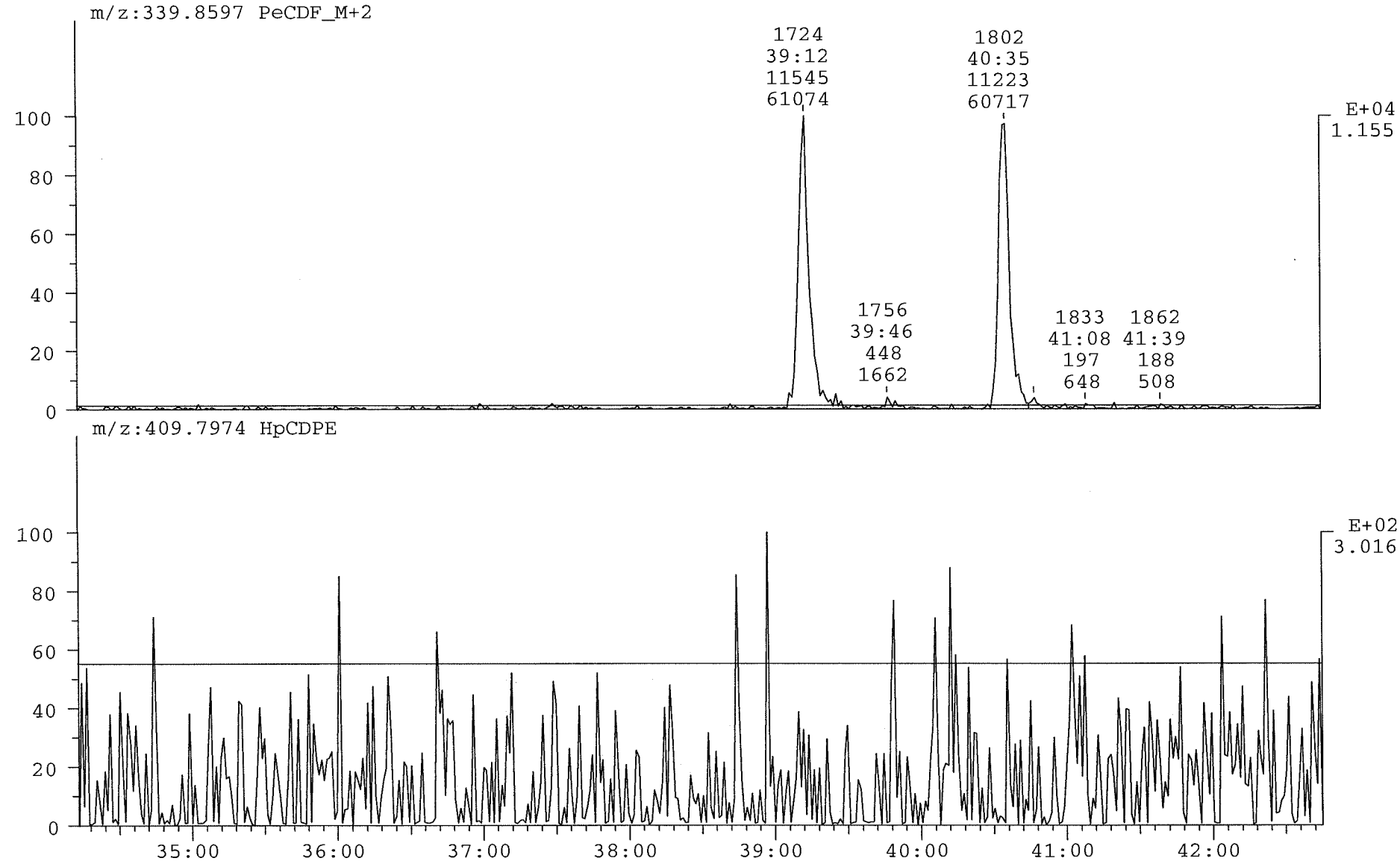


CHRO: b091210i1 10-Dec-09 Elapse: 40:04 1773
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1701 > 1846 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



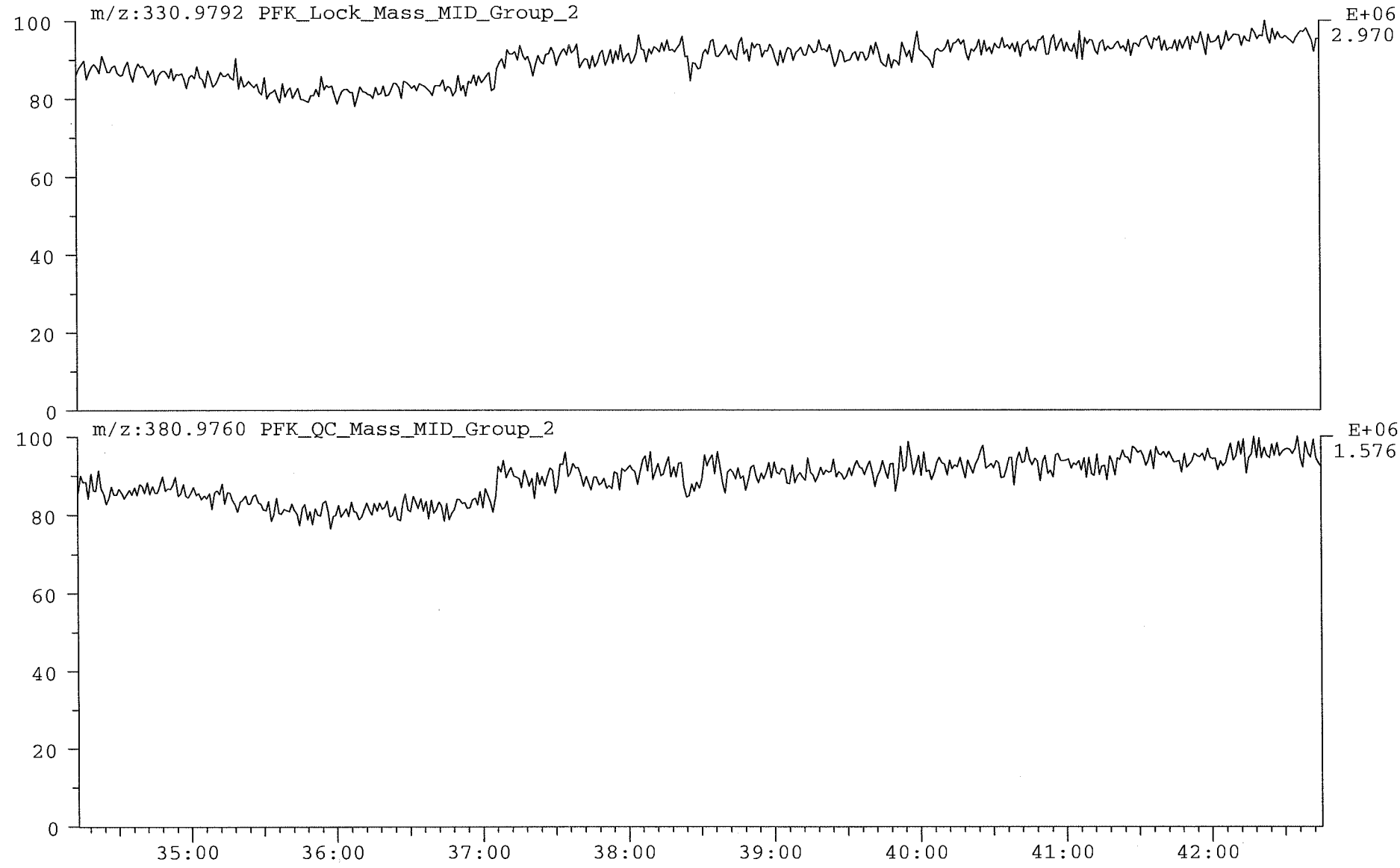
H-380

CHRO: b091210i1 10-Dec-09 Elapse: 40:04 1773
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1442 > 1924 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



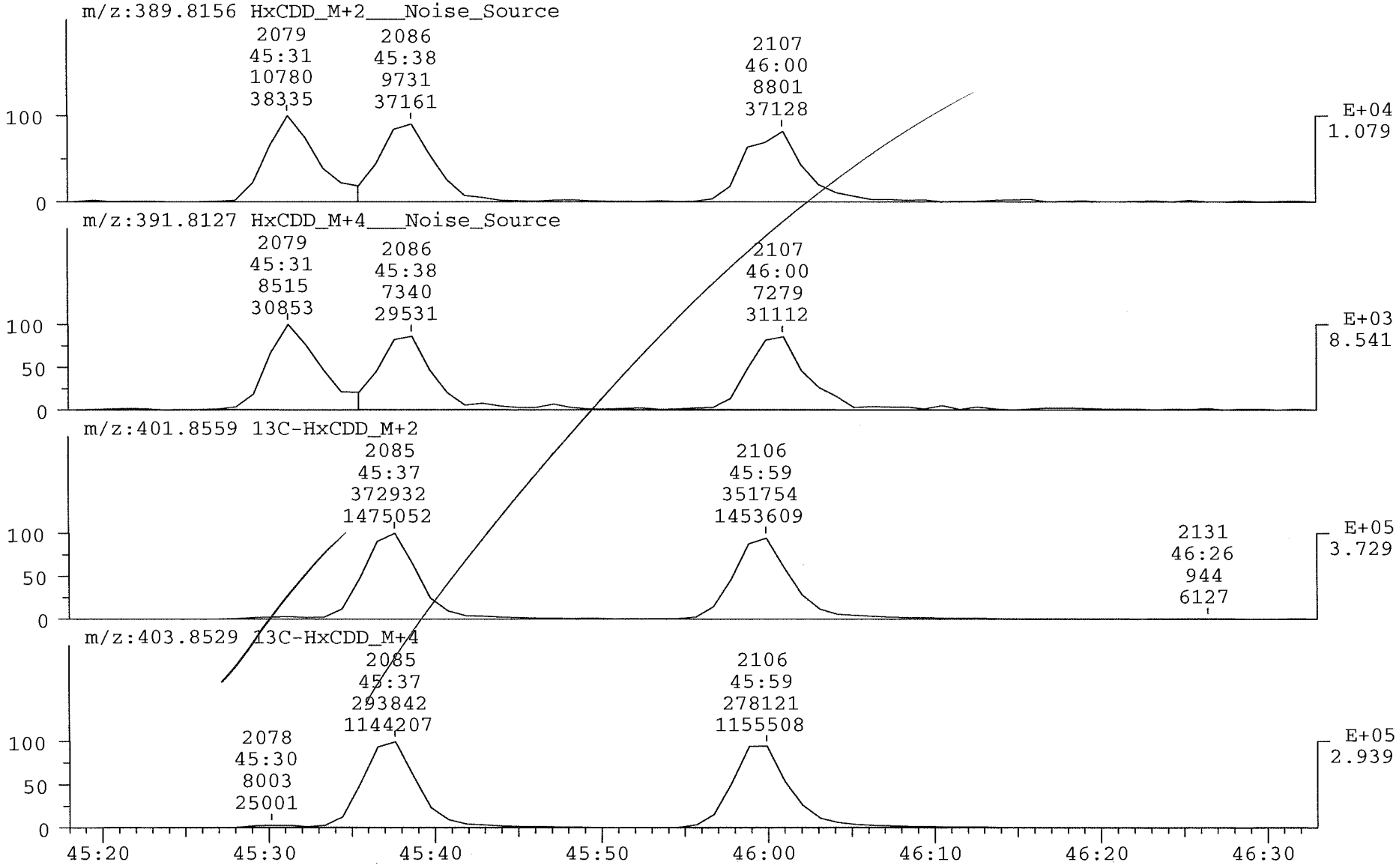
H-381

CHRO: b091210i1 10-Dec-09 Elapse: 40:04 1773
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1442 > 1924 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



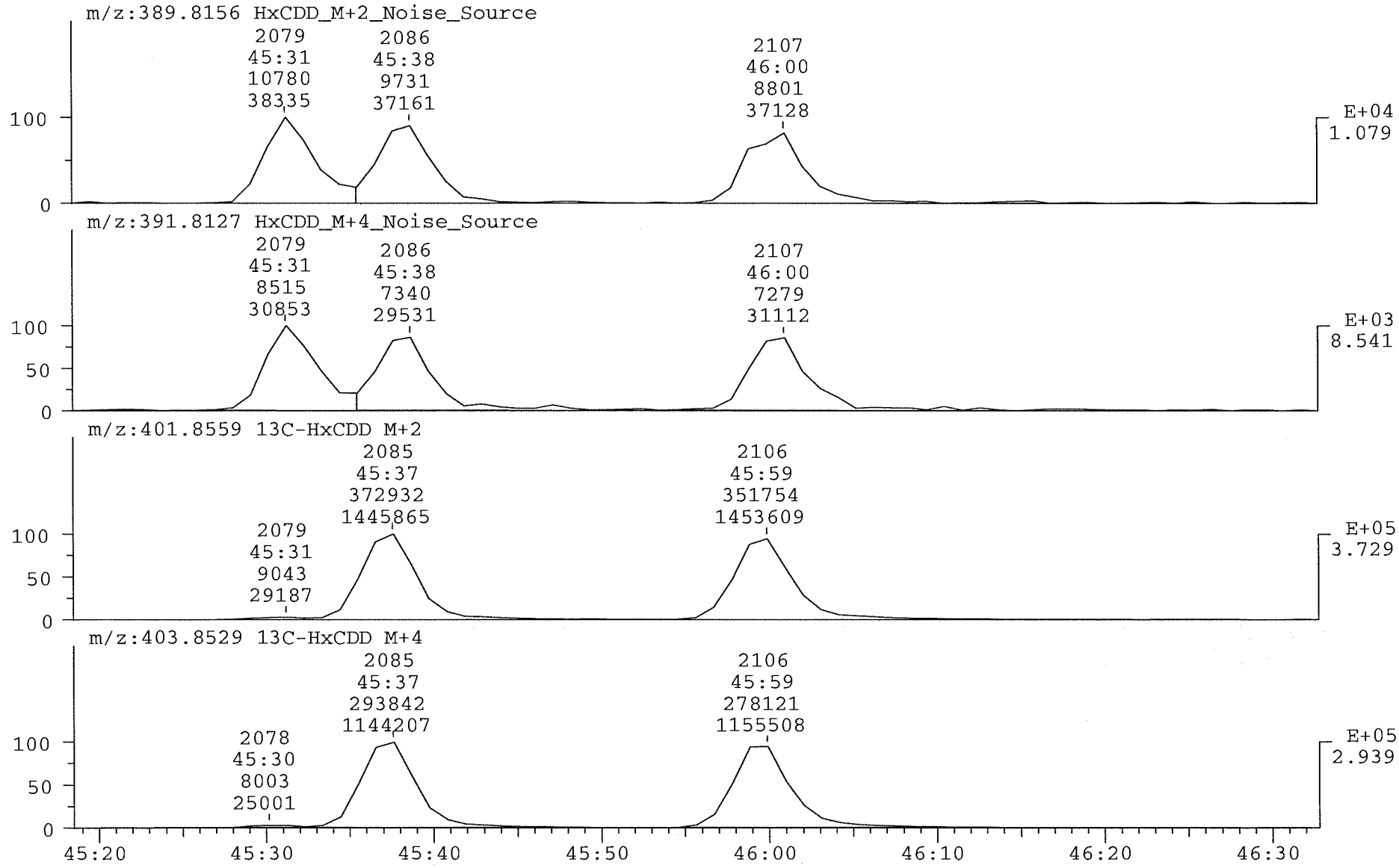
H-382

CHRO: b091210i1 10-Dec-09 Elapse: 45:54 2101
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2067 > 2137 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

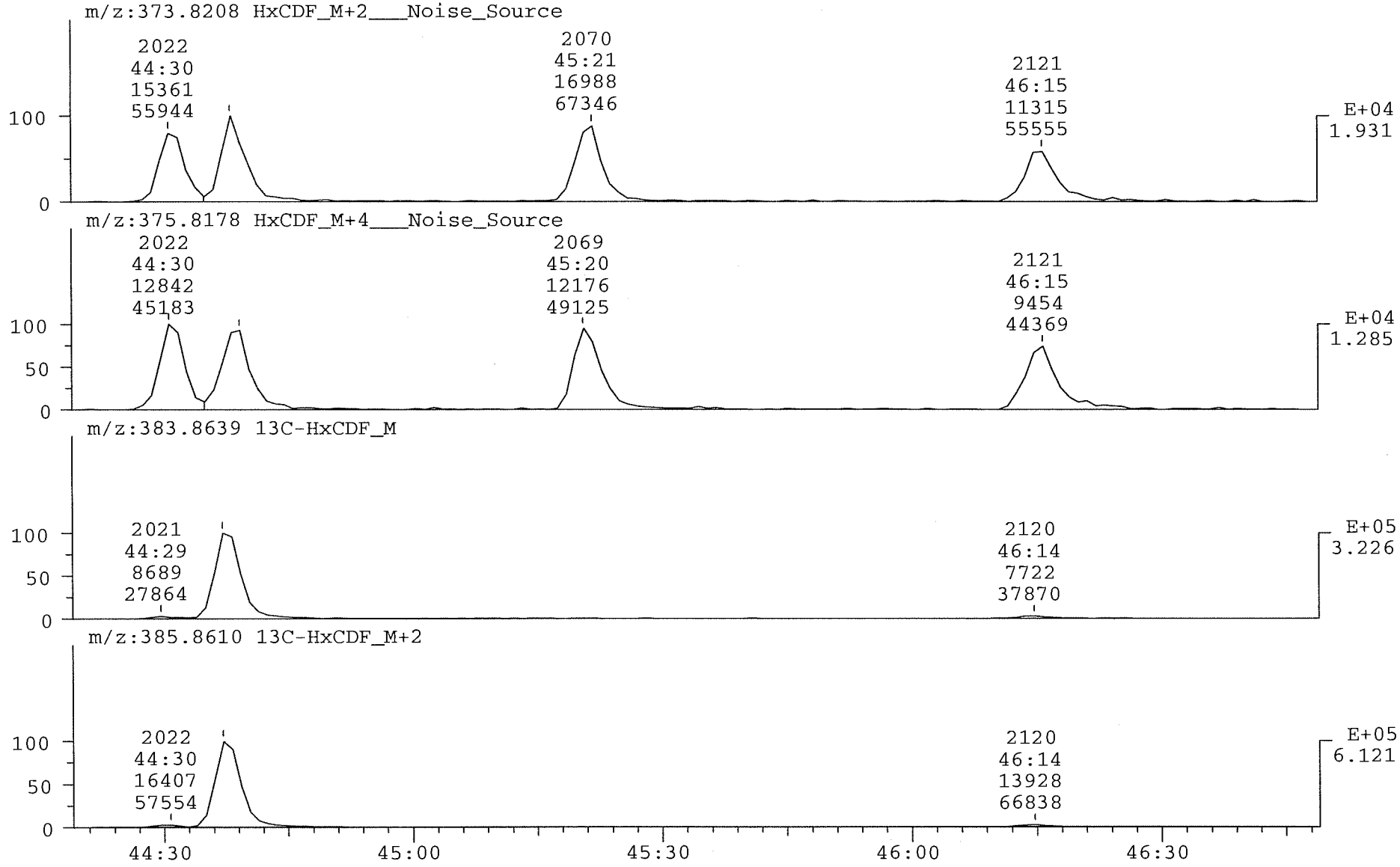


H-383

CHRO: b091210i1 10-Dec-09 Elapse: 54:54 2605
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2067 > 2137 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 2 Label : 2, 3.0
Disp: Height Area

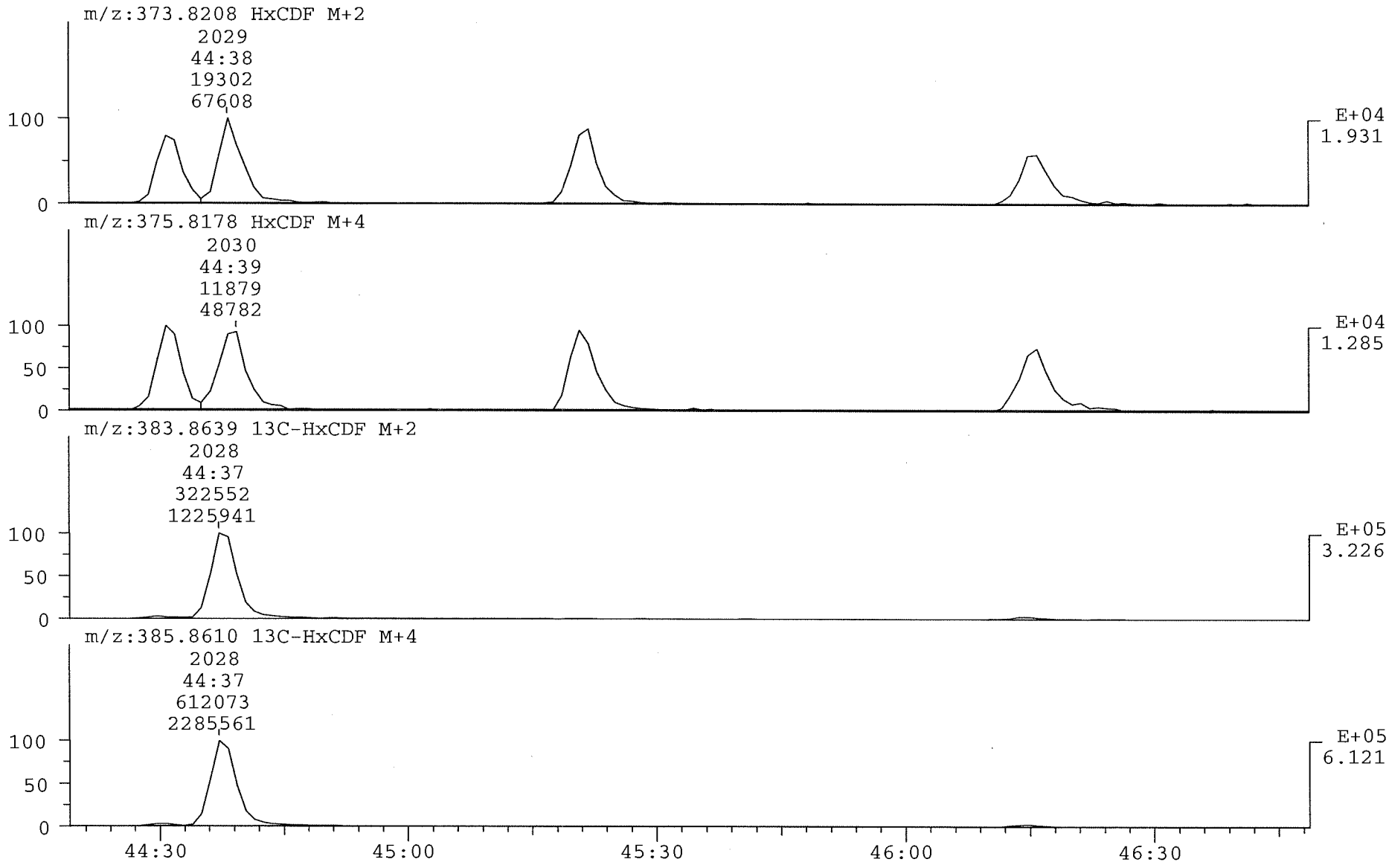


CHRO: b091210i1 10-Dec-09 Elapse: 45:34 2082
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2011 > 2152 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



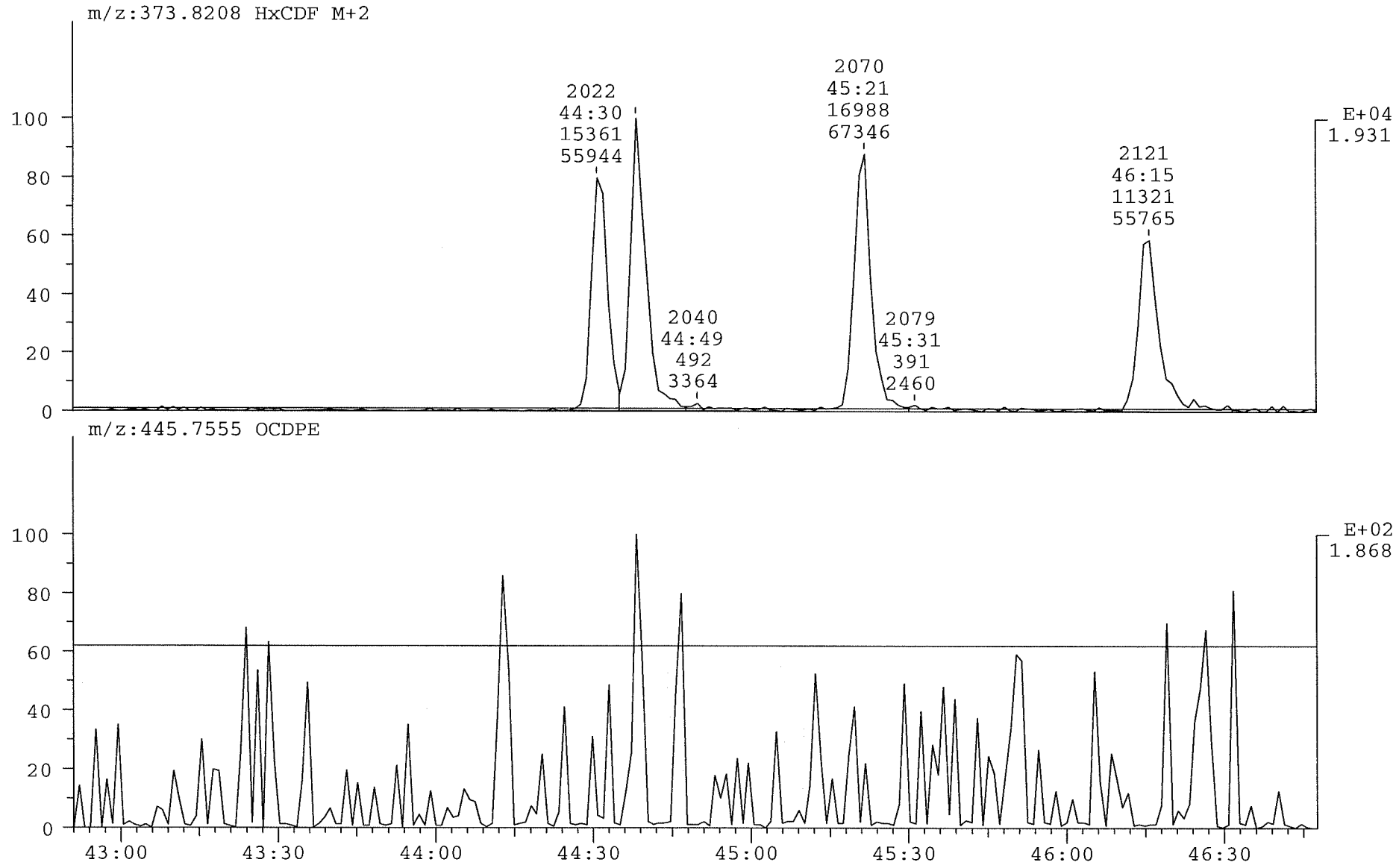
H-385

CHRO: b091210i1 10-Dec-09 Elapse: 44:40 2031
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2028 > 2034 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



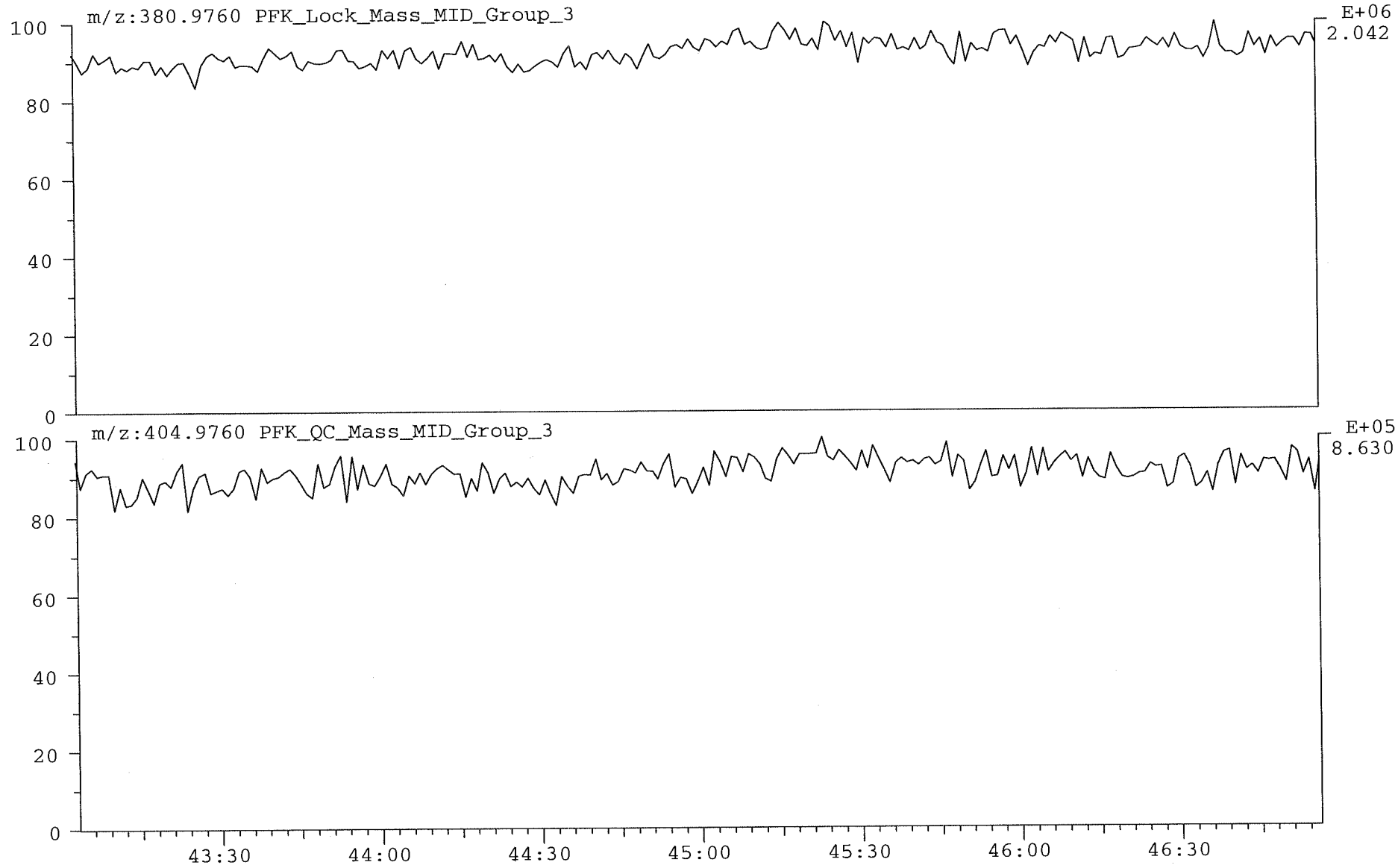
H-386

CHRO: b091210i1 10-Dec-09 Elapse: 44:40 2031
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1928 > 2151 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



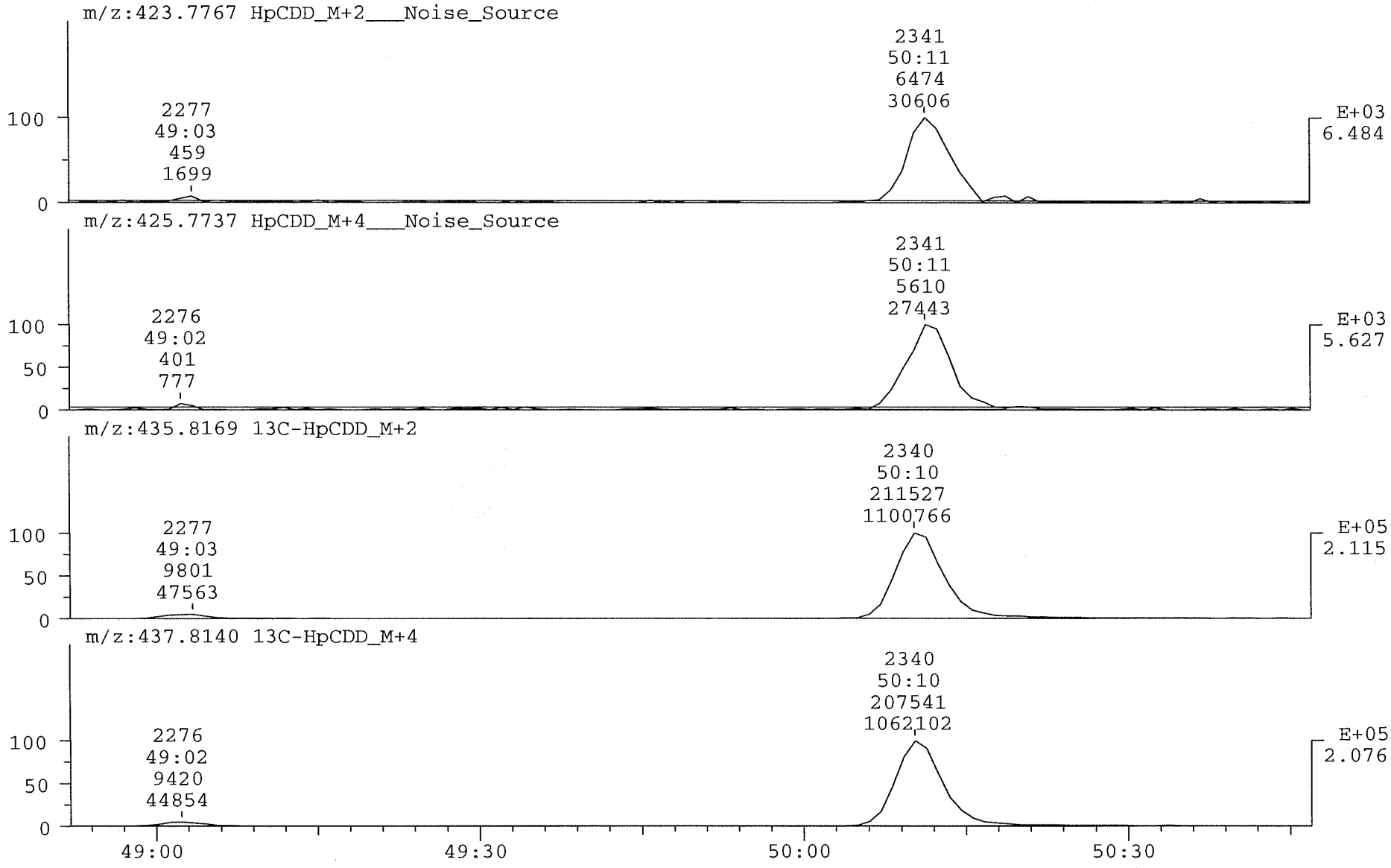
H-387

CHRO: b091210i1 10-Dec-09 Elapse: 44:45 2036
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1939 > 2159 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



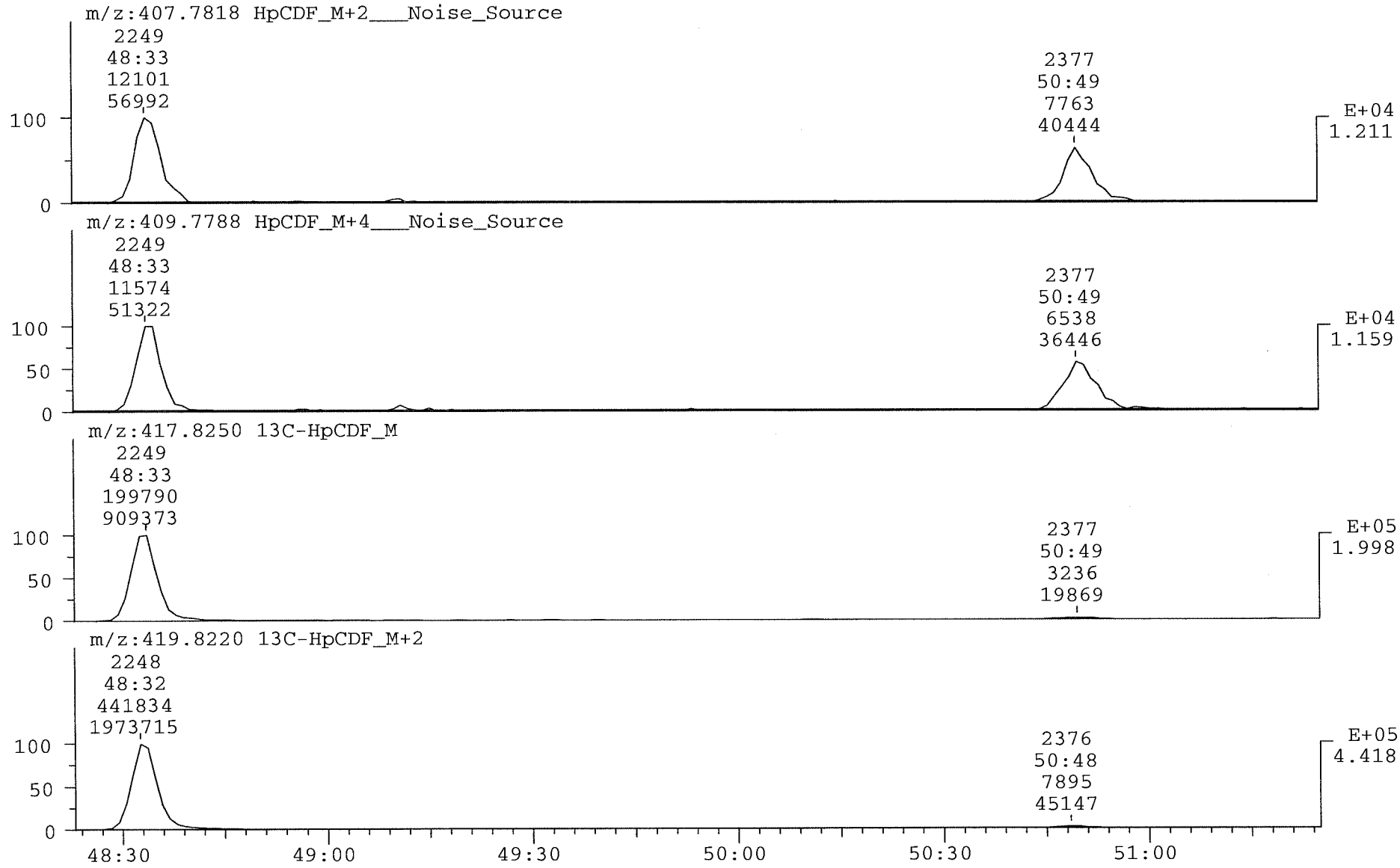
H-388

CHRO: b091210i1 10-Dec-09 Elapse: 44:45 2036
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2266 > 2375 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



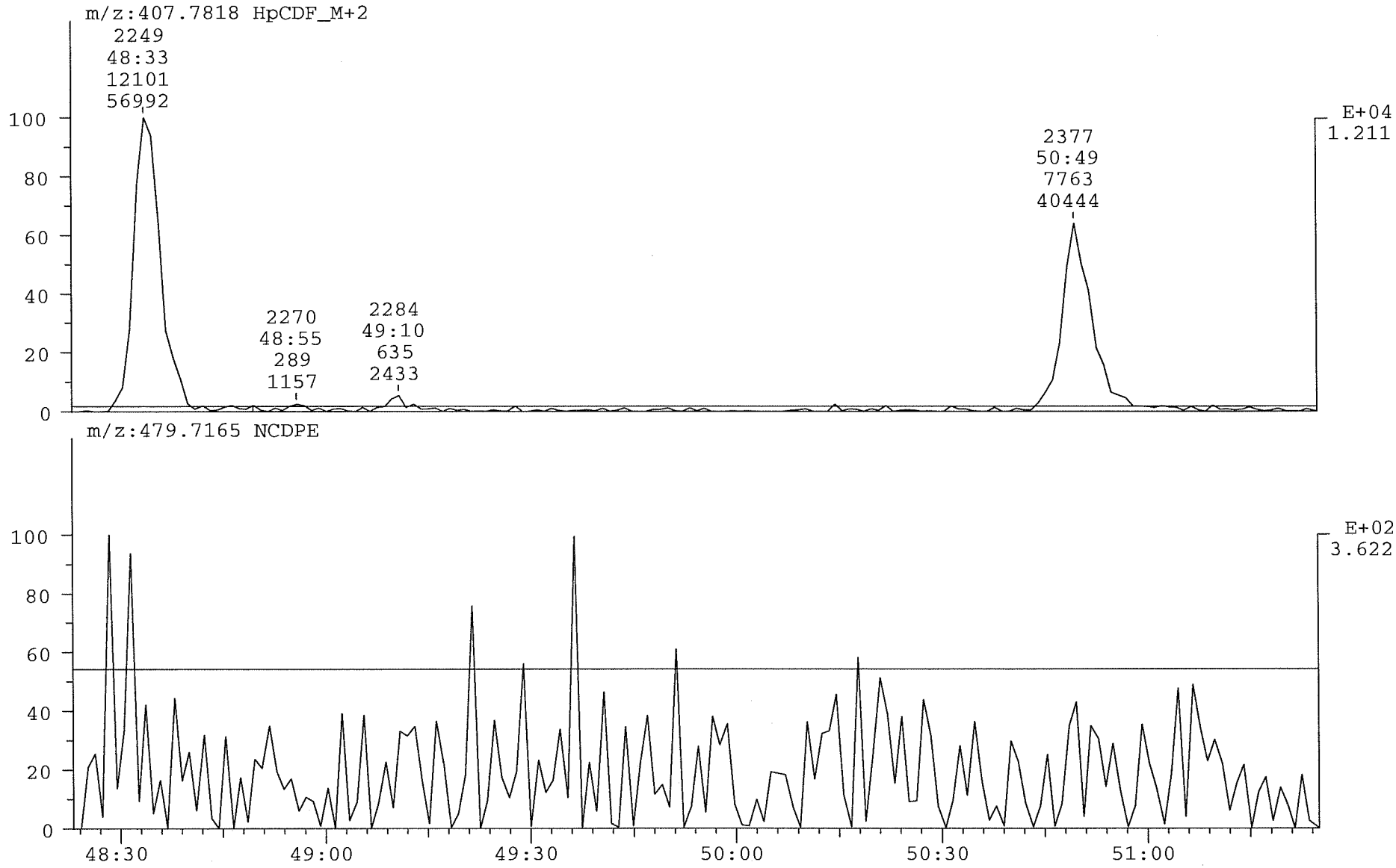
H-388

CHRO: b091210i1 10-Dec-09 Elapse: 49:54 2325
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2239 > 2410 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



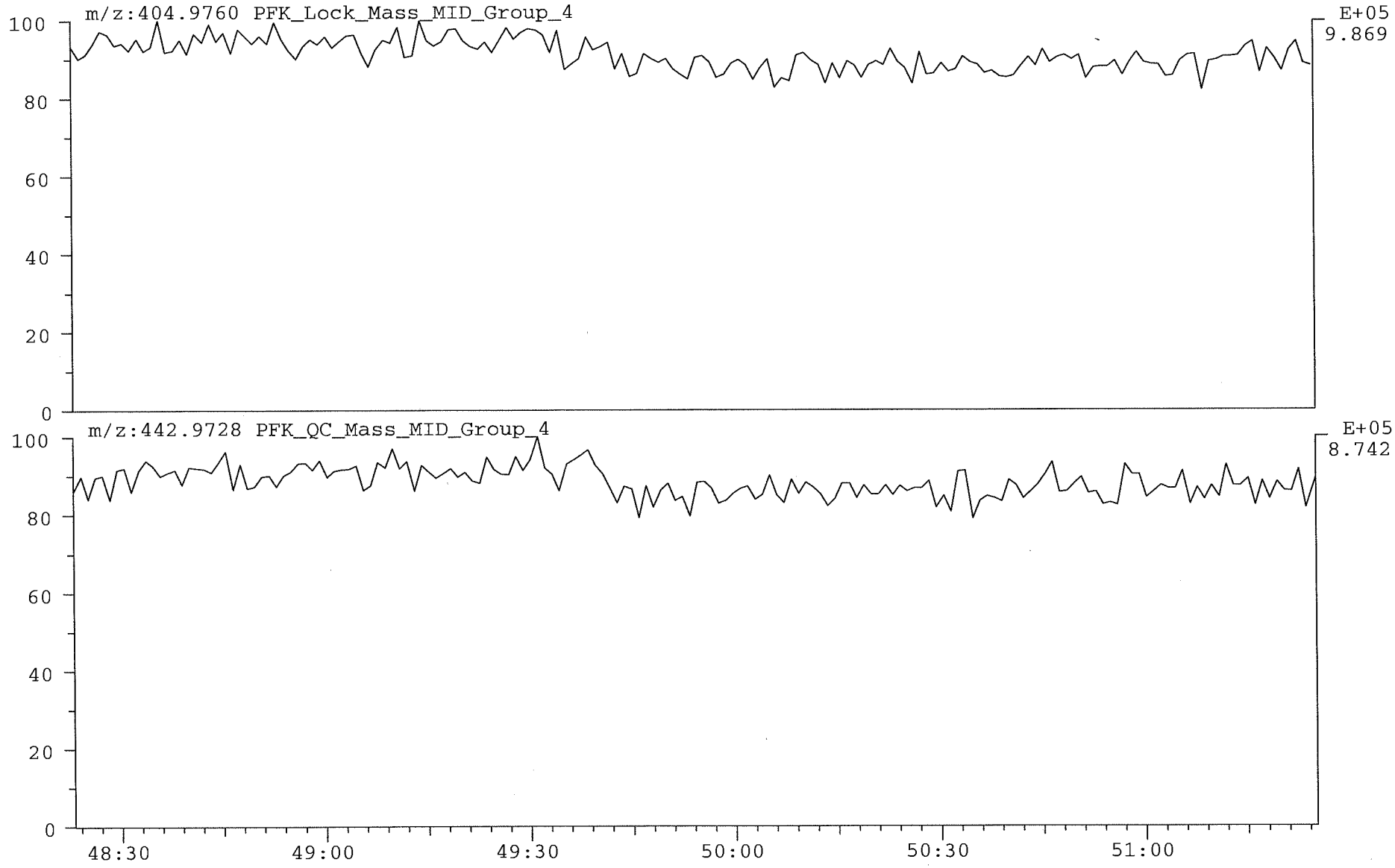
H-390

CHRO: b091210i1 10-Dec-09 Elapse: 49:54 2325
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2239 > 2410 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



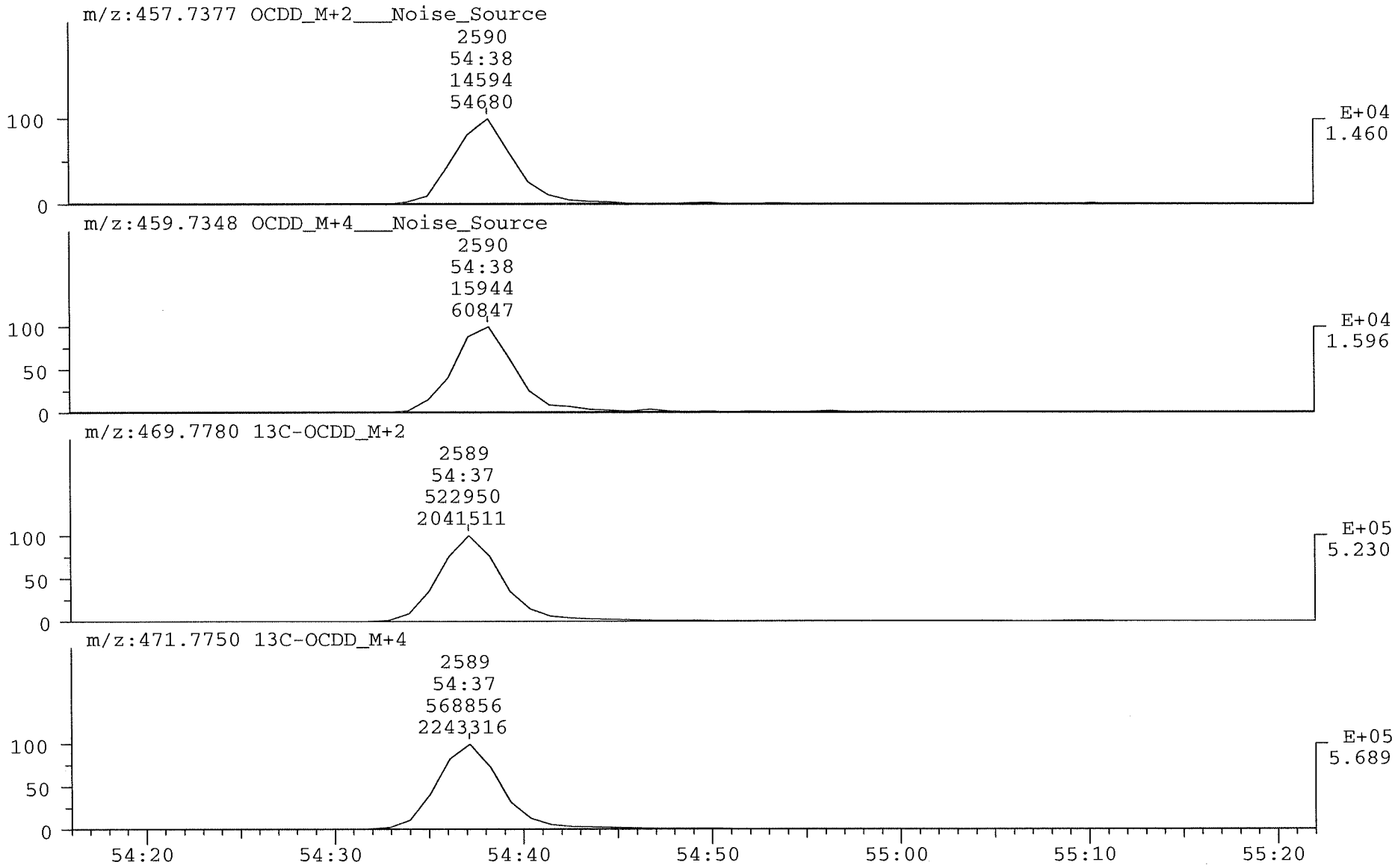
H-391

CHRO: b091210i1 10-Dec-09 Elapse: 49:54 2325
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2239 > 2410 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



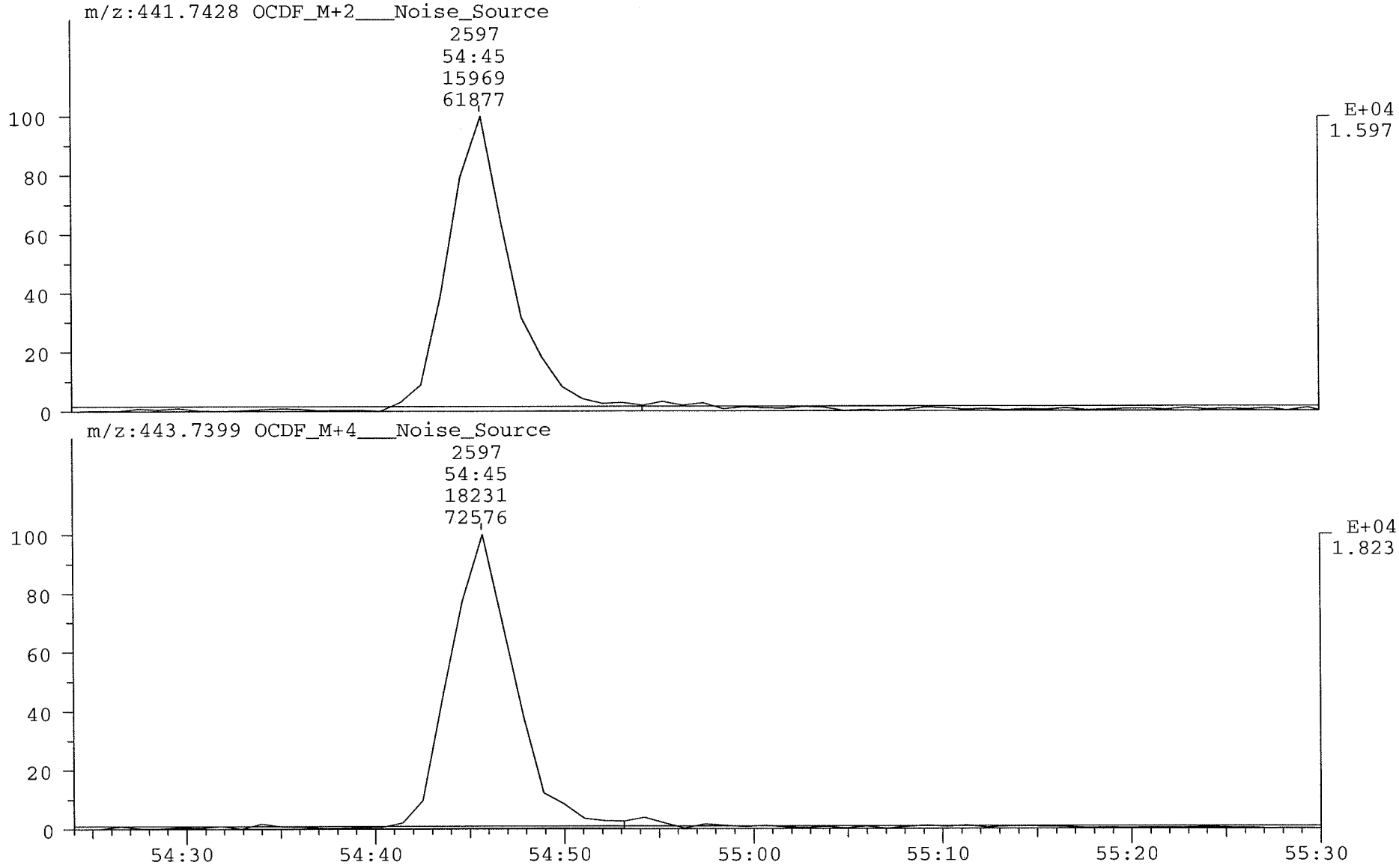
H-392

CHRO: b091210i1 10-Dec-09 Elapse: 54:45 2597
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2569 > 2631 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



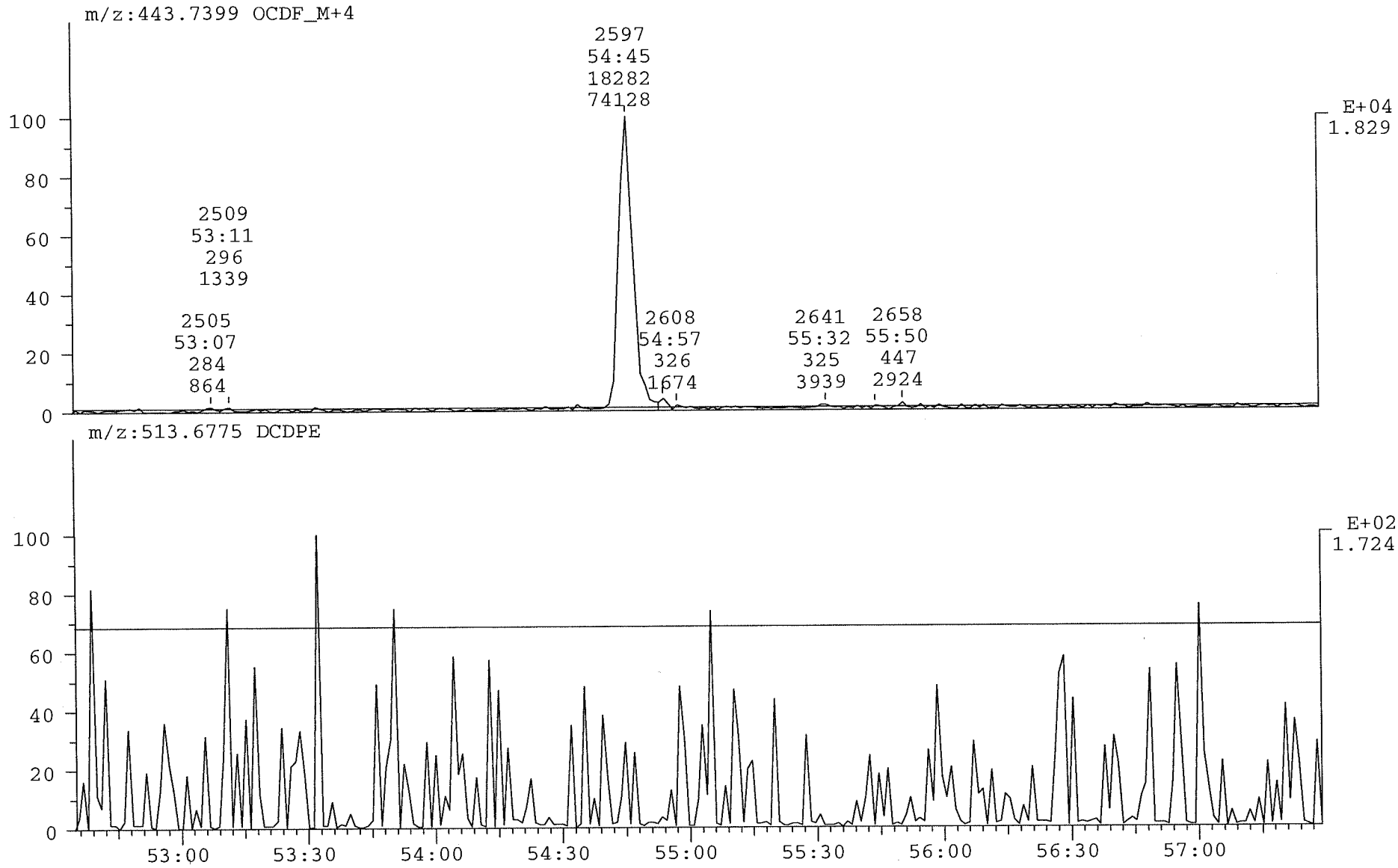
H-393

CHRO: b091210i1 10-Dec-09 Elapse: 54:54 2605
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2577 > 2639 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



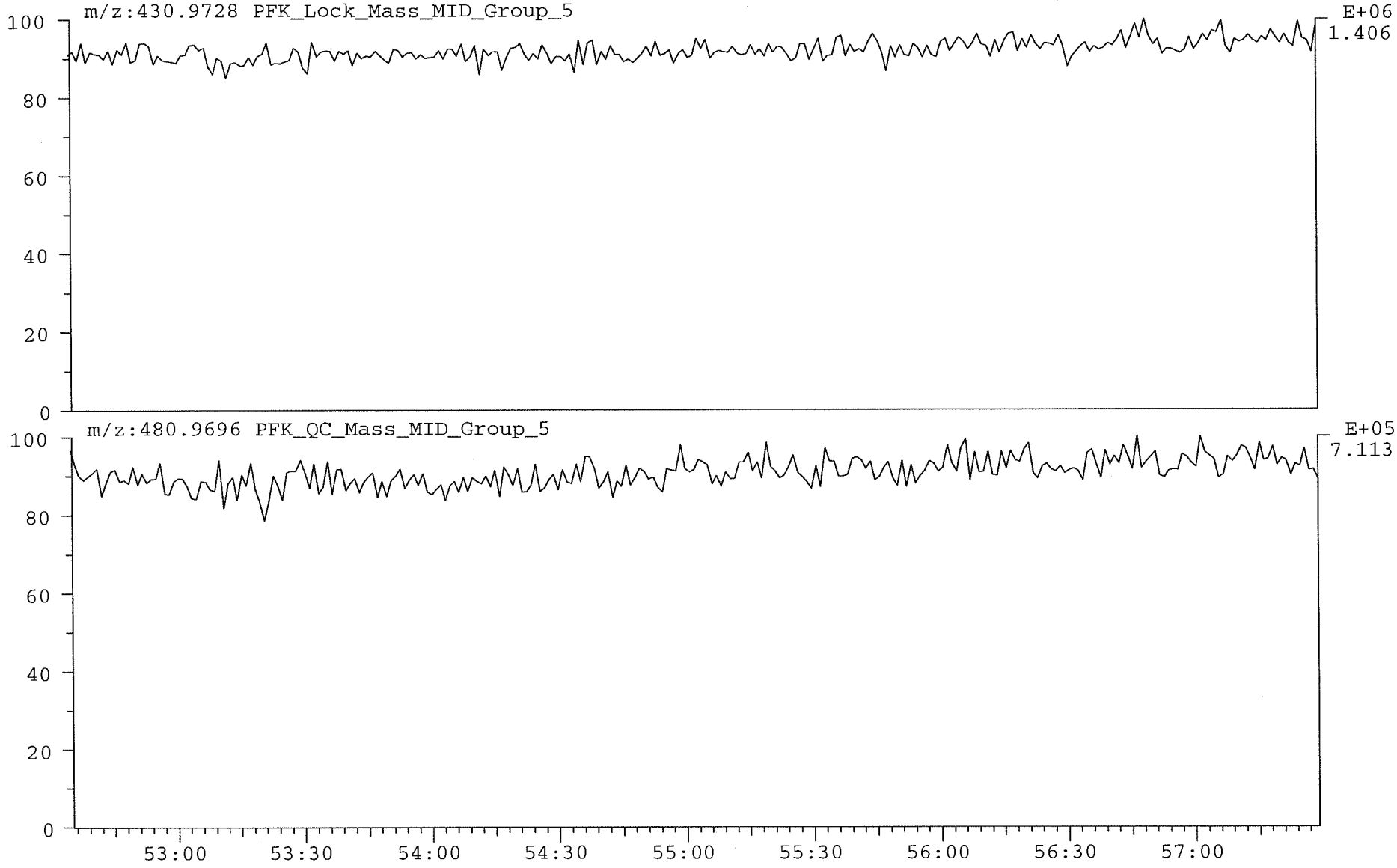
H-394

CHRO: b091210i1 10-Dec-09 Elapse: 54:54 2605
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2474 > 2750 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-395

CHRO: b091210i1 10-Dec-09 Elapse: 54:54 2605
Samp: Vial 5 WO=4104:14CS1 Meth=X8 Dil=1 Start : 15:45:01 2752
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS1
Oper: KBL Client: TA Knoxville Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2474 > 2750 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-396

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis2ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b091210i1
Study: M23 CS1
Sample: WO=4104:14CS1 Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA Knoxville
Comments: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Injected volume:   2.0
Sample from Vial 5
Analysis will stop when MID run finishes
Tune file name: tune2
File 2 of list 091207
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.35 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start          Measure       End         Cycletime
  # 1    8:00 min    26:07 min    34:07 min     1.00 sec
  # 2   34:07 min     8:39 min    42:46 min     1.00 sec
  # 3   42:46 min     4:49 min    47:36 min     1.00 sec
  # 4   47:36 min     4:52 min    52:29 min     1.00 sec
  # 5   52:29 min     5:01 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   1     81.92
    305.8987      1   1     81.92
    315.9419      1   1     81.92
    317.9389      1   1     81.92
    319.8965      1   1     81.92
    321.8936      1   1     81.92
    327.8847      1   1     81.92
    331.9368      1   1     81.92
    333.9338      1   1     81.92
    342.9792 c   10   1      8.19
    375.8364      1   1     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   1     91.48
    341.8567      1   1     91.48
```

```
  351.9000       1   1      91.48
  353.8970       1   1      91.48
  355.8546       1   1      91.48
  357.8516       1   1      91.48
  367.8949       1   1      91.48
  369.8919       1   1      91.48
  380.9760 c    10   1       8.19
  409.7974       1   1      91.48
 Window # 3
      mass F  int  gr  time (ms)
  373.8208       1   1      91.48
  375.8178       1   1      91.48
  380.9760 1    10   1       8.19
  383.8639       1   1      91.48
  385.8610       1   1      91.48
  389.8156       1   1      91.48
  391.8127       1   1      91.48
  401.8559       1   1      91.48
  403.8529       1   1      91.48
  404.9760 c    10   1       8.19
  445.7555       1   1      91.48
 Window # 4
      mass F  int  gr  time (ms)
  404.9760 1    10   1       8.19
  407.7818       1   1      91.48
  409.7788       1   1      91.48
  417.8250       1   1      91.48
  419.8220       1   1      91.48
  423.7767       1   1      91.48
  425.7737       1   1      91.48
  435.8169       1   1      91.48
  437.8140       1   1      91.48
  442.9728 c    10   1       8.19
  479.7165       1   1      91.48
 Window # 5
      mass F  int  gr  time (ms)
  430.9728 1    10   1      10.92
  441.7428       1   1     120.15
  443.7399       1   1     120.15
  457.7377       1   1     120.15
  459.7348       1   1     120.15
  469.7780       1   1     120.15
  471.7750       1   1     120.15
  480.9696 c    10   1      10.92
  513.6775       1   1     120.15

Auto Sampler descriptor: pcdd2ul
 Injector A
 Normal Injection
 Slvnt A cln before inj(K):     3 times
 Slvnt B cln before inj(L):     0 times
 Sample rinse cycles   (R):     0 times
 Syringe filling volume(F):   1.0 ul
 Pullup delay time     (D):     4 sec
 Sample pullup speed   (E):   5.0 ul/sec
 Slvnt aftr pre inj cln(U):   0.0 ul
 Air after pre inj cln (G):   2.0 ul
 Sample volume         (V):   2.0 ul
 Sample air volume     (A):   2.0 ul
 Sample pullup count   (P):     2 times
 Injection speed       (S):  10.0 ul/sec
 Injection wait time   (W):    10 sec
 Injection hold time   (H):     3 sec
 Solvent A clean cycles(C):    15 times
 Solvent B clean cycles(B):    20 times
 Loop clean w slvnt A (LC):     0 times
```

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8435.0000
BDEV	8290.0000	BFM	2.0000	BLM	1181.9425
BMASS	304.9824	BQUAD	2.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.2941
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-29.5750
DRAWC	1.0000	DRAWS	0.0000	ECORR	1.0006
ECURR	1.0000	EDAC	7969177.0000	EDACG	0.9998
EDACR	20.0000	EDACZ	1898.0000	ELEN	57.6250
EMULT	2.1100	ENS	219.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	6.7500	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	569.0000	FVINLET	939.0000
FVSRC	998.0000	FWIN	0.7000	GCTC	137.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7451	HVANAL	1094.0000	HVSRC	3076.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4752.1320	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2409.0000	LENSS	-44.6000	LKM	292.9825
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3237806.8854	MDACR	20.0000
MRANGE	1181.9425	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	231.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-7.0750	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10637.5656	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	3073.0000	SHIELDS	-0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7000	TCURR	1.0547	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.2000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.3750
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1119.0000	XLENSS	-46.6000
YLENS	3324.0000	YLENSS	-98.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Dec-09 15:45:01.6

Autosampler has injected sample from vial 5
Analysis stopped at: 10-Dec-09 16:42:33.6 (run time 57.52 minutes)
Analysis stopped because MID run finished

CHRO: b091210i2 10-Dec-09 Elapse: 44:36 2031
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 442 > 2755 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int PMP 12-10-09
Calc WSD 12/11/09
QC KM 12-11-09

m/z:303>475, \292.983, \330.979, \342.979, \380.976, \404.976, \430.973, \442.973

E+06
1.160

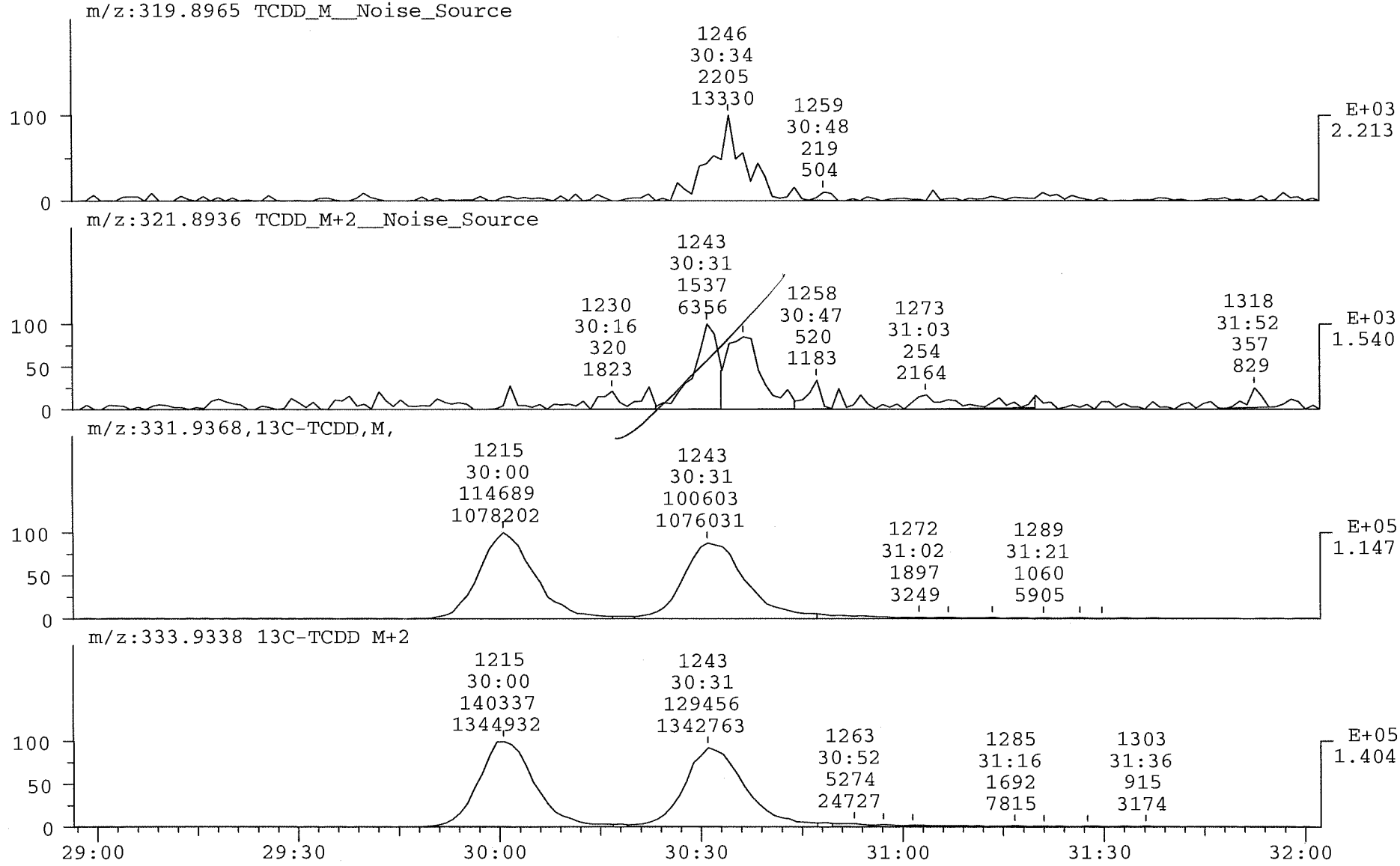
100
80
60
40
20
0

16:00 24:00 32:00 40:00 48:00 56:00

H-401

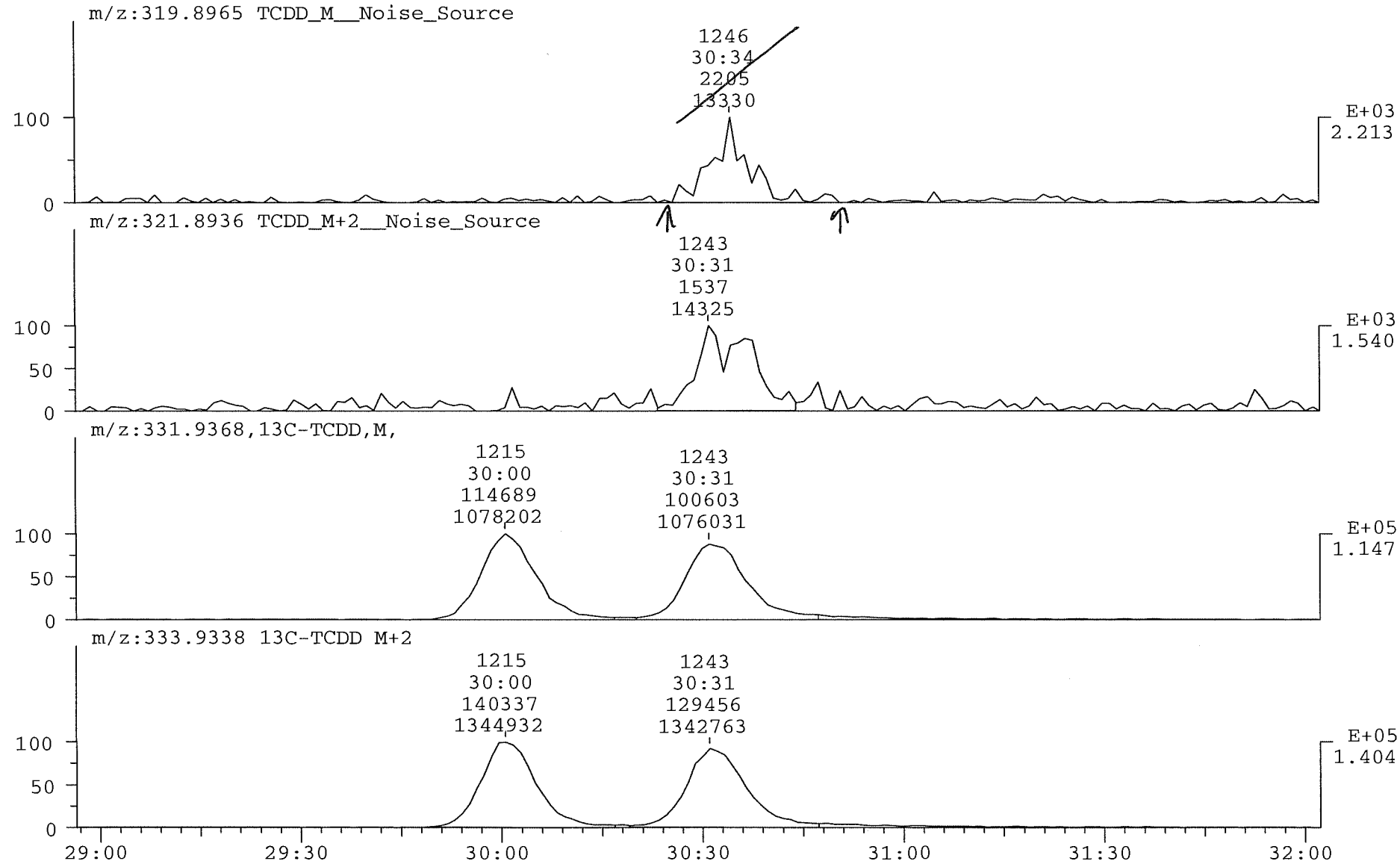
400

CHRO: b091210i2 10-Dec-09 Elapse: 54:44 2599
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1156 > 1327 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



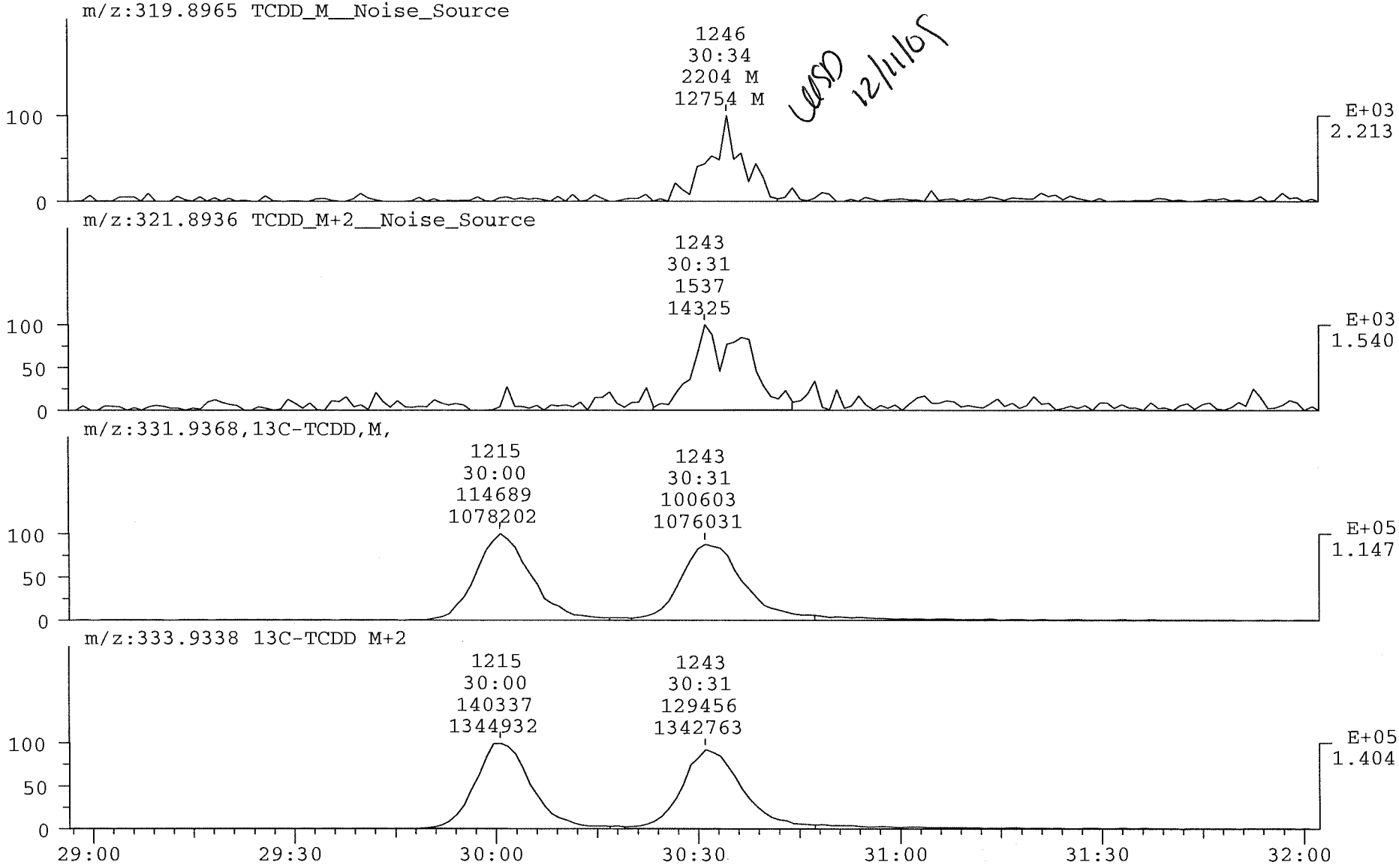
H-402

CHRO: b091210i2 10-Dec-09 Elapse: 54:44 2599
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1156 > 1327 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 9 Label : 2, 3.0
Disp: Height Area



H-403

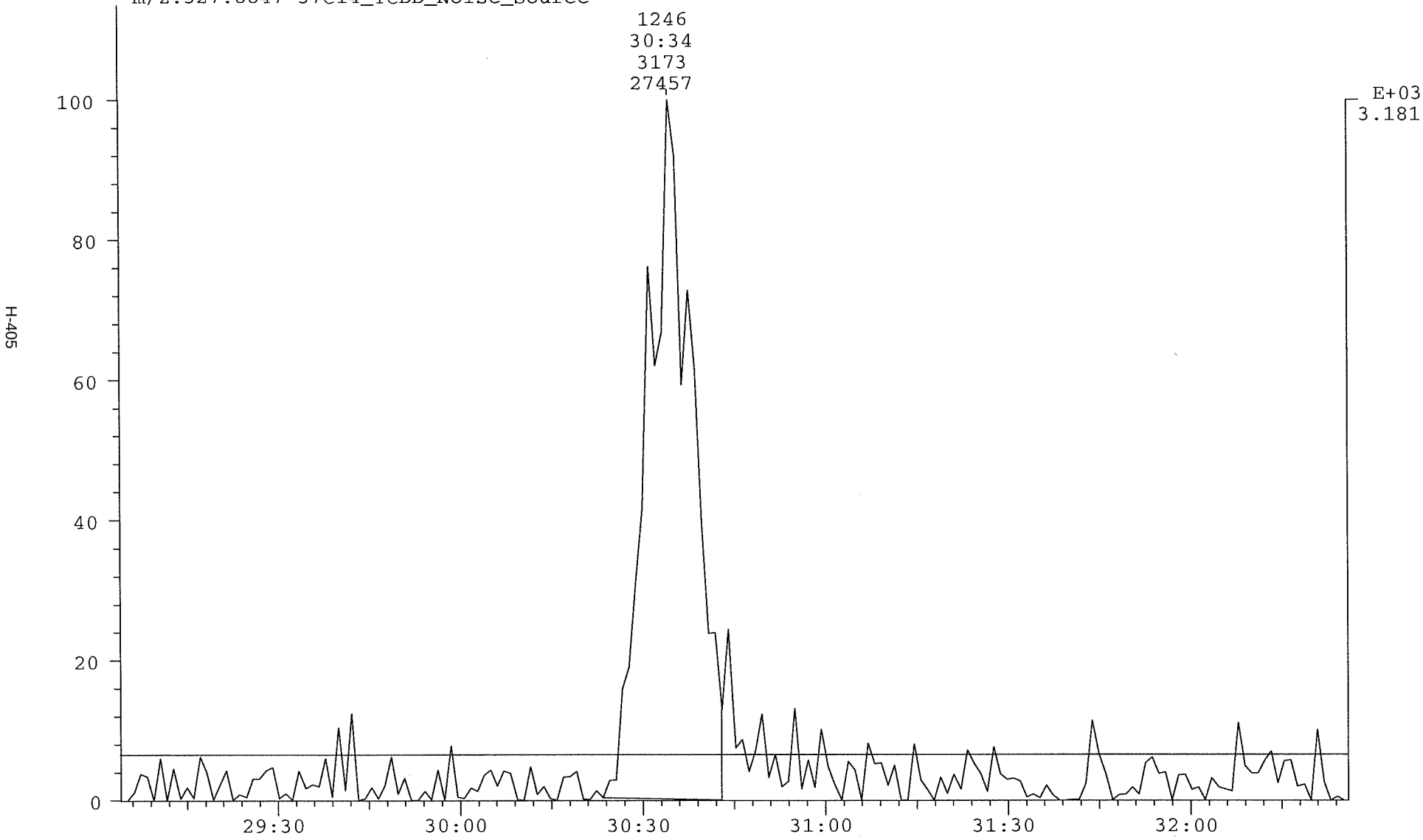
CHRO: b091210i2 10-Dec-09 Elapse: 54:44 2599
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1156 > 1327 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 9 Label : 2, 3.0
Disp: Height Area



WMSD 12/11/09

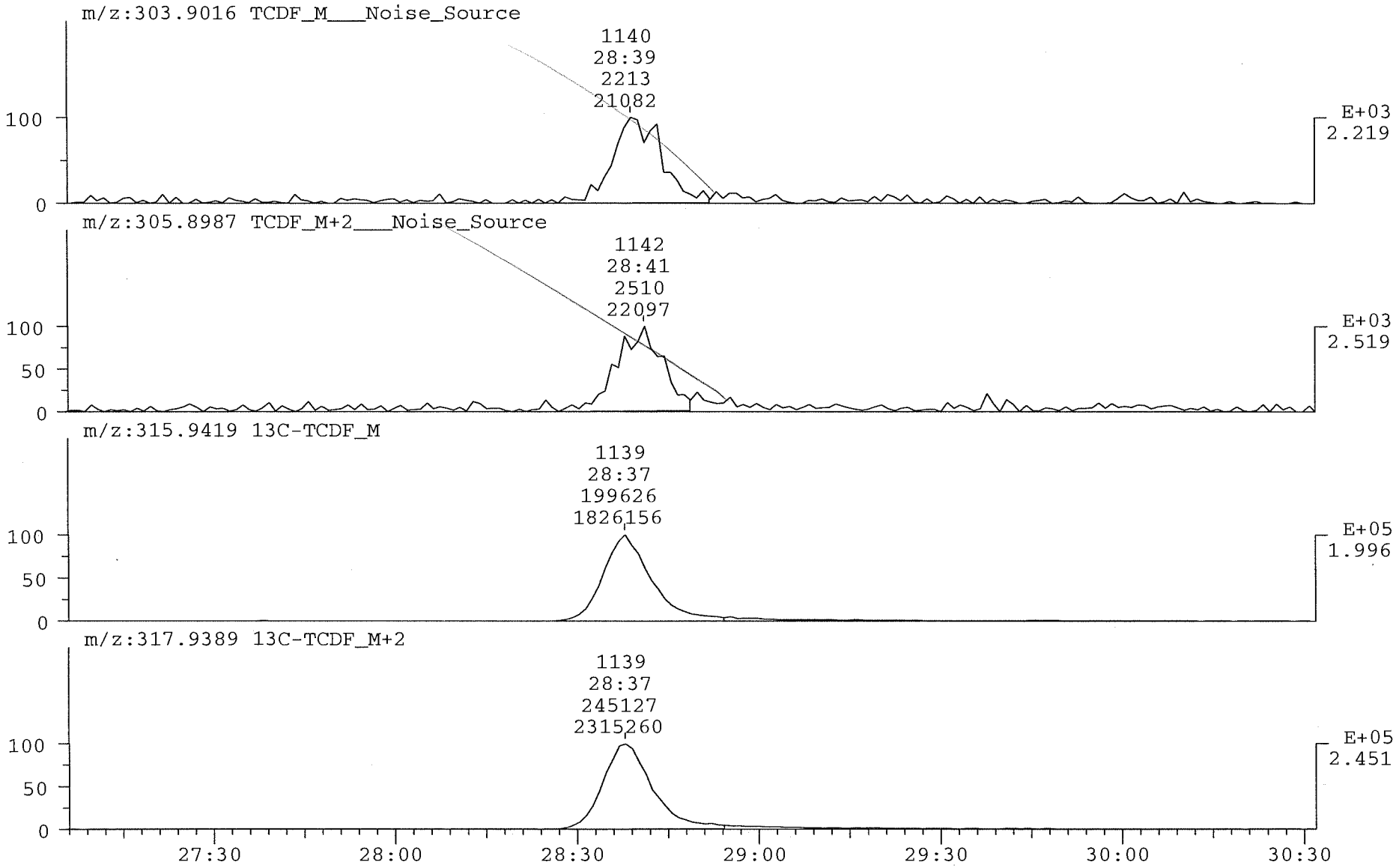
H-404

CHRO: b091210i2 10-Dec-09 Elapse: 30:41 1253
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1163 > 1349 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



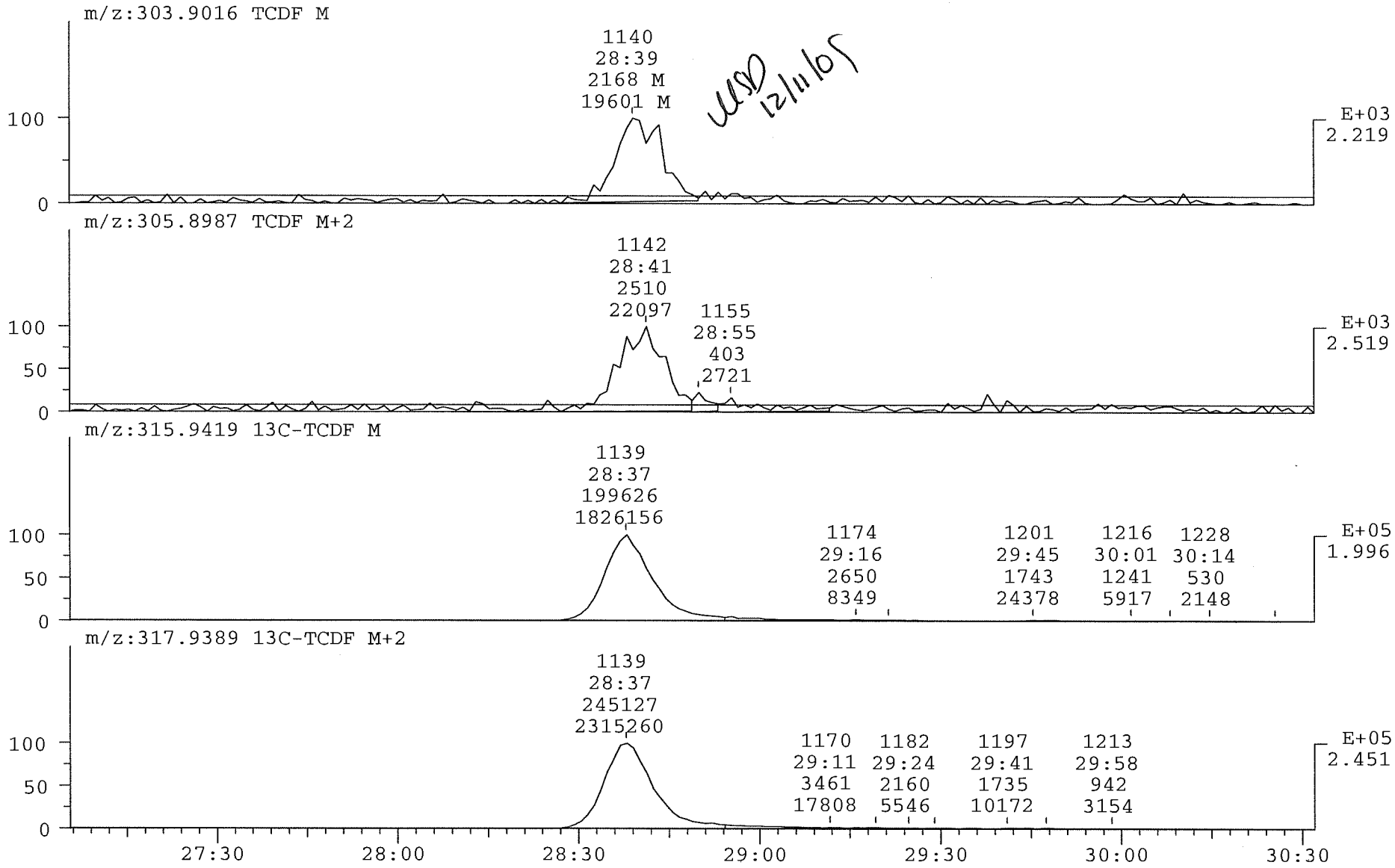
H-405

CHRO: b091210i2 10-Dec-09 Elapse: 28:45 1146
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1054 > 1244 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-406

CHRO: b091210i2 10-Dec-09 Elapse: 54:44 2599
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1054 > 1244 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area

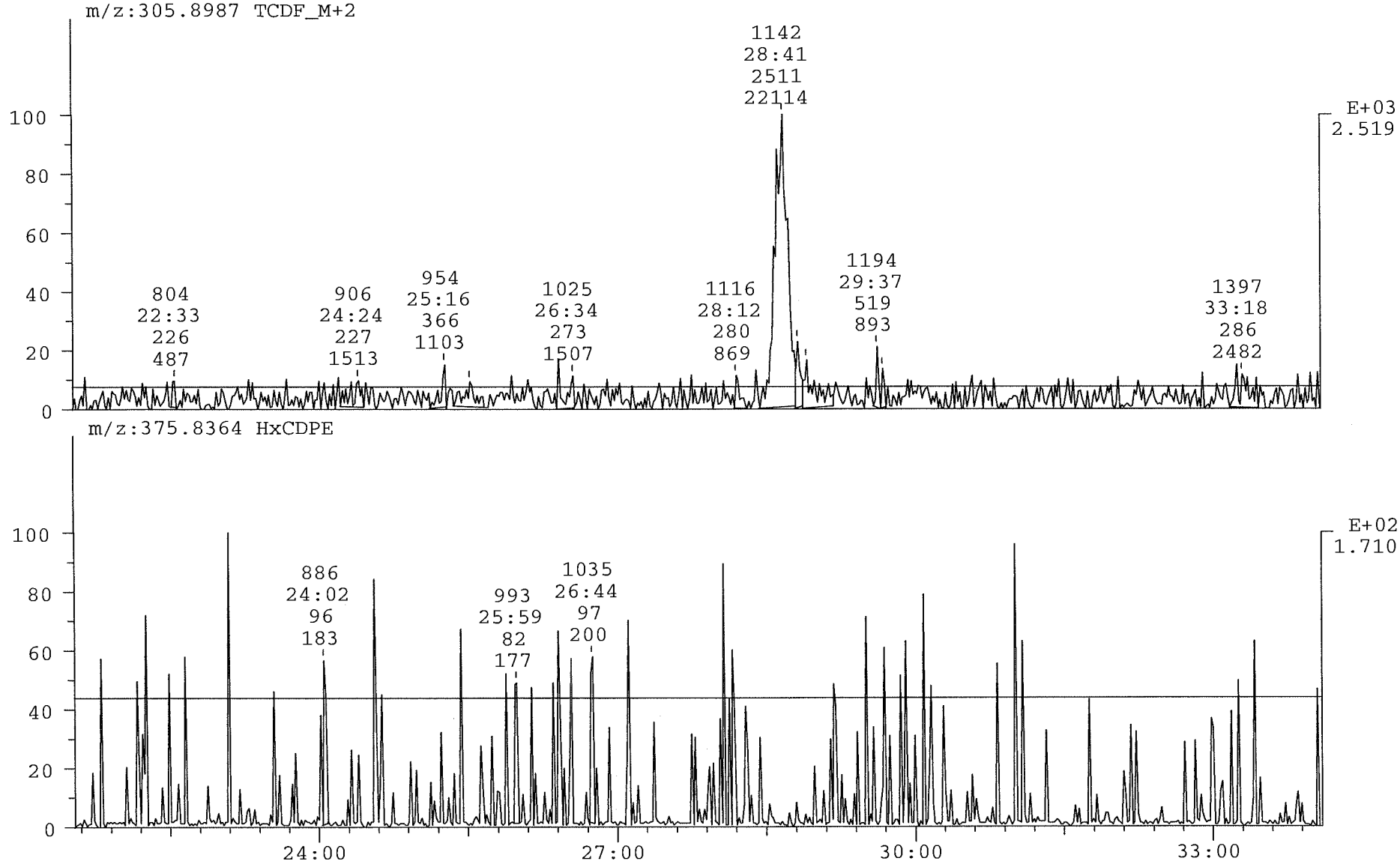


WSD 12/11/09

H-407

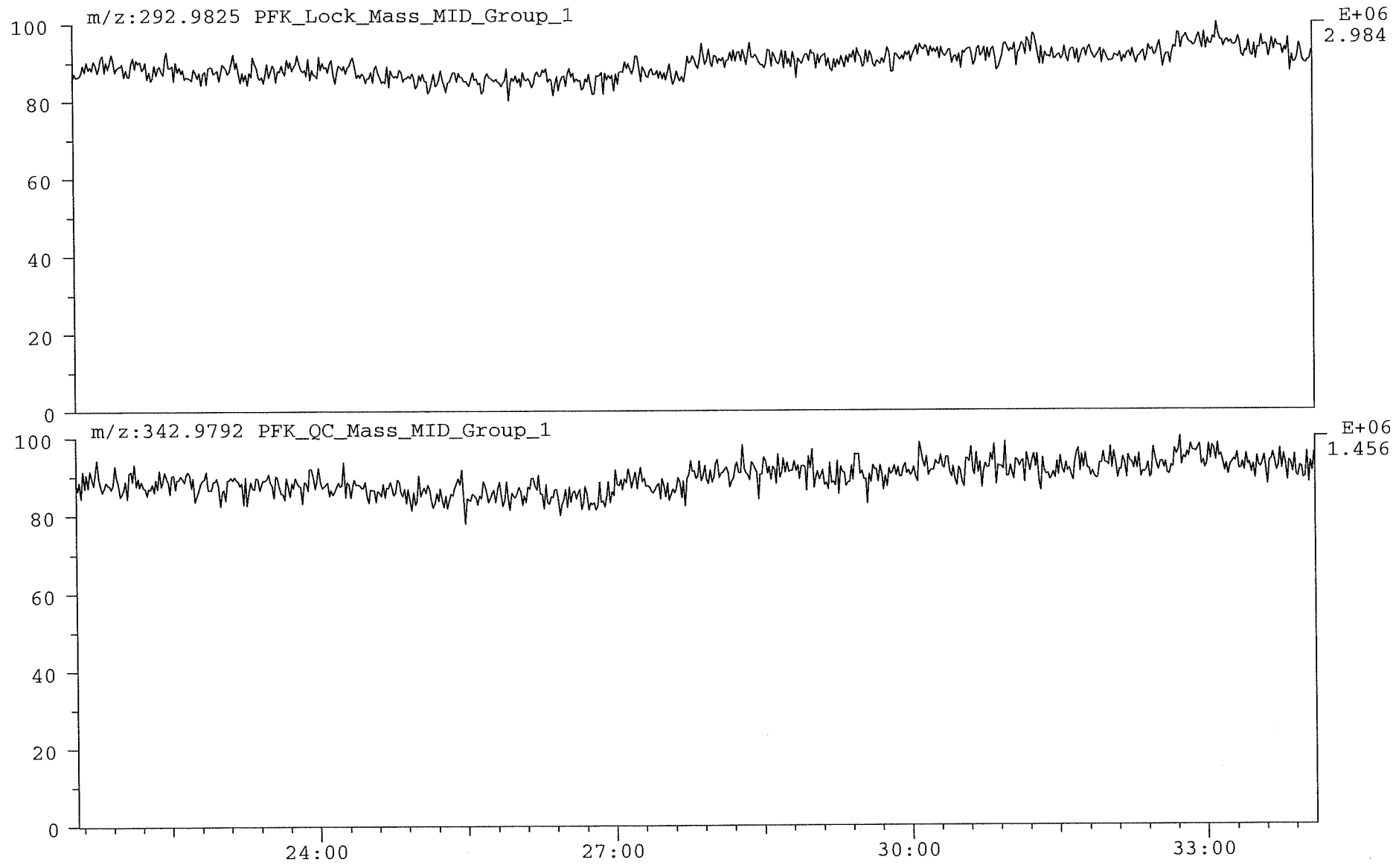
406

CHRO: b091210i2 10-Dec-09 Elapse: 28:45 1146
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 747 > 1441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



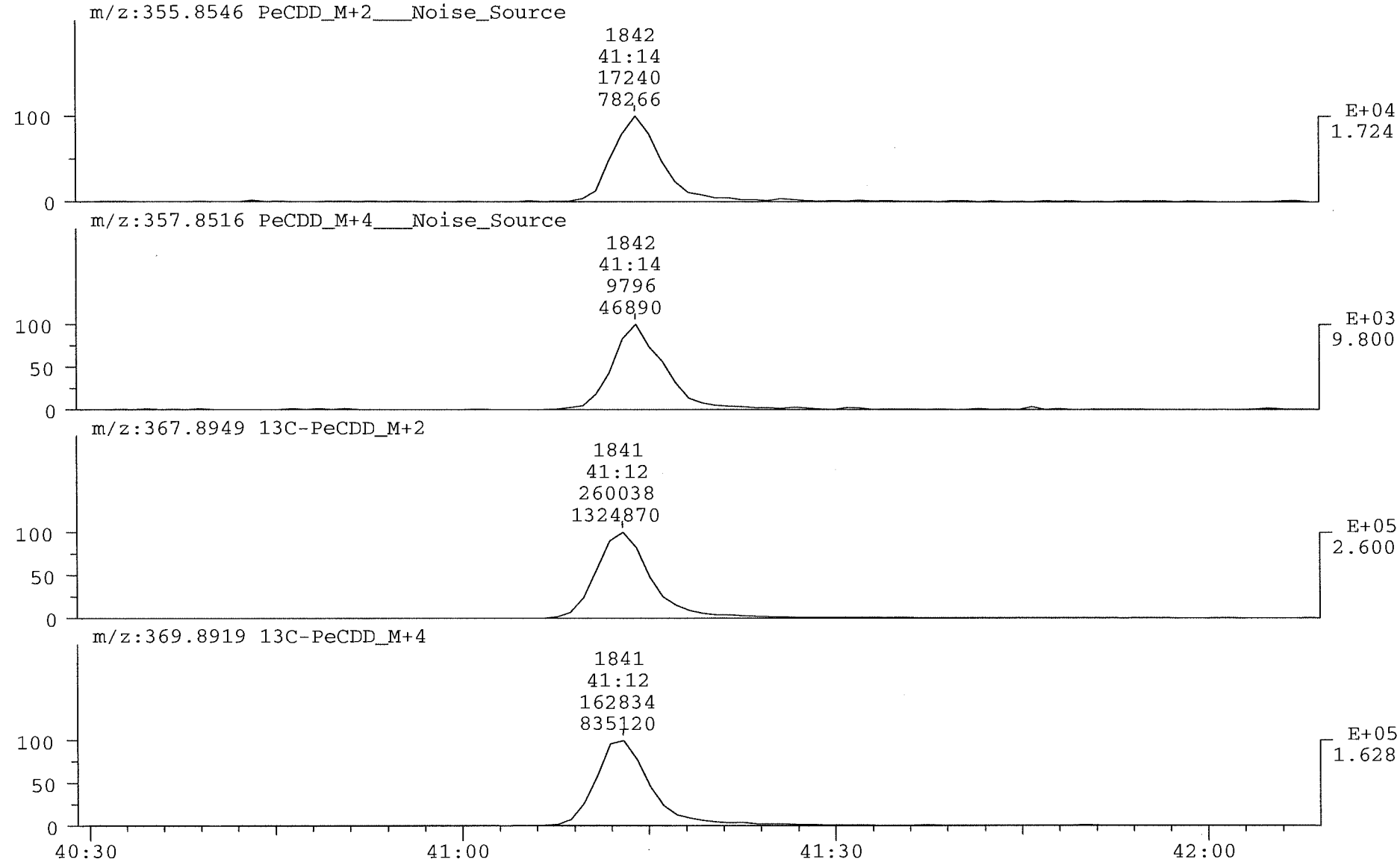
H-408

CHRO: b091210i2 10-Dec-09 Elapse: 28:45 1146
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 747 > 1441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



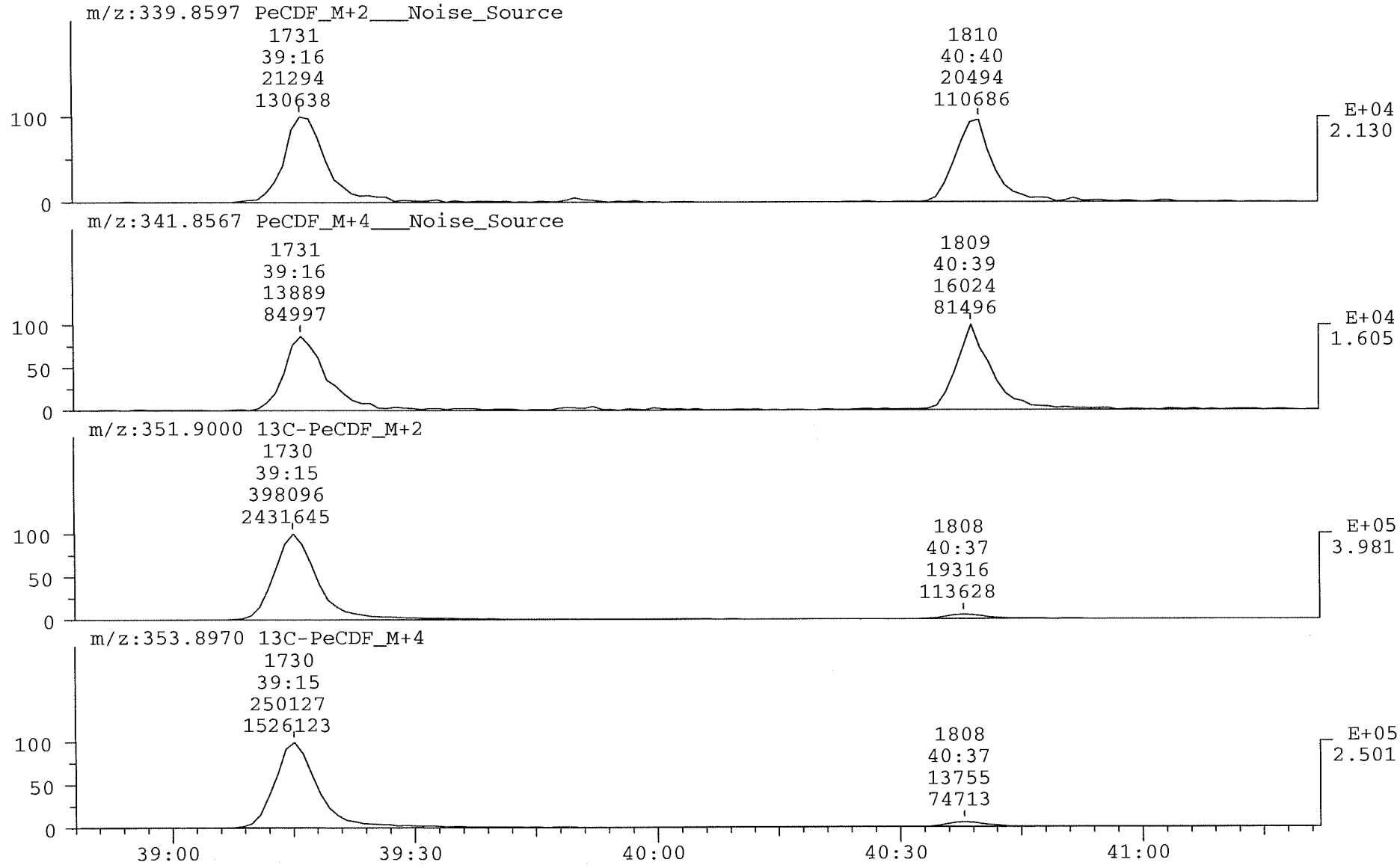
H-409

CHRO: b091210i2 10-Dec-09 Elapse: 41:16 1844
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1800 > 1894 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



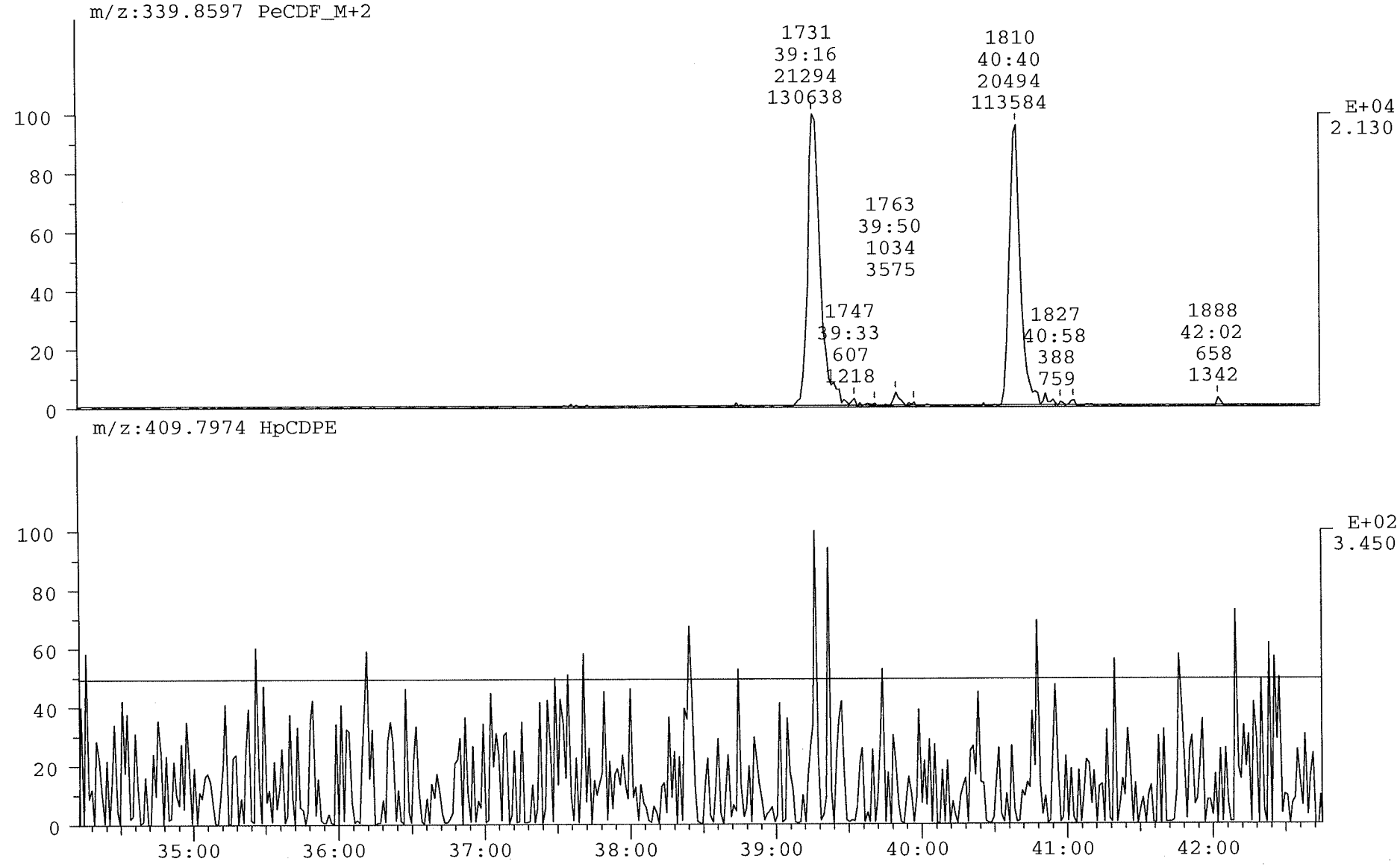
H-410

CHRO: b091210i2 10-Dec-09 Elapse: 40:05 1777
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1704 > 1850 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



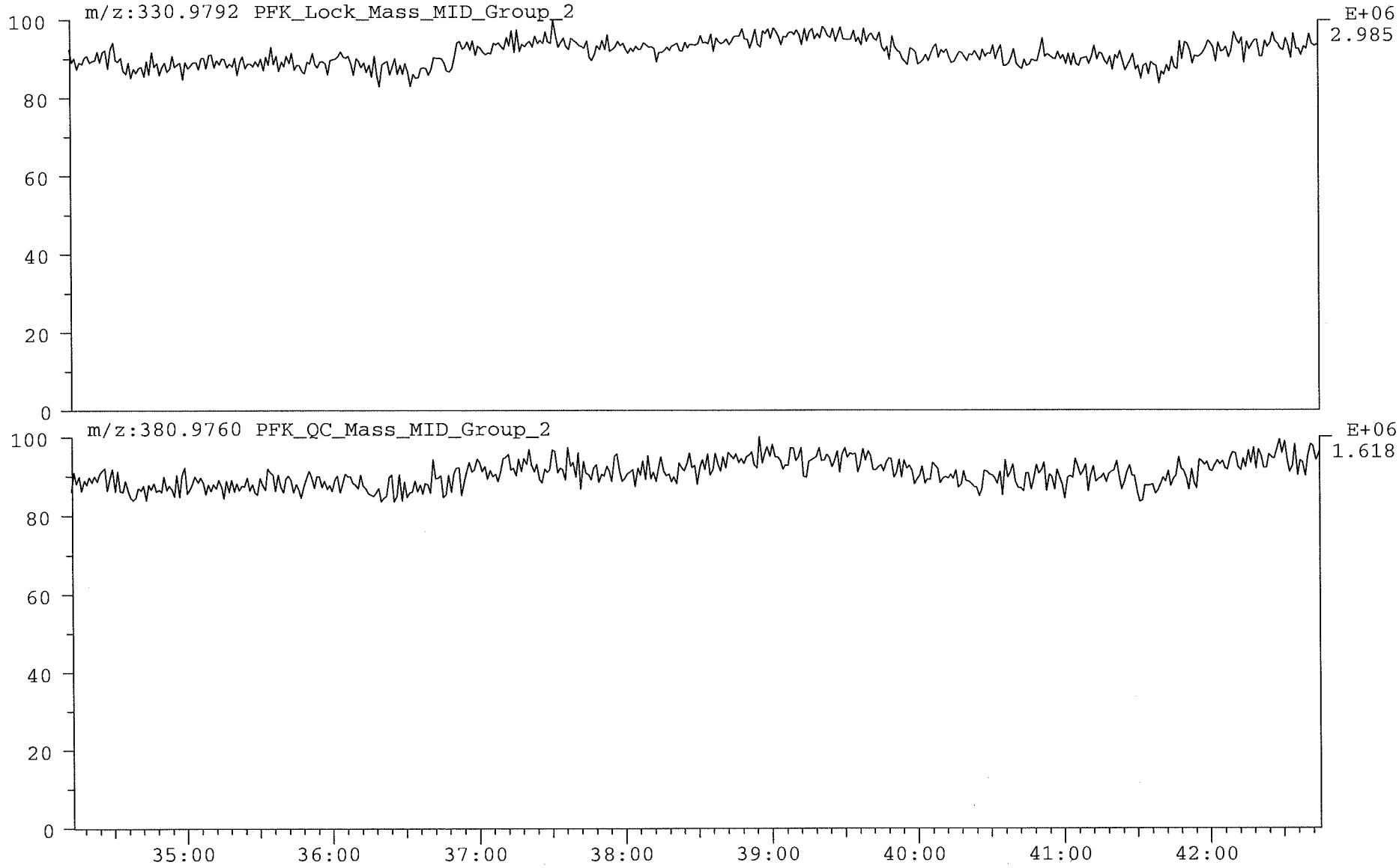
H-411

CHRO: b091210i2 10-Dec-09 Elapse: 40:05 1777
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1445 > 1928 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



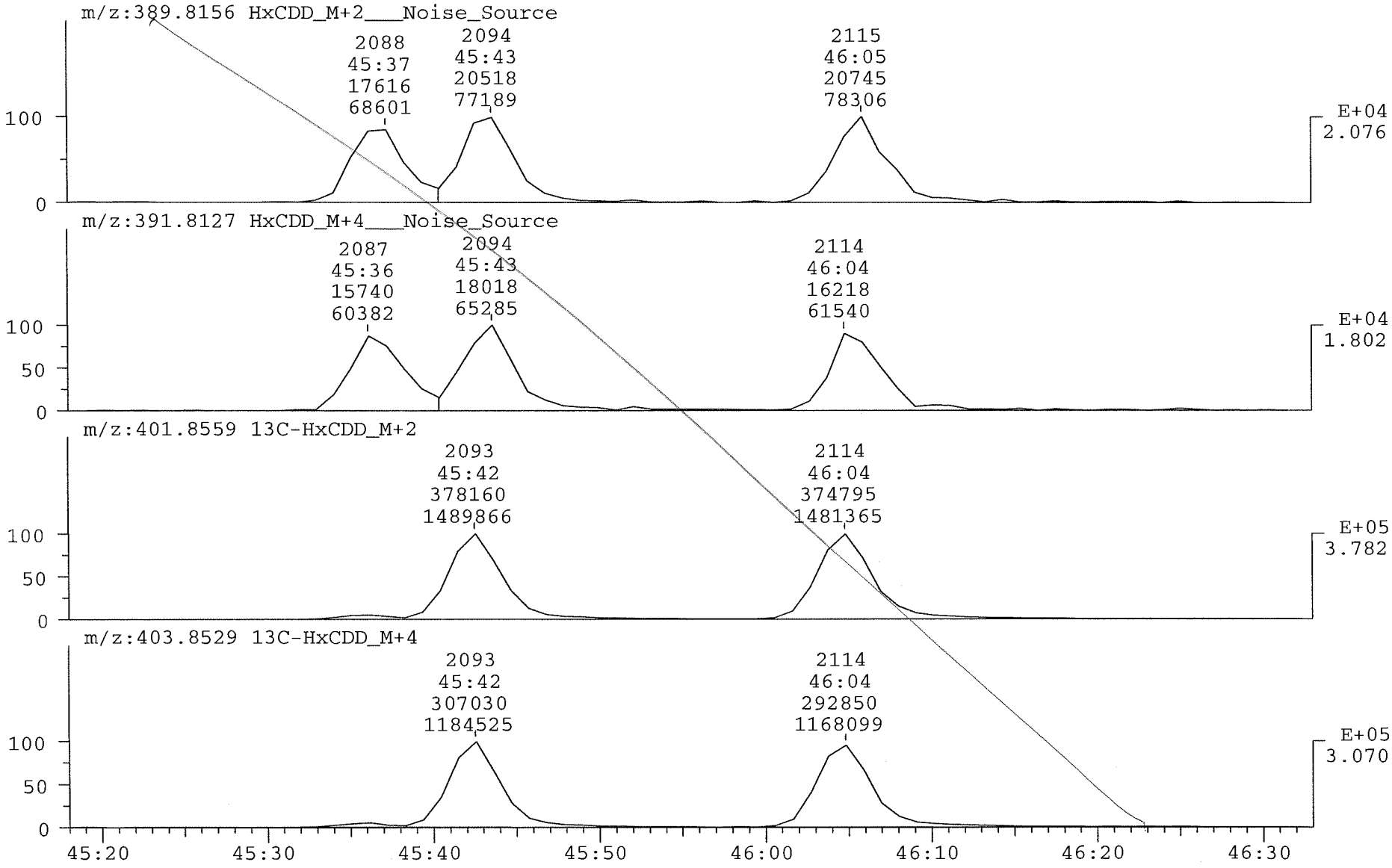
H-412

CHRO: b091210i2 10-Dec-09 Elapse: 40:05 1777
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1445 > 1928 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



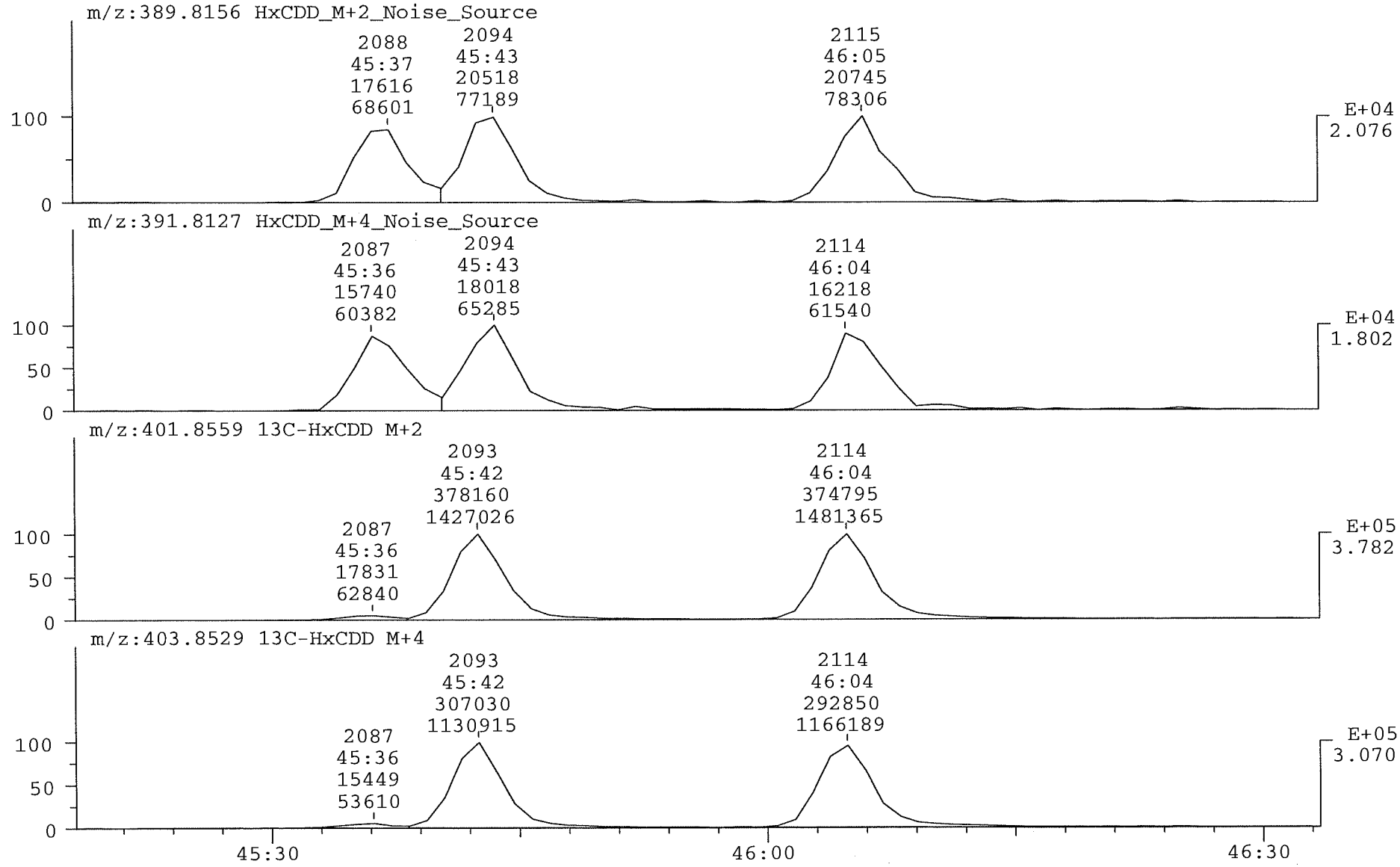
H-413

CHRO: b091210i2 10-Dec-09 Elapse: 45:55 2105
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2070 > 2141 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

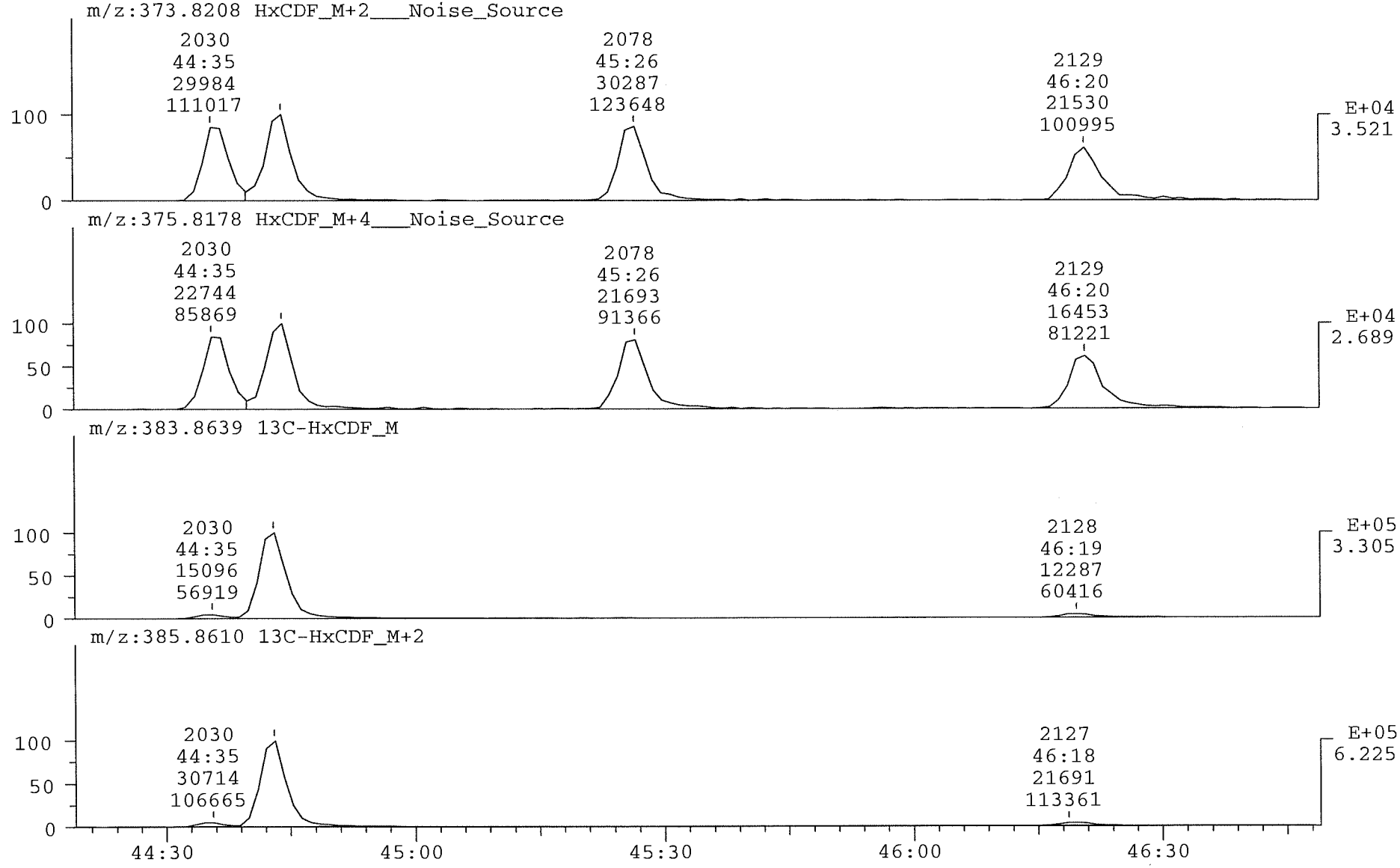


H-414

CHRO: b091210i2 10-Dec-09 Elapse: 54:52 2606
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2070 > 2141 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 2 Label : 2, 3.0
Disp: Height Area

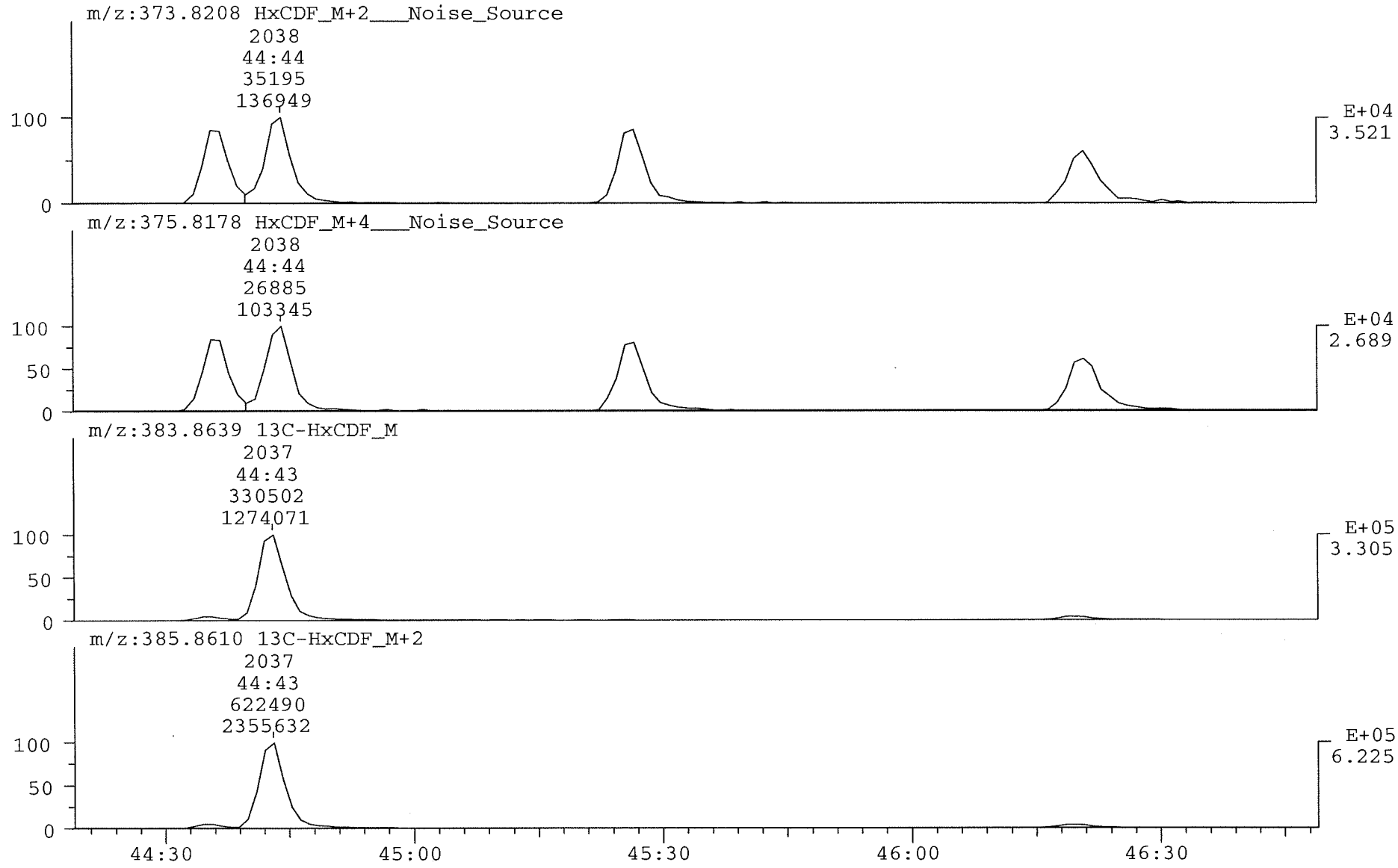


CHRO: b091210i2 10-Dec-09 Elapse: 45:34 2085
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2014 > 2156 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



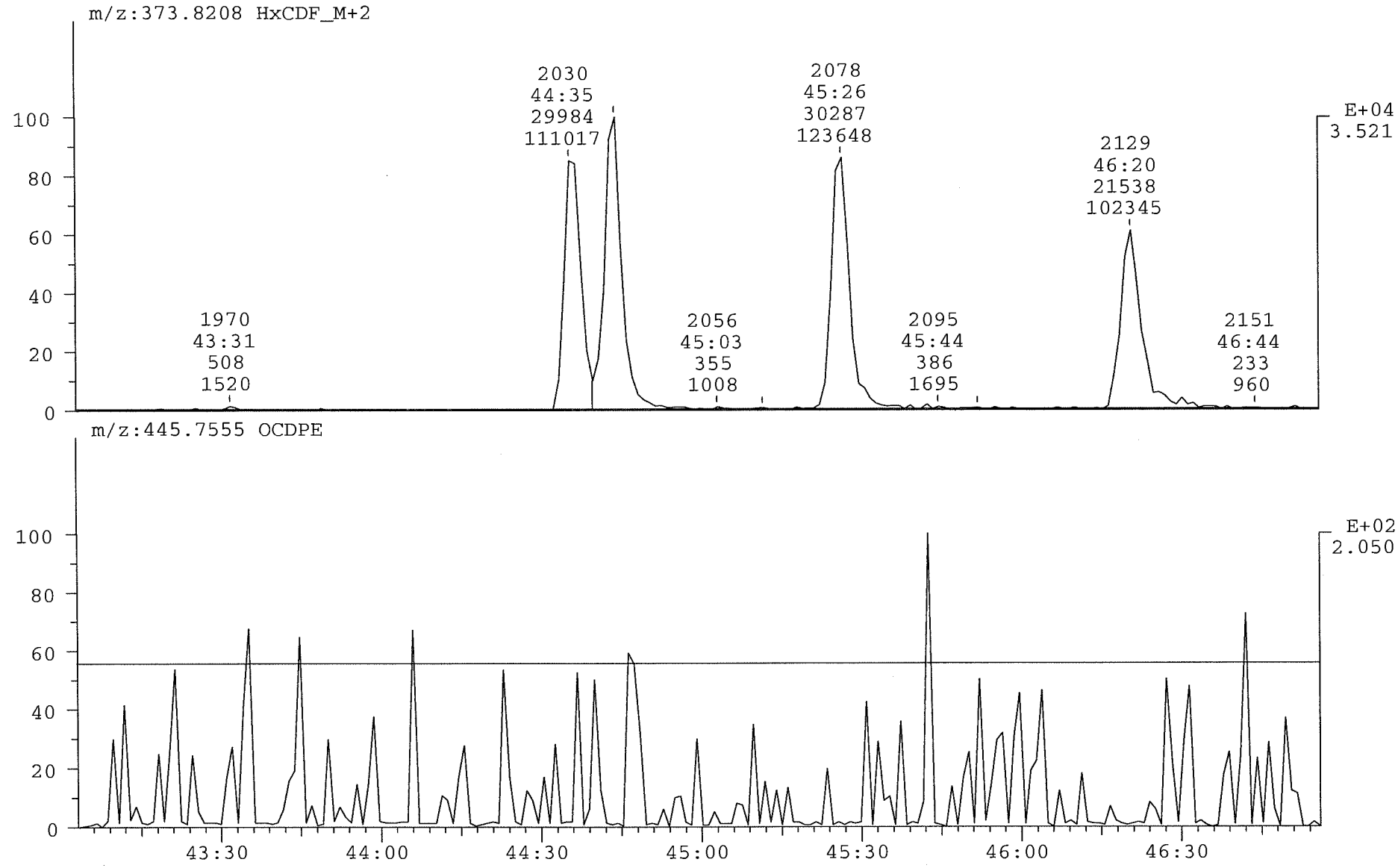
H-416

CHRO: b091210i2 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2036 > 2044 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



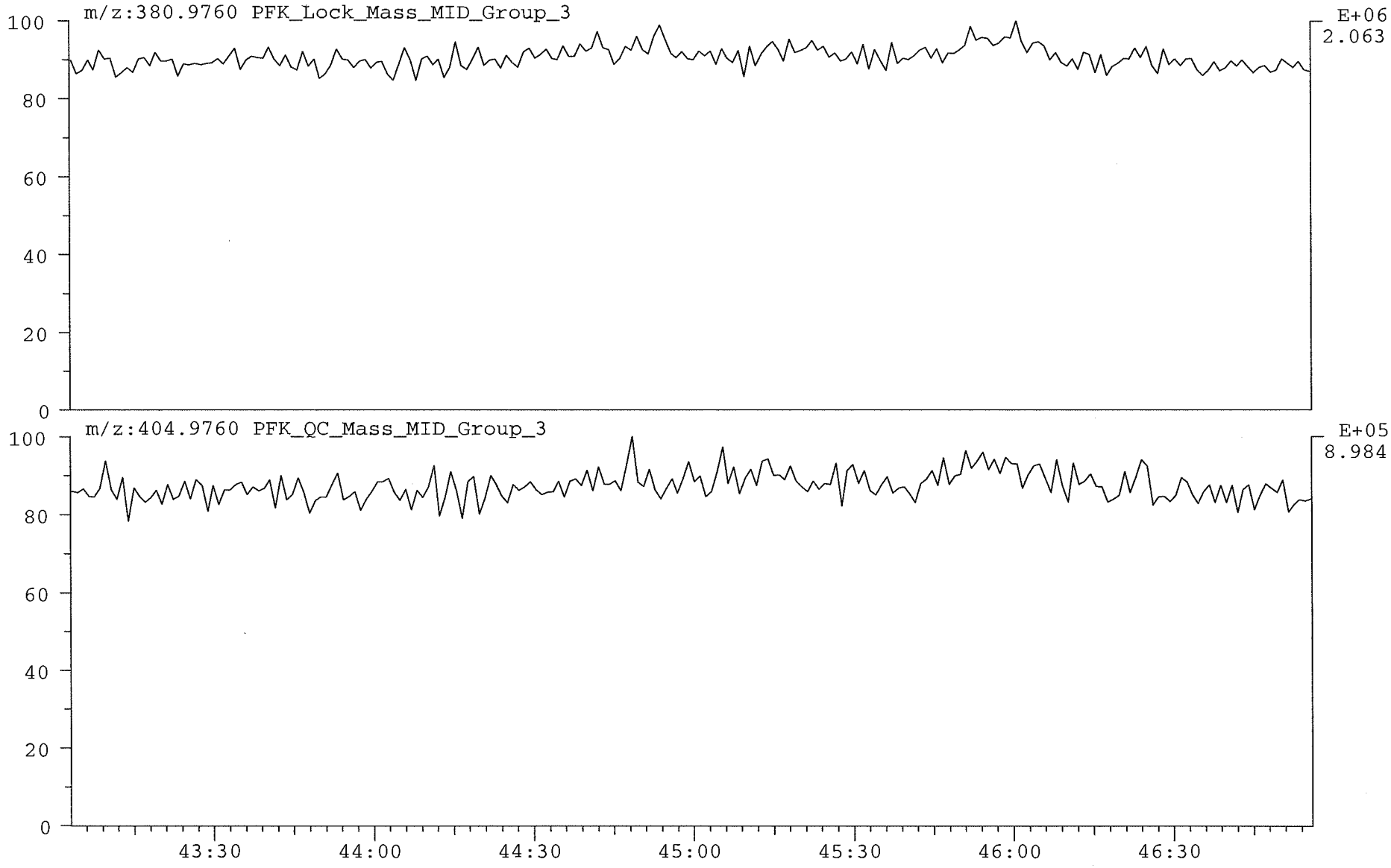
H-417

CHRO: b091210i2 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1943 > 2162 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

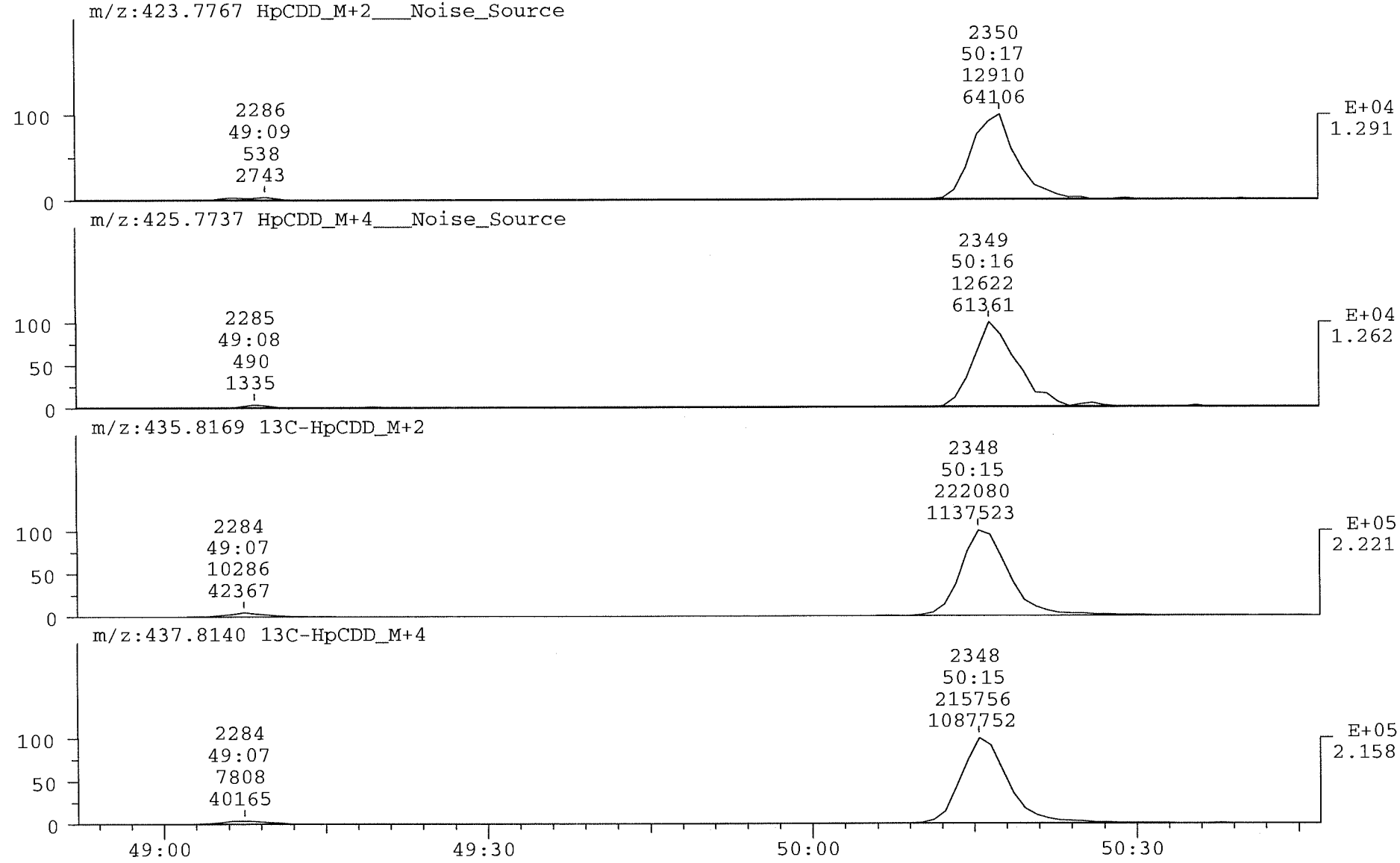


H-418

CHRO: b091210i2 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 1943 > 2162 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

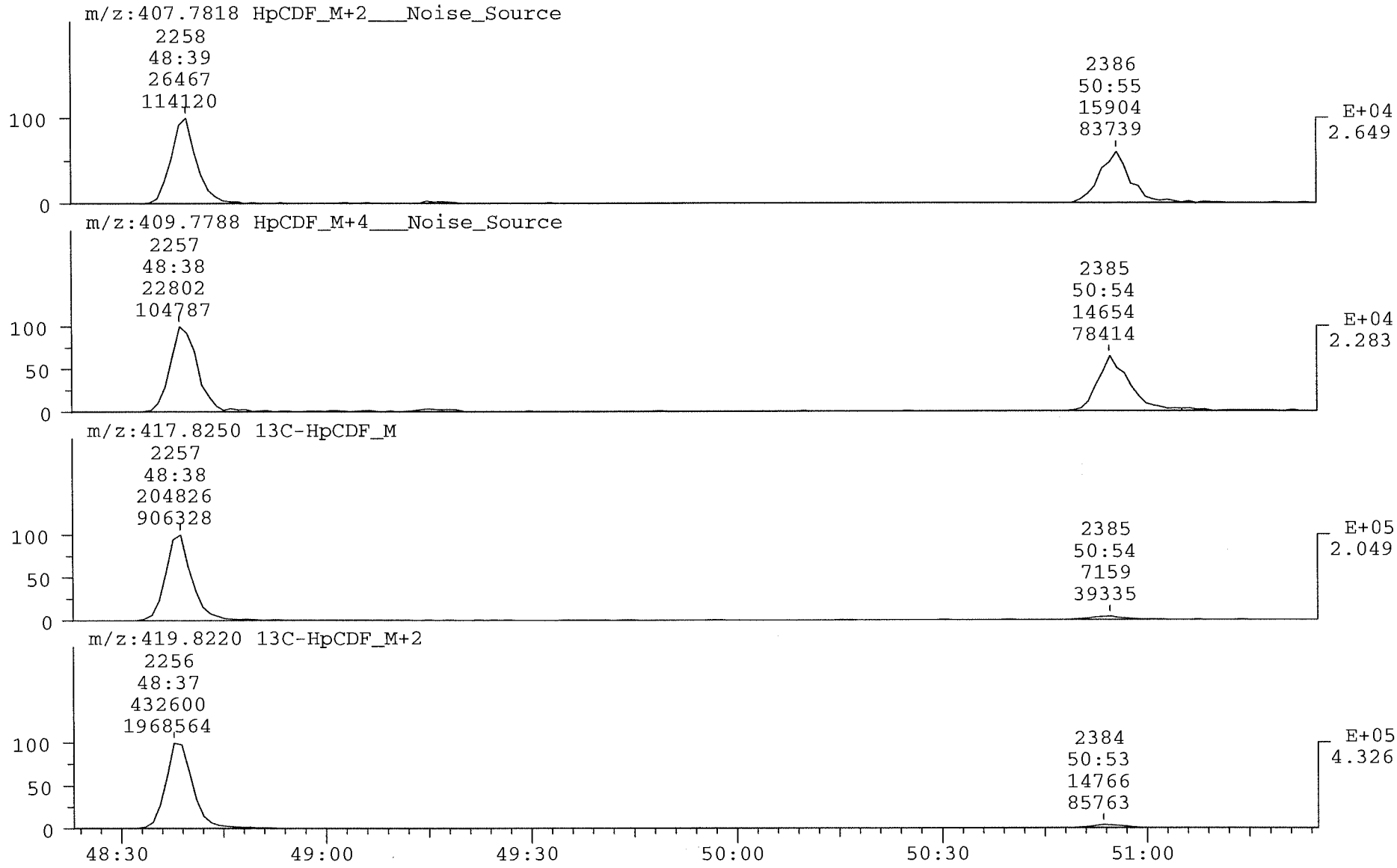


CHRO: b091210i2 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2269 > 2378 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

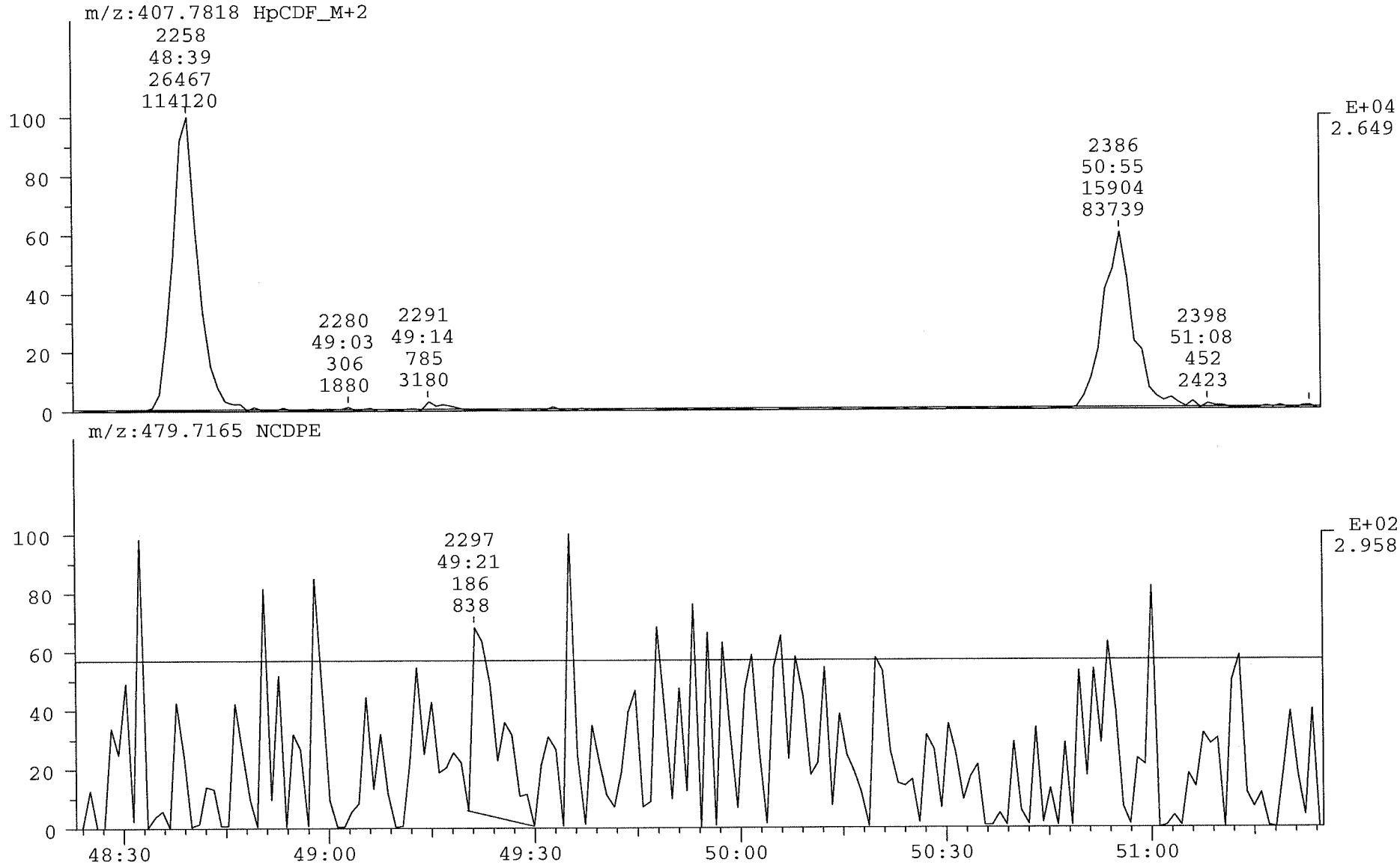


H-420

CHRO: b091210i2 10-Dec-09 Elapse: 49:54 2328
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2242 > 2414 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

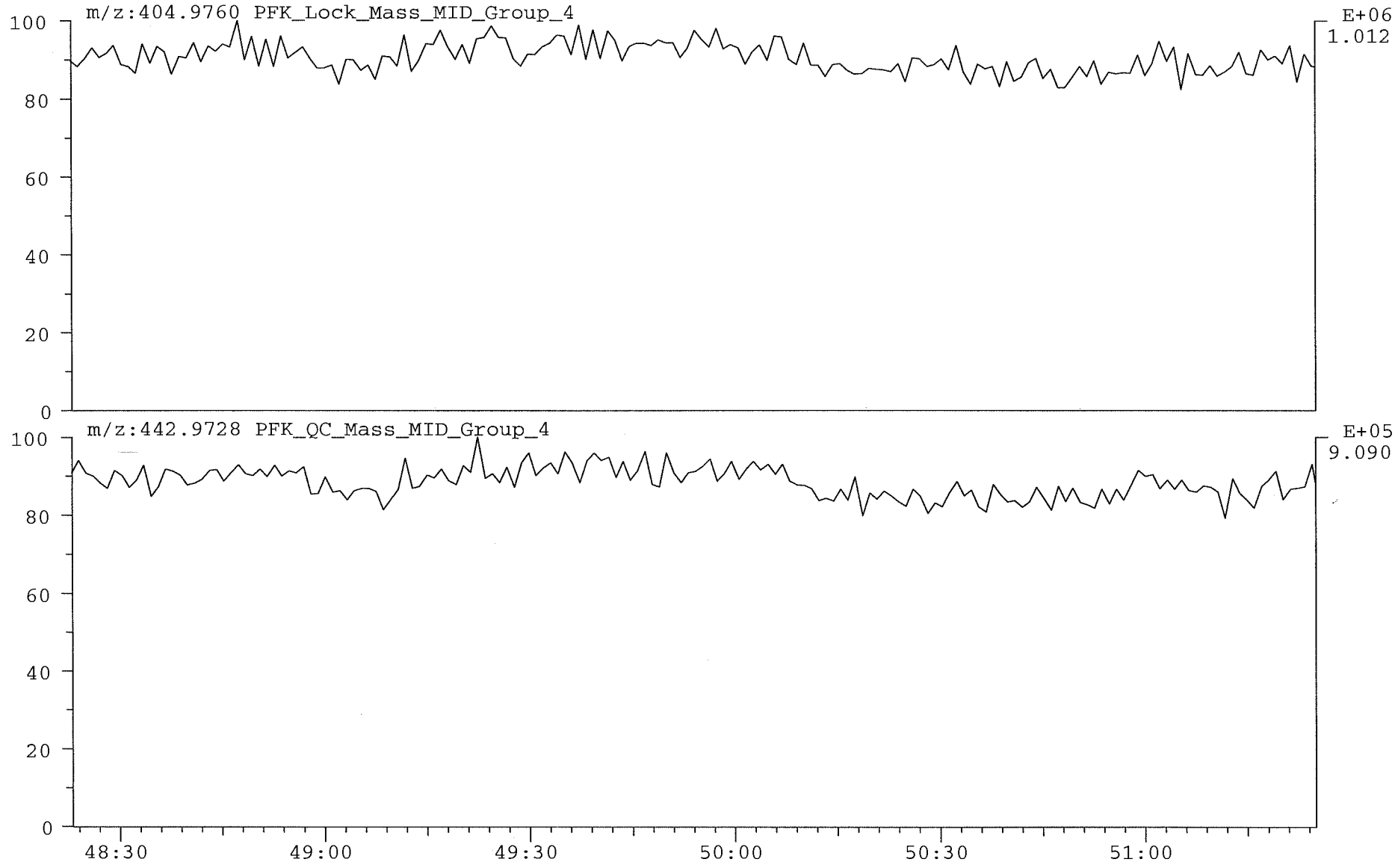


CHRO: b091210i2 10-Dec-09 Elapse: 49:54 2328
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2242 > 2414 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

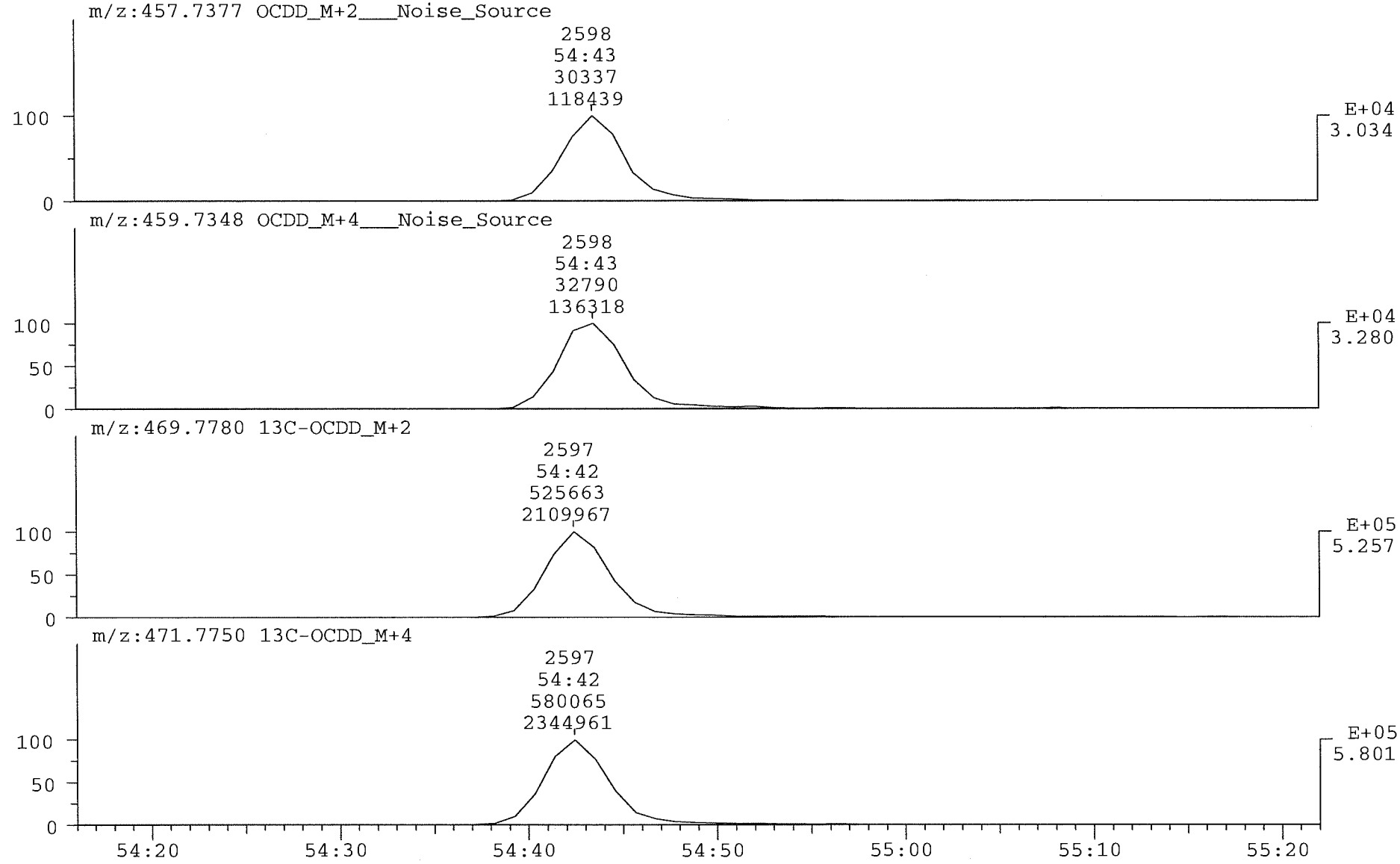


H-422

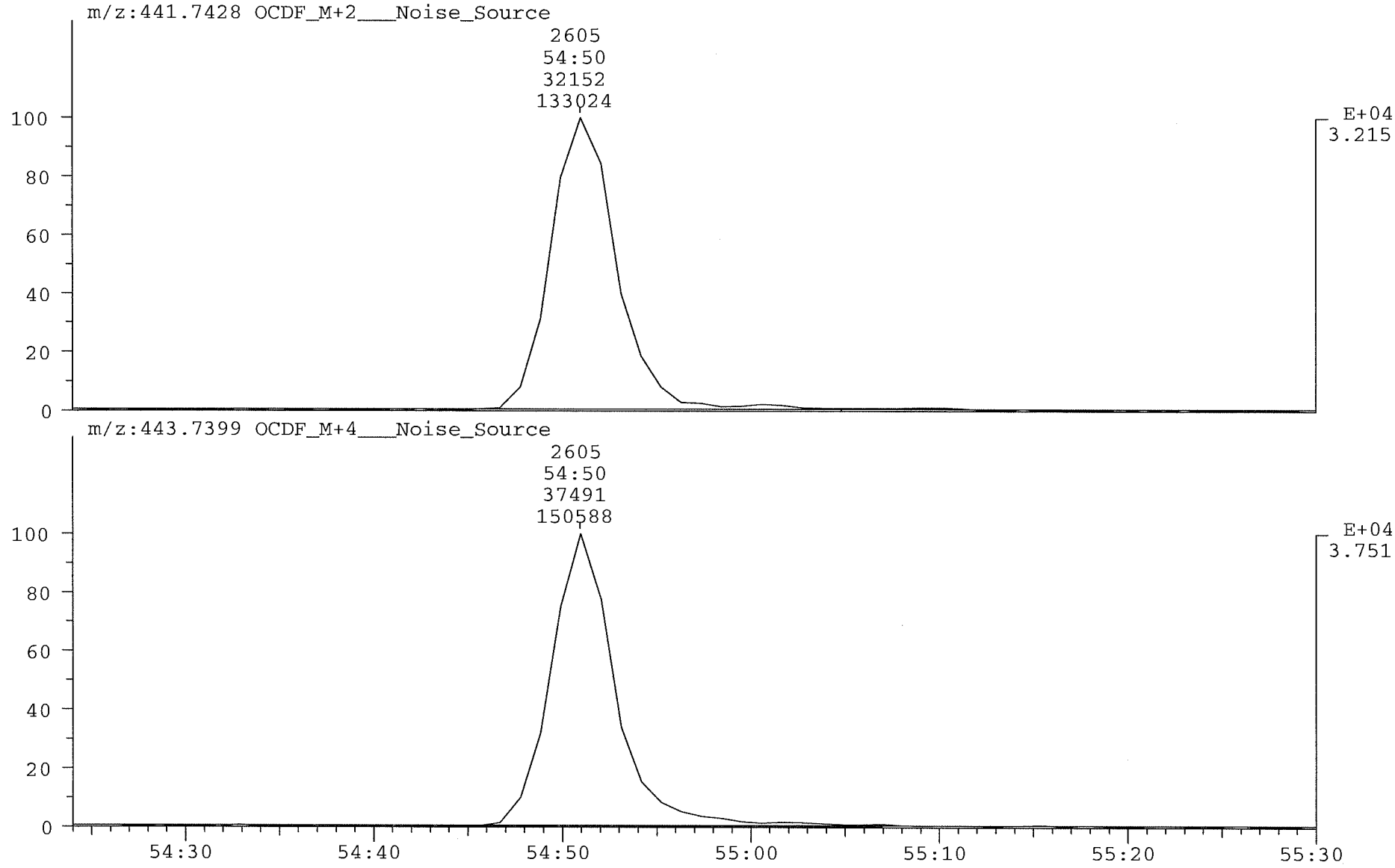
CHRO: b091210i2 10-Dec-09 Elapse: 49:54 2328
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2242 > 2414 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



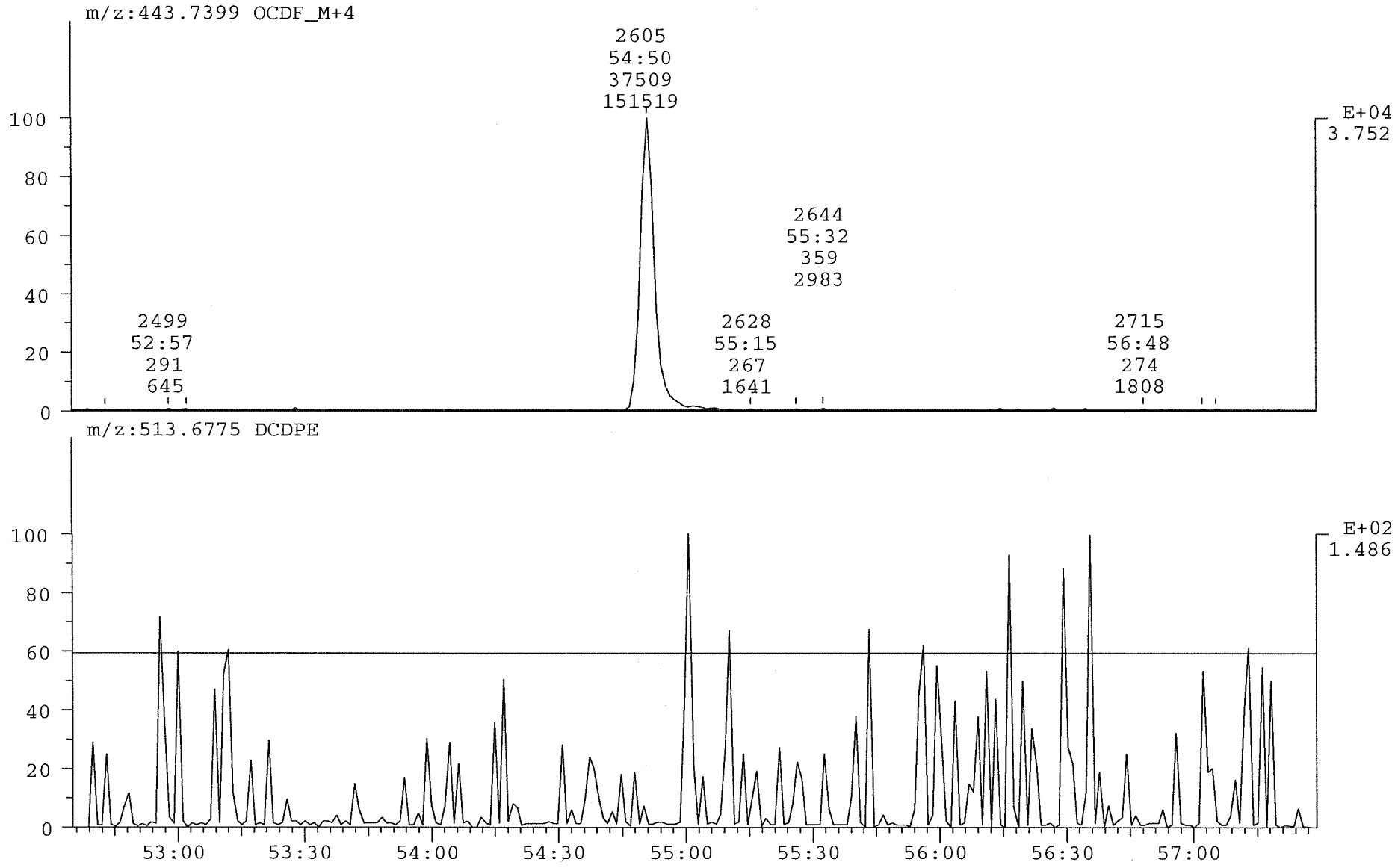
CHRO: b091210i2 10-Dec-09 Elapse: 54:45 2600
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2572 > 2634 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: b091210i2 10-Dec-09 Elapse: 54:54 2608
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2580 > 2642 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

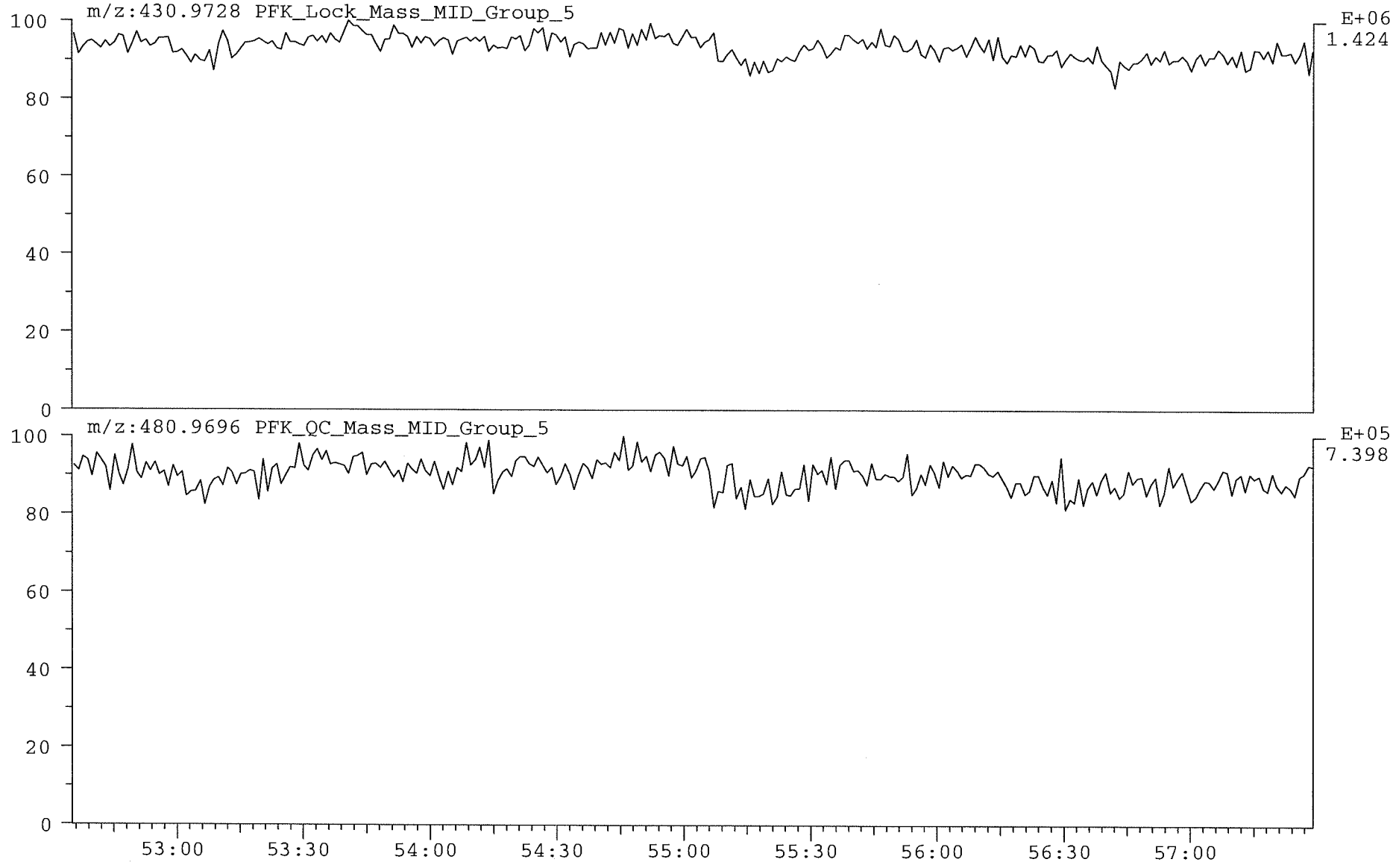


CHRO: b091210i2 10-Dec-09 Elapse: 54:54 2608
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2478 > 2753 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-426

CHRO: b091210i2 10-Dec-09 Elapse: 54:54 2608
Samp: Vial 6 WO=4104:14CS2 Meth=X8 Dil=1 Start : 16:45:47 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS2
Oper: KBL Client: TA Knoxville Inlet : GC Vial 6
Peak: 100.00 ppm Label wndw: 2478 > 2753 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis2ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b091210i2
Study: M23 CS2
Sample: WO=4104:14CS2 Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA Knoxville
Comments: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Injected volume:   2.0
Sample from Vial 6
Analysis will stop when MID run finishes
Tune file name: tune2
File 3 of list 091207
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.35 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End         Cycletime
  # 1    8:00 min    26:07 min    34:07 min     1.00 sec
  # 2   34:07 min     8:39 min    42:46 min     1.00 sec
  # 3   42:46 min     4:49 min    47:36 min     1.00 sec
  # 4   47:36 min     4:52 min    52:29 min     1.00 sec
  # 5   52:29 min     5:01 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 l   10   1      8.19
    303.9016      1   1     81.92
    305.8987      1   1     81.92
    315.9419      1   1     81.92
    317.9389      1   1     81.92
    319.8965      1   1     81.92
    321.8936      1   1     81.92
    327.8847      1   1     81.92
    331.9368      1   1     81.92
    333.9338      1   1     81.92
    342.9792 c   10   1      8.19
    375.8364      1   1     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 l   10   1      8.19
    339.8597      1   1     91.48
    341.8567      1   1     91.48
```

351.9000		1	1	91.48
353.8970		1	1	91.48
355.8546		1	1	91.48
357.8516		1	1	91.48
367.8949		1	1	91.48
369.8919		1	1	91.48
380.9760	c	10	1	8.19
409.7974		1	1	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	1	10	1	8.19
383.8639		1	1	91.48
385.8610		1	1	91.48
389.8156		1	1	91.48
391.8127		1	1	91.48
401.8559		1	1	91.48
403.8529		1	1	91.48
404.9760	c	10	1	8.19
445.7555		1	1	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	1	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	1	91.48
419.8220		1	1	91.48
423.7767		1	1	91.48
425.7737		1	1	91.48
435.8169		1	1	91.48
437.8140		1	1	91.48
442.9728	c	10	1	8.19
479.7165		1	1	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	1	10	1	10.92
441.7428		1	1	120.15
443.7399		1	1	120.15
457.7377		1	1	120.15
459.7348		1	1	120.15
469.7780		1	1	120.15
471.7750		1	1	120.15
480.9696	c	10	1	10.92
513.6775		1	1	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8417.0000
BDEV	8297.0000	BFM	2.0000	BLM	1181.9425
BMASS	304.9824	BQUAD	2.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.2941
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-29.5750
DRAWC	1.0000	DRAWS	0.0000	ECORR	1.0006
ECURR	1.0000	EDAC	7969177.0000	EDACG	0.9998
EDACR	20.0000	EDACZ	1898.0000	ELEN	57.6250
EMULT	2.1100	ENS	219.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	6.7500	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	558.0000	FVINLET	942.0000
FVSRC	996.0000	FWIN	0.7000	GCTC	140.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7255	HVANAL	1097.0000	HVSRC	3076.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4752.1320	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2409.0000	LENSS	-44.6000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3237806.8854	MDACR	20.0000
MRANGE	1181.9425	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2758.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-7.0750	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10637.5656	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	3073.0000	SHIELDS	-0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7200	TCURR	1.0547	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.2000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.3750
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1119.0000	XLENSS	-46.6000
YLENS	3324.0000	YLENSS	-98.4000		

Scantype is electric
Sourcemode is EI POS

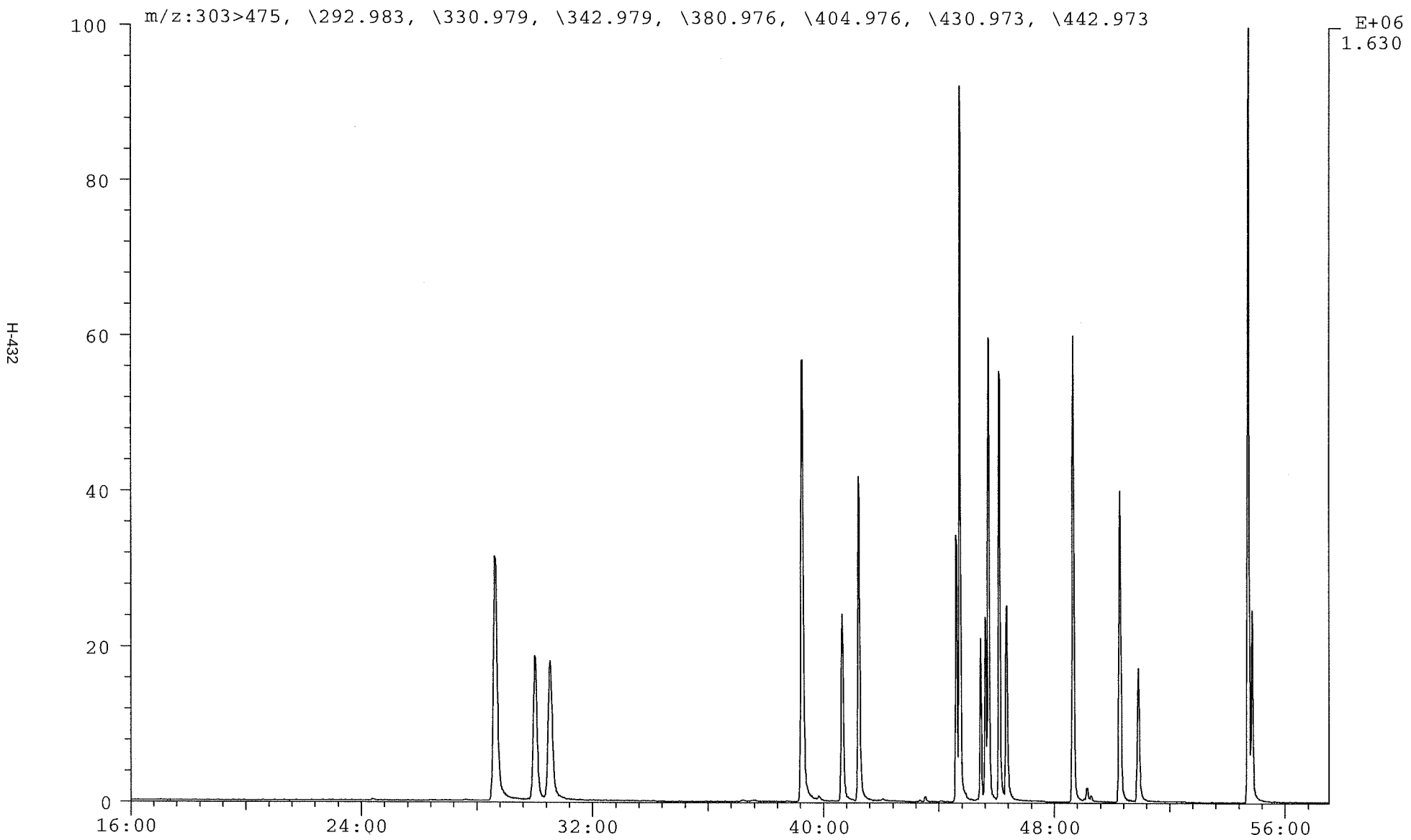
Analysis started at: 10-Dec-09 16:45:47.3

Autosampler has injected sample from vial 6
Analysis stopped at: 10-Dec-09 17:43:19.2 (run time 57.52 minutes)
Analysis stopped because MID run finished

CHRO: b091210i3 10-Dec-09
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM
Oper: KBL Client: TA Knoxville
Peak: 100.00 ppm Label wndw: 440 > 2751
Area: 5, 0.50, 0 Baseline : 100, 3
Disp: Height Area

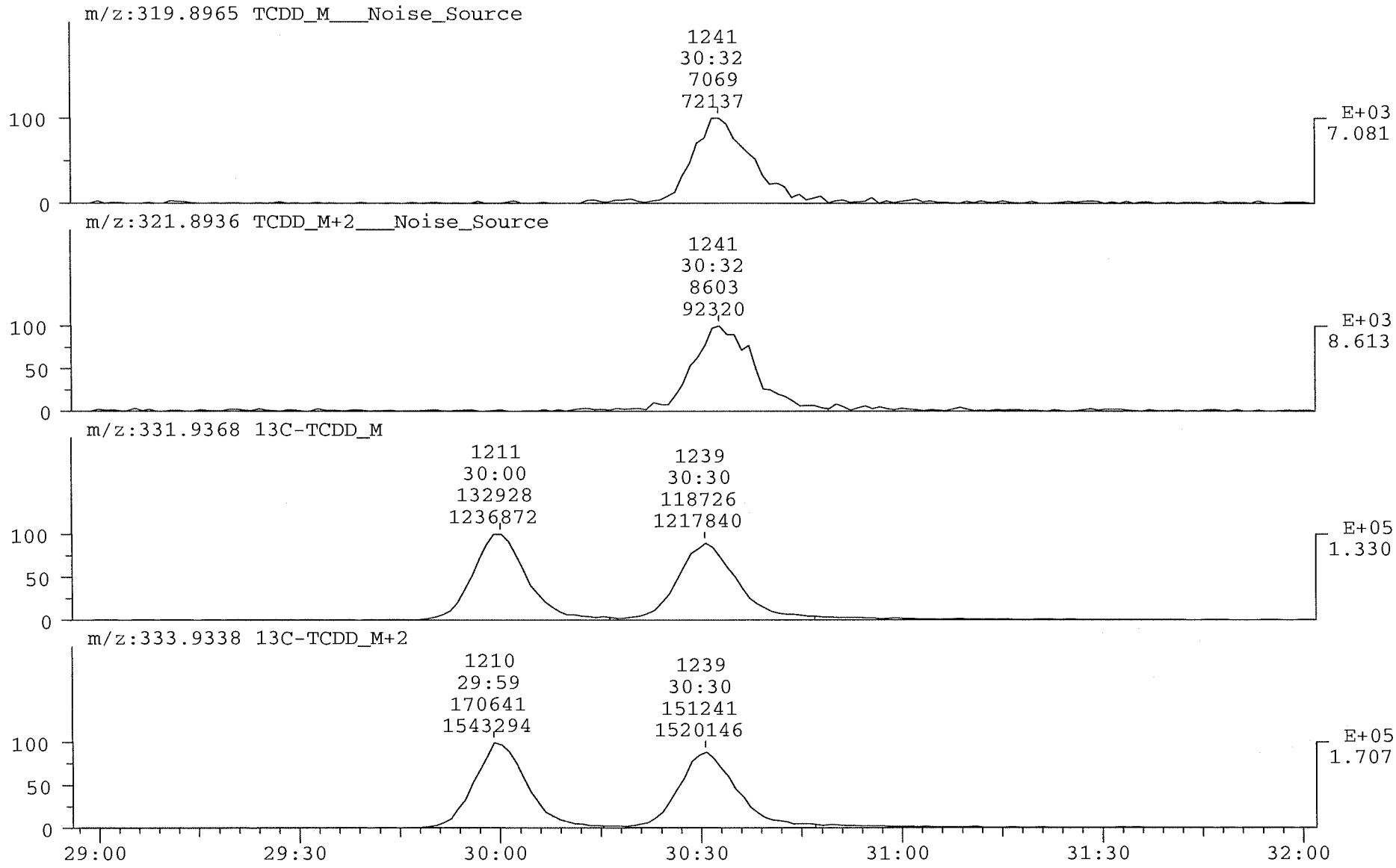
Elapse: 54:58 2608
Start : 17:46:30 2751
Study : M23 CS3
Inlet : GC Vial 7
Masses: 293 > 514
Label : 0, 0.0

Int Pmp 12-10-09
calc MSD 12/11/09
QC KM 12-11-09

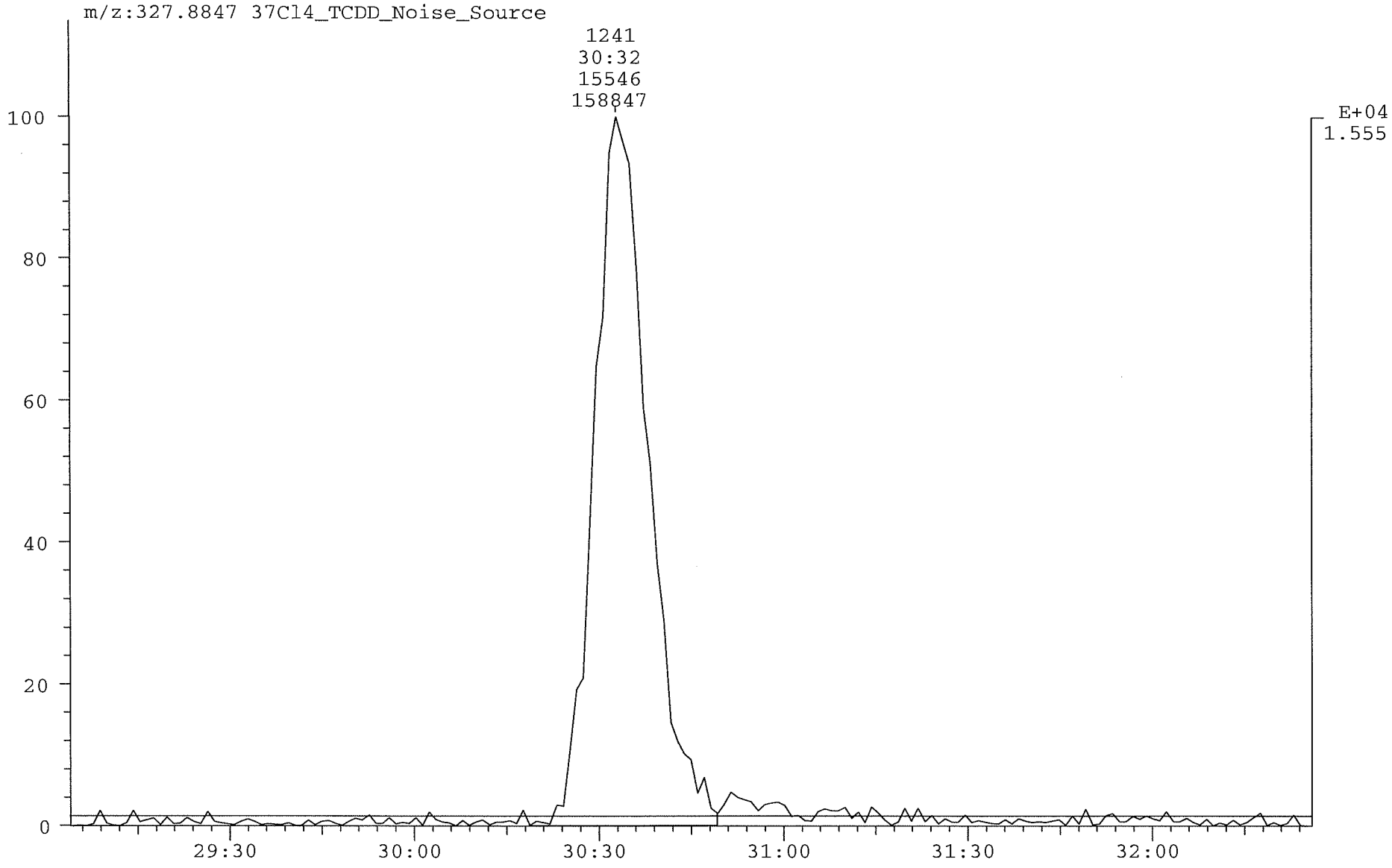


H-432

CHRO: b091210i3 10-Dec-09 Elapse: 30:28 1237
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1152 > 1323 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

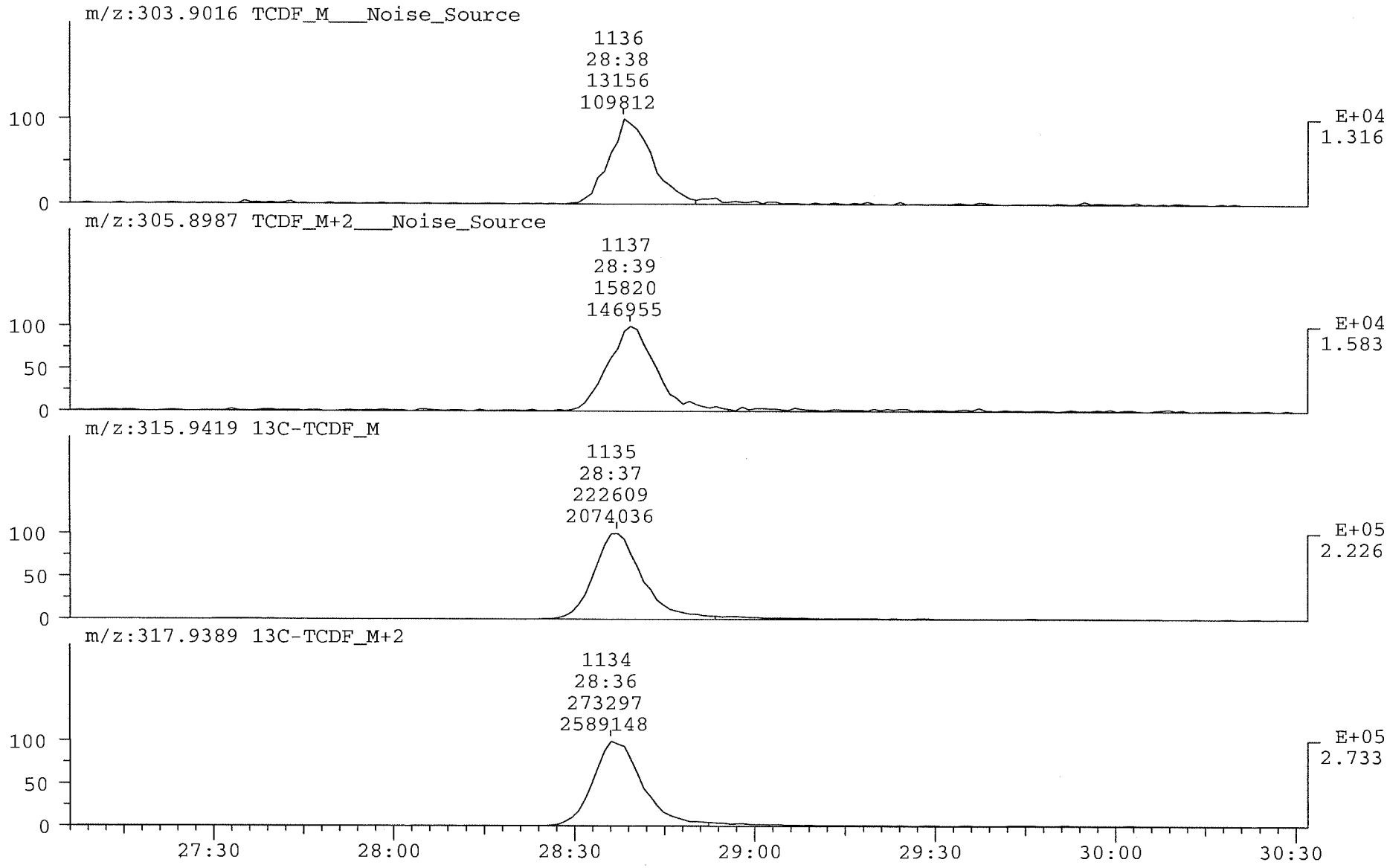


CHRO: b091210i3 10-Dec-09 Elapse: 30:41 1249
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1160 > 1345 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

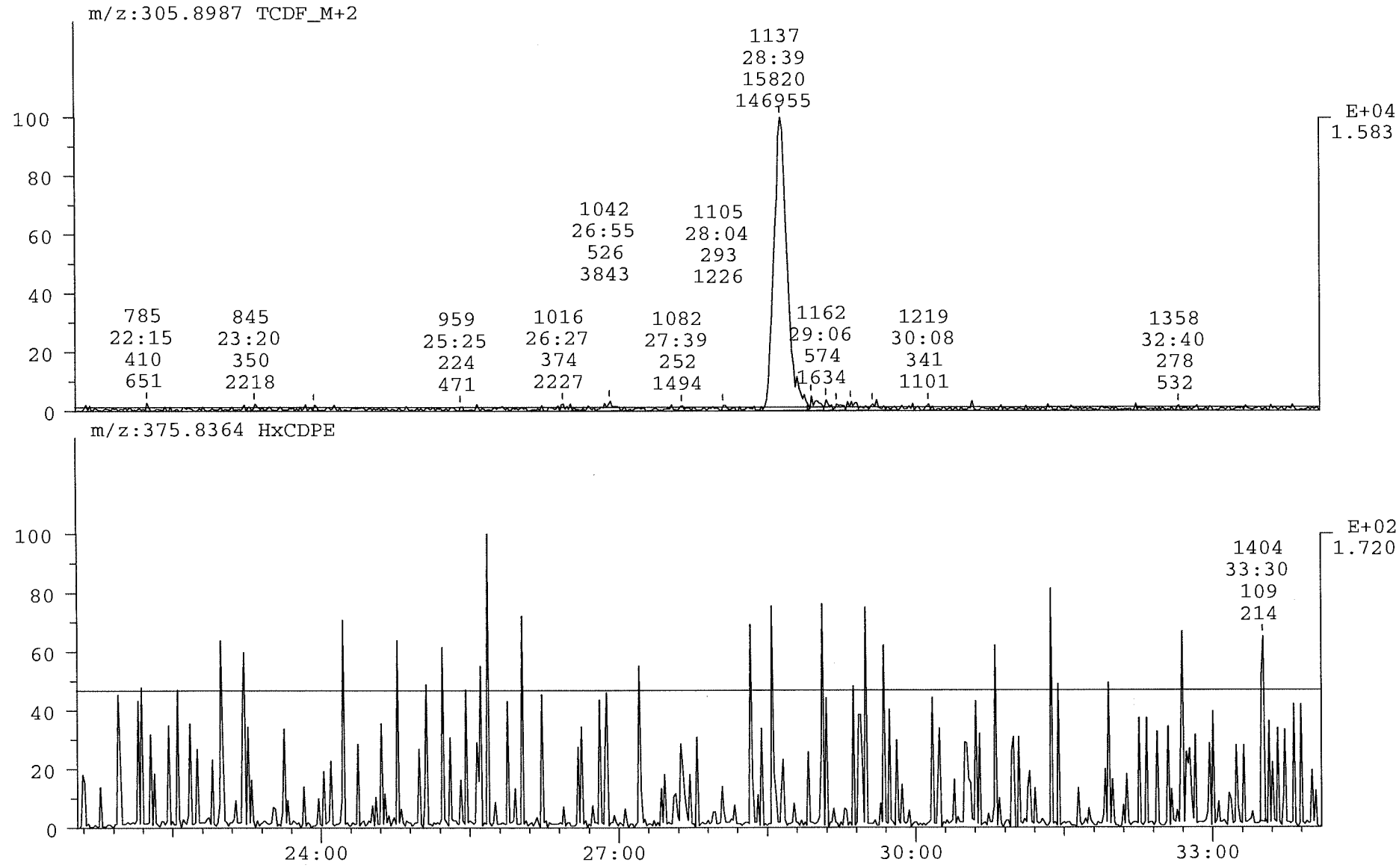


H-434

CHRO: b091210i3 10-Dec-09 Elapse: 28:45 1143
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1051 > 1240 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

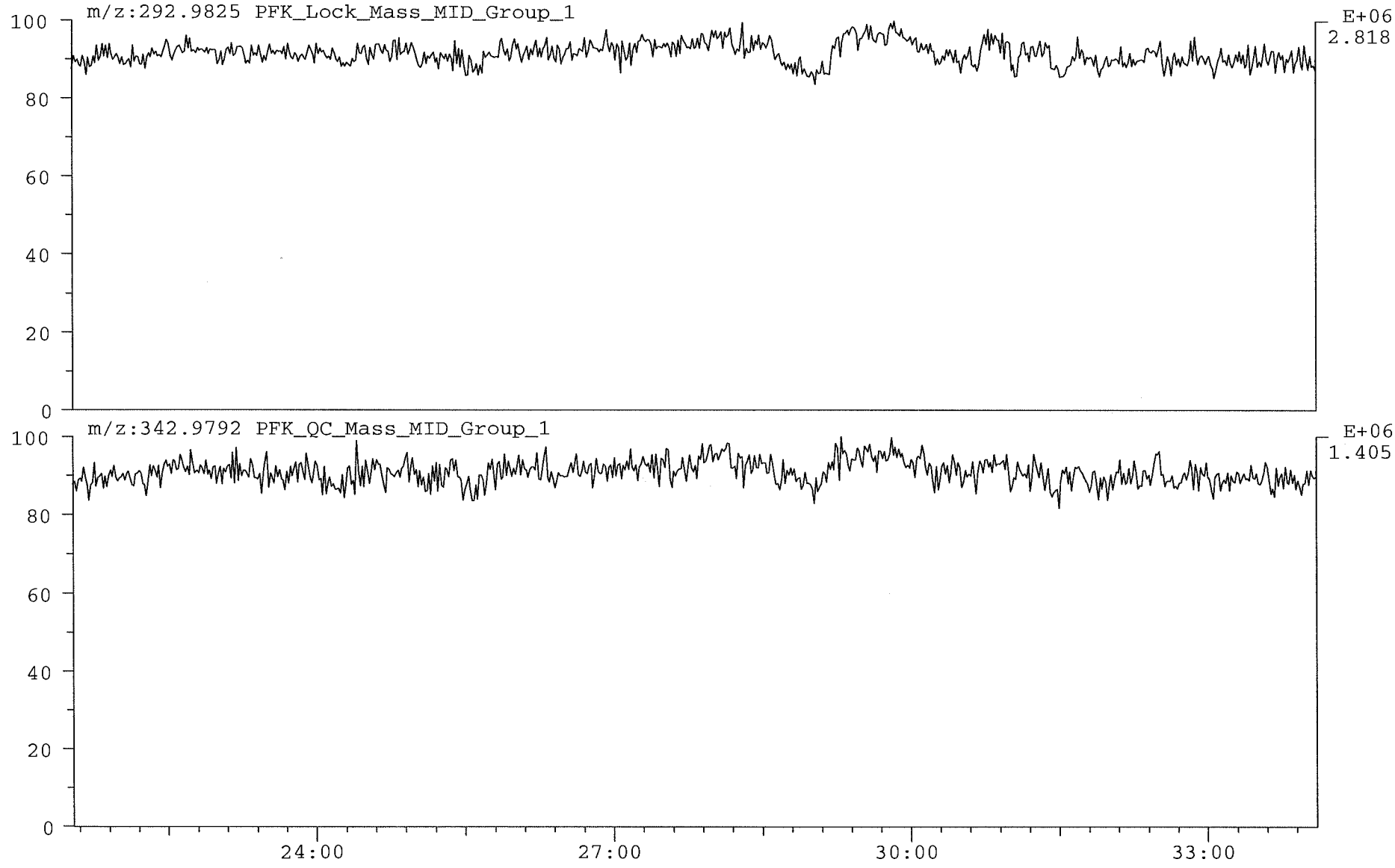


CHRO: b091210i3 10-Dec-09 Elapse: 28:45 1143
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 745 > 1437 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

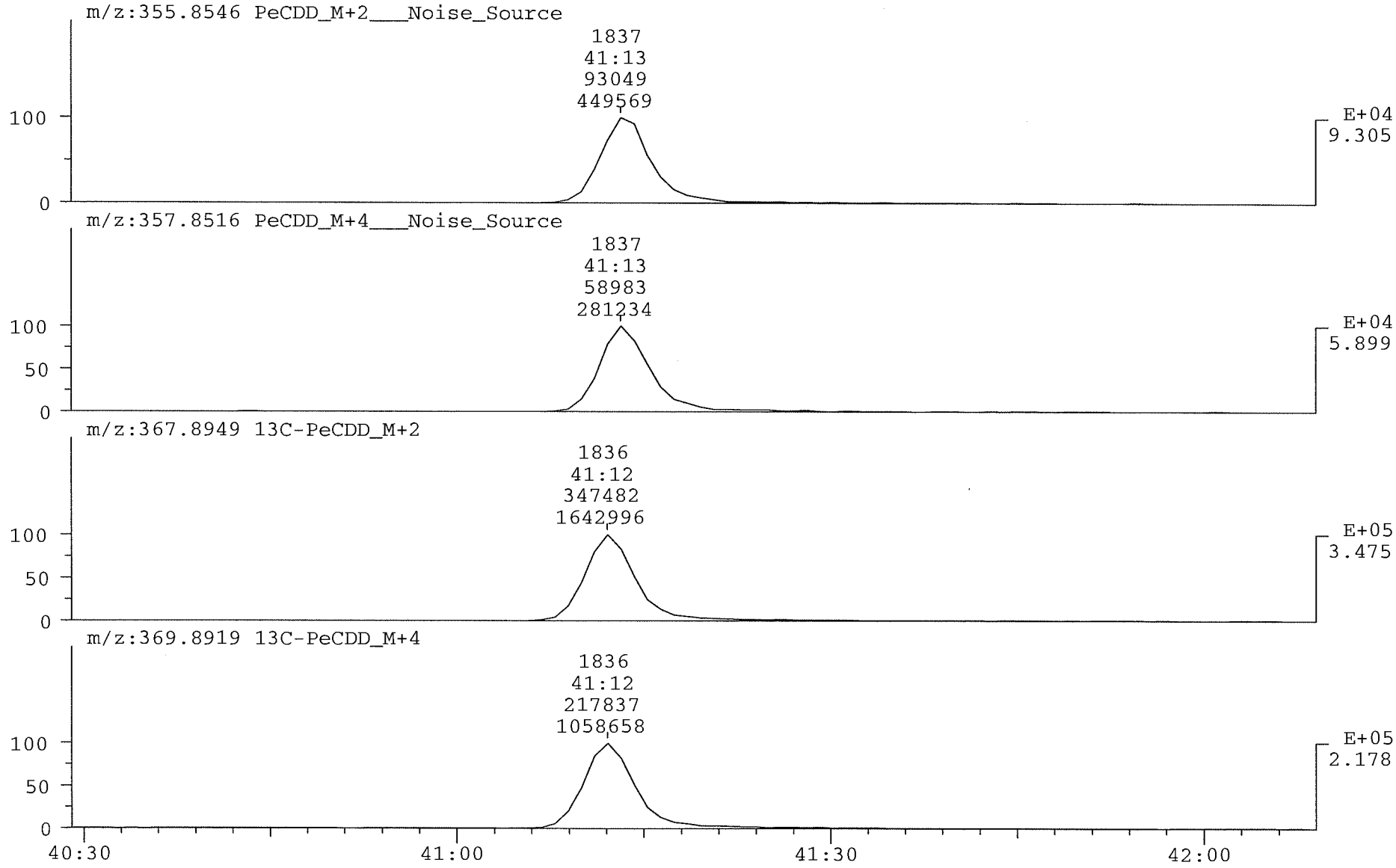


H-436

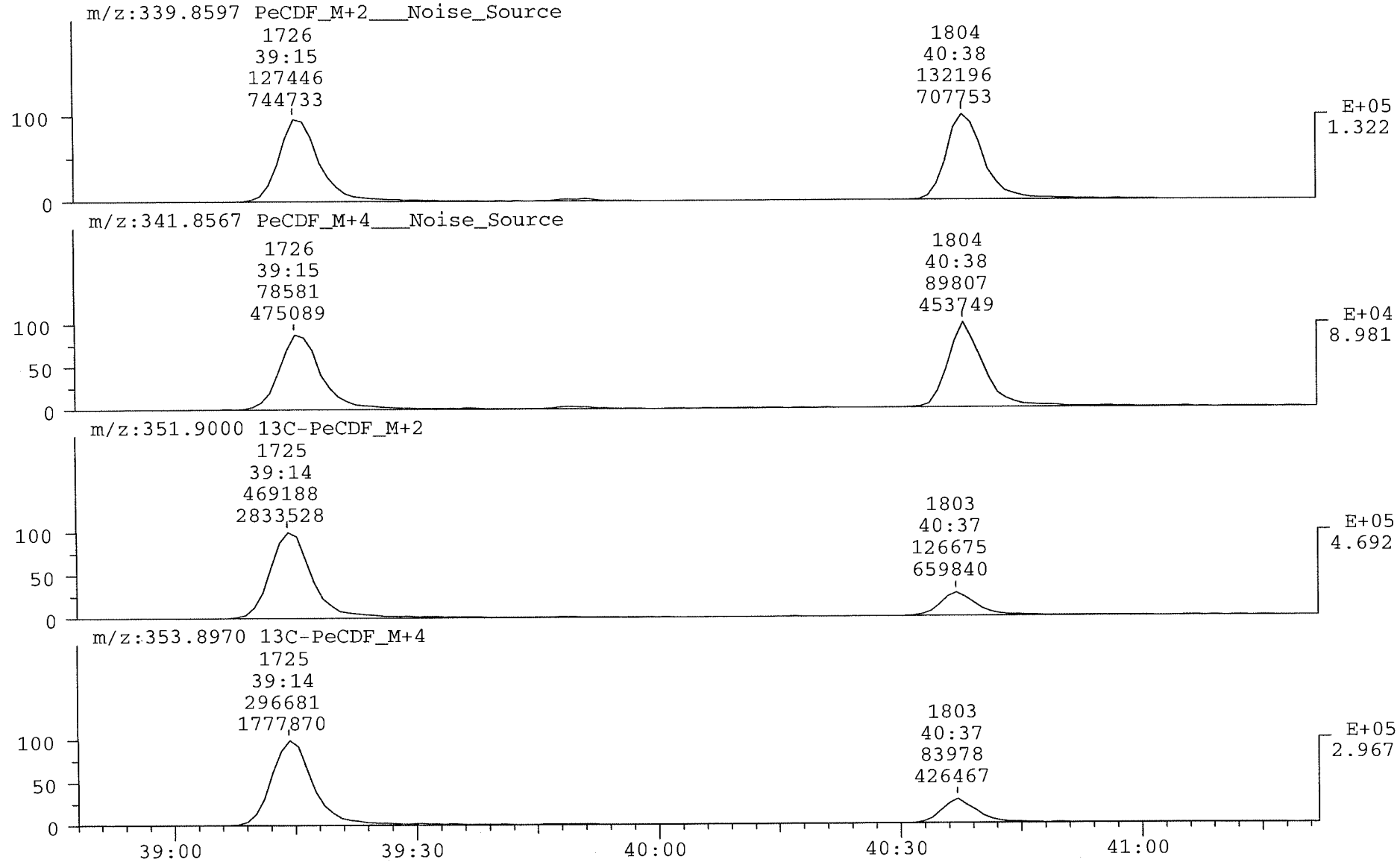
CHRO: b091210i3 10-Dec-09 Elapse: 28:45 1143
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 745 > 1437 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



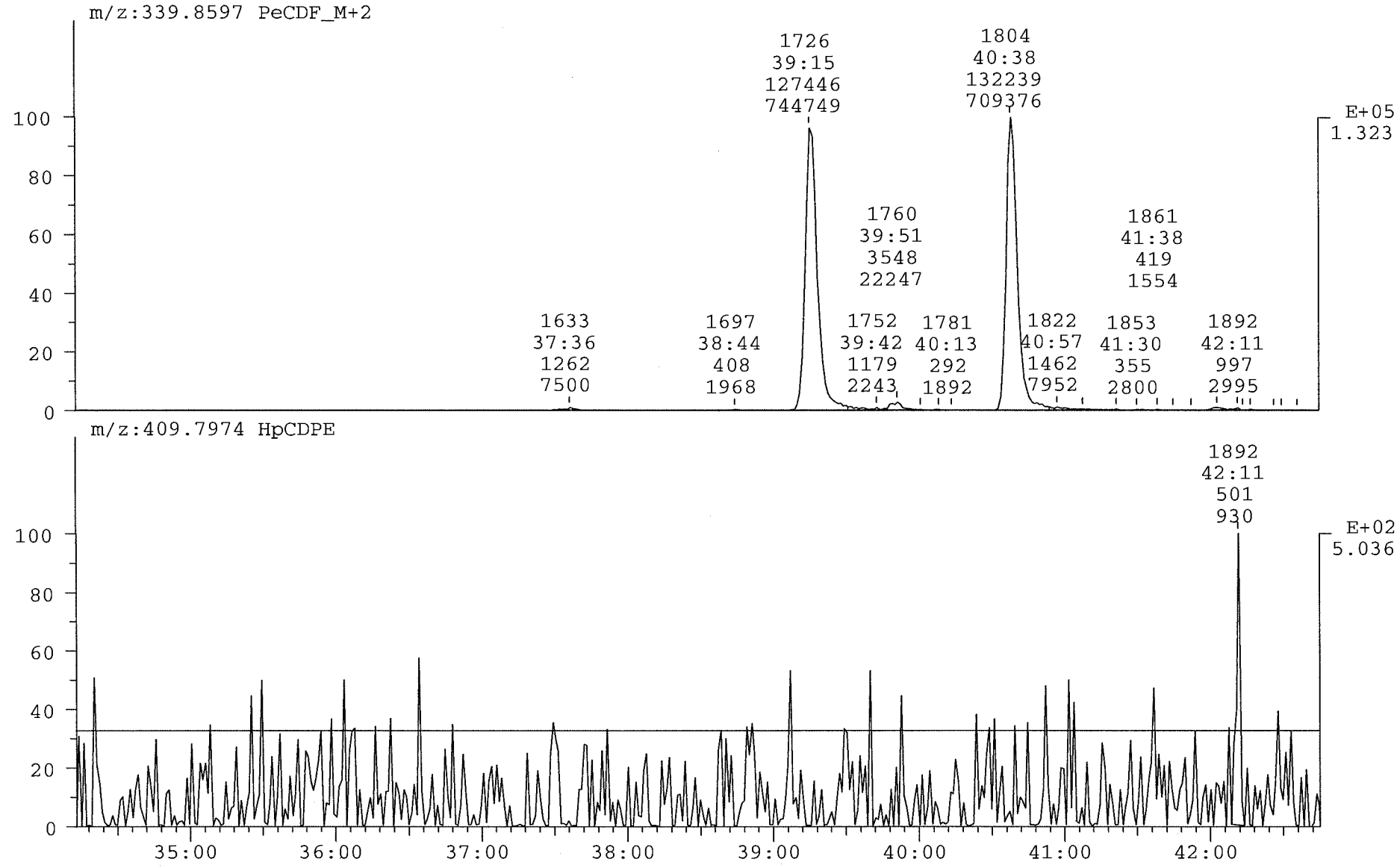
CHRO: b091210i3 10-Dec-09 Elapse: 41:16 1840
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1795 > 1890 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



CHRO: b091210i3 10-Dec-09 Elapse: 40:05 1773
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1700 > 1845 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

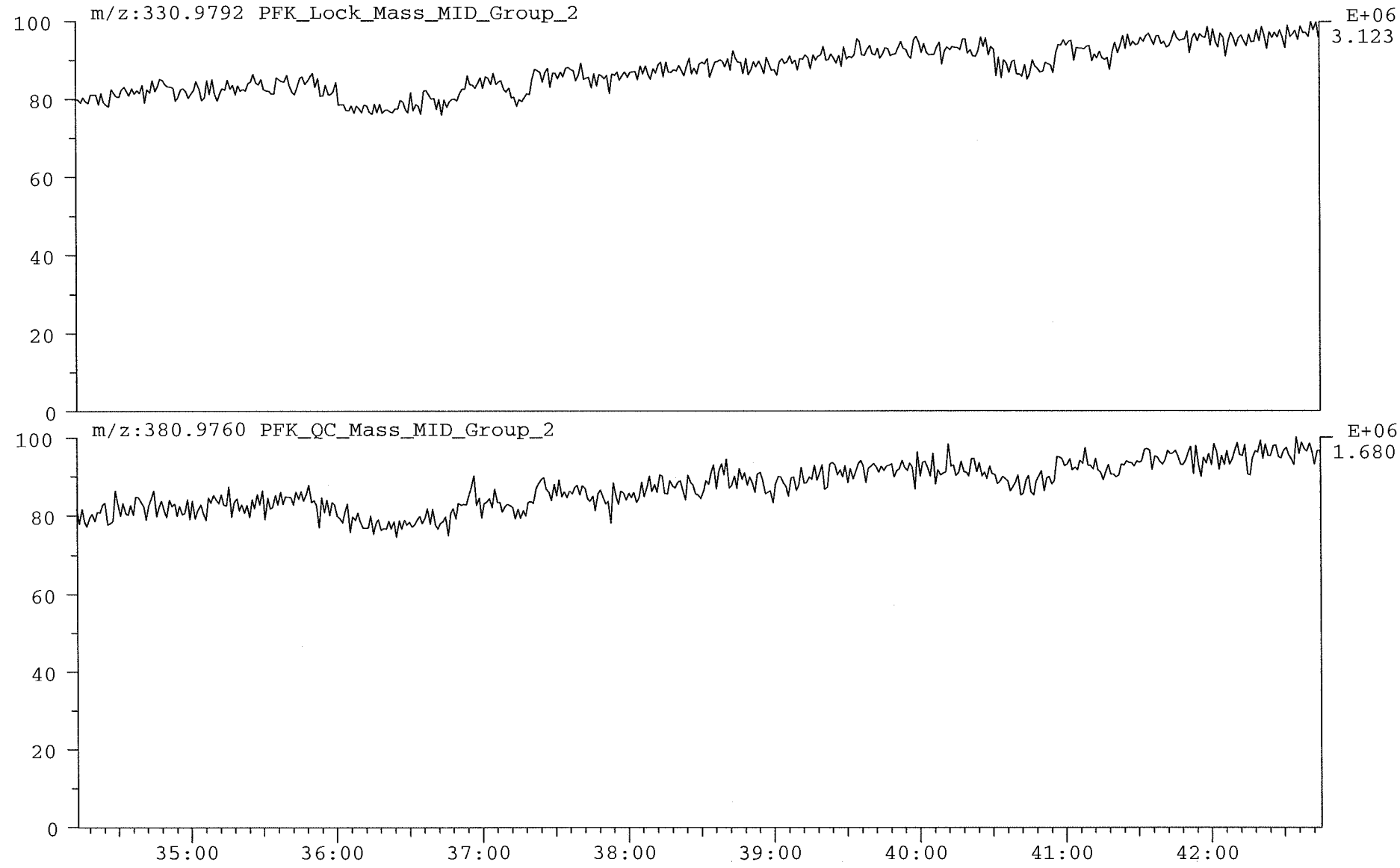


CHRO: b091210i3 10-Dec-09 Elapse: 40:05 1773
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1441 > 1924 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



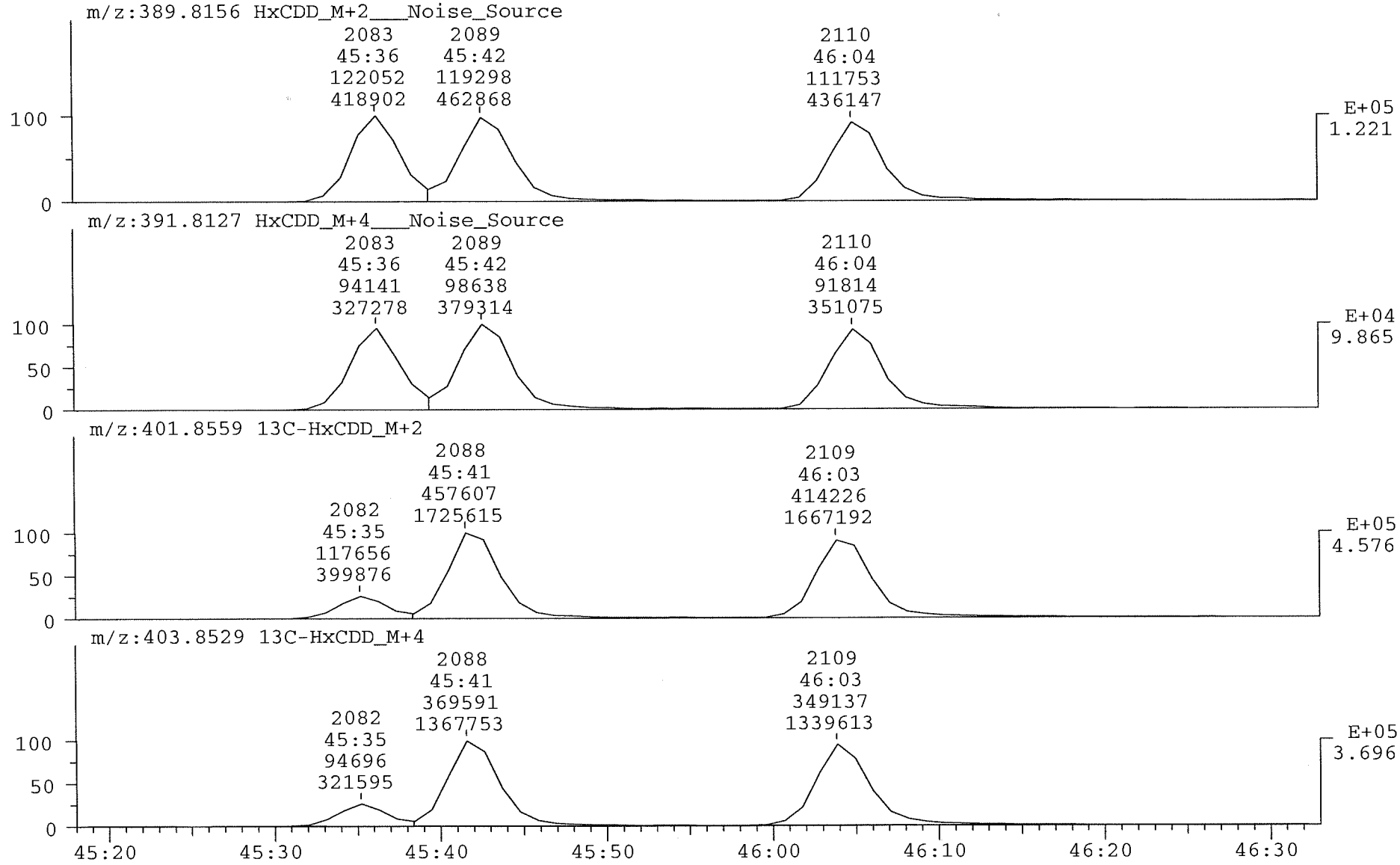
H-440

CHRO: b091210i3 10-Dec-09 Elapse: 40:05 1773
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1441 > 1924 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

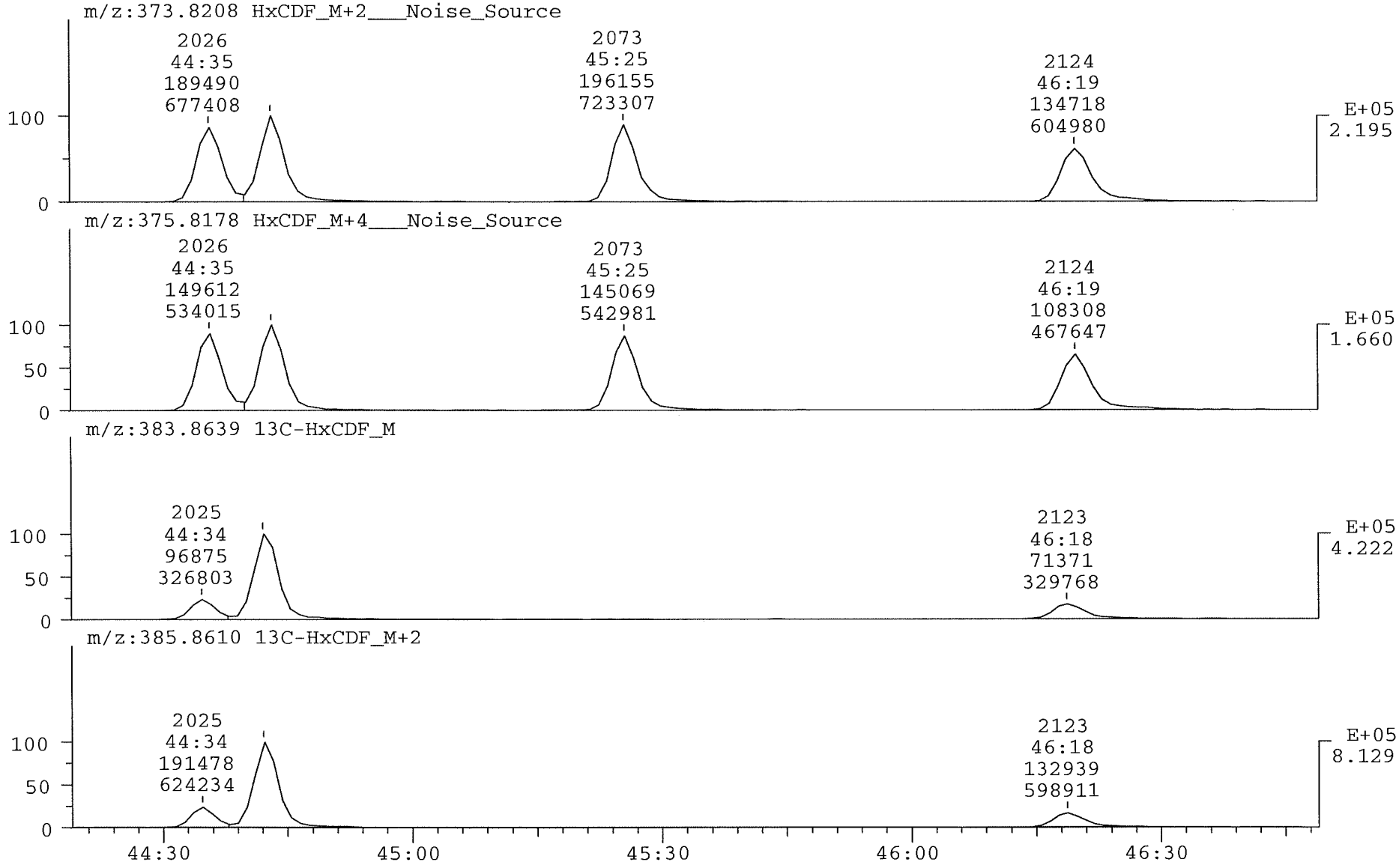


H-441

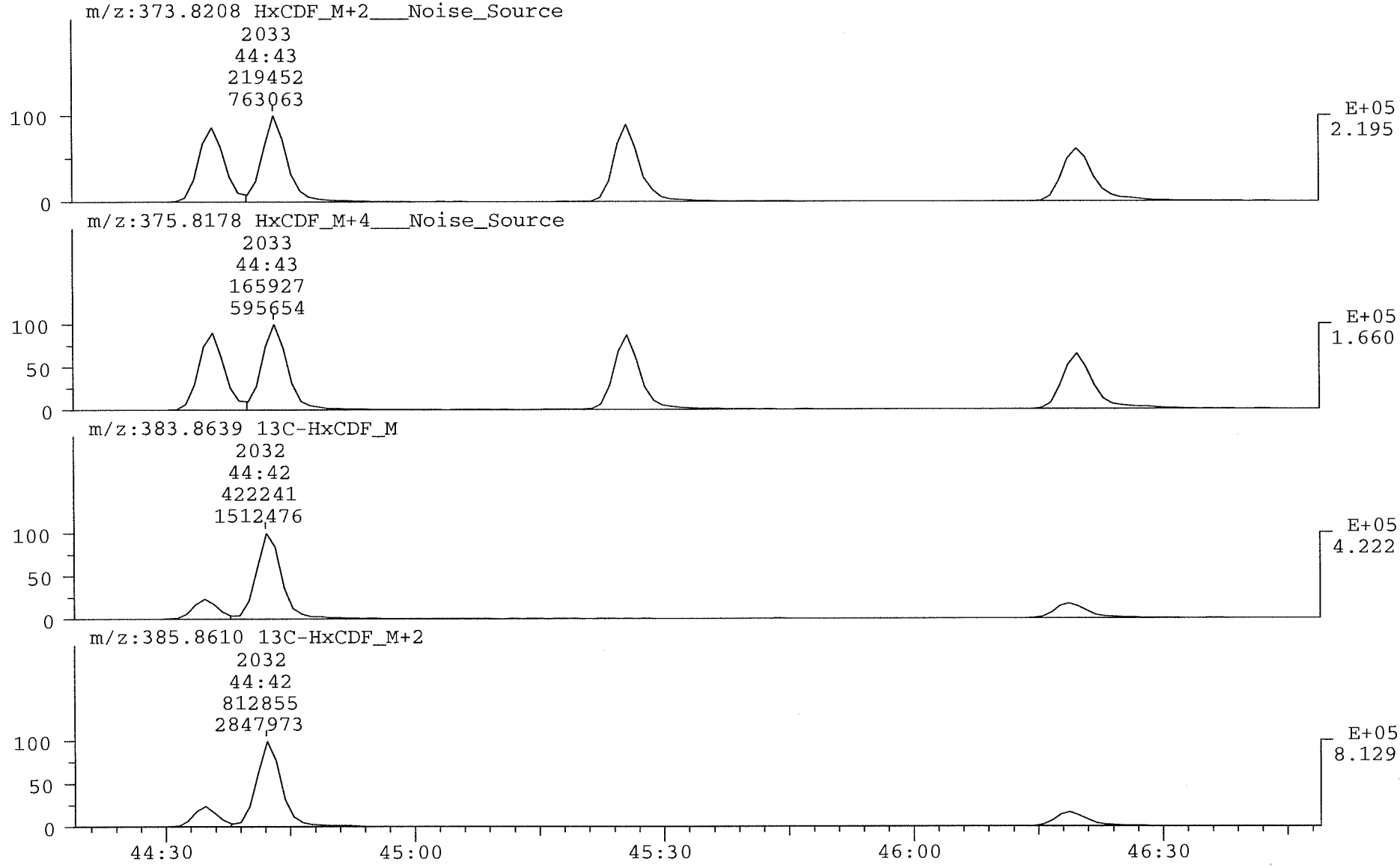
CHRO: b091210i3 10-Dec-09 Elapse: 45:55 2101
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2066 > 2136 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



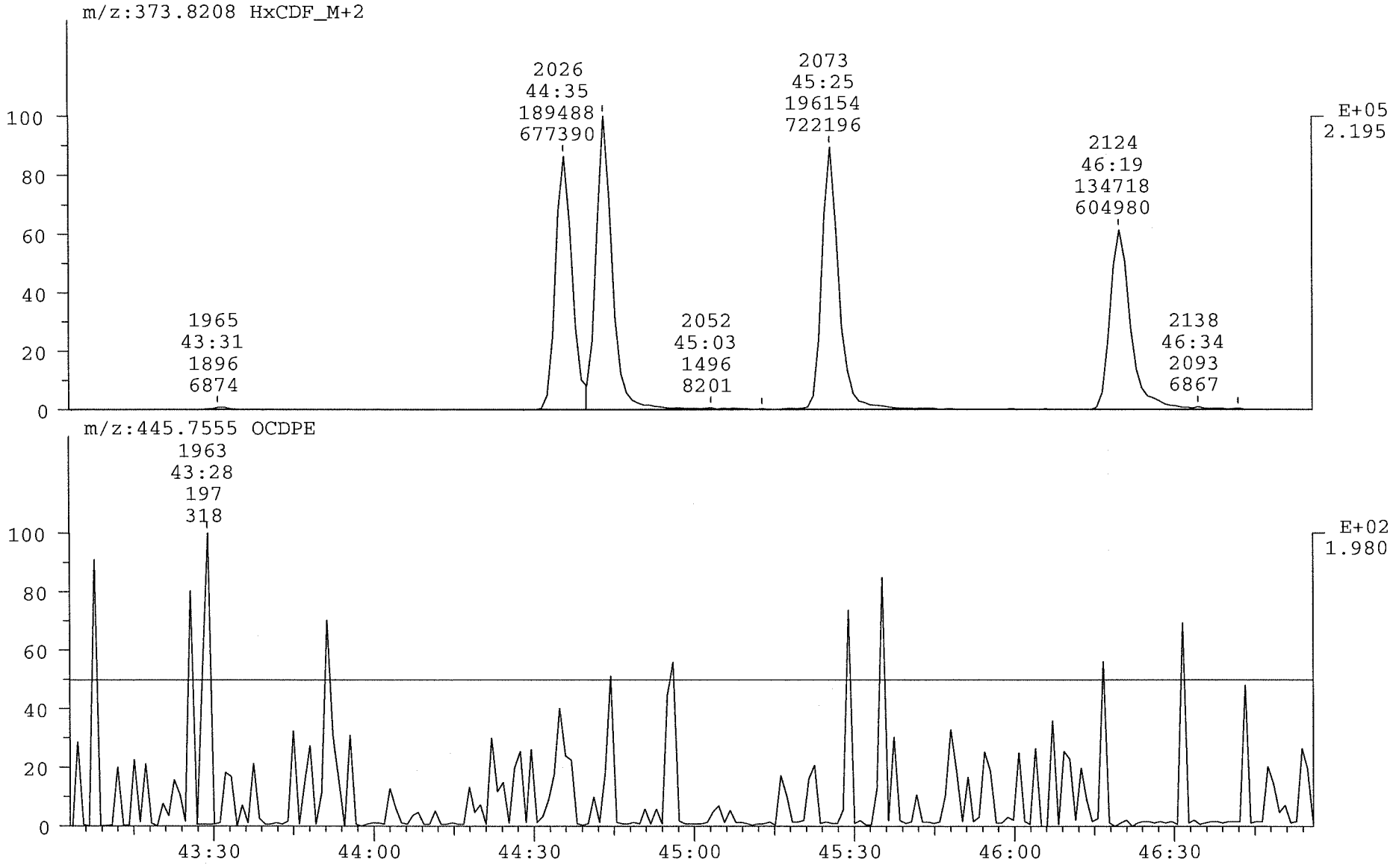
CHRO: b091210i3 10-Dec-09 Elapse: 45:34 2081
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2010 > 2152 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



CHRO: b091210i3 10-Dec-09 Elapse: 44:46 2036
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2032 > 2040 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

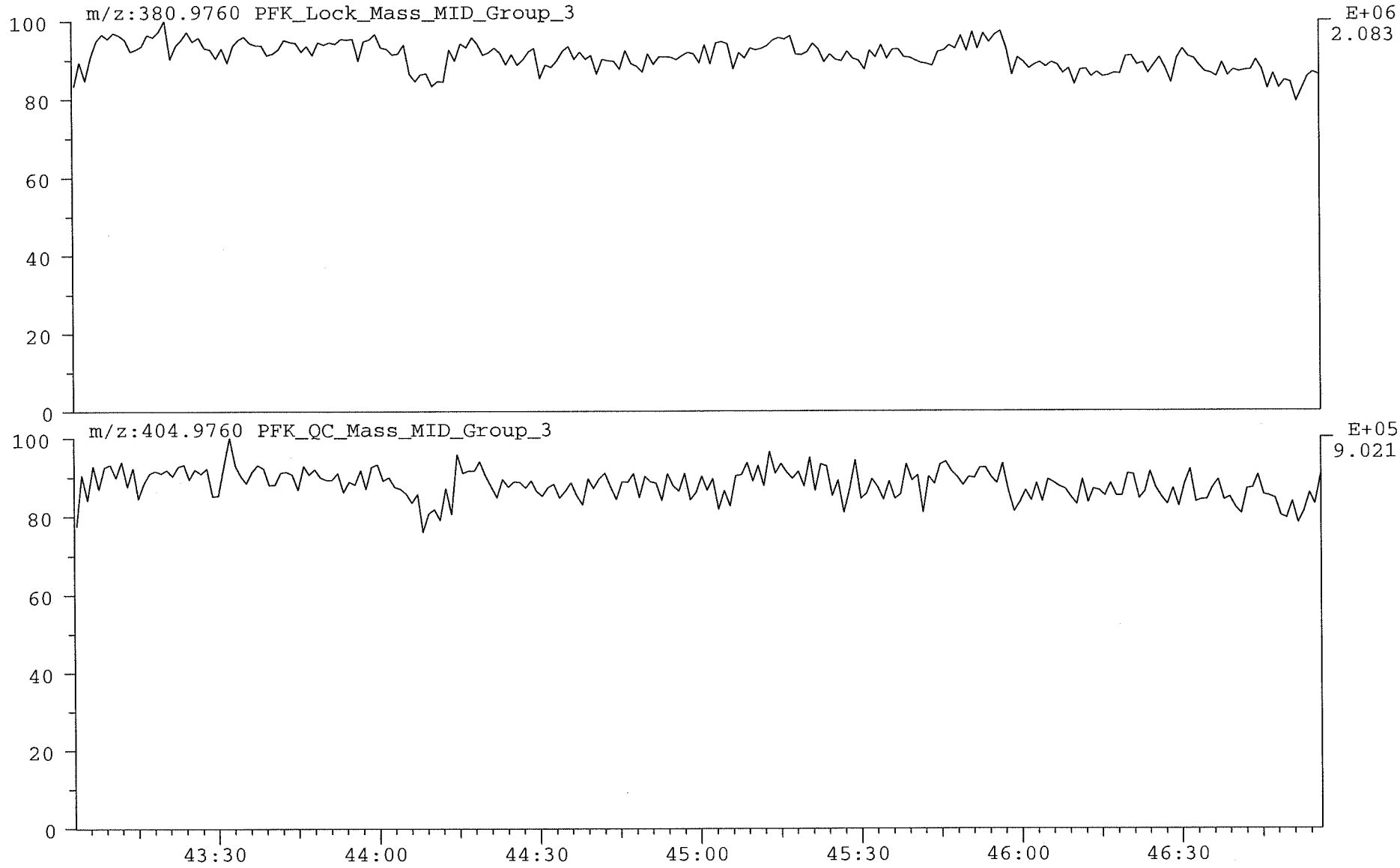


CHRO: b091210i3 10-Dec-09 Elapse: 44:46 2036
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1939 > 2158 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



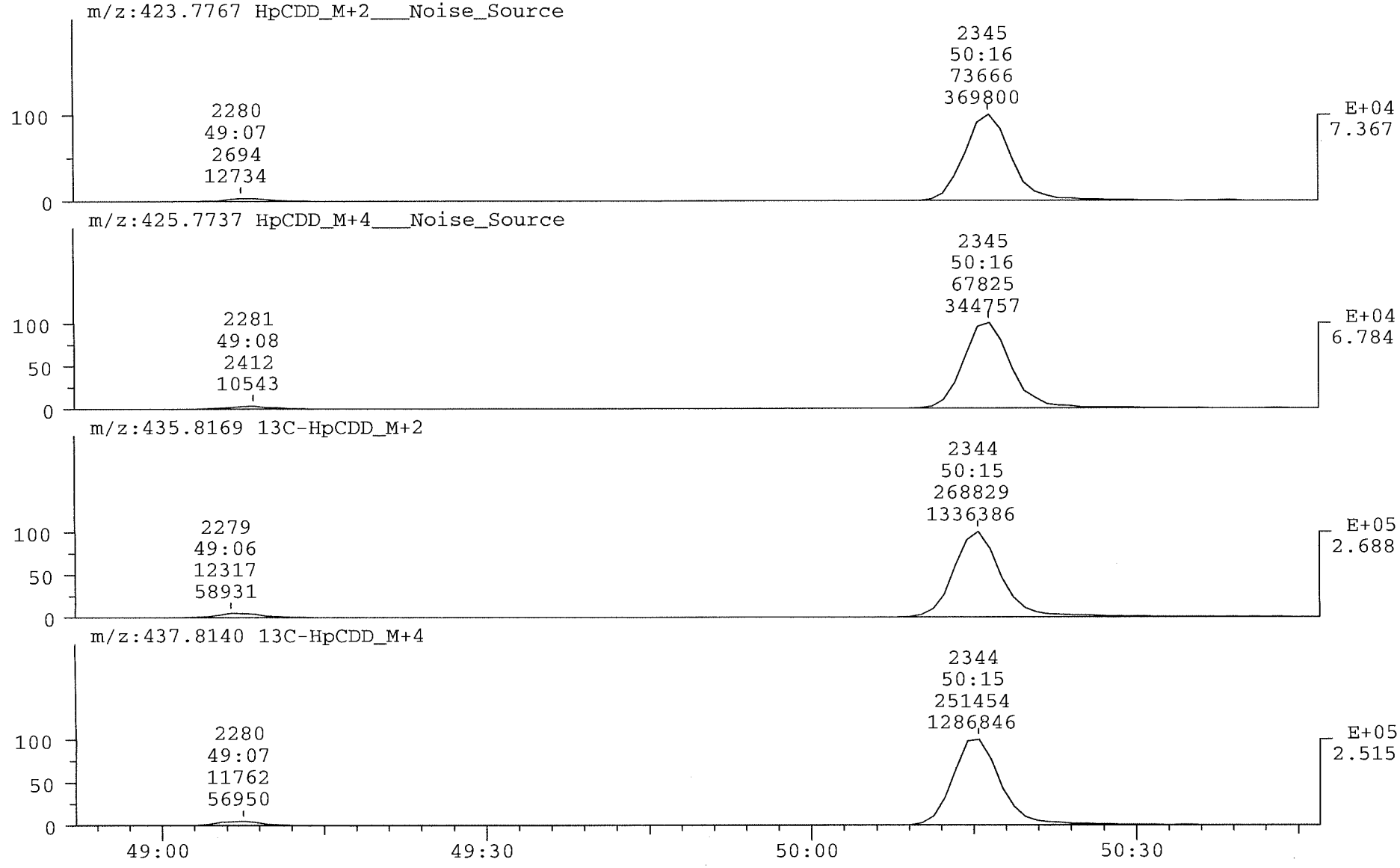
H-445

CHRO: b091210i3 10-Dec-09 Elapse: 44:46 2036
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1939 > 2158 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

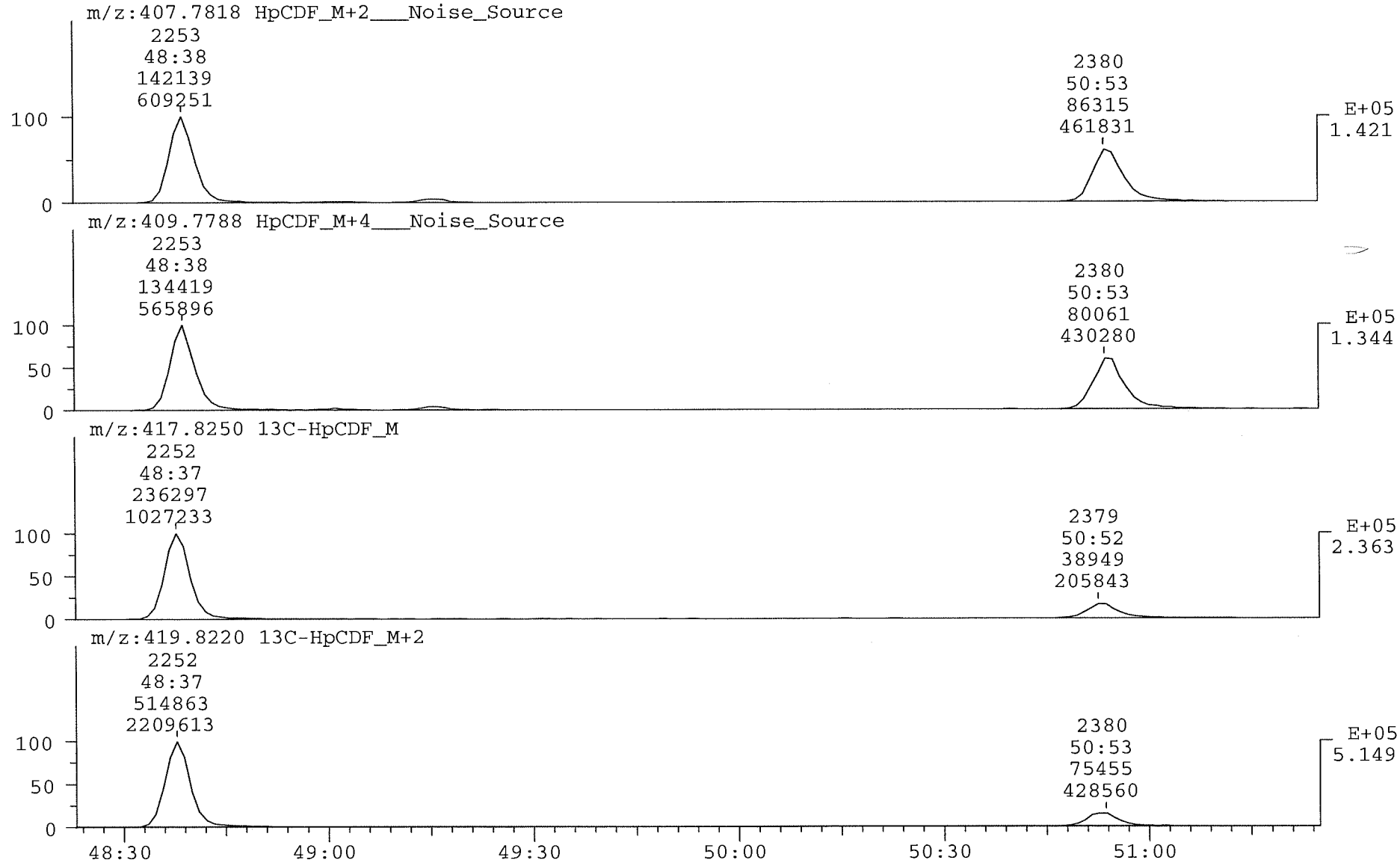


H-446

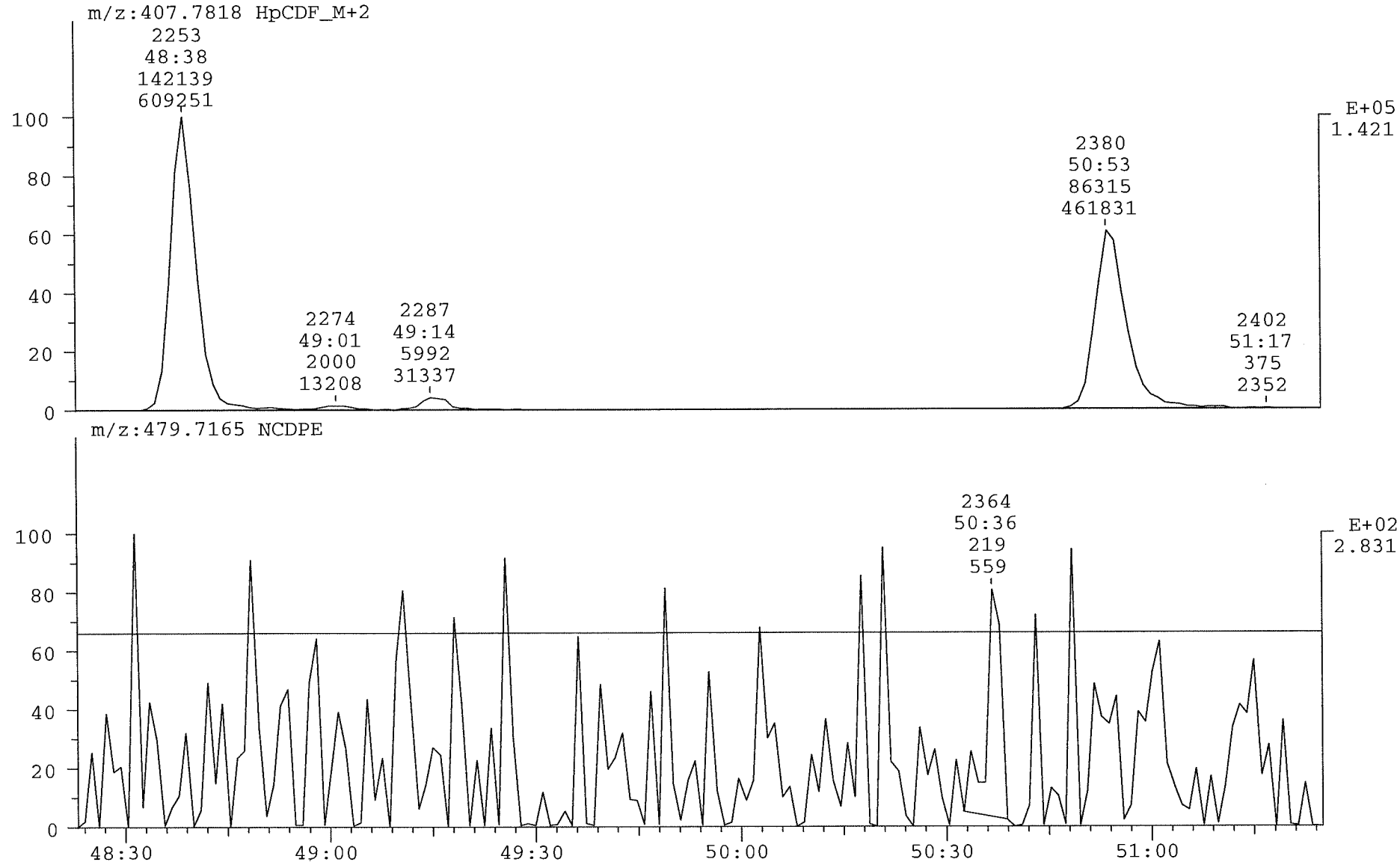
CHRO: b091210i3 10-Dec-09 Elapse: 44:46 2036
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2265 > 2374 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: b091210i3 10-Dec-09 Elapse: 49:54 2324
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2238 > 2409 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

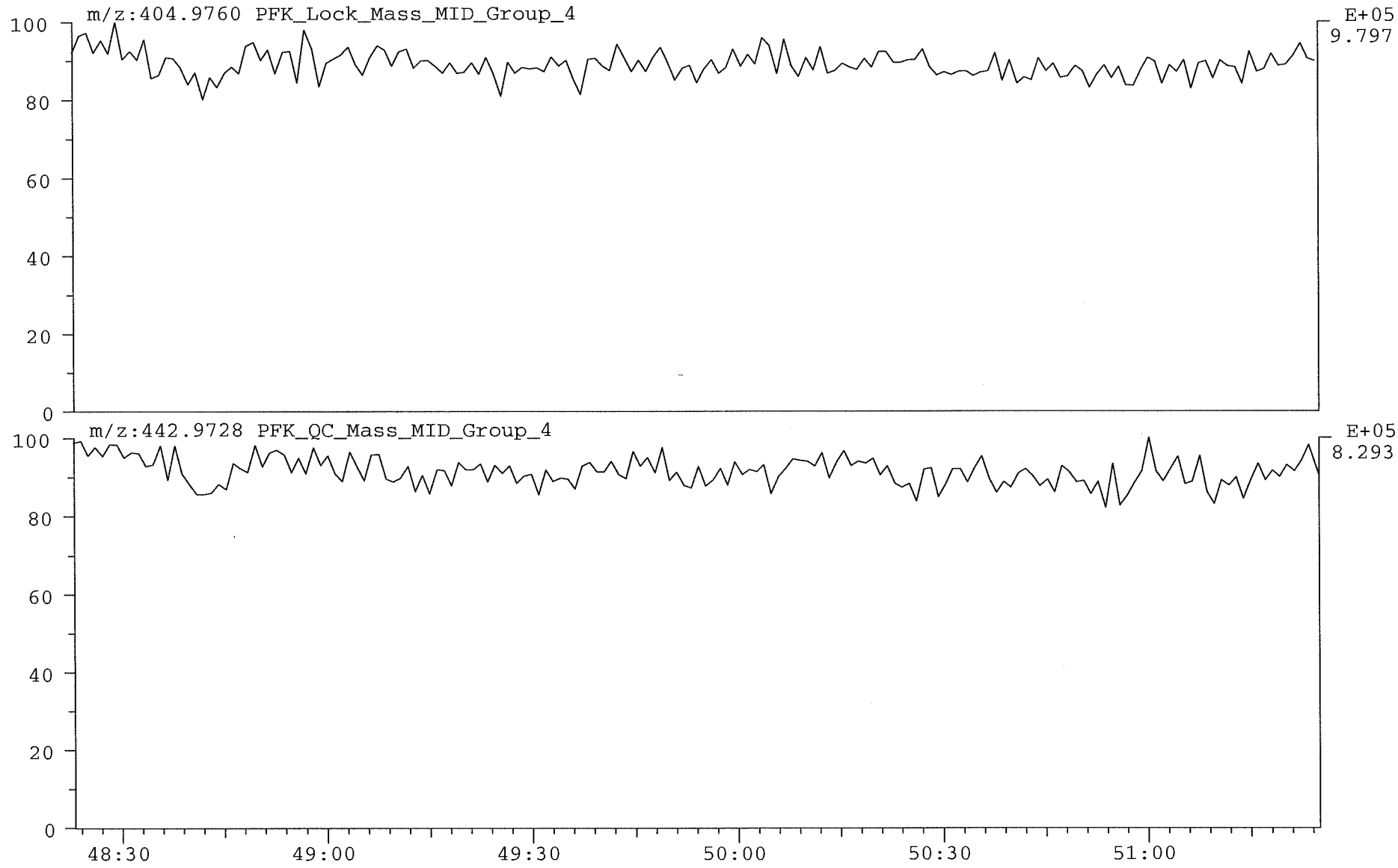


CHRO: b091210i3 10-Dec-09 Elapse: 49:54 2324
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2238 > 2409 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



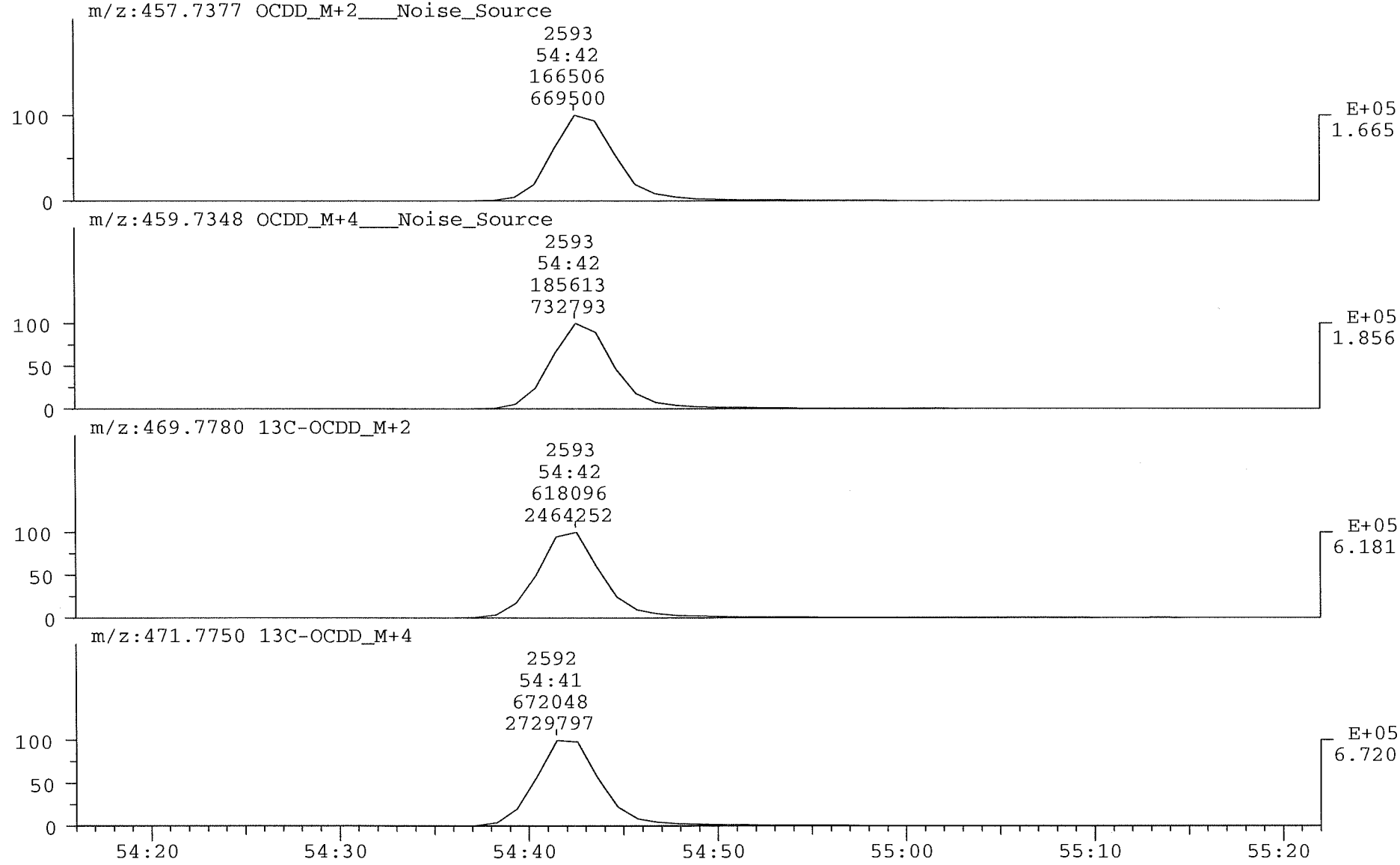
H-449

CHRO: b091210i3 10-Dec-09 Elapse: 49:54 2324
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2238 > 2409 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



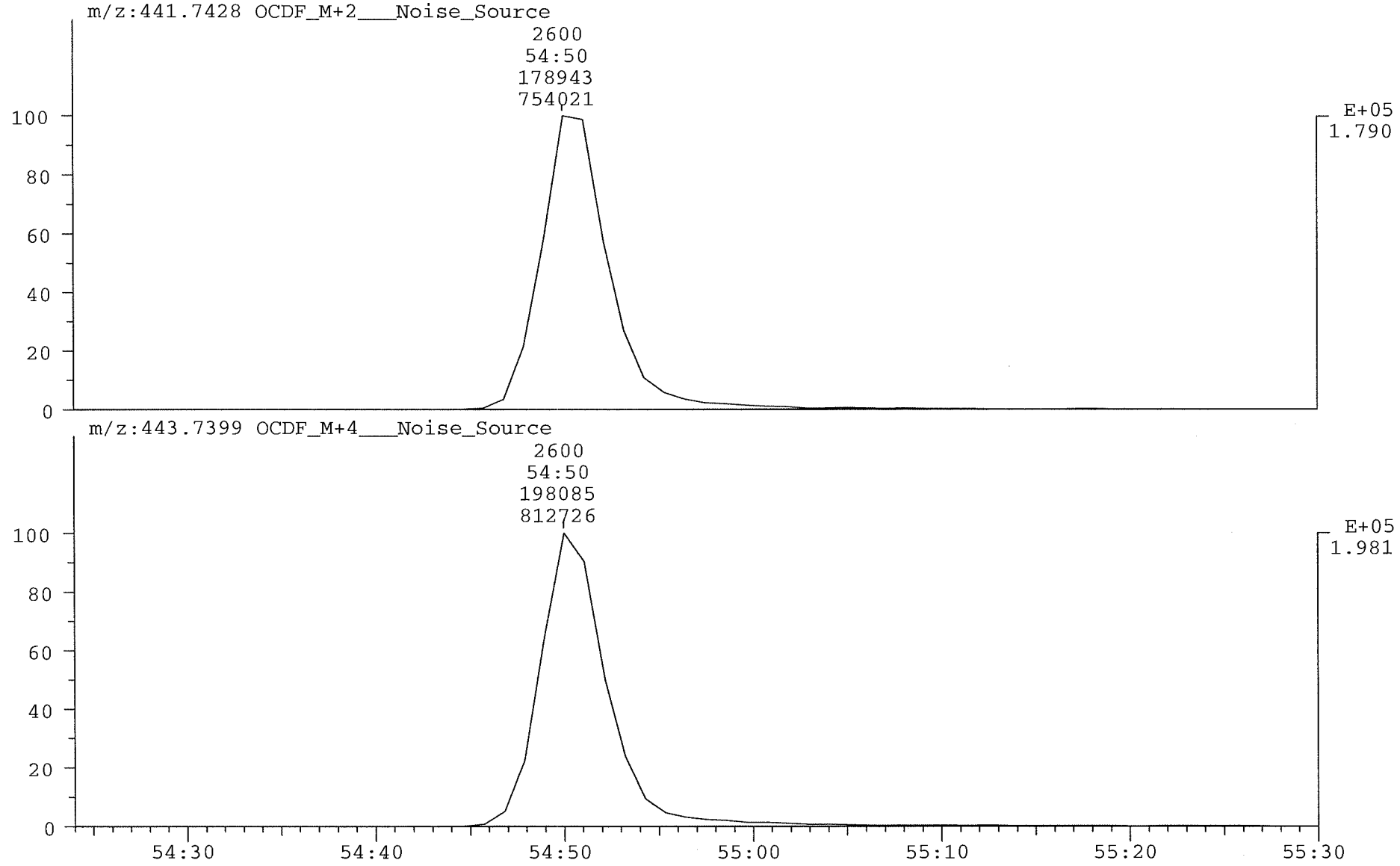
H-450

CHRO: b091210i3 10-Dec-09 Elapse: 54:45 2596
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2568 > 2630 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



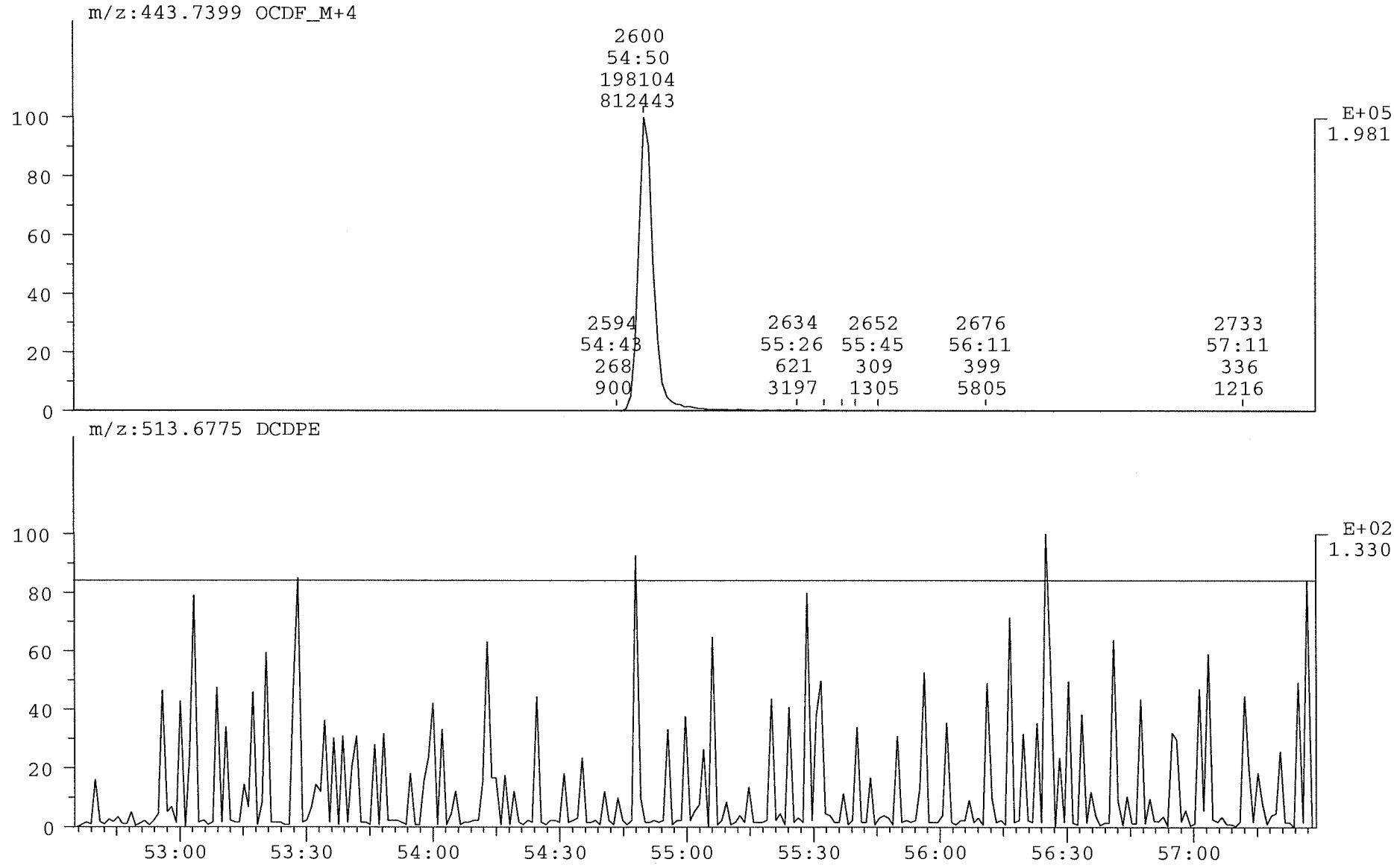
H-451

CHRO: b091210i3 10-Dec-09 Elapse: 54:54 2604
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2576 > 2638 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



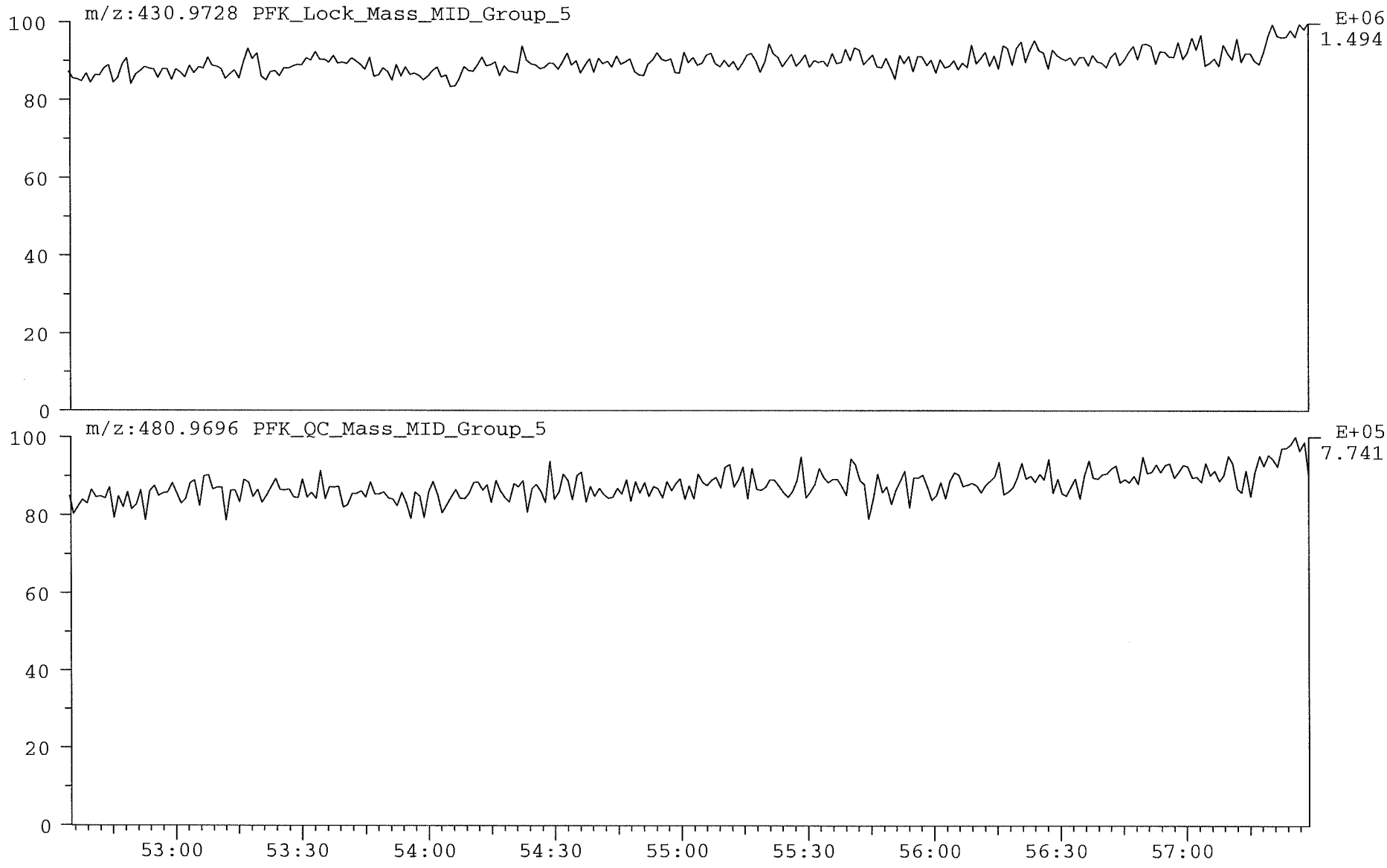
H-452

CHRO: b091210i3 10-Dec-09 Elapse: 54:54 2604
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2473 > 2749 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-453

CHRO: b091210i3 10-Dec-09 Elapse: 54:54 2604
Samp: Vial 7 WO=4104:14CS3 Meth=X8 Dil=1 Start : 17:46:30 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS3
Oper: KBL Client: TA Knoxville Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2473 > 2749 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis2ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b091210i3
Study: M23 CS3
Sample: WO=4104:14CS3 Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA Knoxville
Comments: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Injected volume:   2.0
Sample from Vial 7
Analysis will stop when MID run finishes
Tune file name: tune2
File 4 of list 091207
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.35 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End         Cycletime
  # 1    8:00 min    26:07 min    34:07 min     1.00 sec
  # 2   34:07 min     8:39 min    42:46 min     1.00 sec
  # 3   42:46 min     4:49 min    47:36 min     1.00 sec
  # 4   47:36 min     4:52 min    52:29 min     1.00 sec
  # 5   52:29 min     5:01 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   1     81.92
    305.8987      1   1     81.92
    315.9419      1   1     81.92
    317.9389      1   1     81.92
    319.8965      1   1     81.92
    321.8936      1   1     81.92
    327.8847      1   1     81.92
    331.9368      1   1     81.92
    333.9338      1   1     81.92
    342.9792 c   10   1      8.19
    375.8364      1   1     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   1     91.48
    341.8567      1   1     91.48
```

```
  351.9000       1   1      91.48
  353.8970       1   1      91.48
  355.8546       1   1      91.48
  357.8516       1   1      91.48
  367.8949       1   1      91.48
  369.8919       1   1      91.48
  380.9760 c    10   1       8.19
  409.7974       1   1      91.48
 Window # 3
       mass F  int  gr  time (ms)
  373.8208       1   1      91.48
  375.8178       1   1      91.48
  380.9760 1    10   1       8.19
  383.8639       1   1      91.48
  385.8610       1   1      91.48
  389.8156       1   1      91.48
  391.8127       1   1      91.48
  401.8559       1   1      91.48
  403.8529       1   1      91.48
  404.9760 c    10   1       8.19
  445.7555       1   1      91.48
 Window # 4
       mass F  int  gr  time (ms)
  404.9760 1    10   1       8.19
  407.7818       1   1      91.48
  409.7788       1   1      91.48
  417.8250       1   1      91.48
  419.8220       1   1      91.48
  423.7767       1   1      91.48
  425.7737       1   1      91.48
  435.8169       1   1      91.48
  437.8140       1   1      91.48
  442.9728 c    10   1       8.19
  479.7165       1   1      91.48
 Window # 5
       mass F  int  gr  time (ms)
  430.9728 1    10   1      10.92
  441.7428       1   1     120.15
  443.7399       1   1     120.15
  457.7377       1   1     120.15
  459.7348       1   1     120.15
  469.7780       1   1     120.15
  471.7750       1   1     120.15
  480.9696 c    10   1      10.92
  513.6775       1   1     120.15

Auto Sampler descriptor: pcdd2ul
 Injector A
 Normal Injection
 Slvnt A cln before inj(K):      3 times
 Slvnt B cln before inj(L):      0 times
 Sample rinse cycles   (R):      0 times
 Syringe filling volume(F):    1.0 ul
 Pullup delay time     (D):      4 sec
 Sample pullup speed   (E):    5.0 ul/sec
 Slvnt aftr pre inj cln(U):    0.0 ul
 Air after pre inj cln (G):    2.0 ul
 Sample volume         (V):    2.0 ul
 Sample air volume     (A):    2.0 ul
 Sample pullup count   (P):      2 times
 Injection speed       (S):   10.0 ul/sec
 Injection wait time   (W):     10 sec
 Injection hold time   (H):      3 sec
 Solvent A clean cycles(C):     15 times
 Solvent B clean cycles(B):     20 times
 Loop clean w slvnt A (LC):      0 times
```

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:         270 deg                        300 deg max
  Transfer Line:    290 deg                        300 deg max
  Column:           140 deg at    0.0 minutes      330 deg max
                    140 deg at    3.0 minutes
                    210 deg at    6.5 minutes
                    210 deg at   34.5 minutes
                    280 deg at   44.5 minutes
                    280 deg at   51.0 minutes
                    325 deg at   57.5 minutes
  Inlet    :
  Pressure        18.0 psi
  Splitless mode
  Purge time       1.5 min
  Purge flow      40.0 mL/min

   Gas saver is on
   Saver time       3.0 min
   Saver flow      15.0 mL/min

  Stabilize time   0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8415.0000
BDEV	8288.0000	BFM	2.0000	BLM	1181.9425
BMASS	304.9824	BQUAD	2.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.2941
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-29.5750
DRAWC	1.0000	DRAWS	0.0000	ECORR	1.0006
ECURR	1.0000	EDAC	7969177.0000	EDACG	0.9998
EDACR	20.0000	EDACZ	1898.0000	ELEN	57.6250
EMULT	2.1100	ENS	219.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	6.7500	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	561.0000	FVINLET	940.0000
FVSRC	992.0000	FWIN	0.7000	GCTC	138.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7549	HVANAL	1091.0000	HVSRC	3076.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4752.1320	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2409.0000	LENSS	-44.6000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3237806.8854	MDACR	20.0000
MRANGE	1181.9425	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2761.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-7.0750	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10637.5656	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	3073.0000	SHIELDS	-0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.6900	TCURR	1.0547	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.2000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.3750
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1119.0000	XLENSS	-46.6000
YLENS	3324.0000	YLENSS	-98.4000		

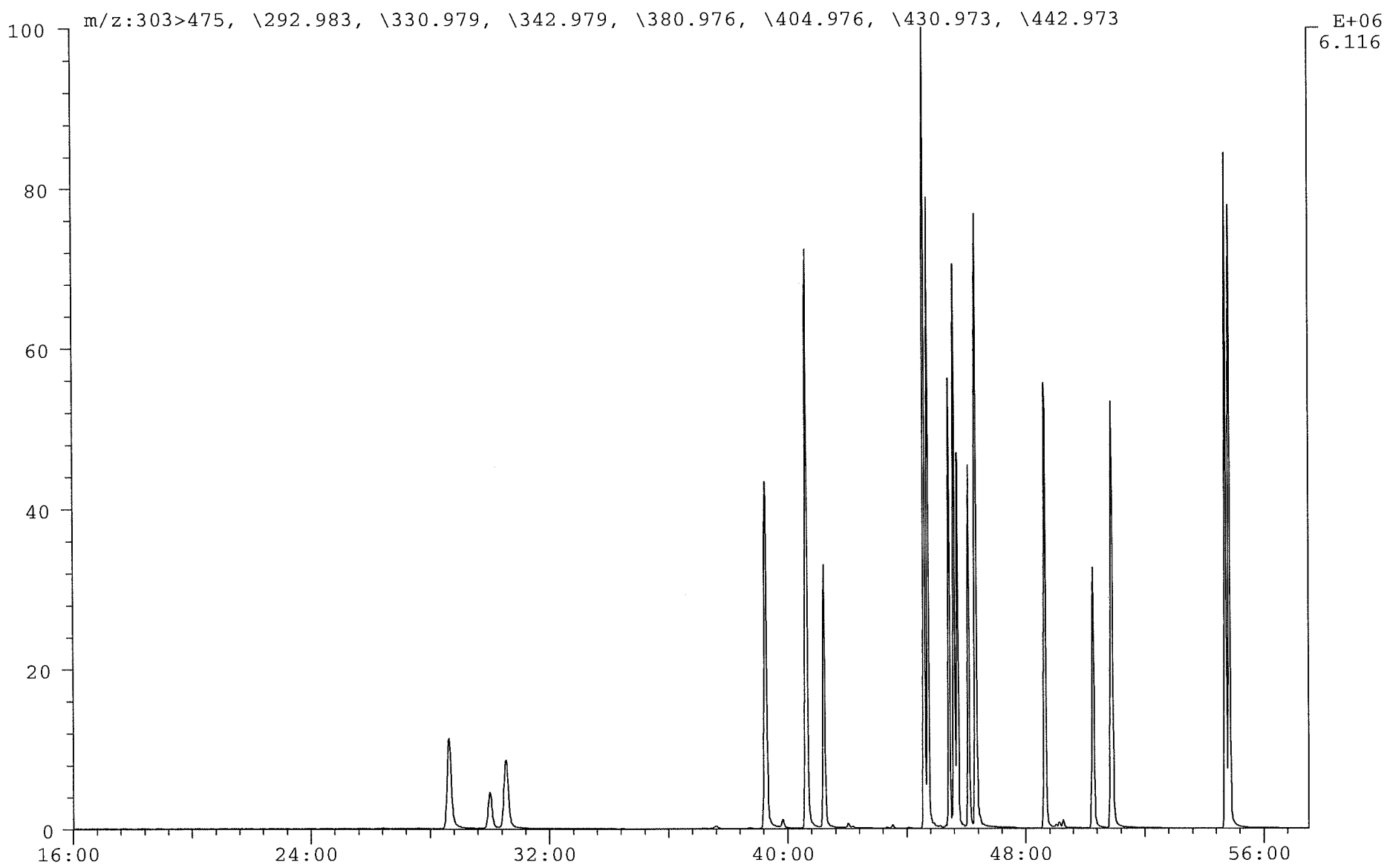
Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Dec-09 17:46:30.8

Autosampler has injected sample from vial 7
Analysis stopped at: 10-Dec-09 18:44:02.7 (run time 57.52 minutes)
Analysis stopped because MID run finished

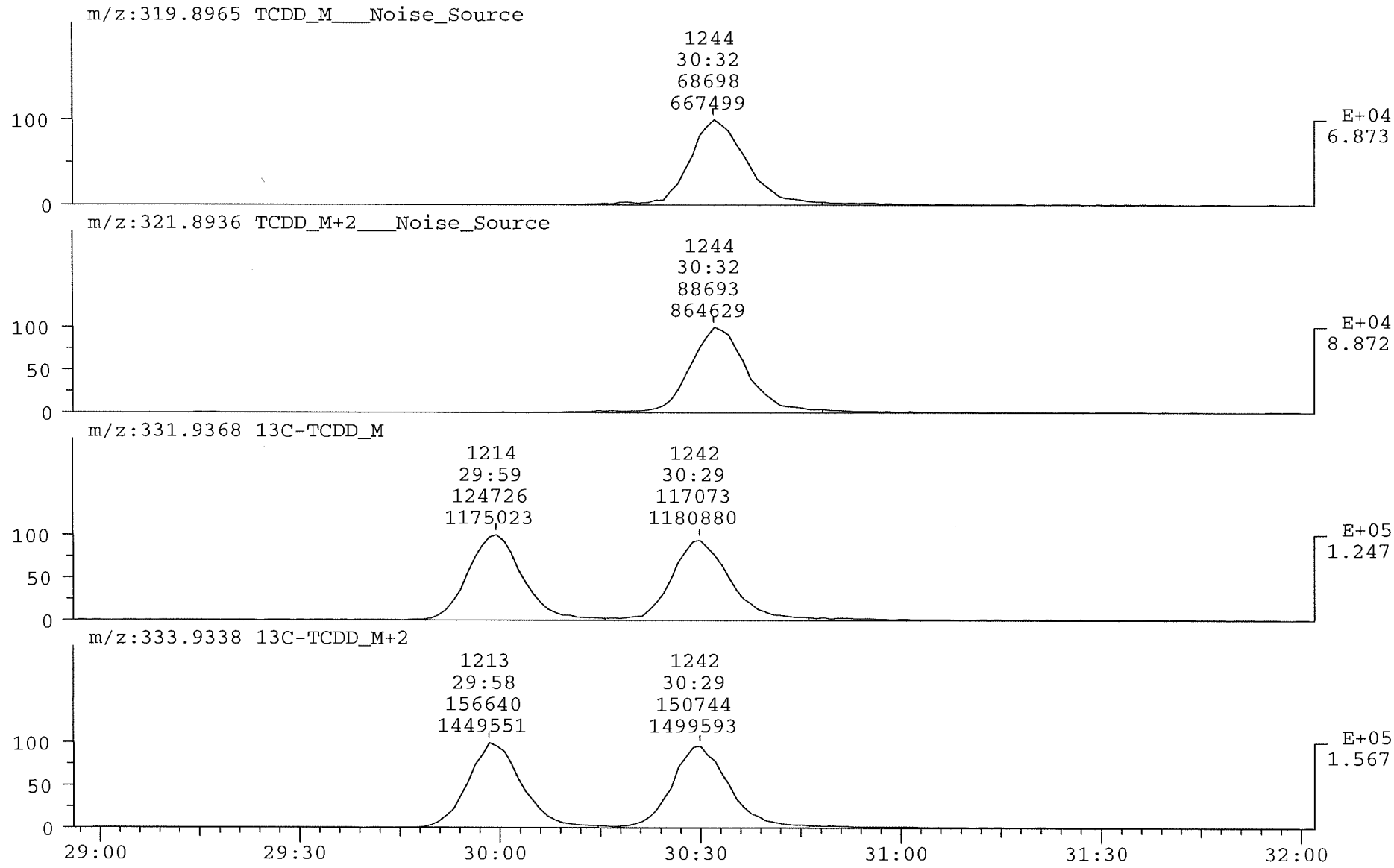
CHRO:	b091210i4	10-Dec-09	Elapse:	54:49	2604
Samp:	Vial 8 WO=4104:14CS4 Meth=X8 Dil=1		Start :	18:47:13	2755
Comm:	Inst=m2a/945352 Batch=20091210i Ccal=B091209S4				
Mode:	EI +VE +LMR ESCAN LR NRM		Study :	M23 CS4	
Oper:	KBL Client: TA Knoxville		Inlet :	GC Vial	8
Peak:	100.00 ppm Label wndw: 442 > 2755		Masses:	293 > 514	
Area:	5, 0.50, 0 Baseline : 100, 3		Label :	0, 0.0	
Disp:	Height Area				

Int Prnp 12-10-09
Calc WSD 12/11/09
QCRM 1211-09

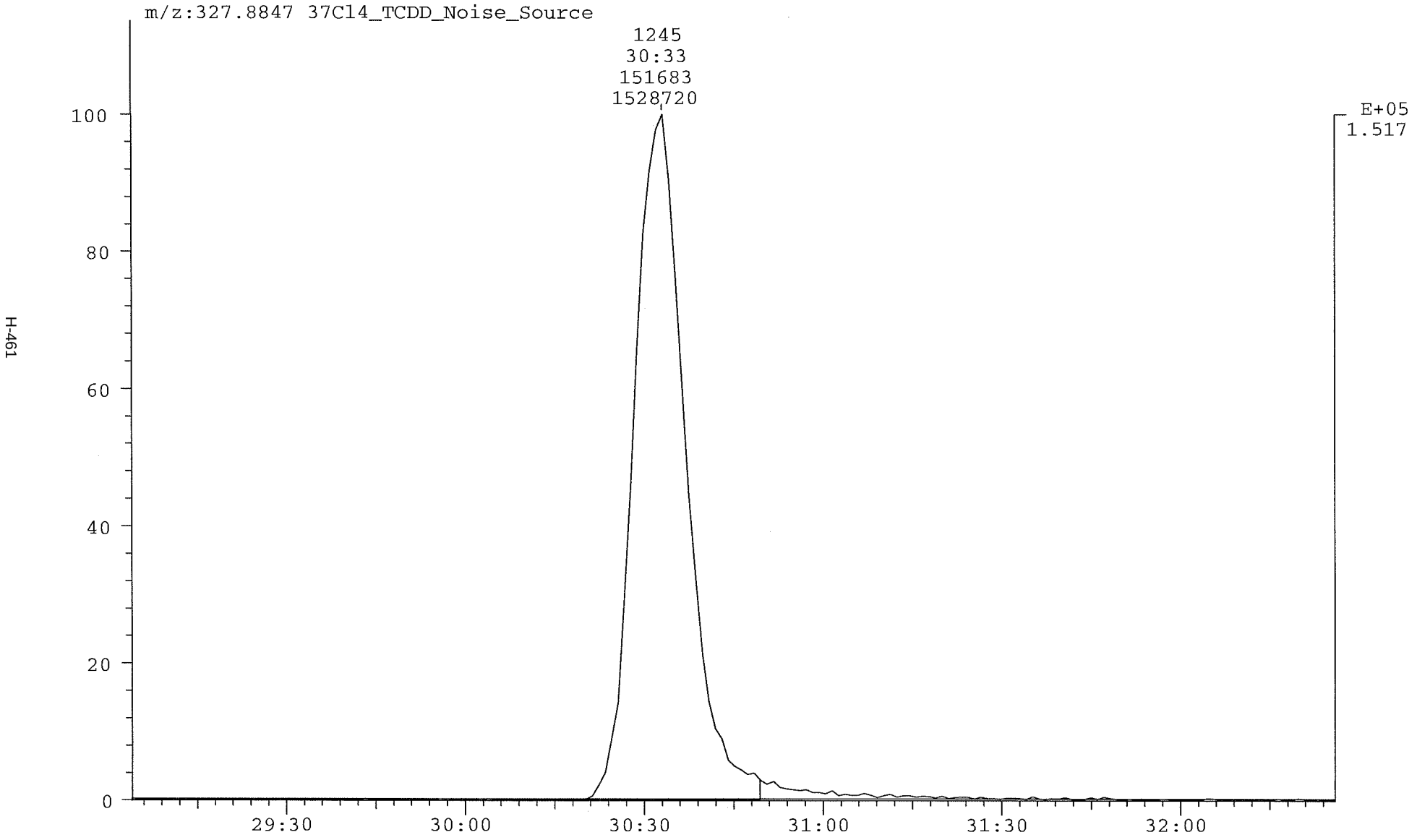


H-459

CHRO: b091210i4 10-Dec-09 Elapse: 30:28 1241
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1156 > 1327 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

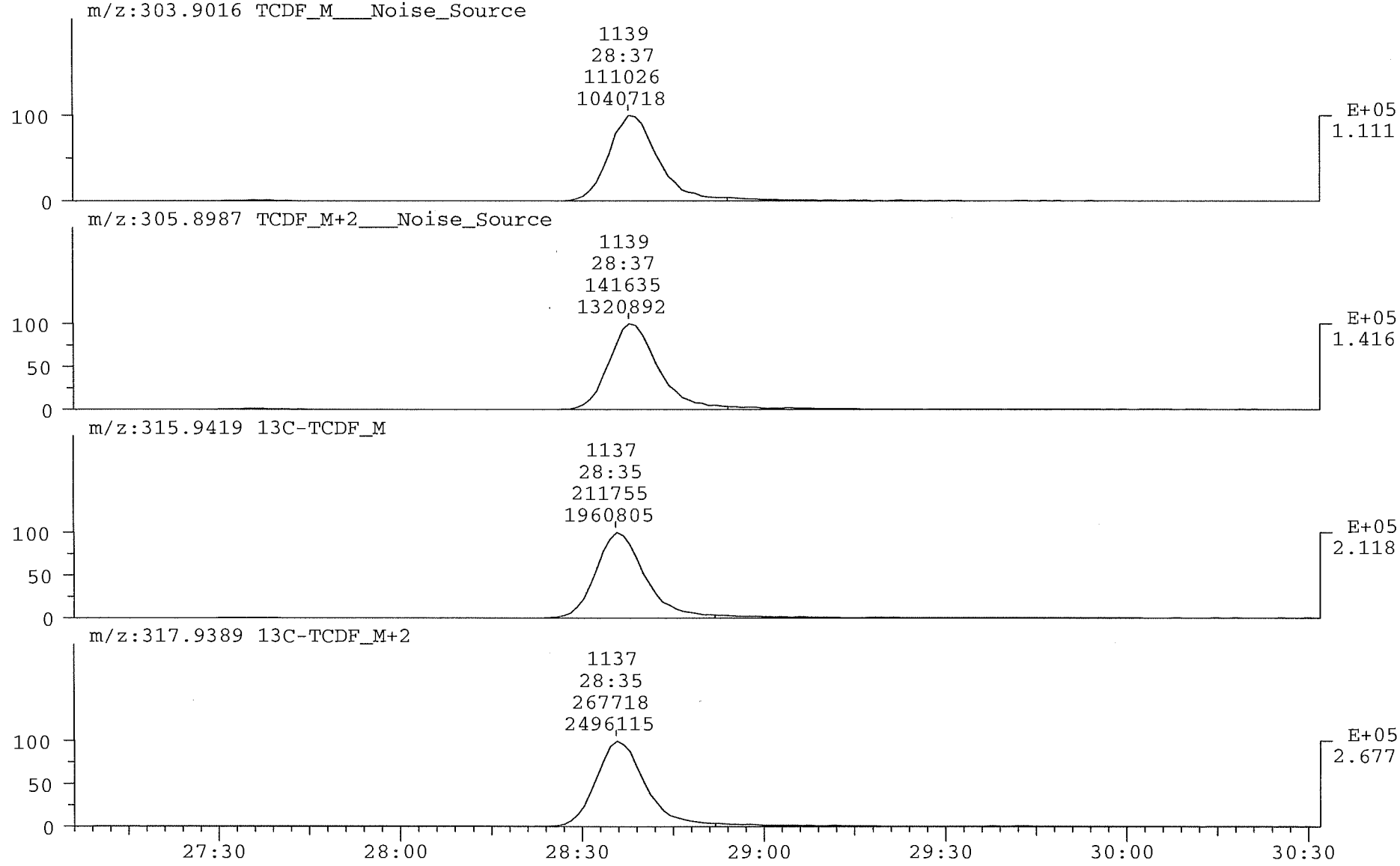


CHRO: b091210i4 10-Dec-09 Elapse: 30:41 1253
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1163 > 1349 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



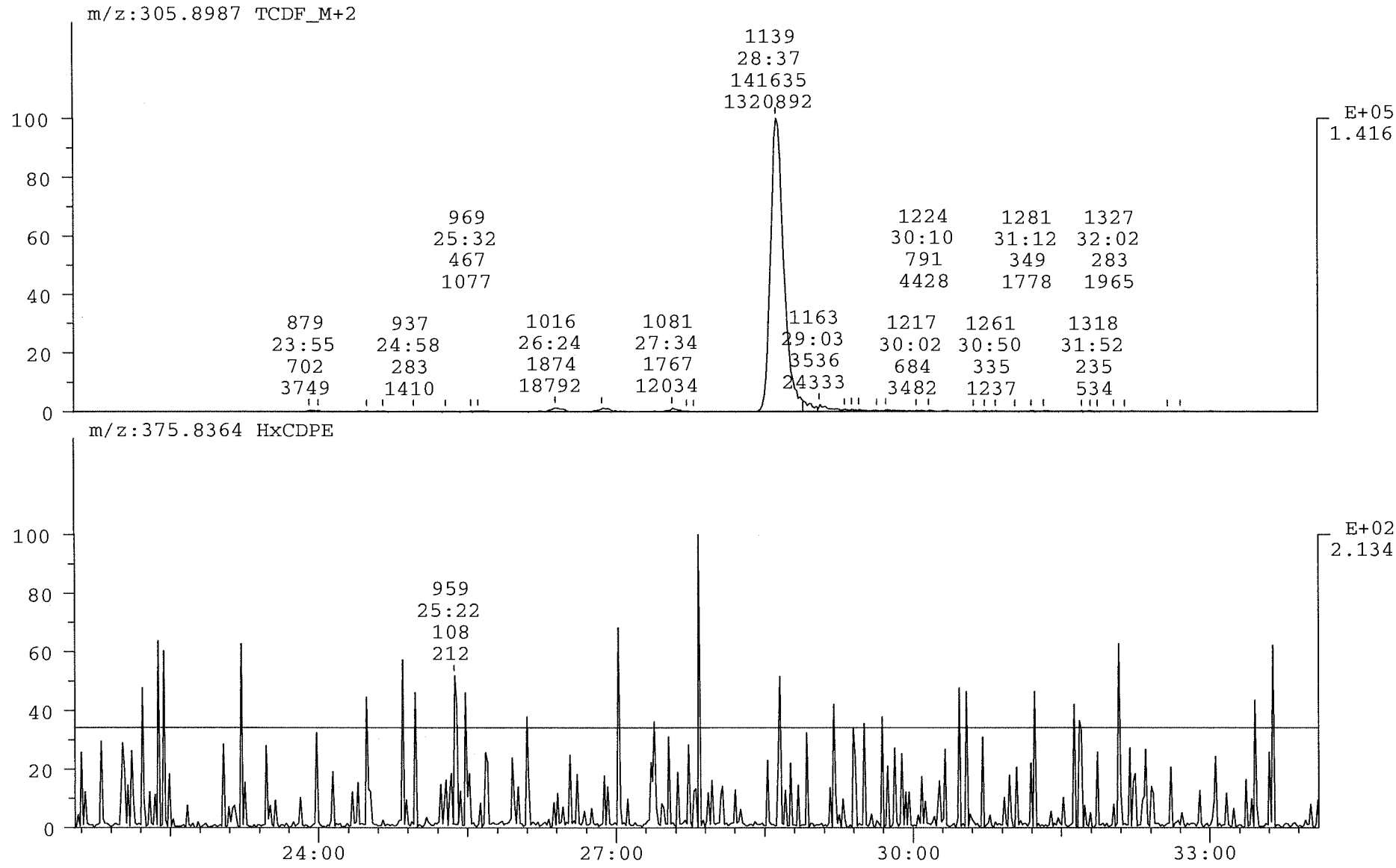
H-461

CHRO: b091210i4 10-Dec-09 Elapse: 28:46 1147
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1055 > 1244 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



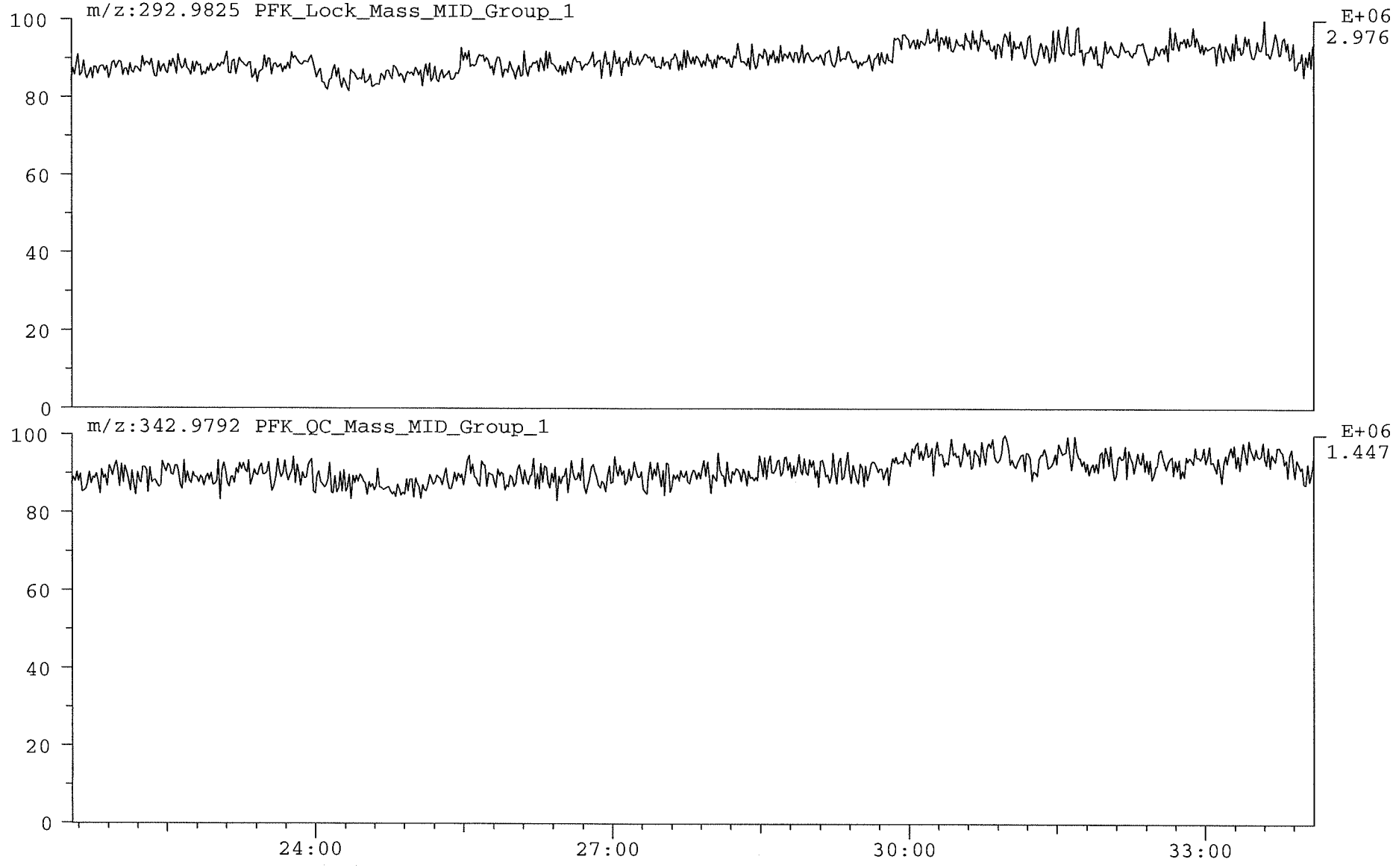
H-462

CHRO: b091210i4 10-Dec-09 Elapse: 28:46 1147
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 747 > 1441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

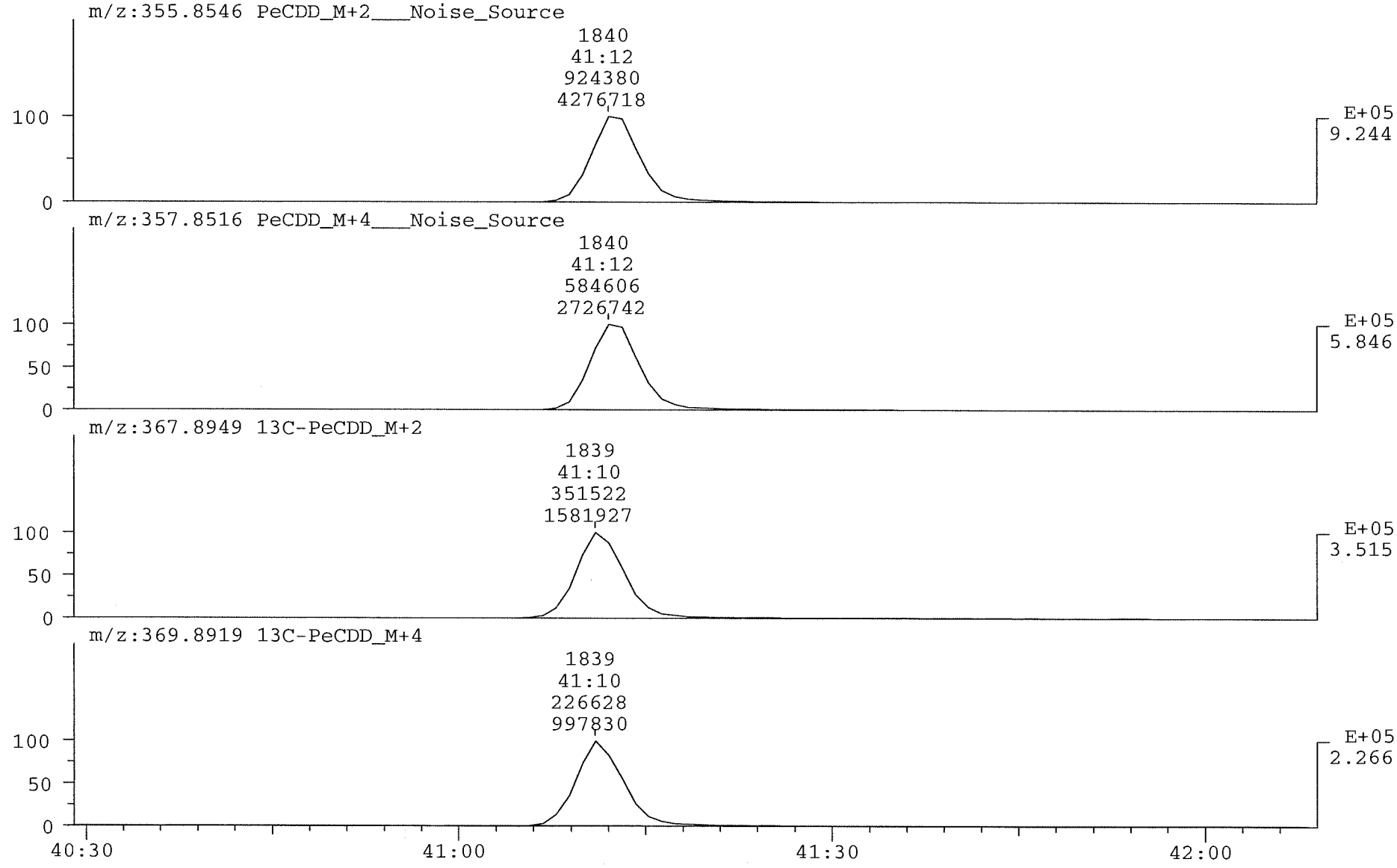


H-463

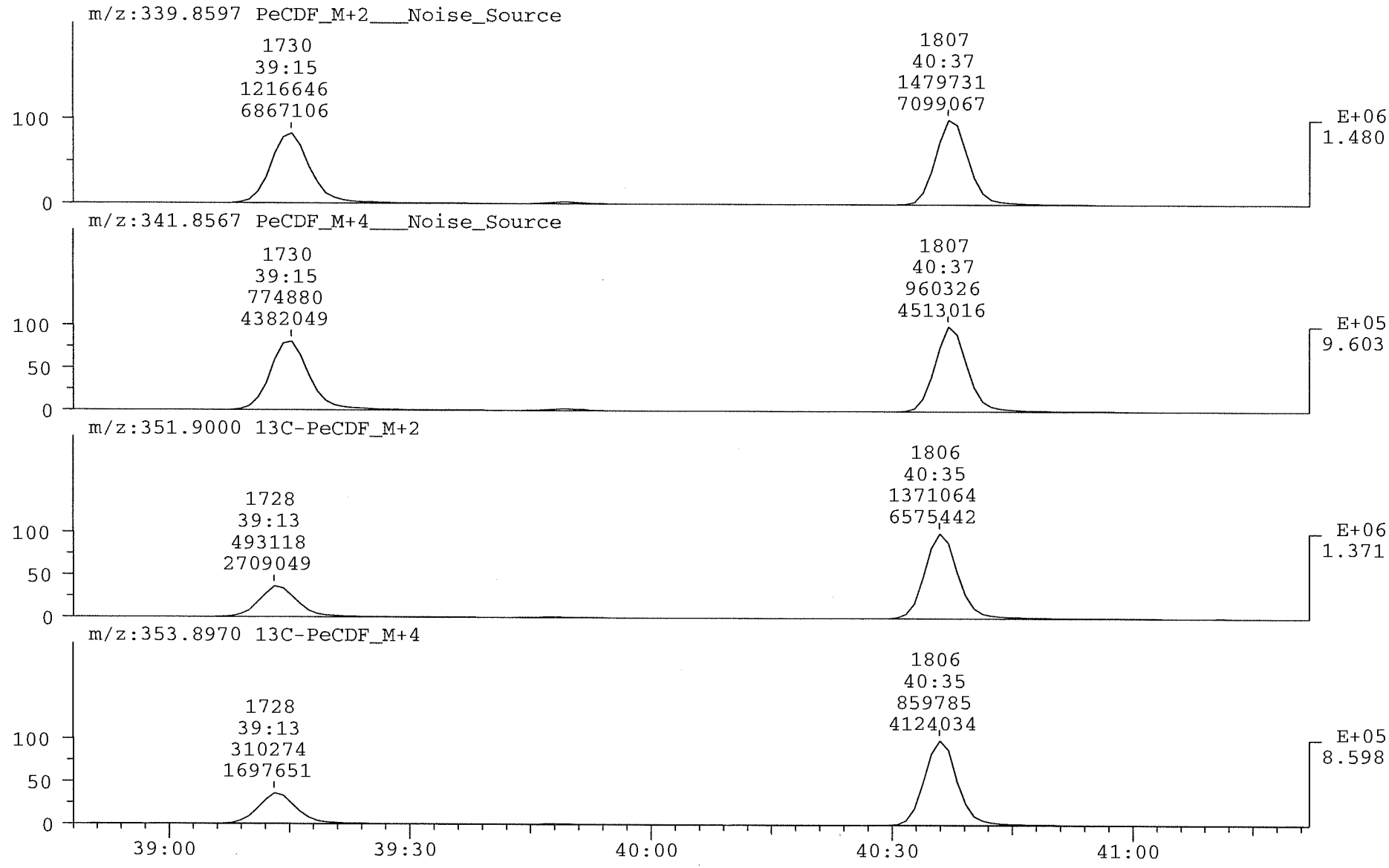
CHRO: b091210i4 10-Dec-09 Elapse: 28:46 1147
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 747 > 1441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



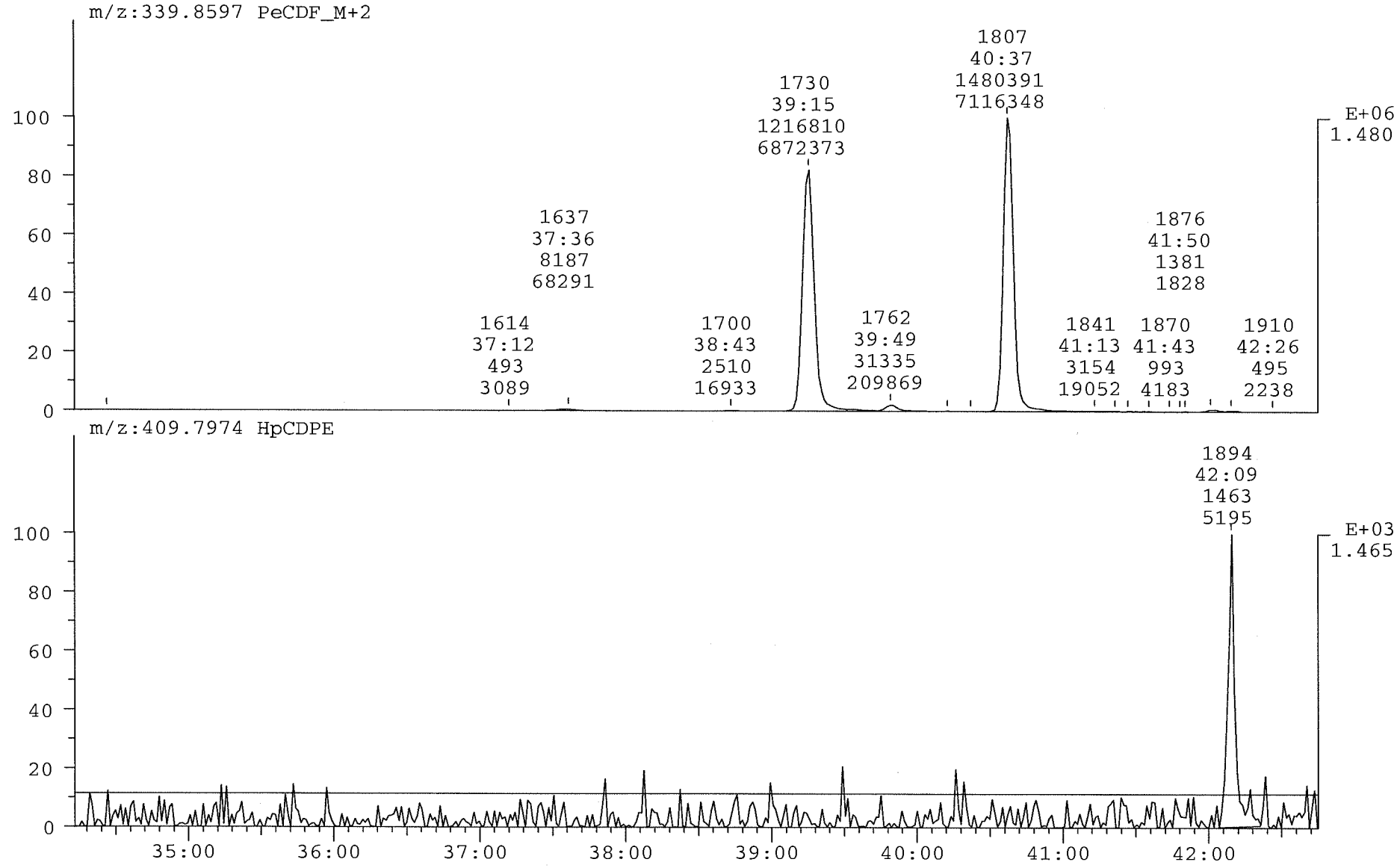
CHRO: b091210i4 10-Dec-09 Elapse: 41:16 1844
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1799 > 1894 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



CHRO: b091210i4 10-Dec-09 Elapse: 40:05 1777
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1704 > 1849 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

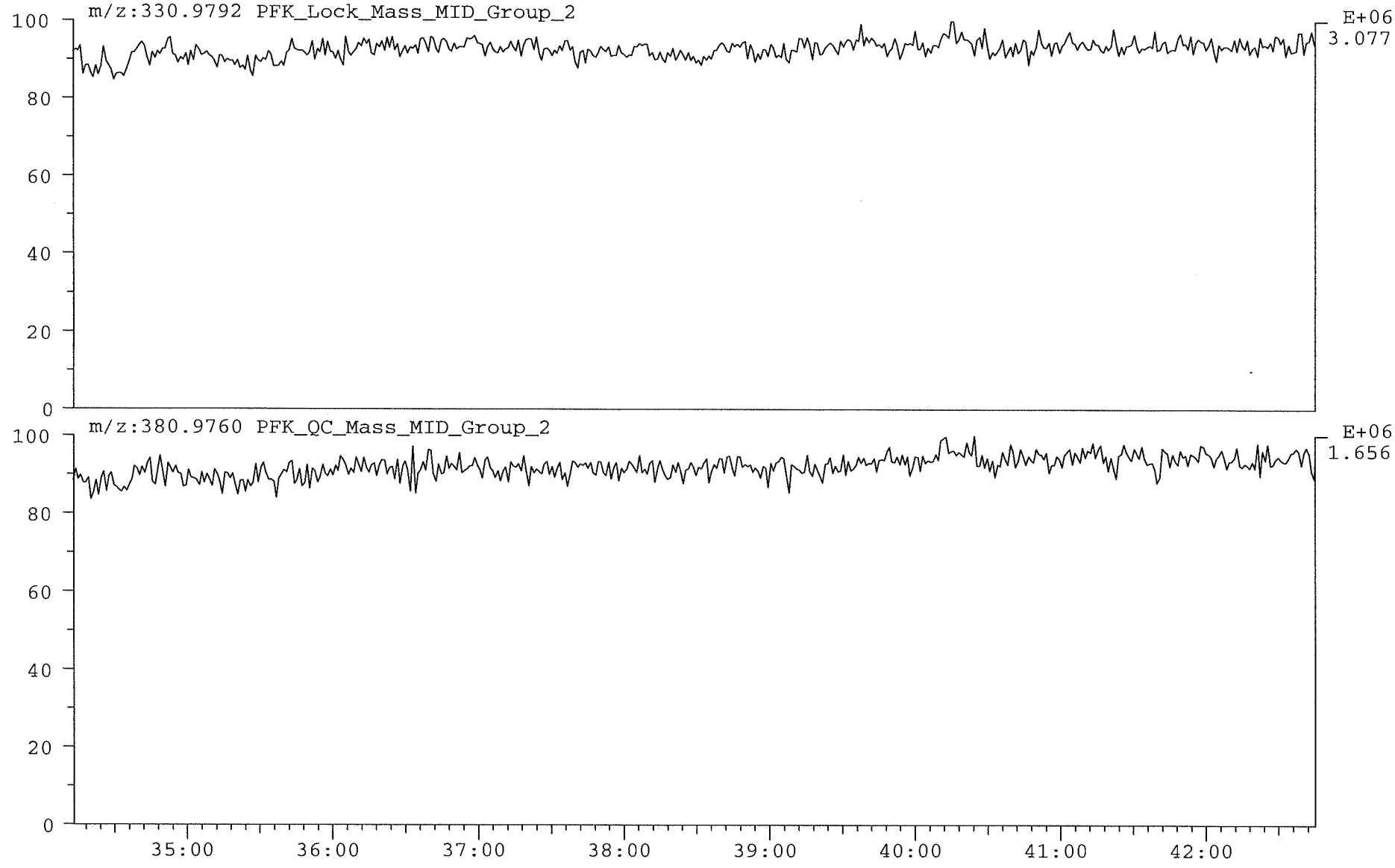


CHRO: b091210i4 10-Dec-09 Elapse: 40:05 1777
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1445 > 1928 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-467

CHRO: b091210i4 10-Dec-09 Elapse: 40:05 1777
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1445 > 1928 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



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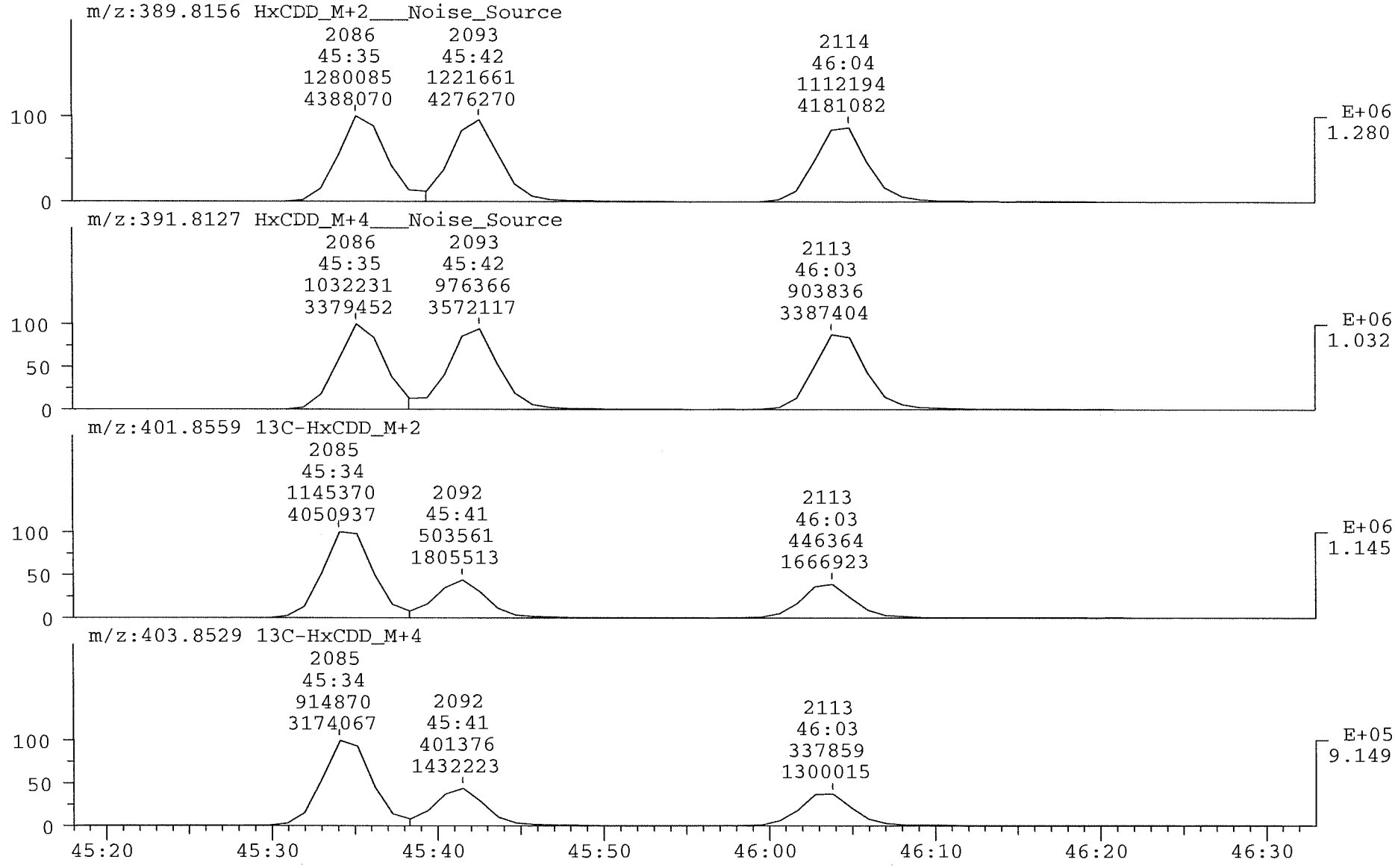
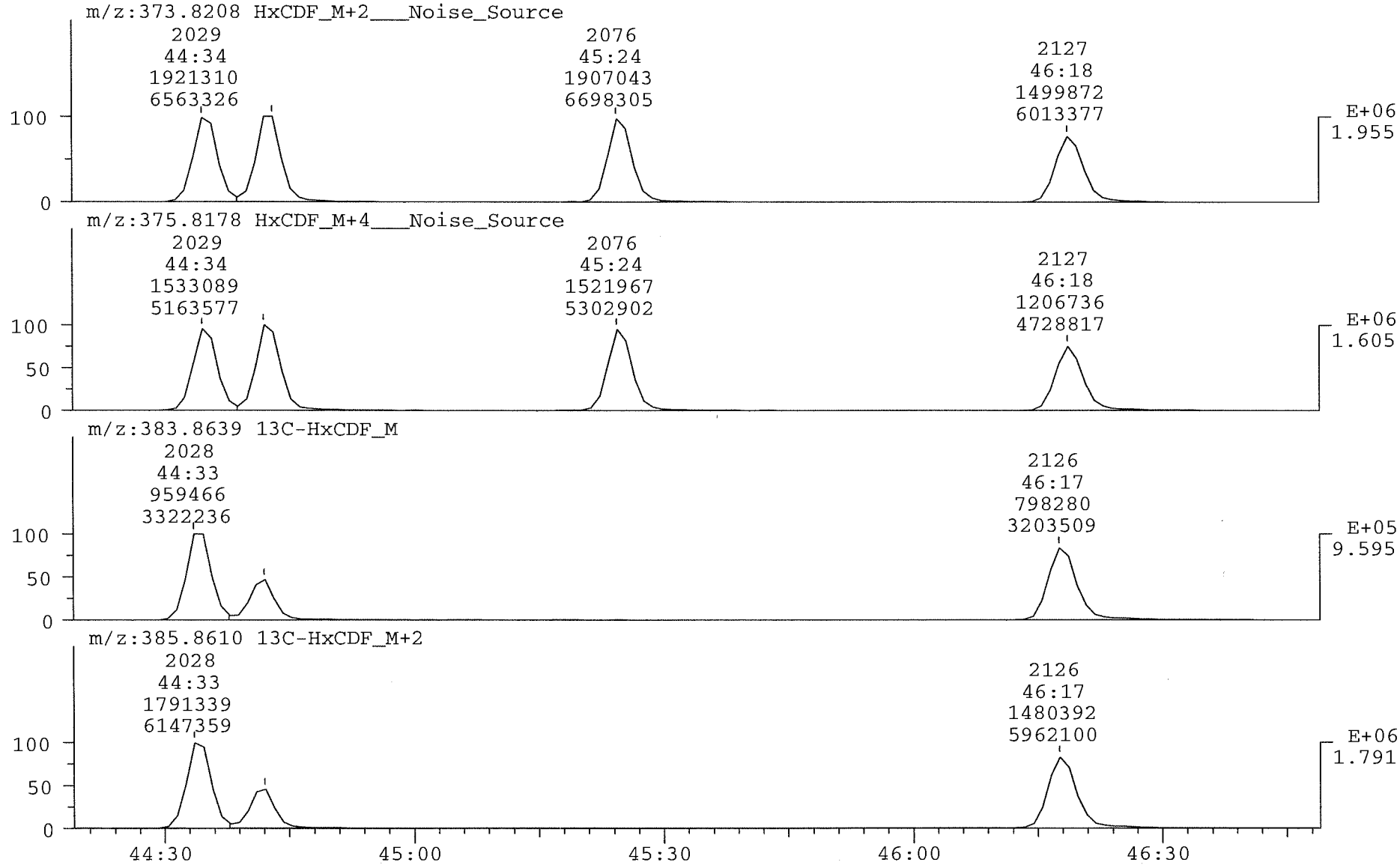
CHRO: b091210i4 10-Dec-09 Elapse: 45:55 2105
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2070 > 2141 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

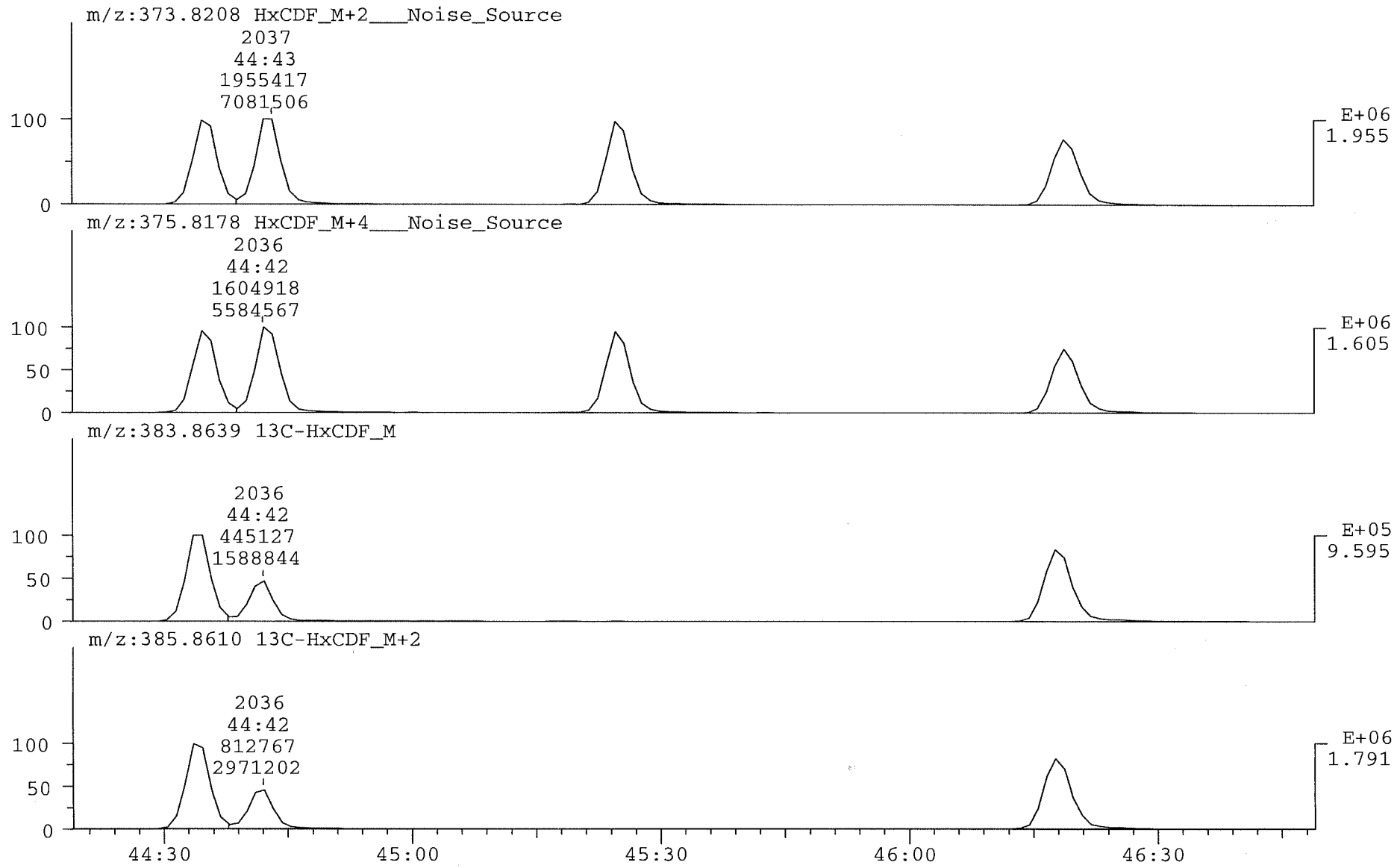


H-469

CHRO: b091210i4 10-Dec-09 Elapse: 45:34 2085
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2014 > 2156 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

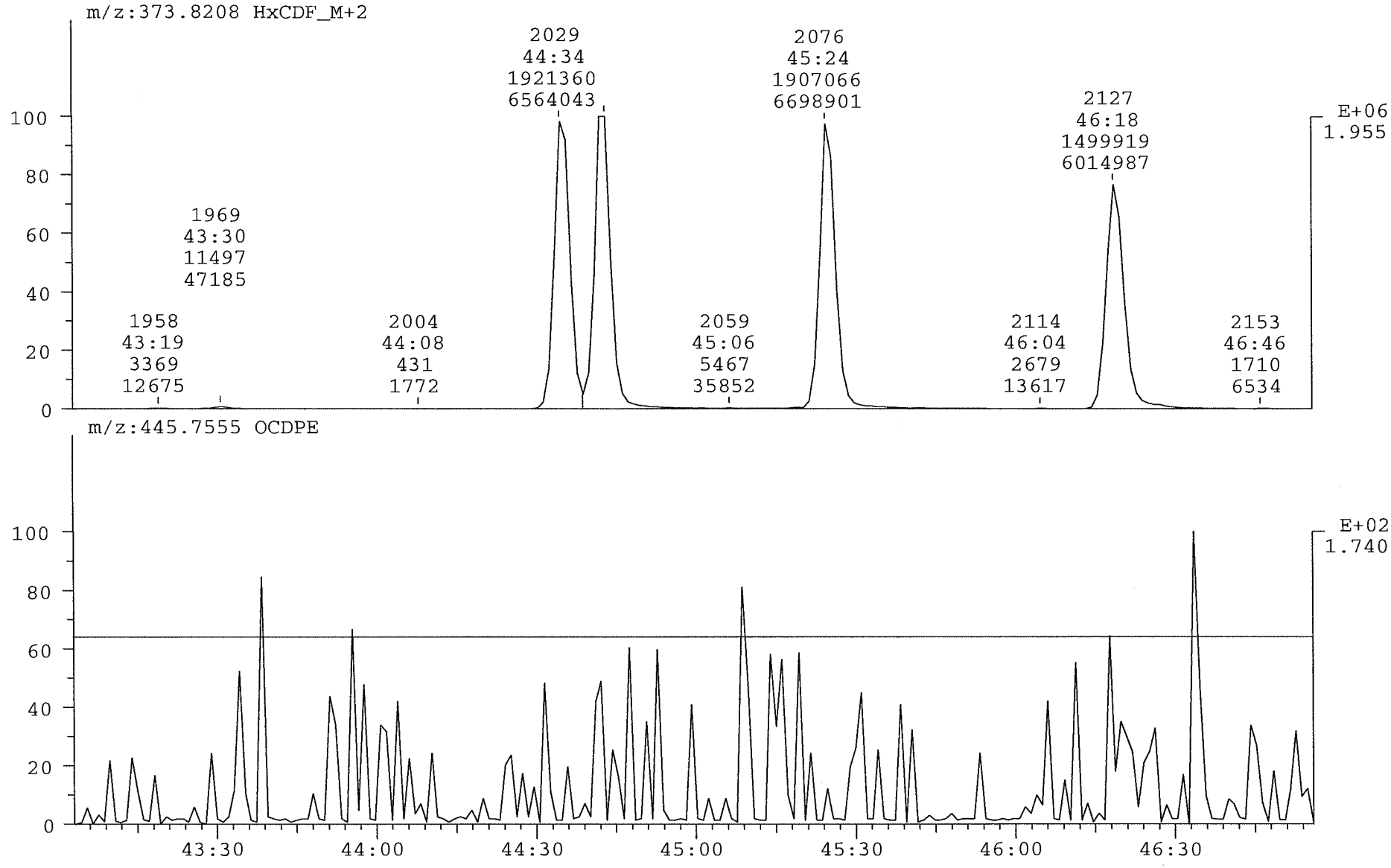


CHRO: b091210i4 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2036 > 2044 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



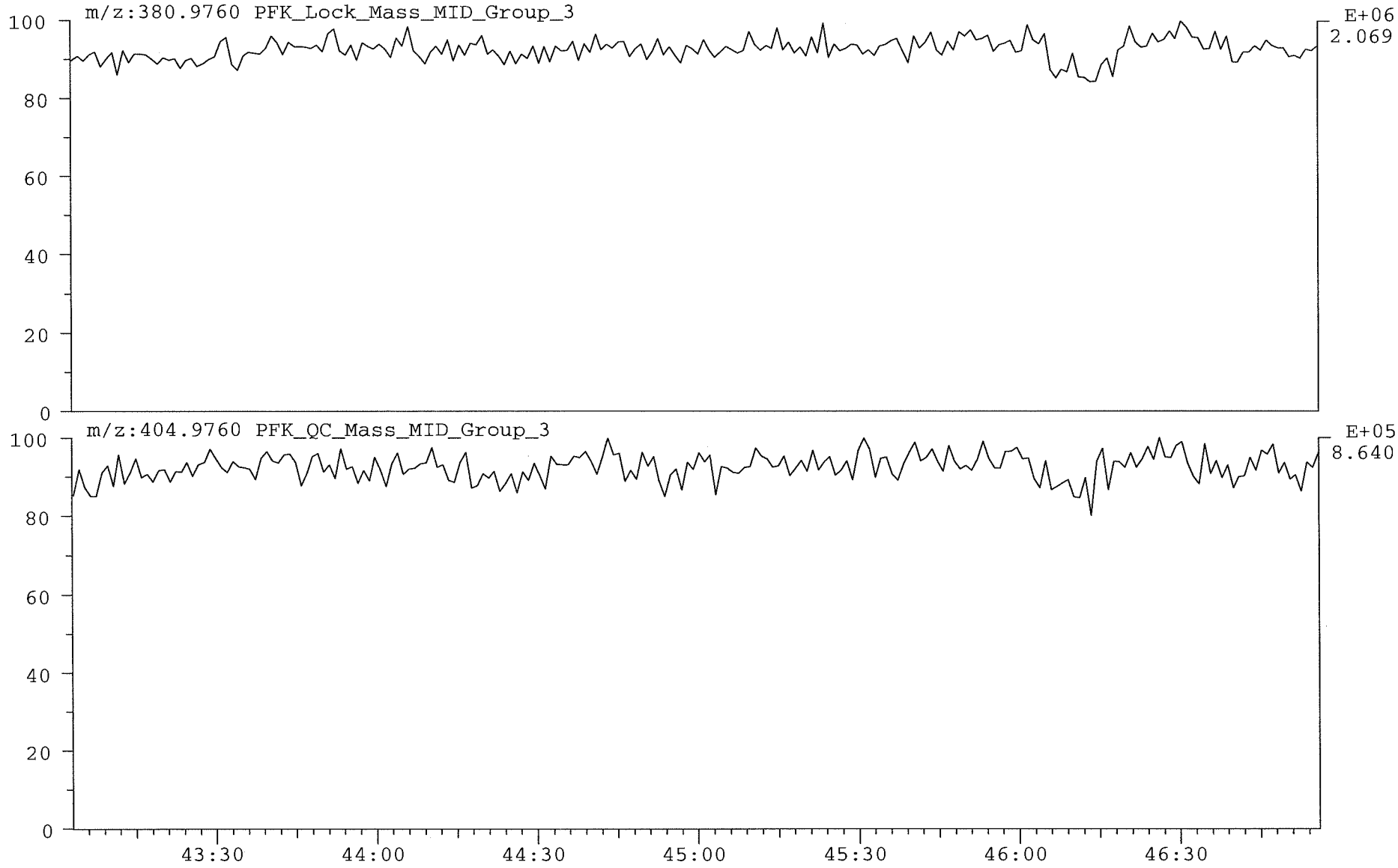
H-471

CHRO: b091210i4 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1943 > 2162 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

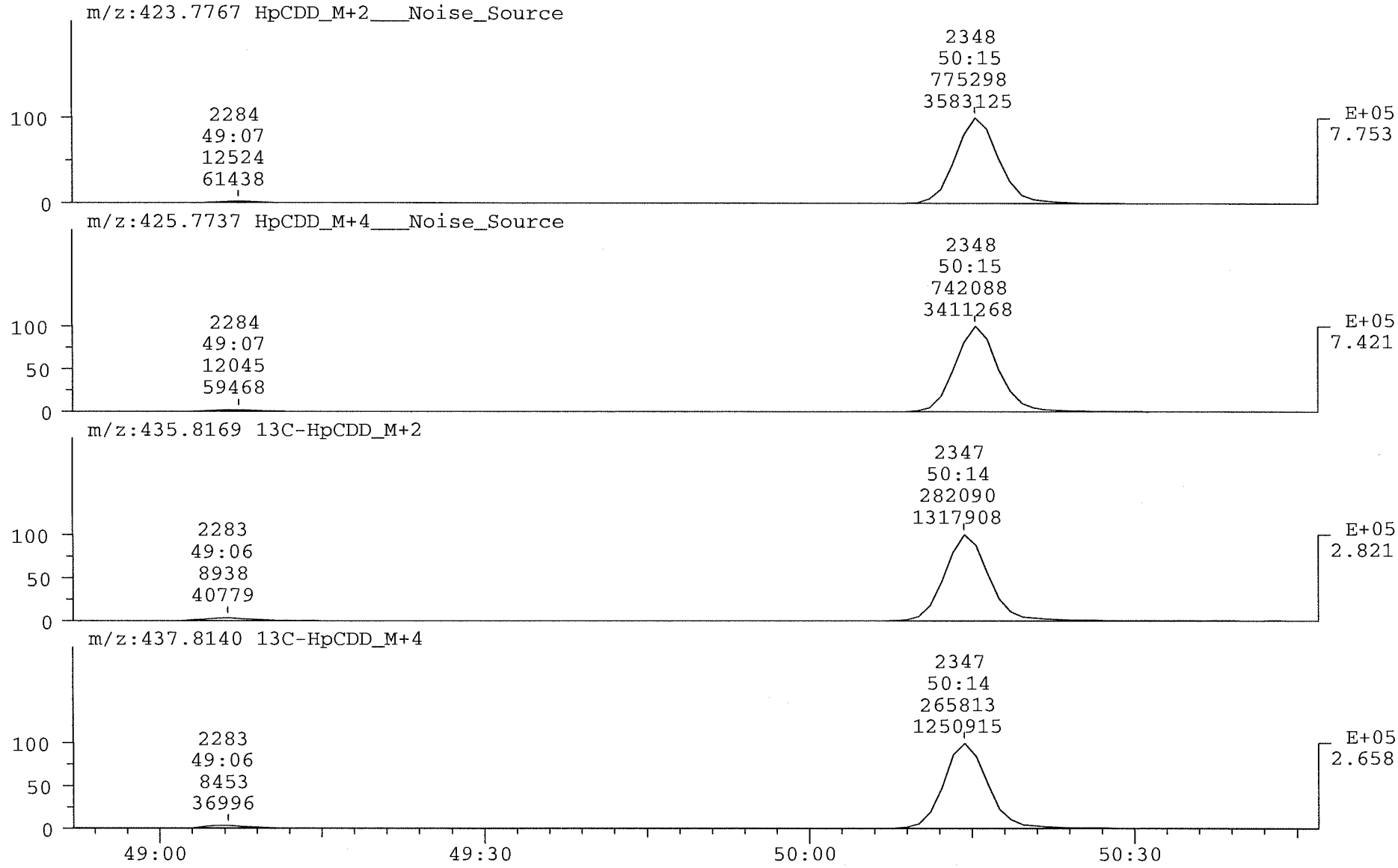


H-472

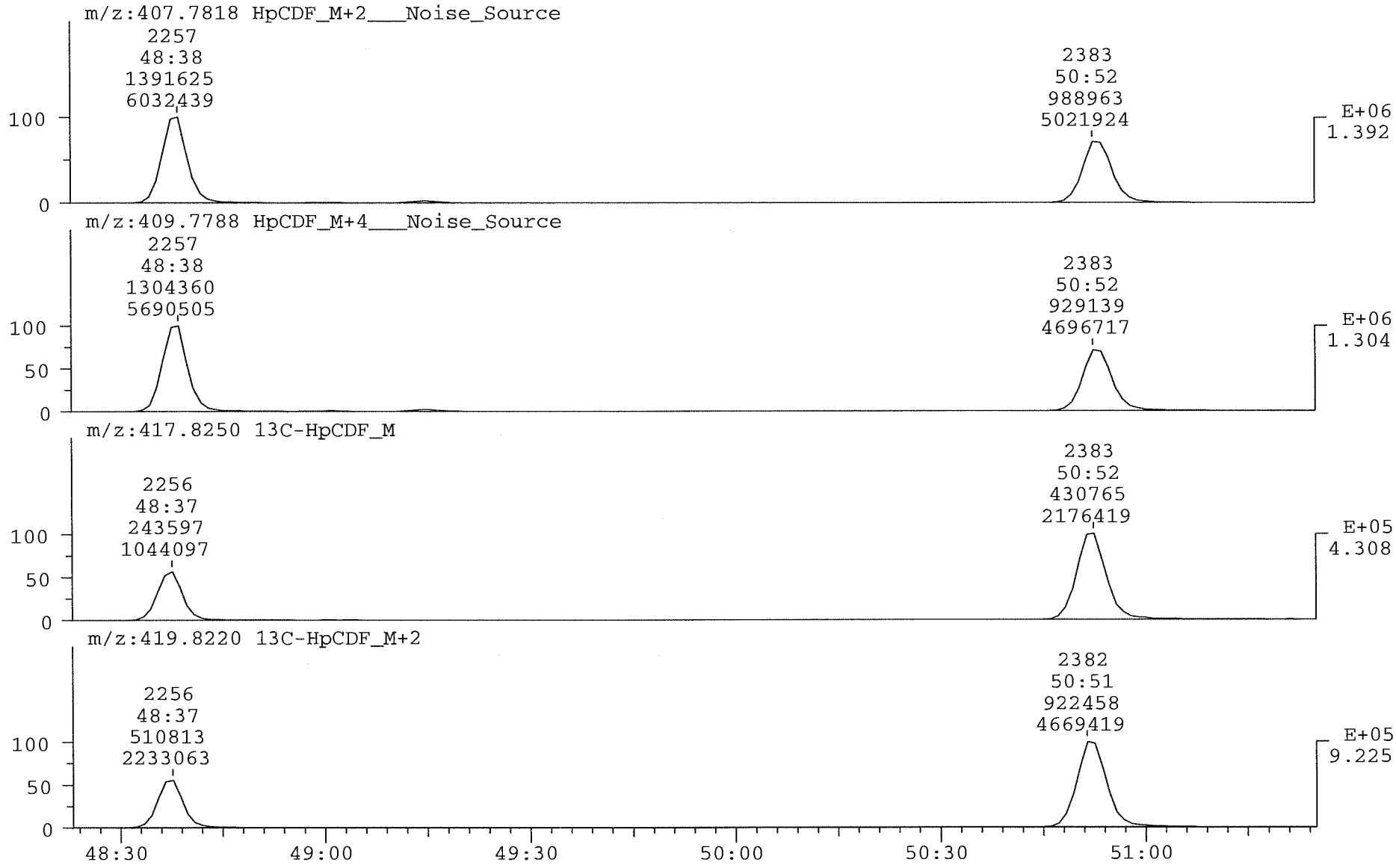
CHRO: b091210i4 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1943 > 2162 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



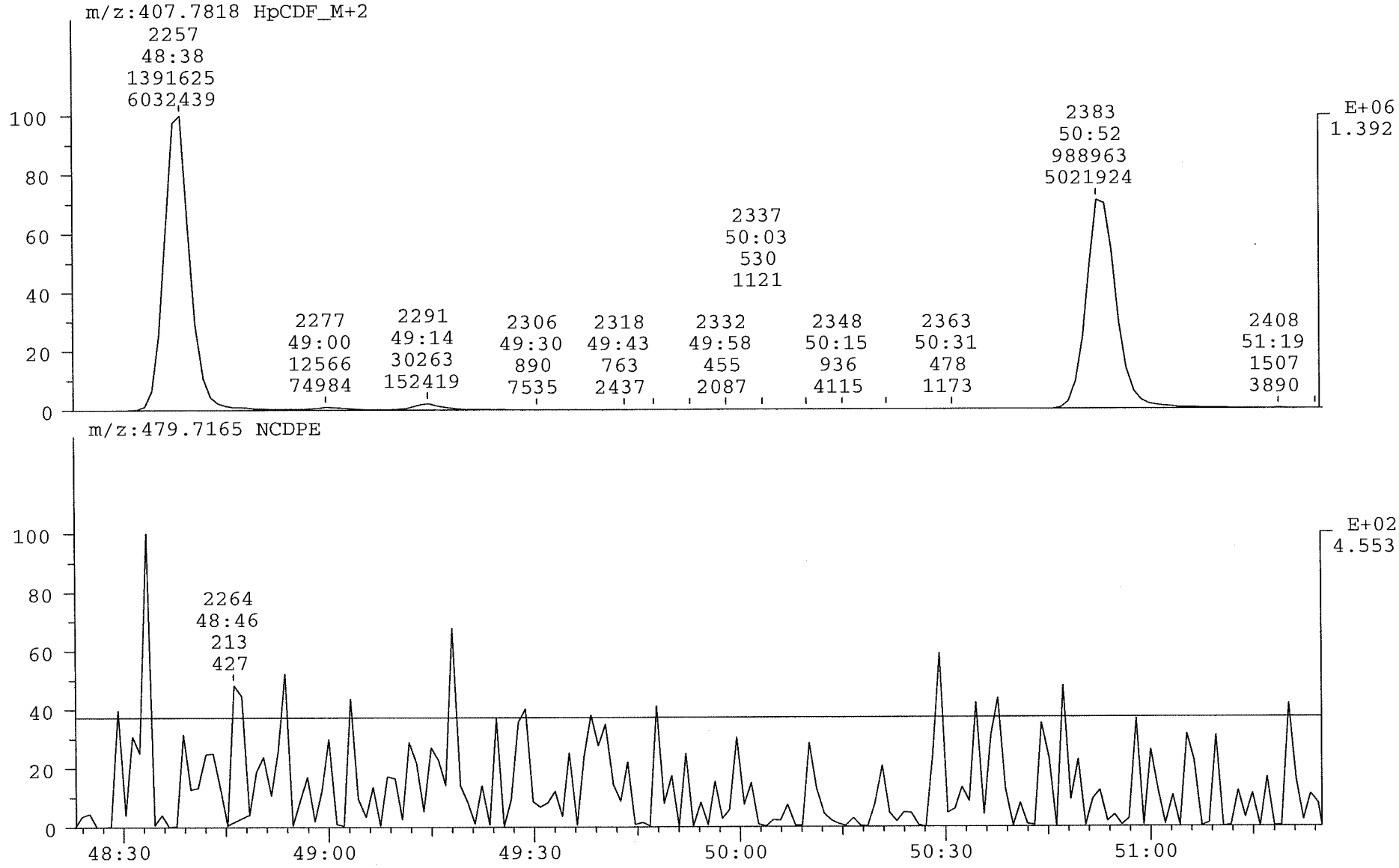
CHRO: b091210i4 10-Dec-09 Elapse: 44:46 2040
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2270 > 2378 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: b091210i4 10-Dec-09 Elapse: 49:54 2328
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2242 > 2414 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

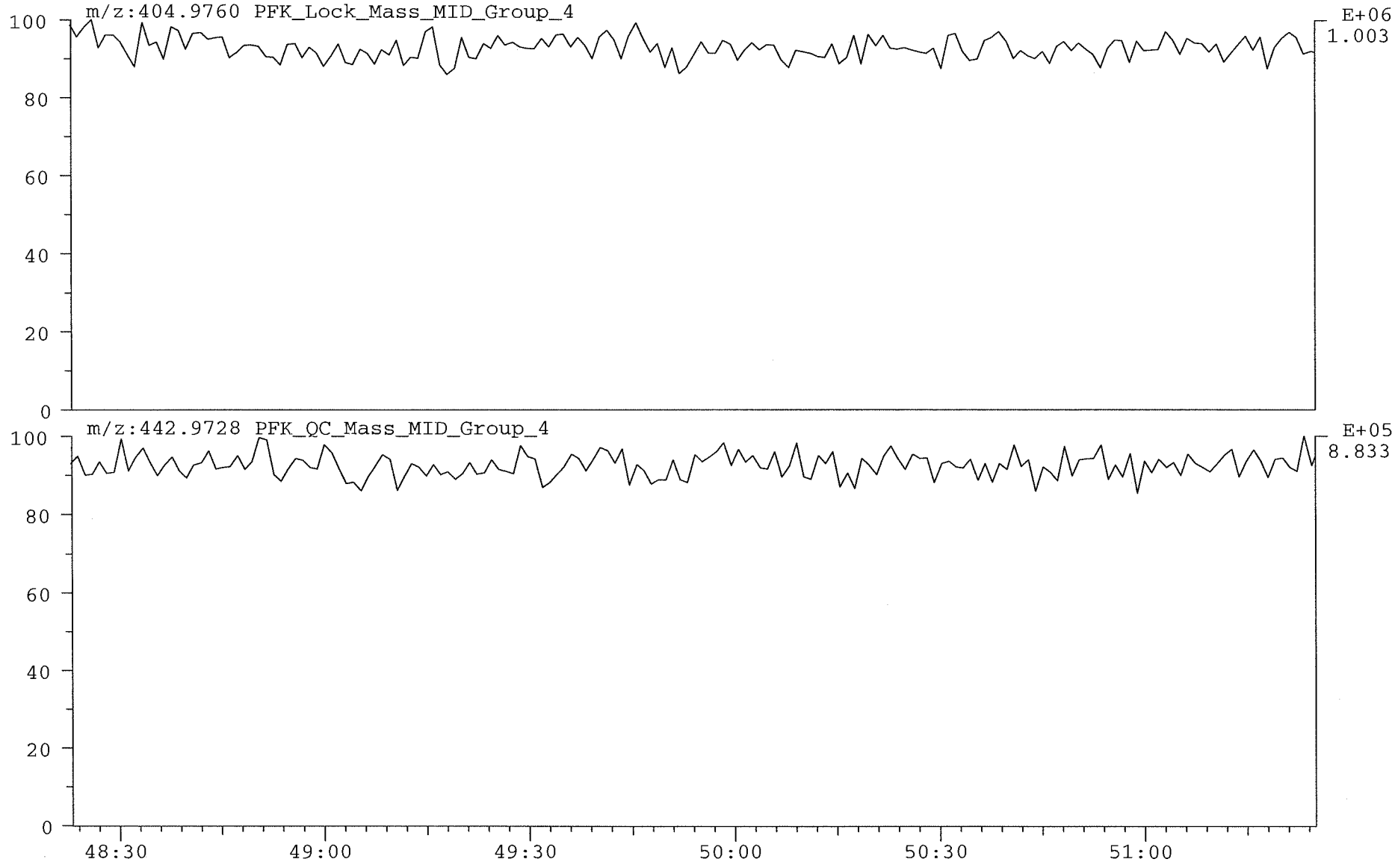


CHRO: b091210i4 10-Dec-09 Elapse: 49:54 2328
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2242 > 2414 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

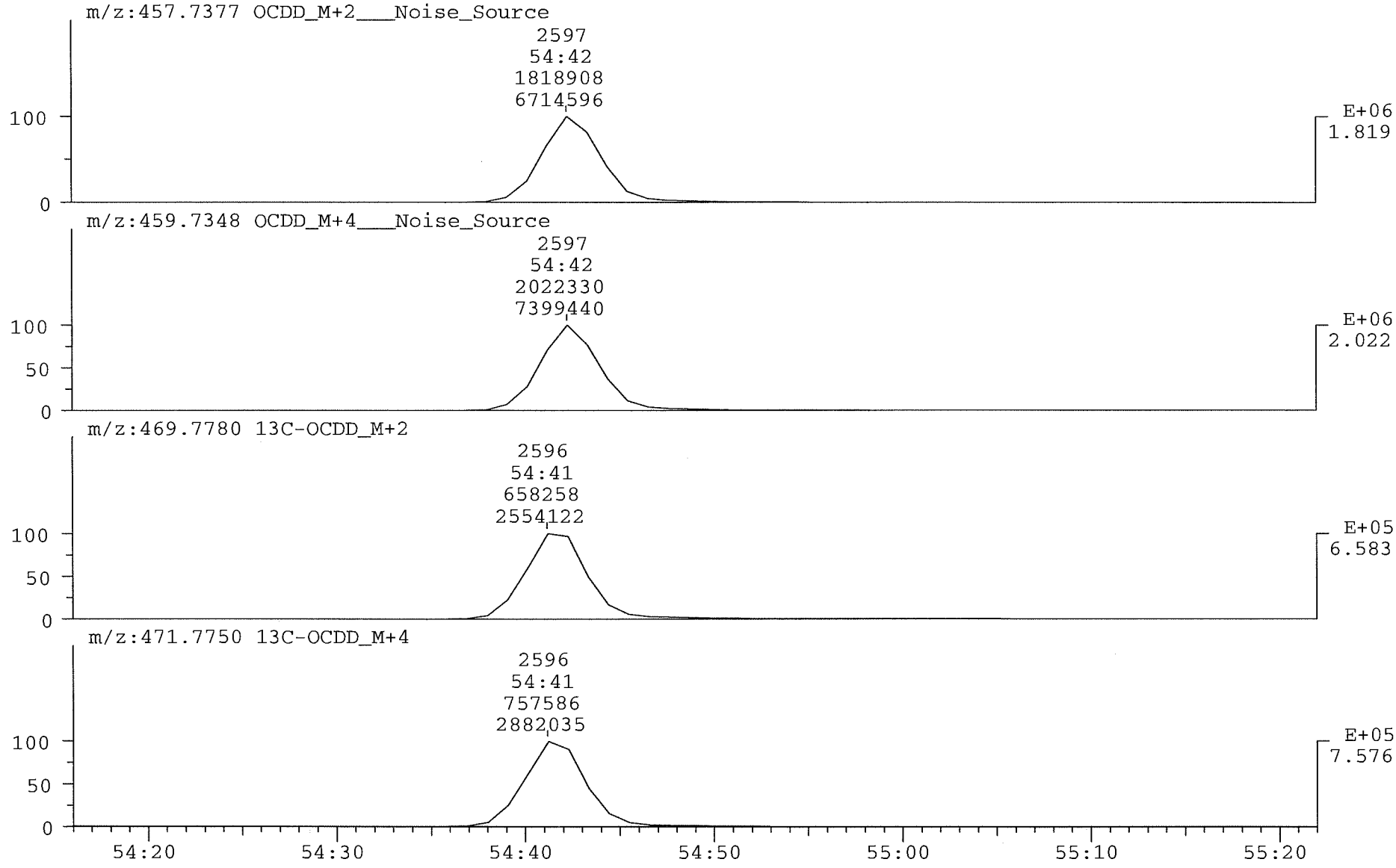


H-476

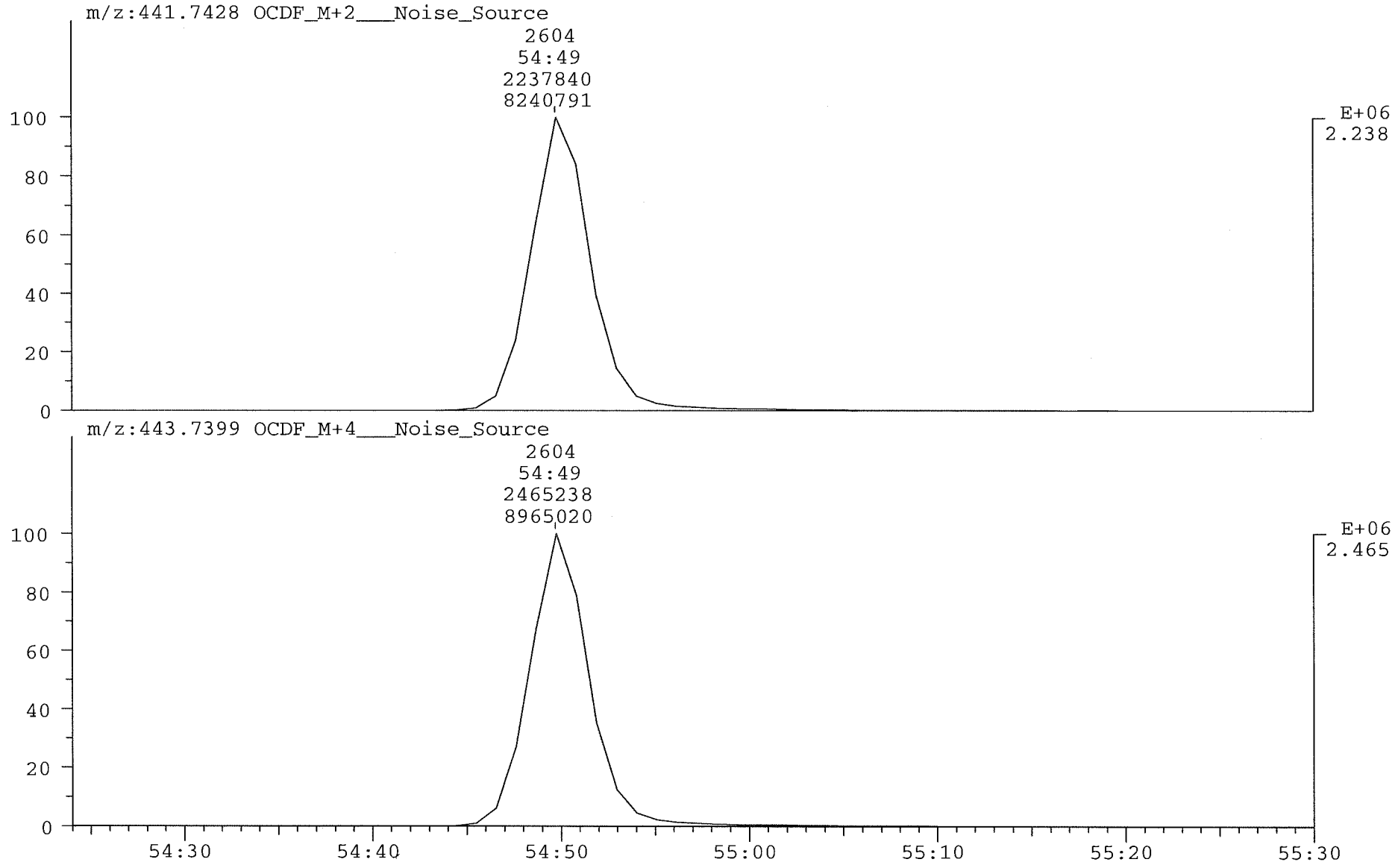
CHRO: b091210i4 10-Dec-09 Elapse: 49:54 2328
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2242 > 2414 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



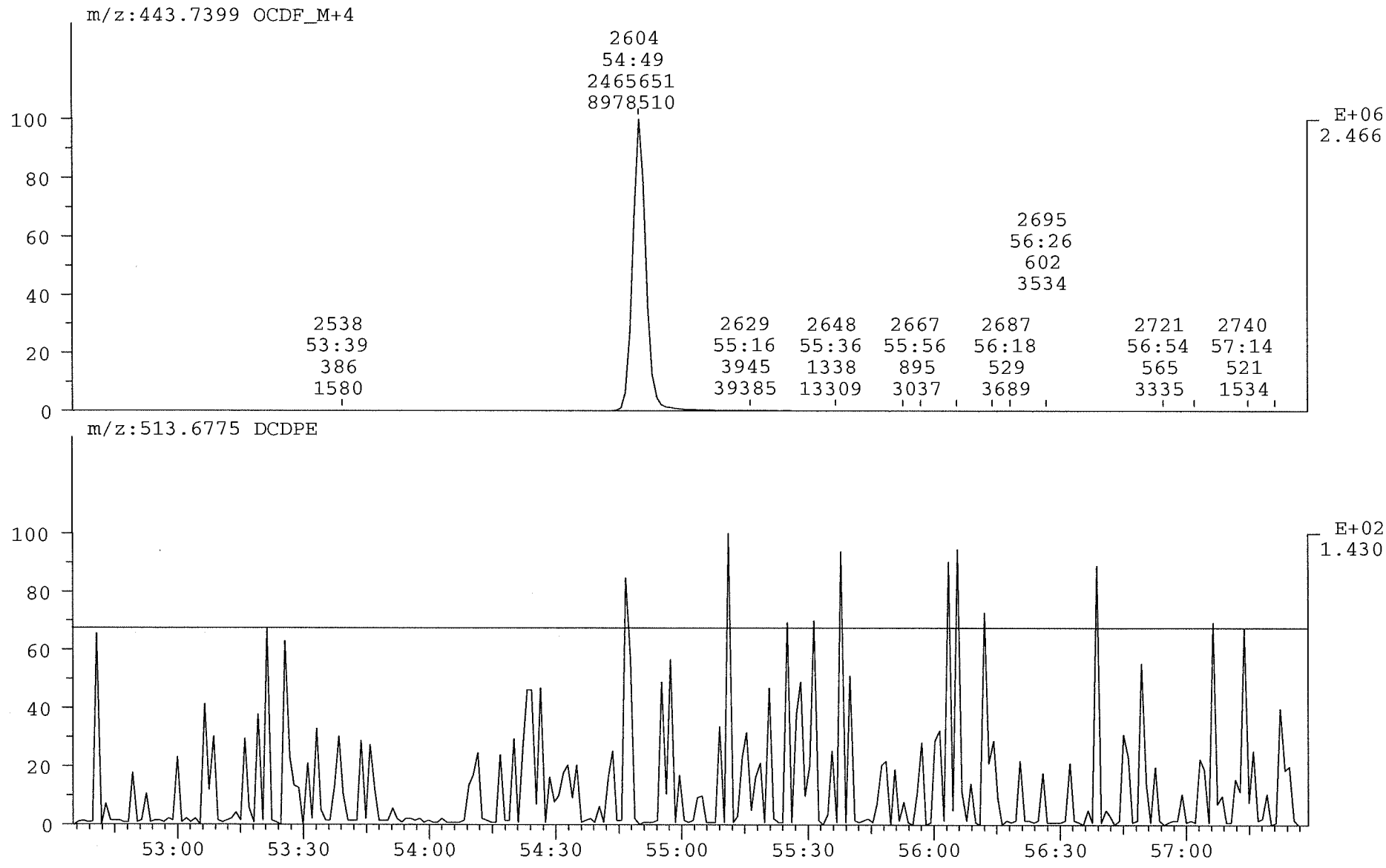
CHRO: b091210i4 10-Dec-09 Elapse: 54:46 2601
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2572 > 2634 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



CHRO: b091210i4 10-Dec-09 Elapse: 54:54 2608
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2580 > 2642 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

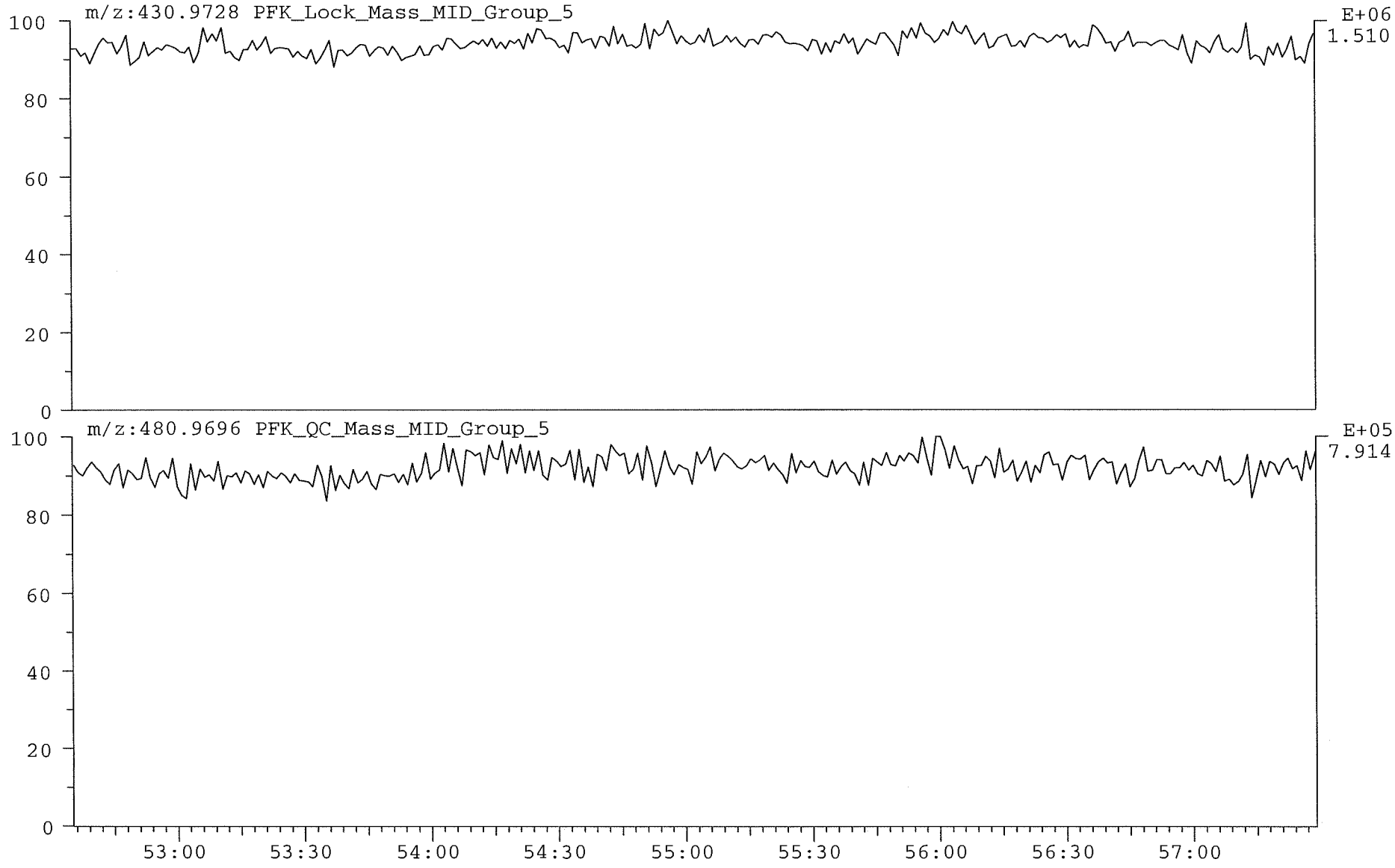


CHRO: b091210i4 10-Dec-09 Elapse: 54:54 2608
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2478 > 2753 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-480

CHRO: b091210i4 10-Dec-09 Elapse: 54:54 2608
Samp: Vial 8 WO=4104:14CS4 Meth=X8 Dil=1 Start : 18:47:13 2755
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS4
Oper: KBL Client: TA Knoxville Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2478 > 2753 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



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```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis2ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b091210i4
Study: M23 CS4
Sample: WO=4104:14CS4 Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA Knoxville
Comments: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Injected volume:   2.0
Sample from Vial 8
Analysis will stop when MID run finishes
Tune file name: tune2
File 5 of list 091207
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio         1
   Damping Relay           TRUE
   Width first lock        0.35 amu
   Electric jump time        10 ms
   Magnetic jump time        60 ms
   Offset                   100 cts
   Electric range           300 %
   Sweep peak width        3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1    8:00 min    26:07 min    34:07 min     1.00 sec
  # 2   34:07 min     8:39 min    42:46 min     1.00 sec
  # 3   42:46 min     4:49 min    47:36 min     1.00 sec
  # 4   47:36 min     4:52 min    52:29 min     1.00 sec
  # 5   52:29 min     5:01 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 l   10   1      8.19
    303.9016      1   1     81.92
    305.8987      1   1     81.92
    315.9419      1   1     81.92
    317.9389      1   1     81.92
    319.8965      1   1     81.92
    321.8936      1   1     81.92
    327.8847      1   1     81.92
    331.9368      1   1     81.92
    333.9338      1   1     81.92
    342.9792 c   10   1      8.19
    375.8364      1   1     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 l   10   1      8.19
    339.8597      1   1     91.48
    341.8567      1   1     91.48
```

```
  351.9000       1   1      91.48
  353.8970       1   1      91.48
  355.8546       1   1      91.48
  357.8516       1   1      91.48
  367.8949       1   1      91.48
  369.8919       1   1      91.48
  380.9760 c    10   1       8.19
  409.7974       1   1      91.48
 Window # 3
      mass F  int  gr  time (ms)
  373.8208       1   1      91.48
  375.8178       1   1      91.48
  380.9760 l    10   1       8.19
  383.8639       1   1      91.48
  385.8610       1   1      91.48
  389.8156       1   1      91.48
  391.8127       1   1      91.48
  401.8559       1   1      91.48
  403.8529       1   1      91.48
  404.9760 c    10   1       8.19
  445.7555       1   1      91.48
 Window # 4
      mass F  int  gr  time (ms)
  404.9760 l    10   1       8.19
  407.7818       1   1      91.48
  409.7788       1   1      91.48
  417.8250       1   1      91.48
  419.8220       1   1      91.48
  423.7767       1   1      91.48
  425.7737       1   1      91.48
  435.8169       1   1      91.48
  437.8140       1   1      91.48
  442.9728 c    10   1       8.19
  479.7165       1   1      91.48
 Window # 5
      mass F  int  gr  time (ms)
  430.9728 l    10   1      10.92
  441.7428       1   1     120.15
  443.7399       1   1     120.15
  457.7377       1   1     120.15
  459.7348       1   1     120.15
  469.7780       1   1     120.15
  471.7750       1   1     120.15
  480.9696 c    10   1      10.92
  513.6775       1   1     120.15

Auto Sampler descriptor: pcdd2ul
 Injector A
 Normal Injection
 Slvnt A cln before inj(K):     3 times
 Slvnt B cln before inj(L):     0 times
 Sample rinse cycles   (R):     0 times
 Syringe filling volume(F):   1.0 ul
 Pullup delay time     (D):     4 sec
 Sample pullup speed   (E):   5.0 ul/sec
 Slvnt aftr pre inj cln(U):   0.0 ul
 Air after pre inj cln (G):   2.0 ul
 Sample volume         (V):   2.0 ul
 Sample air volume     (A):   2.0 ul
 Sample pullup count   (P):     2 times
 Injection speed       (S):  10.0 ul/sec
 Injection wait time   (W):    10 sec
 Injection hold time   (H):     3 sec
 Solvent A clean cycles(C):    15 times
 Solvent B clean cycles(B):    20 times
 Loop clean w slvnt A (LC):     0 times
```

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                        300 deg max
  Transfer Line:     290 deg                        300 deg max
  Column:            140 deg at    0.0 minutes      330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8417.0000
BDEV	8292.0000	BFM	2.0000	BLM	1181.9425
BMASS	304.9824	BQUAD	2.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.2941
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-29.5750
DRAWC	1.0000	DRAWS	0.0000	ECORR	1.0006
ECURR	1.0000	EDAC	7969177.0000	EDACG	0.9998
EDACR	20.0000	EDACZ	1898.0000	ELEN	57.6250
EMULT	2.1100	ENS	219.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	6.7500	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	574.0000	FVINLET	940.0000
FVSRC	983.0000	FWIN	0.7000	GCTC	138.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7255	HVANAL	1090.0000	HVSRC	3076.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4752.1320	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2409.0000	LENSS	-44.6000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3237806.8854	MDACR	20.0000
MRANGE	1181.9425	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2757.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-7.0750	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10637.5656	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	3073.0000	SHIELDS	-0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7900	TCURR	1.0547	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.2000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.3750
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1119.0000	XLENSS	-46.6000
YLENS	3324.0000	YLENSS	-98.4000		

Scantype is electric
Sourcemode is EI POS

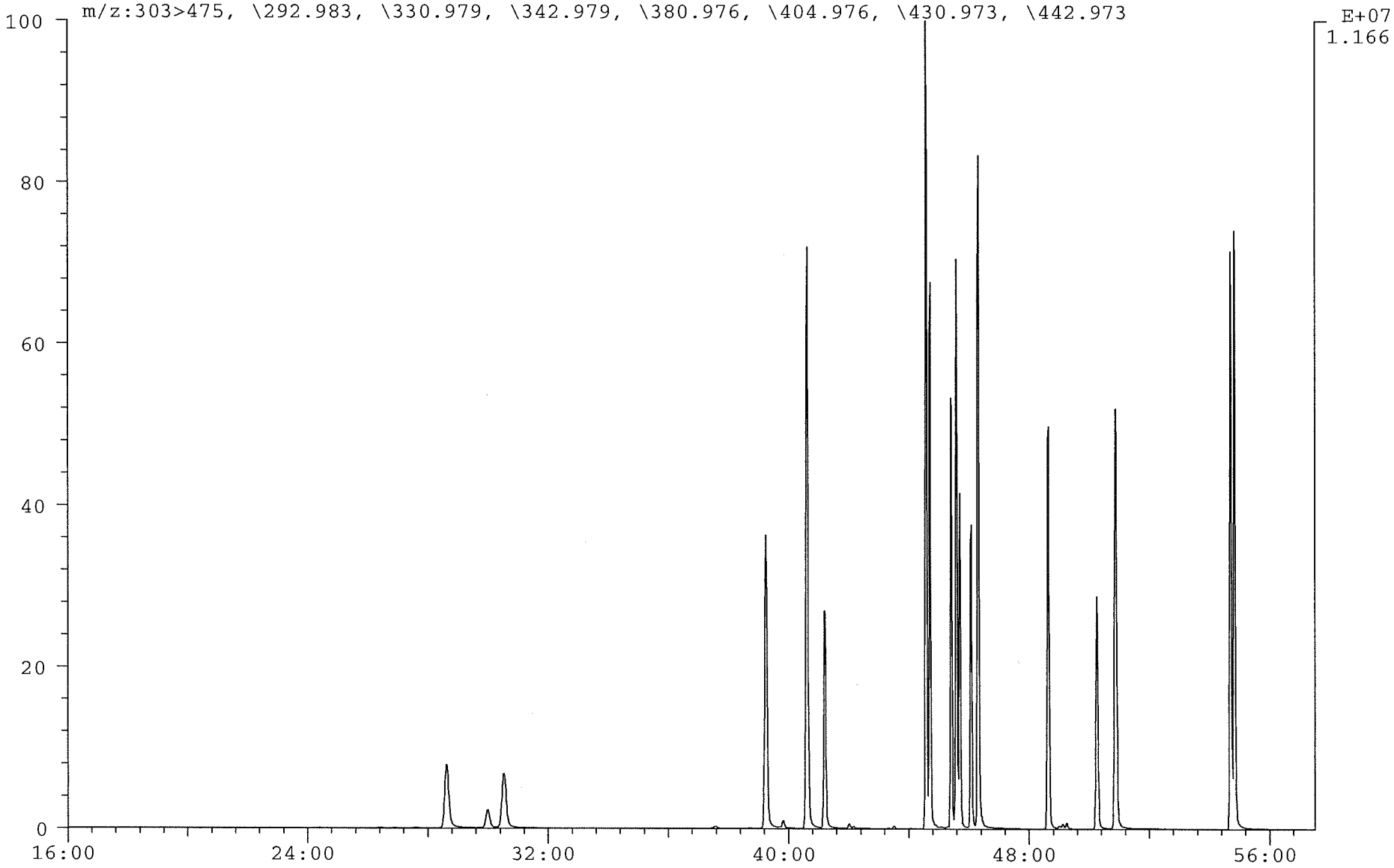
Analysis started at: 10-Dec-09 18:47:13.4

Autosampler has injected sample from vial 8
Analysis stopped at: 10-Dec-09 19:44:45.0 (run time 57.52 minutes)
Analysis stopped because MID run finished

CHRO: b091210i5 10-Dec-09
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM
Oper: KBL Client: TA Knoxville
Peak: 100.00 ppm Label wndw: 442 > 2753
Area: 5, 0.50, 0 Baseline : 100, 3
Disp: Height Area

Elapse: 40:05 1775
Start : 19:47:56 2753
Study : M23 CS5
Inlet : GC Vial 9
Masses: 293 > 514
Label : 0, 0.0

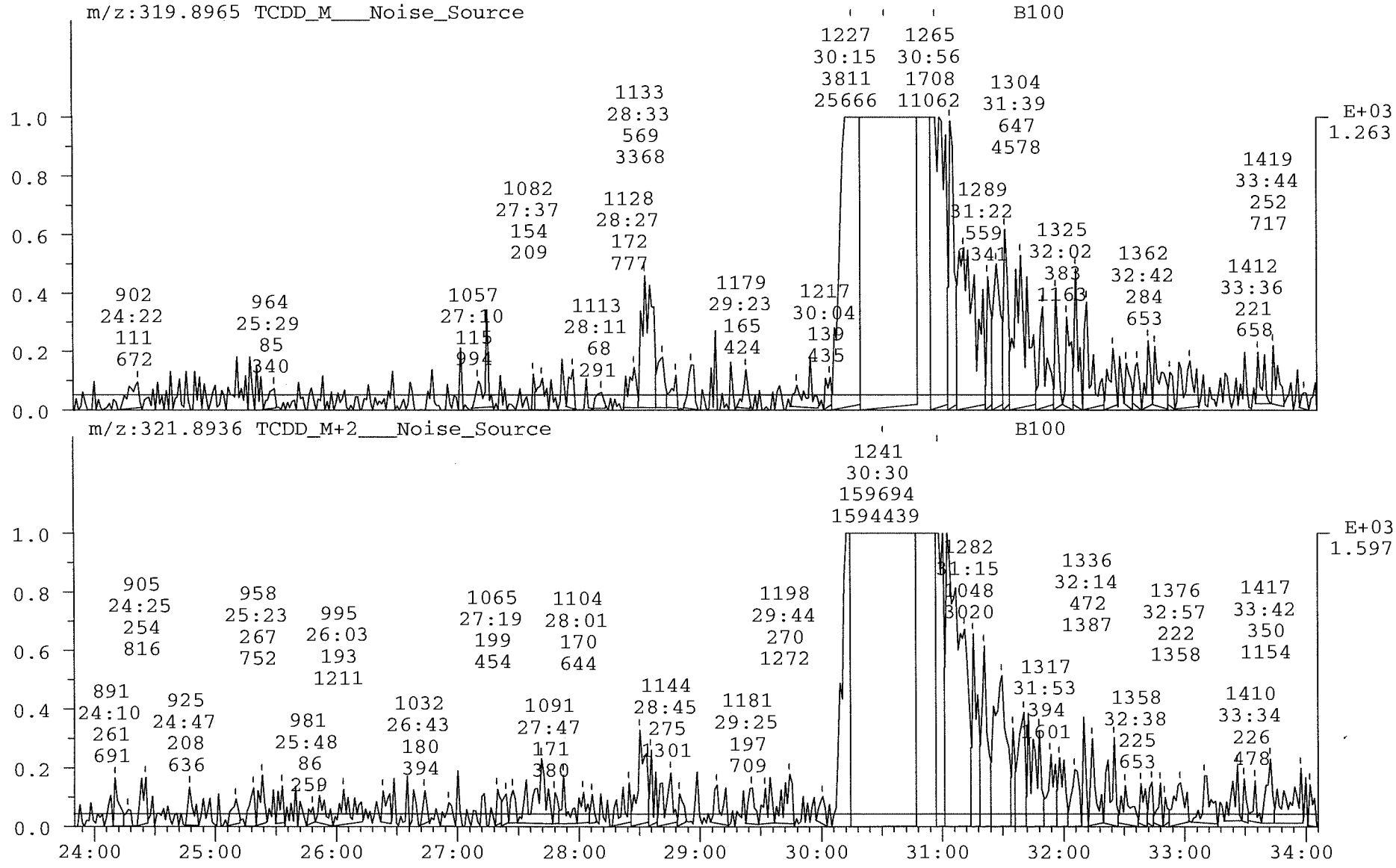
Int PMP 12-10-09
Calc WSD 12/11/09
QC WM 12-11-09



H-486

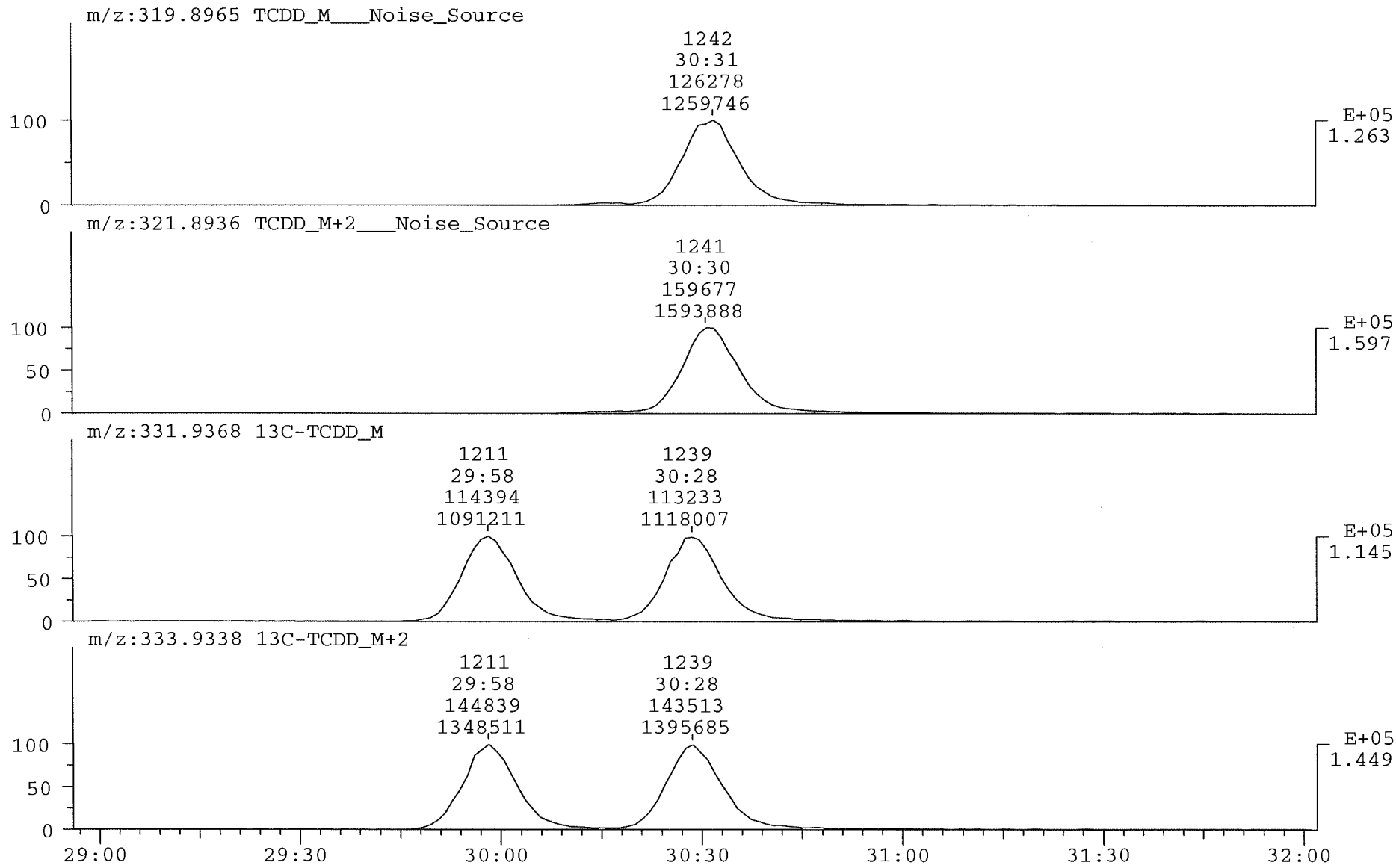
485

CHRO: b091210i5 10-Dec-09 Elapse: 40:05 1775
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 873 > 1439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area

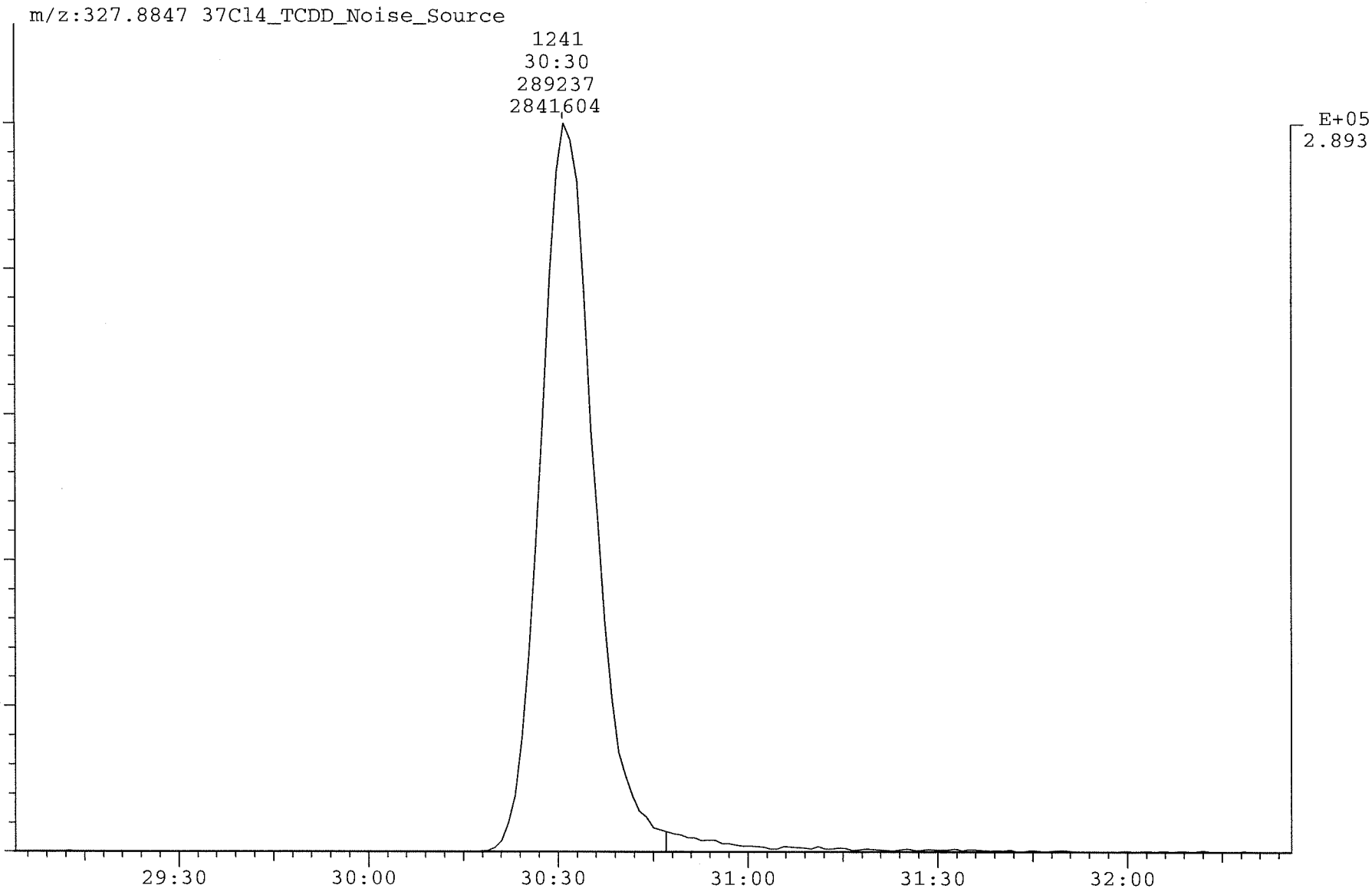


H-487

CHRO: b091210i5 10-Dec-09 Elapse: 30:28 1239
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1154 > 1325 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

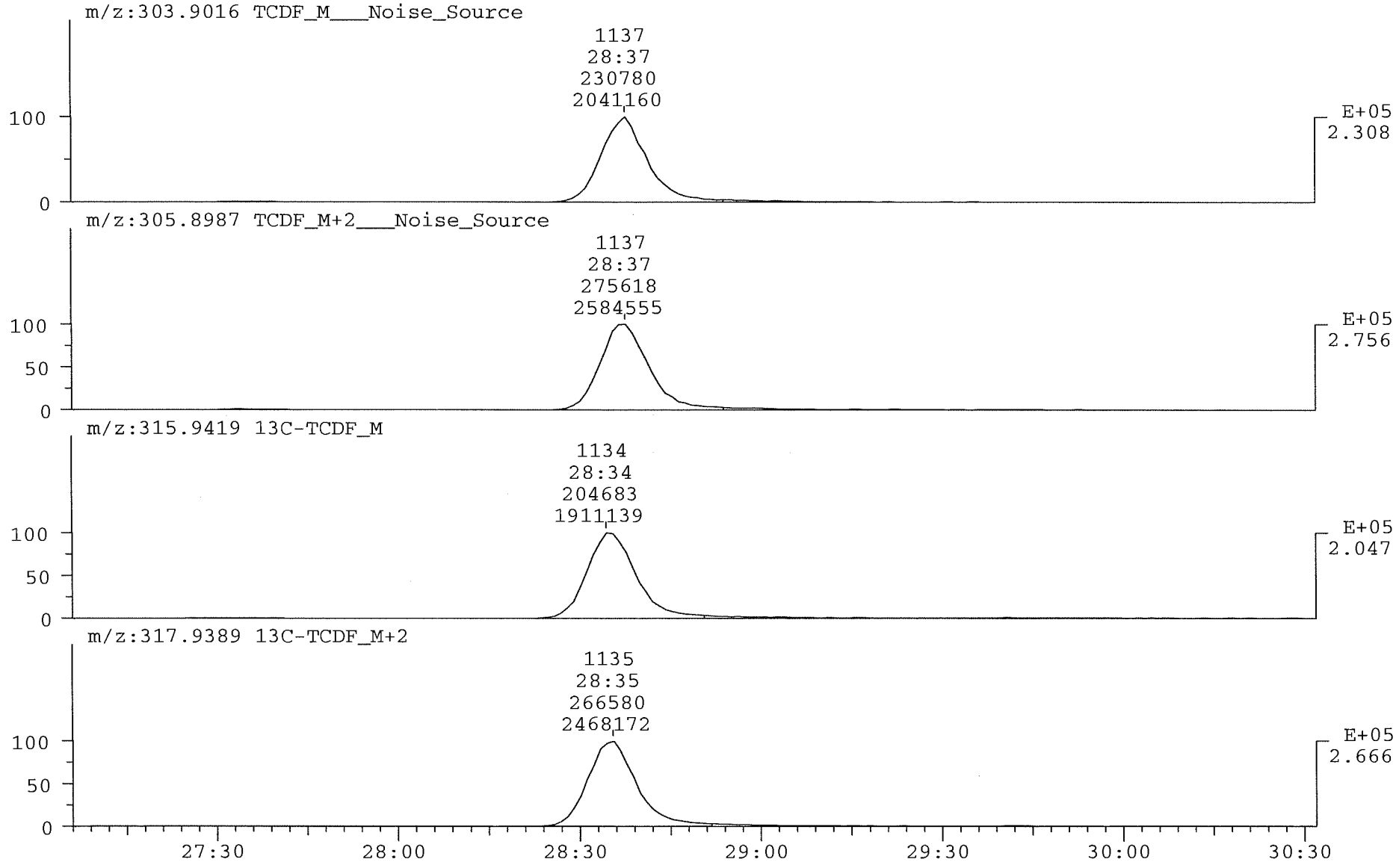


CHRO: b091210i5 10-Dec-09 Elapse: 30:41 1251
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1161 > 1347 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



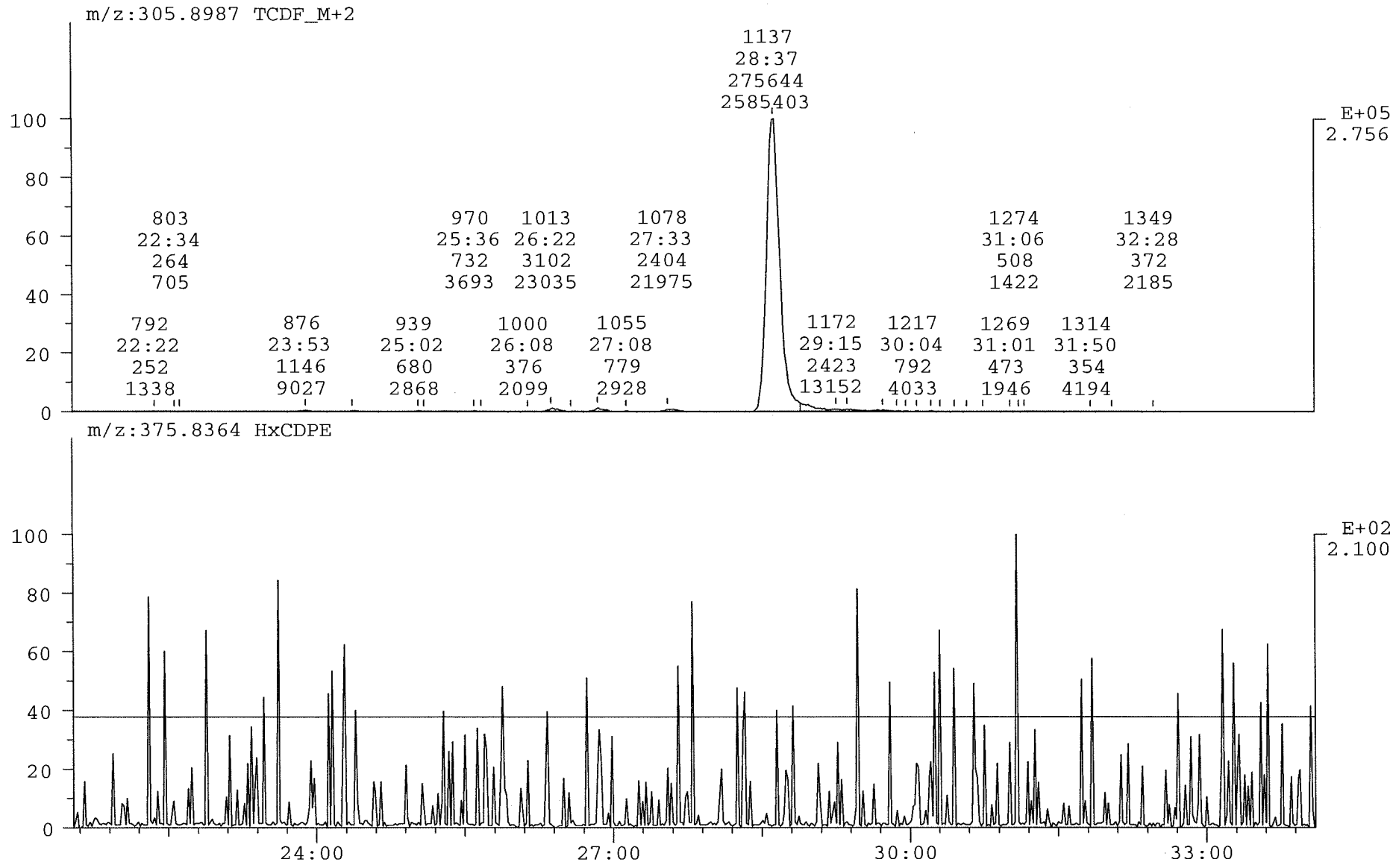
H-489

CHRO: b091210i5 10-Dec-09 Elapse: 28:46 1145
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1053 > 1242 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



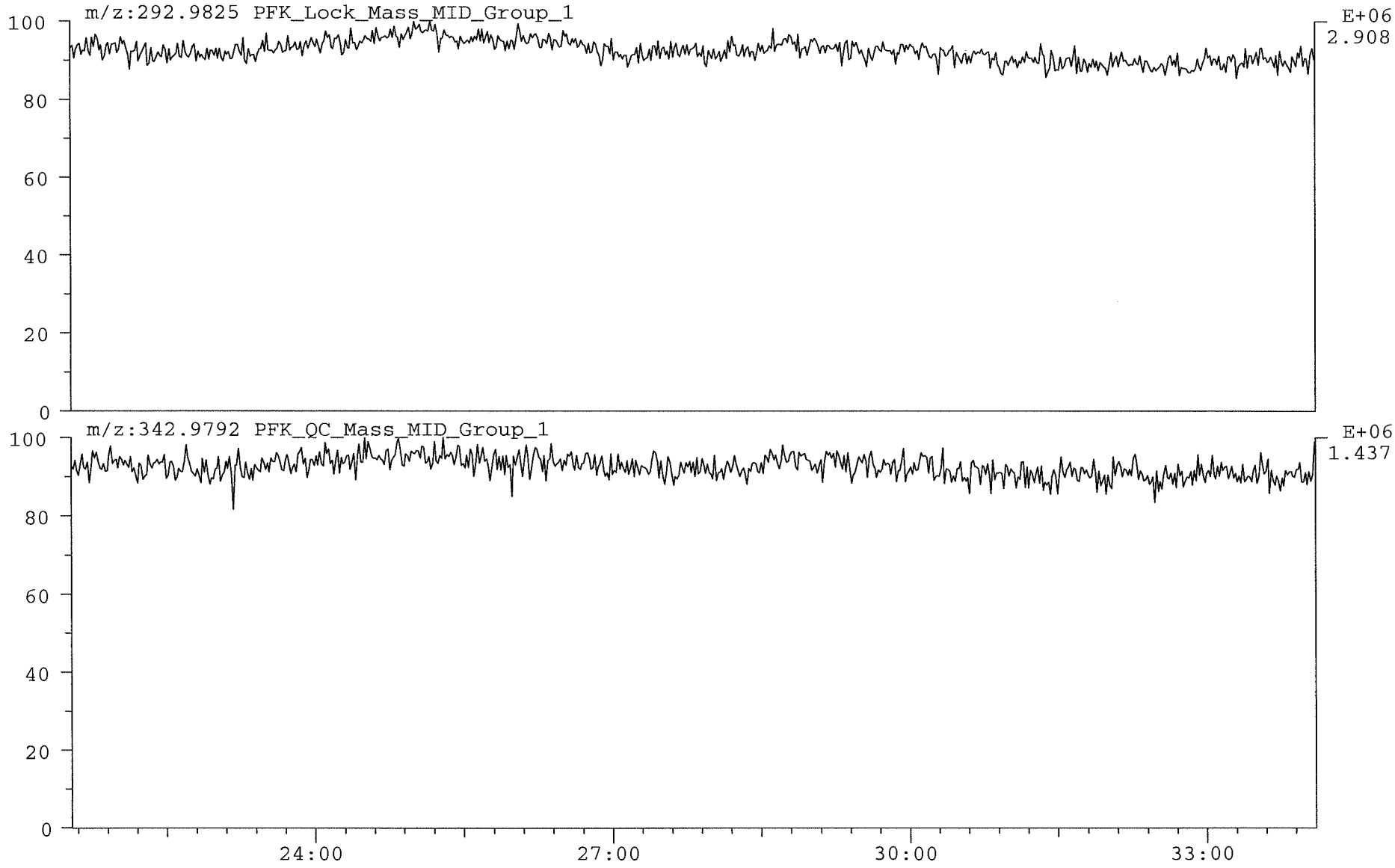
H-490

CHRO: b091210i5 10-Dec-09 Elapse: 28:46 1145
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 746 > 1439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



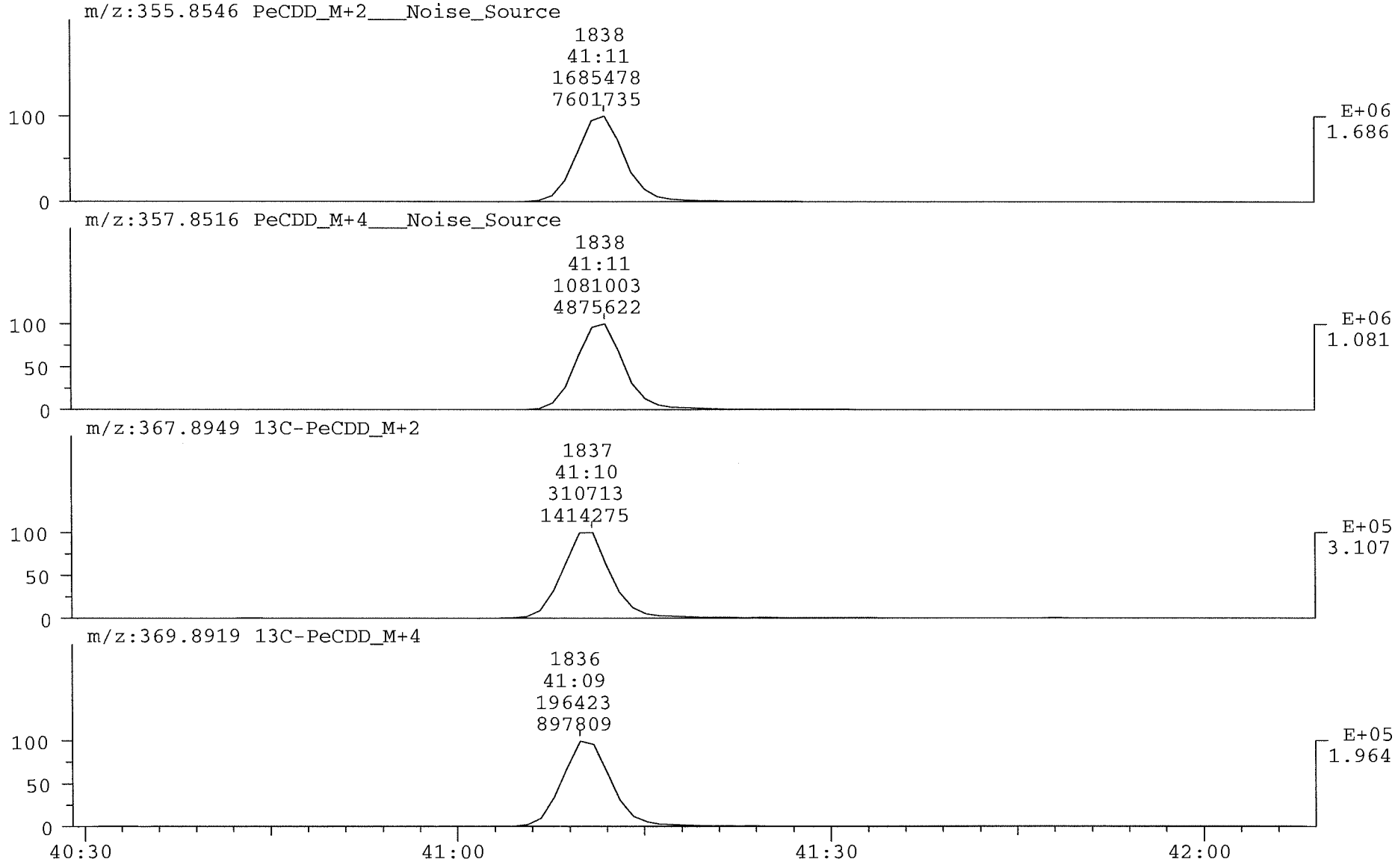
H-191

CHRO: b091210i5 10-Dec-09 Elapse: 28:46 1145
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 746 > 1439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



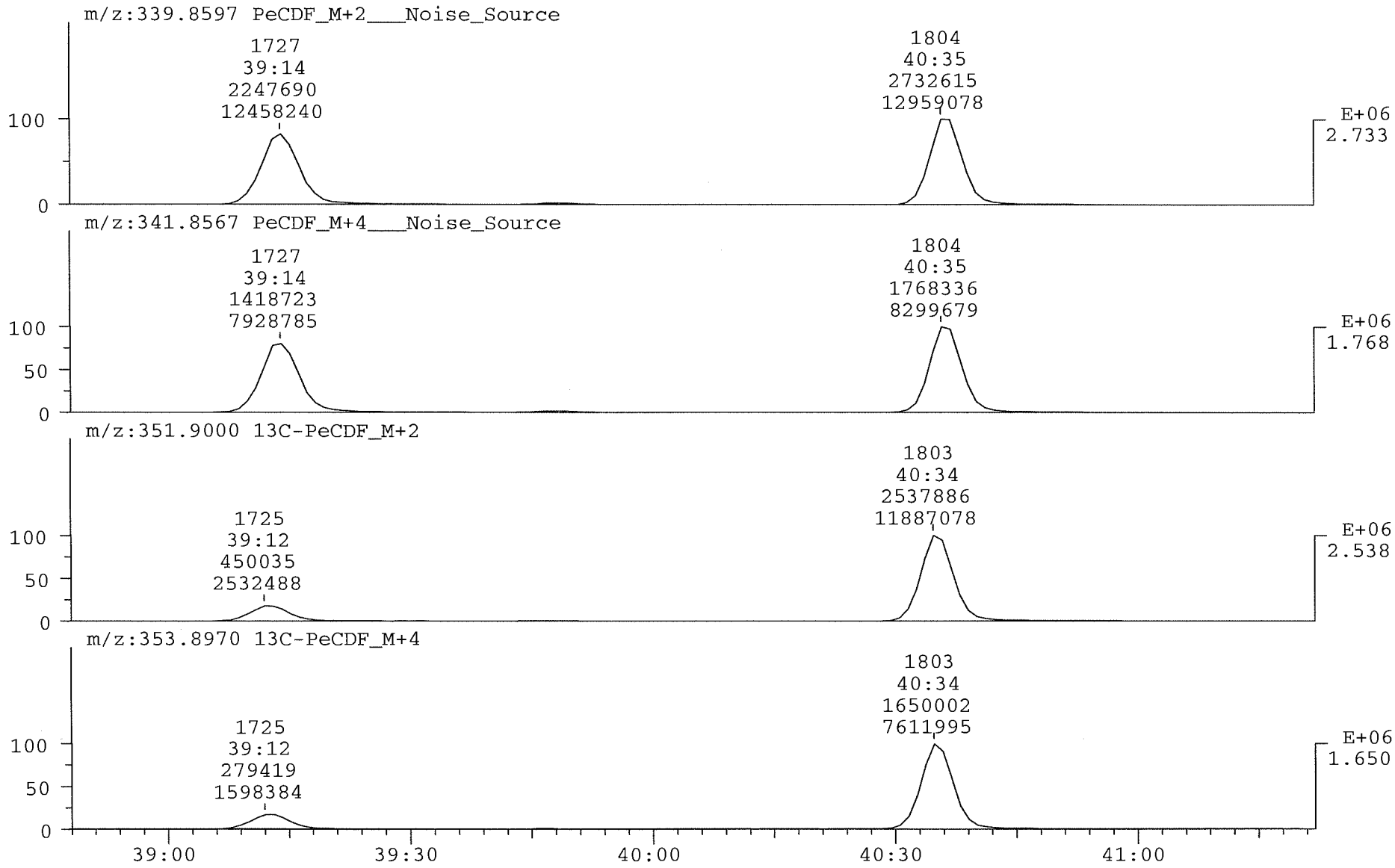
H-492

CHRO: b091210i5 10-Dec-09 Elapse: 41:16 1842
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1798 > 1892 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

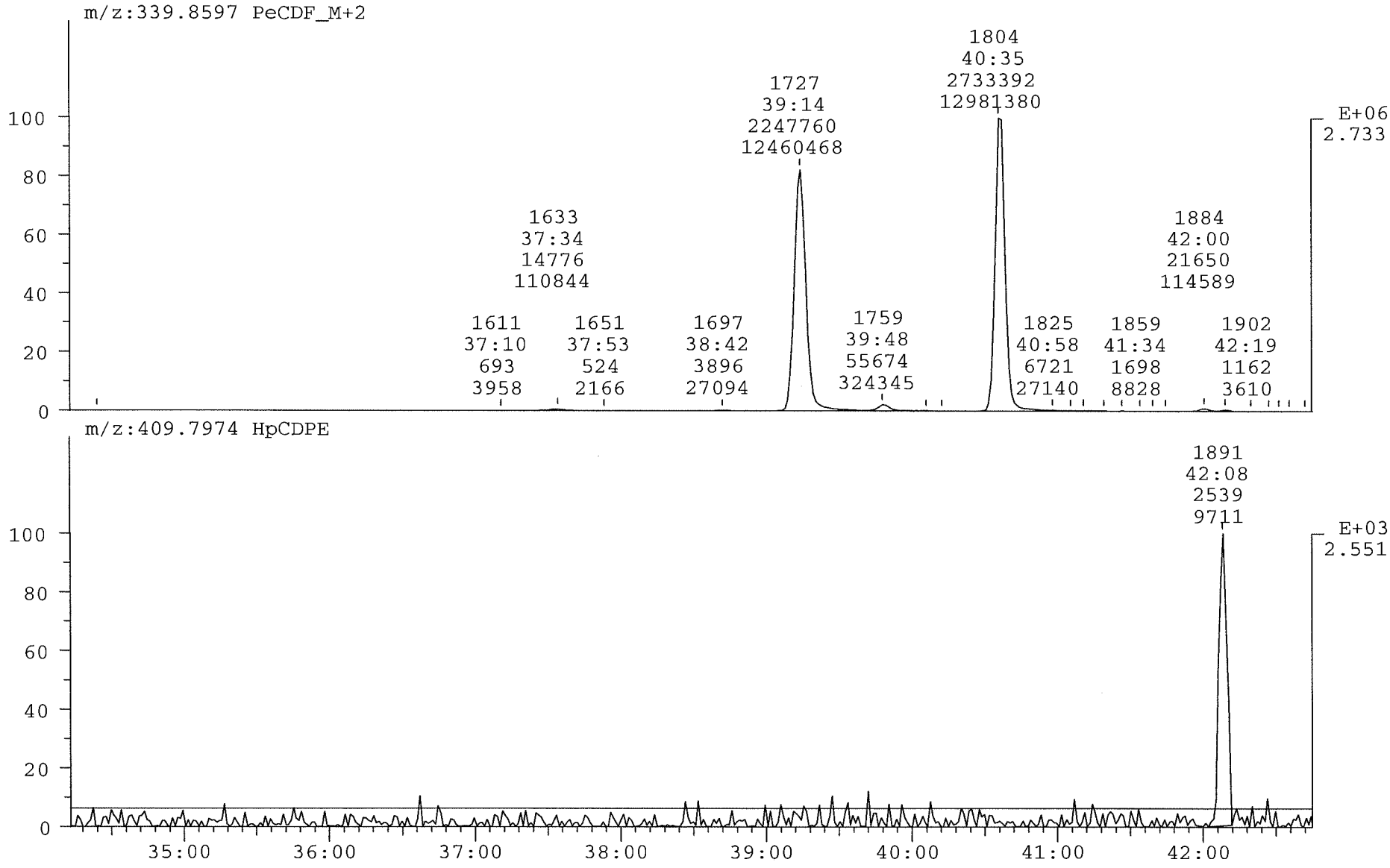


H-493

CHRO: b091210i5 10-Dec-09 Elapse: 40:05 1775
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1702 > 1847 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

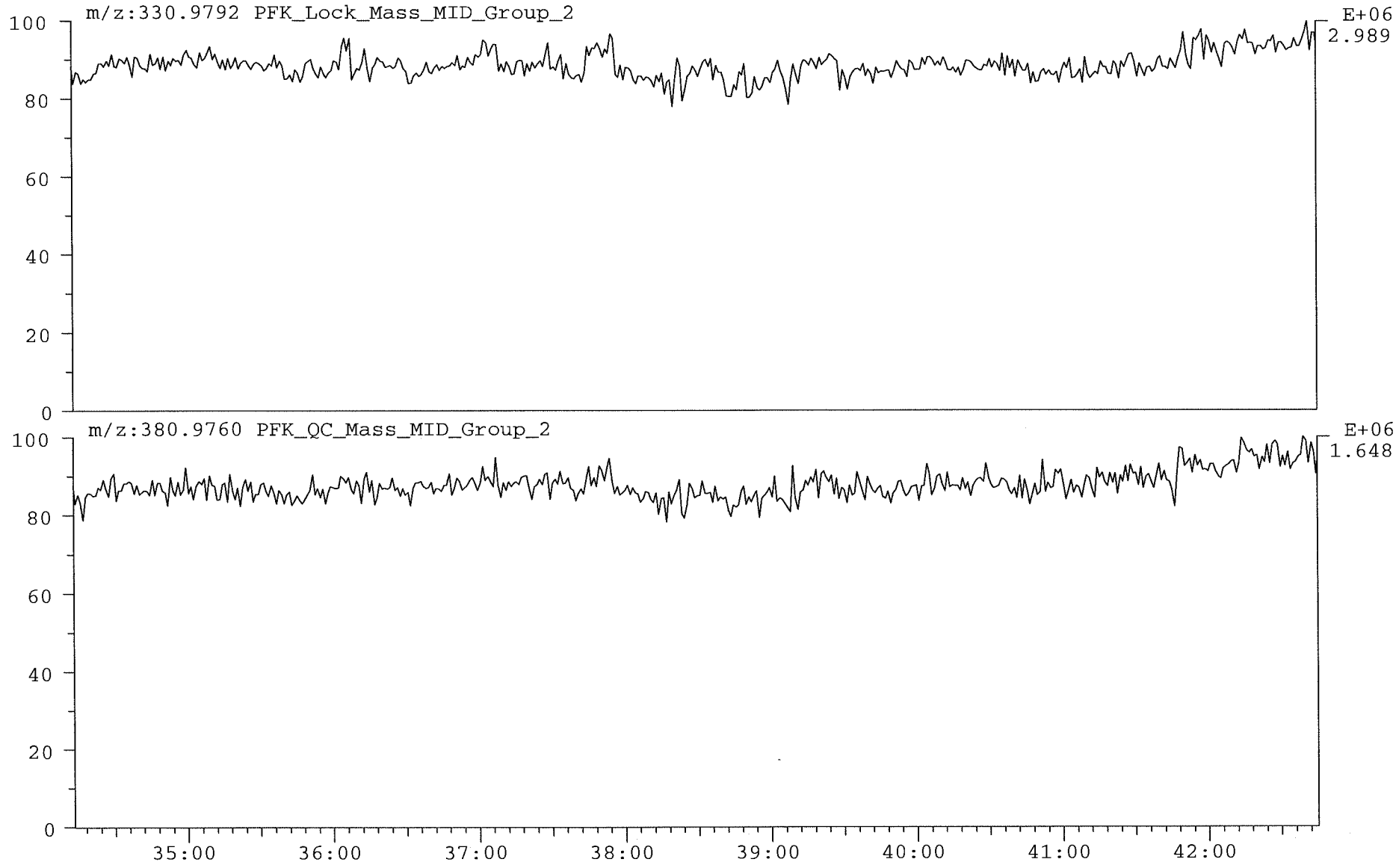


CHRO: b091210i5 10-Dec-09 Elapse: 40:05 1775
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1443 > 1926 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



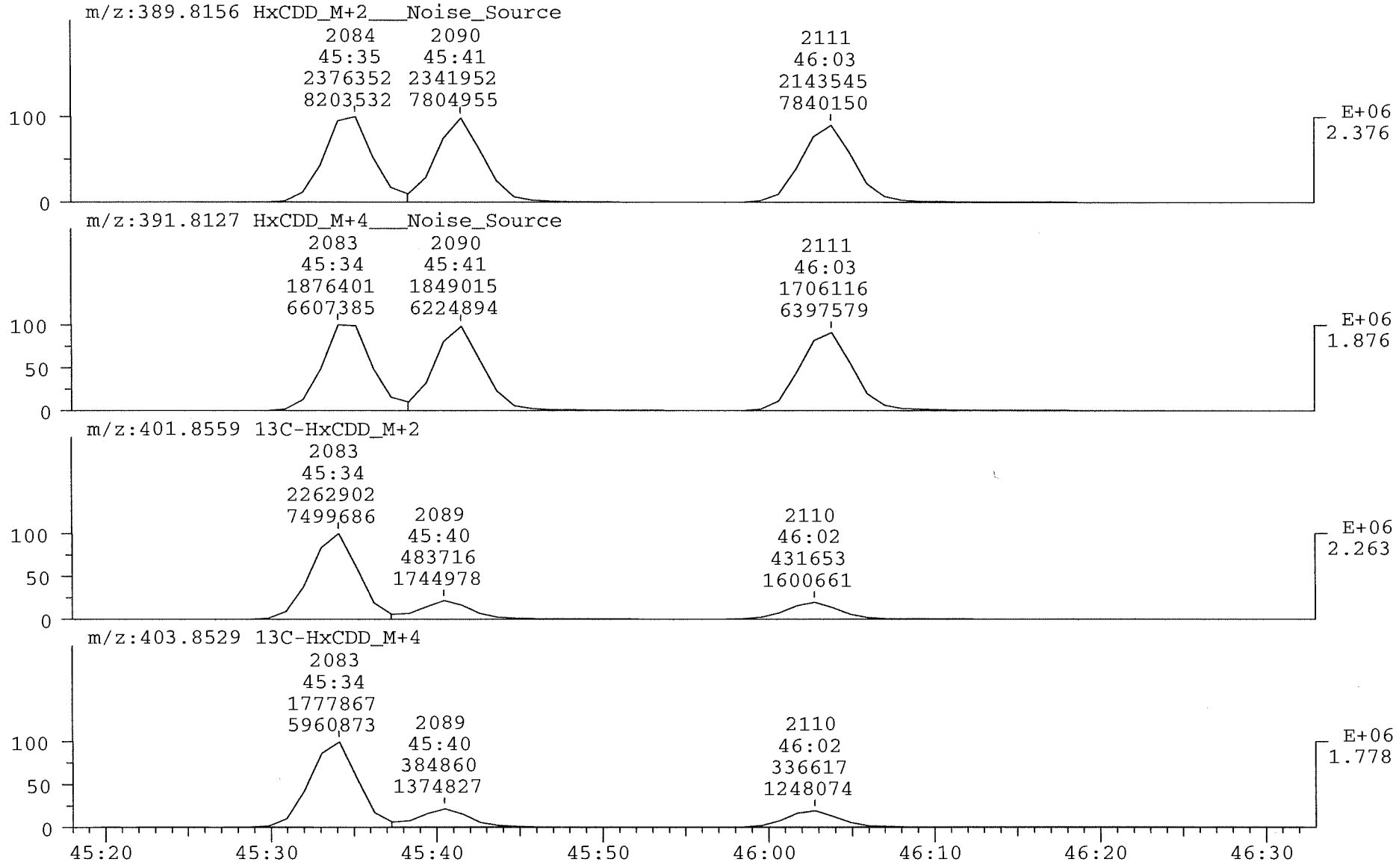
H-495

CHRO: b091210i5 10-Dec-09 Elapse: 40:05 1775
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1443 > 1926 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



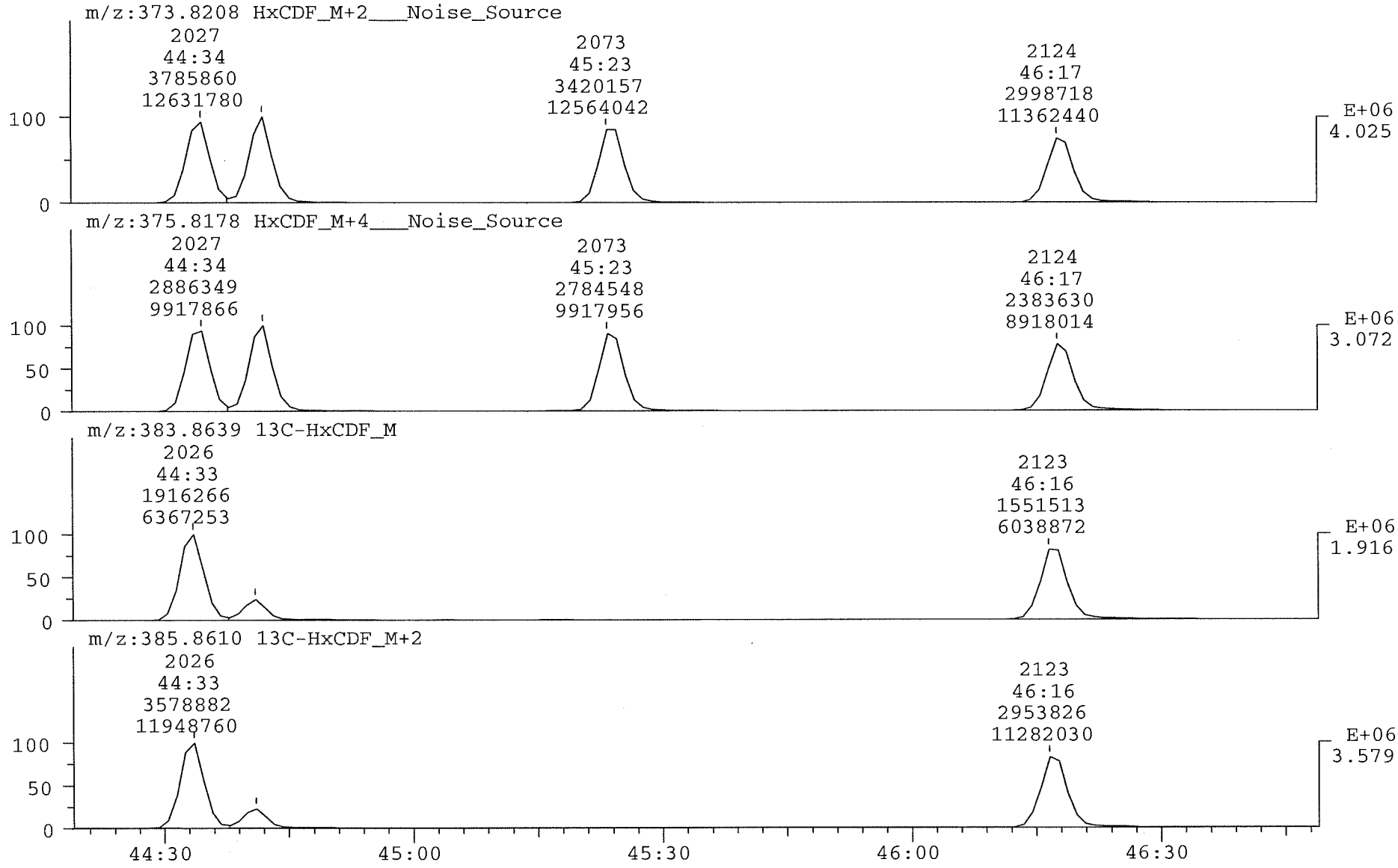
H-496

CHRO: b091210i5 10-Dec-09 Elapse: 45:55 2103
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2068 > 2138 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



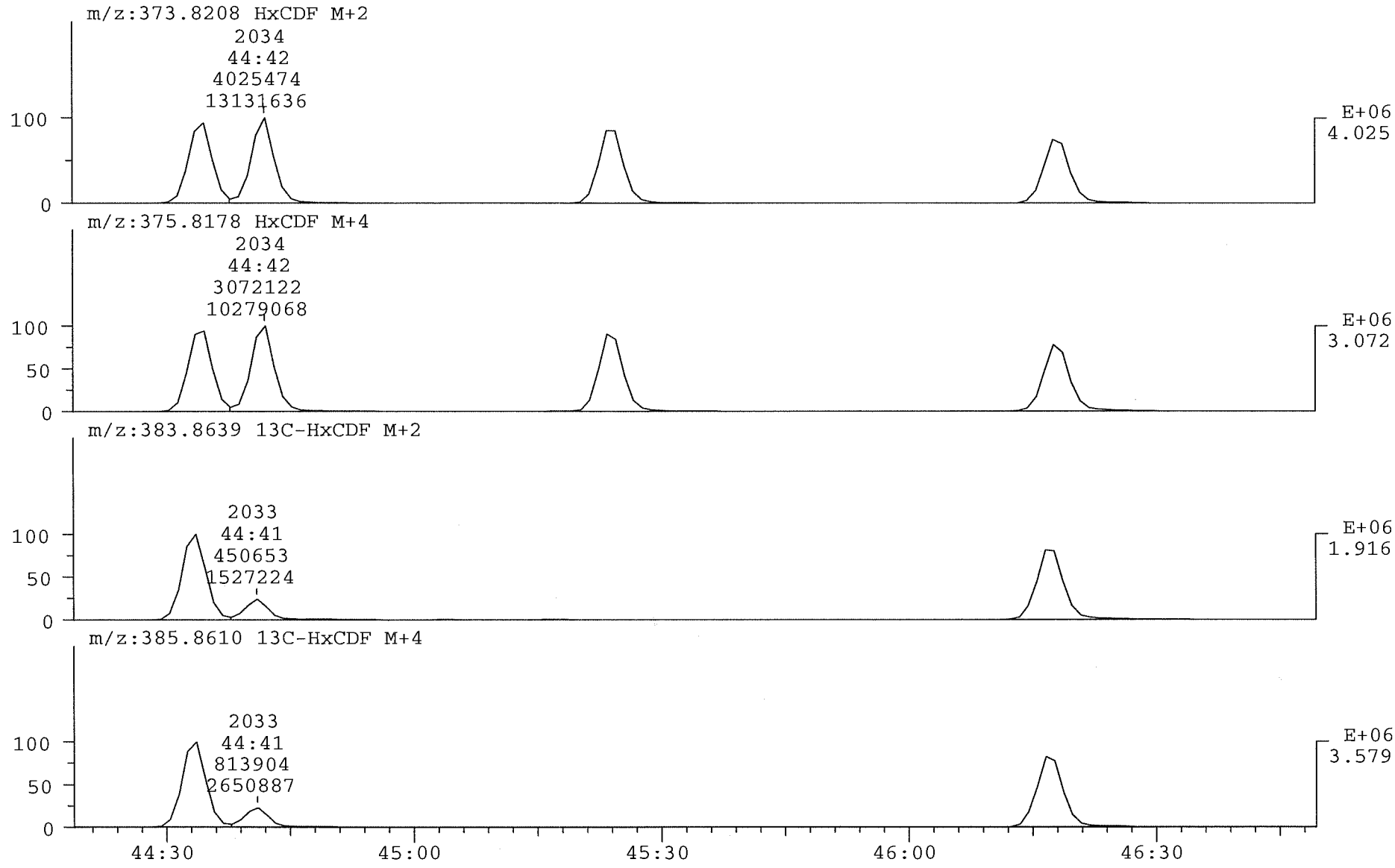
H-497

CHRO: b091210i5 10-Dec-09 Elapse: 45:34 2083
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2012 > 2154 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



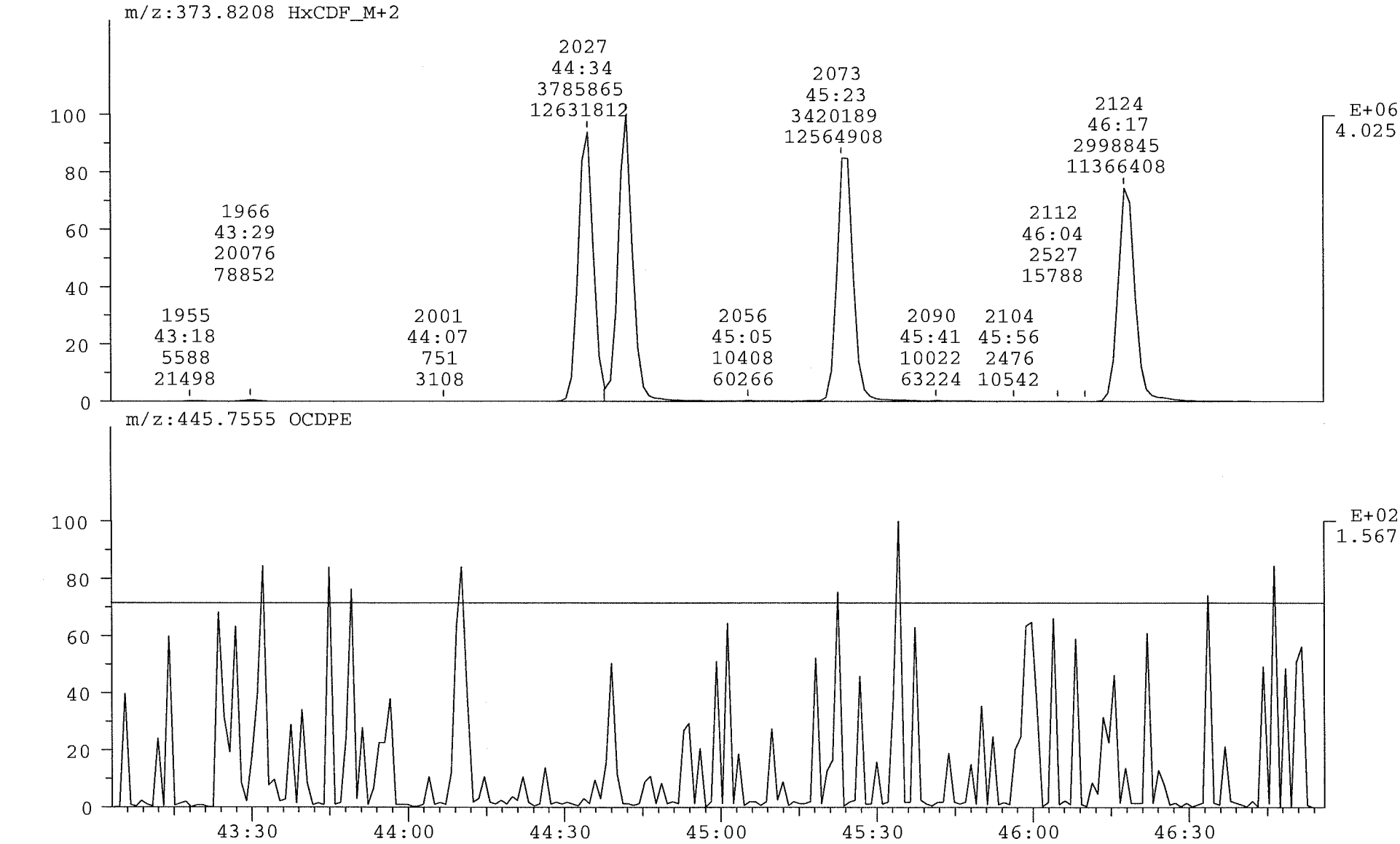
H-498

CHRO: b091210i5 10-Dec-09 Elapse: 44:41 2033
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2030 > 2036 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

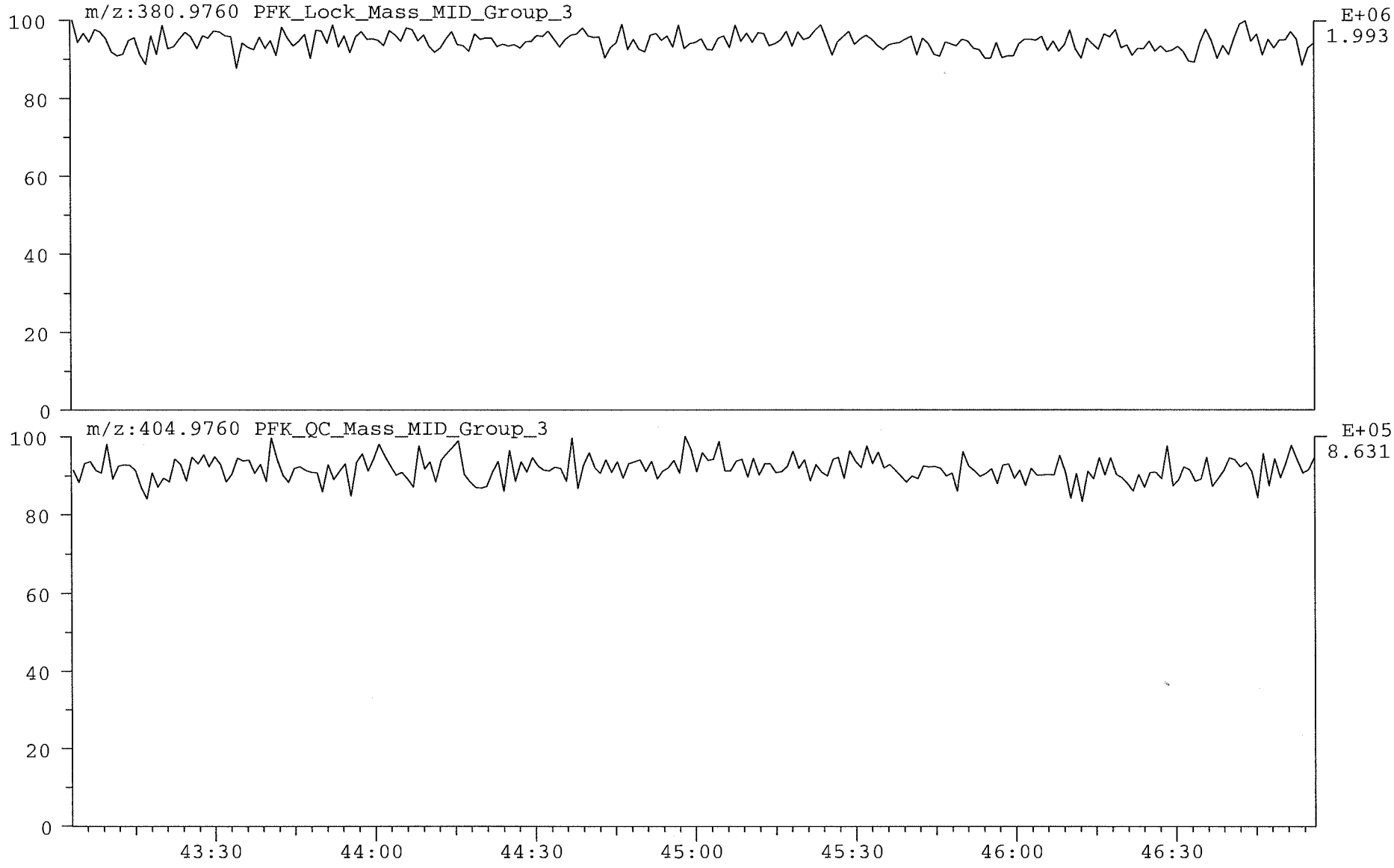


H-499

CHRO: b091210i5 10-Dec-09 Elapse: 44:46 2038
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1941 > 2160 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

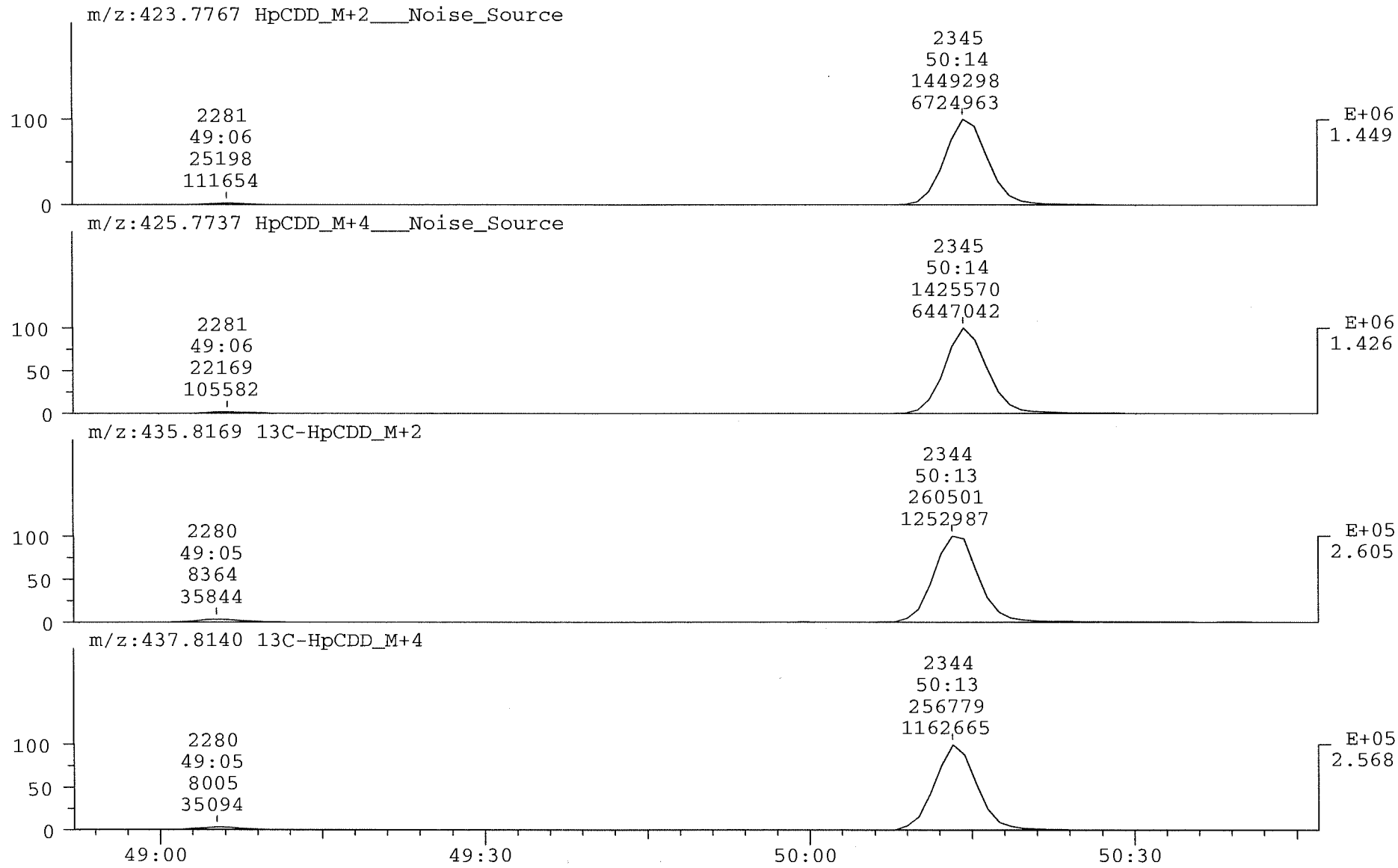


CHRO: b091210i5 10-Dec-09 Elapse: 44:46 2038
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1941 > 2160 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



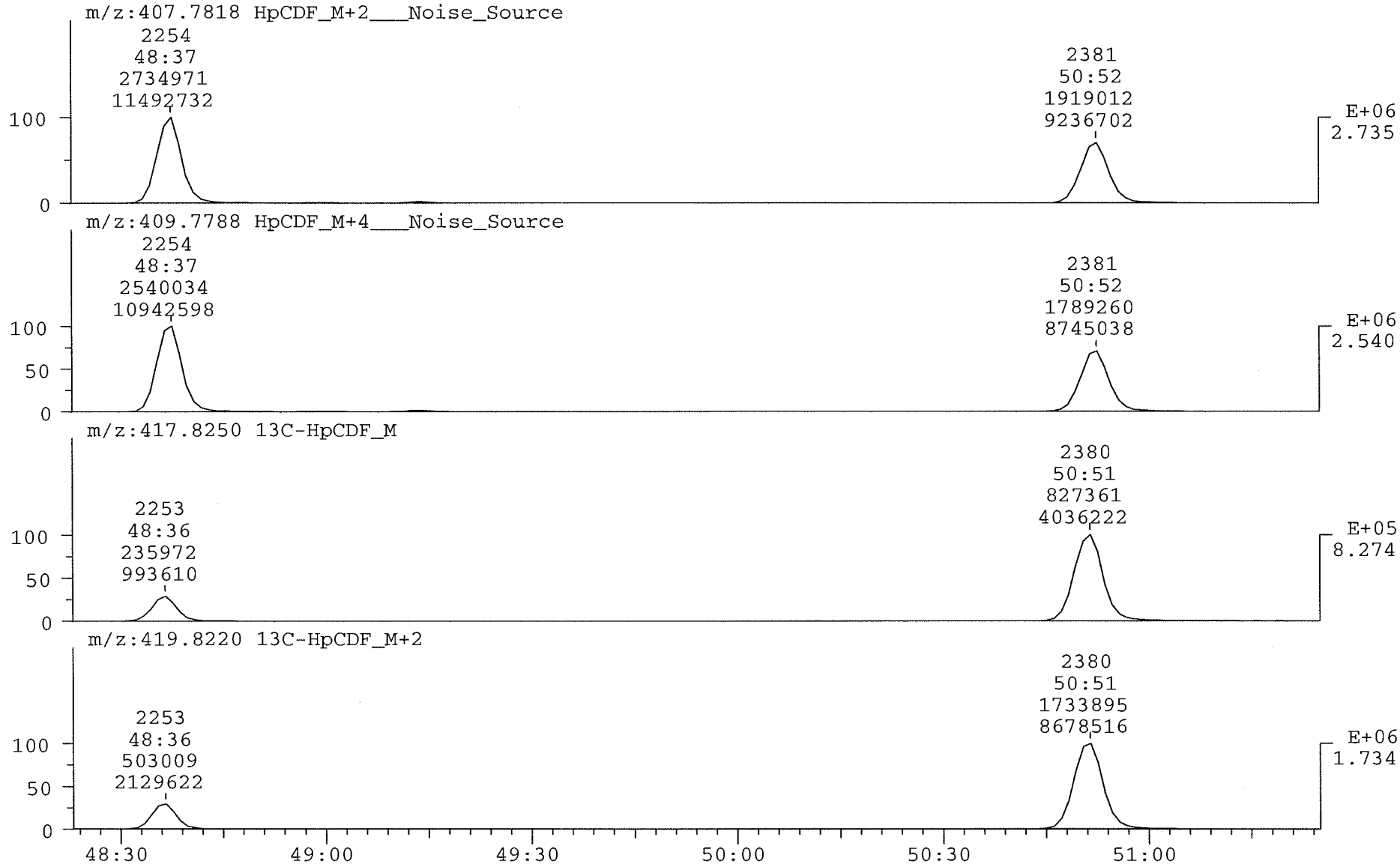
H-501

CHRO: b091210i5 10-Dec-09 Elapse: 44:46 2038
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2268 > 2376 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



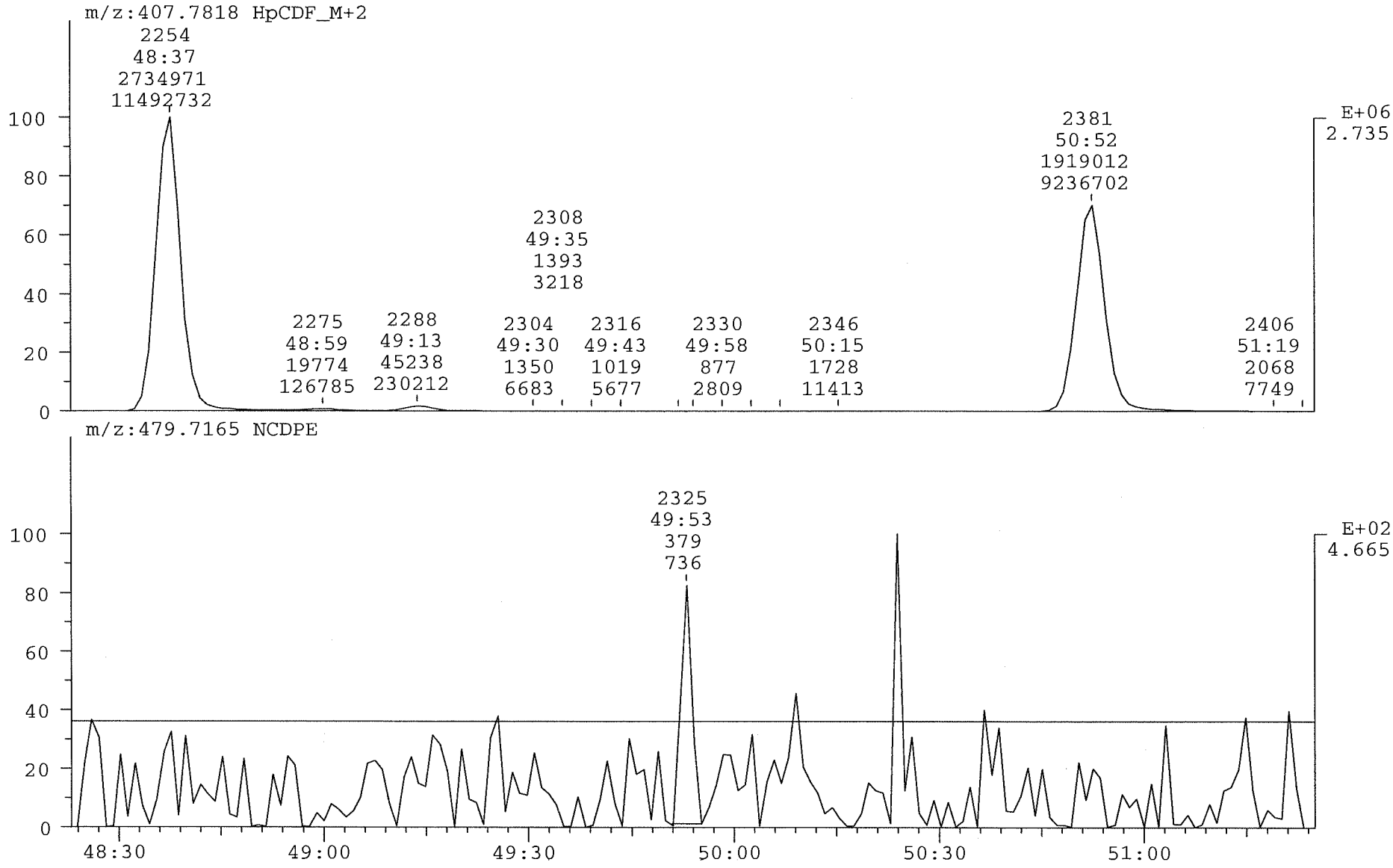
H-502

CHRO: b091210i5 10-Dec-09 Elapse: 49:54 2326
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2240 > 2412 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



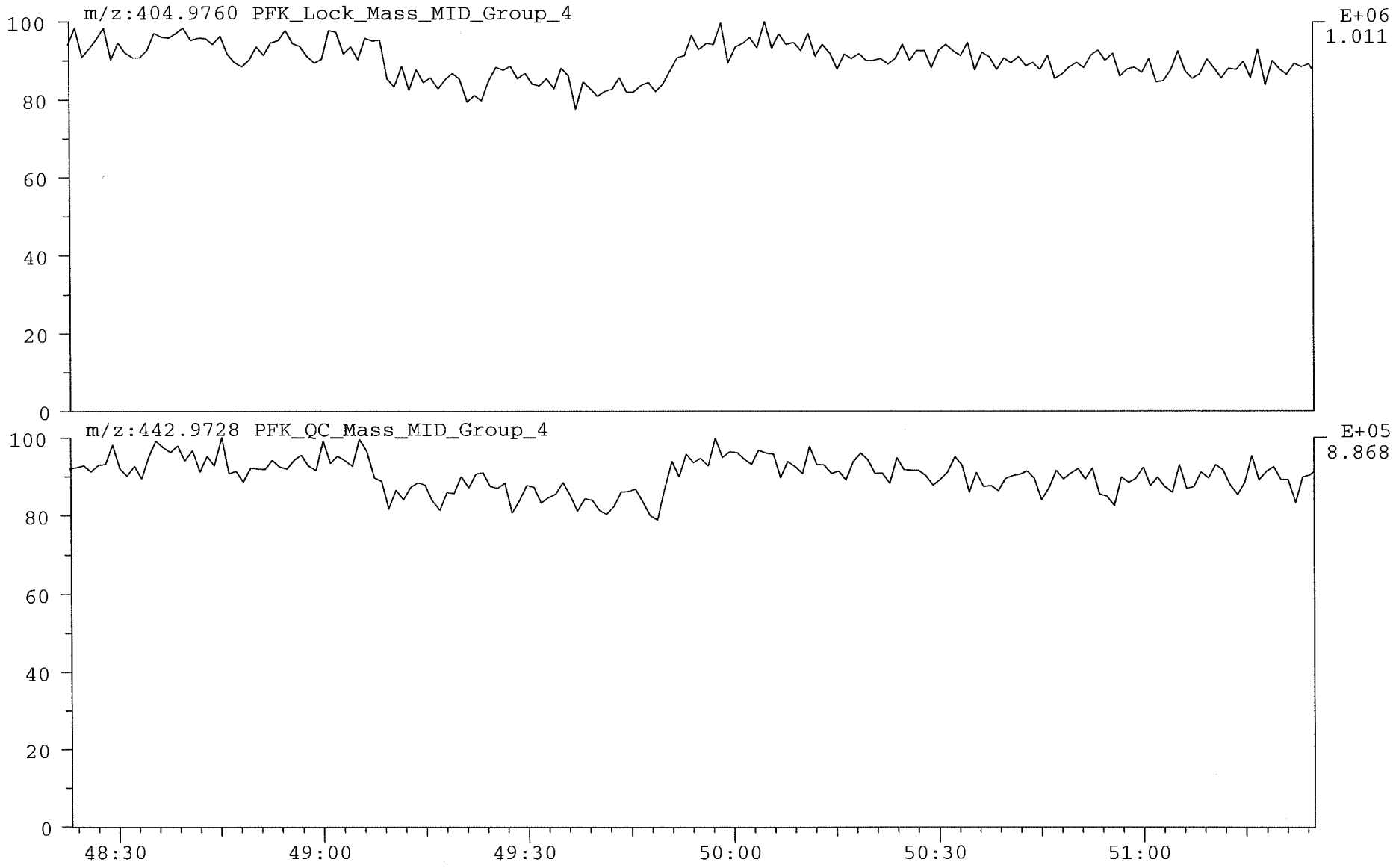
H-503

CHRO: b091210i5 10-Dec-09 Elapse: 49:54 2326
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2240 > 2412 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



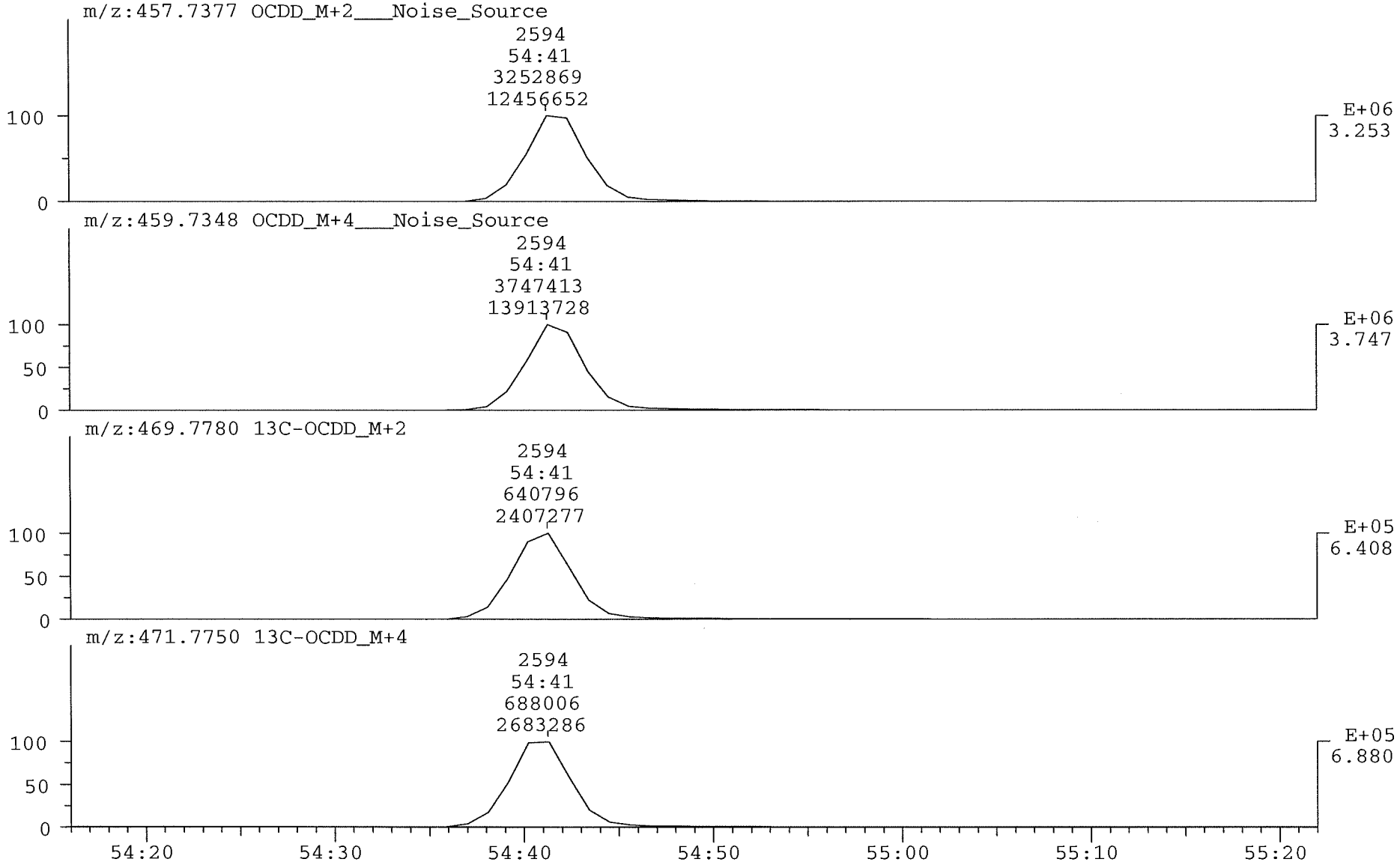
H-504

CHRO: b091210i5 10-Dec-09 Elapse: 49:54 2326
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2240 > 2412 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



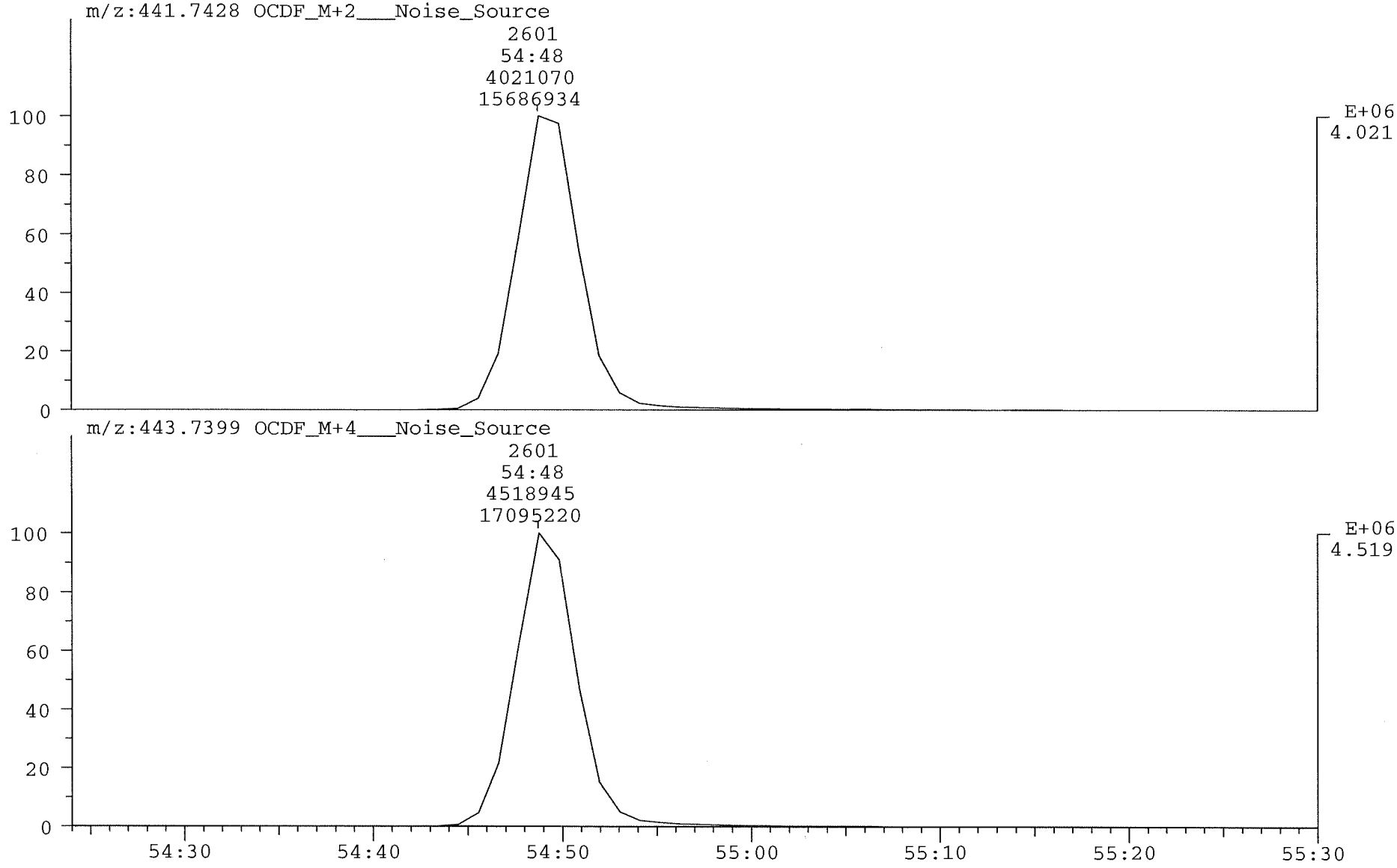
H-505

CHRO: b091210i5 10-Dec-09 Elapse: 54:45 2598
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2570 > 2632 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



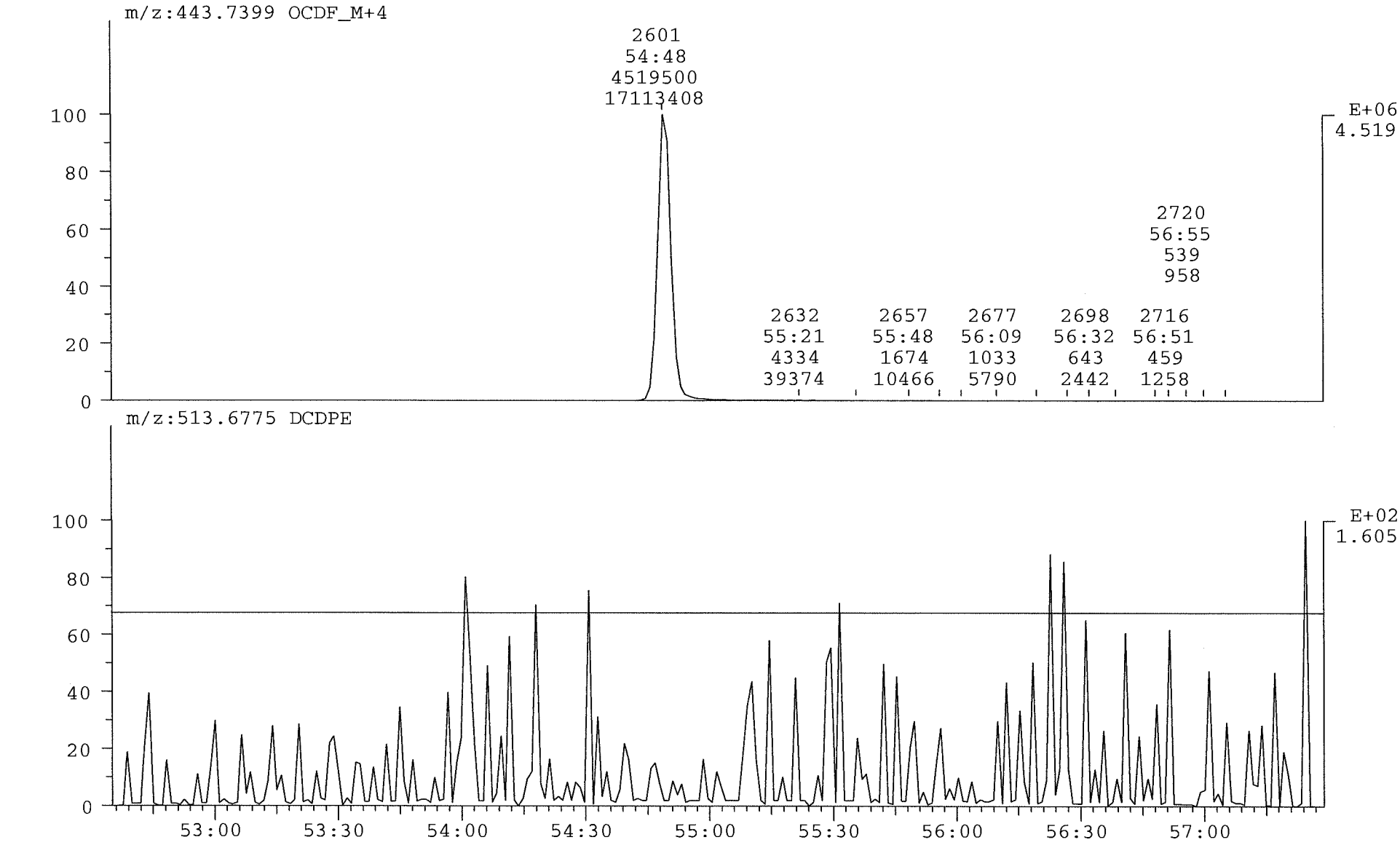
H-506

CHRO: b091210i5 10-Dec-09 Elapse: 54:54 2606
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2578 > 2640 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-507

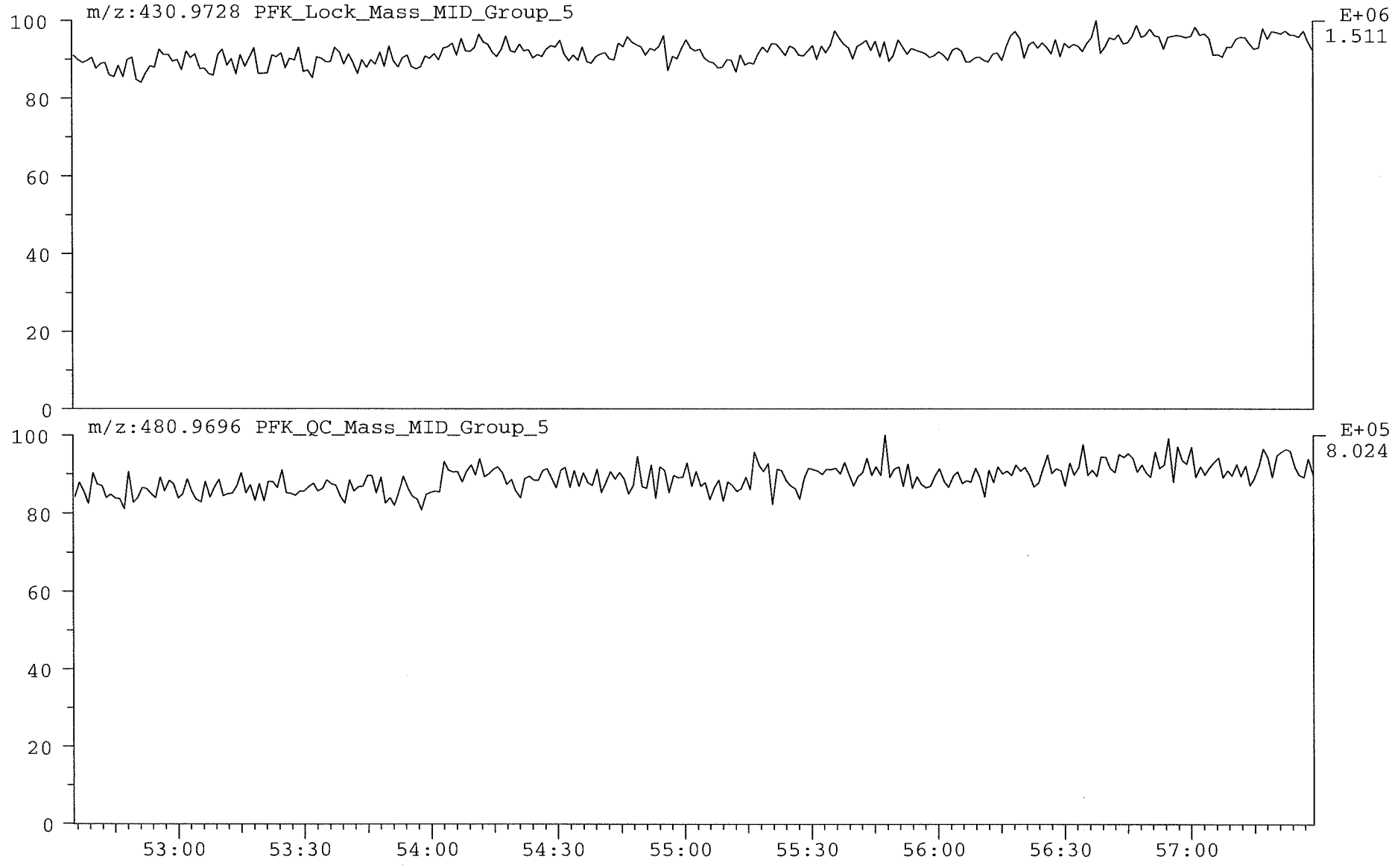
CHRO: b091210i5 10-Dec-09 Elapse: 54:54 2606
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2476 > 2751 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-508

507

CHRO: b091210i5 10-Dec-09 Elapse: 54:54 2606
Samp: Vial 9 WO=4104:14CS5 Meth=X8 Dil=1 Start : 19:47:56 2753
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 CS5
Oper: KBL Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2476 > 2751 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-509

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis2ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b091210i5
Study: M23 CS5
Sample: WO=4104:14CS5 Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA Knoxville
Comments: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Injected volume:   2.0
Sample from Vial 9
Analysis will stop when MID run finishes
Tune file name: tune2
File 6 of list 091207
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.35 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End         Cycletime
  # 1    8:00 min   26:07 min   34:07 min    1.00 sec
  # 2   34:07 min    8:39 min   42:46 min    1.00 sec
  # 3   42:46 min    4:49 min   47:36 min    1.00 sec
  # 4   47:36 min    4:52 min   52:29 min    1.00 sec
  # 5   52:29 min    5:01 min   57:30 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 l   10   1      8.19
    303.9016      1   1     81.92
    305.8987      1   1     81.92
    315.9419      1   1     81.92
    317.9389      1   1     81.92
    319.8965      1   1     81.92
    321.8936      1   1     81.92
    327.8847      1   1     81.92
    331.9368      1   1     81.92
    333.9338      1   1     81.92
    342.9792 c   10   1      8.19
    375.8364      1   1     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 l   10   1      8.19
    339.8597      1   1     91.48
    341.8567      1   1     91.48
```

351.9000		1	1	91.48
353.8970		1	1	91.48
355.8546		1	1	91.48
357.8516		1	1	91.48
367.8949		1	1	91.48
369.8919		1	1	91.48
380.9760	c	10	1	8.19
409.7974		1	1	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	1	10	1	8.19
383.8639		1	1	91.48
385.8610		1	1	91.48
389.8156		1	1	91.48
391.8127		1	1	91.48
401.8559		1	1	91.48
403.8529		1	1	91.48
404.9760	c	10	1	8.19
445.7555		1	1	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	1	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	1	91.48
419.8220		1	1	91.48
423.7767		1	1	91.48
425.7737		1	1	91.48
435.8169		1	1	91.48
437.8140		1	1	91.48
442.9728	c	10	1	8.19
479.7165		1	1	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	1	10	1	10.92
441.7428		1	1	120.15
443.7399		1	1	120.15
457.7377		1	1	120.15
459.7348		1	1	120.15
469.7780		1	1	120.15
471.7750		1	1	120.15
480.9696	c	10	1	10.92
513.6775		1	1	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                        300 deg max
  Transfer Line:     290 deg                        300 deg max
  Column:            140 deg at    0.0 minutes      330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8411.0000
BDEV	8289.0000	BFM	2.0000	BLM	1181.9425
BMASS	304.9824	BQUAD	2.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.2941
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.7814	DITSET	0.0000	DRAW	-29.5750
DRAWC	1.0000	DRAWS	0.0000	ECORR	1.0006
ECURR	1.0000	EDAC	7969177.0000	EDACG	0.9998
EDACR	20.0000	EDACZ	1898.0000	ELEN	57.6250
EMULT	2.1100	ENS	219.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	6.7500	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	557.0000	FVINLET	933.0000
FVSRC	987.0000	FWIN	0.7000	GCTC	137.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7353	HVANAL	1090.0000	HVSRC	3076.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4752.1320	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2409.0000	LENSS	-44.6000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3237806.8854	MDACR	20.0000
MRANGE	1181.9425	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2761.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-7.0750	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10637.5656	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	3073.0000	SHIELDS	-0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7200	TCURR	1.0547	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.2000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.3750
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1119.0000	XLENSS	-46.6000
YLENS	3324.0000	YLENSS	-98.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Dec-09 19:47:56.1

Autosampler has injected sample from vial 9
Analysis stopped at: 10-Dec-09 20:45:28.0 (run time 57.52 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	3848:183	**Prep Batch**		**Lot No**	
Data File	/20091210i/b091210ss.d	**Prep Date**		**SDG No**	
Analysis ID	119273	**Prep Exp Date**		**Date Received**	
Analysis Date	12/10/2009	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	21:30	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	0023/8290
Instrument	M2A	**Dil Factor**	1.00	**Code**	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
2,3,7,8-TCDD	30:27	143723	13856	1.201	5.000	4.590717	91.81	4.590717	J	0.121
Total TCDD				1.201		4.590717		4.590717	J	0.121
2,3,7,8-TCDF	28:35	201358	21131	1.101	5.000	5.175288	103.51	5.175288	J	0.0886
Total TCDF				1.101		5.175288		5.175288	J	0.0886
1,2,3,7,8-PeCDD	41:05	657306	133534	1.082	25.00	24.992325	99.97	24.992325	J	0.0681
Total PeCDD				1.082		24.992325		24.992325	J	0.0681
1,2,3,7,8-PeCDF	39:07	953987	156428	1.058	25.00	24.861232	99.44	24.861232	J	0.0735
2,3,4,7,8-PeCDF	40:30	992960	187643	1.008	25.00	27.160457	108.64	27.160457	J	0.0772
Total PeCDF				1.033		52.021689		52.021689	J	0.0753
1,2,3,4,7,8-HxCDD	45:27	658001	185406	0.965	25.00	28.044208	112.18	28.044208	J	0.111
1,2,3,6,7,8-HxCDD	45:35	736361	176120	1.089	25.00	27.810375	111.24	27.810375	J	0.0980
1,2,3,7,8,9-HxCDD	45:56	720878	183332	1.018	25.00	29.124464	116.50	29.124464	J	0.105
Total HxCDD				1.024		84.979047		84.979047	J	0.104
1,2,3,4,7,8-HxCDF	44:27	992850	286422	1.111	25.00	26.743244	106.97	26.743244	J	0.0562
1,2,3,6,7,8-HxCDF	44:34	1135973	289844	1.246	25.00	27.283147	109.13	27.283147	J	0.0501
2,3,4,6,7,8-HxCDF	45:17	1004392	256770	1.162	25.00	25.866735	103.47	25.866735	J	0.0537
1,2,3,7,8,9-HxCDF	46:11	941242	203697	0.984	25.00	28.625343	114.50	28.625343	J	0.0634
Total HxCDF				1.126		108.518469		108.518469	J	0.0554
1,2,3,4,6,7,8-HpCDD	50:07	666185	127689	1.090	25.00	26.072761	104.29	26.072761	J	0.0698
Total HpCDD				1.090		26.072761		26.072761	J	0.0698
1,2,3,4,6,7,8-HpCDF	48:30	1040839	229540	1.452	25.00	28.177740	112.71	28.177740	J	0.0537
1,2,3,4,7,8,9-HpCDF	50:45	762101	134547	1.102	25.00	27.184425	108.74	27.184425	J	0.0708
Total HpCDF				1.277		55.362164		55.362164	J	0.0611
OCDD	54:35	1172256	282514	1.080	50.00	49.414123	98.83	49.414123	J	0.0639
OCDF	54:42	1235349	293271	1.207	50.00	46.594513	93.19	46.594513	J	0.0780
13C-2,3,7,8-TCDD	30:24	2606770	254436	0.985	100.0	106.293762	106.29	106.293762		0.417
13C-2,3,7,8-TCDF	28:30	3533841	371410	1.677	100.0	84.636021	84.64	84.636021		0.133
13C-1,2,3,7,8-PeCDD	41:04	2430713	485338	0.972	100.0	100.440464	100.44	100.440464		0.189
13C-1,2,3,7,8-PeCDF	39:06	3626888	607435	1.659	100.0	87.806982	87.81	87.806982		0.159
13C-1,2,3,6,7,8-HxCDD	45:34	2431398	625628	1.029	100.0	92.913272	92.91	92.913272		0.181
13C-1,2,3,6,7,8-HxCDF	44:34	3341608	877148	1.450	100.0	90.620108	90.62	90.620108		0.0672
13C-1,2,3,4,6,7,8-HpCDD	50:07	2344128	463206	0.872	100.0	105.706553	105.71	105.706553		0.0793
13C-1,2,3,4,6,7,8-HpCDF	48:29	2543963	567413	1.077	100.0	92.882129	92.88	92.882129		0.0679
13C-OCDD	54:33	4393166	1078724	0.864	200.0	199.940579	99.97	199.940579		0.138
37Cl4-2,3,7,8-TCDD	30:27	143191	14713	1.160	5.000	4.735382	94.71	4.735382	J	0.0678
13C-2,3,4,7,8-PeCDF	40:29	917276	166800	0.942	25.00	26.848188	107.39	26.848188	J	0.122
13C-1,2,3,4,7,8-HxCDD	45:26	558490	159304	0.933	25.00	24.619413	98.48	24.619413	J	0.198
13C-1,2,3,4,7,8-HxCDF	44:26	823127	229500	0.872	25.00	28.248465	112.99	28.248465	J	0.0788
13C-1,2,3,7,8,9-HxCDF	46:10	774196	168532	1.235	25.00	24.650234	98.60	24.650234	J	0.0789
13C-1,2,3,4,7,8,9-HpCDF	50:45	510642	93053	0.784	25.00	25.602931	102.41	25.602931	J	0.102
13C-1,2,3,4-TCDD	29:53	2489767	264021	1.000	100.0	100.000000	100.00	100.000000		0.411
13C-1,2,3,7,8,9-HxCDD	45:56	2543097	618476	1.000	100.0	100.000000	100.00	100.000000		0.187

WSD 12/11/09
VM 12-11-09

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	3848:183	Prep Batch		Lot No	
Data File	/20091210i/b091210ss.d	Prep Date		SDG No	
Analysis ID	119273	Prep Exp Date		Date Received	
Analysis Date	12/10/09 21:30	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89	
	Noise	00:00	00:00	0	150	213	60	85	0.71	/
	2,3,7,8-TCDF	28:35	00:00	0	88031	113327	9464	11667	0.78	ABV/ABV
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89	
	Noise	00:00	00:00	0	313	275	125	110	1.14 *	/
	13C-2,3,7,8-TCDF	28:30	00:00	0	1546958	1986883	159264	212146	0.78	ABV/ABV
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89	
	Noise	00:00	00:00	0	165	205	66	82	0.80	/
	2,3,7,8-TCDD	30:27	00:00	0	63227	80496	6236	7620	0.79	ABV/ABV
328					327.8847		327.8847			
	Noise	00:00	00:00	0	200		80			
	37Cl4-2,3,7,8-TCDD	30:27	00:00	0	143191		14713			ABV
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89	
	Noise	00:00	00:00	0	718	368	287	147	1.95 *	/
	13C-1,2,3,4-TCDD	29:53	00:00	0	1125778	1363989	119904	144117	0.83	ABV/ABV
	13C-2,3,7,8-TCDD	30:24	00:00	0	1164690	1442080	112925	141511	0.81	AVV/AVV
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78	
	Noise	00:00	00:00	0	235	238	94	95	0.99 *	/
	1,2,3,7,8-PeCDF	39:07	00:00	0	581753	372234	94781	61647	1.56	ABV/ABV
	2,3,4,7,8-PeCDF	40:30	00:00	0	604124	388836	115754	71889	1.55	ABV/AVV
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78	
	Noise	00:00	00:00	0	363	335	145	134	1.08 *	/
	13C-1,2,3,7,8-PeCDF	39:06	00:00	0	2225477	1401411	372737	234698	1.59	ABV/ABV
	13C-2,3,4,7,8-PeCDF	40:29	00:00	0	555100	362176	101695	65105	1.53	AVV/AVV
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78	
	Noise	00:00	00:00	0	243	115	97	46	2.11 *	/
	1,2,3,7,8-PeCDD	41:05	00:00	0	405973	251333	82483	51051	1.62	ABV/ABV
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78	
	Noise	00:00	00:00	0	245	240	98	96	1.02 *	/
	13C-1,2,3,7,8-PeCDD	41:04	00:00	0	1487822	942891	298539	186799	1.58	ABV/ABV
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43	
	Noise	00:00	00:00	0	280	268	112	107	1.05	/
	1,2,3,4,7,8-HxCDF	44:27	00:00	0	559243	433607	162060	124362	1.29	ABV/ABV
	1,2,3,6,7,8-HxCDF	44:34	00:00	0	639585	496388	162498	127346	1.29	AVV/AVV
	2,3,4,6,7,8-HxCDF	45:17	00:00	0	563334	441058	144658	112112	1.28	AVV/AVV
	1,2,3,7,8,9-HxCDF	46:11	00:00	0	526167	415075	113312	90385	1.27	ABV/ABV
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59	
	Noise	00:00	00:00	0	268	335	107	134	0.80 *	/
	13C-1,2,3,4,7,8-HxCDF	44:26	00:00	0	279164	543963	76561	152939	0.51	ABV/ABV
	13C-1,2,3,6,7,8-HxCDF	44:34	00:00	0	1148740	2192868	302747	574401	0.52	AVV/AVV
	13C-1,2,3,7,8,9-HxCDF	46:10	00:00	0	267939	506257	61581	106951	0.53	ABV/ABV
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43	
	Noise	00:00	00:00	0	295	373	118	149	0.79 *	/

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	3848:183	Prep Batch		Lot No	
Data File	/20091210i/b091210ss.d	Prep Date		SDG No	
Analysis ID	119273	Prep Exp Date		Date Received	
Analysis Date	12/10/09 21:30	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

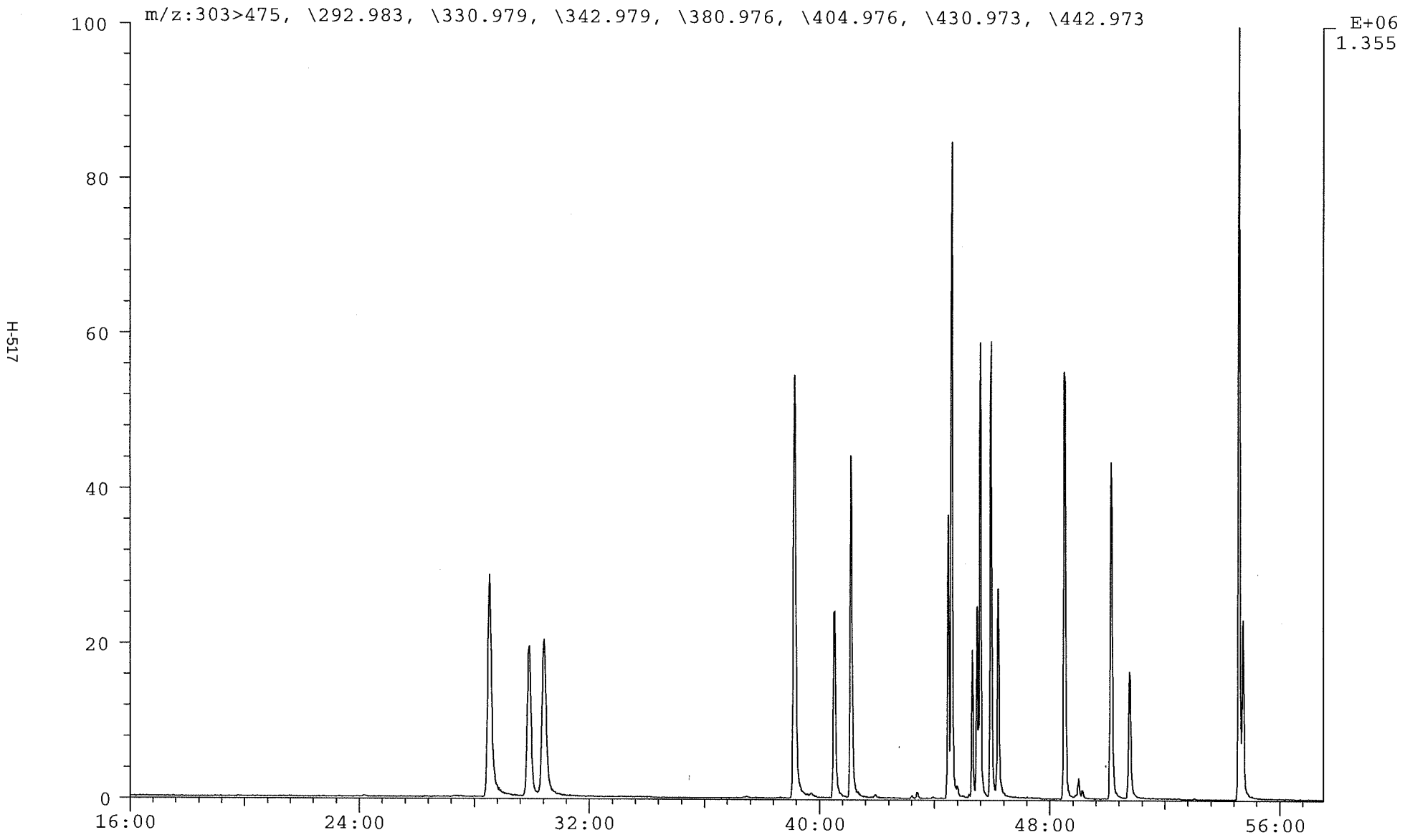
Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
390					**389.8156**	**391.8127**	**389.8156**	**391.8127**	**1.05-1.43**	
	1,2,3,4,7,8-HxCDD	45:27	00:00	0	366771	291230	103160	82246	1.26	ABV/ABV
	1,2,3,6,7,8-HxCDD	45:35	00:00	0	413452	322909	98990	77130	1.28	AVV/AVV
	1,2,3,7,8,9-HxCDD	45:56	00:00	0	397534	323344	101424	81908	1.23	AVV/AVV
402					**401.8559**	**403.8529**	**401.8559**	**403.8529**	**1.05-1.43**	
	Noise	00:00	00:00	0	700	455	280	182	1.54 *	/
	13C-1,2,3,4,7,8-HxCDD	45:26	00:00	0	309505	248985	88091	71213	1.24	ABV/ABV
	13C-1,2,3,6,7,8-HxCDD	45:34	00:00	0	1361087	1070311	348251	277377	1.27	AVV/AVV
	13C-1,2,3,7,8,9-HxCDD	45:56	00:00	0	1429494	1113603	348729	269747	1.28	AVV/AVV
408					**407.7818**	**409.7788**	**407.7818**	**409.7788**	**0.88-1.20**	
	Noise	00:00	00:00	0	220	223	88	89	0.99	/
	1,2,3,4,6,7,8-HpCDF	48:30	00:00	0	534470	506369	116722	112818	1.06	ABV/ABV
	1,2,3,4,7,8,9-HpCDF	50:45	00:00	0	389322	372779	68034	66513	1.04	ABV/ABV
418					**417.8250**	**419.8220**	**417.8250**	**419.8220**	**0.37-0.51**	
	Noise	00:00	00:00	0	195	258	78	103	0.76 *	/
	13C-1,2,3,4,6,7,8-HpCDF	48:29	00:00	0	802967	1740996	179953	387460	0.46	ABV/ABV
	13C-1,2,3,4,7,8,9-HpCDF	50:45	00:00	0	161148	349494	30564	62489	0.46	AVV/ABV
424					**423.7767**	**425.7737**	**423.7767**	**425.7737**	**0.88-1.20**	
	Noise	00:00	00:00	0	163	190	65	76	0.86 *	/
	1,2,3,4,6,7,8-HpCDD	50:07	00:00	0	331055	335130	62823	64866	0.99	ABV/ABV
436					**435.8169**	**437.8140**	**435.8169**	**437.8140**	**0.88-1.20**	
	Noise	00:00	00:00	0	265	163	106	65	1.63 *	/
	13C-1,2,3,4,6,7,8-HpCDD	50:07	00:00	0	1212347	1131781	240543	222663	1.07	ABV/ABV
442					**441.7428**	**443.7399**	**441.7428**	**443.7399**	**0.76-1.02**	
	Noise	00:00	00:00	0	298	210	119	84	1.42 *	/
	OCDF	54:42	00:00	0	591576	643773	143683	149588	0.92	ABV/ABV
458					**457.7377**	**459.7348**	**457.7377**	**459.7348**	**0.76-1.02**	
	Noise	00:00	00:00	0	143	230	57	92	0.62 *	/
	OCDD	54:35	00:00	0	549292	622964	135105	147409	0.88	ABV/ABV
470					**469.7780**	**471.7750**	**469.7780**	**471.7750**	**0.76-1.02**	
	Noise	00:00	00:00	0	360	380	144	152	0.95	/
	13C-OCDD	54:33	00:00	0	2078541	2314625	514193	564531	0.90	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: b091210ss 10-Dec-09
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM
Oper: KBL Client: TA Knoxville
Peak: 100.00 ppm Label wndw: 440 > 2751
Area: 5, 0.50, 0 Baseline : 100, 3
Disp: Height Area

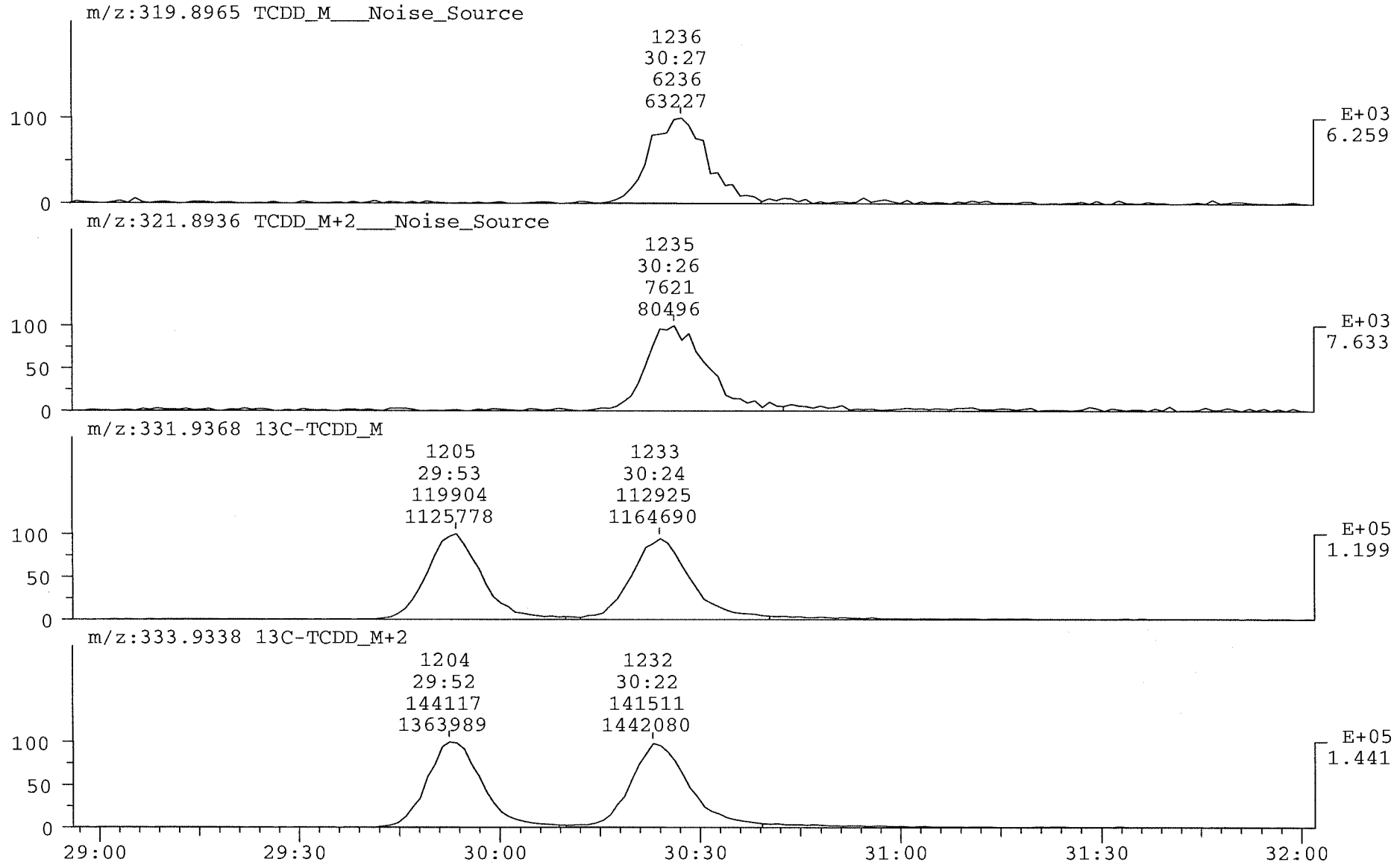
Elapse: 42:41 1920
Start : 21:30:11 2751
Study : M23 SS
Inlet : GC Vial 3
Masses: 293 > 514
Label : 0, 0.0

Int pap 12-10-09
Calc JESD 12/11/09
QC KM 12-11-09



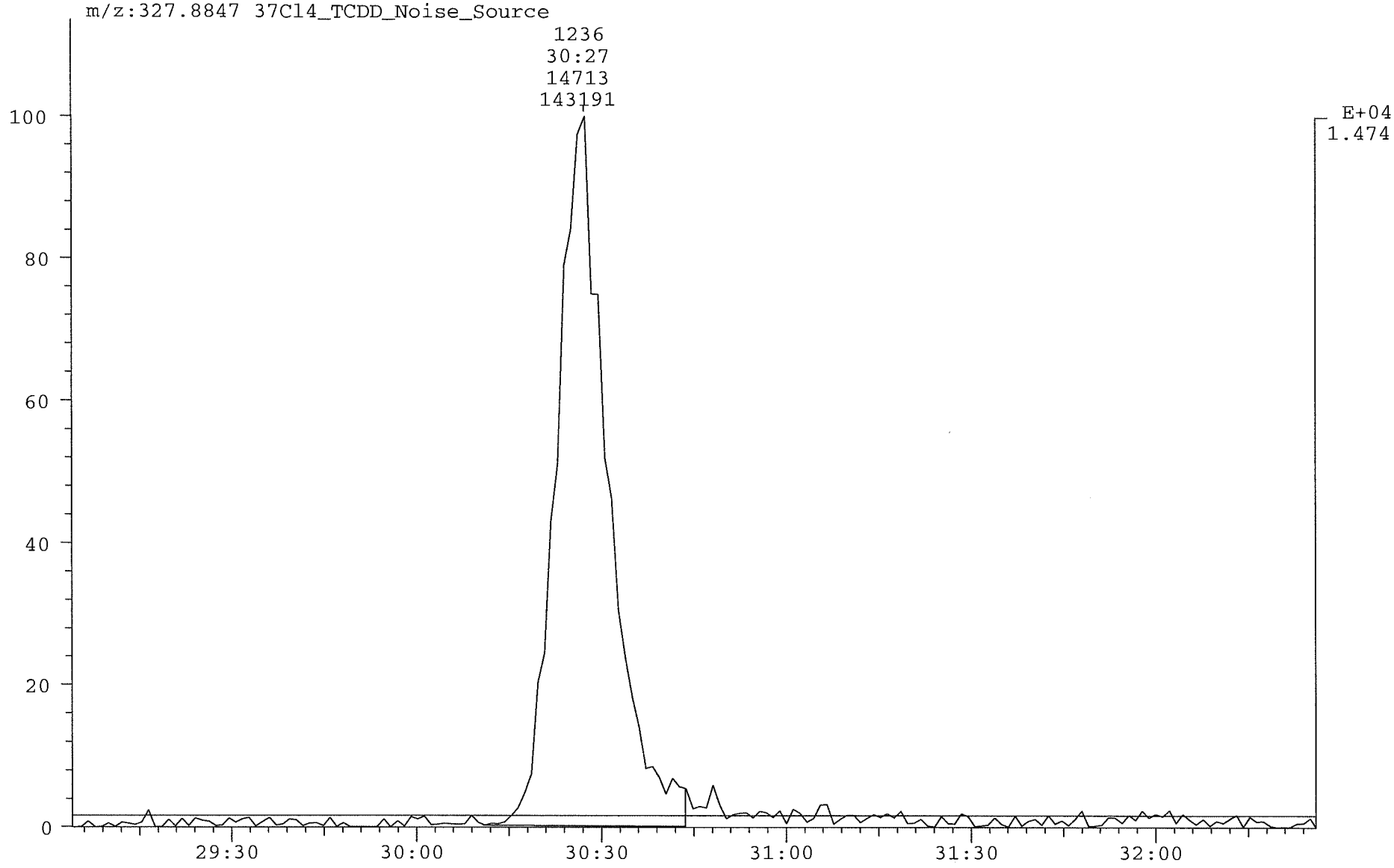
H-517

CHRO: b091210ss 10-Dec-09 Elapse: 30:29 1238
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1152 > 1323 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



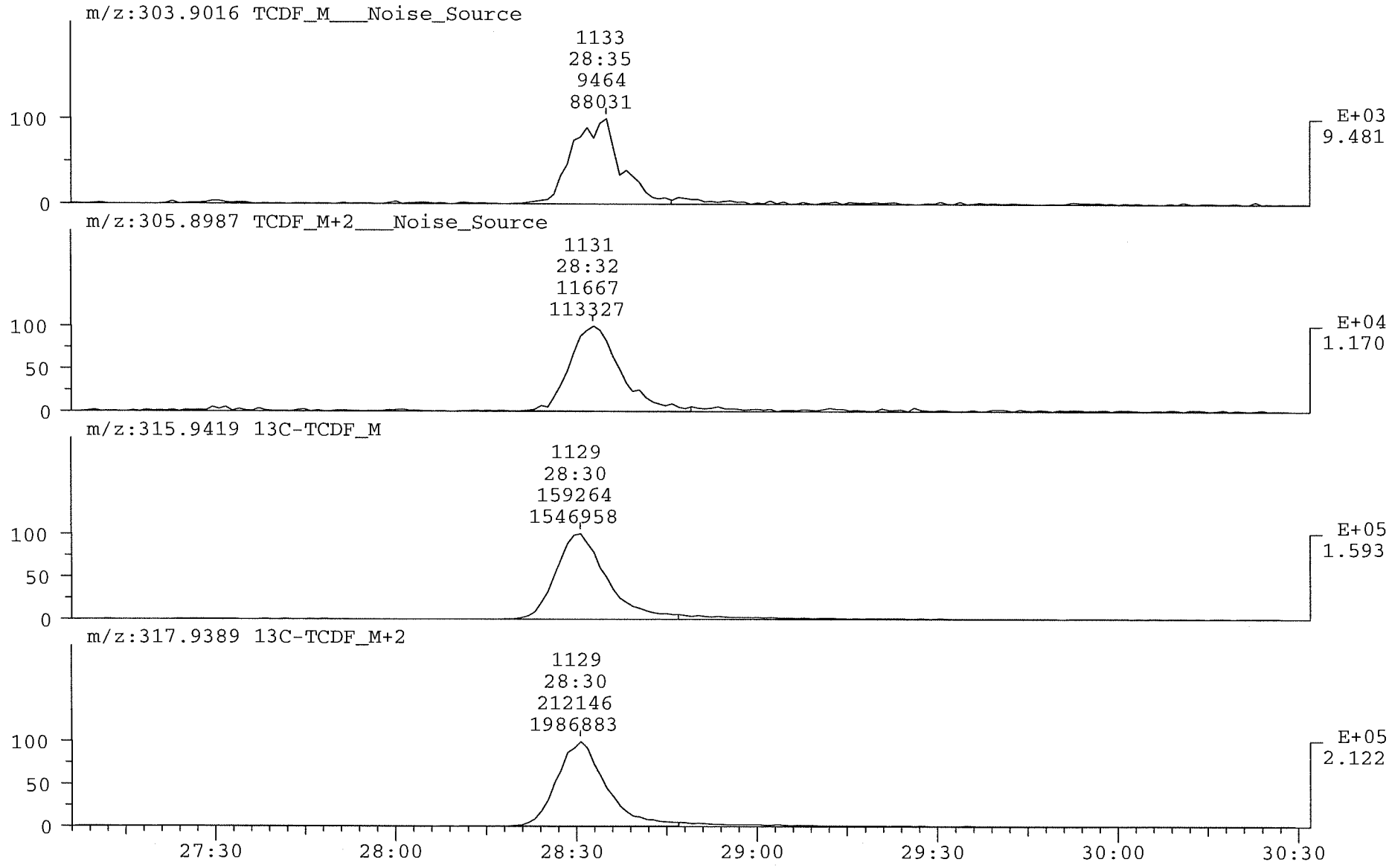
H-518

CHRO: b091210ss 10-Dec-09 Elapse: 30:41 1249
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1160 > 1345 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



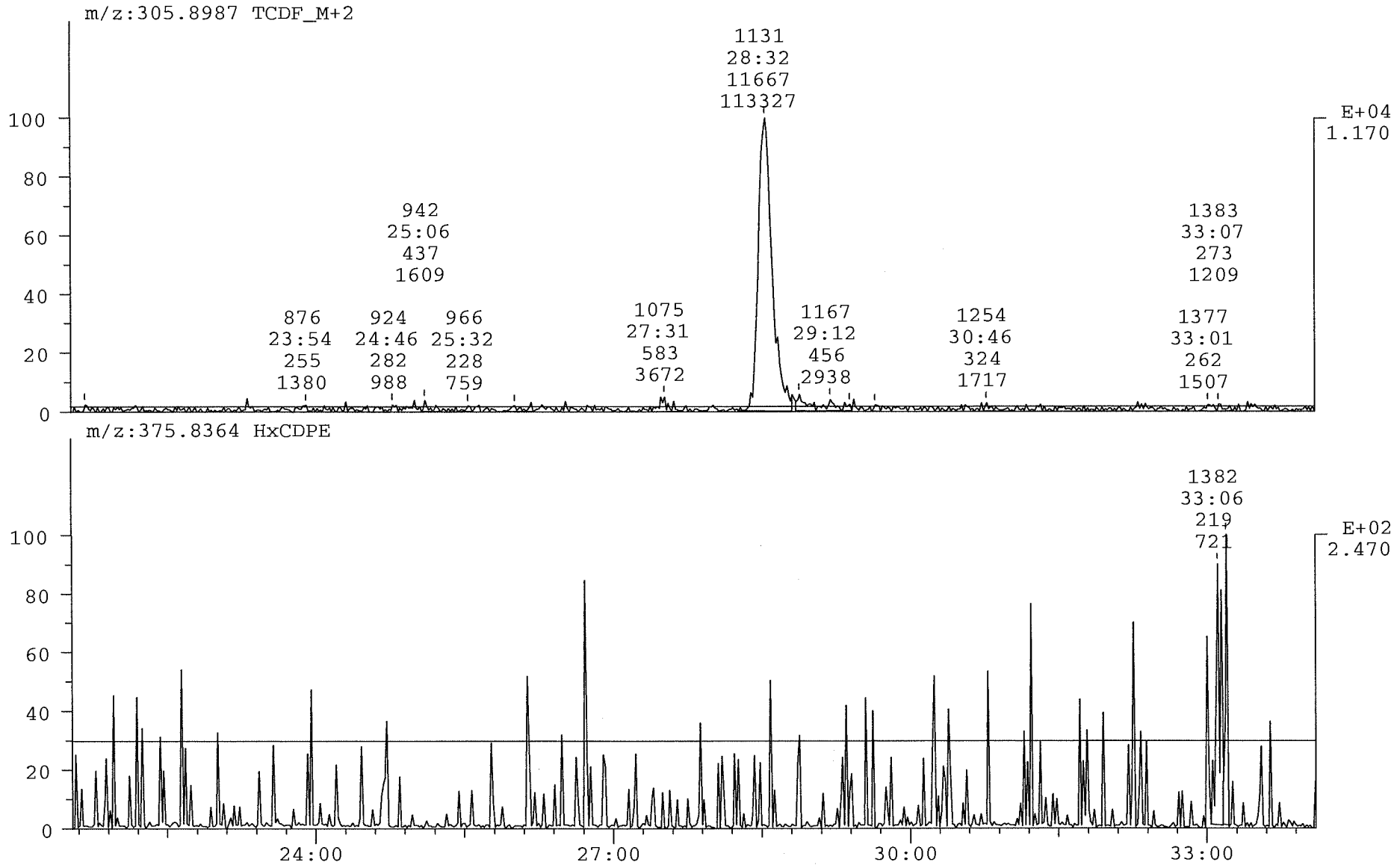
H-519

CHRO: b091210ss 10-Dec-09 Elapse: 28:45 1143
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1051 > 1240 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



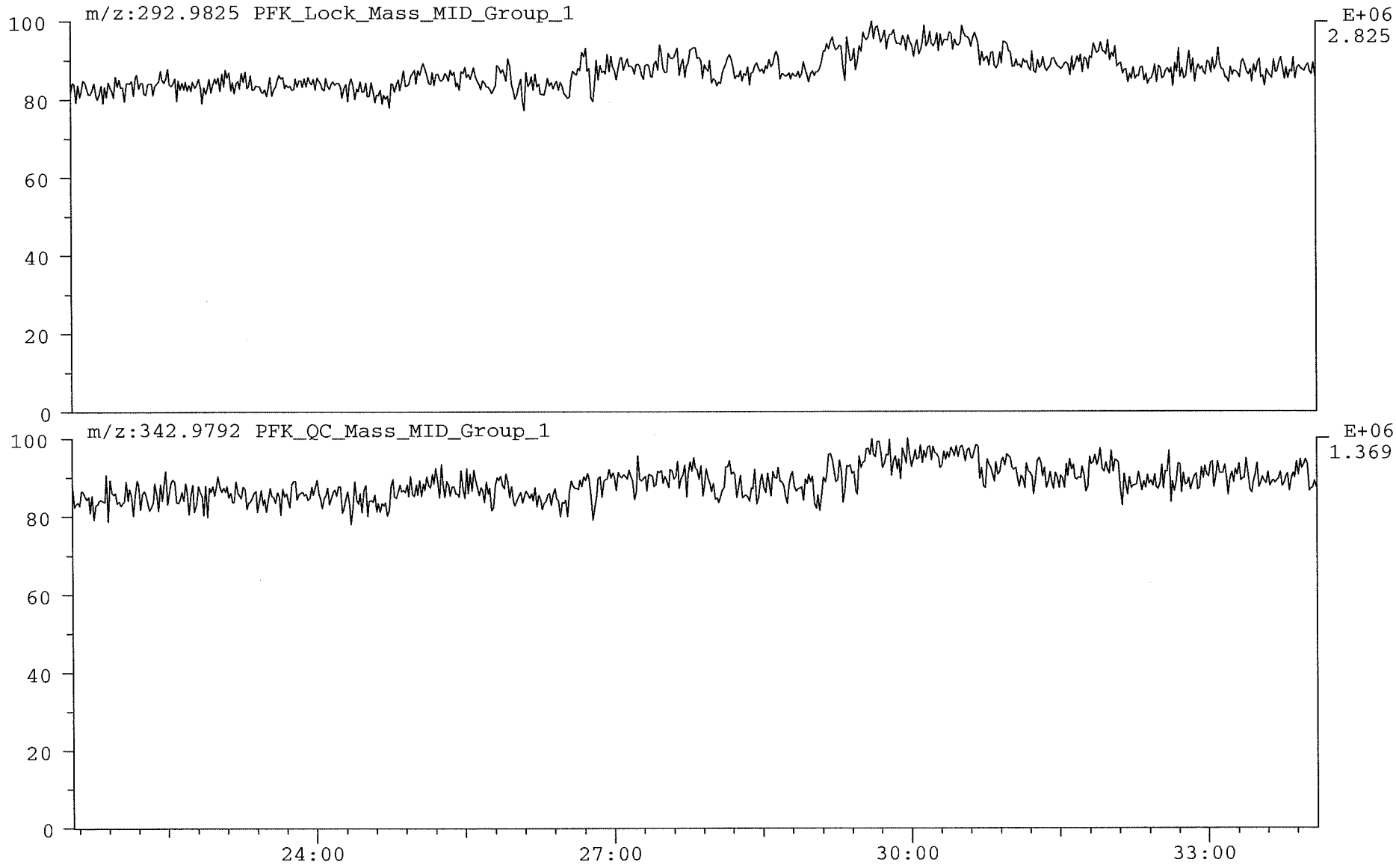
H-520

CHRO: b091210ss 10-Dec-09 Elapse: 28:45 1143
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 745 > 1437 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



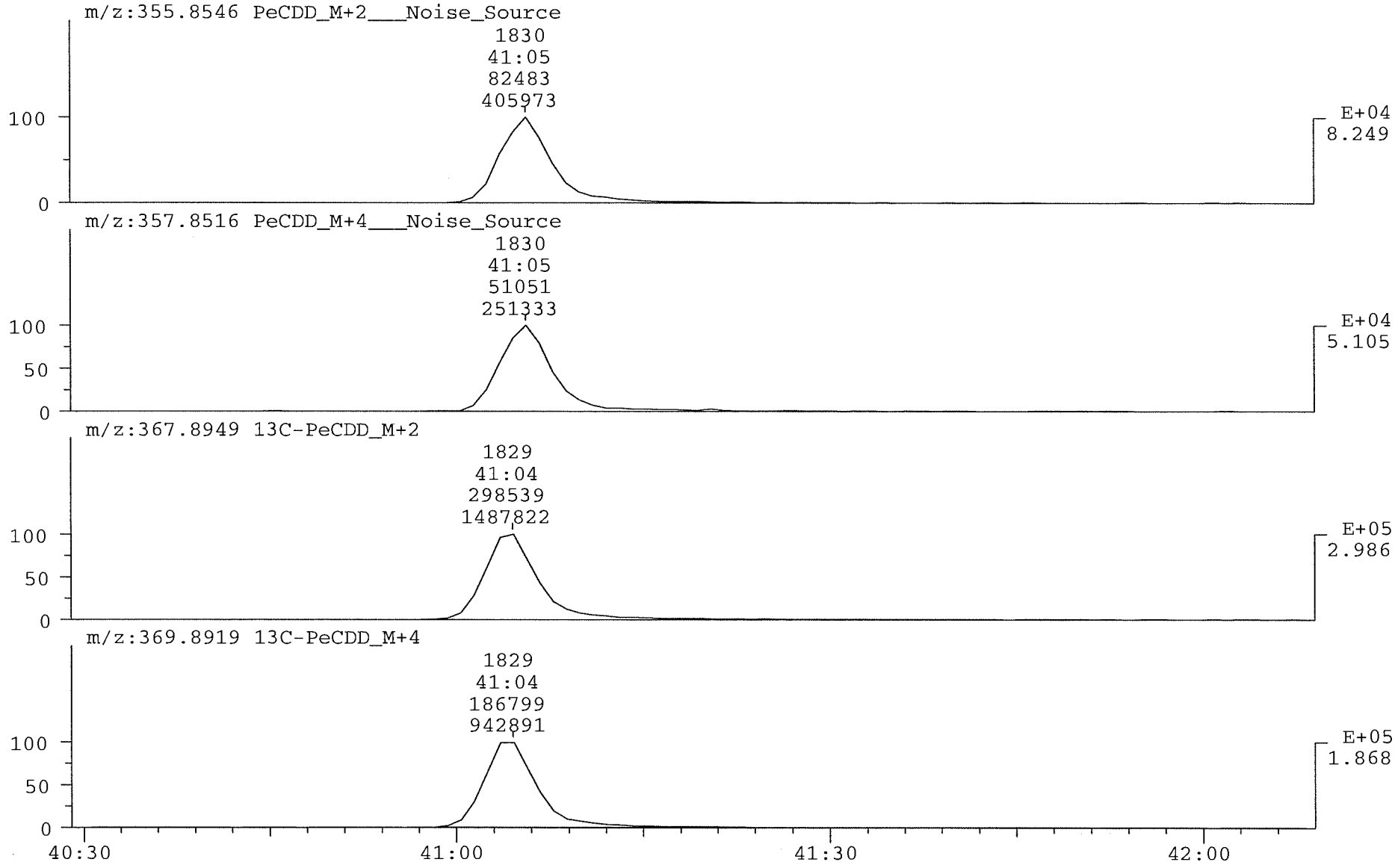
H-521

CHRO: b091210ss 10-Dec-09 Elapse: 28:45 1143
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 745 > 1437 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



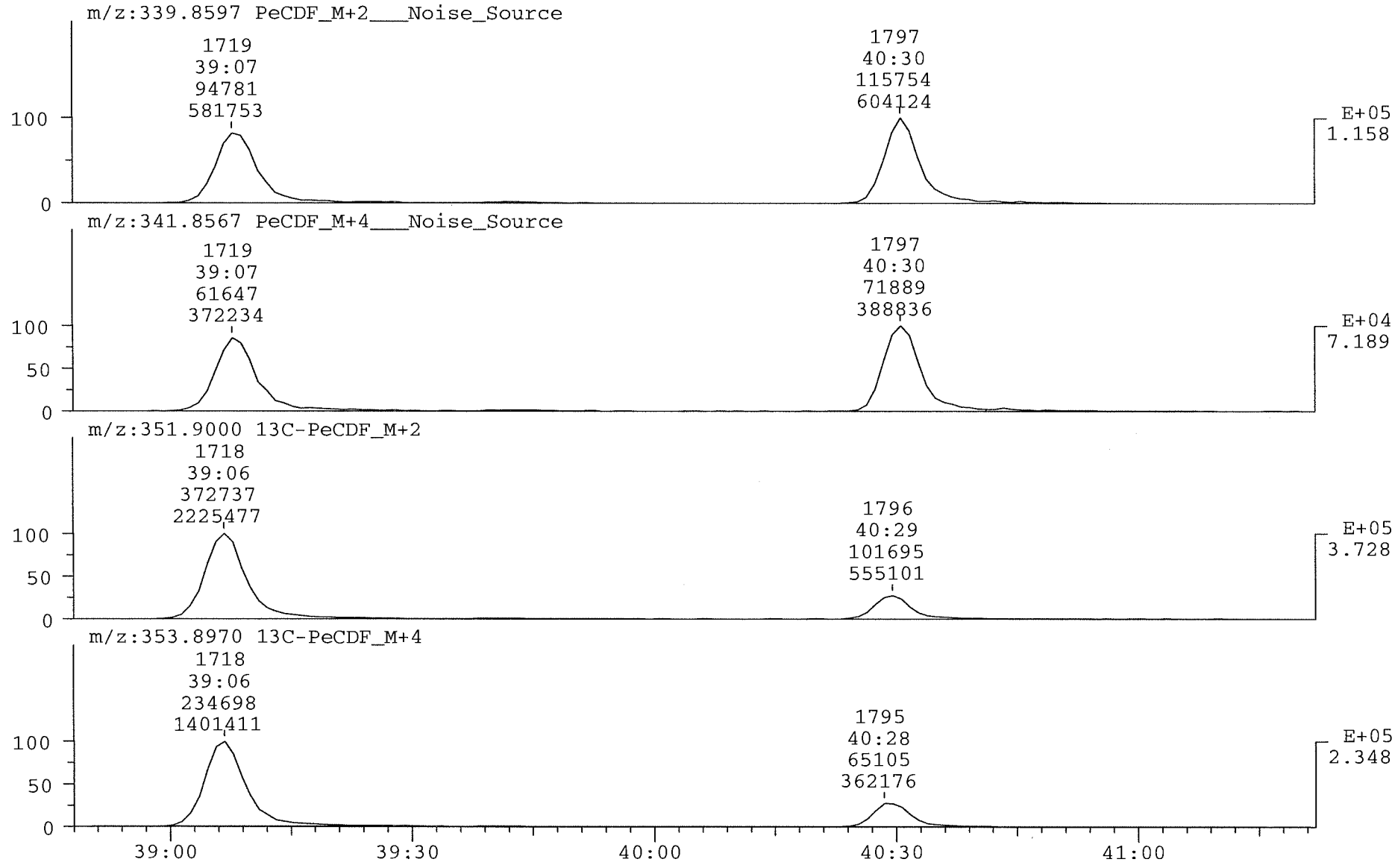
H-522

CHRO: b091210ss 10-Dec-09 Elapse: 41:16 1840
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1796 > 1890 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

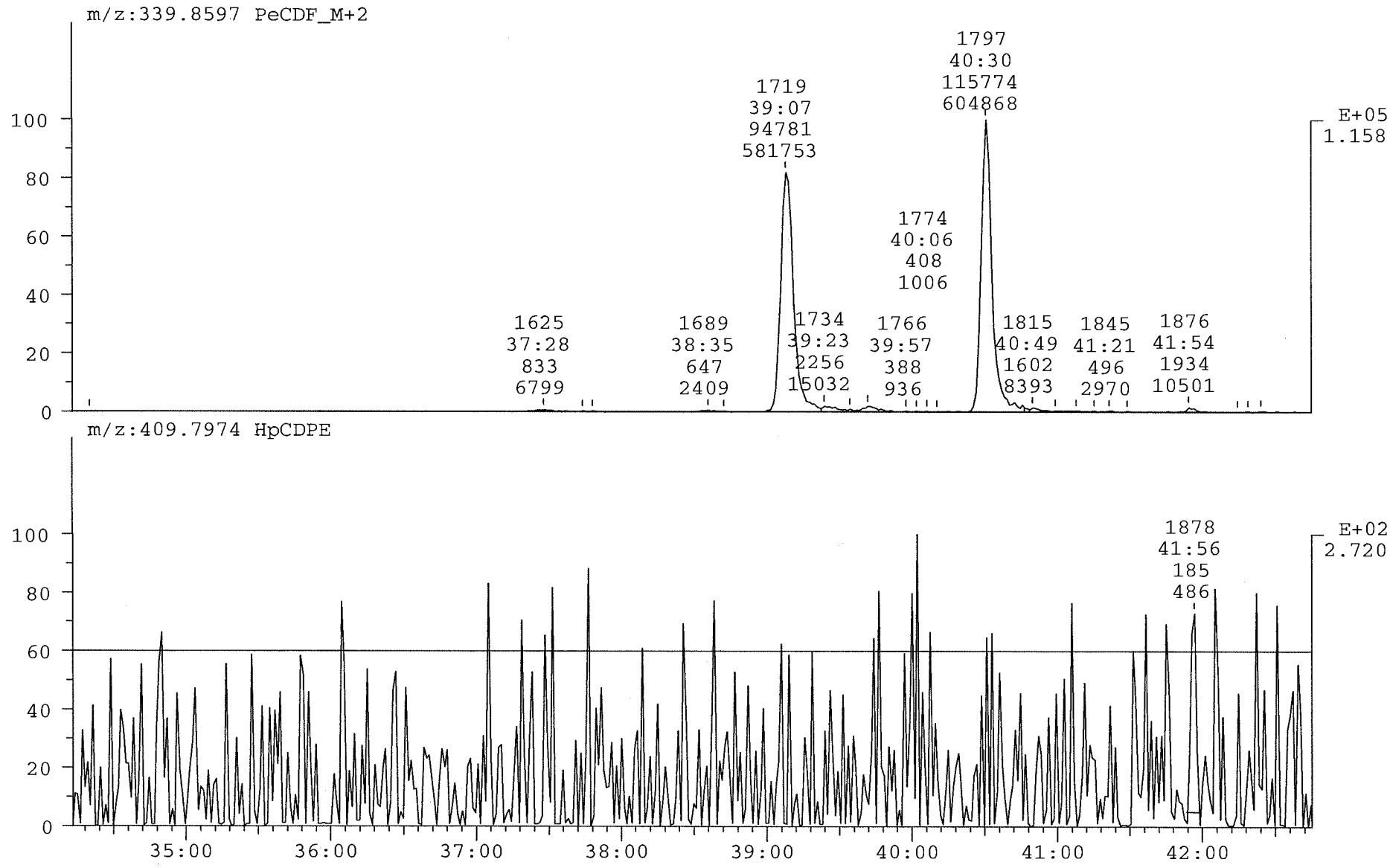


H-523

CHRO: b091210ss 10-Dec-09 Elapse: 40:05 1773
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1700 > 1845 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

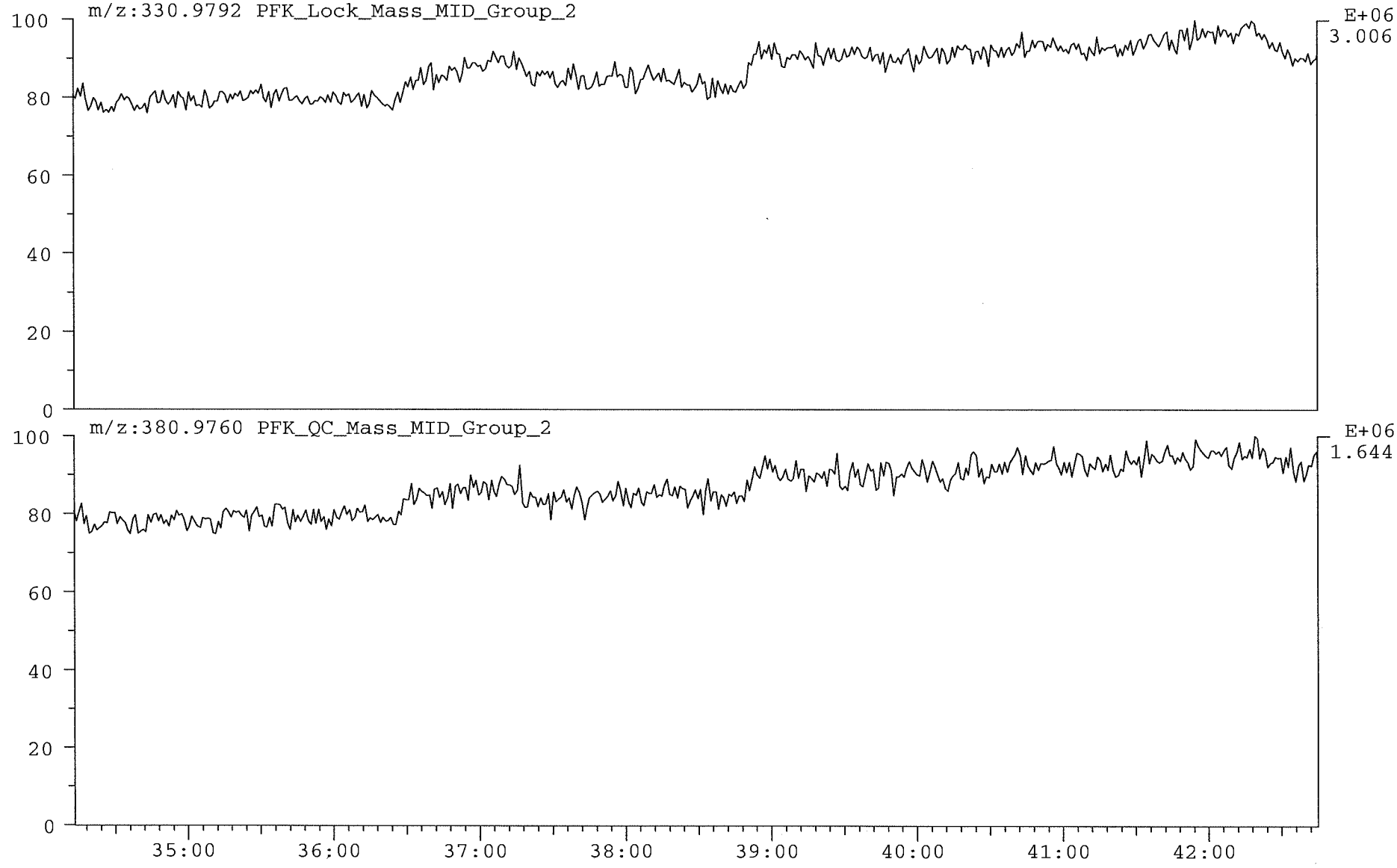


CHRO: b091210ss 10-Dec-09 Elapse: 40:05 1773
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1441 > 1924 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



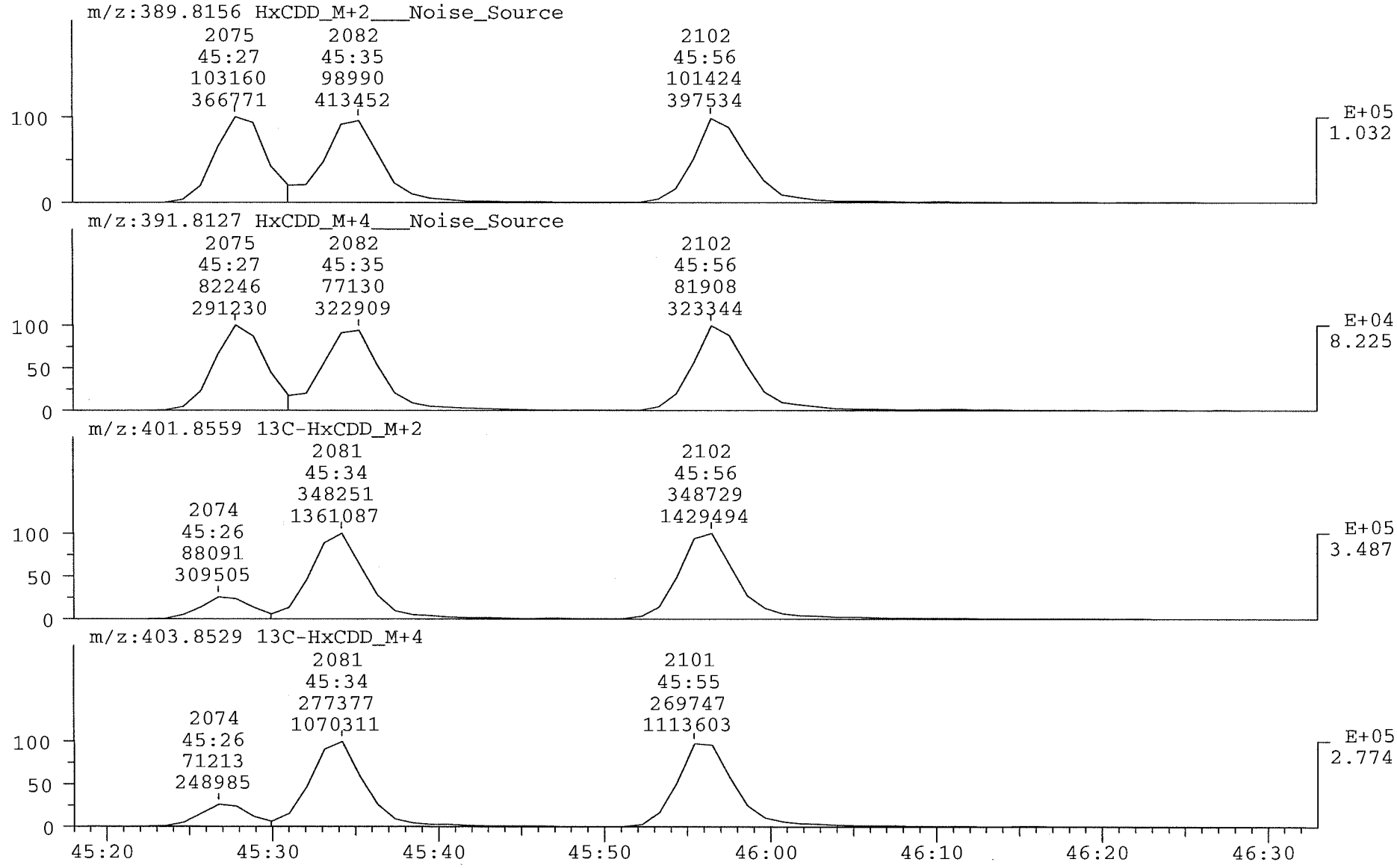
H-525

CHRO: b091210ss 10-Dec-09 Elapse: 40:05 1773
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1441 > 1924 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



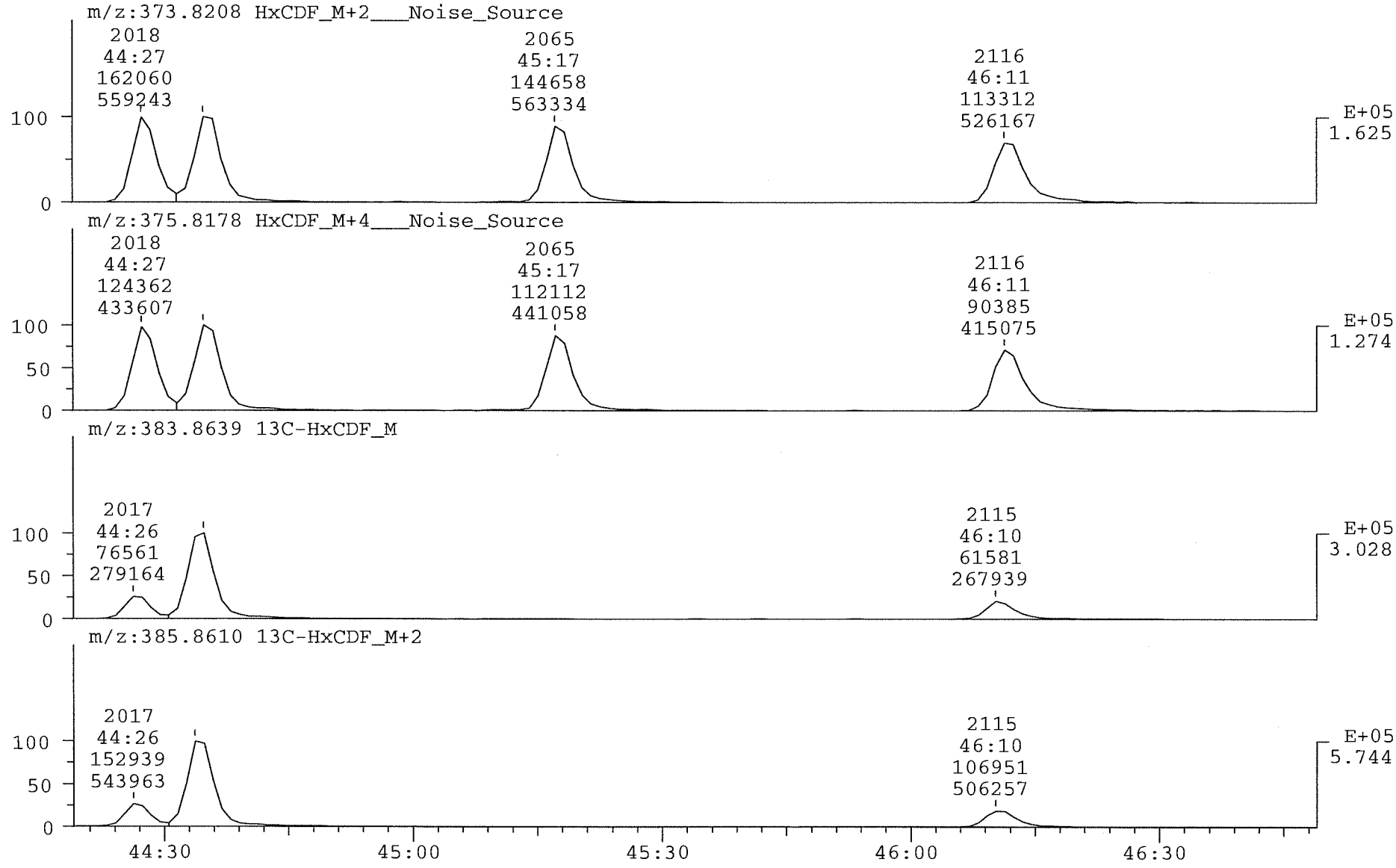
H-526

CHRO: b091210ss 10-Dec-09 Elapse: 45:55 2101
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2066 > 2136 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

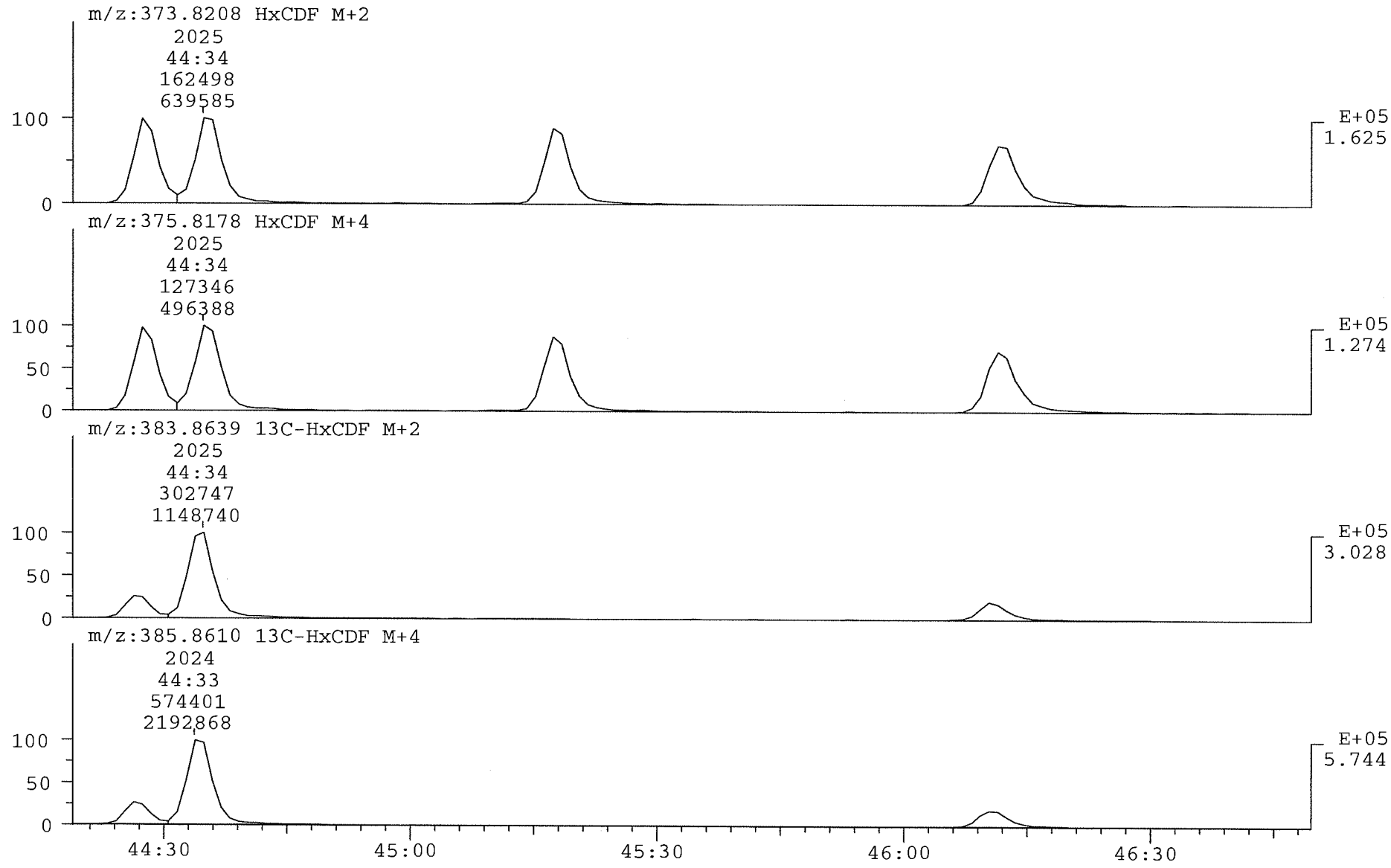


H-527

CHRO: b091210ss 10-Dec-09 Elapse: 45:34 2081
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2010 > 2152 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

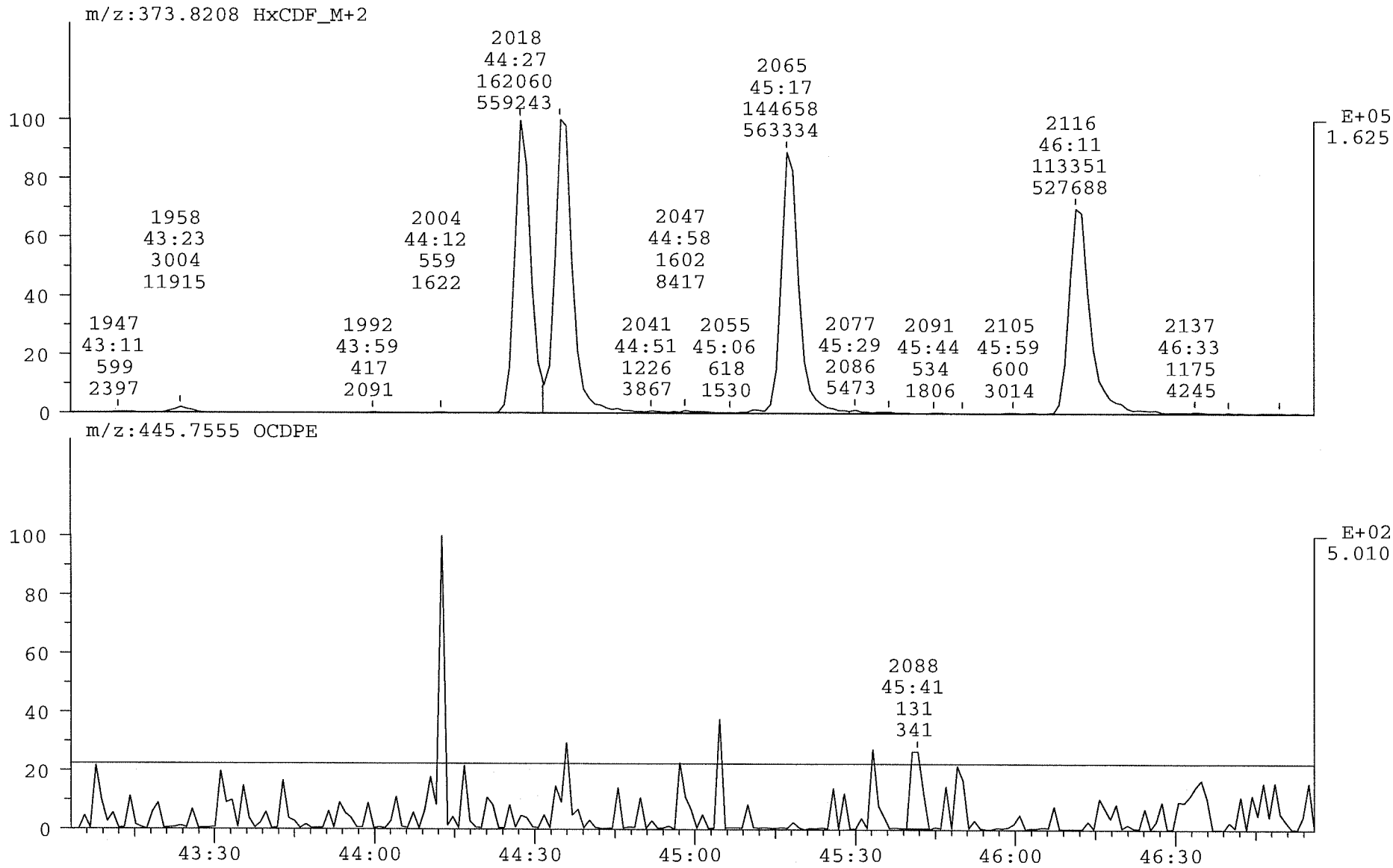


CHRO: b091210ss 10-Dec-09 Elapse: 44:36 2027
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2024 > 2030 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



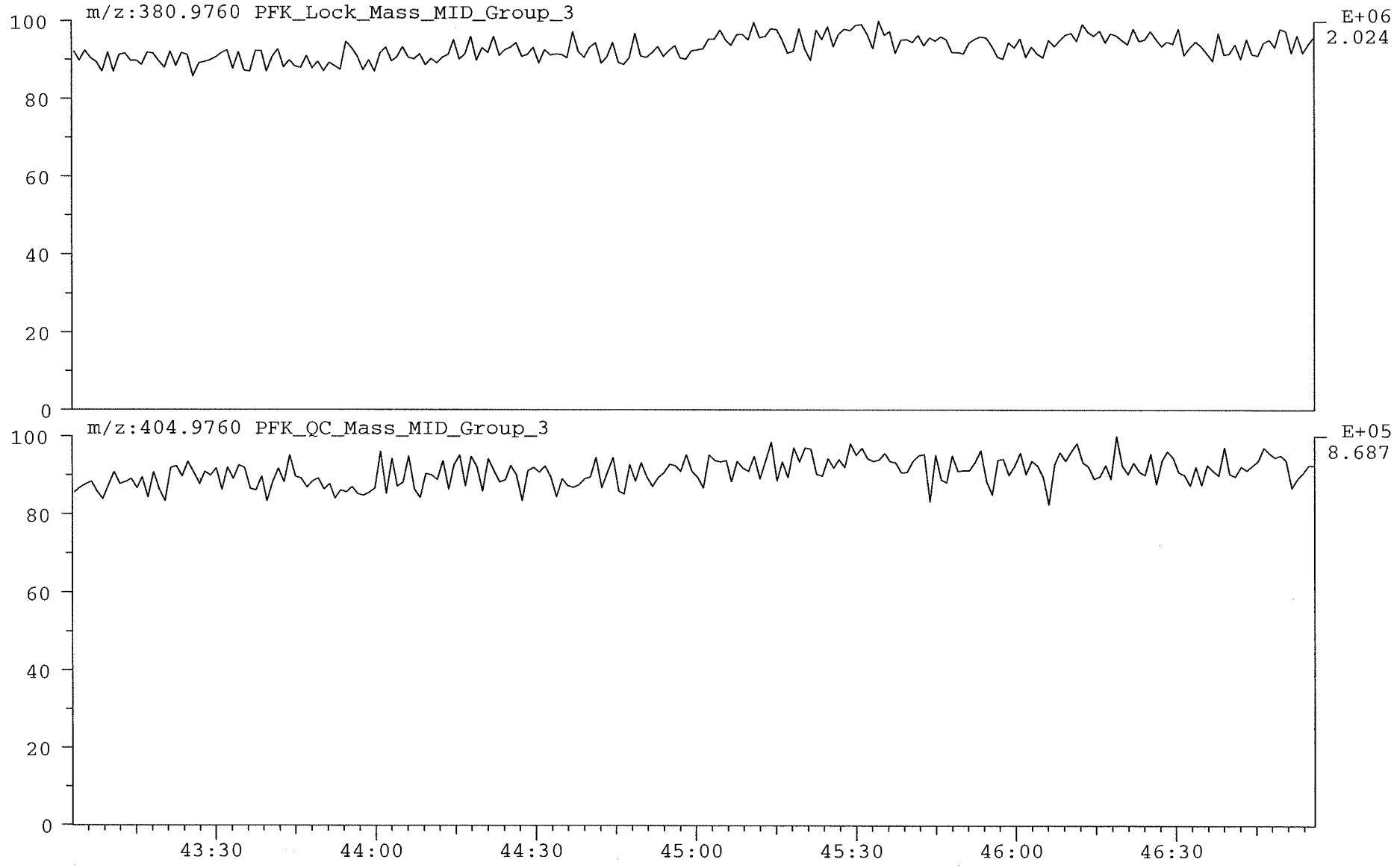
H-526

CHRO: b091210ss 10-Dec-09 Elapse: 44:46 2036
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1939 > 2158 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



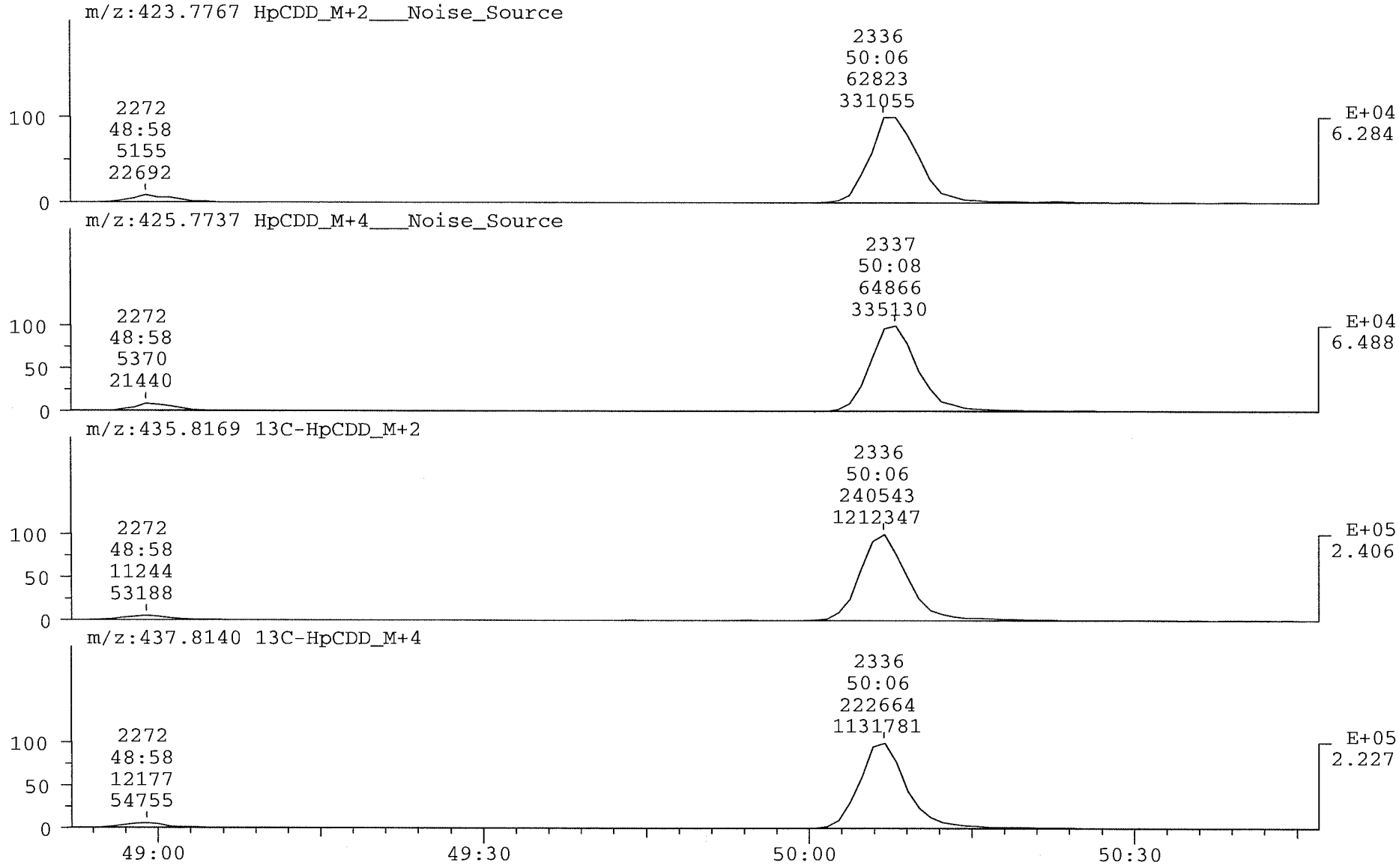
H-530

CHRO: b091210ss 10-Dec-09 Elapse: 44:46 2036
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1939 > 2158 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



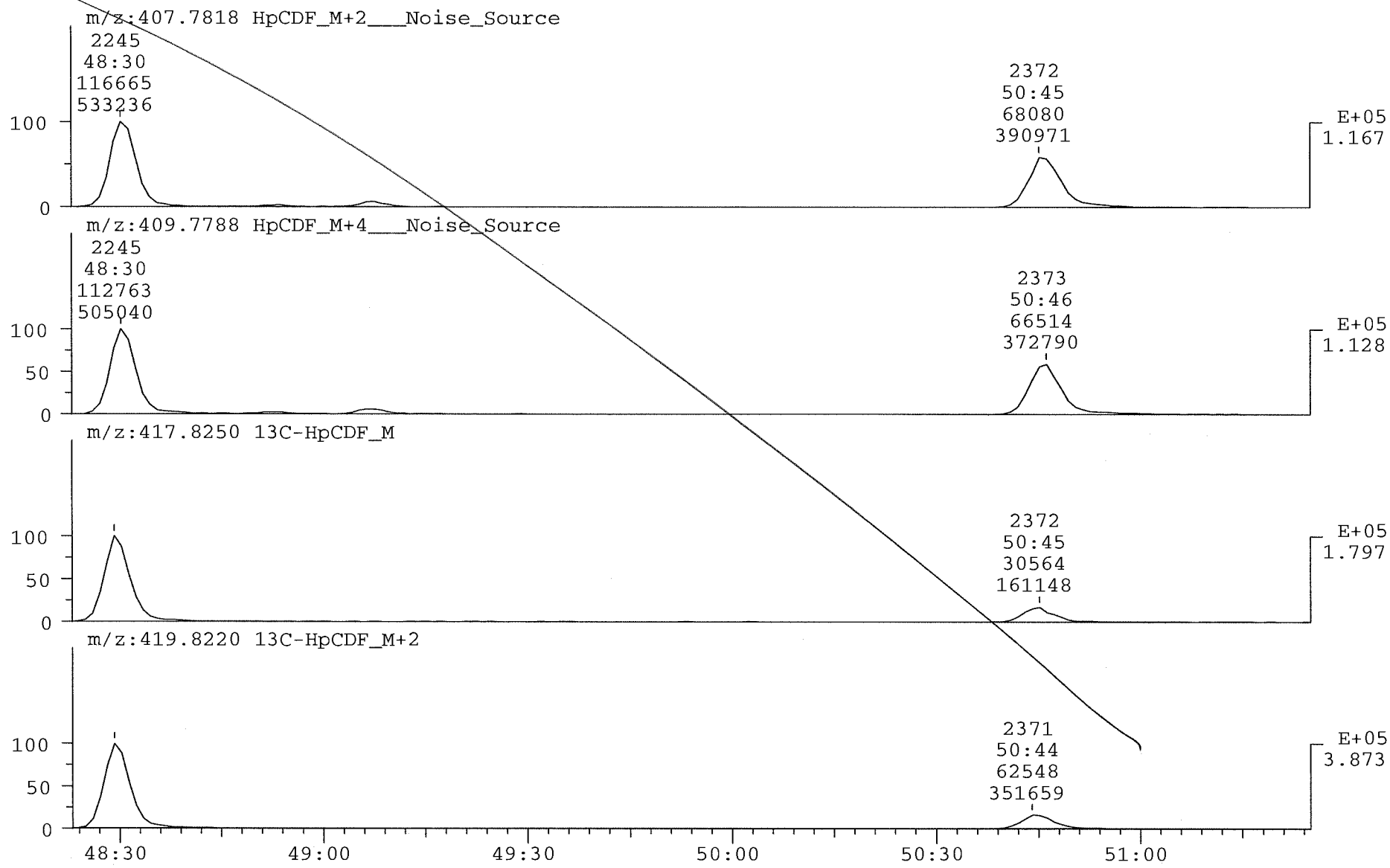
H-531

CHRO: b091210ss 10-Dec-09 Elapse: 44:46 2036
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2265 > 2374 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-532

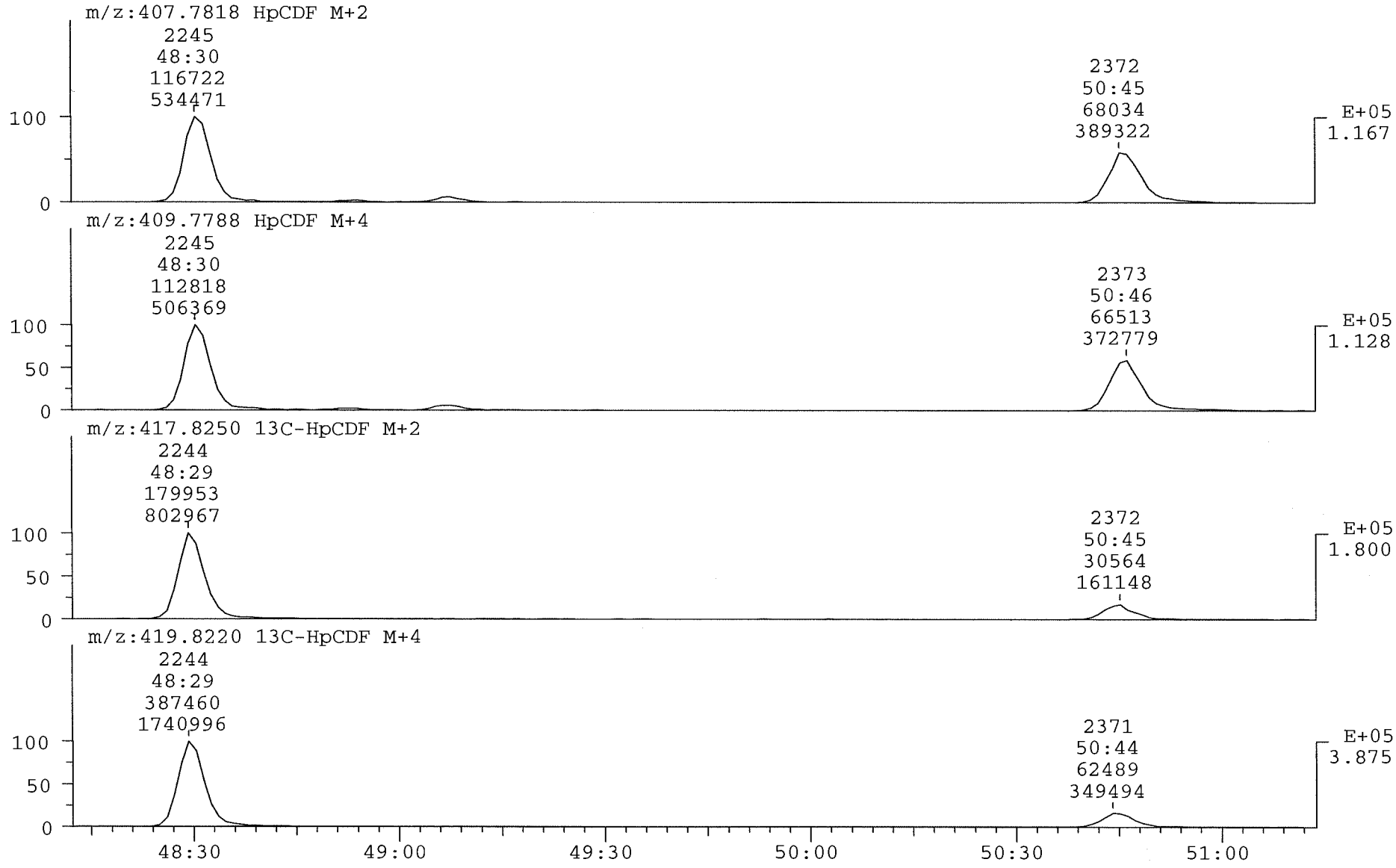
CHRO: b091210ss 10-Dec-09 Elapse: 49:54 2324
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2238 > 2410 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-533

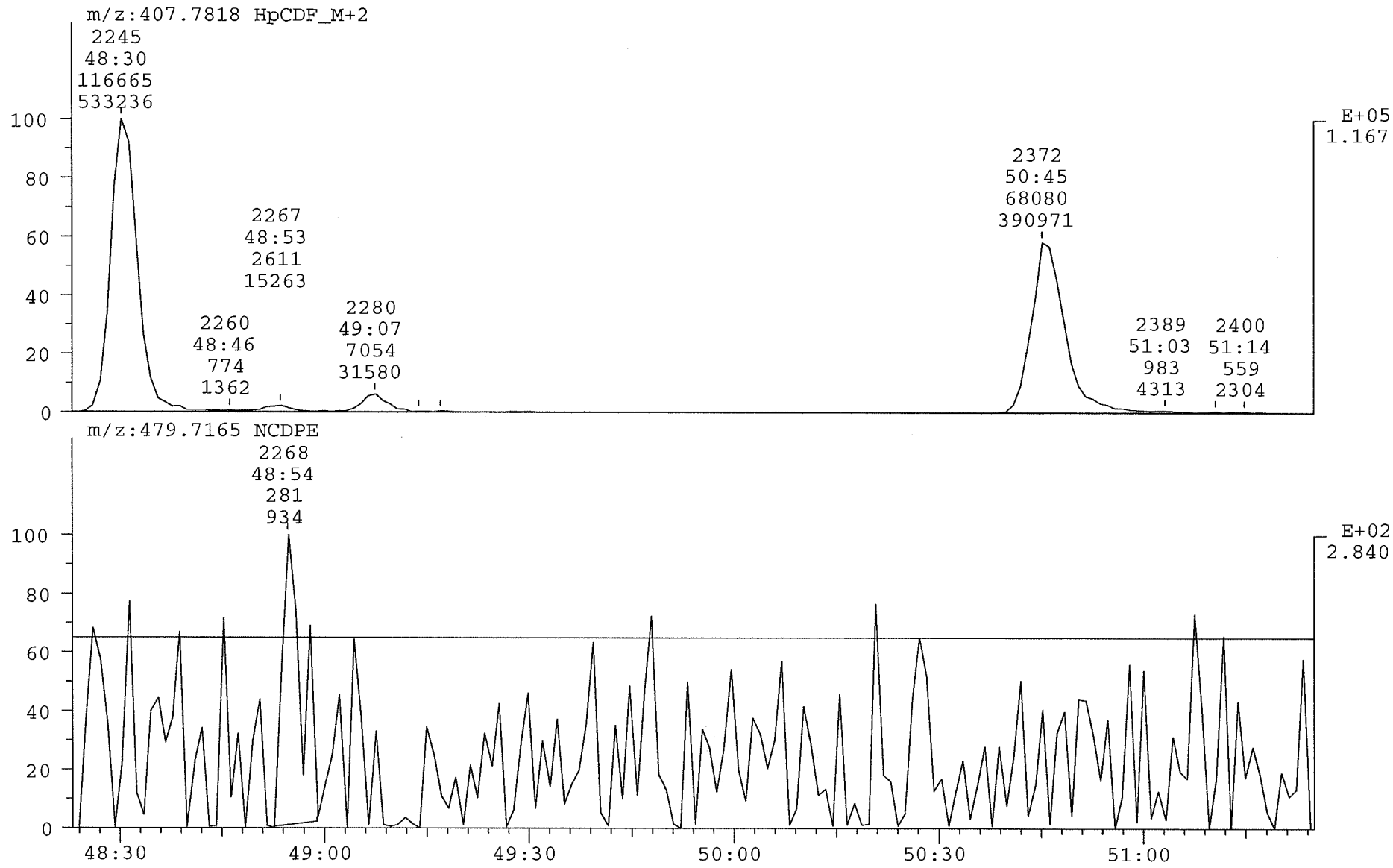
532

CHRO: b091210ss 10-Dec-09 Elapse: 44:36 2027
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2228 > 2399 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



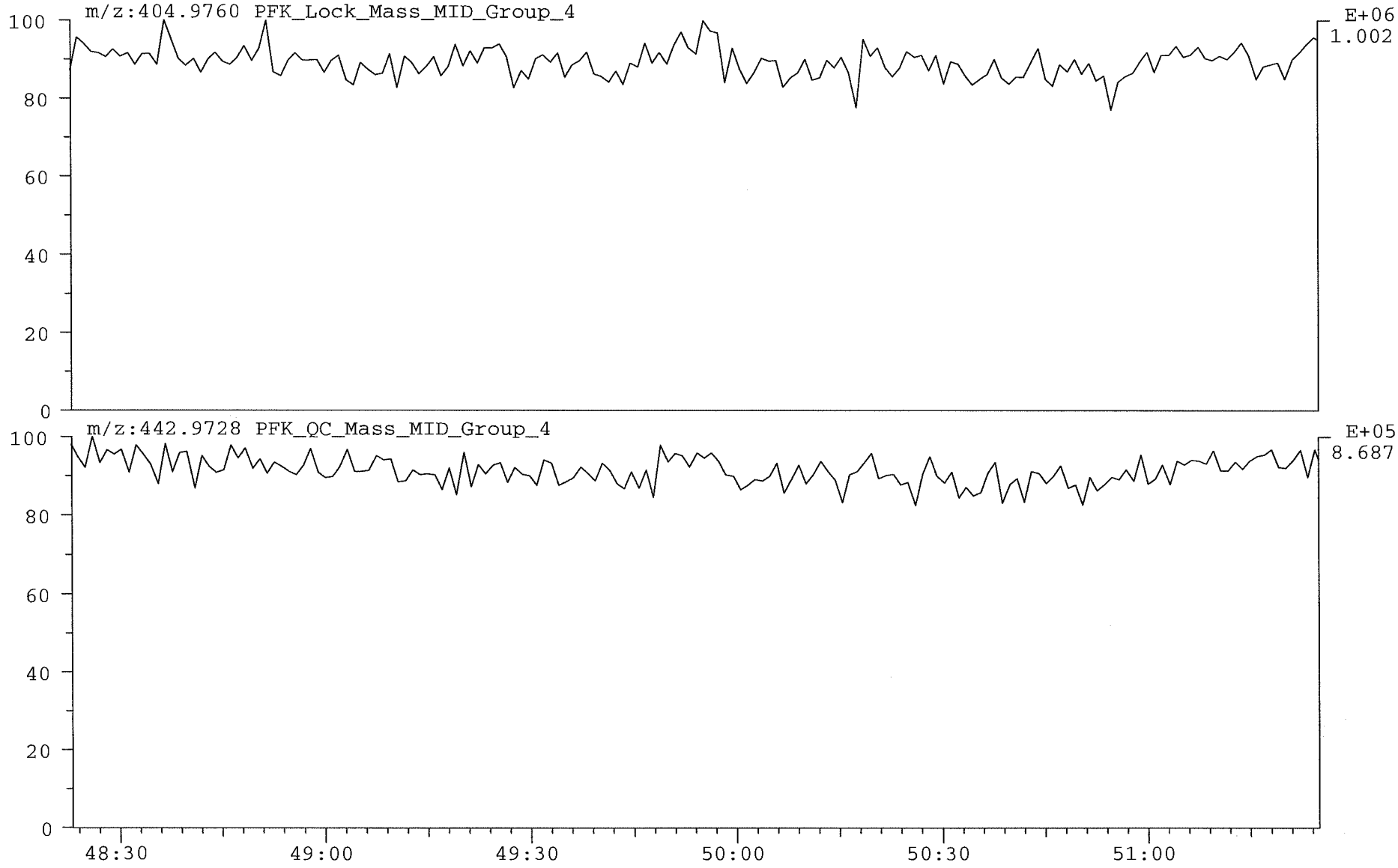
H-534

CHRO: b091210ss 10-Dec-09 Elapse: 49:54 2324
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2238 > 2410 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



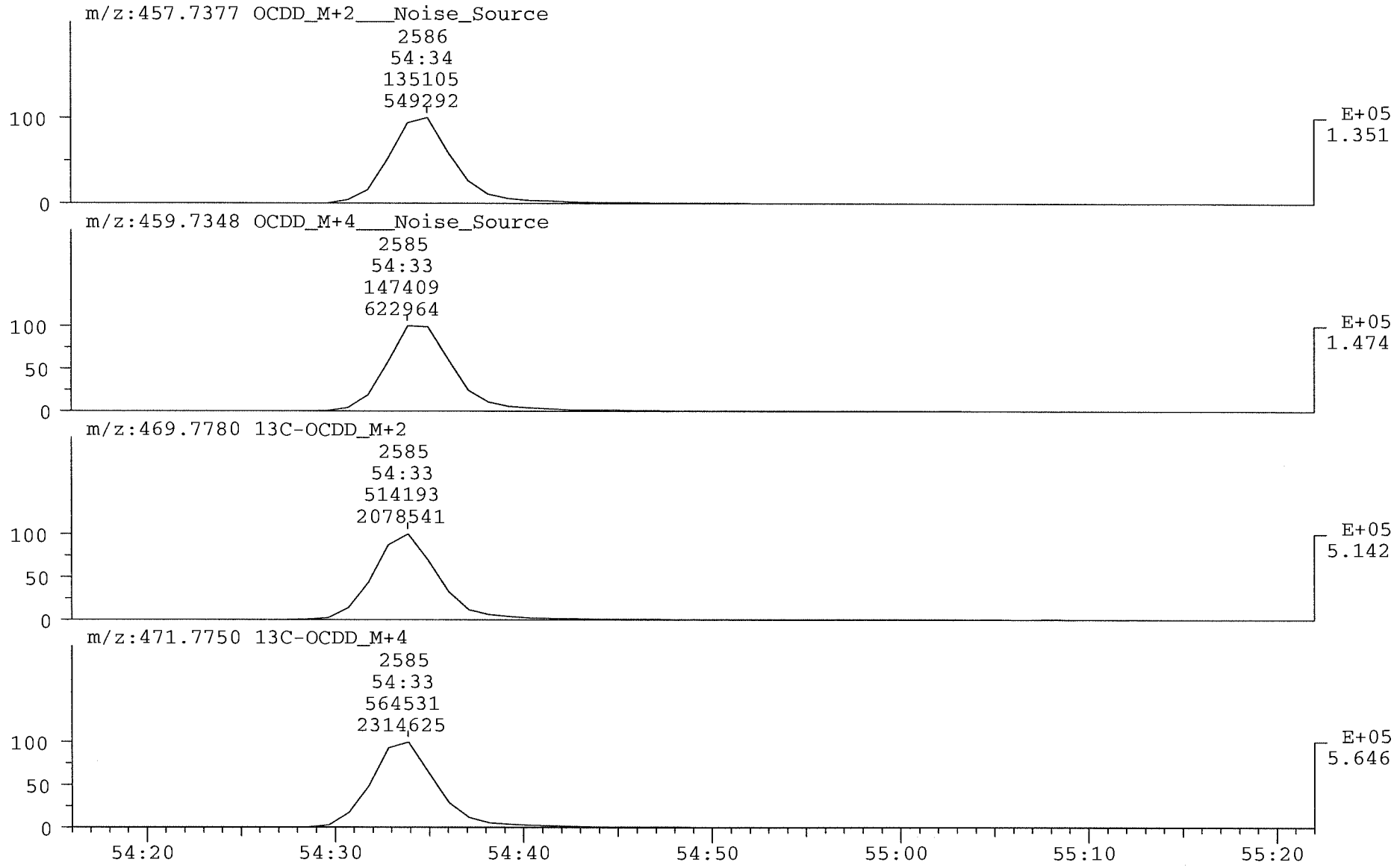
H-535

CHRO: b091210ss 10-Dec-09 Elapse: 49:54 2324
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2238 > 2410 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



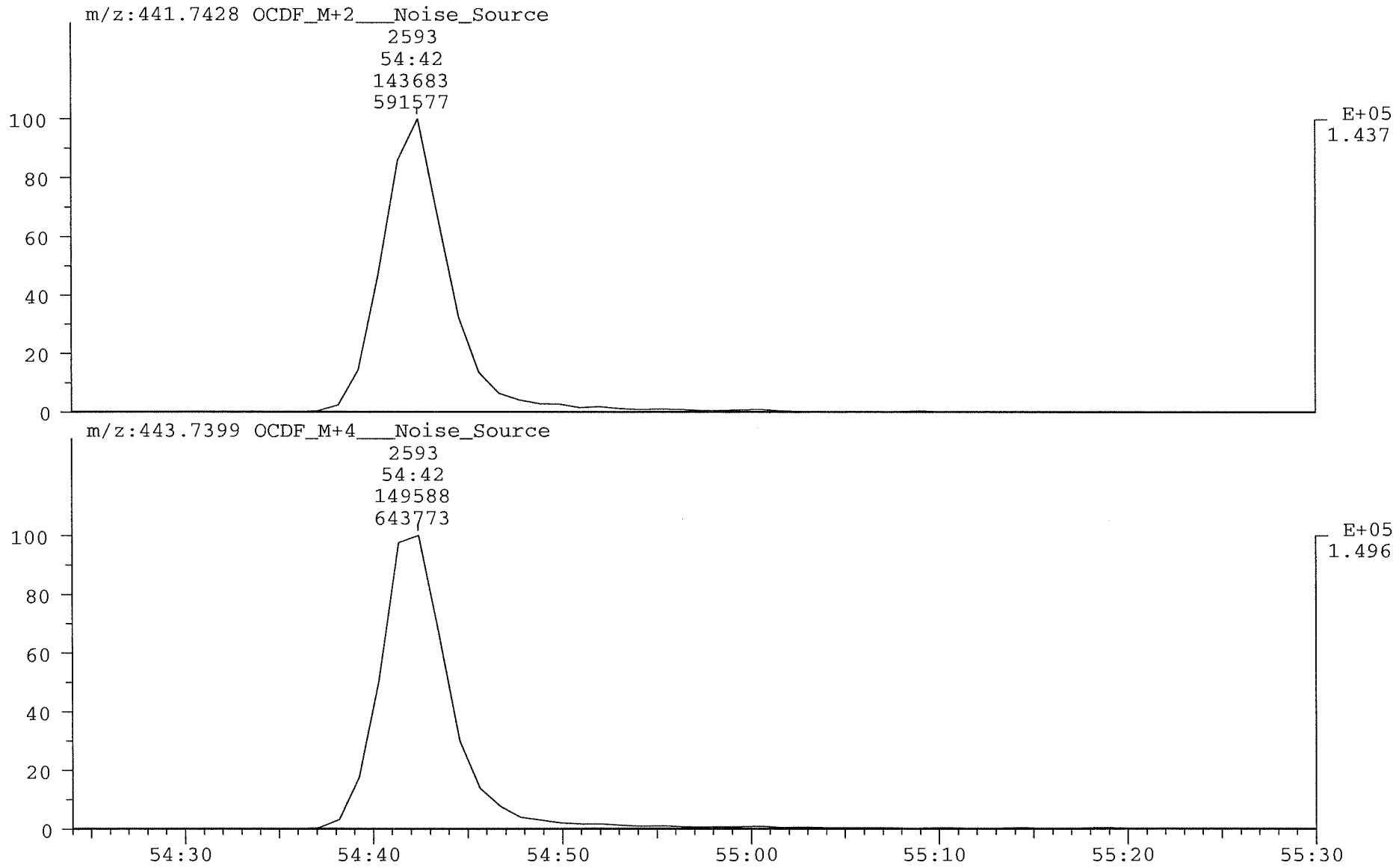
H-536

CHRO: b091210ss 10-Dec-09 Elapse: 54:45 2596
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2568 > 2630 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



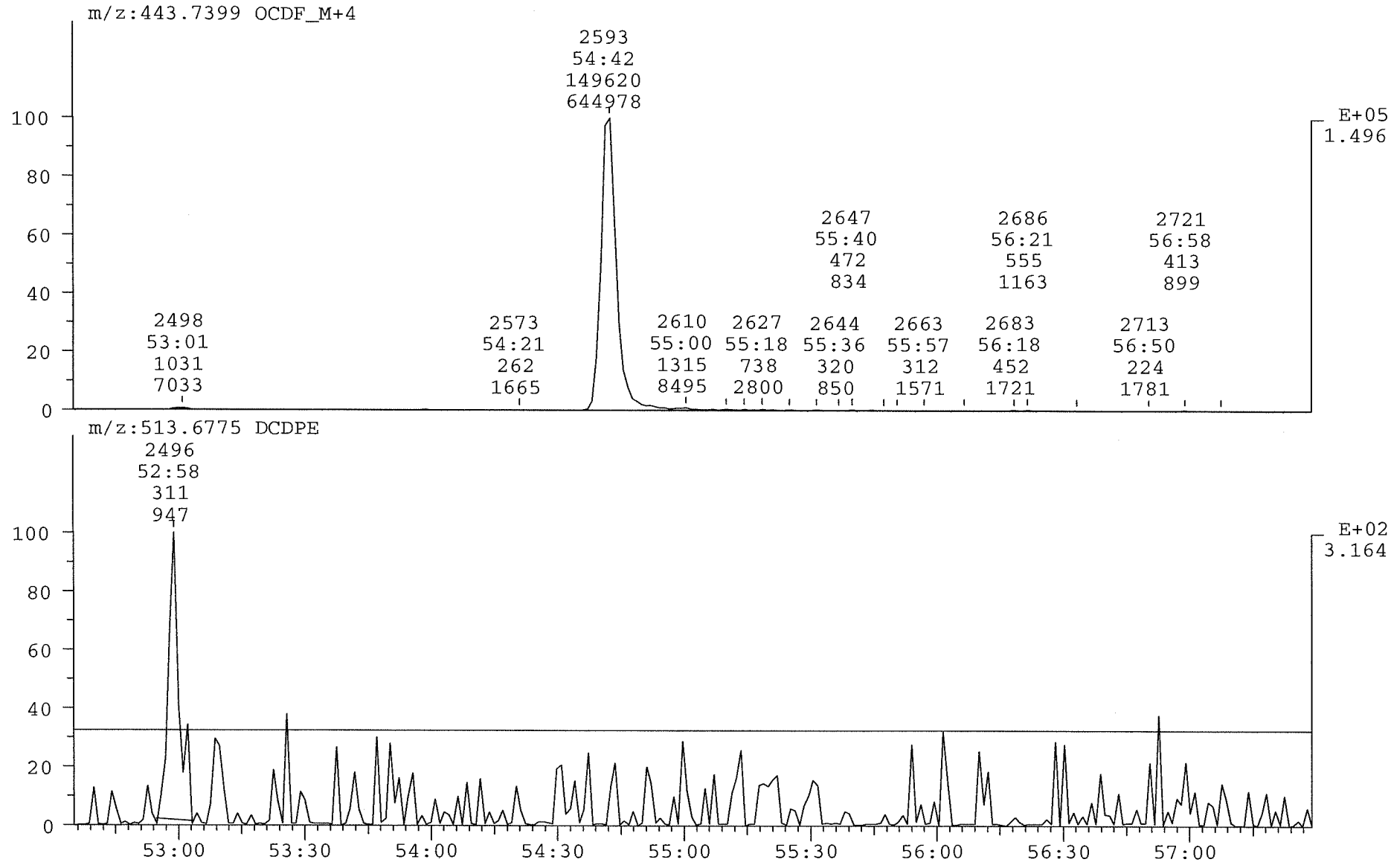
H-537

CHRO: b091210ss 10-Dec-09 Elapse: 54:54 2604
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2576 > 2638 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



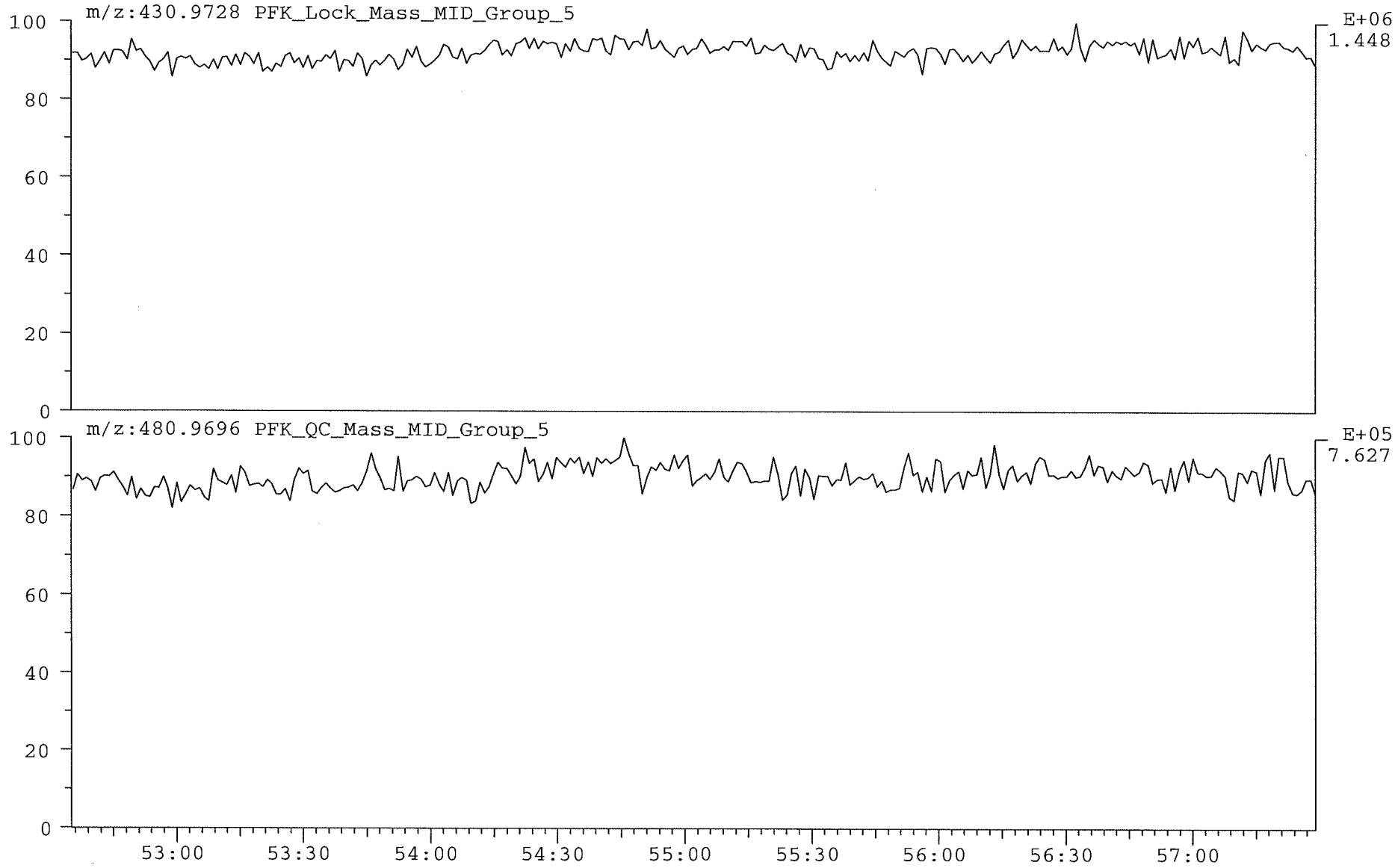
H-538

CHRO: b091210ss 10-Dec-09 Elapse: 54:54 2604
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2474 > 2749 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-539

CHRO: b091210ss 10-Dec-09 Elapse: 54:54 2604
Samp: Vial 3 WO=3848:183 Meth=X8 Dil=1 Start : 21:30:11 2751
Comm: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 SS
Oper: KBL Client: TA Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2474 > 2749 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-540

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis2ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b091210ss
Study: M23 SS
Sample: WO=3848:183 Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA Knoxville
Comments: Inst=m2a/945352 Batch=20091210i Ccal=B091209S4
Injected volume:   2.0
Sample from Vial 3
Analysis will stop when MID run finishes
Tune file name: tune2
File 10 of list 091207
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.35 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1    8:00 min    26:07 min    34:07 min     1.00 sec
  # 2   34:07 min     8:39 min    42:46 min     1.00 sec
  # 3   42:46 min     4:49 min    47:36 min     1.00 sec
  # 4   47:36 min     4:52 min    52:29 min     1.00 sec
  # 5   52:29 min     5:01 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   1     81.92
    305.8987      1   1     81.92
    315.9419      1   1     81.92
    317.9389      1   1     81.92
    319.8965      1   1     81.92
    321.8936      1   1     81.92
    327.8847      1   1     81.92
    331.9368      1   1     81.92
    333.9338      1   1     81.92
    342.9792 c   10   1      8.19
    375.8364      1   1     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   1     91.48
    341.8567      1   1     91.48
```

```
  351.9000       1   1      91.48
  353.8970       1   1      91.48
  355.8546       1   1      91.48
  357.8516       1   1      91.48
  367.8949       1   1      91.48
  369.8919       1   1      91.48
  380.9760 c    10   1       8.19
  409.7974       1   1      91.48
 Window # 3
      mass F  int  gr  time (ms)
  373.8208       1   1      91.48
  375.8178       1   1      91.48
  380.9760 l    10   1       8.19
  383.8639       1   1      91.48
  385.8610       1   1      91.48
  389.8156       1   1      91.48
  391.8127       1   1      91.48
  401.8559       1   1      91.48
  403.8529       1   1      91.48
  404.9760 c    10   1       8.19
  445.7555       1   1      91.48
 Window # 4
      mass F  int  gr  time (ms)
  404.9760 l    10   1       8.19
  407.7818       1   1      91.48
  409.7788       1   1      91.48
  417.8250       1   1      91.48
  419.8220       1   1      91.48
  423.7767       1   1      91.48
  425.7737       1   1      91.48
  435.8169       1   1      91.48
  437.8140       1   1      91.48
  442.9728 c    10   1       8.19
  479.7165       1   1      91.48
 Window # 5
      mass F  int  gr  time (ms)
  430.9728 l    10   1      10.92
  441.7428       1   1     120.15
  443.7399       1   1     120.15
  457.7377       1   1     120.15
  459.7348       1   1     120.15
  469.7780       1   1     120.15
  471.7750       1   1     120.15
  480.9696 c    10   1      10.92
  513.6775       1   1     120.15

Auto Sampler descriptor: pcdd2ul
 Injector A
 Normal Injection
 Slvnt A cln before inj(K):      3 times
 Slvnt B cln before inj(L):      0 times
 Sample rinse cycles   (R):      0 times
 Syringe filling volume(F):    1.0 ul
 Pullup delay time     (D):      4 sec
 Sample pullup speed   (E):    5.0 ul/sec
 Slvnt aftr pre inj cln(U):    0.0 ul
 Air after pre inj cln (G):    2.0 ul
 Sample volume         (V):    2.0 ul
 Sample air volume     (A):    2.0 ul
 Sample pullup count   (P):      2 times
 Injection speed       (S):   10.0 ul/sec
 Injection wait time   (W):     10 sec
 Injection hold time   (H):      3 sec
 Solvent A clean cycles(C):     15 times
 Solvent B clean cycles(B):     20 times
 Loop clean w slvnt A (LC):      0 times
```

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:         270 deg                        300 deg max
  Transfer Line:    290 deg                        300 deg max
  Column:           140 deg at    0.0 minutes      330 deg max
                    140 deg at    3.0 minutes
                    210 deg at    6.5 minutes
                    210 deg at   34.5 minutes
                    280 deg at   44.5 minutes
                    280 deg at   51.0 minutes
                    325 deg at   57.5 minutes
  Inlet    :
  Pressure        18.0 psi
  Splitless mode
  Purge time       1.5 min
  Purge flow      40.0 mL/min

   Gas saver is on
   Saver time       3.0 min
   Saver flow      15.0 mL/min

  Stabilize time   0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8432.0000
BDEV	8283.0000	BFM	2.0000	BLM	1181.9425
BMASS	304.9824	BQUAD	2.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.2941
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-29.5750
DRAWC	1.0000	DRAWS	0.0000	ECORR	1.0006
ECURR	1.0000	EDAC	7969177.0000	EDACG	0.9998
EDACR	20.0000	EDACZ	1898.0000	ELEN	57.6250
EMULT	2.1100	ENS	219.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	6.7500	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	568.0000	FVINLET	928.0000
FVSRC	997.0000	FWIN	0.7000	GCTC	138.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7451	HVANAL	1091.0000	HVSRC	3076.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4752.1320	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2409.0000	LENSS	-44.6000	LKM	292.9825
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3237806.8854	MDACR	20.0000
MRANGE	1181.9425	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	231.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-7.0750	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10637.5656	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	3073.0000	SHIELDS	-0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7200	TCURR	1.0547	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.2000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.3750
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1119.0000	XLENSS	-46.6000
YLENS	3324.0000	YLENSS	-98.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Dec-09 21:30:11.8

Autosampler has injected sample from vial 3
Analysis stopped at: 10-Dec-09 22:27:43.7 (run time 57.52 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44390 - B110714S3
ICAL Date: 12/10/09
CCAL Filename: b110714s3
Method: X8 - 0023/8290
CCAL Sample ID: HR0014
Instrument: M2A
CCAL Result Dir: /20110714s3/b110714s3.d
Column SN: 1027390
CCAL Date/Time: 07/14/11 12:02
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	Calc Conc (ng/mL)	ICAL RF	CCAL RF	%D	QC Limit	Valid?
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	5.0	1.172	1.170	-0.2	20.0	True
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	4.8	1.081	1.034	-4.3	20.0	True
1,2,3,7,8-PeCDD	M+2/M+4	1.50	1.32-1.78	24.1	1.124	1.083	-3.6	20.0	True
1,2,3,7,8-PeCDF	M+2/M+4	1.52	1.32-1.78	24.3	1.050	1.020	-2.9	20.0	True
2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	24.7	1.030	1.017	-1.3	20.0	True
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	24.9	0.990	0.988	-0.3	20.0	True
1,2,3,6,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	24.6	1.020	1.006	-1.4	20.0	True
1,2,3,7,8,9-HxCDD	M+2/M+4	1.22	1.05-1.43	25	1.003	1.008	0.5	20.0	True
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	25	1.091	1.094	0.3	20.0	True
1,2,3,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	24.9	1.226	1.220	-0.5	20.0	True
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	23.5	1.160	1.093	-5.8	20.0	True
1,2,3,7,8,9-HxCDF	M+2/M+4	1.28	1.05-1.43	24.9	1.008	1.002	-0.5	20.0	True
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	24.9	1.094	1.088	-0.6	20.0	True
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	24.7	1.469	1.451	-1.2	20.0	True
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.10	0.88-1.20	25	1.127	1.147	1.7	20.0	True
OCDD	M+2/M+4	0.89	0.76-1.02	49	1.075	1.061	-1.3	20.0	True
OCDF	M+2/M+4	0.90	0.76-1.02	52	1.258	1.317	4.7	20.0	True
13C-2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	93	1.006	0.939	-6.7	30.0	True
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	99	1.719	1.699	-1.2	30.0	True
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.59	1.32-1.78	85	0.953	0.813	-14.7	30.0	True
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	84	1.661	1.390	-16.3	30.0	True
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	101	1.035	1.044	0.9	30.0	True
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	101	1.434	1.446	0.8	30.0	True
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	103	0.851	0.878	3.2	30.0	True
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.37-0.51	105	1.094	1.147	4.9	30.0	True
13C-OCDD	M+2/M+4	0.91	0.76-1.02	208	0.867	0.903	4.1	30.0	True
37Cl4-2,3,7,8-TCDD			-	4.9	1.198	1.174	-2.0	30.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.52	1.32-1.78	24.3	0.994	0.966	-2.8	30.0	True
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	24.5	0.887	0.869	-2.1	30.0	True
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	26	0.891	0.926	4.0	30.0	True
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.54	0.43-0.59	25	1.321	1.343	1.6	30.0	True
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.37-0.51	24.5	0.841	0.824	-2.1	30.0	True

7-14-11
PMP 7-14-11

TestAmerica
Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44390 - B110714S3
CCAL Filename: b110714s3
CCAL Sample ID: HR0014
CCAL Result Dir: /20110714s3/b110714s3.d
CCAL Date/Time: 07/14/11 12:02

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	ICAL RT	CCAL RT	RT Diff	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
2,3,7,8-TCDD	30:32	31:35	63	1.001	1.002	-	
2,3,7,8-TCDF	28:38	29:35	57	1.001	1.002	-	
1,2,3,7,8-PeCDD	41:12	41:39	27	1.000	1.000	-	
1,2,3,7,8-PeCDF	39:14	39:48	34	1.001	1.001	-	
2,3,4,7,8-PeCDF	40:37	41:05	28	1.036	1.034	-	
1,2,3,4,7,8-HxCDD	45:35	46:00	25	0.998	0.998	-	
1,2,3,6,7,8-HxCDD	45:41	46:07	26	1.000	1.001	-	
1,2,3,7,8,9-HxCDD	46:04	46:30	26	1.009	1.009	-	
1,2,3,4,7,8-HxCDF	44:34	44:56	22	0.997	0.997	-	
1,2,3,6,7,8-HxCDF	44:42	45:05	23	1.000	1.000	-	
2,3,4,6,7,8-HxCDF	45:24	45:48	24	1.016	1.016	-	
1,2,3,7,8,9-HxCDF	46:18	46:45	27	1.036	1.037	-	
1,2,3,4,6,7,8-HpCDD	50:15	50:50	35	1.000	1.000	-	
1,2,3,4,6,7,8-HpCDF	48:37	49:09	32	1.000	1.000	-	
1,2,3,4,7,8,9-HpCDF	50:52	51:29	37	1.047	1.048	-	
OCDD	54:41	55:09	28	1.000	1.000	-	
OCDF	54:49	55:17	28	1.002	1.003	-	
13C-2,3,7,8-TCDD	30:30	31:31	61	1.017	1.016	-	
13C-2,3,7,8-TCDF	28:36	29:31	55	0.954	0.951	-	
13C-1,2,3,7,8-PeCDD	41:11	41:38	27	1.373	1.342	-	
13C-1,2,3,7,8-PeCDF	39:13	39:45	32	1.308	1.281	-	
13C-1,2,3,6,7,8-HxCDD	45:40	46:05	25	0.992	0.991	-	
13C-1,2,3,6,7,8-HxCDF	44:41	45:04	23	0.971	0.970	-	
13C-1,2,3,4,6,7,8-HpCDD	50:13	50:50	37	1.091	1.094	-	
13C-1,2,3,4,6,7,8-HpCDF	48:36	49:08	32	1.056	1.057	-	
13C-OCDD	54:41	55:08	27	1.188	1.186	-	
37Cl4-2,3,7,8-TCDD	30:32	31:34	62	1.001	1.002	-	
13C-2,3,4,7,8-PeCDF	40:35	41:04	29	1.035	1.033	-	
13C-1,2,3,4,7,8-HxCDD	45:34	45:59	25	0.998	0.998	-	
13C-1,2,3,4,7,8-HxCDF	44:33	44:55	22	0.997	0.997	-	
13C-1,2,3,7,8,9-HxCDF	46:17	46:44	27	1.005	1.005	-	
13C-1,2,3,4,7,8,9-HpCDF	50:52	51:28	36	1.046	1.047	-	

TestAmerica
Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44390 - B110714S3

WIN Filename: b110714w1

WIN Sample ID: HR0034B

WIN Result Dir: /20110714s3/b110714w1.d

WIN Date/Time: 07/14/11 10:51

Method: X8 - 0023/8290

Instrument: M2A

Column SN: 1027390

Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Window Defining First/Last Eluter Retention Times

Analyte	Reference	M/Z	Ref RT	First Eluter RT	First Eluter RRT	Last Eluter RT	Last Eluter RRT
Total TCDD	13C-2,3,7,8-TCDD	320	31:34	25:47	0.8168	34:46	1.1014
Total TCDF	13C-2,3,7,8-TCDF	304	29:34	23:22	0.7903	34:34	1.1691
Total PeCDD	13C-1,2,3,7,8-PeCDD	356	41:40	38:38	0.9272	42:21	1.0164
Total PeCDF	13C-1,2,3,7,8-PeCDF	340	39:48	35:29	0.8915	42:27	1.0666
Total HxCDD	13C-1,2,3,6,7,8-HxCDD	390	46:07	44:26	0.9635	46:32	1.0090
Total HxCDF	13C-1,2,3,6,7,8-HxCDF	374	45:06	43:44	0.9697	46:54	1.0399
Total HpCDD	13C-1,2,3,4,6,7,8-HpCDD	424	50:52	49:40	0.9764	50:53	1.0003
Total HpCDF	13C-1,2,3,4,6,7,8-HpCDF	408	49:10	49:11	1.0003	51:31	1.0478
OCDD	13C-OCDD	458	55:10	55:11	1.0003	55:11	1.0003
OCDF	13C-OCDD	442	55:10	55:19	1.0027	55:19	1.0027

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110714s3/b110714s3.d	Prep Date		SDG No	
Analysis ID	133611	Prep Exp Date		Date Received	
Analysis Date	7/14/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	12:02	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
2,3,7,8-TCDD	31:35	93890	11293	1.172	5.000	4.992239	99.84	4.992239	E	0.121
Total TCDD				1.172		4.992239		4.992239	E	0.121
2,3,7,8-TCDF	29:35	150050	18486	1.081	5.000	4.782789	95.66	4.782789	E	0.0789
Total TCDF				1.081		4.782789		4.782789	E	0.0789
1,2,3,7,8-PeCDD	41:39	376201	95887	1.124	25.00	24.101925	96.41	24.101925	E	0.0630
Total PeCDD				1.124		24.101925		24.101925	E	0.0630
1,2,3,7,8-PeCDF	39:48	605788	124333	1.050	25.00	24.279927	97.12	24.279927	E	0.0569
2,3,4,7,8-PeCDF	41:05	603985	138821	1.030	25.00	24.685352	98.74	24.685352	E	0.0580
Total PeCDF				1.040		48.965279		48.965279	E	0.0575
1,2,3,4,7,8-HxCDD	46:00	379597	103157	0.990	25.00	24.932584	99.73	24.932584	E	0.0749
1,2,3,6,7,8-HxCDD	46:07	386705	111120	1.020	25.00	24.647748	98.59	24.647748	E	0.0727
1,2,3,7,8,9-HxCDD	46:30	387338	102147	1.003	25.00	25.126218	100.50	25.126218	E	0.0740
Total HxCDD				1.004		74.706550		74.706550	E	0.0739
1,2,3,4,7,8-HxCDF	44:56	582677	168437	1.091	25.00	25.071947	100.29	25.071947	E	0.0505
1,2,3,6,7,8-HxCDF	45:05	649588	181925	1.226	25.00	24.886976	99.55	24.886976	E	0.0449
2,3,4,6,7,8-HxCDF	45:48	581862	165195	1.160	25.00	23.544568	94.18	23.544568	E	0.0475
1,2,3,7,8,9-HxCDF	46:45	533728	139398	1.008	25.00	24.865482	99.46	24.865482	E	0.0546
Total HxCDF				1.121		98.368973		98.368973	E	0.0491
1,2,3,4,6,7,8-HpCDD	50:50	351756	70950	1.094	25.00	24.853356	99.41	24.853356	E	0.0937
Total HpCDD				1.094		24.853356		24.853356	E	0.0937
1,2,3,4,6,7,8-HpCDF	49:09	612998	140372	1.469	25.00	24.689366	98.76	24.689366	E	0.0521
1,2,3,4,7,8,9-HpCDF	51:29	484423	97432	1.127	25.00	25.432991	101.73	25.432991	E	0.0680
Total HpCDF				1.298		50.122357		50.122357	E	0.0590
OCDD	55:09	705802	180377	1.075	50.00	49.348628	98.70	49.348628	E	0.0868
OCDF	55:17	875729	227394	1.258	50.00	52.347722	104.70	52.347722	E	0.113
13C-2,3,7,8-TCDD	31:31	1605058	176821	1.006	100.0	93.345033	93.35	93.345033		0.279
13C-2,3,7,8-TCDF	29:31	2902417	346104	1.719	100.0	98.799852	98.80	98.799852		0.116
13C-1,2,3,7,8-PeCDD	41:38	1389263	339156	0.953	100.0	85.298815	85.30	85.298815		0.151
13C-1,2,3,7,8-PeCDF	39:45	2375094	493567	1.661	100.0	83.707695	83.71	83.707695		0.0957
13C-1,2,3,6,7,8-HxCDD	46:05	1537568	414347	1.035	100.0	100.873908	100.87	100.873908		0.0986
13C-1,2,3,6,7,8-HxCDF	45:04	2129714	603804	1.434	100.0	100.818671	100.82	100.818671		0.0666
13C-1,2,3,4,6,7,8-HpCDD	50:50	1293606	260906	0.851	100.0	103.183157	103.18	103.183157		0.0999
13C-1,2,3,4,6,7,8-HpCDF	49:08	1690068	381841	1.094	100.0	104.912891	104.91	104.912891		0.0987
13C-OCDD	55:08	2660070	690644	0.867	200.0	208.258839	104.13	208.258839		0.174
37Cl4-2,3,7,8-TCDD	31:34	94232	10968	1.198	5.000	4.900545	98.01	4.900545	E	0.0767
13C-2,3,4,7,8-PeCDF	41:04	573558	129553	0.994	25.00	24.306190	97.22	24.306190	E	0.0632
13C-1,2,3,4,7,8-HxCDD	45:59	333933	94430	0.887	25.00	24.480706	97.92	24.480706	E	0.106
13C-1,2,3,4,7,8-HxCDF	44:55	493267	144031	0.891	25.00	25.999203	104.00	25.999203	E	0.0679
13C-1,2,3,7,8,9-HxCDF	46:44	494443	126618	1.321	25.00	25.410223	101.64	25.410223	E	0.0723
13C-1,2,3,4,7,8,9-HpCDF	51:28	348091	69298	0.841	25.00	24.483956	97.94	24.483956	E	0.128
13C-1,2,3,4-TCDD	31:02	1708582	195132	1.000	100.0	100.000000	100.00	100.000000		0.281
13C-1,2,3,7,8,9-HxCDD	46:29	1472968	382135	1.000	100.0	100.000000	100.00	100.000000		0.102

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Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110714s3/b110714s3.	Prep Date		SDG No	
Analysis ID	133611	Prep Exp Date		Date Received	
Analysis Date	07/14/11 12:02	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	128	168	51	67	0.76	/	
	2,3,7,8-TCDF	29:35	29:40	-5	64620	85430	8003	10483	0.76	ABB/ABB	D
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	195	195	78	78	1.00 *	/	
	13C-2,3,7,8-TCDF	29:31	29:38	-7	1276967	1625450	154370	191734	0.79	AVV/AVV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	120	130	48	52	0.92 *	/	
	2,3,7,8-TCDD	31:35	31:28	7	41206	52684	4704	6589	0.78	AVB/AVB	M
328					327.8847		327.8847				
	Noise	00:00	00:00	0	163		65				
	37Cl4-2,3,7,8-TCDD	31:34	31:28	6	94232		10968			ABB	M
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	348	200	139	80	1.74 *	/	
	13C-1,2,3,4-TCDD	31:02	30:57	5	762671	945911	89428	105704	0.81	AVV/ABV	
	13C-2,3,7,8-TCDD	31:31	31:26	5	708201	896857	77865	98956	0.79	AVV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	128	168	51	67	0.76 *	/	
	1,2,3,7,8-PeCDF	39:48	39:51	-3	365569	240219	74622	49711	1.52	ABV/ABB	
	2,3,4,7,8-PeCDF	41:05	41:12	-7	371256	232729	84563	54258	1.60	ABV/AVV	M
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	135	175	54	70	0.77 *	/	
	13C-1,2,3,7,8-PeCDF	39:45	39:50	-5	1449261	925833	302840	190727	1.57	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:04	41:10	-6	346291	227267	76949	52604	1.52	ABB/ABV	M
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	155	85	62	34	1.82 *	/	
	1,2,3,7,8-PeCDD	41:39	41:46	-7	225710	150491	57142	38745	1.50	ABV/ABB	M
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	153	128	61	51	1.20 *	/	
	13C-1,2,3,7,8-PeCDD	41:38	41:45	-7	853458	535805	211965	127191	1.59	ABV/ABV	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	175	158	70	63	1.11	/	
	1,2,3,4,7,8-HxCDF	44:56	45:05	-9	324066	258611	90966	77471	1.25	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	45:05	45:12	-7	358700	290888	101093	80832	1.23	AVV/AVV	M
	2,3,4,6,7,8-HxCDF	45:48	45:54	-6	323004	258858	91968	73227	1.25	AVV/AVV	M
	1,2,3,7,8,9-HxCDF	46:45	46:48	-3	299505	234223	79314	60084	1.28	ABV/ABV	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	158	208	63	83	0.76 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:55	45:04	-9	169663	323604	48918	95113	0.52	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	45:04	45:11	-7	739101	1390613	210534	393270	0.53	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:44	46:47	-3	173504	320939	43601	83017	0.54	ABV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	115	193	46	77	0.60 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110714s3/b110714s3.	Prep Date		SDG No	
Analysis ID	133611	Prep Exp Date		Date Received	
Analysis Date	07/14/11 12:02	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

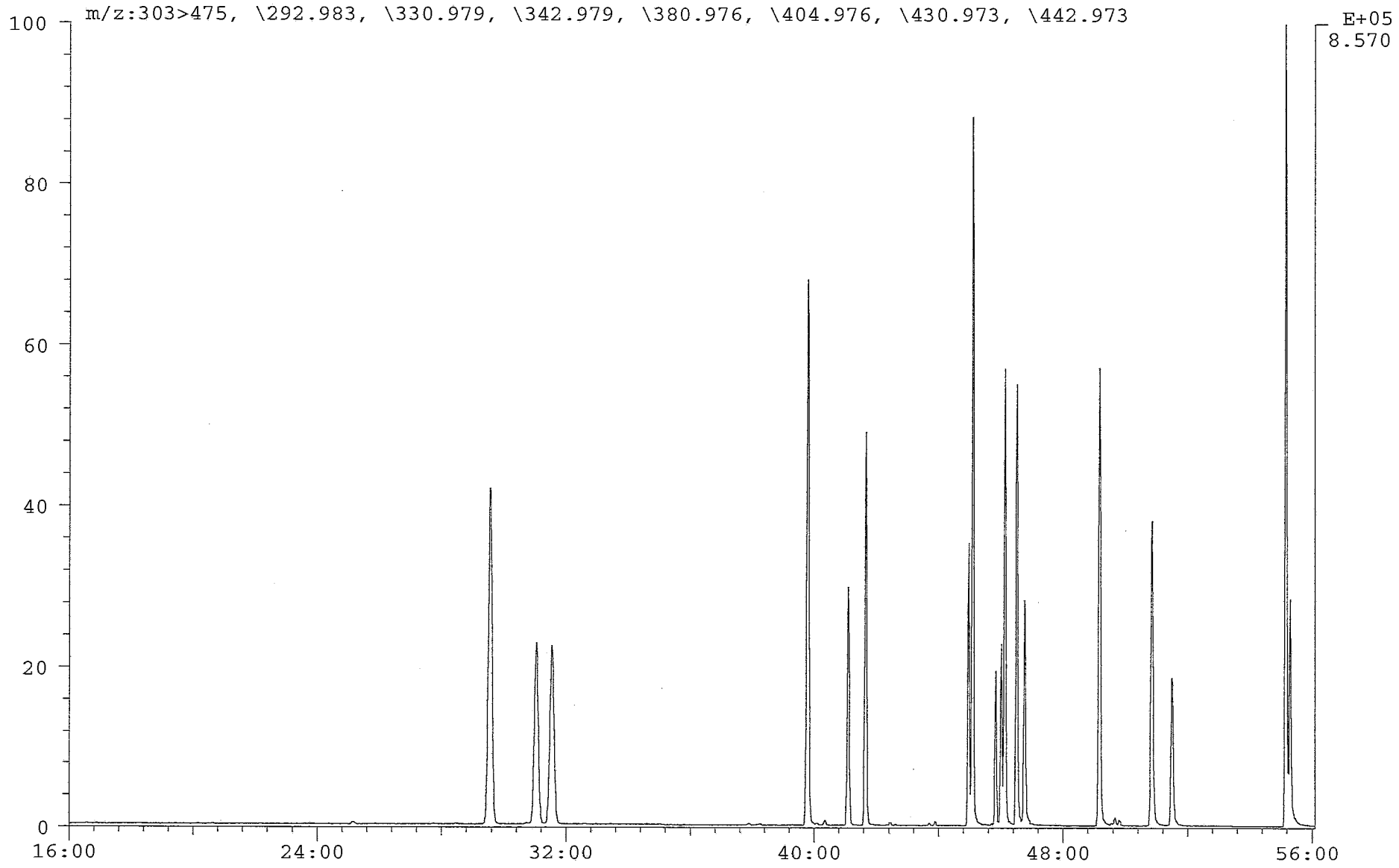
Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,4,7,8-HxCDD	46:00	46:05	-5	209428	170169	55829	47328	1.23	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	46:07	46:11	-4	218428	168277	62196	48924	1.30	AVV/AVV	M
	1,2,3,7,8,9-HxCDD	46:30	46:34	-4	213145	174193	56051	46096	1.22	AVV/AVV	
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	193	198	77	79	0.97 *	/	
	13C-1,2,3,4,7,8-HxCDD	45:59	46:04	-5	185746	148187	52582	41848	1.25	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	46:05	46:10	-5	863531	674037	231885	182462	1.28	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDD	46:29	46:32	-3	829318	643650	217426	164709	1.29	AVV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	133	160	53	64	0.83 *	/	
	1,2,3,4,6,7,8-HpCDF	49:09	49:06	3	313895	299103	71506	68866	1.05	ABV/ABV	
	1,2,3,4,7,8,9-HpCDF	51:29	51:21	8	254180	230243	50484	46948	1.10	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	228	185	91	74	1.23 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:08	49:05	3	528776	1161292	119955	261886	0.46	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:28	51:21	7	110177	237914	21259	48039	0.46	ABB/ABV	M
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	128	140	51	56	0.91	/	
	1,2,3,4,6,7,8-HpCDD	50:50	50:44	6	181014	170742	35365	35585	1.06	ABV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	150	175	60	70	0.86 *	/	
	Unidentified	49:39	00:00	0	15140	17017	3457	3553	0.89	ABB/ABB	
	13C-1,2,3,4,6,7,8-HpCDD	50:50	50:42	8	660213	633393	131883	129023	1.04	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	175	315	70	126	0.56 *	/	
	OCDF	55:17	55:20	-3	413666	462063	108358	119036	0.90	ABV/ABV	
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	188	135	75	54	1.39 *	/	
	OCDD	55:09	55:12	-3	332849	372953	85197	95180	0.89	ABV/ABV	
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	278	300	111	120	0.93	/	
	13C-OCDD	55:08	55:12	-4	1265726	1394344	331511	359133	0.91	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

unt Calc KM 7-14-11

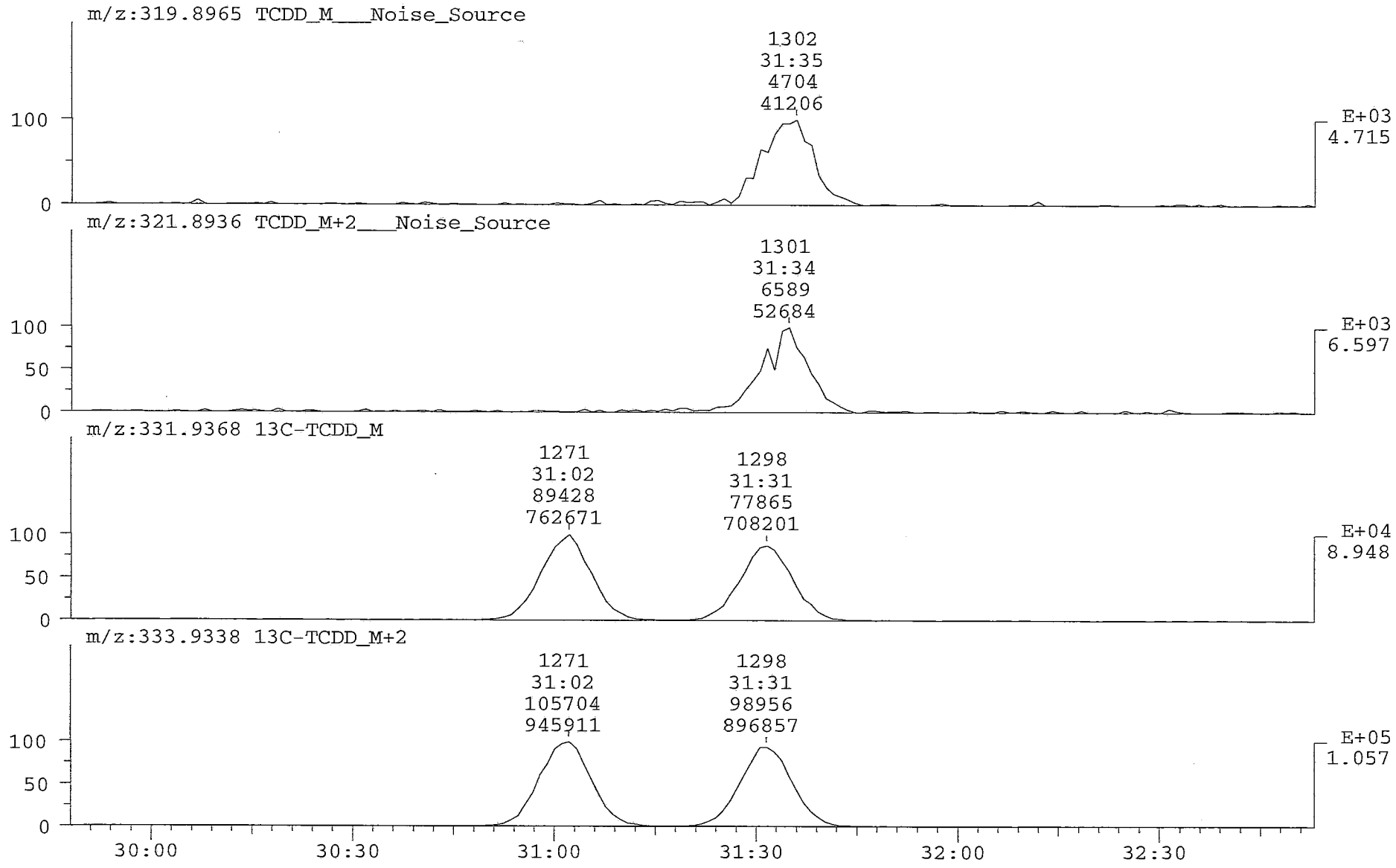
QC PMP 7-14-11

CHRO: b110714s3 14-Jul-11 Elapse: 08:00.4 1
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 442 > 2674 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



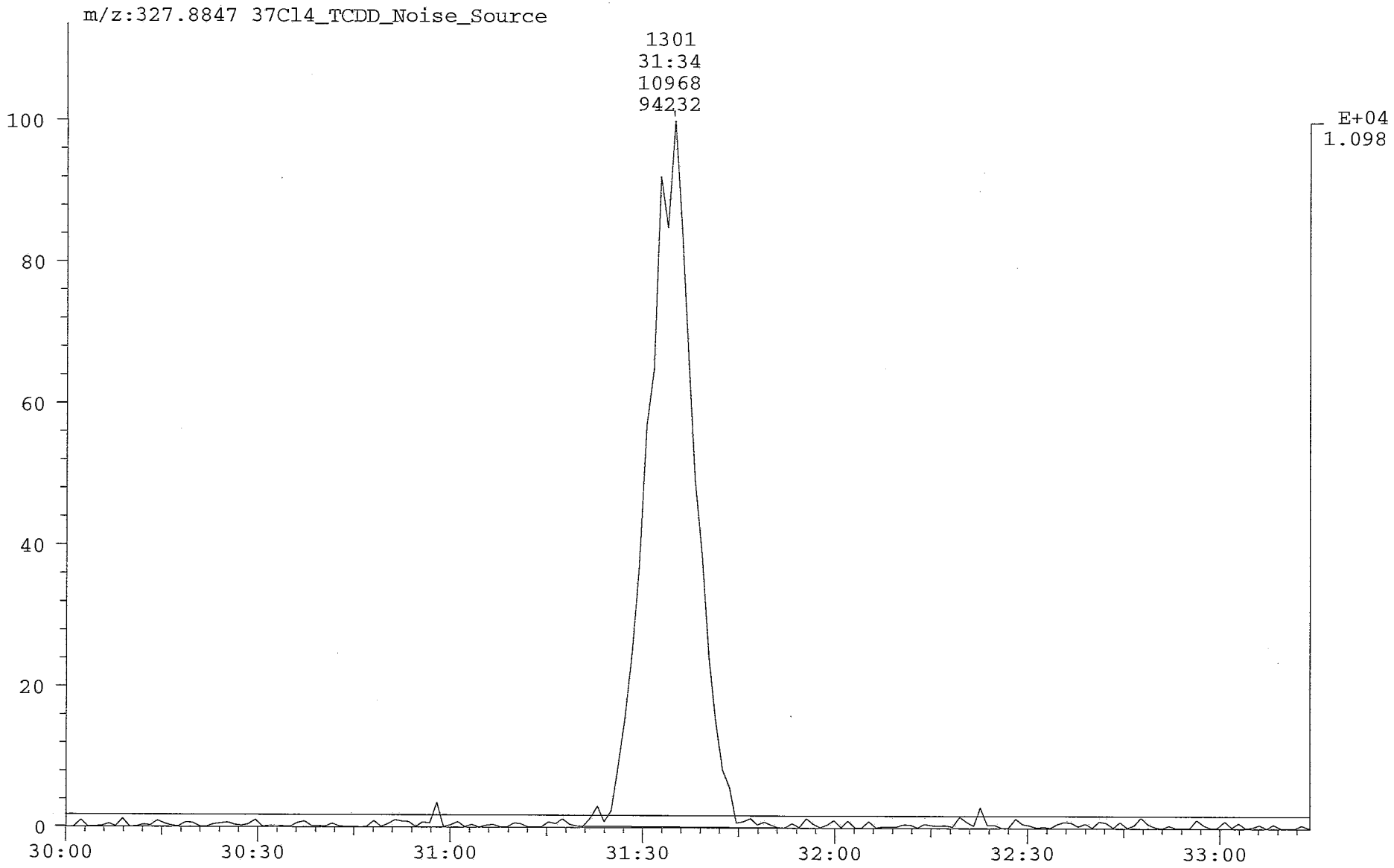
H-551

CHRO: b110714s3 14-Jul-11 Elapse: 31:19 1287
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1203 > 1373 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



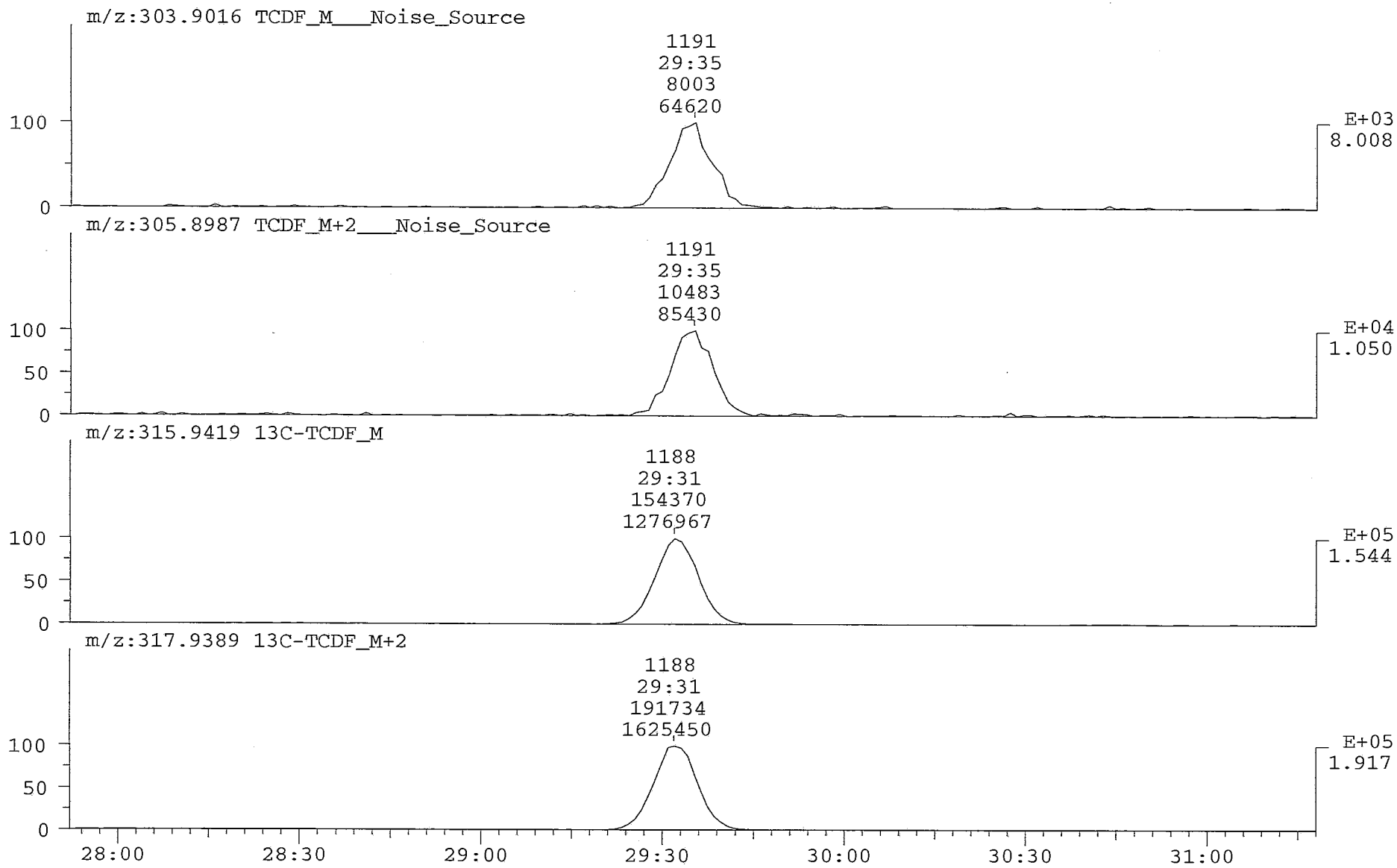
H-552

CHRO: b110714s3 14-Jul-11 Elapse: 31:33 1300
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1214 > 1392 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

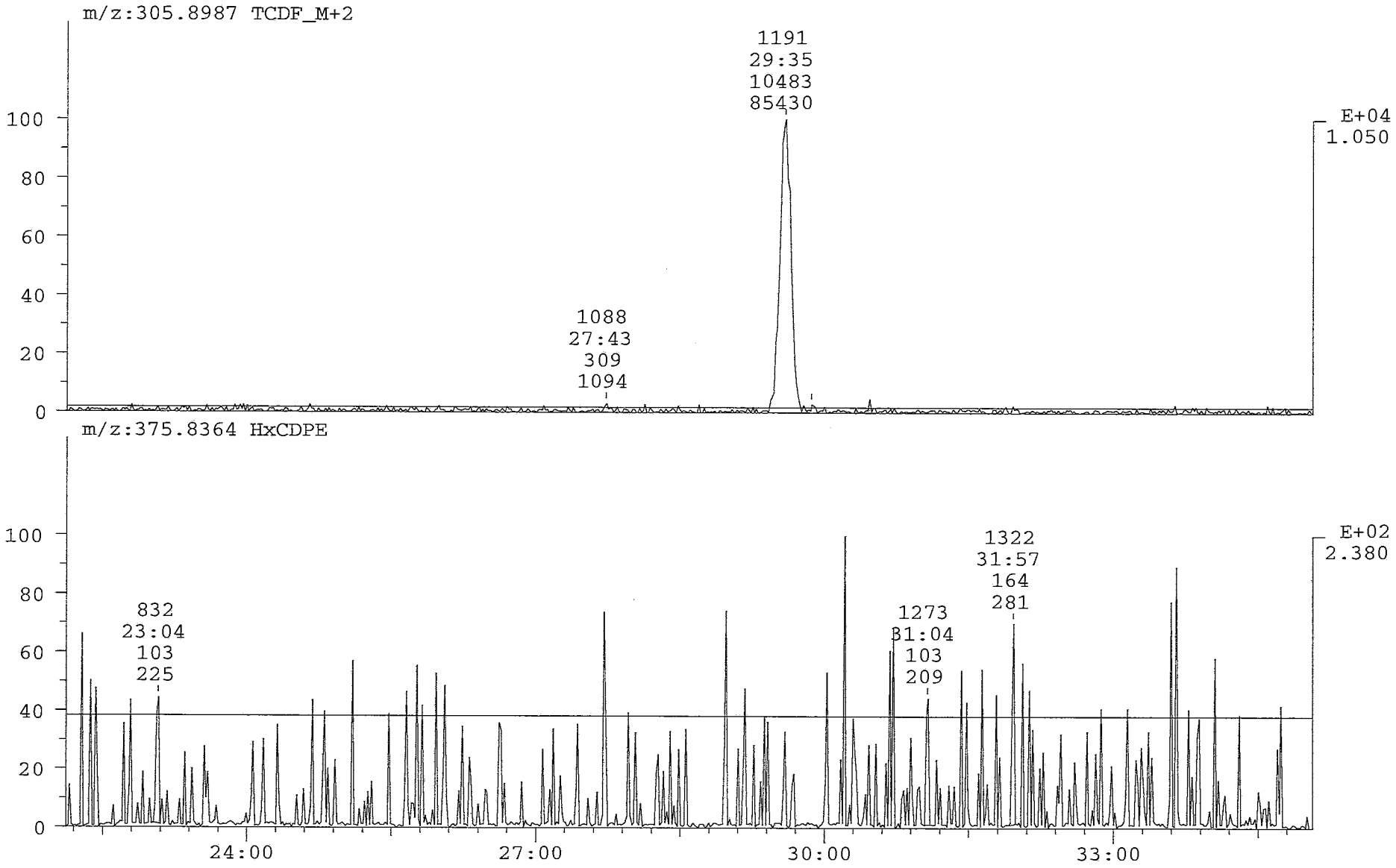


H-553

CHRO: b110714s3 14-Jul-11 Elapse: 29:31 1188
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1096 > 1286 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

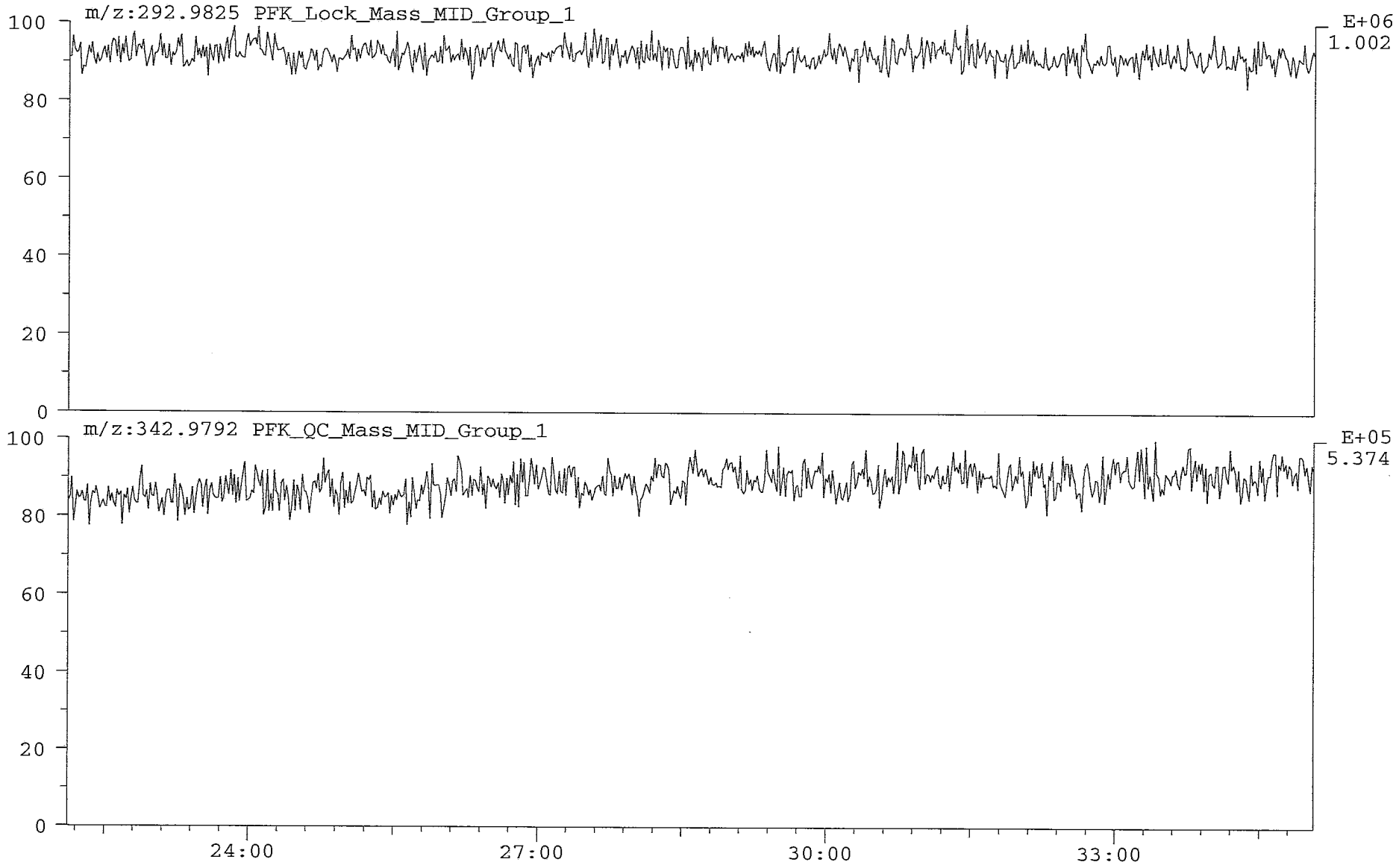


CHRO: b110714s3 14-Jul-11 Elapse: 29:31 1188
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 779 > 1493 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



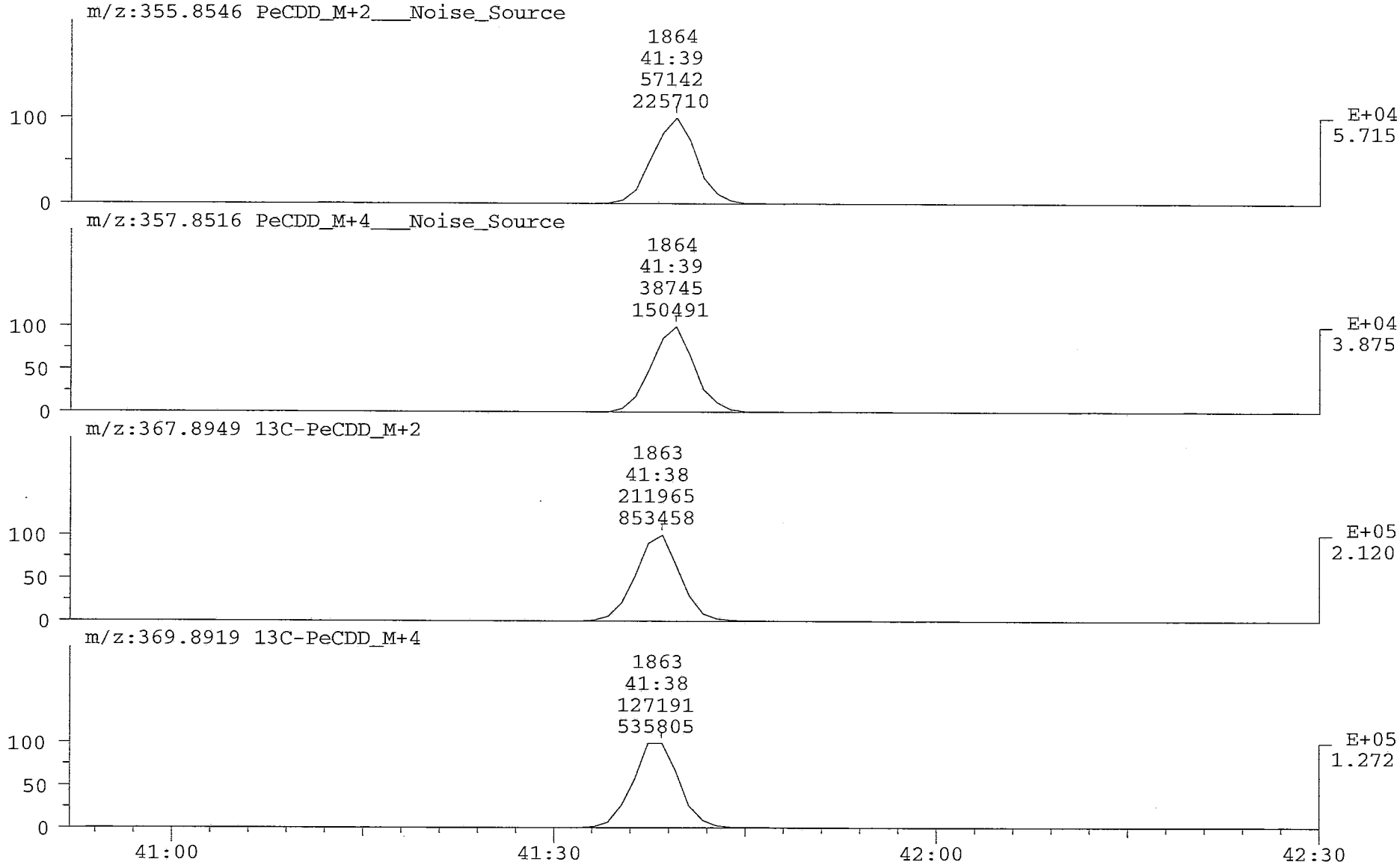
H-555

CHRO: b110714s3 14-Jul-11 Elapse: 29:31 1188
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 779 > 1493 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



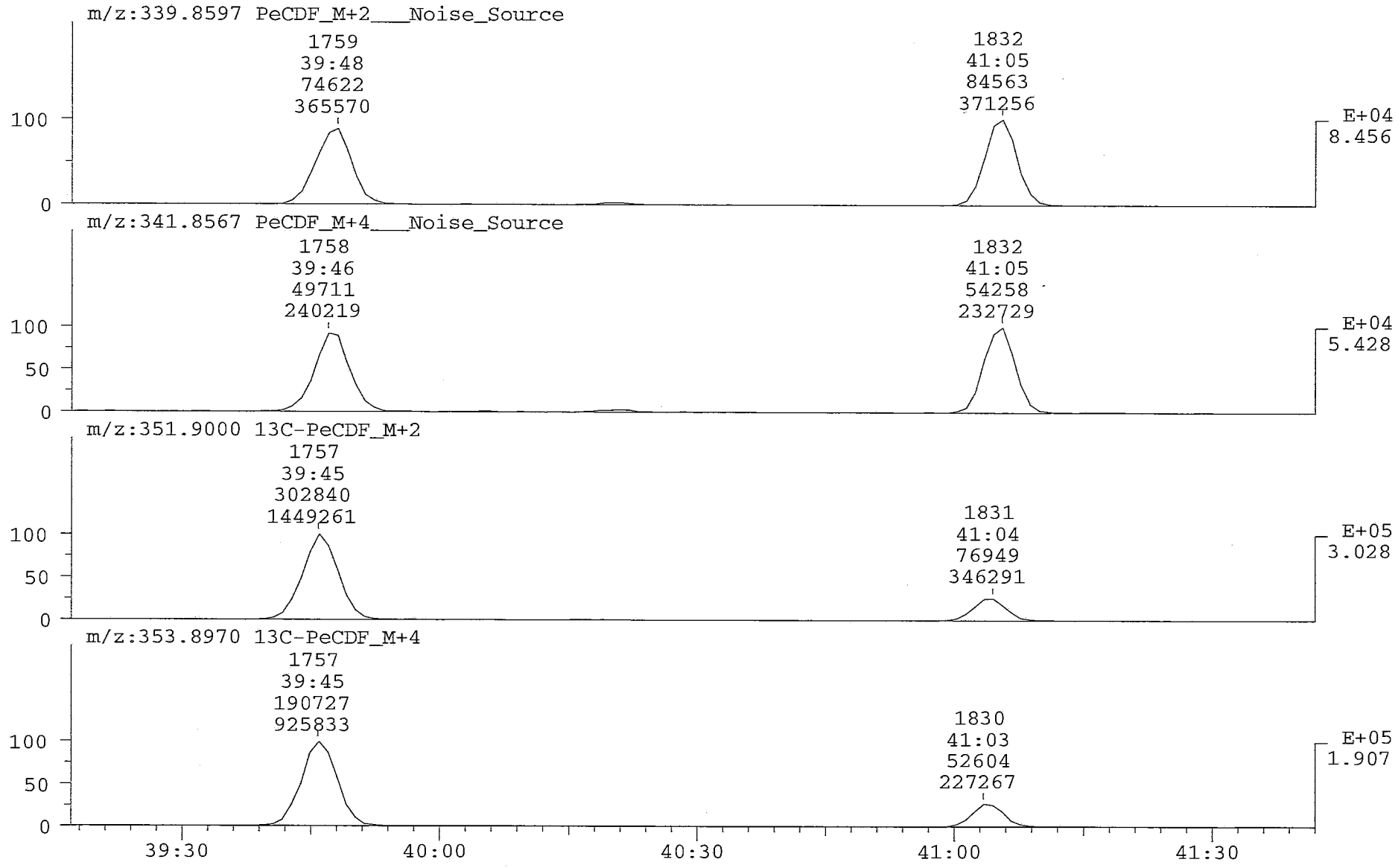
H-556

CHRO: b110714s3 14-Jul-11 Elapse: 41:38 1863
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1819 > 1912 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



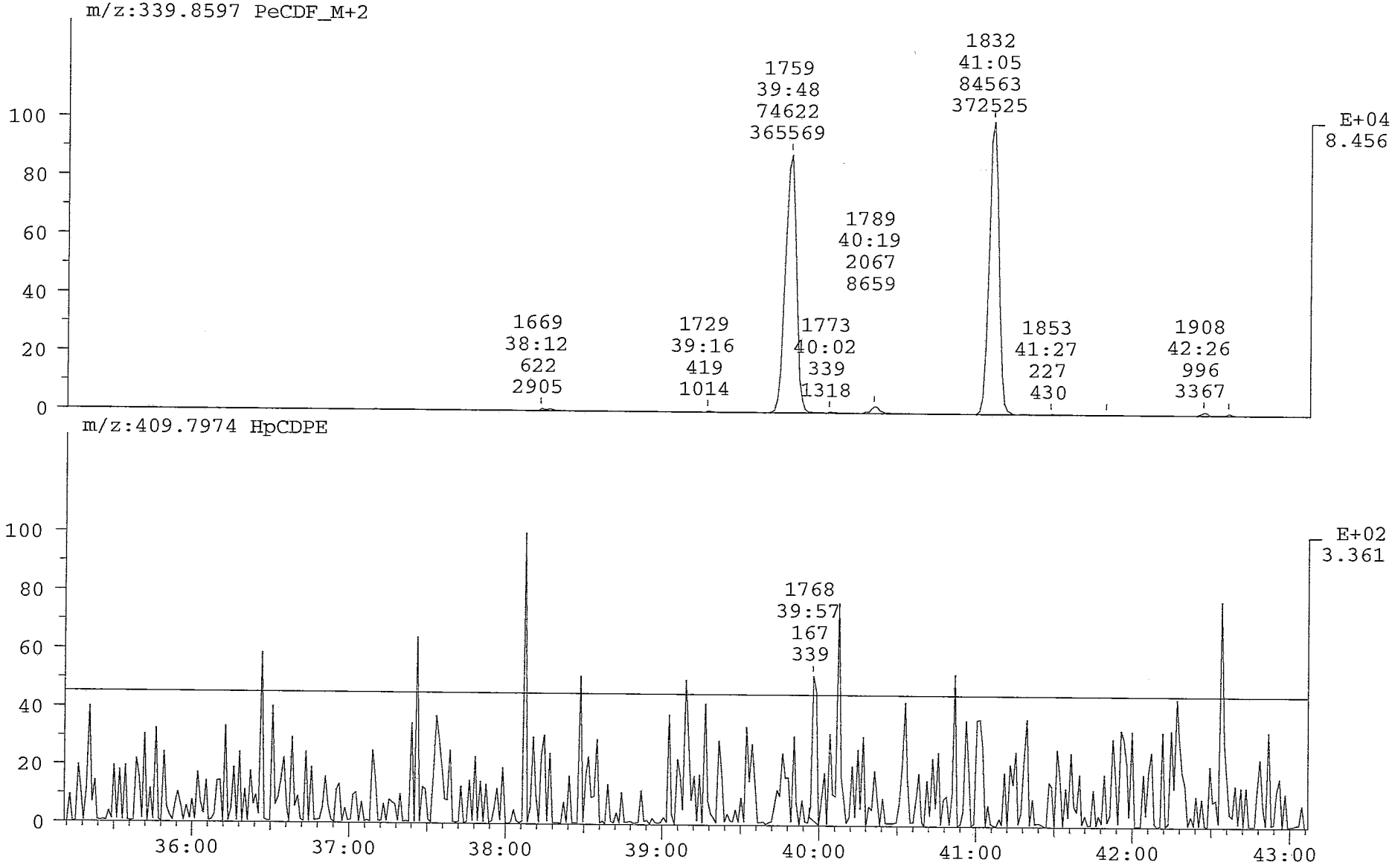
H-557

CHRO: b110714s3 14-Jul-11 Elapse: 40:29 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1730 > 1866 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



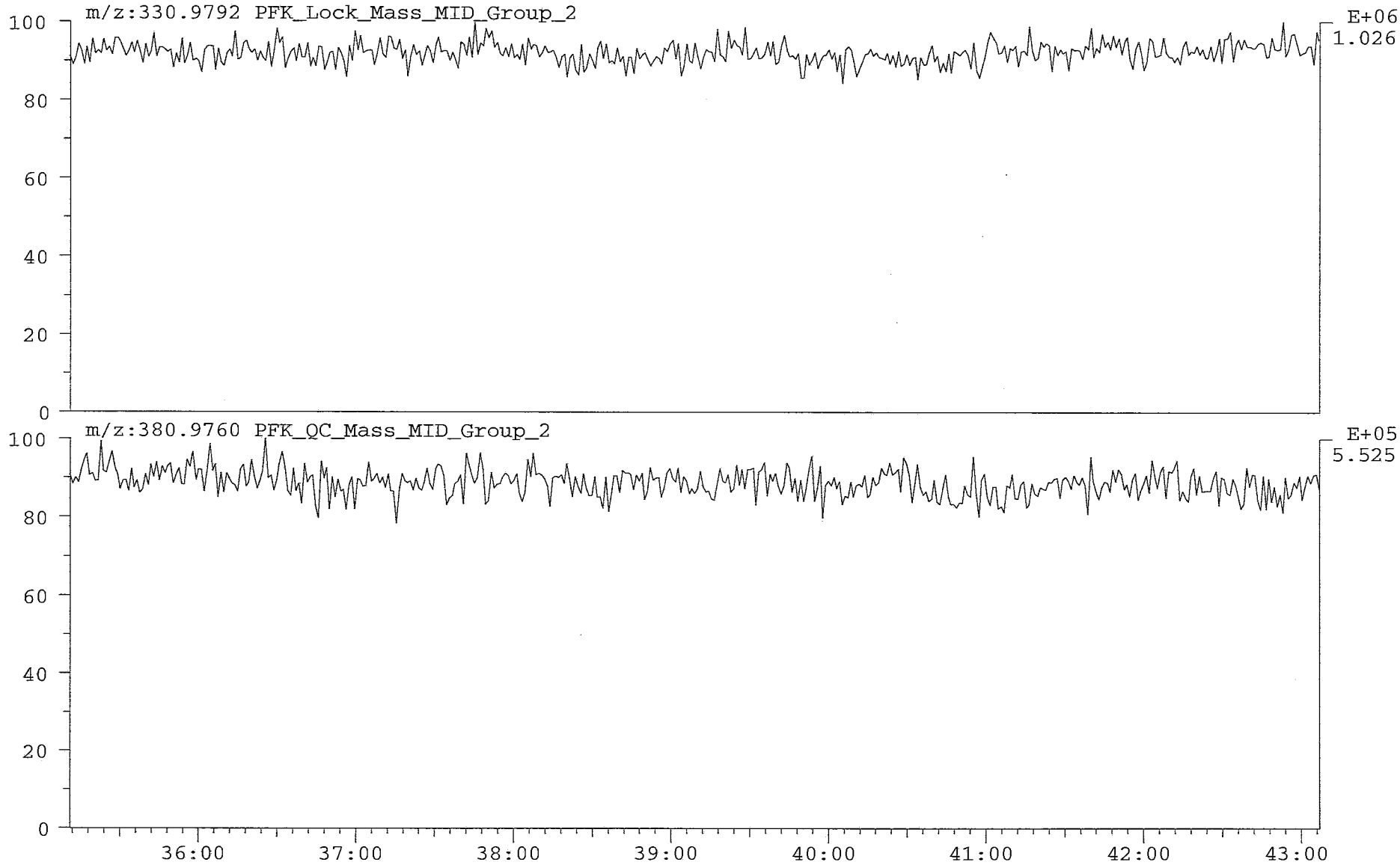
H-558

CHRO: b110714s3 14-Jul-11 Elapse: 40:29 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1498 > 1946 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



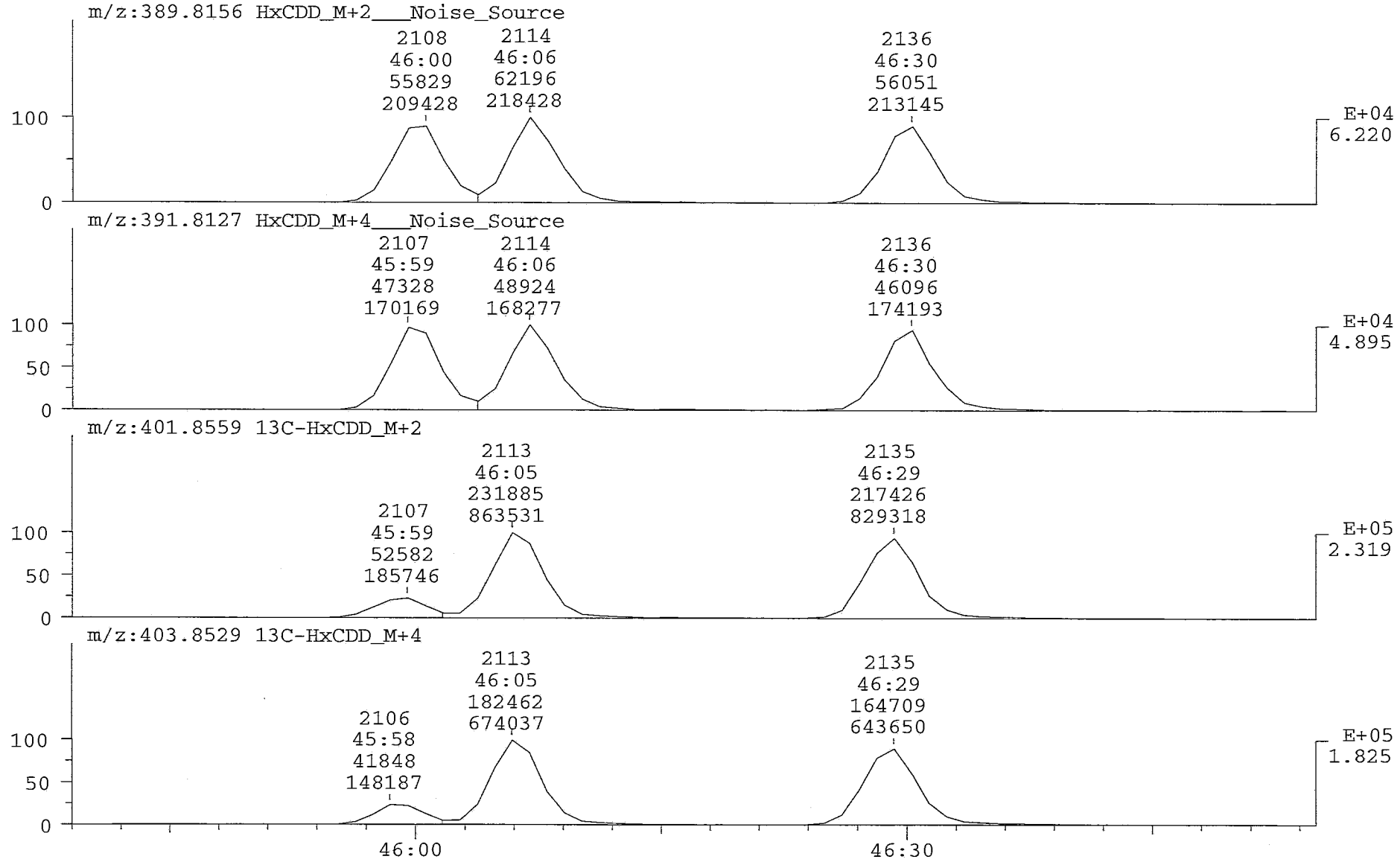
H-559

CHRO: b110714s3 14-Jul-11 Elapse: 40:29 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1498 > 1946 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



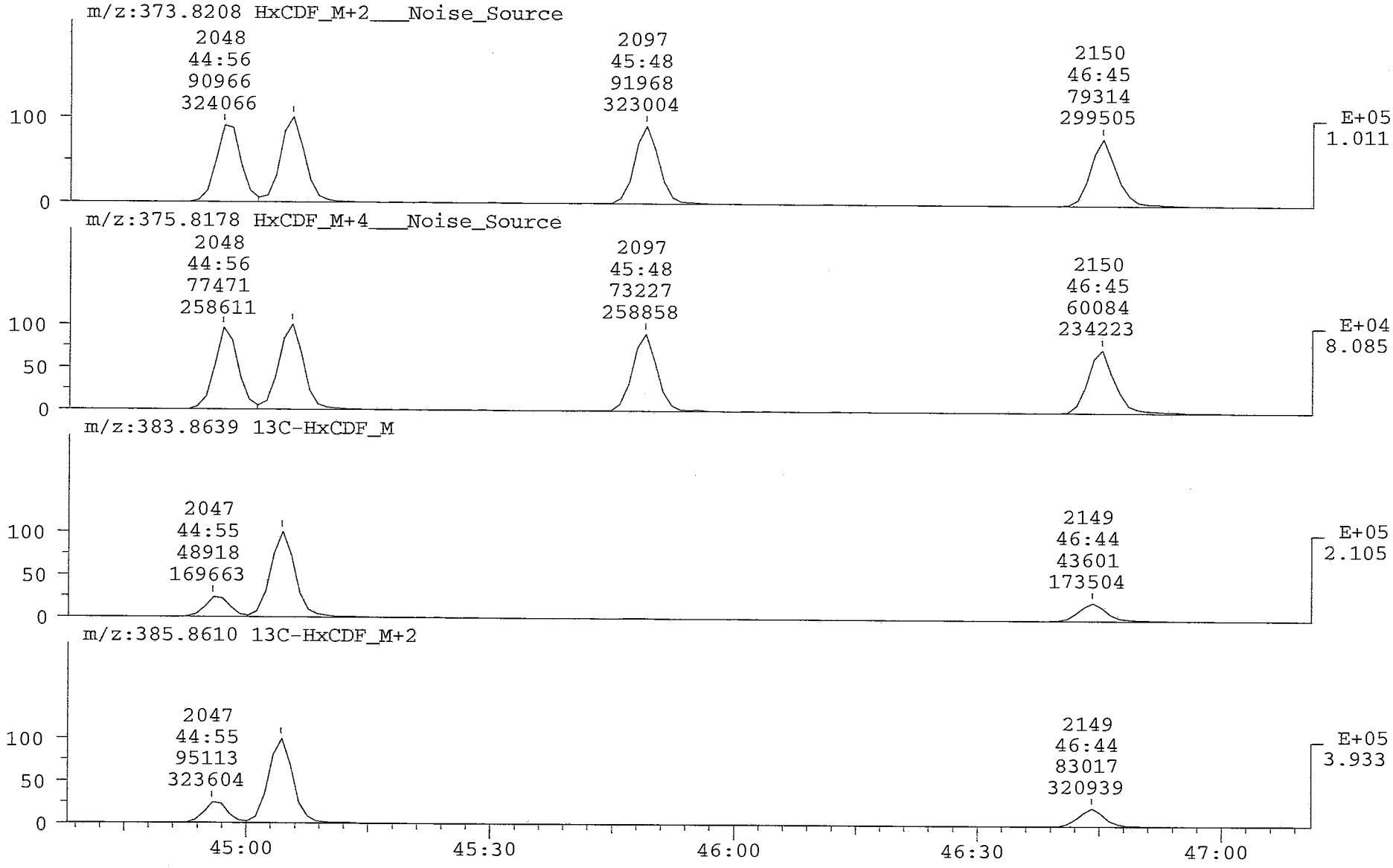
H-560

CHRO: b110714s3 14-Jul-11 Elapse: 46:16 2123
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2088 > 2159 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



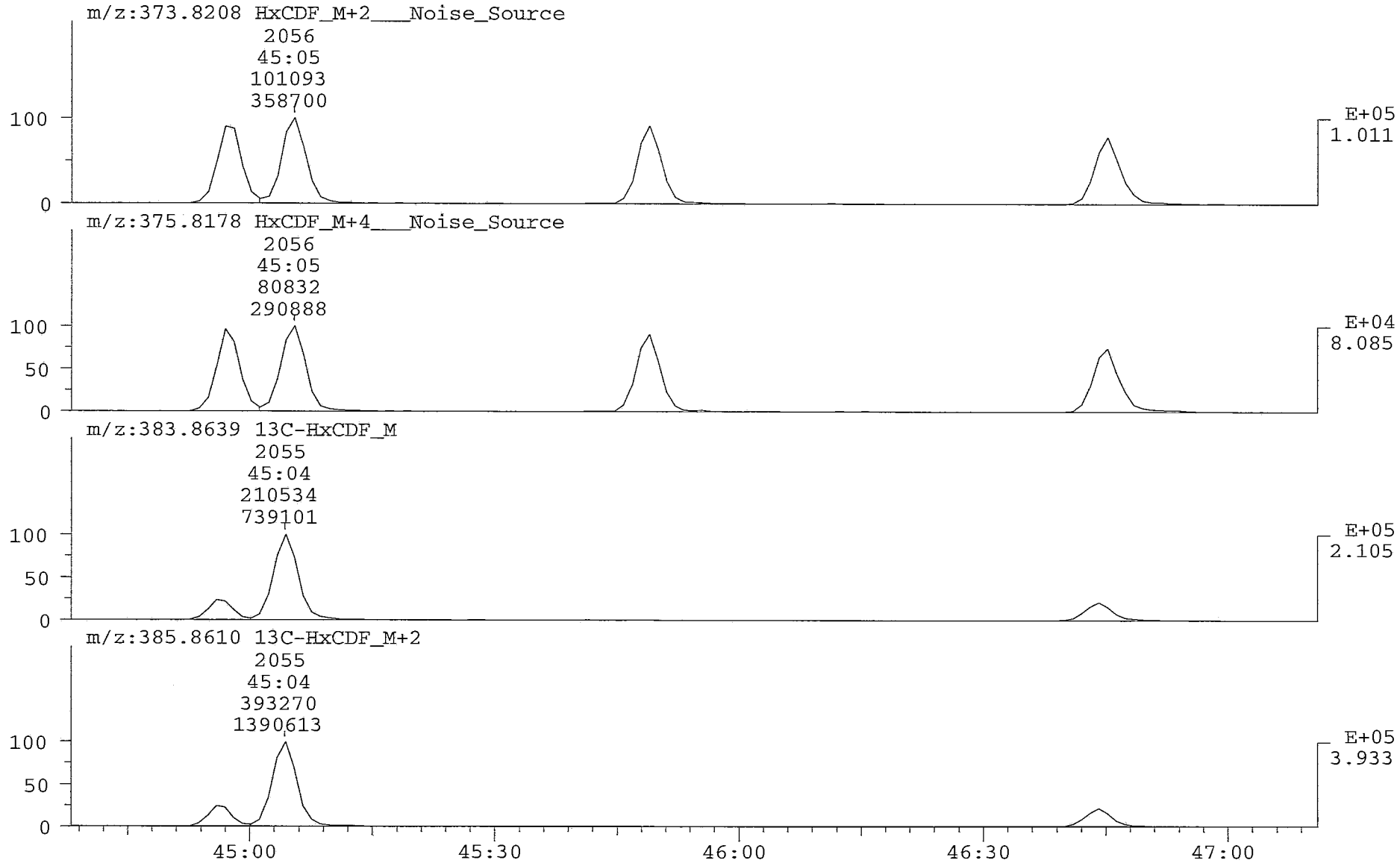
H-551

CHRO: b110714s3 14-Jul-11 Elapse: 45:54 2102
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2030 > 2174 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



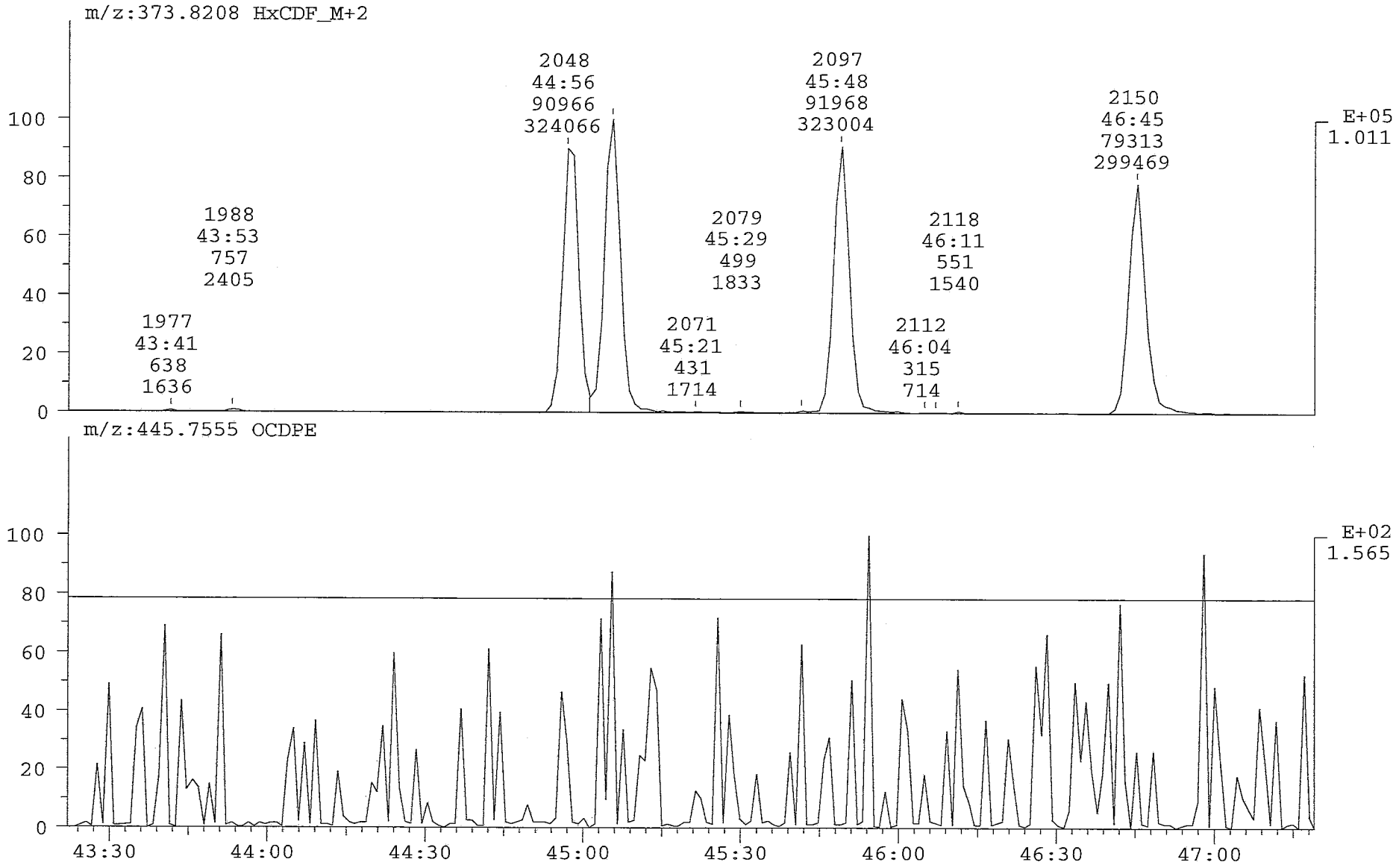
H-592

CHRO: b110714s3 14-Jul-11 Elapse: 45:05 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2052 > 2060 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



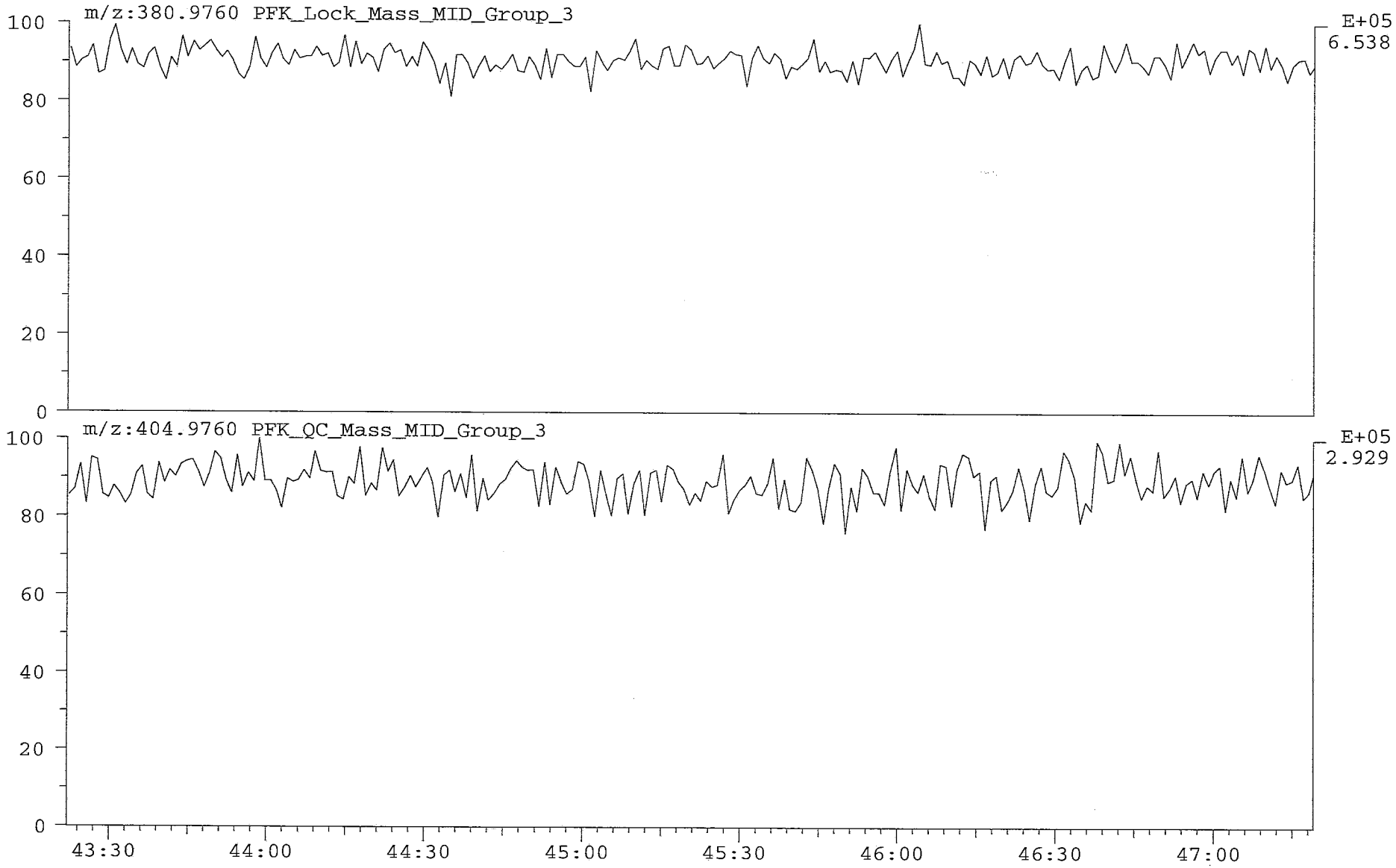
H-563

CHRO: b110714s3 14-Jul-11 Elapse: 45:05 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1959 > 2182 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



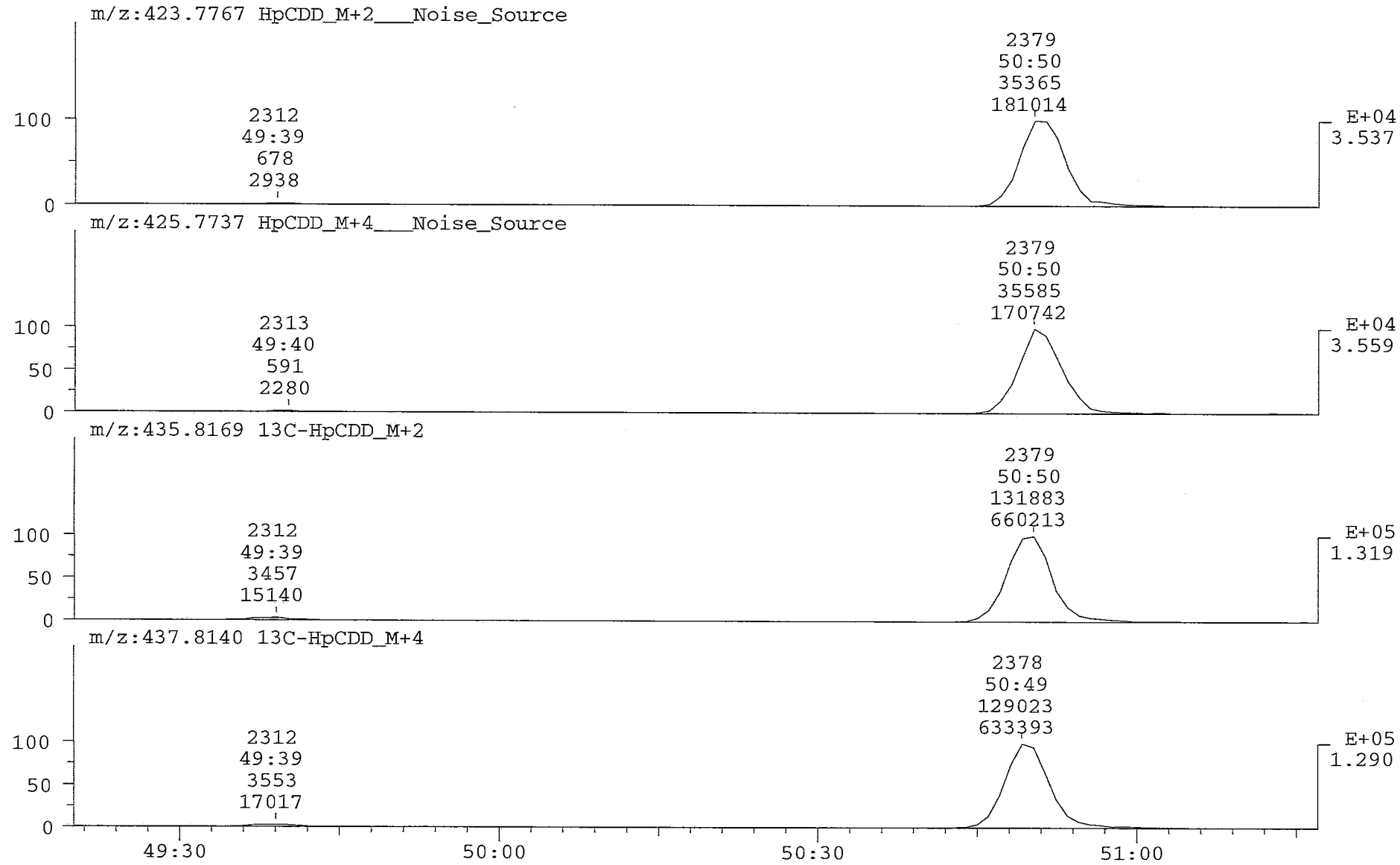
H-564

CHRO: b110714s3 14-Jul-11 Elapse: 45:05 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1959 > 2182 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



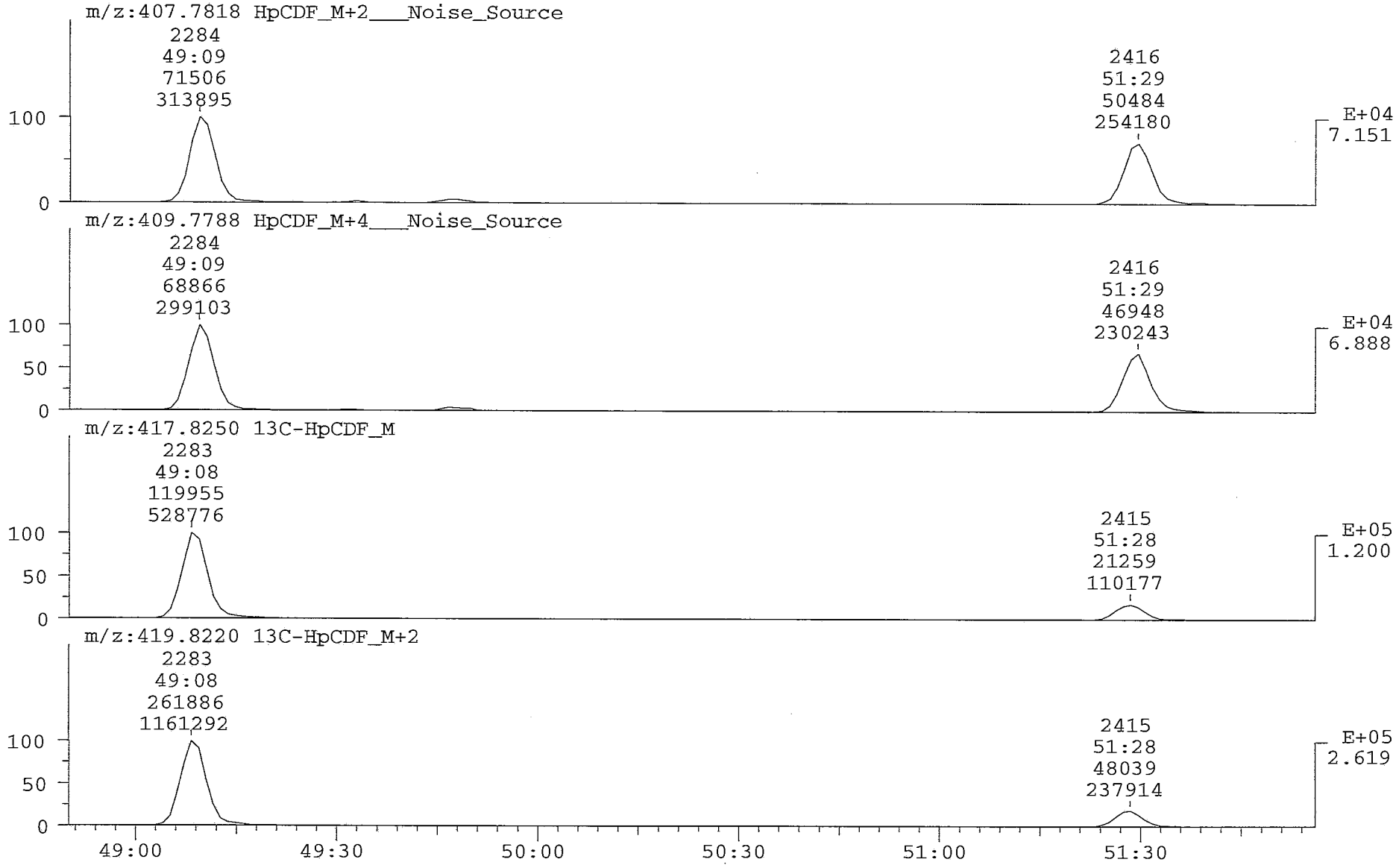
H-565

CHRO: b110714s3 14-Jul-11 Elapse: 45:05 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2294 > 2404 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



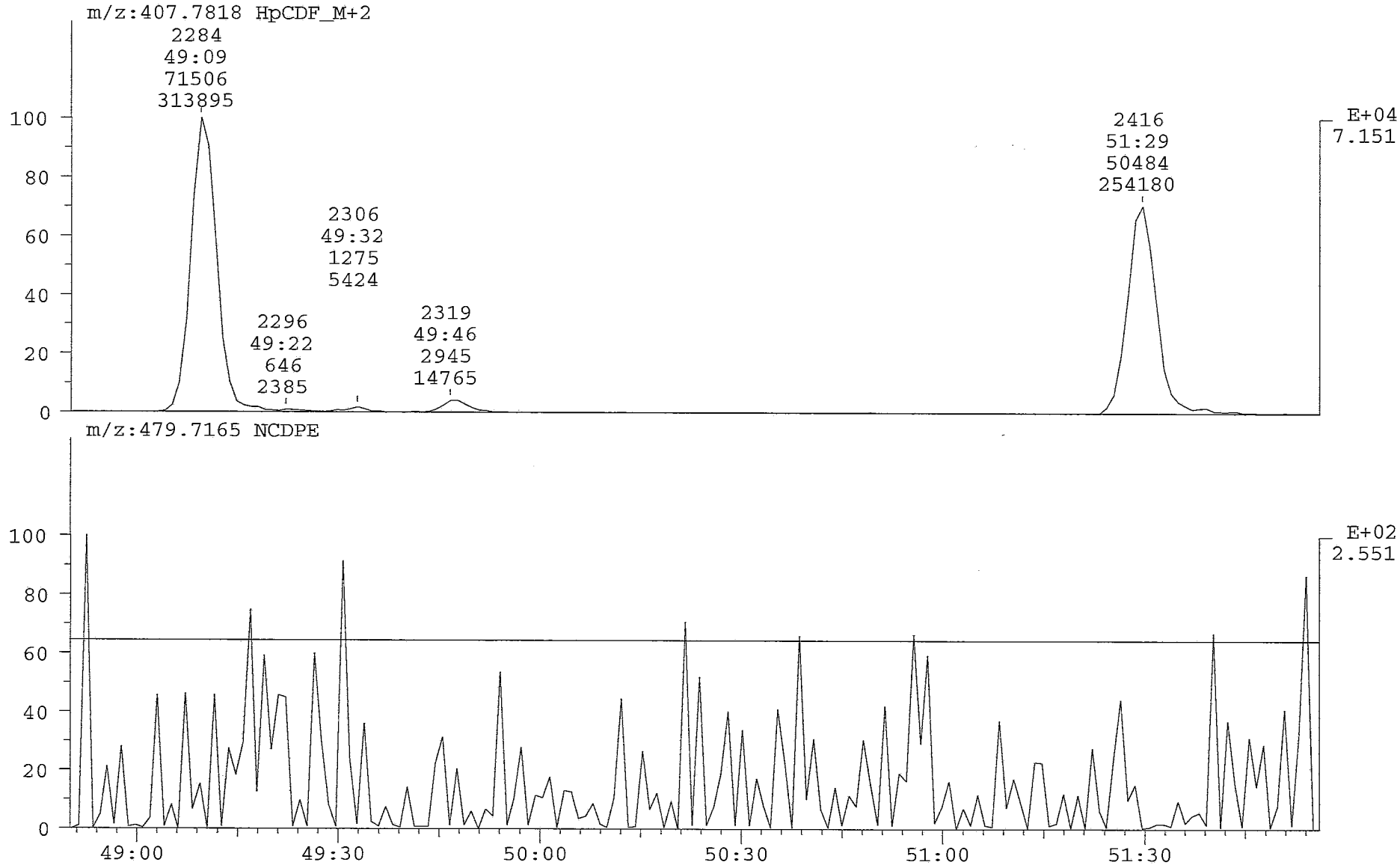
H-566

CHRO: b110714s3 14-Jul-11 Elapse: 50:22 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2266 > 2441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



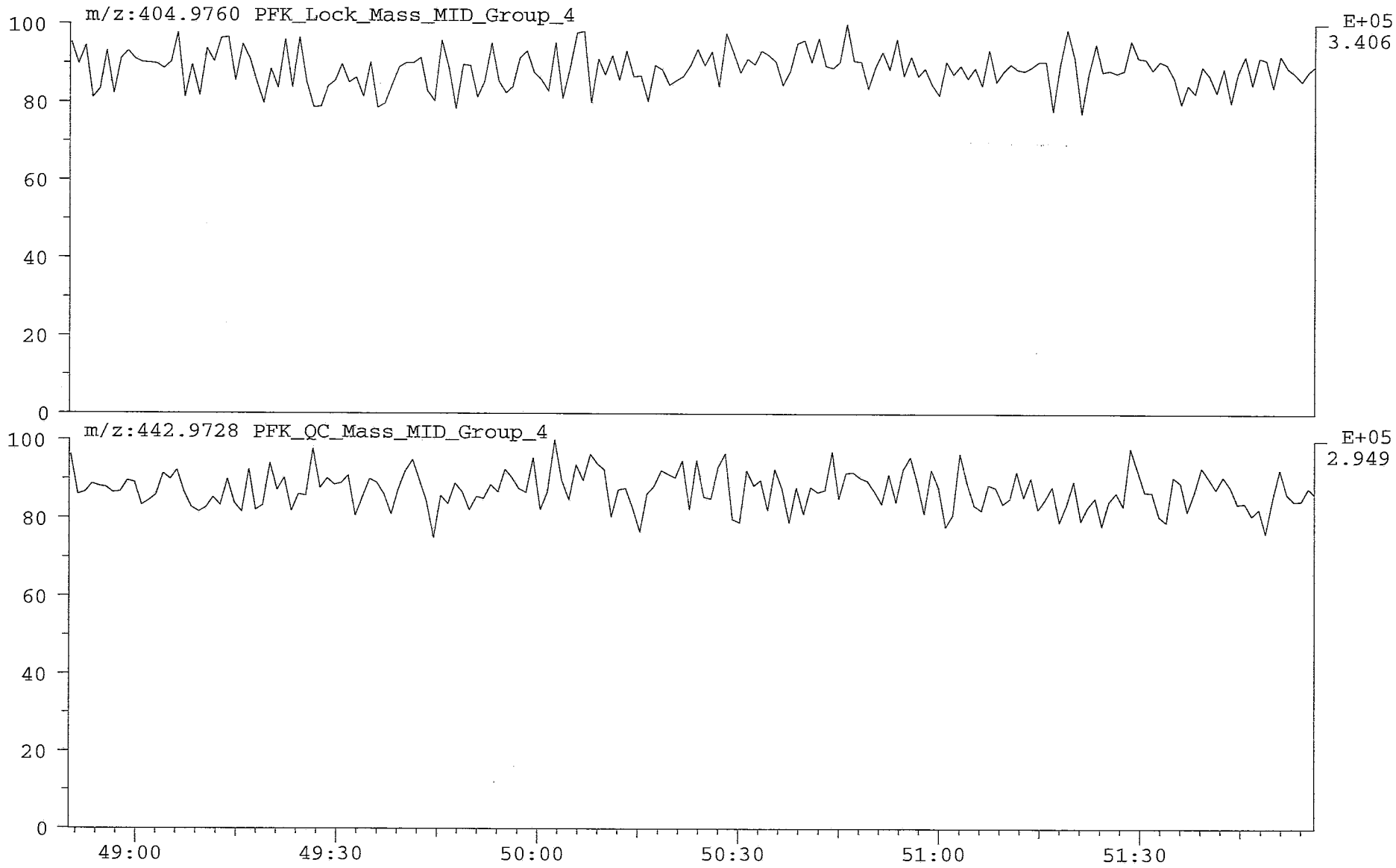
H-567

CHRO: b110714s3 14-Jul-11 Elapse: 50:22 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2266 > 2441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



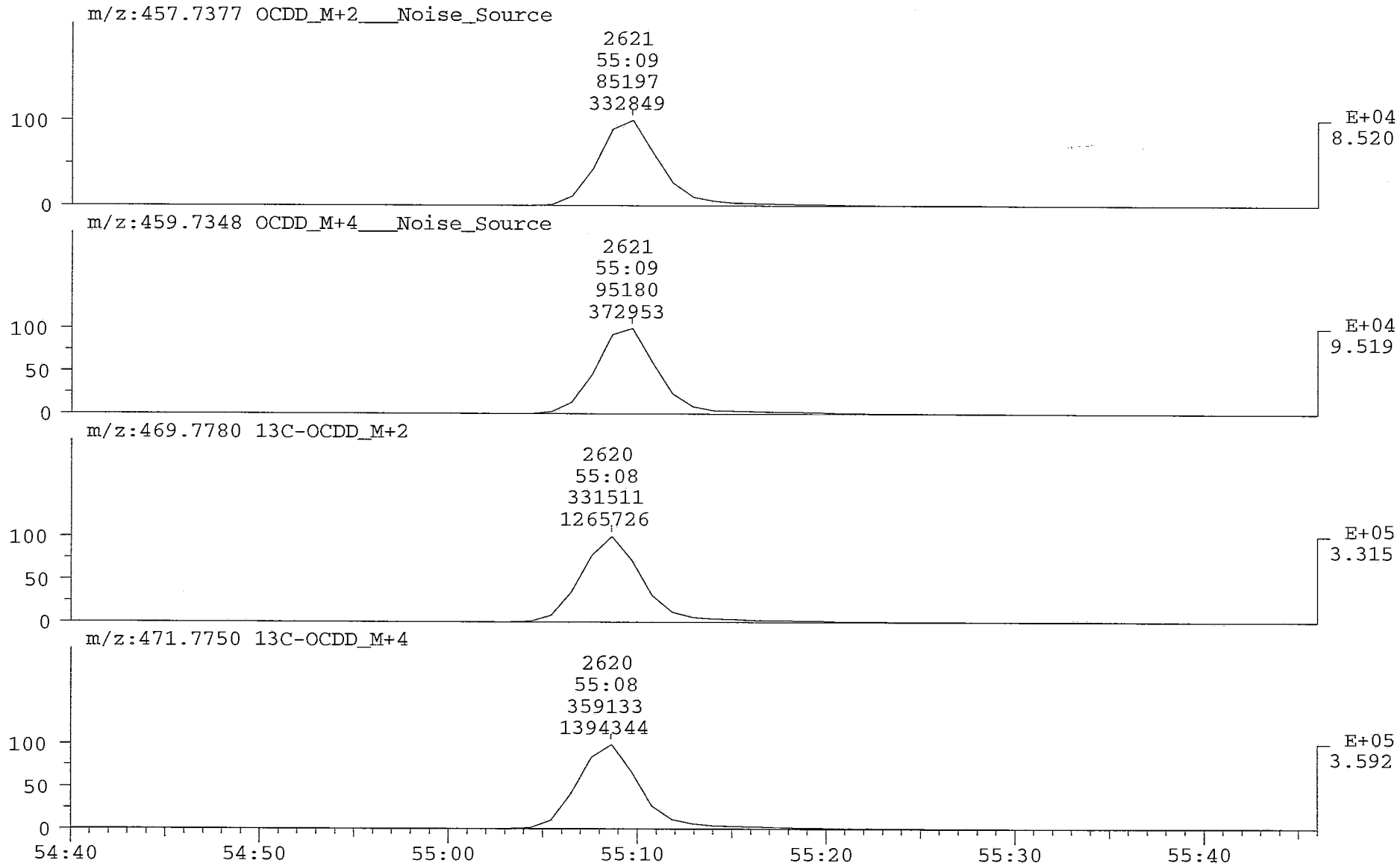
H-568

CHRO: b110714s3 14-Jul-11 Elapse: 50:22 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2266 > 2441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



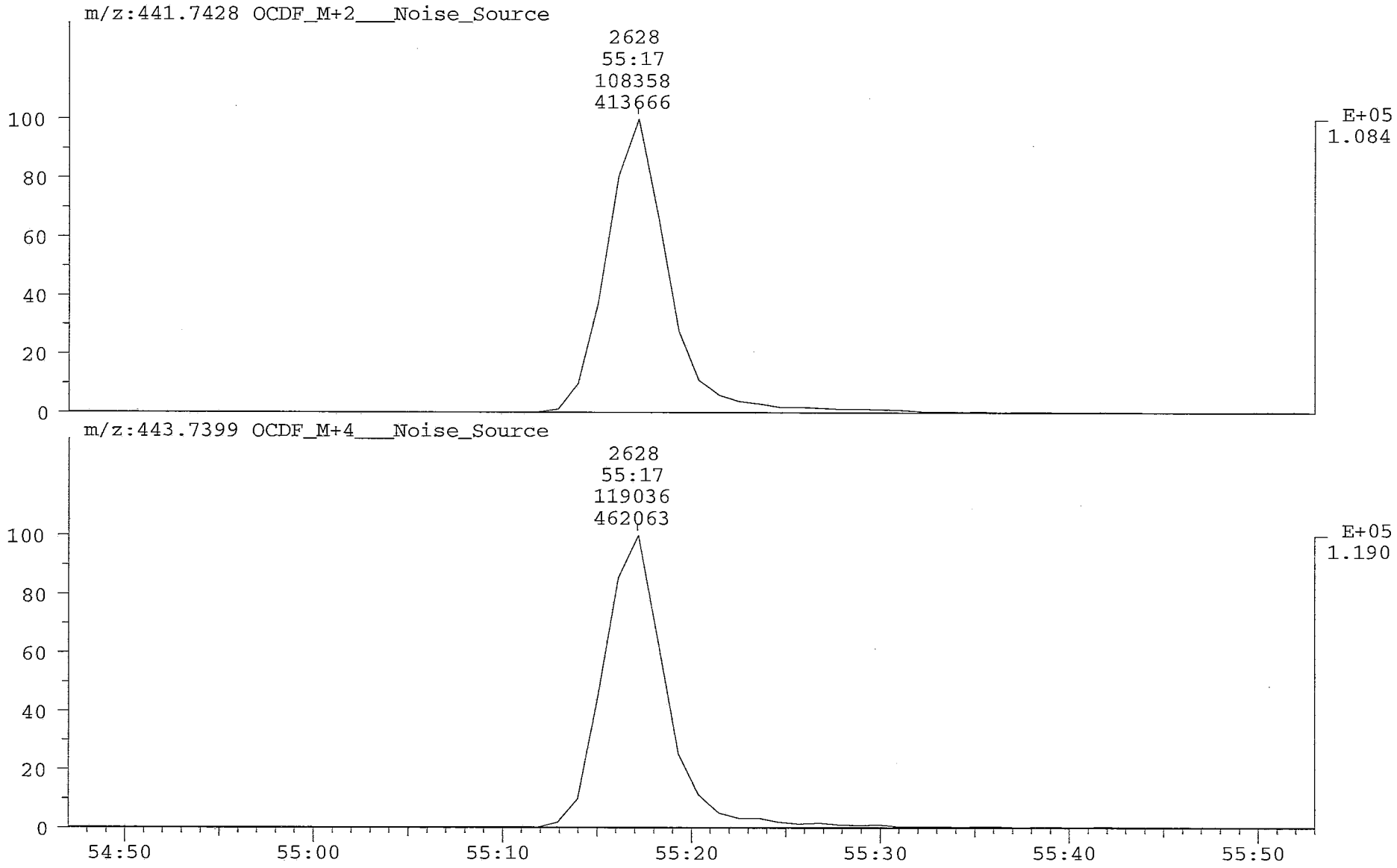
H-569

CHRO: b110714s3 14-Jul-11 Elapse: 55:09 2621
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2593 > 2655 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



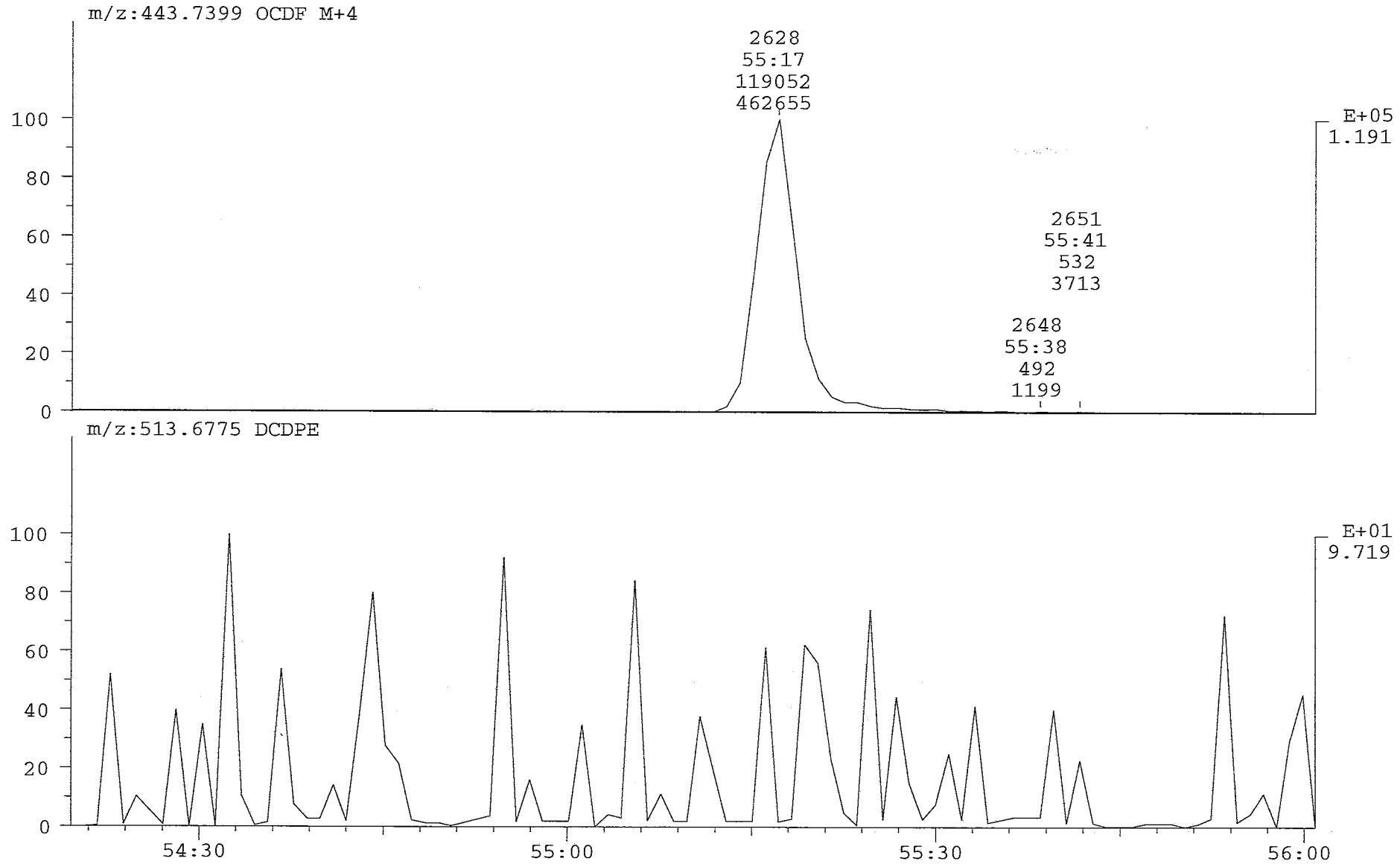
H-570

CHRO: b110714s3 14-Jul-11 Elapse: 55:17 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2600 > 2662 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



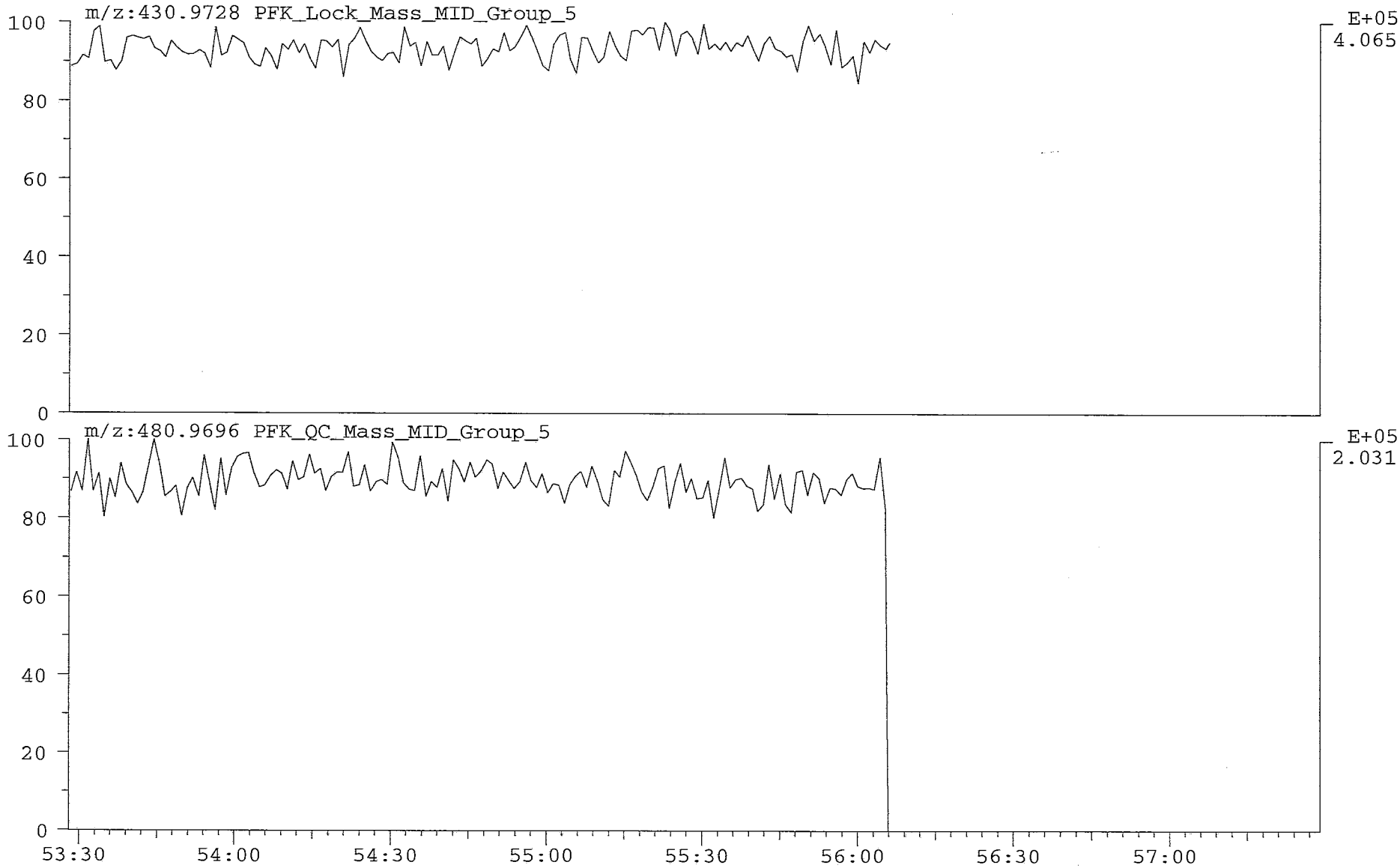
H-571

CHRO: b110714s3 14-Jul-11 Elapse: 45:44 2093
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2574 > 2669 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-572

CHRO: b110714s3 14-Jul-11 Elapse: 55:17 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 12:02:52 2674
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2526 > 2750 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-573

572

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b110714s3
Study: M23 Ver
Sample: WO=HR0014 Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA-Knoxville
Comments: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Injected volume:   2.0
Sample from Vial 3
Analysis will stop when MID run finishes
Tune file name: tune2
File 3 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start          Measure       End         Cycletime
# 1     8:00 min    27:05 min    35:05 min     1.00 sec
# 2    35:05 min     8:03 min    43:08 min     1.00 sec
# 3    43:08 min     4:44 min    47:52 min     1.00 sec
# 4    47:52 min     5:29 min    53:22 min     1.00 sec
# 5    53:22 min     4:08 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 l   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 l   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8433.0000
BDEV	8289.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5765
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-24.0750
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	197.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	363.0000	FVINLET	845.0000
FVSRC	1061.0000	FWIN	0.7000	GCTC	137.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.6863	HVANAL	1220.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	292.9825
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	0.0000	NSAM	100.0000	NSCAN	70.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.6500	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10758.3328	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7400	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-16.0000
YLENS	3269.0000	YLENSS	-20.2000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 12:02:52.1

Autosampler has injected sample from vial 3
Analysis stopped at: 14-Jul-11 12:58:58.8 (run time 56.10 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville Dioxin GC/MS Continuing Calibration Review / Narrative Checklist

KNOX-ID-0004-R10 **Method:** ☑ 0023A/8290 ☐ EPA 23

Start Mass Res. ✓:	10:48	Start Ver Filename:	b110714s3	Inst:	MaA
End Mass Res. ✓:	20:55	Win Filename:	b110714w01	ICAL Date:	12-9-10 12-10-09
		Col Perf Filename:	↓		
		End Ver Filename:	b110714s4		

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?		✓			✓
2. Was the instrument resolution >10,000 (<100 ppm) on PFK m/z 304.9824 and m/z 380.9760 or FC43 m/z 313.9838 and m/z 363.9807?		✓			✓
3. Was the measured exact mass of m/z 380.9760 (PFK) or 363.9807 (FC43) within 5 ppm at reduced accelerating voltage?		✓			✓
4. Was date/time of analysis verified between analysis header and logbook as correct?		✓			✓
5. Was the Window Defining Mixture analyzed and the MID switchpoints set to encompass the retention time windows of each congener group?		✓			✓
6. Was the Column Performance solution analyzed and the %Valley ≤25 for separation between 2378-TCDD/F and the closest eluting non-2378 isomer?		✓			✓
7. Were continuing calibrations performed at the beginning and end of the 12-hour period, with successful mass resolution and GC resolution performance checks?		✓			✓
8. Were the response factors calculated for each labeled standard and unlabeled native analyte using the SOP specified reference compound (Table 4), quantitation ions (Table 22), and formula (Section 10.2.6)?		✓			✓
9. Are the measured RRFs for each compound within the specified control limits in Table 8 for all PCDDs/PCDFs?		✓			✓
10. Are the relative retention times of all PCDDs/PCDFs and all labeled compounds within the limits specified in Table 3?		✓			✓
11. Are all S/N ratios ≥10 for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		✓			✓
12. Are the ion abundance ratios for all labeled and unlabeled analytes within the control limits specified in Table 22 of the SOP?		✓			✓
13. If manual integrations were performed, are they clearly identified, initialed and dated?	✓				✓
14. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓	X			✓
15. Does the CCAL folder contain **complete** data in the following order: Data review checklist, a **complete** runlog, CCAL summary, Ratio summary, Calculation summary, PFK resolution/peak match documentation; Total RIC, EICP's and manual integration - for window and all standards?		✓		RMP 7-14-11	✓

Analyst:	**Date:** 7-14-11	**2nd Level Reviewer :** RMP	**Date:** 7/14/11
Comments:		**Comments:**	

TESTAMERICA KNOXVILLE 8
SPECIALTY ORGANICS INSTRUMENT RUN LOG
Inst: MAT95S

Date	Time	Opr	Sample ID	Filename	Code	Matrix	Type	Tape	Lot#/Comments
7-14-11	10:48	KM	PFK	—	OK	—	res		Mass res chk
7-14-11	10:51	KM	HR0034B	b110714w1	OK	—	win		win
7-14-11	11:51	KM	nonane	v	OK	—	QC		flush
7-14-11	12:02	KM	HR0014	b110714s3	OK	—	ver		Maz ver
7-14-11	13:02	KM	nonane	v	ok	—	QC		flush
7-14-11	13:12	KM	↓	v	ok	—	QC		↓
7-14-11	13:27	KM	↓	v	OK	—	QC		↓
7-14-11	13:42	KM	MKNTLIAA	btmkntlb	OK/RR	air-2	QC		HIG060000-027B
7-14-11	14:42	KM	MKMLeMIAA	btmkmlem	IF*/RR	air-2	SCM		HIG058439-007
7-14-11	15:42	KM	MKML01AA	btmkml60	IF*/RR	air-2	SCM		↓ -015
7-14-11	16:42	KM	MKM551AA	btmkm55	IF*/RR	air-2	SCM		↓ -001
7-14-11	17:42	KM	nonane	v	OK	—	QC		flush
7-14-11	17:56	KM	MKNTLIAC	btmkntlc	IF*/RR	air-2	QC		HIG060000-027C
7-14-11	18:55	KM	MKNTLIAD	btmkntld	OK	air-2	QC		↓ -027L
7-14-11	19:55	KM	HR0014	b110714s4	OK	—	ver		maz ver
7-14-11	20:55	PMP	PFK	—	OK	—	Res		Mass Res Chk

*lost lock heptas

Read and Understood by:

_____ Date: _____

TestAmerica
Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110714s3/b110714w1.d	Prep Date		SDG No	
Analysis ID	133609	Prep Exp Date		Date Received	
Analysis Date	7/14/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	10:51	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	DX1613B
Instrument	M2A	Dil Factor	1.00	Code	F8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
2,3,7,8-TCDD	31:36	273837	29674	1.021	10.00	10.774477	107.74	10.774477	E	0.131
Total TCDD		1323844	155215	1.021		62.862860		62.862860	E	0.131
2,3,7,8-TCDF	29:36	395305	45683	0.986	10.00	10.650133	106.50	10.650133	E	0.0705
Total TCDF		831042	108816	0.986		33.039701		33.039701	E	0.0705
1,2,3,7,8-PeCDD	41:41	1112452	278127	0.979	50.00	50.093024	100.19	50.093024	E	0.0569
Total PeCDD		2306538	482042	0.979		153.955001		153.955001	E	0.0569
1,2,3,7,8-PeCDF	39:49	1871691	382873	0.999	50.00	55.906692	111.81	55.906692	E	0.0565
2,3,4,7,8-PeCDF	41:07	1720737	410243	1.065	50.00	48.444866	96.89	48.444866	E	0.0453
Total PeCDF		3496935	627181	1.032		205.706686		205.706686	E	0.0504
1,2,3,4,7,8-HxCDD	46:02	1125363	319510	1.168	50.00	46.588141	93.18	46.588141	E	0.0579
1,2,3,6,7,8-HxCDD	46:08	1083402	295211	0.943	50.00	56.627937	113.26	56.627937	E	0.0788
1,2,3,7,8,9-HxCDD	46:32	1197286	311340	1.154	50.00	50.641198	101.28	50.641198	E	0.0613
Total HxCDD		1220135	380336	1.089		208.583603		208.583603	E	0.0650
1,2,3,4,7,8-HxCDF	44:59	1715039	485126	1.241	50.00	52.908883	105.82	52.908883	E	0.0449
1,2,3,6,7,8-HxCDF	45:07	1796633	527278	1.215	50.00	50.572651	101.15	50.572651	E	0.0396
2,3,4,6,7,8-HxCDF	45:50	1674162	483271	1.159	50.00	52.025120	104.05	52.025120	E	0.0441
1,2,3,7,8,9-HxCDF	46:46	1541529	405820	1.191	50.00	50.314701	100.63	50.314701	E	0.0511
Total HxCDF		3079372	826889	1.202		300.004148		300.004148	E	0.0445
1,2,3,4,6,7,8-HpCDD	50:53	1040653	211513	1.037	50.00	51.881076	103.76	51.881076	E	0.120
Total HpCDD		1126316	251350	1.037		108.032826		108.032826	E	0.120
1,2,3,4,6,7,8-HpCDF	49:11	1677917	392918	1.448	50.00	53.633403	107.27	53.633403	E	0.0472
1,2,3,4,7,8,9-HpCDF	51:31	1373686	284827	1.411	50.00	49.876785	99.75	49.876785	E	0.0598
Total HpCDF				1.429		103.510189		103.510189	E	0.0528
OCDD	55:11	1881001	478075	1.011	100.0	113.959991	113.96	113.959991	E	0.0859
OCDF	55:19	2265173	588356	1.167	100.0	118.844794	118.84	118.844794	E	0.0927
13C-2,3,7,8-TCDD	31:34	2490344	275256	1.048	100.0	98.194399	98.19	98.194399		0.141
13C-2,3,7,8-TCDF	29:34	3766034	456675	1.447	100.0	107.566993	107.57	107.566993		0.0811
13C-1,2,3,7,8-PeCDD	41:40	2267773	555921	0.864	100.0	108.395901	108.40	108.395901		0.124
13C-1,2,3,7,8-PeCDF	39:48	3350124	673301	1.230	100.0	112.558622	112.56	112.558622		0.0954
13C-2,3,4,7,8-PeCDF	41:06	3334112	787280	1.174	100.0	117.349769	117.35	117.349769		0.0999
13C-1,2,3,4,7,8-HxCDD	46:01	2067659	599063	0.893	100.0	102.920021	102.92	102.920021		0.0779
13C-1,2,3,6,7,8-HxCDD	46:07	2028184	544755	0.988	100.0	91.268228	91.27	91.268228		0.0704
13C-1,2,3,4,7,8-HxCDF	44:58	2611184	736048	1.186	100.0	97.903583	97.90	97.903583		0.0637
13C-1,2,3,6,7,8-HxCDF	45:06	2923279	851268	1.260	100.0	103.179598	103.18	103.179598		0.0599
13C-2,3,4,6,7,8-HxCDF	45:49	2777058	802817	1.209	100.0	102.150028	102.15	102.150028		0.0625
13C-1,2,3,7,8,9-HxCDF	46:45	2572220	673900	1.122	100.0	101.891069	101.89	101.891069		0.0673
13C-1,2,3,4,6,7,8-HpCDD	50:52	1933460	382241	0.931	100.0	92.304721	92.30	92.304721		0.0611
13C-1,2,3,4,6,7,8-HpCDF	49:10	2161041	501480	0.994	100.0	96.671378	96.67	96.671378		0.0590
13C-1,2,3,4,7,8,9-HpCDF	51:30	1952250	406282	0.839	100.0	103.447362	103.45	103.447362		0.0699
13C-OCDD	55:10	3265461	841101	0.934	200.0	155.454331	77.73	155.454331		0.0858
37Cl4-2,3,7,8-TCDD	31:36	264718	29818	1.100	10.00	9.941360	99.41	9.941360	E	0.0554
13C-1,2,3,4-TCDD	31:03	2420187	274939	1.000	100.0	100.000000	100.00	100.000000		0.148
13C-1,2,3,7,8,9-HxCDD	46:30	2249448	592716	1.000	100.0	100.000000	100.00	100.000000		0.0696

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110714s3/b110714w1.	Prep Date		SDG No	
Analysis ID	133609	Prep Exp Date		Date Received	
Analysis Date	07/14/11 10:51	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	KBL	Diluton Factor	1.00	Code	F8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	150	168	60	67	0.90 *	/	
	Unidentified	23:22	00:00	0	191502	240188	31714	37795	0.80	ABB/ABB	
	2,3,7,8-TCDF	29:36	29:35	1	173601	221704	20339	25344	0.78	ABB/ABV	
	Unidentified	34:34	00:00	0	174615	224737	17082	22225	0.78	AVV/AVV	
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	163	160	65	64	1.02 *	/	
	13C-2,3,7,8-TCDF	29:34	29:33	1	1664035	2101999	203143	253532	0.79	ABV/AVV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	183	185	73	74	0.99 *	/	
	Unidentified	25:47	00:00	0	121786	153823	18807	21455	0.79	ABB/ABB	
	Unidentified	31:06	00:00	0	106249	138011	11823	15893	0.77	ABV/ABV	
	Unidentified	31:20	00:00	0	107482	140028	11821	15934	0.77	AVV/AVB	
	2,3,7,8-TCDD	31:36	31:33	3	121840	151997	13059	16615	0.80	AVB/AVB	M
	Unidentified	32:05	00:00	0	128120	161529	14236	18656	0.79	ABB/ABB	
	Unidentified	34:46	00:00	0	115564	151252	12034	14556	0.76	AVV/AVV	
328					327.8847		327.8847				
	Noise	00:00	00:00	0	168		67				
	37Cl4-2,3,7,8-TCDD	31:36	31:33	3	264718		29818			AVV	M
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	253	155	101	62	1.63 *	/	
	13C-1,2,3,4-TCDD	31:03	31:00	3	1082576	1337611	122319	152620	0.81	ABV/ABV	
	13C-2,3,7,8-TCDD	31:34	31:30	4	1105084	1385260	120465	154791	0.80	AVV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	195	185	78	74	1.05 *	/	
	Unidentified	35:29	00:00	0	1117660	721246	125694	81199	1.55	ABB/ABB	
	1,2,3,7,8-PeCDF	39:49	39:51	-2	1142223	729468	232782	150091	1.57	ABV/ABV	
	2,3,4,7,8-PeCDF	41:07	41:10	-3	1047894	672843	250976	159267	1.56	ABV/ABV	M
	Unidentified	42:27	00:00	0	1011313	646716	257994	162294	1.56	AVV/AVV	
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	150	173	60	69	0.87 *	/	
	13C-1,2,3,7,8-PeCDF	39:48	39:50	-2	2050600	1299524	410373	262928	1.58	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:06	41:09	-3	2033588	1300524	479544	307736	1.56	ABV/ABV	
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	173	138	69	55	1.25 *	/	
	Unidentified	38:38	00:00	0	692173	448778	112417	68904	1.54	ABV/ABV	
	1,2,3,7,8-PeCDD	41:41	41:43	-2	679060	433392	168886	109241	1.57	ABV/ABV	
	Unidentified	42:21	00:00	0	709008	456579	181164	119557	1.55	ABB/ABB	
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	160	135	64	54	1.19 *	/	
	13C-1,2,3,7,8-PeCDD	41:40	41:42	-2	1389767	878006	343005	212916	1.58	ABV/ABV	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	218	193	87	77	1.13	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110714s3/b110714w1.	Prep Date		SDG No	
Analysis ID	133609	Prep Exp Date		Date Received	
Analysis Date	07/14/11 10:51	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	KBL	Diluton Factor	1.00	Code	F8
		View Small Peaks?	False	View deleted peaks?	False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Unidentified	43:44	00:00	0	913842	721809	266358	202740	1.27	ABV/ABV	
	1,2,3,4,7,8-HxCDF	44:59	45:01	-2	955250	759789	272249	212877	1.26	ABV/ABV	
	1,2,3,6,7,8-HxCDF	45:07	45:09	-2	1011167	785466	296864	230414	1.29	AVB/AVV	
	2,3,4,6,7,8-HxCDF	45:50	45:52	-2	932231	741931	267453	215818	1.26	AVV/AVV	
	1,2,3,7,8,9-HxCDF	46:46	46:48	-2	854789	686740	225994	179826	1.24	ABV/ABV	
	Unidentified	46:54	00:00	0	802482	641239	196592	161199	1.25	AVV/AVB	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	223	225	89	90	0.99 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:58	45:00	-2	911563	1699621	261631	474417	0.54	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDF	45:06	45:08	-2	1028749	1894530	298899	552369	0.54	AVV/AVV	
	13C-2,3,4,6,7,8-HxCDF	45:49	45:51	-2	964327	1812731	277610	525207	0.53	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDF	46:45	46:47	-2	890401	1681819	233472	440428	0.53	ABV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	218	188	87	75	1.16	/	
	Unidentified	44:26	00:00	0	687101	533034	213550	166786	1.29	ABV/ABV	
	1,2,3,4,7,8-HxCDD	46:02	46:03	-1	626008	499355	179878	139632	1.25	ABV/ABV	
	1,2,3,6,7,8-HxCDD	46:08	46:10	-2	599914	483488	165986	129225	1.24	AVV/AVB	
	1,2,3,7,8,9-HxCDD	46:32	46:32	0	667113	530173	174336	137004	1.26	AVV/ABV	
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	215	198	86	79	1.09	/	
	13C-1,2,3,4,7,8-HxCDD	46:01	46:02	-1	1165268	902391	340957	258106	1.29	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDD	46:07	46:09	-2	1129789	898395	299439	245316	1.26	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDD	46:30	46:32	-2	1259954	989494	331817	260899	1.27	AVV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	178	165	71	66	1.08	/	
	1,2,3,4,6,7,8-HpCDF	49:11	49:09	2	856112	821805	202175	190743	1.04	ABV/ABV	
	1,2,3,4,7,8,9-HpCDF	51:31	51:27	4	694693	678993	140190	144637	1.02	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	173	175	69	70	0.99 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:10	49:08	2	686185	1474856	155955	345525	0.47	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:30	51:26	4	615639	1336611	129580	276702	0.46	ABV/ABV	
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	215	260	86	104	0.83 *	/	
	Unidentified	49:40	00:00	0	572480	553836	127312	124038	1.03	ABV/ABV	
	1,2,3,4,6,7,8-HpCDD	50:53	50:48	5	533300	507353	107404	104109	1.05	ABV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	188	150	75	60	1.25 *	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:52	50:47	5	1004356	929104	200024	182217	1.08	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	153	303	61	121	0.50 *	/	
	OCDF	55:19	55:16	3	1084332	1180841	287755	300601	0.92	ABV/ABV	M
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window. W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110714s3/b110714w1.	Prep Date		SDG No	
Analysis ID	133609	Prep Exp Date		Date Received	
Analysis Date	07/14/11 10:51	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	KBL	Diluton Factor	1.00	Code	F8

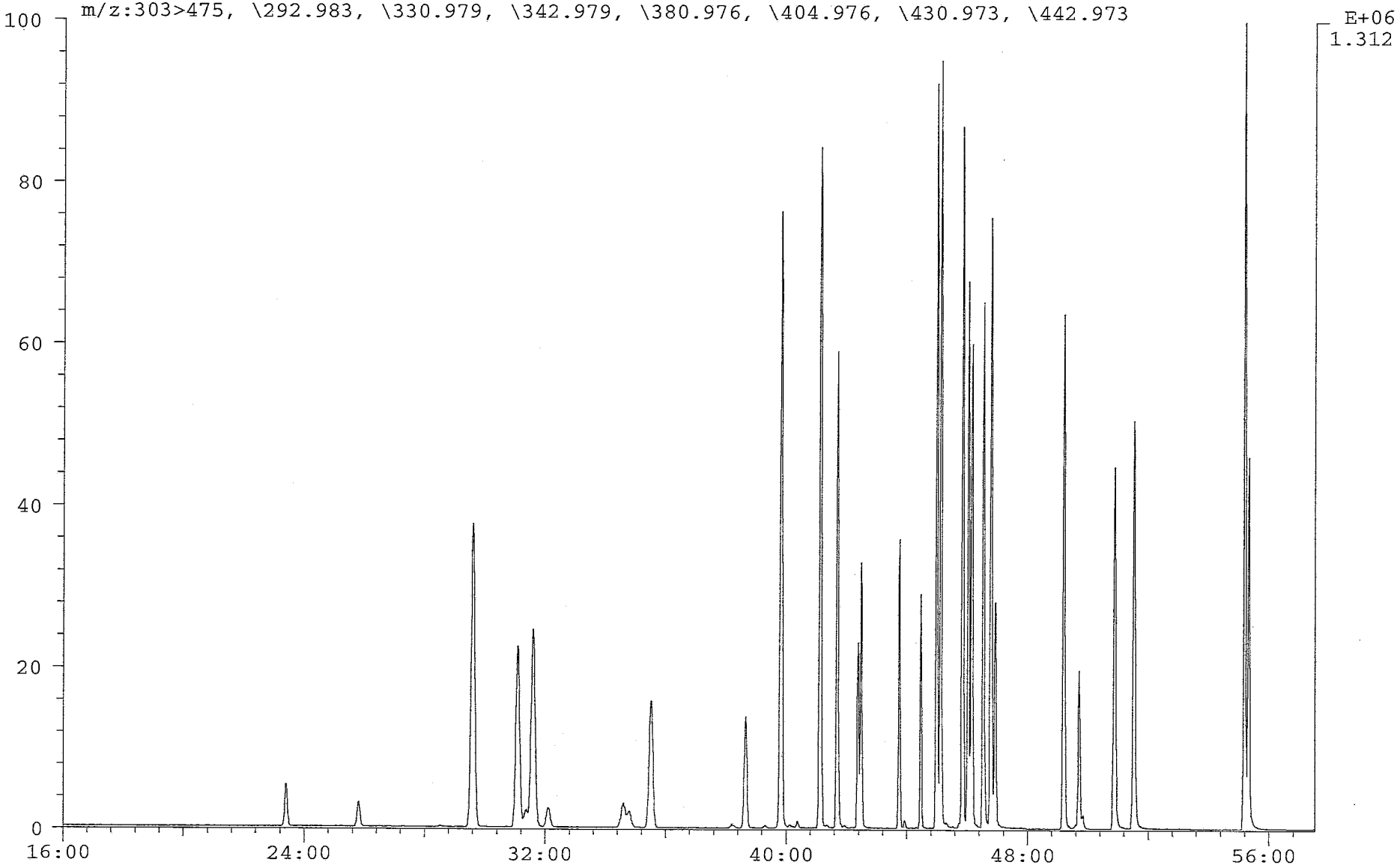
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	173	193	69	77	0.90	/	
	OCDD	55:11	55:08	3	886058	994943	225653	252422	0.89	ABV/ABV	M
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	255	220	102	88	1.16 *	/	
	13C-OCDD	55:10	55:07	3	1553476	1711985	405634	435467	0.91	ABV/ABV	

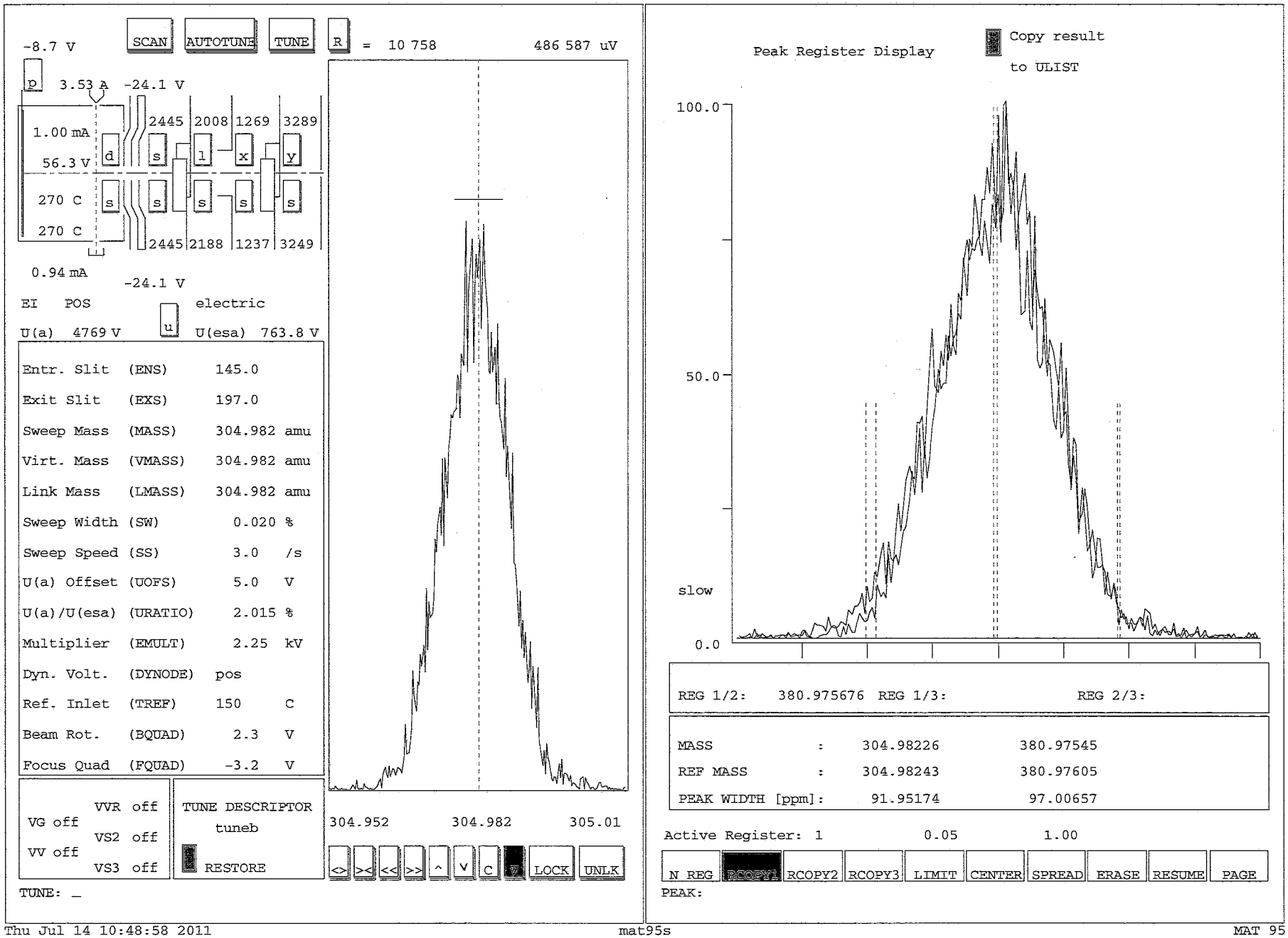
Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

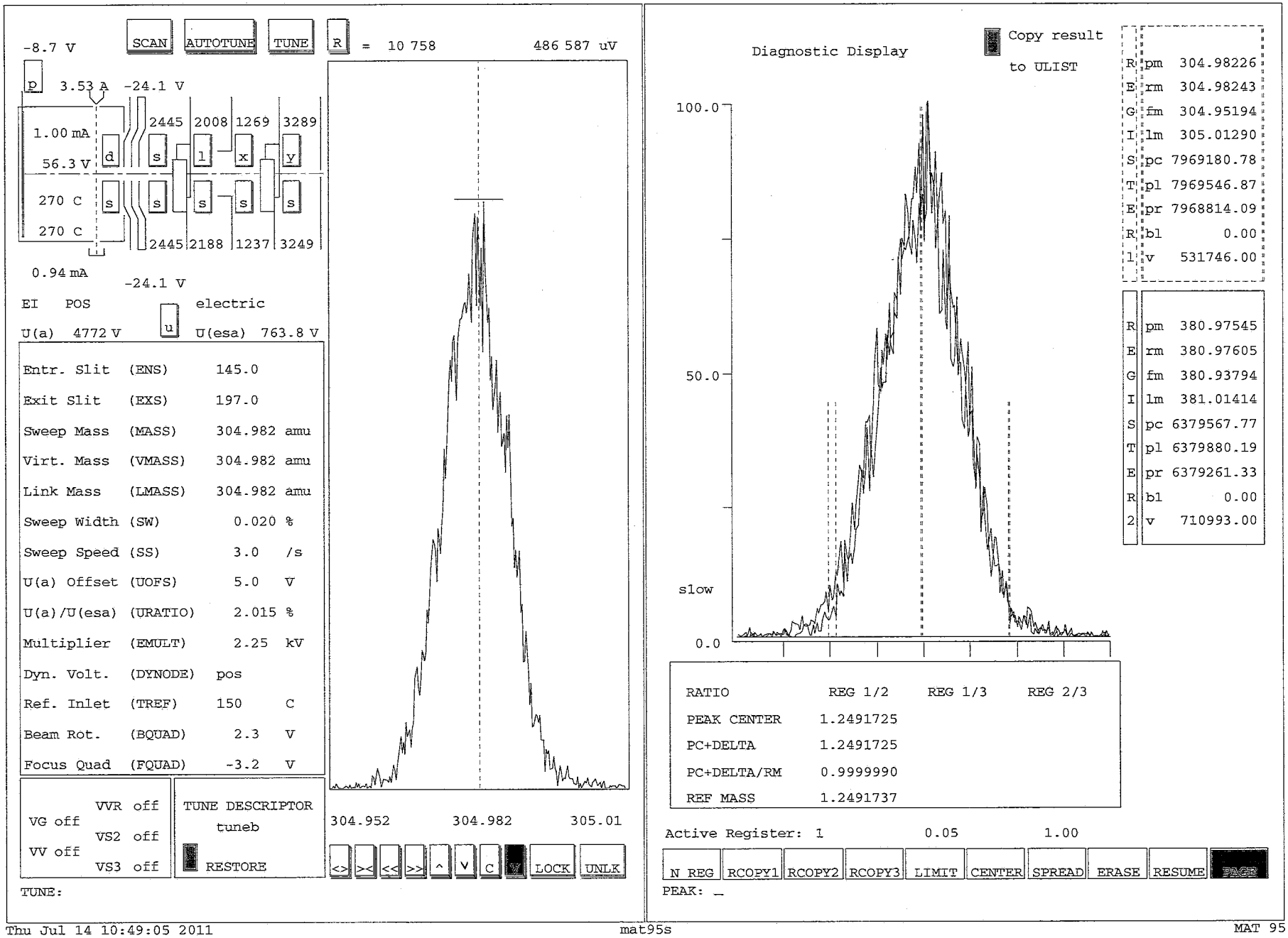
unt/calc lam 7-14-11
qc pmp 7-14-1

CHRO: b110714w1 14-Jul-11 Elapse: 08:00.4 1
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 442 > 2754 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



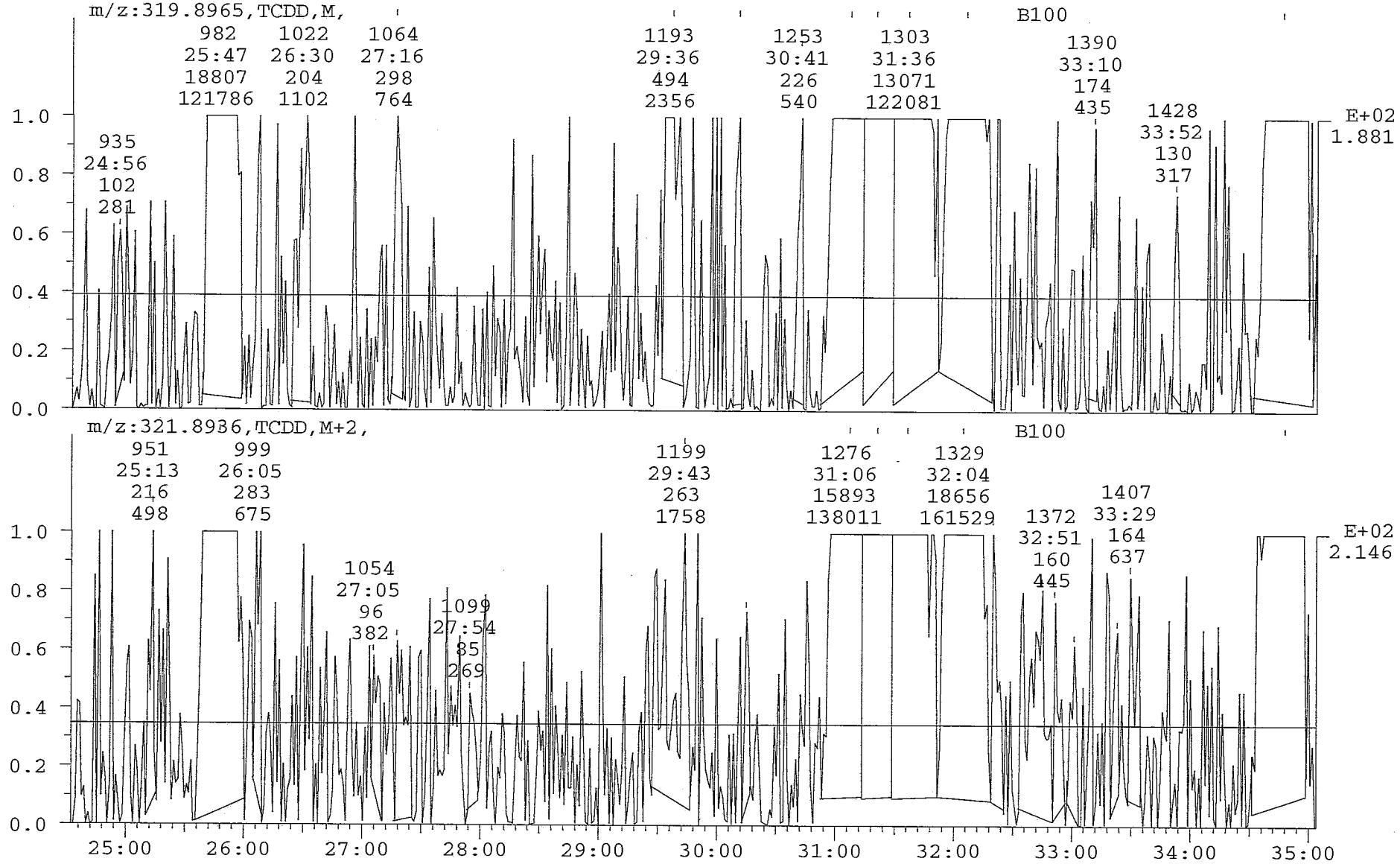
H-584


SCAN
AUTOTUNE
TUNE
R
-8.7 V
= 10 758
486 587 uV
p
3.53 A
-24.1 V
1.00 mA
56.3 V
270 C
270 C
0.94 mA
-24.1 V
2445 2008 1269 3289
2445 2188 1237 3249
d
s
l
x
y
EI POS
electric
U(a) 4769 V
U(esa) 763.8 V
Entr. Slit (ENS) 145.0
Exit Slit (EXS) 197.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.015 %
Multiplier (EMULT) 2.25 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.3 V
Focus Quad (FQUAD) -3.2 V
VG off
VV off
VVR off
VS2 off
VS3 off
TUNE DESCRIPTOR
tuneb
RESTORE
304.952
304.982
305.01
<>
><
<<
>>
^
v
C
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 380.975676 REG 1/3: REG 2/3:
MASS : 304.98226 380.97545
REF MASS : 304.98243 380.97605
PEAK WIDTH [ppm]: 91.95174 97.00657
Active Register: 1 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Thu Jul 14 10:48:58 2011
mat95s
MAT 95



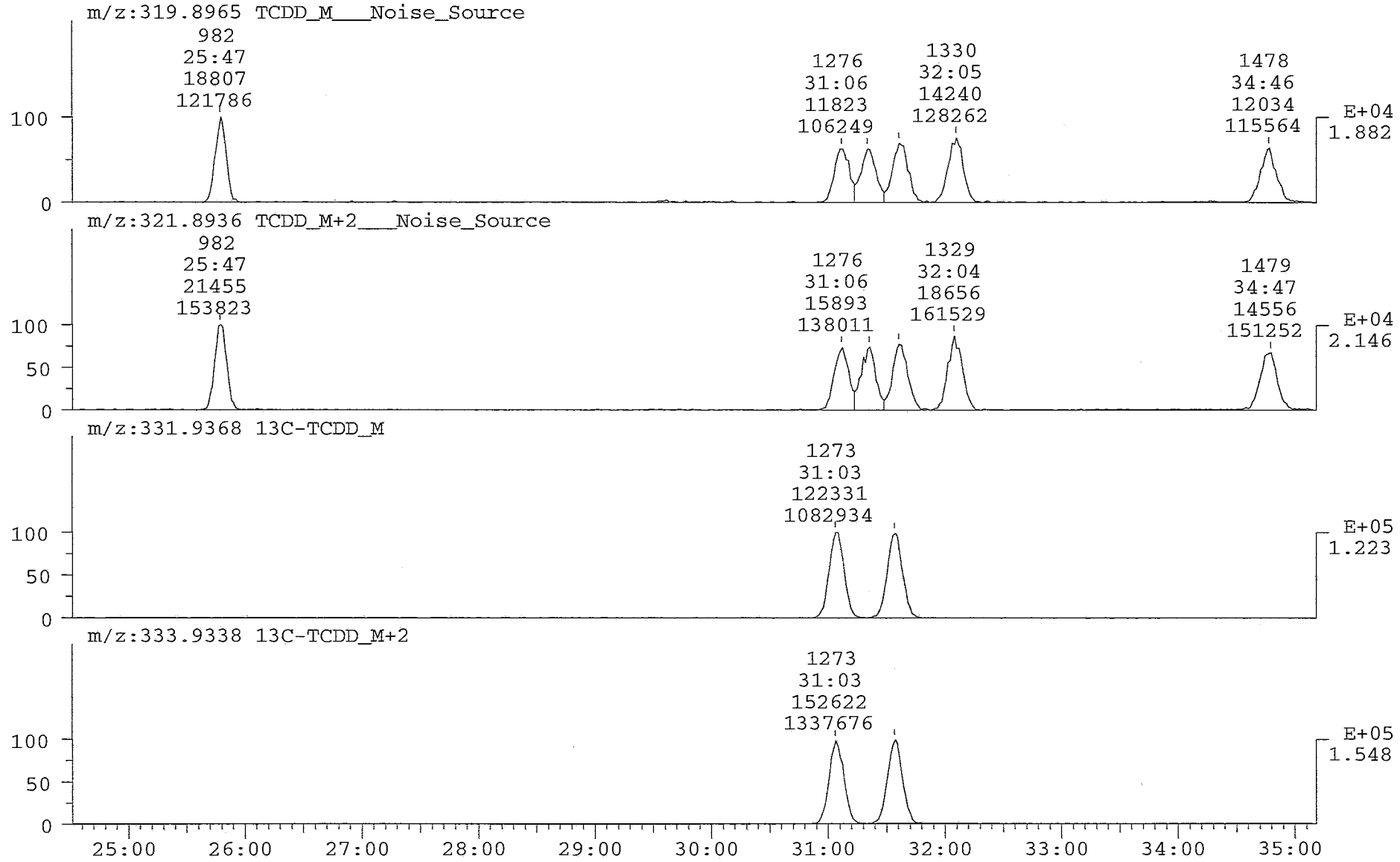
Thu Jul 14 10:49:05 2011 mat95s MAT 95

CHRO: b110714w1 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 913 > 1494 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 1.0
Disp: Height Area



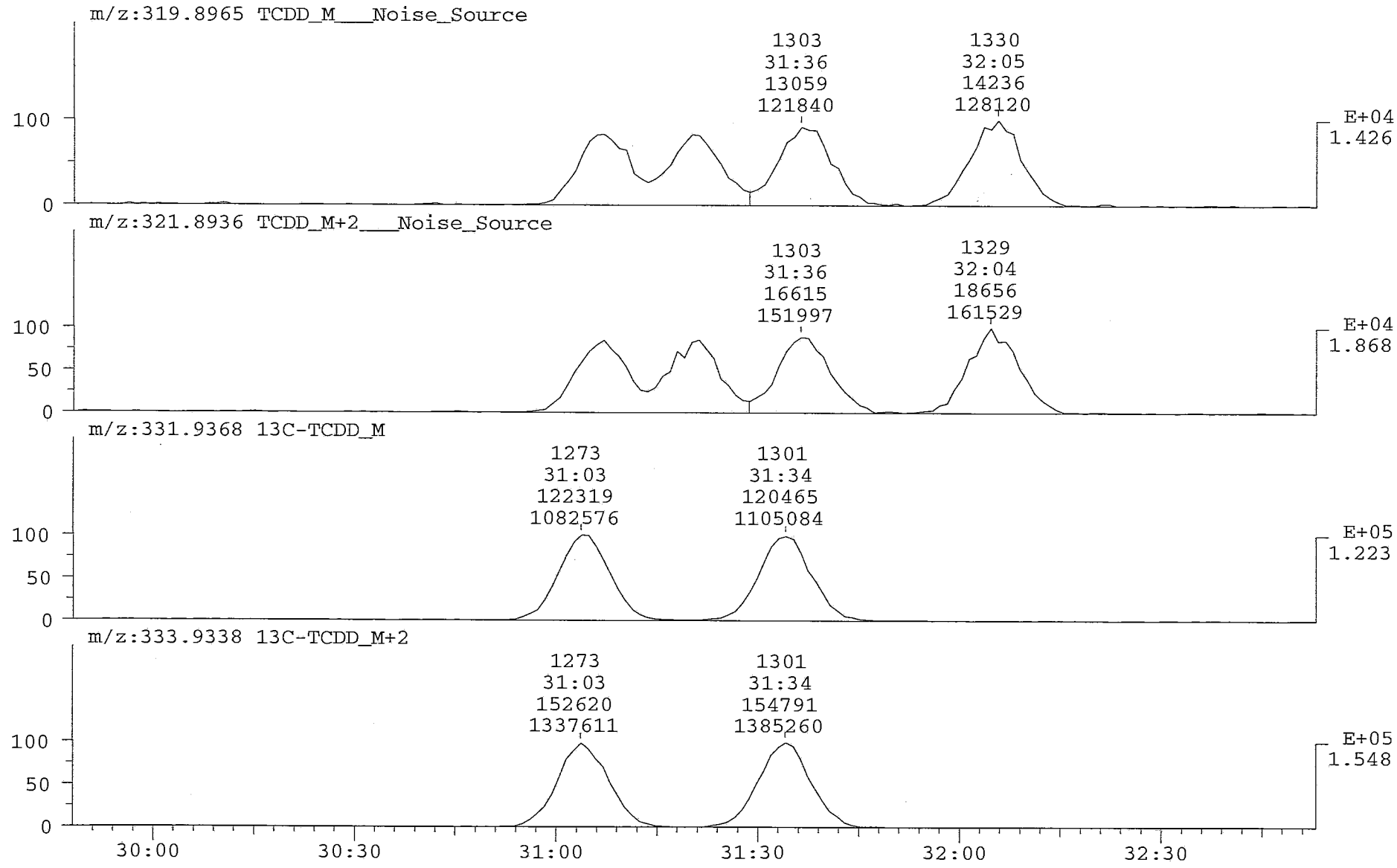
H-587

CHRO: b110714w1 14-Jul-11 Elapse: 08:00.4 1
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 912 > 1499 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



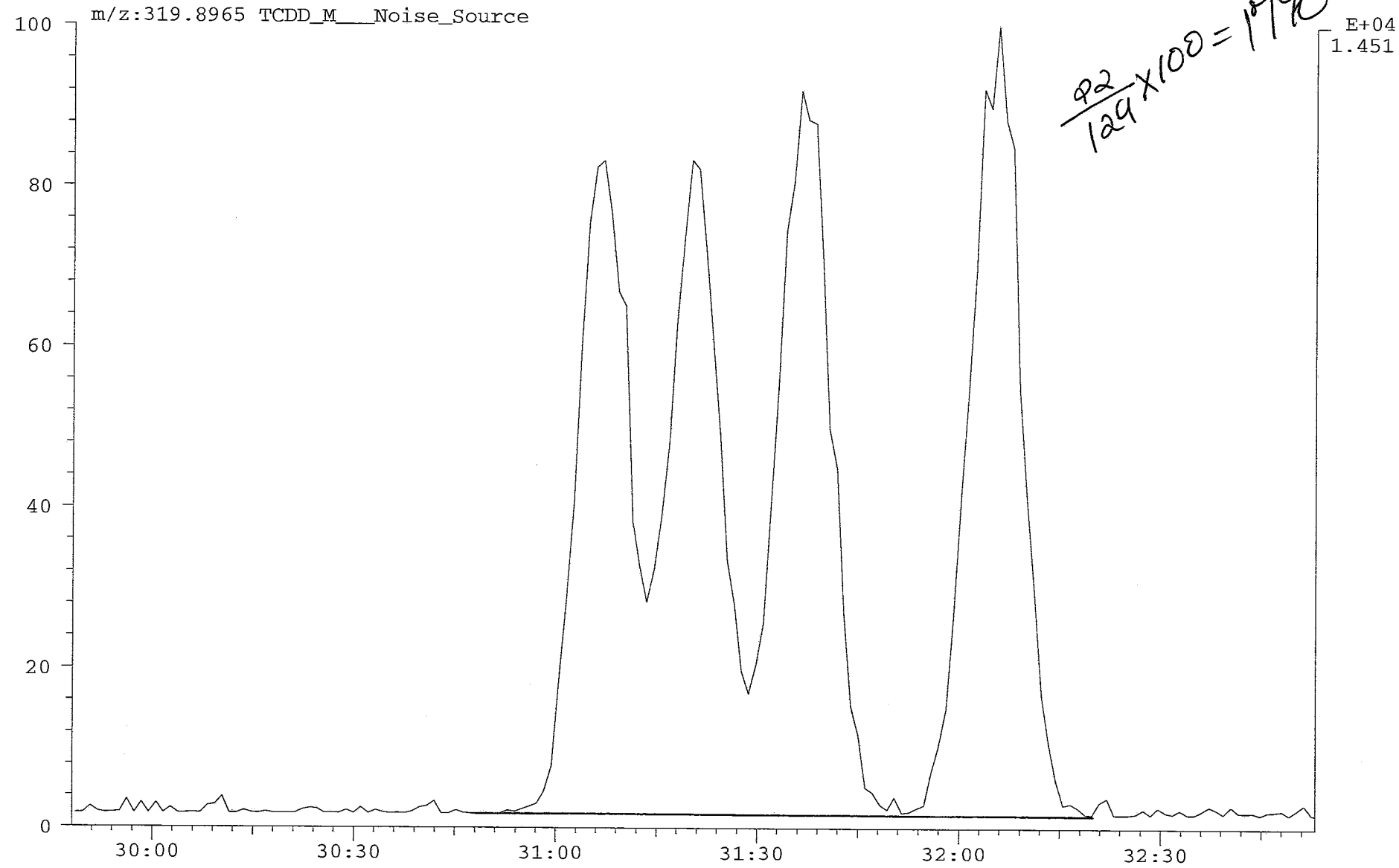
H-588

CHRO: b110714w1 14-Jul-11 Elapse: 31:19 1288
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1204 > 1374 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-589

CHRO: b110714w1 14-Jul-11 Elapse: 31:19 1288
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1204 > 1374 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

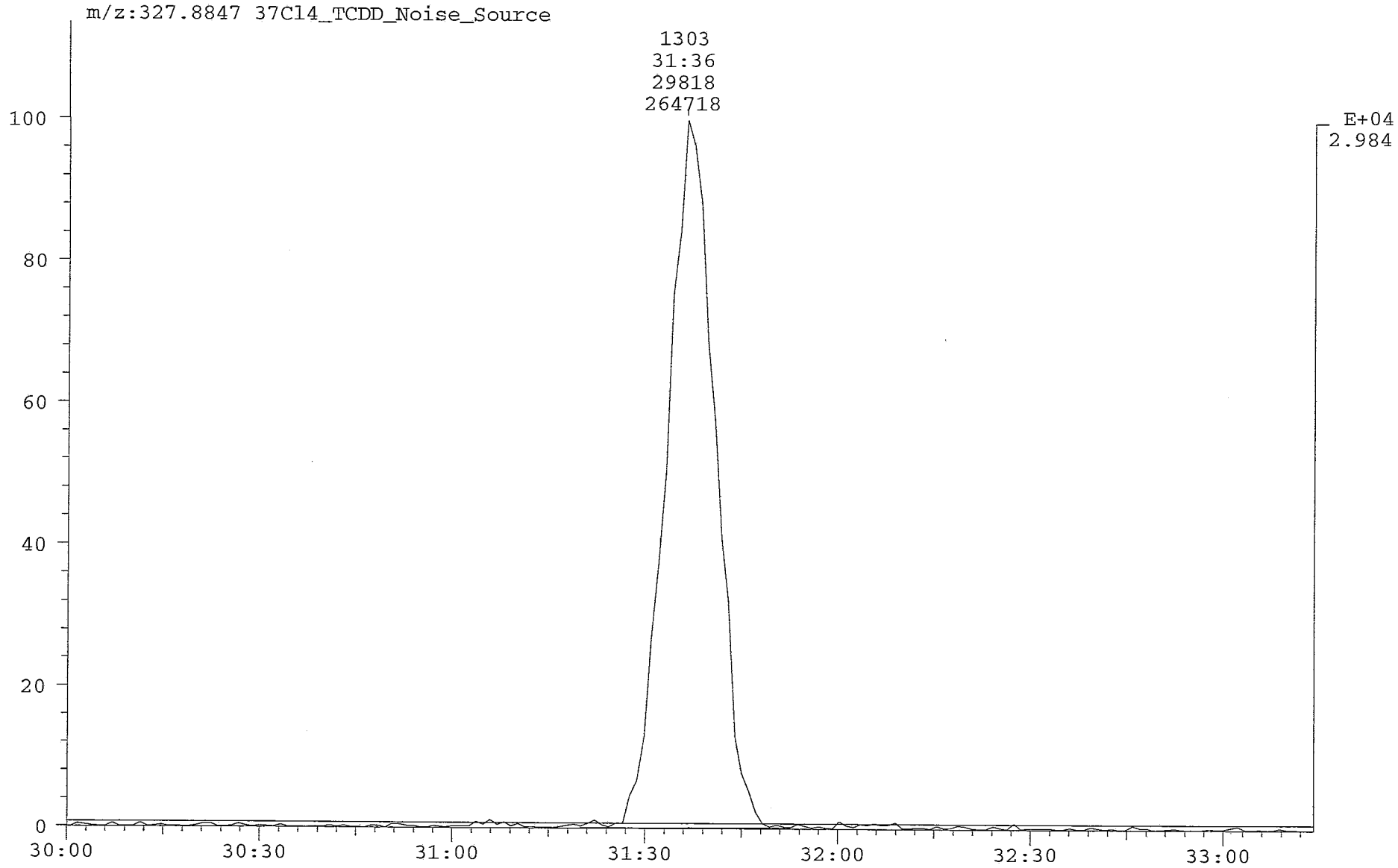


$\frac{92}{129} \times 100 = 1990$

H-590

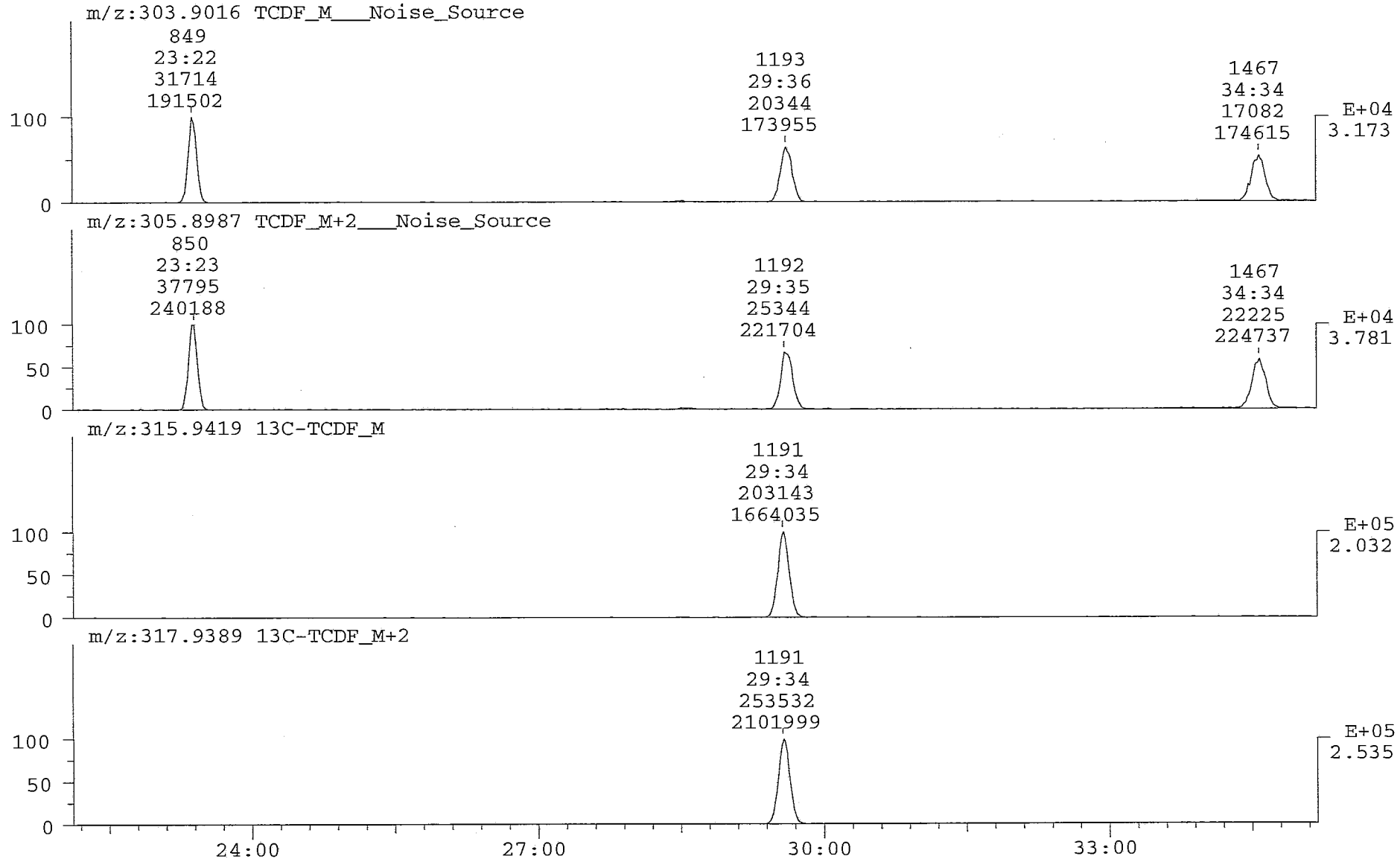
589

CHRO: b110714w1 14-Jul-11 Elapse: 31:34 1301
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1215 > 1393 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



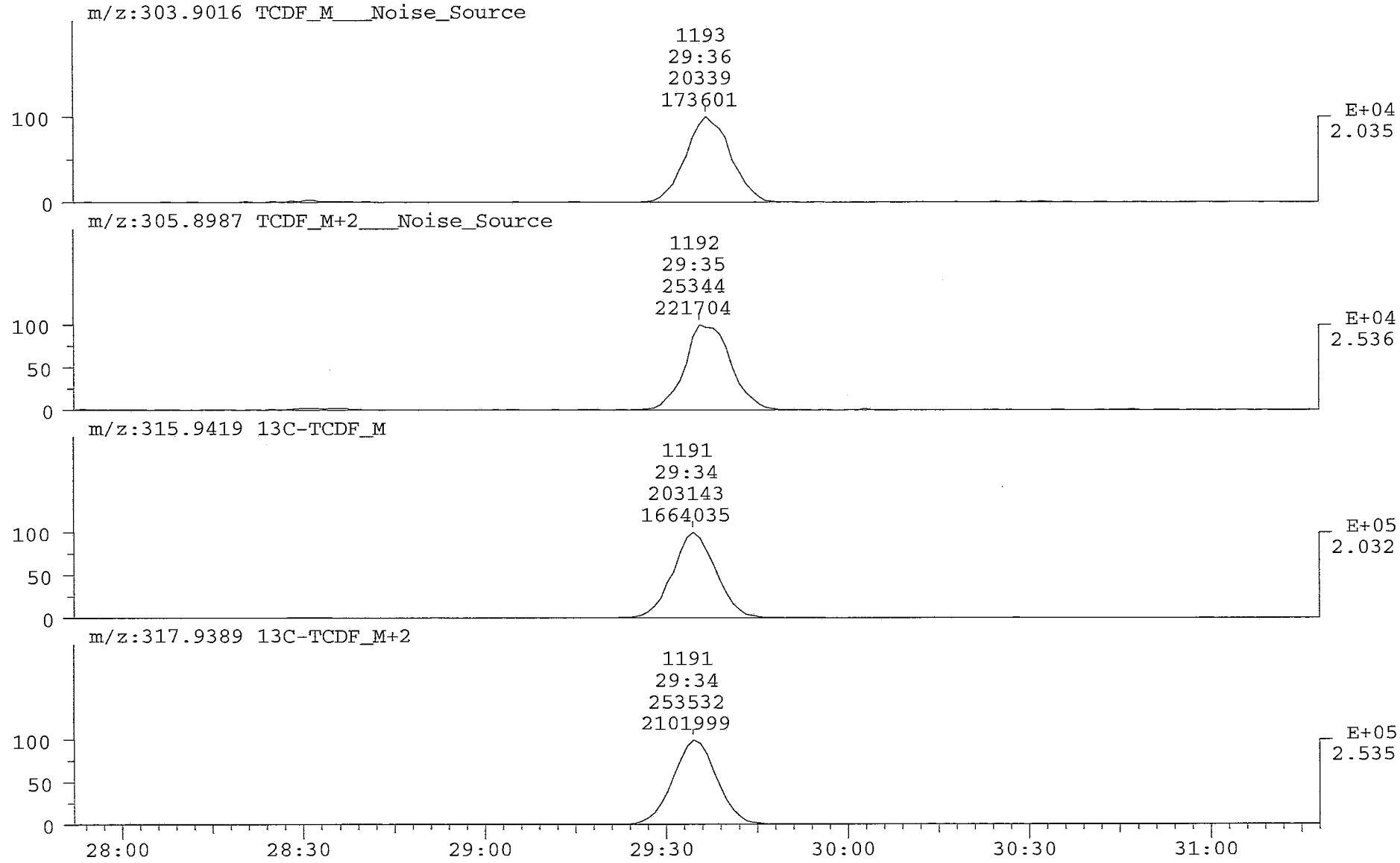
H-591

CHRO: b110714w1 14-Jul-11 Elapse: 31:34 1301
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 780 > 1499 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



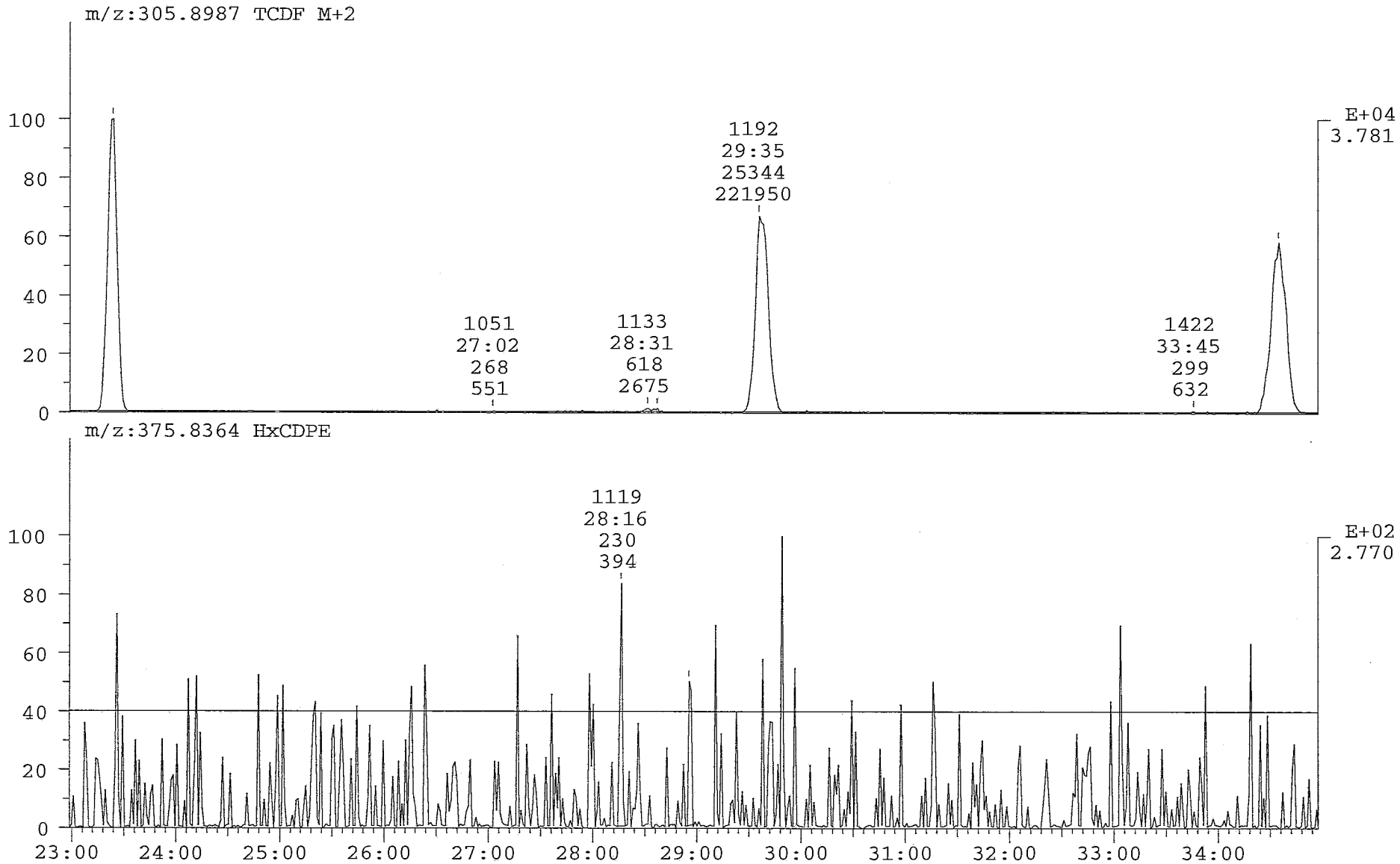
H-592

CHRO: b110714w1 14-Jul-11 Elapse: 29:32 1189
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1097 > 1286 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



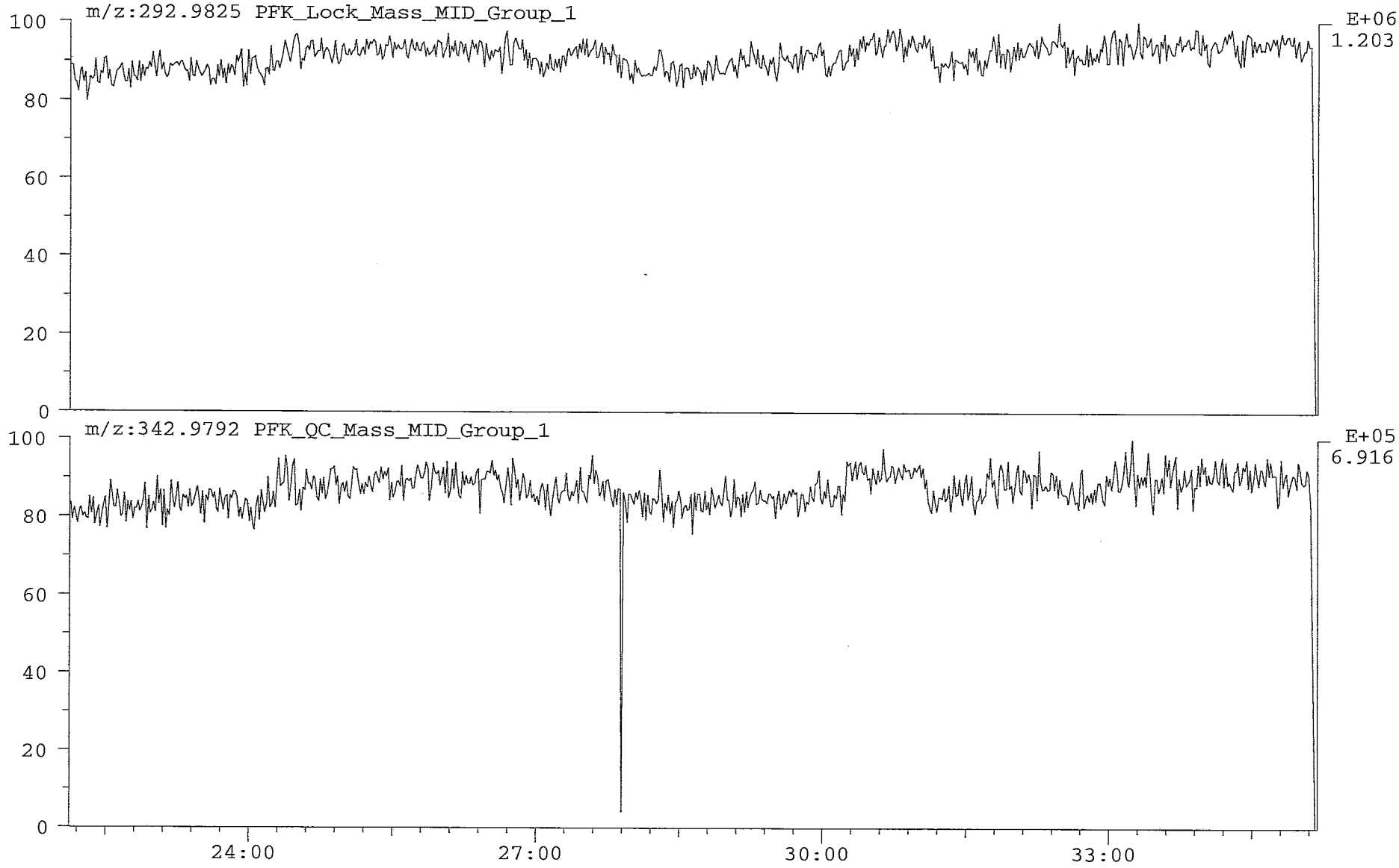
H-593

CHRO: b110714w1 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 827 > 1488 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



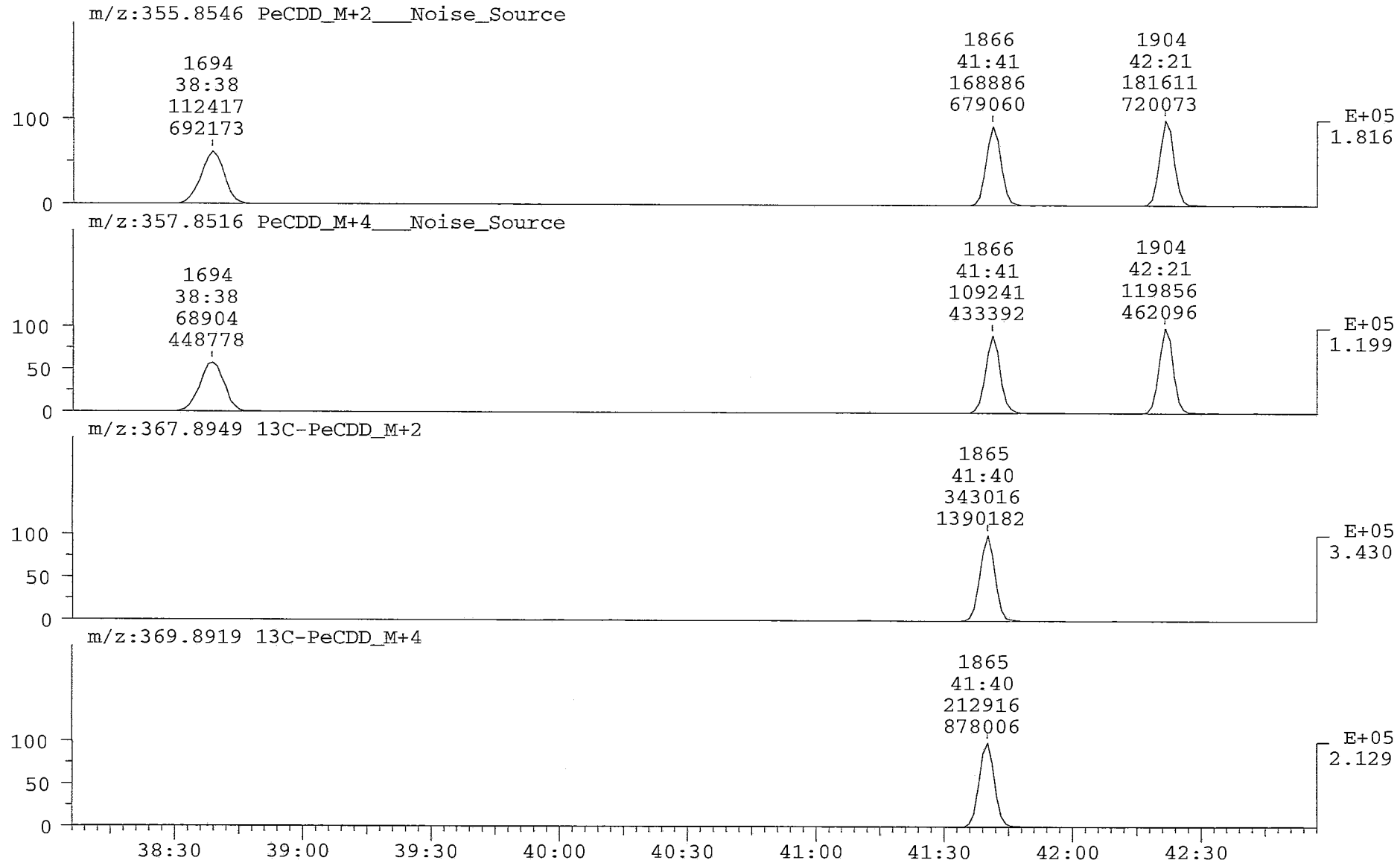
H-594

CHRO: b110714w1 14-Jul-11 Elapse: 29:32 1189
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 780 > 1499 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



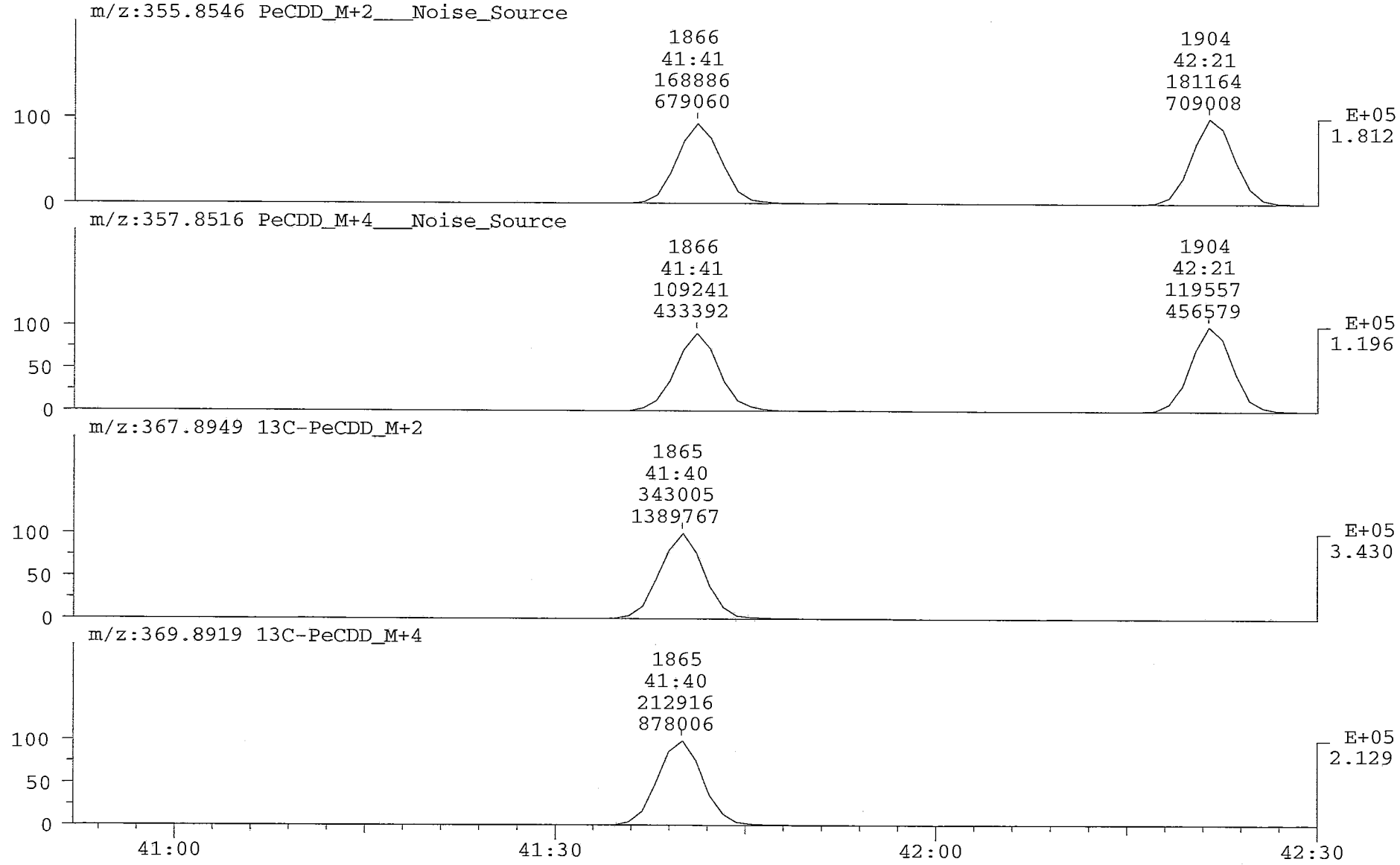
H-595

CHRO: b110714w1 14-Jul-11 Elapse: 29:32 1189
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1663 > 1938 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-596

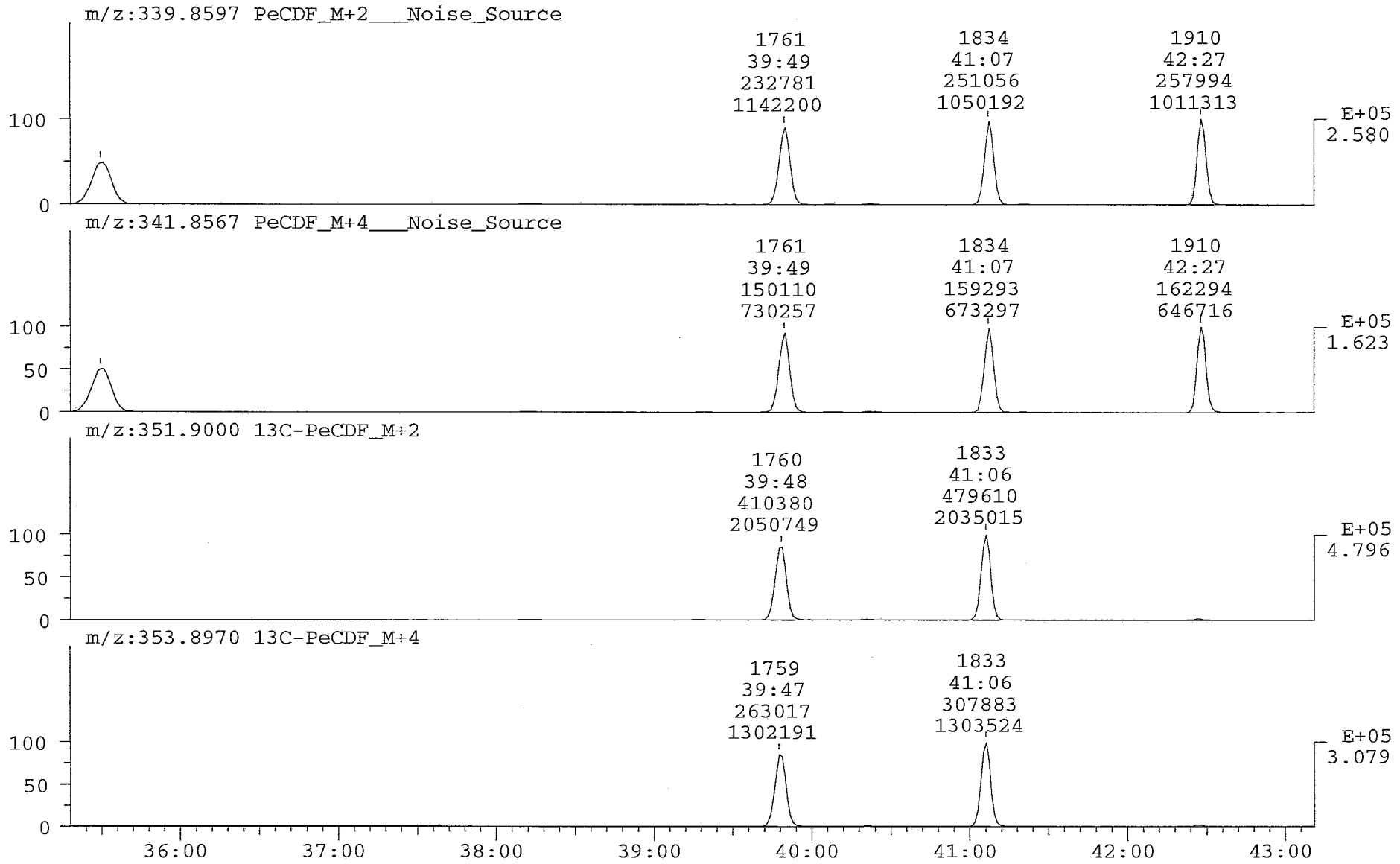
CHRO: b110714w1 14-Jul-11 Elapse: 41:37 1863
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1820 > 1912 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-597

596

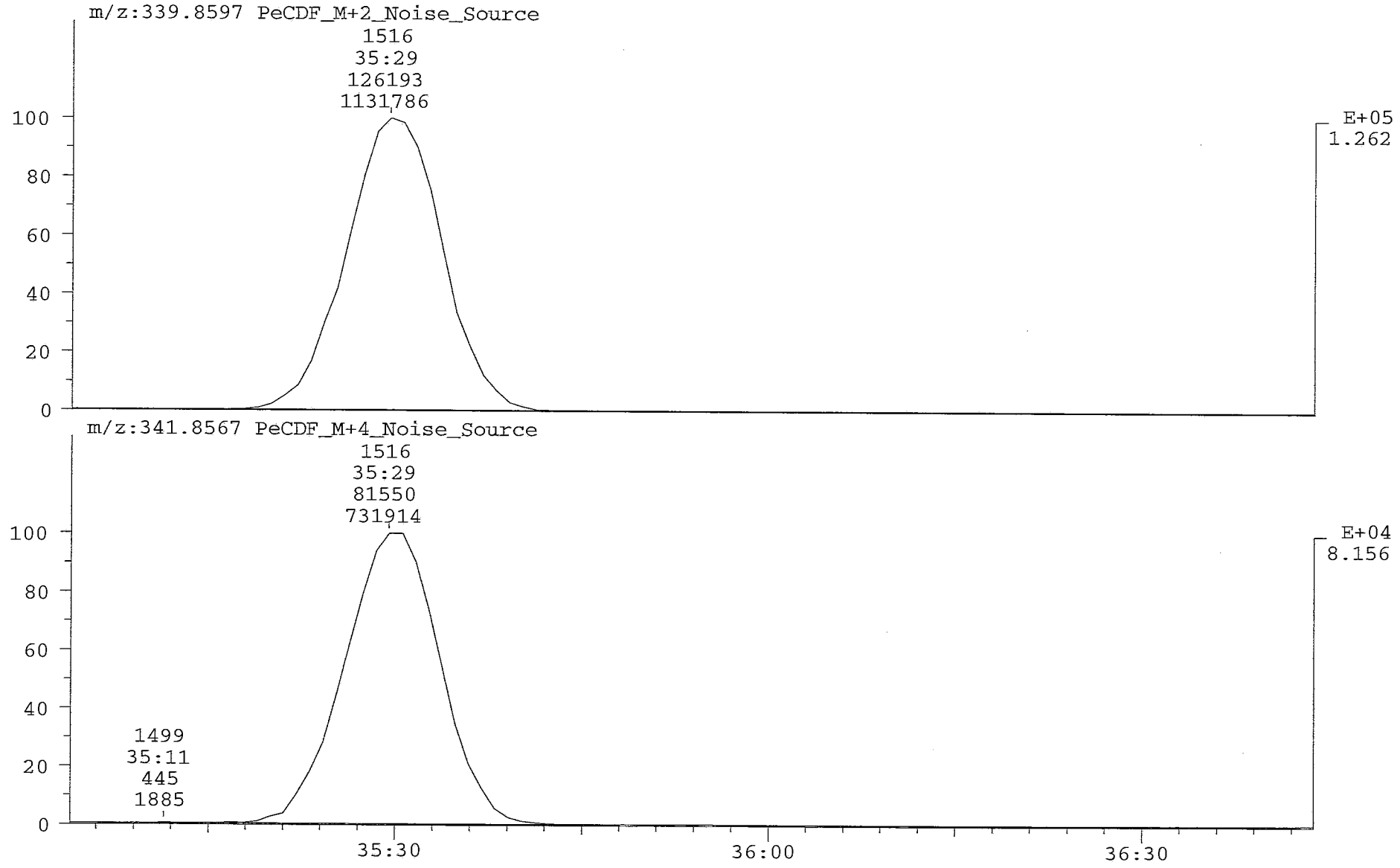
CHRO: b110714w1 14-Jul-11 Elapse: 41:37 1863
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1505 > 1950 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-598

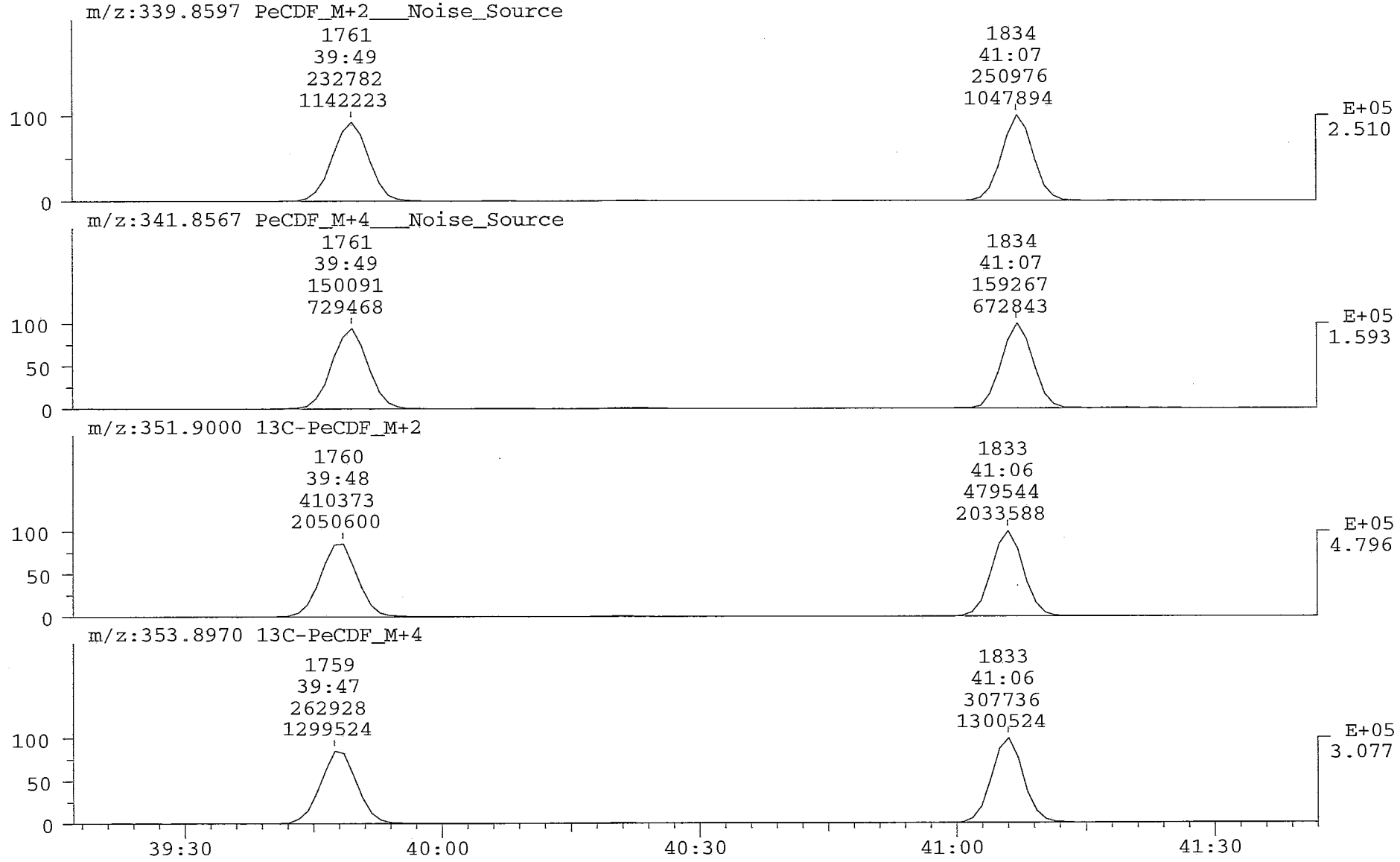
597

CHRO: b110714w1 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1494 > 1586 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



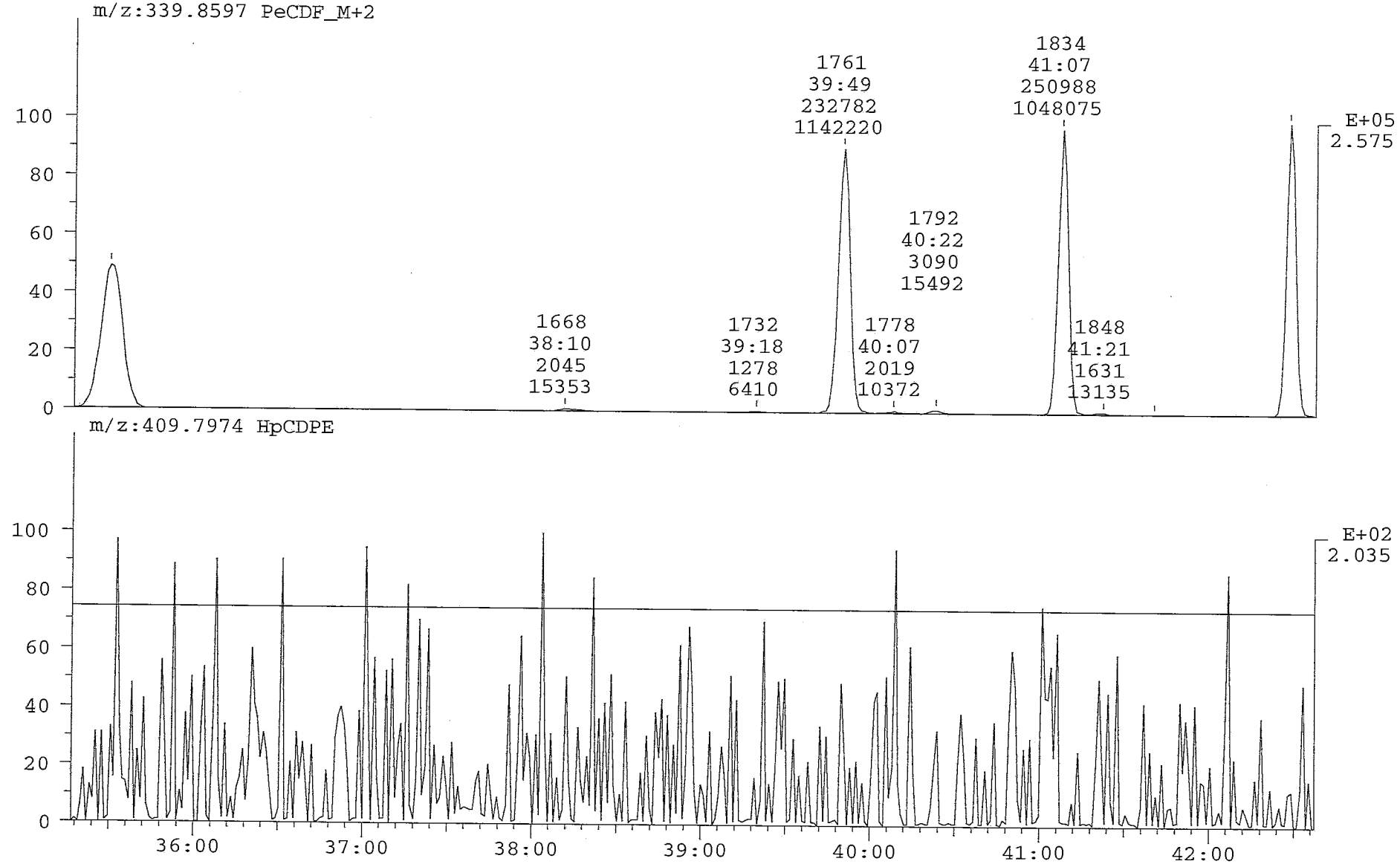
H-599

CHRO: b110714w1 14-Jul-11 Elapse: 40:28 1798
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1730 > 1867 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



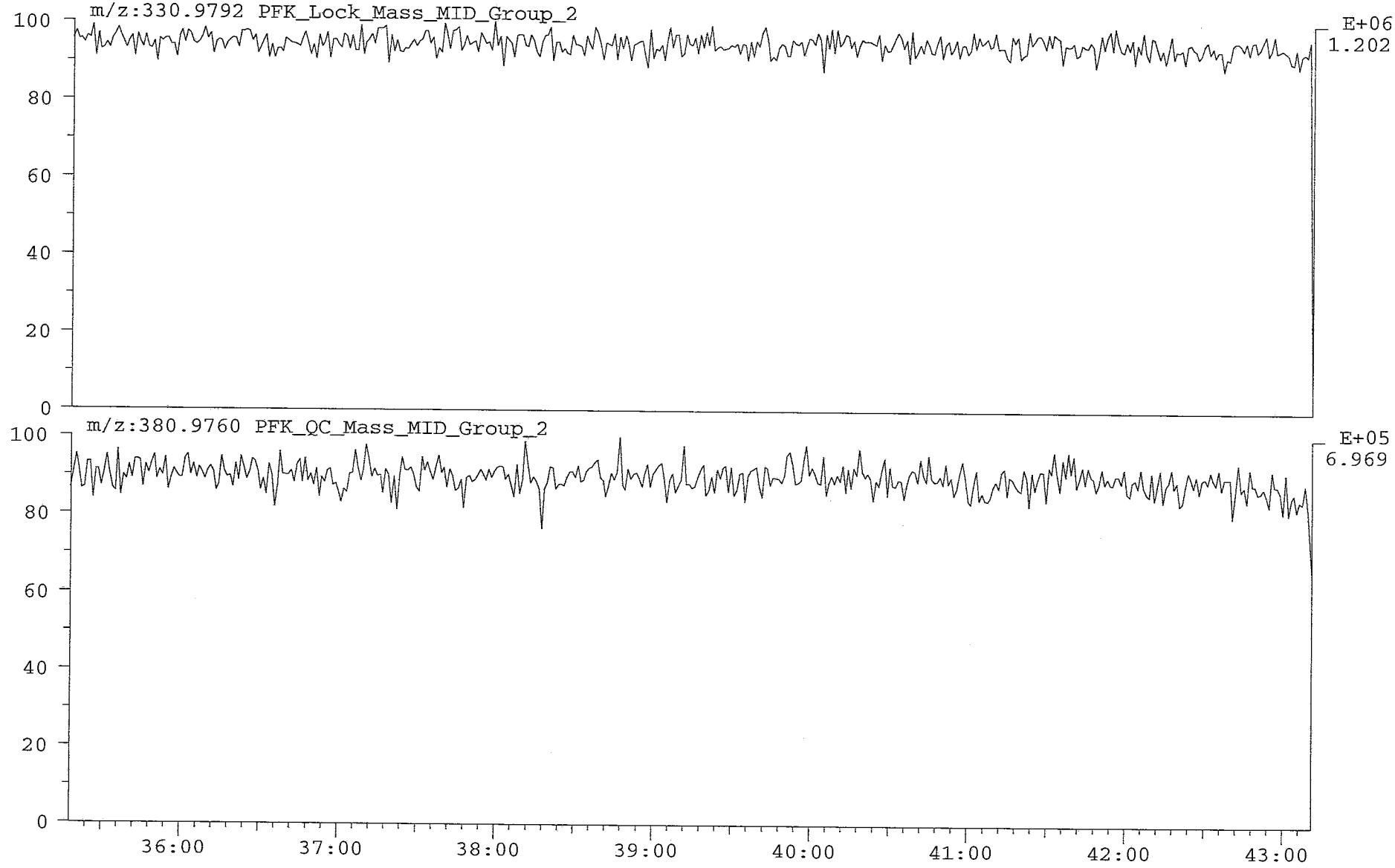
H-600

CHRO: b110714w1 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1504 > 1919 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-601

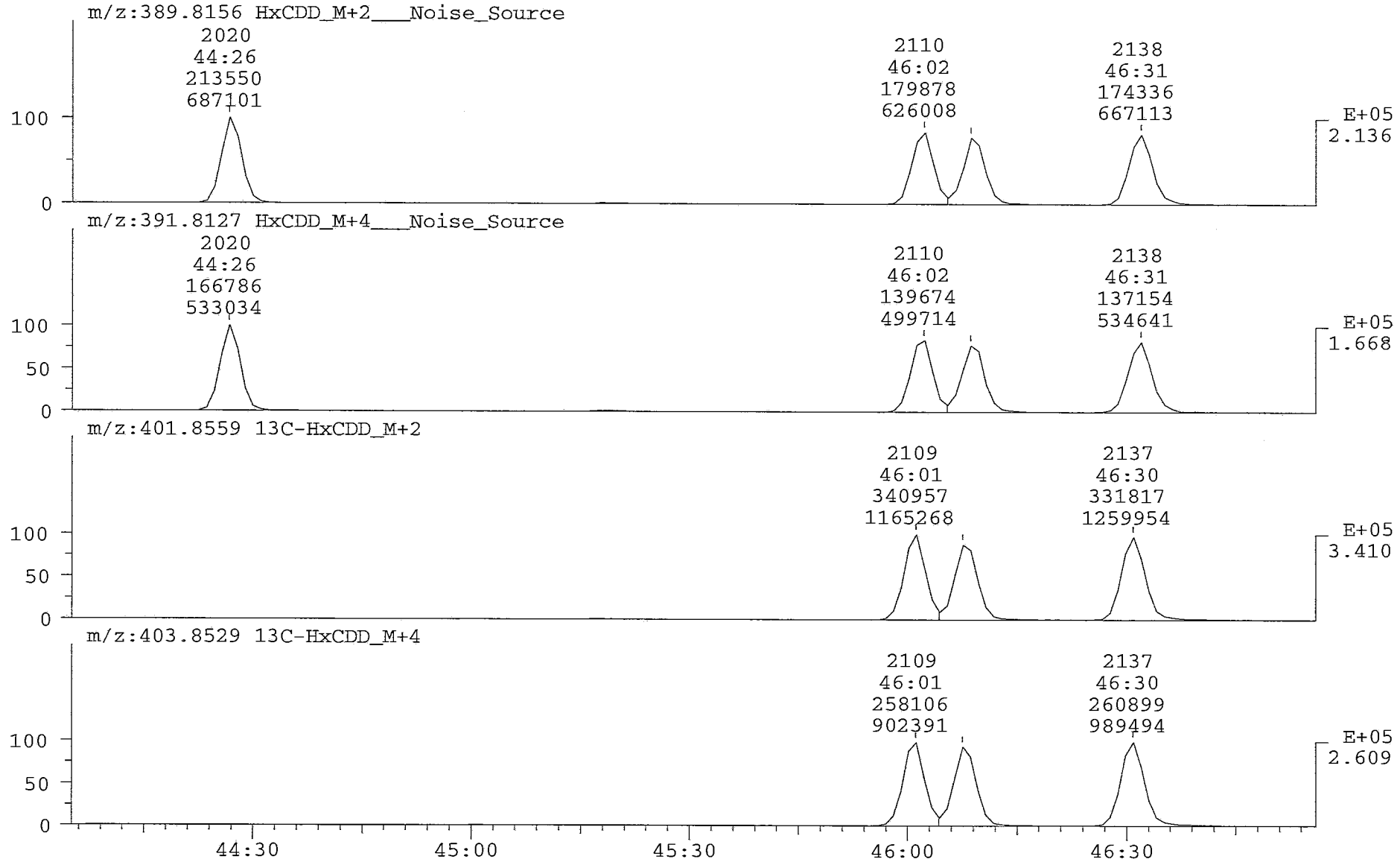
CHRO: b110714w1 14-Jul-11 Elapse: 40:28 1798
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1505 > 1950 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-602

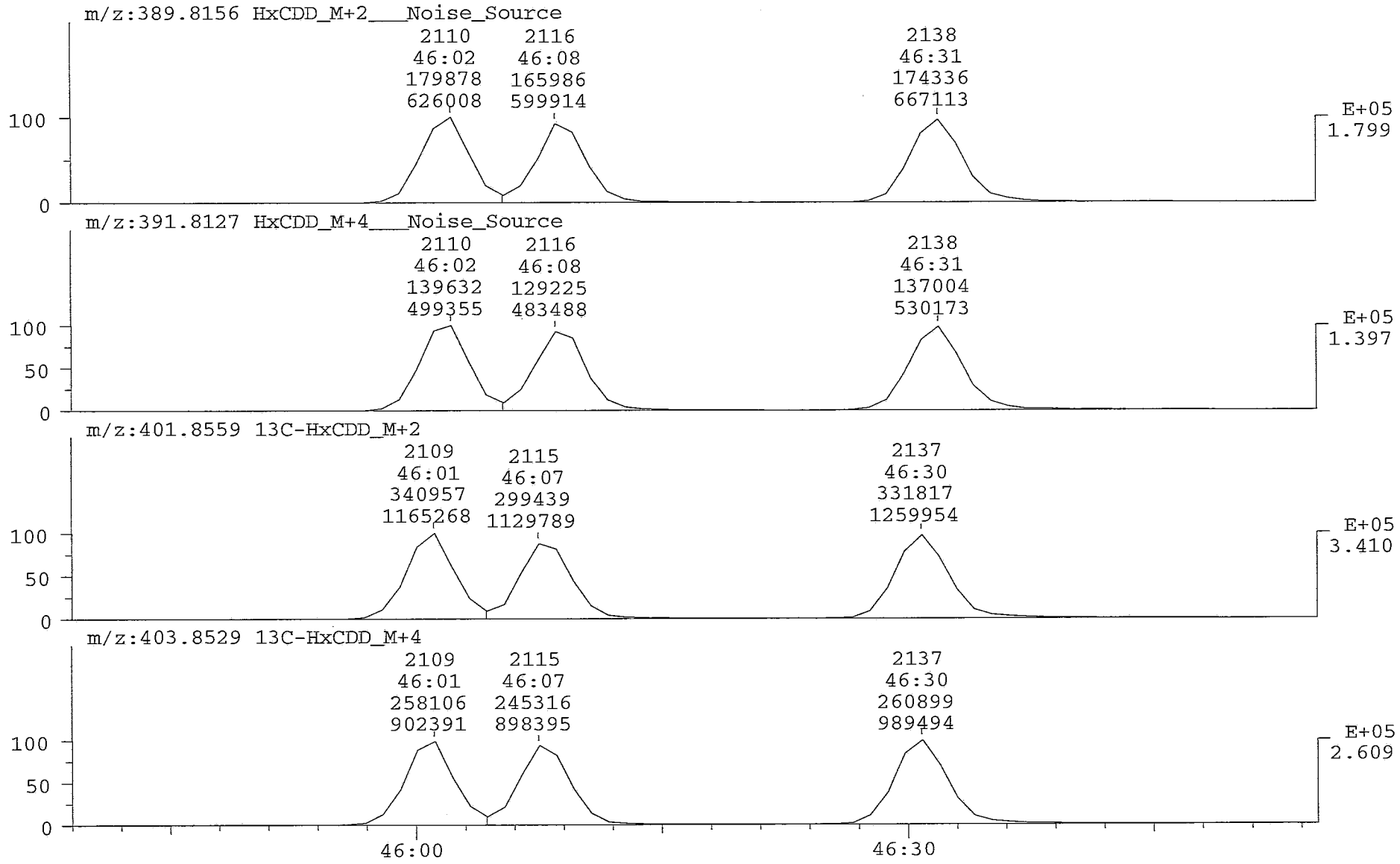
601

CHRO: b110714w1 14-Jul-11 Elapse: 40:28 1798
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2000 > 2161 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



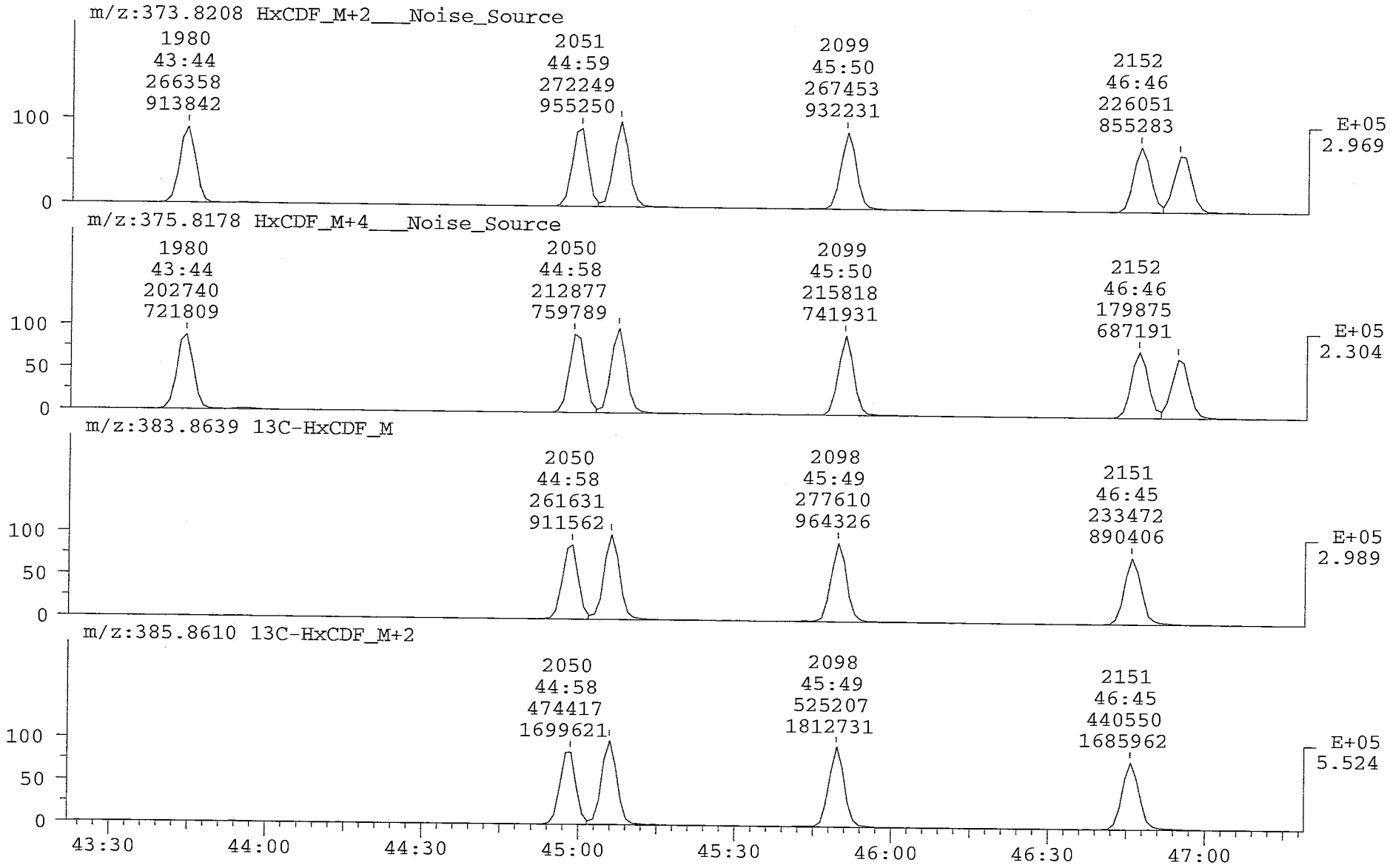
H-603

CHRO: b110714w1 14-Jul-11 Elapse: 46:17 2124
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2088 > 2160 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



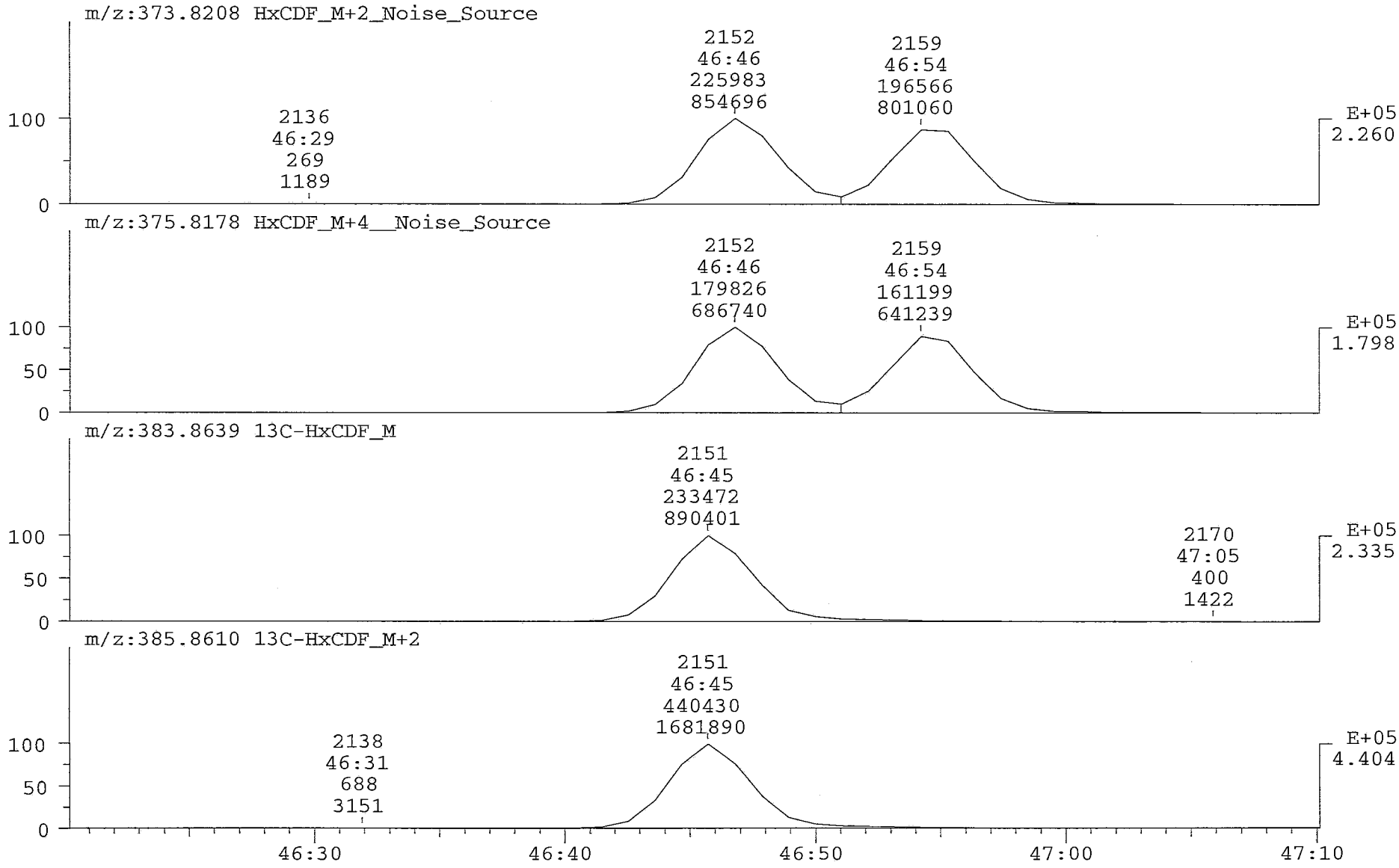
H-604

CHRO: b110714w1 14-Jul-11 Elapse: 46:17 2124
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1959 > 2182 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-605

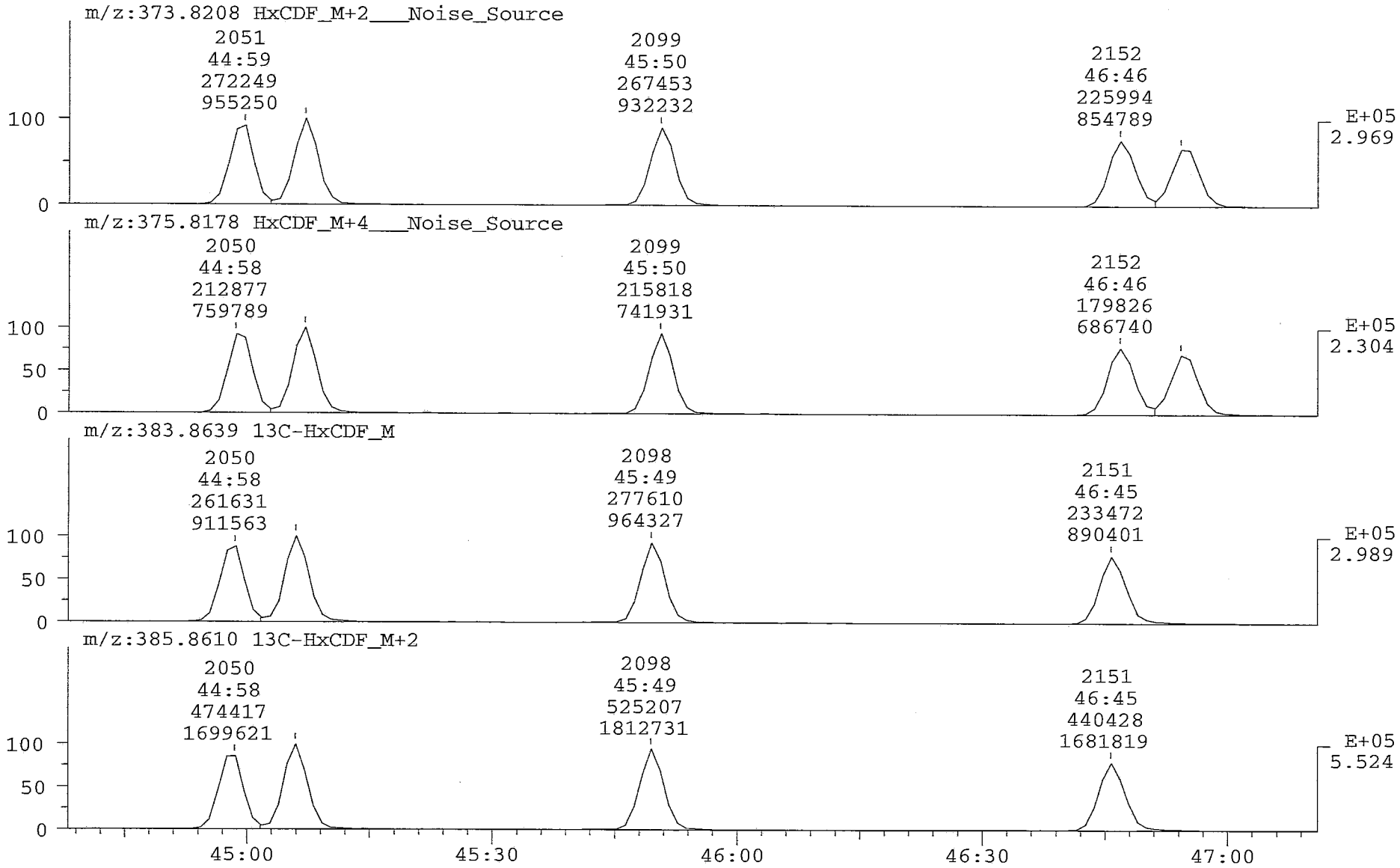
CHRO: b110714w1 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2127 > 2174 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-606

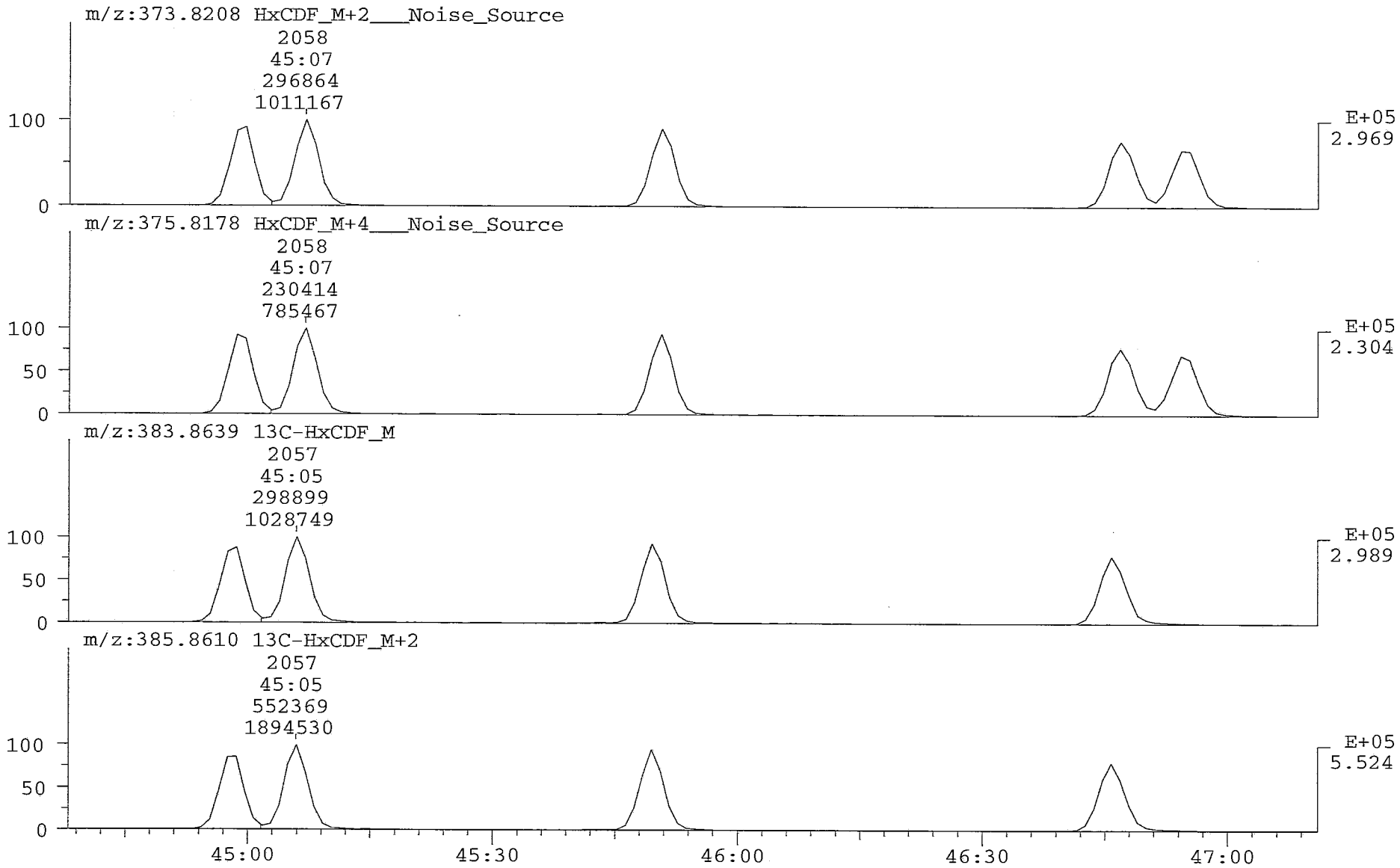
605

CHRO: b110714w1 14-Jul-11 Elapse: 45:53 2102
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2031 > 2175 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-607

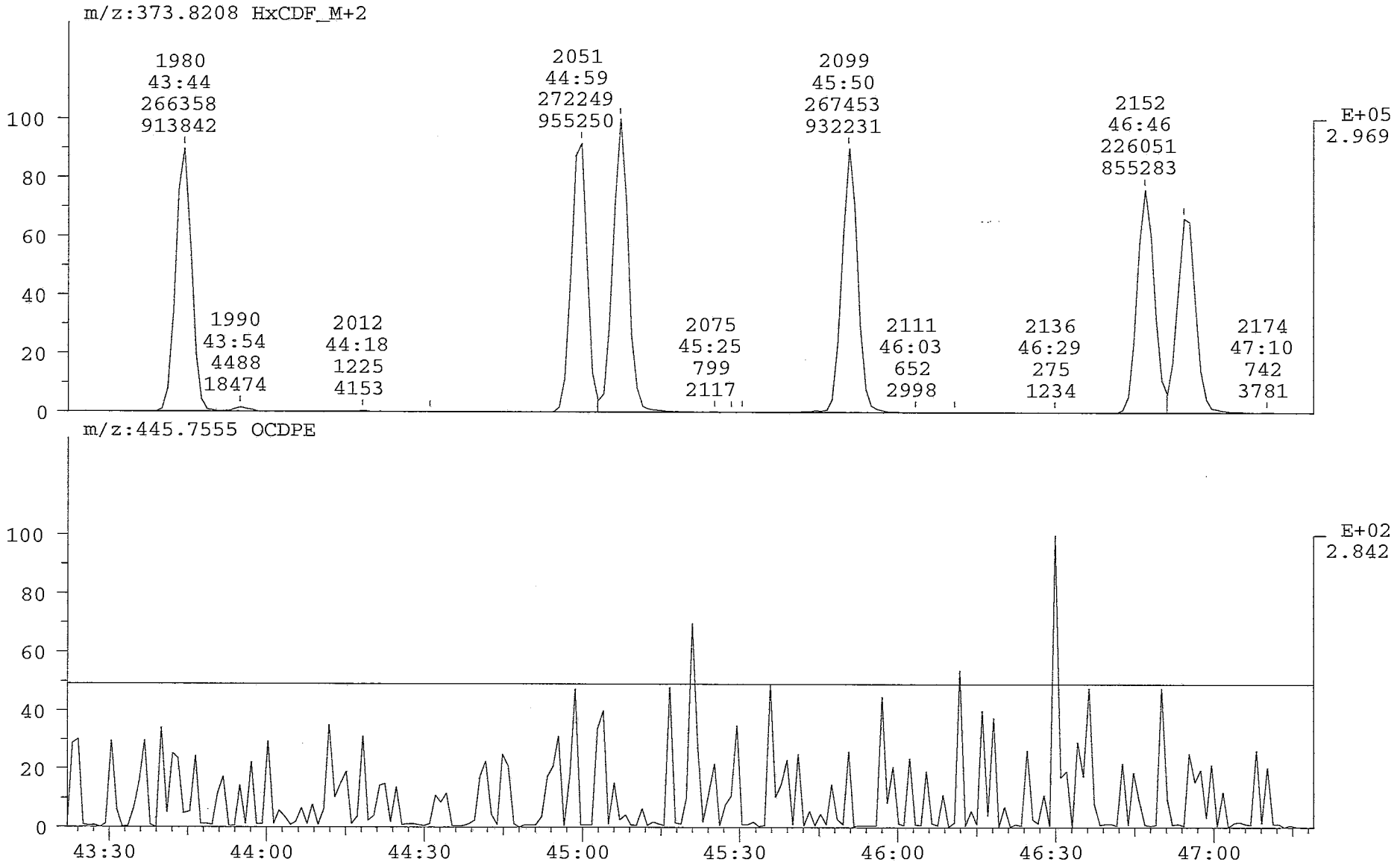
CHRO: b110714w1 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2052 > 2060 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-608

607

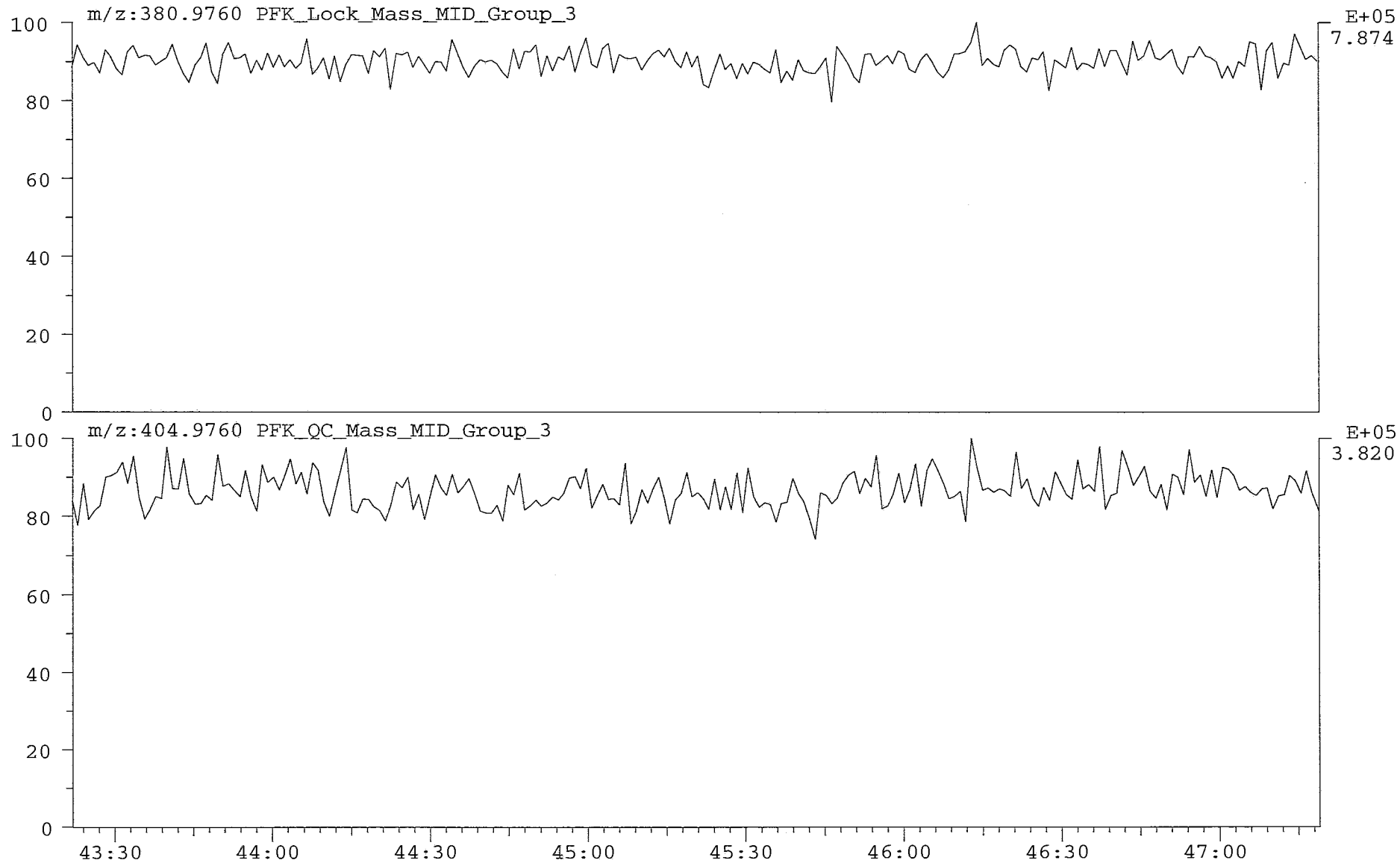
CHRO: b110714w1 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1959 > 2182 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-609

609

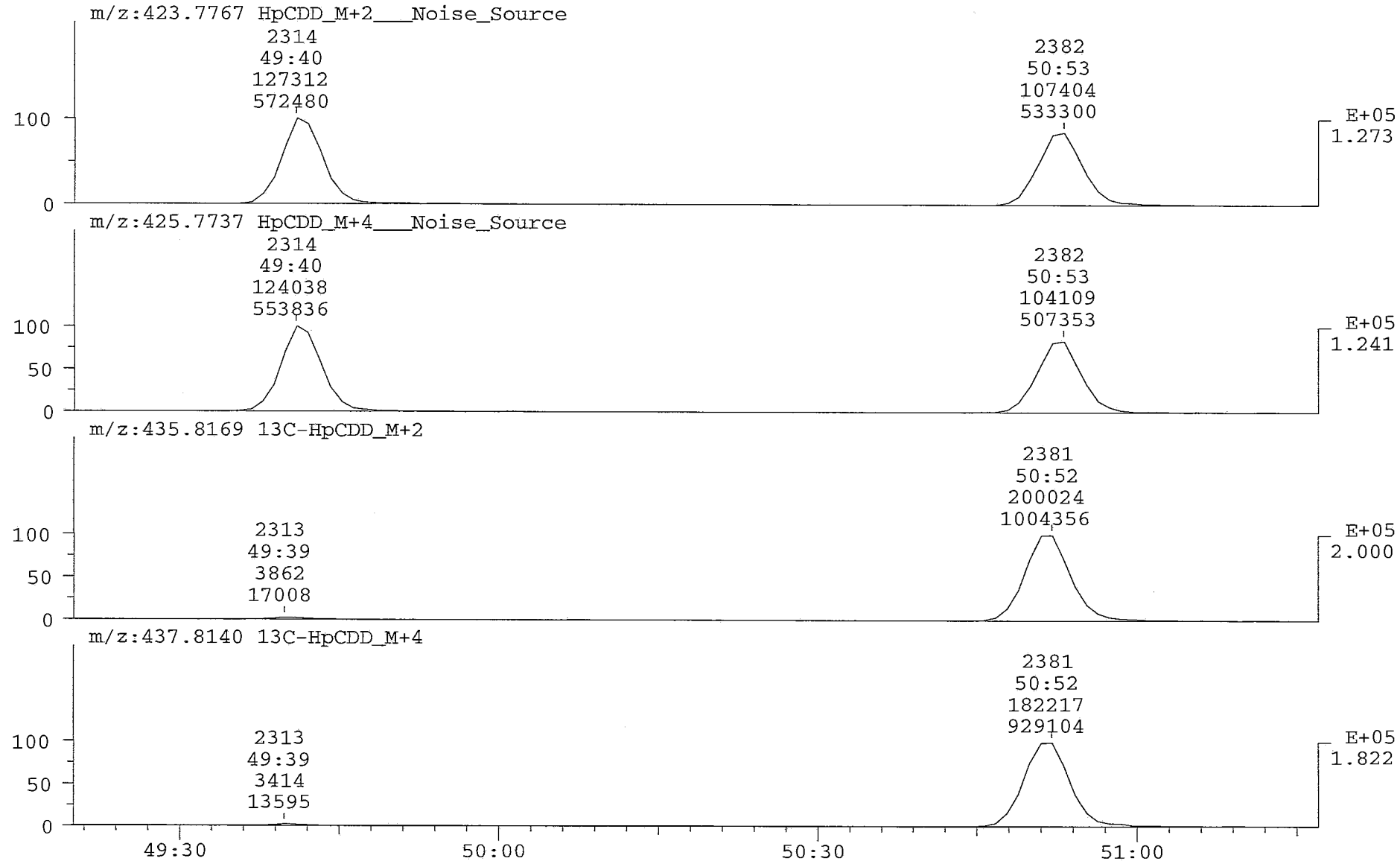
CHRO: b110714w1 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1959 > 2182 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-610

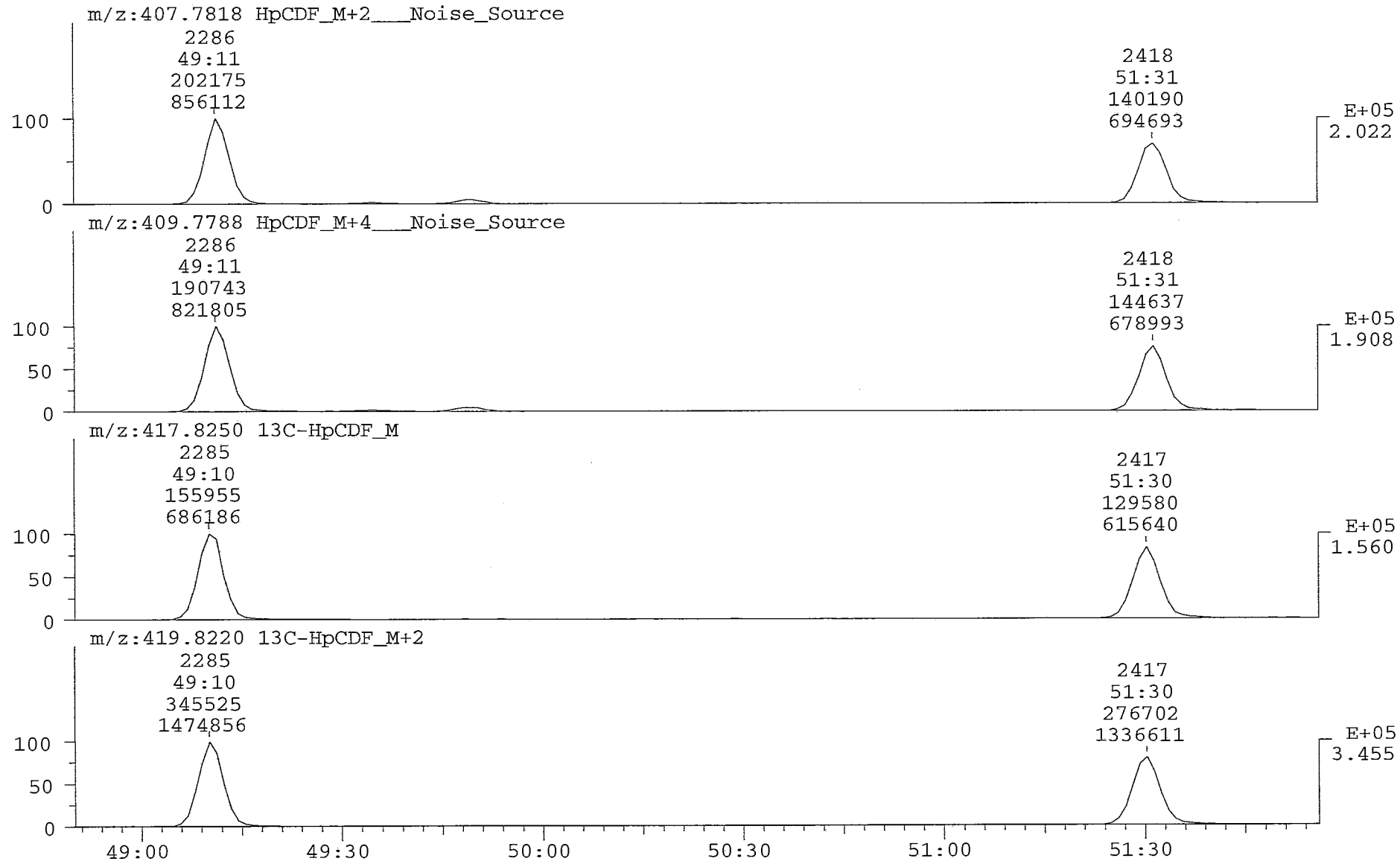
609

CHRO: b110714w1 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2294 > 2405 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



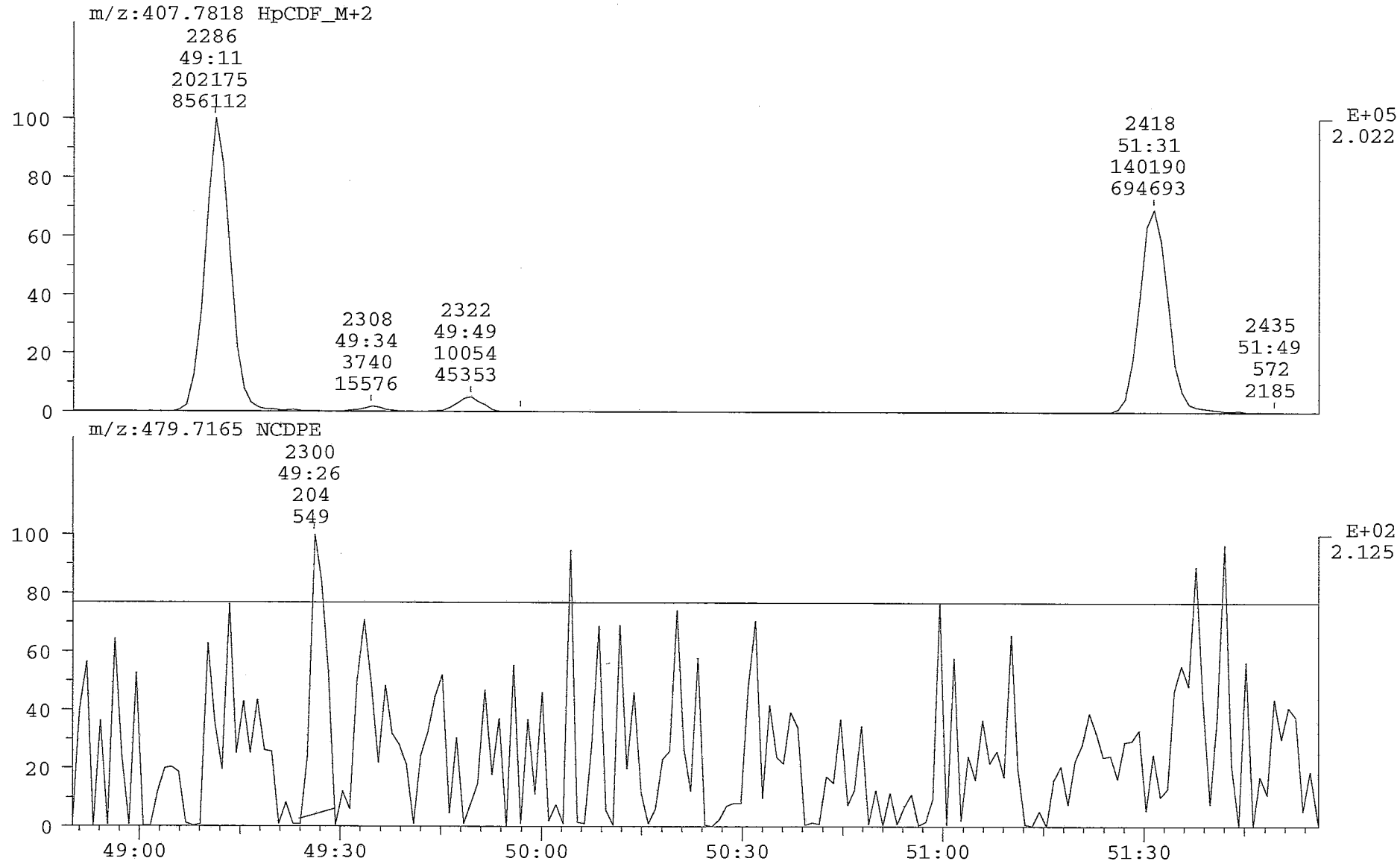
H-611

CHRO: b110714w1 14-Jul-11 Elapse: 50:23 2354
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2266 > 2441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-612

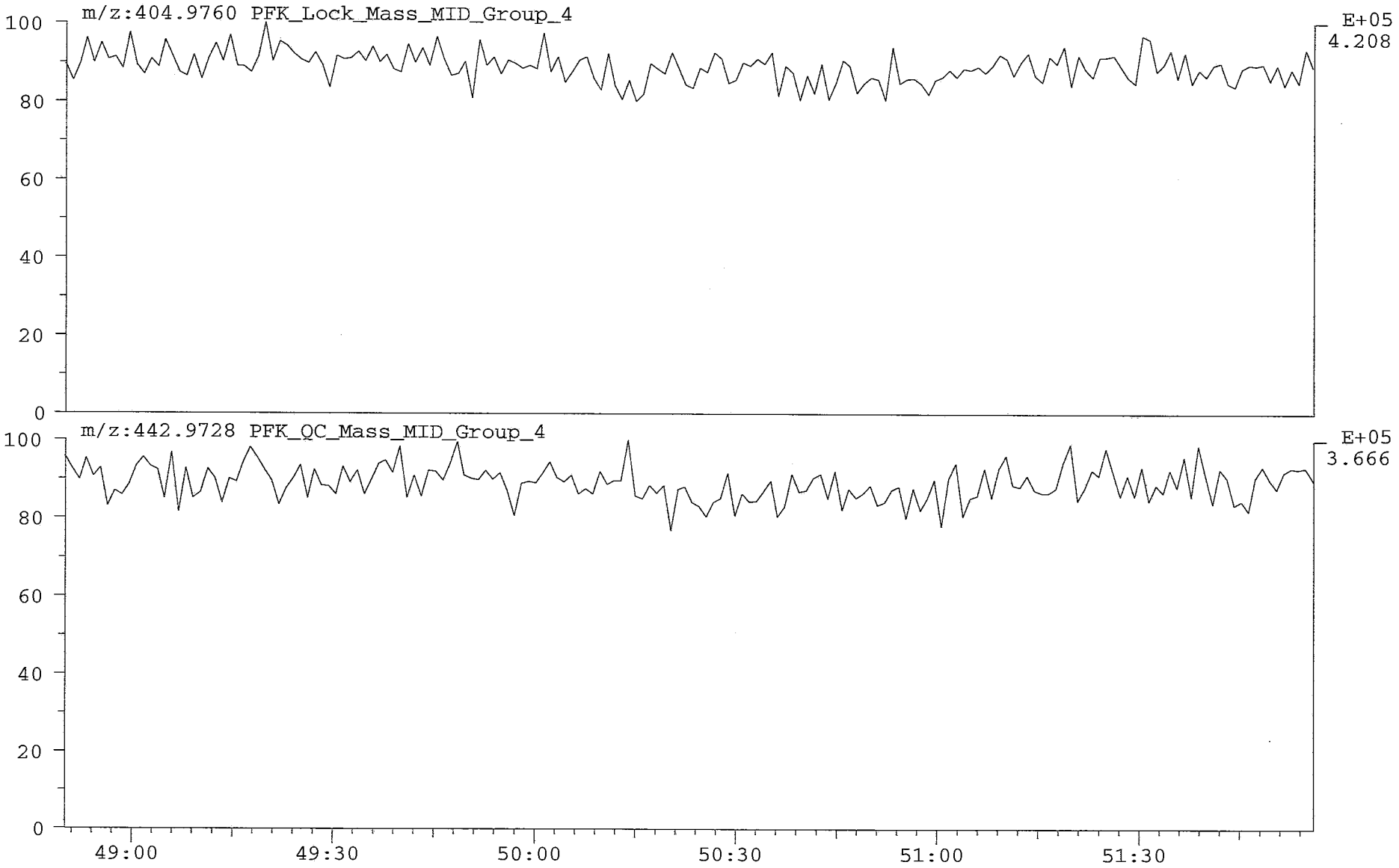
CHRO: b110714w1 14-Jul-11 Elapse: 50:23 2354
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2266 > 2441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-613

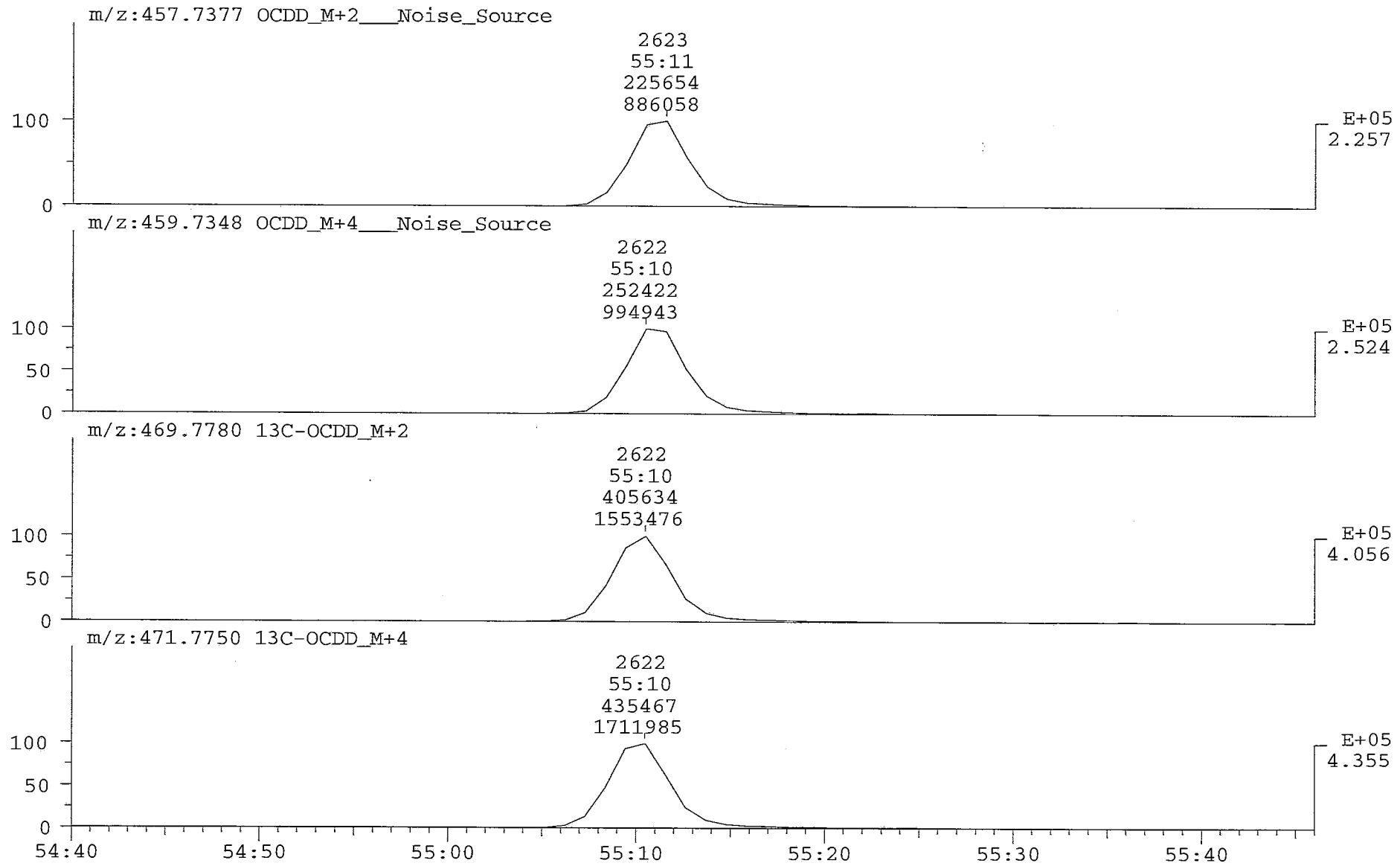
612

CHRO: b110714w1 14-Jul-11 Elapse: 50:23 2354
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2266 > 2441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



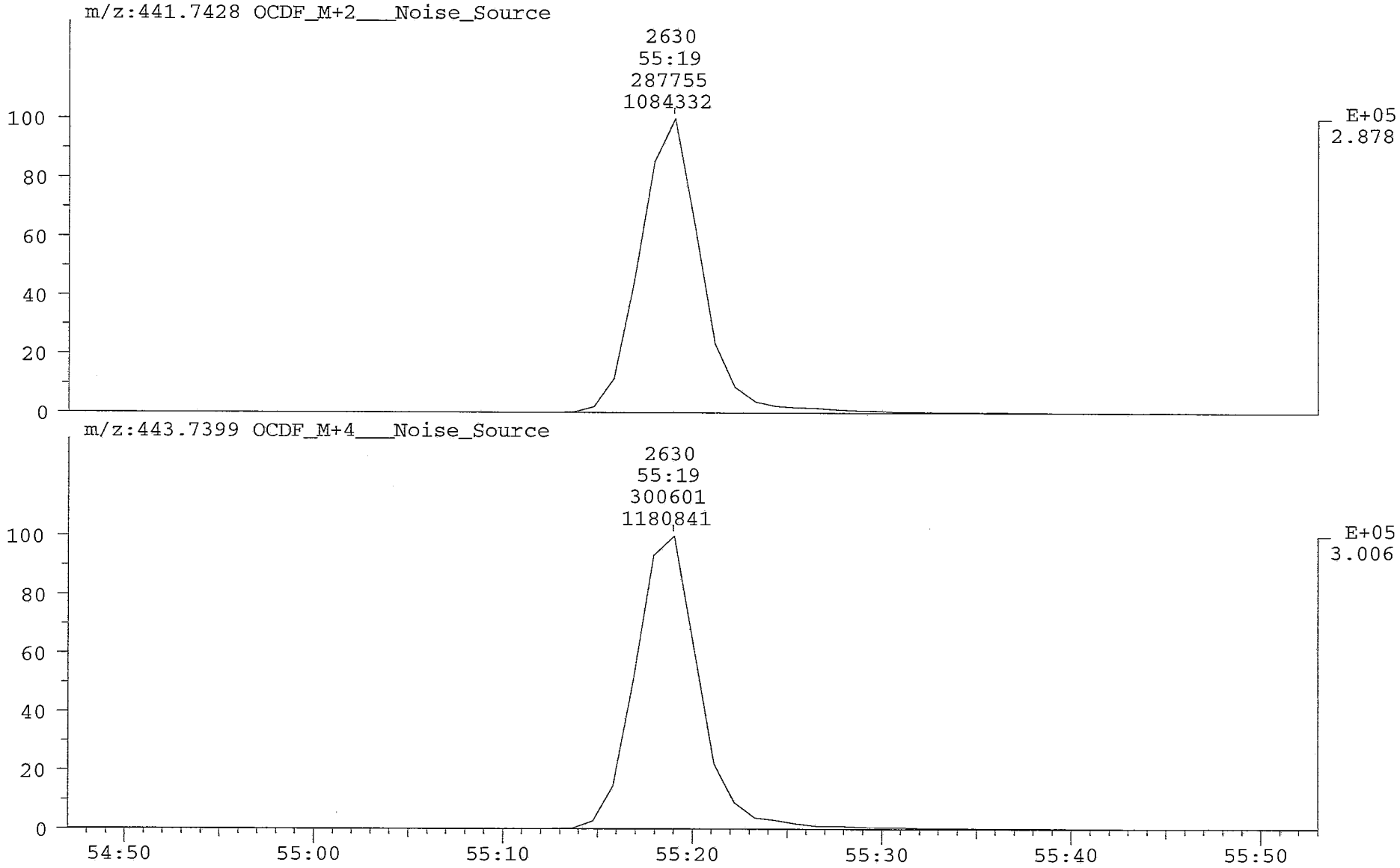
H-614

CHRO: b110714w1 14-Jul-11 Elapse: 55:10 2622
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2593 > 2655 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



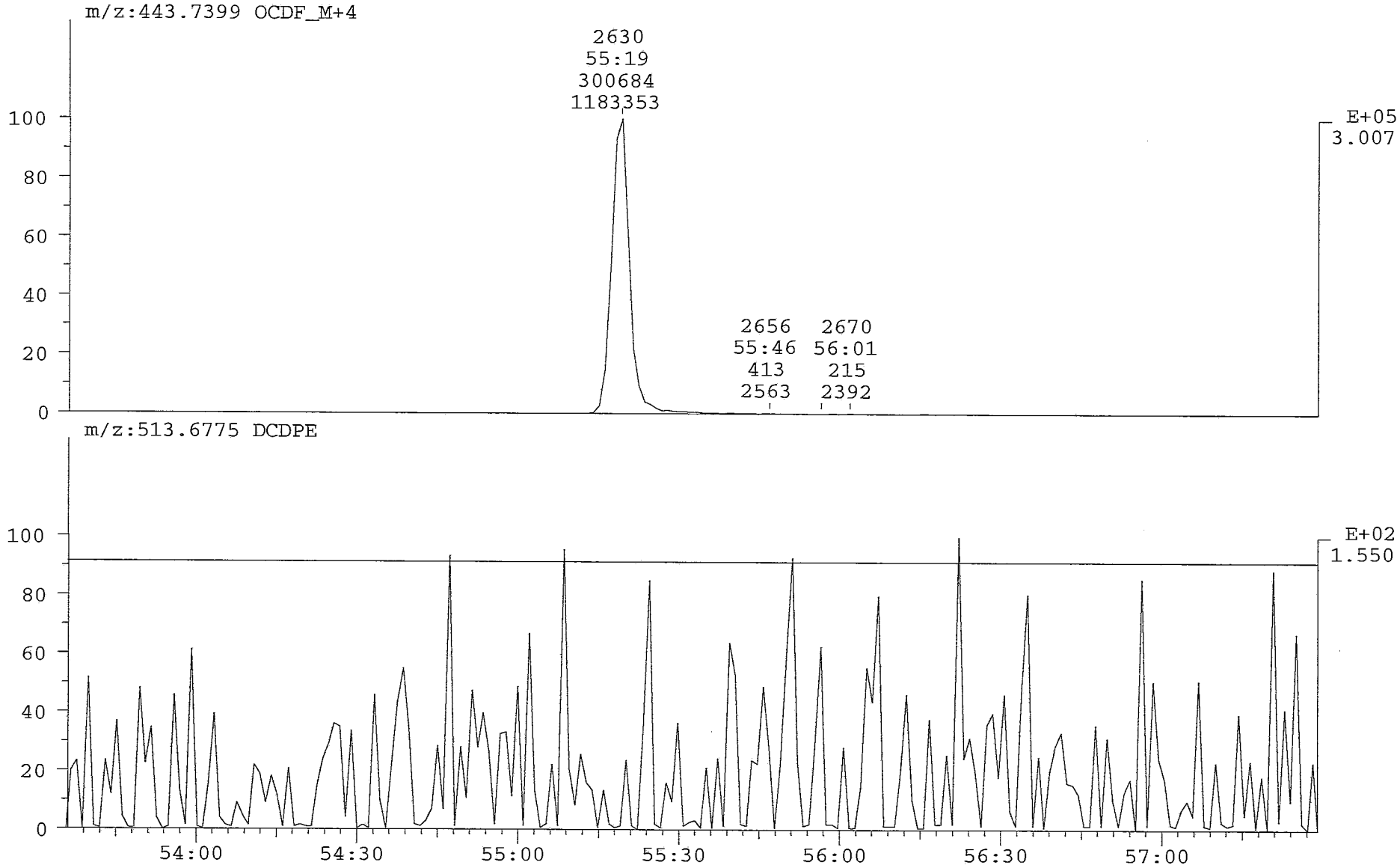
H-615

CHRO: b110714w1 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2600 > 2662 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



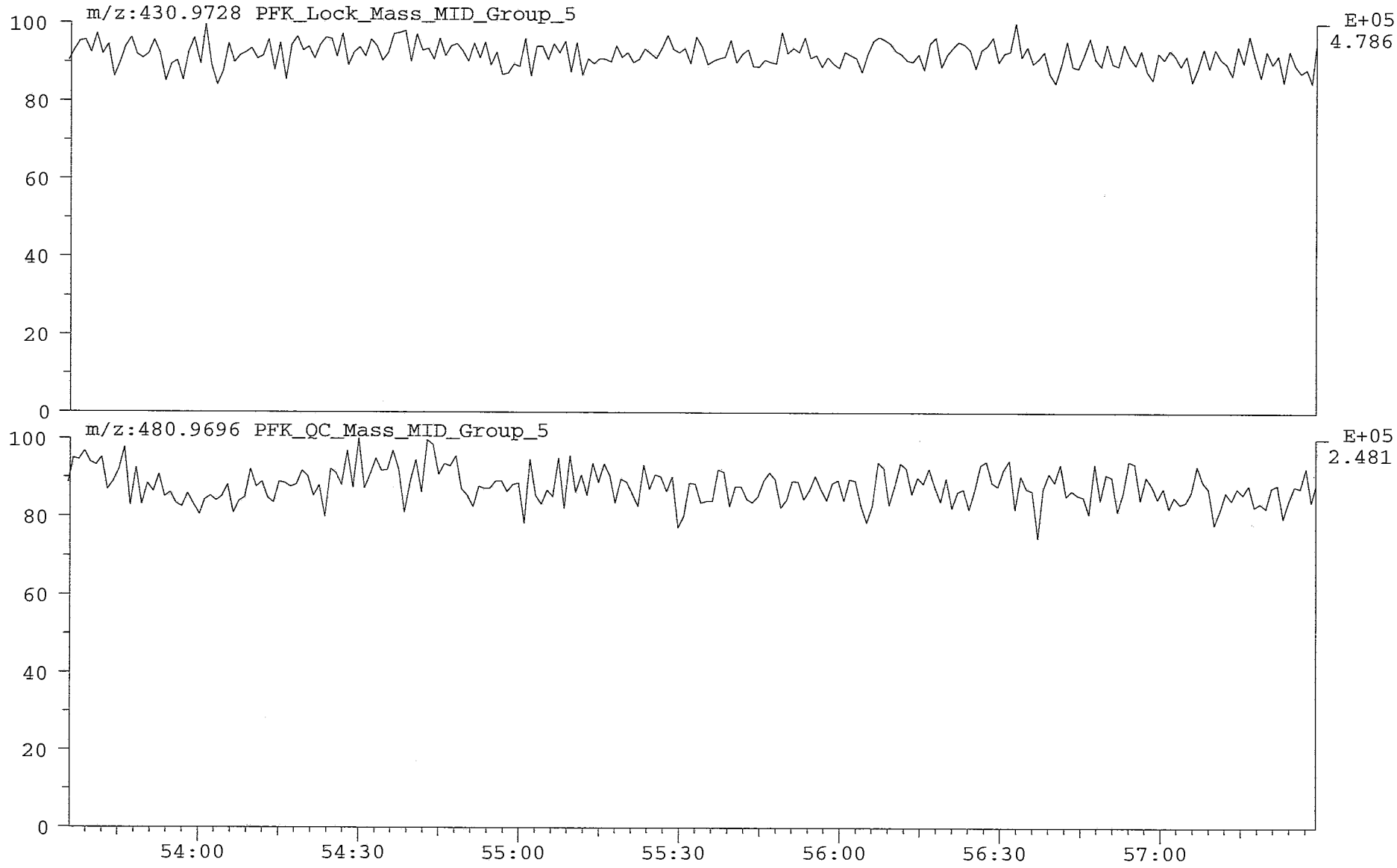
H-616

CHRO: b110714w1 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2533 > 2752 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-617

CHRO: b110714w1 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 10:51:09 2754
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2533 > 2752 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-618

617

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b110714w1
Study: Win/Ver
Sample: WO=HR0034B Meth=F8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA-Knoxville
Comments: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S2
Injected volume:   2.0
Sample from Vial 1
Analysis will stop when MID run finishes
Tune file name: tune2
File 1 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio         1
   Damping Relay           TRUE
   Width first lock        0.20 amu
   Electric jump time        10 ms
   Magnetic jump time        60 ms
   Offset                   100 cts
   Electric range             2 %
   Sweep peak width        3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start          Measure       End         Cycletime
  # 1    8:00 min    27:12 min    35:12 min     1.00 sec
  # 2   35:12 min     8:03 min    43:15 min     1.00 sec
  # 3   43:15 min     4:44 min    48:00 min     1.00 sec
  # 4   48:00 min     5:30 min    53:30 min     1.00 sec
  # 5   53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8419.0000
BDEV	8288.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5294
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.3907	DITSET	0.0000	DRAW	-24.0750
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	197.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	600.9615
FSLOPE	36000000.0000	FVANAL	371.0000	FVINLET	838.0000
FVSRC	1057.0000	FWIN	0.7000	GCTC	137.0000
GCTI	269.0000	GCTL	290.0000	HACCU	156.0000
HCURR	1.7353	HVANAL	1220.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4771.6680	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	304.9824
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	200.0000	NSAM	200.0000	NSCAN	7342.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.6500	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10758.3328	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	2.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.6800	TCURR	0.9766	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-16.0000
YLENS	3269.0000	YLENSS	-20.2000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 10:51:09.5

Autosampler has injected sample from vial 1
Analysis stopped at: 14-Jul-11 11:48:41.9 (run time 57.53 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44396 - B110714S4
CCAL Filename: b110714s4
CCAL Sample ID: HR0014
CCAL Result Dir: /20110714s4/b110714s4.d
CCAL Date/Time: 07/14/11 19:55

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	Calc Conc (ng/mL)	ICAL RF	CCAL RF	%D	QC Limit	Valid?
2,3,7,8-TCDD	M/M+2	0.82	0.65-0.89	5.3	1.172	1.233	5.2	20.0	True
2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	5.1	1.081	1.099	1.7	20.0	True
1,2,3,7,8-PeCDD	M+2/M+4	1.58	1.32-1.78	24.6	1.124	1.104	-1.8	20.0	True
1,2,3,7,8-PeCDF	M+2/M+4	1.54	1.32-1.78	24.6	1.050	1.035	-1.5	20.0	True
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	25	1.030	1.034	0.4	20.0	True
1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	26	0.990	1.026	3.6	20.0	True
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	24.4	1.020	0.996	-2.4	20.0	True
1,2,3,7,8,9-HxCDD	M+2/M+4	1.26	1.05-1.43	26	1.003	1.036	3.3	20.0	True
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	26	1.091	1.155	5.8	20.0	True
1,2,3,6,7,8-HxCDF	M+2/M+4	1.32	1.05-1.43	24.4	1.226	1.195	-2.5	20.0	True
2,3,4,6,7,8-HxCDF	M+2/M+4	1.30	1.05-1.43	25	1.160	1.169	0.7	20.0	True
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	26	1.008	1.029	2.0	20.0	True
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	24.9	1.094	1.091	-0.3	20.0	True
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	24.9	1.469	1.465	-0.3	20.0	True
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88-1.20	26	1.127	1.176	4.4	20.0	True
OCDD	M+2/M+4	0.88	0.76-1.02	50	1.075	1.074	-0.1	20.0	True
OCDF	M+2/M+4	0.91	0.76-1.02	52	1.258	1.307	3.9	20.0	True
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	99	1.006	0.992	-1.4	30.0	True
13C-2,3,7,8-TCDF	M/M+2	0.81	0.65-0.89	104	1.719	1.782	3.6	30.0	True
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.58	1.32-1.78	95	0.953	0.905	-5.0	30.0	True
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	95	1.661	1.570	-5.5	30.0	True
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	97	1.035	1.001	-3.3	30.0	True
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	96	1.434	1.370	-4.5	30.0	True
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	103	0.851	0.880	3.4	30.0	True
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.46	0.37-0.51	100	1.094	1.097	0.3	30.0	True
13C-OCDD	M+2/M+4	0.90	0.76-1.02	187	0.867	0.809	-6.7	30.0	True
37Cl4-2,3,7,8-TCDD			-	5.1	1.198	1.214	1.3	30.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	24.8	0.994	0.986	-0.8	30.0	True
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	26	0.887	0.918	3.5	30.0	True
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	27	0.891	0.963	8.1	30.0	True
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.54	0.43-0.59	23.7	1.321	1.251	-5.3	30.0	True
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.37-0.51	25	0.841	0.858	2.0	30.0	True

PMP 7-14-11
KM 7-15-11

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44396 - B110714S4
CCAL Filename: b110714s4
CCAL Sample ID: HR0014
CCAL Result Dir: /20110714s4/b110714s4.d
CCAL Date/Time: 07/14/11 19:55

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	ICAL RT	CCAL RT	RT Diff	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
2,3,7,8-TCDD	30:32	31:35	63	1.001	1.001	-	
2,3,7,8-TCDF	28:38	29:37	59	1.001	1.002	-	
1,2,3,7,8-PeCDD	41:12	41:41	29	1.000	1.000	-	
1,2,3,7,8-PeCDF	39:14	39:48	34	1.001	1.000	-	
2,3,4,7,8-PeCDF	40:37	41:07	30	1.036	1.034	-	
1,2,3,4,7,8-HxCDD	45:35	46:02	27	0.998	0.998	-	
1,2,3,6,7,8-HxCDD	45:41	46:08	27	1.000	1.000	-	
1,2,3,7,8,9-HxCDD	46:04	46:32	28	1.009	1.009	-	
1,2,3,4,7,8-HxCDF	44:34	44:58	24	0.997	0.997	-	
1,2,3,6,7,8-HxCDF	44:42	45:07	25	1.000	1.000	-	
2,3,4,6,7,8-HxCDF	45:24	45:50	26	1.016	1.016	-	
1,2,3,7,8,9-HxCDF	46:18	46:46	28	1.036	1.037	-	
1,2,3,4,6,7,8-HpCDD	50:15	50:52	37	1.000	1.000	-	
1,2,3,4,6,7,8-HpCDF	48:37	49:11	34	1.000	1.000	-	
1,2,3,4,7,8,9-HpCDF	50:52	51:31	39	1.047	1.048	-	
OCDD	54:41	55:11	30	1.000	1.000	-	
OCDF	54:49	55:19	30	1.002	1.003	-	
13C-2,3,7,8-TCDD	30:30	31:33	63	1.017	1.016	-	
13C-2,3,7,8-TCDF	28:36	29:34	58	0.954	0.952	-	
13C-1,2,3,7,8-PeCDD	41:11	41:40	29	1.373	1.342	-	
13C-1,2,3,7,8-PeCDF	39:13	39:47	34	1.308	1.281	-	
13C-1,2,3,6,7,8-HxCDD	45:40	46:07	27	0.992	0.992	-	
13C-1,2,3,6,7,8-HxCDF	44:41	45:06	25	0.971	0.970	-	
13C-1,2,3,4,6,7,8-HpCDD	50:13	50:51	38	1.091	1.094	-	
13C-1,2,3,4,6,7,8-HpCDF	48:36	49:10	34	1.056	1.057	-	
13C-OCDD	54:41	55:10	29	1.188	1.186	-	
37Cl4-2,3,7,8-TCDD	30:32	31:37	65	1.001	1.002	-	
13C-2,3,4,7,8-PeCDF	40:35	41:06	31	1.035	1.033	-	
13C-1,2,3,4,7,8-HxCDD	45:34	46:01	27	0.998	0.998	-	
13C-1,2,3,4,7,8-HxCDF	44:33	44:57	24	0.997	0.997	-	
13C-1,2,3,7,8,9-HxCDF	46:17	46:45	28	1.005	1.005	-	
13C-1,2,3,4,7,8,9-HpCDF	50:52	51:29	37	1.046	1.047	-	

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110714s4/b110714s4.d	Prep Date		SDG No	
Analysis ID	133618	Prep Exp Date		Date Received	
Analysis Date	7/14/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	19:55	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
2,3,7,8-TCDD	31:35	115866	13337	1.172	5.000	5.259843	105.20	5.259843	E	0.142
Total TCDD				1.172		5.259843		5.259843	E	0.142
2,3,7,8-TCDF	29:37	185517	21505	1.081	5.000	5.082603	101.65	5.082603	E	0.0744
Total TCDF				1.081		5.082603		5.082603	E	0.0744
1,2,3,7,8-PeCDD	41:41	473428	117923	1.124	25.00	24.560457	98.24	24.560457	E	0.0614
Total PeCDD				1.124		24.560457		24.560457	E	0.0614
1,2,3,7,8-PeCDF	39:48	769562	152392	1.050	25.00	24.620905	98.48	24.620905	E	0.0519
2,3,4,7,8-PeCDF	41:07	769356	183317	1.030	25.00	25.100028	100.40	25.100028	E	0.0529
Total PeCDF				1.040		49.720934		49.720934	E	0.0524
1,2,3,4,7,8-HxCDD	46:02	476640	131665	0.990	25.00	25.899498	103.60	25.899498	E	0.0678
1,2,3,6,7,8-HxCDD	46:08	462837	133020	1.020	25.00	24.405172	97.62	24.405172	E	0.0658
1,2,3,7,8,9-HxCDD	46:32	481197	128603	1.003	25.00	25.823569	103.29	25.823569	E	0.0670
Total HxCDD				1.004		76.128239		76.128239	E	0.0669
1,2,3,4,7,8-HxCDF	44:58	734079	214804	1.091	25.00	26.453973	105.82	26.453973	E	0.0372
1,2,3,6,7,8-HxCDF	45:07	759515	220356	1.226	25.00	24.370161	97.48	24.370161	E	0.0331
2,3,4,6,7,8-HxCDF	45:50	743156	214815	1.160	25.00	25.184807	100.74	25.184807	E	0.0350
1,2,3,7,8,9-HxCDF	46:46	653854	167896	1.008	25.00	25.512063	102.05	25.512063	E	0.0403
Total HxCDF				1.121		101.521004		101.521004	E	0.0362
1,2,3,4,6,7,8-HpCDD	50:52	445513	92856	1.094	25.00	24.921418	99.69	24.921418	E	0.0804
Total HpCDD				1.094		24.921418		24.921418	E	0.0804
1,2,3,4,6,7,8-HpCDF	49:11	745686	179705	1.469	25.00	24.926946	99.71	24.926946	E	0.0396
1,2,3,4,7,8,9-HpCDF	51:31	598767	124832	1.127	25.00	26.091121	104.36	26.091121	E	0.0517
Total HpCDF				1.298		51.018067		51.018067	E	0.0449
OCDD	55:11	807019	204271	1.075	50.00	49.947960	99.90	49.947960	E	0.0804
OCDF	55:19	981688	253496	1.258	50.00	51.944950	103.89	51.944950	E	0.0635
13C-2,3,7,8-TCDD	31:33	1879966	205334	1.006	100.0	98.557368	98.56	98.557368		0.209
13C-2,3,7,8-TCDF	29:34	3376778	400969	1.719	100.0	103.618574	103.62	103.618574		0.0799
13C-1,2,3,7,8-PeCDD	41:40	1715670	416759	0.953	100.0	94.957857	94.96	94.957857		0.182
13C-1,2,3,7,8-PeCDF	39:47	2975412	605064	1.661	100.0	94.530141	94.53	94.530141		0.0861
13C-1,2,3,6,7,8-HxCDD	46:07	1858566	521142	1.035	100.0	96.746366	96.75	96.746366		0.0734
13C-1,2,3,6,7,8-HxCDF	45:06	2542924	751193	1.434	100.0	95.513602	95.51	95.513602		0.0512
13C-1,2,3,4,6,7,8-HpCDD	50:51	1633929	344045	0.851	100.0	103.407522	103.41	103.407522		0.0699
13C-1,2,3,4,6,7,8-HpCDF	49:10	2036301	485072	1.094	100.0	100.294891	100.29	100.294891		0.0638
13C-OCDD	55:10	3005047	763662	0.867	200.0	186.669690	93.33	186.669690		0.0982
37Cl4-2,3,7,8-TCDD	31:37	114107	13165	1.198	5.000	5.066394	101.33	5.066394	E	0.0488
13C-2,3,4,7,8-PeCDF	41:06	733107	169998	0.994	25.00	24.799367	99.20	24.799367	E	0.0524
13C-1,2,3,4,7,8-HxCDD	46:01	426489	121493	0.887	25.00	25.865971	103.46	25.865971	E	0.0800
13C-1,2,3,4,7,8-HxCDF	44:57	612074	171919	0.891	25.00	27.019033	108.08	27.019033	E	0.0534
13C-1,2,3,7,8,9-HxCDF	46:45	580607	155606	1.321	25.00	23.674819	94.70	23.674819	E	0.0555
13C-1,2,3,4,7,8,9-HpCDF	51:29	436620	89949	0.841	25.00	25.489107	101.96	25.489107	E	0.0833
13C-1,2,3,4-TCDD	31:03	1895384	220311	1.000	100.0	100.000000	100.00	100.000000		0.210
13C-1,2,3,7,8,9-HxCDD	46:30	1856441	487187	1.000	100.0	100.000000	100.00	100.000000		0.0759

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110714s4/b110714s4.	Prep Date		SDG No	
Analysis ID	133618	Prep Exp Date		Date Received	
Analysis Date	07/14/11 19:55	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					**303.9016**	**305.8987**	**303.9016**	**305.8987**	**0.65-0.89**		
	Noise	00:00	00:00	0	145	178	58	71	0.82	/	
	2,3,7,8-TCDF	29:37	29:42	-5	81155	104362	9317	12188	0.78	ABB/ABV	M
316					**315.9419**	**317.9389**	**315.9419**	**317.9389**	**0.65-0.89**		
	Noise	00:00	00:00	0	153	150	61	60	1.02 *	/	
	13C-2,3,7,8-TCDF	29:34	29:40	-6	1508128	1868650	181379	219590	0.81	ABV/ABV	
320					**319.8965**	**321.8936**	**319.8965**	**321.8936**	**0.65-0.89**		
	Noise	00:00	00:00	0	150	193	60	77	0.78	/	
	2,3,7,8-TCDD	31:35	31:30	5	52072	63794	5583	7754	0.82	AVB/AVB	
328					**327.8847**		**327.8847**				
	Noise	00:00	00:00	0	120		48				
	37Cl4-2,3,7,8-TCDD	31:37	31:30	7	114107		13165			AVV	M
332					**331.9368**	**333.9338**	**331.9368**	**333.9338**	**0.65-0.89**		
	Noise	00:00	00:00	0	218	245	87	98	0.89	/	
	13C-1,2,3,4-TCDD	31:03	30:59	4	838134	1057250	101647	118664	0.79	AVV/ABV	
	13C-2,3,7,8-TCDD	31:33	31:28	5	837155	1042811	89418	115916	0.80	AVV/AVV	
340					**339.8597**	**341.8567**	**339.8597**	**341.8567**	**1.32-1.78**		
	Noise	00:00	00:00	0	148	183	59	73	0.81 *	/	
	1,2,3,7,8-PeCDF	39:48	39:52	-4	466291	303271	92807	59585	1.54	ABV/ABV	
	2,3,4,7,8-PeCDF	41:07	41:13	-6	470755	298601	113265	70052	1.58	ABV/ABV	M
352					**351.9000**	**353.8970**	**351.9000**	**353.8970**	**1.32-1.78**		
	Noise	00:00	00:00	0	138	178	55	71	0.77 *	/	
	13C-1,2,3,7,8-PeCDF	39:47	39:51	-4	1826880	1148532	372015	233049	1.59	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:06	41:11	-5	450851	282256	104088	65910	1.60	ABV/ABV	M
356					**355.8546**	**357.8516**	**355.8546**	**357.8516**	**1.32-1.78**		
	Noise	00:00	00:00	0	165	123	66	49	1.35	/	
	1,2,3,7,8-PeCDD	41:41	41:47	-6	289592	183836	71734	46189	1.58	ABV/ABV	M
368					**367.8949**	**369.8919**	**367.8949**	**369.8919**	**1.32-1.78**		
	Noise	00:00	00:00	0	228	155	91	62	1.47	/	
	13C-1,2,3,7,8-PeCDD	41:40	41:46	-6	1050778	664892	258966	157793	1.58	ABV/ABV	
374					**373.8208**	**375.8178**	**373.8208**	**375.8178**	**1.05-1.43**		
	Noise	00:00	00:00	0	155	150	62	60	1.03 *	/	
	1,2,3,4,7,8-HxCDF	44:58	45:06	-8	408393	325686	117402	97402	1.25	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	45:07	45:14	-7	431959	327556	126140	94216	1.32	AVB/AVV	M
	2,3,4,6,7,8-HxCDF	45:50	45:55	-5	420123	323033	121835	92980	1.30	AVV/AVB	M
	1,2,3,7,8,9-HxCDF	46:46	46:49	-3	365951	287903	92557	75339	1.27	ABV/ABV	
384					**383.8639**	**385.8610**	**383.8639**	**385.8610**	**0.43-0.59**		
	Noise	00:00	00:00	0	175	183	70	73	0.96 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:57	45:05	-8	210448	401626	59905	112014	0.52	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	45:06	45:13	-7	880720	1662204	260998	490195	0.53	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:45	46:48	-3	203582	377025	53651	101955	0.54	ABB/ABV	
390					**389.8156**	**391.8127**	**389.8156**	**391.8127**	**1.05-1.43**		
	Noise	00:00	00:00	0	208	143	83	57	1.46 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110714s4/b110714s4.	Prep Date		SDG No	
Analysis ID	133618	Prep Exp Date		Date Received	
Analysis Date	07/14/11 19:55	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

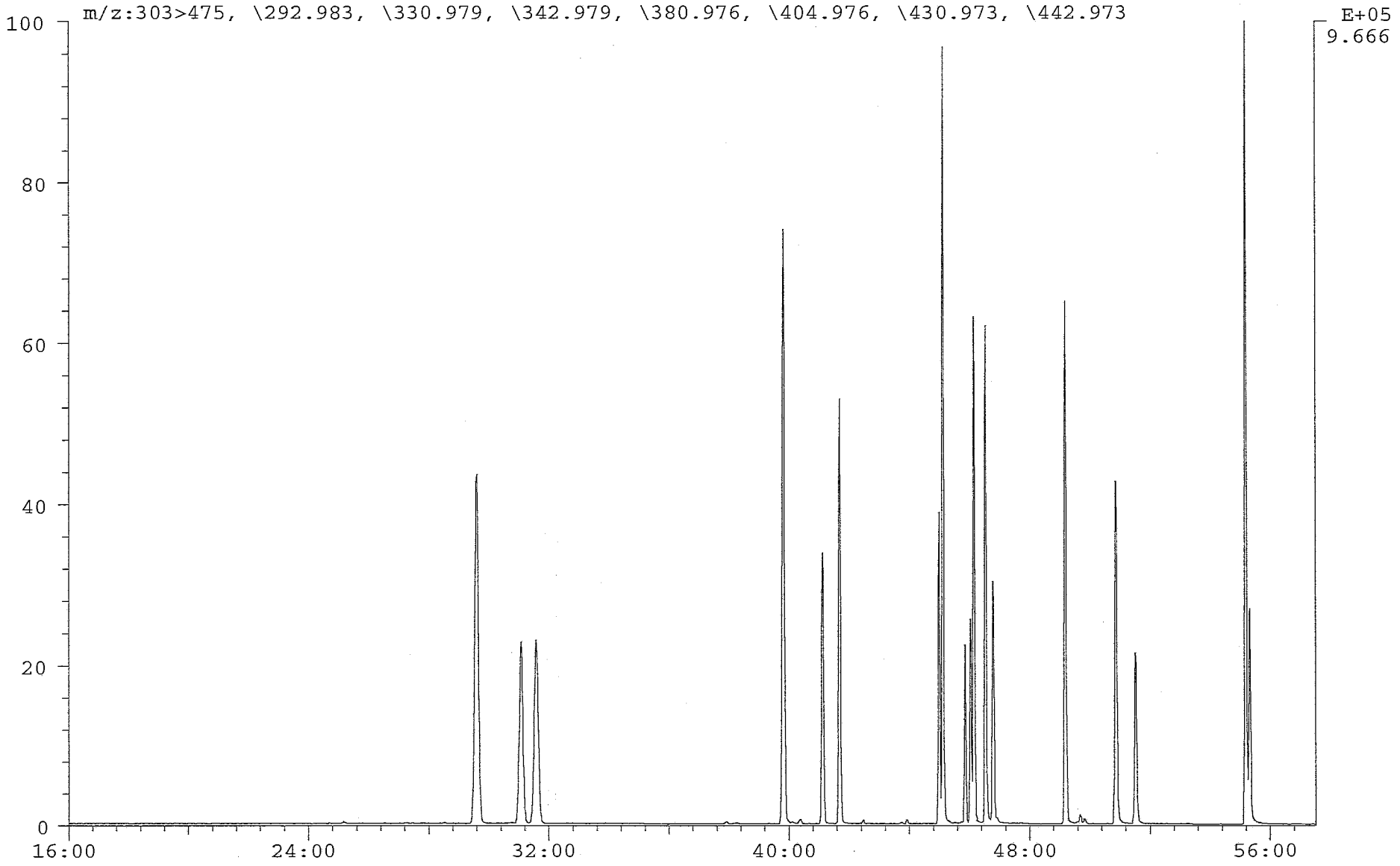
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,4,7,8-HxCDD	46:02	46:06	-4	266007	210633	73891	57774	1.26	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	46:08	46:12	-4	255763	207074	74463	58557	1.24	AVV/AVV	M
	1,2,3,7,8,9-HxCDD	46:32	46:35	-3	268010	213187	74512	54091	1.26	AVV/AVV	
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	193	178	77	71	1.08	/	
	13C-1,2,3,4,7,8-HxCDD	46:01	46:05	-4	238813	187676	68729	52764	1.27	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	46:07	46:11	-4	1031996	826570	288731	232411	1.25	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDD	46:30	46:33	-3	1040884	815557	277382	209805	1.28	AVV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	143	140	57	56	1.02	/	
	1,2,3,4,6,7,8-HpCDF	49:11	49:07	4	383353	362333	91900	87805	1.06	ABV/ABV	
	1,2,3,4,7,8,9-HpCDF	51:31	51:23	8	303551	295216	60517	64315	1.03	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	155	185	62	74	0.84 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:10	49:06	4	641795	1394506	153631	331441	0.46	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:29	51:23	6	138431	298189	28394	61555	0.46	ABV/ABV	M
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	153	150	61	60	1.02	/	
	1,2,3,4,6,7,8-HpCDD	50:52	50:45	7	226481	219032	46130	46726	1.03	ABV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	150	140	60	56	1.07	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:51	50:43	8	830812	803117	172895	171150	1.03	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	148	158	59	63	0.94	/	
	OCDF	55:19	55:22	-3	467095	514593	122285	131211	0.91	ABV/ABV	
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	160	170	64	68	0.94	/	
	OCDD	55:11	55:14	-3	378614	428405	95839	108432	0.88	ABV/ABV	
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	208	208	83	83	1.00	/	
	13C-OCDD	55:10	55:14	-4	1425517	1579530	365868	397794	0.90	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

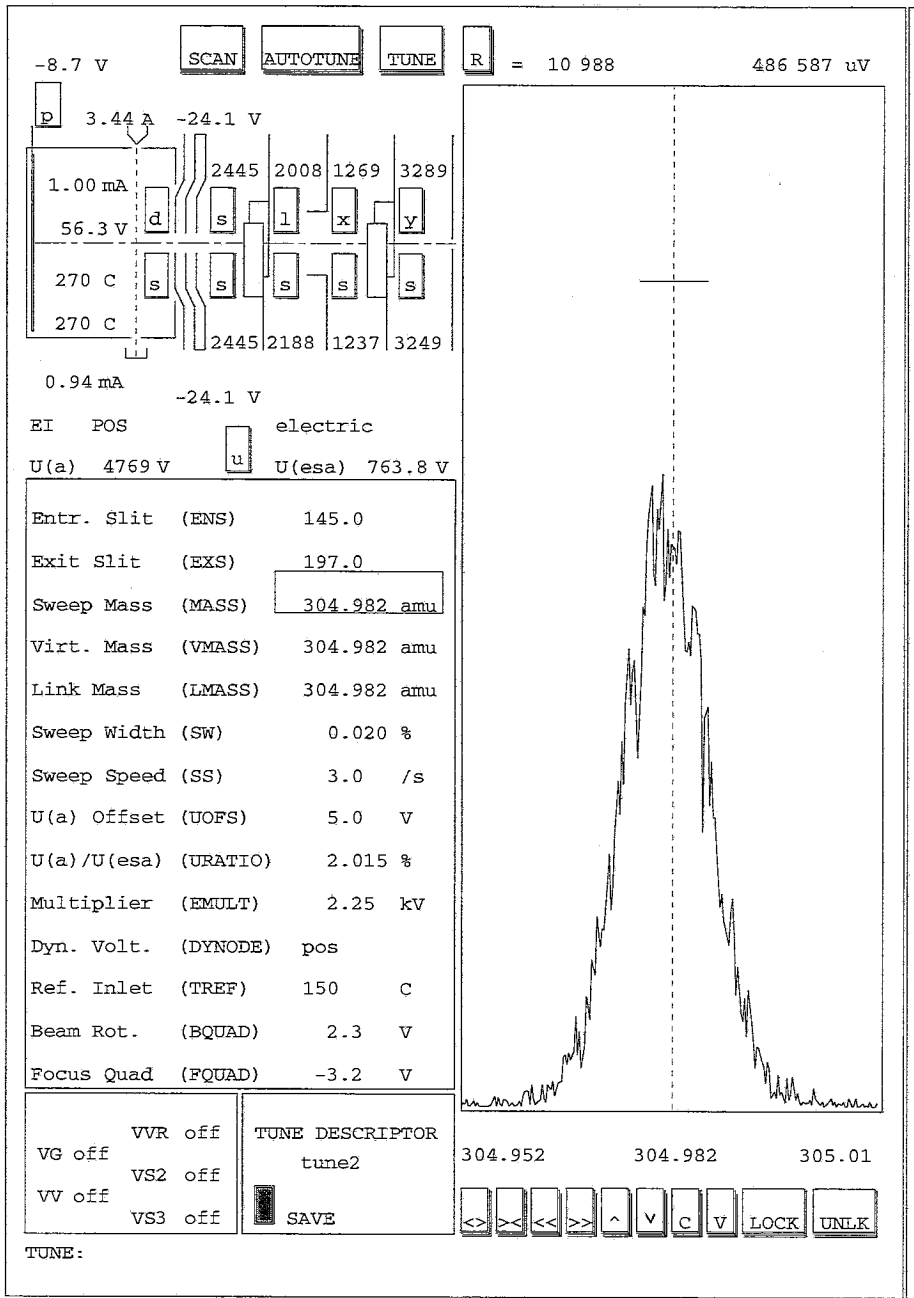
CHRO: b110714s4 14-Jul-11 Elapse: 55:14 2626
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 442 > 2754 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

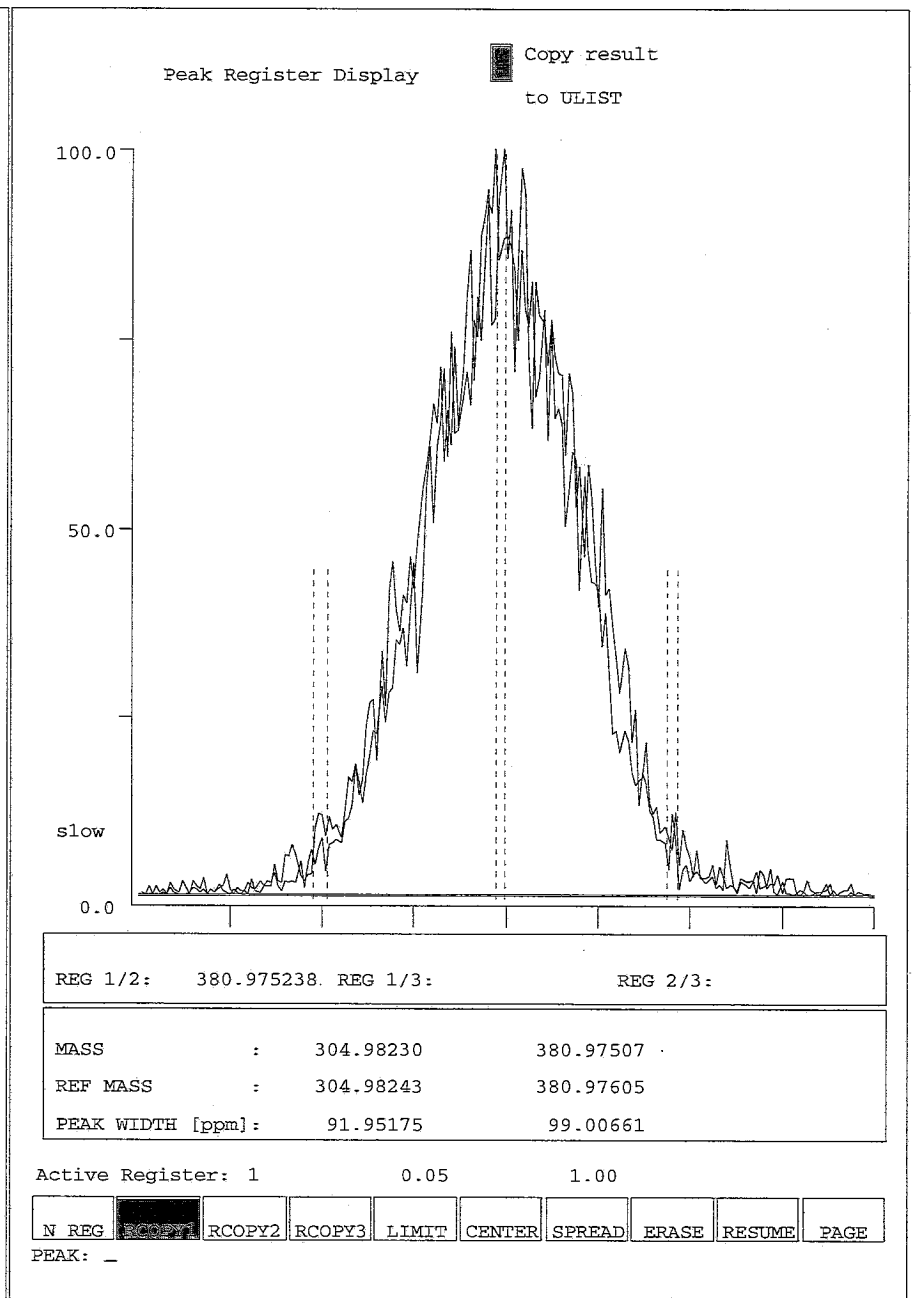
Int/Calc PntP 7-14-11
@CDM 7-15-11

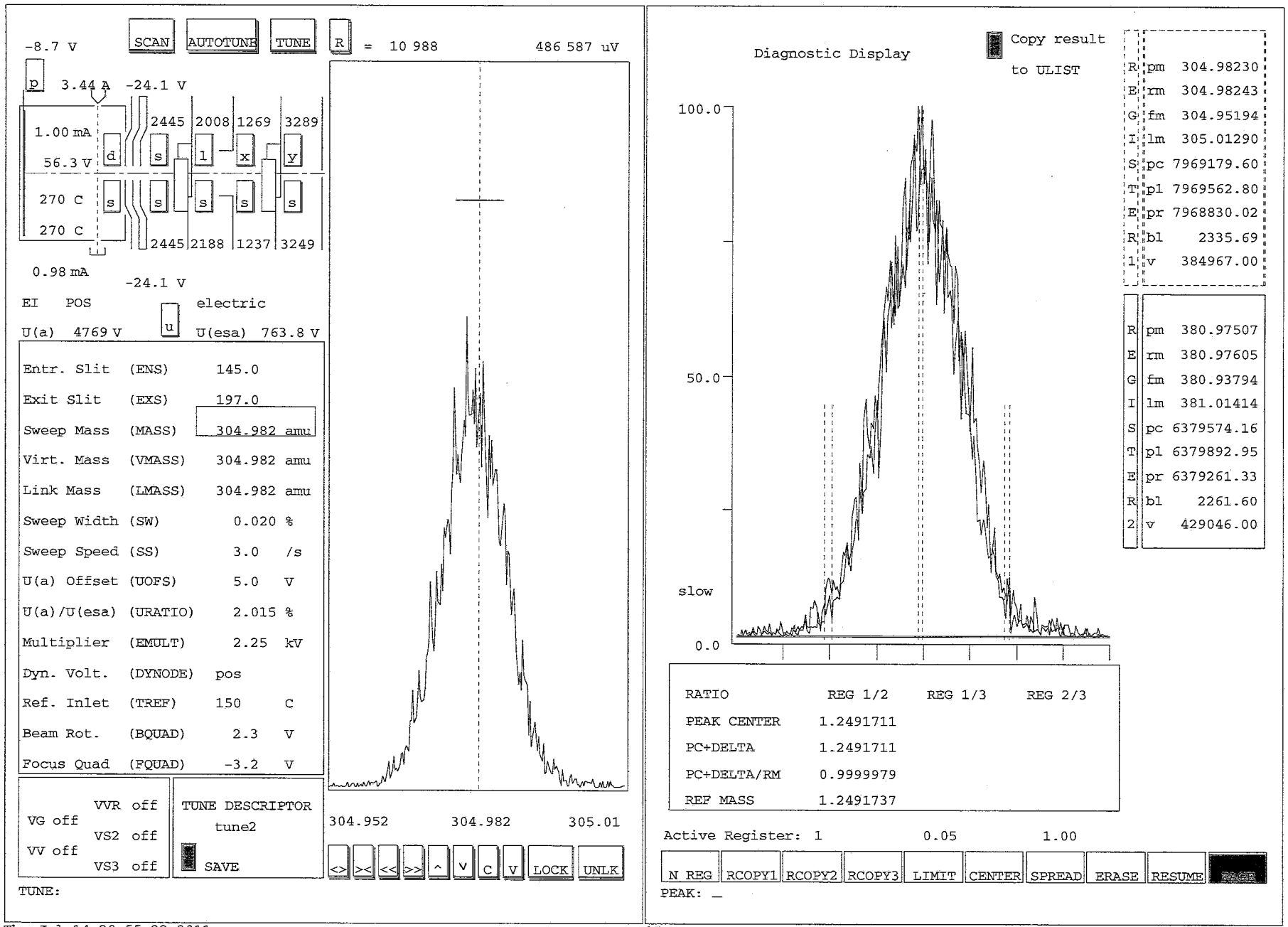


H-628

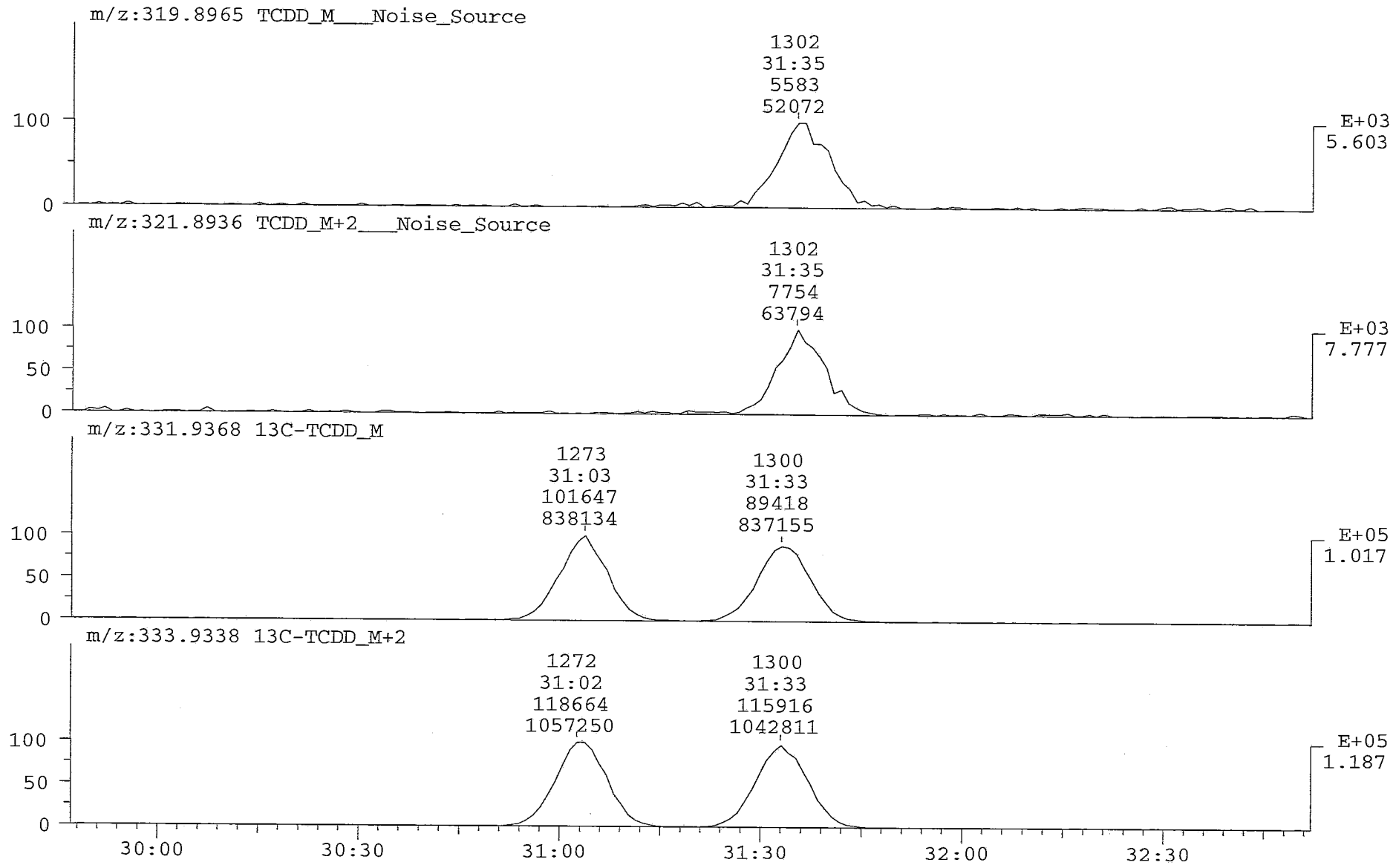
627


-8.7 V
SCAN
AUTOTUNE
TUNE
R
= 10 988
486 587 uV
p
3.44 A
-24.1 V
1.00 mA
56.3 V
270 C
270 C
2445 2008 1269 3289
2445 2188 1237 3249
d s l x y
s s s s s
0.94 mA
-24.1 V
EI POS
electric
U(a) 4769 V
U(esa) 763.8 V
u
Entr. Slit (ENS) 145.0
Exit Slit (EXS) 197.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.015 %
Multiplier (EMULT) 2.25 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.3 V
Focus Quad (FQUAD) -3.2 V
VVR off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
304.952
304.982
305.01
<>
><
<<
>>
^
v
c
V
LOCK
UNLK
TUNE:


Peak Register Display
Copy result
to ULIST
100.0
50.0
0.0
slow
REG 1/2: 380.975238. REG 1/3: REG 2/3:
MASS : 304.98230 380.97507
REF MASS : 304.98243 380.97605
PEAK WIDTH [ppm]: 91.95175 99.00661
Active Register: 1 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _

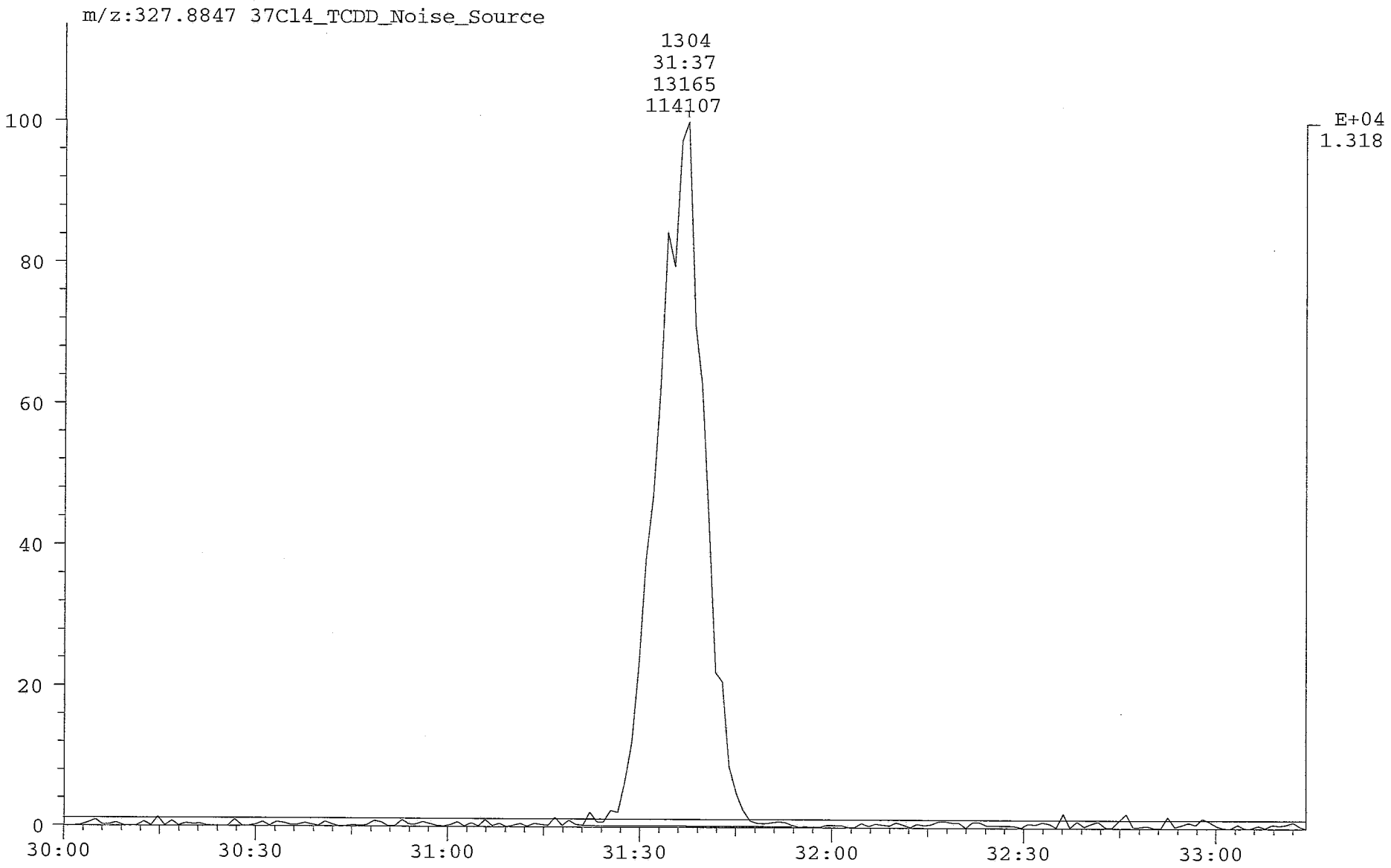

SCAN
AUTOTUNE
TUNE
R = 10 988
486 587 uV
-8.7 V
3.44 A
-24.1 V
1.00 mA
56.3 V
270 C
270 C
2445 2008 1269 3289
2445 2188 1237 3249
0.98 mA
-24.1 V
EI POS
electric
U(a) 4769 V
U(esa) 763.8 V
Entr. Slit (ENS) 145.0
Exit Slit (EXS) 197.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.015 %
Multiplier (EMULT) 2.25 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.3 V
Focus Quad (FQUAD) -3.2 V
VVR off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
304.952 304.982 305.01
<> >< << >> ^ v C v LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 304.98230
E rm 304.98243
G fm 304.95194
I lm 305.01290
S pc 7969179.60
T pl 7969562.80
E pr 7968830.02
R bl 2335.69
1 v 384967.00
R pm 380.97507
E rm 380.97605
G fm 380.93794
I lm 381.01414
S pc 6379574.16
T pl 6379892.95
E pr 6379261.33
R bl 2261.60
2 v 429046.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.2491711
PC+DELTA 1.2491711
PC+DELTA/RM 0.9999979
REF MASS 1.2491737
Active Register: 1 0.05 1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
Thu Jul 14 20:55:22 2011
mat95s
MAT 95

CHRO: b110714s4 14-Jul-11 Elapse: 31:18 1287
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1203 > 1373 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



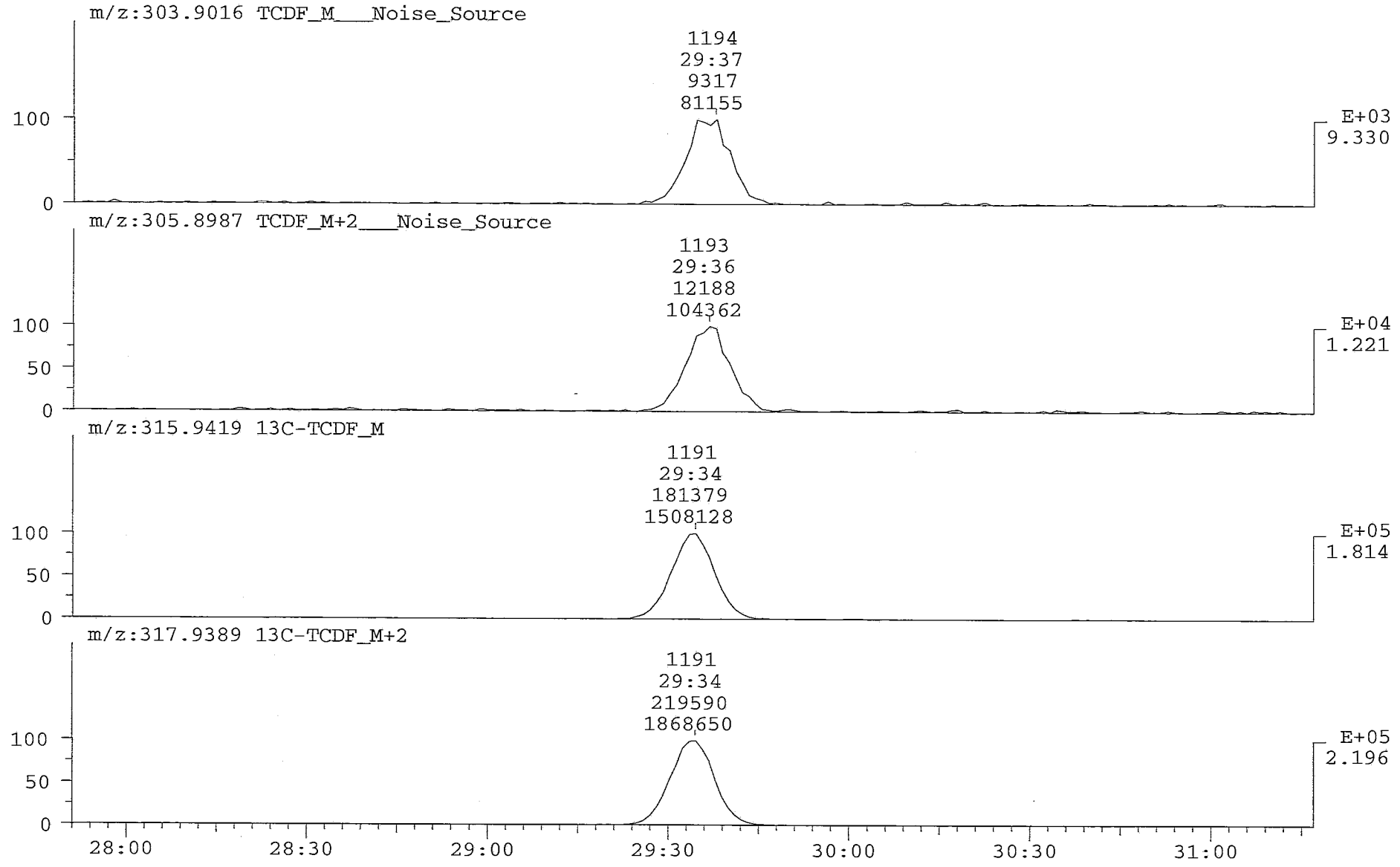
H-631

CHRO: b110714s4 14-Jul-11 Elapse: 31:34 1301
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1215 > 1393 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



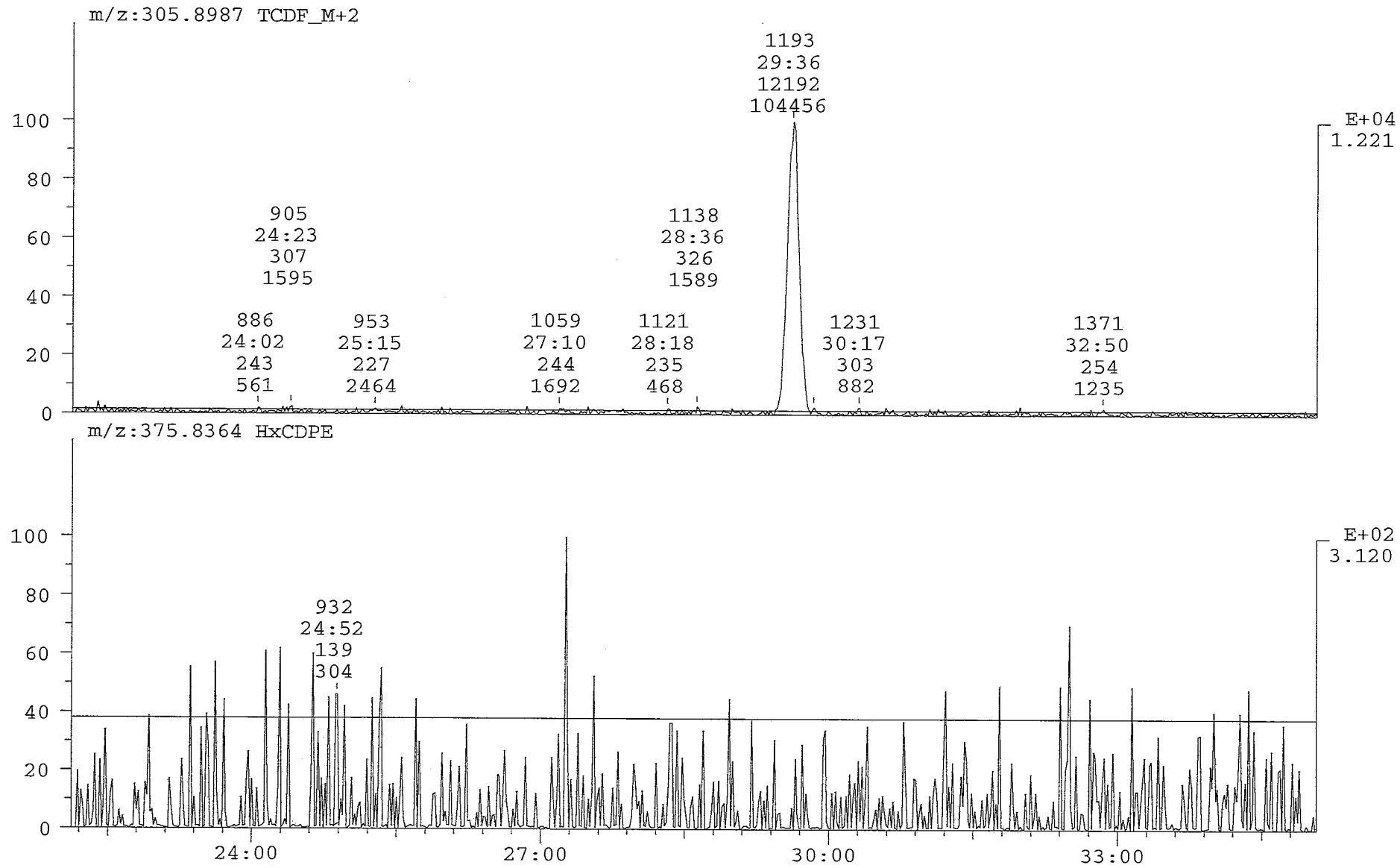
H-632

CHRO: b110714s4 14-Jul-11 Elapse: 29:31 1188
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1096 > 1285 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



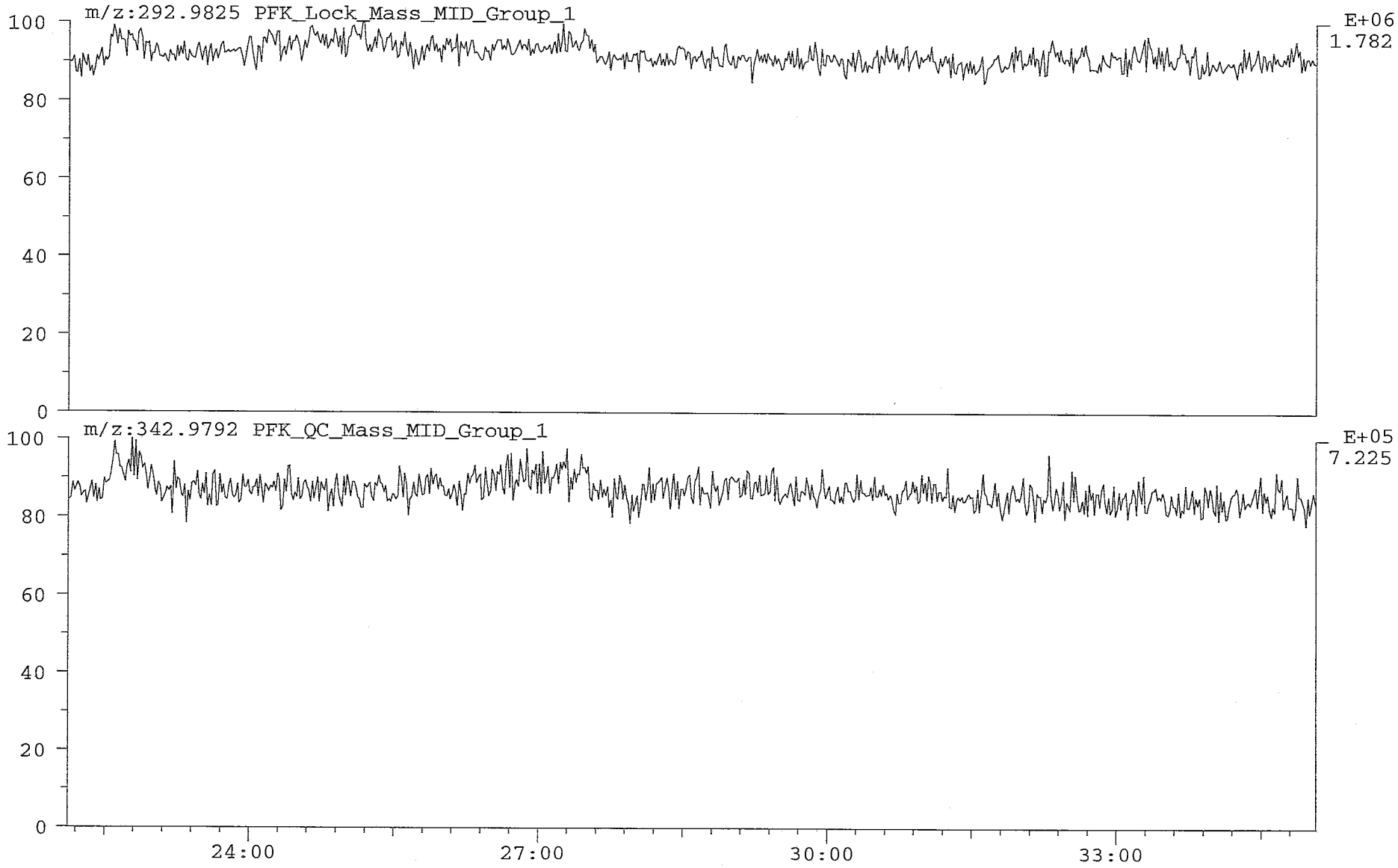
H-633

CHRO: b110714s4 14-Jul-11 Elapse: 29:31 1188
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 780 > 1494 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-634

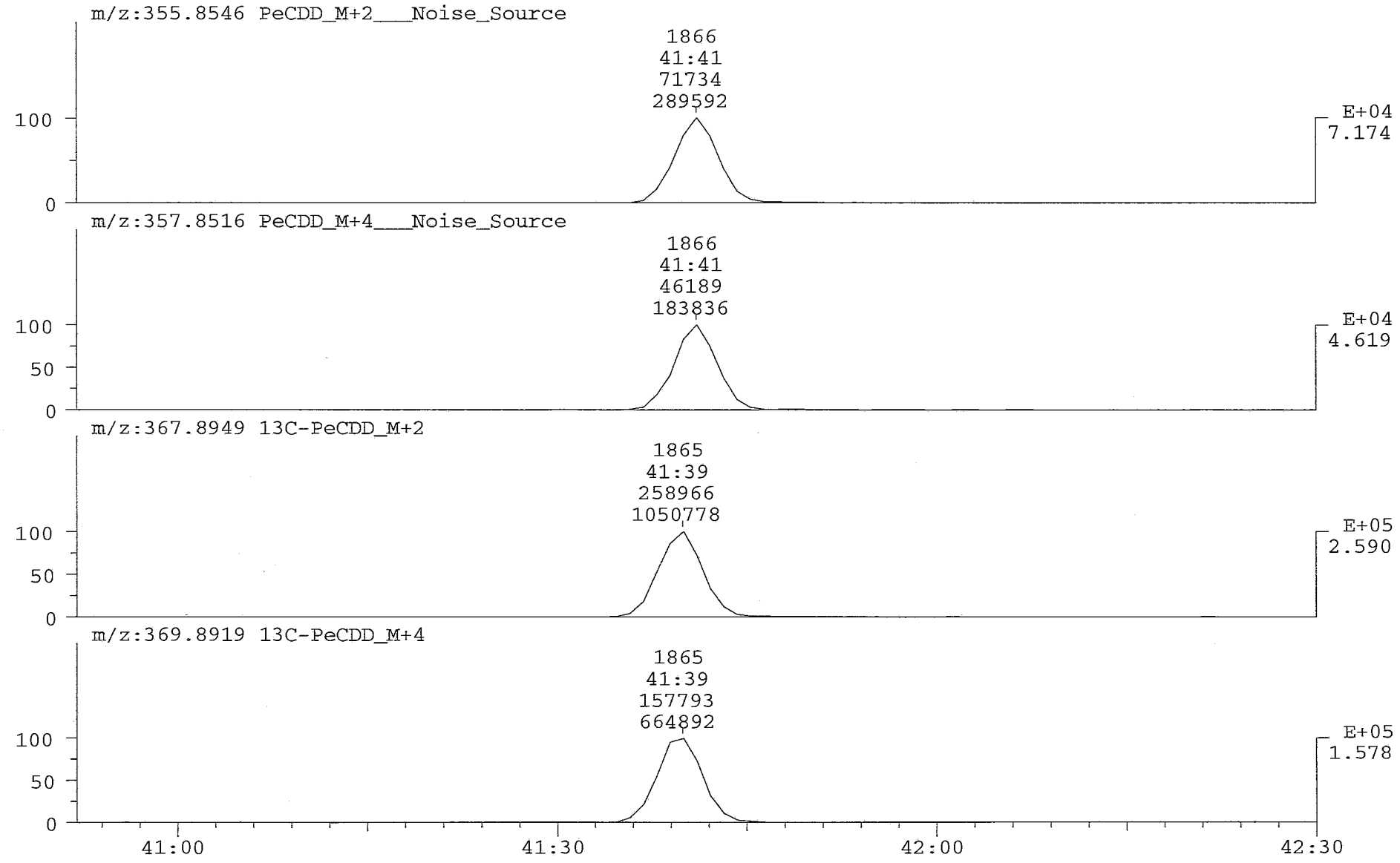
CHRO: b110714s4 14-Jul-11 Elapse: 29:31 1188
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 780 > 1494 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-635

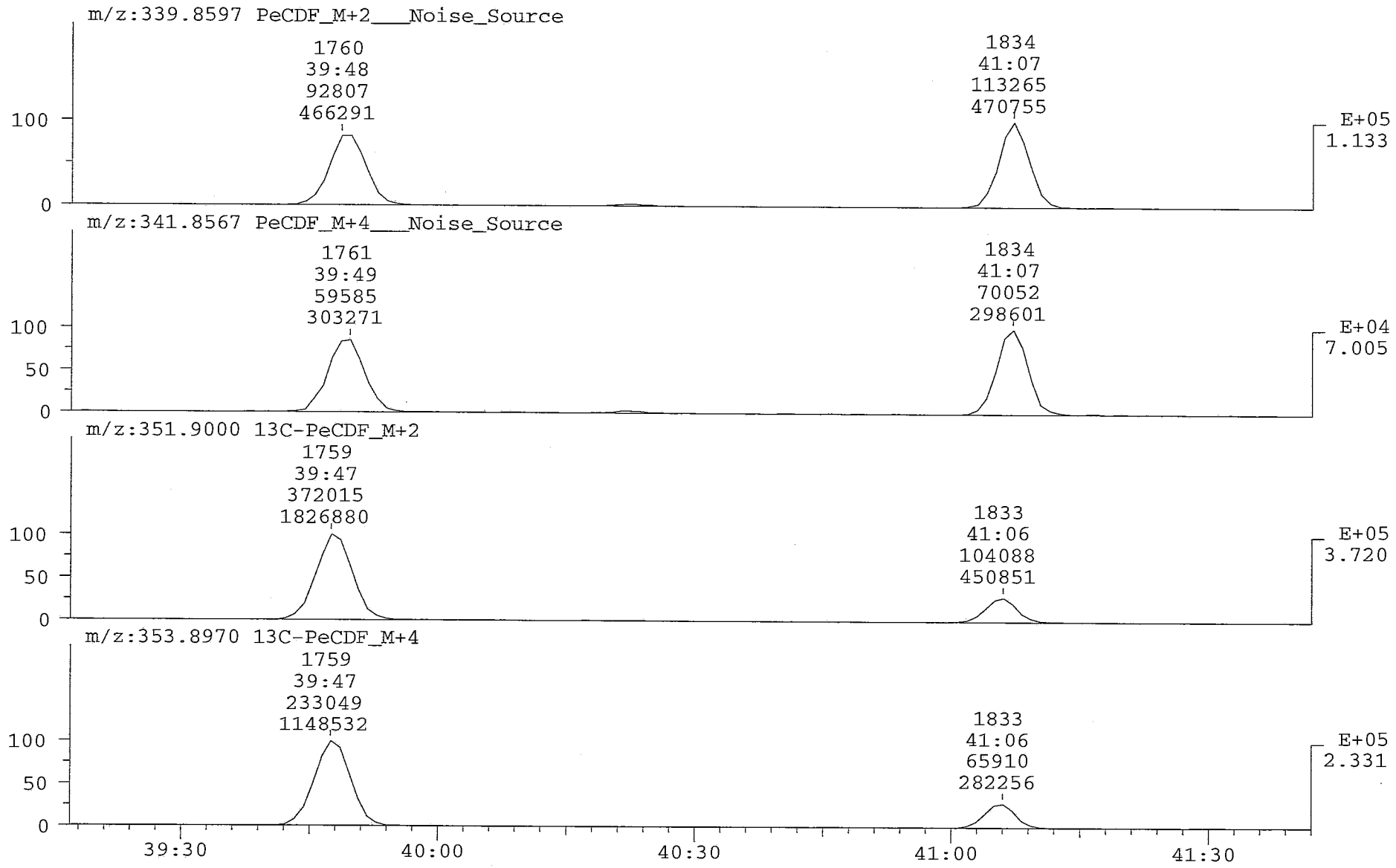
634

CHRO: b110714s4 14-Jul-11 Elapse: 41:37 1863
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1820 > 1912 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



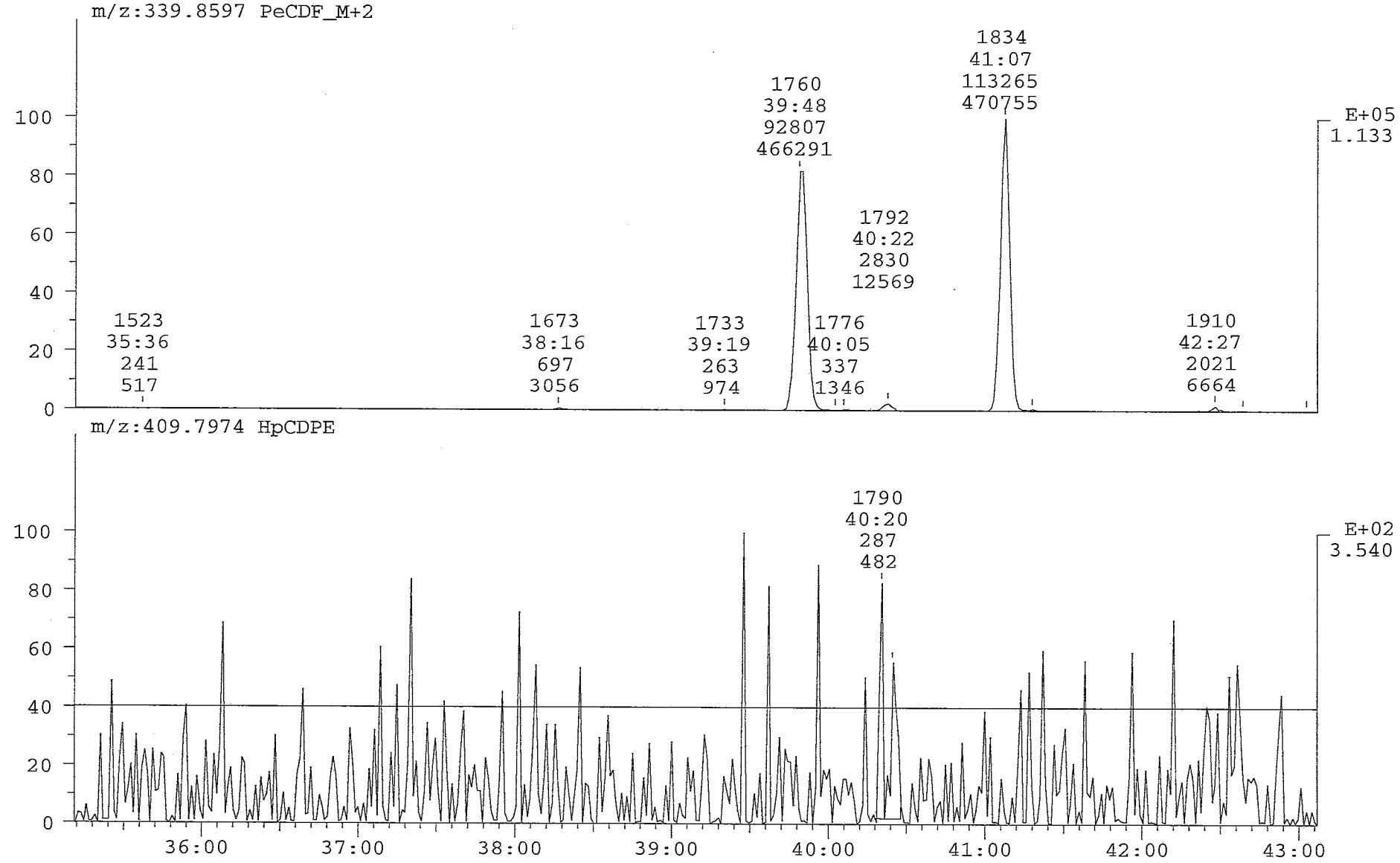
H-636

CHRO: b110714s4 14-Jul-11 Elapse: 40:28 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1730 > 1867 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-637

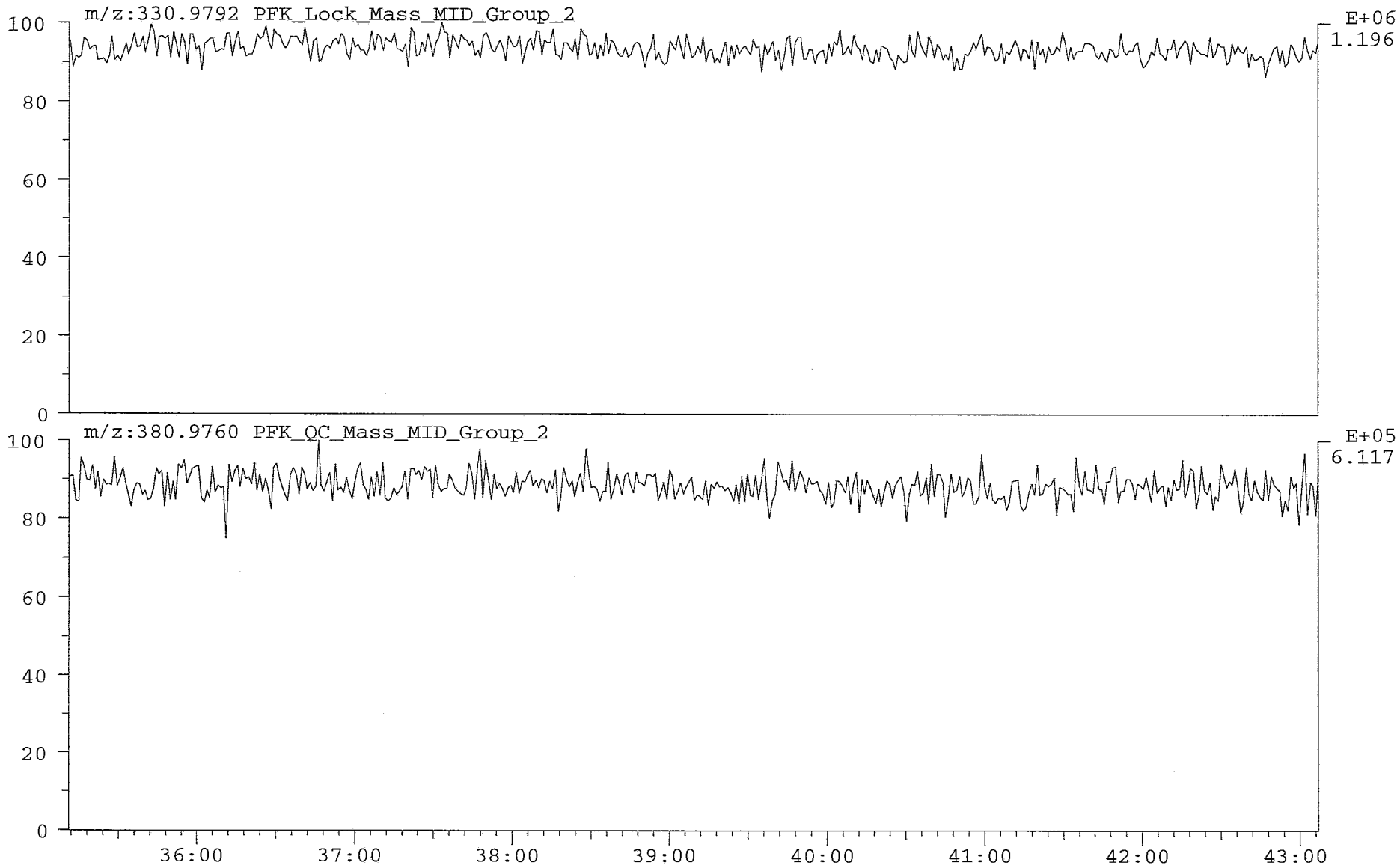
CHRO: b110714s4 14-Jul-11 Elapse: 40:28 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1499 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-638

637

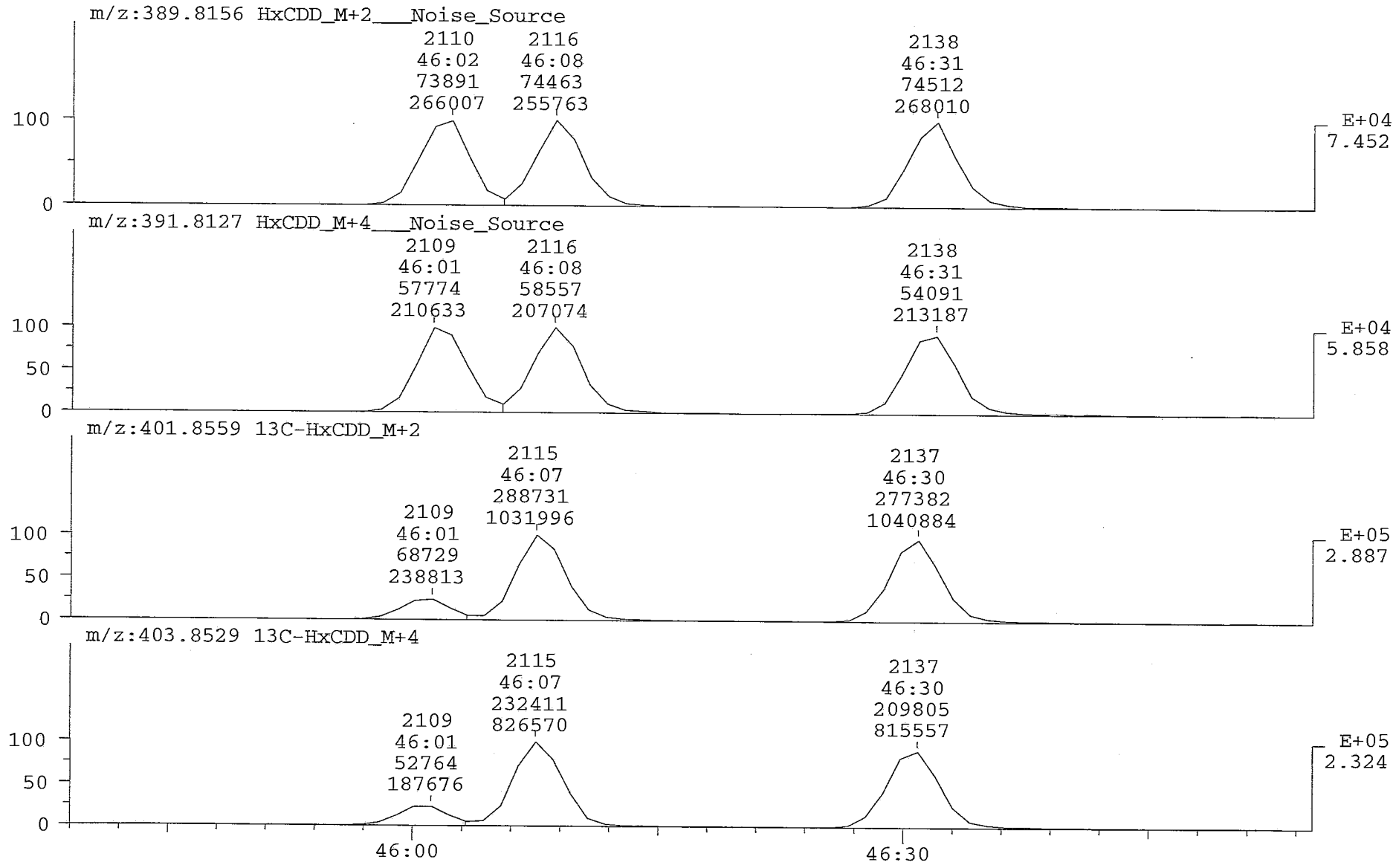
CHRO: b110714s4 14-Jul-11 Elapse: 40:28 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1499 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



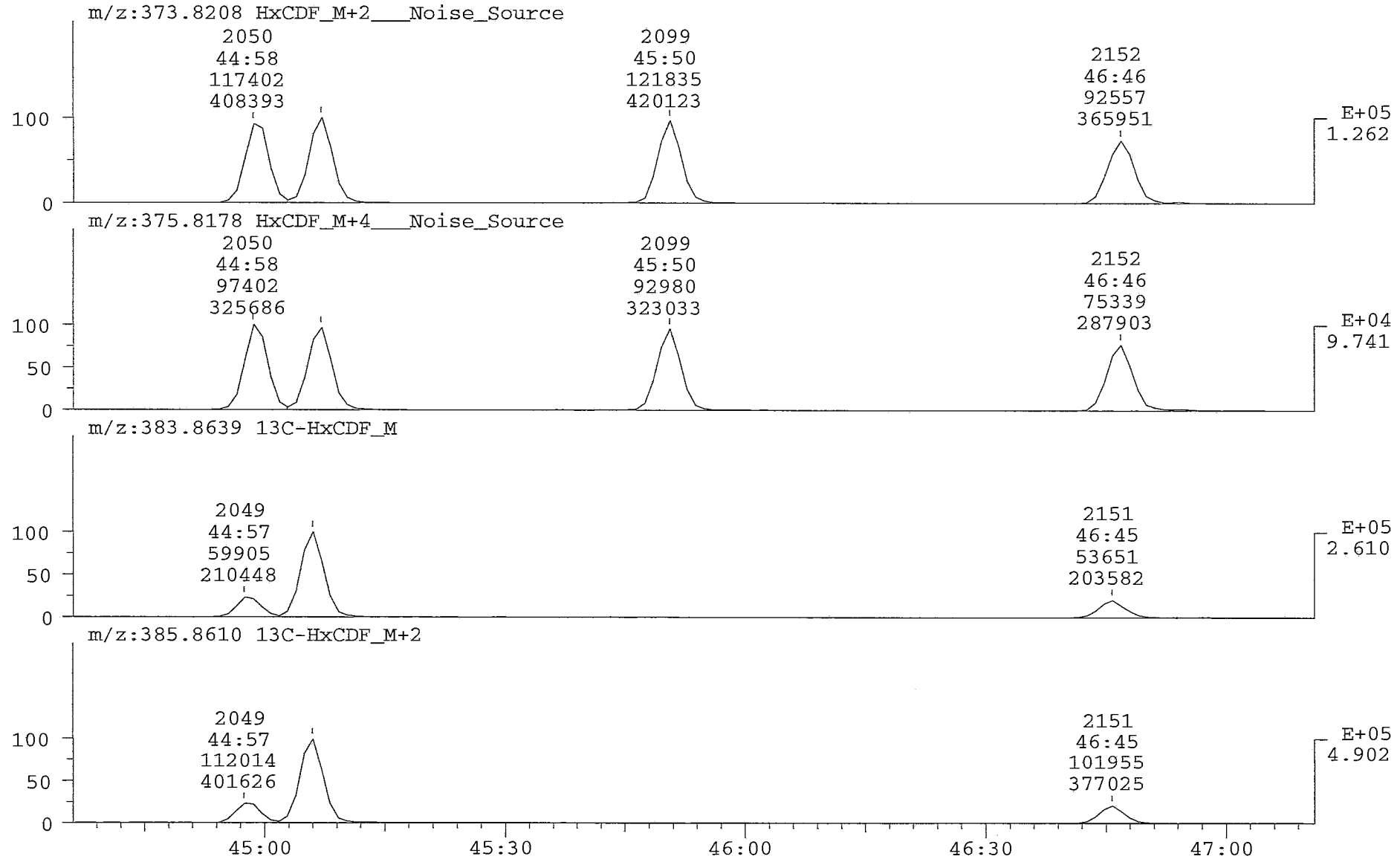
H-639

638

CHRO: b110714s4 14-Jul-11 Elapse: 46:17 2124
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2088 > 2160 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

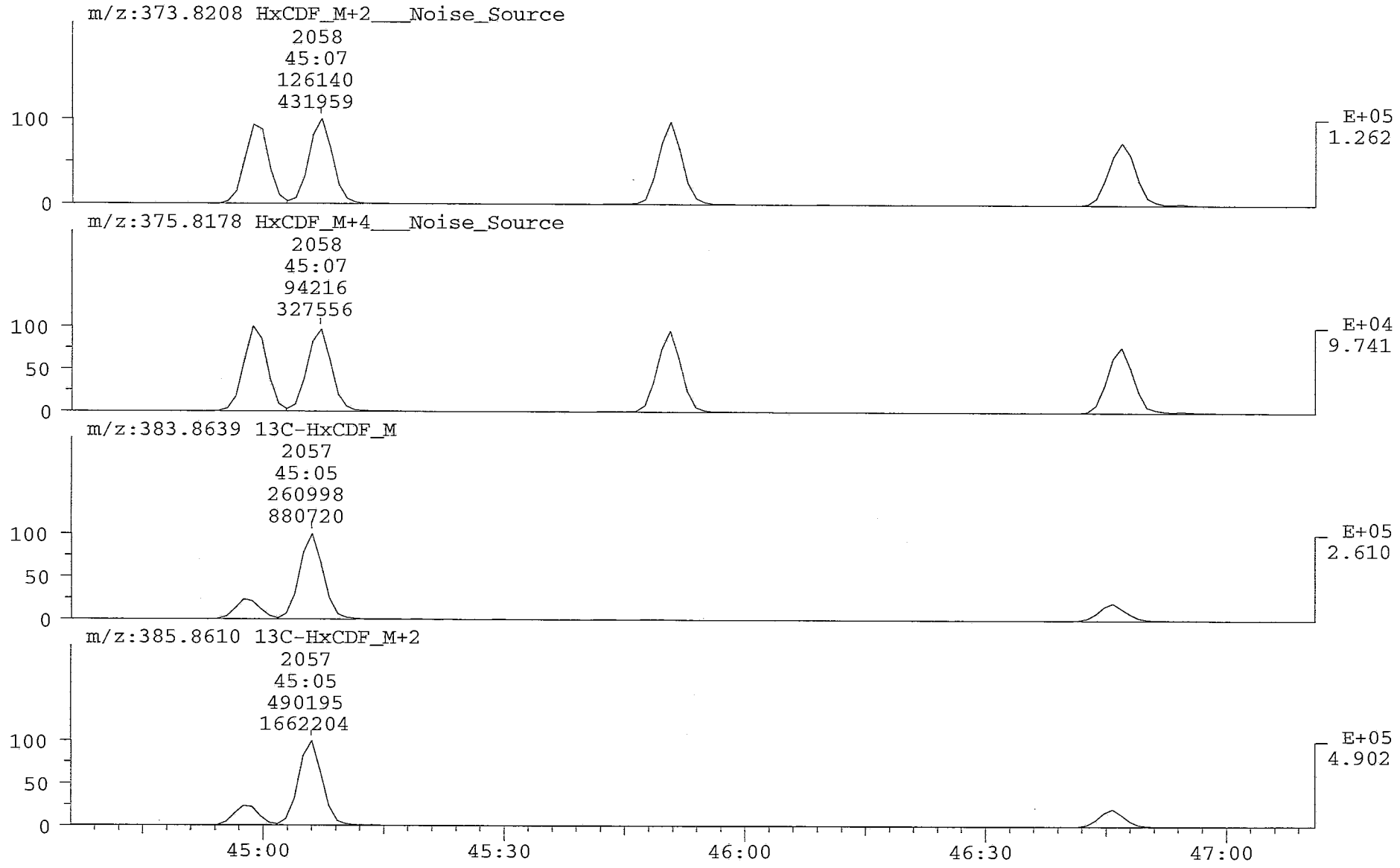


CHRO: b110714s4 14-Jul-11 Elapse: 45:52 2101
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2029 > 2175 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



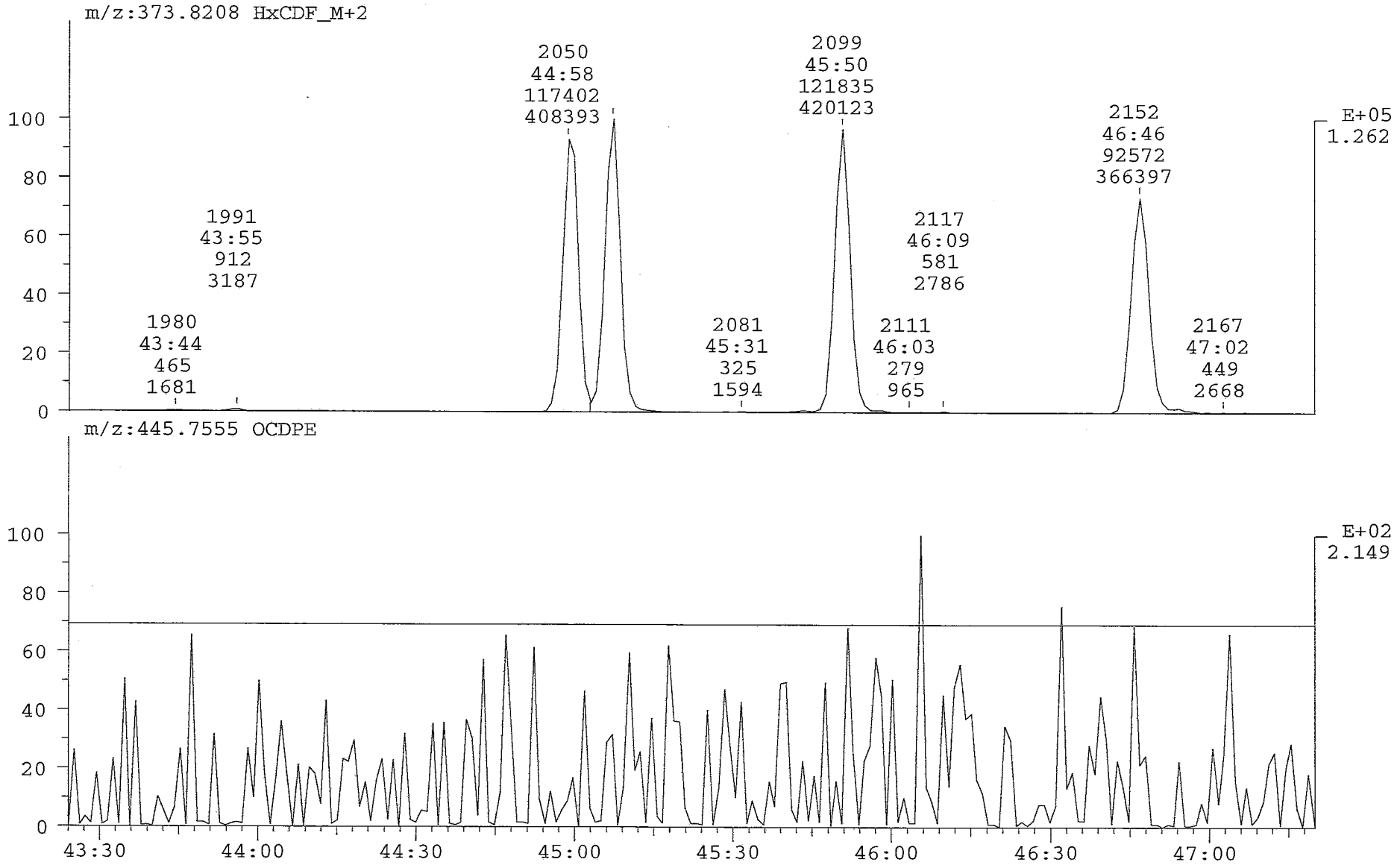
H-641

CHRO: b110714s4 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2052 > 2060 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-642

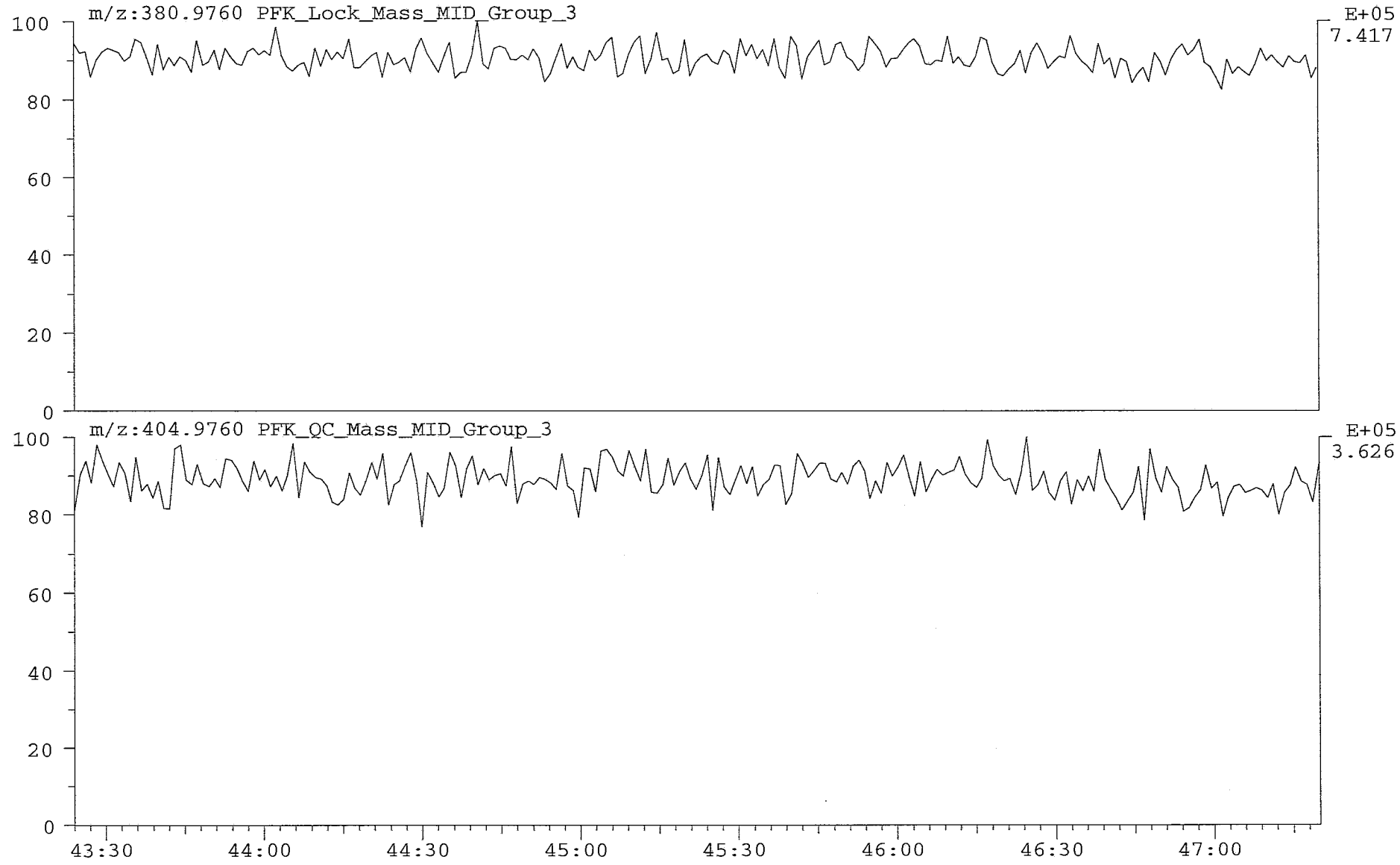
CHRO: b110714s4 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1961 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



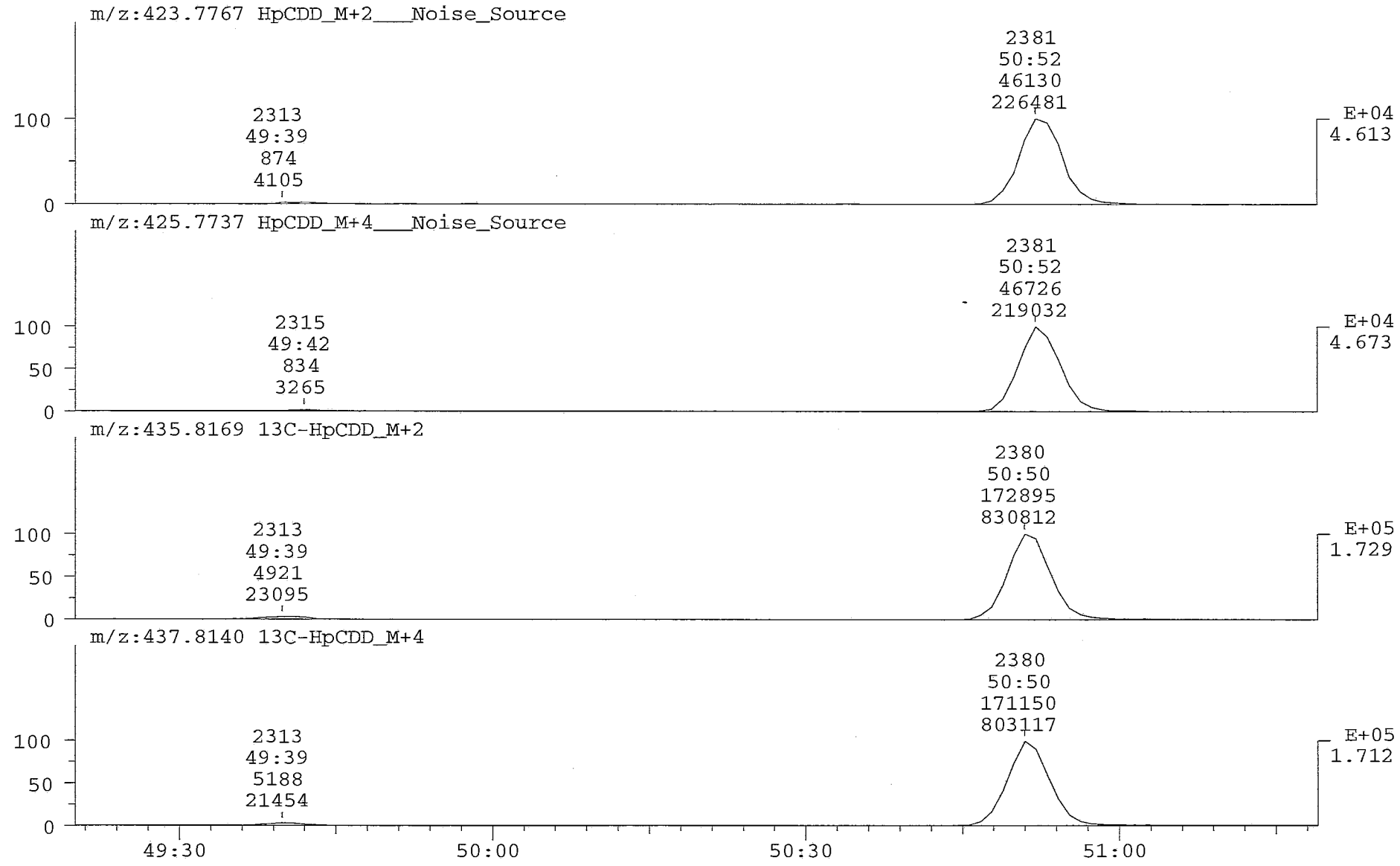
H-643

642

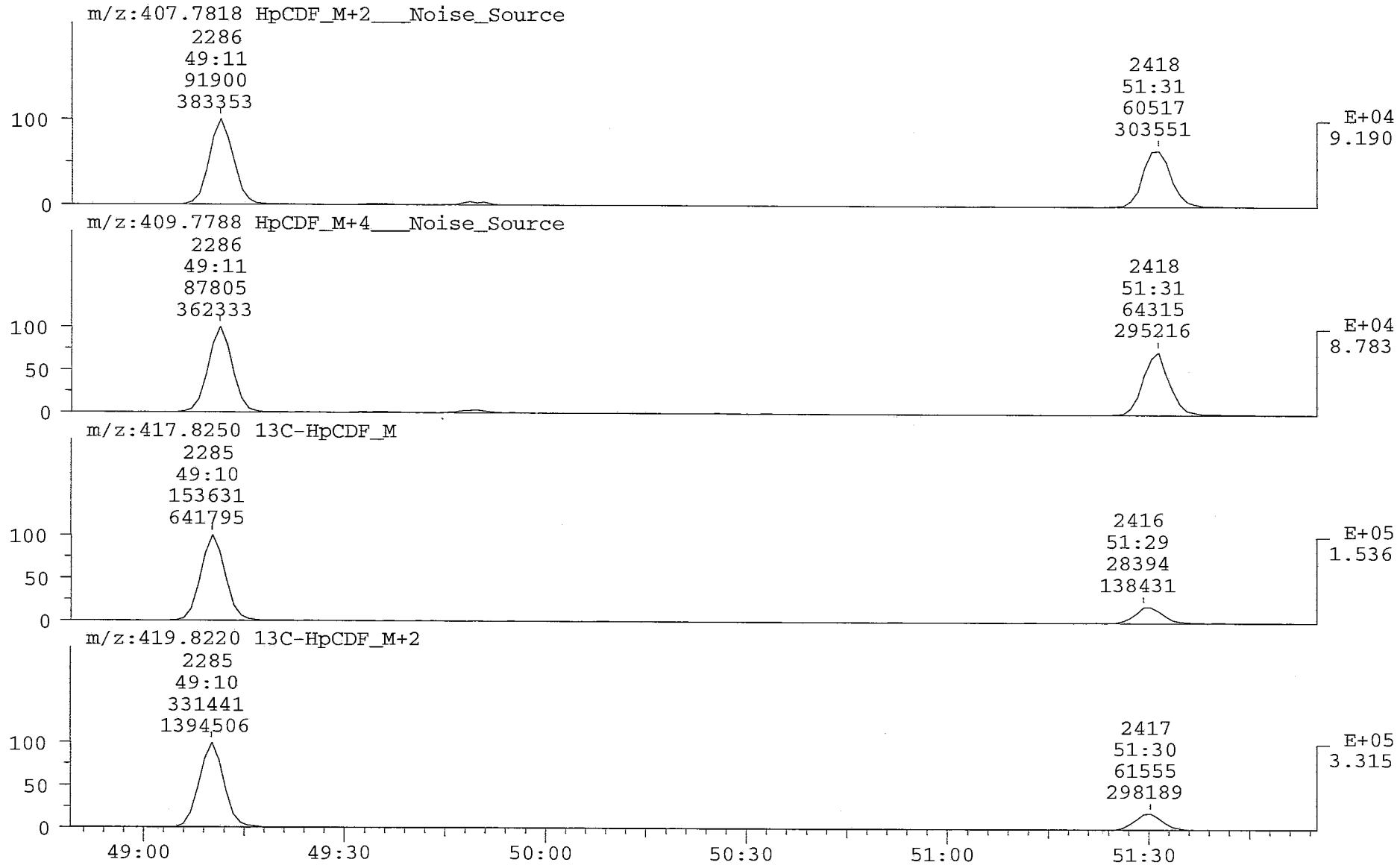
```
CHRO:  b110714s4                              14-Jul-11   Elapse:   45:04      2056
Samp:  Vial 3 WO=HR0014 Meth=X8 Dil=1                     Start :   19:55:26   2754
Comm:  Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :   M23 Ver
Oper:  KBL           Client:  TA-Knoxville                Inlet :   GC     Vial   3
Peak:  100.00  ppm     Label wndw:   1961 > 2183          Masses:   293 > 514
Area:  5, 0.50, 15     Baseline  :   100, 3               Label :   0, 0.0
Disp:  Height  Area
```



CHRO: b110714s4 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2294 > 2406 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

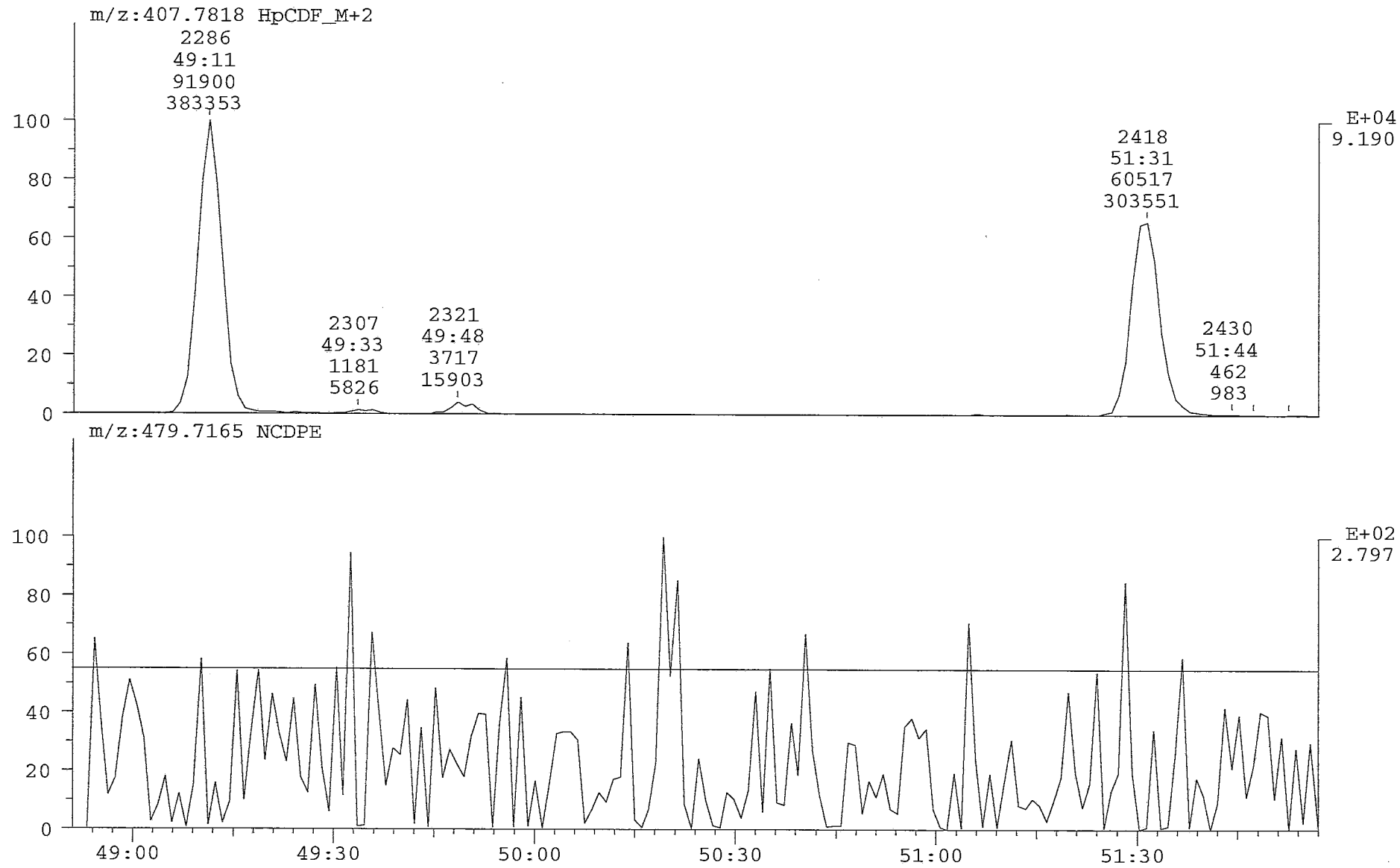


CHRO: b110714s4 14-Jul-11 Elapse: 50:22 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2265 > 2440 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



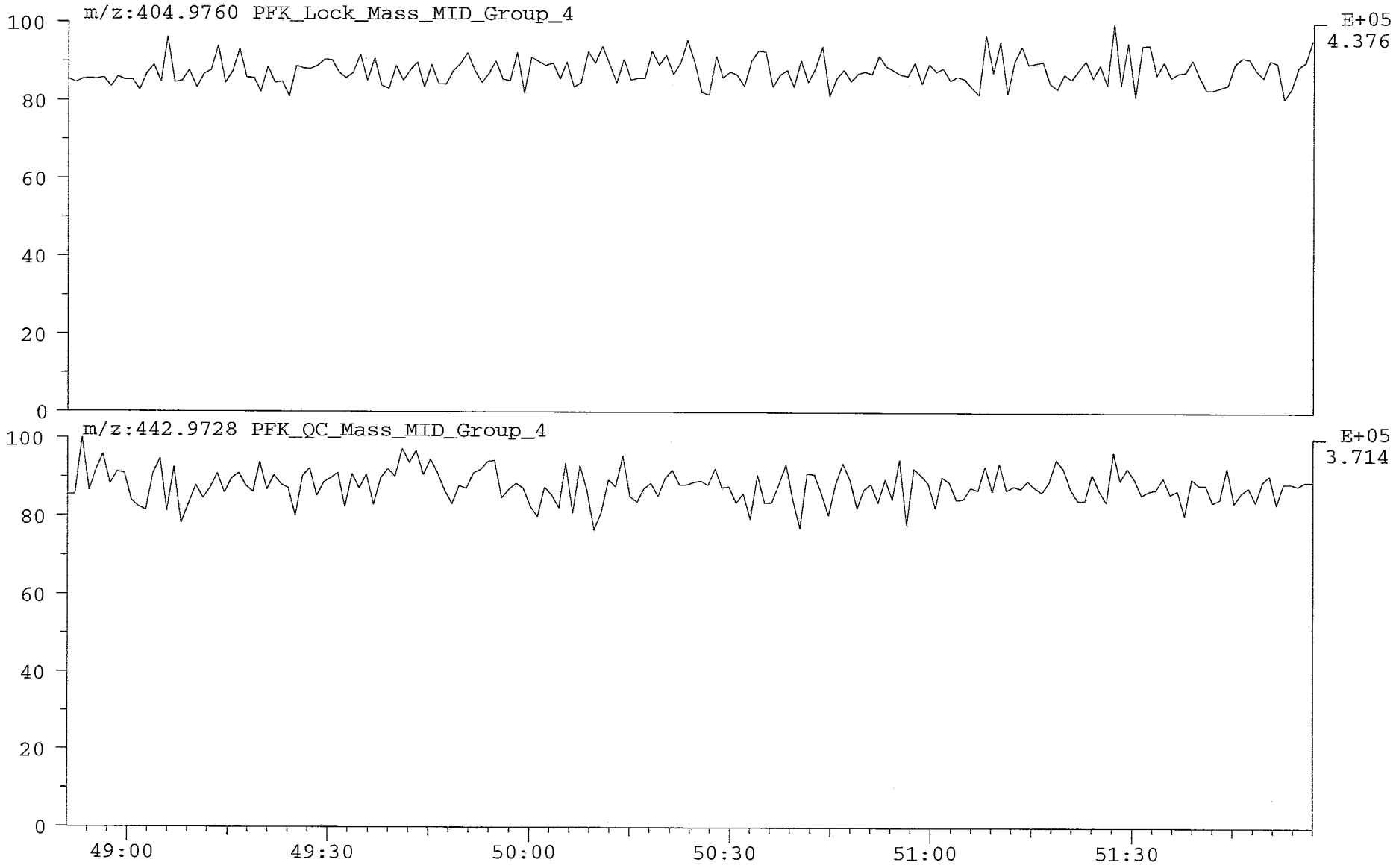
H-646

CHRO: b110714s4 14-Jul-11 Elapse: 50:22 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2267 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-647

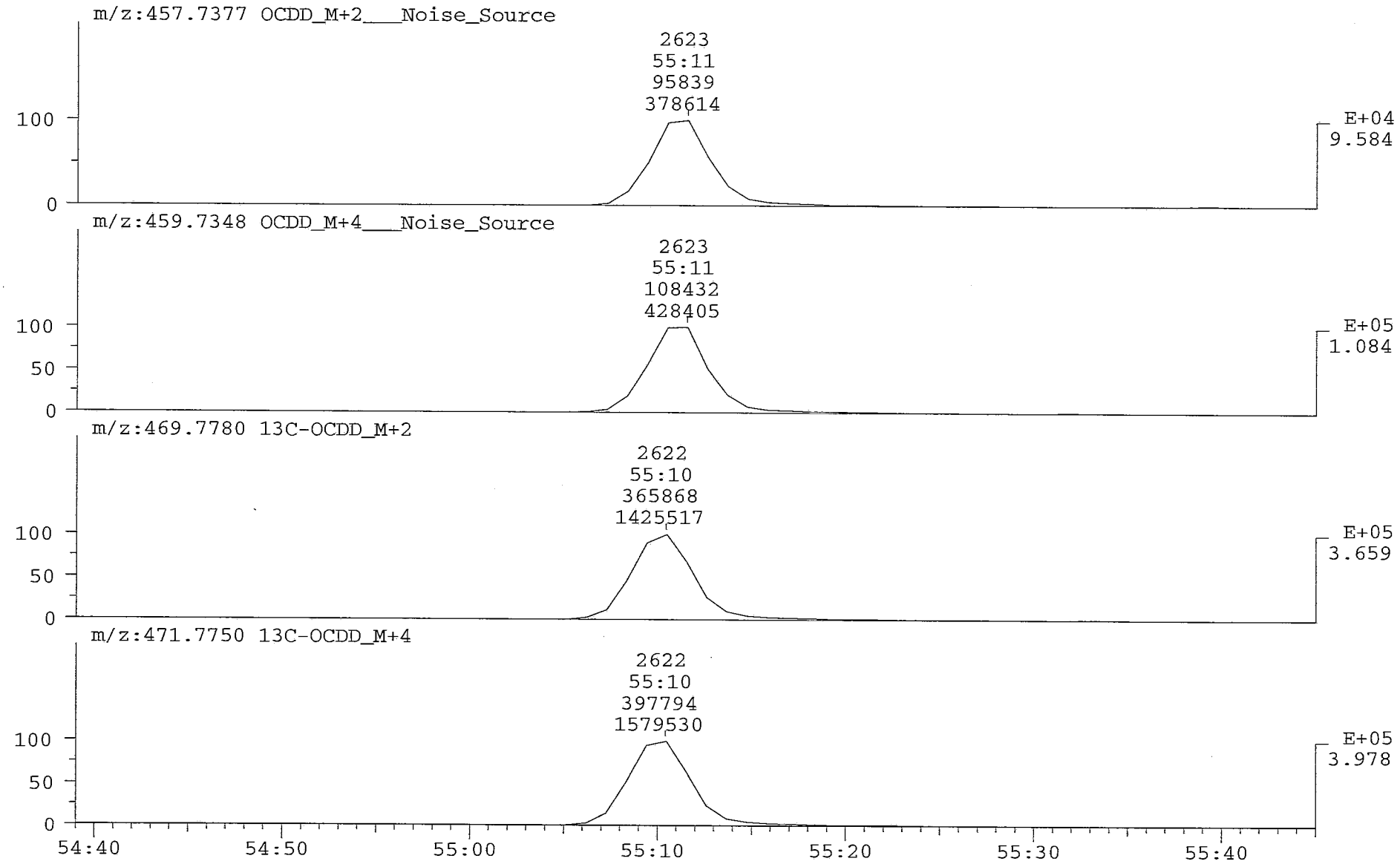
CHRO: b110714s4 14-Jul-11 Elapse: 50:22 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2267 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-648

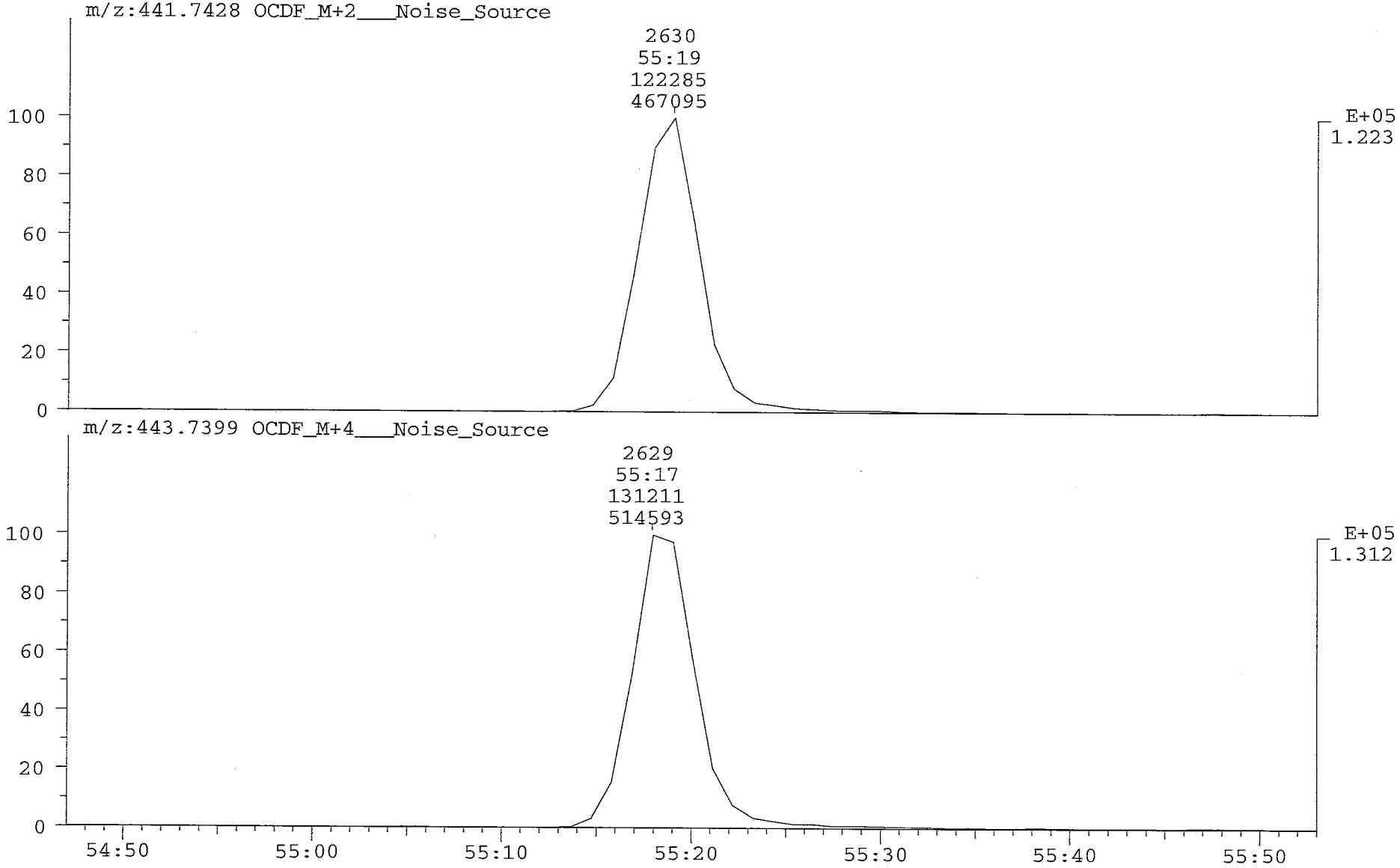
647

CHRO: b110714s4 14-Jul-11 Elapse: 55:09 2621
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2593 > 2654 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



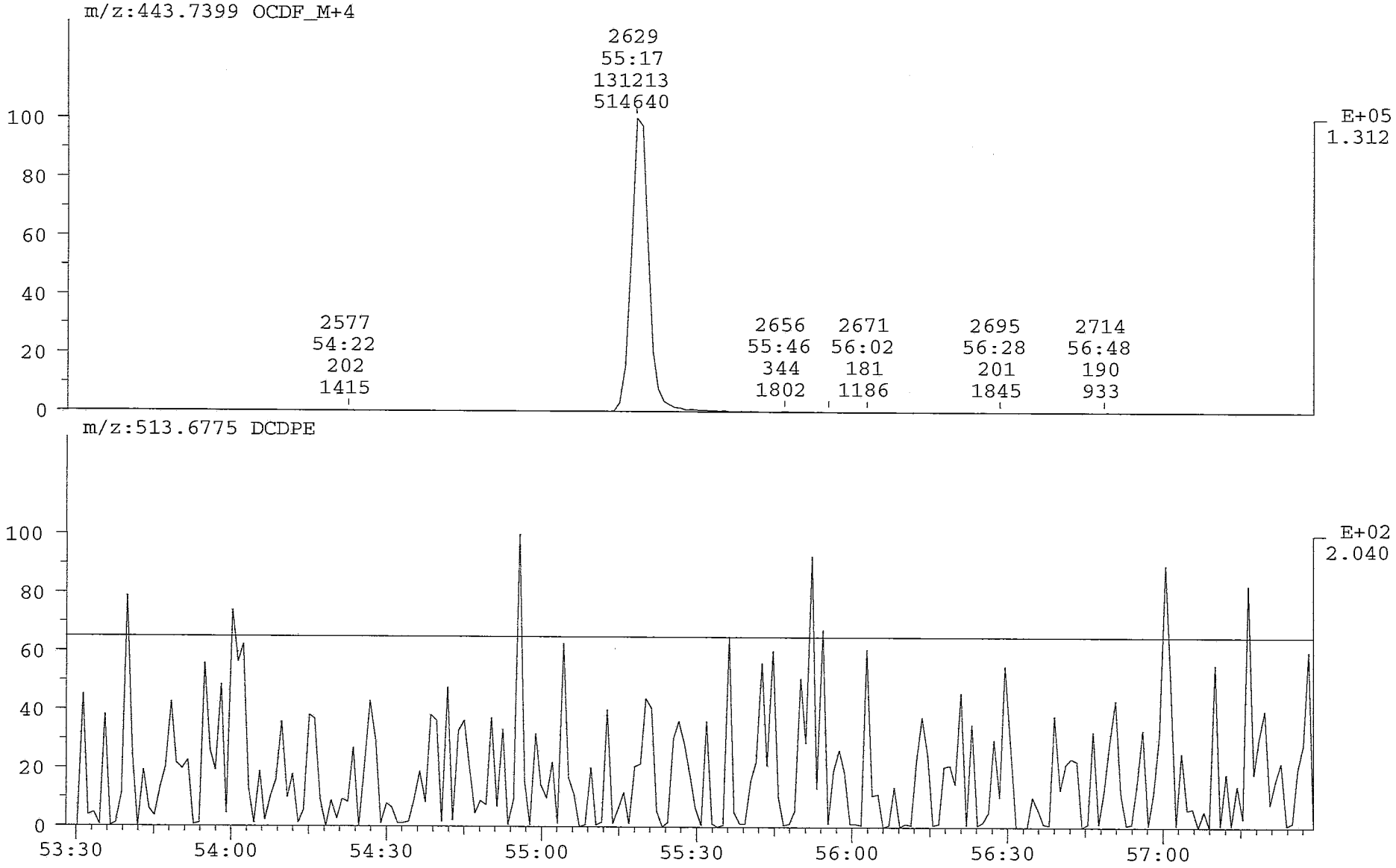
H-649

CHRO: b110714s4 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2600 > 2662 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



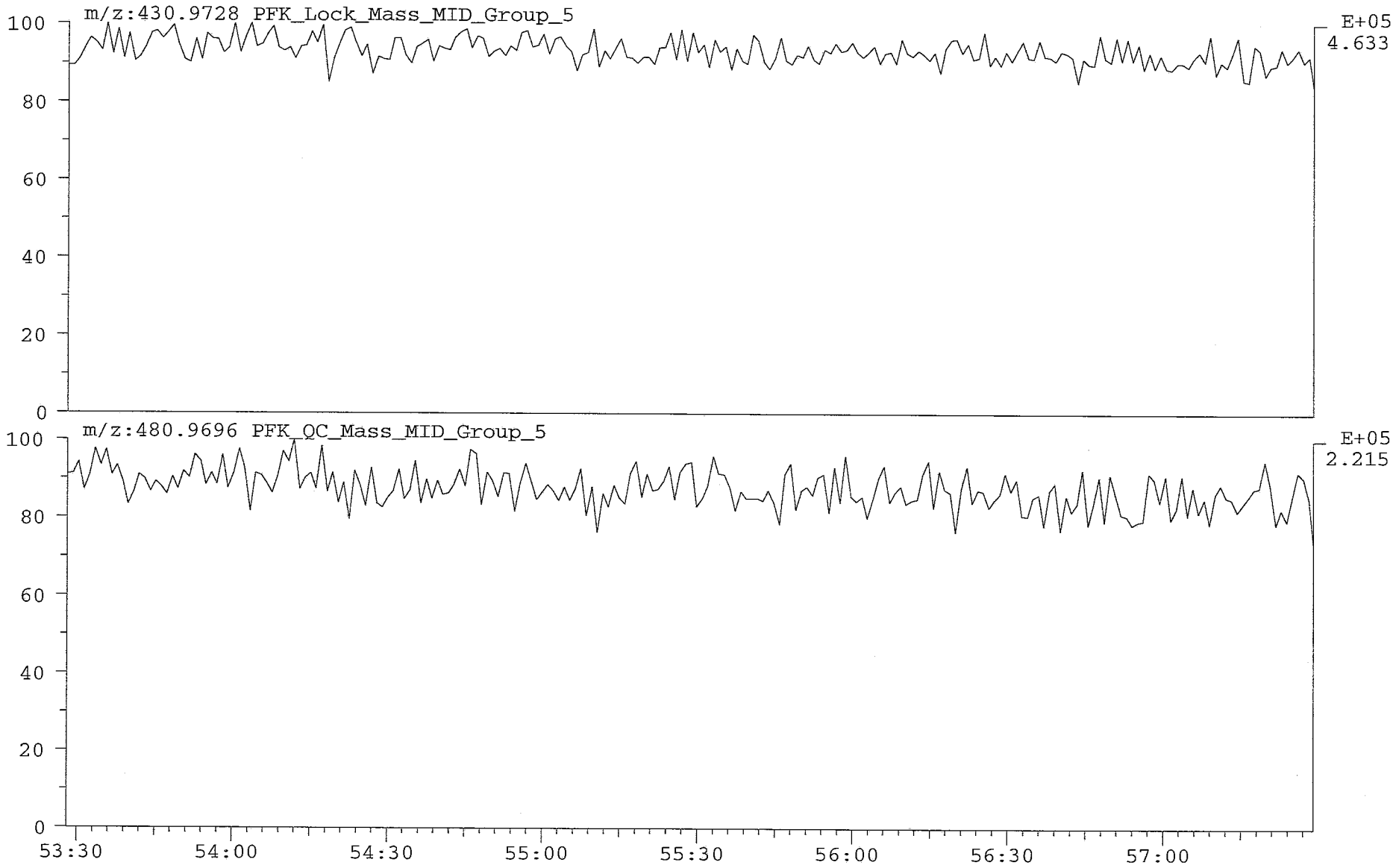
H-650

CHRO: b110714s4 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2526 > 2752 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-651

CHRO: b110714s4 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 19:55:26 2754
Comm: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2526 > 2752 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-652

Instrument internet name - mat95s
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis3ms
ICIS Version 8.2.1

ICL Version: 10.500
File name: b110714s4
Study: M23 Ver
Sample: WO=HR0014 Meth=X8 Dil=1
Amount: 0.0
Volume: 0.0
Operator: KBL
Client: TA-Knoxville
Comments: Inst=m2a/1027390 Batch=20110714s4 Ccal=B110714S3
Injected volume: 2.0
Sample from Vial 3
Analysis will stop when MID run finishes
Tune file name: tune2
File 11 of list 110712
ICL procedure: sleep6xy
MID procedure: epa1613

MID Remarks: Tetra-Octa PCDD/F EPA Method 8290/1613B

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	TRUE
Width first lock	0.20 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	100 cts
Electric range	2 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	8:00 min	27:05 min	35:05 min	1.00 sec
# 2	35:05 min	8:03 min	43:08 min	1.00 sec
# 3	43:08 min	4:44 min	47:52 min	1.00 sec
# 4	47:52 min	5:29 min	53:22 min	1.00 sec
# 5	53:22 min	4:08 min	57:30 min	1.00 sec

Mid Masses:

Window # 1

mass	F	int	gr	time (ms)
292.9825	1	10	1	8.19
303.9016		1	2	81.92
305.8987		1	2	81.92
315.9419		1	3	81.92
317.9389		1	3	81.92
319.8965		1	3	81.92
321.8936		1	3	81.92
327.8847		1	4	81.92
331.9368		1	4	81.92
333.9338		1	4	81.92
342.9792	c	10	5	8.19
375.8364		1	6	81.92

Window # 2

mass	F	int	gr	time (ms)
330.9792	1	10	1	8.19
339.8597		1	2	91.48
341.8567		1	2	91.48

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	1	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	1	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	1	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8419.0000
BDEV	8292.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.4353
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-24.0750
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	197.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	374.0000	FVINLET	854.0000
FVSRC	1050.0000	FWIN	0.7000	GCTC	138.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7157	HVANAL	1222.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4771.6680	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2755.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.6500	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10758.3328	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7200	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-16.0000
YLENS	3269.0000	YLENSS	-20.2000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 19:55:26.5

Autosampler has injected sample from vial 3
Analysis stopped at: 14-Jul-11 20:52:58.8 (run time 57.53 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44402 - B110714S5
CCAL Filename: b110714s5
CCAL Sample ID: HR0014
CCAL Result Dir: /20110714s5/b110714s5.d
CCAL Date/Time: 07/14/11 23:24

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	Calc Conc (ng/mL)	ICAL RF	CCAL RF	%D	QC Limit	Valid?
2,3,7,8-TCDD	M/M+2	0.83	0.65-0.89	5.1	1.172	1.207	3.0	20.0	True
2,3,7,8-TCDF	M/M+2	0.85	0.65-0.89	5.0	1.081	1.075	-0.5	20.0	True
1,2,3,7,8-PeCDD	M+2/M+4	1.64	1.32-1.78	23.9	1.124	1.074	-4.4	20.0	True
1,2,3,7,8-PeCDF	M+2/M+4	1.52	1.32-1.78	24.9	1.050	1.046	-0.4	20.0	True
2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	27	1.030	1.120	8.7	20.0	True
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	24.4	0.990	0.966	-2.5	20.0	True
1,2,3,6,7,8-HxCDD	M+2/M+4	1.21	1.05-1.43	26	1.020	1.055	3.4	20.0	True
1,2,3,7,8,9-HxCDD	M+2/M+4	1.27	1.05-1.43	26	1.003	1.027	2.4	20.0	True
1,2,3,4,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	24.8	1.091	1.081	-0.9	20.0	True
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	24.6	1.226	1.208	-1.5	20.0	True
2,3,4,6,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	23.2	1.160	1.076	-7.3	20.0	True
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	24.7	1.008	0.997	-1.1	20.0	True
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	24.5	1.094	1.071	-2.1	20.0	True
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	24.0	1.469	1.411	-4.0	20.0	True
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88-1.20	27	1.127	1.205	7.0	20.0	True
OCDD	M+2/M+4	0.89	0.76-1.02	50	1.075	1.080	0.4	20.0	True
OCDF	M+2/M+4	0.91	0.76-1.02	56	1.258	1.415	12.5	20.0	True
13C-2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	94	1.006	0.949	-5.7	30.0	True
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	100	1.719	1.723	0.2	30.0	True
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.61	1.32-1.78	79	0.953	0.753	-21.1	30.0	True
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	73	1.661	1.210	-27.2	30.0	True
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	97	1.035	1.008	-2.6	30.0	True
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	102	1.434	1.457	1.6	30.0	True
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	110	0.851	0.940	10.5	30.0	True
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.47	0.37-0.51	107	1.094	1.168	6.8	30.0	True
13C-OCDD	M+2/M+4	0.91	0.76-1.02	197	0.867	0.854	-1.6	30.0	True
37Cl4-2,3,7,8-TCDD			-	5.0	1.198	1.186	-1.0	30.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.67	1.32-1.78	26	0.994	1.044	5.1	30.0	True
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	26	0.887	0.937	5.6	30.0	True
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	25	0.891	0.908	1.9	30.0	True
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	25	1.321	1.324	0.2	30.0	True
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.47	0.37-0.51	27	0.841	0.900	7.0	30.0	True

PMP7.15-1)

4-15-11

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IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44402 - B110714S5
CCAL Filename: b110714s5
CCAL Sample ID: HR0014
CCAL Result Dir: /20110714s5/b110714s5.d
CCAL Date/Time: 07/14/11 23:24

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	ICAL RT	CCAL RT	RT Diff	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
2,3,7,8-TCDD	30:32	31:39	67	1.001	1.002	-	
2,3,7,8-TCDF	28:38	29:38	60	1.001	1.001	-	
1,2,3,7,8-PeCDD	41:12	41:42	30	1.000	1.000	-	
1,2,3,7,8-PeCDF	39:14	39:50	36	1.001	1.000	-	
2,3,4,7,8-PeCDF	40:37	41:08	31	1.036	1.033	-	
1,2,3,4,7,8-HxCDD	45:35	46:03	28	0.998	0.998	-	
1,2,3,6,7,8-HxCDD	45:41	46:10	29	1.000	1.000	-	
1,2,3,7,8,9-HxCDD	46:04	46:33	29	1.009	1.009	-	
1,2,3,4,7,8-HxCDF	44:34	45:00	26	0.997	0.997	-	
1,2,3,6,7,8-HxCDF	44:42	45:08	26	1.000	1.000	-	
2,3,4,6,7,8-HxCDF	45:24	45:51	27	1.016	1.016	-	
1,2,3,7,8,9-HxCDF	46:18	46:49	31	1.036	1.038	-	
1,2,3,4,6,7,8-HpCDD	50:15	50:55	40	1.000	1.001	-	
1,2,3,4,6,7,8-HpCDF	48:37	49:13	36	1.000	1.000	-	
1,2,3,4,7,8,9-HpCDF	50:52	51:33	41	1.047	1.048	-	
OCDD	54:41	55:12	31	1.000	1.000	-	
OCDF	54:49	55:20	31	1.002	1.003	-	
13C-2,3,7,8-TCDD	30:30	31:35	65	1.017	1.016	-	
13C-2,3,7,8-TCDF	28:36	29:36	60	0.954	0.952	-	
13C-1,2,3,7,8-PeCDD	41:11	41:41	30	1.373	1.341	-	
13C-1,2,3,7,8-PeCDF	39:13	39:49	36	1.308	1.281	-	
13C-1,2,3,6,7,8-HxCDD	45:40	46:09	29	0.992	0.992	-	
13C-1,2,3,6,7,8-HxCDF	44:41	45:07	26	0.971	0.970	-	
13C-1,2,3,4,6,7,8-HpCDD	50:13	50:53	40	1.091	1.093	-	
13C-1,2,3,4,6,7,8-HpCDF	48:36	49:12	36	1.056	1.057	-	
13C-OCDD	54:41	55:11	30	1.188	1.186	-	
37Cl4-2,3,7,8-TCDD	30:32	31:37	65	1.001	1.001	-	
13C-2,3,4,7,8-PeCDF	40:35	41:07	32	1.035	1.033	-	
13C-1,2,3,4,7,8-HxCDD	45:34	46:02	28	0.998	0.997	-	
13C-1,2,3,4,7,8-HxCDF	44:33	44:59	26	0.997	0.997	-	
13C-1,2,3,7,8,9-HxCDF	46:17	46:47	30	1.005	1.005	-	
13C-1,2,3,4,7,8,9-HpCDF	50:52	51:32	40	1.046	1.047	-	

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IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44402 - B110714S5

WIN Filename: b110714w2

WIN Sample ID: HR0034B

WIN Result Dir: /20110714s5/b110714w2.d

WIN Date/Time: 07/14/11 22:14

Method: X8 - 0023/8290

Instrument: M2A

Column SN: 1027390

Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Window Defining First/Last Eluter Retention Times

Analyte	Reference	M/Z	Ref RT	First Eluter RT	First Eluter RRT	Last Eluter RT	Last Eluter RRT
Total TCDD	13C-2,3,7,8-TCDD	320	31:36	25:49	0.8170	34:48	1.1013
Total TCDF	13C-2,3,7,8-TCDF	304	29:36	23:23	0.7900	34:36	1.1689
Total PeCDD	13C-1,2,3,7,8-PeCDD	356	41:38	38:38	0.9279	42:20	1.0168
Total PeCDF	13C-1,2,3,7,8-PeCDF	340	39:47	35:31	0.8928	42:26	1.0666
Total HxCDD	13C-1,2,3,6,7,8-HxCDD	390	46:07	44:25	0.9631	46:30	1.0083
Total HxCDF	13C-1,2,3,6,7,8-HxCDF	374	45:04	43:42	0.9697	46:54	1.0407
Total HpCDD	13C-1,2,3,4,6,7,8-HpCDD	424	50:52	49:40	0.9764	50:53	1.0003
Total HpCDF	13C-1,2,3,4,6,7,8-HpCDF	408	49:10	49:11	1.0003	51:31	1.0478
OCDD	13C-OCDD	458	55:09	55:10	1.0003	55:10	1.0003
OCDF	13C-OCDD	442	55:09	55:17	1.0024	55:17	1.0024

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IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110714s5/b110714s5.d	Prep Date		SDG No	
Analysis ID	133621	Prep Exp Date		Date Received	
Analysis Date	7/14/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	23:24	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	PMP				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
2,3,7,8-TCDD	31:39	91219	10341	1.172	5.000	5.149434	102.99	5.149434	E	0.143
Total TCDD				1.172		5.149434		5.149434	E	0.143
2,3,7,8-TCDF	29:38	147642	16869	1.081	5.000	4.973173	99.46	4.973173	E	0.102
Total TCDF				1.081		4.973173		4.973173	E	0.102
1,2,3,7,8-PeCDD	41:42	321935	78574	1.124	25.00	23.891888	95.57	23.891888	E	0.0779
Total PeCDD				1.124		23.891888		23.891888	E	0.0779
1,2,3,7,8-PeCDF	39:50	504302	100915	1.050	25.00	24.902399	99.61	24.902399	E	0.0721
2,3,4,7,8-PeCDF	41:08	539695	129453	1.030	25.00	27.175989	108.70	27.175989	E	0.0735
Total PeCDF				1.040		52.078387		52.078387	E	0.0728
1,2,3,4,7,8-HxCDD	46:03	344505	98124	0.990	25.00	24.384116	97.54	24.384116	E	0.100
1,2,3,6,7,8-HxCDD	46:10	376203	102550	1.020	25.00	25.839653	103.36	25.839653	E	0.0975
1,2,3,7,8,9-HxCDD	46:33	366317	97158	1.003	25.00	25.607139	102.43	25.607139	E	0.0992
Total HxCDD				1.004		75.830908		75.830908	E	0.0990
1,2,3,4,7,8-HxCDF	45:00	557112	160313	1.091	25.00	24.768064	99.07	24.768064	E	0.0613
1,2,3,6,7,8-HxCDF	45:08	622403	178645	1.226	25.00	24.637416	98.55	24.637416	E	0.0546
2,3,4,6,7,8-HxCDF	45:51	554221	152433	1.160	25.00	23.170909	92.68	23.170909	E	0.0576
1,2,3,7,8,9-HxCDF	46:49	513631	125534	1.008	25.00	24.723928	98.90	24.723928	E	0.0663
Total HxCDF				1.121		97.300317		97.300317	E	0.0596
1,2,3,4,6,7,8-HpCDD	50:55	356411	74996	1.094	25.00	24.479330	97.92	24.479330	E	0.0968
Total HpCDD				1.094		24.479330		24.479330	E	0.0968
1,2,3,4,6,7,8-HpCDF	49:13	582799	127748	1.469	25.00	24.005026	96.02	24.005026	E	0.0550
1,2,3,4,7,8,9-HpCDF	51:33	498047	98585	1.127	25.00	26.740868	106.96	26.740868	E	0.0717
Total HpCDF				1.298		50.745893		50.745893	E	0.0622
OCDD	55:12	652148	170264	1.075	50.00	50.206384	100.41	50.206384	E	0.104
OCDF	55:20	854909	218588	1.258	50.00	56.268913	112.54	56.268913	E	0.107
13C-2,3,7,8-TCDD	31:35	1511794	167086	1.006	100.0	94.258424	94.26	94.258424		0.329
13C-2,3,7,8-TCDF	29:36	2746511	325042	1.719	100.0	100.231655	100.23	100.231655		0.125
13C-1,2,3,7,8-PeCDD	41:41	1199317	297144	0.953	100.0	78.944084	78.94	78.944084		0.170
13C-1,2,3,7,8-PeCDF	39:49	1927778	386213	1.661	100.0	72.839788	72.84	72.839788		0.0885
13C-1,2,3,6,7,8-HxCDD	46:09	1426814	392181	1.035	100.0	97.432383	97.43	97.432383		0.140
13C-1,2,3,6,7,8-HxCDF	45:07	2061256	605727	1.434	100.0	101.564765	101.56	101.564765		0.0743
13C-1,2,3,4,6,7,8-HpCDD	50:53	1330752	264481	0.851	100.0	110.482977	110.48	110.482977		0.108
13C-1,2,3,4,6,7,8-HpCDF	49:12	1652615	374380	1.094	100.0	106.779483	106.78	106.779483		0.0837
13C-OCDD	55:11	2415864	600274	0.867	200.0	196.867628	98.43	196.867628		0.153
37Cl4-2,3,7,8-TCDD	31:37	89680	10703	1.198	5.000	4.951533	99.03	4.951533	E	0.0699
13C-2,3,4,7,8-PeCDF	41:07	503092	114315	0.994	25.00	26.267016	105.07	26.267016	E	0.0697
13C-1,2,3,4,7,8-HxCDD	46:02	334164	97427	0.887	25.00	26.399228	105.60	26.399228	E	0.154
13C-1,2,3,4,7,8-HxCDF	44:59	467758	134489	0.891	25.00	25.473496	101.89	25.473496	E	0.0727
13C-1,2,3,7,8,9-HxCDF	46:47	468249	113389	1.321	25.00	25.047279	100.19	25.047279	E	0.0806
13C-1,2,3,4,7,8,9-HpCDF	51:32	371786	74677	0.841	25.00	26.743258	106.97	26.743258	E	0.107
13C-1,2,3,4-TCDD	31:05	1593708	181926	1.000	100.0	100.000000	100.00	100.000000		0.331
13C-1,2,3,7,8,9-HxCDD	46:32	1415148	368576	1.000	100.0	100.000000	100.00	100.000000		0.145

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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110714s5/b110714s5.	Prep Date		SDG No	
Analysis ID	133621	Prep Exp Date		Date Received	
Analysis Date	07/14/11 23:24	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	PMP	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	185	173	74	69	1.07 *	/	
	2,3,7,8-TCDF	29:38	29:44	-6	67649	79993	7963	8906	0.85	ABB/ABB	M
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	160	233	64	93	0.69	/	
	13C-2,3,7,8-TCDF	29:36	29:42	-6	1216457	1530054	145433	179609	0.80	ABV/AVV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	125	155	50	62	0.81	/	
	2,3,7,8-TCDD	31:39	31:32	7	41402	49817	4974	5367	0.83	AVB/AVB	M
328					327.8847		327.8847				
	Noise	00:00	00:00	0	140		56				
	37Cl4-2,3,7,8-TCDD	31:37	31:32	5	89680		10703			ABB	
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	375	228	150	91	1.65 *	/	
	13C-1,2,3,4-TCDD	31:05	31:01	4	715769	877939	82869	99057	0.82	ABV/AVV	
	13C-2,3,7,8-TCDD	31:35	31:30	5	667388	844406	74495	92591	0.79	AVV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	138	155	55	62	0.89 *	/	
	1,2,3,7,8-PeCDF	39:50	39:54	-4	304118	200184	60052	40863	1.52	ABB/AVV	
	2,3,4,7,8-PeCDF	41:08	41:15	-7	328879	210816	77346	52107	1.56	ABV/ABV	M
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	118	150	47	60	0.78 *	/	
	13C-1,2,3,7,8-PeCDF	39:49	39:53	-4	1181668	746110	236908	149305	1.58	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:07	41:13	-6	314345	188747	72065	42250	1.67	ABV/ABB	M
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	148	113	59	45	1.31 *	/	
	1,2,3,7,8-PeCDD	41:42	41:49	-7	199848	122087	48729	29845	1.64	ABV/ABB	M
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	148	148	59	59	1.00 *	/	
	13C-1,2,3,7,8-PeCDD	41:41	41:48	-7	739752	459565	182079	115065	1.61	ABV/ABV	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	195	210	78	84	0.93 *	/	
	1,2,3,4,7,8-HxCDF	45:00	45:07	-7	310210	246902	89995	70318	1.26	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	45:08	45:15	-7	347172	275231	98199	80446	1.26	AVV/AVV	M
	2,3,4,6,7,8-HxCDF	45:51	45:57	-6	309829	244392	84644	67789	1.27	ABV/ABV	M
	1,2,3,7,8,9-HxCDF	46:49	46:50	-1	284018	229613	68235	57299	1.24	ABB/ABV	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	193	200	77	80	0.96 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:59	45:06	-7	161333	306425	47727	86762	0.53	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	45:07	45:14	-7	719713	1341543	208410	397317	0.54	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:47	46:49	-2	163036	305213	39595	73794	0.53	ABV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	225	165	90	66	1.36	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110714s5/b110714s5.	Prep Date		SDG No	
Analysis ID	133621	Prep Exp Date		Date Received	
Analysis Date	07/14/11 23:24	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	PMP	Diluton Factor	1.00	Code	X8

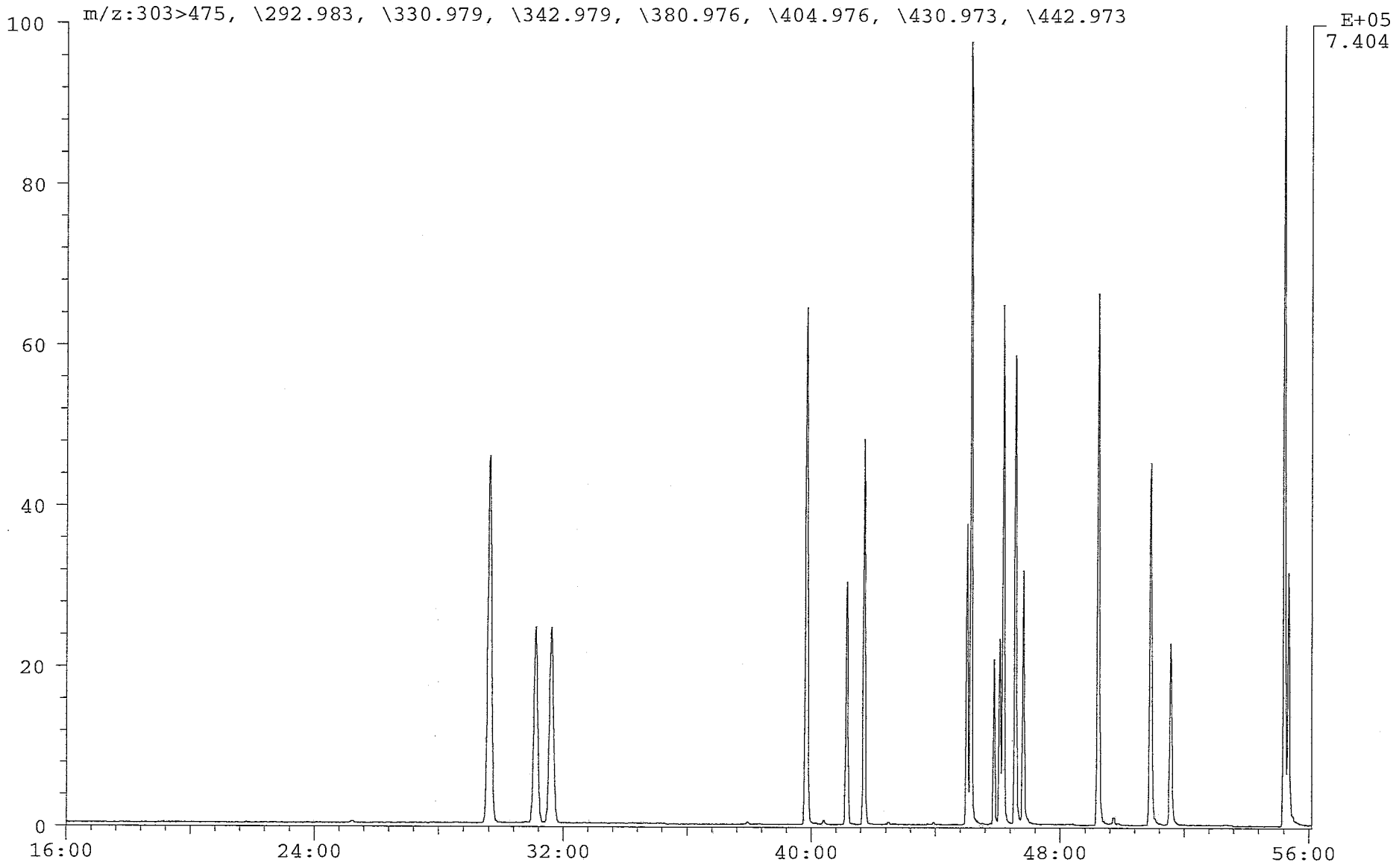
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,4,7,8-HxCDD	46:03	46:08	-5	190677	153828	53559	44565	1.24	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	46:10	46:14	-4	206233	169970	56003	46547	1.21	AVV/AVV	M
	1,2,3,7,8,9-HxCDD	46:33	46:36	-3	204699	161618	54275	42883	1.27	AVV/ABV	
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	318	218	127	87	1.46 *	/	
	13C-1,2,3,4,7,8-HxCDD	46:02	46:07	-5	184163	150001	53608	43819	1.23	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	46:09	46:13	-4	797829	628985	220729	171452	1.27	AVB/AVV	M
	13C-1,2,3,7,8,9-HxCDD	46:32	46:34	-2	782134	633014	201240	167336	1.24	ABV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	135	168	54	67	0.81 *	/	
	1,2,3,4,6,7,8-HpCDF	49:13	49:09	4	296222	286577	65988	61760	1.03	ABV/ABV	
	1,2,3,4,7,8,9-HpCDF	51:33	51:24	9	252284	245763	51197	47388	1.03	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	160	178	64	71	0.90 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:12	49:08	4	525326	1127289	116876	257504	0.47	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:32	51:24	8	119018	252768	24602	50075	0.47	ABB/ABV	M
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	160	120	64	48	1.33 *	/	
	1,2,3,4,6,7,8-HpCDD	50:55	50:47	8	182729	173682	37485	37511	1.05	ABV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	200	138	80	55	1.45 *	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:53	50:45	8	688087	642665	137756	126725	1.07	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	210	193	84	77	1.09 *	/	
	OCDF	55:20	55:23	-3	406798	448111	103959	114629	0.91	ABV/ABV	
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	190	145	76	58	1.31 *	/	
	OCDD	55:12	55:15	-3	307428	344720	80186	90078	0.89	ABV/ABV	
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	270	220	108	88	1.23 *	/	
	13C-OCDD	55:11	55:15	-4	1147762	1268102	281335	318939	0.91	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

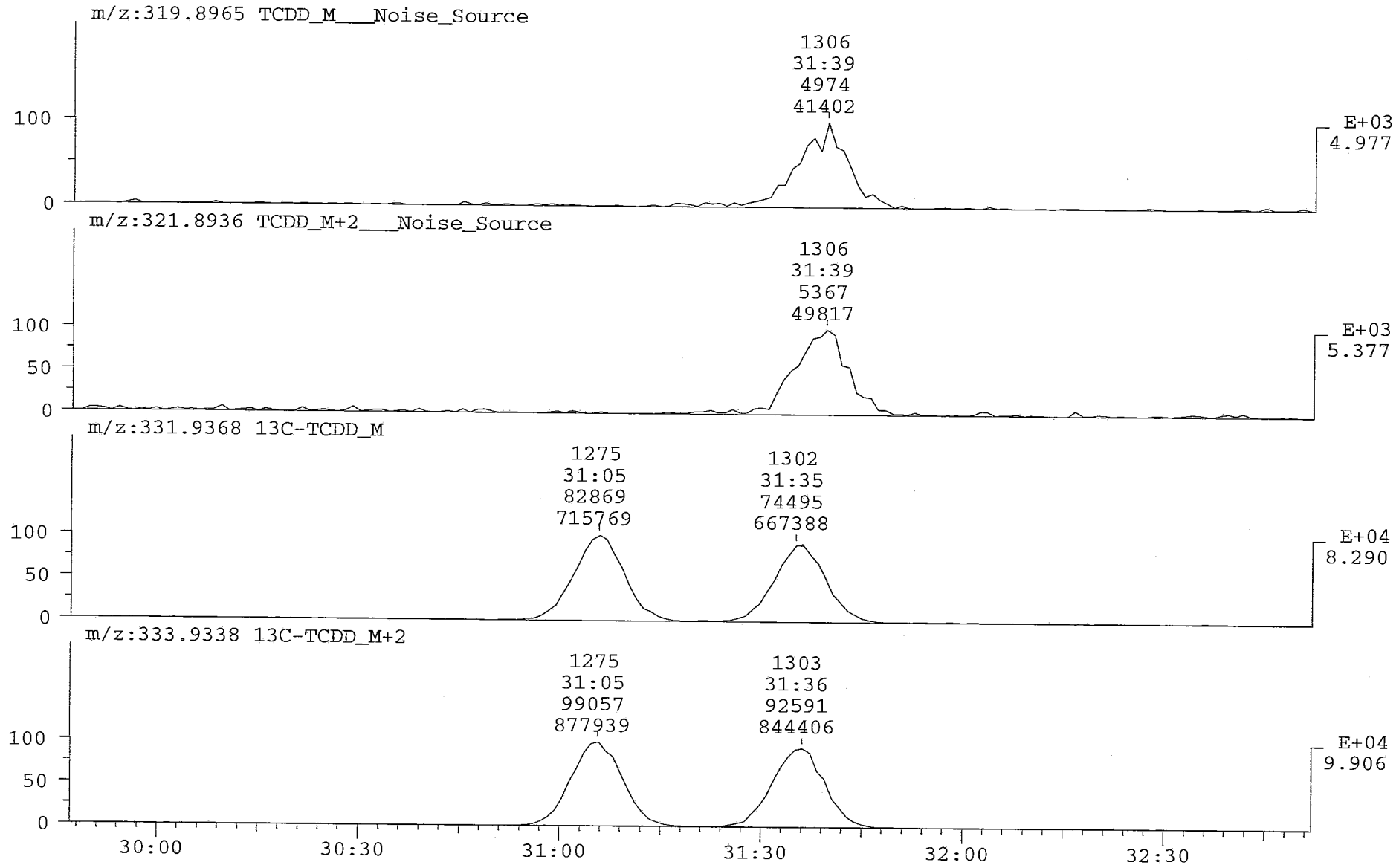
CHRO: b110714s5 14-Jul-11 Elapse: 08:00.4 1
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 442 > 2674 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int/Cal PMP 7-15-11
QC KM 7-15-11



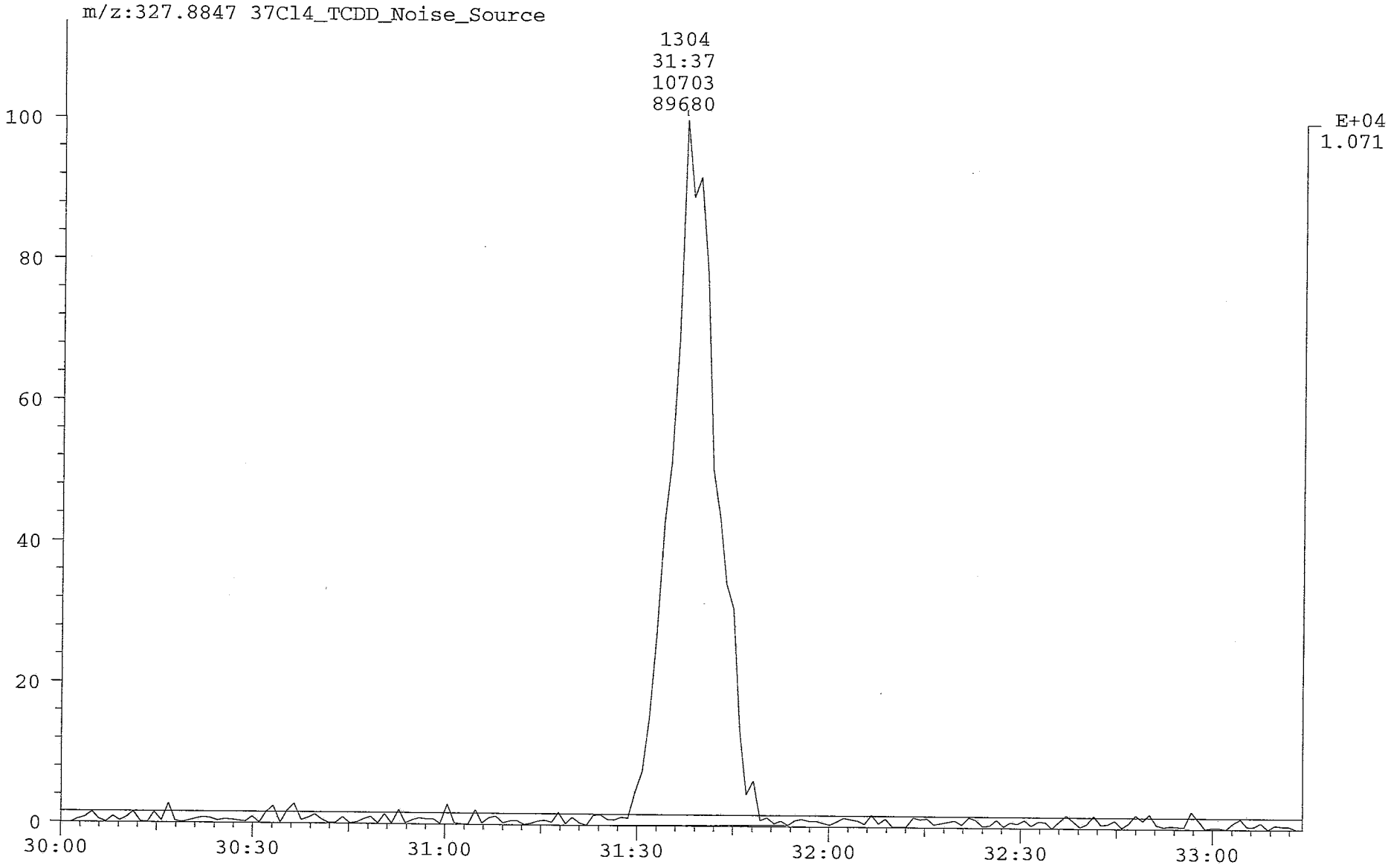
H-663

CHRO: b110714s5 14-Jul-11 Elapse: 31:18 1287
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1203 > 1373 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



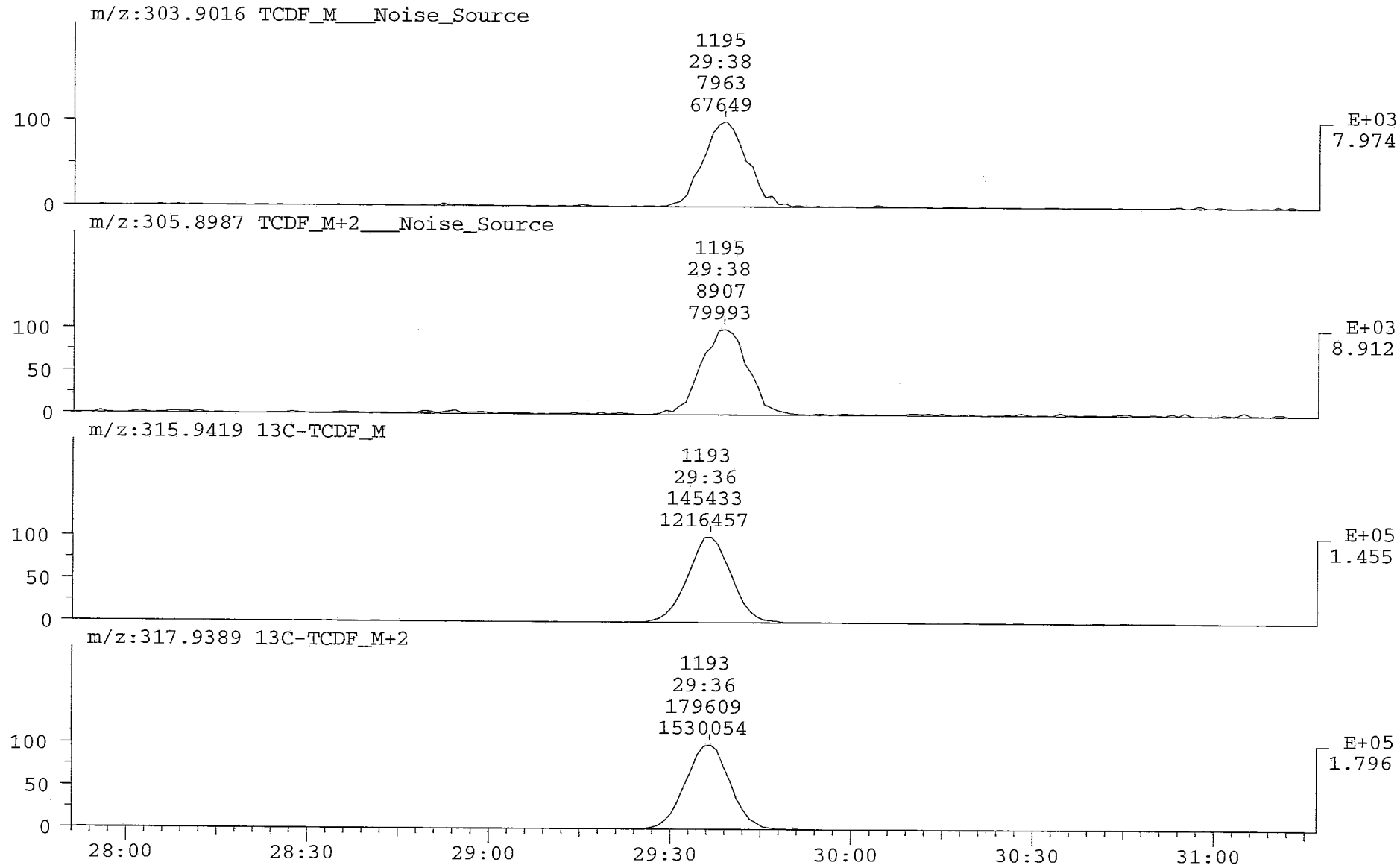
H-664

CHRO: b110714s5 14-Jul-11 Elapse: 31:33 1301
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1215 > 1393 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-665

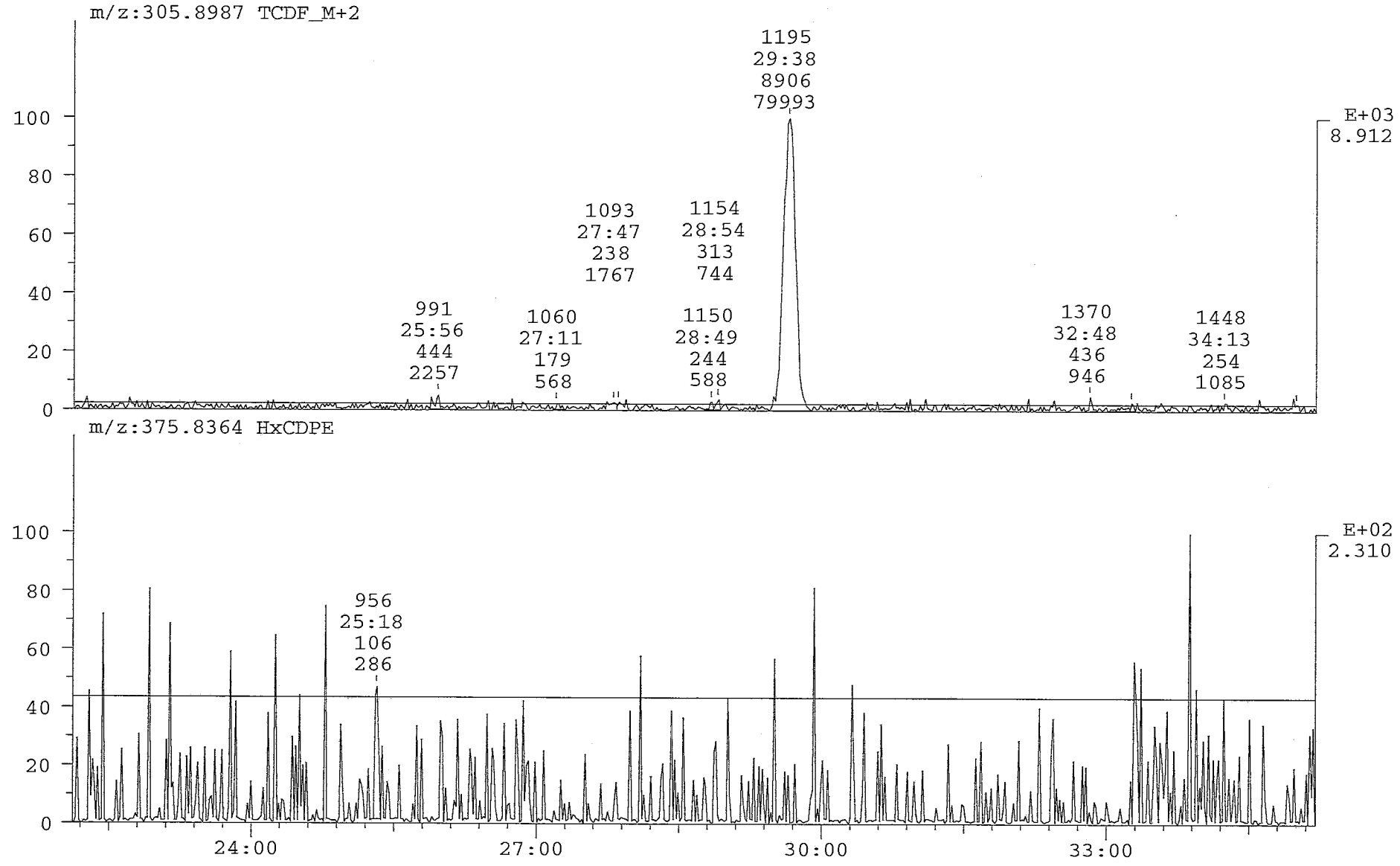
CHRO: b110714s5 14-Jul-11 Elapse: 29:31 1188
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1096 > 1285 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-666

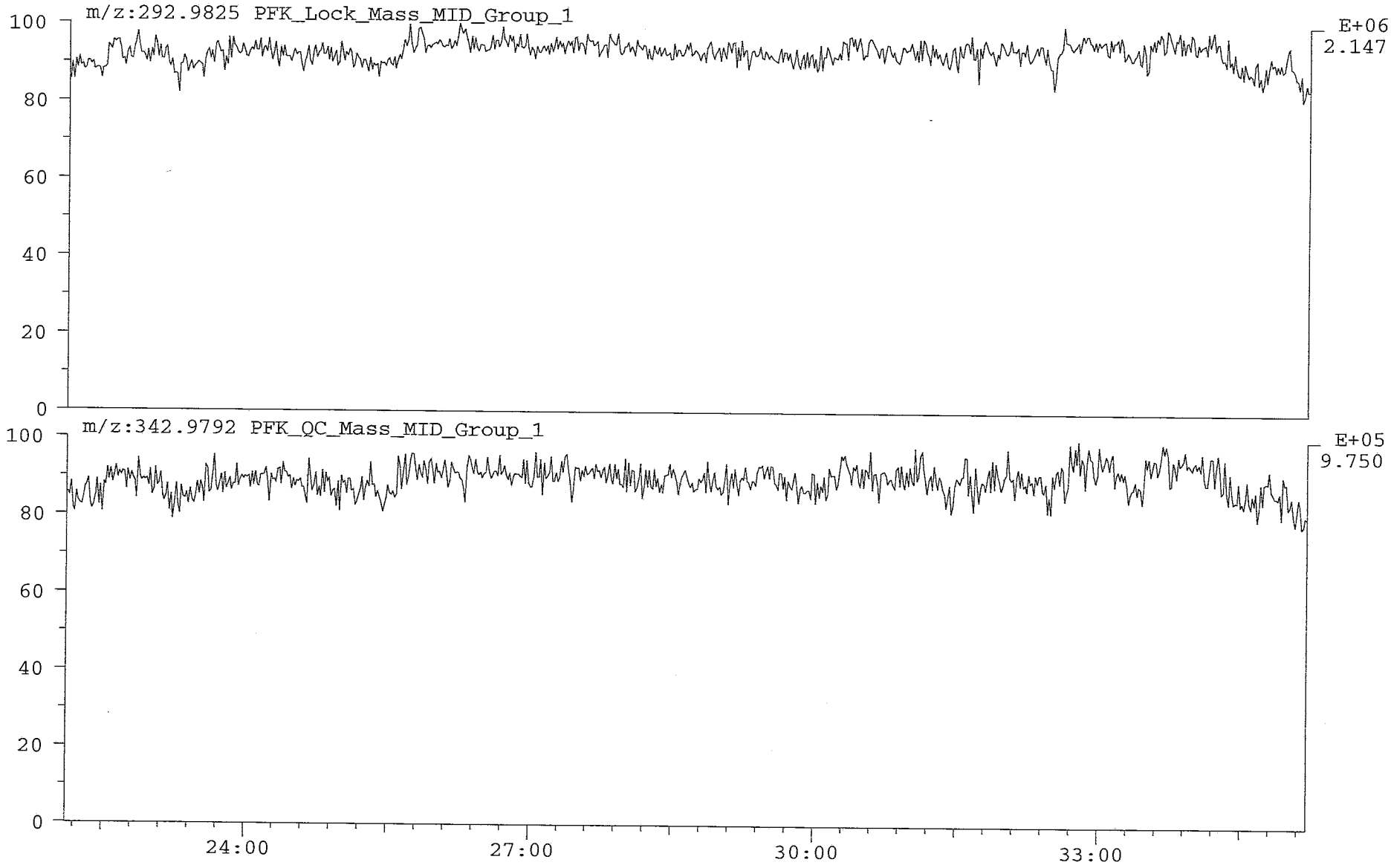
665

CHRO: b110714s5 14-Jul-11 Elapse: 29:31 1188
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 780 > 1502 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-667

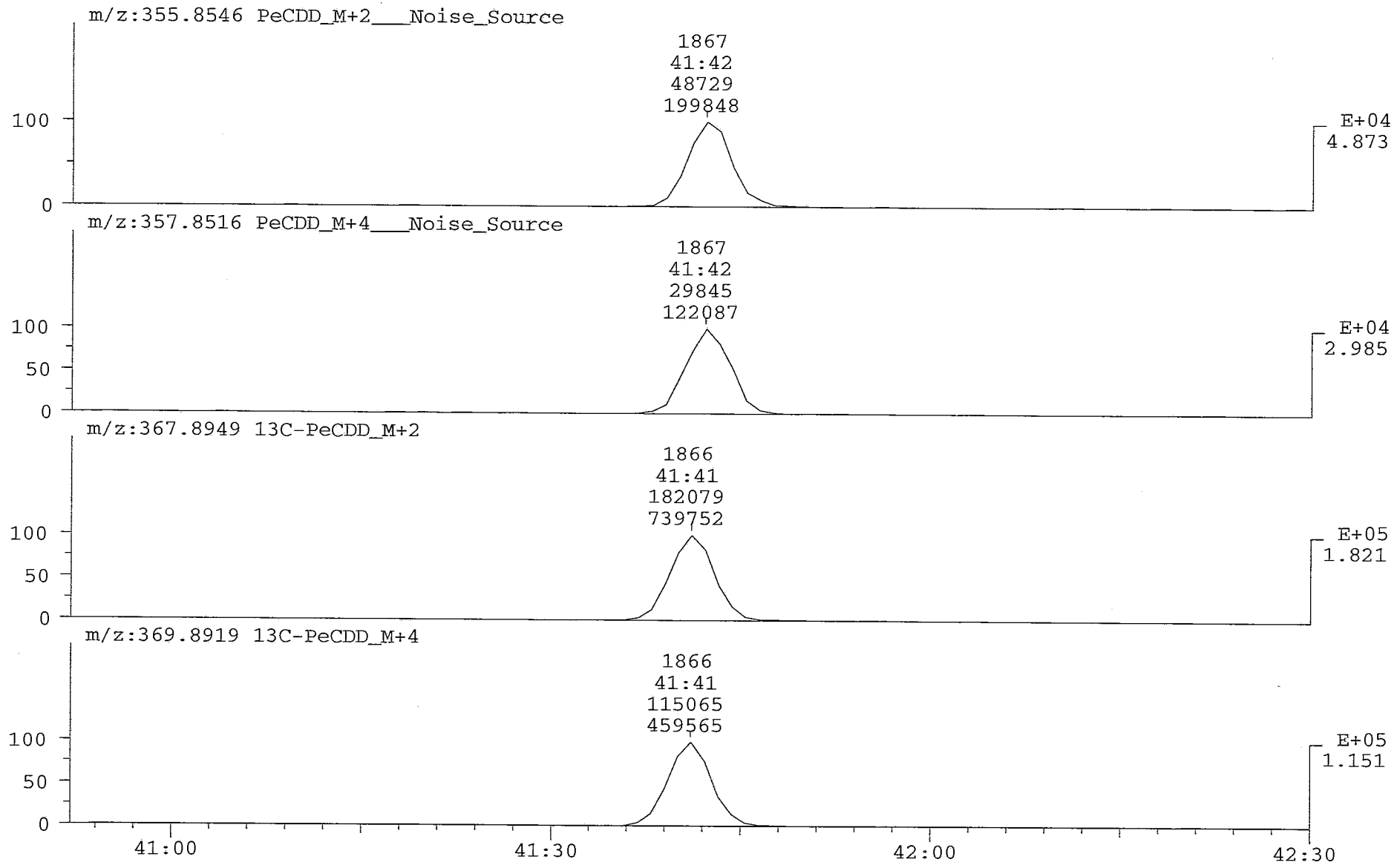
CHRO: b110714s5 14-Jul-11 Elapse: 29:31 1188
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 780 > 1502 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-668

667

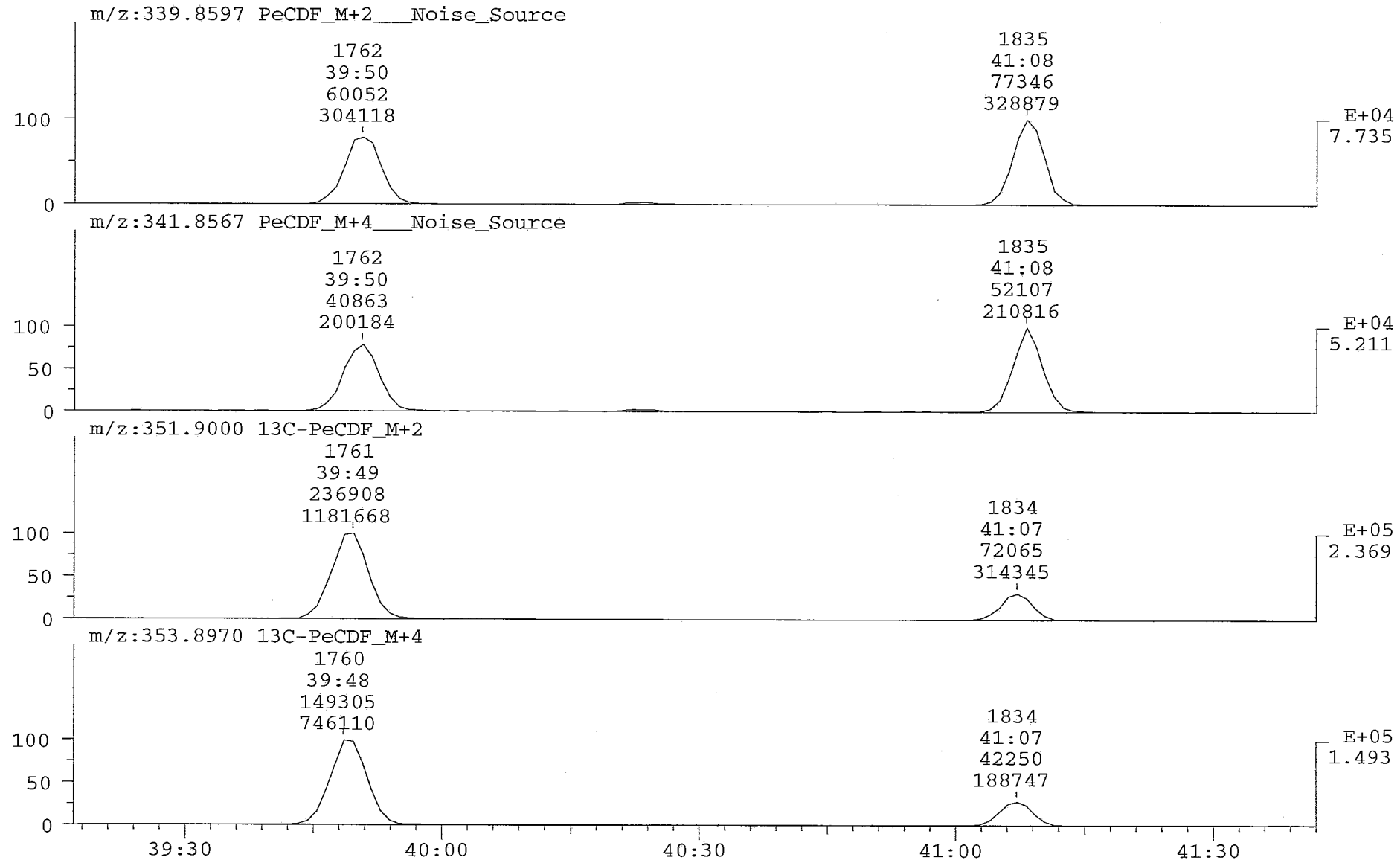
CHRO: b110714s5 14-Jul-11 Elapse: 41:37 1863
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1820 > 1912 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-669

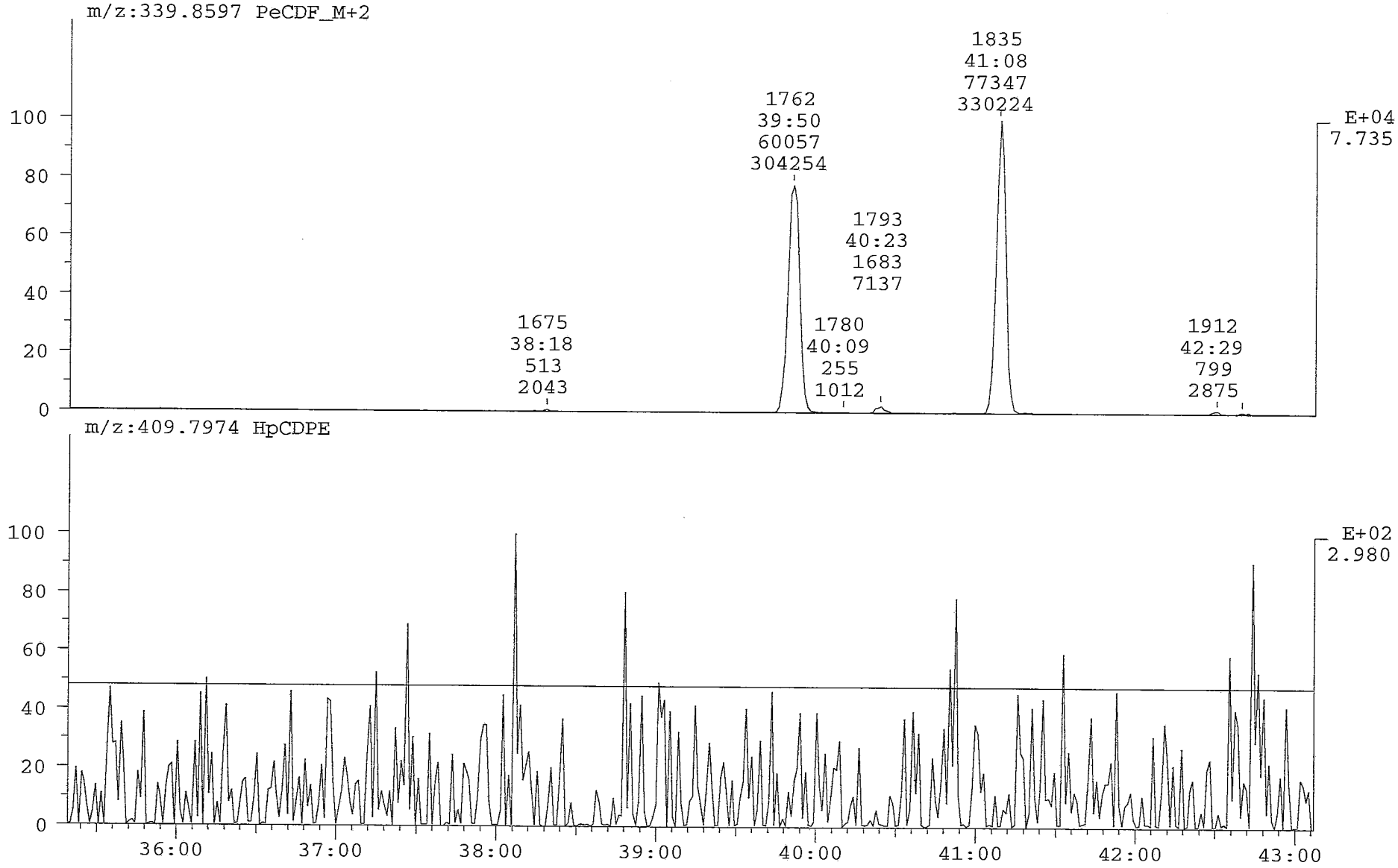
669

CHRO: b110714s5 14-Jul-11 Elapse: 40:28 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1730 > 1867 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



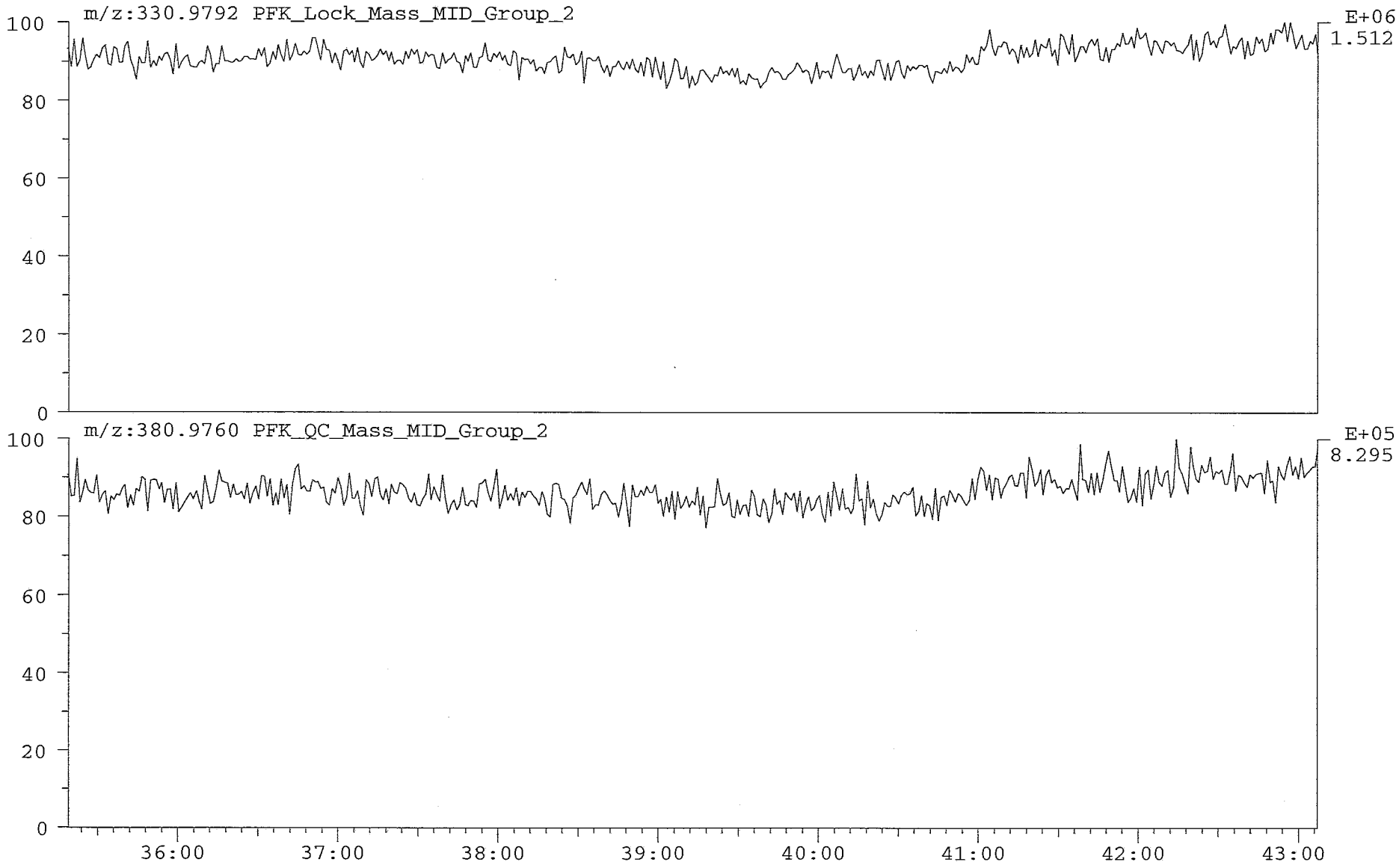
H-670

CHRO: b110714s5 14-Jul-11 Elapse: 40:28 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-671

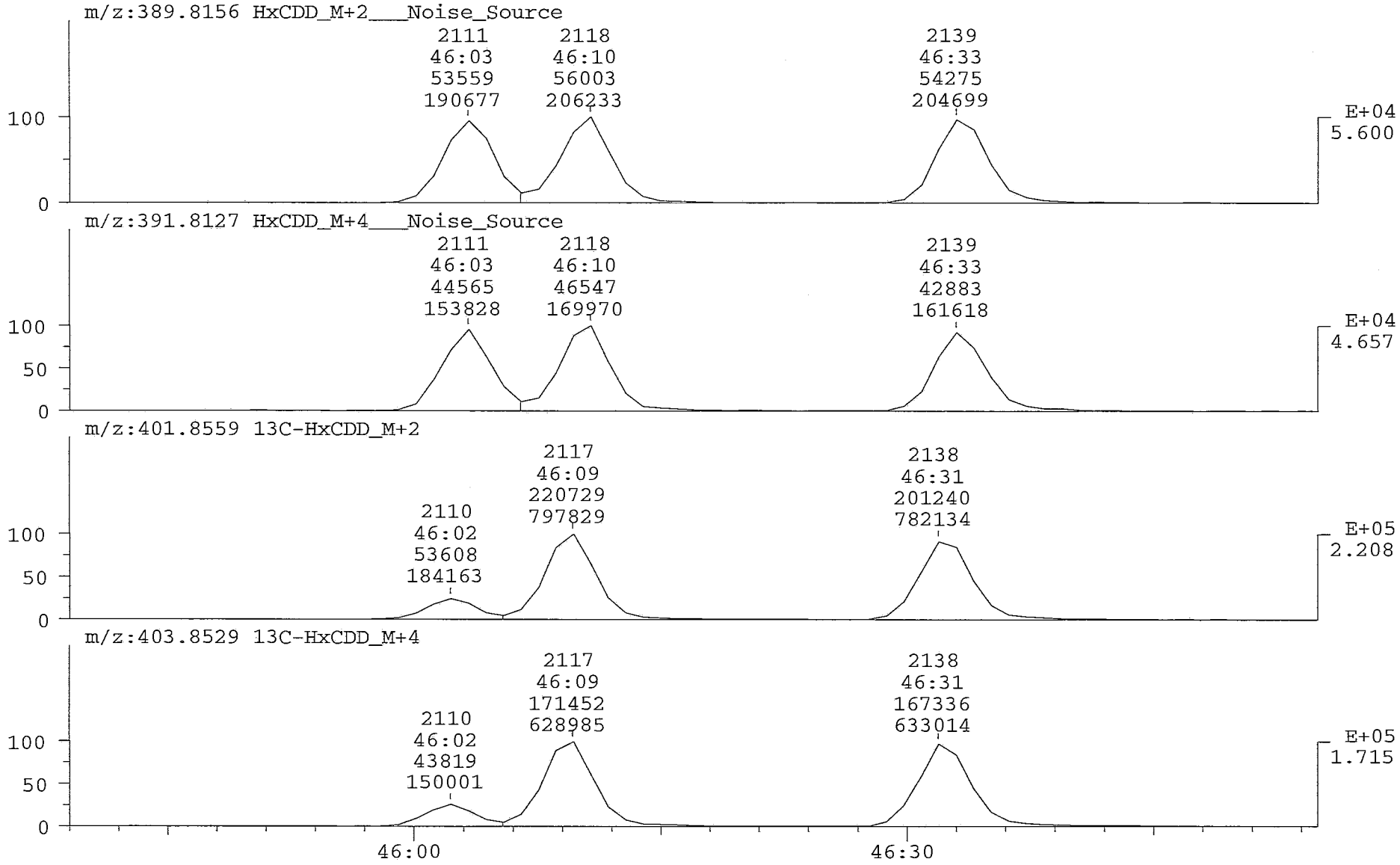
CHRO: b110714s5 14-Jul-11 Elapse: 40:28 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-672

671

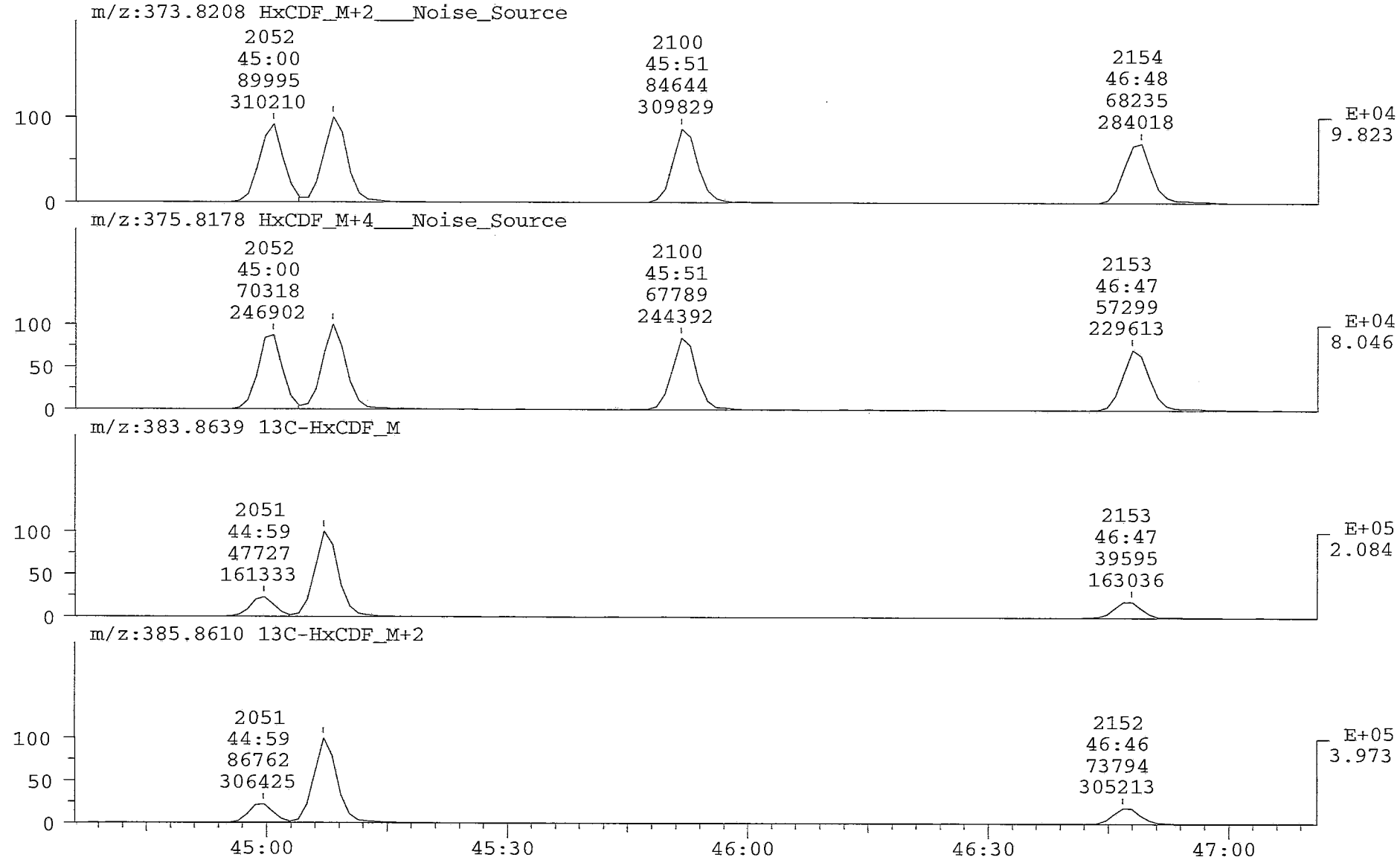
CHRO: b110714s5 14-Jul-11 Elapse: 46:17 2124
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2088 > 2160 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-673

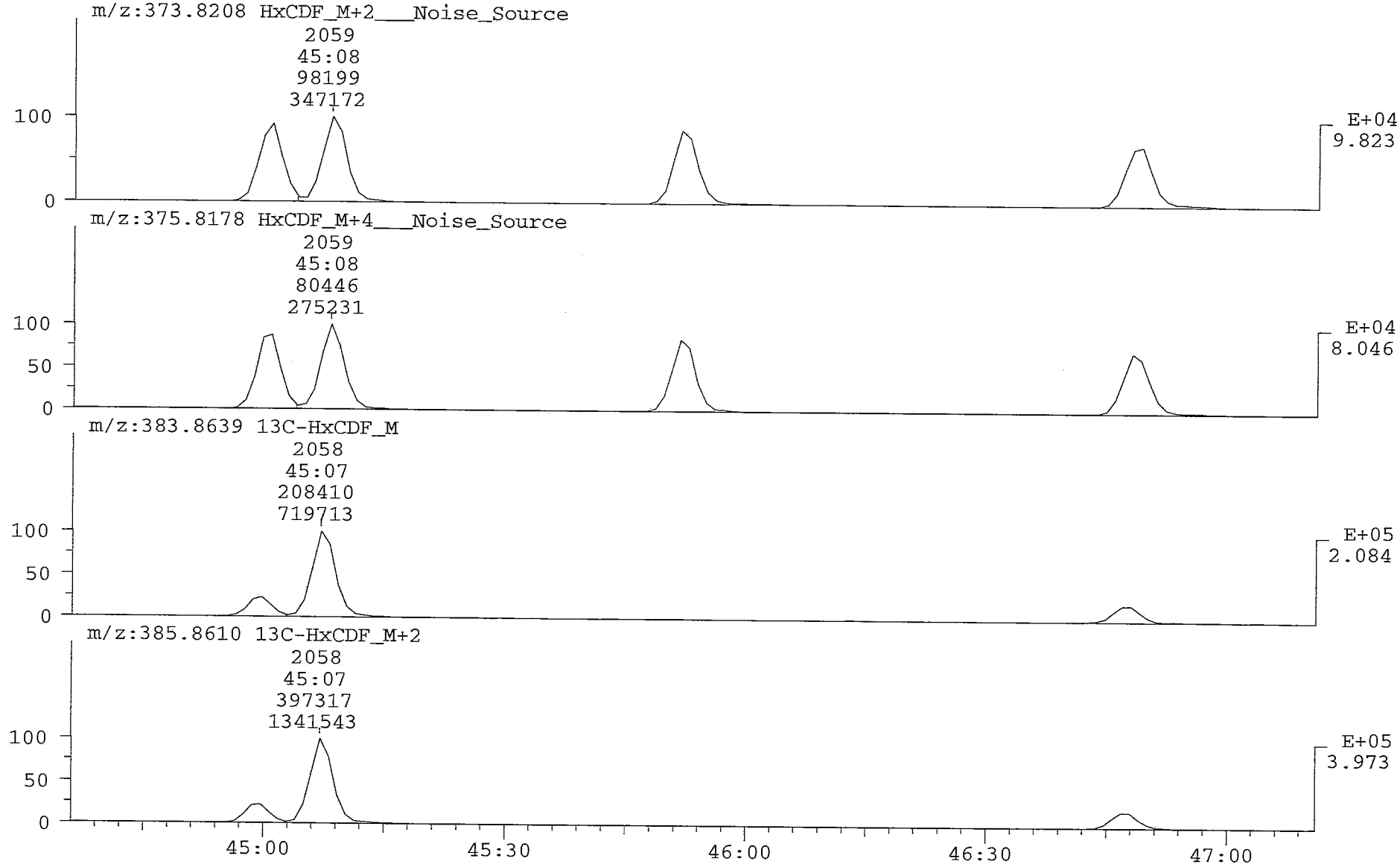
672

CHRO: b110714s5 14-Jul-11 Elapse: 45:52 2101
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2029 > 2175 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



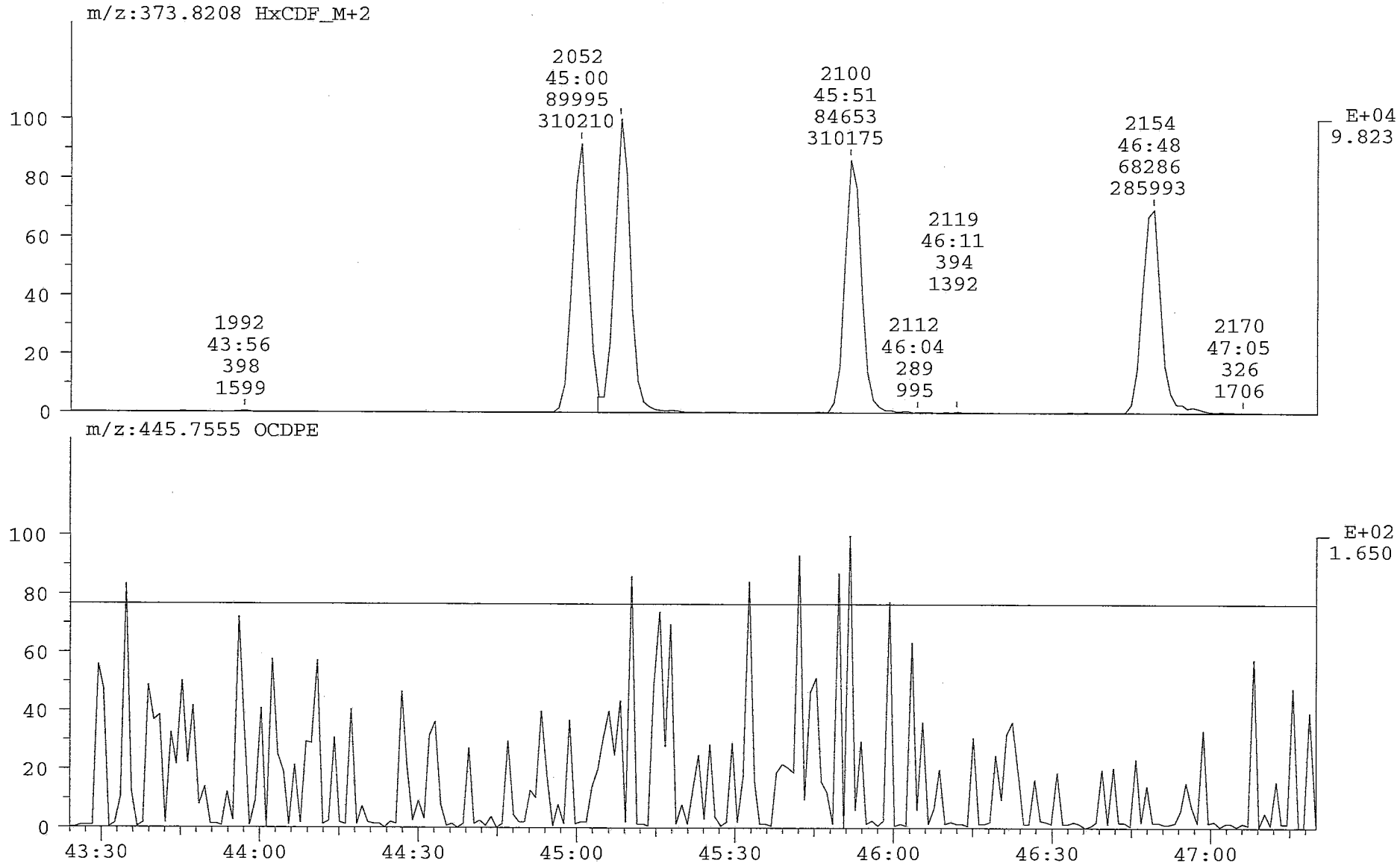
H-674

CHRO: b110714s5 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2052 > 2060 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-675

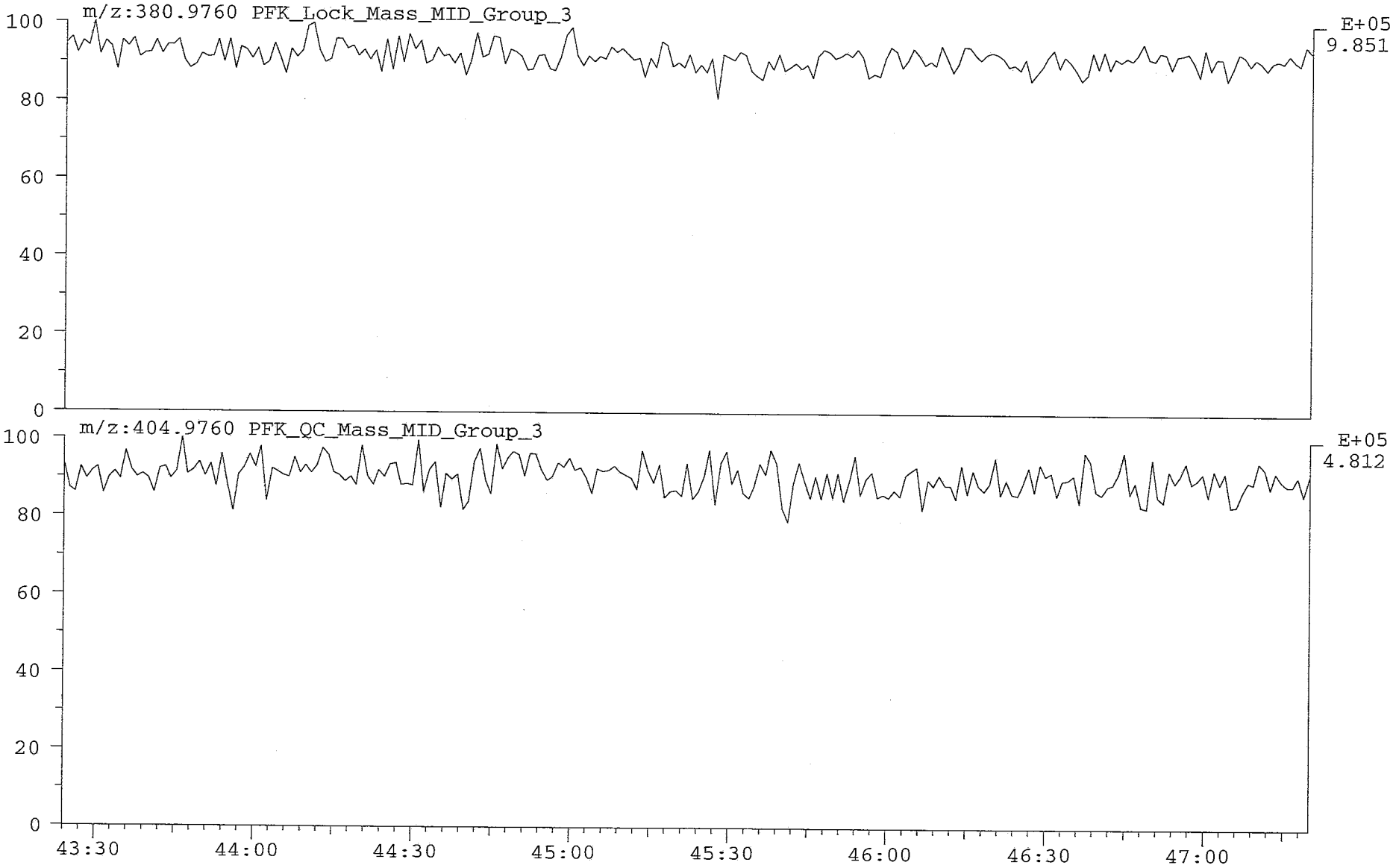
CHRO: b110714s5 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1961 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-676

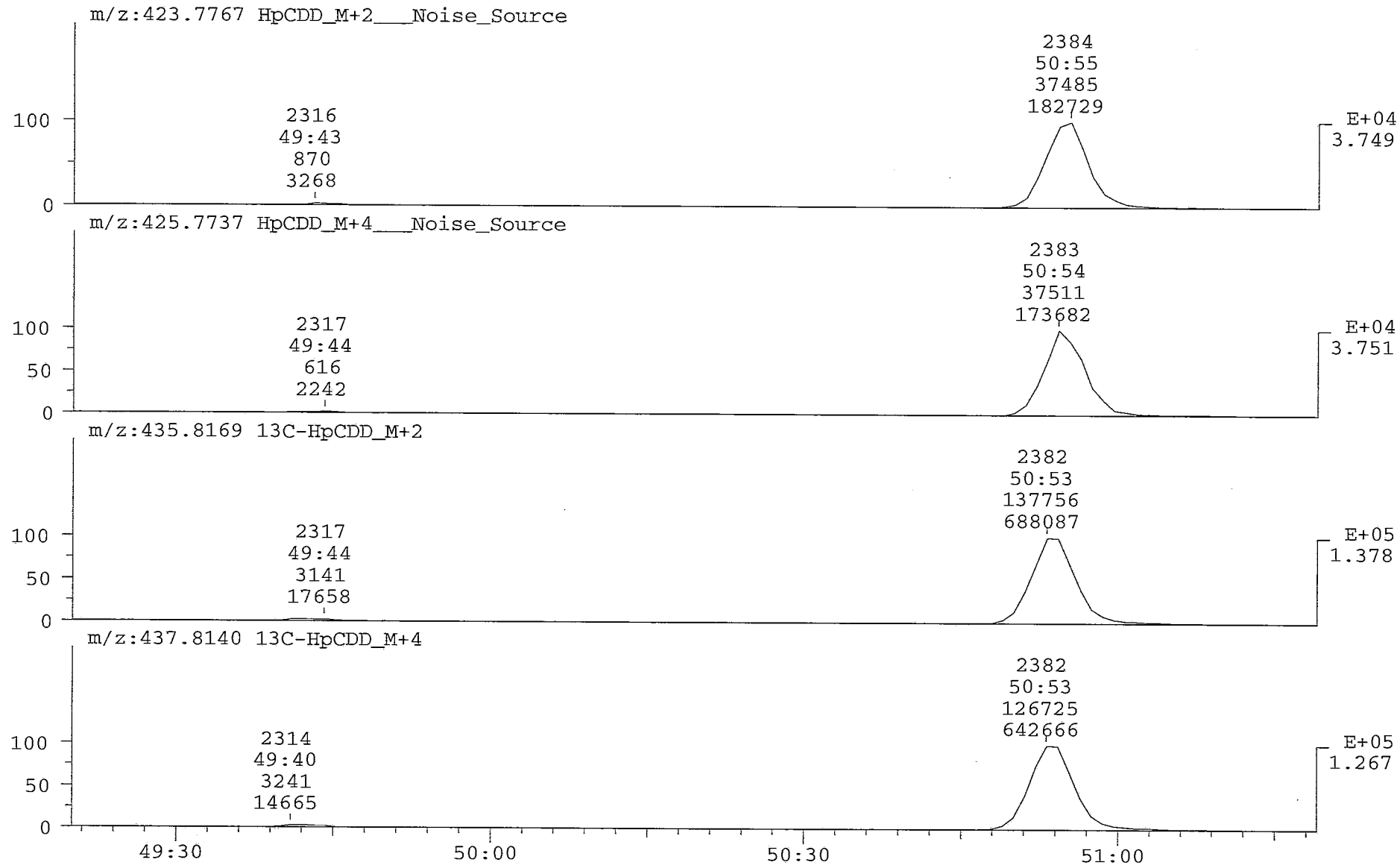
675

CHRO: b110714s5 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1961 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-677

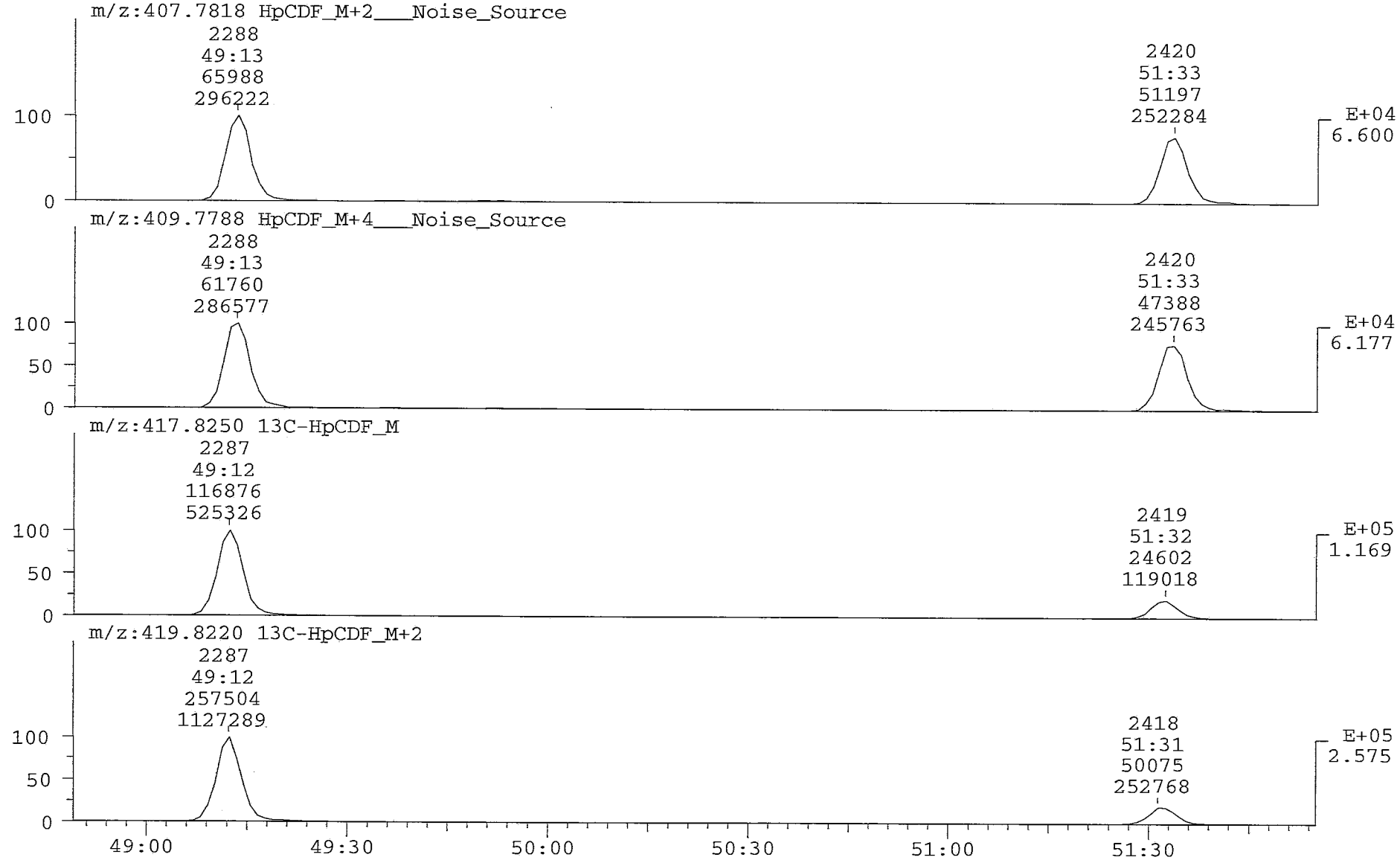
CHRO: b110714s5 14-Jul-11 Elapse: 45:04 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2294 > 2406 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-678

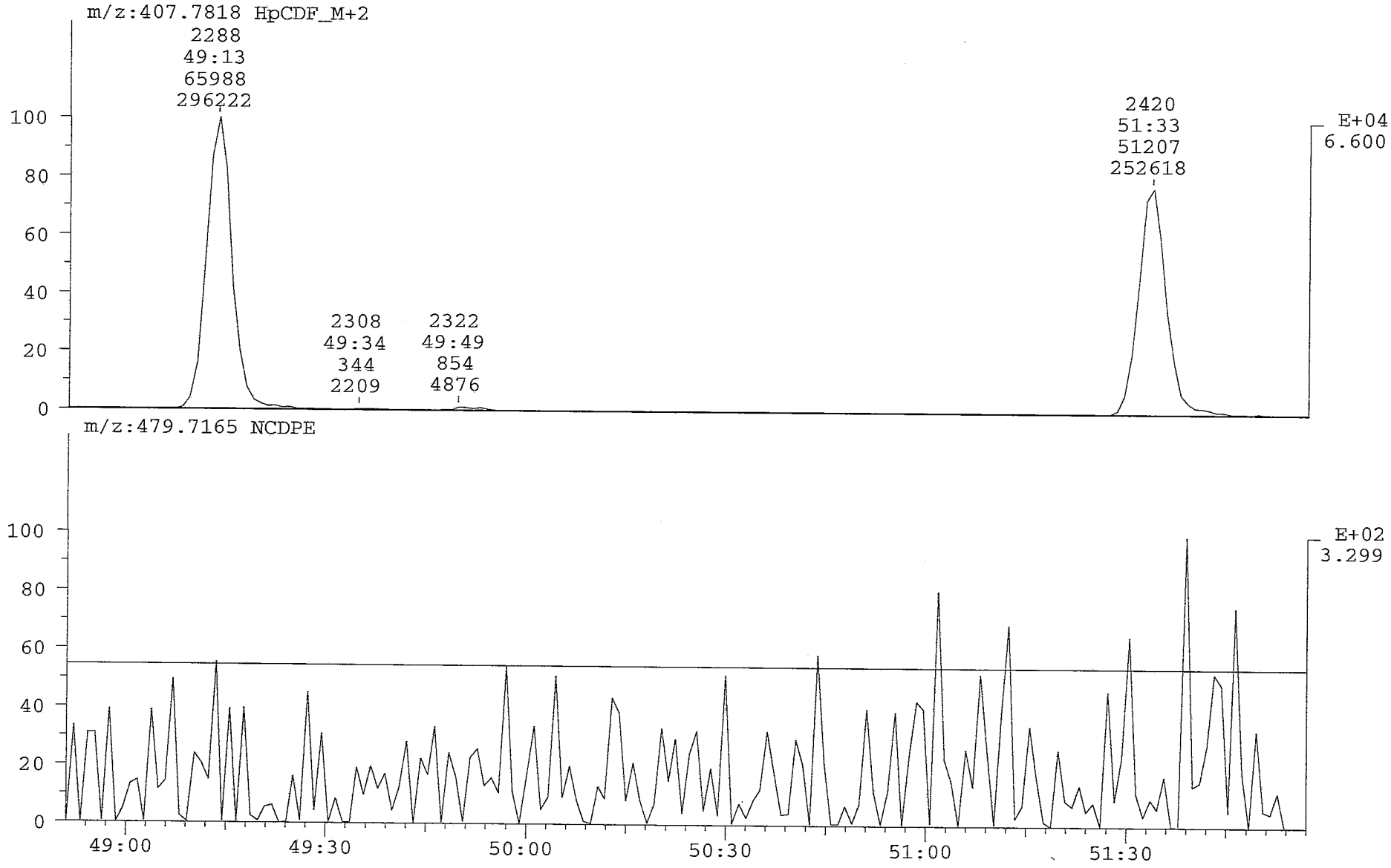
677

CHRO: b110714s5 14-Jul-11 Elapse: 50:22 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2265 > 2440 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-679

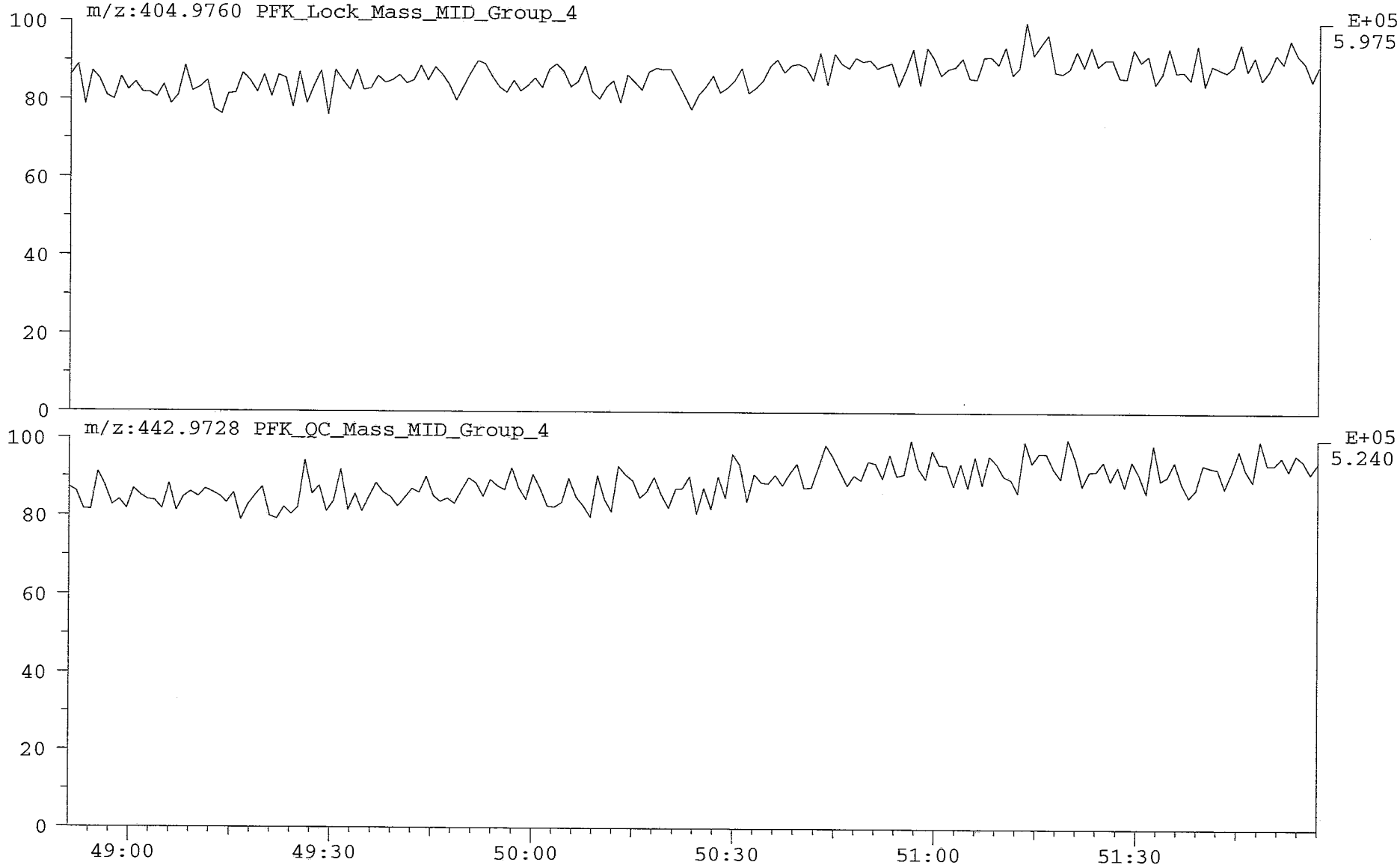
CHRO: b110714s5 14-Jul-11 Elapse: 50:22 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2267 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-680

679

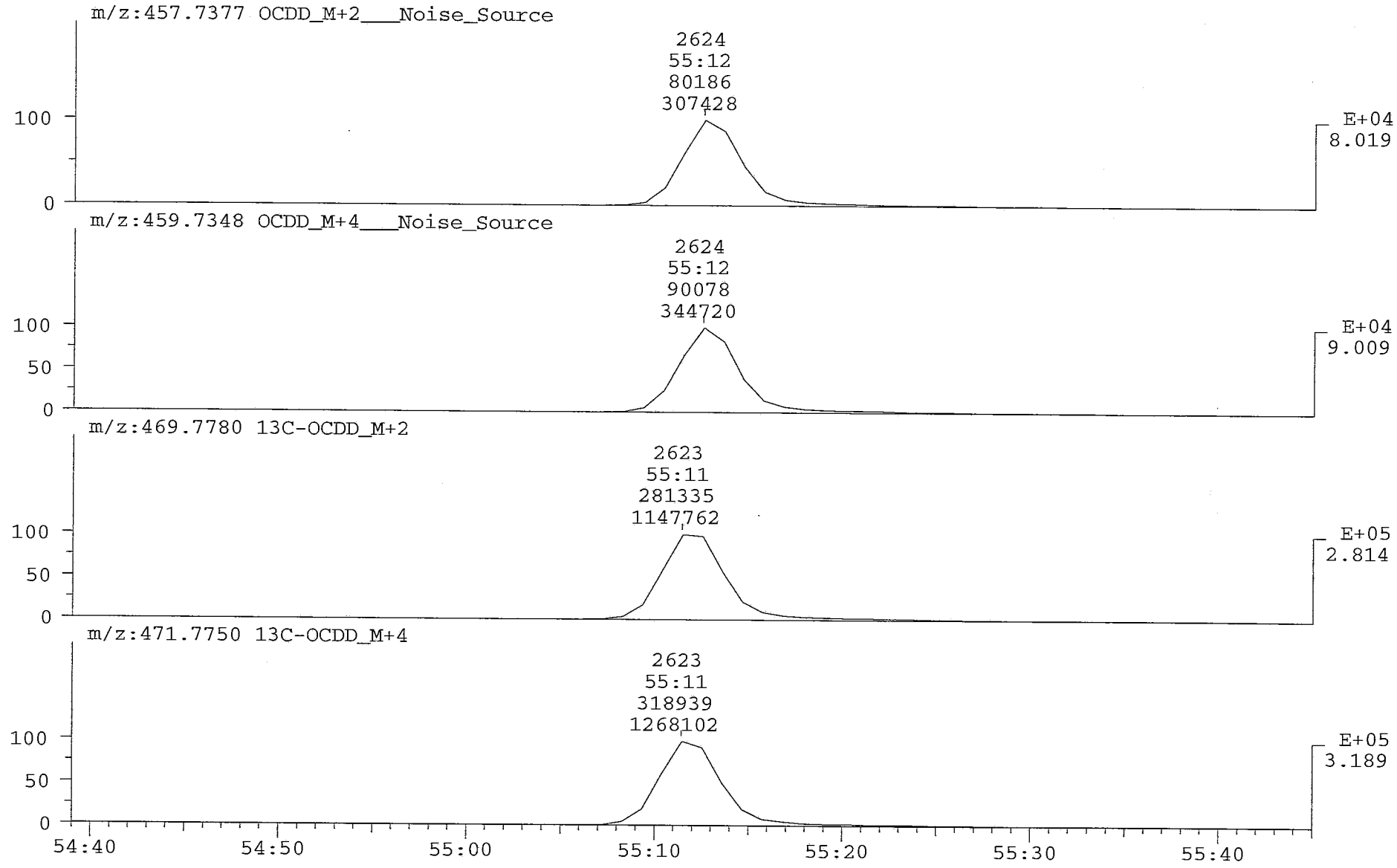
CHRO: b110714s5 14-Jul-11 Elapse: 50:22 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2267 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-681

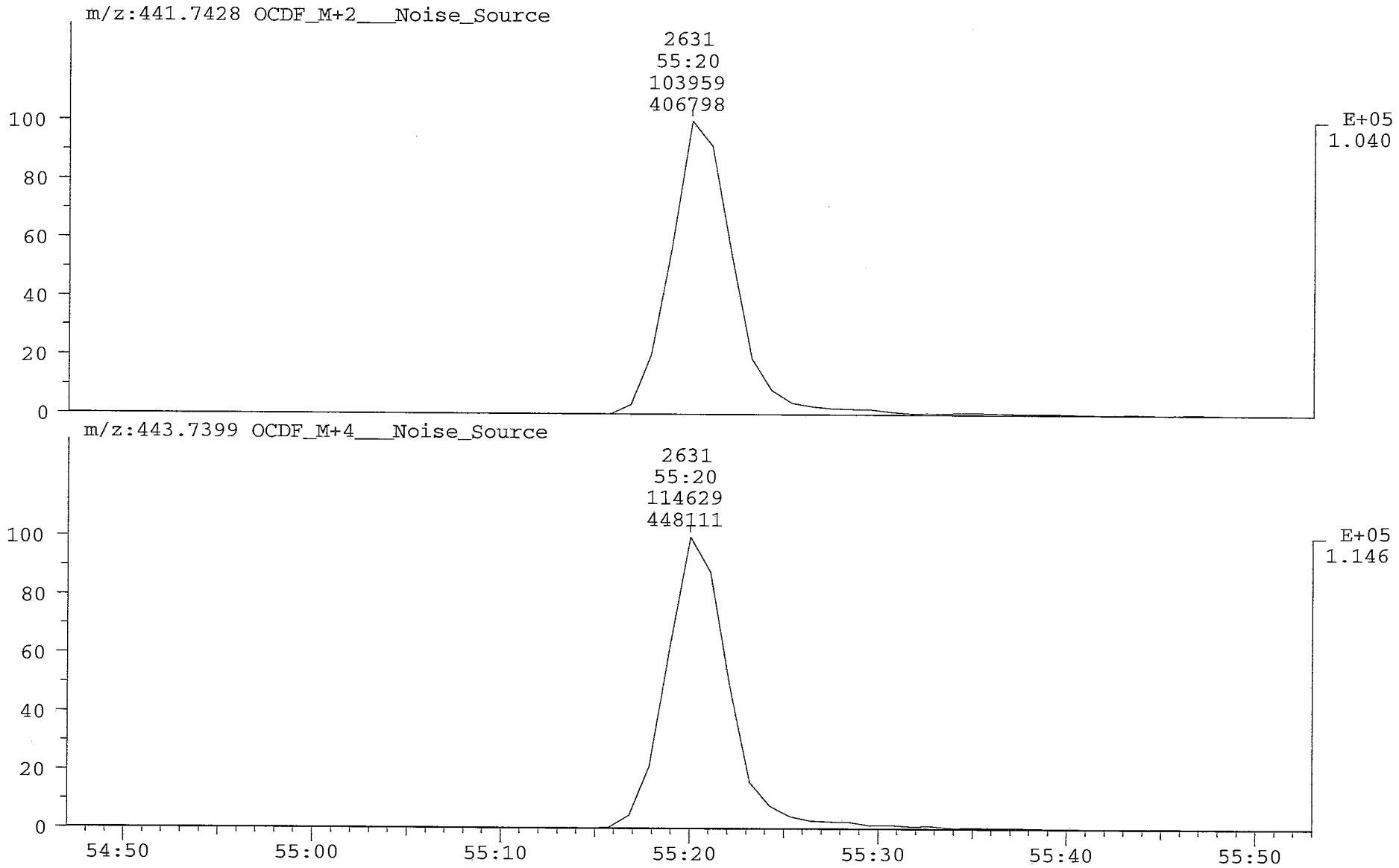
680

CHRO: b110714s5 14-Jul-11 Elapse: 55:09 2621
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2593 > 2654 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-682

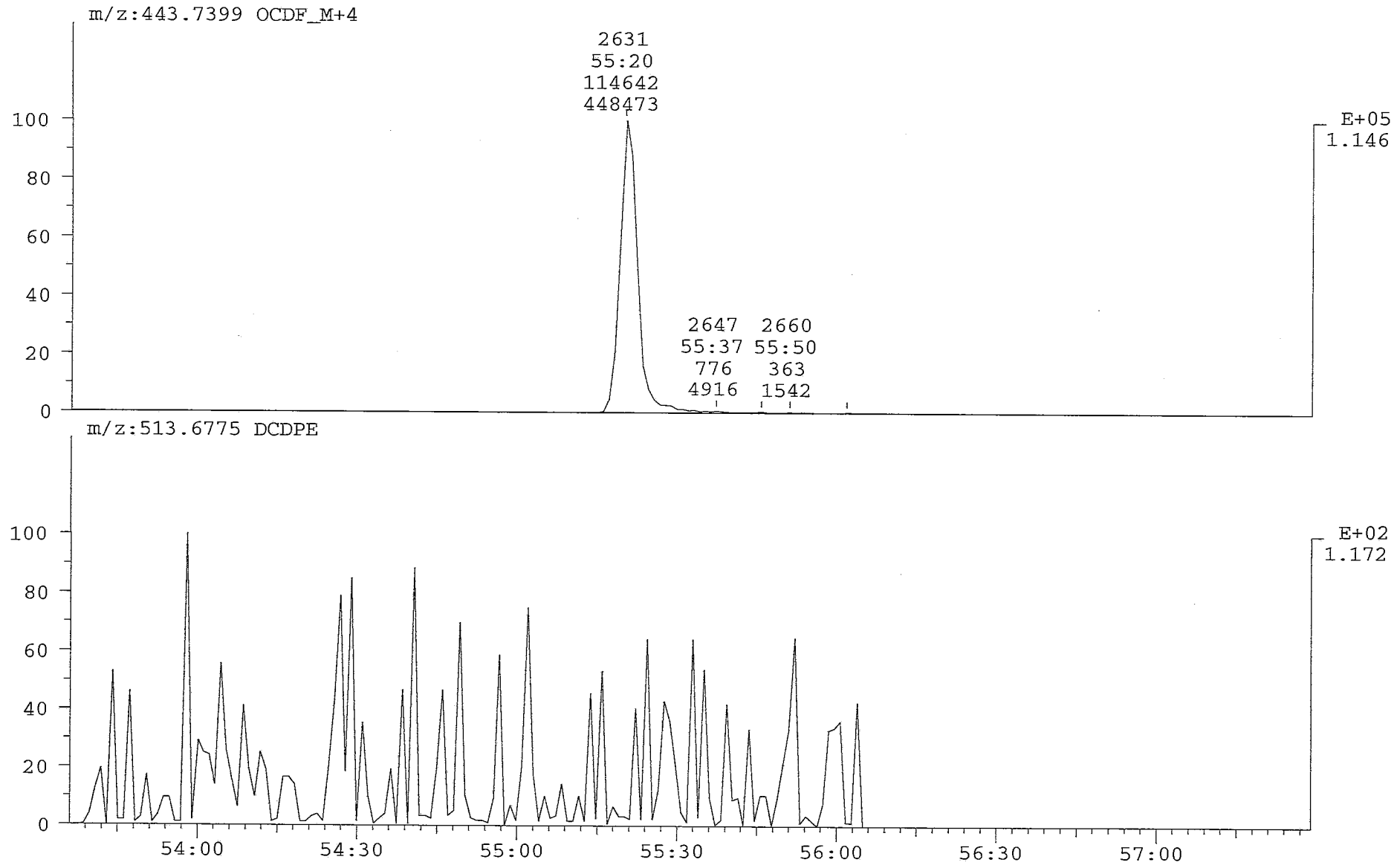
CHRO: b110714s5 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2600 > 2662 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-683

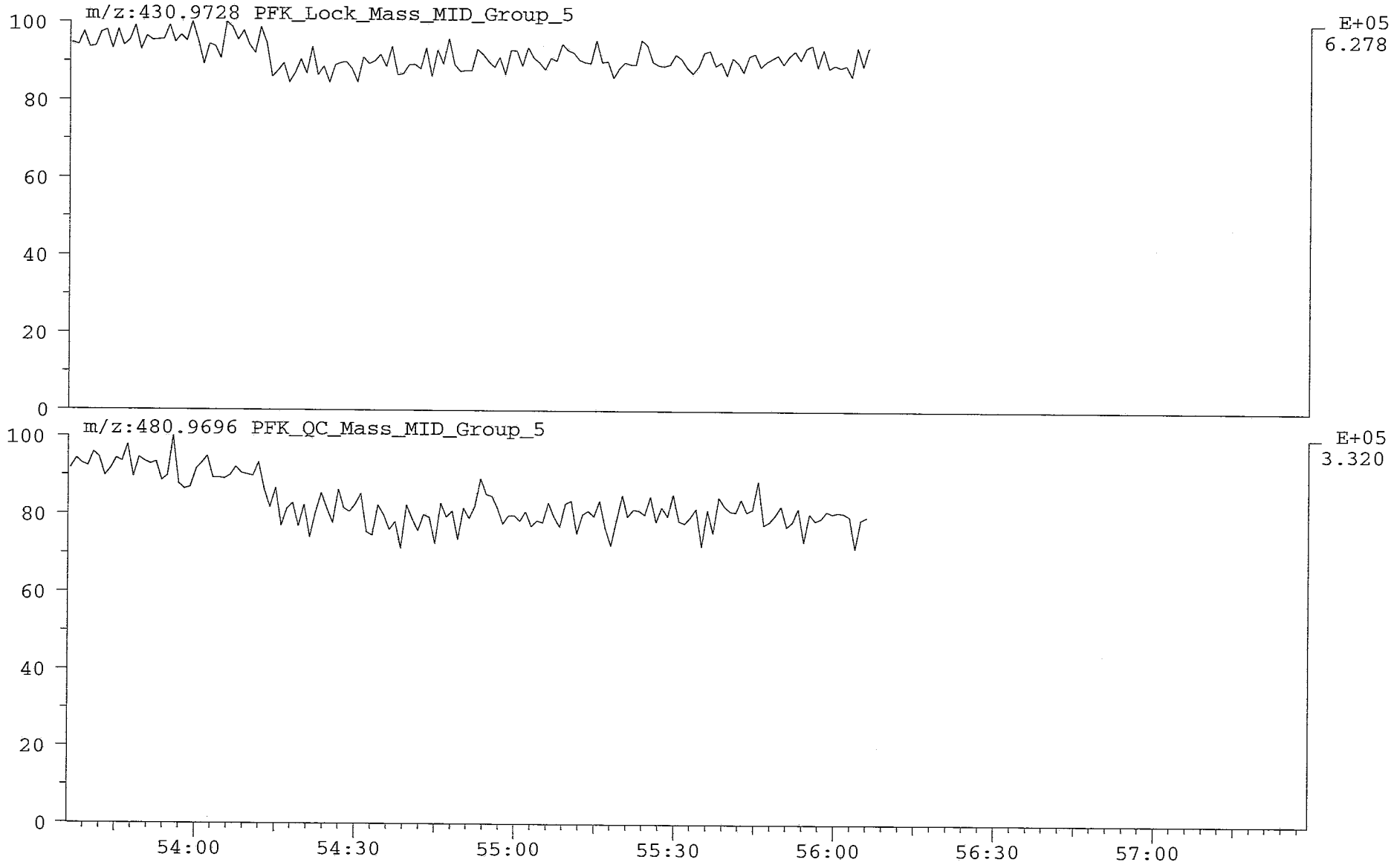
682

CHRO: b110714s5 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2534 > 2750 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-684

CHRO: b110714s5 14-Jul-11 Elapse: 55:16 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 23:24:38 2674
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2534 > 2750 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-685

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b110714s5
Study: M23 Ver
Sample: WO=HR0014 Meth=X8 Dil=1
Amount:    0.0
Volume:    0.0
Operator: PMP
Client: TA-Knoxville
Comments: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Injected volume:    2.0
Sample from Vial 3
Analysis will stop when MID run finishes
Tune file name: tune2b
File 1 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio         1
   Damping Relay           TRUE
   Width first lock        0.20 amu
   Electric jump time        10 ms
   Magnetic jump time        60 ms
   Offset                   100 cts
   Electric range             2 %
   Sweep peak width        3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
         Start          Measure       End          Cycletime
  # 1     8:00 min    27:13 min    35:13 min     1.00 sec
  # 2    35:13 min     7:54 min    43:08 min     1.00 sec
  # 3    43:08 min     5:17 min    48:25 min     1.00 sec
  # 4    48:25 min     5:05 min    53:30 min     1.00 sec
  # 5    53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	1	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	1	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	1	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A		
Normal Injection		
Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
Loop clean w slvnt B (LB):      0 times
Standard sample volume(X):    0.0 ul
Standard air volume   (Y):    0.0 ul
2nd Injection volume  (I):    0.0 ul
Air volume of 2nd inj (J):    0.0 ul
Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8448.0000
BDEV	8292.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5294
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.3907	DITSET	0.0000	DRAW	-22.0000
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	57.5250
EMULT	2.2500	ENS	147.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.0000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	353.0000	FVINLET	840.0000
FVSRC	1059.0000	FWIN	0.7000	GCTC	138.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7157	HVANAL	1229.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	83.0000	LKM	292.9825
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	-1.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-7.2750	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10994.7730	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7000	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1258.0000	XLENSS	-14.8000
YLENS	3328.0000	YLENSS	-8.8000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 23:24:38.1

Autosampler has injected sample from vial 3
Analysis stopped at: 15-Jul-11 00:20:45.6 (run time 56.12 minutes)
Analysis stopped because user requested stop from analysis

TestAmerica Knoxville Dioxin GC/MS Continuing Calibration Review / Narrative Checklist

KNOX-ID-0004-R9 Method: ☒ 0023A/8290 ☐ EPA 23

Start Mass Res. ✓:	22:13	Start Ver Filename:	b110714SS	Inst:	M2A
End Mass Res. ✓:	8:42	Win Filename:	b110714w2	ICAL Date:	12-10-09
		Col Perf Filename:	+		
		End Ver Filename:	b110715S1		

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?		✓			✓
2. Was the instrument resolution >10,000 (<100 ppm) on PFK m/z 304.9824 and m/z 380.9760 or FC43 m/z 313.9838 and m/z 363.9807?		✓			✓
3. Was the measured exact mass of m/z 380.9760 (PFK) or 363.9807 (FC43) within 5 ppm at reduced accelerating voltage?		✓			✓
4. Was date/time of analysis verified between analysis header and logbook as correct?		✓			✓
5. Was the Window Defining Mixture analyzed and the MID switchpoints set to encompass the retention time windows of each congener group?		✓			✓
6. Was the Column Performance solution analyzed and the %Valley ≤25 for separation between 2378-TCDD/F and the closest eluting non-2378 isomer?		✓			✓
7. Were continuing calibrations performed at the beginning and end of the 12-hour period, with successful mass resolution and GC resolution performance checks?		✓			✓
8. Were the response factors calculated for each labeled standard and unlabeled native analyte using the SOP specified reference compound (Table 4), quantitation ions (Table 22), and formula (Section 10.2.6)?		✓			✓
9. Are the measured RRFs for each compound within the specified control limits in Table 8 for all PCDDs/PCDFs?		✓			✓
10. Are the relative retention times of all PCDDs/PCDFs and all labeled compounds within the limits specified in Table 3?		✓			✓
11. Are all S/N ratios ≥10 for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		✓			✓
12. Are the ion abundance ratios for all labeled and unlabeled analytes within the control limits specified in Table 22 of the SOP?		✓			✓
13. If manual integrations were performed, are they clearly identified, initialed and dated?	✓				✓
14. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				✓
15. Does the CCAL folder contain **complete** data in the following order: Data review checklist, a **complete** runlog, CCAL summary, Ratio summary, Calculation summary, PFK resolution/peak match documentation; Total RIC, EICP's and manual integration - for window and all standards?		✓			✓

Analyst: PMP	Date: 7-15-11	2nd Level Reviewer: [signature]	Date: 7-15-11
Comments:		Comments:	

TESTAMERICA KNOXVILLE 8
SPECIALTY ORGANICS INSTRUMENT RUN LOG
Inst: MAT95S

Date	Time	Opr	Sample ID	Filename	Code	Matrix	Type	Tape	Lot#/Comments
7-14-11	10:48	KM	PFK	—	OK	—	res		Mass res chk
7-14-11	10:51	KM	HR0034B	b110714w1	OK	—	win		win
7-14-11	11:51	KM	Nonane	r	OK	—	QC		flush
7-14-11	12:02	KM	HR0014	b110714s3	OK	—	ver		m23 ver
7-14-11	13:02	KM	Nonane	r	OK	—	QC		flush
7-14-11	13:12	KM	"	r	OK	—	QC		"
7-14-11	13:27	KM	"	r	OK	—	QC		"
7-14-11	13:42	KM	MKNTLIAA	btmkntlb	OK/RR	air-2	QC		HIG060000-027B
7-14-11	14:42	KM	MKM6MIAA	btmkm6m	IF*/RR	air-2	SOM		HIG050439-007
7-14-11	15:42	KM	MKM6OIAA	btmkm6o	IF/RR	air-2	SOM		-015
7-14-11	16:42	KM	MKM55IAA	btmkm55	*IF/RR	air-2	SOM		-001
7-14-11	17:42	KM	Nonane	r	OK	—	QC		flush
7-14-11	17:56	KM	MKNTLIAC	btmkntlc	*IF/RR	air-2	QC		HIG060000-027C
7-14-11	18:55	KM	MKNTLIAD	btmkntld	OK	air-2	QC		-027L
7-14-11	19:55	KM	HR0014	b110714s4	OK	—	ver		m23ver
7-14-11	20:55	PMP	PFK	—	OK	—	Res		Mass Res Chk
7-14-11	22:13	PMP	PFK	—	OK	—	Res		Mass Res Chk
7-14-11	22:14	PMP	HR0034B	b110714w2	OK	—	Win		m23 win
7-14-11	23:12	PMP	Nonane	r	OK	QC	—		flush
7-14-11	23:24	PMP	HR0014	b110714s5	OK	ver	—		m23 ver
7-15-11	00:22	PMP	Nonane	r	OK	QC	—		flush
7-15-11	00:35	PMP	"	r	OK	QC	—		"
7-15-11	—	PMP	"	r	IF	QC	—		"
7-15-11	1:09	PMP	MKNTLIAA	btmkntlba	OK	Air	QC		HIG060000-027 A
7-15-11	2:08	PMP	MKM60IAA	btmkm60a	OK	Air	SOM		HIG050439-005
7-15-11	3:09	PMP	MKM6MIAA	btmkm6mc	*IF	Air	SOM		007
7-15-11	4:09	PMP	MKM55IAA	btmkm55a	*IF	Air	SOM		001
7-15-11	5:09	PMP	MKM6AIAA	btmkm6a	*IF	Air	SOM		003
7-15-11	6:08	PMP	MKM6FIAA	btmkm6f	OK	Air	SOM		005
7-15-11	7:08	PMP	Nonane	r	OK	—	QC		flush
7-15-11	—	PMP	MKNTLIAC	btmkntlca	DR	Air	QC		HIG060000-027C
7-15-11	7:24	PMP	HR0014	b110715s1	OK	—	ver		m23 ver

Read and Understood by:

KM Date: 7-15-11

*lost lock heptas

MKM55IAA lost lock on octas also

TESTAMERICA KNOXVILLE
SPECIALTY ORGANICS INSTRUMENT RUN LOG
Inst: MAT95S

Date	Time	Opr	Sample ID	Filename	Code	Matrix	Type	Tape	Lot#/Comments
7-15-11	8:42	KM	PFK	—	OK	-	res		4ass res chk

Read and Understood by:

_____ Date: _____

ID016r4.doc, 010611

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110714s5/b110714w2.d	Prep Date		SDG No	
Analysis ID	133620	Prep Exp Date		Date Received	
Analysis Date	7/14/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	22:14	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	DX1613B
Instrument	M2A	Dil Factor	1.00	Code	F8
Analyst	PMP				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
2,3,7,8-TCDD	31:39	201704	22151	1.021	10.00	10.712259	107.12	10.712259	E	0.184
Total TCDD		988971	115789	1.021		63.235332		63.235332	E	0.184
2,3,7,8-TCDF	29:38	316065	40028	0.986	10.00	10.927676	109.28	10.927676	E	0.0893
Total TCDF		659986	90507	0.986		33.746125		33.746125	E	0.0893
1,2,3,7,8-PeCDD	41:39	899466	218018	0.979	50.00	52.162179	104.32	52.162179	E	0.0933
Total PeCDD		1825584	381744	0.979		158.032149		158.032149	E	0.0933
1,2,3,7,8-PeCDF	39:49	1512152	305794	0.999	50.00	56.555881	113.11	56.555881	E	0.0651
2,3,4,7,8-PeCDF	41:06	1392788	324889	1.065	50.00	49.407965	98.82	49.407965	E	0.0535
Total PeCDF		2728548	498306	1.032		205.298332		205.298332	E	0.0589
1,2,3,4,7,8-HxCDD	46:00	921689	273961	1.168	50.00	48.106828	96.21	48.106828	E	0.0638
1,2,3,6,7,8-HxCDD	46:08	918430	241736	0.943	50.00	59.239710	118.48	59.239710	E	0.0842
1,2,3,7,8,9-HxCDD	46:30	1033968	277094	1.154	50.00	54.552636	109.11	54.552636	E	0.0666
Total HxCDD		1027326	318009	1.089		219.376860		219.376860	E	0.0706
1,2,3,4,7,8-HxCDF	44:58	1501380	443462	1.241	50.00	54.633673	109.27	54.633673	E	0.0498
1,2,3,6,7,8-HxCDF	45:05	1545458	458887	1.215	50.00	50.661506	101.32	50.661506	E	0.0452
2,3,4,6,7,8-HxCDF	45:49	1445085	412150	1.159	50.00	52.374069	104.75	52.374069	E	0.0538
1,2,3,7,8,9-HxCDF	46:45	1348483	350874	1.191	50.00	51.450479	102.90	51.450479	E	0.0628
Total HxCDF		2699903	740027	1.202		305.702402		305.702402	E	0.0522
1,2,3,4,6,7,8-HpCDD	50:53	864634	177160	1.037	50.00	52.854447	105.71	52.854447	E	0.109
Total HpCDD		909326	206317	1.037		108.440883		108.440883	E	0.109
1,2,3,4,6,7,8-HpCDF	49:11	1382442	321208	1.448	50.00	52.504935	105.01	52.504935	E	0.0605
1,2,3,4,7,8,9-HpCDF	51:31	1175839	249254	1.411	50.00	49.473188	98.95	49.473188	E	0.0731
Total HpCDF				1.429		101.978123		101.978123	E	0.0663
OCDD	55:10	1697946	458854	1.011	100.0	115.919568	115.92	115.919568	E	0.0871
OCDF	55:17	2174984	584569	1.167	100.0	128.589158	128.59	128.589158	E	0.100
13C-2,3,7,8-TCDD	31:36	1845002	202626	1.048	100.0	95.490005	95.49	95.490005		0.186
13C-2,3,7,8-TCDF	29:36	2934645	352374	1.447	100.0	110.023147	110.02	110.023147		0.109
13C-1,2,3,7,8-PeCDD	41:38	1760859	429769	0.864	100.0	110.476920	110.48	110.476920		0.158
13C-1,2,3,7,8-PeCDF	39:47	2675520	526205	1.230	100.0	117.993963	117.99	117.993963		0.108
13C-2,3,4,7,8-PeCDF	41:04	2646071	600934	1.174	100.0	122.246729	122.25	122.246729		0.113
13C-1,2,3,4,7,8-HxCDD	45:59	1639983	483308	0.893	100.0	98.202547	98.20	98.202547		0.0918
13C-1,2,3,6,7,8-HxCDD	46:07	1643545	453383	0.988	100.0	88.972608	88.97	88.972608		0.0830
13C-1,2,3,4,7,8-HxCDF	44:57	2213718	663427	1.186	100.0	99.849492	99.85	99.849492		0.0653
13C-1,2,3,6,7,8-HxCDF	45:04	2510185	746459	1.260	100.0	106.583935	106.58	106.583935		0.0615
13C-2,3,4,6,7,8-HxCDF	45:48	2381100	657543	1.209	100.0	105.364335	105.36	105.364335		0.0641
13C-1,2,3,7,8,9-HxCDF	46:45	2200429	547935	1.122	100.0	104.857095	104.86	104.857095		0.0690
13C-1,2,3,4,6,7,8-HpCDD	50:52	1576845	317413	0.931	100.0	90.560786	90.56	90.560786		0.0604
13C-1,2,3,4,6,7,8-HpCDF	49:10	1818757	413643	0.994	100.0	97.875059	97.88	97.875059		0.0657
13C-1,2,3,4,7,8,9-HpCDF	51:30	1684707	351658	0.839	100.0	107.391726	107.39	107.391726		0.0779
13C-OCDD	55:09	2897844	777851	0.934	200.0	165.957078	82.98	165.957078		0.0824
37Cl4-2,3,7,8-TCDD	31:38	211577	23991	1.100	10.00	10.429524	104.30	10.429524	E	0.0927
13C-1,2,3,4-TCDD	31:04	1843806	210822	1.000	100.0	100.000000	100.00	100.000000		0.194
13C-1,2,3,7,8,9-HxCDD	46:29	1869879	493769	1.000	100.0	100.000000	100.00	100.000000		0.0820

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110714s5/b110714w2.	Prep Date		SDG No	
Analysis ID	133620	Prep Exp Date		Date Received	
Analysis Date	07/14/11 22:14	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	PMP	Diluton Factor	1.00	Code	F8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					**303.9016**	**305.8987**	**303.9016**	**305.8987**	**0.65-0.89**		
	Noise	00:00	00:00	0	148	163	59	65	0.91 *	/	
	Unidentified	23:23	00:00	0	161581	201988	25285	34005	0.80	ABB/AVB	
	2,3,7,8-TCDF	29:38	29:36	2	137749	178316	17022	23006	0.77	ABV/ABV	
	Unidentified	34:36	00:00	0	132876	163541	13755	17462	0.81	AVV/AVB	
316					**315.9419**	**317.9389**	**315.9419**	**317.9389**	**0.65-0.89**		
	Noise	00:00	00:00	0	158	175	63	70	0.90 *	/	
	13C-2,3,7,8-TCDF	29:36	29:34	2	1314304	1620341	156569	195805	0.81	ABB/ABV	
320					**319.8965**	**321.8936**	**319.8965**	**321.8936**	**0.65-0.89**		
	Noise	00:00	00:00	0	178	203	71	81	0.88	/	
	Unidentified	25:49	00:00	0	90813	119368	12504	16776	0.76	ABB/ABB	
	Unidentified	31:09	00:00	0	82232	111324	9821	12228	0.74	ABV/ABV	
	Unidentified	31:21	00:00	0	85547	96042	9245	11435	0.89 *	AVV/AVB	
	2,3,7,8-TCDD	31:39	31:33	6	87222	114482	9249	12902	0.76	AVB/AVB	M
	Unidentified	32:07	00:00	0	90319	120939	10585	13221	0.75	ABB/ABB	
	Unidentified	34:48	00:00	0	86286	106101	9592	10382	0.81	ABB/ABV	
328					**327.8847**		**327.8847**				
	Noise	00:00	00:00	0	215		86				
	37Cl4-2,3,7,8-TCDD	31:38	31:33	5	211577		23991			AVV	M
332					**331.9368**	**333.9338**	**331.9368**	**333.9338**	**0.65-0.89**		
	Noise	00:00	00:00	0	250	160	100	64	1.56 *	/	
	13C-1,2,3,4-TCDD	31:04	31:01	3	825197	1018609	97252	113570	0.81	AVV/ABV	
	13C-2,3,7,8-TCDD	31:36	31:31	5	821770	1023232	89259	113367	0.80	AVV/AVV	
340					**339.8597**	**341.8567**	**339.8597**	**341.8567**	**1.32-1.78**		
	Noise	00:00	00:00	0	143	200	57	80	0.71 *	/	
	Unidentified	35:31	00:00	0	859710	544140	103623	65550	1.58	ABV/ABV	
	1,2,3,7,8-PeCDF	39:49	39:51	-2	921132	591020	188549	117245	1.56	ABV/ABV	
	2,3,4,7,8-PeCDF	41:06	41:09	-3	849166	543622	199229	125660	1.56	ABV/ABV	M
	Unidentified	42:26	00:00	0	811380	513318	199753	129380	1.58	ABV/ABV	
352					**351.9000**	**353.8970**	**351.9000**	**353.8970**	**1.32-1.78**		
	Noise	00:00	00:00	0	133	148	53	59	0.90 *	/	
	13C-1,2,3,7,8-PeCDF	39:47	39:50	-3	1641413	1034107	322993	203212	1.59	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:04	41:08	-4	1622782	1023289	365236	235698	1.59	ABV/ABV	
356					**355.8546**	**357.8516**	**355.8546**	**357.8516**	**1.32-1.78**		
	Noise	00:00	00:00	0	185	208	74	83	0.89 *	/	
	Unidentified	38:38	00:00	0	541863	340328	86919	51376	1.59	ABV/ABB	
	1,2,3,7,8-PeCDD	41:39	41:43	-4	553927	345539	133581	84437	1.60	ABV/ABV	M
	Unidentified	42:20	00:00	0	565919	377474	146106	97343	1.50	ABB/ABB	
368					**367.8949**	**369.8919**	**367.8949**	**369.8919**	**1.32-1.78**		
	Noise	00:00	00:00	0	158	130	63	52	1.21 *	/	
	13C-1,2,3,7,8-PeCDD	41:38	41:42	-4	1083435	677424	263547	166222	1.60	ABV/ABV	
374					**373.8208**	**375.8178**	**373.8208**	**375.8178**	**1.05-1.43**		
	Noise	00:00	00:00	0	205	205	82	82	1.00 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110714s5/b110714w2.	Prep Date		SDG No	
Analysis ID	133620	Prep Exp Date		Date Received	
Analysis Date	07/14/11 22:14	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	PMP	Diluton Factor	1.00	Code	F8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Unidentified	43:42	00:00	0	775604	620329	231799	181151	1.25	ABV/ABV	
	1,2,3,4,7,8-HxCDF	44:58	45:01	-3	841530	659850	251509	191953	1.28	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	45:05	45:09	-4	860696	684762	252177	206710	1.26	AVV/AVV	M
	2,3,4,6,7,8-HxCDF	45:49	45:51	-2	803975	641110	230542	181608	1.25	ABV/ABV	
	1,2,3,7,8,9-HxCDF	46:45	46:47	-2	744617	603866	193516	157358	1.23	ABV/ABV	
	Unidentified	46:54	00:00	0	725404	578566	181985	145092	1.25	AVB/AVV	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	173	210	69	84	0.82 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:57	45:00	-3	763757	1449961	229740	433687	0.53	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDF	45:04	45:08	-4	880787	1629398	263011	483448	0.54	AVV/AVV	
	13C-2,3,4,6,7,8-HxCDF	45:48	45:50	-2	829158	1551942	223511	434032	0.53	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDF	46:45	46:46	-1	760605	1439824	190994	356941	0.53	ABV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	190	170	76	68	1.12	/	
	Unidentified	44:25	00:00	0	573023	454303	176555	141454	1.26	ABV/ABV	
	1,2,3,4,7,8-HxCDD	46:00	46:02	-2	511849	409840	154128	119833	1.25	ABV/ABV	
	1,2,3,6,7,8-HxCDD	46:08	46:09	-1	510299	408131	135406	106330	1.25	AVV/AVV	
	1,2,3,7,8,9-HxCDD	46:30	46:31	-1	580920	453048	155224	121870	1.28	AVV/AVV	
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	165	240	66	96	0.69 *	/	
	13C-1,2,3,4,7,8-HxCDD	45:59	46:01	-2	917382	722601	272230	211078	1.27	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDD	46:07	46:08	-1	912683	730862	255356	198027	1.25	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDD	46:29	46:31	-2	1041576	828303	276429	217340	1.26	AVV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	193	170	77	68	1.13	/	
	1,2,3,4,6,7,8-HpCDF	49:11	49:08	3	708425	674017	168749	152459	1.05	ABV/ABV	M
	1,2,3,4,7,8,9-HpCDF	51:31	51:26	5	610119	565720	127688	121566	1.08	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	178	145	71	58	1.22 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:10	49:07	3	574084	1244673	133752	279891	0.46	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:30	51:25	5	534324	1150383	108841	242817	0.46	ABV/ABB	
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	175	185	70	74	0.95	/	
	Unidentified	49:40	00:00	0	463474	445852	105042	101275	1.04	ABV/ABV	
	1,2,3,4,6,7,8-HpCDD	50:53	50:47	6	438827	425807	88378	88782	1.03	ABV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	140	138	56	55	1.02	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:52	50:46	6	811600	765245	163284	154129	1.06	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	180	275	72	110	0.65 *	/	
	OCDF	55:17	55:14	3	1040832	1134152	281544	303025	0.92	ABV/ABV	M
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110714s5/b110714w2.	Prep Date		SDG No	
Analysis ID	133620	Prep Exp Date		Date Received	
Analysis Date	07/14/11 22:14	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	PMP	Diluton Factor	1.00	Code	F8

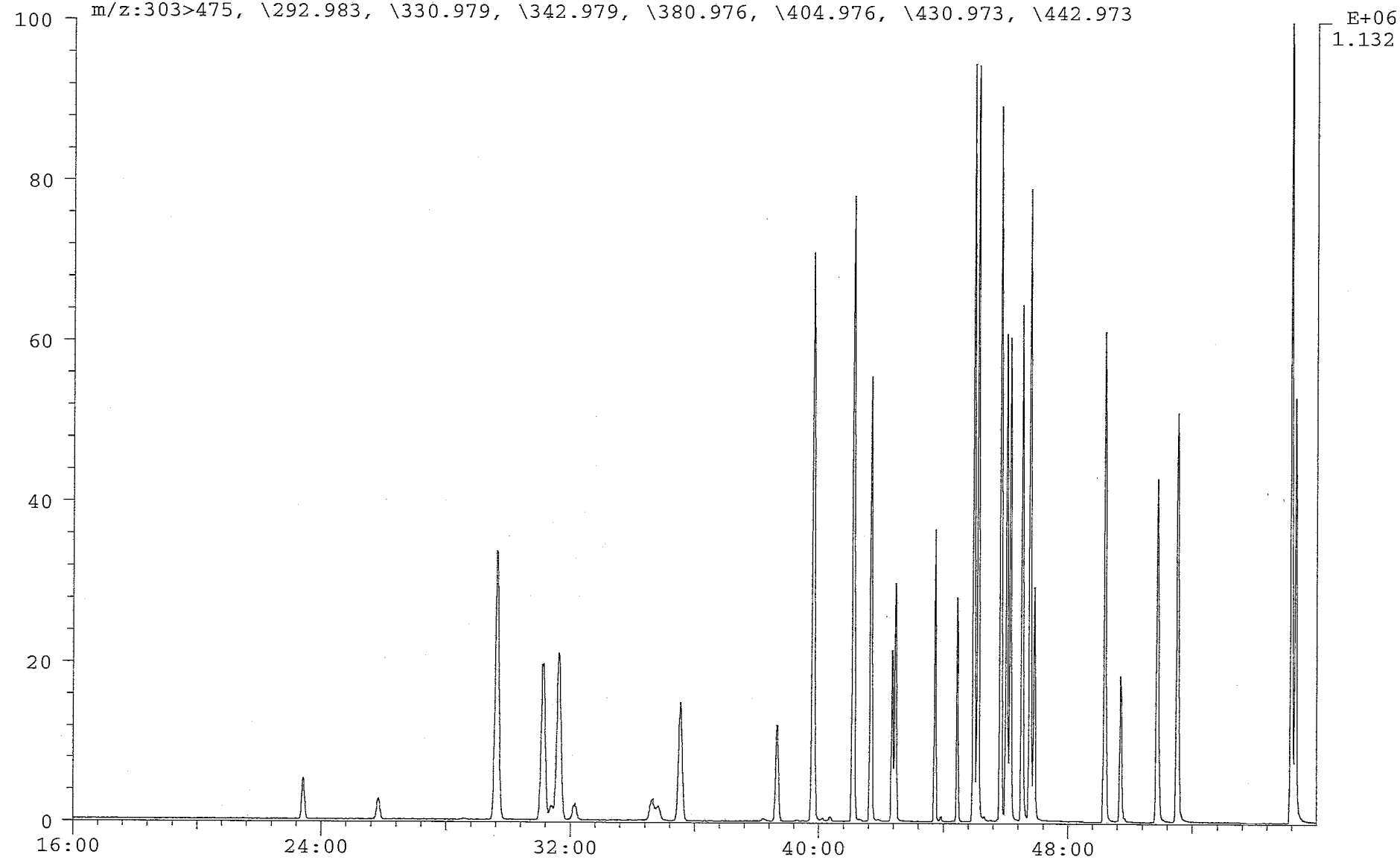
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	175	168	70	67	1.04 *	/	
	OCDD	55:10	55:07	3	809445	888501	218819	240035	0.91	ABV/ABV	M
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	190	190	76	76	1.00	/	
	13C-OCDD	55:09	55:06	3	1381800	1516044	368706	409145	0.91	ABV/ABV	

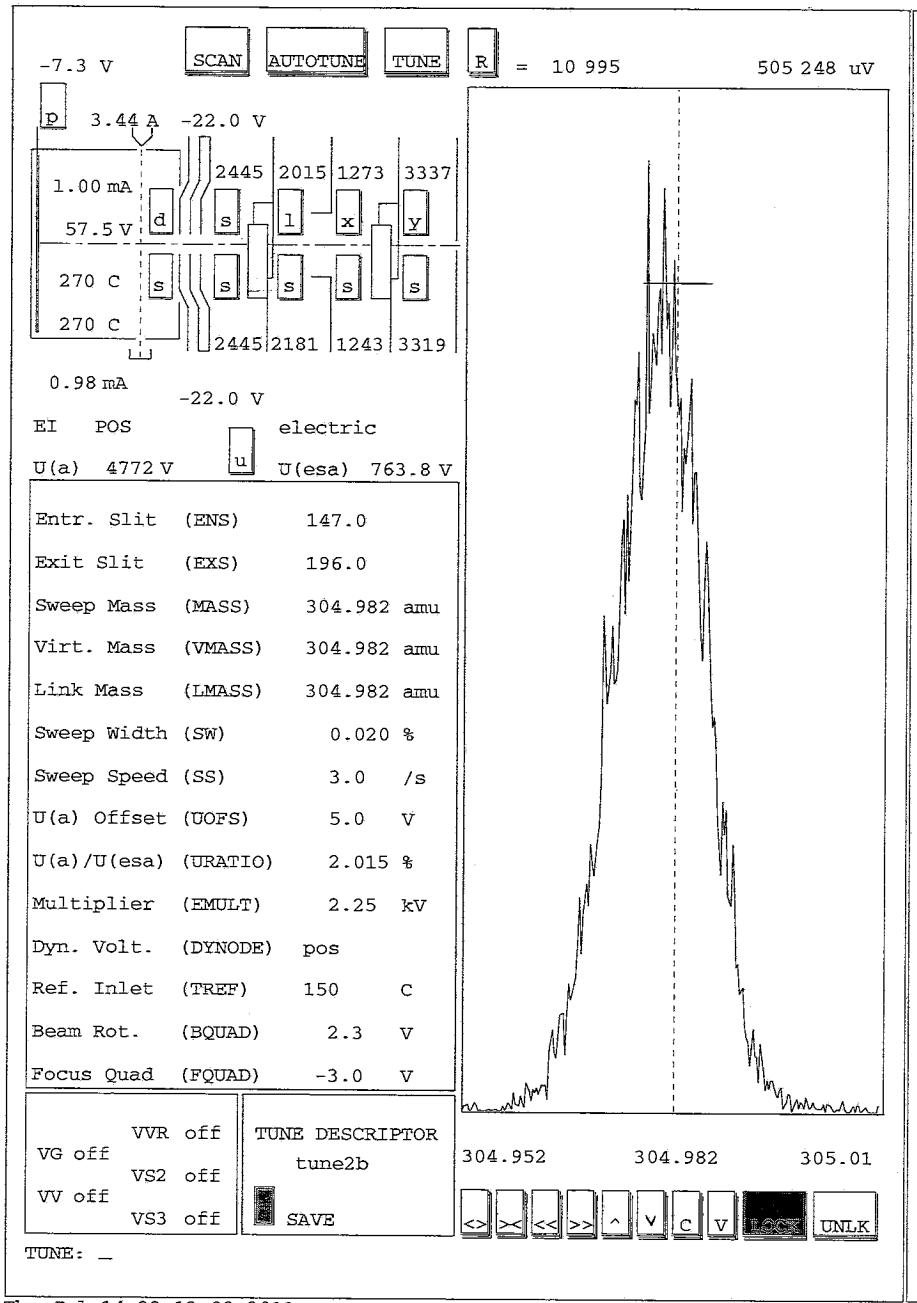
Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

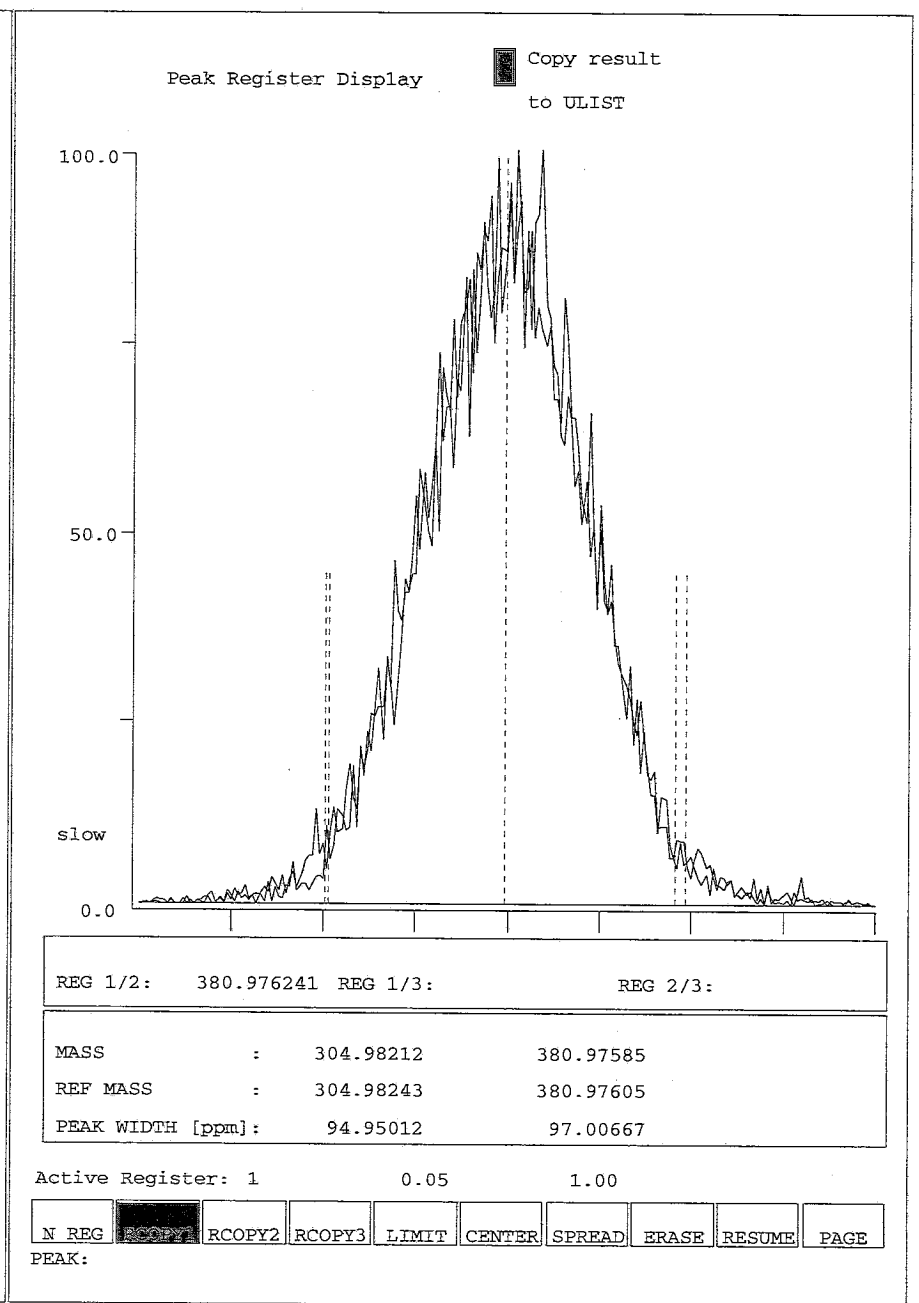
CHRO: b110714w2 14-Jul-11 Elapse: 35:13 1498
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 442 > 2665 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int/Calc PMP 7 14 11
QC KM 9-15-11



H-697

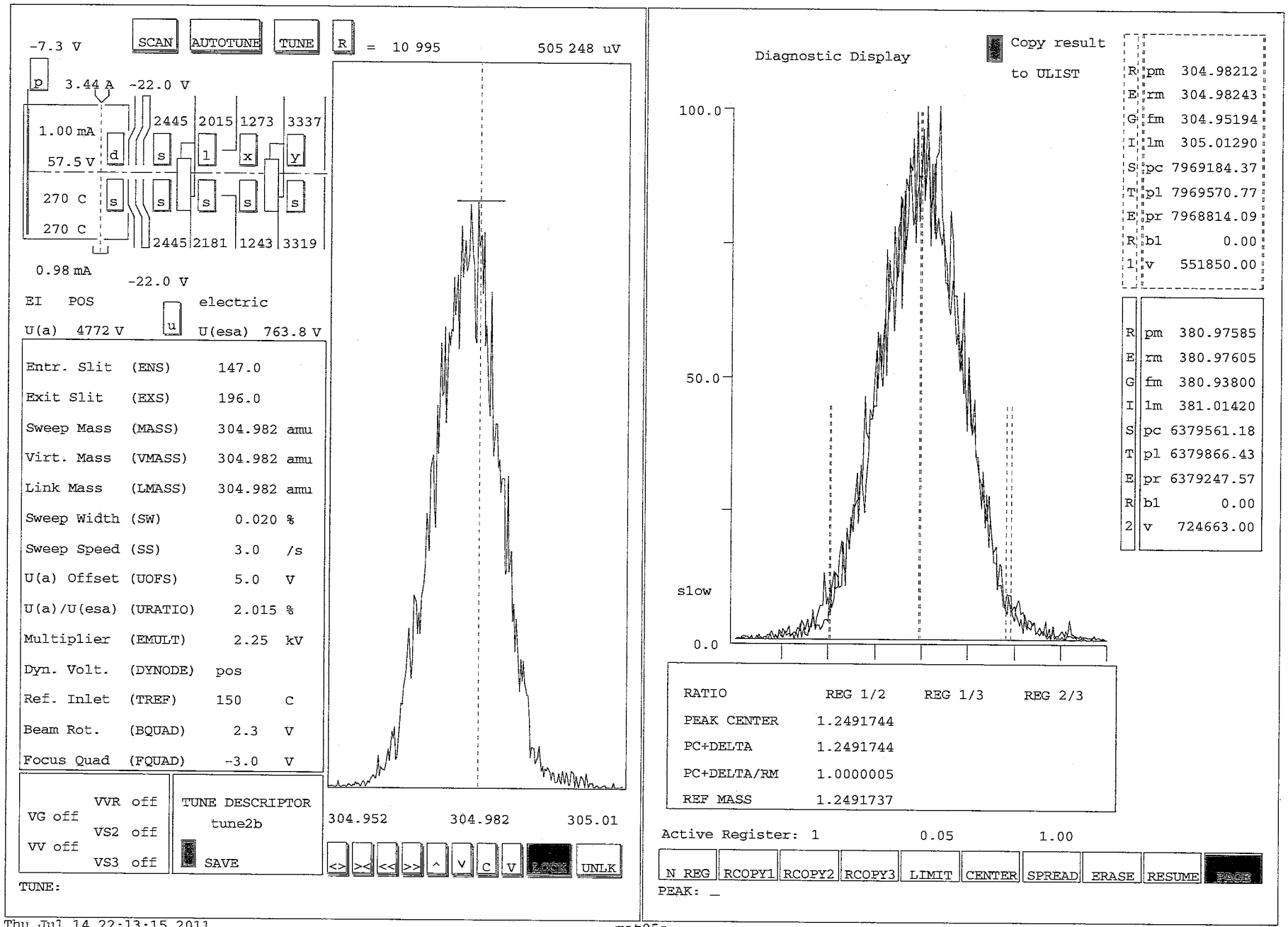




Thu Jul 14 22:13:08 2011 mat95s MAT 95

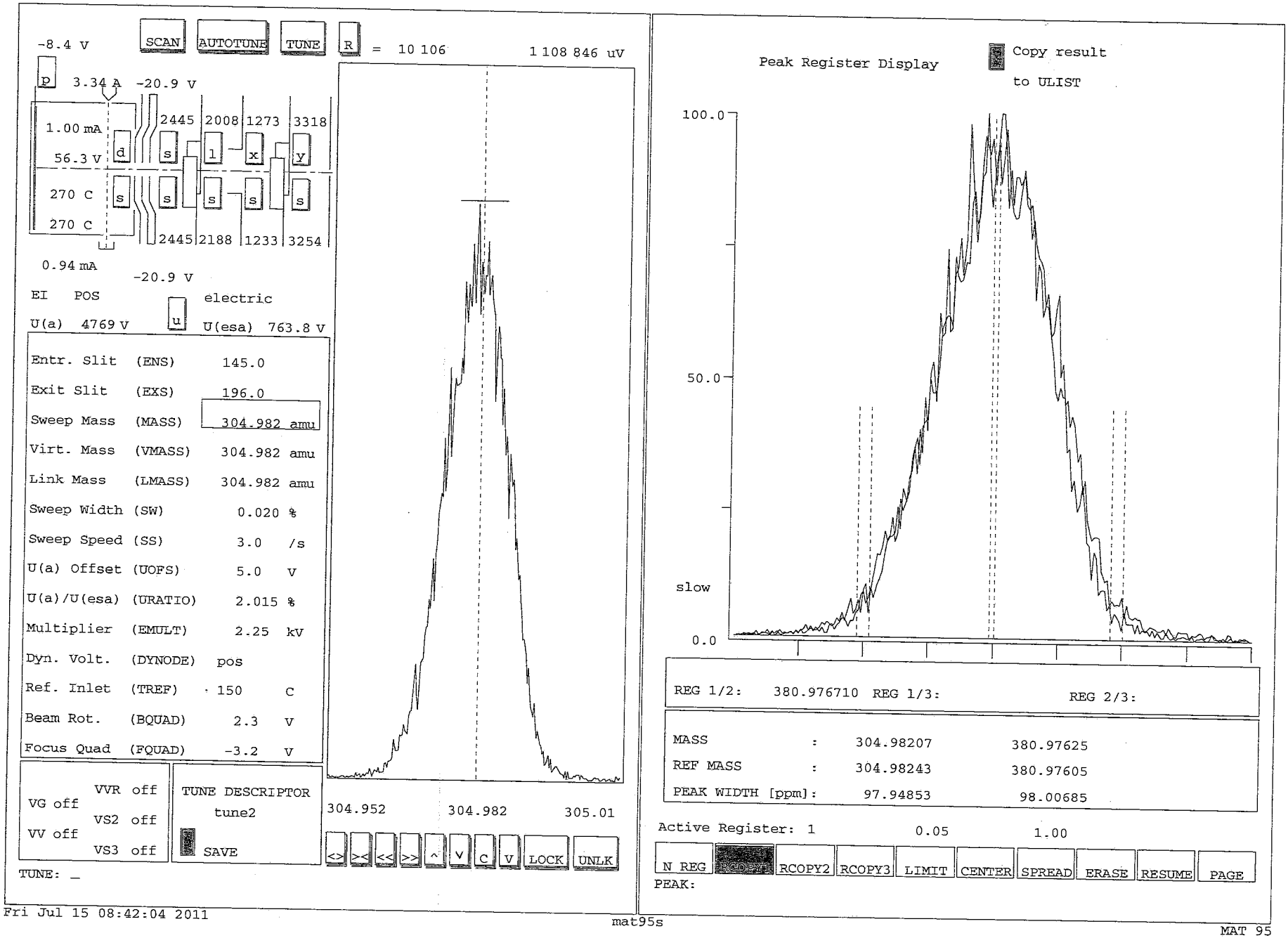
H-698

697


-7.3 V
SCAN
AUTOTUNE
TUNE
R
= 10 995
505 248 uV
p
3.44 A
-22.0 V
1.00 mA
57.5 V
2445 2015 1273 3337
d s l x y
270 C
270 C
s s s s s
2445 2181 1243 3319
0.98 mA
-22.0 V
EI POS
u
electric
U(a) 4772 V
U(esa) 763.8 V
Entr. Slit (ENS) 147.0
Exit Slit (EXS) 196.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.015 %
Multiplier (EMULT) 2.25 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.3 V
Focus Quad (FQUAD) -3.0 V
VVR off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2b
SAVE
304.952 304.982 305.01
<> >< << >> ^ v C v LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 304.98212
E rm 304.98243
G fm 304.95194
I lm 305.01290
S pc 7969184.37
T pl 7969570.77
E pr 7968814.09
R b1 0.00
1 v 551850.00
R pm 380.97585
E rm 380.97605
G fm 380.93800
I lm 381.01420
S pc 6379561.18
T pl 6379866.43
E pr 6379247.57
R b1 0.00
2 v 724663.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.2491744
PC+DELTA 1.2491744
PC+DELTA/RM 1.0000005
REF MASS 1.2491737
Active Register: 1 0.05 1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
Thu Jul 14 22:13:15 2011
mat95s
MAT 95

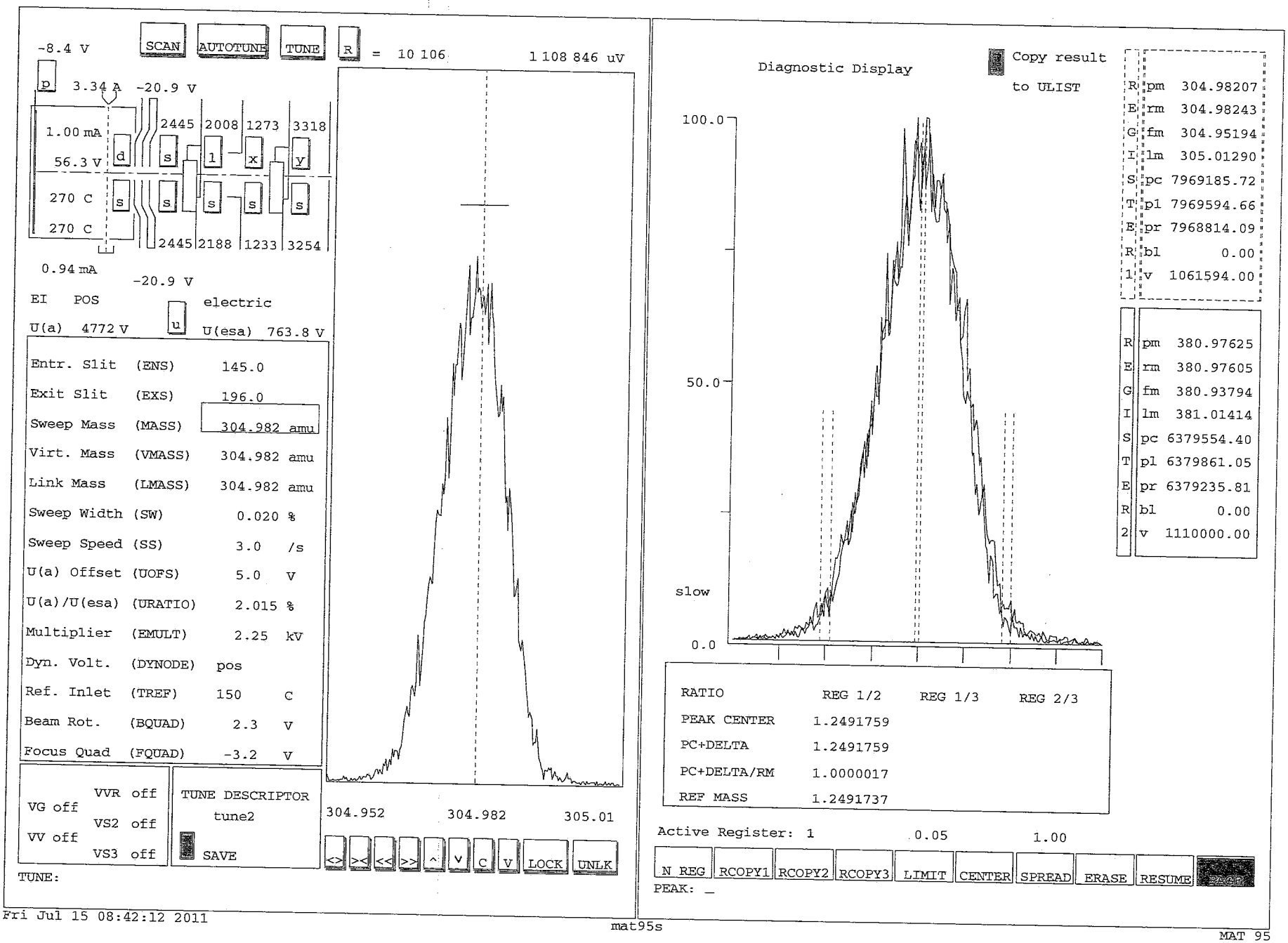
669-H

669


-8.4 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
1 108 846 uV
p
3.34 A
-20.9 V
1.00 mA
56.3 V
2445 2008 1273 3318
d s l x y
270 C
270 C
s s s s s
2445 2188 1233 3254
0.94 mA
-20.9 V
EI POS
electric
U(a) 4769 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 145.0
Exit Slit (EXS) 196.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.015 %
Multiplier (EMULT) 2.25 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.3 V
Focus Quad (FQUAD) -3.2 V
VG off
VVR off
VV off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
304.952
304.982
305.01
<> >< << >> ^ v C V LOCK UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 380.976710 REG 1/3: REG 2/3:
MASS : 304.98207 380.97625
REF MASS : 304.98243 380.97605
PEAK WIDTH [ppm]: 97.94853 98.00685
Active Register: 1 0.05 1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK:
Fri Jul 15 08:42:04 2011
mat95s
MAT 95

H-700

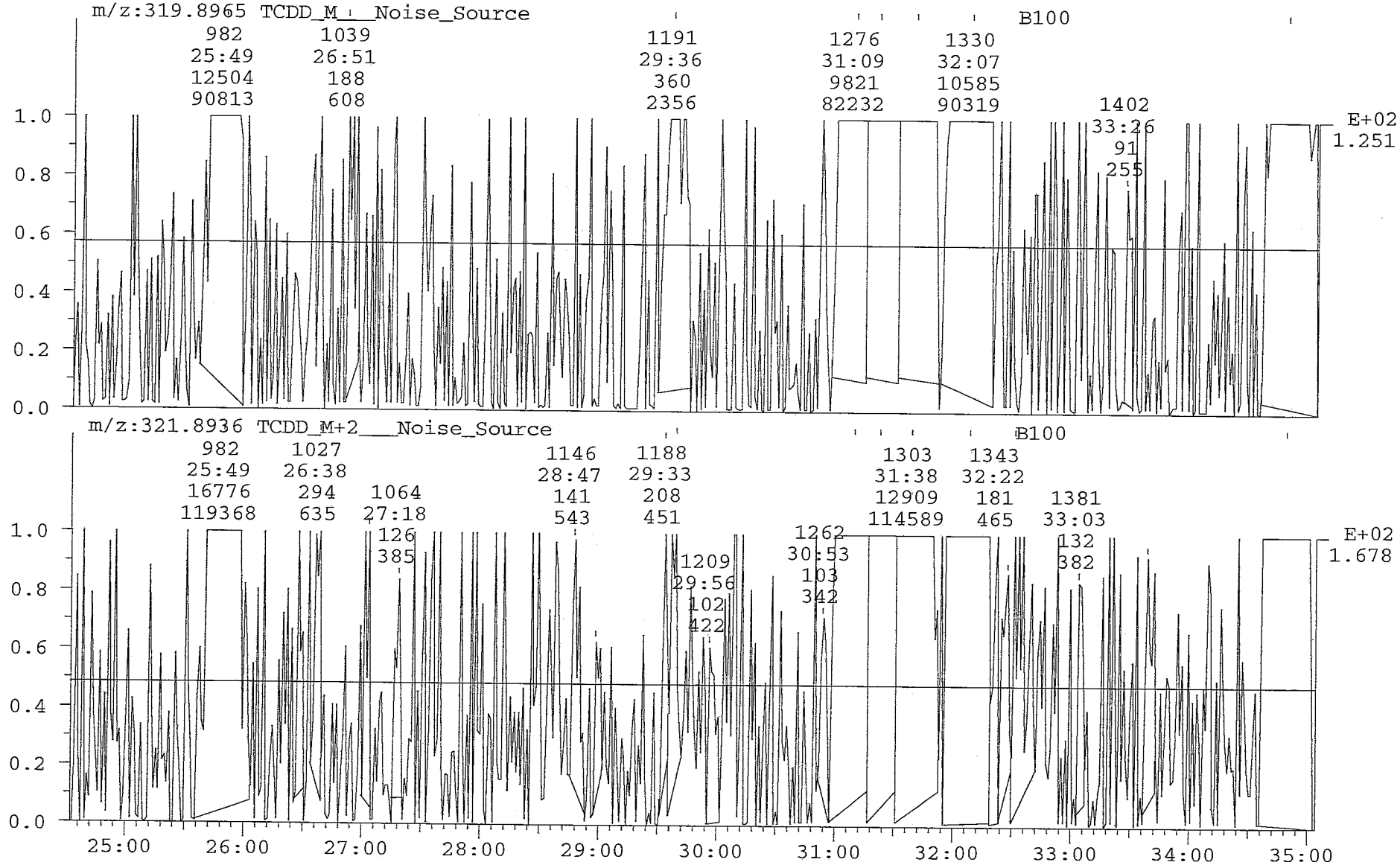
669


-8.4 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
1 108 846 uV
p
3.34 A
-20.9 V
1.00 mA
56.3 V
270 C
270 C
2445 2008 1273 3318
2445 2188 1233 3254
0.94 mA
-20.9 V
EI POS
electric
U(a) 4772 V
U(esa) 763.8 V
Entr. Slit (ENS) 145.0
Exit Slit (EXS) 196.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.015 %
Multiplier (EMULT) 2.25 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.3 V
Focus Quad (FQUAD) -3.2 V
VVR off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
304.952
304.982
305.01
LOCK
UNLK
TUNE:
Fri Jul 15 08:42:12 2011
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.2491759
PC+DELTA 1.2491759
PC+DELTA/RM 1.0000017
REF MASS 1.2491737
REGISTER 1
pm 304.98207
rm 304.98243
fm 304.95194
lm 305.01290
pc 7969185.72
pl 7969594.66
pr 7968814.09
bl 0.00
v 1061594.00
REGISTER 2
pm 380.97625
rm 380.97605
fm 380.93794
lm 381.01414
pc 6379554.40
pl 6379861.05
pr 6379235.81
bl 0.00
v 1110000.00
Active Register: 1
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PEAK: _
mat95s
MAT 95

H-701

700

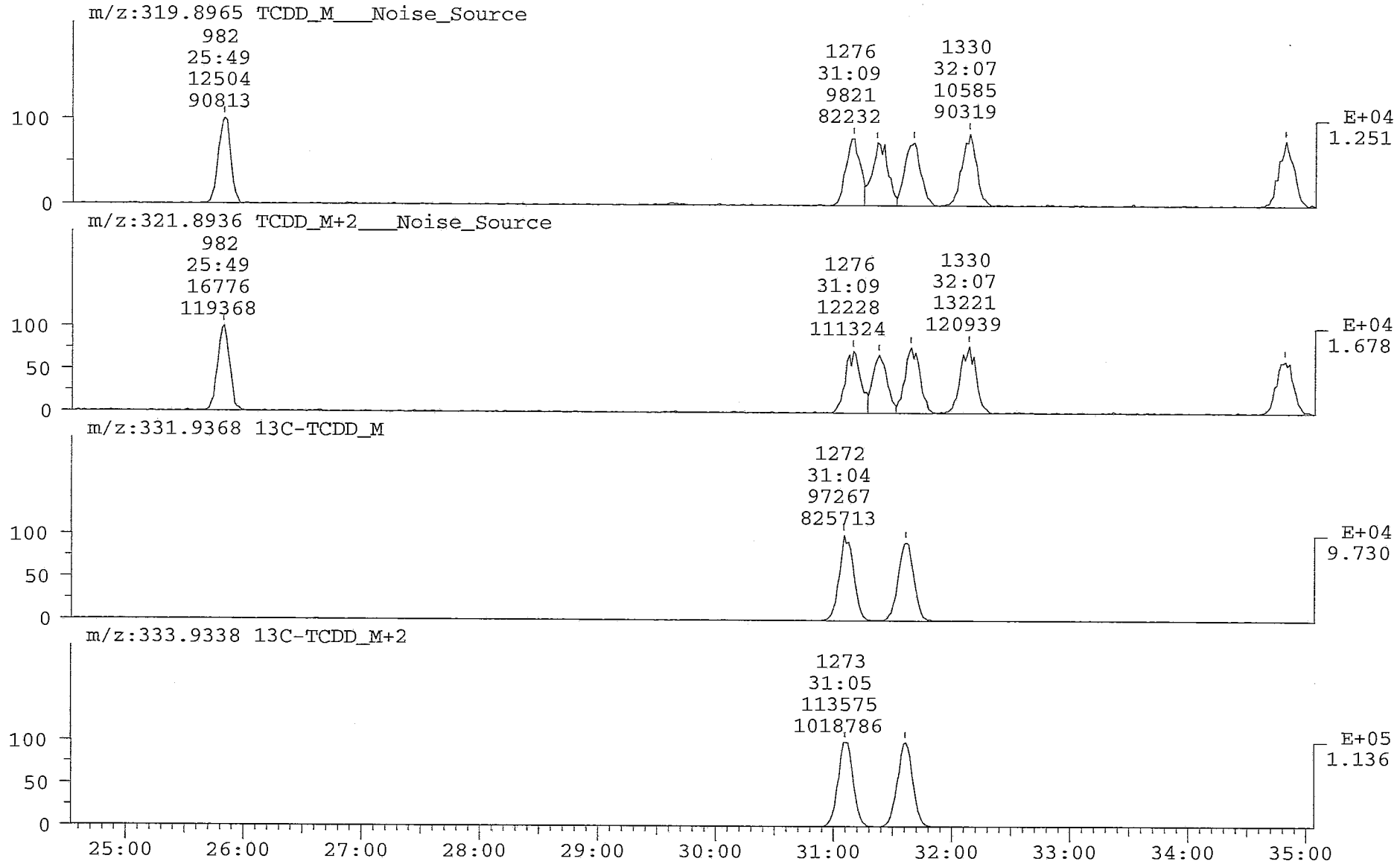
CHRO: b110714w2 14-Jul-11 Elapse: 35:13 1498
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 911 > 1491 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-702

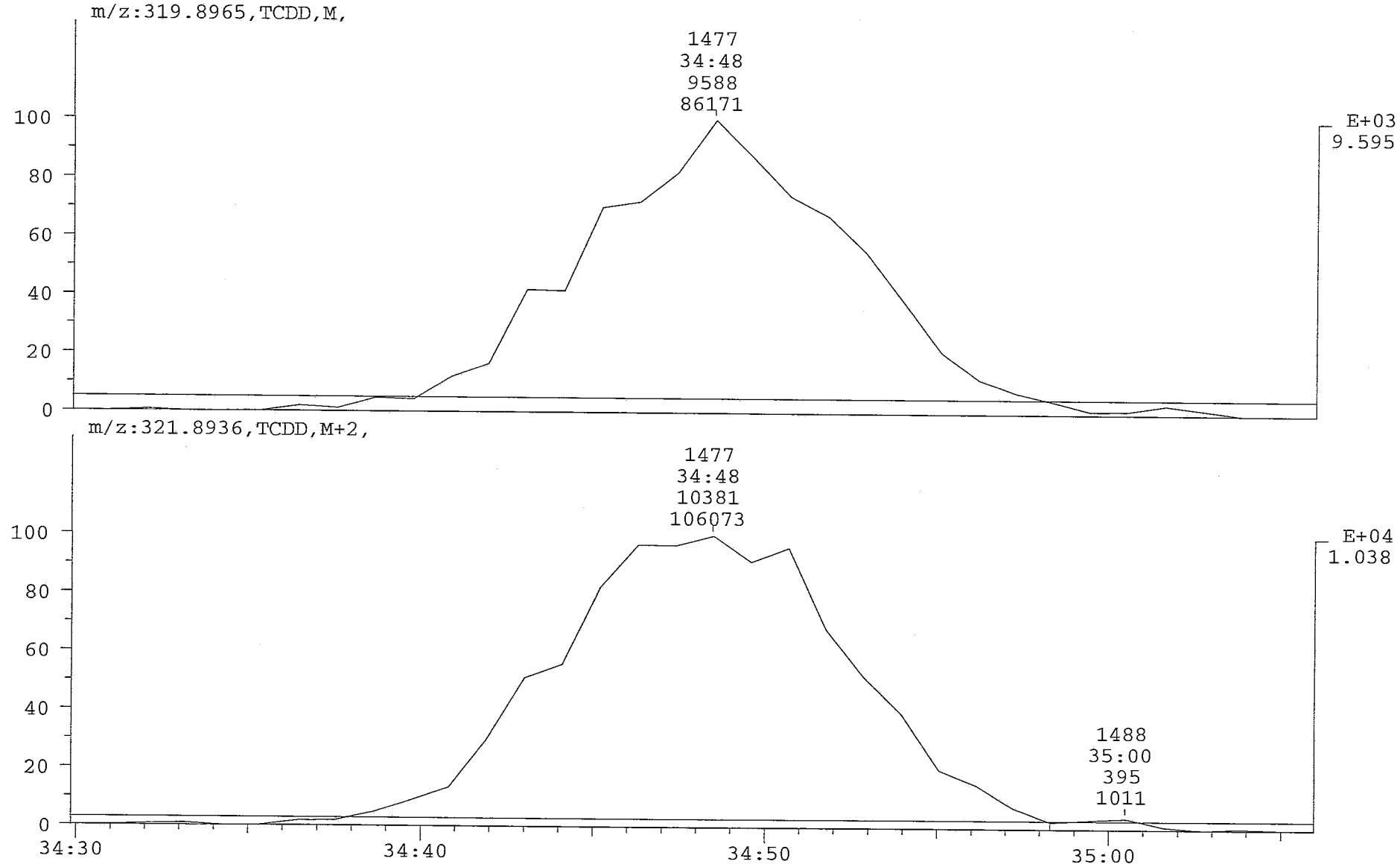
701

CHRO: b110714w2 14-Jul-11 Elapse: 35:13 1498
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 911 > 1491 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-703

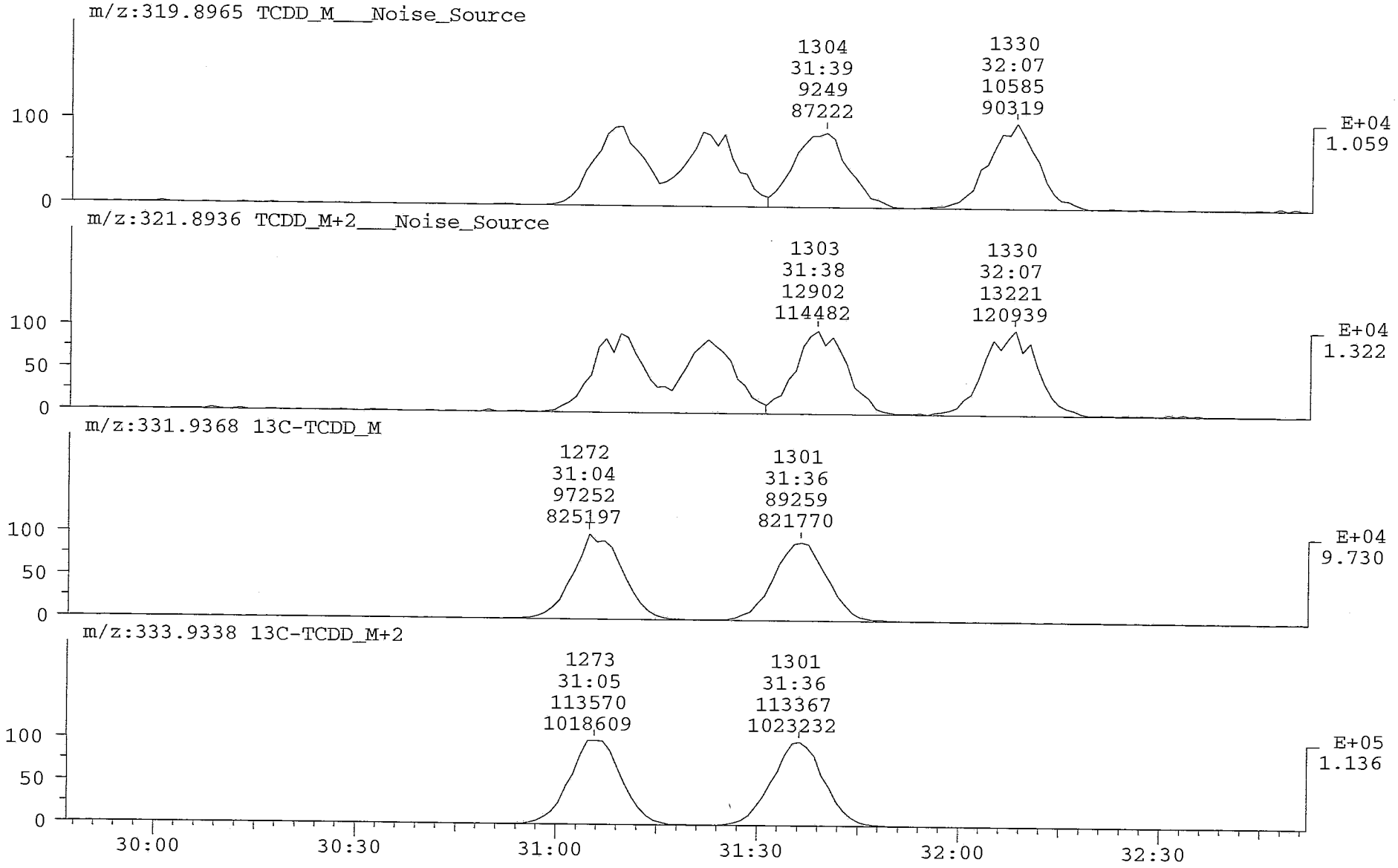
CHRO: b110714w2 14-Jul-11 Elapse: 55:16 2625
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1460 > 1493 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-704

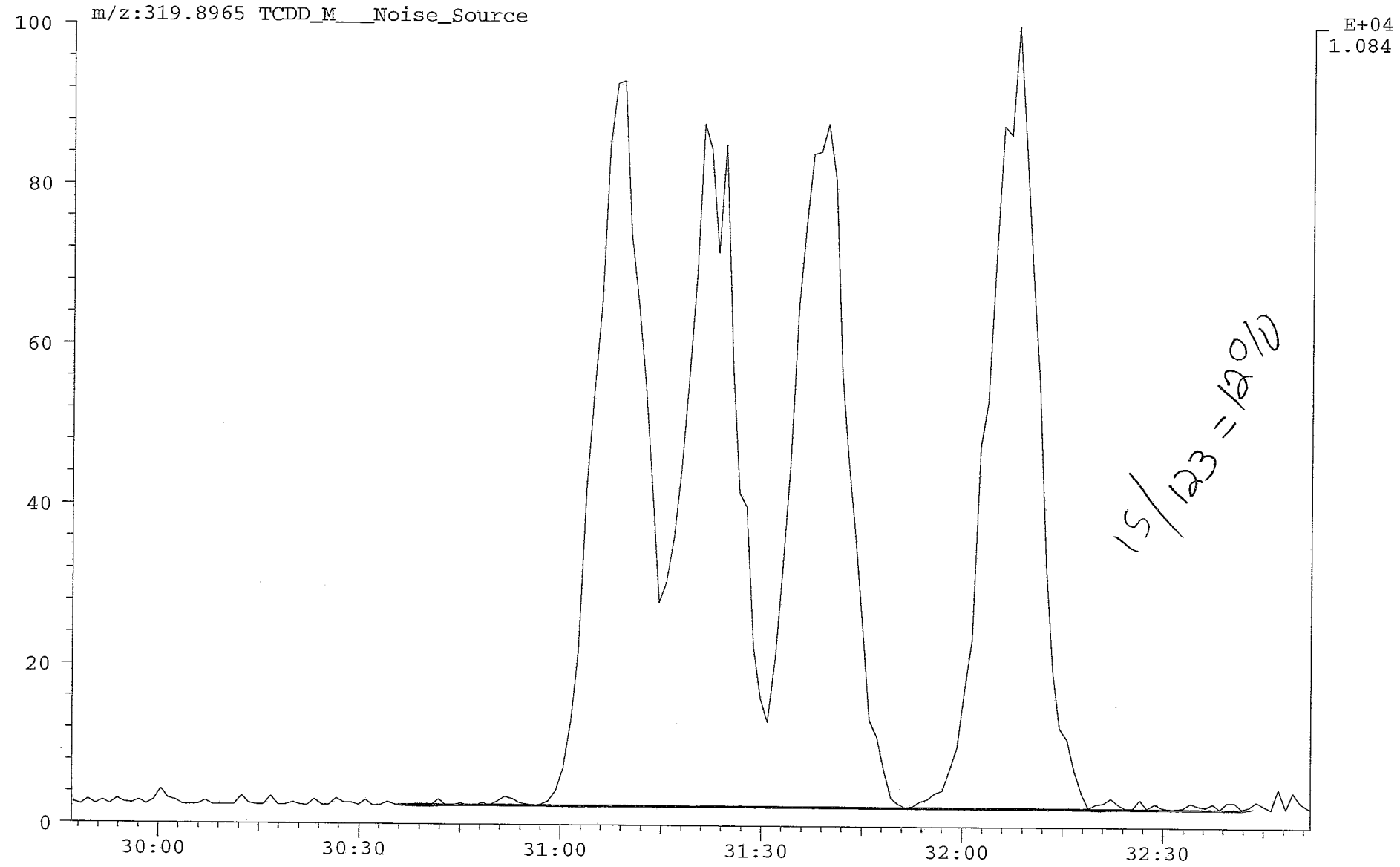
703

CHRO: b110714w2 14-Jul-11 Elapse: 31:18 1285
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1201 > 1370 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-705

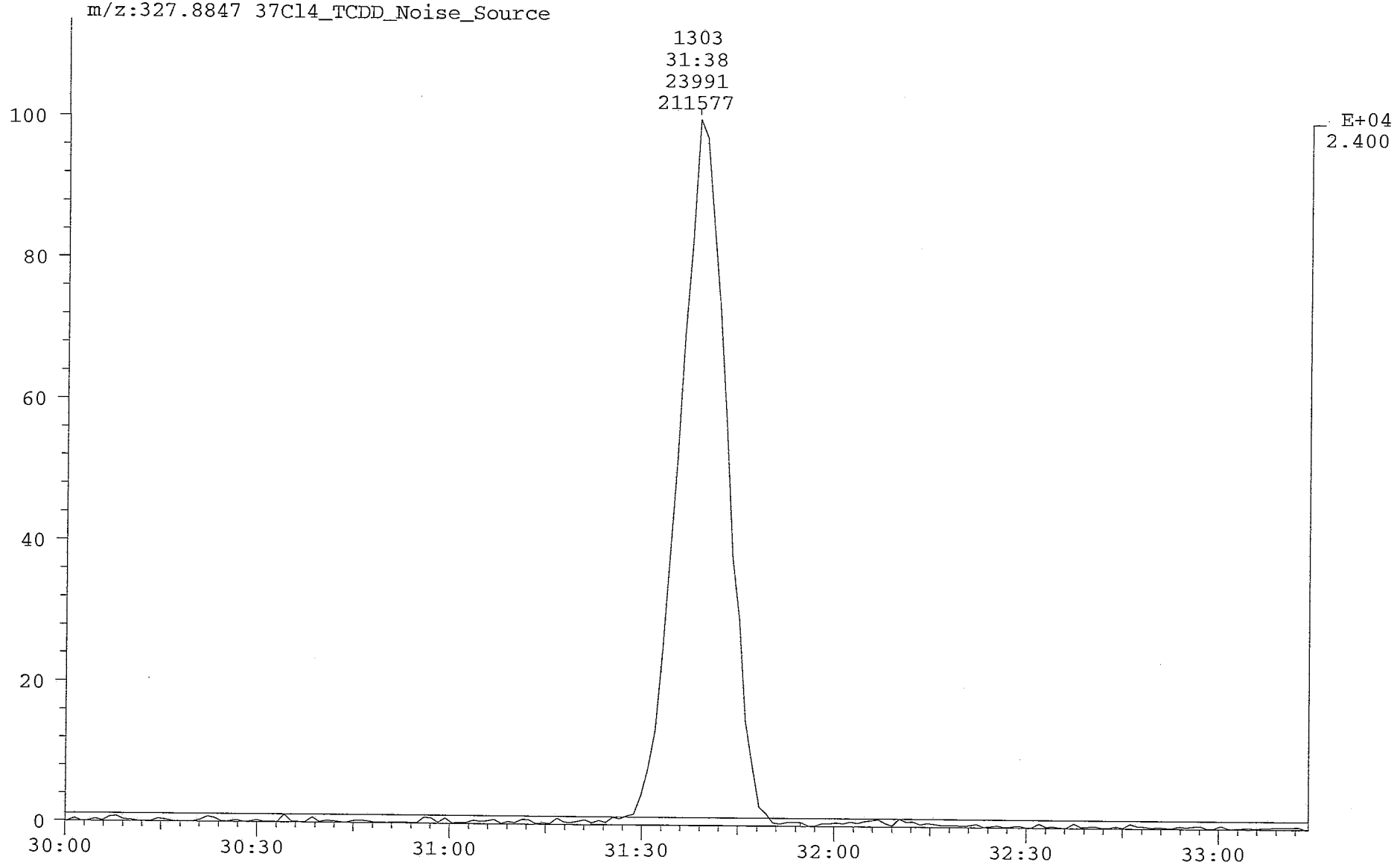
CHRO: b110714w2 14-Jul-11 Elapse: 31:18 1285
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1201 > 1370 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-706

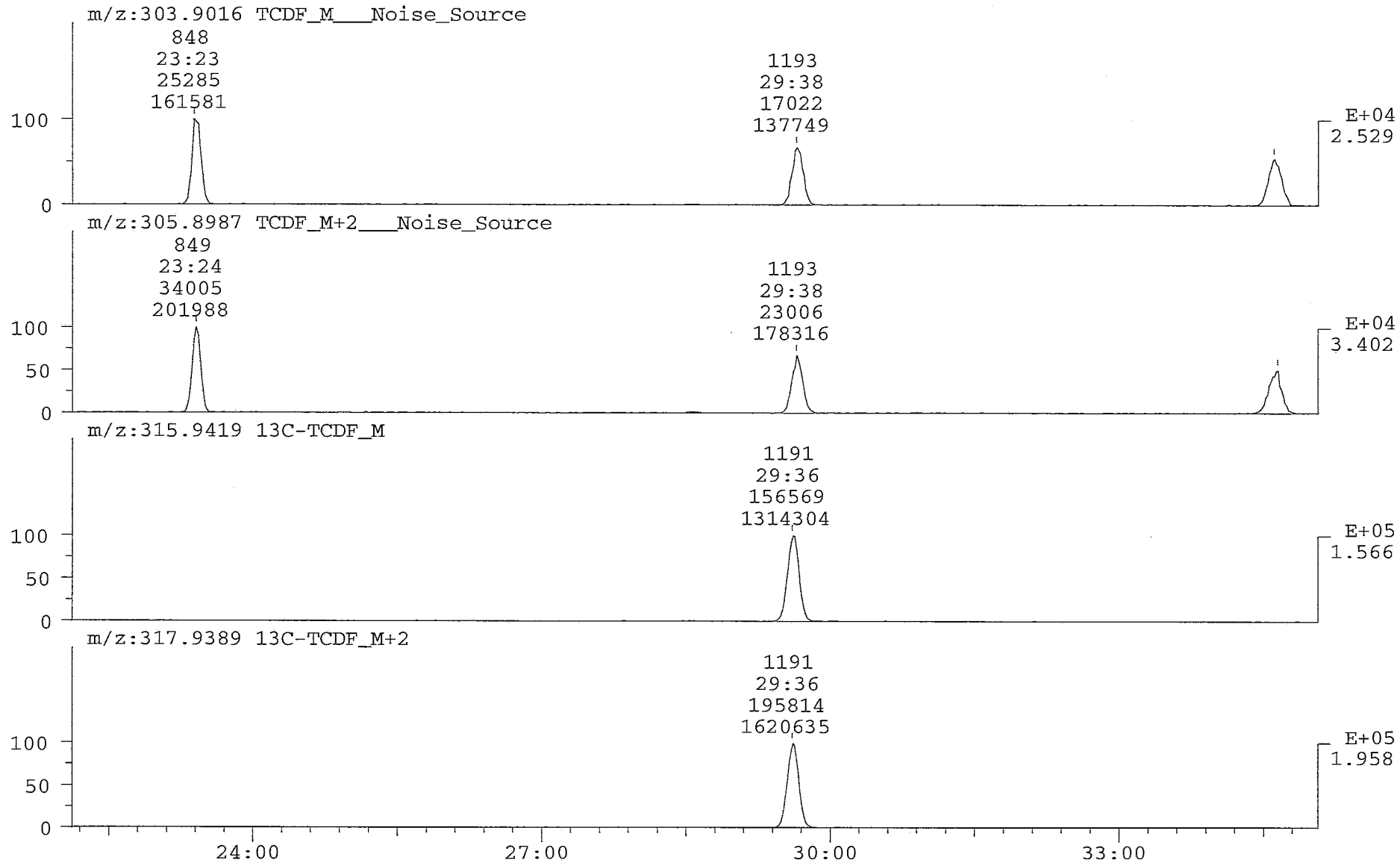
705

CHRO: b110714w2 14-Jul-11 Elapse: 31:34 1299
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1213 > 1391 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-707

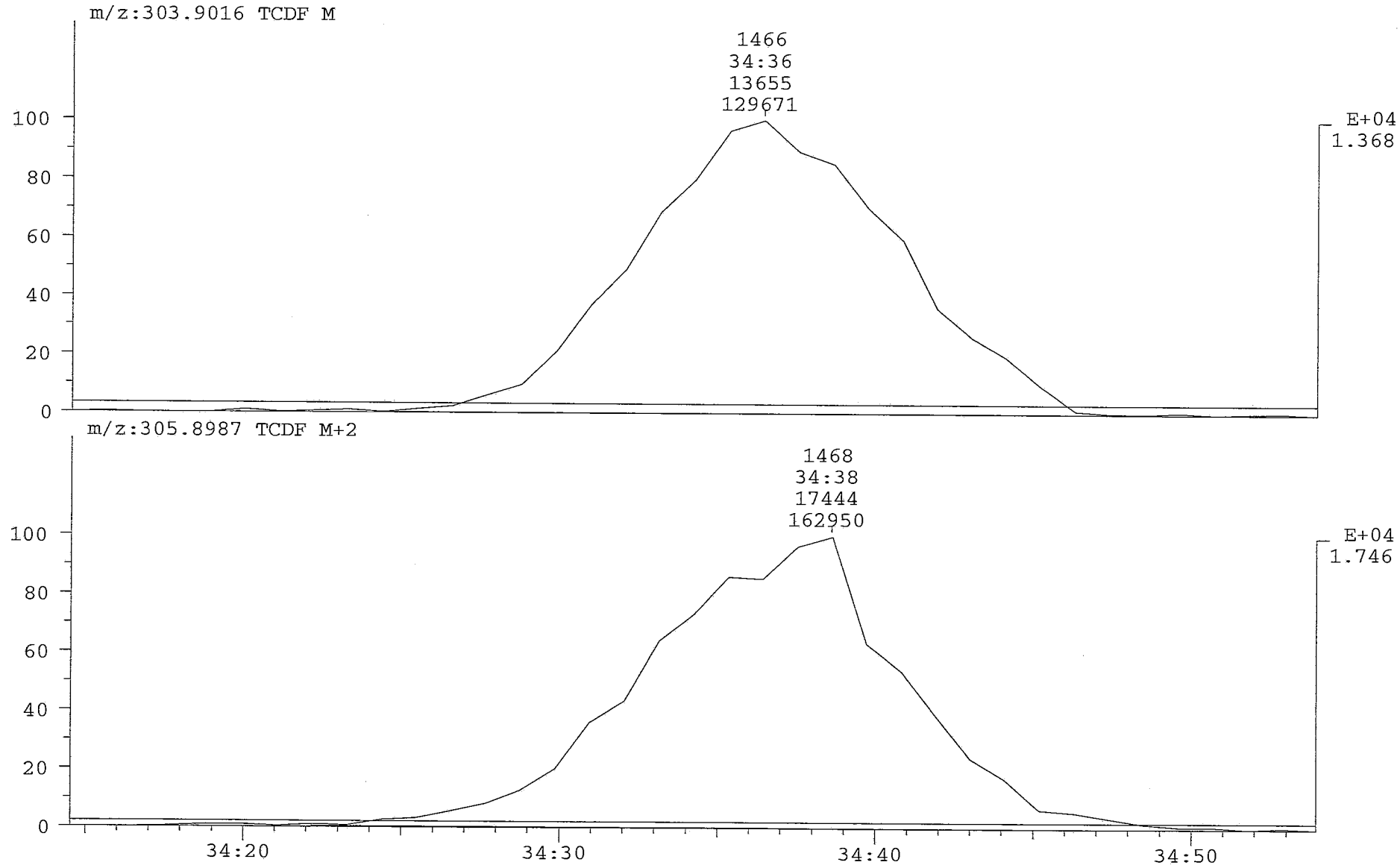
CHRO: b110714w2 14-Jul-11 Elapse: 31:34 1299
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 778 > 1491 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-708

707

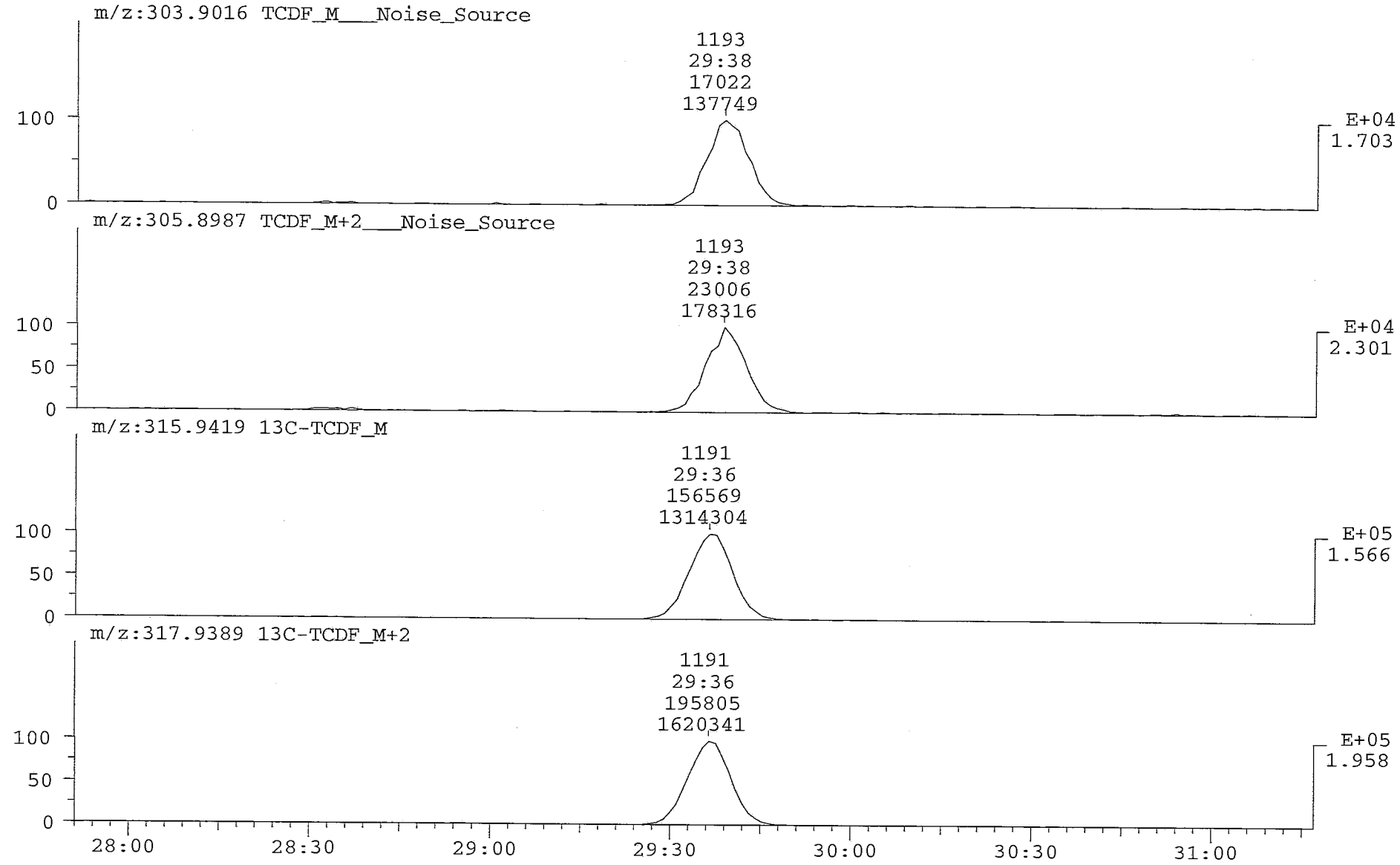
CHRO: b110714w2 14-Jul-11 Elapse: 55:16 2625
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1446 > 1482 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-709

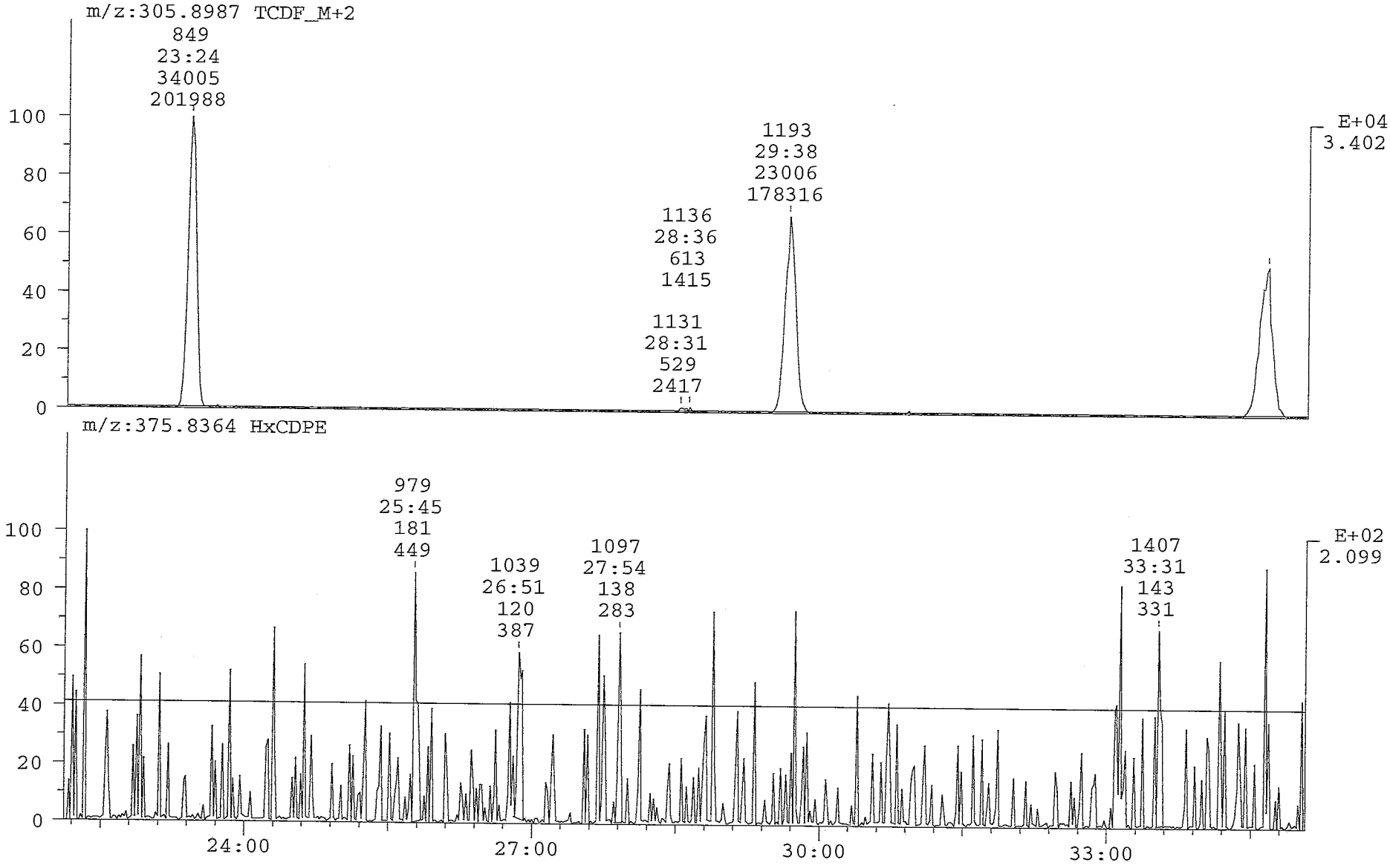
708

CHRO: b110714w2 14-Jul-11 Elapse: 29:31 1186
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1094 > 1283 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-710

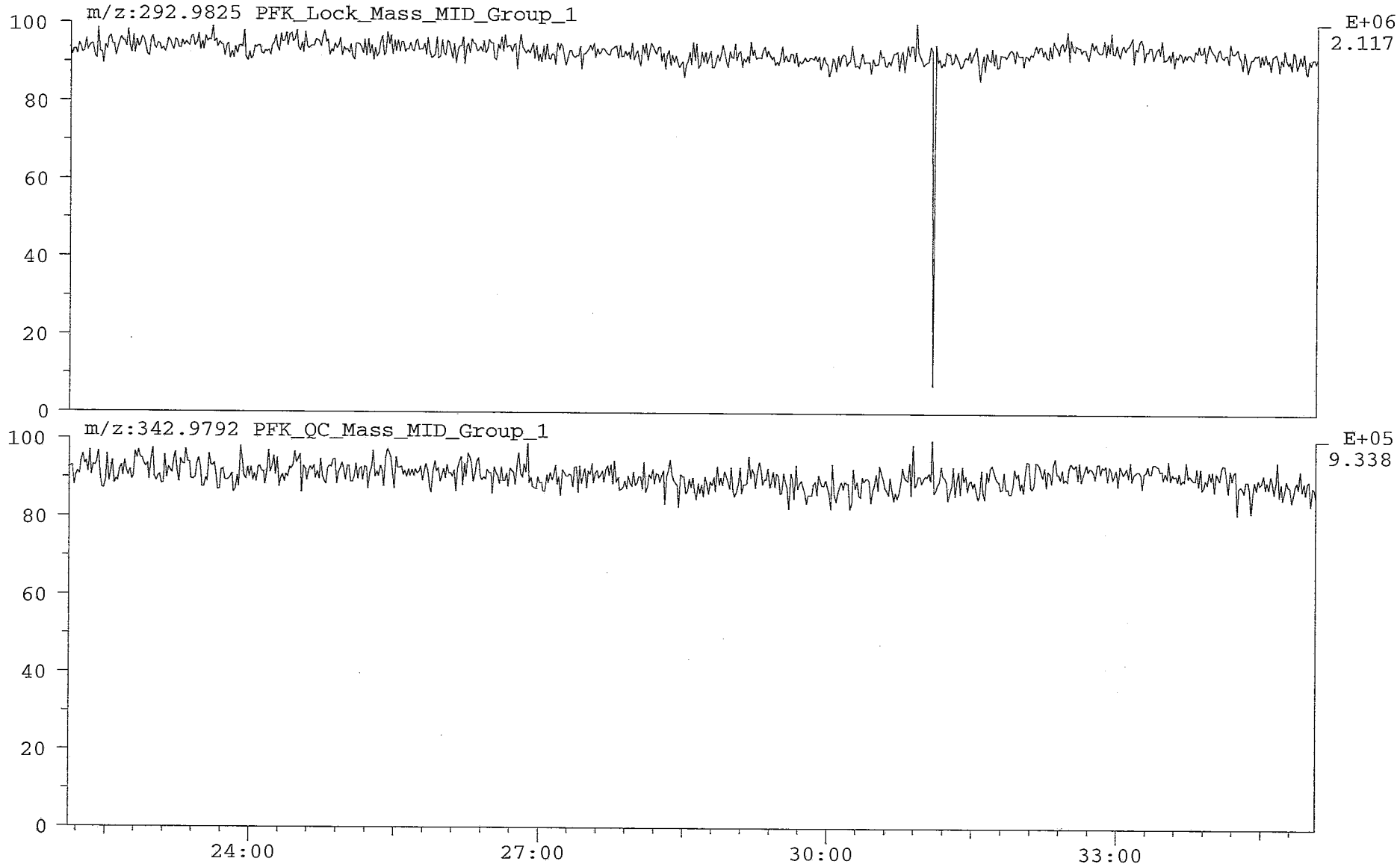
CHRO: b110714w2 14-Jul-11 Elapse: 29:31 1186
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 778 > 1491 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-711

710

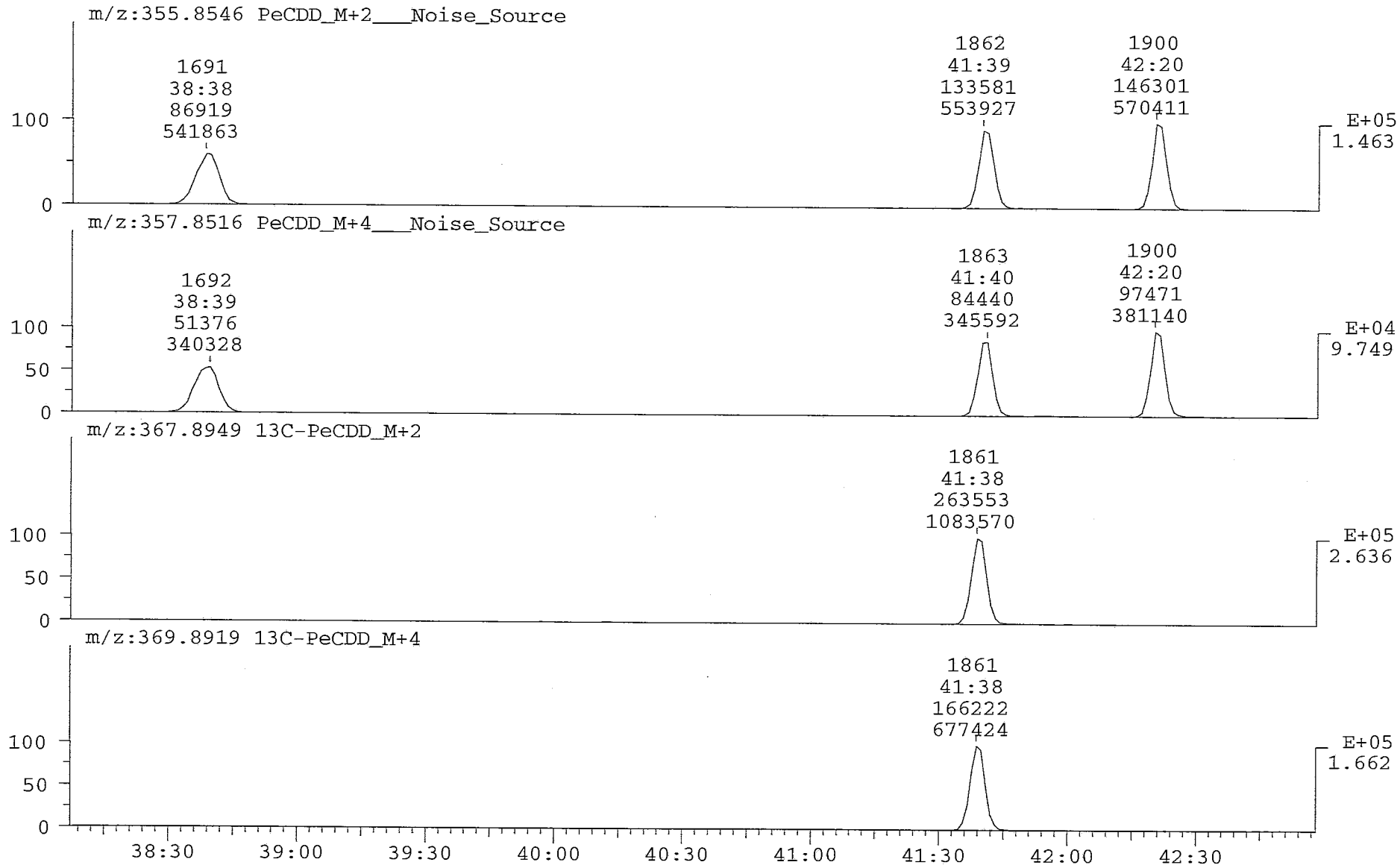
CHRO: b110714w2 14-Jul-11 Elapse: 29:31 1186
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 778 > 1491 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-712

711

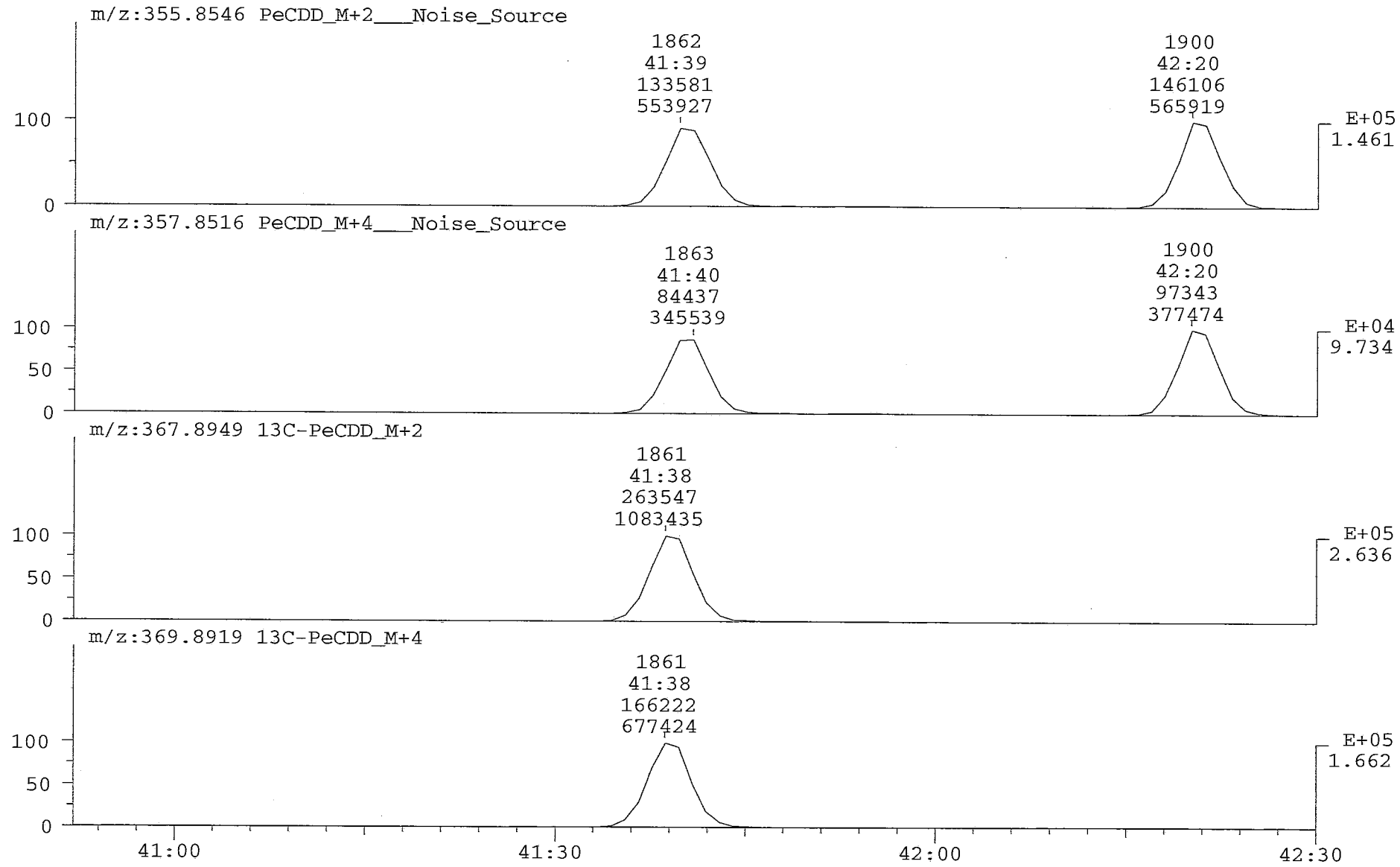
CHRO: b110714w2 14-Jul-11 Elapse: 29:31 1186
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1662 > 1936 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-713

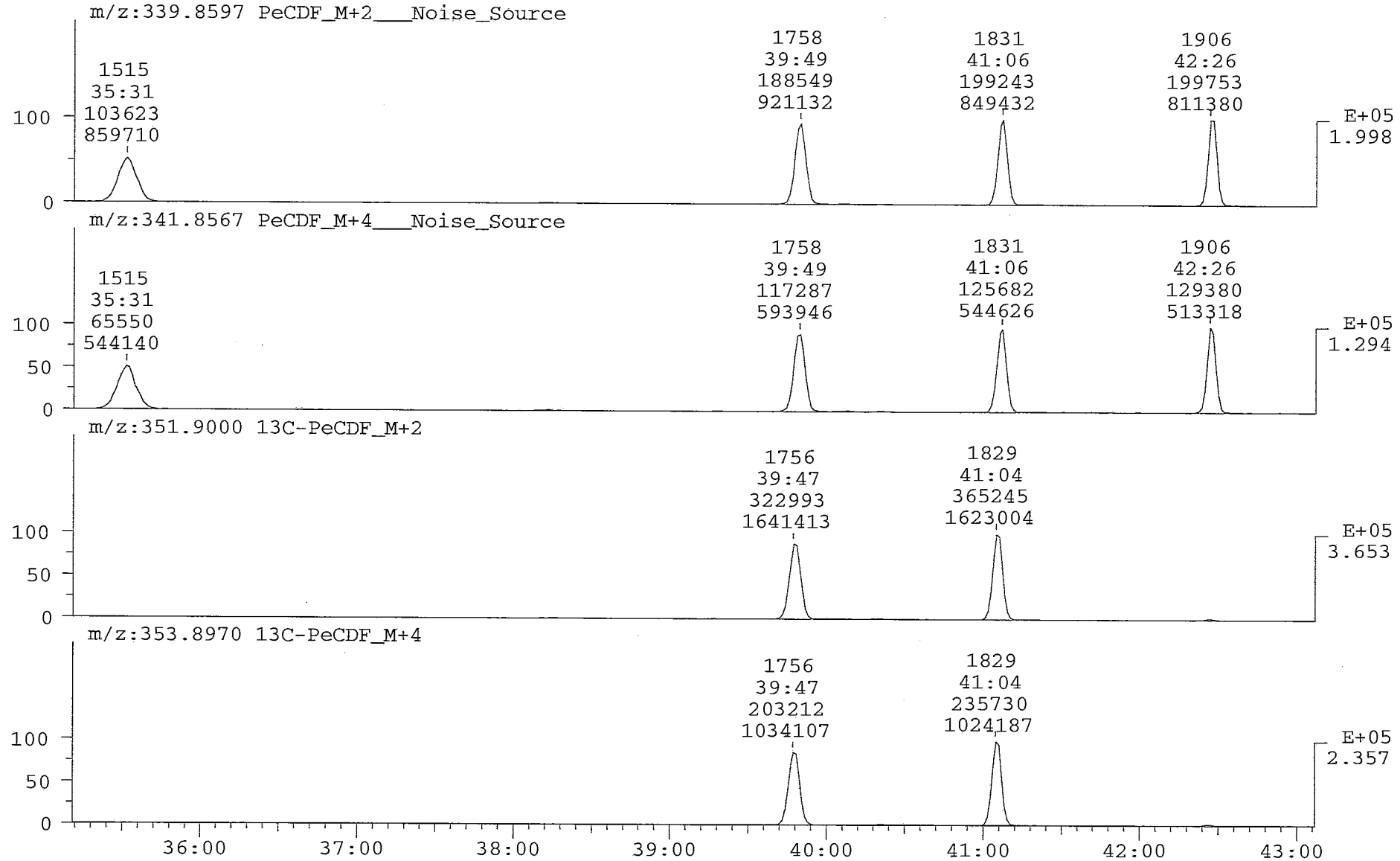
712

CHRO: b110714w2 14-Jul-11 Elapse: 41:37 1860
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1817 > 1909 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



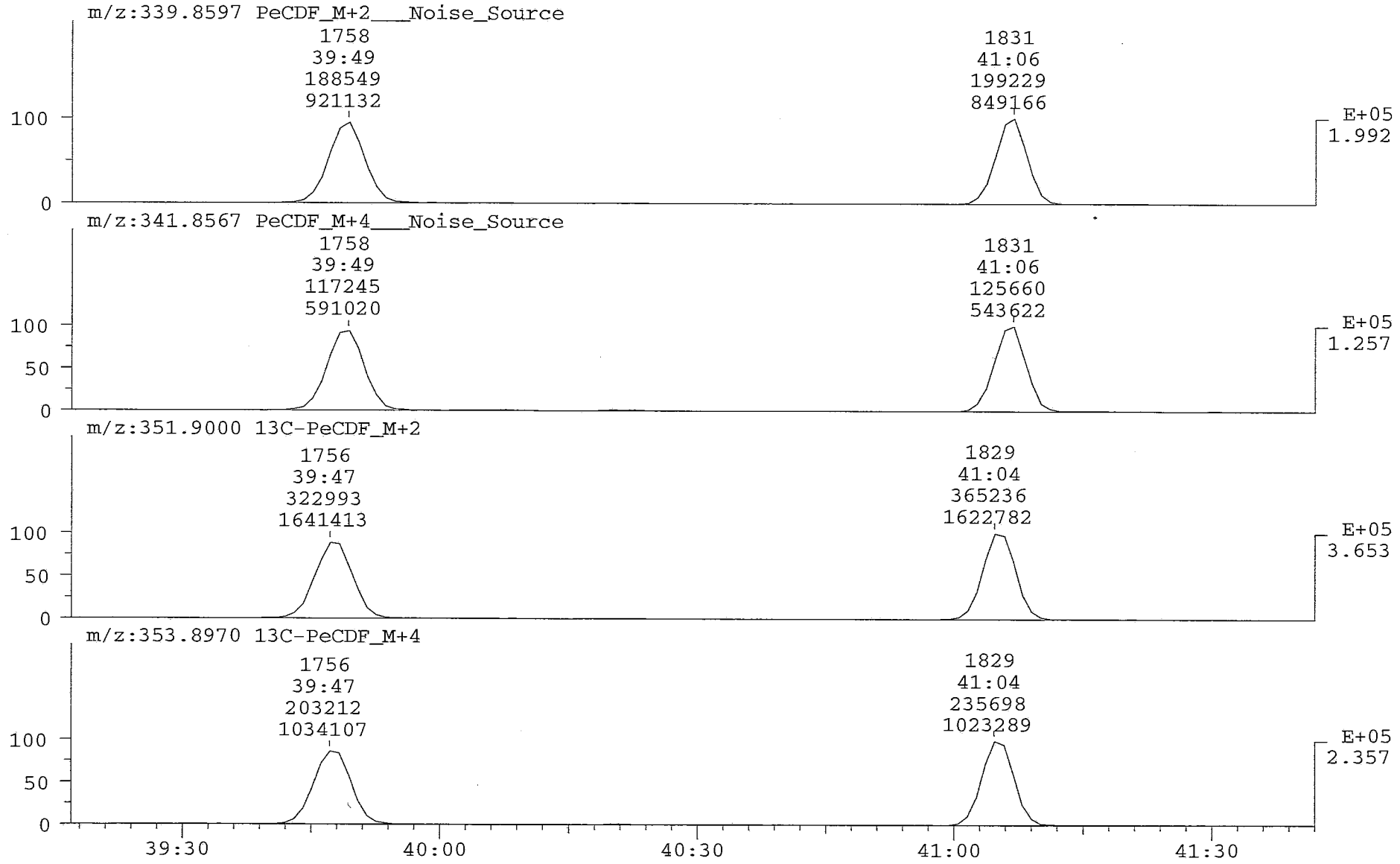
H-714

CHRO: b110714w2 14-Jul-11 Elapse: 41:37 1860
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1496 > 1944 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



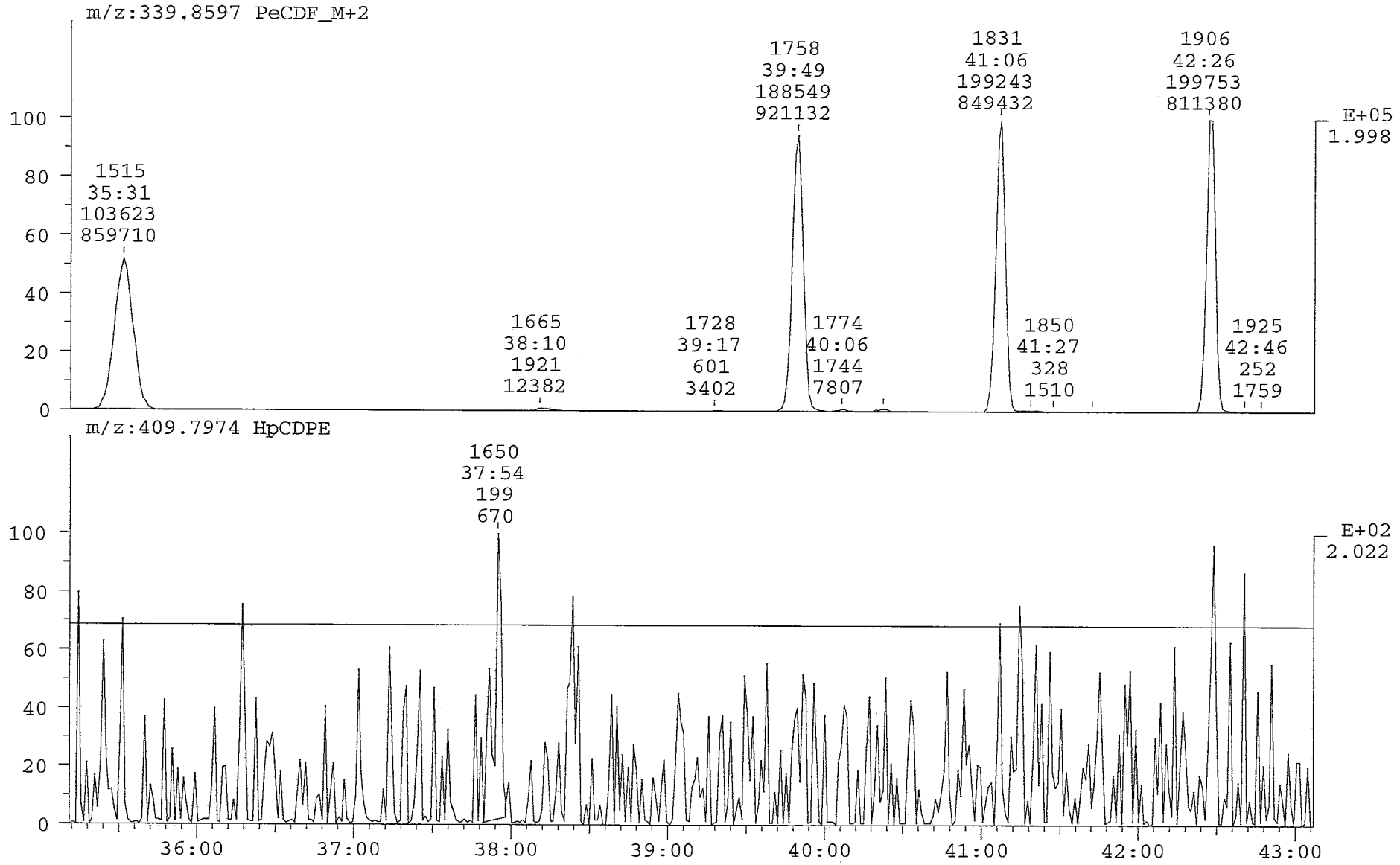
H-715

CHRO: b110714w2 14-Jul-11 Elapse: 40:28 1795
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1728 > 1864 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



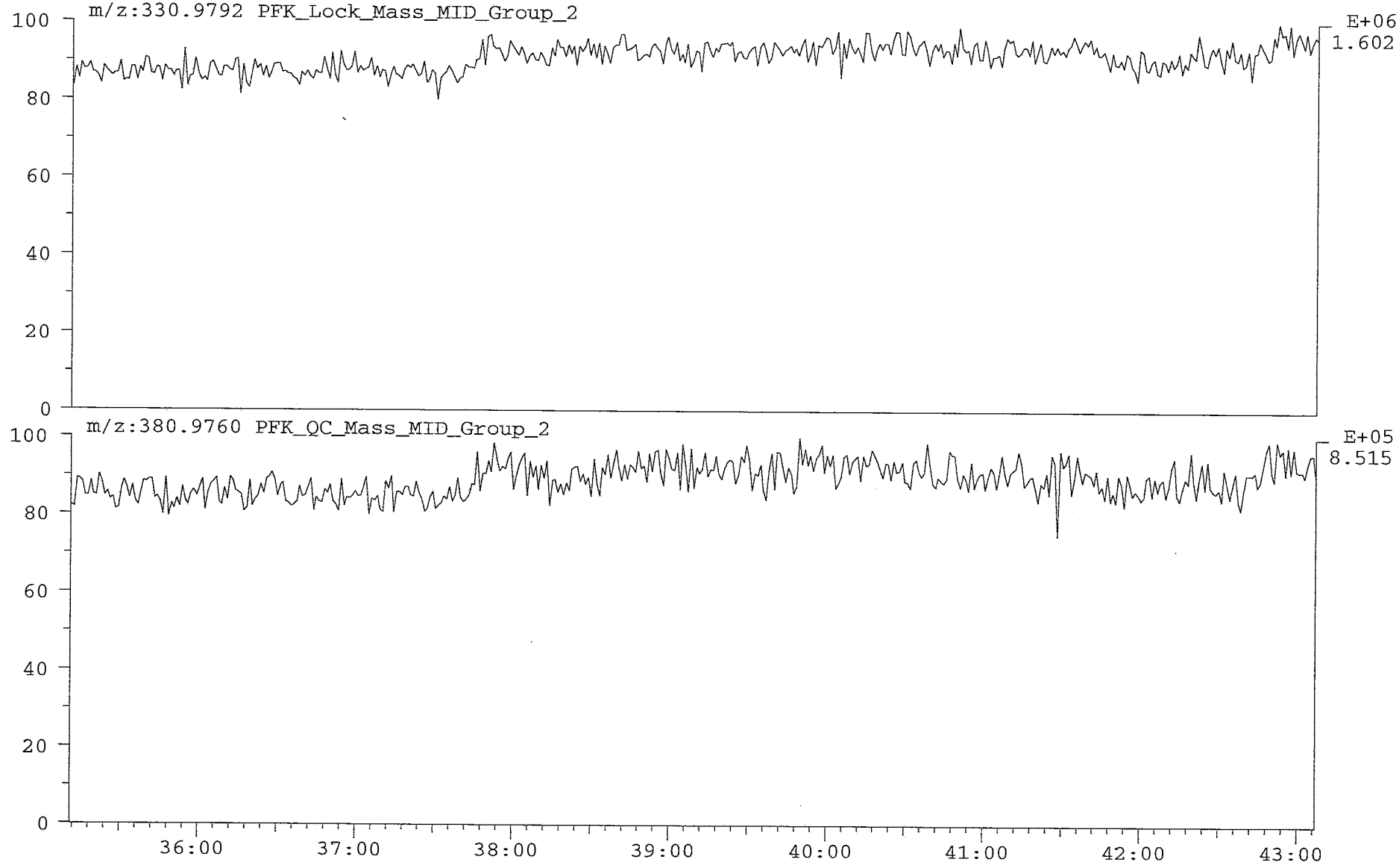
H-716

CHRO: b110714w2 14-Jul-11 Elapse: 40:28 1795
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1496 > 1944 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-717

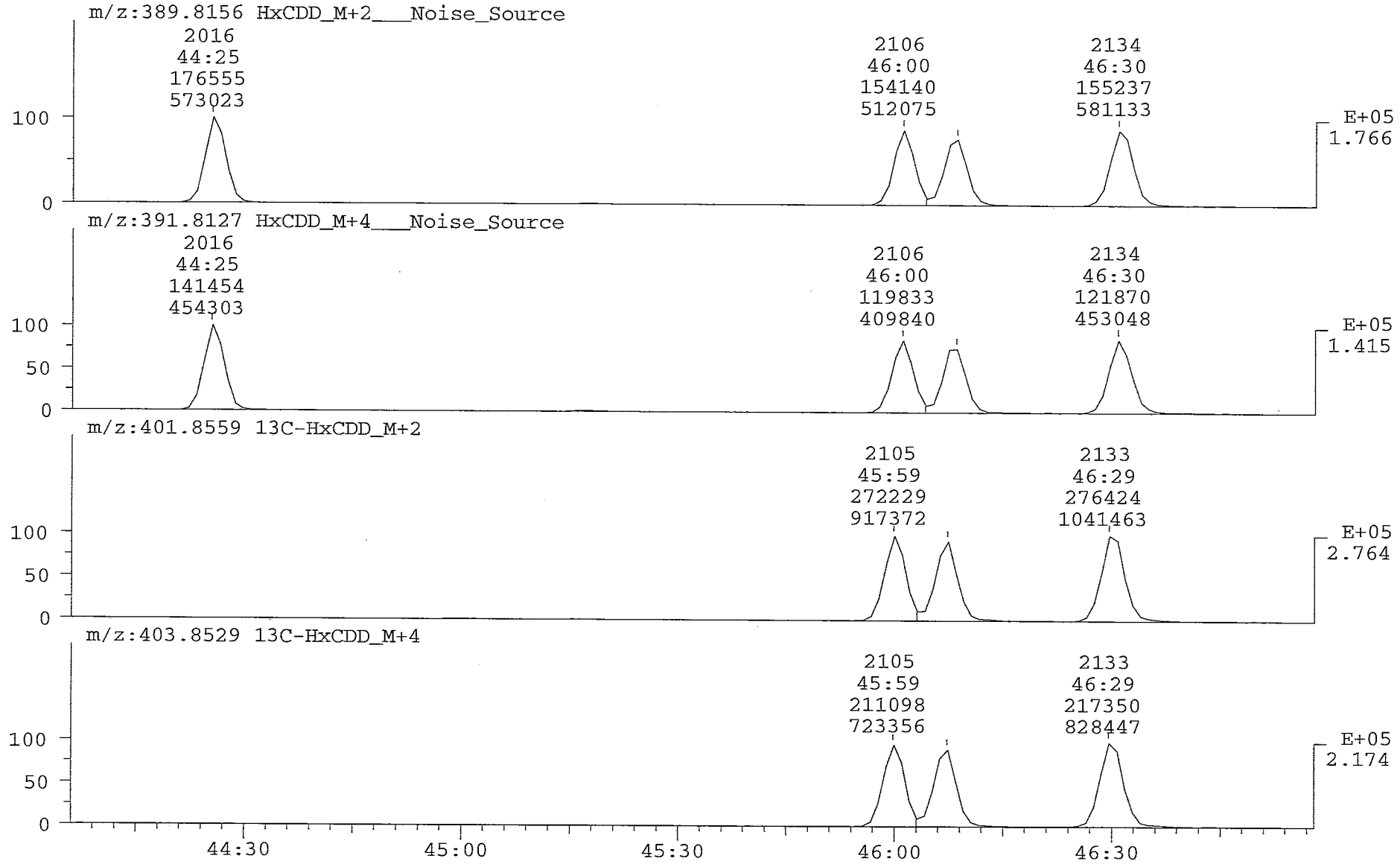
CHRO: b110714w2 14-Jul-11 Elapse: 40:28 1795
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1496 > 1944 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-718

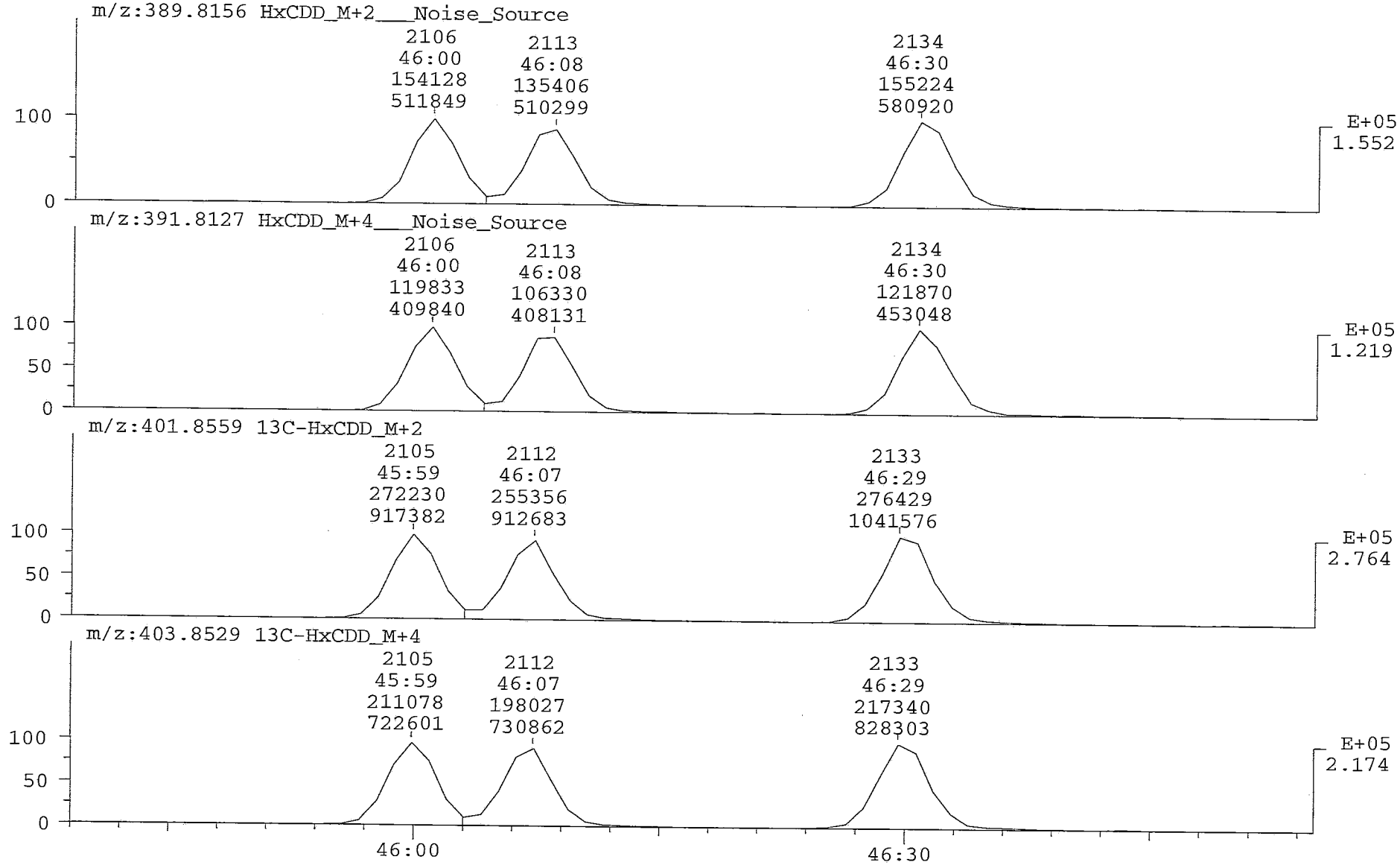
717

CHRO: b110714w2 14-Jul-11 Elapse: 40:28 1795
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1998 > 2160 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



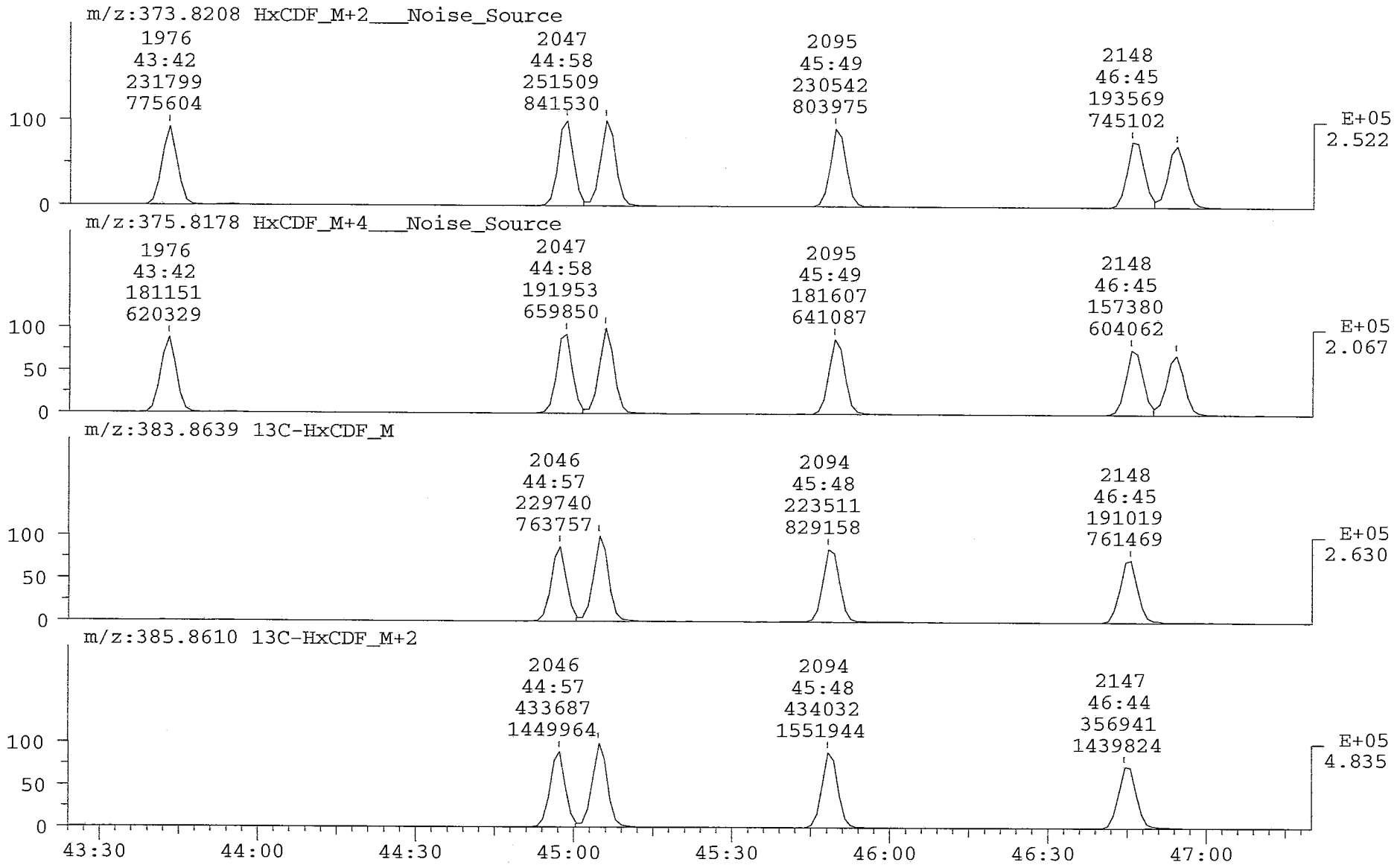
H-718

CHRO: b110714w2 14-Jul-11 Elapse: 46:16 2121
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2085 > 2157 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



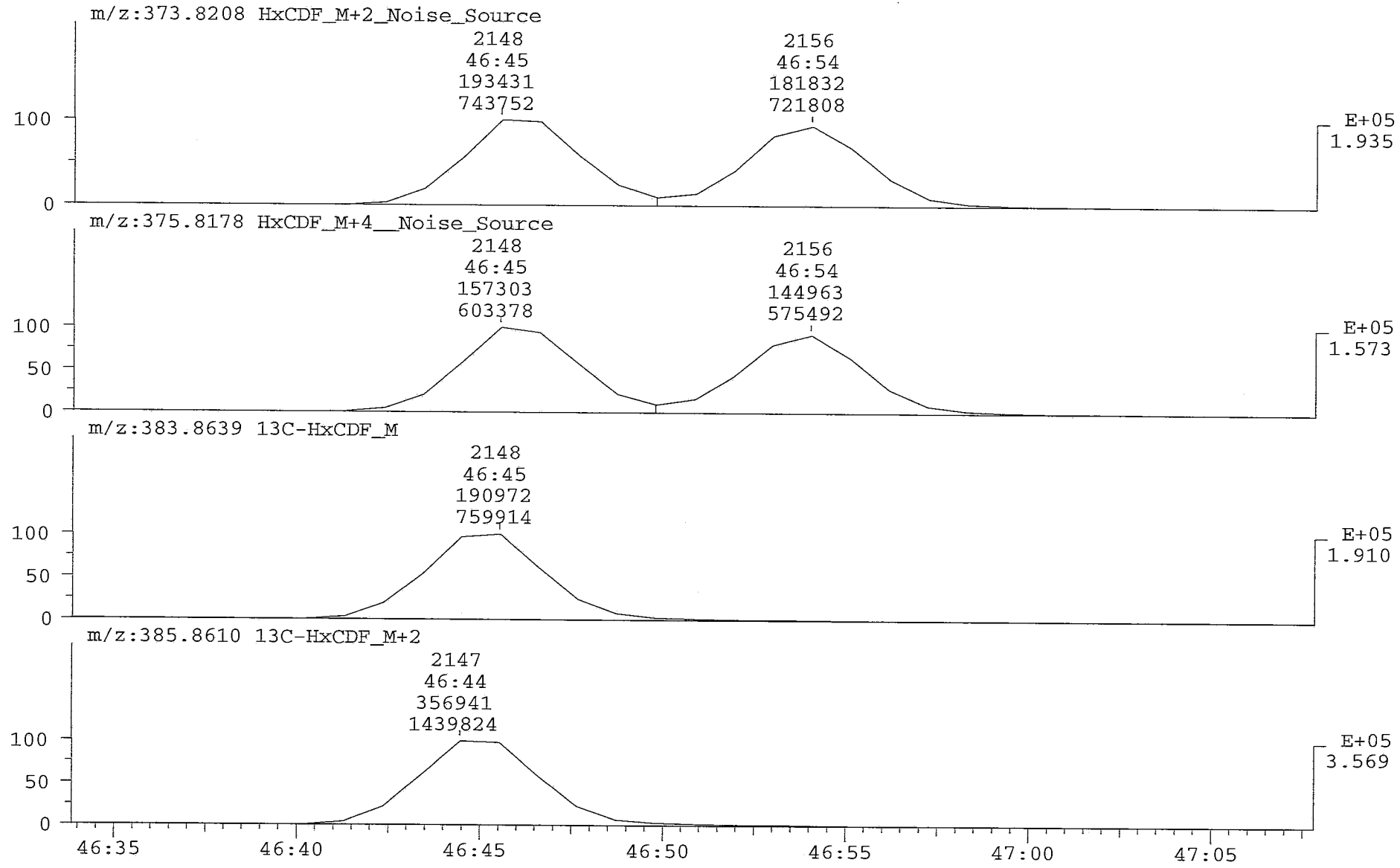
H-720

CHRO: b110714w2 14-Jul-11 Elapse: 46:16 2121
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1958 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-721

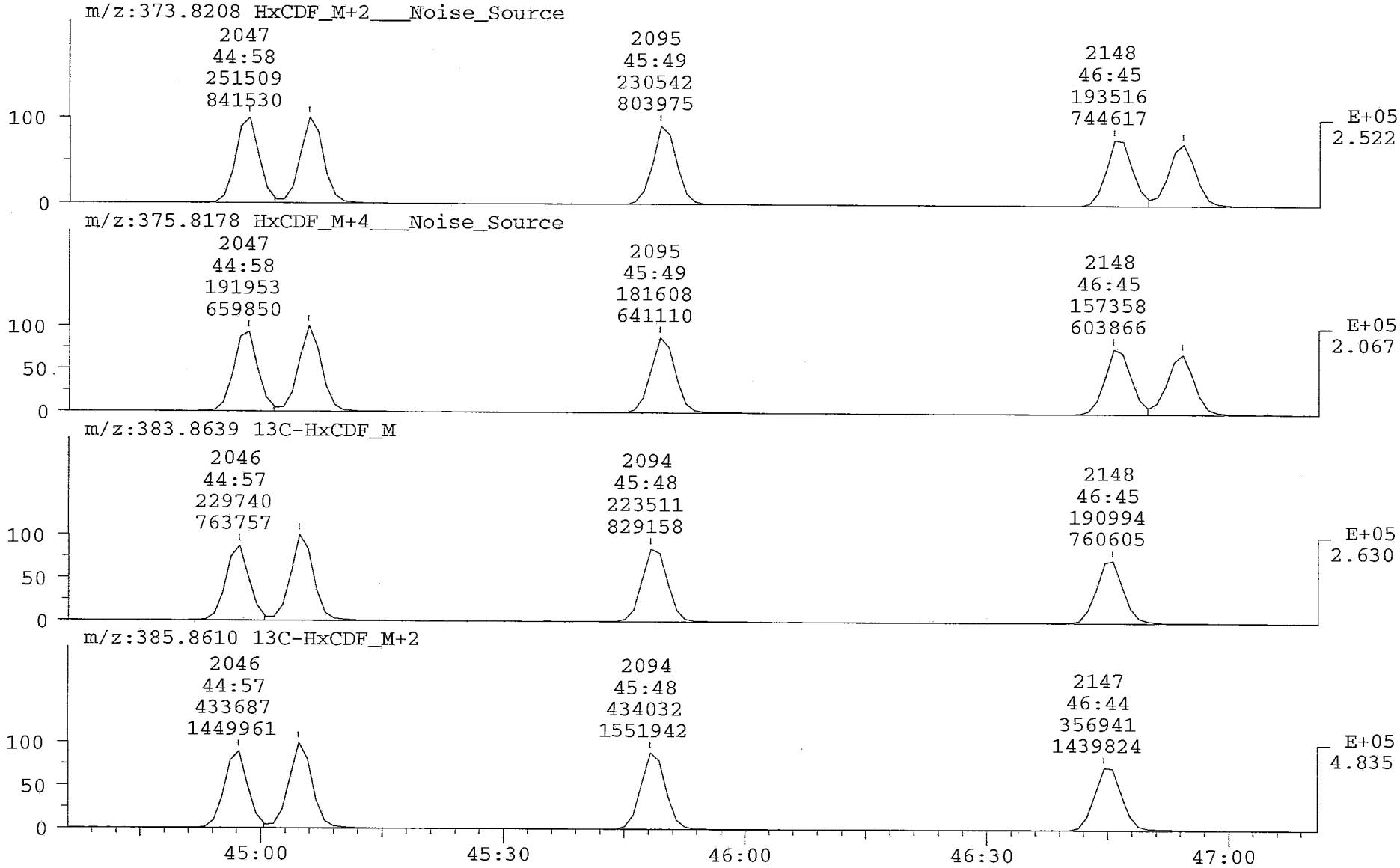
CHRO: b110714w2 14-Jul-11 Elapse: 55:16 2625
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2137 > 2169 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-722

721

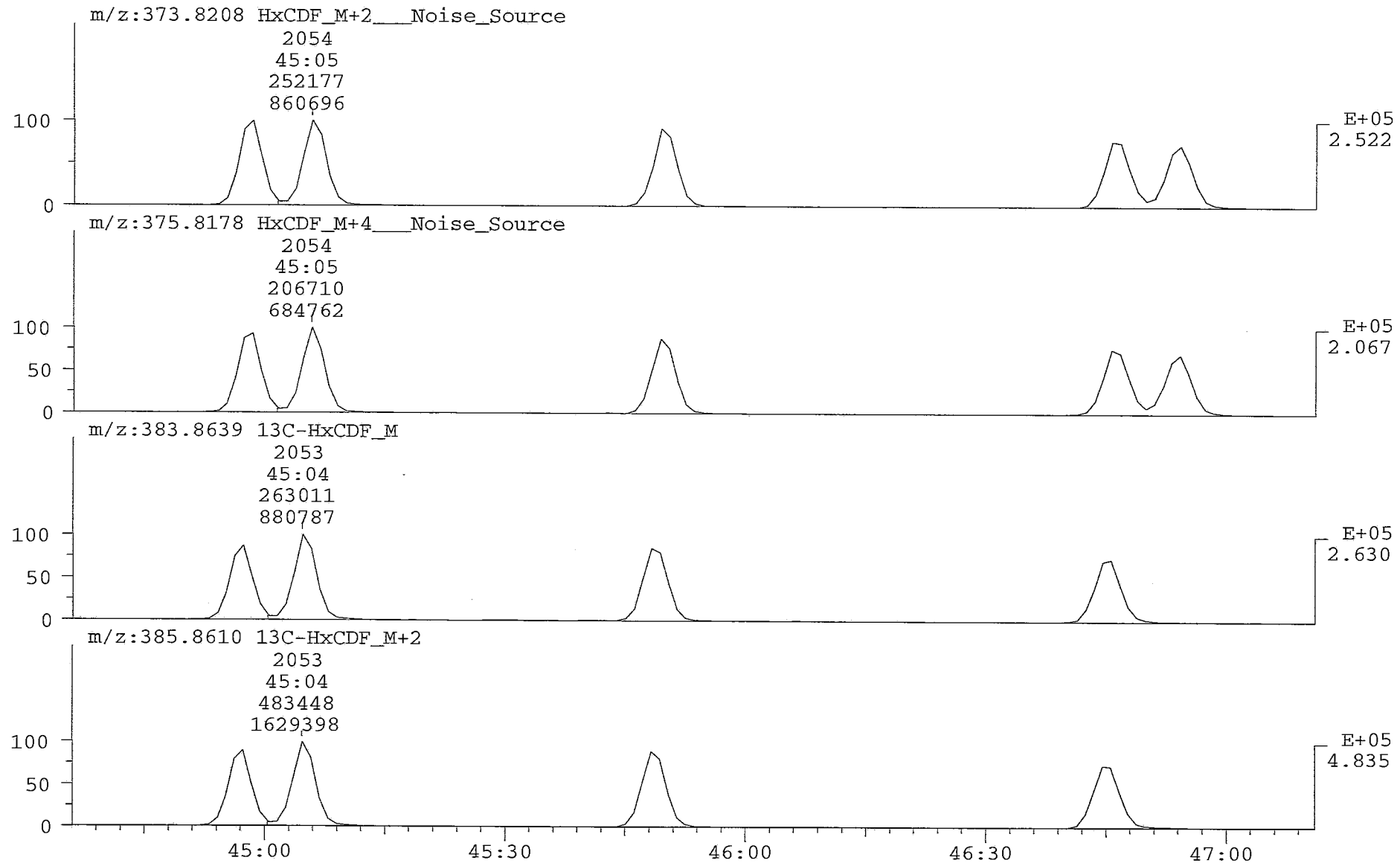
CHRO: b110714w2 14-Jul-11 Elapse: 45:53 2099
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2026 > 2172 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-723

722

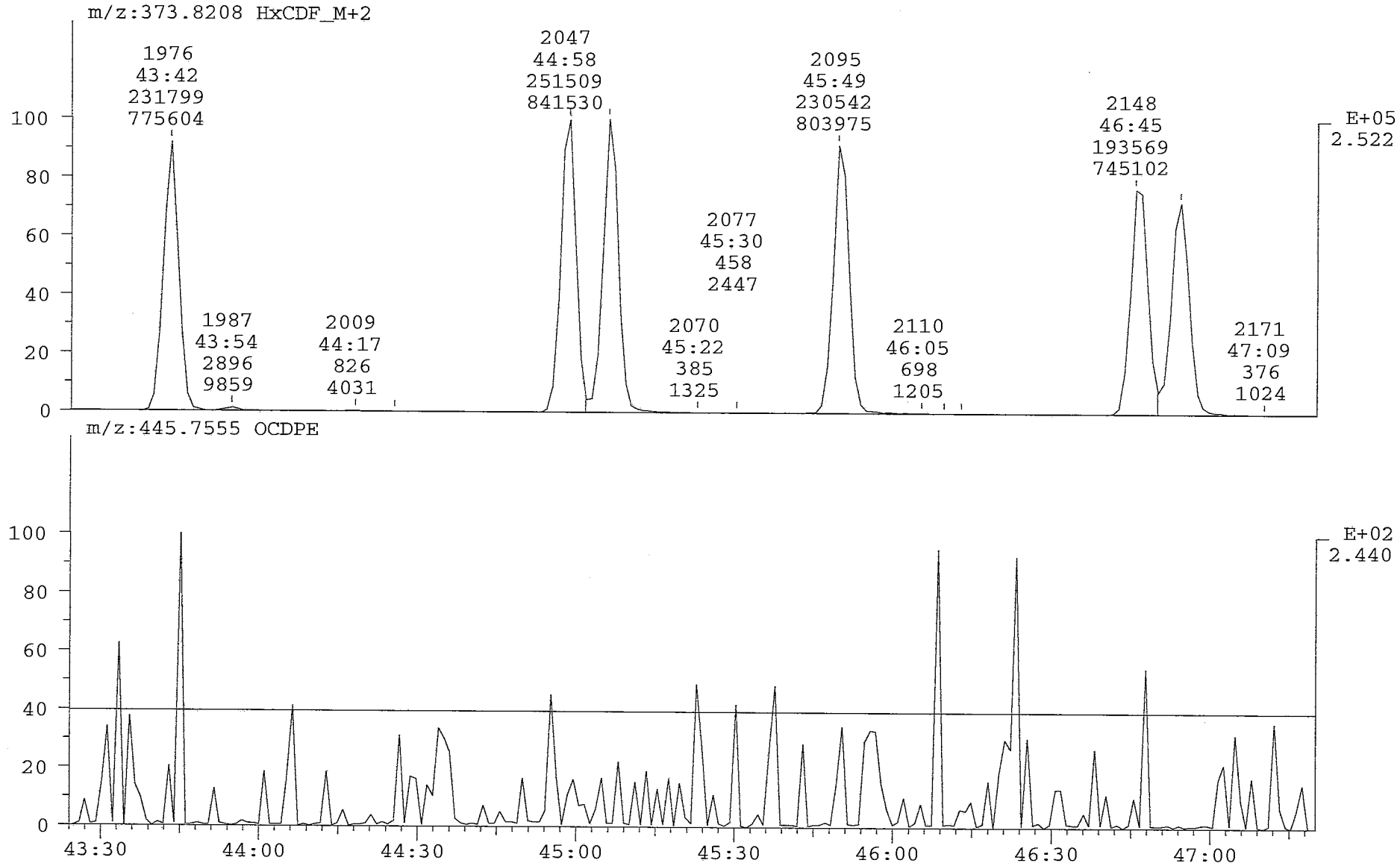
CHRO: b110714w2 14-Jul-11 Elapse: 45:04 2053
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2049 > 2057 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-724

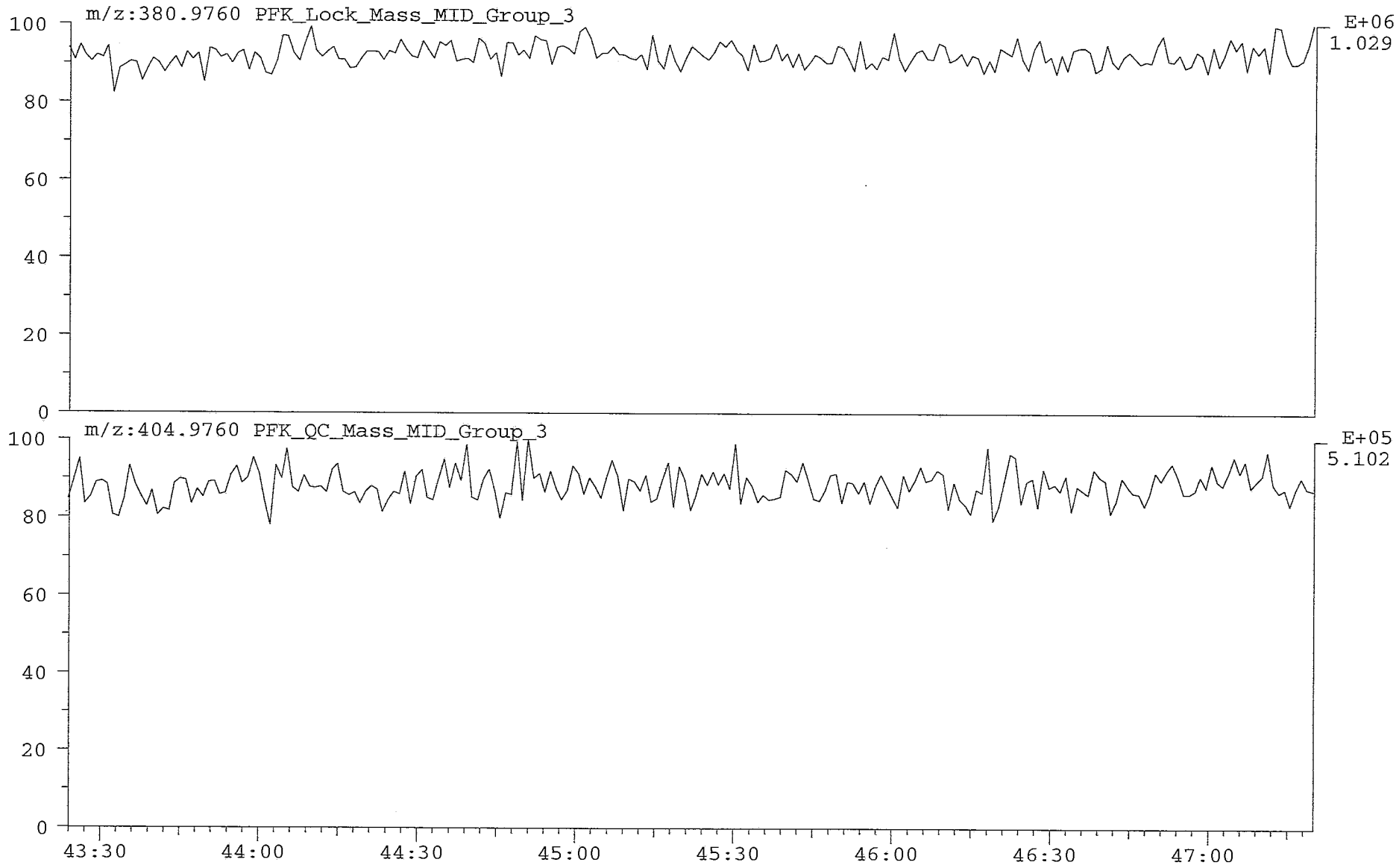
723

CHRO: b110714w2 14-Jul-11 Elapse: 45:04 2053
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1958 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



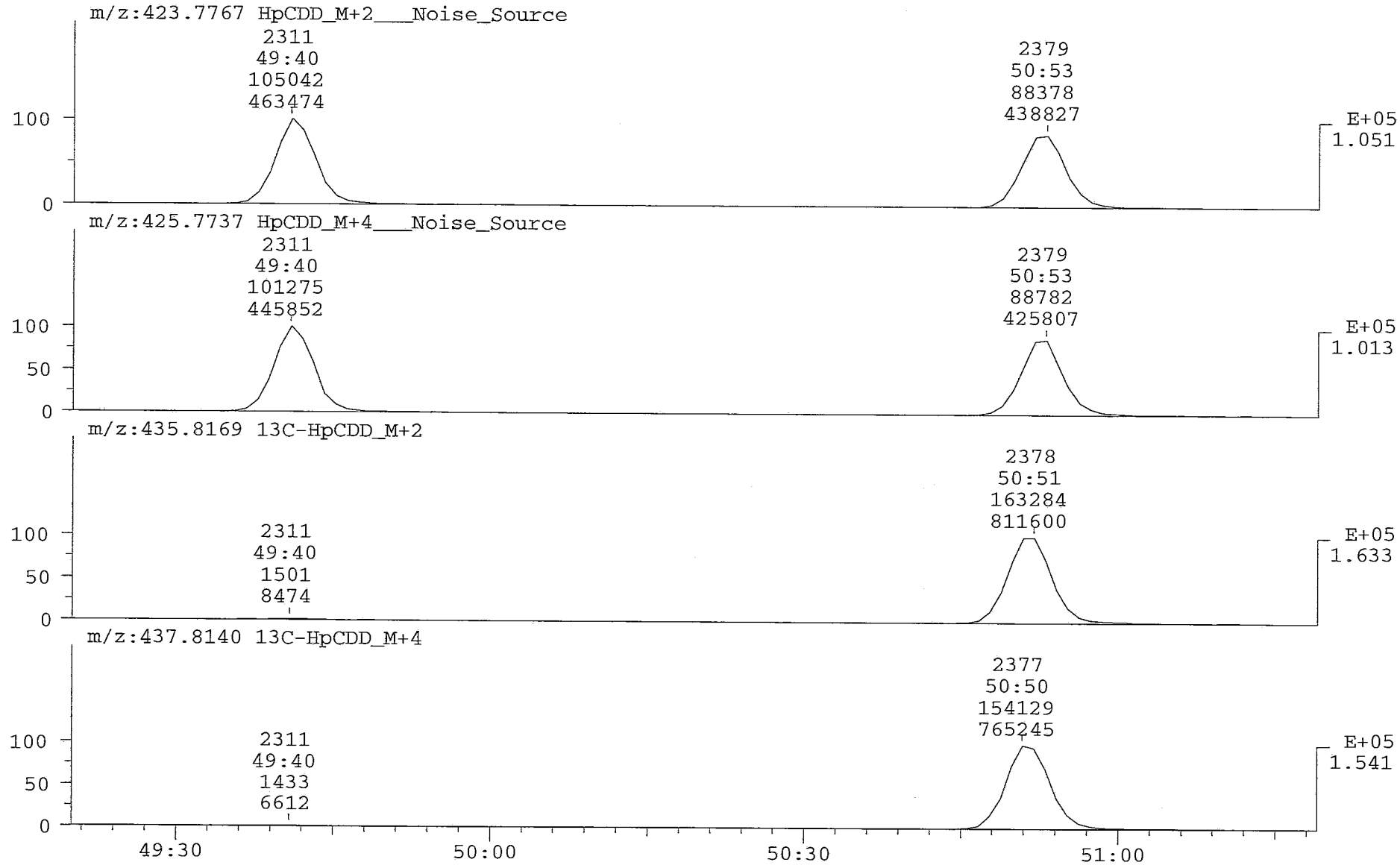
H-725

CHRO: b110714w2 14-Jul-11 Elapse: 45:04 2053
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1958 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



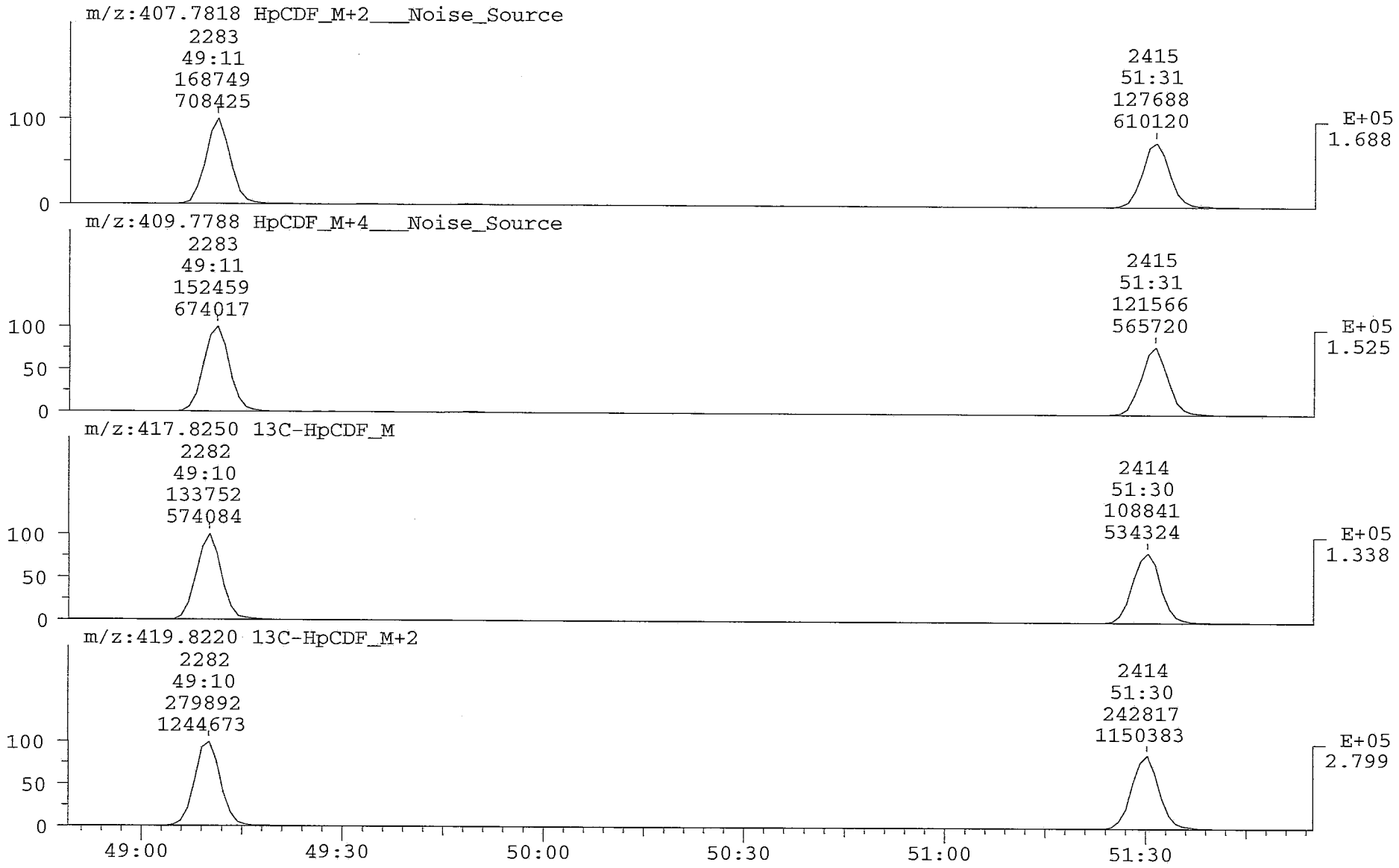
H-726

CHRO: b110714w2 14-Jul-11 Elapse: 45:04 2053
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2291 > 2404 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-727

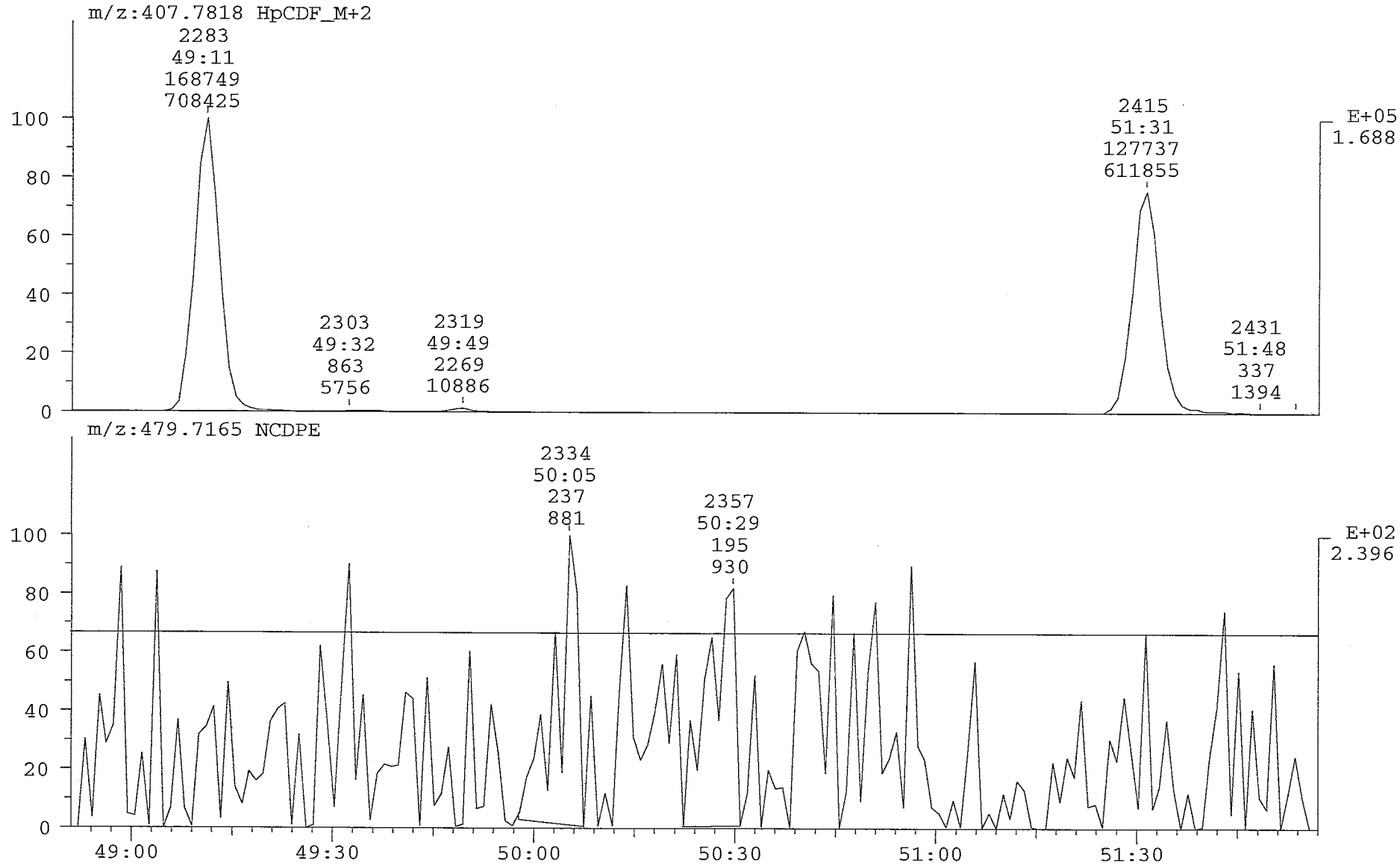
CHRO: b110714w2 14-Jul-11 Elapse: 50:22 2350
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2262 > 2437 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-728

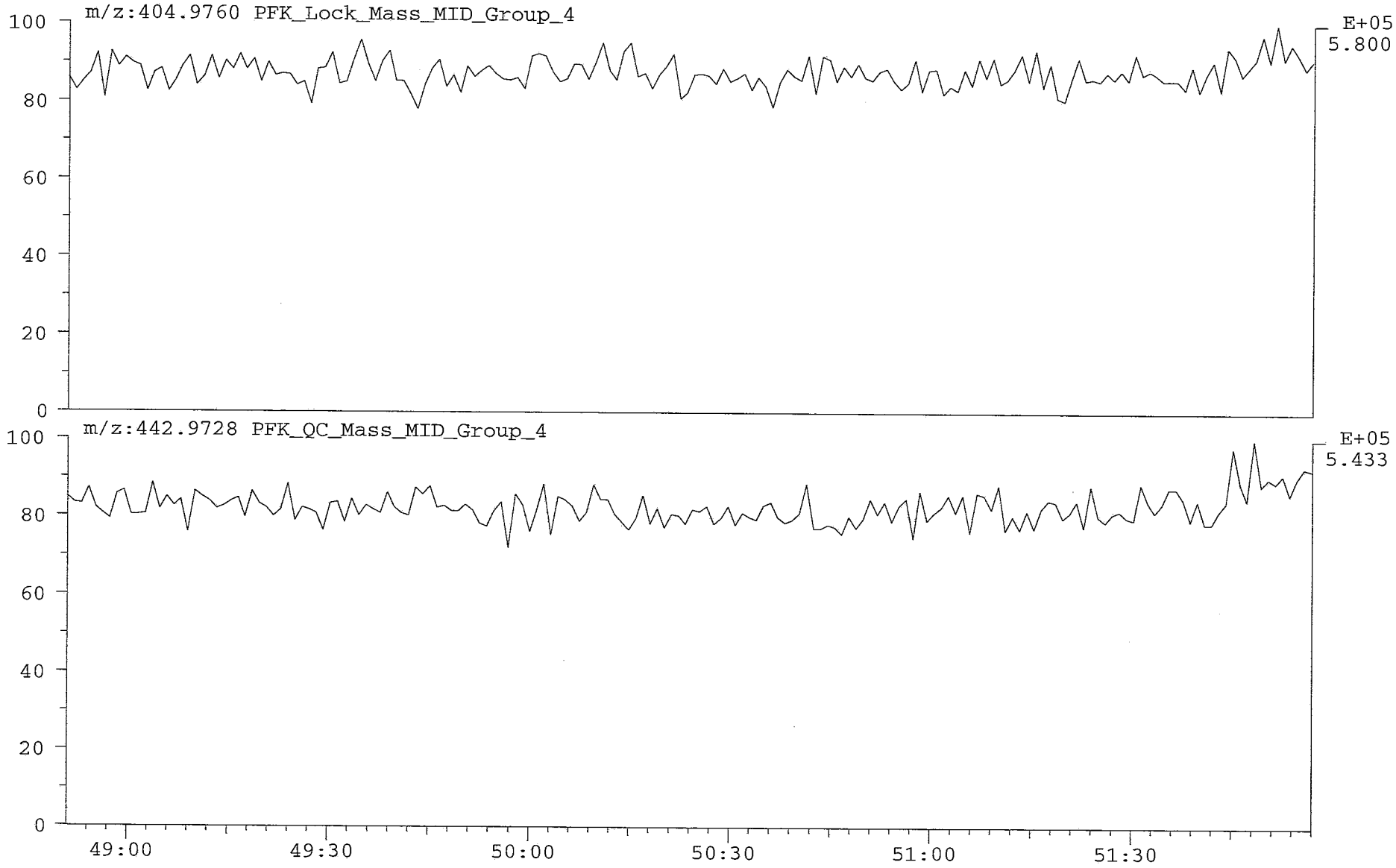
727

CHRO: b110714w2 14-Jul-11 Elapse: 50:22 2350
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2264 > 2439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



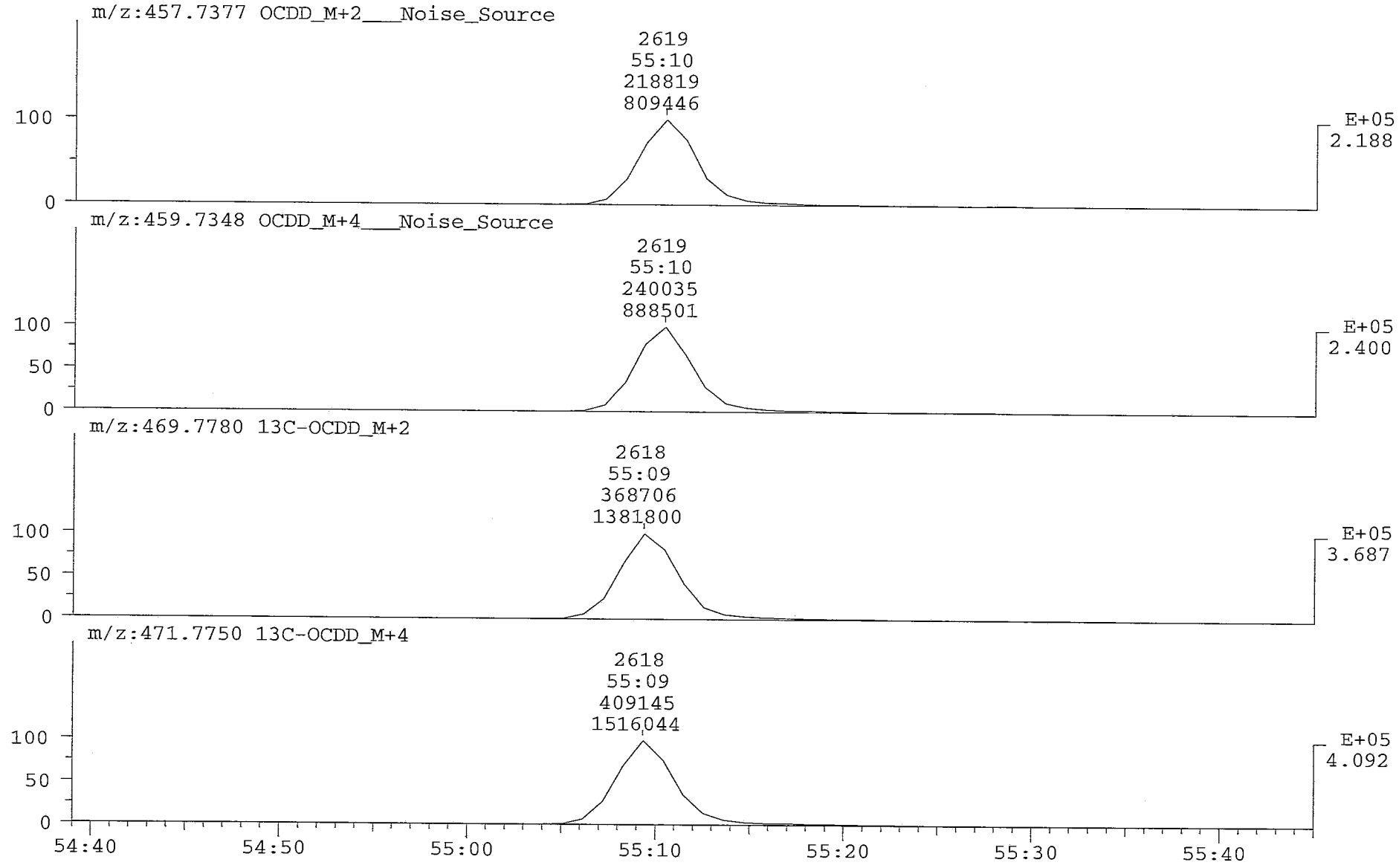
H-726

CHRO: b110714w2 14-Jul-11 Elapse: 50:22 2350
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2264 > 2439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



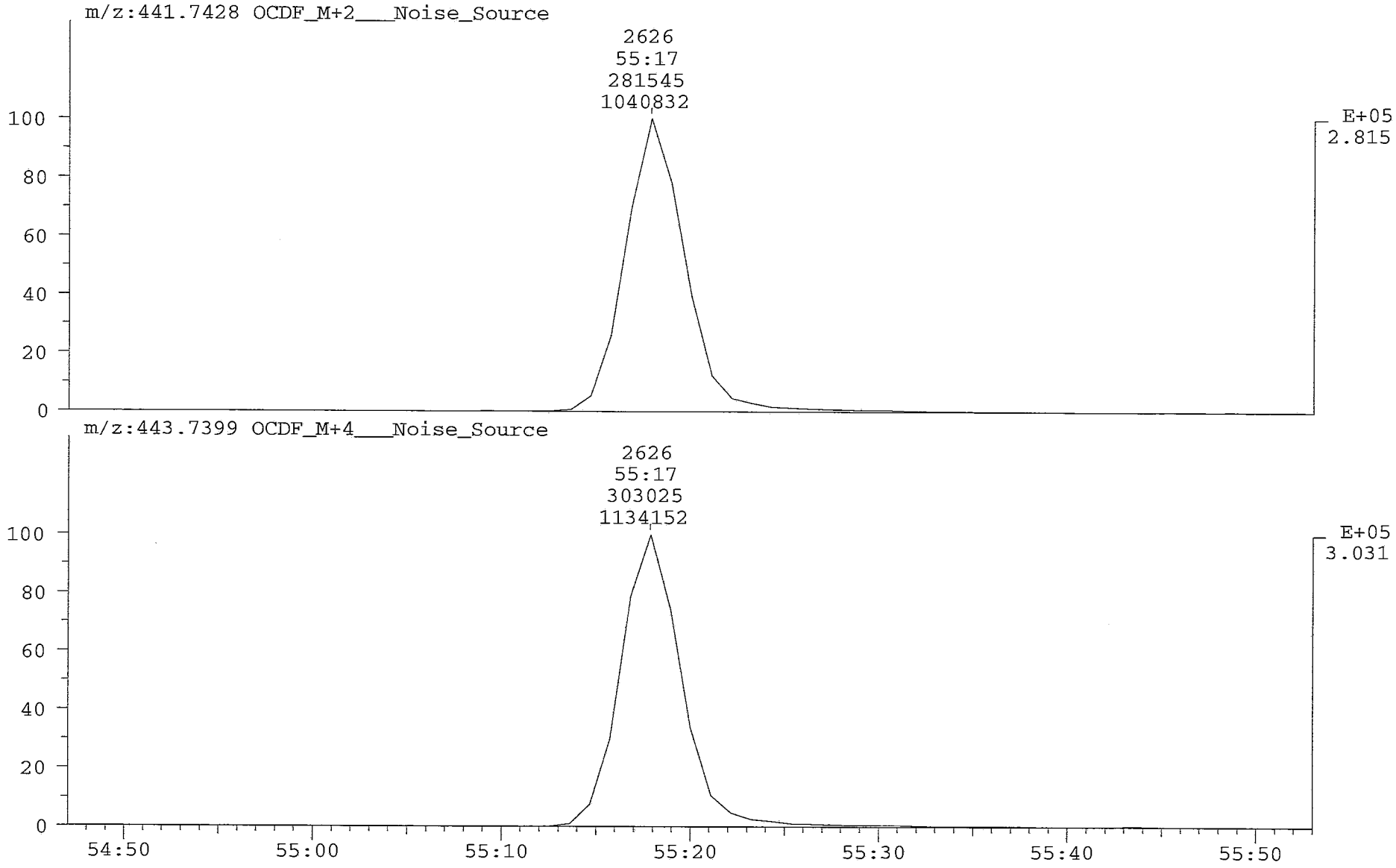
H-730

CHRO: b110714w2 14-Jul-11 Elapse: 55:09 2618
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2590 > 2651 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



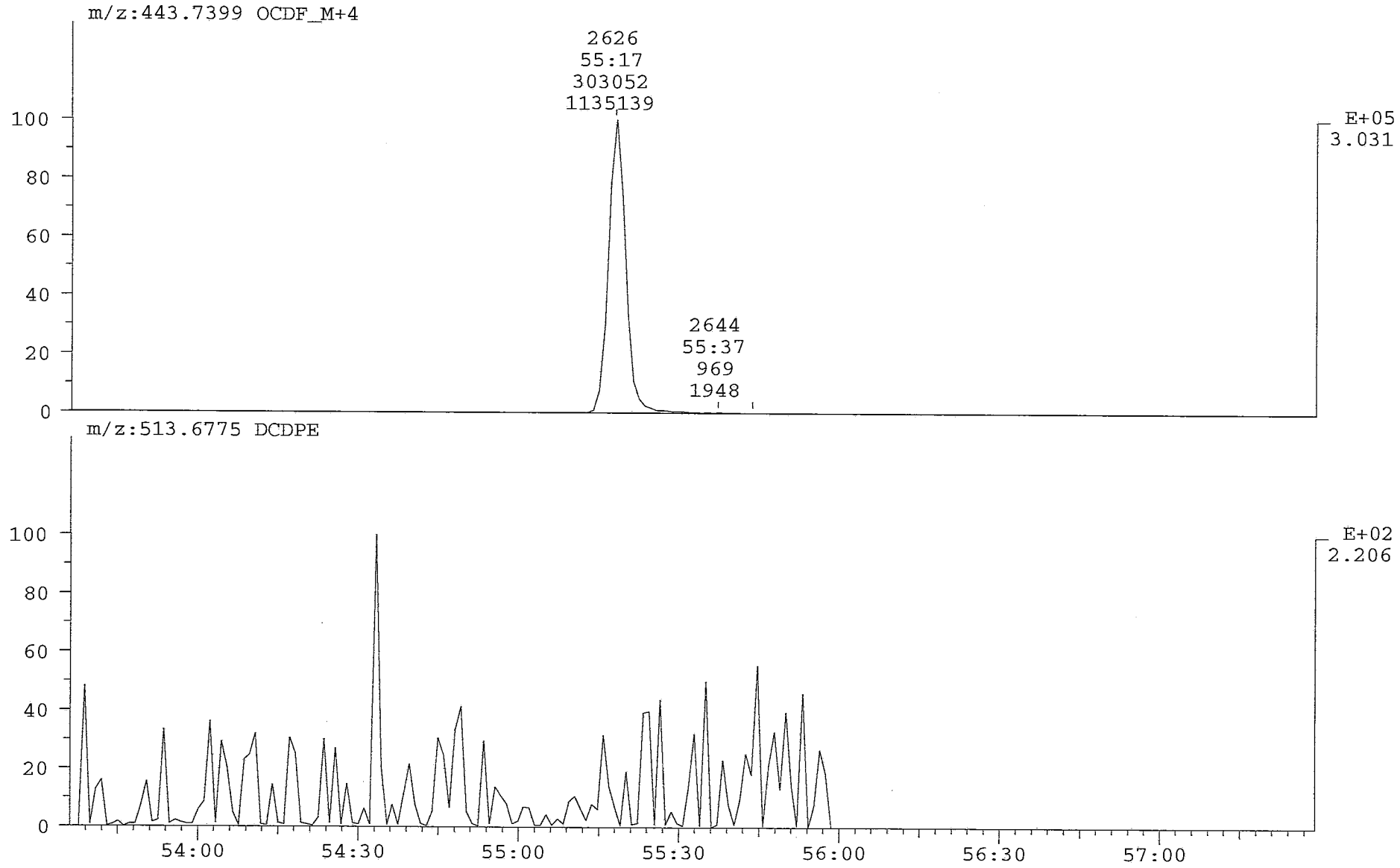
H-731

CHRO: b110714w2 14-Jul-11 Elapse: 55:16 2625
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2597 > 2659 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-732

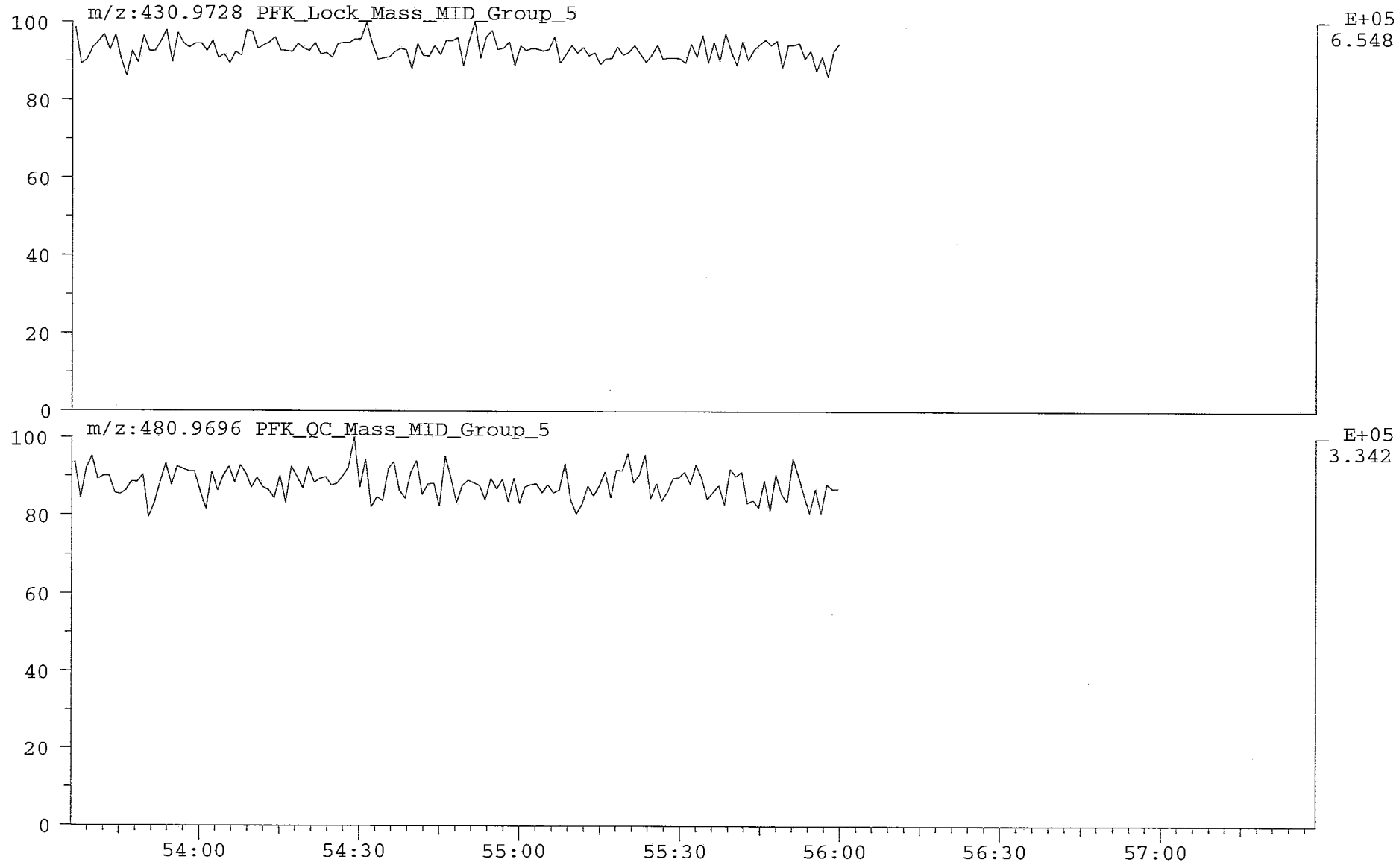
CHRO: b110714w2 14-Jul-11 Elapse: 55:16 2625
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2531 > 2747 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-733

732

CHRO: b110714w2 14-Jul-11 Elapse: 55:16 2625
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 22:14:19 2665
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2531 > 2747 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b110714w2
Study: Win/Ver
Sample: WO=HR0034B Meth=F8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: PMP
Client: TA-Knoxville
Comments: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S3
Injected volume:   2.0
Sample from Vial 1
Analysis will stop when MID run finishes
Tune file name: tune2b
File 1 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start          Measure       End         Cycletime
# 1     8:00 min    27:05 min    35:05 min     1.00 sec
# 2    35:05 min     8:03 min    43:08 min     1.00 sec
# 3    43:08 min     5:17 min    48:25 min     1.00 sec
# 4    48:25 min     5:05 min    53:30 min     1.00 sec
# 5    53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 l   10   1       8.19
    303.9016      1   2      81.92
    305.8987      1   2      81.92
    315.9419      1   3      81.92
    317.9389      1   3      81.92
    319.8965      1   3      81.92
    321.8936      1   3      81.92
    327.8847      1   4      81.92
    331.9368      1   4      81.92
    333.9338      1   4      81.92
    342.9792 c   10   5       8.19
    375.8364      1   6      81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 l   10   1       8.19
    339.8597      1   2      91.48
    341.8567      1   2      91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
Loop clean w slvnt B (LB):      0 times
Standard sample volume(X):    0.0 ul
Standard air volume   (Y):    0.0 ul
2nd Injection volume  (I):    0.0 ul
Air volume of 2nd inj (J):    0.0 ul
Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8432.0000
BDEV	8289.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.4353
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.3907	DITSET	0.0000	DRAW	-22.0000
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	57.5250
EMULT	2.2500	ENS	147.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.0000	FREQ	600.9615
FSLOPE	36000000.0000	FVANAL	364.0000	FVINLET	855.0000
FVSRC	1053.0000	FWIN	0.7000	GCTC	140.0000
GCTI	270.0000	GCTL	290.0000	HACCU	156.0000
HCURR	1.7157	HVANAL	1230.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4771.6680	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	83.0000	LKM	304.9824
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	200.0000	NSAM	200.0000	NSCAN	2050.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-7.2750	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10994.7730	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	2.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.6700	TCURR	0.9766	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1258.0000	XLENSS	-14.8000
YLENS	3328.0000	YLENSS	-8.8000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 22:14:19.5

Autosampler has injected sample from vial 1
Analysis stopped at: 14-Jul-11 23:10:20.6 (run time 56.00 minutes)
Analysis stopped because user requested stop from analysis

TestAmerica
Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44405 - B110715S1
CCAL Filename: b110715s1
CCAL Sample ID: HR0014
CCAL Result Dir: /20110715s1/b110715s1.d
CCAL Date/Time: 07/15/11 07:24

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	Calc Conc (ng/mL)	ICAL RF	CCAL RF	%D	QC Limit	Valid?
2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	4.9	1.172	1.140	-2.7	20.0	True
2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	4.8	1.081	1.037	-4.1	20.0	True
1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	23.1	1.124	1.040	-7.5	20.0	True
1,2,3,7,8-PeCDF	M+2/M+4	1.54	1.32-1.78	23.8	1.050	1.000	-4.8	20.0	True
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	24.5	1.030	1.011	-1.9	20.0	True
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	23.7	0.990	0.940	-5.1	20.0	True
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	24.5	1.020	1.000	-2.0	20.0	True
1,2,3,7,8,9-HxCDD	M+2/M+4	1.19	1.05-1.43	25	1.003	1.022	1.9	20.0	True
1,2,3,4,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	24.0	1.091	1.047	-4.1	20.0	True
1,2,3,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	23.5	1.226	1.152	-6.0	20.0	True
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	23.6	1.160	1.093	-5.8	20.0	True
1,2,3,7,8,9-HxCDF	M+2/M+4	1.26	1.05-1.43	24.7	1.008	0.997	-1.1	20.0	True
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.02	0.88-1.20	24.5	1.094	1.073	-1.9	20.0	True
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.00	0.88-1.20	23.5	1.469	1.382	-5.9	20.0	True
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	24.8	1.127	1.118	-0.8	20.0	True
OCDD	M+2/M+4	0.88	0.76-1.02	49	1.075	1.044	-2.9	20.0	True
OCDF	M+2/M+4	0.91	0.76-1.02	50	1.258	1.247	-0.8	20.0	True
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	94	1.006	0.945	-6.1	30.0	True
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	98	1.719	1.680	-2.3	30.0	True
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.62	1.32-1.78	88	0.953	0.836	-12.3	30.0	True
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	81	1.661	1.338	-19.4	30.0	True
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	95	1.035	0.978	-5.4	30.0	True
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	91	1.434	1.307	-8.9	30.0	True
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	103	0.851	0.876	2.9	30.0	True
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	98	1.094	1.074	-1.8	30.0	True
13C-OCDD	M+2/M+4	0.90	0.76-1.02	206	0.867	0.892	2.9	30.0	True
37Cl4-2,3,7,8-TCDD			-	5.1	1.198	1.228	2.5	30.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	24.7	0.994	0.982	-1.2	30.0	True
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	26	0.887	0.919	3.6	30.0	True
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	26	0.891	0.915	2.7	30.0	True
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	23.4	1.321	1.237	-6.4	30.0	True
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	26	0.841	0.888	5.5	30.0	True

7-15-11

PMP 7-15-11

TestAmerica
Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44405 - B110715S1
CCAL Filename: b110715s1
CCAL Sample ID: HR0014
CCAL Result Dir: /20110715s1/b110715s1.d
CCAL Date/Time: 07/15/11 07:24

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	ICAL RT	CCAL RT	RT Diff	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
2,3,7,8-TCDD	30:32	31:39	67	1.001	1.002	-	
2,3,7,8-TCDF	28:38	29:41	63	1.001	1.002	-	
1,2,3,7,8-PeCDD	41:12	41:46	34	1.000	1.001	-	
1,2,3,7,8-PeCDF	39:14	39:54	40	1.001	1.000	-	
2,3,4,7,8-PeCDF	40:37	41:11	34	1.036	1.033	-	
1,2,3,4,7,8-HxCDD	45:35	46:07	32	0.998	0.997	-	
1,2,3,6,7,8-HxCDD	45:41	46:15	34	1.000	1.000	-	
1,2,3,7,8,9-HxCDD	46:04	46:37	33	1.009	1.008	-	
1,2,3,4,7,8-HxCDF	44:34	45:05	31	0.997	0.998	-	
1,2,3,6,7,8-HxCDF	44:42	45:12	30	1.000	1.000	-	
2,3,4,6,7,8-HxCDF	45:24	45:56	32	1.016	1.017	-	
1,2,3,7,8,9-HxCDF	46:18	46:52	34	1.036	1.037	-	
1,2,3,4,6,7,8-HpCDD	50:15	50:59	44	1.000	1.000	-	
1,2,3,4,6,7,8-HpCDF	48:37	49:17	40	1.000	1.000	-	
1,2,3,4,7,8,9-HpCDF	50:52	51:37	45	1.047	1.048	-	
OCDD	54:41	55:17	36	1.000	1.000	-	
OCDF	54:49	55:25	36	1.002	1.003	-	
13C-2,3,7,8-TCDD	30:30	31:36	66	1.017	1.016	-	
13C-2,3,7,8-TCDF	28:36	29:37	61	0.954	0.952	-	
13C-1,2,3,7,8-PeCDD	41:11	41:44	33	1.373	1.342	-	
13C-1,2,3,7,8-PeCDF	39:13	39:53	40	1.308	1.282	-	
13C-1,2,3,6,7,8-HxCDD	45:40	46:14	34	0.992	0.992	-	
13C-1,2,3,6,7,8-HxCDF	44:41	45:11	30	0.971	0.970	-	
13C-1,2,3,4,6,7,8-HpCDD	50:13	50:58	45	1.091	1.094	-	
13C-1,2,3,4,6,7,8-HpCDF	48:36	49:16	40	1.056	1.057	-	
13C-OCDD	54:41	55:16	35	1.188	1.186	-	
37Cl4-2,3,7,8-TCDD	30:32	31:40	68	1.001	1.002	-	
13C-2,3,4,7,8-PeCDF	40:35	41:10	35	1.035	1.032	-	
13C-1,2,3,4,7,8-HxCDD	45:34	46:06	32	0.998	0.997	-	
13C-1,2,3,4,7,8-HxCDF	44:33	45:04	31	0.997	0.997	-	
13C-1,2,3,7,8,9-HxCDF	46:17	46:52	35	1.005	1.006	-	
13C-1,2,3,4,7,8,9-HpCDF	50:52	51:36	44	1.046	1.047	-	

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IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44405 - B110715S1

WIN Filename: b110715w1 **Method:** X8 - 0023/8290

WIN Sample ID: HR0034B **Instrument:** M2A

WIN Result Dir: /20110715s1/b110715w1.d **Column SN:** 1027390

WIN Date/Time: 07/15/11 08:44 **Column Desc:** Rtx-5 60m x 0.32mm ID x 0.25um

Window Defining First/Last Eluter Retention Times

Analyte	Reference	M/Z	Ref RT	First Eluter RT	First Eluter RRT	Last Eluter RT	Last Eluter RRT
Total TCDD	13C-2,3,7,8-TCDD	320	31:32	25:46	0.8171	34:44	1.1015
Total TCDF	13C-2,3,7,8-TCDF	304	29:33	23:21	0.7902	34:32	1.1686
Total PeCDF	13C-1,2,3,7,8-PeCDF	340	39:47	35:29	0.8919	42:27	1.0670
Total HxCDD	13C-1,2,3,6,7,8-HxCDD	390	46:07	44:26	0.9635	46:32	1.0090
Total HxCDF	13C-1,2,3,6,7,8-HxCDF	374	45:06	43:43	0.9693	46:54	1.0399
Total HpCDD	13C-1,2,3,4,6,7,8-HpCDD	424	50:52	49:41	0.9767	50:53	1.0003
Total HpCDF	13C-1,2,3,4,6,7,8-HpCDF	408	49:11	49:12	1.0003	51:31	1.0474
OCDD	13C-OCDD	458	55:10	55:11	1.0003	55:11	1.0003
OCDF	13C-OCDD	442	55:10	55:18	1.0024	55:18	1.0024

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110715s1/b110715s1.d	Prep Date		SDG No	
Analysis ID	133622	Prep Exp Date		Date Received	
Analysis Date	7/15/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	07:24	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	PMP				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
2,3,7,8-TCDD	31:39	110605	12743	1.172	5.000	4.866283	97.33	4.866283	E	0.123
Total TCDD				1.172		4.866283		4.866283	E	0.123
2,3,7,8-TCDF	29:41	178717	20938	1.081	5.000	4.795616	95.91	4.795616	E	0.0770
Total TCDF				1.081		4.795616		4.795616	E	0.0770
1,2,3,7,8-PeCDD	41:46	445925	105120	1.124	25.00	23.135102	92.54	23.135102	E	0.0689
Total PeCDD				1.124		23.135102		23.135102	E	0.0689
1,2,3,7,8-PeCDF	39:54	686284	140382	1.050	25.00	23.798560	95.19	23.798560	E	0.0689
2,3,4,7,8-PeCDF	41:11	693732	164180	1.030	25.00	24.531551	98.13	24.531551	E	0.0703
Total PeCDF				1.040		48.330111		48.330111	E	0.0696
1,2,3,4,7,8-HxCDD	46:07	477378	137810	0.990	25.00	23.721125	94.88	23.721125	E	0.0784
1,2,3,6,7,8-HxCDD	46:15	508229	130552	1.020	25.00	24.506724	98.03	24.506724	E	0.0761
1,2,3,7,8,9-HxCDD	46:37	519257	136859	1.003	25.00	25.482834	101.93	25.482834	E	0.0775
Total HxCDD				1.004		73.710682		73.710682	E	0.0773
1,2,3,4,7,8-HxCDF	45:05	710573	201450	1.091	25.00	23.986934	95.95	23.986934	E	0.0447
1,2,3,6,7,8-HxCDF	45:12	782015	220925	1.226	25.00	23.504719	94.02	23.504719	E	0.0398
2,3,4,6,7,8-HxCDF	45:56	741847	203226	1.160	25.00	23.550001	94.20	23.550001	E	0.0420
1,2,3,7,8,9-HxCDF	46:52	676542	160670	1.008	25.00	24.727346	98.91	24.727346	E	0.0484
Total HxCDF				1.121		95.768999		95.768999	E	0.0435
1,2,3,4,6,7,8-HpCDD	50:59	488147	94499	1.094	25.00	24.514410	98.06	24.514410	E	0.0847
Total HpCDD		5880	1420	1.094		24.809700		24.809700	E	0.0847
1,2,3,4,6,7,8-HpCDF	49:17	770986	176047	1.469	25.00	23.526487	94.11	23.526487	E	0.0515
1,2,3,4,7,8,9-HpCDF	51:37	623311	126283	1.127	25.00	24.793462	99.17	24.793462	E	0.0671
Total HpCDF				1.298		48.319949		48.319949	E	0.0583
OCDD	55:17	967381	254153	1.075	50.00	48.534062	97.07	48.534062	E	0.0714
OCDF	55:25	1155989	296825	1.258	50.00	49.583668	99.17	49.583668	E	0.0657
13C-2,3,7,8-TCDD	31:36	1939743	208899	1.006	100.0	93.925993	93.93	93.925993		0.262
13C-2,3,7,8-TCDF	29:37	3447676	405275	1.719	100.0	97.715633	97.72	97.715633		0.105
13C-1,2,3,7,8-PeCDD	41:44	1715563	413361	0.953	100.0	87.701357	87.70	87.701357		0.144
13C-1,2,3,7,8-PeCDF	39:53	2745116	531761	1.661	100.0	80.553867	80.55	80.553867		0.0918
13C-1,2,3,6,7,8-HxCDD	46:14	2032385	537529	1.035	100.0	94.554094	94.55	94.554094		0.102
13C-1,2,3,6,7,8-HxCDF	45:11	2714660	779596	1.434	100.0	91.130755	91.13	91.130755		0.0541
13C-1,2,3,4,6,7,8-HpCDD	50:58	1820014	372278	0.851	100.0	102.946447	102.95	102.946447		0.0767
13C-1,2,3,4,6,7,8-HpCDF	49:16	2230717	502230	1.094	100.0	98.197175	98.20	98.197175		0.0658
13C-OCDD	55:16	3707116	956677	0.867	200.0	205.814703	102.91	205.814703		0.119
37Cl4-2,3,7,8-TCDD	31:40	119072	12949	1.198	5.000	5.123917	102.48	5.123917	E	0.0579
13C-2,3,4,7,8-PeCDF	41:10	673588	152479	0.994	25.00	24.697556	98.79	24.697556	E	0.0658
13C-1,2,3,4,7,8-HxCDD	46:06	466836	132935	0.887	25.00	25.891505	103.57	25.891505	E	0.117
13C-1,2,3,4,7,8-HxCDF	45:04	621187	172347	0.891	25.00	25.686573	102.75	25.686573	E	0.0590
13C-1,2,3,7,8,9-HxCDF	46:52	642137	152669	1.321	25.00	23.401828	93.61	23.401828	E	0.0587
13C-1,2,3,4,7,8,9-HpCDF	51:36	495021	98817	0.841	25.00	26.379838	105.52	26.379838	E	0.0899
13C-1,2,3,4-TCDD	31:06	2052082	227959	1.000	100.0	100.000000	100.00	100.000000		0.263
13C-1,2,3,7,8,9-HxCDD	46:36	2077129	528388	1.000	100.0	100.000000	100.00	100.000000		0.106

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IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110715s1/b110715s1.	Prep Date		SDG No	
Analysis ID	133622	Prep Exp Date		Date Received	
Analysis Date	07/15/11 07:24	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	PMP	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	148	190	59	76	0.78	/	
	2,3,7,8-TCDF	29:41	29:45	-4	78790	99927	9261	11677	0.79	ABV/AVV	D
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	218	195	87	78	1.12 *	/	
	13C-2,3,7,8-TCDF	29:37	29:43	-6	1513812	1933864	181572	223703	0.78	AVV/AVV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	143	158	57	63	0.90 *	/	
	2,3,7,8-TCDD	31:39	31:33	6	49096	61509	5859	6884	0.80	AVB/AVB	M
328					327.8847		327.8847				
	Noise	00:00	00:00	0	145		58				
	37Cl4-2,3,7,8-TCDD	31:40	31:33	7	119072		12949			ABV	M
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	380	220	152	88	1.73 *	/	
	13C-1,2,3,4-TCDD	31:06	31:02	4	919008	1133074	101272	126687	0.81	AVV/ABV	
	13C-2,3,7,8-TCDD	31:36	31:31	5	860866	1078877	91786	117113	0.80	AVV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	190	195	76	78	0.97 *	/	
	1,2,3,7,8-PeCDF	39:54	39:57	-3	416040	270244	84541	55841	1.54	ABV/ABV	
	2,3,4,7,8-PeCDF	41:11	41:18	-7	425177	268555	104728	59452	1.58	ABV/AVV	M
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	163	185	65	74	0.88 *	/	
	13C-1,2,3,7,8-PeCDF	39:53	39:56	-3	1680830	1064286	323755	208006	1.58	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:10	41:16	-6	412228	261360	94665	57814	1.58	ABV/ABV	M
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	148	173	59	69	0.86 *	/	
	1,2,3,7,8-PeCDD	41:46	41:52	-6	274424	171501	66098	39022	1.60	ABV/ABV	M
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	173	140	69	56	1.23 *	/	
	13C-1,2,3,7,8-PeCDD	41:44	41:51	-7	1059699	655864	255599	157762	1.62	ABV/ABV	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	200	180	80	72	1.11	/	
	1,2,3,4,7,8-HxCDF	45:05	45:11	-6	390308	320265	112759	88691	1.22	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	45:12	45:19	-7	432222	349793	120707	100218	1.24	AVV/AVV	M
	2,3,4,6,7,8-HxCDF	45:56	46:01	-5	411448	330399	112325	90901	1.25	AVV/AVV	
	1,2,3,7,8,9-HxCDF	46:52	46:54	-2	377655	298887	89498	71172	1.26	ABV/ABV	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	215	195	86	78	1.10 *	/	
	13C-1,2,3,4,7,8-HxCDF	45:04	45:10	-6	215829	405358	59391	112956	0.53	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	45:11	45:18	-7	930335	1784325	267774	511822	0.52	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:52	46:53	-1	223052	419085	52950	99719	0.53	AVV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	165	253	66	101	0.65 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110715s1/b110715s1.	Prep Date		SDG No	
Analysis ID	133622	Prep Exp Date		Date Received	
Analysis Date	07/15/11 07:24	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	PMP	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

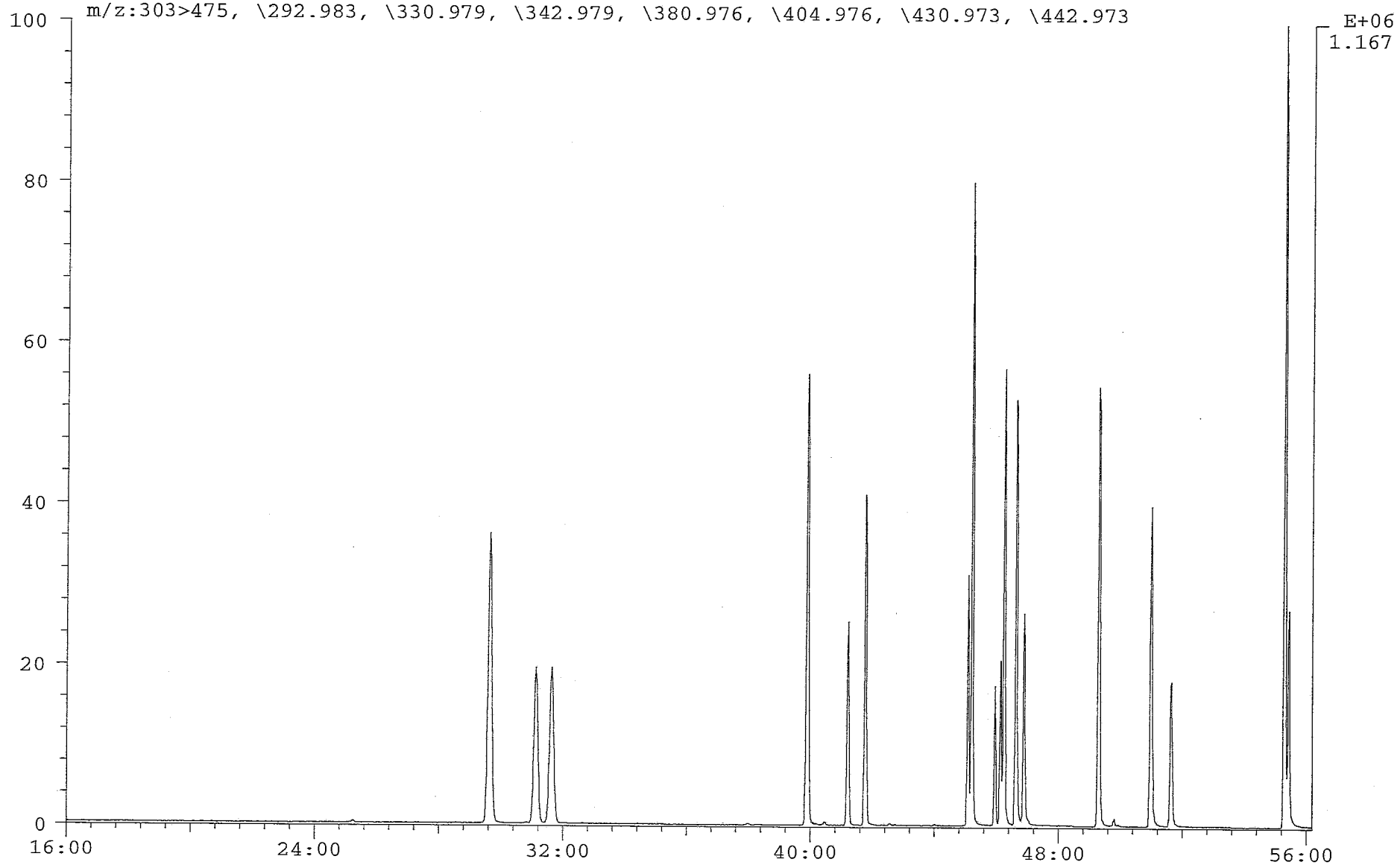
Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,4,7,8-HxCDD	46:07	46:12	-5	264402	212976	74949	62861	1.24	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	46:15	46:18	-3	280751	227478	72012	58540	1.23	AVV/AVV	M
	1,2,3,7,8,9-HxCDD	46:37	46:40	-3	281668	237589	73499	63360	1.19	ABV/ABV	
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	230	330	92	132	0.70 *	/	
	13C-1,2,3,4,7,8-HxCDD	46:06	46:11	-5	259624	207212	75464	57471	1.25	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	46:14	46:17	-3	1127171	905214	295537	241992	1.25	AVB/AVB	M
	13C-1,2,3,7,8,9-HxCDD	46:36	46:38	-2	1162680	914449	293990	234398	1.27	ABV/ABV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	183	198	73	79	0.92	/	
	1,2,3,4,6,7,8-HpCDF	49:17	49:13	4	386328	384658	89834	86213	1.00	ABV/ABV	
	1,2,3,4,7,8,9-HpCDF	51:37	51:29	8	314936	308375	64989	61294	1.02	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	200	180	80	72	1.11 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:16	49:12	4	696893	1533824	158184	344046	0.45	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:36	51:29	7	153490	341531	30325	68492	0.45	AVV/ABV	M
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	175	170	70	68	1.03	/	
	Unidentified	49:47	00:00	0	2750	3130	602	818	0.88	ABB/ABB	
	1,2,3,4,6,7,8-HpCDD	50:59	50:51	8	246364	241783	48257	46242	1.02	ABV/ABB	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	160	185	64	74	0.86 *	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:58	50:49	9	942519	877495	195526	176752	1.07	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	180	215	72	86	0.84	/	
	OCDF	55:25	55:28	-3	550081	605908	141195	155630	0.91	ABV/ABV	
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	200	168	80	67	1.19 *	/	
	OCDD	55:17	55:20	-3	453605	513776	120669	133484	0.88	ABV/ABV	
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	263	285	105	114	0.92	/	
	13C-OCDD	55:16	55:20	-4	1751419	1955697	458384	498293	0.90	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

intfcalc KM 7-15-11

QC PMP 7-15-11

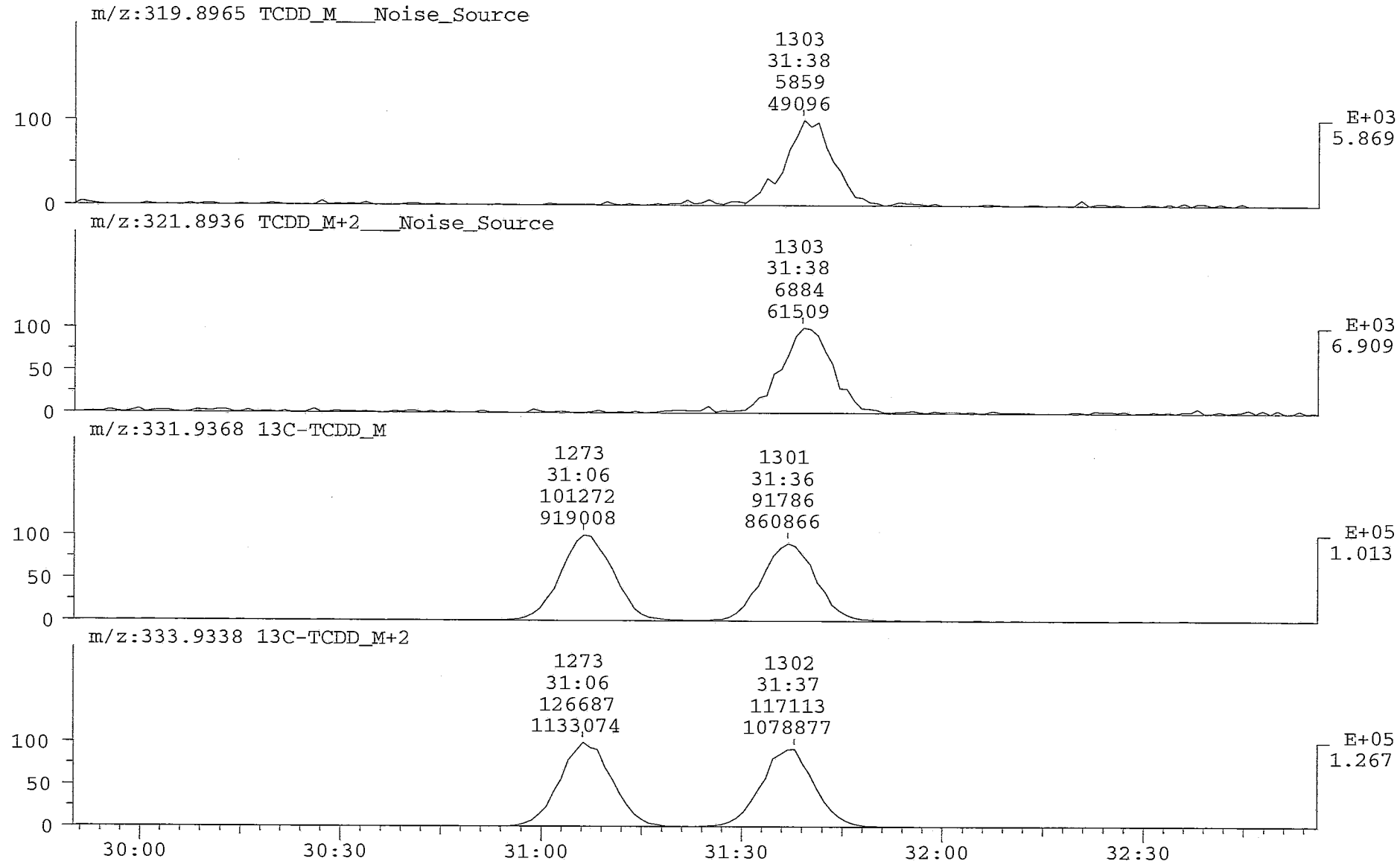
CHRO: b110715s1 15-Jul-11 Elapse: 08:00.4 1
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 441 > 2677 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-745

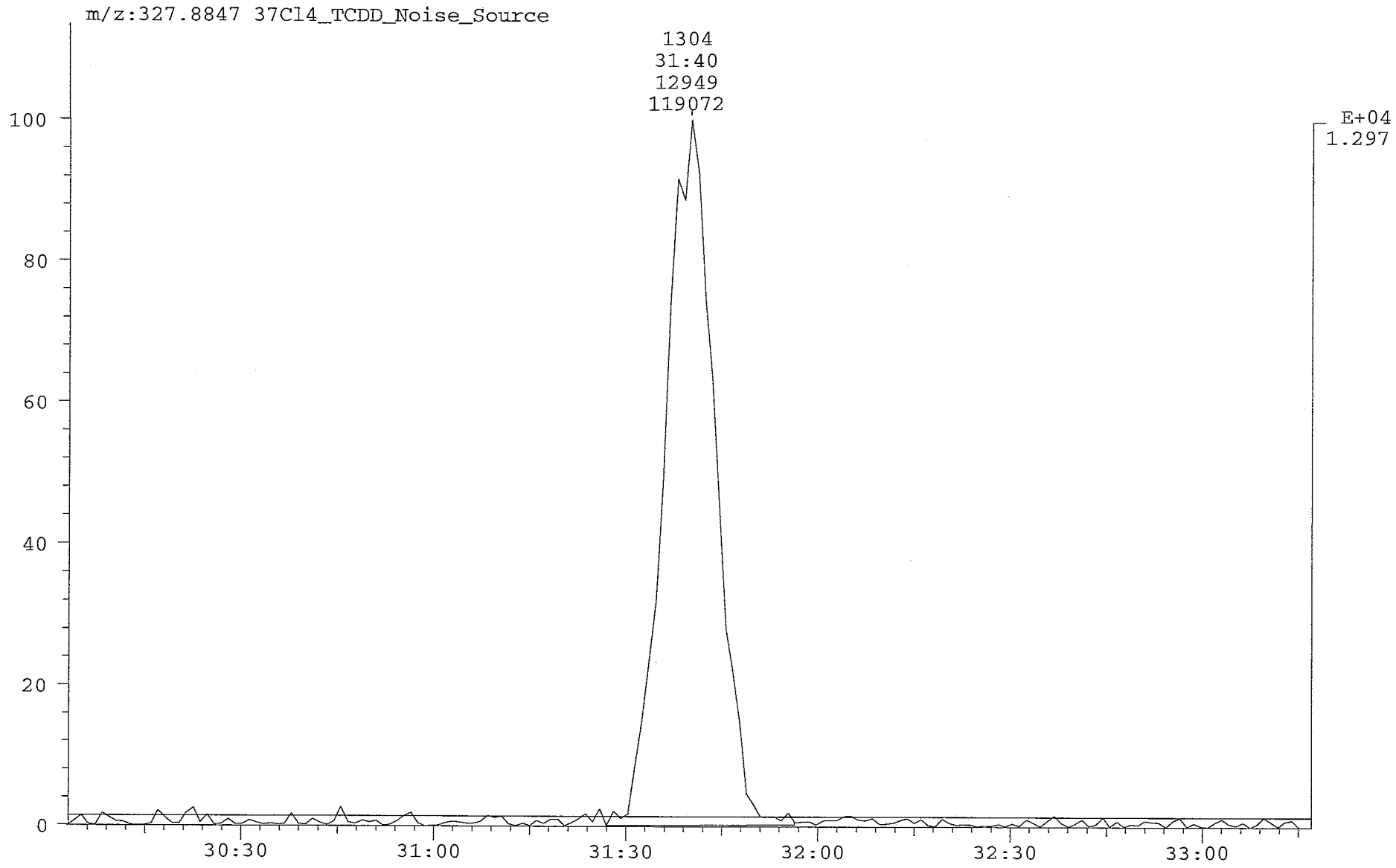
744

CHRO: b110715s1 15-Jul-11 Elapse: 31:22 1288
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1203 > 1374 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



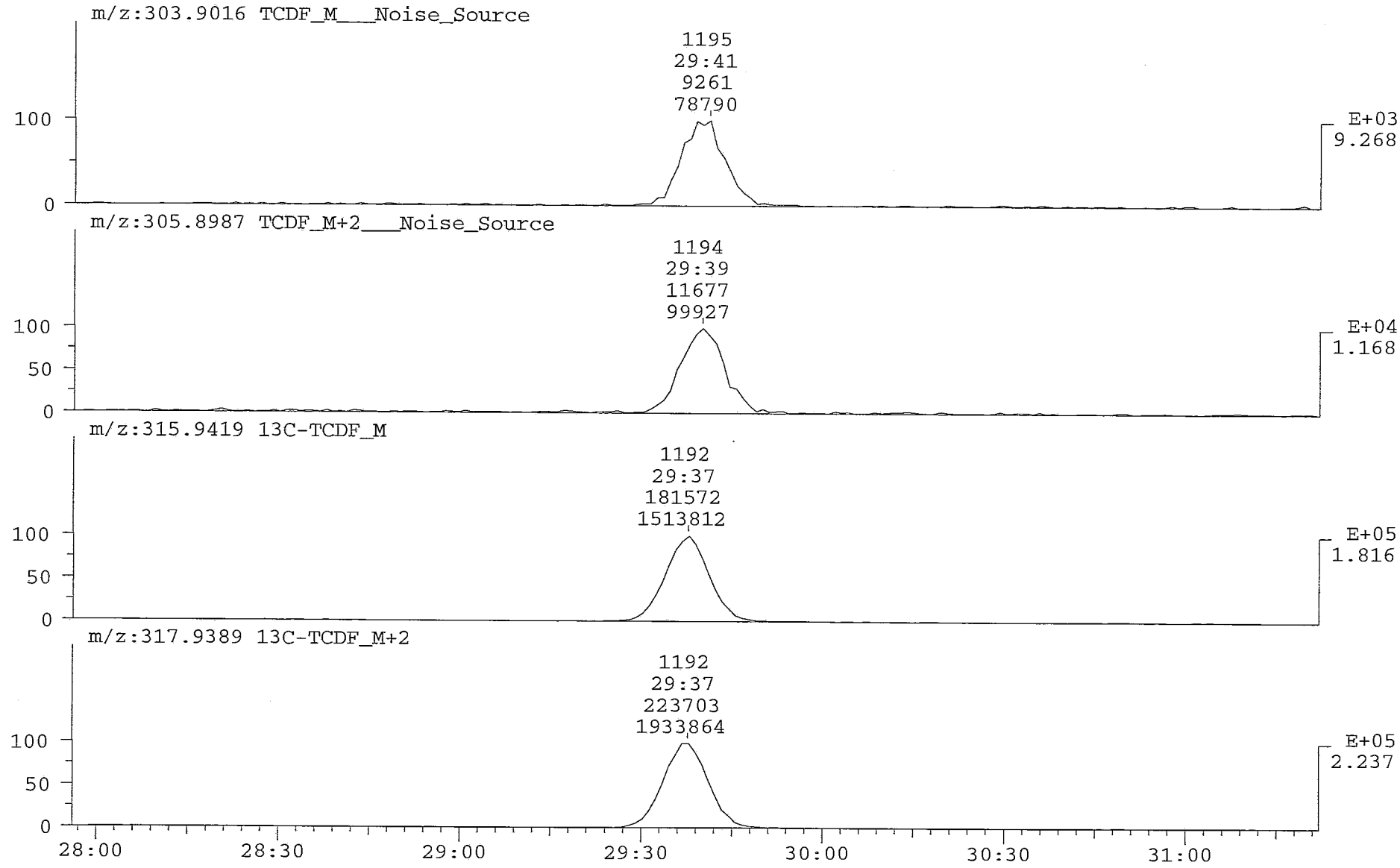
H-746

CHRO: b110715s1 15-Jul-11 Elapse: 31:36 1301
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1215 > 1393 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

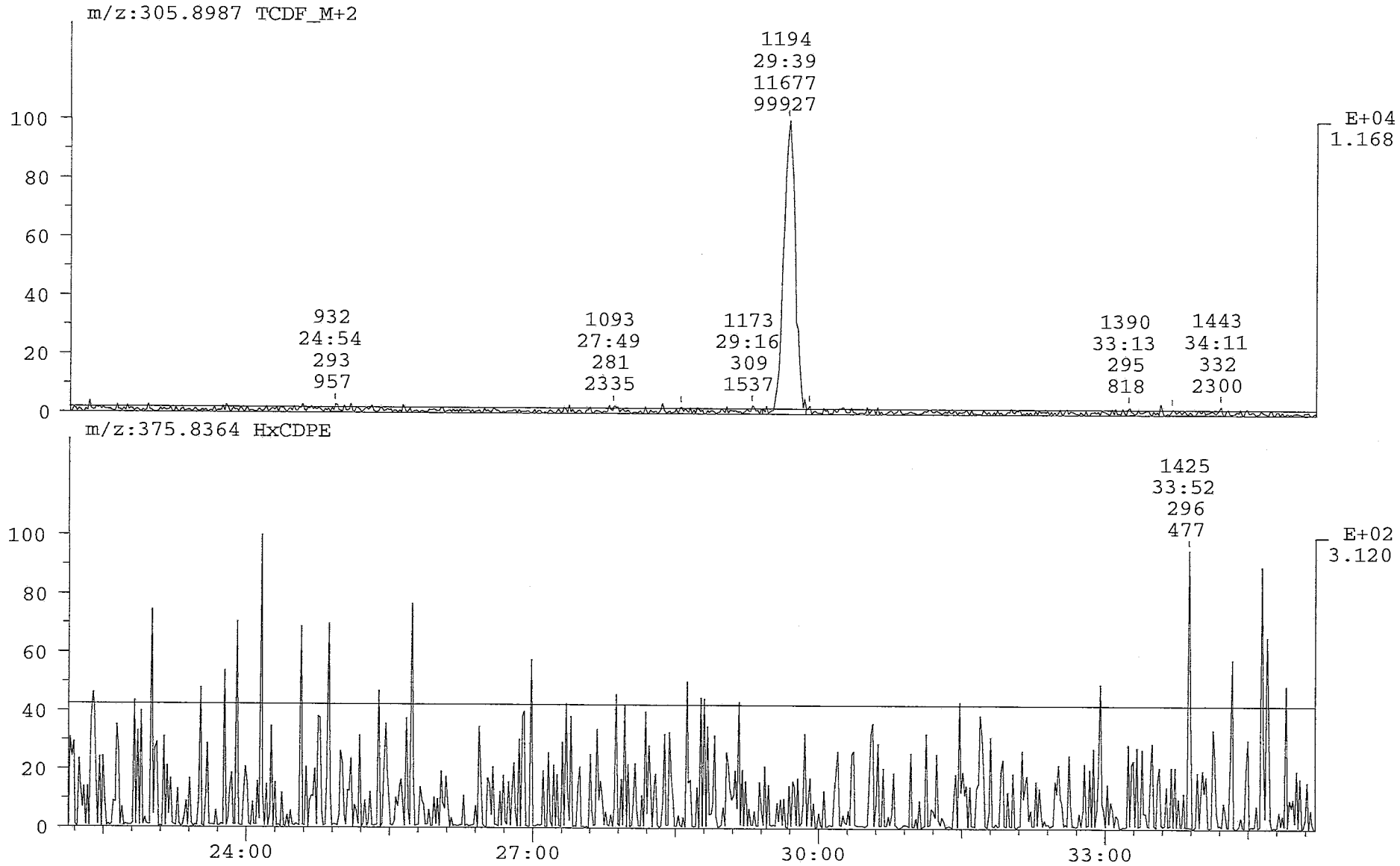


H-747

CHRO: b110715s1 15-Jul-11 Elapse: 29:35 1190
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1099 > 1288 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

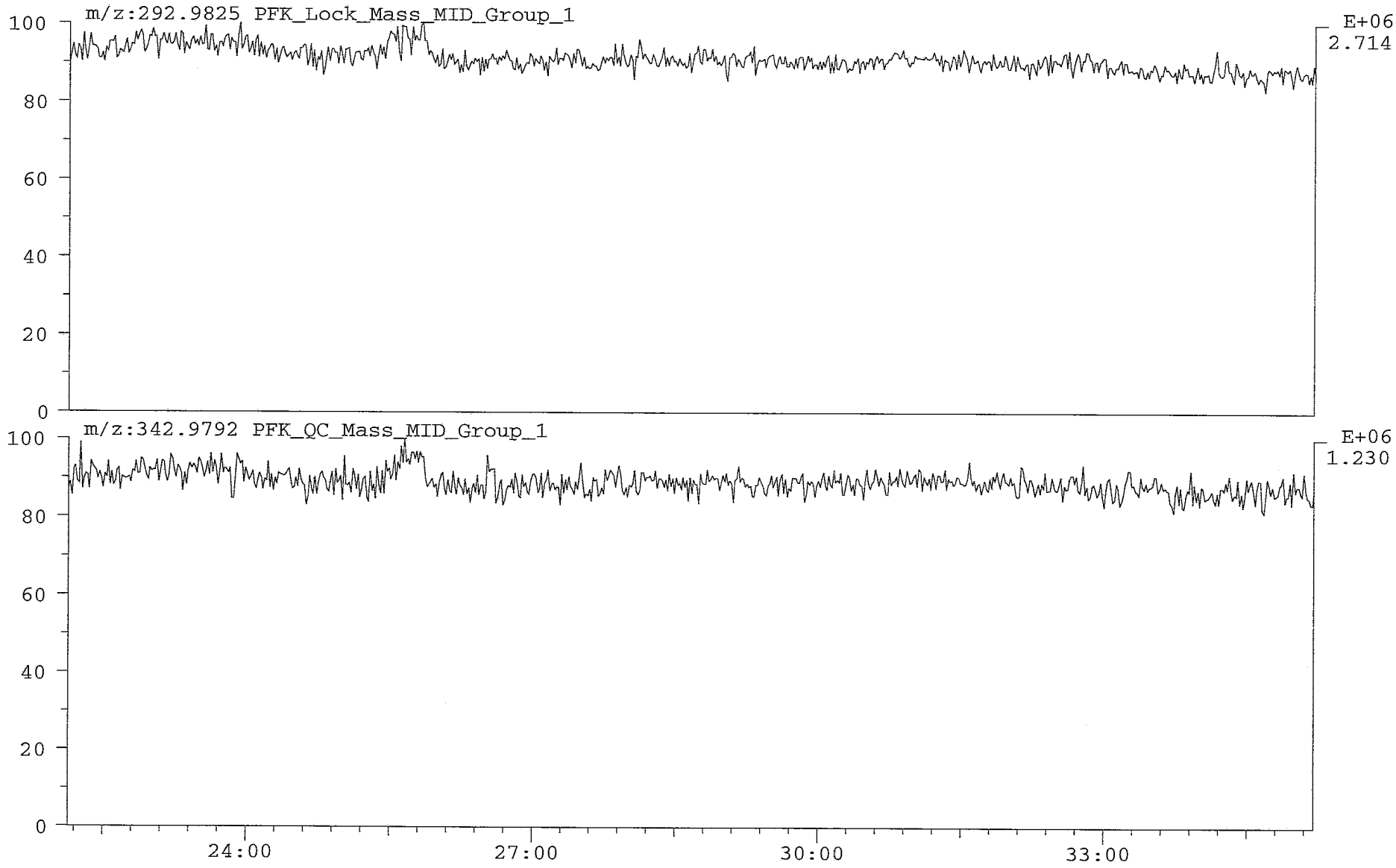


CHRO: b110715s1 15-Jul-11 Elapse: 29:35 1190
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 779 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-749

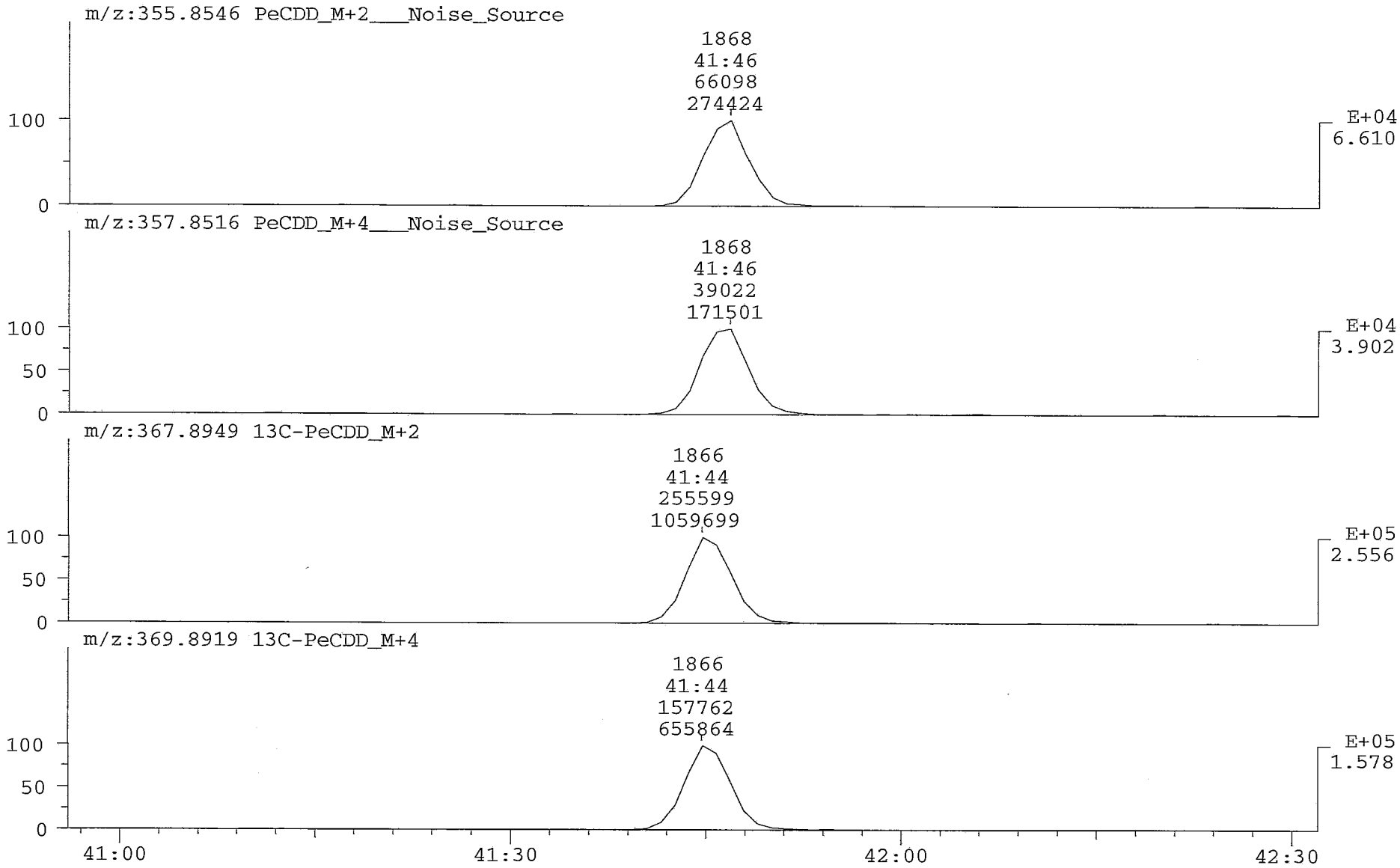
CHRO: b110715s1 15-Jul-11 Elapse: 29:35 1190
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 779 > 1498 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-750

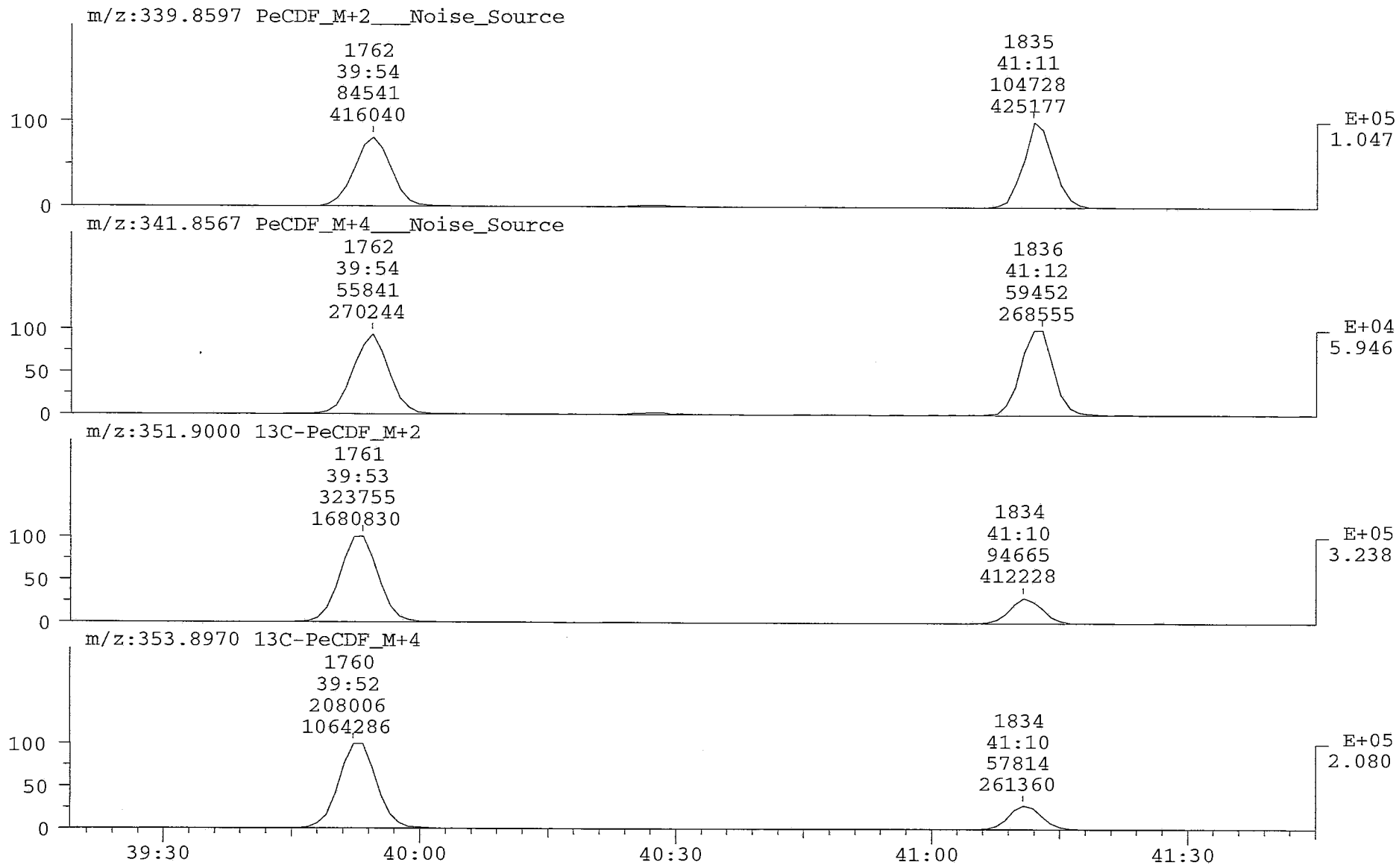
749

CHRO: b110715s1 15-Jul-11 Elapse: 41:41 1863
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1820 > 1911 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



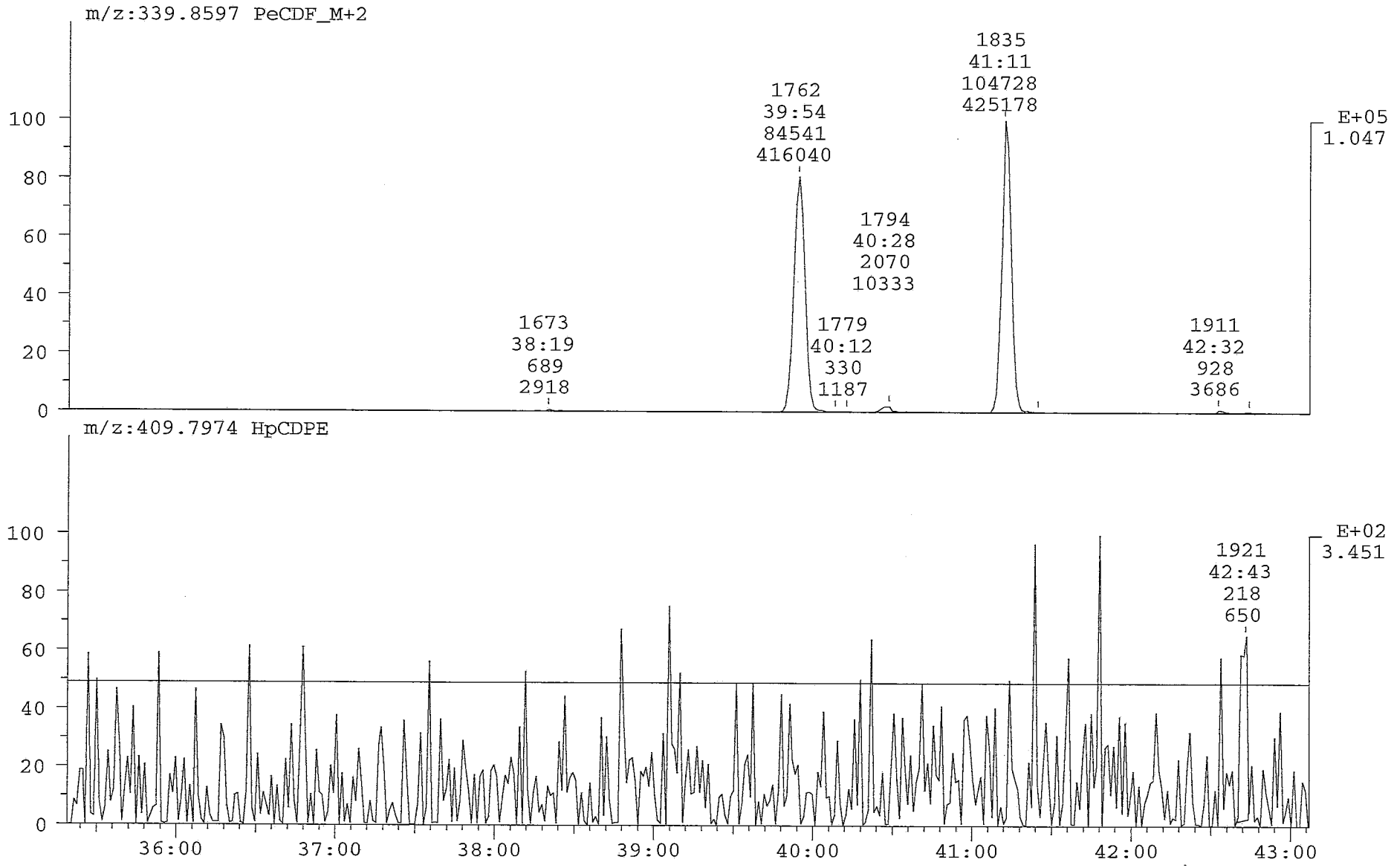
H-751

CHRO: b110715s1 15-Jul-11 Elapse: 40:32 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1729 > 1866 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



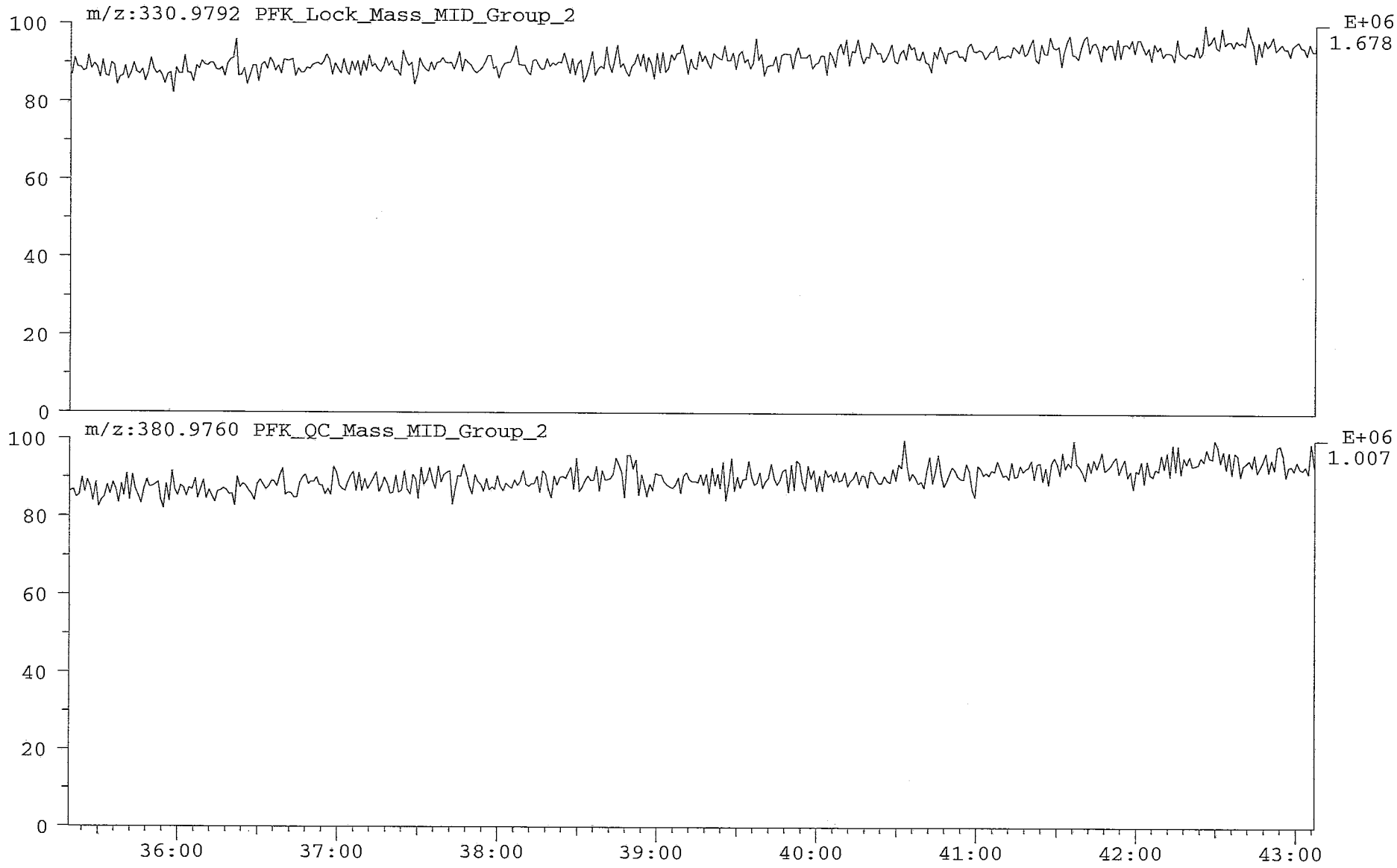
H-752

CHRO: b110715s1 15-Jul-11 Elapse: 40:32 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1503 > 1944 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



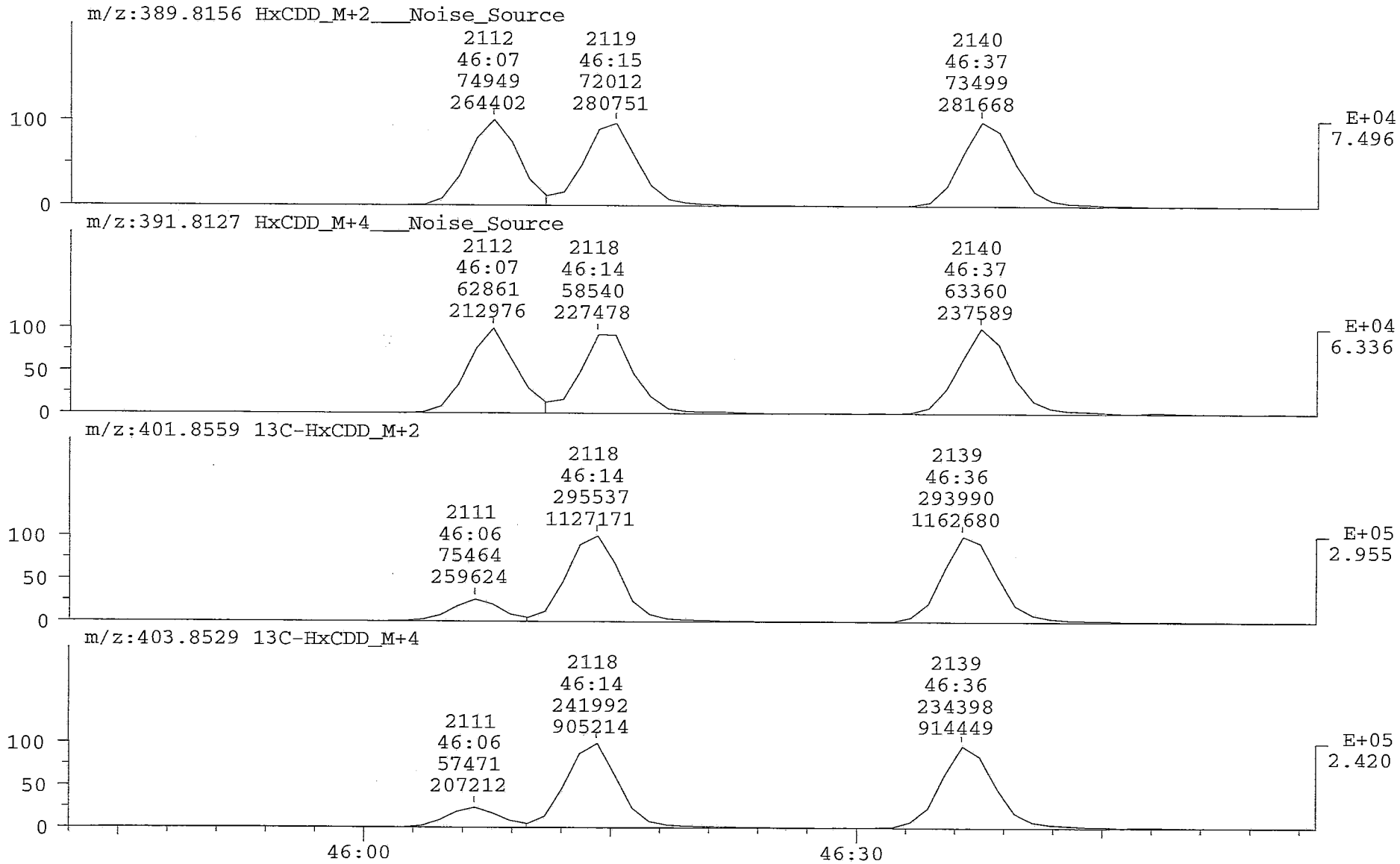
H-753

CHRO: b110715s1 15-Jul-11 Elapse: 40:32 1798
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1503 > 1944 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



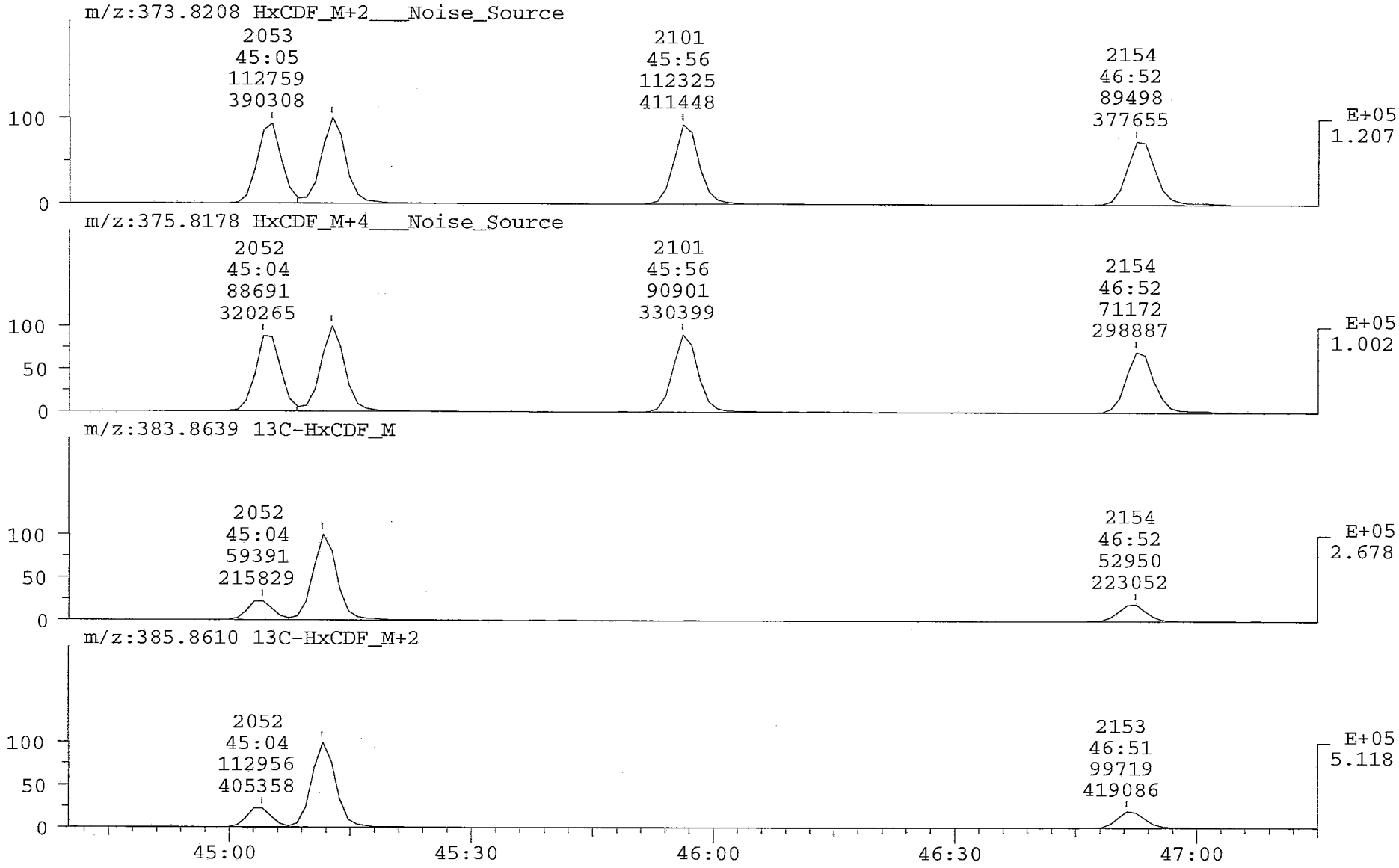
H-754

CHRO: b110715s1 15-Jul-11 Elapse: 46:20 2124
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2088 > 2159 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



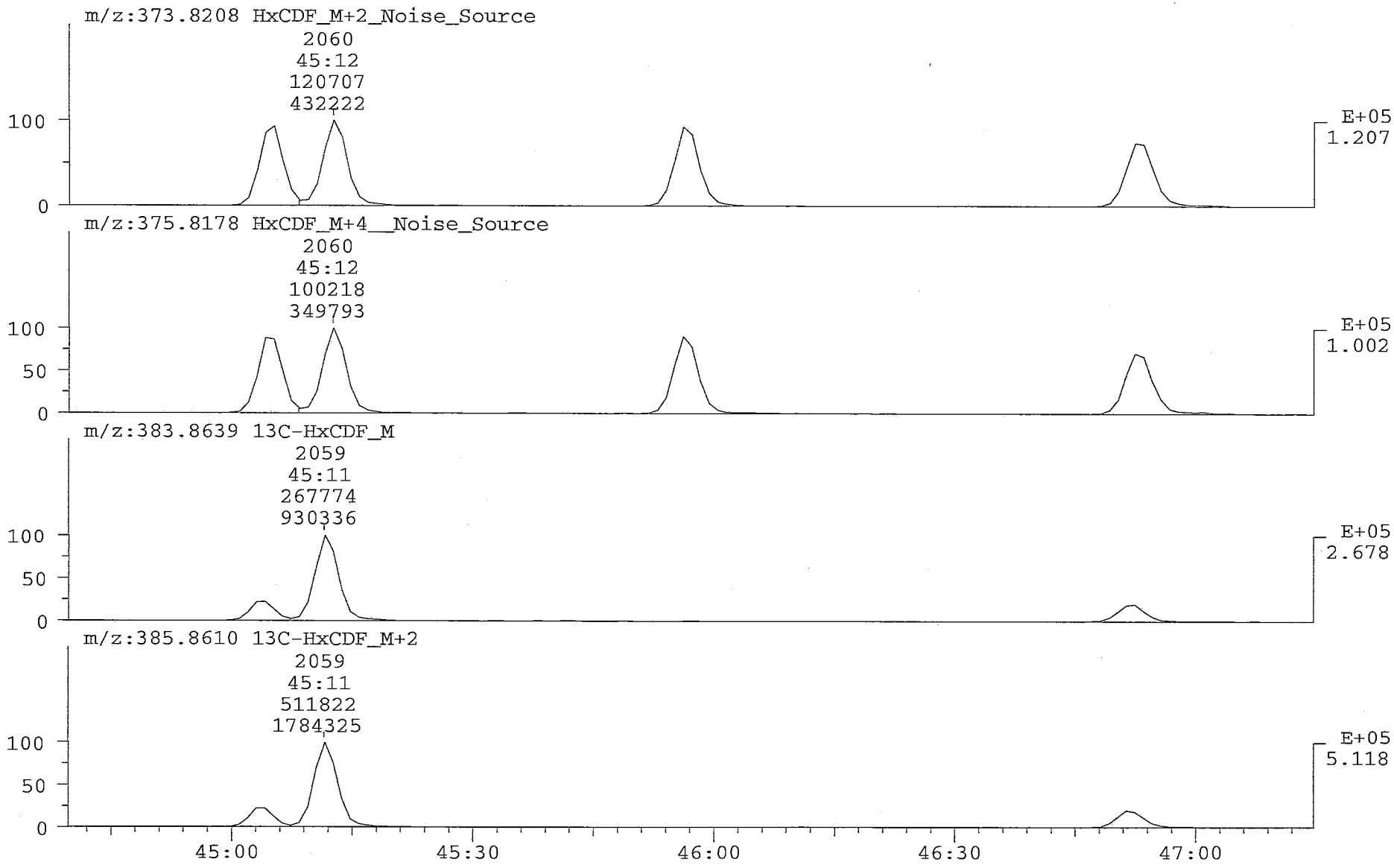
H-755

CHRO: b110715s1 15-Jul-11 Elapse: 45:57 2102
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2029 > 2175 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

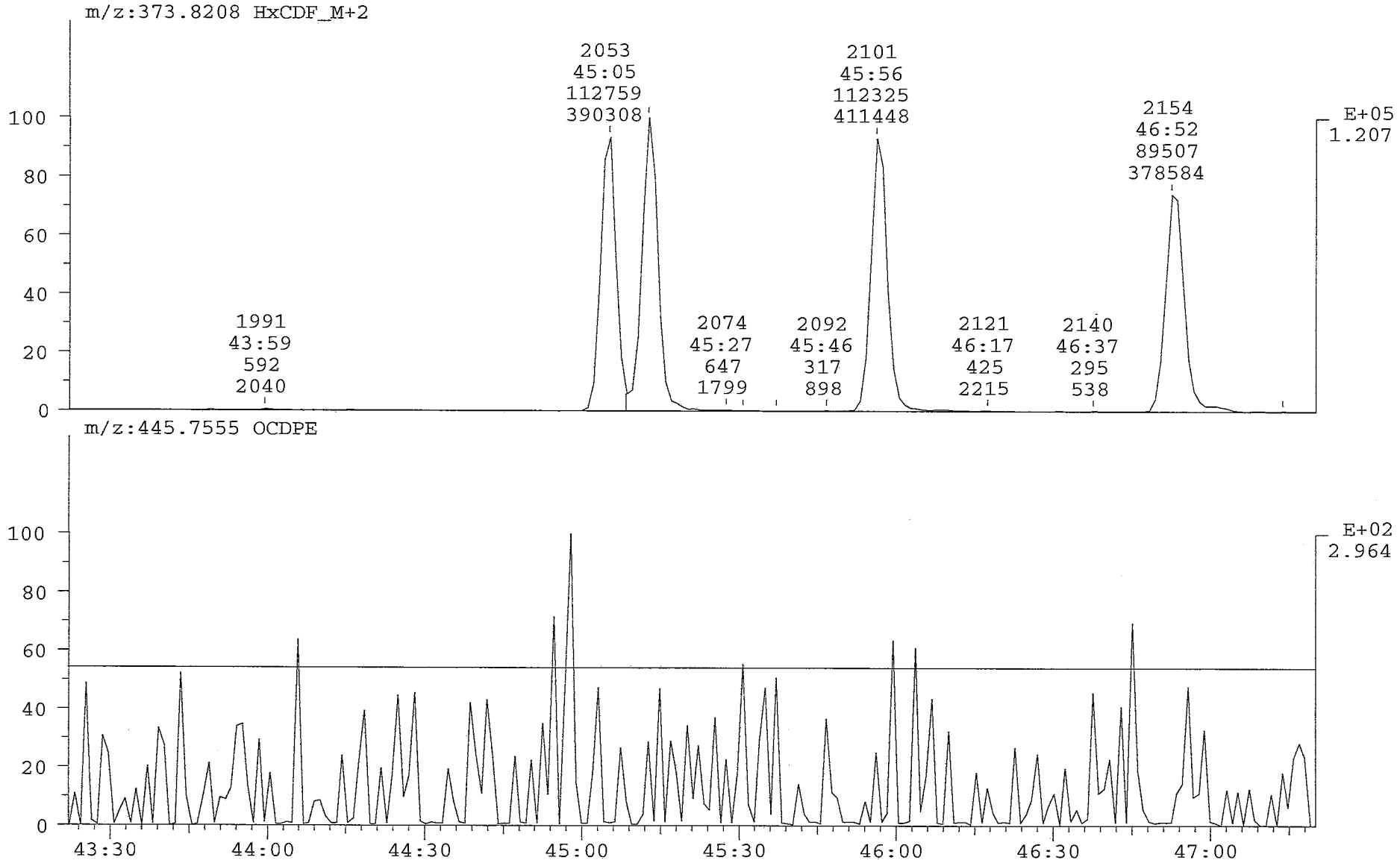


H-756

CHRO: b110715s1 15-Jul-11 Elapse: 45:10 2058
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2055 > 2061 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

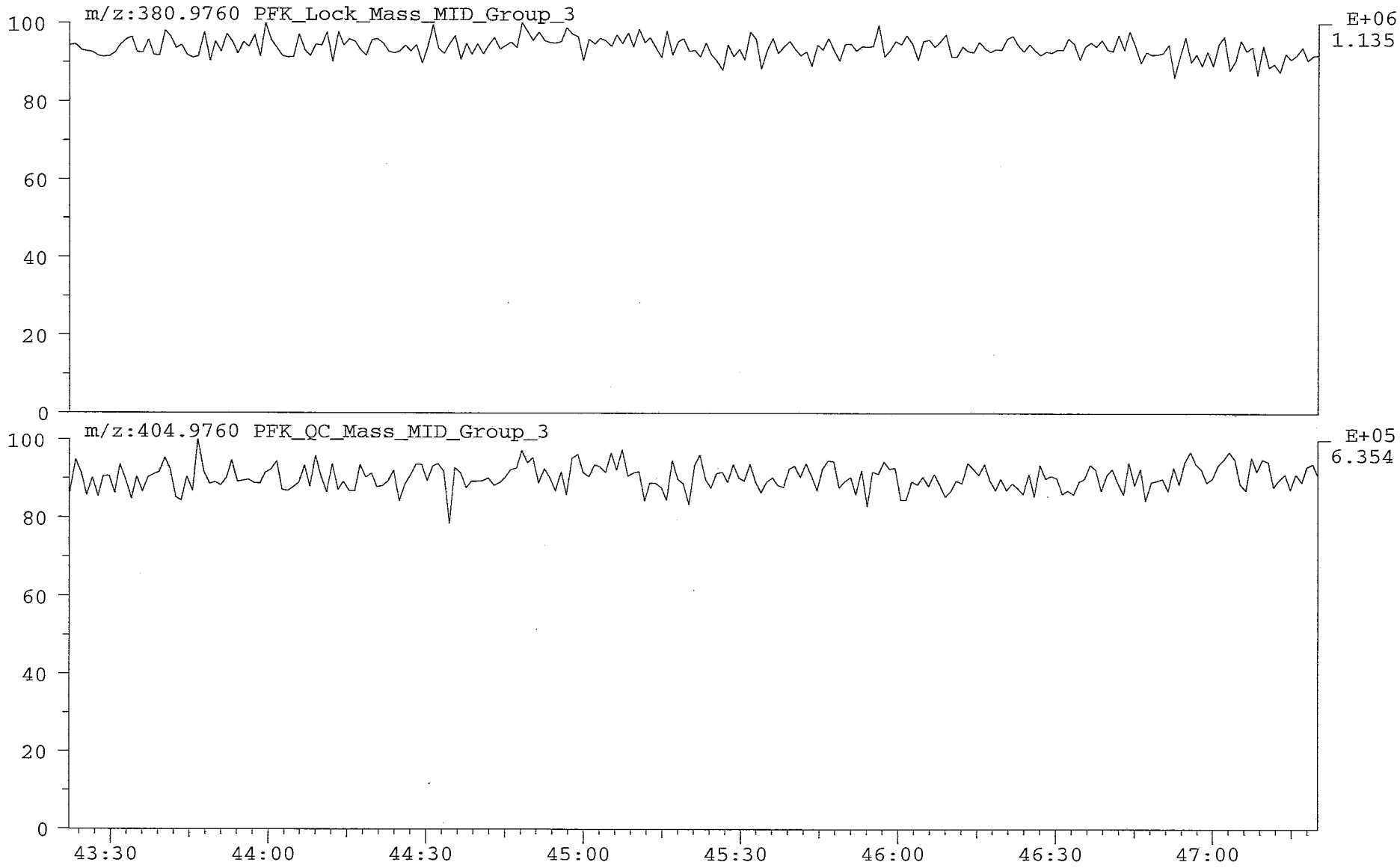


CHRO: b110715s1 15-Jul-11 Elapse: 45:08 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1956 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-758

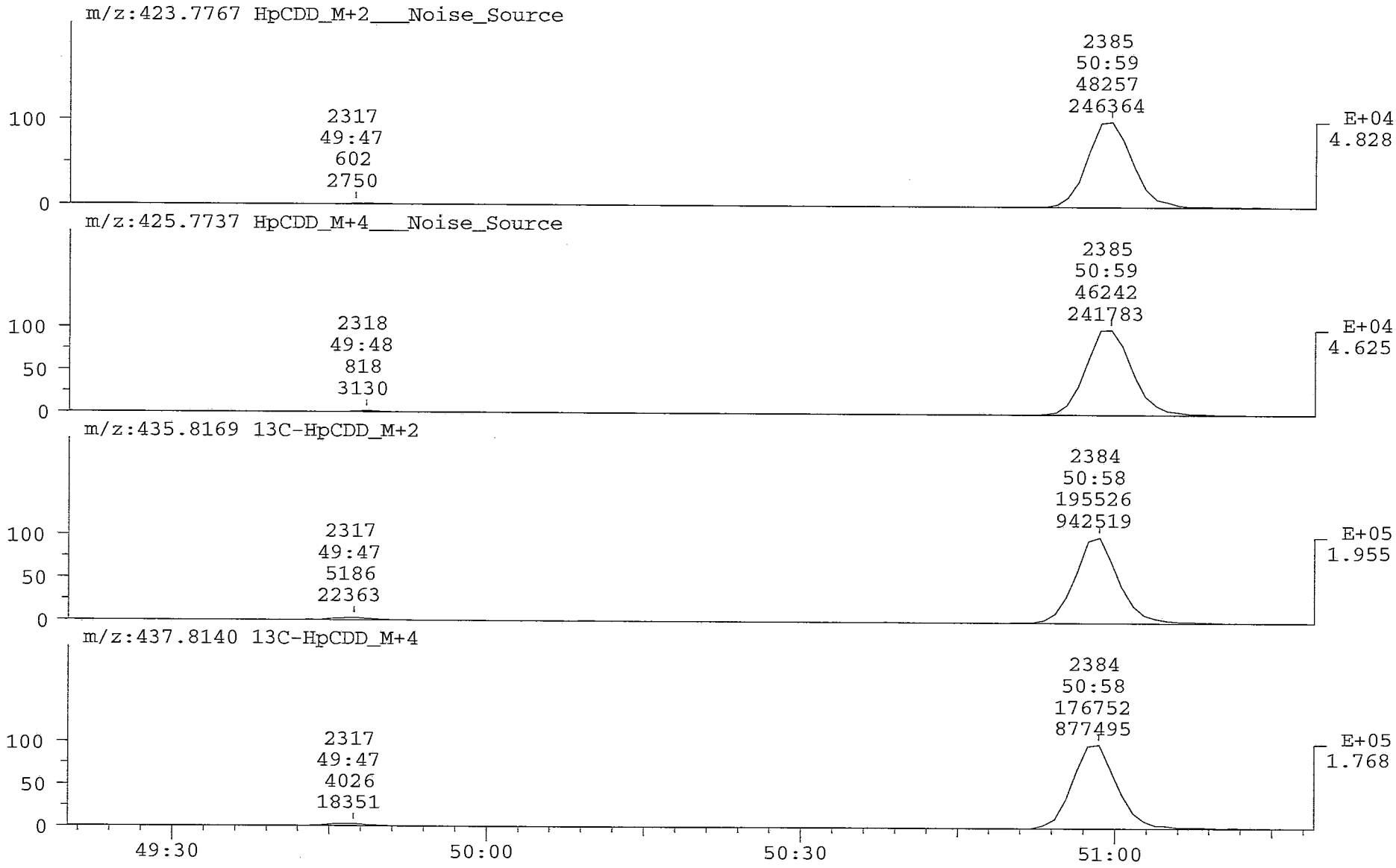
CHRO: b110715s1 15-Jul-11 Elapse: 45:08 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1956 > 2180 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-759

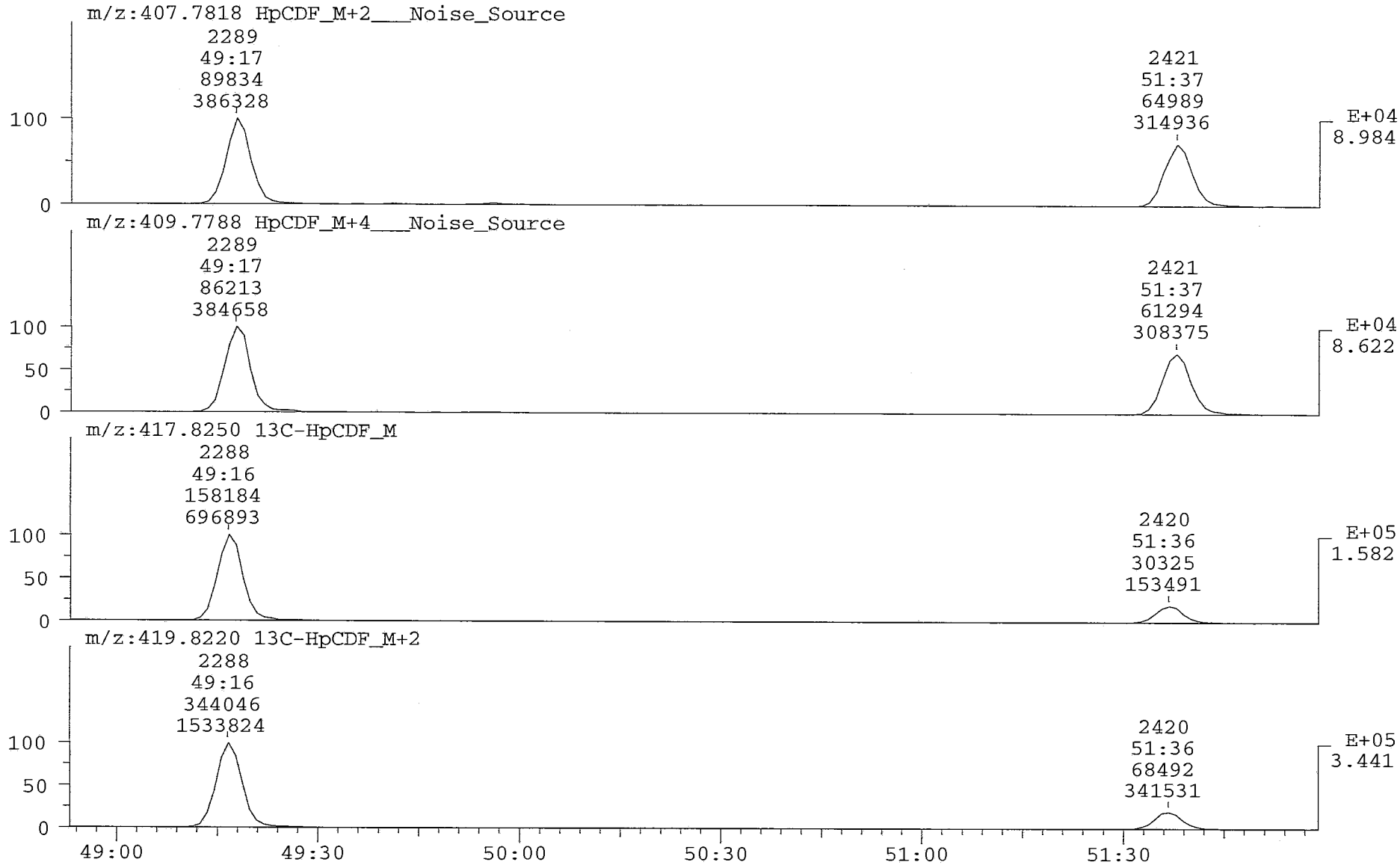
758

CHRO: b110715s1 15-Jul-11 Elapse: 45:08 2056
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2291 > 2403 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



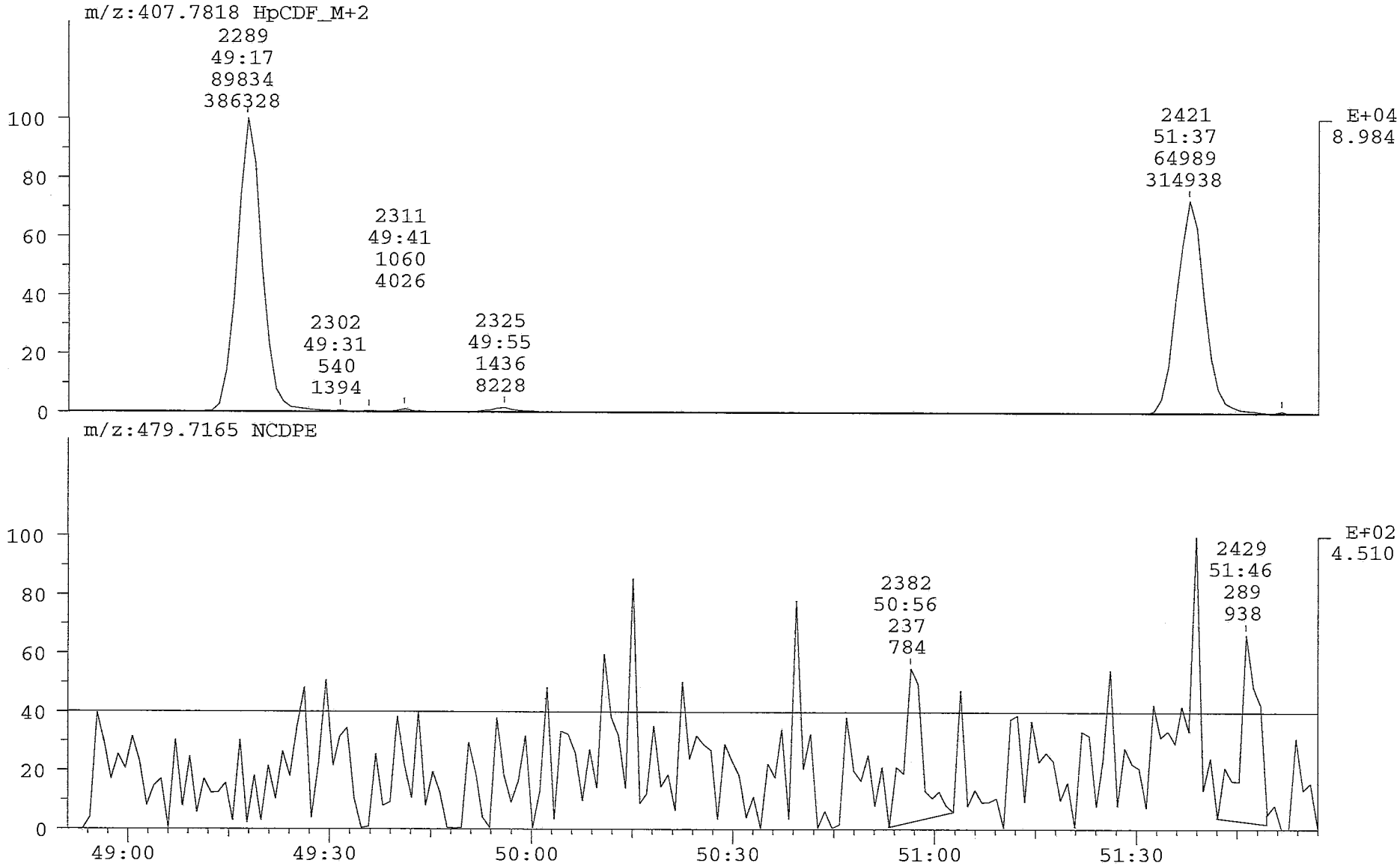
H-760

CHRO: b110715s1 15-Jul-11 Elapse: 50:25 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2266 > 2441 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-761

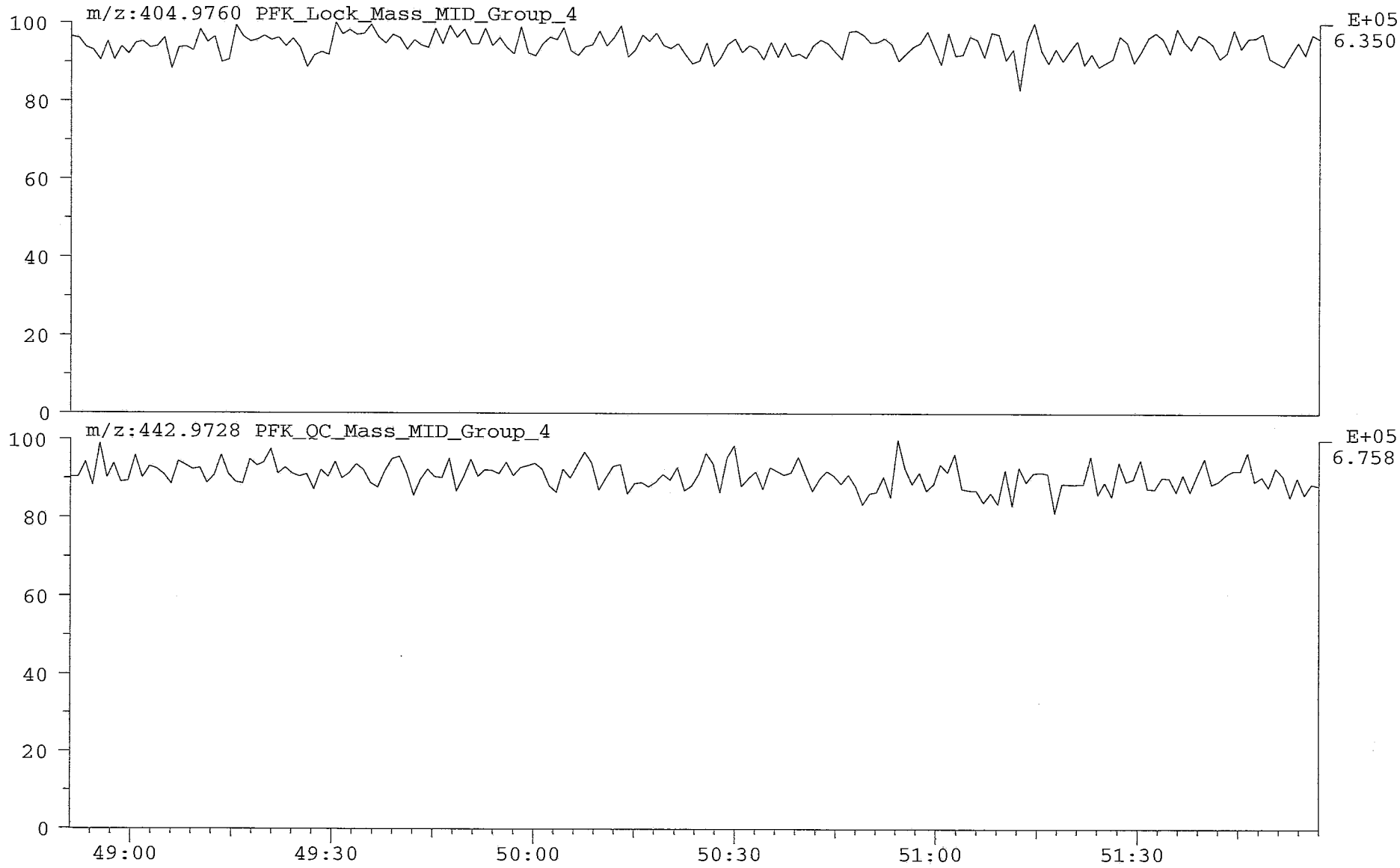
CHRO: b110715s1 15-Jul-11 Elapse: 50:25 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2264 > 2439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-762

761

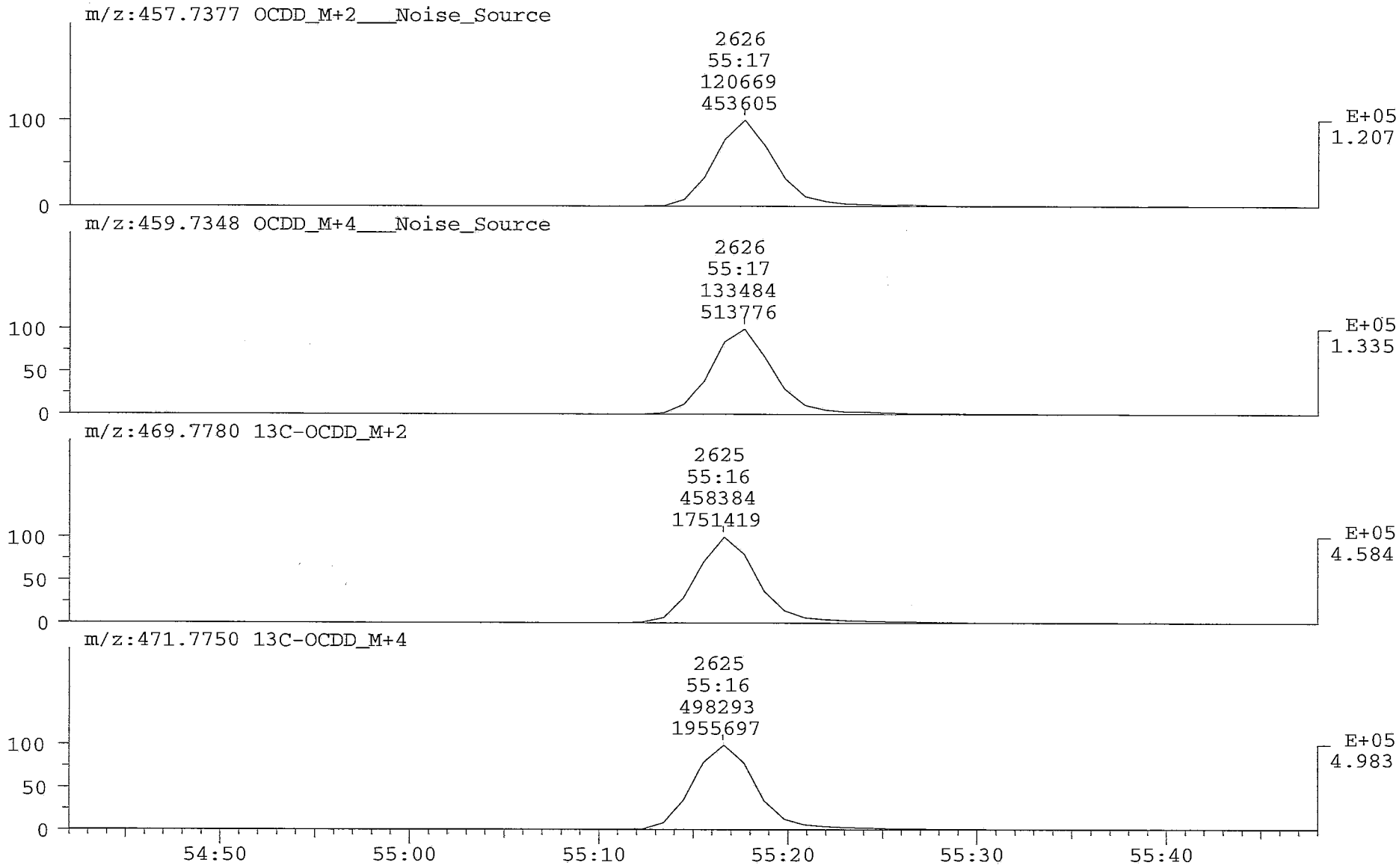
CHRO: b110715s1 15-Jul-11 Elapse: 50:25 2353
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2264 > 2439 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-763

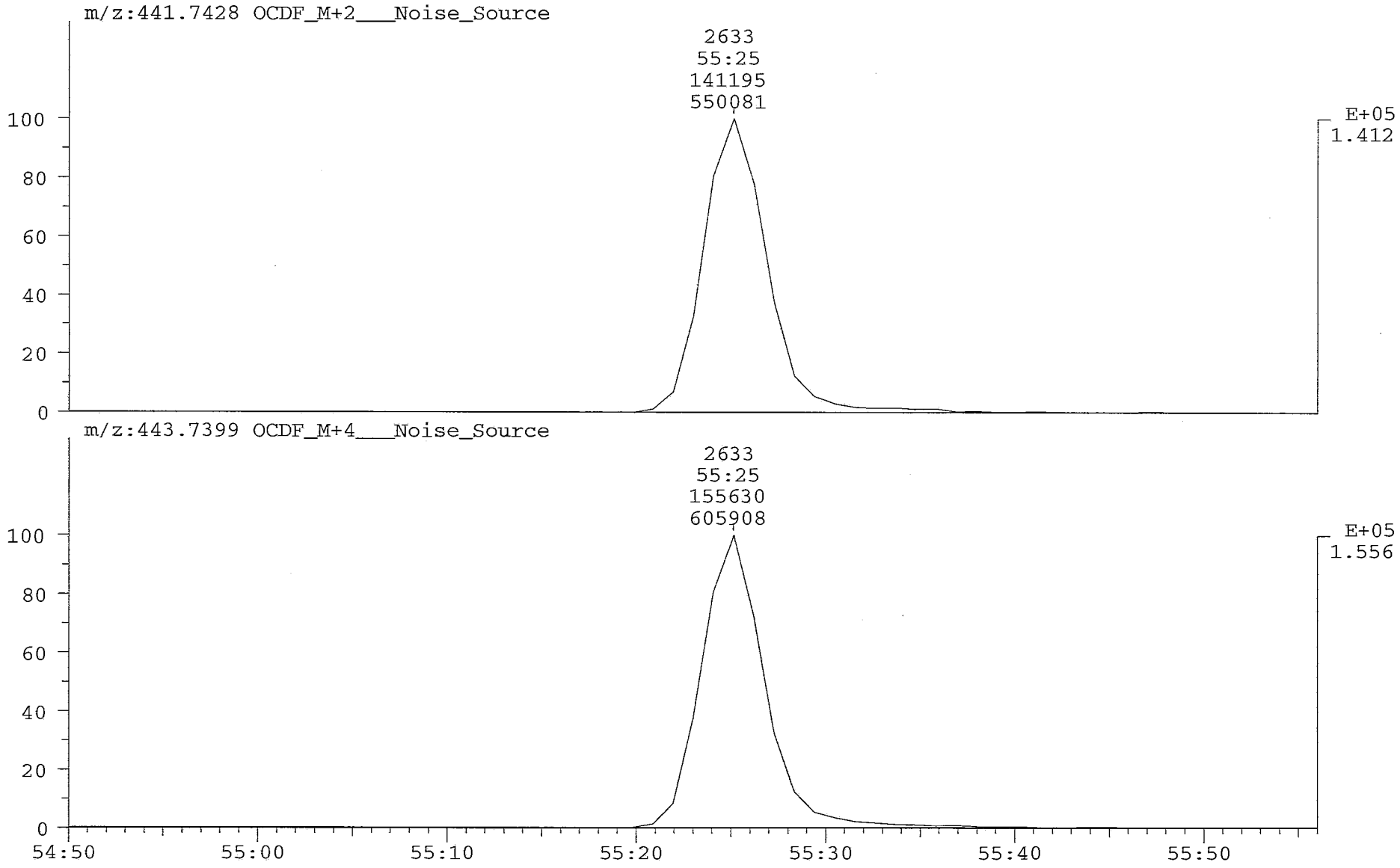
762

CHRO: b110715s1 15-Jul-11 Elapse: 55:12 2621
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2593 > 2654 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-764

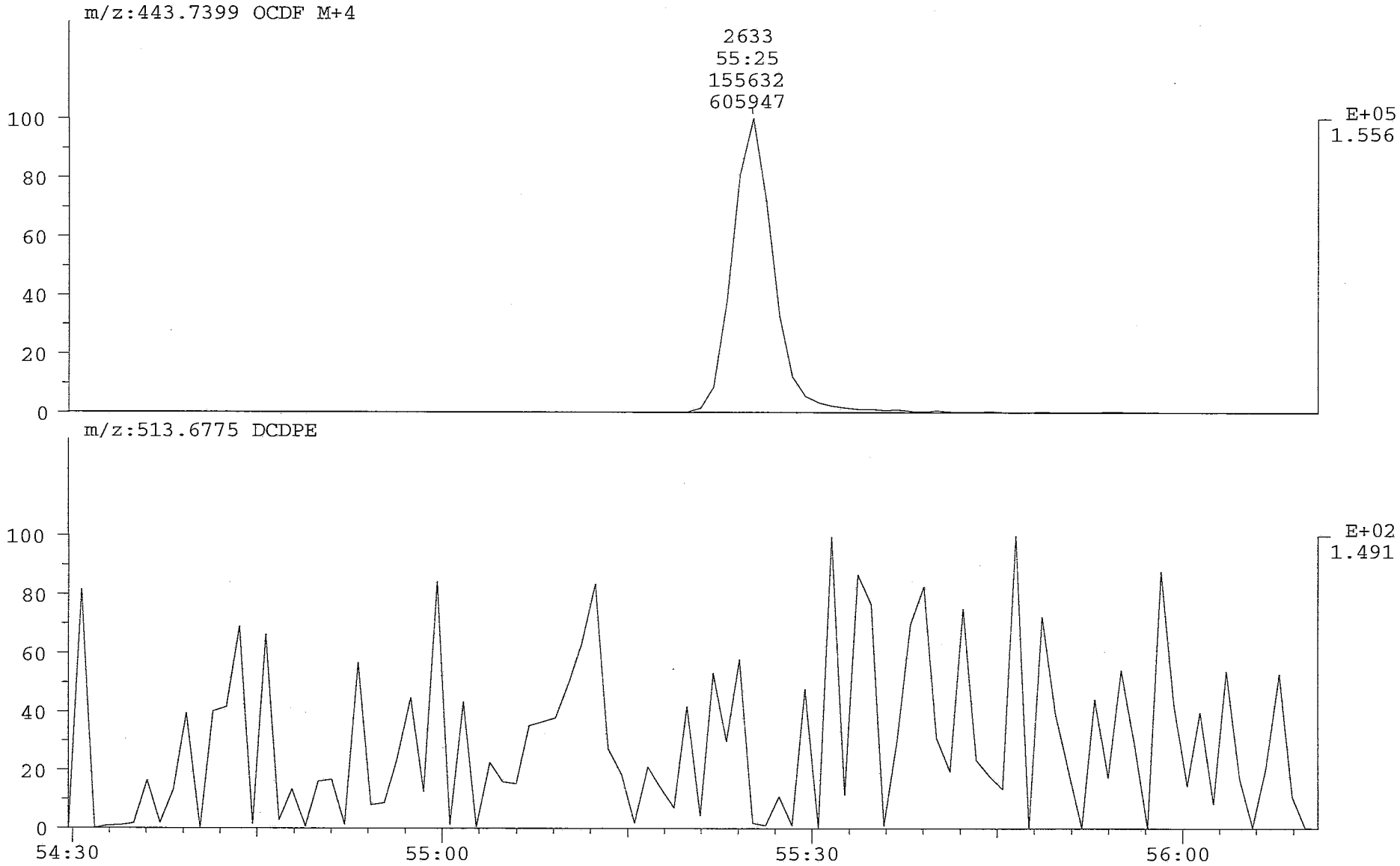
CHRO: b110715s1 15-Jul-11 Elapse: 55:19 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2600 > 2662 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-765

764

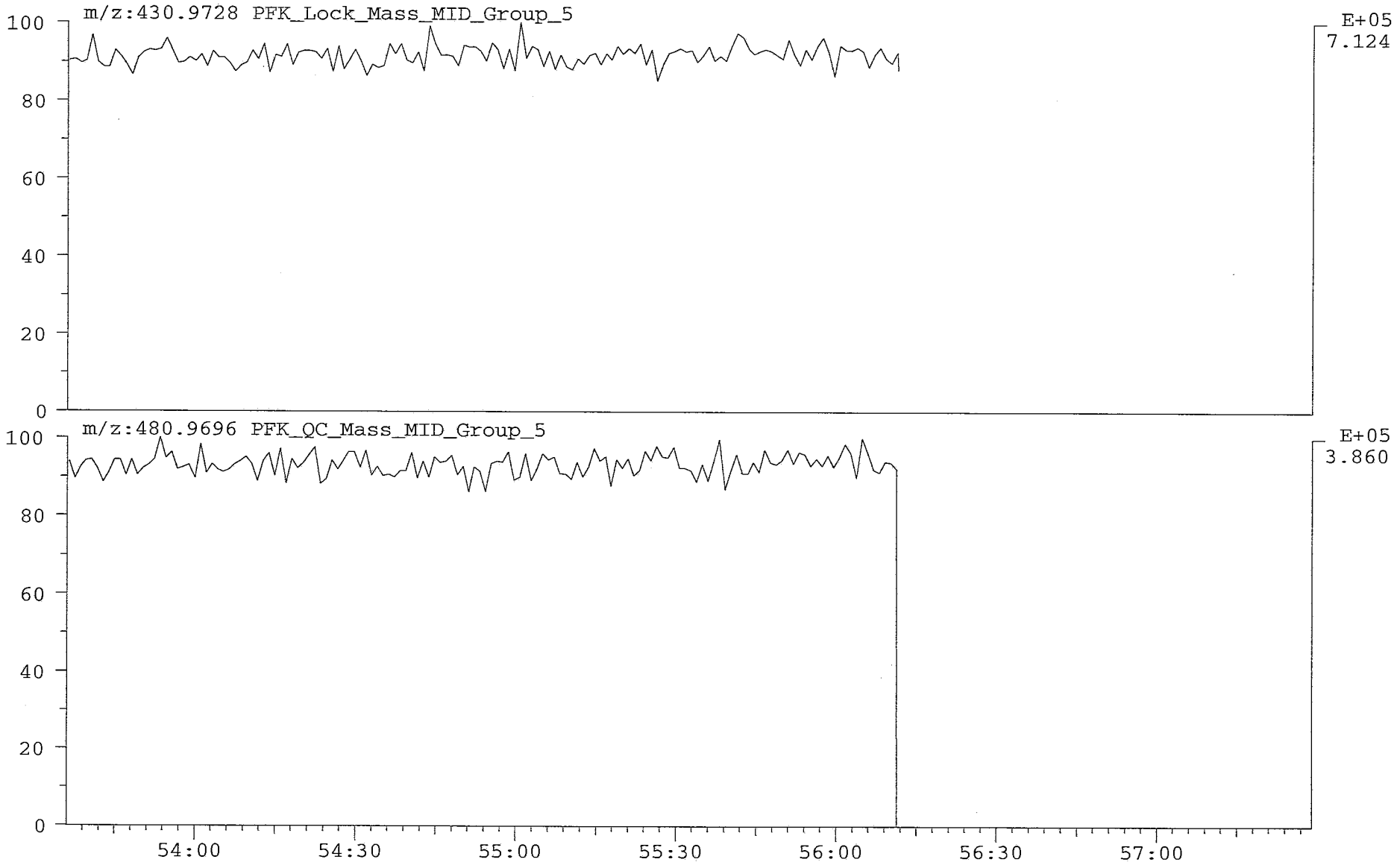
CHRO: b110715s1 15-Jul-11 Elapse: 55:26 2634
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2631 > 2637 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-766

765

CHRO: b110715s1 15-Jul-11 Elapse: 55:19 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 07:24:35 2677
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: PMP Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2531 > 2748 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-767

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b110715s1
Study: M23 Ver
Sample: WO=HR0014 Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: PMP
Client: TA-Knoxville
Comments: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Injected volume:   2.0
Sample from Vial 3
Analysis will stop when MID run finishes
Tune file name: tune2b
File 8 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start          Measure       End          Cycletime
  # 1    8:00 min    27:13 min    35:13 min     1.00 sec
  # 2   35:13 min     7:54 min    43:08 min     1.00 sec
  # 3   43:08 min     5:17 min    48:25 min     1.00 sec
  # 4   48:25 min     5:05 min    53:30 min     1.00 sec
  # 5   53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	1	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	1	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	1	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A		
Normal Injection		
Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8431.0000
BDEV	8296.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.4824
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-26.2250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9997
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	147.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.1000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	372.0000	FVINLET	841.0000
FVSRC	1062.0000	FWIN	0.7000	GCTC	138.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7059	HVANAL	1217.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	292.9825
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	231.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10525.5743	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.6800	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 07:24:35.9

Autosampler has injected sample from vial 3
Analysis stopped at: 15-Jul-11 08:20:48.2 (run time 56.20 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville Dioxin GC/MS Continuing Calibration Review / Narrative Checklist

KNOX-ID-0004-R10 **Method: ☒ 0023A/8290 ☐ EPA 23**

Start Mass Res. √:	8:42	Start Ver Filename:	b110715s1	Inst:	M2A
End Mass Res. √:	20:01	Win Filename:	b110715w1	ICAL Date:	12-10-09
		Col Perf Filename:	↓		
		End Ver Filename:	b110715s2		

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?		/			/
2. Was the instrument resolution >10,000 (<100 ppm) on PFK m/z 304.9824 and m/z 380.9760 or FC43 m/z 313.9838 and m/z 363.9807?		✓			/
3. Was the measured exact mass of m/z 380.9760 (PFK) or 363.9807 (FC43) within 5 ppm at reduced accelerating voltage?		✓			/
4. Was date/time of analysis verified between analysis header and logbook as correct?		✓			/
5. Was the Window Defining Mixture analyzed and the MID switchpoints set to encompass the retention time windows of each congener group?		✓			/
6. Was the Column Performance solution analyzed and the %Valley ≤25 for separation between 2378-TCDD/F and the closest eluting non-2378 isomer?		✓			/
7. Were continuing calibrations performed at the beginning and end of the 12-hour period, with successful mass resolution and GC resolution performance checks?		/			/
8. Were the response factors calculated for each labeled standard and unlabeled native analyte using the SOP specified reference compound (Table 4), quantitation ions (Table 22), and formula (Section 10.2.6)?		✓			/
9. Are the measured RRFs for each compound within the specified control limits in Table 8 for all PCDDs/PCDFs?		/			/
10. Are the relative retention times of all PCDDs/PCDFs and all labeled compounds within the limits specified in Table 3?		✓			/
11. Are all S/N ratios ≥10 for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		✓			/
12. Are the ion abundance ratios for all labeled and unlabeled analytes within the control limits specified in Table 22 of the SOP?		/			/
13. If manual integrations were performed, are they clearly identified, initialed and dated?	/				/
14. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	/				/
15. Does the CCAL folder contain **complete** data in the following order: Data review checklist, a **complete** runlog, CCAL summary, Ratio summary, Calculation summary, PFK resolution/peak match documentation; Total RIC, EICP's and manual integration - for window and all standards?		/			/

Analyst: KMM	**Date:** 7-15-11	**2nd Level Reviewer :** DMF	**Date:** 7-15-11
Comments:		**Comments:**	

TESTAMERICA KNOXVILLE
SPECIALTY ORGANICS INSTRUMENT RUN LOG
Inst: MAT95S

Date	Time	Opr	Sample ID	Filename	Code	Matrix	Type	Tape	Lot#/Comments
7-14-11	10:48	KM	PFK	—	OK	—	res		Mass res chk
7-14-11	10:51	KM	HR0034B	b110714w1	OK	—	win		win
7-14-11	11:51	KM	nonane	r	OK	—	QC		flush
7-14-11	12:02	KM	HR0014	b110714s3	OK	—	ver		m23 ver
7-14-11	13:02	KM	nonane	r	ok	—	QC		flush
7-14-11	13:12	KM	"	r	ok	—	QC		"
7-14-11	13:27	KM	"	r	OK	—	QC		"
7-14-11	13:42	KM	MKNTLIAA	btmkntlb	OK/RR	air-2	QC		HIG060000-027B
7-14-11	14:42	KM	MKM60IAA	btmkm6m	IF*/RR	air-2	SOM		HIG050439-007
7-14-11	15:42	KM	MKM60IAA	btmkm60	IF*/RR	air-2	SOM		" -015
7-14-11	16:42	KM	MKM55IAA	btmkm55	*IF/RR	air-2	SOM		" -001
7-14-11	17:42	KM	nonane	r	OK	—	QC		flush
7-14-11	17:56	KM	MKNTLIAC	btmkntlc	*IF/RR	air-2	QC		HIG060000-027C
7-14-11	18:55	KM	MKNTLIAD	btmkntld	OK	air-2	QC		" -027L
7-14-11	19:55	KM	HR0014	b110714s4	OK	—	ver		m23ver
7-14-11	20:55	PMP	PFK	—	OK	—	Res		Mass Res Chk
7-14-11	22:13	PMP	PFK	—	OK	—	Res		Mass Res Chk
7-14-11	22:14	PMP	HR0034B	b110714w2	OK	—	Win		m23 win
7-14-11	23:12	PMP	Nonane	r	OK	QC	—		flush
7-14-11	23:24	PMP	HR0014	b110714s5	OK	ver	—		m23 ver
7-15-11	00:22	PMP	Nonane	r	OK	QC	—		flush
7-15-11	00:35	PMP	"	r	OK	QC	—		"
7-15-11	—	PMP	"	r	IF	QC	—		"
7-15-11	1:09	PMP	MKNTLIAA	btmkntlba	ok	Air	QC		HIG060000-027B
7-15-11	2:08	PMP	MKM60IAA	btmkm60a	OK	Air	SOM		HIG050439-005
7-15-11	3:09	PMP	MKM6MIAA	btmkm6ma	*IF	Air	SOM		" 007
7-15-11	4:09	PMP	MKM55IAA	btmkm55a	*IF	Air	SOM		" 001
7-15-11	5:09	PMP	MKM6AIAA	btmkm6a	*IF	Air	SOM		" 063
7-15-11	6:08	PMP	MKM6FIAA	btmkm6f	OK	Air	SOM		" 005
7-15-11	7:08	PMP	Nonane	r	ok	—	QC		flush
7-15-11	—	PMP	MKNTLIAC	btmkntlca	DR	Air	QC		HIG060000-027C
7-15-11	7:24	PMP	HR0014	b110715s1	OK	—	ver		m23 ver

*lost lock heptas

MKM55IAA lost lock on octas also

Read and Understood by: KM Date: 7-15-11

TESTAMERICA KNOXVILLE
SPECIALTY ORGANICS INSTRUMENT RUN LOG
Inst: MAT95S

Date	Time	Opr	Sample ID	Filename	Code	Matrix	Type	Tape	Lot#/Comments
7-15-11	8:42	KM	PFK	—	OK	-	res		Mass res chk
7-15-11	8:44	KM	HR0034B	b110715w1	OK	-	win		win
7-15-11	9:42	KM	MKNTLIAC	btmkntlca	OK	air	QC		HIG06000-027C
7-15-11	10:42	KM	Nonane	r	OK	-	QC		flush
7-15-11	10:57	KM	↓	r	OK	-	↓		↓
7-15-11	11:07	KM	↓	r	OK	-	↓		↓
7-15-11	11:19	KM	MKNTLIAA	btmkntlbb	OK	air	QC		system blk
7-15-11	12:19	KM	MKM6MIAA	btmkm6mr	IP */RR	air	sam		HIG050439-007
7-15-11	13:19	KM	MKM55IAA	btmkm55r	OK	air	sam		↓ -001
7-15-11	14:19	KM	MKM6AIAA	btmkm6ar	IP */RR	air	sam		↓ -003
7-15-11	15:47	KM	MKM6MIAA½	btmkm6mrr	OK	air	sam		↓ -007
7-15-11	16:45	KM	MKM6AIAA½	btmkm6arr	OK	air	sam		↓ -003
7 15-11	17:45	KB KBC	Nonane	r	OK	-	QC		flush
715-11	17:58	KBC	HR0014	b110715s2	OK	-	Ver		m23v e
7-15-11	20:01	PMP	PFK	—	OK	-	Res		Mass Res Chk

7-15-11 PMP

* lost lock

Read and Understood by:

_____ Date: _____

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110715s1/b110715w1.d	Prep Date		SDG No	
Analysis ID	133628	Prep Exp Date		Date Received	
Analysis Date	7/15/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	08:44	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	DX1613B
Instrument	M2A	Dil Factor	1.00	Code	F8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
2,3,7,8-TCDD	31:34	190833	22907	1.021	10.00	11.223009	112.23	11.223009	E	0.214
Total TCDD		903697	106945	1.021		64.369998		64.369998	E	0.214
2,3,7,8-TCDF	29:34	283756	34535	0.986	10.00	10.978600	109.79	10.978600	E	0.115
Total TCDF		591965	79807	0.986		33.881893		33.881893	E	0.115
1,2,3,7,8-PeCDD	41:40	799399	190030		50.00			ND		0.000000
Total PeCDD		1676001	341008					ND		0.000000
1,2,3,7,8-PeCDF	39:48	1376192	274503	0.999	50.00	56.910431	113.82	56.910431	E	0.0929
2,3,4,7,8-PeCDF	41:06	1313779	296840	1.065	50.00	49.886686	99.77	49.886686	E	0.0731
Total PeCDF		2519155	444777	1.032		206.566135		206.566135	E	0.0821
1,2,3,4,7,8-HxCDD	46:01	875903	235395	1.168	50.00	48.388366	96.78	48.388366	E	0.100
1,2,3,6,7,8-HxCDD	46:08	869011	236949	0.943	50.00	59.956630	119.91	59.956630	E	0.134
1,2,3,7,8,9-HxCDD	46:32	921802	235399	1.154	50.00	51.748358	103.50	51.748358	E	0.105
Total HxCDD		993515	305823	1.089		219.238038		219.238038	E	0.112
1,2,3,4,7,8-HxCDF	44:58	1401477	418246	1.241	50.00	53.695962	107.39	53.695962	E	0.0611
1,2,3,6,7,8-HxCDF	45:07	1450590	412765	1.215	50.00	50.548767	101.10	50.548767	E	0.0564
2,3,4,6,7,8-HxCDF	45:50	1392201	392472	1.159	50.00	52.950832	105.90	52.950832	E	0.0627
1,2,3,7,8,9-HxCDF	46:46	1234393	324906	1.191	50.00	50.999119	102.00	50.999119	E	0.0755
Total HxCDF		2540050	688671	1.202		304.662433		304.662433	E	0.0632
1,2,3,4,6,7,8-HpCDD	50:53	833002	166275	1.037	50.00	52.113892	104.23	52.113892	E	0.104
Total HpCDD		880757	190617	1.037		107.215410		107.215410	E	0.104
1,2,3,4,6,7,8-HpCDF	49:12	1352900	297075	1.448	50.00	52.547572	105.10	52.547572	E	0.0707
1,2,3,4,7,8,9-HpCDF	51:31	1119969	225216	1.411	50.00	49.509815	99.02	49.509815	E	0.0876
Total HpCDF				1.429		102.057388		102.057388	E	0.0784
OCDD	55:11	1530067	394413	1.011	100.0	115.621271	115.62	115.621271	E	0.131
OCDF	55:18	1922157	497113	1.167	100.0	125.785782	125.79	125.785782	E	0.118
13C-2,3,7,8-TCDD	31:32	1666125	181141	1.048	100.0	96.407557	96.41	96.407557		0.209
13C-2,3,7,8-TCDF	29:33	2622437	318604	1.447	100.0	109.919813	109.92	109.919813		0.140
13C-1,2,3,7,8-PeCDD					100.0			ND		0.000000
13C-1,2,3,7,8-PeCDF	39:47	2419790	479214	1.230	100.0	119.308583	119.31	119.308583		0.145
13C-2,3,4,7,8-PeCDF	41:05	2472015	571282	1.174	100.0	127.681883	127.68	127.681883		0.152
13C-1,2,3,4,7,8-HxCDD	46:01	1549447	426166	0.893	100.0	102.975899	102.98	102.975899		0.106
13C-1,2,3,6,7,8-HxCDD	46:07	1536514	396681	0.988	100.0	92.318067	92.32	92.318067		0.0959
13C-1,2,3,4,7,8-HxCDF	44:57	2102502	609299	1.186	100.0	105.253233	105.25	105.253233		0.105
13C-1,2,3,6,7,8-HxCDF	45:06	2361352	674333	1.260	100.0	111.281306	111.28	111.281306		0.0985
13C-2,3,4,6,7,8-HxCDF	45:49	2268975	636395	1.209	100.0	111.434884	111.43	111.434884		0.103
13C-1,2,3,7,8,9-HxCDF	46:45	2032086	514467	1.122	100.0	107.475137	107.48	107.475137		0.111
13C-1,2,3,4,6,7,8-HpCDD	50:52	1540745	314092	0.931	100.0	98.210383	98.21	98.210383		0.0985
13C-1,2,3,4,6,7,8-HpCDF	49:11	1778447	390594	0.994	100.0	106.221822	106.22	106.221822		0.0905
13C-1,2,3,4,7,8,9-HpCDF	51:30	1603471	323629	0.839	100.0	113.444387	113.44	113.444387		0.107
13C-OCDD	55:10	2618066	661812	0.934	200.0	166.409007	83.20	166.409007		0.127
37Cl4-2,3,7,8-TCDD	31:36	187653	21353	1.100	10.00	10.341748	103.42	10.341748	E	0.0873
13C-1,2,3,4-TCDD	31:01	1649198	184804	1.000	100.0	100.000000	100.00	100.000000		0.219
13C-1,2,3,7,8,9-HxCDD	46:30	1684760	425069	1.000	100.0	100.000000	100.00	100.000000		0.0947

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110715s1/b110715w1.	Prep Date		SDG No	
Analysis ID	133628	Prep Exp Date		Date Received	
Analysis Date	07/15/11 08:44	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	KBL	Diluton Factor	1.00	Code	F8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	173	188	69	75	0.92 *	/	
	Unidentified	23:21	00:00	0	140404	179107	22689	28715	0.78	ABB/AVV	
	2,3,7,8-TCDF	29:34	29:34	0	123289	160467	15574	18961	0.77	ABV/AVV	
	Unidentified	34:32	00:00	0	114979	157475	11865	16538	0.73	ABV/AVV	
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	168	208	67	83	0.81	/	
	13C-2,3,7,8-TCDF	29:33	29:32	1	1157068	1465369	143415	175189	0.79	ABV/AVV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	173	223	69	89	0.78	/	
	Unidentified	25:46	00:00	0	80636	97309	11326	14509	0.83	AVB/ABB	
	Unidentified	31:04	00:00	0	83247	94512	9254	10798	0.88	ABV/ABV	
	Unidentified	31:18	00:00	0	75199	99151	10460	10879	0.76	AVV/AVV	
	2,3,7,8-TCDD	31:34	31:32	2	84493	106340	10719	12188	0.79	AVV/AVB	
	Unidentified	32:03	00:00	0	85739	105834	9407	12115	0.81	ABB/ABB	
	Unidentified	34:44	00:00	0	79362	102708	7938	10259	0.77	ABV/ABB	
328					327.8847		327.8847				
	Noise	00:00	00:00	0	178		71				
	37Cl4-2,3,7,8-TCDD	31:36	31:32	4	187653		21353			ABV	M
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	228	178	91	71	1.28 *	/	
	13C-1,2,3,4-TCDD	31:01	30:59	2	747160	902038	81380	103424	0.83	AVV/AVV	
	13C-2,3,7,8-TCDD	31:32	31:29	3	737118	929007	79511	101630	0.79	ABV/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	210	235	84	94	0.89 *	/	
	Unidentified	35:29	00:00	0	761194	500800	85235	58669	1.52	ABB/ABB	
	1,2,3,7,8-PeCDF	39:48	39:50	-2	841048	535144	166251	108252	1.57	ABV/AVV	
	2,3,4,7,8-PeCDF	41:06	41:09	-3	795309	518470	181341	115499	1.53	ABV/AVV	M
	Unidentified	42:27	00:00	0	767225	489936	182985	117888	1.57	ABV/AVV	
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	158	173	63	69	0.91 *	/	
	13C-1,2,3,7,8-PeCDF	39:47	39:49	-2	1496608	923182	298956	180258	1.62	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:05	41:08	-3	1511069	960946	345397	225885	1.57	ABV/ABV	
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	188	150	75	60	1.25 *	/	
	Unidentified	38:37	00:00	0	497150	320146	79766	48352	1.55	AVV/ABV	
	1,2,3,7,8-PeCDD	41:40	41:43	-3	486083	313316	115994	74036	1.55	ABV/ABV	M
	Unidentified	42:21	00:00	0	525019	333686	130603	82287	1.57	ABB/ABB	
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	188	148	75	59	1.27 *	/	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	250	213	100	85	1.18	/	
	Unidentified	43:43	00:00	0	740504	592050	212399	170906	1.25	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110715s1/b110715w1.	Prep Date		SDG No	
Analysis ID	133628	Prep Exp Date		Date Received	
Analysis Date	07/15/11 08:44	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	KBL	Diluton Factor	1.00	Code	F8
		View Small Peaks?	False	View deleted peaks?	False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	1,2,3,4,7,8-HxCDF	44:58	45:01	-3	782927	618550	234939	183307	1.27	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	45:07	45:09	-2	808205	642385	232261	180504	1.26	AVB/AVB	
	2,3,4,6,7,8-HxCDF	45:50	45:52	-2	774041	618160	220355	172117	1.25	AVV/AVV	
	1,2,3,7,8,9-HxCDF	46:46	46:48	-2	688040	546353	181487	143419	1.26	ABV/ABV	
	Unidentified	46:54	00:00	0	674120	533376	169047	136319	1.26	AVV/AVB	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	235	293	94	117	0.80 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:57	45:00	-3	730480	1372022	213444	395855	0.53	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDF	45:06	45:08	-2	810283	1551069	233961	440372	0.52	AVV/AVV	
	13C-2,3,4,6,7,8-HxCDF	45:49	45:51	-2	791366	1477609	220205	416190	0.54	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDF	46:45	46:47	-2	711593	1320493	179716	334751	0.54	ABV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	280	220	112	88	1.27	/	
	Unidentified	44:26	00:00	0	555917	437598	173192	132631	1.27	ABV/ABV	
	1,2,3,4,7,8-HxCDD	46:01	46:03	-2	487582	388321	131319	104076	1.26	ABV/ABV	
	1,2,3,6,7,8-HxCDD	46:08	46:10	-2	485376	383635	132016	104933	1.27	AVV/AVV	
	1,2,3,7,8,9-HxCDD	46:32	46:32	0	516108	405694	130312	105087	1.27	AVV/AVV	
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	205	198	82	79	1.04 *	/	
	13C-1,2,3,4,7,8-HxCDD	46:01	46:02	-1	861715	687732	241703	184463	1.25	ABV/ABV	
	13C-1,2,3,6,7,8-HxCDD	46:07	46:09	-2	864544	671970	220060	176621	1.29	AVV/AVV	
	13C-1,2,3,7,8,9-HxCDD	46:30	46:32	-2	942954	741806	240816	184253	1.27	AVV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	185	215	74	86	0.86 *	/	
	1,2,3,4,6,7,8-HpCDF	49:12	49:09	3	688590	664310	150903	146172	1.04	ABV/ABV	M
	1,2,3,4,7,8,9-HpCDF	51:31	51:28	3	570752	549217	116698	108518	1.04	ABV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	185	198	74	79	0.94 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:11	49:08	3	557802	1220645	123811	266783	0.46	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:30	51:27	3	507729	1095742	102048	221581	0.46	ABV/ABV	
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	180	158	72	63	1.14	/	
	Unidentified	49:41	00:00	0	455896	424861	99550	91067	1.07	ABV/ABV	
	1,2,3,4,6,7,8-HpCDD	50:53	50:49	4	428057	404945	85005	81270	1.06	ABV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	215	175	86	70	1.23 *	/	
	Unidentified	49:40	00:00	0	8608	7677	1550	1710	1.12	ABV/ABB	
	13C-1,2,3,4,6,7,8-HpCDD	50:52	50:48	4	789454	751291	160373	153719	1.05	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	270	188	108	75	1.44 *	/	
	OCDF	55:18	55:17	1	911836	1010321	233501	263612	0.90	ABV/ABV	
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 1613B

Workorder	HR0034B	Prep Batch		Lot No	
Data File	/20110715s1/b110715w1.	Prep Date		SDG No	
Analysis ID	133628	Prep Exp Date		Date Received	
Analysis Date	07/15/11 08:44	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	DX1613B
Analyst	KBL	Diluton Factor	1.00	Code	F8
		View Small Peaks?	False	View deleted peaks?	False

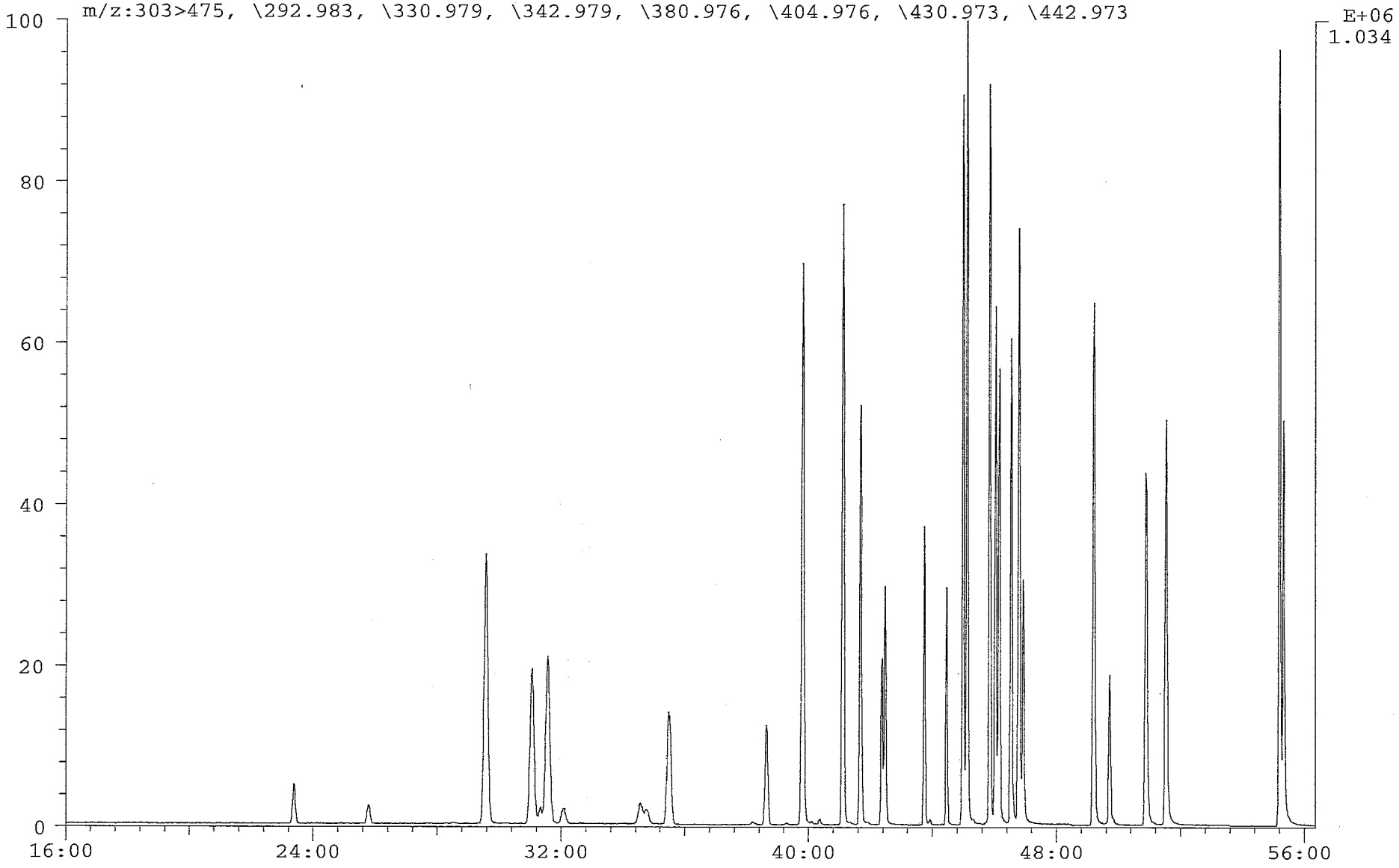
Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02	
	Noise	00:00	00:00	0	215	223	86	89	0.97	/
	OCDD	55:11	55:09	2	722249	807818	188910	205503	0.89	ABV/ABV
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02	
	Noise	00:00	00:00	0	215	288	86	115	0.75 *	/
	13C-OCDD	55:10	55:08	2	1249408	1368658	310398	351414	0.91	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

int/calc KM 7-15-11

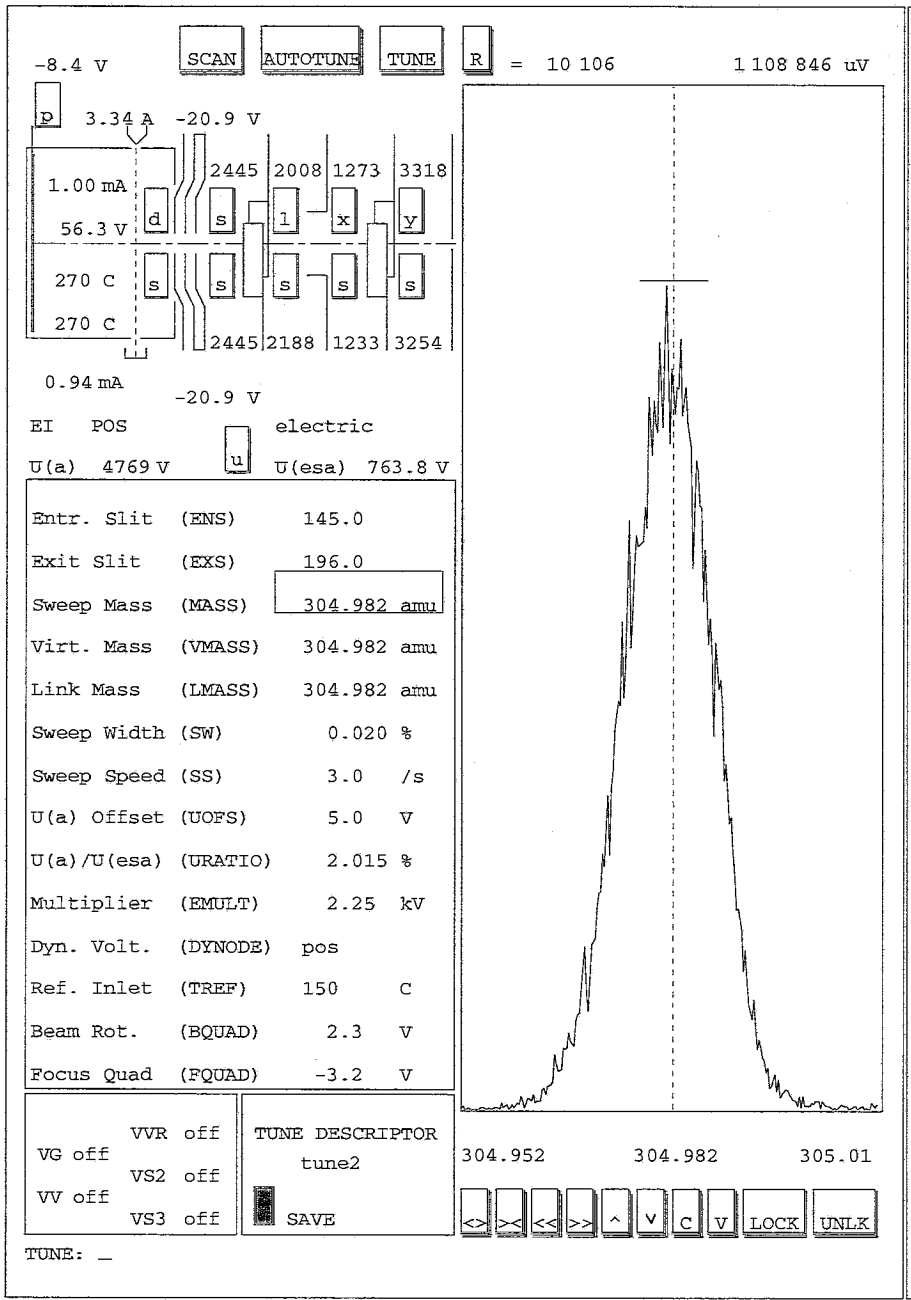
QC PMP 7-15-11

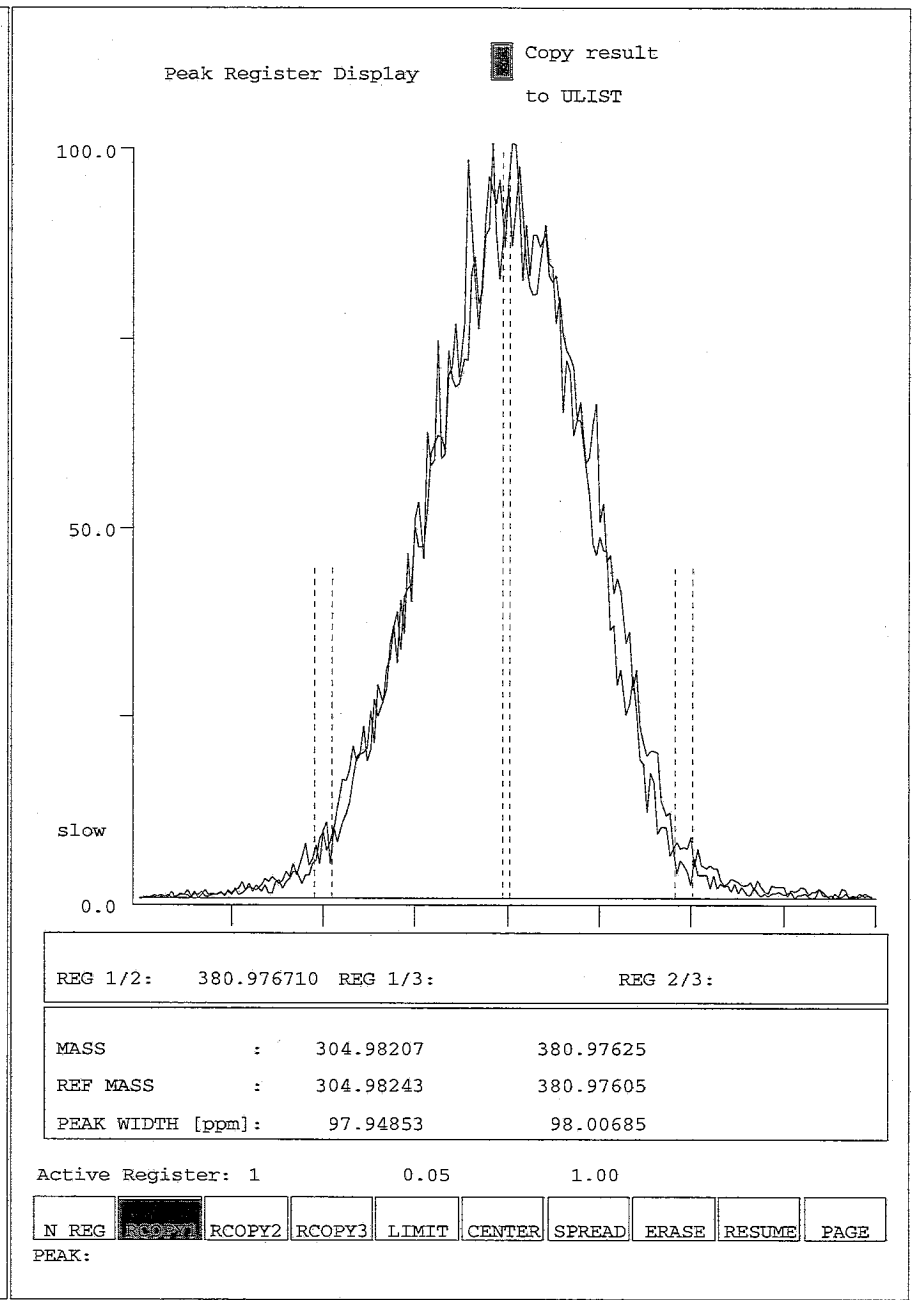
CHRO: b110715w1 15-Jul-11 Elapse: 08:00.4 1
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 442 > 2689 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-779

778

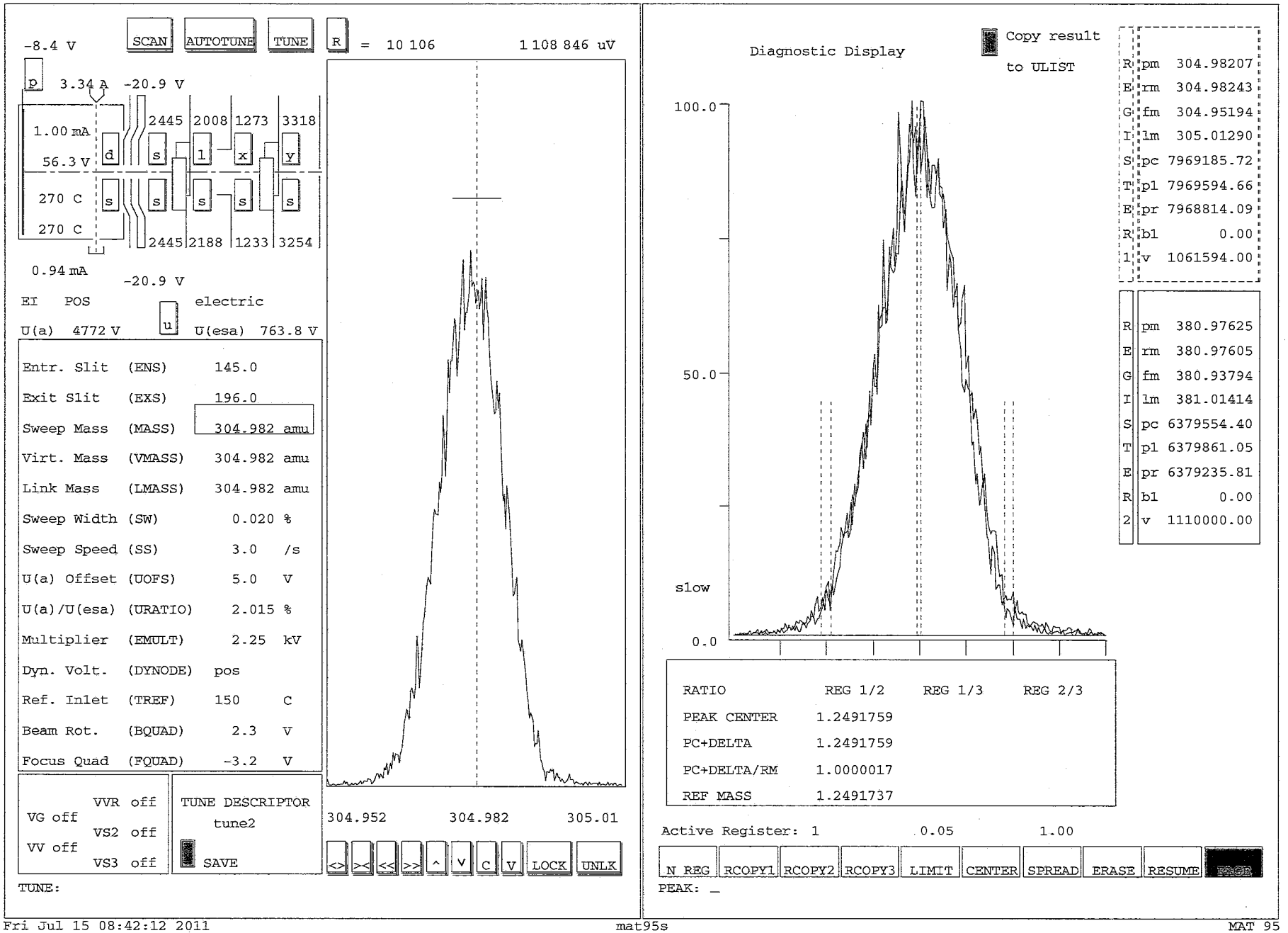




Fri Jul 15 08:42:04 2011 mat95s MAT 95

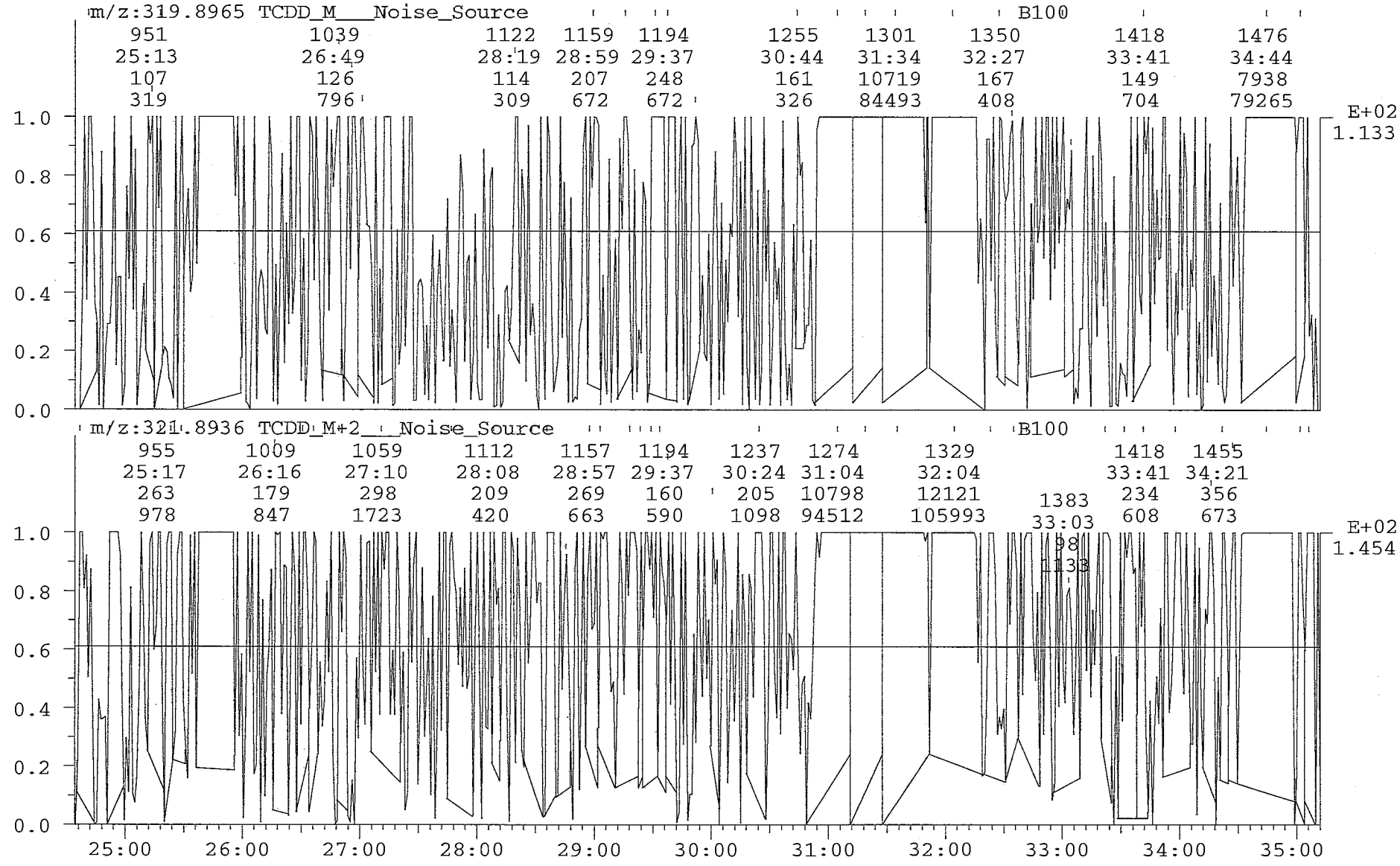
H-780

779


-8.4 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
1 108 846 uV
P
3.34 A
-20.9 V
1.00 mA
56.3 V
2445 2008 1273 3318
d s l x y
270 C
270 C
s s s s s
2445 2188 1233 3254
0.94 mA
-20.9 V
EI POS
electric
U(a) 4772 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 145.0
Exit Slit (EXS) 196.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.015 %
Multiplier (EMULT) 2.25 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.3 V
Focus Quad (FQUAD) -3.2 V
VG off
VV off
VVR off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
304.952
304.982
305.01
<> >< << >> ^ v C V LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
0.0
slow
R pm 304.98207
E rm 304.98243
G fm 304.95194
I lm 305.01290
S pc 7969185.72
T pl 7969594.66
E pr 7968814.09
R bl 0.00
1 v 1061594.00
R pm 380.97625
E rm 380.97605
G fm 380.93794
I lm 381.01414
S pc 6379554.40
T pl 6379861.05
E pr 6379235.81
R bl 0.00
2 v 1110000.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.2491759
PC+DELTA 1.2491759
PC+DELTA/RM 1.0000017
REF MASS 1.2491737
Active Register: 1 0.05 1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
Fri Jul 15 08:42:12 2011
mat95s
MAT 95

H-781

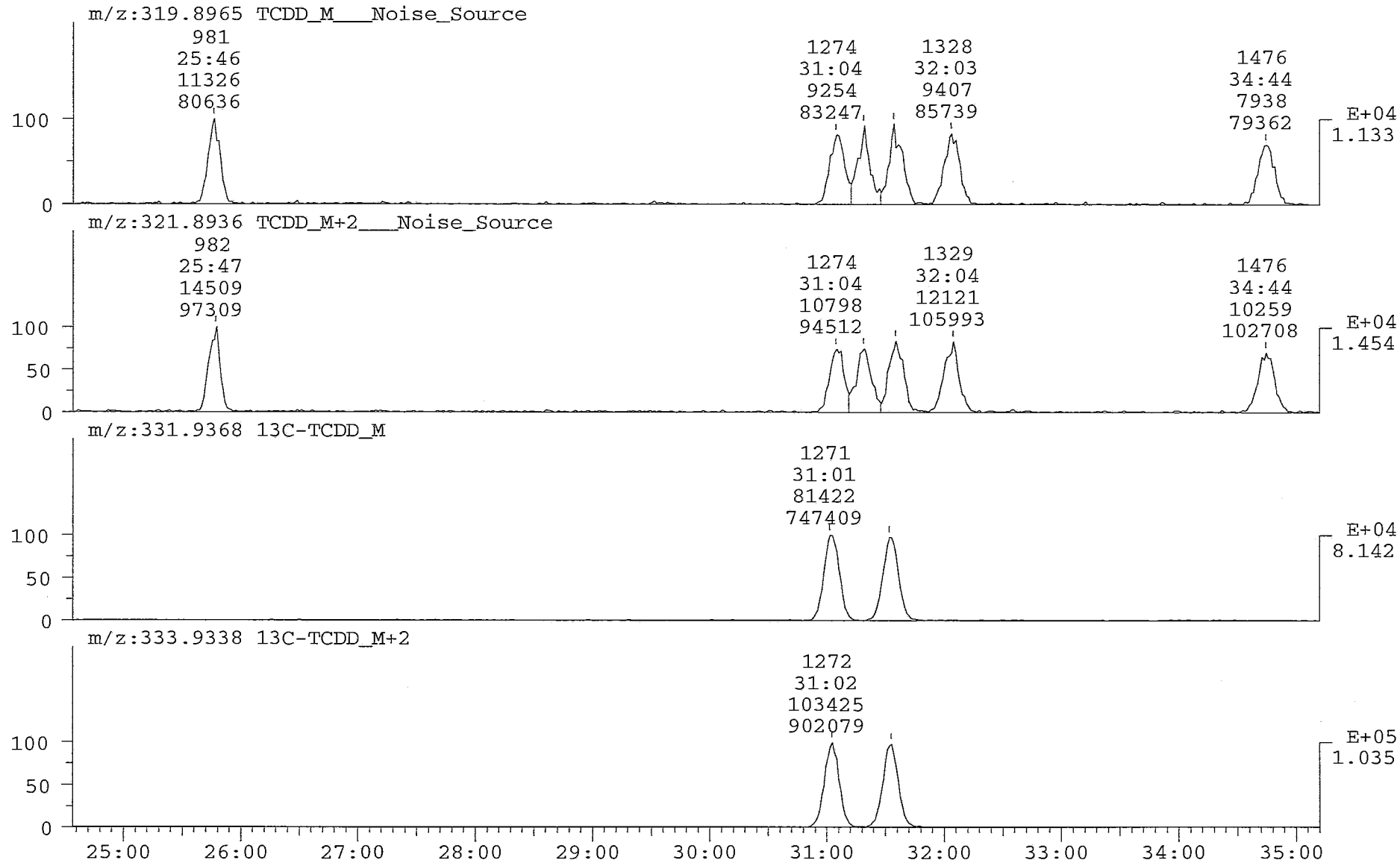
CHRO: b110715w1 15-Jul-11 Elapse: 08:00.4 1
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 915 > 1501 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-782

781

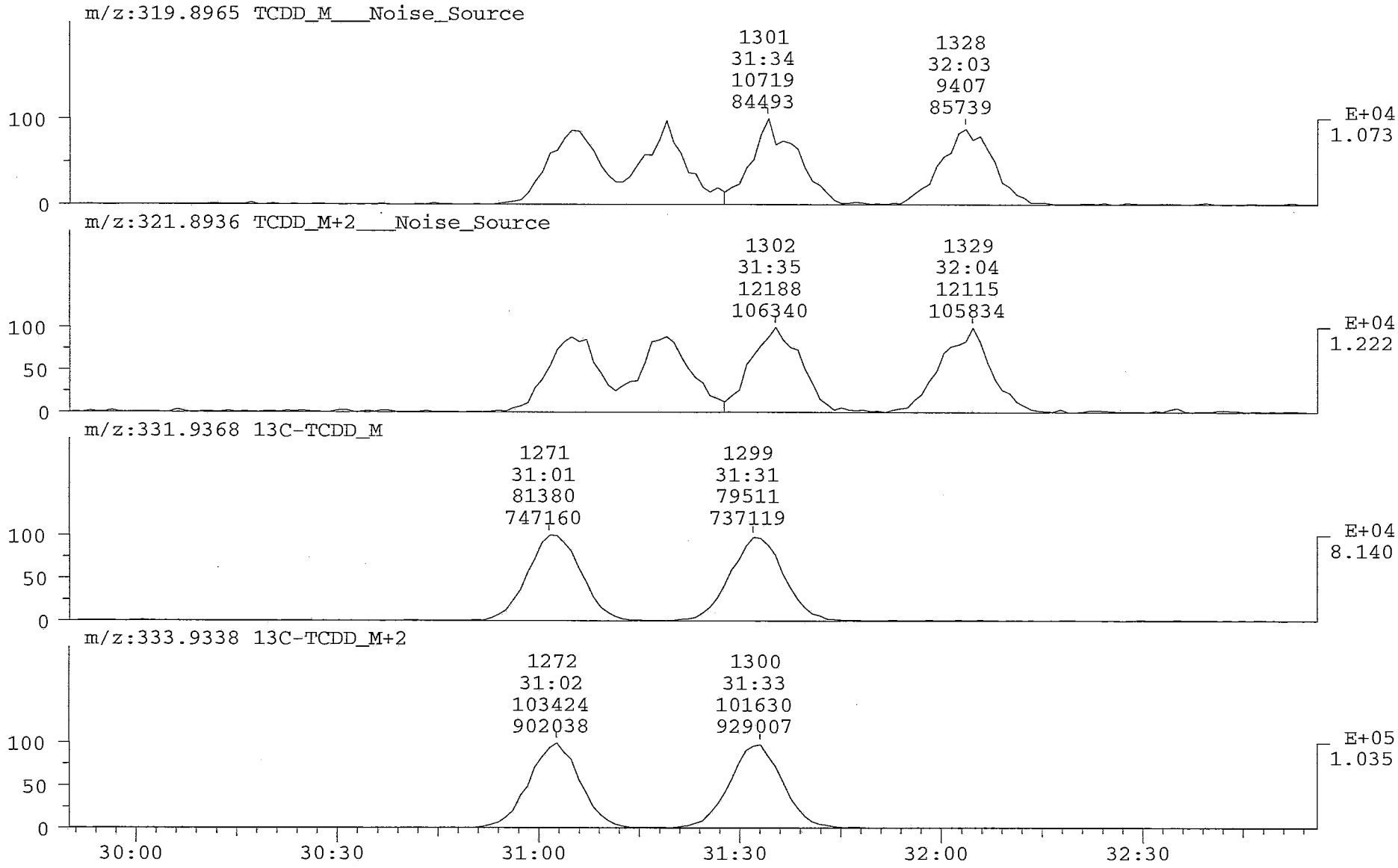
CHRO: b110715w1 15-Jul-11 Elapse: 08:00.4 1
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 915 > 1501 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



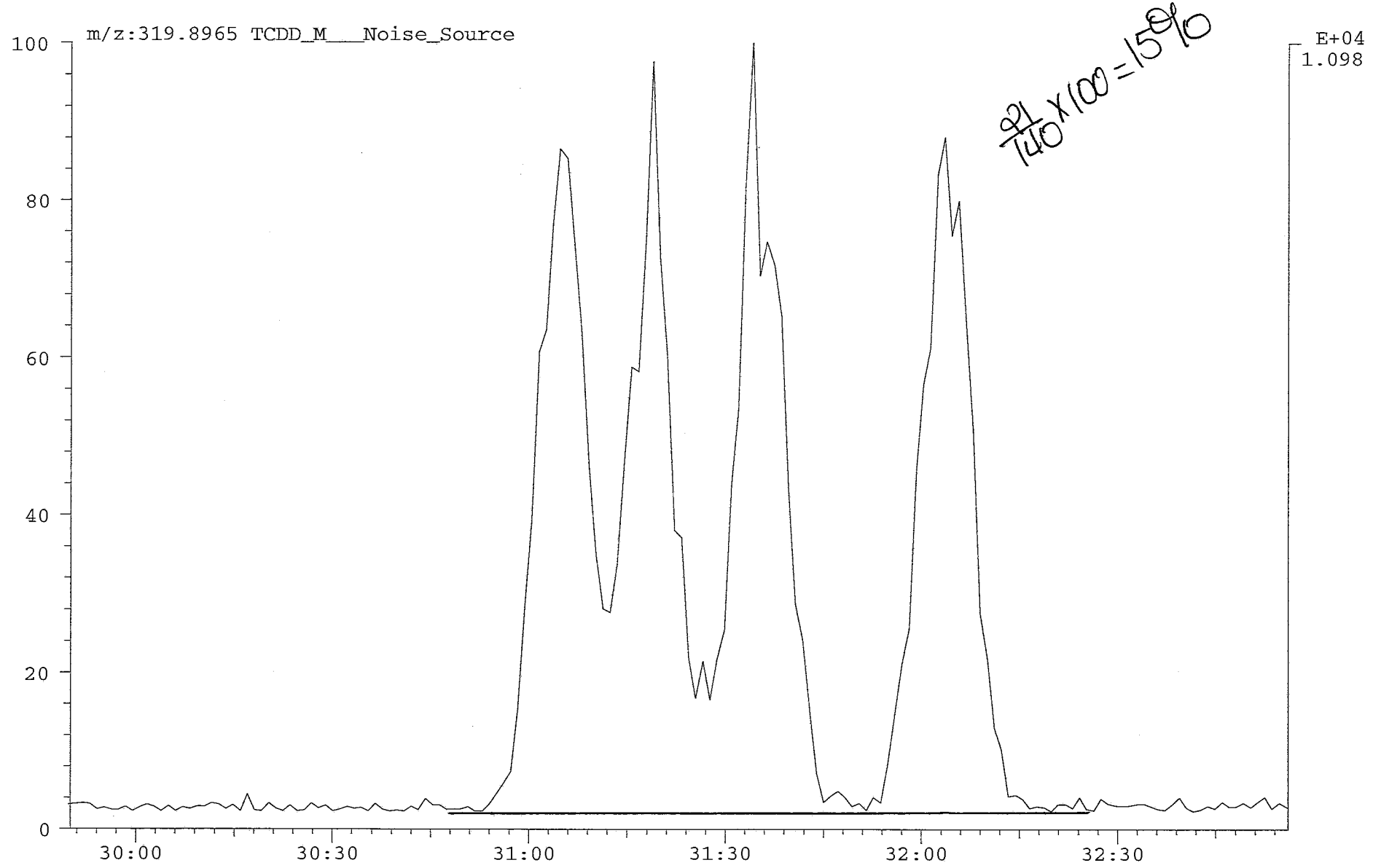
H-783

782

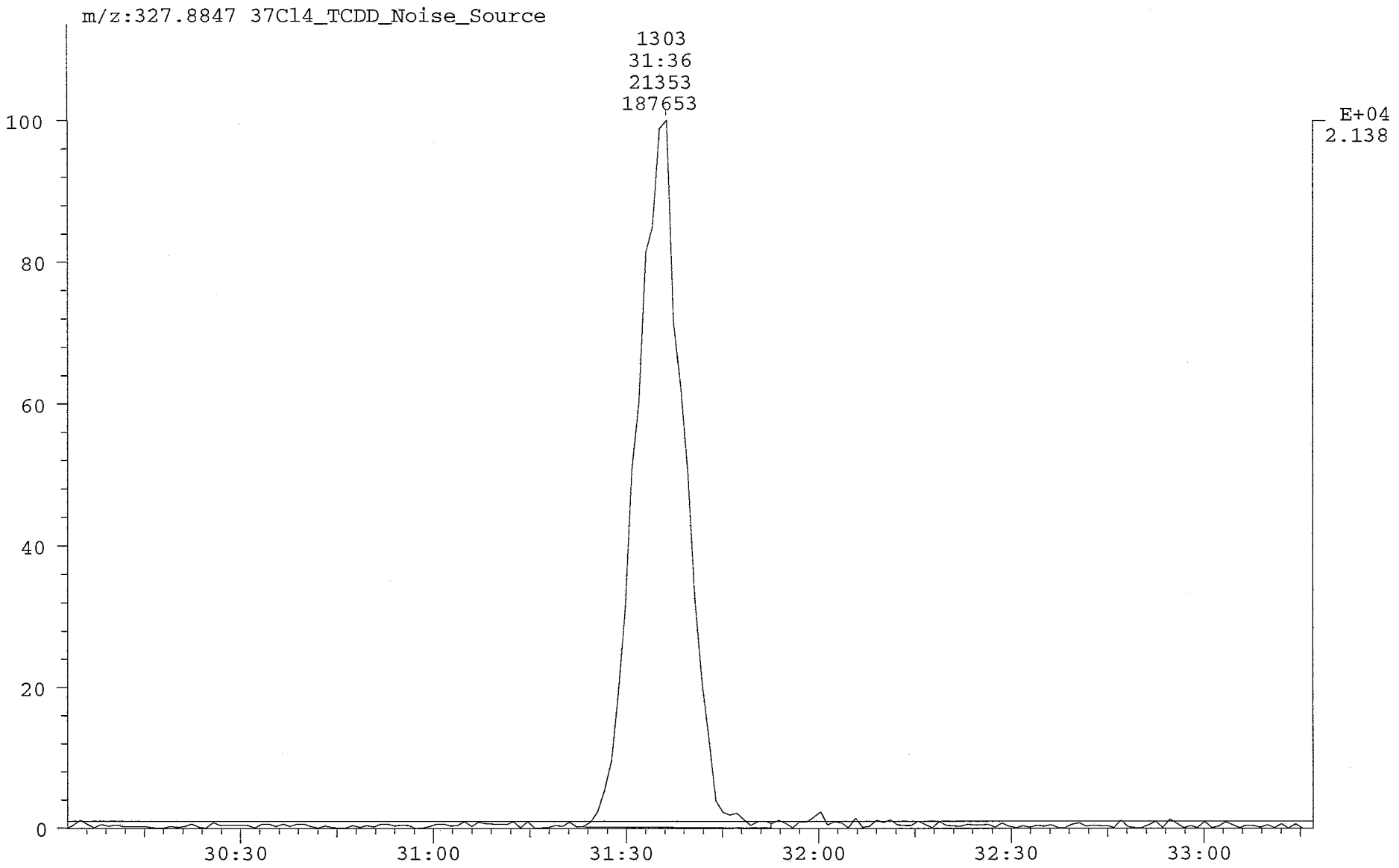
CHRO: b110715w1 15-Jul-11 Elapse: 31:23 1291
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1205 > 1376 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



CHRO: b110715w1 15-Jul-11 Elapse: 31:23 1291
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1205 > 1376 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



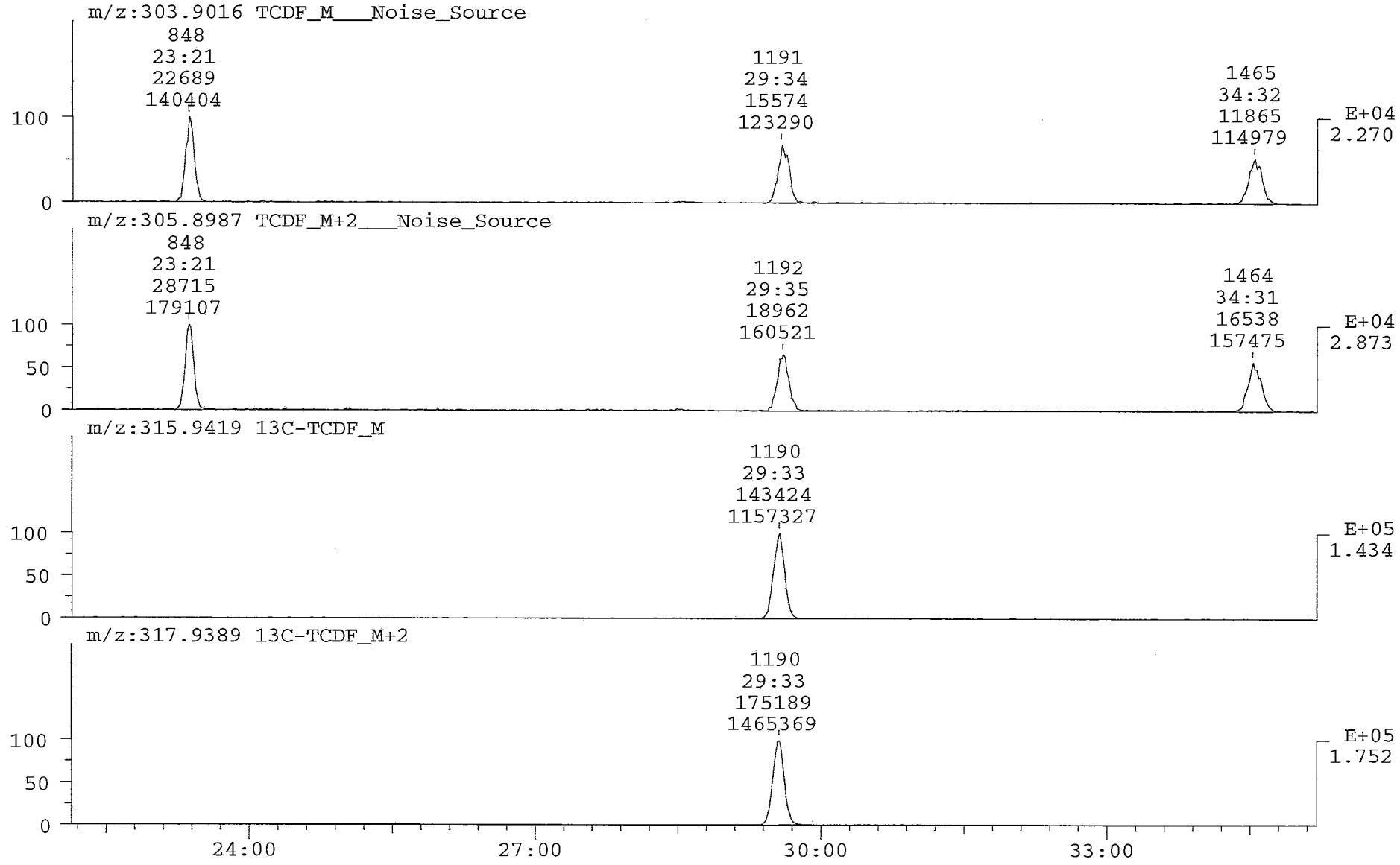
CHRO: b110715w1 15-Jul-11 Elapse: 31:37 1304
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1217 > 1396 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-786

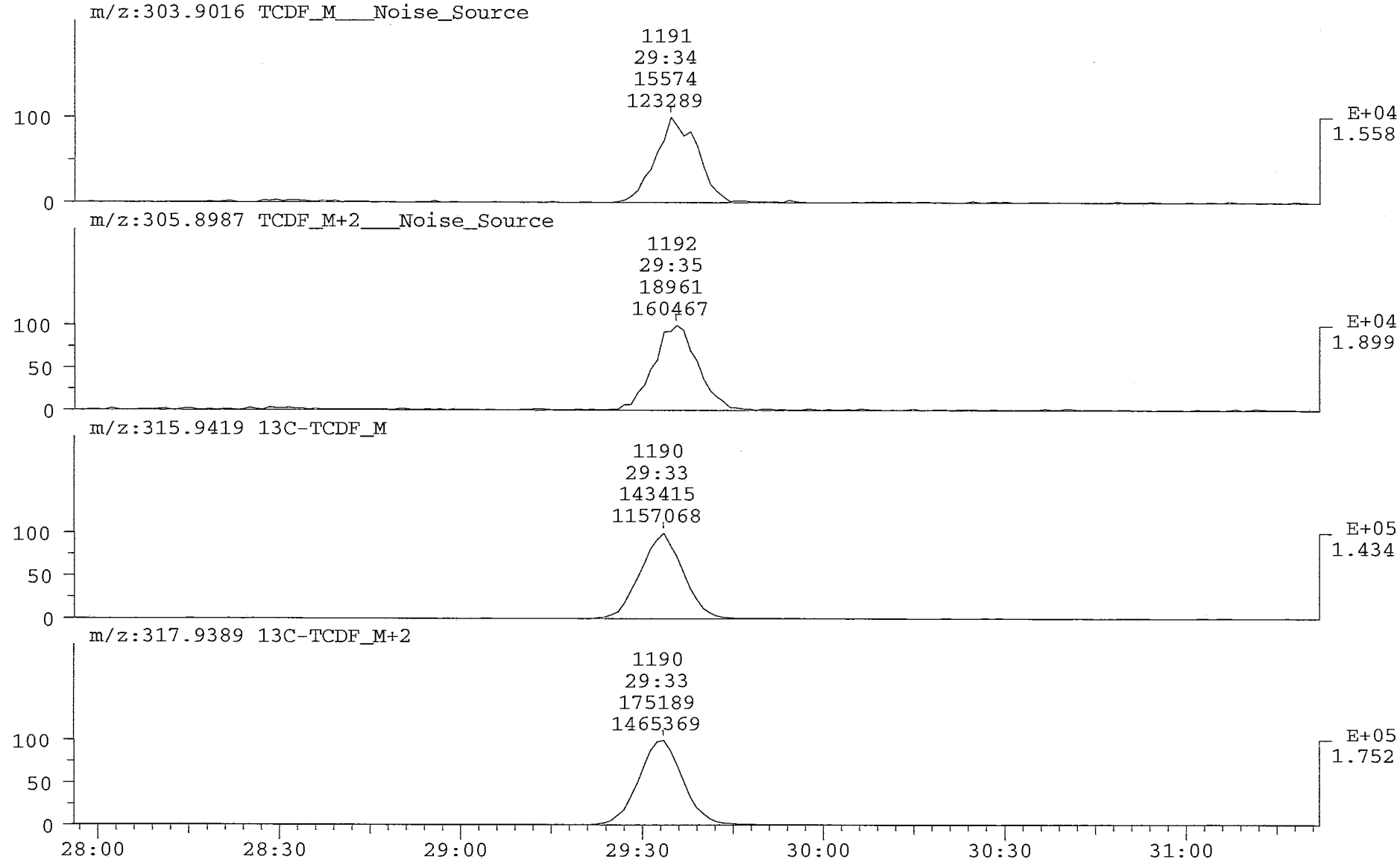
785

CHRO: b110715w1 15-Jul-11 Elapse: 31:37 1304
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 780 > 1501 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-787

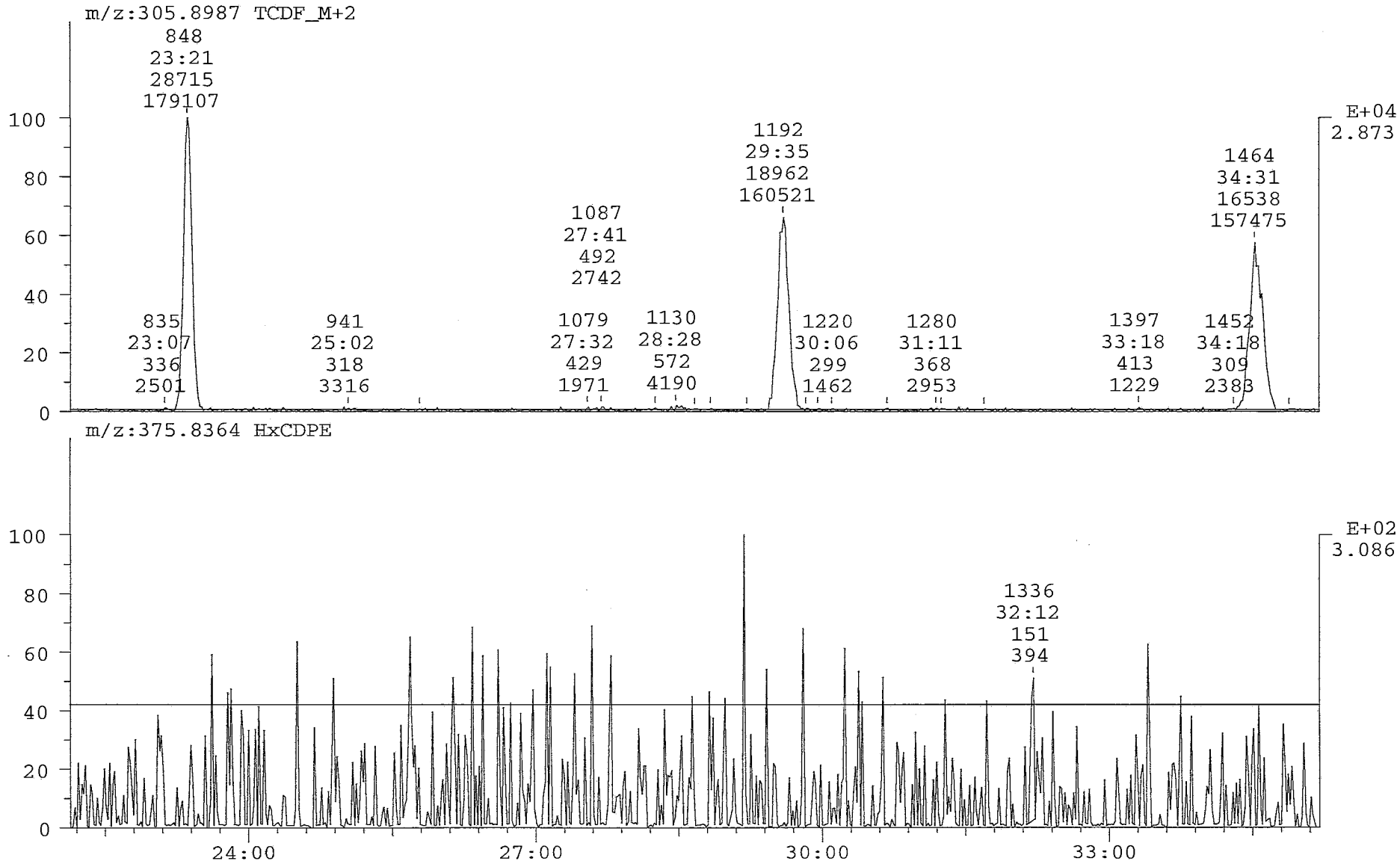
CHRO: b110715w1 15-Jul-11 Elapse: 29:35 1192
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1100 > 1290 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-788

787

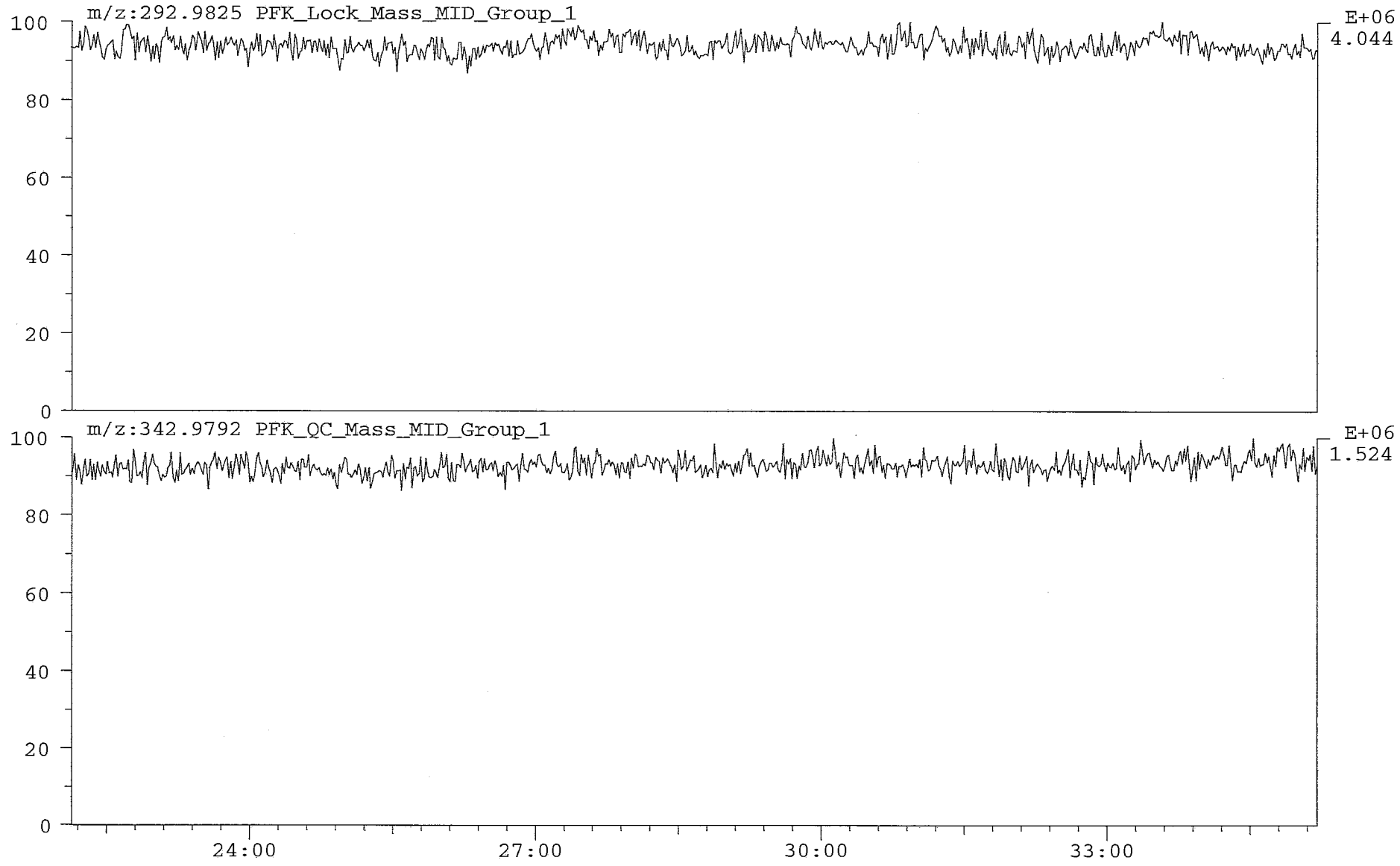
CHRO: b110715w1 15-Jul-11 Elapse: 29:35 1192
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 780 > 1501 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-789

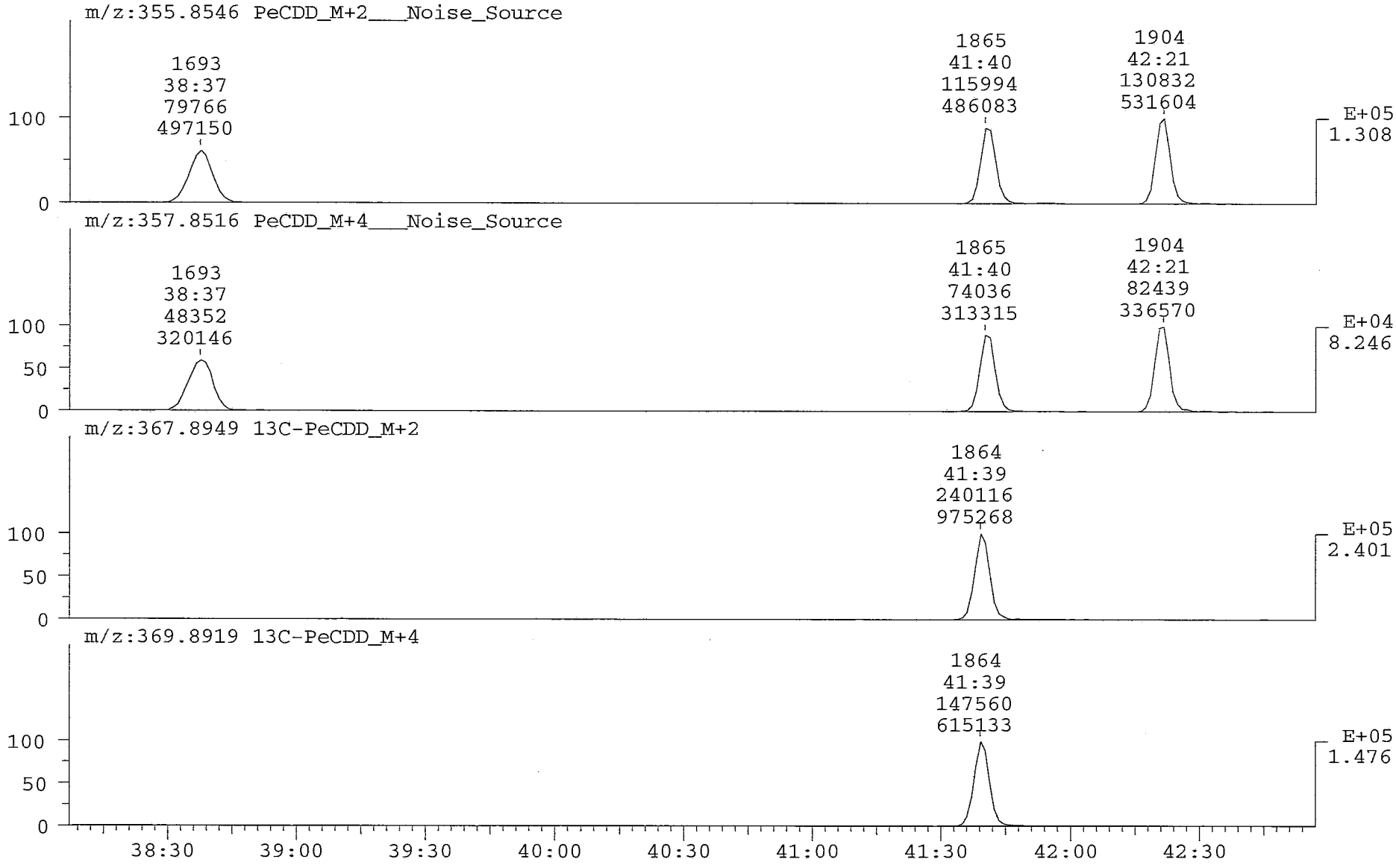
788

CHRO: b110715w1 15-Jul-11 Elapse: 29:35 1192
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 780 > 1501 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-790

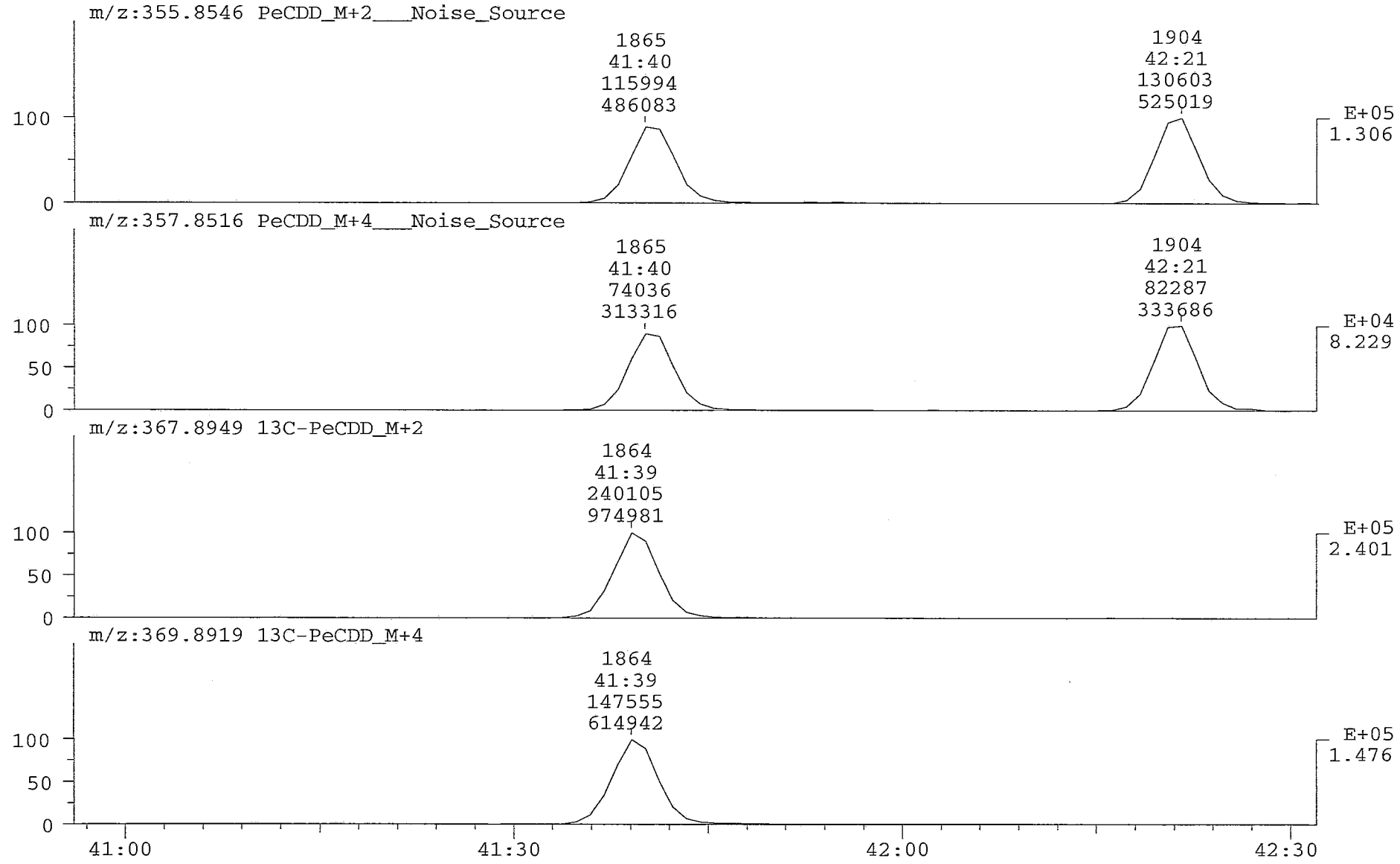
CHRO: b110715w1 15-Jul-11 Elapse: 29:35 1192
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1664 > 1937 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



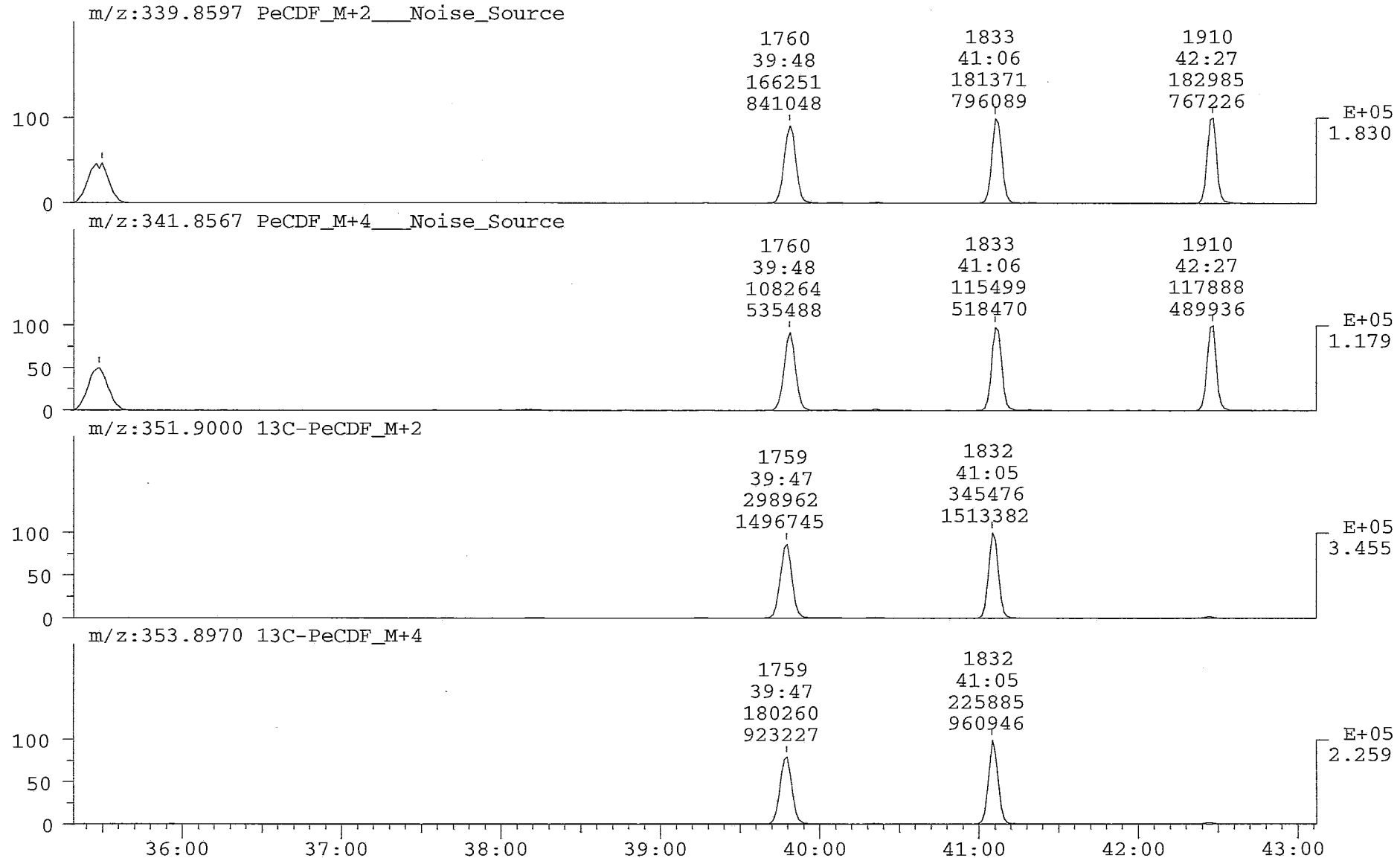
H-791

790

CHRO: b110715w1 15-Jul-11 Elapse: 41:41 1866
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1823 > 1914 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area

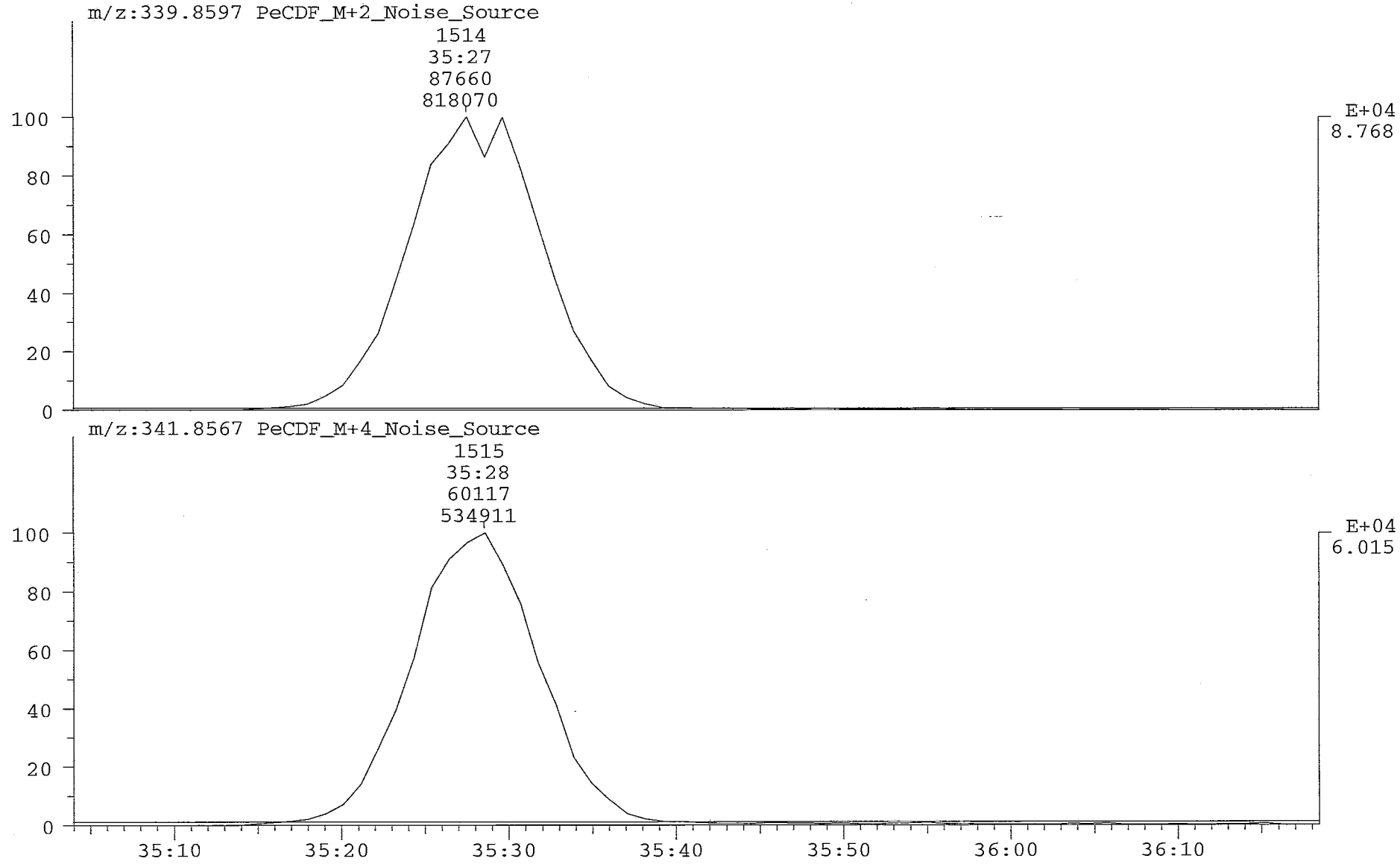


CHRO: b110715w1 15-Jul-11 Elapse: 41:41 1866
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-793

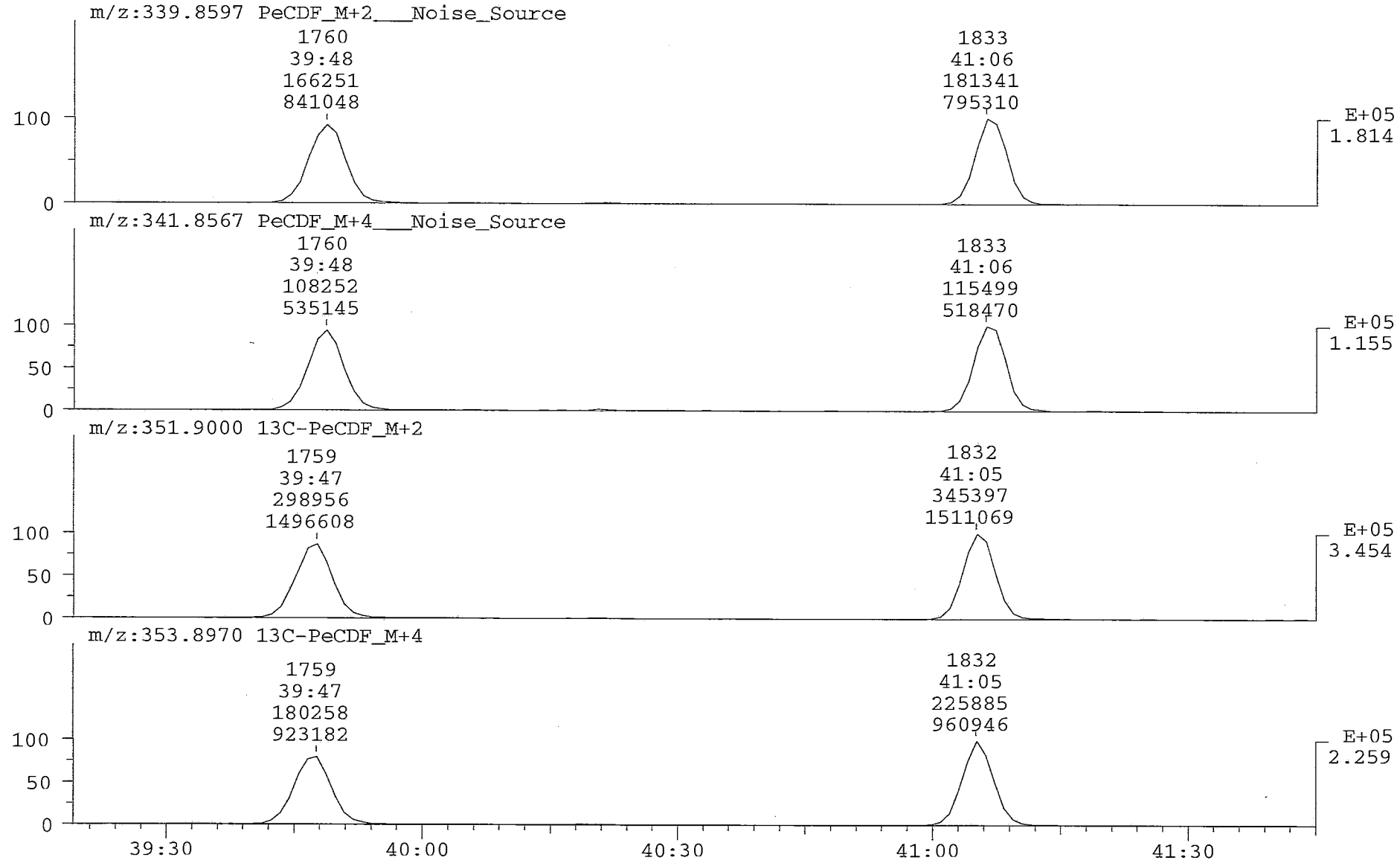
CHRO: b110715w1 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1494 > 1562 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-794

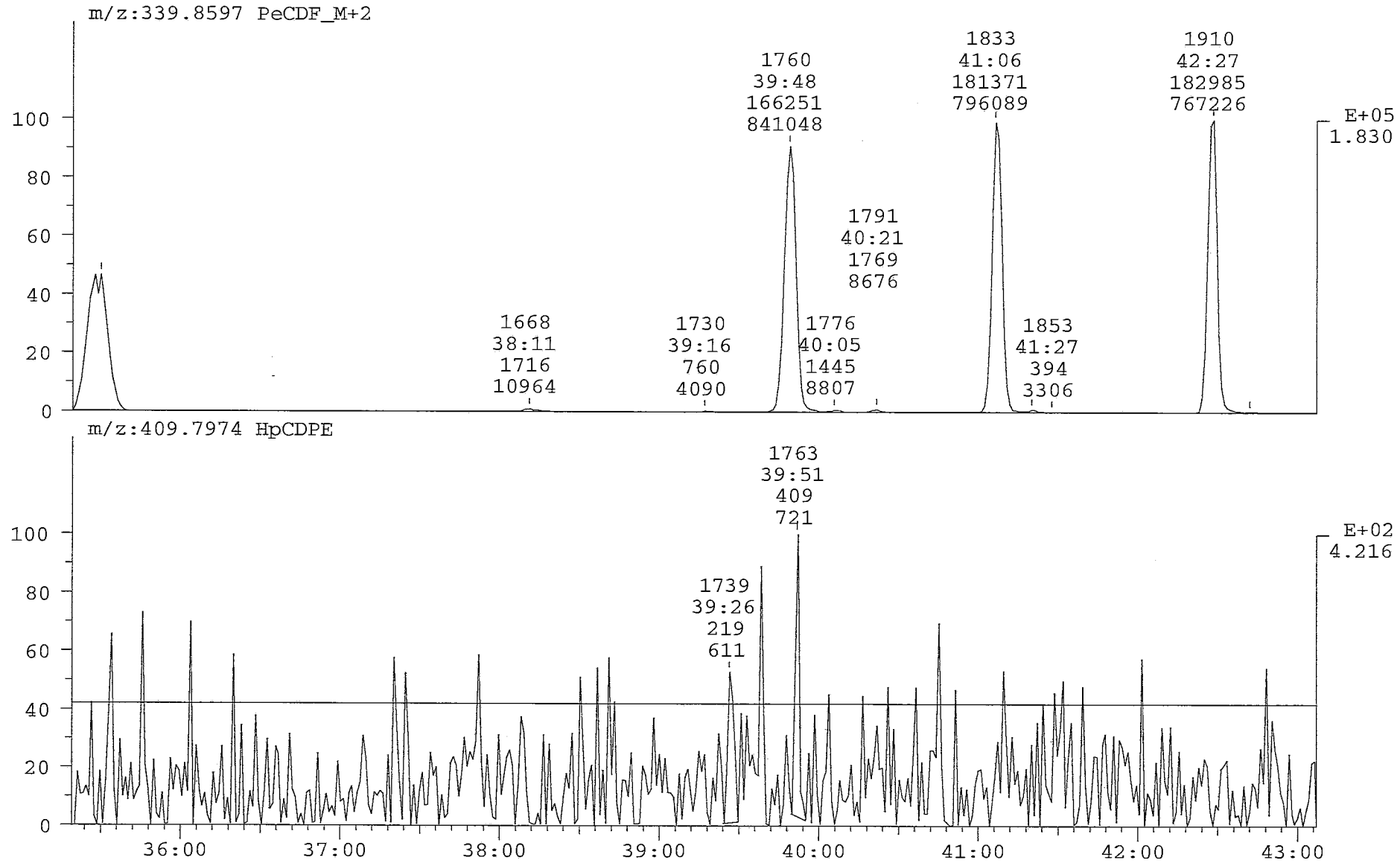
793

CHRO: b110715w1 15-Jul-11 Elapse: 40:32 1801
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1732 > 1870 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



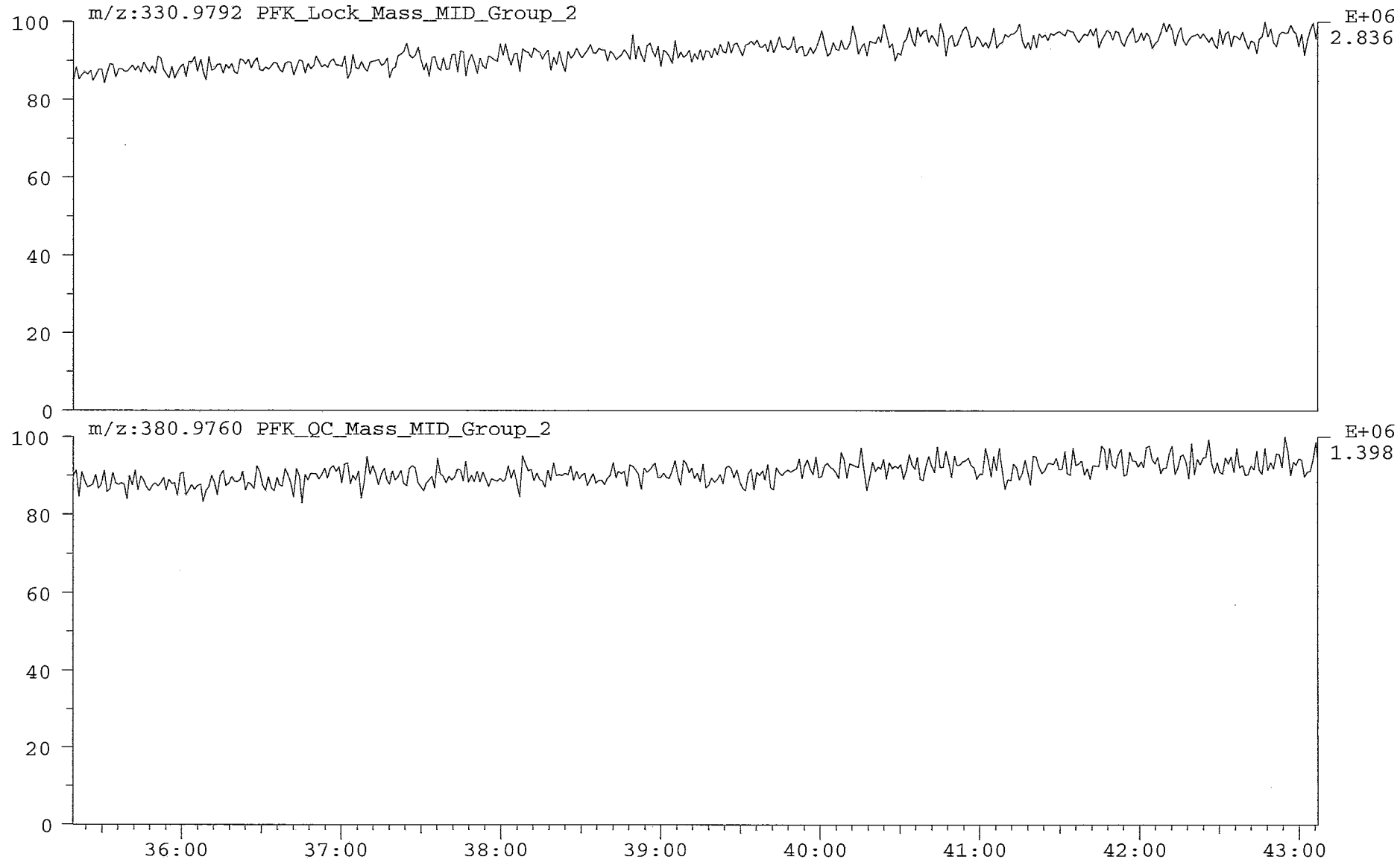
H-795

CHRO: b110715w1 15-Jul-11 Elapse: 40:32 1801
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-796

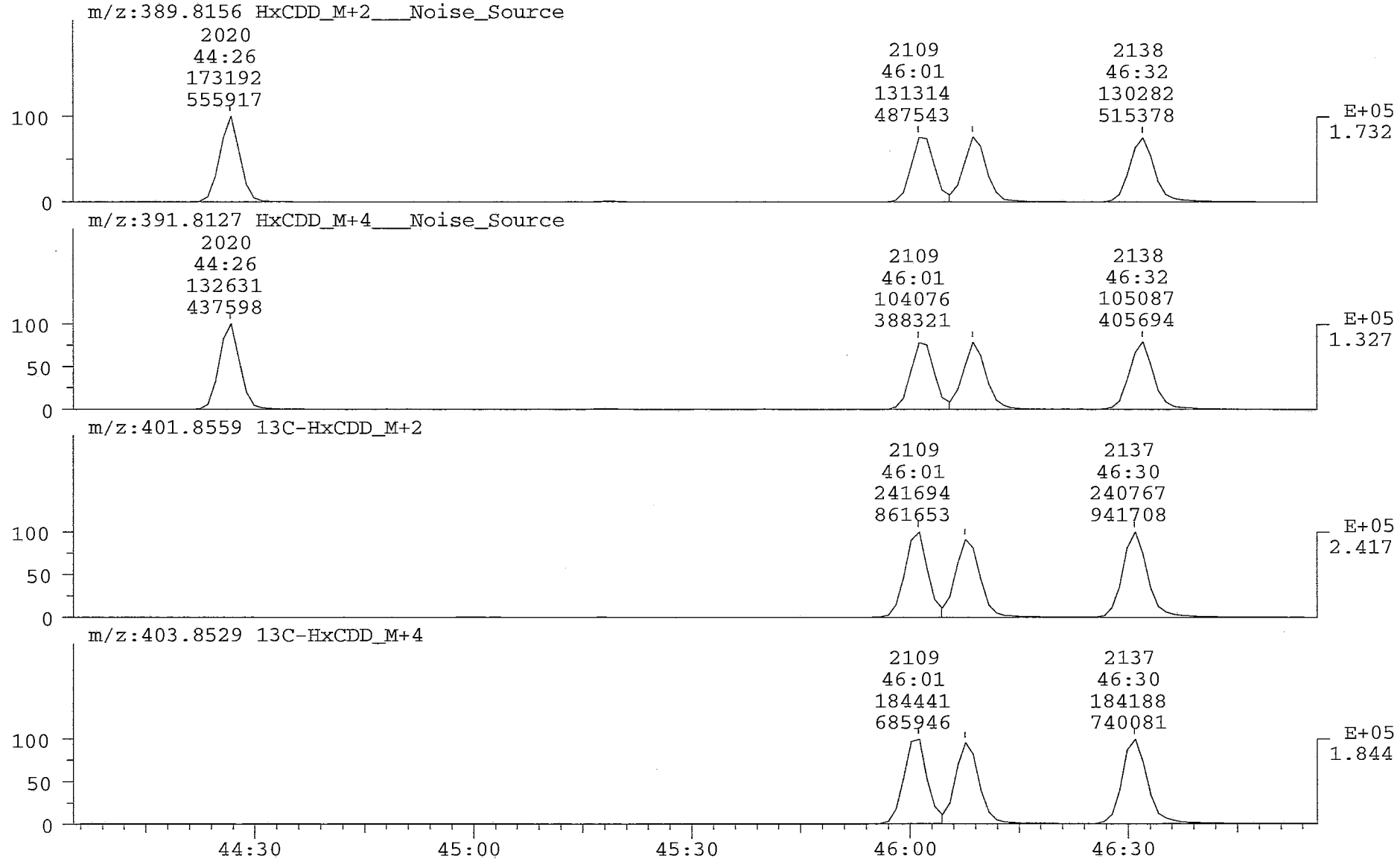
CHRO: b110715w1 15-Jul-11 Elapse: 40:32 1801
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-797

796

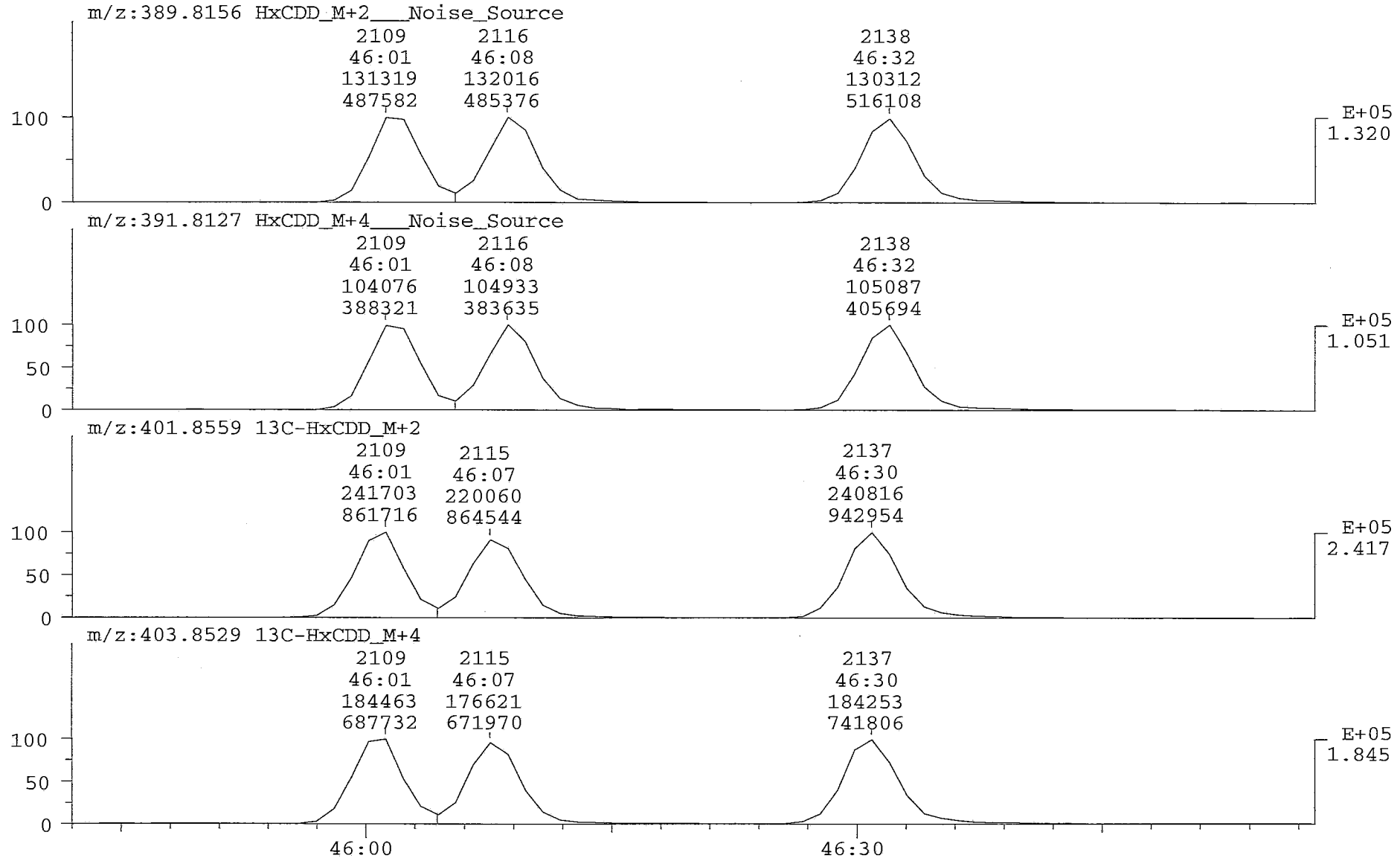
CHRO: b110715w1 15-Jul-11 Elapse: 40:32 1801
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2000 > 2161 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-798

797

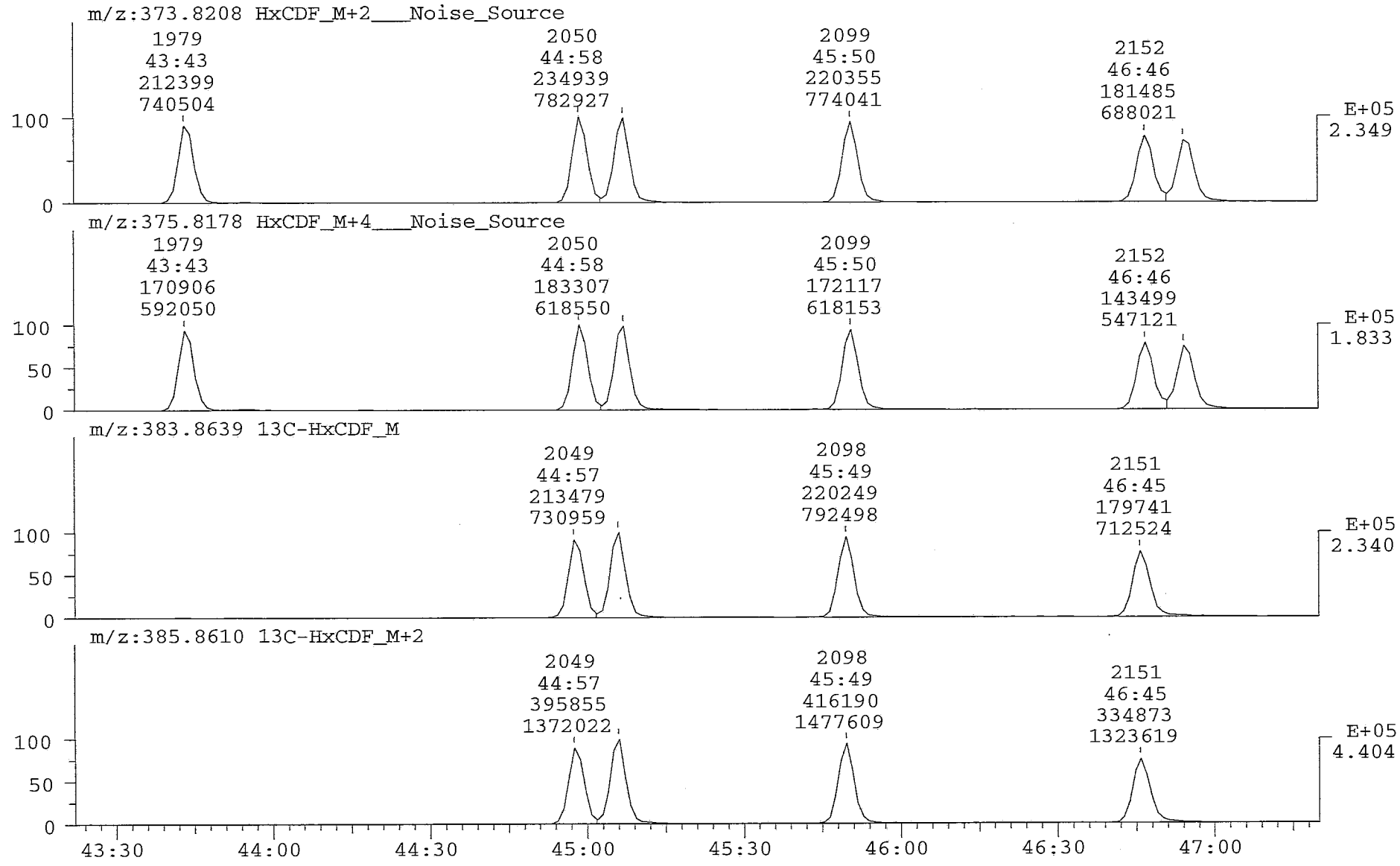
CHRO: b110715w1 15-Jul-11 Elapse: 46:20 2127
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2091 > 2163 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-799

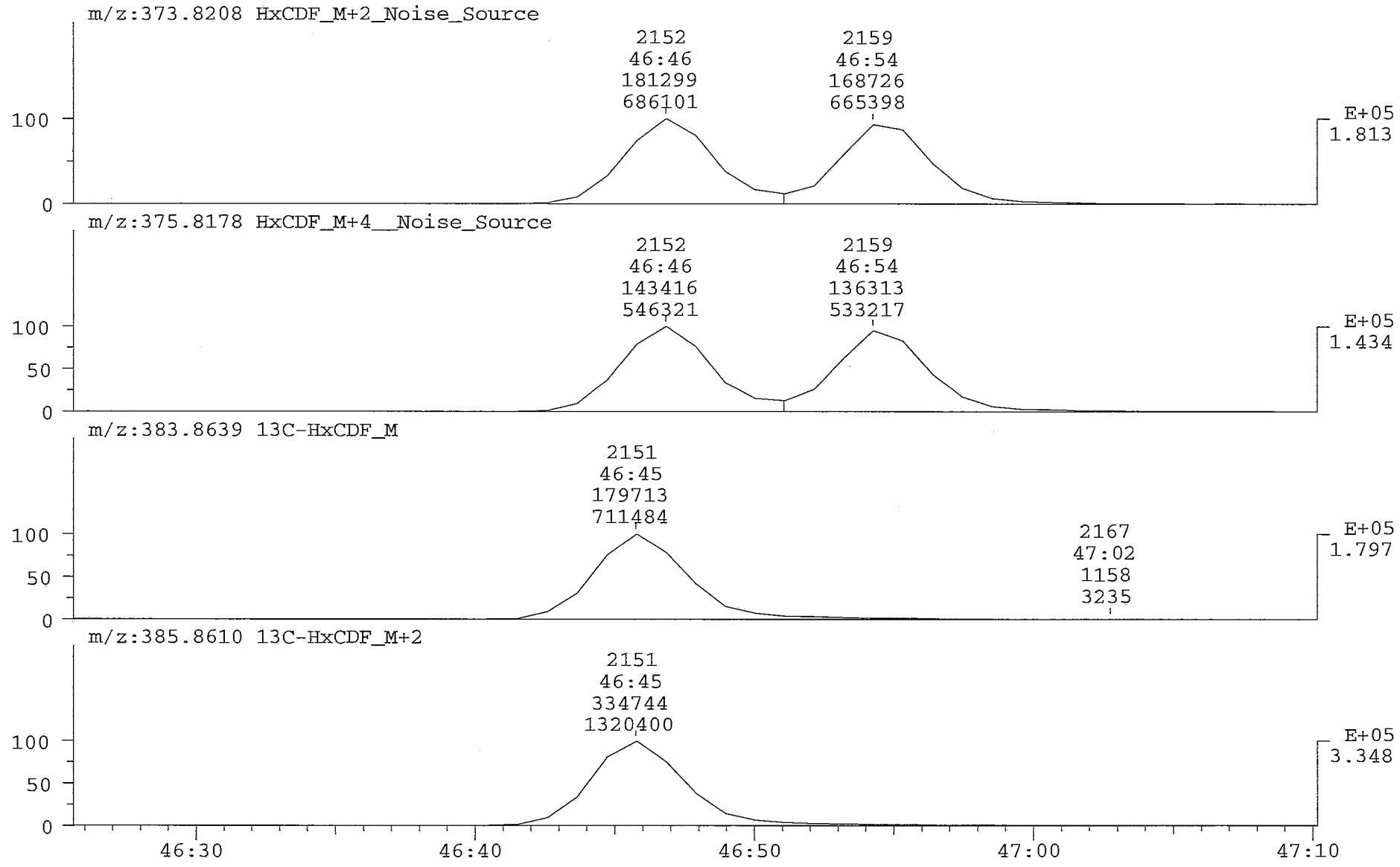
798

CHRO: b110715w1 15-Jul-11 Elapse: 46:20 2127
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1959 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



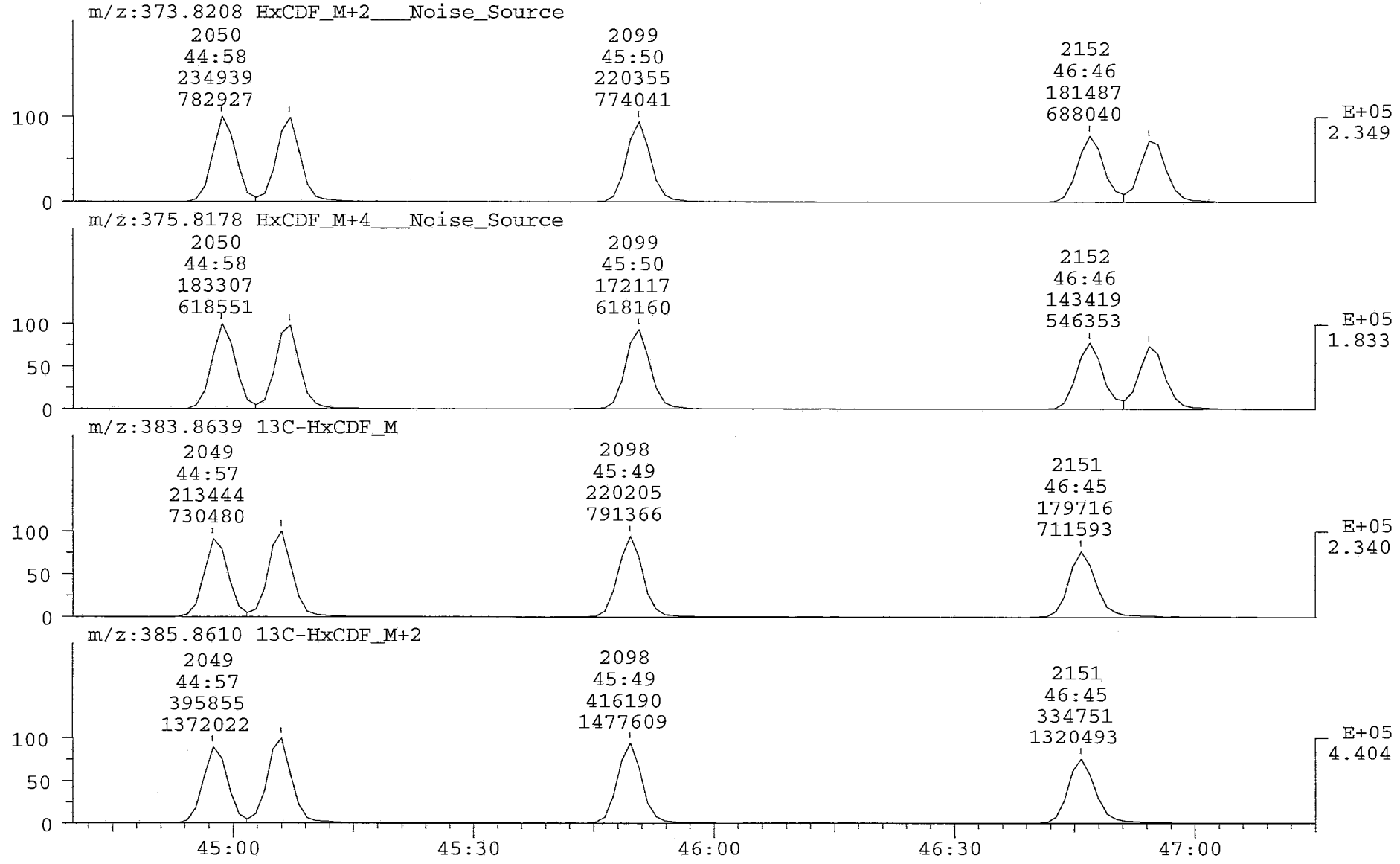
H-800

CHRO: b110715w1 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2132 > 2174 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-801

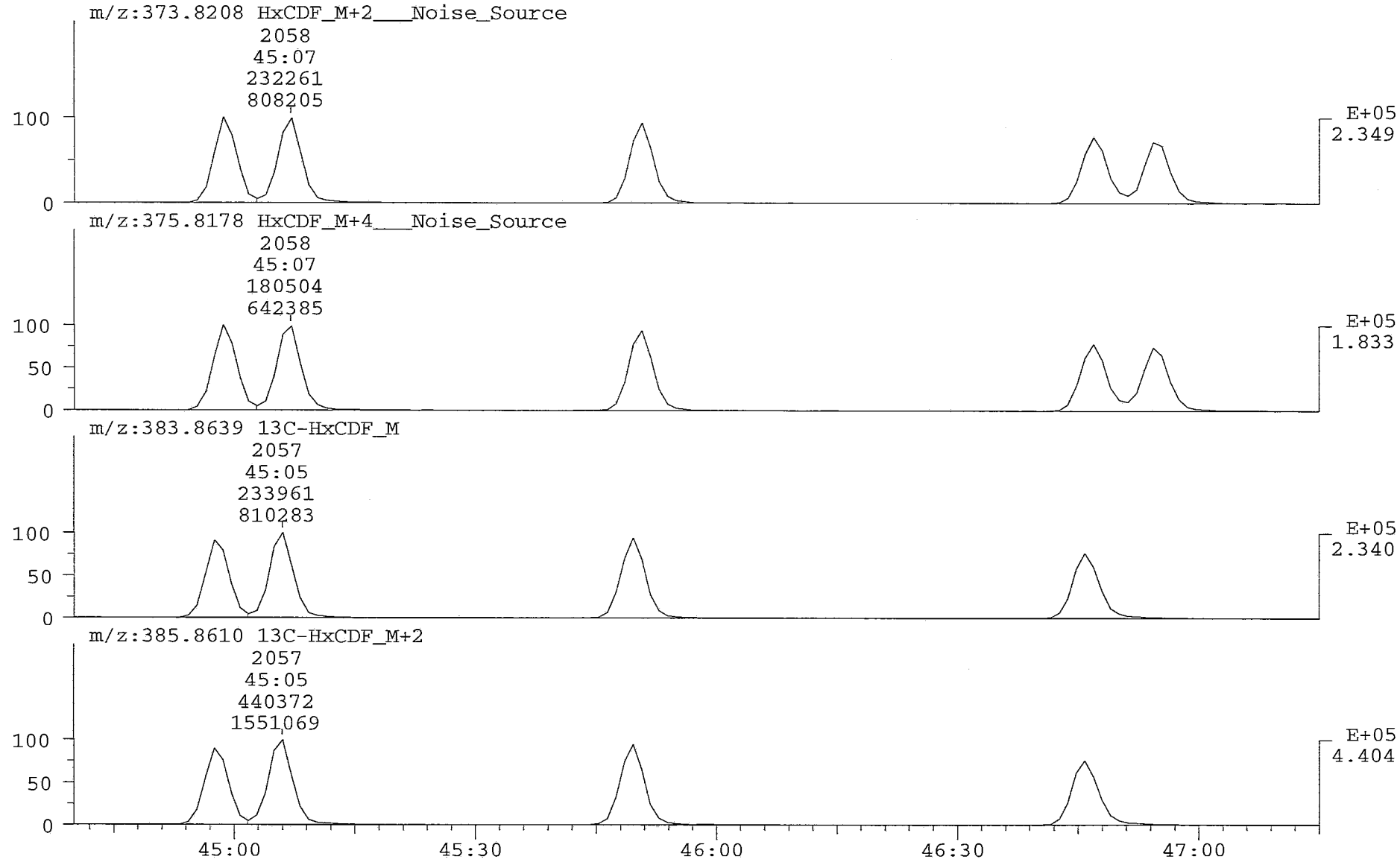
CHRO: b110715w1 15-Jul-11 Elapse: 45:56 2105
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2033 > 2179 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-802

801

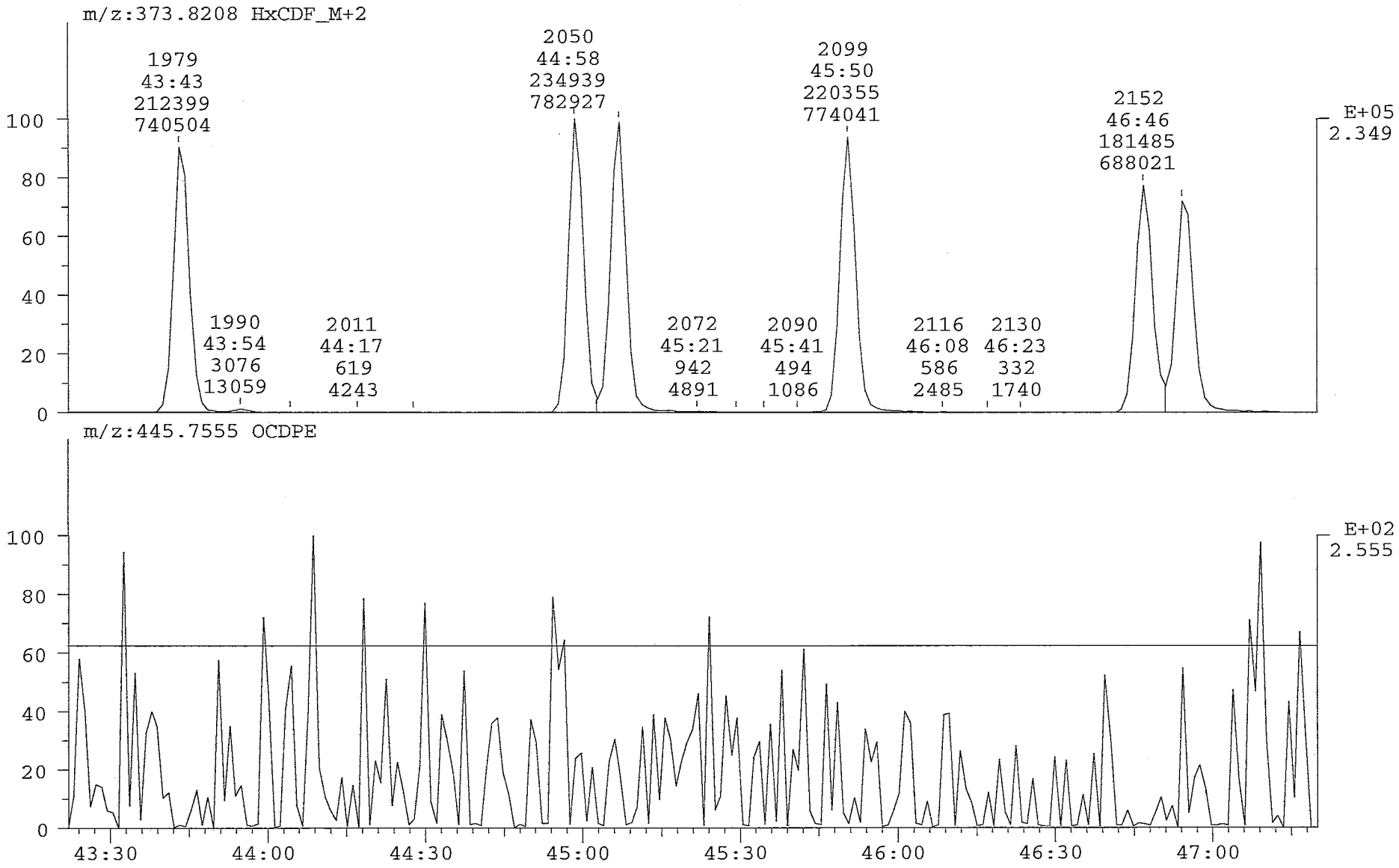
CHRO: b110715w1 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2055 > 2063 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-803

802

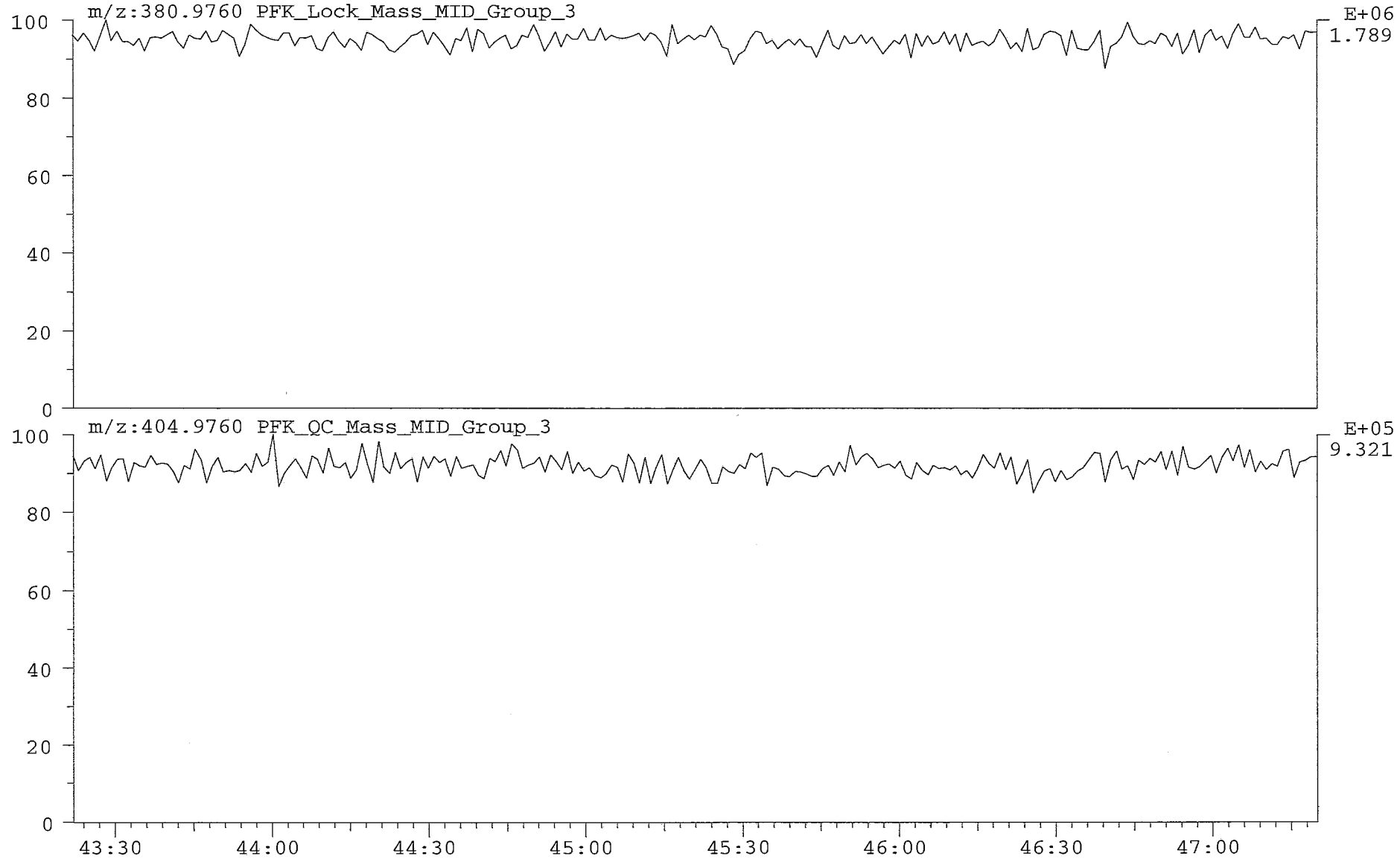
CHRO: b110715w1 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1959 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-804

803

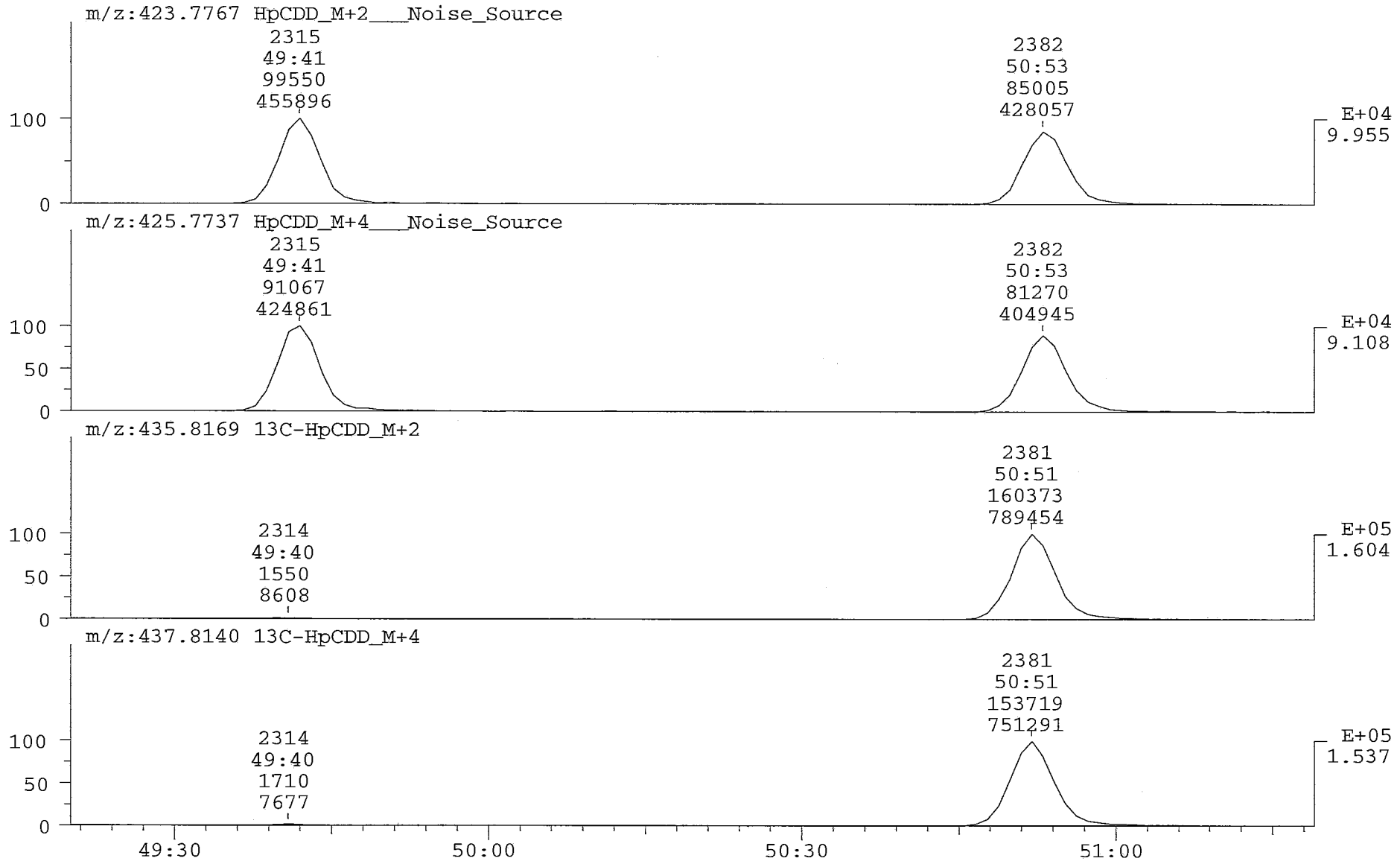
CHRO: b110715w1 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1959 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-805

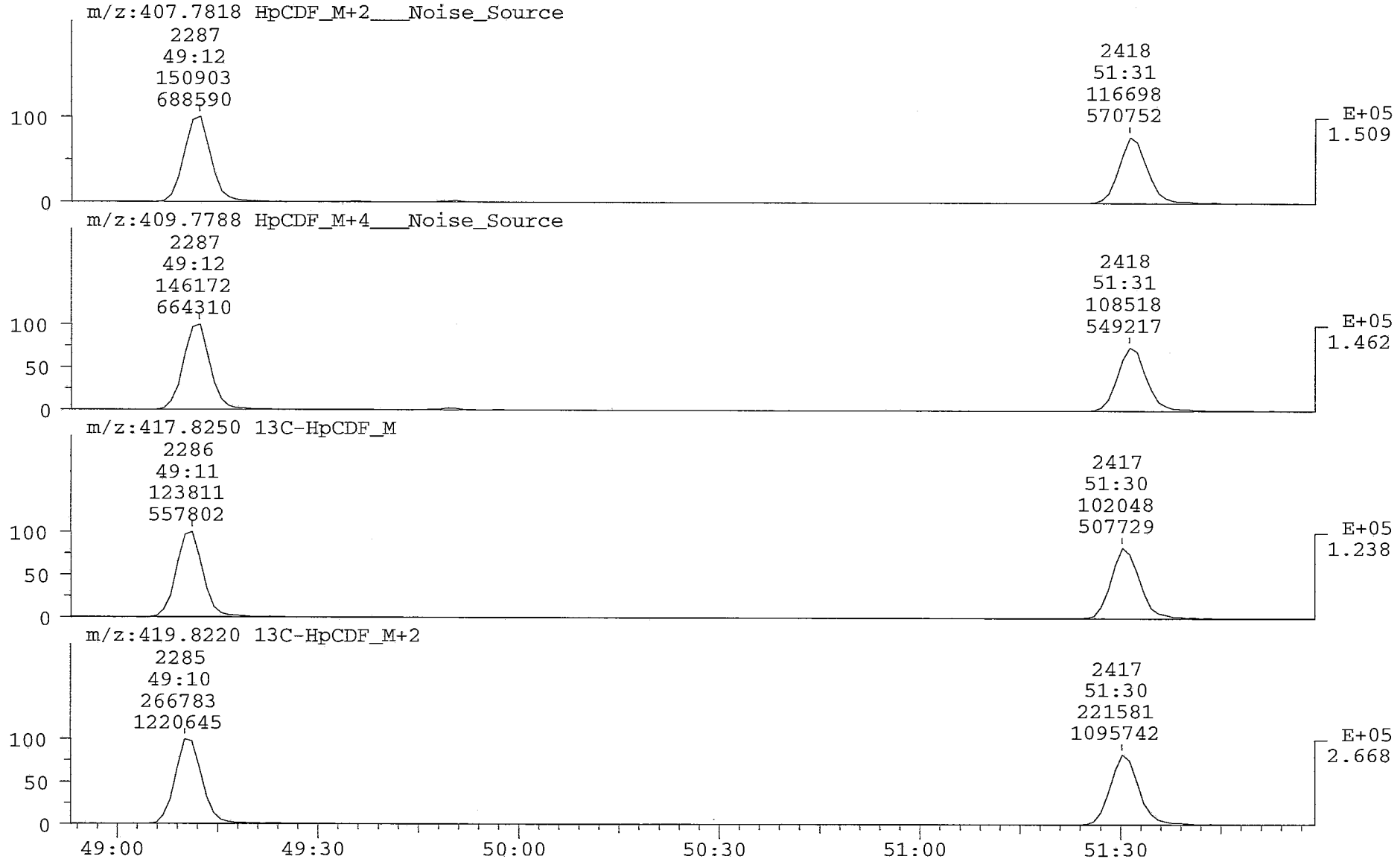
804

CHRO: b110715w1 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2294 > 2406 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



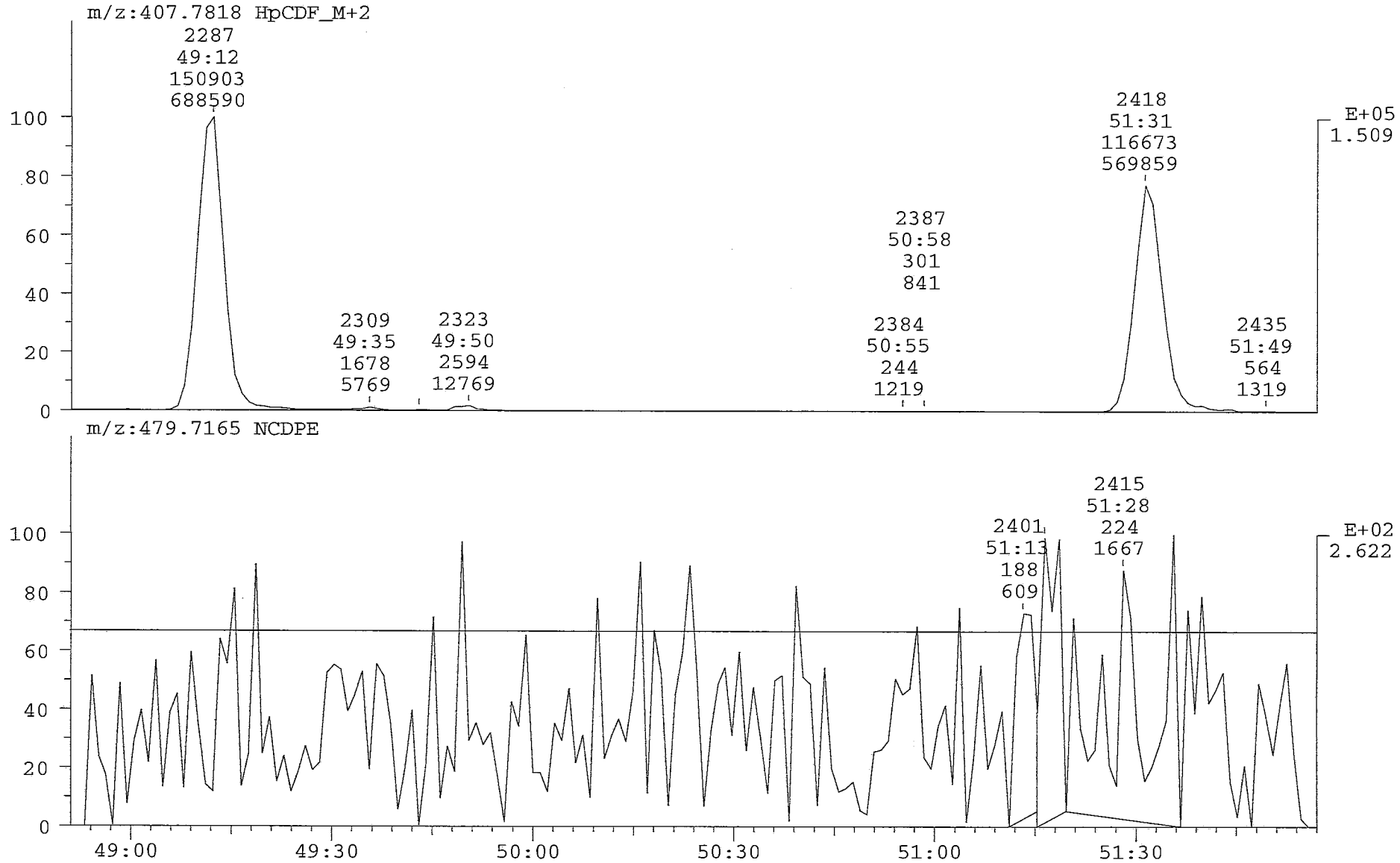
H-806

CHRO: b110715w1 15-Jul-11 Elapse: 50:26 2357
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2269 > 2444 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-807

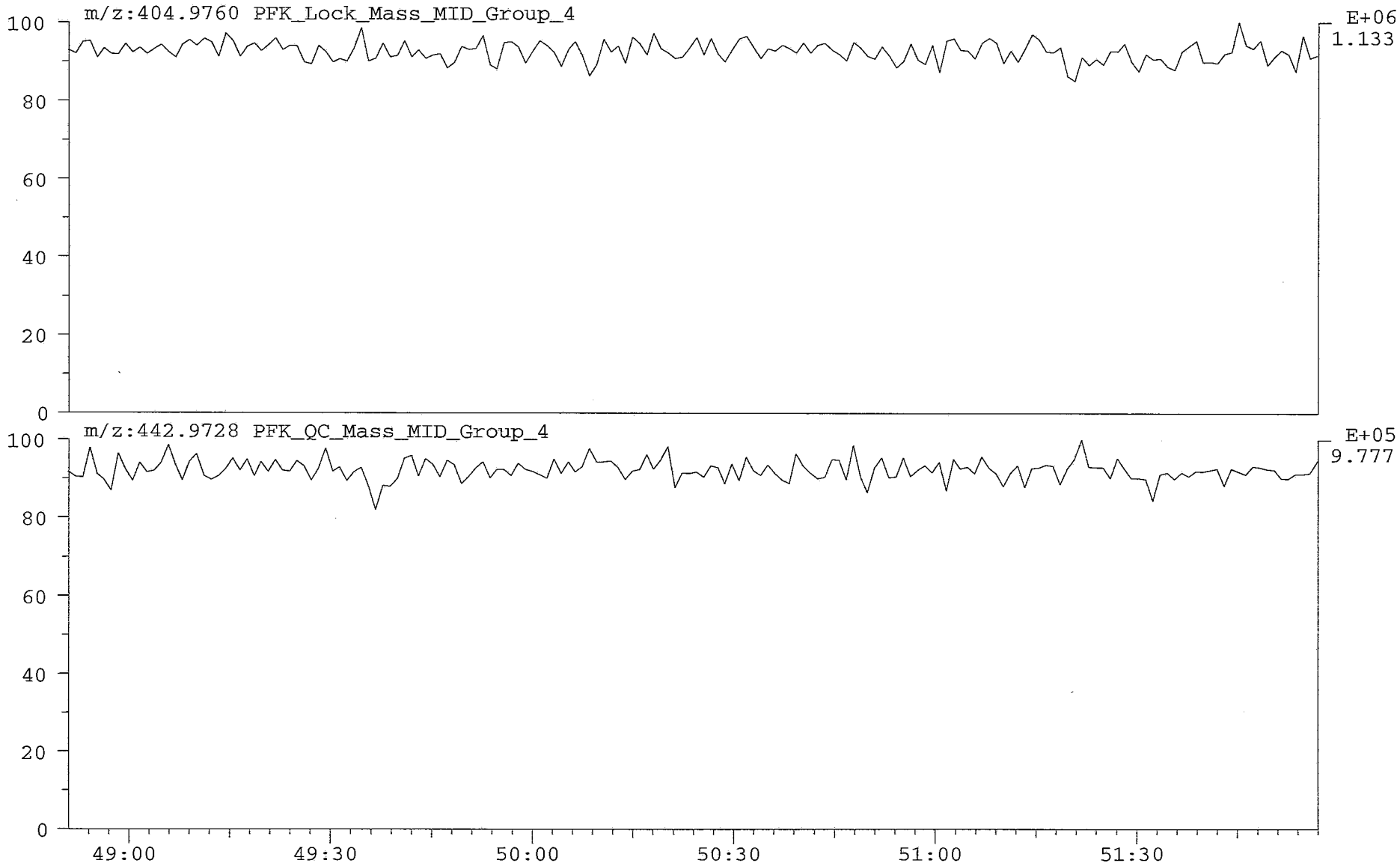
CHRO: b110715w1 15-Jul-11 Elapse: 50:26 2357
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2267 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-808

807

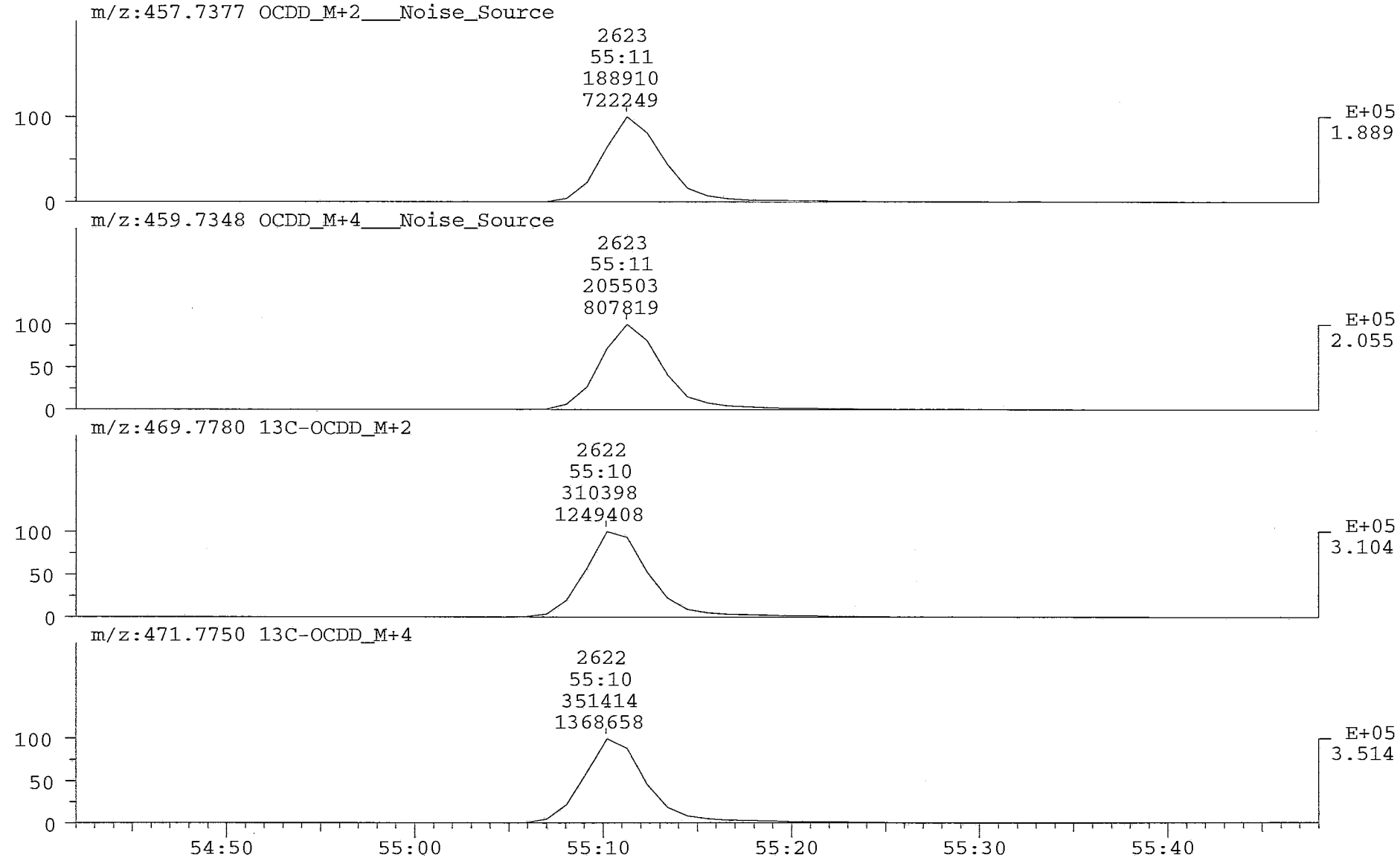
CHRO: b110715w1 15-Jul-11 Elapse: 50:26 2357
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2267 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-809

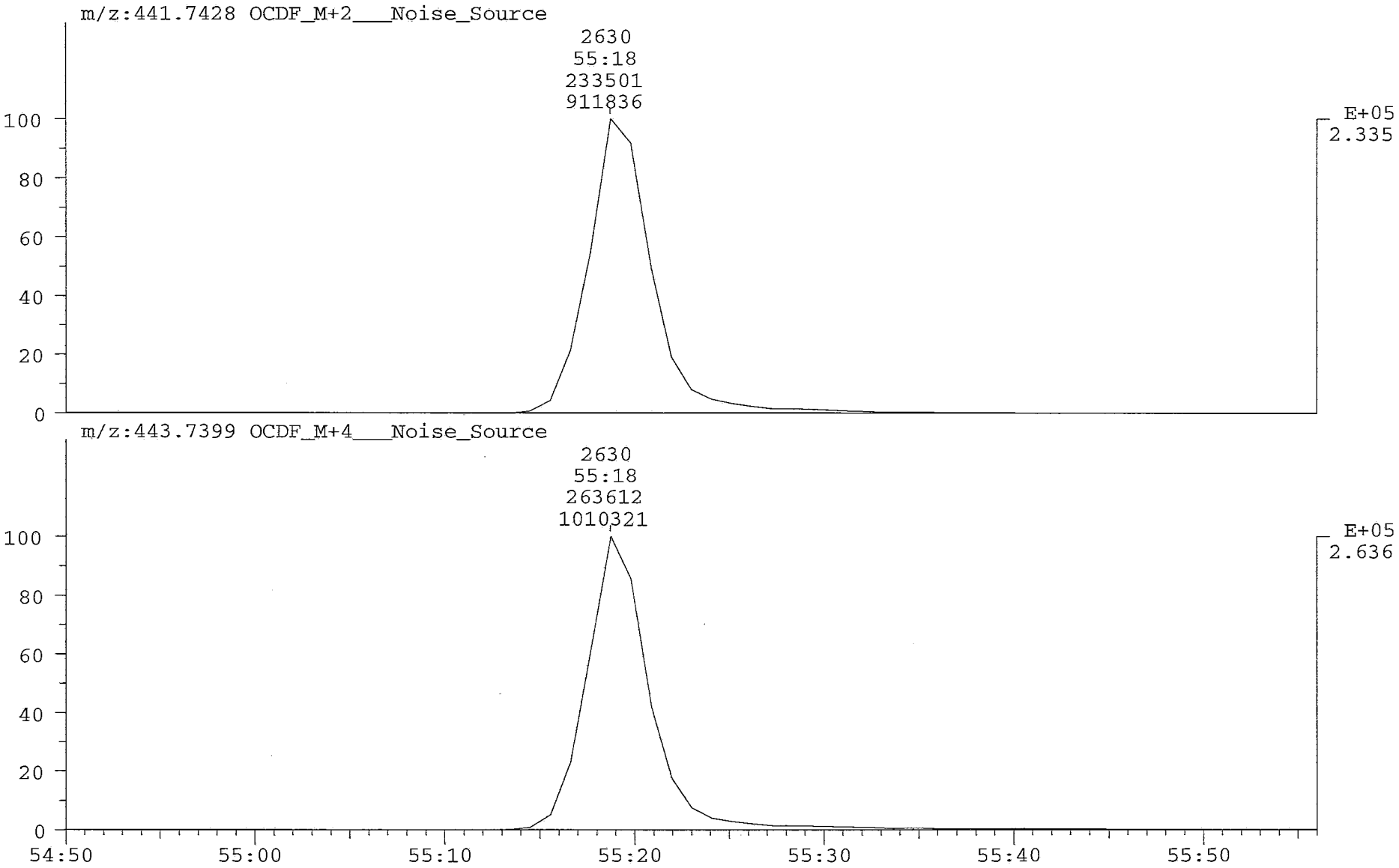
808

CHRO: b110715w1 15-Jul-11 Elapse: 55:12 2624
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2596 > 2657 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



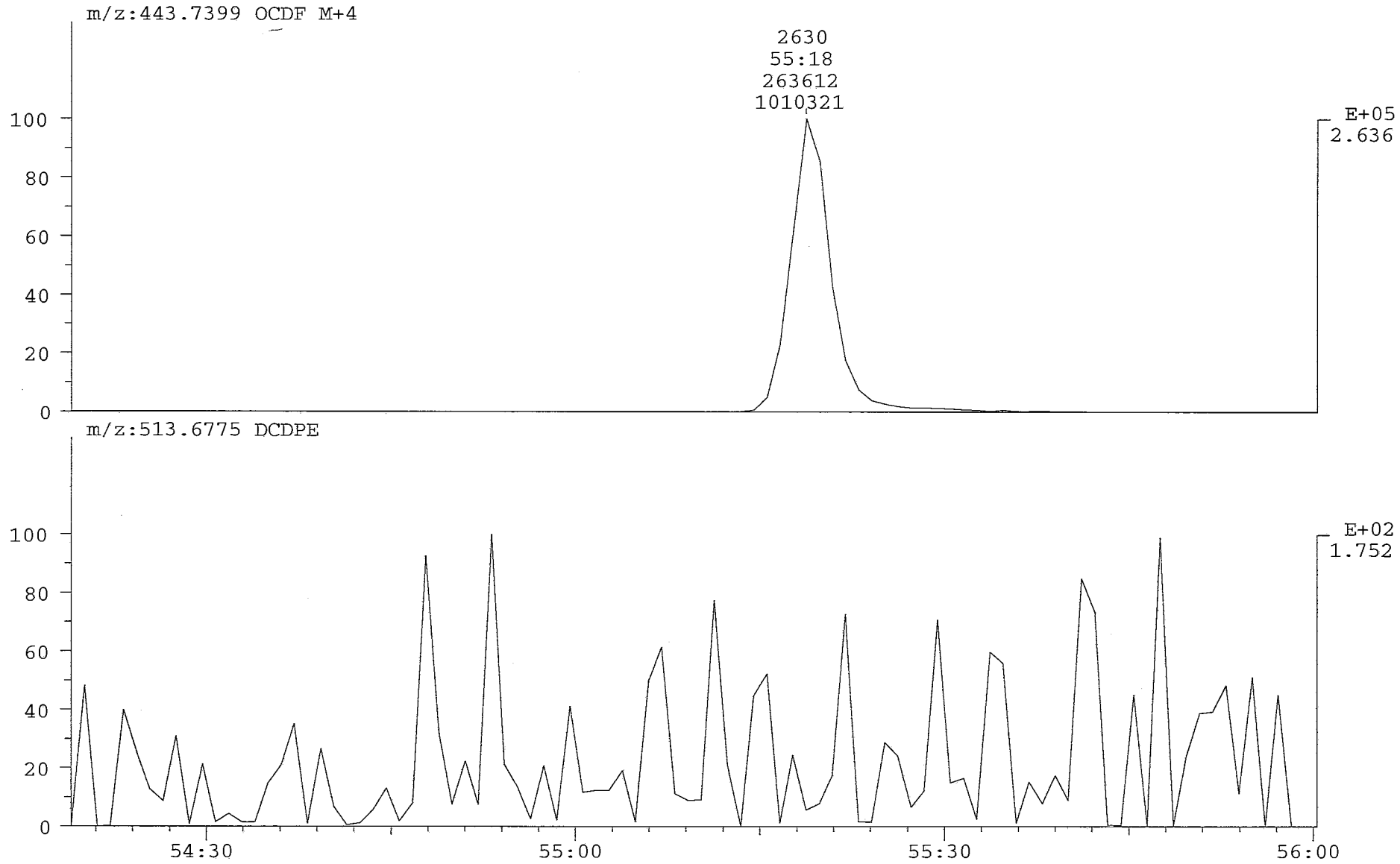
H-810

CHRO: b110715w1 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2603 > 2665 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-811

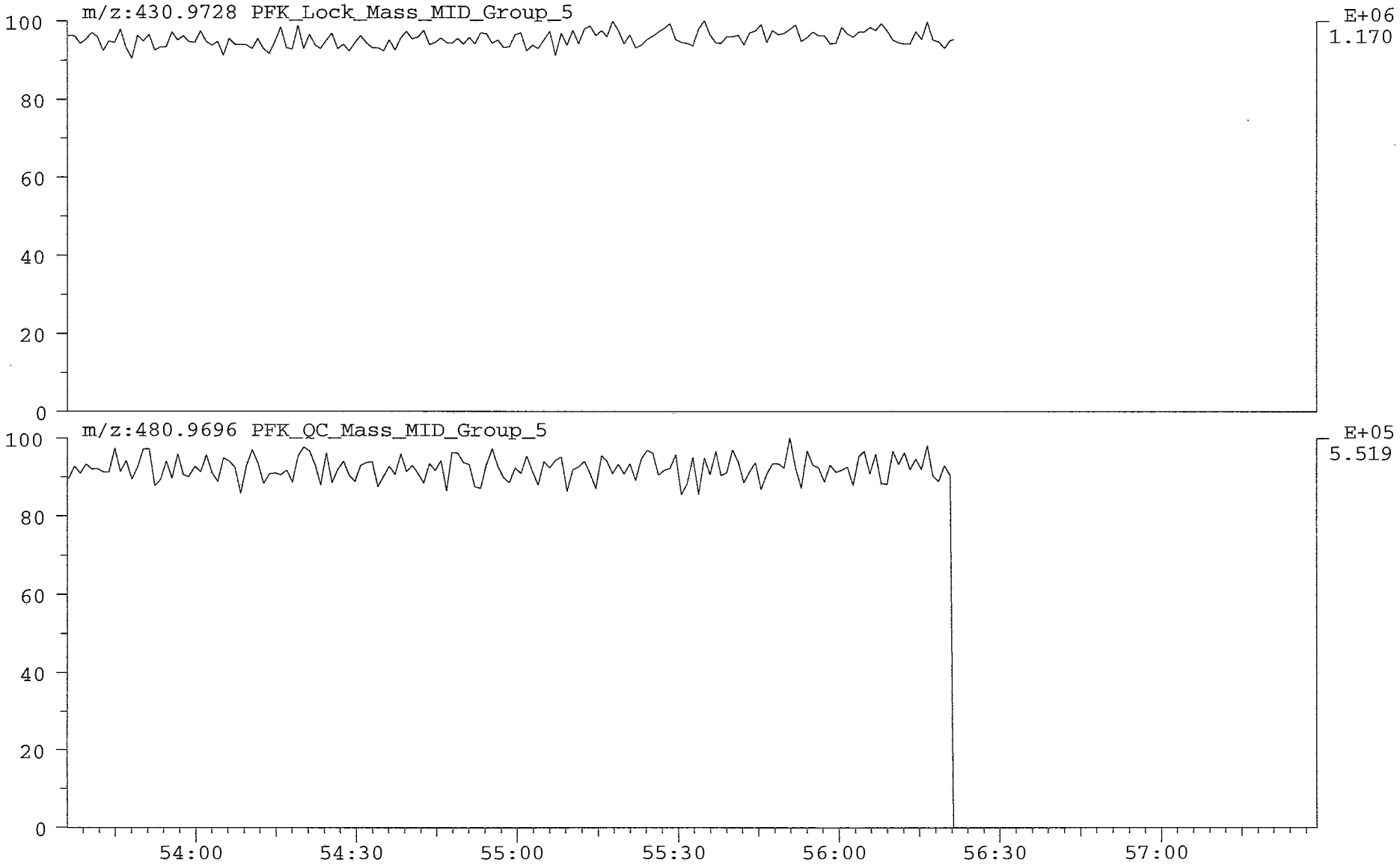
CHRO: b110715w1 15-Jul-11 Elapse: 55:18 2630
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2627 > 2633 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-812

811

CHRO: b110715w1 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 1 WO=HR0034B Meth=F8 Dil=1 Start : 08:44:00 2689
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : Win/Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2534 > 2751 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-813

812

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b110715w1
Study: Win/Ver
Sample: WO=HR0034B Meth=F8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: TA-Knoxville
Comments: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110714S5
Injected volume:   2.0
Sample from Vial 1
Analysis will stop when MID run finishes
Tune file name: tune2
File 1 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start         Measure       End         Cycletime
  # 1    8:00 min   27:13 min   35:13 min    1.00 sec
  # 2   35:13 min    7:54 min   43:08 min    1.00 sec
  # 3   43:08 min    5:17 min   48:25 min    1.00 sec
  # 4   48:25 min    5:05 min   53:30 min    1.00 sec
  # 5   53:30 min    4:00 min   57:30 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:         270 deg                          300 deg max
  Transfer Line:    290 deg                          300 deg max
  Column:           140 deg at    0.0 minutes        330 deg max
                    140 deg at    3.0 minutes
                    210 deg at    6.5 minutes
                    210 deg at   34.5 minutes
                    280 deg at   44.5 minutes
                    280 deg at   51.0 minutes
                    325 deg at   57.5 minutes
  Inlet    :
  Pressure        18.0 psi
  Splitless mode
  Purge time       1.5 min
  Purge flow      40.0 mL/min

   Gas saver is on
   Saver time       3.0 min
   Saver flow      15.0 mL/min

  Stabilize time   0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8412.0000
BDEV	8291.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.3412
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-20.8500
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	600.9615
FSLOPE	36000000.0000	FVANAL	379.0000	FVINLET	852.0000
FVSRC	1057.0000	FWIN	0.7000	GCTC	137.0000
GCTI	270.0000	GCTL	290.0000	HACCU	156.0000
HCURR	1.7059	HVANAL	1219.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4771.6680	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	304.9824
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	200.0000	NSAM	200.0000	NSCAN	5830.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10106.3082	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	2.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7300	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 08:44:00.7

Autosampler has injected sample from vial 1
Analysis stopped at: 15-Jul-11 09:40:22.9 (run time 56.36 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44411 - B110715S2
CCAL Filename: b110715s2
CCAL Sample ID: HR0014
CCAL Result Dir: /20110715s2/b110715s2.d
CCAL Date/Time: 07/15/11 17:58

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	Calc Conc (ng/mL)	ICAL RF	CCAL RF	%D	QC Limit	Valid?
2,3,7,8-TCDD	M/M+2	0.67	0.65-0.89	5.4	1.172	1.275	8.8	20.0	True
2,3,7,8-TCDF	M/M+2	0.72	0.65-0.89	5.2	1.081	1.131	4.7	20.0	True
1,2,3,7,8-PeCDD	M+2/M+4	1.68	1.32-1.78	24.3	1.124	1.091	-2.9	20.0	True
1,2,3,7,8-PeCDF	M+2/M+4	1.52	1.32-1.78	24.4	1.050	1.023	-2.6	20.0	True
2,3,4,7,8-PeCDF	M+2/M+4	1.50	1.32-1.78	26	1.030	1.077	4.6	20.0	True
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	23.9	0.990	0.946	-4.5	20.0	True
1,2,3,6,7,8-HxCDD	M+2/M+4	1.21	1.05-1.43	26	1.020	1.061	4.0	20.0	True
1,2,3,7,8,9-HxCDD	M+2/M+4	1.26	1.05-1.43	25	1.003	1.021	1.9	20.0	True
1,2,3,4,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	24.2	1.091	1.058	-3.0	20.0	True
1,2,3,6,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	24.1	1.226	1.181	-3.6	20.0	True
2,3,4,6,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	24.3	1.160	1.126	-3.0	20.0	True
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	23.8	1.008	0.959	-4.9	20.0	True
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	25	1.094	1.103	0.8	20.0	True
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	23.7	1.469	1.394	-5.1	20.0	True
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88-1.20	24.6	1.127	1.107	-1.8	20.0	True
OCDD	M+2/M+4	0.91	0.76-1.02	49	1.075	1.044	-2.9	20.0	True
OCDF	M+2/M+4	0.89	0.76-1.02	48	1.258	1.199	-4.7	20.0	True
13C-2,3,7,8-TCDD	M/M+2	0.83	0.65-0.89	98	1.006	0.984	-2.3	30.0	True
13C-2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	100	1.719	1.724	0.3	30.0	True
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.61	1.32-1.78	95	0.953	0.904	-5.2	30.0	True
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	87	1.661	1.447	-12.8	30.0	True
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	98	1.035	1.014	-2.0	30.0	True
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	94	1.434	1.351	-5.8	30.0	True
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	101	0.851	0.860	1.1	30.0	True
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.47	0.37-0.51	99	1.094	1.079	-1.3	30.0	True
13C-OCDD	M+2/M+4	0.90	0.76-1.02	192	0.867	0.831	-4.2	30.0	True
37Cl4-2,3,7,8-TCDD			-	5.3	1.198	1.274	6.4	30.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.54	1.32-1.78	26	0.994	1.045	5.2	30.0	True
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	25	0.887	0.891	0.5	30.0	True
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.54	0.43-0.59	25	0.891	0.907	1.8	30.0	True
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	23.0	1.321	1.215	-8.0	30.0	True
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.49	0.37-0.51	23.7	0.841	0.797	-5.3	30.0	True

PMP 7-15-11

CWK 7-18-11

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44411 - B110715S2
CCAL Filename: b110715s2
CCAL Sample ID: HR0014
CCAL Result Dir: /20110715s2/b110715s2.d
CCAL Date/Time: 07/15/11 17:58

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

Analytes	ICAL RT	CCAL RT	RT Diff	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
2,3,7,8-TCDD	30:32	31:29	57	1.001	1.001	-	
2,3,7,8-TCDF	28:38	29:31	53	1.001	1.002	-	
1,2,3,7,8-PeCDD	41:12	41:38	26	1.000	1.000	-	
1,2,3,7,8-PeCDF	39:14	39:45	31	1.001	1.000	-	
2,3,4,7,8-PeCDF	40:37	41:04	27	1.036	1.034	-	
1,2,3,4,7,8-HxCDD	45:35	46:00	25	0.998	0.998	-	
1,2,3,6,7,8-HxCDD	45:41	46:07	26	1.000	1.000	-	
1,2,3,7,8,9-HxCDD	46:04	46:30	26	1.009	1.009	-	
1,2,3,4,7,8-HxCDF	44:34	44:57	23	0.997	0.997	-	
1,2,3,6,7,8-HxCDF	44:42	45:05	23	1.000	1.000	-	
2,3,4,6,7,8-HxCDF	45:24	45:48	24	1.016	1.016	-	
1,2,3,7,8,9-HxCDF	46:18	46:45	27	1.036	1.037	-	
1,2,3,4,6,7,8-HpCDD	50:15	50:51	36	1.000	1.000	-	
1,2,3,4,6,7,8-HpCDF	48:37	49:10	33	1.000	1.001	-	
1,2,3,4,7,8,9-HpCDF	50:52	51:29	37	1.047	1.048	-	
OCDD	54:41	55:10	29	1.000	1.000	-	
OCDF	54:49	55:18	29	1.002	1.003	-	
13C-2,3,7,8-TCDD	30:30	31:27	57	1.017	1.016	-	
13C-2,3,7,8-TCDF	28:36	29:28	52	0.954	0.952	-	
13C-1,2,3,7,8-PeCDD	41:11	41:37	26	1.373	1.344	-	
13C-1,2,3,7,8-PeCDF	39:13	39:44	31	1.308	1.283	-	
13C-1,2,3,6,7,8-HxCDD	45:40	46:06	26	0.992	0.992	-	
13C-1,2,3,6,7,8-HxCDF	44:41	45:04	23	0.971	0.970	-	
13C-1,2,3,4,6,7,8-HpCDD	50:13	50:50	37	1.091	1.094	-	
13C-1,2,3,4,6,7,8-HpCDF	48:36	49:08	32	1.056	1.057	-	
13C-OCDD	54:41	55:09	28	1.188	1.186	-	
37Cl4-2,3,7,8-TCDD	30:32	31:28	56	1.001	1.001	-	
13C-2,3,4,7,8-PeCDF	40:35	41:03	28	1.035	1.033	-	
13C-1,2,3,4,7,8-HxCDD	45:34	45:59	25	0.998	0.997	-	
13C-1,2,3,4,7,8-HxCDF	44:33	44:56	23	0.997	0.997	-	
13C-1,2,3,7,8,9-HxCDF	46:17	46:44	27	1.005	1.005	-	
13C-1,2,3,4,7,8,9-HpCDF	50:52	51:28	36	1.046	1.047	-	

TestAmerica
Knoxville

IsoCalc Continuing Calibration Report

CCAL ID:

WIN Filename: Method:

WIN Sample ID: Instrument:

WIN Result Dir: Column SN:

WIN Date/Time: Column Desc:

Window Defining First/Last Eluter Retention Times

Analyte	Reference	M/Z	Ref RT	First Eluter RT	First Eluter RRT	Last Eluter RT	Last Eluter RRT

IsoCalc Continuing Calibration Report

PCDD/PCDF by EPA Method 0023/8290

CCAL ID: 44411 - B110715S2
CCAL Filename: b110715s2
CCAL Sample ID: HR0014
CCAL Result Dir: /20110715s2/b110715s2.d
CCAL Date/Time: 07/15/11 17:58

ICAL Date: 12/10/09
Method: X8 - 0023/8290
Instrument: M2A
Column SN: 1027390
Column Desc: Rtx-5 60m x 0.32mm ID x 0.25um

CCAL Status: A Has Been Approved

Analytes	Type	Status	
2,3,7,8-TCDD	A	3	Ok
Total TCDD	T	3	Ok
2,3,7,8-TCDF	A	3	Ok
Total TCDF	T	3	Ok
1,2,3,7,8-PeCDD	A	3	Ok
Total PeCDD	T	3	Ok
1,2,3,7,8-PeCDF	A	3	Ok
2,3,4,7,8-PeCDF	A	3	Ok
Total PeCDF	T	3	Ok
1,2,3,4,7,8-HxCDD	A	3	Ok
1,2,3,6,7,8-HxCDD	A	3	Ok
1,2,3,7,8,9-HxCDD	A	3	Ok
Total HxCDD	T	3	Ok
1,2,3,4,7,8-HxCDF	A	3	Ok
1,2,3,6,7,8-HxCDF	A	3	Ok
2,3,4,6,7,8-HxCDF	A	3	Ok
1,2,3,7,8,9-HxCDF	A	3	Ok
Total HxCDF	T	3	Ok
1,2,3,4,6,7,8-HpCDD	A	3	Ok
Total HpCDD	T	3	Ok
1,2,3,4,6,7,8-HpCDF	A	3	Ok
1,2,3,4,7,8,9-HpCDF	A	3	Ok
Total HpCDF	T	3	Ok
OCDD	A	3	Ok
OCDF	A	3	Ok
13C-2,3,7,8-TCDD	I	3	Ok
13C-2,3,7,8-TCDF	I	3	Ok
13C-1,2,3,7,8-PeCDD	I	3	Ok
13C-1,2,3,7,8-PeCDF	I	3	Ok
13C-1,2,3,6,7,8-HxCDD	I	3	Ok
13C-1,2,3,6,7,8-HxCDF	I	3	Ok
13C-1,2,3,4,6,7,8-HpCDD	I	3	Ok
13C-1,2,3,4,6,7,8-HpCDF	I	3	Ok
13C-OCDD	I	3	Ok
37Cl4-2,3,7,8-TCDD	S	3	Ok
13C-2,3,4,7,8-PeCDF	S	3	Ok
13C-1,2,3,4,7,8-HxCDD	S	3	Ok
13C-1,2,3,4,7,8-HxCDF	S	3	Ok
13C-1,2,3,7,8,9-HxCDF	S	3	Ok
13C-1,2,3,4,7,8,9-HpCDF	S	3	Ok
13C-1,2,3,4-TCDD	R	3	Ok
13C-1,2,3,7,8,9-HxCDD	R	3	Ok

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110715s2/b110715s2.d	Prep Date		SDG No	
Analysis ID	133645	Prep Exp Date		Date Received	
Analysis Date	7/15/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	17:58	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
2,3,7,8-TCDD	31:29	64299	6729	1.172	5.000	5.440170	108.80	5.440170 E	0.313
Total TCDD				1.172		5.440170		5.440170 E	0.313
2,3,7,8-TCDF	29:31	99995	11678	1.081	5.000	5.232975	104.66	5.232975 E	0.198
Total TCDF				1.081		5.232975		5.232975 E	0.198
1,2,3,7,8-PeCDD	41:38	252698	54435	1.124	25.00	24.274256	97.10	24.274256 E	0.189
Total PeCDD				1.124		24.274256		24.274256 E	0.189
1,2,3,7,8-PeCDF	39:45	379746	68035	1.050	25.00	24.356130	97.42	24.356130 E	0.171
2,3,4,7,8-PeCDF	41:04	399712	84890	1.030	25.00	26.142598	104.57	26.142598 E	0.174
Total PeCDF				1.040		50.498728		50.498728 E	0.172
1,2,3,4,7,8-HxCDD	46:00	278336	77323	0.990	25.00	23.876359	95.51	23.876359 E	0.185
1,2,3,6,7,8-HxCDD	46:07	312293	73145	1.020	25.00	25.996442	103.99	25.996442 E	0.180
1,2,3,7,8,9-HxCDD	46:30	300634	72552	1.003	25.00	25.470021	101.88	25.470021 E	0.183
Total HxCDD				1.004		75.342822		75.342822 E	0.183
1,2,3,4,7,8-HxCDF	44:57	415205	107957	1.091	25.00	24.243385	96.97	24.243385 E	0.114
1,2,3,6,7,8-HxCDF	45:05	463431	119628	1.226	25.00	24.092934	96.37	24.092934 E	0.101
2,3,4,6,7,8-HxCDF	45:48	441782	112008	1.160	25.00	24.257678	97.03	24.257678 E	0.107
1,2,3,7,8,9-HxCDF	46:45	376258	84542	1.008	25.00	23.786641	95.15	23.786641 E	0.123
Total HxCDF				1.121		96.380638		96.380638 E	0.110
1,2,3,4,6,7,8-HpCDD	50:51	275509	52120	1.094	25.00	25.199906	100.80	25.199906 E	0.213
Total HpCDD				1.094		25.199906		25.199906 E	0.213
1,2,3,4,6,7,8-HpCDF	49:10	436775	91660	1.469	25.00	23.720557	94.88	23.720557 E	0.104
1,2,3,4,7,8,9-HpCDF	51:29	346796	63858	1.127	25.00	24.550649	98.20	24.550649 E	0.136
Total HpCDF				1.298		48.271206		48.271206 E	0.118
OCDD	55:10	503631	118739	1.075	50.00	48.537012	97.07	48.537012 E	0.180
OCDF	55:18	578233	135525	1.258	50.00	47.643024	95.29	47.643024 E	0.163
13C-2,3,7,8-TCDD	31:27	1008692	106961	1.006	100.0	97.748106	97.75	97.748106	0.730
13C-2,3,7,8-TCDF	29:28	1767806	210976	1.719	100.0	100.272162	100.27	100.272162	0.311
13C-1,2,3,7,8-PeCDD	41:37	926557	209312	0.953	100.0	94.793806	94.79	94.793806	0.352
13C-1,2,3,7,8-PeCDF	39:44	1484200	284477	1.661	100.0	87.161821	87.16	87.161821	0.234
13C-1,2,3,6,7,8-HxCDD	46:06	1177281	287535	1.035	100.0	97.963223	97.96	97.963223	0.325
13C-1,2,3,6,7,8-HxCDF	45:04	1569462	419720	1.434	100.0	94.234277	94.23	94.234277	0.154
13C-1,2,3,4,6,7,8-HpCDD	50:50	999269	186890	0.851	100.0	101.094521	101.09	101.094521	0.226
13C-1,2,3,4,6,7,8-HpCDF	49:08	1253395	255718	1.094	100.0	98.684978	98.68	98.684978	0.175
13C-OCDD	55:09	1929855	461577	0.867	200.0	191.634400	95.82	191.634400	0.256
37Cl4-2,3,7,8-TCDD	31:28	64278	6470	1.198	5.000	5.319128	106.38	5.319128 E	0.181
13C-2,3,4,7,8-PeCDF	41:03	387762	81411	0.994	25.00	26.296210	105.18	26.296210 E	0.160
13C-1,2,3,4,7,8-HxCDD	45:59	262295	72881	0.887	25.00	25.113591	100.45	25.113591 E	0.358
13C-1,2,3,4,7,8-HxCDF	44:56	355988	99378	0.891	25.00	25.461490	101.85	25.461490 E	0.160
13C-1,2,3,7,8,9-HxCDF	46:44	352813	81105	1.321	25.00	22.997214	91.99	22.997214 E	0.168
13C-1,2,3,4,7,8,9-HpCDF	51:28	249617	46952	0.841	25.00	23.674411	94.70	23.674411 E	0.241
13C-1,2,3,4-TCDD	30:58	1025384	116371	1.000	100.0	100.000000	100.00	100.000000	0.735
13C-1,2,3,7,8,9-HxCDD	46:29	1161328	271103	1.000	100.0	100.000000	100.00	100.000000	0.337

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110715s2/b110715s2.	Prep Date		SDG No	
Analysis ID	133645	Prep Exp Date		Date Received	
Analysis Date	07/15/11 17:58	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89		
	Noise	00:00	00:00	0	180	273	72	109	0.66	/	
	2,3,7,8-TCDF	29:31	29:36	-5	41983	58012	5079	6599	0.72	AVV/AVV	M
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89		
	Noise	00:00	00:00	0	280	343	112	137	0.82	/	
	13C-2,3,7,8-TCDF	29:28	29:34	-6	770317	997489	93666	117310	0.77	ABV/AVV	
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89		
	Noise	00:00	00:00	0	188	205	75	82	0.91 *	/	
	2,3,7,8-TCDD	31:29	31:25	4	25848	38451	3131	3598	0.67	ABB/AVV	
328					327.8847		327.8847				
	Noise	00:00	00:00	0	233		93				
	37Cl4-2,3,7,8-TCDD	31:28	31:25	3	64278		6470			AVV	
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89		
	Noise	00:00	00:00	0	480	375	192	150	1.28 *	/	
	13C-1,2,3,4-TCDD	30:58	30:53	5	466411	558973	48293	68078	0.83	ABV/AVV	
	13C-2,3,7,8-TCDD	31:27	31:23	4	457620	551072	46674	60287	0.83	AVB/AVV	
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78		
	Noise	00:00	00:00	0	200	310	80	124	0.65 *	/	
	1,2,3,7,8-PeCDF	39:45	39:49	-4	229332	150414	41681	26354	1.52	ABV/AVV	
	2,3,4,7,8-PeCDF	41:04	41:10	-6	239939	159773	51433	33457	1.50	ABV/ABV	M
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78		
	Noise	00:00	00:00	0	240	213	96	85	1.13 *	/	
	13C-1,2,3,7,8-PeCDF	39:44	39:48	-4	906981	577219	171689	112788	1.57	ABV/ABV	
	13C-2,3,4,7,8-PeCDF	41:03	41:08	-5	235347	152415	49367	32044	1.54	ABV/ABV	M
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78		
	Noise	00:00	00:00	0	263	183	105	73	1.44	/	
	1,2,3,7,8-PeCDD	41:38	41:45	-7	158295	94403	33230	21205	1.68	ABV/ABV	M
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78		
	Noise	00:00	00:00	0	215	175	86	70	1.23 *	/	
	13C-1,2,3,7,8-PeCDD	41:37	41:44	-7	572193	354364	128983	80329	1.61	ABV/ABV	
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43		
	Noise	00:00	00:00	0	305	215	122	86	1.42	/	
	1,2,3,4,7,8-HxCDF	44:57	45:04	-7	231136	184069	59060	48897	1.26	ABV/ABV	M
	1,2,3,6,7,8-HxCDF	45:05	45:12	-7	259281	204150	67957	51671	1.27	AVV/AVV	M
	2,3,4,6,7,8-HxCDF	45:48	45:53	-5	247825	193957	61156	50852	1.28	AVV/AVV	M
	1,2,3,7,8,9-HxCDF	46:45	46:47	-2	210714	165544	47232	37310	1.27	ABV/ABV	
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59		
	Noise	00:00	00:00	0	243	358	97	143	0.68 *	/	
	13C-1,2,3,4,7,8-HxCDF	44:56	45:03	-7	124793	231195	35246	64132	0.54	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDF	45:04	45:11	-7	541219	1028243	140685	279035	0.53	AVB/AVV	M
	13C-1,2,3,7,8,9-HxCDF	46:44	46:46	-2	120543	232270	27532	53573	0.52	ABV/ABV	
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	Noise	00:00	00:00	0	205	323	82	129	0.64 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	HR0014	Prep Batch		Lot No	
Data File	/20110715s2/b110715s2.	Prep Date		SDG No	
Analysis ID	133645	Prep Exp Date		Date Received	
Analysis Date	07/15/11 17:58	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M2A	Extract Vol		Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

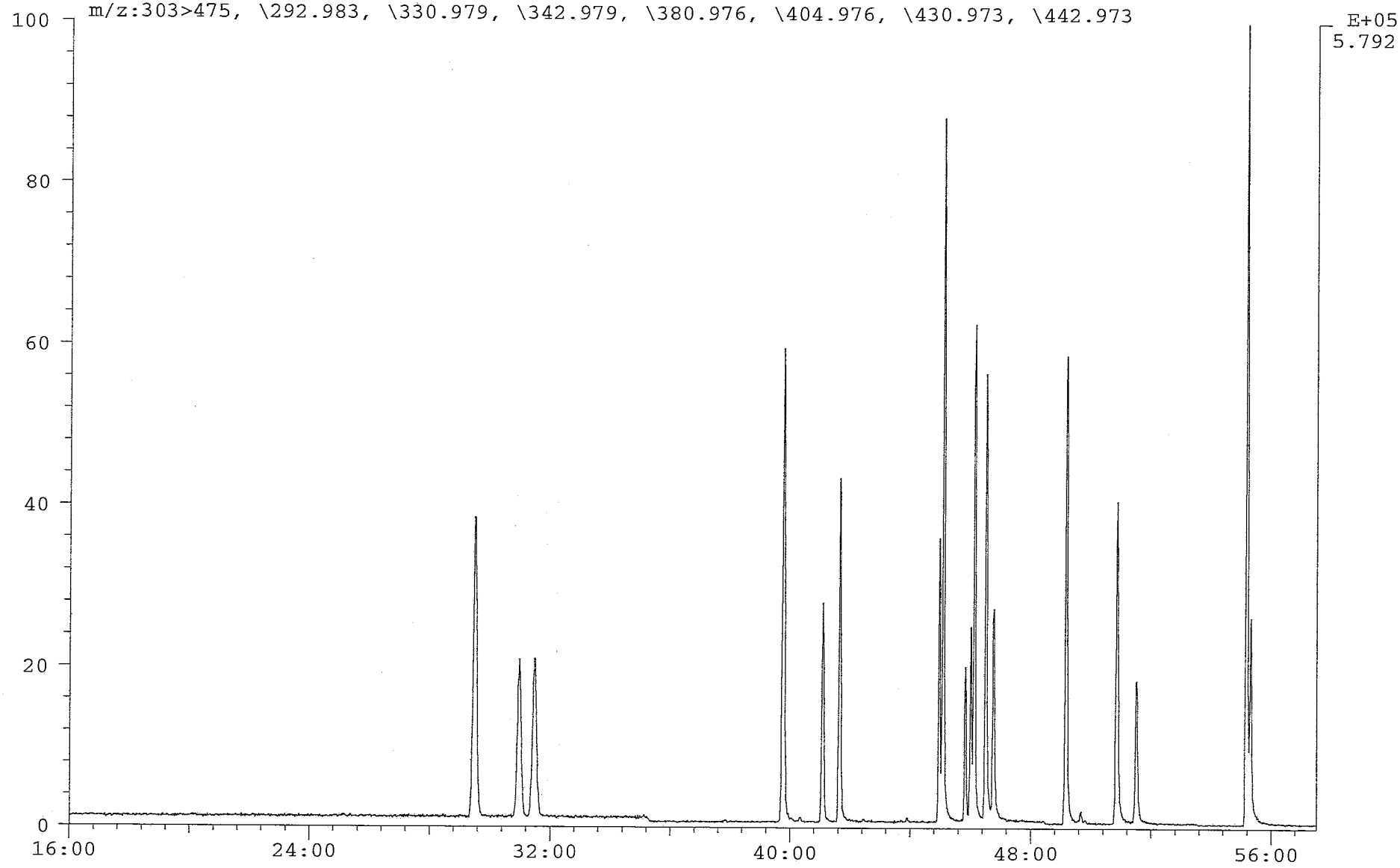
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43		
	1,2,3,4,7,8-HxCDD	46:00	46:04	-4	154405	123931	43049	34274	1.25	ABV/ABV	M
	1,2,3,6,7,8-HxCDD	46:07	46:10	-3	171229	141064	41121	32024	1.21	AVV/AVV	M
	1,2,3,7,8,9-HxCDD	46:30	46:33	-3	167357	133277	40613	31939	1.26	AVV/AVV	
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43		
	Noise	00:00	00:00	0	490	423	196	169	1.16	/	
	13C-1,2,3,4,7,8-HxCDD	45:59	46:03	-4	146597	115698	40721	32160	1.27	ABV/ABV	M
	13C-1,2,3,6,7,8-HxCDD	46:06	46:09	-3	654655	522626	163821	123714	1.25	AVV/AVV	M
	13C-1,2,3,7,8,9-HxCDD	46:29	46:31	-2	644461	516867	150736	120367	1.25	AVV/AVV	
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20		
	Noise	00:00	00:00	0	190	203	76	81	0.94	/	
	1,2,3,4,6,7,8-HpCDF	49:10	49:06	4	219772	217003	46509	45151	1.01	ABV/ABV	
	1,2,3,4,7,8,9-HpCDF	51:29	51:21	8	175856	170940	31916	31942	1.03	AVV/ABV	M
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51		
	Noise	00:00	00:00	0	283	235	113	94	1.20 *	/	
	13C-1,2,3,4,6,7,8-HpCDF	49:08	49:05	3	400934	852461	81678	174040	0.47	ABV/ABV	
	13C-1,2,3,4,7,8,9-HpCDF	51:28	51:21	7	81550	168067	15330	31622	0.49	AVV/ABV	M
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20		
	Noise	00:00	00:00	0	228	208	91	83	1.10	/	
	1,2,3,4,6,7,8-HpCDD	50:51	50:44	7	141261	134248	27053	25067	1.05	AVV/ABV	M
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20		
	Noise	00:00	00:00	0	335	188	134	75	1.79 *	/	
	13C-1,2,3,4,6,7,8-HpCDD	50:50	50:42	8	513936	485333	97933	88957	1.06	ABV/ABV	
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02		
	Noise	00:00	00:00	0	183	290	73	116	0.63 *	/	
	OCDF	55:18	55:21	-3	272314	305919	65263	70262	0.89	ABV/ABV	
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02		
	Noise	00:00	00:00	0	160	288	64	115	0.56 *	/	
	OCDD	55:10	55:13	-3	239487	264144	57105	61634	0.91	ABV/ABV	
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02		
	Noise	00:00	00:00	0	313	290	125	116	1.08 *	/	
	13C-OCDD	55:09	55:13	-4	912433	1017422	217821	243756	0.90	ABV/ABV	

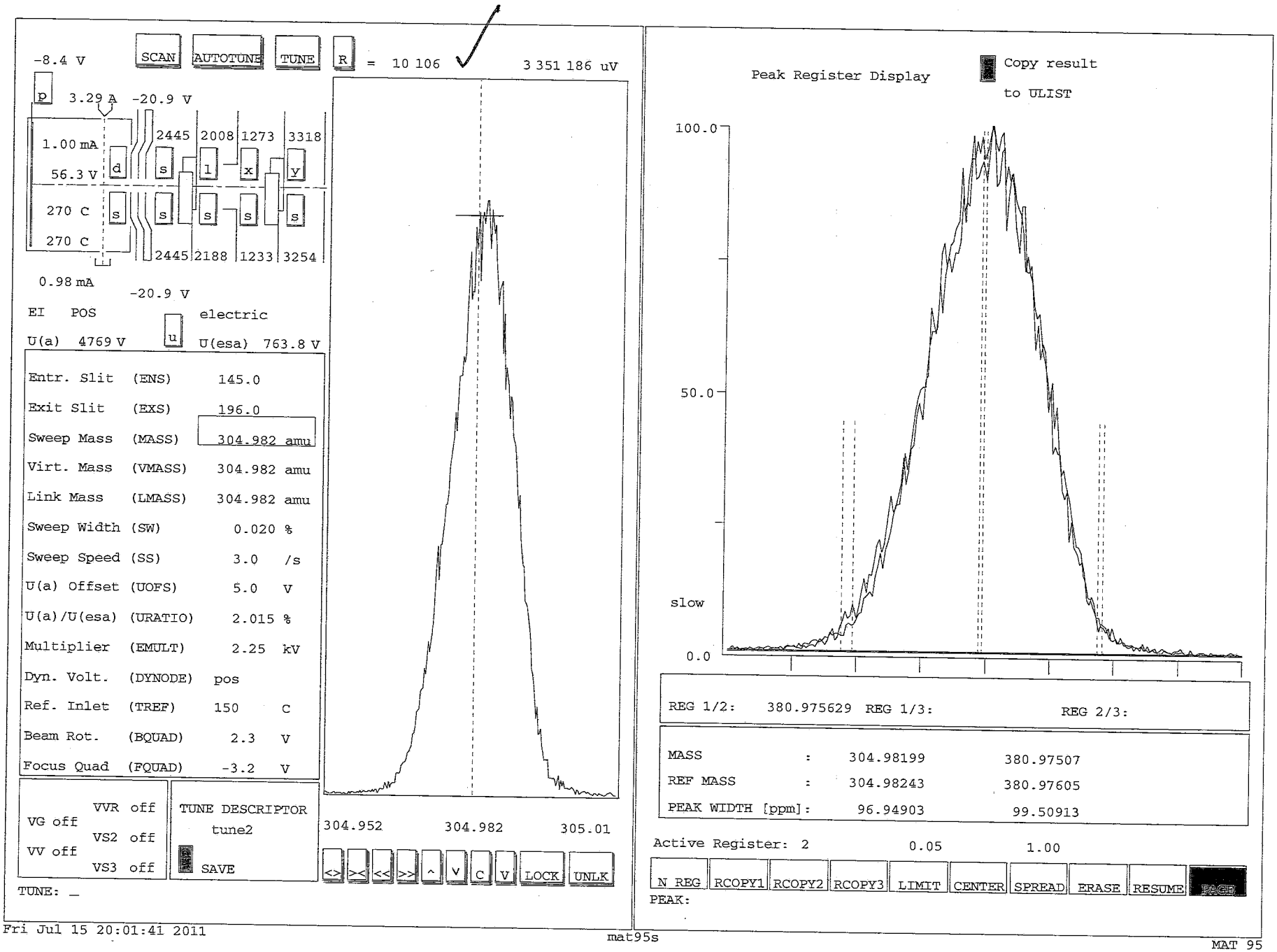
Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

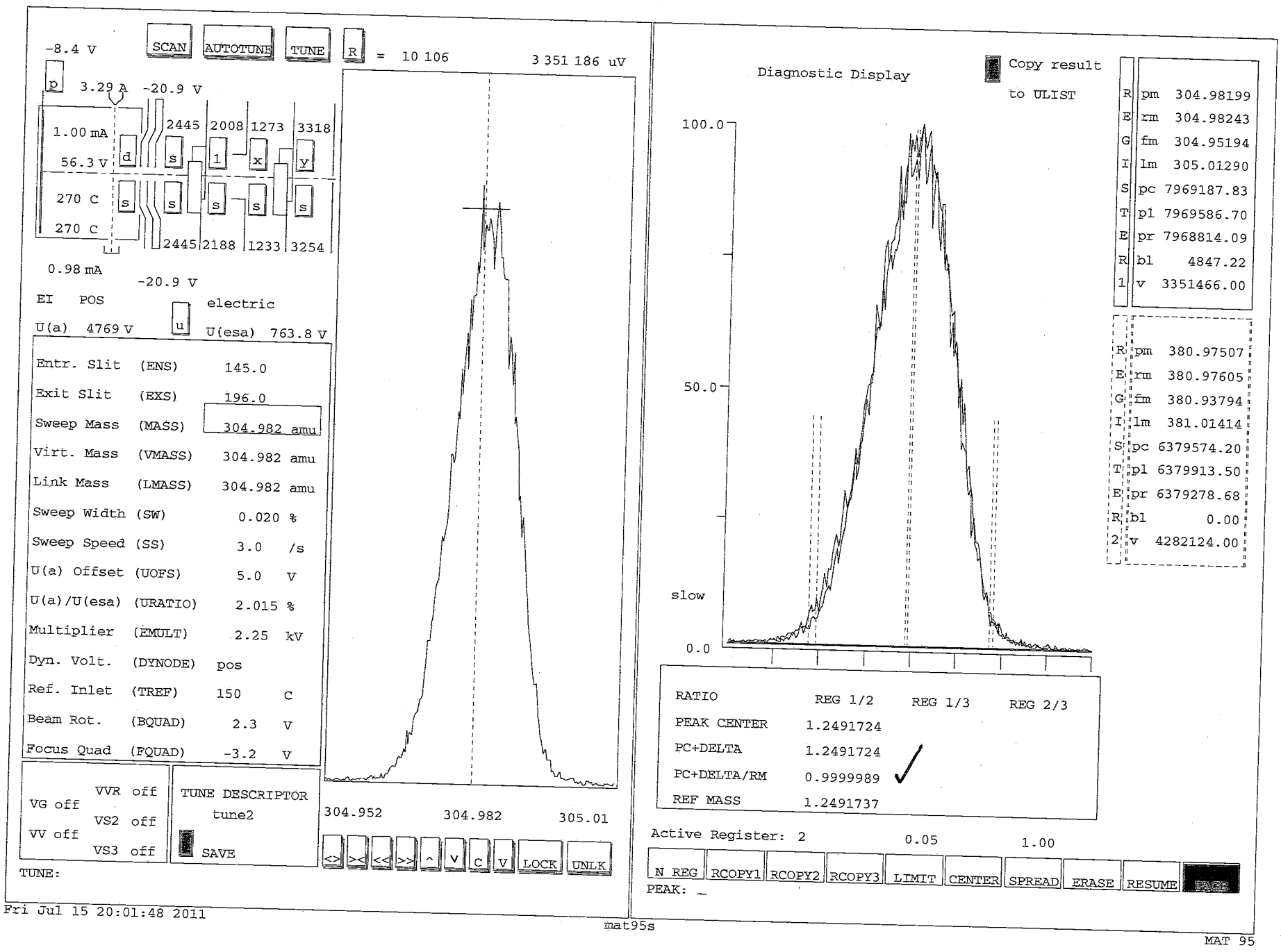
CHRO: b110715s2 15-Jul-11 Elapse: 08:00.5 1
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 442 > 2753 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int/Cale Pmp 7/15-11
QC: awk 7-18-11

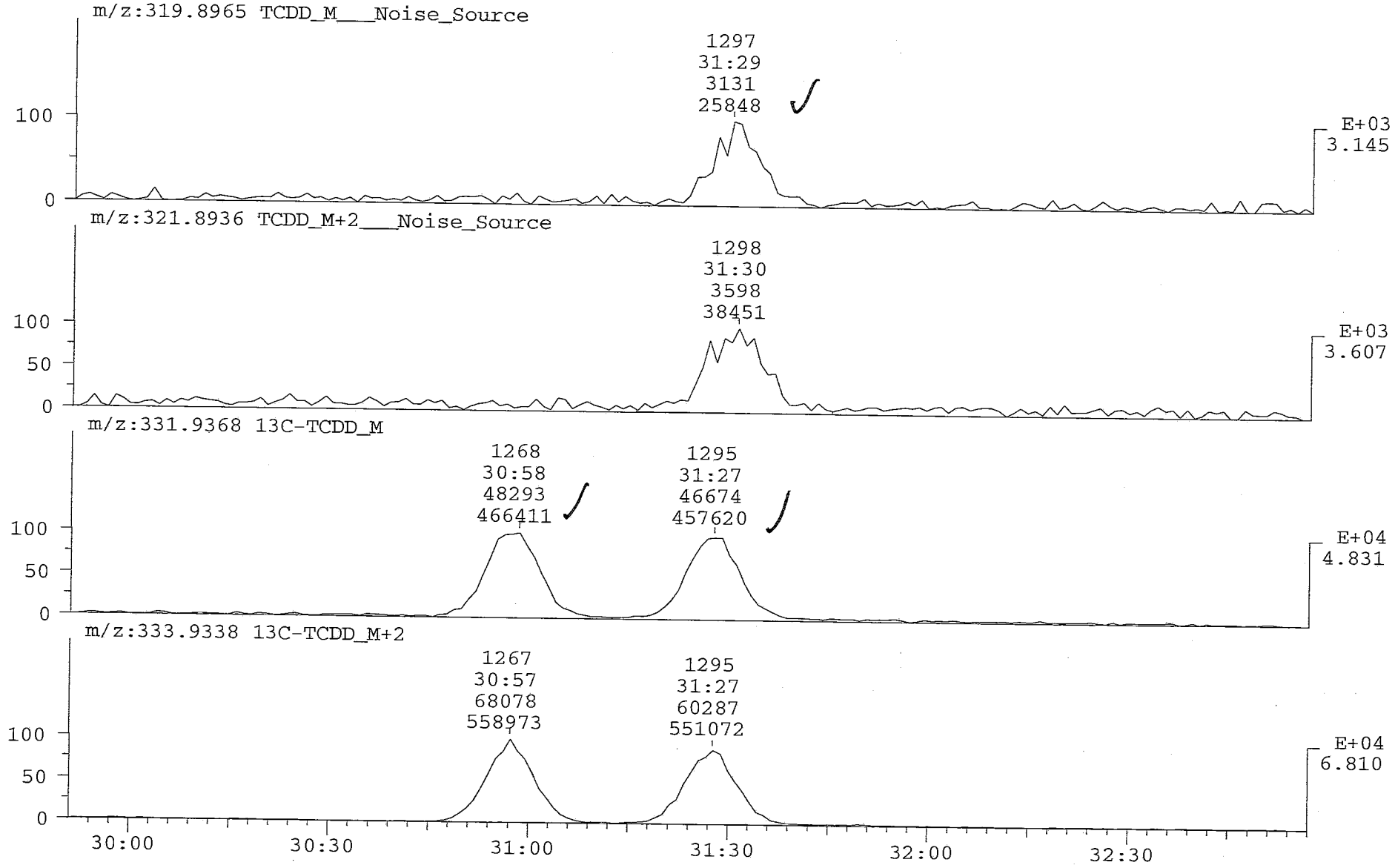


H-825


-8.4 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
3 351 186 uV
p
3.29 A
-20.9 V
1.00 mA
56.3 V
270 C
270 C
2445 2008 1273 3318
2445 2188 1233 3254
0.98 mA
-20.9 V
EI POS
electric
U(a) 4769 V
U(esa) 763.8 V
Entr. Slit (ENS) 145.0
Exit Slit (EXS) 196.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.015 %
Multiplier (EMULT) 2.25 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.3 V
Focus Quad (FQUAD) -3.2 V
VG off
VV off
VVR off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
304.952
304.982
305.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 380.975629 REG 1/3: REG 2/3:
MASS : 304.98199 380.97507
REF MASS : 304.98243 380.97605
PEAK WIDTH [ppm]: 96.94903 99.50913
Active Register: 2
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Fri Jul 15 20:01:41 2011
mat95s
MAT 95


-8.4 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
3 351 186 uV
p
3.29 A
-20.9 V
1.00 mA
56.3 V
2445 2008 1273 3318
d s l x y
270 C
270 C
s s s s s
2445 2188 1233 3254
0.98 mA
-20.9 V
EI POS
electric
U(a) 4769 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 145.0
Exit Slit (EXS) 196.0
Sweep Mass (MASS) 304.982 amu
Virt. Mass (VMASS) 304.982 amu
Link Mass (LMASS) 304.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.015 %
Multiplier (EMULT) 2.25 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 2.3 V
Focus Quad (FQUAD) -3.2 V
VG off
VV off
VVR off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
304.952
304.982
305.01
<> >< << >> ^ v C V LOCK UNLK
TUNE:
Fri Jul 15 20:01:48 2011
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 304.98199
E rm 304.98243
G fm 304.95194
I lm 305.01290
S pc 7969187.83
T pl 7969586.70
E pr 7968814.09
R bl 4847.22
1 v 3351466.00
R pm 380.97507
E rm 380.97605
G fm 380.93794
I lm 381.01414
S pc 6379574.20
T pl 6379913.50
E pr 6379278.68
R bl 0.00
2 v 4282124.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.2491724
PC+DELTA 1.2491724
PC+DELTA/RM 0.9999989
REF MASS 1.2491737
Active Register: 2
0.05
1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
mat95s
MAT 95

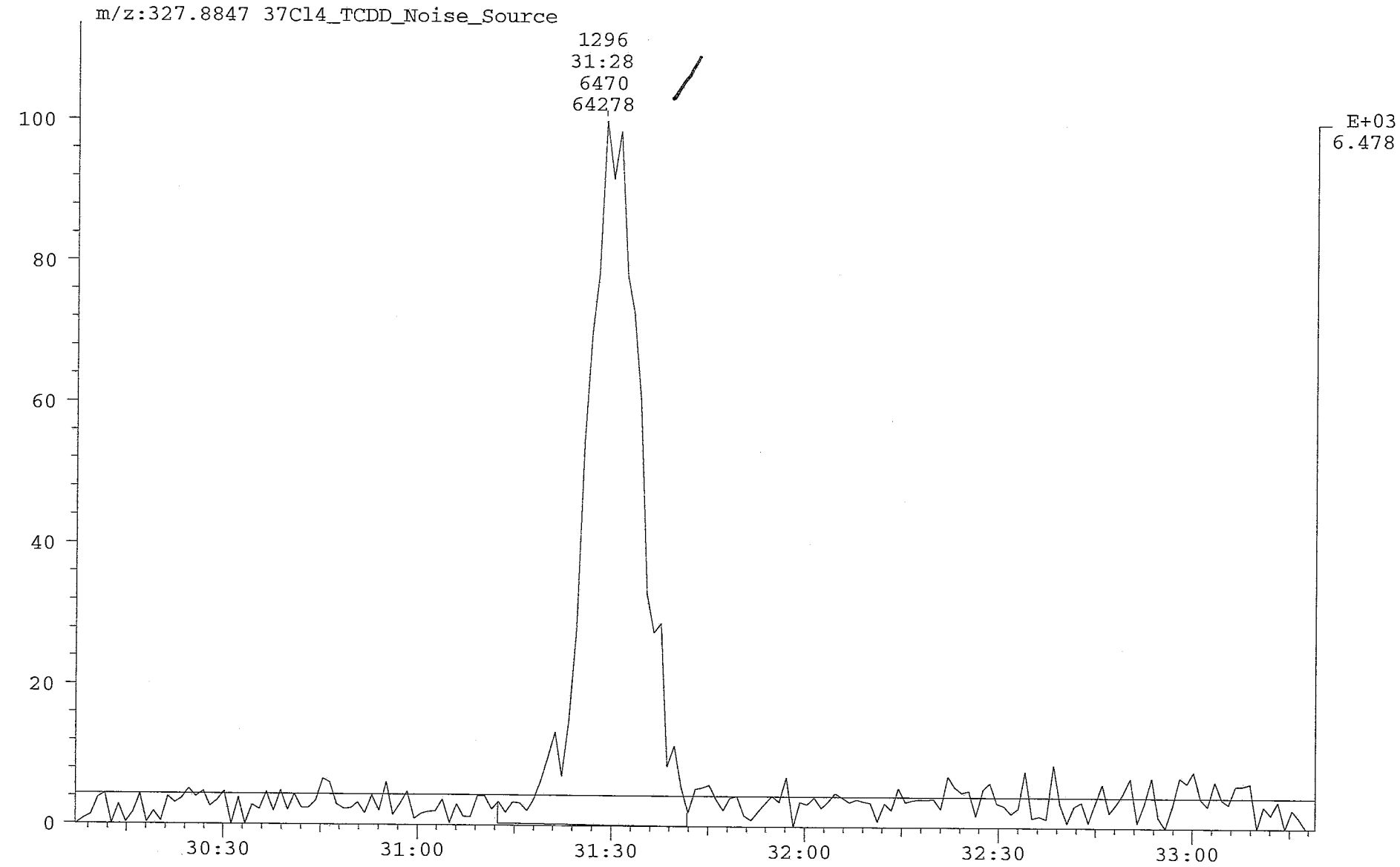
CHRO: b110715s2 15-Jul-11 Elapse: 31:24 1292
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1206 > 1377 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-828

827

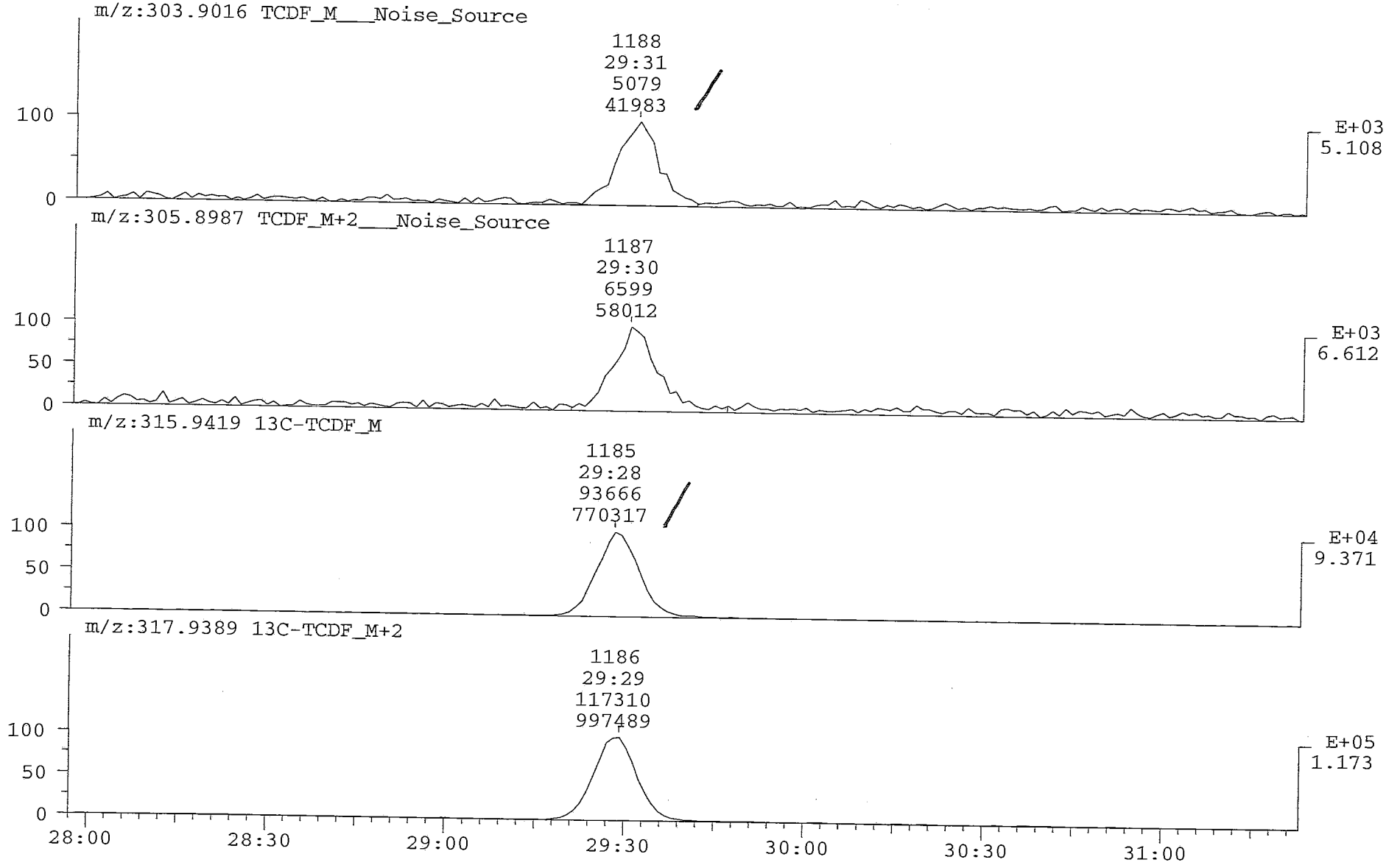
CHRO: b110715s2 15-Jul-11 Elapse: 31:39 1306
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1221 > 1397 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-829

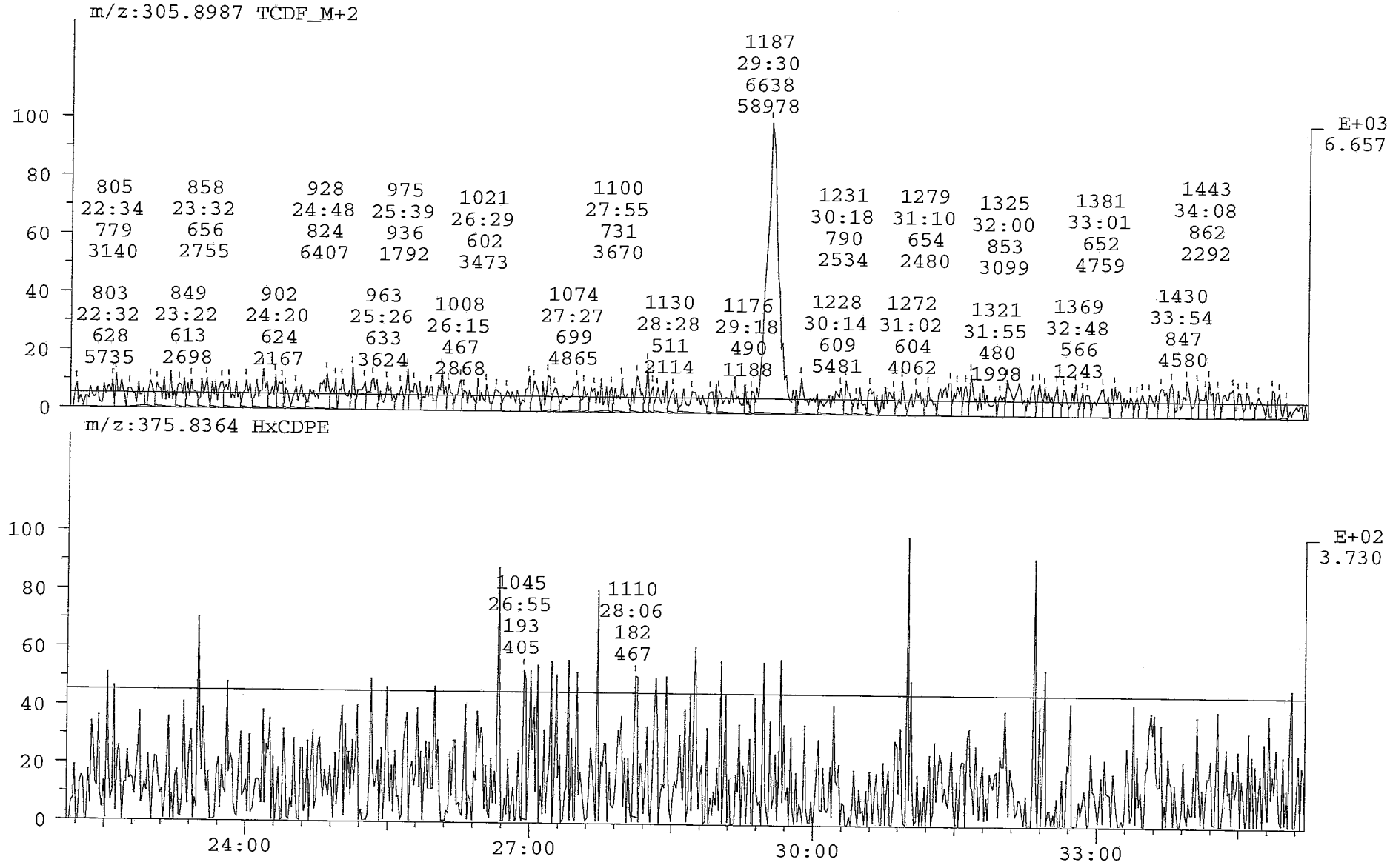
828

CHRO: b110715s2 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1101 > 1291 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-830

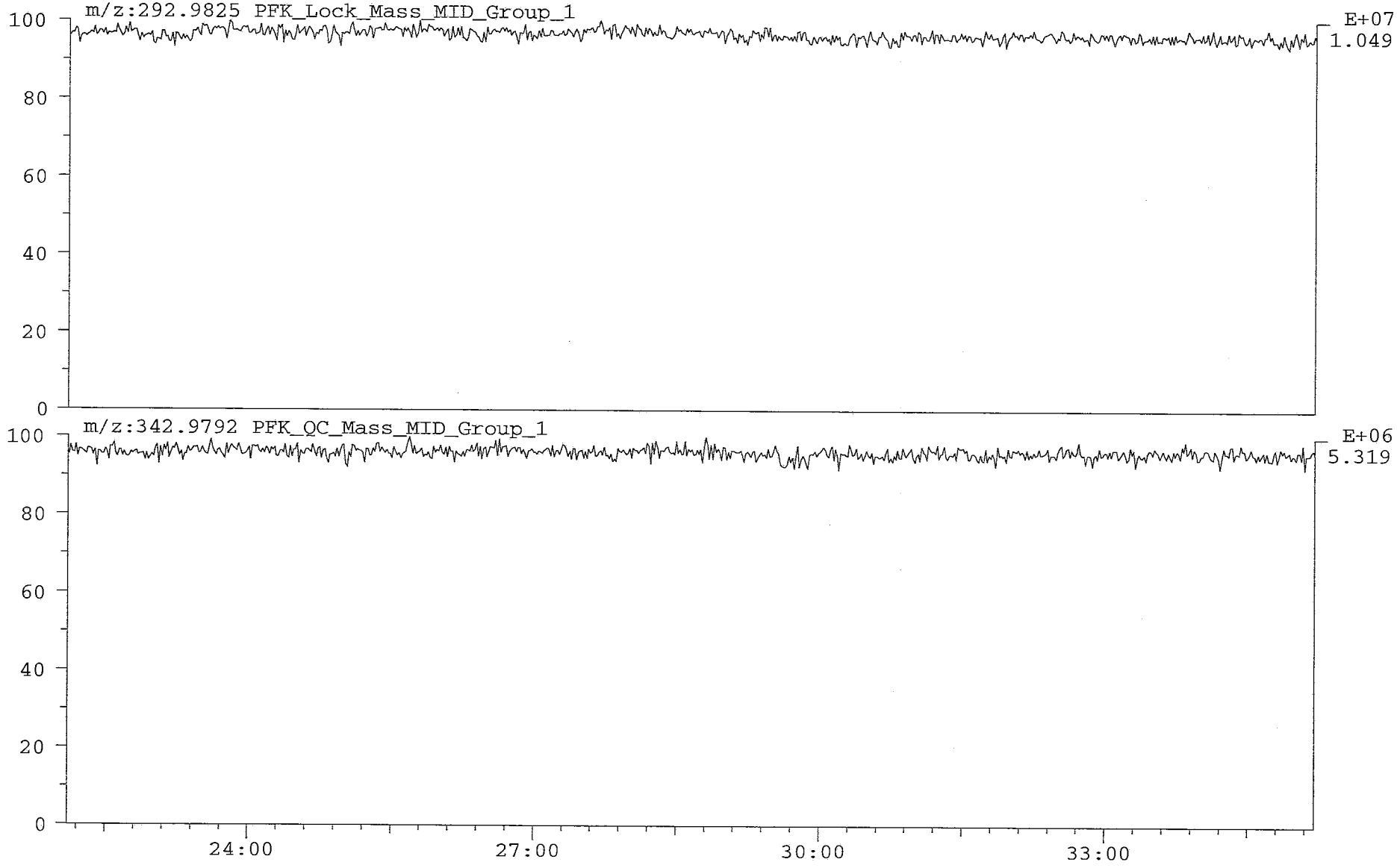
CHRO: b110715s2 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 779 > 1501 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-831

830

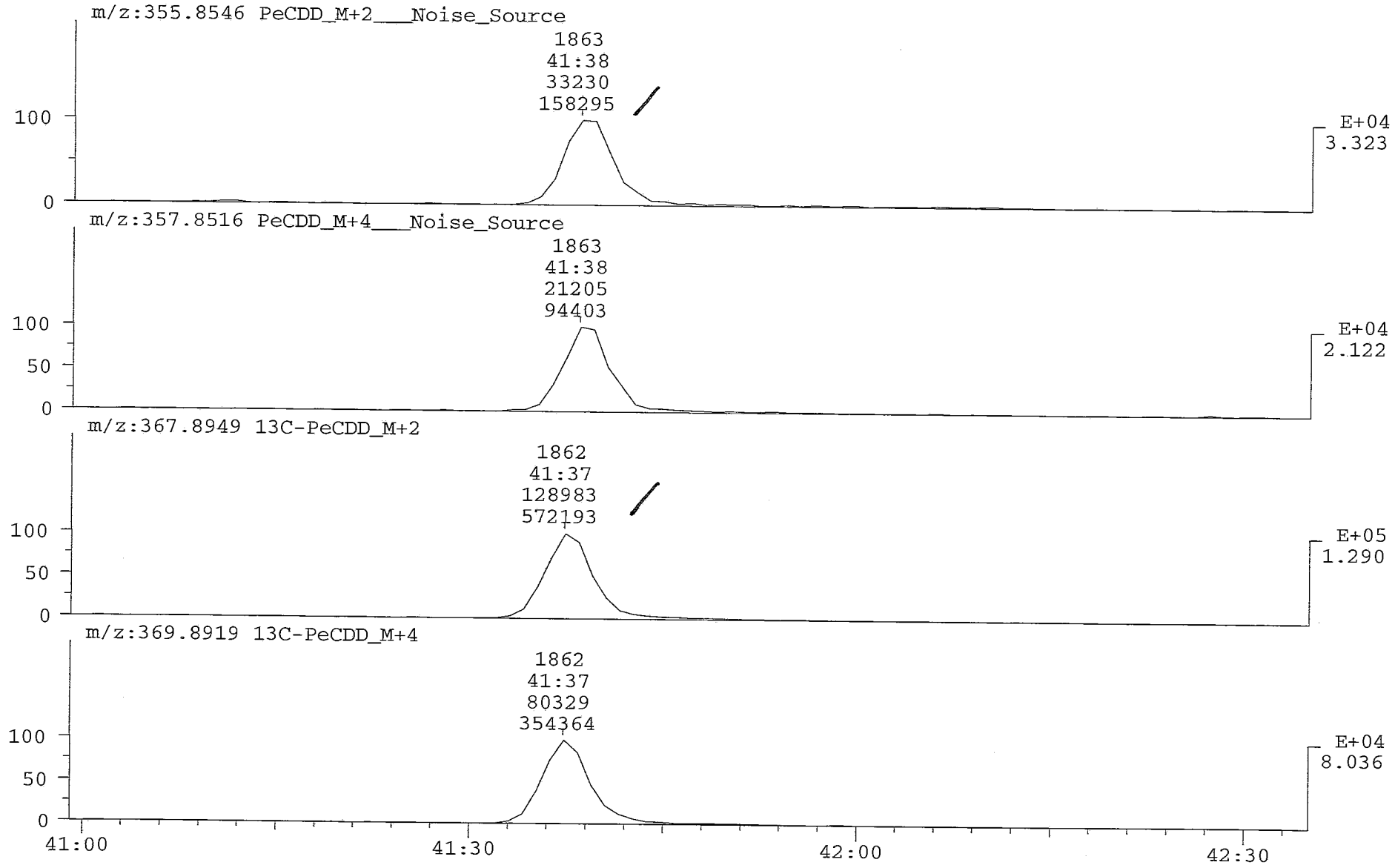
CHRO: b110715s2 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 779 > 1501 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



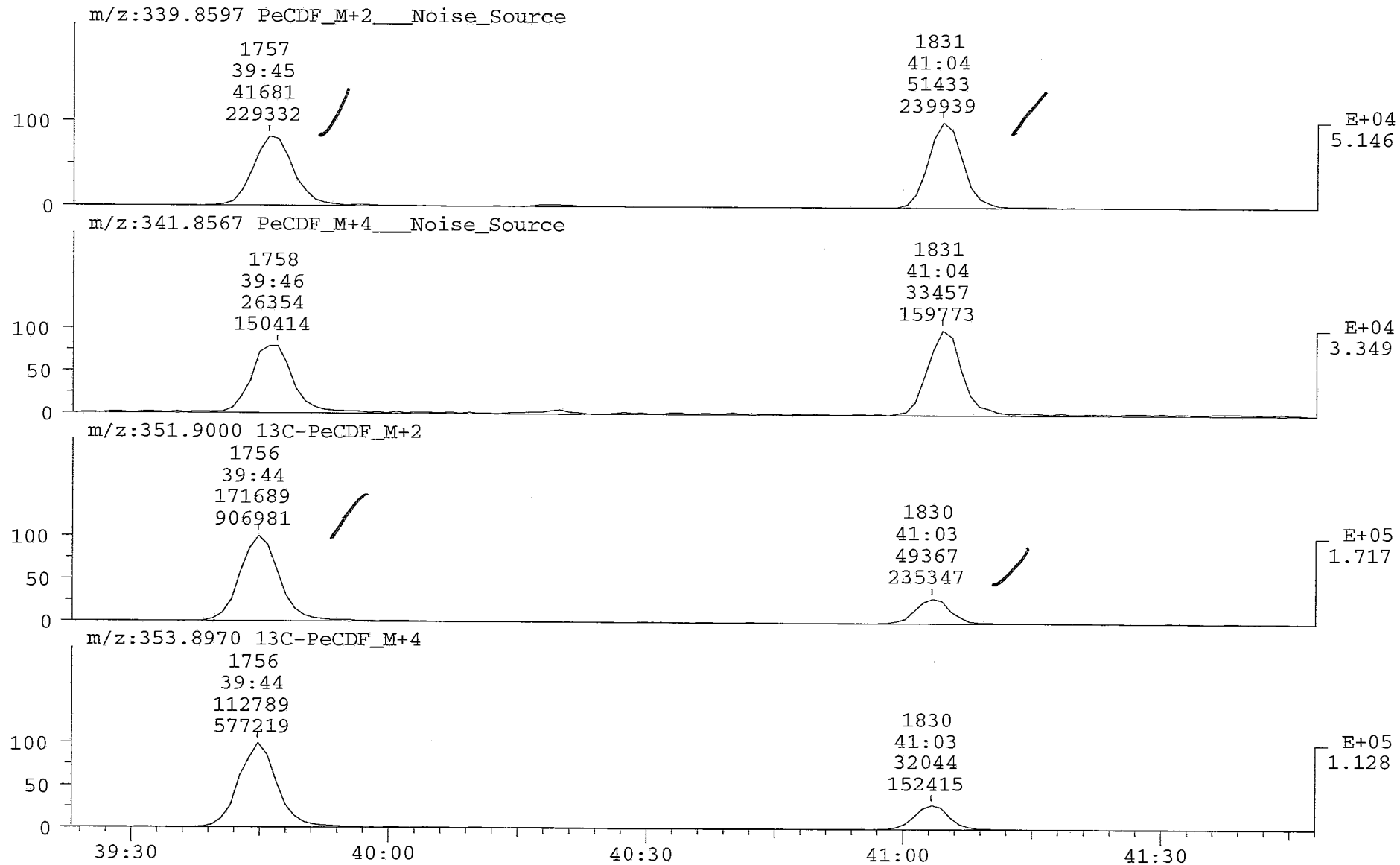
H-832

831

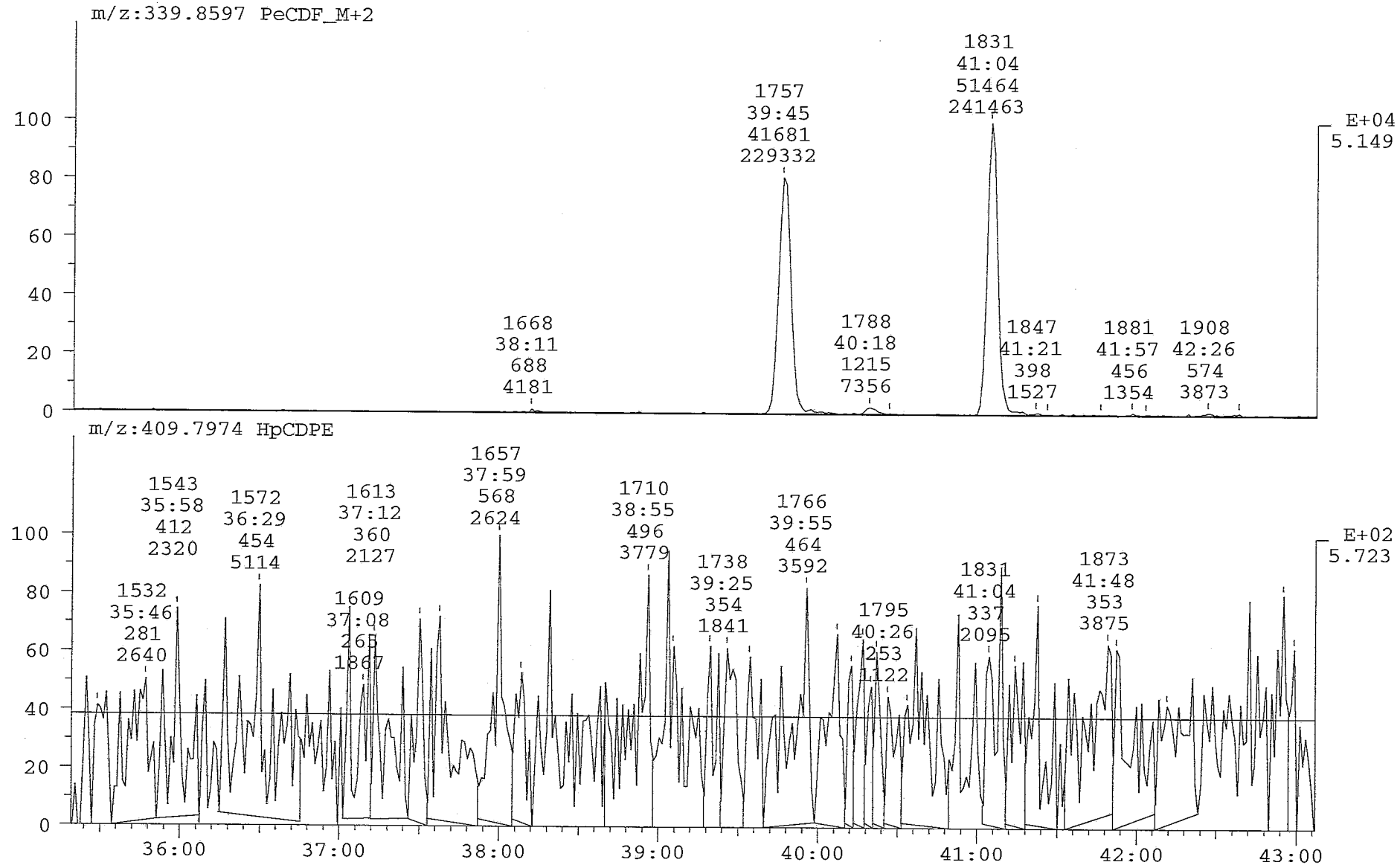
CHRO: b110715s2 15-Jul-11 Elapse: 41:43 1868
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1826 > 1916 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



CHRO: b110715s2 15-Jul-11 Elapse: 40:34 1803
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1736 > 1872 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



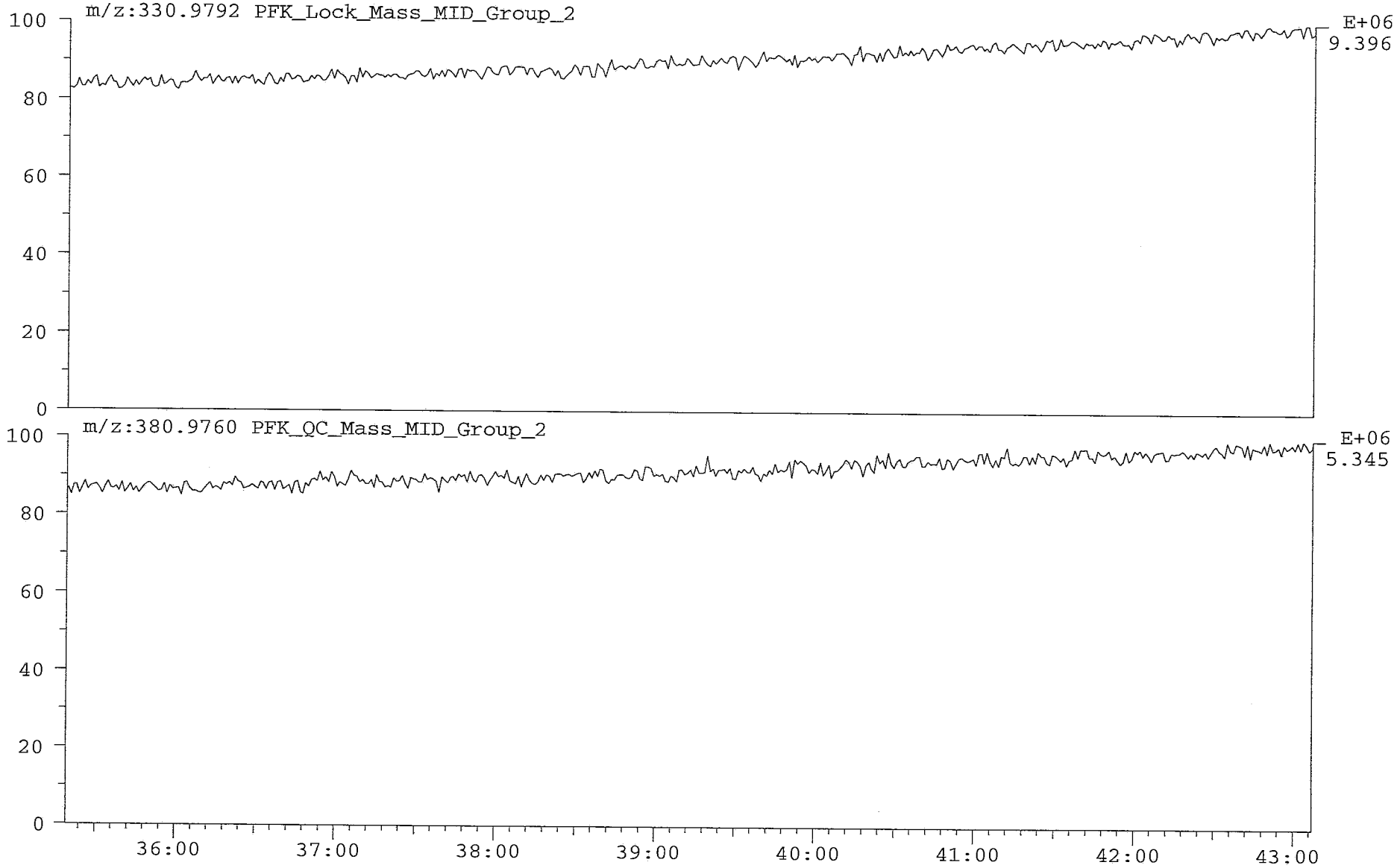
CHRO: b110715s2 15-Jul-11 Elapse: 40:34 1803
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-835

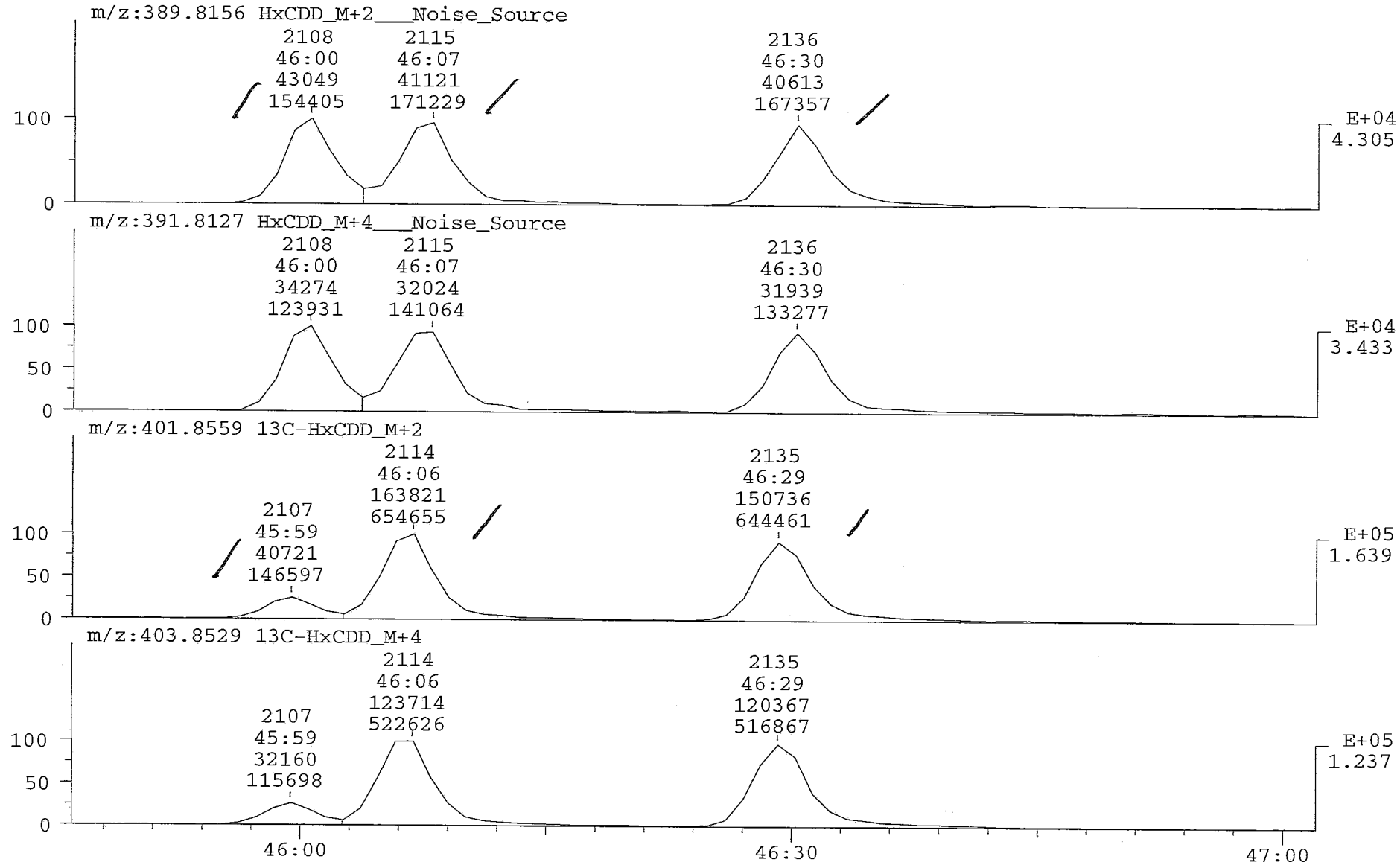
834

CHRO: b110715s2 15-Jul-11 Elapse: 40:34 1803
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-836

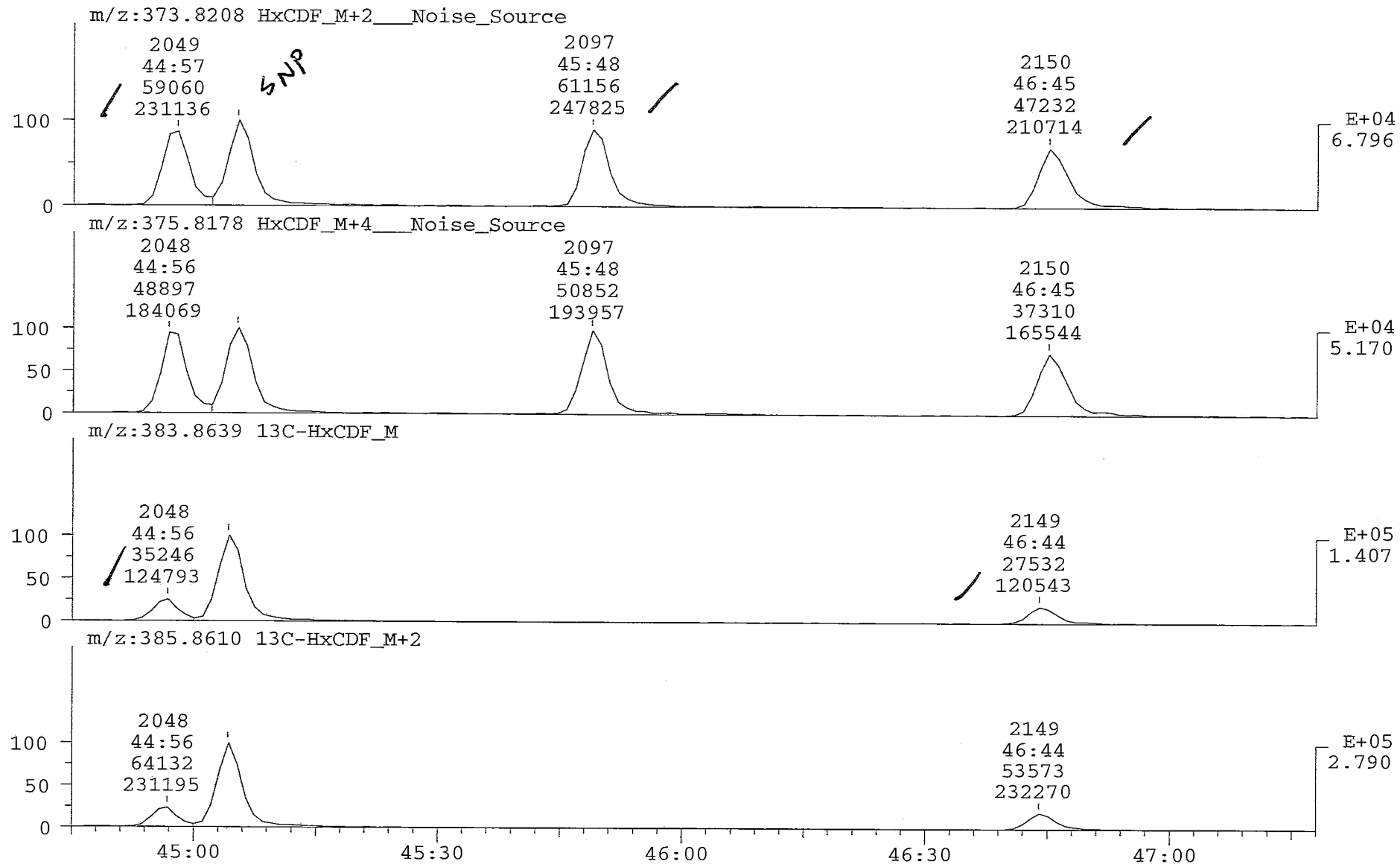
CHRO: b110715s2 15-Jul-11 Elapse: 46:23 2130
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2094 > 2166 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-837

836

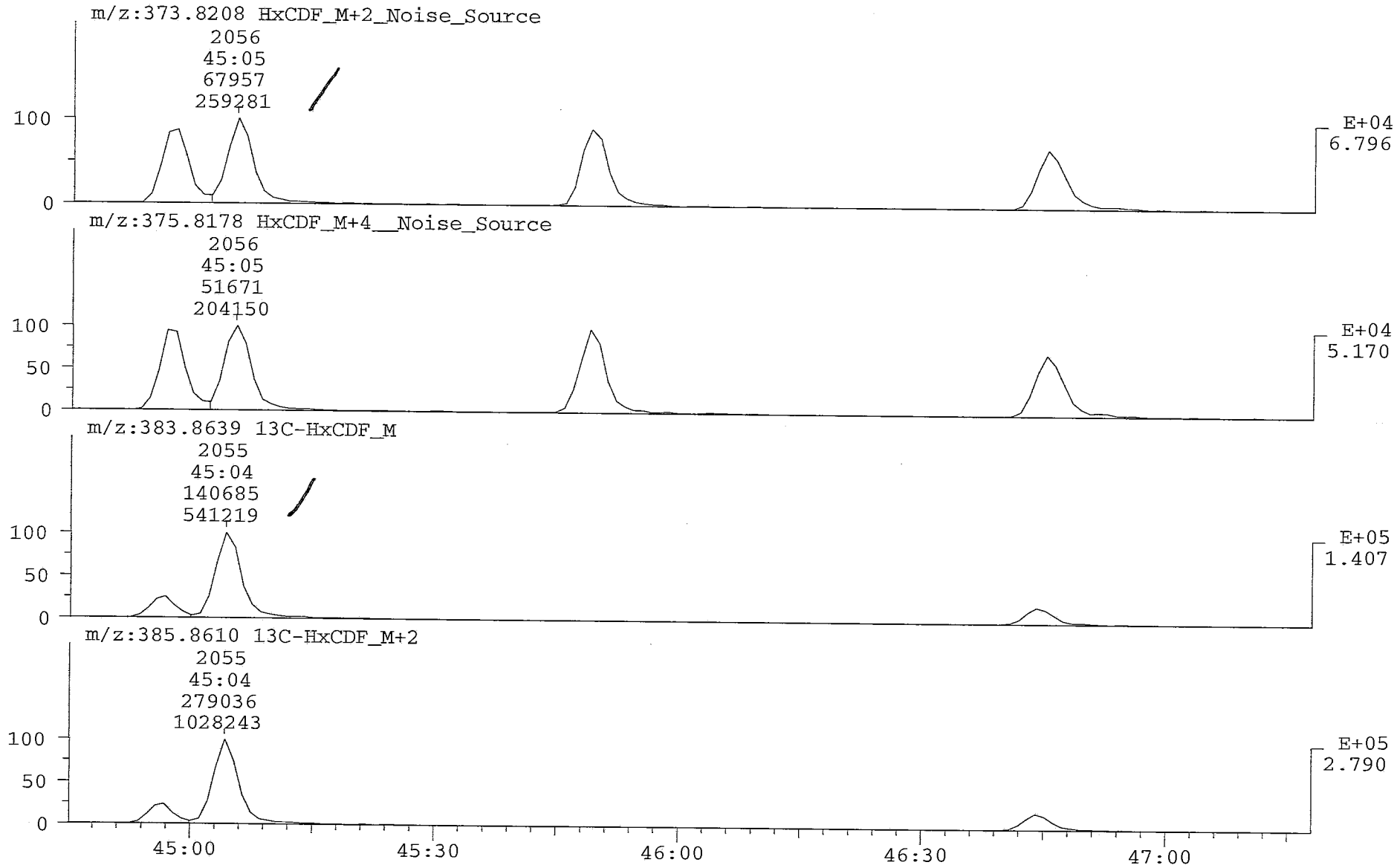
CHRO: b110715s2 15-Jul-11 Elapse: 46:01 2109
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2037 > 2181 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 2, 3.0
Disp: Height Area



H-838

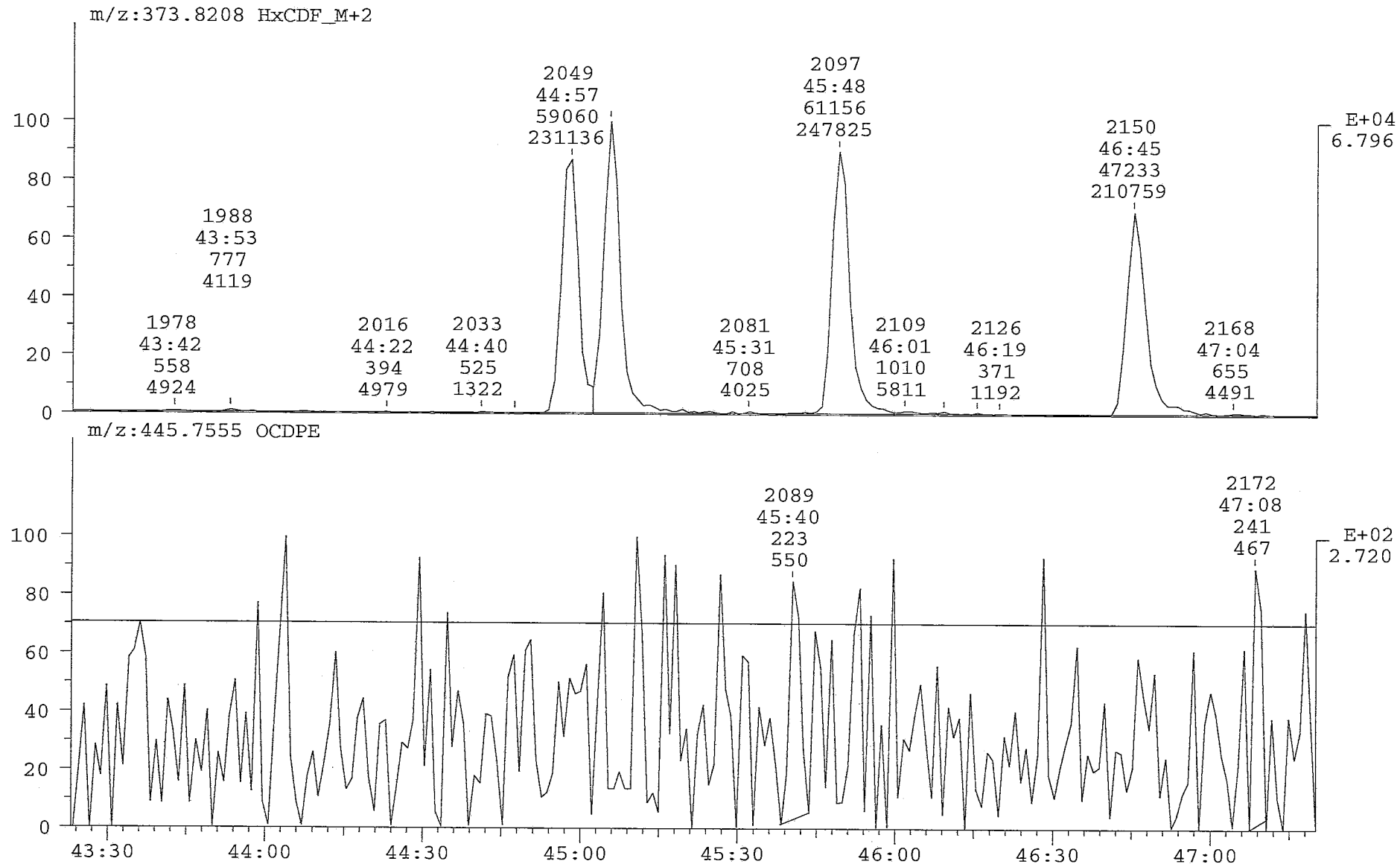
837

CHRO: b110715s2 15-Jul-11 Elapse: 45:04 2055
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2052 > 2058 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



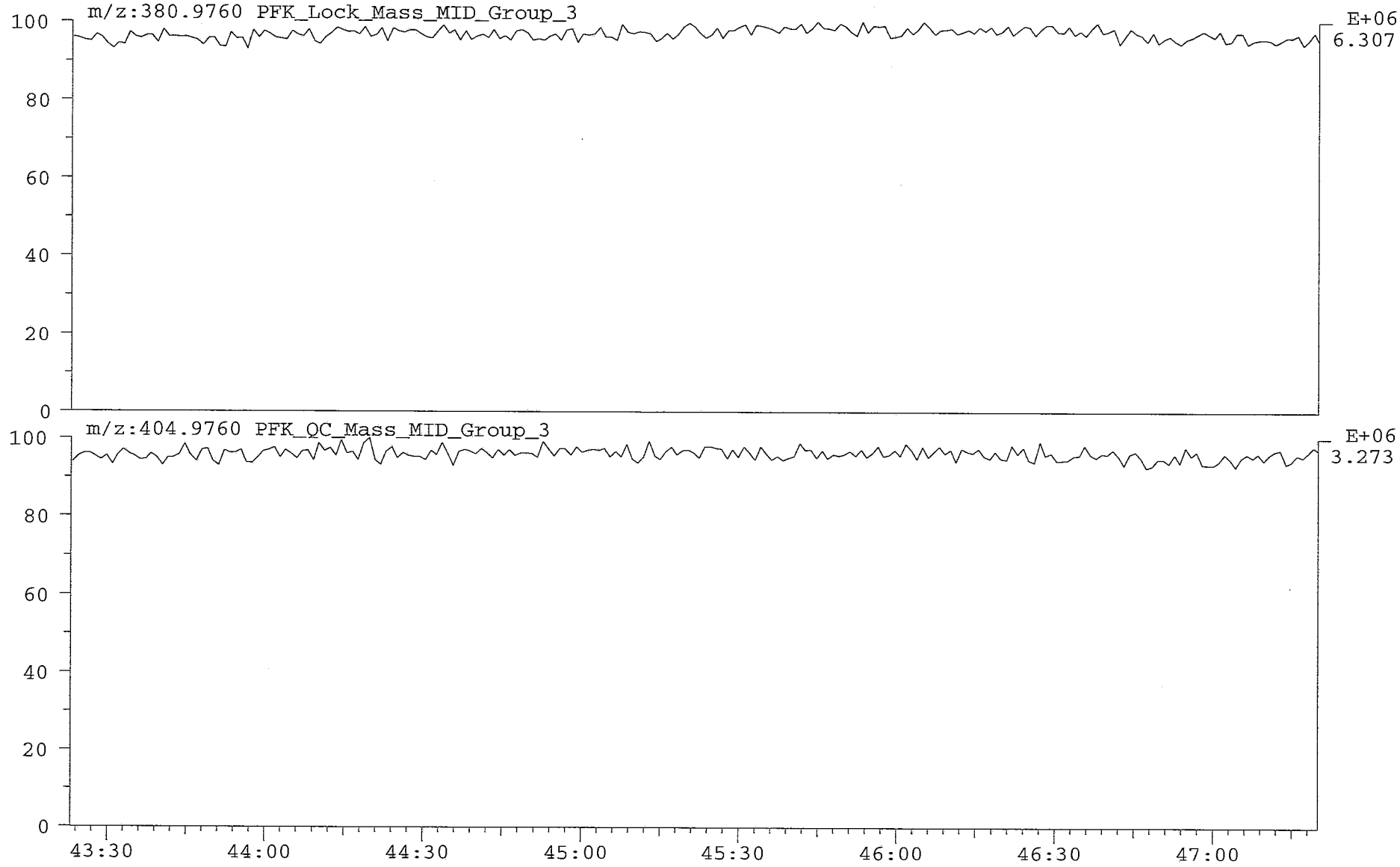
H-839

CHRO: b110715s2 15-Jul-11 Elapse: 45:11 2062
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1960 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



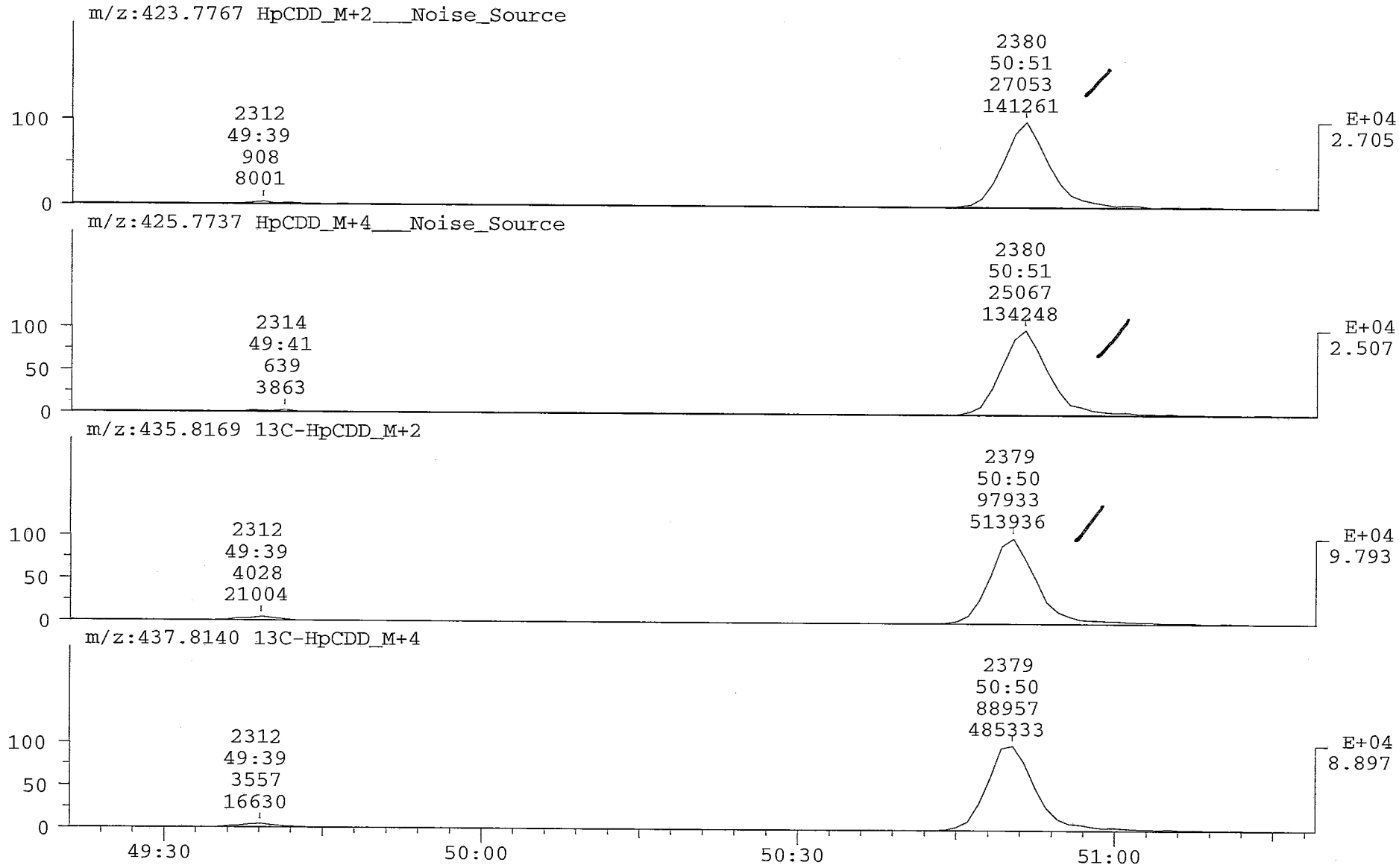
H-840

CHRO: b110715s2 15-Jul-11 Elapse: 45:11 2062
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1960 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

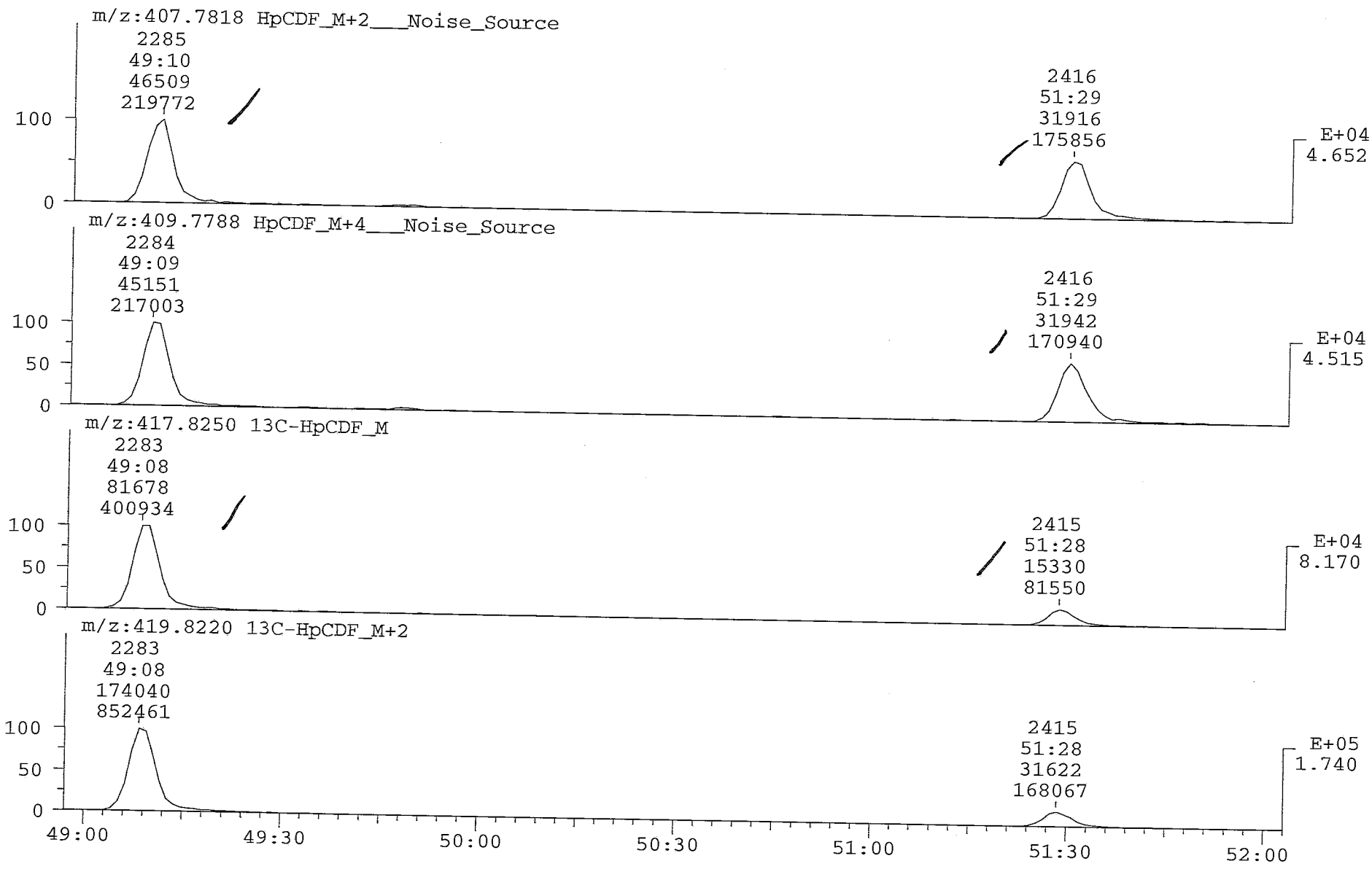


H-841

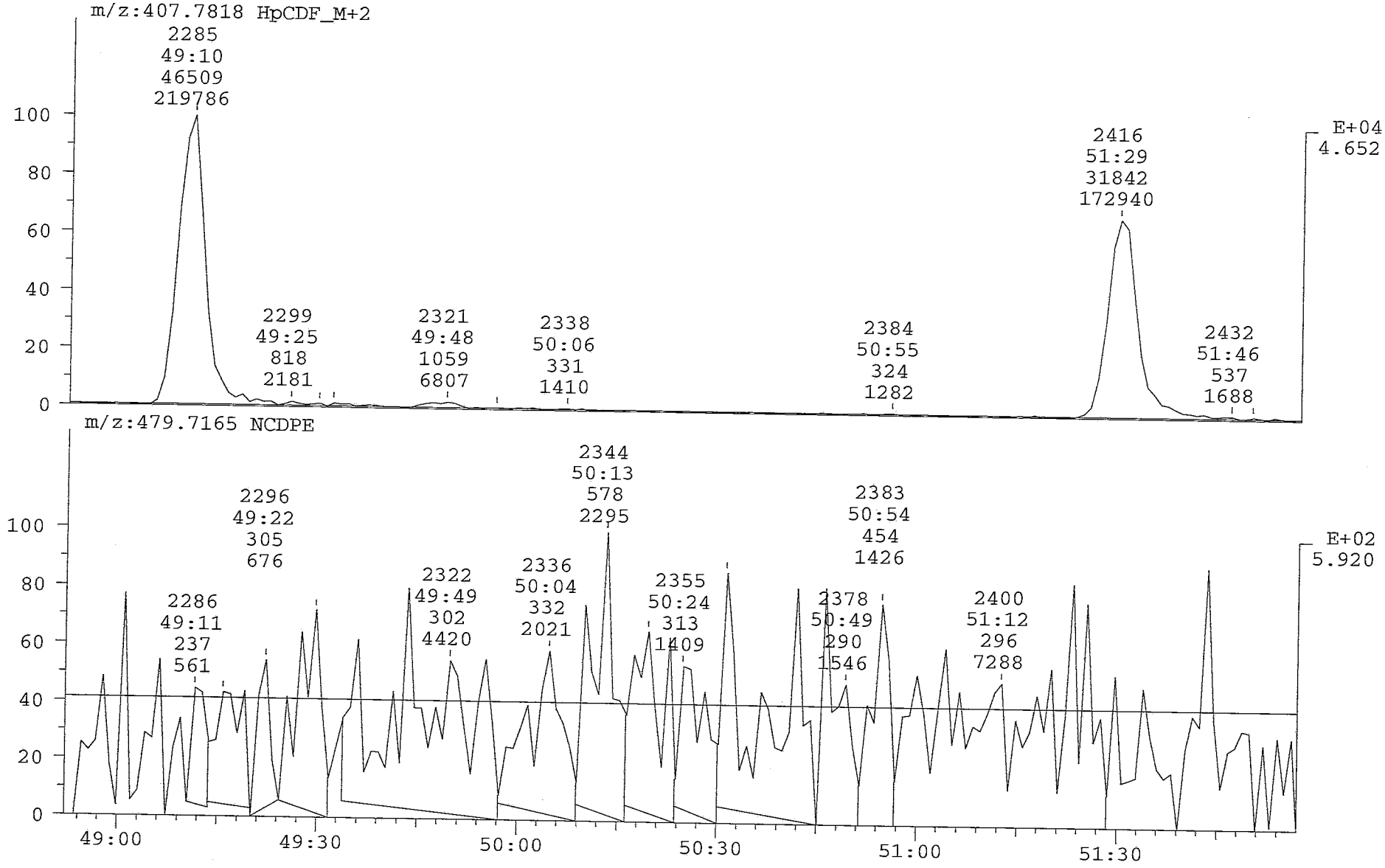
CHRO: b110715s2 15-Jul-11 Elapse: 45:11 2062
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2295 > 2406 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



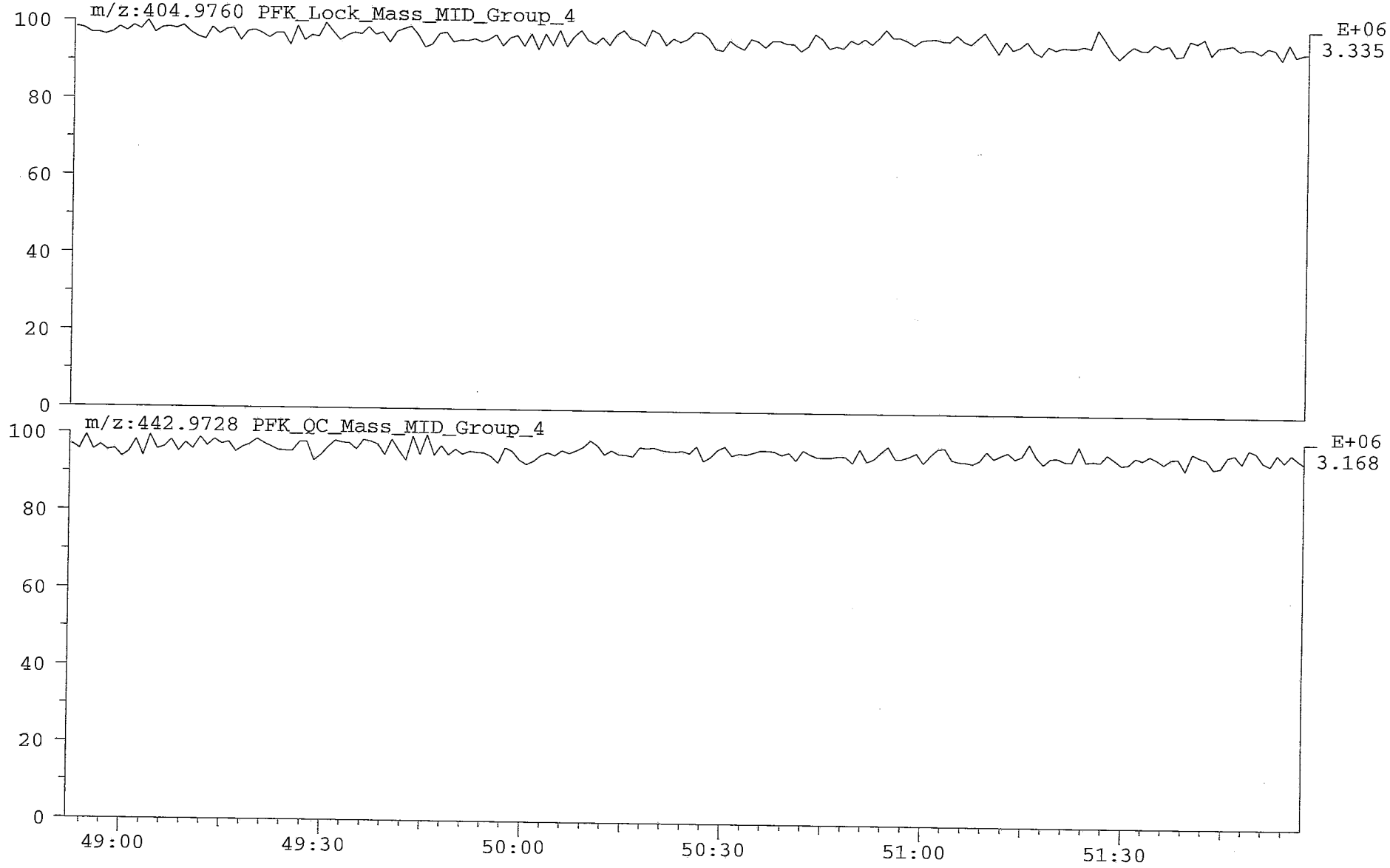
CHRO: b110715s2 15-Jul-11 Elapse: 50:30 2360
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2272 > 2447 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



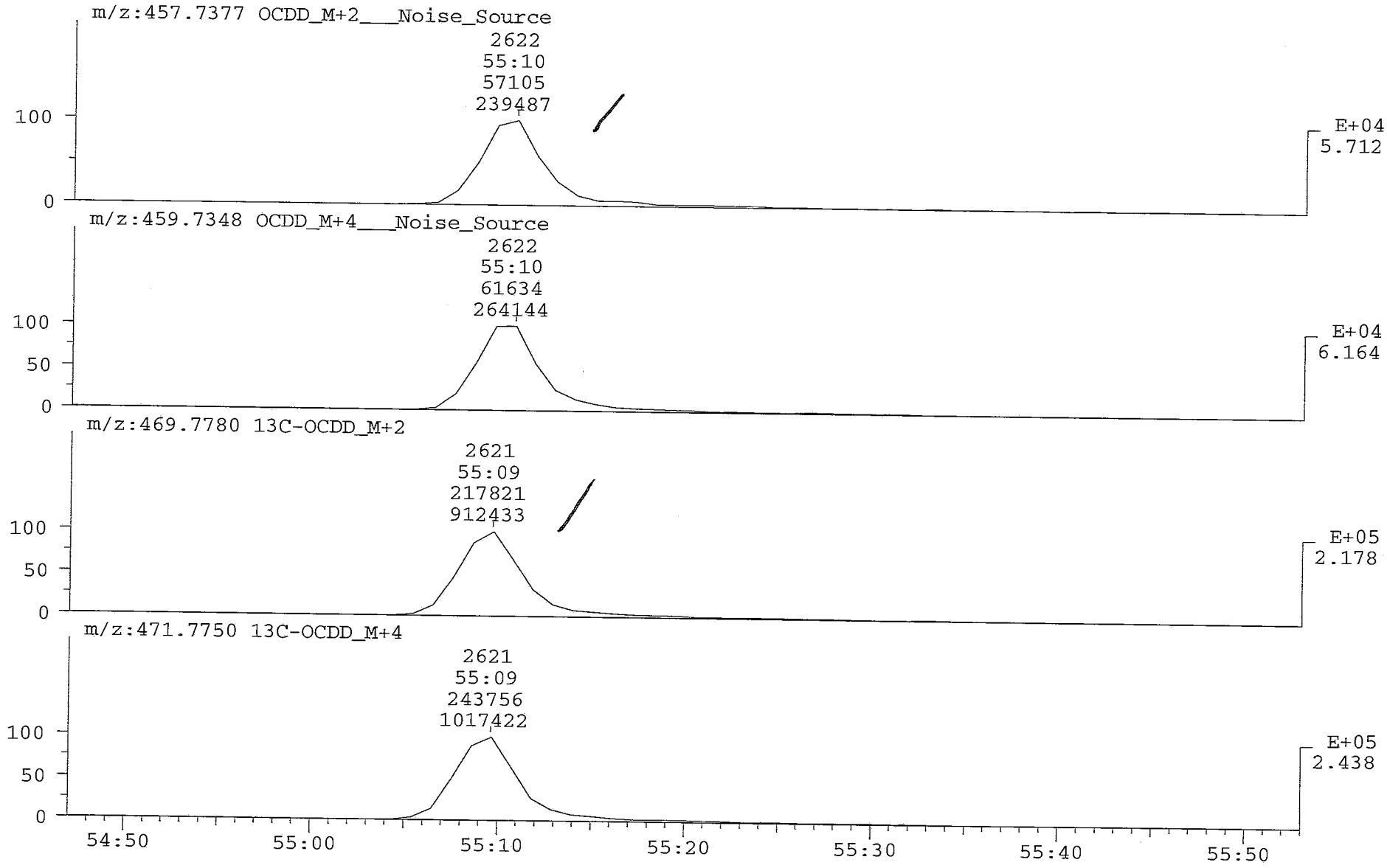
CHRO: b110715s2 15-Jul-11 Elapse: 50:30 2360
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2268 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



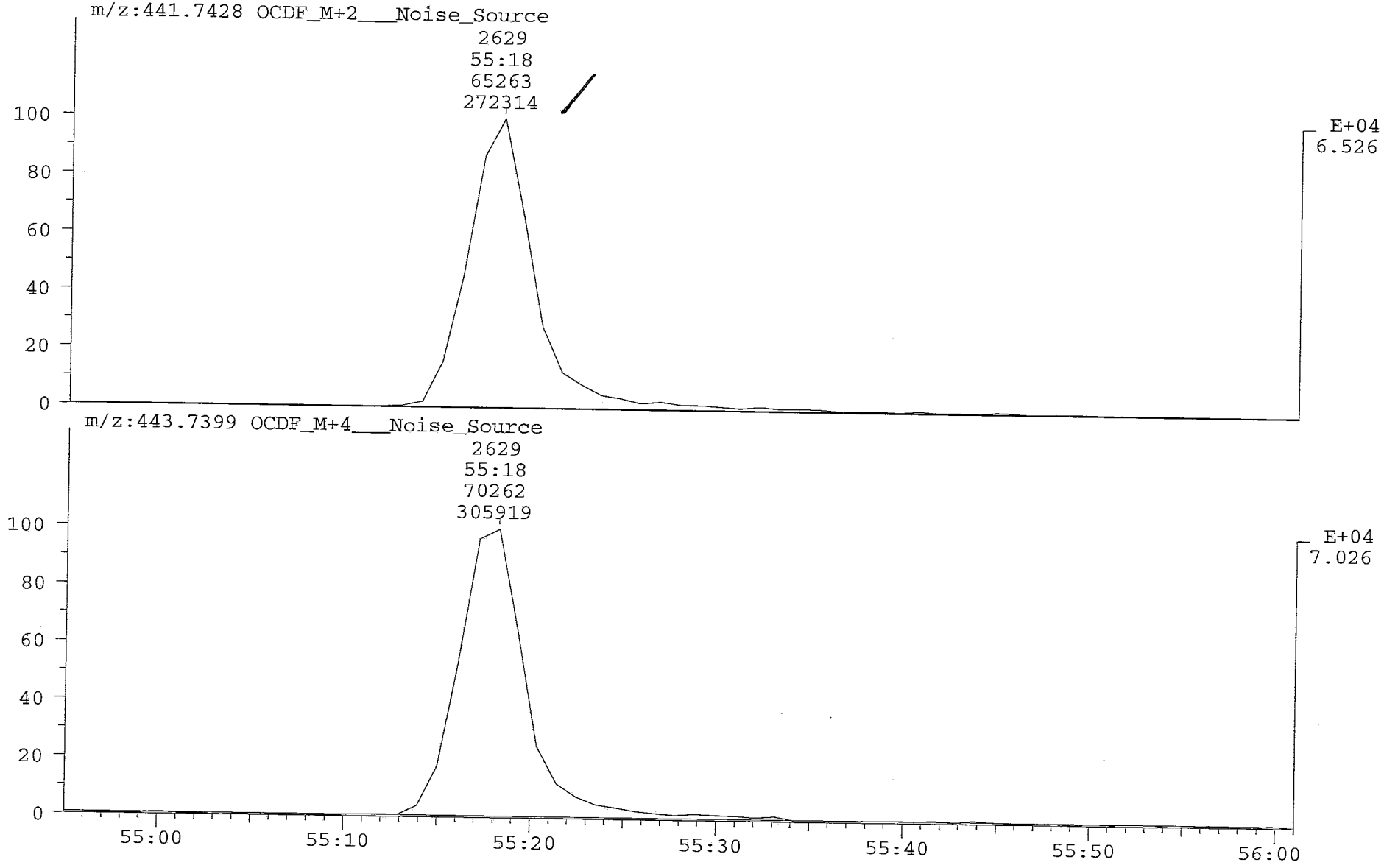
CHRO: b110715s2 15-Jul-11 Elapse: 50:30 2360
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2268 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



CHRO: b110715s2 15-Jul-11 Elapse: 55:17 2628
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2600 > 2662 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

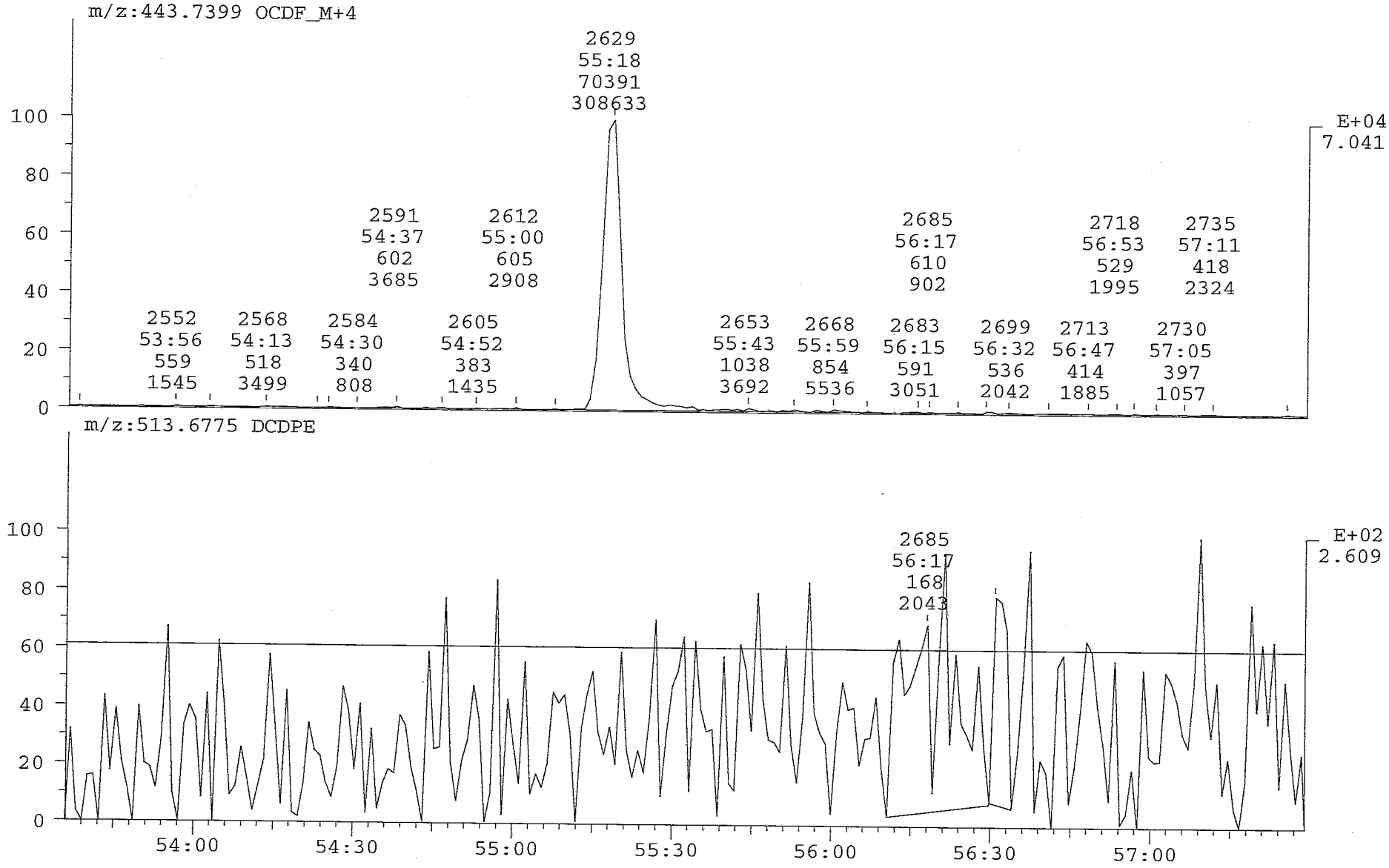


CHRO: b110715s2 15-Jul-11 Elapse: 55:24 2635
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2607 > 2669 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



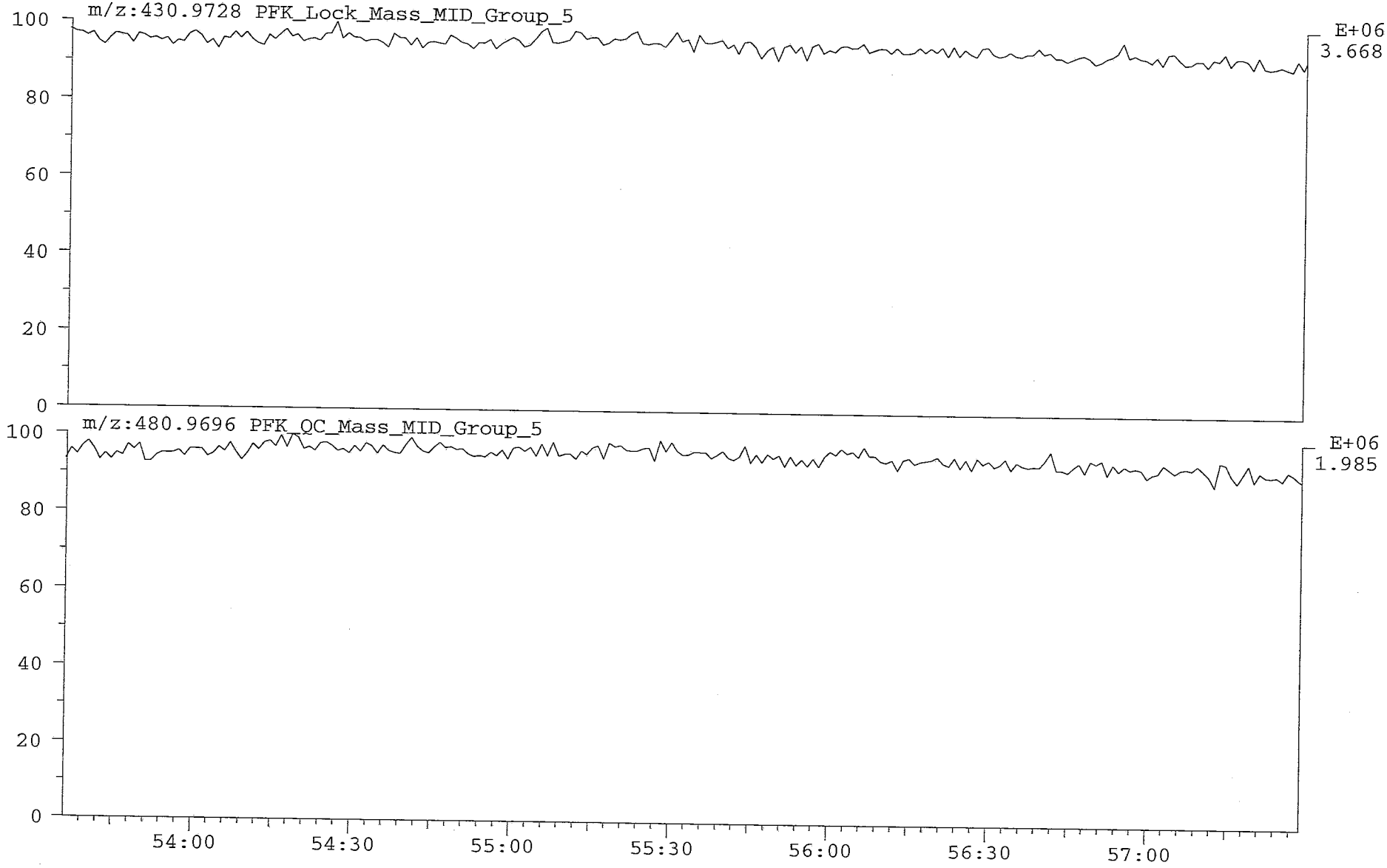
H-847

CHRO: b110715s2 15-Jul-11 Elapse: 55:24 2635
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2533 > 2752 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-848

CHRO: b110715s2 15-Jul-11 Elapse: 55:24 2635
Samp: Vial 3 WO=HR0014 Meth=X8 Dil=1 Start : 17:58:45 2753
Comm: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : M23 Ver
Oper: KBL Client: TA-Knoxville Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2533 > 2752 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-849

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: b110715s2
Study: M23 Ver
Sample: WO=HR0014 Meth=X8 Dil=1
Amount:    0.0
Volume:    0.0
Operator: KBL
Client: TA-Knoxville
Comments: Inst=m2a/1027390 Batch=20110715s2 Ccal=B110715S1
Injected volume:    2.0
Sample from Vial 3
Analysis will stop when MID run finishes
Tune file name: tune2
File 4 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio          1
   Damping Relay            TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start          Measure        End          Cycletime
  # 1    8:00 min    27:13 min    35:13 min     1.00 sec
  # 2   35:13 min     7:54 min    43:08 min     1.00 sec
  # 3   43:08 min     5:17 min    48:25 min     1.00 sec
  # 4   48:25 min     5:05 min    53:30 min     1.00 sec
  # 5   53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8430.0000
BDEV	8290.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.4118
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-20.8500
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	402.0000	FVINLET	837.0000
FVSRC	1060.0000	FWIN	0.7000	GCTC	138.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7059	HVANAL	1214.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	292.9825
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180400.1832	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	231.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10106.3082	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.9200	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 17:58:45.5

Autosampler has injected sample from vial 3
Analysis stopped at: 15-Jul-11 18:56:17.1 (run time 57.52 minutes)
Analysis stopped because MID run finished

Raw QC Data

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....: H1G060000 - 027B **Work Order #....:** MKNTL1AA **Matrix....:** AIR
Dilution Factor: 1
Prep Date....: 07/06/11 **Analysis Date....:** 07/15/11
Prep Batch # ....: 1187027
Initial Wgt/Vol : 1 Sample **Instrument ID....:** M2A **Method:** SW846 0023A/8290
Analyst ID....: Patricia(Trish) M. Parsly

PARAMETER	RESULT	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND	20	9.6	pg/sample
Total TCDD	ND	20	9.6	pg/sample
1,2,3,7,8-PeCDD	ND	100	3.6	pg/sample
Total PeCDD	ND	100	3.6	pg/sample
1,2,3,4,7,8-HxCDD	ND	100	3.5	pg/sample
1,2,3,6,7,8-HxCDD	ND	100	3.4	pg/sample
1,2,3,7,8,9-HxCDD	ND	100	3.5	pg/sample
Total HxCDD	ND	100	3.5	pg/sample
1,2,3,4,6,7,8-HpCDD	ND	100	5.4	pg/sample
Total HpCDD	ND	100	5.4	pg/sample
OCDD	ND	200	6.3	pg/sample
2,3,7,8-TCDF	ND	20	5.6	pg/sample
Total TCDF	ND	20	5.6	pg/sample
1,2,3,7,8-PeCDF	ND	100	3.4	pg/sample
2,3,4,7,8-PeCDF	ND	100	3.5	pg/sample
Total PeCDF	ND	100	3.4	pg/sample
1,2,3,4,7,8-HxCDF	ND	100	2.2	pg/sample
1,2,3,6,7,8-HxCDF	ND	100	1.9	pg/sample
2,3,4,6,7,8-HxCDF	ND	100	2.0	pg/sample
1,2,3,7,8,9-HxCDF	ND	100	2.3	pg/sample
Total HxCDF	ND	100	2.1	pg/sample
1,2,3,4,6,7,8-HpCDF	ND	100	2.4	pg/sample
1,2,3,4,7,8,9-HpCDF	ND	100	3.1	pg/sample
Total HpCDF	ND	100	2.7	pg/sample
OCDF	ND	200	4.6	pg/sample

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H1G060000 - 027B	**Work Order #....:**	MKNTL1AA	**Matrix....:**	AIR
Dilution Factor:	1				
Prep Date....:	07/06/11	**Analysis Date....:**	07/15/11		
Prep Batch # ....:	1187027				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M2A	**Method:**	SW846 0023A/8290
Analyst ID....:	Patricia(Trish) M. Parsly				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	68	40 - 135
13C-1,2,3,7,8-PeCDD	78	40 - 135
13C-1,2,3,6,7,8-HxCDD	93	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	84	40 - 135
13C-OCDD	73	40 - 135
13C-2,3,7,8-TCDF	75	40 - 135
13C-1,2,3,7,8-PeCDF	74	40 - 135
13C-1,2,3,6,7,8-HxCDF	92	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	96	40 - 135

QUALIFIERS

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H1G050439	**Work Order # ...:**	MKNTL1AC-LCS	**Matrix .....:**	AIR
LCS Lot-Sample# :	H1G060000 - 027		MKNTL1AD-LCSD		
Prep Date .....:	07/06/11	**Analysis Date ..:**	07/15/11		
Prep Batch # ...:	1187027				
Dilution Factor :	1				
Analyst ID.....:	Kathryn B. Lay	**Instrument ID..:**	M2A	**Method.....:**	SW846 0023A/8290
Initial Wgt/Vol:	1 Sample				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	400	407	pg/sample	102		(70 - 130)		
	400	376	pg/sample	94		(70 - 130)	7.9	(0 - 50)
1,2,3,7,8-PeCDD	2000	1860	pg/sample	93	Q	(70 - 130)		
	2000	1890	pg/sample	94	Q	(70 - 130)	1.6	(0 - 50)
1,2,3,4,7,8-HxCDD	2000	1910	pg/sample	96		(70 - 130)		
	2000	1960	pg/sample	98		(70 - 130)	2.8	(0 - 50)
1,2,3,6,7,8-HxCDD	2000	1960	pg/sample	98		(70 - 130)		
	2000	1830	pg/sample	92		(70 - 130)	6.6	(0 - 50)
1,2,3,7,8,9-HxCDD	2000	2090	pg/sample	105		(70 - 130)		
	2000	2080	pg/sample	104		(70 - 130)	0.53	(0 - 50)
1,2,3,4,6,7,8-HpCDD	2000	1910	pg/sample	96		(70 - 130)		
	2000	1960	pg/sample	98		(70 - 130)	2.3	(0 - 50)
OCDD	4000	3740	pg/sample	93		(70 - 130)		
	4000	3820	pg/sample	96		(70 - 130)	2.3	(0 - 50)
2,3,7,8-TCDF	400	355	pg/sample	89		(70 - 130)		
	400	356	pg/sample	89		(70 - 130)	0.18	(0 - 50)
1,2,3,7,8-PeCDF	2000	1950	pg/sample	98		(70 - 130)		
	2000	1970	pg/sample	98		(70 - 130)	0.76	(0 - 50)
2,3,4,7,8-PeCDF	2000	1810	pg/sample	91		(70 - 130)		
	2000	1860	pg/sample	93		(70 - 130)	2.4	(0 - 50)
1,2,3,4,7,8-HxCDF	2000	2030	pg/sample	101		(70 - 130)		
	2000	2130	pg/sample	107		(70 - 130)	5.1	(0 - 50)
1,2,3,6,7,8-HxCDF	2000	1960	pg/sample	98		(70 - 130)		
	2000	1980	pg/sample	99		(70 - 130)	1.2	(0 - 50)
2,3,4,6,7,8-HxCDF	2000	1890	pg/sample	94		(70 - 130)		
	2000	1970	pg/sample	99		(70 - 130)	4.2	(0 - 50)
1,2,3,7,8,9-HxCDF	2000	1900	pg/sample	95		(70 - 130)		
	2000	2050	pg/sample	103		(70 - 130)	7.4	(0 - 50)
1,2,3,4,6,7,8-HpCDF	2000	1840	pg/sample	92		(70 - 130)		
	2000	1820	pg/sample	91		(70 - 130)	1.3	(0 - 50)
1,2,3,4,7,8,9-HpCDF	2000	1770	pg/sample	88		(70 - 130)		
	2000	1820	pg/sample	91		(70 - 130)	2.9	(0 - 50)
OCDF	4000	3980	pg/sample	100		(70 - 130)		
	4000	4090	pg/sample	102		(70 - 130)	2.6	(0 - 50)

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(40 - 135)
	82	(40 - 135)
13C-1,2,3,7,8-PeCDD	93	(40 - 135)
	86	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	83	(40 - 135)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...: H1G050439 **Work Order # ...:** MKNTL1AC-LCS **Matrix .....:** AIR
LCS Lot-Sample# : H1G060000 - 027 MKNTL1AD-LCSD

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
	84	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	85	(40 - 135)
	85	(40 - 135)
13C-OCDD	72	(40 - 135)
	70	(40 - 135)
13C-2,3,7,8-TCDF	85	(40 - 135)
	86	(40 - 135)
13C-1,2,3,7,8-PeCDF	86	(40 - 135)
	83	(40 - 135)
13C-1,2,3,6,7,8-HxCDF	84	(40 - 135)
	80	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	87	(40 - 135)
	86	(40 - 135)

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Q Estimated maximum possible concentration (EMPC).

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKNTL1AA	Prep Batch	1187027	Lot No	H1G060000-027
Data File	/20110714s5/btmkntlba.d	Prep Date	07/06/11	SDG No	
Analysis ID	133625	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/15/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	01:09	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Anal Exp Date	08/20/11	Extract Vol	40 uL	Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	PMP				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (pg/sample	DL (pg/samp
2,3,7,8-TCDD				1.172				ND	9.61
Total TCDD				1.172				ND	9.61
2,3,7,8-TCDF				1.081				ND	5.65
Total TCDF				1.081				ND	5.65
1,2,3,7,8-PeCDD				1.124				ND	3.62
Total PeCDD				1.124				ND	3.62
1,2,3,7,8-PeCDF				1.050				ND	3.41
2,3,4,7,8-PeCDF				1.030				ND	3.48
Total PeCDF				1.040				ND	3.45
1,2,3,4,7,8-HxCDD				0.990				ND	3.54
1,2,3,6,7,8-HxCDD				1.020				ND	3.43
1,2,3,7,8,9-HxCDD				1.003				ND	3.50
Total HxCDD				1.004				ND	3.49
1,2,3,4,7,8-HxCDF				1.091				ND	2.16
1,2,3,6,7,8-HxCDF				1.226				ND	1.92
2,3,4,6,7,8-HxCDF				1.160				ND	2.03
1,2,3,7,8,9-HxCDF				1.008				ND	2.34
Total HxCDF				1.121				ND	2.10
1,2,3,4,6,7,8-HpCDD				1.094				ND	5.44
Total HpCDD				1.094				ND	5.44
1,2,3,4,6,7,8-HpCDF				1.469				ND	2.37
1,2,3,4,7,8,9-HpCDF				1.127				ND	3.09
Total HpCDF				1.298				ND	2.68
OCDD				1.075				ND	6.29
OCDF				1.258				ND	4.56
13C-2,3,7,8-TCDD	31:35	479940	50608	1.006	2000	1366.10372	68.31	1366.10372	12.4
13C-2,3,7,8-TCDF	29:36	894690	101564	1.719	2000	1490.61440	74.53	1490.61440	5.98
13C-1,2,3,7,8-PeCDD	41:40	516099	127842	0.953	2000	1550.91425	77.55	1550.91425	9.24
13C-1,2,3,7,8-PeCDF	39:47	857892	164606	1.661	2000	1479.83549	73.99	1479.83549	4.46
13C-1,2,3,6,7,8-HxCDD	46:08	623891	168329	1.035	2000	1864.59750	93.23	1864.59750	8.23
13C-1,2,3,6,7,8-HxCDF	45:05	852734	226979	1.434	2000	1838.92969	91.95	1838.92969	3.32
13C-1,2,3,4,6,7,8-HpCDD	50:53	462478	92362	0.851	2000	1680.46600	84.02	1680.46600	4.75
13C-1,2,3,4,6,7,8-HpCDF	49:11	681707	149308	1.094	2000	1927.76589	96.39	1927.76589	3.94
13C-OCDD	55:11	813257	186378	0.867	4000	2900.48117	72.51	2900.48117	7.32
37Cl4-2,3,7,8-TCDD				1.198	4000			ND	5.28
13C-2,3,4,7,8-PeCDF				0.994	4000			ND	3.55
13C-1,2,3,4,7,8-HxCDD				0.887	4000			ND	8.67
13C-1,2,3,4,7,8-HxCDF				0.891	4000			ND	3.59
13C-1,2,3,7,8,9-HxCDF				1.321				ND	3.61
13C-1,2,3,4,7,8,9-HpCDF				0.841	4000			ND	5.21
13C-1,2,3,4-TCDD	31:04	1396367	156593	1.000	4000	4000.00000	100.00	4000.00000	12.5
13C-1,2,3,7,8,9-HxCDD	46:31	1293366	304107	1.000	4000	4000.00000	100.00	4000.00000	8.52

7-15-11 7-15-11

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder MKNTL1AA
Data File /20110714s5/btmkntlba.
Analysis ID 133625
Analysis Date 07/15/11 01:09
Anal Exp Date 08/20/11
Instrument M2A
Analyst PMP

Prep Batch 1187027
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 40 uL
Diluton Factor 1.00

Lot No H1G060000-027
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPX801
Method 0023/8290
Code X8

View Small Peaks? False

View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89	
	Noise	00:00	00:00	0	145	165	58	66	0.88	/
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89	
	Noise	00:00	00:00	0	170	233	68	93	0.73	/
	13C-2,3,7,8-TCDF	29:36	29:36	0	392703	501987	44390	57174	0.78	ABB/AVV
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89	
	Noise	00:00	00:00	0	133	153	53	61	0.87	/
328					327.8847		327.8847			
	Noise	00:00	00:00	0	160		64			
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89	
	Noise	00:00	00:00	0	215	273	86	109	0.79	/
	13C-1,2,3,4-TCDD	31:04	31:05	-1	632092	764275	71753	84840	0.83	AVV/ABV
	13C-2,3,7,8-TCDD	31:35	31:35	0	215556	264384	22231	28377	0.82	AVV/AVB
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78	
	Noise	00:00	00:00	0	128	168	51	67	0.76 *	/
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78	
	Noise	00:00	00:00	0	128	163	51	65	0.78 *	/
	13C-1,2,3,7,8-PeCDF	39:47	39:49	-2	526355	331537	100774	63832	1.59	ABV/ABV
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78	
	Noise	00:00	00:00	0	150	110	60	44	1.36	/
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78	
	Noise	00:00	00:00	0	208	138	83	55	1.51	/
	13C-1,2,3,7,8-PeCDD	41:40	41:41	-1	313707	202392	77708	50134	1.55	ABV/ABV
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43	
	Noise	00:00	00:00	0	145	123	58	49	1.18	/
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59	
	Noise	00:00	00:00	0	153	210	61	84	0.73 *	/
	13C-1,2,3,6,7,8-HxCDF	45:05	45:07	-2	300404	552330	77221	149758	0.54	ABV/ABV
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43	
	Noise	00:00	00:00	0	145	150	58	60	0.97 *	/
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43	
	Noise	00:00	00:00	0	315	333	126	133	0.95 *	/
	13C-1,2,3,6,7,8-HxCDD	46:08	46:09	-1	345792	278099	95093	73236	1.24	ABV/ABB
	13C-1,2,3,7,8,9-HxCDD	46:31	46:32	-1	729135	564231	168656	135451	1.29	AVV/ABV M
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20	
	Noise	00:00	00:00	0	130	130	52	52	1.00	/
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51	
	Noise	00:00	00:00	0	163	165	65	66	0.98 *	/
	13C-1,2,3,4,6,7,8-HpCDF	49:11	49:12	-1	211667	470040	45777	103531	0.45	ABV/ABV
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20	
	Noise	00:00	00:00	0	155	120	62	48	1.29 *	/
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKNTL1AA	Prep Batch	1187027	Lot No	H1G060000-027
Data File	/20110714s5/btmkntlba.	Prep Date	07/06/11	SDG No	
Analysis ID	133625	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/15/11 01:09	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	PMP	Diluton Factor	1.00	Code	X8

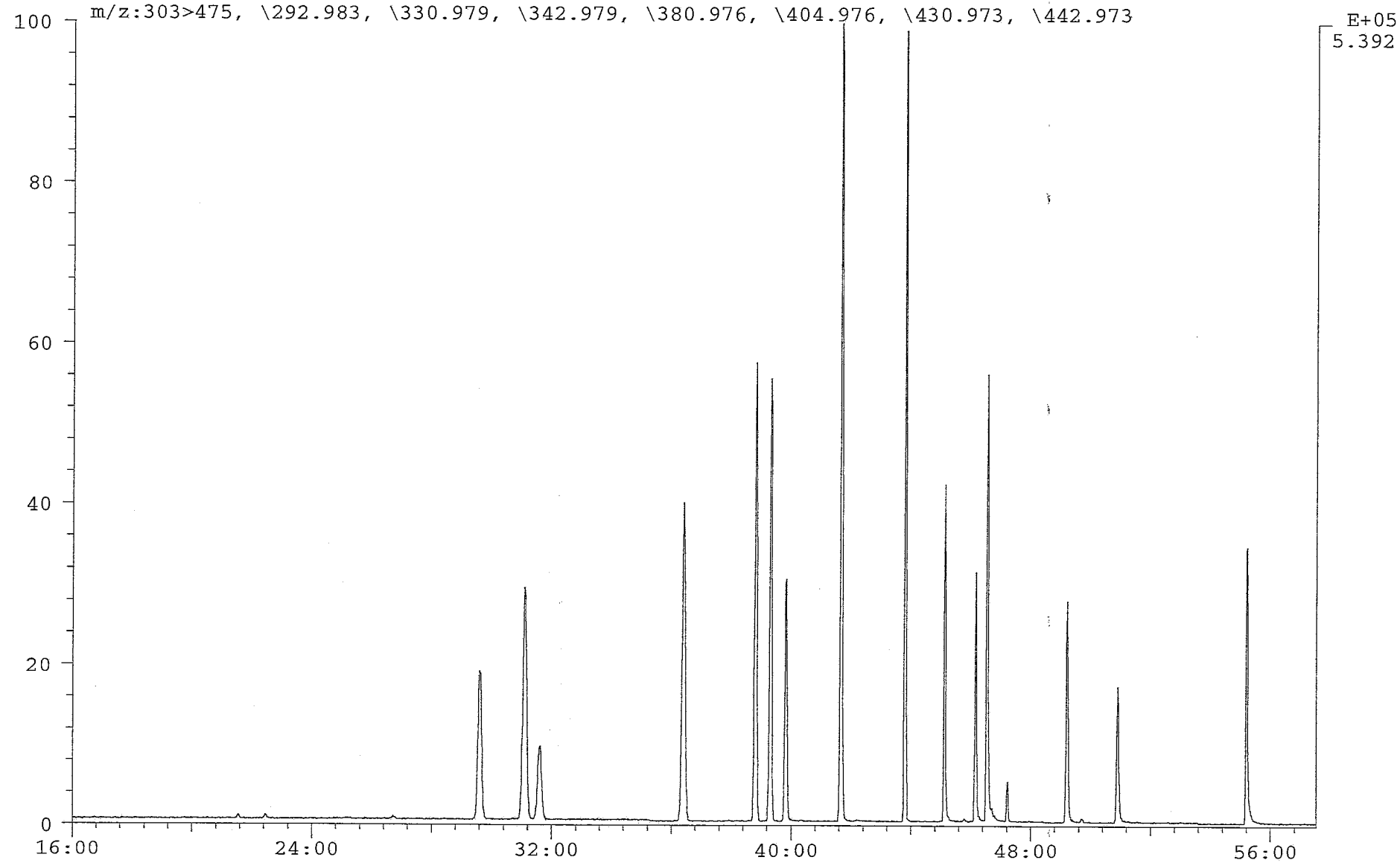
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20	
	Noise	00:00	00:00	0	190	118	76	47	1.62 *	/
	13C-1,2,3,4,6,7,8-HpCDD	50:53	50:53	0	236776	225702	46778	45584	1.05	ABV/ABV
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02	
	Noise	00:00	00:00	0	118	150	47	60	0.78	/
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02	
	Noise	00:00	00:00	0	148	168	59	67	0.88	/
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02	
	Noise	00:00	00:00	0	273	210	109	84	1.30 *	/
	13C-OCDD	55:11	55:11	0	383340	429917	86622	99756	0.89	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

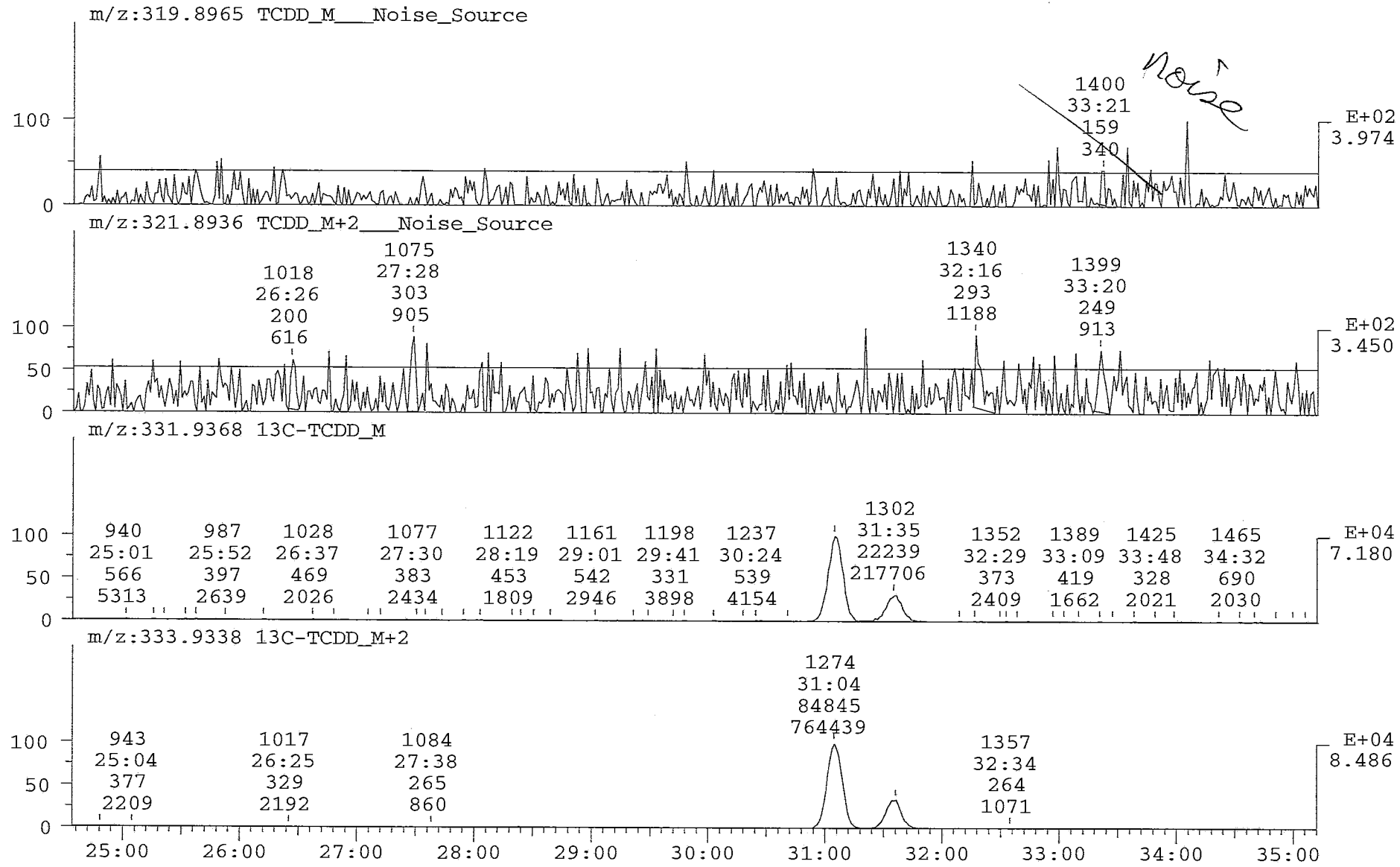
CHRO: btmkntlba 15-Jul-11 Elapse: 55:16 2628
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 442 > 2754 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int Prep 7-15-11
Calc UM 7-15-11
Qcd L 7-15-11
Rev MSD 7-18-11



H-862

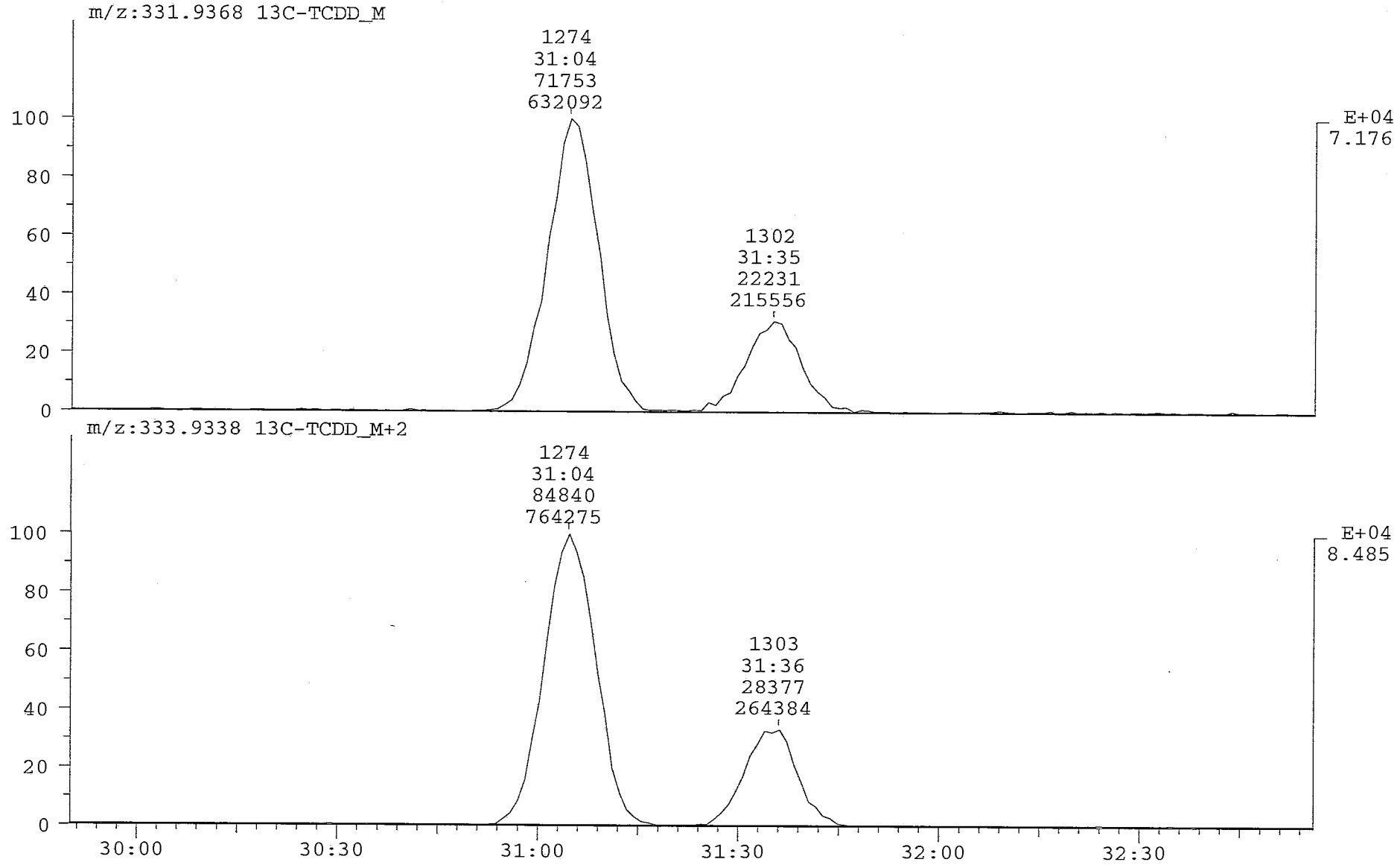
CHRO: btmkntlba 15-Jul-11 Elapse: 55:16 2628
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 915 > 1502 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-863

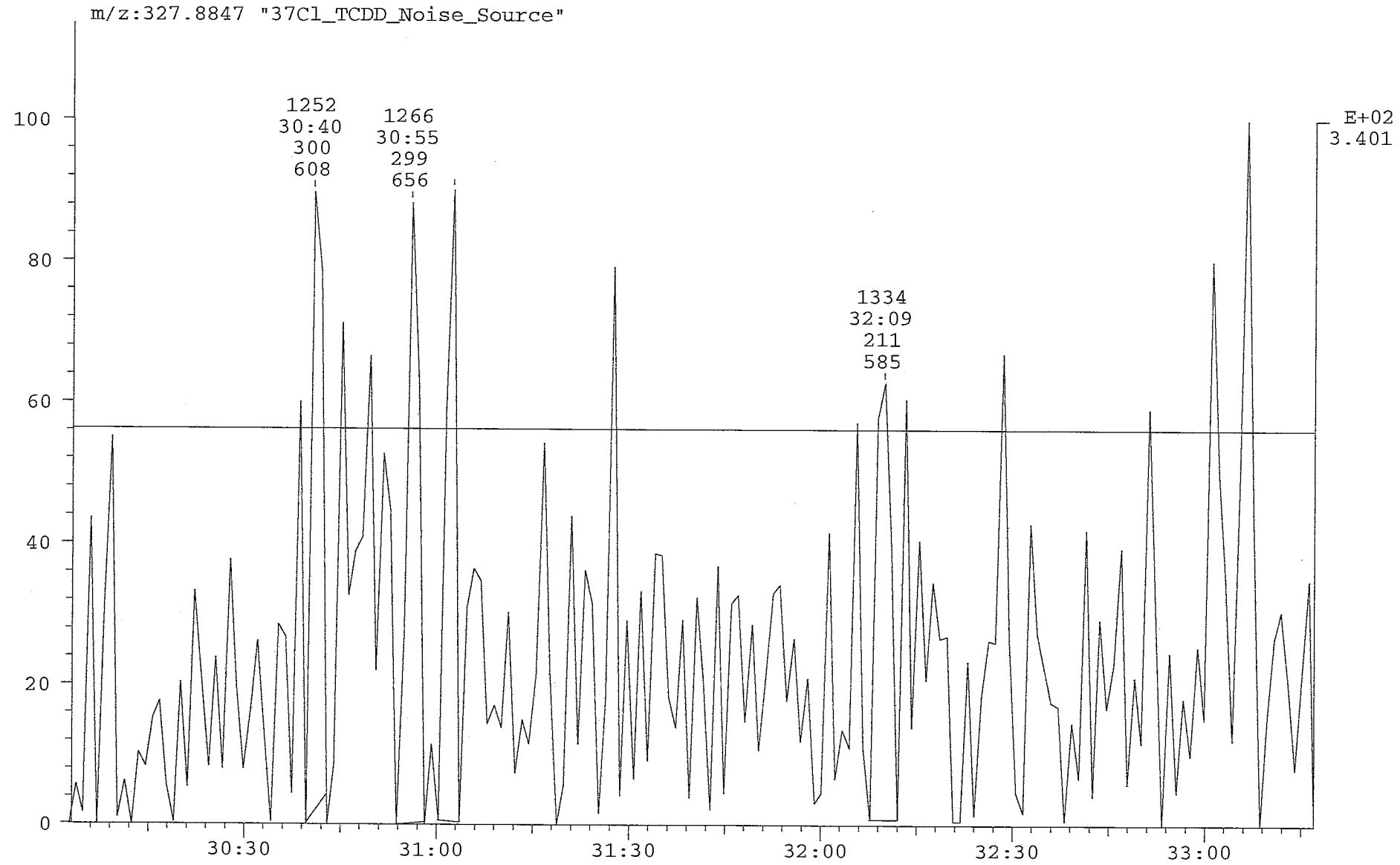
862

CHRO: btmkntlba 15-Jul-11 Elapse: 31:23 1291
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1205 > 1377 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



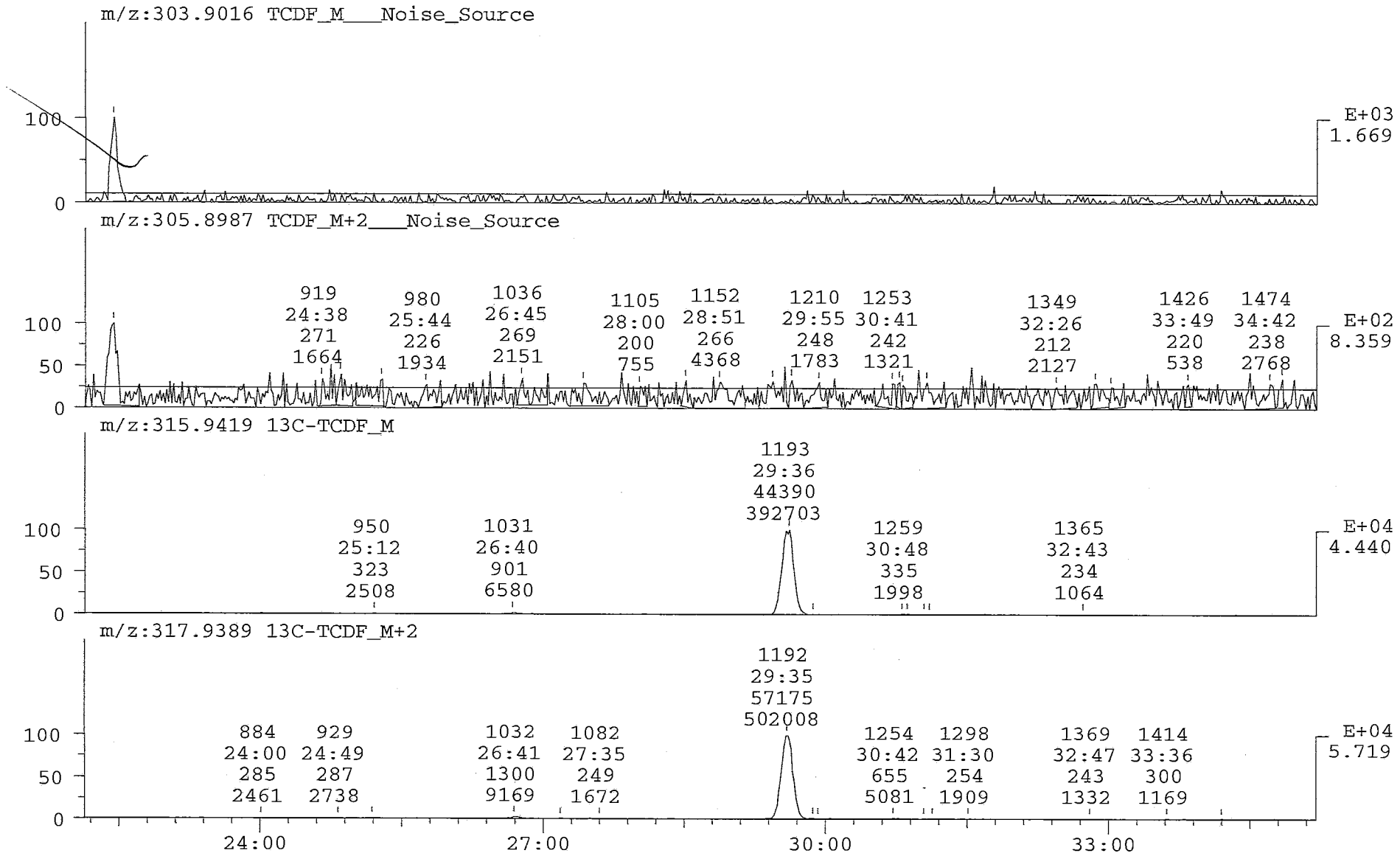
H-864

CHRO: btmkntlba 15-Jul-11 Elapse: 31:37 1304
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1217 > 1396 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



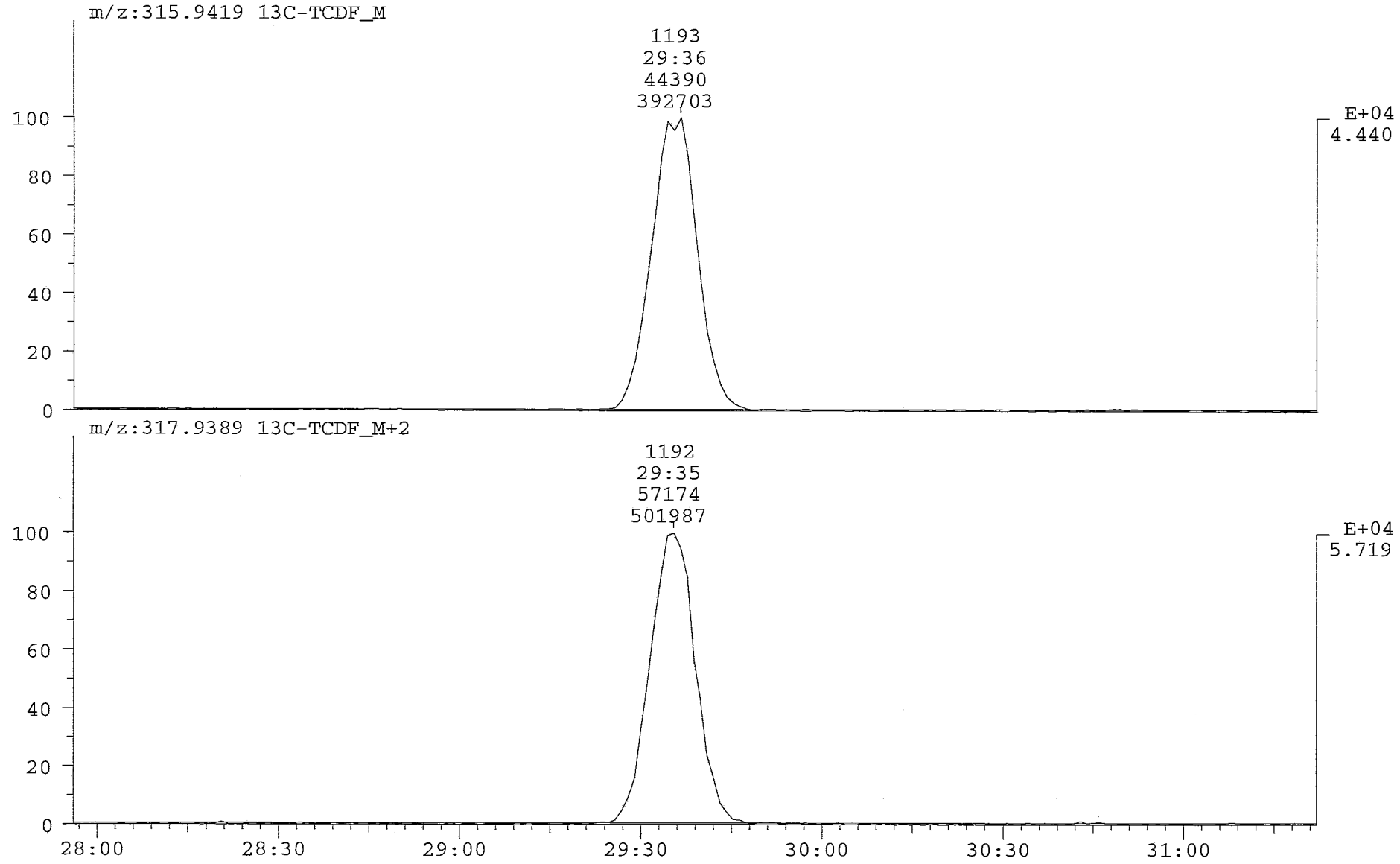
H-865

CHRO: btmkntlba 15-Jul-11 Elapse: 31:37 1304
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 780 > 1502 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-866

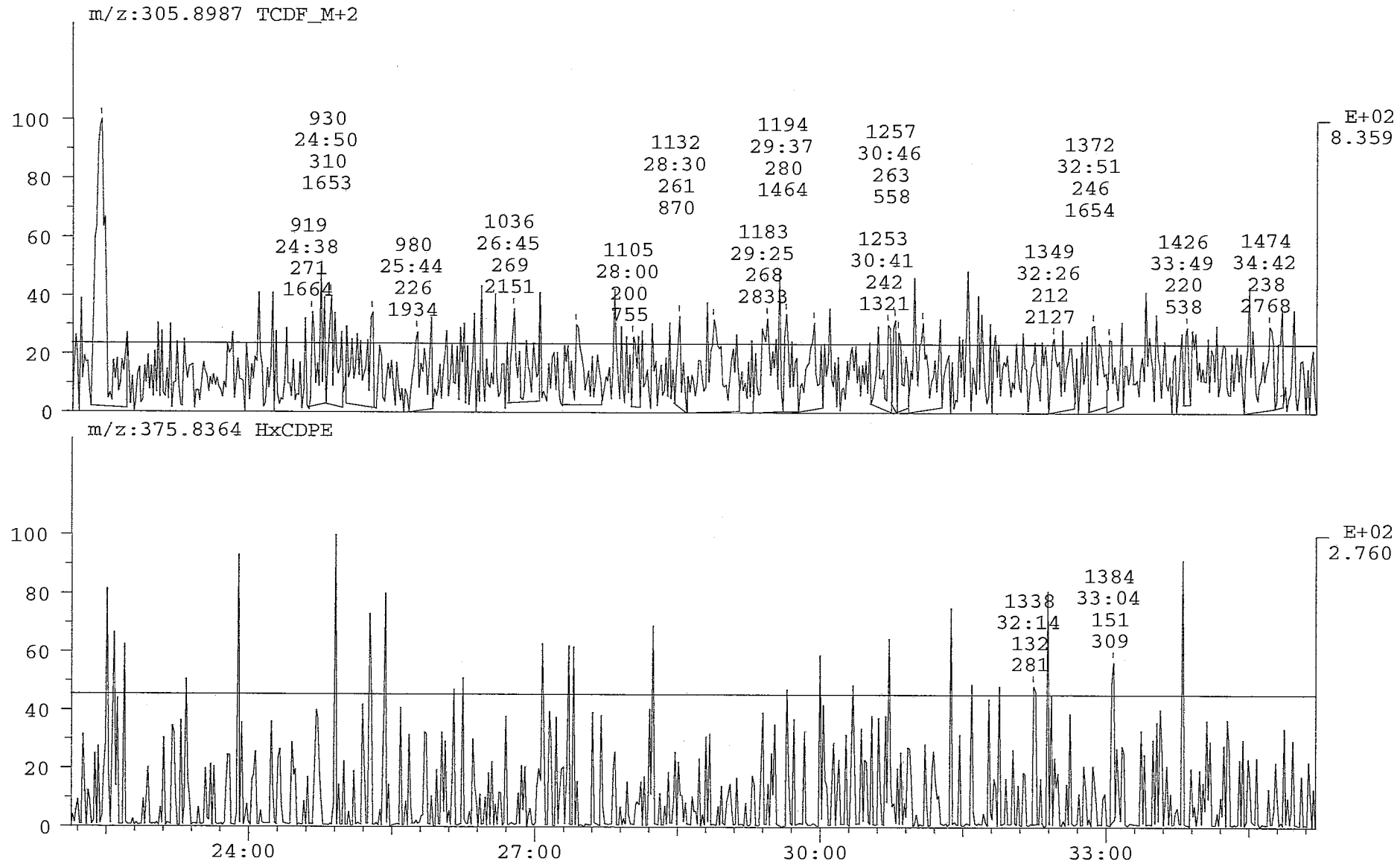
CHRO: btmkntlba 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1101 > 1290 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-867

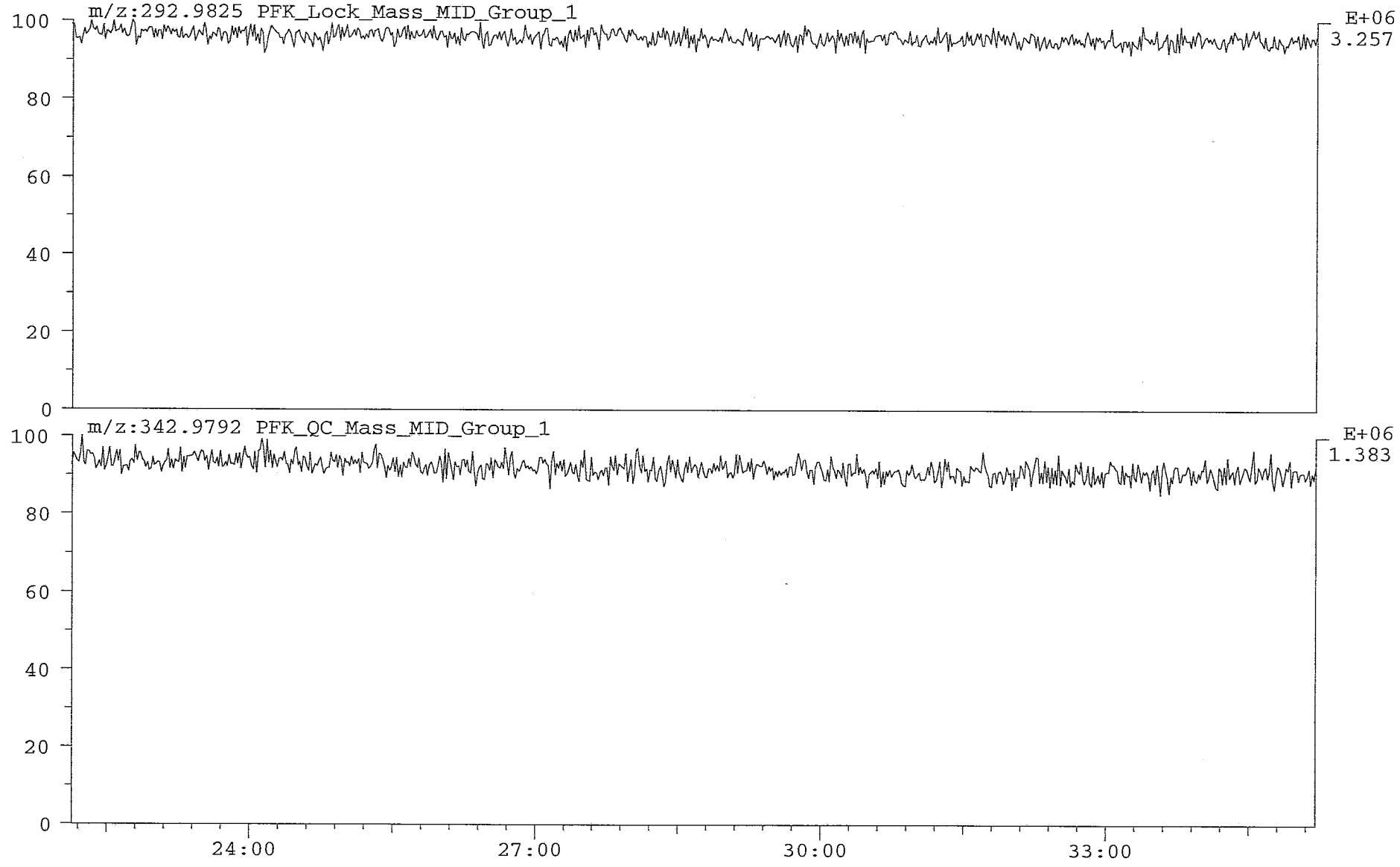
868

CHRO: btmkntlba 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 780 > 1502 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-868

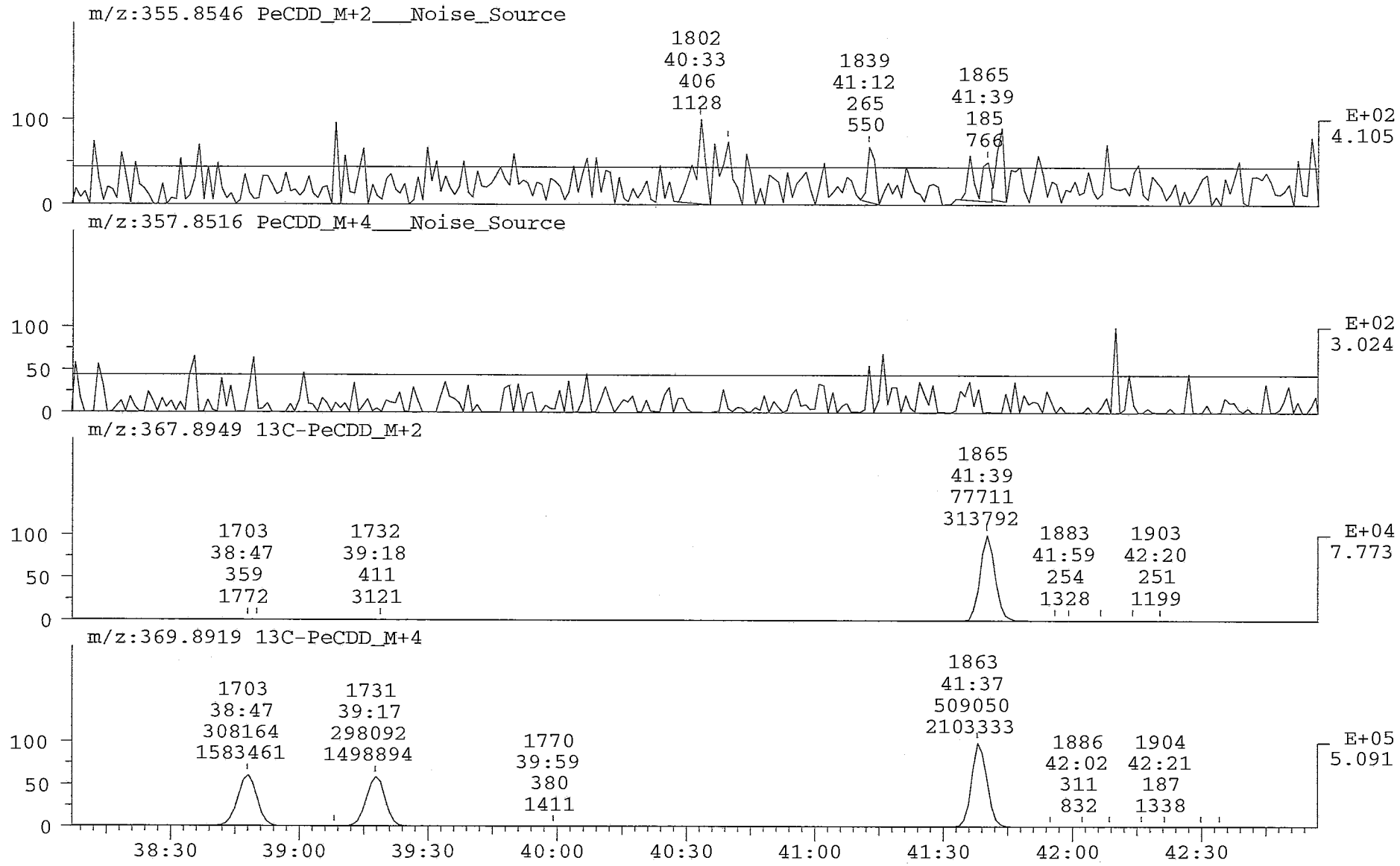
CHRO: btmkntlba 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 780 > 1502 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-869

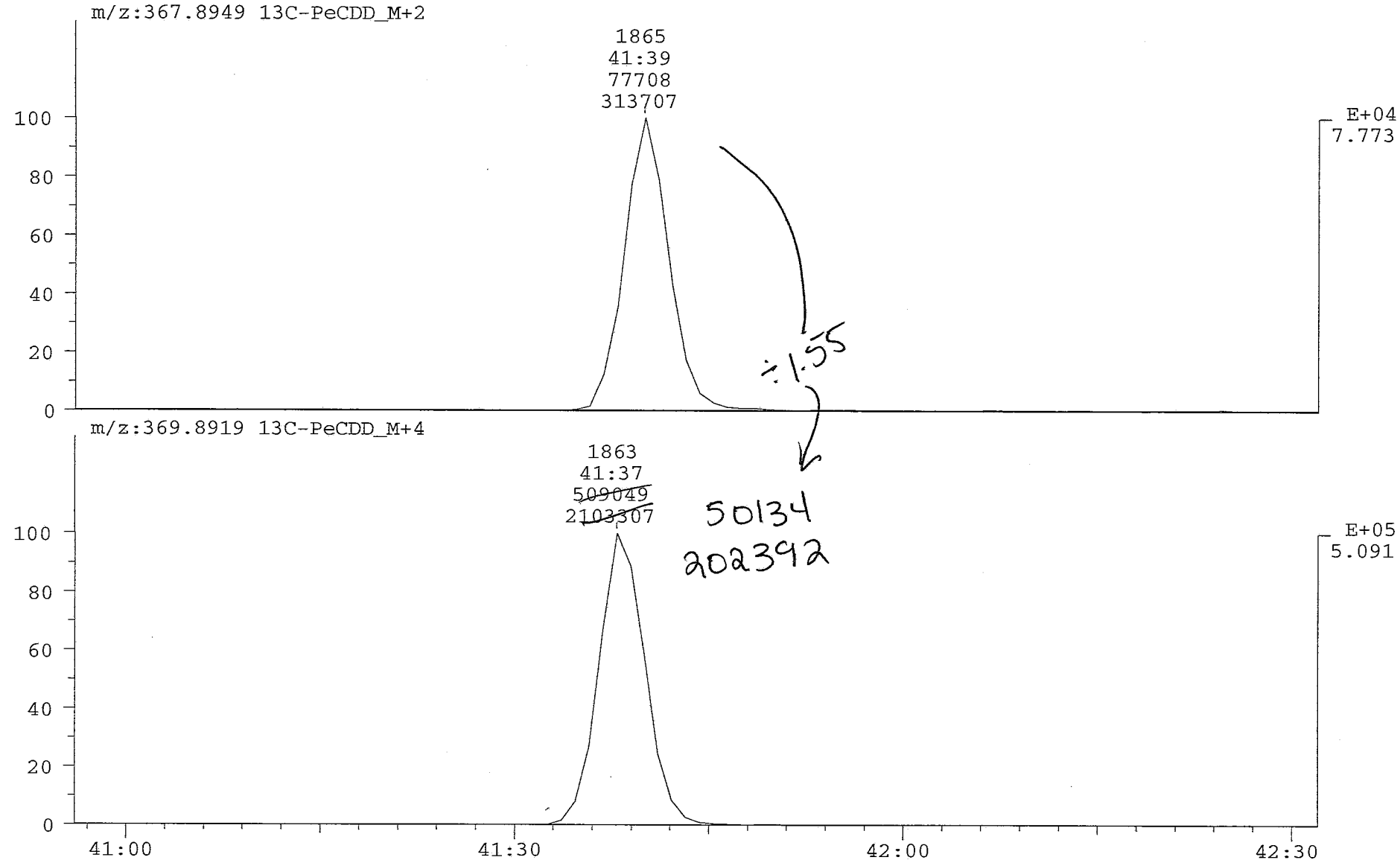
868

CHRO: btmkntlba 15-Jul-11 Elapse: 29:36 1193
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1664 > 1938 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-870

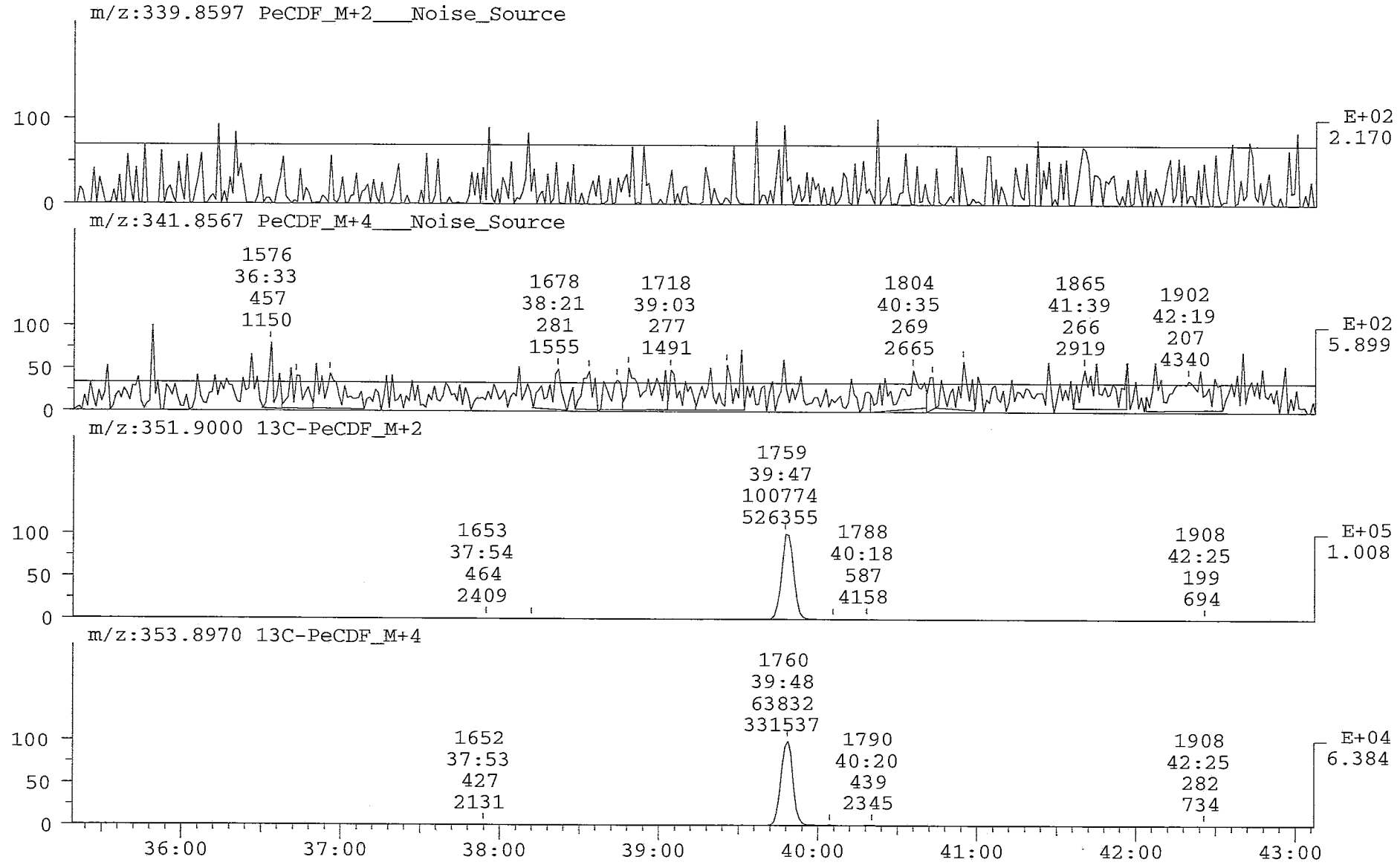
CHRO: btmkntlba 15-Jul-11 Elapse: 41:41 1866
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1824 > 1914 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-871

870

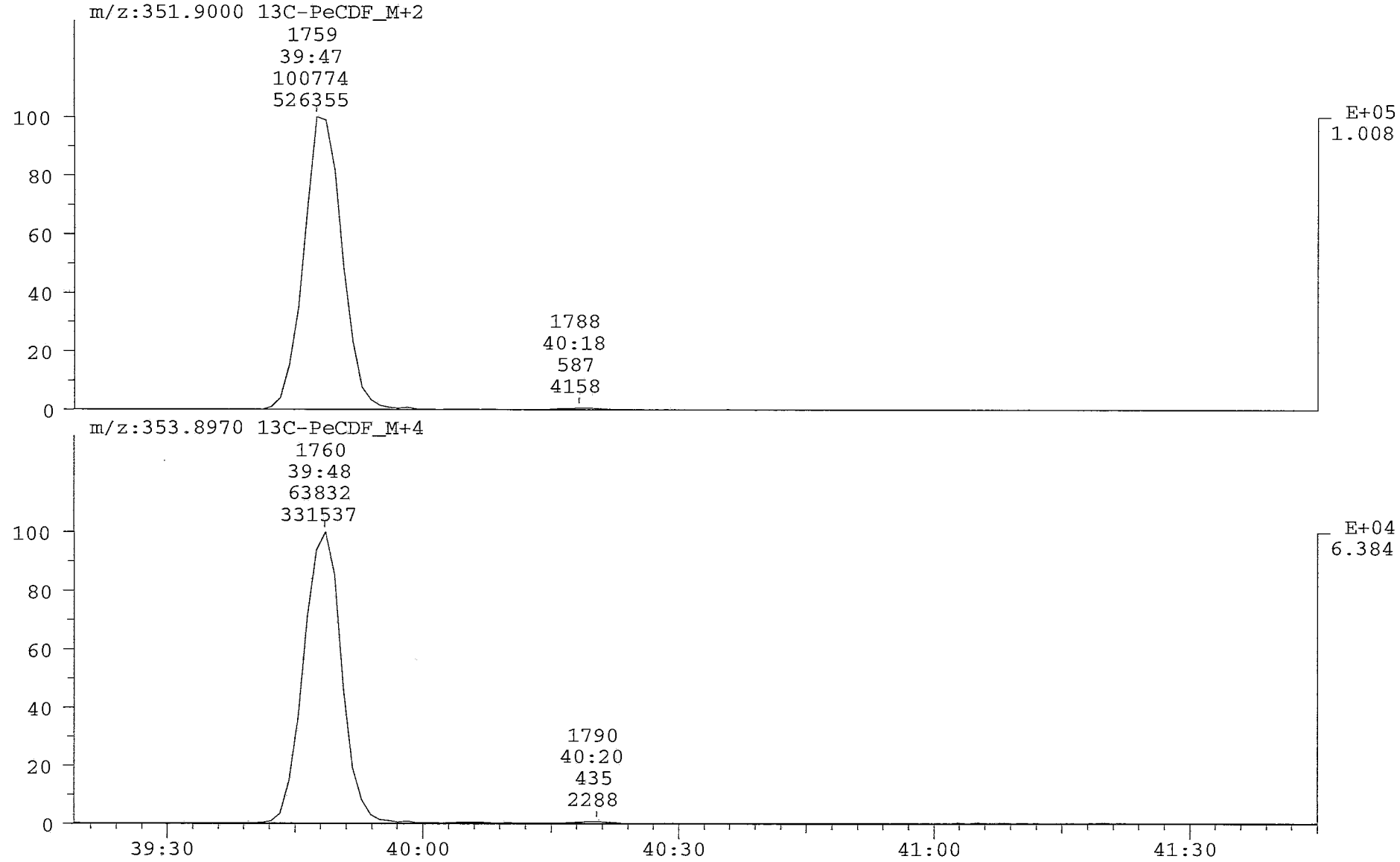
CHRO: btmkntlba 15-Jul-11 Elapse: 41:41 1866
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-872

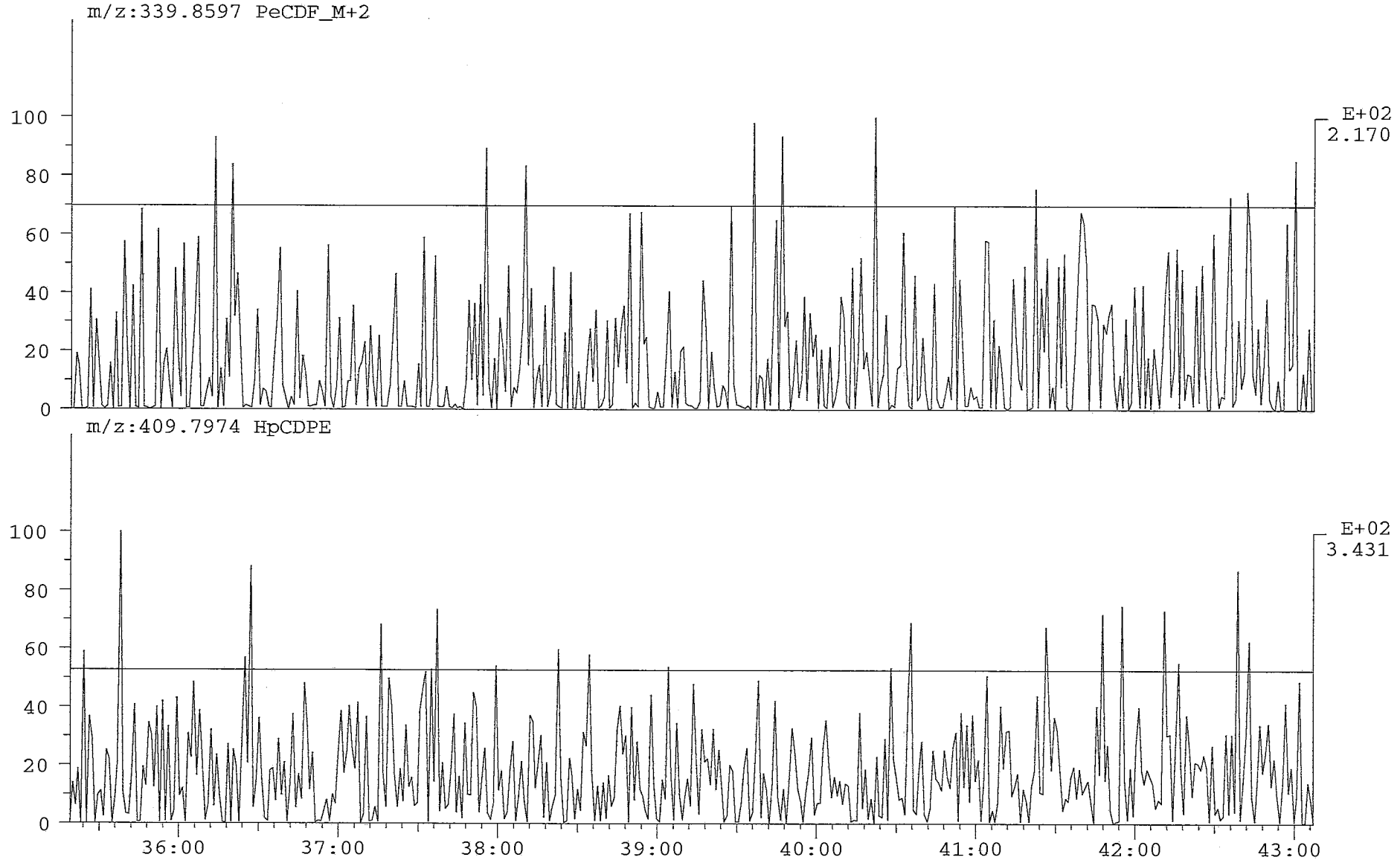
871

CHRO: btmkntlba 15-Jul-11 Elapse: 40:32 1801
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1732 > 1870 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



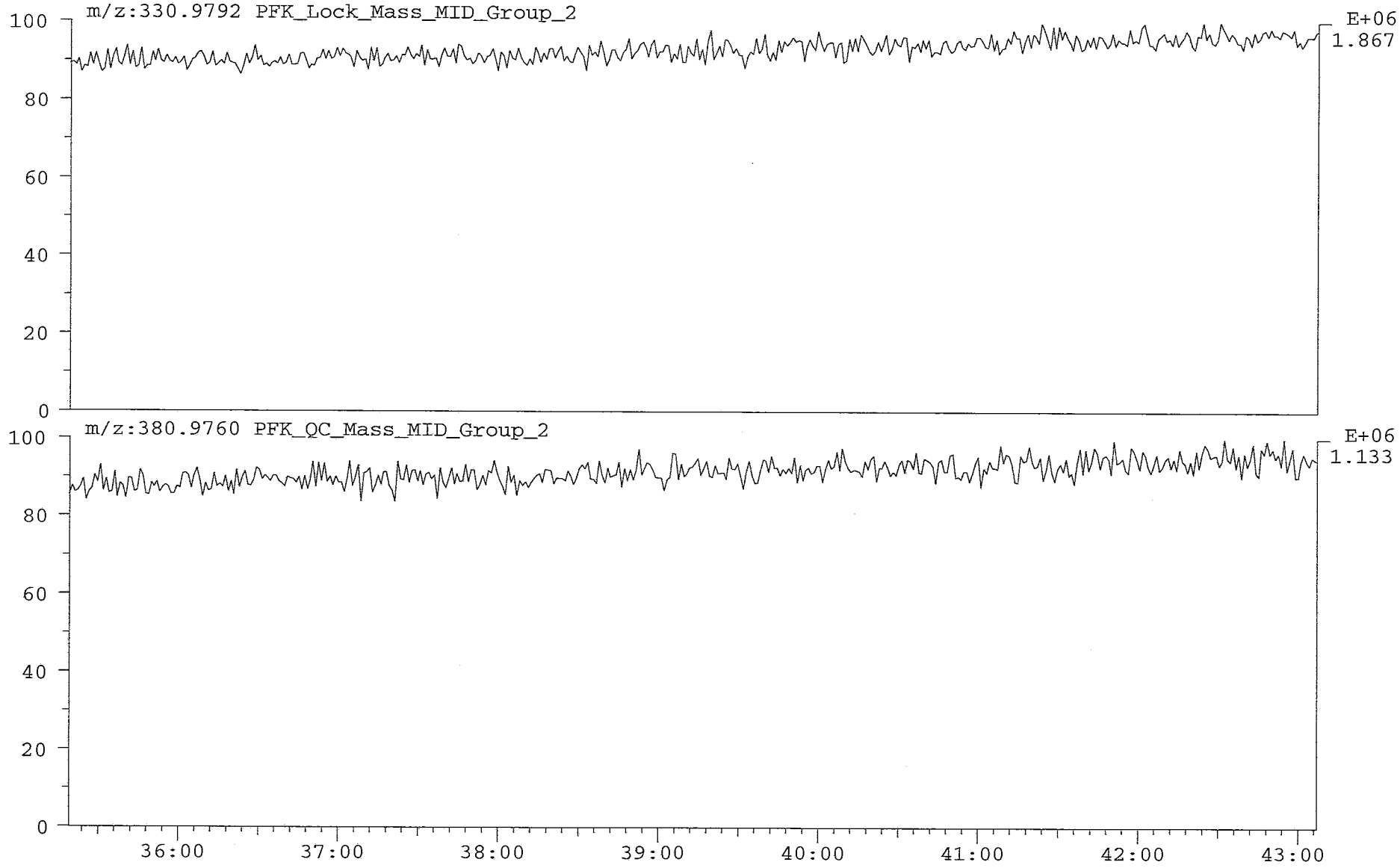
H-873

CHRO: btmkntlba 15-Jul-11 Elapse: 40:32 1801
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-874

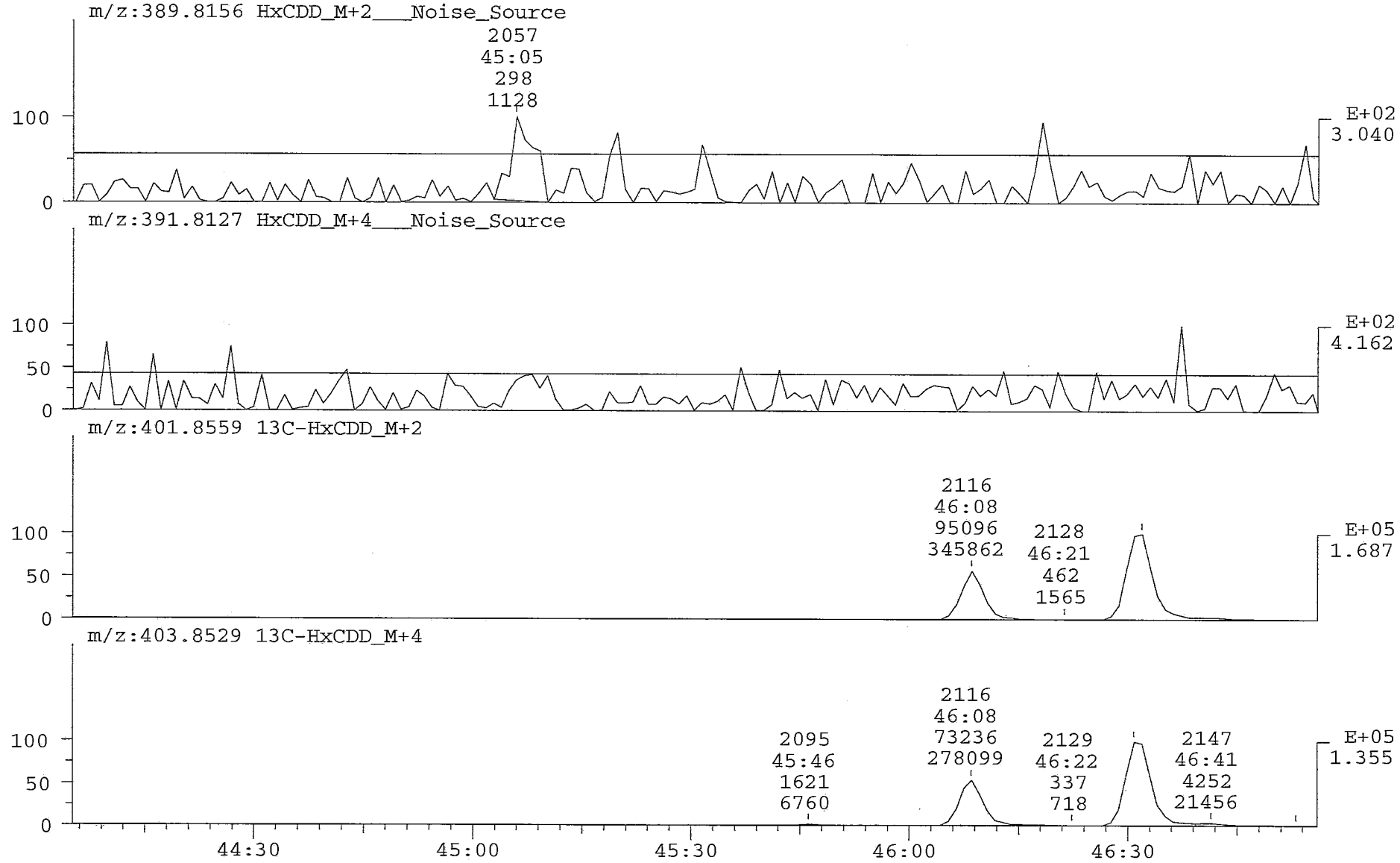
CHRO: btmkntlba 15-Jul-11 Elapse: 40:32 1801
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1506 > 1947 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



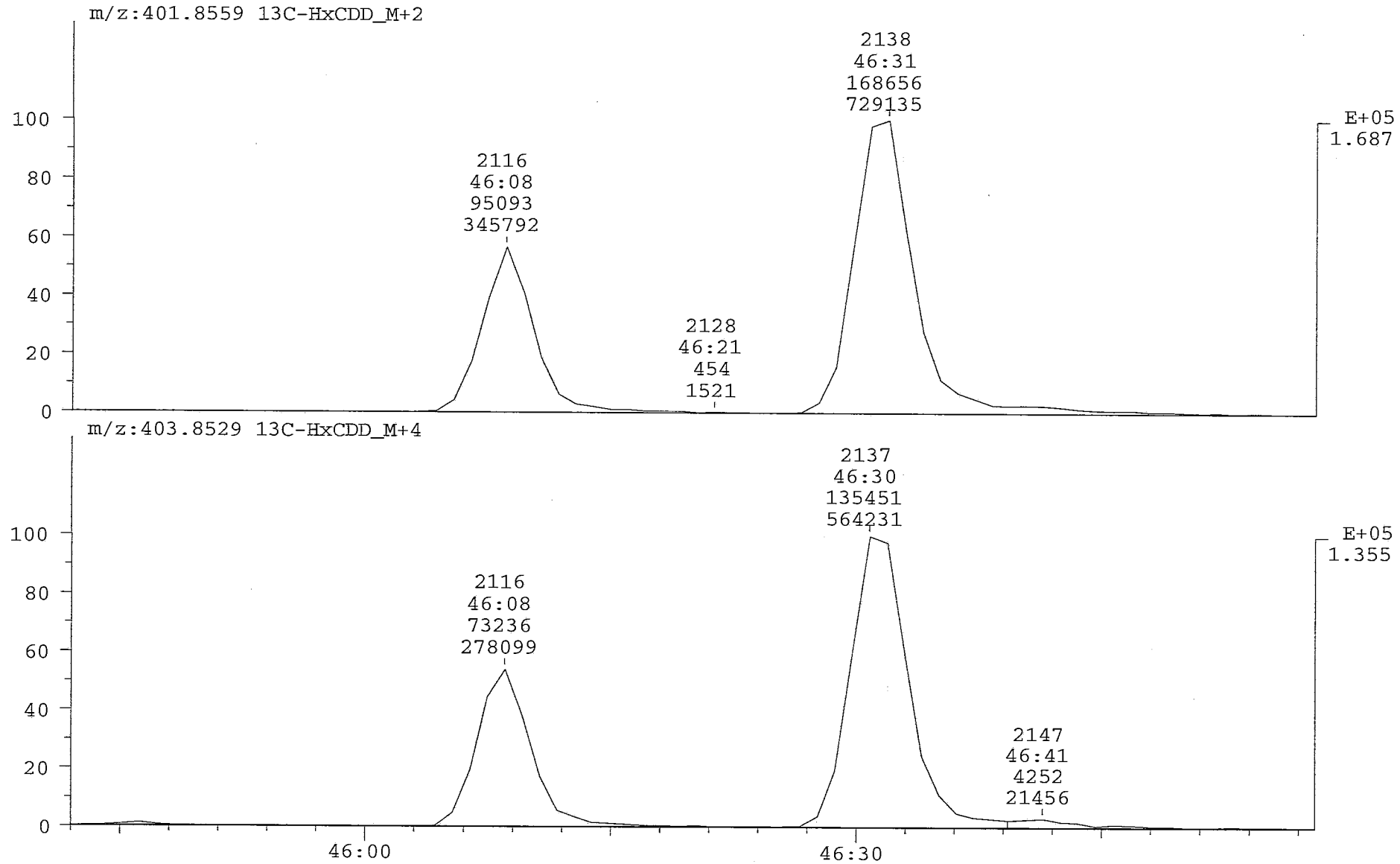
H-875

874

CHRO: btmkntlba 15-Jul-11 Elapse: 40:32 1801
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2000 > 2161 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



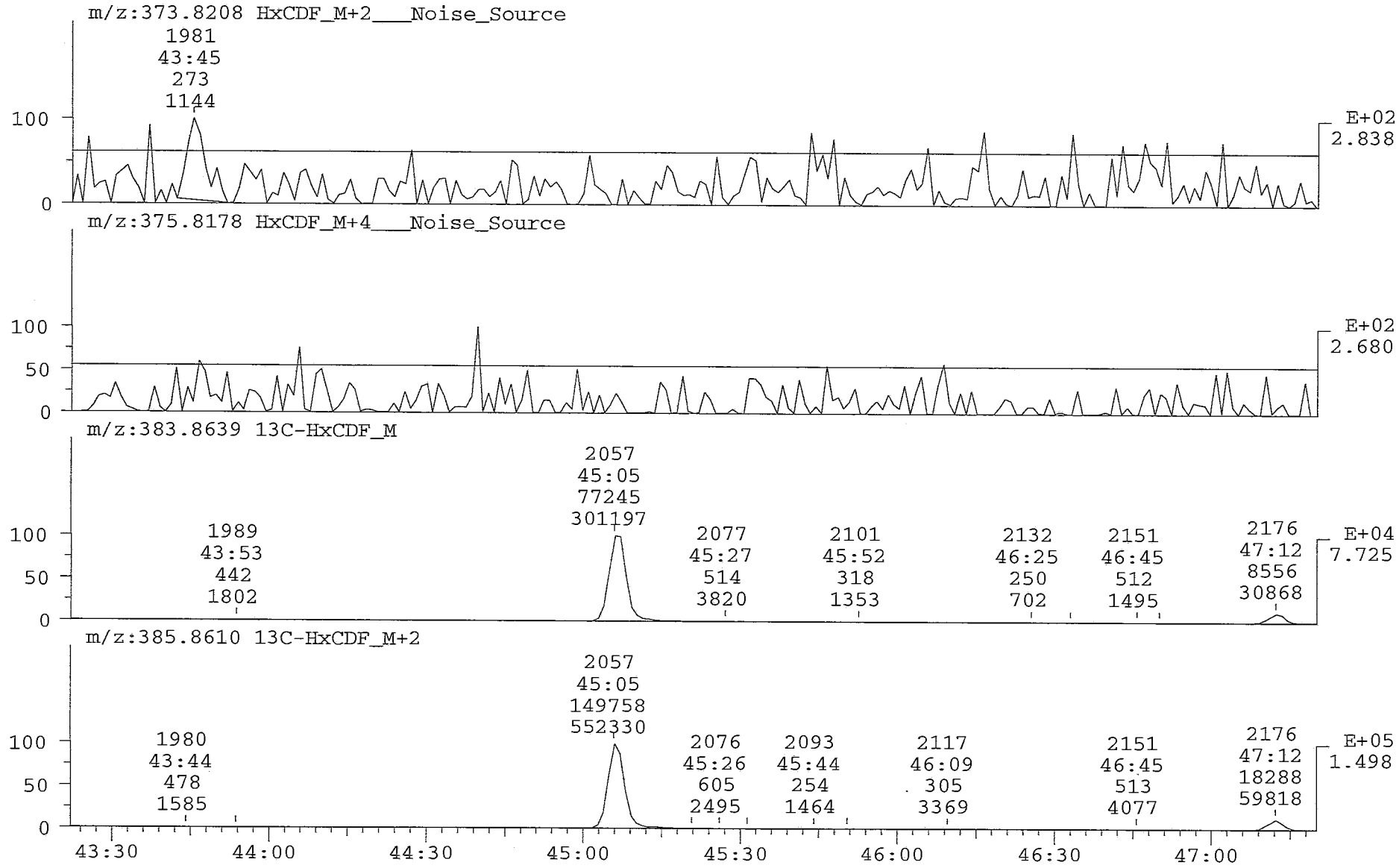
CHRO: btmkntlba 15-Jul-11 Elapse: 46:20 2127
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2091 > 2163 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-877

878

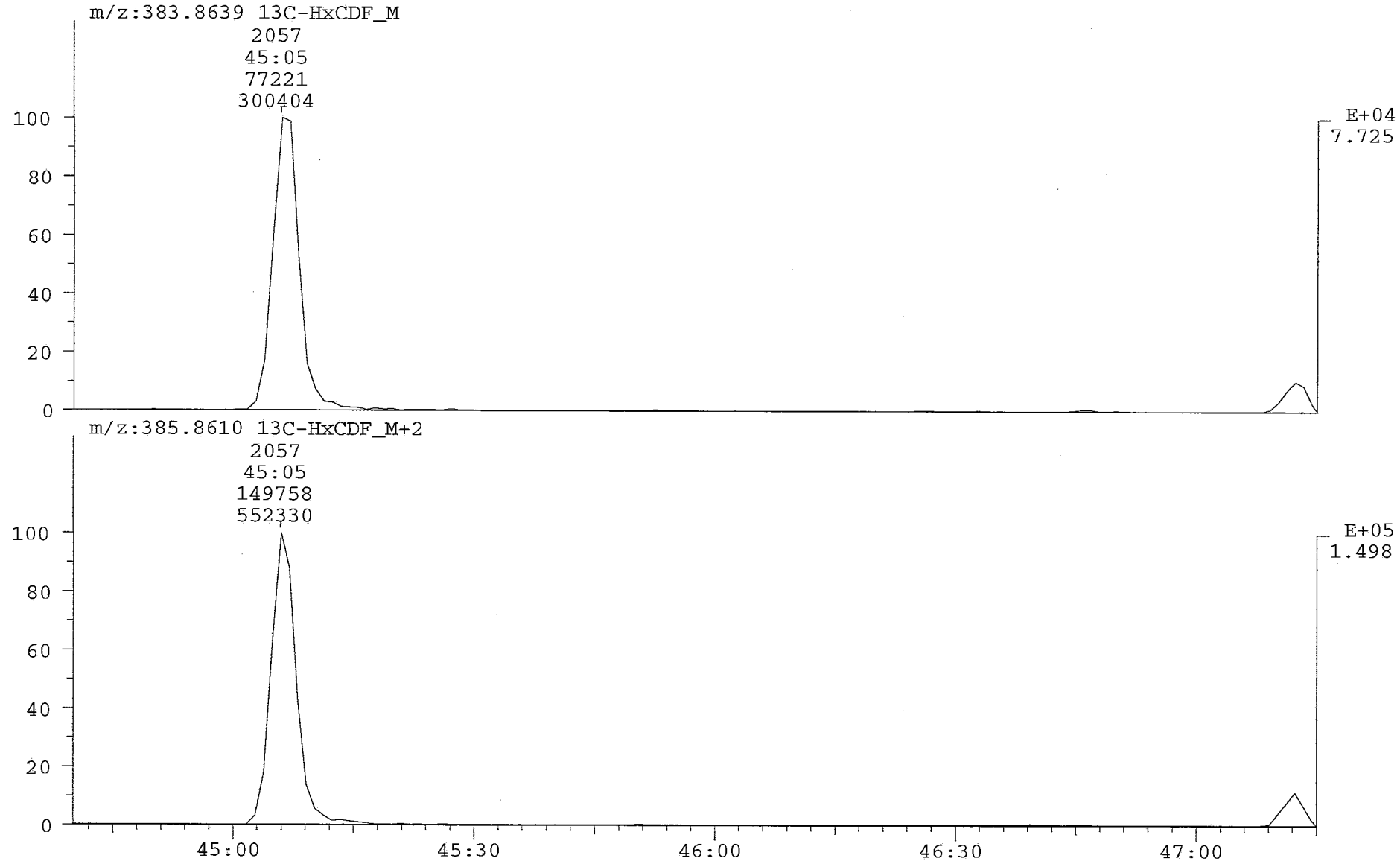
CHRO: btmkntlba 15-Jul-11 Elapse: 46:20 2127
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1959 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-878

877

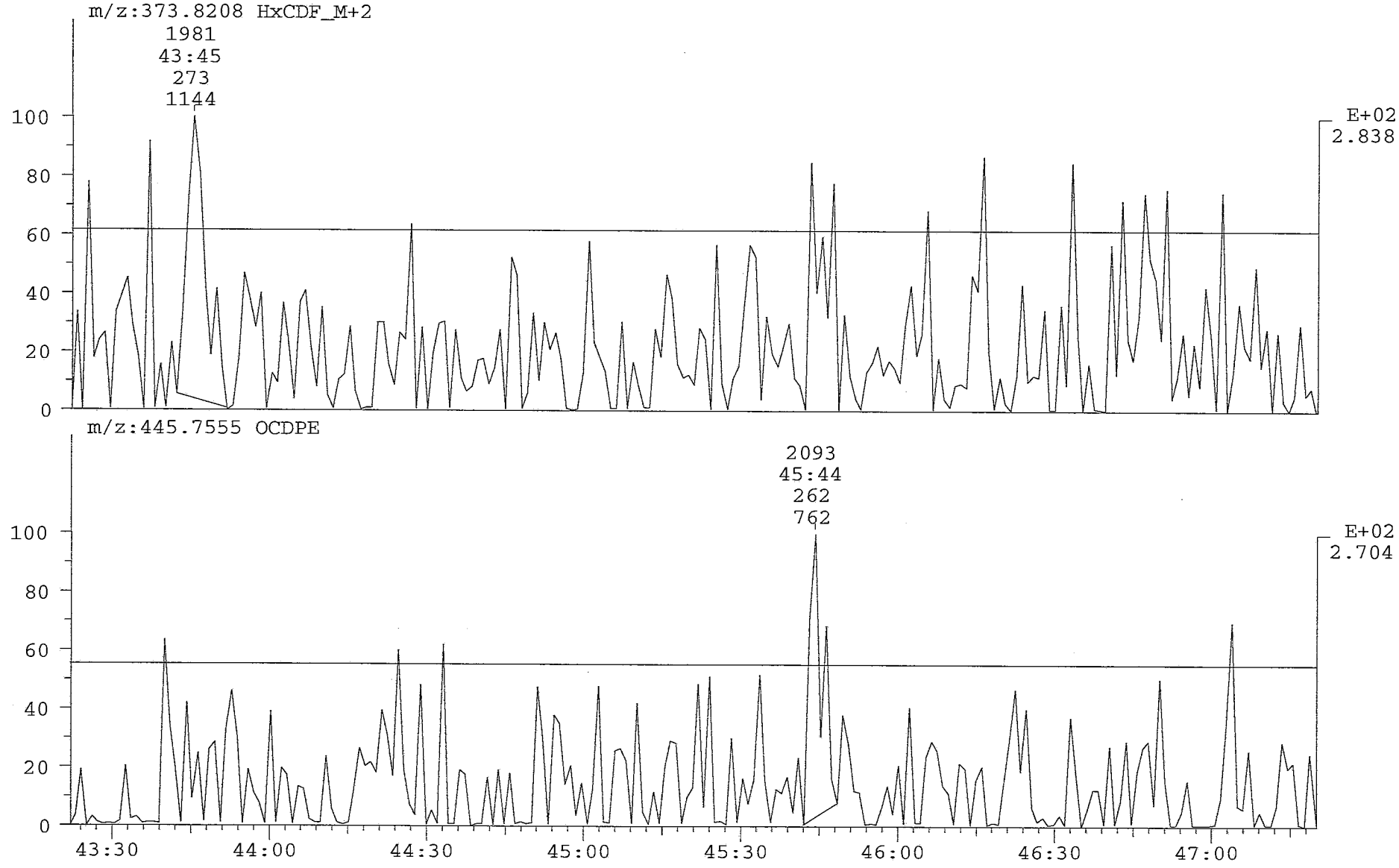
CHRO: btmkntlba 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2055 > 2063 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-879

878

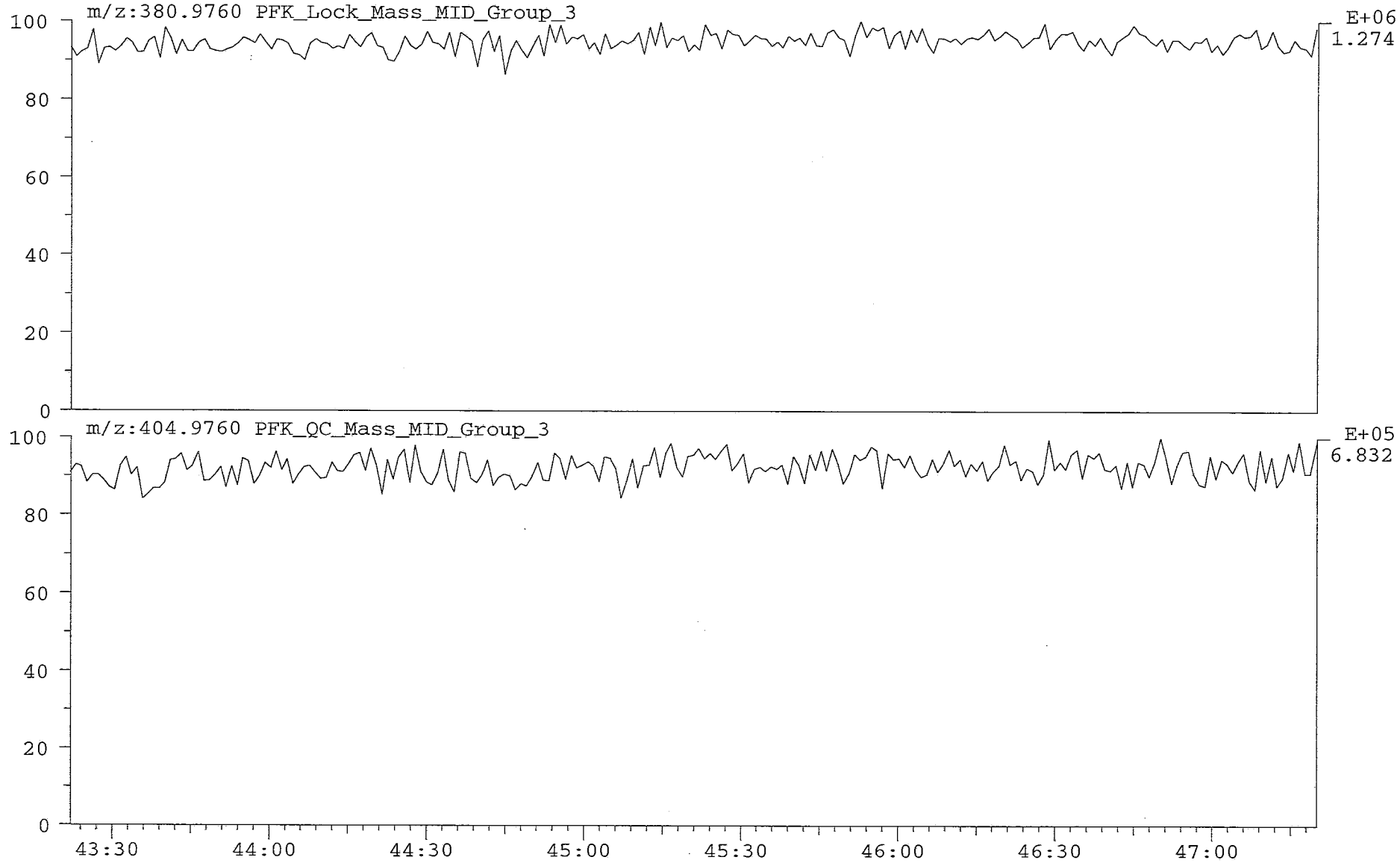
CHRO: btmkntlba 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1959 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-880

878

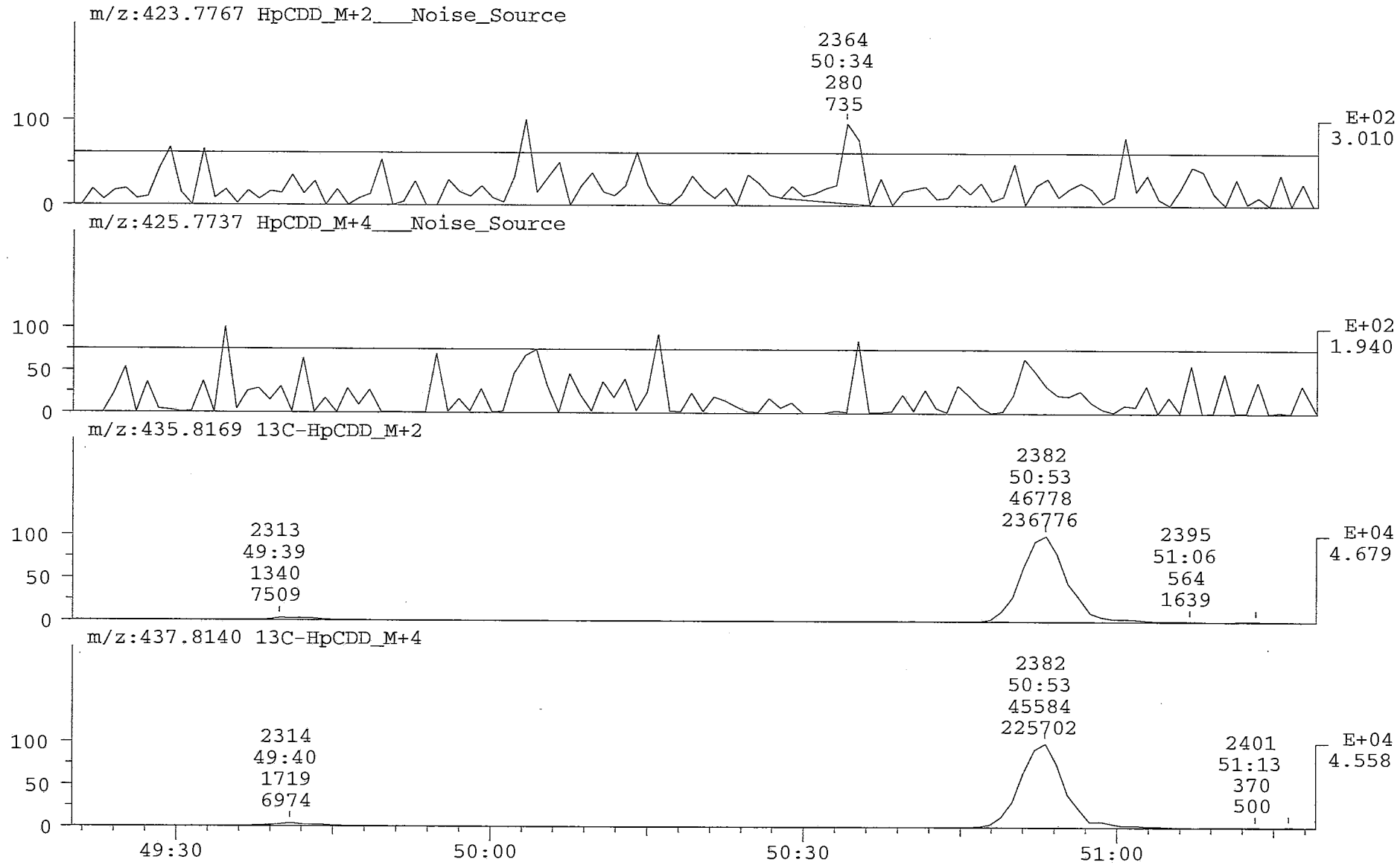
CHRO: btmkntlba 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1959 > 2183 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-881

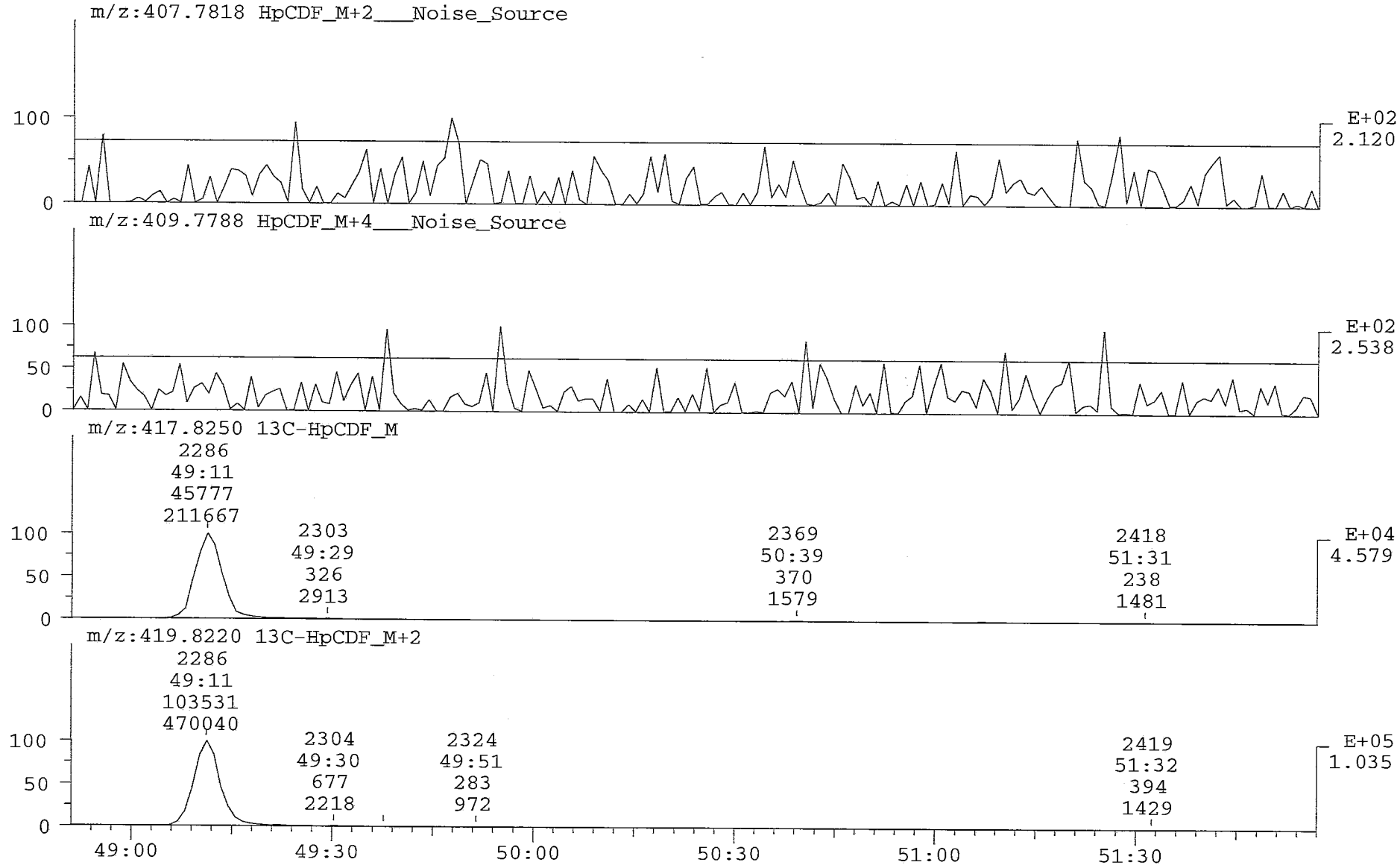
880

CHRO: btmkntlba 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2294 > 2406 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-882

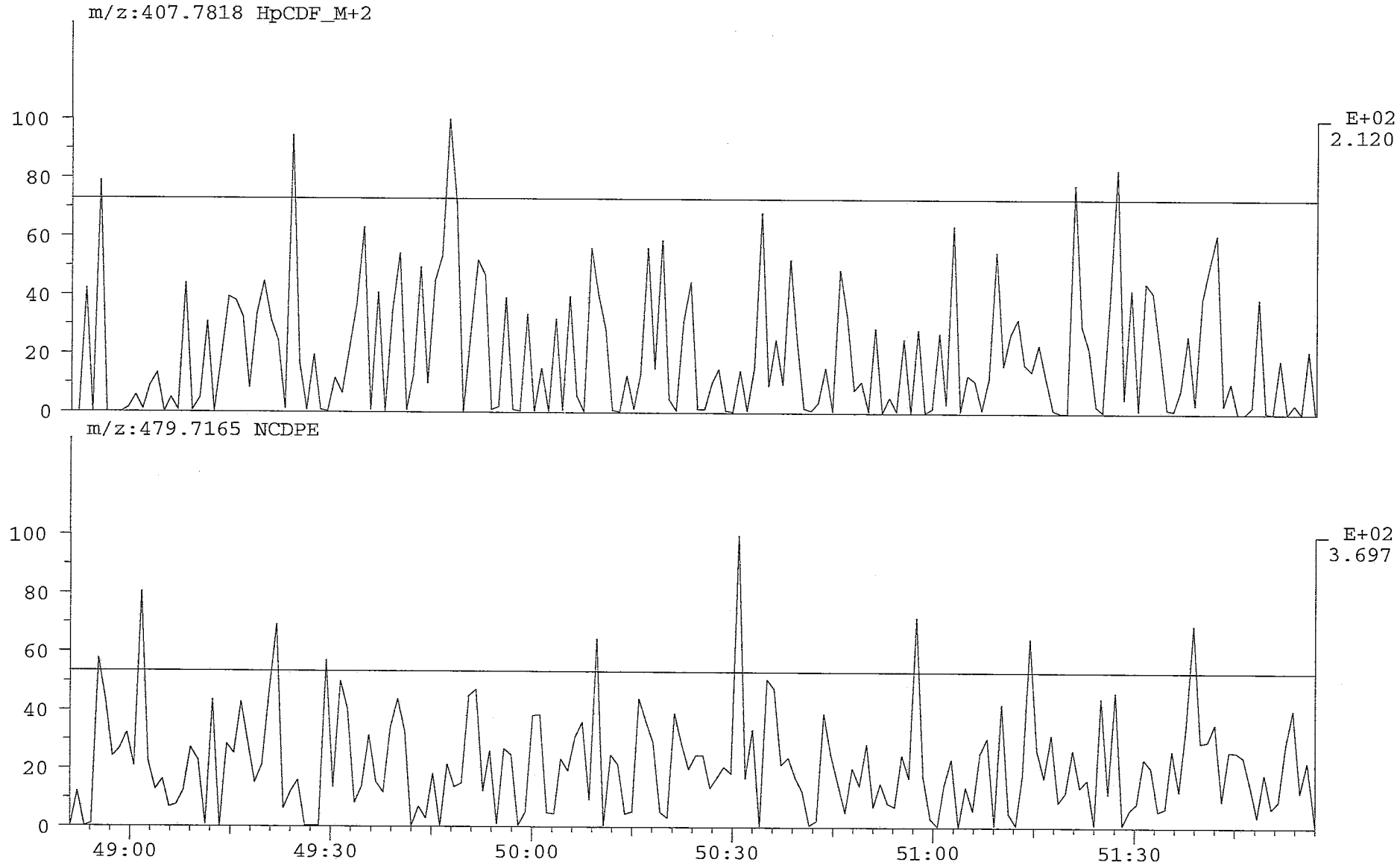
CHRO: btmkntlba 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2267 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-883

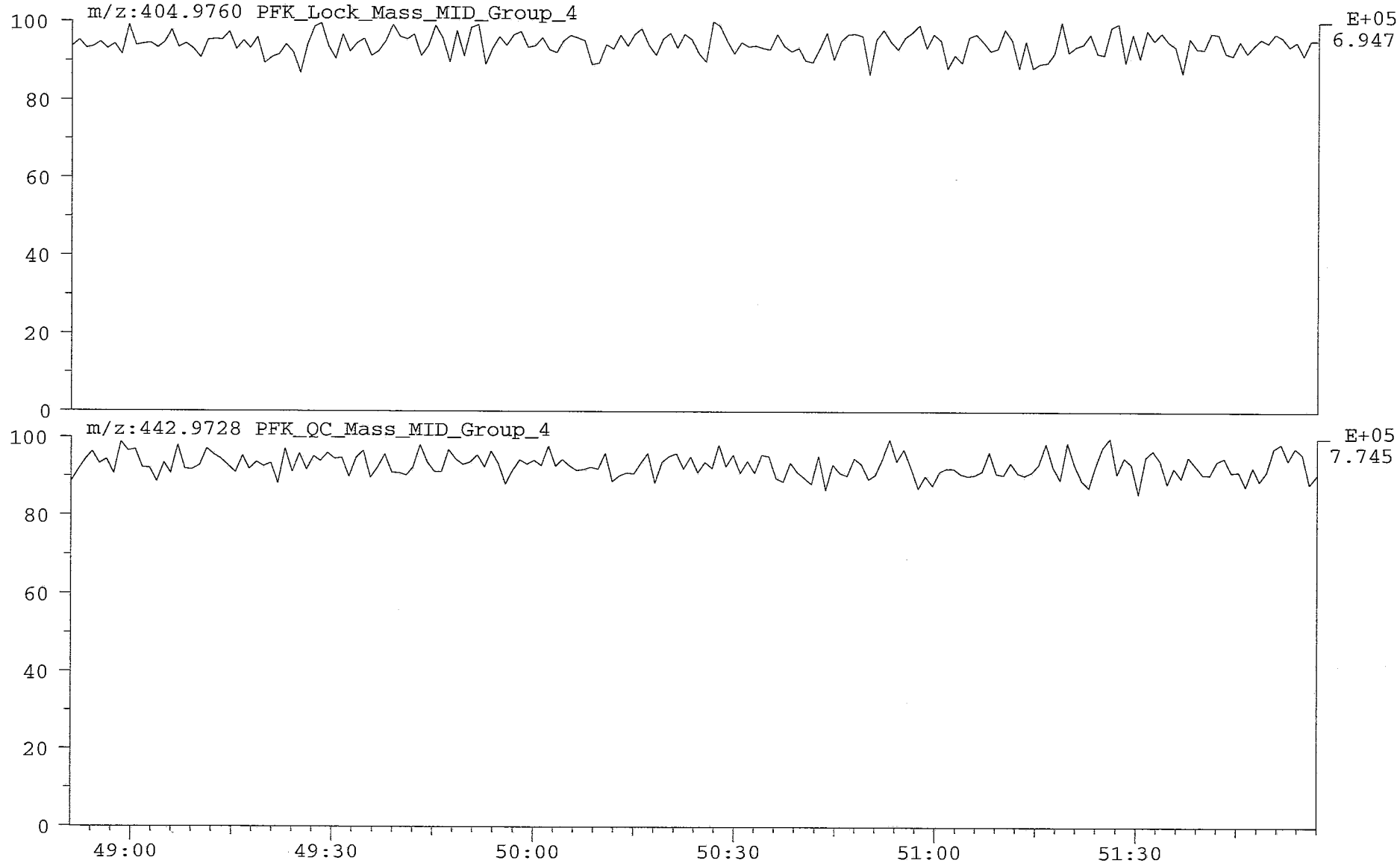
882

CHRO: btmkntlba 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2267 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-884

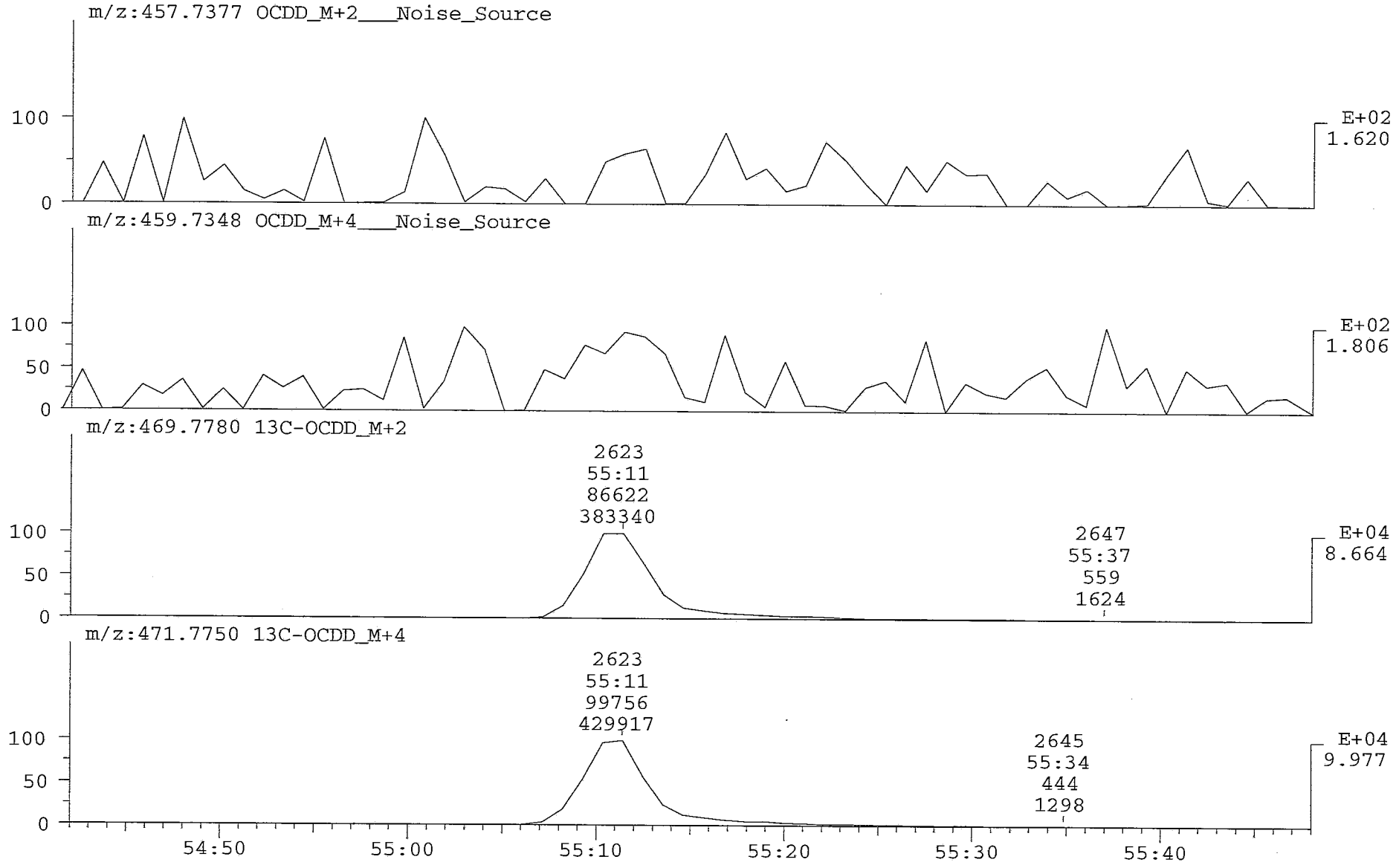
CHRO: btmkntlba 15-Jul-11 Elapse: 45:08 2059
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2267 > 2442 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-885

884

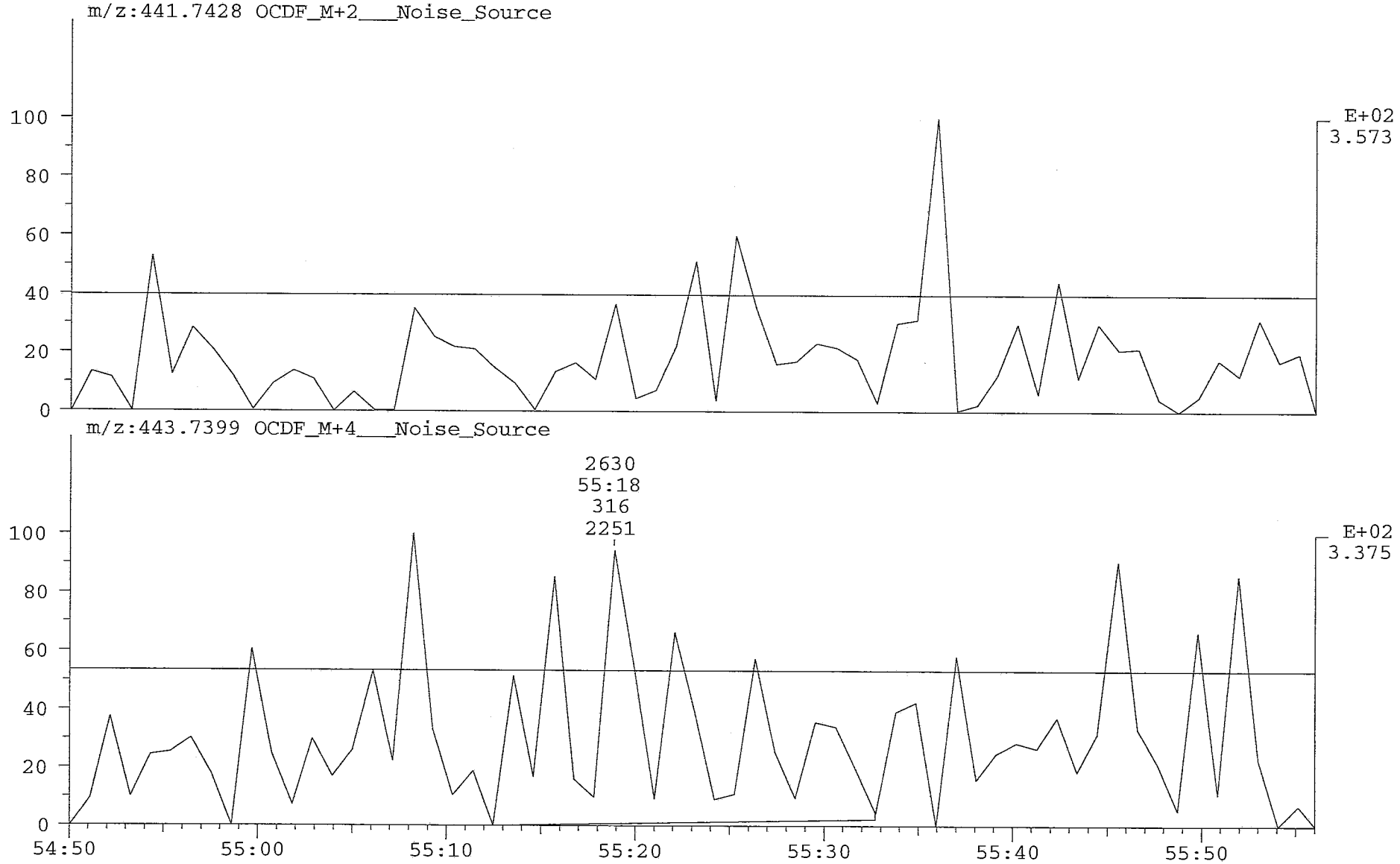
CHRO: btmkntlba 15-Jul-11 Elapse: 55:12 2624
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2595 > 2657 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-886

885

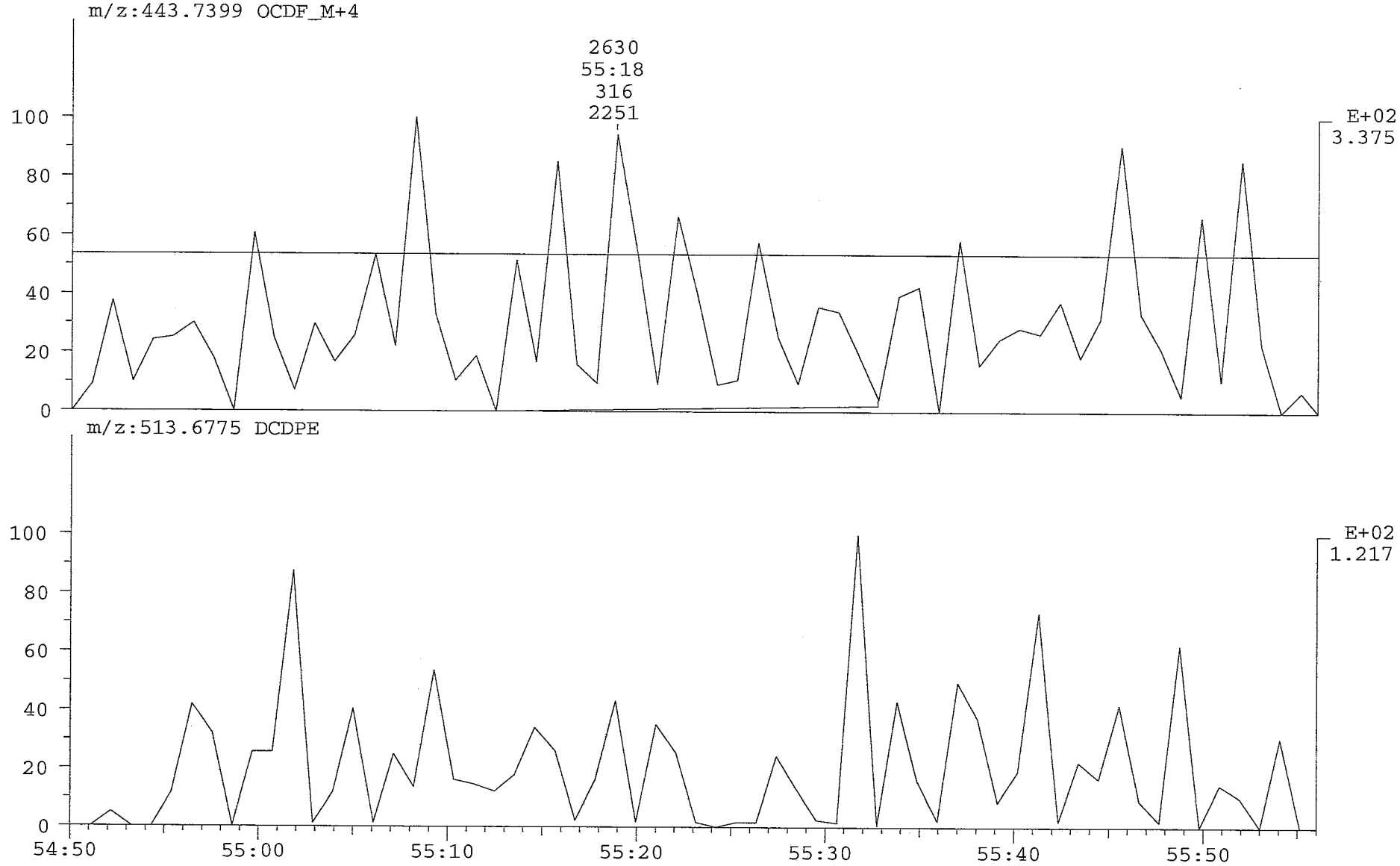
CHRO: btmkntlba 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2603 > 2665 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-887

886

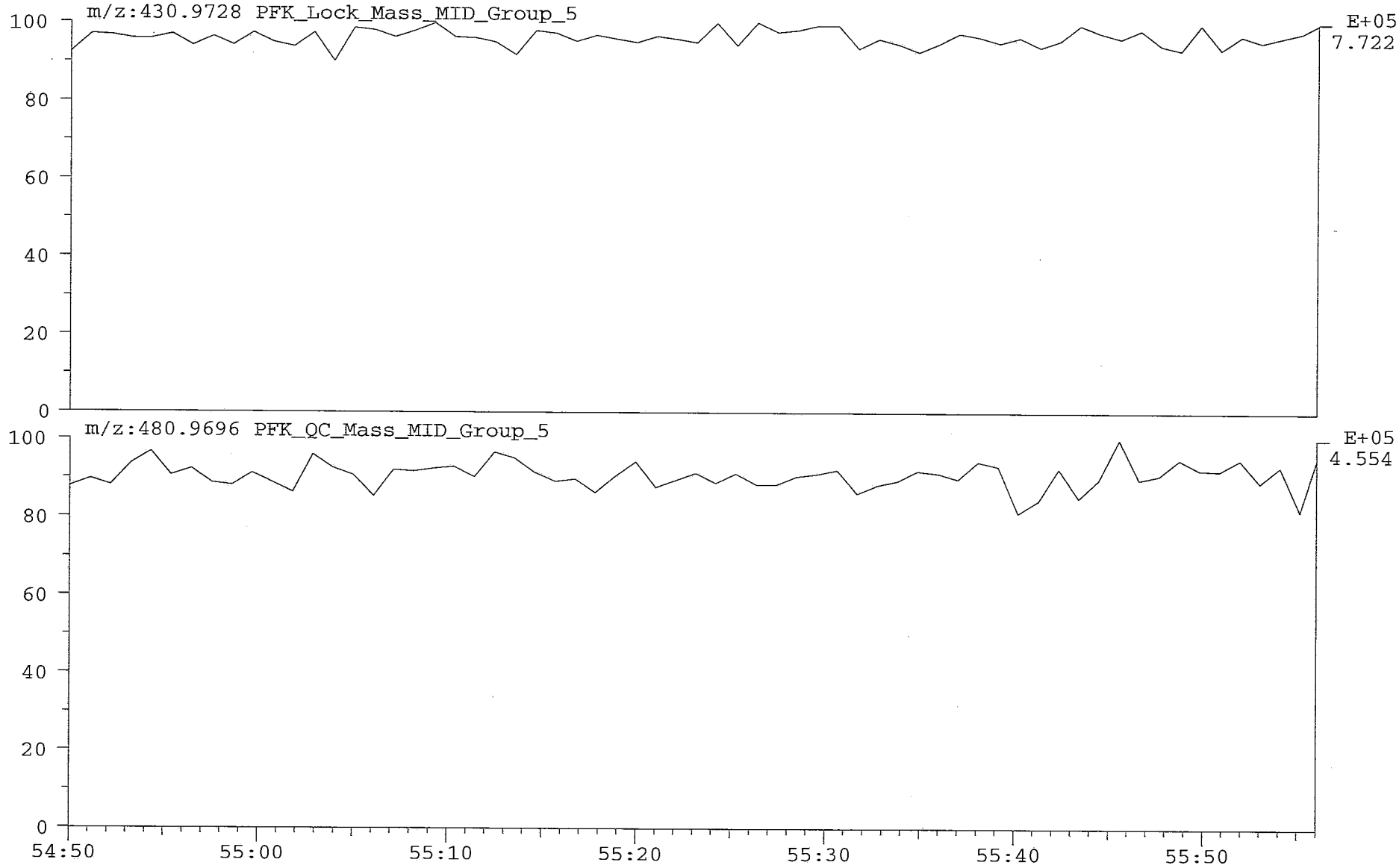
CHRO: btmkntlba 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2603 > 2665 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-888

887

CHRO: btmkntlba 15-Jul-11 Elapse: 55:19 2631
Samp: Vial 13 WO=mkntl1aa Meth=X8 Dil=1 Start : 01:09:10 2754
Comm: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: PMP Client: H1G060000-027B Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2603 > 2665 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-889

888

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: btmkntlba
Study: 1187027 (air-2)
Sample: WO=mknt11aa Meth=X8 Dil=1
Amount:    0.0
Volume:    0.0
Operator: PMP
Client: H1G060000-027B
Comments: Inst=m2a/1027390 Batch=20110714s5 Ccal=B110714S5
Injected volume:    2.0
Sample from Vial 13
Analysis will stop when MID run finishes
Tune file name: tune2b
File 1 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio         1
   Damping Relay           TRUE
   Width first lock        0.20 amu
   Electric jump time        10 ms
   Magnetic jump time        60 ms
   Offset                   100 cts
   Electric range             2 %
   Sweep peak width        3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start          Measure       End          Cycletime
# 1     8:00 min     27:13 min     35:13 min      1.00 sec
# 2    35:13 min      7:54 min     43:08 min      1.00 sec
# 3    43:08 min      5:17 min     48:25 min      1.00 sec
# 4    48:25 min      5:05 min     53:30 min      1.00 sec
# 5    53:30 min      4:00 min     57:30 min      1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1       8.19
    303.9016      1   2      81.92
    305.8987      1   2      81.92
    315.9419      1   3      81.92
    317.9389      1   3      81.92
    319.8965      1   3      81.92
    321.8936      1   3      81.92
    327.8847      1   4      81.92
    331.9368      1   4      81.92
    333.9338      1   4      81.92
    342.9792 c   10   5       8.19
    375.8364      1   6      81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1       8.19
    339.8597      1   2      91.48
    341.8567      1   2      91.48
```

```
  351.9000       1   3      91.48
  353.8970       1   3      91.48
  355.8546       1   3      91.48
  357.8516       1   3      91.48
  367.8949       1   4      91.48
  369.8919       1   4      91.48
  380.9760 c    10   5       8.19
  409.7974       1   6      91.48
 Window # 3
      mass F  int  gr  time (ms)
  373.8208       1   1      91.48
  375.8178       1   1      91.48
  380.9760 l    10   1       8.19
  383.8639       1   2      91.48
  385.8610       1   2      91.48
  389.8156       1   2      91.48
  391.8127       1   3      91.48
  401.8559       1   4      91.48
  403.8529       1   4      91.48
  404.9760 c    10   4       8.19
  445.7555       1   5      91.48
 Window # 4
      mass F  int  gr  time (ms)
  404.9760 l    10   1       8.19
  407.7818       1   1      91.48
  409.7788       1   1      91.48
  417.8250       1   2      91.48
  419.8220       1   2      91.48
  423.7767       1   2      91.48
  425.7737       1   2      91.48
  435.8169       1   3      91.48
  437.8140       1   3      91.48
  442.9728 c    10   3       8.19
  479.7165       1   4      91.48
 Window # 5
      mass F  int  gr  time (ms)
  430.9728 l    10   1      10.92
  441.7428       1   2     120.15
  443.7399       1   2     120.15
  457.7377       1   3     120.15
  459.7348       1   3     120.15
  469.7780       1   4     120.15
  471.7750       1   4     120.15
  480.9696 c    10   5      10.92
  513.6775       1   6     120.15

Auto Sampler descriptor: pcdd2ul
 Injector A
 Normal Injection
 Slvnt A cln before inj(K):      3 times
 Slvnt B cln before inj(L):      0 times
 Sample rinse cycles   (R):      0 times
 Syringe filling volume(F):    1.0 ul
 Pullup delay time     (D):      4 sec
 Sample pullup speed   (E):    5.0 ul/sec
 Slvnt aftr pre inj cln(U):    0.0 ul
 Air after pre inj cln (G):    2.0 ul
 Sample volume         (V):    2.0 ul
 Sample air volume     (A):    2.0 ul
 Sample pullup count   (P):      2 times
 Injection speed       (S):   10.0 ul/sec
 Injection wait time   (W):     10 sec
 Injection hold time   (H):      3 sec
 Solvent A clean cycles(C):     15 times
 Solvent B clean cycles(B):     20 times
 Loop clean w slvnt A (LC):      0 times
```

```
Loop clean w slvnt B (LB):      0 times
Standard sample volume(X):    0.0 ul
Standard air volume   (Y):    0.0 ul
2nd Injection volume  (I):    0.0 ul
Air volume of 2nd inj (J):    0.0 ul
Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:          270 deg                          300 deg max
  Transfer Line:     290 deg                          300 deg max
  Column:            140 deg at    0.0 minutes        330 deg max
                     140 deg at    3.0 minutes
                     210 deg at    6.5 minutes
                     210 deg at   34.5 minutes
                     280 deg at   44.5 minutes
                     280 deg at   51.0 minutes
                     325 deg at   57.5 minutes
  Inlet    :
  Pressure         18.0 psi
  Splitless mode
  Purge time        1.5 min
  Purge flow       40.0 mL/min

   Gas saver is on
   Saver time        3.0 min
   Saver flow       15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8432.0000
BDEV	8292.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.3647
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-26.2250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9997
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	147.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.1000	FREQ	600.9615
FSLOPE	36000000.0000	FVANAL	371.0000	FVINLET	858.0000
FVSRC	1055.0000	FWIN	0.7000	GCTC	137.0000
GCTI	269.0000	GCTL	290.0000	HACCU	156.0000
HCURR	1.6863	HVANAL	1226.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	380.9760
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	200.0000	NSAM	200.0000	NSCAN	1391.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10525.5743	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	2.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.6800	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 01:09:10.7

Autosampler has injected sample from vial 13
Analysis stopped at: 15-Jul-11 02:06:42.6 (run time 57.52 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKNTL1AC	**Prep Batch**	1187027	**Lot No**	H1G060000-027
Data File	/20110715s1/btmknt1ca.d	**Prep Date**	07/06/11	**SDG No**	
Analysis ID	133634	**Prep Exp Date**	07/22/11	**Date Received**	07/06/11
Analysis Date	7/15/2011	**Matrix**	AIR	**Date Sampled**	06/22/11
Analysis Time	09:42	**Initial Wt/Vol**	1 Sample	**Lims Test Code**	XXSIPX801
Anal Exp Date	08/20/11	**Extract Vol**	40 uL	**Method**	0023/8290
Instrument	M2A	**Dil Factor**	1.00	**Code**	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (pg/sample		DL (pg/samp
2,3,7,8-TCDD	31:37	175866	20329	1.172	400.0	407.077695	101.77	407.077695		8.57
Total TCDD				1.172		407.077695		407.077695		8.57
2,3,7,8-TCDF	29:35	247729	28565	1.081	400.0	355.235022	88.81	355.235022		4.89
Total TCDF				1.081		355.235022		355.235022		4.89
1,2,3,7,8-PeCDD	41:40	816268	193673	1.124	2000	1857.25904	92.86	1857.25904	Q	4.23
Total PeCDD				1.124		1857.25904		1857.25904	Q	4.23
1,2,3,7,8-PeCDF	39:48	1300316	254257	1.050	2000	1952.14783	97.61	1952.14783		3.71
2,3,4,7,8-PeCDF	41:06	1183464	265433	1.030	2000	1811.77940	90.59	1811.77940		3.79
Total PeCDF				1.040		3763.92723		3763.92723		3.75
1,2,3,4,7,8-HxCDD	46:01	772582	225449	0.990	2000	1910.89174	95.54	1910.89174		4.21
1,2,3,6,7,8-HxCDD	46:09	815949	213734	1.020	2000	1958.42727	97.92	1958.42727		4.08
1,2,3,7,8,9-HxCDD	46:31	856249	217604	1.003	2000	2091.62615	104.58	2091.62615		4.15
Total HxCDD				1.004		5960.94515		5960.94515		4.15
1,2,3,4,7,8-HxCDF	44:59	1268467	377897	1.091	2000	2026.09371	101.30	2026.09371		2.31
1,2,3,6,7,8-HxCDF	45:06	1374921	394476	1.226	2000	1955.38391	97.77	1955.38391		2.06
2,3,4,6,7,8-HxCDF	45:51	1257455	330874	1.160	2000	1888.78857	94.44	1888.78857		2.17
1,2,3,7,8,9-HxCDF	46:46	1101126	262683	1.008	2000	1904.29432	95.21	1904.29432		2.50
Total HxCDF				1.121		7774.56051		7774.56051		2.25
1,2,3,4,6,7,8-HpCDD	50:53	720601	144666	1.094	2000	1914.97909	95.75	1914.97909		5.07
Total HpCDD				1.094		1914.97909		1914.97909		5.07
1,2,3,4,6,7,8-HpCDF	49:11	1228656	285659	1.469	2000	1843.93394	92.20	1843.93394		2.30
1,2,3,4,7,8,9-HpCDF	51:31	903845	180473	1.127	2000	1768.19762	88.41	1768.19762		3.00
Total HpCDF				1.298		3612.13156		3612.13156		2.60
OCDD	55:11	1196640	292822	1.075	4000	3735.26719	93.38	3735.26719		5.84
OCDF	55:19	1492804	380421	1.258	4000	3983.79340	99.59	3983.79340		4.49
13C-2,3,7,8-TCDD	31:31	737397	80147	1.006	2000	1659.56186	82.98	1659.56186		14.8
13C-2,3,7,8-TCDF	29:33	1290316	149585	1.719	2000	1699.74653	84.99	1699.74653		4.61
13C-1,2,3,7,8-PeCDD	41:39	782360	182924	0.953	2000	1858.90314	92.95	1858.90314		7.30
13C-1,2,3,7,8-PeCDF	39:47	1268159	255144	1.661	2000	1729.61674	86.48	1729.61674		4.50
13C-1,2,3,6,7,8-HxCDD	46:08	816615	218479	1.035	2000	1652.62579	82.63	1652.62579		3.90
13C-1,2,3,6,7,8-HxCDF	45:05	1147443	333380	1.434	2000	1675.57343	83.78	1675.57343		2.34
13C-1,2,3,4,6,7,8-HpCDD	50:52	687870	136970	0.851	2000	1692.48886	84.62	1692.48886		3.30
13C-1,2,3,4,6,7,8-HpCDF	49:10	907131	210106	1.094	2000	1737.03010	86.85	1737.03010		2.59
13C-OCDD	55:10	1191673	302752	0.867	4000	2877.92941	71.95	2877.92941		4.71
37Cl4-2,3,7,8-TCDD				1.198	4000			ND		4.06
13C-2,3,4,7,8-PeCDF				0.994	4000			ND		2.90
13C-1,2,3,4,7,8-HxCDD				0.887	4000			ND		4.90
13C-1,2,3,4,7,8-HxCDF				0.891	4000			ND		2.66
13C-1,2,3,7,8,9-HxCDF				1.321				ND		2.54
13C-1,2,3,4,7,8,9-HpCDF				0.841	4000			ND		3.76
13C-1,2,3,4-TCDD	31:02	1766055	196764	1.000	4000	4000.00000	100.00	4000.00000		14.9
13C-1,2,3,7,8,9-HxCDD	46:30	1910032	470246	1.000	4000	4000.00000	100.00	4000.00000		4.04

PMP 7-16-11

KM 9-18-11

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKNTL1AC	**Prep Batch**	1187027	**Lot No**	H1G060000-027
Data File	/20110715s1/btmkntlca.	**Prep Date**	07/06/11	**SDG No**	
Analysis ID	133634	**Prep Exp Date**	07/22/11	**Date Received**	07/06/11
Analysis Date	07/15/11 09:42	**Matrix**	AIR	**Date Sampled**	06/22/11
Anal Exp Date	08/20/11	**Initial Wt/Vol**	1 Sample	**Lims Test Code**	XXSIPX801
Instrument	M2A	**Extract Vol**	40 uL	**Method**	0023/8290
Analyst	KBL	**Diluton Factor**	1.00	**Code**	X8

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
304					**303.9016**	**305.8987**	**303.9016**	**305.8987**	**0.65-0.89**		
	Noise	00:00	00:00	0	173	223	69	89	0.78	/	
	2,3,7,8-TCDF	29:35	29:37	-2	109000	138729	12933	15632	0.79	ABV/ABV	
316					**315.9419**	**317.9389**	**315.9419**	**317.9389**	**0.65-0.89**		
	Noise	00:00	00:00	0	213	178	85	71	1.20 *	/	
	13C-2,3,7,8-TCDF	29:33	29:33	0	571198	719118	67387	82198	0.79	ABV/ABV	
320					**319.8965**	**321.8936**	**319.8965**	**321.8936**	**0.65-0.89**		
	Noise	00:00	00:00	0	175	228	70	91	0.77	/	
	2,3,7,8-TCDD	31:37	31:35	2	78915	96951	8938	11391	0.81	ABV/AVB	D
328					**327.8847**		**327.8847**				
	Noise	00:00	00:00	0	195		78				
	Unidentified	33:14	00:00	0	553495		91637			ABB	
332					**331.9368**	**333.9338**	**331.9368**	**333.9338**	**0.65-0.89**		
	Noise	00:00	00:00	0	435	300	174	120	1.45 *	/	
	13C-1,2,3,4-TCDD	31:02	31:02	0	795778	970277	89587	107177	0.82	AVV/ABV	
	13C-2,3,7,8-TCDD	31:31	31:32	-1	328148	409249	36294	43853	0.80	AVV/AVV	
340					**339.8597**	**341.8567**	**339.8597**	**341.8567**	**1.32-1.78**		
	Noise	00:00	00:00	0	255	243	102	97	1.05 *	/	
	1,2,3,7,8-PeCDF	39:48	39:49	-1	793738	506578	155138	99119	1.57	ABV/ABV	
	2,3,4,7,8-PeCDF	41:06	41:06	0	724432	459032	163388	102045	1.58	ABV/ABV	
352					**351.9000**	**353.8970**	**351.9000**	**353.8970**	**1.32-1.78**		
	Noise	00:00	00:00	0	158	210	63	84	0.75 *	/	
	13C-1,2,3,7,8-PeCDF	39:47	39:48	-1	778303	489856	158267	96877	1.59	ABV/ABV	
356					**355.8546**	**357.8516**	**355.8546**	**357.8516**	**1.32-1.78**		
	Noise	00:00	00:00	0	265	170	106	68	1.56	/	
	1,2,3,7,8-PeCDD	41:40	41:41	-1	496163	1707615	117723	388080	0.29 *	ABV/ABV	R
368					**367.8949**	**369.8919**	**367.8949**	**369.8919**	**1.32-1.78**		
	Noise	00:00	00:00	0	188	155	75	62	1.21 *	/	
	13C-1,2,3,7,8-PeCDD	41:39	41:39	0	475552	306808	111189	71735	1.55	ABV/ABV	
374					**373.8208**	**375.8178**	**373.8208**	**375.8178**	**1.05-1.43**		
	Noise	00:00	00:00	0	225	195	90	78	1.15	/	
	1,2,3,4,7,8-HxCDF	44:59	45:00	-1	706494	561973	211688	166209	1.26	ABV/ABV	
	1,2,3,6,7,8-HxCDF	45:06	45:07	-1	762845	612076	221634	172842	1.25	AVV/AVV	
	2,3,4,6,7,8-HxCDF	45:51	45:51	0	702904	554551	183178	147696	1.27	AVV/AVV	
	1,2,3,7,8,9-HxCDF	46:46	46:46	0	610860	490266	146560	116123	1.25	ABV/ABV	
384					**383.8639**	**385.8610**	**383.8639**	**385.8610**	**0.43-0.59**		
	Noise	00:00	00:00	0	195	200	78	80	0.98 *	/	
	13C-1,2,3,6,7,8-HxCDF	45:05	45:06	-1	393269	754174	112050	221330	0.52	AVV/AVV	
390					**389.8156**	**391.8127**	**389.8156**	**391.8127**	**1.05-1.43**		
	Noise	00:00	00:00	0	240	215	96	86	1.12	/	
	1,2,3,4,7,8-HxCDD	46:01	46:02	-1	430028	342554	123060	102389	1.26	ABV/ABV	
	1,2,3,6,7,8-HxCDD	46:09	46:10	-1	449189	366760	119294	94440	1.22	AVV/AVV	
	1,2,3,7,8,9-HxCDD	46:31	46:32	-1	473311	382938	119374	98230	1.24	AVV/AVV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKNTL1AC	**Prep Batch**	1187027	**Lot No**	H1G060000-027
Data File	/20110715s1/btmkntlca.	**Prep Date**	07/06/11	**SDG No**	
Analysis ID	133634	**Prep Exp Date**	07/22/11	**Date Received**	07/06/11
Analysis Date	07/15/11 09:42	**Matrix**	AIR	**Date Sampled**	06/22/11
Anal Exp Date	08/20/11	**Initial Wt/Vol**	1 Sample	**Lims Test Code**	XXSIPX801
Instrument	M2A	**Extract Vol**	40 uL	**Method**	0023/8290
Analyst	KBL	**Diluton Factor**	1.00	**Code**	X8

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
402					**401.8559**	**403.8529**	**401.8559**	**403.8529**	**1.05-1.43**	
	Noise	00:00	00:00	0	203	273	81	109	0.74 *	/
	13C-1,2,3,6,7,8-HxCDD	46:08	46:09	-1	458372	358243	125580	92899	1.28	ABV/AVV
	13C-1,2,3,7,8,9-HxCDD	46:30	46:31	-1	1069399	840633	259504	210742	1.27	AVV/ABV
408					**407.7818**	**409.7788**	**407.7818**	**409.7788**	**0.88-1.20**	
	Noise	00:00	00:00	0	188	168	75	67	1.12	/
	1,2,3,4,6,7,8-HpCDF	49:11	49:11	0	629160	599496	149285	136374	1.05	ABV/ABV
	1,2,3,4,7,8,9-HpCDF	51:31	51:31	0	463885	439960	92356	88117	1.05	ABV/ABV
418					**417.8250**	**419.8220**	**417.8250**	**419.8220**	**0.37-0.51**	
	Noise	00:00	00:00	0	173	160	69	64	1.08 *	/
	13C-1,2,3,4,6,7,8-HpCDF	49:10	49:10	0	285628	621503	68600	141506	0.46	ABV/ABV
424					**423.7767**	**425.7737**	**423.7767**	**425.7737**	**0.88-1.20**	
	Noise	00:00	00:00	0	198	183	79	73	1.08	/
	1,2,3,4,6,7,8-HpCDD	50:53	50:53	0	370129	350472	74376	70290	1.06	ABV/ABV
436					**435.8169**	**437.8140**	**435.8169**	**437.8140**	**0.88-1.20**	
	Noise	00:00	00:00	0	165	165	66	66	1.00	/
	Unidentified	49:41	00:00	0	9819	8427	1924	1903	1.17	ABB/ABB
	13C-1,2,3,4,6,7,8-HpCDD	50:52	50:52	0	356364	331506	69785	67185	1.07	ABV/ABV
442					**441.7428**	**443.7399**	**441.7428**	**443.7399**	**0.76-1.02**	
	Noise	00:00	00:00	0	208	220	83	88	0.94	/
	OCDF	55:19	55:19	0	709646	783158	181030	199391	0.91	ABV/ABV
458					**457.7377**	**459.7348**	**457.7377**	**459.7348**	**0.76-1.02**	
	Noise	00:00	00:00	0	275	200	110	80	1.38 *	/
	OCDD	55:11	55:11	0	570548	626092	140173	152649	0.91	ABV/ABV
470					**469.7780**	**471.7750**	**469.7780**	**471.7750**	**0.76-1.02**	
	Noise	00:00	00:00	0	228	253	91	101	0.90	/
	13C-OCDD	55:10	55:10	0	563767	627906	143466	159286	0.90	ABV/ABV

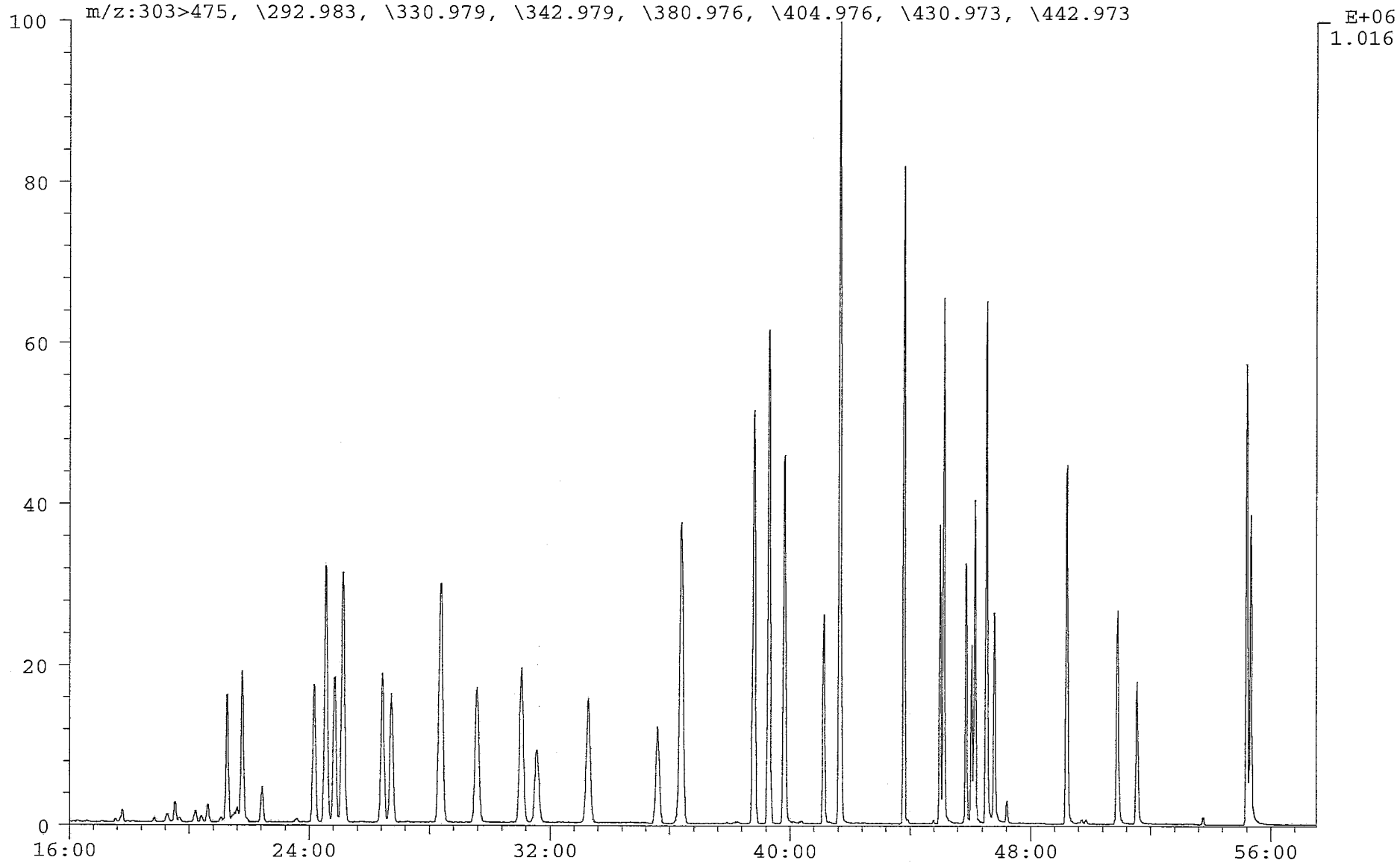
Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

int KM 7-15-11

QC pmp 7-16-11

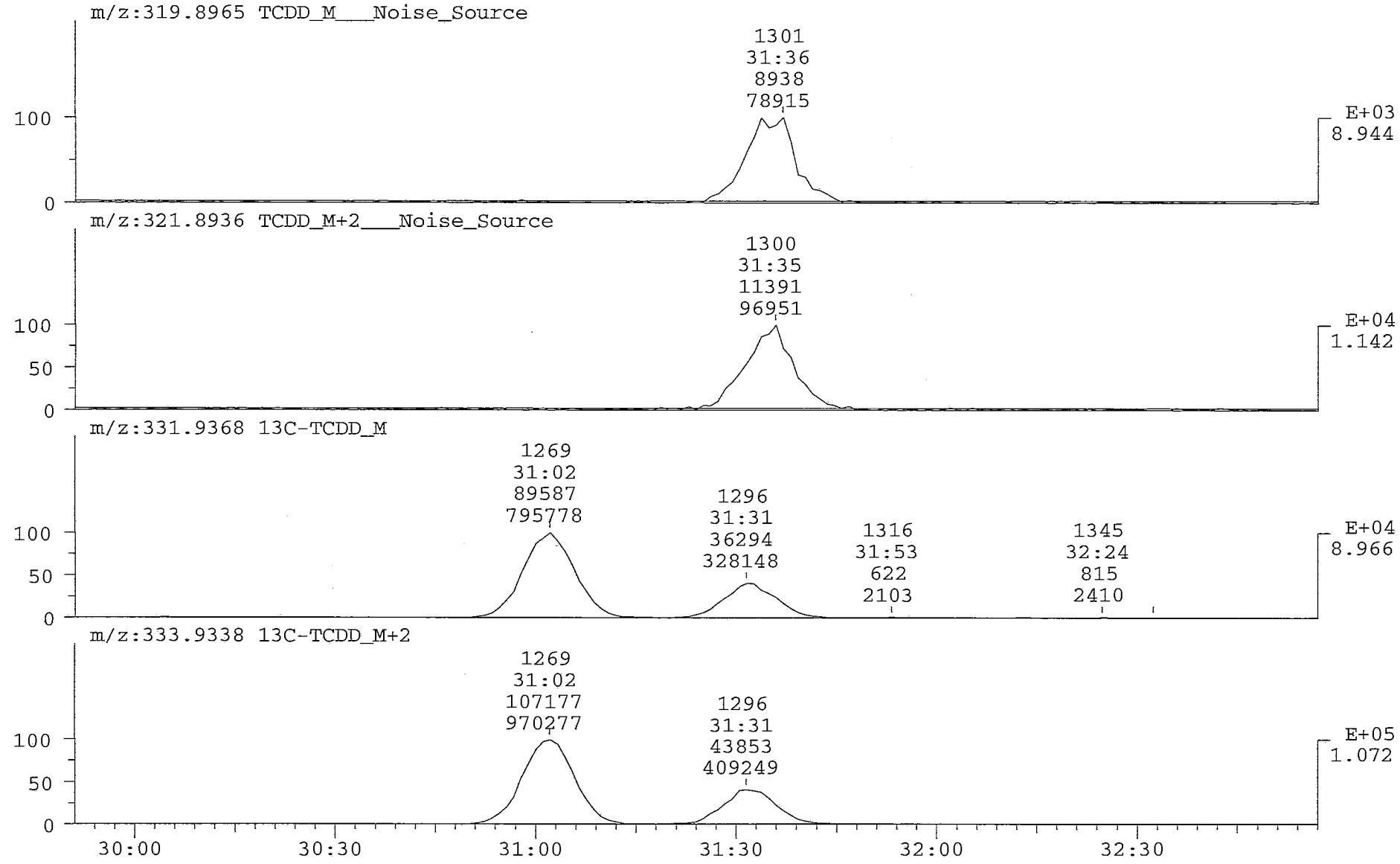
Rw MSD 7-18-11

```
CHRO:  btmkntlca                                15-Jul-11   Elapse:  55:21      2630
Samp:  Vial 14 WO=mkntl1ac Meth=X8 Dil=1                    Start :  09:42:36   2751
Comm:  Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :  1187027 (air-2)
Oper:  KBL           Client:  H1G060000-027C                Inlet :  GC     Vial 14
Peak:  100.00  ppm     Label wndw:   441 > 2751              Masses:  293 > 514
Area:  5, 0.50, 0      Baseline  :   100, 3                  Label :  0, 0.0
Disp:  Height  Area
```



H-897

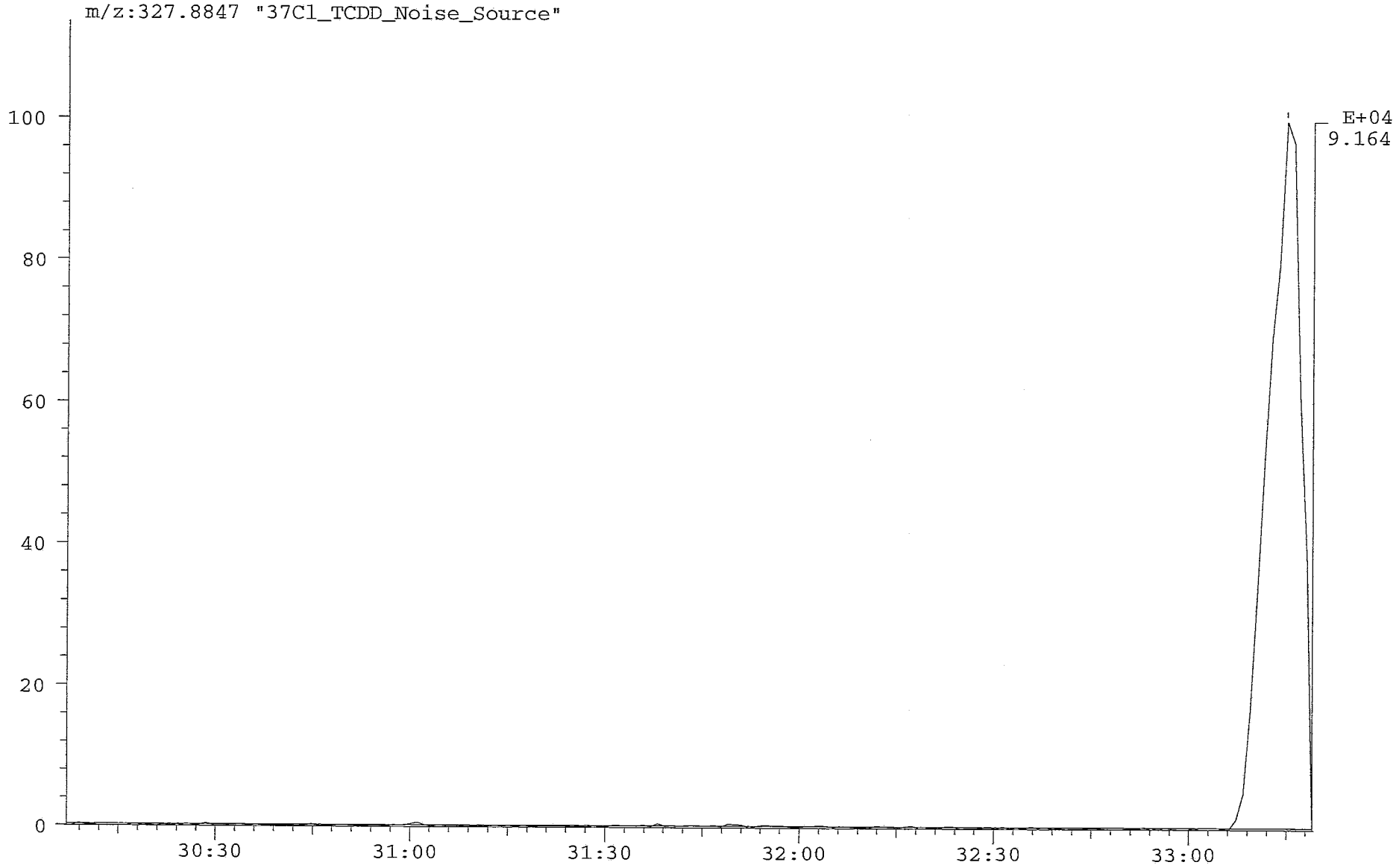
CHRO: btmkntlca 15-Jul-11 Elapse: 31:23 1289
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1204 > 1375 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-898

897

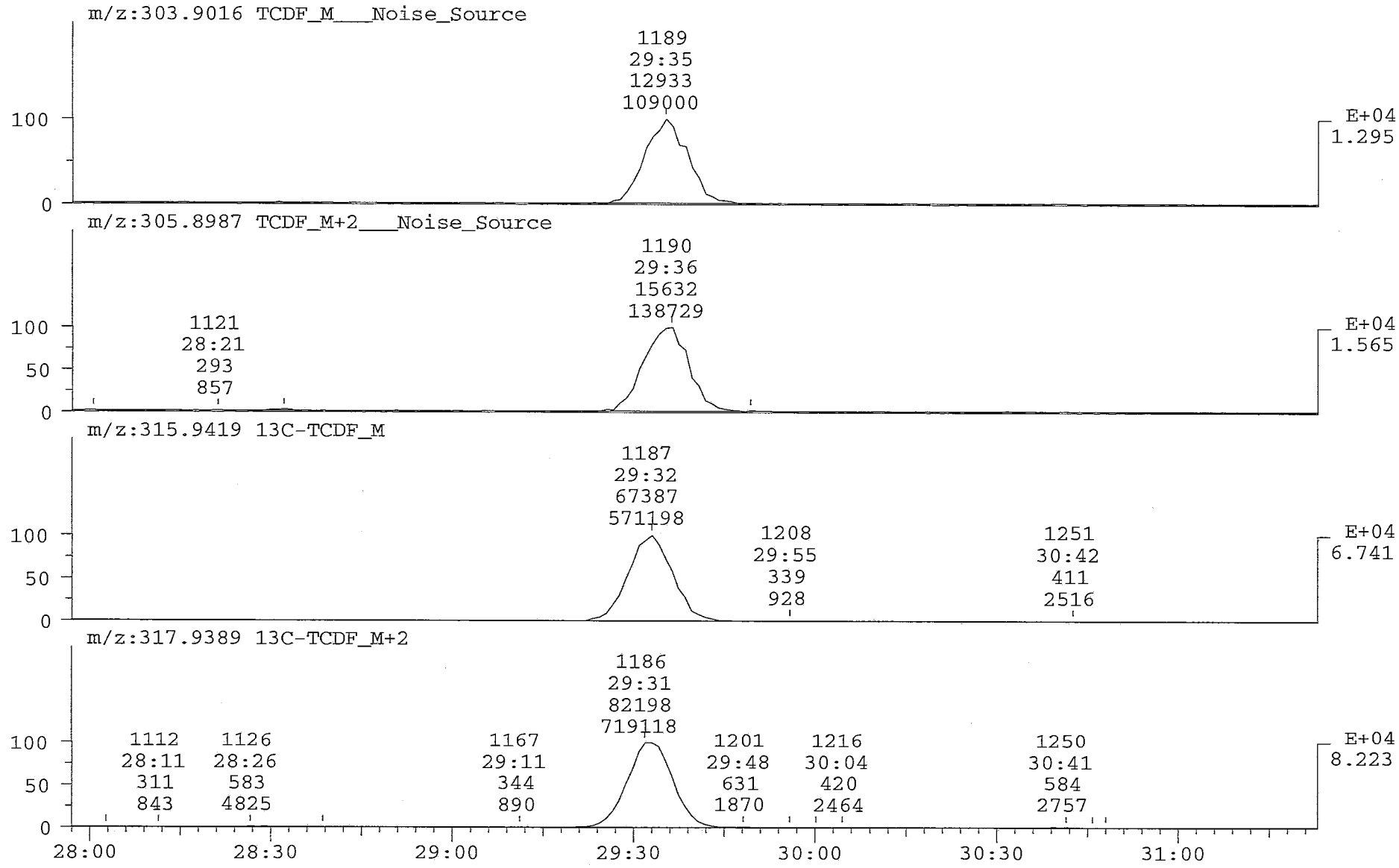
CHRO: btmkntlca 15-Jul-11 Elapse: 31:40 1304
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1218 > 1395 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-899

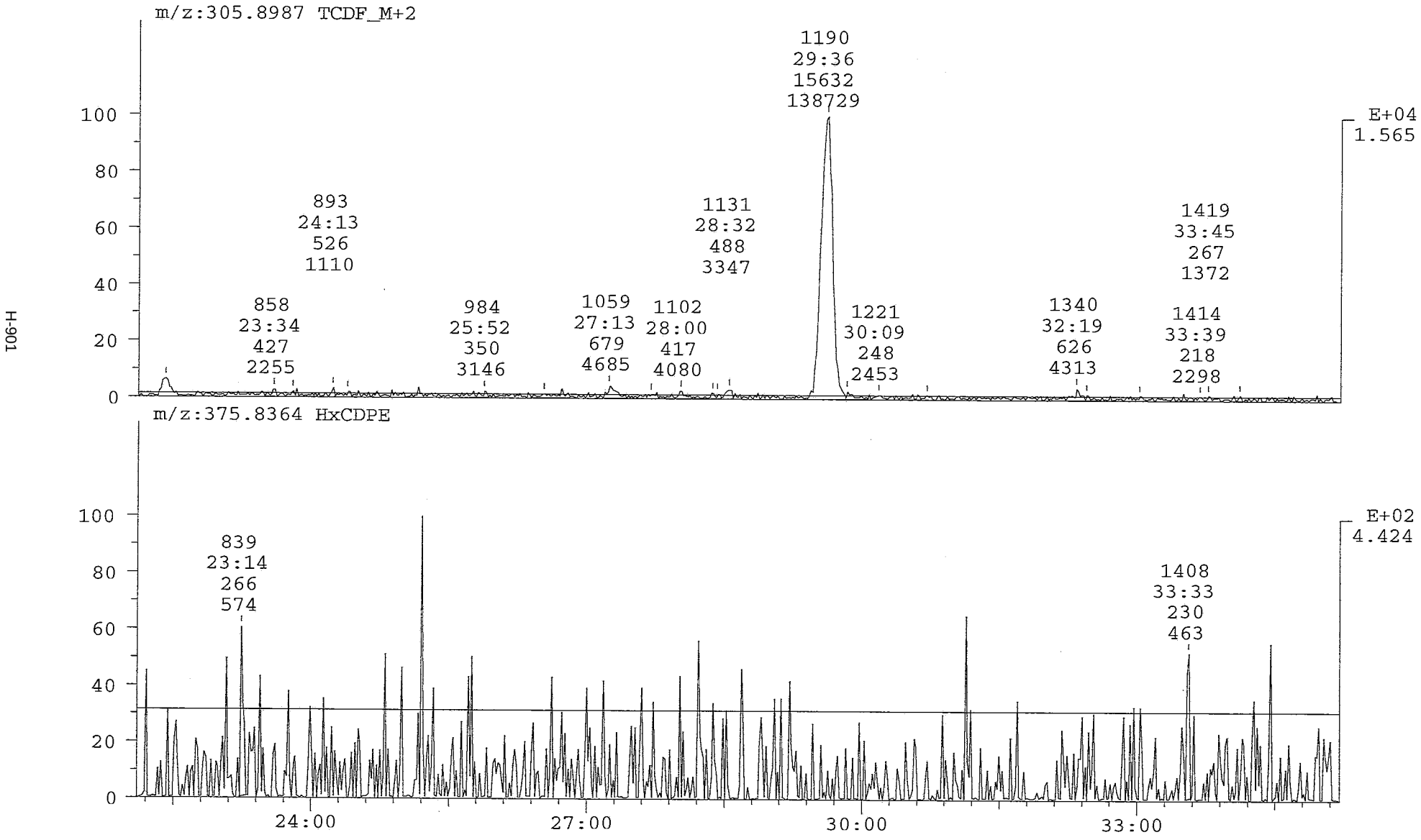
898

CHRO: btmkntlca 15-Jul-11 Elapse: 29:37 1191
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1099 > 1288 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



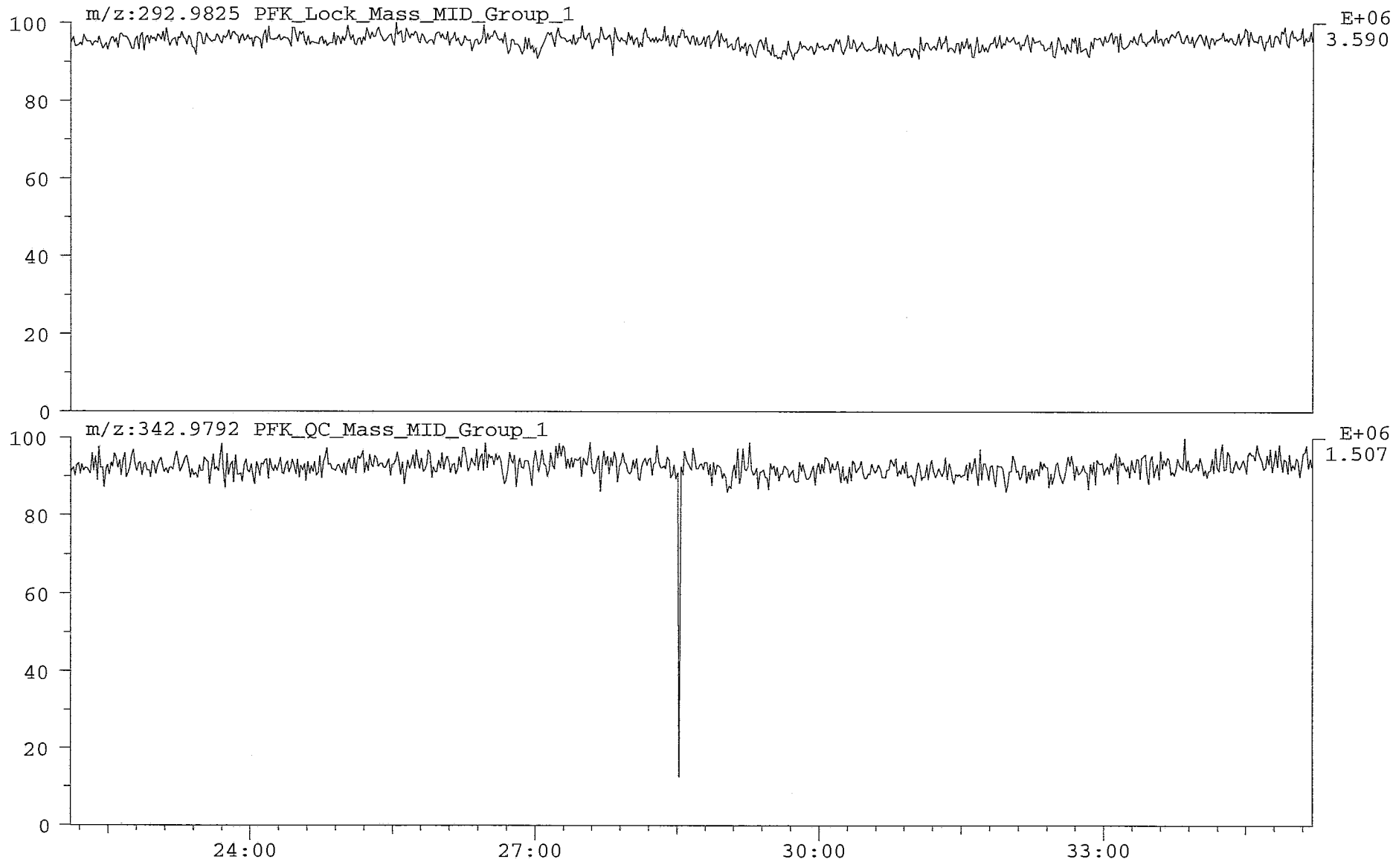
H-900

CHRO: btmkntlca 15-Jul-11 Elapse: 29:37 1191
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 777 > 1499 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



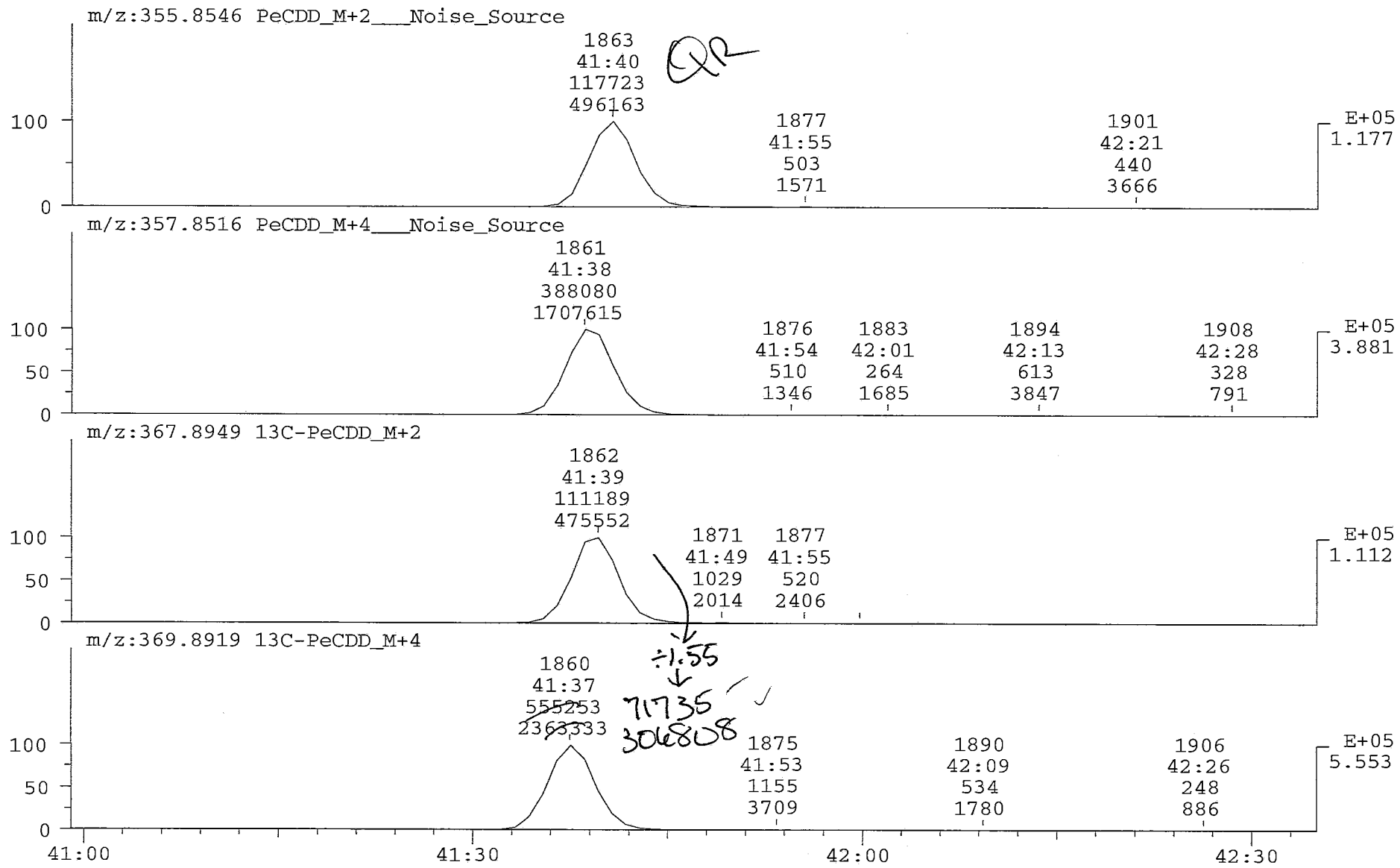
H-901

CHRO: btmkntlca 15-Jul-11 Elapse: 29:37 1191
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 777 > 1499 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-902

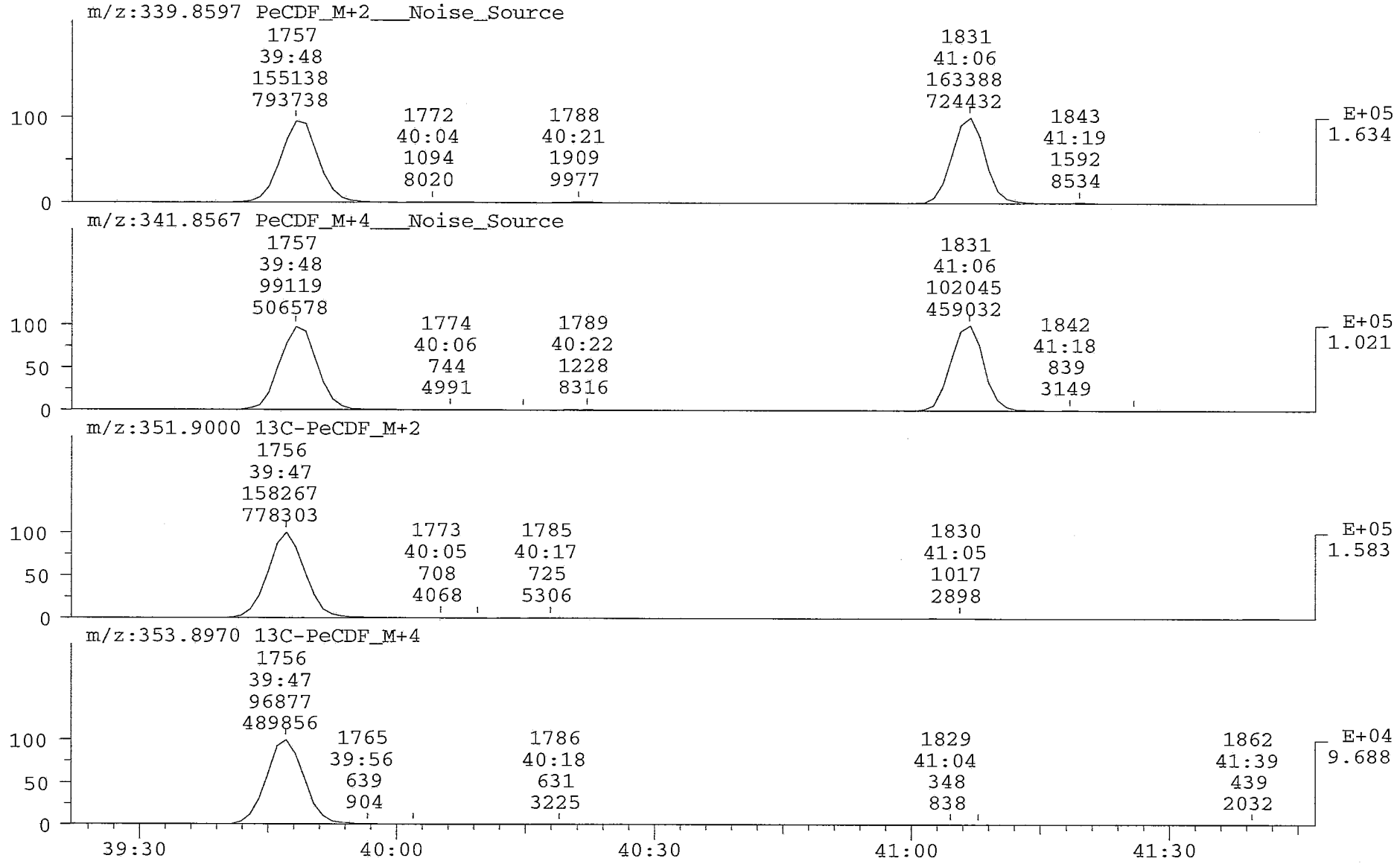
CHRO: btmkntlca 15-Jul-11 Elapse: 41:43 1866
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1824 > 1914 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-903

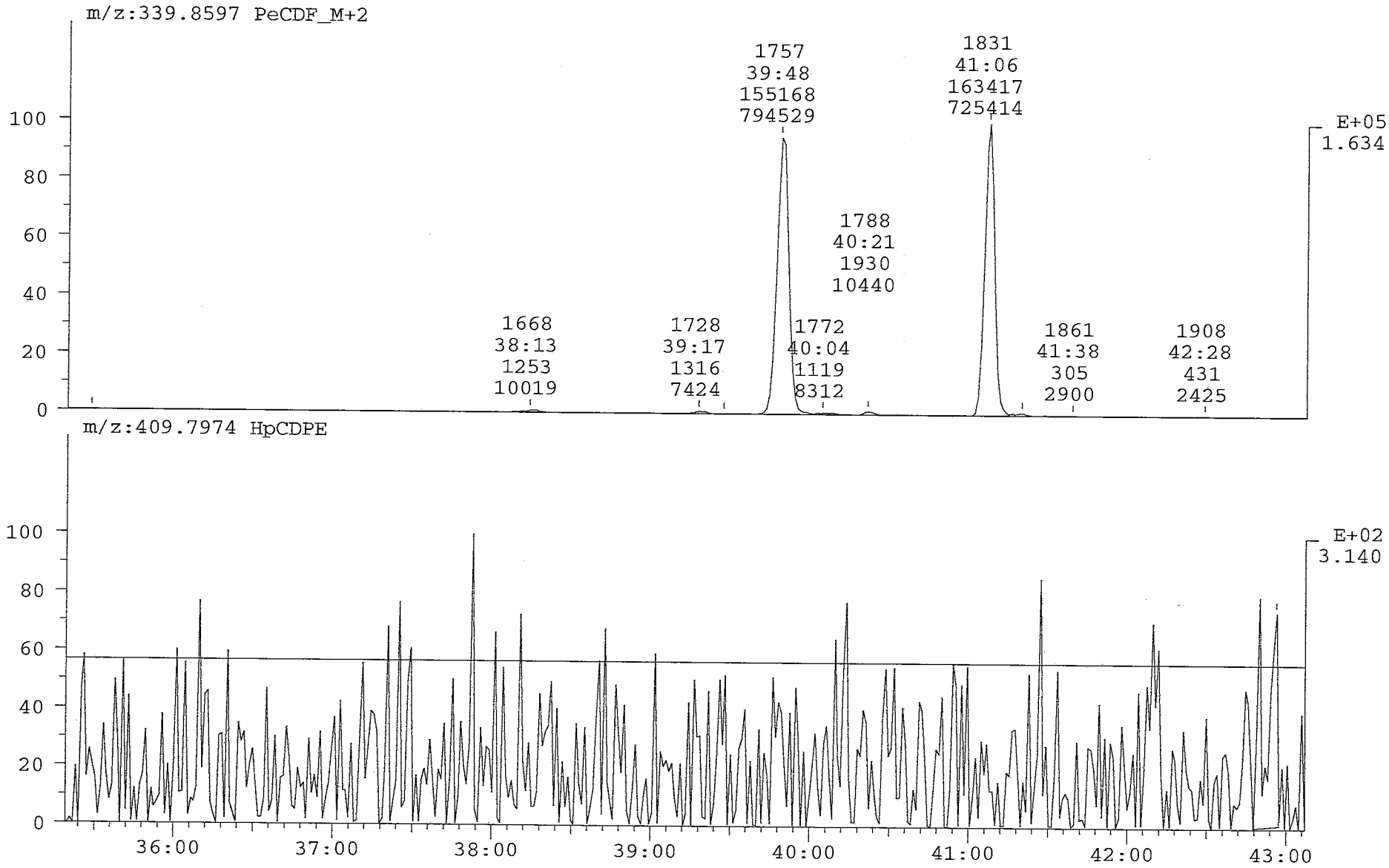
902

CHRO: btmkntlca 15-Jul-11 Elapse: 40:33 1800
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1732 > 1869 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



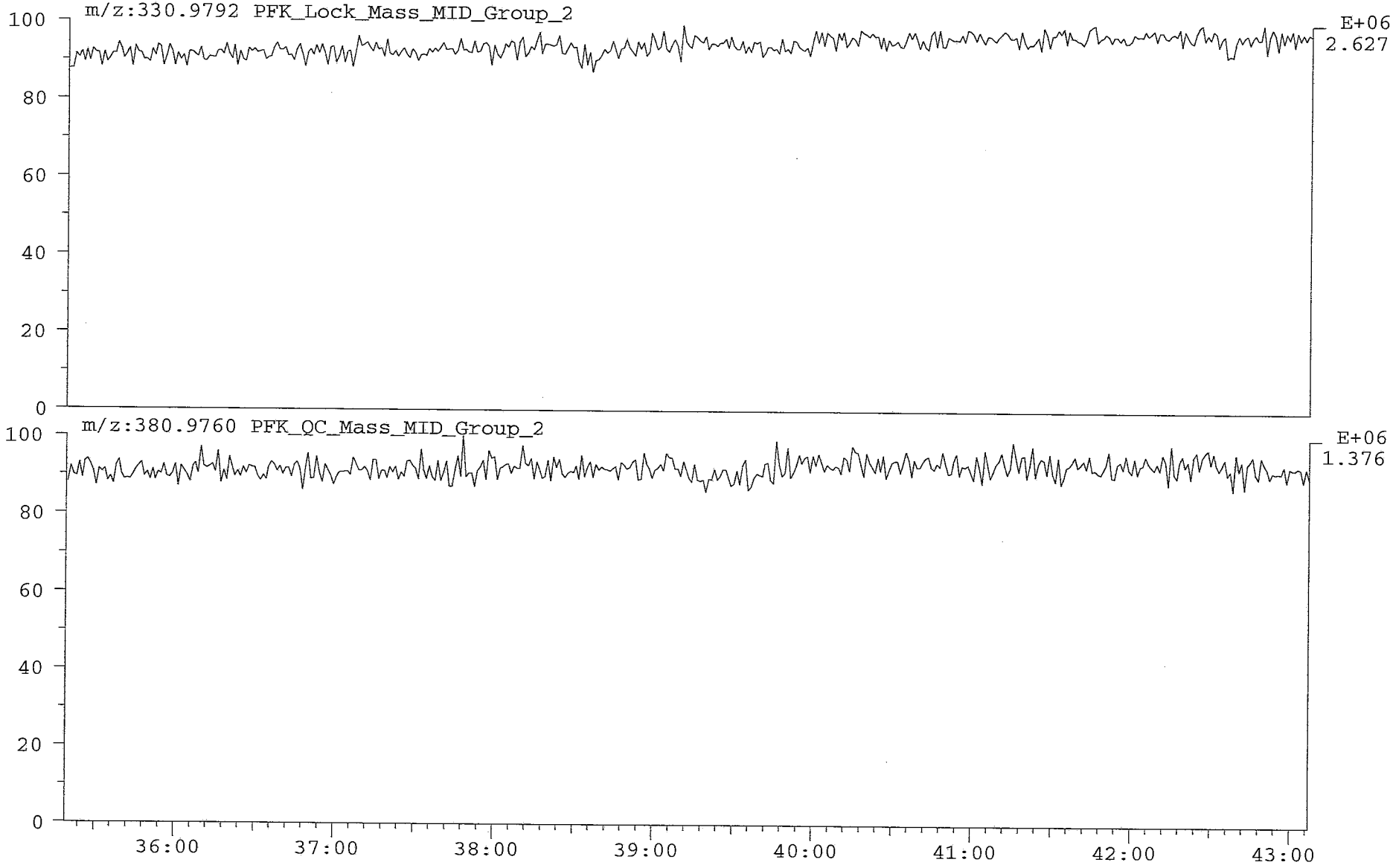
H-904

CHRO: btmkntlca 15-Jul-11 Elapse: 40:33 1800
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1504 > 1944 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



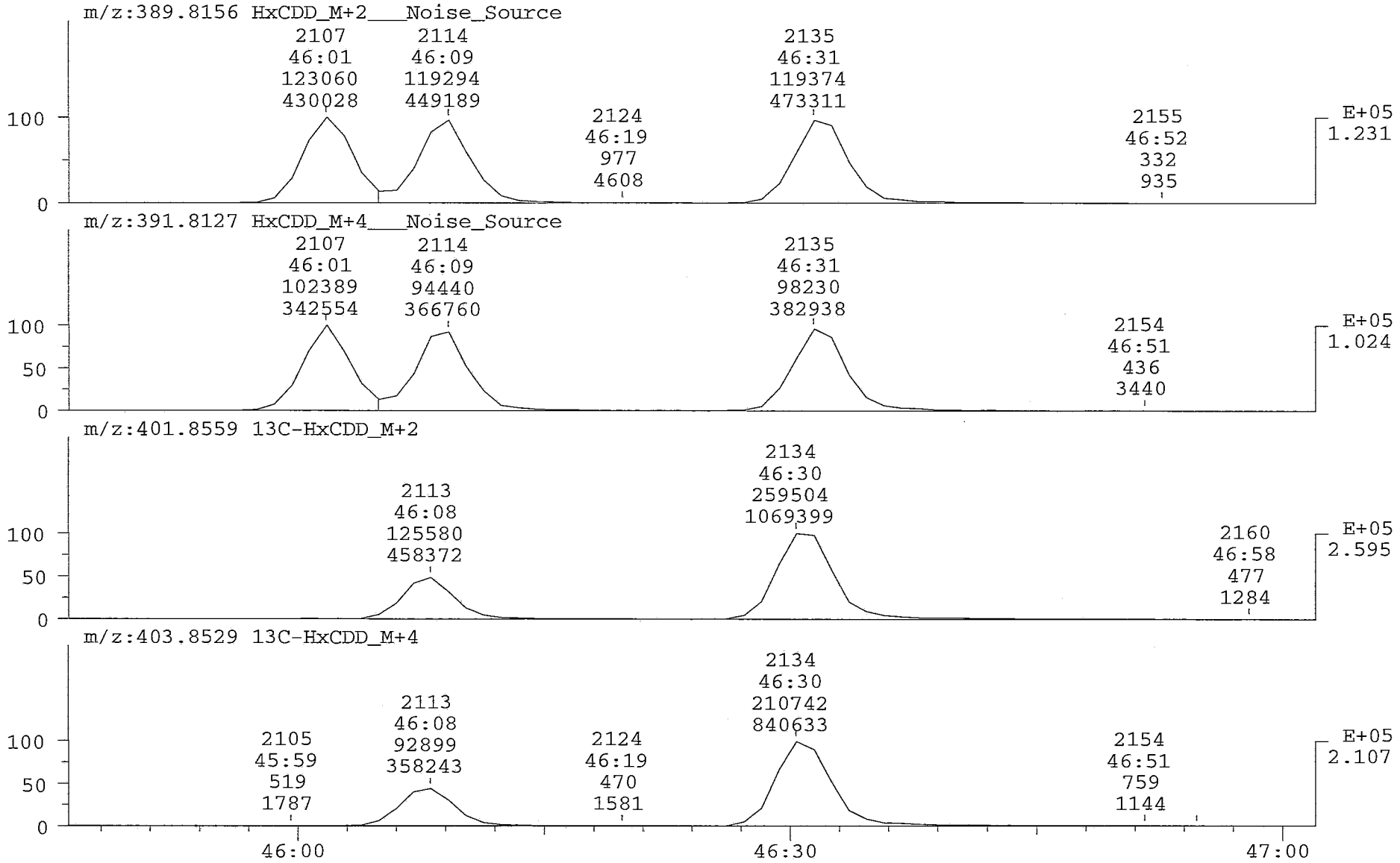
H-905

CHRO: btmkntlca 15-Jul-11 Elapse: 40:33 1800
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1504 > 1944 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



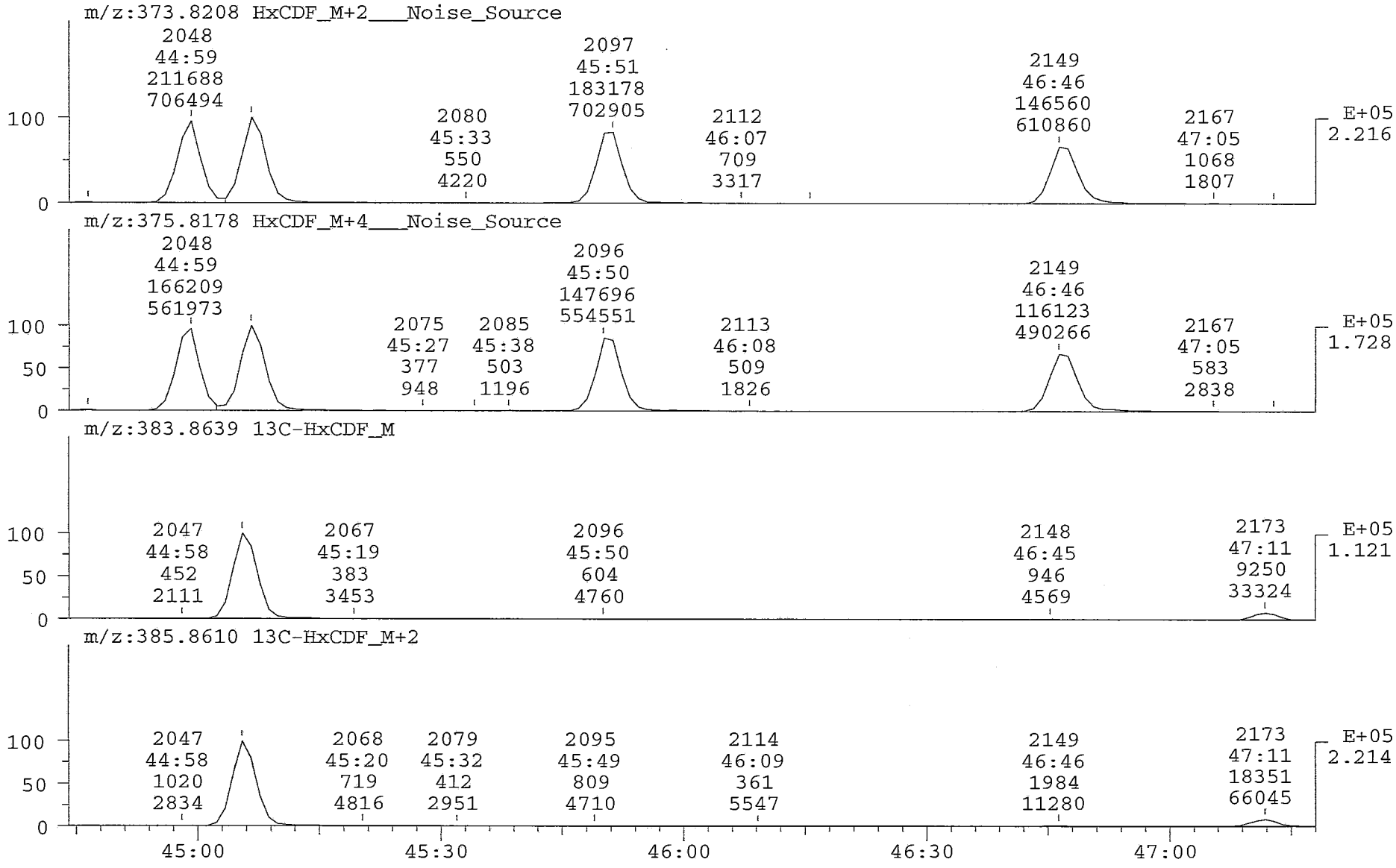
H-906

CHRO: btmkntlca 15-Jul-11 Elapse: 46:24 2128
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2092 > 2164 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



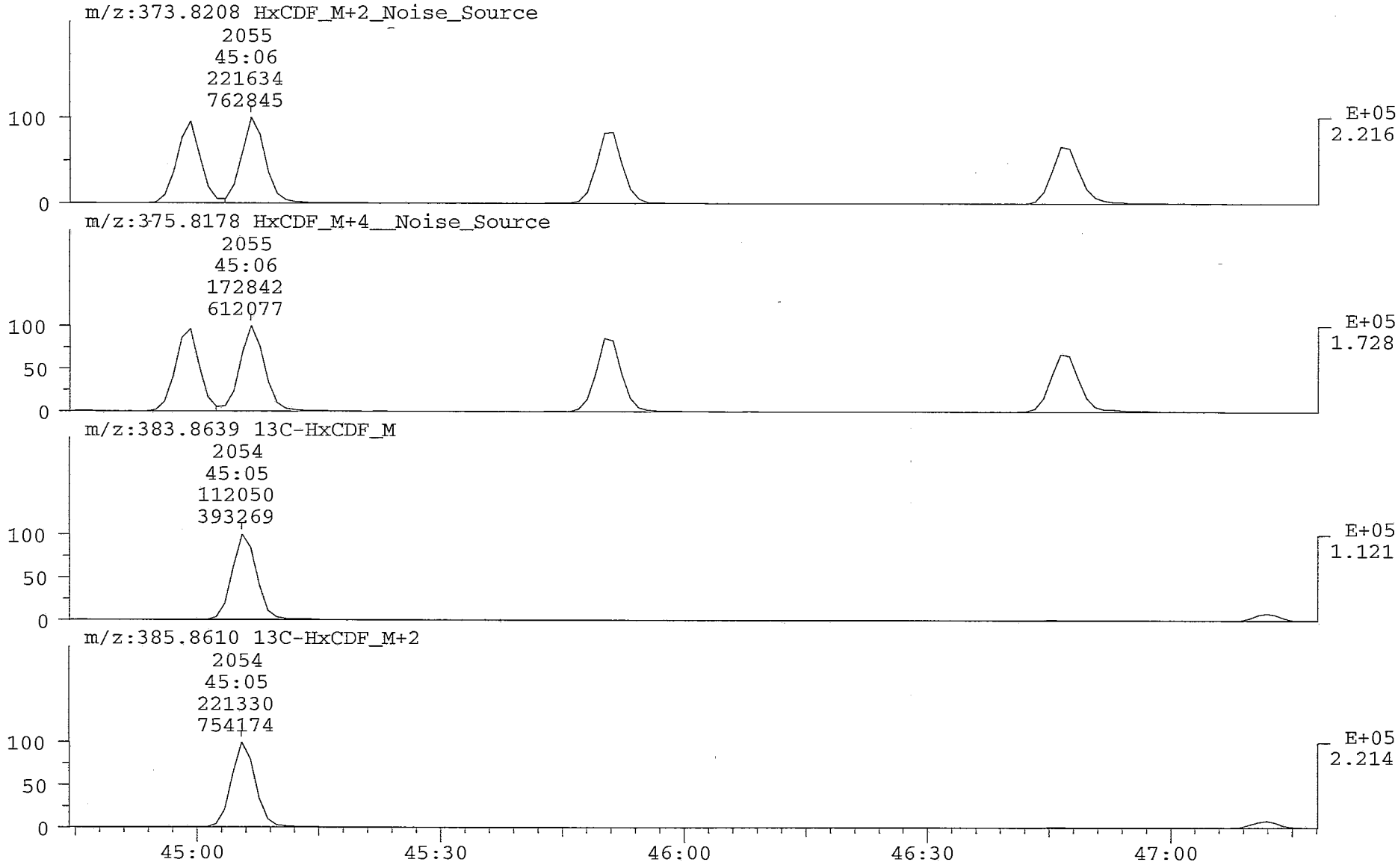
H-907

CHRO: btmkntlca 15-Jul-11 Elapse: 46:00 2106
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2034 > 2179 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-908

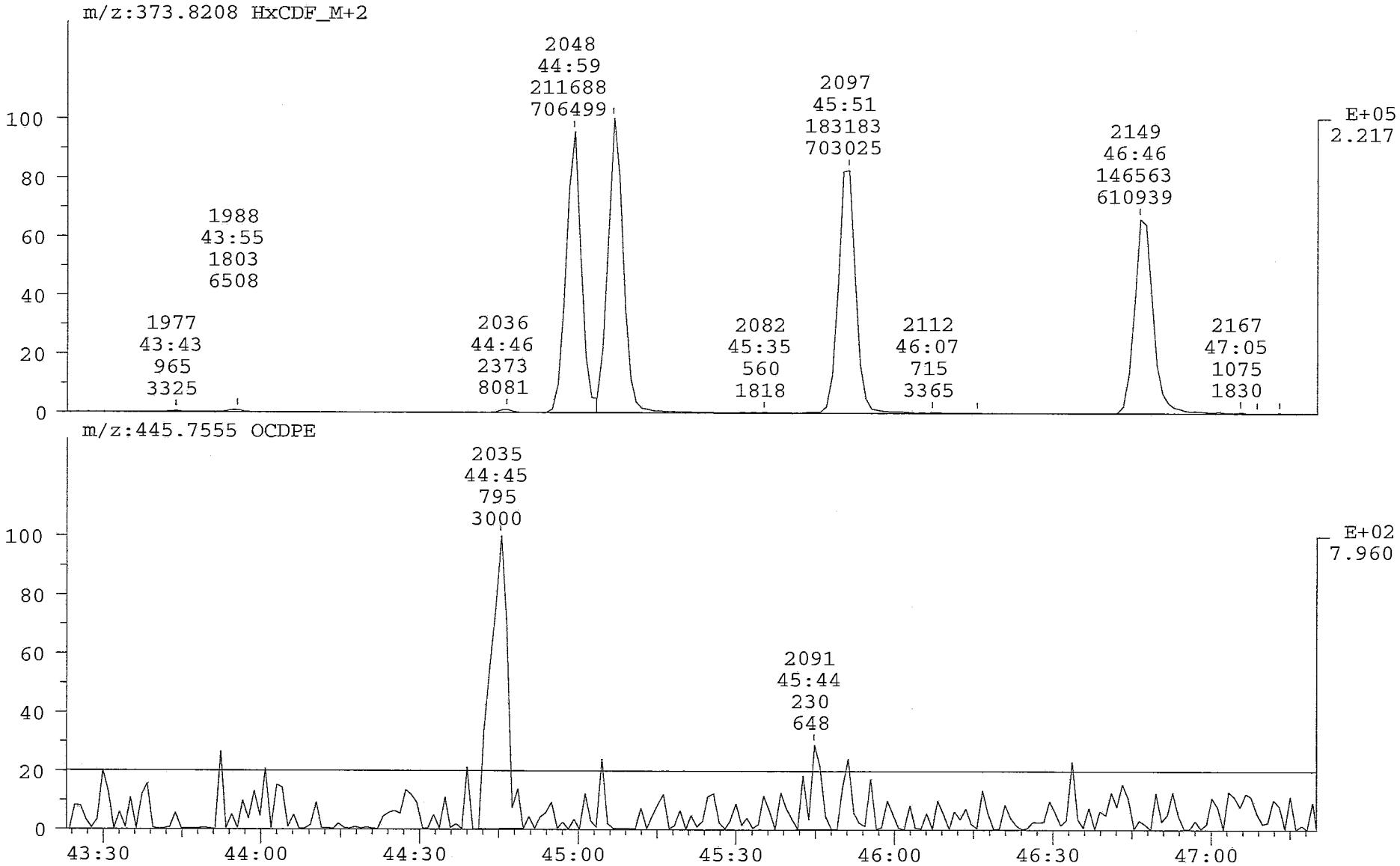
CHRO: btmkntlca 15-Jul-11 Elapse: 45:07 2056
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2053 > 2059 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-909

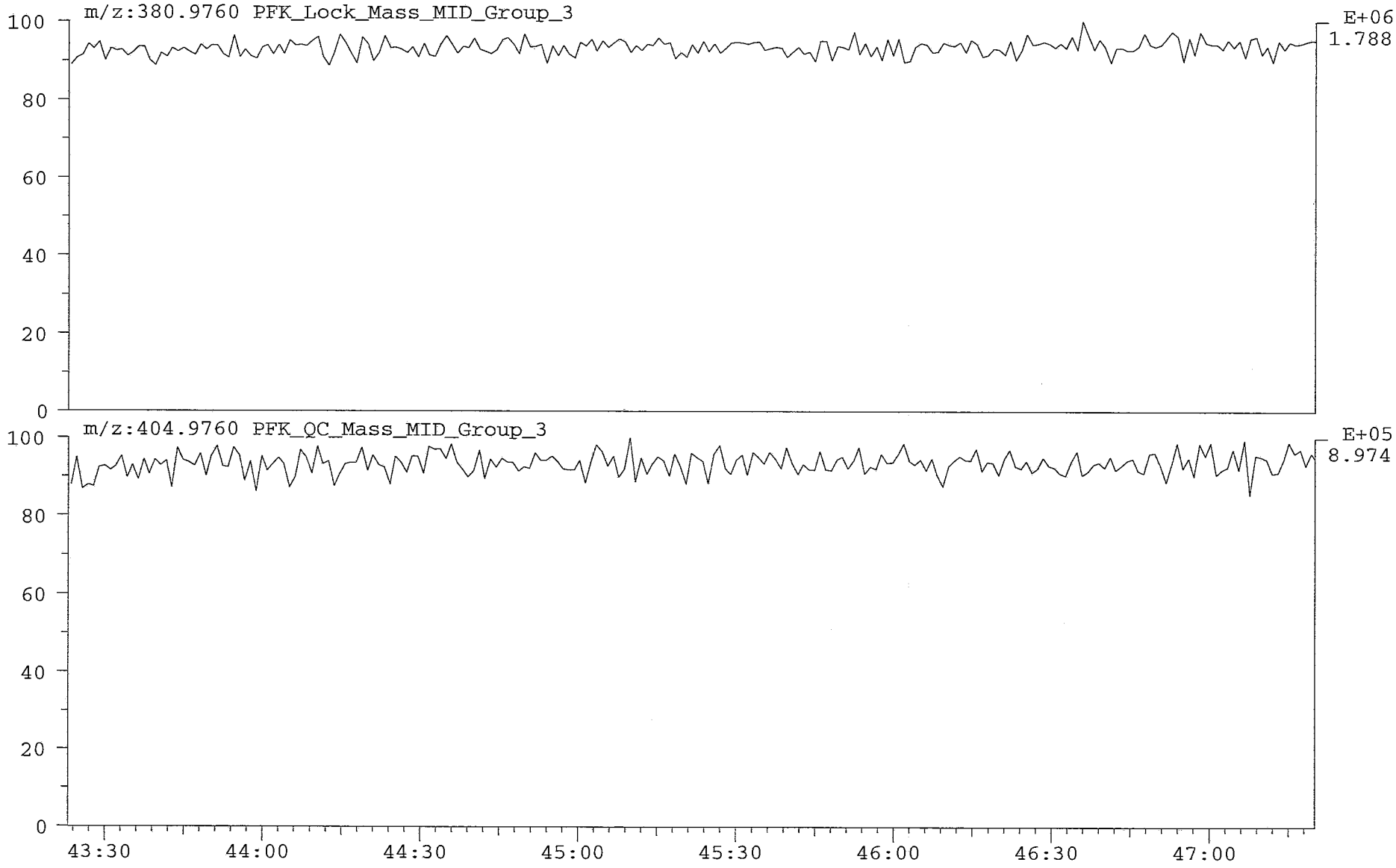
808

CHRO: btmkntlca 15-Jul-11 Elapse: 45:10 2059
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1958 > 2181 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



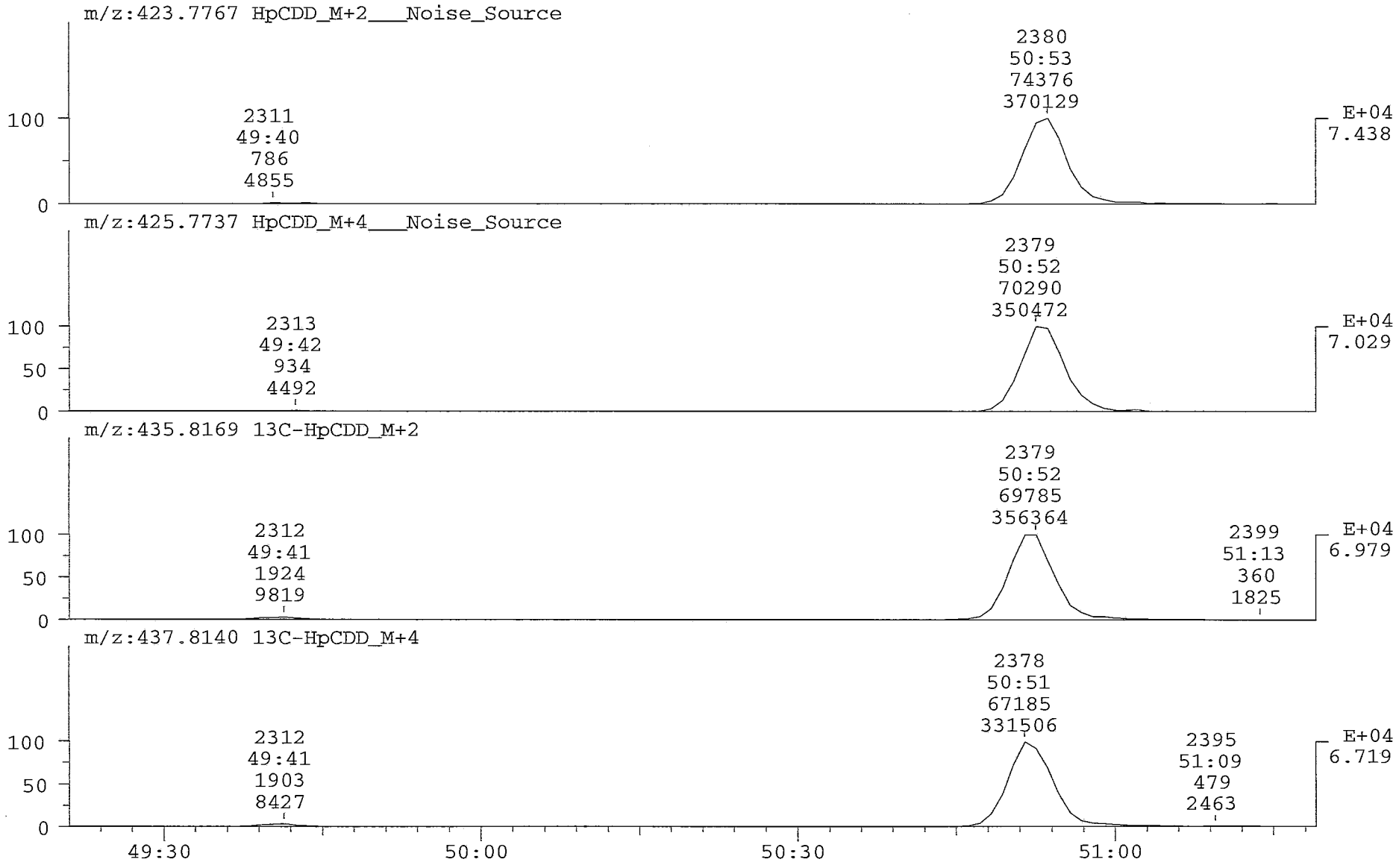
H-910

CHRO: btmkntlca 15-Jul-11 Elapse: 45:10 2059
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1958 > 2181 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



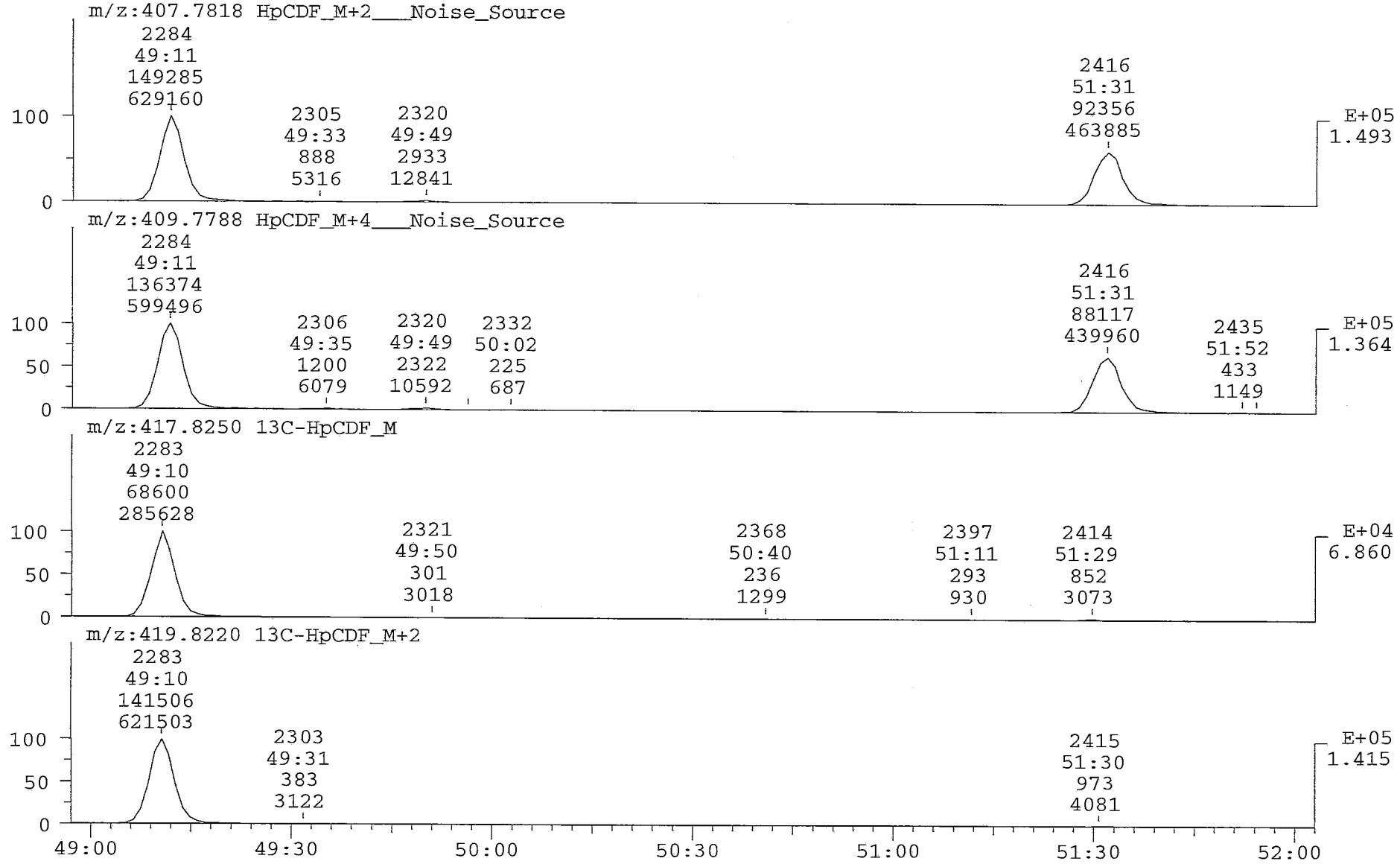
H-911

CHRO: btmkntlca 15-Jul-11 Elapse: 45:10 2059
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2293 > 2404 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-912

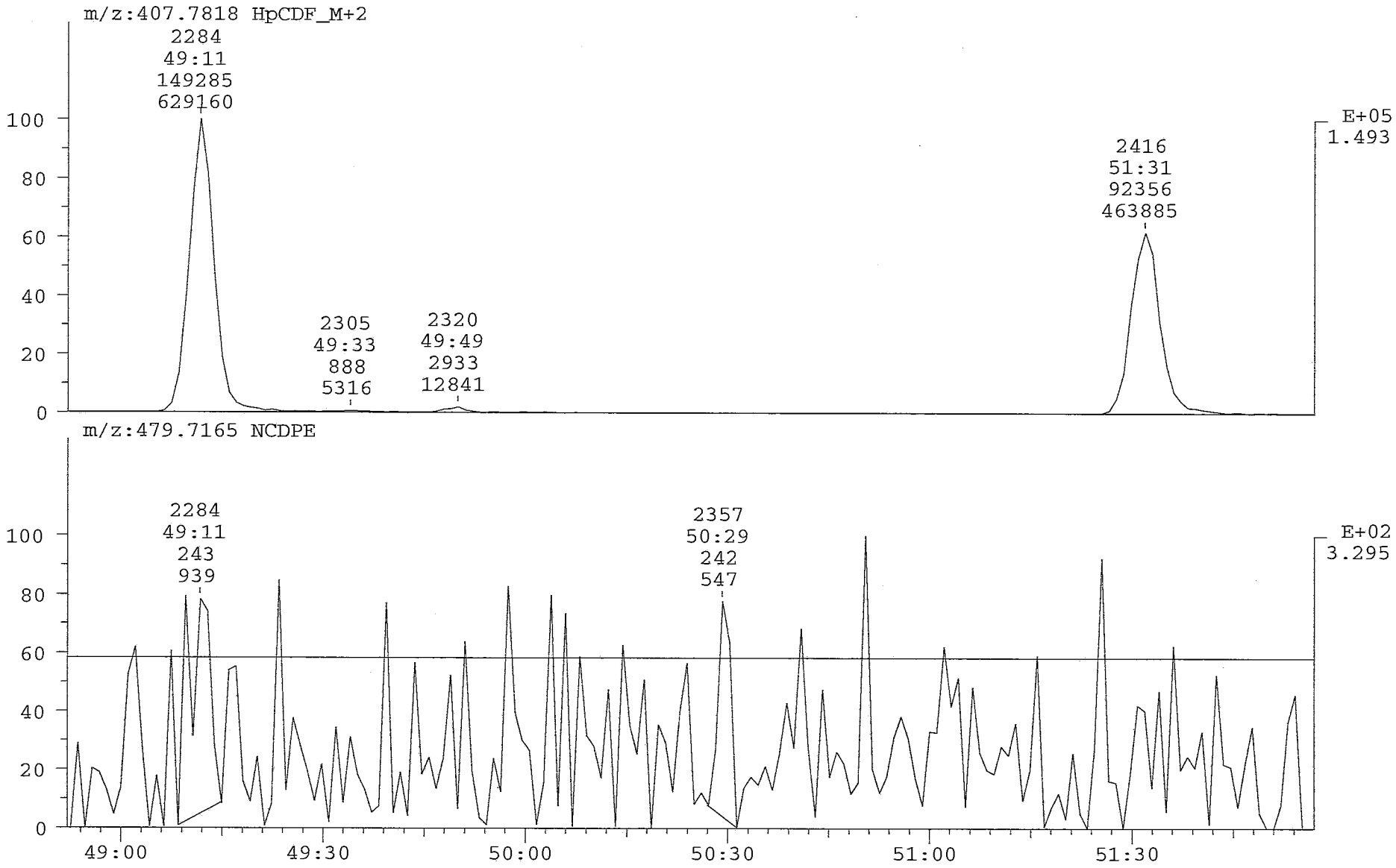
CHRO: btmkntlca 15-Jul-11 Elapse: 50:30 2358
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2270 > 2445 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-913

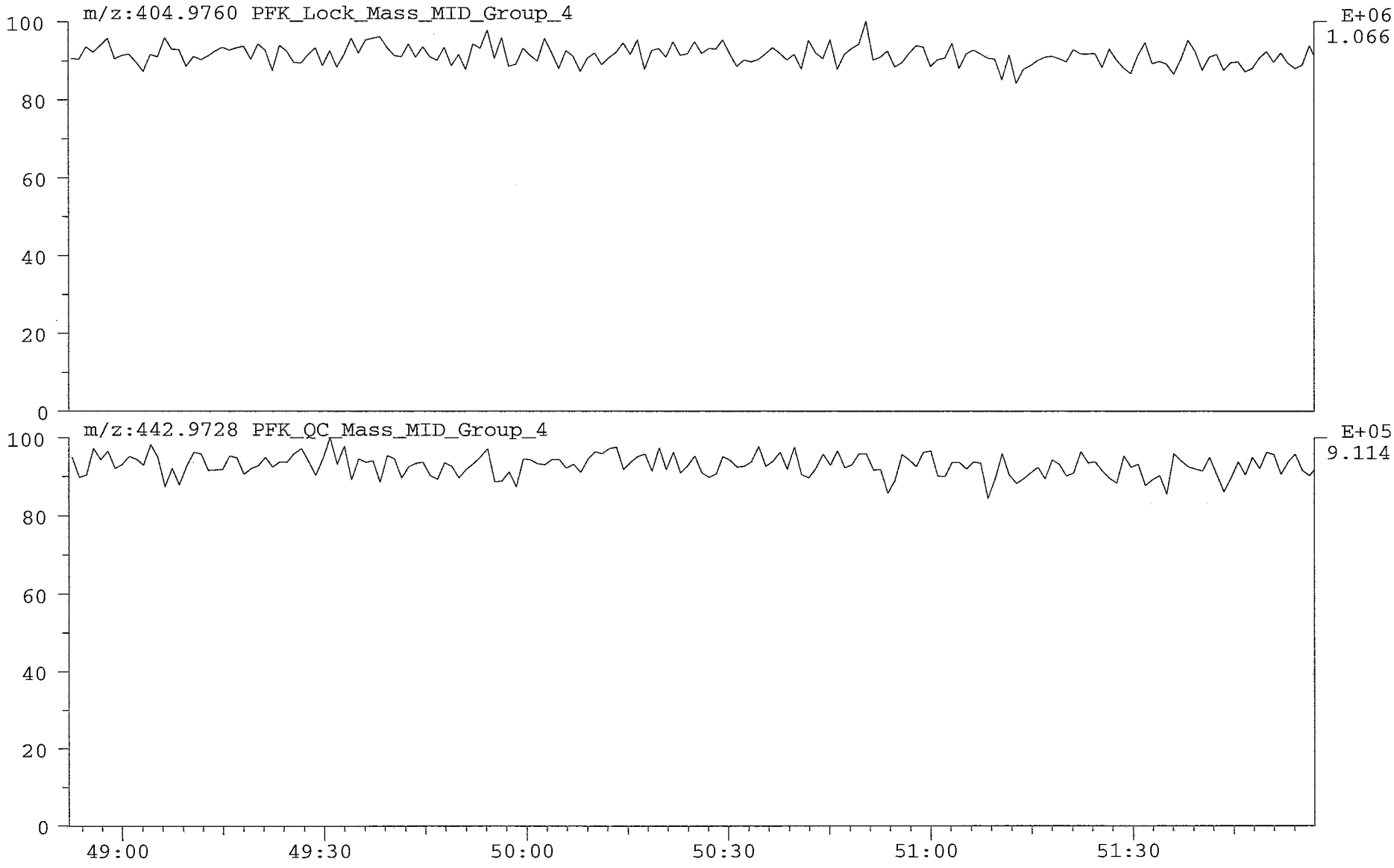
912

CHRO: btmkntlca 15-Jul-11 Elapse: 50:30 2358
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2266 > 2440 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-914

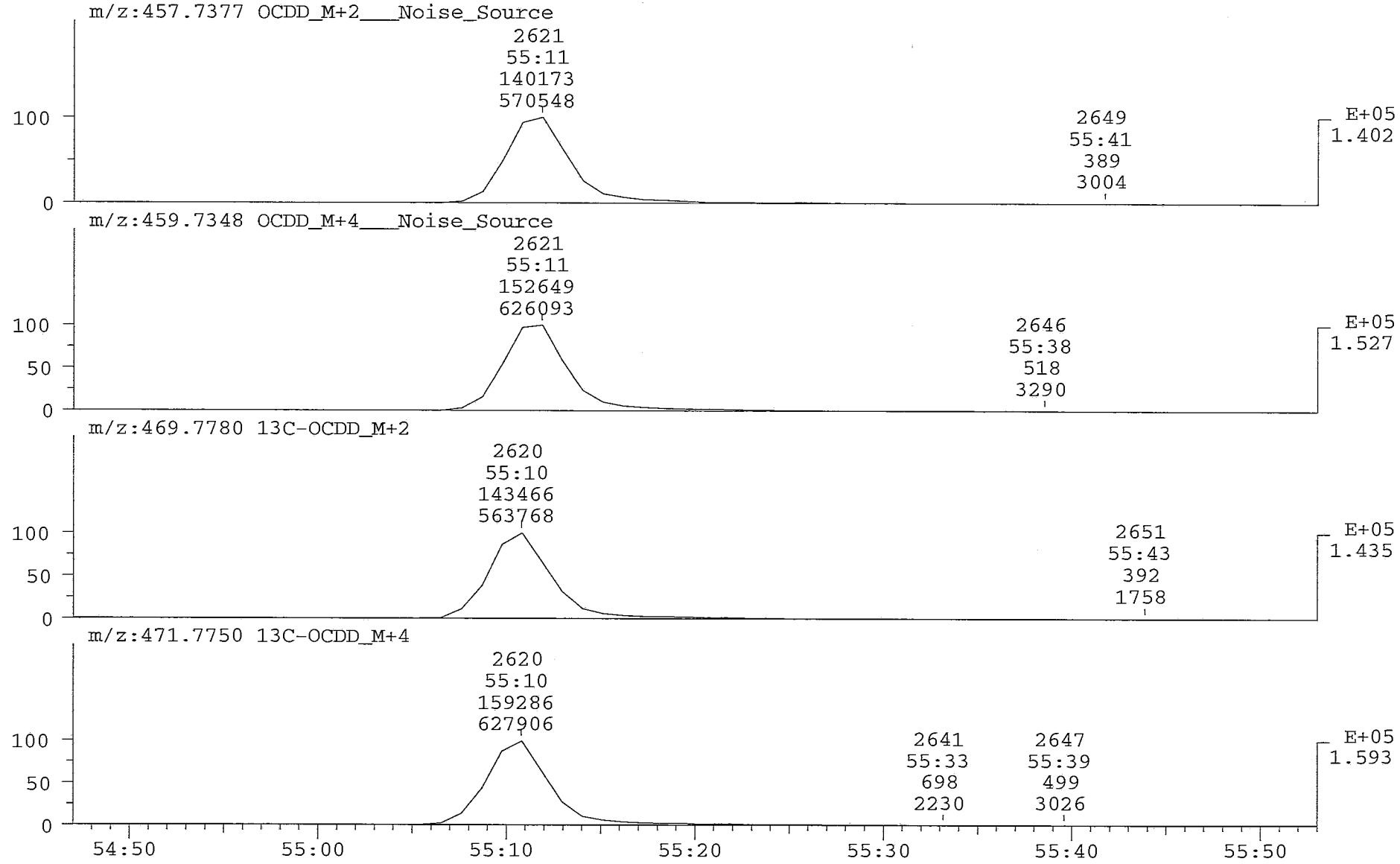
CHRO: btmkntlca 15-Jul-11 Elapse: 50:30 2358
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2266 > 2440 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-915

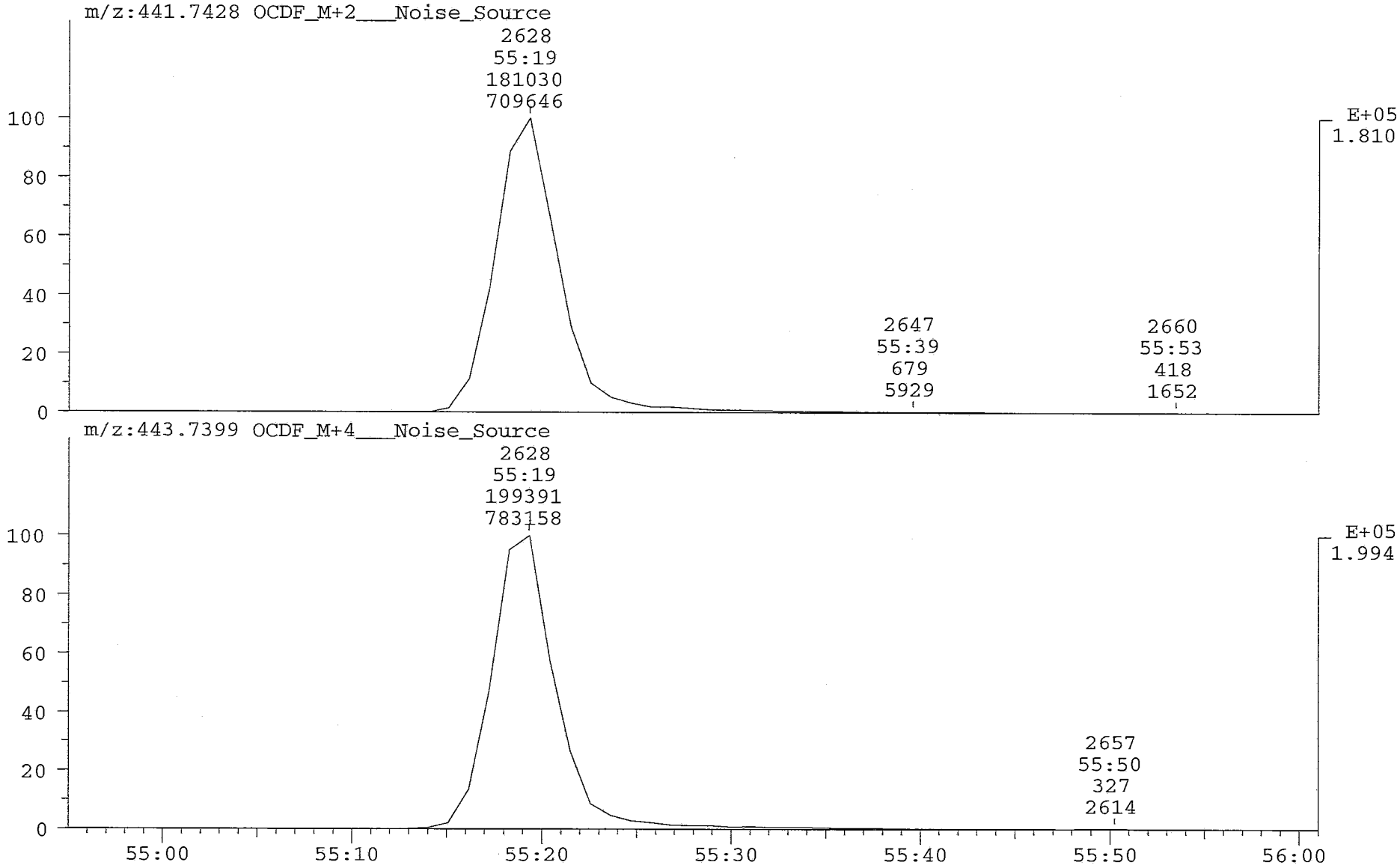
914

CHRO: btmkntlca 15-Jul-11 Elapse: 55:17 2626
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2598 > 2660 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



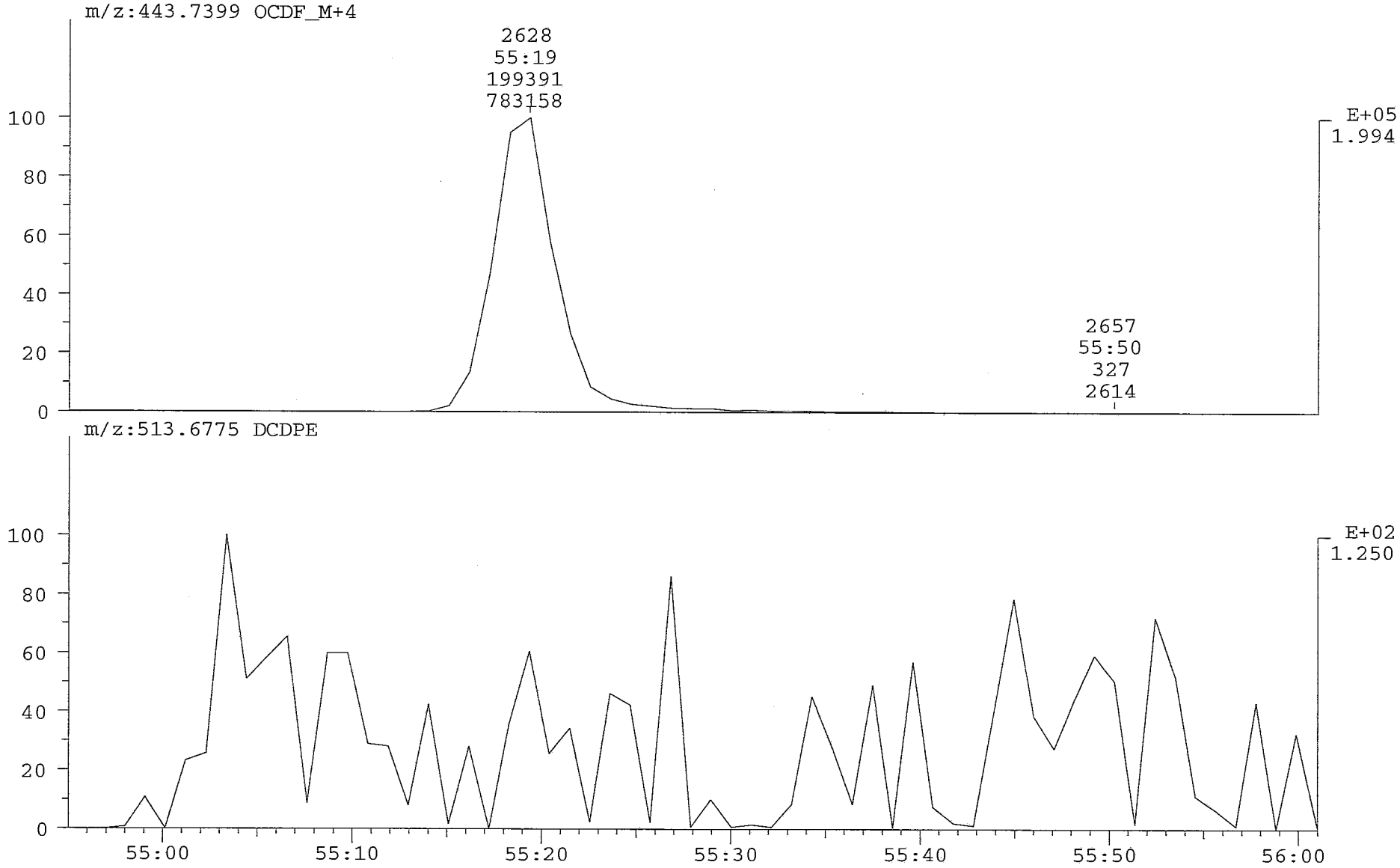
H-916

CHRO: btmkntlca 15-Jul-11 Elapse: 55:24 2633
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2605 > 2667 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



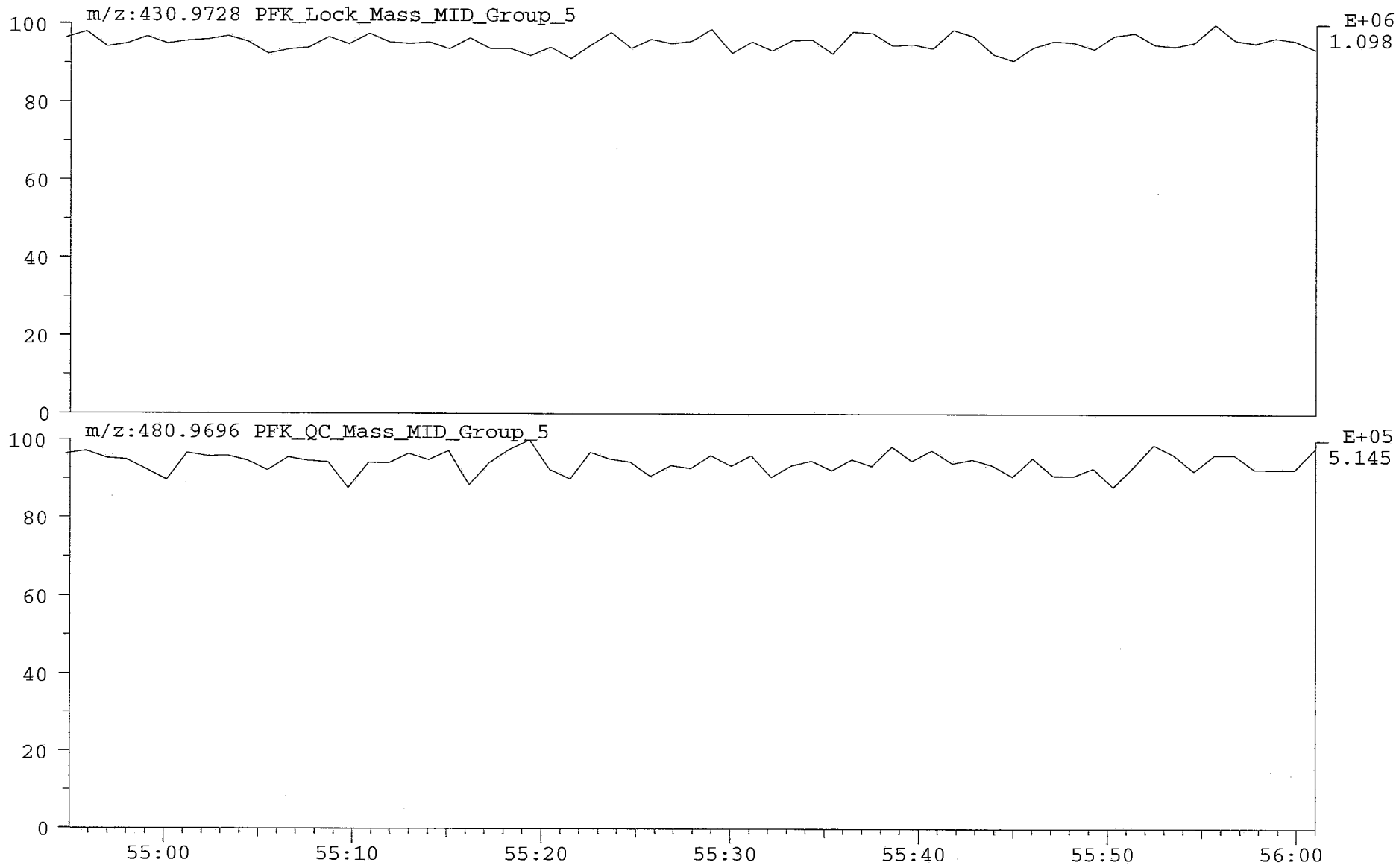
H-917

CHRO: btmkntlca 15-Jul-11 Elapse: 55:24 2633
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2605 > 2667 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-918

CHRO: btmkntlca 15-Jul-11 Elapse: 55:24 2633
Samp: Vial 14 WO=mkntl1ac Meth=X8 Dil=1 Start : 09:42:36 2751
Comm: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027C Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2605 > 2667 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-919

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: btmknt1ca
Study: 1187027 (air-2)
Sample: WO=mknt11ac Meth=X8 Dil=1
Amount:    0.0
Volume:    0.0
Operator: KBL
Client: H1G060000-027C
Comments: Inst=m2a/1027390 Batch=20110715s1 Ccal=B110715S1
Injected volume:    2.0
Sample from Vial 14
Analysis will stop when MID run finishes
Tune file name: tune2
File 2 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio         1
   Damping Relay           TRUE
   Width first lock        0.20 amu
   Electric jump time        10 ms
   Magnetic jump time        60 ms
   Offset                   100 cts
   Electric range             2 %
   Sweep peak width        3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start          Measure       End         Cycletime
  # 1    8:00 min    27:13 min    35:13 min     1.00 sec
  # 2   35:13 min     7:54 min    43:08 min     1.00 sec
  # 3   43:08 min     5:17 min    48:25 min     1.00 sec
  # 4   48:25 min     5:05 min    53:30 min     1.00 sec
  # 5   53:30 min     4:00 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 l   10   1       8.19
    303.9016      1   2      81.92
    305.8987      1   2      81.92
    315.9419      1   3      81.92
    317.9389      1   3      81.92
    319.8965      1   3      81.92
    321.8936      1   3      81.92
    327.8847      1   4      81.92
    331.9368      1   4      81.92
    333.9338      1   4      81.92
    342.9792 c   10   5       8.19
    375.8364      1   6      81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 l   10   1       8.19
    339.8597      1   2      91.48
    341.8567      1   2      91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:         270 deg                          300 deg max
  Transfer Line:    290 deg                          300 deg max
  Column:           140 deg at    0.0 minutes        330 deg max
                    140 deg at    3.0 minutes
                    210 deg at    6.5 minutes
                    210 deg at   34.5 minutes
                    280 deg at   44.5 minutes
                    280 deg at   51.0 minutes
                    325 deg at   57.5 minutes
  Inlet    :
  Pressure        18.0 psi
  Splitless mode
  Purge time       1.5 min
  Purge flow      40.0 mL/min

   Gas saver is on
   Saver time       3.0 min
   Saver flow      15.0 mL/min

  Stabilize time    0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8415.0000
BDEV	8290.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.3412
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-20.8500
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	196.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	390.0000	FVINLET	850.0000
FVSRC	1050.0000	FWIN	0.7000	GCTC	137.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7255	HVANAL	1218.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2694.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.4000	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10106.3082	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.6600	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-19.8000
YLENS	3286.0000	YLENSS	-32.4000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 15-Jul-11 09:42:36.5

Autosampler has injected sample from vial 14
Analysis stopped at: 15-Jul-11 10:40:08.0 (run time 57.52 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKNTL1AD	Prep Batch	1187027	Lot No	H1G060000-027
Data File	/20110714s3/btmkntl1.d	Prep Date	07/06/11	SDG No	
Analysis ID	133632	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	18:55	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Anal Exp Date	08/20/11	Extract Vol	40 uL	Method	0023/8290
Instrument	M2A	Dil Factor	1.00	Code	X8
Analyst	KBL				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (pg/sample		DL (pg/samp
2,3,7,8-TCDD	31:37	129979	15119	1.172	400.0	376.256298	94.06	376.256298		8.07
Total TCDD				1.172		376.256298		376.256298		8.07
2,3,7,8-TCDF	29:36	203100	24520	1.081	400.0	355.880042	88.97	355.880042		4.40
Total TCDF				1.081		355.880042		355.880042		4.40
1,2,3,7,8-PeCDD	41:41	618706	149410	1.124	2000	1886.46033	94.32	1886.46033	Q	4.52
Total PeCDD				1.124		1886.46033		1886.46033	Q	4.52
1,2,3,7,8-PeCDF	39:49	1020029	205433	1.050	2000	1967.11975	98.36	1967.11975		3.46
2,3,4,7,8-PeCDF	41:07	943447	226374	1.030	2000	1855.33466	92.77	1855.33466		3.53
Total PeCDF				1.040		3822.45442		3822.45442		3.50
1,2,3,4,7,8-HxCDD	46:01	615067	175069	0.990	2000	1964.48641	98.22	1964.48641		4.05
1,2,3,6,7,8-HxCDD	46:09	591170	171023	1.020	2000	1832.28036	91.61	1832.28036		3.93
1,2,3,7,8,9-HxCDD	46:31	659519	176225	1.003	2000	2080.39788	104.02	2080.39788		4.00
Total HxCDD				1.004		5877.16465		5877.16465		3.99
1,2,3,4,7,8-HxCDF	44:59	973093	289500	1.091	2000	2132.98275	106.65	2132.98275		3.05
1,2,3,6,7,8-HxCDF	45:07	1013812	280257	1.226	2000	1978.62895	98.93	1978.62895		2.72
2,3,4,6,7,8-HxCDF	45:51	955870	267936	1.160	2000	1970.34541	98.52	1970.34541		2.87
1,2,3,7,8,9-HxCDF	46:47	863977	217836	1.008	2000	2050.46272	102.52	2050.46272		3.31
Total HxCDF				1.121		8132.41982		8132.41982		2.97
1,2,3,4,6,7,8-HpCDD	50:52	565854	116938	1.094	2000	1959.98767	98.00	1959.98767		5.27
Total HpCDD				1.094		1959.98767		1959.98767		5.27
1,2,3,4,6,7,8-HpCDF	49:11	912777	216089	1.469	2000	1819.44354	90.97	1819.44354		2.85
1,2,3,4,7,8,9-HpCDF	51:31	700729	142751	1.127	2000	1820.73096	91.04	1820.73096		3.72
Total HpCDF				1.298		3640.17450		3640.17450		3.23
OCDD	55:11	915437	245583	1.075	4000	3823.55952	95.59	3823.55952		5.17
OCDF	55:18	1145693	303039	1.258	4000	4091.13220	102.28	4091.13220		4.86
13C-2,3,7,8-TCDD	31:35	589639	63475	1.006	2000	1636.50618	81.83	1636.50618		13.7
13C-2,3,7,8-TCDF	29:35	1055945	124009	1.719	2000	1715.41321	85.77	1715.41321		5.70
13C-1,2,3,7,8-PeCDD	41:40	583825	134851	0.953	2000	1710.69341	85.53	1710.69341		7.61
13C-1,2,3,7,8-PeCDF	39:48	987232	204870	1.661	2000	1660.48428	83.02	1660.48428		5.25
13C-1,2,3,6,7,8-HxCDD	46:08	632386	184738	1.035	2000	1676.34218	83.82	1676.34218		4.09
13C-1,2,3,6,7,8-HxCDF	45:06	836139	232614	1.434	2000	1599.31524	79.97	1599.31524		2.85
13C-1,2,3,4,6,7,8-HpCDD	50:51	527748	112773	0.851	2000	1700.86285	85.04	1700.86285		3.85
13C-1,2,3,4,6,7,8-HpCDF	49:10	682985	158613	1.094	2000	1713.05676	85.65	1713.05676		2.98
13C-OCDD	55:09	890586	235806	0.867	4000	2817.22901	70.43	2817.22901		3.66
37Cl4-2,3,7,8-TCDD				1.198	4000			ND		3.88
13C-2,3,4,7,8-PeCDF				0.994	4000			ND		3.37
13C-1,2,3,4,7,8-HxCDD				0.887	4000			ND		4.76
13C-1,2,3,4,7,8-HxCDF				0.891	4000			ND		3.64
13C-1,2,3,7,8,9-HxCDF				1.321				ND		3.10
13C-1,2,3,4,7,8,9-HpCDF				0.841	4000			ND		4.50
13C-1,2,3,4-TCDD	31:04	1432072	157186	1.000	4000	4000.00000	100.00	4000.00000		13.8
13C-1,2,3,7,8,9-HxCDD	46:31	1458201	368795	1.000	4000	4000.00000	100.00	4000.00000		4.23

7-15-11

QDL 7-15-11

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKNTL1AD	Prep Batch	1187027	Lot No	H1G060000-027
Data File	/20110714s3/btmkntl1.d	Prep Date	07/06/11	SDG No	
Analysis ID	133632	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/14/11 18:55	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
304					303.9016	305.8987	303.9016	305.8987	0.65-0.89	
	Noise	00:00	00:00	0	138	158	55	63	0.87	/
	2,3,7,8-TCDF	29:36	29:38	-2	91304	111796	11394	13126	0.82	ABB/ABB
316					315.9419	317.9389	315.9419	317.9389	0.65-0.89	
	Noise	00:00	00:00	0	158	228	63	91	0.69	/
	13C-2,3,7,8-TCDF	29:35	29:34	1	466612	589333	54469	69540	0.79	ABV/ABV
320					319.8965	321.8936	319.8965	321.8936	0.65-0.89	
	Noise	00:00	00:00	0	133	168	53	67	0.79	/
	2,3,7,8-TCDD	31:37	31:38	-1	55722	74257	6461	8658	0.75	ABB/ABB
328					327.8847		327.8847			
	Noise	00:00	00:00	0	148		59			
332					331.9368	333.9338	331.9368	333.9338	0.65-0.89	
	Noise	00:00	00:00	0	325	218	130	87	1.49 *	/
	13C-1,2,3,4-TCDD	31:04	31:05	-1	640175	791897	70807	86379	0.81	ABV/ABV
	13C-2,3,7,8-TCDD	31:35	31:34	1	258113	331526	26202	37273	0.78	AVV/AVB
340					339.8597	341.8567	339.8597	341.8567	1.32-1.78	
	Noise	00:00	00:00	0	153	220	61	88	0.69 *	/
	1,2,3,7,8-PeCDF	39:49	39:50	-1	624922	395107	124575	80858	1.58	ABV/ABV
	2,3,4,7,8-PeCDF	41:07	41:07	0	573716	369731	140854	85520	1.55	ABV/AVV
352					351.9000	353.8970	351.9000	353.8970	1.32-1.78	
	Noise	00:00	00:00	0	180	163	72	65	1.11 *	/
	13C-1,2,3,7,8-PeCDF	39:48	39:47	1	599600	387632	125999	78871	1.55	ABV/ABV
356					355.8546	357.8516	355.8546	357.8516	1.32-1.78	
	Noise	00:00	00:00	0	178	165	71	66	1.08 *	/
	1,2,3,7,8-PeCDD	41:41	41:41	0	376076	1338295	90818	311941	0.28 *	ABV/ABV RM
368					367.8949	369.8919	367.8949	369.8919	1.32-1.78	
	Noise	00:00	00:00	0	138	148	55	59	0.93 *	/
	13C-1,2,3,7,8-PeCDD	41:40	41:40	0	354874	228951	81968	52883	1.55	ABV/ABV
374					373.8208	375.8178	373.8208	375.8178	1.05-1.43	
	Noise	00:00	00:00	0	208	180	83	72	1.15	/
	1,2,3,4,7,8-HxCDF	44:59	44:58	1	545221	427872	162133	127367	1.27	AVV/ABV
	1,2,3,6,7,8-HxCDF	45:07	45:07	0	572517	441295	159739	120518	1.30	AVV/AVB
	2,3,4,6,7,8-HxCDF	45:51	45:50	1	536773	419097	155148	112788	1.28	ABV/ABV
	1,2,3,7,8,9-HxCDF	46:47	46:47	0	485034	378943	122609	95227	1.28	ABV/ABV
384					383.8639	385.8610	383.8639	385.8610	0.43-0.59	
	Noise	00:00	00:00	0	185	193	74	77	0.96 *	/
	13C-1,2,3,6,7,8-HxCDF	45:06	45:06	0	291283	544856	83489	149125	0.53	ABB/AVV
390					389.8156	391.8127	389.8156	391.8127	1.05-1.43	
	Noise	00:00	00:00	0	188	183	75	73	1.03 *	/
	1,2,3,4,7,8-HxCDD	46:01	46:02	-1	344375	270692	95923	79146	1.27	ABV/ABV
	1,2,3,6,7,8-HxCDD	46:09	46:09	0	328813	262357	96301	74722	1.25	AVV/AVV
	1,2,3,7,8,9-HxCDD	46:31	46:32	-1	362359	297160	96878	79347	1.22	AVV/ABV
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCDD/PCDF by EPA Method 0023/8290

Workorder	MKNTL1AD	Prep Batch	1187027	Lot No	H1G060000-027
Data File	/20110714s3/btmkntl1.d	Prep Date	07/06/11	SDG No	
Analysis ID	133632	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/14/11 18:55	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPX801
Instrument	M2A	Extract Vol	40 uL	Method	0023/8290
Analyst	KBL	Diluton Factor	1.00	Code	X8

View Small Peaks? False View deleted peaks? False

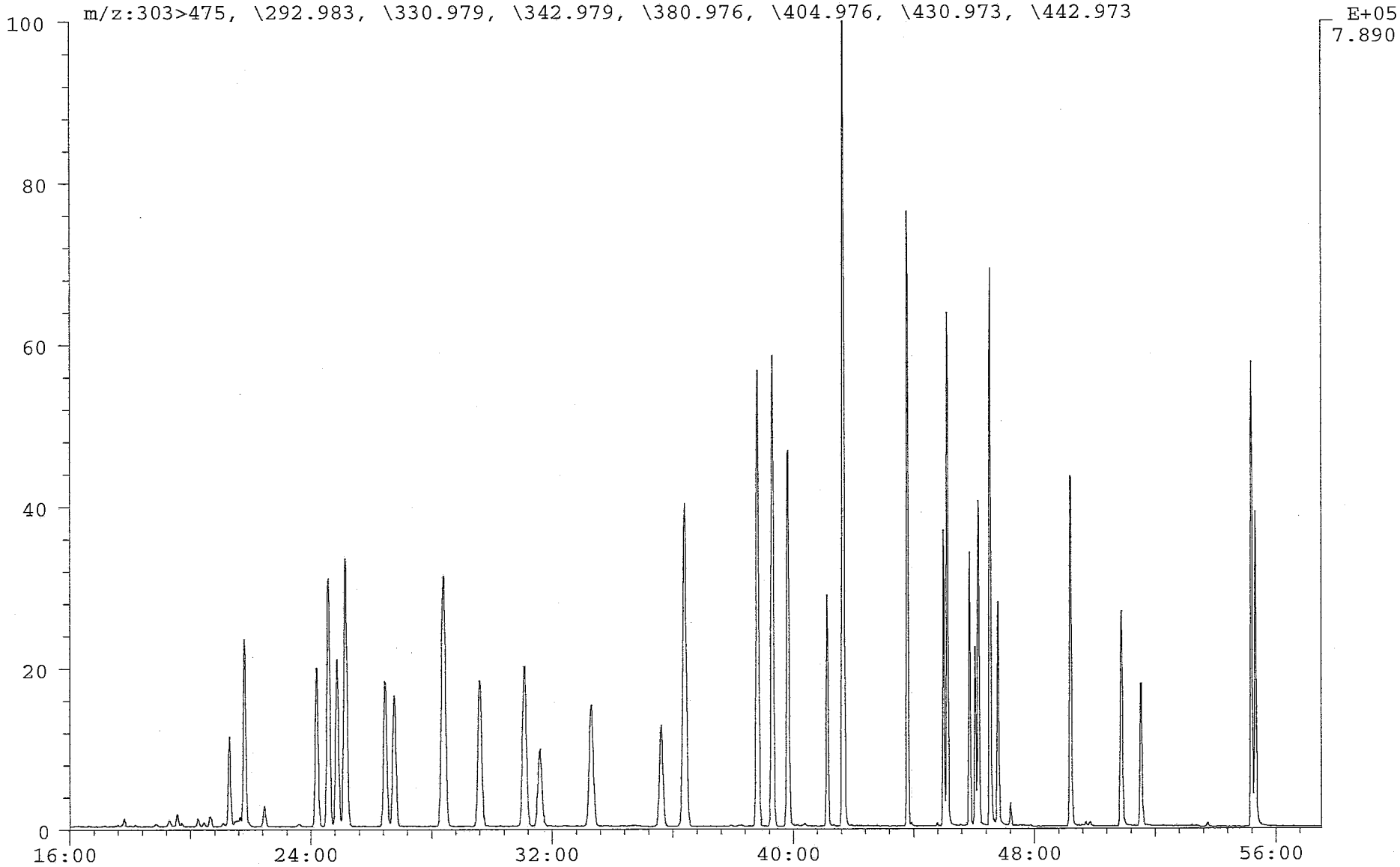
Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
402					401.8559	403.8529	401.8559	403.8529	1.05-1.43	
	Noise	00:00	00:00	0	165	225	66	90	0.73 *	/
	13C-1,2,3,6,7,8-HxCDD	46:08	46:07	1	348239	284147	101667	83071	1.23	ABB/ABV
	13C-1,2,3,7,8,9-HxCDD	46:31	46:31	0	810858	647343	206254	162541	1.25	ABV/AVV
408					407.7818	409.7788	407.7818	409.7788	0.88-1.20	
	Noise	00:00	00:00	0	163	170	65	68	0.96	/
	1,2,3,4,6,7,8-HpCDF	49:11	49:10	1	467370	445407	109489	106600	1.05	ABV/ABV
	1,2,3,4,7,8,9-HpCDF	51:31	51:30	1	355864	344865	72292	70459	1.03	ABV/ABV
418					417.8250	419.8220	417.8250	419.8220	0.37-0.51	
	Noise	00:00	00:00	0	163	138	65	55	1.18 *	/
	13C-1,2,3,4,6,7,8-HpCDF	49:10	49:09	1	213202	469783	49341	109272	0.45	ABB/ABV
424					423.7767	425.7737	423.7767	425.7737	0.88-1.20	
	Noise	00:00	00:00	0	165	160	66	64	1.03	/
	1,2,3,4,6,7,8-HpCDD	50:52	50:51	1	293266	272588	58123	58815	1.08	ABV/ABV
436					435.8169	437.8140	435.8169	437.8140	0.88-1.20	
	Noise	00:00	00:00	0	173	130	69	52	1.33 *	/
	13C-1,2,3,4,6,7,8-HpCDD	50:51	50:51	0	273397	254351	58587	54186	1.07	ABV/ABV
442					441.7428	443.7399	441.7428	443.7399	0.76-1.02	
	Noise	00:00	00:00	0	175	185	70	74	0.95	/
	OCDF	55:18	55:18	0	553900	591793	146537	156502	0.94	ABV/ABV
458					457.7377	459.7348	457.7377	459.7348	0.76-1.02	
	Noise	00:00	00:00	0	193	135	77	54	1.43 *	/
	OCDD	55:11	55:10	1	432491	482946	116638	128945	0.90	ABV/ABV
470					469.7780	471.7750	469.7780	471.7750	0.76-1.02	
	Noise	00:00	00:00	0	125	168	50	67	0.75 *	/
	13C-OCDD	55:09	55:09	0	417577	473009	107111	128695	0.88	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: btmkntl1 14-Jul-11 Elapse: 46:16 2119
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 440 > 2749 Masses: 293 > 514
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

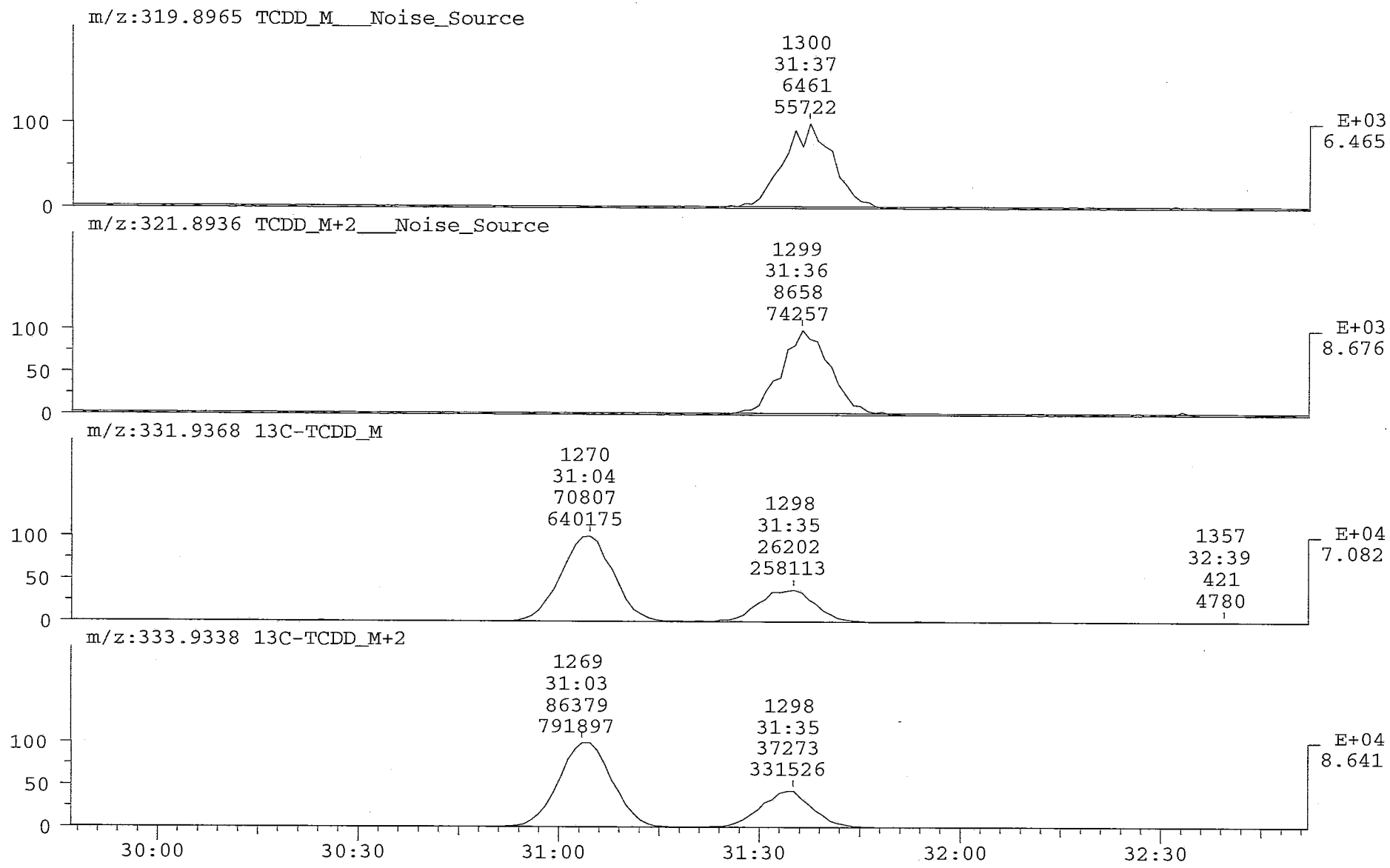
Int prep 7-14-11
calc KM 7-15-11
QA L 7-15-11
Rev MSD 7-18-11

m/z:303>475, \292.983, \330.979, \342.979, \380.976, \404.976, \430.973, \442.973



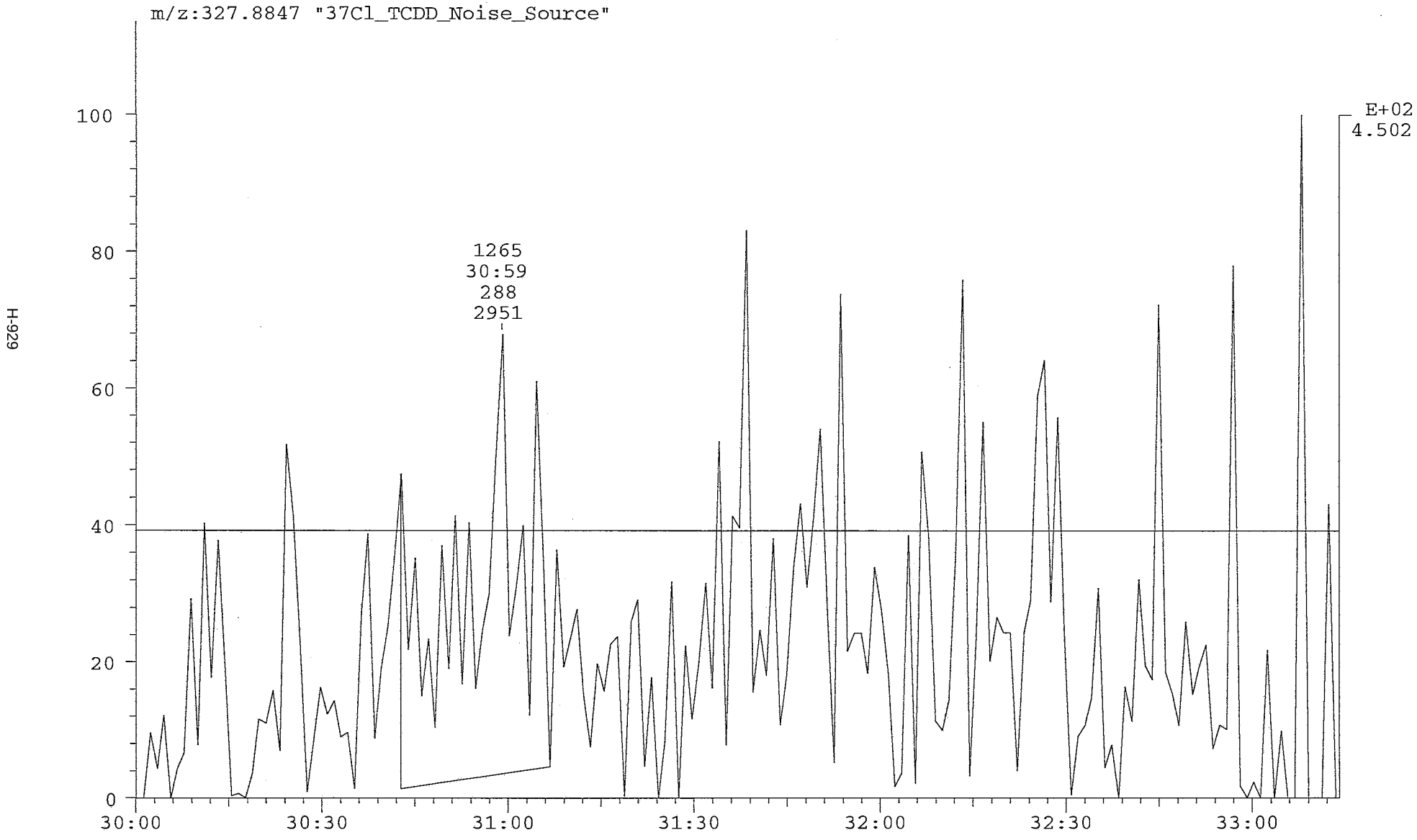
H-927

CHRO: btmkntl1 14-Jul-11 Elapse: 31:18 1283
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1199 > 1369 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

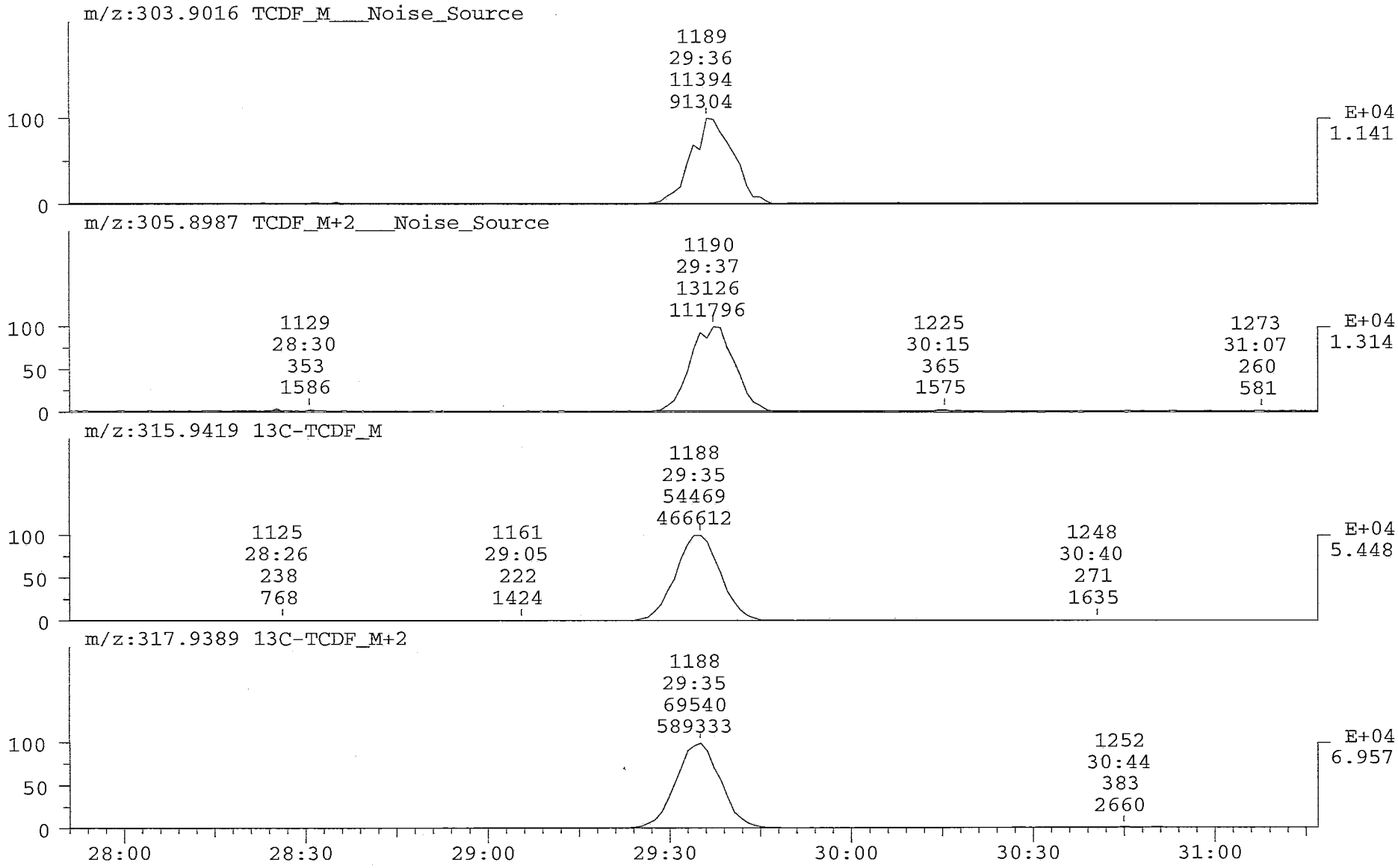


H-928

CHRO: btmkntl1 14-Jul-11 Elapse: 31:34 1297
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1211 > 1389 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



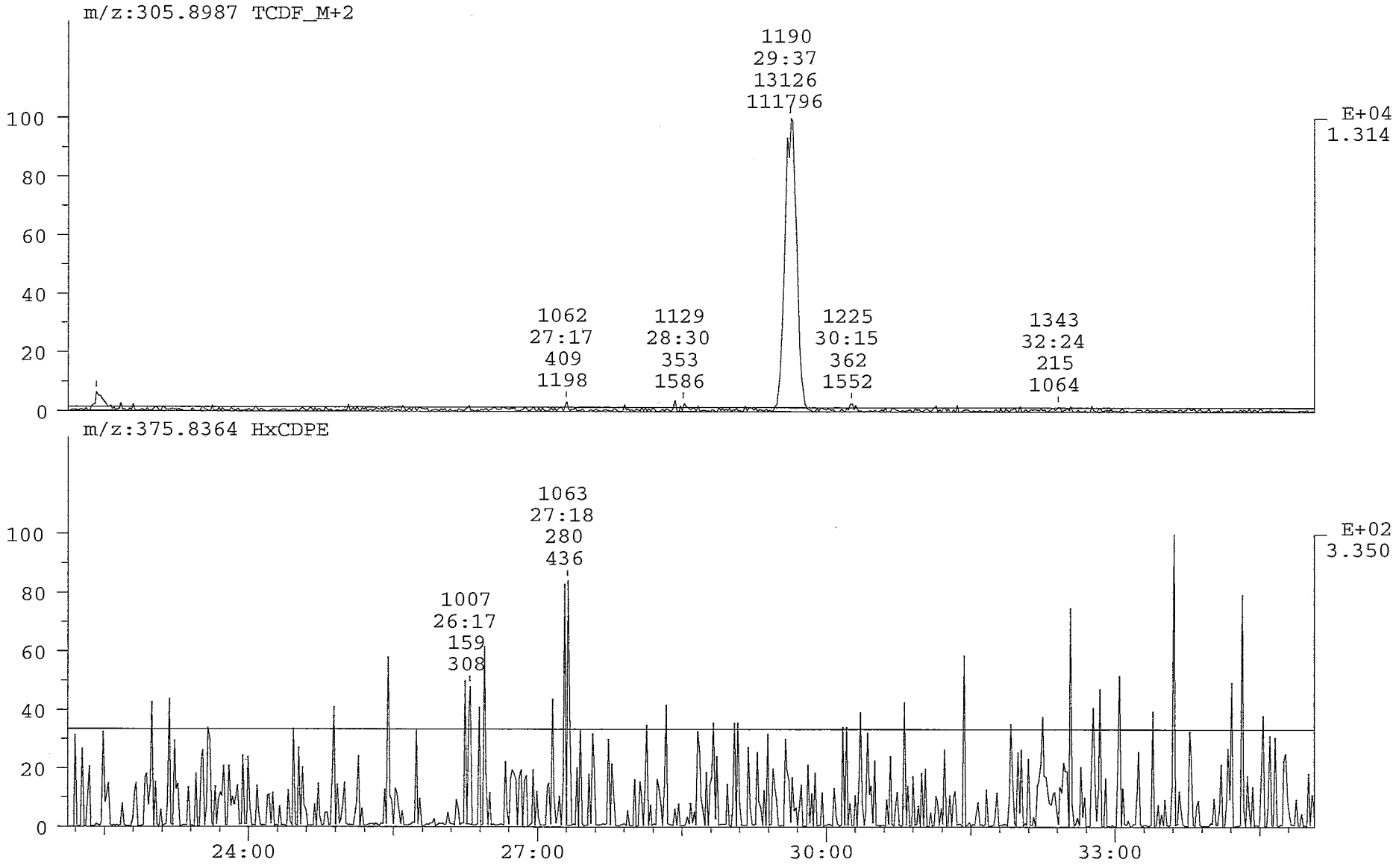
CHRO: btmknt11 14-Jul-11 Elapse: 29:30 1184
Samp: Vial 15 WO=mknt11ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1093 > 1281 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-930

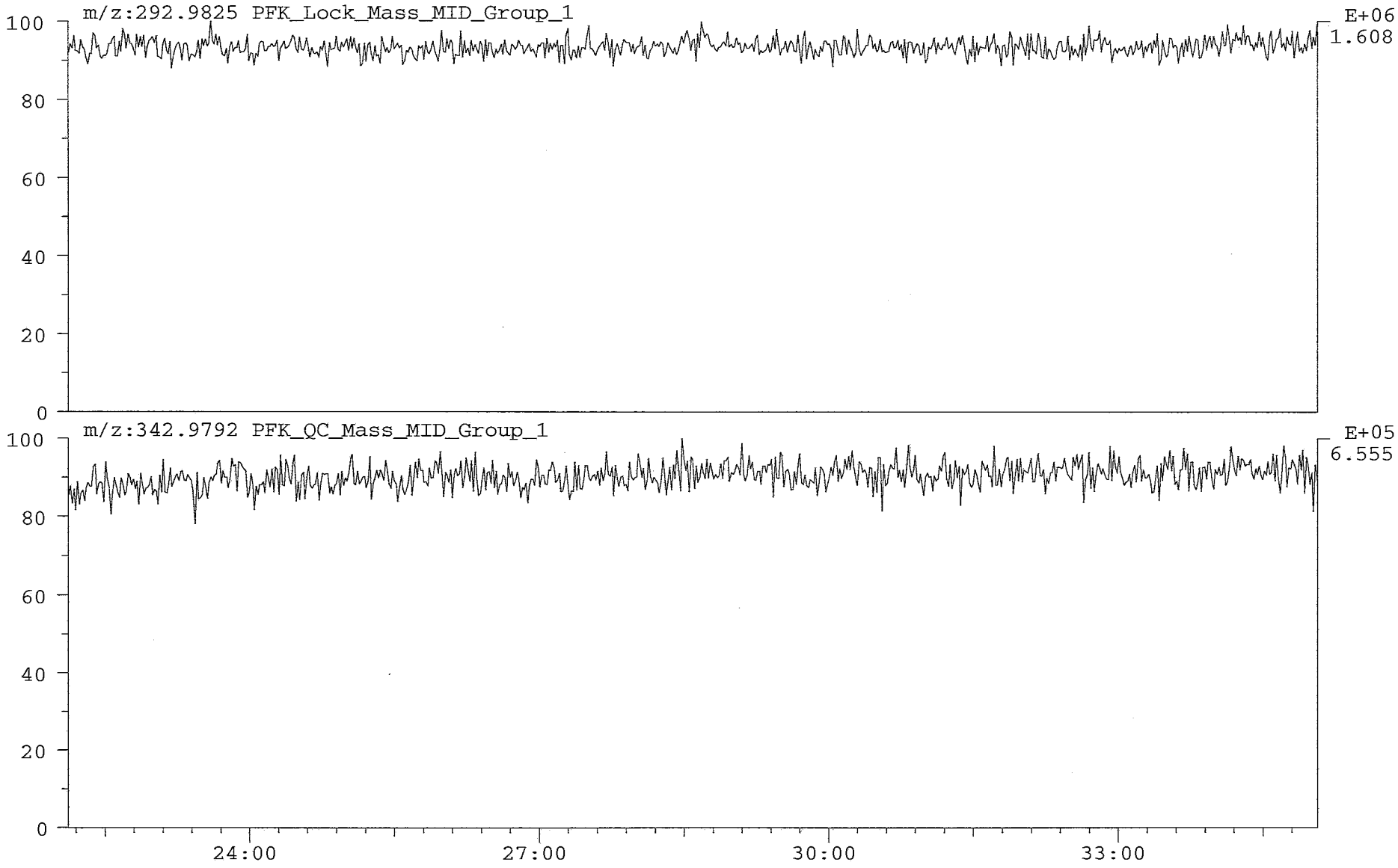
929

CHRO: btmkntll 14-Jul-11 Elapse: 29:30 1184
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 777 > 1490 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



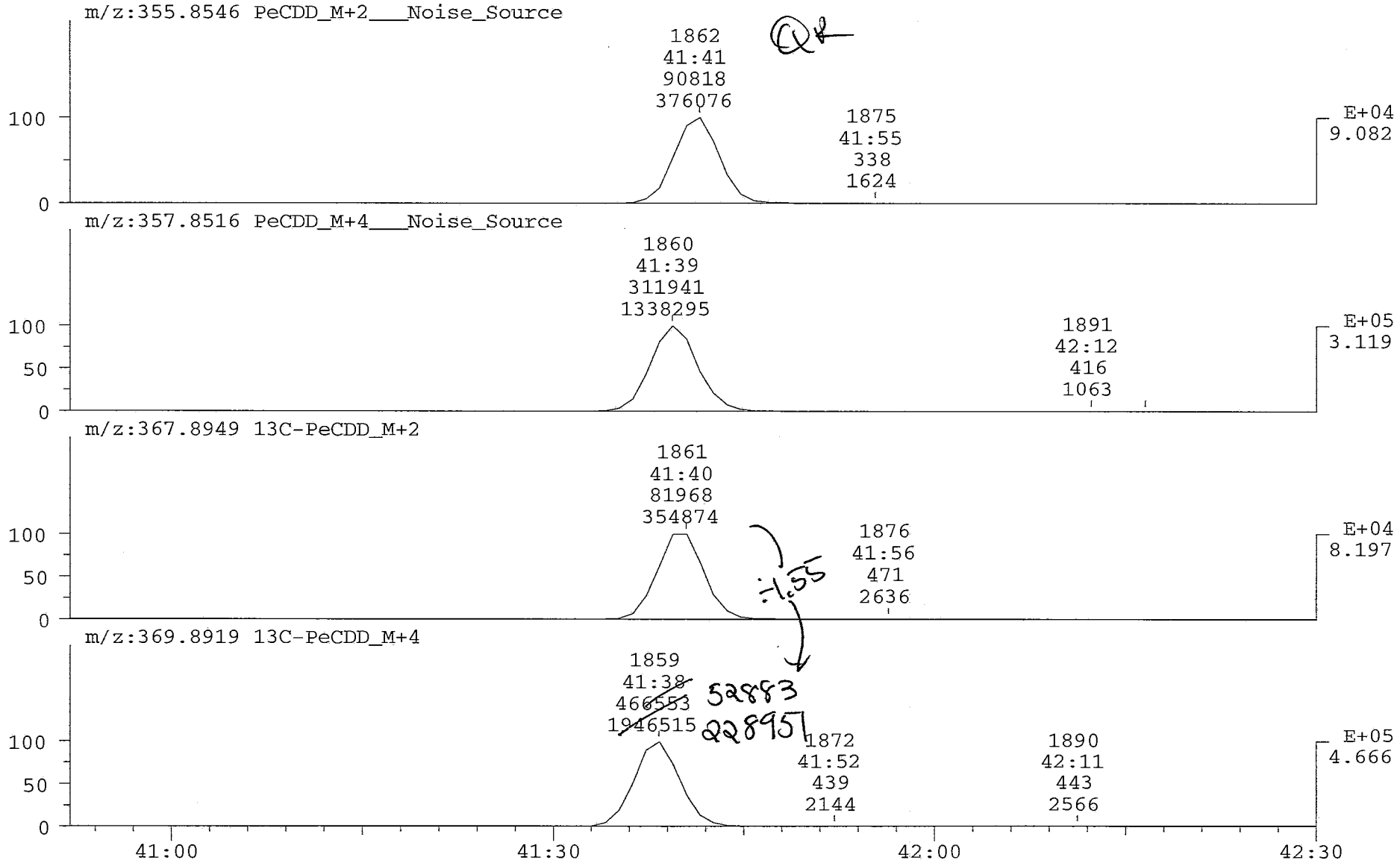
H-931

CHRO: btmkntl1 14-Jul-11 Elapse: 29:30 1184
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 777 > 1490 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-932

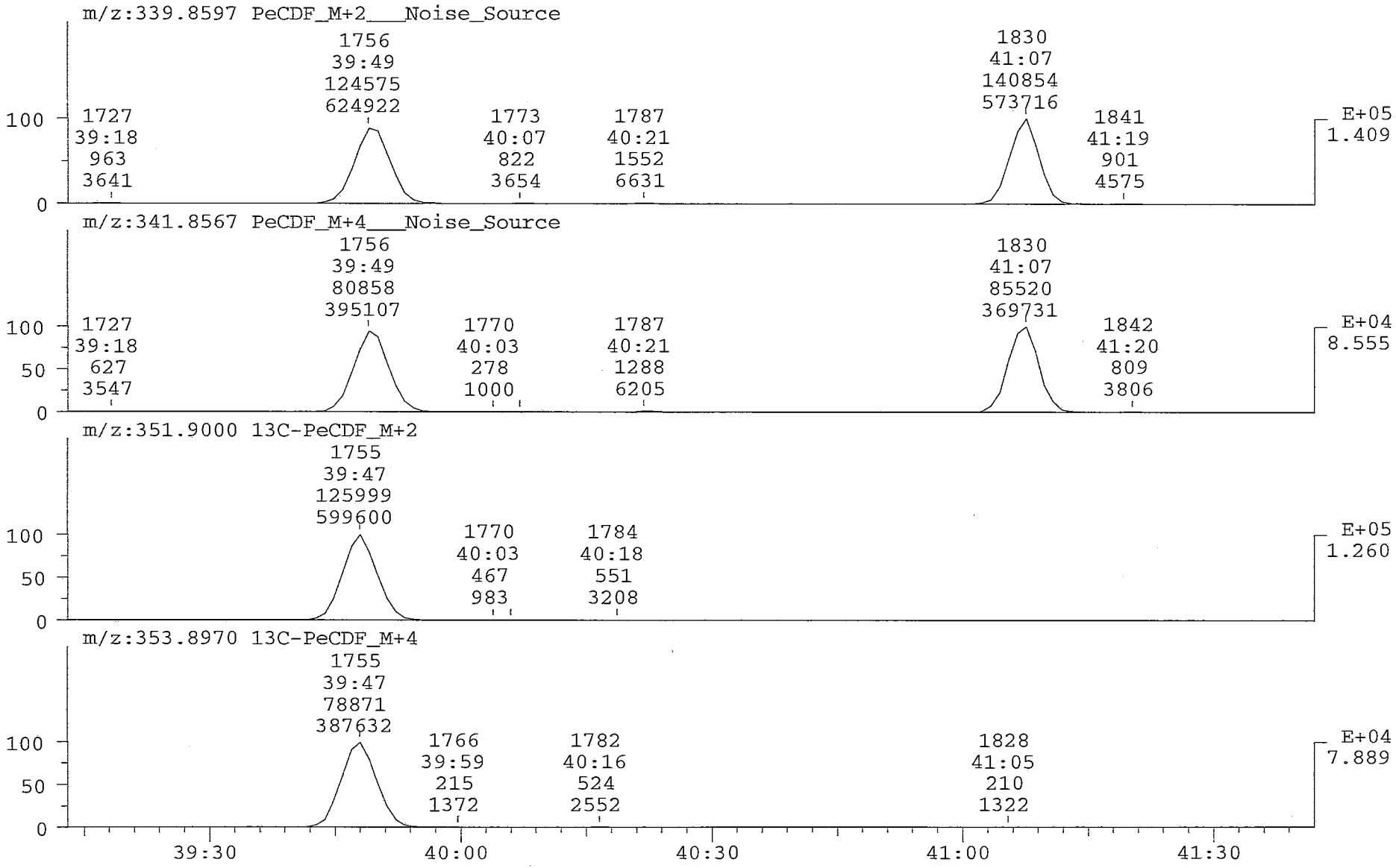
CHRO: btmkntl1 14-Jul-11 Elapse: 41:38 1859
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1815 > 1908 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



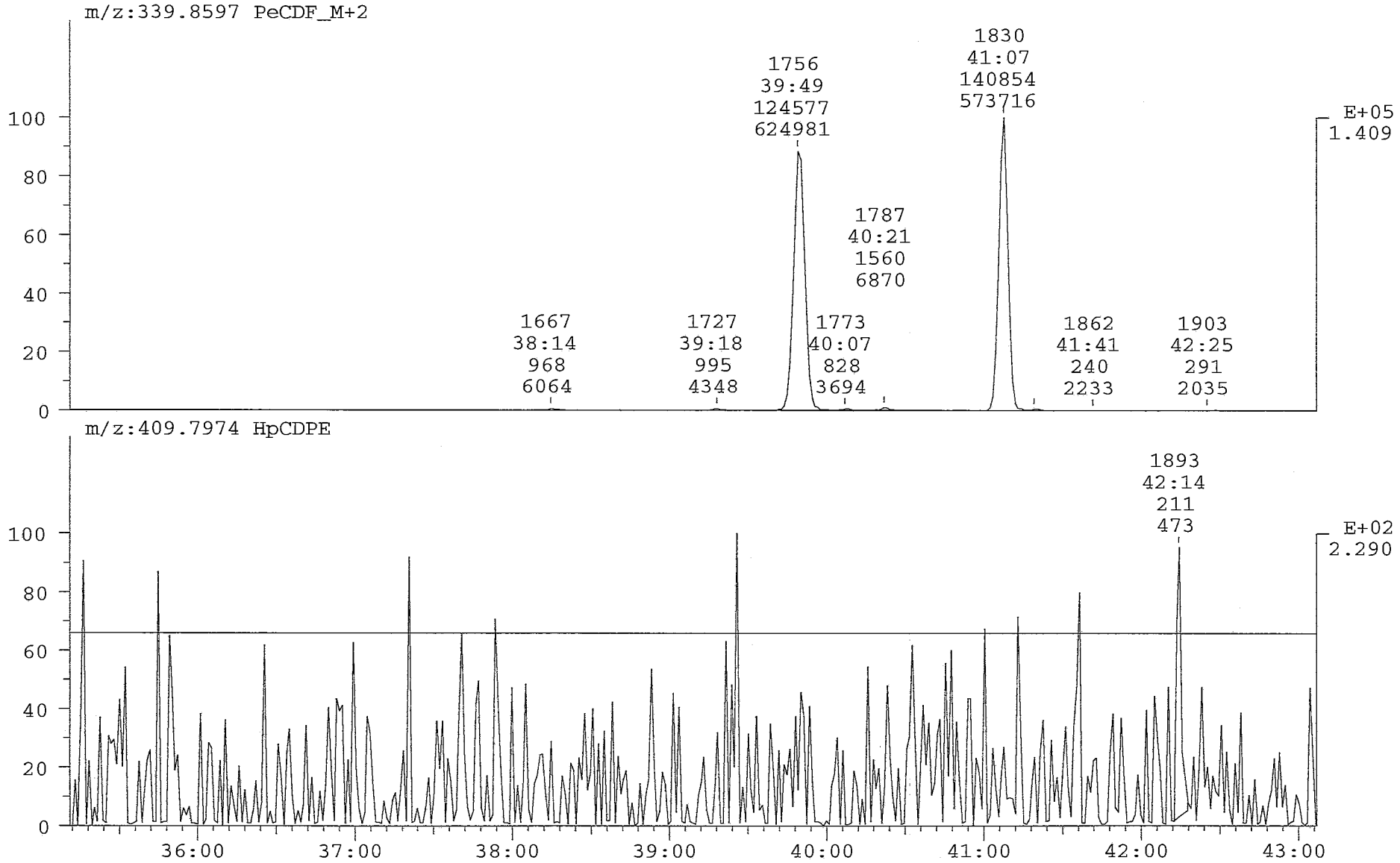
H-933

932

CHRO: btmknt11 14-Jul-11 Elapse: 40:27 1792
Samp: Vial 15 WO=mknt11ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1722 > 1862 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area

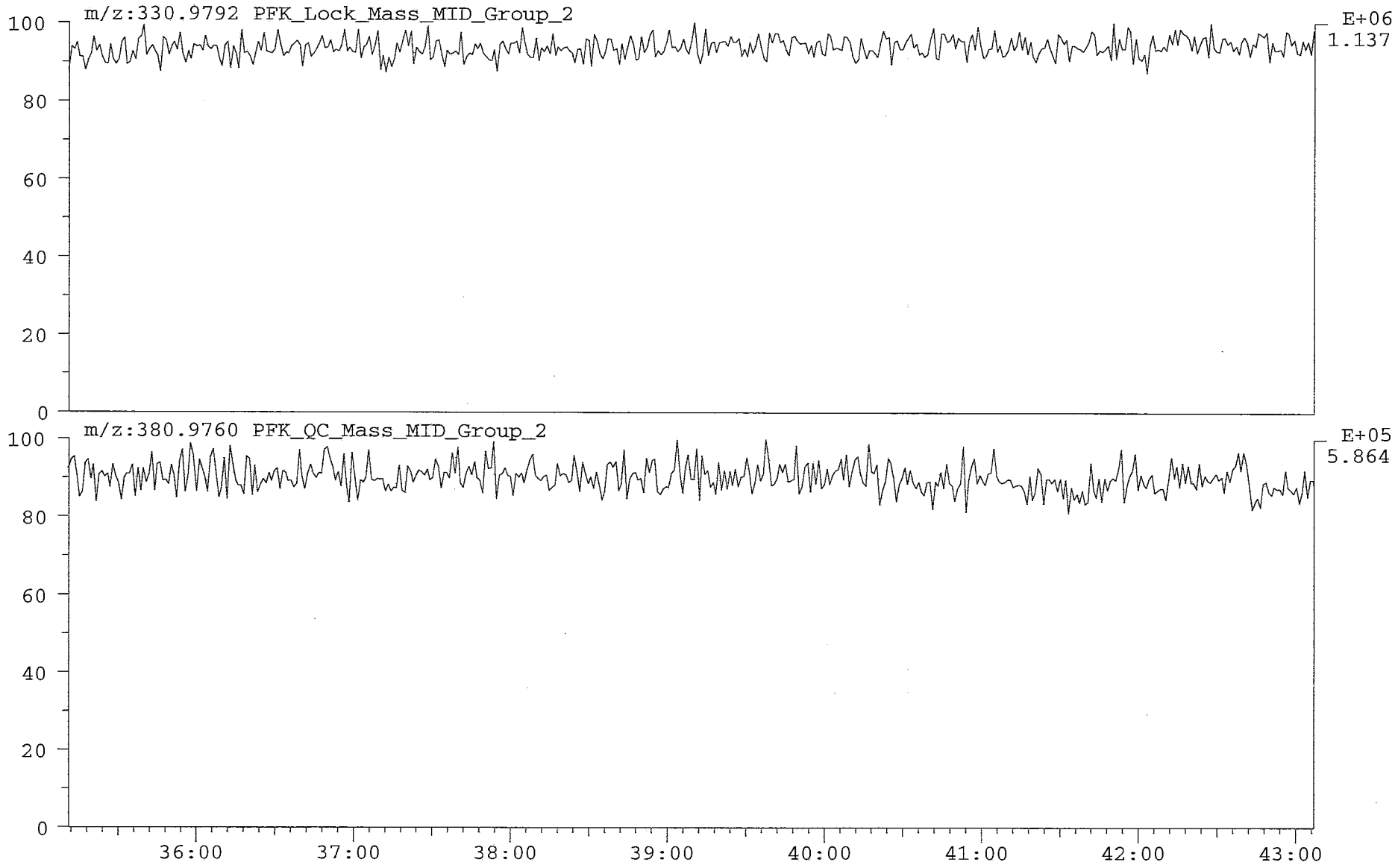


CHRO: btmkntl1 14-Jul-11 Elapse: 40:27 1792
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1494 > 1943 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



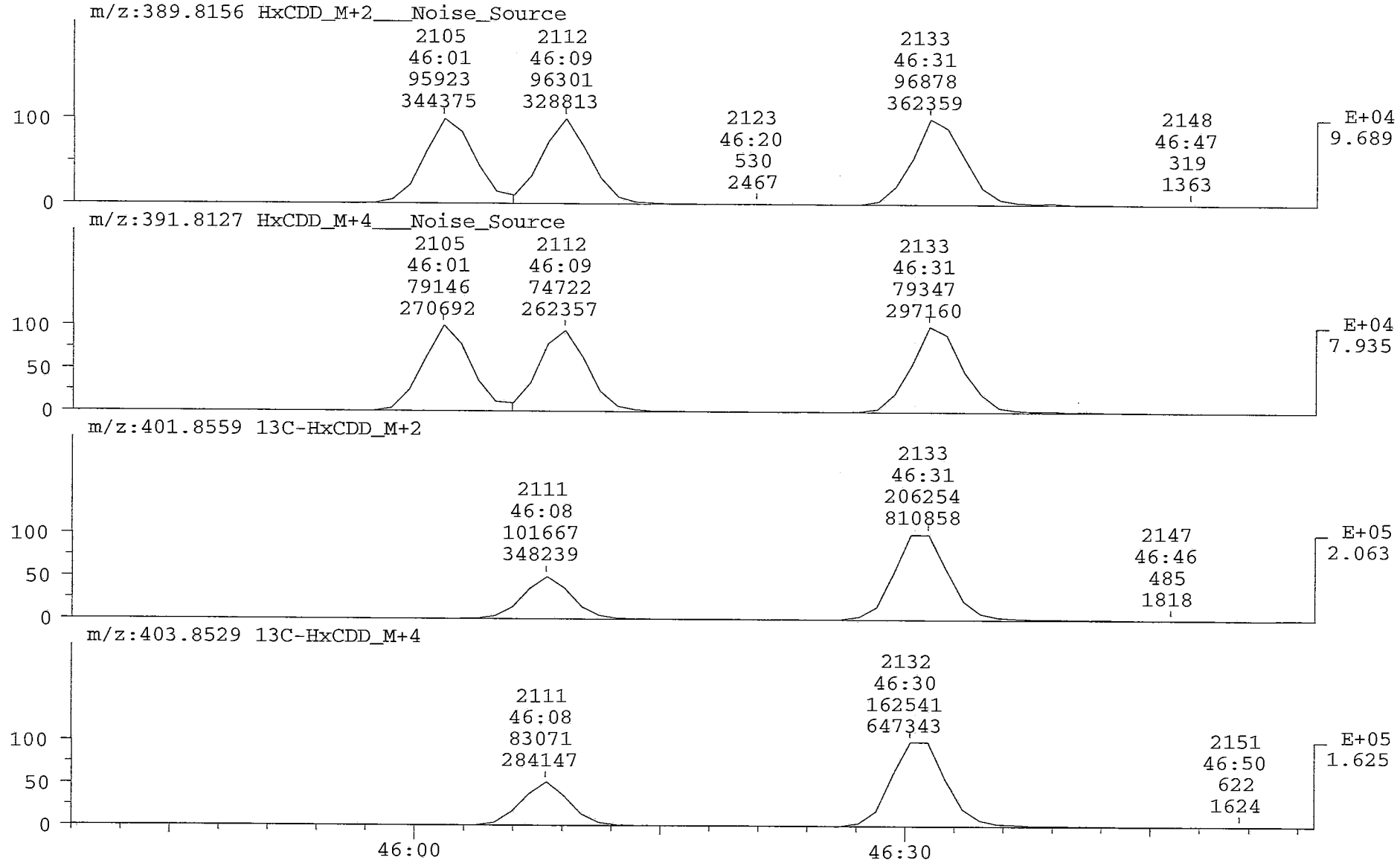
H-935

CHRO: btmkntl1 14-Jul-11 Elapse: 40:27 1792
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1494 > 1943 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



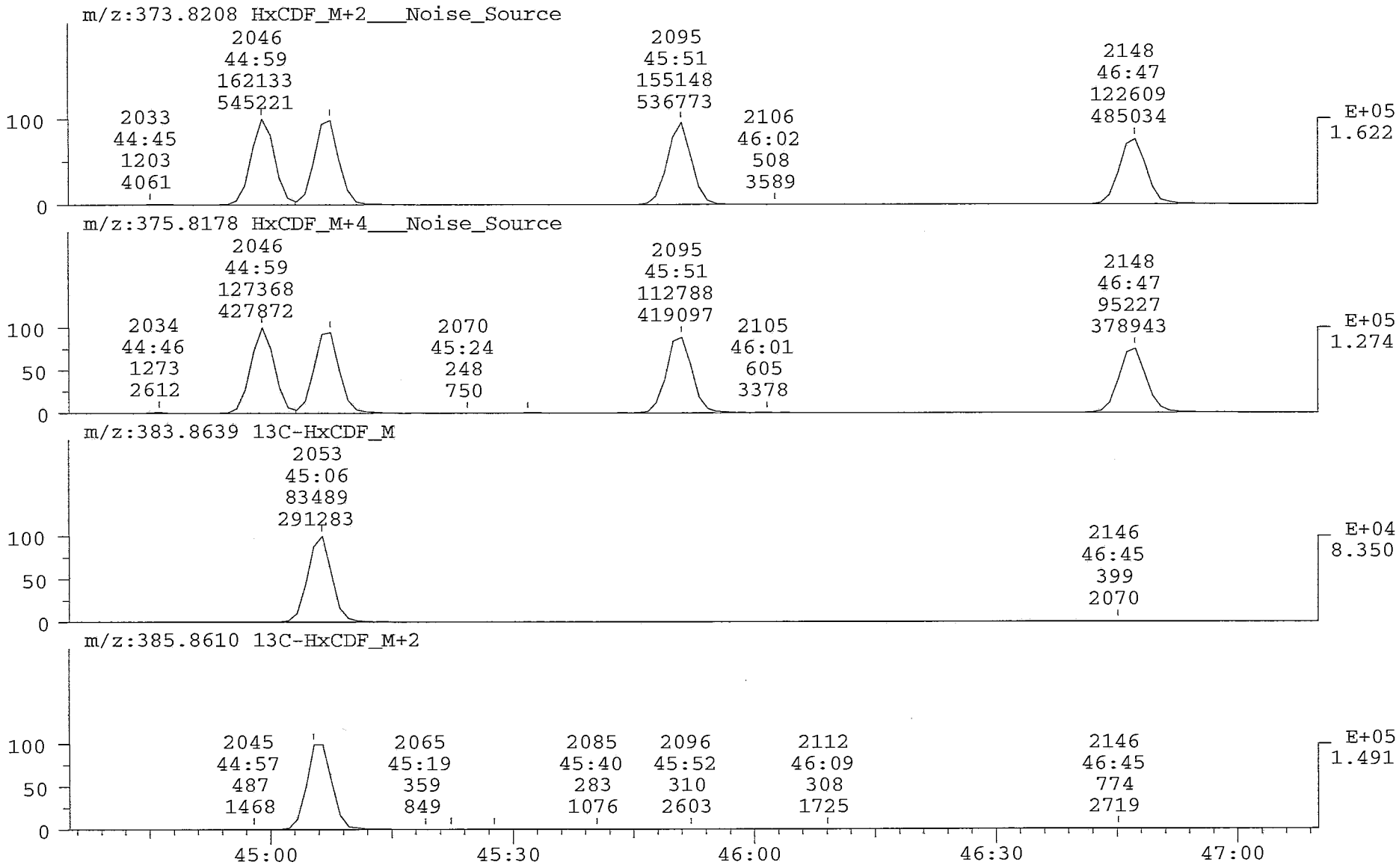
H-936

CHRO: btmkntll 14-Jul-11 Elapse: 46:16 2119
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2084 > 2155 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



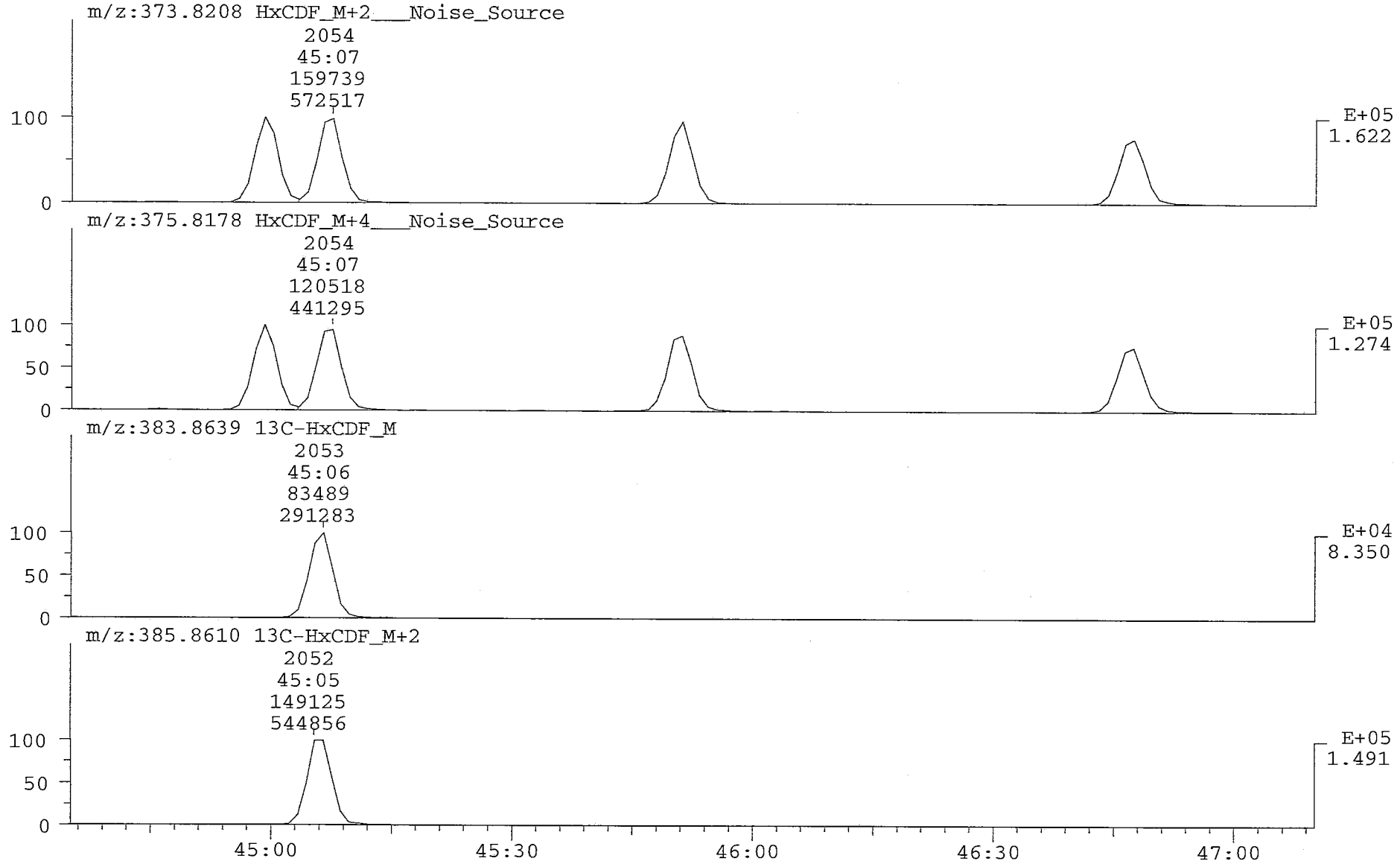
H-937

CHRO: btmkntl1 14-Jul-11 Elapse: 45:52 2096
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2023 > 2169 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



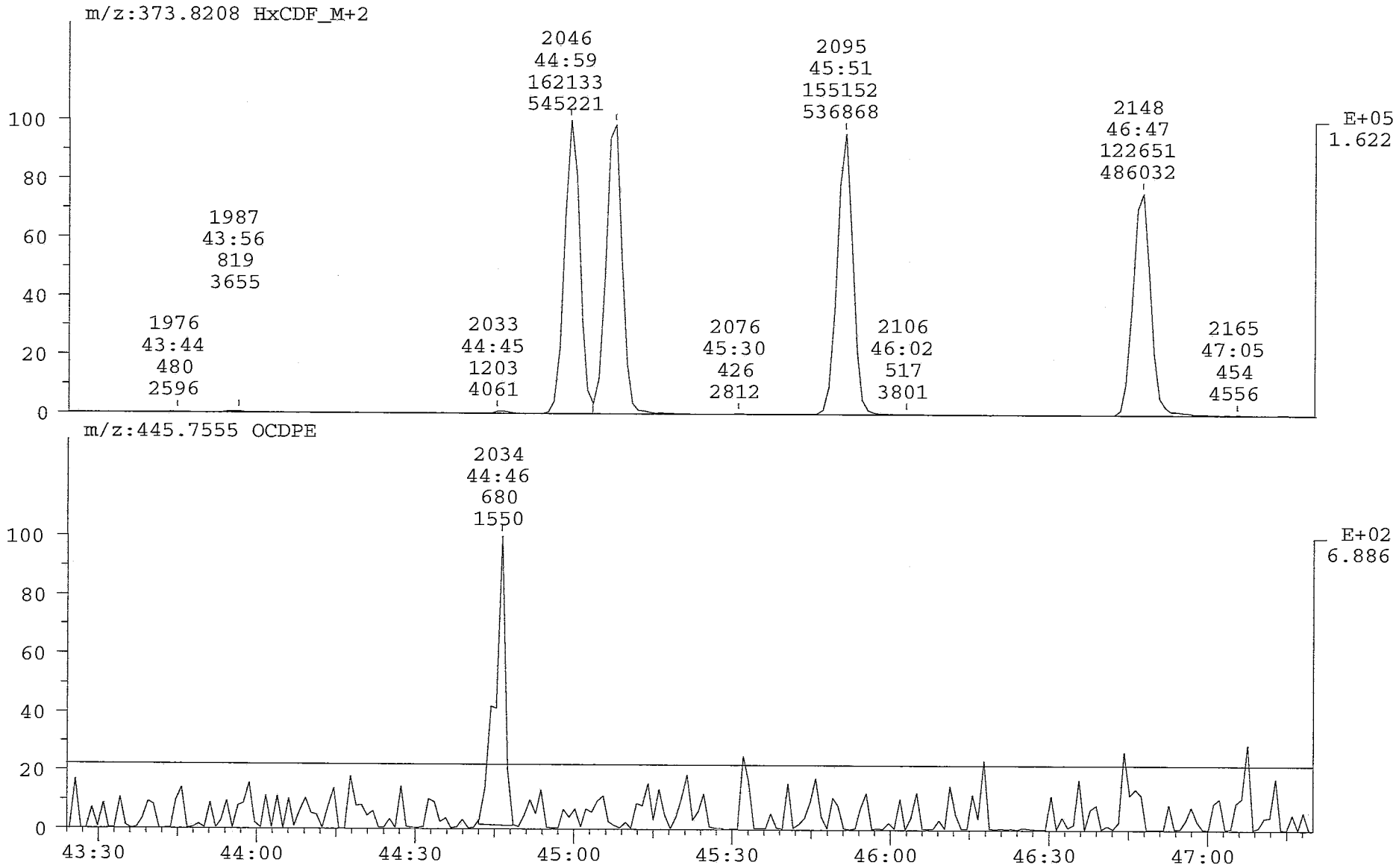
H-938

CHRO: btmkntll 14-Jul-11 Elapse: 45:04 2051
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2047 > 2055 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



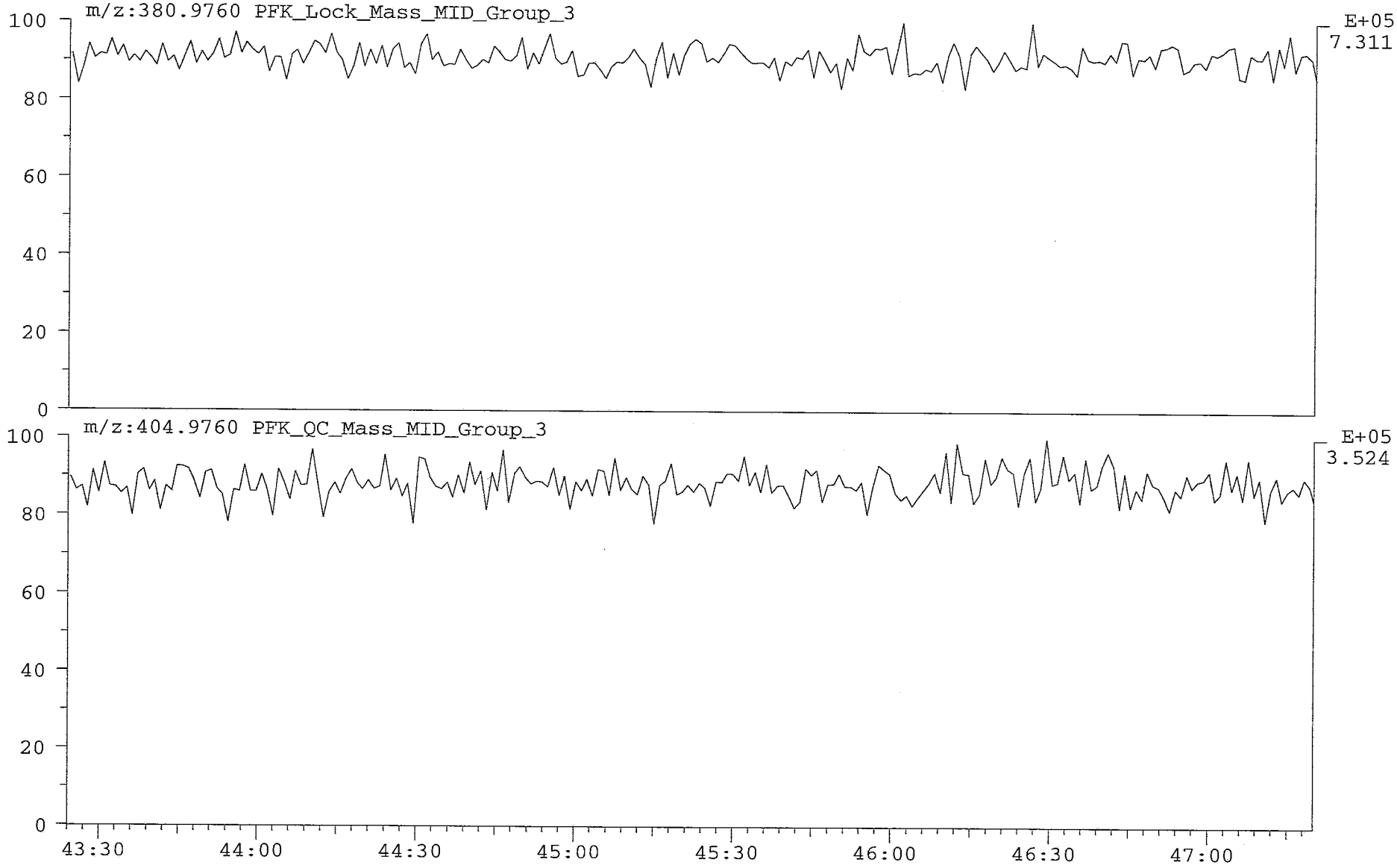
H-939

CHRO: btmkntll 14-Jul-11 Elapse: 45:04 2051
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1957 > 2179 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



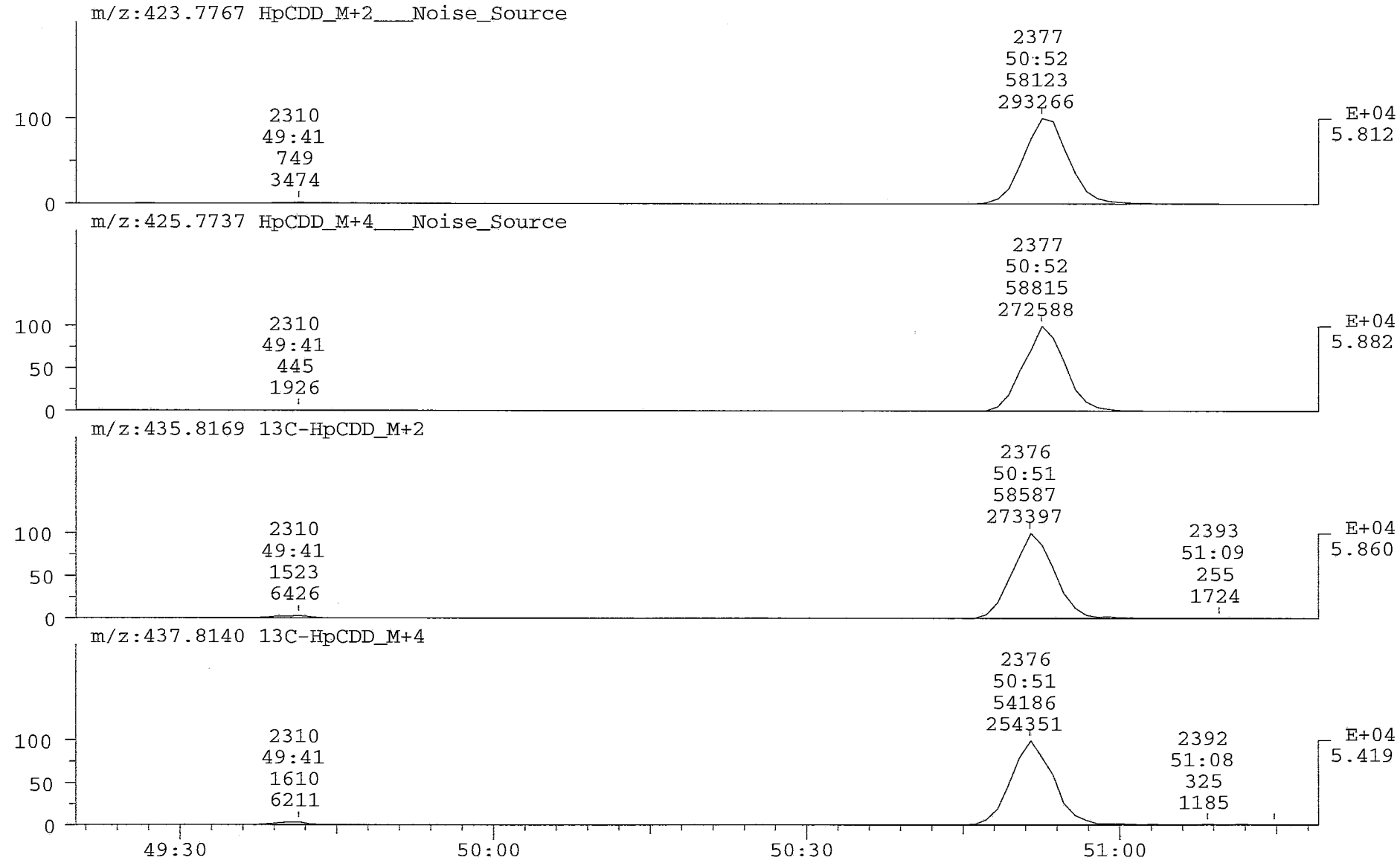
H-940

CHRO: btmkntl1 14-Jul-11 Elapse: 45:04 2051
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1957 > 2179 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



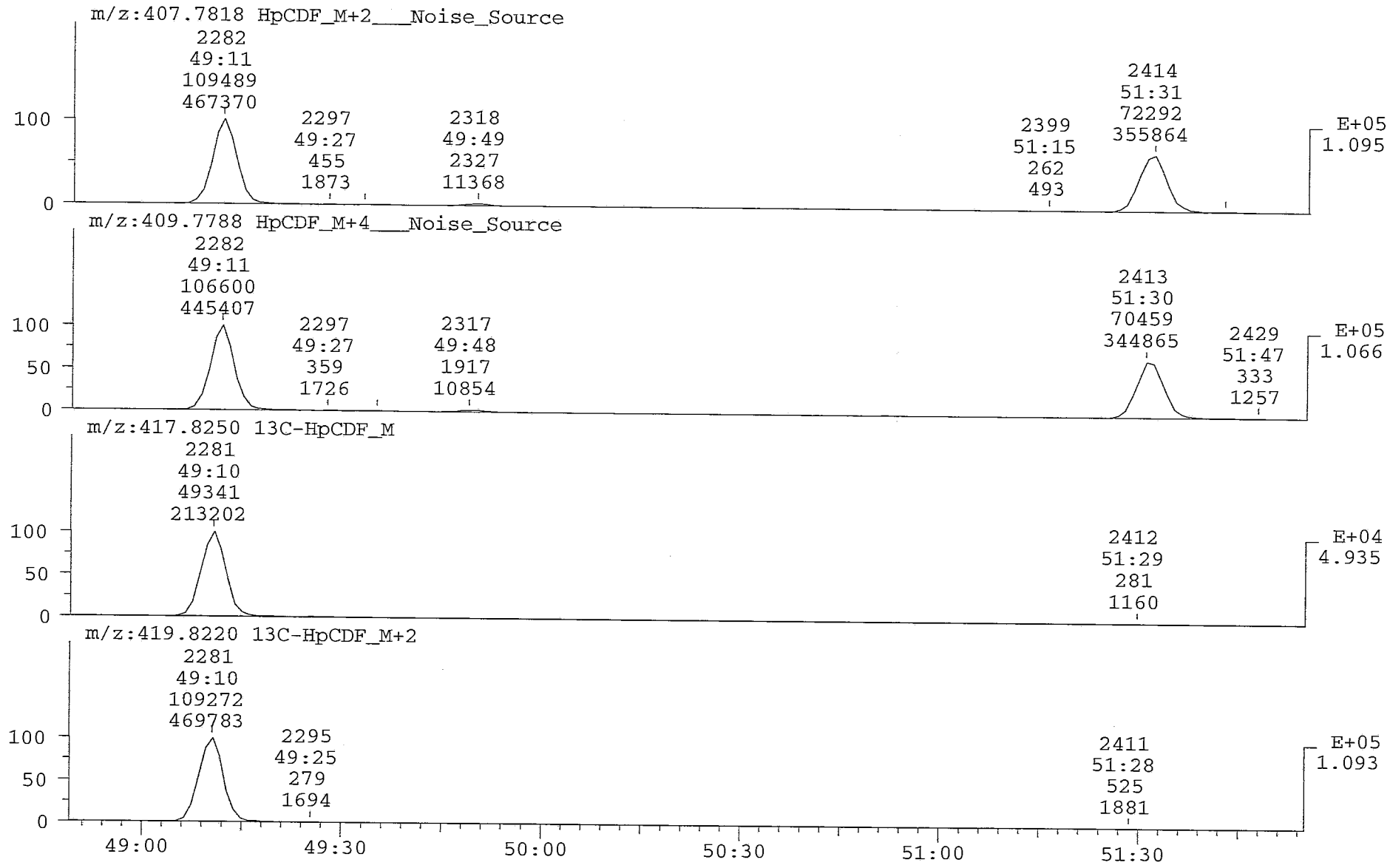
H-941

CHRO: btmkntll 14-Jul-11 Elapse: 45:04 2051
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2290 > 2402 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



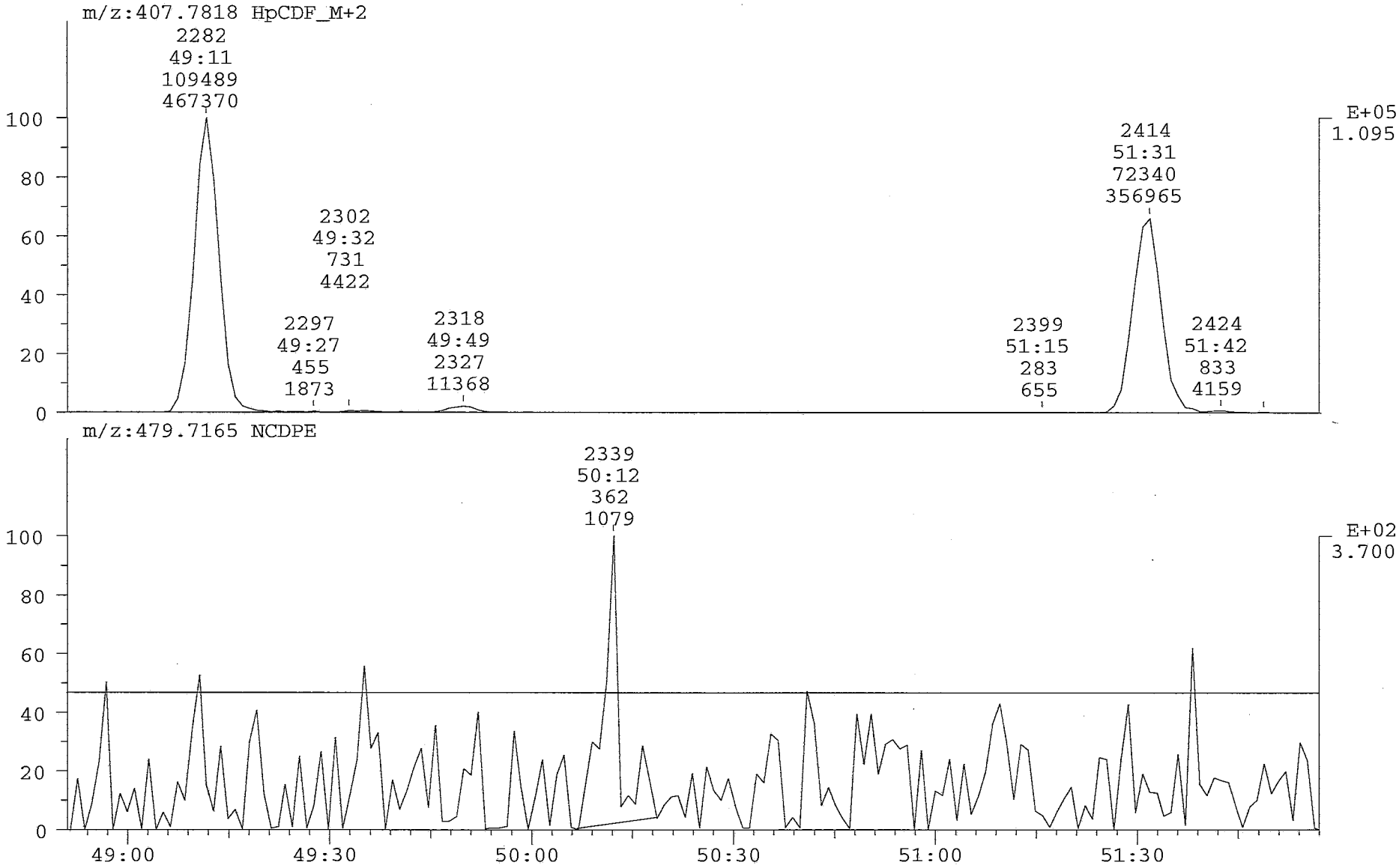
H-942

CHRO: btmkntll 14-Jul-11 Elapse: 50:21 2348
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2261 > 2436 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-943

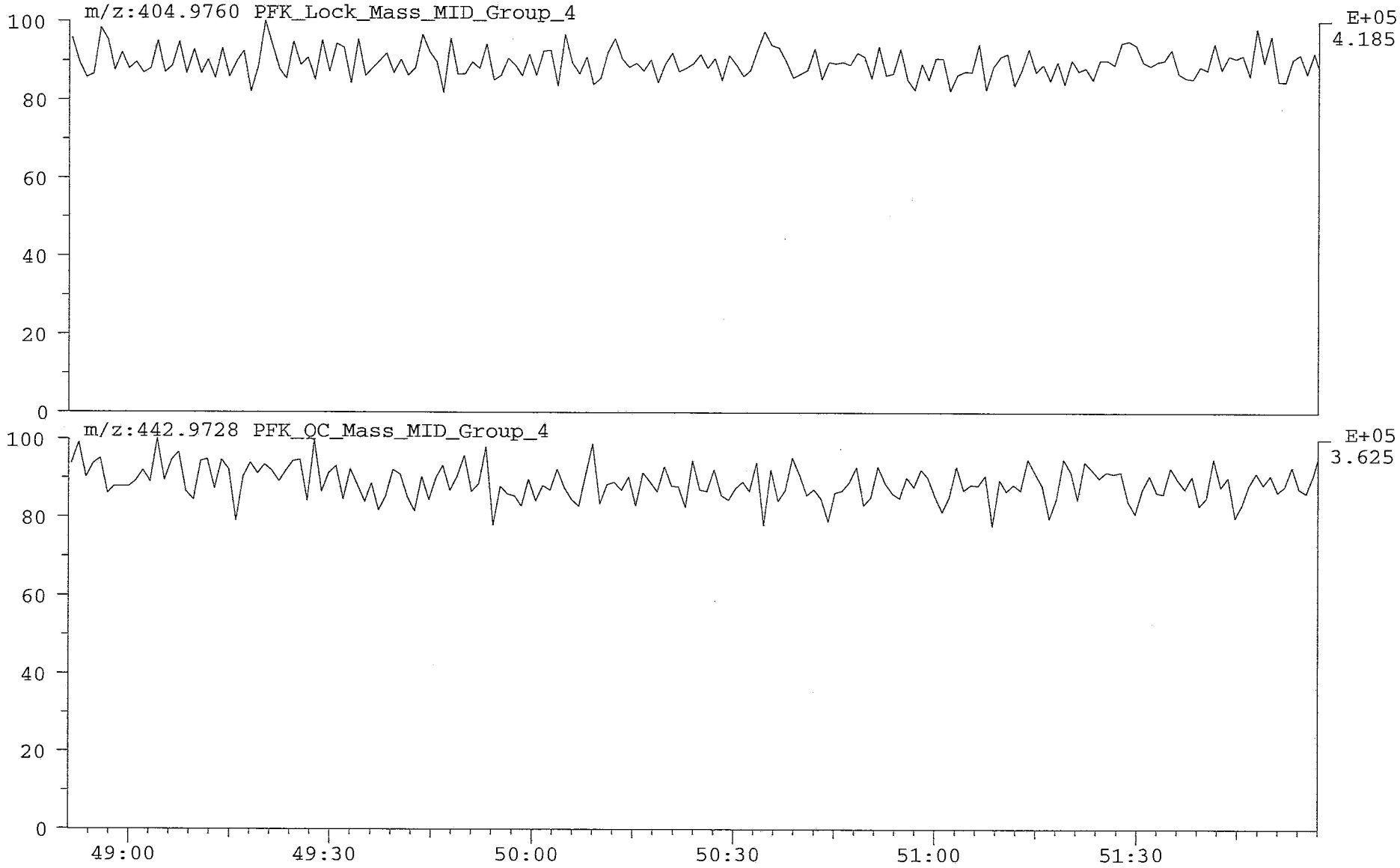
CHRO: btmkntl1 14-Jul-11 Elapse: 50:21 2348
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2263 > 2438 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-944

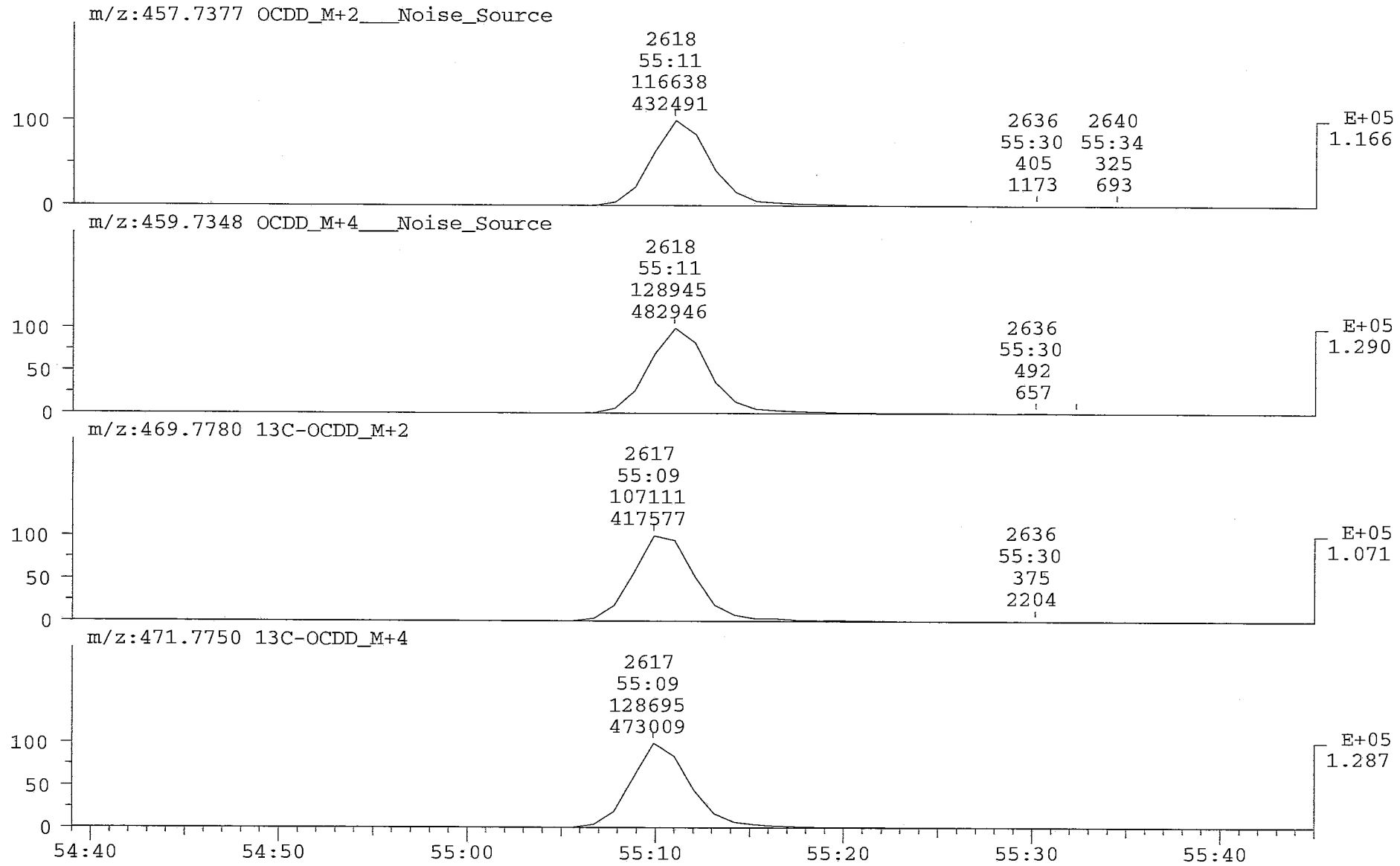
943

CHRO: btmkntll 14-Jul-11 Elapse: 50:21 2348
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2263 > 2438 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



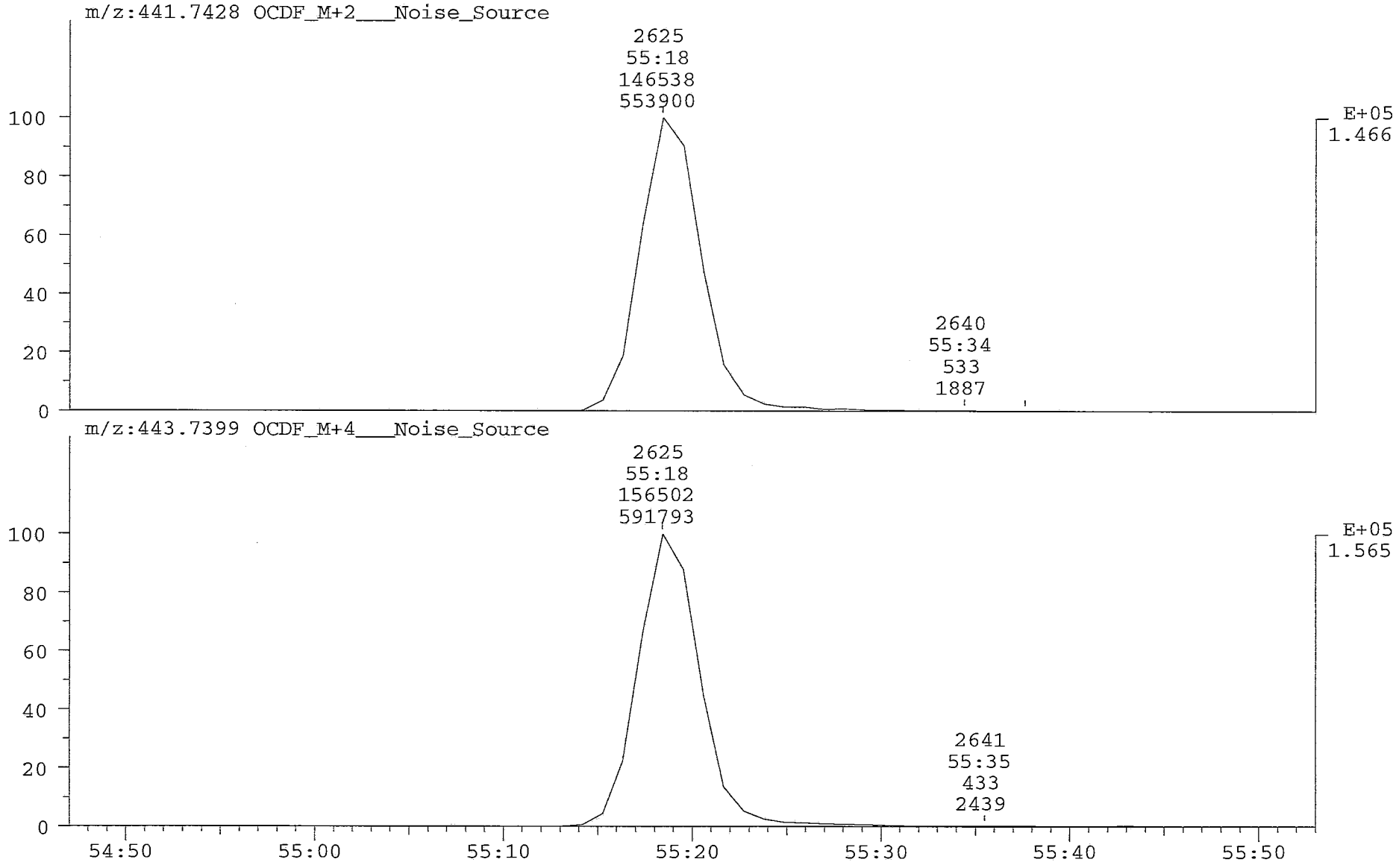
H-945

CHRO: btmkntl1 14-Jul-11 Elapse: 55:08 2616
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2588 > 2650 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



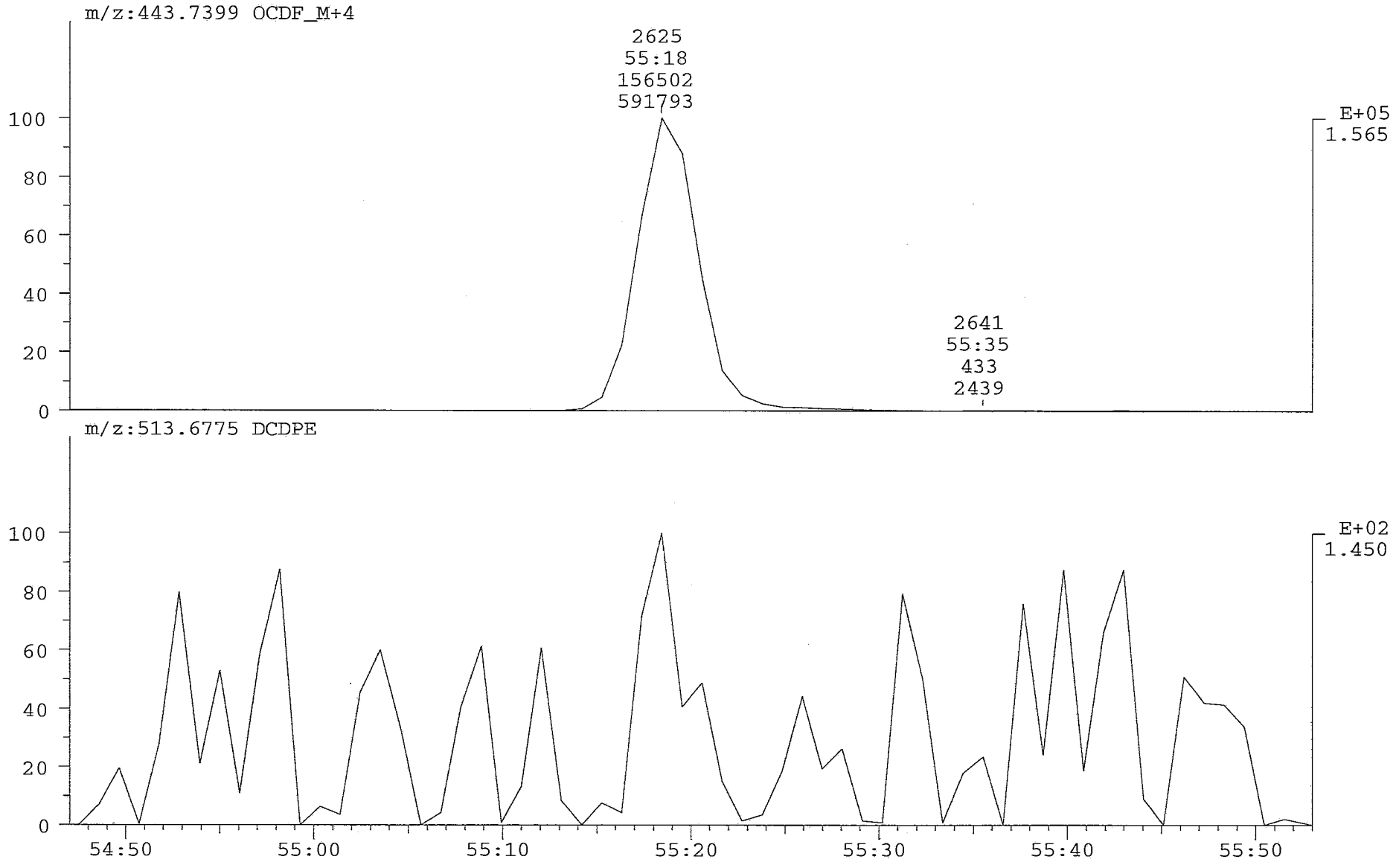
H-946

CHRO: btmkntl1 14-Jul-11 Elapse: 55:17 2624
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2596 > 2657 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-947

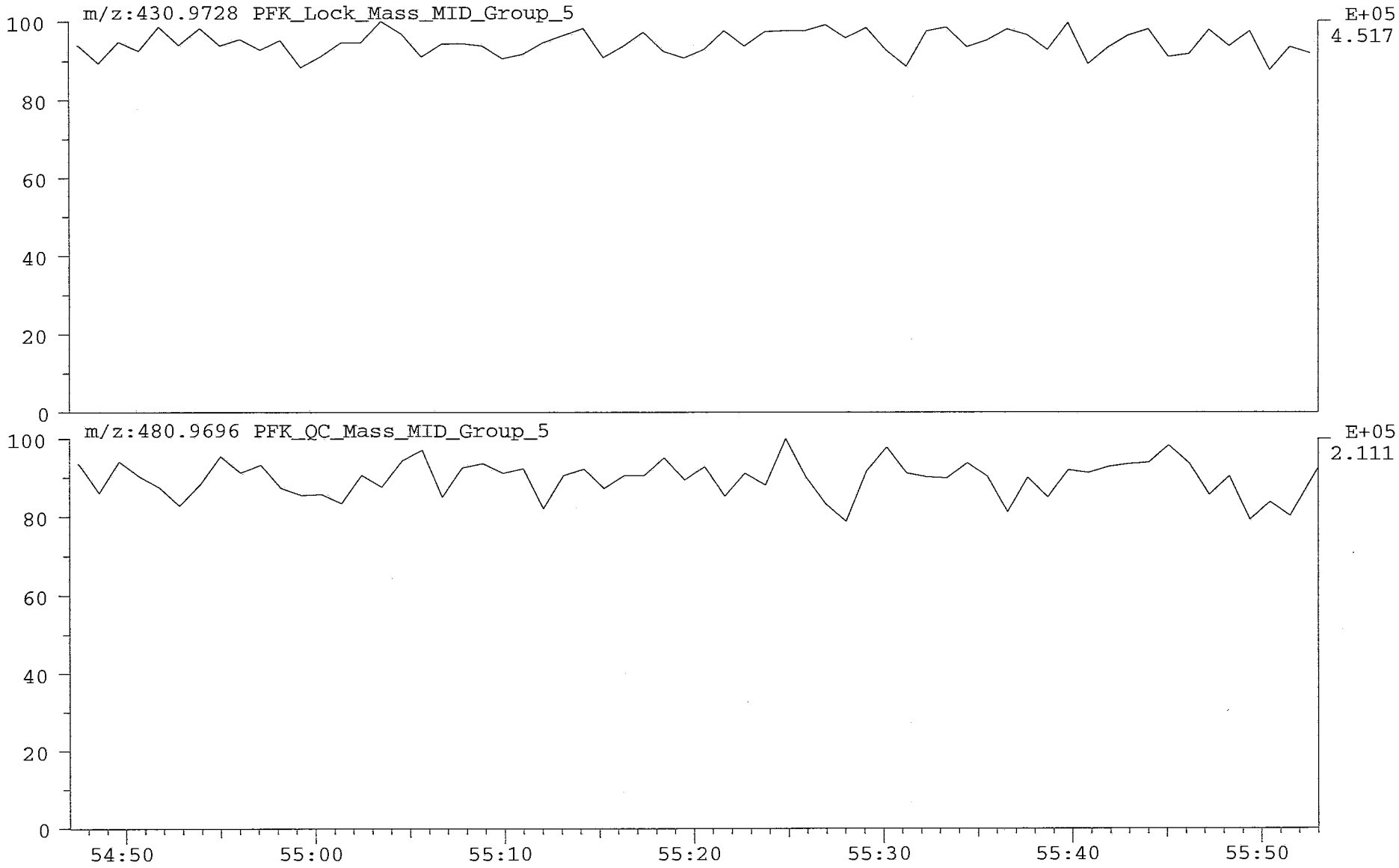
CHRO: btmkntl1 14-Jul-11 Elapse: 55:17 2624
Samp: Vial 15 WO=mkntl1ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2596 > 2657 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -2, 3.0
Disp: Height Area



H-948

947

CHRO: btmknt11 14-Jul-11 Elapse: 55:17 2624
Samp: Vial 15 WO=mknt11ad Meth=X8 Dil=1 Start : 18:55:51 2749
Comm: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187027 (air-2)
Oper: KBL Client: H1G060000-027L Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2596 > 2657 Masses: 293 > 514
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-949

948

```
Instrument internet name  -  mat95s
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis3ms
ICIS Version 8.2.1


ICL Version: 10.500
File name: btmknt11
Study: 1187027 (air-2)
Sample: WO=mknt11ad Meth=X8 Dil=1
Amount:   0.0
Volume:   0.0
Operator: KBL
Client: H1G060000-027L
Comments: Inst=m2a/1027390 Batch=20110714s3 Ccal=B110714S3
Injected volume:   2.0
Sample from Vial 15
Analysis will stop when MID run finishes
Tune file name: tune2
File 10 of list 110712
  ICL procedure: sleep6xy
  MID procedure: epa1613

  MID Remarks:  Tetra-Octa PCDD/F EPA Method 8290/1613B

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay          TRUE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                  100 cts
   Electric range            2 %
   Sweep peak width       3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start          Measure       End         Cycletime
# 1     8:00 min    27:05 min    35:05 min     1.00 sec
# 2    35:05 min     8:03 min    43:08 min     1.00 sec
# 3    43:08 min     4:44 min    47:52 min     1.00 sec
# 4    47:52 min     5:29 min    53:22 min     1.00 sec
# 5    53:22 min     4:08 min    57:30 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    292.9825 1   10   1      8.19
    303.9016      1   2     81.92
    305.8987      1   2     81.92
    315.9419      1   3     81.92
    317.9389      1   3     81.92
    319.8965      1   3     81.92
    321.8936      1   3     81.92
    327.8847      1   4     81.92
    331.9368      1   4     81.92
    333.9338      1   4     81.92
    342.9792 c   10   5      8.19
    375.8364      1   6     81.92
   Window # 2
        mass F  int  gr  time (ms)
    330.9792 1   10   1      8.19
    339.8597      1   2     91.48
    341.8567      1   2     91.48
```

351.9000		1	3	91.48
353.8970		1	3	91.48
355.8546		1	3	91.48
357.8516		1	3	91.48
367.8949		1	4	91.48
369.8919		1	4	91.48
380.9760	c	10	5	8.19
409.7974		1	6	91.48

Window # 3

mass	F	int	gr	time (ms)
373.8208		1	1	91.48
375.8178		1	1	91.48
380.9760	l	10	1	8.19
383.8639		1	2	91.48
385.8610		1	2	91.48
389.8156		1	2	91.48
391.8127		1	3	91.48
401.8559		1	4	91.48
403.8529		1	4	91.48
404.9760	c	10	4	8.19
445.7555		1	5	91.48

Window # 4

mass	F	int	gr	time (ms)
404.9760	l	10	1	8.19
407.7818		1	1	91.48
409.7788		1	1	91.48
417.8250		1	2	91.48
419.8220		1	2	91.48
423.7767		1	2	91.48
425.7737		1	2	91.48
435.8169		1	3	91.48
437.8140		1	3	91.48
442.9728	c	10	3	8.19
479.7165		1	4	91.48

Window # 5

mass	F	int	gr	time (ms)
430.9728	l	10	1	10.92
441.7428		1	2	120.15
443.7399		1	2	120.15
457.7377		1	3	120.15
459.7348		1	3	120.15
469.7780		1	4	120.15
471.7750		1	4	120.15
480.9696	c	10	5	10.92
513.6775		1	6	120.15

Auto Sampler descriptor: pcdd2ul

Injector A

Normal Injection

Slvnt A cln before inj	(K):	3 times
Slvnt B cln before inj	(L):	0 times
Sample rinse cycles	(R):	0 times
Syringe filling volume	(F):	1.0 ul
Pullup delay time	(D):	4 sec
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Sample pullup count	(P):	2 times
Injection speed	(S):	10.0 ul/sec
Injection wait time	(W):	10 sec
Injection hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	20 times
Loop clean w slvnt A	(LC):	0 times

```
 Loop clean w slvnt B (LB):      0 times
 Standard sample volume(X):    0.0 ul
 Standard air volume   (Y):    0.0 ul
 2nd Injection volume  (I):    0.0 ul
 Air volume of 2nd inj (J):    0.0 ul
 Time btwn 2 injections(T):      0 sec

GC descriptor :  epa1613
  Injector:         270 deg                          300 deg max
  Transfer Line:    290 deg                          300 deg max
  Column:           140 deg at    0.0 minutes        330 deg max
                    140 deg at    3.0 minutes
                    210 deg at    6.5 minutes
                    210 deg at   34.5 minutes
                    280 deg at   44.5 minutes
                    280 deg at   51.0 minutes
                    325 deg at   57.5 minutes
  Inlet    :
  Pressure        18.0 psi
  Splitless mode
  Purge time       1.5 min
  Purge flow      40.0 mL/min

   Gas saver is on
   Saver time       3.0 min
   Saver flow      15.0 mL/min

  Stabilize time   0.0 minutes
```

ICL Parameters

BCORRL	0.0250	BCORRS	0.0130	BCURR	8415.0000
BDEV	8288.0000	BFM	2.0000	BLM	1186.4038
BMASS	304.9824	BQUAD	2.3000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.4118
CORONA	100.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.5861	DITSET	0.0000	DRAW	-24.0750
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9999
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	20.0000	EDACZ	-1068.5000	ELEN	56.3000
EMULT	2.2500	ENS	145.0000	ENW	600.0000
ERATIO	1.0000	ESA	763.8000	ESICUR	10.0011
ESIPAR	0.0000	EXS	197.0000	EXW	600.0000
FDMA	18000000.0000	FLENS	1.0000	FM	20.0000
FMII	50.0000	FQUAD	-3.2000	FREQ	300.4808
FSLOPE	36000000.0000	FVANAL	366.0000	FVINLET	846.0000
FVSRC	1061.0000	FWIN	0.7000	GCTC	140.0000
GCTI	270.0000	GCTL	290.0000	HACCU	208.0000
HCURR	1.7157	HVANAL	1223.0000	HVSRC	3120.0000
ICAL0	0.0011	ICAL1	0.4030	ICAL2	0.5865
IONEN	4769.2260	IST	269.8026	ISTC	0.0000
ISTCKP	5.0000	ISTCTD	1.0000	ISTCTN	2.0000
ISTCTS	60.0000	ISTCTV	3.0000	ISTS	270.0000
LENS	2098.0000	LENSS	90.0000	LKM	430.9728
LM	800.0000	LMASS	304.9824	LMII	500.0000
MASS	304.9824	MDAC	3180399.9264	MDACR	20.0000
MRANGE	1186.4038	MSFM	2.0000	MSLM	3790.0000
NPEAK	1.0000	NSAM	100.0000	NSCAN	2759.0000
NSMAX	8.0000	NSMIN	2.0000	OCT	-2.0000
PSAM	10.0000	PUSHER	-8.6500	RDRAW	0.0000
RDRAWC	0.0000	RECURR	0.0000	RELEN	0.0000
RES	10758.3328	RFAMP	799.9987	RFCUR	100.0110
RPUSHER	0.0000	RWIN	2.0000	SACCU	3.0000
SCIDLE	1.0000	SHIELD	2445.0000	SHIELDS	0.2000
SHIGH	180.0000	SKIM	7.0000	SLOW	60.0000

SPRAY	8.0000	SS	3.0000	SW	0.0500
TANAL	359.7200	TCURR	0.9375	TD	1.0000
THRESH	5.0000	TIS	0.2000	TREF	150.0000
TS	1.6021	TSAM	200.0000	TSET	0.0000
TUBEL	0.0000	UOFS	5.0000	URATIO	2.0150
USERVAR	0.0000	VAPTEMP	599.9997	VAPTSET	400.0000
VMASS	304.9824	XLENS	1253.0000	XLENSS	-16.0000
YLENS	3269.0000	YLENSS	-20.2000		

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 18:55:51.9

Autosampler has injected sample from vial 15
Analysis stopped at: 14-Jul-11 19:53:23.5 (run time 57.52 minutes)
Analysis stopped because MID run finished

Miscellaneous Data

TestAmerica Knoxville Dioxin GC/MS Data Review / Narrative Checklist LOT # 410050439
KNOX-ID-0004-R8 Method: □ 0023A/8290 □ EPA 23 Batch # 1187027
Page 1 of 1

Review Items A. Initial Calibration	N/A	Yes	No	Why is data reportable?	2nd Level
1. Was the correct ICAL used for quantitation? (Check 1-2 compounds for batch by manually calculating concentration using the ICAL avg. RF.)		✓			✓
B. Continuing Calibration	**N/A**	**Yes**	**No**		**2nd**
1. Has a Continuing Calibration Checklist been completed for each analytical batch?		✓			✓
C. Client Sample AND QC Sample Results	**N/A**	**Yes**	**No**		**2nd**
1. Were all special project requirements met?		✓			✓
2. Were the header information, prep factors, and dilution factors verified?		✓			✓
3. Is logbook date/time of analysis correct?		✓			✓
4. Sample analyses done within preparation and analytical holding time (HT)? *If no, list samples:* _____		✓		□ HT expired upon receipt. □ Client requested analysis after HT expired. □ Re-extraction done after HT expired.	✓
5. Are internal standards within QC limits specified in Table 13? *If no, list samples and reason (e.g.,* **sur1***):* Sample Reason Sample Reason _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____		✓		□ **[sup]** Ion suppression due to matrix. □ **[low]** Low recovery. S/N >10 and EDL<ML. □ **[sam]** Not enough sample to re-extract. □ **[dil]** Dilution showed acceptable %R. □ **[mtx]** Obvious matrix interference. Further cleanup not possible.	✓
6. Were reported PCDD/Fs which did not meet the criteria below, properly calculated and reported as EMPCs?: • RT of 2378 isomers within -1 to +3 seconds of associated labeled isomer. • RT of non-2378 isomers within established first/last windows. • Both native ions maximized within ±2 seconds. • Ion abundance ratios within the control limits specified in Table 22. • No corresponding peak at PCDPE mass.		✓			✓
7. Were all 2378-TCDF hits ≥ ML confirmed by analysis on DB-225?	✓				✓
8. Are positive results > ML within calibration range? *If no, list samples:* _____		✓		□ OCDD/F or non-2378 exceeded calibration range □ Sample extracted at lowest possible volume	✓
9. Are all manual integrations clearly identified and approved?		✓			✓
10. Final report acceptable? (Results correct, DLs calculated correctly, units correct, IS %R correct, appropriate flags used, dilution factor correct, and extraction/ analysis dates correct.)		✓			✓
11. Was a narrative prepared and all deviations noted?		✓			✓
D. Preparation/Matrix QC	**N/A**	**Yes**	**No**	**Why is data reportable?**	**2nd**
1. LCS(OPR) done per prep batch and all analytes within the limits specified in QuantIMS reference data?		✓		□ Reanalysis not possible-insufficient sample. □ LCS %R high and affected analyte(s) were <ML in associated samples.	✓
2. Method blank done per prep batch, method/instrument blank analyzed with each sequence and analytes present in the method blank ≤ ML? *If no, list blank ID:* _____		✓		□ Sample results are > 20x higher than blank. □ There is no analyte > RL in the samples associated with method blank. □ Reanalysis not possible-insufficient sample	✓
E. Other	**N/A**	**Yes**	**No**		**2nd**
1. Are all nonconformances documented appropriately and copy included with deliverable?	✓				✓

Analyst: PMP	Date: 7-16-11	Analyst: [signature]	Date: 7/18/11
Comments:		Comments:	
samples 003 and 007 analyzed at 1/2 dilution due to matrix interference			

TestAmerica Knoxville Prep Batch Review Checklist

Batch # 118727

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Were the samples extracted within the required holding times?		✓		If No, NCM #: _____	✓
2. Are the final extracts free of water, precipitates, multiple phases, and for HRMS - color?		✓			✓
3. Were all project specific requirements met as noted on the Lot Checklists (L40) and the Sample List report?		✓			✓
4. Were MS Run numbers assigned properly?	✓				✓
5. Were the correct weights and volumes entered into QuantIMS for all samples and QC?		✓			✓
6. Was the correct completion date entered into QuantIMS?		✓			✓
7. Were the spike IDs and volumes entered correctly into QuantIMS?		✓			✓
8. Were all appropriate notes and observations recorded on the extraction benchsheet and in QuantIMS?		✓			✓
9. Was the extraction batch reviewed in QuantIMS using LIM L21?		✓			✓
10. Does the prep batch paperwork package contain all required documentation which has been properly and completely filled out, including: • Extraction Benchsheet • QuantIMS Benchsheet • Lot Checklists (L40) for all lots in batch • Sample List • Compound List Report • SOG Sample Tracking Sheet		✓			✓
11. Are all nonconformances documented appropriately and copy included with deliverable?	✓			If Yes, NCM#: _____	✓
Analyst : JDB **Date:** 7/14/11					
Comments:					
2nd Level Reviewer: ES **Date:** 7/14/11					
Comments:					

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/14/11
Time: 8:56:54

LEV 1	LEV 2		LEV 1	LEV 2	
Y	Y	Blank	Y	Y	Weights/Volumes
Y	Y	Check	Y	Y	Spike & Surrogate Worksheet
—	—	MS/MSD	Y	Y	Vial contains correct volume
			Y	Y	Labels, greenbars, worksheets computer batch: correct & all match
			—	—	Anomalies to Extraction Method

Y Expanded Deliverable
Y COC Completed
Y Bench Sheet Copied
Y Package Submitted to AnalyticalGroup
Y Bench Sheet Copied per COC

Extractionist: 044305 David R. McNeil
430384 Jeremy Blaschke
403968 Emayet Spencer
Concentrationist: 430384 Jeremy Blaschke
430513 Emily D. Lantzer

****
* *
* QC BATCH: 1187027 *
* *
****

PREP DATE: 7/06/11 16:00
COMP DATE: 7/14/11 11:00

Reviewer/Date: BLASCHKJ / 7/14/11

PCDDs/PCDFs (Method 0023A/8290)
SOXHLET (NOMINAL), Airtrains: Combined

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/22/11	7/18/11	H1G050439-001 **MKM55-1-AA**	D	IP	X8	AIR	1 40.00uL	NA	NA	NA	MECL/TOL	350.0	HEXANE	10.0	DF0087,2.0ML,METH.23 C13
COMMENTS:		8													
7/23/11	7/18/11	H1G050439-003 **MKM6A-1-AA**	D	IP	X8	AIR	1 40.00uL	NA	NA	NA	MECL/TOL	350.0	HEXANE	10.0	DF0087,2.0ML,METH.23 C13
COMMENTS:		9													
7/27/11	7/18/11	H1G050439-005 **MKM6F-1-AA**	D	IP	X8	AIR	1 40.00uL	NA	NA	NA	MECL/TOL	350.0	HEXANE	10.0	DF0087,2.0ML,METH.23 C13
COMMENTS:		10													
7/26/11	7/18/11	H1G050439-007 **MKM6M-1-AA**	D	IP	X8	AIR	1 40.00uL	NA	NA	NA	MECL/TOL	350.0	HEXANE	10.0	DF0087,2.0ML,METH.23 C13
COMMENTS:		FB 11													
7/22/11	7/18/11	H1G050439-015 **MKM60-1-AA**	D	IP	X8	AIR	1 40.00uL	NA	NA	NA	MECL/TOL	350.0	HEXANE	10.0	DF0087,2.0ML,METH.23 C13
COMMENTS:		media check 12													
7/22/11	0/00/00	H1G060000-027 **MKNTL-1-AA**B		IP	X8	AIR	1 40.00uL	NA	NA	NA	MECL/TOL	350.0	HEXANE	10.0	DF0087,2.0ML,METH.23 C13
COMMENTS:		13													
7/22/11	0/00/00	H1G060000-027 **MKNTL-1-AC**C		IP	X8	AIR	1 40.00uL	NA	NA	NA	MECL/TOL	350.0	HEXANE	10.0	DF0102,2.0ML,D/F NATIVE DF0087,2.0ML,METH.23 C13
COMMENTS:		14													

H-957

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/14/11
Time: 8:56:54

QC BATCH: 1187027

PREP DATE: 7/06/11 16:00
COMP DATE: 7/14/11 11:00

EXTR EXPR	ANL DUE	LOT#,MSRUN# / WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/22/11	0/00/00	H1G060000-027 **MKNIL-1-ADL**	R	IP	X8	AIR	1 40.00uL	NA	NA	NA	MECL/TOL	350.0	HEXANE	10.0	DF0102,2.0ML,D/F NATIVE DF0087,2.0ML,METH.23 C13

COMMENTS: 15

MK6A1AA WAS CONCENTRATED TO ~7ML ON HEATING MANTLE. THE ACETONE RINSES FOR MKM55, MKM6A, AND MKM6F HAD FINE YELLOWISH PARTICLES IN THEM. DUAL EXTRACTION.

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 8

H-958

TestAmerica Knoxville

Specialty Organics Group - Sample Tracking Sheet - GC/MS Analysis Group

QC Batch No: 1187027

Work Order #		Column: RTX-5				Column: RTX-5				Column: DB-225			
		Date	Instrument	Analyst	Code	Date	Instrument	Analyst	Code	Date	Instrument	Analyst	Code
MKM55 1AA		7-15-11	M2A	KBL	OK						—		
MKM6A 1AA		1	1	1	OK	1/2					—		
MKM6F 1AA		7-15-11	M2A	PMP	OK						—		
MKM6M 1AA				KBL	OK	1/2					—		
MKM60 1AA		7-15-11	M2A	PMP	OK						—		
MKNTL 1AA	B	7-15-11	M2A	↓	OK						—		
MKNTL 1AC	C	"		KBL	OK						—		
MKNTL 1AD	L	7-14-11	M2A	KBL	OK						—		

Comments: samples MKM6A + MKM6M ~~were~~ analyzed at 1/2 dilution due to matrix interferences ~~were~~

TestAmerica Knoxville Extraction Sheet
Method 0010/0023A Split/Combined Air Train - KNOX-ID-0012

Dioxin Batch #: 1187027
PCB Batch #: 1187028
BNA Batch #: N/A
PAH Batch #: ↓

Start Date/Time-$MeCl_2$: 7/6/11 16:45
Compl Date/Time-$MeCl_2$: 7/7/11 8:45
Start Date/Time-Toluene: 7/7/11 15:30
Compl Date/Time-Toluene: 7-8-11, 8:30

Dioxin IS ID: DF0087
Dioxin Spike ID: DF0102
PCB IS ID: PCB0098
PCB Spike ID: PCB0049

BNA Surr ID: N/A
BNA Spike ID:
PAH IS ID:
PAH Spike ID:
Naphthalene Spike ID: ↓

Extr $MeCl_2$ Lot #: 1K07500
Extr Toluene Lot #: J45N59
Exchange Hexane Lot #: J38E27

Lot Number	Lot Sample Number	Work Order Number(s)	Suffix	SAC	Place FH/BH sample in med Soxhlet.	Add Method 23 IS (1.0/2.0 ng/mL). Record volume (mL).	Add BNA surr (100/150 µg/mL). Record volume (mL).	Add PCB IS (10 ng/mL). Record volume (mL).	Add PAH IS (0.25 µg/mL). Record volume (mL).	Add Dioxin spike (0.2/1.0/2.0 ng/mL) to LCS/LCSD. Record volume (mL).	Add BNA spike (100 µg/mL) to BNA LCS/LCSD. Record volume (mL).	Add PCB spike (5.0 ng/mL) to LCS/LCSD. Record volume (mL).	Add PAH spike (0.25 µg/mL) & Naphth spike (3.75 µg/mL) to LCS/LCSD. Record volume (mL).	Extract 16 hr with $MeCl_2$. (18-24 hr if SVOCs requested.)	Acetone present in solvent rinse?	Did solvent rinse lose volume during shipment?	Add FH/BH $MeCl_2$ rinse to $MeCl_2$ extract.	Concentrate to ~20 mL in boiling flask. QC to 20 mL.	Extract 16 hr with Toluene.	Add BH Toluene rinse to Toluene extract.	Concentrate to ~10 mL in boiling flask. QC to 10 mL.	Split extracts. Record split ratio.
H1G050439	1	MKM551AA–MKM551AC		X8–IE	✓	2 mL	N/A	2 mL	N/A	N/A	N/A	N/A	N/A	✓	J	N	✓	✓	✓	Y	Y	0.50
H1G050439	3	MKM6A1AA–MKM6A1AC		X8–IE																		
H1G050439	5	MKM6F1AA–MKM6F1AC		X8–IE																		
H1G050439	7	MKM6M1AA–MKM6M1AC		X8–IE																		
H1G050439	15	MKM601AA–MKM601AC		X8–IE				↓														
H1G060000	27	MKNTL1AA	B	X8				N/A		↓												
H1G060000	27	MKNTL1AC	C	X8						2 mL												
H1G060000	27	MKNTL1AD	L	X8		↓		↓		↓												
H1G060000	28	MKNTM1AA	B	IE		N/A		2 mL		N/A												
H1G060000	28	MKNTM1AC	C	IE								2mL										
H1G060000	28	MKNTM1AD	L	IE	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
					DMB 7/6/11	JDS								→	EDL 7/7/11					→	D.M 7-8-11	→	DM 7-13-11
													JDS 7/14/11									
Spiked by:					DM	N/A	DM	N/A	D.M	N/A	DM	N/A										
Witness:					EDL	↓	EDL	↓	EDL	↓	EDL	↓										

Comments: MKM6A1AA was concentrated to ~7 mL on the heating mantle. The Acetone rinses for MKM55, MKM6A and MKM6F had fine, yellowish particles in them.

H-960

TestAmerica Knoxville Extraction Sheet
Method 0010/0023A Split/Combined Air Train - KNOX-ID-0012

Dioxin Batch #: 1187027

Recovery Std ID: DF0100

Spiked by: JDB

Witness: ES

Delivered: JDB/7/14/11/1105
Initials/Date/Time

Received: [illegible] 7-14-11
Initials/Date/Time

Lot Sample Number	Work Order Number	Suf	Record percentage of extract taken through cleanup.	Add 100 µL tetradecane to 40 mL vials. Concentrate extracts on N-EVAP.	Solvent exchange to hexane on N-EVAP. Bring to ~12 mL in hexane.	Acid/Base wash extracts if needed.	Concentrate extracts on N-EVAP to 2-4 mL in hexane.	Perform silica gel/alumina column cleanup.	Concentrate to ~2 mL on N-EVAP for carbon cleanup.	Perform carbon cleanup.	Concentrate to <1 mL.	Add recovery std (100 ng/mL) to mini-vial. Record volume (µL). Transfer extract to vial.	Conc to delivery volume in nonane. Record delivery volume (µL).
H1G050439 - 001	MKM551AA		50%	✓	✓	NA	✓	✓	✓	✓	✓	20	20
H1G050439 - 003	MKM6A1AA												
H1G050439 - 005	MKM6F1AA												
H1G050439 - 007	MKM6M1AA												
H1G050439 - 015	MKM601AA												
H1G060000 - 027	MKNTL1AA	B											
H1G060000 - 027	MKNTL1AC	C											
H1G060000 - 027	MKNTL1AD	L	DM by JDB 7/13/11					ES 7/13/11	JDB 7/13/11		JDB 7/14/11		

JDB 7/14/11

JDB 7/14/11

Tetradecane Lot #: STB87395
Conc Hexane Lot #: J52E08

20% KOH ID: NA
5% NaCl ID:
H_2SO_4 Lot #:
A/B Na_2SO_4 ID:

Alumina ID: 3796-5G
Deact Silica ID: 4361-110
Acid Silica ID: 4361-112
SG/A Col Na_2SO_4 ID: 3796-5H

SG/A Col Hex Lot #: J38E27
95/5 Hex/$MeCl_2$ ID: 4361-115
65/35 $MeCl_2$/Hex ID: 4361-116

Carbon ID: 4361-109
50/50 $MeCl_2$/Cyclo ID: 4361-117
Carbon Col Toluene Lot #: J45N59
75/20/5 $MeCl_2$/MeOH/Benz ID: 4361-118

Comments:

H-961

XAD Source Sampling Media Request Form

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
865-291-3000

Form Number: 061011-1

-scan completed document and save on the public drive under Media/PDFs; filename should be the form number. **Send a copy to PM.**

Date of Request: June 10, 2011
Company: URS - Petroleum ICR
Client Project: Chevron Global Hawaii Refinery
Client PO#: Pending

Rush Order? No
Quantims Quote: TBD
Media Needed By: 6/16/2011
Project Manager: Kevin Woodcock

Quantity	Media Type	Spiked for Method	Media Check ID
8	Spiked XAD	Dioxin, HRPCB, Supelpak-2SVM, Lot 22593	A 6443
8	Particulate Filter	87.5mm quartz fiber	A 6444
16	Particulate Filter	87.5mm quartz fiber	A 6445

URS, Chevron, HI
A 6443
D/F PCB XAD

URS, Chevron, HI
A 6444
D/F PCB Filter

Comments:

Method	Color Code	Amt. Spiked	Conc. And Units	Spike Sol'n ID	Exp. Date	Spiked By/ Date	Verified By
8270C							
Dioxin	NA	200ml	20 ng/ml	DF0081	1-7-15	DH/6-14-11	EDC
1668 mod.	NA	200ml	50 ng/ml	PCB0060	8-1-12	DH/6-14-11	EDC
CARB 429							
8081A							
TCO/Grav		NA	NA	NA	NA	NA	NA

Shipping *(include blank COCs and Custody Seals with this shipment. Send temperature blanks where applicable)*

Attn: Darnelle L. Kahalewai-Chai
Company: Chevron Global Downstream Hawaii Refinery
Address 1: 91-480 Malakole Street
Address 2:
City, State, Zip: Kapolei, HI 96707
Phone: (808) 682-2205
Fax:
FedEx Email: chis_weber@urscorp.com
Lot Number:

Completed/Shipped by: DH/EDC
Date Shipped: 6-14-11
Shipping Courier: Fed Ex.
Tracking Number

Invoice #:

Ref: Sampling Media
Dep: 140015
Date: 06/14/2011
Wgt: 15.8 LBS
DV: 0.00

SHIPPING: 56.60
SPECIAL: 9.34
HANDLING: 0.00
TOTAL: 65.94

Svcs: ** 2DAY **
TRCK: 4169 7487 5886

H-962

961

Trace Level Organics

Raw Sample Data
SPB-Octyl Column

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.022**	**B J**	**0.10**	**0.0061**	**ng/sample**
PCB 81 (BZ)	ND		0.10	0.0062	ng/sample
PCB 105 (BZ)	**0.10**	**Q J**	**0.10**	**0.0056**	**ng/sample**
PCB 114 (BZ)	ND		0.10	0.0054	ng/sample
PCB 118 (BZ)	**0.27**		**0.10**	**0.0056**	**ng/sample**
PCB 123 (BZ)	**0.014**	**J**	**0.10**	**0.0060**	**ng/sample**
PCB 126 (BZ)	ND		0.10	0.0059	ng/sample
PCB 156 (BZ)	ND		0.10	0.0099	ng/sample
PCB 157 (BZ)	ND		0.10	0.0099	ng/sample
PCB 167 (BZ)	ND		0.10	0.0067	ng/sample
PCB 169 (BZ)	ND		0.10	0.0069	ng/sample
PCB 189 (BZ)	ND		0.10	0.0056	ng/sample

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AC	**Matrix.....:**	AIR
Date Sampled.....:	06/22/11	**Date Received.....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date.....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	60		30 - 140
13C12-PCB 3	66		30 - 140
13C12-PCB 4	76		30 - 140
13C12-PCB 15	80		30 - 140
13C12-PCB 19	82		30 - 140
13C12-PCB 37	85		30 - 140
13C12-PCB 54	108		30 - 140
13C12-PCB 77	94		30 - 140
13C12-PCB 81	90		30 - 140
13C12-PCB 104	88		30 - 140
13C12-PCB 105	91		30 - 140
13C12-PCB 114	91		30 - 140
13C12-PCB 118	89		30 - 140
13C12-PCB 123	86		30 - 140
13C12-PCB 126	89		30 - 140
13C12-PCB 155	99		30 - 140
13C12-PCB 156	107	C	30 - 140
13C12-PCB 157	107	C	30 - 140
13C12-PCB 167	105		30 - 140
13C12-PCB 169	97		30 - 140
13C12-PCB 170	101		30 - 140
13C12-PCB 188	101		30 - 140
13C12-PCB 189	105		30 - 140
13C12-PCB 202	108		30 - 140
13C12-PCB 205	106		30 - 140
13C12-PCB 206	105		30 - 140
13C12-PCB 208	98		30 - 140
13C12-PCB 209	92		30 - 140

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR1-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 001	**Work Order #....:**	MKM551AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 8	106	50 - 150
13C12-PCB 28	84	40 - 125
13C12-PCB 79	110	50 - 150
13C12-PCB 95	104	50 - 150
13C12-PCB 111	99	40 - 125
13C12-PCB 153	114	50 - 150
13C12-PCB 178	90	40 - 125

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM551AC	Prep Batch	1187028	Lot No	H1G050439-001
Data File	/20110713s1/apmkm55.d	Prep Date	07/06/11	SDG No	
Analysis ID	133605	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	05:35	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
Total Monochlorobiphenyl		54348	19975			0.245672		0.245672		0.0117
13C12-PCB 1	12:08	3198846	1141910	1.502	20.00	12.052926	60.26	12.052926		0.0122
13C12-PCB 3	14:20	3580820	1041610	1.545	20.00	13.123728	65.62	13.123728		0.0119
PCB 1 (BZ)	12:08	54348	19975	1.383		0.245672		0.245672		0.00361
PCB 2 (BZ)				1.338				ND		0.00390
PCB 3 (BZ)				1.296				ND		0.00422
Total Dichlorobiphenyl		353909	80071			1.944906		1.944906	B	0.159
13C12-PCB 4	14:36	1669914	537436	0.619	20.00	15.262716	76.31	15.262716		0.0142
13C12-PCB 9	16:34	3532995	943900	1.000	20.00	20.000000	100.00	20.000000		0.00879
13C12-PCB 8	17:26	1694269	432779	1.342	10.00	10.623659	106.24	10.623659		0.0101
13C12-PCB 15	20:34	3082228	687373	1.090	20.00	16.011341	80.06	16.011341		0.00807
PCB 4 (BZ)				1.273				ND		0.0186
PCB 10 (BZ)				1.357				ND		0.0153
PCB 9 (BZ)				1.459				ND		0.0143
PCB 7 (BZ)				1.466				ND		0.0142
PCB 6 (BZ)				1.507				ND		0.0138
PCB 5 (BZ)				1.417				ND		0.0147
PCB 8 (BZ)				1.540				ND		0.0135
PCB 14 (BZ)				1.732				ND		0.0120
PCB 11 (BZ)	19:57	353909	80071	1.532		1.944906		1.944906	B	0.0136
PCB 13 (BZ)				1.494				ND	C12	0.0139
PCB 12 (BZ)				1.494				ND	C	0.0139
PCB 15 (BZ)				1.278				ND		0.0145
Total Trichlorobiphenyl		88551	18203			0.387950		0.387950	B	0.137
13C12-PCB 19	17:45	1372198	338952	0.572	20.00	16.360644	81.80	16.360644		0.0423
13C12-PCB 32	21:00	2935137	687236	1.000	20.00	20.000000	100.00	20.000000		0.0242
13C12-PCB 31	23:17	4851954	1019263	1.000	20.00	20.000000	100.00	20.000000		0.0163
13C12-PCB 28	23:35	4074893	887555	1.003	20.00	16.742582	83.71	16.742582		0.0162
13C12-PCB 37	27:39	3733670	675851	0.908	20.00	16.940840	84.70	16.940840		0.0179
PCB 19 (BZ)				1.167				ND		0.0118
PCB 30 (BZ)				1.615				ND	C18	0.00850
PCB 18 (BZ)				1.615				ND	C	0.00850
PCB 17 (BZ)				1.430				ND		0.00959
PCB 27 (BZ)				1.978				ND		0.00693
PCB 24 (BZ)				1.707				ND		0.00804
PCB 16 (BZ)				1.193				ND		0.0115
PCB 32 (BZ)				2.018				ND		0.00680
PCB 34 (BZ)				1.195				ND		0.00576
PCB 23 (BZ)				1.177				ND		0.00585
PCB 29 (BZ)				1.244				ND	C26	0.00553
PCB 26 (BZ)				1.244				ND	C	0.00553
PCB 25 (BZ)				1.320				ND		0.00521
PCB 31 (BZ)				1.252				ND		0.00550
PCB 28 (BZ)	23:37	88551	18203	1.223		0.387950		0.387950	BC20	0.00563
PCB 20 (BZ)		88551		1.223		0.387950		0.387950	BC	0.00563
PCB 21 (BZ)				1.219				ND	C	0.00564
PCB 33 (BZ)				1.219				ND	C21	0.00564
PCB 22 (BZ)				1.200				ND		0.00573
PCB 36 (BZ)				1.204				ND		0.00571

MSD 7-14-11
7/14/11

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM551AC	Prep Batch	1187028	Lot No	H1G050439-001
Data File	/20110713s1/apmkm55.d	Prep Date	07/06/11	SDG No	
Analysis ID	133605	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	05:35	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample)		DL (ng/samp
PCB 39 (BZ)				1.284				ND		0.00536
PCB 38 (BZ)				1.141				ND		0.00603
PCB 35 (BZ)				1.163				ND		0.00591
PCB 37 (BZ)				1.173				ND		0.00586
Total Tetrachlorobiphenyl		82060	12300			0.411418		0.411418	B	0.208
13C12-PCB 54	20:51	1910027	452629	0.600	20.00	21.689043	108.45	21.689043		0.0133
13C12-PCB 52	25:24	2593381	552446	1.000	20.00	20.000000	100.00	20.000000		0.00996
13C12-PCB 79	33:22	1881255	340860	1.070	10.00	11.018388	110.18	11.018388		0.00939
13C12-PCB 81	34:23	3078367	537132	1.312	20.00	18.097922	90.49	18.097922		0.00759
13C12-PCB 77	34:57	3302280	557286	1.357	20.00	18.765478	93.83	18.765478		0.00734
PCB 54 (BZ)				1.233				ND		0.00770
PCB 50 (BZ)				0.921				ND	C	0.00853
PCB 53 (BZ)				0.921				ND	C50	0.00853
PCB 45 (BZ)				0.856				ND	C	0.00918
PCB 51 (BZ)				0.856				ND	C45	0.00918
PCB 46 (BZ)				0.724				ND		0.0109
PCB 52 (BZ)				0.920				ND		0.00854
PCB 73 (BZ)				0.949				ND	C43	0.00828
PCB 43 (BZ)				0.949				ND	C	0.00828
PCB 69 (BZ)				1.077				ND	C49	0.00730
PCB 49 (BZ)				1.077				ND	C	0.00730
PCB 48 (BZ)				0.894				ND		0.00879
PCB 65 (BZ)				0.992				ND	C44	0.00792
PCB 47 (BZ)				0.992				ND	C44	0.00792
PCB 44 (BZ)				0.992				ND	C	0.00792
PCB 62 (BZ)				1.246				ND	C59	0.00631
PCB 75 (BZ)				1.246				ND	C59	0.00631
PCB 59 (BZ)				1.246				ND	C	0.00631
PCB 42 (BZ)				0.872				ND		0.00902
PCB 41 (BZ)				0.887				ND	C40	0.00886
PCB 71 (BZ)				0.887				ND	C40	0.00886
PCB 40 (BZ)				0.887				ND	C	0.00886
PCB 64 (BZ)				1.316				ND		0.00597
PCB 72 (BZ)				1.236				ND		0.00636
PCB 68 (BZ)				1.327				ND		0.00592
PCB 57 (BZ)				1.203				ND		0.00653
PCB 58 (BZ)				1.208				ND		0.00650
PCB 67 (BZ)				1.337				ND		0.00588
PCB 63 (BZ)				1.297				ND		0.00606
PCB 61 (BZ)		77388		1.247		0.389122		0.389122	BC	0.00630
PCB 70 (BZ)	30:14	77388	11392	1.247		0.389122		0.389122	BC61	0.00630
PCB 76 (BZ)		77388		1.247		0.389122		0.389122	BC61	0.00630
PCB 74 (BZ)		77388		1.247		0.389122		0.389122	BC61	0.00630
PCB 66 (BZ)				1.255				ND		0.00626
PCB 55 (BZ)				1.145				ND		0.00686
PCB 56 (BZ)				1.217				ND		0.00646
PCB 60 (BZ)				1.181				ND		0.00665
PCB 80 (BZ)				1.358				ND		0.00579
PCB 79 (BZ)				1.326				ND		0.00593

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM551AC	Prep Batch	1187028	Lot No	H1G050439-001
Data File	/20110713s1/apmkm55.d	Prep Date	07/06/11	SDG No	
Analysis ID	133605	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	05:35	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 78 (BZ)				1.164				ND		0.00675
PCB 81 (BZ)				1.298				ND		0.00617
PCB 77 (BZ)	34:59	4672	908	1.269		0.022297		0.022297	BJ	0.00608
Total Pentachlorobiphenyl		80174	16056			0.411010		0.411010	Q	0.241
13C12-PCB 104	26:20	2260159	488452	1.246	20.00	17.632346	88.16	17.632346		0.0131
13C12-PCB 95	29:20	889430	184766	0.754	10.00	10.443670	104.44	10.443670		0.0175
13C12-PCB 101	32:15	2058054	394496	1.000	20.00	20.000000	100.00	20.000000		0.0163
13C12-PCB 111	34:56	2588645	467418	1.266	20.00	19.862995	99.31	19.862995		0.0129
13C12-PCB 123	36:54	3357648	642749	0.954	20.00	17.261771	86.31	17.261771		0.00908
13C12-PCB 118	37:13	3613634	661160	0.995	20.00	17.819654	89.10	17.819654		0.00871
13C12-PCB 114	37:45	3544706	640988	0.952	20.00	18.269993	91.35	18.269993		0.00910
13C12-PCB 105	38:26	3494721	639410	0.942	20.00	18.208263	91.04	18.208263		0.00920
13C12-PCB 127	39:53	4075868	744601	1.000	20.00	20.000000	100.00	20.000000		0.00866
13C12-PCB 126	41:31	3589938	653867	0.991	20.00	17.772496	88.86	17.772496		0.00874
PCB 104 (BZ)				1.184				ND		0.00700
PCB 96 (BZ)				1.055				ND		0.00786
PCB 103 (BZ)				0.900				ND		0.00921
PCB 94 (BZ)				0.789				ND		0.0105
PCB 95 (BZ)				0.838				ND		0.00989
PCB 100 (BZ)				0.888				ND	C93	0.00933
PCB 93 (BZ)				0.888				ND	C	0.00933
PCB 102 (BZ)				0.917				ND	C98	0.00905
PCB 98 (BZ)				0.917				ND	C	0.00905
PCB 88 (BZ)				0.857				ND	C	0.00968
PCB 91 (BZ)				0.857				ND	C88	0.00968
PCB 84 (BZ)				0.764				ND		0.0109
PCB 89 (BZ)				0.789				ND		0.0105
PCB 121 (BZ)				1.215				ND		0.00682
PCB 92 (BZ)				0.892				ND		0.00930
PCB 113 (BZ)				1.013				ND	C90	0.00819
PCB 90 (BZ)				1.013				ND	C	0.00819
PCB 101 (BZ)				1.013				ND	C90	0.00819
PCB 83 (BZ)				0.868				ND	C	0.00955
PCB 99 (BZ)				0.868				ND	C83	0.00955
PCB 112 (BZ)				1.160				ND		0.00715
PCB 109 (BZ)/108 (IUPAC)				1.030				ND	C86	0.00805
PCB 86 (BZ)				1.030				ND	C	0.00805
PCB 119 (BZ)				1.030				ND	C86	0.00805
PCB 97 (BZ)				1.030				ND	C86	0.00805
PCB 125 (BZ)				1.030				ND	C86	0.00805
PCB 87 (BZ)				1.030				ND	C86	0.00805
PCB 117 (BZ)				1.054				ND	C85	0.00787
PCB 116 (BZ)				1.054				ND	C85	0.00787
PCB 85 (BZ)				1.054				ND	C	0.00787
PCB 110 (BZ)				1.194				ND	C	0.00695
PCB 115 (BZ)				1.194				ND	C110	0.00695
PCB 82 (BZ)				0.730				ND		0.0114
PCB 111 (BZ)				1.260				ND		0.00658
PCB 120 (BZ)				1.225				ND		0.00677

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM551AC	Prep Batch	1187028	Lot No	H1G050439-001
Data File	/20110713s1/apmkm55.d	Prep Date	07/06/11	SDG No	
Analysis ID	133605	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	05:35	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 124 (BZ)		2366		1.029		0.013062		0.013062	QC108J	0.00608
PCB 108 (BZ)/107 (IUPAC)	36:36	2366	538	1.029		0.013062		0.013062	QCJ	0.00608
PCB 107 (BZ)/109 (IUPAC)	36:49	3059	766	1.082		0.016064		0.016064	J	0.00578
PCB 123 (BZ)	36:52	2455	635	1.053		0.013891		0.013891	J	0.00599
PCB 106 (BZ)				1.050				ND		0.00596
PCB 118 (BZ)	37:14	52720	10246	1.087		0.268421		0.268421		0.00564
PCB 122 (BZ)				0.964				ND		0.00649
PCB 114 (BZ)				1.161				ND		0.00544
PCB 105 (BZ)	38:27	19574	4409	1.125		0.099571		0.099571	QJ	0.00563
PCB 127 (BZ)				1.062				ND		0.00589
PCB 126 (BZ)				1.051				ND		0.00590
Total Hexachlorobiphenyl								ND		0.335
13C12-PCB 155	31:57	2178850	434034	1.068	20.00	19.830887	99.15	19.830887		0.0147
13C12-PCB 153	39:03	1468918	283713	0.828	10.00	11.429525	114.30	11.429525		0.0157
13C12-PCB 138	40:19	2448119	467956	1.000	20.00	20.000000	100.00	20.000000		0.0132
13C12-PCB 167	43:19	3190488	592022	1.247	20.00	20.901596	104.51	20.901596		0.0106
13C12-PCB 156	44:29	6435305	791985	1.233	40.00	42.635118	106.59	42.635118		0.0107
13C12-PCB 157								ND		0.000000
13C12-PCB 169	47:44	2795029	520798	1.173	20.00	19.464692	97.32	19.464692		0.0113
PCB 155 (BZ)				1.128				ND		0.00909
PCB 152 (BZ)				1.075				ND		0.00954
PCB 150 (BZ)				1.096				ND		0.00935
PCB 136 (BZ)				1.022				ND		0.0100
PCB 145 (BZ)				1.069				ND		0.00959
PCB 148 (BZ)				0.764				ND		0.0134
PCB 151 (BZ)				0.750				ND	C135	0.0137
PCB 135 (BZ)				0.750				ND	C	0.0137
PCB 154 (BZ)				0.922				ND		0.0111
PCB 144 (BZ)				0.808				ND		0.0127
PCB 147 (BZ)				0.861				ND	C	0.0108
PCB 149 (BZ)				0.861				ND	C147	0.0108
PCB 134 (BZ)				0.717				ND	C	0.0130
PCB 143 (BZ)				0.717				ND	C134	0.0130
PCB 139 (BZ)				0.836				ND	C	0.0112
PCB 140 (BZ)				0.836				ND	C139	0.0112
PCB 131 (BZ)				0.700				ND		0.0133
PCB 142 (BZ)				0.728				ND		0.0128
PCB 132 (BZ)				0.736				ND		0.0127
PCB 133 (BZ)				0.763				ND		0.0122
PCB 165 (BZ)				1.001				ND		0.00934
PCB 146 (BZ)				0.881				ND		0.0106
PCB 161 (BZ)				1.100				ND		0.00849
PCB 153 (BZ)				1.071				ND	C	0.00872
PCB 168 (BZ)				1.071				ND	C153	0.00872
PCB 141 (BZ)				0.803				ND		0.0116
PCB 130 (BZ)				0.717				ND		0.0130
PCB 137 (BZ)				0.832				ND		0.0112
PCB 164 (BZ)				1.052				ND		0.00889
PCB 138 (BZ)				0.926				ND	C129	0.0101

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM551AC	Prep Batch	1187028	Lot No	H1G050439-001
Data File	/20110713s1/apmkm55.d	Prep Date	07/06/11	SDG No	
Analysis ID	133605	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	05:35	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 163 (BZ)				0.926				ND	C129	0.0101
PCB 129 (BZ)				0.926				ND	C	0.0101
PCB 160 (BZ)				0.926				ND	C129	0.0101
PCB 158 (BZ)				1.174				ND		0.00796
PCB 166 (BZ)				0.958				ND	C128	0.00976
PCB 128 (BZ)				0.958				ND	C	0.00976
PCB 159 (BZ)				1.095				ND		0.00854
PCB 162 (BZ)				1.108				ND		0.00843
PCB 167 (BZ)				1.126				ND		0.00668
PCB 156 (BZ)				1.130				ND	C	0.00995
PCB 157 (BZ)				1.130				ND	C156	0.00995
PCB 169 (BZ)				1.243				ND		0.00687
Total Heptachlorobiphenyl		7034				0.055576		0.055576	J	0.183
13C12-PCB 188	37:41	2604728	492607	1.217	20.00	20.134436	100.67	20.134436		0.0118
13C12-PCB 178	40:44	1687296	322394	0.881	20.00	18.020265	90.10	18.020265		0.0163
13C12-PCB 180	45:50	2125762	401223	1.000	20.00	20.000000	100.00	20.000000		0.0143
13C12-PCB 170	47:06	1783351	329447	0.828	20.00	20.259482	101.30	20.259482		0.0173
13C12-PCB 189	50:12	3592864	635995	1.588	20.00	20.983727	104.92	20.983727		0.00926
PCB 188 (BZ)				1.111				ND		0.00704
PCB 179 (BZ)				1.220				ND		0.00768
PCB 184 (BZ)				1.188				ND		0.00789
PCB 176 (BZ)				1.286				ND		0.00728
PCB 186 (BZ)				1.223				ND		0.00766
PCB 178 (BZ)				0.906				ND		0.0103
PCB 175 (BZ)				0.980				ND		0.00956
PCB 187 (BZ)				1.054				ND		0.00889
PCB 182 (BZ)				1.009				ND		0.00929
PCB 183 (BZ)				0.987				ND	C	0.00949
PCB 185 (BZ)				0.987				ND	C183	0.00949
PCB 174 (BZ)				0.941				ND		0.00996
PCB 177 (BZ)				0.918				ND		0.0102
PCB 181 (BZ)				0.980				ND		0.00956
PCB 171 (BZ)				0.872				ND	C	0.0107
PCB 173 (BZ)				0.872				ND	C171	0.0107
PCB 172 (BZ)				0.881				ND		0.0106
PCB 192 (BZ)				1.152				ND		0.00813
PCB 193 (BZ)	45:50	7034	1490	1.154		0.055576		0.055576	C180J	0.00812
PCB 180 (BZ)		7034		1.154		0.055576		0.055576	CJ	0.00812
PCB 191 (BZ)				1.287				ND		0.00728
PCB 170 (BZ)				1.102				ND		0.0106
PCB 190 (BZ)				1.265				ND		0.00740
PCB 189 (BZ)				1.073				ND		0.00564
Total Octachlorobiphenyl								ND		0.121
13C12-PCB 202	43:02	2086720	417627	0.907	20.00	21.638751	108.19	21.638751		0.0146
13C12-PCB 194	52:16	2156159	391088	1.000	20.00	20.000000	100.00	20.000000		0.0136
13C12-PCB 205	52:44	3184453	591400	1.395	20.00	21.179690	105.90	21.179690		0.00972
PCB 202 (BZ)				1.007				ND		0.0111
PCB 200 (BZ)/201 (IUPAC)				1.134				ND		0.00982
PCB 204 (BZ)				1.034				ND		0.0108

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM551AC	Prep Batch	1187028	Lot No	H1G050439-001
Data File	/20110713s1/apmkm55.d	Prep Date	07/06/11	SDG No	
Analysis ID	133605	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	05:35	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 197 (BZ)				1.075				ND		0.0104
PCB 199 (BZ)/200 (IUPAC)				1.095				ND		0.0102
PCB 198 (BZ)				0.775				ND	C	0.0144
PCB 201 (BZ)/199 (IUPAC)				0.775				ND	C198	0.0144
PCB 196 (BZ)				0.800				ND		0.0139
PCB 203 (BZ)				0.868				ND		0.0128
PCB 195 (BZ)				0.765				ND		0.0103
PCB 194 (BZ)				0.830				ND		0.00947
PCB 205 (BZ)				0.986				ND		0.00797
Total Nonachlorobiphenyl		5381	1269			0.052939		0.052939	QJ	0.0329
13C12-PCB 208	49:40	2435304	465294	1.155	20.00	19.556309	97.78	19.556309		0.0113
13C12-PCB 206	54:26	1826311	341334	0.808	20.00	20.973185	104.87	20.973185		0.0161
PCB 208 (BZ)				1.035				ND		0.0103
PCB 207 (BZ)				1.276				ND		0.00962
PCB 206 (BZ)	54:28	5381	1269	1.113		0.052939		0.052939	QJ	0.0130
13C12-PCB 209	56:01	1704969	307013	0.857	20.00	18.445863	92.23	18.445863		0.0197
PCB 209 (BZ)	56:03	34459	6703	1.052		0.384173		0.384173		0.0159

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM551AC	Prep Batch	1187028	Lot No	H1G050439-001
Data File	/20110713s1/apmkm55.d	Prep Date	07/06/11	SDG No	
Analysis ID	133605	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	07/14/11 05:35	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	138	148	55	59	0.93 *	/	
	PCB 1 (BZ)	12:08	12:09	-1	40491	13857	15278	4697	2.92	ABV/ABB	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	173	693	69	277	0.25 *	/	
	13C12-PCB 1	12:08	12:09	-1	2422695	776151	871249	270661	3.12	ABV/ABV	
	13C12-PCB 3	14:20	14:21	-1	2750201	830619	797779	243831	3.31	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	215	423	86	169	0.51 *	/	
	PCB 11 (BZ)	19:57	19:56	1	217717	136192	50597	29474	1.60	AVV/AVV	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	255	160	102	64	1.59	/	
	13C12-PCB 4	14:36	14:37	-1	1037086	632828	335412	202024	1.64	ABV/ABV	
	13C12-PCB 9	16:34	16:34	0	2205120	1327875	582771	361129	1.66	AVV/ABV	
	13C12-PCB 8	17:26	17:26	0	1060323	633946	268960	163819	1.67	AVV/AVV	
	13C12-PCB 15	20:34	20:32	2	1914340	1167888	423925	263448	1.64	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	130	103	52	41	1.27 *	/	
	PCB 28 (BZ)	23:37	23:35	2	45133	43418	8868	9335	1.04	AVV/ABV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	498	333	199	133	1.50 *	/	
	13C12-PCB 19	17:45	17:45	0	710369	661829	174154	164798	1.07	AVV/AVV	
	13C12-PCB 32	21:00	21:01	-1	1501832	1433305	344535	342701	1.05	AVV/ABV	
	13C12-PCB 31	23:17	23:17	0	2491211	2360743	518382	500881	1.06	ABV/ABV	
	13C12-PCB 28	23:35	23:34	1	2069264	2005629	450991	436564	1.03	AVB/AVB	
	13C12-PCB 37	27:39	27:35	4	1948833	1784837	358338	317513	1.09	ABV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	98	118	39	47	0.83	/	
	PCB 70 (BZ)	30:14	30:12	2	33666	43722	4851	6541	0.77	AVV/ABV	
	PCB 77 (BZ)	34:59	34:54	5	1866	2806	392	516	0.67	ABB/ABB	M
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	133	143	53	57	0.93 *	/	
	13C12-PCB 54	20:51	20:52	-1	835591	1074436	197978	254651	0.78	ABV/ABV	
	13C12-PCB 52	25:24	25:25	-1	1145293	1448088	246554	305892	0.79	ABV/ABV	
	13C12-PCB 79	33:22	33:19	3	819295	1061960	146099	194761	0.77	ABV/ABV	
	13C12-PCB 81	34:23	34:19	4	1357089	1721278	232664	304468	0.79	ABV/ABV	
	13C12-PCB 77	34:57	34:53	4	1456037	1846243	241702	315584	0.79	AVV/AVV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	103	100	41	40	1.03 *	/	
	PCB 108 (BZ)/107 (IUPAC	36:36	36:32	4	1438	1424	327	285	1.01 *	ABB/MVB	R
	PCB 107 (BZ)/109 (IUPAC	36:49	36:48	1	1831	1228	535	231	1.49	ABV/ABV	DM
	PCB 123 (BZ)	36:52	36:54	-2	1531	924	355	280	1.66	AVB/AVB	M
	PCB 118 (BZ)	37:14	37:13	1	32490	20230	6385	3861	1.61	ABB/ABB	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM551AC	Prep Batch	1187028	Lot No	H1G050439-001
Data File	/20110713s1/apmkm55.d	Prep Date	07/06/11	SDG No	
Analysis ID	133605	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	07/14/11 05:35	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	PCB 105 (BZ)	38:27	38:25	2	15669	7676	3423	1729	2.04 *	ABB/ABB	R
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	178	145	71	58	1.22 *	/	
	13C12-PCB 104	26:20	26:22	-2	1403234	856925	300631	187821	1.64	ABV/ABV	
	13C12-PCB 95	29:20	29:19	1	546577	342853	110270	74496	1.59	ABV/ABV	
	13C12-PCB 101	32:15	32:14	1	1278464	779590	243903	150593	1.64	ABV/AVV	
	13C12-PCB 111	34:56	34:54	2	1606565	982080	287639	179779	1.64	ABV/ABV	
	13C12-PCB 123	36:54	36:53	1	2068961	1288687	393059	249690	1.61	ABV/ABV	
	13C12-PCB 118	37:13	37:11	2	2248101	1365533	410310	250850	1.65	AVV/AVV	
	13C12-PCB 114	37:45	37:43	2	2193178	1351528	396824	244164	1.62	AVV/AVV	
	13C12-PCB 105	38:26	38:23	3	2157855	1336866	392071	247339	1.61	ABV/ABB	
	13C12-PCB 127	39:53	39:49	4	2512512	1563356	460359	284242	1.61	ABV/ABV	
	13C12-PCB 126	41:31	41:27	4	2209660	1380278	401017	252850	1.60	ABV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	113	110	45	44	1.02 *	/	
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	153	158	61	63	0.97 *	/	
	13C12-PCB 155	31:57	31:59	-2	1226546	952304	240419	193615	1.29	ABV/ABV	
	13C12-PCB 153	39:03	39:03	0	831011	637907	161900	121813	1.30	ABV/ABV	
	13C12-PCB 138	40:19	40:18	1	1383109	1065010	267999	199957	1.30	ABV/ABV	
	13C12-PCB 167	43:19	43:17	2	1797714	1392774	327823	264199	1.29	AVV/AVV	
	13C12-PCB 156	44:29	44:27	2	3631279	2804026	447285	344700	1.30	ABV/AVV	
	13C12-PCB 169	47:44	47:40	4	1584755	1210274	300185	220613	1.31	ABV/ABV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	100	93	40	37	1.08	/	
	PCB 193 (BZ)	45:50	45:47	3	3564	3470	807	683	1.03	ABB/ABV	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	143	145	57	58	0.98	/	
	13C12-PCB 188	37:41	37:42	-1	1353816	1250912	256288	236319	1.08	ABV/ABV	
	13C12-PCB 178	40:44	40:45	-1	868153	819143	166922	155472	1.06	ABV/ABV	
	13C12-PCB 180	45:50	45:49	1	1102852	1022910	202062	199161	1.08	ABV/ABV	
	13C12-PCB 170	47:06	47:05	1	929997	853354	172722	156725	1.09	ABV/ABV	
	13C12-PCB 189	50:12	50:10	2	1841944	1750920	323259	312736	1.05	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	115	118	46	47	0.98	/	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	133	133	53	53	1.00	/	
	13C12-PCB 202	43:02	43:02	0	995841	1090879	197083	220544	0.91	ABV/ABV	
	13C12-PCB 194	52:16	52:16	0	1022988	1133171	186240	204848	0.90	ABV/ABV	
	13C12-PCB 205	52:44	52:43	1	1516440	1668013	280650	310750	0.91	ABV/AVV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	115	133	46	53	0.87	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM551AC	Prep Batch	1187028	Lot No	H1G050439-001
Data File	/20110713s1/apmkm55.d	Prep Date	07/06/11	SDG No	
Analysis ID	133605	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	07/14/11 05:35	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	PCB 206 (BZ)	54:28	54:27	1	2341	3646	552	794	0.64 *	AVB/AVV	R
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89		
	Noise	00:00	00:00	0	130	125	52	50	1.04 *	/	
	13C12-PCB 208	49:40	49:41	-1	1084698	1350606	206305	258989	0.80	ABV/ABV	
	13C12-PCB 206	54:26	54:27	-1	804263	1022048	150245	191089	0.79	ABV/ABV	
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79		
	Noise	00:00	00:00	0	125	133	50	53	0.94 *	/	
	PCB 209 (BZ)	56:03	56:05	-2	12724	21735	2699	4004	0.59	ABB/ABB	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79		
	Noise	00:00	00:00	0	190	140	76	56	1.36 *	/	
	13C12-PCB 209	56:01	56:04	-3	712646	992323	129298	177715	0.72	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: apmkm55 14-Jul-11 Elapse: 56:04 2549
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Lg 7-14-11 ht
Cdr
QC: CWK 7-14-11
Rev MSD 7-14-11

m/z:188>510, \268.98, \280.98.\342.98, \380.98, \404.98, \430.97, \504.97

E+06
1.174

Wtto List

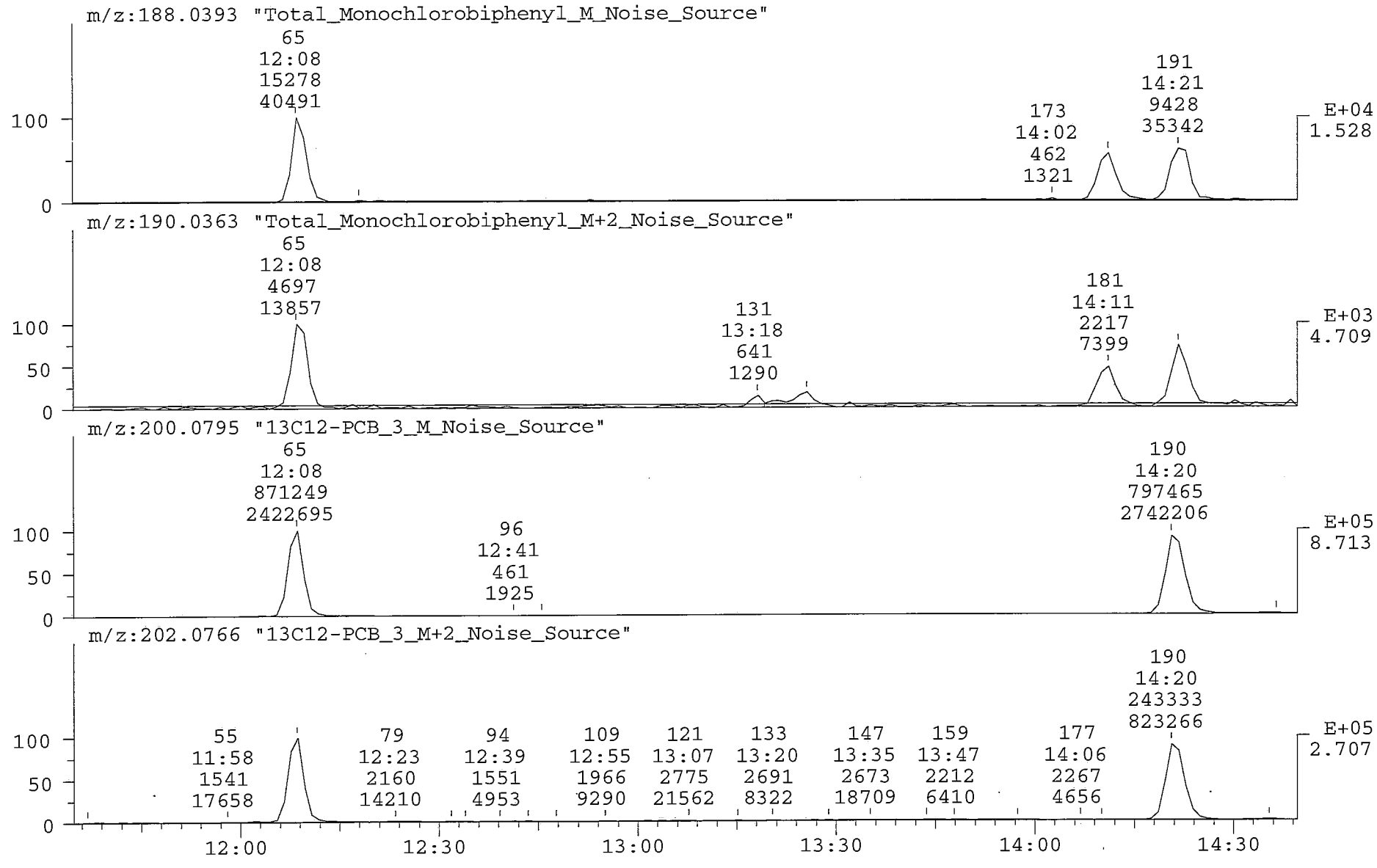
100
80
60
40
20
0

16:00 24:00 32:00 40:00 48:00 56:00

H-977

976

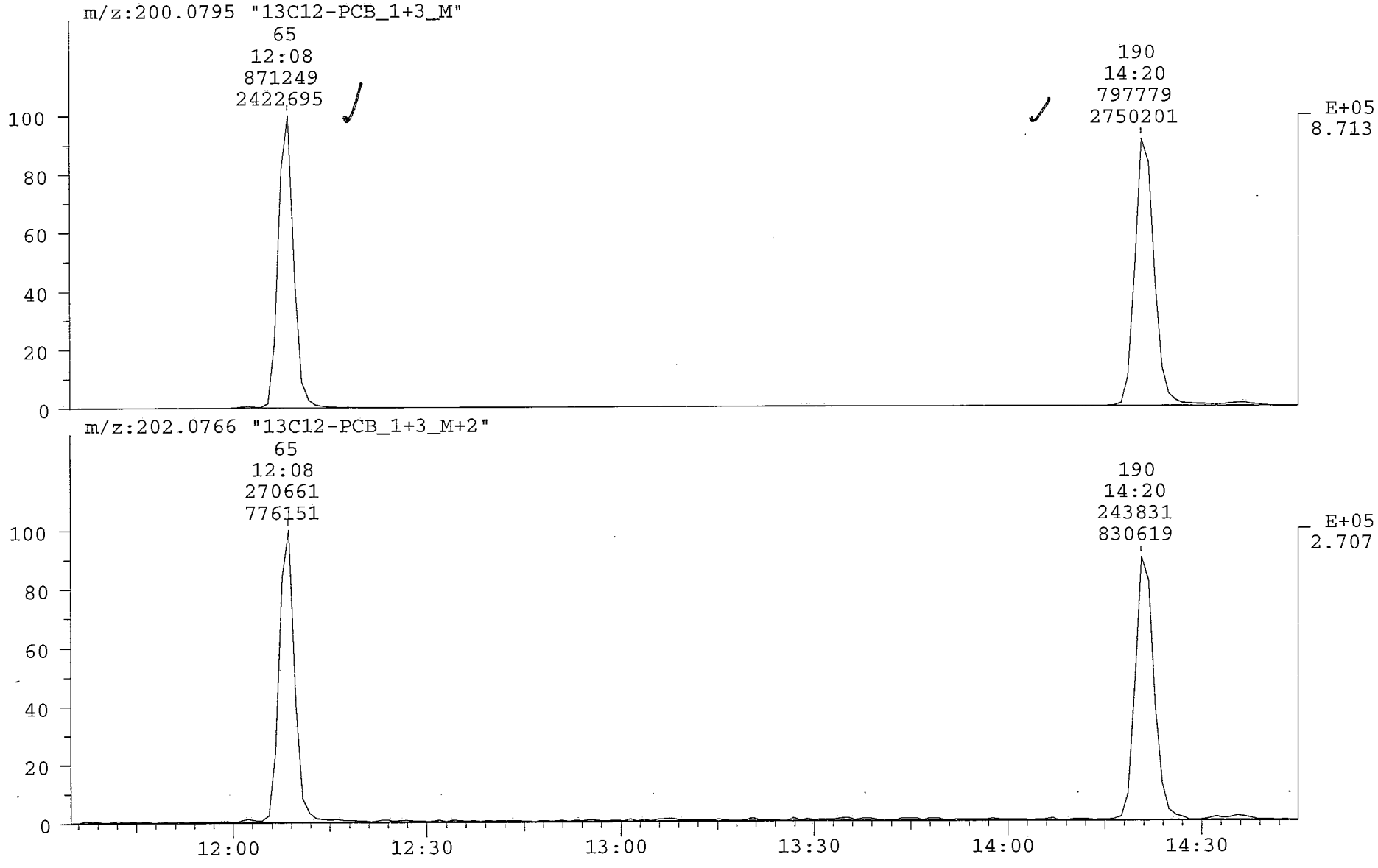
CHRO: apmkm55 14-Jul-11 Elapse: 13:20.4 133
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-978

977

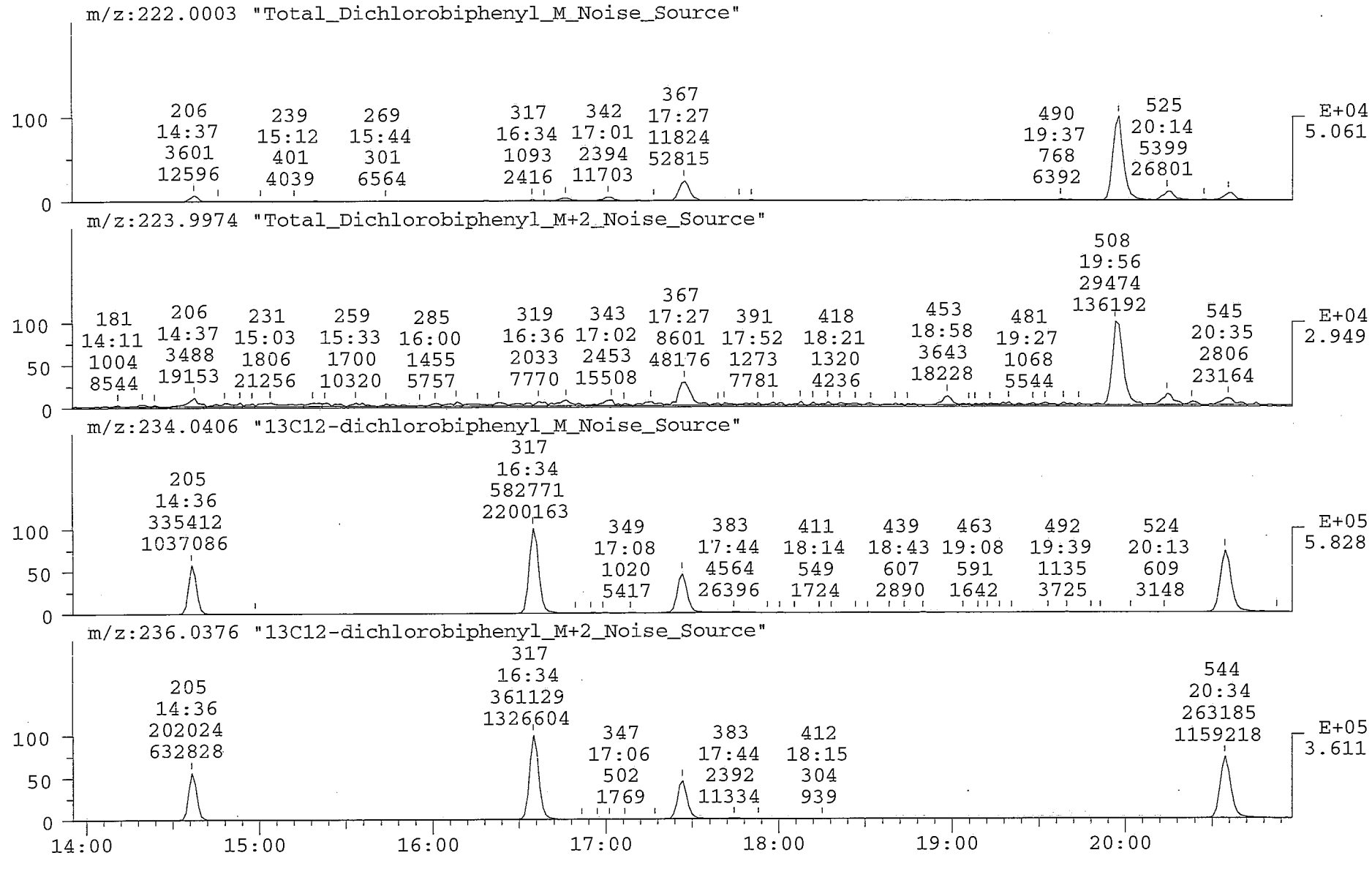
CHRO: apmkm55 14-Jul-11 Elapse: 13:20.4 133
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 33 > 213 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-979

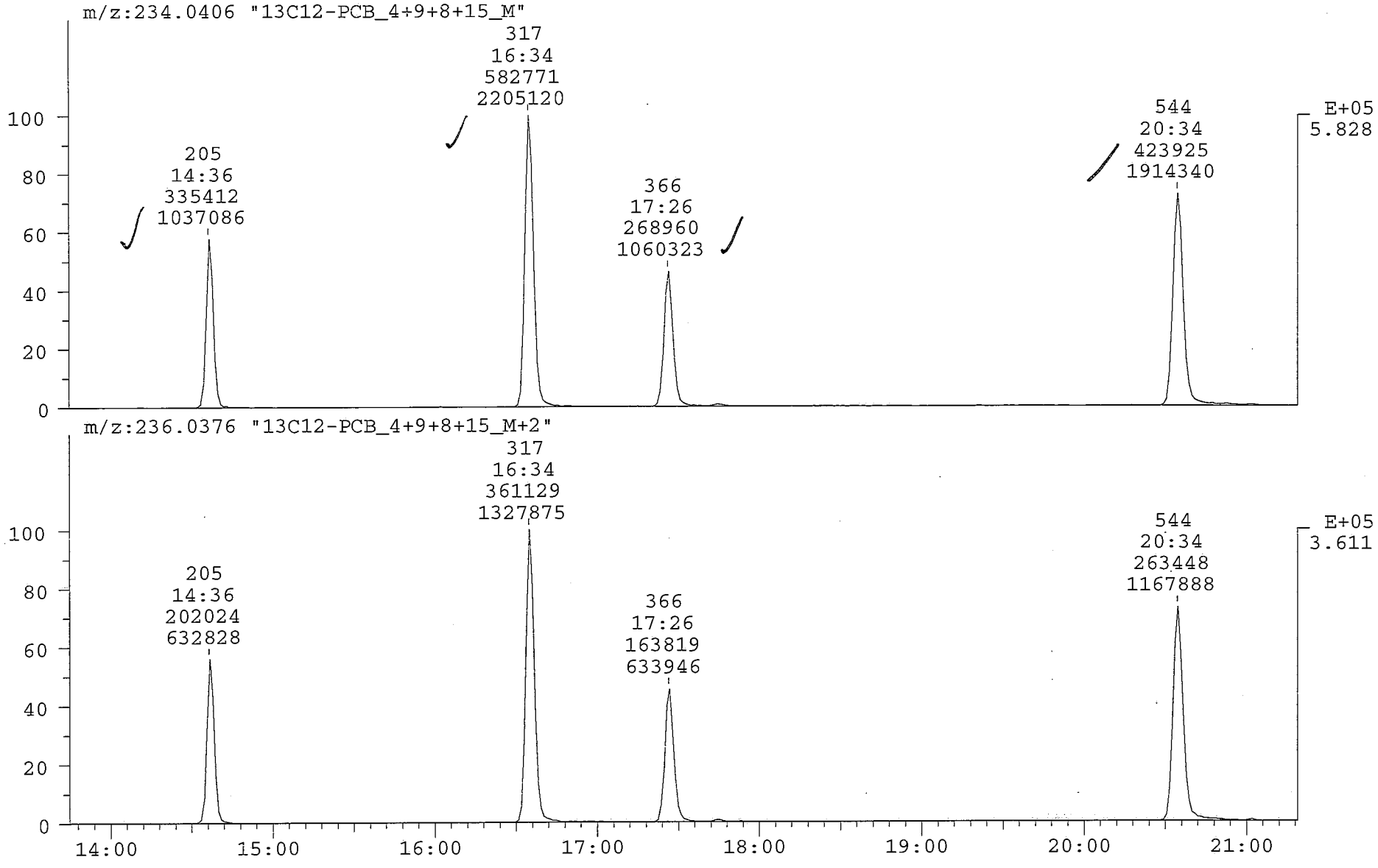
978

CHRO: apmkm55 14-Jul-11 Elapse: 17:26.5 366
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-980

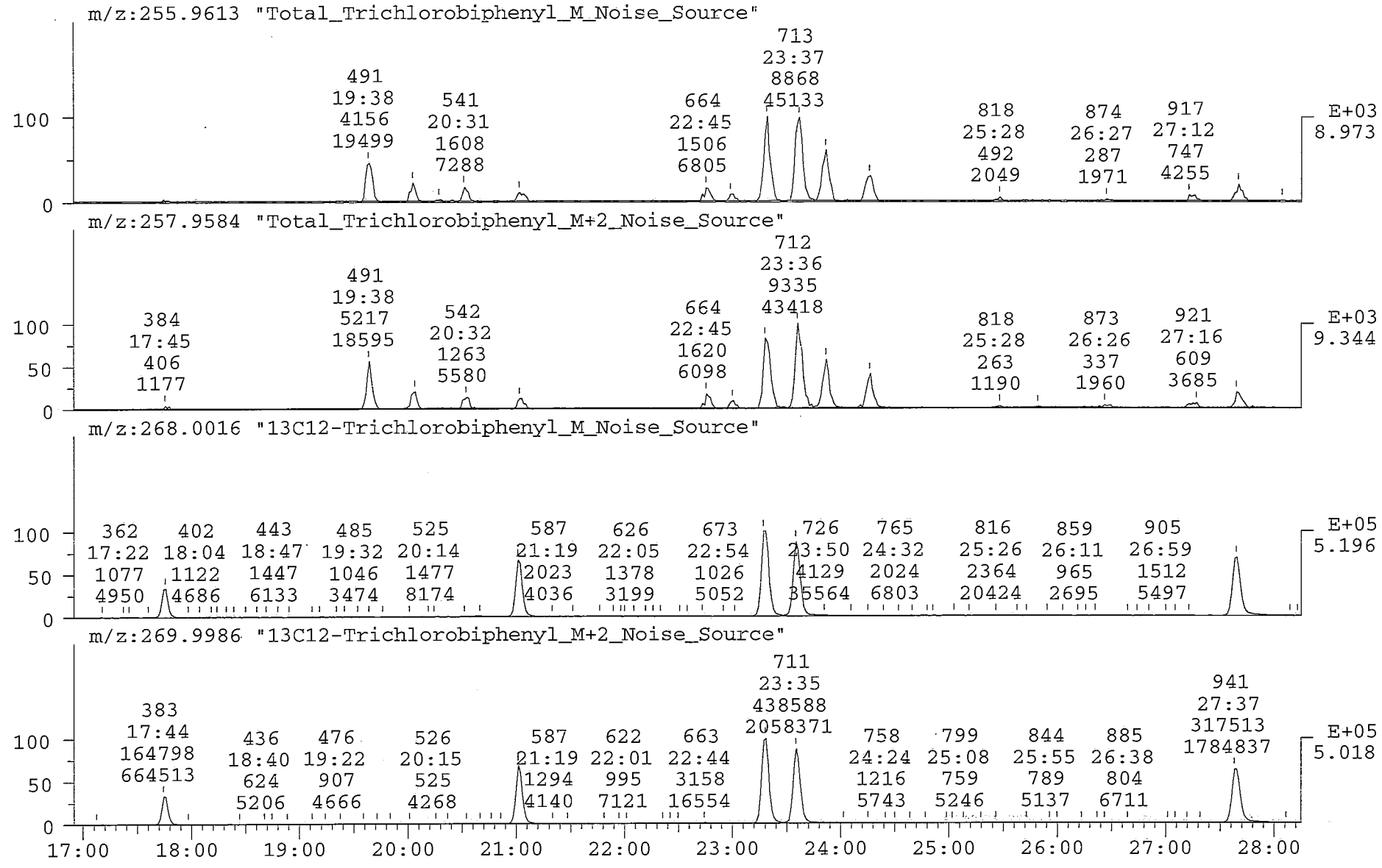
CHRO: apmkm55 14-Jul-11 Elapse: 17:26.5 366
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-981

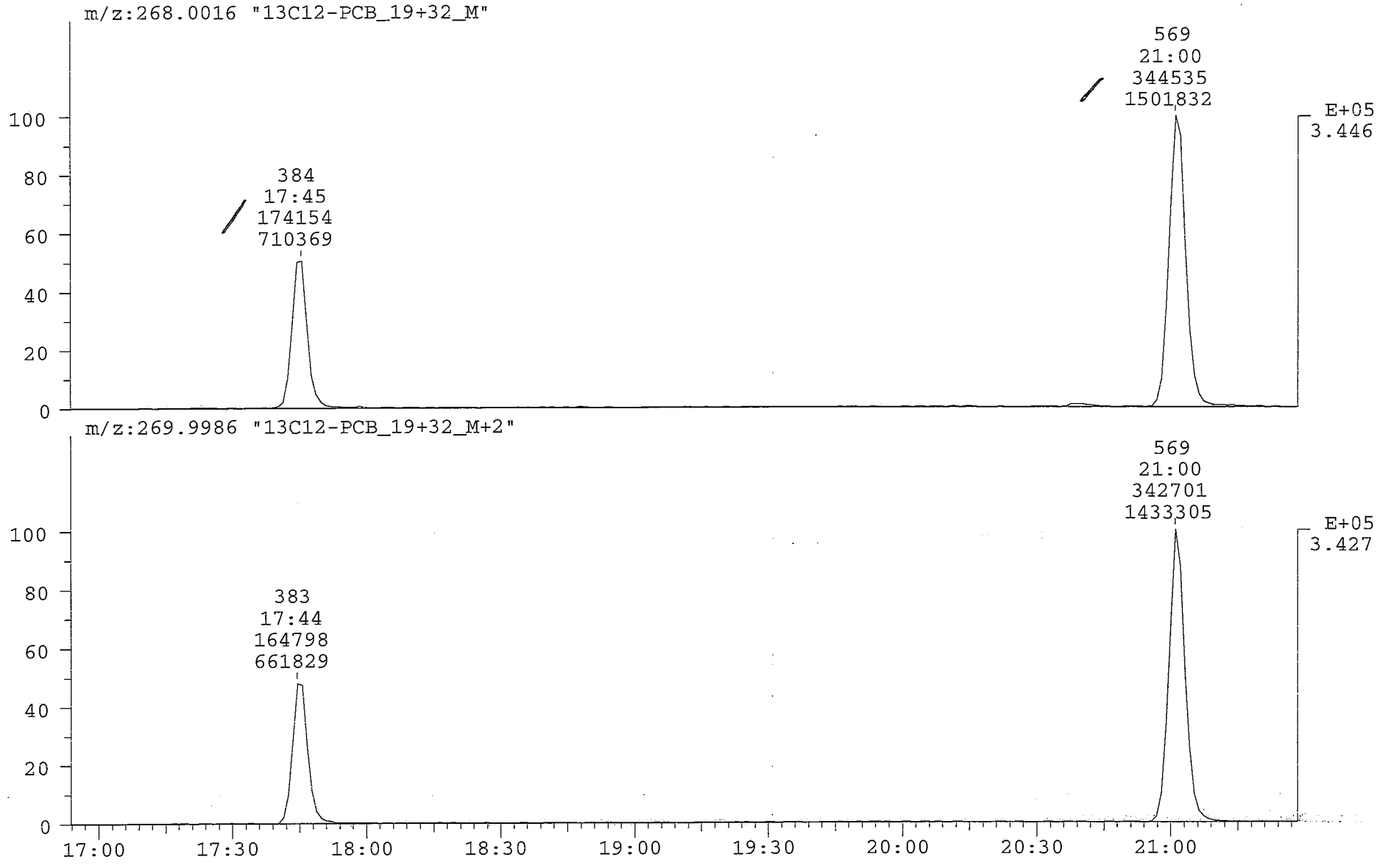
980

CHRO: apmkm55 14-Jul-11 Elapse: 22:37.0 656
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



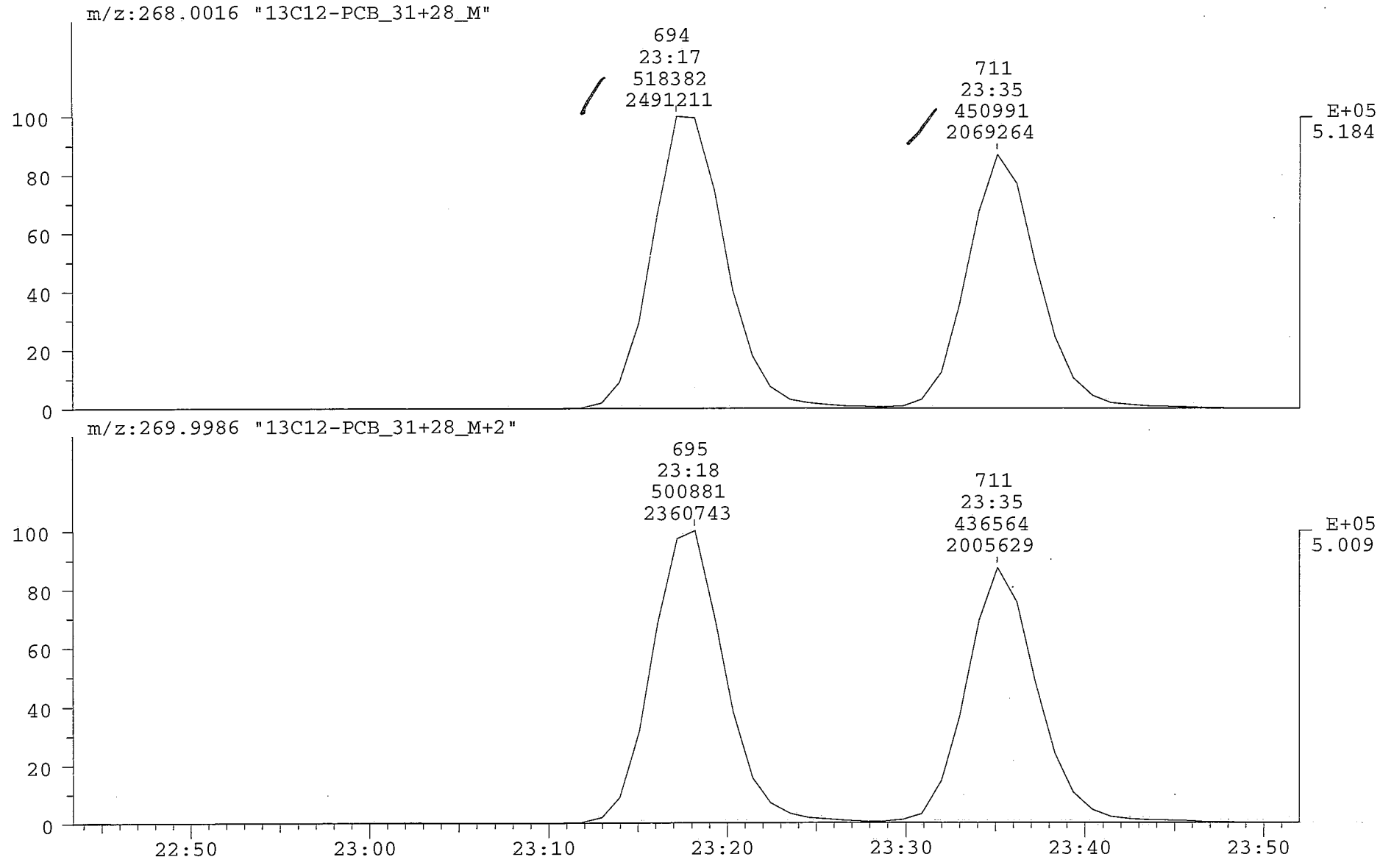
H-982

CHRO: apmkm55 14-Jul-11 Elapse: 19:00.5 455
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 335 > 595 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



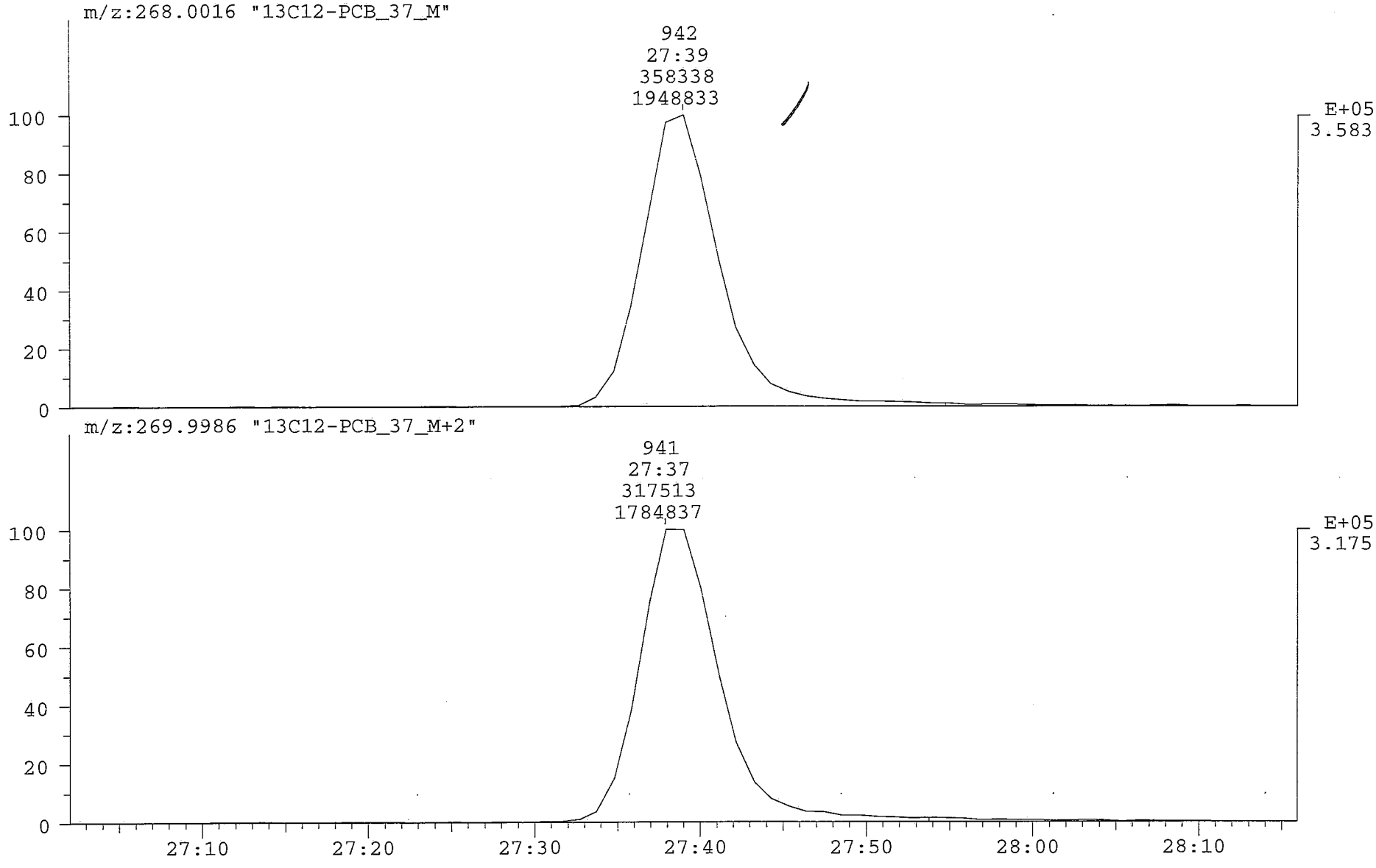
H-983

CHRO: apmkm55 14-Jul-11 Elapse: 23:09.7 687
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



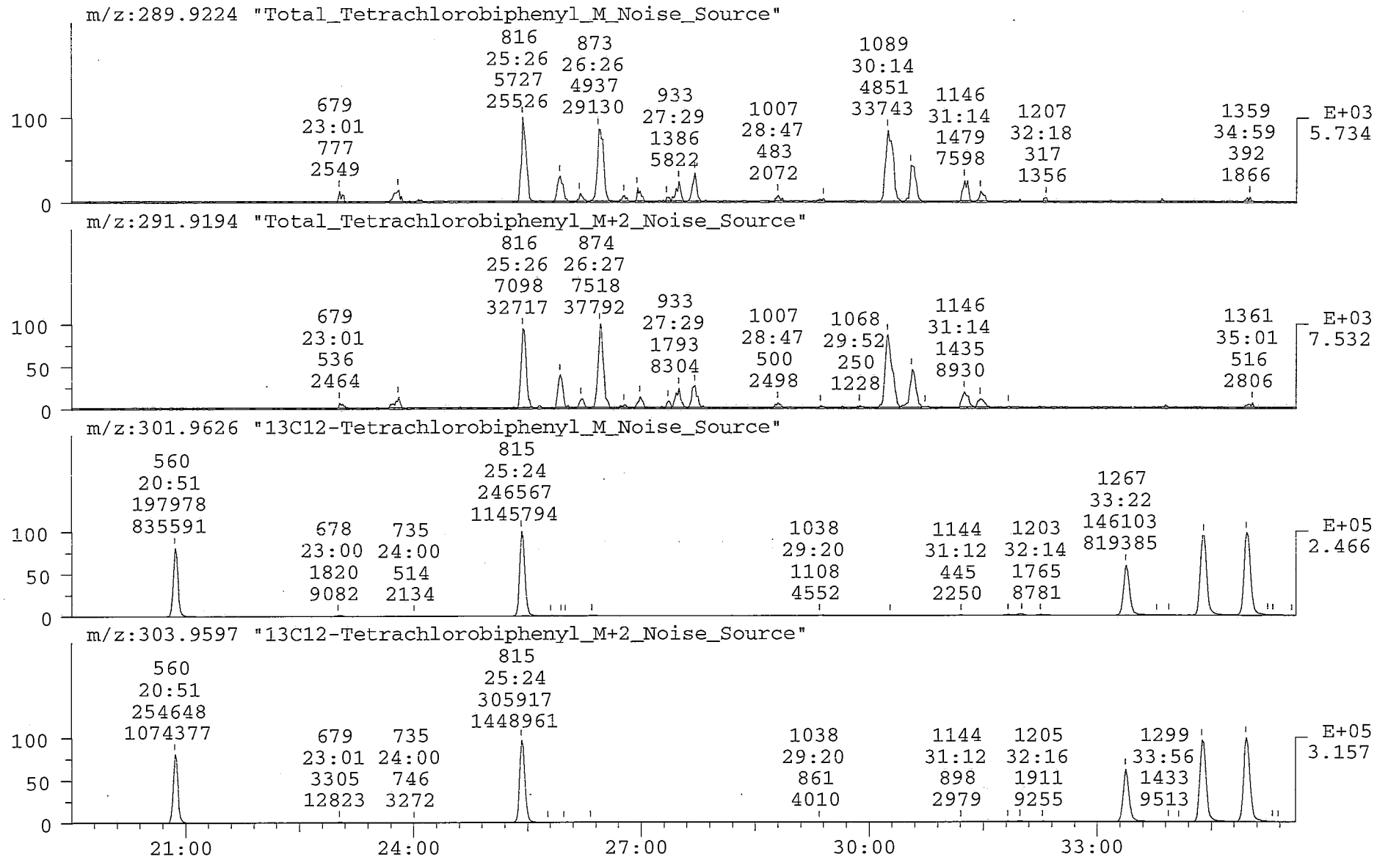
H-984

CHRO: apmkm55 14-Jul-11 Elapse: 27:28.4 932
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 907 > 977 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



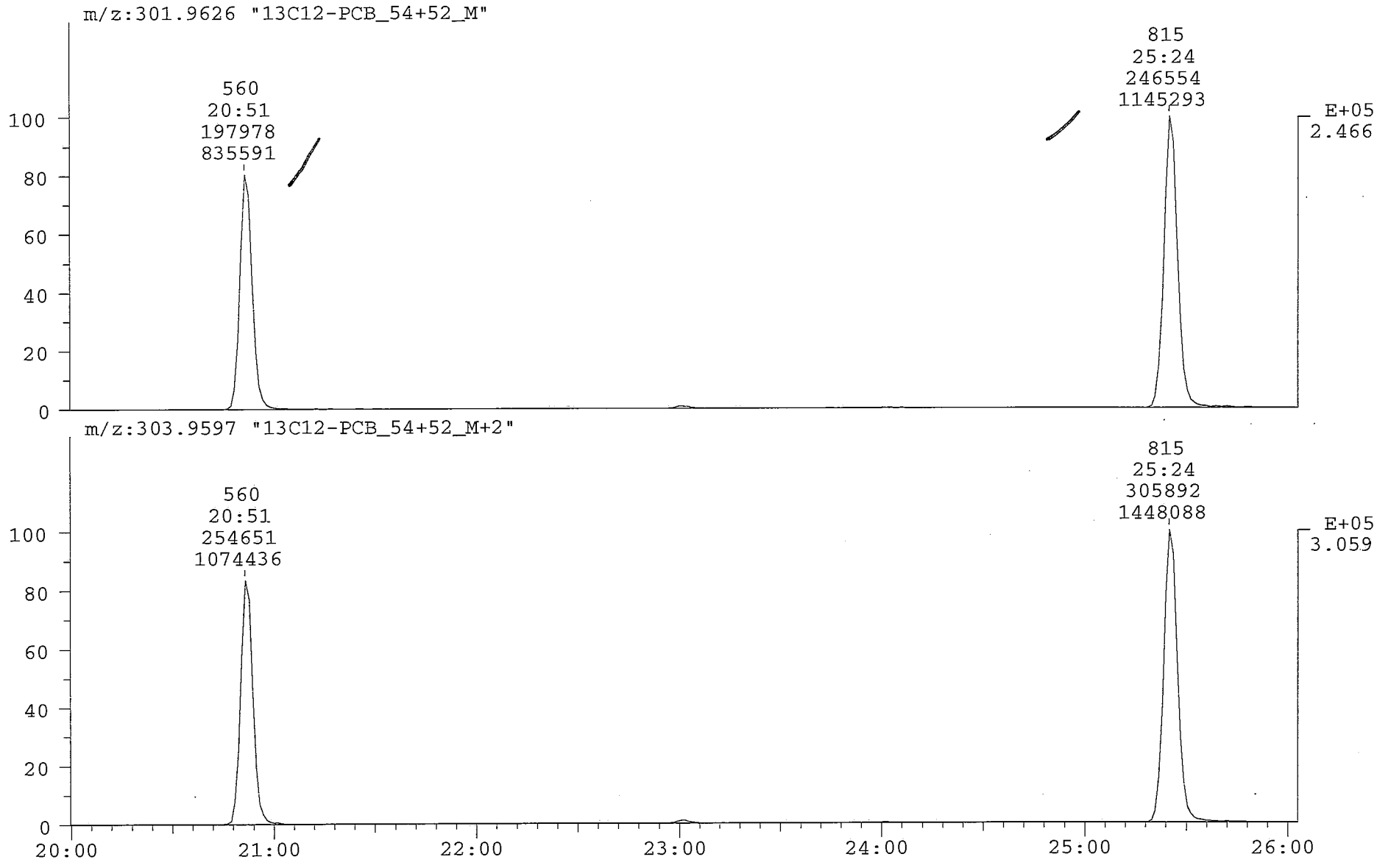
H-985

CHRO: apmkm55 14-Jul-11 Elapse: 27:36.9 940
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 483 > 1394 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-986

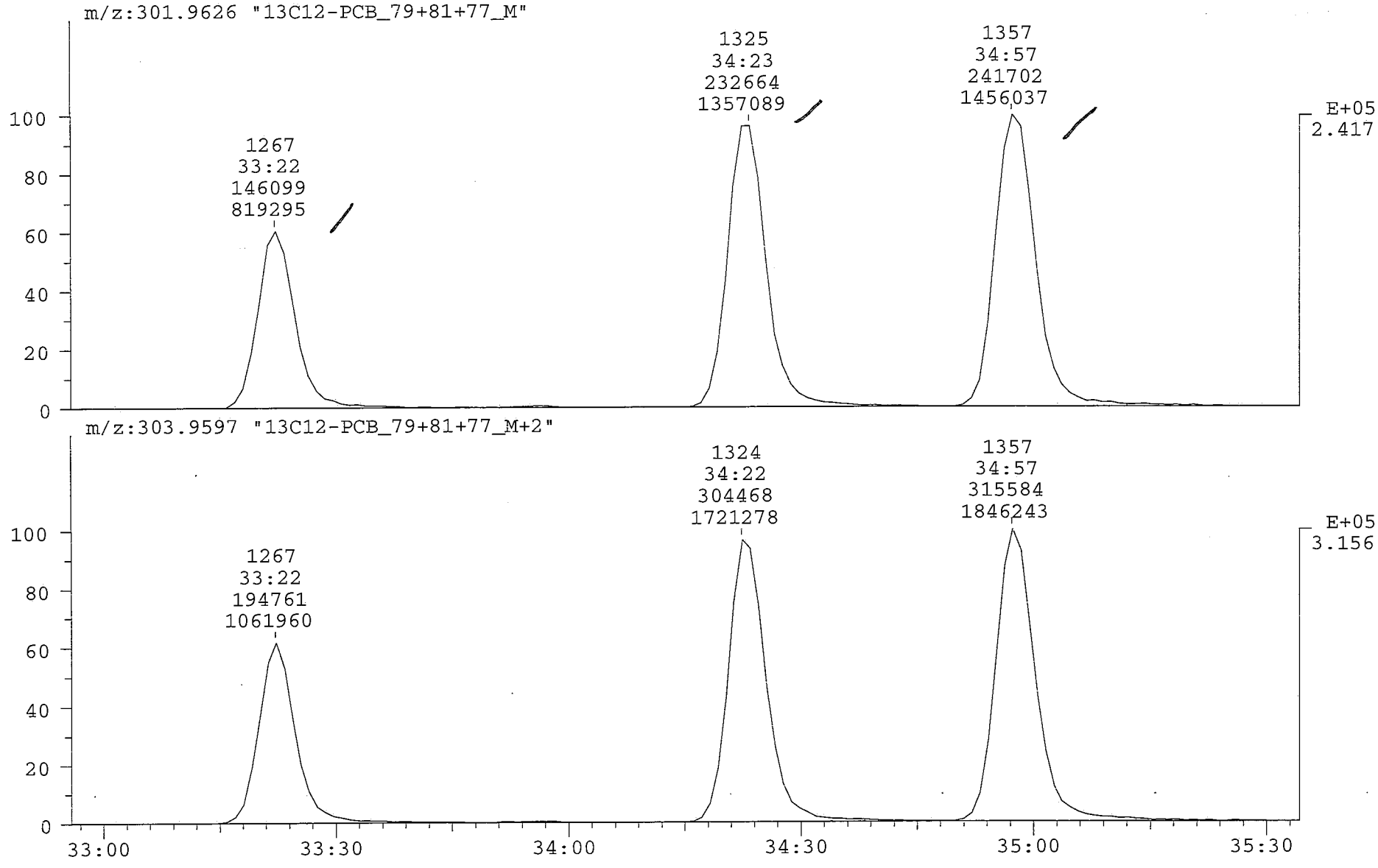
CHRO: apmkm55 14-Jul-11 Elapse: 23:03.4 681
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 511 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-987

986

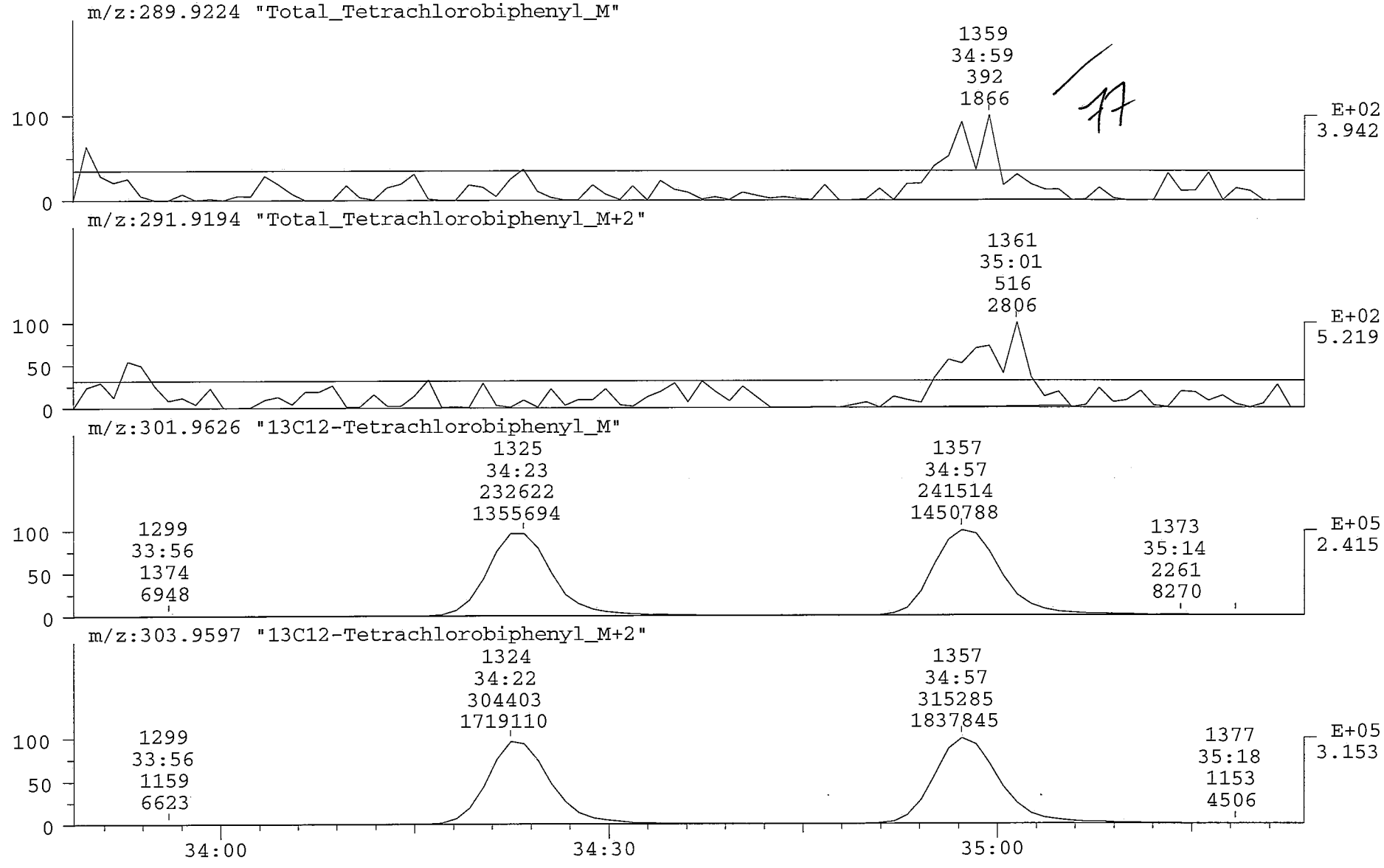
CHRO: apmkm55 14-Jul-11 Elapse: 33:59 1302
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1242 > 1392 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-988

987

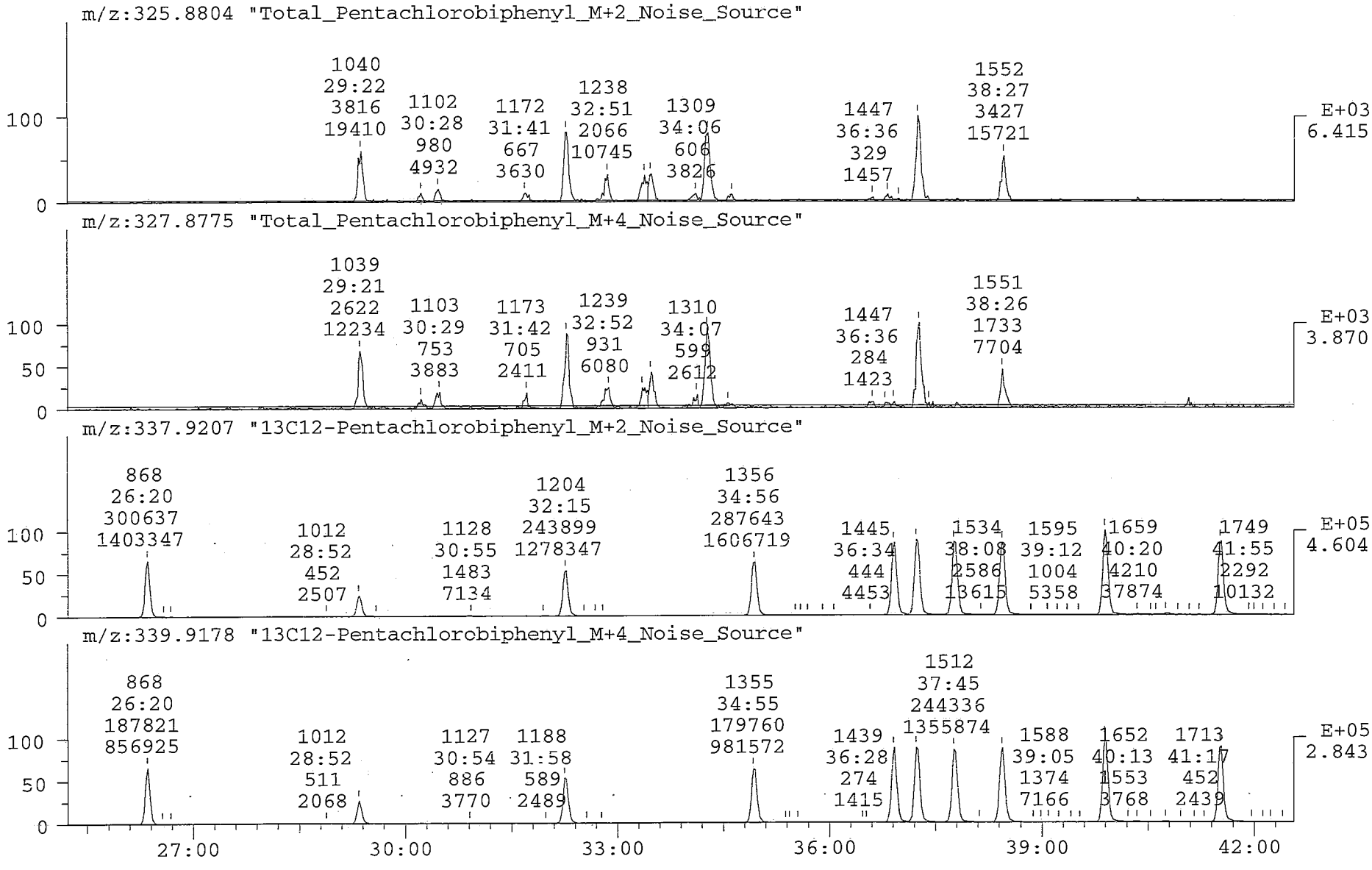
CHRO: apmkm55 14-Jul-11 Elapse: 46:16 1996
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1292 > 1382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-989

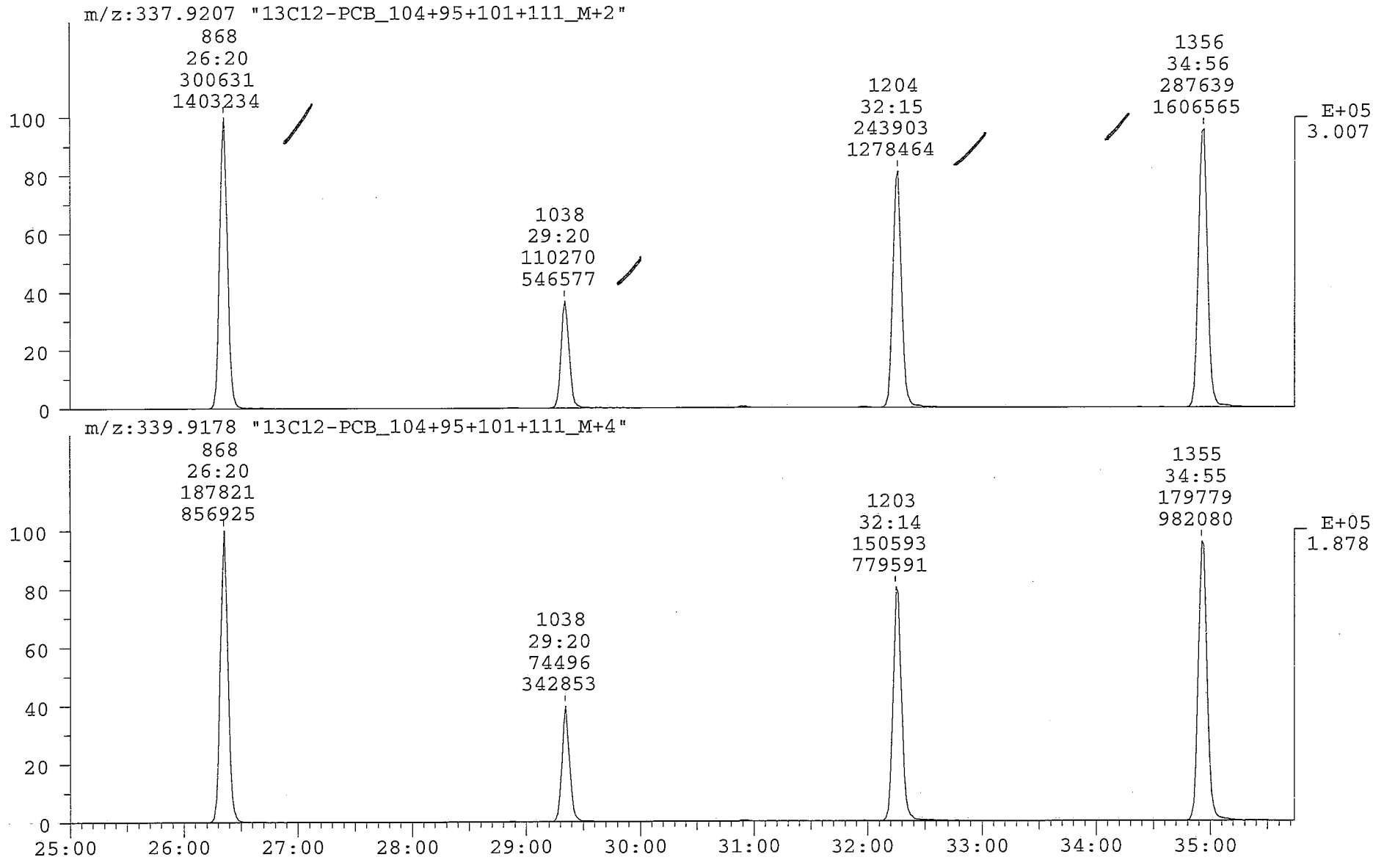
988

CHRO: apmkm55 14-Jul-11 Elapse: 33:52 1296
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 804 > 1785 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-990

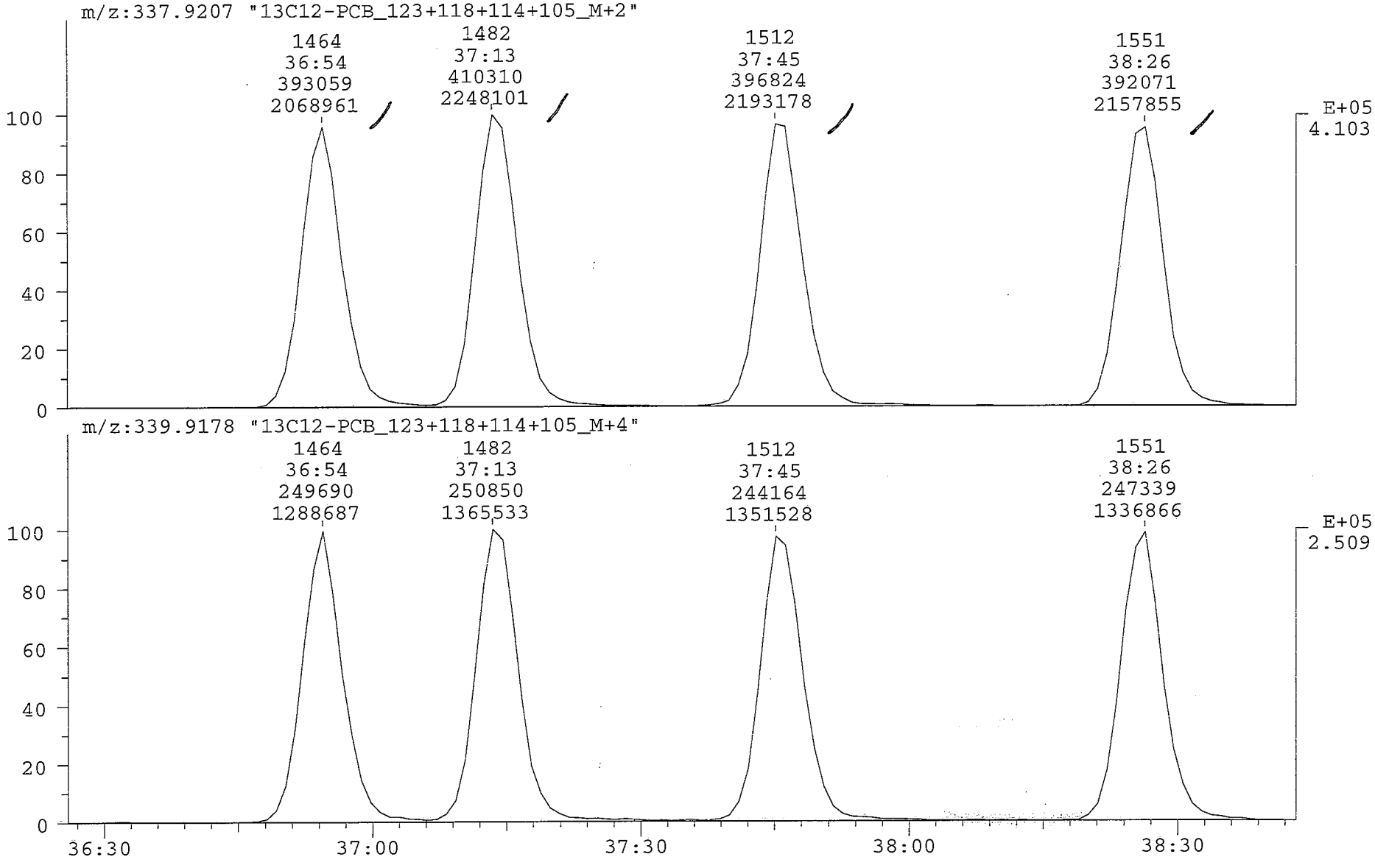
CHRO: apmkm55 14-Jul-11 Elapse: 30:21 1096
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 791 > 1401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-991

990

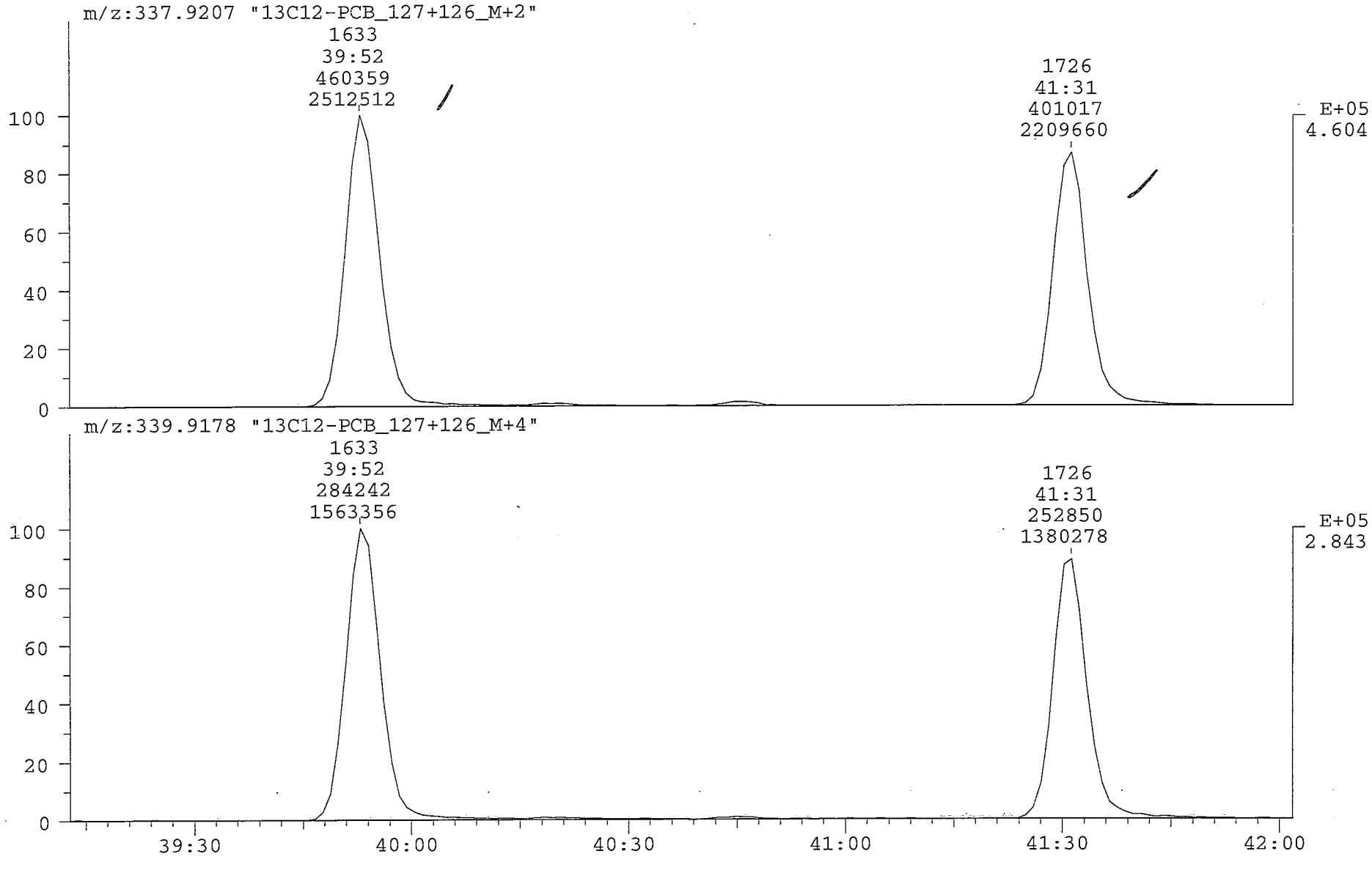
CHRO: apmkm55 14-Jul-11 Elapse: 37:34 1502
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1437 > 1567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-992

991

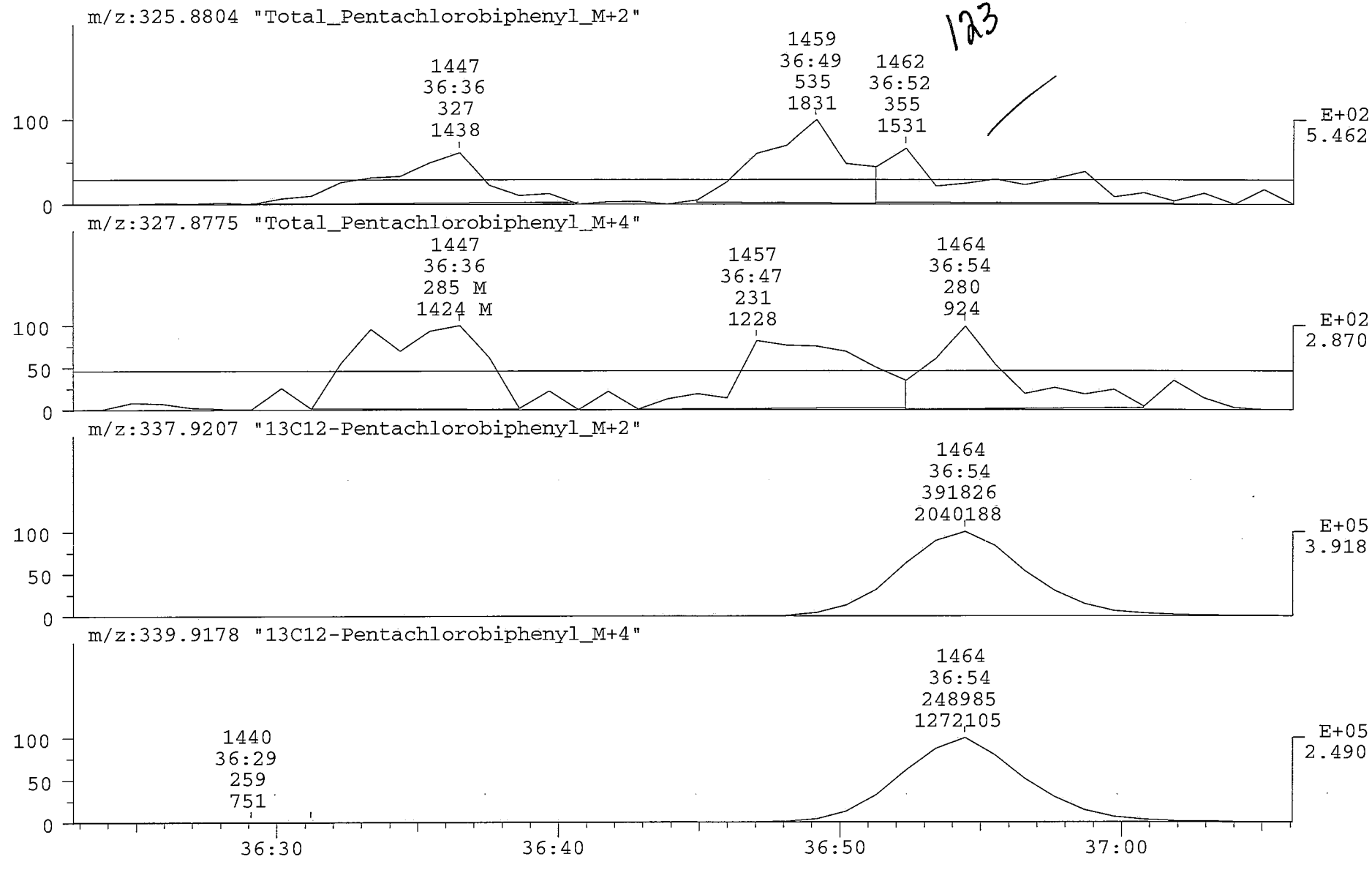
CHRO: apmkm55 14-Jul-11 Elapse: 40:37 1675
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1595 > 1755 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-993

992

CHRO: apmkm55 14-Jul-11 Elapse: 46:16 1996
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1434 > 1475 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area

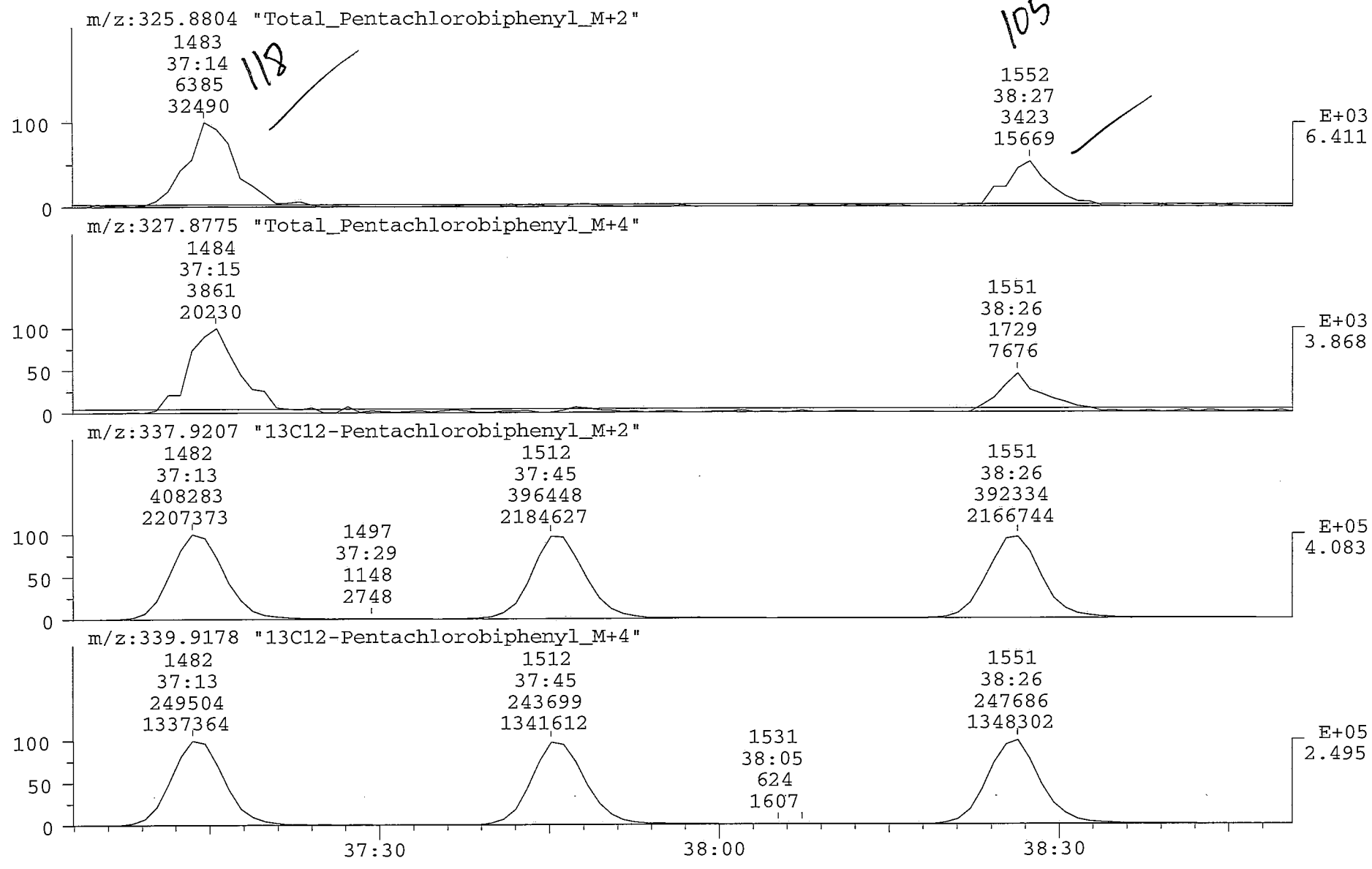


123

H-994

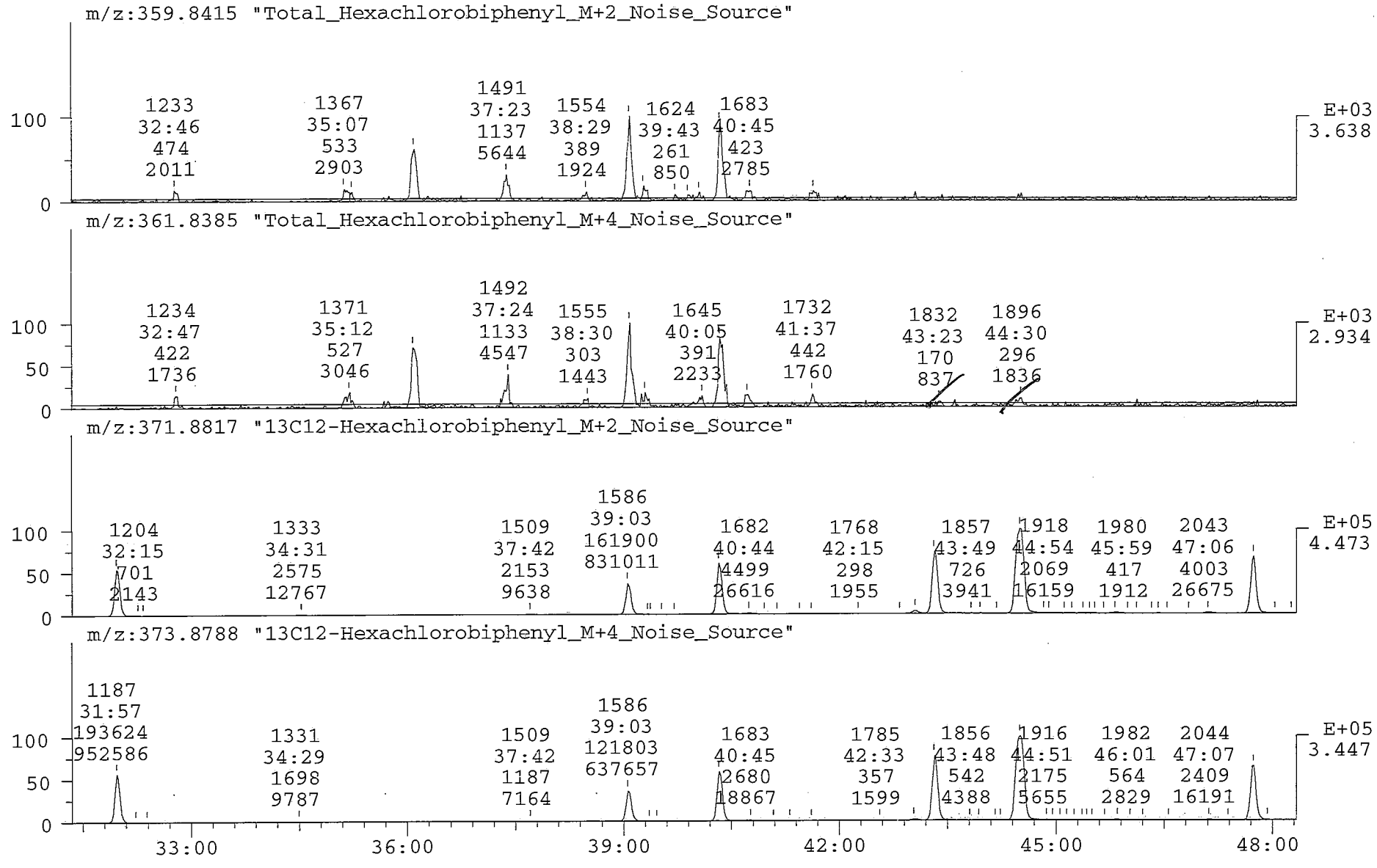
993

CHRO: apmkm55 14-Jul-11 Elapse: 46:16 1996
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1472 > 1574 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



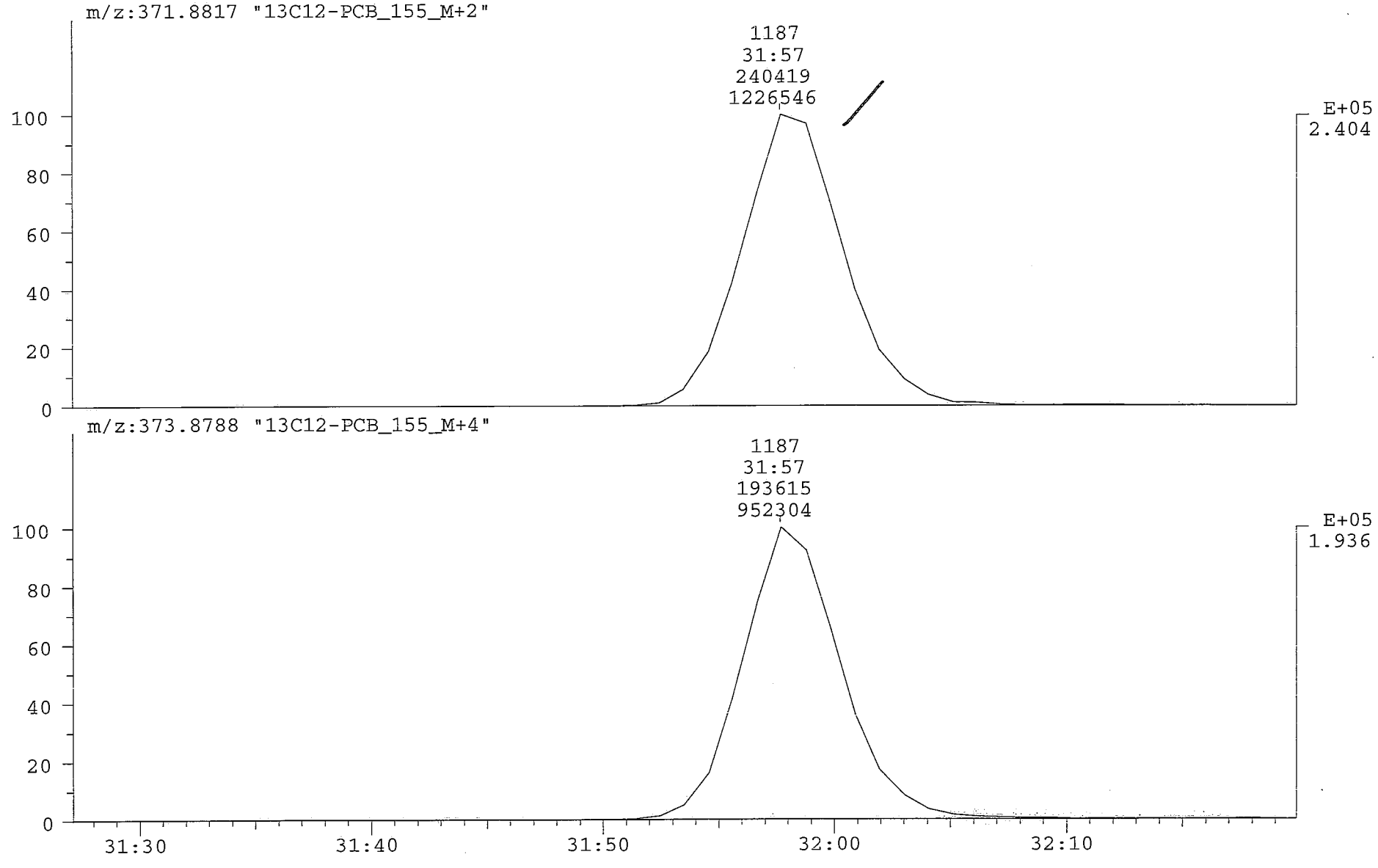
H-995

CHRO: apmkm55 14-Jul-11 Elapse: 39:48 1629
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1152 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-996

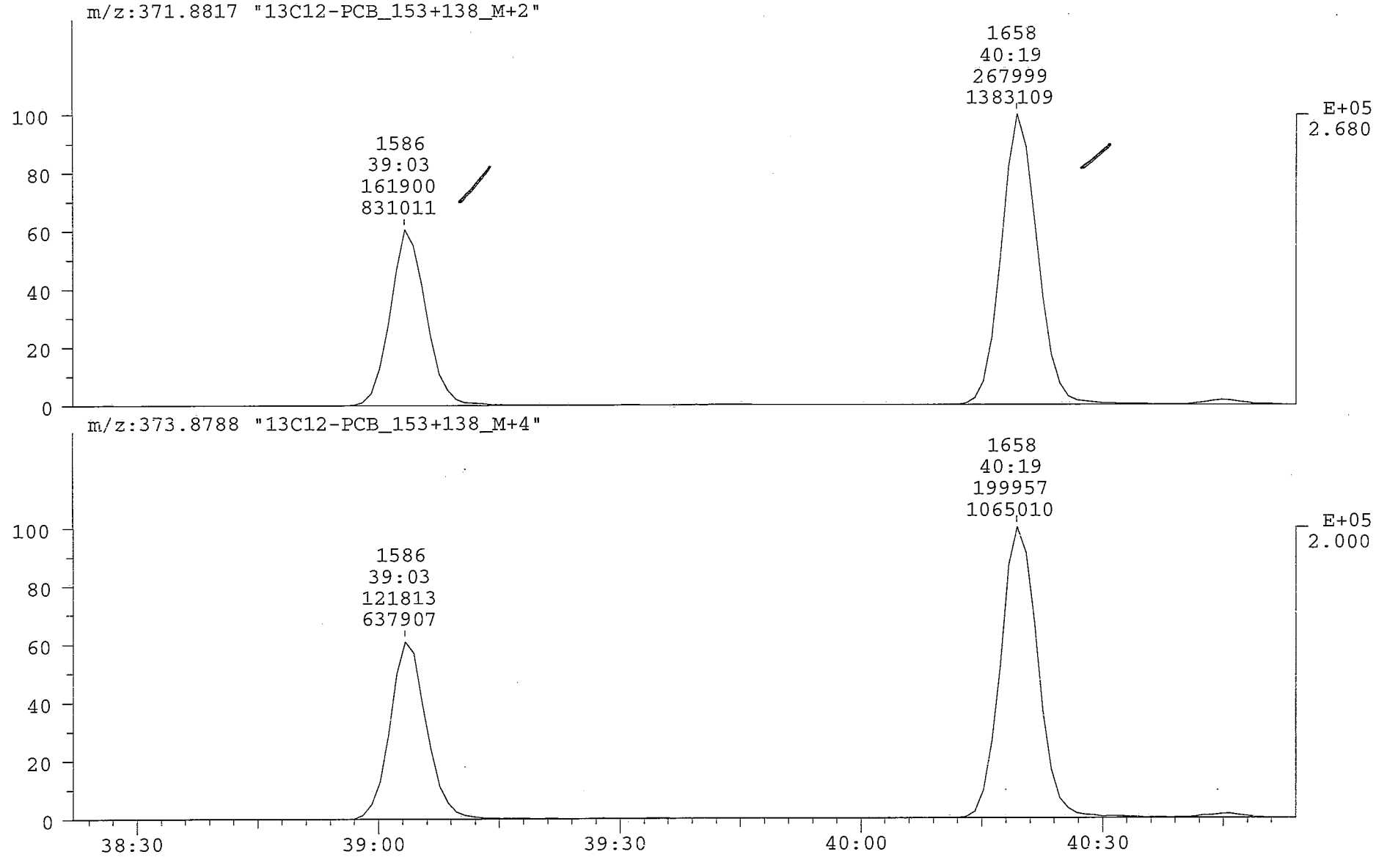
CHRO: apmkm55 14-Jul-11 Elapse: 31:53 1183
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1158 > 1208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-997

996

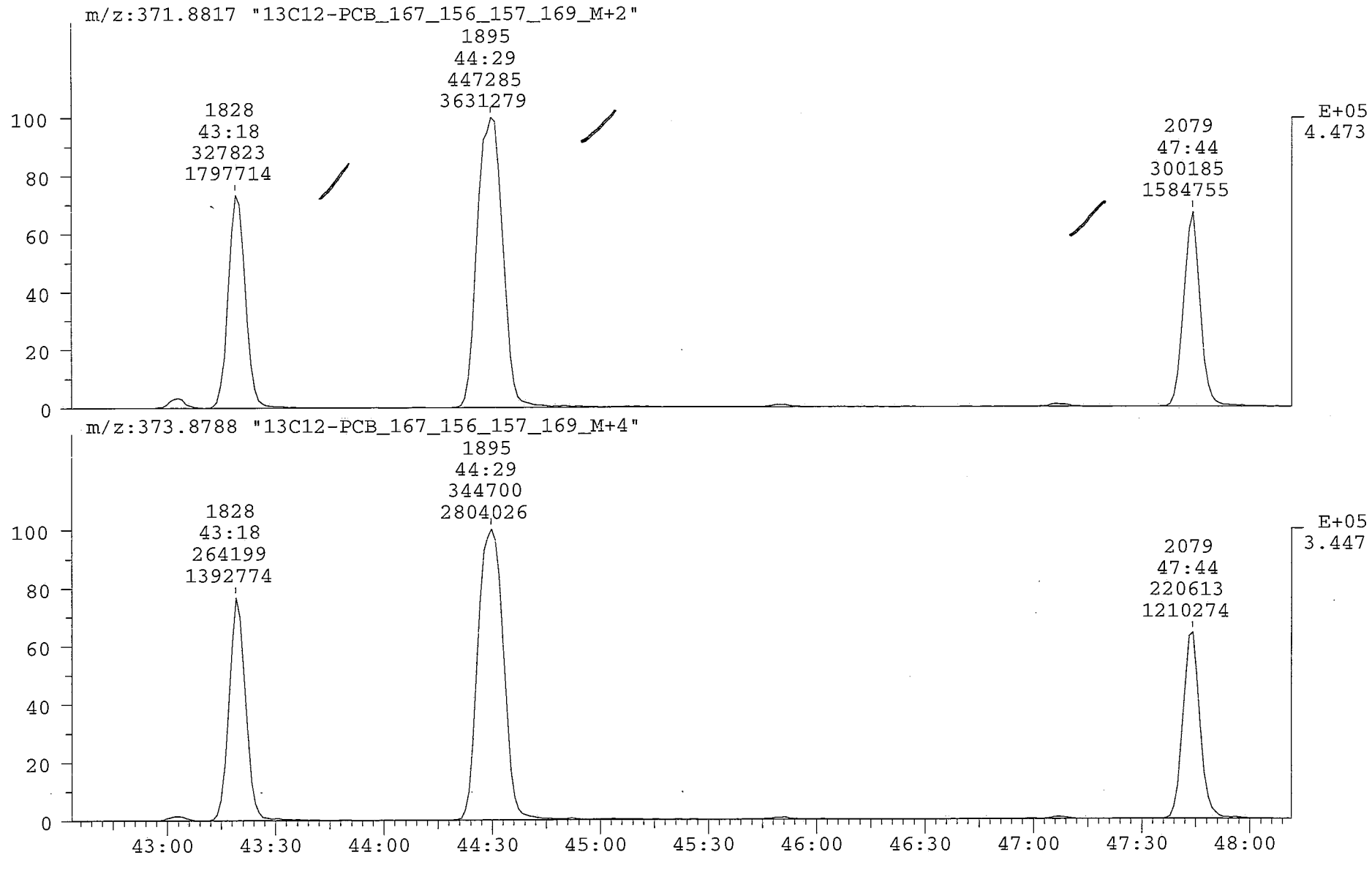
CHRO: apmkm55 14-Jul-11 Elapse: 39:38 1619
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1547 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-998

997

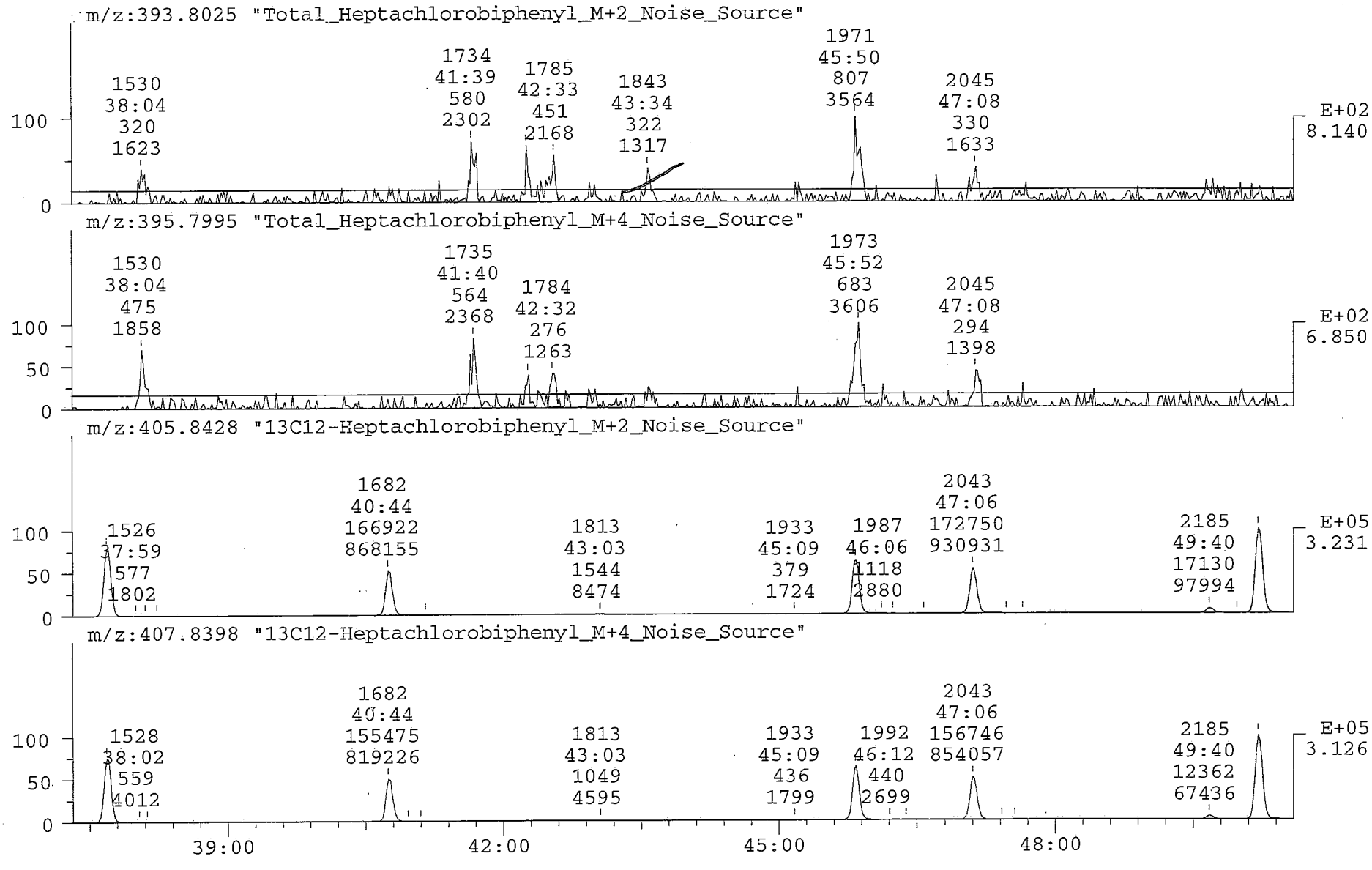
CHRO: apmkm55 14-Jul-11 Elapse: 45:27 1950
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1785 > 2105 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 8 Label : -3, 3.0
Disp: Height Area



H-999

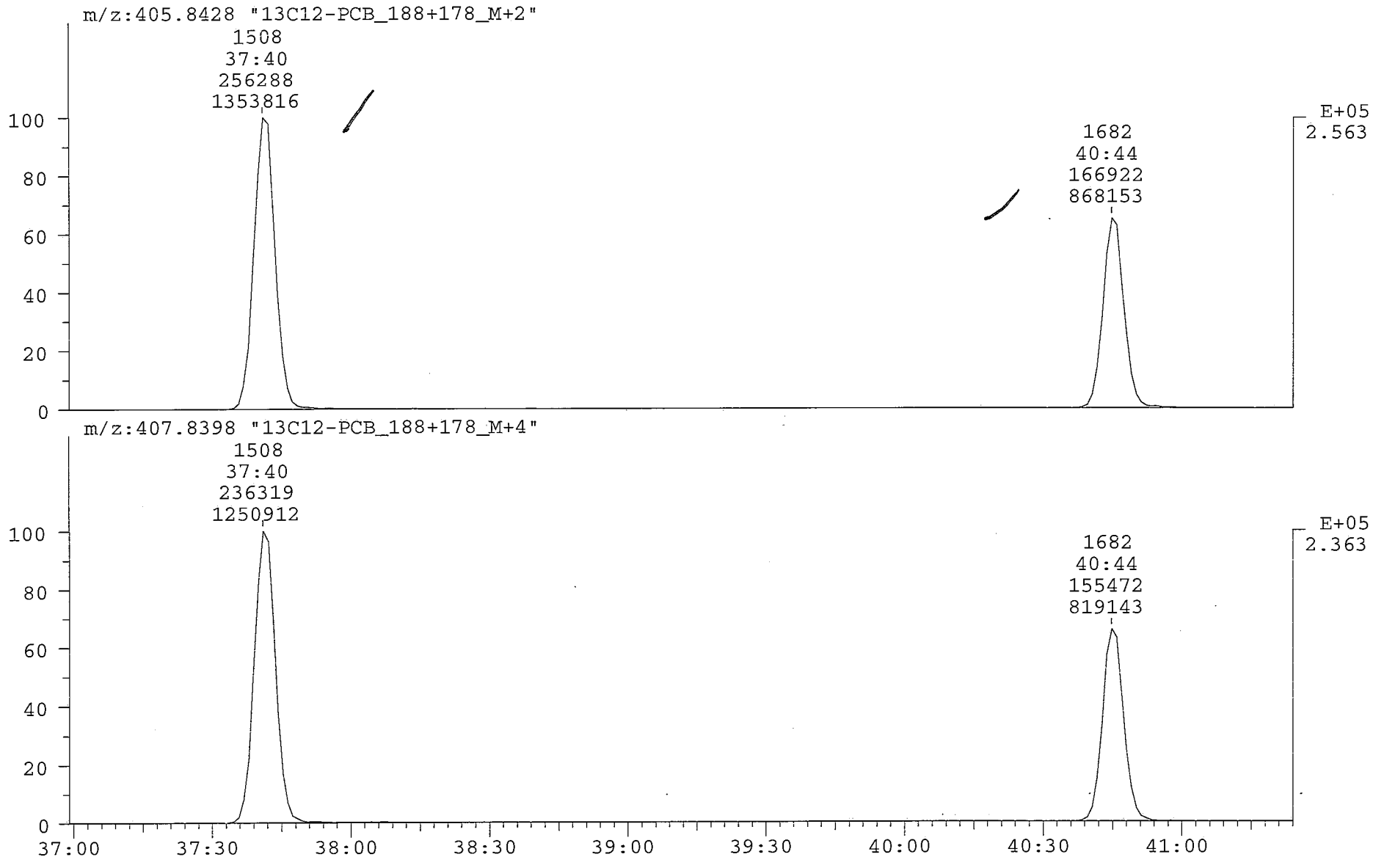
998

CHRO: apmkm55 14-Jul-11 Elapse: 43:55 1863
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1487 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1000

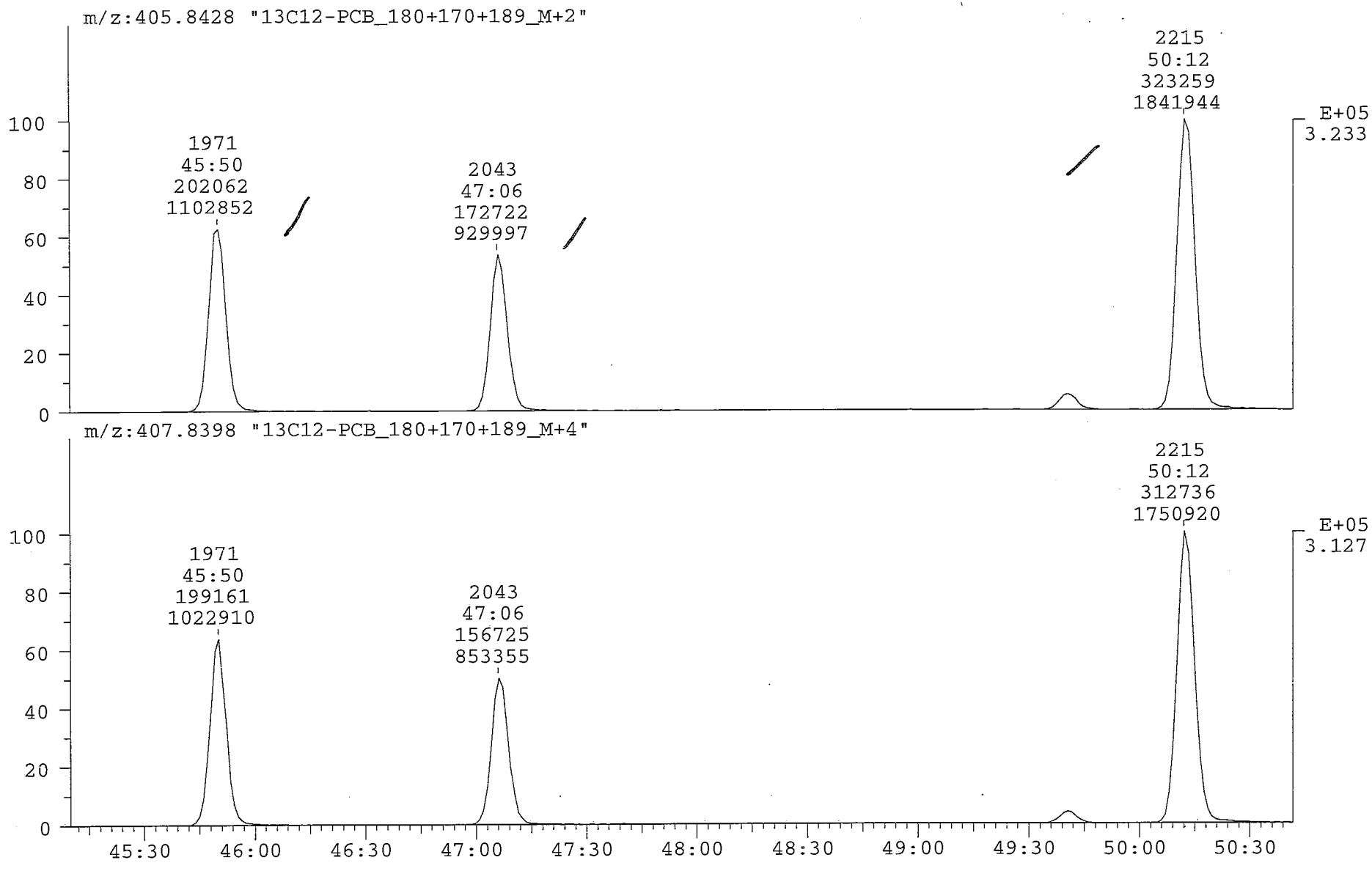
CHRO: apmkm55 14-Jul-11 Elapse: 39:10 1593
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1468 > 1719 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1001

1000

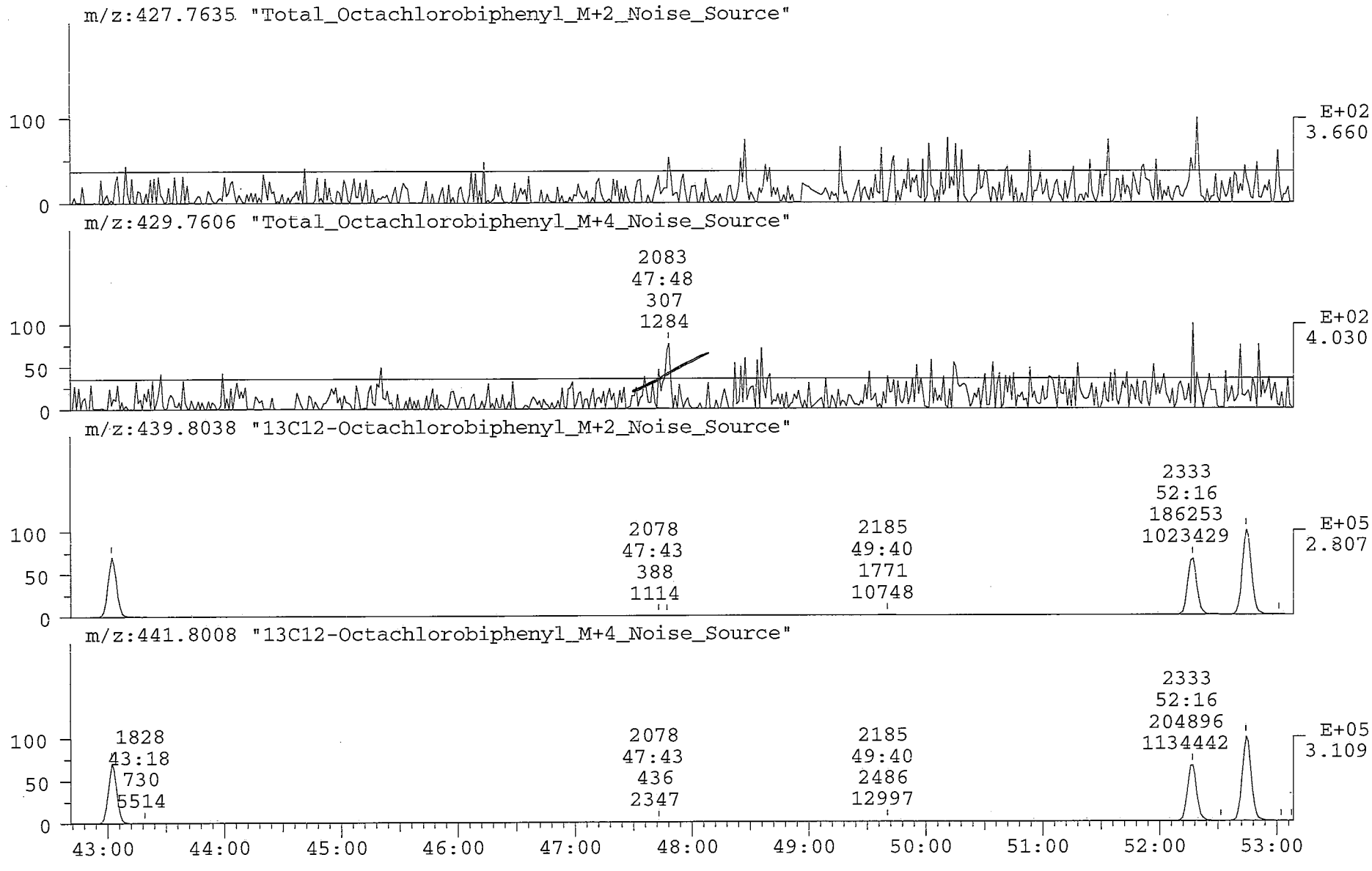
CHRO: apmkm55 14-Jul-11 Elapse: 47:58 2093
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1933 > 2243 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1002

1001

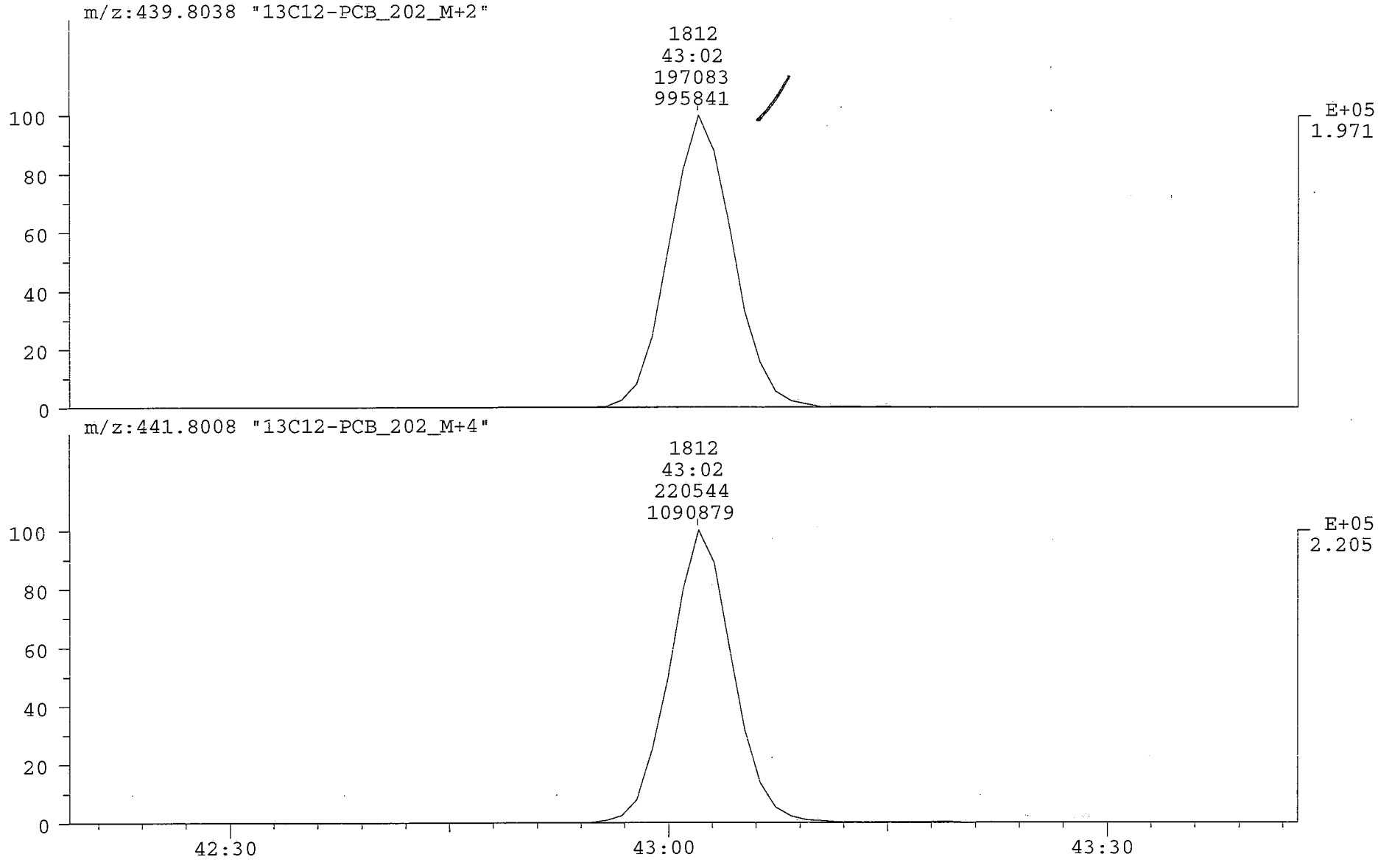
CHRO: apmkm55 14-Jul-11 Elapse: 47:53 2088
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1792 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1003

1002

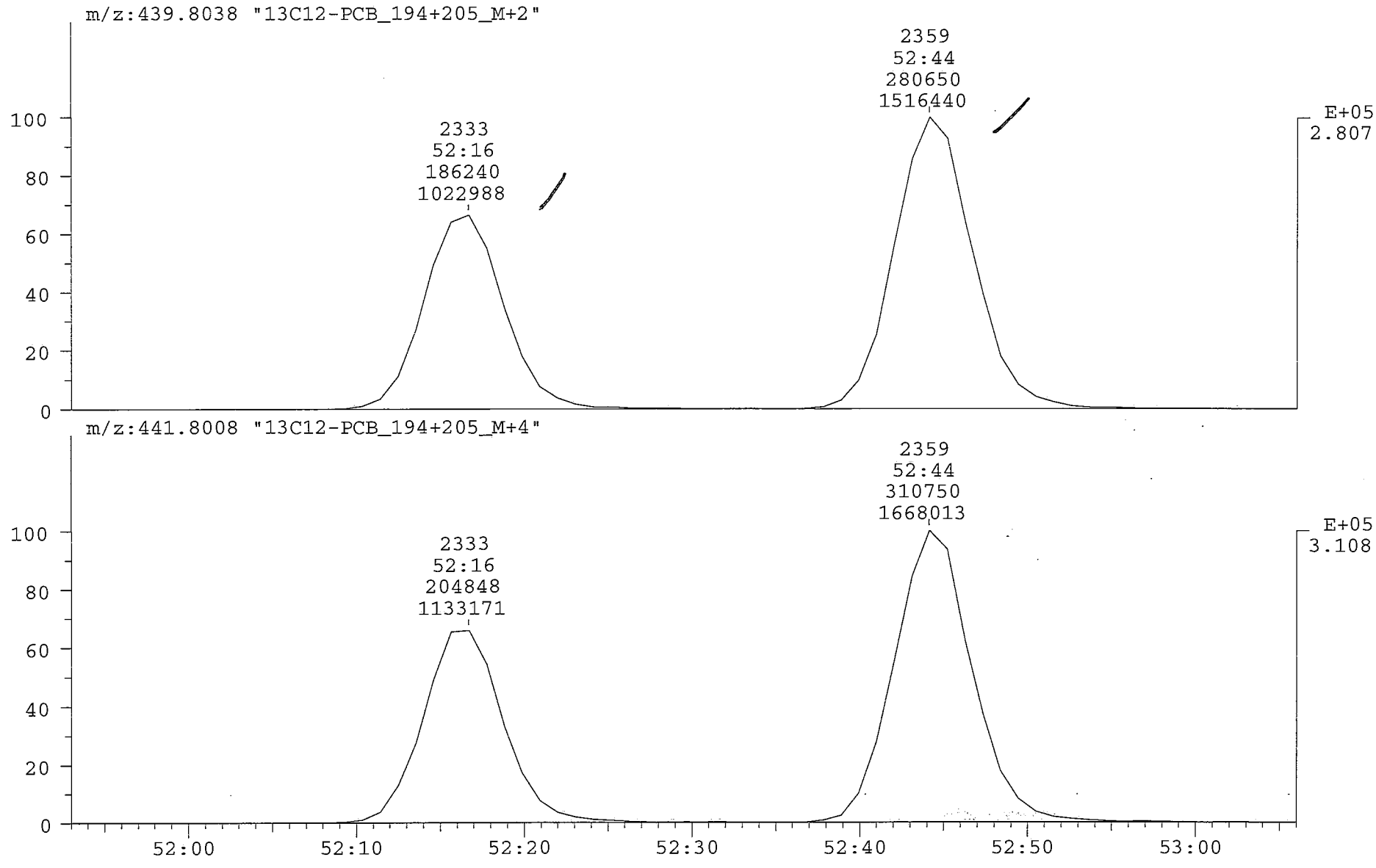
CHRO: apmkm55 14-Jul-11 Elapse: 42:57 1808
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1771 > 1851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1004

1003

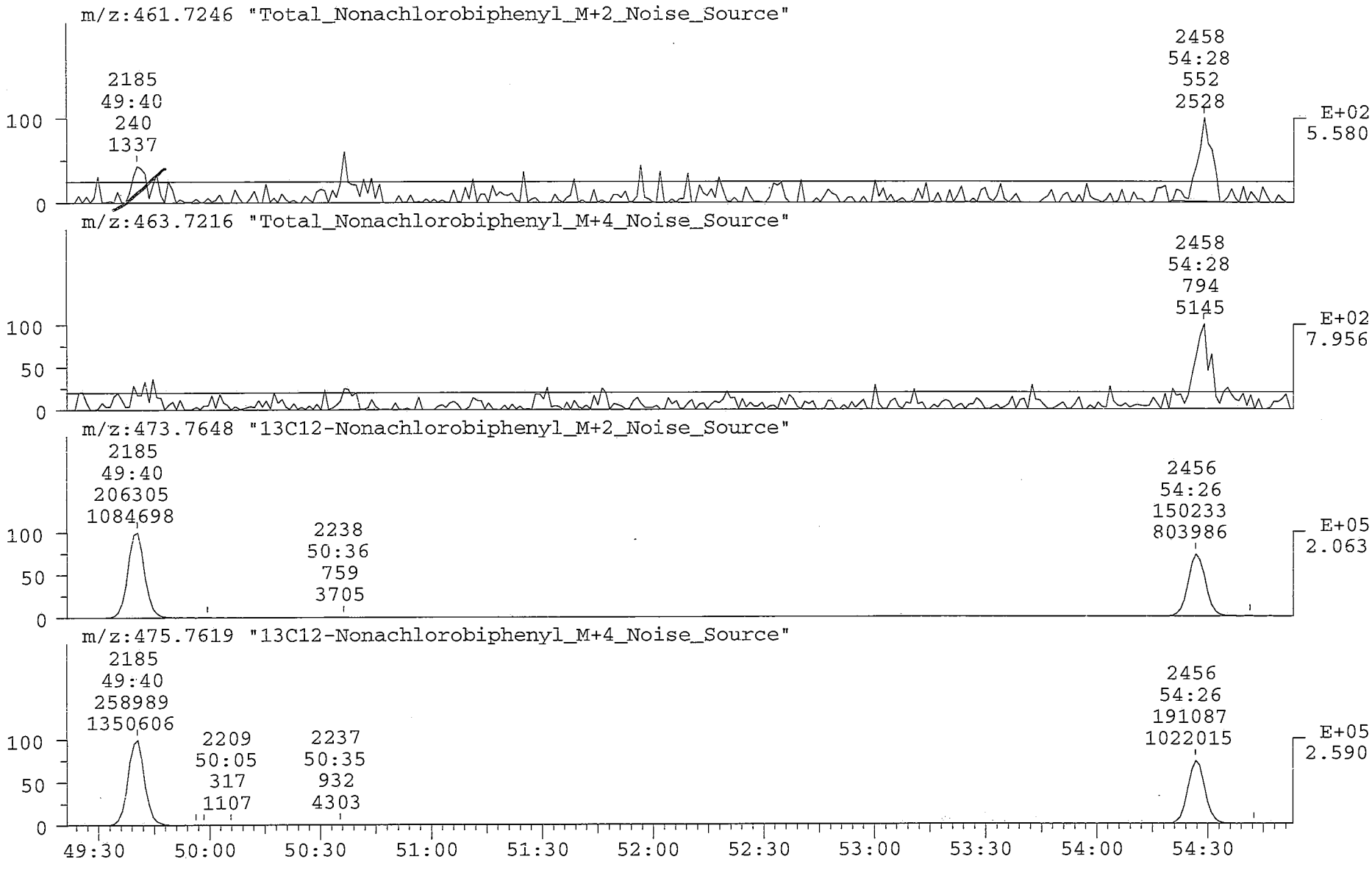
CHRO: apmkm55 14-Jul-11 Elapse: 52:29 2345
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2311 > 2380 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1005

1004

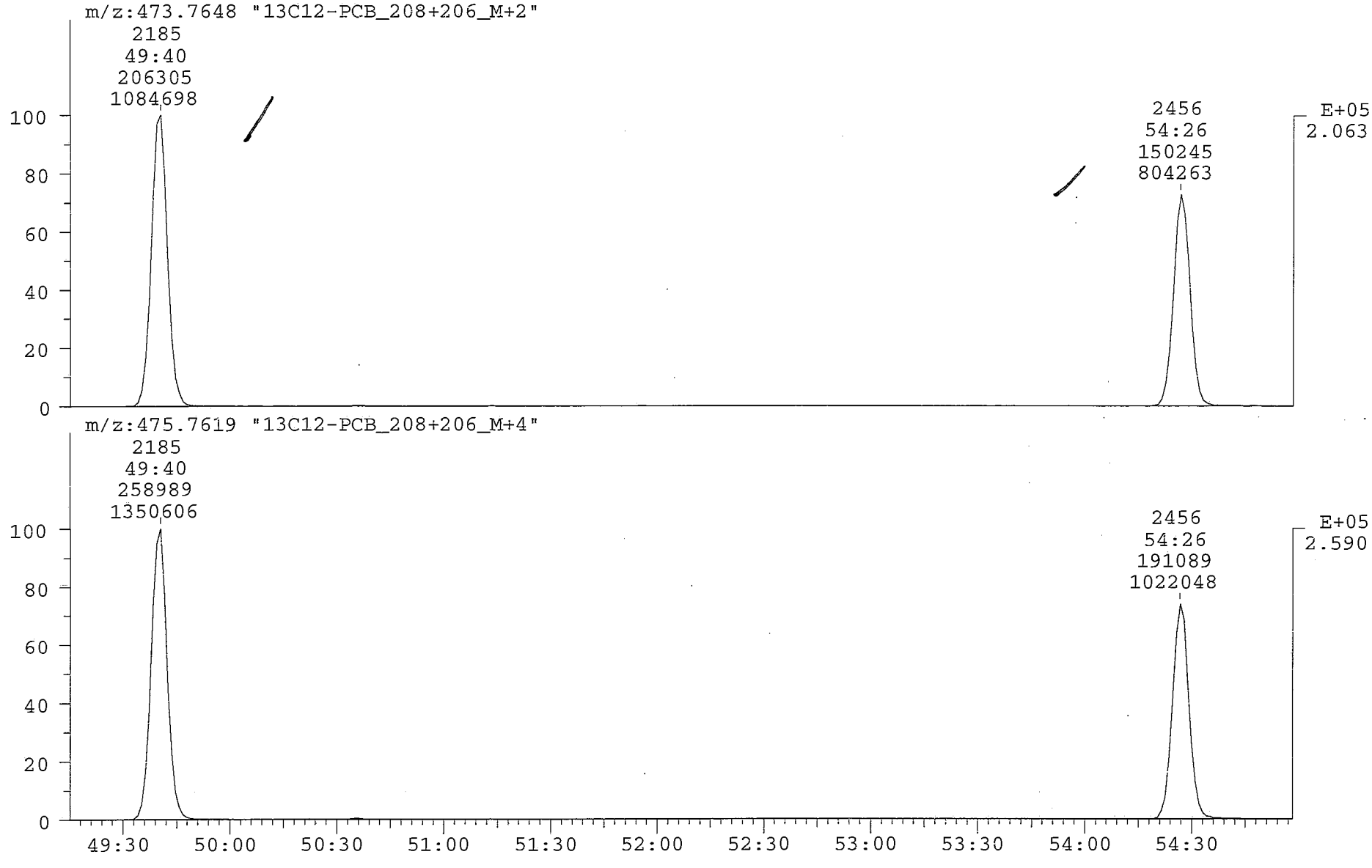
CHRO: apmkm55 14-Jul-11 Elapse: 52:06 2323
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1006

1005

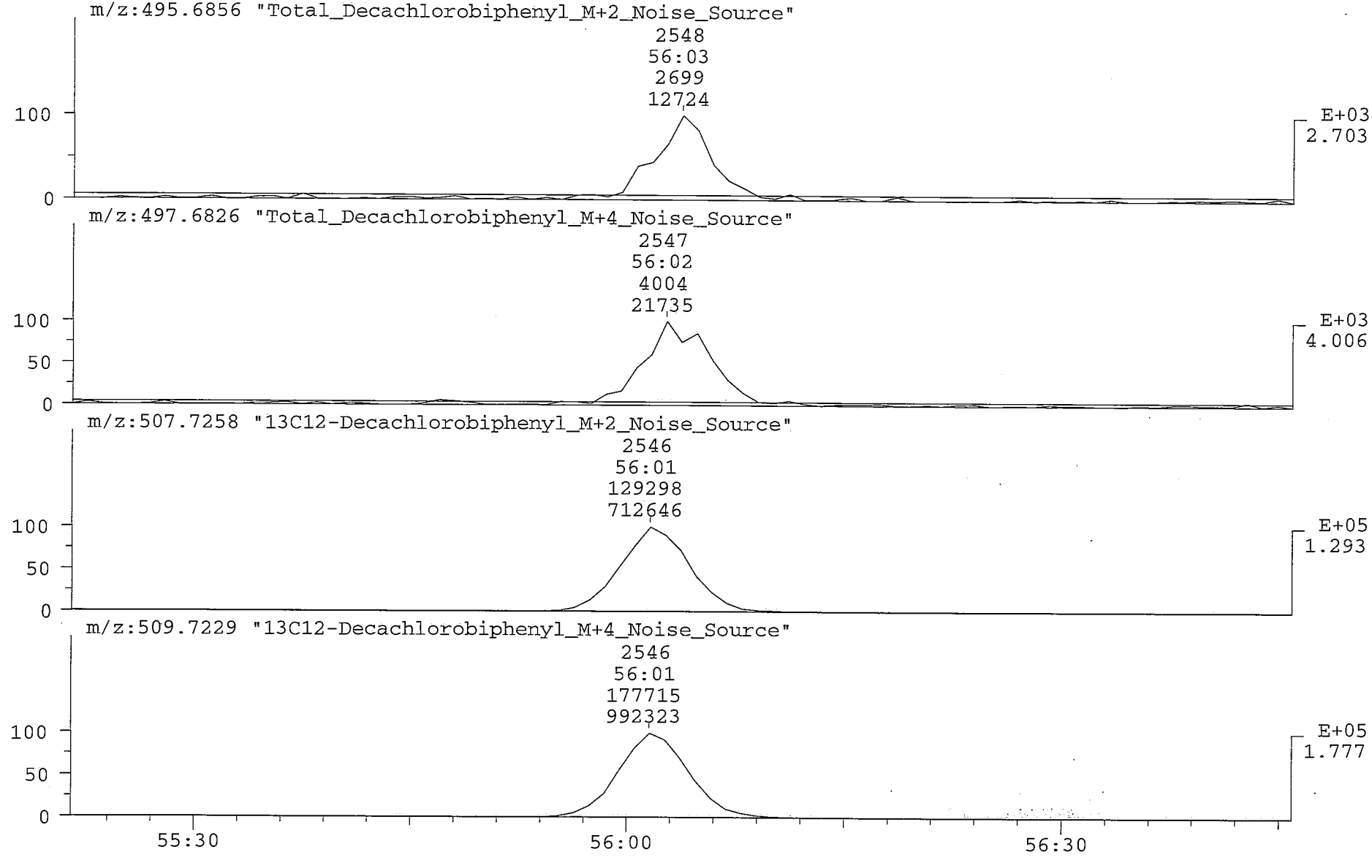
CHRO: apmkm55 14-Jul-11 Elapse: 52:04 2321
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2161 > 2486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1007

1006

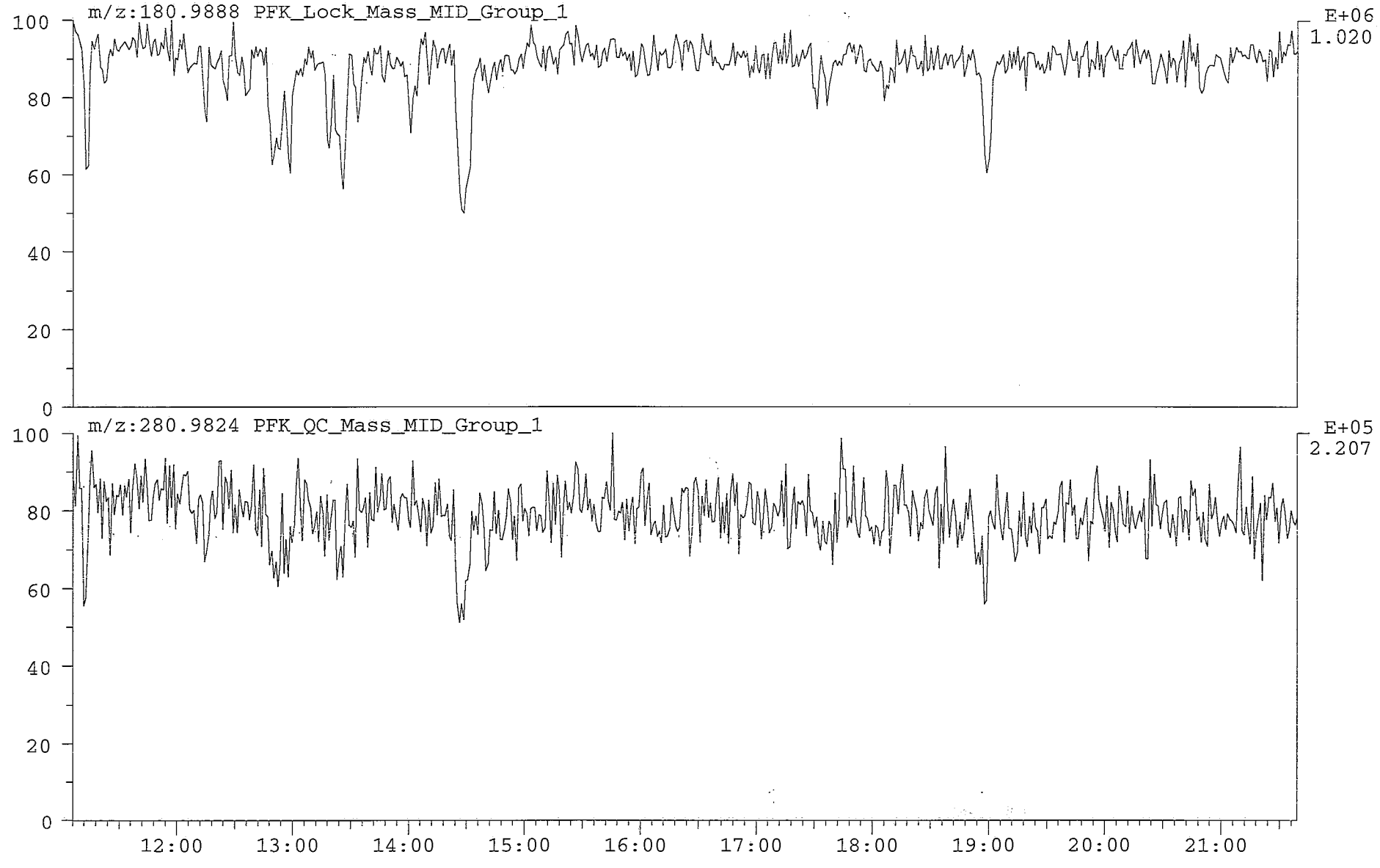
CHRO: apmkm55 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2508 > 2588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1008

1007

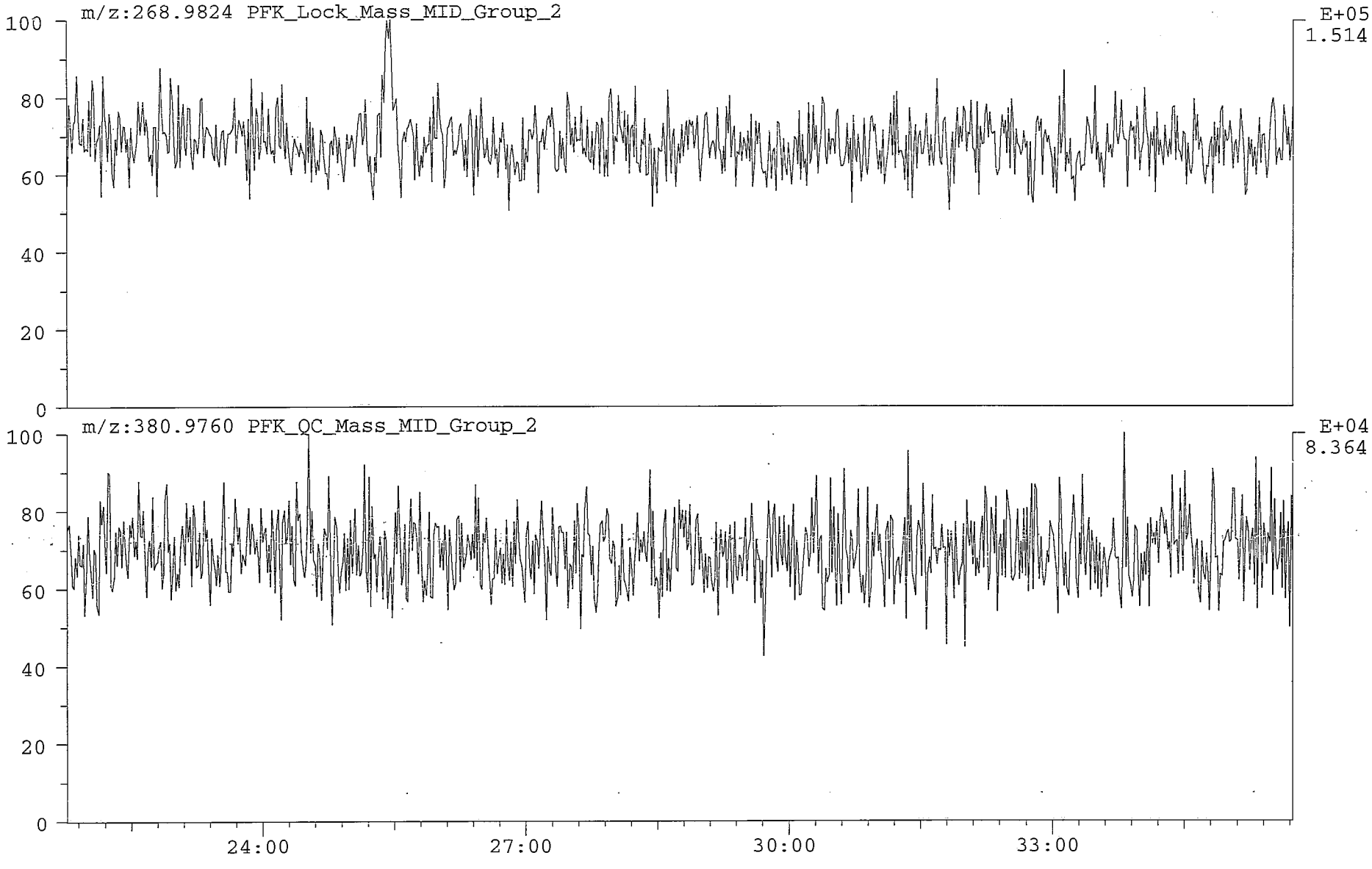
CHRO: apmkm55 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1009

1008

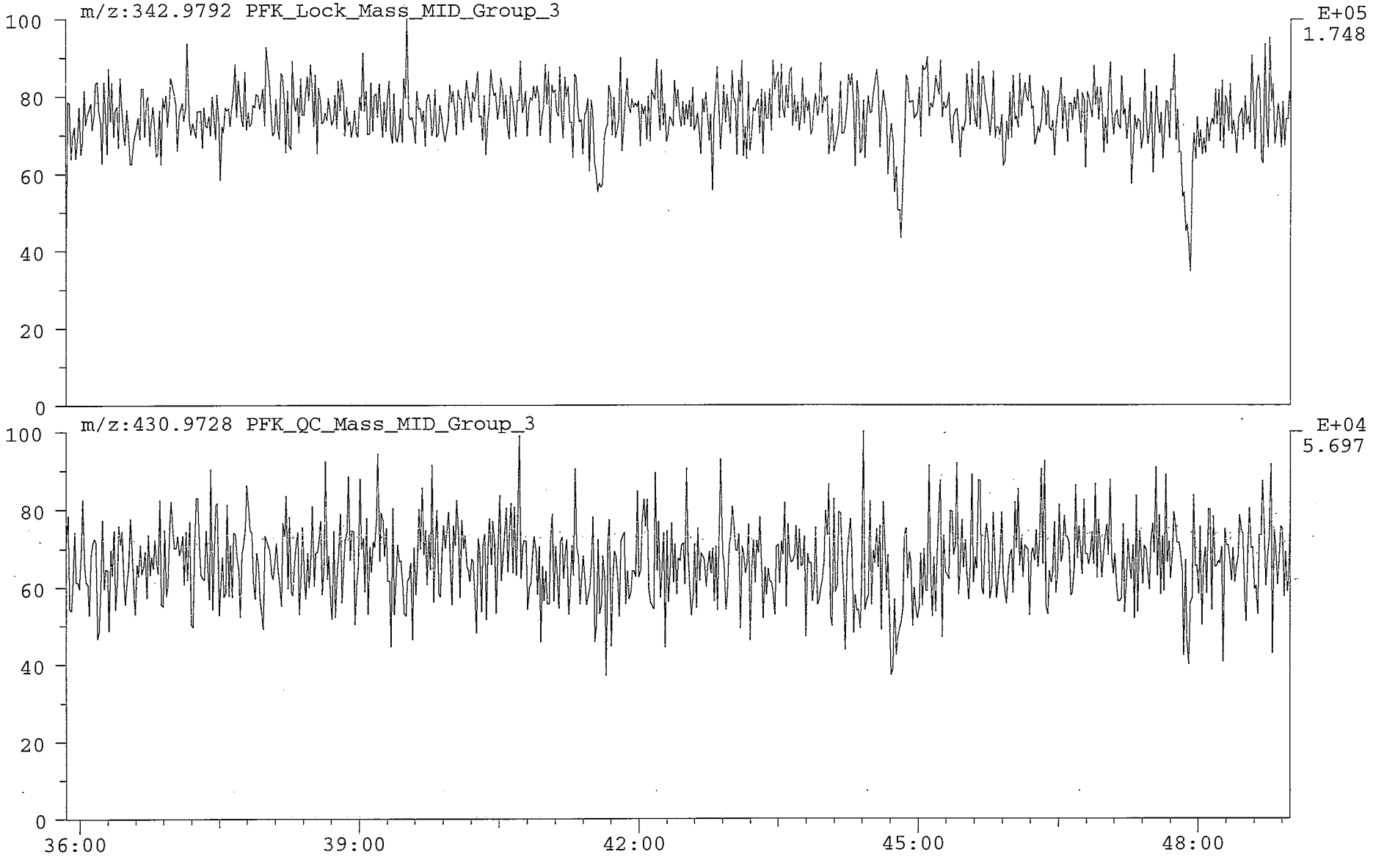
CHRO: apmkm55 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 608 > 1401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1010

1009

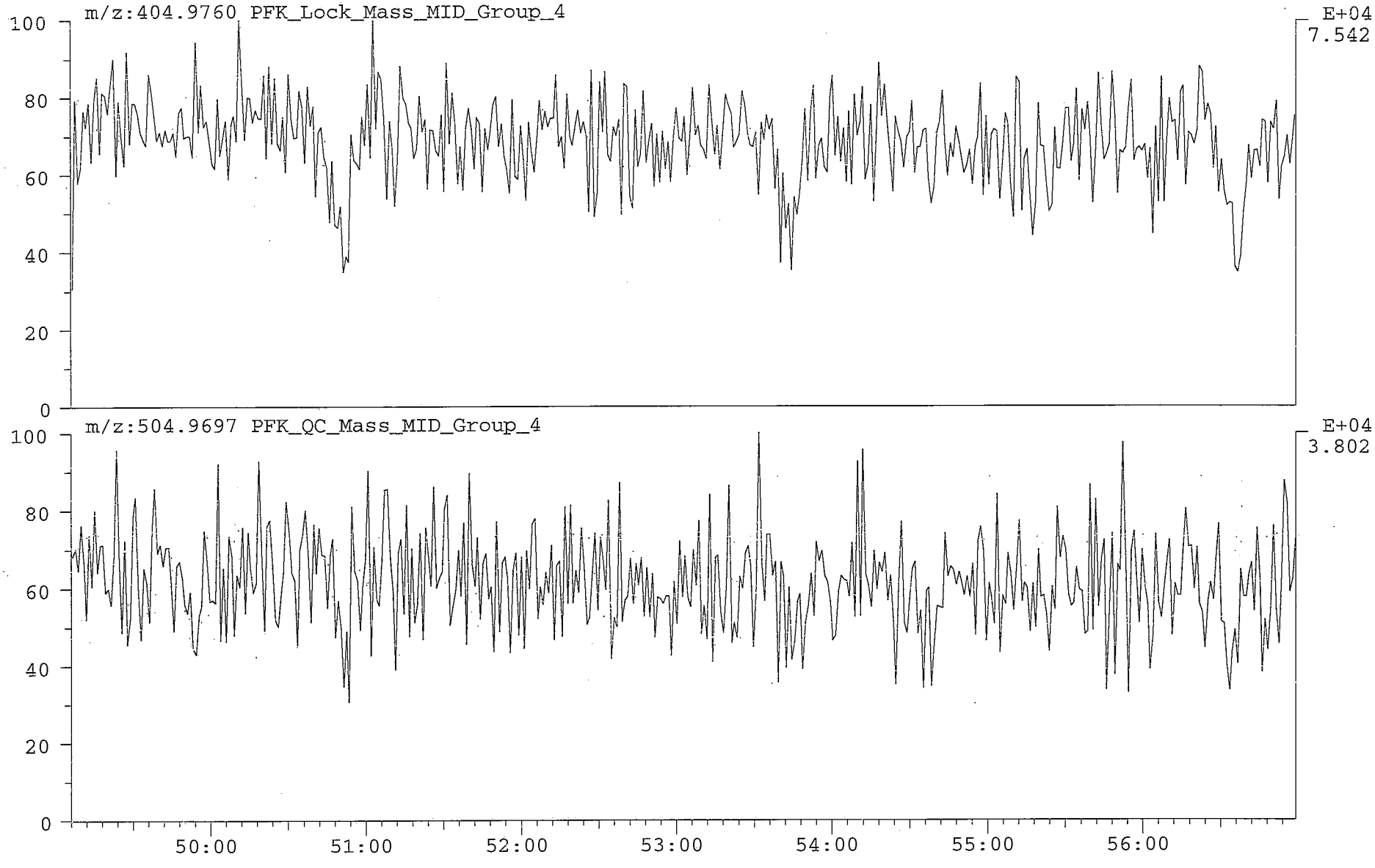
CHRO: apmkm55 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 1404 > 2150 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1011

1010

CHRO: apmkm55 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 7 WO=mkm551ac Meth=IE5 Dil=1 Start : 05:35:38 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-001 Inlet : GC Vial 7
Peak: 100.00 ppm Label wndw: 2153 > 2600 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1012

1011

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

\000\000\000\000\000\000\000ICL Version: 10.710
File name: apmkm55
Study: 1187028 (Air-2)
Sample: WO=mkm551ac Meth=IE5 Dil=1
Amount:  0.00
Volume:  0.00
Operator: JMN
Client: H1G050439-001
Comments: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Injected volume:  2.00
Sample from Vial 7
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 5 of list 110713a
  ICL procedure: sleep7x
  MID procedure: epa1668

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start        Measure      End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:05 min   35:45 min    1.00 sec
  # 3   35:45 min   13:15 min   49:00 min    1.00 sec
  # 4   49:00 min    8:00 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 l   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
   Window # 2
```

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times
Sample rinse cycles (R): 0 times
Syringe filling volume (F): 1.0 ul

Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode

Purge time	1.5 min
Purge flow	40.0 ml/min
Gas saver is on	
Saver time	3.0 min
Saver flow	15.0 ml/min

Column : Constant Flow 1.0 ml

Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.5098
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6706
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-36.8250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	23.0000	EDACZ	-548.0000	ELEN	64.2750
EMULT	1.7400	ENS	150.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	148.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	473.0000
FVINLET	517.0000	FVSRC	748.0000	FWIN	0.7000
GCTC	215.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.4314	HVANAL	1430.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4781.4360	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1751.0000	LENSS	161.2000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2344554.8750
MDACR	23.0000	MRANGE	1031.5098	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2605.0000	NSMAX	8.0000	NSMIN	2.0000

OCT	-2.0000	PSAM	10.0000	PUSHER	-12.5500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10314.6801	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2598.0000
SHIELDS	0.2000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.7300	TCURR	0.9766
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	1.9500	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2538.0000
XLENSS	-43.8000	YLENS	2634.0000	YLENSS	-171.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 05:35:38.0

Autosampler has injected sample from vial 7
MID Time Window 1: Resolution is 9050
MID Time Window 2: Resolution is 8404
MID Time Window 3: Resolution is 9527
MID Time Window 4: Resolution is 9202
Analysis stopped at: 14-Jul-11 06:32:40.7 (run time 57.03 minutes)
Analysis stopped because MID run finished

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AC	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.015**	**B J**	**0.10**	**0.0048**	**ng/sample**
PCB 81 (BZ)	ND		0.10	0.0047	ng/sample
PCB 105 (BZ)	**0.067**	**Q J**	**0.10**	**0.0045**	**ng/sample**
PCB 114 (BZ)	ND		0.10	0.0043	ng/sample
PCB 118 (BZ)	**0.19**		**0.10**	**0.0045**	**ng/sample**
PCB 123 (BZ)	ND		0.10	0.0050	ng/sample
PCB 126 (BZ)	ND		0.10	0.0045	ng/sample
PCB 156 (BZ)	**0.012**	**Q C J**	**0.10**	**0.0073**	**ng/sample**
PCB 157 (BZ)	**0.012**	**Q C156 J**	**0.10**	**0.0073**	**ng/sample**
PCB 167 (BZ)	ND		0.10	0.0051	ng/sample
PCB 169 (BZ)	ND		0.10	0.0053	ng/sample
PCB 189 (BZ)	ND		0.10	0.0049	ng/sample

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AC	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	69		30 - 140
13C12-PCB 3	69		30 - 140
13C12-PCB 4	74		30 - 140
13C12-PCB 15	77		30 - 140
13C12-PCB 19	76		30 - 140
13C12-PCB 37	82		30 - 140
13C12-PCB 54	101		30 - 140
13C12-PCB 77	88		30 - 140
13C12-PCB 81	86		30 - 140
13C12-PCB 104	83		30 - 140
13C12-PCB 105	87		30 - 140
13C12-PCB 114	87		30 - 140
13C12-PCB 118	84		30 - 140
13C12-PCB 123	83		30 - 140
13C12-PCB 126	87		30 - 140
13C12-PCB 155	93		30 - 140
13C12-PCB 156	101	C	30 - 140
13C12-PCB 157	101	C	30 - 140
13C12-PCB 167	97		30 - 140
13C12-PCB 169	92		30 - 140
13C12-PCB 170	94		30 - 140
13C12-PCB 188	95		30 - 140
13C12-PCB 189	99		30 - 140
13C12-PCB 202	101		30 - 140
13C12-PCB 205	99		30 - 140
13C12-PCB 206	98		30 - 140
13C12-PCB 208	92		30 - 140
13C12-PCB 209	88		30 - 140

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR2-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 003	**Work Order #....:**	MKM6A1AC	**Matrix....:**	AIR
Date Sampled....:	06/23/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 8	101	50 - 150
13C12-PCB 28	83	40 - 125
13C12-PCB 79	109	50 - 150
13C12-PCB 95	101	50 - 150
13C12-PCB 111	95	40 - 125
13C12-PCB 153	111	50 - 150
13C12-PCB 178	88	40 - 125

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6A1AC	Prep Batch	1187028	Lot No	H1G050439-003
Data File	/20110713s1/apmkm6a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133604	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/23/11
Analysis Time	06:36	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
Total Monochlorobiphenyl		47070	15260			0.178760		0.178760	Q	0.00957
13C12-PCB 1	12:08	3990092	1392628	1.502	20.00	13.889952	69.45	13.889952		0.0102
13C12-PCB 3	14:21	4063155	1176756	1.545	20.00	13.758047	68.79	13.758047		0.00991
PCB 1 (BZ)				1.383				ND		0.00283
PCB 2 (BZ)				1.338				ND		0.00317
PCB 3 (BZ)	14:21	47070	15260	1.296		0.178760		0.178760	Q	0.00357
Total Dichlorobiphenyl		542769	121691			2.862158		2.862158	B	0.154
13C12-PCB 4	14:36	1754330	576397	0.619	20.00	14.813841	74.07	14.813841		0.0118
13C12-PCB 9	16:34	3824057	1055109	1.000	20.00	20.000000	100.00	20.000000		0.00730
13C12-PCB 8	17:26	1677088	416969	1.342	10.00	10.090651	100.91	10.090651		0.00885
13C12-PCB 15	20:34	3198094	719495	1.090	20.00	15.348744	76.74	15.348744		0.00670
PCB 4 (BZ)				1.273				ND		0.0179
PCB 10 (BZ)				1.357				ND		0.0150
PCB 9 (BZ)				1.459				ND		0.0139
PCB 7 (BZ)				1.466				ND		0.0138
PCB 6 (BZ)				1.507				ND		0.0135
PCB 5 (BZ)				1.417				ND		0.0143
PCB 8 (BZ)				1.540				ND		0.0132
PCB 14 (BZ)				1.732				ND		0.0117
PCB 11 (BZ)	19:57	542769	121691	1.532		2.862158		2.862158	B	0.0133
PCB 13 (BZ)				1.494				ND	C12	0.0136
PCB 12 (BZ)				1.494				ND	C	0.0136
PCB 15 (BZ)				1.278				ND		0.0143
Total Trichlorobiphenyl		51818	11562			0.214694		0.214694	B	0.121
13C12-PCB 19	17:44	1387403	351219	0.572	20.00	15.157940	75.79	15.157940		0.0397
13C12-PCB 32	21:00	3203129	731786	1.000	20.00	20.000000	100.00	20.000000		0.0227
13C12-PCB 31	23:17	5317053	1147420	1.000	20.00	20.000000	100.00	20.000000		0.0145
13C12-PCB 28	23:34	4423032	956813	1.003	20.00	16.583339	82.92	16.583339		0.0144
13C12-PCB 37	27:37	3948009	733656	0.908	20.00	16.346426	81.73	16.346426		0.0159
PCB 19 (BZ)				1.167				ND		0.0106
PCB 30 (BZ)				1.615				ND	C18	0.00767
PCB 18 (BZ)				1.615				ND	C	0.00767
PCB 17 (BZ)				1.430				ND		0.00866
PCB 27 (BZ)				1.978				ND		0.00626
PCB 24 (BZ)				1.707				ND		0.00726
PCB 16 (BZ)				1.193				ND		0.0104
PCB 32 (BZ)				2.018				ND		0.00614
PCB 34 (BZ)				1.195				ND		0.00496
PCB 23 (BZ)				1.177				ND		0.00504
PCB 29 (BZ)				1.244				ND	C26	0.00477
PCB 26 (BZ)				1.244				ND	C	0.00477
PCB 25 (BZ)				1.320				ND		0.00449
PCB 31 (BZ)				1.252				ND		0.00474
PCB 28 (BZ)	23:36	51818	11562	1.223		0.214694		0.214694	BC20	0.00485
PCB 20 (BZ)		51818		1.223		0.214694		0.214694	BC	0.00485
PCB 21 (BZ)				1.219				ND	C	0.00486
PCB 33 (BZ)				1.219				ND	C21	0.00486
PCB 22 (BZ)				1.200				ND		0.00494
PCB 36 (BZ)				1.204				ND		0.00492

WLSP 7-14-11

L 7-14-11

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6A1AC	Prep Batch	1187028	Lot No	H1G050439-003
Data File	/20110713s1/apmkm6a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133604	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/23/11
Analysis Time	06:36	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 39 (BZ)				1.284				ND		0.00462
PCB 38 (BZ)				1.141				ND		0.00520
PCB 35 (BZ)				1.163				ND		0.00510
PCB 37 (BZ)				1.173				ND		0.00505
Total Tetrachlorobiphenyl		59789	9713			0.287449		0.287449	B	0.161
13C12-PCB 54	20:51	1944889	445509	0.600	20.00	20.237164	101.19	20.237164		0.0128
13C12-PCB 52	25:24	2863500	602248	1.000	20.00	20.000000	100.00	20.000000		0.00930
13C12-PCB 79	33:22	1947094	357826	1.070	10.00	10.930349	109.30	10.930349		0.00871
13C12-PCB 81	34:22	3235326	599817	1.312	20.00	17.226439	86.13	17.226439		0.00709
13C12-PCB 77	34:57	3421819	601718	1.357	20.00	17.610509	88.05	17.610509		0.00685
PCB 54 (BZ)				1.233				ND		0.00664
PCB 50 (BZ)				0.921				ND	C	0.00659
PCB 53 (BZ)				0.921				ND	C50	0.00659
PCB 45 (BZ)				0.856				ND	C	0.00710
PCB 51 (BZ)				0.856				ND	C45	0.00710
PCB 46 (BZ)				0.724				ND		0.00839
PCB 52 (BZ)				0.920				ND		0.00660
PCB 73 (BZ)				0.949				ND	C43	0.00640
PCB 43 (BZ)				0.949				ND	C	0.00640
PCB 69 (BZ)				1.077				ND	C49	0.00564
PCB 49 (BZ)				1.077				ND	C	0.00564
PCB 48 (BZ)				0.894				ND		0.00680
PCB 65 (BZ)				0.992				ND	C44	0.00613
PCB 47 (BZ)				0.992				ND	C44	0.00613
PCB 44 (BZ)				0.992				ND	C	0.00613
PCB 62 (BZ)				1.246				ND	C59	0.00488
PCB 75 (BZ)				1.246				ND	C59	0.00488
PCB 59 (BZ)				1.246				ND	C	0.00488
PCB 42 (BZ)				0.872				ND		0.00697
PCB 41 (BZ)				0.887				ND	C40	0.00685
PCB 71 (BZ)				0.887				ND	C40	0.00685
PCB 40 (BZ)				0.887				ND	C	0.00685
PCB 64 (BZ)				1.316				ND		0.00462
PCB 72 (BZ)				1.236				ND		0.00491
PCB 68 (BZ)				1.327				ND		0.00458
PCB 57 (BZ)				1.203				ND		0.00505
PCB 58 (BZ)				1.208				ND		0.00503
PCB 67 (BZ)				1.337				ND		0.00454
PCB 63 (BZ)				1.297				ND		0.00468
PCB 61 (BZ)		56535		1.247		0.272462		0.272462	BC	0.00487
PCB 70 (BZ)	30:13	56535	8858	1.247		0.272462		0.272462	BC61	0.00487
PCB 76 (BZ)		56535		1.247		0.272462		0.272462	BC61	0.00487
PCB 74 (BZ)		56535		1.247		0.272462		0.272462	BC61	0.00487
PCB 66 (BZ)				1.255				ND		0.00484
PCB 55 (BZ)				1.145				ND		0.00531
PCB 56 (BZ)				1.217				ND		0.00499
PCB 60 (BZ)				1.181				ND		0.00514
PCB 80 (BZ)				1.358				ND		0.00447
PCB 79 (BZ)				1.326				ND		0.00458

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6A1AC	Prep Batch	1187028	Lot No	H1G050439-003
Data File	/20110713s1/apmkm6a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133604	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/23/11
Analysis Time	06:36	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 78 (BZ)				1.164				ND		0.00522
PCB 81 (BZ)				1.298				ND		0.00469
PCB 77 (BZ)	34:57	3254	855	1.269		0.014987		0.014987	BJ	0.00478
Total Pentachlorobiphenyl		52685	9946			0.258387		0.258387	Q	0.197
13C12-PCB 104	26:20	2375424	506475	1.246	20.00	16.656348	83.28	16.656348		0.0139
13C12-PCB 95	29:20	904073	180513	0.754	10.00	10.100497	101.00	10.100497		0.0196
13C12-PCB 101	32:14	2289756	432232	1.000	20.00	20.000000	100.00	20.000000		0.0174
13C12-PCB 111	34:54	2751671	527056	1.266	20.00	18.977382	94.89	18.977382		0.0137
13C12-PCB 123	36:53	3510243	649225	0.954	20.00	16.506029	82.53	16.506029		0.00981
13C12-PCB 118	37:13	3744748	701034	0.995	20.00	16.890128	84.45	16.890128		0.00941
13C12-PCB 114	37:45	3686810	688546	0.952	20.00	17.380576	86.90	17.380576		0.00983
13C12-PCB 105	38:25	3643413	687547	0.942	20.00	17.362795	86.81	17.362795		0.00994
13C12-PCB 127	39:53	4456202	801383	1.000	20.00	20.000000	100.00	20.000000		0.00936
13C12-PCB 126	41:30	3856859	732940	0.991	20.00	17.464272	87.32	17.464272		0.00944
PCB 104 (BZ)				1.184				ND		0.00575
PCB 96 (BZ)				1.055				ND		0.00646
PCB 103 (BZ)				0.900				ND		0.00757
PCB 94 (BZ)				0.789				ND		0.00863
PCB 95 (BZ)				0.838				ND		0.00813
PCB 100 (BZ)				0.888				ND	C93	0.00767
PCB 93 (BZ)				0.888				ND	C	0.00767
PCB 102 (BZ)				0.917				ND	C98	0.00743
PCB 98 (BZ)				0.917				ND	C	0.00743
PCB 88 (BZ)				0.857				ND	C	0.00795
PCB 91 (BZ)				0.857				ND	C88	0.00795
PCB 84 (BZ)				0.764				ND		0.00892
PCB 89 (BZ)				0.789				ND		0.00863
PCB 121 (BZ)				1.215				ND		0.00561
PCB 92 (BZ)				0.892				ND		0.00764
PCB 113 (BZ)				1.013				ND	C90	0.00673
PCB 90 (BZ)				1.013				ND	C	0.00673
PCB 101 (BZ)				1.013				ND	C90	0.00673
PCB 83 (BZ)				0.868				ND	C	0.00785
PCB 99 (BZ)				0.868				ND	C83	0.00785
PCB 112 (BZ)				1.160				ND		0.00587
PCB 109 (BZ)/108 (IUPAC)				1.030				ND	C86	0.00661
PCB 86 (BZ)				1.030				ND	C	0.00661
PCB 119 (BZ)				1.030				ND	C86	0.00661
PCB 97 (BZ)				1.030				ND	C86	0.00661
PCB 125 (BZ)				1.030				ND	C86	0.00661
PCB 87 (BZ)				1.030				ND	C86	0.00661
PCB 117 (BZ)				1.054				ND	C85	0.00646
PCB 116 (BZ)				1.054				ND	C85	0.00646
PCB 85 (BZ)				1.054				ND	C	0.00646
PCB 110 (BZ)				1.194				ND	C	0.00571
PCB 115 (BZ)				1.194				ND	C110	0.00571
PCB 82 (BZ)				0.730				ND		0.00934
PCB 111 (BZ)				1.260				ND		0.00541
PCB 120 (BZ)				1.225				ND		0.00556

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6A1AC	Prep Batch	1187028	Lot No	H1G050439-003
Data File	/20110713s1/apmkm6a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133604	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/23/11
Analysis Time	06:36	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 124 (BZ)				1.029				ND	C108	0.00485
PCB 108 (BZ)/107 (IUPAC)				1.029				ND	C	0.00485
PCB 107 (BZ)/109 (IUPAC)				1.082				ND		0.00461
PCB 123 (BZ)				1.053				ND		0.00505
PCB 106 (BZ)				1.050				ND		0.00475
PCB 118 (BZ)	37:14	38976	7450	1.087		0.191496		0.191496		0.00453
PCB 122 (BZ)				0.964				ND		0.00517
PCB 114 (BZ)				1.161				ND		0.00432
PCB 105 (BZ)	38:27	13709	2496	1.125		0.066890		0.066890	QJ	0.00446
PCB 127 (BZ)				1.062				ND		0.00470
PCB 126 (BZ)				1.051				ND		0.00448
Total Hexachlorobiphenyl		22074	972			0.144366		0.144366	Q	0.251
13C12-PCB 155	31:57	2264456	449483	1.068	20.00	18.524490	92.62	18.524490		0.0133
13C12-PCB 153	39:03	1481893	284085	0.828	10.00	11.081503	110.82	11.081503		0.0151
13C12-PCB 138	40:19	2703459	518364	1.000	20.00	20.000000	100.00	20.000000		0.0119
13C12-PCB 167	43:18	3267993	600679	1.247	20.00	19.387249	96.94	19.387249		0.00951
13C12-PCB 156	44:28	6723244	837617	1.233	40.00	40.335732	100.84	40.335732		0.00962
13C12-PCB 157								ND		0.000000
13C12-PCB 169	47:43	2932828	527914	1.173	20.00	18.495265	92.48	18.495265		0.0101
PCB 155 (BZ)				1.128				ND		0.00681
PCB 152 (BZ)				1.075				ND		0.00714
PCB 150 (BZ)				1.096				ND		0.00700
PCB 136 (BZ)				1.022				ND		0.00751
PCB 145 (BZ)				1.069				ND		0.00718
PCB 148 (BZ)				0.764				ND		0.0100
PCB 151 (BZ)				0.750				ND	C135	0.0102
PCB 135 (BZ)				0.750				ND	C	0.0102
PCB 154 (BZ)				0.922				ND		0.00832
PCB 144 (BZ)				0.808				ND		0.00950
PCB 147 (BZ)				0.861				ND	C	0.00815
PCB 149 (BZ)				0.861				ND	C147	0.00815
PCB 134 (BZ)				0.717				ND	C	0.00979
PCB 143 (BZ)				0.717				ND	C134	0.00979
PCB 139 (BZ)				0.836				ND	C	0.00839
PCB 140 (BZ)				0.836				ND	C139	0.00839
PCB 131 (BZ)				0.700				ND		0.0100
PCB 142 (BZ)				0.728				ND		0.00964
PCB 132 (BZ)				0.736				ND		0.00954
PCB 133 (BZ)				0.763				ND		0.00920
PCB 165 (BZ)				1.001				ND		0.00701
PCB 146 (BZ)				0.881				ND		0.00797
PCB 161 (BZ)				1.100				ND		0.00638
PCB 153 (BZ)				1.071				ND	C	0.00655
PCB 168 (BZ)				1.071				ND	C153	0.00655
PCB 141 (BZ)				0.803				ND		0.00874
PCB 130 (BZ)				0.717				ND		0.00978
PCB 137 (BZ)				0.832				ND		0.00844
PCB 164 (BZ)				1.052				ND		0.00667
PCB 138 (BZ)		19852		0.926		0.132667		0.132667	C129	0.00758

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6A1AC	Prep Batch	1187028	Lot No	H1G050439-003
Data File	/20110713s1/apmkm6a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133604	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/23/11
Analysis Time	06:36	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 163 (BZ)	40:20	19852	3610	0.926		0.132667		0.132667	C129	0.00758
PCB 129 (BZ)		19852		0.926		0.132667		0.132667	C	0.00758
PCB 160 (BZ)		19852		0.926		0.132667		0.132667	C129	0.00758
PCB 158 (BZ)				1.174				ND		0.00598
PCB 166 (BZ)				0.958				ND	C128	0.00733
PCB 128 (BZ)				0.958				ND	C	0.00733
PCB 159 (BZ)				1.095				ND		0.00641
PCB 162 (BZ)				1.108				ND		0.00633
PCB 167 (BZ)				1.126				ND		0.00510
PCB 156 (BZ)	44:28	2222	972	1.130		0.011699		0.011699	QCJ	0.00729
PCB 157 (BZ)		2222		1.130		0.011699		0.011699	QC156J	0.00729
PCB 169 (BZ)				1.243				ND		0.00526
Total Heptachlorobiphenyl		5146				0.039522		0.039522	J	0.161
13C12-PCB 188	37:40	2700688	525926	1.217	20.00	18.949680	94.75	18.949680		0.0109
13C12-PCB 178	40:45	1808307	346822	0.881	20.00	17.530424	87.65	17.530424		0.0151
13C12-PCB 180	45:48	2341878	435639	1.000	20.00	20.000000	100.00	20.000000		0.0133
13C12-PCB 170	47:06	1813574	317128	0.828	20.00	18.701531	93.51	18.701531		0.0161
13C12-PCB 189	50:11	3732063	660797	1.588	20.00	19.788127	98.94	19.788127		0.00846
PCB 188 (BZ)				1.111				ND		0.00591
PCB 179 (BZ)				1.220				ND		0.00671
PCB 184 (BZ)				1.188				ND		0.00689
PCB 176 (BZ)				1.286				ND		0.00637
PCB 186 (BZ)				1.223				ND		0.00669
PCB 178 (BZ)				0.906				ND		0.00903
PCB 175 (BZ)				0.980				ND		0.00836
PCB 187 (BZ)				1.054				ND		0.00776
PCB 182 (BZ)				1.009				ND		0.00812
PCB 183 (BZ)				0.987				ND	C	0.00829
PCB 185 (BZ)				0.987				ND	C183	0.00829
PCB 174 (BZ)				0.941				ND		0.00870
PCB 177 (BZ)				0.918				ND		0.00891
PCB 181 (BZ)				0.980				ND		0.00835
PCB 171 (BZ)				0.872				ND	C	0.00939
PCB 173 (BZ)				0.872				ND	C171	0.00939
PCB 172 (BZ)				0.881				ND		0.00929
PCB 192 (BZ)				1.152				ND		0.00710
PCB 193 (BZ)	45:49	5146	1325	1.154		0.039522		0.039522	C180J	0.00709
PCB 180 (BZ)		5146		1.154		0.039522		0.039522	CJ	0.00709
PCB 191 (BZ)				1.287				ND		0.00636
PCB 170 (BZ)				1.102				ND		0.00987
PCB 190 (BZ)				1.265				ND		0.00647
PCB 189 (BZ)				1.073				ND		0.00486
Total Octachlorobiphenyl								ND		0.117
13C12-PCB 202	43:01	2147869	421843	0.907	20.00	20.217440	101.09	20.217440		0.0139
13C12-PCB 194	52:15	2375018	431713	1.000	20.00	20.000000	100.00	20.000000		0.0127
13C12-PCB 205	52:44	3273690	603735	1.395	20.00	19.766791	98.83	19.766791		0.00913
PCB 202 (BZ)				1.007				ND		0.0107
PCB 200 (BZ)/201 (IUPAC)				1.134				ND		0.00951
PCB 204 (BZ)				1.034				ND		0.0104

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6A1AC	Prep Batch	1187028	Lot No	H1G050439-003
Data File	/20110713s1/apmkm6a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133604	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/23/11
Analysis Time	06:36	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 197 (BZ)				1.075				ND		0.0100
PCB 199 (BZ)/200 (IUPAC)				1.095				ND		0.00985
PCB 198 (BZ)				0.775				ND	C	0.0139
PCB 201 (BZ)/199 (IUPAC)				0.775				ND	C198	0.0139
PCB 196 (BZ)				0.800				ND		0.0135
PCB 203 (BZ)				0.868				ND		0.0124
PCB 195 (BZ)				0.765				ND		0.00985
PCB 194 (BZ)				0.830				ND		0.00908
PCB 205 (BZ)				0.986				ND		0.00764
Total Nonachlorobiphenyl		2169	592			0.020757		0.020757	J	0.0313
13C12-PCB 208	49:40	2515181	478188	1.155	20.00	18.336517	91.68	18.336517		0.0101
13C12-PCB 206	54:25	1877421	351878	0.808	20.00	19.573352	97.87	19.573352		0.0145
PCB 208 (BZ)				1.035				ND		0.00980
PCB 207 (BZ)				1.276				ND		0.00916
PCB 206 (BZ)	54:26	2169	592	1.113		0.020757		0.020757	J	0.0124
13C12-PCB 209	56:01	1784829	327575	0.857	20.00	17.530447	87.65	17.530447		0.0285
PCB 209 (BZ)	56:04	6273	1180	1.052		0.066810		0.066810	QJ	0.0151

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6A1AC	Prep Batch	1187028	Lot No	H1G050439-003
Data File	/20110713s1/apmkm6a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133604	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	07/14/11 06:36	Matrix	AIR	Date Sampled	06/23/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	135	138	54	55	0.98 *	/	
	PCB 3 (BZ)	14:21	14:21	0	43276	11397	13064	3695	3.80 *	AVB/AVV	R
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	153	655	61	262	0.23 *	/	
	13C12-PCB 1	12:08	12:09	-1	3035815	954277	1071316	321312	3.18	ABV/ABV	
	13C12-PCB 3	14:21	14:21	0	3127716	935439	902921	273835	3.34	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	215	443	86	177	0.49 *	/	
	PCB 11 (BZ)	19:57	19:55	2	337533	205236	75216	46475	1.64	AVV/AVV	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	220	165	88	66	1.33 *	/	
	13C12-PCB 4	14:36	14:37	-1	1092880	661450	355037	221360	1.65	ABV/ABV	
	13C12-PCB 9	16:34	16:34	0	2368969	1455088	652987	402122	1.63	AVV/ABV	
	13C12-PCB 8	17:26	17:26	0	1051157	625931	259703	157266	1.68	AVV/AVV	
	13C12-PCB 15	20:34	20:31	3	1998620	1199474	451299	268196	1.67	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	123	95	49	38	1.29 *	/	
	PCB 28 (BZ)	23:36	23:35	1	25456	26362	5560	6002	0.97	ABV/AVV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	478	353	191	141	1.35 *	/	
	13C12-PCB 19	17:44	17:45	-1	712227	675176	180136	171083	1.05	AVV/ABV	
	13C12-PCB 32	21:00	21:00	0	1658426	1544703	375075	356711	1.07	AVV/AVV	
	13C12-PCB 31	23:17	23:17	0	2749678	2567375	589638	557782	1.07	ABV/ABV	
	13C12-PCB 28	23:34	23:34	0	2273384	2149648	494711	462102	1.06	AVV/AVV	
	13C12-PCB 37	27:37	27:35	2	2042533	1905476	380459	353197	1.07	ABV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	80	103	32	41	0.78	/	
	PCB 70 (BZ)	30:13	30:11	2	24865	31670	4153	4705	0.79	AVB/ABV	
	PCB 77 (BZ)	34:57	34:53	4	1469	1785	395	460	0.82	ABB/ABB	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	140	140	56	56	1.00 *	/	
	13C12-PCB 54	20:51	20:51	0	846562	1098327	194595	250914	0.77	ABV/ABV	
	13C12-PCB 52	25:24	25:24	0	1254800	1608700	262002	340246	0.78	ABV/ABV	
	13C12-PCB 79	33:22	33:19	3	860594	1086500	163423	194403	0.79	ABV/ABV	
	13C12-PCB 81	34:22	34:19	3	1420033	1815293	262397	337420	0.78	ABV/ABV	
	13C12-PCB 77	34:57	34:52	5	1507575	1914244	265389	336329	0.79	AVV/AVV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	85	88	34	35	0.97 *	/	
	PCB 118 (BZ)	37:14	37:13	1	23918	15058	4569	2881	1.59	ABB/ABB	
	PCB 105 (BZ)	38:27	38:25	2	10072	5376	1785	979	1.87 *	ABB/ABB	R
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	213	163	85	65	1.31 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6A1AC	Prep Batch	1187028	Lot No	H1G050439-003
Data File	/20110713s1/apmkm6a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133604	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	07/14/11 06:36	Matrix	AIR	Date Sampled	06/23/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	13C12-PCB 104	26:20	26:21	-1	1473268	902156	314853	191622	1.63	ABV/ABV	
	13C12-PCB 95	29:20	29:19	1	555059	349014	109736	70777	1.59	ABV/ABV	
	13C12-PCB 101	32:14	32:14	0	1416841	872915	267925	164307	1.62	ABV/ABV	
	13C12-PCB 111	34:54	34:53	1	1709560	1042111	327944	199112	1.64	ABV/ABV	
	13C12-PCB 123	36:53	36:52	1	2157935	1352308	403185	246040	1.60	ABV/ABV	
	13C12-PCB 118	37:13	37:11	2	2320935	1423813	438441	262593	1.63	AVV/AVV	
	13C12-PCB 114	37:45	37:43	2	2293393	1393417	423886	264660	1.65	AVV/AVV	
	13C12-PCB 105	38:25	38:23	2	2246028	1397385	426674	260873	1.61	ABB/ABB	
	13C12-PCB 127	39:53	39:48	5	2753185	1703017	495397	305986	1.62	ABV/ABV	
	13C12-PCB 126	41:30	41:26	4	2383919	1472940	453505	279435	1.62	ABV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	90	83	36	33	1.09	/	
	PCB 163 (BZ)	40:20	40:19	1	10813	9039	2015	1595	1.20	ABV/ABB	
	PCB 156 (BZ)	44:28	44:26	2	1230	1391	538	383	0.88 *	MBB/ABB	R
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	170	138	68	55	1.24	/	
	13C12-PCB 155	31:57	31:59	-2	1275294	989162	257866	191617	1.29	ABV/ABV	
	13C12-PCB 153	39:03	39:03	0	829400	652493	156374	127711	1.27	ABV/ABV	
	13C12-PCB 138	40:19	40:17	2	1531745	1171714	290619	227745	1.31	ABV/ABV	
	13C12-PCB 167	43:18	43:17	1	1850802	1417191	341425	259254	1.31	AVV/ABV	
	13C12-PCB 156	44:28	44:27	1	3785429	2937815	474724	362893	1.29	AVV/AVV	
	13C12-PCB 169	47:43	47:39	4	1653608	1279220	296554	231360	1.29	ABV/ABV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	98	75	39	30	1.30 *	/	
	PCB 193 (BZ)	45:49	45:46	3	2558	2588	612	713	0.99	ABB/ABB	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	150	140	60	56	1.07	/	
	13C12-PCB 188	37:40	37:42	-2	1401097	1299591	268933	256993	1.08	ABV/ABV	
	13C12-PCB 178	40:45	40:44	1	931333	876974	177665	169157	1.06	ABV/ABV	
	13C12-PCB 180	45:48	45:48	0	1219198	1122680	223460	212179	1.09	ABV/ABV	
	13C12-PCB 170	47:06	47:04	2	947329	866245	165446	151682	1.09	AVV/ABV	
	13C12-PCB 189	50:11	50:09	2	1911481	1820582	340419	320378	1.05	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	110	118	44	47	0.94	/	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	138	138	55	55	1.00	/	
	13C12-PCB 202	43:01	43:02	-1	1029989	1117880	201946	219897	0.92	ABV/ABV	
	13C12-PCB 194	52:15	52:15	0	1132602	1242416	205601	226112	0.91	ABV/ABV	
	13C12-PCB 205	52:44	52:42	2	1558693	1714997	288613	315122	0.91	AVV/AVV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	113	130	45	52	0.87	/	
	PCB 206 (BZ)	54:26	54:27	-1	899	1270	261	331	0.71	ABB/AVB	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6A1AC	Prep Batch	1187028	Lot No	H1G050439-003
Data File	/20110713s1/apmkm6a.d	Prep Date	07/06/11	SDG No	
Analysis ID	133604	Prep Exp Date	07/23/11	Date Received	07/02/11
Analysis Date	07/14/11 06:36	Matrix	AIR	Date Sampled	06/23/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

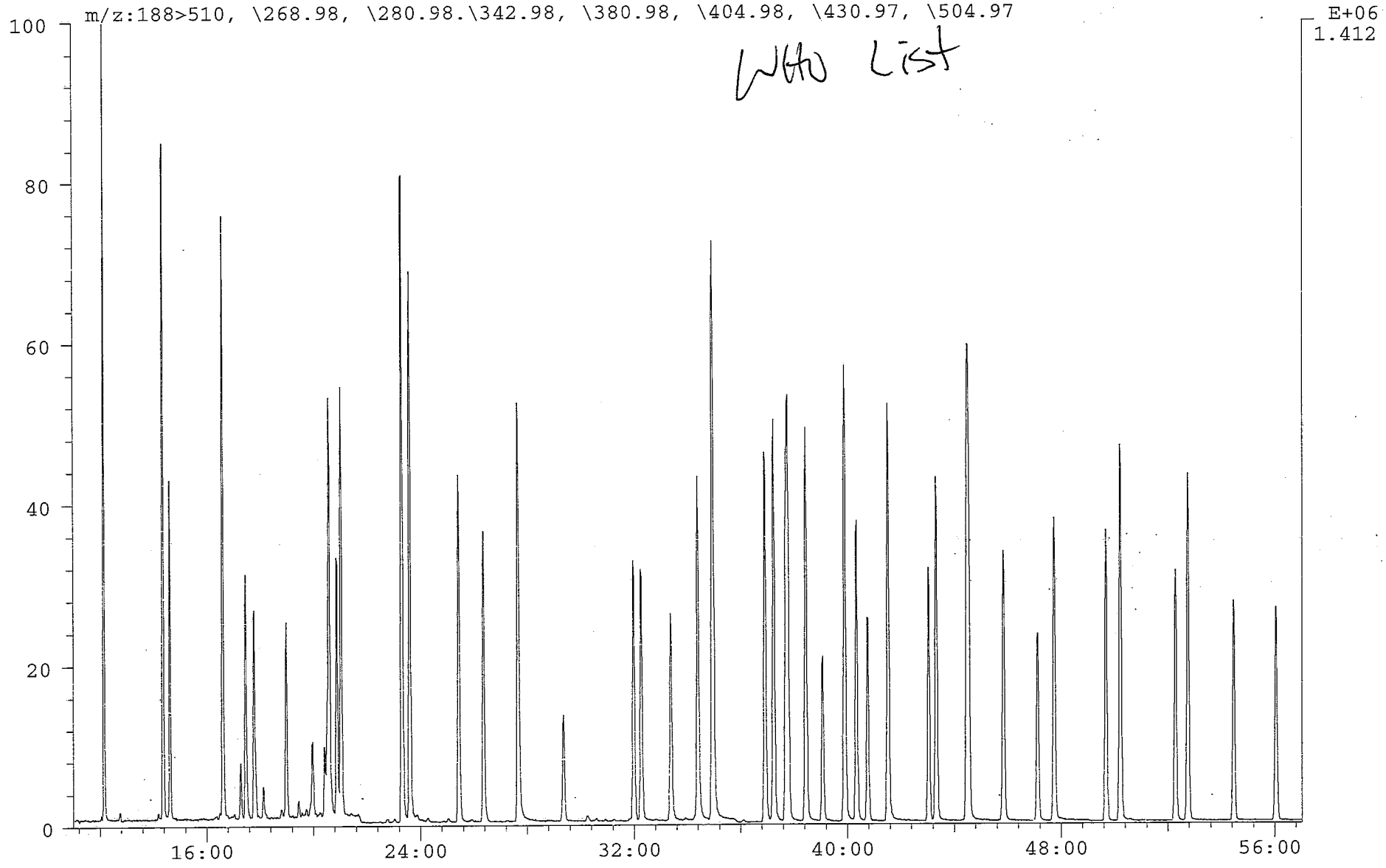
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89		
	Noise	00:00	00:00	0	135	118	54	47	1.15 *	/	
	13C12-PCB 208	49:40	49:41	-1	1115564	1399617	213900	264288	0.80	ABV/ABV	
	13C12-PCB 206	54:25	54:27	-2	813102	1064319	157828	194050	0.76	ABV/ABV	
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79		
	Noise	00:00	00:00	0	135	125	54	50	1.08 *	/	
	PCB 209 (BZ)	56:04	56:04	0	3544	3712	460	698	0.95 *	ABB/ABB	R
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79		
	Noise	00:00	00:00	0	243	285	97	114	0.85 *	/	
	13C12-PCB 209	56:01	56:03	-2	721833	1062996	130587	196988	0.68	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: apmkm6a 14-Jul-11 Elapse: 56:08 2550
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2 > 2600 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

cht L 7-14-11
Cal
@CIRcw MSD7-14-11

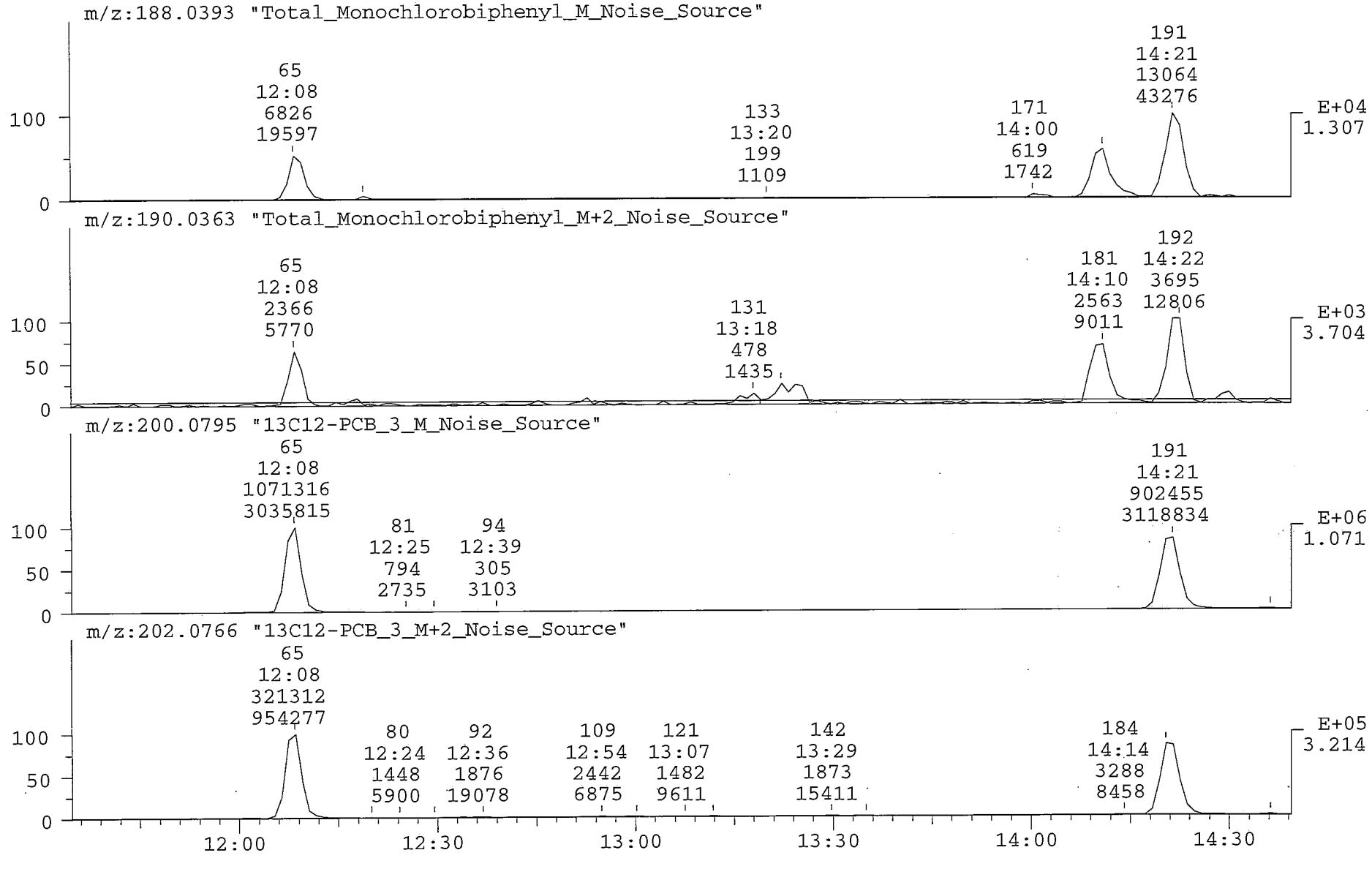


WO List

H-1029

1028

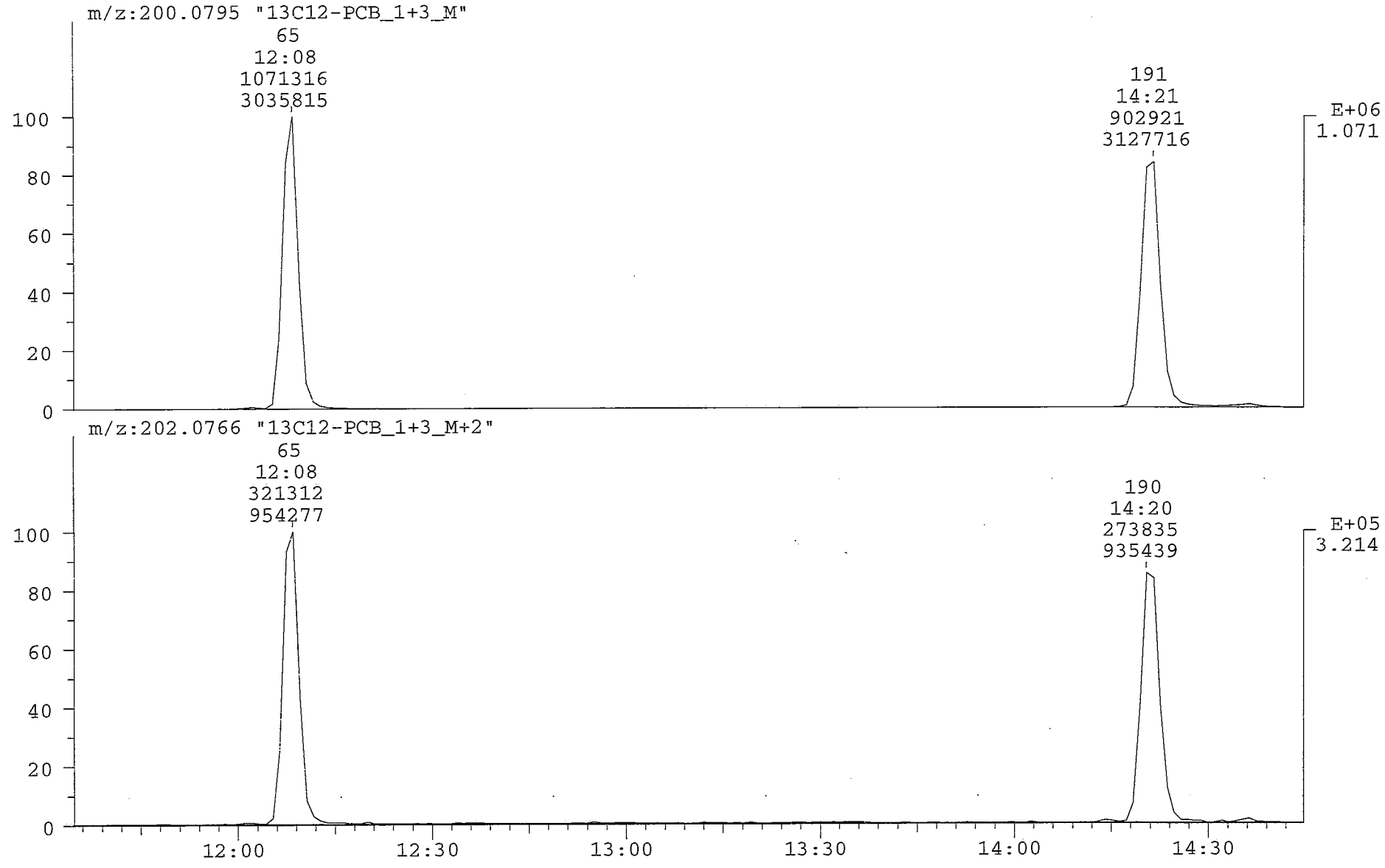
CHRO: apmkm6a 14-Jul-11 Elapse: 13:20.2 133
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1030

1029

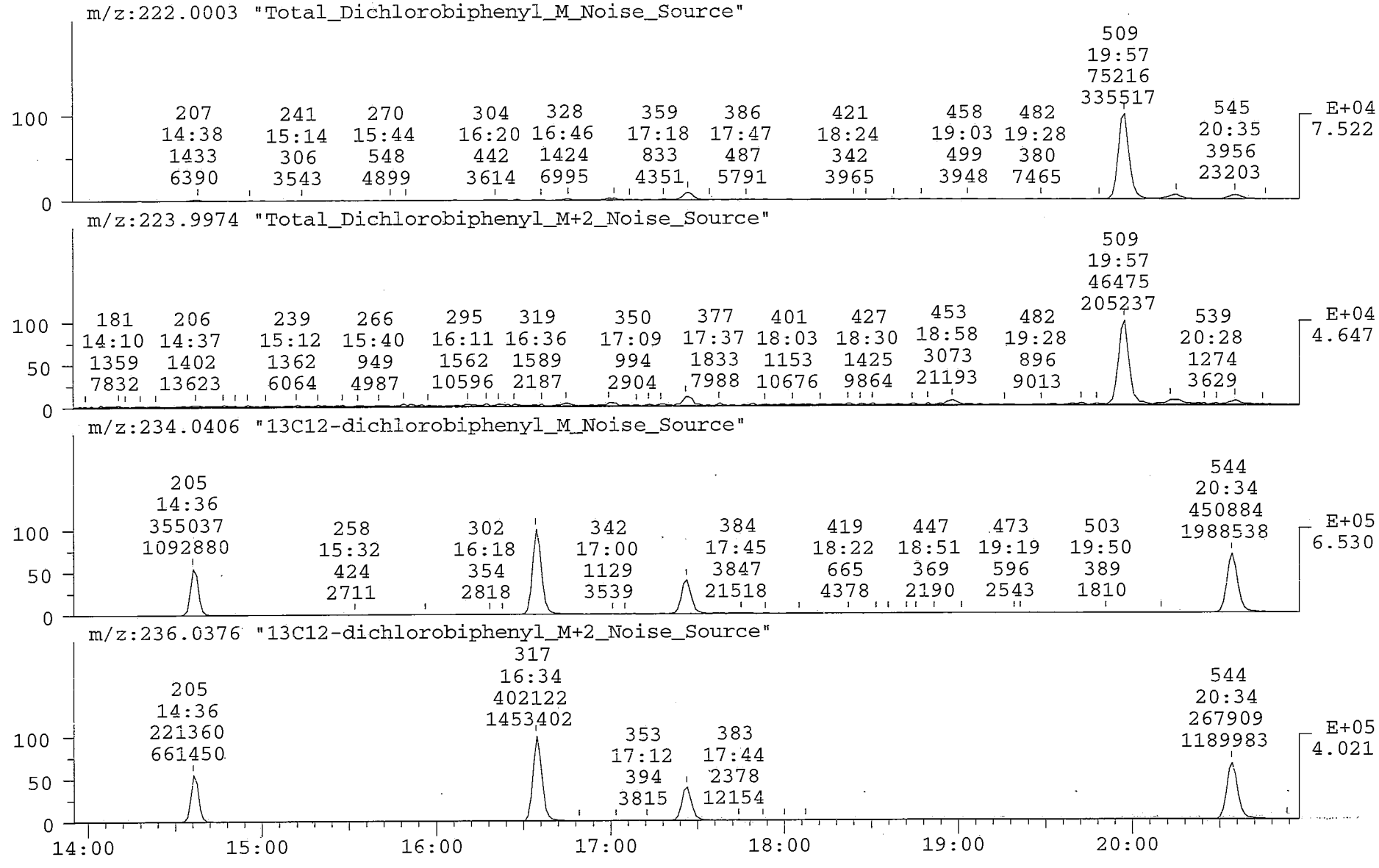
CHRO: apmkm6a 14-Jul-11 Elapse: 13:20.2 133
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 33 > 213 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1031

1030

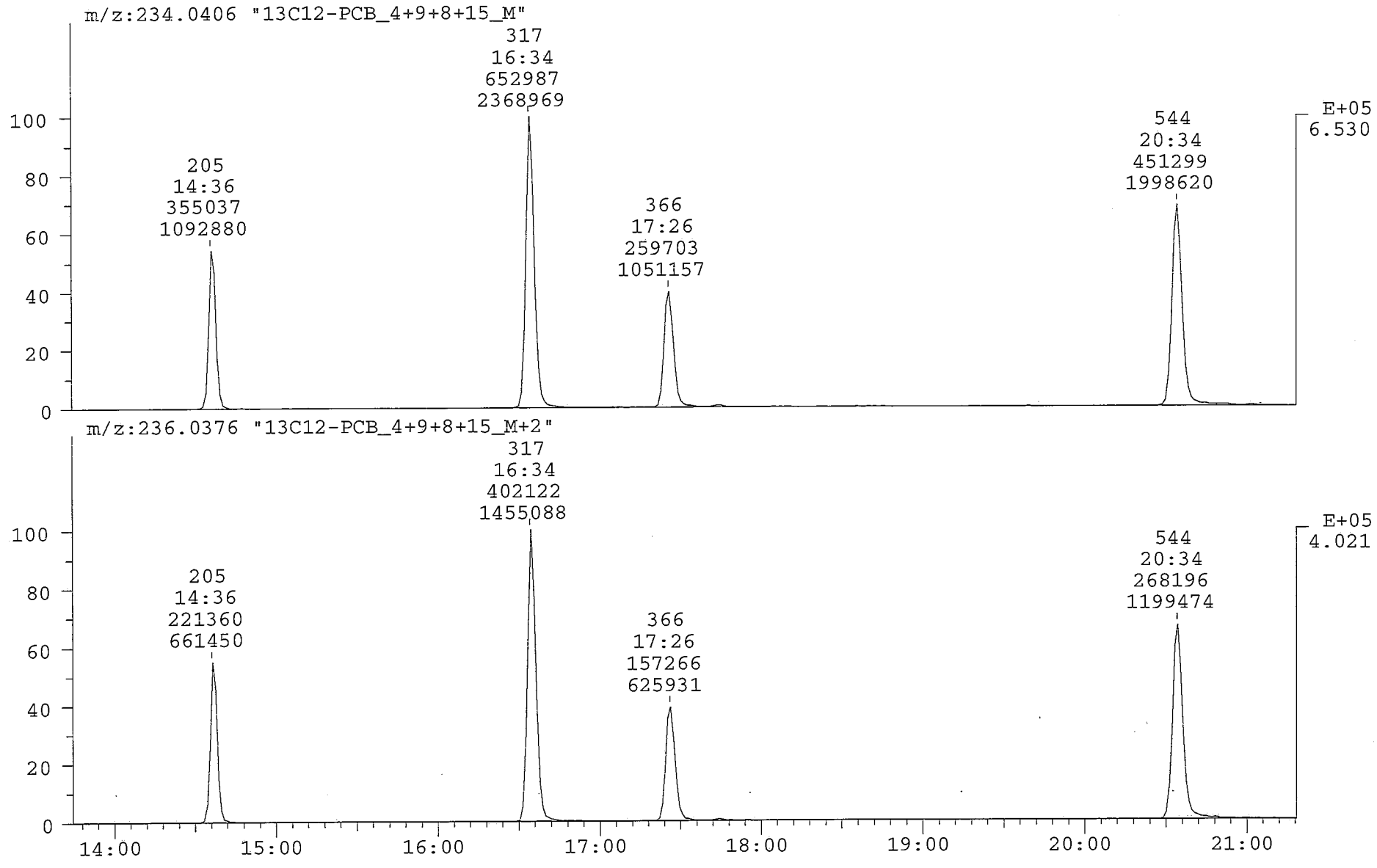
CHRO: apmkm6a 14-Jul-11 Elapse: 17:26.2 366
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1032

1031

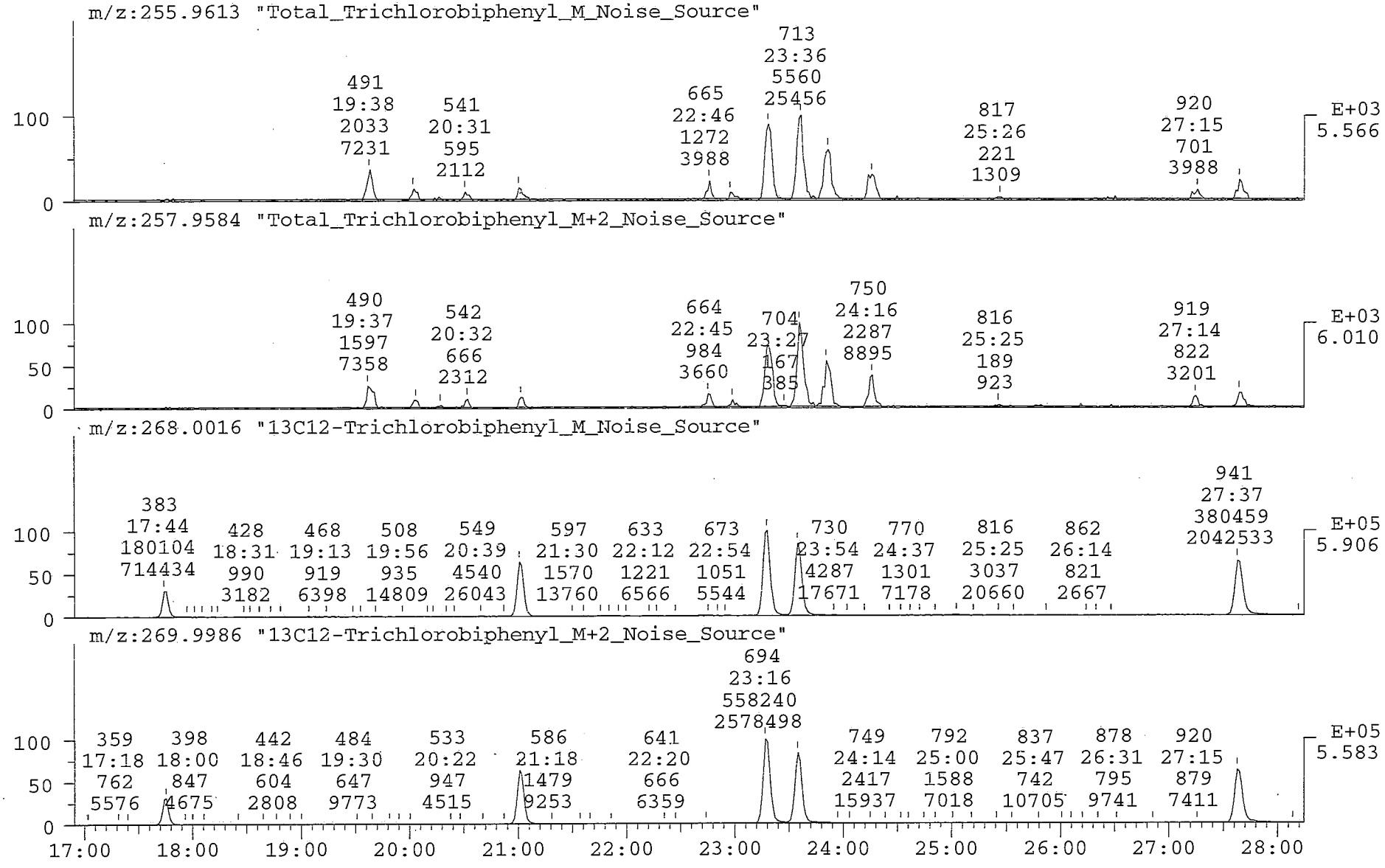
CHRO: apmkm6a 14-Jul-11 Elapse: 17:26.2 366
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1033

1032

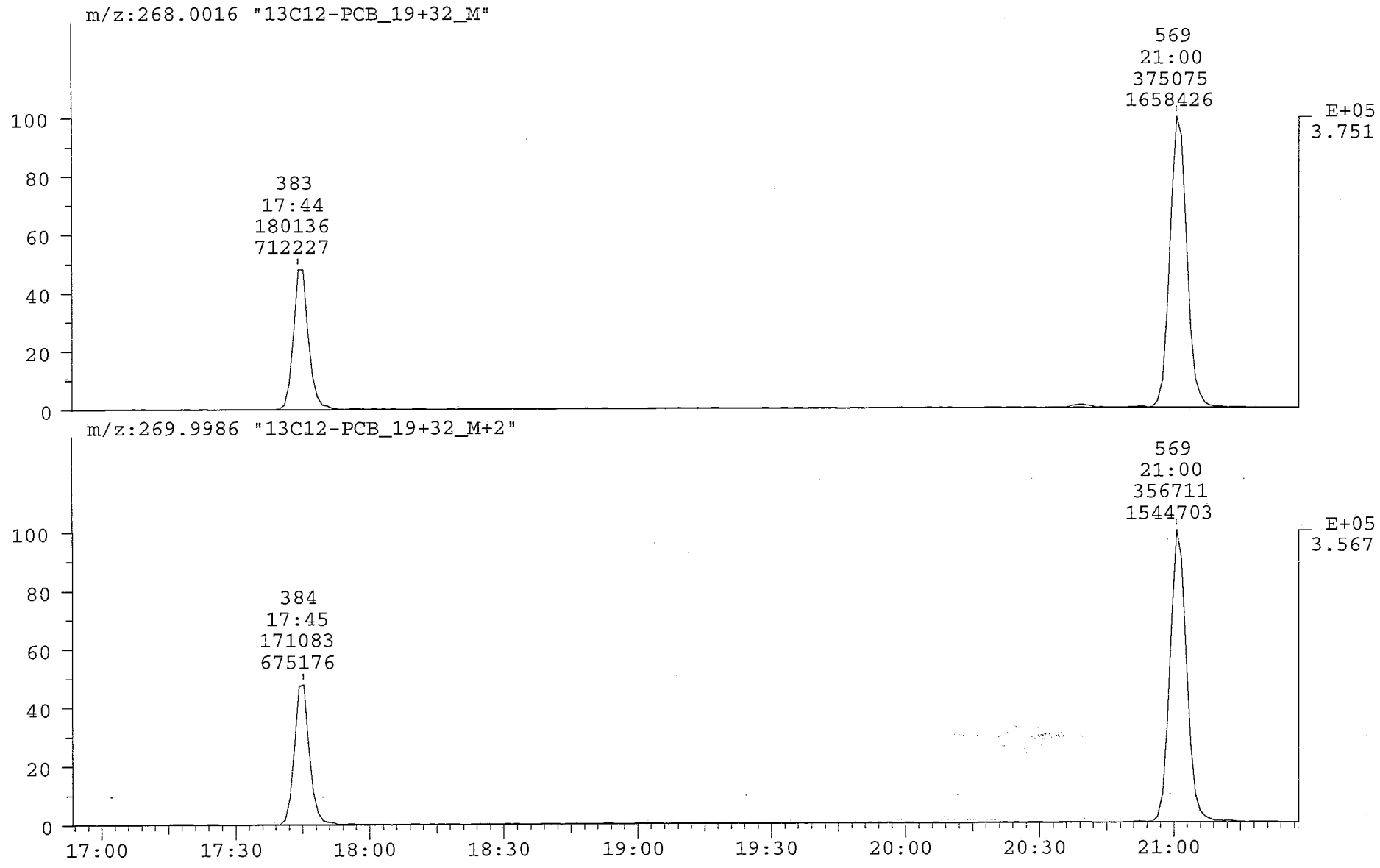
CHRO: apmkm6a 14-Jul-11 Elapse: 22:36.7 656
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1034

1033

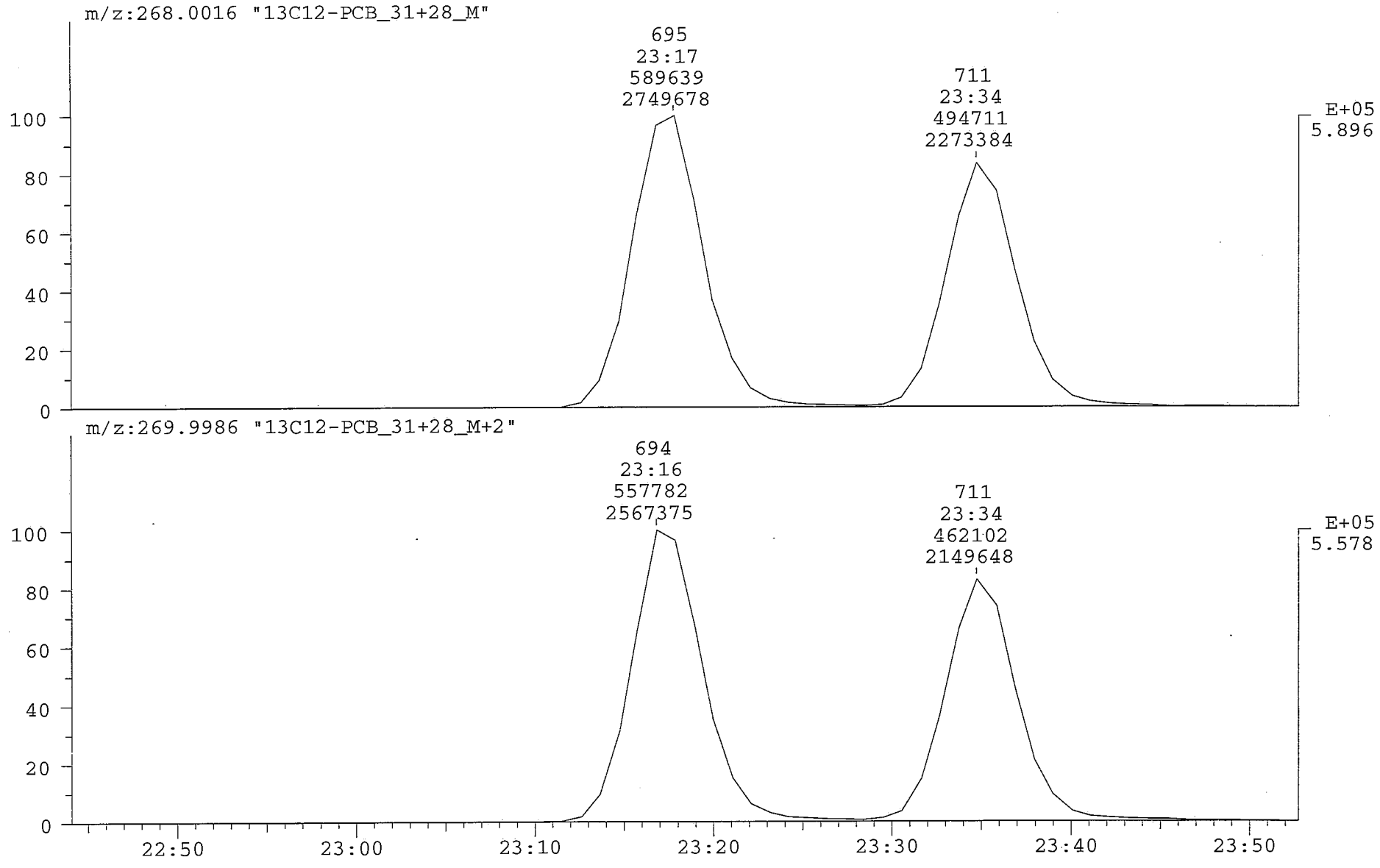
CHRO: apmkm6a 14-Jul-11 Elapse: 19:00.1 455
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 335 > 595 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1035

1034

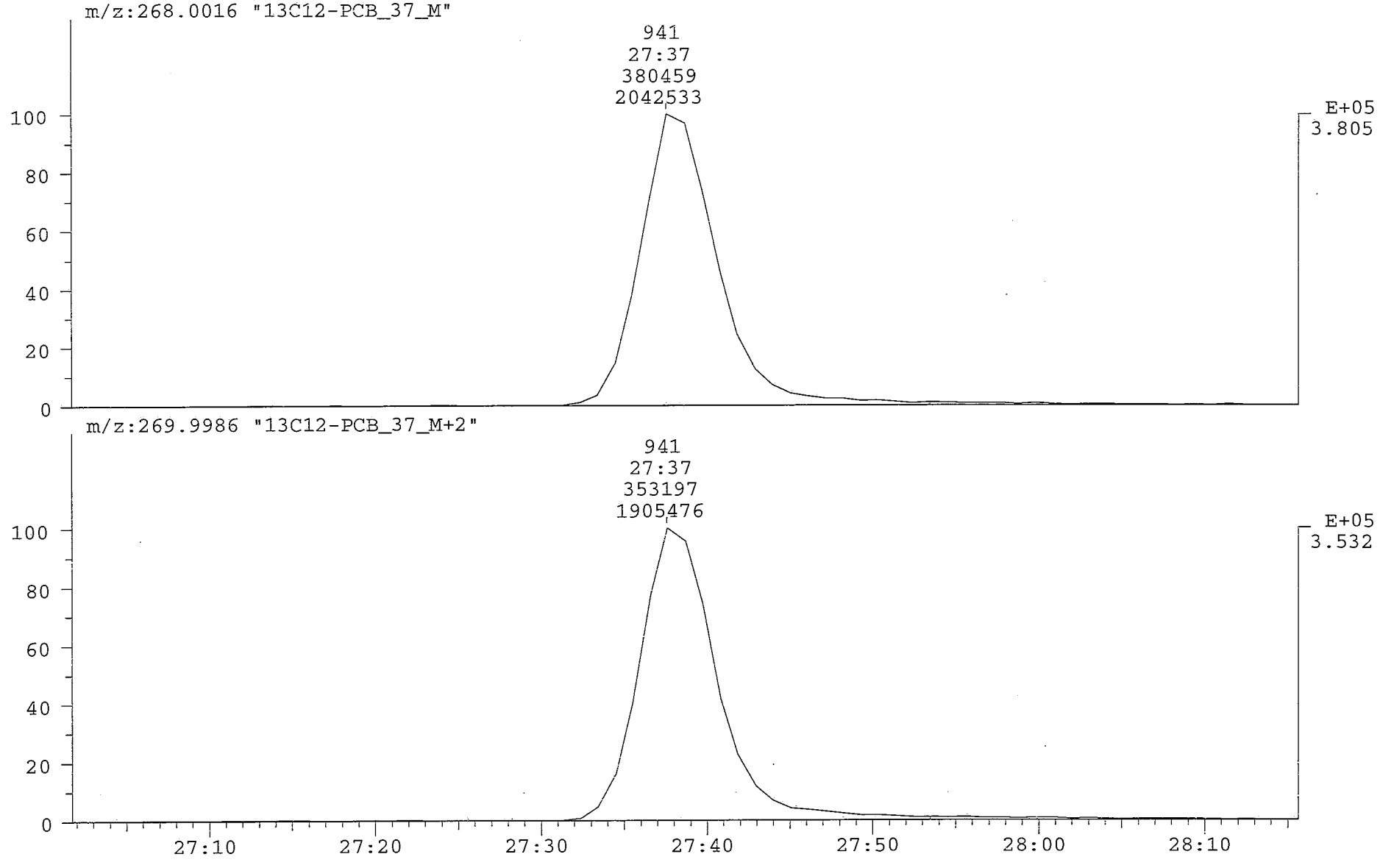
CHRO: apmkm6a 14-Jul-11 Elapse: 23:10.5 688
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 663 > 728 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1036

1035

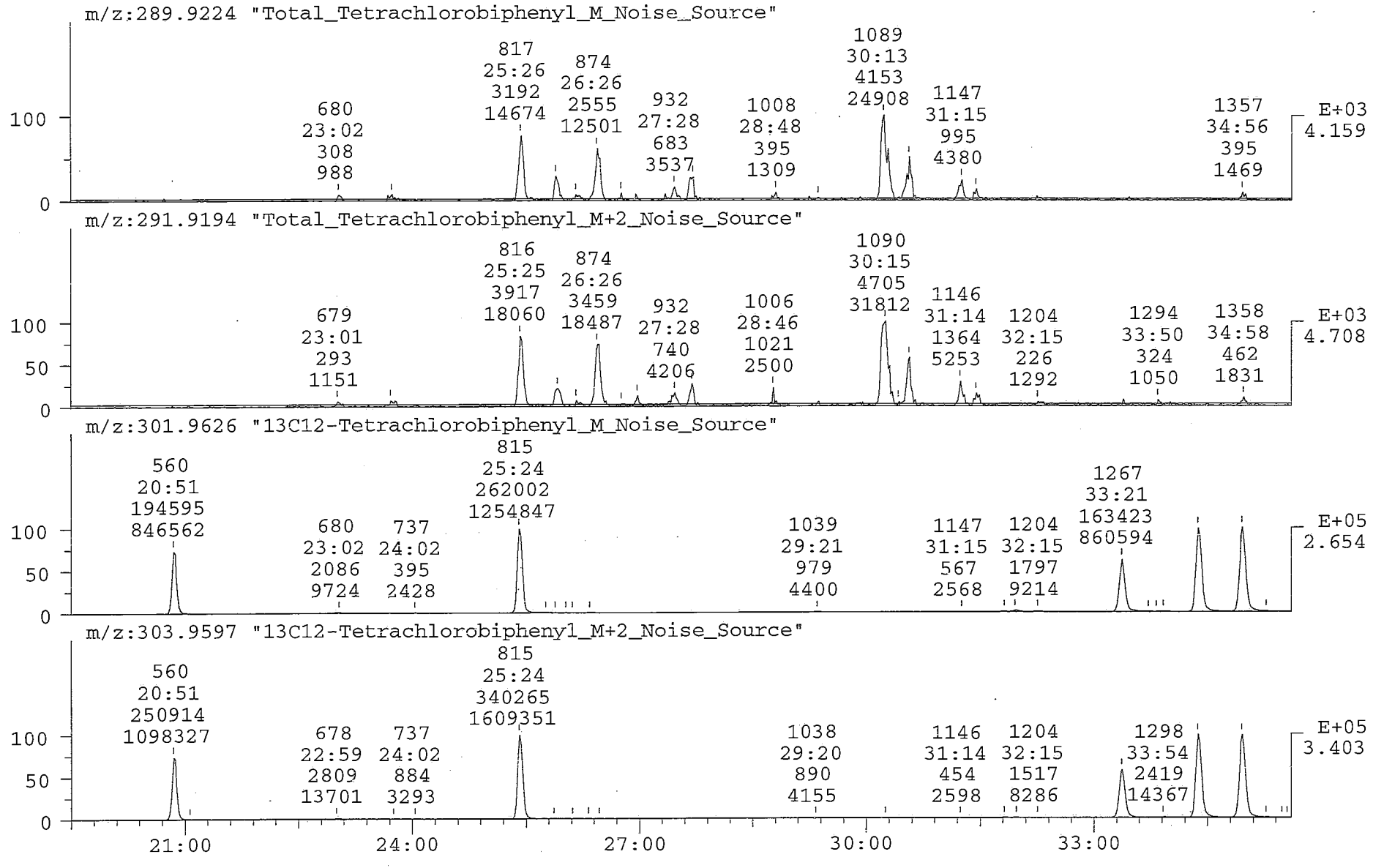
CHRO: apmkm6a 14-Jul-11 Elapse: 27:28.1 932
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 907 > 977 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1037

1036

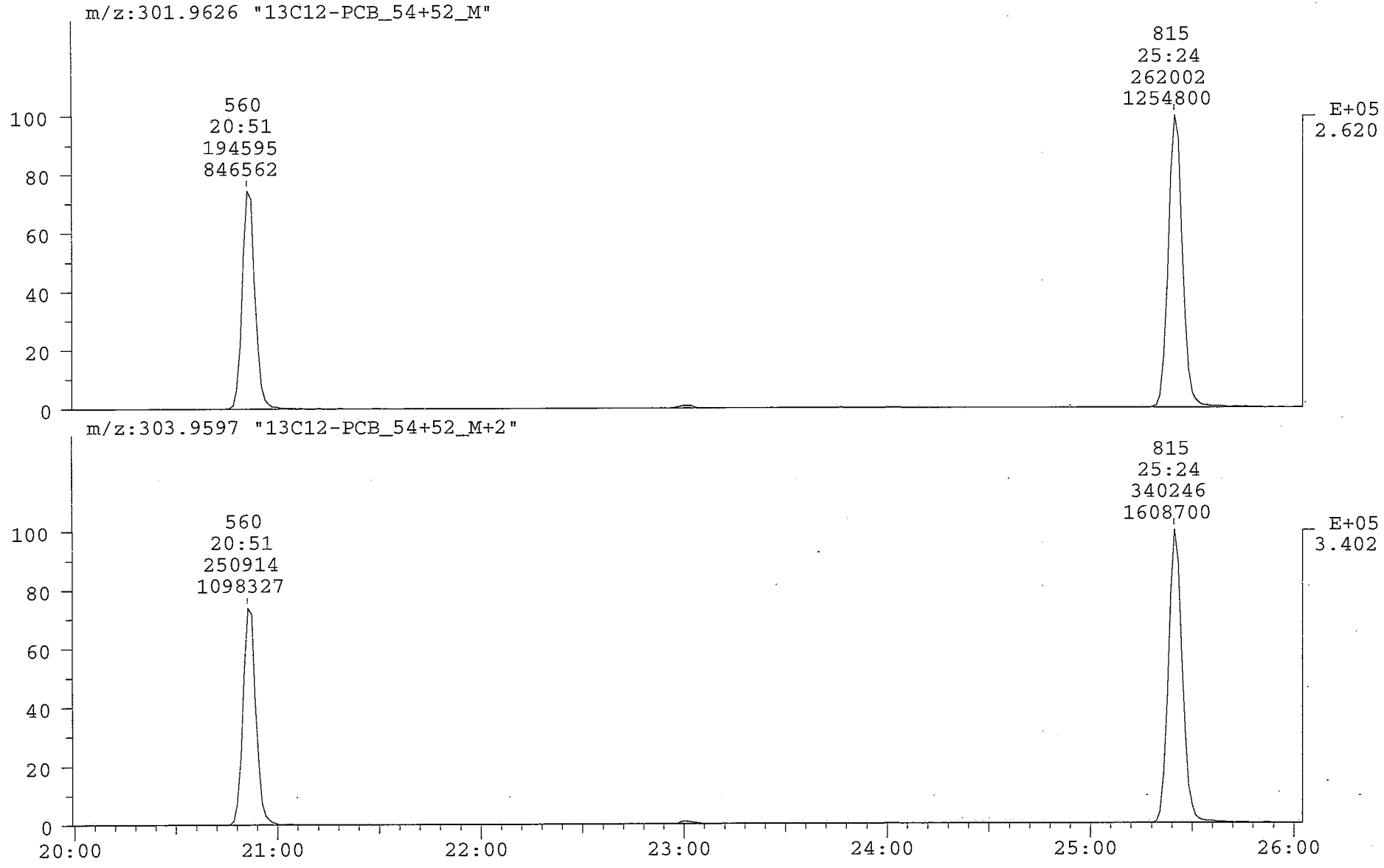
CHRO: apmkm6a 14-Jul-11 Elapse: 27:36.6 940
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 483 > 1394 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1038

1037

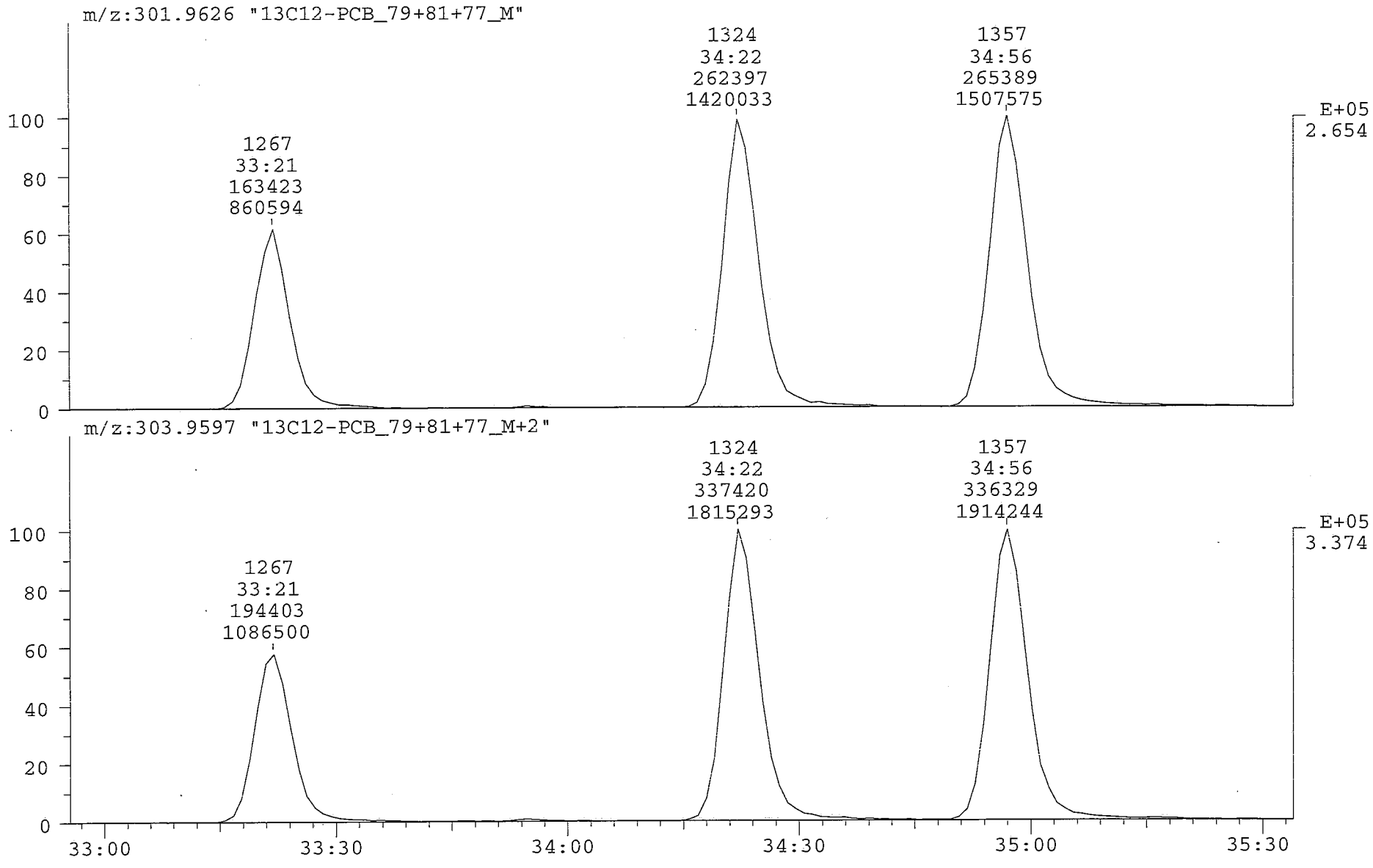
CHRO: apmkm6a 14-Jul-11 Elapse: 23:03.1 681
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 511 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1039

1038

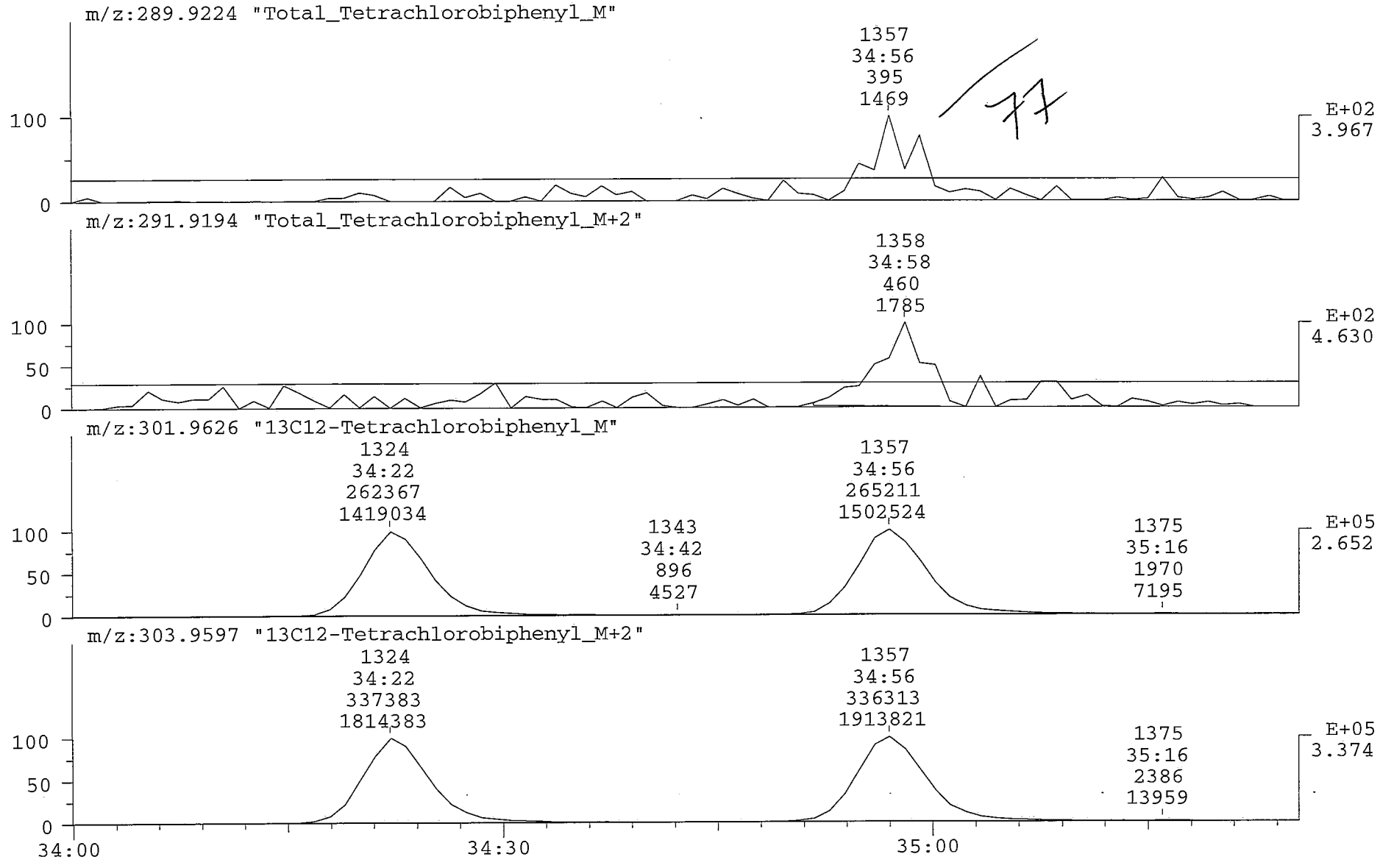
CHRO: apmkm6a 14-Jul-11 Elapse: 33:58 1302
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1242 > 1392 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1040

1039

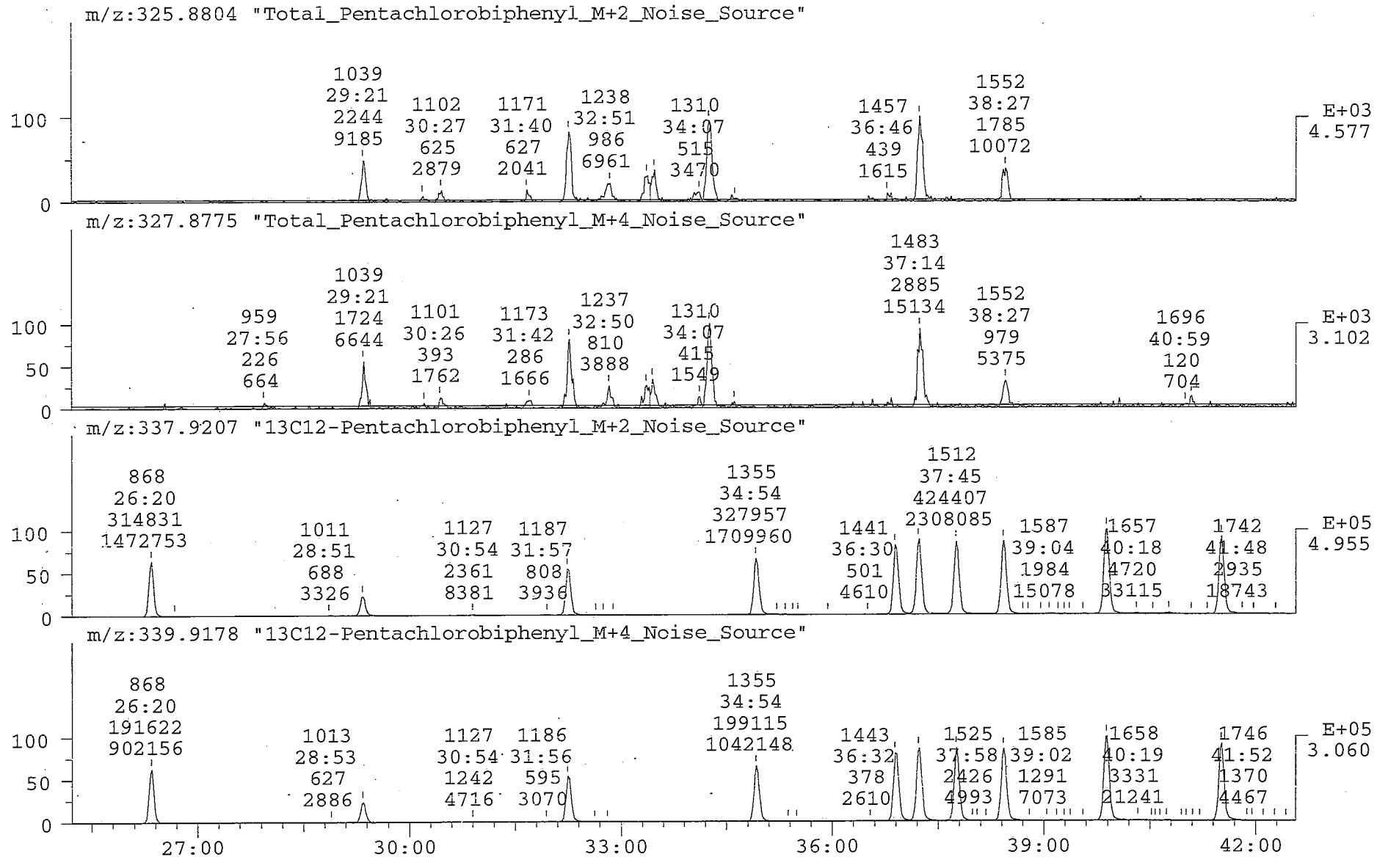
CHRO: apmkm6a 14-Jul-11 Elapse: 46:17 1996
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1303 > 1384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1041

1040

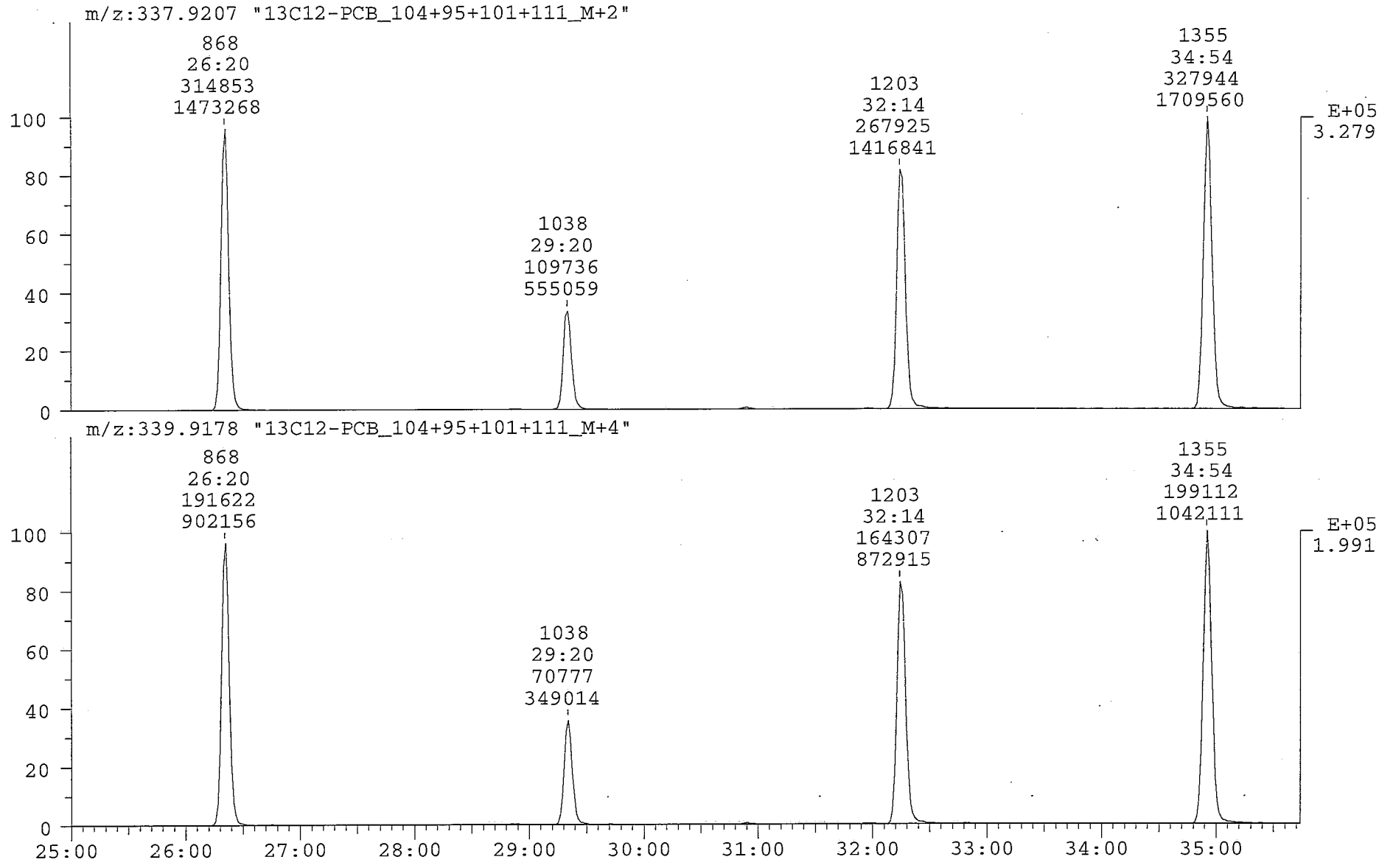
CHRO: apmkm6a 14-Jul-11 Elapse: 33:52 1296
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 804 > 1785 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1042

1041

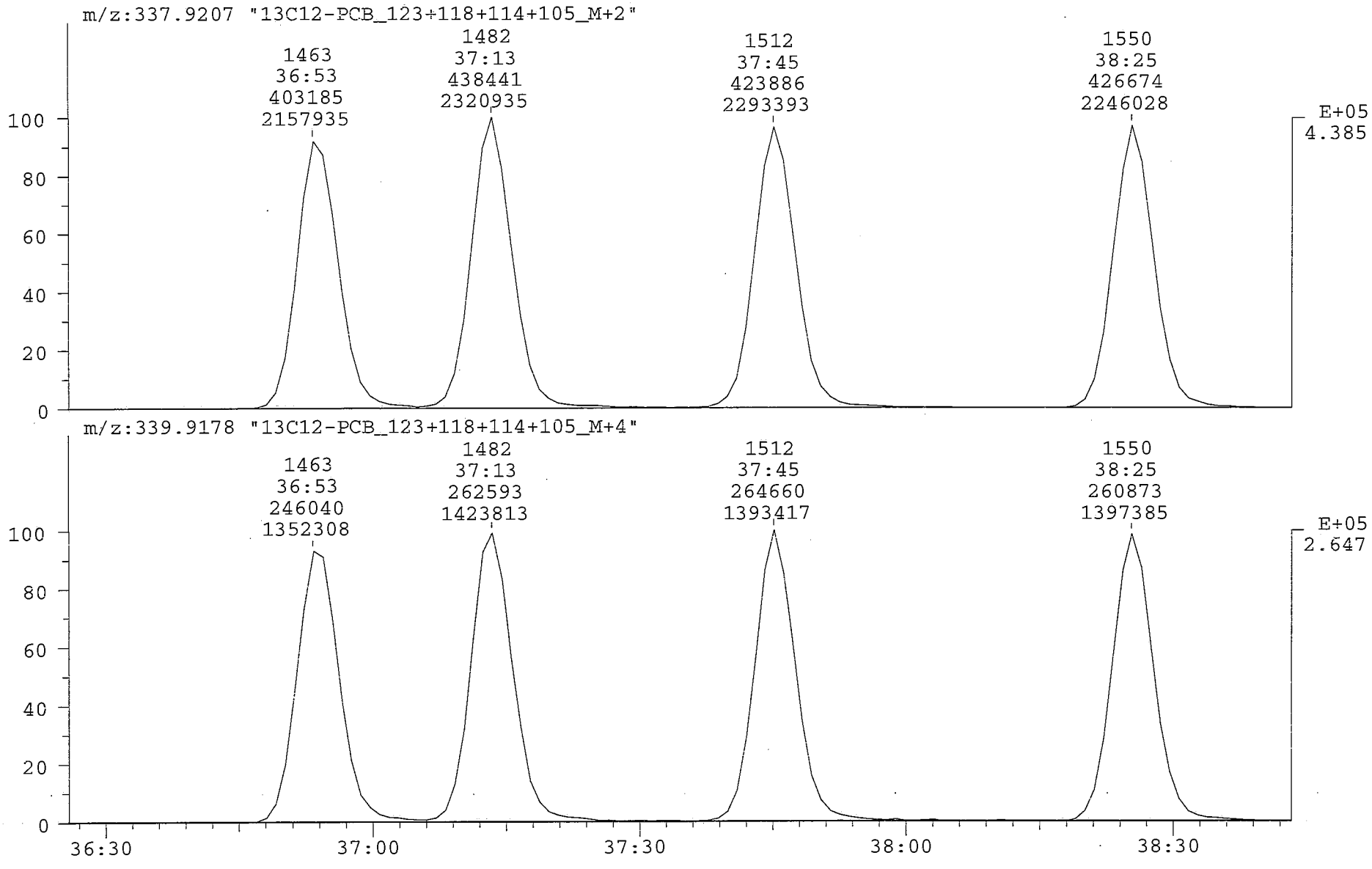
CHRO: apmkm6a 14-Jul-11 Elapse: 30:22 1097
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 792 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1043

1042

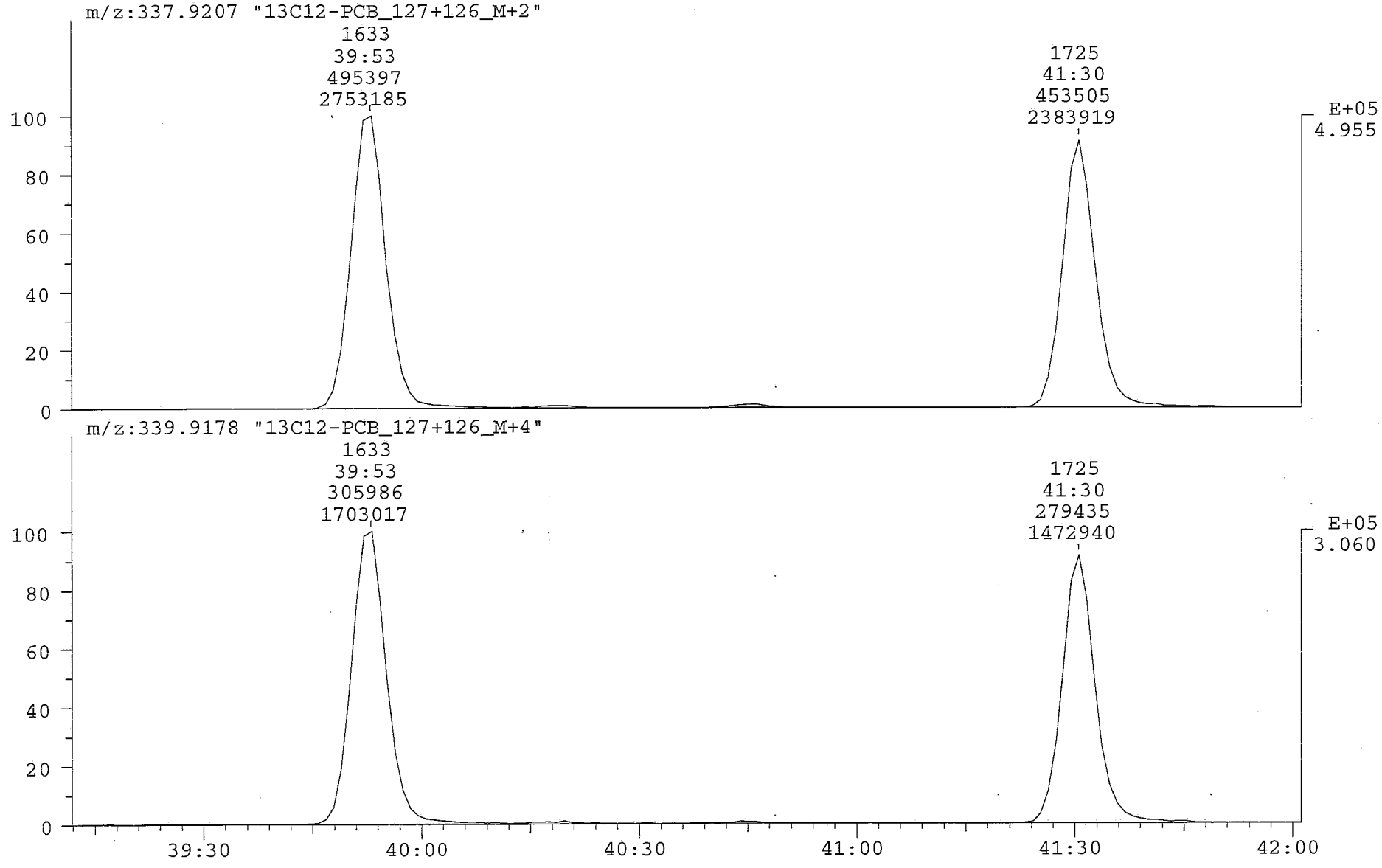
CHRO: apmkm6a 14-Jul-11 Elapse: 37:34 1502
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1437 > 1567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1044

1043

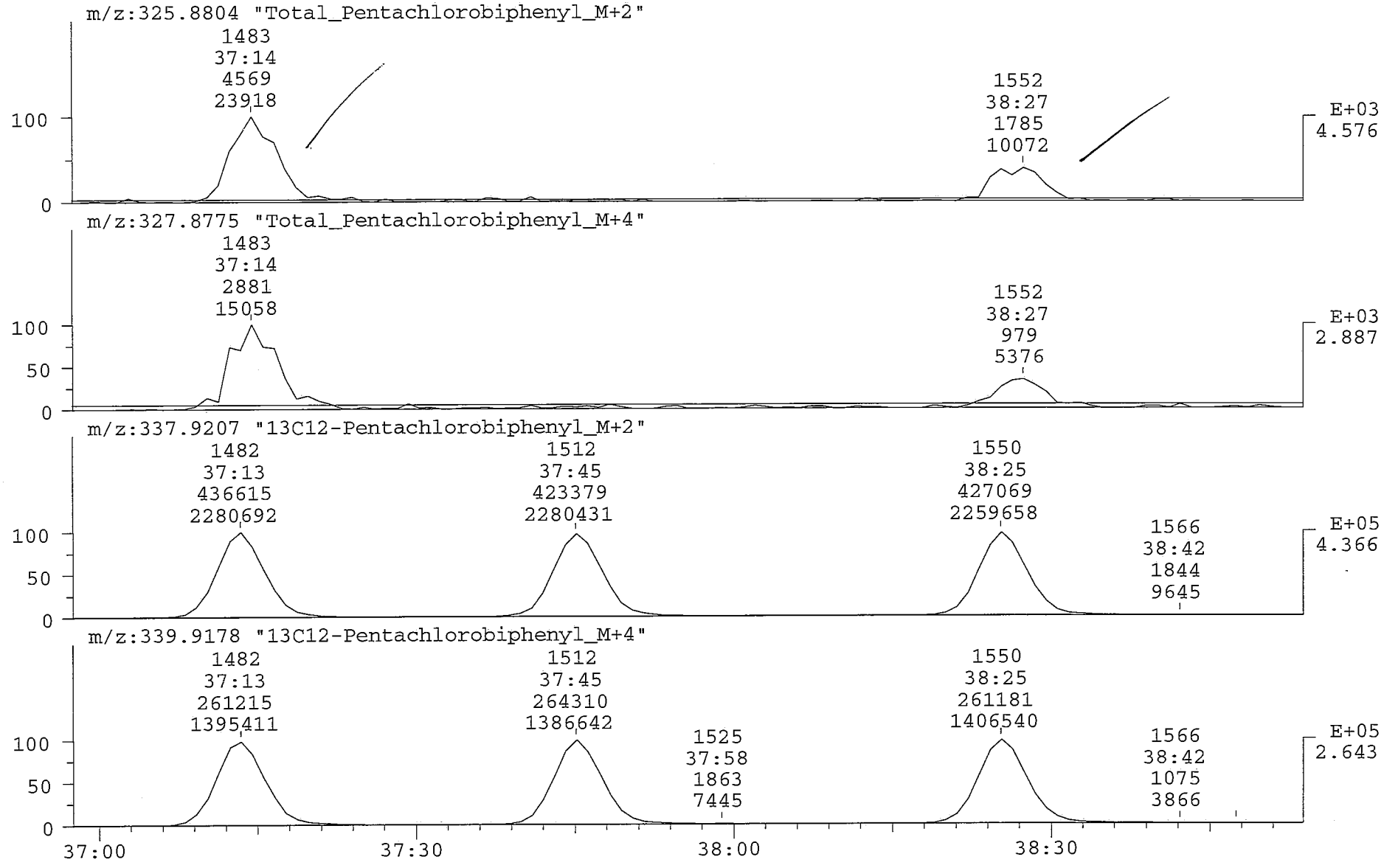
CHRO: apmkm6a 14-Jul-11 Elapse: 40:36 1674
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1594 > 1754 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1045

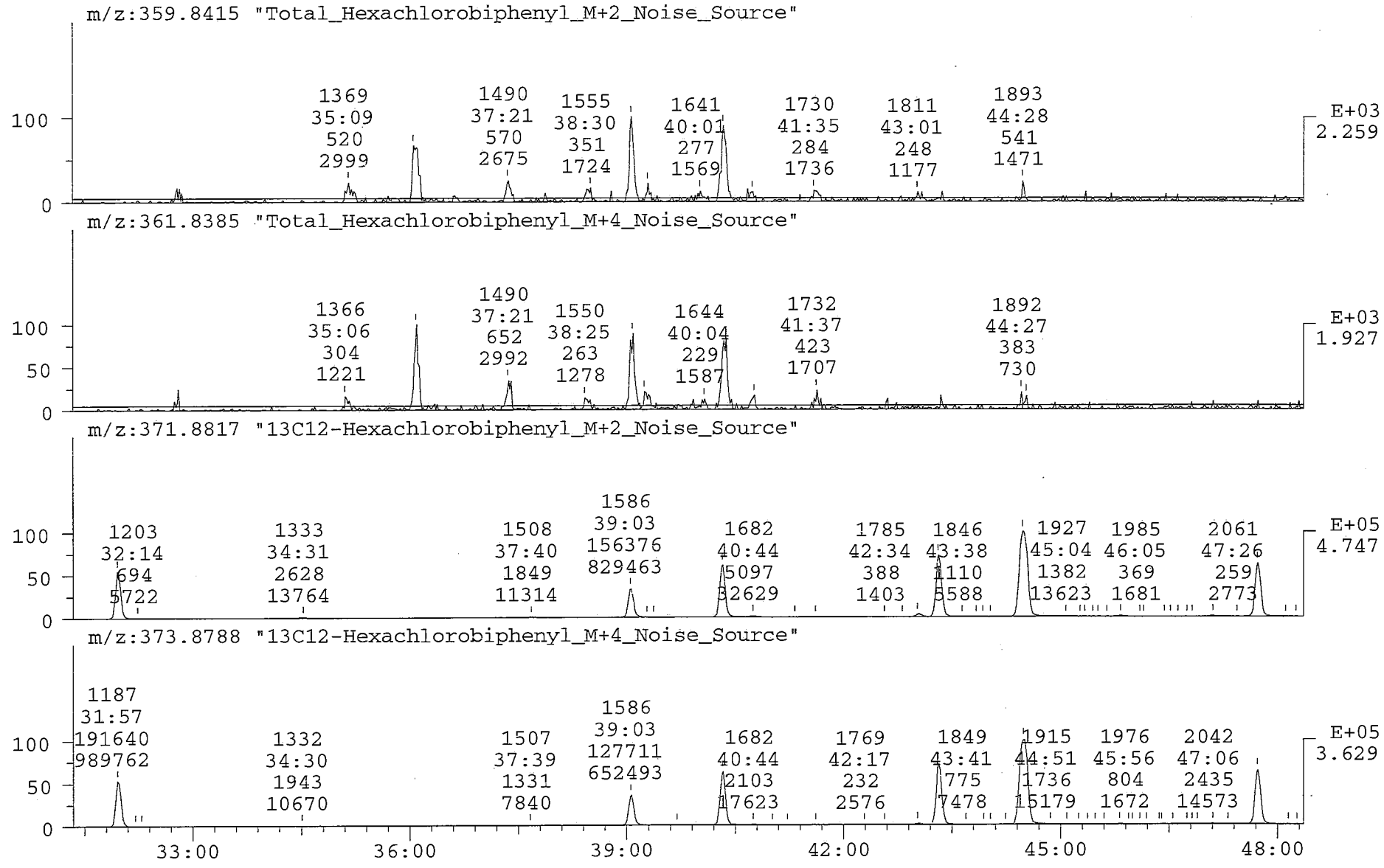
1044

CHRO: apmkm6a 14-Jul-11 Elapse: 46:17 1996
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1467 > 1577 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



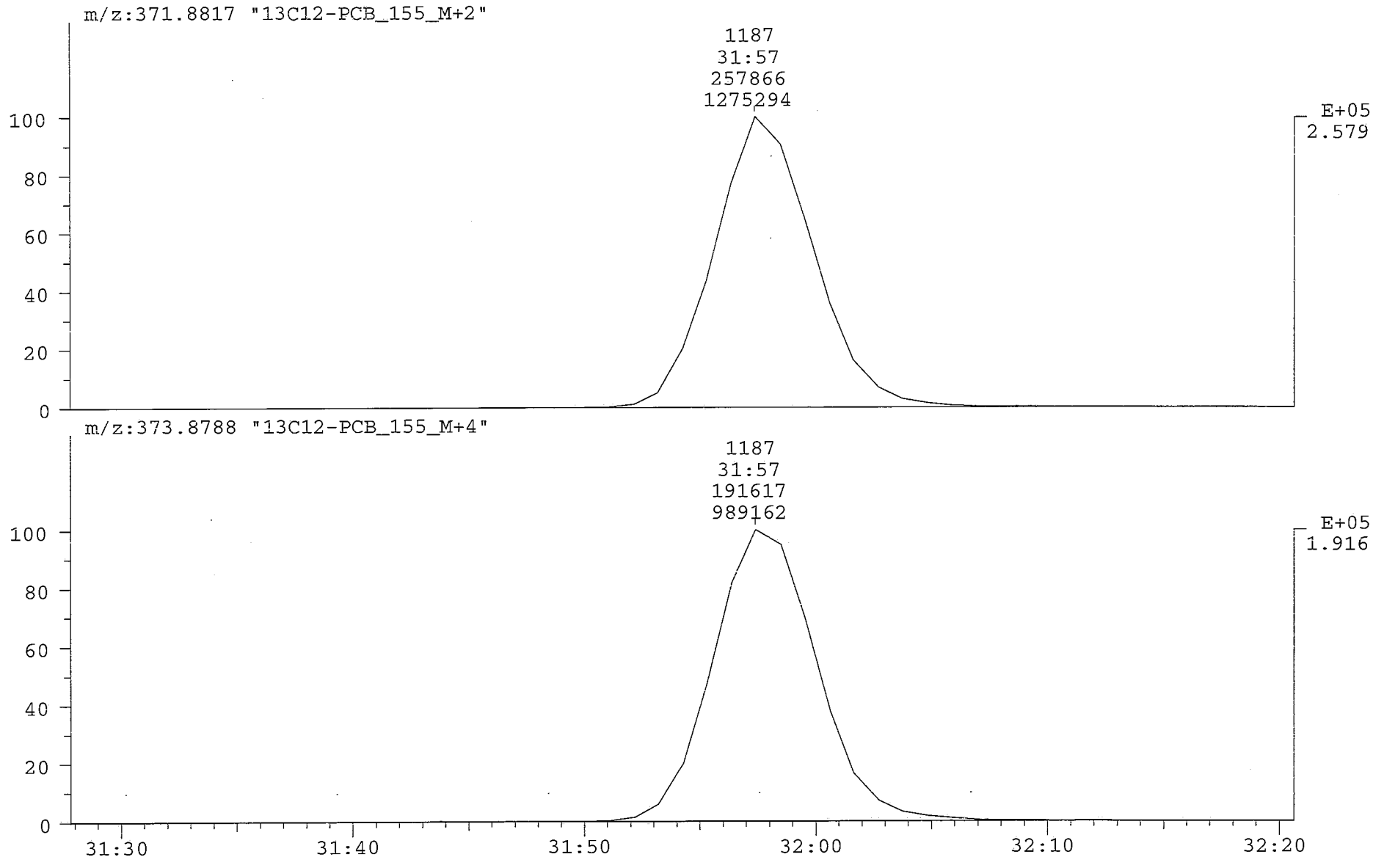
H-1046

CHRO: apmkm6a 14-Jul-11 Elapse: 39:48 1629
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1152 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1047

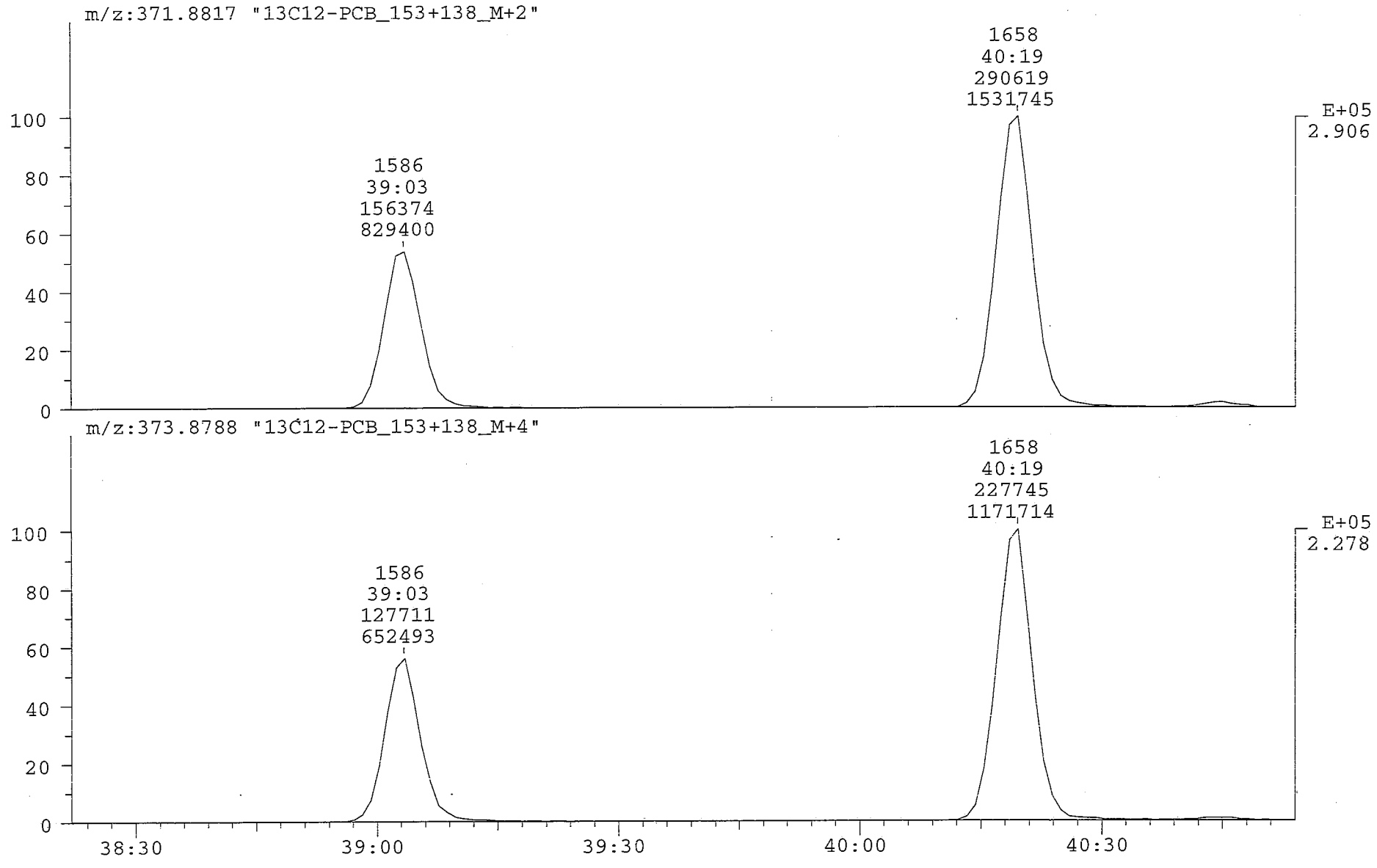
CHRO: apmkm6a 14-Jul-11 Elapse: 31:54 1184
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1159 > 1209 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1048

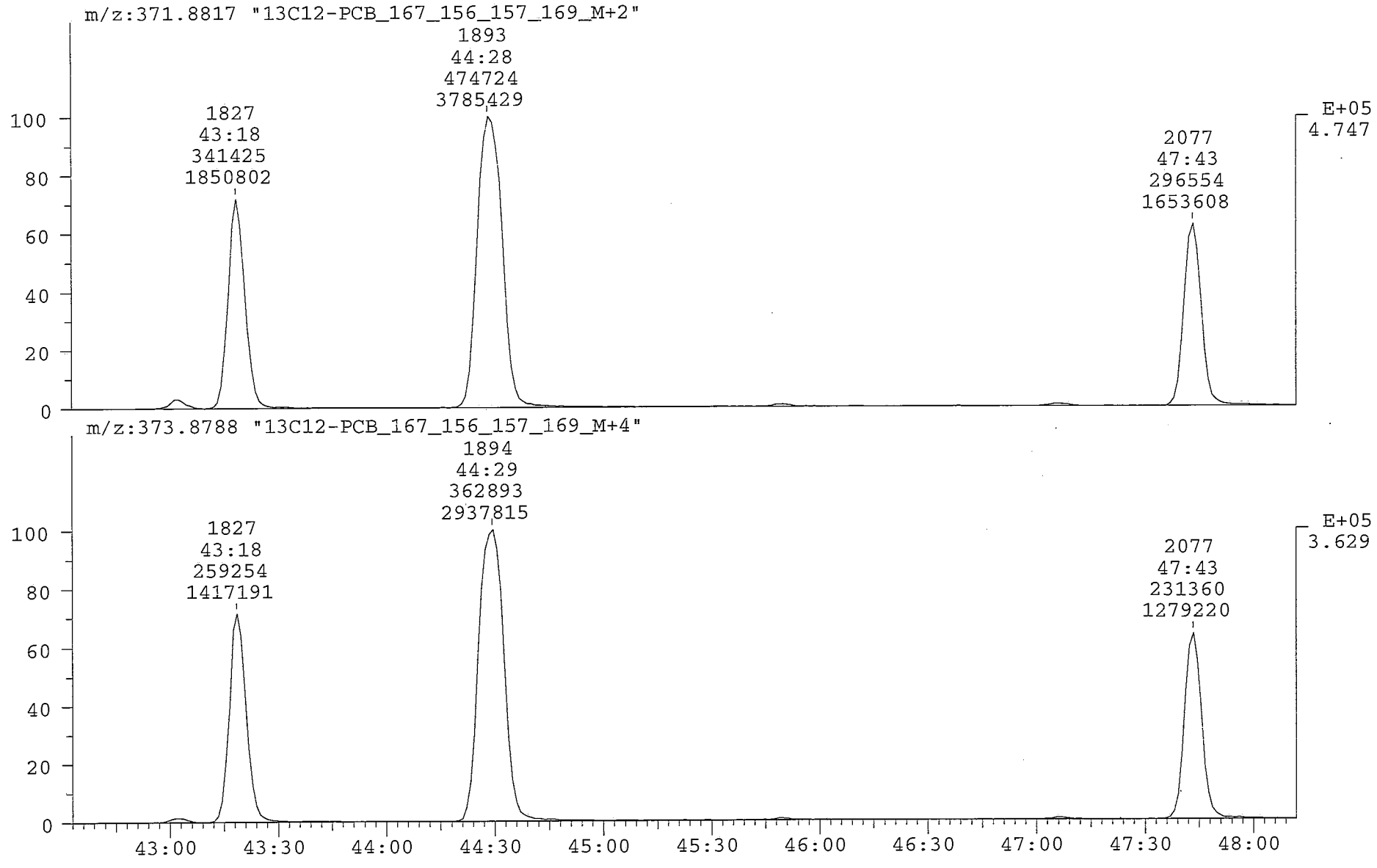
1047

CHRO: apmkm6a 14-Jul-11 Elapse: 39:38 1619
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: HiG050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1547 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1049

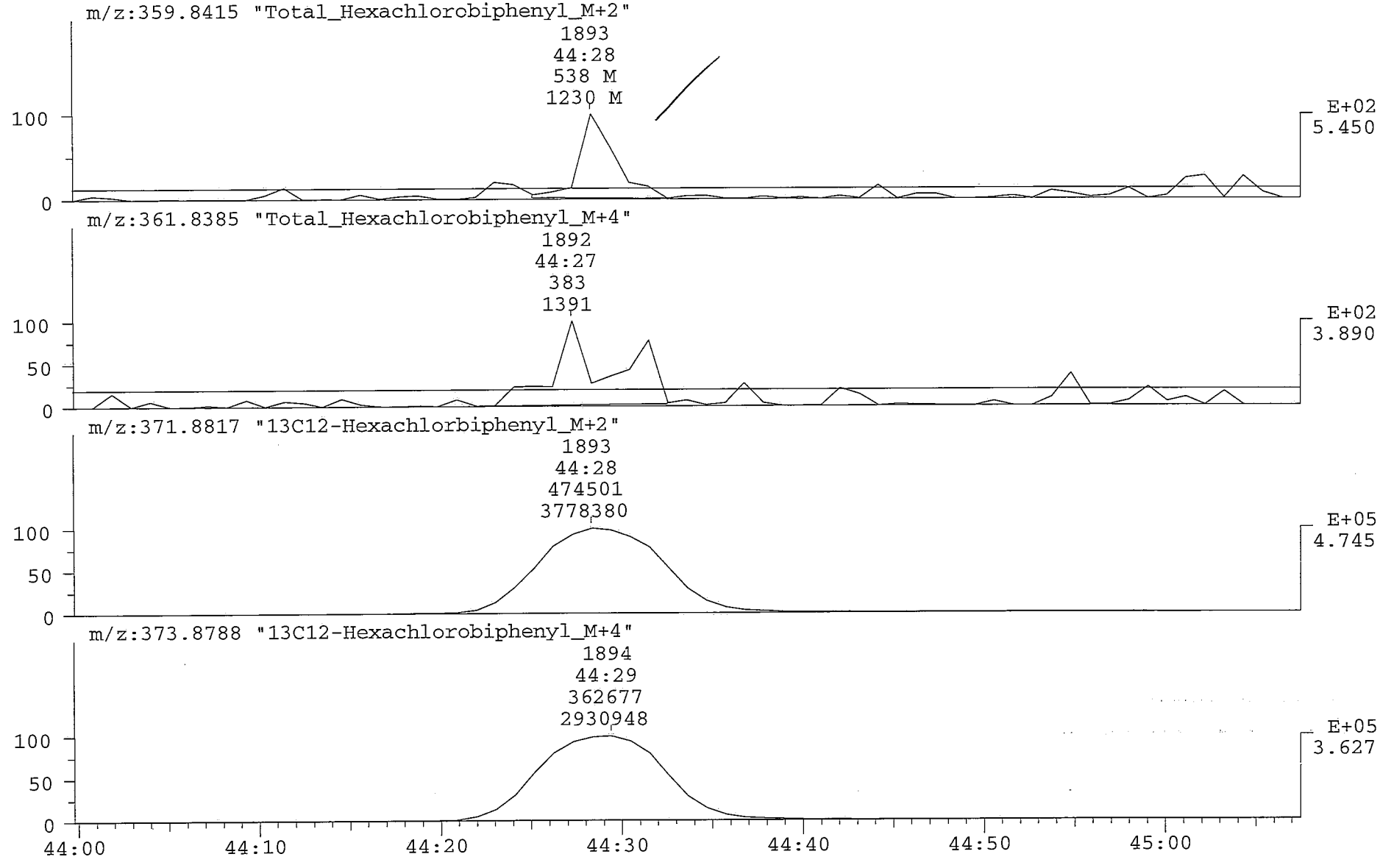
CHRO: apmkm6a 14-Jul-11 Elapse: 45:27 1949
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1784 > 2104 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 8 Label : -3, 3.0
Disp: Height Area



H-1050

1049

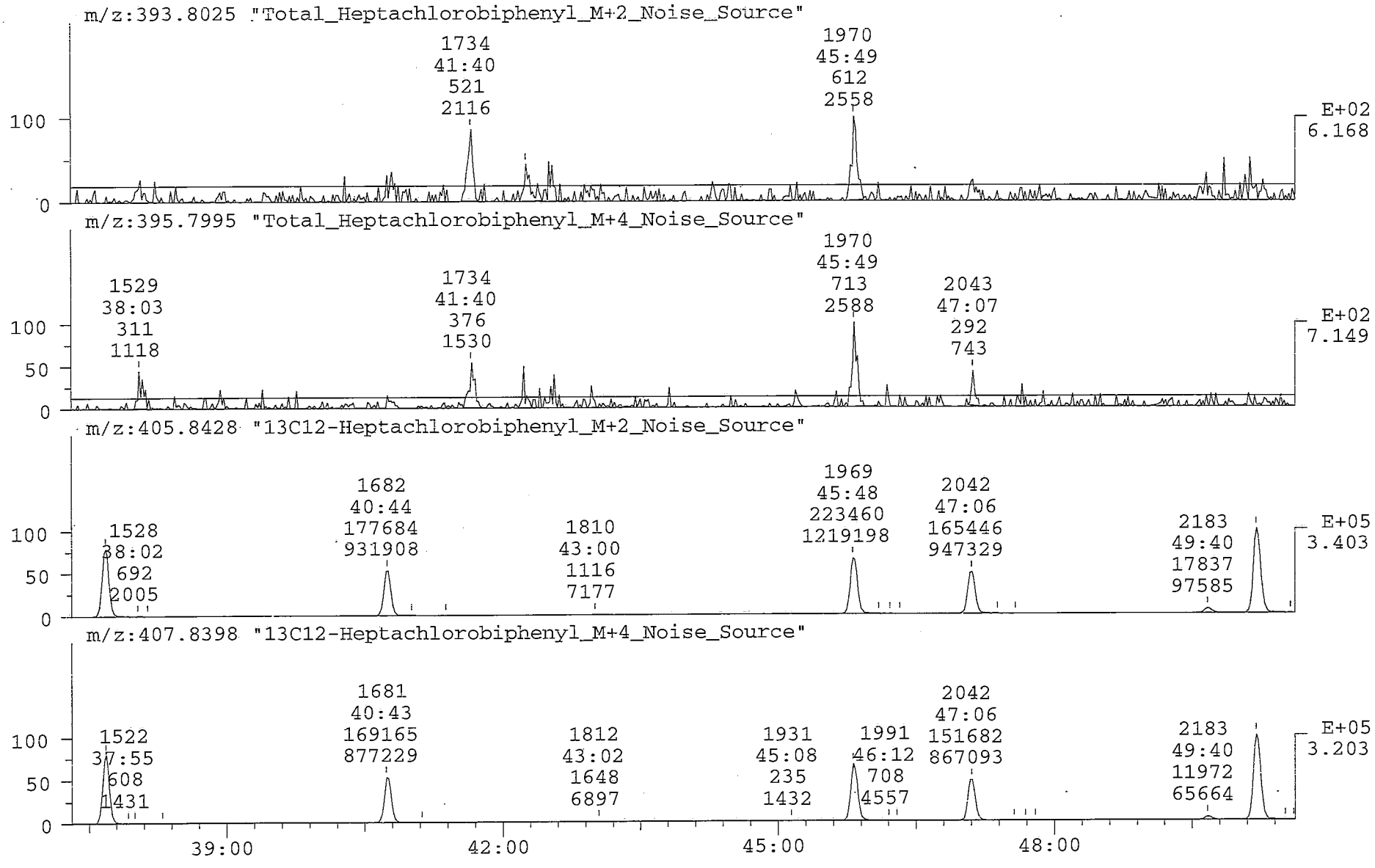
CHRO: apmkm6a 14-Jul-11 Elapse: 46:17 1996
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1866 > 1930 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 2.0
Disp: Height Area



H-1051

1050

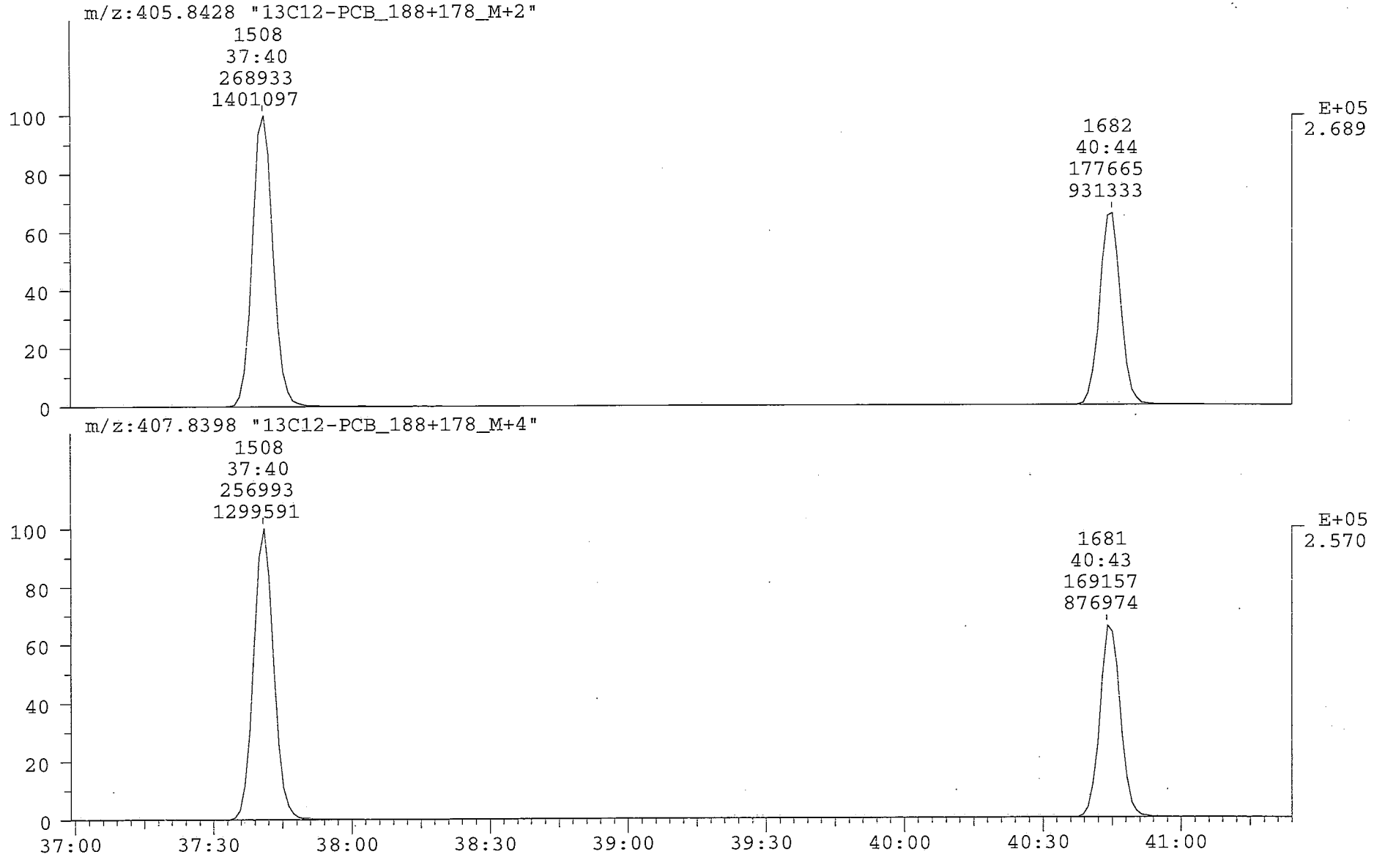
CHRO: apmkm6a 14-Jul-11 Elapse: 43:55 1862
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1487 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1052

1051

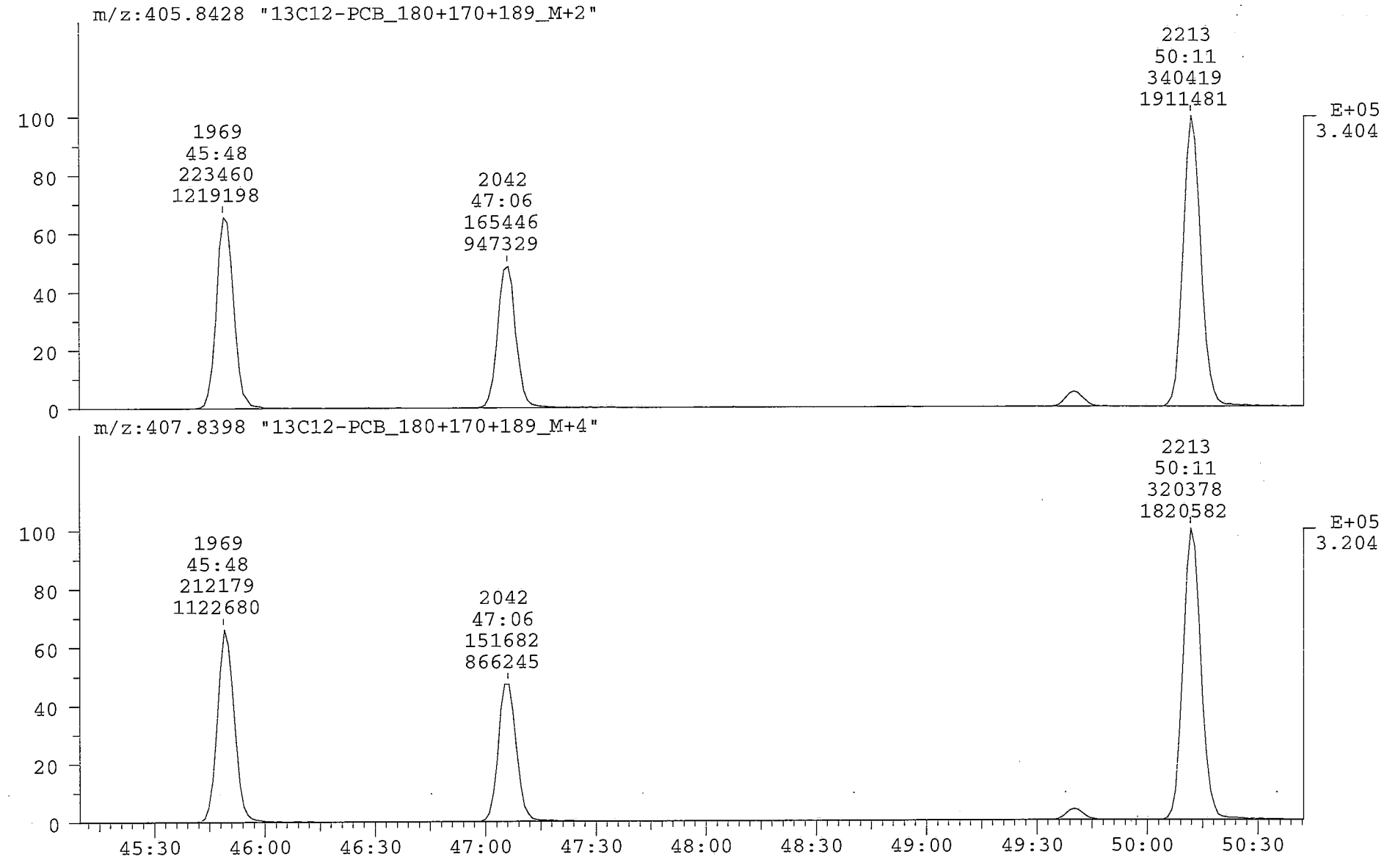
CHRO: apmkm6a 14-Jul-11 Elapse: 39:10 1593
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1468 > 1719 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1053

1052

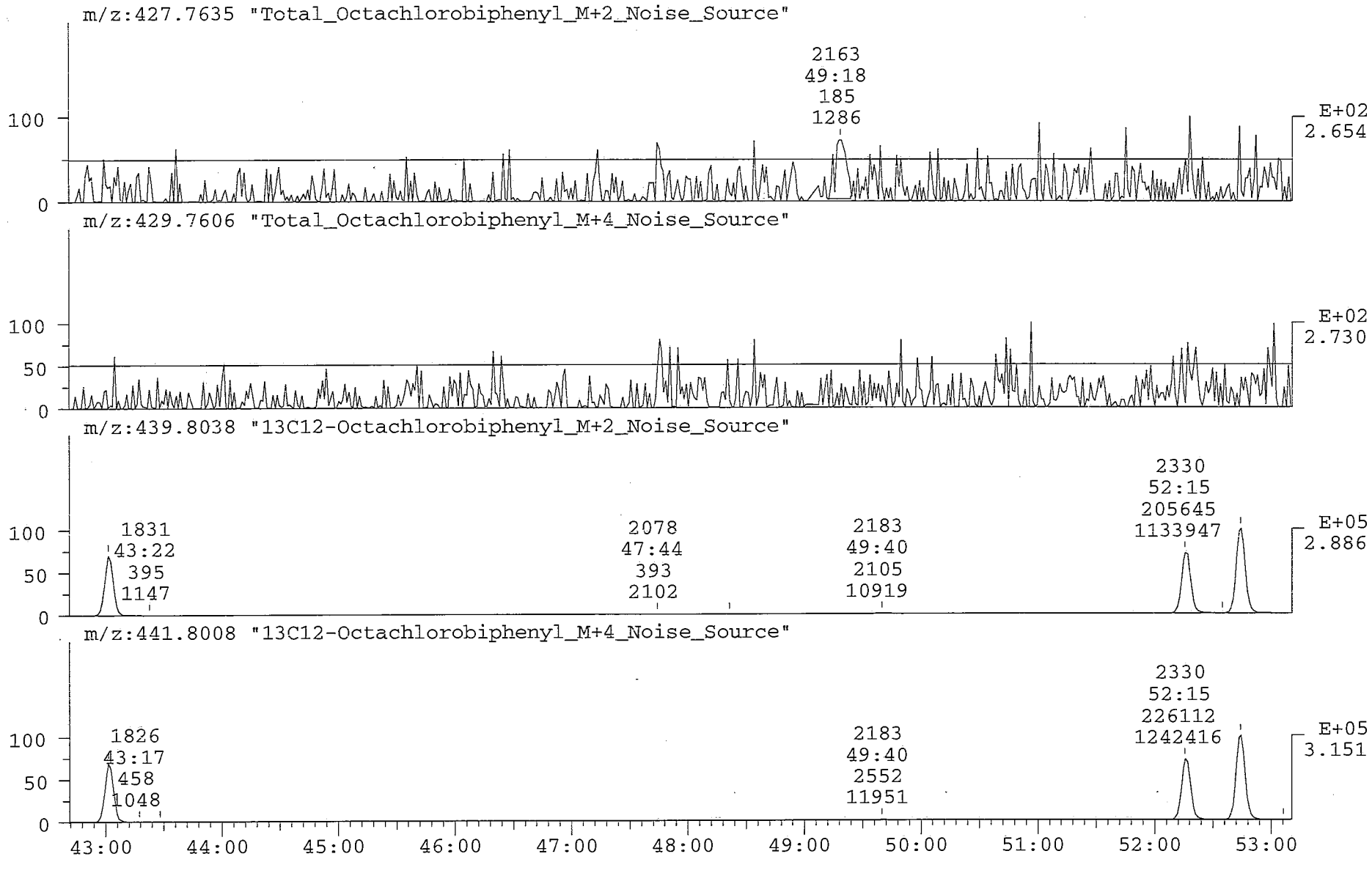
CHRO: apmkm6a 14-Jul-11 Elapse: 47:59 2092
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1932 > 2242 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1054

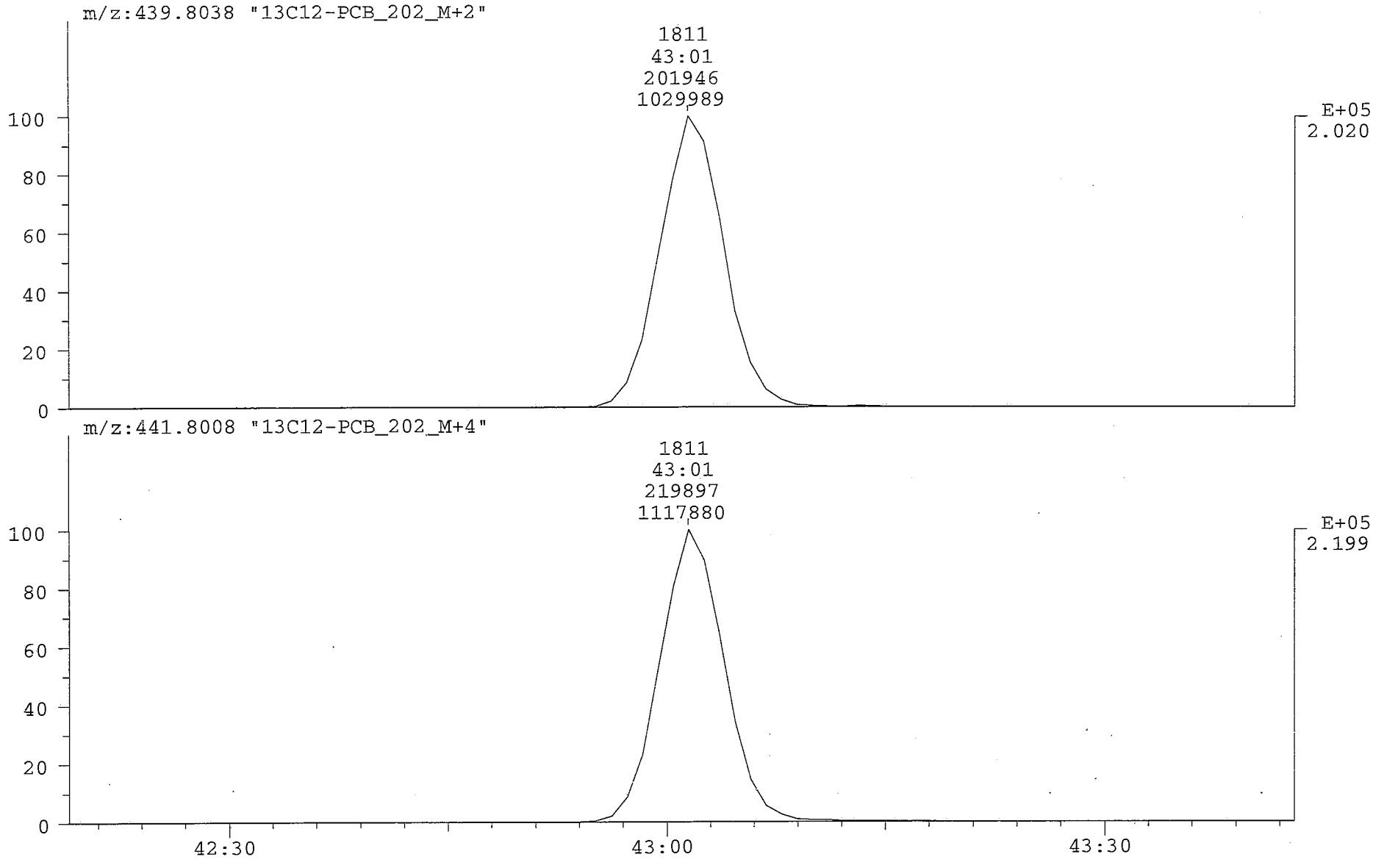
1053

CHRO: apmkm6a 14-Jul-11 Elapse: 47:53 2087
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1792 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1055

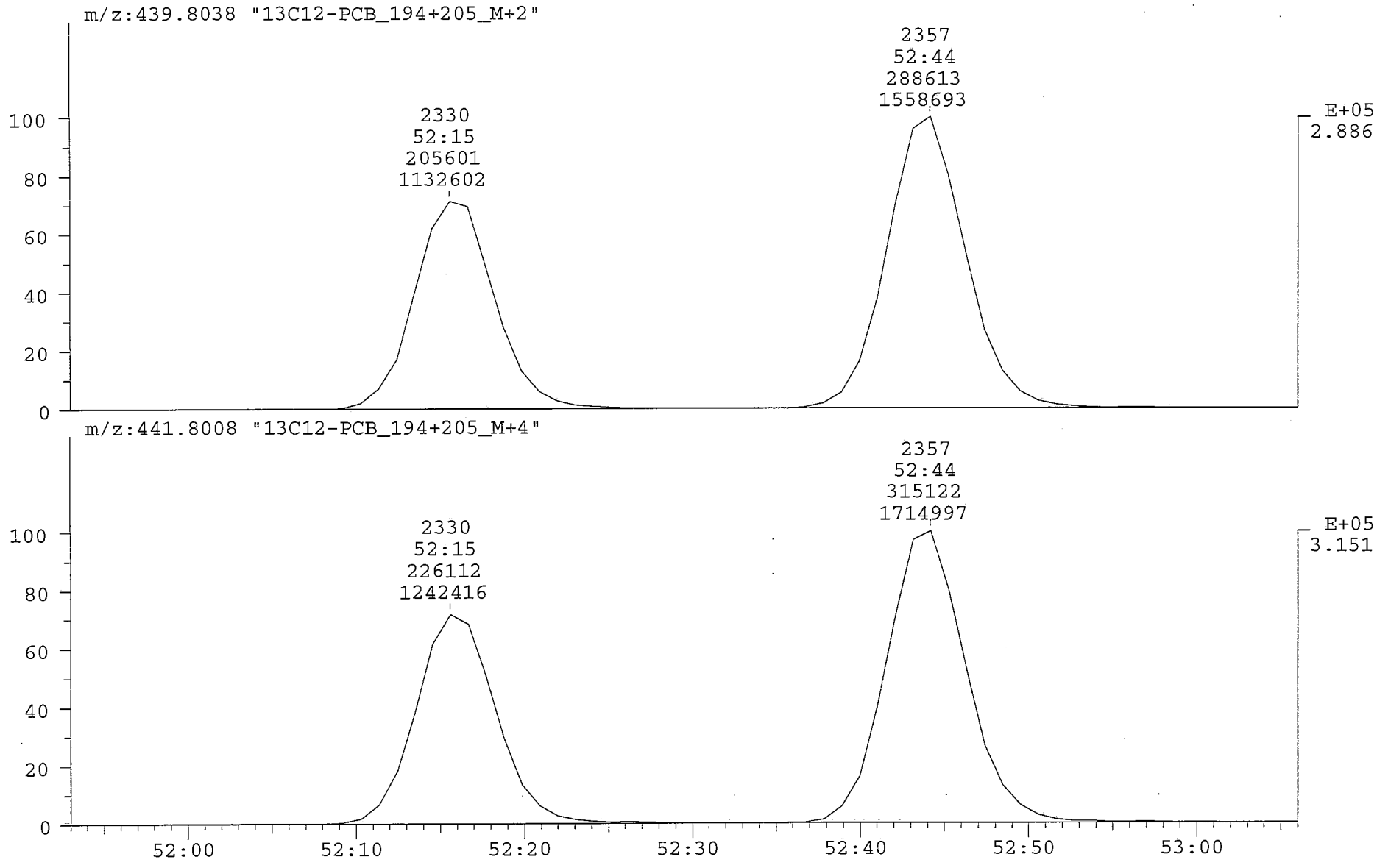
CHRO: apmkm6a 14-Jul-11 Elapse: 42:58 1808
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1771 > 1850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1056

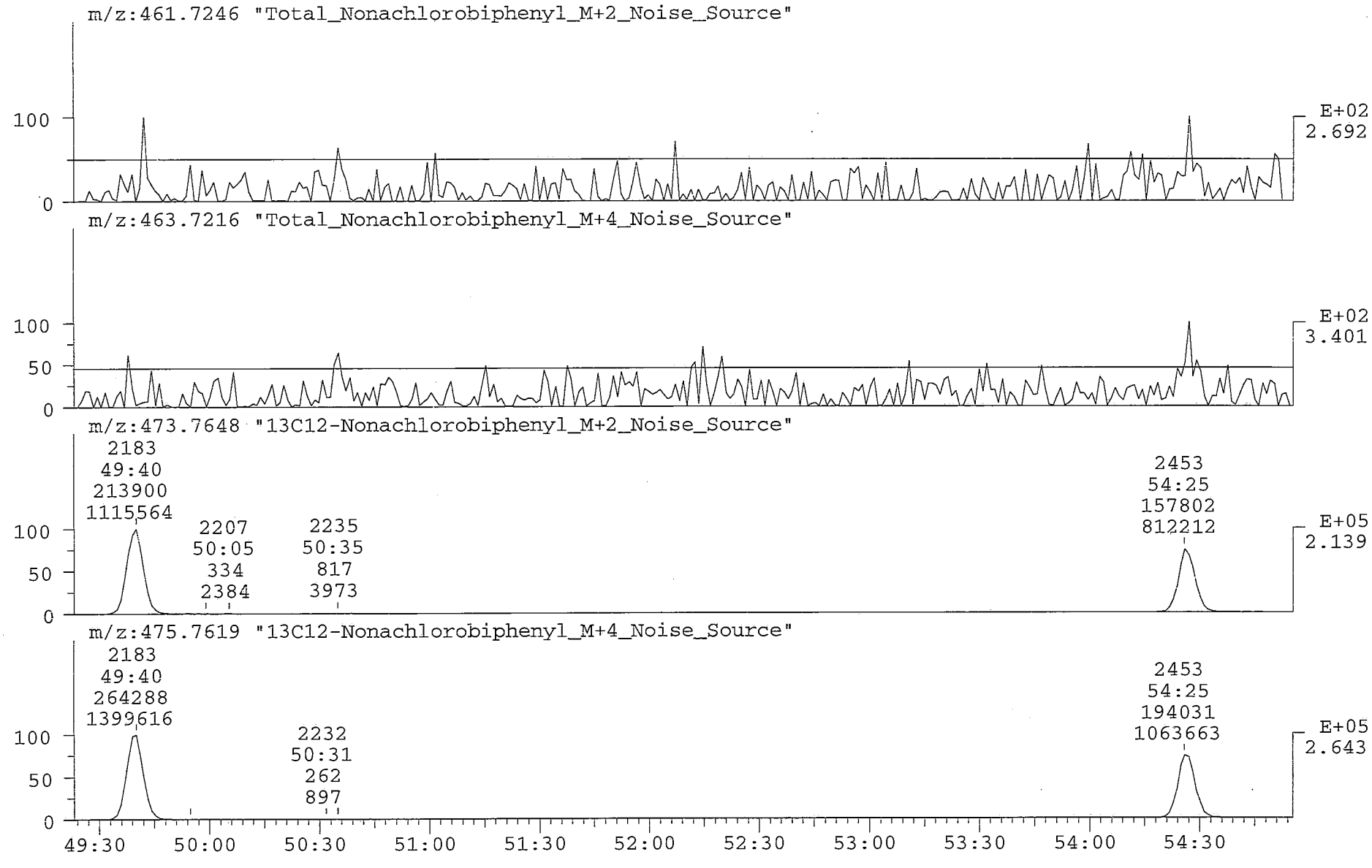
1055

CHRO: apmkm6a 14-Jul-11 Elapse: 52:29 2343
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2309 > 2378 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



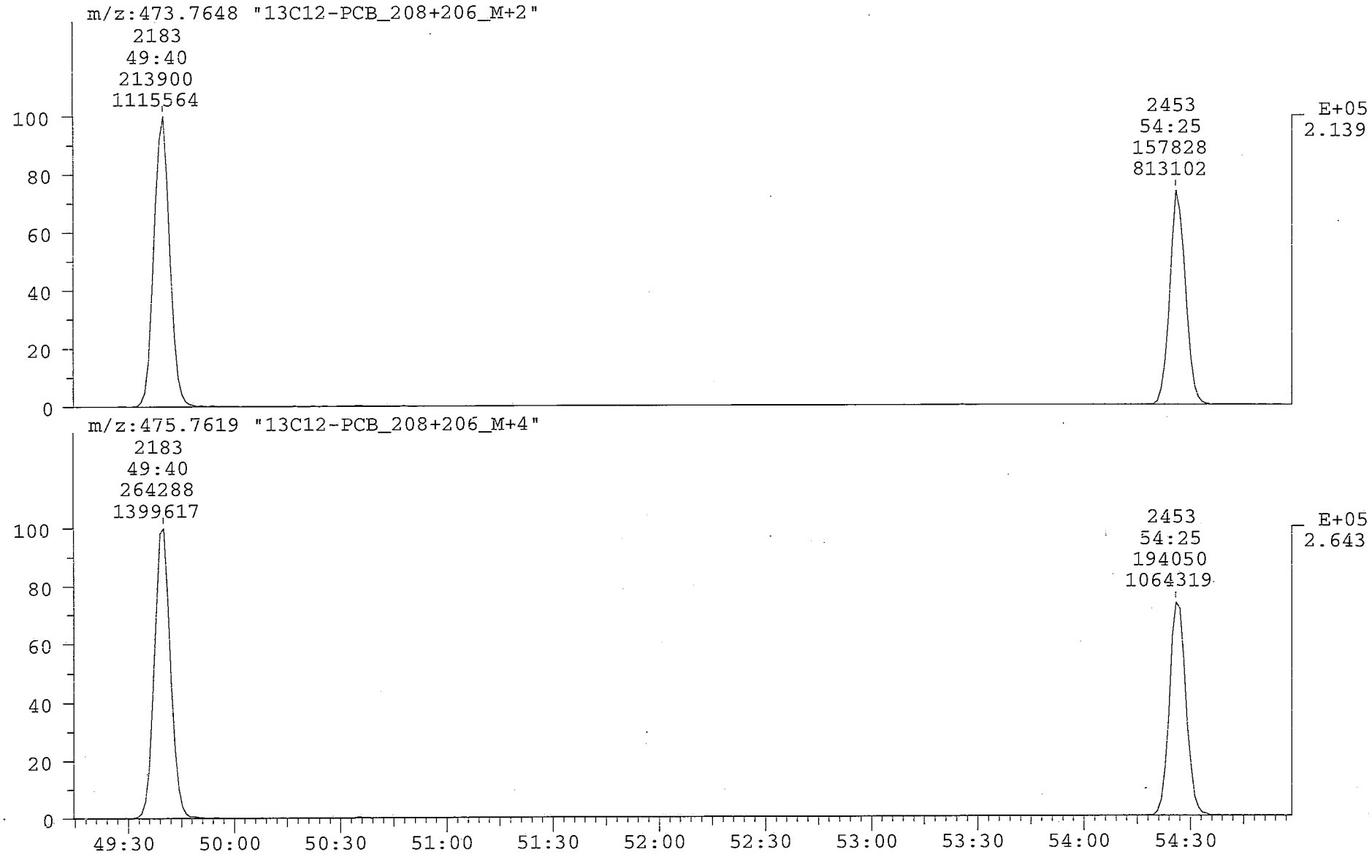
H-1057

CHRO: apmkm6a 14-Jul-11 Elapse: 52:06 2321
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1058

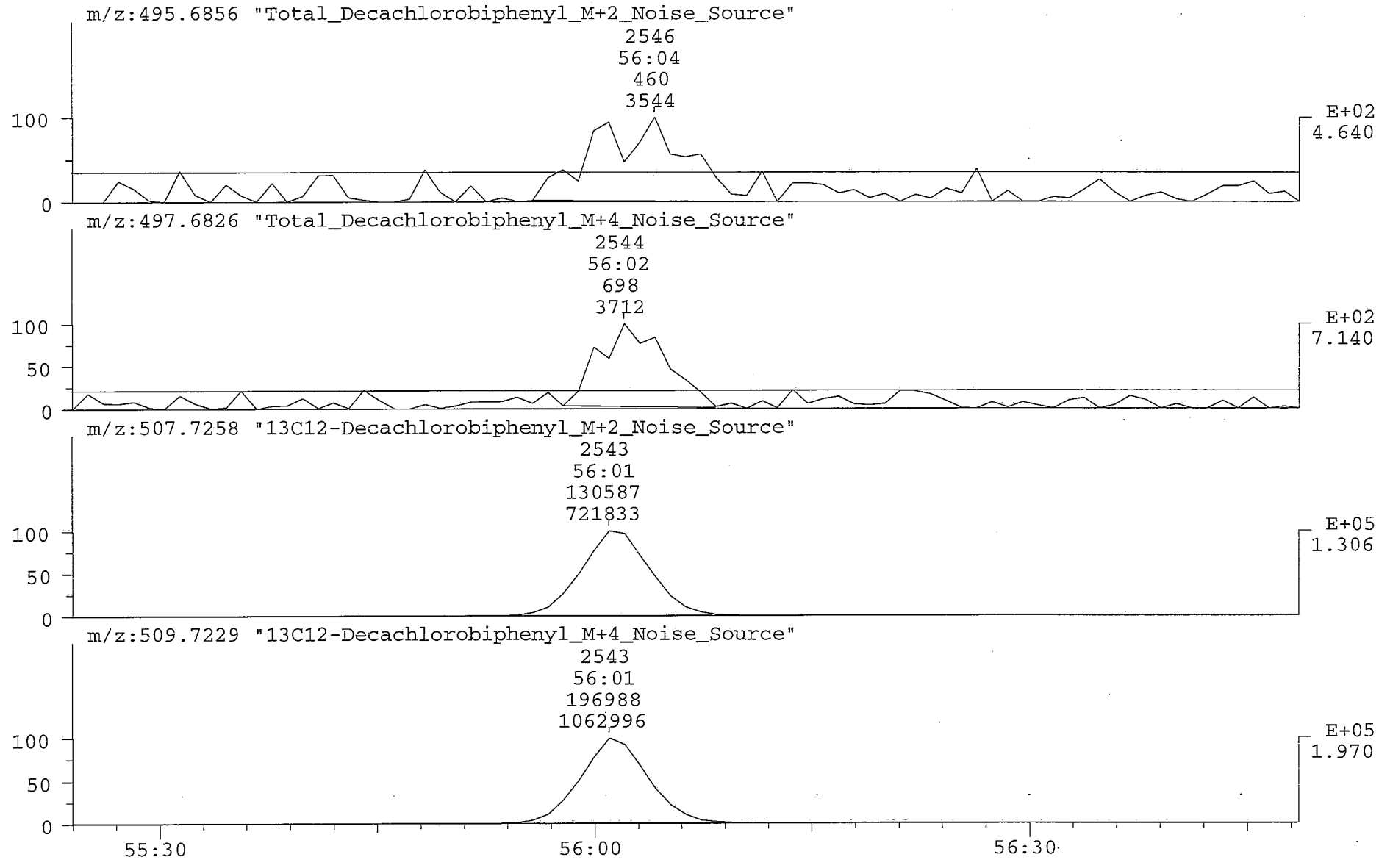
CHRO: apmkm6a 14-Jul-11 Elapse: 52:03 2319
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2159 > 2484 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1059

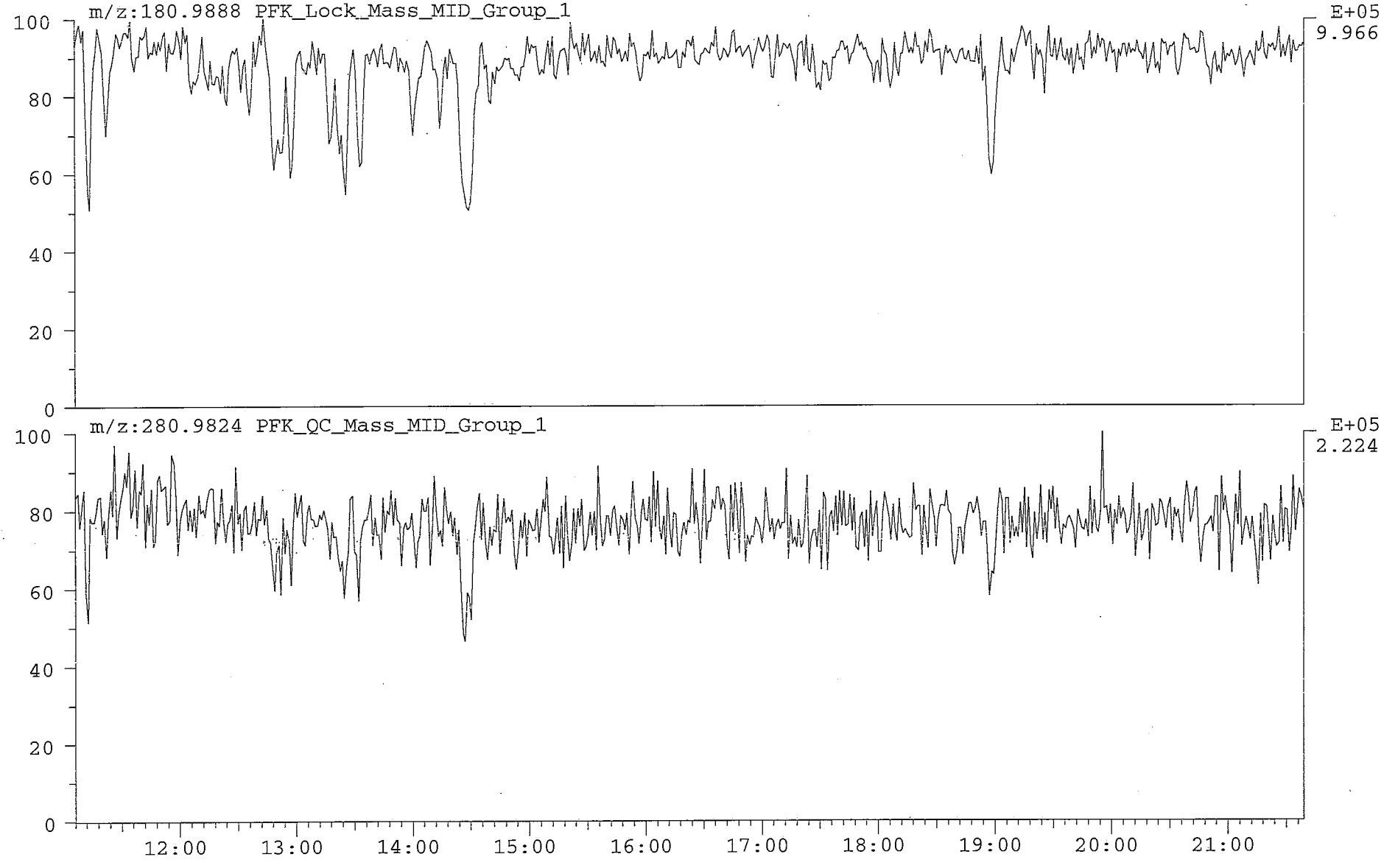
1058

CHRO: apmkm6a 14-Jul-11 Elapse: 56:06 2548
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2508 > 2588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1060

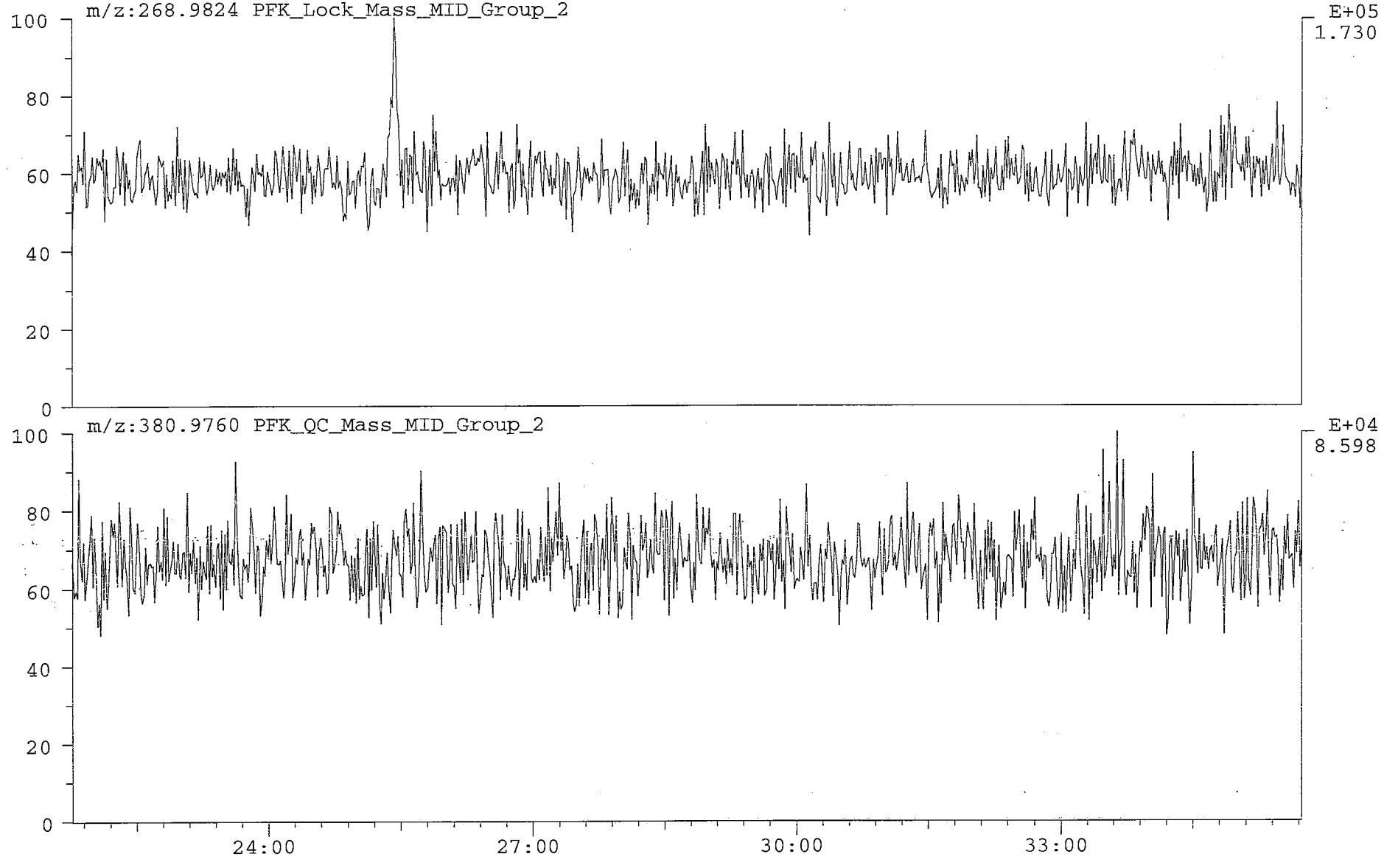
CHRO: apmkm6a 14-Jul-11 Elapse: 56:06 2548
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1061

1060

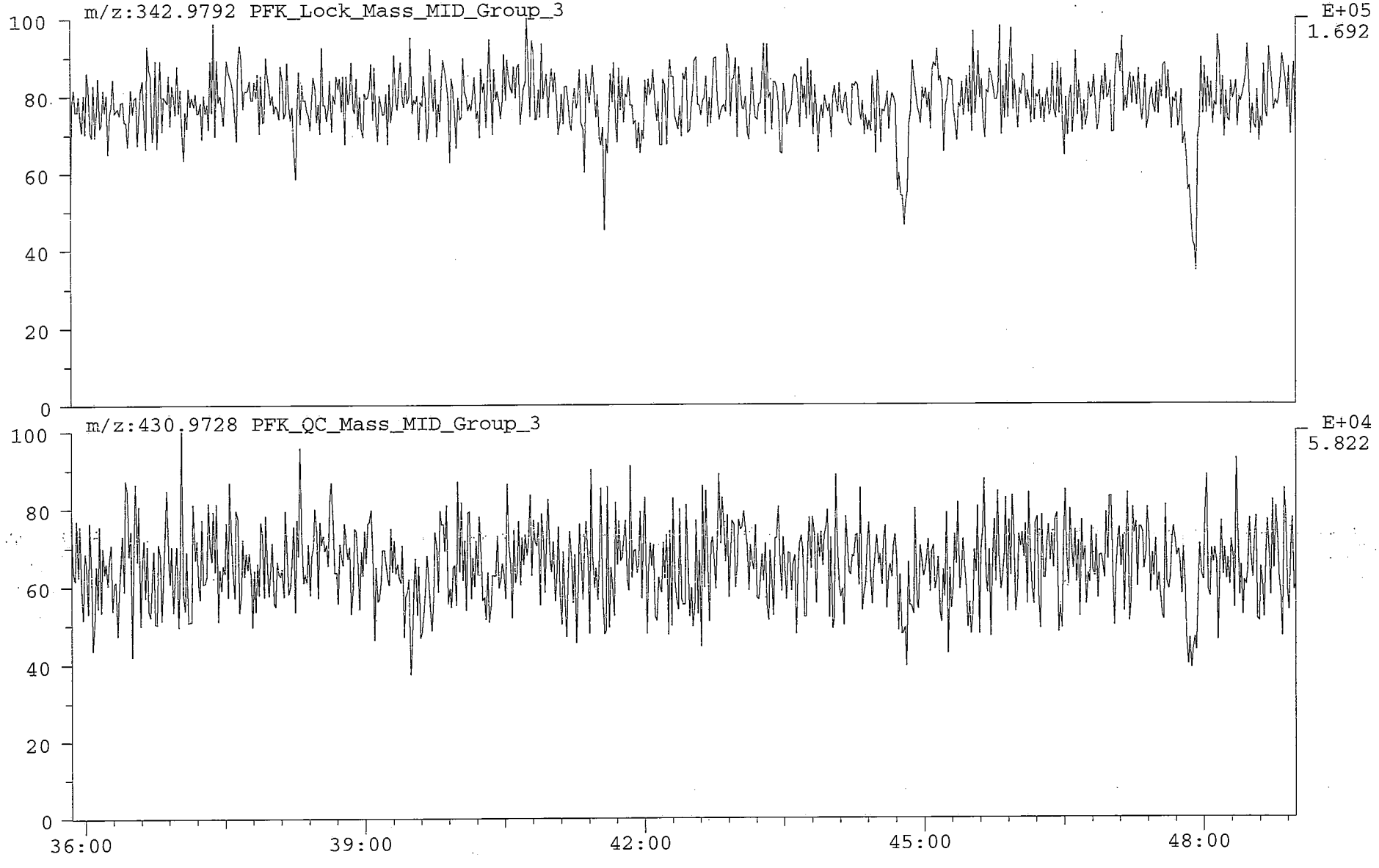
CHRO: apmkm6a 14-Jul-11 Elapse: 56:06 2548
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 608 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1062

1061

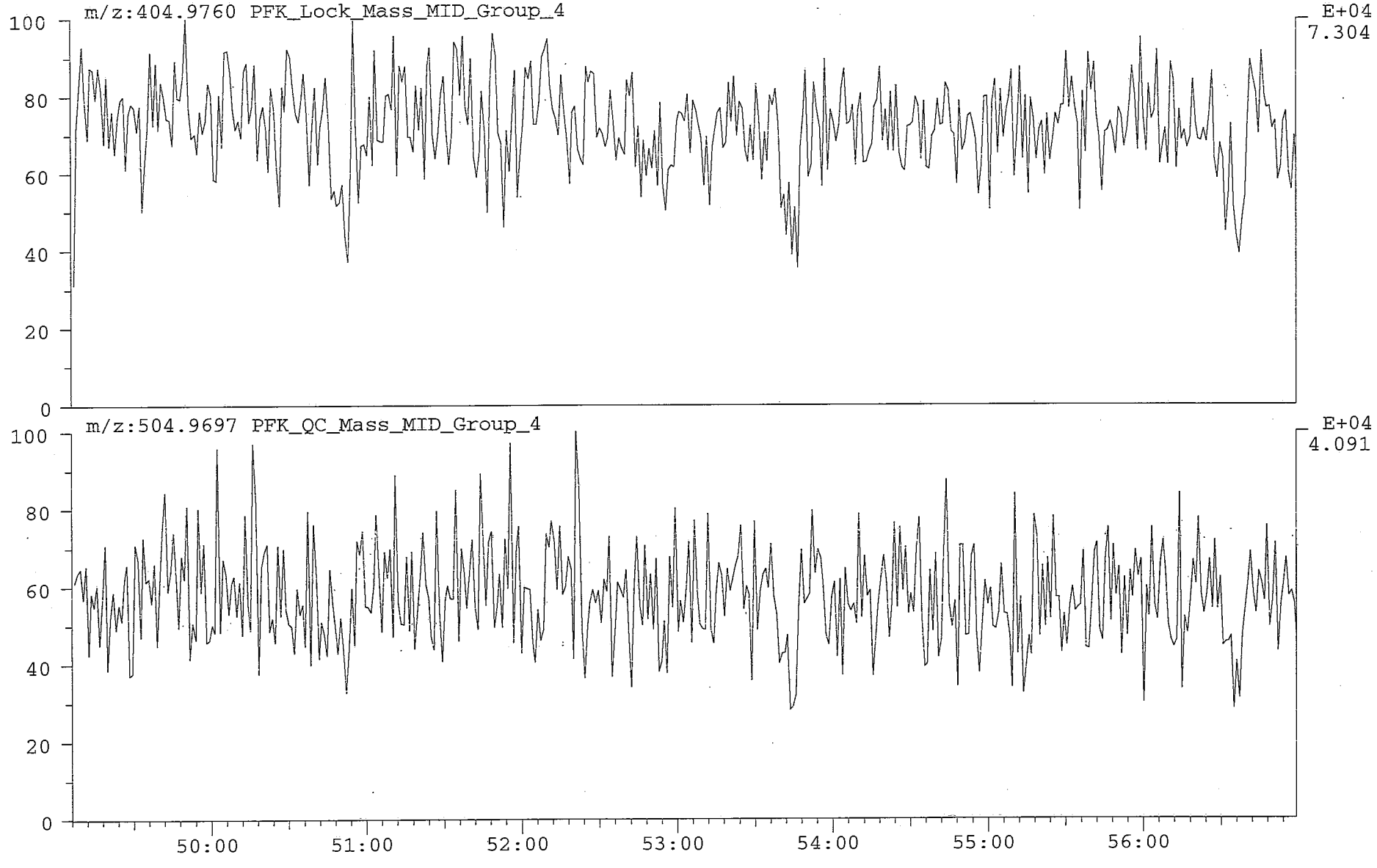
CHRO: apmkm6a 14-Jul-11 Elapse: 56:06 2548
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 1404 > 2149 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1063

1062

CHRO: apmkm6a 14-Jul-11 Elapse: 56:06 2548
Samp: Vial 8 WO=mkm6a1ac Meth=IE5 Dil=1 Start : 06:36:44 2600
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-003 Inlet : GC Vial 8
Peak: 100.00 ppm Label wndw: 2152 > 2598 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1064

1063

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

\000\000\000\000\000\000\000ICL Version: 10.710
File name: apmkm6a
Study: 1187028 (Air-2)
Sample: WO=mkm6a1ac Meth=IE5 Dil=1
Amount:  0.00
Volume:  0.00
Operator: JMN
Client: H1G050439-003
Comments: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Injected volume:  2.00
Sample from Vial 8
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 6 of list 110713a
  ICL procedure: sleep7x
  MID procedure: epa1668

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:05 min   35:45 min    1.00 sec
  # 3   35:45 min   13:15 min   49:00 min    1.00 sec
  # 4   49:00 min    8:00 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 l   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
   Window # 2
```

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times
Sample rinse cycles (R): 0 times
Syringe filling volume (F): 1.0 ul

Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode

Purge time	1.5 min
Purge flow	40.0 ml/min
Gas saver is on	
Saver time	3.0 min
Saver flow	15.0 ml/min

Column : Constant Flow 1.0 ml

Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.5098
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6706
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-36.8250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	23.0000	EDACZ	-548.0000	ELEN	64.2750
EMULT	1.7400	ENS	150.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	148.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	468.0000
FVINLET	520.0000	FVSRC	722.0000	FWIN	0.7000
GCTC	215.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.4216	HVANAL	1431.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4783.8780	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1751.0000	LENSS	161.2000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2344554.8750
MDACR	23.0000	MRANGE	1031.5098	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2607.0000	NSMAX	8.0000	NSMIN	2.0000

OCT	-2.0000	PSAM	10.0000	PUSHER	-12.5500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10314.6801	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2598.0000
SHIELDS	0.2000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.6400	TCURR	0.9375
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	1.9500	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2538.0000
XLENSS	-43.8000	YLENS	2634.0000	YLENSS	-171.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 06:36:44.6

Autosampler has injected sample from vial 8
MID Time Window 1: Resolution is 9050
MID Time Window 2: Resolution is 9605
MID Time Window 3: Resolution is 8574
MID Time Window 4: Resolution is 8436
Analysis stopped at: 14-Jul-11 07:33:48.1 (run time 57.04 minutes)
Analysis stopped because MID run finished

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AC	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.014**	**Q B J**	**0.10**	**0.0066**	**ng/sample**
PCB 81 (BZ)	ND		0.10	0.0067	ng/sample
PCB 105 (BZ)	**0.033**	**Q J**	**0.10**	**0.0064**	**ng/sample**
PCB 114 (BZ)	ND		0.10	0.0062	ng/sample
PCB 118 (BZ)	**0.11**		**0.10**	**0.0065**	**ng/sample**
PCB 123 (BZ)	ND		0.10	0.0071	ng/sample
PCB 126 (BZ)	ND		0.10	0.0064	ng/sample
PCB 156 (BZ)	ND		0.10	0.010	ng/sample
PCB 157 (BZ)	ND		0.10	0.010	ng/sample
PCB 167 (BZ)	ND		0.10	0.0069	ng/sample
PCB 169 (BZ)	ND		0.10	0.0070	ng/sample
PCB 189 (BZ)	ND		0.10	0.0063	ng/sample

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AC	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	62		30 - 140
13C12-PCB 3	66		30 - 140
13C12-PCB 4	74		30 - 140
13C12-PCB 15	71		30 - 140
13C12-PCB 19	75		30 - 140
13C12-PCB 37	77		30 - 140
13C12-PCB 54	100		30 - 140
13C12-PCB 77	81		30 - 140
13C12-PCB 81	79		30 - 140
13C12-PCB 104	82		30 - 140
13C12-PCB 105	82		30 - 140
13C12-PCB 114	82		30 - 140
13C12-PCB 118	80		30 - 140
13C12-PCB 123	78		30 - 140
13C12-PCB 126	85		30 - 140
13C12-PCB 155	90		30 - 140
13C12-PCB 156	102	C	30 - 140
13C12-PCB 157	102	C	30 - 140
13C12-PCB 167	95		30 - 140
13C12-PCB 169	93		30 - 140
13C12-PCB 170	88		30 - 140
13C12-PCB 188	87		30 - 140
13C12-PCB 189	95		30 - 140
13C12-PCB 202	92		30 - 140
13C12-PCB 205	96		30 - 140
13C12-PCB 206	96		30 - 140
13C12-PCB 208	89		30 - 140
13C12-PCB 209	86		30 - 140

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICR3-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 005	**Work Order #....:**	MKM6F1AC	**Matrix....:**	AIR
Date Sampled....:	06/27/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 8	105	50 - 150
13C12-PCB 28	79	40 - 125
13C12-PCB 79	108	50 - 150
13C12-PCB 95	97	50 - 150
13C12-PCB 111	90	40 - 125
13C12-PCB 153	109	50 - 150
13C12-PCB 178	79	40 - 125

QUALIFIERS

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6F1AC	Prep Batch	1187028	Lot No	H1G050439-005
Data File	/20110713s1/apmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133602	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/27/11
Analysis Time	07:37	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
Total Monochlorobiphenyl								ND		0.0116
13C12-PCB 1	12:07	2521720	950882	1.502	20.00	12.473868	62.37	12.473868		0.0126
13C12-PCB 3	14:19	2732147	806247	1.545	20.00	13.145706	65.73	13.145706		0.0122
PCB 1 (BZ)				1.383				ND		0.00342
PCB 2 (BZ)				1.338				ND		0.00383
PCB 3 (BZ)				1.296				ND		0.00431
Total Dichlorobiphenyl								ND		0.241
13C12-PCB 4	14:35	1229800	383258	0.619	20.00	14.756295	73.78	14.756295		0.0167
13C12-PCB 9	16:33	2691150	735540	1.000	20.00	20.000000	100.00	20.000000		0.0103
13C12-PCB 8	17:25	1166666	294583	1.342	10.00	10.458463	104.58	10.458463		0.0135
13C12-PCB 15	20:33	2094191	457646	1.090	20.00	14.281846	71.41	14.281846		0.00948
PCB 4 (BZ)				1.273				ND		0.0274
PCB 10 (BZ)				1.357				ND		0.0234
PCB 9 (BZ)				1.459				ND		0.0218
PCB 7 (BZ)				1.466				ND		0.0217
PCB 6 (BZ)				1.507				ND		0.0211
PCB 5 (BZ)				1.417				ND		0.0224
PCB 8 (BZ)				1.540				ND		0.0206
PCB 14 (BZ)				1.732				ND		0.0183
PCB 11 (BZ)				1.532				ND		0.0207
PCB 13 (BZ)				1.494				ND	C12	0.0212
PCB 12 (BZ)				1.494				ND	C	0.0212
PCB 15 (BZ)				1.278				ND		0.0228
Total Trichlorobiphenyl								ND		0.164
13C12-PCB 19	17:44	948726	235882	0.572	20.00	14.989606	74.95	14.989606		0.0582
13C12-PCB 32	20:59	2214943	515587	1.000	20.00	20.000000	100.00	20.000000		0.0333
13C12-PCB 31	23:15	3636085	799129	1.000	20.00	20.000000	100.00	20.000000		0.0215
13C12-PCB 28	23:33	2885888	622468	1.003	20.00	15.822254	79.11	15.822254		0.0214
13C12-PCB 37	27:36	2555627	452600	0.908	20.00	15.473164	77.37	15.473164		0.0236
PCB 19 (BZ)				1.167				ND		0.0138
PCB 30 (BZ)				1.615				ND	C18	0.00998
PCB 18 (BZ)				1.615				ND	C	0.00998
PCB 17 (BZ)				1.430				ND		0.0113
PCB 27 (BZ)				1.978				ND		0.00814
PCB 24 (BZ)				1.707				ND		0.00944
PCB 16 (BZ)				1.193				ND		0.0135
PCB 32 (BZ)				2.018				ND		0.00798
PCB 34 (BZ)				1.195				ND		0.00702
PCB 23 (BZ)				1.177				ND		0.00713
PCB 29 (BZ)				1.244				ND	C26	0.00675
PCB 26 (BZ)				1.244				ND	C	0.00675
PCB 25 (BZ)				1.320				ND		0.00636
PCB 31 (BZ)				1.252				ND		0.00671
PCB 28 (BZ)				1.223				ND	C20	0.00687
PCB 20 (BZ)				1.223				ND	C	0.00687
PCB 21 (BZ)				1.219				ND	C	0.00688
PCB 33 (BZ)				1.219				ND	C21	0.00688
PCB 22 (BZ)				1.200				ND		0.00699
PCB 36 (BZ)				1.204				ND		0.00697

MSP 7-14-11
L 7-14-11

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6F1AC	Prep Batch	1187028	Lot No	H1G050439-005
Data File	/20110713s1/apmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133602	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/27/11
Analysis Time	07:37	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 39 (BZ)				1.284				ND		0.00654
PCB 38 (BZ)				1.141				ND		0.00736
PCB 35 (BZ)				1.163				ND		0.00722
PCB 37 (BZ)				1.173				ND		0.00716
Total Tetrachlorobiphenyl		1899	634			0.013859		0.013859	QBJ	0.224
13C12-PCB 54	20:50	1335654	322557	0.600	20.00	20.098362	100.49	20.098362		0.0178
13C12-PCB 52	25:23	1975573	418707	1.000	20.00	20.000000	100.00	20.000000		0.0131
13C12-PCB 79	33:20	1220727	224036	1.070	10.00	10.816102	108.16	10.816102		0.0139
13C12-PCB 81	34:21	2058107	363914	1.312	20.00	15.883621	79.42	15.883621		0.0100
13C12-PCB 77	34:55	2159663	377797	1.357	20.00	16.110350	80.55	16.110350		0.00968
PCB 54 (BZ)				1.233				ND		0.00792
PCB 50 (BZ)				0.921				ND	C	0.00922
PCB 53 (BZ)				0.921				ND	C50	0.00922
PCB 45 (BZ)				0.856				ND	C	0.00993
PCB 51 (BZ)				0.856				ND	C45	0.00993
PCB 46 (BZ)				0.724				ND		0.0117
PCB 52 (BZ)				0.920				ND		0.00923
PCB 73 (BZ)				0.949				ND	C43	0.00895
PCB 43 (BZ)				0.949				ND	C	0.00895
PCB 69 (BZ)				1.077				ND	C49	0.00789
PCB 49 (BZ)				1.077				ND	C	0.00789
PCB 48 (BZ)				0.894				ND		0.00950
PCB 65 (BZ)				0.992				ND	C44	0.00856
PCB 47 (BZ)				0.992				ND	C44	0.00856
PCB 44 (BZ)				0.992				ND	C	0.00856
PCB 62 (BZ)				1.246				ND	C59	0.00682
PCB 75 (BZ)				1.246				ND	C59	0.00682
PCB 59 (BZ)				1.246				ND	C	0.00682
PCB 42 (BZ)				0.872				ND		0.00974
PCB 41 (BZ)				0.887				ND	C40	0.00958
PCB 71 (BZ)				0.887				ND	C40	0.00958
PCB 40 (BZ)				0.887				ND	C	0.00958
PCB 64 (BZ)				1.316				ND		0.00646
PCB 72 (BZ)				1.236				ND		0.00687
PCB 68 (BZ)				1.327				ND		0.00640
PCB 57 (BZ)				1.203				ND		0.00706
PCB 58 (BZ)				1.208				ND		0.00703
PCB 67 (BZ)				1.337				ND		0.00635
PCB 63 (BZ)				1.297				ND		0.00655
PCB 61 (BZ)				1.247				ND	C	0.00681
PCB 70 (BZ)				1.247				ND	C61	0.00681
PCB 76 (BZ)				1.247				ND	C61	0.00681
PCB 74 (BZ)				1.247				ND	C61	0.00681
PCB 66 (BZ)				1.255				ND		0.00677
PCB 55 (BZ)				1.145				ND		0.00742
PCB 56 (BZ)				1.217				ND		0.00698
PCB 60 (BZ)				1.181				ND		0.00719
PCB 80 (BZ)				1.358				ND		0.00625
PCB 79 (BZ)				1.326				ND		0.00641

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6F1AC	Prep Batch	1187028	Lot No	H1G050439-005
Data File	/20110713s1/apmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133602	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/27/11
Analysis Time	07:37	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 78 (BZ)				1.164				ND		0.00730
PCB 81 (BZ)				1.298				ND		0.00667
PCB 77 (BZ)	34:54	1899	634	1.269		0.013859		0.013859	QBJ	0.00657
Total Pentachlorobiphenyl		18591	3665			0.140676		0.140676	Q	0.276
13C12-PCB 104	26:19	1594932	332261	1.246	20.00	16.495195	82.48	16.495195		0.0189
13C12-PCB 95	29:19	581623	118001	0.754	10.00	9.677870	96.78	9.677870		0.0284
13C12-PCB 101	32:13	1552432	300973	1.000	20.00	20.000000	100.00	20.000000		0.0236
13C12-PCB 111	34:53	1764795	327039	1.266	20.00	17.951911	89.76	17.951911		0.0186
13C12-PCB 123	36:53	2279602	423230	0.954	20.00	15.622146	78.11	15.622146		0.0135
13C12-PCB 118	37:12	2426658	446128	0.995	20.00	15.951266	79.76	15.951266		0.0130
13C12-PCB 114	37:43	2392699	438680	0.952	20.00	16.439088	82.20	16.439088		0.0136
13C12-PCB 105	38:23	2364469	434972	0.942	20.00	16.421813	82.11	16.421813		0.0137
13C12-PCB 127	39:51	3057656	550335	1.000	20.00	20.000000	100.00	20.000000		0.0129
13C12-PCB 126	41:29	2585918	472137	0.991	20.00	17.065056	85.33	17.065056		0.0130
PCB 104 (BZ)				1.184				ND		0.00801
PCB 96 (BZ)				1.055				ND		0.00899
PCB 103 (BZ)				0.900				ND		0.0105
PCB 94 (BZ)				0.789				ND		0.0120
PCB 95 (BZ)				0.838				ND		0.0113
PCB 100 (BZ)				0.888				ND	C93	0.0107
PCB 93 (BZ)				0.888				ND	C	0.0107
PCB 102 (BZ)				0.917				ND	C98	0.0103
PCB 98 (BZ)				0.917				ND	C	0.0103
PCB 88 (BZ)				0.857				ND	C	0.0111
PCB 91 (BZ)				0.857				ND	C88	0.0111
PCB 84 (BZ)				0.764				ND		0.0124
PCB 89 (BZ)				0.789				ND		0.0120
PCB 121 (BZ)				1.215				ND		0.00780
PCB 92 (BZ)				0.892				ND		0.0106
PCB 113 (BZ)				1.013				ND	C90	0.00936
PCB 90 (BZ)				1.013				ND	C	0.00936
PCB 101 (BZ)				1.013				ND	C90	0.00936
PCB 83 (BZ)				0.868				ND	C	0.0109
PCB 99 (BZ)				0.868				ND	C83	0.0109
PCB 112 (BZ)				1.160				ND		0.00817
PCB 109 (BZ)/108 (IUPAC)				1.030				ND	C86	0.00920
PCB 86 (BZ)				1.030				ND	C	0.00920
PCB 119 (BZ)				1.030				ND	C86	0.00920
PCB 97 (BZ)				1.030				ND	C86	0.00920
PCB 125 (BZ)				1.030				ND	C86	0.00920
PCB 87 (BZ)				1.030				ND	C86	0.00920
PCB 117 (BZ)				1.054				ND	C85	0.00899
PCB 116 (BZ)				1.054				ND	C85	0.00899
PCB 85 (BZ)				1.054				ND	C	0.00899
PCB 110 (BZ)				1.194				ND	C	0.00794
PCB 115 (BZ)				1.194				ND	C110	0.00794
PCB 82 (BZ)				0.730				ND		0.0130
PCB 111 (BZ)				1.260				ND		0.00752
PCB 120 (BZ)				1.225				ND		0.00774

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6F1AC	Prep Batch	1187028	Lot No	H1G050439-005
Data File	/20110713s1/apmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133602	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/27/11
Analysis Time	07:37	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 124 (BZ)				1.029				ND	C108	0.00691
PCB 108 (BZ)/107 (IUPAC)				1.029				ND	C	0.00691
PCB 107 (BZ)/109 (IUPAC)				1.082				ND		0.00657
PCB 123 (BZ)				1.053				ND		0.00707
PCB 106 (BZ)				1.050				ND		0.00677
PCB 118 (BZ)	37:13	14213	2852	1.087		0.107761		0.107761		0.00650
PCB 122 (BZ)				0.964				ND		0.00738
PCB 114 (BZ)				1.161				ND		0.00619
PCB 105 (BZ)	38:24	4378	813	1.125		0.032915		0.032915	QJ	0.00644
PCB 127 (BZ)				1.062				ND		0.00670
PCB 126 (BZ)				1.051				ND		0.00635
Total Hexachlorobiphenyl								ND		0.341
13C12-PCB 155	31:56	1485787	298159	1.068	20.00	17.927327	89.64	17.927327		0.0213
13C12-PCB 153	39:01	967679	184260	0.828	10.00	10.873946	108.74	10.873946		0.0255
13C12-PCB 138	40:17	1798474	336115	1.000	20.00	20.000000	100.00	20.000000		0.0204
13C12-PCB 167	43:17	2136902	397211	1.247	20.00	19.056156	95.28	19.056156		0.0163
13C12-PCB 156	44:27	4510023	545344	1.233	40.00	40.672930	101.68	40.672930		0.0165
13C12-PCB 157								ND		0.000000
13C12-PCB 169	47:41	1953603	356298	1.173	20.00	18.519356	92.60	18.519356		0.0174
PCB 155 (BZ)				1.128				ND		0.00922
PCB 152 (BZ)				1.075				ND		0.00967
PCB 150 (BZ)				1.096				ND		0.00948
PCB 136 (BZ)				1.022				ND		0.0102
PCB 145 (BZ)				1.069				ND		0.00973
PCB 148 (BZ)				0.764				ND		0.0136
PCB 151 (BZ)				0.750				ND	C135	0.0139
PCB 135 (BZ)				0.750				ND	C	0.0139
PCB 154 (BZ)				0.922				ND		0.0113
PCB 144 (BZ)				0.808				ND		0.0129
PCB 147 (BZ)				0.861				ND	C	0.0111
PCB 149 (BZ)				0.861				ND	C147	0.0111
PCB 134 (BZ)				0.717				ND	C	0.0133
PCB 143 (BZ)				0.717				ND	C134	0.0133
PCB 139 (BZ)				0.836				ND	C	0.0114
PCB 140 (BZ)				0.836				ND	C139	0.0114
PCB 131 (BZ)				0.700				ND		0.0136
PCB 142 (BZ)				0.728				ND		0.0131
PCB 132 (BZ)				0.736				ND		0.0130
PCB 133 (BZ)				0.763				ND		0.0125
PCB 165 (BZ)				1.001				ND		0.00954
PCB 146 (BZ)				0.881				ND		0.0108
PCB 161 (BZ)				1.100				ND		0.00868
PCB 153 (BZ)				1.071				ND	C	0.00891
PCB 168 (BZ)				1.071				ND	C153	0.00891
PCB 141 (BZ)				0.803				ND		0.0119
PCB 130 (BZ)				0.717				ND		0.0133
PCB 137 (BZ)				0.832				ND		0.0115
PCB 164 (BZ)				1.052				ND		0.00908
PCB 138 (BZ)				0.926				ND	C129	0.0103

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6F1AC	Prep Batch	1187028	Lot No	H1G050439-005
Data File	/20110713s1/apmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133602	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/27/11
Analysis Time	07:37	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 163 (BZ)				0.926				ND	C129	0.0103
PCB 129 (BZ)				0.926				ND	C	0.0103
PCB 160 (BZ)				0.926				ND	C129	0.0103
PCB 158 (BZ)				1.174				ND		0.00813
PCB 166 (BZ)				0.958				ND	C128	0.00997
PCB 128 (BZ)				0.958				ND	C	0.00997
PCB 159 (BZ)				1.095				ND		0.00872
PCB 162 (BZ)				1.108				ND		0.00861
PCB 167 (BZ)				1.126				ND		0.00693
PCB 156 (BZ)				1.130				ND	C	0.0101
PCB 157 (BZ)				1.130				ND	C156	0.0101
PCB 169 (BZ)				1.243				ND		0.00700
Total Heptachlorobiphenyl		2128				0.025120		0.025120	QJ	0.211
13C12-PCB 188	37:39	1737121	349282	1.217	20.00	17.319983	86.60	17.319983		0.0143
13C12-PCB 178	40:43	1151982	232868	0.881	20.00	15.869231	79.35	15.869231		0.0197
13C12-PCB 180	45:48	1648065	313724	1.000	20.00	20.000000	100.00	20.000000		0.0174
13C12-PCB 170	47:04	1199780	216547	0.828	20.00	17.580589	87.90	17.580589		0.0210
13C12-PCB 189	50:10	2500611	450478	1.588	20.00	18.973196	94.87	18.973196		0.0109
PCB 188 (BZ)				1.111				ND		0.00786
PCB 179 (BZ)				1.220				ND		0.00884
PCB 184 (BZ)				1.188				ND		0.00908
PCB 176 (BZ)				1.286				ND		0.00838
PCB 186 (BZ)				1.223				ND		0.00881
PCB 178 (BZ)				0.906				ND		0.0119
PCB 175 (BZ)				0.980				ND		0.0110
PCB 187 (BZ)				1.054				ND		0.0102
PCB 182 (BZ)				1.009				ND		0.0107
PCB 183 (BZ)				0.987				ND	C	0.0109
PCB 185 (BZ)				0.987				ND	C183	0.0109
PCB 174 (BZ)				0.941				ND		0.0115
PCB 177 (BZ)				0.918				ND		0.0117
PCB 181 (BZ)				0.980				ND		0.0110
PCB 171 (BZ)				0.872				ND	C	0.0124
PCB 173 (BZ)				0.872				ND	C171	0.0124
PCB 172 (BZ)				0.881				ND		0.0122
PCB 192 (BZ)				1.152				ND		0.00936
PCB 193 (BZ)	45:49	2128	736	1.154		0.025120		0.025120	QC180J	0.00934
PCB 180 (BZ)		2128		1.154		0.025120		0.025120	QCJ	0.00934
PCB 191 (BZ)				1.287				ND		0.00838
PCB 170 (BZ)				1.102				ND		0.0128
PCB 190 (BZ)				1.265				ND		0.00852
PCB 189 (BZ)				1.073				ND		0.00631
Total Octachlorobiphenyl								ND		0.151
13C12-PCB 202	43:00	1378677	265284	0.907	20.00	18.440421	92.20	18.440421		0.0172
13C12-PCB 194	52:14	1659695	314631	1.000	20.00	20.000000	100.00	20.000000		0.0156
13C12-PCB 205	52:42	2213778	411250	1.395	20.00	19.128077	95.64	19.128077		0.0112
PCB 202 (BZ)				1.007				ND		0.0140
PCB 200 (BZ)/201 (IUPAC)				1.134				ND		0.0125
PCB 204 (BZ)				1.034				ND		0.0137

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6F1AC	Prep Batch	1187028	Lot No	H1G050439-005
Data File	/20110713s1/apmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133602	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/27/11
Analysis Time	07:37	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 197 (BZ)				1.075				ND		0.0132
PCB 199 (BZ)/200 (IUPAC)				1.095				ND		0.0129
PCB 198 (BZ)				0.775				ND	C	0.0182
PCB 201 (BZ)/199 (IUPAC)				0.775				ND	C198	0.0182
PCB 196 (BZ)				0.800				ND		0.0177
PCB 203 (BZ)				0.868				ND		0.0163
PCB 195 (BZ)				0.765				ND		0.0119
PCB 194 (BZ)				0.830				ND		0.0110
PCB 205 (BZ)				0.986				ND		0.00925
Total Nonachlorobiphenyl								ND		0.0457
13C12-PCB 208	49:38	1699275	322853	1.155	20.00	17.727598	88.64	17.727598		0.0150
13C12-PCB 206	54:25	1292632	234785	0.808	20.00	19.284885	96.42	19.284885		0.0214
PCB 208 (BZ)				1.035				ND		0.0142
PCB 207 (BZ)				1.276				ND		0.0134
PCB 206 (BZ)				1.113				ND		0.0182
13C12-PCB 209	56:00	1229330	223432	0.857	20.00	17.278398	86.39	17.278398		0.0259
PCB 209 (BZ)	56:01	2236	740	1.052		0.034576		0.034576	QJ	0.0208

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6F1AC	Prep Batch	1187028	Lot No	H1G050439-005
Data File	/20110713s1/apmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133602	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	07/14/11 07:37	Matrix	AIR	Date Sampled	06/27/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	110	115	44	46	0.96 *	/	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	180	515	72	206	0.35 *	/	
	13C12-PCB 1	12:07	12:08	-1	1916028	605692	727582	223300	3.16	ABV/AVV	
	13C12-PCB 3	14:19	14:19	0	2087478	644669	613284	192963	3.24	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	210	458	84	183	0.46 *	/	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	223	158	89	63	1.41	/	
	13C12-PCB 4	14:35	14:35	0	765018	464782	238666	144592	1.65	ABV/ABB	
	13C12-PCB 9	16:33	16:33	0	1679502	1011648	459945	275595	1.66	AVV/ABV	
	13C12-PCB 8	17:25	17:25	0	732683	433983	183183	111400	1.69	AVV/AVV	
	13C12-PCB 15	20:33	20:30	3	1311072	783119	284185	173461	1.67	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	110	80	44	32	1.38 *	/	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	533	325	213	130	1.64 *	/	
	13C12-PCB 19	17:44	17:44	0	491693	457033	122051	113831	1.08	AVV/AVV	
	13C12-PCB 32	20:59	20:59	0	1146199	1068744	265232	250355	1.07	AVV/AVV	
	13C12-PCB 31	23:15	23:16	-1	1862065	1774020	408624	390505	1.05	ABV/ABV	
	13C12-PCB 28	23:33	23:33	0	1483580	1402308	325506	296962	1.06	AVV/AVV	
	13C12-PCB 37	27:36	27:34	2	1320856	1234771	232140	220460	1.07	ABV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	68	90	27	36	0.75	/	
	Unidentified	30:11	00:00	0	8570	12856	1404	1875	0.67	AVB/ABB	M
	PCB 77 (BZ)	34:54	34:52	2	1091	1073	173	358	1.02 *	ABB/ABB	RT
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	140	135	56	54	1.04 *	/	
	13C12-PCB 54	20:50	20:50	0	592485	743169	144272	178285	0.80	ABV/ABV	
	13C12-PCB 52	25:23	25:23	0	866988	1108585	182965	235742	0.78	ABV/ABV	
	13C12-PCB 79	33:20	33:18	2	532202	688525	92344	131692	0.77	ABV/ABV	
	13C12-PCB 81	34:21	34:17	4	916459	1141648	159822	204092	0.80	ABV/ABV	
	13C12-PCB 77	34:55	34:51	4	951679	1207984	165460	212337	0.79	AVV/AVV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	75	83	30	33	0.91 *	/	
	PCB 118 (BZ)	37:13	37:12	1	8190	6023	1444	1408	1.36	ABB/ABB	
	PCB 105 (BZ)	38:24	38:24	0	2661	2321	494	651	1.15 *	ABB/ABB	R
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	188	168	75	67	1.12 *	/	
	13C12-PCB 104	26:19	26:20	-1	990585	604347	208483	123778	1.64	ABV/ABV	
	13C12-PCB 95	29:19	29:17	2	357331	224292	70580	47421	1.59	ABV/ABV	
	13C12-PCB 101	32:13	32:13	0	968693	583739	186884	114089	1.66	AVV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6F1AC	Prep Batch	1187028	Lot No	H1G050439-005
Data File	/20110713s1/apmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133602	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	07/14/11 07:37	Matrix	AIR	Date Sampled	06/27/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	13C12-PCB 111	34:53	34:52	1	1090165	674630	202015	125024	1.62	ABV/ABV	
	13C12-PCB 123	36:53	36:51	2	1405215	874387	261879	161351	1.61	ABV/ABV	
	13C12-PCB 118	37:12	37:10	2	1508384	918274	275625	170503	1.64	AVV/AVV	
	13C12-PCB 114	37:43	37:42	1	1485992	906707	270972	167708	1.64	AVV/AVV	
	13C12-PCB 105	38:23	38:22	1	1460616	903853	269184	165788	1.62	ABV/ABV	
	13C12-PCB 127	39:51	39:47	4	1900278	1157378	342670	207665	1.64	ABV/ABV	
	13C12-PCB 126	41:29	41:25	4	1597561	988357	290425	181712	1.62	ABV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	83	73	33	29	1.14	/	
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	178	165	71	66	1.08	/	
	13C12-PCB 155	31:56	31:58	-2	845463	640324	166905	131254	1.32	ABV/ABV	
	13C12-PCB 153	39:01	39:01	0	546580	421099	101825	82435	1.30	ABV/ABV	
	13C12-PCB 138	40:17	40:16	1	1014490	783984	188501	147614	1.29	ABV/ABV	
	13C12-PCB 167	43:17	43:16	1	1206841	930061	224503	172708	1.30	ABV/ABV	
	13C12-PCB 156	44:27	44:25	2	2545426	1964597	306336	239008	1.30	ABV/AVV	
	13C12-PCB 169	47:41	47:38	3	1104050	849553	200461	155837	1.30	ABV/ABV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	90	63	36	25	1.44 *	/	
	PCB 193 (BZ)	45:49	45:45	4	1291	1038	239	359	1.24 *	ABB/ABV	R
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	143	130	57	52	1.10	/	
	13C12-PCB 188	37:39	37:41	-2	893700	843421	180654	168628	1.06	ABV/ABV	
	13C12-PCB 178	40:43	40:43	0	597931	554051	122493	110375	1.08	ABV/ABV	
	13C12-PCB 180	45:48	45:47	1	854538	793527	161832	151892	1.08	ABV/ABV	
	13C12-PCB 170	47:04	47:03	1	613770	586010	111113	105434	1.05	ABV/ABV	
	13C12-PCB 189	50:10	50:08	2	1289278	1211333	234334	216144	1.06	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	90	98	36	39	0.92	/	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	113	133	45	53	0.85	/	
	13C12-PCB 202	43:00	43:01	-1	655146	723531	124585	140699	0.91	ABV/ABV	
	13C12-PCB 194	52:14	52:14	0	791600	868095	146553	168078	0.91	ABV/ABV	
	13C12-PCB 205	52:42	52:41	1	1042327	1171451	191183	220067	0.89	AVB/AVV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	115	123	46	49	0.94 *	/	
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89		
	Noise	00:00	00:00	0	150	123	60	49	1.22 *	/	
	13C12-PCB 208	49:38	49:39	-1	748425	950850	139099	183754	0.79	ABV/ABV	
	13C12-PCB 206	54:25	54:25	0	568410	724222	104273	130512	0.78	ABV/ABV	
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79		
	Noise	00:00	00:00	0	113	133	45	53	0.85 *	/	

Notes:
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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6F1AC	Prep Batch	1187028	Lot No	H1G050439-005
Data File	/20110713s1/apmkm6f.d	Prep Date	07/06/11	SDG No	
Analysis ID	133602	Prep Exp Date	07/27/11	Date Received	07/02/11
Analysis Date	07/14/11 07:37	Matrix	AIR	Date Sampled	06/27/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79		
	PCB 209 (BZ)	56:01	56:03	-2	913	1911	302	360	0.48 *	AVV/ABB	R
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79		
	Noise	00:00	00:00	0	258	93	103	37	2.78 *	/	
	13C12-PCB 209	56:00	56:02	-2	509007	720323	93730	129702	0.71	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: apmkm6f 14-Jul-11 Elapse: 13:20.2 133
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2 > 2603 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

client, h 7-14-11
calc
QC Review MSD 7-14-11

m/z:188>510, \268.98, \280.98.\342.98, \380.98, \404.98, \430.97, \504.97

E+05
9.634

WHO List

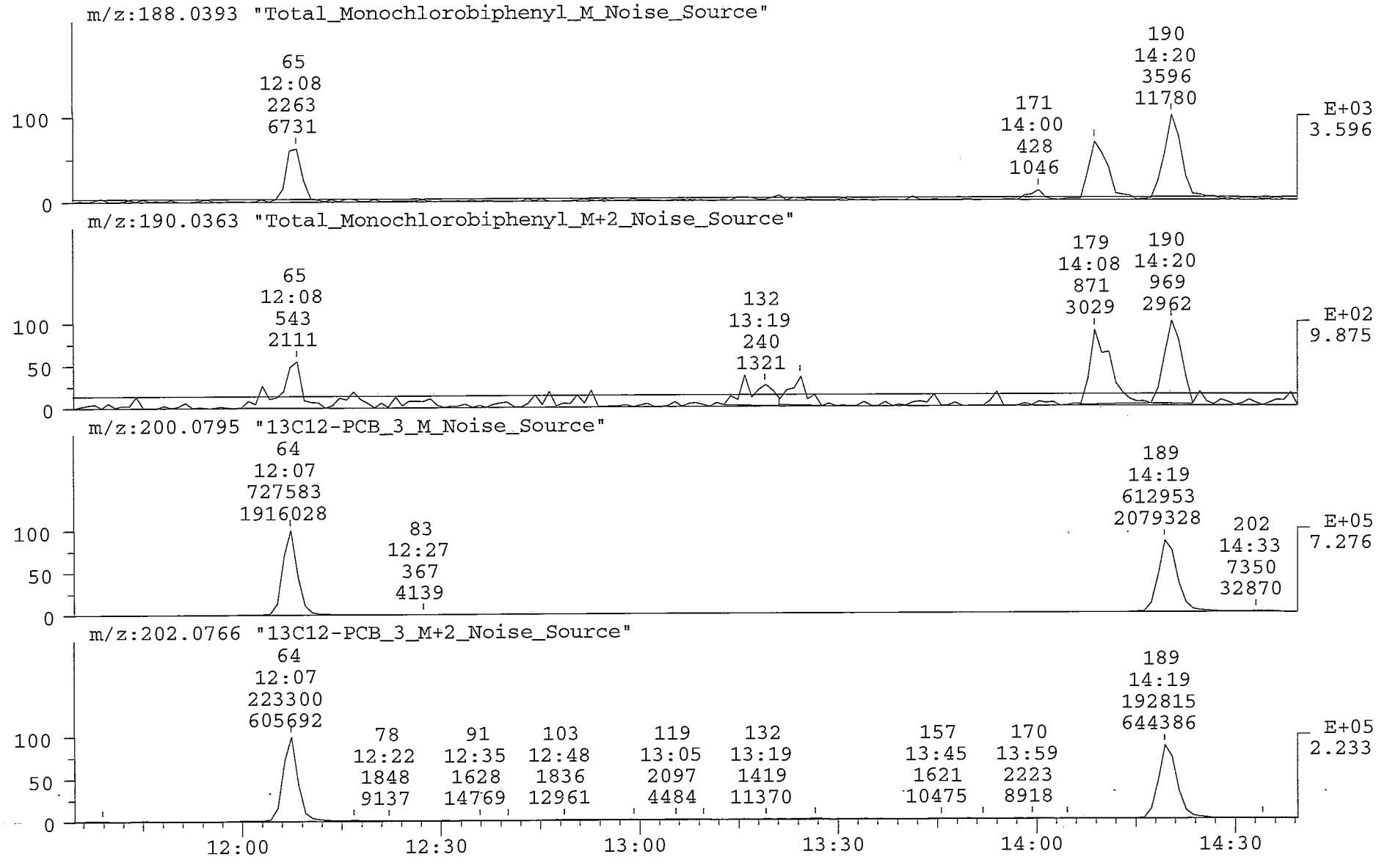
100
80
60
40
20
0

16:00 24:00 32:00 40:00 48:00 56:00

H-1081

1080

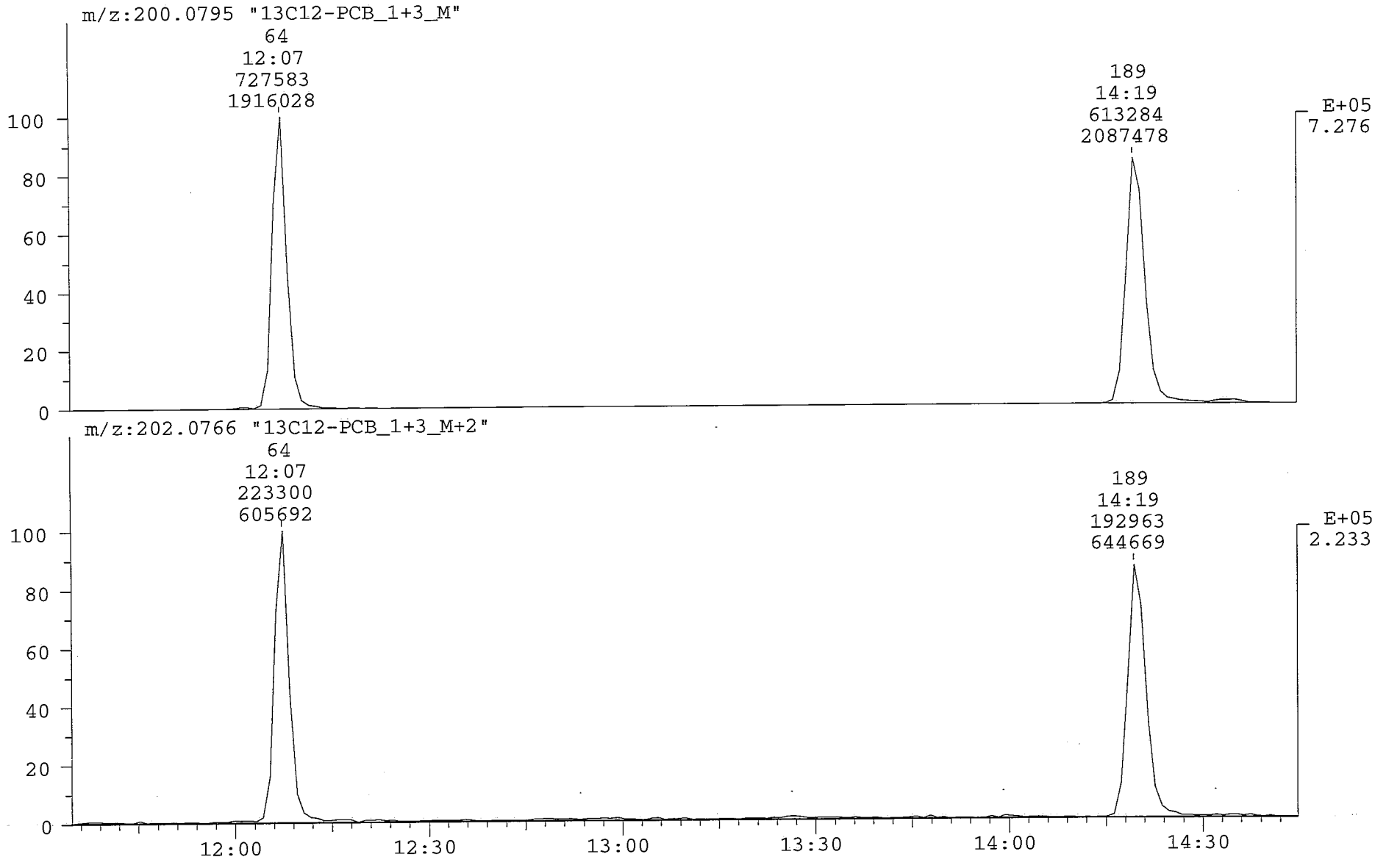
CHRO: apmkm6f 14-Jul-11 Elapse: 13:20.2 133
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1082

1081

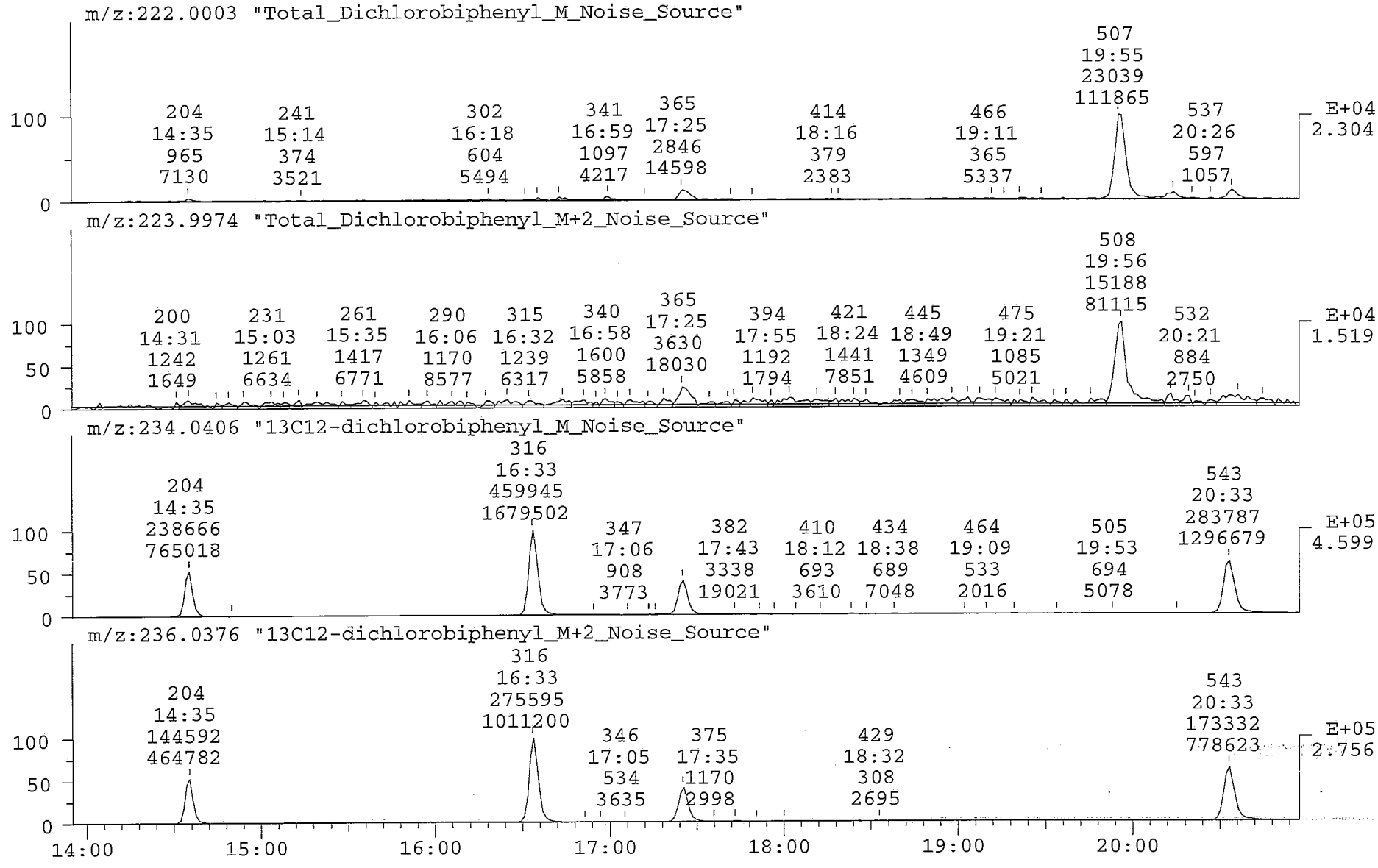
CHRO: apmkm6f 14-Jul-11 Elapse: 13:20.2 133
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 33 > 213 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1083

1082

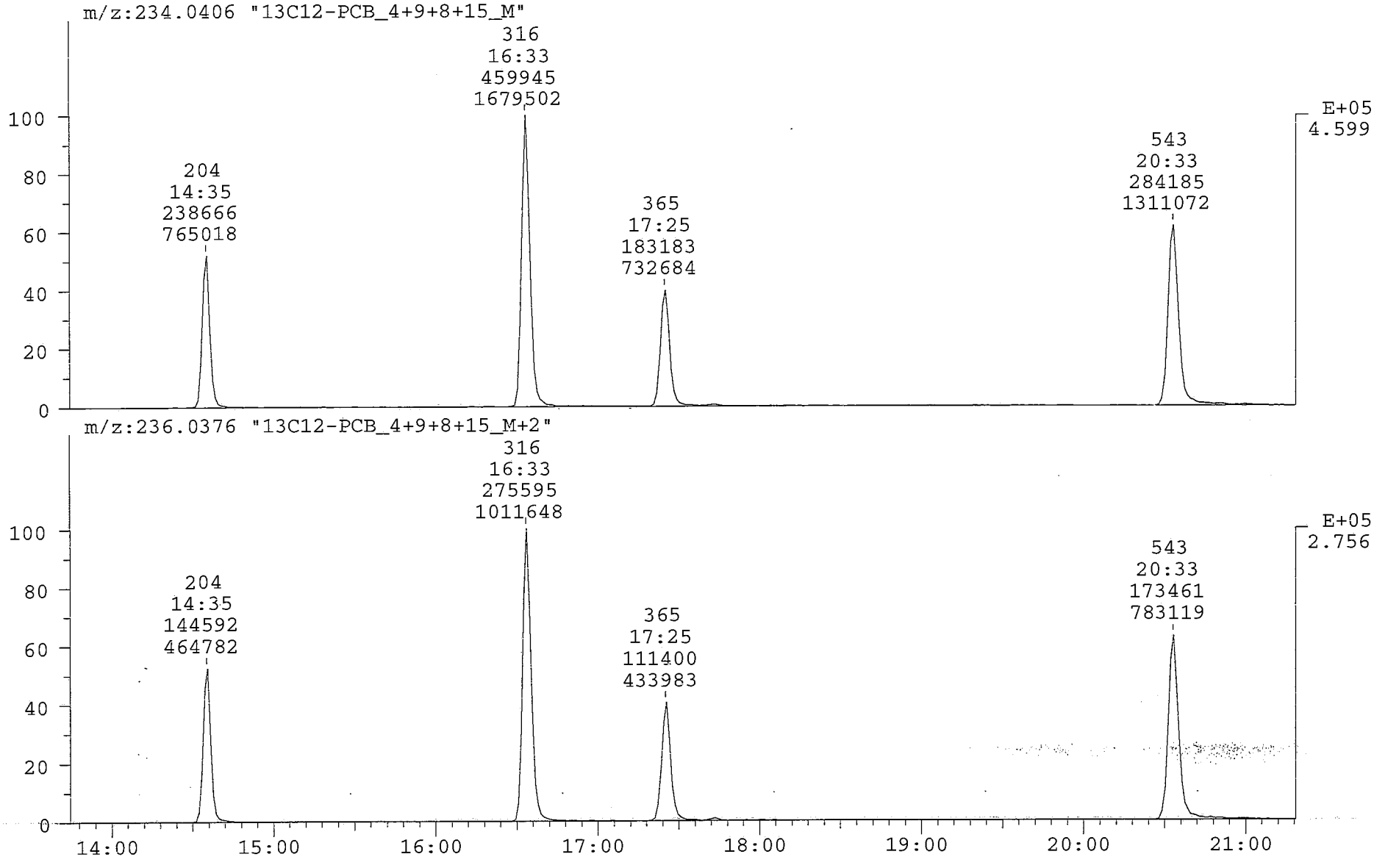
CHRO: apmkm6f 14-Jul-11 Elapse: 17:26.2 366
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1084

1083

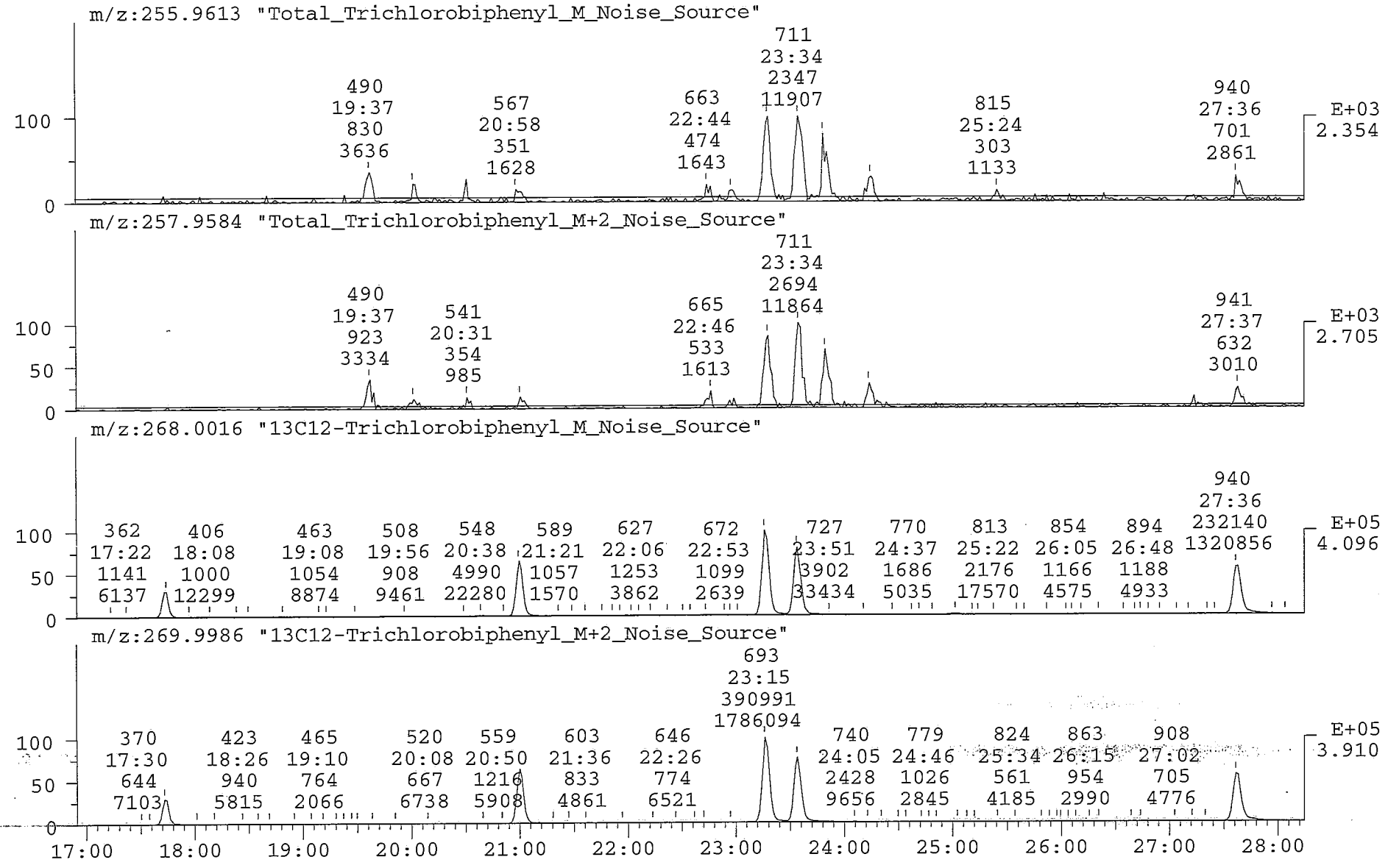
CHRO: apmkm6f 14-Jul-11 Elapse: 17:26.2 366
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1085

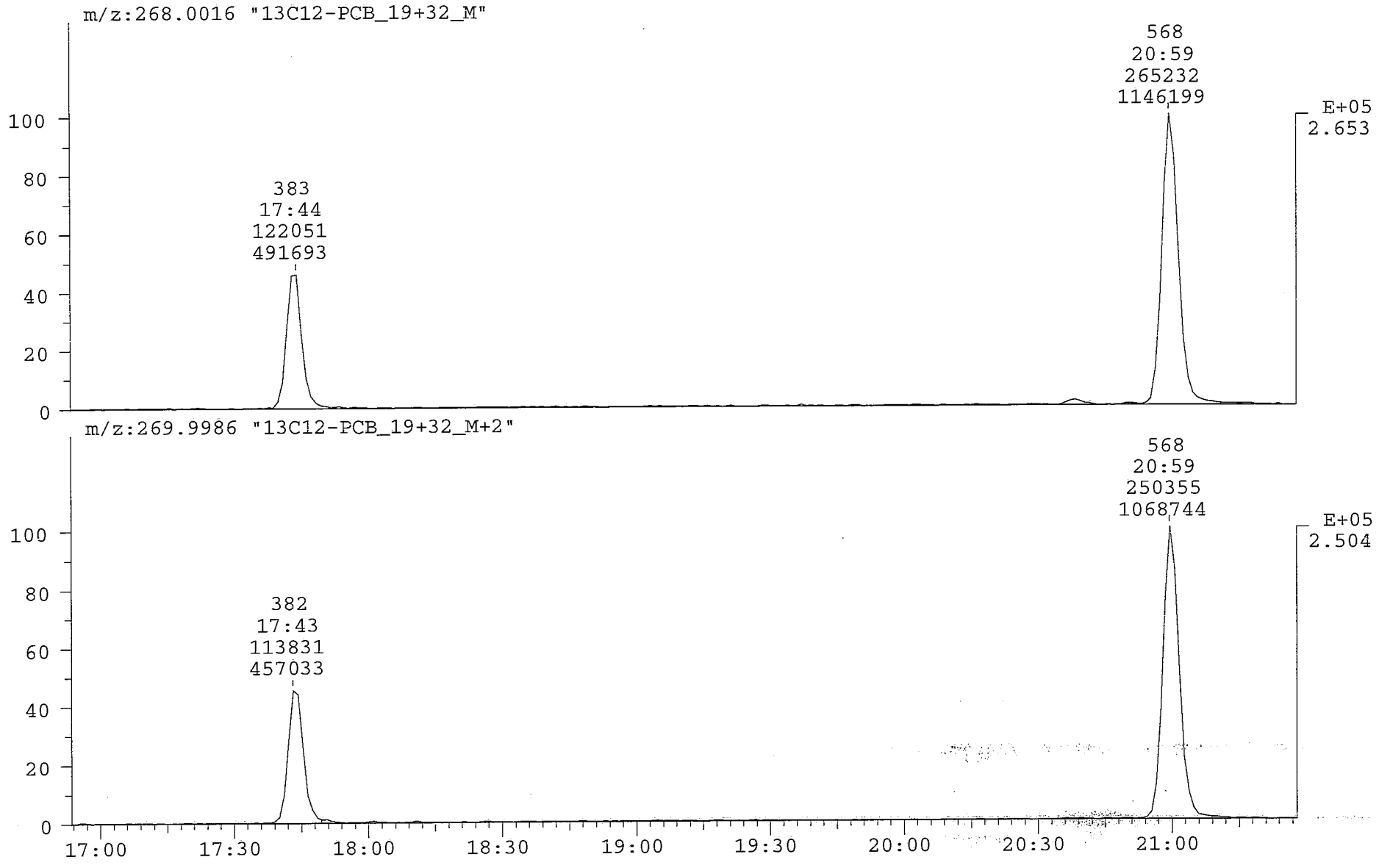
1084

CHRO: apmkm6f 14-Jul-11 Elapse: 22:36.8 656
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1086

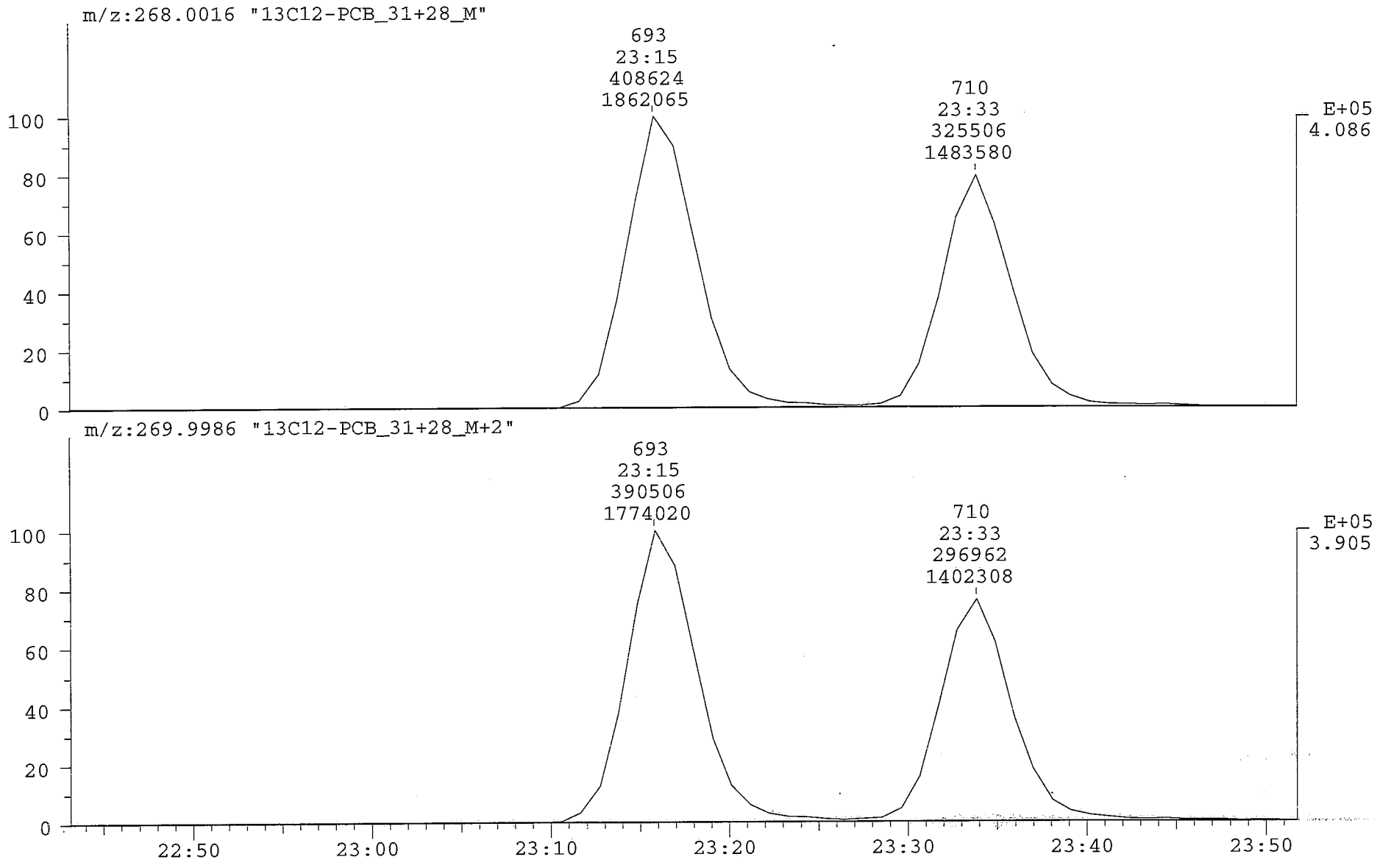
CHRO: apmkm6f 14-Jul-11 Elapse: 19:00.2 455
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 335 > 595 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1087

1086

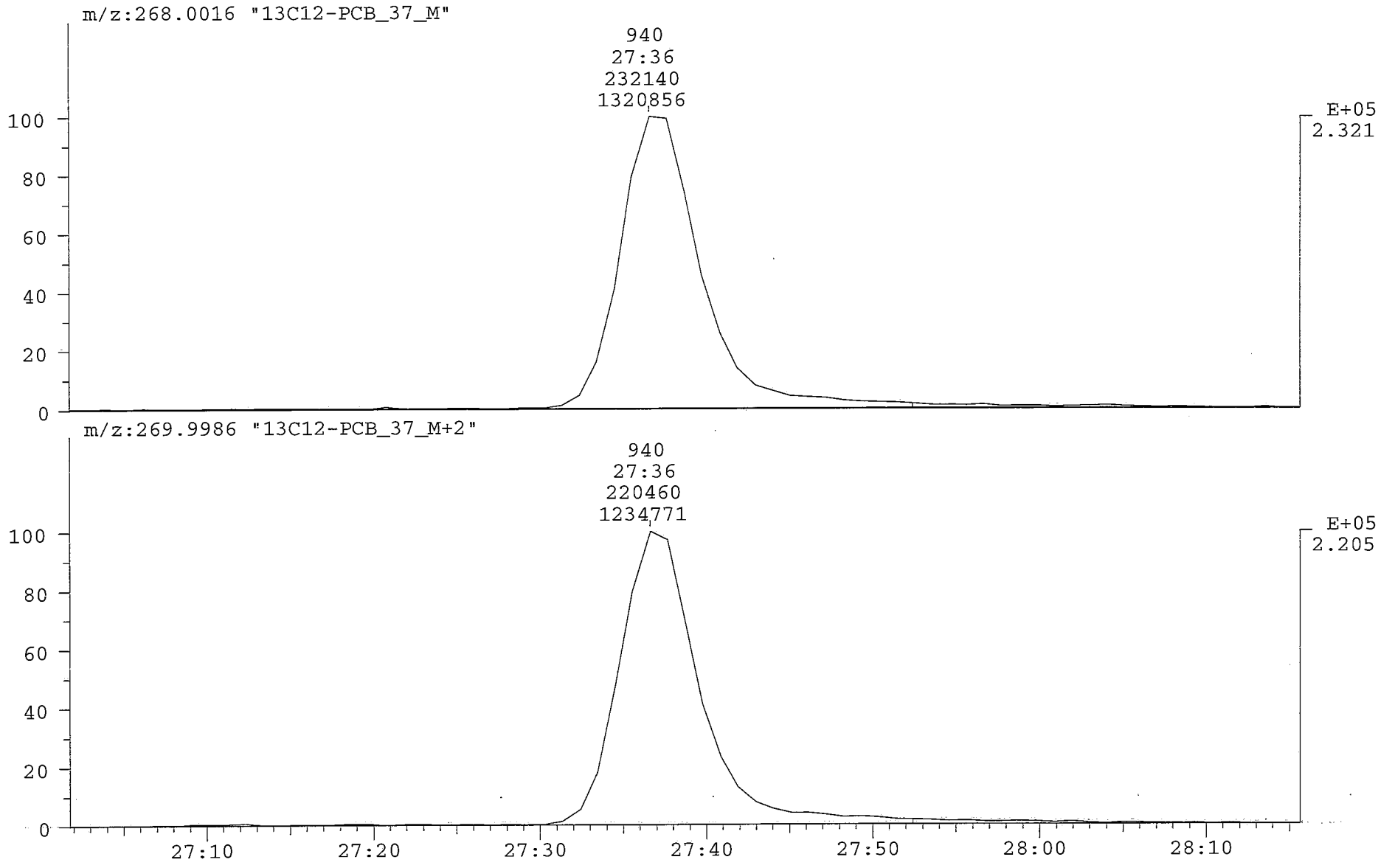
CHRO: apmkm6f 14-Jul-11 Elapse: 23:09.5 687
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1088

1087

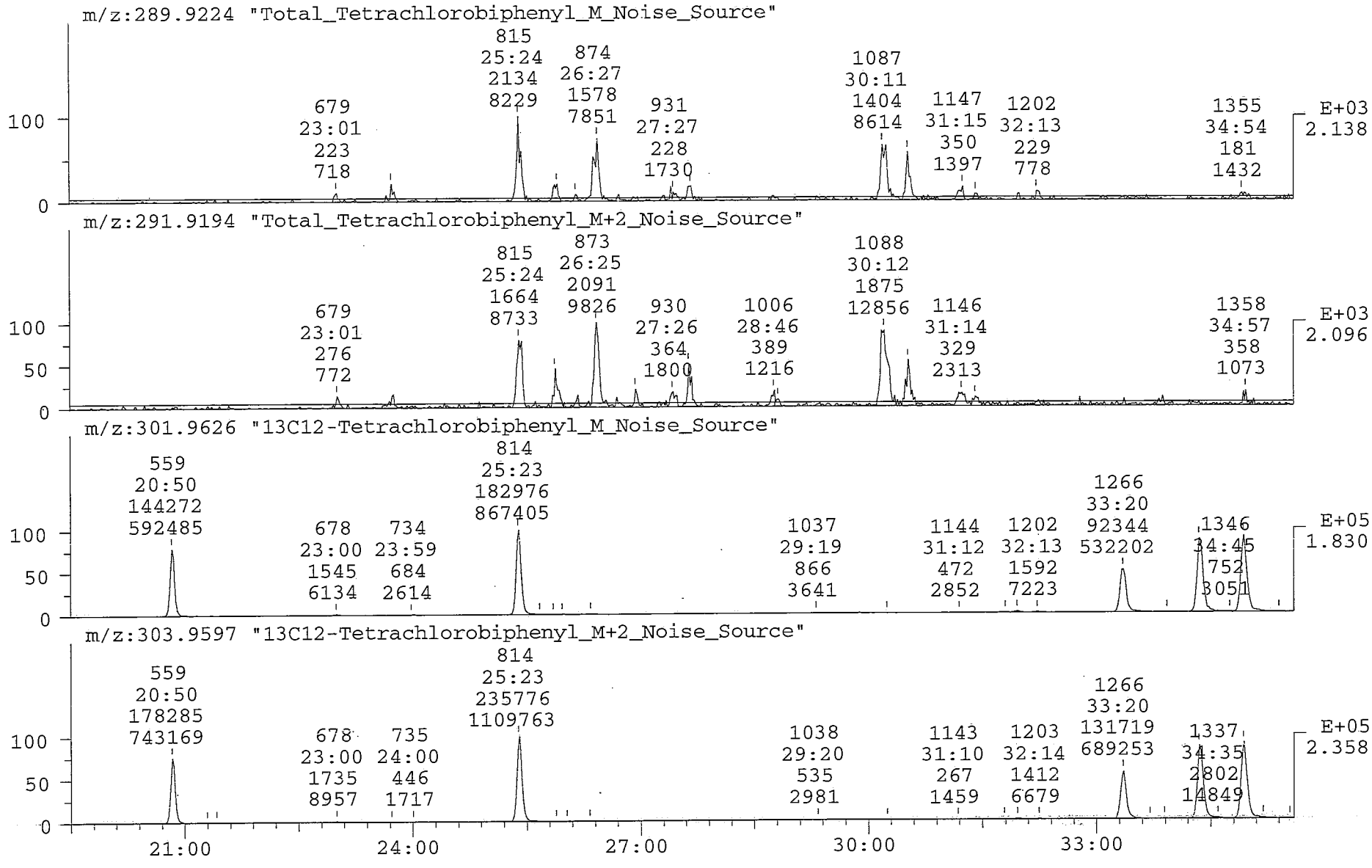
CHRO: apmkm6f 14-Jul-11 Elapse: 27:28.2 932
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 907 > 977 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1089

1088

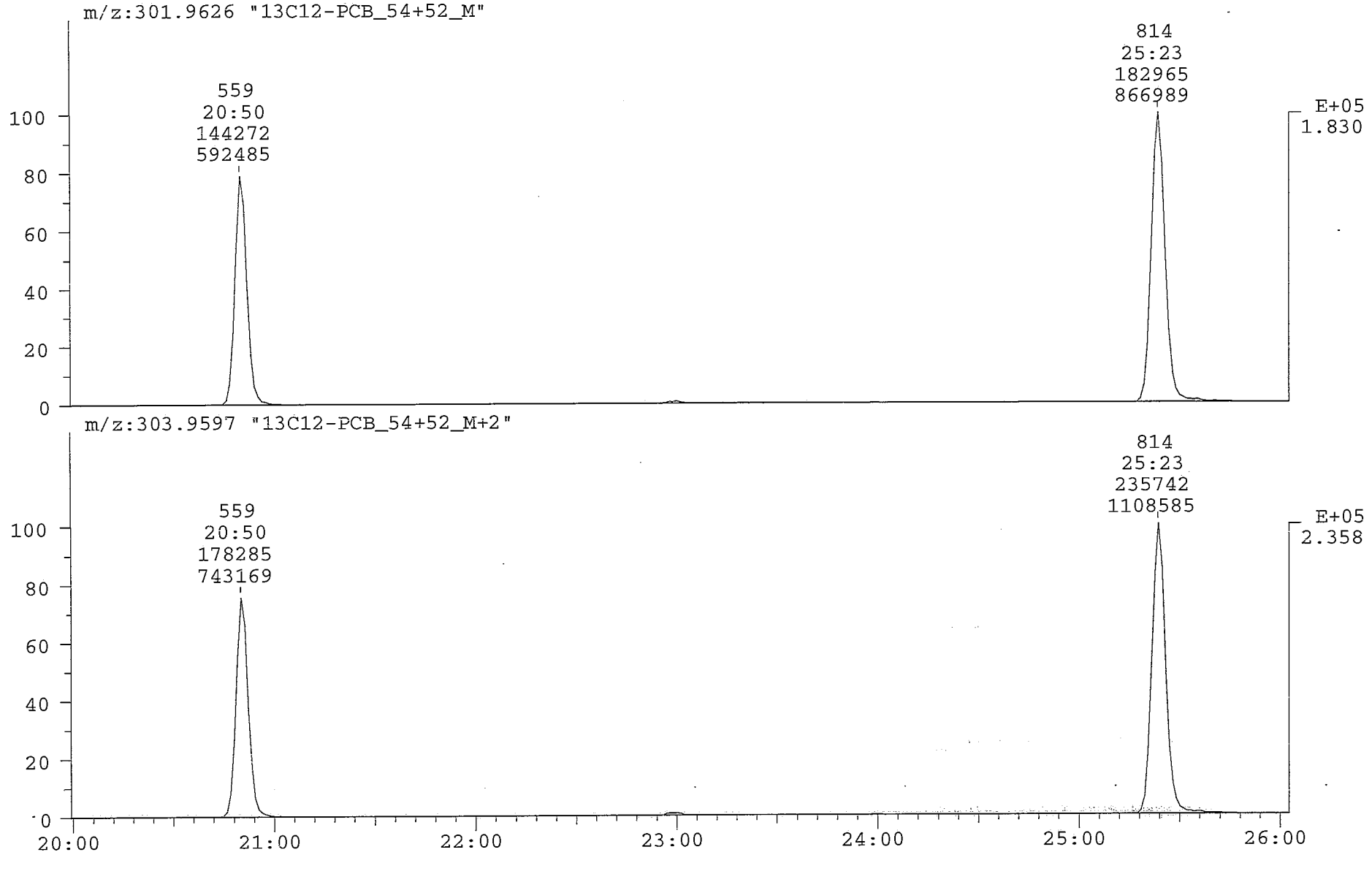
CHRO: apmkm6f 14-Jul-11 Elapse: 27:36.6 940
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 483 > 1394 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1090

1089

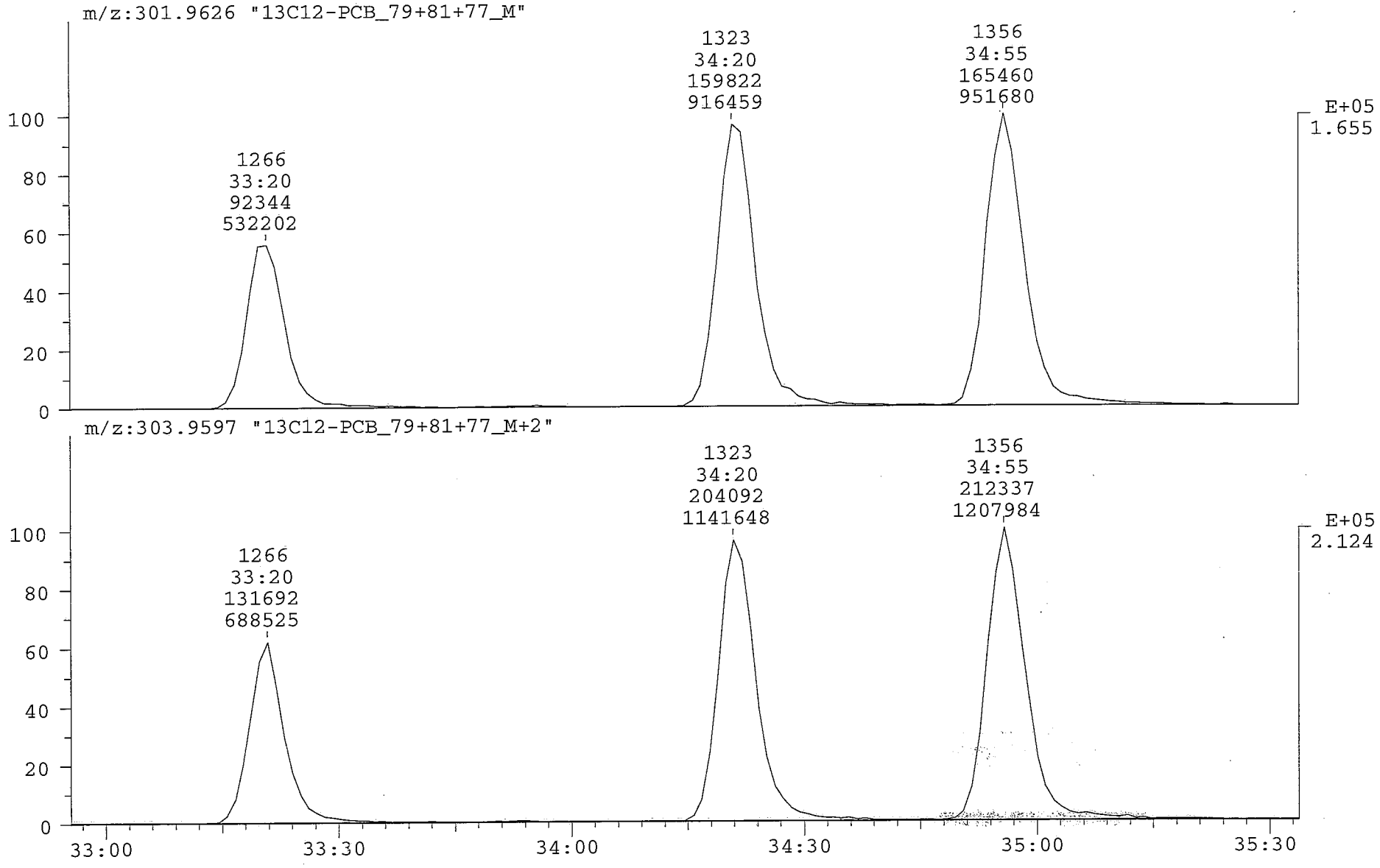
CHRO: apmkm6f 14-Jul-11 Elapse: 23:03.2 681
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 511 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1091

1090

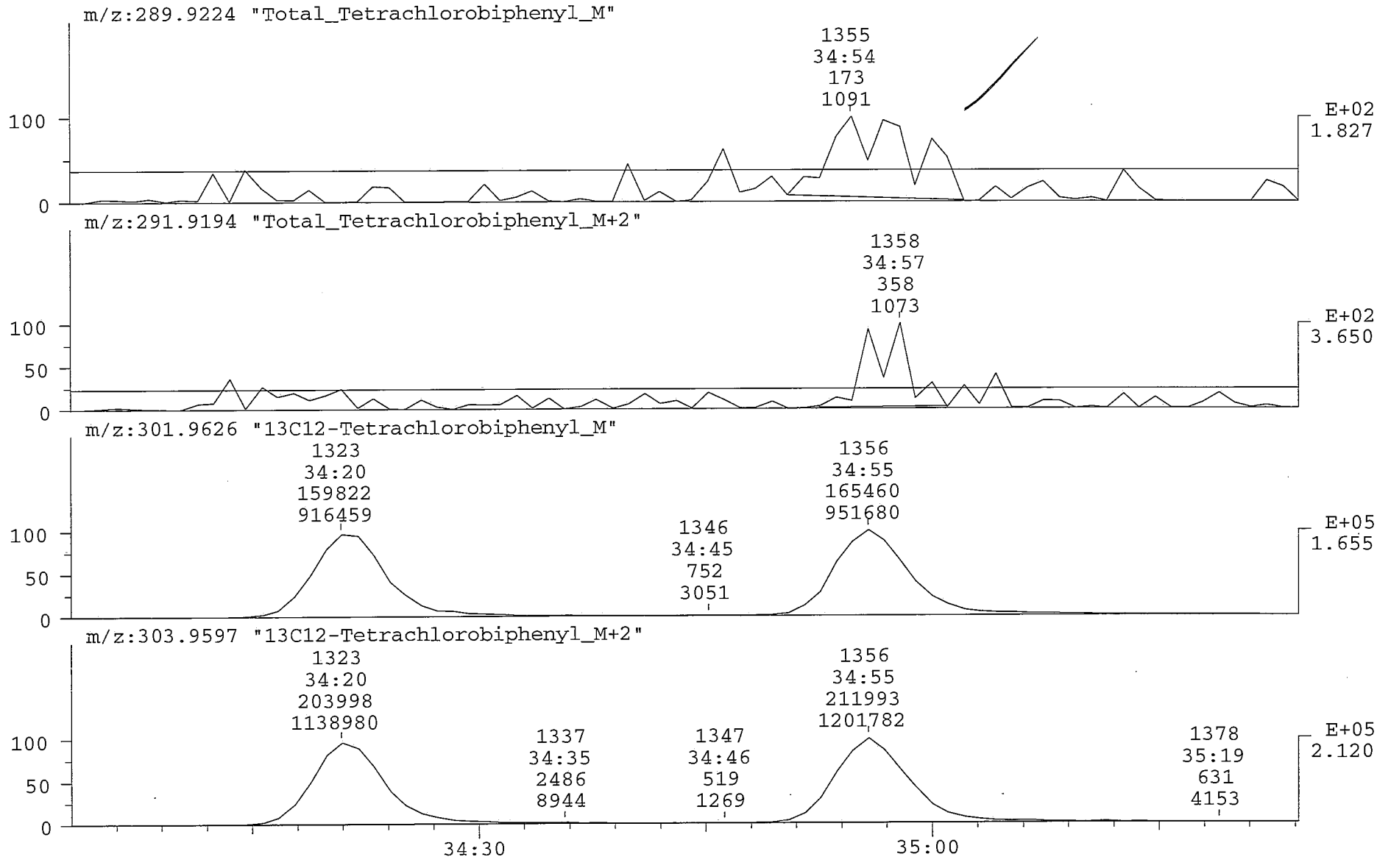
CHRO: apmkm6f 14-Jul-11 Elapse: 33:58 1302
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1242 > 1392 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1092

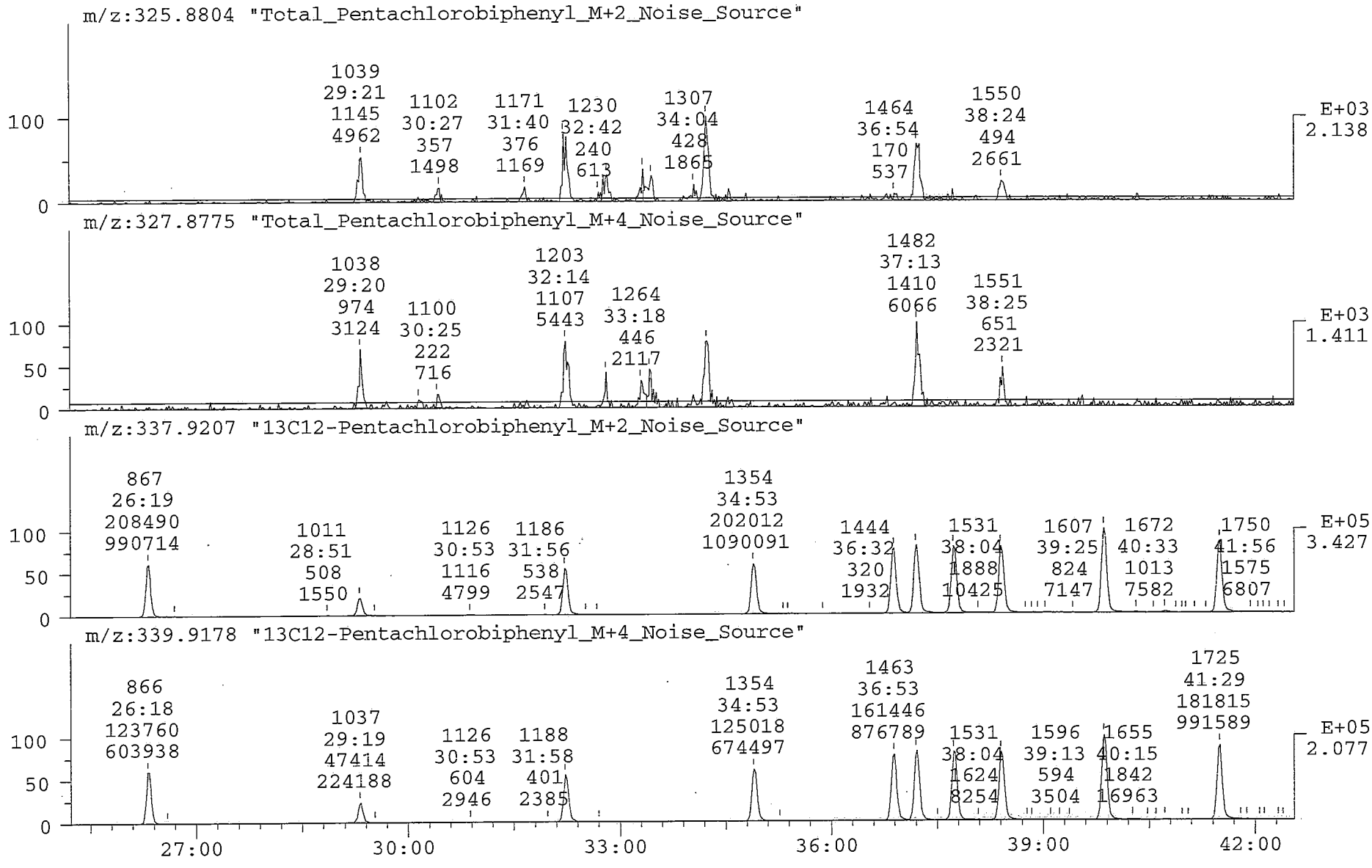
1091

CHRO: apmkm6f 14-Jul-11 Elapse: 46:15 1996
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1306 > 1383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 2.0
Disp: Height Area



H-1093

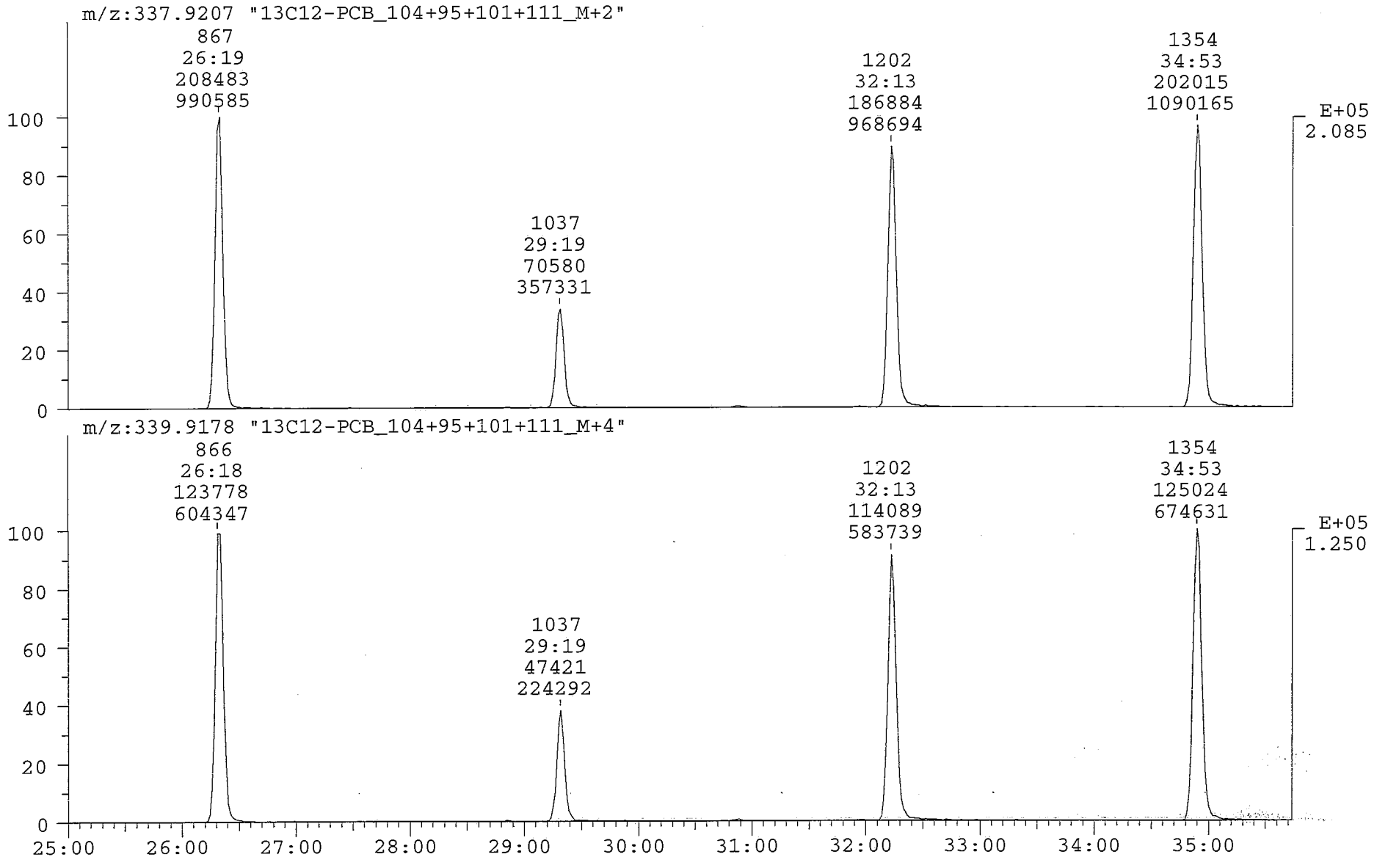
CHRO: apmkm6f 14-Jul-11 Elapse: 33:53 1297
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 804 > 1785 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1094

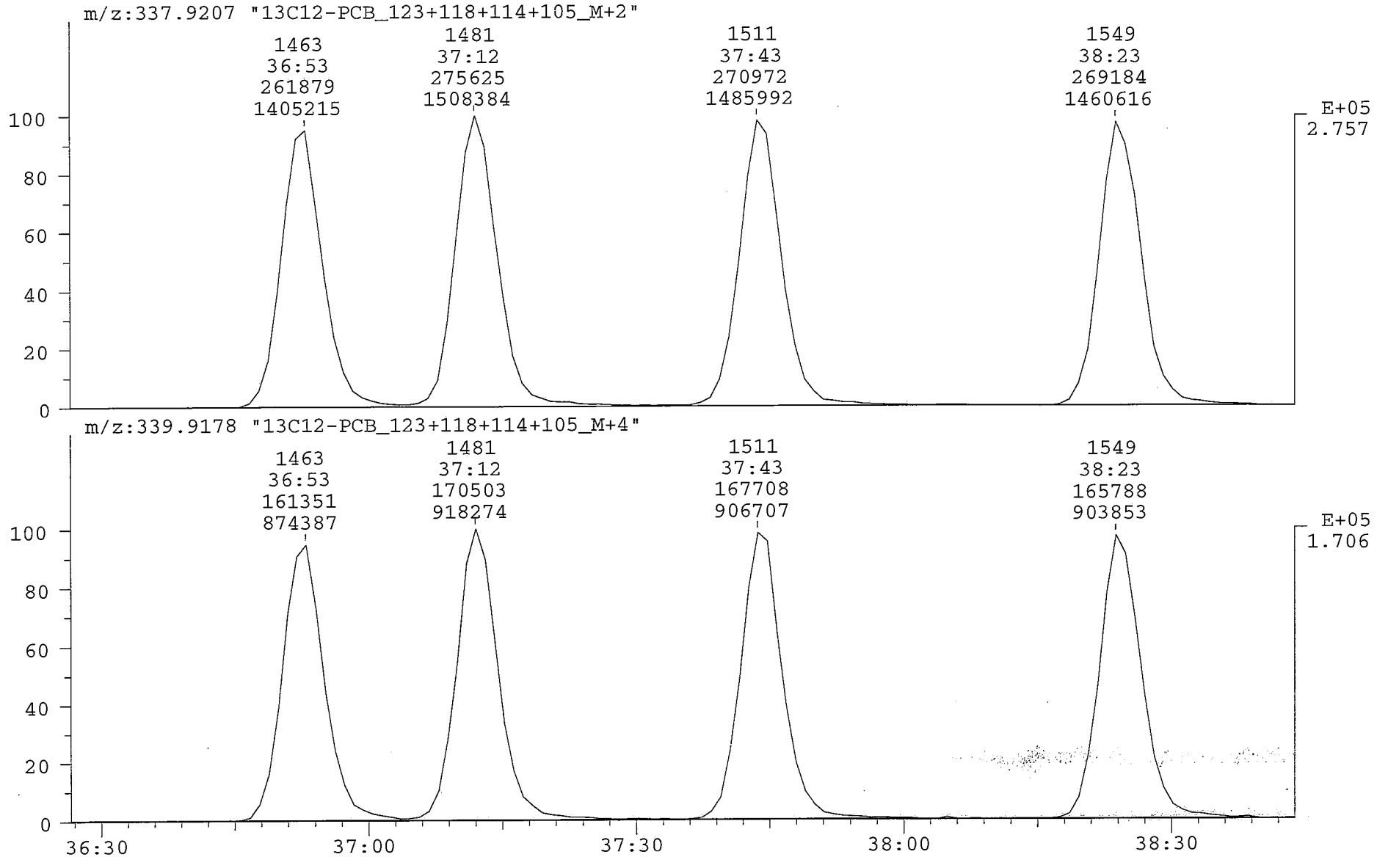
1093

CHRO: apmkm6f 14-Jul-11 Elapse: 30:22 1097
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 792 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1095

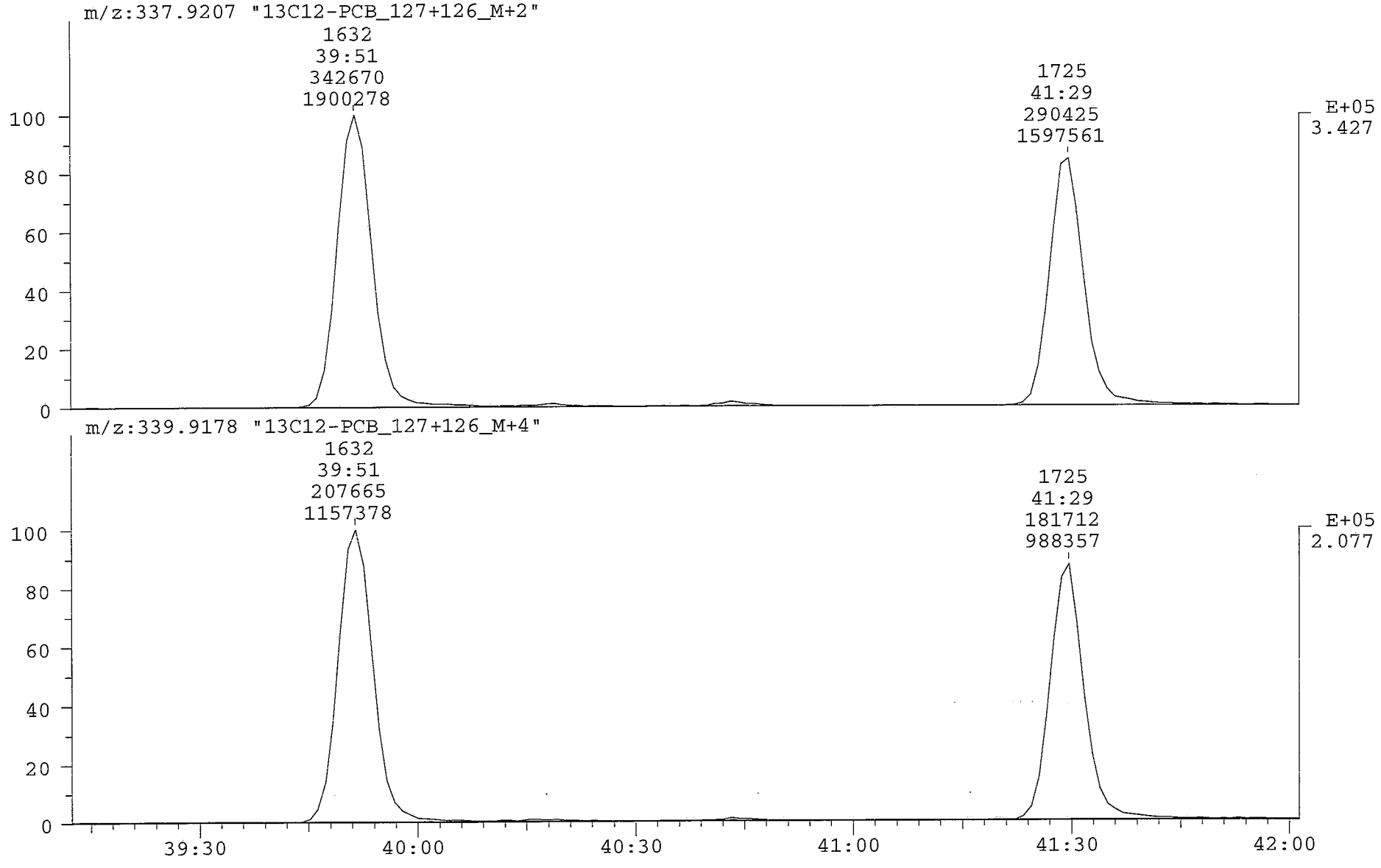
CHRO: apmkm6f 14-Jul-11 Elapse: 37:35 1503
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1438 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1096

1095

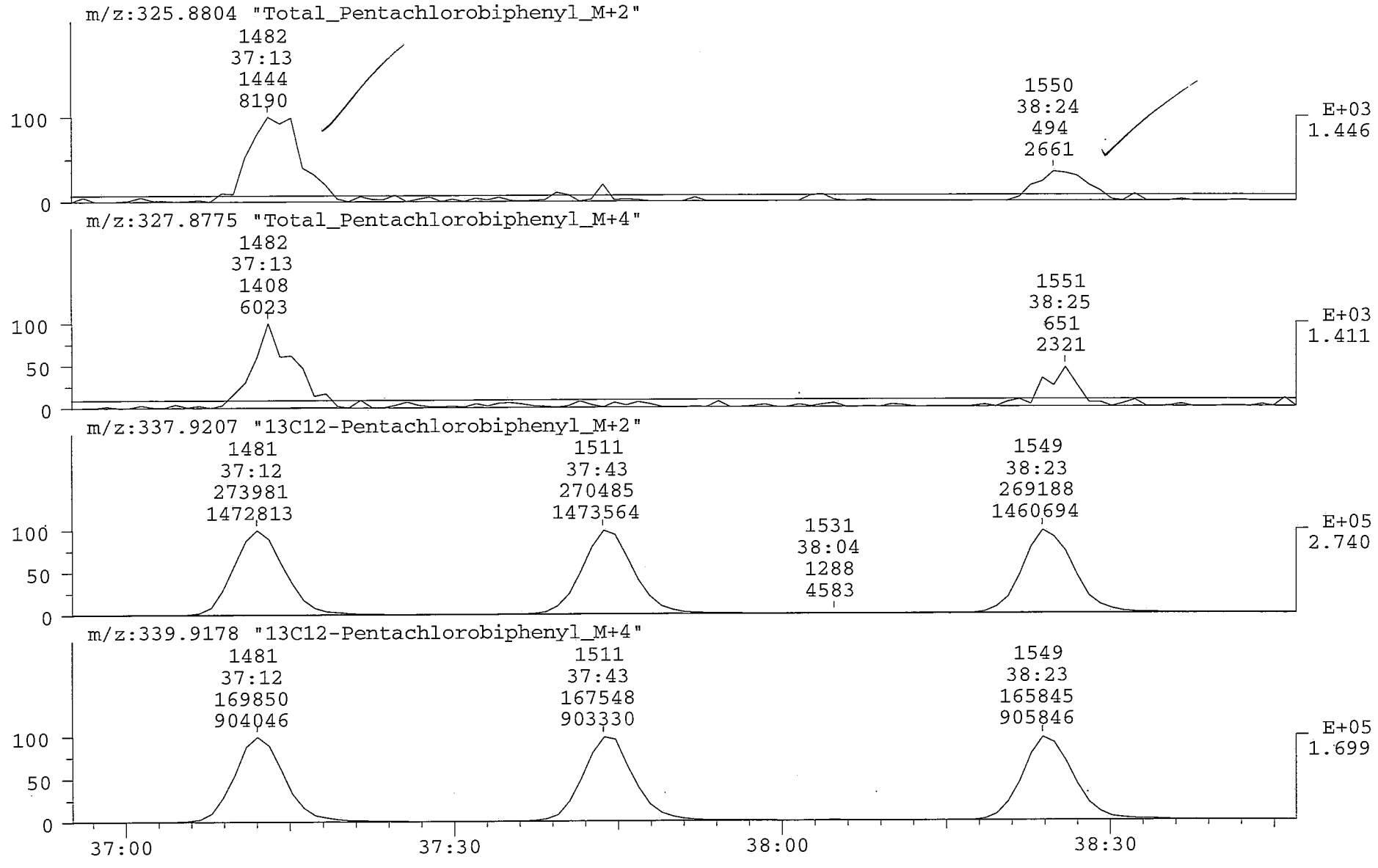
CHRO: apmkm6f 14-Jul-11 Elapse: 40:36 1675
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1595 > 1755 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1097

1096

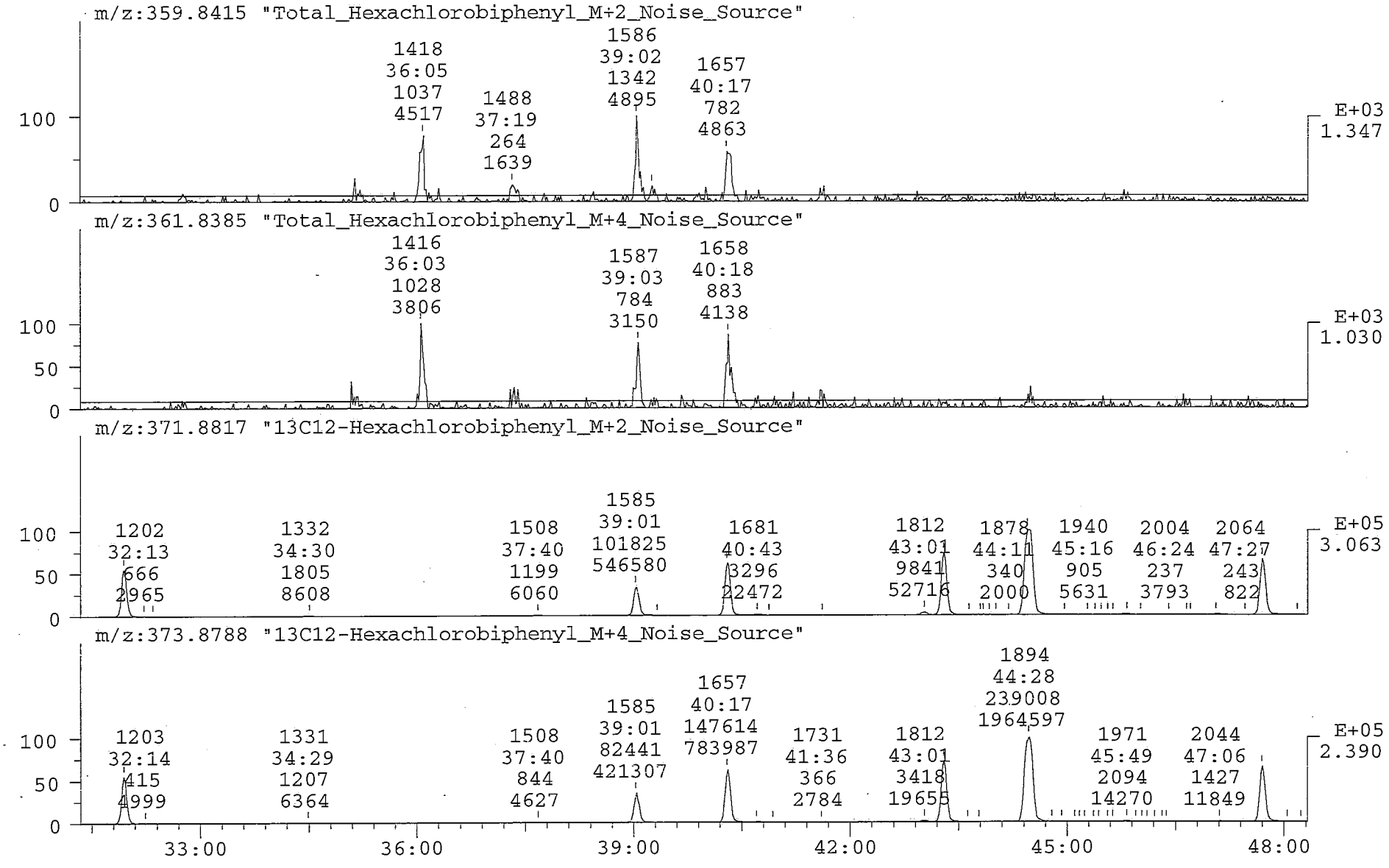
CHRO: apmkm6f 14-Jul-11 Elapse: 46:15 1996
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1465 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1098

1097

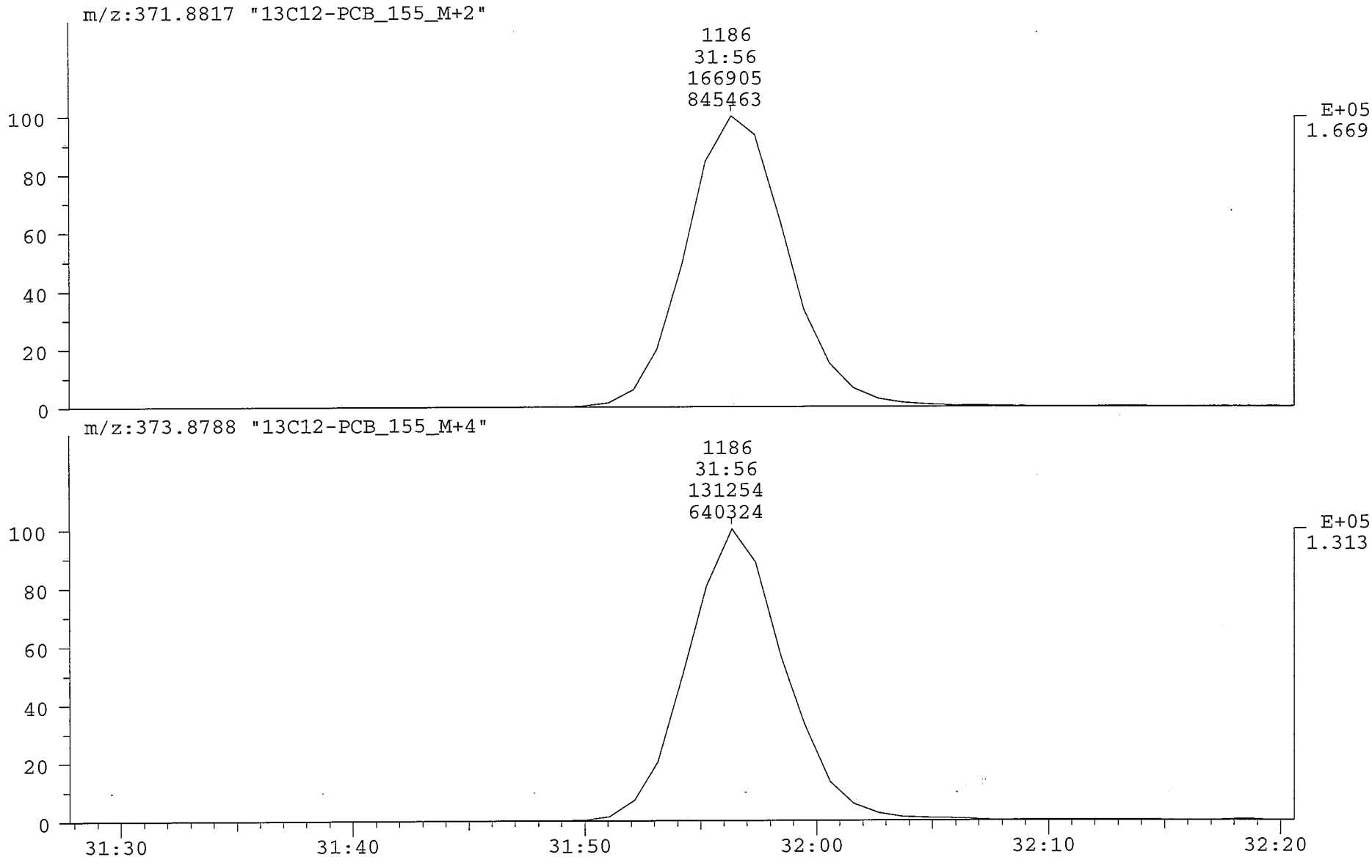
CHRO: apmkm6f 14-Jul-11 Elapse: 39:49 1630
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1152 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1099

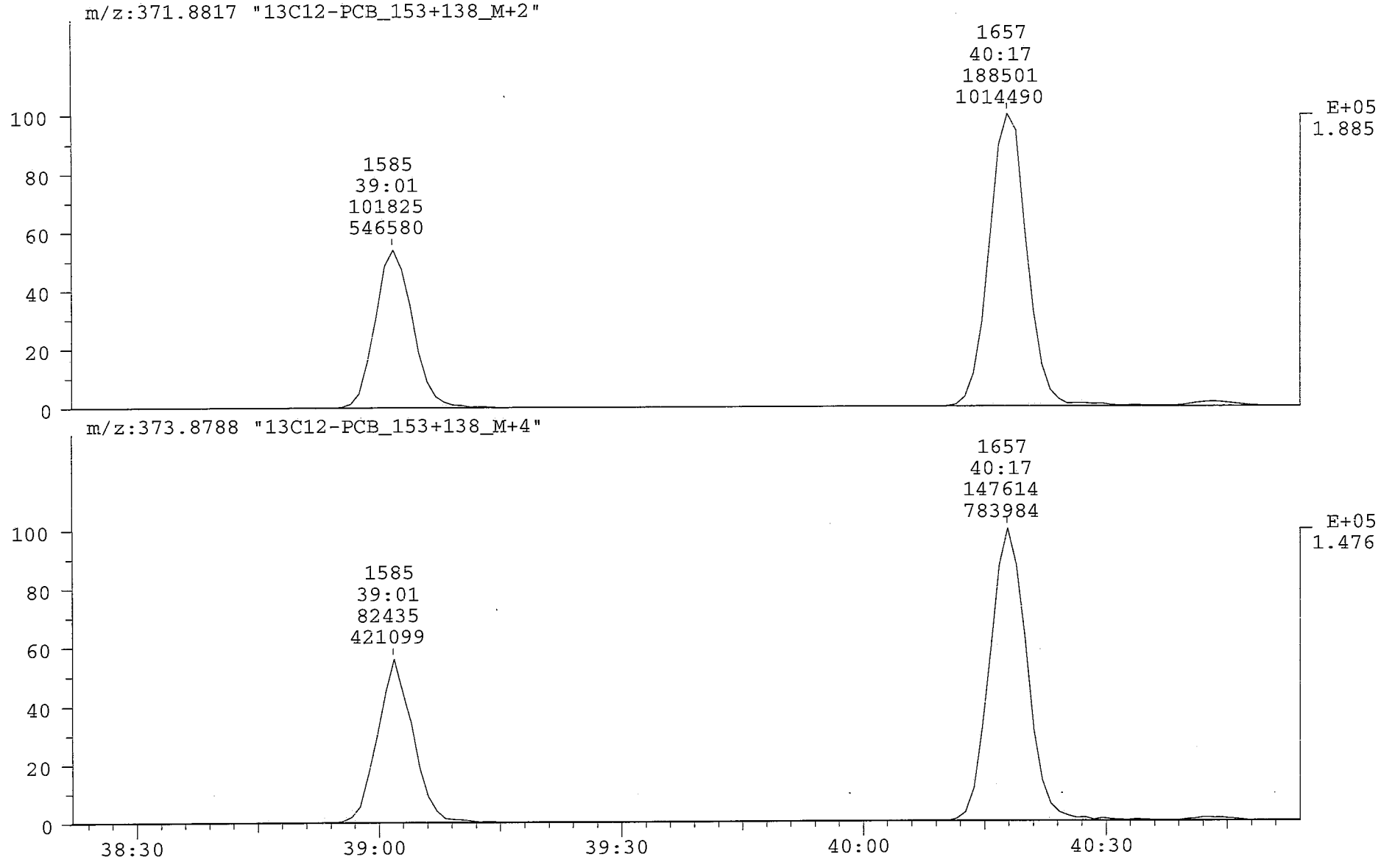
1098

CHRO: apmkm6f 14-Jul-11 Elapse: 31:54 1184
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1159 > 1209 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1100

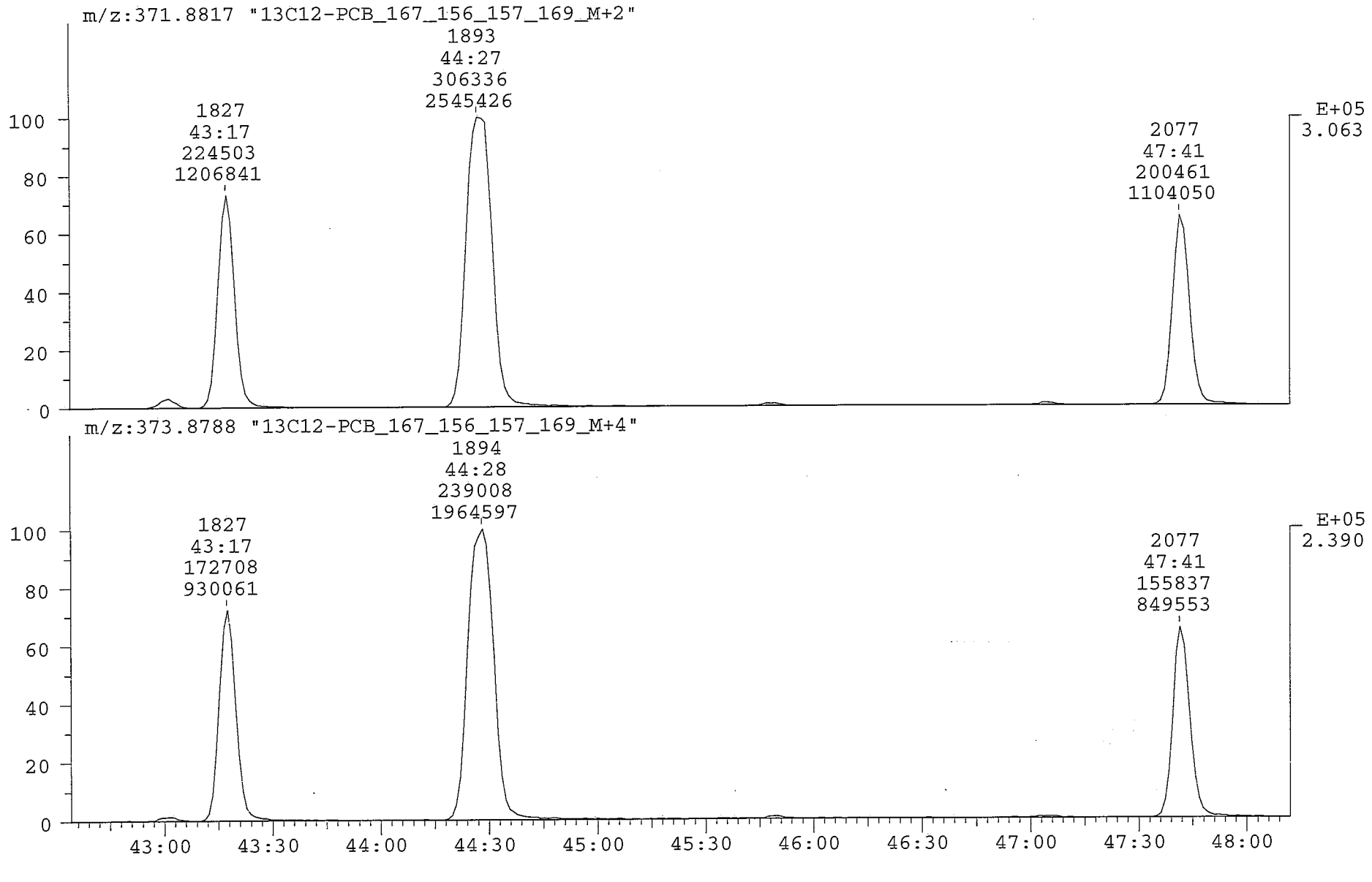
CHRO: apmkm6f 14-Jul-11 Elapse: 39:37 1619
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1547 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1101

1100

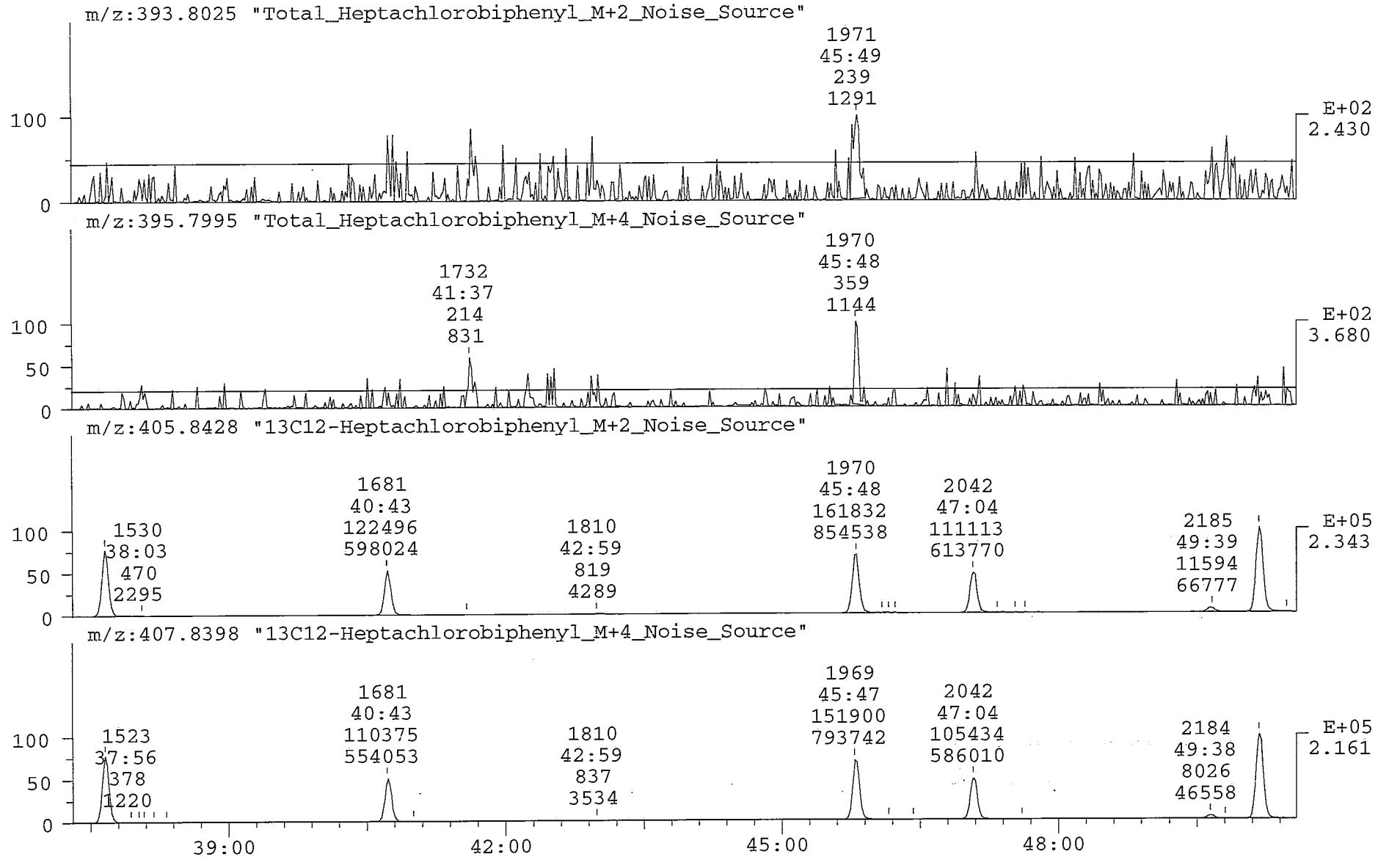
CHRO: apmkm6f 14-Jul-11 Elapse: 45:28 1951
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1786 > 2106 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 8 Label : -3, 3.0
Disp: Height Area



H-1102

1101

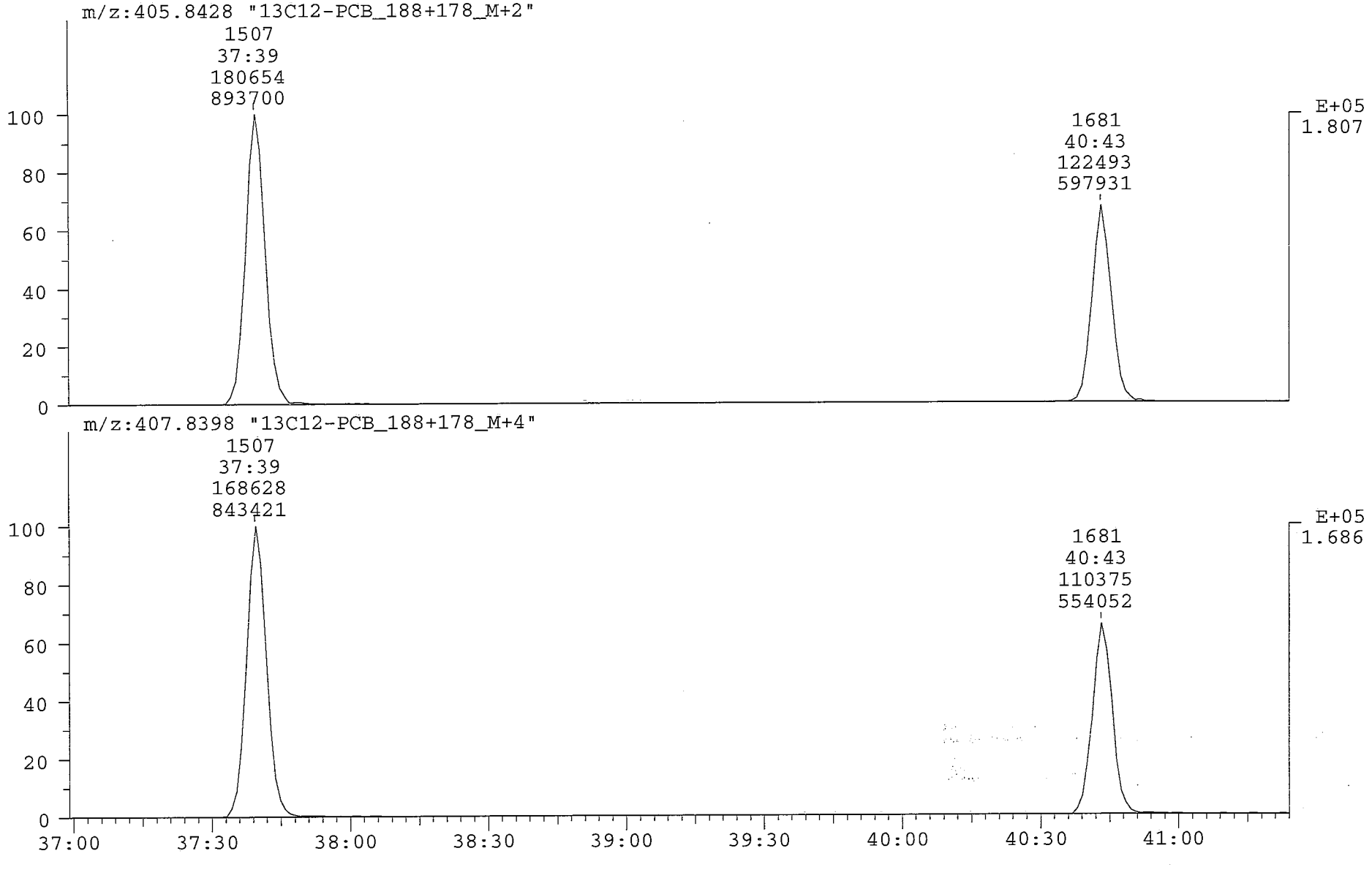
CHRO: apmkm6f 14-Jul-11 Elapse: 43:56 1864
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1487 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1103

1102

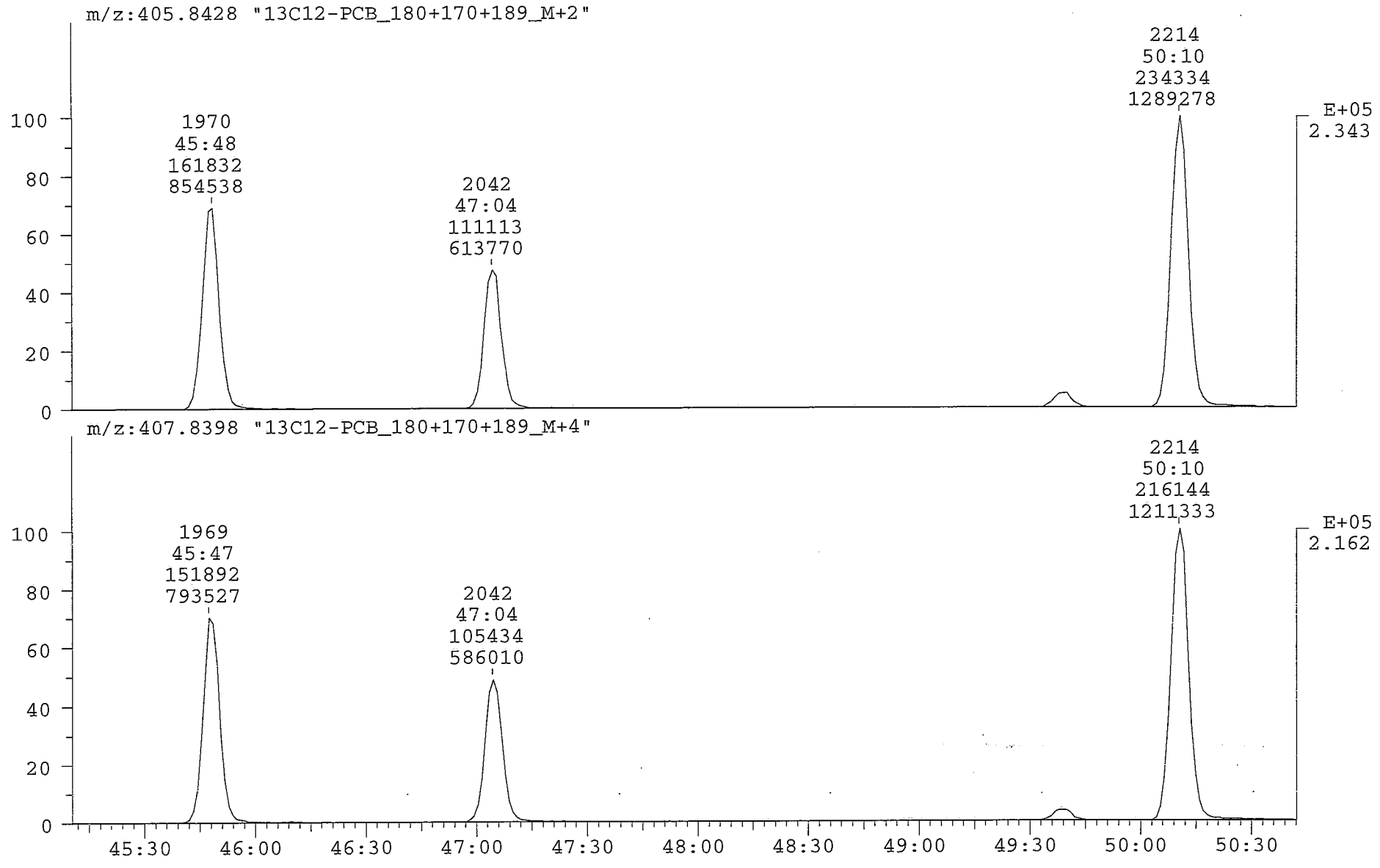
CHRO: apmkm6f 14-Jul-11 Elapse: 39:11 1594
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1469 > 1720 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1104

1103

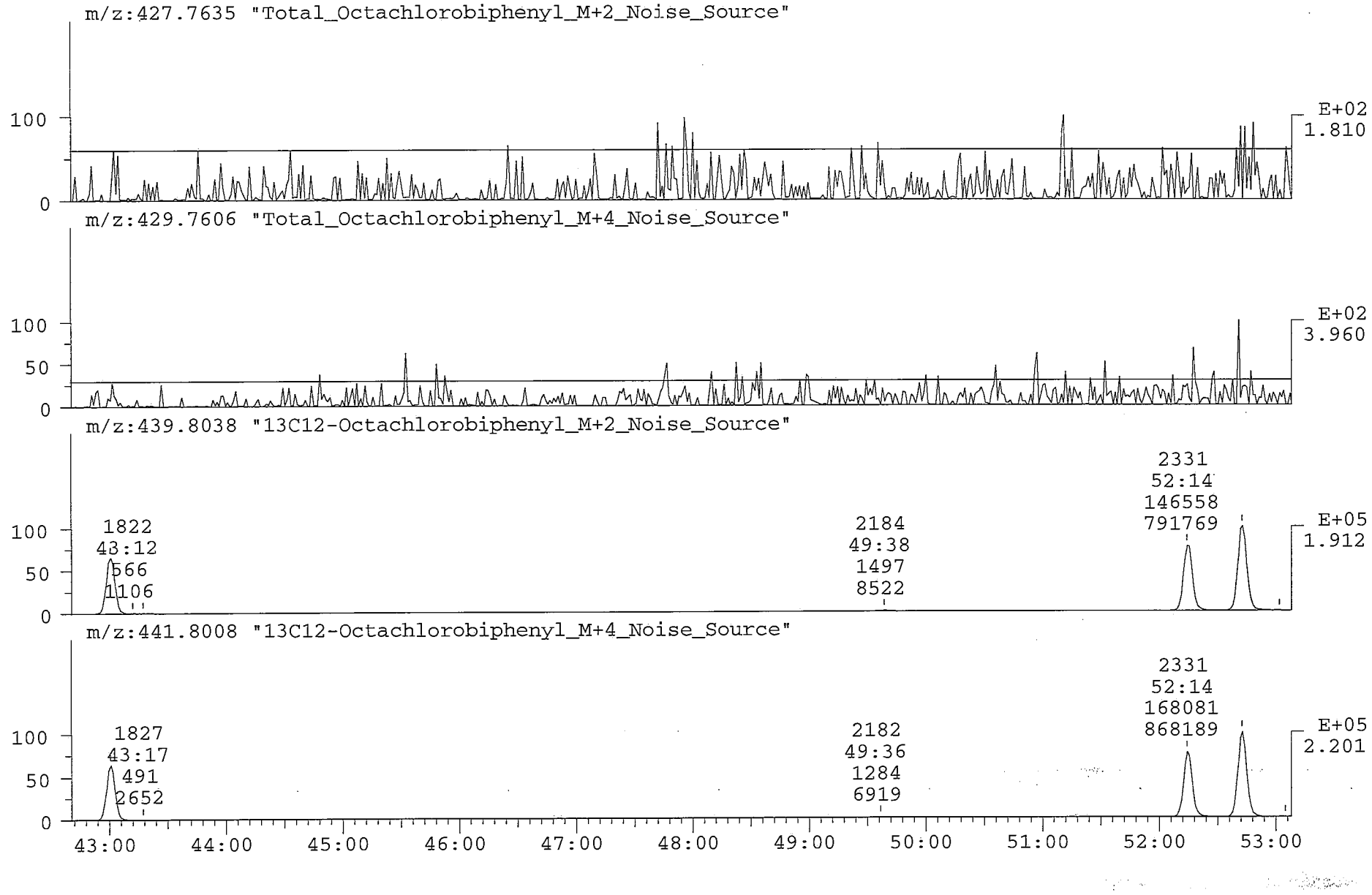
CHRO: apmkm6f 14-Jul-11 Elapse: 47:59 2094
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1934 > 2244 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1105

1104

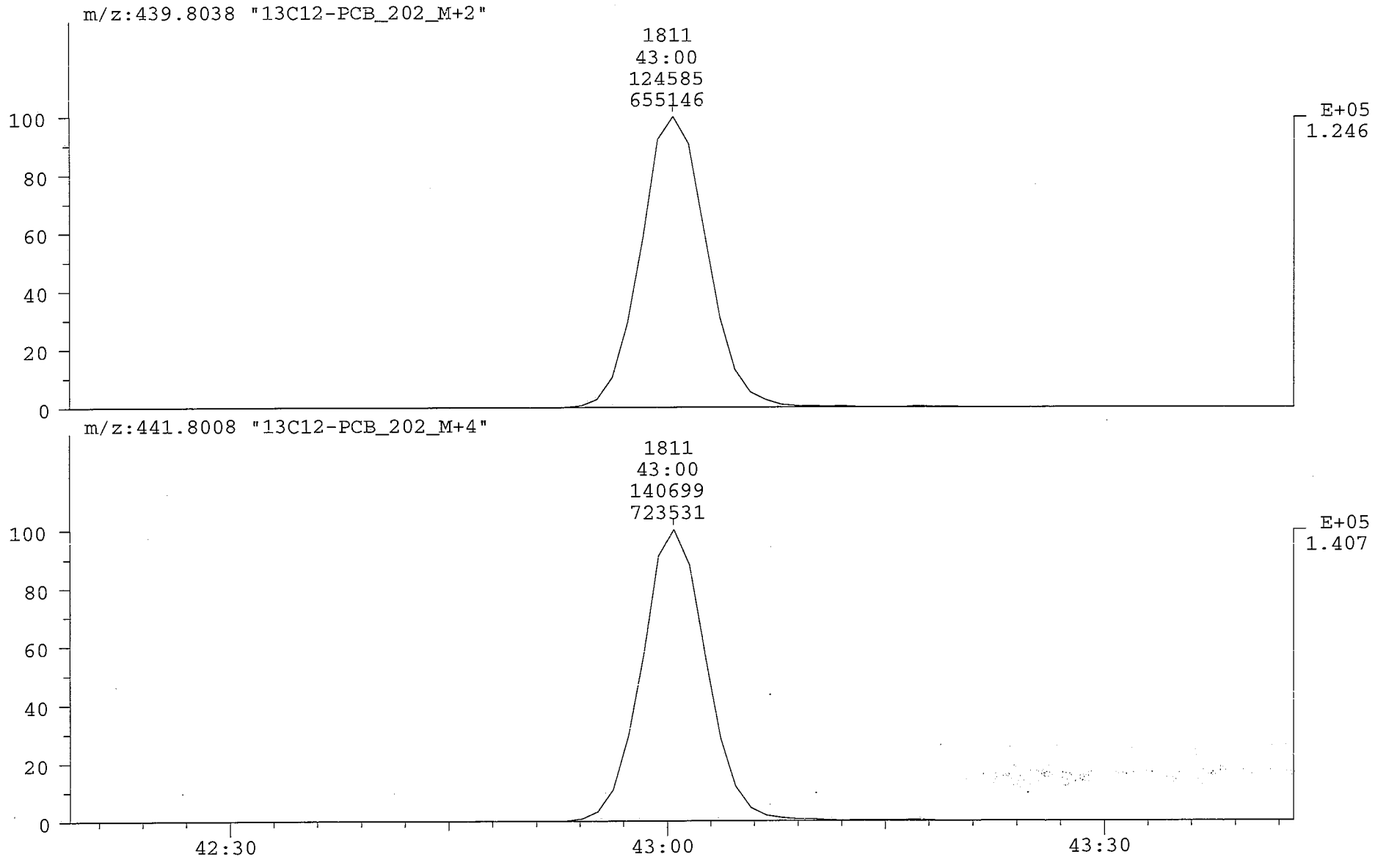
CHRO: apmkm6f 14-Jul-11 Elapse: 47:54 2089
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1792 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1106

1105

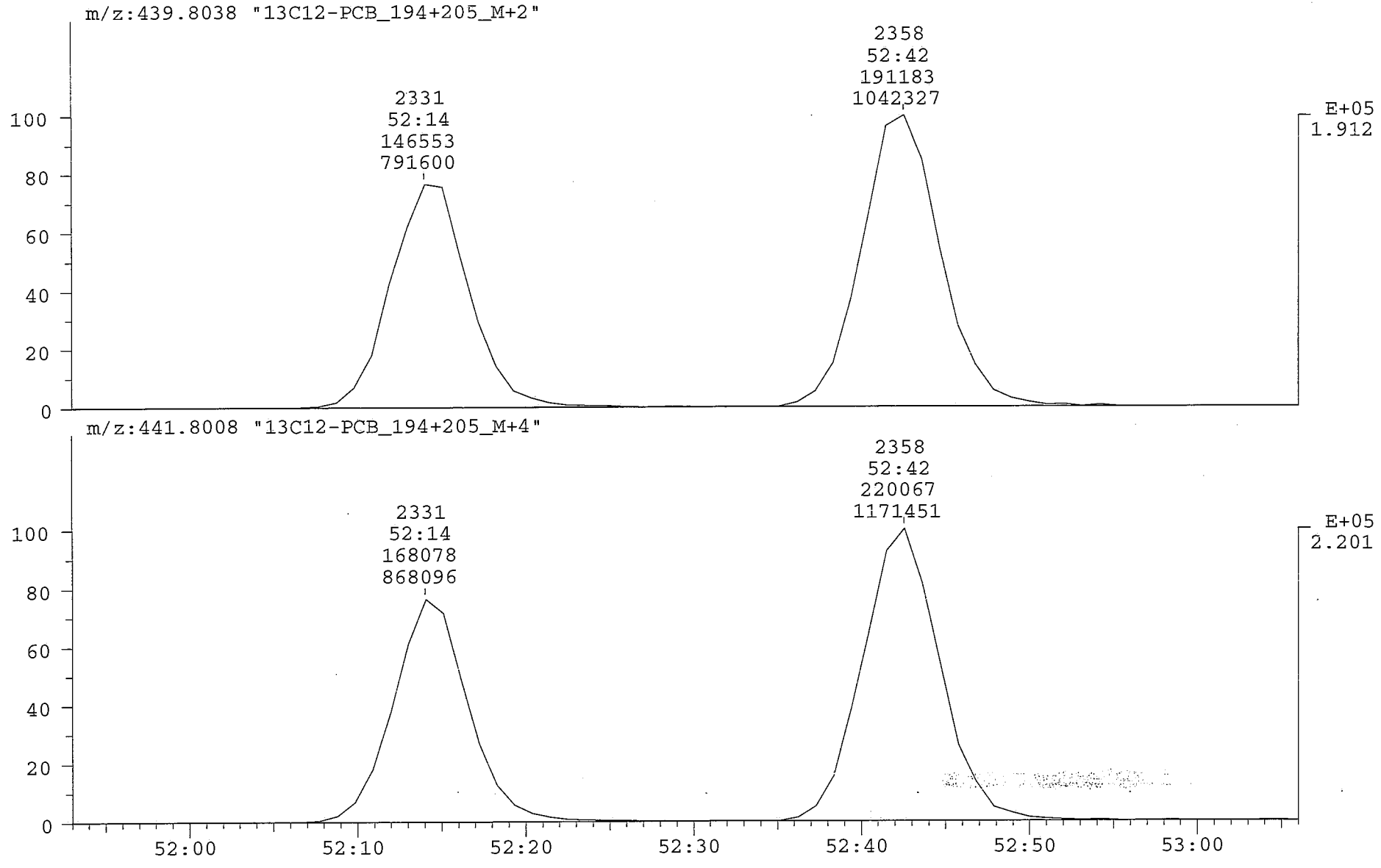
CHRO: apmkm6f 14-Jul-11 Elapse: 42:58 1809
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1772 > 1851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1107

1106

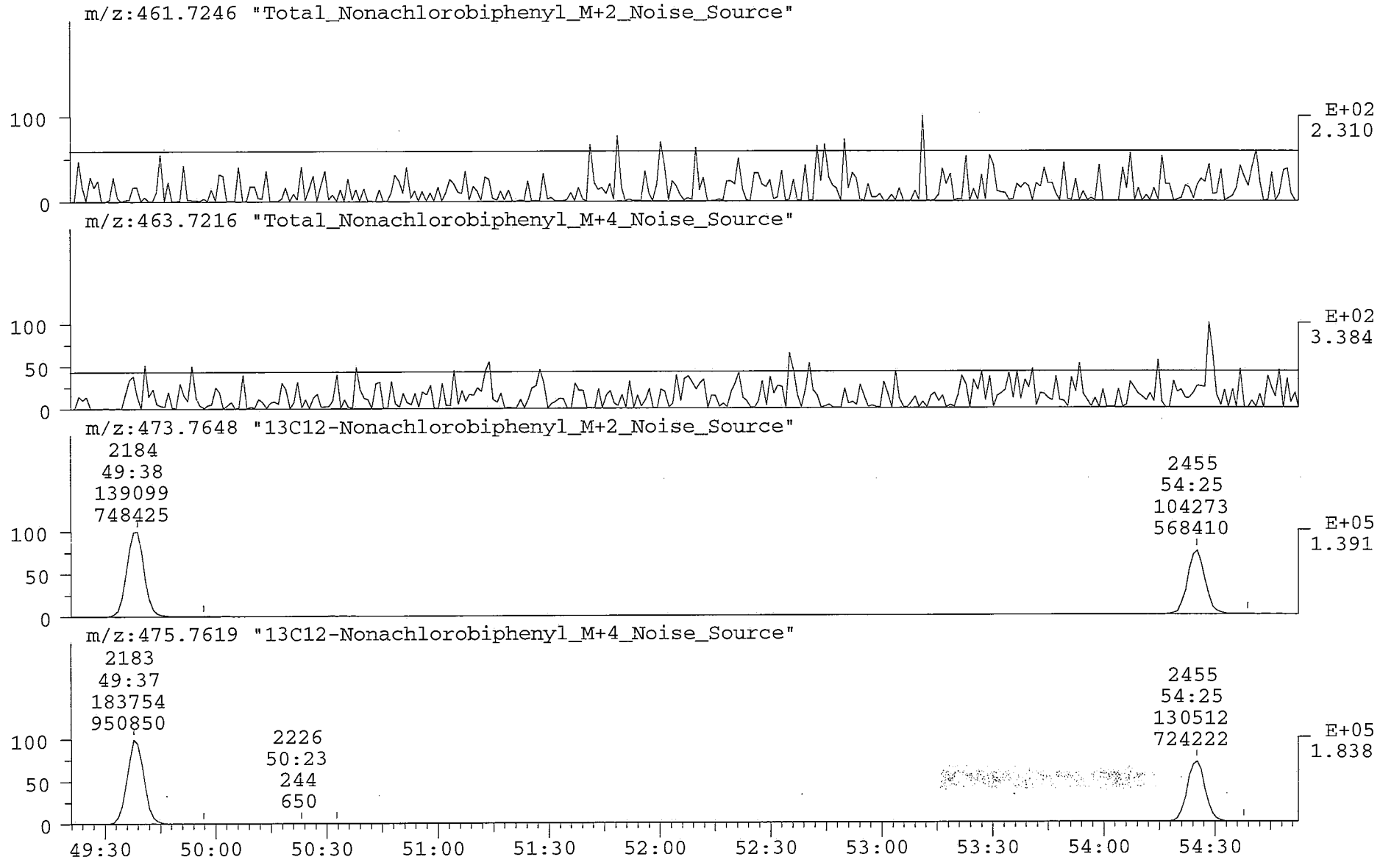
CHRO: apmkm6f 14-Jul-11 Elapse: 52:28 2345
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2311 > 2380 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1108

1107

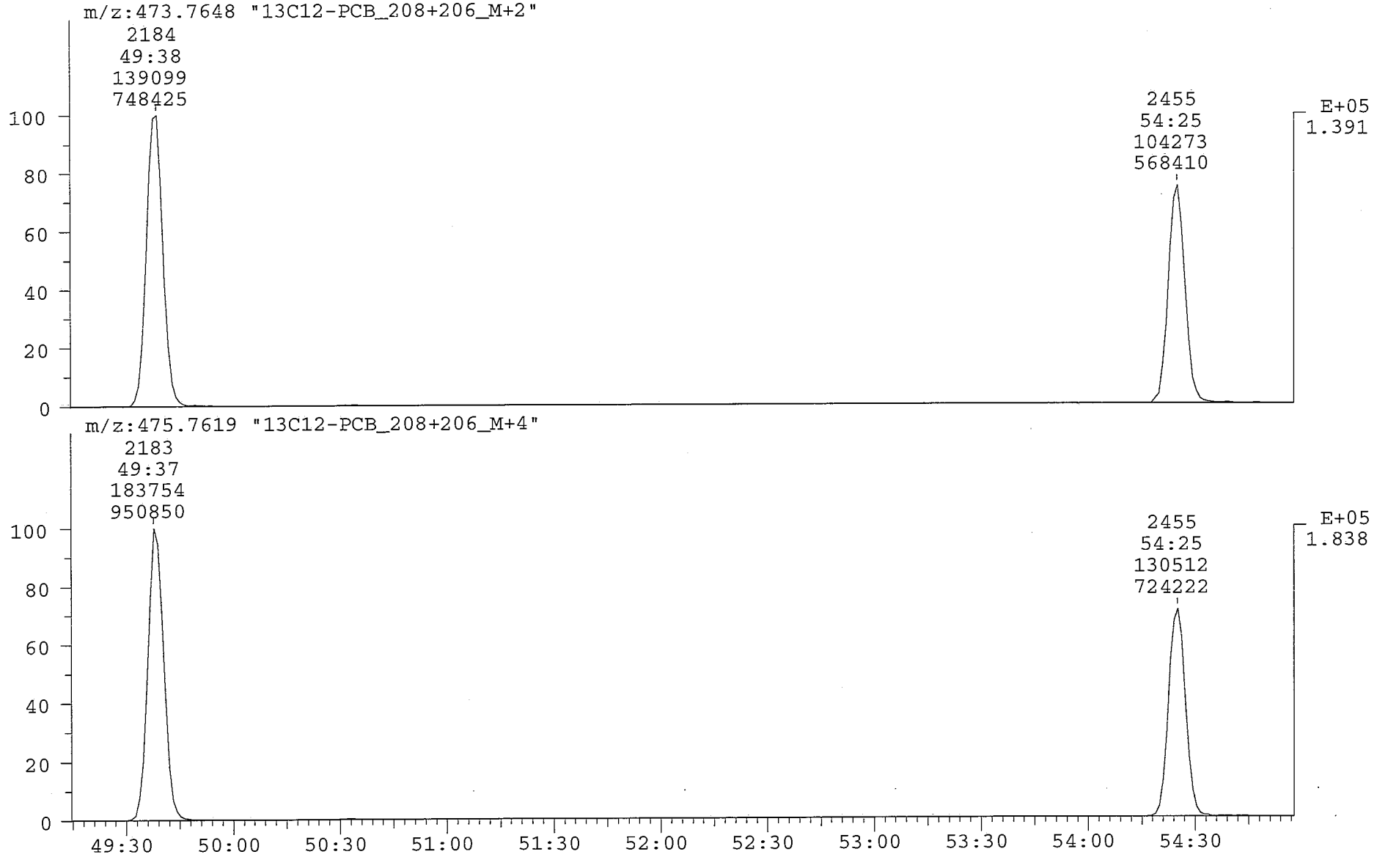
CHRO: apmkm6f 14-Jul-11 Elapse: 52:05 2323
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1109

1108

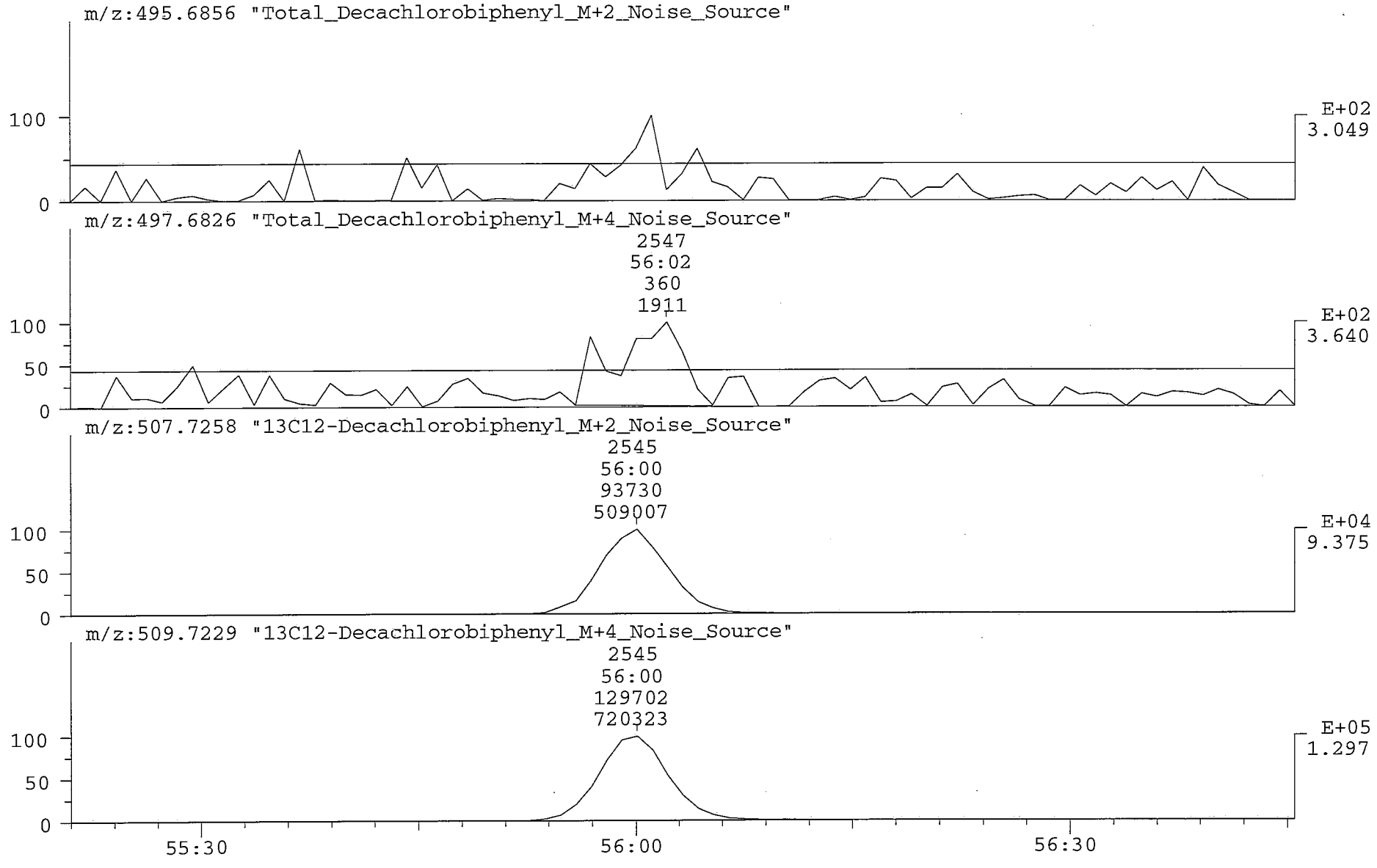
CHRO: apmkm6f 14-Jul-11 Elapse: 52:03 2321
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2161 > 2486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1110

1109

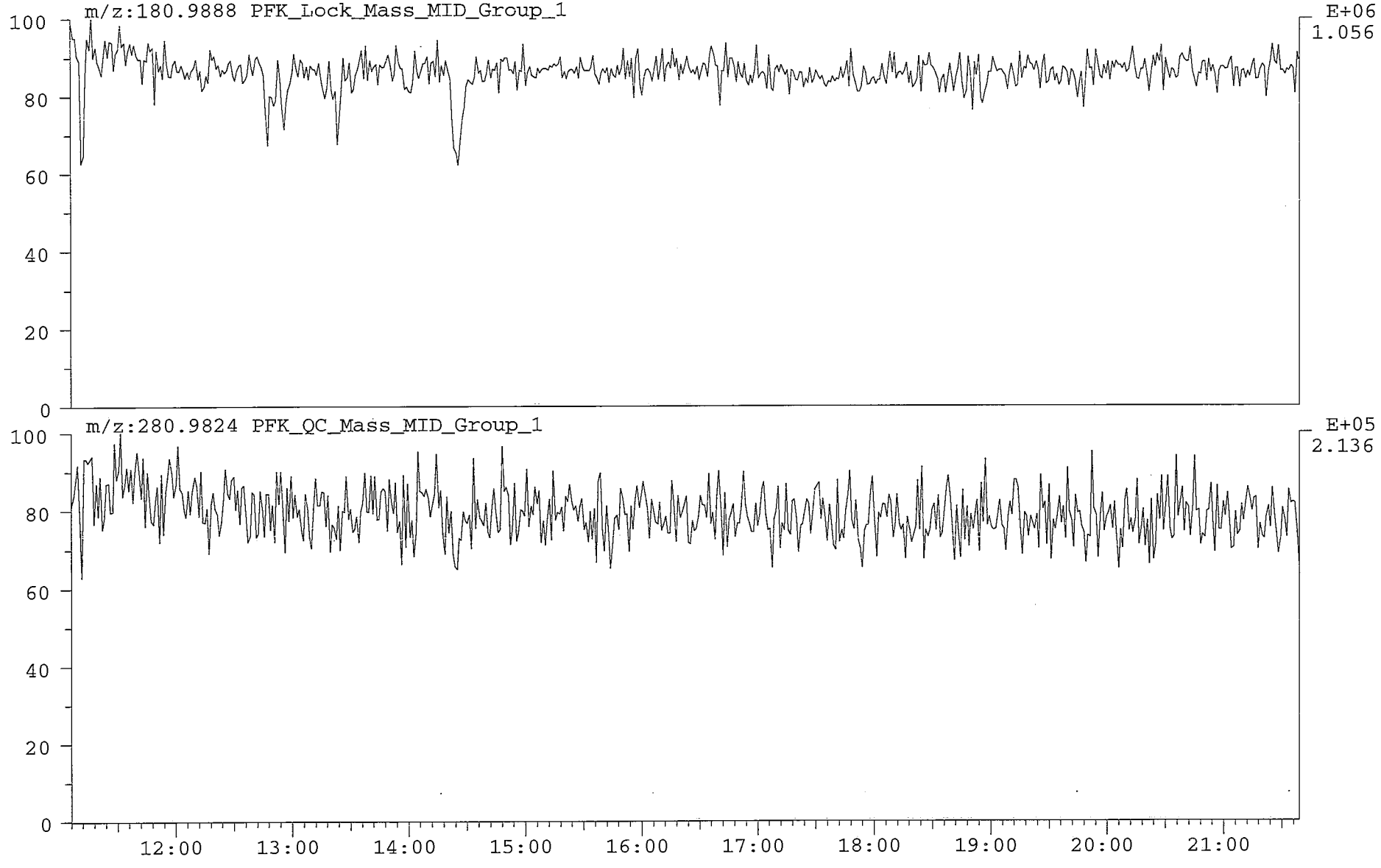
CHRO: apmkm6f 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2508 > 2588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1111

1110

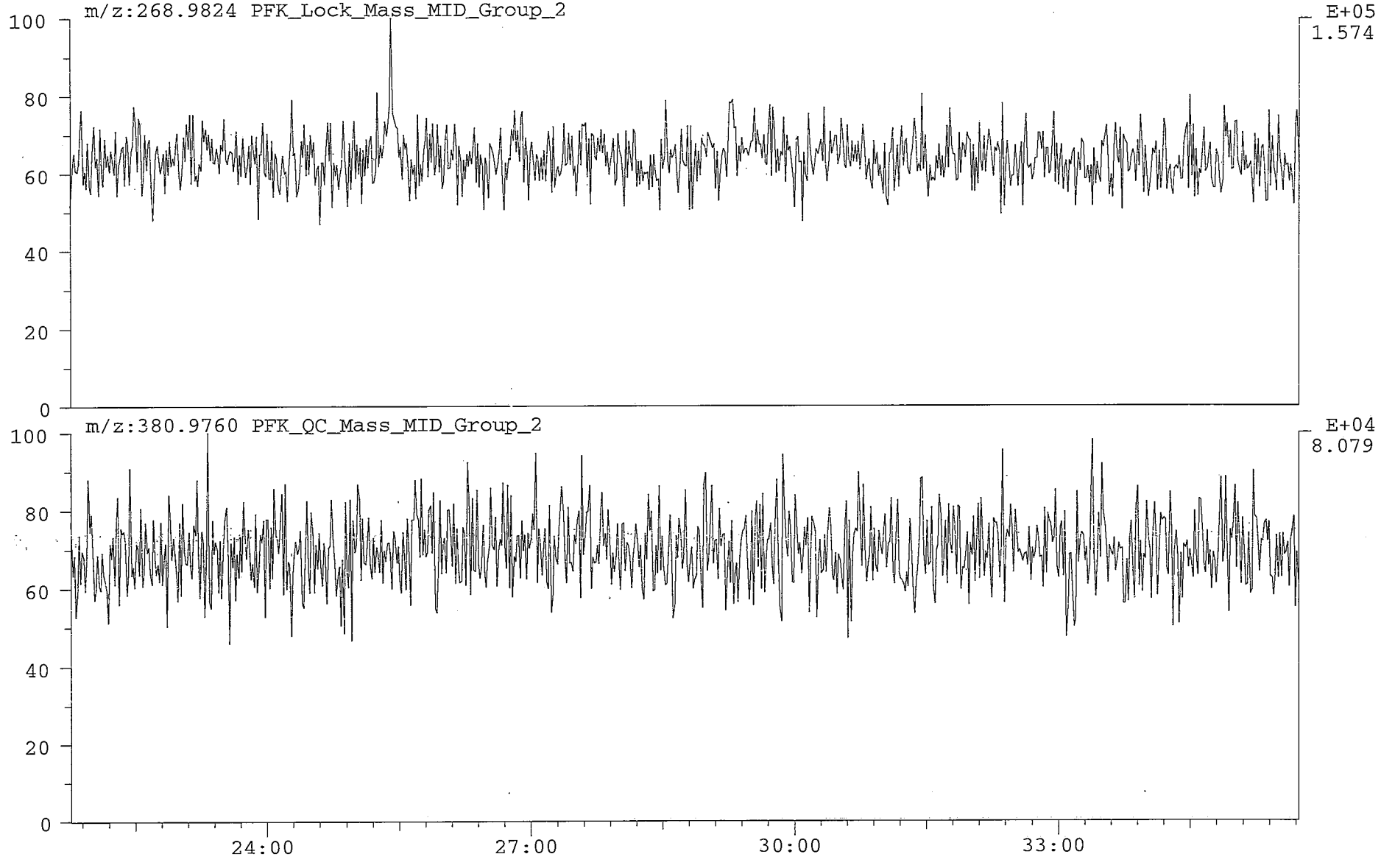
CHRO: apmkm6f 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1112

1111

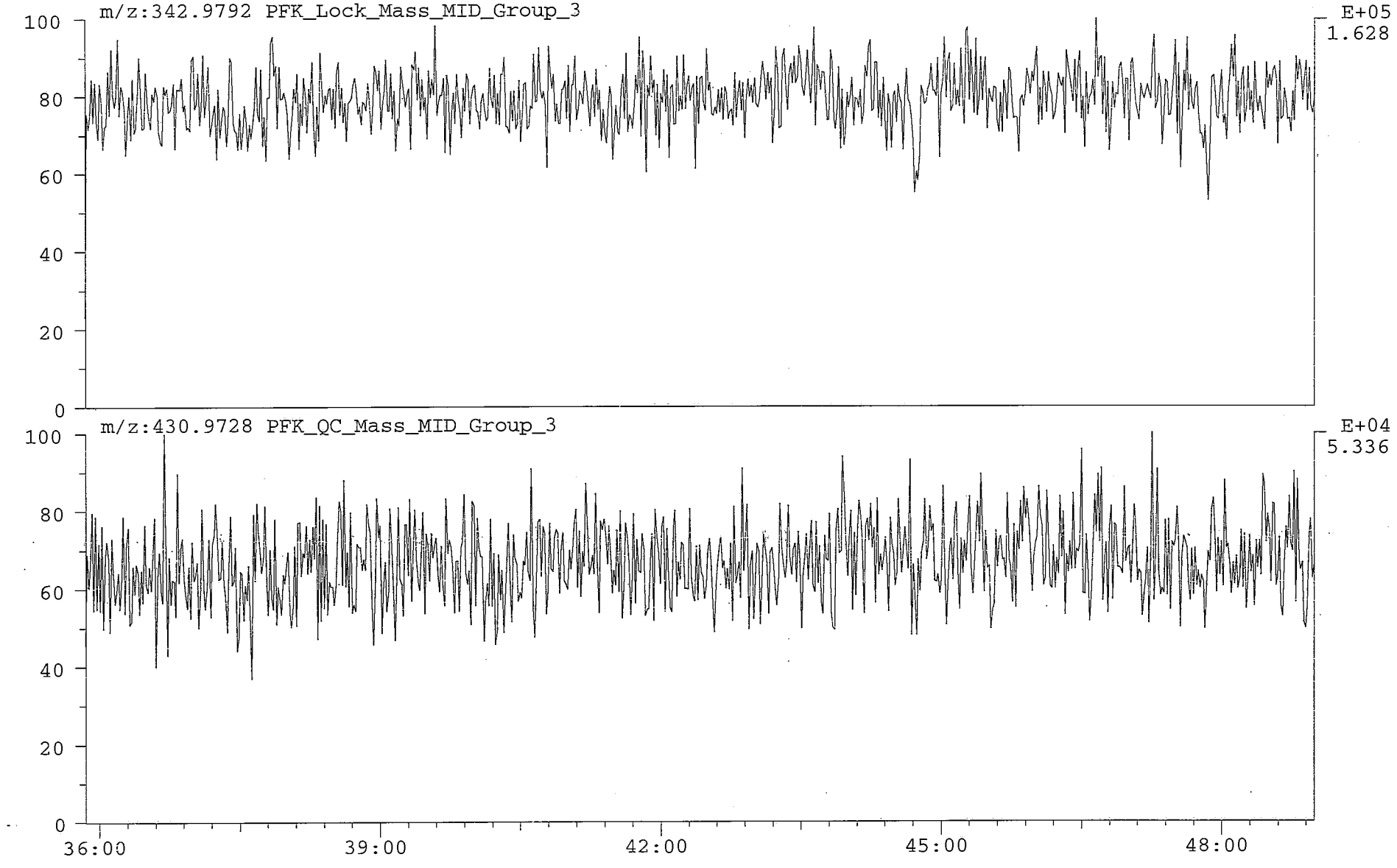
CHRO: apmkm6f 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 608 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1113

1112

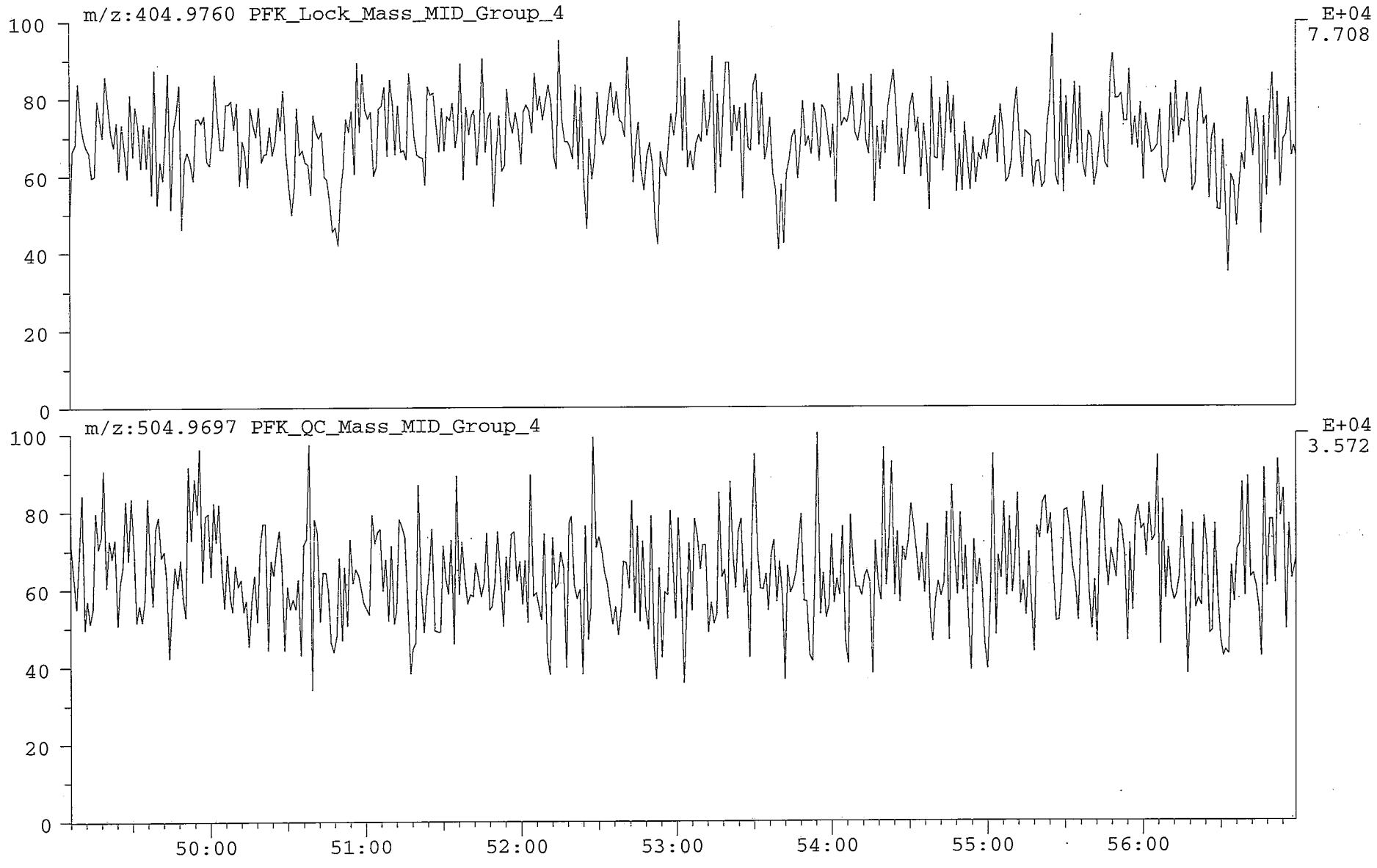
CHRO: apmkm6f 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1404 > 2151 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1114

1113

CHRO: apmkm6f 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 9 WO=mkm6f1ac Meth=IE5 Dil=1 Start : 07:37:53 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-005 Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2153 > 2601 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1115

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

\000\000\000\000\000\000\000ICL Version: 10.710
File name: apmkm6f
Study: 1187028 (Air-2)
Sample: WO=mkm6f1ac Meth=IE5 Dil=1
Amount:  0.00
Volume:  0.00
Operator: JMN
Client: H1G050439-005
Comments: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Injected volume:  2.00
Sample from Vial 9
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 7 of list 110713a
  ICL procedure: sleep7x
  MID procedure: epa1668

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start        Measure      End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:05 min   35:45 min    1.00 sec
  # 3   35:45 min   13:15 min   49:00 min    1.00 sec
  # 4   49:00 min    8:00 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 l   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
   Window # 2
```

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times
Sample rinse cycles (R): 0 times
Syringe filling volume (F): 1.0 ul

Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode

Purge time	1.5 min
Purge flow	40.0 ml/min
Gas saver is on	
Saver time	3.0 min
Saver flow	15.0 ml/min

Column : Constant Flow 1.0 ml

Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.5098
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.3907	DITSET	0.0000	DRAW	-36.8250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	23.0000	EDACZ	-548.0000	ELEN	64.2750
EMULT	1.7400	ENS	150.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	148.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	473.0000
FVINLET	510.0000	FVSRC	1290.0000	FWIN	0.7000
GCTC	213.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.4510	HVANAL	1431.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4781.4360	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1751.0000	LENSS	161.2000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2344554.8750
MDACR	23.0000	MRANGE	1031.5098	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2605.0000	NSMAX	8.0000	NSMIN	2.0000

OCT	-2.0000	PSAM	10.0000	PUSHER	-12.5500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10314.6801	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2598.0000
SHIELDS	0.2000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.8400	TCURR	0.9375
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	1.9500	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2538.0000
XLENSS	-43.8000	YLENS	2634.0000	YLENSS	-171.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 07:37:53.2

Autosampler has injected sample from vial 9
MID Time Window 1: Resolution is 9050
MID Time Window 2: Resolution is 9605
MID Time Window 3: Resolution is 8574
MID Time Window 4: Resolution is 9202
Analysis stopped at: 14-Jul-11 08:34:56.5 (run time 57.04 minutes)
Analysis stopped because MID run finished

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AC	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	ND		0.10	0.0057	ng/sample
PCB 81 (BZ)	ND		0.10	0.0060	ng/sample
PCB 105 (BZ)	**0.038**	**J**	**0.10**	**0.0057**	**ng/sample**
PCB 114 (BZ)	ND		0.10	0.0057	ng/sample
PCB 118 (BZ)	**0.068**	**Q J**	**0.10**	**0.0058**	**ng/sample**
PCB 123 (BZ)	ND		0.10	0.0061	ng/sample
PCB 126 (BZ)	ND		0.10	0.0052	ng/sample
PCB 156 (BZ)	ND		0.10	0.0088	ng/sample
PCB 157 (BZ)	ND		0.10	0.0088	ng/sample
PCB 167 (BZ)	ND		0.10	0.0066	ng/sample
PCB 169 (BZ)	ND		0.10	0.0063	ng/sample
PCB 189 (BZ)	ND		0.10	0.0056	ng/sample

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AC	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	81		30 - 140
13C12-PCB 3	75		30 - 140
13C12-PCB 4	77		30 - 140
13C12-PCB 15	72		30 - 140
13C12-PCB 19	77		30 - 140
13C12-PCB 37	77		30 - 140
13C12-PCB 54	98		30 - 140
13C12-PCB 77	86		30 - 140
13C12-PCB 81	83		30 - 140
13C12-PCB 104	82		30 - 140
13C12-PCB 105	86		30 - 140
13C12-PCB 114	83		30 - 140
13C12-PCB 118	82		30 - 140
13C12-PCB 123	82		30 - 140
13C12-PCB 126	92		30 - 140
13C12-PCB 155	91		30 - 140
13C12-PCB 156	107	C	30 - 140
13C12-PCB 157	107	C	30 - 140
13C12-PCB 167	97		30 - 140
13C12-PCB 169	98		30 - 140
13C12-PCB 170	94		30 - 140
13C12-PCB 188	89		30 - 140
13C12-PCB 189	98		30 - 140
13C12-PCB 202	99		30 - 140
13C12-PCB 205	105		30 - 140
13C12-PCB 206	99		30 - 140
13C12-PCB 208	95		30 - 140
13C12-PCB 209	93		30 - 140

URS Austin Source Testing #1427536

Sample ID: CHV-STK-ICRFB-M23-COMBINED

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 007	**Work Order #....:**	MKM6M1AC	**Matrix....:**	AIR
Date Sampled....:	06/26/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 8	103	50 - 150
13C12-PCB 28	74	40 - 125
13C12-PCB 79	108	50 - 150
13C12-PCB 95	100	50 - 150
13C12-PCB 111	89	40 - 125
13C12-PCB 153	104	50 - 150
13C12-PCB 178	80	40 - 125

QUALIFIERS

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6M1AC	Prep Batch	1187028	Lot No	H1G050439-007
Data File	/20110713s1/apmkm6m.d	Prep Date	07/06/11	SDG No	
Analysis ID	133606	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/26/11
Analysis Time	03:33	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
Total Monochlorobiphenyl								ND		0.00930
13C12-PCB 1	12:08	3710593	1307416	1.502	20.00	16.110467	80.55	16.110467		0.0104
13C12-PCB 3	14:20	3544763	1054888	1.545	20.00	14.970199	74.85	14.970199		0.0101
PCB 1 (BZ)				1.383				ND		0.00268
PCB 2 (BZ)				1.338				ND		0.00307
PCB 3 (BZ)				1.296				ND		0.00355
Total Dichlorobiphenyl								ND		0.208
13C12-PCB 4	14:35	1454517	433366	0.619	20.00	15.318708	76.59	15.318708		0.0172
13C12-PCB 9	16:34	3066037	782546	1.000	20.00	20.000000	100.00	20.000000		0.0107
13C12-PCB 8	17:25	1340293	335309	1.342	10.00	10.317462	103.17	10.317462		0.0129
13C12-PCB 15	20:33	2416348	529100	1.090	20.00	14.463988	72.32	14.463988		0.00979
PCB 4 (BZ)				1.273				ND		0.0238
PCB 10 (BZ)				1.357				ND		0.0201
PCB 9 (BZ)				1.459				ND		0.0187
PCB 7 (BZ)				1.466				ND		0.0186
PCB 6 (BZ)				1.507				ND		0.0181
PCB 5 (BZ)				1.417				ND		0.0193
PCB 8 (BZ)				1.540				ND		0.0177
PCB 14 (BZ)				1.732				ND		0.0158
PCB 11 (BZ)				1.532				ND		0.0178
PCB 13 (BZ)				1.494				ND	C12	0.0183
PCB 12 (BZ)				1.494				ND	C	0.0183
PCB 15 (BZ)				1.278				ND		0.0194
Total Trichlorobiphenyl								ND		0.124
13C12-PCB 19	17:44	1143436	297298	0.572	20.00	15.396994	76.98	15.396994		0.0496
13C12-PCB 32	20:59	2598890	571916	1.000	20.00	20.000000	100.00	20.000000		0.0283
13C12-PCB 31	23:17	4041746	857411	1.000	20.00	20.000000	100.00	20.000000		0.0189
13C12-PCB 28	23:34	3018980	634312	1.003	20.00	14.890666	74.45	14.890666		0.0188
13C12-PCB 37	27:37	2828696	521576	0.908	20.00	15.407527	77.04	15.407527		0.0208
PCB 19 (BZ)				1.167				ND		0.00995
PCB 30 (BZ)				1.615				ND	C18	0.00719
PCB 18 (BZ)				1.615				ND	C	0.00719
PCB 17 (BZ)				1.430				ND		0.00811
PCB 27 (BZ)				1.978				ND		0.00587
PCB 24 (BZ)				1.707				ND		0.00680
PCB 16 (BZ)				1.193				ND		0.00973
PCB 32 (BZ)				2.018				ND		0.00575
PCB 34 (BZ)				1.195				ND		0.00553
PCB 23 (BZ)				1.177				ND		0.00562
PCB 29 (BZ)				1.244				ND	C26	0.00532
PCB 26 (BZ)				1.244				ND	C	0.00532
PCB 25 (BZ)				1.320				ND		0.00501
PCB 31 (BZ)				1.252				ND		0.00528
PCB 28 (BZ)				1.223				ND	C20	0.00541
PCB 20 (BZ)				1.223				ND	C	0.00541
PCB 21 (BZ)				1.219				ND	C	0.00542
PCB 33 (BZ)				1.219				ND	C21	0.00542
PCB 22 (BZ)				1.200				ND		0.00551
PCB 36 (BZ)				1.204				ND		0.00549

CWK 7-14-11

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6M1AC	Prep Batch	1187028	Lot No	H1G050439-007
Data File	/20110713s1/apmkm6m.d	Prep Date	07/06/11	SDG No	
Analysis ID	133606	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/26/11
Analysis Time	03:33	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 39 (BZ)				1.284				ND		0.00515
PCB 38 (BZ)				1.141				ND		0.00580
PCB 35 (BZ)				1.163				ND		0.00569
PCB 37 (BZ)				1.173				ND		0.00564
Total Tetrachlorobiphenyl								ND		0.198
13C12-PCB 54	20:51	1527917	344251	0.600	20.00	19.594813	97.97	19.594813		0.0170
13C12-PCB 52	25:23	2126336	454131	1.000	20.00	20.000000	100.00	20.000000		0.0129
13C12-PCB 79	33:21	1391365	250095	1.070	10.00	10.829547	108.30	10.829547		0.0130
13C12-PCB 81	34:22	2317507	405415	1.312	20.00	16.617428	83.09	16.617428		0.00982
13C12-PCB 77	34:56	2483871	435337	1.357	20.00	17.215087	86.08	17.215087		0.00949
PCB 54 (BZ)				1.233				ND		0.00742
PCB 50 (BZ)				0.921				ND	C	0.00813
PCB 53 (BZ)				0.921				ND	C50	0.00813
PCB 45 (BZ)				0.856				ND	C	0.00876
PCB 51 (BZ)				0.856				ND	C45	0.00876
PCB 46 (BZ)				0.724				ND		0.0104
PCB 52 (BZ)				0.920				ND		0.00814
PCB 73 (BZ)				0.949				ND	C43	0.00789
PCB 43 (BZ)				0.949				ND	C	0.00789
PCB 69 (BZ)				1.077				ND	C49	0.00696
PCB 49 (BZ)				1.077				ND	C	0.00696
PCB 48 (BZ)				0.894				ND		0.00838
PCB 65 (BZ)				0.992				ND	C44	0.00756
PCB 47 (BZ)				0.992				ND	C44	0.00756
PCB 44 (BZ)				0.992				ND	C	0.00756
PCB 62 (BZ)				1.246				ND	C59	0.00602
PCB 75 (BZ)				1.246				ND	C59	0.00602
PCB 59 (BZ)				1.246				ND	C	0.00602
PCB 42 (BZ)				0.872				ND		0.00860
PCB 41 (BZ)				0.887				ND	C40	0.00845
PCB 71 (BZ)				0.887				ND	C40	0.00845
PCB 40 (BZ)				0.887				ND	C	0.00845
PCB 64 (BZ)				1.316				ND		0.00570
PCB 72 (BZ)				1.236				ND		0.00606
PCB 68 (BZ)				1.327				ND		0.00565
PCB 57 (BZ)				1.203				ND		0.00623
PCB 58 (BZ)				1.208				ND		0.00620
PCB 67 (BZ)				1.337				ND		0.00560
PCB 63 (BZ)				1.297				ND		0.00578
PCB 61 (BZ)				1.247				ND	C	0.00601
PCB 70 (BZ)				1.247				ND	C61	0.00601
PCB 76 (BZ)				1.247				ND	C61	0.00601
PCB 74 (BZ)				1.247				ND	C61	0.00601
PCB 66 (BZ)				1.255				ND		0.00597
PCB 55 (BZ)				1.145				ND		0.00654
PCB 56 (BZ)				1.217				ND		0.00616
PCB 60 (BZ)				1.181				ND		0.00634
PCB 80 (BZ)				1.358				ND		0.00552
PCB 79 (BZ)				1.326				ND		0.00565

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6M1AC	Prep Batch	1187028	Lot No	H1G050439-007
Data File	/20110713s1/apmkm6m.d	Prep Date	07/06/11	SDG No	
Analysis ID	133606	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/26/11
Analysis Time	03:33	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 78 (BZ)				1.164				ND		0.00644
PCB 81 (BZ)				1.298				ND		0.00598
PCB 77 (BZ)				1.269				ND		0.00570
Total Pentachlorobiphenyl		15988	3463			0.105305		0.105305	QJ	0.243
13C12-PCB 104	26:19	1790092	375188	1.246	20.00	16.494045	82.47	16.494045		0.0189
13C12-PCB 95	29:19	673228	138109	0.754	10.00	9.980842	99.81	9.980842		0.0272
13C12-PCB 101	32:13	1742513	326802	1.000	20.00	20.000000	100.00	20.000000		0.0236
13C12-PCB 111	34:53	1958766	371193	1.266	20.00	17.751520	88.76	17.751520		0.0186
13C12-PCB 123	36:53	2646268	492188	0.954	20.00	16.393108	81.97	16.393108		0.0129
13C12-PCB 118	37:12	2768607	502968	0.995	20.00	16.451053	82.26	16.451053		0.0124
13C12-PCB 114	37:44	2677575	474531	0.952	20.00	16.629420	83.15	16.629420		0.0130
13C12-PCB 105	38:25	2741766	494999	0.942	20.00	17.213282	86.07	17.213282		0.0131
13C12-PCB 127	39:51	3382539	623822	1.000	20.00	20.000000	100.00	20.000000		0.0123
13C12-PCB 126	41:29	3074251	574062	0.991	20.00	18.339104	91.70	18.339104		0.0125
PCB 104 (BZ)				1.184				ND		0.00709
PCB 96 (BZ)				1.055				ND		0.00796
PCB 103 (BZ)				0.900				ND		0.00933
PCB 94 (BZ)				0.789				ND		0.0106
PCB 95 (BZ)				0.838				ND		0.0100
PCB 100 (BZ)				0.888				ND	C93	0.00945
PCB 93 (BZ)				0.888				ND	C	0.00945
PCB 102 (BZ)				0.917				ND	C98	0.00916
PCB 98 (BZ)				0.917				ND	C	0.00916
PCB 88 (BZ)				0.857				ND	C	0.00980
PCB 91 (BZ)				0.857				ND	C88	0.00980
PCB 84 (BZ)				0.764				ND		0.0110
PCB 89 (BZ)				0.789				ND		0.0106
PCB 121 (BZ)				1.215				ND		0.00691
PCB 92 (BZ)				0.892				ND		0.00941
PCB 113 (BZ)				1.013				ND	C90	0.00829
PCB 90 (BZ)				1.013				ND	C	0.00829
PCB 101 (BZ)				1.013				ND	C90	0.00829
PCB 83 (BZ)				0.868				ND	C	0.00967
PCB 99 (BZ)				0.868				ND	C83	0.00967
PCB 112 (BZ)				1.160				ND		0.00724
PCB 109 (BZ)/108 (IUPAC)				1.030				ND	C86	0.00815
PCB 86 (BZ)				1.030				ND	C	0.00815
PCB 119 (BZ)				1.030				ND	C86	0.00815
PCB 97 (BZ)				1.030				ND	C86	0.00815
PCB 125 (BZ)				1.030				ND	C86	0.00815
PCB 87 (BZ)				1.030				ND	C86	0.00815
PCB 117 (BZ)				1.054				ND	C85	0.00796
PCB 116 (BZ)				1.054				ND	C85	0.00796
PCB 85 (BZ)				1.054				ND	C	0.00796
PCB 110 (BZ)				1.194				ND	C	0.00703
PCB 115 (BZ)				1.194				ND	C110	0.00703
PCB 82 (BZ)				0.730				ND		0.0115
PCB 111 (BZ)				1.260				ND		0.00666
PCB 120 (BZ)				1.225				ND		0.00686

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6M1AC	Prep Batch	1187028	Lot No	H1G050439-007
Data File	/20110713s1/apmkm6m.d	Prep Date	07/06/11	SDG No	
Analysis ID	133606	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/26/11
Analysis Time	03:33	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 124 (BZ)				1.029				ND	C108	0.00603
PCB 108 (BZ)/107 (IUPAC)				1.029				ND	C	0.00603
PCB 107 (BZ)/109 (IUPAC)				1.082				ND		0.00573
PCB 123 (BZ)				1.053				ND		0.00608
PCB 106 (BZ)				1.050				ND		0.00591
PCB 118 (BZ)	37:15	10159	1981	1.087		0.067510		0.067510	QJ	0.00576
PCB 122 (BZ)				0.964				ND		0.00644
PCB 114 (BZ)				1.161				ND		0.00572
PCB 105 (BZ)	38:26	5829	1482	1.125		0.037795		0.037795	J	0.00566
PCB 127 (BZ)				1.062				ND		0.00584
PCB 126 (BZ)				1.051				ND		0.00522
Total Hexachlorobiphenyl								ND		0.313
13C12-PCB 155	31:56	1699038	335548	1.068	20.00	18.264115	91.32	18.264115		0.0178
13C12-PCB 153	39:02	1100581	200785	0.828	10.00	10.414486	104.14	10.414486		0.0196
13C12-PCB 138	40:18	2042904	382802	1.000	20.00	20.000000	100.00	20.000000		0.0162
13C12-PCB 167	43:17	2461307	442248	1.247	20.00	19.322917	96.61	19.322917		0.0130
13C12-PCB 156	44:28	5402004	663399	1.233	40.00	42.888198	107.22	42.888198		0.0131
13C12-PCB 157								ND		0.000000
13C12-PCB 169	47:42	2349966	423682	1.173	20.00	19.611344	98.06	19.611344		0.0138
PCB 155 (BZ)				1.128				ND		0.00872
PCB 152 (BZ)				1.075				ND		0.00915
PCB 150 (BZ)				1.096				ND		0.00897
PCB 136 (BZ)				1.022				ND		0.00962
PCB 145 (BZ)				1.069				ND		0.00920
PCB 148 (BZ)				0.764				ND		0.0129
PCB 151 (BZ)				0.750				ND	C135	0.0131
PCB 135 (BZ)				0.750				ND	C	0.0131
PCB 154 (BZ)				0.922				ND		0.0107
PCB 144 (BZ)				0.808				ND		0.0122
PCB 147 (BZ)				0.861				ND	C	0.0100
PCB 149 (BZ)				0.861				ND	C147	0.0100
PCB 134 (BZ)				0.717				ND	C	0.0120
PCB 143 (BZ)				0.717				ND	C134	0.0120
PCB 139 (BZ)				0.836				ND	C	0.0103
PCB 140 (BZ)				0.836				ND	C139	0.0103
PCB 131 (BZ)				0.700				ND		0.0123
PCB 142 (BZ)				0.728				ND		0.0119
PCB 132 (BZ)				0.736				ND		0.0117
PCB 133 (BZ)				0.763				ND		0.0113
PCB 165 (BZ)				1.001				ND		0.00863
PCB 146 (BZ)				0.881				ND		0.00980
PCB 161 (BZ)				1.100				ND		0.00785
PCB 153 (BZ)				1.071				ND	C	0.00806
PCB 168 (BZ)				1.071				ND	C153	0.00806
PCB 141 (BZ)				0.803				ND		0.0107
PCB 130 (BZ)				0.717				ND		0.0120
PCB 137 (BZ)				0.832				ND		0.0104
PCB 164 (BZ)				1.052				ND		0.00821
PCB 138 (BZ)				0.926				ND	C129	0.00932

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6M1AC	Prep Batch	1187028	Lot No	H1G050439-007
Data File	/20110713s1/apmkm6m.d	Prep Date	07/06/11	SDG No	
Analysis ID	133606	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/26/11
Analysis Time	03:33	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 163 (BZ)				0.926				ND	C129	0.00932
PCB 129 (BZ)				0.926				ND	C	0.00932
PCB 160 (BZ)				0.926				ND	C129	0.00932
PCB 158 (BZ)				1.174				ND		0.00735
PCB 166 (BZ)				0.958				ND	C128	0.00901
PCB 128 (BZ)				0.958				ND	C	0.00901
PCB 159 (BZ)				1.095				ND		0.00788
PCB 162 (BZ)				1.108				ND		0.00779
PCB 167 (BZ)				1.126				ND		0.00663
PCB 156 (BZ)				1.130				ND	C	0.00880
PCB 157 (BZ)				1.130				ND	C156	0.00880
PCB 169 (BZ)				1.243				ND		0.00626
Total Heptachlorobiphenyl								ND		0.188
13C12-PCB 188	37:39	1979647	375778	1.217	20.00	17.733606	88.67	17.733606		0.0124
13C12-PCB 178	40:43	1286253	247269	0.881	20.00	15.919466	79.60	15.919466		0.0172
13C12-PCB 180	45:48	1834351	350738	1.000	20.00	20.000000	100.00	20.000000		0.0151
13C12-PCB 170	47:04	1425534	258428	0.828	20.00	18.767278	93.84	18.767278		0.0182
13C12-PCB 189	50:10	2864366	503591	1.588	20.00	19.628171	98.14	19.628171		0.0101
PCB 188 (BZ)				1.111				ND		0.00731
PCB 179 (BZ)				1.220				ND		0.00789
PCB 184 (BZ)				1.188				ND		0.00810
PCB 176 (BZ)				1.286				ND		0.00748
PCB 186 (BZ)				1.223				ND		0.00786
PCB 178 (BZ)				0.906				ND		0.0106
PCB 175 (BZ)				0.980				ND		0.00982
PCB 187 (BZ)				1.054				ND		0.00912
PCB 182 (BZ)				1.009				ND		0.00954
PCB 183 (BZ)				0.987				ND	C	0.00975
PCB 185 (BZ)				0.987				ND	C183	0.00975
PCB 174 (BZ)				0.941				ND		0.0102
PCB 177 (BZ)				0.918				ND		0.0105
PCB 181 (BZ)				0.980				ND		0.00981
PCB 171 (BZ)				0.872				ND	C	0.0110
PCB 173 (BZ)				0.872				ND	C171	0.0110
PCB 172 (BZ)				0.881				ND		0.0109
PCB 192 (BZ)				1.152				ND		0.00835
PCB 193 (BZ)				1.154				ND	C180	0.00834
PCB 180 (BZ)				1.154				ND	C	0.00834
PCB 191 (BZ)				1.287				ND		0.00747
PCB 170 (BZ)				1.102				ND		0.0107
PCB 190 (BZ)				1.265				ND		0.00760
PCB 189 (BZ)				1.073				ND		0.00564
Total Octachlorobiphenyl								ND		0.115
13C12-PCB 202	43:00	1647150	326514	0.907	20.00	19.793990	98.97	19.793990		0.0145
13C12-PCB 194	52:15	1837686	332036	1.000	20.00	20.000000	100.00	20.000000		0.0139
13C12-PCB 205	52:42	2694364	497445	1.395	20.00	21.025701	105.13	21.025701		0.00993
PCB 202 (BZ)				1.007				ND		0.0106
PCB 200 (BZ)/201 (IUPAC)				1.134				ND		0.00945
PCB 204 (BZ)				1.034				ND		0.0104

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6M1AC	Prep Batch	1187028	Lot No	H1G050439-007
Data File	/20110713s1/apmkm6m.d	Prep Date	07/06/11	SDG No	
Analysis ID	133606	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/26/11
Analysis Time	03:33	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 197 (BZ)				1.075				ND		0.00997
PCB 199 (BZ)/200 (IUPAC)				1.095				ND		0.00979
PCB 198 (BZ)				0.775				ND	C	0.0138
PCB 201 (BZ)/199 (IUPAC)				0.775				ND	C198	0.0138
PCB 196 (BZ)				0.800				ND		0.0134
PCB 203 (BZ)				0.868				ND		0.0124
PCB 195 (BZ)				0.765				ND		0.00920
PCB 194 (BZ)				0.830				ND		0.00847
PCB 205 (BZ)				0.986				ND		0.00714
Total Nonachlorobiphenyl								ND		0.0319
13C12-PCB 208	49:39	2023448	396342	1.155	20.00	19.064931	95.32	19.064931		0.0134
13C12-PCB 206	54:25	1475561	273341	0.808	20.00	19.881827	99.41	19.881827		0.0192
PCB 208 (BZ)				1.035				ND		0.00963
PCB 207 (BZ)				1.276				ND		0.00925
PCB 206 (BZ)				1.113				ND		0.0130
13C12-PCB 209	56:00	1469685	250989	0.857	20.00	18.655902	93.28	18.655902		0.0193
PCB 209 (BZ)				1.052				ND		0.0174

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6M1AC	Prep Batch	1187028	Lot No	H1G050439-007
Data File	/20110713s1/apmkm6m.d	Prep Date	07/06/11	SDG No	
Analysis ID	133606	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	07/14/11 03:33	Matrix	AIR	Date Sampled	06/26/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	115	128	46	51	0.90 *	/	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	165	448	66	179	0.37 *	/	
	13C12-PCB 1	12:08	12:09	-1	2811965	898628	992010	315406	3.13	ABV/AVV	
	13C12-PCB 3	14:20	14:20	0	2723111	821652	810592	244296	3.31	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	215	443	86	177	0.49 *	/	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	255	163	102	65	1.57	/	
	13C12-PCB 4	14:35	14:36	-1	905530	548987	265835	167531	1.65	ABV/ABV	
	13C12-PCB 9	16:34	16:34	0	1918625	1147412	491541	291005	1.67	ABV/ABV	
	13C12-PCB 8	17:25	17:26	-1	840695	499598	211182	124127	1.68	AVV/AVV	
	13C12-PCB 15	20:33	20:31	2	1510883	905465	331372	197728	1.67	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	98	75	39	30	1.30 *	/	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	488	323	195	129	1.51 *	/	
	13C12-PCB 19	17:44	17:44	0	593380	550056	155127	142171	1.08	AVV/AVV	
	13C12-PCB 32	20:59	21:00	-1	1340822	1258068	294363	277553	1.07	AVV/AVV	
	13C12-PCB 31	23:17	23:16	1	2086808	1954938	439595	417816	1.07	ABV/AVV	
	13C12-PCB 28	23:34	23:33	1	1532835	1486145	317153	317159	1.03	AVV/AVV	
	13C12-PCB 37	27:37	27:34	3	1461363	1367333	266731	254845	1.07	AVV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	68	90	27	36	0.75	/	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	148	145	59	58	1.02 *	/	
	13C12-PCB 54	20:51	20:51	0	670077	857840	150707	193544	0.78	ABV/ABV	
	13C12-PCB 52	25:23	25:24	-1	928991	1197345	202461	251670	0.78	ABV/ABV	
	13C12-PCB 79	33:21	33:18	3	613330	778035	109246	140849	0.79	ABV/ABV	
	13C12-PCB 81	34:22	34:18	4	1016297	1301210	175402	230013	0.78	ABV/ABV	
	13C12-PCB 77	34:56	34:52	4	1093880	1389991	193333	242004	0.79	AVV/AVV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	75	83	30	33	0.91 *	/	
	PCB 118 (BZ)	37:15	37:12	3	6175	5423	1204	1122	1.14 *	ABB/ABB	R
	PCB 105 (BZ)	38:26	38:24	2	3577	2252	962	520	1.59	ABB/ABB	
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	210	175	84	70	1.20 *	/	
	13C12-PCB 104	26:19	26:21	-2	1111165	678927	234304	140884	1.64	ABV/ABV	
	13C12-PCB 95	29:19	29:18	1	414988	258240	85090	53019	1.61	ABV/ABV	
	13C12-PCB 101	32:13	32:13	0	1081233	661280	203149	123653	1.64	ABV/ABV	
	13C12-PCB 111	34:53	34:53	0	1223112	735654	232120	139073	1.66	ABV/ABV	
	13C12-PCB 123	36:53	36:51	2	1626887	1019381	301765	190423	1.60	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM6M1AC	Prep Batch	1187028	Lot No	H1G050439-007
Data File	/20110713s1/apmkm6m.d	Prep Date	07/06/11	SDG No	
Analysis ID	133606	Prep Exp Date	07/26/11	Date Received	07/02/11
Analysis Date	07/14/11 03:33	Matrix	AIR	Date Sampled	06/26/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78	
	13C12-PCB 118	37:12	37:10	2	1712836	1055771	310602	192366	1.62	AVV/AVV
	13C12-PCB 114	37:44	37:42	2	1667551	1010024	292323	182208	1.65	AVV/AVV
	13C12-PCB 105	38:25	38:22	3	1688211	1053555	307126	187873	1.60	ABV/ABV
	13C12-PCB 127	39:51	39:48	3	2087748	1294791	384333	239489	1.61	AVV/ABV
	13C12-PCB 126	41:29	41:25	4	1884002	1190249	349923	224139	1.58	ABV/ABV
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	Noise	00:00	00:00	0	88	78	35	31	1.13	/
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	163	148	65	59	1.10	/
	13C12-PCB 155	31:56	31:58	-2	956459	742579	186794	148754	1.29	ABV/ABV
	13C12-PCB 153	39:02	39:02	0	623020	477561	114313	86472	1.30	ABV/ABV
	13C12-PCB 138	40:18	40:17	1	1160171	882733	214572	168230	1.31	ABV/ABV
	13C12-PCB 167	43:17	43:16	1	1391177	1070130	251035	191213	1.30	AVV/ABV
	13C12-PCB 156	44:28	44:26	2	3059559	2342445	375519	287880	1.31	ABV/ABV
	13C12-PCB 169	47:42	47:38	4	1322906	1027060	236704	186978	1.29	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	88	65	35	26	1.35 *	/
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	130	135	52	54	0.96	/
	13C12-PCB 188	37:39	37:41	-2	1019052	960595	193556	182222	1.06	ABV/ABV
	13C12-PCB 178	40:43	40:44	-1	664510	621743	127835	119434	1.07	ABV/ABV
	13C12-PCB 180	45:48	45:47	1	942263	892088	181959	168779	1.06	ABV/ABV
	13C12-PCB 170	47:04	47:03	1	744968	680566	134838	123590	1.09	ABV/ABV
	13C12-PCB 189	50:10	50:08	2	1452442	1411924	253849	249742	1.03	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	80	95	32	38	0.84	/
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02	
	Noise	00:00	00:00	0	105	125	42	50	0.84	/
	13C12-PCB 202	43:00	43:01	-1	788303	858847	154682	171832	0.92	ABV/ABV
	13C12-PCB 194	52:15	52:14	1	877722	959964	158050	173986	0.91	ABV/ABV
	13C12-PCB 205	52:42	52:41	1	1267932	1426432	234628	262817	0.89	AVV/AVV
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89	
	Noise	00:00	00:00	0	95	103	38	41	0.93 *	/
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	128	130	51	52	0.98 *	/
	13C12-PCB 208	49:39	49:40	-1	897022	1126426	175128	221214	0.80	ABV/ABV
	13C12-PCB 206	54:25	54:26	-1	649705	825856	120155	153186	0.79	ABV/ABV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	
	Noise	00:00	00:00	0	123	108	49	43	1.14 *	/
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79	
	Noise	00:00	00:00	0	130	145	52	58	0.90 *	/
	13C12-PCB 209	56:00	56:02	-2	599210	870475	102136	148853	0.69	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: apmkm6m 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

dht L 7-14-11
Calc. awk 7-14-11
dil L 7-14-11
Rev MSD 7-14-11

m/z:188>510, \268.98, \280.98.\342.98, \380.98, \404.98, \430.97, \504.97

WHO List

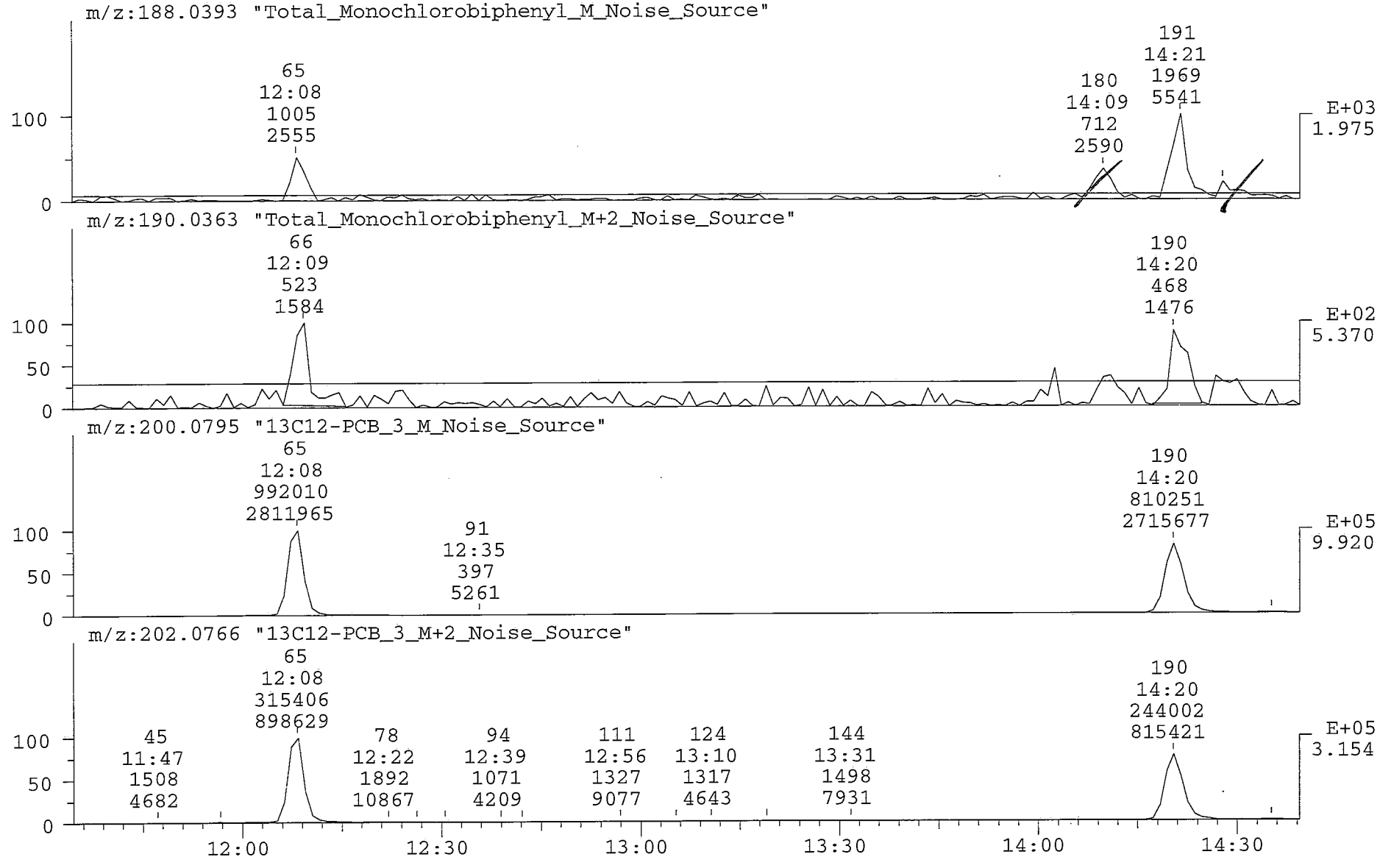
E+06
1.318

100
80
60
40
20
0

16:00 24:00 32:00 40:00 48:00 56:00

H-1131

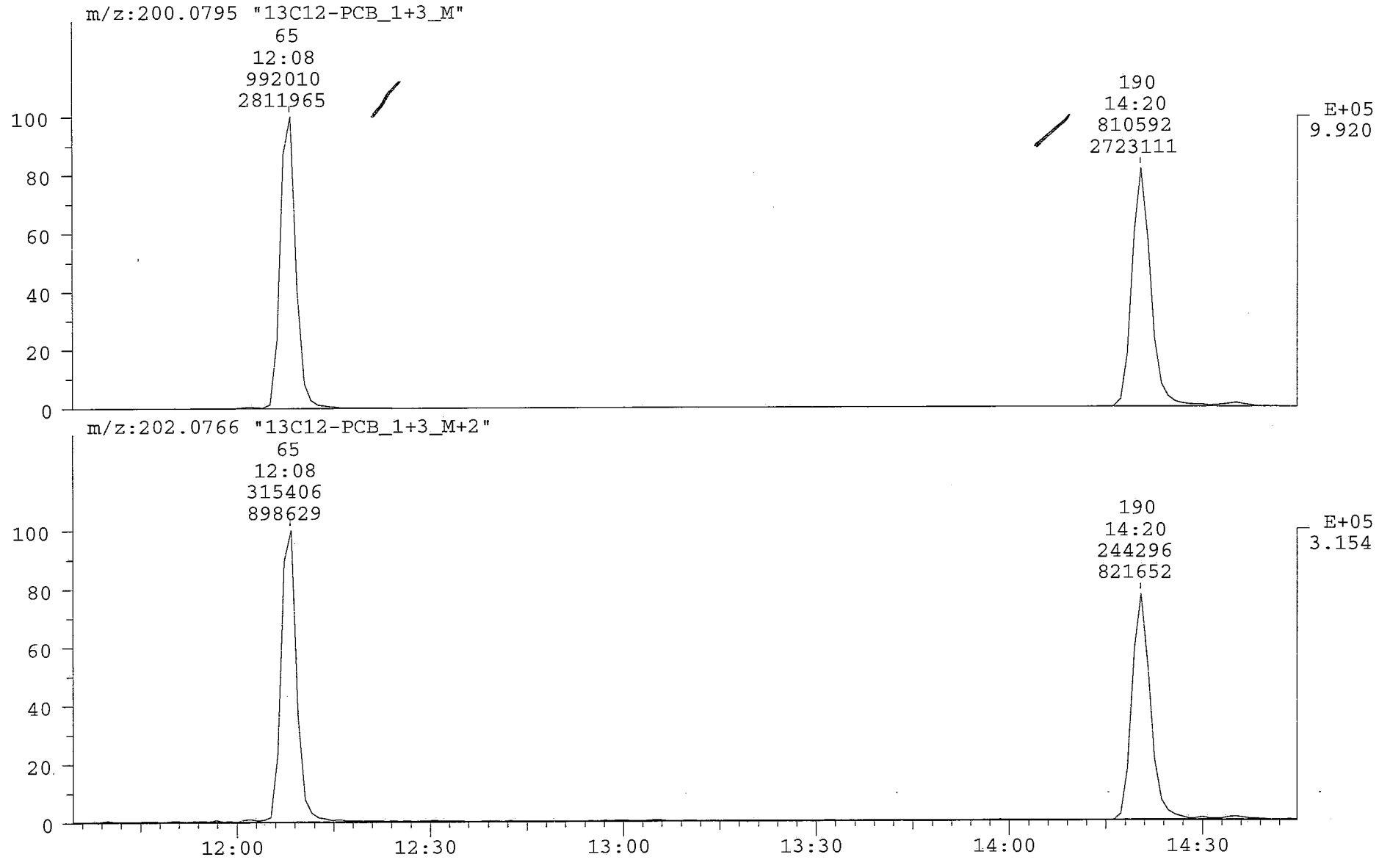
CHRO: apmkm6m 14-Jul-11 Elapse: 13:20.1 133
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1132

1131

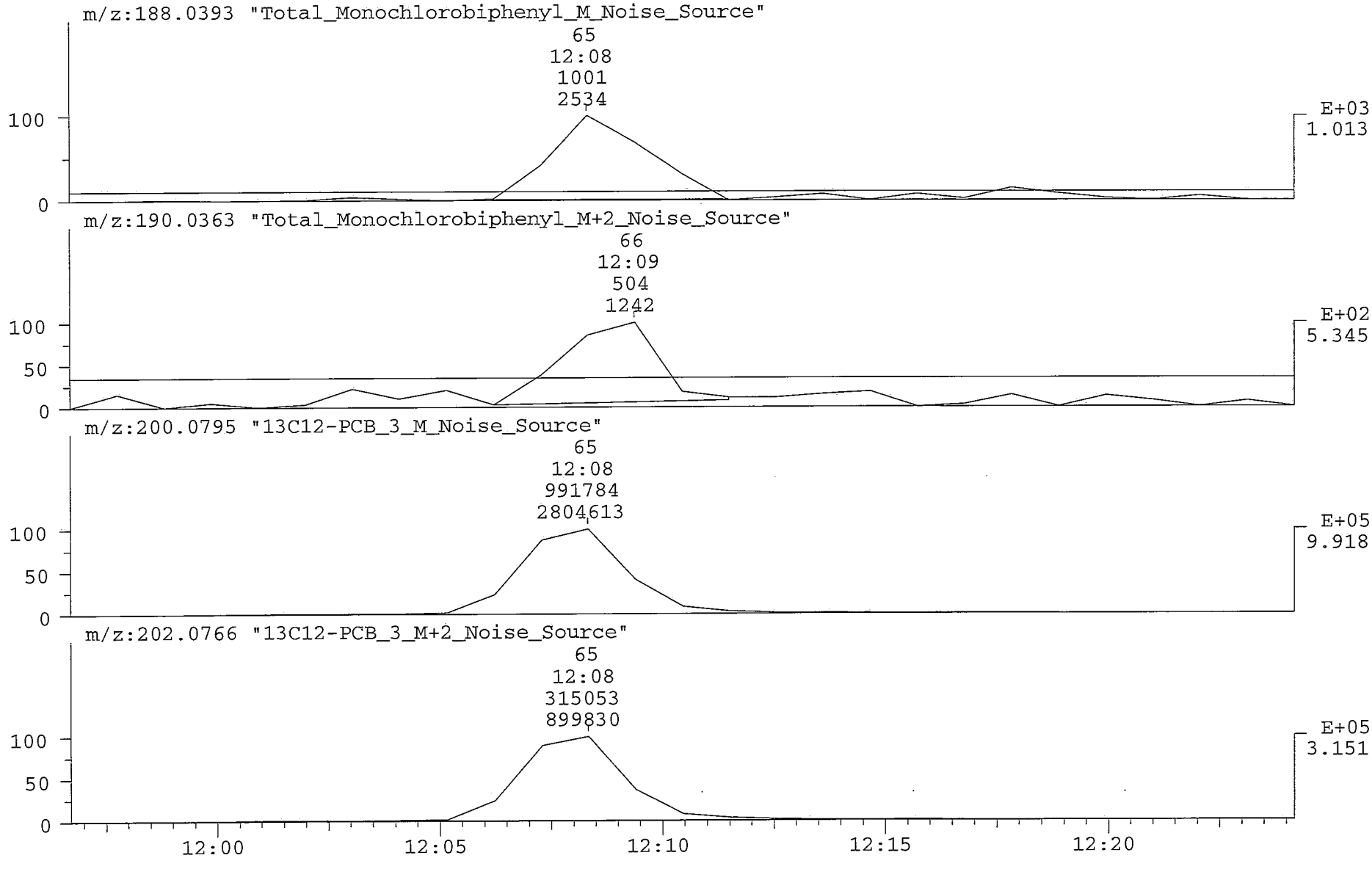
CHRO: apmkm6m 14-Jul-11 Elapse: 13:20.1 133
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 33 > 213 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1133

1132

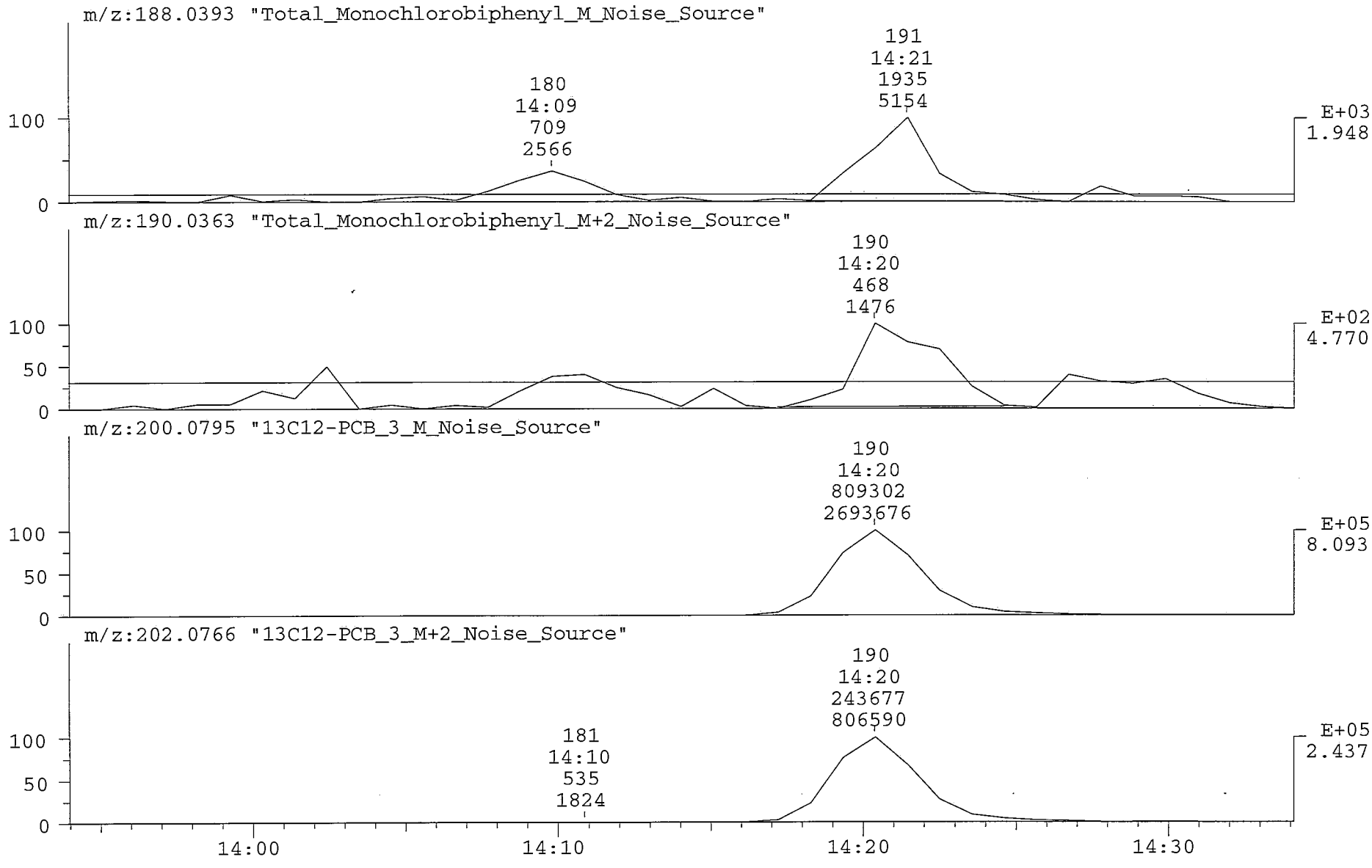
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 54 > 80 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1134

1133

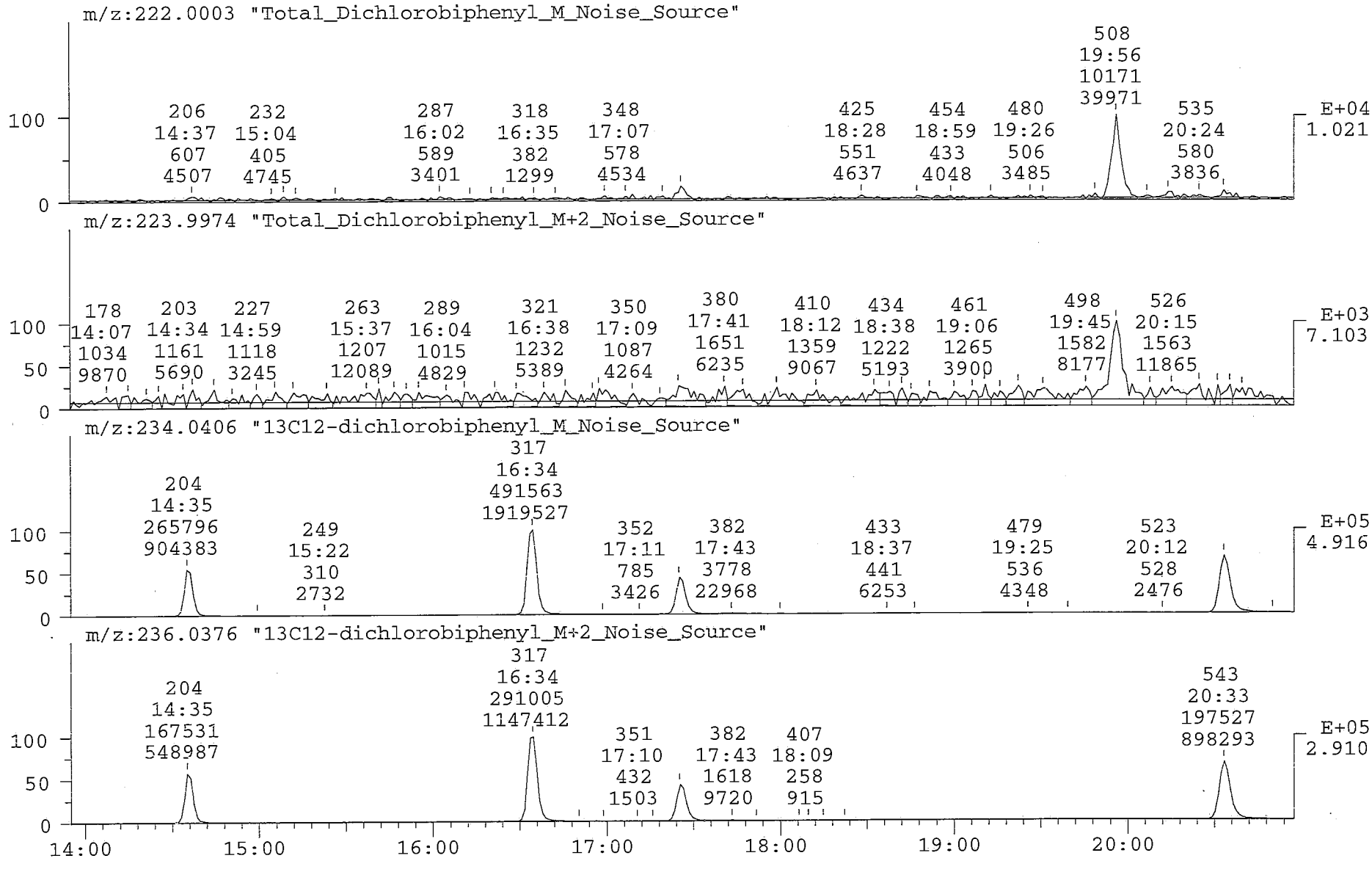
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 165 > 203 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1135

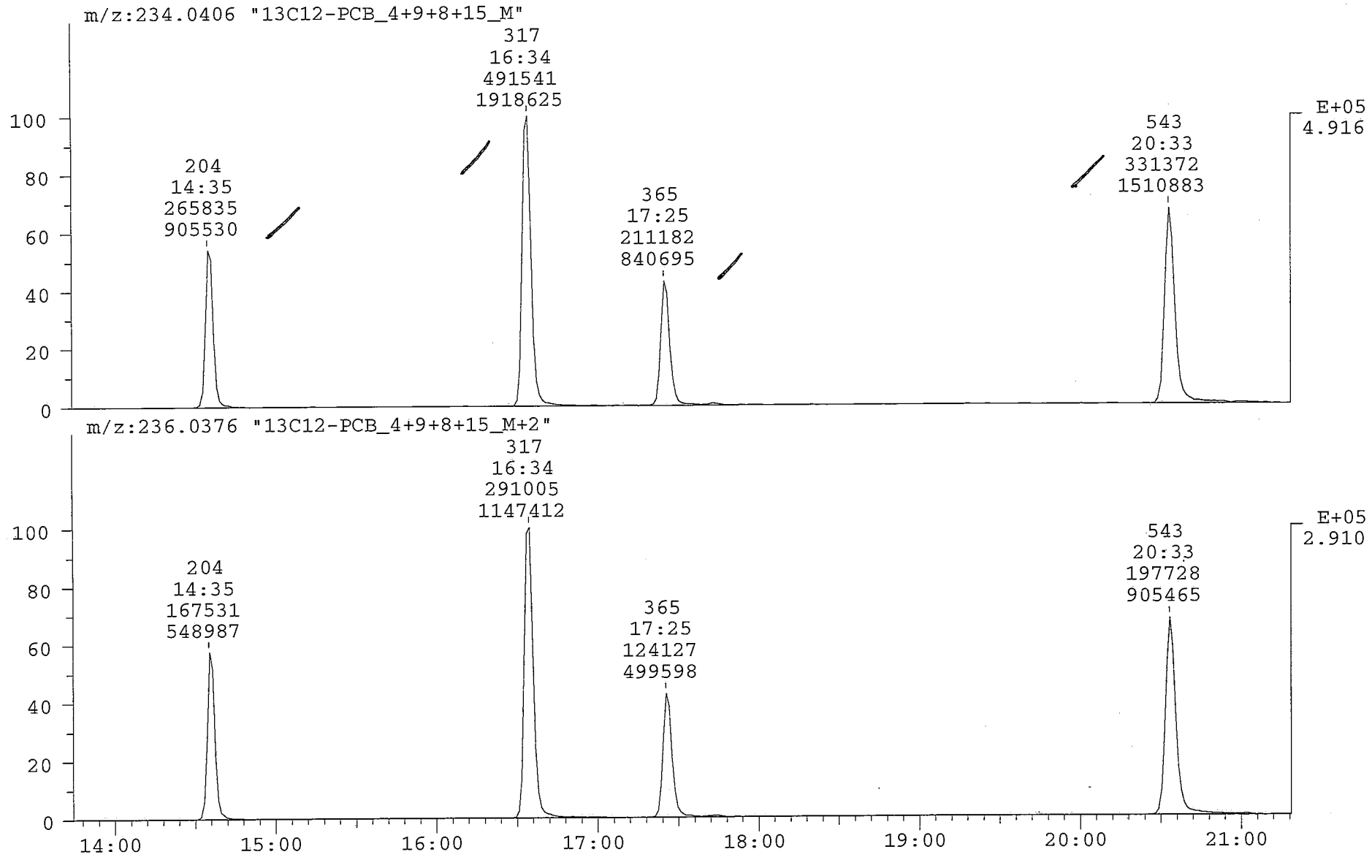
1134

CHRO: apmkm6m 14-Jul-11 Elapse: 17:26.3 366
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1136

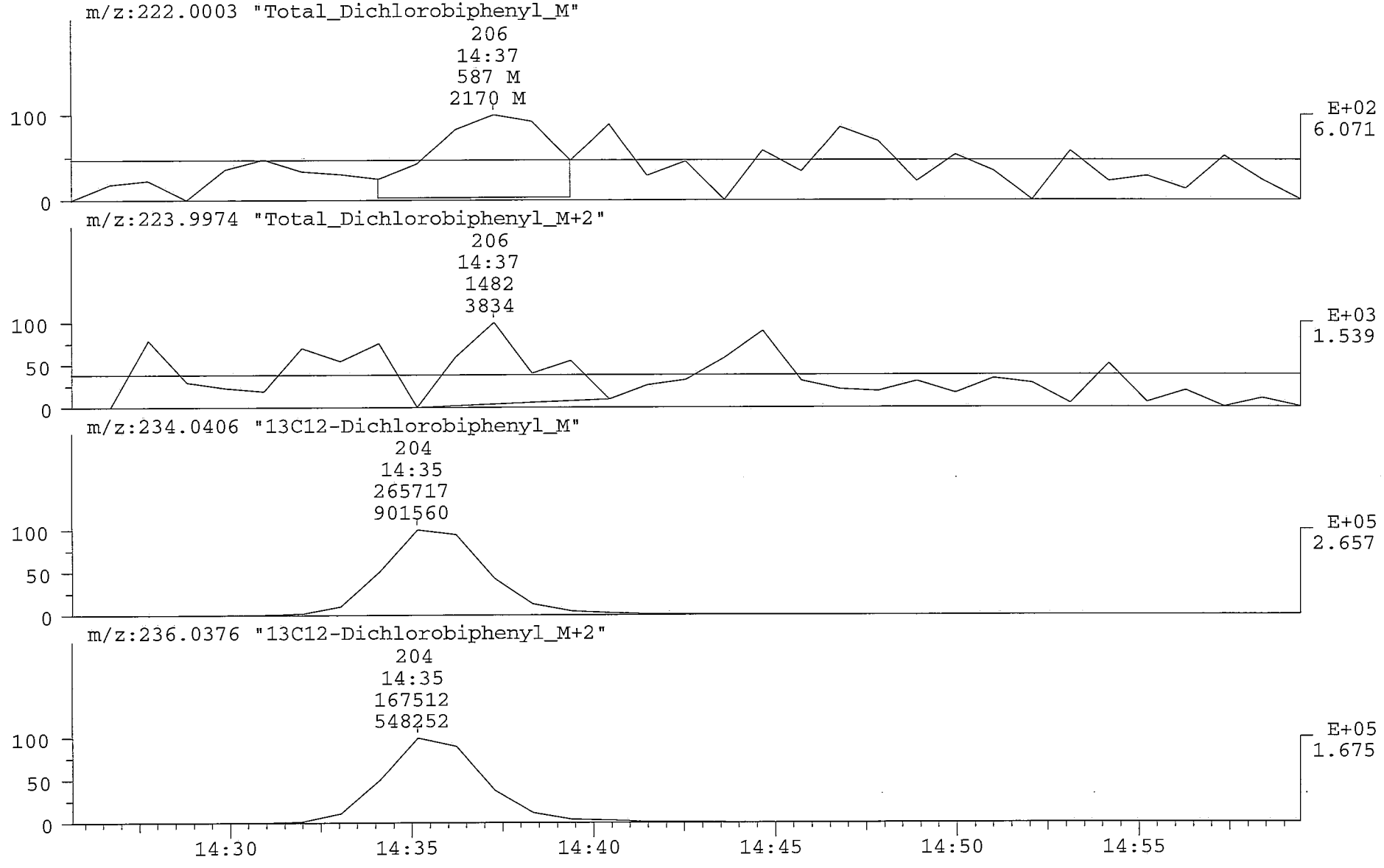
CHRO: apmkm6m 14-Jul-11 Elapse: 17:26.3 366
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1137

1136

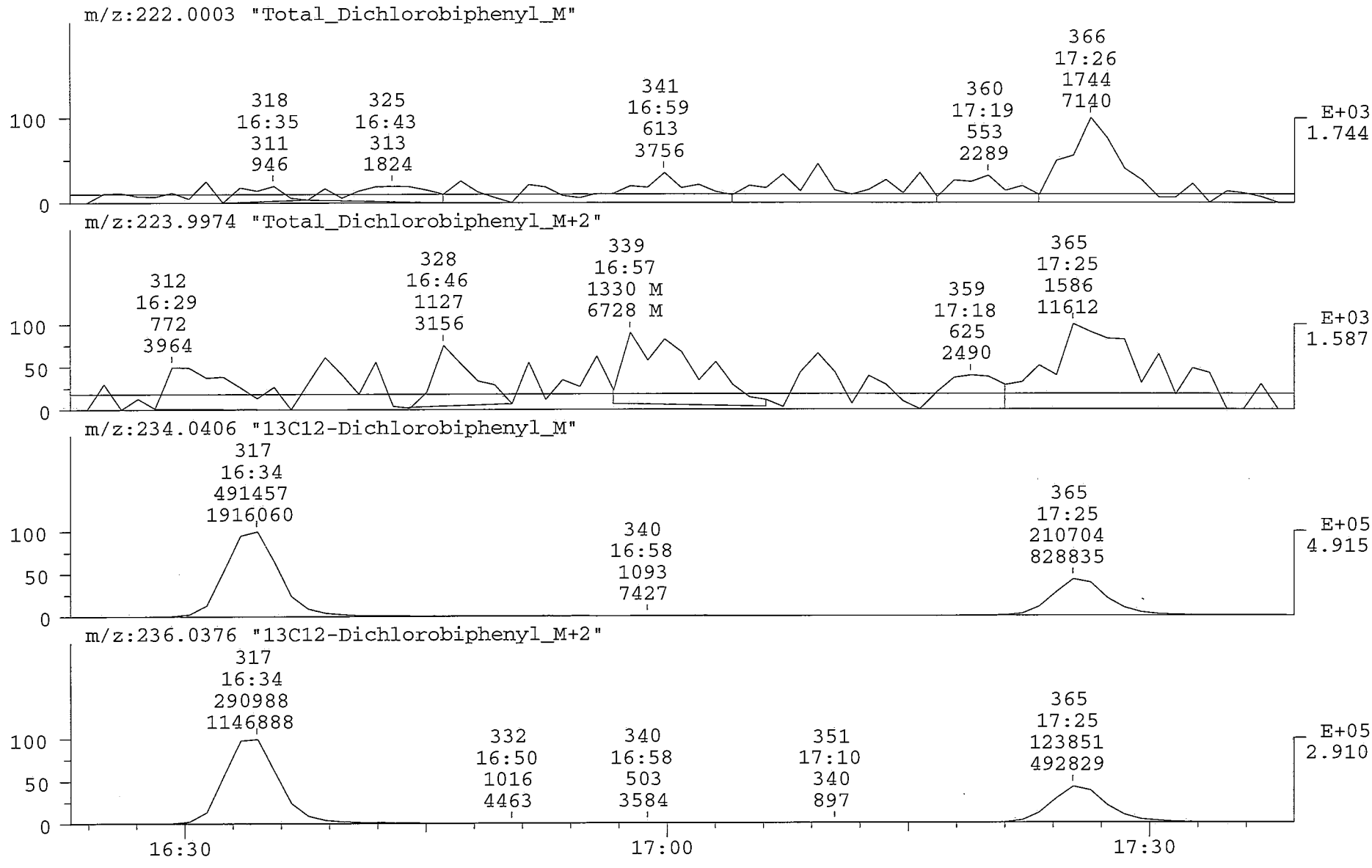
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 195 > 227 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1138

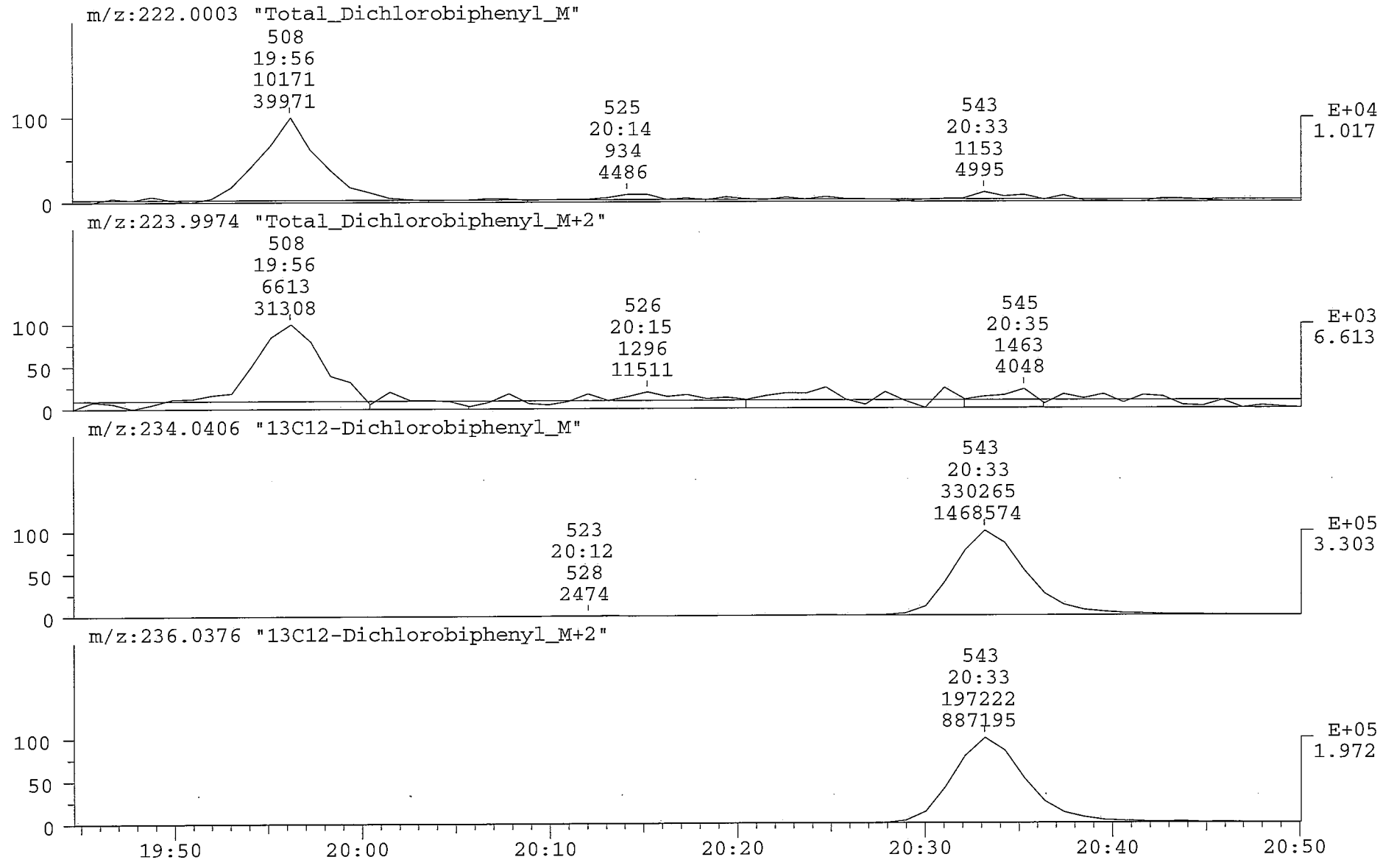
1137

CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 306 > 378 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -3, 2.0
Disp: Height Area



H-1139

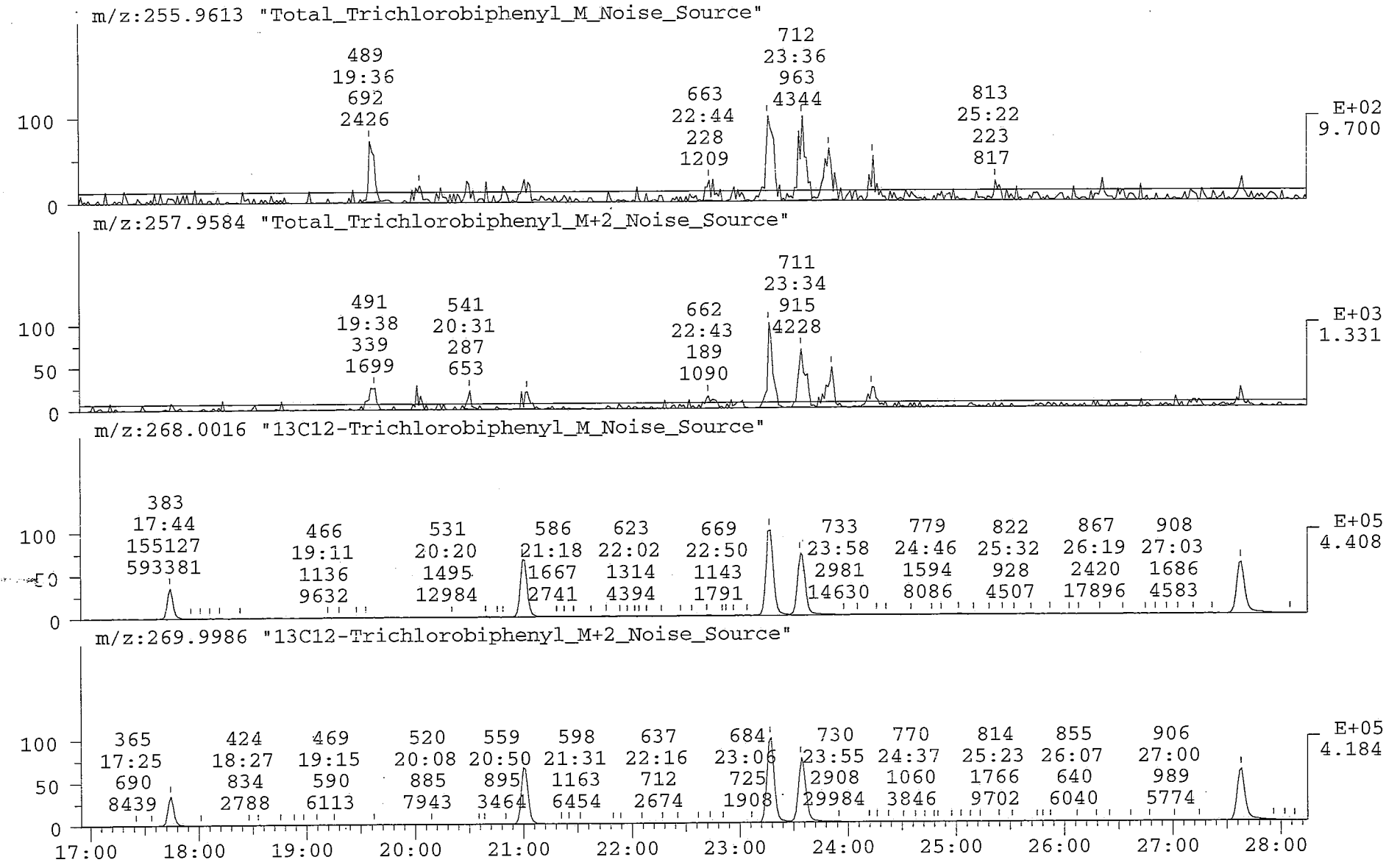
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 497 > 559 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1140

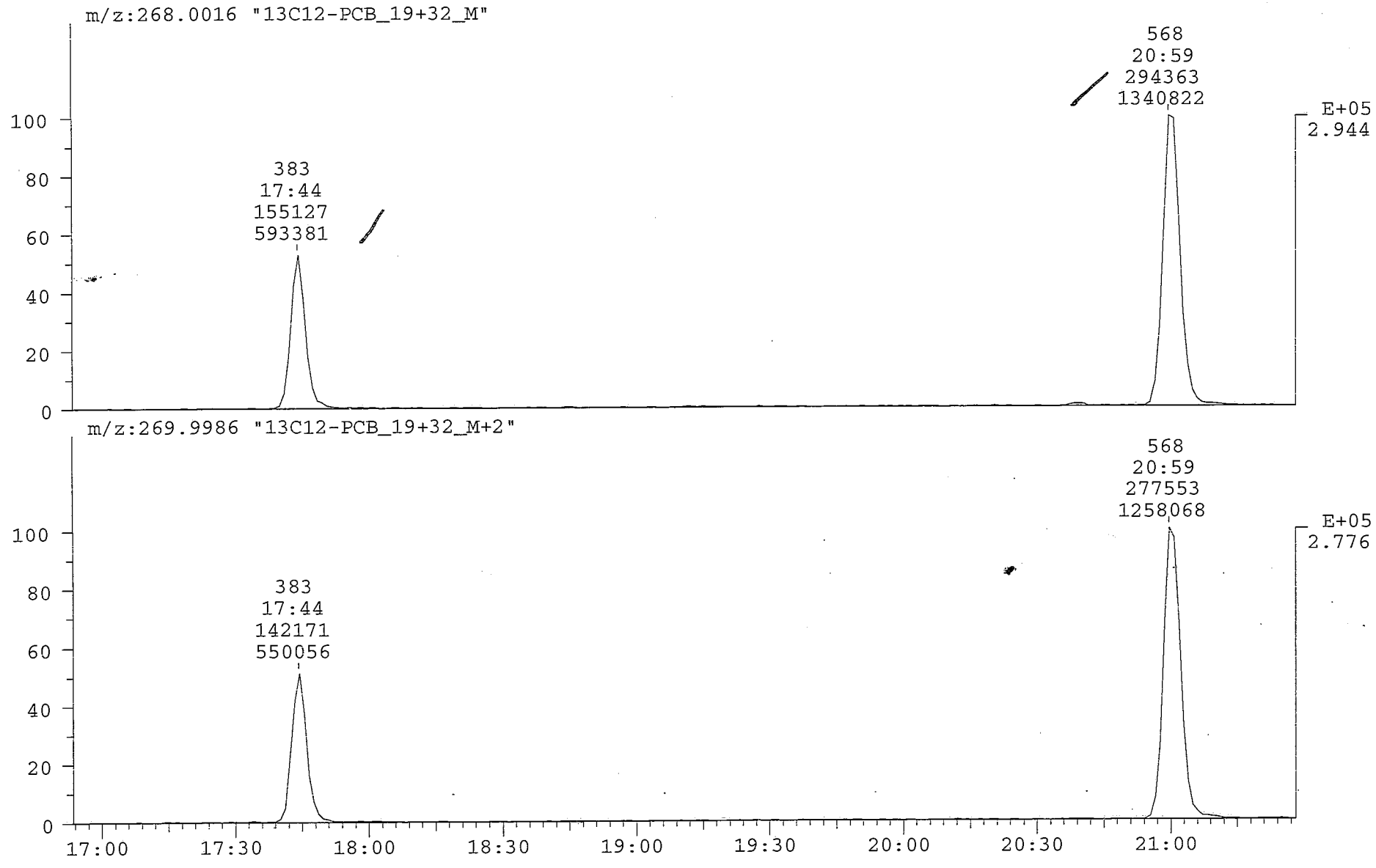
1139

CHRO: apmkm6m 14-Jul-11 Elapse: 22:36.9 656
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1141

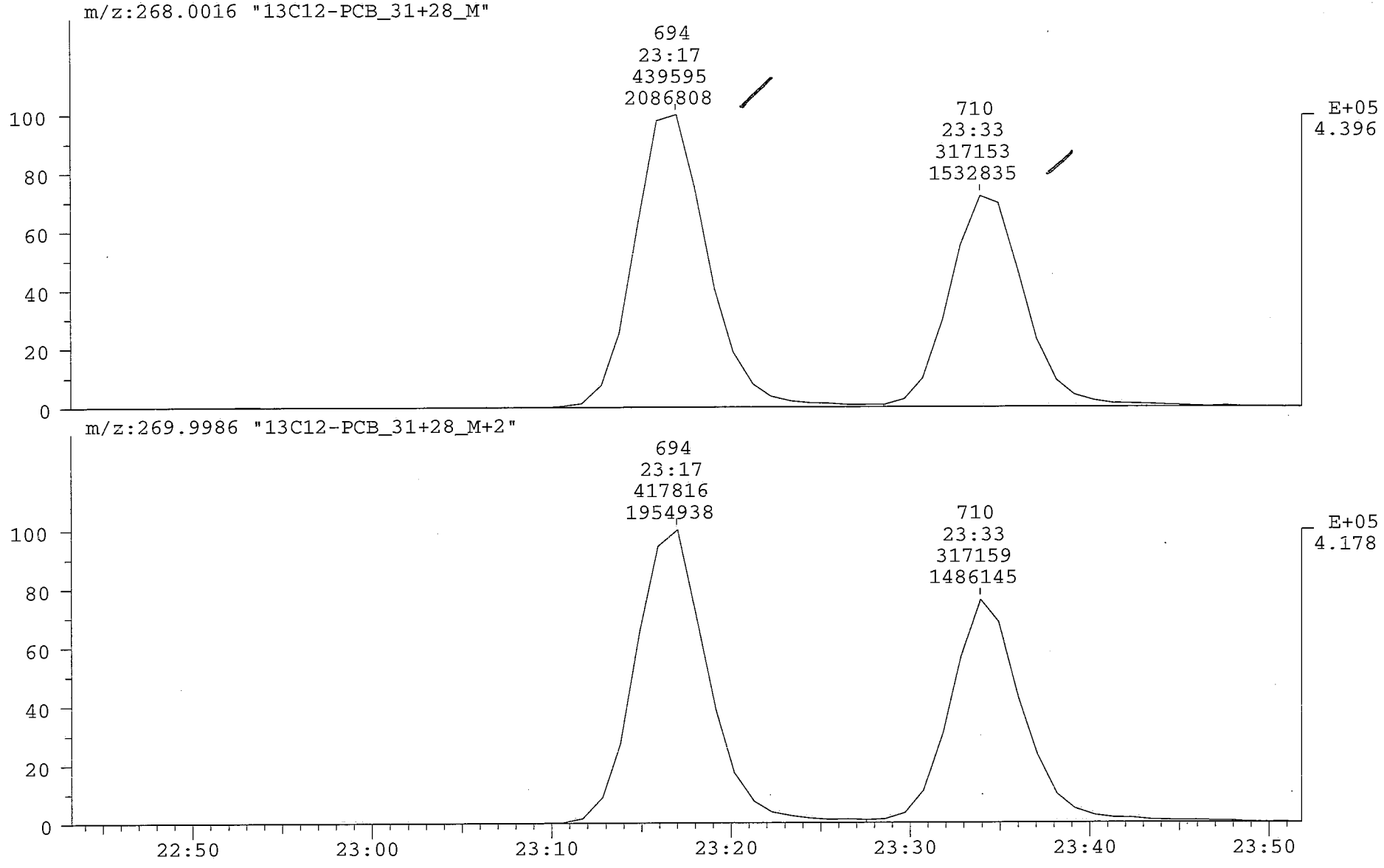
CHRO: apmkm6m 14-Jul-11 Elapse: 19:00.2 455
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 335 > 595 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1142

1141

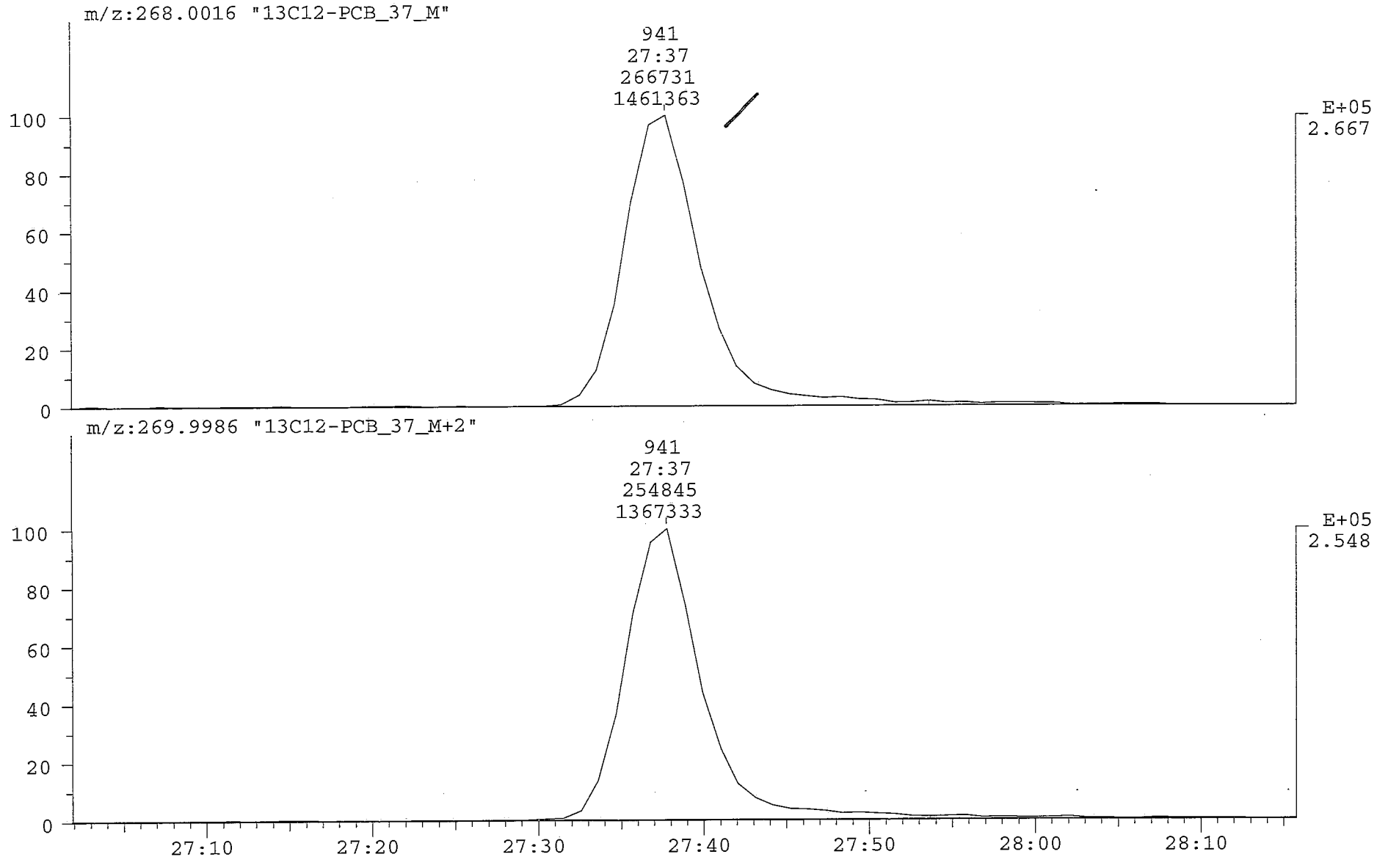
CHRO: apmkm6m 14-Jul-11 Elapse: 23:09.6 687
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1143

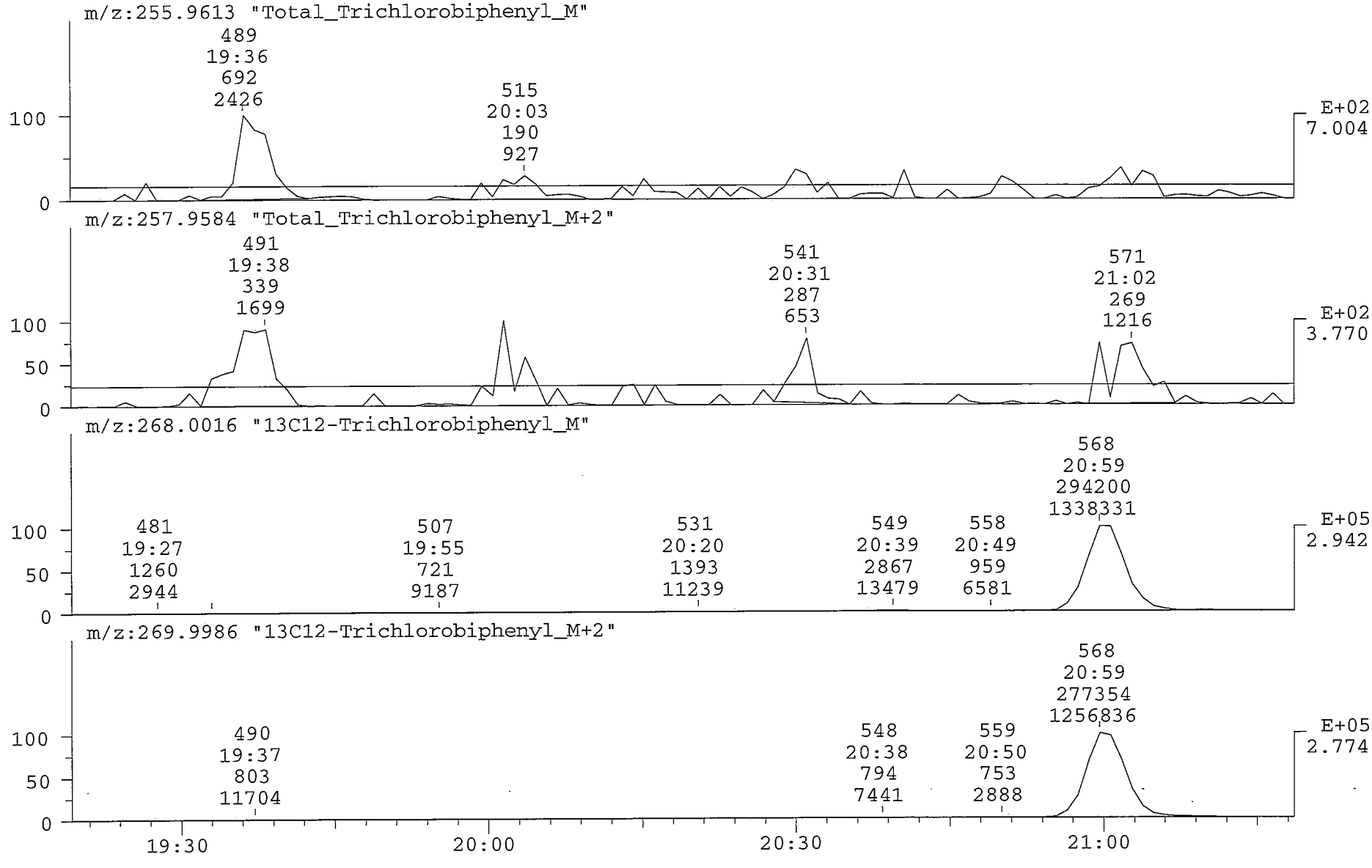
1142

CHRO: apmkm6m 14-Jul-11 Elapse: 27:28.3 932
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 907 > 977 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1144

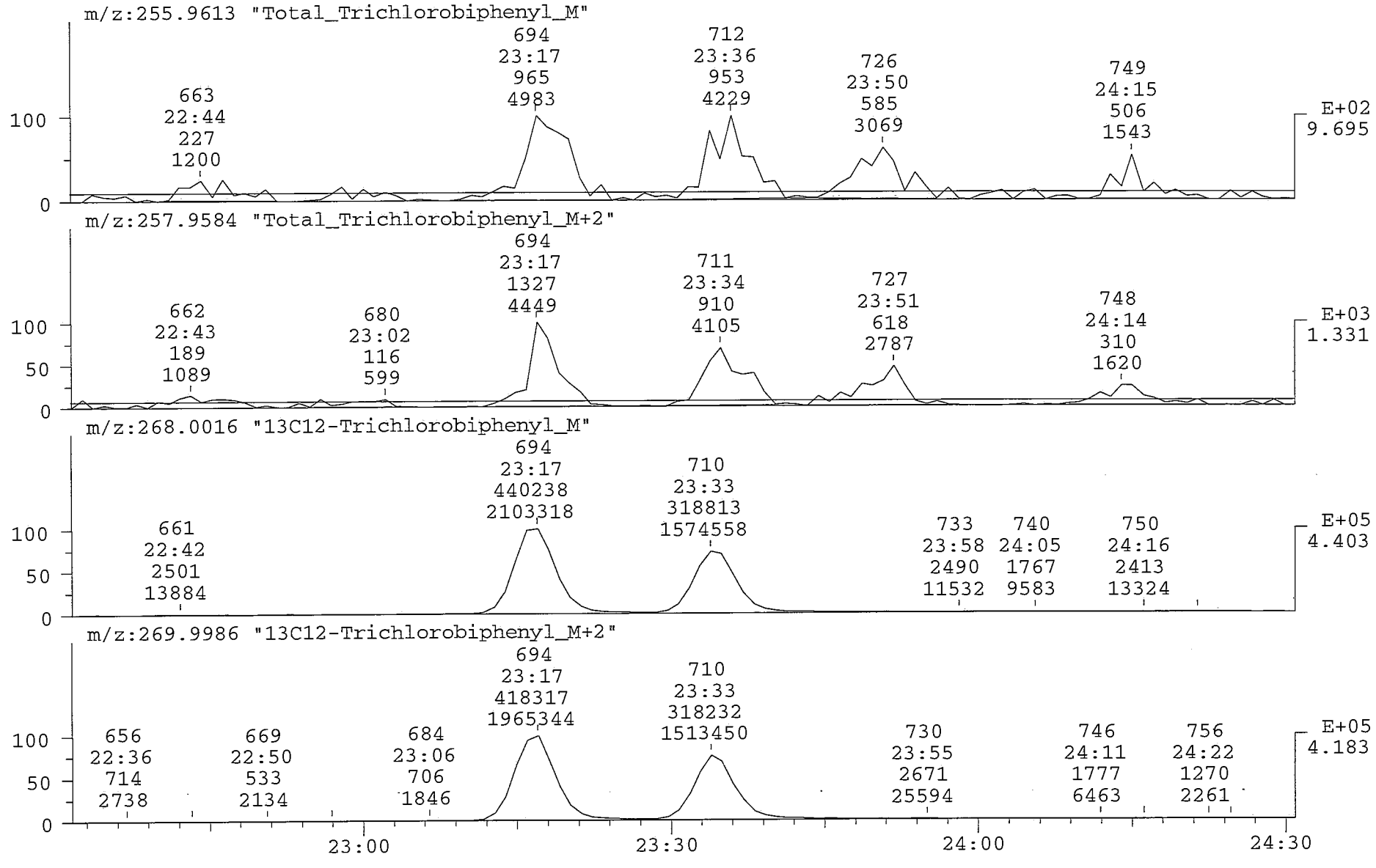
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 473 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1145

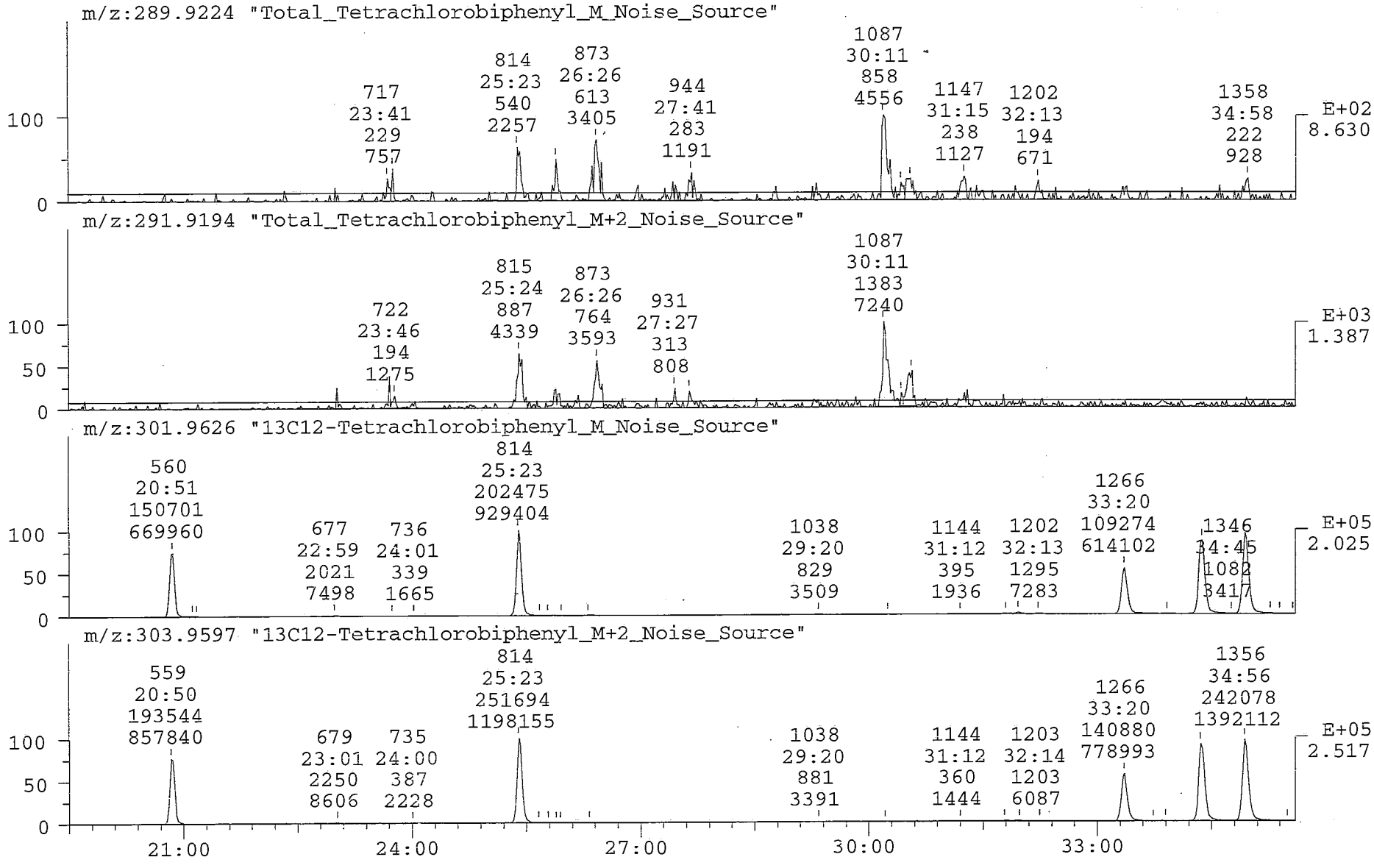
1144

CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 651 > 764 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 2.0
Disp: Height Area



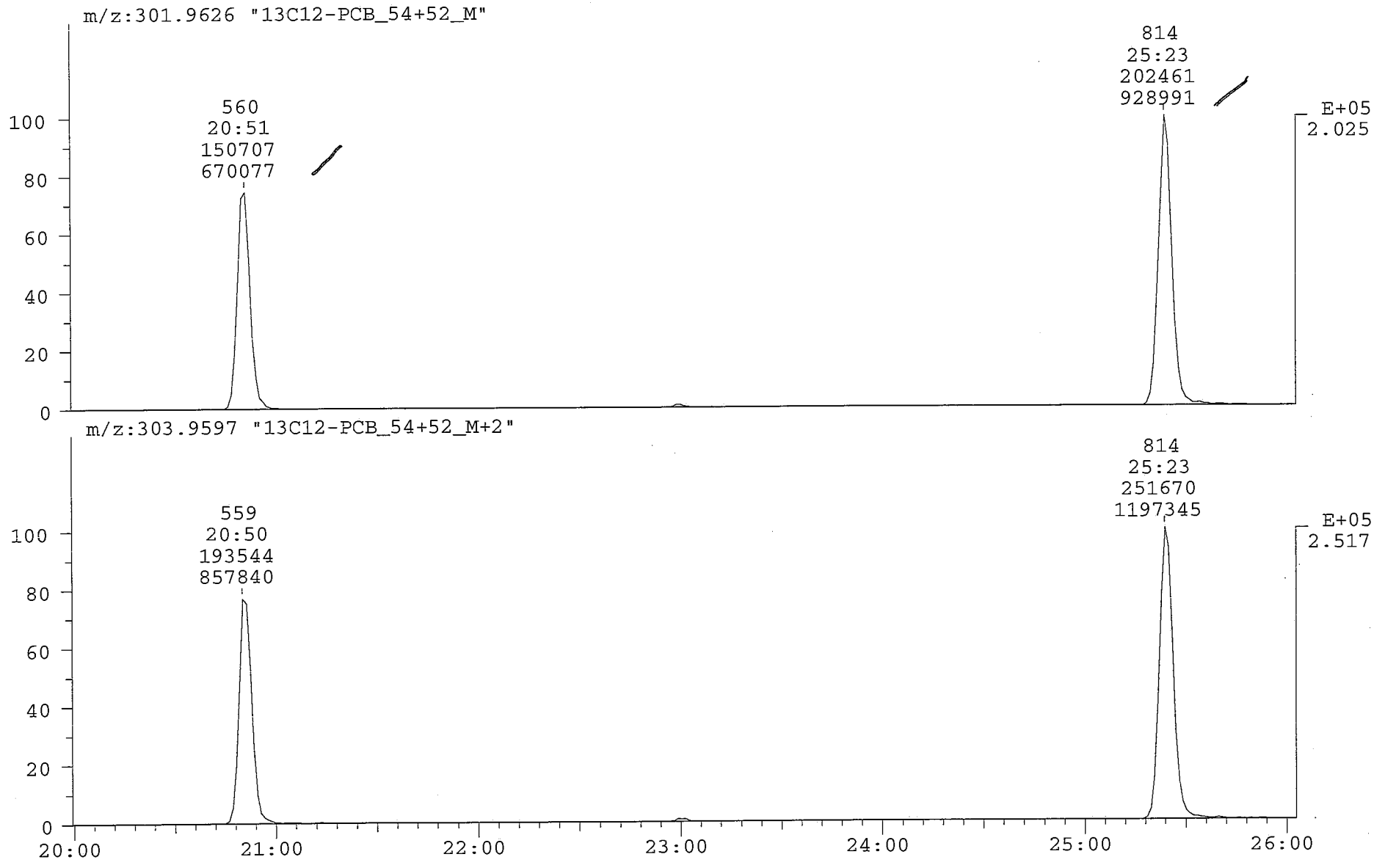
H-1146

CHRO: apmkm6m 14-Jul-11 Elapse: 27:36.8 940
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 483 > 1394 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1147

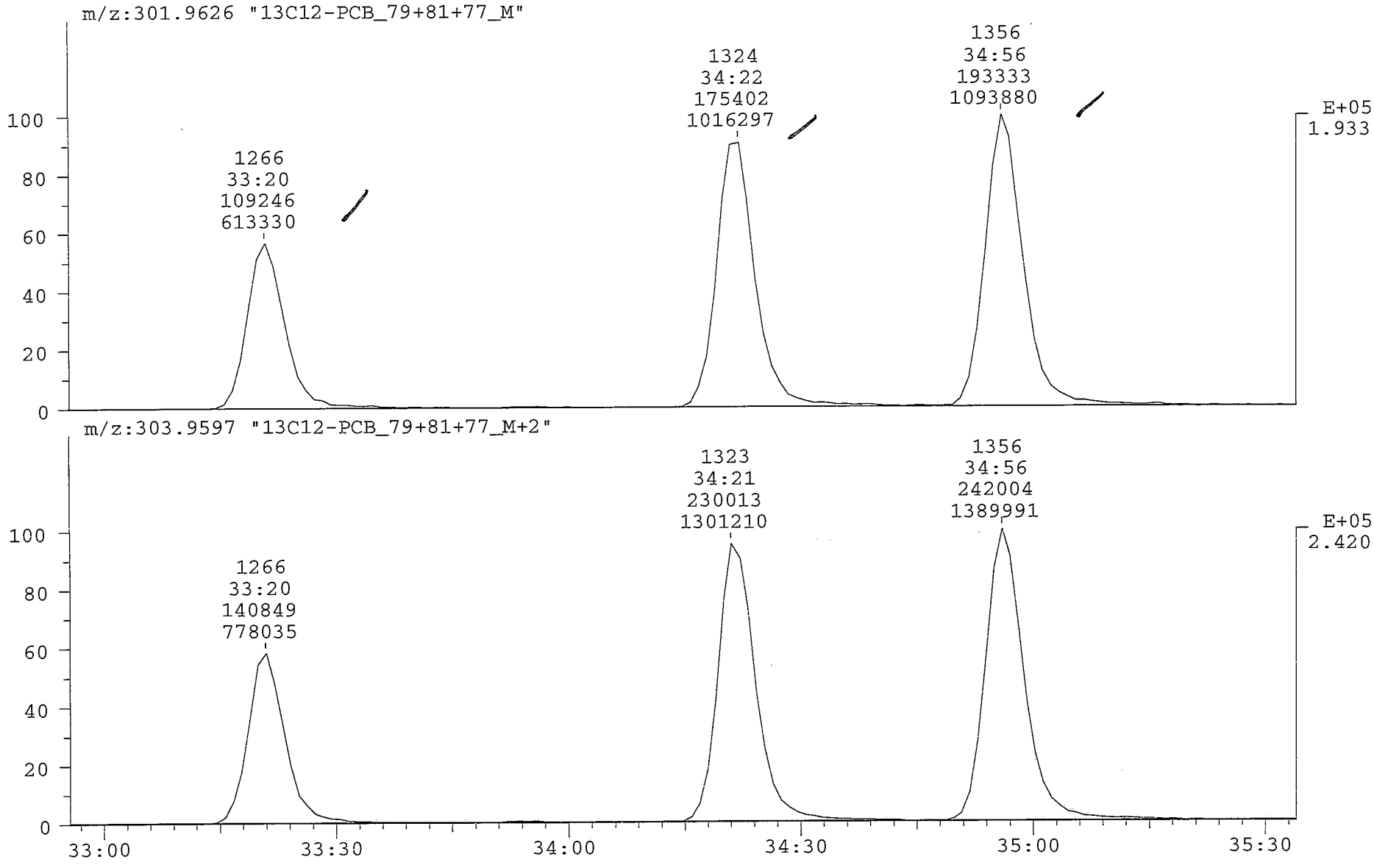
CHRO: apmkm6m 14-Jul-11 Elapse: 23:03.2 681
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 511 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1148

1147

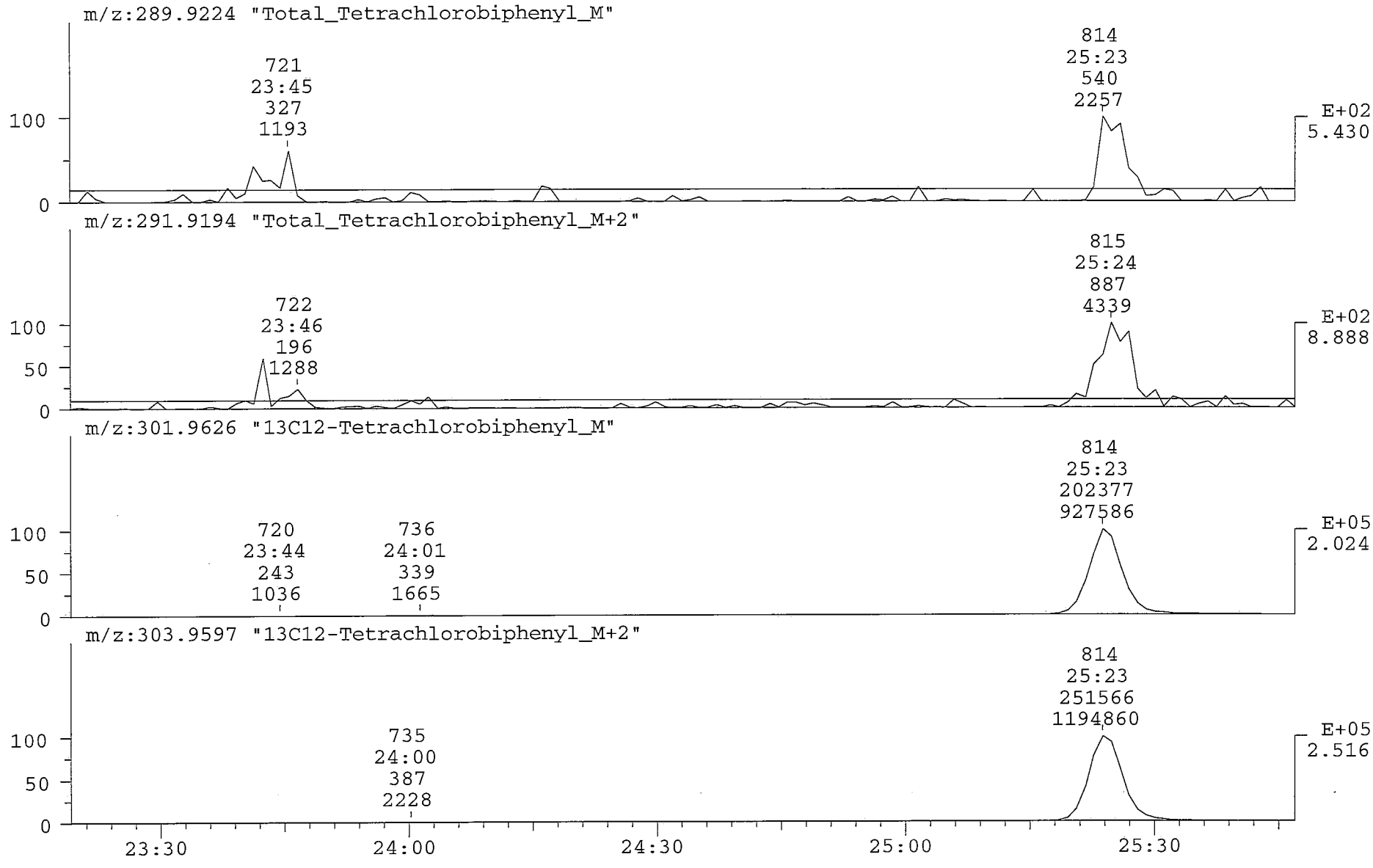
CHRO: apmkm6m 14-Jul-11 Elapse: 33:58 1302
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1242 > 1392 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1149

1148

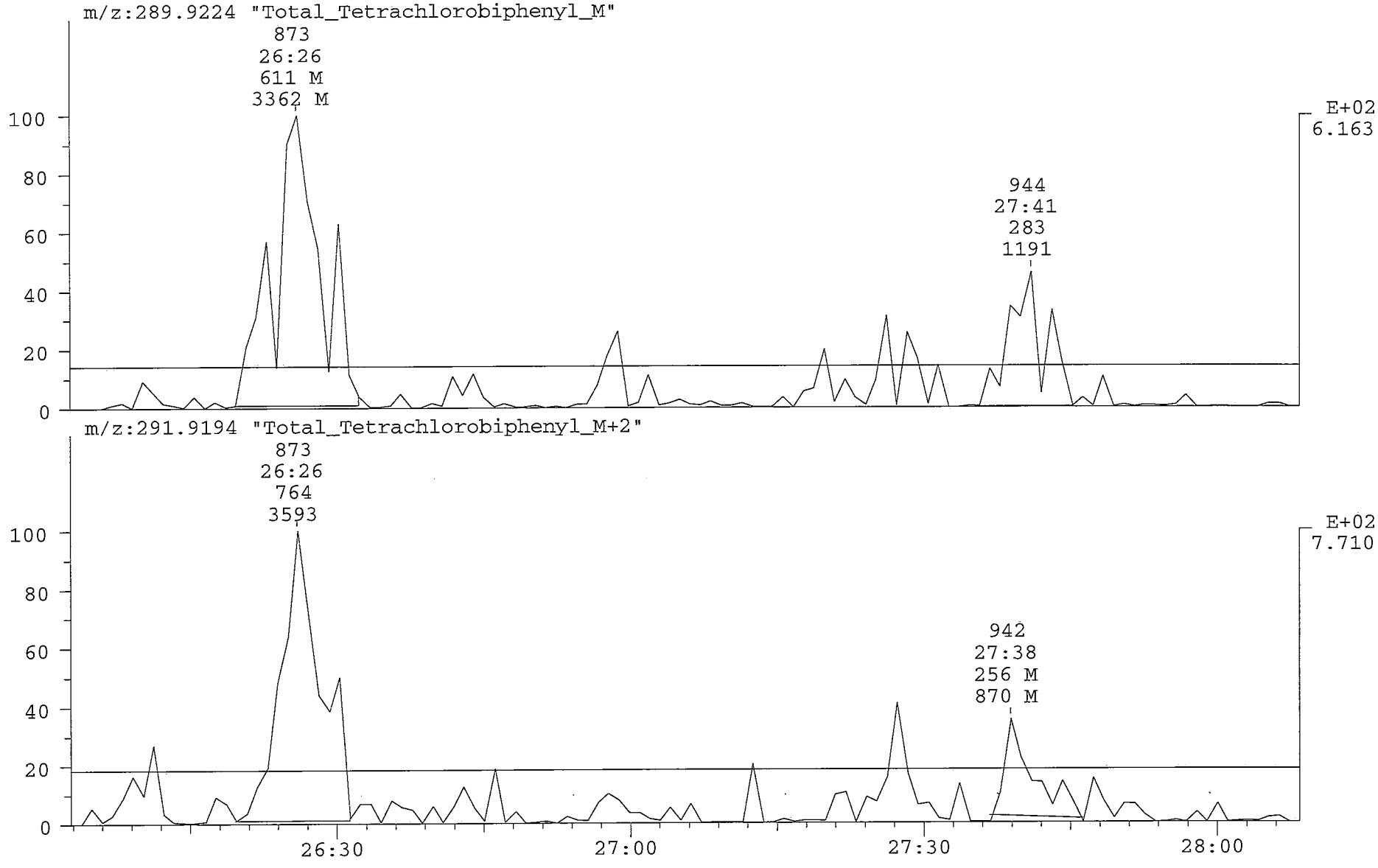
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 696 > 836 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1150

1149

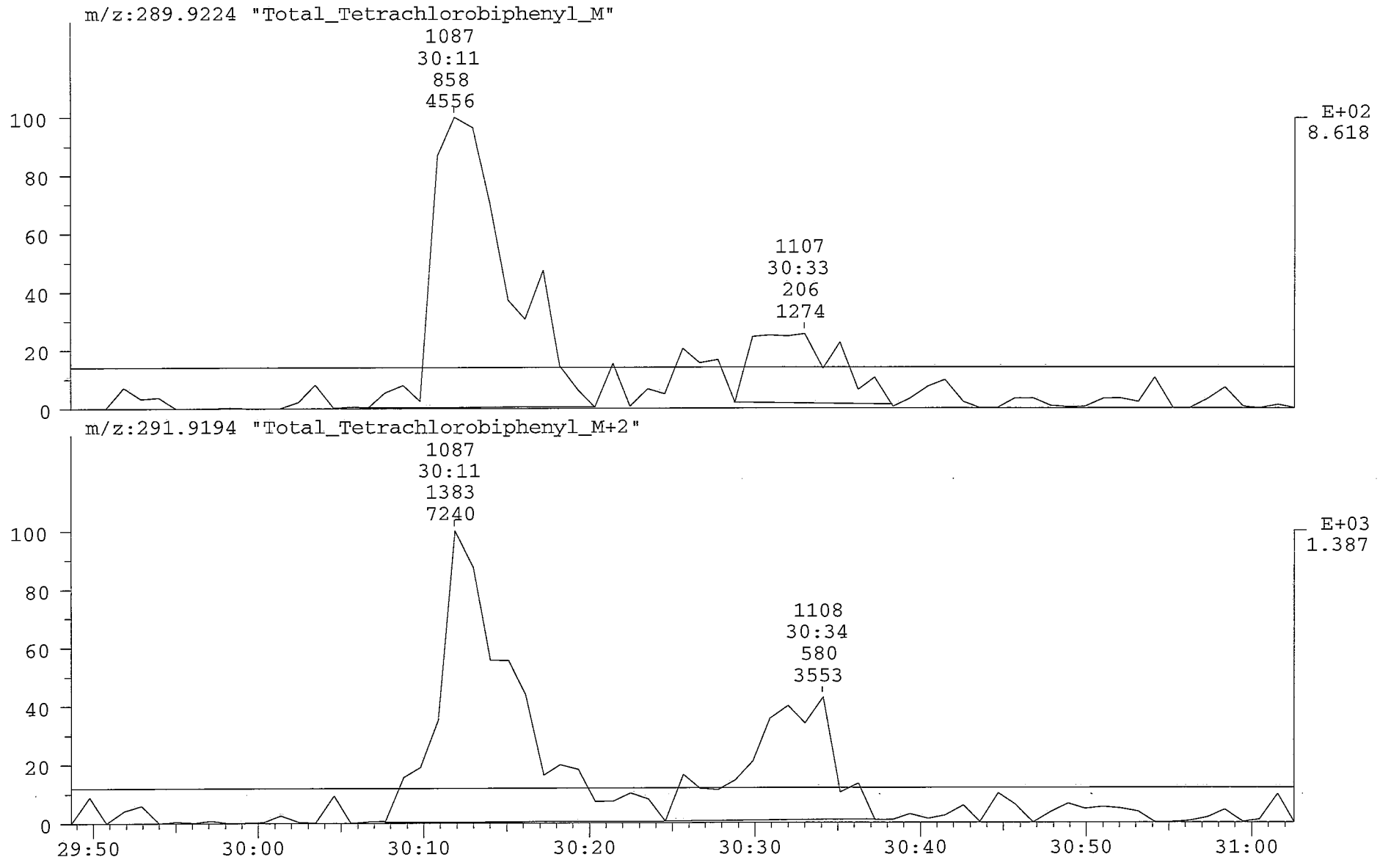
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 851 > 970 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1151

1150

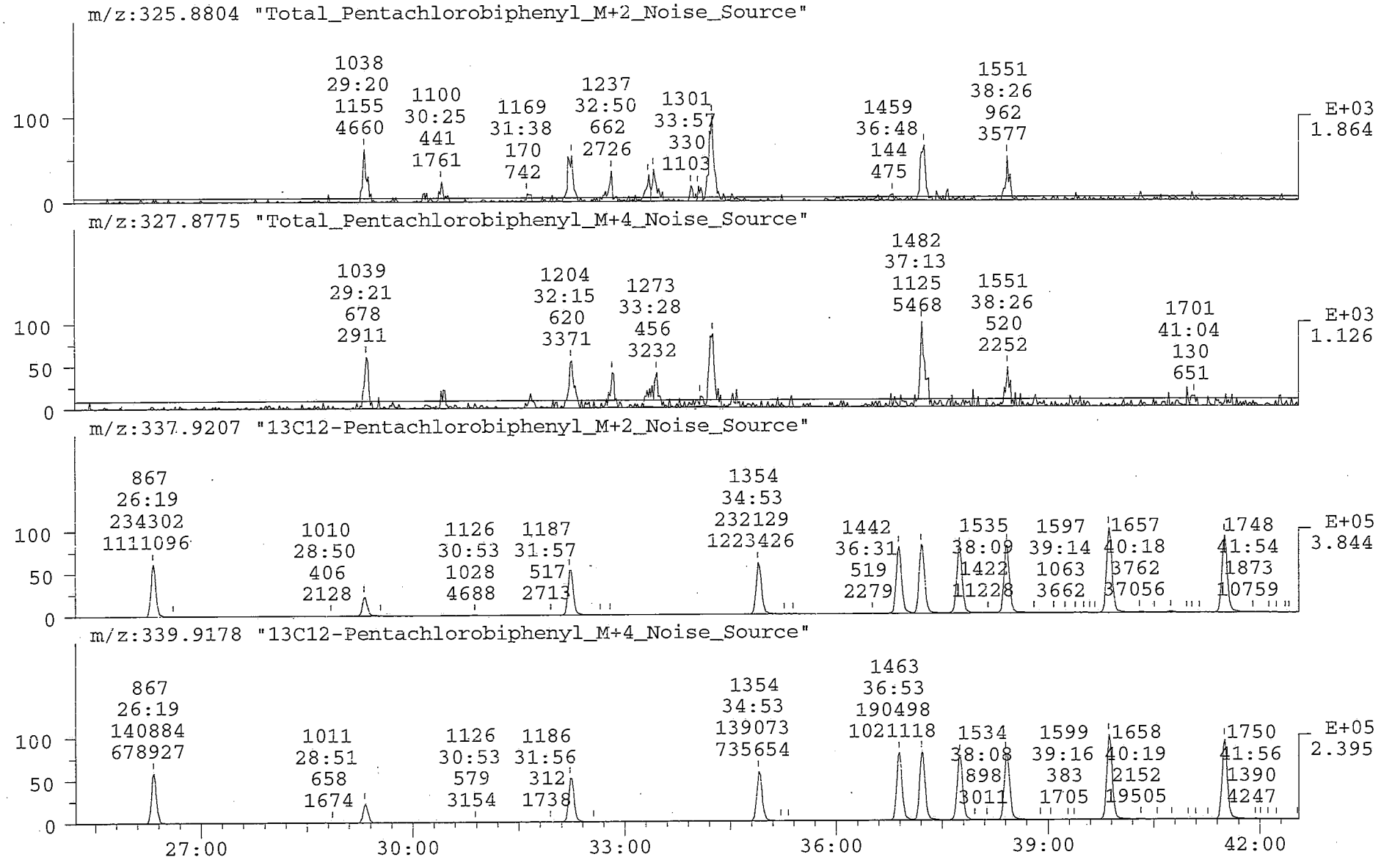
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1065 > 1135 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1152

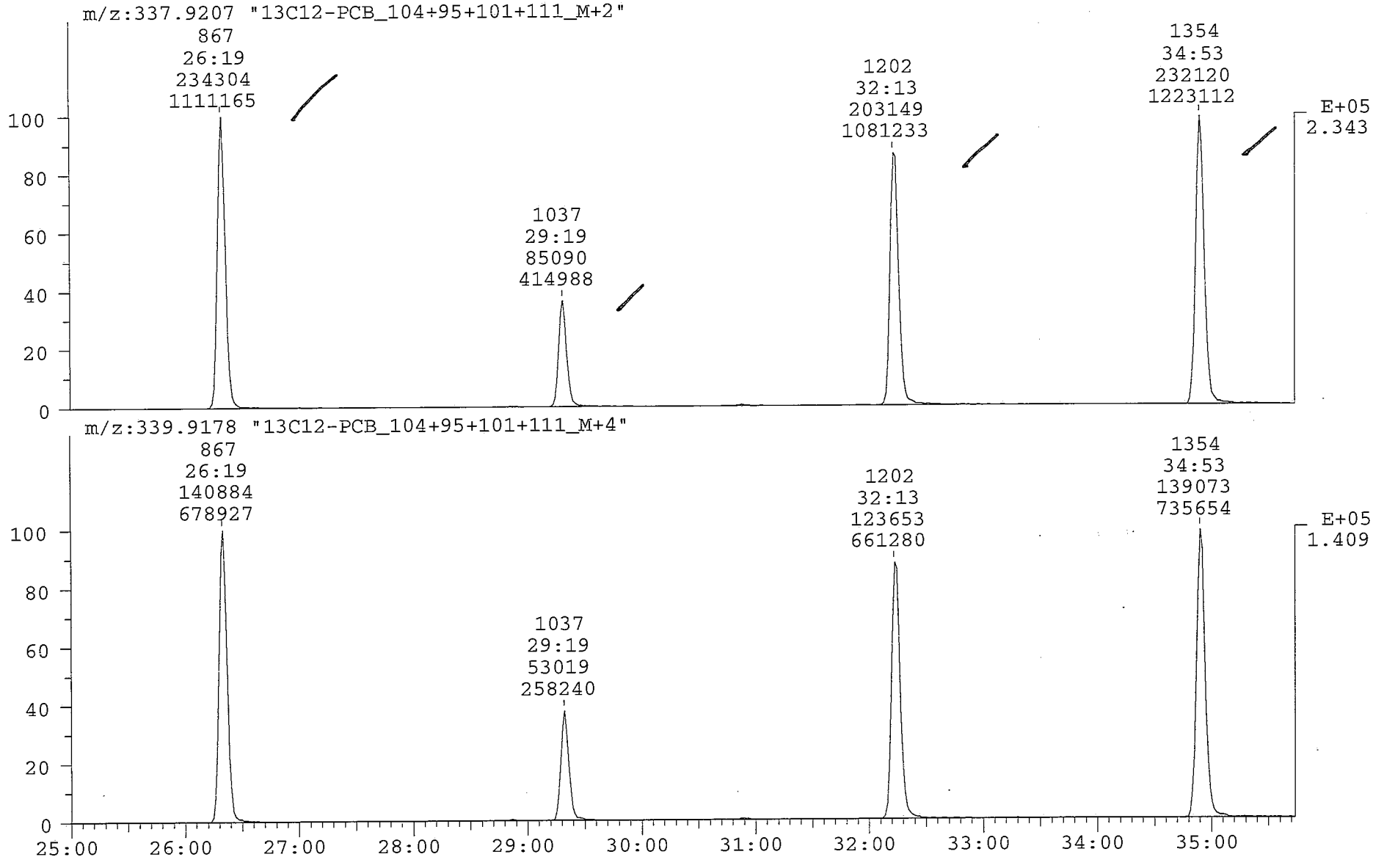
1151

CHRO: apmkm6m 14-Jul-11 Elapse: 33:52 1296
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 804 > 1785 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1153

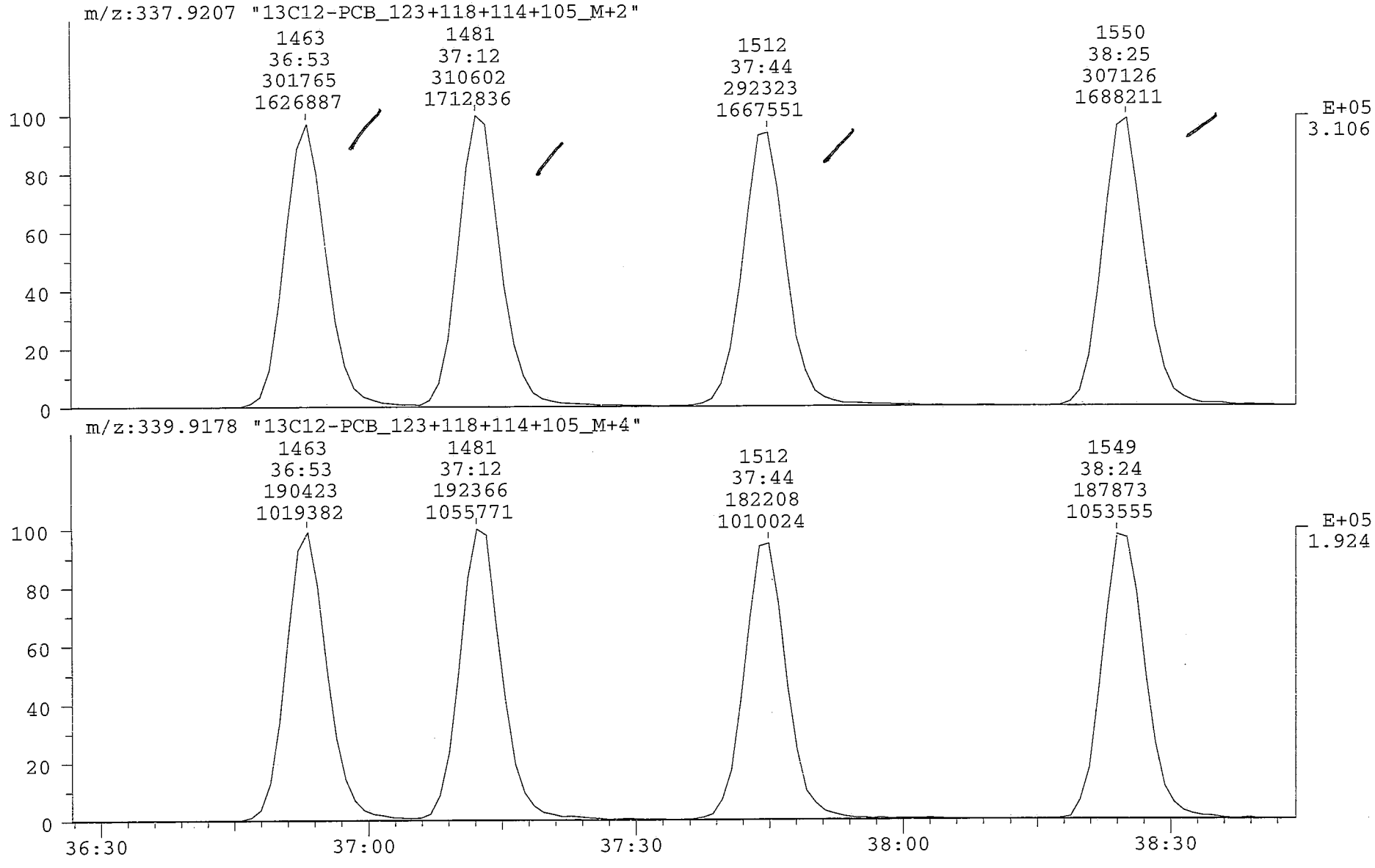
CHRO: apmkm6m 14-Jul-11 Elapse: 30:22 1097
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 792 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1154

1153

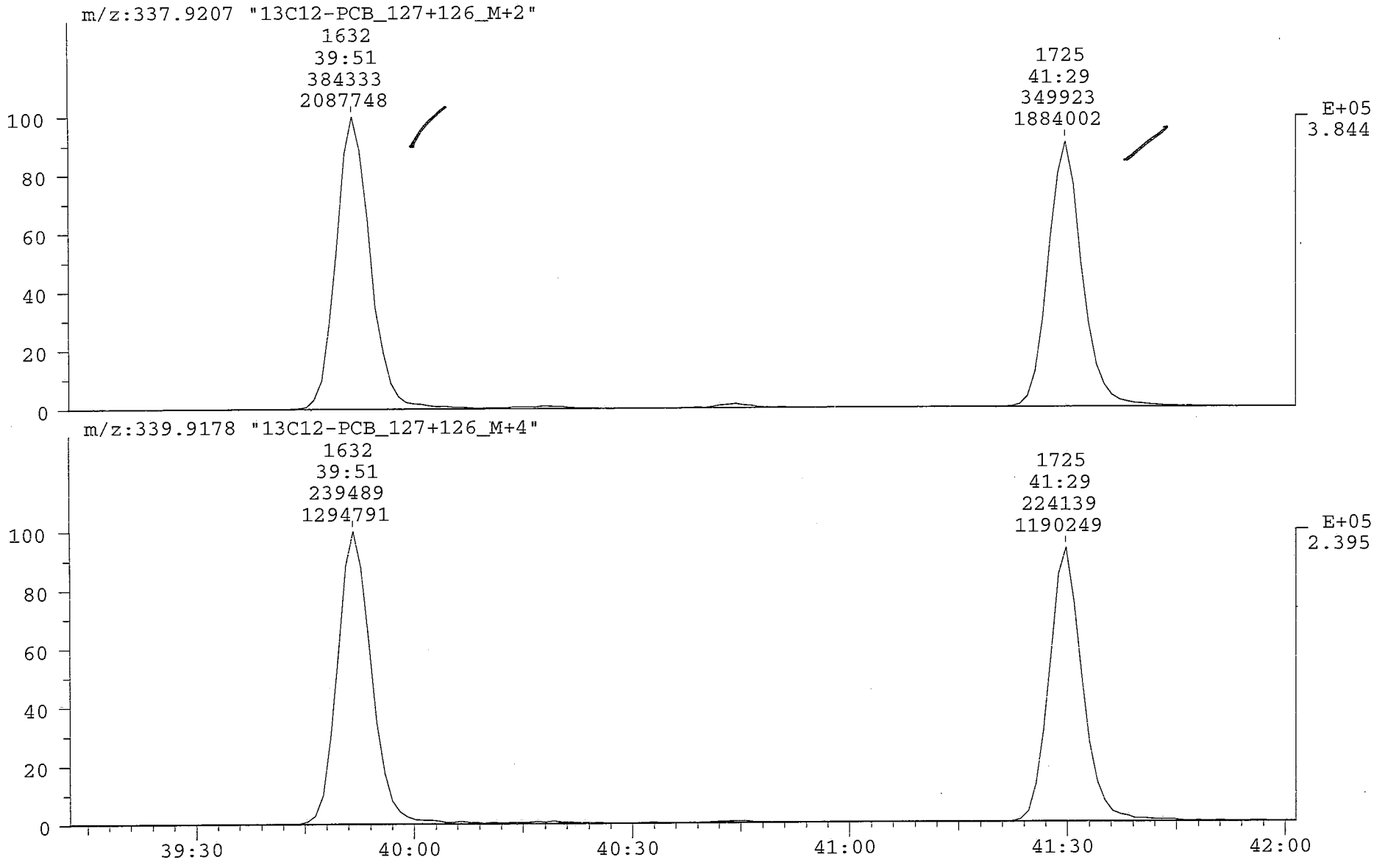
CHRO: apmkm6m 14-Jul-11 Elapse: 37:35 1503
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1438 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1155

1154

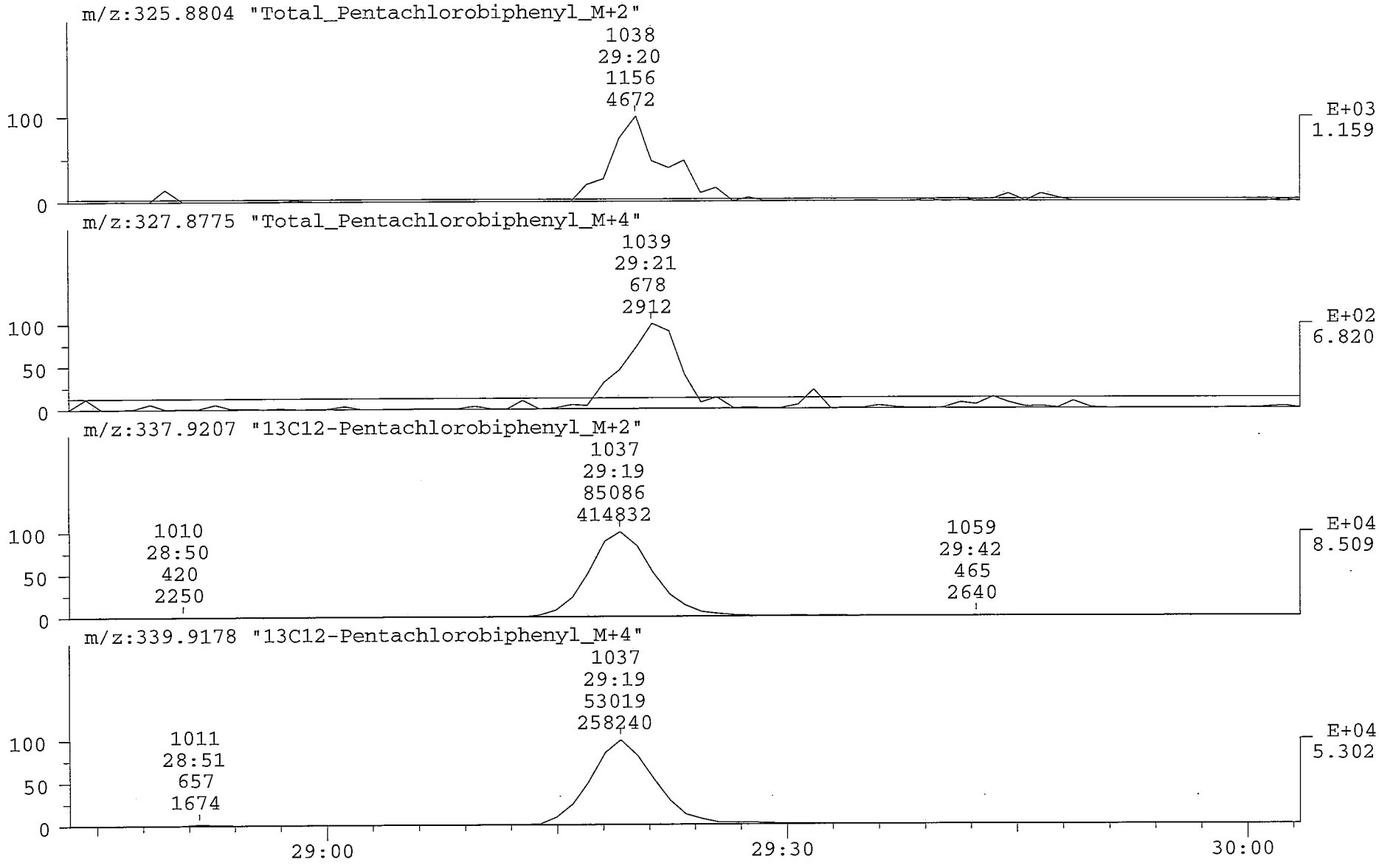
CHRO: apmkm6m 14-Jul-11 Elapse: 40:37 1675
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1595 > 1755 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1156

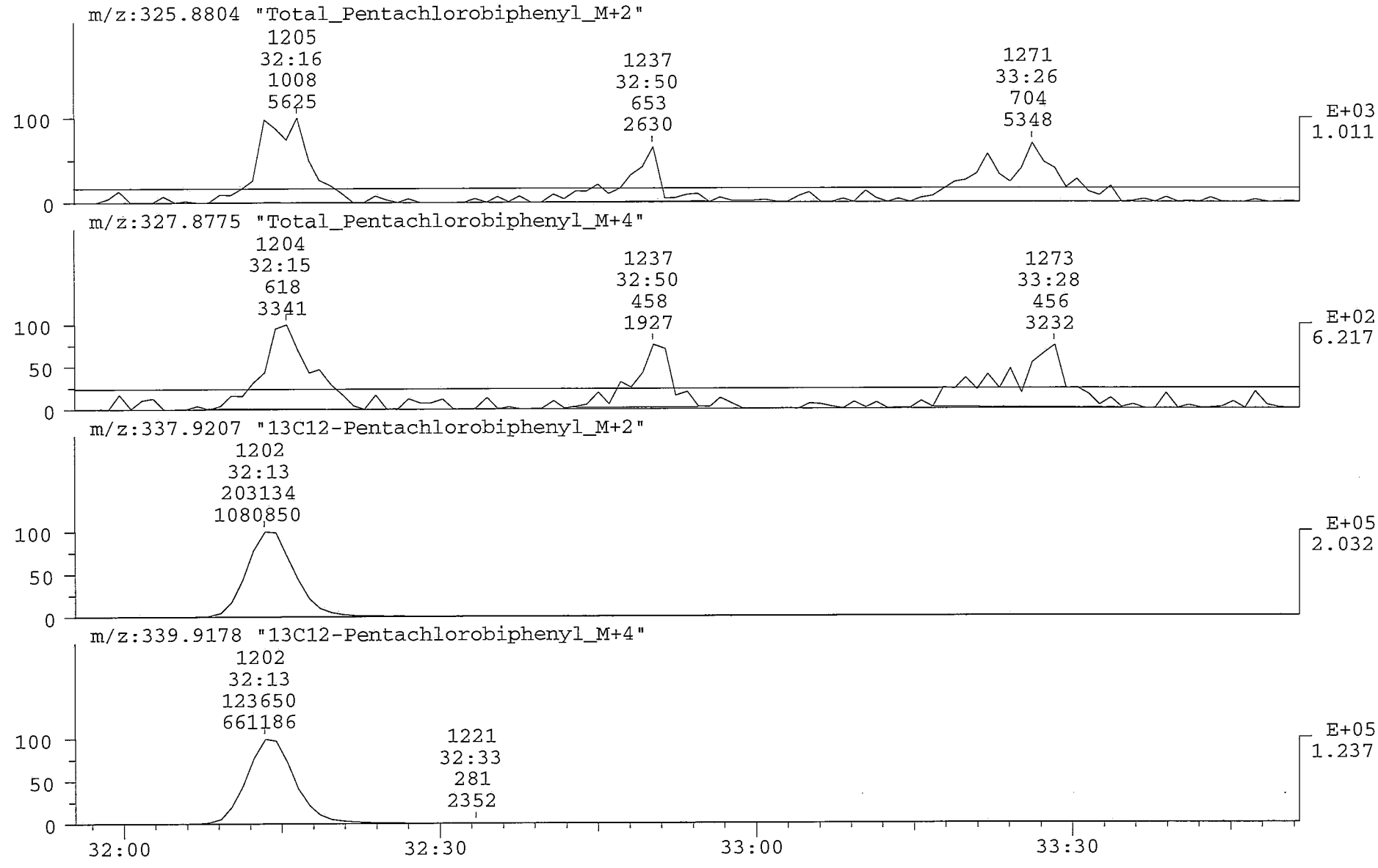
1155

CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1003 > 1079 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1157

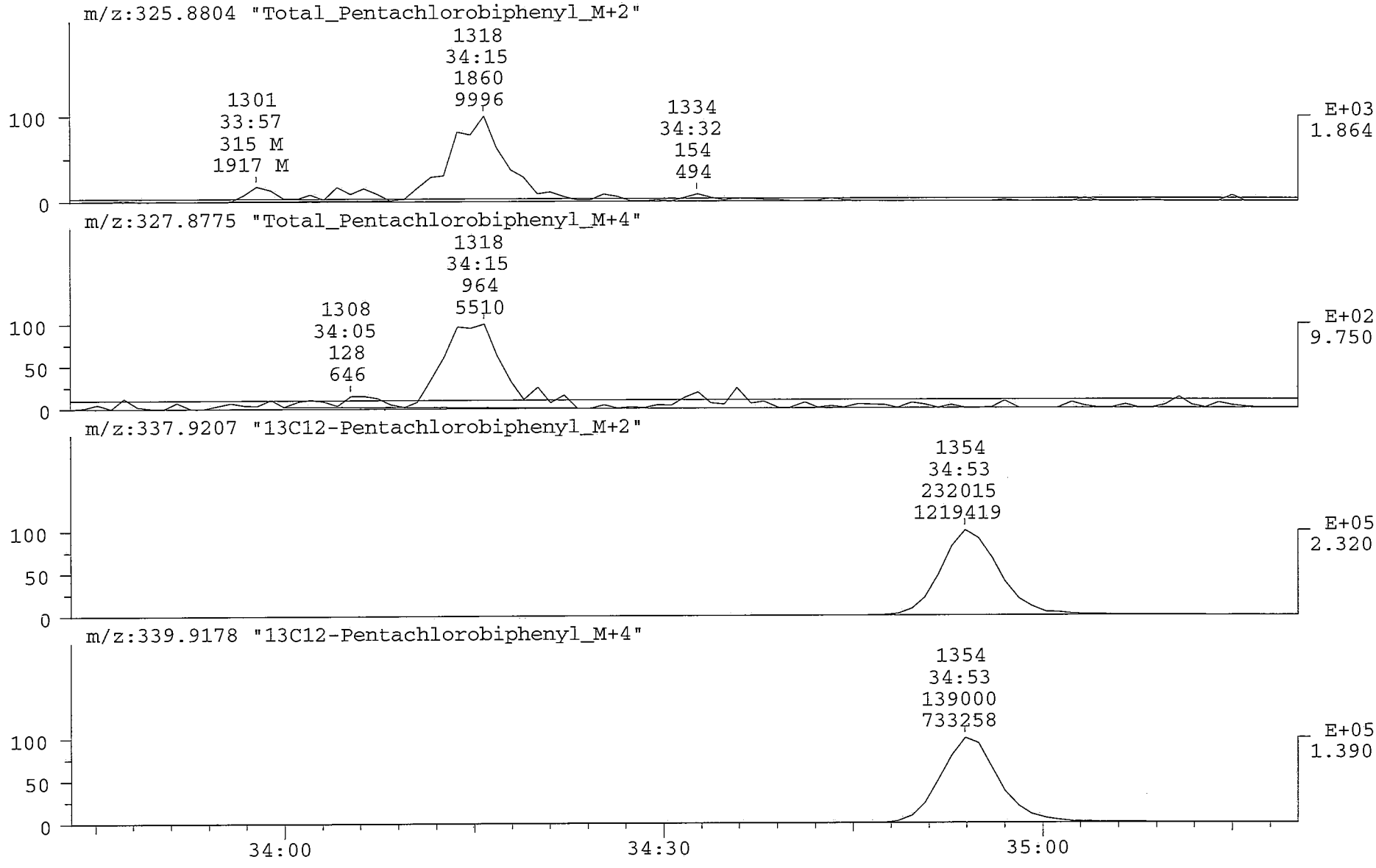
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1185 > 1295 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1158

1157

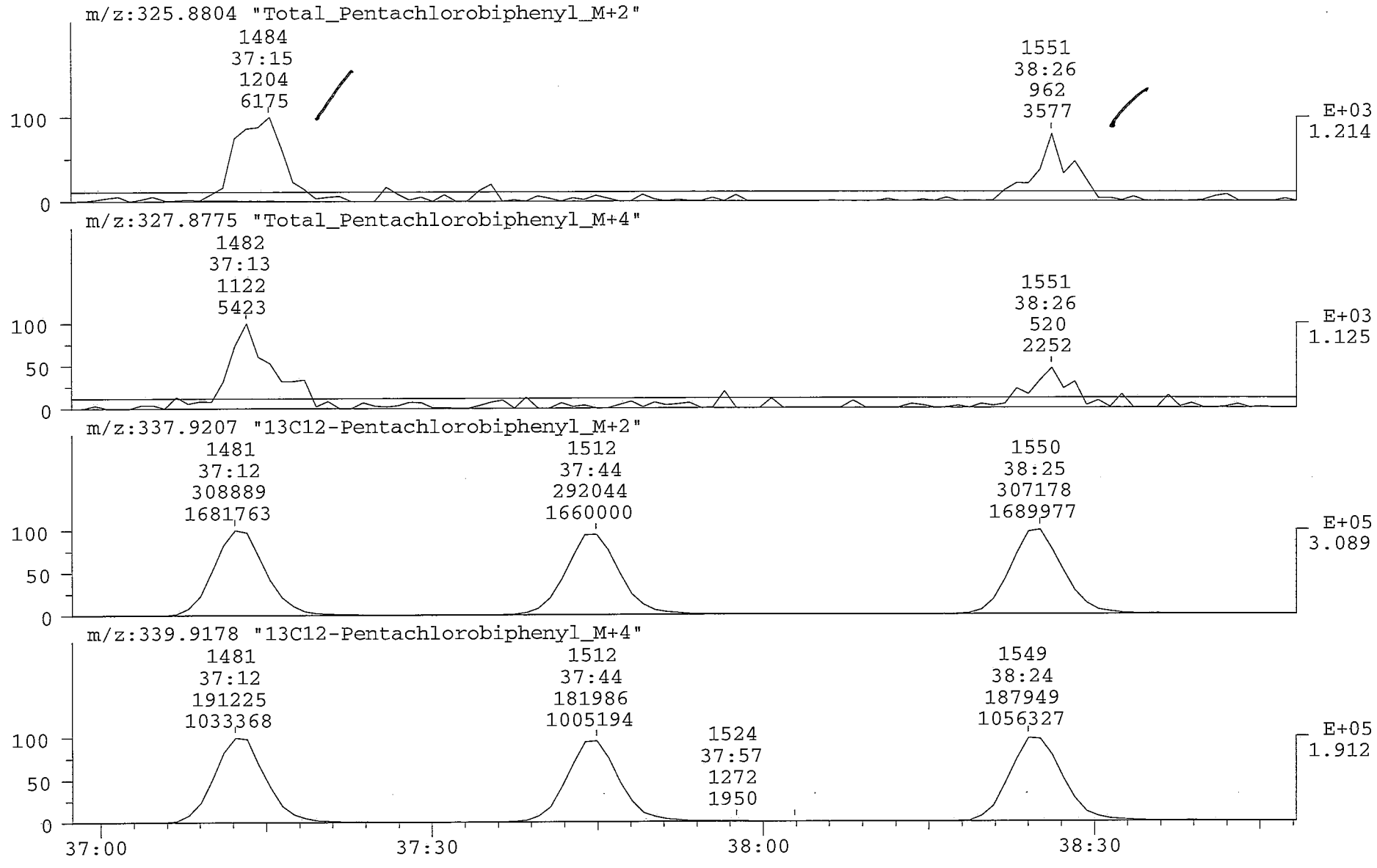
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1287 > 1379 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 2.0
Disp: Height Area



H-1159

1158

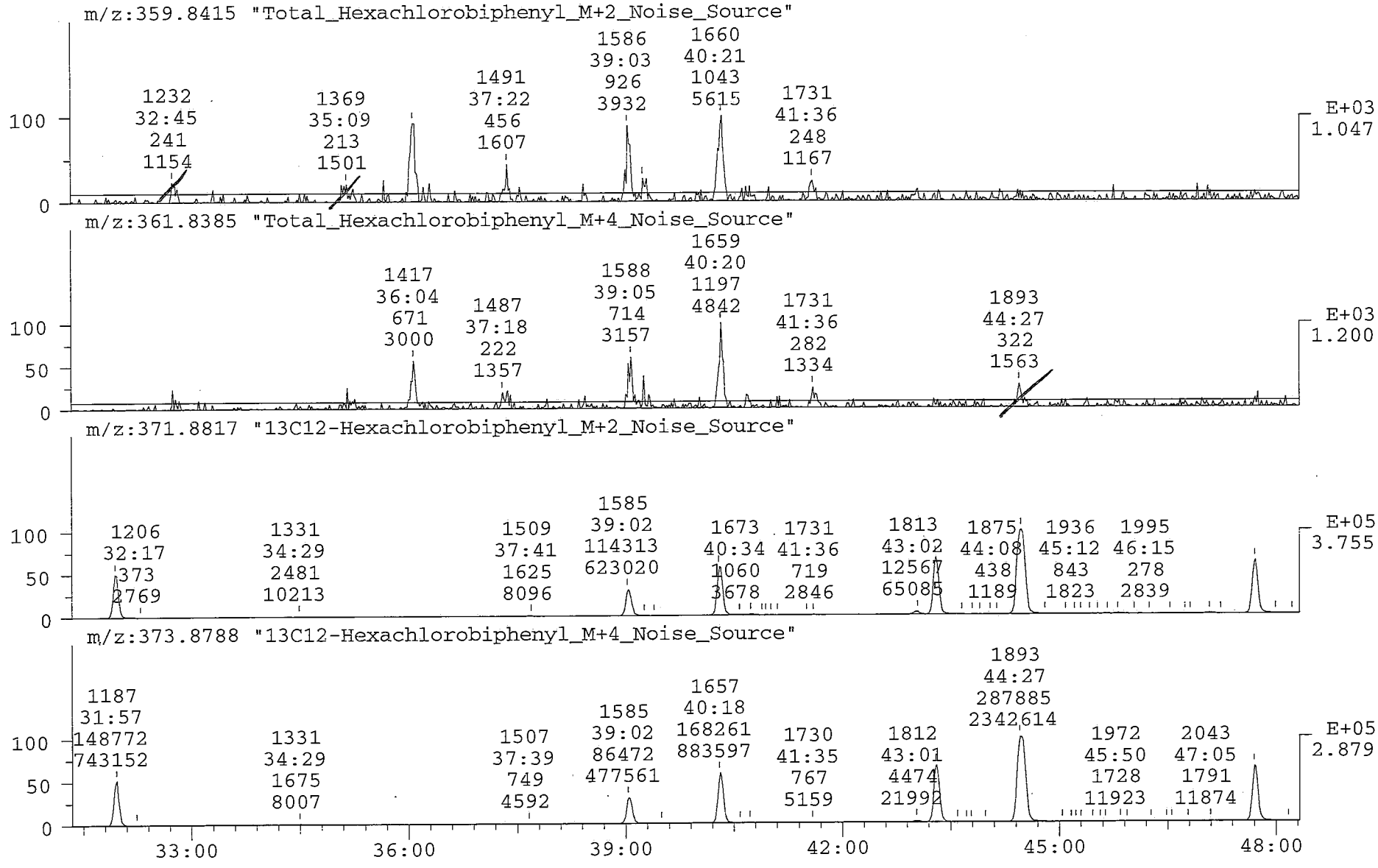
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1467 > 1572 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1160

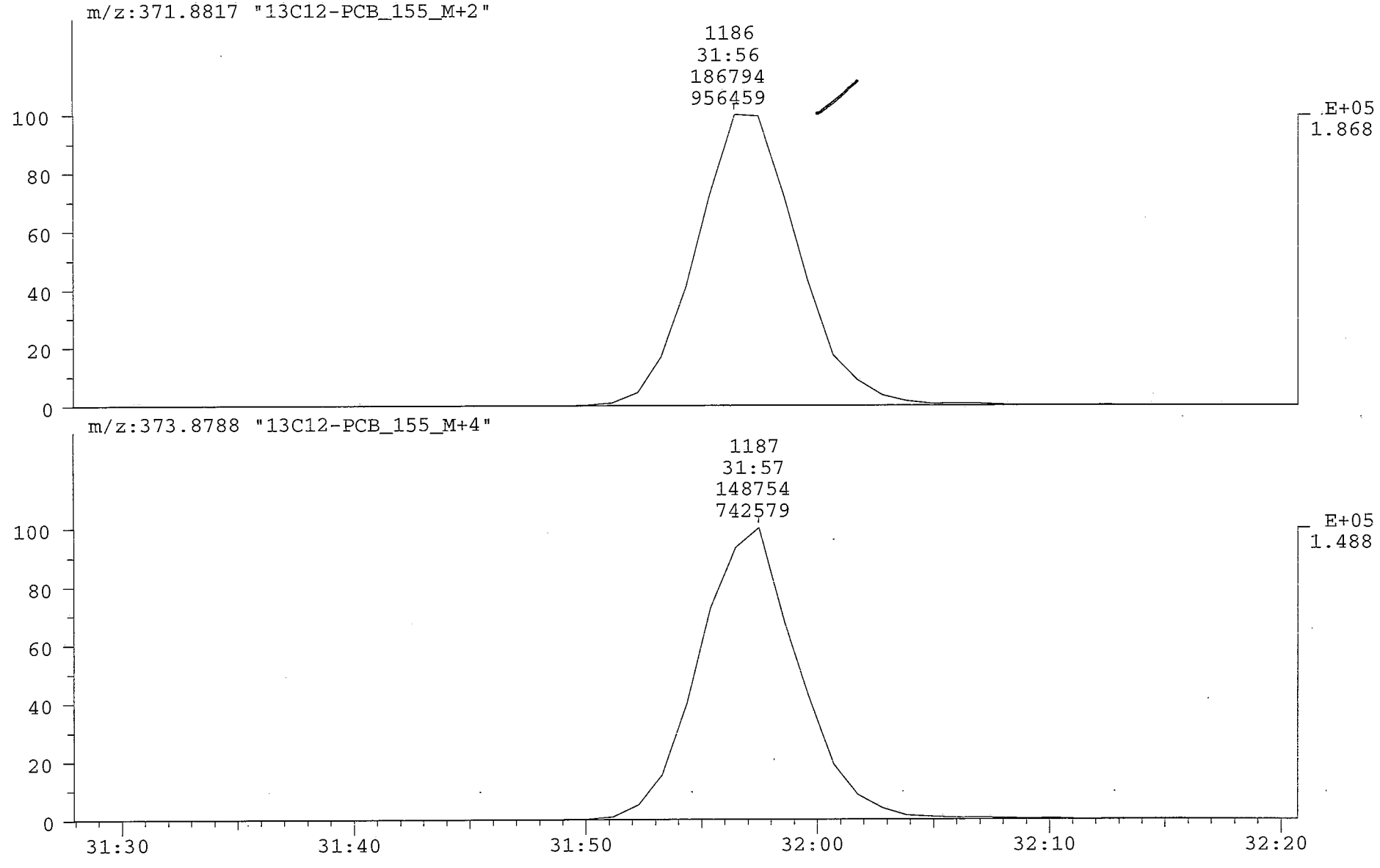
1159

CHRO: apmkm6m 14-Jul-11 Elapse: 39:49 1630
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1152 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1161

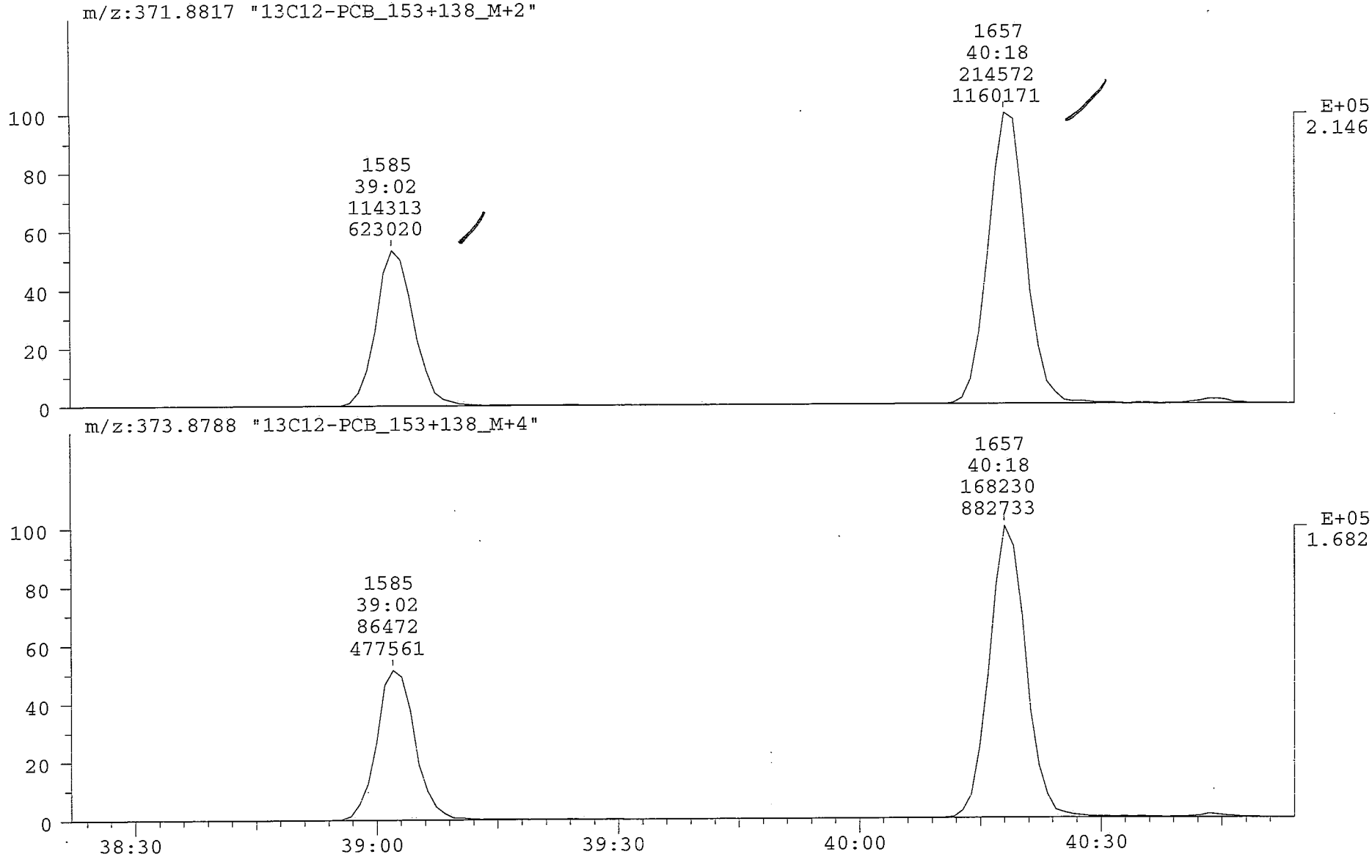
CHRO: apmkm6m 14-Jul-11 Elapse: 31:54 1184
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1159 > 1209 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1162

1161

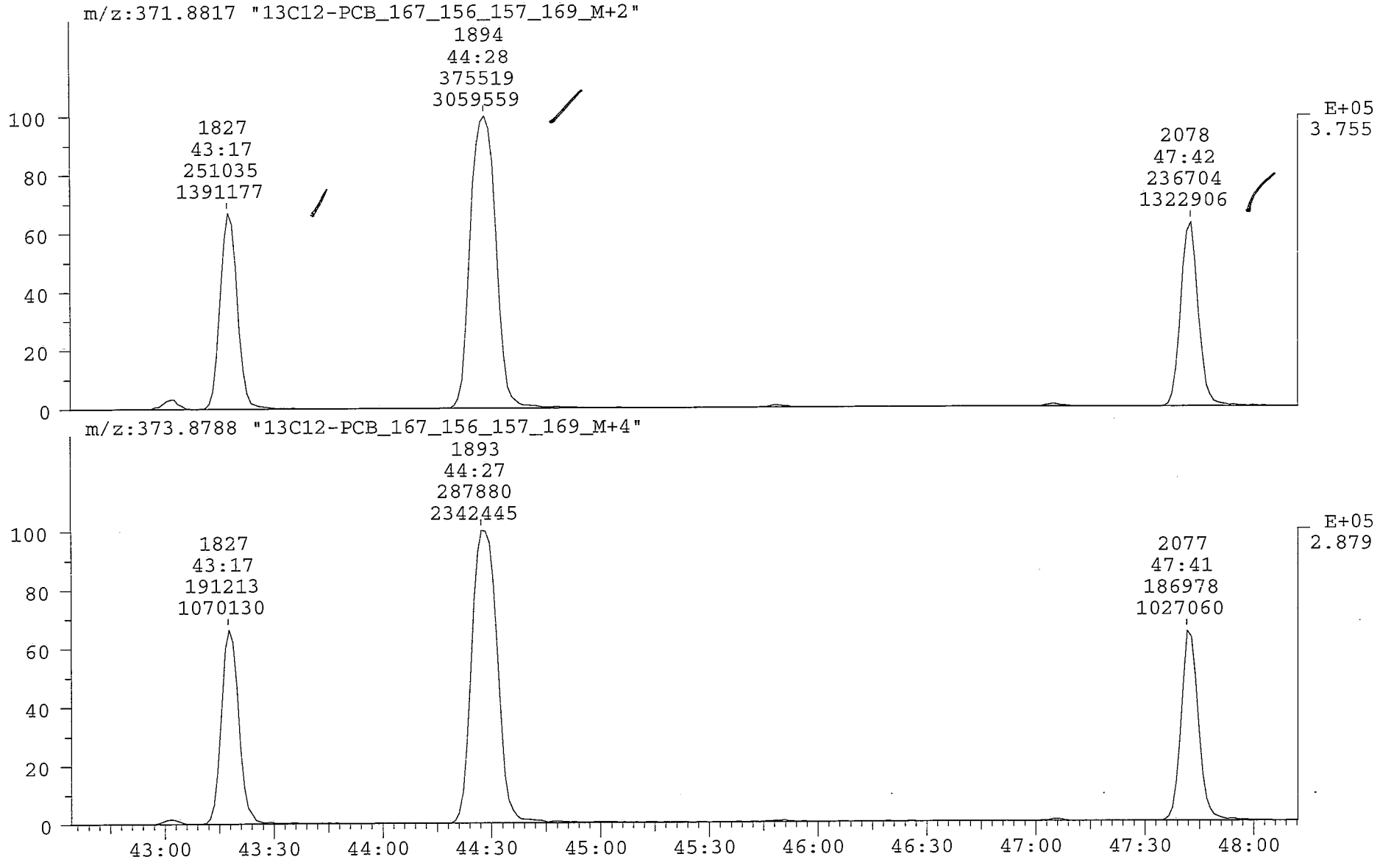
CHRO: apmkm6m 14-Jul-11 Elapse: 39:37 1619
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1547 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1163

1162

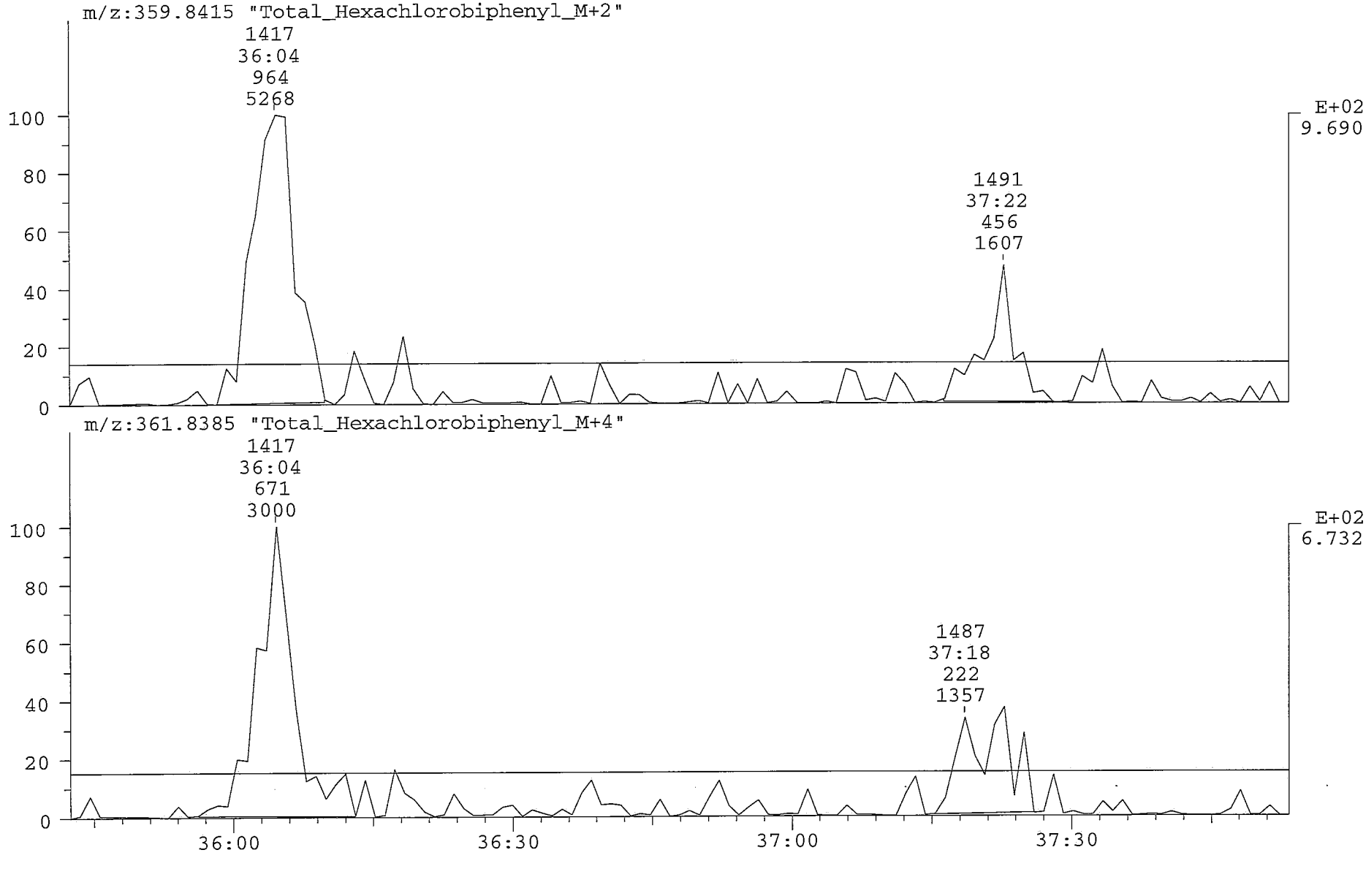
CHRO: apmkm6m 14-Jul-11 Elapse: 45:28 1951
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1786 > 2106 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 8 Label : -3, 3.0
Disp: Height Area



H-1164

1163

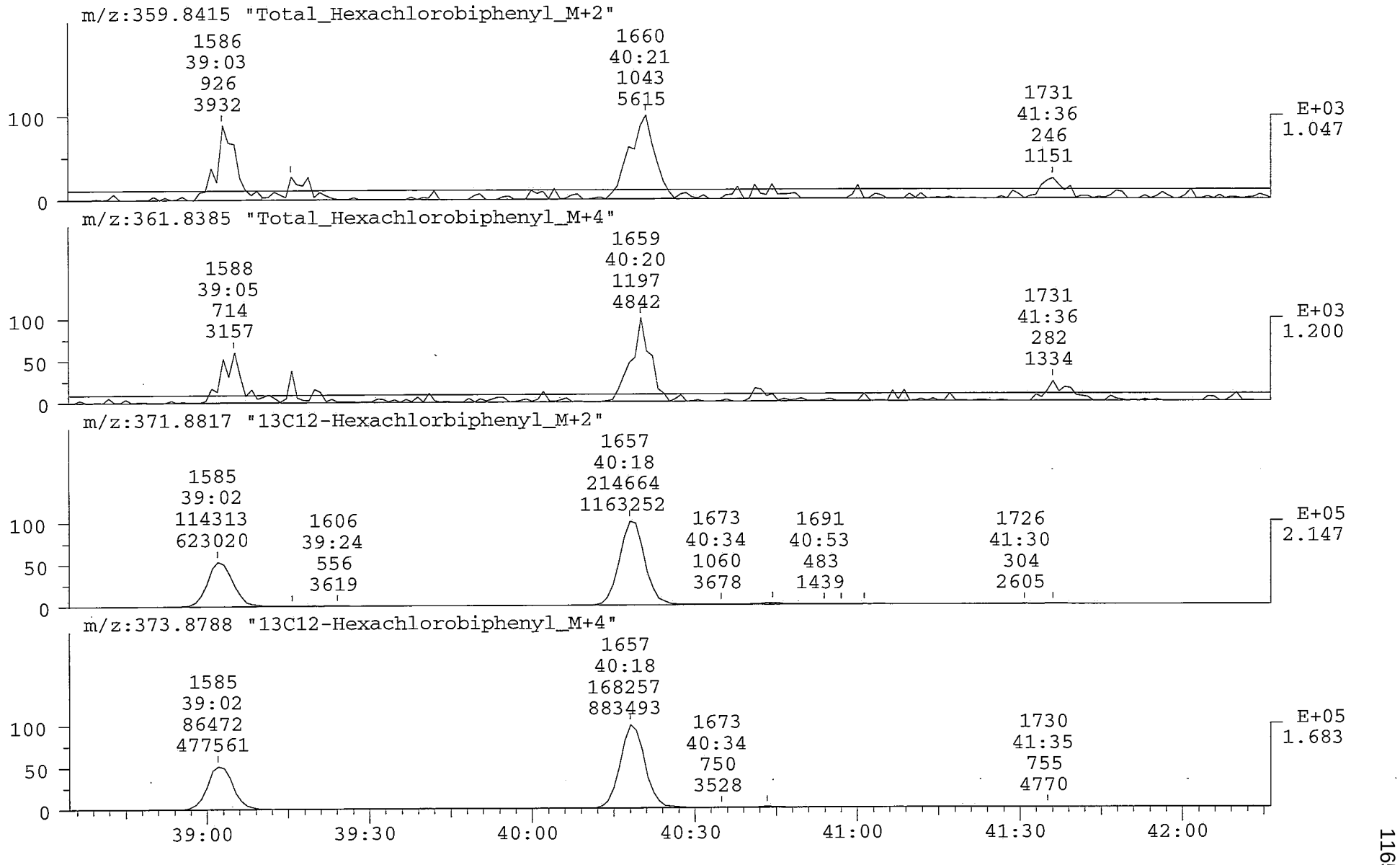
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1400 > 1520 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1165

1164

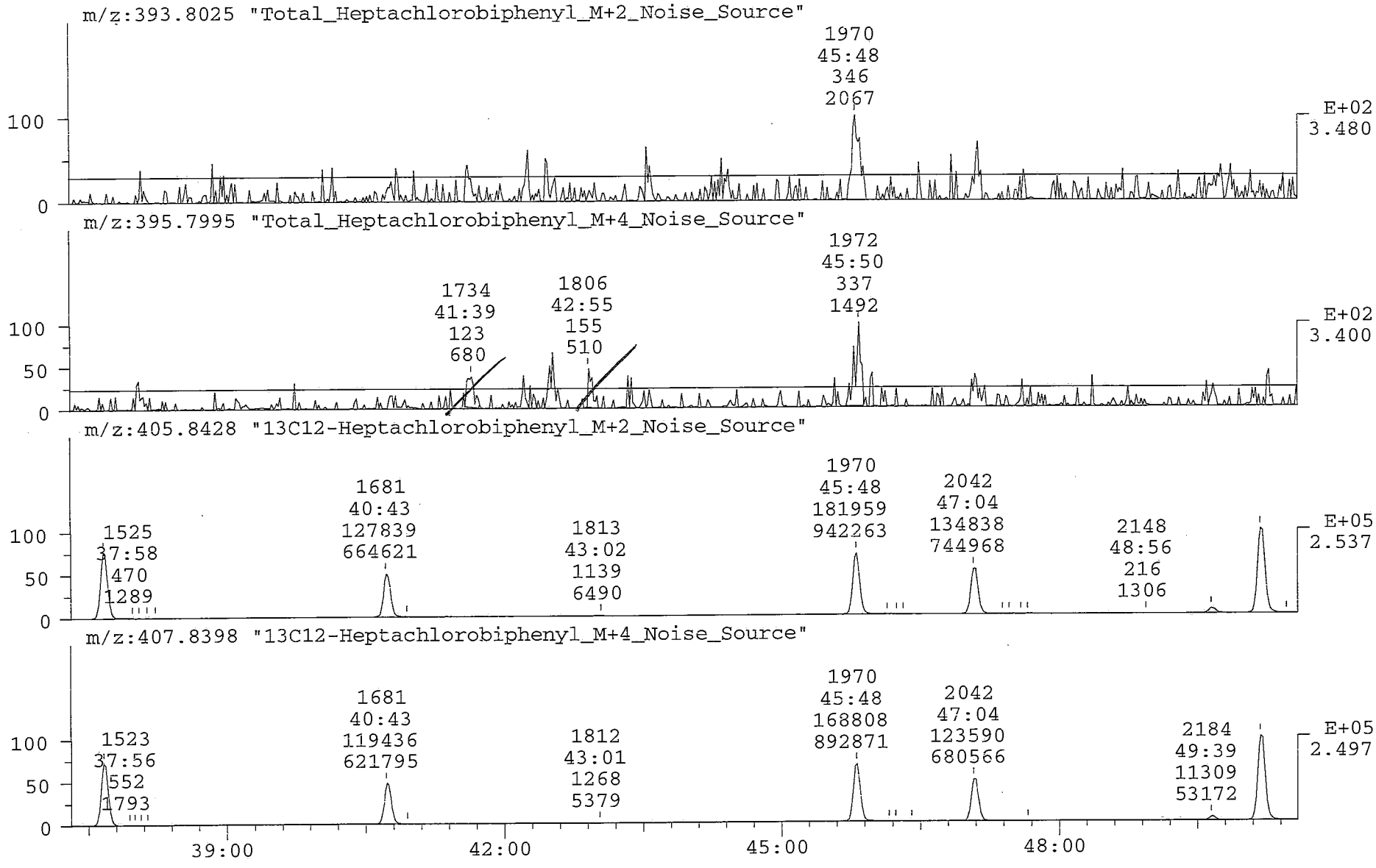
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1559 > 1769 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1166

1165

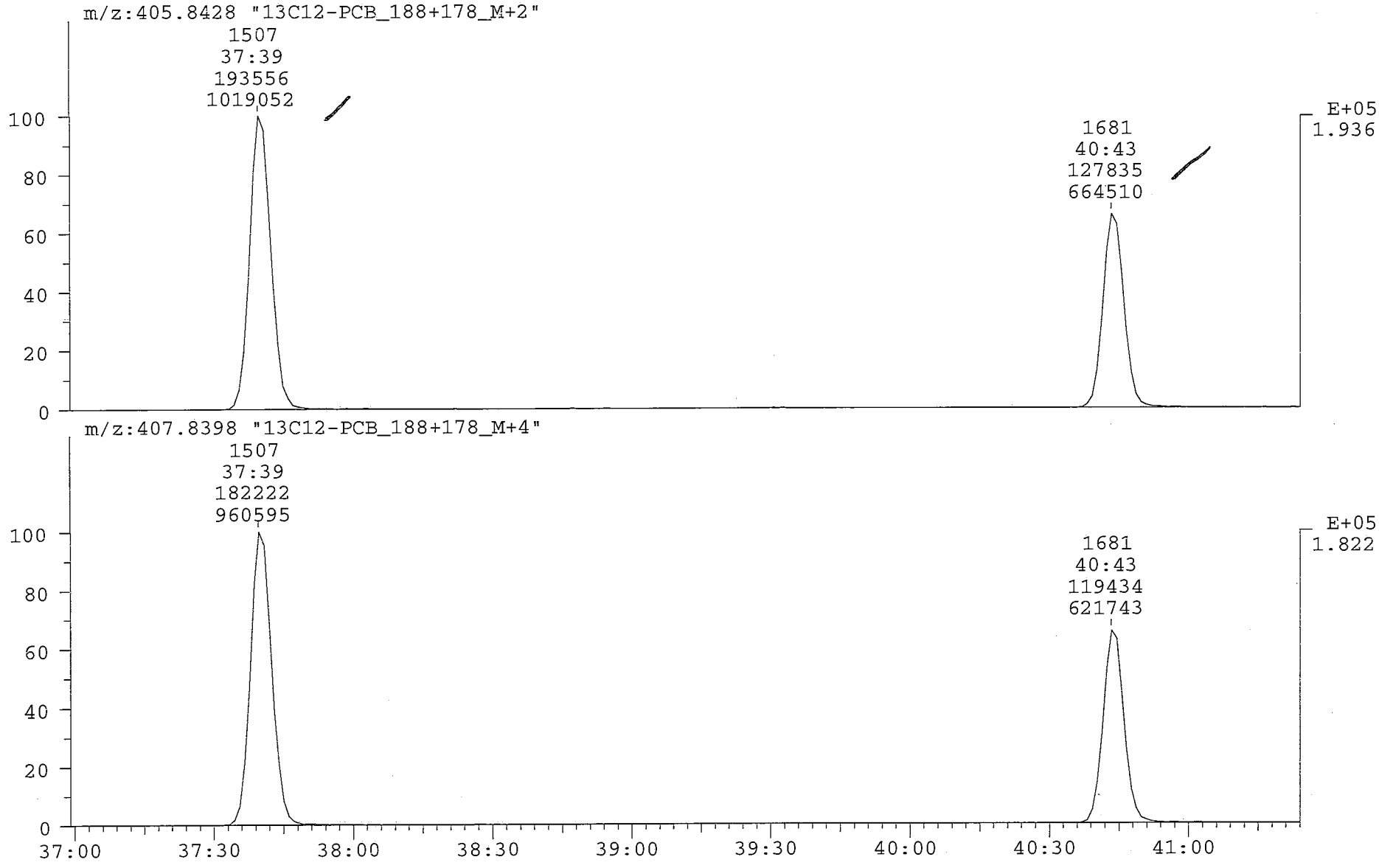
CHRO: apmkm6m 14-Jul-11 Elapse: 43:55 1863
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1487 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1167

1166

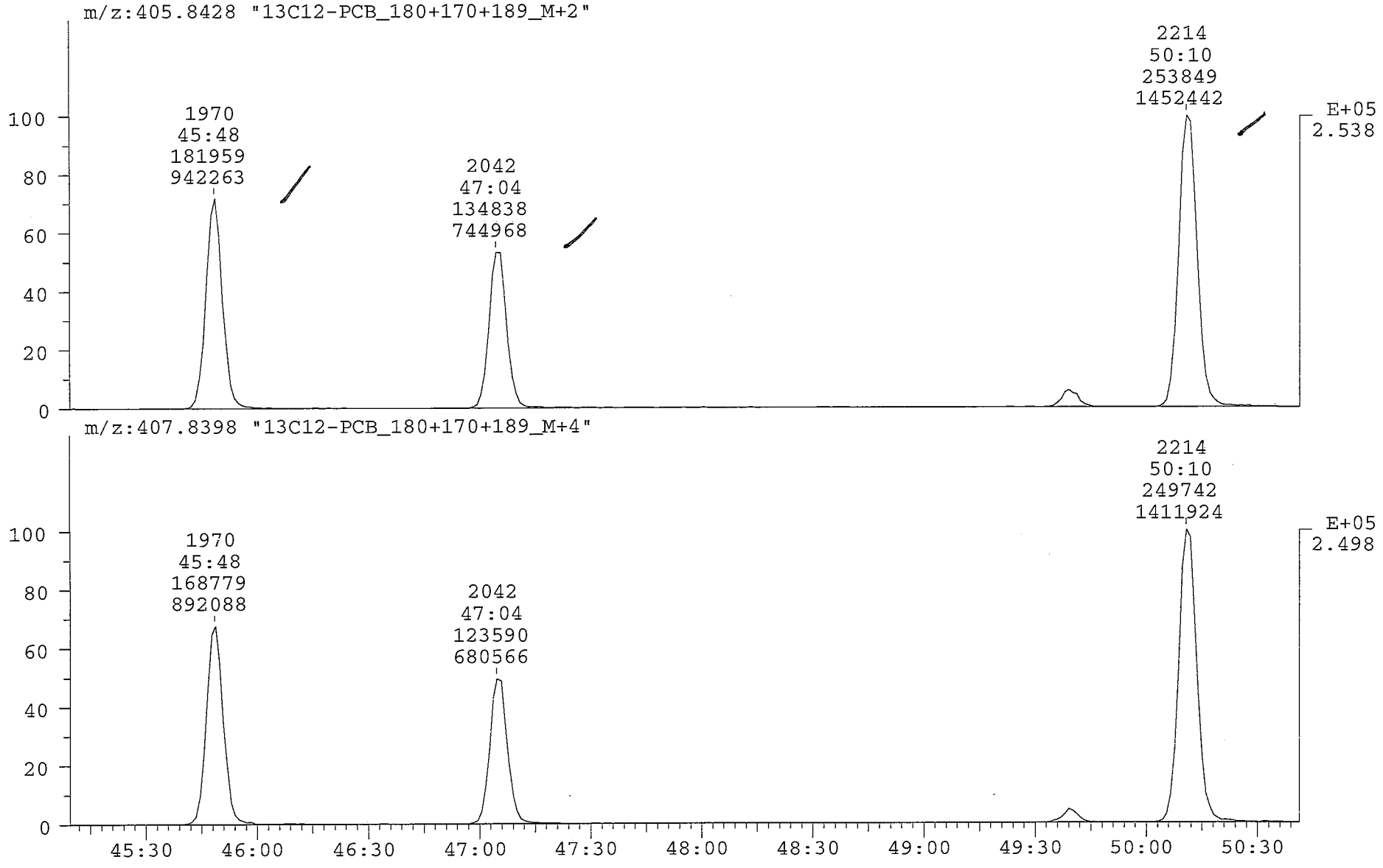
CHRO: apmkm6m 14-Jul-11 Elapse: 39:11 1594
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1469 > 1720 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1168

1167

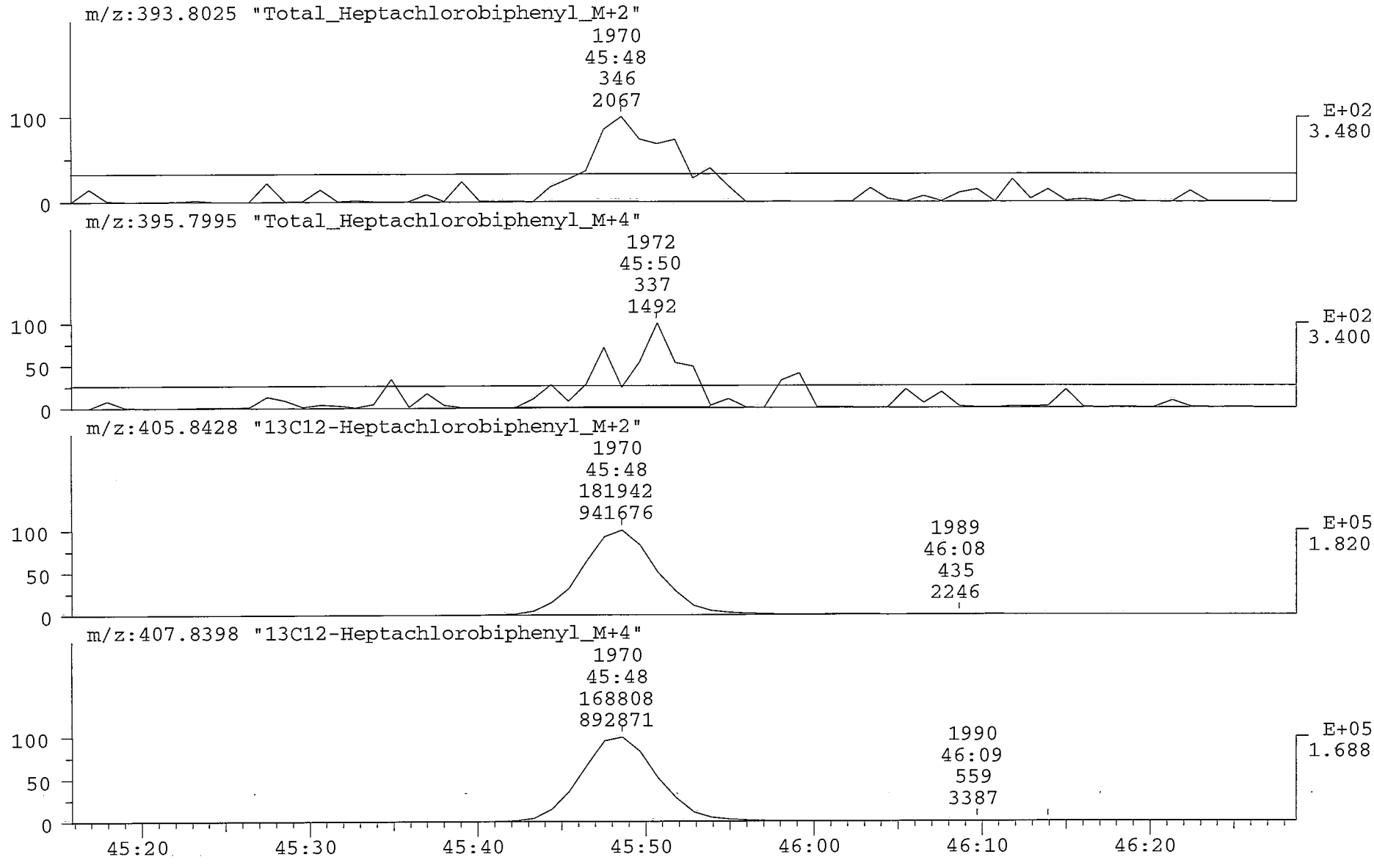
CHRO: apmkm6m 14-Jul-11 Elapse: 47:58 2093
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1933 > 2243 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1169

1168

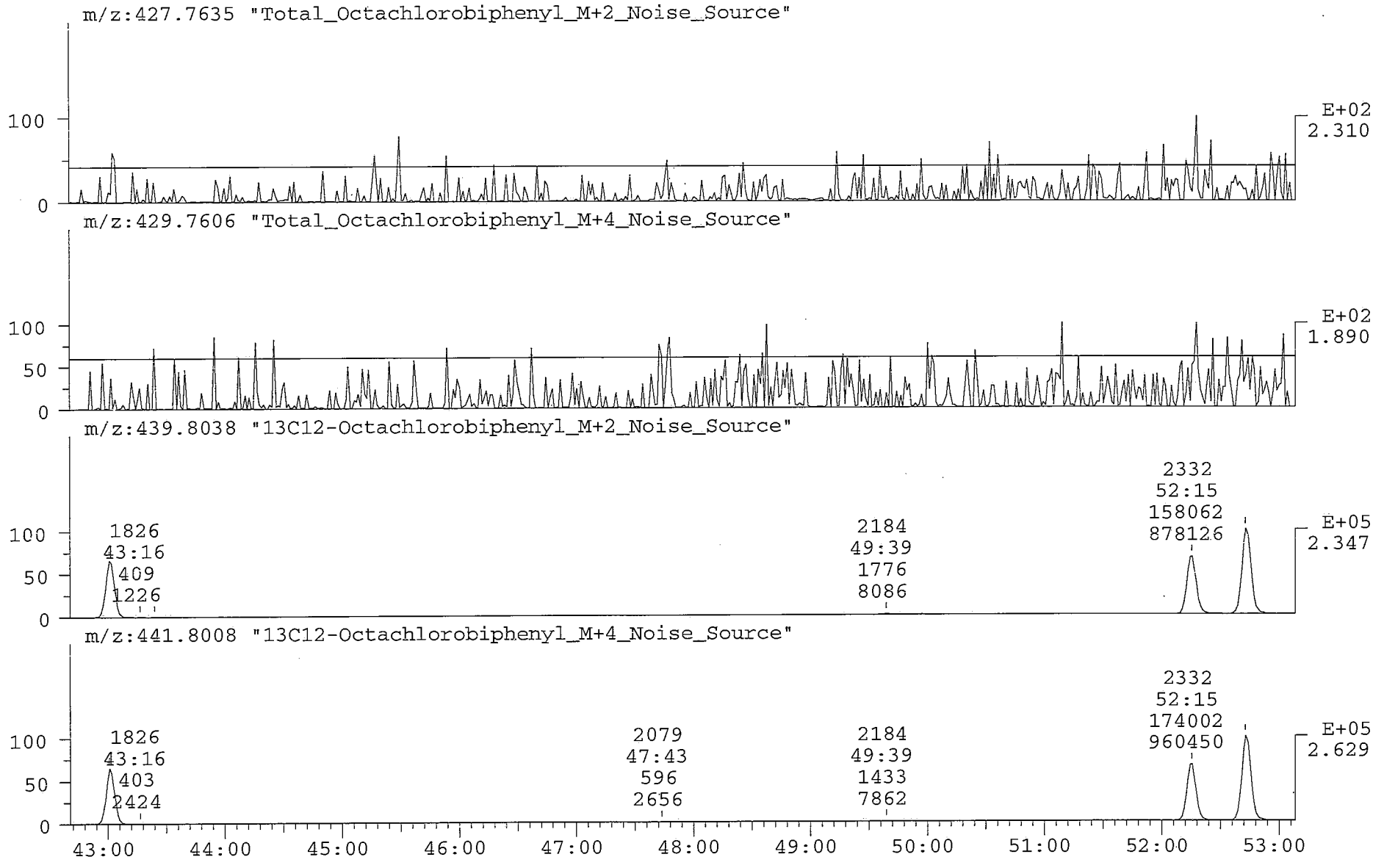
CHRO: apmkm6m 14-Jul-11 Elapse: 23:38.1 714
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1939 > 2008 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1170

1169

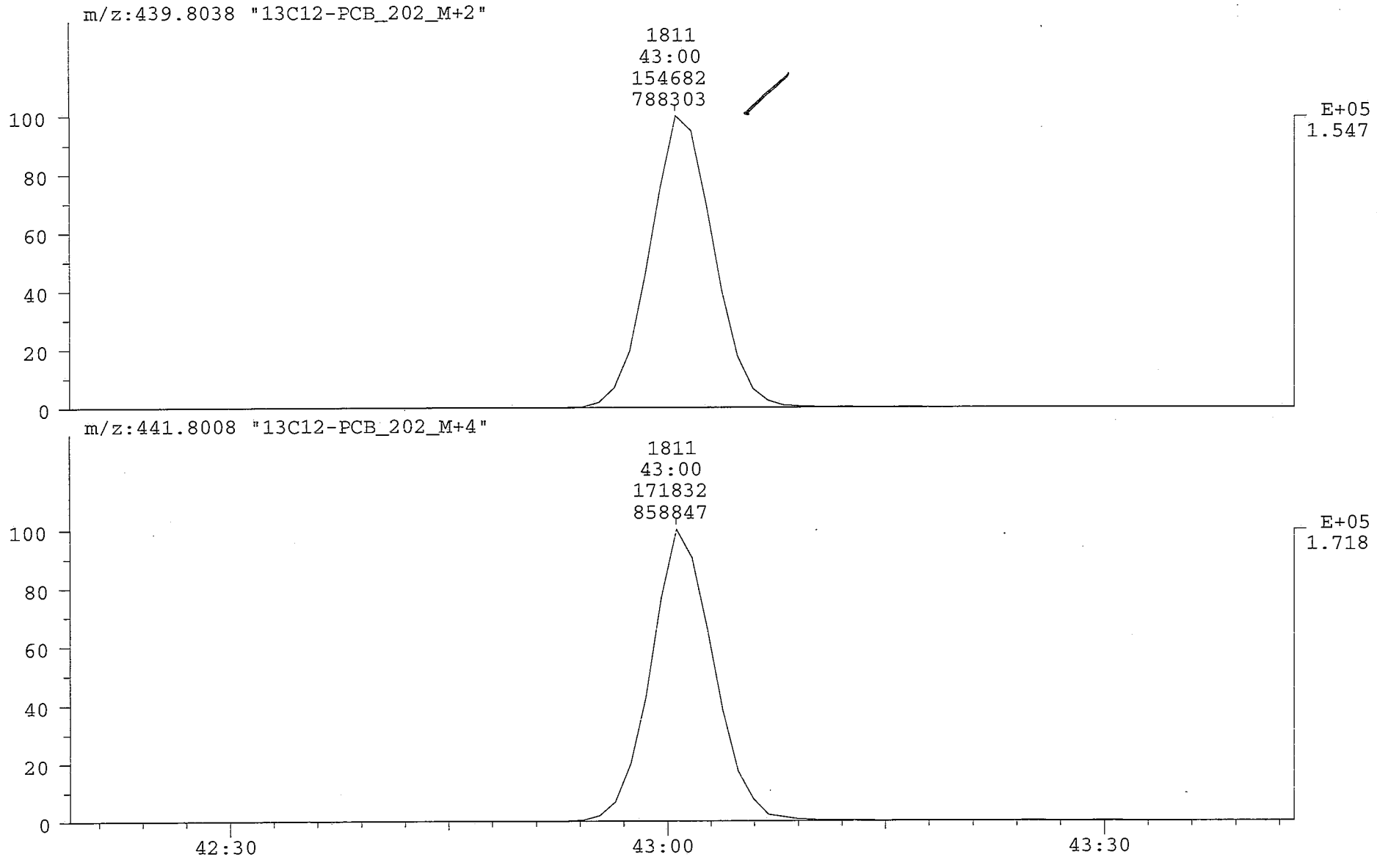
CHRO: apmkm6m 14-Jul-11 Elapse: 47:54 2089
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1792 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1171

1170

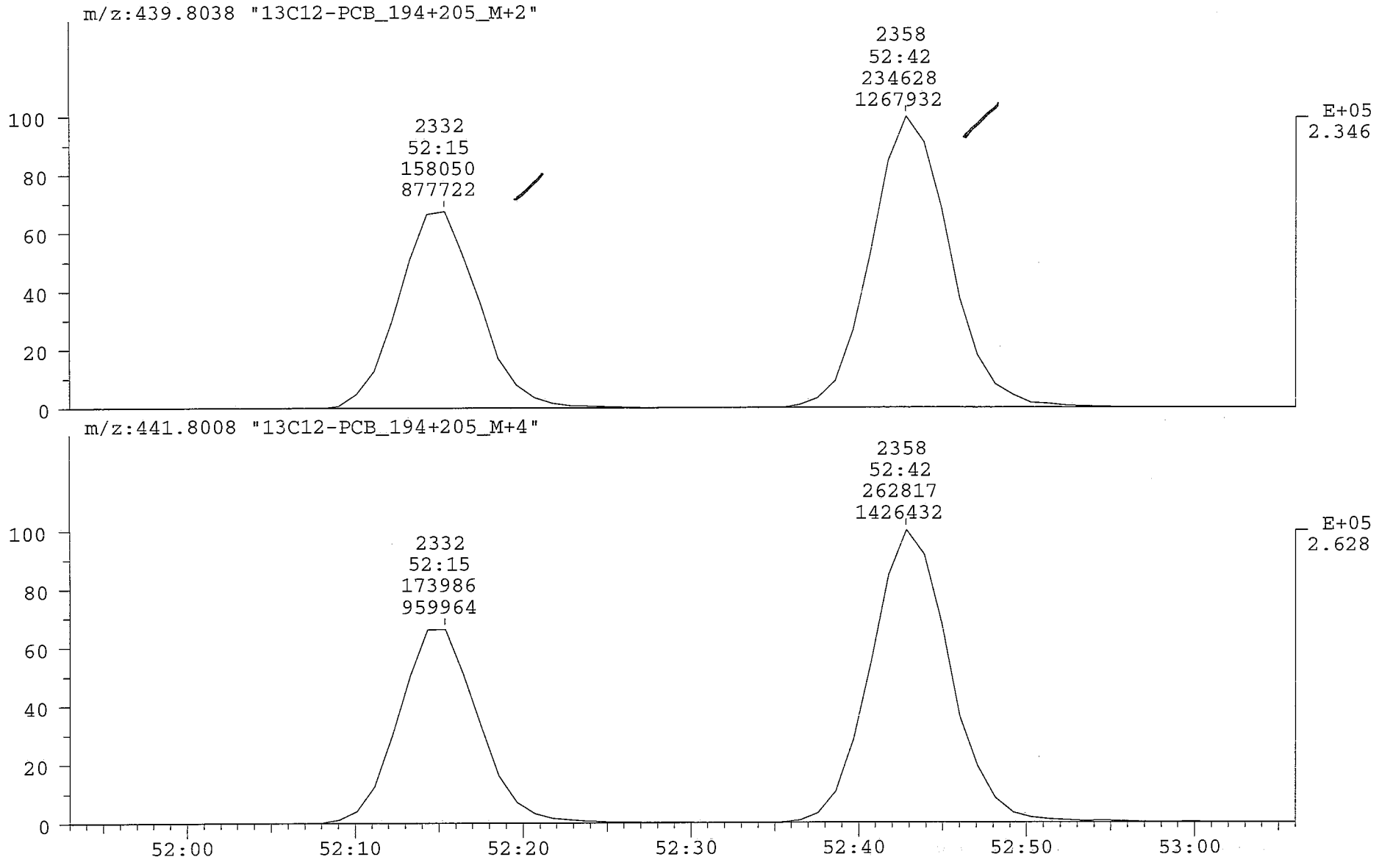
CHRO: apmkm6m 14-Jul-11 Elapse: 42:58 1809
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1772 > 1851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1172

1171

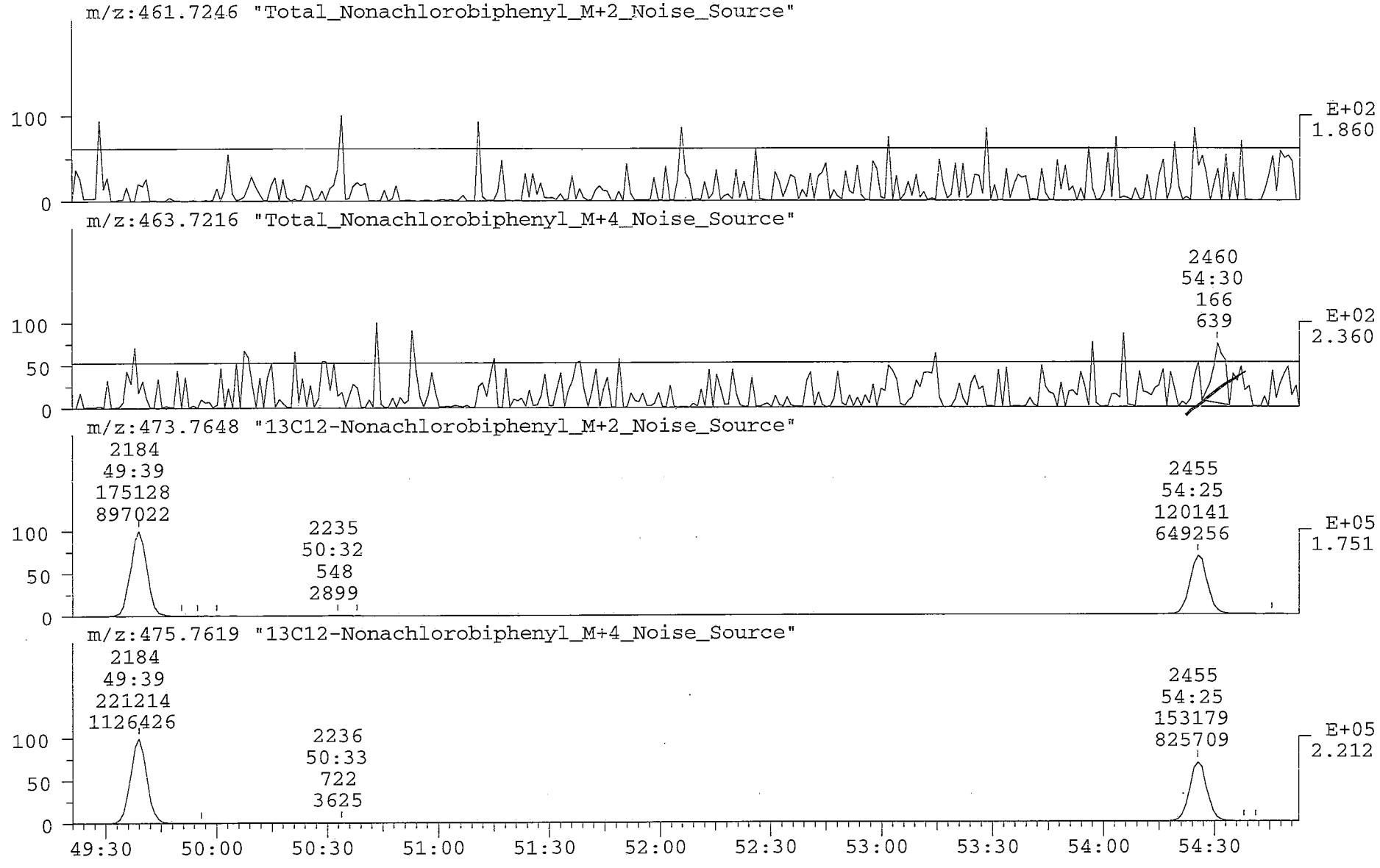
CHRO: apmkm6m 14-Jul-11 Elapse: 52:29 2345
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2311 > 2380 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1173

1172

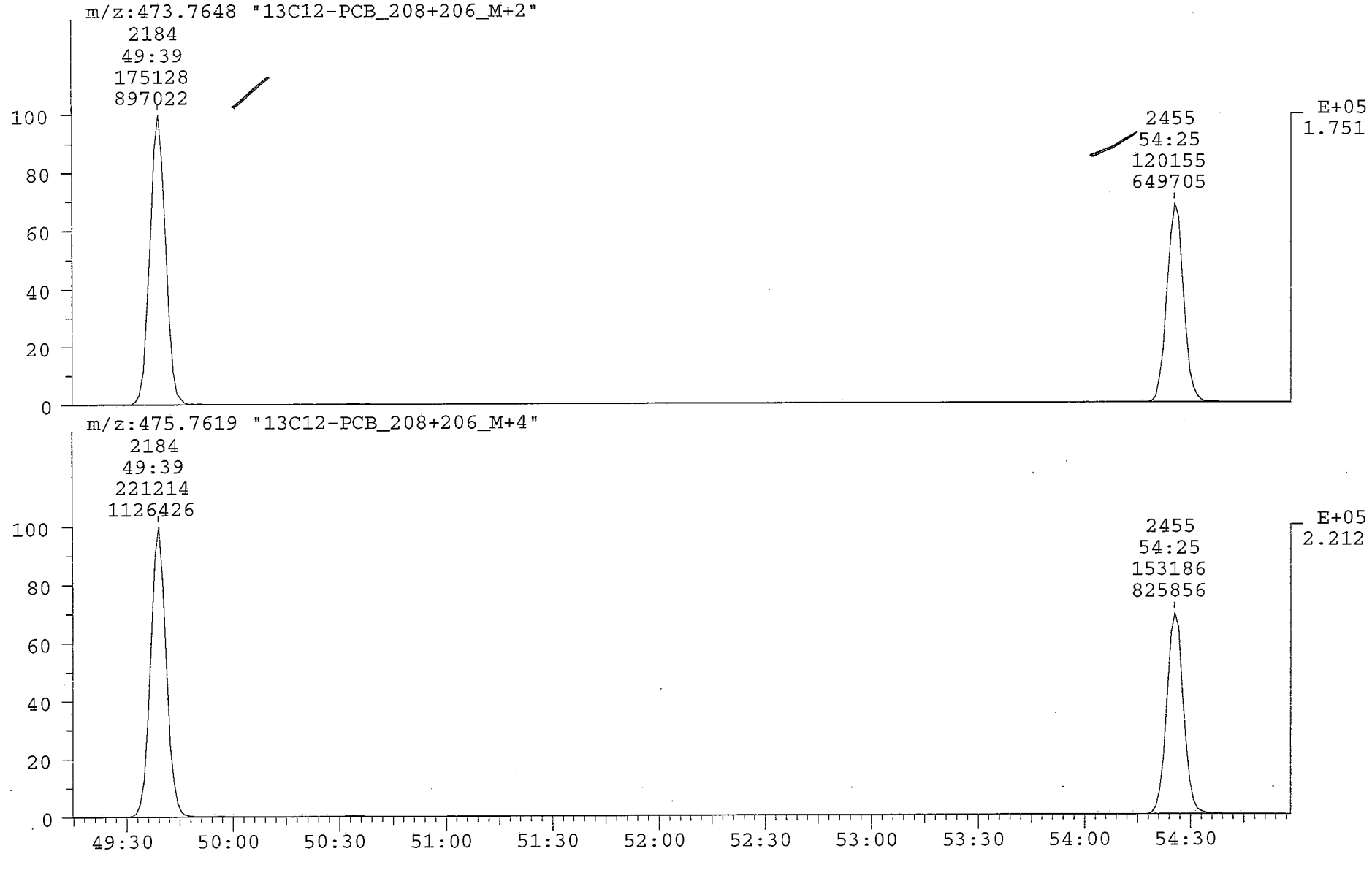
CHRO: apmkm6m 14-Jul-11 Elapse: 52:05 2323
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1174

1173

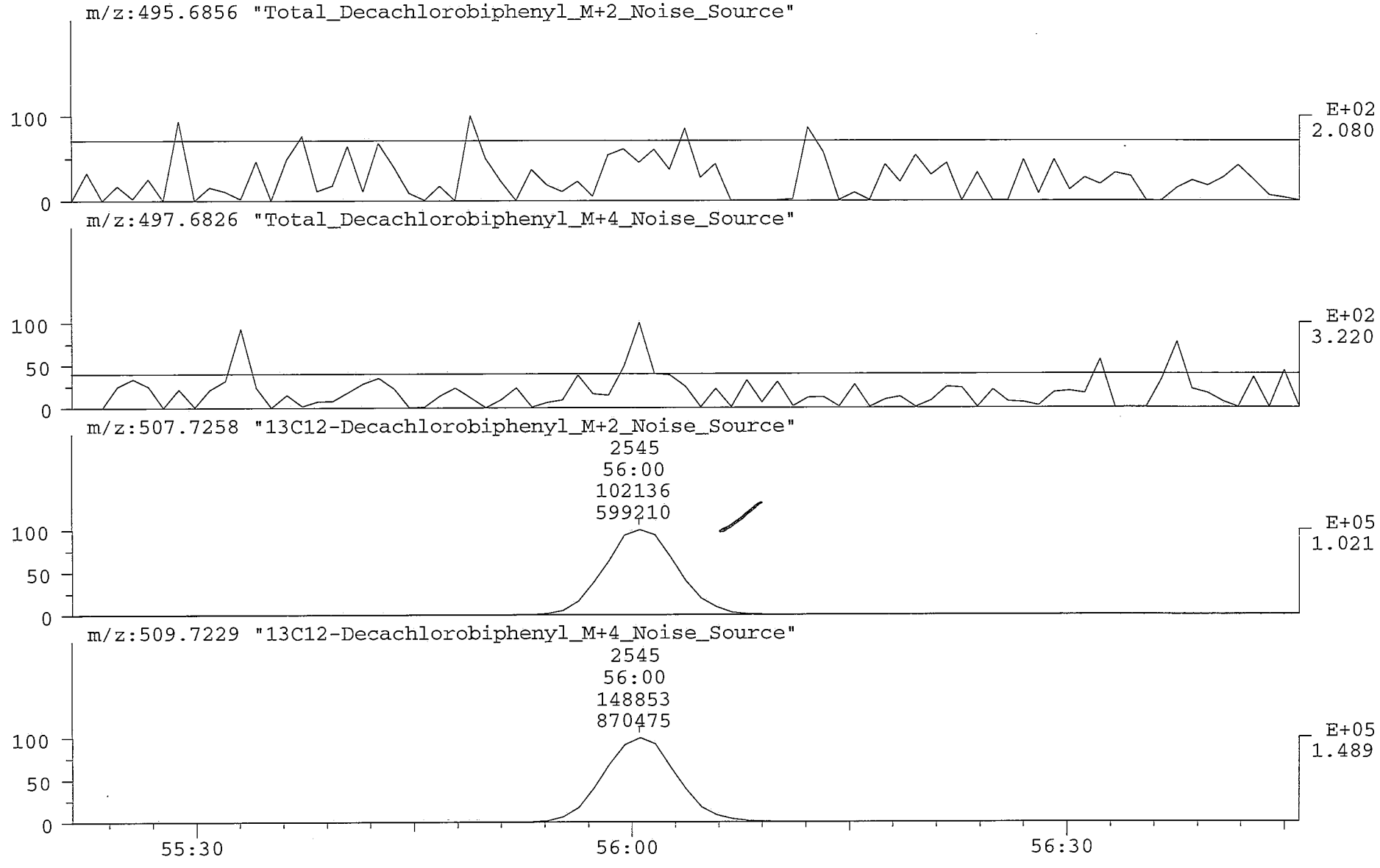
CHRO: apmkm6m 14-Jul-11 Elapse: 52:03 2321
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2161 > 2486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1175

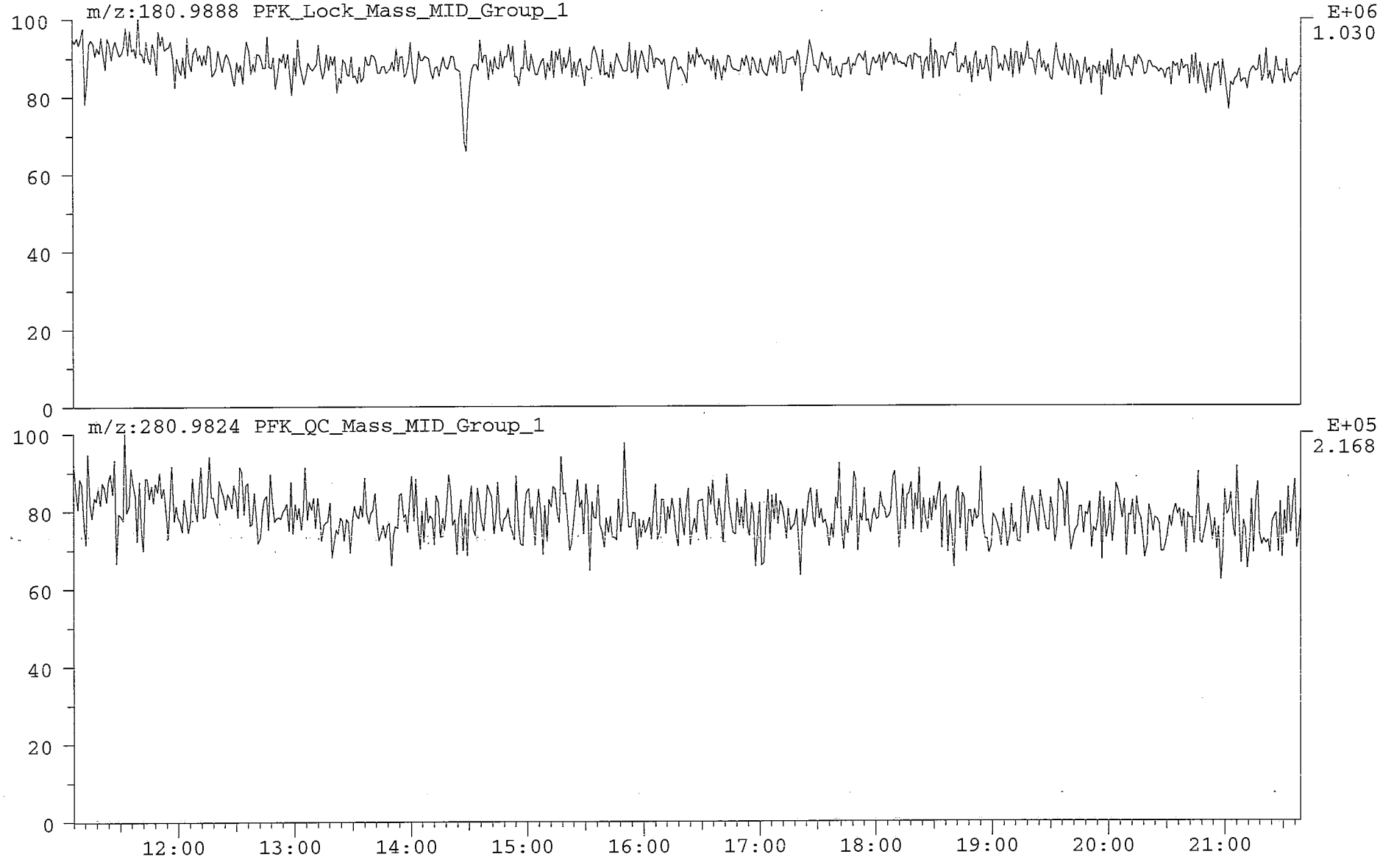
1174

CHRO: apmkm6m 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2508 > 2588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1176

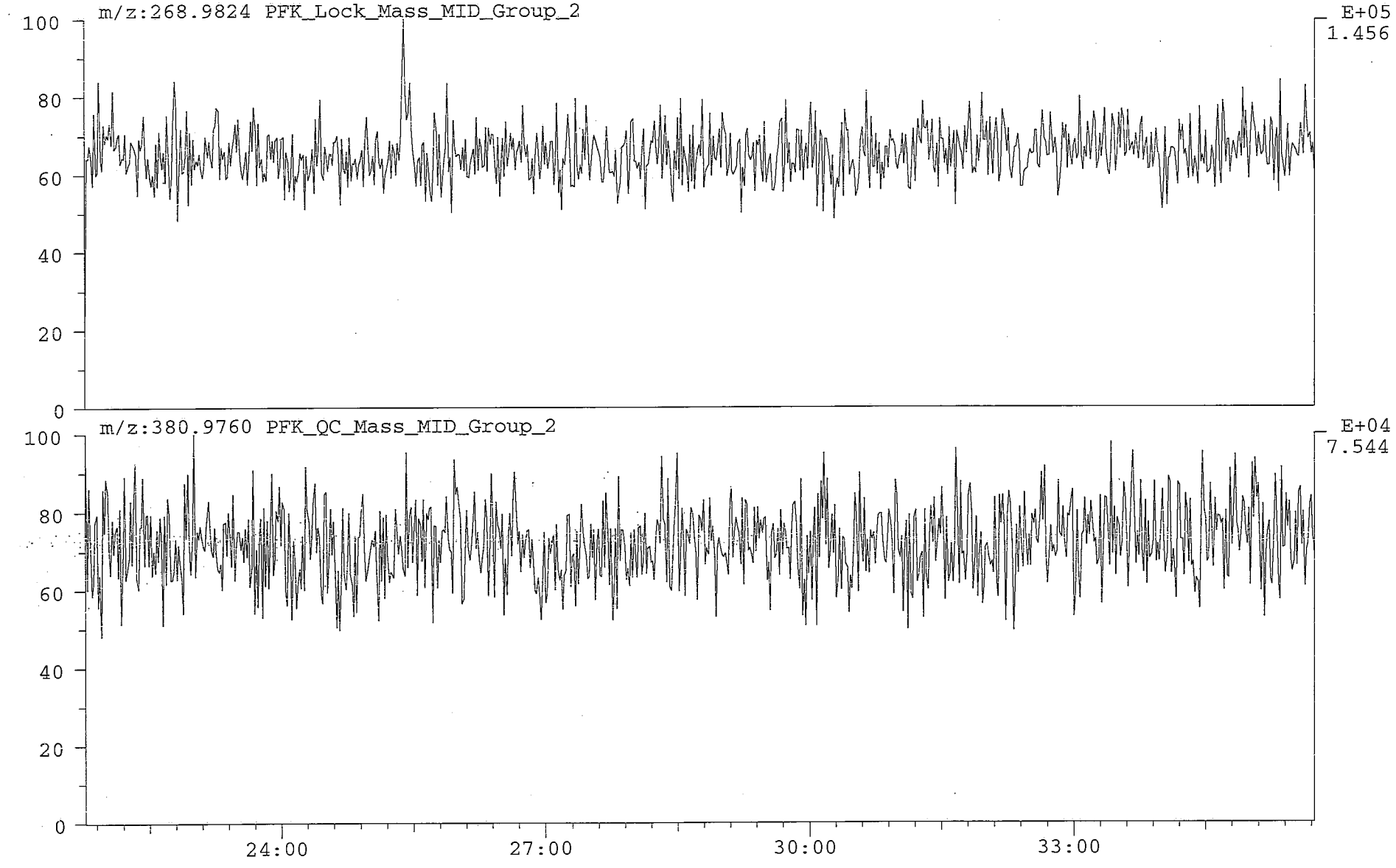
CHRO: apmkm6m 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1177

1176

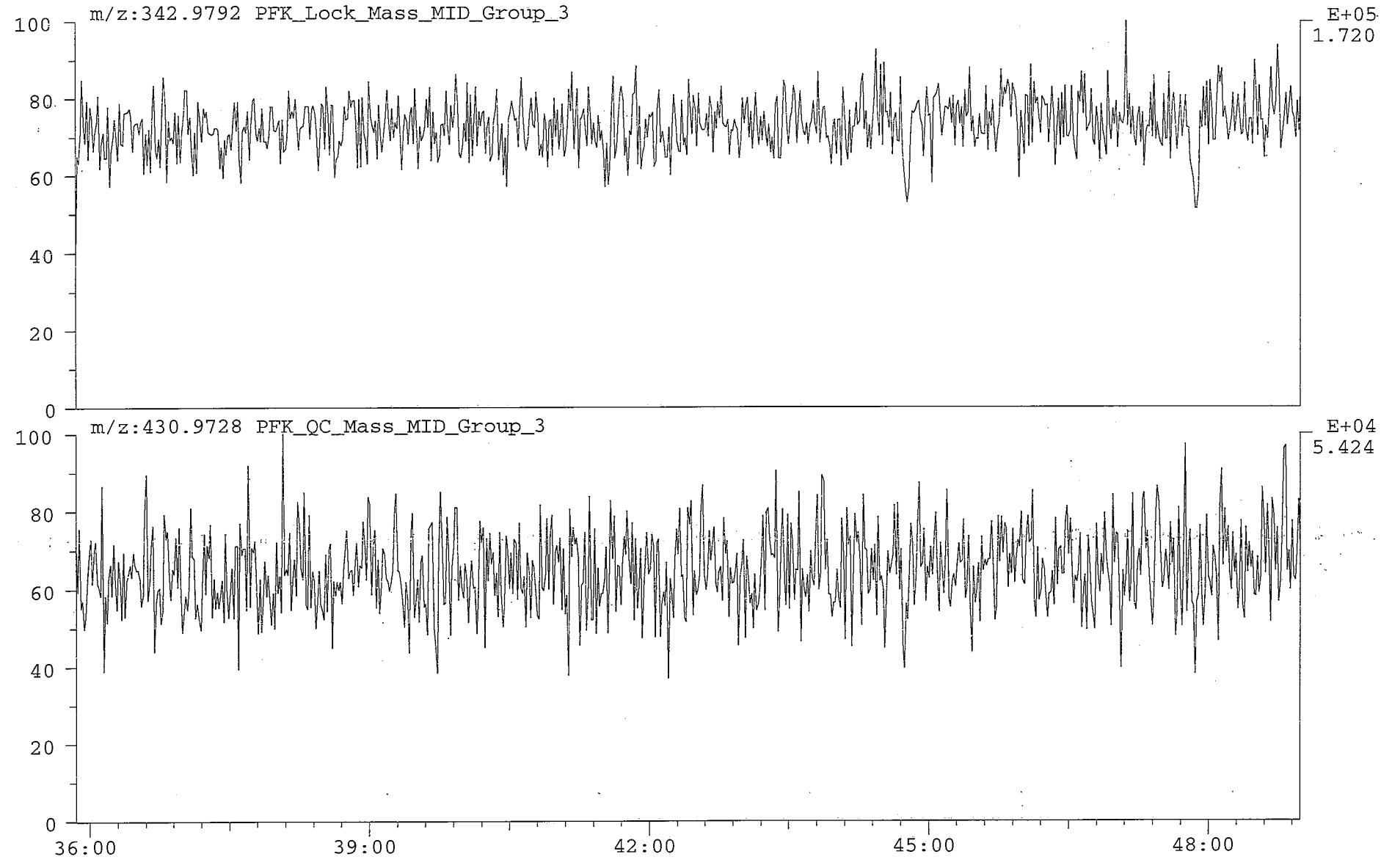
CHRO: apmkm6m 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 608 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1178

1177

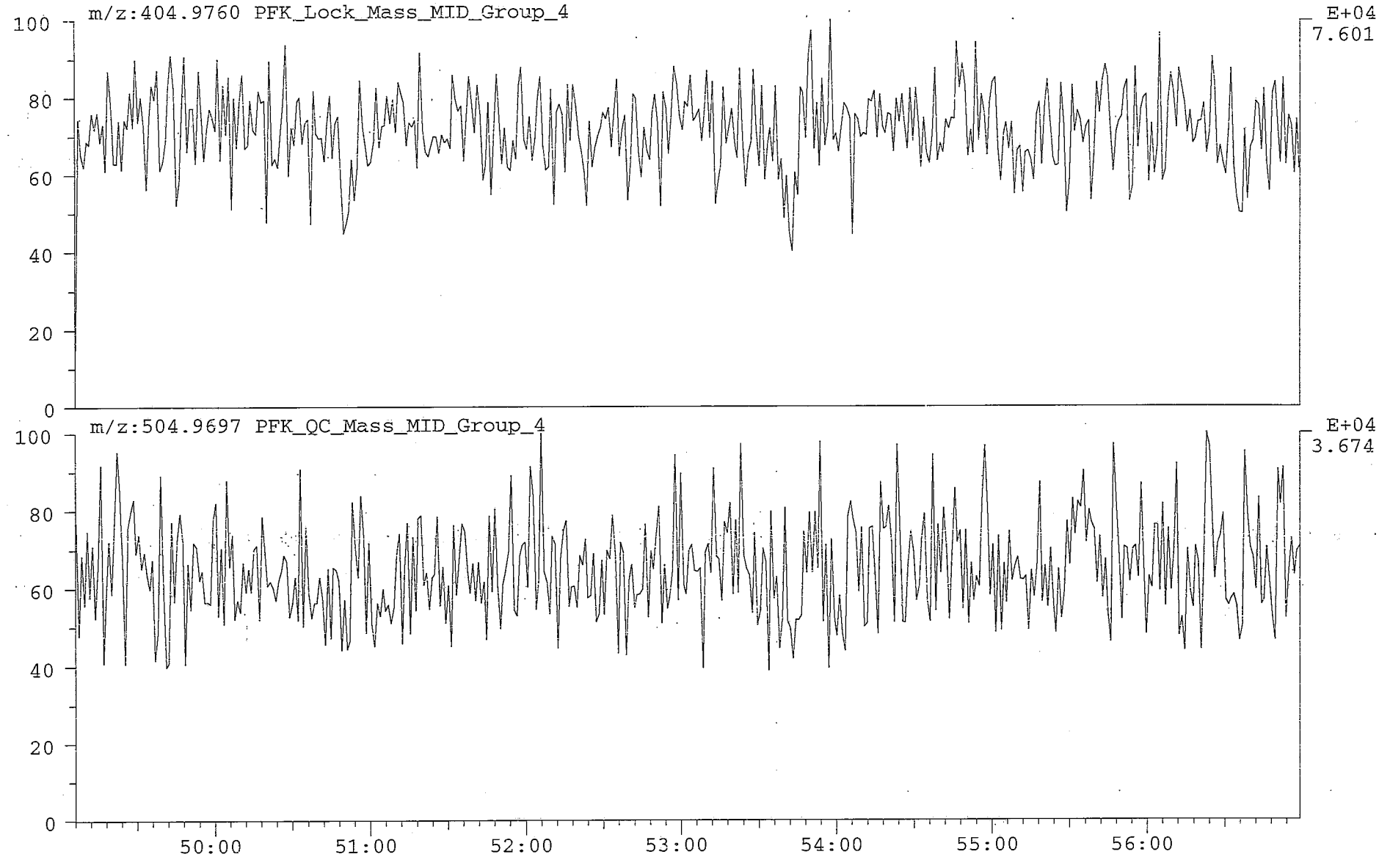
CHRO: apmkm6m 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1404 > 2150 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1179

1178

CHRO: apmkm6m 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 10 WO=mkm6m1ac Meth=IE5 Dil=1 Start : 03:33:24 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-007 Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2153 > 2600 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1180

1179

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

\000\000\000\000\000\000\000ICL Version: 10.710
File name: apmkm6m
Study: 1187028 (Air-2)
Sample: WO=mkm6m1ac Meth=IE5 Dil=1
Amount:  0.00
Volume:  0.00
Operator: JMN
Client: H1G050439-007
Comments: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Injected volume:  2.00
Sample from Vial 10
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 3 of list 110713a
  ICL procedure: sleep7x
  MID procedure: epa1668

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start        Measure      End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:05 min   35:45 min    1.00 sec
  # 3   35:45 min   13:15 min   49:00 min    1.00 sec
  # 4   49:00 min    8:00 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 1   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
   Window # 2
```

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times
Sample rinse cycles (R): 0 times
Syringe filling volume (F): 1.0 ul

Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg at	0.0	minutes	280 deg max
	75 deg at	2.0	minutes	
	150 deg at	7.0	minutes	
	270 deg at	55.0	minutes	
	270 deg at	57.0	minutes	

Inlet : Splitless mode

Purge time	1.5 min
Purge flow	40.0 ml/min
Gas saver is on	
Saver time	3.0 min
Saver flow	15.0 ml/min

Column : Constant Flow 1.0 ml

Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.5098
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-36.8250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	23.0000	EDACZ	-548.0000	ELEN	64.2750
EMULT	1.7400	ENS	150.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	148.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	472.0000
FVINLET	507.0000	FVSRC	1100.0000	FWIN	0.7000
GCTC	202.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.4412	HVANAL	1432.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4781.4360	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1751.0000	LENSS	161.2000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2344554.8750
MDACR	23.0000	MRANGE	1031.5098	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2612.0000	NSMAX	8.0000	NSMIN	2.0000

OCT	-2.0000	PSAM	10.0000	PUSHER	-12.5500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10314.6801	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2598.0000
SHIELDS	0.2000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.8500	TCURR	0.8984
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	1.9500	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2538.0000
XLENSS	-43.8000	YLENS	2634.0000	YLENSS	-171.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 03:33:24.2

Autosampler has injected sample from vial 10
MID Time Window 1: Resolution is 9050
MID Time Window 2: Resolution is 8404
MID Time Window 3: Resolution is 8574
MID Time Window 4: Resolution is 9203
Analysis stopped at: 14-Jul-11 04:30:27.2 (run time 57.03 minutes)
Analysis stopped because MID run finished

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.0081**	**B J**	**0.10**	**0.0046**	**ng/sample**
PCB 81 (BZ)	ND		0.10	0.0048	ng/sample
PCB 105 (BZ)	ND		0.10	0.0042	ng/sample
PCB 114 (BZ)	ND		0.10	0.0040	ng/sample
PCB 118 (BZ)	ND		0.10	0.0042	ng/sample
PCB 123 (BZ)	ND		0.10	0.0047	ng/sample
PCB 126 (BZ)	ND		0.10	0.0039	ng/sample
PCB 156 (BZ)	ND		0.10	0.0068	ng/sample
PCB 157 (BZ)	ND		0.10	0.0068	ng/sample
PCB 167 (BZ)	ND		0.10	0.0053	ng/sample
PCB 169 (BZ)	ND		0.10	0.0051	ng/sample
PCB 189 (BZ)	ND		0.10	0.0039	ng/sample

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	105		30 - 140
13C12-PCB 3	96		30 - 140
13C12-PCB 4	100		30 - 140
13C12-PCB 15	90		30 - 140
13C12-PCB 19	96		30 - 140
13C12-PCB 37	100		30 - 140
13C12-PCB 54	129		30 - 140
13C12-PCB 77	109		30 - 140
13C12-PCB 81	104		30 - 140
13C12-PCB 104	102		30 - 140
13C12-PCB 105	108		30 - 140
13C12-PCB 114	107		30 - 140
13C12-PCB 118	104		30 - 140
13C12-PCB 123	101		30 - 140
13C12-PCB 126	115		30 - 140
13C12-PCB 155	115		30 - 140
13C12-PCB 156	134	C	30 - 140
13C12-PCB 157	134	C	30 - 140
13C12-PCB 167	119		30 - 140
13C12-PCB 169	118		30 - 140
13C12-PCB 170	114		30 - 140
13C12-PCB 188	113		30 - 140
13C12-PCB 189	123		30 - 140
13C12-PCB 202	124		30 - 140
13C12-PCB 205	129		30 - 140
13C12-PCB 206	128		30 - 140
13C12-PCB 208	118		30 - 140
13C12-PCB 209	116		30 - 140

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 28	96	40 - 125
13C12-PCB 111	112	40 - 125
13C12-PCB 178	96	40 - 125

URS Austin Source Testing #1427536

Sample ID: A-6443,A-6444 MEDIA CHECK

Trace Level Organic Compounds

Lot - Sample #....:	H1G050439 - 015	**Work Order #....:**	MKM601AC	**Matrix....:**	AIR
Date Sampled....:	06/22/11	**Date Received....:**	07/02/11	**Dilution Factor:**	1
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM601AC	Prep Batch	1187028	Lot No	H1G050439-015
Data File	/20110713s1/apmkm60.d	Prep Date	07/06/11	SDG No	
Analysis ID	133603	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	02:32	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample)		DL (ng/samp
Total Monochlorobiphenyl								ND		0.00628
13C12-PCB 1	12:07	4890738	1710876	1.502	20.00	21.070602	105.35	21.070602		0.0109
13C12-PCB 3	14:19	4564168	1297345	1.545	20.00	19.126686	95.63	19.126686		0.0106
PCB 1 (BZ)				1.383				ND		0.00175
PCB 2 (BZ)				1.338				ND		0.00206
PCB 3 (BZ)				1.296				ND		0.00247
Total Dichlorobiphenyl								ND		0.159
13C12-PCB 4	14:35	1905935	548246	0.619	20.00	19.918158	99.59	19.918158		0.0158
13C12-PCB 9	16:33	3089866	827987	1.000	20.00	20.000000	100.00	20.000000		0.00978
13C12-PCB 8	17:25	159035	36045	1.342	10.00	0.958152	9.58	0.958152		0.0100
13C12-PCB 15	20:33	3039898	653400	1.090	20.00	18.056158	90.28	18.056158		0.00898
PCB 4 (BZ)				1.273				ND		0.0181
PCB 10 (BZ)				1.357				ND		0.0155
PCB 9 (BZ)				1.459				ND		0.0144
PCB 7 (BZ)				1.466				ND		0.0143
PCB 6 (BZ)				1.507				ND		0.0139
PCB 5 (BZ)				1.417				ND		0.0148
PCB 8 (BZ)				1.540				ND		0.0136
PCB 14 (BZ)				1.732				ND		0.0121
PCB 11 (BZ)				1.532				ND		0.0137
PCB 13 (BZ)				1.494				ND	C12	0.0140
PCB 12 (BZ)				1.494				ND	C	0.0140
PCB 15 (BZ)				1.278				ND		0.0151
Total Trichlorobiphenyl								ND		0.107
13C12-PCB 19	17:44	1459086	351652	0.572	20.00	19.278805	96.39	19.278805		0.0512
13C12-PCB 32	20:59	2648578	602773	1.000	20.00	20.000000	100.00	20.000000		0.0293
13C12-PCB 31	23:16	4100245	856756	1.000	20.00	20.000000	100.00	20.000000		0.0206
13C12-PCB 28	23:33	3950611	838599	1.003	20.00	19.207788	96.04	19.207788		0.0205
13C12-PCB 37	27:37	3728943	654939	0.908	20.00	20.021270	100.11	20.021270		0.0227
PCB 19 (BZ)				1.167				ND		0.00890
PCB 30 (BZ)				1.615				ND	C18	0.00643
PCB 18 (BZ)				1.615				ND	C	0.00643
PCB 17 (BZ)				1.430				ND		0.00726
PCB 27 (BZ)				1.978				ND		0.00525
PCB 24 (BZ)				1.707				ND		0.00608
PCB 16 (BZ)				1.193				ND		0.00870
PCB 32 (BZ)				2.018				ND		0.00514
PCB 34 (BZ)				1.195				ND		0.00466
PCB 23 (BZ)				1.177				ND		0.00474
PCB 29 (BZ)				1.244				ND	C26	0.00448
PCB 26 (BZ)				1.244				ND	C	0.00448
PCB 25 (BZ)				1.320				ND		0.00422
PCB 31 (BZ)				1.252				ND		0.00445
PCB 28 (BZ)				1.223				ND	C20	0.00456
PCB 20 (BZ)				1.223				ND	C	0.00456
PCB 21 (BZ)				1.219				ND	C	0.00457
PCB 33 (BZ)				1.219				ND	C21	0.00457
PCB 22 (BZ)				1.200				ND		0.00464
PCB 36 (BZ)				1.204				ND		0.00463

7-14-11 DWC 7-14-11

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM601AC	Prep Batch	1187028	Lot No	H1G050439-015
Data File	/20110713s1/apmkm60.d	Prep Date	07/06/11	SDG No	
Analysis ID	133603	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	02:32	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 39 (BZ)				1.284				ND		0.00434
PCB 38 (BZ)				1.141				ND		0.00488
PCB 35 (BZ)				1.163				ND		0.00479
PCB 37 (BZ)				1.173				ND		0.00475
Total Tetrachlorobiphenyl		1718	525			0.008112		0.008112	BJ	0.158
13C12-PCB 54	20:50	2052517	489173	0.600	20.00	25.828742	129.14	25.828742		0.0155
13C12-PCB 52	25:23	2254768	475550	1.000	20.00	20.000000	100.00	20.000000		0.0118
13C12-PCB 79	33:20	192670	34000	1.070	10.00	1.124053	11.24	1.124053		0.00938
13C12-PCB 81	34:21	3067998	537307	1.312	20.00	20.745688	103.73	20.745688		0.00898
13C12-PCB 77	34:56	3337638	578521	1.357	20.00	21.814709	109.07	21.814709		0.00868
PCB 54 (BZ)				1.233				ND		0.00555
PCB 50 (BZ)				0.921				ND	C	0.00652
PCB 53 (BZ)				0.921				ND	C50	0.00652
PCB 45 (BZ)				0.856				ND	C	0.00702
PCB 51 (BZ)				0.856				ND	C45	0.00702
PCB 46 (BZ)				0.724				ND		0.00829
PCB 52 (BZ)				0.920				ND		0.00653
PCB 73 (BZ)				0.949				ND	C43	0.00633
PCB 43 (BZ)				0.949				ND	C	0.00633
PCB 69 (BZ)				1.077				ND	C49	0.00558
PCB 49 (BZ)				1.077				ND	C	0.00558
PCB 48 (BZ)				0.894				ND		0.00672
PCB 65 (BZ)				0.992				ND	C44	0.00605
PCB 47 (BZ)				0.992				ND	C44	0.00605
PCB 44 (BZ)				0.992				ND	C	0.00605
PCB 62 (BZ)				1.246				ND	C59	0.00482
PCB 75 (BZ)				1.246				ND	C59	0.00482
PCB 59 (BZ)				1.246				ND	C	0.00482
PCB 42 (BZ)				0.872				ND		0.00689
PCB 41 (BZ)				0.887				ND	C40	0.00677
PCB 71 (BZ)				0.887				ND	C40	0.00677
PCB 40 (BZ)				0.887				ND	C	0.00677
PCB 64 (BZ)				1.316				ND		0.00456
PCB 72 (BZ)				1.236				ND		0.00486
PCB 68 (BZ)				1.327				ND		0.00452
PCB 57 (BZ)				1.203				ND		0.00499
PCB 58 (BZ)				1.208				ND		0.00497
PCB 67 (BZ)				1.337				ND		0.00449
PCB 63 (BZ)				1.297				ND		0.00463
PCB 61 (BZ)				1.247				ND	C	0.00482
PCB 70 (BZ)				1.247				ND	C61	0.00482
PCB 76 (BZ)				1.247				ND	C61	0.00482
PCB 74 (BZ)				1.247				ND	C61	0.00482
PCB 66 (BZ)				1.255				ND		0.00478
PCB 55 (BZ)				1.145				ND		0.00524
PCB 56 (BZ)				1.217				ND		0.00493
PCB 60 (BZ)				1.181				ND		0.00508
PCB 80 (BZ)				1.358				ND		0.00442
PCB 79 (BZ)				1.326				ND		0.00453

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM601AC	Prep Batch	1187028	Lot No	H1G050439-015
Data File	/20110713s1/apmkm60.d	Prep Date	07/06/11	SDG No	
Analysis ID	133603	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	02:32	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 78 (BZ)				1.164				ND		0.00516
PCB 81 (BZ)				1.298				ND		0.00480
PCB 77 (BZ)	34:54	1718	525	1.269		0.008112		0.008112	BJ	0.00456
Total Pentachlorobiphenyl								ND		0.178
13C12-PCB 104	26:19	2355898	506771	1.246	20.00	20.300411	101.50	20.300411		0.0171
13C12-PCB 95	29:18	95272	18552	0.754	10.00	1.073221	10.73	1.073221		0.0198
13C12-PCB 101	32:13	1863286	355014	1.000	20.00	20.000000	100.00	20.000000		0.0213
13C12-PCB 111	34:53	2642354	499380	1.266	20.00	22.394455	111.97	22.394455		0.0168
13C12-PCB 123	36:53	3460946	626721	0.954	20.00	20.234541	101.17	20.234541		0.0117
13C12-PCB 118	37:12	3713980	673286	0.995	20.00	20.827782	104.14	20.827782		0.0112
13C12-PCB 114	37:43	3648670	663031	0.952	20.00	21.386568	106.93	21.386568		0.0117
13C12-PCB 105	38:24	3634667	662979	0.942	20.00	21.536195	107.68	21.536195		0.0118
13C12-PCB 127	39:51	3584031	678343	1.000	20.00	20.000000	100.00	20.000000		0.0111
13C12-PCB 126	41:29	4079067	750231	0.991	20.00	22.965223	114.83	22.965223		0.0112
PCB 104 (BZ)				1.184				ND		0.00517
PCB 96 (BZ)				1.055				ND		0.00580
PCB 103 (BZ)				0.900				ND		0.00680
PCB 94 (BZ)				0.789				ND		0.00775
PCB 95 (BZ)				0.838				ND		0.00730
PCB 100 (BZ)				0.888				ND	C93	0.00689
PCB 93 (BZ)				0.888				ND	C	0.00689
PCB 102 (BZ)				0.917				ND	C98	0.00667
PCB 98 (BZ)				0.917				ND	C	0.00667
PCB 88 (BZ)				0.857				ND	C	0.00714
PCB 91 (BZ)				0.857				ND	C88	0.00714
PCB 84 (BZ)				0.764				ND		0.00801
PCB 89 (BZ)				0.789				ND		0.00775
PCB 121 (BZ)				1.215				ND		0.00503
PCB 92 (BZ)				0.892				ND		0.00686
PCB 113 (BZ)				1.013				ND	C90	0.00604
PCB 90 (BZ)				1.013				ND	C	0.00604
PCB 101 (BZ)				1.013				ND	C90	0.00604
PCB 83 (BZ)				0.868				ND	C	0.00705
PCB 99 (BZ)				0.868				ND	C83	0.00705
PCB 112 (BZ)				1.160				ND		0.00527
PCB 109 (BZ)/108 (IUPAC)				1.030				ND	C86	0.00594
PCB 86 (BZ)				1.030				ND	C	0.00594
PCB 119 (BZ)				1.030				ND	C86	0.00594
PCB 97 (BZ)				1.030				ND	C86	0.00594
PCB 125 (BZ)				1.030				ND	C86	0.00594
PCB 87 (BZ)				1.030				ND	C86	0.00594
PCB 117 (BZ)				1.054				ND	C85	0.00580
PCB 116 (BZ)				1.054				ND	C85	0.00580
PCB 85 (BZ)				1.054				ND	C	0.00580
PCB 110 (BZ)				1.194				ND	C	0.00513
PCB 115 (BZ)				1.194				ND	C110	0.00513
PCB 82 (BZ)				0.730				ND		0.00838
PCB 111 (BZ)				1.260				ND		0.00485
PCB 120 (BZ)				1.225				ND		0.00500

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM601AC	Prep Batch	1187028	Lot No	H1G050439-015
Data File	/20110713s1/apmkm60.d	Prep Date	07/06/11	SDG No	
Analysis ID	133603	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	02:32	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 124 (BZ)				1.029				ND	C108	0.00446
PCB 108 (BZ)/107 (IUPAC)				1.029				ND	C	0.00446
PCB 107 (BZ)/109 (IUPAC)				1.082				ND		0.00424
PCB 123 (BZ)				1.053				ND		0.00470
PCB 106 (BZ)				1.050				ND		0.00437
PCB 118 (BZ)				1.087				ND		0.00424
PCB 122 (BZ)				0.964				ND		0.00476
PCB 114 (BZ)				1.161				ND		0.00403
PCB 105 (BZ)				1.125				ND		0.00416
PCB 127 (BZ)				1.062				ND		0.00432
PCB 126 (BZ)				1.051				ND		0.00393
Total Hexachlorobiphenyl								ND		0.246
13C12-PCB 155	31:56	2294087	449649	1.068	20.00	23.062264	115.31	23.062264		0.0187
13C12-PCB 153	39:02	167390	32963	0.828	10.00	1.207271	12.07	1.207271		0.0169
13C12-PCB 138	40:18	2172638	407740	1.000	20.00	20.000000	100.00	20.000000		0.0174
13C12-PCB 167	43:17	3211799	583604	1.247	20.00	23.709143	118.55	23.709143		0.0140
13C12-PCB 156	44:28	7173508	892512	1.233	40.00	53.551924	133.88	53.551924		0.0141
13C12-PCB 157								ND		0.000000
13C12-PCB 169	47:41	3014722	548610	1.173	20.00	23.656672	118.28	23.656672		0.0148
PCB 155 (BZ)				1.128				ND		0.00680
PCB 152 (BZ)				1.075				ND		0.00714
PCB 150 (BZ)				1.096				ND		0.00700
PCB 136 (BZ)				1.022				ND		0.00751
PCB 145 (BZ)				1.069				ND		0.00718
PCB 148 (BZ)				0.764				ND		0.0100
PCB 151 (BZ)				0.750				ND	C135	0.0102
PCB 135 (BZ)				0.750				ND	C	0.0102
PCB 154 (BZ)				0.922				ND		0.00832
PCB 144 (BZ)				0.808				ND		0.00949
PCB 147 (BZ)				0.861				ND	C	0.00791
PCB 149 (BZ)				0.861				ND	C147	0.00791
PCB 134 (BZ)				0.717				ND	C	0.00951
PCB 143 (BZ)				0.717				ND	C134	0.00951
PCB 139 (BZ)				0.836				ND	C	0.00815
PCB 140 (BZ)				0.836				ND	C139	0.00815
PCB 131 (BZ)				0.700				ND		0.00973
PCB 142 (BZ)				0.728				ND		0.00936
PCB 132 (BZ)				0.736				ND		0.00926
PCB 133 (BZ)				0.763				ND		0.00893
PCB 165 (BZ)				1.001				ND		0.00681
PCB 146 (BZ)				0.881				ND		0.00774
PCB 161 (BZ)				1.100				ND		0.00619
PCB 153 (BZ)				1.071				ND	C	0.00636
PCB 168 (BZ)				1.071				ND	C153	0.00636
PCB 141 (BZ)				0.803				ND		0.00848
PCB 130 (BZ)				0.717				ND		0.00950
PCB 137 (BZ)				0.832				ND		0.00820
PCB 164 (BZ)				1.052				ND		0.00648
PCB 138 (BZ)				0.926				ND	C129	0.00736

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM601AC	Prep Batch	1187028	Lot No	H1G050439-015
Data File	/20110713s1/apmkm60.d	Prep Date	07/06/11	SDG No	
Analysis ID	133603	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	02:32	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample)		DL (ng/samp
PCB 163 (BZ)				0.926				ND	C129	0.00736
PCB 129 (BZ)				0.926				ND	C	0.00736
PCB 160 (BZ)				0.926				ND	C129	0.00736
PCB 158 (BZ)				1.174				ND		0.00581
PCB 166 (BZ)				0.958				ND	C128	0.00712
PCB 128 (BZ)				0.958				ND	C	0.00712
PCB 159 (BZ)				1.095				ND		0.00623
PCB 162 (BZ)				1.108				ND		0.00615
PCB 167 (BZ)				1.126				ND		0.00525
PCB 156 (BZ)				1.130				ND	C	0.00684
PCB 157 (BZ)				1.130				ND	C156	0.00684
PCB 169 (BZ)				1.243				ND		0.00506
Total Heptachlorobiphenyl								ND		0.130
13C12-PCB 188	37:39	2679867	529261	1.217	20.00	22.590454	112.95	22.590454		0.0132
13C12-PCB 178	40:43	1653948	319467	0.881	20.00	19.263108	96.32	19.263108		0.0183
13C12-PCB 180	45:48	1949306	363829	1.000	20.00	20.000000	100.00	20.000000		0.0161
13C12-PCB 170	47:04	1836813	341196	0.828	20.00	22.755746	113.78	22.755746		0.0194
13C12-PCB 189	50:10	3840918	698472	1.588	20.00	24.542541	122.71	24.542541		0.0101
PCB 188 (BZ)				1.111				ND		0.00493
PCB 179 (BZ)				1.220				ND		0.00546
PCB 184 (BZ)				1.188				ND		0.00561
PCB 176 (BZ)				1.286				ND		0.00518
PCB 186 (BZ)				1.223				ND		0.00545
PCB 178 (BZ)				0.906				ND		0.00735
PCB 175 (BZ)				0.980				ND		0.00680
PCB 187 (BZ)				1.054				ND		0.00632
PCB 182 (BZ)				1.009				ND		0.00661
PCB 183 (BZ)				0.987				ND	C	0.00675
PCB 185 (BZ)				0.987				ND	C183	0.00675
PCB 174 (BZ)				0.941				ND		0.00708
PCB 177 (BZ)				0.918				ND		0.00726
PCB 181 (BZ)				0.980				ND		0.00680
PCB 171 (BZ)				0.872				ND	C	0.00764
PCB 173 (BZ)				0.872				ND	C171	0.00764
PCB 172 (BZ)				0.881				ND		0.00757
PCB 192 (BZ)				1.152				ND		0.00578
PCB 193 (BZ)				1.154				ND	C180	0.00578
PCB 180 (BZ)				1.154				ND	C	0.00578
PCB 191 (BZ)				1.287				ND		0.00518
PCB 170 (BZ)				1.102				ND		0.00771
PCB 190 (BZ)				1.265				ND		0.00527
PCB 189 (BZ)				1.073				ND		0.00387
Total Octachlorobiphenyl								ND		0.0878
13C12-PCB 202	43:00	2184947	425518	0.907	20.00	24.708338	123.54	24.708338		0.0151
13C12-PCB 194	52:14	1970780	364567	1.000	20.00	20.000000	100.00	20.000000		0.0137
13C12-PCB 205	52:42	3559282	653279	1.395	20.00	25.899405	129.50	25.899405		0.00983
PCB 202 (BZ)				1.007				ND		0.00817
PCB 200 (BZ)/201 (IUPAC)				1.134				ND		0.00725
PCB 204 (BZ)				1.034				ND		0.00795

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM601AC	Prep Batch	1187028	Lot No	H1G050439-015
Data File	/20110713s1/apmkm60.d	Prep Date	07/06/11	SDG No	
Analysis ID	133603	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	02:32	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 197 (BZ)				1.075				ND		0.00765
PCB 199 (BZ)/200 (IUPAC)				1.095				ND		0.00751
PCB 198 (BZ)				0.775				ND	C	0.0106
PCB 201 (BZ)/199 (IUPAC)				0.775				ND	C198	0.0106
PCB 196 (BZ)				0.800				ND		0.0103
PCB 203 (BZ)				0.868				ND		0.00948
PCB 195 (BZ)				0.765				ND		0.00700
PCB 194 (BZ)				0.830				ND		0.00645
PCB 205 (BZ)				0.986				ND		0.00543
Total Nonachlorobiphenyl								ND		0.0281
13C12-PCB 208	49:37	2683178	505243	1.155	20.00	23.573596	117.87	23.573596		0.0121
13C12-PCB 206	54:25	2036232	381668	0.808	20.00	25.583476	127.92	25.583476		0.0173
PCB 208 (BZ)				1.035				ND		0.00889
PCB 207 (BZ)				1.276				ND		0.00822
PCB 206 (BZ)				1.113				ND		0.0109
13C12-PCB 209	56:00	1954019	342153	0.857	20.00	23.128844	115.64	23.128844		0.0253
PCB 209 (BZ)				1.052				ND		0.0139

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM601AC	Prep Batch	1187028	Lot No	H1G050439-015
Data File	/20110713s1/apmkm60.d	Prep Date	07/06/11	SDG No	
Analysis ID	133603	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	07/14/11 02:32	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5
		View Small Peaks?	False	View deleted peaks?	False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	98	110	39	44	0.89 *	/	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	190	485	76	194	0.39 *	/	
	13C12-PCB 1	12:07	12:08	-1	3722581	1168157	1309891	400985	3.19	ABV/ABV	
	13C12-PCB 3	14:19	14:20	-1	3497318	1066850	991273	306072	3.28	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	203	428	81	171	0.47 *	/	
	Unidentified	16:54	00:00	0	2088	3322	431	968	0.63 *	ABV/ABV	R
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	253	153	101	61	1.66	/	
	13C12-PCB 4	14:35	14:36	-1	1181126	724809	342001	206245	1.63	ABV/ABV	
	13C12-PCB 9	16:33	16:33	0	1919559	1170307	509349	318638	1.64	ABV/ABV	
	13C12-PCB 8	17:25	17:25	0	98103	60932	21825	14220	1.61	AVV/AVV	
	13C12-PCB 15	20:33	20:30	3	1903482	1136416	405509	247891	1.67	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	108	75	43	30	1.43 *	/	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	518	365	207	146	1.42 *	/	
	13C12-PCB 19	17:44	17:44	0	741617	717469	181153	170499	1.03	AVV/AVV	
	13C12-PCB 32	20:59	20:59	0	1359848	1288730	312307	290466	1.06	AVV/AVV	
	13C12-PCB 31	23:16	23:16	0	2113198	1987047	440349	416407	1.06	ABV/ABV	
	13C12-PCB 28	23:33	23:33	0	2033805	1916806	429642	408957	1.06	AVV/AVV	
	13C12-PCB 37	27:37	27:34	3	1933937	1795006	339956	314983	1.08	ABV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	73	95	29	38	0.76	/	
	PCB 77 (BZ)	34:54	34:52	2	781	937	243	282	0.83	ABB/ABB	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	138	143	55	57	0.96 *	/	
	13C12-PCB 54	20:50	20:50	0	896906	1155611	209576	279597	0.78	ABV/ABV	
	13C12-PCB 52	25:23	25:23	0	993034	1261734	210051	265499	0.79	ABV/ABV	
	13C12-PCB 79	33:20	33:18	2	86473	106197	15639	18361	0.81	ABV/ABB	
	13C12-PCB 81	34:21	34:17	4	1347684	1720314	234800	302507	0.78	ABV/ABV	
	13C12-PCB 77	34:56	34:51	5	1477684	1859954	257109	321412	0.79	AVV/AVV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	75	80	30	32	0.94 *	/	
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	213	165	85	66	1.29 *	/	
	13C12-PCB 104	26:19	26:20	-1	1450213	905685	310369	196402	1.60	ABV/ABV	
	13C12-PCB 95	29:18	29:18	0	59553	35719	11269	7283	1.67	ABV/ABB	
	13C12-PCB 101	32:13	32:13	0	1159624	703662	222939	132075	1.65	AVV/ABV	
	13C12-PCB 111	34:53	34:52	1	1625193	1017161	309348	190032	1.60	ABV/ABV	
	13C12-PCB 123	36:53	36:51	2	2136161	1324785	388230	238491	1.61	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKM601AC	Prep Batch	1187028	Lot No	H1G050439-015
Data File	/20110713s1/apmkm60.d	Prep Date	07/06/11	SDG No	
Analysis ID	133603	Prep Exp Date	07/22/11	Date Received	07/02/11
Analysis Date	07/14/11 02:32	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78	
	13C12-PCB 118	37:12	37:10	2	2287433	1426547	412745	260541	1.60	AVV/AVV
	13C12-PCB 114	37:43	37:42	1	2270642	1378028	411131	251900	1.65	AVV/AVV
	13C12-PCB 105	38:24	38:22	2	2251415	1383252	406767	256212	1.63	ABV/ABV
	13C12-PCB 127	39:51	39:47	4	2210946	1373085	420703	257640	1.61	ABV/ABV
	13C12-PCB 126	41:29	41:25	4	2491550	1587517	456657	293574	1.57	ABV/ABV
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	Noise	00:00	00:00	0	88	85	35	34	1.03 *	/
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	190	165	76	66	1.15	/
	13C12-PCB 155	31:56	31:58	-2	1278687	1015400	252971	196678	1.26	ABV/ABV
	13C12-PCB 153	39:02	39:02	0	96279	71111	18937	14026	1.35	ABB/ABB
	13C12-PCB 138	40:18	40:16	2	1230608	942030	227007	180733	1.31	ABV/ABV
	13C12-PCB 167	43:17	43:16	1	1812917	1398882	330490	253114	1.30	AVV/ABV
	13C12-PCB 156	44:28	44:25	3	4052574	3120934	508447	384065	1.30	AVV/ABV
	13C12-PCB 169	47:41	47:38	3	1699634	1315088	308207	240403	1.29	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	83	63	33	25	1.32 *	/
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	143	150	57	60	0.95	/
	13C12-PCB 188	37:39	37:41	-2	1388146	1291721	272163	257098	1.07	ABV/ABV
	13C12-PCB 178	40:43	40:43	0	856833	797115	166130	153337	1.07	ABV/ABV
	13C12-PCB 180	45:48	45:47	1	1011487	937819	191305	172524	1.08	ABV/ABV
	13C12-PCB 170	47:04	47:03	1	959238	877575	177152	164044	1.09	ABV/ABV
	13C12-PCB 189	50:10	50:08	2	1947112	1893806	360214	338258	1.03	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	83	93	33	37	0.89	/
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02	
	Noise	00:00	00:00	0	110	140	44	56	0.79	/
	13C12-PCB 202	43:00	43:01	-1	1041973	1142974	203673	221845	0.91	ABV/ABV
	13C12-PCB 194	52:14	52:14	0	941163	1029617	173191	191376	0.91	ABB/ABV
	13C12-PCB 205	52:42	52:41	1	1687918	1871364	308369	344910	0.90	ABV/ABV
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89	
	Noise	00:00	00:00	0	110	123	44	49	0.90 *	/
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	133	123	53	49	1.08 *	/
	13C12-PCB 208	49:37	49:39	-2	1190319	1492859	223379	281864	0.80	ABV/ABV
	13C12-PCB 206	54:25	54:25	0	893969	1142263	165385	216283	0.78	ABV/ABV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	
	Noise	00:00	00:00	0	115	135	46	54	0.85 *	/
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79	
	Noise	00:00	00:00	0	150	245	60	98	0.61	/
	13C12-PCB 209	56:00	56:02	-2	802773	1151246	139017	203136	0.70	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: apmkm60 14-Jul-11 Elapse: 56:02 2547
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2 > 2603 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int L 7-14-11
Calc. CWK 7-14-11
QC Rev MSD 7-14-11

m/z:188>510, \268.98, \280.98.\342.98, \380.98, \404.98, \430.97, \504.97

E+06
1.722

Hito List

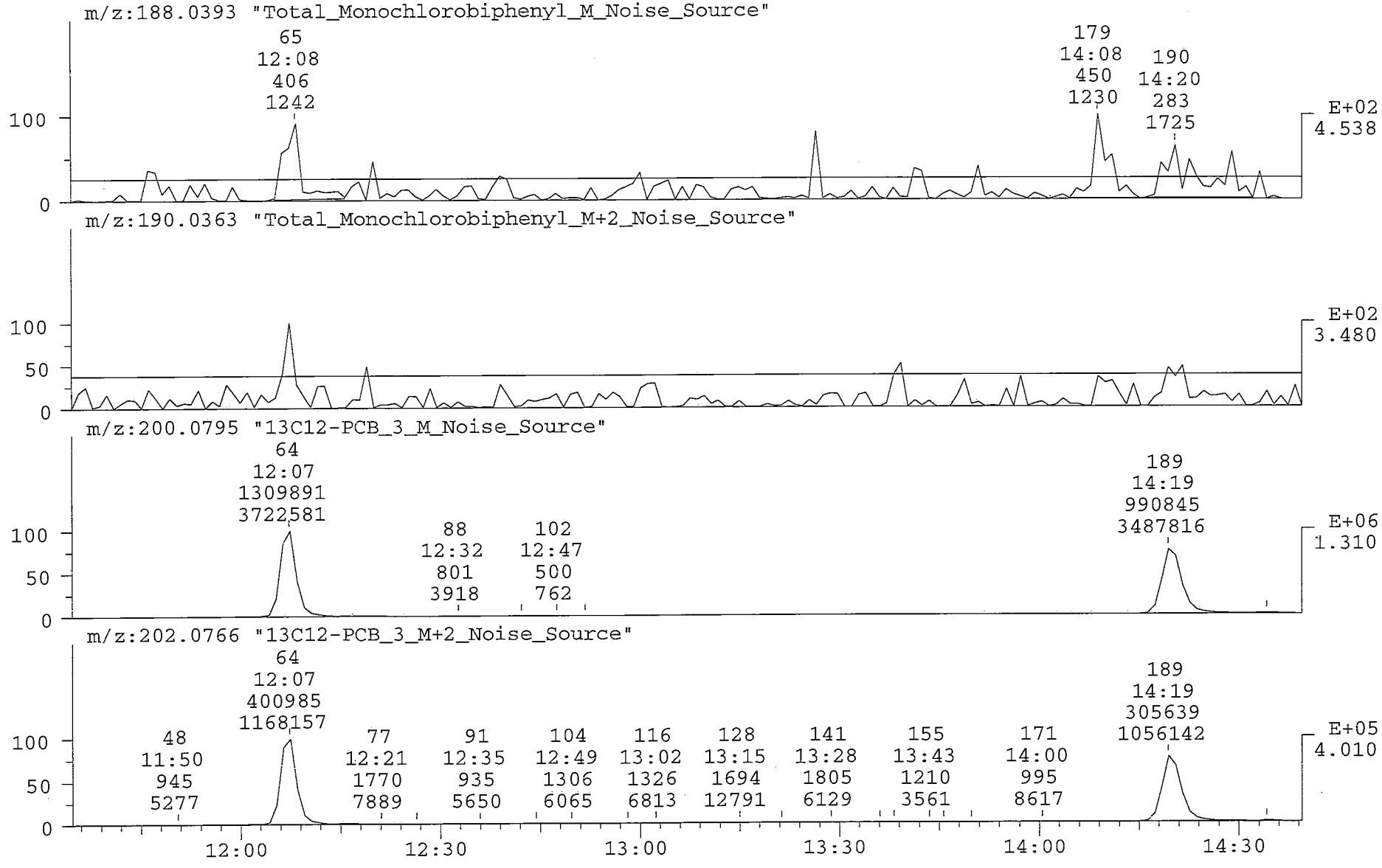
100
80
60
40
20
0

16:00 24:00 32:00 40:00 48:00 56:00

H-1196

1195

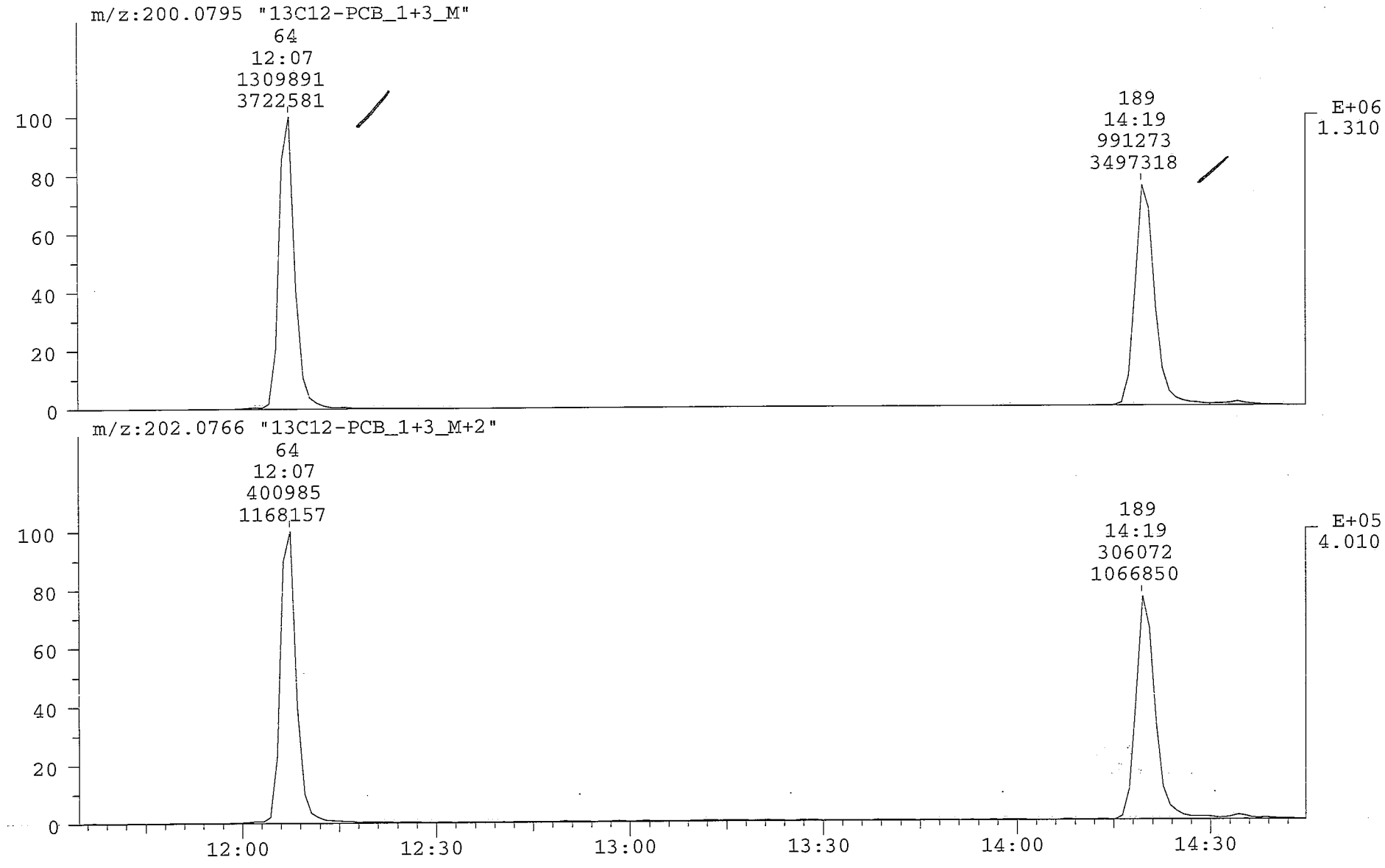
CHRO: apmkm60 14-Jul-11 Elapse: 13:20.3 133
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1197

1196

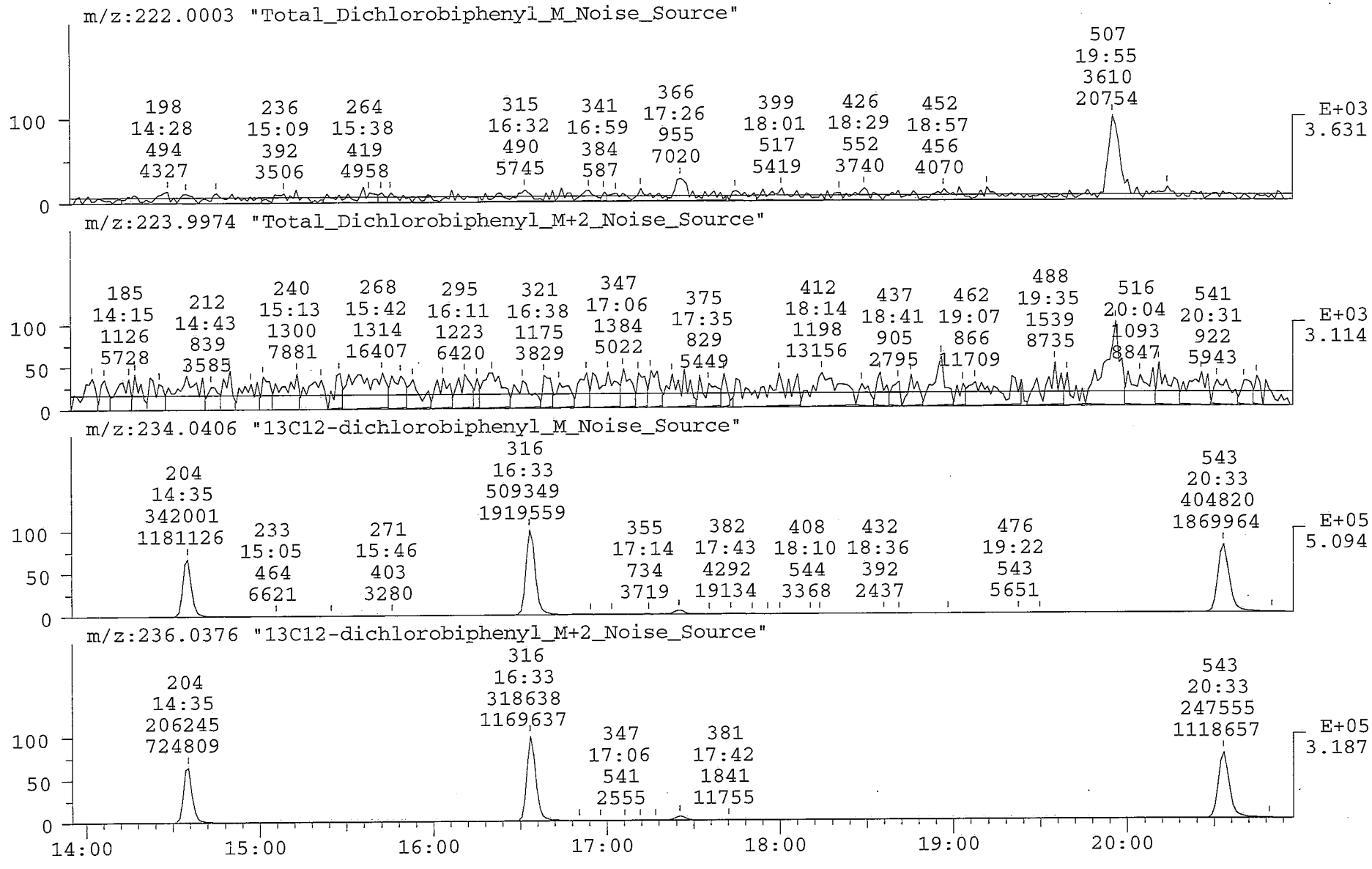
CHRO: apmkm60 14-Jul-11 Elapse: 13:20.3 133
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 33 > 213 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1198

1197

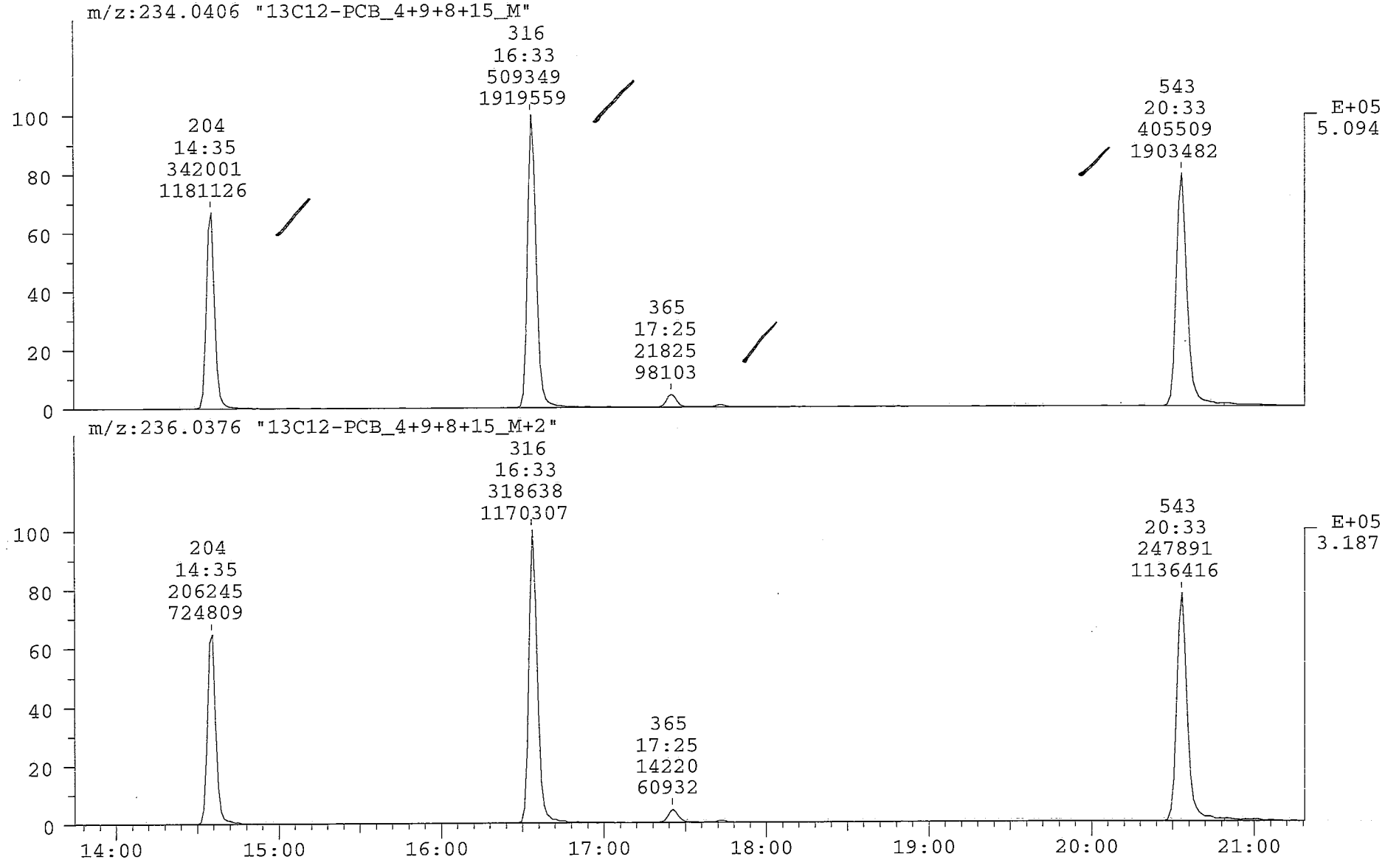
CHRO: apmkm60 14-Jul-11 Elapse: 17:26.3 366
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1199

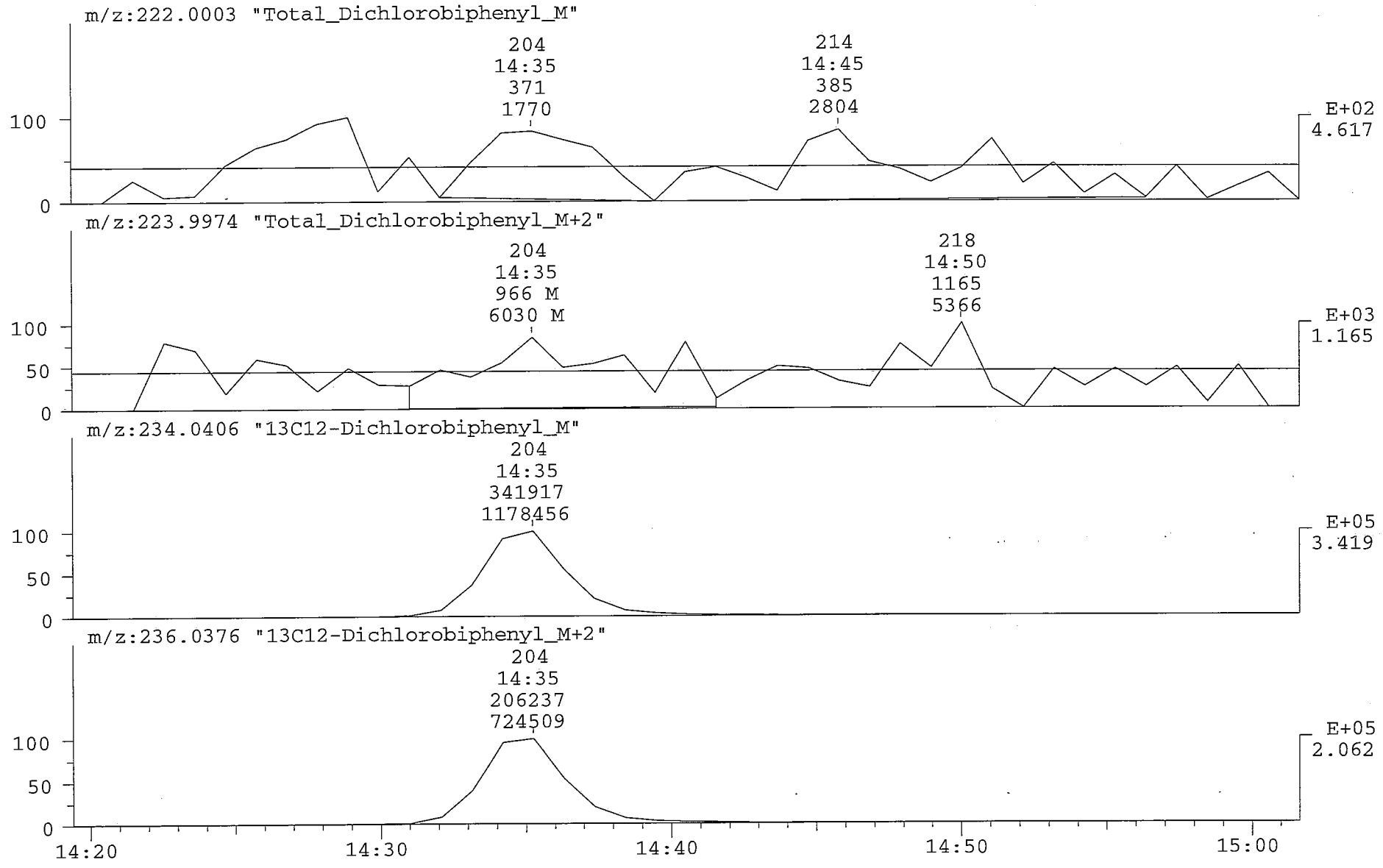
1198

CHRO: apmkm60 14-Jul-11 Elapse: 17:26.3 366
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1200

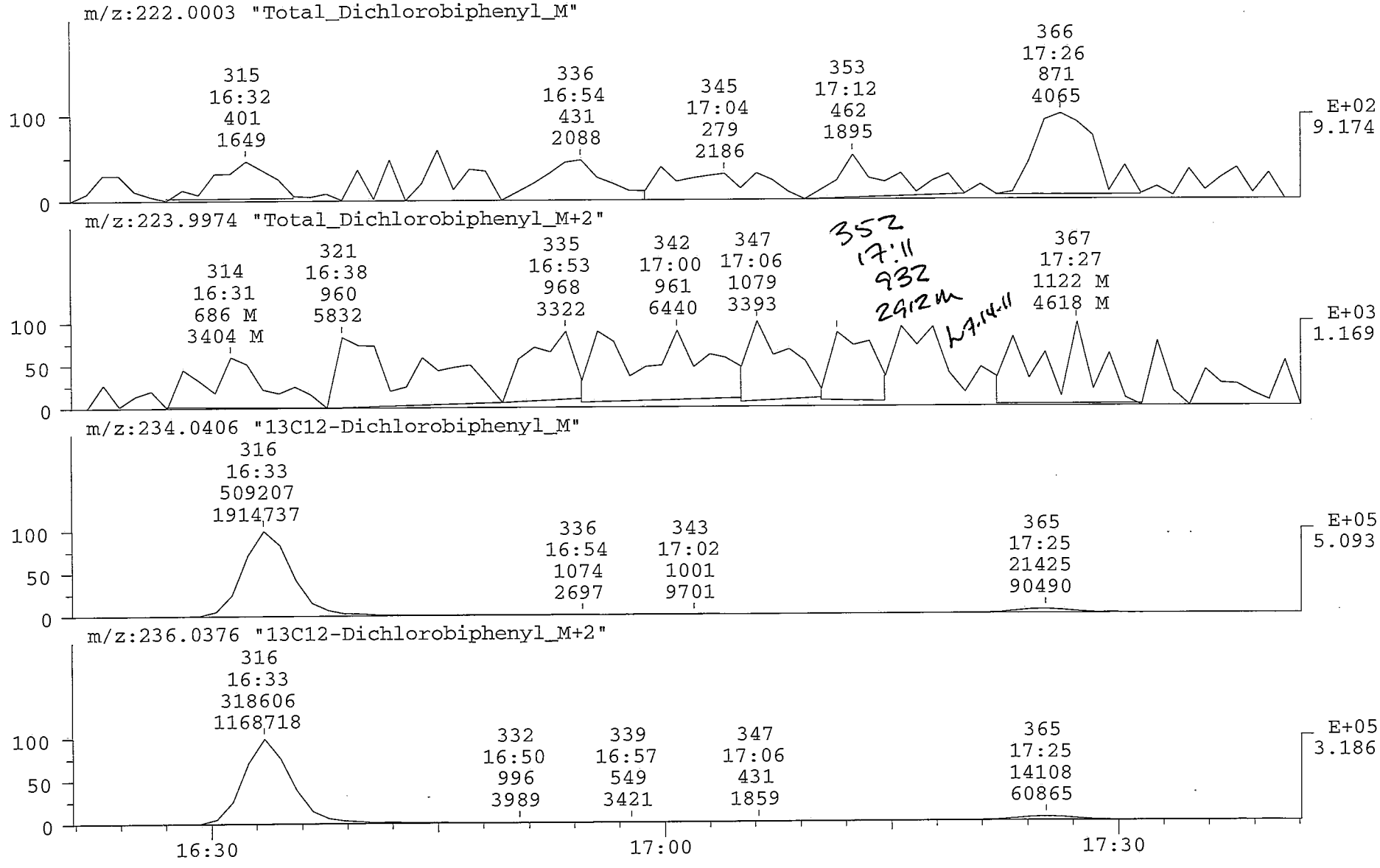
CHRO: apmkm60 14-Jul-11 Elapse: 56:03 2548
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 189 > 229 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1201

1200

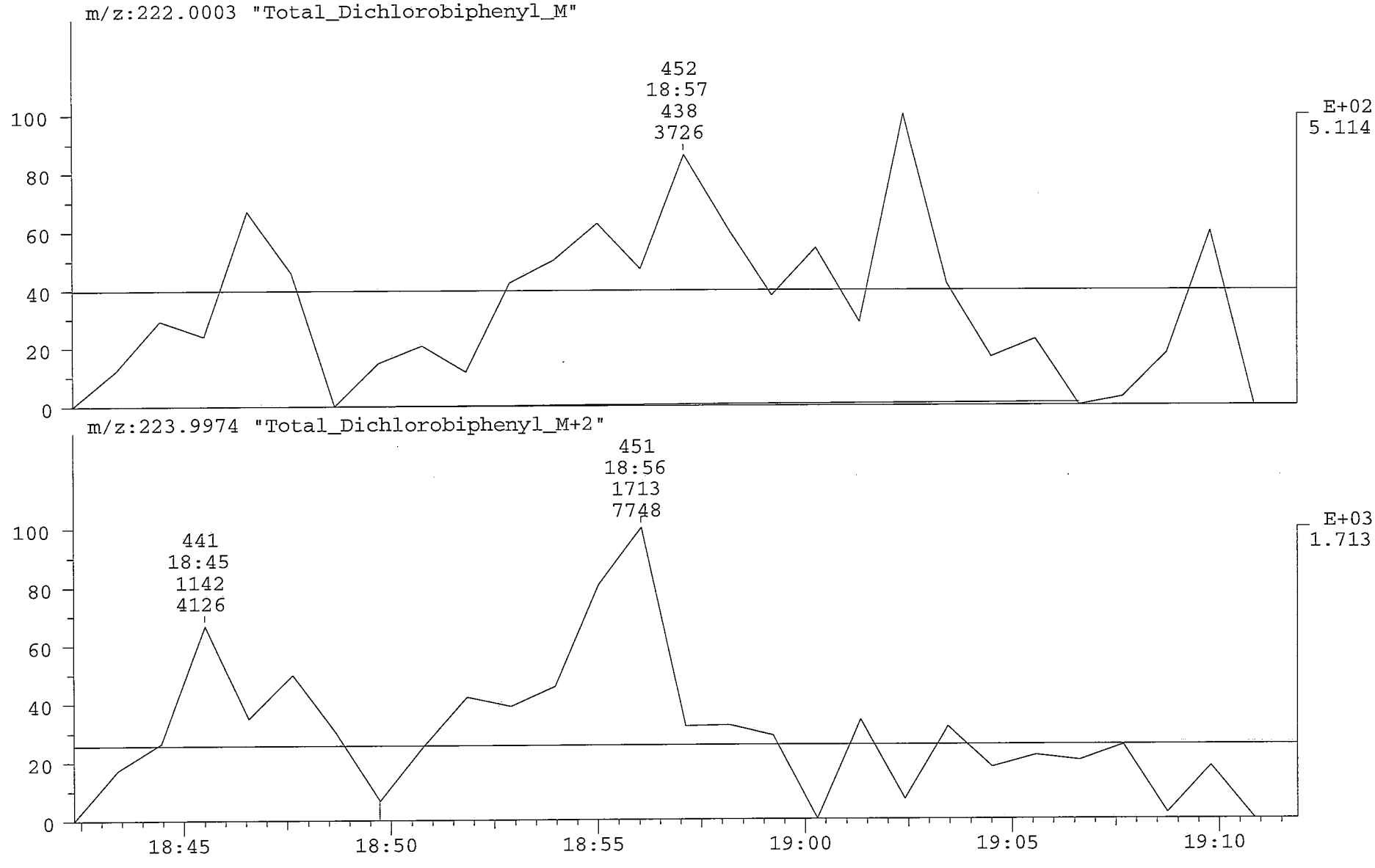
CHRO: apmkm60 14-Jul-11 Elapse: 17:15.7 356
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 304 > 381 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : 3, 3.0
Disp: Height Area



H-1202

1201

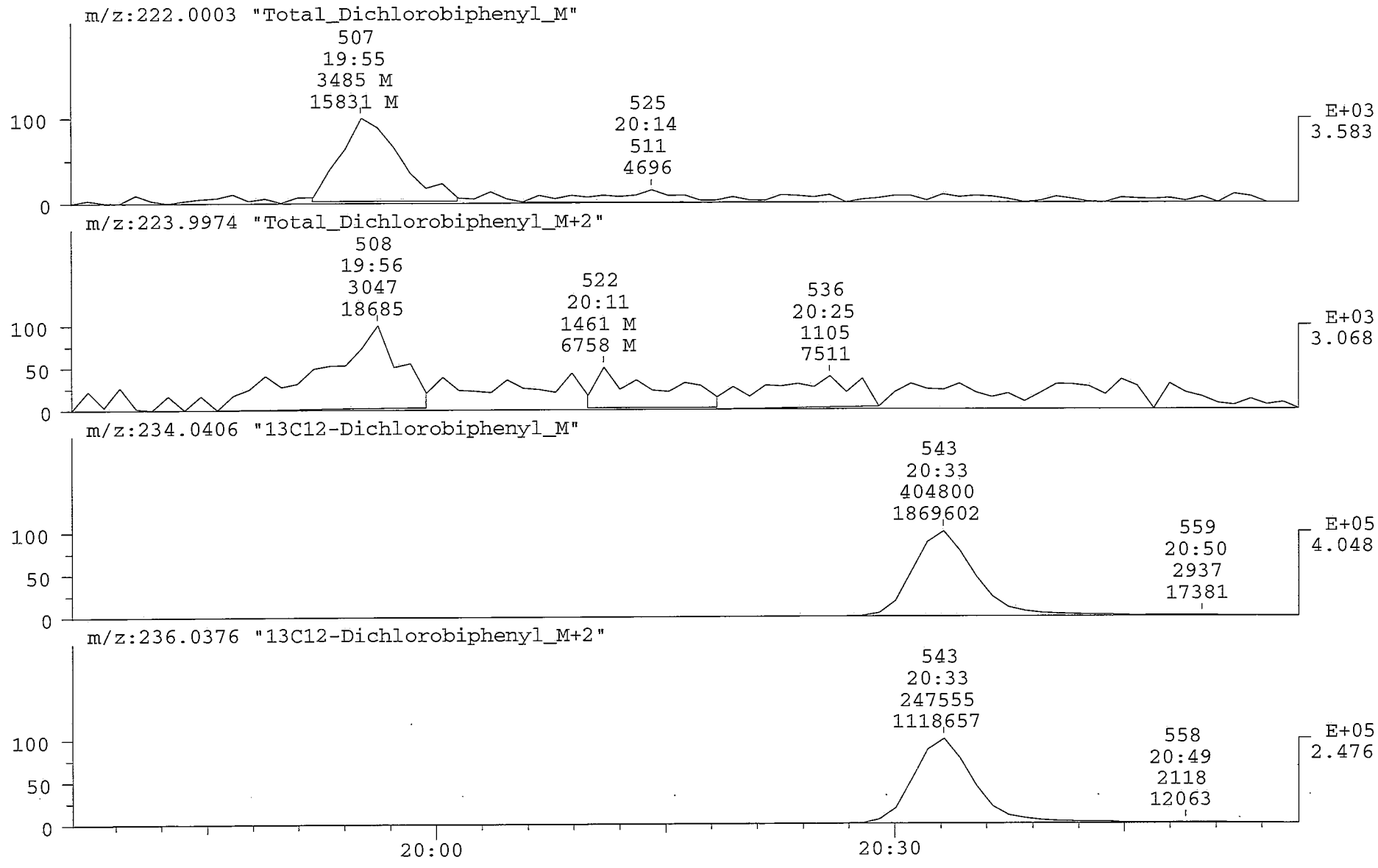
CHRO: apmkm60 14-Jul-11 Elapse: 56:03 2548
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 438 > 466 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1203

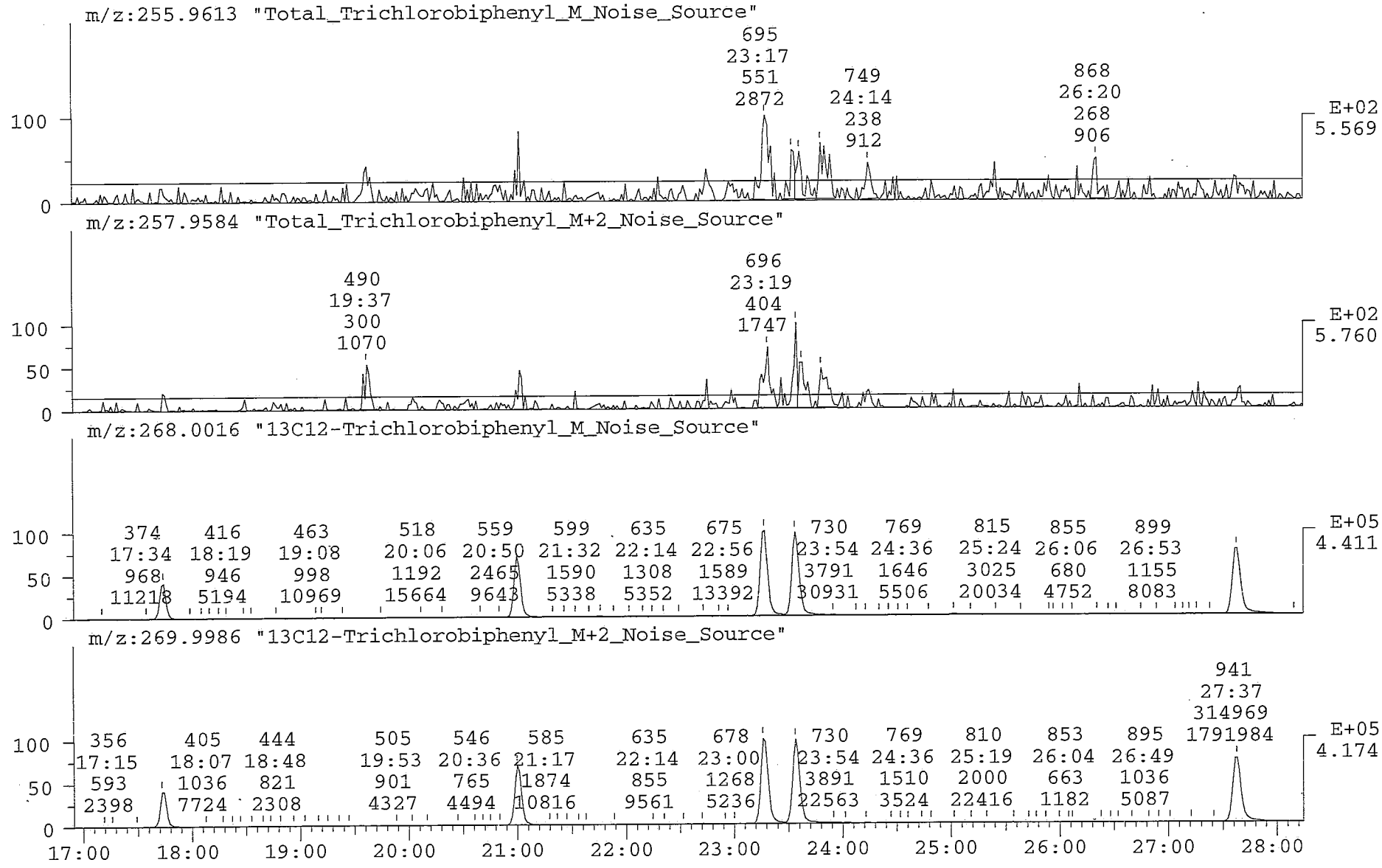
1202

CHRO: apmkm60 14-Jul-11 Elapse: 56:03 2548
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 489 > 565 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 3, 3.0
Disp: Height Area



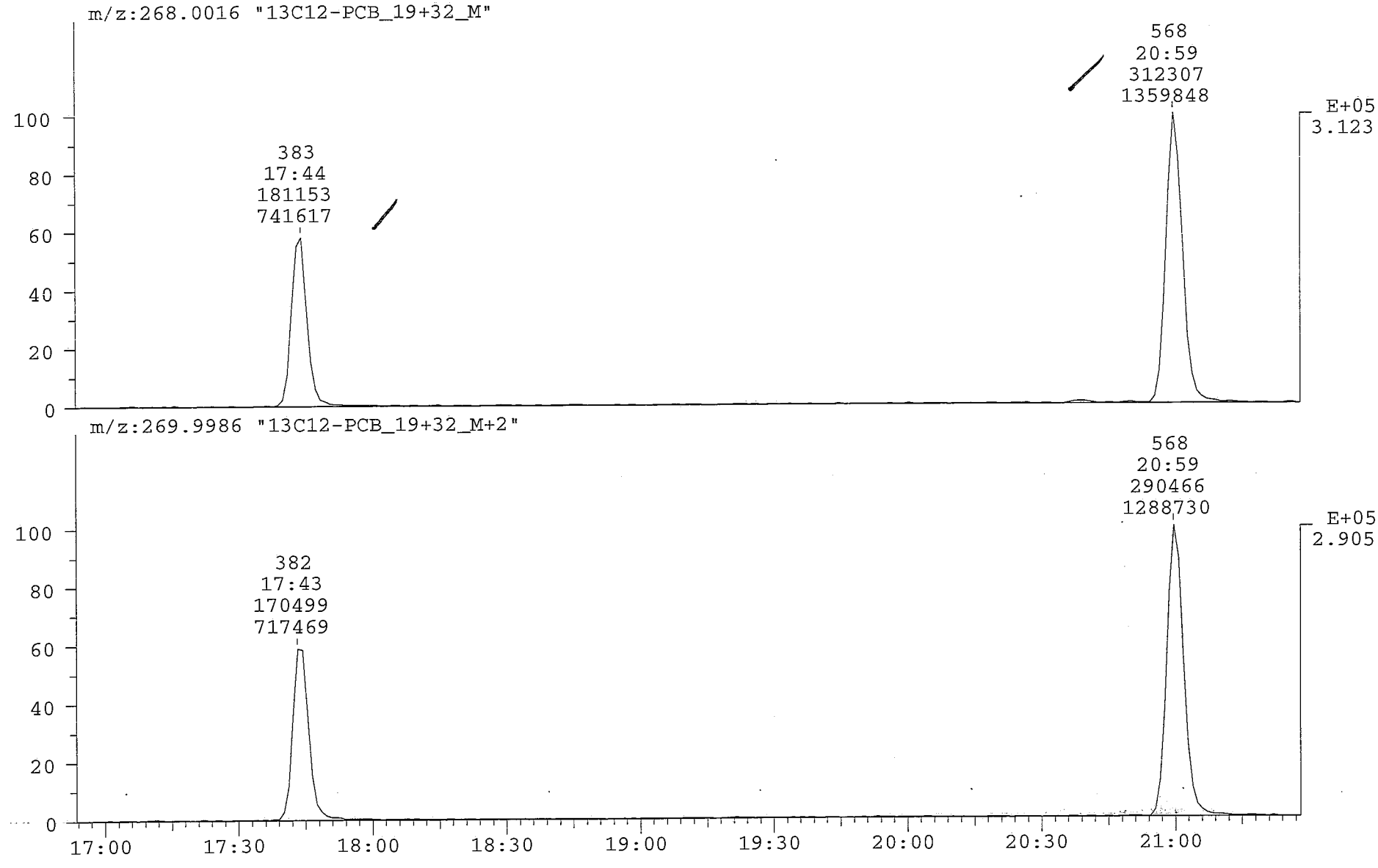
H-1204

CHRO: apmkm60 14-Jul-11 Elapse: 22:36.8 656
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1205

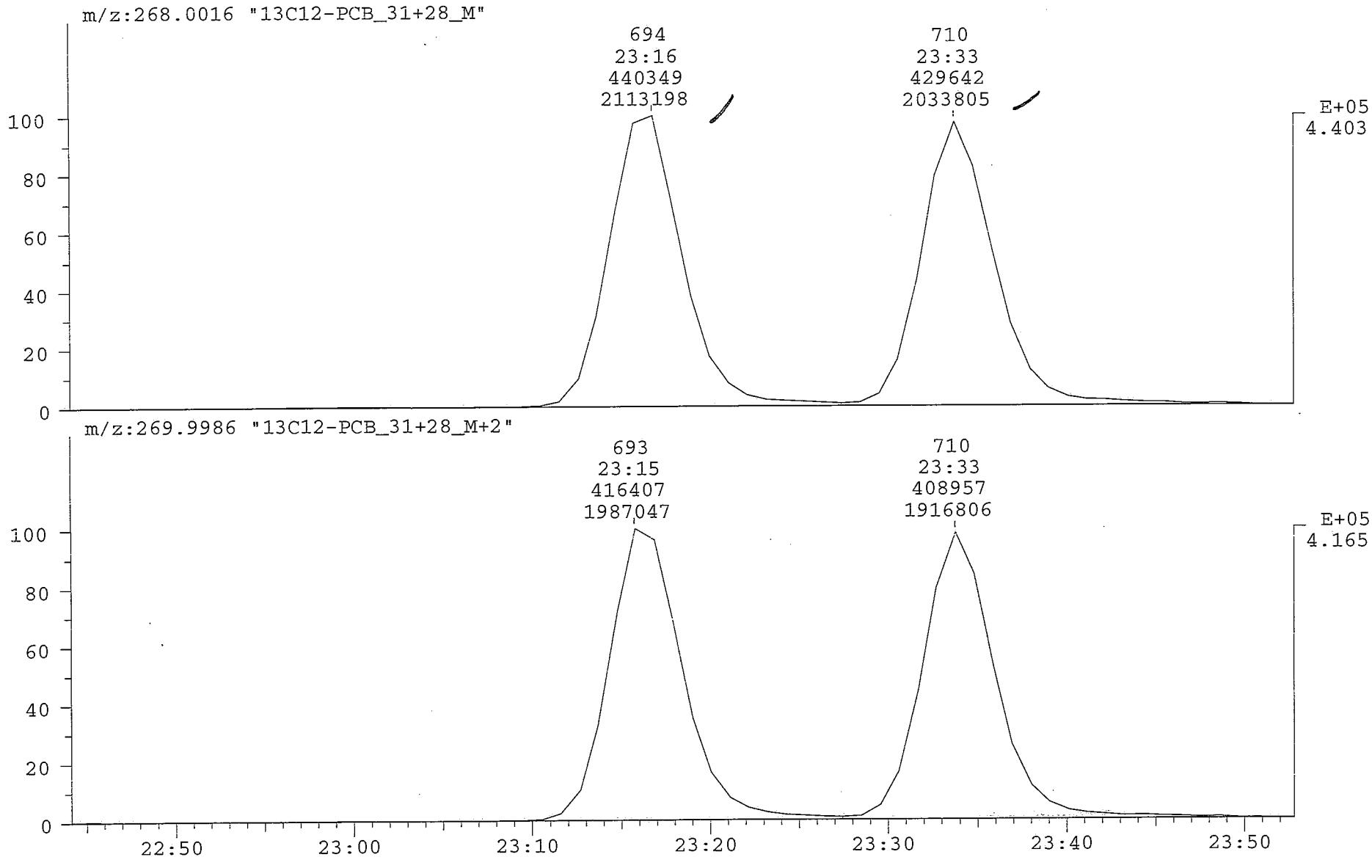
CHRO: apmkm60 14-Jul-11 Elapse: 19:00.3 455
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 335 > 595 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1206

1205

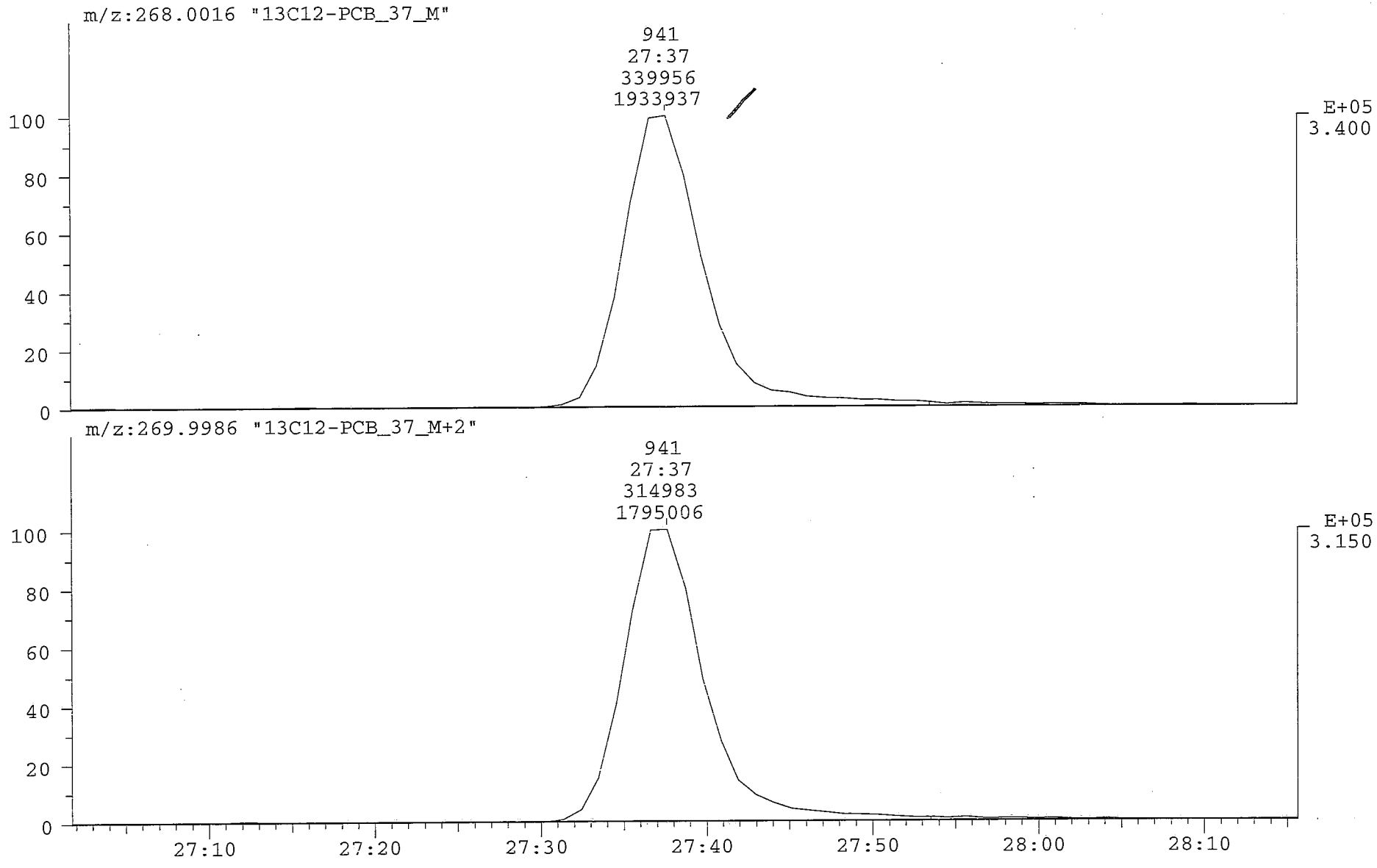
CHRO: apmkm60 14-Jul-11 Elapse: 23:10.6 688
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 663 > 728 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1207

1206

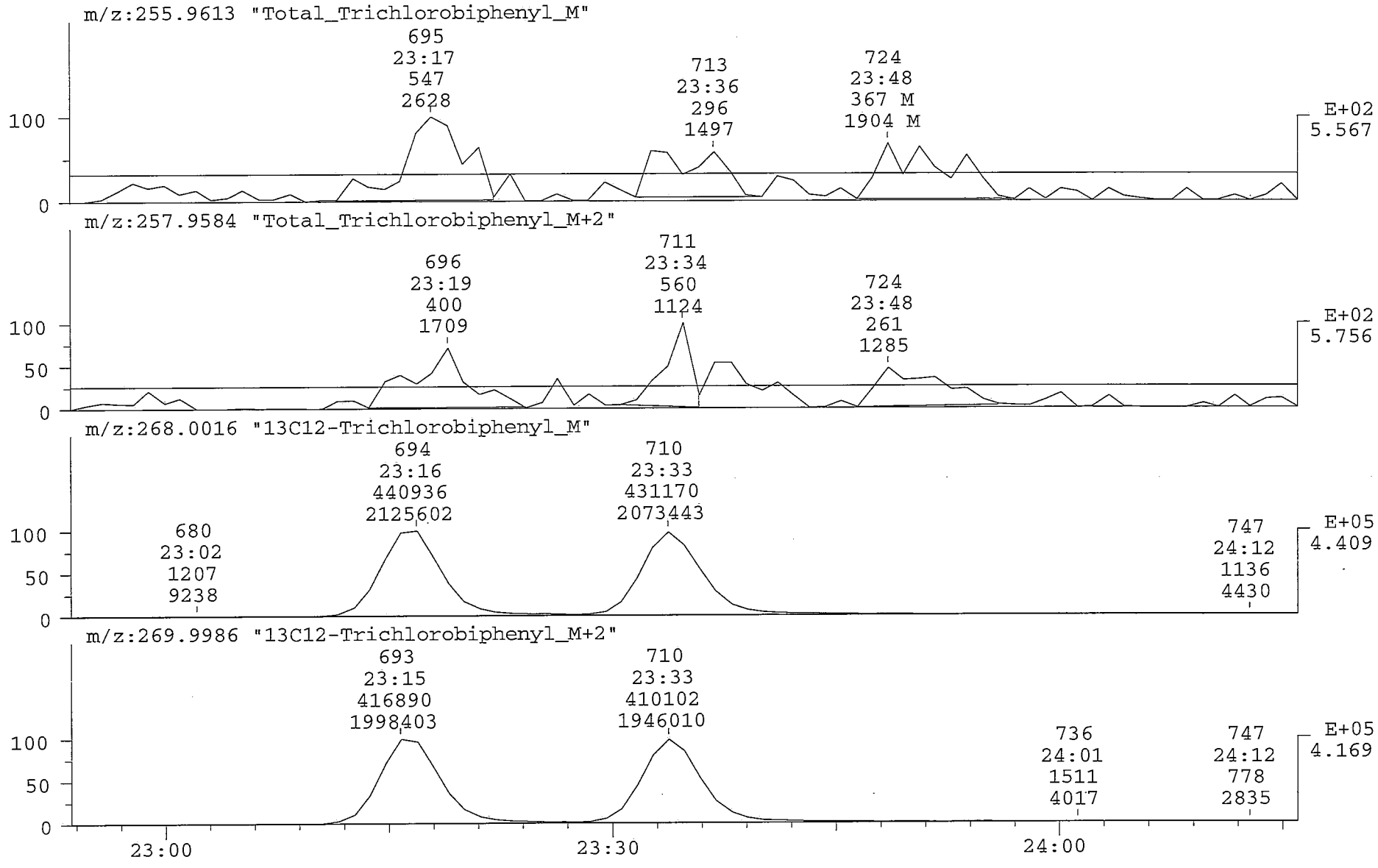
CHRO: apmkm60 14-Jul-11 Elapse: 27:28.2 932
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 907 > 977 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1208

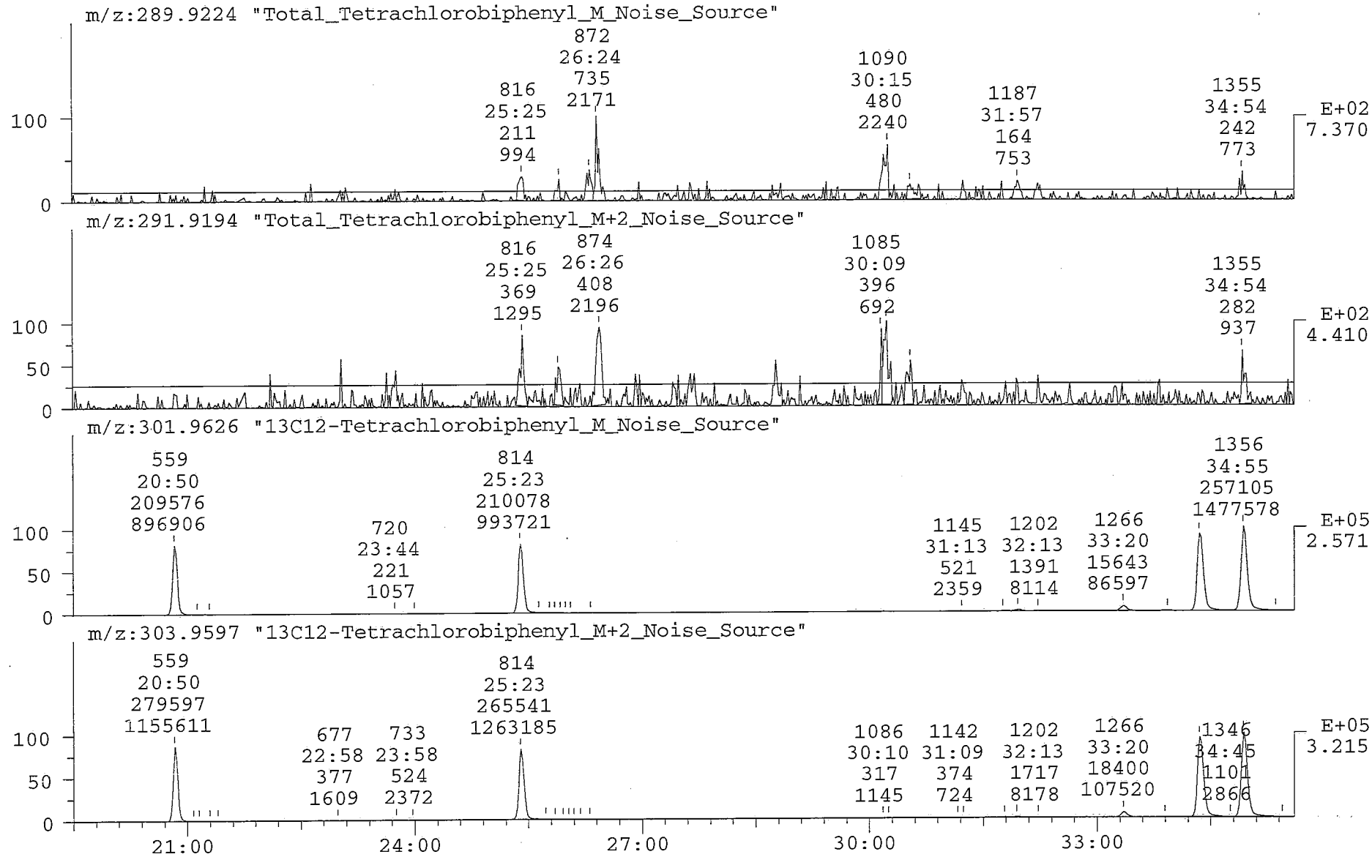
1207

CHRO: apmkm60 14-Jul-11 Elapse: 23:38.0 714
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 672 > 750 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1209

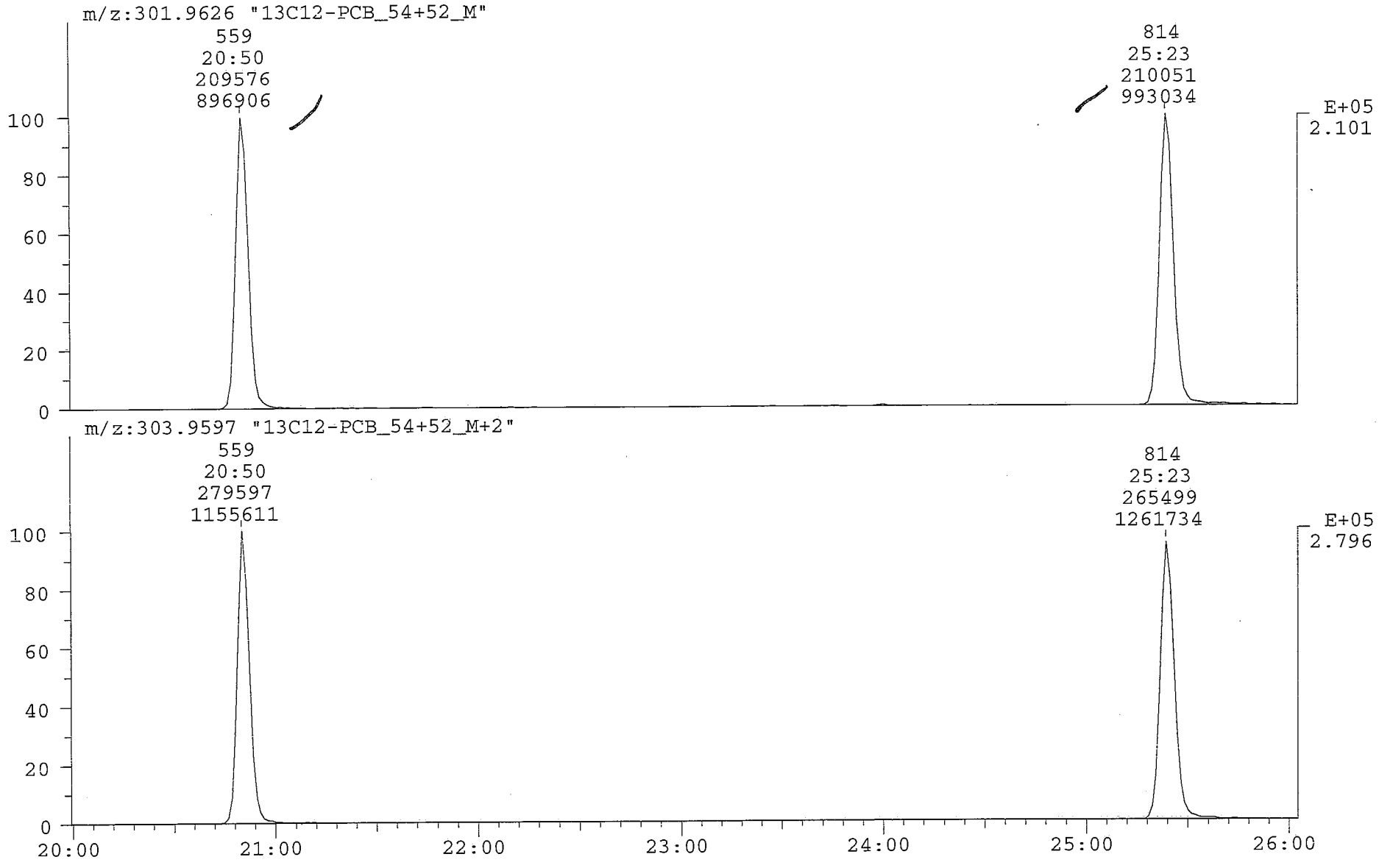
CHRO: apmkm60 14-Jul-11 Elapse: 27:36.6 940
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 483 > 1394 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1210

1209

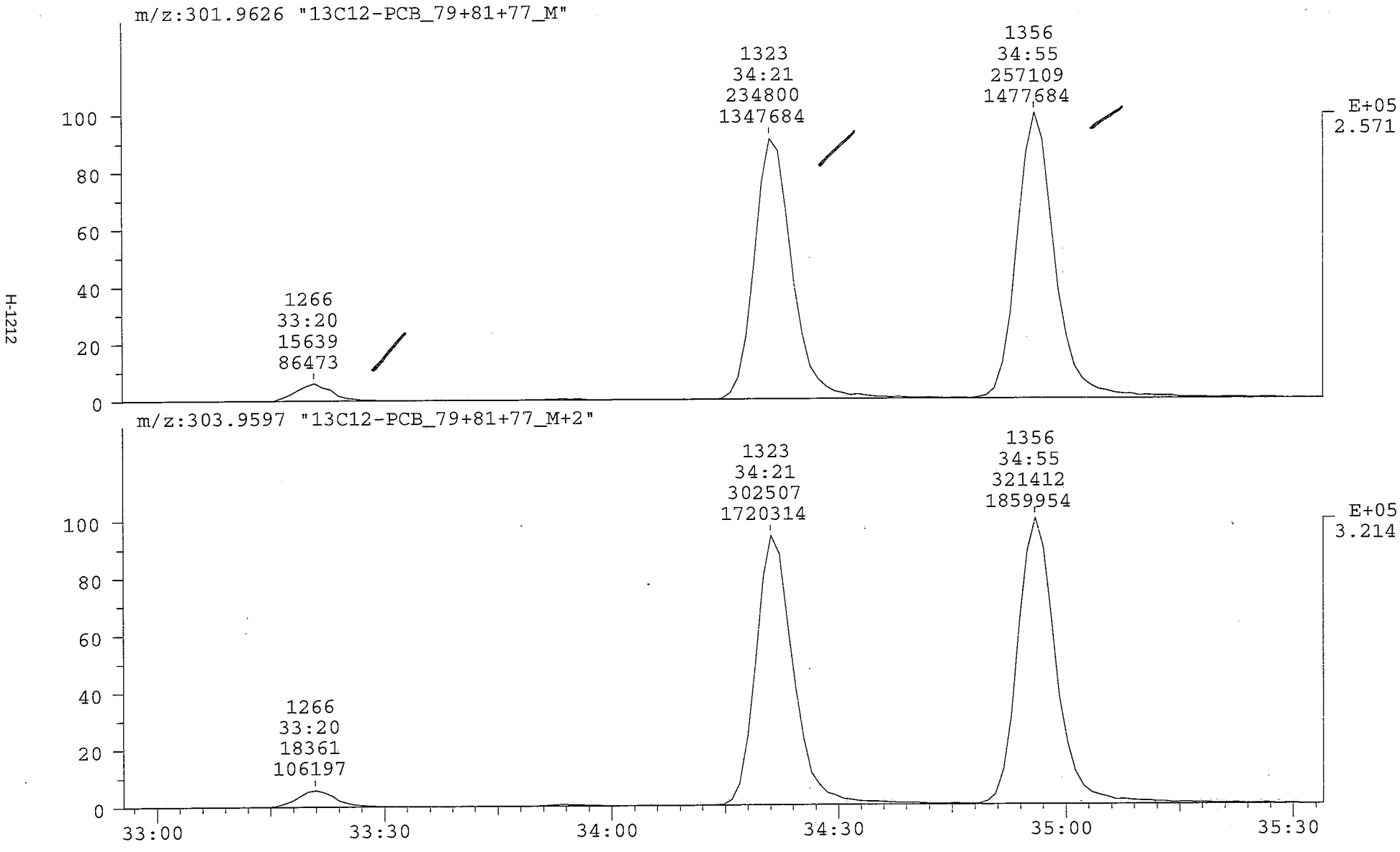
CHRO: apmkm60 14-Jul-11 Elapse: 23:03.1 681
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 511 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1211

1210

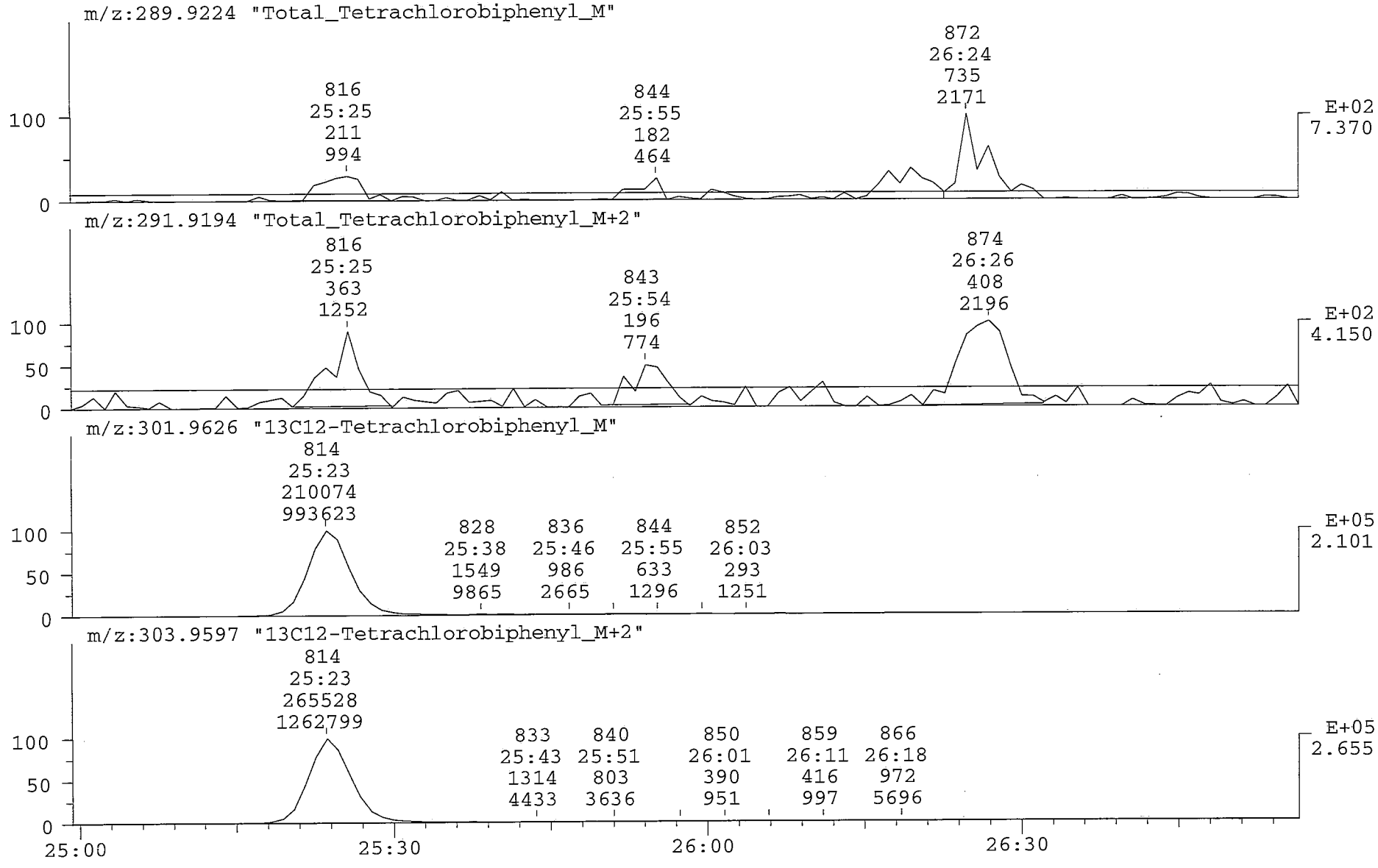
CHRO: apmkm60 14-Jul-11 Elapse: 33:58 1302
Samp: Via1 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1242 > 1392 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1212

1211

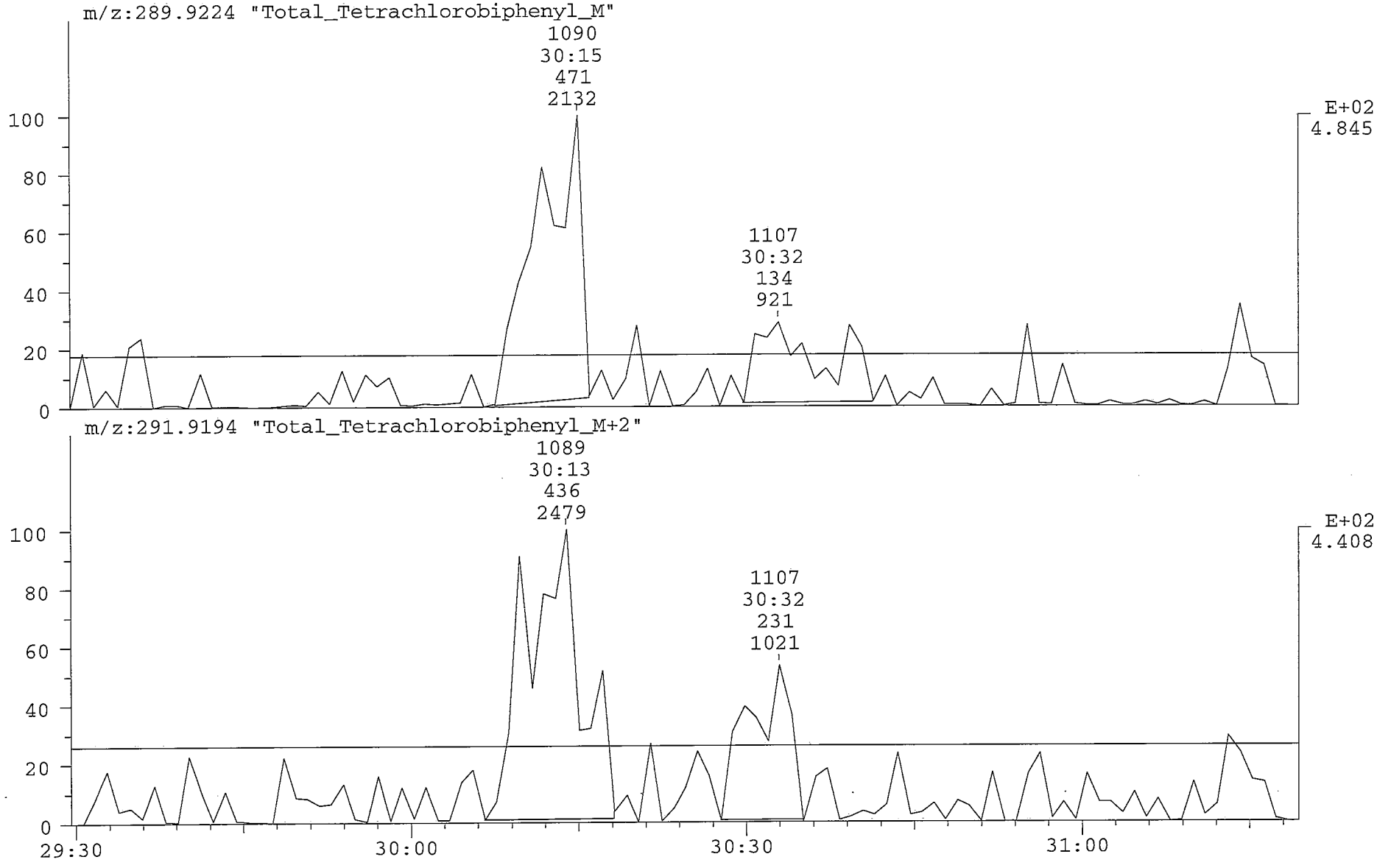
CHRO: apmkm60 14-Jul-11 Elapse: 23:38.0 714
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 791 > 902 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 2.0
Disp: Height Area



H-1213

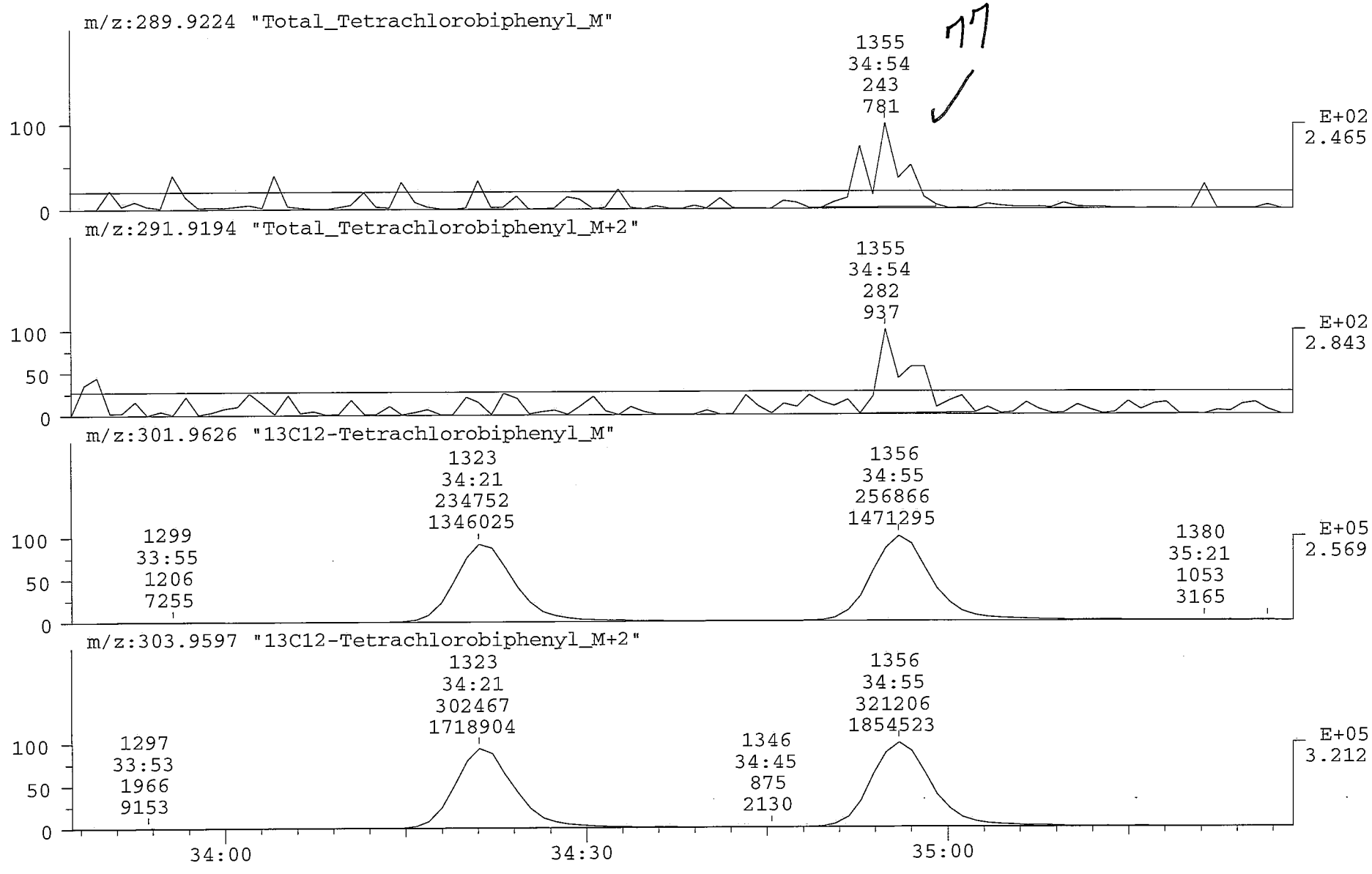
1212

CHRO: apmkm60 14-Jul-11 Elapse: 23:38.0 714
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1047 > 1151 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 2.0
Disp: Height Area



H-1214

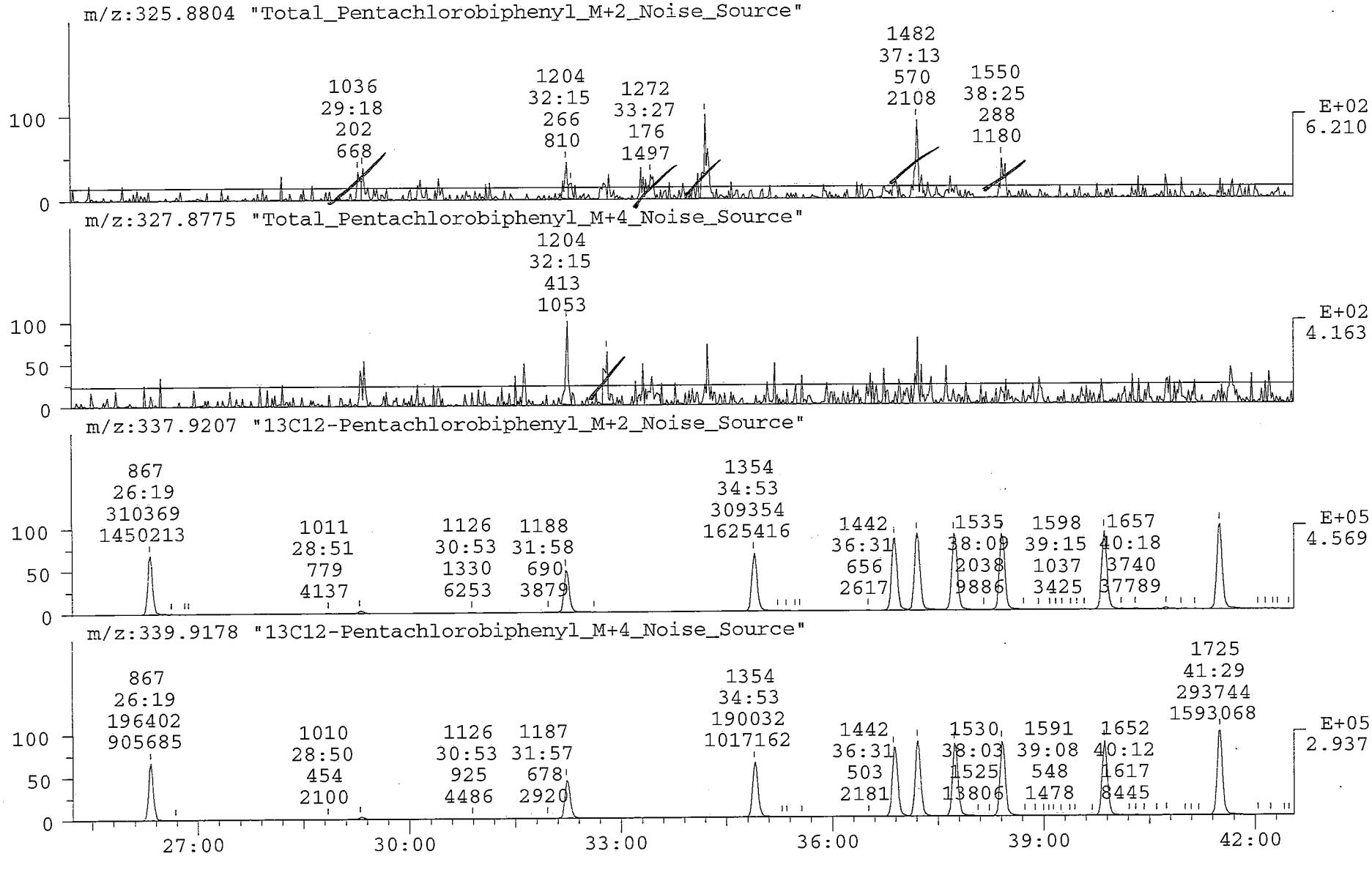
CHRO: apmkm60 14-Jul-11 Elapse: 23:38.0 714
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1291 > 1387 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 2.0
Disp: Height Area



H-1215

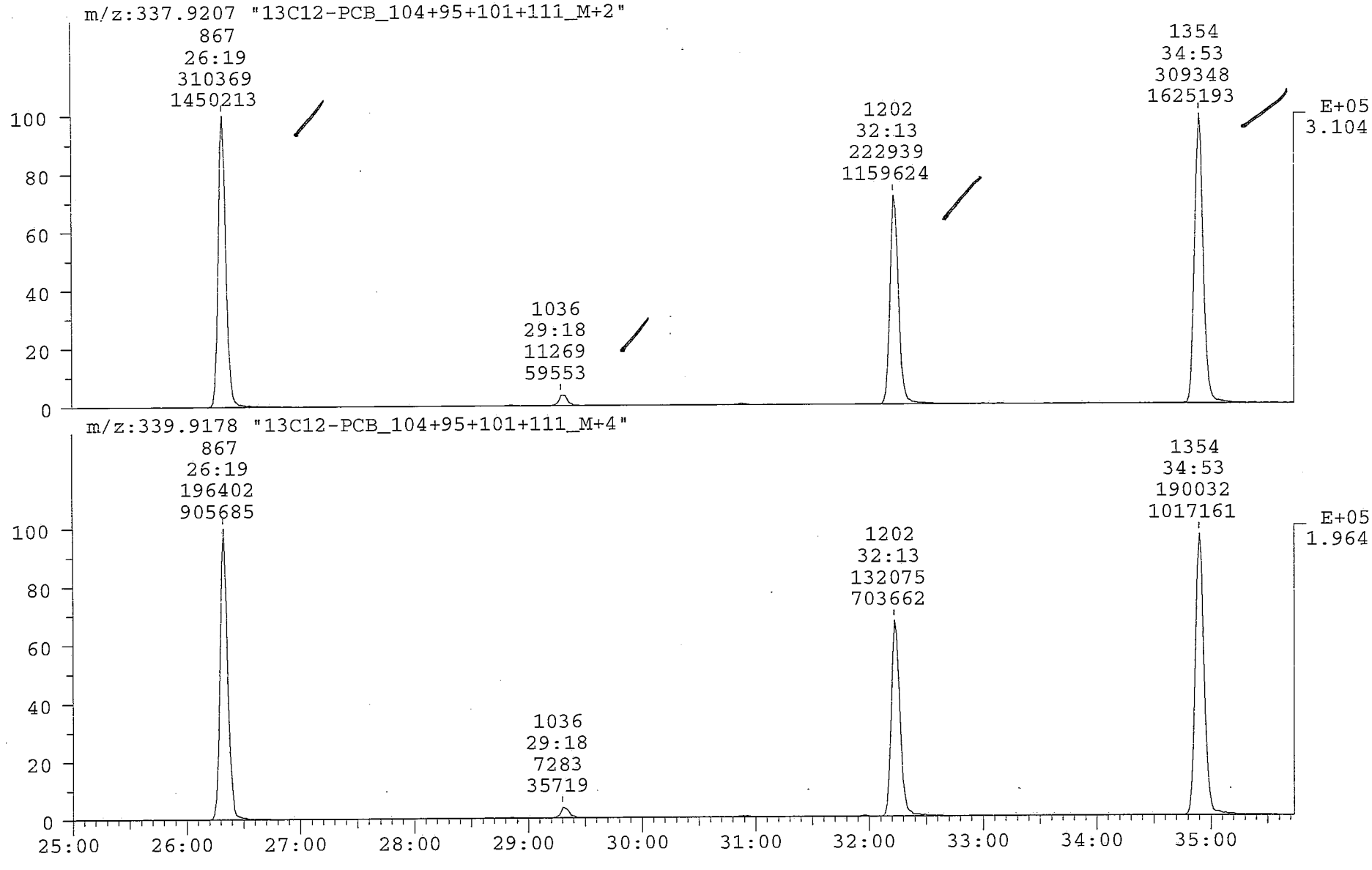
1214

CHRO: apmkm60 14-Jul-11 Elapse: 33:52 1296
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 804 > 1785 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



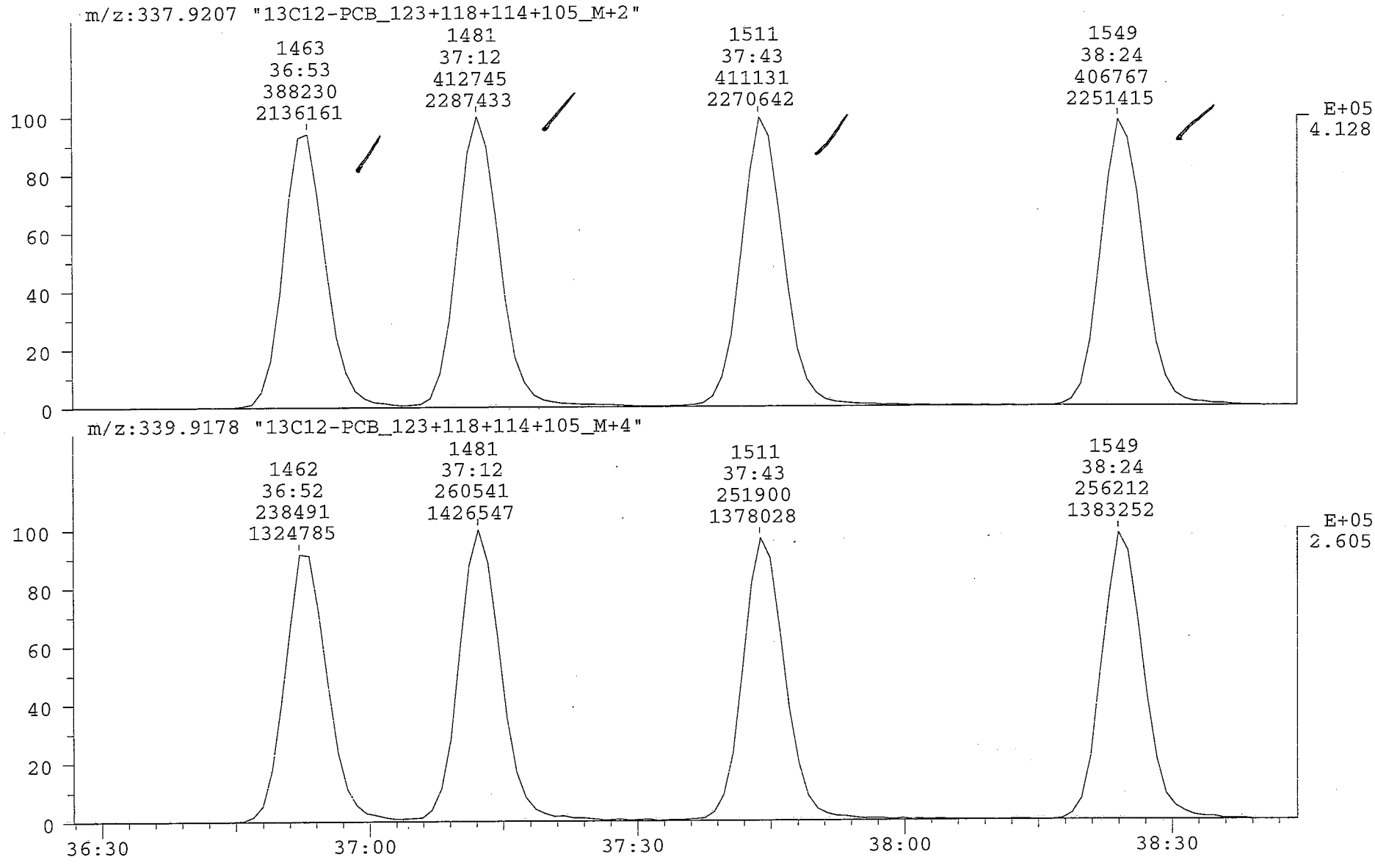
H-1216

CHRO: apmkm60 14-Jul-11 Elapse: 30:22 1097
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 792 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



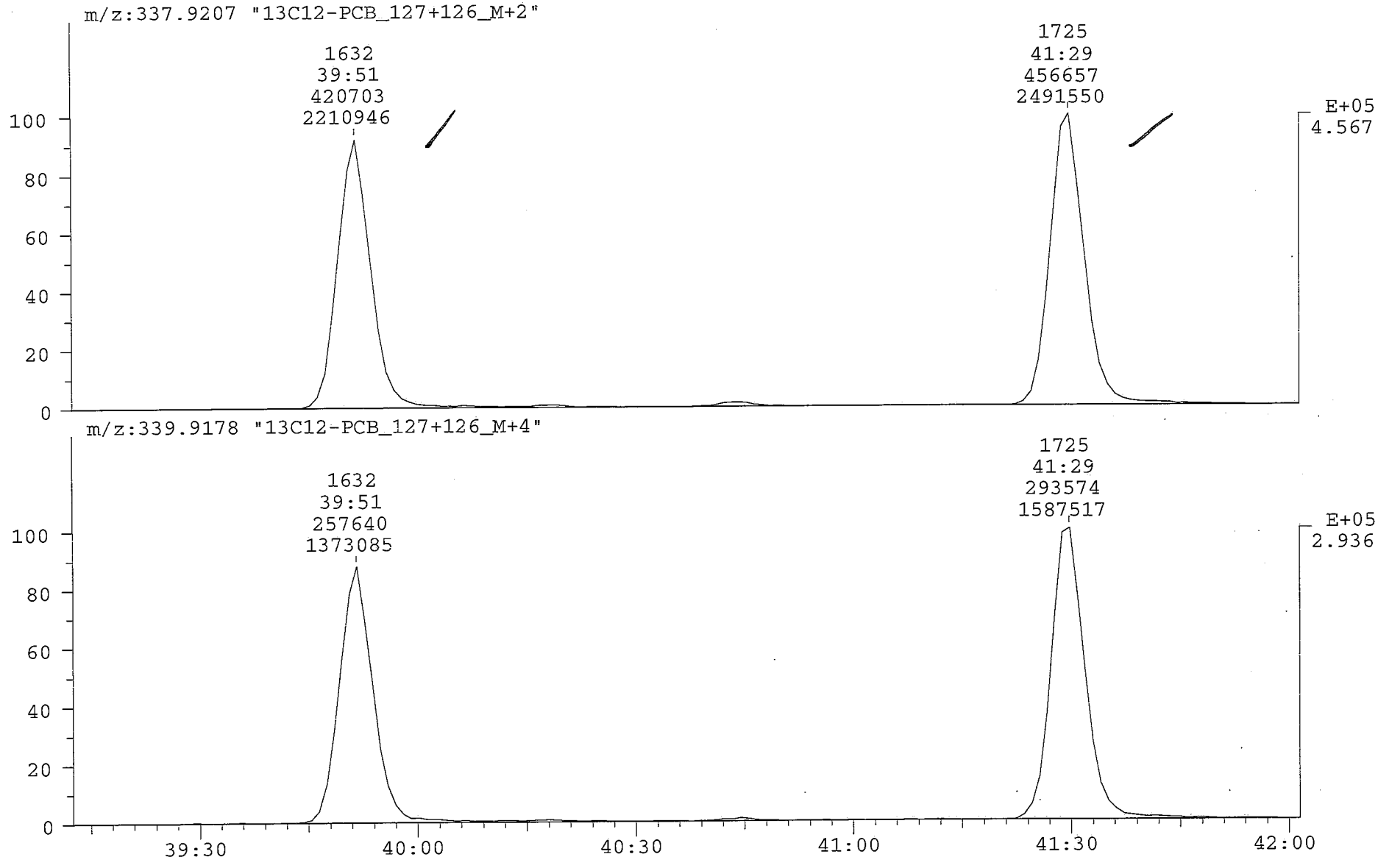
H-1217

CHRO: apmkm60 14-Jul-11 Elapse: 37:35 1503
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1438 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



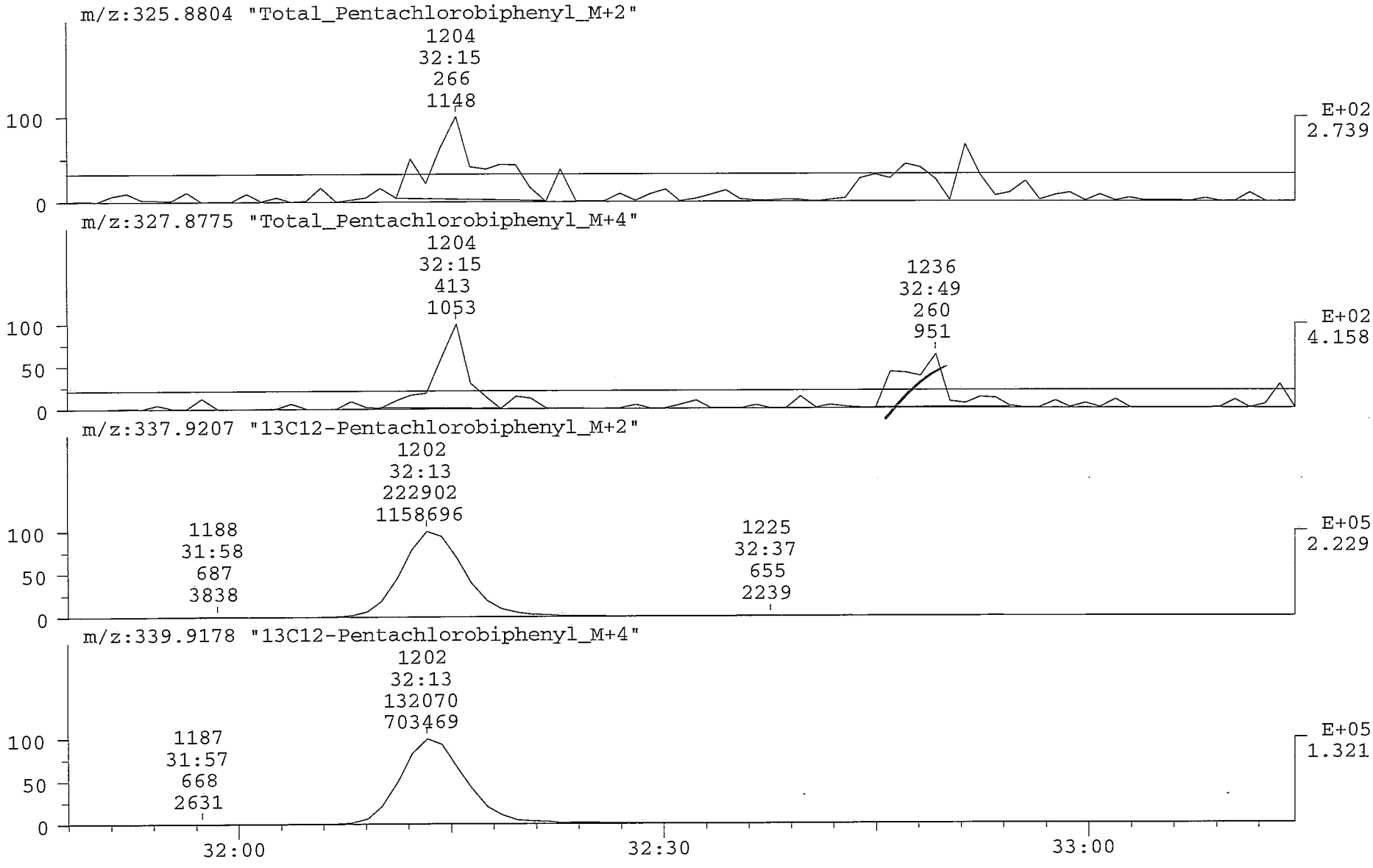
H-1218

CHRO: apmkm60 14-Jul-11 Elapse: 40:37 1675
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1595 > 1755 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1219

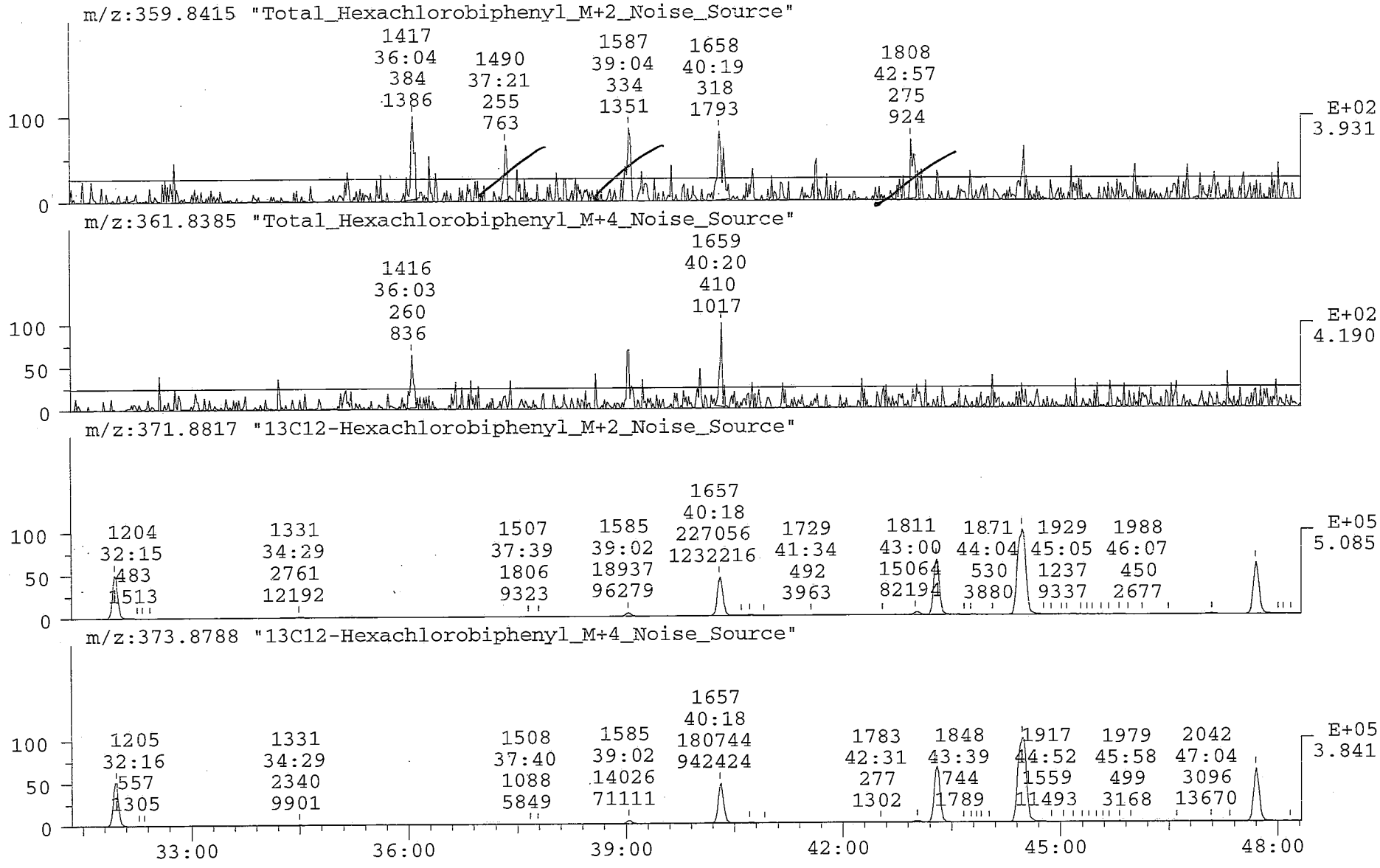
CHRO: apmkm60 14-Jul-11 Elapse: 23:38.0 714
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1178 > 1260 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1220

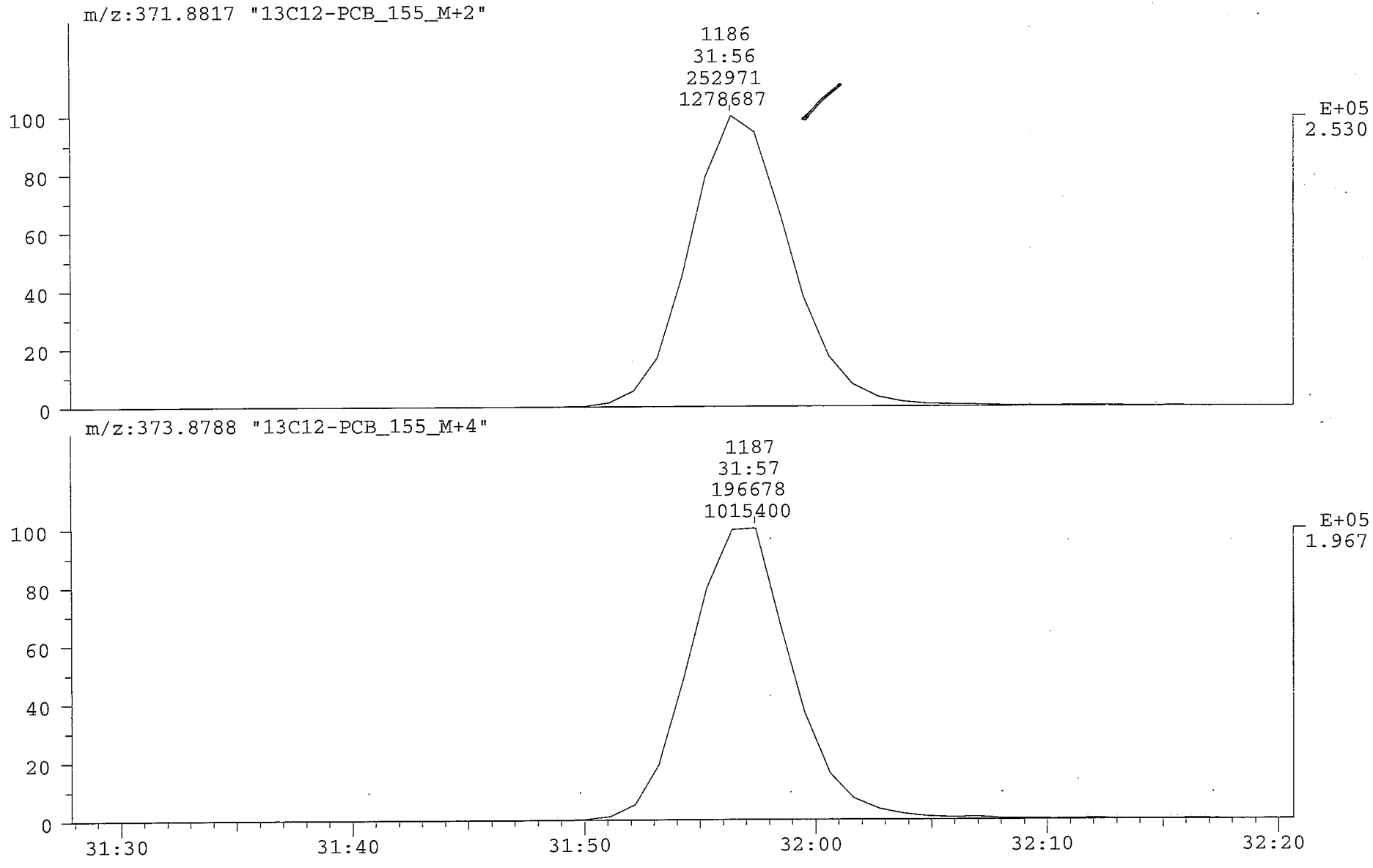
1219

CHRO: apmkm60 14-Jul-11 Elapse: 39:49 1630
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1152 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1221

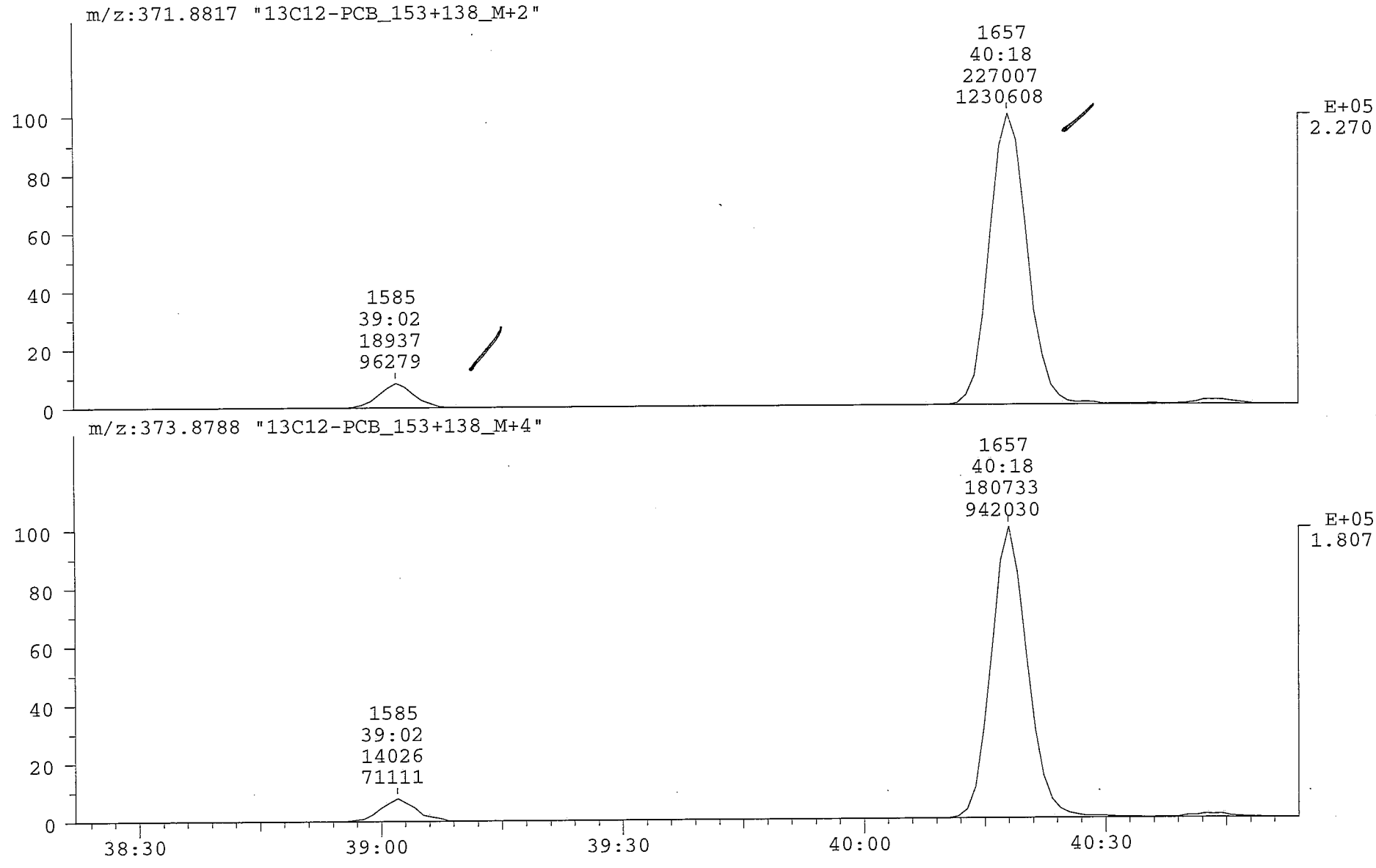
CHRO: apmkm60 14-Jul-11 Elapse: 31:54 1184
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1159 > 1209 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1222

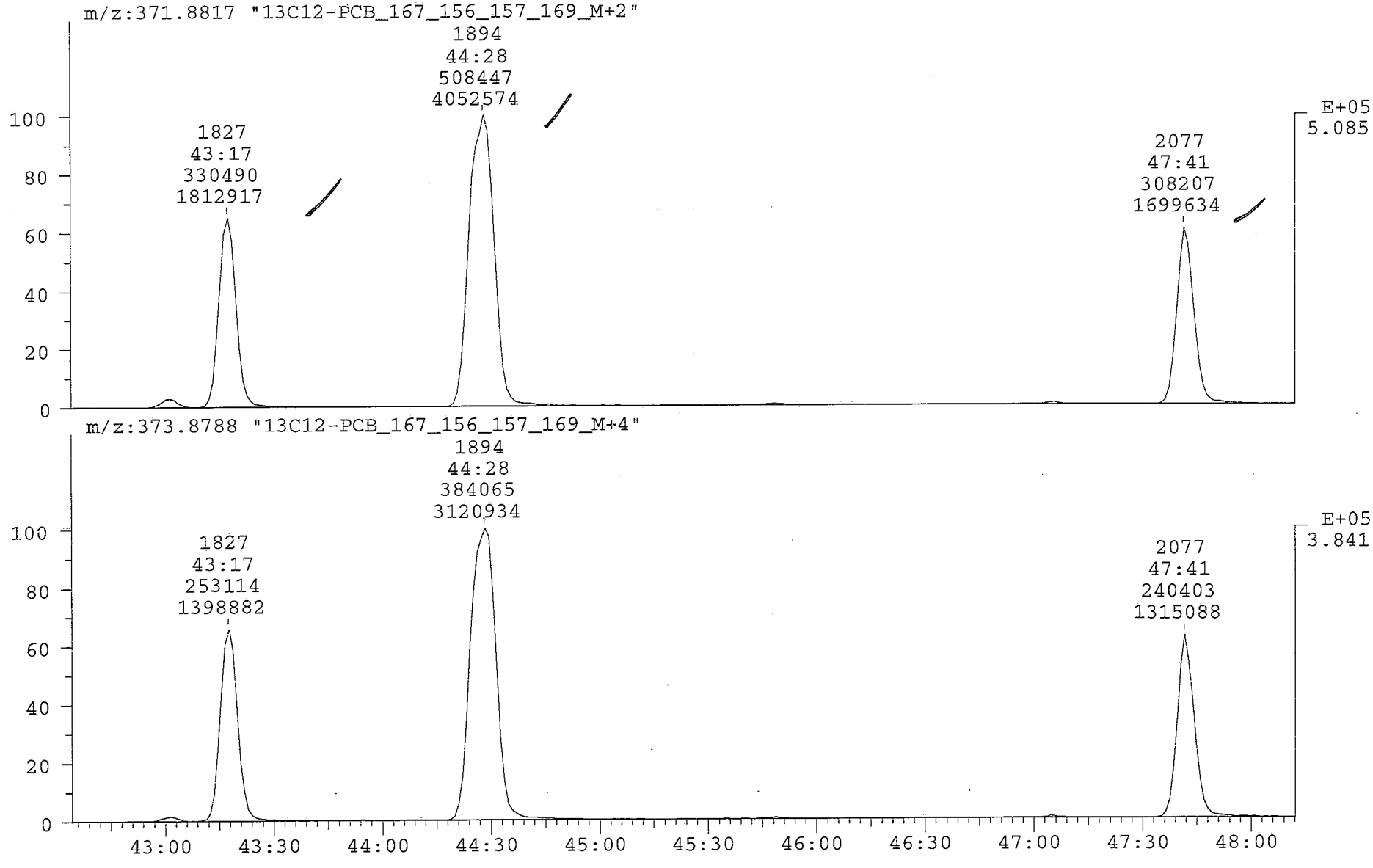
1221

CHRO: apmkm60 14-Jul-11 Elapse: 39:37 1619
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1547 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



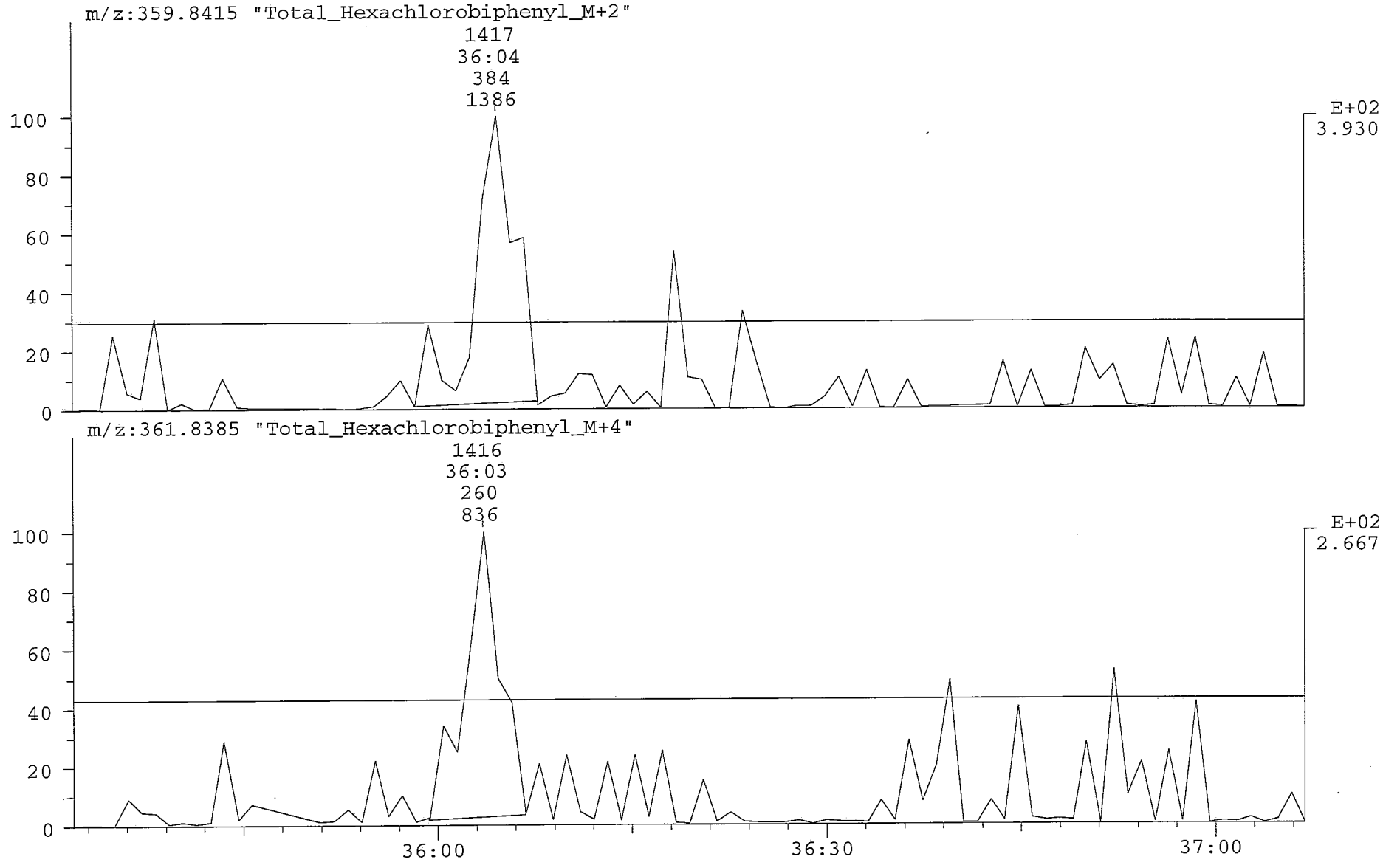
H-1223

CHRO: apmkm60 14-Jul-11 Elapse: 45:28 1951
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1786 > 2106 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 8 Label : -3, 3.0
Disp: Height Area



H-1224

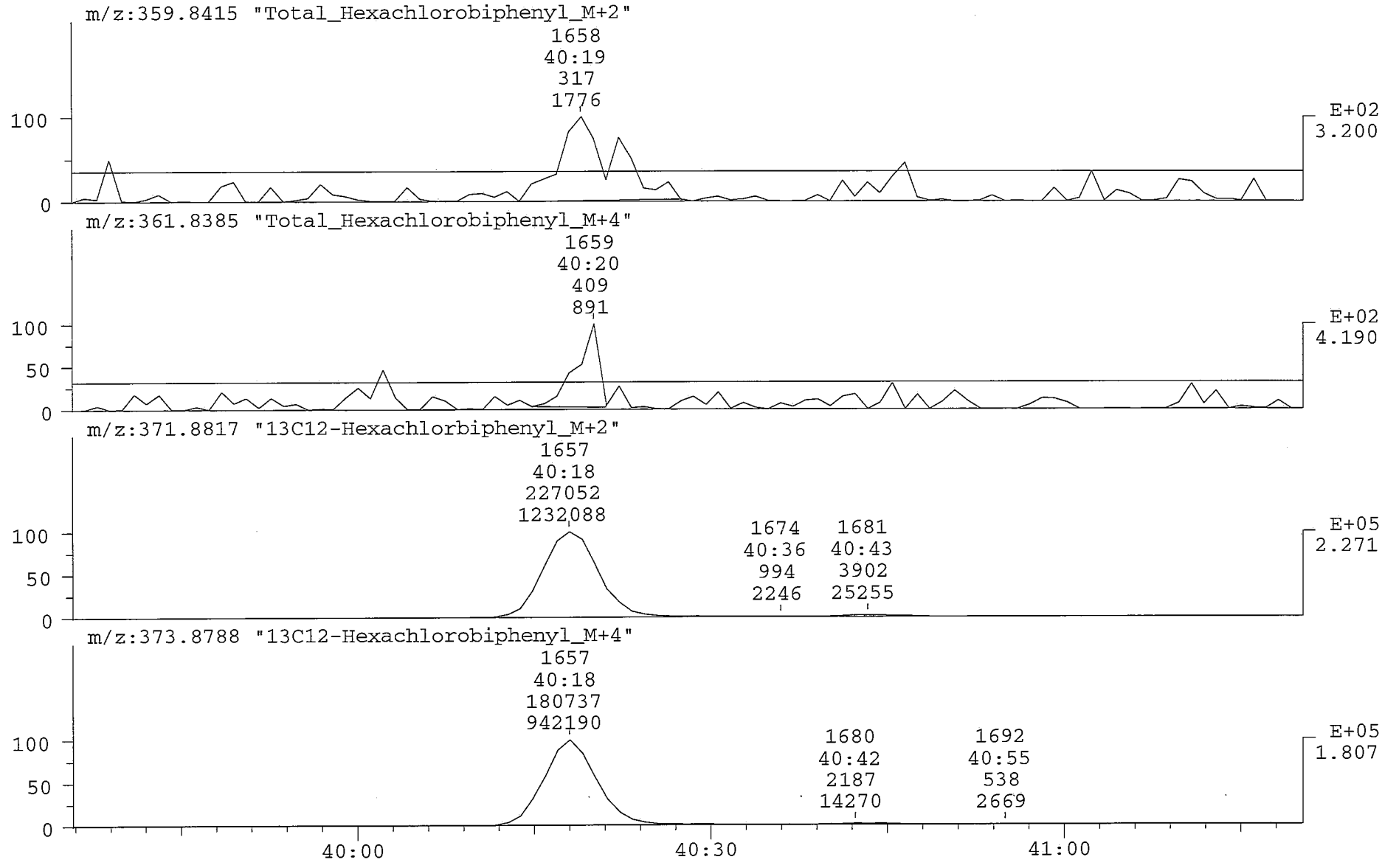
CHRO: apmkm60 14-Jul-11 Elapse: 23:38.0 714
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1390 > 1476 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1225

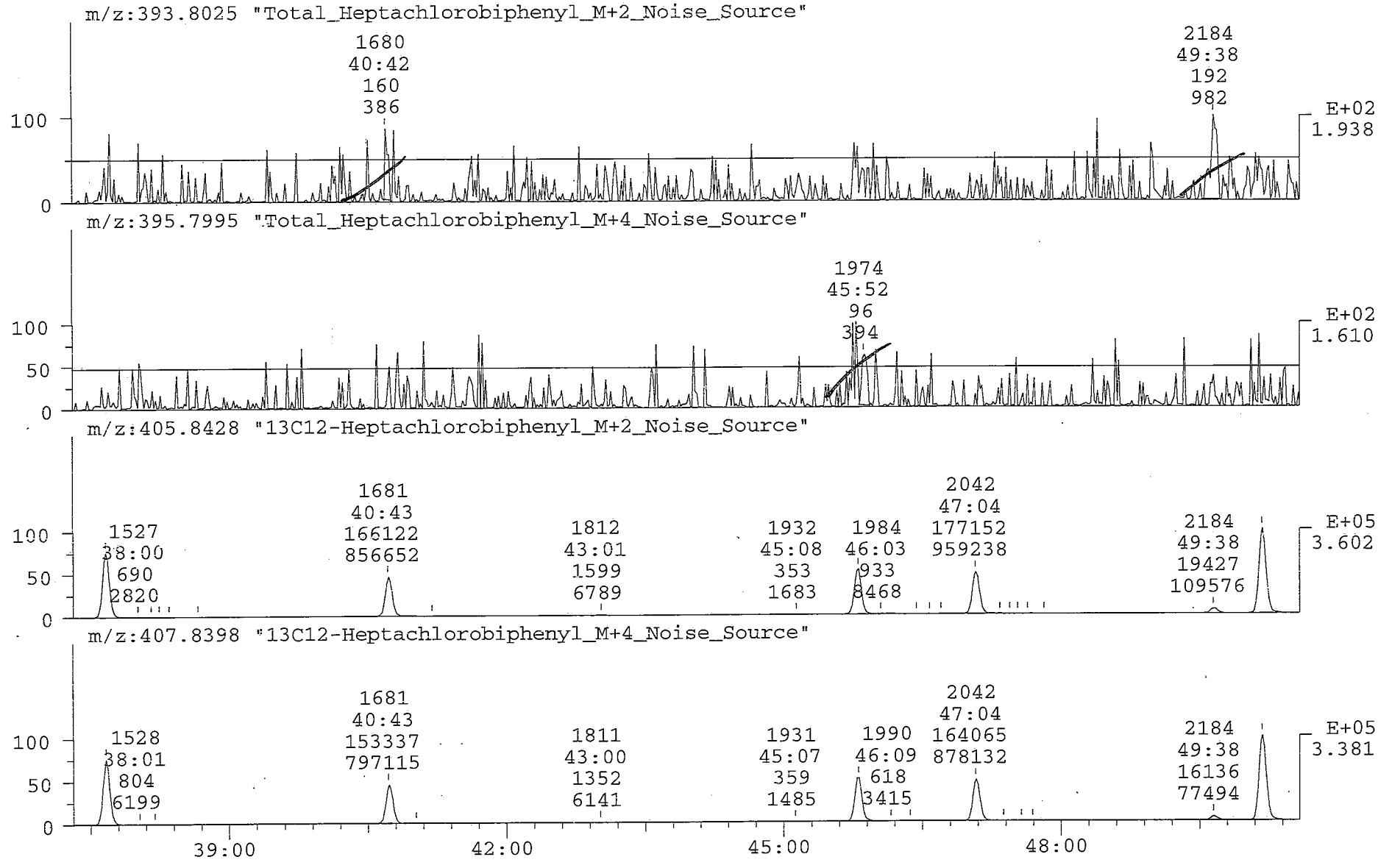
1224

CHRO: apmkm60 14-Jul-11 Elapse: 23:38.0 714
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1617 > 1716 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



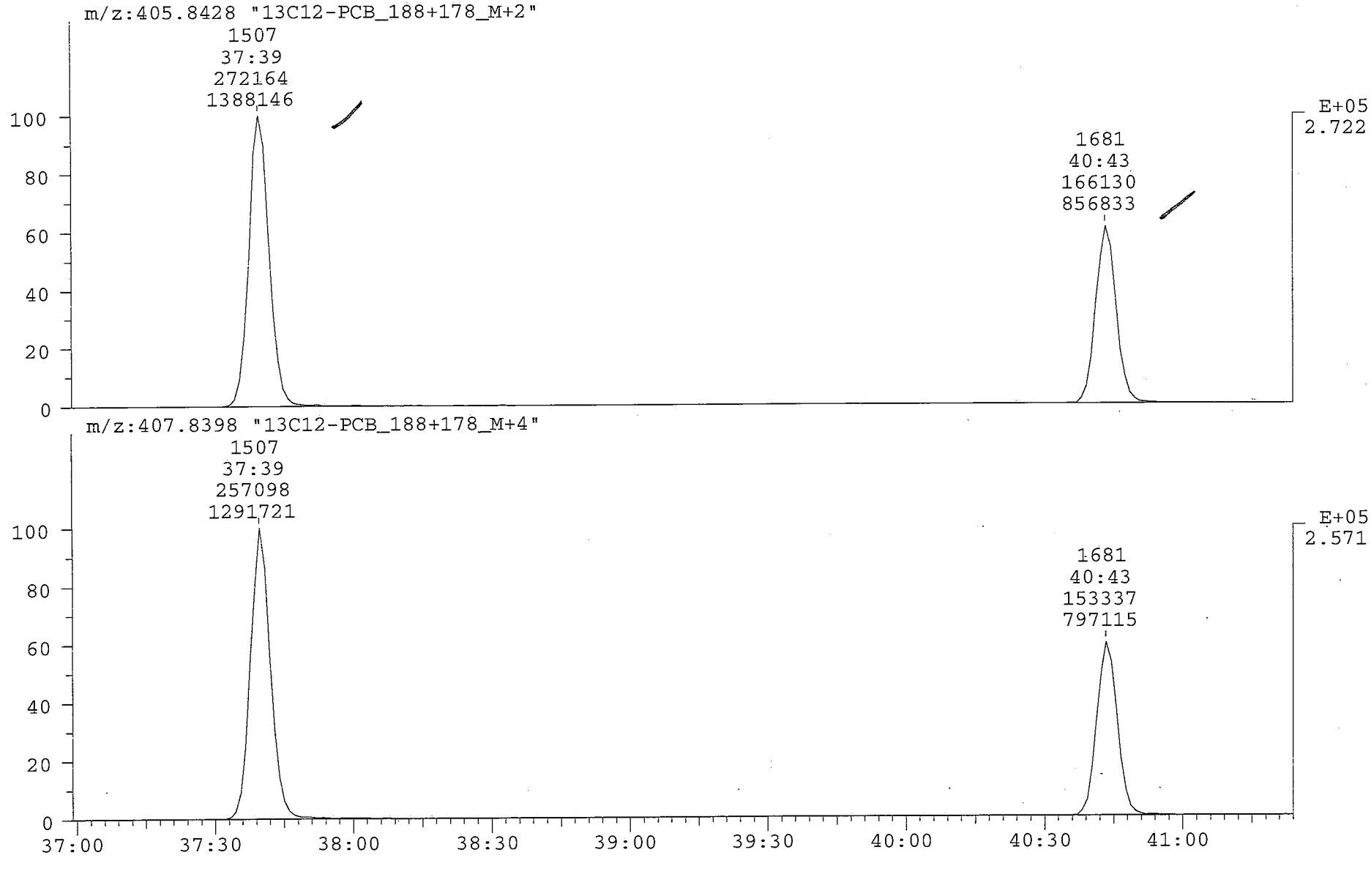
H-1226

CHRO: apmkm60 14-Jul-11 Elapse: 43:55 1863
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1487 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



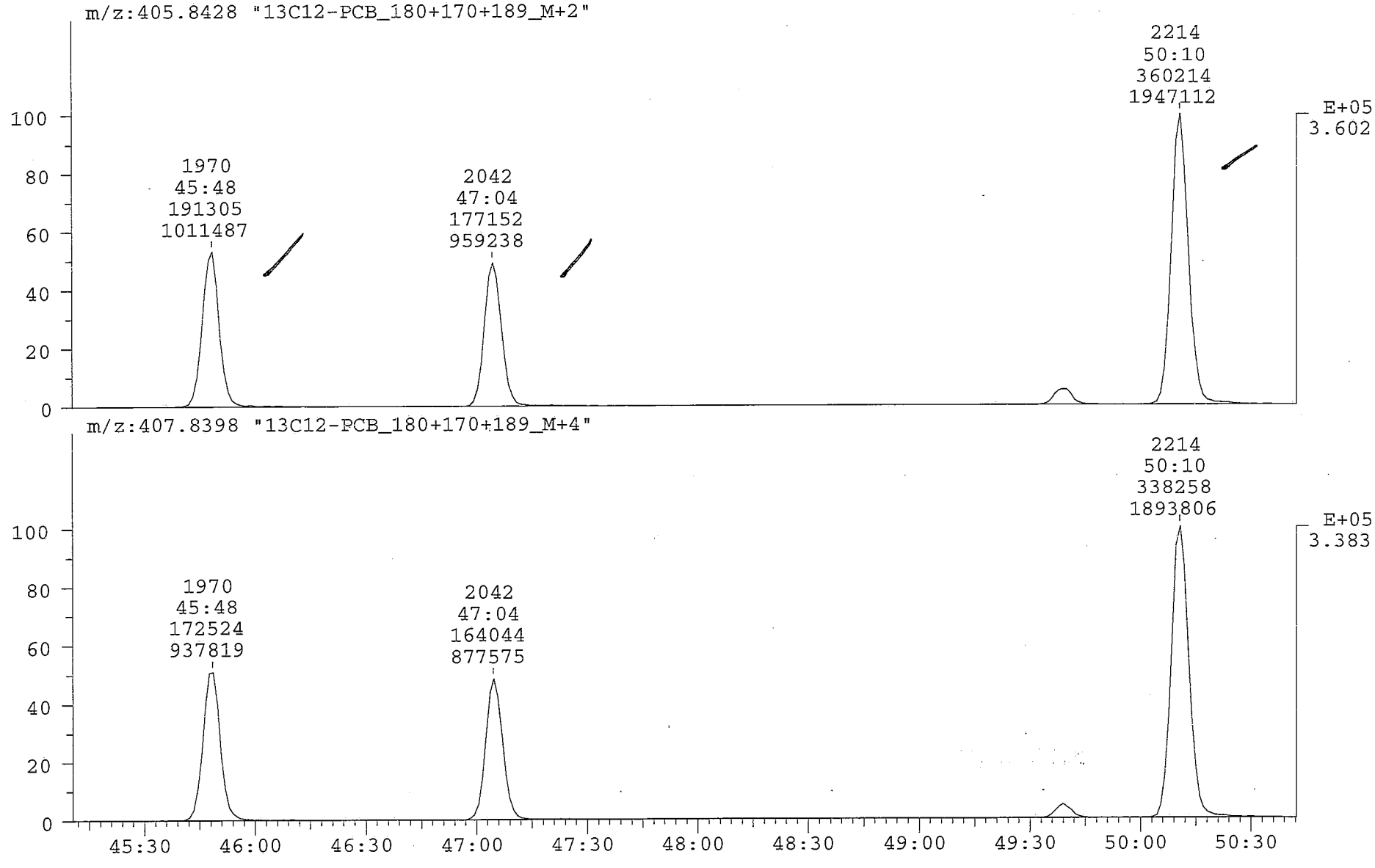
H-1227

CHRO: apmkm60 14-Jul-11 Elapse: 39:11 1594
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1469 > 1720 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1228

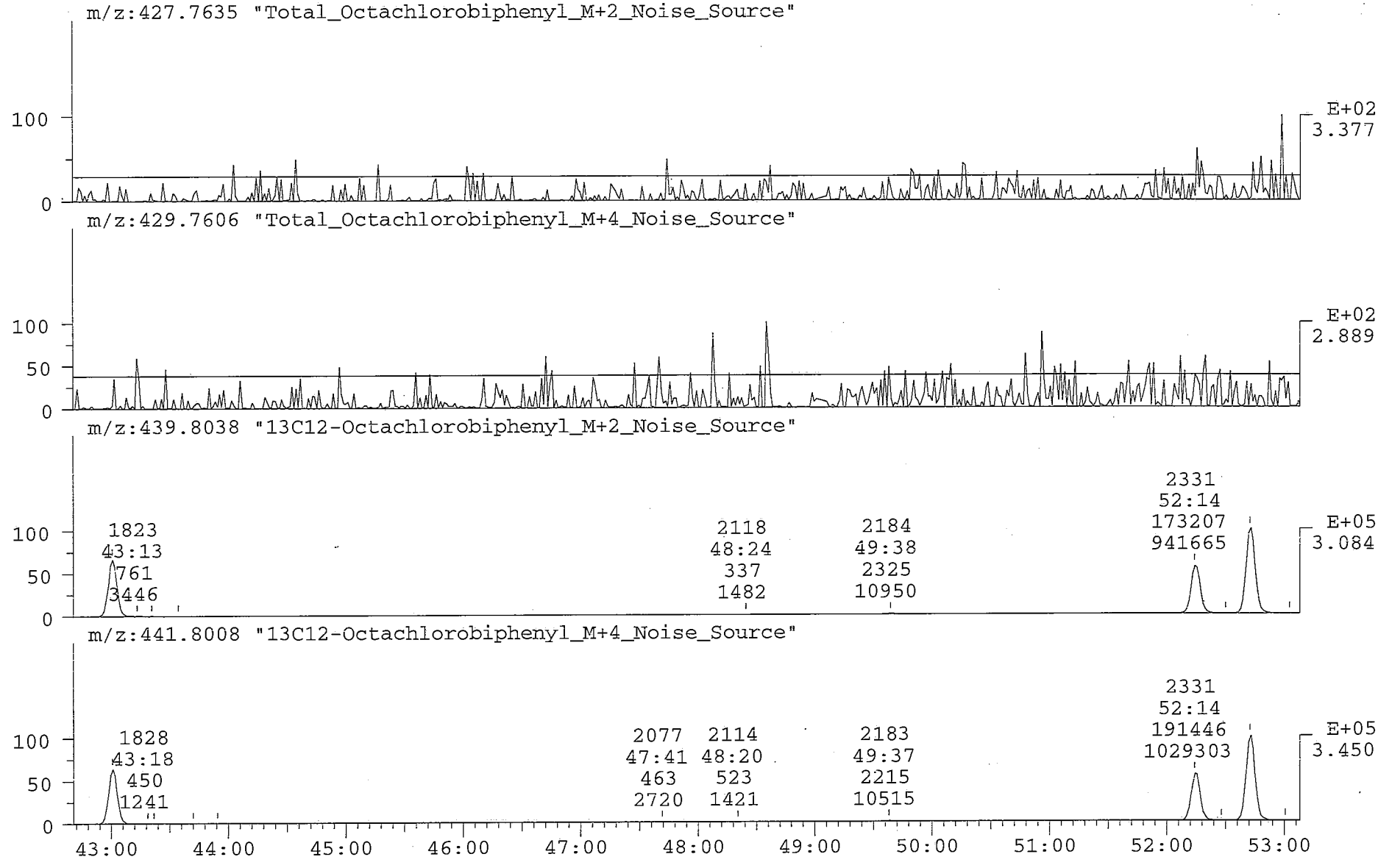
CHRO: apmkm60 14-Jul-11 Elapse: 47:59 2094
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1934 > 2244 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1229

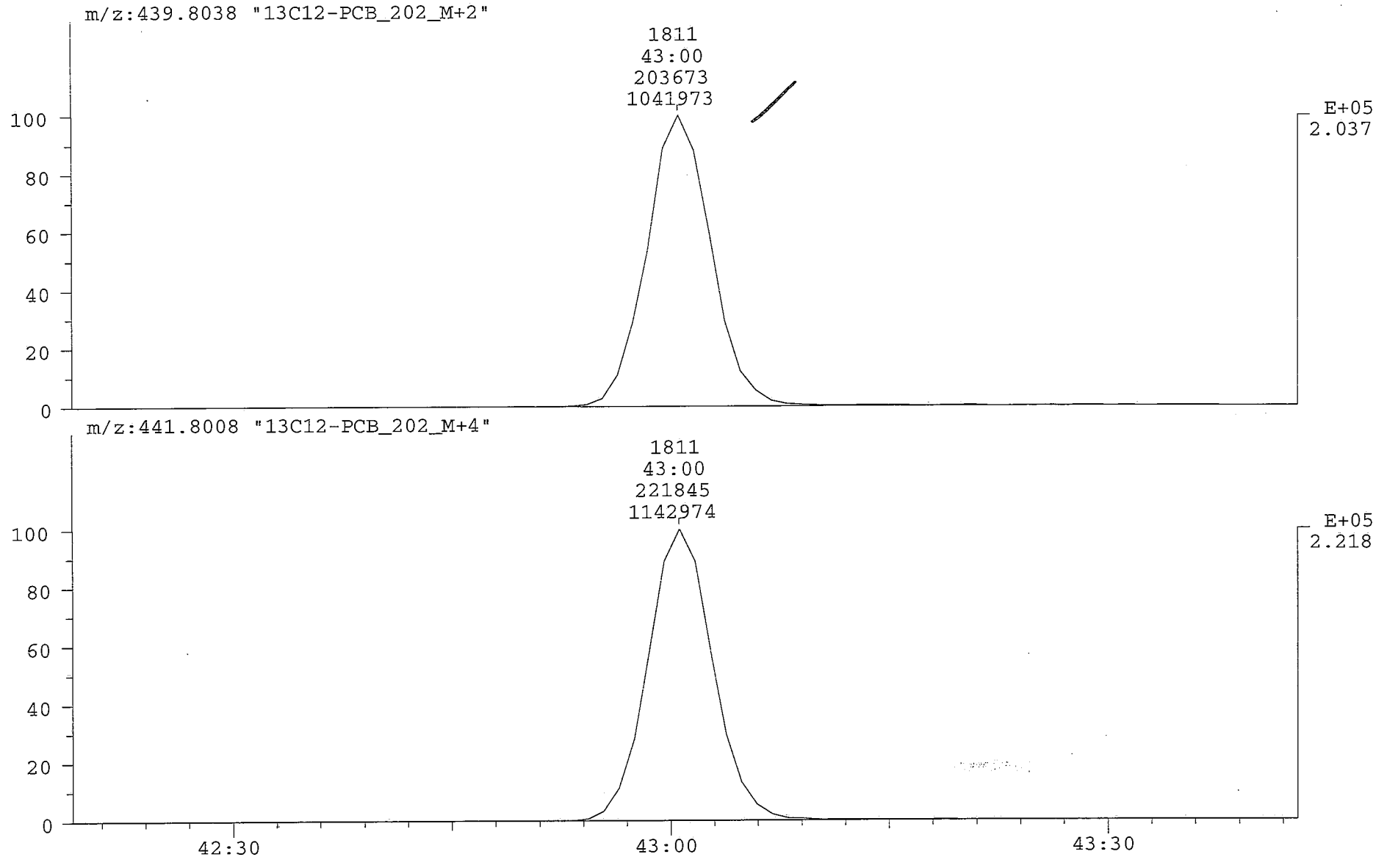
1228

CHRO: apmkm60 14-Jul-11 Elapse: 47:54 2089
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1792 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



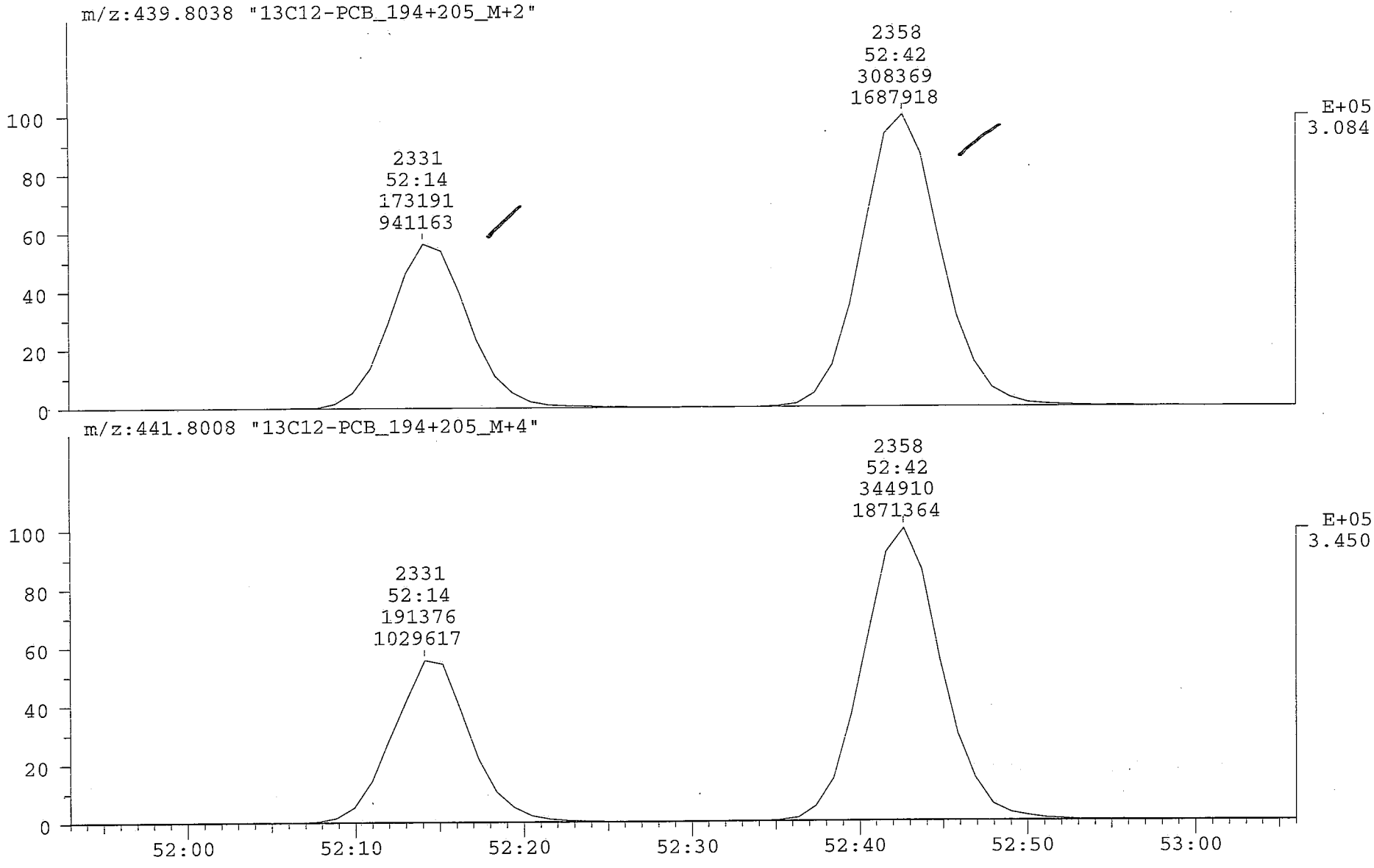
H-1230

CHRO: apmkm60 14-Jul-11 Elapse: 42:58 1809
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1772 > 1851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



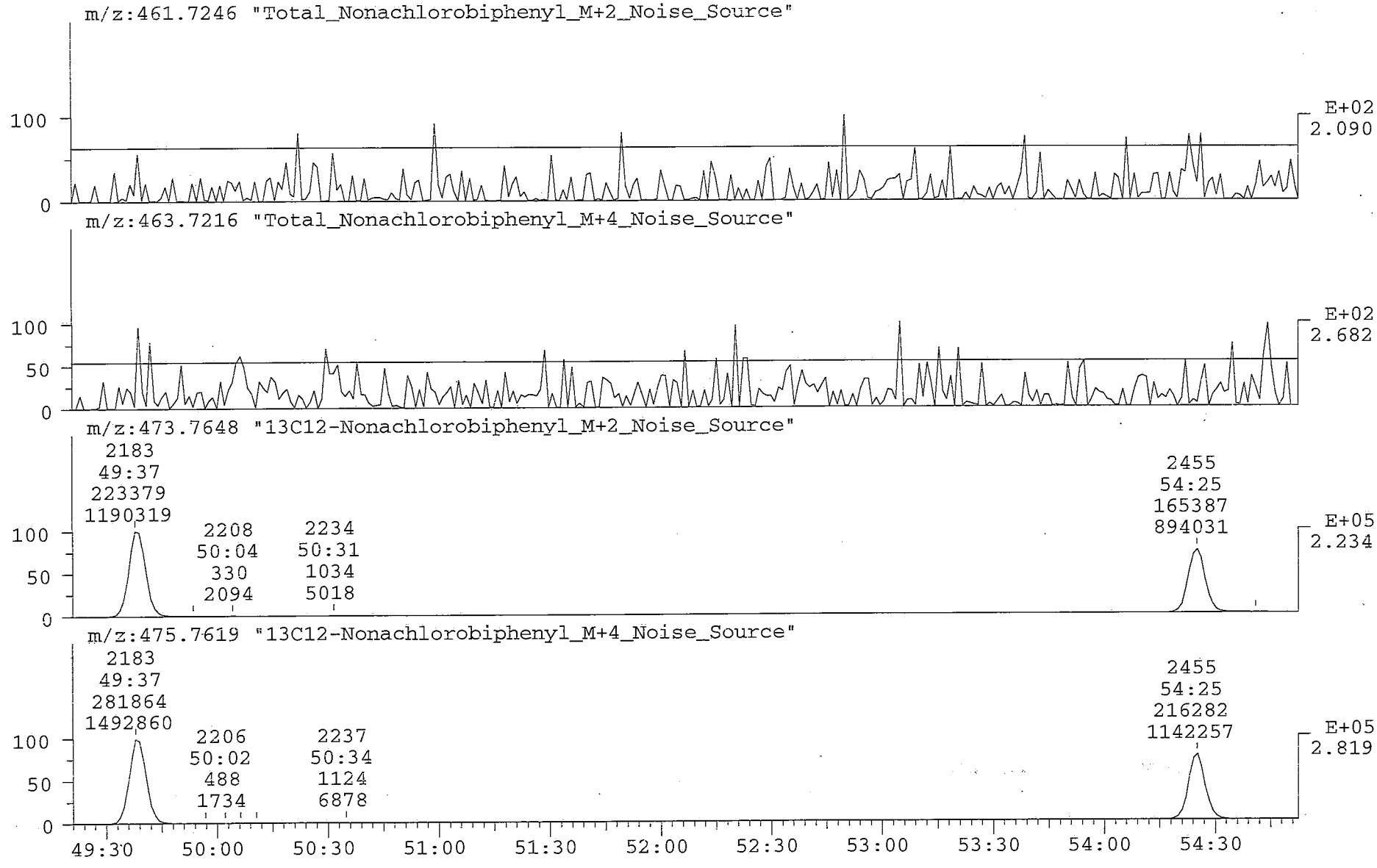
H-1231

CHRO: apmkm60 14-Jul-11 Elapse: 52:28 2345
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2311 > 2380 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1232

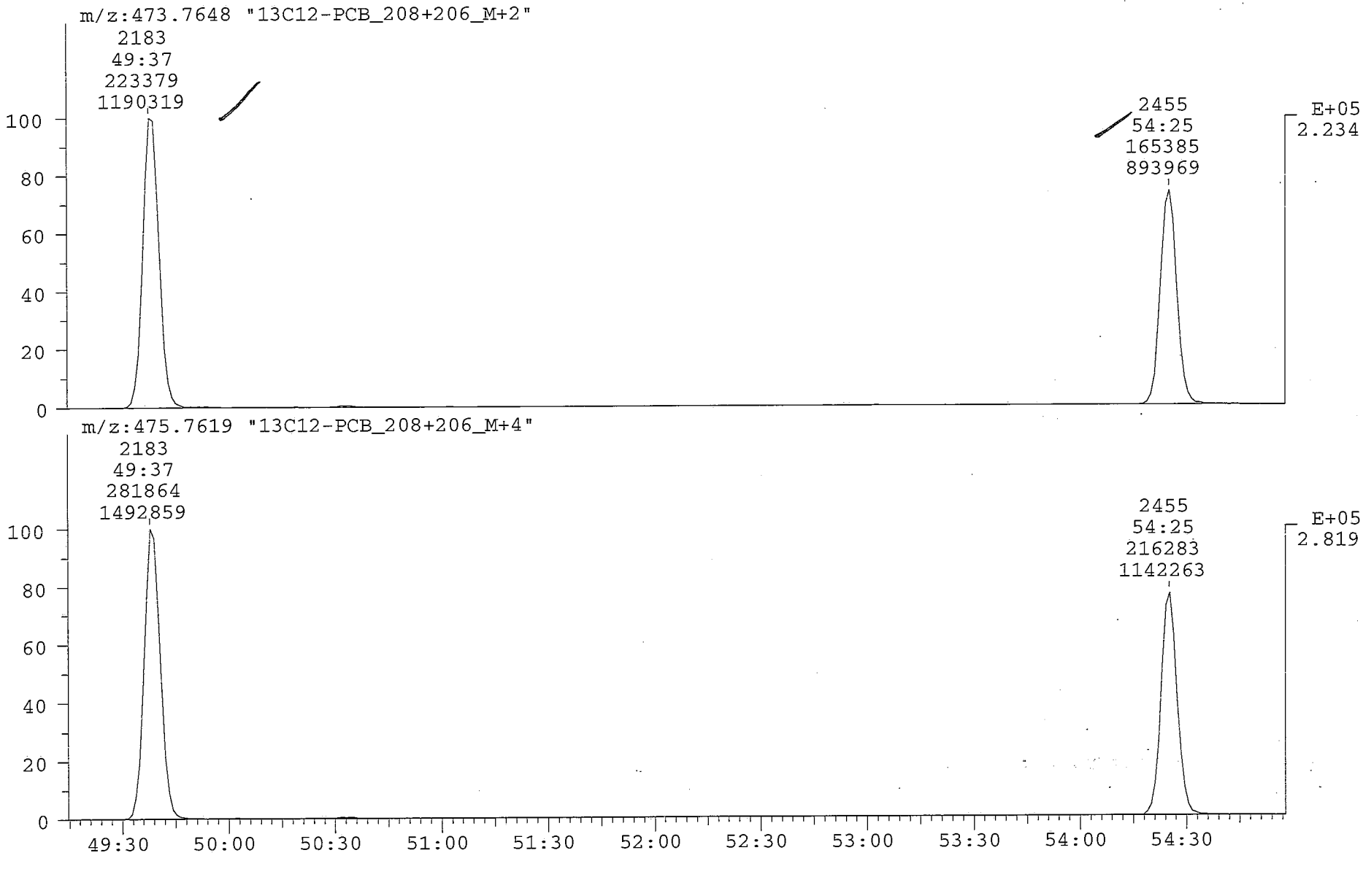
CHRO: apmkm60 14-Jul-11 Elapse: 52:05 2323
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1233

1232

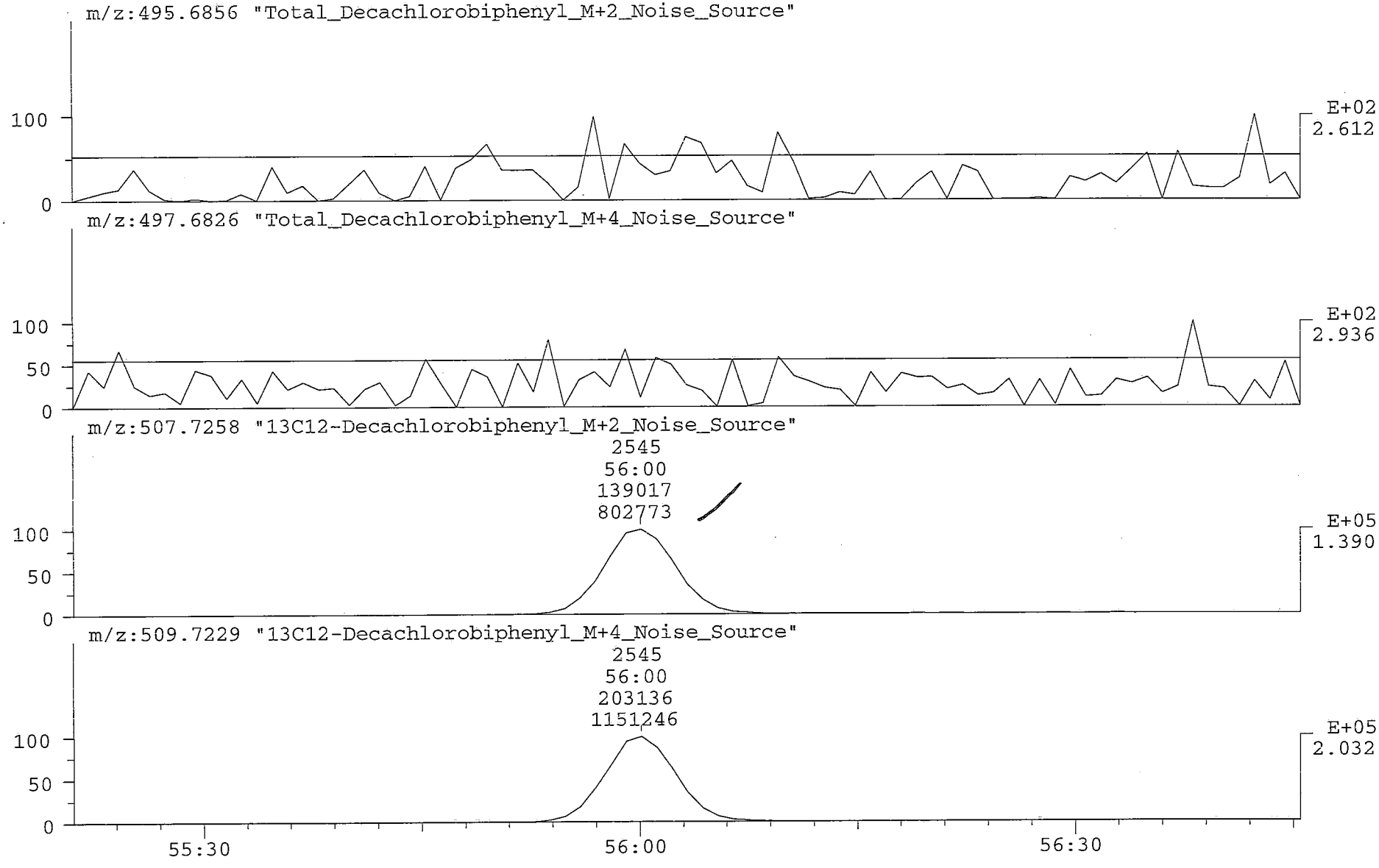
CHRO: apmkm60 14-Jul-11 Elapse: 52:03 2321
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2161 > 2486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1234

1233

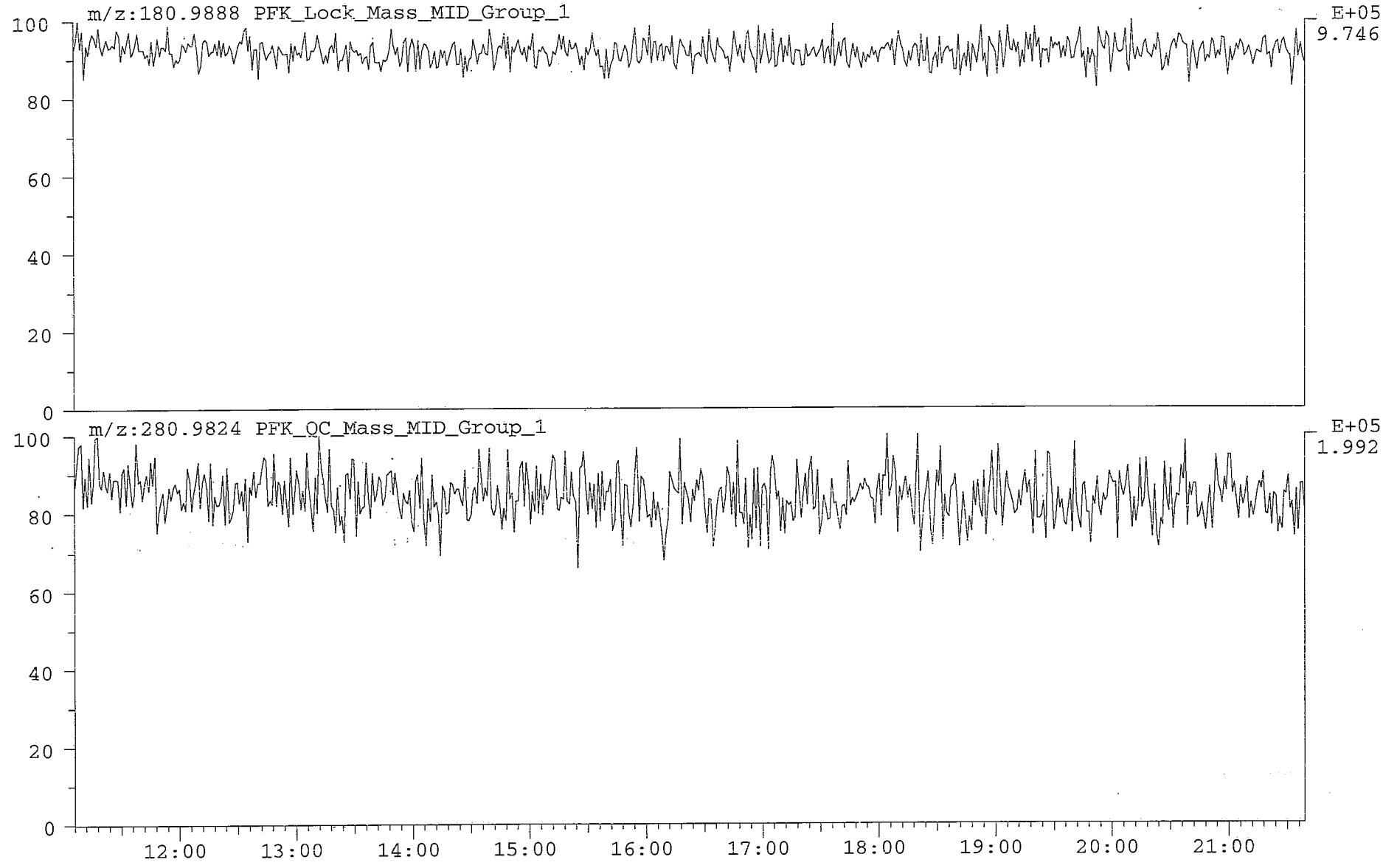
CHRO: apmkm60 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2508 > 2588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1235

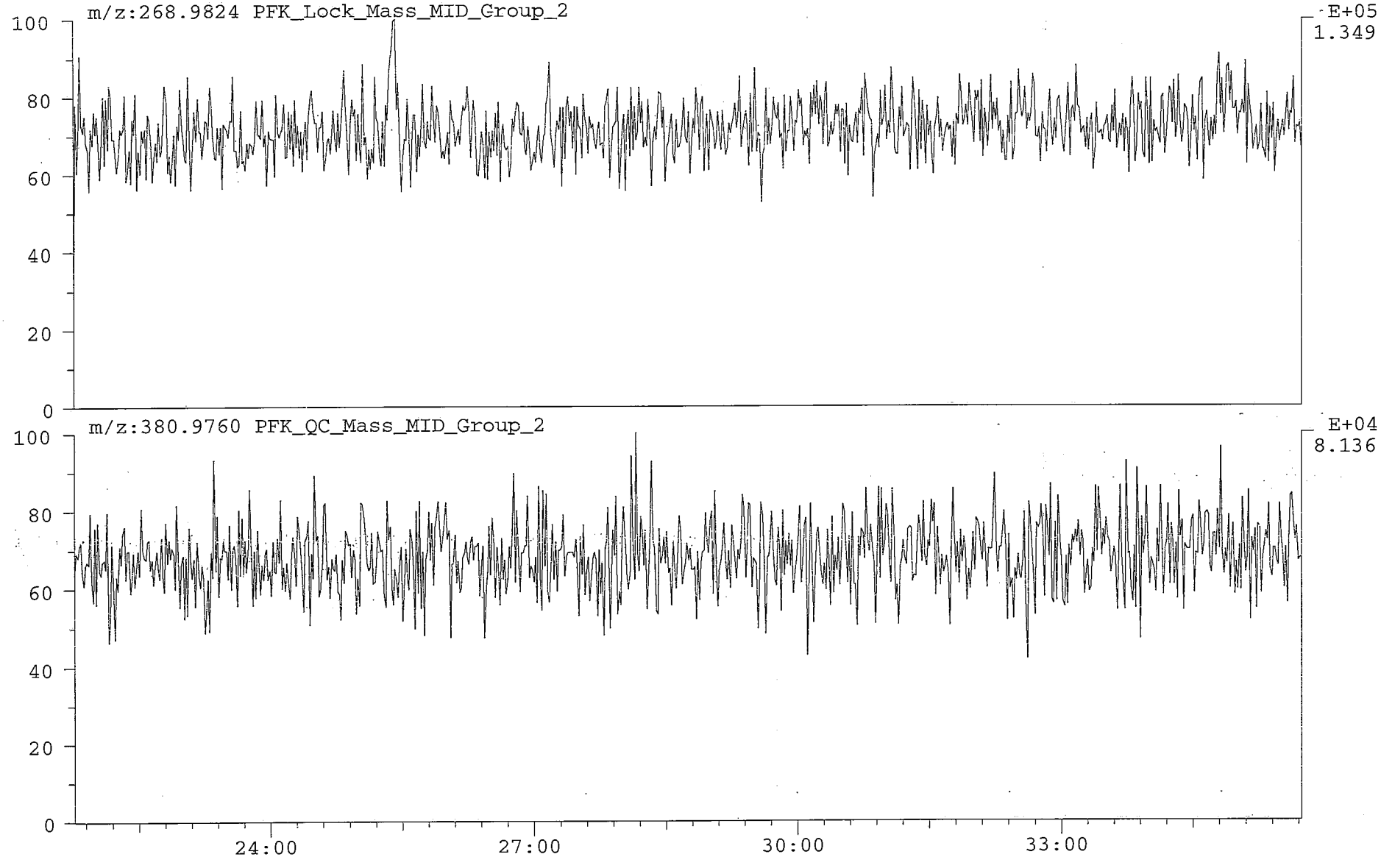
1234

CHRO: apmkm60 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



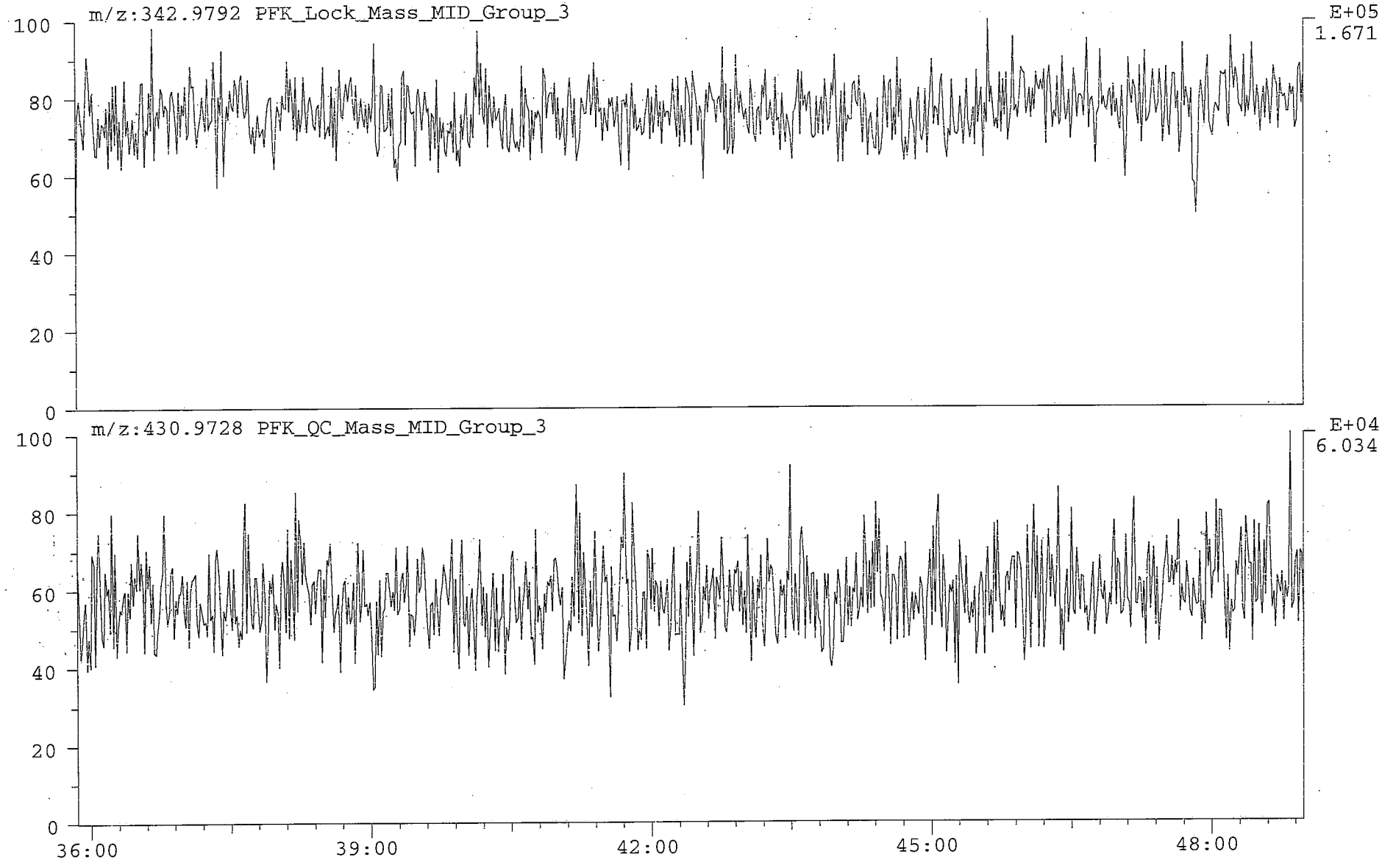
H-1236

CHRO: apmkm60 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 608 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



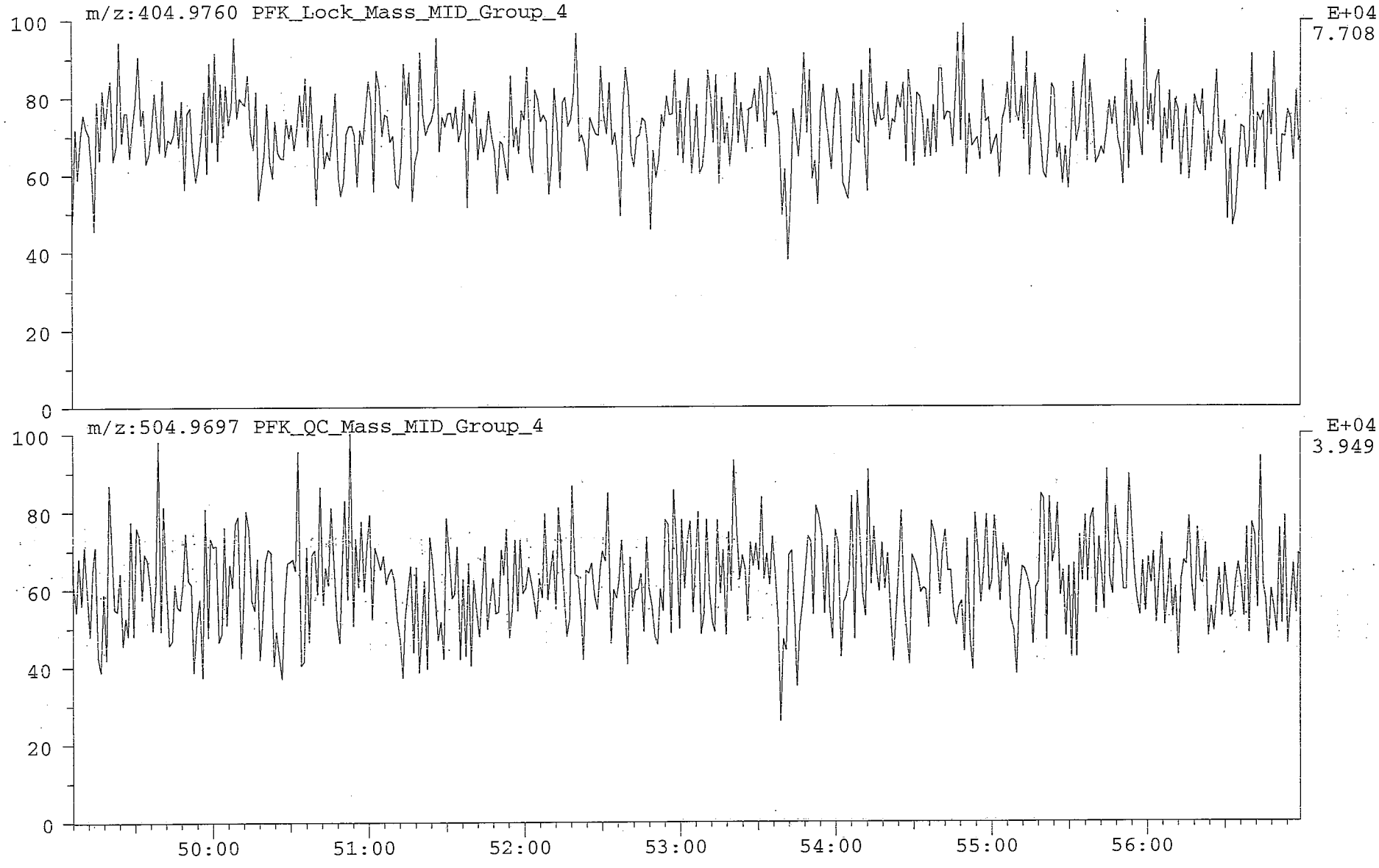
H-1237

CHRO: apmkm60 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1404 > 2150 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1238

CHRO: apmkm60 14-Jul-11 Elapse: 56:06 2551
Samp: Vial 11 WO=mkm601ac Meth=IE5 Dil=1 Start : 02:32:19 2603
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G050439-015 Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2153 > 2601 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1239

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

\000\000\000\000\000\000\000ICL Version: 10.710
File name: apmkm60
Study: 1187028 (Air-2)
Sample: WO=mkm601ac Meth=IE5 Dil=1
Amount:  0.00
Volume:  0.00
Operator: JMN
Client: H1G050439-015
Comments: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Injected volume:  2.00
Sample from Vial 11
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 2 of list 110713a
  ICL procedure: sleep7x
  MID procedure: epa1668

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start        Measure      End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:05 min   35:45 min    1.00 sec
  # 3   35:45 min   13:15 min   49:00 min    1.00 sec
  # 4   49:00 min    8:00 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 l   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
   Window # 2
```

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times
 Sample rinse cycles (R): 0 times
 Syringe filling volume (F): 1.0 ul

Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode

Purge time	1.5 min
Purge flow	40.0 ml/min
Gas saver is on	
Saver time	3.0 min
Saver flow	15.0 ml/min

Column : Constant Flow 1.0 ml

Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.5098
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-36.8250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	23.0000	EDACZ	-548.0000	ELEN	64.2750
EMULT	1.7400	ENS	150.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	148.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	478.0000
FVINLET	504.0000	FVSRC	838.0000	FWIN	0.7000
GCTC	203.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.4510	HVANAL	1429.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4781.4360	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1751.0000	LENSS	161.2000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2344554.8750
MDACR	23.0000	MRANGE	1031.5098	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2608.0000	NSMAX	8.0000	NSMIN	2.0000

OCT	-2.0000	PSAM	10.0000	PUSHER	-12.5500
'RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10314.6801	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2598.0000
SHIELDS	0.2000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.0600	TCURR	0.9375
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	1.9500	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2538.0000
XLENSS	-43.8000	YLENS	2634.0000	YLENSS	-171.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 02:32:19.0

Autosampler has injected sample from vial 11
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 8404
MID Time Window 3: Resolution is 8574
MID Time Window 4: Resolution is 9203
Analysis stopped at: 14-Jul-11 03:29:22.5 (run time 57.04 minutes)
Analysis stopped because MID run finished

Standards Data
SPB-Octyl Column

TestAmerica Knoxville Specialty Organics Group GC/MS Initial Calibration Data Review Checklist
Method or SOP Number: KNOX-ID-0013 Revision 6

PFK Date/Time:	6-24-08 | 15:11	Inst:	MAT95	2nd Source Filename:	908062555

CS0.5 Filename	CS1 Filename	CS2 Filename	CS3 Filename	CS4 Filename	CS5 Filename
908062416	908062411	908062412	908062413	908062414	908062415

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Was the mass resolution documented before beginning the initial calibration?		✓			✓
2. Was the instrument resolution ≥8,000 throughout and ≥ 10,000 in the center of each m/z range. PFK m/z 192.9888, *230.9856, and *280.9824? PFK m/z 268.9824, *292.9824, and *380.9760? PFK m/z 342.9792, *380.9760, and *430.9728? PFK m/z 404.9760, *442.9728, and *530.9665?		✓			✓
3. Were the measured exact masses listed above within 5 ppm at reduced accelerating voltage?		✓			✓
4. Have PCB Mixes 1 - 5 been analyzed in triplicate using the installed column to assign congener retention times, method retention times, and MID s`witchpoints?		✓			✓
5. Were the calibration standard solutions, at the number and concentrations specified in the Method/SOP, analyzed?		✓			✓
6. Was date/time of analysis verified between analysis header and logbook as correct?		✓			✓
7. Was the valley height less than 40% of the height of the shorter of the two peaks for the pair PCB 23 and PCB 34, and the pair PCB 182 and PCB 187 in the CS3 standard?		✓			✓
8. Was the absolute retention time of PCB 209 greater than 55 minutes in the CS3 standard?		✓			✓
9. Were the response factors calculated for each labeled standard and unlabeled native analyte using the Method/SOP specified reference compound, quantitation ions, and formula?		✓			✓
10. Is the %RSD acceptable for all native analytes (within ± 20% calculated by isotope dilution, within ± 35% calculated by internal standard)?		✓			✓
11. Is the %RSD acceptable (within ± 35%) for all labeled standards?		✓			✓
12. Are all S/N ratios ≥10 for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards (Exception: Secondary native dichloro biphenyl channel m/z 223.9974)?		✓			✓
13. Are the ion abundance ratios in the CS 0.5 within the control limits specified? (Exception: native dichlorobiphenyls)?		✓			✓
14. Were all toxic congeners uniquely resolved from non-toxic congeners?		✓			✓
15. Was an ICV analyzed, calculated using the CS3 RRFs, and the %D within ± 35%)?		✓		☐ < 5 outliers, none more than ±50% D.	✓
16. If manual integrations were performed, are they clearly identified, initialed and dated?		✓			✓
17. If criteria were not met, was an NCM generated, approved by supervisor, and copy included in folder?	✓				✓
18. Does the ICAL folder contain **complete** data in the following order? Data review checklist, a **complete** runlog, Avg. %RSD summary, Ratio summary, Calculation summary, PFK resolution/peak match documentation (HRMS only), and Total RIC, EICP's and manual integration - for window and all standards, in order from low to high standard.		✓			✓

Analyst: DCG	Date: 7-8-08	2nd Level Reviewer:	Date: 7/10/08
Comments: PCB 3 dropped From CS5 due to ion ratio being high.		Comments:	

*At reduced accelerating voltage

TESTAMERICA KNOXVILLE
SPECIALTY ORGANICS INSTRUMENT MAT 95 RUN LOG

Date	Time	Opr	Sample ID	Filename	Code	Matrix	Type	Tape	Lot#/Comments
6-24-08	15:11	DCG	PFK	—	OK	-	RES		MASSRESCHECK
6-24-08	15:19	DCG	2990:71C505	908062416	OK	-	ICAL		1668 ICAL
6-24-08	16:21	DCG	2990:71C51	908062411	OK	-	ICAL		
6-24-08	17:22	DCG	2990:71C52	908062412	OK	-	ICAL		
6-24-08	18:23	DCG	2990:71C53	908062413	OK	-	ICAL		
6-24-08	19:24	DCG	2990:71C54	908062414	OK	-	ICAL		
6-24-08	20:25	DCG	2990:71C55	908062415	OK	-	ICAL		
6-24-08	23:55	DCG	NONAME	SPBR	OK	-	CCC		FLUSH
6-25-08	00:11	DCG	NONAME	PSB0824	OK	-	CCC		FLUSH
6-25-08	10:26	DCG	PFK	—	OK	-	RES		MASSRESCHK
6-25-08	11:18	DCG	2990:74	908062555	OK	-	2nd		ICAL 2ND SOURCE

DCG 6/25/08

Read and Understood by:

DCG Date: 6/25/08

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

		Response Factor									
Analyte	**T/L**	**CS0.5**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**Mean RF**	**%RSD**	**Limit**	**Valid?**
13C12-PCB 1		1.433	1.475	1.506	1.586	1.503	1.511	1.502	3.3	35.0	True
13C12-PCB 3		1.496	1.542	1.536	1.599	1.539	1.556	1.545	2.2	35.0	True
PCB 1 (BZ)	L	1.426	1.338	1.307	1.313	1.377	1.538	1.383	6.3	20.0	True
PCB 2 (BZ)		1.384	1.281	1.215	1.290	1.330	1.526	1.338	8.1	35.0	True
PCB 3 (BZ)	L	1.373	1.260	1.241	1.293	1.313		1.296	4.0	20.0	True
13C12-PCB 4		0.605	0.609	0.615	0.643	0.628	0.615	0.619	2.3	35.0	True
13C12-PCB 9		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.0	35.0	True
13C12-PCB 8				1.594	1.231	1.202		1.342	16.3	35.0	True
13C12-PCB 15		1.075	1.090	1.035	1.108	1.122	1.108	1.090	2.9	35.0	True
PCB 4 (BZ)	L	1.369	1.240	1.244	1.254	1.220	1.310	1.273	4.4	20.0	True
PCB 10 (BZ)		1.397	1.347	1.345	1.344	1.283	1.428	1.357	3.7	35.0	True
PCB 9 (BZ)		1.470	1.388	1.438	1.461	1.423	1.575	1.459	4.4	35.0	True
PCB 7 (BZ)		1.436	1.440	1.457	1.451	1.414	1.598	1.466	4.5	35.0	True
PCB 6 (BZ)		1.647	1.425	1.483	1.459	1.422	1.604	1.507	6.4	35.0	True
PCB 5 (BZ)		1.455	1.503	1.365	1.376	1.327	1.476	1.417	5.0	35.0	True
PCB 8 (BZ)		1.598	1.528	1.493	1.488	1.465	1.667	1.540	5.0	35.0	True
PCB 14 (BZ)		1.666	1.637	1.705	1.735	1.703	1.949	1.732	6.4	35.0	True
PCB 11 (BZ)		1.672	1.510	1.489	1.453	1.439	1.629	1.532	6.3	35.0	True
PCB 13 (BZ)		1.511	1.459	1.396	1.473	1.462	1.664	1.494	6.1	35.0	True
PCB 12 (BZ)		1.511	1.459	1.396	1.473	1.462	1.664	1.494	6.1	35.0	True
PCB 15 (BZ)	L	1.353	1.248	1.248	1.244	1.221	1.354	1.278	4.7	20.0	True
13C12-PCB 19		0.562	0.571	0.575	0.598	0.563	0.559	0.572	2.5	35.0	True
13C12-PCB 32		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.0	35.0	True
13C12-PCB 31		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.0	35.0	True
13C12-PCB 28				1.066	0.987	0.957		1.003	5.6	35.0	True
13C12-PCB 37		0.894	0.897	0.875	0.938	0.924	0.923	0.908	2.6	35.0	True
PCB 19 (BZ)	L	1.097	1.042	1.173	1.211	1.214	1.264	1.167	7.1	20.0	True
PCB 30 (BZ)		1.611	1.604	1.524	1.610	1.611	1.729	1.615	4.0	35.0	True
PCB 18 (BZ)		1.611	1.604	1.524	1.610	1.611	1.729	1.615	4.0	35.0	True
PCB 17 (BZ)		1.668	1.402	1.318	1.336	1.381	1.475	1.430	9.0	35.0	True
PCB 27 (BZ)		1.868	2.068	1.897	1.924	2.004	2.109	1.978	4.9	35.0	True
PCB 24 (BZ)		1.481	1.543	1.702	1.756	1.814	1.945	1.707	10.1	35.0	True
PCB 16 (BZ)		1.320	1.056	1.156	1.172	1.200	1.251	1.193	7.5	35.0	True
PCB 32 (BZ)		2.148	1.939	1.902	1.977	2.003	2.139	2.018	5.1	35.0	True
PCB 34 (BZ)		1.199	1.204	1.154	1.141	1.147	1.327	1.195	5.8	35.0	True
PCB 23 (BZ)		1.155	1.162	1.141	1.145	1.141	1.318	1.177	5.9	35.0	True
PCB 29 (BZ)		1.256	1.153	1.173	1.158	1.198	1.524	1.244	11.4	35.0	True
PCB 26 (BZ)		1.256	1.153	1.173	1.158	1.198	1.524	1.244	11.4	35.0	True
PCB 25 (BZ)		1.231	1.355	1.293	1.279	1.284	1.475	1.320	6.5	35.0	True
PCB 31 (BZ)		1.289	1.256	1.205	1.201	1.197	1.363	1.252	5.2	35.0	True
PCB 28 (BZ)		1.150	1.187	1.179	1.173	1.202	1.445	1.223	9.0	35.0	True
PCB 20 (BZ)		1.150	1.187	1.179	1.173	1.202	1.445	1.223	9.0	35.0	True
PCB 21 (BZ)		1.230	1.149	1.163	1.181	1.174	1.419	1.219	8.3	35.0	True
PCB 33 (BZ)		1.230	1.149	1.163	1.181	1.174	1.419	1.219	8.3	35.0	True
PCB 22 (BZ)		1.216	1.179	1.165	1.158	1.157	1.327	1.200	5.5	35.0	True
PCB 36 (BZ)		1.214	1.106	1.171	1.171	1.195	1.367	1.204	7.3	35.0	True
PCB 39 (BZ)		1.381	1.268	1.194	1.196	1.238	1.424	1.284	7.6	35.0	True
PCB 38 (BZ)		1.128	1.056	1.073	1.127	1.159	1.304	1.141	7.7	35.0	True

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Response Factor

Analyte	T/L	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RF	%RSD	Limit	Valid?
PCB 35 (BZ)		1.123	1.169	1.132	1.113	1.142	1.301	1.163	6.0	35.0	True
PCB 37 (BZ)	L	1.157	1.154	1.136	1.132	1.157	1.302	1.173	5.5	20.0	True
13C12-PCB 54		0.608	0.611	0.610	0.614	0.583	0.574	0.600	2.8	35.0	True
13C12-PCB 52		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.0	35.0	True
13C12-PCB 79				1.069	1.061	1.081		1.070	1.0	35.0	True
13C12-PCB 81		1.271	1.301	1.279	1.305	1.330	1.384	1.312	3.1	35.0	True
13C12-PCB 77		1.330	1.334	1.320	1.372	1.396	1.391	1.357	2.4	35.0	True
PCB 54 (BZ)	L	1.328	1.236	1.173	1.204	1.204	1.254	1.233	4.4	20.0	True
PCB 50 (BZ)		0.969	0.906	0.881	0.924	0.865	0.983	0.921	5.1	35.0	True
PCB 53 (BZ)		0.969	0.906	0.881	0.924	0.865	0.983	0.921	5.1	35.0	True
PCB 45 (BZ)		0.875	0.860	0.817	0.872	0.827	0.882	0.856	3.2	35.0	True
PCB 51 (BZ)		0.875	0.860	0.817	0.872	0.827	0.882	0.856	3.2	35.0	True
PCB 46 (BZ)		0.734	0.739	0.728	0.728	0.691	0.724	0.724	2.3	35.0	True
PCB 52 (BZ)		0.985	0.944	0.877	0.928	0.861	0.925	0.920	4.9	35.0	True
PCB 73 (BZ)		0.920	0.908	0.947	0.985	0.928	1.008	0.949	4.1	35.0	True
PCB 43 (BZ)		0.920	0.908	0.947	0.985	0.928	1.008	0.949	4.1	35.0	True
PCB 69 (BZ)		1.064	1.075	1.050	1.075	1.040	1.157	1.077	3.9	35.0	True
PCB 49 (BZ)		1.064	1.075	1.050	1.075	1.040	1.157	1.077	3.9	35.0	True
PCB 48 (BZ)		0.920	0.924	0.891	0.874	0.843	0.912	0.894	3.5	35.0	True
PCB 65 (BZ)		1.010	0.966	0.931	0.980	0.943	1.120	0.992	6.9	35.0	True
PCB 47 (BZ)		1.010	0.966	0.931	0.980	0.943	1.120	0.992	6.9	35.0	True
PCB 44 (BZ)		1.010	0.966	0.931	0.980	0.943	1.120	0.992	6.9	35.0	True
PCB 62 (BZ)		1.288	1.156	1.178	1.236	1.198	1.418	1.246	7.7	35.0	True
PCB 75 (BZ)		1.288	1.156	1.178	1.236	1.198	1.418	1.246	7.7	35.0	True
PCB 59 (BZ)		1.288	1.156	1.178	1.236	1.198	1.418	1.246	7.7	35.0	True
PCB 42 (BZ)		0.841	0.944	0.858	0.877	0.819	0.891	0.872	5.0	35.0	True
PCB 41 (BZ)		0.952	0.841	0.851	0.873	0.849	0.956	0.887	6.0	35.0	True
PCB 71 (BZ)		0.952	0.841	0.851	0.873	0.849	0.956	0.887	6.0	35.0	True
PCB 40 (BZ)		0.952	0.841	0.851	0.873	0.849	0.956	0.887	6.0	35.0	True
PCB 64 (BZ)		1.300	1.343	1.320	1.300	1.249	1.382	1.316	3.4	35.0	True
PCB 72 (BZ)		1.318	1.196	1.189	1.218	1.184	1.313	1.236	5.0	35.0	True
PCB 68 (BZ)		1.383	1.284	1.265	1.332	1.276	1.423	1.327	4.8	35.0	True
PCB 57 (BZ)		1.258	1.195	1.162	1.182	1.148	1.270	1.203	4.2	35.0	True
PCB 58 (BZ)		1.296	1.113	1.150	1.221	1.179	1.292	1.208	6.2	35.0	True
PCB 67 (BZ)		1.413	1.342	1.255	1.314	1.280	1.420	1.337	5.1	35.0	True
PCB 63 (BZ)		1.377	1.151	1.269	1.307	1.271	1.407	1.297	7.0	35.0	True
PCB 61 (BZ)		1.197	1.263	1.161	1.237	1.208	1.414	1.247	7.1	35.0	True
PCB 70 (BZ)		1.197	1.263	1.161	1.237	1.208	1.414	1.247	7.1	35.0	True
PCB 76 (BZ)		1.197	1.263	1.161	1.237	1.208	1.414	1.247	7.1	35.0	True
PCB 74 (BZ)		1.197	1.263	1.161	1.237	1.208	1.414	1.247	7.1	35.0	True
PCB 66 (BZ)		1.197	1.355	1.202	1.222	1.204	1.351	1.255	6.1	35.0	True
PCB 55 (BZ)		1.212	1.107	1.110	1.122	1.096	1.223	1.145	5.0	35.0	True
PCB 56 (BZ)		1.296	1.194	1.150	1.204	1.169	1.288	1.217	5.1	35.0	True
PCB 60 (BZ)		1.178	1.218	1.149	1.157	1.120	1.267	1.181	4.5	35.0	True
PCB 80 (BZ)		1.392	1.305	1.297	1.357	1.339	1.460	1.358	4.5	35.0	True
PCB 79 (BZ)		1.171	1.385	1.298	1.337	1.347	1.417	1.326	6.5	35.0	True
PCB 78 (BZ)		1.103	1.195	1.163	1.152	1.130	1.239	1.164	4.1	35.0	True
PCB 81 (BZ)	T	1.353	1.201	1.253	1.324	1.267	1.392	1.298	5.4	20.0	True

TestAmerica
Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

		Response Factor									
Analyte	**T/L**	**CS0.5**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**Mean RF**	**%RSD**	**Limit**	**Valid?**
PCB 77 (BZ)	T	1.377	1.232	1.231	1.237	1.201	1.335	1.269	5.5	20.0	True
13C12-PCB 104		1.236	1.286	1.253	1.263	1.208	1.227	1.246	2.2	35.0	True
13C12-PCB 95				0.739	0.745	0.777		0.754	2.7	35.0	True
13C12-PCB 101		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.0	35.0	True
13C12-PCB 111				1.215	1.313	1.272		1.266	3.9	35.0	True
13C12-PCB 123		0.934	0.945	0.930	0.970	0.972	0.976	0.954	2.2	35.0	True
13C12-PCB 118		0.978	0.986	0.977	1.025	1.013	0.991	0.995	2.0	35.0	True
13C12-PCB 114		0.934	0.953	0.934	0.959	0.955	0.977	0.952	1.7	35.0	True
13C12-PCB 105		0.927	0.945	0.944	0.951	0.942	0.942	0.942	0.9	35.0	True
13C12-PCB 127		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.0	35.0	True
13C12-PCB 126		0.966	0.990	0.982	1.017	0.989	1.003	0.991	1.8	35.0	True
PCB 104 (BZ)	L	1.179	1.148	1.163	1.193	1.174	1.247	1.184	2.9	20.0	True
PCB 96 (BZ)		1.093	0.999	1.011	1.059	1.065	1.105	1.055	4.0	35.0	True
PCB 103 (BZ)		0.839	0.892	0.872	0.928	0.907	0.964	0.900	4.8	35.0	True
PCB 94 (BZ)		0.701	0.831	0.768	0.807	0.788	0.842	0.789	6.5	35.0	True
PCB 95 (BZ)		0.834	0.805	0.820	0.835	0.844	0.892	0.838	3.6	35.0	True
PCB 100 (BZ)		0.860	0.870	0.852	0.897	0.888	0.962	0.888	4.5	35.0	True
PCB 93 (BZ)		0.860	0.870	0.852	0.897	0.888	0.962	0.888	4.5	35.0	True
PCB 102 (BZ)		0.971	0.923	0.881	0.885	0.882	0.956	0.917	4.4	35.0	True
PCB 98 (BZ)		0.971	0.923	0.881	0.885	0.882	0.956	0.917	4.4	35.0	True
PCB 88 (BZ)		0.919	0.807	0.799	0.846	0.860	0.910	0.857	5.9	35.0	True
PCB 91 (BZ)		0.919	0.807	0.799	0.846	0.860	0.910	0.857	5.9	35.0	True
PCB 84 (BZ)		0.858	0.782	0.719	0.729	0.728	0.766	0.764	6.9	35.0	True
PCB 89 (BZ)		0.798	0.792	0.769	0.774	0.780	0.821	0.789	2.4	35.0	True
PCB 121 (BZ)		1.246	1.131	1.179	1.201	1.212	1.322	1.215	5.3	35.0	True
PCB 92 (BZ)		0.946	0.953	0.839	0.845	0.858	0.910	0.892	5.7	35.0	True
PCB 113 (BZ)		0.992	0.998	0.963	1.007	1.010	1.107	1.013	4.8	35.0	True
PCB 90 (BZ)		0.992	0.998	0.963	1.007	1.010	1.107	1.013	4.8	35.0	True
PCB 101 (BZ)		0.992	0.998	0.963	1.007	1.010	1.107	1.013	4.8	35.0	True
PCB 83 (BZ)		0.973	0.822	0.817	0.863	0.838	0.896	0.868	6.8	35.0	True
PCB 99 (BZ)		0.973	0.822	0.817	0.863	0.838	0.896	0.868	6.8	35.0	True
PCB 112 (BZ)		1.124	1.121	1.081	1.138	1.195	1.301	1.160	6.8	35.0	True
PCB 109 (BZ)/108 (IUPAC)		0.987	0.978	0.955	1.040	1.049	1.174	1.030	7.7	35.0	True
PCB 86 (BZ)		0.987	0.978	0.955	1.040	1.049	1.174	1.030	7.7	35.0	True
PCB 119 (BZ)		0.987	0.978	0.955	1.040	1.049	1.174	1.030	7.7	35.0	True
PCB 97 (BZ)		0.987	0.978	0.955	1.040	1.049	1.174	1.030	7.7	35.0	True
PCB 125 (BZ)		0.987	0.978	0.955	1.040	1.049	1.174	1.030	7.7	35.0	True
PCB 87 (BZ)		0.987	0.978	0.955	1.040	1.049	1.174	1.030	7.7	35.0	True
PCB 117 (BZ)		1.029	1.031	0.985	1.037	1.058	1.185	1.054	6.5	35.0	True
PCB 116 (BZ)		1.029	1.031	0.985	1.037	1.058	1.185	1.054	6.5	35.0	True
PCB 85 (BZ)		1.029	1.031	0.985	1.037	1.058	1.185	1.054	6.5	35.0	True
PCB 110 (BZ)		1.139	1.191	1.116	1.197	1.186	1.332	1.194	6.3	35.0	True
PCB 115 (BZ)		1.139	1.191	1.116	1.197	1.186	1.332	1.194	6.3	35.0	True
PCB 82 (BZ)		0.828	0.668	0.643	0.728	0.730	0.781	0.730	9.4	35.0	True
PCB 111 (BZ)		1.230	1.244	1.227	1.234	1.250	1.373	1.260	4.5	35.0	True
PCB 120 (BZ)		1.123	1.195	1.180	1.232	1.250	1.368	1.225	6.8	35.0	True
PCB 124 (BZ)		0.959	0.983	0.996	1.002	1.010	1.224	1.029	9.4	35.0	True
PCB 108 (BZ)/107 (IUPAC)		0.959	0.983	0.996	1.002	1.010	1.224	1.029	9.4	35.0	True

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Response Factor

Analyte	T/L	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RF	%RSD	Limit	Valid?
PCB 107 (BZ)/109 (IUPAC)		1.135	1.043	1.004	1.064	1.055	1.190	1.082	6.3	35.0	True
PCB 123 (BZ)	T	0.986	1.103	1.067	1.014	1.018	1.128	1.053	5.3	20.0	True
PCB 106 (BZ)		1.163	1.033	0.950	1.034	0.993	1.125	1.050	7.7	35.0	True
PCB 118 (BZ)	T	1.178	1.106	1.036	1.040	1.007	1.156	1.087	6.4	20.0	True
PCB 122 (BZ)		0.906	0.995	0.941	0.953	0.949	1.039	0.964	4.8	35.0	True
PCB 114 (BZ)	T	1.193	1.163	1.122	1.141	1.114	1.232	1.161	3.9	20.0	True
PCB 105 (BZ)	T	1.131	1.112	1.098	1.101	1.101	1.207	1.125	3.7	20.0	True
PCB 127 (BZ)		1.002	1.041	1.040	1.079	1.051	1.158	1.062	5.0	35.0	True
PCB 126 (BZ)	T	1.067	1.008	1.009	1.047	1.059	1.114	1.051	3.8	20.0	True
13C12-PCB 155		1.080	1.092	1.086	1.072	1.033	1.043	1.068	2.3	35.0	True
13C12-PCB 153				0.852	0.800	0.832		0.828	3.2	35.0	True
13C12-PCB 138		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.0	35.0	True
13C12-PCB 167		1.211	1.233	1.262	1.288	1.233	1.256	1.247	2.2	35.0	True
13C12-PCB 156		1.202	1.241	1.244	1.263	1.206	1.243	1.233	2.0	35.0	True
13C12-PCB 157								0.000	0.0	35.0	True
13C12-PCB 169		1.150	1.174	1.170	1.217	1.141	1.187	1.173	2.3	35.0	True
PCB 155 (BZ)	L	1.153	1.118	1.043	1.153	1.116	1.184	1.128	4.3	20.0	True
PCB 152 (BZ)		1.011	1.147	1.040	1.084	1.066	1.103	1.075	4.4	35.0	True
PCB 150 (BZ)		1.195	1.052	1.058	1.079	1.064	1.131	1.096	5.1	35.0	True
PCB 136 (BZ)		1.049	0.982	0.980	1.031	1.015	1.076	1.022	3.7	35.0	True
PCB 145 (BZ)		1.124	1.063	1.037	1.050	1.034	1.105	1.069	3.5	35.0	True
PCB 148 (BZ)		0.659	0.829	0.722	0.776	0.776	0.824	0.764	8.5	35.0	True
PCB 151 (BZ)		0.725	0.715	0.751	0.754	0.748	0.809	0.750	4.3	35.0	True
PCB 135 (BZ)		0.725	0.715	0.751	0.754	0.748	0.809	0.750	4.3	35.0	True
PCB 154 (BZ)		0.852	0.973	0.897	0.923	0.916	0.974	0.922	5.1	35.0	True
PCB 144 (BZ)		0.835	0.793	0.766	0.808	0.795	0.852	0.808	3.8	35.0	True
PCB 147 (BZ)		0.830	0.899	0.849	0.862	0.826	0.903	0.861	3.9	35.0	True
PCB 149 (BZ)		0.830	0.899	0.849	0.862	0.826	0.903	0.861	3.9	35.0	True
PCB 134 (BZ)		0.739	0.711	0.685	0.706	0.711	0.747	0.717	3.2	35.0	True
PCB 143 (BZ)		0.739	0.711	0.685	0.706	0.711	0.747	0.717	3.2	35.0	True
PCB 139 (BZ)		0.849	0.802	0.787	0.826	0.838	0.916	0.836	5.4	35.0	True
PCB 140 (BZ)		0.849	0.802	0.787	0.826	0.838	0.916	0.836	5.4	35.0	True
PCB 131 (BZ)		0.681	0.713	0.662	0.708	0.716	0.722	0.700	3.3	35.0	True
PCB 142 (BZ)		0.812	0.684	0.700	0.700	0.709	0.765	0.728	6.9	35.0	True
PCB 132 (BZ)		0.770	0.776	0.693	0.715	0.715	0.746	0.736	4.5	35.0	True
PCB 133 (BZ)		0.671	0.793	0.747	0.785	0.774	0.808	0.763	6.5	35.0	True
PCB 165 (BZ)		0.965	1.016	0.978	0.987	0.997	1.063	1.001	3.5	35.0	True
PCB 146 (BZ)		0.986	0.841	0.804	0.871	0.874	0.907	0.881	7.1	35.0	True
PCB 161 (BZ)		1.094	1.087	1.057	1.084	1.083	1.196	1.100	4.4	35.0	True
PCB 153 (BZ)		1.106	1.052	1.001	1.043	1.058	1.169	1.071	5.4	35.0	True
PCB 168 (BZ)		1.106	1.052	1.001	1.043	1.058	1.169	1.071	5.4	35.0	True
PCB 141 (BZ)		0.873	0.781	0.775	0.782	0.779	0.829	0.803	4.9	35.0	True
PCB 130 (BZ)		0.732	0.728	0.675	0.709	0.709	0.752	0.717	3.7	35.0	True
PCB 137 (BZ)		0.861	0.783	0.776	0.835	0.849	0.886	0.832	5.3	35.0	True
PCB 164 (BZ)		1.056	1.092	1.007	1.017	1.020	1.117	1.052	4.3	35.0	True
PCB 138 (BZ)		0.959	0.894	0.864	0.905	0.914	1.021	0.926	6.0	35.0	True
PCB 163 (BZ)		0.959	0.894	0.864	0.905	0.914	1.021	0.926	6.0	35.0	True
PCB 129 (BZ)		0.959	0.894	0.864	0.905	0.914	1.021	0.926	6.0	35.0	True

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Response Factor

Analyte	T/L	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RF	%RSD	Limit	Valid?
PCB 160 (BZ)		0.959	0.894	0.864	0.905	0.914	1.021	0.926	6.0	35.0	True
PCB 158 (BZ)		1.185	1.124	1.143	1.182	1.171	1.238	1.174	3.3	35.0	True
PCB 166 (BZ)		1.004	0.943	0.910	0.929	0.933	1.026	0.958	4.9	35.0	True
PCB 128 (BZ)		1.004	0.943	0.910	0.929	0.933	1.026	0.958	4.9	35.0	True
PCB 159 (BZ)		1.194	1.079	1.032	1.051	1.069	1.143	1.095	5.6	35.0	True
PCB 162 (BZ)		1.127	1.138	1.048	1.089	1.084	1.163	1.108	3.8	35.0	True
PCB 167 (BZ)	T	1.137	1.103	1.103	1.101	1.113	1.198	1.126	3.4	20.0	True
PCB 156 (BZ)	T	1.135	1.147	1.061	1.108	1.106	1.223	1.130	4.8	20.0	True
PCB 157 (BZ)	T	1.135	1.147	1.061	1.108	1.106	1.223	1.130	4.8	20.0	True
PCB 169 (BZ)	T	1.271	1.183	1.201	1.246	1.247	1.312	1.243	3.8	20.0	True
13C12-PCB 188		1.229	1.194	1.230	1.244	1.220	1.187	1.217	1.8	35.0	True
13C12-PCB 178				0.984	0.853	0.806		0.881	10.5	35.0	True
13C12-PCB 180		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.0	35.0	True
13C12-PCB 170		0.830	0.846	0.824	0.848	0.803	0.818	0.828	2.0	35.0	True
13C12-PCB 189		1.544	1.579	1.537	1.621	1.618	1.631	1.588	2.6	35.0	True
PCB 188 (BZ)	L	1.207	1.060	1.072	1.105	1.067	1.154	1.111	5.3	20.0	True
PCB 179 (BZ)		1.211	1.182	1.175	1.231	1.209	1.310	1.220	4.0	35.0	True
PCB 184 (BZ)		1.196	1.185	1.117	1.179	1.188	1.261	1.188	3.9	35.0	True
PCB 176 (BZ)		1.394	1.190	1.217	1.281	1.261	1.372	1.286	6.4	35.0	True
PCB 186 (BZ)		1.198	1.215	1.201	1.213	1.205	1.307	1.223	3.4	35.0	True
PCB 178 (BZ)		0.949	0.842	0.888	0.893	0.908	0.955	0.906	4.7	35.0	True
PCB 175 (BZ)		1.029	0.977	0.926	0.967	0.957	1.021	0.980	4.0	35.0	True
PCB 187 (BZ)		1.135	1.043	1.017	1.020	1.019	1.092	1.054	4.6	35.0	True
PCB 182 (BZ)		0.947	1.028	0.988	1.020	0.994	1.074	1.009	4.3	35.0	True
PCB 183 (BZ)		0.962	1.011	0.947	0.982	0.973	1.047	0.987	3.7	35.0	True
PCB 185 (BZ)		0.962	1.011	0.947	0.982	0.973	1.047	0.987	3.7	35.0	True
PCB 174 (BZ)		0.852	0.971	0.945	0.936	0.944	0.996	0.941	5.2	35.0	True
PCB 177 (BZ)		0.940	0.924	0.899	0.906	0.895	0.946	0.918	2.4	35.0	True
PCB 181 (BZ)		0.922	0.983	0.929	0.981	0.999	1.067	0.980	5.4	35.0	True
PCB 171 (BZ)		0.862	0.879	0.827	0.859	0.864	0.941	0.872	4.3	35.0	True
PCB 173 (BZ)		0.862	0.879	0.827	0.859	0.864	0.941	0.872	4.3	35.0	True
PCB 172 (BZ)		0.892	0.926	0.840	0.852	0.857	0.916	0.881	4.1	35.0	True
PCB 192 (BZ)		1.026	1.193	1.154	1.157	1.140	1.244	1.152	6.3	35.0	True
PCB 193 (BZ)		1.200	1.118	1.098	1.148	1.128	1.230	1.154	4.4	35.0	True
PCB 180 (BZ)		1.200	1.118	1.098	1.148	1.128	1.230	1.154	4.4	35.0	True
PCB 191 (BZ)		1.257	1.331	1.238	1.285	1.260	1.350	1.287	3.5	35.0	True
PCB 170 (BZ)		1.198	1.098	1.058	1.083	1.067	1.109	1.102	4.6	20.0	True
PCB 190 (BZ)		1.137	1.345	1.221	1.261	1.270	1.357	1.265	6.5	35.0	True
PCB 189 (BZ)	T	1.077	1.068	1.048	1.052	1.053	1.142	1.073	3.3	20.0	True
13C12-PCB 202		0.895	0.926	0.921	0.916	0.893	0.893	0.907	1.7	35.0	True
13C12-PCB 194		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.0	35.0	True
13C12-PCB 205		1.359	1.401	1.382	1.429	1.399	1.398	1.395	1.6	35.0	True
PCB 202 (BZ)	L	1.001	1.035	0.977	1.001	0.990	1.036	1.007	2.4	20.0	True
PCB 200 (BZ)/201 (IUPAC)		1.274	1.112	1.045	1.114	1.098	1.161	1.134	6.9	35.0	True
PCB 204 (BZ)		1.035	1.053	1.026	1.023	0.999	1.069	1.034	2.3	35.0	True
PCB 197 (BZ)		1.067	1.098	1.056	1.080	1.044	1.104	1.075	2.2	35.0	True
PCB 199 (BZ)/200 (IUPAC)		1.158	1.040	1.071	1.069	1.083	1.148	1.095	4.3	35.0	True
PCB 198 (BZ)		0.828	0.737	0.738	0.774	0.764	0.809	0.775	4.8	35.0	True

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Response Factor

Analyte	T/L	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RF	%RSD	Limit	Valid?
PCB 201 (BZ)/199 (IUPAC)		0.828	0.737	0.738	0.774	0.764	0.809	0.775	4.8	35.0	True
PCB 196 (BZ)		0.893	0.820	0.747	0.784	0.766	0.788	0.800	6.5	35.0	True
PCB 203 (BZ)		0.880	0.915	0.822	0.863	0.840	0.886	0.868	3.9	35.0	True
PCB 195 (BZ)		0.823	0.772	0.727	0.739	0.744	0.785	0.765	4.6	35.0	True
PCB 194 (BZ)		0.959	0.815	0.784	0.805	0.782	0.836	0.830	8.0	35.0	True
PCB 205 (BZ)	L	1.046	0.926	0.963	0.966	0.974	1.041	0.986	4.8	20.0	True
13C12-PCB 208		1.137	1.185	1.158	1.176	1.153	1.120	1.155	2.1	35.0	True
13C12-PCB 206		0.801	0.826	0.816	0.817	0.799	0.787	0.808	1.8	35.0	True
PCB 208 (BZ)	L	1.138	0.975	1.012	1.011	1.004	1.070	1.035	5.7	20.0	True
PCB 207 (BZ)		1.341	1.235	1.253	1.248	1.245	1.332	1.276	3.7	35.0	True
PCB 206 (BZ)	L	1.085	1.181	1.090	1.122	1.081	1.120	1.113	3.4	20.0	True
13C12-PCB 209		0.855	0.891	0.867	0.850	0.850	0.831	0.857	2.3	35.0	True
PCB 209 (BZ)	L	1.109	1.054	0.983	1.058	1.024	1.084	1.052	4.2	20.0	True

TestAmerica
Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a08624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a08624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a08624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a08624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a08624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a08624i5.d

Ion Abundance Ratios

Analyte	T/L	M/Z's	CS0.5	CS1	CS2	CS3	CS4	CS5	Limits	Valid?
13C12-PCB 1		M/M+2	3.24	3.17	3.20	3.20	3.16	3.30	2.66-3.60	True
13C12-PCB 3		M/M+2	3.23	3.27	3.25	3.21	3.24	3.25	2.66-3.60	True
PCB 1 (BZ)	L	M/M+2	3.43	3.17	3.28	3.33	3.35	3.44	2.66-3.60	True
PCB 2 (BZ)		M/M+2	2.92	3.42	3.24	3.34	3.34	3.59	2.66-3.60	True
PCB 3 (BZ)	L	M/M+2	2.99	3.13	3.18	3.28	3.29		2.66-3.60	True
13C12-PCB 4		M/M+2	1.57	1.60	1.59	1.62	1.59	1.62	1.33-1.79	True
13C12-PCB 9		M/M+2	1.61	1.59	1.59	1.63	1.61	1.63	1.33-1.79	True
13C12-PCB 8		M/M+2			1.62	1.62	1.59		1.33-1.79	True
13C12-PCB 15		M/M+2	1.60	1.60	1.60	1.57	1.59	1.60	1.33-1.79	True
PCB 4 (BZ)	L	M/M+2	1.50	1.50	1.48	1.56	1.55	1.60	1.33-1.79	True
PCB 10 (BZ)		M/M+2	**0.94**	1.37	1.50	1.57	1.58	1.61	1.33-1.79	**Warning**
PCB 9 (BZ)		M/M+2	**1.30**	1.66	1.50	1.60	1.57	1.61	1.33-1.79	**Warning**
PCB 7 (BZ)		M/M+2	1.62	1.40	1.65	1.59	1.58	1.61	1.33-1.79	True
PCB 6 (BZ)		M/M+2	1.72	1.38	1.58	1.57	1.57	1.63	1.33-1.79	True
PCB 5 (BZ)		M/M+2	1.70	1.47	1.60	1.58	1.56	1.61	1.33-1.79	True
PCB 8 (BZ)		M/M+2	1.44	1.50	1.59	1.58	1.58	1.62	1.33-1.79	True
PCB 14 (BZ)		M/M+2	1.57	1.52	1.58	1.53	1.56	1.62	1.33-1.79	True
PCB 11 (BZ)		M/M+2	1.33	1.54	1.54	1.60	1.58	1.63	1.33-1.79	True
PCB 13 (BZ)		M/M+2	1.58	1.40	1.55	1.60	1.59	1.63	1.33-1.79	True
PCB 12 (BZ)		M/M+2	1.58	1.40	1.55	1.60	1.59	1.63	1.33-1.79	True
PCB 15 (BZ)	L	M/M+2	1.63	1.59	1.54	1.57	1.58	1.61	1.33-1.79	True
13C12-PCB 19		M/M+2	1.06	1.05	1.08	1.10	1.07	1.09	0.88-1.20	True
13C12-PCB 32		M/M+2	1.07	1.07	1.07	1.06	1.06	1.09	0.88-1.20	True
13C12-PCB 31		M/M+2	1.06	1.05	1.06	1.07	1.07	1.07	0.88-1.20	True
13C12-PCB 28		M/M+2			1.15	1.05	1.07		0.88-1.20	True
13C12-PCB 37		M/M+2	1.09	1.06	1.08	1.08	1.07	1.09	0.88-1.20	True
PCB 19 (BZ)	L	M/M+2	1.03	1.19	1.11	1.07	1.03	1.06	0.88-1.20	True
PCB 30 (BZ)		M/M+2	1.14	1.07	1.00	1.06	1.04	1.05	0.88-1.20	True
PCB 18 (BZ)		M/M+2	1.14	1.07	1.00	1.06	1.04	1.05	0.88-1.20	True
PCB 17 (BZ)		M/M+2	0.93	0.94	1.14	1.09	1.07	1.05	0.88-1.20	True
PCB 27 (BZ)		M/M+2	0.98	0.92	1.04	1.06	1.05	1.04	0.88-1.20	True
PCB 24 (BZ)		M/M+2	**1.28**	1.17	1.08	1.09	1.02	1.04	0.88-1.20	**Warning**
PCB 16 (BZ)		M/M+2	1.05	0.94	1.17	1.03	1.06	1.05	0.88-1.20	True
PCB 32 (BZ)		M/M+2	1.04	0.88	1.06	1.09	1.05	1.04	0.88-1.20	True
PCB 34 (BZ)		M/M+2	**1.24**	1.16	1.07	1.06	1.07	1.07	0.88-1.20	**Warning**
PCB 23 (BZ)		M/M+2	1.09	1.15	1.06	1.07	1.06	1.06	0.88-1.20	True
PCB 29 (BZ)		M/M+2	1.01	0.99	1.08	1.06	1.06	1.05	0.88-1.20	True
PCB 26 (BZ)		M/M+2	1.01	0.99	1.08	1.06	1.06	1.05	0.88-1.20	True
PCB 25 (BZ)		M/M+2	1.13	1.10	1.09	1.04	1.07	1.05	0.88-1.20	True
PCB 31 (BZ)		M/M+2	0.94	0.99	1.06	1.03	1.06	1.05	0.88-1.20	True
PCB 28 (BZ)		M/M+2	1.05	1.04	1.01	1.05	1.05	1.06	0.88-1.20	True
PCB 20 (BZ)		M/M+2	1.05	1.04	1.01	1.05	1.05	1.06	0.88-1.20	True
PCB 21 (BZ)		M/M+2	1.07	1.06	1.07	1.06	1.05	1.05	0.88-1.20	True
PCB 33 (BZ)		M/M+2	1.07	1.06	1.07	1.06	1.05	1.05	0.88-1.20	True
PCB 22 (BZ)		M/M+2	1.12	1.09	1.07	1.07	1.06	1.05	0.88-1.20	True
PCB 36 (BZ)		M/M+2	0.91	1.13	1.12	1.04	1.08	1.05	0.88-1.20	True
PCB 39 (BZ)		M/M+2	1.06	1.00	1.08	1.05	1.05	1.05	0.88-1.20	True
PCB 38 (BZ)		M/M+2	1.19	0.97	0.99	1.05	1.07	1.06	0.88-1.20	True

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Ion Abundance Ratios

Analyte	T/L	M/Z's	CS0.5	CS1	CS2	CS3	CS4	CS5	Limits	Valid?
PCB 35 (BZ)		M/M+2	1.07	0.96	1.07	1.04	1.05	1.05	0.88-1.20	True
PCB 37 (BZ)	L	M/M+2	1.17	1.02	1.08	1.04	1.05	1.05	0.88-1.20	True
13C12-PCB 54		M/M+2	0.82	0.81	0.81	0.79	0.80	0.81	0.65-0.89	True
13C12-PCB 52		M/M+2	0.80	0.79	0.79	0.79	0.77	0.81	0.65-0.89	True
13C12-PCB 79		M/M+2			0.79	0.80	0.80		0.65-0.89	True
13C12-PCB 81		M/M+2	0.80	0.81	0.80	0.80	0.81	0.81	0.65-0.89	True
13C12-PCB 77		M/M+2	0.80	0.79	0.80	0.80	0.80	0.81	0.65-0.89	True
PCB 54 (BZ)	L	M/M+2	0.79	0.71	0.70	0.80	0.79	0.79	0.65-0.89	True
PCB 50 (BZ)		M/M+2	0.65	0.79	0.76	0.78	0.78	0.76	0.65-0.89	True
PCB 53 (BZ)		M/M+2	0.65	0.79	0.76	0.78	0.78	0.76	0.65-0.89	True
PCB 45 (BZ)		M/M+2	0.81	0.83	0.76	0.78	0.79	0.77	0.65-0.89	True
PCB 51 (BZ)		M/M+2	0.81	0.83	0.76	0.78	0.79	0.77	0.65-0.89	True
PCB 46 (BZ)		M/M+2	**0.97**	0.89	0.77	0.77	0.78	0.77	0.65-0.89	**Warning**
PCB 52 (BZ)		M/M+2	0.82	0.84	0.76	0.80	0.77	0.77	0.65-0.89	True
PCB 73 (BZ)		M/M+2	0.82	0.81	0.78	0.80	0.78	0.77	0.65-0.89	True
PCB 43 (BZ)		M/M+2	0.82	0.81	0.78	0.80	0.78	0.77	0.65-0.89	True
PCB 69 (BZ)		M/M+2	0.82	0.68	0.75	0.79	0.78	0.76	0.65-0.89	True
PCB 49 (BZ)		M/M+2	0.82	0.68	0.75	0.79	0.78	0.76	0.65-0.89	True
PCB 48 (BZ)		M/M+2	0.78	0.75	0.84	0.76	0.78	0.77	0.65-0.89	True
PCB 65 (BZ)		M/M+2	0.80	0.75	0.77	0.79	0.78	0.74	0.65-0.89	True
PCB 47 (BZ)		M/M+2	0.80	0.75	0.77	0.79	0.78	0.74	0.65-0.89	True
PCB 44 (BZ)		M/M+2	0.80	0.75	0.77	0.79	0.78	0.74	0.65-0.89	True
PCB 62 (BZ)		M/M+2	0.86	0.82	0.80	0.79	0.77	0.74	0.65-0.89	True
PCB 75 (BZ)		M/M+2	0.86	0.82	0.80	0.79	0.77	0.74	0.65-0.89	True
PCB 59 (BZ)		M/M+2	0.86	0.82	0.80	0.79	0.77	0.74	0.65-0.89	True
PCB 42 (BZ)		M/M+2	0.65	0.79	0.74	0.80	0.78	0.77	0.65-0.89	True
PCB 41 (BZ)		M/M+2	0.79	0.73	0.82	0.79	0.78	0.76	0.65-0.89	True
PCB 71 (BZ)		M/M+2	0.79	0.73	0.82	0.79	0.78	0.76	0.65-0.89	True
PCB 40 (BZ)		M/M+2	0.79	0.73	0.82	0.79	0.78	0.76	0.65-0.89	True
PCB 64 (BZ)		M/M+2	0.74	0.80	0.80	0.81	0.78	0.76	0.65-0.89	True
PCB 72 (BZ)		M/M+2	0.65	0.77	0.83	0.80	0.79	0.76	0.65-0.89	True
PCB 68 (BZ)		M/M+2	**0.62**	0.79	0.74	0.77	0.78	0.76	0.65-0.89	**Warning**
PCB 57 (BZ)		M/M+2	0.67	0.79	0.78	0.79	0.79	0.76	0.65-0.89	True
PCB 58 (BZ)		M/M+2	0.87	0.75	0.81	0.78	0.79	0.77	0.65-0.89	True
PCB 67 (BZ)		M/M+2	0.70	0.77	0.81	0.81	0.78	0.77	0.65-0.89	True
PCB 63 (BZ)		M/M+2	**0.98**	0.89	0.80	0.77	0.79	0.76	0.65-0.89	**Warning**
PCB 61 (BZ)		M/M+2	0.73	0.76	0.79	0.78	0.77	0.74	0.65-0.89	True
PCB 70 (BZ)		M/M+2	0.73	0.76	0.79	0.78	0.77	0.74	0.65-0.89	True
PCB 76 (BZ)		M/M+2	0.73	0.76	0.79	0.78	0.77	0.74	0.65-0.89	True
PCB 74 (BZ)		M/M+2	0.73	0.76	0.79	0.78	0.77	0.74	0.65-0.89	True
PCB 66 (BZ)		M/M+2	0.71	0.74	0.87	0.79	0.77	0.77	0.65-0.89	True
PCB 55 (BZ)		M/M+2	0.67	0.79	0.81	0.77	0.78	0.76	0.65-0.89	True
PCB 56 (BZ)		M/M+2	**0.64**	0.85	0.81	0.77	0.78	0.76	0.65-0.89	**Warning**
PCB 60 (BZ)		M/M+2	0.80	0.82	0.77	0.78	0.77	0.76	0.65-0.89	True
PCB 80 (BZ)		M/M+2	**1.02**	0.83	0.76	0.77	0.78	0.76	0.65-0.89	**Warning**
PCB 79 (BZ)		M/M+2	**1.07**	**0.64**	0.81	0.80	0.78	0.77	0.65-0.89	**Warning**
PCB 78 (BZ)		M/M+2	**0.62**	0.82	0.81	0.77	0.78	0.76	0.65-0.89	**Warning**
PCB 81 (BZ)	T	M/M+2	0.83	0.70	0.81	0.78	0.78	0.76	0.65-0.89	True

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Ion Abundance Ratios

Analyte	T/L	M/Z's	CS0.5	CS1	CS2	CS3	CS4	CS5	Limits	Valid?
PCB 77 (BZ)	T	M/M+2	0.69	0.75	0.81	0.78	0.78	0.77	0.65-0.89	True
13C12-PCB 104		M+2/M+4	1.63	1.64	1.63	1.61	1.66	1.61	1.32-1.78	True
13C12-PCB 95		M+2/M+4			1.62	1.57	1.58		1.32-1.78	True
13C12-PCB 101		M+2/M+4	1.61	1.67	1.64	1.62	1.64	1.64	1.32-1.78	True
13C12-PCB 111		M+2/M+4			1.68	1.63	1.62		1.32-1.78	True
13C12-PCB 123		M+2/M+4	1.57	1.61	1.59	1.60	1.63	1.60	1.32-1.78	True
13C12-PCB 118		M+2/M+4	1.61	1.60	1.60	1.62	1.60	1.60	1.32-1.78	True
13C12-PCB 114		M+2/M+4	1.60	1.60	1.57	1.61	1.60	1.62	1.32-1.78	True
13C12-PCB 105		M+2/M+4	1.59	1.60	1.61	1.61	1.62	1.59	1.32-1.78	True
13C12-PCB 127		M+2/M+4	1.58	1.59	1.61	1.62	1.61	1.62	1.32-1.78	True
13C12-PCB 126		M+2/M+4	1.58	1.57	1.60	1.55	1.58	1.61	1.32-1.78	True
PCB 104 (BZ)	L	M+2/M+4	1.61	1.59	1.57	1.61	1.56	1.61	1.32-1.78	True
PCB 96 (BZ)		M+2/M+4	1.43	1.62	1.61	1.53	1.57	1.62	1.32-1.78	True
PCB 103 (BZ)		M+2/M+4	**2.13**	1.51	1.60	1.55	1.58	1.58	1.32-1.78	**Warning**
PCB 94 (BZ)		M+2/M+4	1.43	1.48	1.64	1.57	1.54	1.58	1.32-1.78	True
PCB 95 (BZ)		M+2/M+4	1.51	1.60	1.52	1.60	1.56	1.59	1.32-1.78	True
PCB 100 (BZ)		M+2/M+4	1.53	**1.82**	1.60	1.59	1.57	1.61	1.32-1.78	**Warning**
PCB 93 (BZ)		M+2/M+4	1.53	**1.82**	1.60	1.59	1.57	1.61	1.32-1.78	**Warning**
PCB 102 (BZ)		M+2/M+4	1.59	**1.95**	1.65	1.61	1.57	1.61	1.32-1.78	**Warning**
PCB 98 (BZ)		M+2/M+4	1.59	**1.95**	1.65	1.61	1.57	1.61	1.32-1.78	**Warning**
PCB 88 (BZ)		M+2/M+4	1.43	1.53	1.63	1.57	1.58	1.59	1.32-1.78	True
PCB 91 (BZ)		M+2/M+4	1.43	1.53	1.63	1.57	1.58	1.59	1.32-1.78	True
PCB 84 (BZ)		M+2/M+4	1.77	**1.84**	1.65	1.56	1.58	1.58	1.32-1.78	**Warning**
PCB 89 (BZ)		M+2/M+4	**1.80**	1.64	1.62	1.60	1.57	1.59	1.32-1.78	**Warning**
PCB 121 (BZ)		M+2/M+4	1.69	1.78	1.69	1.54	1.59	1.61	1.32-1.78	True
PCB 92 (BZ)		M+2/M+4	1.46	**2.02**	1.55	1.55	1.57	1.59	1.32-1.78	**Warning**
PCB 113 (BZ)		M+2/M+4	1.48	1.60	1.51	1.58	1.57	1.61	1.32-1.78	True
PCB 90 (BZ)		M+2/M+4	1.48	1.60	1.51	1.58	1.57	1.61	1.32-1.78	True
PCB 101 (BZ)		M+2/M+4	1.48	1.60	1.51	1.58	1.57	1.61	1.32-1.78	True
PCB 83 (BZ)		M+2/M+4	1.37	1.60	1.50	1.68	1.57	1.59	1.32-1.78	True
PCB 99 (BZ)		M+2/M+4	1.37	1.60	1.50	1.68	1.57	1.59	1.32-1.78	True
PCB 112 (BZ)		M+2/M+4	1.68	**1.31**	1.65	1.46	1.58	1.61	1.32-1.78	**Warning**
PCB 109 (BZ)/108 (IUPAC)		M+2/M+4	1.50	1.50	1.56	1.56	1.58	1.64	1.32-1.78	True
PCB 86 (BZ)		M+2/M+4	1.50	1.50	1.56	1.56	1.58	1.64	1.32-1.78	True
PCB 119 (BZ)		M+2/M+4	1.50	1.50	1.56	1.56	1.58	1.64	1.32-1.78	True
PCB 97 (BZ)		M+2/M+4	1.50	1.50	1.56	1.56	1.58	1.64	1.32-1.78	True
PCB 125 (BZ)		M+2/M+4	1.50	1.50	1.56	1.56	1.58	1.64	1.32-1.78	True
PCB 87 (BZ)		M+2/M+4	1.50	1.50	1.56	1.56	1.58	1.64	1.32-1.78	True
PCB 117 (BZ)		M+2/M+4	1.43	1.67	1.60	1.57	1.58	1.61	1.32-1.78	True
PCB 116 (BZ)		M+2/M+4	1.43	1.67	1.60	1.57	1.58	1.61	1.32-1.78	True
PCB 85 (BZ)		M+2/M+4	1.43	1.67	1.60	1.57	1.58	1.61	1.32-1.78	True
PCB 110 (BZ)		M+2/M+4	1.66	1.72	1.50	1.57	1.56	1.60	1.32-1.78	True
PCB 115 (BZ)		M+2/M+4	1.66	1.72	1.50	1.57	1.56	1.60	1.32-1.78	True
PCB 82 (BZ)		M+2/M+4	1.33	1.76	1.56	1.61	1.57	1.59	1.32-1.78	True
PCB 111 (BZ)		M+2/M+4	**1.85**	1.61	1.64	1.59	1.57	1.61	1.32-1.78	**Warning**
PCB 120 (BZ)		M+2/M+4	1.45	1.33	1.55	1.59	1.55	1.60	1.32-1.78	True
PCB 124 (BZ)		M+2/M+4	1.47	1.68	1.57	1.60	1.58	1.66	1.32-1.78	True
PCB 108 (BZ)/107 (IUPAC)		M+2/M+4	1.47	1.68	1.57	1.60	1.58	1.66	1.32-1.78	True

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a08062412.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

			Ion Abundance Ratios							
Analyte	**T/L**	**M/Z's**	**CS0.5**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**Limits**	**Valid?**
PCB 107 (BZ)/109 (IUPAC)		M+2/M+4	1.60	1.60	1.56	1.59	1.56	1.61	1.32-1.78	True
PCB 123 (BZ)	T	M+2/M+4	1.60	1.58	1.59	1.52	1.43	1.62	1.32-1.78	True
PCB 106 (BZ)		M+2/M+4	**1.83**	1.45	1.62	1.60	1.74	1.61	1.32-1.78	**Warning**
PCB 118 (BZ)	T	M+2/M+4	1.58	1.48	1.59	1.55	1.55	1.57	1.32-1.78	True
PCB 122 (BZ)		M+2/M+4	1.46	1.65	1.64	1.61	1.55	1.60	1.32-1.78	True
PCB 114 (BZ)	T	M+2/M+4	1.41	1.54	1.57	1.54	1.55	1.63	1.32-1.78	True
PCB 105 (BZ)	T	M+2/M+4	1.65	1.35	1.44	1.54	1.55	1.60	1.32-1.78	True
PCB 127 (BZ)		M+2/M+4	1.52	1.61	1.48	1.57	1.55	1.60	1.32-1.78	True
PCB 126 (BZ)	T	M+2/M+4	1.70	1.43	1.52	1.56	1.64	1.63	1.32-1.78	True
13C12-PCB 155		M+2/M+4	1.24	1.31	1.32	1.28	1.30	1.29	1.05-1.43	True
13C12-PCB 153		M+2/M+4			1.34	1.28	1.27		1.05-1.43	True
13C12-PCB 138		M+2/M+4	1.28	1.27	1.27	1.27	1.28	1.28	1.05-1.43	True
13C12-PCB 167		M+2/M+4	1.30	1.27	1.31	1.31	1.31	1.32	1.05-1.43	True
13C12-PCB 156		M+2/M+4	1.28	1.28	1.28	1.28	1.26	1.28	1.05-1.43	True
13C12-PCB 157		M+2/M+4							1.05-1.43	True
13C12-PCB 169		M+2/M+4	1.27	1.26	1.27	1.28	1.26	1.29	1.05-1.43	True
PCB 155 (BZ)	L	M+2/M+4	1.33	1.32	1.24	1.26	1.26	1.27	1.05-1.43	True
PCB 152 (BZ)		M+2/M+4	1.11	1.28	1.20	1.27	1.26	1.27	1.05-1.43	True
PCB 150 (BZ)		M+2/M+4	**1.57**	1.08	1.23	1.26	1.27	1.28	1.05-1.43	**Warning**
PCB 136 (BZ)		M+2/M+4	1.15	1.16	1.34	1.28	1.28	1.28	1.05-1.43	True
PCB 145 (BZ)		M+2/M+4	**0.87**	1.35	1.31	1.27	1.25	1.27	1.05-1.43	**Warning**
PCB 148 (BZ)		M+2/M+4	**1.58**	**1.52**	1.34	1.33	1.26	1.28	1.05-1.43	**Warning**
PCB 151 (BZ)		M+2/M+4	1.05	1.10	1.19	1.21	1.25	1.27	1.05-1.43	True
PCB 135 (BZ)		M+2/M+4	1.05	1.10	1.19	1.21	1.25	1.27	1.05-1.43	True
PCB 154 (BZ)		M+2/M+4	1.07	**1.46**	1.29	1.23	1.25	1.27	1.05-1.43	**Warning**
PCB 144 (BZ)		M+2/M+4	**1.67**	1.16	1.29	1.28	1.26	1.27	1.05-1.43	**Warning**
PCB 147 (BZ)		M+2/M+4	1.31	1.18	1.27	1.27	1.26	1.28	1.05-1.43	True
PCB 149 (BZ)		M+2/M+4	1.31	1.18	1.27	1.27	1.26	1.28	1.05-1.43	True
PCB 134 (BZ)		M+2/M+4	**1.02**	1.11	1.30	1.27	1.25	1.26	1.05-1.43	**Warning**
PCB 143 (BZ)		M+2/M+4	**1.02**	1.11	1.30	1.27	1.25	1.26	1.05-1.43	**Warning**
PCB 139 (BZ)		M+2/M+4	**0.98**	1.22	1.25	1.25	1.25	1.28	1.05-1.43	**Warning**
PCB 140 (BZ)		M+2/M+4	**0.98**	1.22	1.25	1.25	1.25	1.28	1.05-1.43	**Warning**
PCB 131 (BZ)		M+2/M+4	1.10	1.29	1.20	1.28	1.27	1.28	1.05-1.43	True
PCB 142 (BZ)		M+2/M+4	1.15	1.23	1.23	1.30	1.26	1.26	1.05-1.43	True
PCB 132 (BZ)		M+2/M+4	1.37	1.28	1.21	1.29	1.28	1.26	1.05-1.43	True
PCB 133 (BZ)		M+2/M+4	1.25	1.19	1.34	1.27	1.27	1.27	1.05-1.43	True
PCB 165 (BZ)		M+2/M+4	1.24	1.14	1.25	1.25	1.27	1.26	1.05-1.43	True
PCB 146 (BZ)		M+2/M+4	1.34	1.14	1.26	1.26	1.25	1.25	1.05-1.43	True
PCB 161 (BZ)		M+2/M+4	1.28	**1.49**	1.31	1.27	1.26	1.27	1.05-1.43	**Warning**
PCB 153 (BZ)		M+2/M+4	1.09	1.33	1.25	1.23	1.26	1.27	1.05-1.43	True
PCB 168 (BZ)		M+2/M+4	1.09	1.33	1.25	1.23	1.26	1.27	1.05-1.43	True
PCB 141 (BZ)		M+2/M+4	**1.53**	1.22	1.20	1.21	1.28	1.26	1.05-1.43	**Warning**
PCB 130 (BZ)		M+2/M+4	1.30	1.16	1.28	1.25	1.26	1.26	1.05-1.43	True
PCB 137 (BZ)		M+2/M+4	**1.44**	**0.96**	1.35	1.25	1.27	1.26	1.05-1.43	**Warning**
PCB 164 (BZ)		M+2/M+4	1.25	1.09	1.10	1.25	1.26	1.28	1.05-1.43	True
PCB 138 (BZ)		M+2/M+4	1.23	1.18	1.25	1.26	1.26	1.27	1.05-1.43	True
PCB 163 (BZ)		M+2/M+4	1.23	1.18	1.25	1.26	1.26	1.27	1.05-1.43	True
PCB 129 (BZ)		M+2/M+4	1.23	1.18	1.25	1.26	1.26	1.27	1.05-1.43	True

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Ion Abundance Ratios

Analyte	T/L	M/Z's	CS0.5	CS1	CS2	CS3	CS4	CS5	Limits	Valid?
PCB 160 (BZ)		M+2/M+4	1.23	1.18	1.25	1.26	1.26	1.27	1.05-1.43	True
PCB 158 (BZ)		M+2/M+4	1.17	1.25	1.37	1.25	1.25	1.26	1.05-1.43	True
PCB 166 (BZ)		M+2/M+4	1.15	1.43	1.24	1.26	1.25	1.26	1.05-1.43	True
PCB 128 (BZ)		M+2/M+4	1.15	1.43	1.24	1.26	1.25	1.26	1.05-1.43	True
PCB 159 (BZ)		M+2/M+4	1.30	1.20	1.24	1.26	1.27	1.26	1.05-1.43	True
PCB 162 (BZ)		M+2/M+4	1.30	1.39	1.24	1.25	1.25	1.26	1.05-1.43	True
PCB 167 (BZ)	T	M+2/M+4	1.23	1.16	1.33	1.24	1.25	1.26	1.05-1.43	True
PCB 156 (BZ)	T	M+2/M+4	1.39	1.21	1.24	1.24	1.26	1.27	1.05-1.43	True
PCB 157 (BZ)	T	M+2/M+4	1.39	1.21	1.24	1.24	1.26	1.27	1.05-1.43	True
PCB 169 (BZ)	T	M+2/M+4	1.43	1.23	1.34	1.26	1.27	1.29	1.05-1.43	True
13C12-PCB 188		M+2/M+4	1.05	1.04	1.05	1.05	1.08	1.08	0.89-1.21	True
13C12-PCB 178		M+2/M+4			1.08	1.04	1.05		0.89-1.21	True
13C12-PCB 180		M+2/M+4	1.07	1.07	1.08	1.05	1.07	1.07	0.89-1.21	True
13C12-PCB 170		M+2/M+4	1.04	1.06	1.05	1.05	1.04	1.08	0.89-1.21	True
13C12-PCB 189		M+2/M+4	1.06	1.06	1.03	1.05	1.05	1.06	0.89-1.21	True
PCB 188 (BZ)	L	M+2/M+4	1.01	0.89	1.08	1.04	1.05	1.05	0.89-1.21	True
PCB 179 (BZ)		M+2/M+4	1.13	1.05	0.95	1.04	1.05	1.05	0.89-1.21	True
PCB 184 (BZ)		M+2/M+4	1.14	1.13	1.05	1.05	1.04	1.05	0.89-1.21	True
PCB 176 (BZ)		M+2/M+4	1.12	1.04	1.01	1.08	1.04	1.05	0.89-1.21	True
PCB 186 (BZ)		M+2/M+4	0.95	1.06	0.99	1.07	1.04	1.04	0.89-1.21	True
PCB 178 (BZ)		M+2/M+4	1.21	**1.28**	1.09	1.05	1.04	1.05	0.89-1.21	**Warning**
PCB 175 (BZ)		M+2/M+4	1.15	**0.86**	1.04	1.04	1.05	1.05	0.89-1.21	**Warning**
PCB 187 (BZ)		M+2/M+4	1.09	1.02	1.05	1.05	1.06	1.05	0.89-1.21	True
PCB 182 (BZ)		M+2/M+4	**1.38**	1.13	1.06	1.02	1.03	1.05	0.89-1.21	**Warning**
PCB 183 (BZ)		M+2/M+4	0.97	1.06	1.03	1.06	1.04	1.05	0.89-1.21	True
PCB 185 (BZ)		M+2/M+4	0.97	1.06	1.03	1.06	1.04	1.05	0.89-1.21	True
PCB 174 (BZ)		M+2/M+4	**1.55**	1.00	1.09	1.06	1.04	1.05	0.89-1.21	**Warning**
PCB 177 (BZ)		M+2/M+4	1.05	1.11	1.00	1.06	1.05	1.04	0.89-1.21	True
PCB 181 (BZ)		M+2/M+4	**1.34**	**1.23**	1.07	1.05	1.05	1.05	0.89-1.21	**Warning**
PCB 171 (BZ)		M+2/M+4	1.06	1.03	1.07	1.06	1.05	1.04	0.89-1.21	True
PCB 173 (BZ)		M+2/M+4	1.06	1.03	1.07	1.06	1.05	1.04	0.89-1.21	True
PCB 172 (BZ)		M+2/M+4	1.10	1.08	1.06	1.02	1.04	1.04	0.89-1.21	True
PCB 192 (BZ)		M+2/M+4	**1.34**	1.20	1.02	1.06	1.05	1.05	0.89-1.21	**Warning**
PCB 193 (BZ)		M+2/M+4	0.96	1.17	1.07	1.06	1.05	1.05	0.89-1.21	True
PCB 180 (BZ)		M+2/M+4	0.96	1.17	1.07	1.06	1.05	1.05	0.89-1.21	True
PCB 191 (BZ)		M+2/M+4	0.94	1.01	1.07	1.04	1.07	1.04	0.89-1.21	True
PCB 170 (BZ)		M+2/M+4	1.18	**1.30**	1.05	1.05	1.03	1.04	0.89-1.21	**Warning**
PCB 190 (BZ)		M+2/M+4	**1.24**	**0.88**	1.06	1.01	1.05	1.04	0.89-1.21	**Warning**
PCB 189 (BZ)	T	M+2/M+4	0.92	1.13	1.07	1.05	1.04	1.04	0.89-1.21	True
13C12-PCB 202		M+2/M+4	0.91	0.91	0.90	0.93	0.95	0.91	0.76-1.02	True
13C12-PCB 194		M+2/M+4	0.94	0.92	0.92	0.91	0.93	0.92	0.76-1.02	True
13C12-PCB 205		M+2/M+4	0.90	0.91	0.90	0.89	0.91	0.91	0.76-1.02	True
PCB 202 (BZ)	L	M+2/M+4	0.96	0.93	0.89	0.91	0.91	0.91	0.76-1.02	True
PCB 200 (BZ)/201 (IUPAC)		M+2/M+4	0.77	**1.03**	0.91	0.92	0.92	0.90	0.76-1.02	**Warning**
PCB 204 (BZ)		M+2/M+4	0.76	0.92	0.93	0.92	0.91	0.90	0.76-1.02	True
PCB 197 (BZ)		M+2/M+4	0.80	1.01	0.85	0.85	0.91	0.89	0.76-1.02	True
PCB 199 (BZ)/200 (IUPAC)		M+2/M+4	1.00	**0.75**	0.96	0.96	0.91	0.90	0.76-1.02	**Warning**
PCB 198 (BZ)		M+2/M+4	0.77	1.01	0.89	0.93	0.91	0.90	0.76-1.02	True

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531 - 20080624I
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um
Column S/N: 35055-03B

Level	Filename	Date/Time	Sample ID	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Ion Abundance Ratios

Analyte	T/L	M/Z's	CS0.5	CS1	CS2	CS3	CS4	CS5	Limits	Valid?
PCB 201 (BZ)/199 (IUPAC)		M+2/M+4	0.77	1.01	0.89	0.93	0.91	0.90	0.76-1.02	True
PCB 196 (BZ)		M+2/M+4	0.80	**1.03**	0.97	0.93	0.91	0.90	0.76-1.02	**Warning**
PCB 203 (BZ)		M+2/M+4	**0.69**	0.85	0.88	0.93	0.91	0.90	0.76-1.02	**Warning**
PCB 195 (BZ)		M+2/M+4	1.00	0.84	0.86	0.90	0.89	0.89	0.76-1.02	True
PCB 194 (BZ)		M+2/M+4	**1.08**	**0.74**	0.92	0.89	0.90	0.88	0.76-1.02	**Warning**
PCB 205 (BZ)	L	M+2/M+4	0.95	0.91	0.86	0.90	0.90	0.89	0.76-1.02	True
13C12-PCB 208		M+2/M+4	0.80	0.80	0.80	0.81	0.80	0.80	0.65-0.89	True
13C12-PCB 206		M+2/M+4	0.80	0.78	0.80	0.80	0.80	0.79	0.65-0.89	True
PCB 208 (BZ)	L	M+2/M+4	0.68	0.77	0.75	0.80	0.79	0.79	0.65-0.89	True
PCB 207 (BZ)		M+2/M+4	0.82	0.68	0.77	0.77	0.80	0.78	0.65-0.89	True
PCB 206 (BZ)	L	M+2/M+4	0.67	0.67	0.72	0.81	0.79	0.79	0.65-0.89	True
13C12-PCB 209		M+2/M+4	0.71	0.72	0.72	0.71	0.72	0.69	0.59-0.79	True
PCB 209 (BZ)	L	M+2/M+4	0.68	0.64	0.68	0.73	0.71	0.70	0.59-0.79	True

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Retention Time

Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RT
Total Monochlorobiphenyl	0:00	0:00	0:00	0:00	0:00	0:00	00:00
13C12-PCB 1	12:01	12:00	12:01	12:01	12:00	11:57	12:02
13C12-PCB 3	14:13	14:12	14:12	14:13	14:11	14:10	14:14
PCB 1 (BZ)	12:02	12:01	12:01	12:02	12:00	11:58	12:02
PCB 2 (BZ)	14:02	14:01	14:02	14:02	14:01	13:59	14:04
PCB 3 (BZ)	14:14	14:12	14:13	14:13	14:12		14:14
Total Dichlorobiphenyl	0:00	0:00	0:00	0:00	0:00	0:00	00:00
13C12-PCB 4	14:29	14:28	14:27	14:29	14:27	14:26	14:30
13C12-PCB 9	16:27	16:26	16:26	16:27	16:25	16:24	16:28
13C12-PCB 8			17:17	17:18	17:17		17:20
13C12-PCB 15	20:25	20:24	20:24	20:25	20:23	20:24	20:26
PCB 4 (BZ)	14:30	14:28	14:29	14:29	14:28	14:27	14:31
PCB 10 (BZ)	14:39	14:38	14:39	14:39	14:38	14:36	14:41
PCB 9 (BZ)	16:28	16:26	16:27	16:28	16:26	16:25	16:30
PCB 7 (BZ)	16:39	16:37	16:37	16:38	16:37	16:35	16:39
PCB 6 (BZ)	16:53	16:52	16:52	16:52	16:52	16:50	16:55
PCB 5 (BZ)	17:11	17:11	17:11	17:11	17:11	17:09	17:13
PCB 8 (BZ)	17:19	17:18	17:19	17:19	17:18	17:17	17:21
PCB 14 (BZ)	18:57	18:55	18:56	18:56	18:55	18:55	18:59
PCB 11 (BZ)	19:48	19:47	19:47	19:48	19:47	19:47	19:50
PCB 13 (BZ)	20:08	20:06	20:06	20:07	20:05	20:06	20:07
PCB 12 (BZ)	20:08	20:07	20:07	20:08	20:07	20:06	20:10
PCB 15 (BZ)	20:26	20:25	20:25	20:26	20:24	20:25	20:27
Total Trichlorobiphenyl	0:00	0:00	0:00	0:00	0:00	0:00	00:00
13C12-PCB 19	17:37	17:36	17:36	17:37	17:36	17:35	17:39
13C12-PCB 32	20:53	20:53	20:53	20:53	20:52	20:51	20:55
13C12-PCB 31	23:10	23:09	23:08	23:10	23:08	23:07	23:12
13C12-PCB 28			23:26	23:27	23:26		23:29
13C12-PCB 37	27:29	27:28	27:28	27:28	27:27	27:29	27:31
PCB 19 (BZ)	17:38	17:37	17:38	17:38	17:37	17:36	17:40
PCB 30 (BZ)	19:26	19:26	19:26	19:27	19:26	19:25	19:29
PCB 18 (BZ)	19:31	19:30	19:30	19:30	19:29	19:29	19:32
PCB 17 (BZ)	19:56	19:54	19:55	19:55	19:53	19:53	19:57
PCB 27 (BZ)	20:08	20:08	20:07	20:09	20:07	20:07	20:11
PCB 24 (BZ)	20:17	20:16	20:15	20:16	20:15	20:14	20:18
PCB 16 (BZ)	20:24	20:23	20:23	20:24	20:23	20:23	20:26
PCB 32 (BZ)	20:55	20:54	20:54	20:54	20:54	20:52	20:56
PCB 34 (BZ)	22:11	22:09	22:09	22:10	22:09	22:08	22:12
PCB 23 (BZ)	22:19	22:18	22:18	22:18	22:17	22:17	22:20
PCB 29 (BZ)	22:39	22:38	22:38	22:39	22:38	22:38	22:41
PCB 26 (BZ)	22:38	22:37	22:38	22:38	22:37	22:37	22:40
PCB 25 (BZ)	22:53	22:51	22:51	22:52	22:51	22:51	22:54
PCB 31 (BZ)	23:10	23:10	23:09	23:11	23:10	23:10	23:13
PCB 28 (BZ)	23:29	23:29	23:28	23:30	23:29	23:29	23:30
PCB 20 (BZ)	23:31	23:30	23:30	23:31	23:30	23:30	23:33
PCB 21 (BZ)	23:39	23:39	23:38	23:39	23:38	23:38	23:41
PCB 33 (BZ)	23:44	23:43	23:43	23:44	23:42	23:42	23:46
PCB 22 (BZ)	24:07	24:06	24:06	24:07	24:06	24:06	24:09

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

	Retention Time						
Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RT
PCB 36 (BZ)	25:40	25:40	25:39	25:40	25:39	25:39	25:43
PCB 39 (BZ)	26:02	26:01	26:01	26:02	26:01	26:01	26:04
PCB 38 (BZ)	26:37	26:36	26:36	26:37	26:36	26:37	26:39
PCB 35 (BZ)	27:05	27:04	27:05	27:05	27:04	27:04	27:08
PCB 37 (BZ)	27:30	27:30	27:29	27:31	27:28	27:30	27:32
Total Tetrachlorobiphenyl	0:00	0:00	0:00	0:00	0:00	0:00	00:00
13C12-PCB 54	20:44	20:43	20:43	20:44	20:43	20:42	20:46
13C12-PCB 52	25:18	25:17	25:17	25:18	25:17	25:16	25:20
13C12-PCB 79			33:12	33:13	33:13		33:16
13C12-PCB 81	34:13	34:13	34:12	34:14	34:13	34:14	34:16
13C12-PCB 77	34:48	34:47	34:47	34:48	34:47	34:47	34:50
PCB 54 (BZ)	20:46	20:43	20:44	20:45	20:44	20:44	20:46
PCB 50 (BZ)	22:56	22:55	22:55	22:56	22:55	22:55	22:58
PCB 53 (BZ)	22:56	22:54	22:55	22:55	22:54	22:54	22:57
PCB 45 (BZ)	23:37	23:37	23:34	23:35	23:34	23:34	23:37
PCB 51 (BZ)	23:40	23:39	23:39	23:39	23:38	23:38	23:42
PCB 46 (BZ)	23:55	23:53	23:55	23:55	23:54	23:54	23:57
PCB 52 (BZ)	25:20	25:19	25:18	25:19	25:18	25:17	25:22
PCB 73 (BZ)	25:27	25:26	25:27	25:27	25:26	25:26	25:29
PCB 43 (BZ)	25:32	25:32	25:32	25:32	25:31	25:31	25:35
PCB 69 (BZ)	25:44	25:46	25:43	25:44	25:43	25:44	25:46
PCB 49 (BZ)	25:48	25:48	25:48	25:49	25:47	25:48	25:51
PCB 48 (BZ)	26:04	26:04	26:05	26:05	26:04	26:04	26:07
PCB 65 (BZ)	26:19	26:19	26:18	26:19	26:18	26:18	26:22
PCB 47 (BZ)	26:21	26:20	26:20	26:21	26:20	26:20	26:23
PCB 44 (BZ)	26:20	26:19	26:19	26:20	26:19	26:19	26:21
PCB 62 (BZ)	26:38	26:35	26:38	26:39	26:38	26:38	26:38
PCB 75 (BZ)	26:40	26:39	26:39	26:40	26:39	26:39	26:42
PCB 59 (BZ)	26:39	26:39	26:38	26:39	26:38	26:38	26:41
PCB 42 (BZ)	26:51	26:50	26:50	26:50	26:49	26:50	26:53
PCB 41 (BZ)	27:14	27:13	27:13	27:14	27:13	27:13	27:16
PCB 71 (BZ)	27:21	27:20	27:21	27:21	27:20	27:20	27:23
PCB 40 (BZ)	27:21	27:21	27:20	27:21	27:20	27:20	27:24
PCB 64 (BZ)	27:34	27:33	27:33	27:34	27:33	27:33	27:36
PCB 72 (BZ)	28:22	28:22	28:22	28:22	28:21	28:21	28:25
PCB 68 (BZ)	28:39	28:38	28:39	28:40	28:38	28:38	28:42
PCB 57 (BZ)	29:06	29:04	29:05	29:06	29:05	29:05	29:08
PCB 58 (BZ)	29:21	29:19	29:20	29:20	29:19	29:20	29:23
PCB 67 (BZ)	29:30	29:29	29:28	29:30	29:29	29:29	29:32
PCB 63 (BZ)	29:46	29:45	29:45	29:46	29:45	29:45	29:49
PCB 61 (BZ)	29:59	29:59	29:58	29:59	29:58	29:59	30:02
PCB 70 (BZ)	30:07	30:06	30:06	30:06	30:06	30:06	30:08
PCB 76 (BZ)	30:06	30:06	30:05	30:06	30:05	30:06	30:09
PCB 74 (BZ)	30:09	30:09	30:08	30:09	30:08	30:09	30:12
PCB 66 (BZ)	30:26	30:24	30:25	30:26	30:25	30:25	30:29
PCB 55 (BZ)	30:37	30:35	30:35	30:37	30:34	30:36	30:39
PCB 56 (BZ)	31:07	31:06	31:06	31:07	31:06	31:06	31:09
PCB 60 (BZ)	31:20	31:18	31:18	31:20	31:18	31:19	31:22

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Retention Time

Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RT
PCB 80 (BZ)	31:42	31:41	31:41	31:42	31:41	31:41	31:45
PCB 79 (BZ)	33:14	33:13	33:14	33:15	33:14	33:15	33:18
PCB 78 (BZ)	33:48	33:47	33:47	33:48	33:48	33:48	33:51
PCB 81 (BZ)	34:14	34:14	34:15	34:15	34:14	34:15	34:18
PCB 77 (BZ)	34:49	34:48	34:48	34:49	34:48	34:49	34:51
Total Pentachlorobipheny1	0:00	0:00	0:00	0:00	0:00	0:00	00:00
13C12-PCB 104	26:15	26:14	26:13	26:15	26:14	26:13	26:17
13C12-PCB 95			29:12	29:13	29:12		29:15
13C12-PCB 101	32:08	32:08	32:08	32:08	32:07	32:09	32:11
13C12-PCB 111			34:48	34:48	34:48		34:51
13C12-PCB 123	36:47	36:46	36:46	36:47	36:46	36:47	36:50
13C12-PCB 118	37:06	37:06	37:06	37:06	37:05	37:06	37:09
13C12-PCB 114	37:39	37:37	37:37	37:38	37:37	37:38	37:41
13C12-PCB 105	38:18	38:18	38:17	38:18	38:17	38:18	38:21
13C12-PCB 127	39:44	39:44	39:44	39:45	39:44	39:45	39:47
13C12-PCB 126	41:22	41:21	41:22	41:23	41:22	41:22	41:25
PCB 104 (BZ)	26:16	26:15	26:15	26:16	26:15	26:15	26:18
PCB 96 (BZ)	26:39	26:38	26:38	26:39	26:38	26:39	26:42
PCB 103 (BZ)	28:33	28:32	28:33	28:33	28:32	28:32	28:36
PCB 94 (BZ)	28:48	28:48	28:47	28:48	28:47	28:47	28:50
PCB 95 (BZ)	29:13	29:14	29:14	29:14	29:13	29:14	29:17
PCB 100 (BZ)	29:27	29:26	29:26	29:27	29:26	29:26	29:28
PCB 93 (BZ)	29:28	29:28	29:28	29:28	29:27	29:28	29:31
PCB 102 (BZ)	29:37	29:35	29:36	29:36	29:35	29:35	29:38
PCB 98 (BZ)	29:40	29:39	29:39	29:40	29:38	29:39	29:42
PCB 88 (BZ)	30:00	29:59	29:59	30:00	29:59	29:59	30:03
PCB 91 (BZ)	30:06	30:06	30:05	30:06	30:05	30:06	30:09
PCB 84 (BZ)	30:21	30:20	30:20	30:21	30:20	30:20	30:23
PCB 89 (BZ)	30:49	30:49	30:49	30:49	30:48	30:48	30:52
PCB 121 (BZ)	31:11	31:09	31:11	31:11	31:10	31:11	31:13
PCB 92 (BZ)	31:34	31:34	31:34	31:35	31:33	31:34	31:38
PCB 113 (BZ)	32:09	32:08	32:08	32:09	32:07	32:09	32:09
PCB 90 (BZ)	32:09	32:09	32:08	32:09	32:08	32:09	32:12
PCB 101 (BZ)	32:09	32:09	32:09	32:09	32:08	32:09	32:12
PCB 83 (BZ)	32:39	32:38	32:38	32:39	32:38	32:38	32:42
PCB 99 (BZ)	32:44	32:45	32:44	32:44	32:43	32:44	32:47
PCB 112 (BZ)	32:52	32:51	32:51	32:52	32:51	32:51	32:55
PCB 109 (BZ)/108 (IUPAC)	33:14	33:14	33:13	33:14	33:13	33:14	33:14
PCB 86 (BZ)	33:15	33:14	33:14	33:15	33:14	33:14	33:18
PCB 119 (BZ)	33:14	33:14	33:14	33:14	33:13	33:14	33:17
PCB 97 (BZ)	33:15	33:15	33:15	33:15	33:14	33:15	33:18
PCB 125 (BZ)	33:19	33:19	33:19	33:19	33:18	33:19	33:22
PCB 87 (BZ)	33:22	33:21	33:21	33:22	33:21	33:21	33:25
PCB 117 (BZ)	33:52	33:51	33:51	33:52	33:51	33:52	33:55
PCB 116 (BZ)	33:59	33:57	33:58	33:58	33:57	33:58	34:00
PCB 85 (BZ)	33:59	33:58	33:58	33:59	33:58	33:59	34:02
PCB 110 (BZ)	34:12	34:10	34:10	34:10	34:10	34:10	34:12
PCB 115 (BZ)	34:12	34:12	34:12	34:12	34:11	34:12	34:15

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

	Retention Time						
Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RT
PCB 82 (BZ)	34:29	34:28	34:28	34:29	34:28	34:28	34:32
PCB 111 (BZ)	34:50	34:49	34:48	34:50	34:49	34:50	34:53
PCB 120 (BZ)	35:18	35:17	35:17	35:18	35:16	35:17	35:21
PCB 124 (BZ)	36:27	36:27	36:26	36:27	36:26	36:27	36:30
PCB 108 (BZ)/107 (IUPAC)	36:27	36:26	36:26	36:27	36:26	36:27	36:29
PCB 107 (BZ)/109 (IUPAC)	36:41	36:40	36:41	36:41	36:40	36:41	36:45
PCB 123 (BZ)	36:49	36:47	36:48	36:48	36:47	36:48	36:51
PCB 106 (BZ)	36:55	36:55	36:55	36:56	36:55	36:56	36:58
PCB 118 (BZ)	37:08	37:07	37:07	37:08	37:07	37:07	37:11
PCB 122 (BZ)	37:29	37:28	37:29	37:30	37:29	37:29	37:32
PCB 114 (BZ)	37:39	37:40	37:39	37:40	37:39	37:39	37:42
PCB 105 (BZ)	38:18	38:19	38:19	38:19	38:18	38:19	38:23
PCB 127 (BZ)	39:46	39:45	39:46	39:47	39:46	39:46	39:49
PCB 126 (BZ)	41:24	41:23	41:23	41:24	41:23	41:23	41:26
Total Hexachlorobiphenyl	0:00	0:00	0:00	0:00	0:00	0:00	00:00
13C12-PCB 155	31:53	31:53	31:52	31:54	31:52	31:52	31:56
13C12-PCB 153			38:56	38:57	38:57		39:01
13C12-PCB 138	40:13	40:13	40:13	40:13	40:12	40:13	40:16
13C12-PCB 167	43:12	43:12	43:12	43:13	43:12	43:12	43:16
13C12-PCB 156	44:23	44:23	44:23	44:24	44:23	44:23	44:26
13C12-PCB 157	44:22	44:22	44:22	44:23	44:22	44:22	44:26
13C12-PCB 169	47:35	47:35	47:35	47:36	47:35	47:35	47:39
PCB 155 (BZ)	31:54	31:54	31:54	31:55	31:54	31:54	31:57
PCB 152 (BZ)	32:07	32:09	32:08	32:08	32:07	32:08	32:12
PCB 150 (BZ)	32:18	32:18	32:17	32:18	32:17	32:17	32:21
PCB 136 (BZ)	32:40	32:40	32:41	32:41	32:40	32:40	32:44
PCB 145 (BZ)	32:59	32:57	32:57	32:58	32:57	32:57	33:00
PCB 148 (BZ)	34:27	34:26	34:26	34:27	34:26	34:26	34:30
PCB 151 (BZ)	35:06	35:05	35:05	35:03	35:03	35:02	35:06
PCB 135 (BZ)	35:07	35:07	35:06	35:07	35:06	35:07	35:10
PCB 154 (BZ)	35:16	35:18	35:17	35:18	35:16	35:17	35:21
PCB 144 (BZ)	35:37	35:37	35:37	35:38	35:36	35:36	35:40
PCB 147 (BZ)	36:00	35:58	35:59	36:00	35:59	35:59	36:02
PCB 149 (BZ)	36:00	35:59	35:59	36:00	35:59	35:59	36:03
PCB 134 (BZ)	36:12	36:12	36:11	36:12	36:11	36:11	36:15
PCB 143 (BZ)	36:17	36:18	36:17	36:18	36:17	36:18	36:21
PCB 139 (BZ)	36:35	36:34	36:35	36:35	36:34	36:35	36:37
PCB 140 (BZ)	36:36	36:35	36:35	36:36	36:35	36:35	36:39
PCB 131 (BZ)	36:48	36:47	36:47	36:47	36:47	36:47	36:50
PCB 142 (BZ)	36:55	36:56	36:56	36:57	36:56	36:57	36:59
PCB 132 (BZ)	37:15	37:15	37:15	37:16	37:15	37:16	37:19
PCB 133 (BZ)	37:44	37:43	37:43	37:44	37:43	37:43	37:47
PCB 165 (BZ)	38:07	38:06	38:07	38:08	38:07	38:08	38:11
PCB 146 (BZ)	38:22	38:22	38:23	38:22	38:21	38:22	38:26
PCB 161 (BZ)	38:30	38:29	38:30	38:31	38:30	38:30	38:34
PCB 153 (BZ)	39:00	38:59	39:01	39:01	39:00	39:01	39:02
PCB 168 (BZ)	39:02	39:01	39:01	39:02	39:01	39:02	39:05
PCB 141 (BZ)	39:11	39:10	39:10	39:12	39:11	39:11	39:15

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

	Retention Time						
Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RT
PCB 130 (BZ)	39:37	39:36	39:36	39:37	39:35	39:36	39:40
PCB 137 (BZ)	39:49	39:48	39:49	39:50	39:48	39:49	39:52
PCB 164 (BZ)	39:58	39:57	39:57	39:57	39:56	39:57	40:00
PCB 138 (BZ)	40:15	40:15	40:15	40:15	40:14	40:16	40:18
PCB 163 (BZ)	40:15	40:14	40:14	40:15	40:14	40:15	40:18
PCB 129 (BZ)	40:19	40:18	40:18	40:19	40:18	40:19	40:22
PCB 160 (BZ)	40:24	40:23	40:23	40:24	40:23	40:24	40:27
PCB 158 (BZ)	40:37	40:37	40:37	40:39	40:38	40:38	40:41
PCB 166 (BZ)	41:29	41:28	41:28	41:29	41:28	41:29	41:31
PCB 128 (BZ)	41:31	41:31	41:31	41:31	41:30	41:31	41:35
PCB 159 (BZ)	42:28	42:27	42:27	42:28	42:27	42:28	42:31
PCB 162 (BZ)	42:46	42:45	42:45	42:45	42:44	42:46	42:48
PCB 167 (BZ)	43:13	43:14	43:14	43:14	43:13	43:14	43:17
PCB 156 (BZ)	44:25	44:23	44:21	44:24	44:24	44:24	44:25
PCB 157 (BZ)	44:25	44:25	44:25	44:26	44:25	44:25	44:29
PCB 169 (BZ)	47:36	47:36	47:36	47:38	47:36	47:36	47:40
Total Heptachlorobiphenyl	0:00	0:00	0:00	0:00	0:00	0:00	00:00
13C12-PCB 188	37:36	37:36	37:36	37:37	37:36	37:36	37:40
13C12-PCB 178			40:39	40:40	40:39		40:43
13C12-PCB 180	45:44	45:44	45:44	45:45	45:44	45:44	45:48
13C12-PCB 170	47:00	47:00	47:00	47:01	47:00	47:00	47:04
13C12-PCB 189	50:07	50:06	50:06	50:07	50:06	50:06	50:10
PCB 188 (BZ)	37:39	37:37	37:38	37:38	37:37	37:38	37:40
PCB 179 (BZ)	38:00	37:59	37:59	38:00	37:59	37:59	38:03
PCB 184 (BZ)	38:29	38:28	38:29	38:30	38:29	38:30	38:33
PCB 176 (BZ)	38:53	38:51	38:51	38:53	38:51	38:52	38:56
PCB 186 (BZ)	39:21	39:19	39:20	39:20	39:19	39:20	39:23
PCB 178 (BZ)	40:41	40:40	40:41	40:42	40:41	40:41	40:45
PCB 175 (BZ)	41:19	41:18	41:18	41:19	41:19	41:19	41:22
PCB 187 (BZ)	41:36	41:35	41:34	41:36	41:35	41:35	41:38
PCB 182 (BZ)	41:47	41:47	41:47	41:48	41:46	41:46	41:51
PCB 183 (BZ)	42:12	42:11	42:11	42:12	42:11	42:11	42:15
PCB 185 (BZ)	42:18	42:18	42:19	42:18	42:17	42:18	42:21
PCB 174 (BZ)	42:27	42:28	42:27	42:27	42:26	42:27	42:30
PCB 177 (BZ)	42:54	42:53	42:53	42:54	42:53	42:53	42:57
PCB 181 (BZ)	43:17	43:15	43:16	43:16	43:15	43:16	43:20
PCB 171 (BZ)	43:31	43:30	43:30	43:31	43:30	43:30	43:34
PCB 173 (BZ)	43:30	43:30	43:30	43:31	43:30	43:30	43:32
PCB 172 (BZ)	45:07	45:07	45:06	45:08	45:06	45:06	45:10
PCB 192 (BZ)	45:23	45:23	45:23	45:24	45:23	45:23	45:27
PCB 193 (BZ)	45:43	45:45	45:43	45:44	45:43	45:43	45:46
PCB 180 (BZ)	45:45	45:45	45:45	45:46	45:45	45:45	45:49
PCB 191 (BZ)	46:05	46:06	46:06	46:07	46:06	46:06	46:11
PCB 170 (BZ)	47:01	47:01	47:01	47:03	47:01	47:01	47:05
PCB 190 (BZ)	47:33	47:33	47:33	47:34	47:33	47:33	47:36
PCB 189 (BZ)	50:08	50:07	50:07	50:08	50:07	50:08	50:11
Total Octachlorobiphenyl	0:00	0:00	0:00	0:00	0:00	0:00	00:00
13C12-PCB 202	42:58	42:57	42:58	42:58	42:57	42:57	43:01

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

Retention Time

Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	Mean RT
13C12-PCB 194	52:12	52:11	52:11	52:13	52:12	52:11	52:16
13C12-PCB 205	52:40	52:39	52:40	52:40	52:39	52:39	52:43
PCB 202 (BZ)	42:59	43:00	42:59	43:00	42:59	42:59	43:03
PCB 200 (BZ)/201 (IUPAC)	43:55	43:54	43:55	43:55	43:54	43:54	43:59
PCB 204 (BZ)	44:35	44:35	44:34	44:35	44:34	44:35	44:38
PCB 197 (BZ)	44:49	44:47	44:48	44:49	44:48	44:48	44:52
PCB 199 (BZ)/200 (IUPAC)	44:57	44:55	44:56	44:56	44:55	44:56	44:59
PCB 198 (BZ)	47:42	47:39	47:40	47:43	47:41	47:42	47:43
PCB 201 (BZ)/199 (IUPAC)	47:43	47:43	47:43	47:44	47:43	47:43	47:47
PCB 196 (BZ)	48:23	48:22	48:22	48:22	48:21	48:22	48:26
PCB 203 (BZ)	48:34	48:33	48:33	48:34	48:33	48:33	48:37
PCB 195 (BZ)	49:54	49:55	49:54	49:54	49:53	49:53	49:58
PCB 194 (BZ)	52:13	52:12	52:13	52:14	52:13	52:12	52:17
PCB 205 (BZ)	52:41	52:42	52:41	52:42	52:40	52:41	52:44
Total Nonachlorobiphenyl	0:00	0:00	0:00	0:00	0:00	0:00	00:00
13C12-PCB 208	49:37	49:37	49:37	49:37	49:36	49:36	49:41
13C12-PCB 206	54:23	54:23	54:23	54:25	54:23	54:23	54:28
PCB 208 (BZ)	49:40	49:39	49:39	49:40	49:38	49:38	49:42
PCB 207 (BZ)	50:34	50:34	50:34	50:35	50:33	50:34	50:38
PCB 206 (BZ)	54:25	54:25	54:25	54:26	54:25	54:24	54:28
13C12-PCB 209	56:00	56:00	56:01	56:01	56:01	56:00	56:05
PCB 209 (BZ)	56:04	56:02	56:03	56:03	56:02	56:01	56:06

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

	Relative Retention Time						Mean
Analyte	**CS0.5**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**RRT**
Total Monochlorobiphenyl							
13C12-PCB 1	0.7305	0.7302	0.7312	0.7305	0.7310	0.7287	0.7303
13C12-PCB 3	0.8642	0.8641	0.8641	0.8642	0.8640	0.8638	0.8639
PCB 1 (BZ)	1.0014	1.0014	1.0000	1.0014	1.0000	1.0014	1.0007
PCB 2 (BZ)	0.9871	0.9871	0.9883	0.9871	0.9882	0.9871	0.9882
PCB 3 (BZ)	1.0012	1.0000	1.0012	1.0000	1.0012		1.0006
Total Dichlorobiphenyl							
13C12-PCB 4	0.8804	0.8803	0.8793	0.8804	0.8802	0.8801	0.8800
13C12-PCB 9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13C12-PCB 8			1.1961	1.1945	1.1961		1.1955
13C12-PCB 15	1.2411	1.2414	1.2414	1.2411	1.2416	1.2439	1.2410
PCB 4 (BZ)	1.0012	1.0000	1.0023	1.0000	1.0012	1.0012	1.0011
PCB 10 (BZ)	1.0115	1.0115	1.0138	1.0115	1.0127	1.0115	1.0126
PCB 9 (BZ)	1.1369	1.1359	1.1384	1.1369	1.1373	1.1374	1.1380
PCB 7 (BZ)	1.1496	1.1486	1.1499	1.1484	1.1499	1.1490	1.1487
PCB 6 (BZ)	1.1657	1.1659	1.1672	1.1646	1.1672	1.1663	1.1667
PCB 5 (BZ)	1.1864	1.1878	1.1892	1.1864	1.1892	1.1882	1.1878
PCB 8 (BZ)	1.1956	1.1959	1.1984	1.1956	1.1972	1.1975	1.1970
PCB 14 (BZ)	0.9282	0.9273	0.9281	0.9273	0.9280	0.9273	0.9284
PCB 11 (BZ)	0.9698	0.9698	0.9698	0.9698	0.9706	0.9698	0.9702
PCB 13 (BZ)	0.9861	0.9853	0.9853	0.9853	0.9853	0.9853	0.9843
PCB 12 (BZ)	0.9861	0.9861	0.9861	0.9861	0.9869	0.9853	0.9865
PCB 15 (BZ)	1.0008	1.0008	1.0008	1.0008	1.0008	1.0008	1.0007
Total Trichlorobiphenyl							
13C12-PCB 19	0.8436	0.8428	0.8428	0.8436	0.8435	0.8433	0.8436
13C12-PCB 32	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13C12-PCB 31	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13C12-PCB 28			1.0130	1.0122	1.0130		1.0126
13C12-PCB 37	1.1863	1.1865	1.1873	1.1856	1.1866	1.1889	1.1865
PCB 19 (BZ)	1.0009	1.0009	1.0019	1.0009	1.0009	1.0009	1.0011
PCB 30 (BZ)	1.1031	1.1042	1.1042	1.1041	1.1042	1.1043	1.1041
PCB 18 (BZ)	1.1079	1.1080	1.1080	1.1069	1.1070	1.1081	1.1072
PCB 17 (BZ)	1.1315	1.1307	1.1316	1.1306	1.1297	1.1308	1.1308
PCB 27 (BZ)	1.1429	1.1439	1.1430	1.1438	1.1430	1.1441	1.1437
PCB 24 (BZ)	1.1514	1.1515	1.1506	1.1504	1.1506	1.1507	1.1501
PCB 16 (BZ)	1.1580	1.1581	1.1581	1.1580	1.1581	1.1592	1.1576
PCB 32 (BZ)	1.1873	1.1875	1.1875	1.1864	1.1875	1.1867	1.1865
PCB 34 (BZ)	1.2592	1.2585	1.2585	1.2583	1.2585	1.2588	1.2583
PCB 23 (BZ)	1.2668	1.2670	1.2670	1.2658	1.2661	1.2673	1.2659
PCB 29 (BZ)	1.2857	1.2860	1.2860	1.2857	1.2860	1.2872	1.2857
PCB 26 (BZ)	1.2848	1.2850	1.2860	1.2848	1.2850	1.2863	1.2848
PCB 25 (BZ)	0.8326	0.8319	0.8319	0.8325	0.8324	0.8314	0.8320
PCB 31 (BZ)	0.8429	0.8434	0.8428	0.8441	0.8440	0.8429	0.8437
PCB 28 (BZ)	0.8545	0.8550	0.8544	0.8556	0.8555	0.8545	0.8540
PCB 20 (BZ)	0.8557	0.8556	0.8556	0.8562	0.8561	0.8551	0.8558
PCB 21 (BZ)	0.8605	0.8610	0.8604	0.8610	0.8610	0.8599	0.8606
PCB 33 (BZ)	0.8636	0.8635	0.8635	0.8641	0.8634	0.8623	0.8635
PCB 22 (BZ)	0.8775	0.8774	0.8774	0.8780	0.8780	0.8769	0.8778

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

	Relative Retention Time						Mean
Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	RRT
PCB 36 (BZ)	0.9339	0.9345	0.9339	0.9345	0.9344	0.9333	0.9343
PCB 39 (BZ)	0.9472	0.9472	0.9472	0.9478	0.9478	0.9466	0.9474
PCB 38 (BZ)	0.9685	0.9684	0.9684	0.9691	0.9690	0.9685	0.9686
PCB 35 (BZ)	0.9854	0.9854	0.9860	0.9860	0.9860	0.9848	0.9860
PCB 37 (BZ)	1.0006	1.0012	1.0006	1.0018	1.0006	1.0006	1.0007
Total Tetrachlorobiphenyl							
13C12-PCB 54	0.8195	0.8194	0.8194	0.8195	0.8194	0.8193	0.8198
13C12-PCB 52	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13C12-PCB 79			0.9708	0.9703	0.9708		0.9705
13C12-PCB 81	1.3524	1.3533	1.3527	1.3531	1.3533	1.3549	1.3530
13C12-PCB 77	1.3755	1.3757	1.3757	1.3755	1.3757	1.3766	1.3754
PCB 54 (BZ)	1.0016	1.0000	1.0008	1.0008	1.0008	1.0016	1.0003
PCB 50 (BZ)	1.1061	1.1062	1.1062	1.1061	1.1062	1.1071	1.1063
PCB 53 (BZ)	1.1061	1.1054	1.1062	1.1053	1.1054	1.1063	1.1055
PCB 45 (BZ)	1.1391	1.1400	1.1376	1.1375	1.1376	1.1385	1.1376
PCB 51 (BZ)	1.1415	1.1416	1.1416	1.1407	1.1408	1.1417	1.1413
PCB 46 (BZ)	1.1535	1.1529	1.1545	1.1535	1.1537	1.1546	1.1536
PCB 52 (BZ)	1.2219	1.2220	1.2212	1.2211	1.2212	1.2214	1.2216
PCB 73 (BZ)	1.2275	1.2277	1.2285	1.2275	1.2277	1.2287	1.2275
PCB 43 (BZ)	1.2315	1.2325	1.2325	1.2315	1.2317	1.2327	1.2318
PCB 69 (BZ)	1.2412	1.2438	1.2414	1.2412	1.2414	1.2432	1.2411
PCB 49 (BZ)	1.2444	1.2454	1.2454	1.2452	1.2446	1.2464	1.2449
PCB 48 (BZ)	1.2572	1.2582	1.2591	1.2580	1.2582	1.2593	1.2580
PCB 65 (BZ)	1.2693	1.2703	1.2695	1.2693	1.2695	1.2705	1.2695
PCB 47 (BZ)	1.2709	1.2711	1.2711	1.2709	1.2711	1.2721	1.2708
PCB 44 (BZ)	1.2701	1.2703	1.2703	1.2701	1.2703	1.2713	1.2690
PCB 62 (BZ)	1.2846	1.2832	1.2856	1.2854	1.2856	1.2866	1.2826
PCB 75 (BZ)	1.2862	1.2864	1.2864	1.2862	1.2864	1.2874	1.2861
PCB 59 (BZ)	1.2854	1.2864	1.2856	1.2854	1.2856	1.2866	1.2853
PCB 42 (BZ)	1.2950	1.2953	1.2953	1.2942	1.2944	1.2963	1.2949
PCB 41 (BZ)	1.3135	1.3138	1.3138	1.3135	1.3138	1.3148	1.3133
PCB 71 (BZ)	1.3191	1.3194	1.3202	1.3191	1.3194	1.3205	1.3190
PCB 40 (BZ)	1.3191	1.3202	1.3194	1.3191	1.3194	1.3205	1.3193
PCB 64 (BZ)	1.3296	1.3298	1.3298	1.3296	1.3298	1.3309	1.3292
PCB 72 (BZ)	0.8290	0.8290	0.8294	0.8286	0.8285	0.8281	0.8293
PCB 68 (BZ)	0.8373	0.8368	0.8377	0.8374	0.8368	0.8364	0.8376
PCB 57 (BZ)	0.8505	0.8495	0.8504	0.8500	0.8500	0.8496	0.8501
PCB 58 (BZ)	0.8578	0.8568	0.8577	0.8569	0.8568	0.8569	0.8574
PCB 67 (BZ)	0.8622	0.8617	0.8616	0.8617	0.8617	0.8612	0.8617
PCB 63 (BZ)	0.8699	0.8695	0.8699	0.8695	0.8695	0.8690	0.8699
PCB 61 (BZ)	0.8763	0.8763	0.8762	0.8759	0.8758	0.8759	0.8763
PCB 70 (BZ)	0.8802	0.8797	0.8801	0.8793	0.8797	0.8793	0.8792
PCB 76 (BZ)	0.8797	0.8797	0.8796	0.8793	0.8792	0.8793	0.8797
PCB 74 (BZ)	0.8811	0.8811	0.8811	0.8807	0.8807	0.8807	0.8812
PCB 66 (BZ)	0.8894	0.8885	0.8894	0.8890	0.8889	0.8885	0.8893
PCB 55 (BZ)	0.8948	0.8938	0.8942	0.8944	0.8933	0.8939	0.8943
PCB 56 (BZ)	0.9094	0.9089	0.9094	0.9090	0.9089	0.9085	0.9089
PCB 60 (BZ)	0.9157	0.9148	0.9152	0.9153	0.9148	0.9148	0.9152

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

	Relative Retention Time						Mean
Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	RRT
PCB 80 (BZ)	0.9264	0.9260	0.9264	0.9260	0.9260	0.9255	0.9266
PCB 79 (BZ)	0.9713	0.9708	0.9717	0.9713	0.9713	0.9713	0.9715
PCB 78 (BZ)	0.9878	0.9873	0.9878	0.9873	0.9878	0.9873	0.9877
PCB 81 (BZ)	1.0005	1.0005	1.0015	1.0005	1.0005	1.0005	1.0008
PCB 77 (BZ)	1.0005	1.0005	1.0005	1.0005	1.0005	1.0010	1.0004
Total Pentachlorobiphenyl							
13C12-PCB 104	0.8169	0.8164	0.8159	0.8169	0.8168	0.8154	0.8166
13C12-PCB 95			1.1138	1.1130	1.1131		1.1134
13C12-PCB 101	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13C12-PCB 111			1.0830	1.0830	1.0835		1.0831
13C12-PCB 123	1.1447	1.1442	1.1442	1.1447	1.1448	1.1441	1.1445
13C12-PCB 118	1.1546	1.1546	1.1546	1.1546	1.1546	1.1540	1.1547
13C12-PCB 114	1.1717	1.1706	1.1706	1.1712	1.1713	1.1706	1.1711
13C12-PCB 105	1.1919	1.1919	1.1914	1.1919	1.1920	1.1913	1.1916
13C12-PCB 127	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13C12-PCB 126	1.2873	1.2868	1.2873	1.2879	1.2880	1.2867	1.2872
PCB 104 (BZ)	1.0006	1.0006	1.0013	1.0006	1.0006	1.0013	1.0008
PCB 96 (BZ)	1.0152	1.0152	1.0159	1.0152	1.0152	1.0165	1.0162
PCB 103 (BZ)	1.0876	1.0877	1.0890	1.0876	1.0877	1.0884	1.0885
PCB 94 (BZ)	1.0971	1.0978	1.0979	1.0971	1.0972	1.0979	1.0972
PCB 95 (BZ)	1.1130	1.1144	1.1151	1.1137	1.1137	1.1151	1.1145
PCB 100 (BZ)	1.1219	1.1220	1.1227	1.1219	1.1220	1.1227	1.1213
PCB 93 (BZ)	1.1225	1.1233	1.1240	1.1225	1.1226	1.1240	1.1232
PCB 102 (BZ)	1.1283	1.1277	1.1291	1.1276	1.1277	1.1284	1.1279
PCB 98 (BZ)	1.1302	1.1302	1.1310	1.1302	1.1296	1.1310	1.1304
PCB 88 (BZ)	1.1429	1.1429	1.1437	1.1429	1.1429	1.1437	1.1433
PCB 91 (BZ)	1.1467	1.1474	1.1475	1.1467	1.1468	1.1481	1.1471
PCB 84 (BZ)	1.1562	1.1563	1.1570	1.1562	1.1563	1.1570	1.1562
PCB 89 (BZ)	1.1740	1.1747	1.1755	1.1740	1.1741	1.1748	1.1744
PCB 121 (BZ)	1.1879	1.1874	1.1894	1.1879	1.1881	1.1894	1.1881
PCB 92 (BZ)	0.8582	0.8586	0.8586	0.8586	0.8581	0.8582	0.8588
PCB 113 (BZ)	1.2248	1.2249	1.2257	1.2248	1.2243	1.2263	1.2234
PCB 90 (BZ)	1.2248	1.2255	1.2257	1.2248	1.2249	1.2263	1.2253
PCB 101 (BZ)	1.2248	1.2255	1.2263	1.2248	1.2249	1.2263	1.2255
PCB 83 (BZ)	1.2438	1.2440	1.2448	1.2438	1.2440	1.2448	1.2442
PCB 99 (BZ)	1.2470	1.2484	1.2486	1.2470	1.2471	1.2486	1.2477
PCB 112 (BZ)	1.2521	1.2522	1.2530	1.2521	1.2522	1.2530	1.2526
PCB 109 (BZ)/108 (IUPAC)	1.2660	1.2668	1.2670	1.2660	1.2662	1.2676	1.2647
PCB 86 (BZ)	1.2667	1.2668	1.2676	1.2667	1.2668	1.2676	1.2670
PCB 119 (BZ)	1.2660	1.2668	1.2676	1.2660	1.2662	1.2676	1.2668
PCB 97 (BZ)	1.2667	1.2675	1.2683	1.2667	1.2668	1.2683	1.2674
PCB 125 (BZ)	1.2692	1.2700	1.2708	1.2692	1.2694	1.2708	1.2699
PCB 87 (BZ)	1.2711	1.2713	1.2721	1.2711	1.2713	1.2721	1.2715
PCB 117 (BZ)	1.2902	1.2903	1.2912	1.2902	1.2903	1.2918	1.2907
PCB 116 (BZ)	1.2946	1.2942	1.2956	1.2940	1.2942	1.2956	1.2940
PCB 85 (BZ)	1.2946	1.2948	1.2956	1.2946	1.2948	1.2962	1.2951
PCB 110 (BZ)	1.3029	1.3024	1.3032	1.3016	1.3024	1.3032	1.3013
PCB 115 (BZ)	1.3029	1.3037	1.3045	1.3029	1.3030	1.3045	1.3035

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

	Relative Retention Time						Mean
Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	RRT
PCB 82 (BZ)	1.3137	1.3139	1.3147	1.3137	1.3139	1.3147	1.3139
PCB 111 (BZ)	1.3270	1.3272	1.3274	1.3270	1.3272	1.3287	1.3273
PCB 120 (BZ)	1.3448	1.3450	1.3458	1.3448	1.3443	1.3458	1.3450
PCB 124 (BZ)	1.3886	1.3895	1.3897	1.3886	1.3888	1.3903	1.3892
PCB 108 (BZ)/107 (IUPAC)	1.3886	1.3888	1.3897	1.3886	1.3888	1.3903	1.3885
PCB 107 (BZ)/109 (IUPAC)	1.3975	1.3977	1.3992	1.3975	1.3977	1.3992	1.3983
PCB 123 (BZ)	1.0009	1.0005	1.0009	1.0005	1.0005	1.0005	1.0004
PCB 106 (BZ)	1.0036	1.0041	1.0041	1.0041	1.0041	1.0041	1.0037
PCB 118 (BZ)	1.0009	1.0004	1.0004	1.0009	1.0009	1.0004	1.0006
PCB 122 (BZ)	1.0103	1.0099	1.0103	1.0108	1.0108	1.0103	1.0103
PCB 114 (BZ)	1.0000	1.0013	1.0009	1.0009	1.0009	1.0004	1.0005
PCB 105 (BZ)	1.0000	1.0004	1.0009	1.0004	1.0004	1.0004	1.0008
PCB 127 (BZ)	1.0383	1.0379	1.0387	1.0387	1.0387	1.0383	1.0385
PCB 126 (BZ)	1.0008	1.0008	1.0004	1.0004	1.0004	1.0004	1.0004
Total Hexachlorobiphenyl							
13C12-PCB 155	0.7928	0.7928	0.7924	0.7932	0.7927	0.7924	0.7929
13C12-PCB 153			0.9012	0.9013	0.9016		0.9018
13C12-PCB 138	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13C12-PCB 167	1.0742	1.0742	1.0742	1.0746	1.0746	1.0742	1.0742
13C12-PCB 156	1.1036	1.1036	1.1036	1.1040	1.1041	1.1036	1.1033
13C12-PCB 157	1.1032	1.1032	1.1032	1.1036	1.1036	1.1032	1.1033
13C12-PCB 169	1.1832	1.1832	1.1832	1.1836	1.1837	1.1832	1.1833
PCB 155 (BZ)	1.0005	1.0005	1.0010	1.0005	1.0010	1.0010	1.0007
PCB 152 (BZ)	1.0073	1.0084	1.0084	1.0073	1.0078	1.0084	1.0082
PCB 150 (BZ)	1.0131	1.0131	1.0131	1.0125	1.0131	1.0131	1.0129
PCB 136 (BZ)	1.0246	1.0246	1.0256	1.0246	1.0251	1.0251	1.0249
PCB 145 (BZ)	1.0345	1.0335	1.0340	1.0334	1.0340	1.0340	1.0336
PCB 148 (BZ)	1.0805	1.0800	1.0805	1.0799	1.0805	1.0805	1.0804
PCB 151 (BZ)	1.1009	1.1004	1.1009	1.0987	1.0999	1.0994	1.0992
PCB 135 (BZ)	1.1014	1.1014	1.1015	1.1008	1.1015	1.1020	1.1015
PCB 154 (BZ)	1.1061	1.1072	1.1072	1.1066	1.1067	1.1072	1.1069
PCB 144 (BZ)	1.1171	1.1171	1.1177	1.1170	1.1172	1.1172	1.1171
PCB 147 (BZ)	1.1291	1.1281	1.1292	1.1285	1.1292	1.1292	1.1285
PCB 149 (BZ)	1.1291	1.1286	1.1292	1.1285	1.1292	1.1292	1.1288
PCB 134 (BZ)	1.1354	1.1354	1.1355	1.1348	1.1355	1.1355	1.1351
PCB 143 (BZ)	1.1380	1.1385	1.1386	1.1379	1.1386	1.1391	1.1385
PCB 139 (BZ)	1.1474	1.1469	1.1480	1.1468	1.1475	1.1480	1.1467
PCB 140 (BZ)	1.1479	1.1474	1.1480	1.1473	1.1480	1.1480	1.1476
PCB 131 (BZ)	1.1542	1.1537	1.1543	1.1531	1.1543	1.1543	1.1537
PCB 142 (BZ)	1.1579	1.1584	1.1590	1.1583	1.1590	1.1595	1.1584
PCB 132 (BZ)	1.1683	1.1683	1.1689	1.1682	1.1689	1.1695	1.1688
PCB 133 (BZ)	1.1835	1.1830	1.1836	1.1829	1.1836	1.1836	1.1834
PCB 165 (BZ)	0.8823	0.8819	0.8823	0.8824	0.8823	0.8827	0.8825
PCB 146 (BZ)	0.8881	0.8881	0.8885	0.8878	0.8877	0.8881	0.8883
PCB 161 (BZ)	0.8912	0.8908	0.8912	0.8912	0.8912	0.8912	0.8914
PCB 153 (BZ)	0.9028	0.9024	0.9032	0.9028	0.9028	0.9032	0.9024
PCB 168 (BZ)	0.9035	0.9032	0.9032	0.9032	0.9032	0.9035	0.9036
PCB 141 (BZ)	0.9070	0.9066	0.9066	0.9071	0.9070	0.9070	0.9073

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IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

	Relative Retention Time						Mean
Analyte	CS0.5	CS1	CS2	CS3	CS4	CS5	RRT
PCB 130 (BZ)	0.9171	0.9167	0.9167	0.9167	0.9163	0.9167	0.9168
PCB 137 (BZ)	0.9217	0.9213	0.9217	0.9217	0.9213	0.9217	0.9217
PCB 164 (BZ)	0.9252	0.9248	0.9248	0.9244	0.9244	0.9248	0.9248
PCB 138 (BZ)	0.9317	0.9317	0.9317	0.9314	0.9313	0.9321	0.9315
PCB 163 (BZ)	0.9317	0.9313	0.9313	0.9314	0.9313	0.9317	0.9317
PCB 129 (BZ)	0.9333	0.9329	0.9329	0.9329	0.9329	0.9333	0.9332
PCB 160 (BZ)	0.9352	0.9348	0.9348	0.9348	0.9348	0.9352	0.9352
PCB 158 (BZ)	0.9402	0.9402	0.9402	0.9406	0.9406	0.9406	0.9403
PCB 166 (BZ)	0.9603	0.9599	0.9599	0.9599	0.9599	0.9603	0.9597
PCB 128 (BZ)	0.9610	0.9610	0.9610	0.9607	0.9606	0.9610	0.9611
PCB 159 (BZ)	0.9830	0.9826	0.9826	0.9826	0.9826	0.9830	0.9829
PCB 162 (BZ)	0.9900	0.9896	0.9896	0.9892	0.9892	0.9900	0.9895
PCB 167 (BZ)	1.0004	1.0008	1.0008	1.0004	1.0004	1.0008	1.0007
PCB 156 (BZ)	1.0008	1.0000	0.9992	1.0000	1.0004	1.0004	0.9997
PCB 157 (BZ)	1.0011	1.0011	1.0011	1.0011	1.0011	1.0011	1.0011
PCB 169 (BZ)	1.0004	1.0004	1.0004	1.0007	1.0004	1.0004	1.0003
Total Heptachlorobiphenyl							
13C12-PCB 188	0.8222	0.8222	0.8222	0.8222	0.8222	0.8222	0.8223
13C12-PCB 178			0.8888	0.8889	0.8888		0.8890
13C12-PCB 180	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13C12-PCB 170	1.0277	1.0277	1.0277	1.0277	1.0277	1.0277	1.0277
13C12-PCB 189	1.0958	1.0955	1.0955	1.0954	1.0955	1.0955	1.0953
PCB 188 (BZ)	1.0013	1.0004	1.0009	1.0004	1.0004	1.0009	1.0003
PCB 179 (BZ)	1.0106	1.0102	1.0102	1.0102	1.0102	1.0102	1.0104
PCB 184 (BZ)	1.0235	1.0230	1.0235	1.0235	1.0235	1.0239	1.0236
PCB 176 (BZ)	1.0341	1.0332	1.0332	1.0337	1.0332	1.0337	1.0337
PCB 186 (BZ)	1.0465	1.0457	1.0461	1.0456	1.0457	1.0461	1.0456
PCB 178 (BZ)	1.0820	1.0816	1.0820	1.0820	1.0820	1.0820	1.0819
PCB 175 (BZ)	1.0988	1.0984	1.0984	1.0984	1.0988	1.0988	1.0986
PCB 187 (BZ)	1.1064	1.1059	1.1055	1.1059	1.1059	1.1059	1.1056
PCB 182 (BZ)	1.1113	1.1113	1.1113	1.1112	1.1108	1.1108	1.1111
PCB 183 (BZ)	1.1223	1.1219	1.1219	1.1218	1.1219	1.1219	1.1219
PCB 185 (BZ)	1.1250	1.1250	1.1254	1.1245	1.1246	1.1250	1.1247
PCB 174 (BZ)	1.1290	1.1294	1.1290	1.1285	1.1285	1.1290	1.1287
PCB 177 (BZ)	1.1410	1.1405	1.1405	1.1405	1.1405	1.1405	1.1403
PCB 181 (BZ)	1.1512	1.1503	1.1507	1.1502	1.1503	1.1507	1.1505
PCB 171 (BZ)	1.1574	1.1569	1.1569	1.1568	1.1569	1.1569	1.1570
PCB 173 (BZ)	1.1569	1.1569	1.1569	1.1568	1.1569	1.1569	1.1561
PCB 172 (BZ)	0.9002	0.9005	0.9002	0.9006	0.9002	0.9002	0.9005
PCB 192 (BZ)	0.9056	0.9059	0.9059	0.9059	0.9059	0.9059	0.9059
PCB 193 (BZ)	0.9122	0.9132	0.9125	0.9125	0.9125	0.9125	0.9124
PCB 180 (BZ)	0.9129	0.9132	0.9132	0.9132	0.9132	0.9132	0.9134
PCB 191 (BZ)	0.9195	0.9202	0.9202	0.9202	0.9202	0.9202	0.9206
PCB 170 (BZ)	0.9381	0.9385	0.9385	0.9388	0.9385	0.9385	0.9387
PCB 190 (BZ)	0.9488	0.9491	0.9491	0.9491	0.9491	0.9491	0.9490
PCB 189 (BZ)	1.0003	1.0003	1.0003	1.0003	1.0003	1.0007	1.0004
Total Octachlorobiphenyl							
13C12-PCB 202	0.8231	0.8231	0.8234	0.8229	0.8228	0.8231	0.8233

TestAmerica Knoxville

IsoCalc Initial Calibration Report

PCB's by EPA Method 1668A

ICAL ID: 26531
Date: 06/24/08 15:19
Method: IE3 - IE3

Instrument: M1D
Column S/N: 35055-03B
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Level	Filename	Date/Time	Sample	Result Directory
CS0.5:	a080624i6	06/24/08 15:19	2990:71CS0.5	/20080624i/a080624i6.d
CS1:	a080624i1	06/24/08 16:21	2990:71CS1	/20080624i/a080624i1.d
CS2:	a080624i2	06/24/08 17:22	2990:71CS2	/20080624i/a080624i2.d
CS3:	a080624i3	06/24/08 18:23	2990:71CS3	/20080624i/a080624i3.d
CS4:	a080624i4	06/24/08 19:24	2990:71CS4	/20080624i/a080624i4.d
CS5:	a080624i5	06/24/08 20:25	2990:71CS5	/20080624i/a080624i5.d

	Relative Retention Time						Mean
Analyte	**CS0.5**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**RRT**
13C12-PCB 194	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13C12-PCB 205	1.0089	1.0089	1.0093	1.0086	1.0086	1.0089	1.0089
PCB 202 (BZ)	1.0004	1.0012	1.0004	1.0008	1.0008	1.0008	1.0005
PCB 200 (BZ)/201 (IUPAC)	1.0221	1.0221	1.0221	1.0221	1.0221	1.0221	1.0222
PCB 204 (BZ)	1.0376	1.0380	1.0372	1.0376	1.0376	1.0380	1.0374
PCB 197 (BZ)	1.0431	1.0427	1.0427	1.0431	1.0431	1.0431	1.0428
PCB 199 (BZ)/200 (IUPAC)	1.0462	1.0458	1.0458	1.0458	1.0458	1.0462	1.0456
PCB 198 (BZ)	1.1102	1.1094	1.1094	1.1106	1.1102	1.1106	1.1092
PCB 201 (BZ)/199 (IUPAC)	1.1106	1.1110	1.1106	1.1109	1.1110	1.1110	1.1106
PCB 196 (BZ)	0.9187	0.9186	0.9184	0.9184	0.9183	0.9186	0.9187
PCB 203 (BZ)	0.9222	0.9221	0.9218	0.9222	0.9221	0.9221	0.9222
PCB 195 (BZ)	0.9475	0.9481	0.9475	0.9475	0.9475	0.9475	0.9476
PCB 194 (BZ)	0.9915	0.9915	0.9915	0.9918	0.9918	0.9915	0.9916
PCB 205 (BZ)	1.0003	1.0009	1.0003	1.0006	1.0003	1.0006	1.0003
Total Nonachlorobiphenyl							
13C12-PCB 208	0.9505	0.9508	0.9508	0.9502	0.9502	0.9505	0.9506
13C12-PCB 206	1.0418	1.0422	1.0422	1.0421	1.0418	1.0422	1.0421
PCB 208 (BZ)	1.0010	1.0007	1.0007	1.0010	1.0007	1.0007	1.0005
PCB 207 (BZ)	1.0191	1.0191	1.0191	1.0195	1.0192	1.0195	1.0193
PCB 206 (BZ)	1.0006	1.0006	1.0006	1.0003	1.0006	1.0003	1.0002
13C12-PCB 209	1.0728	1.0731	1.0735	1.0728	1.0731	1.0731	1.0731
PCB 209 (BZ)	1.0012	1.0006	1.0006	1.0006	1.0003	1.0003	1.0004

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	Prep Batch		Lot No	
Data File	/20080624i/a080624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	15:19	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
Total Monochlorobiphenyl		202967	70718	1.000		2.091556		2.091556		0.0140
13C12-PCB 1	12:01	9499760	4158977	1.000	100.0	143.311981	143.31	143.311981		0.0306
13C12-PCB 3	14:13	9913771	3471173	1.000	100.0	149.557690	149.56	149.557690		0.0306
PCB 1 (BZ)	12:02	67755	26765	1.000	0.500	0.713229	142.65	0.713229		0.00427
PCB 2 (BZ)	14:02	67159	22981	1.000	0.500	0.691878	138.38	0.691878		0.00465
PCB 3 (BZ)	14:14	68053	20972	1.000	0.500	0.686449	137.29	0.686449		0.00511
Total Dichlorobiphenyl		492582	128954	1.000		8.845866		8.845866	Q	0.324
13C12-PCB 4	14:29	4011130	1358227	1.000	100.0	60.511317	60.51	60.511317		0.0305
13C12-PCB 9	16:27	6628727	2050868	1.000	100.0	100.000000	100.00	100.000000		0.0305
13C12-PCB 8				1.000	0.500			ND		0.0387
13C12-PCB 15	20:25	7128547	1875429	1.000	100.0	107.540211	107.54	107.540211		0.0305
PCB 4 (BZ)	14:30	27449	8062	1.000	0.500	0.684321	136.86	0.684321		0.0320
PCB 10 (BZ)	14:39	30974	10104	1.000	0.500	0.556109	111.22	0.556109	Q	0.0269
PCB 9 (BZ)	16:28	37926	10478	1.000	0.500	0.680913	136.18	0.680913	Q	0.0269
PCB 7 (BZ)	16:39	39981	11546	1.000	0.500	0.717813	143.56	0.717813		0.0269
PCB 6 (BZ)	16:53	45859	14137	1.000	0.500	0.823345	164.67	0.823345		0.0269
PCB 5 (BZ)	17:11	40509	11297	1.000	0.500	0.727292	145.46	0.727292		0.0269
PCB 8 (BZ)	17:19	44516	12993	1.000	0.500	0.799233	159.85	0.799233		0.0269
PCB 14 (BZ)	18:57	46384	11207	1.000	0.500	0.832771	166.55	0.832771		0.0269
PCB 11 (BZ)	19:48	46557	11874	1.000	0.500	0.835877	167.18	0.835877		0.0269
PCB 13 (BZ)	20:08	84186	14489	1.000	0.500	1.511462	302.29	1.511462		0.0269
PCB 12 (BZ)	20:08			1.000	0.500			ND		0.0269
PCB 15 (BZ)	20:26	48241	12767	1.000	0.500	0.676730	135.35	0.676730		0.0232
Total Trichlorobiphenyl		1129211	255116	1.000		15.953190		15.953190	Q	0.441
13C12-PCB 19	17:37	2661947	714315	1.000	100.0	56.185012	56.19	56.185012		0.0691
13C12-PCB 32	20:53	4737824	1226769	1.000	100.0	100.000000	100.00	100.000000		0.0691
13C12-PCB 31	23:10	11156884	2719156	1.000	100.0	100.000000	100.00	100.000000		0.0312
13C12-PCB 28				1.000	0.500			ND		0.0312
13C12-PCB 37	27:29	9978095	2292353	1.000	100.0	89.434425	89.43	89.434425		0.0312
PCB 19 (BZ)	17:38	14599	4202	1.000	0.500	0.548433	109.69	0.548433		0.0339
PCB 30 (BZ)	19:26	42871	8194	1.000	0.500	1.610513	322.10	1.610513		0.0339
PCB 18 (BZ)	19:31			1.000	0.500			ND		0.0339
PCB 17 (BZ)	19:56	22203	6009	1.000	0.500	0.834089	166.82	0.834089		0.0339
PCB 27 (BZ)	20:08	24858	7120	1.000	0.500	0.933828	186.77	0.933828		0.0339
PCB 24 (BZ)	20:17	17630	4431	1.000	0.500	0.662285	132.46	0.662285	Q	0.0339
PCB 16 (BZ)	20:24	17573	4979	1.000	0.500	0.660156	132.03	0.660156		0.0339
PCB 32 (BZ)	20:55	28586	6907	1.000	0.500	1.073876	214.78	1.073876		0.0339
PCB 34 (BZ)	22:11	54499	12752	1.000	0.500	0.546182	109.24	0.546182	Q	0.0106
PCB 23 (BZ)	22:19	57624	15508	1.000	0.500	0.577505	115.50	0.577505		0.0106
PCB 29 (BZ)	22:39			1.000	0.500			ND		0.0106
PCB 26 (BZ)	22:38	125361	27825	1.000	0.500	1.256362	251.27	1.256362		0.0106
PCB 25 (BZ)	22:53	61432	13739	1.000	0.500	0.615669	123.13	0.615669		0.0106
PCB 31 (BZ)	23:10	64318	16388	1.000	0.500	0.644592	128.92	0.644592		0.0106
PCB 28 (BZ)	23:29	114771	19806	1.000	0.500	1.150230	230.05	1.150230		0.0106
PCB 20 (BZ)	23:31			1.000	0.500			ND		0.0106
PCB 21 (BZ)	23:39			1.000	0.500			ND		0.0106
PCB 33 (BZ)	23:44	122759	17676	1.000	0.500	1.230285	246.06	1.230285		0.0106
PCB 22 (BZ)	24:07	60645	16079	1.000	0.500	0.607781	121.56	0.607781		0.0106
PCB 36 (BZ)	25:40	60546	16127	1.000	0.500	0.606789	121.36	0.606789		0.0106

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	Prep Batch		Lot No	
Data File	/20080624i/a080624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	15:19	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 39 (BZ)	26:02	68906	16291	1.000	0.500	0.690573	138.11	0.690573		0.0106
PCB 38 (BZ)	26:37	56253	12400	1.000	0.500	0.563765	112.75	0.563765		0.0106
PCB 35 (BZ)	27:05	56050	14892	1.000	0.500	0.561730	112.35	0.561730		0.0106
PCB 37 (BZ)	27:30	57728	13791	1.000	0.500	0.578547	115.71	0.578547		0.0106
Total Tetrachlorobiphenyl		1565591	307905	1.000		23.320722		23.320722	Q	0.814
13C12-PCB 54	20:44	2878802	713951	1.000	100.0	60.762114	60.76	60.762114		0.0259
13C12-PCB 52	25:18	5247379	1260874	1.000	100.0	100.000000	100.00	100.000000		0.0252
13C12-PCB 79				1.000	0.500			ND		0.0218
13C12-PCB 81	34:13	6671248	1401890	1.000	100.0	127.134861	127.13	127.134861		0.0252
13C12-PCB 77	34:48	6979910	1504484	1.000	100.0	133.017074	133.02	133.017074		0.0252
PCB 54 (BZ)	20:46	19112	5397	1.000	0.500	0.663887	132.78	0.663887		0.0385
PCB 50 (BZ)	22:56			1.000	0.500			ND		0.0189
PCB 53 (BZ)	22:56	66111	16291	1.000	0.500	0.968577	193.72	0.968577		0.0189
PCB 45 (BZ)	23:37	59747	8560	1.000	0.500	0.875340	175.07	0.875340		0.0189
PCB 51 (BZ)	23:40			1.000	0.500			ND		0.0189
PCB 46 (BZ)	23:55	22544	4138	1.000	0.500	0.330294	66.06	0.330294	Q	0.0189
PCB 52 (BZ)	25:20	33627	8617	1.000	0.500	0.492662	98.53	0.492662		0.0189
PCB 73 (BZ)	25:27	62822	10533	1.000	0.500	0.920391	184.08	0.920391		0.0189
PCB 43 (BZ)	25:32			1.000	0.500			ND		0.0189
PCB 69 (BZ)	25:44			1.000	0.500			ND		0.0189
PCB 49 (BZ)	25:48	72642	10106	1.000	0.500	1.064261	212.85	1.064261		0.0189
PCB 48 (BZ)	26:04	31413	7609	1.000	0.500	0.460225	92.04	0.460225		0.0189
PCB 65 (BZ)	26:19			1.000	0.500			ND		0.0189
PCB 47 (BZ)	26:21			1.000	0.500			ND		0.0189
PCB 44 (BZ)	26:20	103420	21600	1.000	0.500	1.515183	303.04	1.515183		0.0189
PCB 62 (BZ)	26:38	131847	21641	1.000	0.500	1.931660	386.33	1.931660		0.0189
PCB 75 (BZ)	26:40			1.000	0.500			ND		0.0189
PCB 59 (BZ)	26:39			1.000	0.500			ND		0.0189
PCB 42 (BZ)	26:51	28710	6132	1.000	0.500	0.420624	84.12	0.420624		0.0189
PCB 41 (BZ)	27:14			1.000	0.500			ND		0.0189
PCB 71 (BZ)	27:21	97492	15816	1.000	0.500	1.428333	285.67	1.428333		0.0189
PCB 40 (BZ)	27:21			1.000	0.500			ND		0.0189
PCB 64 (BZ)	27:34	44382	9995	1.000	0.500	0.650231	130.05	0.650231		0.0189
PCB 72 (BZ)	28:22	44975	10831	1.000	0.500	0.658918	131.78	0.658918		0.0189
PCB 68 (BZ)	28:39	41685	10280	1.000	0.500	0.610712	122.14	0.610712	Q	0.0189
PCB 57 (BZ)	29:06	42943	10891	1.000	0.500	0.629148	125.83	0.629148		0.0189
PCB 58 (BZ)	29:21	44223	9858	1.000	0.500	0.647901	129.58	0.647901		0.0189
PCB 67 (BZ)	29:30	48223	10764	1.000	0.500	0.706504	141.30	0.706504		0.0189
PCB 63 (BZ)	29:46	42037	10693	1.000	0.500	0.615882	123.18	0.615882	Q	0.0189
PCB 61 (BZ)	29:59			1.000	0.500			ND		0.0189
PCB 70 (BZ)	30:07	163390	17738	1.000	0.500	2.393790	478.76	2.393790		0.0189
PCB 76 (BZ)	30:06			1.000	0.500			ND		0.0189
PCB 74 (BZ)	30:09			1.000	0.500			ND		0.0189
PCB 66 (BZ)	30:26	40836	8759	1.000	0.500	0.598279	119.66	0.598279		0.0189
PCB 55 (BZ)	30:37	41358	9037	1.000	0.500	0.605927	121.19	0.605927		0.0189
PCB 56 (BZ)	31:07	39561	8448	1.000	0.500	0.579594	115.92	0.579594	Q	0.0189
PCB 60 (BZ)	31:20	40208	9676	1.000	0.500	0.589078	117.82	0.589078		0.0189
PCB 80 (BZ)	31:42	41701	9077	1.000	0.500	0.610955	122.19	0.610955	Q	0.0189
PCB 79 (BZ)	33:14	34223	7138	1.000	0.500	0.501393	100.28	0.501393	Q	0.0189

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i6.d	**Prep Date**		**SDG No**	
Analysis ID	104763	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	15:19	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 78 (BZ)	33:48	33179	9611	1.000	0.500	0.486105	97.22	0.486105	Q	0.0189
PCB 81 (BZ)	34:14	45122	8953	1.000	0.500	0.676365	135.27	0.676365		0.0196
PCB 77 (BZ)	34:49	48057	9717	1.000	0.500	0.688505	137.70	0.688505		0.0183
Total Pentachlorobiphenyl		1294629	245374	1.000		22.856186		22.856186	Q	0.892
13C12-PCB 104	26:15	4704623	1078758	1.000	100.0	123.643927	123.64	123.643927		0.0560
13C12-PCB 95				1.000	0.500			ND		0.0419
13C12-PCB 101	32:08	3804977	807624	1.000	100.0	100.000000	100.00	100.000000		0.0560
13C12-PCB 111				1.000	0.500			ND		0.0560
13C12-PCB 123	36:47	8372258	1723667	1.000	100.0	93.393266	93.39	93.393266		0.0250
13C12-PCB 118	37:06	8770292	1773843	1.000	100.0	97.833370	97.83	97.833370		0.0250
13C12-PCB 114	37:39	8373356	1699888	1.000	100.0	93.405514	93.41	93.405514		0.0250
13C12-PCB 105	38:18	8306152	1692857	1.000	100.0	92.655848	92.66	92.655848		0.0250
13C12-PCB 127	39:44	8964520	1812588	1.000	100.0	100.000000	100.00	100.000000		0.0250
13C12-PCB 126	41:22	8663531	1764504	1.000	100.0	96.642442	96.64	96.642442		0.0250
PCB 104 (BZ)	26:16	27739	5873	1.000	0.500	0.589612	117.92	0.589612		0.0213
PCB 96 (BZ)	26:39	25703	6964	1.000	0.500	0.546335	109.27	0.546335		0.0213
PCB 103 (BZ)	28:33	16101	3764	1.000	0.500	0.342231	68.45	0.342231	Q	0.0213
PCB 94 (BZ)	28:48	16483	3964	1.000	0.500	0.350358	70.07	0.350358		0.0213
PCB 95 (BZ)	29:13	19609	3850	1.000	0.500	0.416803	83.36	0.416803		0.0213
PCB 100 (BZ)	29:27	40439	6674	1.000	0.500	0.859559	171.91	0.859559		0.0213
PCB 93 (BZ)	29:28			1.000	0.500			ND		0.0213
PCB 102 (BZ)	29:37	45698	6257	1.000	0.500	0.971342	194.27	0.971342		0.0213
PCB 98 (BZ)	29:40			1.000	0.500			ND		0.0213
PCB 88 (BZ)	30:00	43252	5987	1.000	0.500	0.919351	183.87	0.919351		0.0213
PCB 91 (BZ)	30:06			1.000	0.500			ND		0.0213
PCB 84 (BZ)	30:21	20180	4897	1.000	0.500	0.428940	85.79	0.428940		0.0213
PCB 89 (BZ)	30:49	17077	4631	1.000	0.500	0.362991	72.60	0.362991	Q	0.0213
PCB 121 (BZ)	31:11	29314	6990	1.000	0.500	0.623089	124.62	0.623089		0.0213
PCB 92 (BZ)	31:34	22253	5193	1.000	0.500	0.473003	94.60	0.473003		0.0213
PCB 113 (BZ)	32:09	69975	11390	1.000	0.500	1.487367	297.47	1.487367		0.0213
PCB 90 (BZ)	32:09			1.000	0.500			ND		0.0213
PCB 101 (BZ)	32:09			1.000	0.500			ND		0.0213
PCB 83 (BZ)	32:39			1.000	0.500			ND		0.0213
PCB 99 (BZ)	32:44	45780	6825	1.000	0.500	0.973085	194.62	0.973085		0.0213
PCB 112 (BZ)	32:52	26441	6117	1.000	0.500	0.562022	112.40	0.562022		0.0213
PCB 109 (BZ)/108 (IUPAC)	33:14	139311	15884	1.000	0.500	2.961151	592.23	2.961151		0.0213
PCB 86 (BZ)	33:15			1.000	0.500			ND		0.0213
PCB 119 (BZ)	33:14			1.000	0.500			ND		0.0213
PCB 97 (BZ)	33:15			1.000	0.500			ND		0.0213
PCB 125 (BZ)	33:19			1.000	0.500			ND		0.0213
PCB 87 (BZ)	33:22			1.000	0.500			ND		0.0213
PCB 117 (BZ)	33:52			1.000	0.500			ND		0.0213
PCB 116 (BZ)	33:59	72587	9542	1.000	0.500	1.542887	308.58	1.542887		0.0213
PCB 85 (BZ)	33:59			1.000	0.500			ND		0.0213
PCB 110 (BZ)	34:12	53565	8648	1.000	0.500	1.138561	227.71	1.138561		0.0213
PCB 115 (BZ)	34:12			1.000	0.500			ND		0.0213
PCB 82 (BZ)	34:29	19468	5004	1.000	0.500	0.413806	82.76	0.413806		0.0213
PCB 111 (BZ)	34:50	25905	4896	1.000	0.500	0.550638	110.13	0.550638	Q	0.0213
PCB 120 (BZ)	35:18	26413	5845	1.000	0.500	0.561426	112.29	0.561426		0.0213

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	Prep Batch		Lot No	
Data File	/20080624i/a080624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	15:19	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 124 (BZ)	36:27			1.000	0.500			ND		0.0133
PCB 108 (BZ)/107 (IUPAC)	36:27	81505	16274	1.000	0.500	0.959208	191.84	0.959208		0.0133
PCB 107 (BZ)/109 (IUPAC)	36:41	48231	10991	1.000	0.500	0.567616	113.52	0.567616		0.0133
PCB 123 (BZ)	36:49	41271	10886	1.000	0.500	0.492949	98.59	0.492949		0.0133
PCB 106 (BZ)	36:55	44533	9634	1.000	0.500	0.524098	104.82	0.524098	Q	0.0133
PCB 118 (BZ)	37:08	51639	10596	1.000	0.500	0.588795	117.76	0.588795		0.0130
PCB 122 (BZ)	37:29	38477	9983	1.000	0.500	0.452824	90.56	0.452824		0.0133
PCB 114 (BZ)	37:39	49928	8531	1.000	0.500	0.596272	119.25	0.596272		0.0135
PCB 105 (BZ)	38:18	46953	10184	1.000	0.500	0.565280	113.06	0.565280		0.0136
PCB 127 (BZ)	39:46	42578	9205	1.000	0.500	0.501088	100.22	0.501088		0.0133
PCB 126 (BZ)	41:24	46220	9896	1.000	0.500	0.533501	106.70	0.533501		0.0130
Total Hexachlorobiphenyl		1278814	239819	1.000		19.435490		19.435490	Q	0.983
13C12-PCB 155	31:53	4110243	862733	1.000	100.0	108.022808	108.02	108.022808		0.0557
13C12-PCB 153				1.000	0.500			ND		0.0377
13C12-PCB 138	40:13	6130216	1252299	1.000	100.0	100.000000	100.00	100.000000		0.0359
13C12-PCB 167	43:12	7422600	1498727	1.000	100.0	121.082194	121.08	121.082194		0.0359
13C12-PCB 156	44:23	14731501	1879858	1.000	200.0	240.309656	120.15	240.309656		0.0359
13C12-PCB 157	44:22			1.000				ND		0.0359
13C12-PCB 169	47:35	7049475	1399202	1.000	100.0	114.995540	115.00	114.995540		0.0359
PCB 155 (BZ)	31:54	23696	4656	1.000	0.500	0.576511	115.30	0.576511		0.0296
PCB 152 (BZ)	32:07	20782	4651	1.000	0.500	0.505615	101.12	0.505615		0.0296
PCB 150 (BZ)	32:18	21403	4735	1.000	0.500	0.520728	104.15	0.520728	Q	0.0296
PCB 136 (BZ)	32:40	21564	5464	1.000	0.500	0.524641	104.93	0.524641		0.0296
PCB 145 (BZ)	32:59	19394	3716	1.000	0.500	0.471847	94.37	0.471847	Q	0.0296
PCB 148 (BZ)	34:27	11762	2576	1.000	0.500	0.286169	57.23	0.286169	Q	0.0296
PCB 151 (BZ)	35:06	29811	3918	1.000	0.500	0.725286	145.06	0.725286		0.0296
PCB 135 (BZ)	35:07			1.000	0.500			ND		0.0296
PCB 154 (BZ)	35:16	17500	3736	1.000	0.500	0.425766	85.15	0.425766		0.0296
PCB 144 (BZ)	35:37	14412	2699	1.000	0.500	0.350640	70.13	0.350640	Q	0.0296
PCB 147 (BZ)	36:00	60615	13337	1.000	0.500	0.830241	166.05	0.830241		0.0213
PCB 149 (BZ)	36:00			1.000	0.500			ND		0.0213
PCB 134 (BZ)	36:12			1.000	0.500			ND		0.0213
PCB 143 (BZ)	36:17	49103	5513	1.000	0.500	0.672561	134.51	0.672561	Q	0.0213
PCB 139 (BZ)	36:35	55501	9771	1.000	0.500	0.760200	152.04	0.760200	Q	0.0213
PCB 140 (BZ)	36:36			1.000	0.500			ND		0.0213
PCB 131 (BZ)	36:48	24868	4992	1.000	0.500	0.340616	68.12	0.340616		0.0213
PCB 142 (BZ)	36:55	29658	6062	1.000	0.500	0.406224	81.24	0.406224		0.0213
PCB 132 (BZ)	37:15	28097	6230	1.000	0.500	0.384843	76.97	0.384843		0.0213
PCB 133 (BZ)	37:44	24506	4705	1.000	0.500	0.335658	67.13	0.335658		0.0213
PCB 165 (BZ)	38:07	35211	7358	1.000	0.500	0.482283	96.46	0.482283		0.0213
PCB 146 (BZ)	38:22	35979	6910	1.000	0.500	0.492803	98.56	0.492803		0.0213
PCB 161 (BZ)	38:30	39918	9529	1.000	0.500	0.546755	109.35	0.546755		0.0213
PCB 153 (BZ)	39:00	80743	13510	1.000	0.500	1.105933	221.19	1.105933		0.0213
PCB 168 (BZ)	39:02			1.000	0.500			ND		0.0213
PCB 141 (BZ)	39:11	28177	5958	1.000	0.500	0.385938	77.19	0.385938	Q	0.0213
PCB 130 (BZ)	39:37	26719	6619	1.000	0.500	0.365969	73.19	0.365969		0.0213
PCB 137 (BZ)	39:49	28894	8422	1.000	0.500	0.395756	79.15	0.395756	Q	0.0213
PCB 164 (BZ)	39:58	38543	8227	1.000	0.500	0.527922	105.58	0.527922		0.0213
PCB 138 (BZ)	40:15	140084	15946	1.000	0.500	1.918724	383.74	1.918724		0.0213

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	Prep Batch		Lot No	
Data File	/20080624i/a080624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	15:19	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 163 (BZ)	40:15			1.000	0.500			ND		0.0213
PCB 129 (BZ)	40:19			1.000	0.500			ND		0.0213
PCB 160 (BZ)	40:24			1.000	0.500			ND		0.0213
PCB 158 (BZ)	40:37	43263	8995	1.000	0.500	0.592571	118.51	0.592571		0.0213
PCB 166 (BZ)	41:29	73336	11005	1.000	0.500	1.004480	200.90	1.004480		0.0213
PCB 128 (BZ)	41:31			1.000	0.500			ND		0.0213
PCB 159 (BZ)	42:28	43569	9090	1.000	0.500	0.596763	119.35	0.596763		0.0213
PCB 162 (BZ)	42:46	41132	10121	1.000	0.500	0.563383	112.68	0.563383		0.0213
PCB 167 (BZ)	43:13	42189	9276	1.000	0.500	0.568386	113.68	0.568386		0.0170
PCB 156 (BZ)	44:25	83576	11835	1.000	1.000	1.134657	113.47	1.134657		0.0271
PCB 157 (BZ)	44:25			1.000				ND		0.0271
PCB 169 (BZ)	47:36	44808	10255	1.000	0.500	0.635622	127.12	0.635622		0.0182
Total Heptachlorobiphenyl		655659	135615	1.000		12.488439		12.488439	Q	0.458
13C12-PCB 188	37:36	6112202	1214106	1.000	100.0	122.871940	122.87	122.871940		0.0365
13C12-PCB 178				1.000	0.500			ND		0.0365
13C12-PCB 180	45:44	4974449	1020620	1.000	100.0	100.000000	100.00	100.000000		0.0365
13C12-PCB 170	47:00	4130069	803783	1.000	100.0	83.025658	83.03	83.025658		0.0365
13C12-PCB 189	50:07	8104075	1585169	1.000	100.0	154.425986	154.43	154.425986		0.0369
PCB 188 (BZ)	37:39	36878	8907	1.000	0.500	0.603350	120.67	0.603350		0.0161
PCB 179 (BZ)	38:00	31010	6189	1.000	0.500	0.605530	121.11	0.605530		0.0193
PCB 184 (BZ)	38:29	30616	7806	1.000	0.500	0.597836	119.57	0.597836		0.0193
PCB 176 (BZ)	38:53	35686	8529	1.000	0.500	0.696838	139.37	0.696838		0.0193
PCB 186 (BZ)	39:21	30665	7476	1.000	0.500	0.598793	119.76	0.598793		0.0193
PCB 178 (BZ)	40:41	24309	5304	1.000	0.500	0.474680	94.94	0.474680		0.0193
PCB 175 (BZ)	41:19	26345	6285	1.000	0.500	0.514437	102.89	0.514437		0.0193
PCB 187 (BZ)	41:36	29064	6769	1.000	0.500	0.567530	113.51	0.567530		0.0193
PCB 182 (BZ)	41:47	20865	4051	1.000	0.500	0.407427	81.49	0.407427	Q	0.0193
PCB 183 (BZ)	42:12	49279	5379	1.000	0.500	0.962267	192.45	0.962267		0.0193
PCB 185 (BZ)	42:18			1.000	0.500			ND		0.0193
PCB 174 (BZ)	42:27	17550	4362	1.000	0.500	0.342698	68.54	0.342698	Q	0.0193
PCB 177 (BZ)	42:54	24070	5531	1.000	0.500	0.470013	94.00	0.470013		0.0193
PCB 181 (BZ)	43:17	20643	4176	1.000	0.500	0.403104	80.62	0.403104	Q	0.0193
PCB 171 (BZ)	43:31			1.000	0.500			ND		0.0193
PCB 173 (BZ)	43:30	44145	8532	1.000	0.500	0.862016	172.40	0.862016		0.0193
PCB 172 (BZ)	45:07	22837	5443	1.000	0.500	0.445936	89.19	0.445936		0.0193
PCB 192 (BZ)	45:23	23040	4477	1.000	0.500	0.449899	89.98	0.449899	Q	0.0193
PCB 193 (BZ)	45:43	61457	8645	1.000	0.500	1.200066	240.01	1.200066		0.0193
PCB 180 (BZ)	45:45			1.000	0.500			ND		0.0193
PCB 191 (BZ)	46:05	32198	7681	1.000	0.500	0.628728	125.75	0.628728		0.0193
PCB 170 (BZ)	47:01	24739	6080	1.000	0.500	0.598997	119.80	0.598997		0.0243
PCB 190 (BZ)	47:33	26615	5560	1.000	0.500	0.519712	103.94	0.519712	Q	0.0193
PCB 189 (BZ)	50:08	43647	8433	1.000	0.500	0.538581	107.72	0.538581		0.0123
Total Octachlorobiphenyl		294777	62888	1.000		5.793448		5.793448	Q	0.206
13C12-PCB 202	42:58	4454466	887253	1.000	100.0	89.546923	89.55	89.546923		0.0350
13C12-PCB 194	52:12	5247870	1008205	1.000	100.0	100.000000	100.00	100.000000		0.0355
13C12-PCB 205	52:40	7134445	1387499	1.000	100.0	135.949347	135.95	135.949347		0.0355
PCB 202 (BZ)	42:59	22290	5451	1.000	0.500	0.500397	100.08	0.500397		0.0189
PCB 200 (BZ)/201 (IUPAC)	43:55	28375	6548	1.000	0.500	0.637001	127.40	0.637001		0.0189
PCB 204 (BZ)	44:35	23050	4421	1.000	0.500	0.517458	103.49	0.517458		0.0189

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PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i6.d	**Prep Date**		**SDG No**	
Analysis ID	104763	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	15:19	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 197 (BZ)	44:49	23768	4752	1.000	0.500	0.533577	106.72	0.533577		0.0189
PCB 199 (BZ)/200 (IUPAC)	44:57	25792	6065	1.000	0.500	0.579014	115.80	0.579014		0.0189
PCB 198 (BZ)	47:42	36871	5192	1.000	0.500	0.827731	165.55	0.827731		0.0189
PCB 201 (BZ)/199 (IUPAC)	47:43			1.000	0.500			ND		0.0189
PCB 196 (BZ)	48:23	19895	4307	1.000	0.500	0.446630	89.33	0.446630		0.0189
PCB 203 (BZ)	48:34	17010	3300	1.000	0.500	0.381864	76.37	0.381864	Q	0.0189
PCB 195 (BZ)	49:54	29345	6774	1.000	0.500	0.411314	82.26	0.411314		0.0121
PCB 194 (BZ)	52:13	31085	7766	1.000	0.500	0.435701	87.14	0.435701	Q	0.0121
PCB 205 (BZ)	52:41	37296	8312	1.000	0.500	0.522760	104.55	0.522760		0.0121
Total Nonachlorobiphenyl		90847	18050	1.000		1.781794		1.781794		0.0899
13C12-PCB 208	49:37	5967174	1187447	1.000	100.0	113.706590	113.71	113.706590		0.0340
13C12-PCB 206	54:23	4203878	800073	1.000	100.0	80.106367	80.11	80.106367		0.0340
PCB 208 (BZ)	49:40	33953	6628	1.000	0.500	0.568996	113.80	0.568996		0.0244
PCB 207 (BZ)	50:34	34087	6702	1.000	0.500	0.670275	134.05	0.670275		0.0292
PCB 206 (BZ)	54:25	22807	4720	1.000	0.500	0.542523	108.50	0.542523		0.0362
13C12-PCB 209	56:00	4488302	805935	1.000	100.0	85.526166	85.53	85.526166		0.0253
PCB 209 (BZ)	56:04	24879	4141	1.000	0.500	0.554308	110.86	0.554308		0.0168

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	Prep Batch		Lot No	
Data File	/20080624i/a08624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	06/24/08 15:19	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	93	85	37	34	1.09 *	/	
	PCB 1 (BZ)	12:02	00:00	0	52446	15309	20825	5940	3.43	ABB/ABB	
	PCB 2 (BZ)	14:02	00:00	0	50007	17152	16885	6096	2.92	ABV/ABV	
	PCB 3 (BZ)	14:14	00:00	0	51012	17041	15437	5535	2.99	AVB/AVB	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	283	345	113	138	0.82 *	/	
	13C12-PCB 1	12:01	00:00	0	7257485	2242275	3173352	985625	3.24	AVV/AVV	
	13C12-PCB 3	14:13	00:00	0	7567575	2346196	2662064	809109	3.23	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	155	280	62	112	0.55 *	/	
	PCB 4 (BZ)	14:30	00:00	0	16483	10966	5162	2900	1.50	ABV/MVV	
	PCB 10 (BZ)	14:39	00:00	0	18875	20023	6157	6274	0.94 *	AVB/MVB	R
	PCB 9 (BZ)	16:28	00:00	0	23111	17824	6385	5269	1.30 *	MBV/MVV	R
	PCB 7 (BZ)	16:39	00:00	0	24707	15274	7227	4319	1.62	AVB/ABB	
	PCB 6 (BZ)	16:53	00:00	0	29002	16857	9408	4729	1.72	ABB/MVV	
	PCB 5 (BZ)	17:11	00:00	0	25495	15014	7016	4281	1.70	ABV/MVV	
	PCB 8 (BZ)	17:19	00:00	0	26242	18274	7824	5169	1.44	AVB/MVB	
	PCB 14 (BZ)	18:57	00:00	0	28362	18022	6915	4292	1.57	ABB/MVV	
	PCB 11 (BZ)	19:48	00:00	0	26555	20002	6687	5187	1.33 *	ABB/MVV	
	PCB 13 (BZ)	20:08	00:00	0	51512	32674	9180	5309	1.58	ABB/MVV	
	PCB 12 (BZ)	20:08	00:00	0	0	0	0	0	0.00 *	/	
	PCB 15 (BZ)	20:26	00:00	0	29911	18330	8519	4248	1.63	ABB/ABV	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	388	238	155	95	1.63	/	
	13C12-PCB 4	14:29	00:00	0	2449776	1561354	827513	530714	1.57	AVV/ABV	
	13C12-PCB 9	16:27	00:00	0	4090509	2538218	1270890	779978	1.61	AVV/ABV	
	13C12-PCB 15	20:25	00:00	0	4381605	2746942	1137156	738273	1.60	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	128	115	51	46	1.11	/	
	PCB 19 (BZ)	17:38	00:00	0	7397	7202	1882	2320	1.03	ABB/ABB	
	PCB 30 (BZ)	19:26	00:00	0	22791	20080	4423	3771	1.14	ABB/ABB	
	PCB 18 (BZ)	19:31	00:00	0	0	0	0	0	0.00 *	/	
	PCB 17 (BZ)	19:56	00:00	0	10705	11498	2588	3421	0.93	ABB/ABB	
	PCB 27 (BZ)	20:08	00:00	0	12278	12580	3458	3662	0.98	ABV/ABV	
	PCB 24 (BZ)	20:17	00:00	0	11069	8642	3403	2172	1.28 *	AVV/AVV	R
	PCB 16 (BZ)	20:24	00:00	0	8986	8587	2685	2294	1.05	AVB/AVB	
	PCB 32 (BZ)	20:55	00:00	0	14592	13994	3719	3188	1.04	ABB/ABB	
	PCB 34 (BZ)	22:11	00:00	0	33128	26715	7650	6251	1.24 *	ABV/ABV	R
	PCB 23 (BZ)	22:19	00:00	0	30005	27619	8077	7431	1.09	AVB/AVB	
	PCB 26 (BZ)	22:38	00:00	0	62954	62407	14600	13225	1.01	ABB/ABB	
	PCB 29 (BZ)	22:39	00:00	0	0	0	0	0	0.00 *	/	
	PCB 25 (BZ)	22:53	00:00	0	32584	28848	7083	6656	1.13	ABB/ABB	
	PCB 31 (BZ)	23:10	00:00	0	31096	33222	6408	9980	0.94	ABB/ABB	

Notes:
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TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	Prep Batch		Lot No	
Data File	/20080624i/a080624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	06/24/08 15:19	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	PCB 28 (BZ)	23:29	00:00	0	58718	56053	10230	9576	1.05	ABV/ABV	
	PCB 20 (BZ)	23:31	00:00	0	0	0	0	0	0.00 *	/	
	PCB 21 (BZ)	23:39	00:00	0	0	0	0	0	0.00 *	/	
	PCB 33 (BZ)	23:44	00:00	0	63504	59255	8970	8706	1.07	AVB/AVB	
	PCB 22 (BZ)	24:07	00:00	0	32003	28642	8509	7570	1.12	ABB/ABB	
	PCB 36 (BZ)	25:40	00:00	0	28869	31677	8583	7544	0.91	ABB/ABB	
	PCB 39 (BZ)	26:02	00:00	0	35387	33519	8206	8085	1.06	ABB/ABB	
	PCB 38 (BZ)	26:37	00:00	0	30522	25731	6888	5512	1.19	ABB/ABB	
	PCB 35 (BZ)	27:05	00:00	0	28931	27119	7951	6941	1.07	ABB/ABB	
	PCB 37 (BZ)	27:30	00:00	0	31147	26581	7493	6298	1.17	ABB/MVV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	538	310	215	124	1.73 *	/	
	13C12-PCB 19	17:37	00:00	0	1370032	1291915	360174	354141	1.06	AVV/AVV	
	13C12-PCB 32	20:53	00:00	0	2446550	2291274	635590	591179	1.07	AVV/AVV	
	13C12-PCB 31	23:10	00:00	0	5729380	5427504	1393276	1325880	1.06	AVV/AVV	
	13C12-PCB 37	27:29	00:00	0	5208459	4769636	1178687	1113666	1.09	AVV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	113	163	45	65	0.69	/	
	PCB 54 (BZ)	20:46	00:00	0	8464	10648	2306	3091	0.79	ABB/ABB	
	PCB 53 (BZ)	22:56	00:00	0	26139	39972	6167	10124	0.65	ABB/ABB	
	PCB 50 (BZ)	22:56	00:00	0	0	0	0	0	0.00 *	/	
	PCB 45 (BZ)	23:37	00:00	0	26700	33047	3815	4745	0.81	ABB/ABB	
	PCB 51 (BZ)	23:40	00:00	0	0	0	0	0	0.00 *	/	
	PCB 46 (BZ)	23:55	00:00	0	12298	12737	3101	2338	0.97 *	ABV/ABB	R
	PCB 52 (BZ)	25:20	00:00	0	15134	18493	4181	4436	0.82	ABV/ABV	
	PCB 73 (BZ)	25:27	00:00	0	28395	34427	4857	5676	0.82	AVV/AVB	
	PCB 43 (BZ)	25:32	00:00	0	0	0	0	0	0.00 *	/	
	PCB 69 (BZ)	25:44	00:00	0	0	0	0	0	0.00 *	/	
	PCB 49 (BZ)	25:48	00:00	0	32652	39990	4302	5804	0.82	AVB/ABB	
	PCB 48 (BZ)	26:04	00:00	0	13720	17693	3080	4529	0.78	ABB/ABB	
	PCB 65 (BZ)	26:19	00:00	0	0	0	0	0	0.00 *	/	
	PCB 44 (BZ)	26:20	00:00	0	45833	57587	9948	11652	0.80	ABB/ABV	
	PCB 47 (BZ)	26:21	00:00	0	0	0	0	0	0.00 *	/	
	PCB 62 (BZ)	26:38	00:00	0	61081	70766	9591	12050	0.86	ABV/ABV	
	PCB 59 (BZ)	26:39	00:00	0	0	0	0	0	0.00 *	/	
	PCB 75 (BZ)	26:40	00:00	0	0	0	0	0	0.00 *	/	
	PCB 42 (BZ)	26:51	00:00	0	11361	17349	2687	3445	0.65	AVB/AVB	
	PCB 41 (BZ)	27:14	00:00	0	0	0	0	0	0.00 *	/	
	PCB 40 (BZ)	27:21	00:00	0	0	0	0	0	0.00 *	/	
	PCB 71 (BZ)	27:21	00:00	0	43055	54437	6611	9205	0.79	AVB/AVV	
	PCB 64 (BZ)	27:34	00:00	0	18810	25572	4755	5240	0.74	ABB/AVB	
	PCB 72 (BZ)	28:22	00:00	0	17707	27268	5171	5660	0.65	ABB/ABB	
	PCB 68 (BZ)	28:39	00:00	0	18134	29068	4472	6712	0.62 *	ABB/ABB	R

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	Prep Batch		Lot No	
Data File	/20080624i/a080624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	06/24/08 15:19	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	PCB 57 (BZ)	29:06	00:00	0	17258	25685	4191	6700	0.67	ABB/ABB	
	PCB 58 (BZ)	29:21	00:00	0	20527	23696	4770	5088	0.87	ABV/ABV	
	PCB 67 (BZ)	29:30	00:00	0	19861	28362	4540	6224	0.70	AVV/AVV	
	PCB 63 (BZ)	29:46	00:00	0	23246	23750	5957	6041	0.98 *	AVB/AVB	R
	PCB 61 (BZ)	29:59	00:00	0	0	0	0	0	0.00 *	/	
	PCB 76 (BZ)	30:06	00:00	0	0	0	0	0	0.00 *	/	
	PCB 70 (BZ)	30:07	00:00	0	69106	94284	7683	10055	0.73	ABB/ABB	
	PCB 74 (BZ)	30:09	00:00	0	0	0	0	0	0.00 *	/	
	PCB 66 (BZ)	30:26	00:00	0	16940	23896	3784	4975	0.71	ABV/ABV	
	PCB 55 (BZ)	30:37	00:00	0	16560	24798	3353	5684	0.67	AVB/AVB	
	PCB 56 (BZ)	31:07	00:00	0	17210	27035	3675	5334	0.64 *	ABV/ABV	R
	PCB 60 (BZ)	31:20	00:00	0	17817	22391	4721	4955	0.80	AVB/AVB	
	PCB 80 (BZ)	31:42	00:00	0	23932	23560	6184	5128	1.02 *	ABB/MBB	R
	PCB 79 (BZ)	33:14	00:00	0	20620	19335	4052	4033	1.07 *	MBB/MVV	R
	PCB 78 (BZ)	33:48	00:00	0	14434	23225	4181	5284	0.62 *	ABB/ABV	R
	PCB 81 (BZ)	34:14	00:00	0	20405	24717	4359	4594	0.83	ABB/ABV	
	PCB 77 (BZ)	34:49	00:00	0	19624	28433	3797	5920	0.69	ABB/ABB	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	153	165	61	66	0.92 *	/	
	13C12-PCB 54	20:44	00:00	0	1297571	1581231	313124	400827	0.82	ABV/ABV	
	13C12-PCB 52	25:18	00:00	0	2326535	2920844	558786	702088	0.80	ABV/ABV	
	13C12-PCB 81	34:13	00:00	0	2957906	3713342	614349	787541	0.80	ABV/ABV	
	13C12-PCB 77	34:48	00:00	0	3110696	3869214	680095	824389	0.80	AVV/AVV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	128	103	51	41	1.24 *	/	
	PCB 104 (BZ)	26:16	00:00	0	17098	10641	3494	2379	1.61	ABB/ABB	
	PCB 96 (BZ)	26:39	00:00	0	15118	10585	4530	2434	1.43	ABB/ABB	
	PCB 103 (BZ)	28:33	00:00	0	13428	6314	3517	1476	2.13 *	ABB/ABB	R
	PCB 94 (BZ)	28:48	00:00	0	9713	6770	2544	1420	1.43	ABB/ABB	
	PCB 95 (BZ)	29:13	00:00	0	11791	7818	2236	1614	1.51	ABV/ABB	
	PCB 100 (BZ)	29:27	00:00	0	24432	16007	4062	2612	1.53	AVV/ABV	
	PCB 93 (BZ)	29:28	00:00	0	0	0	0	0	0.00 *	/	
	PCB 102 (BZ)	29:37	00:00	0	28086	17612	3675	2582	1.59	AVB/AVB	
	PCB 98 (BZ)	29:40	00:00	0	0	0	0	0	0.00 *	/	
	PCB 88 (BZ)	30:00	00:00	0	25418	17834	3414	2573	1.43	ABB/ABB	
	PCB 91 (BZ)	30:06	00:00	0	0	0	0	0	0.00 *	/	
	PCB 84 (BZ)	30:21	00:00	0	12890	7290	3157	1740	1.77	ABB/ABB	
	PCB 89 (BZ)	30:49	00:00	0	12078	6697	2563	1816	1.80 *	ABB/ABB	R
	PCB 121 (BZ)	31:11	00:00	0	18406	10908	4479	2511	1.69	ABB/ABB	
	PCB 92 (BZ)	31:34	00:00	0	13220	9033	3127	2066	1.46	ABB/ABB	
	PCB 113 (BZ)	32:09	00:00	0	41806	28169	6328	5062	1.48	ABB/ABB	
	PCB 90 (BZ)	32:09	00:00	0	0	0	0	0	0.00 *	/	
	PCB 101 (BZ)	32:09	00:00	0	0	0	0	0	0.00 *	/	

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Workorder	2990:71CS0.5	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i6.d	**Prep Date**		**SDG No**	
Analysis ID	104763	**Prep Exp Date**		**Date Received**	
Analysis Date	06/24/08 15:19	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**		
	PCB 83 (BZ)	32:39	00:00	0	0	0	0	0	0.00 *	/	
	PCB 99 (BZ)	32:44	00:00	0	26502	19278	3796	3029	1.37	ABV/ABV	
	PCB 112 (BZ)	32:52	00:00	0	16584	9857	3486	2631	1.68	AVB/AVB	
	PCB 109 (BZ)/108 (IUPAC	33:14	00:00	0	83532	55779	10134	5750	1.50	ABB/ABB	
	PCB 119 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/	
	PCB 86 (BZ)	33:15	00:00	0	0	0	0	0	0.00 *	/	
	PCB 97 (BZ)	33:15	00:00	0	0	0	0	0	0.00 *	/	
	PCB 125 (BZ)	33:19	00:00	0	0	0	0	0	0.00 *	/	
	PCB 87 (BZ)	33:22	00:00	0	0	0	0	0	0.00 *	/	
	PCB 117 (BZ)	33:52	00:00	0	0	0	0	0	0.00 *	/	
	PCB 85 (BZ)	33:59	00:00	0	0	0	0	0	0.00 *	/	
	PCB 116 (BZ)	33:59	00:00	0	42723	29864	5308	4234	1.43	ABV/ABB	
	PCB 110 (BZ)	34:12	00:00	0	33406	20159	5593	3055	1.66	AVB/ABB	
	PCB 115 (BZ)	34:12	00:00	0	0	0	0	0	0.00 *	/	
	PCB 82 (BZ)	34:29	00:00	0	11113	8355	3292	1712	1.33	ABB/ABB	
	PCB 111 (BZ)	34:50	00:00	0	18777	10159	4372	1920	1.85 *	ABB/ABB	R
	PCB 120 (BZ)	35:18	00:00	0	15643	10770	3147	2698	1.45	ABB/ABB	
	PCB 108 (BZ)/107 (IUPAC	36:27	00:00	0	48550	32955	9756	6518	1.47	ABV/ABB	
	PCB 124 (BZ)	36:27	00:00	0	0	0	0	0	0.00 *	/	
	PCB 107 (BZ)/109 (IUPAC	36:41	00:00	0	29668	18563	7536	3455	1.60	AVV/ABV	
	PCB 123 (BZ)	36:49	00:00	0	25369	15902	6287	4599	1.60	AVV/AVV	
	PCB 106 (BZ)	36:55	00:00	0	31955	17464	6348	3778	1.83 *	AVB/AVB	R
	PCB 118 (BZ)	37:08	00:00	0	31607	20032	6160	4436	1.58	ABB/ABB	
	PCB 122 (BZ)	37:29	00:00	0	22863	15614	5759	4224	1.46	ABV/ABV	
	PCB 114 (BZ)	37:39	00:00	0	29201	20727	4608	3923	1.41	AVB/AVB	
	PCB 105 (BZ)	38:18	00:00	0	29211	17742	6006	4178	1.65	ABB/ABB	
	PCB 127 (BZ)	39:46	00:00	0	25652	16926	5547	3658	1.52	AVB/ABB	
	PCB 126 (BZ)	41:24	00:00	0	29086	17134	6132	3764	1.70	ABV/ABV	
338					**337.9207**	**339.9178**	**337.9207**	**339.9178**	**1.32-1.78**		
	Noise	00:00	00:00	0	253	200	101	80	1.26 *	/	
	13C12-PCB 104	26:15	00:00	0	2914236	1790387	667017	411741	1.63	ABV/ABV	
	13C12-PCB 101	32:08	00:00	0	2346411	1458566	492247	315377	1.61	AVV/ABV	
	13C12-PCB 123	36:47	00:00	0	5112062	3260196	1049961	673706	1.57	ABV/AVV	
	13C12-PCB 118	37:06	00:00	0	5405506	3364786	1091526	682317	1.61	AVV/AVV	
	13C12-PCB 114	37:39	00:00	0	5154880	3218476	1035484	664404	1.60	AVV/AVV	
	13C12-PCB 105	38:18	00:00	0	5100722	3205430	1050908	641949	1.59	ABV/ABV	
	13C12-PCB 127	39:44	00:00	0	5493078	3471442	1112963	699625	1.58	ABV/AVV	
	13C12-PCB 126	41:22	00:00	0	5311910	3351621	1075131	689373	1.58	ABV/AVV	
360					**359.8415**	**361.8385**	**359.8415**	**361.8385**	**1.05-1.43**		
	Noise	00:00	00:00	0	130	125	52	50	1.04 *	/	
	PCB 155 (BZ)	31:54	00:00	0	13520	10176	2265	2391	1.33	ABB/ABB	
	PCB 152 (BZ)	32:07	00:00	0	10941	9841	2471	2180	1.11	ABV/ABV	
	PCB 150 (BZ)	32:18	00:00	0	15011	9555	3829	2114	1.57 *	AVB/AVB	R

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Data File	/20080624i/a080624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	06/24/08 15:19	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	PCB 136 (BZ)	32:40	00:00	0	11523	10041	2991	2473	1.15	ABB/ABB	
	PCB 145 (BZ)	32:59	00:00	0	10736	12356	2057	3766	0.87 *	ABB/ABB	R
	PCB 148 (BZ)	34:27	00:00	0	8296	5251	1858	1150	1.58 *	ABB/ABB	R
	PCB 151 (BZ)	35:06	00:00	0	15235	14576	2009	1909	1.05	ABV/ABB	
	PCB 135 (BZ)	35:07	00:00	0	0	0	0	0	0.00 *	/	
	PCB 154 (BZ)	35:16	00:00	0	9044	8456	1662	2074	1.07	AVB/ABB	
	PCB 144 (BZ)	35:37	00:00	0	10725	6434	3274	1205	1.67 *	ABV/ABB	R
	PCB 147 (BZ)	36:00	00:00	0	34429	26186	7627	5710	1.31	ABV/ABV	
	PCB 149 (BZ)	36:00	00:00	0	0	0	0	0	0.00 *	/	
	PCB 134 (BZ)	36:12	00:00	0	0	0	0	0	0.00 *	/	
	PCB 143 (BZ)	36:17	00:00	0	27182	26764	3052	3218	1.02 *	AVB/AVB	R
	PCB 139 (BZ)	36:35	00:00	0	30724	31277	5409	5907	0.98 *	ABV/ABV	R
	PCB 140 (BZ)	36:36	00:00	0	0	0	0	0	0.00 *	/	
	PCB 131 (BZ)	36:48	00:00	0	13044	11824	2534	2458	1.10	AVV/AVV	
	PCB 142 (BZ)	36:55	00:00	0	15845	13813	3417	2645	1.15	AVB/AVB	
	PCB 132 (BZ)	37:15	00:00	0	16236	11861	3789	2441	1.37	ABB/ABB	
	PCB 133 (BZ)	37:44	00:00	0	13628	10878	2834	1871	1.25	ABB/ABB	
	PCB 165 (BZ)	38:07	00:00	0	19480	15731	4376	2982	1.24	ABB/ABB	
	PCB 146 (BZ)	38:22	00:00	0	20630	15349	4032	2878	1.34	ABV/ABV	
	PCB 161 (BZ)	38:30	00:00	0	22404	17514	5068	4461	1.28	AVB/AVB	
	PCB 153 (BZ)	39:00	00:00	0	42109	38634	6899	6611	1.09	ABV/ABV	
	PCB 168 (BZ)	39:02	00:00	0	0	0	0	0	0.00 *	/	
	PCB 141 (BZ)	39:11	00:00	0	19295	12579	3589	2660	1.53 *	AVB/AVB	R
	PCB 130 (BZ)	39:37	00:00	0	15080	11639	3595	3024	1.30	ABB/ABB	
	PCB 137 (BZ)	39:49	00:00	0	18515	12899	3809	3760	1.44 *	ABV/ABV	R
	PCB 164 (BZ)	39:58	00:00	0	21396	17147	5050	3177	1.25	AVB/AVB	
	PCB 138 (BZ)	40:15	00:00	0	77128	62956	9264	6682	1.23	ABB/ABB	
	PCB 163 (BZ)	40:15	00:00	0	0	0	0	0	0.00 *	/	
	PCB 129 (BZ)	40:19	00:00	0	0	0	0	0	0.00 *	/	
	PCB 160 (BZ)	40:24	00:00	0	0	0	0	0	0.00 *	/	
	PCB 158 (BZ)	40:37	00:00	0	23331	19932	5218	3777	1.17	ABB/ABB	
	PCB 166 (BZ)	41:29	00:00	0	39254	34082	5877	5128	1.15	AVB/ABB	
	PCB 128 (BZ)	41:31	00:00	0	0	0	0	0	0.00 *	/	
	PCB 159 (BZ)	42:28	00:00	0	24640	18929	5203	3887	1.30	ABB/ABB	
	PCB 162 (BZ)	42:46	00:00	0	23282	17850	5865	4256	1.30	ABB/ABB	
	PCB 167 (BZ)	43:13	00:00	0	23302	18887	5283	3993	1.23	ABB/ABB	
	PCB 156 (BZ)	44:25	00:00	0	48656	34920	7054	4781	1.39	ABB/MVV	
	PCB 157 (BZ)	44:25	00:00	0	0	0	0	0	0.00 *	/	
	PCB 169 (BZ)	47:36	00:00	0	26394	18414	5879	4376	1.43 *	MBB/MVV	
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	235	215	94	86	1.09	/	
	13C12-PCB 155	31:53	00:00	0	2272545	1837698	478984	383749	1.24	ABV/ABV	
	13C12-PCB 138	40:13	00:00	0	3436708	2693508	694635	557664	1.28	ABV/ABV	

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	Prep Batch		Lot No	
Data File	/20080624i/a080624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	06/24/08 15:19	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	13C12-PCB 167	43:12	00:00	0	4195613	3226987	861115	637612	1.30	AVV/AVV	
	13C12-PCB 157	44:22	00:00	0	0	0	0	0	0.00 *	/	
	13C12-PCB 156	44:23	00:00	0	8259469	6472032	1045296	834562	1.28	ABV/ABV	
	13C12-PCB 169	47:35	00:00	0	3943039	3106436	775996	623206	1.27	ABV/ABV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	108	88	43	35	1.23 *	/	
	PCB 188 (BZ)	37:39	00:00	0	18518	18360	4267	4640	1.01	ABB/ABB	
	PCB 179 (BZ)	38:00	00:00	0	16457	14553	3589	2600	1.13	ABB/ABB	
	PCB 184 (BZ)	38:29	00:00	0	16287	14329	3928	3878	1.14	ABB/ABB	
	PCB 176 (BZ)	38:53	00:00	0	18855	16831	5135	3394	1.12	ABB/ABB	
	PCB 186 (BZ)	39:21	00:00	0	14915	15750	3612	3864	0.95	ABB/ABB	
	PCB 178 (BZ)	40:41	00:00	0	13289	11020	2709	2595	1.21	ABB/ABB	
	PCB 175 (BZ)	41:19	00:00	0	14063	12282	3221	3064	1.15	ABB/ABB	
	PCB 187 (BZ)	41:36	00:00	0	15159	13905	3788	2981	1.09	ABB/ABB	
	PCB 182 (BZ)	41:47	00:00	0	14065	10178	2612	1976	1.38 *	ABB/ABB	R
	PCB 183 (BZ)	42:12	00:00	0	24302	24977	2660	2719	0.97	ABV/ABV	
	PCB 185 (BZ)	42:18	00:00	0	0	0	0	0	0.00 *	/	
	PCB 174 (BZ)	42:27	00:00	0	13249	8561	3680	2128	1.55 *	AVB/AVB	R
	PCB 177 (BZ)	42:54	00:00	0	12354	11716	2738	2793	1.05	ABB/ABB	
	PCB 181 (BZ)	43:17	00:00	0	13530	10070	3220	2037	1.34 *	ABB/ABV	R
	PCB 173 (BZ)	43:30	00:00	0	22725	21420	4264	4268	1.06	ABB/AVB	
	PCB 171 (BZ)	43:31	00:00	0	0	0	0	0	0.00 *	/	
	PCB 172 (BZ)	45:07	00:00	0	11986	10851	3049	2394	1.10	ABB/ABB	
	PCB 192 (BZ)	45:23	00:00	0	15026	11239	2671	2184	1.34 *	ABB/ABB	R
	PCB 193 (BZ)	45:43	00:00	0	30047	31410	4419	4226	0.96	ABB/ABB	
	PCB 180 (BZ)	45:45	00:00	0	0	0	0	0	0.00 *	/	
	PCB 191 (BZ)	46:05	00:00	0	15607	16591	3946	3735	0.94	ABB/ABB	D
	PCB 170 (BZ)	47:01	00:00	0	13384	11355	3372	2708	1.18	ABB/ABB	
	PCB 190 (BZ)	47:33	00:00	0	16123	12983	3953	2712	1.24 *	ABB/ABB	R
	PCB 189 (BZ)	50:08	00:00	0	20954	22693	4211	4222	0.92	ABB/ABB	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	195	178	78	71	1.10	/	
	13C12-PCB 188	37:36	00:00	0	3125049	2987153	621806	592300	1.05	ABV/ABV	
	13C12-PCB 180	45:44	00:00	0	2571607	2402842	525649	494971	1.07	ABV/ABV	
	13C12-PCB 170	47:00	00:00	0	2103269	2026800	405704	398079	1.04	ABV/ABV	
	13C12-PCB 189	50:07	00:00	0	4161891	3942184	819513	765656	1.06	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	78	90	31	36	0.86	/	
	PCB 202 (BZ)	42:59	00:00	0	10921	11369	2474	2977	0.96	MBB/ABB	
	PCB 200 (BZ)/201 (IUPAC	43:55	00:00	0	12362	16013	2834	3714	0.77	ABB/ABB	
	PCB 204 (BZ)	44:35	00:00	0	9922	13128	2310	2111	0.76	ABB/ABB	
	PCB 197 (BZ)	44:49	00:00	0	10559	13209	2342	2410	0.80	MBV/ABV	
	PCB 199 (BZ)/200 (IUPAC	44:57	00:00	0	12892	12900	2744	3321	1.00	AVB/AVB	

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS0.5	Prep Batch		Lot No	
Data File	/20080624i/a08624i6.d	Prep Date		SDG No	
Analysis ID	104763	Prep Exp Date		Date Received	
Analysis Date	06/24/08 15:19	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**		
	PCB 198 (BZ)	47:42	00:00	0	16002	20869	2242	2950	0.77	ABB/ABB	
	PCB 201 (BZ)/199 (IUPAC	47:43	00:00	0	0	0	0	0	0.00 *	/	
	PCB 196 (BZ)	48:23	00:00	0	8818	11077	2168	2139	0.80	ABB/ABV	
	PCB 203 (BZ)	48:34	00:00	0	8010	11597	1554	2254	0.69 *	ABB/AVB	R
	PCB 195 (BZ)	49:54	00:00	0	14683	14662	3225	3549	1.00	ABB/ABB	
	PCB 194 (BZ)	52:13	00:00	0	17746	16447	4196	4109	1.08 *	ABB/ABB	R
	PCB 205 (BZ)	52:41	00:00	0	18146	19150	4626	3686	0.95	ABB/ABB	
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**		
	Noise	00:00	00:00	0	203	155	81	62	1.31 *	/	
	13C12-PCB 202	42:58	00:00	0	2123185	2331281	430178	457075	0.91	ABV/ABV	
	13C12-PCB 194	52:12	00:00	0	2537628	2710242	497140	511065	0.94	ABV/ABV	
	13C12-PCB 205	52:40	00:00	0	3381278	3753167	662036	725463	0.90	AVV/AVV	
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**		
	Noise	00:00	00:00	0	118	173	47	69	0.68	/	
	PCB 208 (BZ)	49:40	00:00	0	13711	20242	2443	4185	0.68	MBB/MVV	
	PCB 207 (BZ)	50:34	00:00	0	15332	18755	2545	4157	0.82	ABB/MVV	
	PCB 206 (BZ)	54:25	00:00	0	9181	13626	1707	3013	0.67	MBB/MVV	
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**		
	Noise	00:00	00:00	0	173	170	69	68	1.01 *	/	
	13C12-PCB 208	49:37	00:00	0	2651645	3315529	530162	657285	0.80	AVV/AVV	
	13C12-PCB 206	54:23	00:00	0	1862522	2341356	353406	446667	0.80	AVV/AVV	
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**		
	Noise	00:00	00:00	0	70	65	28	26	1.08 *	/	
	PCB 209 (BZ)	56:04	00:00	0	10043	14836	1511	2630	0.68	ABB/ABB	
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**		
	Noise	00:00	00:00	0	100	155	40	62	0.65	/	
	13C12-PCB 209	56:00	00:00	0	1865627	2622675	330131	475804	0.71	ABV/ABV	

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TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS1	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i1.d	**Prep Date**		**SDG No**	
Analysis ID	104762	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	16:21	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
Total Monochlorobiphenyl		447716	176070	1.000		3.878625		3.878625	0.0130
13C12-PCB 1	12:00	11293968	4939443	1.000	100.0	147.510739	147.51	147.510739	0.0331
13C12-PCB 3	14:12	11802566	3981002	1.000	100.0	154.153548	154.15	154.153548	0.0331
PCB 1 (BZ)	12:01	151111	69217	1.000	1.000	1.337980	133.80	1.337980	0.00390
PCB 2 (BZ)	14:01	147879	56286	1.000	1.000	1.280530	128.05	1.280530	0.00432
PCB 3 (BZ)	14:12	148726	50567	1.000	1.000	1.260116	126.01	1.260116	0.00484
Total Dichlorobiphenyl		1117735	296148	1.000		17.183640		17.183640	0.274
13C12-PCB 4	14:28	4660948	1449320	1.000	100.0	60.876734	60.88	60.876734	0.0301
13C12-PCB 9	16:26	7656370	2192891	1.000	100.0	100.000000	100.00	100.000000	0.0301
13C12-PCB 8				1.000	1.000			ND	0.0363
13C12-PCB 15	20:24	8346557	2186685	1.000	100.0	109.014546	109.01	109.014546	0.0301
PCB 4 (BZ)	14:28	57783	19686	1.000	1.000	1.239726	123.97	1.239726	0.0285
PCB 10 (BZ)	14:38	87585	28402	1.000	1.000	1.346684	134.67	1.346684	0.0227
PCB 9 (BZ)	16:26	90297	26234	1.000	1.000	1.388383	138.84	1.388383	0.0227
PCB 7 (BZ)	16:37	93668	27065	1.000	1.000	1.440215	144.02	1.440215	0.0227
PCB 6 (BZ)	16:52	92675	27952	1.000	1.000	1.424947	142.49	1.424947	0.0227
PCB 5 (BZ)	17:11	97740	28793	1.000	1.000	1.502825	150.28	1.502825	0.0227
PCB 8 (BZ)	17:18	99384	28328	1.000	1.000	1.528102	152.81	1.528102	0.0227
PCB 14 (BZ)	18:55	106437	27701	1.000	1.000	1.636548	163.65	1.636548	0.0227
PCB 11 (BZ)	19:47	98187	24265	1.000	1.000	1.509698	150.97	1.509698	0.0227
PCB 13 (BZ)	20:06	189809	31938	1.000	1.000	2.918454	291.85	2.918454	0.0227
PCB 12 (BZ)	20:07			1.000	1.000			ND	0.0227
PCB 15 (BZ)	20:25	104170	25784	1.000	1.000	1.248060	124.81	1.248060	0.0189
Total Trichlorobiphenyl		2543457	556383	1.000		31.145677		31.145677	0.430
13C12-PCB 19	17:36	3133145	941444	1.000	100.0	57.128080	57.13	57.128080	0.0612
13C12-PCB 32	20:53	5484422	1393063	1.000	100.0	100.000000	100.00	100.000000	0.0612
13C12-PCB 31	23:09	12747128	3039620	1.000	100.0	100.000000	100.00	100.000000	0.0280
13C12-PCB 28				1.000	1.000			ND	0.0280
13C12-PCB 37	27:28	11433154	2580721	1.000	100.0	89.692000	89.69	89.692000	0.0280
PCB 19 (BZ)	17:37	32646	11127	1.000	1.000	1.041956	104.20	1.041956	0.0311
PCB 30 (BZ)	19:26	100531	17355	1.000	1.000	3.208629	320.86	3.208629	0.0311
PCB 18 (BZ)	19:30			1.000	1.000			ND	0.0311
PCB 17 (BZ)	19:54	43923	12244	1.000	1.000	1.401882	140.19	1.401882	0.0311
PCB 27 (BZ)	20:08	64800	15182	1.000	1.000	2.068209	206.82	2.068209	0.0311
PCB 24 (BZ)	20:16	48348	13797	1.000	1.000	1.543114	154.31	1.543114	0.0311
PCB 16 (BZ)	20:23	33095	8191	1.000	1.000	1.056287	105.63	1.056287	0.0311
PCB 32 (BZ)	20:54	60741	16424	1.000	1.000	1.938659	193.87	1.938659	0.0311
PCB 34 (BZ)	22:09	137617	35729	1.000	1.000	1.203666	120.37	1.203666	0.0113
PCB 23 (BZ)	22:18	132895	33320	1.000	1.000	1.162365	116.24	1.162365	0.0113
PCB 29 (BZ)	22:38			1.000	1.000			ND	0.0113
PCB 26 (BZ)	22:37	263608	63020	1.000	1.000	2.305645	230.56	2.305645	0.0113
PCB 25 (BZ)	22:51	154968	34348	1.000	1.000	1.355427	135.54	1.355427	0.0113
PCB 31 (BZ)	23:10	143641	34502	1.000	1.000	1.256355	125.64	1.256355	0.0113
PCB 28 (BZ)	23:29	271395	48944	1.000	1.000	2.373754	237.38	2.373754	0.0113
PCB 20 (BZ)	23:30			1.000	1.000			ND	0.0113
PCB 21 (BZ)	23:39	262654	35442	1.000	1.000	2.297301	229.73	2.297301	0.0113
PCB 33 (BZ)	23:43			1.000	1.000			ND	0.0113
PCB 22 (BZ)	24:06	134798	31212	1.000	1.000	1.179010	117.90	1.179010	0.0113
PCB 36 (BZ)	25:40	126459	27769	1.000	1.000	1.106073	110.61	1.106073	0.0113

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS1	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i1.d	**Prep Date**		**SDG No**	
Analysis ID	104762	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	16:21	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 39 (BZ)	26:01	144992	33803	1.000	1.000	1.268171	126.82	1.268171		0.0113
PCB 38 (BZ)	26:36	120754	24433	1.000	1.000	1.056174	105.62	1.056174		0.0113
PCB 35 (BZ)	27:04	133619	30602	1.000	1.000	1.168698	116.87	1.168698		0.0113
PCB 37 (BZ)	27:30	131973	28939	1.000	1.000	1.154301	115.43	1.154301		0.0113
Total Tetrachlorobiphenyl		3552463	687652	1.000		45.900702		45.900702	Q	0.786
13C12-PCB 54	20:43	3352311	849579	1.000	100.0	61.124235	61.12	61.124235		0.0240
13C12-PCB 52	25:17	5967182	1400162	1.000	100.0	100.000000	100.00	100.000000		0.0239
13C12-PCB 79				1.000	1.000			ND		0.0204
13C12-PCB 81	34:13	7761750	1605768	1.000	100.0	130.073961	130.07	130.073961		0.0239
13C12-PCB 77	34:47	7959868	1671072	1.000	100.0	133.394088	133.39	133.394088		0.0239
PCB 54 (BZ)	20:43	41441	10784	1.000	1.000	1.236192	123.62	1.236192		0.0353
PCB 50 (BZ)	22:55			1.000	1.000			ND		0.0183
PCB 53 (BZ)	22:54	142467	32164	1.000	1.000	1.812371	181.24	1.812371		0.0183
PCB 45 (BZ)	23:37	135249	19504	1.000	1.000	1.720548	172.05	1.720548		0.0183
PCB 51 (BZ)	23:39			1.000	1.000			ND		0.0183
PCB 46 (BZ)	23:53	58084	14699	1.000	1.000	0.738906	73.89	0.738906		0.0183
PCB 52 (BZ)	25:19	74240	17674	1.000	1.000	0.944432	94.44	0.944432		0.0183
PCB 73 (BZ)	25:26	142750	22306	1.000	1.000	1.815971	181.60	1.815971		0.0183
PCB 43 (BZ)	25:32			1.000	1.000			ND		0.0183
PCB 69 (BZ)	25:46	168965	22147	1.000	1.000	2.149461	214.95	2.149461		0.0183
PCB 49 (BZ)	25:48			1.000	1.000			ND		0.0183
PCB 48 (BZ)	26:04	72595	18330	1.000	1.000	0.923505	92.35	0.923505		0.0183
PCB 65 (BZ)	26:19			1.000	1.000			ND		0.0183
PCB 47 (BZ)	26:20			1.000	1.000			ND		0.0183
PCB 44 (BZ)	26:19	227821	44073	1.000	1.000	2.898188	289.82	2.898188		0.0183
PCB 62 (BZ)	26:35			1.000	1.000			ND		0.0183
PCB 75 (BZ)	26:39			1.000	1.000			ND		0.0183
PCB 59 (BZ)	26:39	272502	44341	1.000	1.000	3.466590	346.66	3.466590		0.0183
PCB 42 (BZ)	26:50	74213	16420	1.000	1.000	0.944089	94.41	0.944089		0.0183
PCB 41 (BZ)	27:13			1.000	1.000			ND		0.0183
PCB 71 (BZ)	27:20	198274	33669	1.000	1.000	2.522310	252.23	2.522310		0.0183
PCB 40 (BZ)	27:21			1.000	1.000			ND		0.0183
PCB 64 (BZ)	27:33	105550	23228	1.000	1.000	1.342737	134.27	1.342737		0.0183
PCB 72 (BZ)	28:22	93995	24164	1.000	1.000	1.195742	119.57	1.195742		0.0183
PCB 68 (BZ)	28:38	100961	24033	1.000	1.000	1.284359	128.44	1.284359		0.0183
PCB 57 (BZ)	29:04	93915	19778	1.000	1.000	1.194724	119.47	1.194724		0.0183
PCB 58 (BZ)	29:19	87477	20709	1.000	1.000	1.112824	111.28	1.112824		0.0183
PCB 67 (BZ)	29:29	105490	22531	1.000	1.000	1.341974	134.20	1.341974		0.0183
PCB 63 (BZ)	29:45	90500	18946	1.000	1.000	1.151281	115.13	1.151281		0.0183
PCB 61 (BZ)	29:59			1.000	1.000			ND		0.0183
PCB 70 (BZ)	30:06	397113	49847	1.000	1.000	5.051808	505.18	5.051808		0.0183
PCB 76 (BZ)	30:06			1.000	1.000			ND		0.0183
PCB 74 (BZ)	30:09			1.000	1.000			ND		0.0183
PCB 66 (BZ)	30:24	106493	23058	1.000	1.000	1.354733	135.47	1.354733		0.0183
PCB 55 (BZ)	30:35	87011	21908	1.000	1.000	1.106896	110.69	1.106896		0.0183
PCB 56 (BZ)	31:06	93825	18956	1.000	1.000	1.193579	119.36	1.193579		0.0183
PCB 60 (BZ)	31:18	95751	19951	1.000	1.000	1.218081	121.81	1.218081		0.0183
PCB 80 (BZ)	31:41	102568	22770	1.000	1.000	1.304802	130.48	1.304802		0.0183
PCB 79 (BZ)	33:13	97945	22235	1.000	1.000	1.245996	124.60	1.245996	Q	0.0183

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PCB's by EPA Method 1668A

Workorder	2990:71CS1	Prep Batch		Lot No	
Data File	/20080624i/a080624i1.d	Prep Date		SDG No	
Analysis ID	104762	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	16:21	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 78 (BZ)	33:47	93919	19456	1.000	1.000	1.194775	119.48	1.194775		0.0183
PCB 81 (BZ)	34:14	93257	18874	1.000	1.000	1.201495	120.15	1.201495		0.0187
PCB 77 (BZ)	34:48	98092	21097	1.000	1.000	1.232332	123.23	1.232332		0.0180
Total Pentachlorobiphenyl		2908577	537568	1.000		44.591584		44.591584	Q	1.05
13C12-PCB 104	26:14	5421557	1210407	1.000	100.0	128.566903	128.57	128.566903		0.0506
13C12-PCB 95				1.000	1.000			ND		0.0364
13C12-PCB 101	32:08	4216915	870125	1.000	100.0	100.000000	100.00	100.000000		0.0506
13C12-PCB 111				1.000	1.000			ND		0.0506
13C12-PCB 123	36:46	9481710	1973222	1.000	100.0	94.513937	94.51	94.513937		0.0213
13C12-PCB 118	37:06	9893181	2065255	1.000	100.0	98.615491	98.62	98.615491		0.0213
13C12-PCB 114	37:37	9559654	1977328	1.000	100.0	95.290885	95.29	95.290885		0.0213
13C12-PCB 105	38:18	9478770	1888510	1.000	100.0	94.484631	94.48	94.484631		0.0213
13C12-PCB 127	39:44	10032076	2064559	1.000	100.0	100.000000	100.00	100.000000		0.0213
13C12-PCB 126	41:21	9927646	1992638	1.000	100.0	98.959039	98.96	98.959039		0.0213
PCB 104 (BZ)	26:15	62245	15775	1.000	1.000	1.148102	114.81	1.148102		0.0252
PCB 96 (BZ)	26:38	54145	13230	1.000	1.000	0.998698	99.87	0.998698		0.0252
PCB 103 (BZ)	28:32	48335	11973	1.000	1.000	0.891534	89.15	0.891534		0.0252
PCB 94 (BZ)	28:48	45079	9963	1.000	1.000	0.831477	83.15	0.831477		0.0252
PCB 95 (BZ)	29:14	43625	10477	1.000	1.000	0.804658	80.47	0.804658		0.0252
PCB 100 (BZ)	29:26	85407	16470	1.000	1.000	1.575325	157.53	1.575325	Q	0.0252
PCB 93 (BZ)	29:28			1.000	1.000			ND		0.0252
PCB 102 (BZ)	29:35			1.000	1.000			ND		0.0252
PCB 98 (BZ)	29:39	86460	11975	1.000	1.000	1.594750	159.48	1.594750	Q	0.0252
PCB 88 (BZ)	29:59			1.000	1.000			ND		0.0252
PCB 91 (BZ)	30:06	87476	11650	1.000	1.000	1.613485	161.35	1.613485		0.0252
PCB 84 (BZ)	30:20	38041	9231	1.000	1.000	0.701660	70.17	0.701660	Q	0.0252
PCB 89 (BZ)	30:49	42919	9523	1.000	1.000	0.791636	79.16	0.791636		0.0252
PCB 121 (BZ)	31:09	61316	15009	1.000	1.000	1.130967	113.10	1.130967		0.0252
PCB 92 (BZ)	31:34	43643	9677	1.000	1.000	0.804995	80.50	0.804995	Q	0.0252
PCB 113 (BZ)	32:08	162298	25381	1.000	1.000	2.993568	299.36	2.993568		0.0252
PCB 90 (BZ)	32:09			1.000	1.000			ND		0.0252
PCB 101 (BZ)	32:09			1.000	1.000			ND		0.0252
PCB 83 (BZ)	32:38			1.000	1.000			ND		0.0252
PCB 99 (BZ)	32:45	89126	12095	1.000	1.000	1.643919	164.39	1.643919		0.0252
PCB 112 (BZ)	32:51	56684	10858	1.000	1.000	1.045531	104.55	1.045531	Q	0.0252
PCB 109 (BZ)/108 (IUPAC)	33:14	318120	32880	1.000	1.000	5.867687	586.77	5.867687		0.0252
PCB 86 (BZ)	33:14			1.000	1.000			ND		0.0252
PCB 119 (BZ)	33:14			1.000	1.000			ND		0.0252
PCB 97 (BZ)	33:15			1.000	1.000			ND		0.0252
PCB 125 (BZ)	33:19			1.000	1.000			ND		0.0252
PCB 87 (BZ)	33:21			1.000	1.000			ND		0.0252
PCB 117 (BZ)	33:51			1.000	1.000			ND		0.0252
PCB 116 (BZ)	33:57	167672	20431	1.000	1.000	3.092691	309.27	3.092691		0.0252
PCB 85 (BZ)	33:58			1.000	1.000			ND		0.0252
PCB 110 (BZ)	34:10	129185	20773	1.000	1.000	2.382803	238.28	2.382803		0.0252
PCB 115 (BZ)	34:12			1.000	1.000			ND		0.0252
PCB 82 (BZ)	34:28	36230	8861	1.000	1.000	0.668258	66.83	0.668258		0.0252
PCB 111 (BZ)	34:49	67470	16055	1.000	1.000	1.244476	124.45	1.244476		0.0252
PCB 120 (BZ)	35:17	64801	14214	1.000	1.000	1.195247	119.52	1.195247		0.0252

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PCB's by EPA Method 1668A

Workorder	2990:71CS1	Prep Batch		Lot No	
Data File	/20080624i/a080624i1.d	Prep Date		SDG No	
Analysis ID	104762	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	16:21	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 124 (BZ)	36:27			1.000	1.000			ND		0.0154
PCB 108 (BZ)/107 (IUPAC)	36:26	190051	40905	1.000	1.000	1.965735	196.57	1.965735		0.0154
PCB 107 (BZ)/109 (IUPAC)	36:40	100802	20173	1.000	1.000	1.042615	104.26	1.042615		0.0154
PCB 123 (BZ)	36:47	104574	22168	1.000	1.000	1.102902	110.29	1.102902		0.0155
PCB 106 (BZ)	36:55	99891	20440	1.000	1.000	1.033192	103.32	1.033192		0.0154
PCB 118 (BZ)	37:07	109385	22732	1.000	1.000	1.105661	110.57	1.105661		0.0148
PCB 122 (BZ)	37:28	96212	21112	1.000	1.000	0.995140	99.51	0.995140		0.0154
PCB 114 (BZ)	37:40	111211	21225	1.000	1.000	1.163337	116.33	1.163337		0.0154
PCB 105 (BZ)	38:19	105399	21608	1.000	1.000	1.111948	111.19	1.111948		0.0162
PCB 127 (BZ)	39:45	100682	19983	1.000	1.000	1.041374	104.14	1.041374		0.0154
PCB 126 (BZ)	41:23	100092	20720	1.000	1.000	1.008215	100.82	1.008215		0.0153
Total Hexachlorobiphenyl		2898363	527641	1.000		38.614338		38.614338	Q	1.09
13C12-PCB 155	31:53	4603355	964151	1.000	100.0	109.164045	109.16	109.164045		0.0523
13C12-PCB 153				1.000	1.000			ND		0.0327
13C12-PCB 138	40:13	6886585	1426809	1.000	100.0	100.000000	100.00	100.000000		0.0319
13C12-PCB 167	43:12	8491459	1723986	1.000	100.0	123.304352	123.30	123.304352		0.0319
13C12-PCB 156	44:23	17089181	2196209	1.000	200.0	248.151747	124.08	248.151747		0.0319
13C12-PCB 157	44:22			1.000				ND		0.0319
13C12-PCB 169	47:35	8082207	1646780	1.000	100.0	117.361610	117.36	117.361610		0.0319
PCB 155 (BZ)	31:54	51452	11264	1.000	1.000	1.117707	111.77	1.117707		0.0337
PCB 152 (BZ)	32:09	52809	12058	1.000	1.000	1.147185	114.72	1.147185		0.0337
PCB 150 (BZ)	32:18	48449	10990	1.000	1.000	1.052472	105.25	1.052472		0.0337
PCB 136 (BZ)	32:40	45186	10400	1.000	1.000	0.981588	98.16	0.981588		0.0337
PCB 145 (BZ)	32:57	48934	9834	1.000	1.000	1.063007	106.30	1.063007		0.0337
PCB 148 (BZ)	34:26	33983	7031	1.000	1.000	0.738223	73.82	0.738223	Q	0.0337
PCB 151 (BZ)	35:05	65841	9219	1.000	1.000	1.430283	143.03	1.430283		0.0337
PCB 135 (BZ)	35:07			1.000	1.000			ND		0.0337
PCB 154 (BZ)	35:18	40840	9251	1.000	1.000	0.887172	88.72	0.887172	Q	0.0337
PCB 144 (BZ)	35:37	36519	8168	1.000	1.000	0.793313	79.33	0.793313		0.0337
PCB 147 (BZ)	35:58	151286	27811	1.000	1.000	1.797661	179.77	1.797661		0.0234
PCB 149 (BZ)	35:59			1.000	1.000			ND		0.0234
PCB 134 (BZ)	36:12	119644	13815	1.000	1.000	1.421674	142.17	1.421674		0.0234
PCB 143 (BZ)	36:18			1.000	1.000			ND		0.0234
PCB 139 (BZ)	36:34	135039	26582	1.000	1.000	1.604606	160.46	1.604606		0.0234
PCB 140 (BZ)	36:35			1.000	1.000			ND		0.0234
PCB 131 (BZ)	36:47	60004	13521	1.000	1.000	0.713000	71.30	0.713000		0.0234
PCB 142 (BZ)	36:56	57527	12912	1.000	1.000	0.683567	68.36	0.683567		0.0234
PCB 132 (BZ)	37:15	65309	14572	1.000	1.000	0.776037	77.60	0.776037		0.0234
PCB 133 (BZ)	37:43	66752	14302	1.000	1.000	0.793183	79.32	0.793183		0.0234
PCB 165 (BZ)	38:06	85471	18814	1.000	1.000	1.015612	101.56	1.015612		0.0234
PCB 146 (BZ)	38:22	70740	14500	1.000	1.000	0.840571	84.06	0.840571		0.0234
PCB 161 (BZ)	38:29	82228	15364	1.000	1.000	0.977079	97.71	0.977079	Q	0.0234
PCB 153 (BZ)	38:59	177121	28506	1.000	1.000	2.104647	210.46	2.104647		0.0234
PCB 168 (BZ)	39:01			1.000	1.000			ND		0.0234
PCB 141 (BZ)	39:10	65753	13561	1.000	1.000	0.781312	78.13	0.781312		0.0234
PCB 130 (BZ)	39:36	61264	13390	1.000	1.000	0.727972	72.80	0.727972		0.0234
PCB 137 (BZ)	39:48	58263	14965	1.000	1.000	0.692318	69.23	0.692318	Q	0.0234
PCB 164 (BZ)	39:57	91877	18917	1.000	1.000	1.091732	109.17	1.091732		0.0234
PCB 138 (BZ)	40:15	301040	34295	1.000	1.000	3.577119	357.71	3.577119		0.0234

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PCB's by EPA Method 1668A

Workorder	2990:71CS1	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i1.d	**Prep Date**		**SDG No**	
Analysis ID	104762	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	16:21	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 163 (BZ)	40:14			1.000	1.000			ND		0.0234
PCB 129 (BZ)	40:18			1.000	1.000			ND		0.0234
PCB 160 (BZ)	40:23			1.000	1.000			ND		0.0234
PCB 158 (BZ)	40:37	94624	18501	1.000	1.000	1.124373	112.44	1.124373		0.0234
PCB 166 (BZ)	41:28	158648	21790	1.000	1.000	1.885141	188.51	1.885141		0.0234
PCB 128 (BZ)	41:31			1.000	1.000			ND		0.0234
PCB 159 (BZ)	42:27	90791	18392	1.000	1.000	1.078827	107.88	1.078827		0.0234
PCB 162 (BZ)	42:45	95781	18304	1.000	1.000	1.138121	113.81	1.138121		0.0234
PCB 167 (BZ)	43:14	93623	20282	1.000	1.000	1.102555	110.26	1.102555		0.0189
PCB 156 (BZ)	44:23	195969	27750	1.000	2.000	2.293486	114.67	2.293486		0.0296
PCB 157 (BZ)	44:25			1.000				ND		0.0296
PCB 169 (BZ)	47:36	95596	18580	1.000	1.000	1.182796	118.28	1.182796		0.0197
Total Heptachlorobiphenyl		1481090	285817	1.000		25.075343		25.075343	Q	0.489
13C12-PCB 188	37:36	6741689	1347472	1.000	100.0	119.388470	119.39	119.388470		0.0349
13C12-PCB 178				1.000	1.000			ND		0.0349
13C12-PCB 180	45:44	5646851	1133407	1.000	100.0	100.000000	100.00	100.000000		0.0349
13C12-PCB 170	47:00	4775732	955125	1.000	100.0	84.573367	84.57	84.573367		0.0349
13C12-PCB 189	50:06	9153449	1767631	1.000	100.0	157.876718	157.88	157.876718		0.0356
PCB 188 (BZ)	37:37	71442	14257	1.000	1.000	1.059705	105.97	1.059705		0.0176
PCB 179 (BZ)	37:59	68045	13947	1.000	1.000	1.181601	118.16	1.181601		0.0206
PCB 184 (BZ)	38:28	68248	14159	1.000	1.000	1.185126	118.51	1.185126		0.0206
PCB 176 (BZ)	38:51	68524	13736	1.000	1.000	1.189919	118.99	1.189919		0.0206
PCB 186 (BZ)	39:19	69955	14853	1.000	1.000	1.214768	121.48	1.214768		0.0206
PCB 178 (BZ)	40:40	43595	10605	1.000	1.000	0.757032	75.70	0.757032	Q	0.0206
PCB 175 (BZ)	41:18	50725	11826	1.000	1.000	0.880836	88.08	0.880836	Q	0.0206
PCB 187 (BZ)	41:35	60055	13557	1.000	1.000	1.042855	104.29	1.042855		0.0206
PCB 182 (BZ)	41:47	59187	11036	1.000	1.000	1.027782	102.78	1.027782		0.0206
PCB 183 (BZ)	42:11			1.000	1.000			ND		0.0206
PCB 185 (BZ)	42:18	116406	12278	1.000	1.000	2.021390	202.14	2.021390		0.0206
PCB 174 (BZ)	42:28	55912	9964	1.000	1.000	0.970912	97.09	0.970912		0.0206
PCB 177 (BZ)	42:53	53216	9697	1.000	1.000	0.924096	92.41	0.924096		0.0206
PCB 181 (BZ)	43:15	52105	11613	1.000	1.000	0.904801	90.48	0.904801	Q	0.0206
PCB 171 (BZ)	43:30			1.000	1.000			ND		0.0206
PCB 173 (BZ)	43:30	101223	18558	1.000	1.000	1.757737	175.77	1.757737		0.0206
PCB 172 (BZ)	45:07	53333	12178	1.000	1.000	0.926127	92.61	0.926127		0.0206
PCB 192 (BZ)	45:23	68708	14216	1.000	1.000	1.193114	119.31	1.193114		0.0206
PCB 193 (BZ)	45:45	128739	18889	1.000	1.000	2.235553	223.56	2.235553		0.0206
PCB 180 (BZ)	45:45			1.000	1.000			ND		0.0206
PCB 191 (BZ)	46:06	76647	15193	1.000	1.000	1.330975	133.10	1.330975		0.0206
PCB 170 (BZ)	47:01	46644	10771	1.000	1.000	0.976681	97.67	0.976681	Q	0.0249
PCB 190 (BZ)	47:33	70618	14854	1.000	1.000	1.226275	122.63	1.226275	Q	0.0206
PCB 189 (BZ)	50:07	97764	19631	1.000	1.000	1.068056	106.81	1.068056		0.0134
Total Octachlorobiphenyl		633256	123631	1.000		10.759447		10.759447	Q	0.192
13C12-PCB 202	42:57	5231299	1043654	1.000	100.0	92.640996	92.64	92.640996		0.0337
13C12-PCB 194	52:11	5797846	1110691	1.000	100.0	100.000000	100.00	100.000000		0.0344
13C12-PCB 205	52:39	8122965	1586005	1.000	100.0	140.103152	140.10	140.103152		0.0344
PCB 202 (BZ)	43:00	54130	11513	1.000	1.000	1.034733	103.47	1.034733		0.0175
PCB 200 (BZ)/201 (IUPAC)	43:54	54311	10803	1.000	1.000	1.038194	103.82	1.038194	Q	0.0175
PCB 204 (BZ)	44:35	55073	11718	1.000	1.000	1.052760	105.28	1.052760		0.0175

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS1	Prep Batch		Lot No	
Data File	/20080624i/a080624i1.d	Prep Date		SDG No	
Analysis ID	104762	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	16:21	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 197 (BZ)	44:47	57452	12032	1.000	1.000	1.098236	109.82	1.098236		0.0175
PCB 199 (BZ)/200 (IUPAC)	44:55	49601	10603	1.000	1.000	0.948155	94.82	0.948155	Q	0.0175
PCB 198 (BZ)	47:39	77077	11146	1.000	1.000	1.473382	147.34	1.473382		0.0175
PCB 201 (BZ)/199 (IUPAC)	47:43			1.000	1.000			ND		0.0175
PCB 196 (BZ)	48:22	39987	7734	1.000	1.000	0.764375	76.44	0.764375	Q	0.0175
PCB 203 (BZ)	48:33	47873	10118	1.000	1.000	0.915126	91.51	0.915126		0.0175
PCB 195 (BZ)	49:55	62747	12665	1.000	1.000	0.772464	77.25	0.772464		0.0115
PCB 194 (BZ)	52:12	59766	10185	1.000	1.000	0.735772	73.58	0.735772	Q	0.0115
PCB 205 (BZ)	52:42	75239	15114	1.000	1.000	0.926250	92.63	0.926250		0.0115
Total Nonachlorobiphenyl		195492	37216	1.000		3.390750		3.390750		0.0833
13C12-PCB 208	49:37	6870824	1380368	1.000	100.0	118.506494	118.51	118.506494		0.0293
13C12-PCB 206	54:23	4786936	901949	1.000	100.0	82.564042	82.56	82.564042		0.0293
PCB 208 (BZ)	49:39	66961	12778	1.000	1.000	0.974570	97.46	0.974570		0.0223
PCB 207 (BZ)	50:34	71998	14279	1.000	1.000	1.235194	123.52	1.235194		0.0269
PCB 206 (BZ)	54:25	56533	10159	1.000	1.000	1.180985	118.10	1.180985		0.0341
13C12-PCB 209	56:00	5163858	909896	1.000	100.0	89.065111	89.07	89.065111		0.0416
PCB 209 (BZ)	56:02	54445	9904	1.000	1.000	1.054347	105.43	1.054347		0.0137

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Data File	/20080624i/a080624i1.d	Prep Date		SDG No	
Analysis ID	104762	Prep Exp Date		Date Received	
Analysis Date	06/24/08 16:21	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60	
	Noise	00:00	00:00	0	93	100	37	40	0.93 *	/
	PCB 1 (BZ)	12:01	00:00	0	114840	36271	54027	15190	3.17	ABB/ABB
	PCB 2 (BZ)	14:01	00:00	0	114413	33466	42341	13945	3.42	ABV/ABV
	PCB 3 (BZ)	14:12	00:00	0	112747	35979	37893	12674	3.13	AVB/AVB
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60	
	Noise	00:00	00:00	0	333	393	133	157	0.85 *	/
	13C12-PCB 1	12:00	00:00	0	8585434	2708534	3762342	1177101	3.17	AVV/AVV
	13C12-PCB 3	14:12	00:00	0	9040282	2762284	3073147	907855	3.27	ABV/ABV
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79	
	Noise	00:00	00:00	0	138	275	55	110	0.50 *	/
	PCB 4 (BZ)	14:28	00:00	0	34654	23129	12689	6997	1.50	ABV/ABB
	PCB 10 (BZ)	14:38	00:00	0	50615	36970	17409	10993	1.37	AVB/ABV
	PCB 9 (BZ)	16:26	00:00	0	56362	33935	16367	9867	1.66	ABV/ABV
	PCB 7 (BZ)	16:37	00:00	0	54682	38986	17072	9993	1.40	AVV/MVV
	PCB 6 (BZ)	16:52	00:00	0	53660	39015	16671	11281	1.38	AVB/AVB
	PCB 5 (BZ)	17:11	00:00	0	58229	39511	15530	13263	1.47	ABV/MVV
	PCB 8 (BZ)	17:18	00:00	0	59636	39748	15758	12570	1.50	AVB/AVB
	PCB 14 (BZ)	18:55	00:00	0	64180	42257	15910	11791	1.52	ABB/ABB
	PCB 11 (BZ)	19:47	00:00	0	59528	38659	14459	9806	1.54	ABV/AVV
	PCB 13 (BZ)	20:06	00:00	0	110790	79019	18122	13816	1.40	ABV/AVV
	PCB 12 (BZ)	20:07	00:00	0	0	0	0	0	0.00 *	/
	PCB 15 (BZ)	20:25	00:00	0	63945	40225	16632	9152	1.59	ABB/AVV
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79	
	Noise	00:00	00:00	0	415	245	166	98	1.69	/
	13C12-PCB 4	14:28	00:00	0	2867023	1793925	891188	558132	1.60	AVV/ABV
	13C12-PCB 9	16:26	00:00	0	4703366	2953004	1354095	838796	1.59	AVV/ABV
	13C12-PCB 15	20:24	00:00	0	5141097	3205460	1351434	835251	1.60	AVV/ABV
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	Noise	00:00	00:00	0	150	143	60	57	1.05	/
	PCB 19 (BZ)	17:37	00:00	0	17708	14938	5904	5223	1.19	MBB/MBB
	PCB 30 (BZ)	19:26	00:00	0	51962	48569	9539	7816	1.07	ABB/ABB
	PCB 18 (BZ)	19:30	00:00	0	0	0	0	0	0.00 *	/
	PCB 17 (BZ)	19:54	00:00	0	21271	22652	5372	6872	0.94	ABB/ABB
	PCB 27 (BZ)	20:08	00:00	0	31102	33698	7561	7621	0.92	ABV/ABV
	PCB 24 (BZ)	20:16	00:00	0	26064	22284	7401	6396	1.17	AVV/AVV
	PCB 16 (BZ)	20:23	00:00	0	16020	17075	3393	4798	0.94	AVB/AVV
	PCB 32 (BZ)	20:54	00:00	0	28470	32271	7539	8885	0.88	ABB/ABB
	PCB 34 (BZ)	22:09	00:00	0	73969	63648	17758	17971	1.16	ABV/ABV
	PCB 23 (BZ)	22:18	00:00	0	70963	61932	18236	15084	1.15	AVB/AVB
	PCB 26 (BZ)	22:37	00:00	0	131209	132399	32720	30300	0.99	ABV/ABV
	PCB 29 (BZ)	22:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 25 (BZ)	22:51	00:00	0	81255	73713	17843	16505	1.10	AVB/AVB
	PCB 31 (BZ)	23:10	00:00	0	71484	72157	17744	16758	0.99	ABB/ABB

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Analysis ID	104762	Prep Exp Date		Date Received	
Analysis Date	06/24/08 16:21	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	PCB 28 (BZ)	23:29	00:00	0	138199	133196	25280	23664	1.04	ABV/ABV
	PCB 20 (BZ)	23:30	00:00	0	0	0	0	0	0.00 *	/
	PCB 21 (BZ)	23:39	00:00	0	135098	127556	18013	17429	1.06	AVB/AVB
	PCB 33 (BZ)	23:43	00:00	0	0	0	0	0	0.00 *	/
	PCB 22 (BZ)	24:06	00:00	0	70324	64474	16432	14780	1.09	AVB/ABB
	PCB 36 (BZ)	25:40	00:00	0	66958	59501	14651	13118	1.13	ABV/AVV
	PCB 39 (BZ)	26:01	00:00	0	72332	72660	16741	17062	1.00	ABV/ABB
	PCB 38 (BZ)	26:36	00:00	0	59367	61387	11416	13017	0.97	ABV/ABB
	PCB 35 (BZ)	27:04	00:00	0	65577	68042	14869	15733	0.96	ABV/ABV
	PCB 37 (BZ)	27:30	00:00	0	66557	65416	13780	15159	1.02	ABB/AVB
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20	
	Noise	00:00	00:00	0	575	278	230	111	2.07 *	/
	13C12-PCB 19	17:36	00:00	0	1605193	1527952	477168	464276	1.05	AVV/AVV
	13C12-PCB 32	20:53	00:00	0	2831361	2653061	723418	669645	1.07	AVV/AVV
	13C12-PCB 31	23:09	00:00	0	6542627	6204501	1559909	1479711	1.05	ABV/ABV
	13C12-PCB 37	27:28	00:00	0	5893688	5539466	1320070	1260651	1.06	ABV/ABV
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	Noise	00:00	00:00	0	120	180	48	72	0.67	/
	PCB 54 (BZ)	20:43	00:00	0	17142	24299	4457	6327	0.71	ABB/ABB
	PCB 53 (BZ)	22:54	00:00	0	62915	79552	13571	18593	0.79	ABB/ABB
	PCB 50 (BZ)	22:55	00:00	0	0	0	0	0	0.00 *	/
	PCB 45 (BZ)	23:37	00:00	0	61166	74083	8657	10847	0.83	ABB/ABV
	PCB 51 (BZ)	23:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 46 (BZ)	23:53	00:00	0	27384	30700	7174	7525	0.89 *	ABB/AVB
	PCB 52 (BZ)	25:19	00:00	0	33788	40452	7753	9921	0.84	ABV/ABV
	PCB 73 (BZ)	25:26	00:00	0	63983	78767	10070	12236	0.81	AVB/AVV
	PCB 43 (BZ)	25:32	00:00	0	0	0	0	0	0.00 *	/
	PCB 69 (BZ)	25:46	00:00	0	68400	100565	9011	13136	0.68	ABB/AVB
	PCB 49 (BZ)	25:48	00:00	0	0	0	0	0	0.00 *	/
	PCB 48 (BZ)	26:04	00:00	0	31209	41386	7943	10387	0.75	ABV/ABB
	PCB 44 (BZ)	26:19	00:00	0	97357	130464	18007	26066	0.75	AVV/ABV
	PCB 65 (BZ)	26:19	00:00	0	0	0	0	0	0.00 *	/
	PCB 47 (BZ)	26:20	00:00	0	0	0	0	0	0.00 *	/
	PCB 62 (BZ)	26:35	00:00	0	0	0	0	0	0.00 *	/
	PCB 75 (BZ)	26:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 59 (BZ)	26:39	00:00	0	122805	149697	18332	26009	0.82	AVV/AVV
	PCB 42 (BZ)	26:50	00:00	0	32774	41439	7303	9117	0.79	AVB/AVB
	PCB 41 (BZ)	27:13	00:00	0	0	0	0	0	0.00 *	/
	PCB 71 (BZ)	27:20	00:00	0	83930	114344	15319	18350	0.73	AVV/ABB
	PCB 40 (BZ)	27:21	00:00	0	0	0	0	0	0.00 *	/
	PCB 64 (BZ)	27:33	00:00	0	46872	58678	10339	12889	0.80	AVB/ABB
	PCB 72 (BZ)	28:22	00:00	0	40865	53130	10246	13918	0.77	ABB/ABB
	PCB 68 (BZ)	28:38	00:00	0	44496	56465	10668	13365	0.79	AVV/AVV

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Analysis Date	06/24/08 16:21	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	PCB 57 (BZ)	29:04	00:00	0	41536	52379	8466	11312	0.79	ABB/ABV	
	PCB 58 (BZ)	29:19	00:00	0	37544	49933	8628	12081	0.75	ABV/AVV	
	PCB 67 (BZ)	29:29	00:00	0	45931	59559	8744	13787	0.77	AVB/AVV	
	PCB 63 (BZ)	29:45	00:00	0	42608	47892	8743	10203	0.89 *	MBB/MVV	
	PCB 61 (BZ)	29:59	00:00	0	0	0	0	0	0.00 *	/	
	PCB 76 (BZ)	30:06	00:00	0	0	0	0	0	0.00 *	/	
	PCB 70 (BZ)	30:06	00:00	0	171035	226078	21742	28105	0.76	ABB/ABB	
	PCB 74 (BZ)	30:09	00:00	0	0	0	0	0	0.00 *	/	
	PCB 66 (BZ)	30:24	00:00	0	45303	61190	9792	13266	0.74	ABV/ABV	
	PCB 55 (BZ)	30:35	00:00	0	38291	48720	9702	12206	0.79	AVV/AVB	
	PCB 56 (BZ)	31:06	00:00	0	43007	50818	8459	10497	0.85	ABV/ABV	
	PCB 60 (BZ)	31:18	00:00	0	43008	52743	9319	10632	0.82	AVB/AVB	
	PCB 80 (BZ)	31:41	00:00	0	46471	56097	9771	12999	0.83	ABB/AVV	
	PCB 79 (BZ)	33:13	00:00	0	42609	66227	9673	14837	0.64 *	ABV/ABV	R
	PCB 78 (BZ)	33:47	00:00	0	42383	51536	8743	10713	0.82	ABV/AVV	
	PCB 81 (BZ)	34:14	00:00	0	38373	54884	8433	10441	0.70	ABB/ABV	
	PCB 77 (BZ)	34:48	00:00	0	42137	55955	9972	11125	0.75	ABB/ABV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	170	165	68	66	1.03 *	/	
	13C12-PCB 54	20:43	00:00	0	1496351	1855960	383055	466524	0.81	ABV/ABV	
	13C12-PCB 52	25:17	00:00	0	2633134	3334048	609982	790180	0.79	ABV/ABV	
	13C12-PCB 81	34:13	00:00	0	3470802	4290948	719833	885935	0.81	ABV/ABV	
	13C12-PCB 77	34:47	00:00	0	3515702	4444166	738812	932260	0.79	AVV/AVV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	165	140	66	56	1.18 *	/	
	PCB 104 (BZ)	26:15	00:00	0	38210	24035	10143	5632	1.59	ABB/ABB	
	PCB 96 (BZ)	26:38	00:00	0	33505	20640	8421	4809	1.62	ABB/ABB	
	PCB 103 (BZ)	28:32	00:00	0	29084	19251	6685	5288	1.51	ABB/ABB	
	PCB 94 (BZ)	28:48	00:00	0	26895	18184	5415	4548	1.48	ABB/ABB	
	PCB 95 (BZ)	29:14	00:00	0	26852	16773	6924	3553	1.60	ABB/ABV	
	PCB 100 (BZ)	29:26	00:00	0	60859	33493	12297	6459	1.82 *	ABV/AVV	R
	PCB 93 (BZ)	29:28	00:00	0	0	0	0	0	0.00 *	/	
	PCB 102 (BZ)	29:35	00:00	0	0	0	0	0	0.00 *	/	
	PCB 98 (BZ)	29:39	00:00	0	66219	33906	8022	4696	1.95 *	AVB/AVB	R
	PCB 88 (BZ)	29:59	00:00	0	0	0	0	0	0.00 *	/	
	PCB 91 (BZ)	30:06	00:00	0	52903	34573	7172	4478	1.53	ABB/ABB	
	PCB 84 (BZ)	30:20	00:00	0	27467	14918	6210	3620	1.84 *	ABB/ABB	R
	PCB 89 (BZ)	30:49	00:00	0	26681	16238	5596	3927	1.64	ABB/ABB	
	PCB 121 (BZ)	31:09	00:00	0	39237	22079	9346	5663	1.78 *	ABB/ABB	
	PCB 92 (BZ)	31:34	00:00	0	34564	17115	8735	3795	2.02 *	ABB/ABB	R
	PCB 113 (BZ)	32:08	00:00	0	99869	62429	15638	9743	1.60	ABB/ABV	
	PCB 90 (BZ)	32:09	00:00	0	0	0	0	0	0.00 *	/	
	PCB 101 (BZ)	32:09	00:00	0	0	0	0	0	0.00 *	/	

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Data File	/20080624i/a080624i1.d	Prep Date		SDG No	
Analysis ID	104762	Prep Exp Date		Date Received	
Analysis Date	06/24/08 16:21	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**		
	PCB 83 (BZ)	32:38	00:00	0	0	0	0	0	0.00 *	/	
	PCB 99 (BZ)	32:45	00:00	0	54887	34239	7260	4835	1.60	ABV/ABV	
	PCB 112 (BZ)	32:51	00:00	0	34455	26333	6600	6101	1.31 *	AVB/AVB	R
	PCB 109 (BZ)/108 (IUPAC	33:14	00:00	0	190973	127147	20112	12768	1.50	ABB/ABB	
	PCB 119 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/	
	PCB 86 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/	
	PCB 97 (BZ)	33:15	00:00	0	0	0	0	0	0.00 *	/	
	PCB 125 (BZ)	33:19	00:00	0	0	0	0	0	0.00 *	/	
	PCB 87 (BZ)	33:21	00:00	0	0	0	0	0	0.00 *	/	
	PCB 117 (BZ)	33:51	00:00	0	0	0	0	0	0.00 *	/	
	PCB 116 (BZ)	33:57	00:00	0	104860	62812	12506	7925	1.67	ABV/ABV	
	PCB 85 (BZ)	33:58	00:00	0	0	0	0	0	0.00 *	/	
	PCB 110 (BZ)	34:10	00:00	0	81731	47454	13689	7084	1.72	AVB/AVB	
	PCB 115 (BZ)	34:12	00:00	0	0	0	0	0	0.00 *	/	
	PCB 82 (BZ)	34:28	00:00	0	23096	13134	5991	2870	1.76	ABB/ABB	
	PCB 111 (BZ)	34:49	00:00	0	41592	25878	10555	5500	1.61	MBB/ABB	
	PCB 120 (BZ)	35:17	00:00	0	37043	27758	7604	6610	1.33	ABB/ABB	
	PCB 108 (BZ)/107 (IUPAC	36:26	00:00	0	119062	70989	25128	15777	1.68	ABV/ABV	
	PCB 124 (BZ)	36:27	00:00	0	0	0	0	0	0.00 *	/	
	PCB 107 (BZ)/109 (IUPAC	36:40	00:00	0	62027	38775	12243	7930	1.60	AVV/AVV	
	PCB 123 (BZ)	36:47	00:00	0	63996	40578	13938	8230	1.58	AVV/AVV	
	PCB 106 (BZ)	36:55	00:00	0	59132	40759	11797	8643	1.45	AVV/AVV	
	PCB 118 (BZ)	37:07	00:00	0	65328	44057	14896	7836	1.48	AVB/AVB	
	PCB 122 (BZ)	37:28	00:00	0	59891	36321	12093	9019	1.65	ABV/ABV	
	PCB 114 (BZ)	37:40	00:00	0	67499	43712	13303	7922	1.54	AVB/AVB	
	PCB 105 (BZ)	38:19	00:00	0	60547	44852	12327	9281	1.35	MBV/MBV	
	PCB 127 (BZ)	39:45	00:00	0	62118	38564	12459	7524	1.61	AVB/AVV	
	PCB 126 (BZ)	41:23	00:00	0	58841	41251	12112	8608	1.43	MBB/MVV	
338					**337.9207**	**339.9178**	**337.9207**	**339.9178**	**1.32-1.78**		
	Noise	00:00	00:00	0	245	195	98	78	1.26 *	/	
	13C12-PCB 104	26:14	00:00	0	3370944	2050613	754483	455924	1.64	ABV/ABV	
	13C12-PCB 101	32:08	00:00	0	2638043	1578872	546525	323600	1.67	AVV/ABV	
	13C12-PCB 123	36:46	00:00	0	5850576	3631134	1217823	755399	1.61	ABV/ABV	
	13C12-PCB 118	37:06	00:00	0	6086599	3806582	1267068	798187	1.60	AVV/AVV	
	13C12-PCB 114	37:37	00:00	0	5888759	3670895	1211896	765432	1.60	AVV/AVV	
	13C12-PCB 105	38:18	00:00	0	5832041	3646729	1156912	731598	1.60	AVV/AVV	
	13C12-PCB 127	39:44	00:00	0	6153673	3878403	1260392	804167	1.59	ABV/ABV	
	13C12-PCB 126	41:21	00:00	0	6064592	3863054	1218785	773853	1.57	ABV/AVV	
360					**359.8415**	**361.8385**	**359.8415**	**361.8385**	**1.05-1.43**		
	Noise	00:00	00:00	0	168	158	67	63	1.06	/	
	PCB 155 (BZ)	31:54	00:00	0	29286	22166	5913	5351	1.32	ABB/ABB	
	PCB 152 (BZ)	32:09	00:00	0	29613	23196	6733	5325	1.28	ABV/ABV	
	PCB 150 (BZ)	32:18	00:00	0	25204	23245	6159	4831	1.08	AVB/AVB	

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS1	Prep Batch		Lot No	
Data File	/20080624i/a080624i1.d	Prep Date		SDG No	
Analysis ID	104762	Prep Exp Date		Date Received	
Analysis Date	06/24/08 16:21	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	PCB 136 (BZ)	32:40	00:00	0	24234	20952	5859	4541	1.16	ABB/ABV	
	PCB 145 (BZ)	32:57	00:00	0	28150	20784	5879	3955	1.35	ABB/AVB	
	PCB 148 (BZ)	34:26	00:00	0	23002	15171	5971	3139	1.52 *	ABB/ABB	R
	PCB 151 (BZ)	35:05	00:00	0	34498	31343	5002	4217	1.10	ABV/ABV	
	PCB 135 (BZ)	35:07	00:00	0	0	0	0	0	0.00 *	/	
	PCB 154 (BZ)	35:18	00:00	0	26551	18232	6479	4130	1.46 *	AVV/AVB	R
	PCB 144 (BZ)	35:37	00:00	0	19584	16935	4114	4054	1.16	ABB/ABB	
	PCB 147 (BZ)	35:58	00:00	0	82033	69253	15298	12513	1.18	ABV/ABV	
	PCB 149 (BZ)	35:59	00:00	0	0	0	0	0	0.00 *	/	
	PCB 134 (BZ)	36:12	00:00	0	62827	56817	7019	6796	1.11	AVB/AVB	
	PCB 143 (BZ)	36:18	00:00	0	0	0	0	0	0.00 *	/	
	PCB 139 (BZ)	36:34	00:00	0	74314	60725	15108	11474	1.22	ABV/ABV	
	PCB 140 (BZ)	36:35	00:00	0	0	0	0	0	0.00 *	/	
	PCB 131 (BZ)	36:47	00:00	0	33801	26203	7818	5703	1.29	AVV/AVV	
	PCB 142 (BZ)	36:56	00:00	0	31775	25752	7842	5070	1.23	AVB/AVB	
	PCB 132 (BZ)	37:15	00:00	0	36637	28672	7306	7266	1.28	ABB/ABB	
	PCB 133 (BZ)	37:43	00:00	0	36295	30457	7408	6894	1.19	ABB/ABB	
	PCB 165 (BZ)	38:06	00:00	0	45514	39957	9803	9011	1.14	ABB/ABV	
	PCB 146 (BZ)	38:22	00:00	0	37675	33065	9310	5190	1.14	ABV/AVV	
	PCB 161 (BZ)	38:29	00:00	0	54789	36709	10375	6859	1.49 *	AVB/AVB	R
	PCB 153 (BZ)	38:59	00:00	0	101185	75936	16505	12001	1.33	ABV/ABV	
	PCB 168 (BZ)	39:01	00:00	0	0	0	0	0	0.00 *	/	
	PCB 141 (BZ)	39:10	00:00	0	36126	29627	7842	5719	1.22	AVB/AVB	
	PCB 130 (BZ)	39:36	00:00	0	32909	28355	7129	6261	1.16	ABB/ABB	
	PCB 137 (BZ)	39:48	00:00	0	32253	33674	8284	6529	0.96 *	ABV/ABV	R
	PCB 164 (BZ)	39:57	00:00	0	47934	43943	9817	9100	1.09	AVB/AVB	
	PCB 163 (BZ)	40:14	00:00	0	0	0	0	0	0.00 *	/	
	PCB 138 (BZ)	40:15	00:00	0	162829	138211	17812	16483	1.18	ABV/ABB	
	PCB 129 (BZ)	40:18	00:00	0	0	0	0	0	0.00 *	/	
	PCB 160 (BZ)	40:23	00:00	0	0	0	0	0	0.00 *	/	
	PCB 158 (BZ)	40:37	00:00	0	52533	42091	10213	8288	1.25	AVB/ABB	
	PCB 166 (BZ)	41:28	00:00	0	93339	65309	12927	8863	1.43 *	AVV/ABB	
	PCB 128 (BZ)	41:31	00:00	0	0	0	0	0	0.00 *	/	
	PCB 159 (BZ)	42:27	00:00	0	49532	41259	9701	8691	1.20	ABB/ABB	
	PCB 162 (BZ)	42:45	00:00	0	55626	40155	11520	6784	1.39	ABB/ABB	
	PCB 167 (BZ)	43:14	00:00	0	50351	43272	11939	8343	1.16	MVB/ABB	
	PCB 156 (BZ)	44:23	00:00	0	107275	88694	15050	12700	1.21	ABV/ABB	
	PCB 157 (BZ)	44:25	00:00	0	0	0	0	0	0.00 *	/	
	PCB 169 (BZ)	47:36	00:00	0	52695	42901	10649	7931	1.23	ABB/ABB	
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	210	245	84	98	0.86 *	/	
	13C12-PCB 155	31:53	00:00	0	2611570	1991785	545417	418734	1.31	ABV/ABV	
	13C12-PCB 138	40:13	00:00	0	3858609	3027976	804098	622711	1.27	ABV/ABV	

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS1	Prep Batch		Lot No	
Data File	/20080624i/a080624i1.d	Prep Date		SDG No	
Analysis ID	104762	Prep Exp Date		Date Received	
Analysis Date	06/24/08 16:21	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	13C12-PCB 167	43:12	00:00	0	4744106	3747353	954579	769407	1.27	AVV/AVV	
	13C12-PCB 157	44:22	00:00	0	0	0	0	0	0.00 *	/	
	13C12-PCB 156	44:23	00:00	0	9583330	7505851	1244048	952161	1.28	ABV/AVV	
	13C12-PCB 169	47:35	00:00	0	4501182	3581025	906026	740754	1.26	ABV/ABV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	130	108	52	43	1.21	/	
	PCB 188 (BZ)	37:37	00:00	0	33687	37755	6449	7808	0.89	ABB/ABB	
	PCB 179 (BZ)	37:59	00:00	0	34904	33141	6549	7398	1.05	ABB/ABB	
	PCB 184 (BZ)	38:28	00:00	0	36150	32098	7082	7077	1.13	ABB/ABB	
	PCB 176 (BZ)	38:51	00:00	0	34871	33653	6887	6849	1.04	ABB/ABB	
	PCB 186 (BZ)	39:19	00:00	0	36056	33899	7774	7079	1.06	ABB/ABB	
	PCB 178 (BZ)	40:40	00:00	0	27204	21266	6355	5173	1.28 *	ABB/ABB	R
	PCB 175 (BZ)	41:18	00:00	0	25981	30270	6057	7015	0.86 *	ABB/ABB	R
	PCB 187 (BZ)	41:35	00:00	0	30309	29746	7356	6201	1.02	ABV/ABV	
	PCB 182 (BZ)	41:47	00:00	0	31356	27831	5736	5300	1.13	AVB/AVB	
	PCB 183 (BZ)	42:11	00:00	0	0	0	0	0	0.00 *	/	
	PCB 185 (BZ)	42:18	00:00	0	59762	56644	6865	5413	1.06	ABV/ABV	
	PCB 174 (BZ)	42:28	00:00	0	27923	27989	5068	4896	1.00	AVB/AVB	
	PCB 177 (BZ)	42:53	00:00	0	28020	25196	4461	5236	1.11	ABB/ABB	
	PCB 181 (BZ)	43:15	00:00	0	31203	25417	7162	5665	1.23 *	ABV/ABB	R
	PCB 173 (BZ)	43:30	00:00	0	51328	49895	9516	9042	1.03	AVB/ABB	
	PCB 171 (BZ)	43:30	00:00	0	0	0	0	0	0.00 *	/	
	PCB 172 (BZ)	45:07	00:00	0	27663	25670	6220	5958	1.08	ABB/ABB	
	PCB 192 (BZ)	45:23	00:00	0	37425	31283	7290	6926	1.20	ABB/ABB	
	PCB 193 (BZ)	45:45	00:00	0	69354	59385	8701	10188	1.17	ABB/ABB	
	PCB 180 (BZ)	45:45	00:00	0	0	0	0	0	0.00 *	/	
	PCB 191 (BZ)	46:06	00:00	0	38449	38198	7835	7358	1.01	ABB/ABB	
	PCB 170 (BZ)	47:01	00:00	0	29675	22753	7423	5254	1.30 *	ABB/ABB	R
	PCB 190 (BZ)	47:33	00:00	0	36170	41269	7608	8418	0.88 *	ABV/ABV	R
	PCB 189 (BZ)	50:07	00:00	0	51912	45852	10797	8834	1.13	ABB/ABB	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	210	185	84	74	1.14	/	
	13C12-PCB 188	37:36	00:00	0	3442282	3299407	679943	667529	1.04	ABV/ABV	
	13C12-PCB 180	45:44	00:00	0	2912444	2734407	586271	547136	1.07	ABV/ABV	
	13C12-PCB 170	47:00	00:00	0	2457881	2317851	492052	463073	1.06	AVV/ABV	
	13C12-PCB 189	50:06	00:00	0	4705150	4448299	907492	860139	1.06	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	90	93	36	37	0.97	/	
	PCB 202 (BZ)	43:00	00:00	0	26035	28095	5406	6107	0.93	ABB/ABB	
	PCB 200 (BZ)/201 (IUPAC	43:54	00:00	0	29459	28736	5618	5716	1.03 *	ABB/ABB	R
	PCB 204 (BZ)	44:35	00:00	0	26399	28674	5225	6493	0.92	ABB/ABB	
	PCB 197 (BZ)	44:47	00:00	0	28864	28588	5412	6620	1.01	ABV/ABV	
	PCB 199 (BZ)/200 (IUPAC	44:55	00:00	0	23357	31032	4993	6855	0.75 *	AVB/AVB	R

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS1	Prep Batch		Lot No	
Data File	/20080624i/a080624i1.d	Prep Date		SDG No	
Analysis ID	104762	Prep Exp Date		Date Received	
Analysis Date	06/24/08 16:21	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**		
	PCB 198 (BZ)	47:39	00:00	0	38727	38350	5408	5738	1.01	ABB/ABB	
	PCB 201 (BZ)/199 (IUPAC	47:43	00:00	0	0	0	0	0	0.00 *	/	
	PCB 196 (BZ)	48:22	00:00	0	21760	21157	4729	4092	1.03 *	ABB/ABV	R
	PCB 203 (BZ)	48:33	00:00	0	21948	25925	4646	5472	0.85	ABB/AVB	
	PCB 195 (BZ)	49:55	00:00	0	28678	34069	5781	6884	0.84	ABB/ABB	
	PCB 194 (BZ)	52:12	00:00	0	28144	38047	4796	6627	0.74 *	ABB/ABB	R
	PCB 205 (BZ)	52:42	00:00	0	35943	39296	7051	8063	0.91	ABB/ABB	
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**		
	Noise	00:00	00:00	0	165	218	66	87	0.76	/	
	13C12-PCB 202	42:57	00:00	0	2489088	2742211	492875	550779	0.91	ABV/ABV	
	13C12-PCB 194	52:11	00:00	0	2776449	3021397	530636	580055	0.92	ABV/ABV	
	13C12-PCB 205	52:39	00:00	0	3860843	4262122	774790	811215	0.91	AVV/AVV	
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**		
	Noise	00:00	00:00	0	125	183	50	73	0.68	/	
	PCB 208 (BZ)	49:39	00:00	0	29192	37769	5190	7588	0.77	ABB/AVB	
	PCB 207 (BZ)	50:34	00:00	0	29091	42907	5928	8351	0.68	ABB/ABB	
	PCB 206 (BZ)	54:25	00:00	0	22741	33792	3905	6254	0.67	ABB/ABB	
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**		
	Noise	00:00	00:00	0	153	173	61	69	0.88	/	
	13C12-PCB 208	49:37	00:00	0	3059030	3811794	613003	767365	0.80	AVV/AVV	
	13C12-PCB 206	54:23	00:00	0	2095777	2691159	389439	512510	0.78	ABV/ABV	
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**		
	Noise	00:00	00:00	0	68	58	27	23	1.17 *	/	
	PCB 209 (BZ)	56:02	00:00	0	21209	33236	3796	6108	0.64	ABB/ABB	
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**		
	Noise	00:00	00:00	0	390	73	156	29	5.38 *	/	
	13C12-PCB 209	56:00	00:00	0	2161248	3002610	384710	525186	0.72	ABV/ABV	

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TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS2	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i2.d	**Prep Date**		**SDG No**	
Analysis ID	104731	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	17:22	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
Total Monochlorobiphenyl		2333622	873269	1.000		18.813485		18.813485	0.0157
13C12-PCB 1	12:01	12284380	5066163	1.000	100.0	150.644025	150.64	150.644025	0.0235
13C12-PCB 3	14:12	12527903	4398752	1.000	100.0	153.630361	153.63	153.630361	0.0235
PCB 1 (BZ)	12:01	803014	340764	1.000	5.000	6.536870	130.74	6.536870	0.00489
PCB 2 (BZ)	14:02	753410	252931	1.000	5.000	6.072879	121.46	6.072879	0.00523
PCB 3 (BZ)	14:13	777198	279574	1.000	5.000	6.203736	124.07	6.203736	0.00563
Total Dichlorobiphenyl		5740281	1555781	1.000		85.293515		85.293515	0.351
13C12-PCB 4	14:27	5018455	1726607	1.000	100.0	61.541589	61.54	61.541589	0.0252
13C12-PCB 9	16:26	8154575	2500577	1.000	100.0	100.000000	100.00	100.000000	0.0252
13C12-PCB 8	17:17	536396	149841	1.000	5.000	7.970636	159.41	7.970636	0.0326
13C12-PCB 15	20:24	8440848	2139164	1.000	100.0	103.510581	103.51	103.510581	0.0252
PCB 4 (BZ)	14:29	312131	102910	1.000	5.000	6.219663	124.39	6.219663	0.0327
PCB 10 (BZ)	14:39	452630	153644	1.000	5.000	6.725905	134.52	6.725905	0.0292
PCB 9 (BZ)	16:27	483780	143744	1.000	5.000	7.188782	143.78	7.188782	0.0292
PCB 7 (BZ)	16:37	490164	140051	1.000	5.000	7.283646	145.67	7.283646	0.0292
PCB 6 (BZ)	16:52	499165	154289	1.000	5.000	7.417397	148.35	7.417397	0.0292
PCB 5 (BZ)	17:11	459241	139272	1.000	5.000	6.824142	136.48	6.824142	0.0292
PCB 8 (BZ)	17:19	502490	140251	1.000	5.000	7.466806	149.34	7.466806	0.0292
PCB 14 (BZ)	18:56	573834	157876	1.000	5.000	8.526950	170.54	8.526950	0.0292
PCB 11 (BZ)	19:47	500943	134974	1.000	5.000	7.443818	148.88	7.443818	0.0292
PCB 13 (BZ)	20:06	939309	154616	1.000	5.000	13.957766	279.16	13.957766	0.0292
PCB 12 (BZ)	20:07			1.000	5.000			ND	0.0292
PCB 15 (BZ)	20:25	526594	134154	1.000	5.000	6.238639	124.77	6.238639	0.0264
Total Trichlorobiphenyl		12574302	2699118	1.000		154.445914		154.445914	0.679
13C12-PCB 19	17:36	3187567	923905	1.000	100.0	57.546940	57.55	57.546940	0.0619
13C12-PCB 32	20:53	5539073	1381796	1.000	100.0	100.000000	100.00	100.000000	0.0619
13C12-PCB 31	23:08	12997968	3234067	1.000	100.0	100.000000	100.00	100.000000	0.0264
13C12-PCB 28	23:26	692576	155153	1.000	5.000	5.328341	106.57	5.328341	0.0264
13C12-PCB 37	27:28	11373846	2583682	1.000	100.0	87.504801	87.50	87.504801	0.0264
PCB 19 (BZ)	17:38	186938	54612	1.000	5.000	5.864598	117.29	5.864598	0.0495
PCB 30 (BZ)	19:26	485929	79440	1.000	5.000	15.244511	304.89	15.244511	0.0495
PCB 18 (BZ)	19:30			1.000	5.000			ND	0.0495
PCB 17 (BZ)	19:55	210060	52855	1.000	5.000	6.589979	131.80	6.589979	0.0495
PCB 27 (BZ)	20:07	302305	78118	1.000	5.000	9.483879	189.68	9.483879	0.0495
PCB 24 (BZ)	20:15	271189	70179	1.000	5.000	8.507711	170.15	8.507711	0.0495
PCB 16 (BZ)	20:23	184242	49852	1.000	5.000	5.780020	115.60	5.780020	0.0495
PCB 32 (BZ)	20:54	303172	77271	1.000	5.000	9.511079	190.22	9.511079	0.0495
PCB 34 (BZ)	22:09	656369	161222	1.000	5.000	5.770862	115.42	5.770862	0.0177
PCB 23 (BZ)	22:18	648628	166559	1.000	5.000	5.702803	114.06	5.702803	0.0177
PCB 29 (BZ)	22:38			1.000	5.000			ND	0.0177
PCB 26 (BZ)	22:38	1333690	299821	1.000	5.000	11.725937	234.52	11.725937	0.0177
PCB 25 (BZ)	22:51	735573	168381	1.000	5.000	6.467232	129.34	6.467232	0.0177
PCB 31 (BZ)	23:09	685536	159591	1.000	5.000	6.027302	120.55	6.027302	0.0177
PCB 28 (BZ)	23:28	1341009	227558	1.000	5.000	11.790286	235.81	11.790286	0.0177
PCB 20 (BZ)	23:30			1.000	5.000			ND	0.0177
PCB 21 (BZ)	23:38			1.000	5.000			ND	0.0177
PCB 33 (BZ)	23:43	1322820	162049	1.000	5.000	11.630367	232.61	11.630367	0.0177
PCB 22 (BZ)	24:06	662449	147744	1.000	5.000	5.824318	116.49	5.824318	0.0177
PCB 36 (BZ)	25:39	665805	157993	1.000	5.000	5.853825	117.08	5.853825	0.0177

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PCB's by EPA Method 1668A

Workorder	2990:71CS2	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i2.d	**Prep Date**		**SDG No**	
Analysis ID	104731	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	17:22	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 39 (BZ)	26:01	678958	153598	1.000	5.000	5.969467	119.39	5.969467	0.0177
PCB 38 (BZ)	26:36	610050	136987	1.000	5.000	5.363621	107.27	5.363621	0.0177
PCB 35 (BZ)	27:05	643644	145631	1.000	5.000	5.658983	113.18	5.658983	0.0177
PCB 37 (BZ)	27:29	645936	149657	1.000	5.000	5.679134	113.58	5.679134	0.0177
Total Tetrachlorobiphenyl		17436885	3289707	1.000		224.523582		224.523582	1.30
13C12-PCB 54	20:43	3381443	891934	1.000	100.0	61.047092	61.05	61.047092	0.0235
13C12-PCB 52	25:17	6066250	1404549	1.000	100.0	100.000000	100.00	100.000000	0.0231
13C12-PCB 79	33:12	421450	88590	1.000	5.000	5.345727	106.91	5.345727	0.0199
13C12-PCB 81	34:12	7761402	1591037	1.000	100.0	127.943985	127.94	127.943985	0.0231
13C12-PCB 77	34:47	8006331	1671965	1.000	100.0	131.981554	131.98	131.981554	0.0231
PCB 54 (BZ)	20:44	198364	48963	1.000	5.000	5.866253	117.33	5.866253	0.0555
PCB 50 (BZ)	22:55			1.000	5.000			ND	0.0303
PCB 53 (BZ)	22:55	694850	157174	1.000	5.000	8.813569	176.27	8.813569	0.0303
PCB 45 (BZ)	23:34			1.000	5.000			ND	0.0303
PCB 51 (BZ)	23:39	643725	87602	1.000	5.000	8.165093	163.30	8.165093	0.0303
PCB 46 (BZ)	23:55	286823	69414	1.000	5.000	3.638101	72.76	3.638101	0.0303
PCB 52 (BZ)	25:18	345718	86607	1.000	5.000	4.385133	87.70	4.385133	0.0303
PCB 73 (BZ)	25:27	746556	105036	1.000	5.000	9.469415	189.39	9.469415	0.0303
PCB 43 (BZ)	25:32			1.000	5.000			ND	0.0303
PCB 69 (BZ)	25:43	827648	108596	1.000	5.000	10.497996	209.96	10.497996	0.0303
PCB 49 (BZ)	25:48			1.000	5.000			ND	0.0303
PCB 48 (BZ)	26:05	351206	79625	1.000	5.000	4.454743	89.09	4.454743	0.0303
PCB 65 (BZ)	26:18			1.000	5.000			ND	0.0303
PCB 47 (BZ)	26:20			1.000	5.000			ND	0.0303
PCB 44 (BZ)	26:19	1101101	219565	1.000	5.000	13.966510	279.33	13.966510	0.0303
PCB 62 (BZ)	26:38	1393594	226018	1.000	5.000	17.676530	353.53	17.676530	0.0303
PCB 75 (BZ)	26:39			1.000	5.000			ND	0.0303
PCB 59 (BZ)	26:38			1.000	5.000			ND	0.0303
PCB 42 (BZ)	26:50	338114	72684	1.000	5.000	4.288682	85.77	4.288682	0.0303
PCB 41 (BZ)	27:13			1.000	5.000			ND	0.0303
PCB 71 (BZ)	27:21	1006072	165206	1.000	5.000	12.761150	255.22	12.761150	0.0303
PCB 40 (BZ)	27:20			1.000	5.000			ND	0.0303
PCB 64 (BZ)	27:33	520191	118960	1.000	5.000	6.598171	131.96	6.598171	0.0303
PCB 72 (BZ)	28:22	468691	104971	1.000	5.000	5.944938	118.90	5.944938	0.0303
PCB 68 (BZ)	28:39	498553	108974	1.000	5.000	6.323712	126.47	6.323712	0.0303
PCB 57 (BZ)	29:05	458174	102281	1.000	5.000	5.811539	116.23	5.811539	0.0303
PCB 58 (BZ)	29:20	453291	92921	1.000	5.000	5.749603	114.99	5.749603	0.0303
PCB 67 (BZ)	29:28	494898	107324	1.000	5.000	6.277351	125.55	6.277351	0.0303
PCB 63 (BZ)	29:45	500038	105578	1.000	5.000	6.342548	126.85	6.342548	0.0303
PCB 61 (BZ)	29:58			1.000	5.000			ND	0.0303
PCB 70 (BZ)	30:06	1831357	212350	1.000	5.000	23.229173	464.58	23.229173	0.0303
PCB 76 (BZ)	30:05			1.000	5.000			ND	0.0303
PCB 74 (BZ)	30:08			1.000	5.000			ND	0.0303
PCB 66 (BZ)	30:25	473848	95563	1.000	5.000	6.010350	120.21	6.010350	0.0303
PCB 55 (BZ)	30:35	437464	96764	1.000	5.000	5.548851	110.98	5.548851	0.0303
PCB 56 (BZ)	31:06	453353	97058	1.000	5.000	5.750389	115.01	5.750389	0.0303
PCB 60 (BZ)	31:18	452850	100349	1.000	5.000	5.744009	114.88	5.744009	0.0303
PCB 80 (BZ)	31:41	511280	117854	1.000	5.000	6.485143	129.70	6.485143	0.0303
PCB 79 (BZ)	33:14	511705	102310	1.000	5.000	6.490534	129.81	6.490534	0.0303

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS2	Prep Batch		Lot No	
Data File	/20080624i/a080624i2.d	Prep Date		SDG No	
Analysis ID	104731	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	17:22	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 78 (BZ)	33:47	458271	94292	1.000	5.000	5.812770	116.26	5.812770	0.0303
PCB 81 (BZ)	34:15	486182	97545	1.000	5.000	6.264100	125.28	6.264100	0.0311
PCB 77 (BZ)	34:48	492968	108123	1.000	5.000	6.157227	123.14	6.157227	0.0296
Total Pentachlorobiphenyl		14274554	2543135	1.000		220.180825		220.180825	1.74
13C12-PCB 104	26:13	5423626	1195588	1.000	100.0	125.341043	125.34	125.341043	0.0543
13C12-PCB 95	29:12	200359	44015	1.000	5.000	3.694189	73.88	3.694189	0.0431
13C12-PCB 101	32:08	4327095	947916	1.000	100.0	100.000000	100.00	100.000000	0.0543
13C12-PCB 111	34:48	262830	54615	1.000	5.000	6.074052	121.48	6.074052	0.0543
13C12-PCB 123	36:46	9332274	1963565	1.000	100.0	92.969845	92.97	92.969845	0.0247
13C12-PCB 118	37:06	9806044	1982946	1.000	100.0	97.689630	97.69	97.689630	0.0247
13C12-PCB 114	37:37	9379726	1883834	1.000	100.0	93.442571	93.44	93.442571	0.0247
13C12-PCB 105	38:17	9475338	1965844	1.000	100.0	94.395075	94.40	94.395075	0.0247
13C12-PCB 127	39:44	10037958	2085987	1.000	100.0	100.000000	100.00	100.000000	0.0247
13C12-PCB 126	41:22	9858956	1947821	1.000	100.0	98.216749	98.22	98.216749	0.0247
PCB 104 (BZ)	26:15	315469	74253	1.000	5.000	5.816570	116.33	5.816570	0.0416
PCB 96 (BZ)	26:38	274099	58263	1.000	5.000	5.053796	101.08	5.053796	0.0416
PCB 103 (BZ)	28:33	236362	55274	1.000	5.000	4.358007	87.16	4.358007	0.0416
PCB 94 (BZ)	28:47	208202	46082	1.000	5.000	3.838797	76.78	3.838797	0.0416
PCB 95 (BZ)	29:14	222309	48916	1.000	5.000	4.098900	81.98	4.098900	0.0416
PCB 100 (BZ)	29:26	462342	83345	1.000	5.000	8.524592	170.49	8.524592	0.0416
PCB 93 (BZ)	29:28			1.000	5.000			ND	0.0416
PCB 102 (BZ)	29:36	478006	61906	1.000	5.000	8.813403	176.27	8.813403	0.0416
PCB 98 (BZ)	29:39			1.000	5.000			ND	0.0416
PCB 88 (BZ)	29:59			1.000	5.000			ND	0.0416
PCB 91 (BZ)	30:05	433212	53744	1.000	5.000	7.987498	159.75	7.987498	0.0416
PCB 84 (BZ)	30:20	194863	40741	1.000	5.000	3.592855	71.86	3.592855	0.0416
PCB 89 (BZ)	30:49	208564	44116	1.000	5.000	3.845472	76.91	3.845472	0.0416
PCB 121 (BZ)	31:11	319777	68863	1.000	5.000	5.896000	117.92	5.896000	0.0416
PCB 92 (BZ)	31:34	227520	45957	1.000	5.000	4.194980	83.90	4.194980	0.0416
PCB 113 (BZ)	32:08	783141	121995	1.000	5.000	14.439436	288.79	14.439436	0.0416
PCB 90 (BZ)	32:08			1.000	5.000			ND	0.0416
PCB 101 (BZ)	32:09			1.000	5.000			ND	0.0416
PCB 83 (BZ)	32:38			1.000	5.000			ND	0.0416
PCB 99 (BZ)	32:44	443370	53789	1.000	5.000	8.174789	163.50	8.174789	0.0416
PCB 112 (BZ)	32:51	293032	62175	1.000	5.000	5.402880	108.06	5.402880	0.0416
PCB 109 (BZ)/108 (IUPAC)	33:13	1553907	166600	1.000	5.000	28.650703	573.01	28.650703	0.0416
PCB 86 (BZ)	33:14			1.000	5.000			ND	0.0416
PCB 119 (BZ)	33:14			1.000	5.000			ND	0.0416
PCB 97 (BZ)	33:15			1.000	5.000			ND	0.0416
PCB 125 (BZ)	33:19			1.000	5.000			ND	0.0416
PCB 87 (BZ)	33:21			1.000	5.000			ND	0.0416
PCB 117 (BZ)	33:51			1.000	5.000			ND	0.0416
PCB 116 (BZ)	33:58	801739	95926	1.000	5.000	14.782343	295.65	14.782343	0.0416
PCB 85 (BZ)	33:58			1.000	5.000			ND	0.0416
PCB 110 (BZ)	34:10	605183	87296	1.000	5.000	11.158273	223.17	11.158273	0.0416
PCB 115 (BZ)	34:12			1.000	5.000			ND	0.0416
PCB 82 (BZ)	34:28	174396	40196	1.000	5.000	3.215487	64.31	3.215487	0.0416
PCB 111 (BZ)	34:48	332874	66445	1.000	5.000	6.137481	122.75	6.137481	0.0416
PCB 120 (BZ)	35:17	319953	66857	1.000	5.000	5.899245	117.98	5.899245	0.0416

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PCB's by EPA Method 1668A

Workorder	2990:71CS2	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i2.d	**Prep Date**		**SDG No**	
Analysis ID	104731	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	17:22	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 124 (BZ)	36:26			1.000	5.000			ND	0.0255
PCB 108 (BZ)/107 (IUPAC)	36:26	953103	208908	1.000	5.000	9.958792	199.18	9.958792	0.0255
PCB 107 (BZ)/109 (IUPAC)	36:41	480650	95892	1.000	5.000	5.022221	100.44	5.022221	0.0255
PCB 123 (BZ)	36:48	497972	100645	1.000	5.000	5.336020	106.72	5.336020	0.0253
PCB 106 (BZ)	36:55	454615	96733	1.000	5.000	4.750186	95.00	4.750186	0.0255
PCB 118 (BZ)	37:07	508164	104048	1.000	5.000	5.182151	103.64	5.182151	0.0251
PCB 122 (BZ)	37:29	450141	93251	1.000	5.000	4.703438	94.07	4.703438	0.0255
PCB 114 (BZ)	37:39	526182	100595	1.000	5.000	5.609780	112.20	5.609780	0.0264
PCB 105 (BZ)	38:19	520298	102945	1.000	5.000	5.491076	109.82	5.491076	0.0253
PCB 127 (BZ)	39:46	497804	97401	1.000	5.000	5.201460	104.03	5.201460	0.0255
PCB 126 (BZ)	41:23	497305	99978	1.000	5.000	5.044195	100.88	5.044195	0.0255
Total Hexachlorobiphenyl		14105348	2473530	1.000		187.442965		187.442965	1.86
13C12-PCB 155	31:52	4699472	963465	1.000	100.0	108.605704	108.61	108.605704	0.0533
13C12-PCB 153	38:56	358794	71134	1.000	5.000	4.258544	85.17	4.258544	0.0372
13C12-PCB 138	40:13	6849259	1386625	1.000	100.0	100.000000	100.00	100.000000	0.0364
13C12-PCB 167	43:12	8641175	1681000	1.000	100.0	126.162188	126.16	126.162188	0.0364
13C12-PCB 156	44:23	17043602	2182608	1.000	200.0	248.838626	124.42	248.838626	0.0364
13C12-PCB 157	44:22			1.000				ND	0.0364
13C12-PCB 169	47:35	8016322	1560880	1.000	100.0	117.039259	117.04	117.039259	0.0364
PCB 155 (BZ)	31:54	245180	56046	1.000	5.000	5.217182	104.34	5.217182	0.0566
PCB 152 (BZ)	32:08	244387	51961	1.000	5.000	5.200308	104.01	5.200308	0.0566
PCB 150 (BZ)	32:17	248519	52041	1.000	5.000	5.288232	105.76	5.288232	0.0566
PCB 136 (BZ)	32:41	230247	47429	1.000	5.000	4.899423	97.99	4.899423	0.0566
PCB 145 (BZ)	32:57	243615	51282	1.000	5.000	5.183880	103.68	5.183880	0.0566
PCB 148 (BZ)	34:26	169602	35328	1.000	5.000	3.608959	72.18	3.608959	0.0566
PCB 151 (BZ)	35:05	352845	42242	1.000	5.000	7.508184	150.16	7.508184	0.0566
PCB 135 (BZ)	35:06			1.000	5.000			ND	0.0566
PCB 154 (BZ)	35:17	210699	45546	1.000	5.000	4.483461	89.67	4.483461	0.0566
PCB 144 (BZ)	35:37	180028	37220	1.000	5.000	3.830813	76.62	3.830813	0.0566
PCB 147 (BZ)	35:59	715301	133391	1.000	5.000	8.489943	169.80	8.489943	0.0402
PCB 149 (BZ)	35:59			1.000	5.000			ND	0.0402
PCB 134 (BZ)	36:11			1.000	5.000			ND	0.0402
PCB 143 (BZ)	36:17	577404	67435	1.000	5.000	6.853236	137.06	6.853236	0.0402
PCB 139 (BZ)	36:35	662972	119075	1.000	5.000	7.868847	157.38	7.868847	0.0402
PCB 140 (BZ)	36:35			1.000	5.000			ND	0.0402
PCB 131 (BZ)	36:47	278982	55973	1.000	5.000	3.311251	66.23	3.311251	0.0402
PCB 142 (BZ)	36:56	294675	58989	1.000	5.000	3.497512	69.95	3.497512	0.0402
PCB 132 (BZ)	37:15	291872	60384	1.000	5.000	3.464243	69.28	3.464243	0.0402
PCB 133 (BZ)	37:43	314773	65734	1.000	5.000	3.736056	74.72	3.736056	0.0402
PCB 165 (BZ)	38:07	411894	87793	1.000	5.000	4.888790	97.78	4.888790	0.0402
PCB 146 (BZ)	38:23	338706	72537	1.000	5.000	4.020118	80.40	4.020118	0.0402
PCB 161 (BZ)	38:30	445373	87295	1.000	5.000	5.286154	105.72	5.286154	0.0402
PCB 153 (BZ)	39:01	843186	129201	1.000	5.000	10.007816	200.16	10.007816	0.0402
PCB 168 (BZ)	39:01			1.000	5.000			ND	0.0402
PCB 141 (BZ)	39:10	326639	65077	1.000	5.000	3.876894	77.54	3.876894	0.0402
PCB 130 (BZ)	39:36	284171	57531	1.000	5.000	3.372840	67.46	3.372840	0.0402
PCB 137 (BZ)	39:49	326723	72666	1.000	5.000	3.877891	77.56	3.877891	0.0402
PCB 164 (BZ)	39:57	424422	83085	1.000	5.000	5.037486	100.75	5.037486	0.0402
PCB 138 (BZ)	40:15	1456721	170545	1.000	5.000	17.289893	345.80	17.289893	0.0402

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PCB's by EPA Method 1668A

Workorder	2990:71CS2	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i2.d	**Prep Date**		**SDG No**	
Analysis ID	104731	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	17:22	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 163 (BZ)	40:14			1.000	5.000			ND	0.0402
PCB 129 (BZ)	40:18			1.000	5.000			ND	0.0402
PCB 160 (BZ)	40:23			1.000	5.000			ND	0.0402
PCB 158 (BZ)	40:37	481449	87690	1.000	5.000	5.714342	114.29	5.714342	0.0402
PCB 166 (BZ)	41:28	766954	103609	1.000	5.000	9.103015	182.06	9.103015	0.0402
PCB 128 (BZ)	41:31			1.000	5.000			ND	0.0402
PCB 159 (BZ)	42:27	434822	89963	1.000	5.000	5.160924	103.22	5.160924	0.0402
PCB 162 (BZ)	42:45	441609	88109	1.000	5.000	5.241479	104.83	5.241479	0.0402
PCB 167 (BZ)	43:14	476392	98166	1.000	5.000	5.513047	110.26	5.513047	0.0324
PCB 156 (BZ)	44:21			1.000	10.00			ND	0.0499
PCB 157 (BZ)	44:25	903890	112007	1.000		10.606795		10.606795	0.0499
PCB 169 (BZ)	47:36	481296	88180	1.000	5.000	6.003950	120.08	6.003950	0.0349
Total Heptachlorobiphenyl		7316968	1382007	1.000		123.389503		123.389503	0.891
13C12-PCB 188	37:36	6939706	1399149	1.000	100.0	122.959756	122.96	122.959756	0.0355
13C12-PCB 178	40:39	277748	57762	1.000	5.000	4.921221	98.42	4.921221	0.0355
13C12-PCB 180	45:44	5643884	1105875	1.000	100.0	100.000000	100.00	100.000000	0.0355
13C12-PCB 170	47:00	4648651	907240	1.000	100.0	82.366168	82.37	82.366168	0.0355
13C12-PCB 189	50:06	8975725	1776720	1.000	100.0	153.656796	153.66	153.656796	0.0341
PCB 188 (BZ)	37:38	371969	69990	1.000	5.000	5.360011	107.20	5.360011	0.0309
PCB 179 (BZ)	37:59	340280	69508	1.000	5.000	5.872791	117.46	5.872791	0.0375
PCB 184 (BZ)	38:29	323523	66176	1.000	5.000	5.583587	111.67	5.583587	0.0375
PCB 176 (BZ)	38:51	352635	74193	1.000	5.000	6.086022	121.72	6.086022	0.0375
PCB 186 (BZ)	39:20	348054	73661	1.000	5.000	6.006960	120.14	6.006960	0.0375
PCB 178 (BZ)	40:41	257379	52837	1.000	5.000	4.442027	88.84	4.442027	0.0375
PCB 175 (BZ)	41:18	268254	54819	1.000	5.000	4.629716	92.59	4.629716	0.0375
PCB 187 (BZ)	41:34	294533	61830	1.000	5.000	5.083257	101.67	5.083257	0.0375
PCB 182 (BZ)	41:47	286110	59842	1.000	5.000	4.937887	98.76	4.937887	0.0375
PCB 183 (BZ)	42:11			1.000	5.000			ND	0.0375
PCB 185 (BZ)	42:19	548683	56857	1.000	5.000	9.469556	189.39	9.469556	0.0375
PCB 174 (BZ)	42:27	273760	55034	1.000	5.000	4.724742	94.49	4.724742	0.0375
PCB 177 (BZ)	42:53	260400	50641	1.000	5.000	4.494166	89.88	4.494166	0.0375
PCB 181 (BZ)	43:16	269063	55118	1.000	5.000	4.643678	92.87	4.643678	0.0375
PCB 171 (BZ)	43:30			1.000	5.000			ND	0.0375
PCB 173 (BZ)	43:30	479225	88135	1.000	5.000	8.270801	165.42	8.270801	0.0375
PCB 172 (BZ)	45:06	243317	48220	1.000	5.000	4.199336	83.99	4.199336	0.0375
PCB 192 (BZ)	45:23	334463	66200	1.000	5.000	5.772397	115.45	5.772397	0.0375
PCB 193 (BZ)	45:43	636421	92414	1.000	5.000	10.983800	219.68	10.983800	0.0375
PCB 180 (BZ)	45:45			1.000	5.000			ND	0.0375
PCB 191 (BZ)	46:06	358799	75818	1.000	5.000	6.192405	123.85	6.192405	0.0375
PCB 170 (BZ)	47:01	245973	49296	1.000	5.000	5.291277	105.83	5.291277	0.0477
PCB 190 (BZ)	47:33	353631	65704	1.000	5.000	6.103212	122.06	6.103212	0.0375
PCB 189 (BZ)	50:07	470496	95714	1.000	5.000	5.241872	104.84	5.241872	0.0243
Total Octachlorobiphenyl		3134588	603959	1.000		53.475553		53.475553	0.326
13C12-PCB 202	42:58	5196525	1041466	1.000	100.0	92.073561	92.07	92.073561	0.0303
13C12-PCB 194	52:11	5841411	1149792	1.000	100.0	100.000000	100.00	100.000000	0.0291
13C12-PCB 205	52:40	8071853	1522937	1.000	100.0	138.183275	138.18	138.183275	0.0291
PCB 202 (BZ)	42:59	253840	49092	1.000	5.000	4.884803	97.70	4.884803	0.0295
PCB 200 (BZ)/201 (IUPAC)	43:55	271475	52058	1.000	5.000	5.224164	104.48	5.224164	0.0295
PCB 204 (BZ)	44:34	266634	53908	1.000	5.000	5.131006	102.62	5.131006	0.0295

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PCB's by EPA Method 1668A

Workorder	2990:71CS2	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i2.d	**Prep Date**		**SDG No**	
Analysis ID	104731	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	17:22	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 197 (BZ)	44:48	274371	55882	1.000	5.000	5.279894	105.60	5.279894	0.0295
PCB 199 (BZ)/200 (IUPAC)	44:56	278292	56259	1.000	5.000	5.355348	107.11	5.355348	0.0295
PCB 198 (BZ)	47:40	383755	54846	1.000	5.000	7.384839	147.70	7.384839	0.0295
PCB 201 (BZ)/199 (IUPAC)	47:43			1.000	5.000			ND	0.0295
PCB 196 (BZ)	48:22	194167	38984	1.000	5.000	3.736478	74.73	3.736478	0.0295
PCB 203 (BZ)	48:33	213455	42795	1.000	5.000	4.107649	82.15	4.107649	0.0295
PCB 195 (BZ)	49:54	293338	60009	1.000	5.000	3.634085	72.68	3.634085	0.0202
PCB 194 (BZ)	52:13	316537	63116	1.000	5.000	3.921491	78.43	3.921491	0.0202
PCB 205 (BZ)	52:41	388724	77010	1.000	5.000	4.815796	96.32	4.815796	0.0202
Total Nonachlorobiphenyl		963498	185071	1.000		16.771107		16.771107	0.0930
13C12-PCB 208	49:37	6767219	1334892	1.000	100.0	115.849047	115.85	115.849047	0.0300
13C12-PCB 206	54:23	4769337	924060	1.000	100.0	81.647003	81.65	81.647003	0.0300
PCB 208 (BZ)	49:39	342294	61785	1.000	5.000	5.058119	101.16	5.058119	0.0257
PCB 207 (BZ)	50:34	361316	73695	1.000	5.000	6.263845	125.28	6.263845	0.0303
PCB 206 (BZ)	54:25	259888	49591	1.000	5.000	5.449143	108.98	5.449143	0.0371
13C12-PCB 209	56:01	5065212	893238	1.000	100.0	86.712132	86.71	86.712132	0.0294
PCB 209 (BZ)	56:03	248993	51932	1.000	5.000	4.915747	98.31	4.915747	0.0260

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Workorder	2990:71CS2	Prep Batch		Lot No	
Data File	/20080624i/a080624i2.d	Prep Date		SDG No	
Analysis ID	104731	Prep Exp Date		Date Received	
Analysis Date	06/24/08 17:22	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60	
	Noise	00:00	00:00	0	128	120	51	48	1.06 *	/
	PCB 1 (BZ)	12:01	00:00	0	615345	187669	256702	84062	3.28	AVB/AVB
	PCB 2 (BZ)	14:02	00:00	0	575706	177704	194605	58326	3.24	ABV/AVV
	PCB 3 (BZ)	14:13	00:00	0	591200	185998	209713	69861	3.18	AVV/AVB
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60	
	Noise	00:00	00:00	0	160	428	64	171	0.37 *	/
	13C12-PCB 1	12:01	00:00	0	9361305	2923075	3870234	1195929	3.20	AVV/AVV
	13C12-PCB 3	14:12	00:00	0	9578059	2949844	3357180	1041572	3.25	ABV/ABV
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79	
	Noise	00:00	00:00	0	178	388	71	155	0.46 *	/
	PCB 4 (BZ)	14:29	00:00	0	186507	125624	60163	42747	1.48	AVV/ABV
	PCB 10 (BZ)	14:39	00:00	0	271417	181213	93233	60411	1.50	AVV/AVB
	PCB 9 (BZ)	16:27	00:00	0	290373	193407	90147	53597	1.50	ABV/ABV
	PCB 7 (BZ)	16:37	00:00	0	305489	184675	88519	51532	1.65	AVB/AVB
	PCB 6 (BZ)	16:52	00:00	0	305762	193403	93283	61006	1.58	ABB/ABV
	PCB 5 (BZ)	17:11	00:00	0	282693	176548	88808	50464	1.60	ABV/AVV
	PCB 8 (BZ)	17:19	00:00	0	308693	193797	87587	52664	1.59	AVB/AVB
	PCB 14 (BZ)	18:56	00:00	0	351726	222108	96800	61076	1.58	ABV/AVB
	PCB 11 (BZ)	19:47	00:00	0	303855	197088	80416	54558	1.54	ABV/ABV
	PCB 13 (BZ)	20:06	00:00	0	571101	368208	95046	59570	1.55	AVV/AVV
	PCB 12 (BZ)	20:07	00:00	0	0	0	0	0	0.00 *	/
	PCB 15 (BZ)	20:25	00:00	0	319450	207144	84813	49341	1.54	AVV/AVV
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79	
	Noise	00:00	00:00	0	410	220	164	88	1.86 *	/
	13C12-PCB 4	14:27	00:00	0	3077595	1940860	1064037	662570	1.59	ABV/ABV
	13C12-PCB 9	16:26	00:00	0	5007009	3147566	1525625	974952	1.59	AVV/AVV
	13C12-PCB 8	17:17	00:00	0	331290	205106	91669	58172	1.62	AVV/AVV
	13C12-PCB 15	20:24	00:00	0	5191901	3248947	1324156	815008	1.60	ABV/ABV
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	Noise	00:00	00:00	0	208	250	83	100	0.83 *	/
	PCB 19 (BZ)	17:38	00:00	0	98337	88601	28328	26284	1.11	AVB/ABB
	PCB 30 (BZ)	19:26	00:00	0	242392	243537	38920	40520	1.00	ABB/ABV
	PCB 18 (BZ)	19:30	00:00	0	0	0	0	0	0.00 *	/
	PCB 17 (BZ)	19:55	00:00	0	112079	97981	27744	25111	1.14	ABV/ABV
	PCB 27 (BZ)	20:07	00:00	0	154061	148244	39776	38342	1.04	AVV/AVV
	PCB 24 (BZ)	20:15	00:00	0	140551	130638	35939	34240	1.08	AVV/AVV
	PCB 16 (BZ)	20:23	00:00	0	99195	85047	28092	21760	1.17	AVV/AVB
	PCB 32 (BZ)	20:54	00:00	0	156286	146886	39791	37480	1.06	AVV/AVB
	PCB 34 (BZ)	22:09	00:00	0	338617	317752	83103	78119	1.07	ABV/ABV
	PCB 23 (BZ)	22:18	00:00	0	333225	315403	84114	82445	1.06	AVB/AVB
	PCB 26 (BZ)	22:38	00:00	0	693618	640072	152935	146886	1.08	ABV/ABV
	PCB 29 (BZ)	22:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 25 (BZ)	22:51	00:00	0	383454	352119	85708	82673	1.09	AVV/AVB

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

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Data File	/20080624i/a080624i2.d	Prep Date		SDG No	
Analysis ID	104731	Prep Exp Date		Date Received	
Analysis Date	06/24/08 17:22	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
256					**255.9613**	**257.9584**	**255.9613**	**257.9584**	**0.88-1.20**	
	PCB 31 (BZ)	23:09	00:00	0	352216	333320	80195	79396	1.06	AVV/ABB
	PCB 28 (BZ)	23:28	00:00	0	674892	666117	115248	112310	1.01	AVV/ABV
	PCB 20 (BZ)	23:30	00:00	0	0	0	0	0	0.00 *	/
	PCB 21 (BZ)	23:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 33 (BZ)	23:43	00:00	0	685239	637581	85114	76935	1.07	AVV/AVV
	PCB 22 (BZ)	24:06	00:00	0	342543	319906	78084	69660	1.07	AVB/ABB
	PCB 36 (BZ)	25:39	00:00	0	352048	313757	84423	73570	1.12	AVV/AVV
	PCB 39 (BZ)	26:01	00:00	0	353183	325775	80883	72715	1.08	AVV/ABV
	PCB 38 (BZ)	26:36	00:00	0	303719	306331	66989	69998	0.99	AVV/ABV
	PCB 35 (BZ)	27:05	00:00	0	332002	311642	74773	70858	1.07	AVV/AVV
	PCB 37 (BZ)	27:29	00:00	0	335780	310156	76552	73105	1.08	AVV/AVV
268					**268.0016**	**269.9986**	**268.0016**	**269.9986**	**0.88-1.20**	
	Noise	00:00	00:00	0	550	305	220	122	1.80 *	/
	13C12-PCB 19	17:36	00:00	0	1655850	1531717	480230	443675	1.08	AVV/AVV
	13C12-PCB 32	20:53	00:00	0	2866283	2672790	714169	667627	1.07	AVV/AVV
	13C12-PCB 31	23:08	00:00	0	6697345	6300623	1681420	1552647	1.06	ABV/AVV
	13C12-PCB 28	23:26	00:00	0	369738	322838	77776	77377	1.15	AVV/AVV
	13C12-PCB 37	27:28	00:00	0	5903822	5470024	1326573	1257109	1.08	AVV/AVV
290					**289.9224**	**291.9194**	**289.9224**	**291.9194**	**0.65-0.89**	
	Noise	00:00	00:00	0	240	255	96	102	0.94 *	/
	PCB 54 (BZ)	20:44	00:00	0	81550	116814	20636	28327	0.70	ABB/ABB
	PCB 53 (BZ)	22:55	00:00	0	299354	395496	67778	89396	0.76	ABV/ABV
	PCB 50 (BZ)	22:55	00:00	0	0	0	0	0	0.00 *	/
	PCB 45 (BZ)	23:34	00:00	0	0	0	0	0	0.00 *	/
	PCB 51 (BZ)	23:39	00:00	0	278208	365517	41128	46474	0.76	ABV/ABV
	PCB 46 (BZ)	23:55	00:00	0	124962	161861	31599	37815	0.77	AVV/AVB
	PCB 52 (BZ)	25:18	00:00	0	149472	196246	36052	50555	0.76	ABV/ABV
	PCB 73 (BZ)	25:27	00:00	0	326461	420095	46152	58884	0.78	AVV/AVV
	PCB 43 (BZ)	25:32	00:00	0	0	0	0	0	0.00 *	/
	PCB 69 (BZ)	25:43	00:00	0	355714	471934	45914	62682	0.75	AVB/AVV
	PCB 49 (BZ)	25:48	00:00	0	0	0	0	0	0.00 *	/
	PCB 48 (BZ)	26:05	00:00	0	160387	190819	37357	42268	0.84	ABB/ABV
	PCB 65 (BZ)	26:18	00:00	0	0	0	0	0	0.00 *	/
	PCB 44 (BZ)	26:19	00:00	0	477763	623338	95450	124115	0.77	ABV/AVB
	PCB 47 (BZ)	26:20	00:00	0	0	0	0	0	0.00 *	/
	PCB 59 (BZ)	26:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 62 (BZ)	26:38	00:00	0	619191	774403	103148	122870	0.80	AVV/ABV
	PCB 75 (BZ)	26:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 42 (BZ)	26:50	00:00	0	143864	194250	31860	40824	0.74	AVB/AVB
	PCB 41 (BZ)	27:13	00:00	0	0	0	0	0	0.00 *	/
	PCB 40 (BZ)	27:20	00:00	0	0	0	0	0	0.00 *	/
	PCB 71 (BZ)	27:21	00:00	0	453631	552441	75660	89546	0.82	ABV/ABV
	PCB 64 (BZ)	27:33	00:00	0	231806	288385	53572	65388	0.80	AVB/AVB

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS2	Prep Batch		Lot No	
Data File	/20080624i/a080624i2.d	Prep Date		SDG No	
Analysis ID	104731	Prep Exp Date		Date Received	
Analysis Date	06/24/08 17:22	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	PCB 72 (BZ)	28:22	00:00	0	212142	256549	46297	58674	0.83	ABV/ABV
	PCB 68 (BZ)	28:39	00:00	0	212086	286467	44741	64233	0.74	AVV/AVV
	PCB 57 (BZ)	29:05	00:00	0	200099	258075	43666	58615	0.78	ABV/ABV
	PCB 58 (BZ)	29:20	00:00	0	202560	250731	40594	52327	0.81	AVV/AVV
	PCB 67 (BZ)	29:28	00:00	0	221685	273213	47041	60283	0.81	AVV/AVV
	PCB 63 (BZ)	29:45	00:00	0	221887	278151	46118	59460	0.80	AVB/AVB
	PCB 61 (BZ)	29:58	00:00	0	0	0	0	0	0.00 *	/
	PCB 76 (BZ)	30:05	00:00	0	0	0	0	0	0.00 *	/
	PCB 70 (BZ)	30:06	00:00	0	805723	1025634	92413	119937	0.79	ABB/ABB
	PCB 74 (BZ)	30:08	00:00	0	0	0	0	0	0.00 *	/
	PCB 66 (BZ)	30:25	00:00	0	220602	253246	44681	50882	0.87	ABV/ABV
	PCB 55 (BZ)	30:35	00:00	0	195215	242249	43949	52815	0.81	AVB/AVB
	PCB 56 (BZ)	31:06	00:00	0	202685	250668	43350	53708	0.81	ABV/ABV
	PCB 60 (BZ)	31:18	00:00	0	197025	255825	44371	55978	0.77	AVB/AVB
	PCB 80 (BZ)	31:41	00:00	0	220470	290810	48286	69568	0.76	AVB/AVB
	PCB 79 (BZ)	33:14	00:00	0	228513	283192	43781	58529	0.81	ABV/AVV
	PCB 78 (BZ)	33:47	00:00	0	204880	253391	42425	51867	0.81	ABV/ABV
	PCB 81 (BZ)	34:15	00:00	0	217385	268797	42583	54962	0.81	AVV/AVV
	PCB 77 (BZ)	34:48	00:00	0	220518	272450	50988	57135	0.81	ABB/ABV
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89	
	Noise	00:00	00:00	0	163	163	65	65	1.00 *	/
	13C12-PCB 54	20:43	00:00	0	1508658	1872785	394287	497647	0.81	ABV/ABV
	13C12-PCB 52	25:17	00:00	0	2672002	3394248	614627	789922	0.79	ABV/ABV
	13C12-PCB 79	33:12	00:00	0	185644	235806	41167	47423	0.79	ABV/ABB
	13C12-PCB 81	34:12	00:00	0	3438625	4322777	694399	896638	0.80	ABV/ABV
	13C12-PCB 77	34:47	00:00	0	3563129	4443202	739111	932854	0.80	AVV/AVV
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78	
	Noise	00:00	00:00	0	258	240	103	96	1.07 *	/
	PCB 104 (BZ)	26:15	00:00	0	192883	122586	44148	30105	1.57	ABB/ABV
	PCB 96 (BZ)	26:38	00:00	0	169000	105099	37161	21102	1.61	ABV/ABB
	PCB 103 (BZ)	28:33	00:00	0	145599	90763	32965	22309	1.60	ABV/ABV
	PCB 94 (BZ)	28:47	00:00	0	129255	78947	31337	14745	1.64	AVV/AVB
	PCB 95 (BZ)	29:14	00:00	0	133999	88310	29294	19622	1.52	ABV/ABV
	PCB 100 (BZ)	29:26	00:00	0	284437	177905	50551	32794	1.60	AVV/AVV
	PCB 93 (BZ)	29:28	00:00	0	0	0	0	0	0.00 *	/
	PCB 102 (BZ)	29:36	00:00	0	297513	180493	38435	23471	1.65	AVB/AVB
	PCB 98 (BZ)	29:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 88 (BZ)	29:59	00:00	0	0	0	0	0	0.00 *	/
	PCB 91 (BZ)	30:05	00:00	0	268241	164971	34544	19200	1.63	ABV/ABV
	PCB 84 (BZ)	30:20	00:00	0	121296	73567	26122	14619	1.65	AVB/AVV
	PCB 89 (BZ)	30:49	00:00	0	128879	79685	26014	18102	1.62	ABB/ABB
	PCB 121 (BZ)	31:11	00:00	0	200875	118902	42053	26810	1.69	ABB/ABB
	PCB 92 (BZ)	31:34	00:00	0	138368	89152	28512	17445	1.55	ABB/ABB

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Data File	/20080624i/a080624i2.d	Prep Date		SDG No	
Analysis ID	104731	Prep Exp Date		Date Received	
Analysis Date	06/24/08 17:22	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**	
	PCB 113 (BZ)	32:08	00:00	0	471529	311612	71647	50348	1.51	ABV/ABV
	PCB 90 (BZ)	32:08	00:00	0	0	0	0	0	0.00 *	/
	PCB 101 (BZ)	32:09	00:00	0	0	0	0	0	0.00 *	/
	PCB 83 (BZ)	32:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 99 (BZ)	32:44	00:00	0	265789	177581	33174	20615	1.50	ABV/ABV
	PCB 112 (BZ)	32:51	00:00	0	182600	110432	39047	23128	1.65	AVB/AVB
	PCB 109 (BZ)/108 (IUPAC	33:13	00:00	0	947348	606559	102009	64591	1.56	ABB/ABB
	PCB 119 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/
	PCB 86 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/
	PCB 97 (BZ)	33:15	00:00	0	0	0	0	0	0.00 *	/
	PCB 125 (BZ)	33:19	00:00	0	0	0	0	0	0.00 *	/
	PCB 87 (BZ)	33:21	00:00	0	0	0	0	0	0.00 *	/
	PCB 117 (BZ)	33:51	00:00	0	0	0	0	0	0.00 *	/
	PCB 85 (BZ)	33:58	00:00	0	0	0	0	0	0.00 *	/
	PCB 116 (BZ)	33:58	00:00	0	492996	308743	59534	36392	1.60	ABV/ABV
	PCB 110 (BZ)	34:10	00:00	0	363268	241915	51521	35775	1.50	AVB/AVB
	PCB 115 (BZ)	34:12	00:00	0	0	0	0	0	0.00 *	/
	PCB 82 (BZ)	34:28	00:00	0	106385	68011	24655	15541	1.56	ABB/AVB
	PCB 111 (BZ)	34:48	00:00	0	206592	126282	40847	25598	1.64	ABV/ABB
	PCB 120 (BZ)	35:17	00:00	0	194569	125384	41606	25251	1.55	AVB/AVB
	PCB 108 (BZ)/107 (IUPAC	36:26	00:00	0	582520	370583	126891	82017	1.57	ABV/ABV
	PCB 124 (BZ)	36:26	00:00	0	0	0	0	0	0.00 *	/
	PCB 107 (BZ)/109 (IUPAC	36:41	00:00	0	292906	187744	58095	37797	1.56	AVV/AVV
	PCB 123 (BZ)	36:48	00:00	0	305605	192367	59212	41433	1.59	AVV/AVV
	PCB 106 (BZ)	36:55	00:00	0	280905	173710	60948	35785	1.62	AVV/AVB
	PCB 118 (BZ)	37:07	00:00	0	311815	196349	66676	37372	1.59	AVV/ABV
	PCB 122 (BZ)	37:29	00:00	0	279666	170475	57969	35282	1.64	ABV/ABV
	PCB 114 (BZ)	37:39	00:00	0	321200	204982	59278	41317	1.57	AVV/AVB
	PCB 105 (BZ)	38:19	00:00	0	306987	213311	59966	42979	1.44	AVV/ABB
	PCB 127 (BZ)	39:46	00:00	0	296789	201015	59253	38148	1.48	AVV/AVV
	PCB 126 (BZ)	41:23	00:00	0	299901	197404	60866	39112	1.52	ABV/ABV
338					**337.9207**	**339.9178**	**337.9207**	**339.9178**	**1.32-1.78**	
	Noise	00:00	00:00	0	275	240	110	96	1.15 *	/
	13C12-PCB 104	26:13	00:00	0	3361177	2062449	737624	457964	1.63	ABV/ABV
	13C12-PCB 95	29:12	00:00	0	124002	76357	26605	17410	1.62	ABB/ABV
	13C12-PCB 101	32:08	00:00	0	2690769	1636326	590602	357314	1.64	AVV/AVV
	13C12-PCB 111	34:48	00:00	0	164841	97989	34665	19950	1.68	ABV/ABV
	13C12-PCB 123	36:46	00:00	0	5732873	3599401	1204666	758899	1.59	ABV/ABV
	13C12-PCB 118	37:06	00:00	0	6033319	3772725	1206016	776930	1.60	AVV/AVV
	13C12-PCB 114	37:37	00:00	0	5730147	3649579	1149347	734487	1.57	AVV/AVV
	13C12-PCB 105	38:17	00:00	0	5842837	3632501	1208850	756994	1.61	AVV/ABV
	13C12-PCB 127	39:44	00:00	0	6185554	3852404	1276516	809471	1.61	AVV/ABV
	13C12-PCB 126	41:22	00:00	0	6061579	3797377	1190634	757187	1.60	ABV/ABV

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Analysis ID	104731	Prep Exp Date		Date Received	
Analysis Date	06/24/08 17:22	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	Noise	00:00	00:00	0	285	260	114	104	1.10	/
	PCB 155 (BZ)	31:54	00:00	0	135752	109428	33110	22936	1.24	ABB/ABV
	PCB 152 (BZ)	32:08	00:00	0	133427	110960	27400	24561	1.20	ABV/AVV
	PCB 150 (BZ)	32:17	00:00	0	137290	111229	28714	23327	1.23	AVV/AVB
	PCB 136 (BZ)	32:41	00:00	0	131762	98485	27284	20145	1.34	ABB/ABB
	PCB 145 (BZ)	32:57	00:00	0	138193	105422	28636	22646	1.31	ABV/ABB
	PCB 148 (BZ)	34:26	00:00	0	97193	72409	20475	14853	1.34	ABB/ABB
	PCB 151 (BZ)	35:05	00:00	0	191579	161266	23058	19184	1.19	ABV/ABV
	PCB 135 (BZ)	35:06	00:00	0	0	0	0	0	0.00 *	/
	PCB 154 (BZ)	35:17	00:00	0	118537	92162	24504	21042	1.29	AVV/AVB
	PCB 144 (BZ)	35:37	00:00	0	101458	78570	20596	16624	1.29	AVB/ABB
	PCB 147 (BZ)	35:59	00:00	0	399921	315380	72091	61300	1.27	ABV/ABV
	PCB 149 (BZ)	35:59	00:00	0	0	0	0	0	0.00 *	/
	PCB 134 (BZ)	36:11	00:00	0	0	0	0	0	0.00 *	/
	PCB 143 (BZ)	36:17	00:00	0	326130	251274	38673	28762	1.30	AVV/AVV
	PCB 139 (BZ)	36:35	00:00	0	368280	294692	64740	54335	1.25	AVV/AVV
	PCB 140 (BZ)	36:35	00:00	0	0	0	0	0	0.00 *	/
	PCB 131 (BZ)	36:47	00:00	0	152313	126669	31762	24211	1.20	AVV/AVV
	PCB 142 (BZ)	36:56	00:00	0	162543	132132	33223	25766	1.23	AVB/AVB
	PCB 132 (BZ)	37:15	00:00	0	159979	131893	34898	25486	1.21	ABB/ABB
	PCB 133 (BZ)	37:43	00:00	0	180023	134750	36749	28985	1.34	ABB/ABB
	PCB 165 (BZ)	38:07	00:00	0	228563	183331	50553	37240	1.25	ABV/ABV
	PCB 146 (BZ)	38:23	00:00	0	189045	149661	42622	29915	1.26	AVV/AVV
	PCB 161 (BZ)	38:30	00:00	0	252533	192840	49249	38046	1.31	AVB/AVB
	PCB 153 (BZ)	39:01	00:00	0	467908	375278	71055	58146	1.25	AVV/ABV
	PCB 168 (BZ)	39:01	00:00	0	0	0	0	0	0.00 *	/
	PCB 141 (BZ)	39:10	00:00	0	177960	148679	33458	31619	1.20	AVV/AVV
	PCB 130 (BZ)	39:36	00:00	0	159787	124384	32353	25178	1.28	ABV/ABV
	PCB 137 (BZ)	39:49	00:00	0	187564	139159	40056	32610	1.35	AVV/AVV
	PCB 164 (BZ)	39:57	00:00	0	222729	201693	43750	39335	1.10	AVB/AVB
	PCB 163 (BZ)	40:14	00:00	0	0	0	0	0	0.00 *	/
	PCB 138 (BZ)	40:15	00:00	0	809125	647596	97044	73501	1.25	ABV/ABV
	PCB 129 (BZ)	40:18	00:00	0	0	0	0	0	0.00 *	/
	PCB 160 (BZ)	40:23	00:00	0	0	0	0	0	0.00 *	/
	PCB 158 (BZ)	40:37	00:00	0	278162	203287	47800	39890	1.37	AVB/AVB
	PCB 166 (BZ)	41:28	00:00	0	423936	343018	57749	45860	1.24	AVV/MVV
	PCB 128 (BZ)	41:31	00:00	0	0	0	0	0	0.00 *	/
	PCB 159 (BZ)	42:27	00:00	0	240750	194072	49843	40120	1.24	ABB/AVB
	PCB 162 (BZ)	42:45	00:00	0	244637	196972	47250	40859	1.24	ABV/ABV
	PCB 167 (BZ)	43:14	00:00	0	271967	204425	57973	40193	1.33	ABB/AVB
	PCB 156 (BZ)	44:21	00:00	0	0	0	0	0	0.00 *	/
	PCB 157 (BZ)	44:25	00:00	0	500202	403688	61130	50877	1.24	ABB/ABV
	PCB 169 (BZ)	47:36	00:00	0	275920	205376	49788	38392	1.34	ABV/ABV

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Analyst	DCG	Diluton Factor	1.00	Code	IE3

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Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	265	240	106	96	1.10	/
	13C12-PCB 155	31:52	00:00	0	2673218	2026254	549051	414414	1.32	ABV/ABV
	13C12-PCB 153	38:56	00:00	0	205395	153399	40200	30934	1.34	ABV/ABV
	13C12-PCB 138	40:13	00:00	0	3830646	3018613	777242	609383	1.27	ABV/ABV
	13C12-PCB 167	43:12	00:00	0	4902082	3739093	931432	749568	1.31	AVV/AVV
	13C12-PCB 157	44:22	00:00	0	0	0	0	0	0.00 *	/
	13C12-PCB 156	44:23	00:00	0	9573944	7469658	1225588	957020	1.28	AVV/AVV
	13C12-PCB 169	47:35	00:00	0	4480501	3535821	861070	699810	1.27	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	215	218	86	87	0.99	/
	PCB 188 (BZ)	37:38	00:00	0	192901	179068	37294	32696	1.08	ABB/ABB
	PCB 179 (BZ)	37:59	00:00	0	165697	174583	32627	36881	0.95	ABV/ABB
	PCB 184 (BZ)	38:29	00:00	0	165398	158125	34450	31726	1.05	ABV/ABB
	PCB 176 (BZ)	38:51	00:00	0	177027	175608	37560	36633	1.01	ABV/ABB
	PCB 186 (BZ)	39:20	00:00	0	172929	175125	36959	36702	0.99	ABV/ABB
	PCB 178 (BZ)	40:41	00:00	0	134260	123119	26595	26242	1.09	ABB/ABB
	PCB 175 (BZ)	41:18	00:00	0	136496	131758	27510	27309	1.04	ABV/ABB
	PCB 187 (BZ)	41:34	00:00	0	151074	143459	30341	31489	1.05	AVV/ABV
	PCB 182 (BZ)	41:47	00:00	0	147097	139013	32254	27588	1.06	AVB/AVB
	PCB 183 (BZ)	42:11	00:00	0	0	0	0	0	0.00 *	/
	PCB 185 (BZ)	42:19	00:00	0	278806	269877	27189	29668	1.03	ABV/ABV
	PCB 174 (BZ)	42:27	00:00	0	142598	131162	27084	27950	1.09	AVB/AVB
	PCB 177 (BZ)	42:53	00:00	0	130048	130352	24690	25951	1.00	ABB/ABB
	PCB 181 (BZ)	43:16	00:00	0	138767	130296	29164	25954	1.07	ABV/ABV
	PCB 173 (BZ)	43:30	00:00	0	247486	231739	45898	42237	1.07	AVV/AVV
	PCB 171 (BZ)	43:30	00:00	0	0	0	0	0	0.00 *	/
	PCB 172 (BZ)	45:06	00:00	0	124976	118341	24501	23719	1.06	ABB/ABB
	PCB 192 (BZ)	45:23	00:00	0	168709	165754	33346	32854	1.02	ABB/ABV
	PCB 193 (BZ)	45:43	00:00	0	328883	307538	46703	45711	1.07	ABB/AVV
	PCB 180 (BZ)	45:45	00:00	0	0	0	0	0	0.00 *	/
	PCB 191 (BZ)	46:06	00:00	0	185771	173028	37211	38607	1.07	ABB/ABB
	PCB 170 (BZ)	47:01	00:00	0	125986	119987	25386	23910	1.05	ABB/ABB
	PCB 190 (BZ)	47:33	00:00	0	181641	171990	33192	32512	1.06	ABV/ABV
	PCB 189 (BZ)	50:07	00:00	0	243005	227491	48250	47464	1.07	AVB/AVB
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	218	175	87	70	1.24 *	/
	13C12-PCB 188	37:36	00:00	0	3560392	3379314	714614	684535	1.05	ABV/ABV
	13C12-PCB 178	40:39	00:00	0	144510	133238	29510	28252	1.08	ABB/ABV
	13C12-PCB 180	45:44	00:00	0	2929762	2714122	567821	538054	1.08	ABV/ABV
	13C12-PCB 170	47:00	00:00	0	2377835	2270816	465507	441733	1.05	AVV/AVV
	13C12-PCB 189	50:06	00:00	0	4558424	4417301	900307	876413	1.03	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	153	155	61	62	0.98	/

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS2	Prep Batch		Lot No	
Data File	/20080624i/a080624i2.d	Prep Date		SDG No	
Analysis ID	104731	Prep Exp Date		Date Received	
Analysis Date	06/24/08 17:22	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	PCB 202 (BZ)	42:59	00:00	0	119178	134662	22367	26725	0.89	ABB/ABB
	PCB 200 (BZ)/201 (IUPAC	43:55	00:00	0	129351	142124	24017	28041	0.91	ABB/ABB
	PCB 204 (BZ)	44:34	00:00	0	128419	138215	25824	28084	0.93	ABB/ABV
	PCB 197 (BZ)	44:48	00:00	0	125892	148479	28324	27558	0.85	ABV/AVV
	PCB 199 (BZ)/200 (IUPAC	44:56	00:00	0	136497	141795	27667	28592	0.96	AVB/AVB
	PCB 198 (BZ)	47:40	00:00	0	180551	203204	26718	28128	0.89	ABB/ABB
	PCB 201 (BZ)/199 (IUPAC	47:43	00:00	0	0	0	0	0	0.00 *	/
	PCB 196 (BZ)	48:22	00:00	0	95718	98449	19962	19022	0.97	ABV/ABV
	PCB 203 (BZ)	48:33	00:00	0	99935	113520	18997	23798	0.88	AVB/AVB
	PCB 195 (BZ)	49:54	00:00	0	135741	157597	26353	33656	0.86	ABV/AVB
	PCB 194 (BZ)	52:13	00:00	0	151791	164746	30439	32677	0.92	ABB/ABB
	PCB 205 (BZ)	52:41	00:00	0	180244	208480	37484	39526	0.86	ABV/ABB
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	170	165	68	66	1.03 *	/
	13C12-PCB 202	42:58	00:00	0	2463865	2732660	490373	551093	0.90	ABV/ABV
	13C12-PCB 194	52:11	00:00	0	2806007	3035404	555312	594480	0.92	ABV/ABV
	13C12-PCB 205	52:40	00:00	0	3828224	4243629	724875	798062	0.90	AVV/AVV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	130	213	52	85	0.61 *	/
	PCB 208 (BZ)	49:39	00:00	0	146494	195800	25096	36689	0.75	ABB/ABB
	PCB 207 (BZ)	50:34	00:00	0	157325	203991	32871	40824	0.77	ABB/ABV
	PCB 206 (BZ)	54:25	00:00	0	108676	151212	20612	28979	0.72	ABV/AVV
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	183	163	73	65	1.12 *	/
	13C12-PCB 208	49:37	00:00	0	3009205	3758014	590599	744293	0.80	AVV/AVV
	13C12-PCB 206	54:23	00:00	0	2121993	2647344	404106	519954	0.80	AVV/ABV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	98	135	39	54	0.72	/
	PCB 209 (BZ)	56:03	00:00	0	100495	148498	21247	30685	0.68	ABB/ABB
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	220	118	88	47	1.87 *	/
	13C12-PCB 209	56:01	00:00	0	2116577	2948635	367367	525871	0.72	ABV/ABV

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T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS3	Prep Batch		Lot No	
Data File	/20080624i/a080624i3.d	Prep Date		SDG No	
Analysis ID	104720	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	18:23	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
Total Monochlorobiphenyl		16969192	6322099	1.000		194.802681		194.802681	0.0303
13C12-PCB 1	12:01	8675131	3827688	1.000	100.0	158.561845	158.56	158.561845	0.0350
13C12-PCB 3	14:13	8747152	2895740	1.000	100.0	159.878226	159.88	159.878226	0.0350
PCB 1 (BZ)	12:02	5693658	2382611	1.000	50.00	65.631954	131.26	65.631954	0.00875
PCB 2 (BZ)	14:02	5618454	2049139	1.000	50.00	64.497334	128.99	64.497334	0.00997
PCB 3 (BZ)	14:13	5657080	1890349	1.000	50.00	64.673393	129.35	64.673393	0.0116
Total Dichlorobiphenyl		41214792	11267814	1.000		860.573448		860.573448	0.749
13C12-PCB 4	14:29	3519523	1115416	1.000	100.0	64.328949	64.33	64.328949	0.0307
13C12-PCB 9	16:27	5471134	1658584	1.000	100.0	100.000000	100.00	100.000000	0.0307
13C12-PCB 8	17:18	2947795	844404	1.000	50.00	61.540541	123.08	61.540541	0.0376
13C12-PCB 15	20:25	6060487	1597809	1.000	100.0	110.772045	110.77	110.772045	0.0307
PCB 4 (BZ)	14:29	2207163	683342	1.000	50.00	62.711993	125.42	62.711993	0.0755
PCB 10 (BZ)	14:39	3219294	1119669	1.000	50.00	67.208573	134.42	67.208573	0.0621
PCB 9 (BZ)	16:28	3497973	1041418	1.000	50.00	73.026500	146.05	73.026500	0.0621
PCB 7 (BZ)	16:38	3475632	1070461	1.000	50.00	72.560091	145.12	72.560091	0.0621
PCB 6 (BZ)	16:52	3494443	1032659	1.000	50.00	72.952805	145.91	72.952805	0.0621
PCB 5 (BZ)	17:11	3296433	978203	1.000	50.00	68.818989	137.64	68.818989	0.0621
PCB 8 (BZ)	17:19	3563237	1088017	1.000	50.00	74.389004	148.78	74.389004	0.0621
PCB 14 (BZ)	18:56	4156197	1129797	1.000	50.00	86.768114	173.54	86.768114	0.0621
PCB 11 (BZ)	19:48	3478943	951370	1.000	50.00	72.629214	145.26	72.629214	0.0621
PCB 13 (BZ)	20:07	7056877	1179369	1.000	50.00	147.325045	294.65	147.325045	0.0621
PCB 12 (BZ)	20:08			1.000	50.00			ND	0.0621
PCB 15 (BZ)	20:26	3768600	993509	1.000	50.00	62.183122	124.37	62.183122	0.0527
Total Trichlorobiphenyl		96852529	20855411	1.000		1564.25196		1564.25196	1.57
13C12-PCB 19	17:37	2267163	652799	1.000	100.0	59.792690	59.79	59.792690	0.0832
13C12-PCB 32	20:53	3791706	1009134	1.000	100.0	100.000000	100.00	100.000000	0.0832
13C12-PCB 31	23:10	9419239	2224245	1.000	100.0	100.000000	100.00	100.000000	0.0378
13C12-PCB 28	23:27	4646743	1132917	1.000	50.00	49.332467	98.66	49.332467	0.0378
13C12-PCB 37	27:28	8837013	1988304	1.000	100.0	93.818758	93.82	93.818758	0.0378
PCB 19 (BZ)	17:38	1372742	394503	1.000	50.00	60.548889	121.10	60.548889	0.118
PCB 30 (BZ)	19:27	3650063	599995	1.000	50.00	160.996938	321.99	160.996938	0.118
PCB 18 (BZ)	19:30			1.000	50.00			ND	0.118
PCB 17 (BZ)	19:55	1514987	406187	1.000	50.00	66.823029	133.65	66.823029	0.118
PCB 27 (BZ)	20:09	2180716	562556	1.000	50.00	96.186997	192.37	96.186997	0.118
PCB 24 (BZ)	20:16	1991118	507564	1.000	50.00	87.824210	175.65	87.824210	0.118
PCB 16 (BZ)	20:24	1328617	350192	1.000	50.00	58.602624	117.21	58.602624	0.118
PCB 32 (BZ)	20:54	2241628	585541	1.000	50.00	98.873703	197.75	98.873703	0.118
PCB 34 (BZ)	22:10	5041487	1285510	1.000	50.00	57.049673	114.10	57.049673	0.0389
PCB 23 (BZ)	22:18	5058155	1230886	1.000	50.00	57.238289	114.48	57.238289	0.0389
PCB 29 (BZ)	22:39			1.000	50.00			ND	0.0389
PCB 26 (BZ)	22:38	10230132	2368616	1.000	50.00	115.764591	231.53	115.764591	0.0389
PCB 25 (BZ)	22:52	5650077	1324922	1.000	50.00	63.936502	127.87	63.936502	0.0389
PCB 31 (BZ)	23:11	5306567	1286301	1.000	50.00	60.049329	120.10	60.049329	0.0389
PCB 28 (BZ)	23:30	10367218	1742387	1.000	50.00	117.315862	234.63	117.315862	0.0389
PCB 20 (BZ)	23:31			1.000	50.00			ND	0.0389
PCB 21 (BZ)	23:39			1.000	50.00			ND	0.0389
PCB 33 (BZ)	23:44	10439529	1305103	1.000	50.00	118.134137	236.27	118.134137	0.0389
PCB 22 (BZ)	24:07	5118451	1157738	1.000	50.00	57.920601	115.84	57.920601	0.0389
PCB 36 (BZ)	25:40	5172543	1185720	1.000	50.00	58.532708	117.07	58.532708	0.0389

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS3	Prep Batch		Lot No	
Data File	/20080624i/a080624i3.d	Prep Date		SDG No	
Analysis ID	104720	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	18:23	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 39 (BZ)	26:02	5286101	1203680	1.000	50.00	59.817735	119.64	59.817735	0.0389
PCB 38 (BZ)	26:37	4979520	1127966	1.000	50.00	56.348452	112.70	56.348452	0.0389
PCB 35 (BZ)	27:05	4919082	1140706	1.000	50.00	55.664533	111.33	55.664533	0.0389
PCB 37 (BZ)	27:31	5003796	1089338	1.000	50.00	56.623160	113.25	56.623160	0.0389
Total Tetrachlorobiphenyl		133853736	25271715	1.000		2326.04558		2326.04558	2.28
13C12-PCB 54	20:44	2328822	586897	1.000	100.0	61.418844	61.42	61.418844	0.0352
13C12-PCB 52	25:18	4367997	1025018	1.000	100.0	100.000000	100.00	100.000000	0.0346
13C12-PCB 79	33:13	3100672	640921	1.000	50.00	53.040794	106.08	53.040794	0.0286
13C12-PCB 81	34:14	5698316	1199445	1.000	100.0	130.456042	130.46	130.456042	0.0346
13C12-PCB 77	34:48	5993334	1284742	1.000	100.0	137.210122	137.21	137.210122	0.0346
PCB 54 (BZ)	20:45	1401408	362697	1.000	50.00	60.176690	120.35	60.176690	0.112
PCB 50 (BZ)	22:56			1.000	50.00			ND	0.0529
PCB 53 (BZ)	22:55	5401951	1300824	1.000	50.00	92.406991	184.81	92.406991	0.0529
PCB 45 (BZ)	23:35			1.000	50.00			ND	0.0529
PCB 51 (BZ)	23:39	5097749	701182	1.000	50.00	87.203243	174.41	87.203243	0.0529
PCB 46 (BZ)	23:55	2127362	493167	1.000	50.00	36.391134	72.78	36.391134	0.0529
PCB 52 (BZ)	25:19	2711339	631154	1.000	50.00	46.380776	92.76	46.380776	0.0529
PCB 73 (BZ)	25:27	5756086	806350	1.000	50.00	98.464904	196.93	98.464904	0.0529
PCB 43 (BZ)	25:32			1.000	50.00			ND	0.0529
PCB 69 (BZ)	25:44	6285085	829770	1.000	50.00	107.514081	215.03	107.514081	0.0529
PCB 49 (BZ)	25:49			1.000	50.00			ND	0.0529
PCB 48 (BZ)	26:05	2554548	604620	1.000	50.00	43.698674	87.40	43.698674	0.0529
PCB 65 (BZ)	26:19			1.000	50.00			ND	0.0529
PCB 47 (BZ)	26:21			1.000	50.00			ND	0.0529
PCB 44 (BZ)	26:20	8592629	1738763	1.000	50.00	146.987448	293.97	146.987448	0.0529
PCB 62 (BZ)	26:39	10841419	1818705	1.000	50.00	185.455757	370.91	185.455757	0.0529
PCB 75 (BZ)	26:40			1.000	50.00			ND	0.0529
PCB 59 (BZ)	26:39			1.000	50.00			ND	0.0529
PCB 42 (BZ)	26:50	2562606	546861	1.000	50.00	43.836516	87.67	43.836516	0.0529
PCB 41 (BZ)	27:14			1.000	50.00			ND	0.0529
PCB 71 (BZ)	27:21	7653242	1266500	1.000	50.00	130.918083	261.84	130.918083	0.0529
PCB 40 (BZ)	27:21			1.000	50.00			ND	0.0529
PCB 64 (BZ)	27:34	3798643	870308	1.000	50.00	64.980443	129.96	64.980443	0.0529
PCB 72 (BZ)	28:22	3559061	832771	1.000	50.00	60.882100	121.76	60.882100	0.0529
PCB 68 (BZ)	28:40	3891966	828523	1.000	50.00	66.576848	133.15	66.576848	0.0529
PCB 57 (BZ)	29:06	3454626	742858	1.000	50.00	59.095611	118.19	59.095611	0.0529
PCB 58 (BZ)	29:20	3569002	751710	1.000	50.00	61.052153	122.10	61.052153	0.0529
PCB 67 (BZ)	29:30	3841319	813335	1.000	50.00	65.710469	131.42	65.710469	0.0529
PCB 63 (BZ)	29:46	3820720	809925	1.000	50.00	65.358097	130.72	65.358097	0.0529
PCB 61 (BZ)	29:59			1.000	50.00			ND	0.0529
PCB 70 (BZ)	30:06	14459913	1673466	1.000	50.00	247.354531	494.71	247.354531	0.0529
PCB 76 (BZ)	30:06			1.000	50.00			ND	0.0529
PCB 74 (BZ)	30:09			1.000	50.00			ND	0.0529
PCB 66 (BZ)	30:26	3571877	776528	1.000	50.00	61.101333	122.20	61.101333	0.0529
PCB 55 (BZ)	30:37	3279125	710816	1.000	50.00	56.093451	112.19	56.093451	0.0529
PCB 56 (BZ)	31:07	3519559	735362	1.000	50.00	60.206370	120.41	60.206370	0.0529
PCB 60 (BZ)	31:20	3381817	707240	1.000	50.00	57.850124	115.70	57.850124	0.0529
PCB 80 (BZ)	31:42	3966012	854390	1.000	50.00	67.843495	135.69	67.843495	0.0529
PCB 79 (BZ)	33:15	3907619	814698	1.000	50.00	66.844611	133.69	66.844611	0.0529

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS3	Prep Batch		Lot No	
Data File	/20080624i/a080624i3.d	Prep Date		SDG No	
Analysis ID	104720	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	18:23	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 78 (BZ)	33:48	3367576	699863	1.000	50.00	57.606514	115.21	57.606514	0.0529
PCB 81 (BZ)	34:15	3772147	764426	1.000	50.00	66.197575	132.40	66.197575	0.0548
PCB 77 (BZ)	34:49	3707330	784903	1.000	50.00	61.857557	123.72	61.857557	0.0512
Total Pentachlorobipheny1		108717510	19301738	1.000		2296.22096		2296.22096	4.27
13C12-PCB 104	26:15	3910049	878602	1.000	100.0	126.322215	126.32	126.322215	0.0619
13C12-PCB 95	29:13	1457183	332293	1.000	50.00	37.267640	74.54	37.267640	0.0458
13C12-PCB 101	32:08	3095298	649769	1.000	100.0	100.000000	100.00	100.000000	0.0619
13C12-PCB 111	34:48	2032117	420635	1.000	50.00	65.651740	131.30	65.651740	0.0619
13C12-PCB 123	36:47	7102048	1463458	1.000	100.0	96.954685	96.95	96.954685	0.0263
13C12-PCB 118	37:06	7511621	1550909	1.000	100.0	102.546033	102.55	102.546033	0.0263
13C12-PCB 114	37:38	7024473	1405403	1.000	100.0	95.895658	95.90	95.895658	0.0263
13C12-PCB 105	38:18	6969265	1453454	1.000	100.0	95.141978	95.14	95.141978	0.0263
13C12-PCB 127	39:45	7325121	1532952	1.000	100.0	100.000000	100.00	100.000000	0.0263
13C12-PCB 126	41:23	7451281	1479605	1.000	100.0	101.722292	101.72	101.722292	0.0263
PCB 104 (BZ)	26:16	2331586	541637	1.000	50.00	59.630608	119.26	59.630608	0.103
PCB 96 (BZ)	26:39	2070986	466829	1.000	50.00	52.965730	105.93	52.965730	0.103
PCB 103 (BZ)	28:33	1813574	403720	1.000	50.00	46.382385	92.76	46.382385	0.103
PCB 94 (BZ)	28:48	1577172	345771	1.000	50.00	40.336374	80.67	40.336374	0.103
PCB 95 (BZ)	29:14	1632340	356090	1.000	50.00	41.747303	83.49	41.747303	0.103
PCB 100 (BZ)	29:27	3508690	600630	1.000	50.00	89.735193	179.47	89.735193	0.103
PCB 93 (BZ)	29:28			1.000	50.00			ND	0.103
PCB 102 (BZ)	29:36	3458484	425952	1.000	50.00	88.451168	176.90	88.451168	0.103
PCB 98 (BZ)	29:40			1.000	50.00			ND	0.103
PCB 88 (BZ)	30:00			1.000	50.00			ND	0.103
PCB 91 (BZ)	30:06	3306296	403871	1.000	50.00	84.558940	169.12	84.558940	0.103
PCB 84 (BZ)	30:21	1425997	315306	1.000	50.00	36.470054	72.94	36.470054	0.103
PCB 89 (BZ)	30:49	1512693	319372	1.000	50.00	38.687316	77.37	38.687316	0.103
PCB 121 (BZ)	31:11	2347263	493186	1.000	50.00	60.031549	120.06	60.031549	0.103
PCB 92 (BZ)	31:35	1652447	360421	1.000	50.00	42.261542	84.52	42.261542	0.103
PCB 113 (BZ)	32:09	5905320	910666	1.000	50.00	151.029309	302.06	151.029309	0.103
PCB 90 (BZ)	32:09			1.000	50.00			ND	0.103
PCB 101 (BZ)	32:09			1.000	50.00			ND	0.103
PCB 83 (BZ)	32:39			1.000	50.00			ND	0.103
PCB 99 (BZ)	32:44	3375159	409444	1.000	50.00	86.320120	172.64	86.320120	0.103
PCB 112 (BZ)	32:52	2224557	471835	1.000	50.00	56.893328	113.79	56.893328	0.103
PCB 109 (BZ)/108 (IUPAC)	33:14	12195662	1300329	1.000	50.00	311.905605	623.81	311.905605	0.103
PCB 86 (BZ)	33:15			1.000	50.00			ND	0.103
PCB 119 (BZ)	33:14			1.000	50.00			ND	0.103
PCB 97 (BZ)	33:15			1.000	50.00			ND	0.103
PCB 125 (BZ)	33:19			1.000	50.00			ND	0.103
PCB 87 (BZ)	33:22			1.000	50.00			ND	0.103
PCB 117 (BZ)	33:52			1.000	50.00			ND	0.103
PCB 116 (BZ)	33:58	6080100	732294	1.000	50.00	155.499330	311.00	155.499330	0.103
PCB 85 (BZ)	33:59			1.000	50.00			ND	0.103
PCB 110 (BZ)	34:10	4680013	647540	1.000	50.00	119.691927	239.38	119.691927	0.103
PCB 115 (BZ)	34:12			1.000	50.00			ND	0.103
PCB 82 (BZ)	34:29	1423784	298163	1.000	50.00	36.413457	72.83	36.413457	0.103
PCB 111 (BZ)	34:50	2413061	521023	1.000	50.00	61.714342	123.43	61.714342	0.103
PCB 120 (BZ)	35:18	2407996	520427	1.000	50.00	61.584804	123.17	61.584804	0.103

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PCB's by EPA Method 1668A

Workorder	2990:71CS3	Prep Batch		Lot No	
Data File	/20080624i/a080624i3.d	Prep Date		SDG No	
Analysis ID	104720	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	18:23	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 124 (BZ)	36:27			1.000	50.00			ND	0.0614
PCB 108 (BZ)/107 (IUPAC)	36:27	7224576	1509302	1.000	50.00	100.178021	200.36	100.178021	0.0614
PCB 107 (BZ)/109 (IUPAC)	36:41	3837893	765676	1.000	50.00	53.217313	106.43	53.217313	0.0614
PCB 123 (BZ)	36:48	3602053	815406	1.000	50.00	50.718511	101.44	50.718511	0.0617
PCB 106 (BZ)	36:56	3729598	750711	1.000	50.00	51.715664	103.43	51.715664	0.0614
PCB 118 (BZ)	37:08	3906783	815242	1.000	50.00	52.009852	104.02	52.009852	0.0582
PCB 122 (BZ)	37:30	3438060	720868	1.000	50.00	47.673116	95.35	47.673116	0.0614
PCB 114 (BZ)	37:40	4007228	775397	1.000	50.00	57.046671	114.09	57.046671	0.0642
PCB 105 (BZ)	38:19	3836699	770816	1.000	50.00	55.051702	110.10	55.051702	0.0621
PCB 127 (BZ)	39:47	3891252	758221	1.000	50.00	53.957204	107.91	53.957204	0.0614
PCB 126 (BZ)	41:24	3900188	775593	1.000	50.00	52.342517	104.69	52.342517	0.0610
Total Hexachlorobiphenyl		107382854	18689158	1.000		1942.11270		1942.11270	4.60
13C12-PCB 155	31:54	3319520	701444	1.000	100.0	107.243955	107.24	107.243955	0.0746
13C12-PCB 153	38:57	2494582	499513	1.000	50.00	39.998219	80.00	39.998219	0.0477
13C12-PCB 138	40:13	4957834	1005712	1.000	100.0	100.000000	100.00	100.000000	0.0482
13C12-PCB 167	43:13	6386717	1286309	1.000	100.0	128.820711	128.82	128.820711	0.0482
13C12-PCB 156	44:24	12528385	1614302	1.000	200.0	252.698759	126.35	252.698759	0.0482
13C12-PCB 157	44:23			1.000				ND	0.0482
13C12-PCB 169	47:36	6031829	1163514	1.000	100.0	121.662585	121.66	121.662585	0.0482
PCB 155 (BZ)	31:55	1913271	413675	1.000	50.00	57.636978	115.27	57.636978	0.143
PCB 152 (BZ)	32:08	1799911	372023	1.000	50.00	54.222026	108.44	54.222026	0.143
PCB 150 (BZ)	32:18	1790166	387226	1.000	50.00	53.928460	107.86	53.928460	0.143
PCB 136 (BZ)	32:41	1711185	359400	1.000	50.00	51.549170	103.10	51.549170	0.143
PCB 145 (BZ)	32:58	1743074	367124	1.000	50.00	52.509821	105.02	52.509821	0.143
PCB 148 (BZ)	34:27	1287235	253317	1.000	50.00	38.777745	77.56	38.777745	0.143
PCB 151 (BZ)	35:03	2502155	285784	1.000	50.00	75.377012	150.75	75.377012	0.143
PCB 135 (BZ)	35:07			1.000	50.00			ND	0.143
PCB 154 (BZ)	35:18	1531731	328158	1.000	50.00	46.143147	92.29	46.143147	0.143
PCB 144 (BZ)	35:38	1341159	276994	1.000	50.00	40.402197	80.80	40.402197	0.143
PCB 147 (BZ)	36:00	5374259	1045383	1.000	50.00	86.171064	172.34	86.171064	0.0987
PCB 149 (BZ)	36:00			1.000	50.00			ND	0.0987
PCB 134 (BZ)	36:12			1.000	50.00			ND	0.0987
PCB 143 (BZ)	36:18	4405237	474963	1.000	50.00	70.633730	141.27	70.633730	0.0987
PCB 139 (BZ)	36:35	5149848	935740	1.000	50.00	82.572850	165.15	82.572850	0.0987
PCB 140 (BZ)	36:36			1.000	50.00			ND	0.0987
PCB 131 (BZ)	36:47	2208185	443024	1.000	50.00	35.406119	70.81	35.406119	0.0987
PCB 142 (BZ)	36:57	2183945	446025	1.000	50.00	35.017454	70.03	35.017454	0.0987
PCB 132 (BZ)	37:16	2230374	459164	1.000	50.00	35.761898	71.52	35.761898	0.0987
PCB 133 (BZ)	37:44	2449024	480457	1.000	50.00	39.267740	78.54	39.267740	0.0987
PCB 165 (BZ)	38:08	3077583	626230	1.000	50.00	49.346078	98.69	49.346078	0.0987
PCB 146 (BZ)	38:22	2717598	545544	1.000	50.00	43.574065	87.15	43.574065	0.0987
PCB 161 (BZ)	38:31	3381382	680775	1.000	50.00	54.217202	108.43	54.217202	0.0987
PCB 153 (BZ)	39:01	6504053	997469	1.000	50.00	104.286223	208.57	104.286223	0.0987
PCB 168 (BZ)	39:02			1.000	50.00			ND	0.0987
PCB 141 (BZ)	39:12	2437663	492556	1.000	50.00	39.085577	78.17	39.085577	0.0987
PCB 130 (BZ)	39:37	2211245	443642	1.000	50.00	35.455183	70.91	35.455183	0.0987
PCB 137 (BZ)	39:50	2604189	530652	1.000	50.00	41.755661	83.51	41.755661	0.0987
PCB 164 (BZ)	39:57	3170743	659241	1.000	50.00	50.839809	101.68	50.839809	0.0987
PCB 138 (BZ)	40:15	11286112	1273029	1.000	50.00	180.961931	361.92	180.961931	0.0987

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PCB's by EPA Method 1668A

Workorder	2990:71CS3	Prep Batch		Lot No	
Data File	/20080624i/a080624i3.d	Prep Date		SDG No	
Analysis ID	104720	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	18:23	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 163 (BZ)	40:15			1.000	50.00			ND	0.0987
PCB 129 (BZ)	40:19			1.000	50.00			ND	0.0987
PCB 160 (BZ)	40:24			1.000	50.00			ND	0.0987
PCB 158 (BZ)	40:39	3684930	705726	1.000	50.00	59.084302	118.17	59.084302	0.0987
PCB 166 (BZ)	41:29	5795675	807325	1.000	50.00	92.928064	185.86	92.928064	0.0987
PCB 128 (BZ)	41:31			1.000	50.00			ND	0.0987
PCB 159 (BZ)	42:28	3278355	664166	1.000	50.00	52.565263	105.13	52.565263	0.0987
PCB 162 (BZ)	42:45	3397224	680247	1.000	50.00	54.471213	108.94	54.471213	0.0987
PCB 167 (BZ)	43:14	3514361	687037	1.000	50.00	55.026096	110.05	55.026096	0.0779
PCB 156 (BZ)	44:24	6943356	878647	1.000	100.0	110.841996	110.84	110.841996	0.124
PCB 157 (BZ)	44:26			1.000				ND	0.124
PCB 169 (BZ)	47:38	3757626	688415	1.000	50.00	62.296627	124.59	62.296627	0.0862
Total Heptachlorobiphenyl		54938379	10301163	1.000		1269.95766		1269.95766	2.35
13C12-PCB 188	37:37	5016490	1033024	1.000	100.0	124.439692	124.44	124.439692	0.0531
13C12-PCB 178	40:40	1718481	342321	1.000	50.00	42.628859	85.26	42.628859	0.0531
13C12-PCB 180	45:45	4031262	819700	1.000	100.0	100.000000	100.00	100.000000	0.0531
13C12-PCB 170	47:01	3417586	670149	1.000	100.0	84.777075	84.78	84.777075	0.0531
13C12-PCB 189	50:07	6831938	1334107	1.000	100.0	162.076083	162.08	162.076083	0.0529
PCB 188 (BZ)	37:38	2771387	569872	1.000	50.00	55.245540	110.49	55.245540	0.0818
PCB 179 (BZ)	38:00	2596041	523837	1.000	50.00	61.560768	123.12	61.560768	0.0992
PCB 184 (BZ)	38:30	2486995	517843	1.000	50.00	58.974925	117.95	58.974925	0.0992
PCB 176 (BZ)	38:53	2700512	536388	1.000	50.00	64.038123	128.08	64.038123	0.0992
PCB 186 (BZ)	39:20	2557561	501955	1.000	50.00	60.648280	121.30	60.648280	0.0992
PCB 178 (BZ)	40:42	1883829	388063	1.000	50.00	44.671853	89.34	44.671853	0.0992
PCB 175 (BZ)	41:19	2039667	408154	1.000	50.00	48.367290	96.73	48.367290	0.0992
PCB 187 (BZ)	41:36	2149863	438780	1.000	50.00	50.980404	101.96	50.980404	0.0992
PCB 182 (BZ)	41:48	2151286	428473	1.000	50.00	51.014148	102.03	51.014148	0.0992
PCB 183 (BZ)	42:12	4139777	425667	1.000	50.00	98.167885	196.34	98.167885	0.0992
PCB 185 (BZ)	42:18			1.000	50.00			ND	0.0992
PCB 174 (BZ)	42:27	1973840	409902	1.000	50.00	46.806313	93.61	46.806313	0.0992
PCB 177 (BZ)	42:54	1910278	378495	1.000	50.00	45.299046	90.60	45.299046	0.0992
PCB 181 (BZ)	43:16	2069021	406075	1.000	50.00	49.063371	98.13	49.063371	0.0992
PCB 171 (BZ)	43:31			1.000	50.00			ND	0.0992
PCB 173 (BZ)	43:31	3620601	660331	1.000	50.00	85.856495	171.71	85.856495	0.0992
PCB 172 (BZ)	45:08	1796577	359353	1.000	50.00	42.602817	85.21	42.602817	0.0992
PCB 192 (BZ)	45:24	2439412	502790	1.000	50.00	57.846574	115.69	57.846574	0.0992
PCB 193 (BZ)	45:44	4842742	676816	1.000	50.00	114.837523	229.68	114.837523	0.0992
PCB 180 (BZ)	45:46			1.000	50.00			ND	0.0992
PCB 191 (BZ)	46:07	2708443	541051	1.000	50.00	64.226194	128.45	64.226194	0.0992
PCB 170 (BZ)	47:03	1850228	369298	1.000	50.00	54.138447	108.28	54.138447	0.126
PCB 190 (BZ)	47:34	2658042	531754	1.000	50.00	63.031018	126.06	63.031018	0.0992
PCB 189 (BZ)	50:08	3592277	726266	1.000	50.00	52.580644	105.16	52.580644	0.0633
Total Octachlorobiphenyl		23220139	4381805	1.000		549.707322		549.707322	0.701
13C12-PCB 202	42:58	3691898	728471	1.000	100.0	91.581693	91.58	91.581693	0.0396
13C12-PCB 194	52:13	4215266	822193	1.000	100.0	100.000000	100.00	100.000000	0.0395
13C12-PCB 205	52:40	6022949	1176342	1.000	100.0	142.884198	142.88	142.884198	0.0395
PCB 202 (BZ)	43:00	1848323	371366	1.000	50.00	50.064303	100.13	50.064303	0.0645
PCB 200 (BZ)/201 (IUPAC)	43:55	2056843	402176	1.000	50.00	55.712346	111.42	55.712346	0.0645
PCB 204 (BZ)	44:35	1888476	366574	1.000	50.00	51.151901	102.30	51.151901	0.0645

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS3	**Prep Batch**		**Lot No**	
Data File	/20080624i/a08062 4i3.d	**Prep Date**		**SDG No**	
Analysis ID	104720	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	18:23	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 197 (BZ)	44:49	1993207	406892	1.000	50.00	53.988680	107.98	53.988680	0.0645
PCB 199 (BZ)/200 (IUPAC)	44:56	1974047	394301	1.000	50.00	53.469706	106.94	53.469706	0.0645
PCB 198 (BZ)	47:43	2858960	360363	1.000	50.00	77.438759	154.88	77.438759	0.0645
PCB 201 (BZ)/199 (IUPAC)	47:44			1.000	50.00			ND	0.0645
PCB 196 (BZ)	48:22	1447789	280285	1.000	50.00	39.215303	78.43	39.215303	0.0645
PCB 203 (BZ)	48:34	1593599	313235	1.000	50.00	43.164762	86.33	43.164762	0.0645
PCB 195 (BZ)	49:54	2226075	443717	1.000	50.00	36.959885	73.92	36.959885	0.0400
PCB 194 (BZ)	52:14	2425179	485896	1.000	50.00	40.265641	80.53	40.265641	0.0400
PCB 205 (BZ)	52:42	2907641	557000	1.000	50.00	48.276036	96.55	48.276036	0.0400
Total Nonachlorobiphenyl		7057524	1397005	1.000		169.034461		169.034461	0.151
13C12-PCB 208	49:37	4958071	967623	1.000	100.0	117.621782	117.62	117.621782	0.0474
13C12-PCB 206	54:25	3441919	653625	1.000	100.0	81.653661	81.65	81.653661	0.0474
PCB 208 (BZ)	49:40	2506128	503162	1.000	50.00	50.546432	101.09	50.546432	0.0411
PCB 207 (BZ)	50:35	2621321	519269	1.000	50.00	62.412479	124.82	62.412479	0.0490
PCB 206 (BZ)	54:26	1930075	374574	1.000	50.00	56.075550	112.15	56.075550	0.0608
13C12-PCB 209	56:01	3582563	640063	1.000	100.0	84.990200	84.99	84.990200	0.0274
PCB 209 (BZ)	56:03	1895855	344638	1.000	50.00	52.918958	105.84	52.918958	0.0164

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS3	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i3.d	**Prep Date**		**SDG No**	
Analysis ID	104720	**Prep Exp Date**		**Date Received**	
Analysis Date	06/24/08 18:23	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60	
	Noise	00:00	00:00	0	155	180	62	72	0.86 *	/
	PCB 1 (BZ)	12:02	00:00	0	4377844	1315814	1838515	544096	3.33	AVV/AVV
	PCB 2 (BZ)	14:02	00:00	0	4324387	1294067	1572720	476419	3.34	ABV/ABV
	PCB 3 (BZ)	14:13	00:00	0	4333886	1323194	1445756	444593	3.28	AVV/AVB
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60	
	Noise	00:00	00:00	0	205	375	82	150	0.55 *	/
	13C12-PCB 1	12:01	00:00	0	6609936	2065195	2908374	919314	3.20	AVV/AVV
	13C12-PCB 3	14:13	00:00	0	6667638	2079514	2226719	669021	3.21	ABV/AVV
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79	
	Noise	00:00	00:00	0	313	530	125	212	0.59 *	/
	PCB 4 (BZ)	14:29	00:00	0	1345618	861545	414913	268429	1.56	ABV/ABV
	PCB 10 (BZ)	14:39	00:00	0	1968516	1250778	684087	435582	1.57	AVV/AVV
	PCB 9 (BZ)	16:28	00:00	0	2150835	1347138	635357	406061	1.60	ABV/ABV
	PCB 7 (BZ)	16:38	00:00	0	2131471	1344161	652724	417737	1.59	AVV/AVV
	PCB 6 (BZ)	16:52	00:00	0	2135757	1358686	622476	410183	1.57	AVV/AVV
	PCB 5 (BZ)	17:11	00:00	0	2019345	1277088	599326	378877	1.58	AVV/AVV
	PCB 8 (BZ)	17:19	00:00	0	2181416	1381821	674014	414003	1.58	AVB/AVV
	PCB 14 (BZ)	18:56	00:00	0	2514030	1642167	677645	452152	1.53	ABV/ABV
	PCB 11 (BZ)	19:48	00:00	0	2143399	1335544	581996	369374	1.60	AVV/ABV
	PCB 13 (BZ)	20:07	00:00	0	4343216	2713661	731275	448094	1.60	AVV/AVV
	PCB 12 (BZ)	20:08	00:00	0	0	0	0	0	0.00 *	/
	PCB 15 (BZ)	20:26	00:00	0	2299644	1468956	622987	370522	1.57	AVV/AVV
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79	
	Noise	00:00	00:00	0	313	198	125	79	1.58	/
	13C12-PCB 4	14:29	00:00	0	2177414	1342109	688648	426768	1.62	ABV/ABV
	13C12-PCB 9	16:27	00:00	0	3389704	2081430	1020233	638351	1.63	ABV/ABV
	13C12-PCB 8	17:18	00:00	0	1822013	1125782	515412	328992	1.62	AVV/AVV
	13C12-PCB 15	20:25	00:00	0	3699515	2360972	969641	628168	1.57	ABV/ABV
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	Noise	00:00	00:00	0	493	280	197	112	1.76 *	/
	PCB 19 (BZ)	17:38	00:00	0	709492	663250	202353	192150	1.07	ABV/ABV
	PCB 30 (BZ)	19:27	00:00	0	1880884	1769179	307492	292503	1.06	ABB/ABV
	PCB 18 (BZ)	19:30	00:00	0	0	0	0	0	0.00 *	/
	PCB 17 (BZ)	19:55	00:00	0	789606	725381	211057	195130	1.09	ABV/ABV
	PCB 27 (BZ)	20:09	00:00	0	1122656	1058060	287038	275518	1.06	AVV/AVV
	PCB 24 (BZ)	20:16	00:00	0	1038655	952463	266302	241262	1.09	AVV/AVV
	PCB 16 (BZ)	20:24	00:00	0	674809	653808	183555	166637	1.03	AVB/AVB
	PCB 32 (BZ)	20:54	00:00	0	1166630	1074998	303375	282166	1.09	AVV/AVV
	PCB 34 (BZ)	22:10	00:00	0	2588265	2453222	662226	623284	1.06	ABV/ABV
	PCB 23 (BZ)	22:18	00:00	0	2617431	2440724	632568	598318	1.07	AVB/AVB
	PCB 26 (BZ)	22:38	00:00	0	5260145	4969987	1205984	1162632	1.06	ABV/ABV
	PCB 29 (BZ)	22:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 25 (BZ)	22:52	00:00	0	2883209	2766868	670755	654167	1.04	AVV/AVV

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS3	Prep Batch		Lot No	
Data File	/20080624i/a080624i3.d	Prep Date		SDG No	
Analysis ID	104720	Prep Exp Date		Date Received	
Analysis Date	06/24/08 18:23	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	PCB 31 (BZ)	23:11	00:00	0	2691951	2614616	650840	635461	1.03	AVV/AVV
	PCB 28 (BZ)	23:30	00:00	0	5322267	5044951	886786	855601	1.05	AVV/AVV
	PCB 20 (BZ)	23:31	00:00	0	0	0	0	0	0.00 *	/
	PCB 21 (BZ)	23:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 33 (BZ)	23:44	00:00	0	5371699	5067830	658883	646220	1.06	AVV/AVV
	PCB 22 (BZ)	24:07	00:00	0	2648996	2469455	608012	549726	1.07	AVB/AVV
	PCB 36 (BZ)	25:40	00:00	0	2637393	2535150	613923	571797	1.04	AVV/AVV
	PCB 39 (BZ)	26:02	00:00	0	2709770	2576331	622647	581033	1.05	AVV/AVV
	PCB 38 (BZ)	26:37	00:00	0	2547453	2432067	567715	560251	1.05	AVV/AVV
	PCB 35 (BZ)	27:05	00:00	0	2507983	2411099	577453	563253	1.04	AVV/AVV
	PCB 37 (BZ)	27:31	00:00	0	2547978	2455818	553319	536019	1.04	AVV/AVV
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20	
	Noise	00:00	00:00	0	483	358	193	143	1.35 *	/
	13C12-PCB 19	17:37	00:00	0	1186851	1080312	340375	312424	1.10	AVV/AVV
	13C12-PCB 32	20:53	00:00	0	1951658	1840048	521056	488078	1.06	AVV/AVV
	13C12-PCB 31	23:10	00:00	0	4873895	4545344	1153015	1071230	1.07	AVV/ABV
	13C12-PCB 28	23:27	00:00	0	2374821	2271922	572667	560250	1.05	AVV/AVV
	13C12-PCB 37	27:28	00:00	0	4586396	4250617	1021805	966499	1.08	ABV/ABV
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	Noise	00:00	00:00	0	325	333	130	133	0.98 *	/
	PCB 54 (BZ)	20:45	00:00	0	624338	777070	163054	199643	0.80	ABV/ABV
	PCB 53 (BZ)	22:55	00:00	0	2374150	3027801	565178	735646	0.78	ABV/ABV
	PCB 50 (BZ)	22:56	00:00	0	0	0	0	0	0.00 *	/
	PCB 45 (BZ)	23:35	00:00	0	0	0	0	0	0.00 *	/
	PCB 51 (BZ)	23:39	00:00	0	2239460	2858289	314734	386448	0.78	ABV/ABV
	PCB 46 (BZ)	23:55	00:00	0	928275	1199087	213270	279897	0.77	AVV/AVV
	PCB 52 (BZ)	25:19	00:00	0	1202045	1509294	287630	343524	0.80	ABV/ABV
	PCB 73 (BZ)	25:27	00:00	0	2562340	3193746	358483	447867	0.80	AVV/AVV
	PCB 43 (BZ)	25:32	00:00	0	0	0	0	0	0.00 *	/
	PCB 69 (BZ)	25:44	00:00	0	2777607	3507478	369847	459923	0.79	AVB/AVB
	PCB 49 (BZ)	25:49	00:00	0	0	0	0	0	0.00 *	/
	PCB 48 (BZ)	26:05	00:00	0	1104632	1449916	261859	342761	0.76	ABB/ABV
	PCB 65 (BZ)	26:19	00:00	0	0	0	0	0	0.00 *	/
	PCB 44 (BZ)	26:20	00:00	0	3784309	4808320	767577	971186	0.79	ABV/AVV
	PCB 47 (BZ)	26:21	00:00	0	0	0	0	0	0.00 *	/
	PCB 59 (BZ)	26:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 62 (BZ)	26:39	00:00	0	4782108	6059311	802023	1016682	0.79	AVV/AVV
	PCB 75 (BZ)	26:40	00:00	0	0	0	0	0	0.00 *	/
	PCB 42 (BZ)	26:50	00:00	0	1137317	1425289	238936	307925	0.80	AVB/AVB
	PCB 41 (BZ)	27:14	00:00	0	0	0	0	0	0.00 *	/
	PCB 40 (BZ)	27:21	00:00	0	0	0	0	0	0.00 *	/
	PCB 71 (BZ)	27:21	00:00	0	3370959	4282283	554044	712456	0.79	ABV/ABV
	PCB 64 (BZ)	27:34	00:00	0	1695798	2102845	379788	490520	0.81	AVB/AVB

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PCB's by EPA Method 1668A

Workorder	2990:71CS3	Prep Batch		Lot No	
Data File	/20080624i/a080624i3.d	Prep Date		SDG No	
Analysis ID	104720	Prep Exp Date		Date Received	
Analysis Date	06/24/08 18:23	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	PCB 72 (BZ)	28:22	00:00	0	1578419	1980642	361714	471057	0.80	AVV/ABV
	PCB 68 (BZ)	28:40	00:00	0	1693168	2198798	360261	468262	0.77	AVV/AVV
	PCB 57 (BZ)	29:06	00:00	0	1521820	1932806	329179	413679	0.79	ABV/ABV
	PCB 58 (BZ)	29:20	00:00	0	1567227	2001775	325539	426171	0.78	AVV/AVV
	PCB 67 (BZ)	29:30	00:00	0	1717963	2123356	361656	451679	0.81	AVV/AVV
	PCB 63 (BZ)	29:46	00:00	0	1666824	2153896	348982	460943	0.77	AVB/AVB
	PCB 61 (BZ)	29:59	00:00	0	0	0	0	0	0.00 *	/
	PCB 76 (BZ)	30:06	00:00	0	0	0	0	0	0.00 *	/
	PCB 70 (BZ)	30:06	00:00	0	6324000	8135913	729326	944140	0.78	ABB/ABB
	PCB 74 (BZ)	30:09	00:00	0	0	0	0	0	0.00 *	/
	PCB 66 (BZ)	30:26	00:00	0	1571915	1999962	344300	432228	0.79	ABV/ABV
	PCB 55 (BZ)	30:37	00:00	0	1430811	1848314	311022	399794	0.77	AVB/AVB
	PCB 56 (BZ)	31:07	00:00	0	1535997	1983562	317266	418096	0.77	ABV/ABV
	PCB 60 (BZ)	31:20	00:00	0	1479688	1902129	312593	394647	0.78	AVV/AVV
	PCB 80 (BZ)	31:42	00:00	0	1724921	2241091	380492	473898	0.77	AVV/AVV
	PCB 79 (BZ)	33:15	00:00	0	1731229	2176390	364957	449741	0.80	MBV/ABV
	PCB 78 (BZ)	33:48	00:00	0	1468657	1898919	301531	398332	0.77	ABV/ABV
	PCB 81 (BZ)	34:15	00:00	0	1655039	2117108	343759	420667	0.78	AVV/AVV
	PCB 77 (BZ)	34:49	00:00	0	1620554	2086776	340719	444184	0.78	AVV/ABV
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89	
	Noise	00:00	00:00	0	180	175	72	70	1.03 *	/
	13C12-PCB 54	20:44	00:00	0	1029150	1299672	255654	331243	0.79	ABV/ABV
	13C12-PCB 52	25:18	00:00	0	1931422	2436575	450383	574635	0.79	ABV/ABV
	13C12-PCB 79	33:13	00:00	0	1381046	1719626	280751	360170	0.80	ABV/ABV
	13C12-PCB 81	34:14	00:00	0	2540318	3157998	543389	656056	0.80	ABV/ABV
	13C12-PCB 77	34:48	00:00	0	2661400	3331934	567172	717570	0.80	AVV/AVV
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78	
	Noise	00:00	00:00	0	498	405	199	162	1.23 *	/
	PCB 104 (BZ)	26:16	00:00	0	1439813	891773	334402	207235	1.61	ABV/ABV
	PCB 96 (BZ)	26:39	00:00	0	1251584	819402	276228	190601	1.53	AVV/AVV
	PCB 103 (BZ)	28:33	00:00	0	1102088	711486	246568	157152	1.55	ABV/ABV
	PCB 94 (BZ)	28:48	00:00	0	964067	613105	211550	134221	1.57	AVV/AVV
	PCB 95 (BZ)	29:14	00:00	0	1003627	628713	218665	137425	1.60	ABV/ABV
	PCB 100 (BZ)	29:27	00:00	0	2151958	1356732	365909	234721	1.59	AVV/AVV
	PCB 93 (BZ)	29:28	00:00	0	0	0	0	0	0.00 *	/
	PCB 102 (BZ)	29:36	00:00	0	2131290	1327194	268888	157064	1.61	AVB/AVB
	PCB 98 (BZ)	29:40	00:00	0	0	0	0	0	0.00 *	/
	PCB 88 (BZ)	30:00	00:00	0	0	0	0	0	0.00 *	/
	PCB 91 (BZ)	30:06	00:00	0	2018827	1287469	244575	159296	1.57	ABV/ABV
	PCB 84 (BZ)	30:21	00:00	0	868521	557476	194390	120916	1.56	AVV/AVB
	PCB 89 (BZ)	30:49	00:00	0	930560	582133	197356	122016	1.60	ABV/ABB
	PCB 121 (BZ)	31:11	00:00	0	1421981	925282	302991	190195	1.54	AVV/ABB
	PCB 92 (BZ)	31:35	00:00	0	1003282	649165	215208	145213	1.55	AVB/AVB

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Workorder	2990:71CS3	Prep Batch		Lot No	
Data File	/20080624i/a080624i3.d	Prep Date		SDG No	
Analysis ID	104720	Prep Exp Date		Date Received	
Analysis Date	06/24/08 18:23	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78	
	PCB 113 (BZ)	32:09	00:00	0	3619215	2286105	561659	349007	1.58	AVV/AVV
	PCB 90 (BZ)	32:09	00:00	0	0	0	0	0	0.00 *	/
	PCB 101 (BZ)	32:09	00:00	0	0	0	0	0	0.00 *	/
	PCB 83 (BZ)	32:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 99 (BZ)	32:44	00:00	0	2117335	1257824	252265	157179	1.68	ABV/ABV
	PCB 112 (BZ)	32:52	00:00	0	1320509	904048	290965	180870	1.46	AVB/AVB
	PCB 109 (BZ)/108 (IUPAC	33:14	00:00	0	7433535	4762127	792304	508025	1.56	ABB/ABB
	PCB 119 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/
	PCB 86 (BZ)	33:15	00:00	0	0	0	0	0	0.00 *	/
	PCB 97 (BZ)	33:15	00:00	0	0	0	0	0	0.00 *	/
	PCB 125 (BZ)	33:19	00:00	0	0	0	0	0	0.00 *	/
	PCB 87 (BZ)	33:22	00:00	0	0	0	0	0	0.00 *	/
	PCB 117 (BZ)	33:52	00:00	0	0	0	0	0	0.00 *	/
	PCB 116 (BZ)	33:58	00:00	0	3718499	2361601	442297	289997	1.57	ABV/ABV
	PCB 85 (BZ)	33:59	00:00	0	0	0	0	0	0.00 *	/
	PCB 110 (BZ)	34:10	00:00	0	2855708	1824305	391509	256031	1.57	AVB/AVB
	PCB 115 (BZ)	34:12	00:00	0	0	0	0	0	0.00 *	/
	PCB 82 (BZ)	34:29	00:00	0	877628	546156	183409	114754	1.61	ABB/ABB
	PCB 111 (BZ)	34:50	00:00	0	1482492	930569	316440	204583	1.59	ABV/ABB
	PCB 120 (BZ)	35:18	00:00	0	1478919	929077	317386	203041	1.59	AVV/AVB
	PCB 108 (BZ)/107 (IUPAC	36:27	00:00	0	4446545	2778031	908155	601147	1.60	ABV/ABV
	PCB 124 (BZ)	36:27	00:00	0	0	0	0	0	0.00 *	/
	PCB 107 (BZ)/109 (IUPAC	36:41	00:00	0	2353361	1484532	473695	291981	1.59	AVV/AVV
	PCB 123 (BZ)	36:48	00:00	0	2170625	1431428	496011	319395	1.52	AVV/AVV
	PCB 106 (BZ)	36:56	00:00	0	2292854	1436744	460781	289930	1.60	AVV/AVV
	PCB 118 (BZ)	37:08	00:00	0	2374755	1532028	492773	322469	1.55	AVV/AVV
	PCB 122 (BZ)	37:30	00:00	0	2121323	1316737	454359	266509	1.61	ABV/ABV
	PCB 114 (BZ)	37:40	00:00	0	2430680	1576548	473535	301862	1.54	AVV/AVV
	PCB 105 (BZ)	38:19	00:00	0	2327212	1509487	467413	303403	1.54	AVV/AVV
	PCB 127 (BZ)	39:47	00:00	0	2374631	1516621	463798	294423	1.57	AVV/AVV
	PCB 126 (BZ)	41:24	00:00	0	2377764	1522424	472903	302690	1.56	ABV/AVV
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78	
	Noise	00:00	00:00	0	230	173	92	69	1.33	/
	13C12-PCB 104	26:15	00:00	0	2410400	1499649	544018	334584	1.61	ABV/ABV
	13C12-PCB 95	29:13	00:00	0	890430	566753	201268	131025	1.57	ABV/ABV
	13C12-PCB 101	32:08	00:00	0	1912314	1182984	406890	242879	1.62	AVV/ABV
	13C12-PCB 111	34:48	00:00	0	1258967	773150	261783	158852	1.63	ABV/ABV
	13C12-PCB 123	36:47	00:00	0	4368328	2733720	903371	560087	1.60	ABV/ABV
	13C12-PCB 118	37:06	00:00	0	4648439	2863182	971160	579749	1.62	AVV/AVV
	13C12-PCB 114	37:38	00:00	0	4331070	2693403	874871	530532	1.61	AVV/AVV
	13C12-PCB 105	38:18	00:00	0	4297385	2671880	903373	550081	1.61	AVV/AVV
	13C12-PCB 127	39:45	00:00	0	4524110	2801011	951722	581230	1.62	ABV/AVV
	13C12-PCB 126	41:23	00:00	0	4533133	2918148	896648	582957	1.55	AVV/AVV

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Workorder	2990:71CS3	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i3.d	**Prep Date**		**SDG No**	
Analysis ID	104720	**Prep Exp Date**		**Date Received**	
Analysis Date	06/24/08 18:23	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	Noise	00:00	00:00	0	553	450	221	180	1.23	/
	PCB 155 (BZ)	31:55	00:00	0	1066798	846473	230883	182792	1.26	ABV/ABV
	PCB 152 (BZ)	32:08	00:00	0	1007946	791965	209026	162997	1.27	AVV/AVV
	PCB 150 (BZ)	32:18	00:00	0	999290	790876	216830	170396	1.26	AVB/AVB
	PCB 136 (BZ)	32:41	00:00	0	961897	749288	201123	158277	1.28	ABV/ABV
	PCB 145 (BZ)	32:58	00:00	0	975805	767269	205513	161611	1.27	AVB/AVV
	PCB 148 (BZ)	34:27	00:00	0	733631	553604	144494	108823	1.33	ABV/ABV
	PCB 151 (BZ)	35:03	00:00	0	1369183	1132972	155419	130365	1.21	ABV/ABV
	PCB 135 (BZ)	35:07	00:00	0	0	0	0	0	0.00 *	/
	PCB 154 (BZ)	35:18	00:00	0	845211	686520	182889	145269	1.23	AVV/AVV
	PCB 144 (BZ)	35:38	00:00	0	751820	589339	158454	118540	1.28	AVB/AVB
	PCB 147 (BZ)	36:00	00:00	0	3003156	2371103	578492	466891	1.27	ABV/ABV
	PCB 149 (BZ)	36:00	00:00	0	0	0	0	0	0.00 *	/
	PCB 134 (BZ)	36:12	00:00	0	0	0	0	0	0.00 *	/
	PCB 143 (BZ)	36:18	00:00	0	2468727	1936510	259451	215512	1.27	AVV/AVV
	PCB 139 (BZ)	36:35	00:00	0	2860830	2289018	514609	421131	1.25	AVV/AVV
	PCB 140 (BZ)	36:36	00:00	0	0	0	0	0	0.00 *	/
	PCB 131 (BZ)	36:47	00:00	0	1237693	970492	245524	197500	1.28	AVV/AVV
	PCB 142 (BZ)	36:57	00:00	0	1232534	951411	253112	192913	1.30	AVB/AVB
	PCB 132 (BZ)	37:16	00:00	0	1255846	974528	253224	205940	1.29	ABB/ABV
	PCB 133 (BZ)	37:44	00:00	0	1369285	1079739	263634	216823	1.27	ABV/ABB
	PCB 165 (BZ)	38:08	00:00	0	1709044	1368539	344785	281445	1.25	AVV/ABV
	PCB 146 (BZ)	38:22	00:00	0	1515606	1201992	307419	238125	1.26	AVV/AVV
	PCB 161 (BZ)	38:31	00:00	0	1888595	1492787	377479	303296	1.27	AVB/AVB
	PCB 153 (BZ)	39:01	00:00	0	3589131	2914922	553500	443969	1.23	ABV/ABV
	PCB 168 (BZ)	39:02	00:00	0	0	0	0	0	0.00 *	/
	PCB 141 (BZ)	39:12	00:00	0	1334513	1103150	274703	217853	1.21	AVV/AVB
	PCB 130 (BZ)	39:37	00:00	0	1227330	983915	245545	198097	1.25	ABV/ABV
	PCB 137 (BZ)	39:50	00:00	0	1447561	1156628	298454	232198	1.25	AVV/AVV
	PCB 164 (BZ)	39:57	00:00	0	1763603	1407140	367134	292107	1.25	AVB/AVB
	PCB 138 (BZ)	40:15	00:00	0	6290562	4995550	712412	560617	1.26	ABV/ABV
	PCB 163 (BZ)	40:15	00:00	0	0	0	0	0	0.00 *	/
	PCB 129 (BZ)	40:19	00:00	0	0	0	0	0	0.00 *	/
	PCB 160 (BZ)	40:24	00:00	0	0	0	0	0	0.00 *	/
	PCB 158 (BZ)	40:39	00:00	0	2046214	1638716	384091	321635	1.25	AVB/AVB
	PCB 166 (BZ)	41:29	00:00	0	3231045	2564630	458107	349218	1.26	AVV/AVV
	PCB 128 (BZ)	41:31	00:00	0	0	0	0	0	0.00 *	/
	PCB 159 (BZ)	42:28	00:00	0	1825424	1452931	373498	290668	1.26	AVB/AVB
	PCB 162 (BZ)	42:45	00:00	0	1887732	1509492	380861	299386	1.25	ABV/ABV
	PCB 167 (BZ)	43:14	00:00	0	1942918	1571443	377679	309358	1.24	ABB/ABB
	PCB 156 (BZ)	44:24	00:00	0	3844100	3099256	485900	392747	1.24	ABV/ABV
	PCB 157 (BZ)	44:26	00:00	0	0	0	0	0	0.00 *	/
	PCB 169 (BZ)	47:38	00:00	0	2093310	1664316	382770	305645	1.26	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS3	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i3.d	**Prep Date**		**SDG No**	
Analysis ID	104720	**Prep Exp Date**		**Date Received**	
Analysis Date	06/24/08 18:23	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	275	210	110	84	1.31	/
	13C12-PCB 155	31:54	00:00	0	1862302	1457218	392316	309128	1.28	ABV/ABV
	13C12-PCB 153	38:57	00:00	0	1400176	1094406	277744	221769	1.28	ABV/ABV
	13C12-PCB 138	40:13	00:00	0	2770384	2187450	553546	452166	1.27	ABV/ABV
	13C12-PCB 167	43:13	00:00	0	3618590	2768127	728468	557841	1.31	AVV/AVV
	13C12-PCB 157	44:23	00:00	0	0	0	0	0	0.00 *	/
	13C12-PCB 156	44:24	00:00	0	7032592	5495793	901345	712957	1.28	AVV/AVV
	13C12-PCB 169	47:36	00:00	0	3384361	2647468	650710	512804	1.28	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	360	485	144	194	0.74 *	/
	PCB 188 (BZ)	37:38	00:00	0	1414811	1356576	292013	277859	1.04	ABV/ABV
	PCB 179 (BZ)	38:00	00:00	0	1321419	1274622	262588	261249	1.04	AVV/AVV
	PCB 184 (BZ)	38:30	00:00	0	1275456	1211539	257898	259945	1.05	ABV/ABV
	PCB 176 (BZ)	38:53	00:00	0	1400513	1299999	278793	257595	1.08	AVV/AVV
	PCB 186 (BZ)	39:20	00:00	0	1324381	1233180	263624	238331	1.07	AVV/AVB
	PCB 178 (BZ)	40:42	00:00	0	964514	919315	198905	189158	1.05	ABV/ABV
	PCB 175 (BZ)	41:19	00:00	0	1037378	1002289	208080	200074	1.04	ABV/ABV
	PCB 187 (BZ)	41:36	00:00	0	1099680	1050183	220898	217882	1.05	AVV/AVV
	PCB 182 (BZ)	41:48	00:00	0	1085799	1065487	214966	213507	1.02	AVB/AVB
	PCB 183 (BZ)	42:12	00:00	0	2128760	2011017	213442	212225	1.06	ABV/ABV
	PCB 185 (BZ)	42:18	00:00	0	0	0	0	0	0.00 *	/
	PCB 174 (BZ)	42:27	00:00	0	1014333	959507	217679	192223	1.06	AVV/AVB
	PCB 177 (BZ)	42:54	00:00	0	983981	926297	198486	180009	1.06	ABB/ABB
	PCB 181 (BZ)	43:16	00:00	0	1059413	1009608	204164	201911	1.05	ABV/ABV
	PCB 173 (BZ)	43:31	00:00	0	1862724	1757877	343000	317331	1.06	AVV/AVB
	PCB 171 (BZ)	43:31	00:00	0	0	0	0	0	0.00 *	/
	PCB 172 (BZ)	45:08	00:00	0	906129	890448	185372	173981	1.02	AVB/AVB
	PCB 192 (BZ)	45:24	00:00	0	1255370	1184042	262352	240438	1.06	ABB/ABB
	PCB 193 (BZ)	45:44	00:00	0	2494204	2348538	347245	329571	1.06	ABV/ABV
	PCB 180 (BZ)	45:46	00:00	0	0	0	0	0	0.00 *	/
	PCB 191 (BZ)	46:07	00:00	0	1381752	1326691	271020	270031	1.04	AVB/AVB
	PCB 170 (BZ)	47:03	00:00	0	947655	902573	189876	179422	1.05	ABV/ABV
	PCB 190 (BZ)	47:34	00:00	0	1334322	1323720	265616	266138	1.01	ABV/AVV
	PCB 189 (BZ)	50:08	00:00	0	1843288	1748989	371603	354663	1.05	AVV/AVV
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	218	218	87	87	1.00	/
	13C12-PCB 188	37:37	00:00	0	2571869	2444621	527042	505982	1.05	ABV/ABV
	13C12-PCB 178	40:40	00:00	0	874449	844032	173035	169286	1.04	ABV/ABV
	13C12-PCB 180	45:45	00:00	0	2060130	1971132	424702	394998	1.05	ABV/ABV
	13C12-PCB 170	47:01	00:00	0	1751885	1665701	342835	327314	1.05	AVV/ABV
	13C12-PCB 189	50:07	00:00	0	3501678	3330260	690804	643303	1.05	ABV/AVV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	198	273	79	109	0.72 *	/

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS3	Prep Batch		Lot No	
Data File	/20080624i/a080624i3.d	Prep Date		SDG No	
Analysis ID	104720	Prep Exp Date		Date Received	
Analysis Date	06/24/08 18:23	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	PCB 202 (BZ)	43:00	00:00	0	879314	969009	179276	192090	0.91	ABV/ABV
	PCB 200 (BZ)/201 (IUPAC	43:55	00:00	0	986481	1070362	194733	207443	0.92	ABB/ABV
	PCB 204 (BZ)	44:35	00:00	0	903810	984666	175229	191345	0.92	ABV/ABV
	PCB 197 (BZ)	44:49	00:00	0	913609	1079598	194875	212017	0.85	AVV/AVV
	PCB 199 (BZ)/200 (IUPAC	44:56	00:00	0	966032	1008015	186089	208212	0.96	AVV/AVB
	PCB 198 (BZ)	47:43	00:00	0	1376675	1482285	172878	187485	0.93	ABV/ABV
	PCB 201 (BZ)/199 (IUPAC	47:44	00:00	0	0	0	0	0	0.00 *	/
	PCB 196 (BZ)	48:22	00:00	0	697760	750029	130691	149594	0.93	ABV/AVV
	PCB 203 (BZ)	48:34	00:00	0	767008	826591	148156	165079	0.93	AVB/AVB
	PCB 195 (BZ)	49:54	00:00	0	1054825	1171250	213314	230403	0.90	AVV/ABV
	PCB 194 (BZ)	52:14	00:00	0	1143607	1281572	224402	261494	0.89	ABV/ABV
	PCB 205 (BZ)	52:42	00:00	0	1377204	1530437	264748	292252	0.90	ABB/ABV
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	188	138	75	55	1.36 *	/
	13C12-PCB 202	42:58	00:00	0	1780777	1911121	351457	377014	0.93	ABV/ABV
	13C12-PCB 194	52:13	00:00	0	2011384	2203882	387332	434861	0.91	ABB/ABV
	13C12-PCB 205	52:40	00:00	0	2836384	3186565	553436	622906	0.89	ABV/AVV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	208	190	83	76	1.09 *	/
	PCB 208 (BZ)	49:40	00:00	0	1113569	1392559	232282	270880	0.80	ABV/ABV
	PCB 207 (BZ)	50:35	00:00	0	1140935	1480386	226215	293054	0.77	ABV/AVV
	PCB 206 (BZ)	54:26	00:00	0	863183	1066892	169214	205360	0.81	ABV/ABV
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	143	248	57	99	0.58 *	/
	13C12-PCB 208	49:37	00:00	0	2219884	2738187	433956	533667	0.81	AVV/AVV
	13C12-PCB 206	54:25	00:00	0	1526679	1915240	290234	363391	0.80	AVV/ABV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	38	68	15	27	0.56 *	/
	PCB 209 (BZ)	56:03	00:00	0	799439	1096416	138660	205978	0.73	ABV/ABV
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	108	118	43	47	0.91 *	/
	13C12-PCB 209	56:01	00:00	0	1490957	2091606	266782	373281	0.71	ABV/ABV

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TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS4	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i4.d	**Prep Date**		**SDG No**	
Analysis ID	104726	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	19:24	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
Total Monochlorobiphenyl		121632656	46077052	1.000		1608.05459		1608.05459	0.0889
13C12-PCB 1	12:00	7475573	2971240	1.000	100.0	150.295461	150.30	150.295461	0.0420
13C12-PCB 3	14:11	7655191	2740146	1.000	100.0	153.906659	153.91	153.906659	0.0420
PCB 1 (BZ)	12:00	41167864	17007192	1.000	400.0	550.698441	137.67	550.698441	0.0284
PCB 2 (BZ)	14:01	40252592	14003809	1.000	400.0	532.062915	133.02	532.062915	0.0296
PCB 3 (BZ)	14:12	40212200	15066051	1.000	400.0	525.293229	131.32	525.293229	0.0308
Total Dichlorobiphenyl		293307320	79132695	1.000		6735.59916		6735.59916	1.46
13C12-PCB 4	14:27	3125986	1064779	1.000	100.0	62.847558	62.85	62.847558	0.0440
13C12-PCB 9	16:25	4973918	1477686	1.000	100.0	100.000000	100.00	100.000000	0.0440
13C12-PCB 8	17:17	20940318	6018127	1.000	400.0	480.893291	120.22	480.893291	0.0523
13C12-PCB 15	20:23	5582939	1422035	1.000	100.0	112.244291	112.24	112.244291	0.0440
PCB 4 (BZ)	14:28	15249738	5231427	1.000	400.0	487.837693	121.96	487.837693	0.141
PCB 10 (BZ)	14:38	22339232	7193289	1.000	400.0	513.019276	128.25	513.019276	0.121
PCB 9 (BZ)	16:26	24778238	7570362	1.000	400.0	569.030919	142.26	569.030919	0.121
PCB 7 (BZ)	16:37	24626113	7113631	1.000	400.0	565.537377	141.38	565.537377	0.121
PCB 6 (BZ)	16:52	24768415	7431432	1.000	400.0	568.805335	142.20	568.805335	0.121
PCB 5 (BZ)	17:11	23111480	6554650	1.000	400.0	530.753910	132.69	530.753910	0.121
PCB 8 (BZ)	17:18	25512327	7577908	1.000	400.0	585.889234	146.47	585.889234	0.121
PCB 14 (BZ)	18:55	29656022	8373697	1.000	400.0	681.048970	170.26	681.048970	0.121
PCB 11 (BZ)	19:47	25057508	6712518	1.000	400.0	575.444340	143.86	575.444340	0.121
PCB 13 (BZ)	20:05	50935390	8593392	1.000	400.0	1169.72853	292.43	1169.72853	0.121
PCB 12 (BZ)	20:07			1.000	400.0			ND	0.121
PCB 15 (BZ)	20:24	27272857	6780389	1.000	400.0	488.503582	122.13	488.503582	0.106
Total Trichlorobiphenyl		728776317	158833866	1.000		12722.0590		12722.0590	4.22
13C12-PCB 19	17:36	1997849	552872	1.000	100.0	56.325655	56.33	56.325655	0.114
13C12-PCB 32	20:52	3546961	904390	1.000	100.0	100.000000	100.00	100.000000	0.114
13C12-PCB 31	23:08	8935900	2135897	1.000	100.0	100.000000	100.00	100.000000	0.0485
13C12-PCB 28	23:26	34221573	8464946	1.000	400.0	382.967278	95.74	382.967278	0.0485
13C12-PCB 37	27:27	8253530	1896232	1.000	100.0	92.363724	92.36	92.363724	0.0485
PCB 19 (BZ)	17:37	9705104	2792306	1.000	400.0	485.777654	121.44	485.777654	0.333
PCB 30 (BZ)	19:26	25750208	4246380	1.000	400.0	1288.89661	322.22	1288.89661	0.333
PCB 18 (BZ)	19:29			1.000	400.0			ND	0.333
PCB 17 (BZ)	19:53	11033525	2832166	1.000	400.0	552.270217	138.07	552.270217	0.333
PCB 27 (BZ)	20:07	16011222	4264941	1.000	400.0	801.423030	200.36	801.423030	0.333
PCB 24 (BZ)	20:15	14495647	3779509	1.000	400.0	725.562693	181.39	725.562693	0.333
PCB 16 (BZ)	20:23	9593157	2480593	1.000	400.0	480.174277	120.04	480.174277	0.333
PCB 32 (BZ)	20:54	16004968	3938399	1.000	400.0	801.109994	200.28	801.109994	0.333
PCB 34 (BZ)	22:09	37871860	9828199	1.000	400.0	458.856514	114.71	458.856514	0.0970
PCB 23 (BZ)	22:17	37682876	9517388	1.000	400.0	456.566778	114.14	456.566778	0.0970
PCB 29 (BZ)	22:38			1.000	400.0			ND	0.0970
PCB 26 (BZ)	22:37	79115908	18441891	1.000	400.0	958.570551	239.64	958.570551	0.0970
PCB 25 (BZ)	22:51	42376088	9722117	1.000	400.0	513.429866	128.36	513.429866	0.0970
PCB 31 (BZ)	23:10	39526334	9538573	1.000	400.0	478.902167	119.73	478.902167	0.0970
PCB 28 (BZ)	23:29	79378668	13558434	1.000	400.0	961.754159	240.44	961.754159	0.0970
PCB 20 (BZ)	23:30			1.000	400.0			ND	0.0970
PCB 21 (BZ)	23:38			1.000	400.0			ND	0.0970
PCB 33 (BZ)	23:42	77540528	9889632	1.000	400.0	939.483203	234.87	939.483203	0.0970
PCB 22 (BZ)	24:06	38212094	9263027	1.000	400.0	462.978798	115.74	462.978798	0.0970
PCB 36 (BZ)	25:39	39457800	9318072	1.000	400.0	478.071807	119.52	478.071807	0.0970

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PCB's by EPA Method 1668A

Workorder	2990:71CS4	Prep Batch		Lot No	
Data File	/20080624i/a080624i4.d	Prep Date		SDG No	
Analysis ID	104726	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	19:24	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 39 (BZ)	26:01	40866982	9359736	1.000	400.0	495.145495	123.79	495.145495	0.0970
PCB 38 (BZ)	26:36	38272072	8880893	1.000	400.0	463.705493	115.93	463.705493	0.0970
PCB 35 (BZ)	27:04	37687324	8684839	1.000	400.0	456.620670	114.16	456.620670	0.0970
PCB 37 (BZ)	27:28	38193952	8496771	1.000	400.0	462.758989	115.69	462.758989	0.0970
Total Tetrachlorobipheny1		995086838	189087963	1.000		18001.8939		18001.8939	5.04
13C12-PCB 54	20:43	2066219	513208	1.000	100.0	58.253220	58.25	58.253220	0.0387
13C12-PCB 52	25:17	4125064	954796	1.000	100.0	100.000000	100.00	100.000000	0.0367
13C12-PCB 79	33:13	24315965	5072364	1.000	400.0	432.432656	108.11	432.432656	0.0296
13C12-PCB 81	34:13	5487580	1164348	1.000	100.0	133.030178	133.03	133.030178	0.0367
13C12-PCB 77	34:47	5758548	1197922	1.000	100.0	139.598998	139.60	139.598998	0.0367
PCB 54 (BZ)	20:44	9954116	2510855	1.000	400.0	481.755129	120.44	481.755129	0.268
PCB 50 (BZ)	22:55			1.000	400.0			ND	0.116
PCB 53 (BZ)	22:54	38920068	9356231	1.000	400.0	692.150543	173.04	692.150543	0.116
PCB 45 (BZ)	23:34			1.000	400.0			ND	0.116
PCB 51 (BZ)	23:38	37208060	5126650	1.000	400.0	661.704366	165.43	661.704366	0.116
PCB 46 (BZ)	23:54	15552379	3536230	1.000	400.0	276.581931	69.15	276.581931	0.116
PCB 52 (BZ)	25:18	19363254	4571110	1.000	400.0	344.354146	86.09	344.354146	0.116
PCB 73 (BZ)	25:26	41728028	5967974	1.000	400.0	742.087019	185.52	742.087019	0.116
PCB 43 (BZ)	25:31			1.000	400.0			ND	0.116
PCB 69 (BZ)	25:43	46774292	6103213	1.000	400.0	831.829266	207.96	831.829266	0.116
PCB 49 (BZ)	25:47			1.000	400.0			ND	0.116
PCB 48 (BZ)	26:04	18965631	4451600	1.000	400.0	337.282859	84.32	337.282859	0.116
PCB 65 (BZ)	26:18			1.000	400.0			ND	0.116
PCB 47 (BZ)	26:20			1.000	400.0			ND	0.116
PCB 44 (BZ)	26:19	63660250	13148060	1.000	400.0	1132.12743	283.03	1132.12743	0.116
PCB 62 (BZ)	26:38	80861500	13365681	1.000	400.0	1438.03272	359.51	1438.03272	0.116
PCB 75 (BZ)	26:39			1.000	400.0			ND	0.116
PCB 59 (BZ)	26:38			1.000	400.0			ND	0.116
PCB 42 (BZ)	26:49	18416379	4019770	1.000	400.0	327.515017	81.88	327.515017	0.116
PCB 41 (BZ)	27:13			1.000	400.0			ND	0.116
PCB 71 (BZ)	27:20	57292936	9369446	1.000	400.0	1018.89176	254.72	1018.89176	0.116
PCB 40 (BZ)	27:20			1.000	400.0			ND	0.116
PCB 64 (BZ)	27:33	28102405	6440717	1.000	400.0	499.770321	124.94	499.770321	0.116
PCB 72 (BZ)	28:21	26640776	6168591	1.000	400.0	473.776859	118.44	473.776859	0.116
PCB 68 (BZ)	28:38	28692097	6132595	1.000	400.0	510.257344	127.56	510.257344	0.116
PCB 57 (BZ)	29:05	25829324	5629213	1.000	400.0	459.346079	114.84	459.346079	0.116
PCB 58 (BZ)	29:19	26512232	5613360	1.000	400.0	471.490846	117.87	471.490846	0.116
PCB 67 (BZ)	29:29	28796059	6115479	1.000	400.0	512.106193	128.03	512.106193	0.116
PCB 63 (BZ)	29:45	28592598	6249820	1.000	400.0	508.487864	127.12	508.487864	0.116
PCB 61 (BZ)	29:58			1.000	400.0			ND	0.116
PCB 70 (BZ)	30:06	108709944	12806764	1.000	400.0	1933.28662	483.32	1933.28662	0.116
PCB 76 (BZ)	30:05			1.000	400.0			ND	0.116
PCB 74 (BZ)	30:08			1.000	400.0			ND	0.116
PCB 66 (BZ)	30:25	27075132	5751612	1.000	400.0	481.501402	120.38	481.501402	0.116
PCB 55 (BZ)	30:34	24658643	5363190	1.000	400.0	438.526807	109.63	438.526807	0.116
PCB 56 (BZ)	31:06	26292364	5637287	1.000	400.0	467.580735	116.90	467.580735	0.116
PCB 60 (BZ)	31:18	25193068	5452719	1.000	400.0	448.030967	112.01	448.030967	0.116
PCB 80 (BZ)	31:41	30106298	6554925	1.000	400.0	535.407351	133.85	535.407351	0.116
PCB 79 (BZ)	33:14	30301450	6512763	1.000	400.0	538.877914	134.72	538.877914	0.116

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PCB's by EPA Method 1668A

Workorder	2990:71CS4	Prep Batch		Lot No	
Data File	/20080624i/a08062414.d	Prep Date		SDG No	
Analysis ID	104726	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	19:24	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 78 (BZ)	33:48	25407065	5262581	1.000	400.0	451.836668	112.96	451.836668	0.116
PCB 81 (BZ)	34:14	27816284	5971835	1.000	400.0	506.895280	126.72	506.895280	0.118
PCB 77 (BZ)	34:48	27664206	5897692	1.000	400.0	480.402456	120.10	480.402456	0.115
Total Pentachlorobiphenyl		820184882	146753160	1.000		18381.2812		18381.2812	8.80
13C12-PCB 104	26:14	3619781	809195	1.000	100.0	120.799010	120.80	120.799010	0.0810
13C12-PCB 95	29:12	11245282	2473909	1.000	400.0	310.661943	77.67	310.661943	0.0652
13C12-PCB 101	32:07	2996532	651612	1.000	100.0	100.000000	100.00	100.000000	0.0810
13C12-PCB 111	34:48	15241776	3235610	1.000	400.0	508.647196	127.16	508.647196	0.0810
13C12-PCB 123	36:46	7013438	1441127	1.000	100.0	97.221345	97.22	97.221345	0.0354
13C12-PCB 118	37:05	7304537	1548845	1.000	100.0	101.256604	101.26	101.256604	0.0354
13C12-PCB 114	37:37	6891093	1365500	1.000	100.0	95.525380	95.53	95.525380	0.0354
13C12-PCB 105	38:17	6793957	1420003	1.000	100.0	94.178866	94.18	94.178866	0.0354
13C12-PCB 127	39:44	7213887	1489335	1.000	100.0	100.000000	100.00	100.000000	0.0354
13C12-PCB 126	41:22	7134581	1404726	1.000	100.0	98.900648	98.90	98.900648	0.0354
PCB 104 (BZ)	26:15	16999009	3832422	1.000	400.0	469.614294	117.40	469.614294	0.213
PCB 96 (BZ)	26:38	15414236	3378709	1.000	400.0	425.833386	106.46	425.833386	0.213
PCB 103 (BZ)	28:32	13125334	2893296	1.000	400.0	362.600224	90.65	362.600224	0.213
PCB 94 (BZ)	28:47	11403181	2532375	1.000	400.0	315.024058	78.76	315.024058	0.213
PCB 95 (BZ)	29:13	12224201	2649306	1.000	400.0	337.705541	84.43	337.705541	0.213
PCB 100 (BZ)	29:26	25727946	4391056	1.000	400.0	710.759739	177.69	710.759739	0.213
PCB 93 (BZ)	29:27			1.000	400.0			ND	0.213
PCB 102 (BZ)	29:35	25549358	3190261	1.000	400.0	705.826071	176.46	705.826071	0.213
PCB 98 (BZ)	29:38			1.000	400.0			ND	0.213
PCB 88 (BZ)	29:59			1.000	400.0			ND	0.213
PCB 91 (BZ)	30:05	24915786	2900488	1.000	400.0	688.323023	172.08	688.323023	0.213
PCB 84 (BZ)	30:20	10537872	2314816	1.000	400.0	291.119048	72.78	291.119048	0.213
PCB 89 (BZ)	30:48	11297207	2448656	1.000	400.0	312.096422	78.02	312.096422	0.213
PCB 121 (BZ)	31:10	17544941	3807140	1.000	400.0	484.696201	121.17	484.696201	0.213
PCB 92 (BZ)	31:33	12427456	2700090	1.000	400.0	343.320659	85.83	343.320659	0.213
PCB 113 (BZ)	32:07	43857158	6723601	1.000	400.0	1211.59700	302.90	1211.59700	0.213
PCB 90 (BZ)	32:08			1.000	400.0			ND	0.213
PCB 101 (BZ)	32:08			1.000	400.0			ND	0.213
PCB 83 (BZ)	32:38			1.000	400.0			ND	0.213
PCB 99 (BZ)	32:43	24255217	3223179	1.000	400.0	670.074156	167.52	670.074156	0.213
PCB 112 (BZ)	32:51	17307350	3559628	1.000	400.0	478.132517	119.53	478.132517	0.213
PCB 109 (BZ)/108 (IUPAC)	33:13	91112288	9863574	1.000	400.0	2517.06631	629.27	2517.06631	0.213
PCB 86 (BZ)	33:14			1.000	400.0			ND	0.213
PCB 119 (BZ)	33:13			1.000	400.0			ND	0.213
PCB 97 (BZ)	33:14			1.000	400.0			ND	0.213
PCB 125 (BZ)	33:18			1.000	400.0			ND	0.213
PCB 87 (BZ)	33:21			1.000	400.0			ND	0.213
PCB 117 (BZ)	33:51			1.000	400.0			ND	0.213
PCB 116 (BZ)	33:57	45954188	5756810	1.000	400.0	1269.52951	317.38	1269.52951	0.213
PCB 85 (BZ)	33:58			1.000	400.0			ND	0.213
PCB 110 (BZ)	34:10	34354195	4831649	1.000	400.0	949.068328	237.27	949.068328	0.213
PCB 115 (BZ)	34:11			1.000	400.0			ND	0.213
PCB 82 (BZ)	34:28	10563598	2235697	1.000	400.0	291.829754	72.96	291.829754	0.213
PCB 111 (BZ)	34:49	18104846	3901183	1.000	400.0	500.164126	125.04	500.164126	0.213
PCB 120 (BZ)	35:16	18097205	3917176	1.000	400.0	499.953036	124.99	499.953036	0.213

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PCB's by EPA Method 1668A

Workorder	2990:71CS4	Prep Batch		Lot No	
Data File	/20080624i/a080624i4.d	Prep Date		SDG No	
Analysis ID	104726	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	19:24	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 124 (BZ)	36:26			1.000	400.0			ND	0.120
PCB 108 (BZ)/107 (IUPAC)	36:26	56789416	11949182	1.000	400.0	808.100245	202.03	808.100245	0.120
PCB 107 (BZ)/109 (IUPAC)	36:40	29650550	5809177	1.000	400.0	421.920463	105.48	421.920463	0.120
PCB 123 (BZ)	36:47	28550633	6343380	1.000	400.0	407.084699	101.77	407.084699	0.120
PCB 106 (BZ)	36:55	27903778	5874994	1.000	400.0	397.064302	99.27	397.064302	0.120
PCB 118 (BZ)	37:07	29408180	6039290	1.000	400.0	402.601561	100.65	402.601561	0.112
PCB 122 (BZ)	37:29	26688981	5731278	1.000	400.0	379.778022	94.94	379.778022	0.120
PCB 114 (BZ)	37:39	30708844	6160836	1.000	400.0	445.630962	111.41	445.630962	0.127
PCB 105 (BZ)	38:18	29930623	6119853	1.000	400.0	440.547725	110.14	440.547725	0.122
PCB 127 (BZ)	39:46	29554490	5884388	1.000	400.0	420.553552	105.14	420.553552	0.120
PCB 126 (BZ)	41:23	30226815	5789670	1.000	400.0	423.666295	105.92	423.666295	0.123
Total Hexachlorobiphenyl		806219727	141880715	1.000		15512.4602		15512.4602	9.68
13C12-PCB 155	31:52	3093926	658930	1.000	100.0	103.250224	103.25	103.250224	0.0660
13C12-PCB 153	38:57	19492652	3936103	1.000	400.0	332.653276	83.16	332.653276	0.0453
13C12-PCB 138	40:12	4897577	974459	1.000	100.0	100.000000	100.00	100.000000	0.0441
13C12-PCB 167	43:12	6037245	1188460	1.000	100.0	123.270037	123.27	123.270037	0.0441
13C12-PCB 156	44:23	11813813	1479391	1.000	200.0	241.217504	120.61	241.217504	0.0441
13C12-PCB 157	44:22			1.000				ND	0.0441
13C12-PCB 169	47:35	5587944	1125769	1.000	100.0	114.096093	114.10	114.096093	0.0441
PCB 155 (BZ)	31:54	13805832	2987271	1.000	400.0	446.223730	111.56	446.223730	0.299
PCB 152 (BZ)	32:07	13191175	2758714	1.000	400.0	426.357159	106.59	426.357159	0.299
PCB 150 (BZ)	32:17	13162557	2851442	1.000	400.0	425.432186	106.36	425.432186	0.299
PCB 136 (BZ)	32:40	12556373	2649465	1.000	400.0	405.839474	101.46	405.839474	0.299
PCB 145 (BZ)	32:57	12802501	2761555	1.000	400.0	413.794674	103.45	413.794674	0.299
PCB 148 (BZ)	34:26	9598940	1992492	1.000	400.0	310.251118	77.56	310.251118	0.299
PCB 151 (BZ)	35:03	18503736	2112572	1.000	400.0	598.066534	149.52	598.066534	0.299
PCB 135 (BZ)	35:06			1.000	400.0			ND	0.299
PCB 154 (BZ)	35:16	11331992	2337683	1.000	400.0	366.265774	91.57	366.265774	0.299
PCB 144 (BZ)	35:36	9843491	2052513	1.000	400.0	318.155347	79.54	318.155347	0.299
PCB 147 (BZ)	35:59	38705340	7862408	1.000	400.0	660.528806	165.13	660.528806	0.208
PCB 149 (BZ)	35:59			1.000	400.0			ND	0.208
PCB 134 (BZ)	36:11			1.000	400.0			ND	0.208
PCB 143 (BZ)	36:17	33329169	3762494	1.000	400.0	568.781367	142.20	568.781367	0.208
PCB 139 (BZ)	36:34	39264414	7146008	1.000	400.0	670.069724	167.52	670.069724	0.208
PCB 140 (BZ)	36:35			1.000	400.0			ND	0.208
PCB 131 (BZ)	36:47	16774105	3341625	1.000	400.0	286.259714	71.56	286.259714	0.208
PCB 142 (BZ)	36:56	16607651	3565059	1.000	400.0	283.419081	70.85	283.419081	0.208
PCB 132 (BZ)	37:15	16765077	3501669	1.000	400.0	286.105646	71.53	286.105646	0.208
PCB 133 (BZ)	37:43	18148004	3729085	1.000	400.0	309.706087	77.43	309.706087	0.208
PCB 165 (BZ)	38:07	23361341	4751045	1.000	400.0	398.674671	99.67	398.674671	0.208
PCB 146 (BZ)	38:21	20494892	4188310	1.000	400.0	349.757076	87.44	349.757076	0.208
PCB 161 (BZ)	38:30	25376987	5196139	1.000	400.0	433.072825	108.27	433.072825	0.208
PCB 153 (BZ)	39:00	49597438	7661632	1.000	400.0	846.408699	211.60	846.408699	0.208
PCB 168 (BZ)	39:01			1.000	400.0			ND	0.208
PCB 141 (BZ)	39:11	18263262	3816477	1.000	400.0	311.673031	77.92	311.673031	0.208
PCB 130 (BZ)	39:35	16609425	3330640	1.000	400.0	283.449355	70.86	283.449355	0.208
PCB 137 (BZ)	39:48	19904928	4041663	1.000	400.0	339.689002	84.92	339.689002	0.208
PCB 164 (BZ)	39:56	23911161	4892710	1.000	400.0	408.057664	102.01	408.057664	0.208
PCB 138 (BZ)	40:14	85653884	9669100	1.000	400.0	1461.73261	365.43	1461.73261	0.208

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PCB's by EPA Method 1668A

Workorder	2990:71CS4	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i4.d	**Prep Date**		**SDG No**	
Analysis ID	104726	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	19:24	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 163 (BZ)	40:14			1.000	400.0			ND	0.208
PCB 129 (BZ)	40:18			1.000	400.0			ND	0.208
PCB 160 (BZ)	40:23			1.000	400.0			ND	0.208
PCB 158 (BZ)	40:38	27452279	5280358	1.000	400.0	468.488872	117.12	468.488872	0.208
PCB 166 (BZ)	41:28	43722388	6001037	1.000	400.0	746.147605	186.54	746.147605	0.208
PCB 128 (BZ)	41:30			1.000	400.0			ND	0.208
PCB 159 (BZ)	42:27	25061642	5179982	1.000	400.0	427.691281	106.92	427.691281	0.208
PCB 162 (BZ)	42:44	25416746	5173406	1.000	400.0	433.751335	108.44	433.751335	0.208
PCB 167 (BZ)	43:13	26871340	5397244	1.000	400.0	445.092753	111.27	445.092753	0.166
PCB 156 (BZ)	44:24	52251758	6657864	1.000	800.0	884.587525	110.57	884.587525	0.266
PCB 157 (BZ)	44:25			1.000				ND	0.266
PCB 169 (BZ)	47:36	27879899	5231053	1.000	400.0	498.929463	124.73	498.929463	0.175
Total Heptachlorobiphenyl		408762633	76384989	1.000		10089.8785		10089.8785	4.75
13C12-PCB 188	37:36	4758402	983791	1.000	100.0	121.954553	121.95	121.954553	0.0521
13C12-PCB 178	40:39	12579245	2550745	1.000	400.0	322.397350	80.60	322.397350	0.0521
13C12-PCB 180	45:44	3901783	791949	1.000	100.0	100.000000	100.00	100.000000	0.0521
13C12-PCB 170	47:00	3134261	625256	1.000	100.0	80.328942	80.33	80.328942	0.0521
13C12-PCB 189	50:06	6457793	1283903	1.000	100.0	161.814490	161.81	161.814490	0.0524
PCB 188 (BZ)	37:37	20301024	4137941	1.000	400.0	426.635328	106.66	426.635328	0.164
PCB 179 (BZ)	37:59	19086470	3926823	1.000	400.0	483.650955	120.91	483.650955	0.200
PCB 184 (BZ)	38:29	18754333	3833694	1.000	400.0	475.234607	118.81	475.234607	0.200
PCB 176 (BZ)	38:51	19907944	3964505	1.000	400.0	504.467098	126.12	504.467098	0.200
PCB 186 (BZ)	39:19	19014640	3866465	1.000	400.0	481.830784	120.46	481.830784	0.200
PCB 178 (BZ)	40:41	14340031	2957675	1.000	400.0	363.376239	90.84	363.376239	0.200
PCB 175 (BZ)	41:19	15113531	3000772	1.000	400.0	382.976722	95.74	382.976722	0.200
PCB 187 (BZ)	41:35	16089799	3259363	1.000	400.0	407.715343	101.93	407.715343	0.200
PCB 182 (BZ)	41:46	15697933	3168089	1.000	400.0	397.785462	99.45	397.785462	0.200
PCB 183 (BZ)	42:11	30711756	3173888	1.000	400.0	778.235584	194.56	778.235584	0.200
PCB 185 (BZ)	42:17			1.000	400.0			ND	0.200
PCB 174 (BZ)	42:26	14900841	3011409	1.000	400.0	377.587159	94.40	377.587159	0.200
PCB 177 (BZ)	42:53	14122968	2728912	1.000	400.0	357.875865	89.47	357.875865	0.200
PCB 181 (BZ)	43:15	15773687	3158779	1.000	400.0	399.705068	99.93	399.705068	0.200
PCB 171 (BZ)	43:30			1.000	400.0			ND	0.200
PCB 173 (BZ)	43:30	27285405	5065236	1.000	400.0	691.411885	172.85	691.411885	0.200
PCB 172 (BZ)	45:06	13534617	2712483	1.000	400.0	342.967057	85.74	342.967057	0.200
PCB 192 (BZ)	45:23	17994983	3638989	1.000	400.0	455.992686	114.00	455.992686	0.200
PCB 193 (BZ)	45:43	35613954	4892035	1.000	400.0	902.457231	225.61	902.457231	0.200
PCB 180 (BZ)	45:45			1.000	400.0			ND	0.200
PCB 191 (BZ)	46:06	19892928	4011162	1.000	400.0	504.086593	126.02	504.086593	0.200
PCB 170 (BZ)	47:01	13371741	2616385	1.000	400.0	426.631381	106.66	426.631381	0.257
PCB 190 (BZ)	47:33	20042837	3837994	1.000	400.0	507.885285	126.97	507.885285	0.200
PCB 189 (BZ)	50:07	27211211	5422390	1.000	400.0	421.370134	105.34	421.370134	0.125
Total Octachlorobiphenyl		172127648	32472269	1.000		4339.13214		4339.13214	1.74
13C12-PCB 202	42:57	3482911	693042	1.000	100.0	89.264600	89.26	89.264600	0.0379
13C12-PCB 194	52:12	3990862	787123	1.000	100.0	100.000000	100.00	100.000000	0.0381
13C12-PCB 205	52:39	5583007	1074385	1.000	100.0	139.894765	139.89	139.894765	0.0381
PCB 202 (BZ)	42:59	13797525	2804554	1.000	400.0	396.149227	99.04	396.149227	0.159
PCB 200 (BZ)/201 (IUPAC)	43:54	15303213	3027381	1.000	400.0	439.379961	109.84	439.379961	0.159
PCB 204 (BZ)	44:34	13920160	2729993	1.000	400.0	399.670276	99.92	399.670276	0.159

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:71CS4	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i4.d	**Prep Date**		**SDG No**	
Analysis ID	104726	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	19:24	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 197 (BZ)	44:48	14540881	3001334	1.000	400.0	417.492178	104.37	417.492178	0.159
PCB 199 (BZ)/200 (IUPAC)	44:55	15094581	2937425	1.000	400.0	433.389800	108.35	433.389800	0.159
PCB 198 (BZ)	47:41	21281209	2700582	1.000	400.0	611.017881	152.75	611.017881	0.159
PCB 201 (BZ)/199 (IUPAC)	47:43			1.000	400.0			ND	0.159
PCB 196 (BZ)	48:21	10666315	2098844	1.000	400.0	306.247131	76.56	306.247131	0.159
PCB 203 (BZ)	48:33	11697476	2326385	1.000	400.0	335.853428	83.96	335.853428	0.159
PCB 195 (BZ)	49:53	16619390	3254364	1.000	400.0	297.678115	74.42	297.678115	0.102
PCB 194 (BZ)	52:13	17463560	3446217	1.000	400.0	312.798461	78.20	312.798461	0.102
PCB 205 (BZ)	52:40	21743338	4145190	1.000	400.0	389.455682	97.36	389.455682	0.102
Total Nonachlorobipheny1		51690464	10129404	1.000		1332.43704		1332.43704	0.266
13C12-PCB 208	49:36	4602440	899124	1.000	100.0	115.324459	115.32	115.324459	0.0419
13C12-PCB 206	54:23	3189088	602782	1.000	100.0	79.909754	79.91	79.909754	0.0419
PCB 208 (BZ)	49:38	18489197	3621833	1.000	400.0	401.725976	100.43	401.725976	0.0720
PCB 207 (BZ)	50:33	19405456	3803900	1.000	400.0	498.116826	124.53	498.116826	0.0862
PCB 206 (BZ)	54:25	13795811	2703671	1.000	400.0	432.594240	108.15	432.594240	0.107
13C12-PCB 209	56:01	3392343	610487	1.000	100.0	85.002764	85.00	85.002764	0.0264
PCB 209 (BZ)	56:02	13899324	2480917	1.000	400.0	409.726375	102.43	409.726375	0.0590

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS4	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i4.d	**Prep Date**		**SDG No**	
Analysis ID	104726	**Prep Exp Date**		**Date Received**	
Analysis Date	06/24/08 19:24	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60	
	Noise	00:00	00:00	0	573	273	229	109	2.10 *	/
	PCB 1 (BZ)	12:00	00:00	0	31693142	9474722	13059931	3947261	3.35	AVV/AVV
	PCB 2 (BZ)	14:01	00:00	0	30973626	9278966	10877440	3126369	3.34	ABV/ABV
	PCB 3 (BZ)	14:12	00:00	0	30837806	9374394	11615297	3450754	3.29	AVV/AVV
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60	
	Noise	00:00	00:00	0	240	380	96	152	0.63 *	/
	13C12-PCB 1	12:00	00:00	0	5679419	1796154	2267467	703773	3.16	AVV/AVV
	13C12-PCB 3	14:11	00:00	0	5848355	1806836	2078441	661705	3.24	AVV/AVV
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79	
	Noise	00:00	00:00	0	758	745	303	298	1.02 *	/
	PCB 4 (BZ)	14:28	00:00	0	9275105	5974633	3189995	2041432	1.55	ABV/ABV
	PCB 10 (BZ)	14:38	00:00	0	13673074	8666158	4396613	2796676	1.58	AVV/AVV
	PCB 9 (BZ)	16:26	00:00	0	15131659	9646579	4610256	2960106	1.57	ABV/ABV
	PCB 7 (BZ)	16:37	00:00	0	15084495	9541618	4367776	2745855	1.58	AVV/AVV
	PCB 6 (BZ)	16:52	00:00	0	15135113	9633302	4525975	2905457	1.57	AVV/AVV
	PCB 5 (BZ)	17:11	00:00	0	14094048	9017432	4023327	2531323	1.56	AVV/AVV
	PCB 8 (BZ)	17:18	00:00	0	15623730	9888597	4688469	2889439	1.58	AVB/AVB
	PCB 14 (BZ)	18:55	00:00	0	18070250	11585772	5132476	3241221	1.56	ABV/ABV
	PCB 11 (BZ)	19:47	00:00	0	15351362	9706146	4099861	2612657	1.58	ABV/ABV
	PCB 13 (BZ)	20:05	00:00	0	31234118	19701272	5275152	3318240	1.59	AVV/AVV
	PCB 12 (BZ)	20:07	00:00	0	0	0	0	0	0.00 *	/
	PCB 15 (BZ)	20:24	00:00	0	16718186	10554671	4141706	2638683	1.58	AVV/AVV
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79	
	Noise	00:00	00:00	0	403	248	161	99	1.63	/
	13C12-PCB 4	14:27	00:00	0	1917007	1208979	650847	413932	1.59	AVV/ABV
	13C12-PCB 9	16:25	00:00	0	3068538	1905380	908557	569129	1.61	AVV/ABV
	13C12-PCB 8	17:17	00:00	0	12870103	8070215	3706288	2311839	1.59	AVV/AVV
	13C12-PCB 15	20:23	00:00	0	3427402	2155537	872707	549328	1.59	ABV/AVV
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	Noise	00:00	00:00	0	1188	653	475	261	1.82 *	/
	PCB 19 (BZ)	17:37	00:00	0	4931918	4773186	1419994	1372312	1.03	ABV/ABV
	PCB 30 (BZ)	19:26	00:00	0	13153769	12596439	2167144	2079236	1.04	ABV/ABV
	PCB 18 (BZ)	19:29	00:00	0	0	0	0	0	0.00 *	/
	PCB 17 (BZ)	19:53	00:00	0	5698204	5335321	1456750	1375416	1.07	ABV/ABV
	PCB 27 (BZ)	20:07	00:00	0	8193139	7818083	2154976	2109965	1.05	AVV/AVV
	PCB 24 (BZ)	20:15	00:00	0	7317313	7178334	1925098	1854411	1.02	AVV/AVV
	PCB 16 (BZ)	20:23	00:00	0	4925605	4667552	1274455	1206138	1.06	AVB/AVB
	PCB 32 (BZ)	20:54	00:00	0	8194525	7810443	2014381	1924018	1.05	AVV/AVV
	PCB 34 (BZ)	22:09	00:00	0	19569414	18302446	5117798	4710401	1.07	ABV/ABV
	PCB 23 (BZ)	22:17	00:00	0	19389330	18293546	4908561	4608827	1.06	AVB/AVB
	PCB 26 (BZ)	22:37	00:00	0	40697936	38417972	9505502	8936389	1.06	ABV/ABV
	PCB 29 (BZ)	22:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 25 (BZ)	22:51	00:00	0	21872808	20503280	5064629	4657488	1.07	AVV/AVV

Notes:
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T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS4	Prep Batch		Lot No	
Data File	/20080624i/a080624i4.d	Prep Date		SDG No	
Analysis ID	104726	Prep Exp Date		Date Received	
Analysis Date	06/24/08 19:24	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	PCB 31 (BZ)	23:10	00:00	0	20337990	19188344	4933582	4604991	1.06	AVV/AVV
	PCB 28 (BZ)	23:29	00:00	0	40632548	38746120	6945770	6612664	1.05	AVV/AVV
	PCB 20 (BZ)	23:30	00:00	0	0	0	0	0	0.00 *	/
	PCB 21 (BZ)	23:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 33 (BZ)	23:42	00:00	0	39688568	37851960	5034067	4855565	1.05	AVV/AVV
	PCB 22 (BZ)	24:06	00:00	0	19621218	18590876	4762797	4500230	1.06	AVB/AVV
	PCB 36 (BZ)	25:39	00:00	0	20515108	18942692	4796286	4521786	1.08	AVV/AVV
	PCB 39 (BZ)	26:01	00:00	0	20977194	19889788	4794343	4565393	1.05	AVV/AVV
	PCB 38 (BZ)	26:36	00:00	0	19754890	18517182	4607980	4272913	1.07	AVV/ABV
	PCB 35 (BZ)	27:04	00:00	0	19313604	18373720	4468273	4216566	1.05	AVV/AVV
	PCB 37 (BZ)	27:28	00:00	0	19552848	18641104	4320186	4176585	1.05	AVV/AVV
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20	
	Noise	00:00	00:00	0	623	413	249	165	1.51 *	/
	13C12-PCB 19	17:36	00:00	0	1032963	964886	285629	267243	1.07	AVV/AVV
	13C12-PCB 32	20:52	00:00	0	1824575	1722386	470790	433600	1.06	AVV/AVV
	13C12-PCB 31	23:08	00:00	0	4613026	4322874	1091603	1044294	1.07	ABV/ABV
	13C12-PCB 28	23:26	00:00	0	17716578	16504995	4392206	4072740	1.07	AVV/AVV
	13C12-PCB 37	27:27	00:00	0	4273913	3979617	977977	918255	1.07	ABV/ABV
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	Noise	00:00	00:00	0	638	738	255	295	0.86	/
	PCB 54 (BZ)	20:44	00:00	0	4391212	5562904	1114750	1396105	0.79	ABV/ABV
	PCB 53 (BZ)	22:54	00:00	0	17005350	21914718	4060614	5295617	0.78	ABV/ABV
	PCB 50 (BZ)	22:55	00:00	0	0	0	0	0	0.00 *	/
	PCB 45 (BZ)	23:34	00:00	0	0	0	0	0	0.00 *	/
	PCB 51 (BZ)	23:38	00:00	0	16448920	20759140	2249650	2877000	0.79	AVV/AVV
	PCB 46 (BZ)	23:54	00:00	0	6821269	8731110	1558094	1978136	0.78	AVV/AVV
	PCB 52 (BZ)	25:18	00:00	0	8445454	10917800	1990785	2580325	0.77	ABV/ABV
	PCB 73 (BZ)	25:26	00:00	0	18325886	23402142	2619662	3348312	0.78	AVV/AVV
	PCB 43 (BZ)	25:31	00:00	0	0	0	0	0	0.00 *	/
	PCB 69 (BZ)	25:43	00:00	0	20552144	26222148	2665856	3437357	0.78	AVB/AVB
	PCB 49 (BZ)	25:47	00:00	0	0	0	0	0	0.00 *	/
	PCB 48 (BZ)	26:04	00:00	0	8334721	10630910	1949025	2502575	0.78	ABV/ABV
	PCB 65 (BZ)	26:18	00:00	0	0	0	0	0	0.00 *	/
	PCB 44 (BZ)	26:19	00:00	0	27857082	35803168	5743836	7404224	0.78	AVV/AVV
	PCB 47 (BZ)	26:20	00:00	0	0	0	0	0	0.00 *	/
	PCB 59 (BZ)	26:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 62 (BZ)	26:38	00:00	0	35192168	45669332	5763789	7601892	0.77	AVV/AVV
	PCB 75 (BZ)	26:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 42 (BZ)	26:49	00:00	0	8085646	10330733	1764354	2255416	0.78	AVB/AVB
	PCB 41 (BZ)	27:13	00:00	0	0	0	0	0	0.00 *	/
	PCB 40 (BZ)	27:20	00:00	0	0	0	0	0	0.00 *	/
	PCB 71 (BZ)	27:20	00:00	0	25102768	32190168	4107430	5262016	0.78	ABV/ABV
	PCB 64 (BZ)	27:33	00:00	0	12338388	15764017	2815196	3625521	0.78	AVB/AVB

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Workorder	2990:71CS4	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i4.d	**Prep Date**		**SDG No**	
Analysis ID	104726	**Prep Exp Date**		**Date Received**	
Analysis Date	06/24/08 19:24	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	PCB 72 (BZ)	28:21	00:00	0	11729614	14911162	2725640	3442951	0.79	ABV/ABV
	PCB 68 (BZ)	28:38	00:00	0	12572435	16119662	2695400	3437195	0.78	AVV/AVV
	PCB 57 (BZ)	29:05	00:00	0	11399318	14430006	2476422	3152791	0.79	ABV/ABV
	PCB 58 (BZ)	29:19	00:00	0	11663764	14848468	2483387	3129973	0.79	AVV/AVV
	PCB 67 (BZ)	29:29	00:00	0	12642112	16153947	2679582	3435897	0.78	AVV/AVV
	PCB 63 (BZ)	29:45	00:00	0	12586819	16005779	2740395	3509425	0.79	AVB/AVB
	PCB 61 (BZ)	29:58	00:00	0	0	0	0	0	0.00 *	/
	PCB 76 (BZ)	30:05	00:00	0	0	0	0	0	0.00 *	/
	PCB 70 (BZ)	30:06	00:00	0	47307384	61402560	5562195	7244569	0.77	ABB/ABB
	PCB 74 (BZ)	30:08	00:00	0	0	0	0	0	0.00 *	/
	PCB 66 (BZ)	30:25	00:00	0	11803890	15271242	2505246	3246366	0.77	ABV/ABV
	PCB 55 (BZ)	30:34	00:00	0	10792653	13865990	2311756	3051434	0.78	AVB/AVB
	PCB 56 (BZ)	31:06	00:00	0	11505664	14786700	2500641	3136646	0.78	AVV/ABV
	PCB 60 (BZ)	31:18	00:00	0	10946414	14246654	2367239	3085480	0.77	AVV/AVV
	PCB 80 (BZ)	31:41	00:00	0	13150190	16956108	2867307	3687618	0.78	AVV/AVV
	PCB 79 (BZ)	33:14	00:00	0	13289064	17012386	2852988	3659775	0.78	MBV/MVV
	PCB 78 (BZ)	33:48	00:00	0	11112564	14294501	2320522	2942059	0.78	ABV/ABV
	PCB 81 (BZ)	34:14	00:00	0	12154851	15661433	2611398	3360437	0.78	AVV/AVV
	PCB 77 (BZ)	34:48	00:00	0	12106828	15557378	2566716	3330976	0.78	ABV/AVV
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89	
	Noise	00:00	00:00	0	185	165	74	66	1.12 *	/
	13C12-PCB 54	20:43	00:00	0	917807	1148412	229325	283883	0.80	ABV/ABV
	13C12-PCB 52	25:17	00:00	0	1800324	2324740	424861	529935	0.77	ABV/ABV
	13C12-PCB 79	33:13	00:00	0	10807740	13508225	2254325	2818039	0.80	ABV/ABV
	13C12-PCB 81	34:13	00:00	0	2459724	3027856	525985	638363	0.81	AVV/AVV
	13C12-PCB 77	34:47	00:00	0	2563752	3194796	532297	665625	0.80	AVV/AVV
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78	
	Noise	00:00	00:00	0	970	758	388	303	1.28 *	/
	PCB 104 (BZ)	26:15	00:00	0	10365808	6633201	2364470	1467952	1.56	ABV/ABV
	PCB 96 (BZ)	26:38	00:00	0	9420954	5993282	2030777	1347932	1.57	AVV/AVV
	PCB 103 (BZ)	28:32	00:00	0	8042566	5082768	1774348	1118948	1.58	ABV/ABV
	PCB 94 (BZ)	28:47	00:00	0	6920774	4482407	1546987	985388	1.54	AVB/AVB
	PCB 95 (BZ)	29:13	00:00	0	7453048	4771153	1615322	1033984	1.56	ABV/ABV
	PCB 100 (BZ)	29:26	00:00	0	15722394	10005552	2690374	1700682	1.57	AVV/AVV
	PCB 93 (BZ)	29:27	00:00	0	0	0	0	0	0.00 *	/
	PCB 102 (BZ)	29:35	00:00	0	15616995	9932363	1958842	1231419	1.57	AVB/AVB
	PCB 98 (BZ)	29:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 88 (BZ)	29:59	00:00	0	0	0	0	0	0.00 *	/
	PCB 91 (BZ)	30:05	00:00	0	15255025	9660761	1769595	1130893	1.58	ABV/ABV
	PCB 84 (BZ)	30:20	00:00	0	6449038	4088834	1415984	898832	1.58	AVB/AVB
	PCB 89 (BZ)	30:48	00:00	0	6908634	4388573	1501618	947038	1.57	ABB/ABB
	PCB 121 (BZ)	31:10	00:00	0	10758284	6786657	2348877	1458263	1.59	ABV/ABB
	PCB 92 (BZ)	31:33	00:00	0	7596115	4831341	1647053	1053037	1.57	AVV/ABB

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS4	Prep Batch		Lot No	
Data File	/20080624i/a080624i4.d	Prep Date		SDG No	
Analysis ID	104726	Prep Exp Date		Date Received	
Analysis Date	06/24/08 19:24	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**	
	PCB 113 (BZ)	32:07	00:00	0	26817652	17039506	4120178	2603423	1.57	AVV/AVV
	PCB 90 (BZ)	32:08	00:00	0	0	0	0	0	0.00 *	/
	PCB 101 (BZ)	32:08	00:00	0	0	0	0	0	0.00 *	/
	PCB 83 (BZ)	32:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 99 (BZ)	32:43	00:00	0	14831808	9423409	1972375	1250804	1.57	ABV/ABV
	PCB 112 (BZ)	32:51	00:00	0	10588533	6718817	2186297	1373331	1.58	AVB/AVB
	PCB 109 (BZ)/108 (IUPAC	33:13	00:00	0	55823140	35289148	6023816	3839758	1.58	ABB/ABB
	PCB 119 (BZ)	33:13	00:00	0	0	0	0	0	0.00 *	/
	PCB 86 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/
	PCB 97 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/
	PCB 125 (BZ)	33:18	00:00	0	0	0	0	0	0.00 *	/
	PCB 87 (BZ)	33:21	00:00	0	0	0	0	0	0.00 *	/
	PCB 117 (BZ)	33:51	00:00	0	0	0	0	0	0.00 *	/
	PCB 116 (BZ)	33:57	00:00	0	28148152	17806036	3496828	2259982	1.58	AVV/ABV
	PCB 85 (BZ)	33:58	00:00	0	0	0	0	0	0.00 *	/
	PCB 110 (BZ)	34:10	00:00	0	20951376	13402819	2948062	1883587	1.56	AVB/AVB
	PCB 115 (BZ)	34:11	00:00	0	0	0	0	0	0.00 *	/
	PCB 82 (BZ)	34:28	00:00	0	6450779	4112819	1363939	871758	1.57	ABB/ABV
	PCB 111 (BZ)	34:49	00:00	0	11062269	7042577	2386106	1515077	1.57	ABV/ABV
	PCB 120 (BZ)	35:16	00:00	0	11006908	7090297	2371439	1545737	1.55	AVB/AVB
	PCB 108 (BZ)/107 (IUPAC	36:26	00:00	0	34816404	21973012	7323955	4625227	1.58	AVV/ABV
	PCB 124 (BZ)	36:26	00:00	0	0	0	0	0	0.00 *	/
	PCB 107 (BZ)/109 (IUPAC	36:40	00:00	0	18080044	11570506	3538622	2270555	1.56	AVV/AVV
	PCB 123 (BZ)	36:47	00:00	0	16814676	11735957	3857611	2485769	1.43	AVV/AVV
	PCB 106 (BZ)	36:55	00:00	0	17730070	10173708	3627636	2247358	1.74	AVV/AVV
	PCB 118 (BZ)	37:07	00:00	0	17896252	11511928	3681099	2358191	1.55	AVV/AVV
	PCB 122 (BZ)	37:29	00:00	0	16238630	10450351	3494944	2236334	1.55	ABV/ABV
	PCB 114 (BZ)	37:39	00:00	0	18660542	12048302	3728937	2431899	1.55	AVB/AVB
	PCB 105 (BZ)	38:18	00:00	0	18202386	11728237	3723010	2396843	1.55	AVV/AVV
	PCB 127 (BZ)	39:46	00:00	0	17964788	11589702	3602659	2281729	1.55	AVV/AVV
	PCB 126 (BZ)	41:23	00:00	0	18789978	11436837	3549670	2240000	1.64	ABV/AVV
338					**337.9207**	**339.9178**	**337.9207**	**339.9178**	**1.32-1.78**	
	Noise	00:00	00:00	0	270	258	108	103	1.05 *	/
	13C12-PCB 104	26:14	00:00	0	2257035	1362746	508924	300271	1.66	ABV/ABV
	13C12-PCB 95	29:12	00:00	0	6887662	4357620	1522012	951897	1.58	ABV/ABV
	13C12-PCB 101	32:07	00:00	0	1862401	1134131	398812	252800	1.64	AVV/ABV
	13C12-PCB 111	34:48	00:00	0	9428238	5813538	1991458	1244152	1.62	ABV/ABV
	13C12-PCB 123	36:46	00:00	0	4348862	2664576	878158	562969	1.63	AVV/ABV
	13C12-PCB 118	37:05	00:00	0	4498178	2806359	955234	593611	1.60	AVV/AVV
	13C12-PCB 114	37:37	00:00	0	4238402	2652691	844464	521036	1.60	AVV/AVV
	13C12-PCB 105	38:17	00:00	0	4201247	2592710	878827	541176	1.62	AVV/AVV
	13C12-PCB 127	39:44	00:00	0	4449439	2764448	912441	576894	1.61	ABV/AVV
	13C12-PCB 126	41:22	00:00	0	4372218	2762363	868623	536103	1.58	AVV/ABV

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS4	Prep Batch		Lot No	
Data File	/20080624i/a080624i4.d	Prep Date		SDG No	
Analysis ID	104726	Prep Exp Date		Date Received	
Analysis Date	06/24/08 19:24	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
Noise		00:00	00:00	0	1123	848	449	339	1.32	/
PCB 155 (BZ)		31:54	00:00	0	7700863	6104969	1671322	1315949	1.26	ABV/ABV
PCB 152 (BZ)		32:07	00:00	0	7351713	5839462	1551947	1206767	1.26	AVV/AVV
PCB 150 (BZ)		32:17	00:00	0	7361968	5800589	1603513	1247929	1.27	AVB/AVB
PCB 136 (BZ)		32:40	00:00	0	7047878	5508495	1474102	1175363	1.28	ABV/ABV
PCB 145 (BZ)		32:57	00:00	0	7119384	5683117	1542079	1219476	1.25	AVV/AVV
PCB 148 (BZ)		34:26	00:00	0	5347913	4251027	1104604	887888	1.26	ABV/ABV
PCB 151 (BZ)		35:03	00:00	0	10294885	8208851	1170789	941783	1.25	ABV/ABV
PCB 135 (BZ)		35:06	00:00	0	0	0	0	0	0.00 *	/
PCB 154 (BZ)		35:16	00:00	0	6301796	5030196	1293707	1043976	1.25	AVV/AVV
PCB 144 (BZ)		35:36	00:00	0	5490862	4352629	1156982	895531	1.26	AVB/AVB
PCB 147 (BZ)		35:59	00:00	0	21616022	17089318	4398111	3464297	1.26	ABV/ABV
PCB 149 (BZ)		35:59	00:00	0	0	0	0	0	0.00 *	/
PCB 134 (BZ)		36:11	00:00	0	0	0	0	0	0.00 *	/
PCB 143 (BZ)		36:17	00:00	0	18529632	14799537	2089971	1672523	1.25	AVV/AVV
PCB 139 (BZ)		36:34	00:00	0	21823514	17440900	3954794	3191214	1.25	AVV/AVV
PCB 140 (BZ)		36:35	00:00	0	0	0	0	0	0.00 *	/
PCB 131 (BZ)		36:47	00:00	0	9380777	7393328	1873236	1468389	1.27	AVV/AVV
PCB 142 (BZ)		36:56	00:00	0	9268115	7339536	2000513	1564546	1.26	AVB/AVB
PCB 132 (BZ)		37:15	00:00	0	9404546	7360531	1960745	1540924	1.28	ABB/ABV
PCB 133 (BZ)		37:43	00:00	0	10164300	7983704	2090669	1638416	1.27	ABB/ABV
PCB 165 (BZ)		38:07	00:00	0	13073094	10288247	2670406	2080639	1.27	ABV/AVV
PCB 146 (BZ)		38:21	00:00	0	11387217	9107675	2316641	1871669	1.25	AVV/AVV
PCB 161 (BZ)		38:30	00:00	0	14143558	11233429	2888682	2307457	1.26	AVB/AVB
PCB 153 (BZ)		39:00	00:00	0	27690114	21907324	4250890	3410742	1.26	AVV/ABV
PCB 168 (BZ)		39:01	00:00	0	0	0	0	0	0.00 *	/
PCB 141 (BZ)		39:11	00:00	0	10264841	7998421	2131908	1684569	1.28	AVV/AVV
PCB 130 (BZ)		39:35	00:00	0	9246573	7362852	1847941	1482699	1.26	ABV/ABV
PCB 137 (BZ)		39:48	00:00	0	11140797	8764131	2279768	1761895	1.27	AVV/AVV
PCB 164 (BZ)		39:56	00:00	0	13330884	10580277	2729682	2163028	1.26	AVB/AVB
PCB 138 (BZ)		40:14	00:00	0	47704996	37948888	5411055	4258045	1.26	ABV/ABV
PCB 163 (BZ)		40:14	00:00	0	0	0	0	0	0.00 *	/
PCB 129 (BZ)		40:18	00:00	0	0	0	0	0	0.00 *	/
PCB 160 (BZ)		40:23	00:00	0	0	0	0	0	0.00 *	/
PCB 158 (BZ)		40:38	00:00	0	15267419	12184860	2931623	2348735	1.25	AVB/AVB
PCB 166 (BZ)		41:28	00:00	0	24324296	19398092	3321169	2679868	1.25	AVV/AVV
PCB 128 (BZ)		41:30	00:00	0	0	0	0	0	0.00 *	/
PCB 159 (BZ)		42:27	00:00	0	14013486	11048156	2920371	2259611	1.27	AVB/AVB
PCB 162 (BZ)		42:44	00:00	0	14118812	11297934	2860478	2312928	1.25	ABV/ABV
PCB 167 (BZ)		43:13	00:00	0	14952551	11918789	3014456	2382788	1.25	ABB/ABB
PCB 156 (BZ)		44:24	00:00	0	29125782	23125976	3695055	2962809	1.26	ABV/ABV
PCB 157 (BZ)		44:25	00:00	0	0	0	0	0	0.00 *	/
PCB 169 (BZ)		47:36	00:00	0	15597781	12282118	2919280	2311773	1.27	ABV/AVV

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS4	Prep Batch		Lot No	
Data File	/20080624i/a080624i4.d	Prep Date		SDG No	
Analysis ID	104726	Prep Exp Date		Date Received	
Analysis Date	06/24/08 19:24	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	223	208	89	83	1.07	/
	13C12-PCB 155	31:52	00:00	0	1748988	1344938	373669	285261	1.30	ABV/ABV
	13C12-PCB 153	38:57	00:00	0	10909417	8583235	2222694	1713409	1.27	ABV/ABV
	13C12-PCB 138	40:12	00:00	0	2751837	2145740	544482	429977	1.28	AVV/ABV
	13C12-PCB 167	43:12	00:00	0	3428435	2608810	670239	518221	1.31	AVV/AVV
	13C12-PCB 157	44:22	00:00	0	0	0	0	0	0.00 *	/
	13C12-PCB 156	44:23	00:00	0	6583845	5229968	830127	649264	1.26	AVV/AVV
	13C12-PCB 169	47:35	00:00	0	3116265	2471679	626132	499637	1.26	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	698	913	279	365	0.76 *	/
	PCB 188 (BZ)	37:37	00:00	0	10393979	9907045	2103880	2034061	1.05	ABV/ABV
	PCB 179 (BZ)	37:59	00:00	0	9791812	9294658	2009517	1917306	1.05	AVV/AVV
	PCB 184 (BZ)	38:29	00:00	0	9566430	9187903	1965071	1868623	1.04	AVV/AVV
	PCB 176 (BZ)	38:51	00:00	0	10130934	9777010	2014225	1950280	1.04	AVV/AVV
	PCB 186 (BZ)	39:19	00:00	0	9704353	9310287	1975789	1890676	1.04	AVV/AVV
	PCB 178 (BZ)	40:41	00:00	0	7320661	7019370	1527981	1429694	1.04	ABV/ABV
	PCB 175 (BZ)	41:19	00:00	0	7736516	7377015	1536389	1464383	1.05	ABV/ABV
	PCB 187 (BZ)	41:35	00:00	0	8268701	7821098	1678378	1580985	1.06	AVV/AVV
	PCB 182 (BZ)	41:46	00:00	0	7961028	7736905	1601341	1566748	1.03	AVB/AVB
	PCB 183 (BZ)	42:11	00:00	0	15691305	15020451	1621771	1552117	1.04	ABV/ABV
	PCB 185 (BZ)	42:17	00:00	0	0	0	0	0	0.00 *	/
	PCB 174 (BZ)	42:26	00:00	0	7609158	7291683	1522167	1489242	1.04	AVB/AVV
	PCB 177 (BZ)	42:53	00:00	0	7239456	6883512	1403966	1324946	1.05	ABB/ABB
	PCB 181 (BZ)	43:15	00:00	0	8064622	7709065	1630860	1527919	1.05	ABV/ABV
	PCB 173 (BZ)	43:30	00:00	0	13961207	13324198	2601581	2463655	1.05	AVB/AVB
	PCB 171 (BZ)	43:30	00:00	0	0	0	0	0	0.00 *	/
	PCB 172 (BZ)	45:06	00:00	0	6895422	6639195	1360893	1351590	1.04	AVB/AVB
	PCB 192 (BZ)	45:23	00:00	0	9233539	8761444	1884495	1754494	1.05	ABB/ABV
	PCB 193 (BZ)	45:43	00:00	0	18249364	17364590	2528835	2363200	1.05	ABV/AVV
	PCB 180 (BZ)	45:45	00:00	0	0	0	0	0	0.00 *	/
	PCB 191 (BZ)	46:06	00:00	0	10294493	9598435	2067222	1943940	1.07	AVB/AVB
	PCB 170 (BZ)	47:01	00:00	0	6799679	6572062	1341282	1275103	1.03	ABV/ABV
	PCB 190 (BZ)	47:33	00:00	0	10249343	9793494	1985820	1852174	1.05	ABV/ABV
	PCB 189 (BZ)	50:07	00:00	0	13852072	13359139	2757792	2664598	1.04	AVV/AVV
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	218	195	87	78	1.12	/
	13C12-PCB 188	37:36	00:00	0	2465390	2293012	500743	483048	1.08	ABV/ABV
	13C12-PCB 178	40:39	00:00	0	6452798	6126447	1318441	1232304	1.05	ABV/ABV
	13C12-PCB 180	45:44	00:00	0	2017499	1884284	408711	383238	1.07	ABV/ABV
	13C12-PCB 170	47:00	00:00	0	1598224	1536037	320331	304925	1.04	ABV/AVV
	13C12-PCB 189	50:06	00:00	0	3302020	3155773	669030	614873	1.05	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	618	483	247	193	1.28 *	/

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TestAmerica
Knoxville

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PCB's by EPA Method 1668A

Workorder	2990:71CS4	Prep Batch		Lot No	
Data File	/20080624i/a08624i4.d	Prep Date		SDG No	
Analysis ID	104726	Prep Exp Date		Date Received	
Analysis Date	06/24/08 19:24	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	PCB 202 (BZ)	42:59	00:00	0	6582424	7215101	1337450	1467104	0.91	ABV/ABV
	PCB 200 (BZ)/201 (IUPAC	43:54	00:00	0	7315916	7987297	1458111	1569270	0.92	ABV/ABV
	PCB 204 (BZ)	44:34	00:00	0	6650997	7269163	1315639	1414354	0.91	AVV/ABV
	PCB 197 (BZ)	44:48	00:00	0	6909949	7630932	1437604	1563730	0.91	AVV/AVV
	PCB 199 (BZ)/200 (IUPAC	44:55	00:00	0	7209785	7884796	1401051	1536374	0.91	AVV/AVV
	PCB 198 (BZ)	47:41	00:00	0	10127004	11154205	1282037	1418545	0.91	ABV/ABV
	PCB 201 (BZ)/199 (IUPAC	47:43	00:00	0	0	0	0	0	0.00 *	/
	PCB 196 (BZ)	48:21	00:00	0	5075627	5590688	1003478	1095366	0.91	ABV/ABV
	PCB 203 (BZ)	48:33	00:00	0	5566229	6131247	1129472	1196913	0.91	AVV/AVB
	PCB 195 (BZ)	49:53	00:00	0	7847417	8771973	1543458	1710906	0.89	AVV/AVV
	PCB 194 (BZ)	52:13	00:00	0	8294565	9168995	1634659	1811558	0.90	ABV/ABV
	PCB 205 (BZ)	52:40	00:00	0	10273353	11469985	1947863	2197327	0.90	AVV/AVV
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	135	165	54	66	0.82	/
	13C12-PCB 202	42:57	00:00	0	1693005	1789906	334294	358748	0.95	ABB/ABV
	13C12-PCB 194	52:12	00:00	0	1924762	2066100	378180	408943	0.93	ABV/ABV
	13C12-PCB 205	52:39	00:00	0	2665464	2917543	517264	557121	0.91	AVV/AVV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	320	328	128	131	0.98 *	/
	PCB 208 (BZ)	49:38	00:00	0	8171913	10317284	1607606	2014227	0.79	ABV/ABV
	PCB 207 (BZ)	50:33	00:00	0	8601288	10804168	1673598	2130302	0.80	AVV/AVV
	PCB 206 (BZ)	54:25	00:00	0	6109256	7686555	1194542	1509129	0.79	ABV/ABV
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	170	160	68	64	1.06 *	/
	13C12-PCB 208	49:36	00:00	0	2043804	2558636	406038	493086	0.80	AVV/AVV
	13C12-PCB 206	54:23	00:00	0	1420598	1768490	267963	334819	0.80	ABV/ABV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	293	68	117	27	4.33 *	/
	PCB 209 (BZ)	56:02	00:00	0	5791605	8107719	1041736	1439181	0.71	ABV/ABV
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	130	78	52	31	1.68 *	/
	13C12-PCB 209	56:01	00:00	0	1422441	1969902	256613	353874	0.72	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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PCB's by EPA Method 1668A

Workorder	2990:71CS5	**Prep Batch**		**Lot No**	
Data File	/20080624i/a08062415.d	**Prep Date**		**SDG No**	
Analysis ID	104727	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	20:25	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
Total Monochlorobiphenyl		757687542	280288335	1.000		8887.22207		8887.22207	Q	0.172
13C12-PCB 1	11:57	8404763	3600027	1.000	100.0	151.120580	151.12	151.120580		0.0343
13C12-PCB 3	14:10	8655306	2865759	1.000	100.0	155.625431	155.63	155.625431		0.0343
PCB 1 (BZ)	11:58	258464652	100254248	1.000	2000	3075.21642	153.76	3075.21642		0.0509
PCB 2 (BZ)	13:59	260384108	97243824	1.000	2000	3052.55633	152.63	3052.55633		0.0567
PCB 3 (BZ)	14:10	238838782	82790263	1.000	2000	2759.44932	137.97	2759.44932	Q	0.0639
Total Dichlorobiphenyl		1813798752	501023888	1.000		37835.3156		37835.3156		2.41
13C12-PCB 4	14:26	3421239	1098627	1.000	100.0	61.515075	61.52	61.515075		0.0274
13C12-PCB 9	16:24	5561627	1568037	1.000	100.0	100.000000	100.00	100.000000		0.0274
13C12-PCB 8				1.000				ND		0.0324
13C12-PCB 15	20:24	6160282	1557947	1.000	100.0	110.764026	110.76	110.764026		0.0274
PCB 4 (BZ)	14:27	89655840	29841161	1.000	2000	2620.56641	131.03	2620.56641		0.242
PCB 10 (BZ)	14:36	136817412	47518322	1.000	2000	2855.85998	142.79	2855.85998		0.200
PCB 9 (BZ)	16:25	150904392	44056086	1.000	2000	3149.90474	157.50	3149.90474		0.200
PCB 7 (BZ)	16:35	153137040	48025776	1.000	2000	3196.50794	159.83	3196.50794		0.200
PCB 6 (BZ)	16:50	153726892	47155360	1.000	2000	3208.82023	160.44	3208.82023		0.200
PCB 5 (BZ)	17:09	141435148	43648025	1.000	2000	2952.24835	147.61	2952.24835		0.200
PCB 8 (BZ)	17:17	159684184	48822686	1.000	2000	3333.16984	166.66	3333.16984		0.200
PCB 14 (BZ)	18:55	186730264	51604112	1.000	2000	3897.71653	194.89	3897.71653		0.200
PCB 11 (BZ)	19:47	156042312	42004604	1.000	2000	3257.15118	162.86	3257.15118		0.200
PCB 13 (BZ)	20:06	318835952	53621208	1.000	2000	6655.22628	332.76	6655.22628		0.200
PCB 12 (BZ)	20:06			1.000	2000			ND		0.200
PCB 15 (BZ)	20:25	166829316	44726548	1.000	2000	2708.14414	135.41	2708.14414		0.170
Total Trichlorobiphenyl		4843840016	085048745	1.000		71843.3410		71843.3410		5.41
13C12-PCB 19	17:35	2231642	628427	1.000	100.0	55.923028	55.92	55.923028		0.0891
13C12-PCB 32	20:51	3990560	1007310	1.000	100.0	100.000000	100.00	100.000000		0.0891
13C12-PCB 31	23:07	10299379	2417726	1.000	100.0	100.000000	100.00	100.000000		0.0371
13C12-PCB 28				1.000				ND		0.0371
13C12-PCB 37	27:29	9503543	2081169	1.000	100.0	92.272971	92.27	92.272971		0.0371
PCB 19 (BZ)	17:36	56407772	16272591	1.000	2000	2527.63535	126.38	2527.63535		0.422
PCB 30 (BZ)	19:25	154302736	24849516	1.000	2000	6914.31403	345.72	6914.31403		0.422
PCB 18 (BZ)	19:29			1.000	2000			ND		0.422
PCB 17 (BZ)	19:53	65831780	17151472	1.000	2000	2949.92566	147.50	2949.92566		0.422
PCB 27 (BZ)	20:07	94151408	25163118	1.000	2000	4218.92974	210.95	4218.92974		0.422
PCB 24 (BZ)	20:14	86807632	22918637	1.000	2000	3889.85473	194.49	3889.85473		0.422
PCB 16 (BZ)	20:23	55851404	14206399	1.000	2000	2502.70447	125.14	2502.70447		0.422
PCB 32 (BZ)	20:52	95453996	24244740	1.000	2000	4277.29878	213.86	4277.29878		0.422
PCB 34 (BZ)	22:08	252191568	67451328	1.000	2000	2653.65841	132.68	2653.65841		0.127
PCB 23 (BZ)	22:17	250443528	65806374	1.000	2000	2635.26485	131.76	2635.26485		0.127
PCB 29 (BZ)	22:38			1.000	2000			ND		0.127
PCB 26 (BZ)	22:37	579147712	142948968	1.000	2000	6094.01896	304.70	6094.01896		0.127
PCB 25 (BZ)	22:51	280308432	67495634	1.000	2000	2949.51506	147.48	2949.51506		0.127
PCB 31 (BZ)	23:10	259020776	66208546	1.000	2000	2725.51801	136.28	2725.51801		0.127
PCB 28 (BZ)	23:29	549142608	95872624	1.000	2000	5778.29351	288.91	5778.29351		0.127
PCB 20 (BZ)	23:30			1.000	2000			ND		0.127
PCB 21 (BZ)	23:38			1.000	2000			ND		0.127
PCB 33 (BZ)	23:42	539470416	74879420	1.000	2000	5676.51892	283.83	5676.51892		0.127
PCB 22 (BZ)	24:06	252139160	63297850	1.000	2000	2653.10695	132.66	2653.10695		0.127
PCB 36 (BZ)	25:39	259885768	60313322	1.000	2000	2734.61979	136.73	2734.61979		0.127

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PCB's by EPA Method 1668A

Workorder	2990:71CS5	Prep Batch		Lot No	
Data File	/20080624i/a08062415.d	Prep Date		SDG No	
Analysis ID	104727	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	20:25	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 39 (BZ)	26:01	270659264	64239586	1.000	2000	2847.98274	142.40	2847.98274	0.127
PCB 38 (BZ)	26:37	247825008	55325624	1.000	2000	2607.71176	130.39	2607.71176	0.127
PCB 35 (BZ)	27:04	247260184	57751910	1.000	2000	2601.76846	130.09	2601.76846	0.127
PCB 37 (BZ)	27:30	247538864	58651086	1.000	2000	2604.70084	130.24	2604.70084	0.127
Total Tetrachlorobiphenyl		6337128506	244108213	1.000		100766.104		100766.104	7.33
13C12-PCB 54	20:42	2291999	580975	1.000	100.0	57.435523	57.44	57.435523	0.0288
13C12-PCB 52	25:16	4606281	1055020	1.000	100.0	100.000000	100.00	100.000000	0.0275
13C12-PCB 79				1.000				ND	0.0213
13C12-PCB 81	34:14	6375956	1373440	1.000	100.0	138.418737	138.42	138.418737	0.0275
13C12-PCB 77	34:47	6405935	1348462	1.000	100.0	139.069566	139.07	139.069566	0.0275
PCB 54 (BZ)	20:44	57460846	14509910	1.000	2000	2507.01881	125.35	2507.01881	0.396
PCB 50 (BZ)	22:55			1.000	2000			ND	0.169
PCB 53 (BZ)	22:54	251391568	62971180	1.000	2000	3933.55831	196.68	3933.55831	0.169
PCB 45 (BZ)	23:34			1.000	2000			ND	0.169
PCB 51 (BZ)	23:38	225501328	31834132	1.000	2000	3528.45018	176.42	3528.45018	0.169
PCB 46 (BZ)	23:54	92538484	21859125	1.000	2000	1447.96234	72.40	1447.96234	0.169
PCB 52 (BZ)	25:17	118223948	27566903	1.000	2000	1849.86631	92.49	1849.86631	0.169
PCB 73 (BZ)	25:26	257603968	36887381	1.000	2000	4030.76459	201.54	4030.76459	0.169
PCB 43 (BZ)	25:31			1.000	2000			ND	0.169
PCB 69 (BZ)	25:44	295665496	39343120	1.000	2000	4626.31853	231.32	4626.31853	0.169
PCB 49 (BZ)	25:48			1.000	2000			ND	0.169
PCB 48 (BZ)	26:04	116571136	27601728	1.000	2000	1824.00454	91.20	1824.00454	0.169
PCB 65 (BZ)	26:18			1.000	2000			ND	0.169
PCB 47 (BZ)	26:20			1.000	2000			ND	0.169
PCB 44 (BZ)	26:19	429329312	92089620	1.000	2000	6717.77458	335.89	6717.77458	0.169
PCB 62 (BZ)	26:38	543659776	96768004	1.000	2000	8506.71901	425.34	8506.71901	0.169
PCB 75 (BZ)	26:39			1.000	2000			ND	0.169
PCB 59 (BZ)	26:38			1.000	2000			ND	0.169
PCB 42 (BZ)	26:50	113912164	25431368	1.000	2000	1782.39924	89.12	1782.39924	0.169
PCB 41 (BZ)	27:13			1.000	2000			ND	0.169
PCB 71 (BZ)	27:20	366647568	63431520	1.000	2000	5736.98474	286.85	5736.98474	0.169
PCB 40 (BZ)	27:20			1.000	2000			ND	0.169
PCB 64 (BZ)	27:33	176695800	42772836	1.000	2000	2764.78340	138.24	2764.78340	0.169
PCB 72 (BZ)	28:21	167792464	39437840	1.000	2000	2625.47168	131.27	2625.47168	0.169
PCB 68 (BZ)	28:38	181827640	40286496	1.000	2000	2845.08200	142.25	2845.08200	0.169
PCB 57 (BZ)	29:05	162290248	36448940	1.000	2000	2539.37775	126.97	2539.37775	0.169
PCB 58 (BZ)	29:20	165182448	36176763	1.000	2000	2584.63240	129.23	2584.63240	0.169
PCB 67 (BZ)	29:29	181504104	41169210	1.000	2000	2840.01959	142.00	2840.01959	0.169
PCB 63 (BZ)	29:45	179861376	41014864	1.000	2000	2814.31560	140.72	2814.31560	0.169
PCB 61 (BZ)	29:59			1.000	2000			ND	0.169
PCB 70 (BZ)	30:06	723038176	90033516	1.000	2000	11313.4774	565.67	11313.4774	0.169
PCB 76 (BZ)	30:06			1.000	2000			ND	0.169
PCB 74 (BZ)	30:09			1.000	2000			ND	0.169
PCB 66 (BZ)	30:25	172653240	39050722	1.000	2000	2701.52891	135.08	2701.52891	0.169
PCB 55 (BZ)	30:36	156382592	35856787	1.000	2000	2446.93985	122.35	2446.93985	0.169
PCB 56 (BZ)	31:06	164694440	36069144	1.000	2000	2576.99647	128.85	2576.99647	0.169
PCB 60 (BZ)	31:19	161916944	35521870	1.000	2000	2533.53661	126.68	2533.53661	0.169
PCB 80 (BZ)	31:41	186643840	41613492	1.000	2000	2920.44174	146.02	2920.44174	0.169
PCB 79 (BZ)	33:15	181180224	37395562	1.000	2000	2834.95179	141.75	2834.95179	0.169

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PCB's by EPA Method 1668A

Workorder	2990:71CS5	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i5.d	**Prep Date**		**SDG No**	
Analysis ID	104727	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	20:25	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 78 (BZ)	33:48	158388208	33817759	1.000	2000	2478.32199	123.92	2478.32199	0.169
PCB 81 (BZ)	34:15	177483344	39857698	1.000	2000	2783.63502	139.18	2783.63502	0.168
PCB 77 (BZ)	34:49	171087824	37290723	1.000	2000	2670.77053	133.54	2670.77053	0.171
Total Pentachlorobiphenyl		5127808632	936336030	1.000		101037.507		101037.507	15.8
13C12-PCB 104	26:13	4048712	883033	1.000	100.0	122.727404	122.73	122.727404	0.0488
13C12-PCB 95				1.000				ND	0.0388
13C12-PCB 101	32:09	3298947	701644	1.000	100.0	100.000000	100.00	100.000000	0.0488
13C12-PCB 111				1.000				ND	0.0488
13C12-PCB 123	36:47	8090283	1658984	1.000	100.0	97.625514	97.63	97.625514	0.0208
13C12-PCB 118	37:06	8212678	1694879	1.000	100.0	99.102456	99.10	99.102456	0.0208
13C12-PCB 114	37:38	8093093	1667166	1.000	100.0	97.659423	97.66	97.659423	0.0208
13C12-PCB 105	38:18	7807847	1554956	1.000	100.0	94.217357	94.22	94.217357	0.0208
13C12-PCB 127	39:45	8287058	1644341	1.000	100.0	100.000000	100.00	100.000000	0.0208
13C12-PCB 126	41:22	8308702	1604499	1.000	100.0	100.261178	100.26	100.261178	0.0208
PCB 104 (BZ)	26:15	101009036	22663703	1.000	2000	2494.84369	124.74	2494.84369	0.385
PCB 96 (BZ)	26:39	89439204	20726472	1.000	2000	2209.07795	110.45	2209.07795	0.385
PCB 103 (BZ)	28:32	78047800	16988015	1.000	2000	1927.71924	96.39	1927.71924	0.385
PCB 94 (BZ)	28:47	68157202	15418656	1.000	2000	1683.42925	84.17	1683.42925	0.385
PCB 95 (BZ)	29:14	72254588	15255676	1.000	2000	1784.63146	89.23	1784.63146	0.385
PCB 100 (BZ)	29:26	155805456	27109285	1.000	2000	3848.27214	192.41	3848.27214	0.385
PCB 93 (BZ)	29:28			1.000	2000			ND	0.385
PCB 102 (BZ)	29:35	154879356	19446384	1.000	2000	3825.39820	191.27	3825.39820	0.385
PCB 98 (BZ)	29:39			1.000	2000			ND	0.385
PCB 88 (BZ)	29:59			1.000	2000			ND	0.385
PCB 91 (BZ)	30:06	147308624	16941477	1.000	2000	3638.40708	181.92	3638.40708	0.385
PCB 84 (BZ)	30:20	62022000	13923493	1.000	2000	1531.89459	76.59	1531.89459	0.385
PCB 89 (BZ)	30:48	66503062	14559183	1.000	2000	1642.57329	82.13	1642.57329	0.385
PCB 121 (BZ)	31:11	107014060	23576936	1.000	2000	2643.16306	132.16	2643.16306	0.385
PCB 92 (BZ)	31:34	73721502	16282499	1.000	2000	1820.86308	91.04	1820.86308	0.385
PCB 113 (BZ)	32:09	268829384	42811103	1.000	2000	6639.87421	331.99	6639.87421	0.385
PCB 90 (BZ)	32:09			1.000	2000			ND	0.385
PCB 101 (BZ)	32:09			1.000	2000			ND	0.385
PCB 83 (BZ)	32:38			1.000	2000			ND	0.385
PCB 99 (BZ)	32:44	145126868	19788207	1.000	2000	3584.51942	179.23	3584.51942	0.385
PCB 112 (BZ)	32:51	105374428	21974596	1.000	2000	2602.66544	130.13	2602.66544	0.385
PCB 109 (BZ)/108 (IUPAC)	33:14	570145712	62411698	1.000	2000	14082.1504	704.11	14082.1504	0.385
PCB 86 (BZ)	33:14			1.000	2000			ND	0.385
PCB 119 (BZ)	33:14			1.000	2000			ND	0.385
PCB 97 (BZ)	33:15			1.000	2000			ND	0.385
PCB 125 (BZ)	33:19			1.000	2000			ND	0.385
PCB 87 (BZ)	33:21			1.000	2000			ND	0.385
PCB 117 (BZ)	33:52			1.000	2000			ND	0.385
PCB 116 (BZ)	33:58	287906528	36950137	1.000	2000	7111.06465	355.55	7111.06465	0.385
PCB 85 (BZ)	33:59			1.000	2000			ND	0.385
PCB 110 (BZ)	34:10	215779984	29372493	1.000	2000	5329.59578	266.48	5329.59578	0.385
PCB 115 (BZ)	34:12			1.000	2000			ND	0.385
PCB 82 (BZ)	34:28	63207018	13220365	1.000	2000	1561.16360	78.06	1561.16360	0.385
PCB 111 (BZ)	34:50	111181960	24062692	1.000	2000	2746.10691	137.31	2746.10691	0.385
PCB 120 (BZ)	35:17	110735116	24224015	1.000	2000	2735.07021	136.75	2735.07021	0.385

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PCB's by EPA Method 1668A

Workorder	2990:71CS5	**Prep Batch**		**Lot No**	
Data File	/20080624i/a08062415.d	**Prep Date**		**SDG No**	
Analysis ID	104727	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	20:25	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 124 (BZ)	36:27			1.000	2000			ND	0.208
PCB 108 (BZ)/107 (IUPAC)	36:27	396736512	84208872	1.000	2000	4896.45792	244.82	4896.45792	0.208
PCB 107 (BZ)/109 (IUPAC)	36:41	192826384	39308793	1.000	2000	2379.83207	118.99	2379.83207	0.208
PCB 123 (BZ)	36:48	182587064	42805260	1.000	2000	2256.86869	112.84	2256.86869	0.205
PCB 106 (BZ)	36:56	182328248	39253101	1.000	2000	2250.26578	112.51	2250.26578	0.208
PCB 118 (BZ)	37:07	189851408	40795855	1.000	2000	2311.68698	115.58	2311.68698	0.201
PCB 122 (BZ)	37:29	168414208	35189221	1.000	2000	2078.54094	103.93	2078.54094	0.208
PCB 114 (BZ)	37:39	199470064	41841673	1.000	2000	2464.69507	123.23	2464.69507	0.204
PCB 105 (BZ)	38:19	188474152	40503234	1.000	2000	2413.90683	120.70	2413.90683	0.219
PCB 127 (BZ)	39:46	187586408	39112930	1.000	2000	2315.16114	115.76	2315.16114	0.208
PCB 126 (BZ)	41:23	185085296	35610006	1.000	2000	2227.60783	111.38	2227.60783	0.212
Total Hexachlorobiphenyl		4984396694	896534737	1.000		83534.1720		83534.1720	16.5
13C12-PCB 155	31:52	3442346	707880	1.000	100.0	104.346811	104.35	104.346811	0.0599
13C12-PCB 153				1.000				ND	0.0385
13C12-PCB 138	40:13	5477816	1071824	1.000	100.0	100.000000	100.00	100.000000	0.0392
13C12-PCB 167	43:12	6878793	1325593	1.000	100.0	125.575467	125.58	125.575467	0.0392
13C12-PCB 156	44:23	13612732	1734915	1.000	200.0	248.506558	124.25	248.506558	0.0392
13C12-PCB 157	44:22			1.000				ND	0.0392
13C12-PCB 169	47:35	6502545	1305801	1.000	100.0	118.706890	118.71	118.706890	0.0392
PCB 155 (BZ)	31:54	81513012	17895712	1.000	2000	2367.94942	118.40	2367.94942	0.533
PCB 152 (BZ)	32:08	75910616	14960315	1.000	2000	2205.20006	110.26	2205.20006	0.533
PCB 150 (BZ)	32:17	77891524	17229791	1.000	2000	2262.74535	113.14	2262.74535	0.533
PCB 136 (BZ)	32:40	74077992	15751041	1.000	2000	2151.96241	107.60	2151.96241	0.533
PCB 145 (BZ)	32:57	76054354	16947527	1.000	2000	2209.37564	110.47	2209.37564	0.533
PCB 148 (BZ)	34:26	56734282	12332262	1.000	2000	1648.12840	82.41	1648.12840	0.533
PCB 151 (BZ)	35:02	111371112	12552100	1.000	2000	3235.32591	161.77	3235.32591	0.533
PCB 135 (BZ)	35:07			1.000	2000			ND	0.533
PCB 154 (BZ)	35:17	67064406	14286460	1.000	2000	1948.21805	97.41	1948.21805	0.533
PCB 144 (BZ)	35:36	58676124	12145034	1.000	2000	1704.53882	85.23	1704.53882	0.533
PCB 147 (BZ)	35:59	243747168	51704484	1.000	2000	3611.86243	180.59	3611.86243	0.346
PCB 149 (BZ)	35:59			1.000	2000			ND	0.346
PCB 134 (BZ)	36:11			1.000	2000			ND	0.346
PCB 143 (BZ)	36:18	201635376	22415344	1.000	2000	2987.84698	149.39	2987.84698	0.346
PCB 139 (BZ)	36:35	247323032	47442552	1.000	2000	3664.84983	183.24	3664.84983	0.346
PCB 140 (BZ)	36:35			1.000	2000			ND	0.346
PCB 131 (BZ)	36:47	97412104	20159833	1.000	2000	1443.45931	72.17	1443.45931	0.346
PCB 142 (BZ)	36:57	103283544	21761633	1.000	2000	1530.46271	76.52	1530.46271	0.346
PCB 132 (BZ)	37:16	100667332	21368703	1.000	2000	1491.69550	74.58	1491.69550	0.346
PCB 133 (BZ)	37:43	109122264	22598534	1.000	2000	1616.98127	80.85	1616.98127	0.346
PCB 165 (BZ)	38:08	143439376	29635497	1.000	2000	2125.49461	106.27	2125.49461	0.346
PCB 146 (BZ)	38:22	122476680	26593869	1.000	2000	1814.86793	90.74	1814.86793	0.346
PCB 161 (BZ)	38:30	161464120	33952970	1.000	2000	2392.58652	119.63	2392.58652	0.346
PCB 153 (BZ)	39:01	315504848	50134164	1.000	2000	4675.17270	233.76	4675.17270	0.346
PCB 168 (BZ)	39:02			1.000	2000			ND	0.346
PCB 141 (BZ)	39:11	111955544	23091806	1.000	2000	1658.96501	82.95	1658.96501	0.346
PCB 130 (BZ)	39:36	101478872	20906395	1.000	2000	1503.72096	75.19	1503.72096	0.346
PCB 137 (BZ)	39:49	119568804	26458291	1.000	2000	1771.77882	88.59	1771.77882	0.346
PCB 164 (BZ)	39:57	150804248	32048174	1.000	2000	2234.62780	111.73	2234.62780	0.346
PCB 138 (BZ)	40:16	551225984	64704556	1.000	2000	8168.10483	408.41	8168.10483	0.346

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PCB's by EPA Method 1668A

Workorder	2990:71CS5	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080624i5.d	**Prep Date**		**SDG No**	
Analysis ID	104727	**Prep Exp Date**		**Date Received**	
Analysis Date	6/24/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	20:25	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 163 (BZ)	40:15			1.000	2000			ND	0.346
PCB 129 (BZ)	40:19			1.000	2000			ND	0.346
PCB 160 (BZ)	40:24			1.000	2000			ND	0.346
PCB 158 (BZ)	40:38	167027864	33131448	1.000	2000	2475.03046	123.75	2475.03046	0.346
PCB 166 (BZ)	41:29	277046632	39269314	1.000	2000	4105.29619	205.26	4105.29619	0.346
PCB 128 (BZ)	41:31			1.000	2000			ND	0.346
PCB 159 (BZ)	42:28	154334160	33139976	1.000	2000	2286.93428	114.35	2286.93428	0.346
PCB 162 (BZ)	42:46	157024976	31392213	1.000	2000	2326.80698	116.34	2326.80698	0.346
PCB 167 (BZ)	43:14	164880928	33751473	1.000	2000	2396.94563	119.85	2396.94563	0.285
PCB 156 (BZ)	44:24	333074032	43669168	1.000	4000	4893.56629	122.34	4893.56629	0.435
PCB 157 (BZ)	44:25			1.000				ND	0.435
PCB 169 (BZ)	47:36	170605384	33104098	1.000	2000	2623.67095	131.18	2623.67095	0.289
Total Heptachlorobiphenyl		2460559676	469023814	1.000		54216.8365		54216.8365	10.7
13C12-PCB 188	37:36	5227049	1087784	1.000	100.0	118.665766	118.67	118.665766	0.0346
13C12-PCB 178				1.000				ND	0.0346
13C12-PCB 180	45:44	4404850	911267	1.000	100.0	100.000000	100.00	100.000000	0.0346
13C12-PCB 170	47:00	3604743	702281	1.000	100.0	81.835772	81.84	81.835772	0.0346
13C12-PCB 189	50:06	7292214	1415034	1.000	100.0	163.074686	163.07	163.074686	0.0351
PCB 188 (BZ)	37:38	120644564	25509516	1.000	2000	2308.08175	115.40	2308.08175	0.371
PCB 179 (BZ)	37:59	115680496	24050911	1.000	2000	2619.63814	130.98	2619.63814	0.451
PCB 184 (BZ)	38:30	111348792	22970539	1.000	2000	2521.54471	126.08	2521.54471	0.451
PCB 176 (BZ)	38:52	121180164	25372260	1.000	2000	2744.18066	137.21	2744.18066	0.451
PCB 186 (BZ)	39:20	115459492	24369579	1.000	2000	2614.63341	130.73	2614.63341	0.451
PCB 178 (BZ)	40:41	84353912	17822006	1.000	2000	1910.23321	95.51	1910.23321	0.451
PCB 175 (BZ)	41:19	90171708	18284071	1.000	2000	2041.97988	102.10	2041.97988	0.451
PCB 187 (BZ)	41:35	96427392	20204904	1.000	2000	2183.64273	109.18	2183.64273	0.451
PCB 182 (BZ)	41:46	94874908	19528602	1.000	2000	2148.48602	107.42	2148.48602	0.451
PCB 183 (BZ)	42:11	184950536	19117013	1.000	2000	4188.29012	209.41	4188.29012	0.451
PCB 185 (BZ)	42:18			1.000	2000			ND	0.451
PCB 174 (BZ)	42:27	87951364	17527190	1.000	2000	1991.69917	99.58	1991.69917	0.451
PCB 177 (BZ)	42:53	83516112	16803821	1.000	2000	1891.26084	94.56	1891.26084	0.451
PCB 181 (BZ)	43:16	94269108	19022778	1.000	2000	2134.76739	106.74	2134.76739	0.451
PCB 171 (BZ)	43:30			1.000	2000			ND	0.451
PCB 173 (BZ)	43:30	166212568	32266664	1.000	2000	3763.96020	188.20	3763.96020	0.451
PCB 172 (BZ)	45:06	80922600	16462545	1.000	2000	1832.52957	91.63	1832.52957	0.451
PCB 192 (BZ)	45:23	109828380	22707521	1.000	2000	2487.11428	124.36	2487.11428	0.451
PCB 193 (BZ)	45:43	217196904	30029046	1.000	2000	4918.52399	245.93	4918.52399	0.451
PCB 180 (BZ)	45:45			1.000	2000			ND	0.451
PCB 191 (BZ)	46:06	119255648	24529402	1.000	2000	2700.59911	135.03	2700.59911	0.451
PCB 170 (BZ)	47:01	79952784	16156912	1.000	2000	2217.98847	110.90	2217.98847	0.574
PCB 190 (BZ)	47:33	119872308	22622082	1.000	2000	2714.56366	135.73	2714.56366	0.451
PCB 189 (BZ)	50:08	166489936	33666452	1.000	2000	2283.11917	114.16	2283.11917	0.285
Total Octachlorobiphenyl		1025717242	197282070	1.000		22946.4287		22946.4287	2.44
13C12-PCB 202	42:57	3932111	765896	1.000	100.0	89.267762	89.27	89.267762	0.0280
13C12-PCB 194	52:11	4471702	897993	1.000	100.0	100.000000	100.00	100.000000	0.0284
13C12-PCB 205	52:39	6250267	1197721	1.000	100.0	139.773782	139.77	139.773782	0.0284
PCB 202 (BZ)	42:59	81501600	16512986	1.000	2000	2072.71870	103.64	2072.71870	0.224
PCB 200 (BZ)/201 (IUPAC)	43:54	91286708	18729551	1.000	2000	2321.56997	116.08	2321.56997	0.224
PCB 204 (BZ)	44:35	84047684	16623435	1.000	2000	2137.46977	106.87	2137.46977	0.224

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PCB's by EPA Method 1668A

Workorder	2990:71CS5	Prep Batch		Lot No	
Data File	/20080624i/a08062 4i5.d	Prep Date		SDG No	
Analysis ID	104727	Prep Exp Date		Date Received	
Analysis Date	6/24/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	20:25	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)	DL (ng/mL)
PCB 197 (BZ)	44:48	86853756	17966535	1.000	2000	2208.83276	110.44	2208.83276	0.224
PCB 199 (BZ)/200 (IUPAC)	44:56	90284740	18176697	1.000	2000	2296.08828	114.80	2296.08828	0.224
PCB 198 (BZ)	47:42	127286724	16323164	1.000	2000	3237.10913	161.86	3237.10913	0.224
PCB 201 (BZ)/199 (IUPAC)	47:43			1.000	2000			ND	0.224
PCB 196 (BZ)	48:22	61991374	12366089	1.000	2000	1576.54181	78.83	1576.54181	0.224
PCB 203 (BZ)	48:33	69647672	14159769	1.000	2000	1771.25397	88.56	1771.25397	0.224
PCB 195 (BZ)	49:53	98077980	19369238	1.000	2000	1569.18064	78.46	1569.18064	0.143
PCB 194 (BZ)	52:12	104554140	20905065	1.000	2000	1672.79478	83.64	1672.79478	0.143
PCB 205 (BZ)	52:41	130184864	26149541	1.000	2000	2082.86884	104.14	2082.86884	0.143
Total Nonachlorobiphenyl		299784944	58934404	1.000		7044.85503		7044.85503	0.490
13C12-PCB 208	49:36	5010323	934954	1.000	100.0	112.045101	112.05	112.045101	0.0342
13C12-PCB 206	54:23	3521454	668938	1.000	100.0	78.749747	78.75	78.749747	0.0342
PCB 208 (BZ)	49:38	107261184	21326425	1.000	2000	2140.80378	107.04	2140.80378	0.137
PCB 207 (BZ)	50:34	113632472	21904505	1.000	2000	2663.74688	133.19	2663.74688	0.160
PCB 206 (BZ)	54:24	78891288	15703474	1.000	2000	2240.30437	112.02	2240.30437	0.192
13C12-PCB 209	56:00	3717047	675319	1.000	100.0	83.123764	83.12	83.123764	0.0256
PCB 209 (BZ)	56:01	80604686	14692331	1.000	2000	2168.51404	108.43	2168.51404	0.140

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PCB's by EPA Method 1668A

Workorder	2990:71CS5	Prep Batch		Lot No	
Data File	/20080624i/a080624i5.d	Prep Date		SDG No	
Analysis ID	104727	Prep Exp Date		Date Received	
Analysis Date	06/24/08 20:25	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	943	890	377	356	1.06 *	/	
	PCB 1 (BZ)	11:58	00:00	0	200215936	58248716	76156584	24097664	3.44	ABV/ABV	
	PCB 2 (BZ)	13:59	00:00	0	203710624	56673484	75525368	21718456	3.59	ABV/ABV	
	PCB 3 (BZ)	14:10	00:00	0	215848976	57830212	74636144	20046068	3.73 *	AVV/AVV	R
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	228	310	91	124	0.73 *	/	
	13C12-PCB 1	11:57	00:00	0	6448915	1955848	2757778	842249	3.30	ABV/AVV	
	13C12-PCB 3	14:10	00:00	0	6618813	2036493	2199046	666713	3.25	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	1443	1213	577	485	1.19 *	/	
	PCB 4 (BZ)	14:27	00:00	0	55210400	34445440	18580514	11260647	1.60	ABV/ABV	
	PCB 10 (BZ)	14:36	00:00	0	84439872	52377540	29424506	18093816	1.61	AVV/AVV	
	PCB 9 (BZ)	16:25	00:00	0	93167640	57736752	27212598	16843488	1.61	ABV/ABV	
	PCB 7 (BZ)	16:35	00:00	0	94482792	58654248	29795680	18230096	1.61	AVV/AVV	
	PCB 6 (BZ)	16:50	00:00	0	95273688	58453204	29271464	17883896	1.63	AVV/AVV	
	PCB 5 (BZ)	17:09	00:00	0	87280520	54154628	27025124	16622901	1.61	AVV/AVV	
	PCB 8 (BZ)	17:17	00:00	0	98621360	61062824	30209164	18613522	1.62	AVB/AVB	
	PCB 14 (BZ)	18:55	00:00	0	115498600	71231664	32173806	19430306	1.62	ABV/ABV	
	PCB 11 (BZ)	19:47	00:00	0	96617704	59424608	26249206	15755398	1.63	ABV/ABV	
	PCB 13 (BZ)	20:06	00:00	0	197753792	121082160	33348192	20273016	1.63	AVV/AVV	
	PCB 12 (BZ)	20:06	00:00	0	0	0	0	0	0.00 *	/	
	PCB 15 (BZ)	20:25	00:00	0	103019680	63809636	27790800	16935748	1.61	AVV/AVV	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	290	140	116	56	2.07 *	/	
	13C12-PCB 4	14:26	00:00	0	2116082	1305157	685526	413101	1.62	AVV/ABV	
	13C12-PCB 9	16:24	00:00	0	3450797	2110830	964660	603377	1.63	AVV/AVV	
	13C12-PCB 15	20:24	00:00	0	3795397	2364885	961400	596547	1.60	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	1520	1130	608	452	1.35 *	/	
	PCB 19 (BZ)	17:36	00:00	0	29013770	27394002	8338636	7933955	1.06	ABV/ABV	
	PCB 30 (BZ)	19:25	00:00	0	79007832	75294904	12758261	12091255	1.05	ABV/ABV	
	PCB 18 (BZ)	19:29	00:00	0	0	0	0	0	0.00 *	/	
	PCB 17 (BZ)	19:53	00:00	0	33689380	32142400	8736491	8414981	1.05	ABV/ABV	
	PCB 27 (BZ)	20:07	00:00	0	48022372	46129036	12820394	12342724	1.04	AVV/AVV	
	PCB 24 (BZ)	20:14	00:00	0	44345032	42462600	11687809	11230828	1.04	AVV/AVV	
	PCB 16 (BZ)	20:23	00:00	0	28603486	27247918	7259233	6947166	1.05	AVB/AVB	
	PCB 32 (BZ)	20:52	00:00	0	48658868	46795128	12275489	11969251	1.04	AVV/AVV	
	PCB 34 (BZ)	22:08	00:00	0	130265568	121926000	34907280	32544048	1.07	ABV/ABV	
	PCB 23 (BZ)	22:17	00:00	0	128765816	121677712	33794716	32011658	1.06	AVB/AVB	
	PCB 26 (BZ)	22:37	00:00	0	297129664	282018048	72801408	70147560	1.05	ABV/ABV	
	PCB 29 (BZ)	22:38	00:00	0	0	0	0	0	0.00 *	/	
	PCB 25 (BZ)	22:51	00:00	0	143835680	136472752	34453000	33042634	1.05	AVV/AVV	
	PCB 31 (BZ)	23:10	00:00	0	132669632	126351144	33876028	32332518	1.05	AVV/AVV	

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS5	Prep Batch		Lot No	
Data File	/20080624i/a080624i5.d	Prep Date		SDG No	
Analysis ID	104727	Prep Exp Date		Date Received	
Analysis Date	06/24/08 20:25	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
256					**255.9613**	**257.9584**	**255.9613**	**257.9584**	**0.88-1.20**		
	PCB 28 (BZ)	23:29	00:00	0	282316704	266825904	49135472	46737152	1.06	AVV/AVV	
	PCB 20 (BZ)	23:30	00:00	0	0	0	0	0	0.00 *	/	
	PCB 21 (BZ)	23:38	00:00	0	0	0	0	0	0.00 *	/	
	PCB 33 (BZ)	23:42	00:00	0	276797440	262672976	38522596	36356824	1.05	AVV/AVV	
	PCB 22 (BZ)	24:06	00:00	0	129097928	123041232	32275066	31022784	1.05	AVV/AVV	
	PCB 36 (BZ)	25:39	00:00	0	133299552	126586216	30922900	29390422	1.05	AVV/AVV	
	PCB 39 (BZ)	26:01	00:00	0	138818560	131840704	32860016	31379570	1.05	AVV/AVV	
	PCB 38 (BZ)	26:37	00:00	0	127785816	120039192	28674422	26651202	1.06	AVV/AVV	
	PCB 35 (BZ)	27:04	00:00	0	126520144	120740040	29351620	28400290	1.05	AVV/AVV	
	PCB 37 (BZ)	27:30	00:00	0	126987696	120551168	30158310	28492776	1.05	AVV/AVV	
268					**268.0016**	**269.9986**	**268.0016**	**269.9986**	**0.88-1.20**		
	Noise	00:00	00:00	0	573	325	229	130	1.76 *	/	
	13C12-PCB 19	17:35	00:00	0	1161633	1070009	324158	304269	1.09	AVV/ABV	
	13C12-PCB 32	20:51	00:00	0	2083086	1907474	516439	490871	1.09	AVV/AVV	
	13C12-PCB 31	23:07	00:00	0	5313266	4986113	1243693	1174033	1.07	AVV/AVV	
	13C12-PCB 37	27:29	00:00	0	4957702	4545841	1094140	987029	1.09	ABV/ABV	
290					**289.9224**	**291.9194**	**289.9224**	**291.9194**	**0.65-0.89**		
	Noise	00:00	00:00	0	1185	1118	474	447	1.06 *	/	
	PCB 54 (BZ)	20:44	00:00	0	25297830	32163016	6370631	8139279	0.79	ABV/ABV	
	PCB 53 (BZ)	22:54	00:00	0	108323792	143067776	26782372	36188808	0.76	ABV/ABV	
	PCB 50 (BZ)	22:55	00:00	0	0	0	0	0	0.00 *	/	
	PCB 45 (BZ)	23:34	00:00	0	0	0	0	0	0.00 *	/	
	PCB 51 (BZ)	23:38	00:00	0	98341392	127159936	13845062	17989070	0.77	AVV/AVV	
	PCB 46 (BZ)	23:54	00:00	0	40361312	52177172	9639101	12220024	0.77	AVV/AVV	
	PCB 52 (BZ)	25:17	00:00	0	51400444	66823504	11908696	15658207	0.77	ABV/ABV	
	PCB 73 (BZ)	25:26	00:00	0	112031712	145572256	15877387	21009994	0.77	AVV/AVV	
	PCB 43 (BZ)	25:31	00:00	0	0	0	0	0	0.00 *	/	
	PCB 69 (BZ)	25:44	00:00	0	127965160	167700336	16963694	22379426	0.76	AVB/AVB	
	PCB 49 (BZ)	25:48	00:00	0	0	0	0	0	0.00 *	/	
	PCB 48 (BZ)	26:04	00:00	0	50868504	65702632	12004622	15597106	0.77	ABV/ABV	
	PCB 65 (BZ)	26:18	00:00	0	0	0	0	0	0.00 *	/	
	PCB 44 (BZ)	26:19	00:00	0	182669536	246659776	38570840	53518780	0.74	AVV/AVV	
	PCB 47 (BZ)	26:20	00:00	0	0	0	0	0	0.00 *	/	
	PCB 59 (BZ)	26:38	00:00	0	0	0	0	0	0.00 *	/	
	PCB 62 (BZ)	26:38	00:00	0	231122528	312537248	40815308	55952696	0.74	AVV/AVV	D
	PCB 75 (BZ)	26:39	00:00	0	0	0	0	0	0.00 *	/	
	PCB 42 (BZ)	26:50	00:00	0	49514312	64397852	11029536	14401832	0.77	AVB/AVB	
	PCB 41 (BZ)	27:13	00:00	0	0	0	0	0	0.00 *	/	
	PCB 40 (BZ)	27:20	00:00	0	0	0	0	0	0.00 *	/	
	PCB 71 (BZ)	27:20	00:00	0	157942912	208704656	26974172	36457348	0.76	ABV/ABV	
	PCB 64 (BZ)	27:33	00:00	0	76519744	100176056	18447400	24325436	0.76	AVB/AVB	
	PCB 72 (BZ)	28:21	00:00	0	72657712	95134752	16982892	22454948	0.76	ABV/ABV	
	PCB 68 (BZ)	28:38	00:00	0	78728840	103098800	17314028	22972468	0.76	AVV/AVV	

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PCB's by EPA Method 1668A

Workorder	2990:71CS5	Prep Batch		Lot No	
Data File	/20080624i/a080624i5.d	Prep Date		SDG No	
Analysis ID	104727	Prep Exp Date		Date Received	
Analysis Date	06/24/08 20:25	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	PCB 57 (BZ)	29:05	00:00	0	70160224	92130024	15645968	20802972	0.76	ABV/ABV
	PCB 58 (BZ)	29:20	00:00	0	71998608	93183840	15637757	20539006	0.77	AVV/AVV
	PCB 67 (BZ)	29:29	00:00	0	78766296	102737808	17722244	23446966	0.77	AVV/AVV
	PCB 63 (BZ)	29:45	00:00	0	77694616	102166760	17655320	23359544	0.76	AVB/AVB
	PCB 61 (BZ)	29:59	00:00	0	0	0	0	0	0.00 *	/
	PCB 76 (BZ)	30:06	00:00	0	0	0	0	0	0.00 *	/
	PCB 70 (BZ)	30:06	00:00	0	308560416	414477760	37812452	52221064	0.74	ABB/ABB
	PCB 74 (BZ)	30:09	00:00	0	0	0	0	0	0.00 *	/
	PCB 66 (BZ)	30:25	00:00	0	74945688	97707552	16872096	22178626	0.77	ABV/ABV
	PCB 55 (BZ)	30:36	00:00	0	67491472	88891120	15468943	20387844	0.76	AVB/AVB
	PCB 56 (BZ)	31:06	00:00	0	70988792	93705648	15434770	20634374	0.76	ABV/ABV
	PCB 60 (BZ)	31:19	00:00	0	70012520	91904424	15282172	20239698	0.76	AVV/AVV
	PCB 80 (BZ)	31:41	00:00	0	80792832	105851008	17891658	23721834	0.76	AVV/AVV
	PCB 79 (BZ)	33:15	00:00	0	78655976	102524248	16167988	21227574	0.77	MBV/MVV
	PCB 78 (BZ)	33:48	00:00	0	68603312	89784896	14572155	19245604	0.76	ABV/AVV
	PCB 81 (BZ)	34:15	00:00	0	76821648	100661696	17126416	22731282	0.76	AVV/AVV
	PCB 77 (BZ)	34:49	00:00	0	74168304	96919520	16114855	21175868	0.77	ABV/ABV
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89	
	Noise	00:00	00:00	0	138	153	55	61	0.90 *	/
	13C12-PCB 54	20:42	00:00	0	1028017	1263982	258903	322072	0.81	ABV/ABV
	13C12-PCB 52	25:16	00:00	0	2066558	2539723	475027	579993	0.81	ABV/ABV
	13C12-PCB 81	34:14	00:00	0	2848366	3527590	623047	750393	0.81	ABV/ABV
	13C12-PCB 77	34:47	00:00	0	2861076	3544859	601822	746640	0.81	ABV/AVV
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78	
	Noise	00:00	00:00	0	1498	1905	599	762	0.79 *	/
	PCB 104 (BZ)	26:15	00:00	0	62280488	38728548	14001632	8662071	1.61	ABV/ABV
	PCB 96 (BZ)	26:39	00:00	0	55273176	34166028	12896913	7829559	1.62	AVV/AVV
	PCB 103 (BZ)	28:32	00:00	0	47848904	30198896	10384776	6603239	1.58	ABV/ABV
	PCB 94 (BZ)	28:47	00:00	0	41788448	26368754	9504291	5914365	1.58	AVV/AVV
	PCB 95 (BZ)	29:14	00:00	0	44403456	27851132	9385170	5870506	1.59	ABV/ABV
	PCB 100 (BZ)	29:26	00:00	0	96214712	59590744	16783442	10325843	1.61	AVV/AVV
	PCB 93 (BZ)	29:28	00:00	0	0	0	0	0	0.00 *	/
	PCB 102 (BZ)	29:35	00:00	0	95488816	59390540	12023787	7422597	1.61	AVB/AVB
	PCB 98 (BZ)	29:39	00:00	0	0	0	0	0	0.00 *	/
	PCB 88 (BZ)	29:59	00:00	0	0	0	0	0	0.00 *	/
	PCB 91 (BZ)	30:06	00:00	0	90456056	56852568	10432265	6509212	1.59	ABV/ABV
	PCB 84 (BZ)	30:20	00:00	0	37954992	24067008	8523286	5400207	1.58	AVB/AVV
	PCB 89 (BZ)	30:48	00:00	0	40819456	25683606	8950316	5608867	1.59	ABV/ABB
	PCB 121 (BZ)	31:11	00:00	0	66016292	40997768	14610989	8965947	1.61	AVV/ABB
	PCB 92 (BZ)	31:34	00:00	0	45297100	28424402	10000664	6281835	1.59	AVB/ABB
	PCB 113 (BZ)	32:09	00:00	0	166018192	102811192	26600572	16210531	1.61	AVV/AVV
	PCB 90 (BZ)	32:09	00:00	0	0	0	0	0	0.00 *	/
	PCB 101 (BZ)	32:09	00:00	0	0	0	0	0	0.00 *	/

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Data File	/20080624i/a080624i5.d	Prep Date		SDG No	
Analysis ID	104727	Prep Exp Date		Date Received	
Analysis Date	06/24/08 20:25	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78	
	PCB 83 (BZ)	32:38	00:00	0	0	0	0	0	0.00 *	/
	PCB 99 (BZ)	32:44	00:00	0	89041864	56085004	12146554	7641653	1.59	ABV/ABV
	PCB 112 (BZ)	32:51	00:00	0	64951288	40423140	13558244	8416352	1.61	AVB/AVB
	PCB 109 (BZ)/108 (IUPAC	33:14	00:00	0	354025504	216120208	39151320	23260378	1.64	ABB/ABB
	PCB 119 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/
	PCB 86 (BZ)	33:14	00:00	0	0	0	0	0	0.00 *	/
	PCB 97 (BZ)	33:15	00:00	0	0	0	0	0	0.00 *	/
	PCB 125 (BZ)	33:19	00:00	0	0	0	0	0	0.00 *	/
	PCB 87 (BZ)	33:21	00:00	0	0	0	0	0	0.00 *	/
	PCB 117 (BZ)	33:52	00:00	0	0	0	0	0	0.00 *	/
	PCB 116 (BZ)	33:58	00:00	0	177620048	110286480	22843310	14106827	1.61	ABV/ABV
	PCB 85 (BZ)	33:59	00:00	0	0	0	0	0	0.00 *	/
	PCB 110 (BZ)	34:10	00:00	0	132911104	82868880	18085998	11286495	1.60	AVB/AVB
	PCB 115 (BZ)	34:12	00:00	0	0	0	0	0	0.00 *	/
	PCB 82 (BZ)	34:28	00:00	0	38813660	24393358	8126563	5093802	1.59	ABB/ABB
	PCB 111 (BZ)	34:50	00:00	0	68543224	42638736	14885413	9177279	1.61	ABV/ABV
	PCB 120 (BZ)	35:17	00:00	0	68204672	42530444	14979908	9244107	1.60	AVB/AVB
	PCB 108 (BZ)/107 (IUPAC	36:27	00:00	0	247692896	149043616	53151272	31057600	1.66	ABV/ABV
	PCB 124 (BZ)	36:27	00:00	0	0	0	0	0	0.00 *	/
	PCB 107 (BZ)/109 (IUPAC	36:41	00:00	0	118833296	73993088	24394516	14914277	1.61	AVV/AVV
	PCB 123 (BZ)	36:48	00:00	0	112869216	69717848	26591098	16214162	1.62	AVV/AVV
	PCB 106 (BZ)	36:56	00:00	0	112460992	69867256	24191658	15061443	1.61	AVV/AVV
	PCB 118 (BZ)	37:07	00:00	0	115861872	73989536	25240806	15555049	1.57	AVV/AVB
	PCB 122 (BZ)	37:29	00:00	0	103635528	64778680	21715062	13474159	1.60	ABV/ABV
	PCB 114 (BZ)	37:39	00:00	0	123532152	75937912	25942784	15898889	1.63	AVB/AVB
	PCB 105 (BZ)	38:19	00:00	0	115920960	72553192	25098090	15405144	1.60	AVV/AVV
	PCB 127 (BZ)	39:46	00:00	0	115531160	72055248	24174352	14938578	1.60	AVV/AVV
	PCB 126 (BZ)	41:23	00:00	0	114614856	70470440	22036152	13573854	1.63	MBV/MBV
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78	
	Noise	00:00	00:00	0	175	168	70	67	1.04 *	/
	13C12-PCB 104	26:13	00:00	0	2497719	1550993	544014	339019	1.61	ABV/ABV
	13C12-PCB 101	32:09	00:00	0	2051335	1247612	425685	275959	1.64	AVV/ABV
	13C12-PCB 123	36:47	00:00	0	4977756	3112527	1020744	638240	1.60	ABV/ABV
	13C12-PCB 118	37:06	00:00	0	5048507	3164171	1043396	651483	1.60	AVV/AVV
	13C12-PCB 114	37:38	00:00	0	5000878	3092215	1029100	638066	1.62	AVV/AVV
	13C12-PCB 105	38:18	00:00	0	4798978	3008869	961178	593778	1.59	AVV/AVB
	13C12-PCB 127	39:45	00:00	0	5118037	3169021	1018945	625396	1.62	ABV/ABV
	13C12-PCB 126	41:22	00:00	0	5126117	3182585	1001039	603460	1.61	AVV/AVV
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	Noise	00:00	00:00	0	2075	1700	830	680	1.22	/
	PCB 155 (BZ)	31:54	00:00	0	45656772	35856240	10038154	7857558	1.27	ABV/ABV
	PCB 152 (BZ)	32:08	00:00	0	42414596	33496020	8370407	6589908	1.27	AVV/AVV
	PCB 150 (BZ)	32:17	00:00	0	43703924	34187600	9645184	7584607	1.28	AVB/AVB

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Analysis ID	104727	Prep Exp Date		Date Received	
Analysis Date	06/24/08 20:25	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	PCB 136 (BZ)	32:40	00:00	0	41605412	32472580	8848011	6903030	1.28	ABV/ABV
	PCB 145 (BZ)	32:57	00:00	0	42568696	33485658	9438652	7508875	1.27	AVV/AVV
	PCB 148 (BZ)	34:26	00:00	0	31800934	24933348	6885369	5446893	1.28	ABV/ABV
	PCB 151 (BZ)	35:02	00:00	0	62324356	49046756	6990245	5561855	1.27	ABV/ABV
	PCB 135 (BZ)	35:07	00:00	0	0	0	0	0	0.00 *	/
	PCB 154 (BZ)	35:17	00:00	0	37553612	29510794	8018029	6268431	1.27	AVV/AVV
	PCB 144 (BZ)	35:36	00:00	0	32809882	25866242	6807994	5337040	1.27	AVB/AVB
	PCB 147 (BZ)	35:59	00:00	0	136857120	106890048	29010212	22694272	1.28	ABV/ABV
	PCB 149 (BZ)	35:59	00:00	0	0	0	0	0	0.00 *	/
	PCB 134 (BZ)	36:11	00:00	0	0	0	0	0	0.00 *	/
	PCB 143 (BZ)	36:18	00:00	0	112582088	89053288	12483342	9932002	1.26	AVV/AVV
	PCB 139 (BZ)	36:35	00:00	0	138882128	108440904	26731546	20711006	1.28	AVV/AVV
	PCB 140 (BZ)	36:35	00:00	0	0	0	0	0	0.00 *	/
	PCB 131 (BZ)	36:47	00:00	0	54649756	42762348	11329045	8830788	1.28	AVV/AVV
	PCB 142 (BZ)	36:57	00:00	0	57512788	45770756	12105039	9656594	1.26	AVB/AVB
	PCB 132 (BZ)	37:16	00:00	0	56144324	44523008	11948698	9420005	1.26	ABB/ABV
	PCB 133 (BZ)	37:43	00:00	0	61114900	48007364	12658335	9940199	1.27	ABV/ABV
	PCB 165 (BZ)	38:08	00:00	0	79901568	63537808	16439321	13196176	1.26	AVV/AVV
	PCB 146 (BZ)	38:22	00:00	0	68125568	54351112	14722355	11871514	1.25	AVV/AVV
	PCB 161 (BZ)	38:30	00:00	0	90402760	71061360	18990630	14962340	1.27	AVB/AVB
	PCB 153 (BZ)	39:01	00:00	0	176518112	138986736	28062664	22071500	1.27	ABV/ABV
	PCB 168 (BZ)	39:02	00:00	0	0	0	0	0	0.00 *	/
	PCB 141 (BZ)	39:11	00:00	0	62427748	49527796	12902343	10189463	1.26	AVV/AVV
	PCB 130 (BZ)	39:36	00:00	0	56498252	44980620	11707221	9199174	1.26	ABV/ABV
	PCB 137 (BZ)	39:49	00:00	0	66545960	53022844	14759216	11699075	1.26	AVV/AVV
	PCB 164 (BZ)	39:57	00:00	0	84528504	66275744	17923106	14125068	1.28	AVB/AVB
	PCB 163 (BZ)	40:15	00:00	0	0	0	0	0	0.00 *	/
	PCB 138 (BZ)	40:16	00:00	0	308548192	242677792	36438440	28266116	1.27	ABV/ABV
	PCB 129 (BZ)	40:19	00:00	0	0	0	0	0	0.00 *	/
	PCB 160 (BZ)	40:24	00:00	0	0	0	0	0	0.00 *	/
	PCB 158 (BZ)	40:38	00:00	0	93006968	74020896	18331672	14799776	1.26	AVB/AVB
	PCB 166 (BZ)	41:29	00:00	0	154328768	122717864	21858870	17410444	1.26	AVV/AVV
	PCB 128 (BZ)	41:31	00:00	0	0	0	0	0	0.00 *	/
	PCB 159 (BZ)	42:28	00:00	0	85983728	68350432	18550744	14589232	1.26	AVB/AVB
	PCB 162 (BZ)	42:46	00:00	0	87399784	69625192	17493540	13898673	1.26	ABV/ABV
	PCB 167 (BZ)	43:14	00:00	0	92076016	72804912	18933908	14817565	1.26	ABB/ABB
	PCB 156 (BZ)	44:24	00:00	0	186171456	146902576	24368758	19300410	1.27	ABV/ABV
	PCB 157 (BZ)	44:25	00:00	0	0	0	0	0	0.00 *	/
	PCB 169 (BZ)	47:36	00:00	0	95964368	74641016	18547948	14556150	1.29	ABV/ABV
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	258	163	103	65	1.58 *	/
	13C12-PCB 155	31:52	00:00	0	1939904	1502442	397974	309906	1.29	ABV/ABV
	13C12-PCB 138	40:13	00:00	0	3071294	2406522	600273	471551	1.28	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS5	Prep Batch		Lot No	
Data File	/20080624i/a080624i5.d	Prep Date		SDG No	
Analysis ID	104727	Prep Exp Date		Date Received	
Analysis Date	06/24/08 20:25	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	13C12-PCB 167	43:12	00:00	0	3910865	2967928	730841	594752	1.32	AVV/AVV
	13C12-PCB 157	44:22	00:00	0	0	0	0	0	0.00 *	/
	13C12-PCB 156	44:23	00:00	0	7631931	5980801	970971	763944	1.28	AVV/ABV
	13C12-PCB 169	47:35	00:00	0	3668368	2834177	737149	568652	1.29	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	1938	2095	775	838	0.92	/
	PCB 188 (BZ)	37:38	00:00	0	61782084	58862480	13080218	12429298	1.05	ABV/ABV
	PCB 179 (BZ)	37:59	00:00	0	59205168	56475328	12234143	11816768	1.05	AVV/AVV
	PCB 184 (BZ)	38:30	00:00	0	57108448	54240344	11817265	11153274	1.05	AVV/AVV
	PCB 176 (BZ)	38:52	00:00	0	62105392	59074772	13038436	12333824	1.05	AVV/AVV
	PCB 186 (BZ)	39:20	00:00	0	58847328	56612164	12409739	11959840	1.04	AVV/AVV
	PCB 178 (BZ)	40:41	00:00	0	43200524	41153388	9157757	8664249	1.05	ABV/ABV
	PCB 175 (BZ)	41:19	00:00	0	46131760	44039948	9413750	8870321	1.05	ABV/ABV
	PCB 187 (BZ)	41:35	00:00	0	49352852	47074540	10340224	9864680	1.05	AVV/AVV
	PCB 182 (BZ)	41:46	00:00	0	48550072	46324836	9986143	9542459	1.05	AVB/AVB
	PCB 183 (BZ)	42:11	00:00	0	94925336	90025200	9763173	9353840	1.05	ABV/ABV
	PCB 185 (BZ)	42:18	00:00	0	0	0	0	0	0.00 *	/
	PCB 174 (BZ)	42:27	00:00	0	45088712	42862652	8942904	8584286	1.05	AVB/AVV
	PCB 177 (BZ)	42:53	00:00	0	42666588	40849524	8593679	8210142	1.04	ABB/ABB
	PCB 181 (BZ)	43:16	00:00	0	48194112	46074996	9777403	9245375	1.05	ABV/ABV
	PCB 173 (BZ)	43:30	00:00	0	84682768	81529800	16505574	15761090	1.04	AVB/AVV
	PCB 171 (BZ)	43:30	00:00	0	0	0	0	0	0.00 *	/
	PCB 172 (BZ)	45:06	00:00	0	41327376	39595224	8390627	8071918	1.04	AVB/AVB
	PCB 192 (BZ)	45:23	00:00	0	56303716	53524664	11630785	11076736	1.05	ABB/ABB
	PCB 193 (BZ)	45:43	00:00	0	111010528	106186376	15310888	14718158	1.05	ABV/ABV
	PCB 180 (BZ)	45:45	00:00	0	0	0	0	0	0.00 *	/
	PCB 191 (BZ)	46:06	00:00	0	60887868	58367780	12486798	12042604	1.04	AVB/AVB
	PCB 170 (BZ)	47:01	00:00	0	40815600	39137184	8220137	7936775	1.04	ABV/ABV
	PCB 190 (BZ)	47:33	00:00	0	61146412	58725896	11551015	11071067	1.04	ABV/ABV
	PCB 189 (BZ)	50:08	00:00	0	85032280	81457656	17294978	16371474	1.04	AVV/AVV
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	170	145	68	58	1.17	/
	13C12-PCB 188	37:36	00:00	0	2708080	2518969	570288	517496	1.08	ABV/ABV
	13C12-PCB 180	45:44	00:00	0	2273588	2131262	474830	436437	1.07	ABV/ABV
	13C12-PCB 170	47:00	00:00	0	1871284	1733459	361851	340430	1.08	AVV/AVV
	13C12-PCB 189	50:06	00:00	0	3757514	3534700	729801	685233	1.06	ABV/AVV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	855	860	342	344	0.99	/
	PCB 202 (BZ)	42:59	00:00	0	38725900	42775700	7857269	8655717	0.91	ABV/ABV
	PCB 200 (BZ)/201 (IUPAC	43:54	00:00	0	43295692	47991016	8868705	9860846	0.90	ABV/ABV
	PCB 204 (BZ)	44:35	00:00	0	39874624	44173060	7927920	8695515	0.90	ABV/ABV
	PCB 197 (BZ)	44:48	00:00	0	40996036	45857720	8539102	9427433	0.89	AVV/AVV
	PCB 199 (BZ)/200 (IUPAC	44:56	00:00	0	42643128	47641612	8513473	9663224	0.90	AVB/AVB

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:71CS5	Prep Batch		Lot No	
Data File	/20080624i/a080624i5.d	Prep Date		SDG No	
Analysis ID	104727	Prep Exp Date		Date Received	
Analysis Date	06/24/08 20:25	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	PCB 198 (BZ)	47:42	00:00	0	60431064	66855660	7729165	8593999	0.90	ABV/ABV
	PCB 201 (BZ)/199 (IUPAC	47:43	00:00	0	0	0	0	0	0.00 *	/
	PCB 196 (BZ)	48:22	00:00	0	29437542	32553832	5838390	6527699	0.90	AVV/AVV
	PCB 203 (BZ)	48:33	00:00	0	33044340	36603332	6698328	7461441	0.90	AVB/AVB
	PCB 195 (BZ)	49:53	00:00	0	46245128	51832852	9099858	10269380	0.89	AVV/AVV
	PCB 194 (BZ)	52:12	00:00	0	48994808	55559332	9760469	11144596	0.88	ABV/ABV
	PCB 205 (BZ)	52:41	00:00	0	61351648	68833216	12248535	13901006	0.89	AVV/AVV
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	125	130	50	52	0.96	/
	13C12-PCB 202	42:57	00:00	0	1872512	2059599	363152	402744	0.91	ABV/ABV
	13C12-PCB 194	52:11	00:00	0	2137769	2333933	437585	460408	0.92	ABV/ABV
	13C12-PCB 205	52:39	00:00	0	2975907	3274360	558101	639620	0.91	AVV/AVV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	703	583	281	233	1.21 *	/
	PCB 208 (BZ)	49:38	00:00	0	47217328	60043856	9338571	11987854	0.79	ABV/ABV
	PCB 207 (BZ)	50:34	00:00	0	49916064	63716408	9537313	12367192	0.78	AVV/AVV
	PCB 206 (BZ)	54:24	00:00	0	34912336	43978952	6955335	8748139	0.79	AVV/ABV
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	128	180	51	72	0.71	/
	13C12-PCB 208	49:36	00:00	0	2231045	2779278	419911	515043	0.80	AVV/AVV
	13C12-PCB 206	54:23	00:00	0	1557344	1964110	291072	377866	0.79	ABV/ABV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	203	743	81	297	0.27 *	/
	PCB 209 (BZ)	56:01	00:00	0	33201294	47403392	6020355	8671976	0.70	ABV/ABV
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	113	118	45	47	0.96 *	/
	13C12-PCB 209	56:00	00:00	0	1519494	2197553	274037	401282	0.69	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
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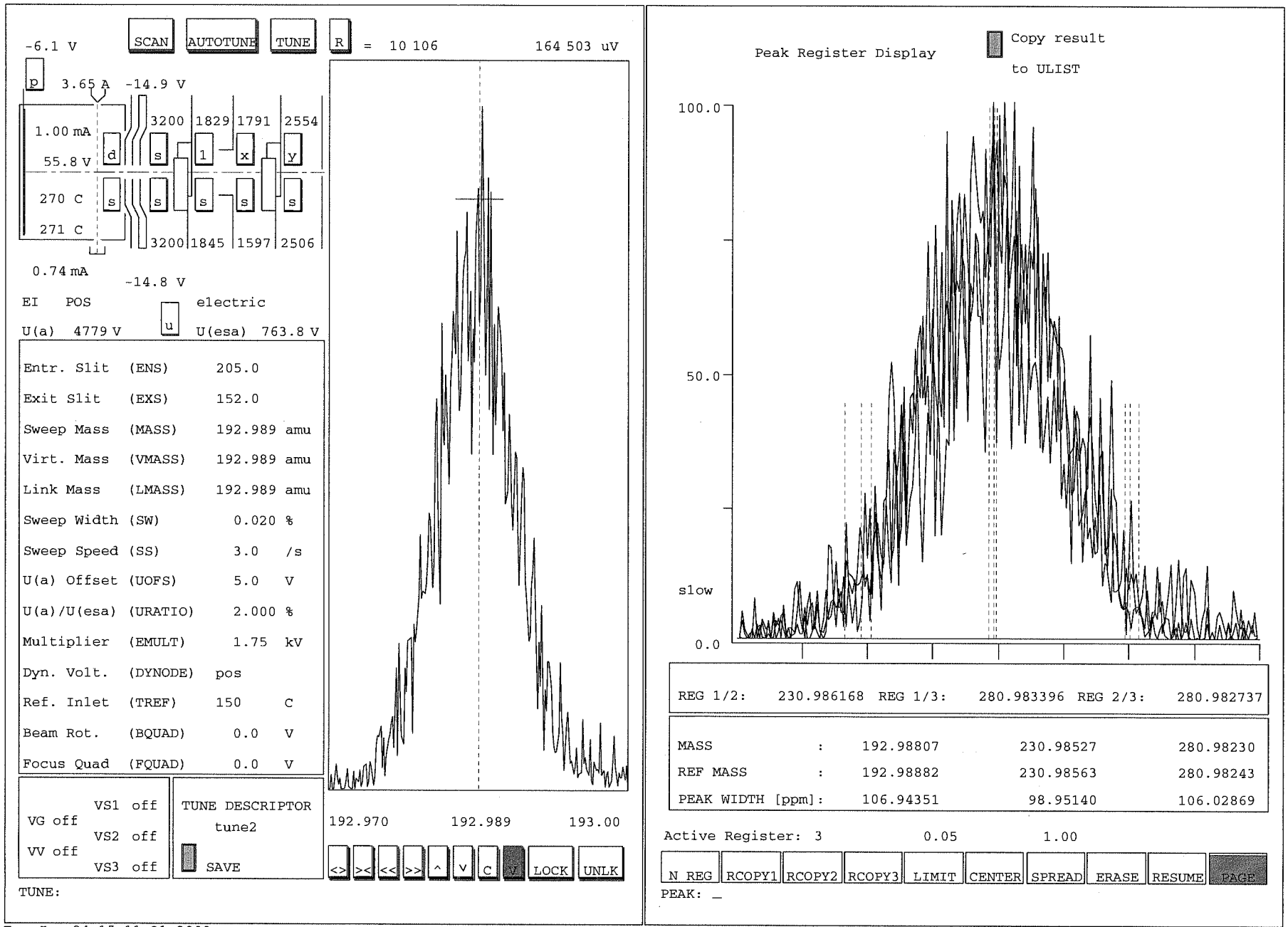
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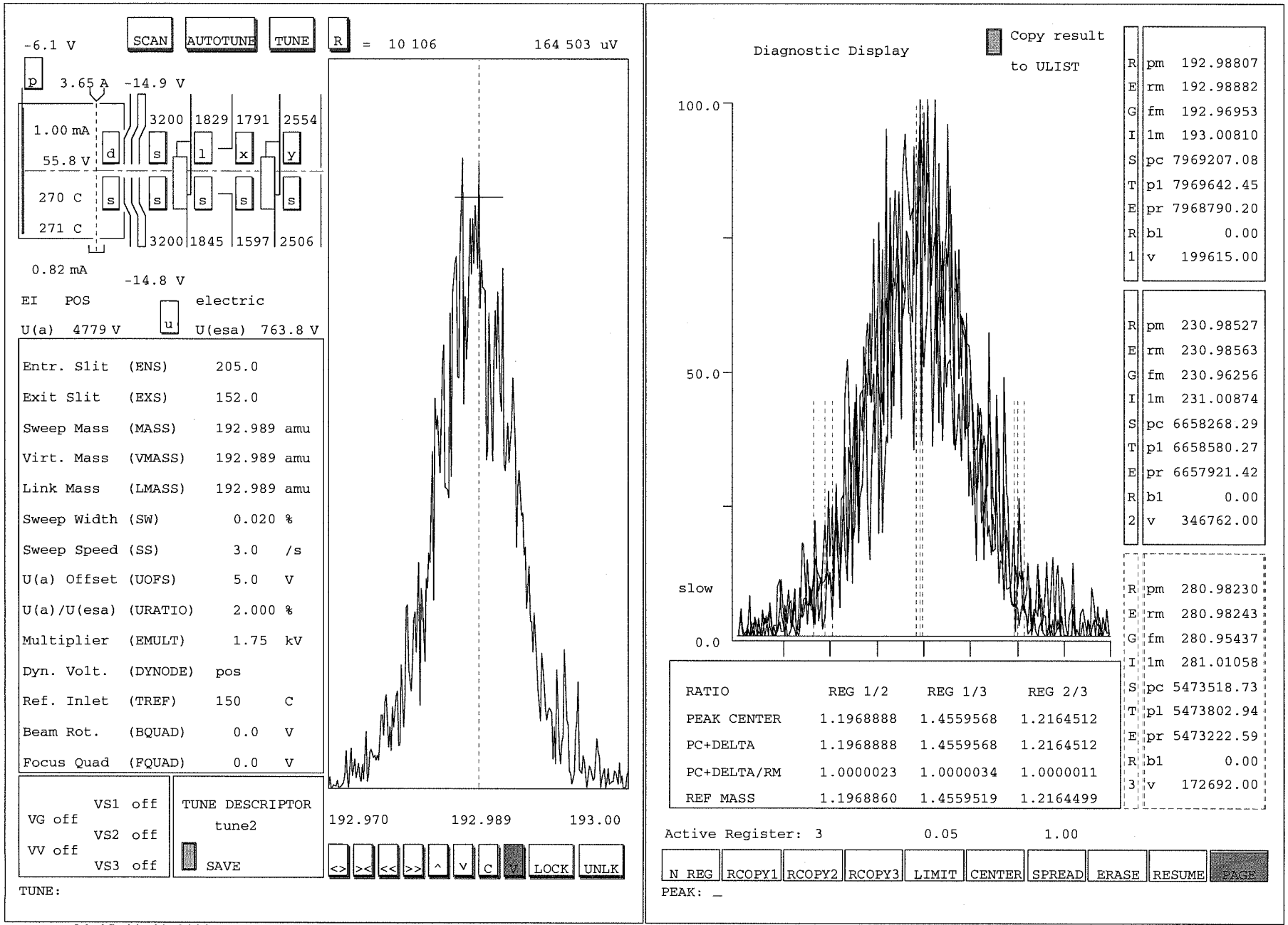
SCAN
AUTOTUNE
TUNE
R
= 10 106
164 503 uV
p
3.65 A
-14.9 V
1.00 mA
55.8 V
3200 1829 1791 2554
d s 1 x y
270 C
271 C
s s s s s
3200 1845 1597 2506
0.74 mA
-14.8 V
EI POS
electric
U(a) 4779 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
192.970
192.989
193.00
<>
>|<
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 230.986168 REG 1/3: 280.983396 REG 2/3: 280.982737
MASS : 192.98807 230.98527 280.98230
REF MASS : 192.98882 230.98563 280.98243
PEAK WIDTH [ppm]: 106.94351 98.95140 106.02869
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Tue Jun 24 15:11:31 2008
mat95
MAT 95

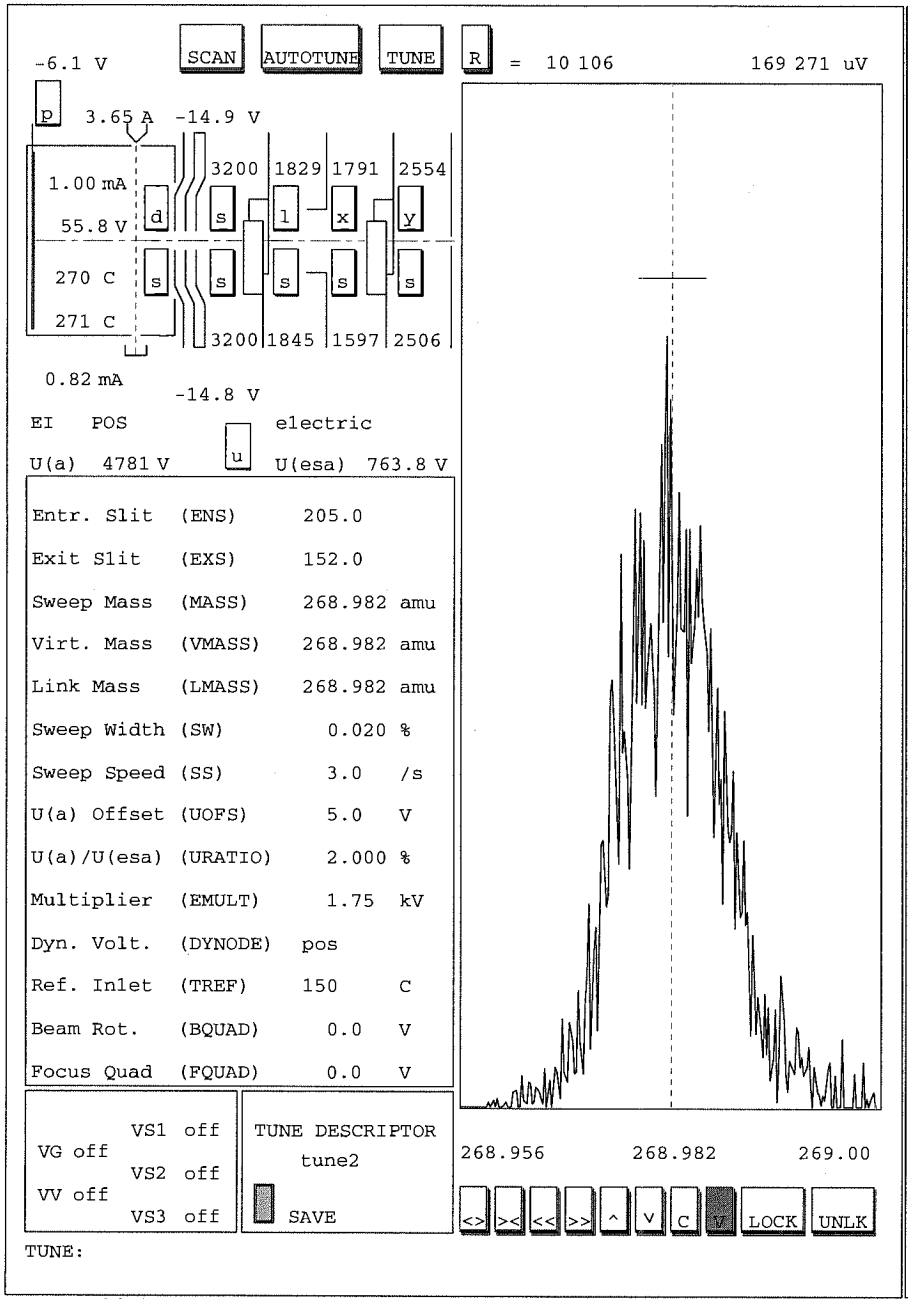
H-1349

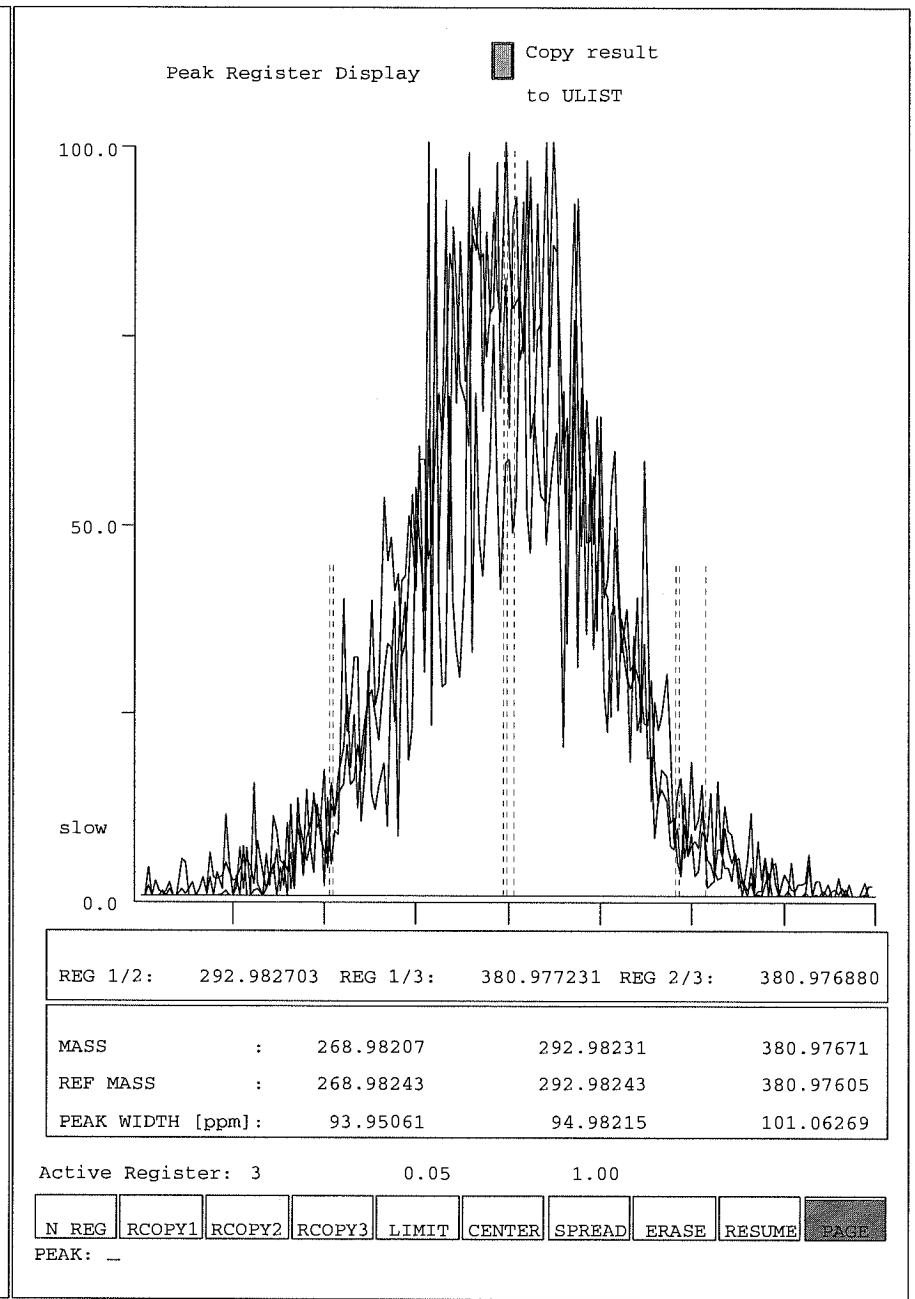
1348


-6.1 V
SCAN
AUTOTUNE
TUNE
R = 10 106
164 503 uV
p
3.65 A
-14.9 V
1.00 mA
55.8 V
3200 1829 1791 2554
d s l x y
270 C
271 C
s s s s s
3200 1845 1597 2506
0.82 mA
-14.8 V
EI POS
electric
U(a) 4779 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VS1 off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
192.970 192.989 193.00
<> >< << >> ^ v C V LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 192.98807
E rm 192.98882
G fm 192.96953
I 1m 193.00810
S pc 7969207.08
T p1 7969642.45
E pr 7968790.20
R bl 0.00
1 v 199615.00
R pm 230.98527
E rm 230.98563
G fm 230.96256
I 1m 231.00874
S pc 6658268.29
T p1 6658580.27
E pr 6657921.42
R bl 0.00
2 v 346762.00
R pm 280.98230
E rm 280.98243
G fm 280.95437
I 1m 281.01058
S pc 5473518.73
T p1 5473802.94
E pr 5473222.59
R bl 0.00
3 v 172692.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.1968888 1.4559568 1.2164512
PC+DELTA 1.1968888 1.4559568 1.2164512
PC+DELTA/RM 1.0000023 1.0000034 1.0000011
REF MASS 1.1968860 1.4559519 1.2164499
Active Register: 3 0.05 1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
Tue Jun 24 15:11:41 2008
mat95
MAT 95

H-1350

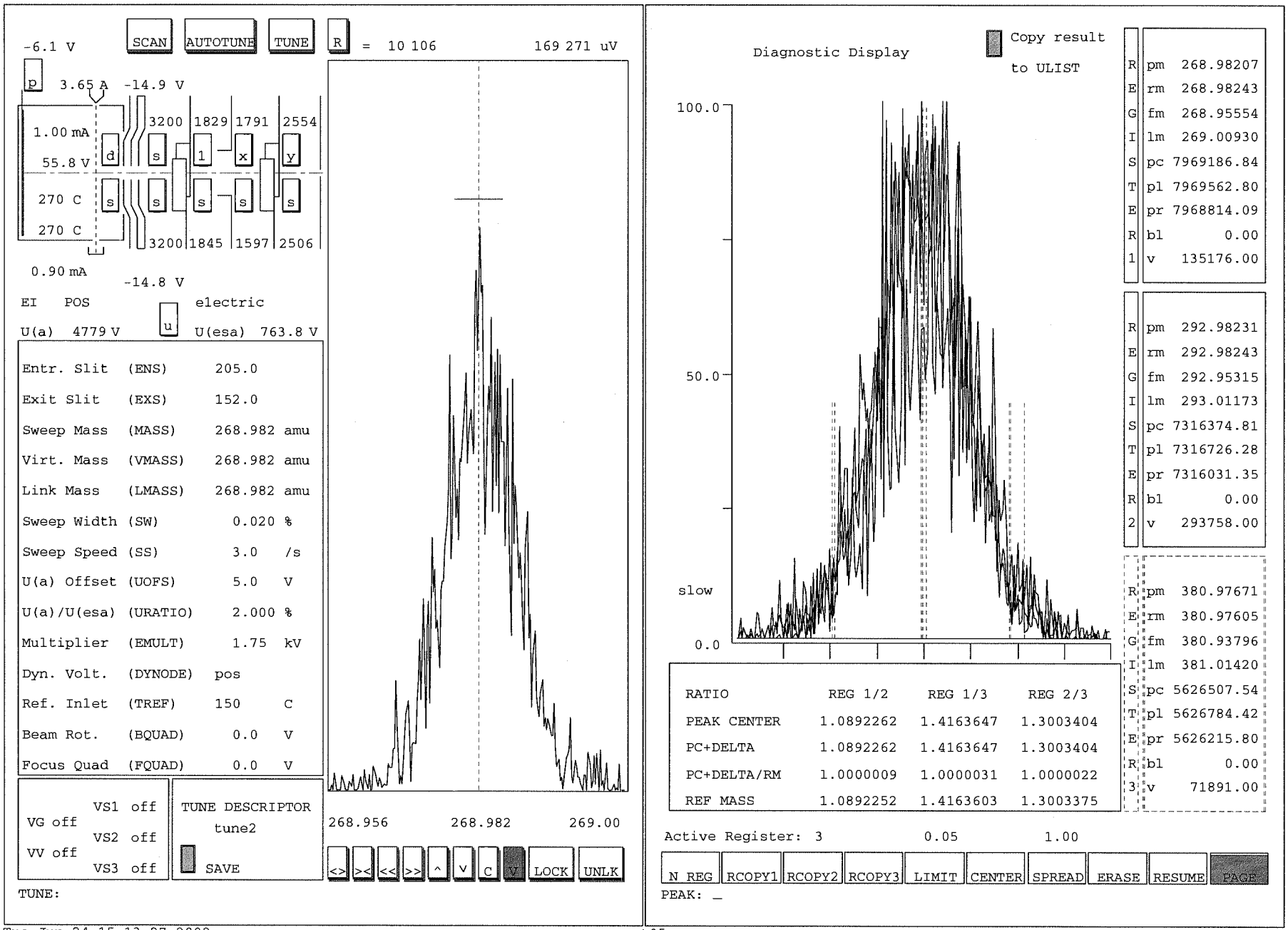
1349

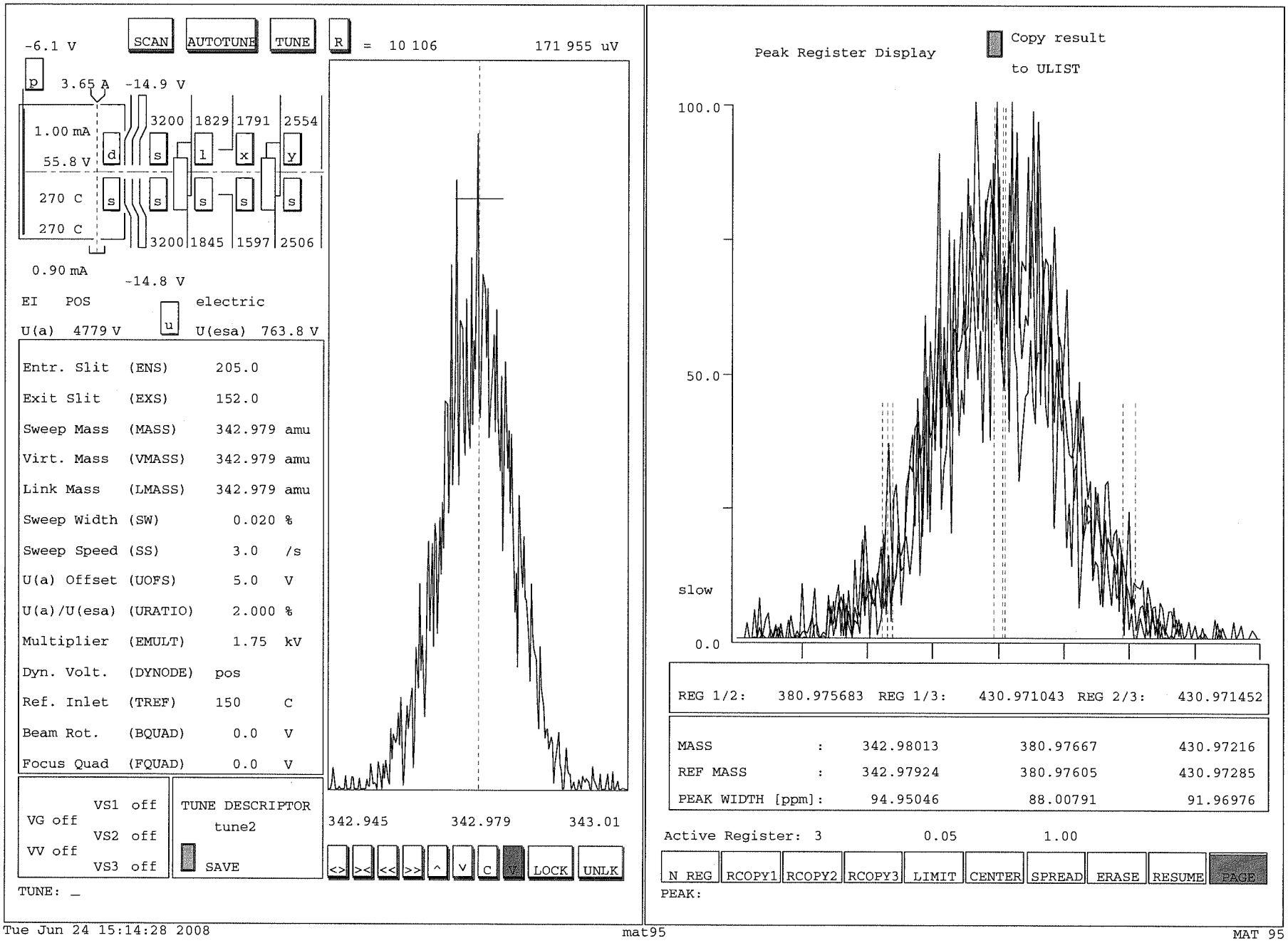

-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
169 271 uV
p
3.65 A
-14.9 V
1.00 mA
55.8 V
3200
1829
1791
2554
d
s
l
x
y
270 C
271 C
3200
1845
1597
2506
0.82 mA
-14.8 V
EI POS
electric
U(a) 4781 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 268.982 amu
Virt. Mass (VMASS) 268.982 amu
Link Mass (LMASS) 268.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VS1 off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
268.956
268.982
269.00
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Tue Jun 24 15:13:18 2008
mat95


Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 292.982703 REG 1/3: 380.977231 REG 2/3: 380.976880
MASS : 268.98207 292.98231 380.97671
REF MASS : 268.98243 292.98243 380.97605
PEAK WIDTH [ppm]: 93.95061 94.98215 101.06269
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
MAT 95

H-1351

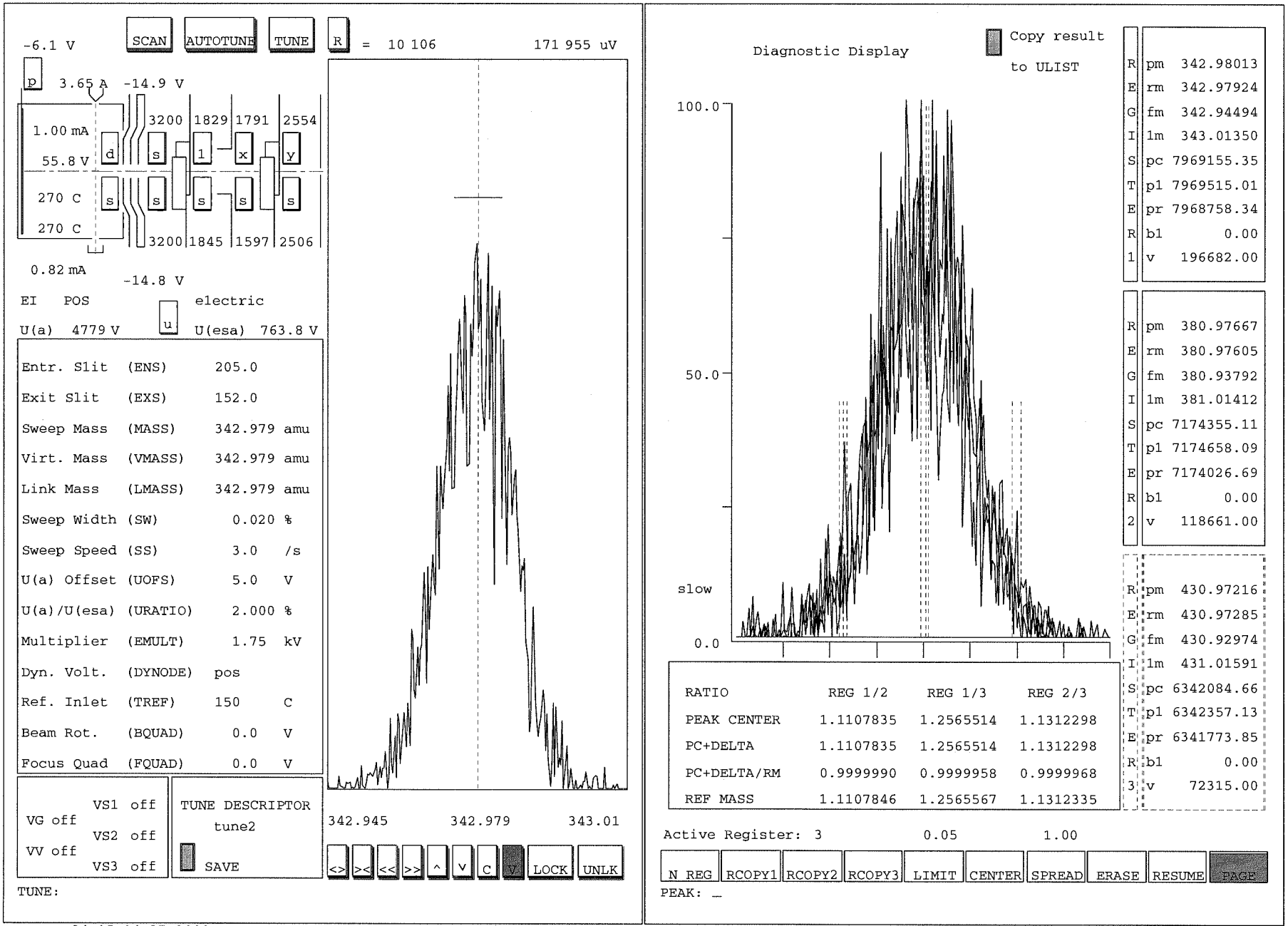
1350


-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
169 271 uV
p
3.65 A
-14.9 V
1.00 mA
55.8 V
3200
1829
1791
2554
d
s
l
x
y
270 C
270 C
3200
1845
1597
2506
0.90 mA
-14.8 V
EI POS
electric
U(a) 4779 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 268.982 amu
Virt. Mass (VMASS) 268.982 amu
Link Mass (LMASS) 268.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
268.956
268.982
269.00
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 268.98207
E rm 268.98243
G fm 268.95554
I lm 269.00930
S pc 7969186.84
T pl 7969562.80
E pr 7968814.09
R bl 0.00
1 v 135176.00
R pm 292.98231
E rm 292.98243
G fm 292.95315
I lm 293.01173
S pc 7316374.81
T pl 7316726.28
E pr 7316031.35
R bl 0.00
2 v 293758.00
R pm 380.97671
E rm 380.97605
G fm 380.93796
I lm 381.01420
S pc 5626507.54
T pl 5626784.42
E pr 5626215.80
R bl 0.00
3 v 71891.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.0892262 1.4163647 1.3003404
PC+DELTA 1.0892262 1.4163647 1.3003404
PC+DELTA/RM 1.0000009 1.0000031 1.0000022
REF MASS 1.0892252 1.4163603 1.3003375
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Tue Jun 24 15:13:27 2008
mat95
MAT 95


-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
171 955 uV
p
3.65 A
-14.9 V
1.00 mA
55.8 V
3200 1829 1791 2554
d s l x y
270 C
270 C
s s s s s
3200 1845 1597 2506
0.90 mA
-14.8 V
EI POS
electric
U(a) 4779 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 342.979 amu
Virt. Mass (VMASS) 342.979 amu
Link Mass (LMASS) 342.979 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VS1 off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
342.945
342.979
343.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 380.975683 REG 1/3: 430.971043 REG 2/3: 430.971452
MASS : 342.98013 380.97667 430.97216
REF MASS : 342.97924 380.97605 430.97285
PEAK WIDTH [ppm]: 94.95046 88.00791 91.96976
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Tue Jun 24 15:14:28 2008
mat95
MAT 95

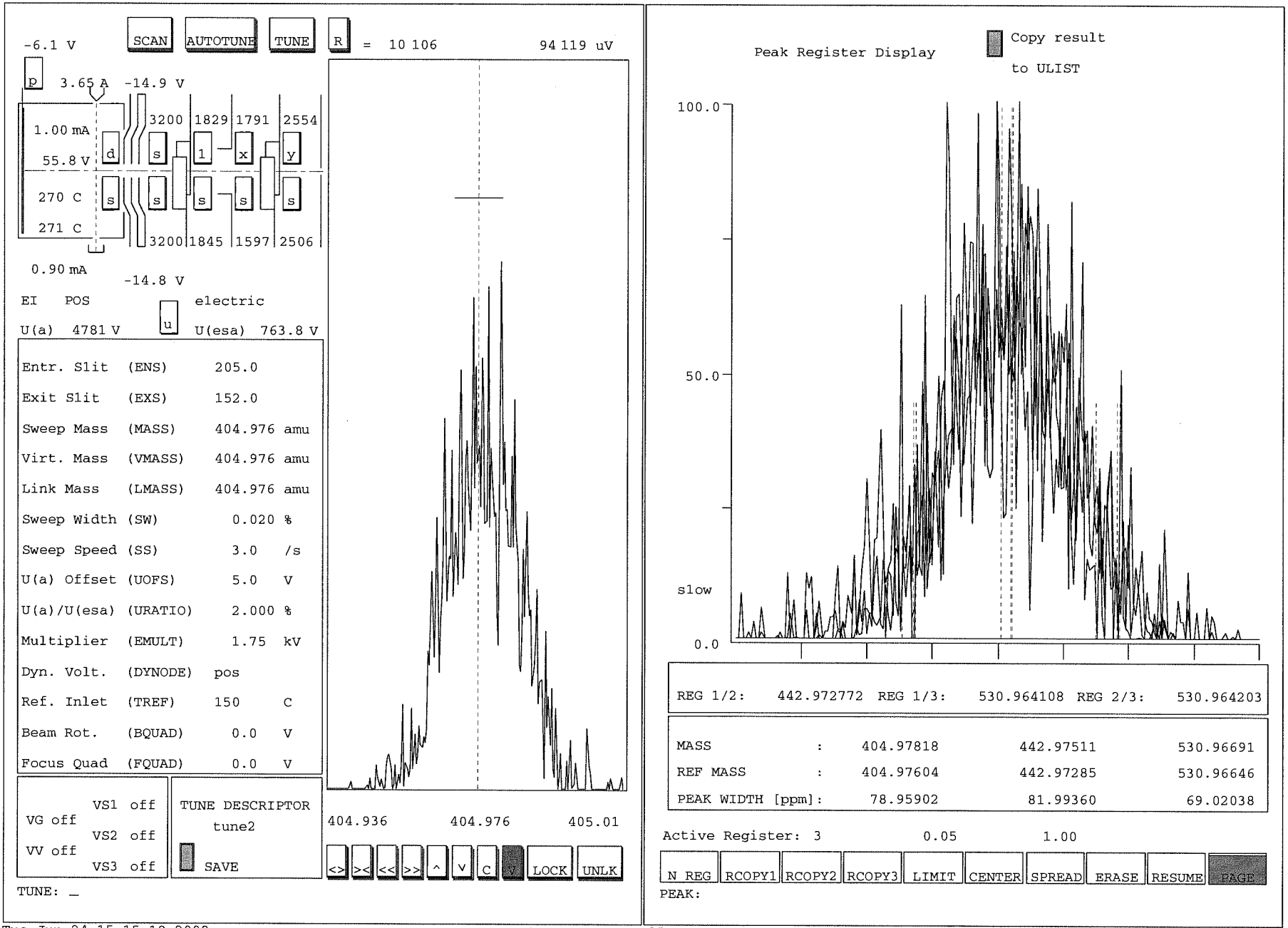
H-1353

1352


-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
171 955 uV
p
3.65 A
-14.9 V
1.00 mA
55.8 V
270 C
270 C
3200 1829 1791 2554
3200 1845 1597 2506
d
s
l
x
y
0.82 mA
-14.8 V
EI POS
electric
U(a) 4779 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 342.979 amu
Virt. Mass (VMASS) 342.979 amu
Link Mass (LMASS) 342.979 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VS1 off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
342.945
342.979
343.01
<>
>>
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 342.98013
E rm 342.97924
G fm 342.94494
I 1m 343.01350
S pc 7969155.35
T p1 7969515.01
E pr 7968758.34
R b1 0.00
1 v 196682.00
R pm 380.97667
E rm 380.97605
G fm 380.93792
I 1m 381.01412
S pc 7174355.11
T p1 7174658.09
E pr 7174026.69
R b1 0.00
2 v 118661.00
R pm 430.97216
E rm 430.97285
G fm 430.92974
I 1m 431.01591
S pc 6342084.66
T p1 6342357.13
E pr 6341773.85
R b1 0.00
3 v 72315.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.1107835 1.2565514 1.1312298
PC+DELTA 1.1107835 1.2565514 1.1312298
PC+DELTA/RM 0.9999990 0.9999958 0.9999968
REF MASS 1.1107846 1.2565567 1.1312335
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Tue Jun 24 15:14:37 2008
mat95
MAT 95

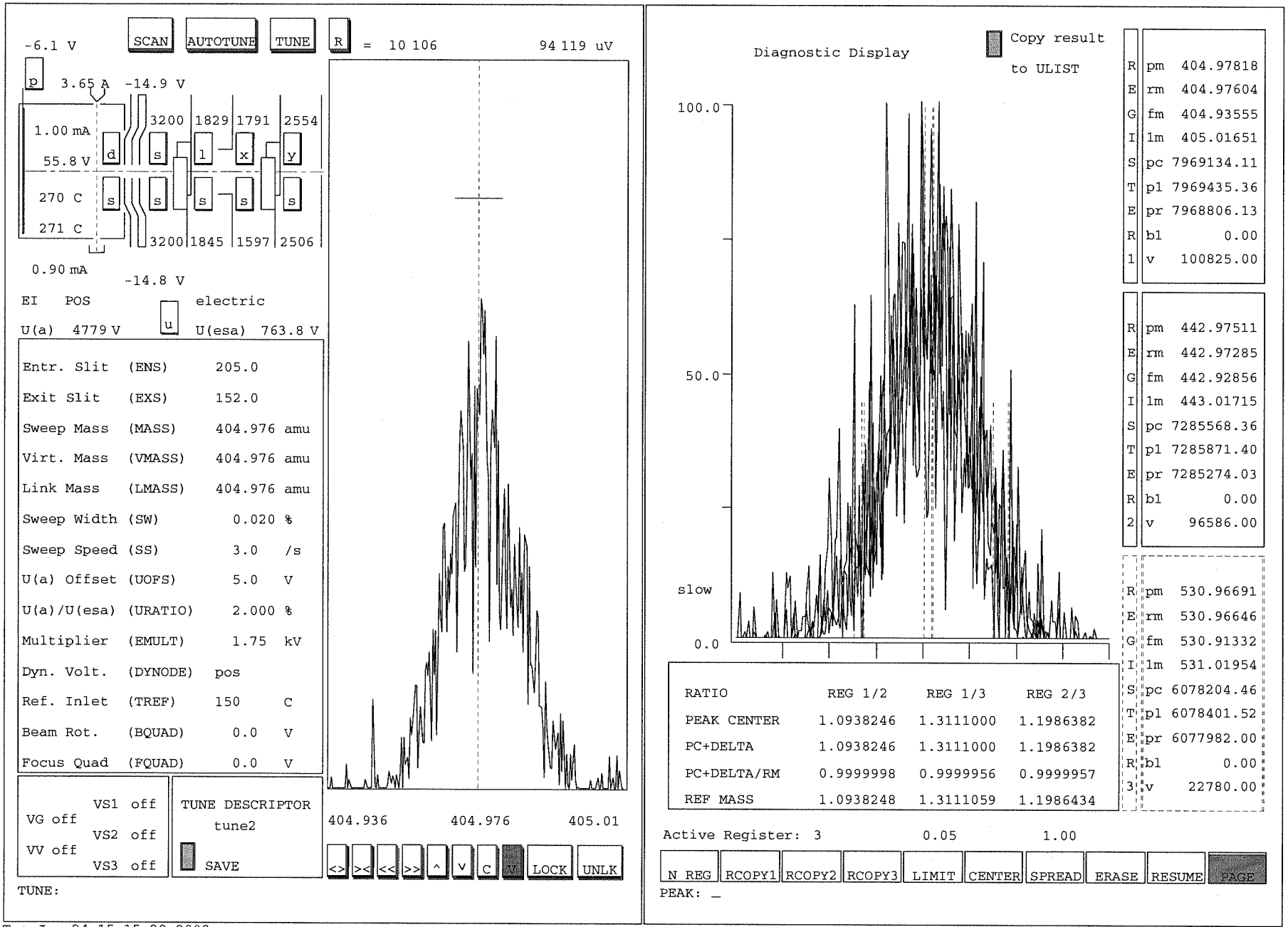
H-1354

1353


-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
94 119 uV
p
3.65 A
-14.9 V
1.00 mA
55.8 V
270 C
271 C
3200
1829
1791
2554
3200
1845
1597
2506
0.90 mA
-14.8 V
EI POS
electric
U(a) 4781 V
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 404.976 amu
Virt. Mass (VMASS) 404.976 amu
Link Mass (LMASS) 404.976 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
404.936
404.976
405.01
<>
>|<
<<
>>
^
v
C
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 442.972772 REG 1/3: 530.964108 REG 2/3: 530.964203
MASS : 404.97818 442.97511 530.96691
REF MASS : 404.97604 442.97285 530.96646
PEAK WIDTH [ppm]: 78.95902 81.99360 69.02038
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Tue Jun 24 15:15:18 2008
mat95
MAT 95

H-1355

1354

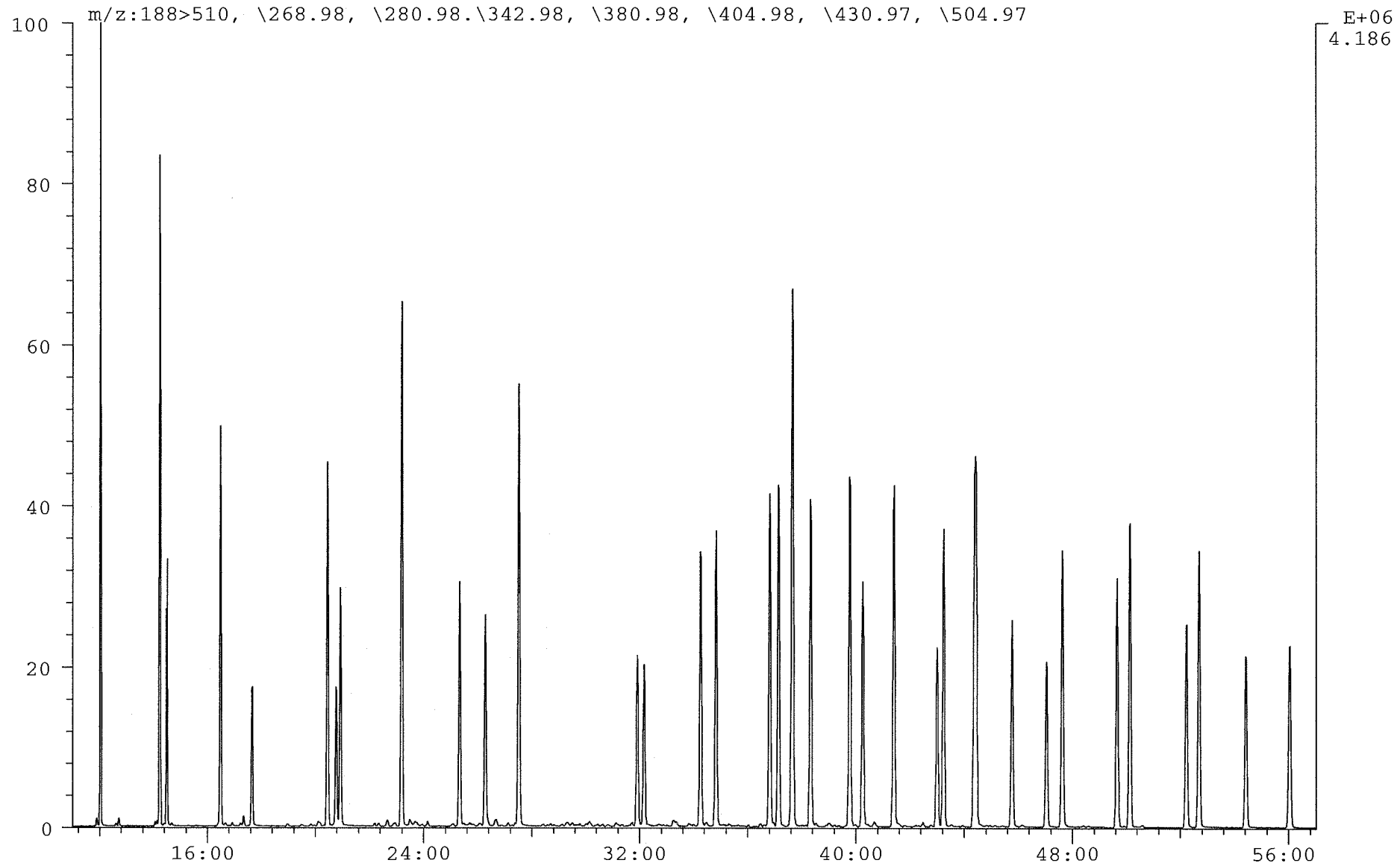

-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
94 119 uV
p
3.65 A
-14.9 V
1.00 mA
55.8 V
3200 1829 1791 2554
d s l x y
270 C
271 C
s s s s s
3200 1845 1597 2506
0.90 mA
-14.8 V
EI POS
electric
u
U(a) 4779 V
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 404.976 amu
Virt. Mass (VMASS) 404.976 amu
Link Mass (LMASS) 404.976 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
404.936
404.976
405.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 404.97818
E rm 404.97604
G fm 404.93555
I 1m 405.01651
S pc 7969134.11
T p1 7969435.36
E pr 7968806.13
R b1 0.00
1 v 100825.00
R pm 442.97511
E rm 442.97285
G fm 442.92856
I 1m 443.01715
S pc 7285568.36
T p1 7285871.40
E pr 7285274.03
R b1 0.00
2 v 96586.00
R pm 530.96691
E rm 530.96646
G fm 530.91332
I 1m 531.01954
S pc 6078204.46
T p1 6078401.52
E pr 6077982.00
R b1 0.00
3 v 22780.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.0938246 1.3111000 1.1986382
PC+DELTA 1.0938246 1.3111000 1.1986382
PC+DELTA/RM 0.9999998 0.9999956 0.9999957
REF MASS 1.0938248 1.3111059 1.1986434
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Tue Jun 24 15:15:28 2008
mat95
MAT 95

H-1356

1355

Int DCS 7.8.08
Calc DCS 7.8.08
DC BFW 7/9/08

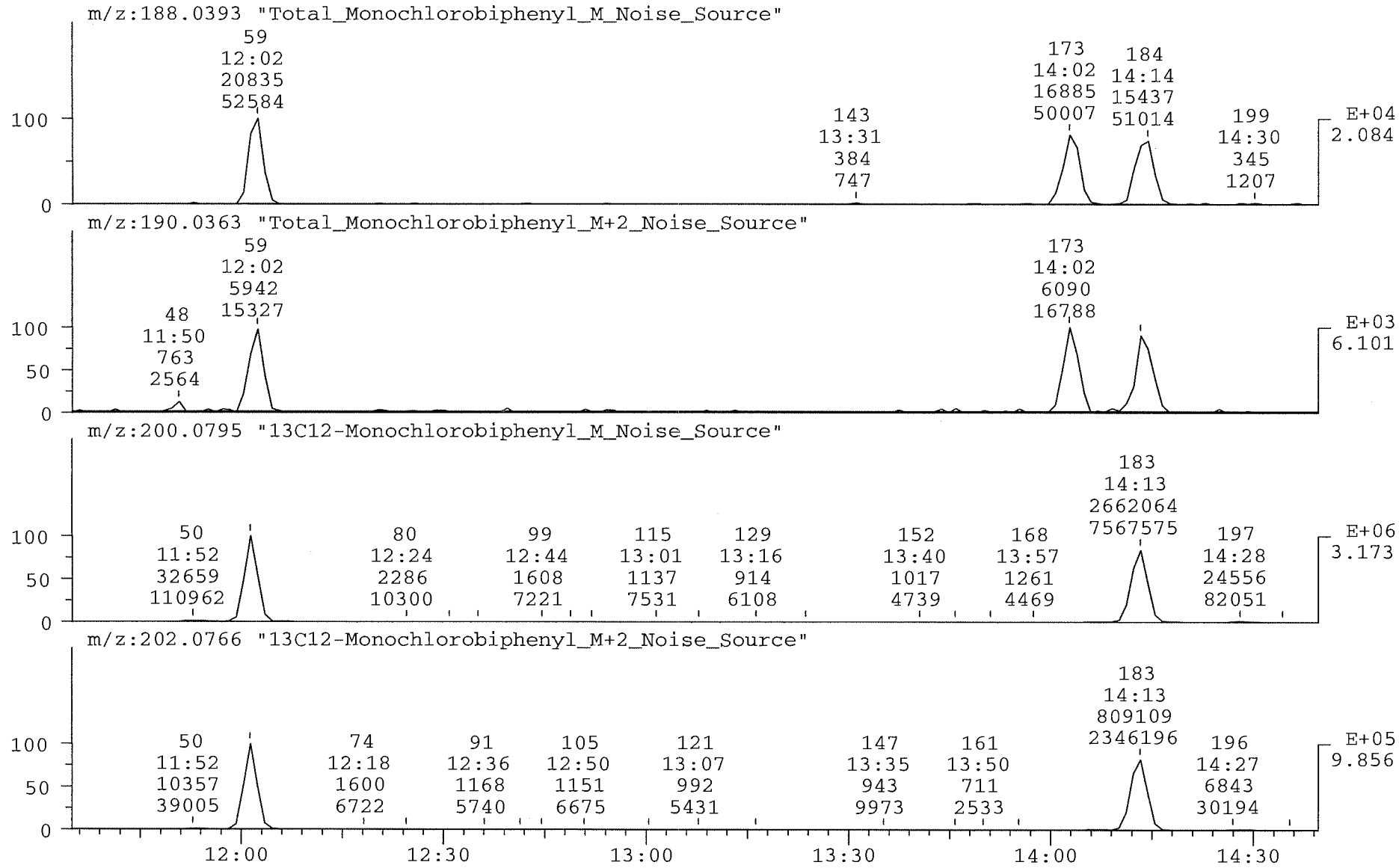
CHRO: a080624i6 24-Jun-08 Elapse: 47:26 2061
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1357

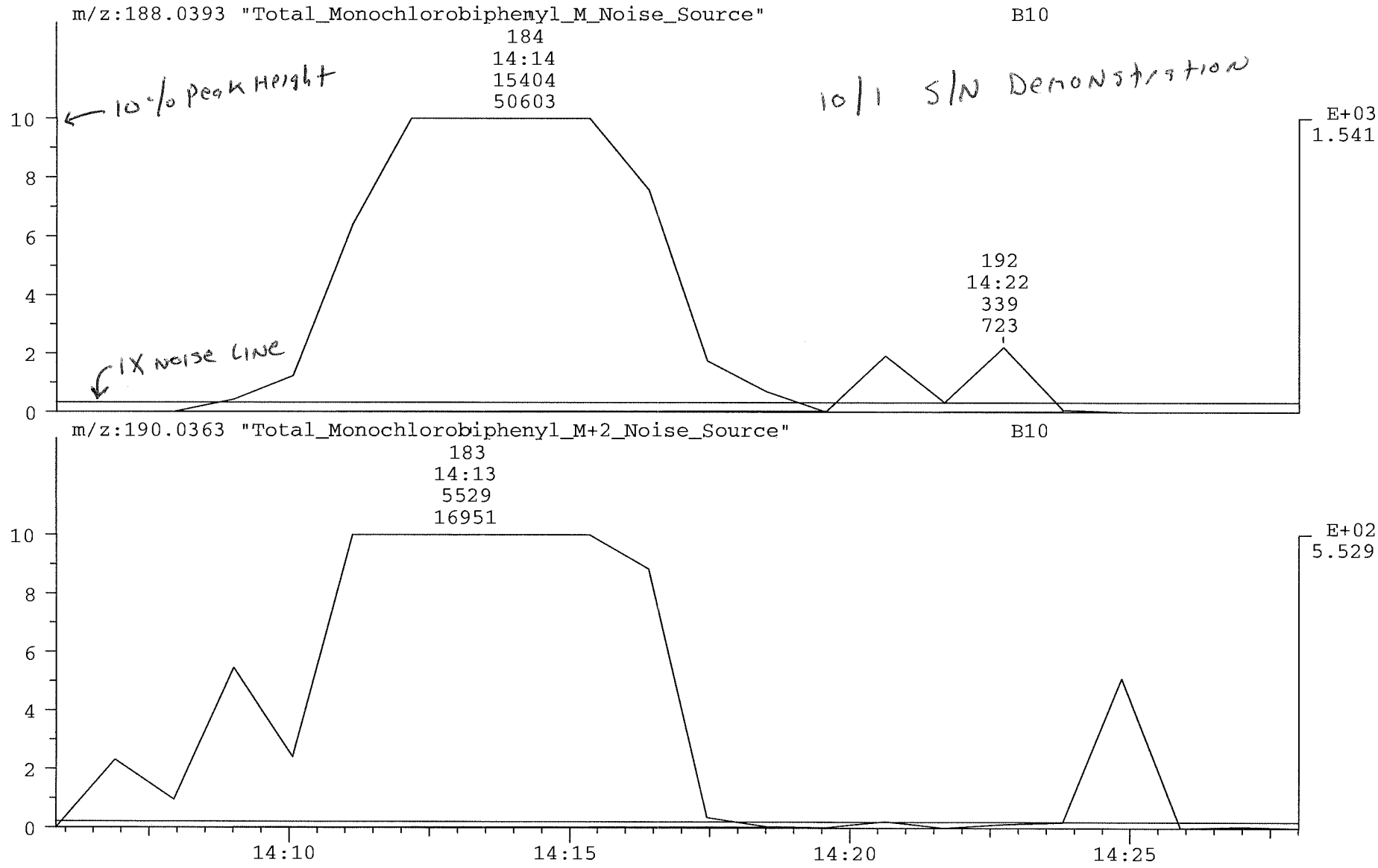
1356

CHRO: a080624i6 24-Jun-08 Elapse: 13:20.4 133
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1358

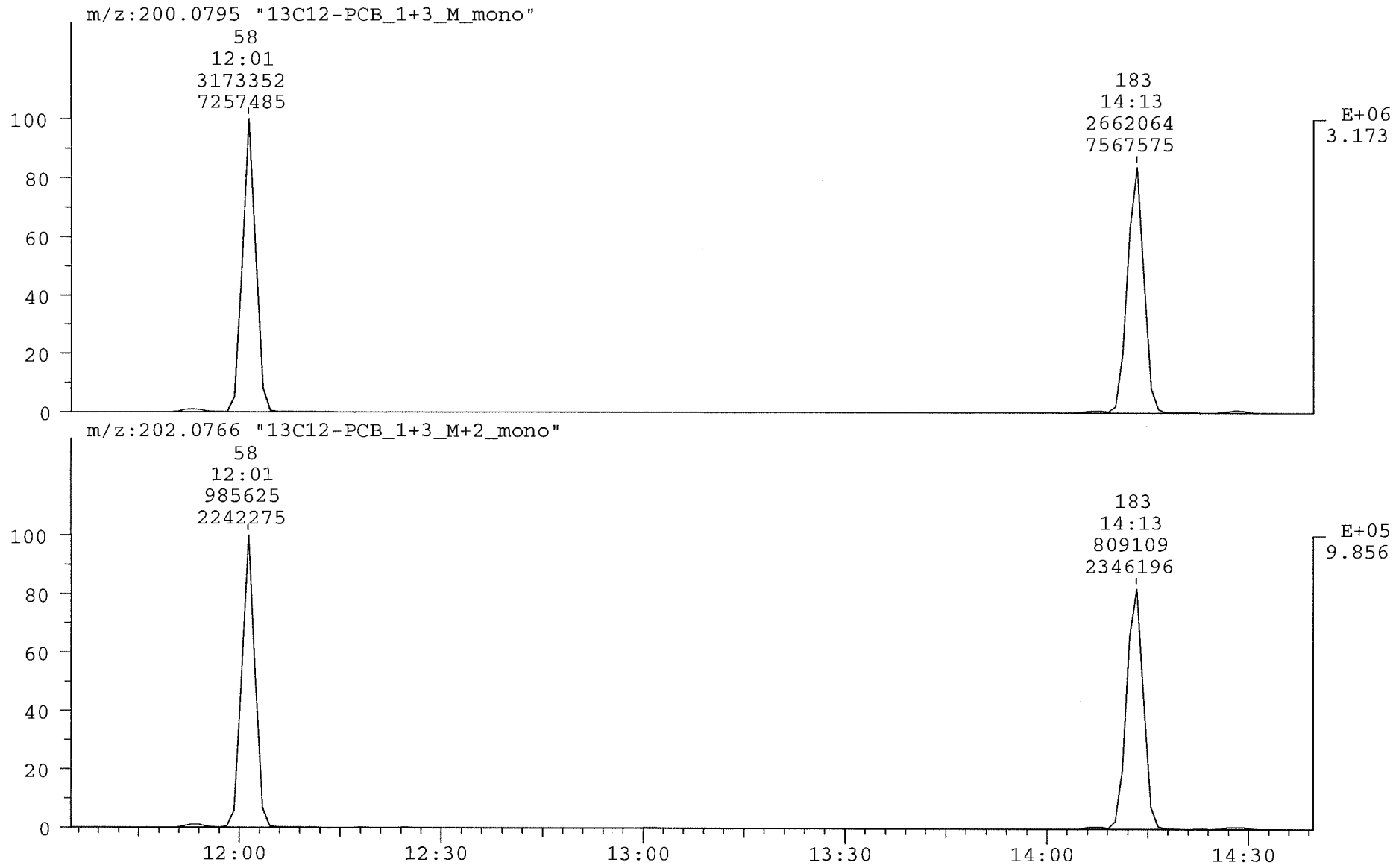
CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 176 > 197 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-1359

1358

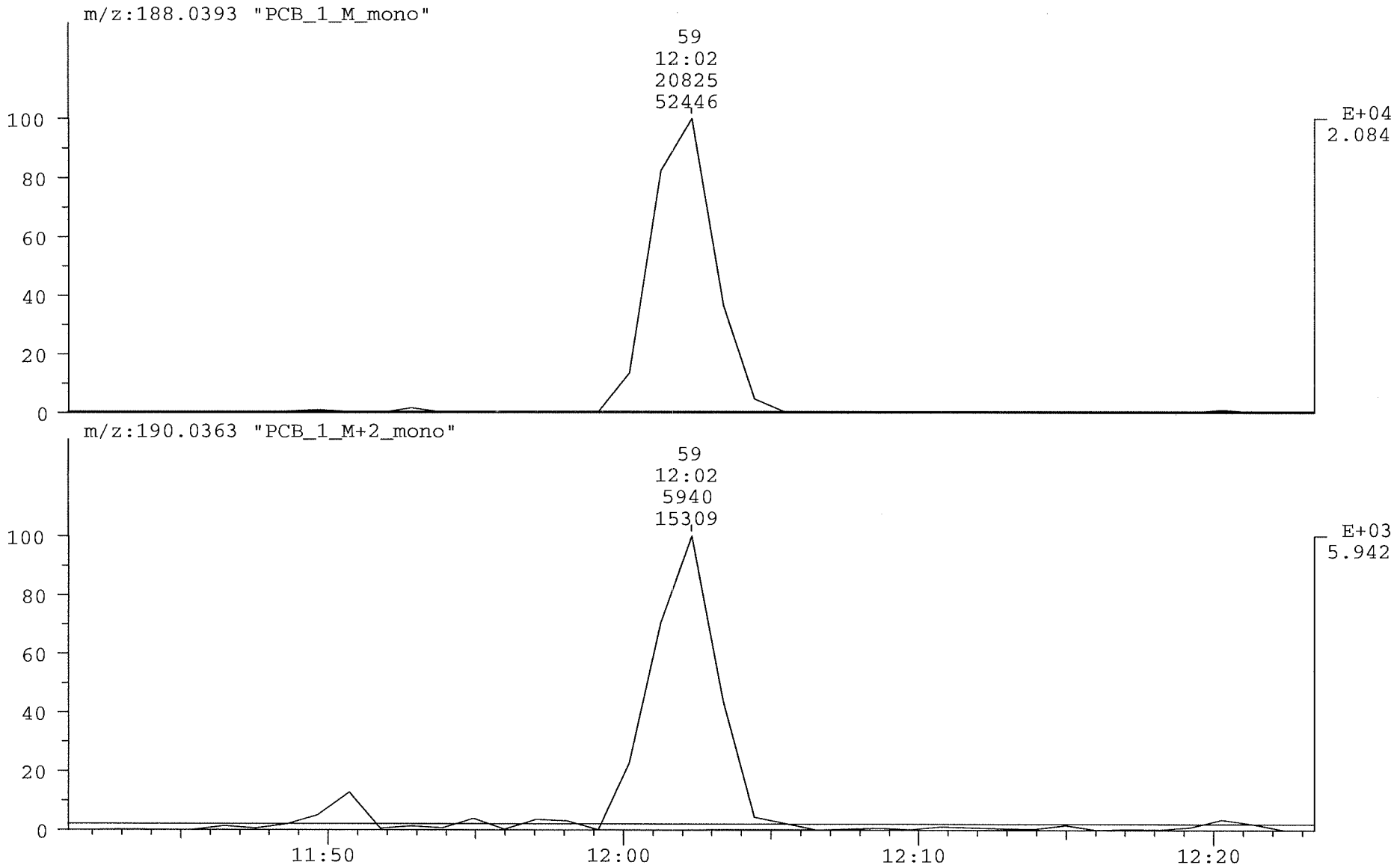
CHRO: a080624i6 24-Jun-08 Elapse: 13:20.4 133
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1360

1359

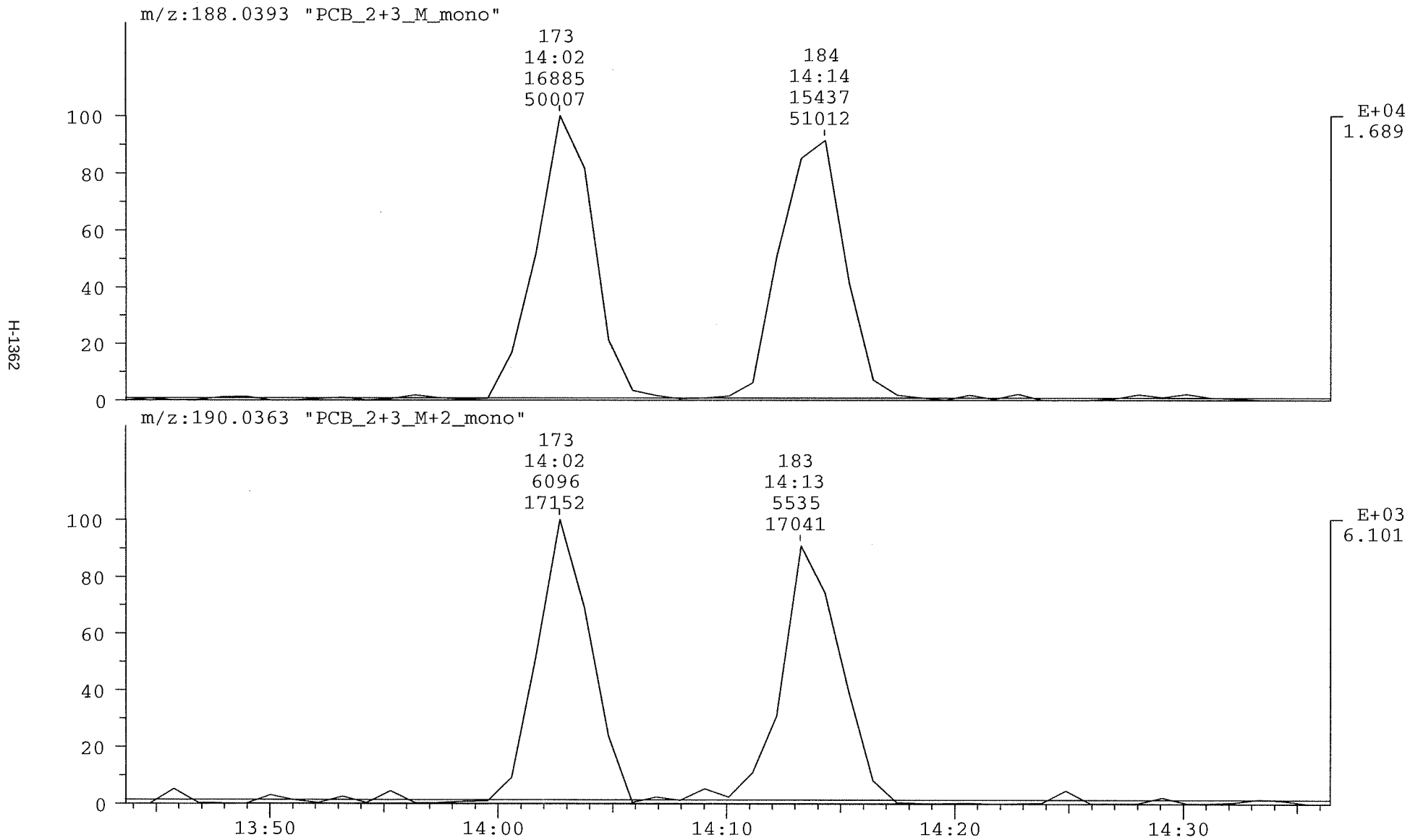
CHRO: a080624i6 24-Jun-08 Elapse: 12:02.3 59
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 39 > 79 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1361

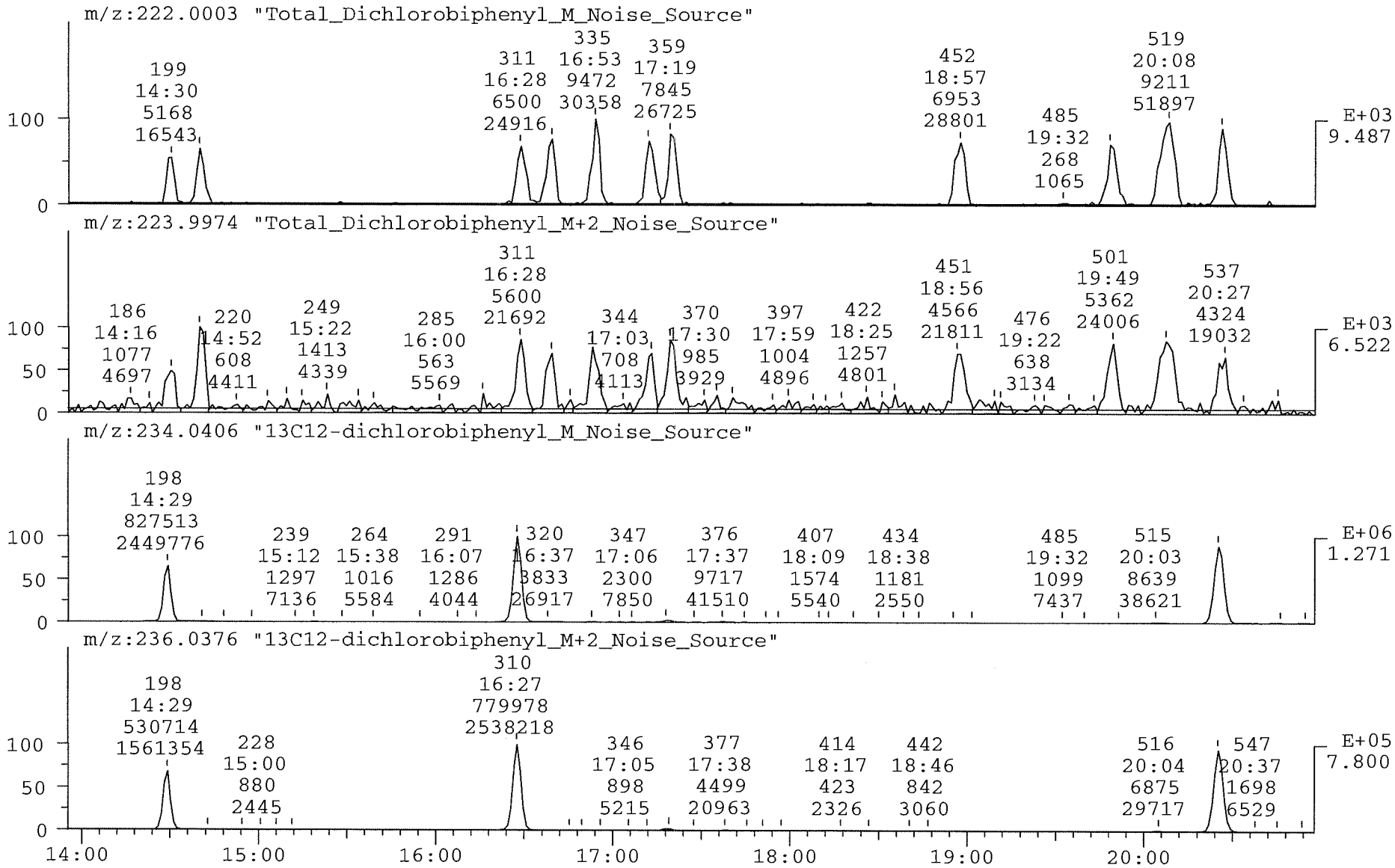
1360

CHRO: a080624i6 24-Jun-08 Elapse: 14:10.0 180
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 155 > 205 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1362

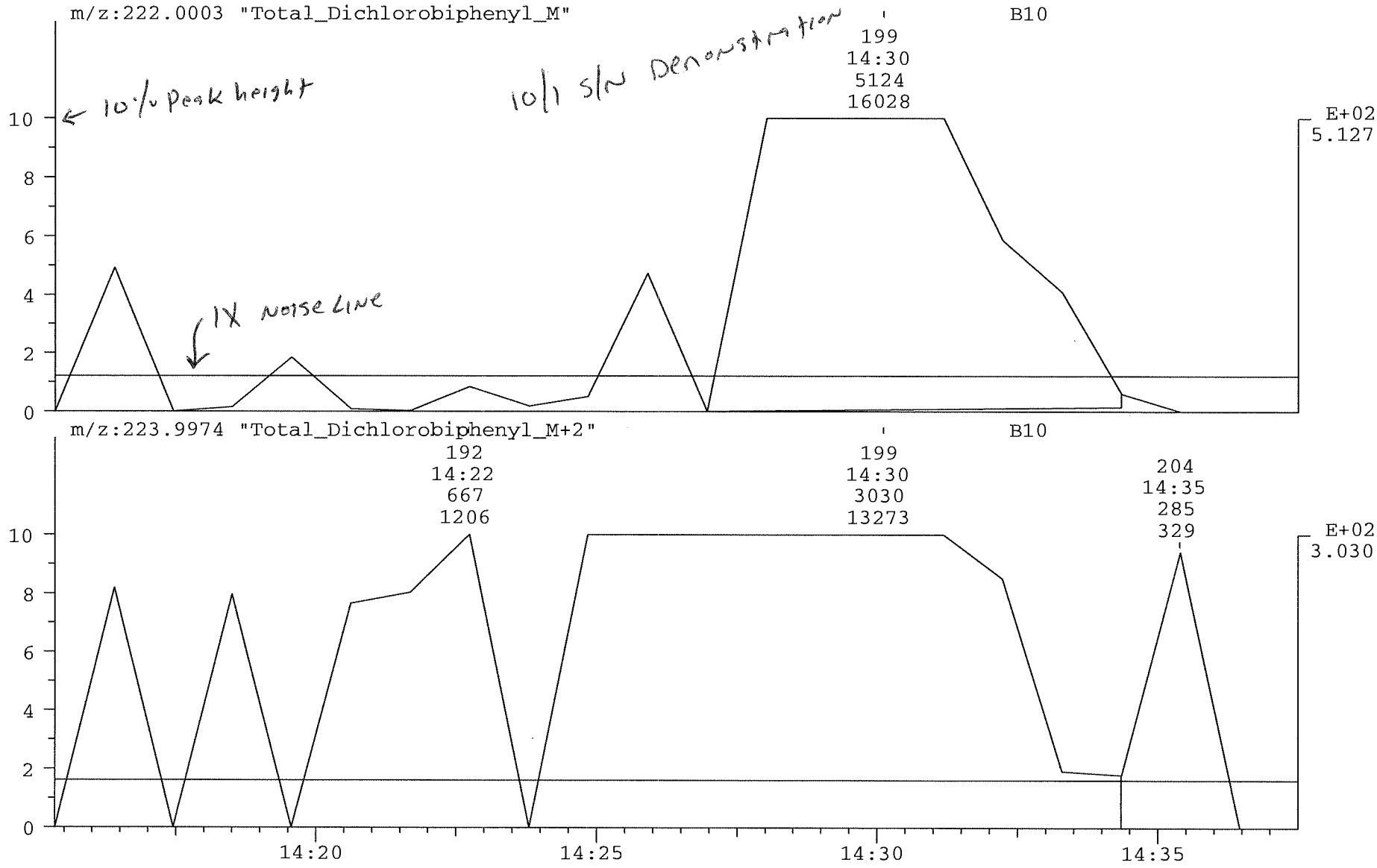
CHRO: a080624i6 24-Jun-08 Elapse: 17:26.5 366
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1363

1362

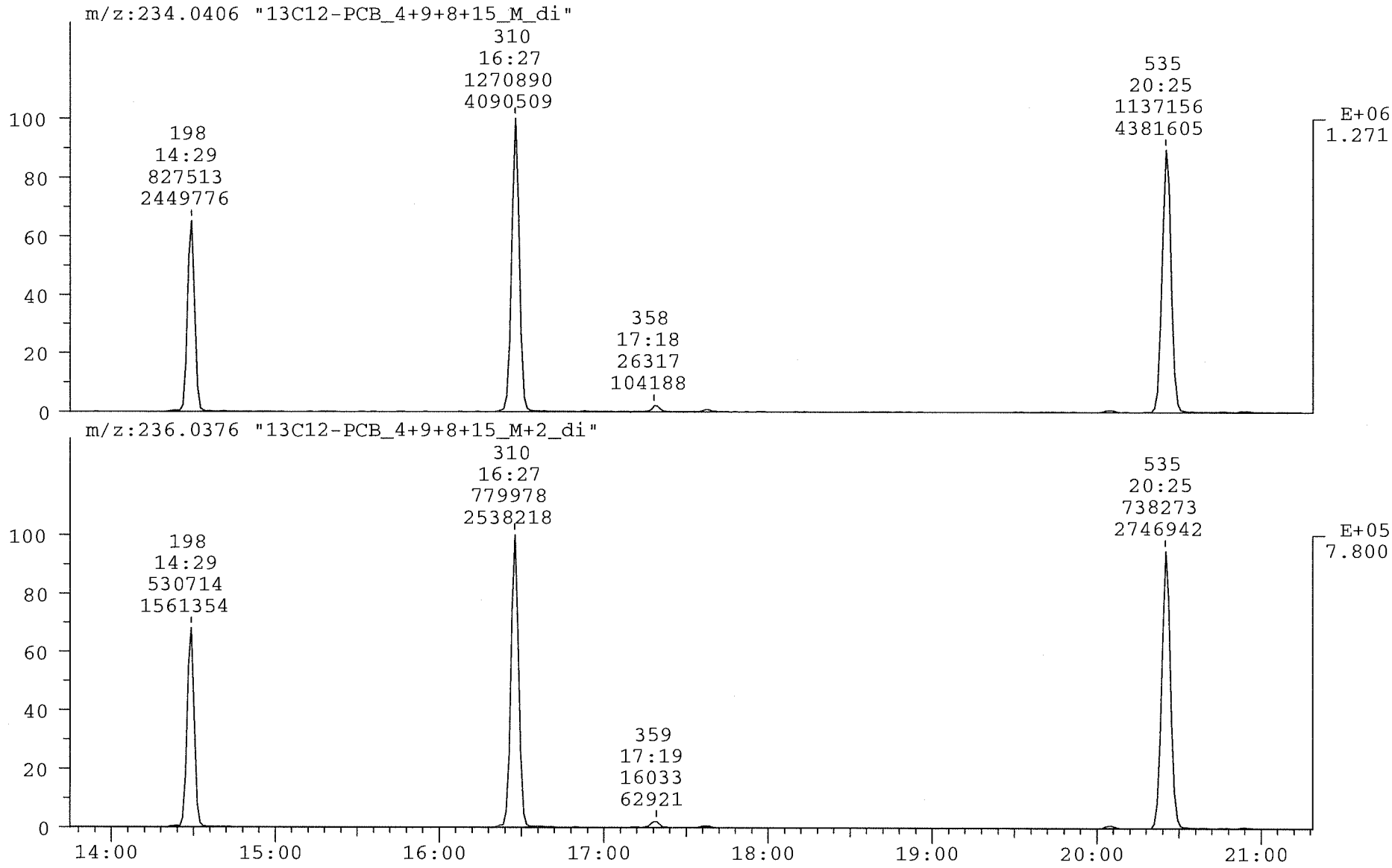
CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 185 > 206 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-1364

1363

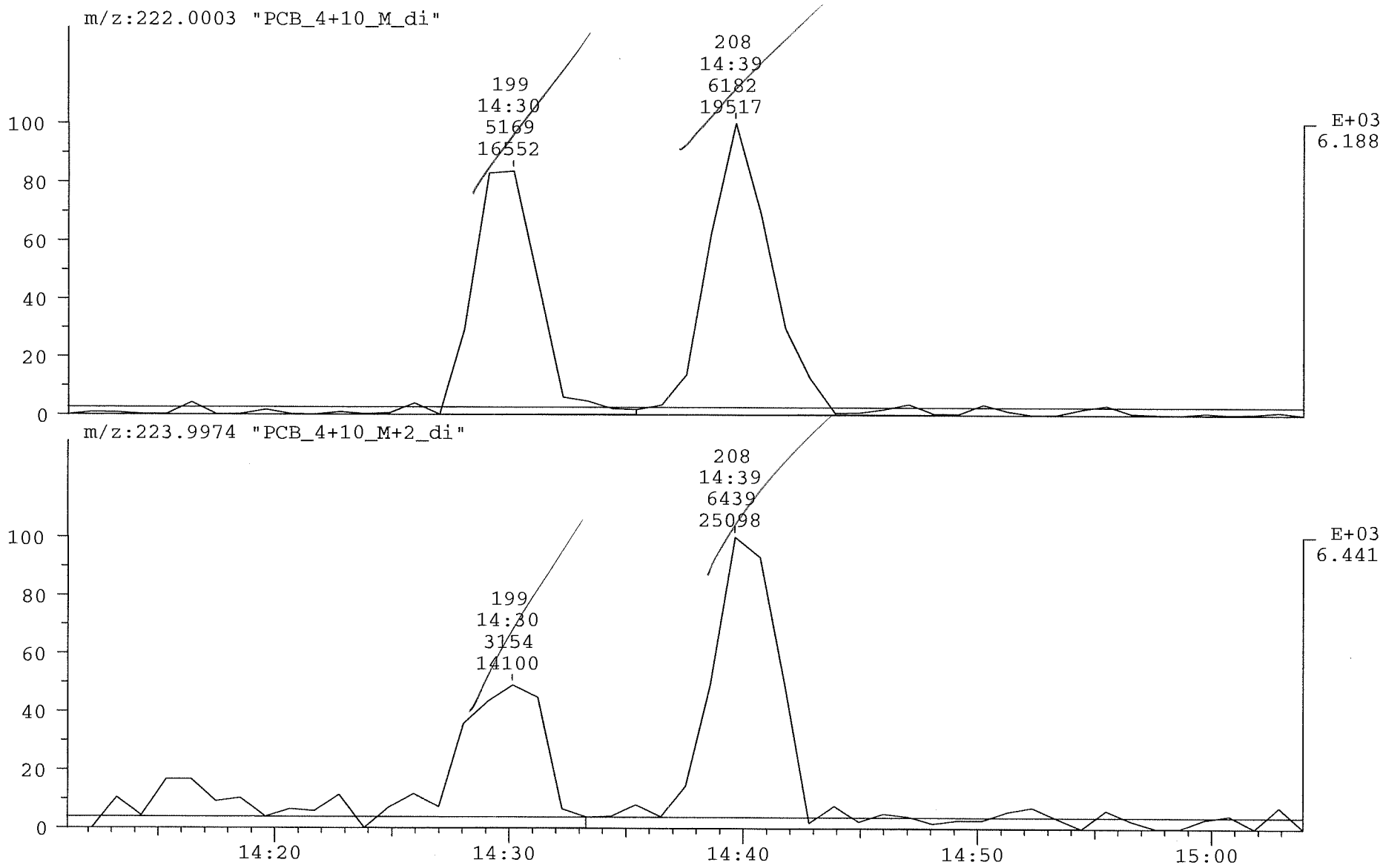
CHRO: a080624i6 24-Jun-08 Elapse: 17:26.5 366
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1365

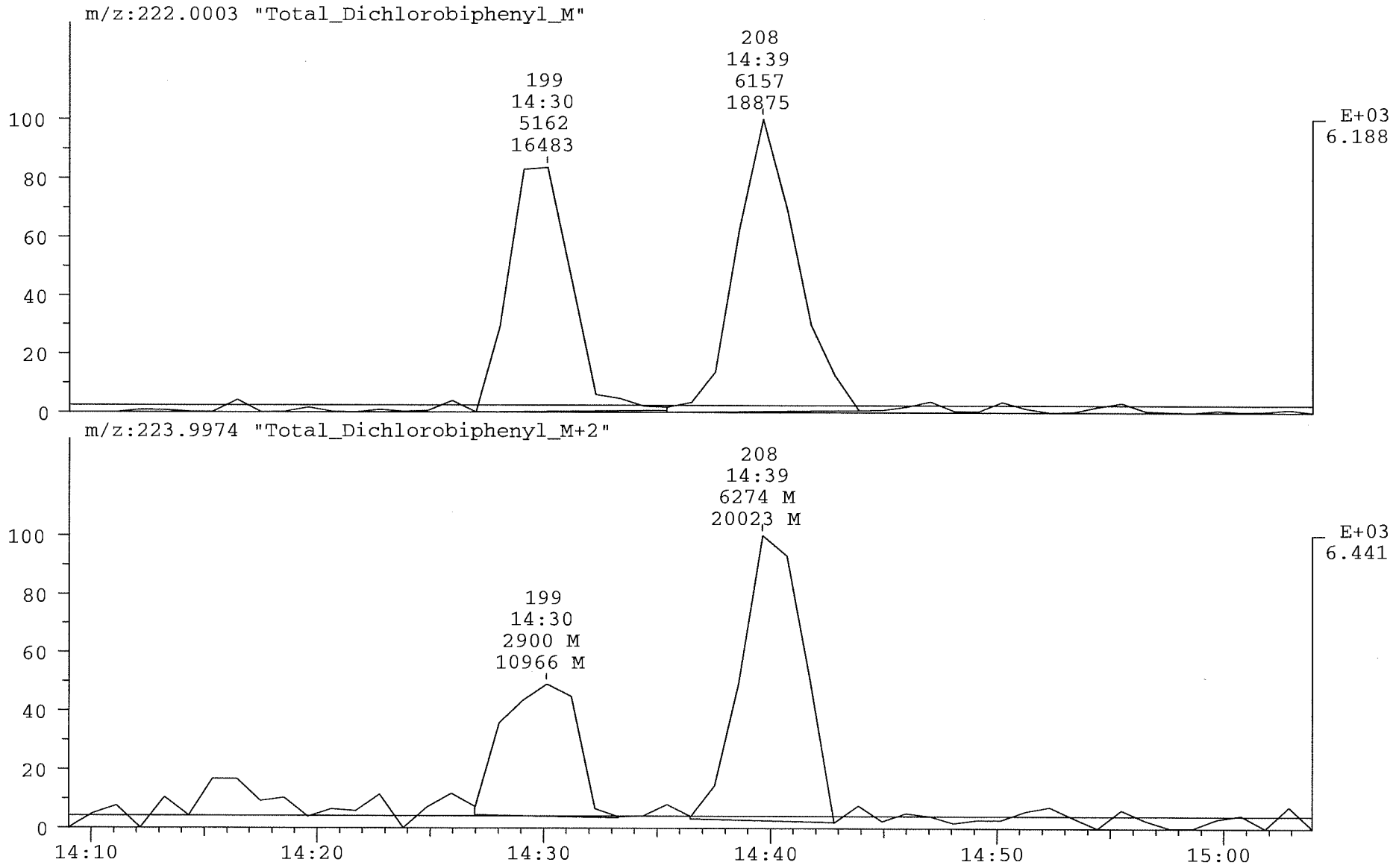
1364

CHRO: a080624i6 24-Jun-08 Elapse: 14:37.5 206
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 181 > 231 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



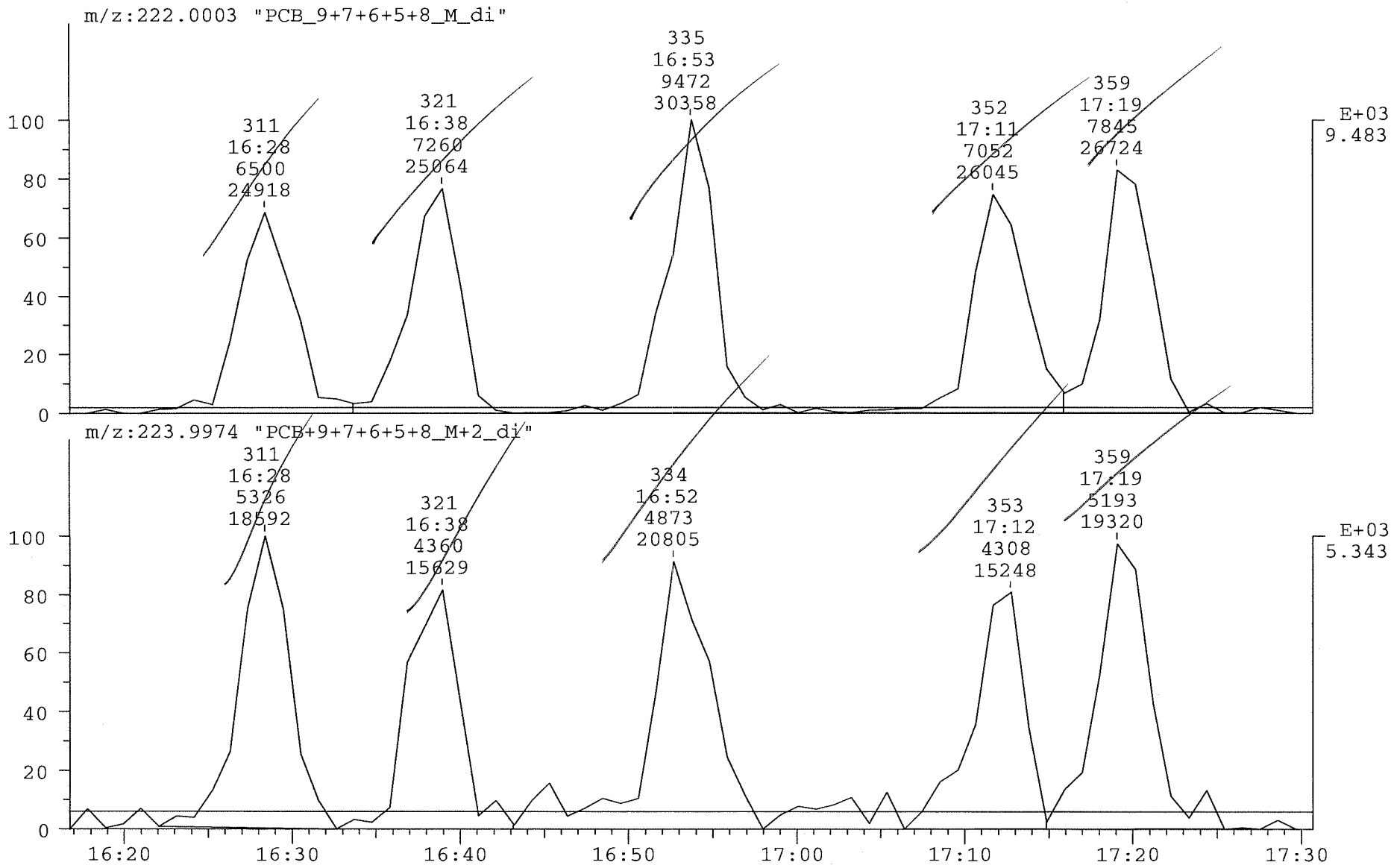
H-1366

CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 179 > 231 Masses: 181 > 510
Area: 5, 2.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1367

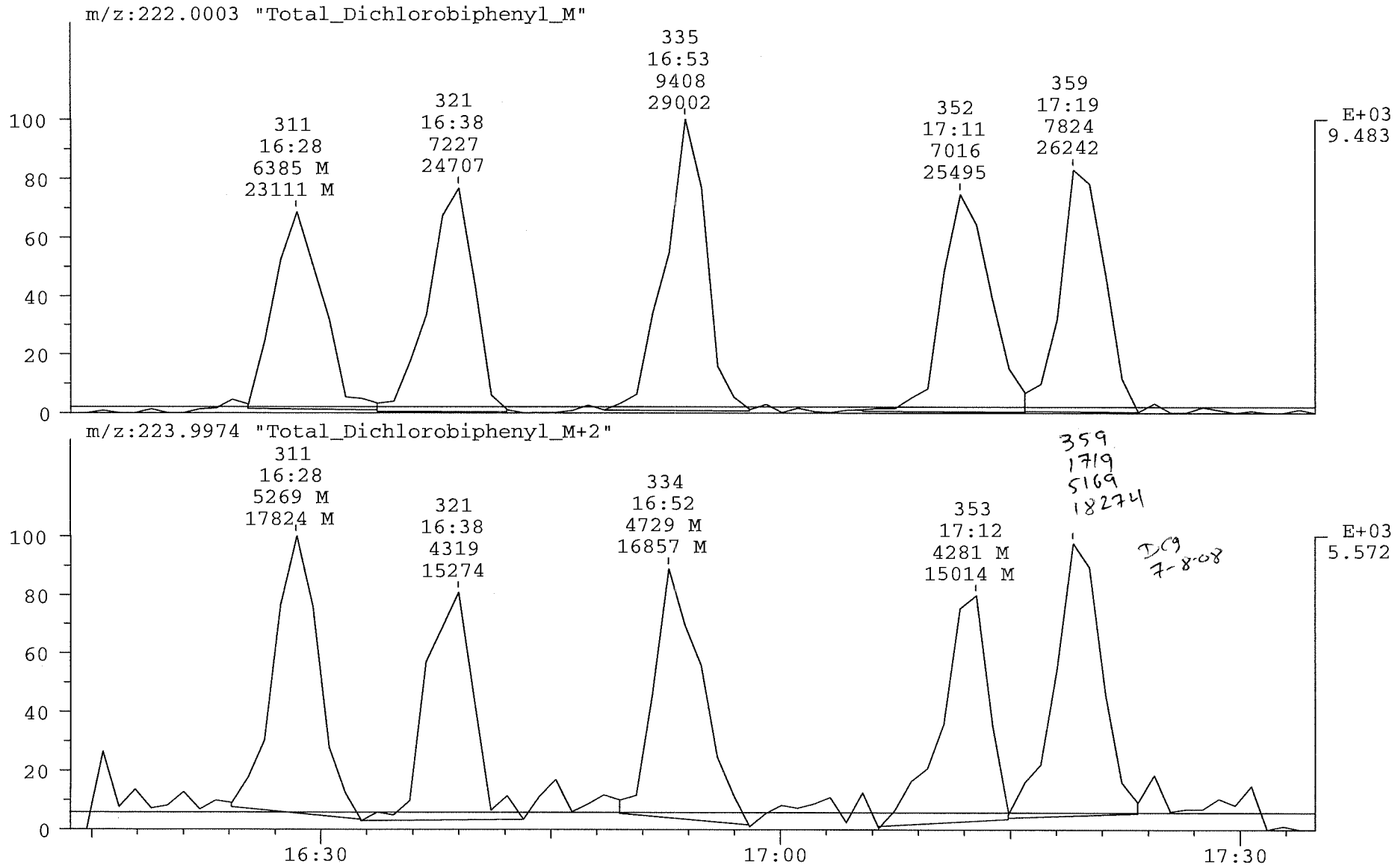
CHRO: a080624i6 24-Jun-08 Elapse: 16:55.8 337
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 300 > 370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1368

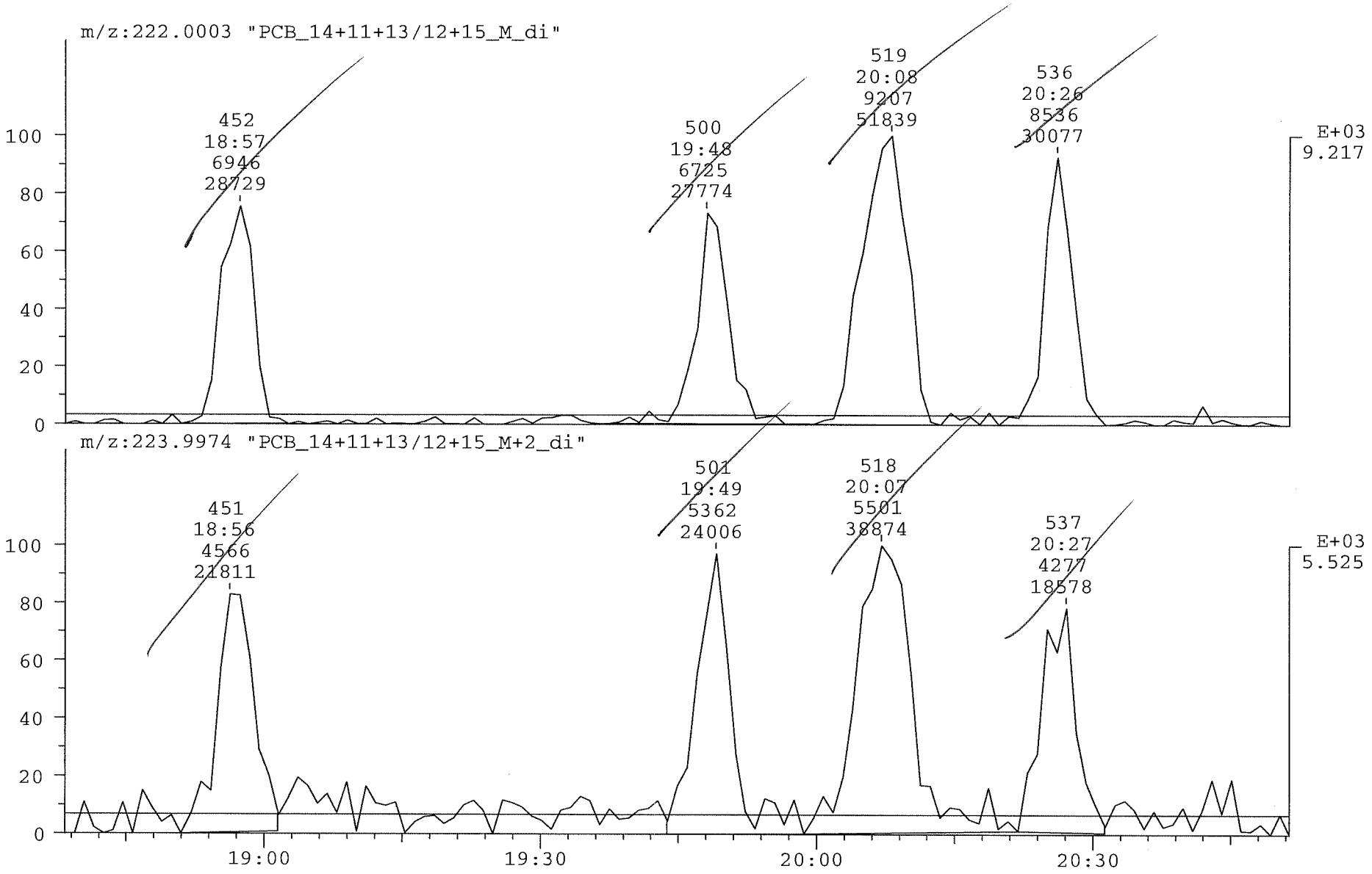
1367

CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 297 > 374 Masses: 181 > 510
Area: 5, 2.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1369

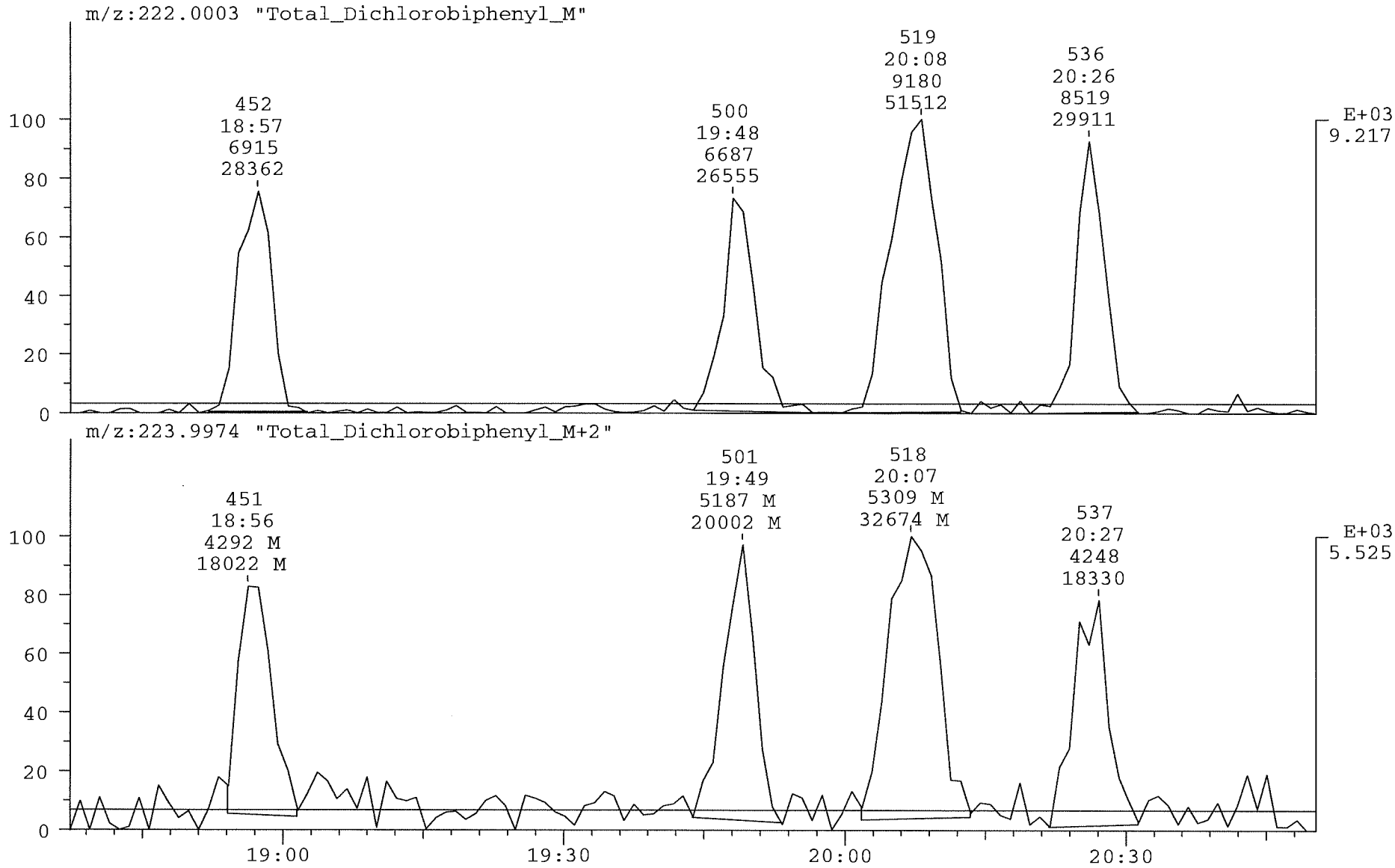
CHRO: a080624i6 24-Jun-08 Elapse: 19:39.5 492
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 434 > 560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1370

1369

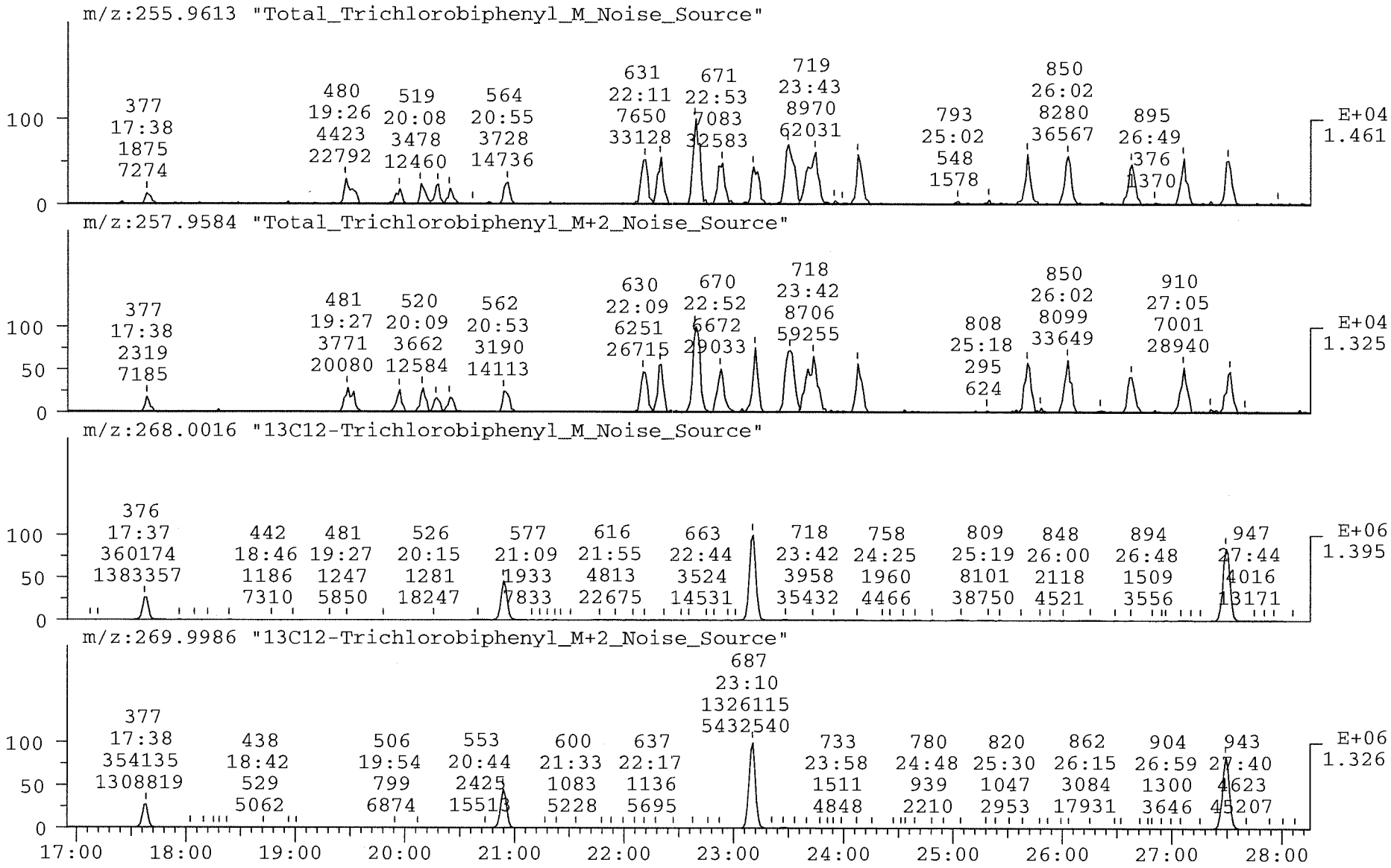
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 433 > 559 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1371

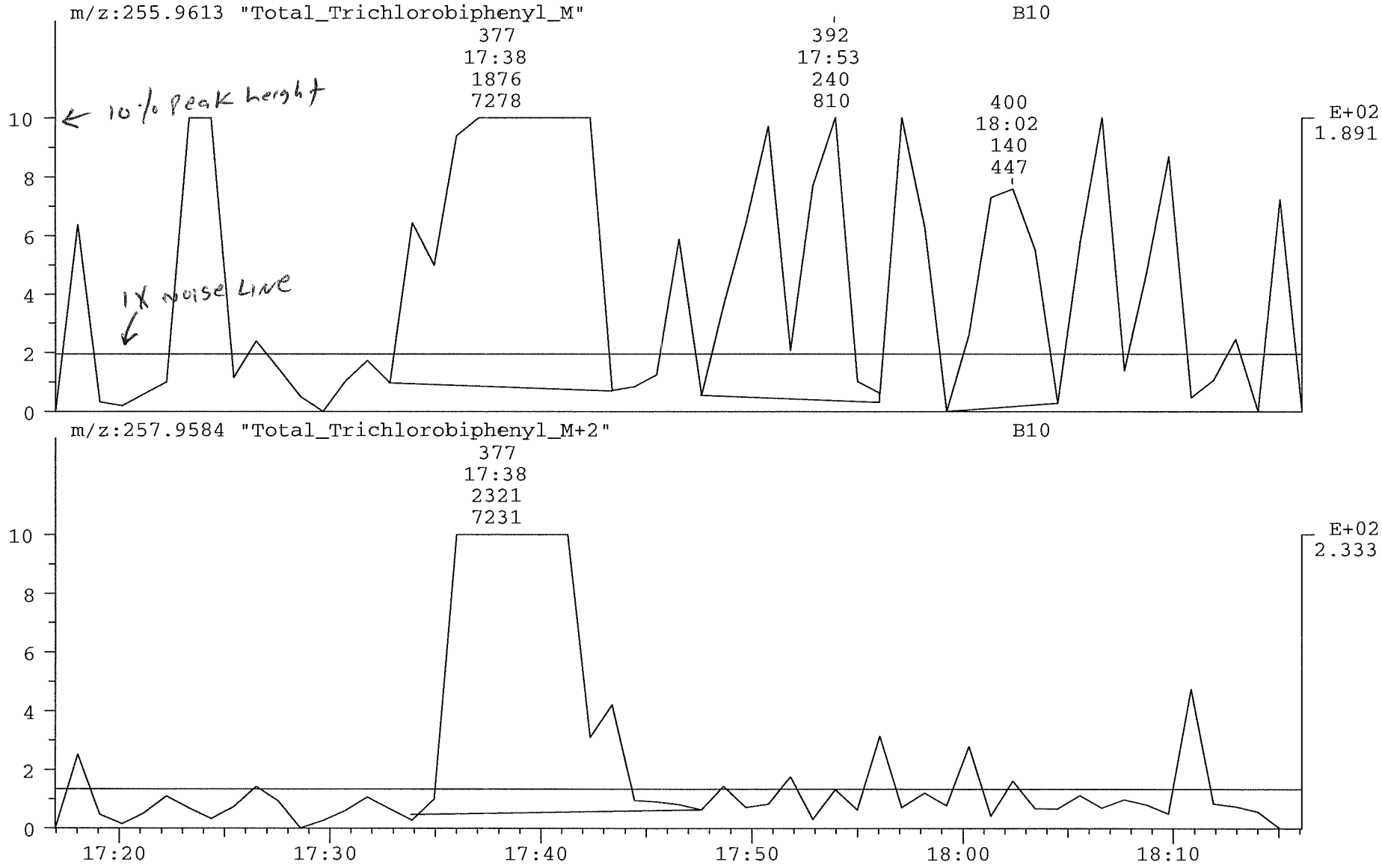
1370

CHRO: a080624i6 24-Jun-08 Elapse: 22:37.4 656
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 357 > 413 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area

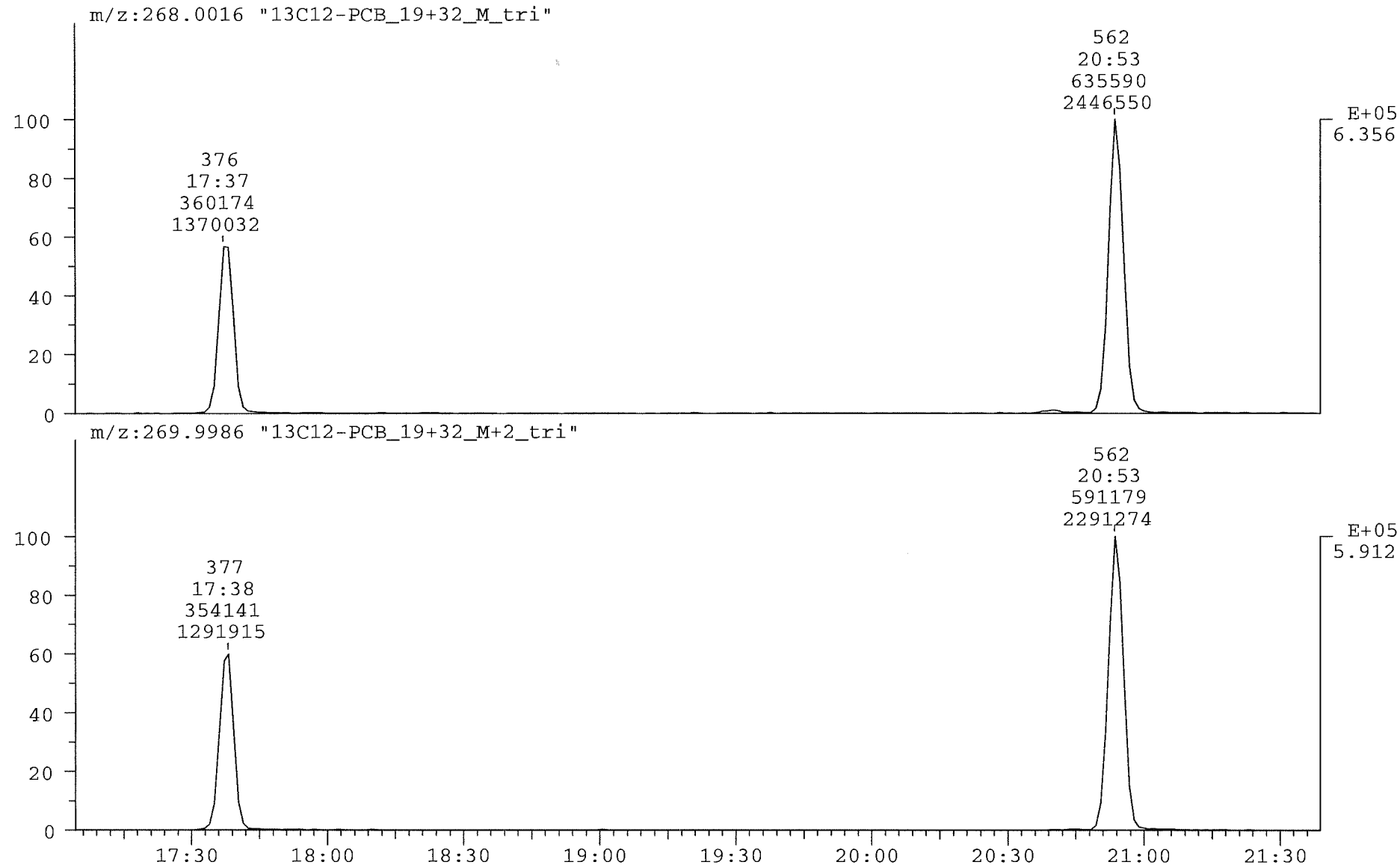
10/1 S/N Demonstration



H-1373

1372

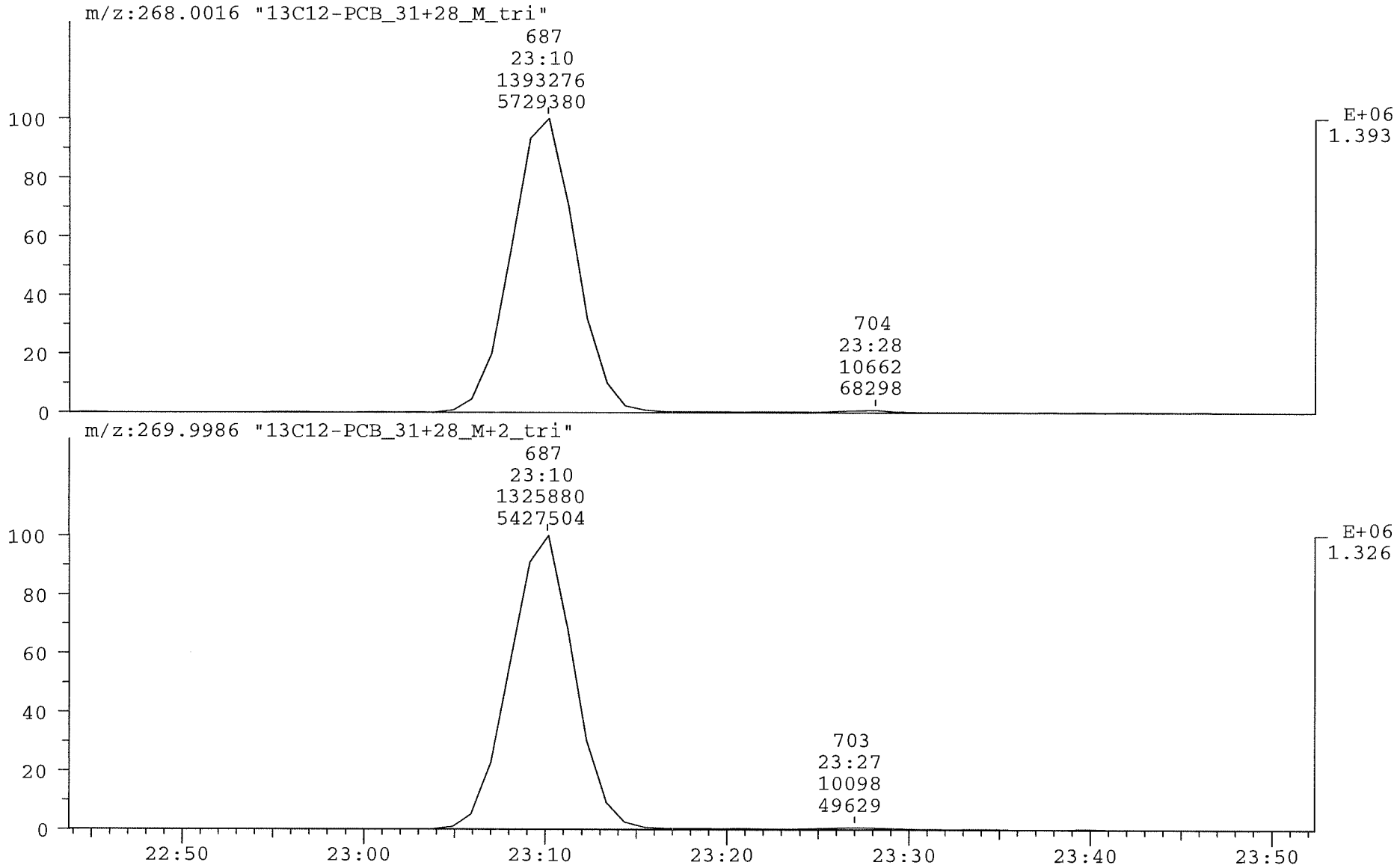
```
CHRO:  a080624i6                              24-Jun-08   Elapse:  19:00.4      455
Samp:  Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1              Start :  15:19:17    2601
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 ICAL CS0.5
Oper:  DCG           Client:  TA Knoxville                Inlet :  GC     Vial   9
Peak:  100.00  ppm     Label wndw:   345 > 605            Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 1               Label :  -3, 3.0
Disp:  Height  Area
```



H-1374

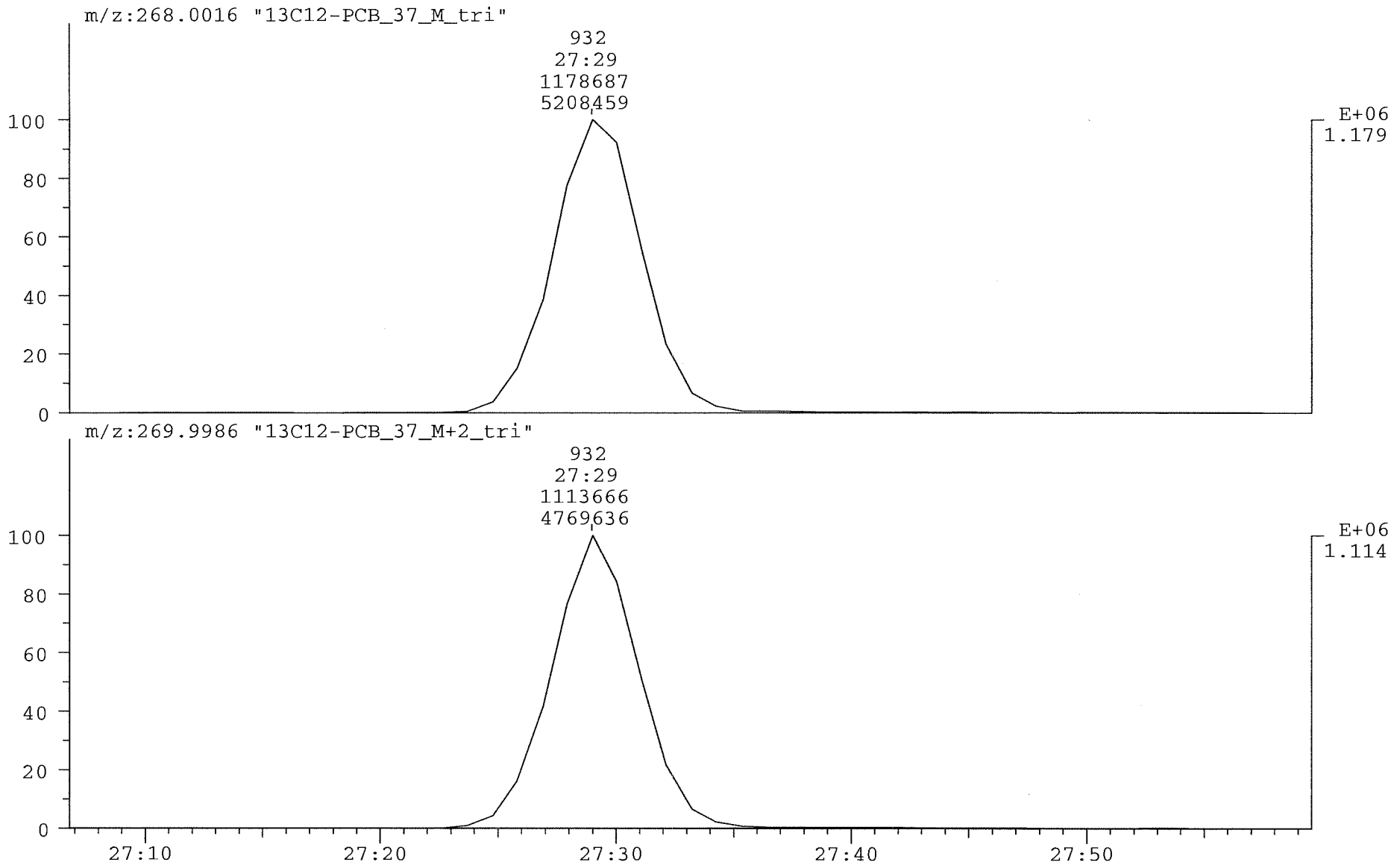
1373

CHRO: a080624i6 24-Jun-08 Elapse: 23:10.1 687
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



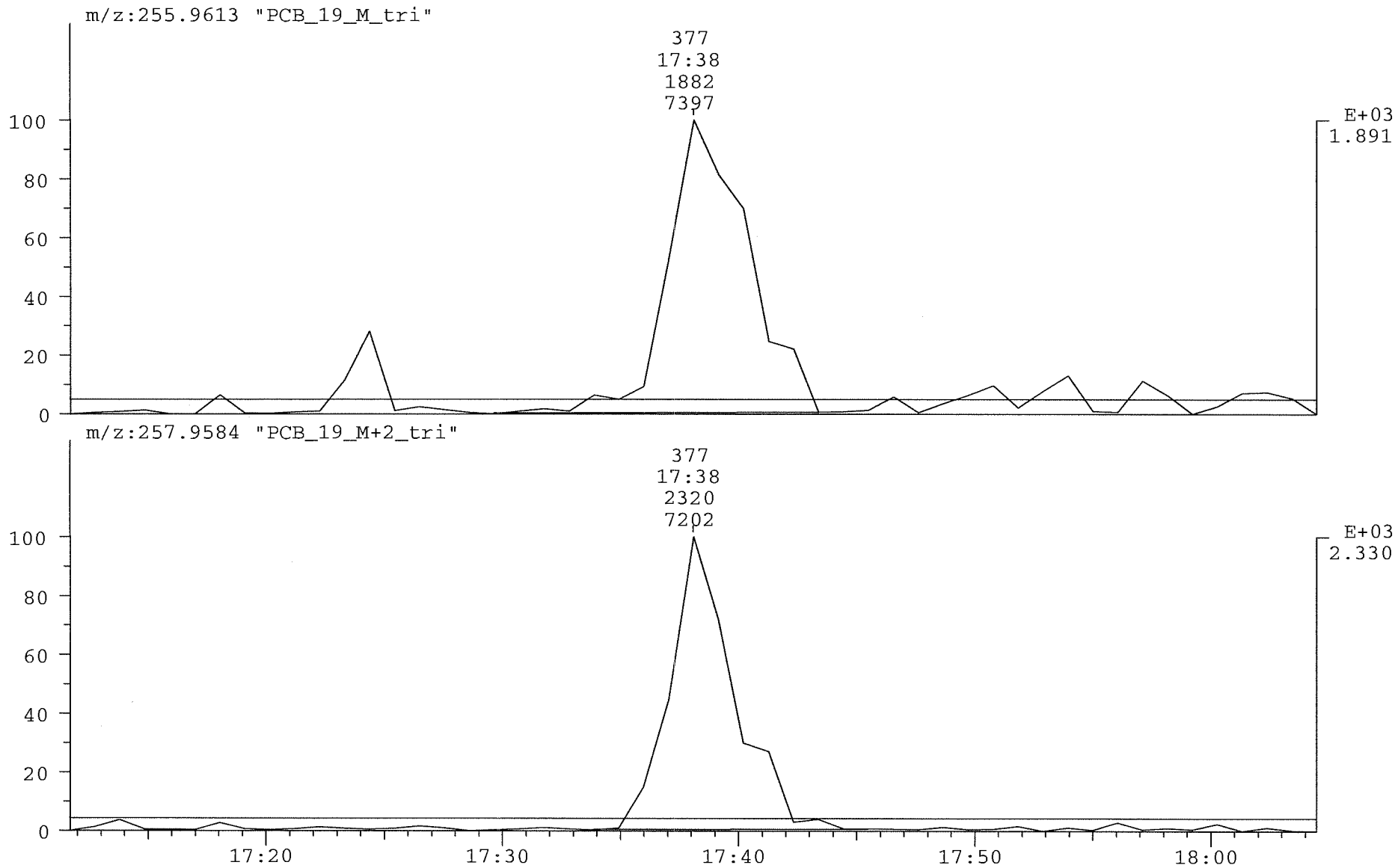
H-1375

CHRO: a080624i6 24-Jun-08 Elapse: 27:27.9 931
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1376

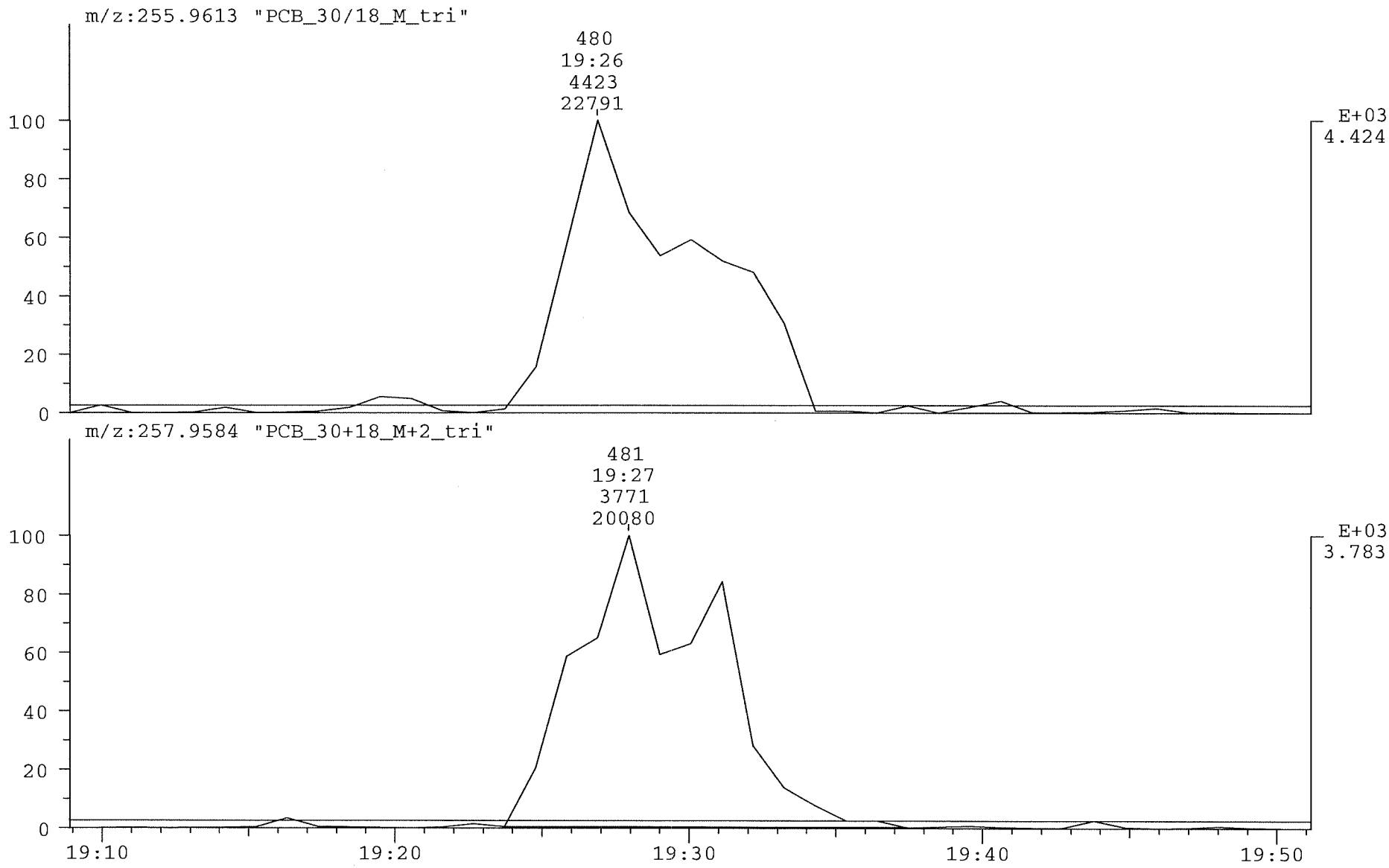
CHRO: a080624i6 24-Jun-08 Elapse: 17:38.1 377
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 352 > 402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1377

1376

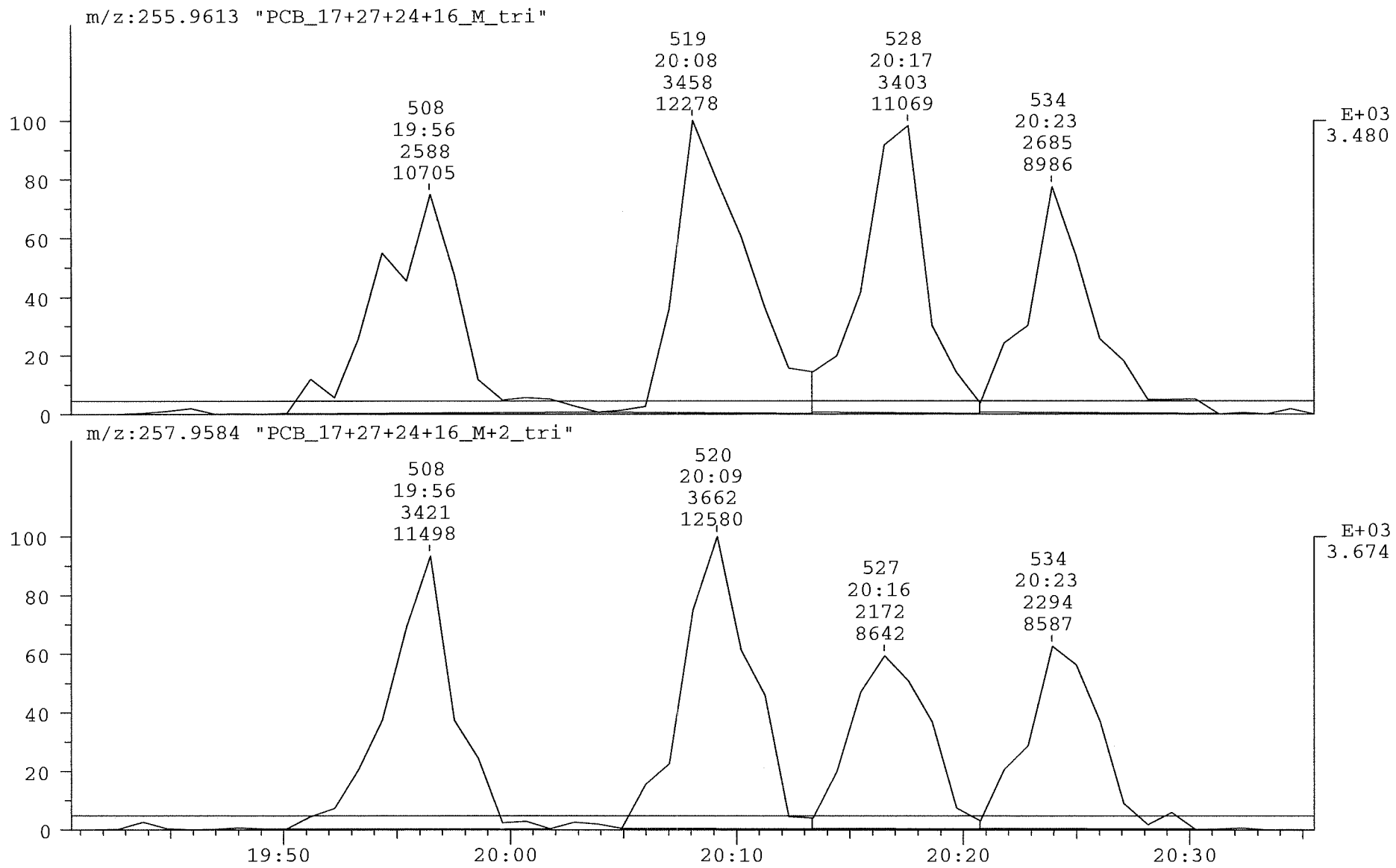
CHRO: a080624i6 24-Jun-08 Elapse: 19:30.0 483
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 463 > 503 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1378

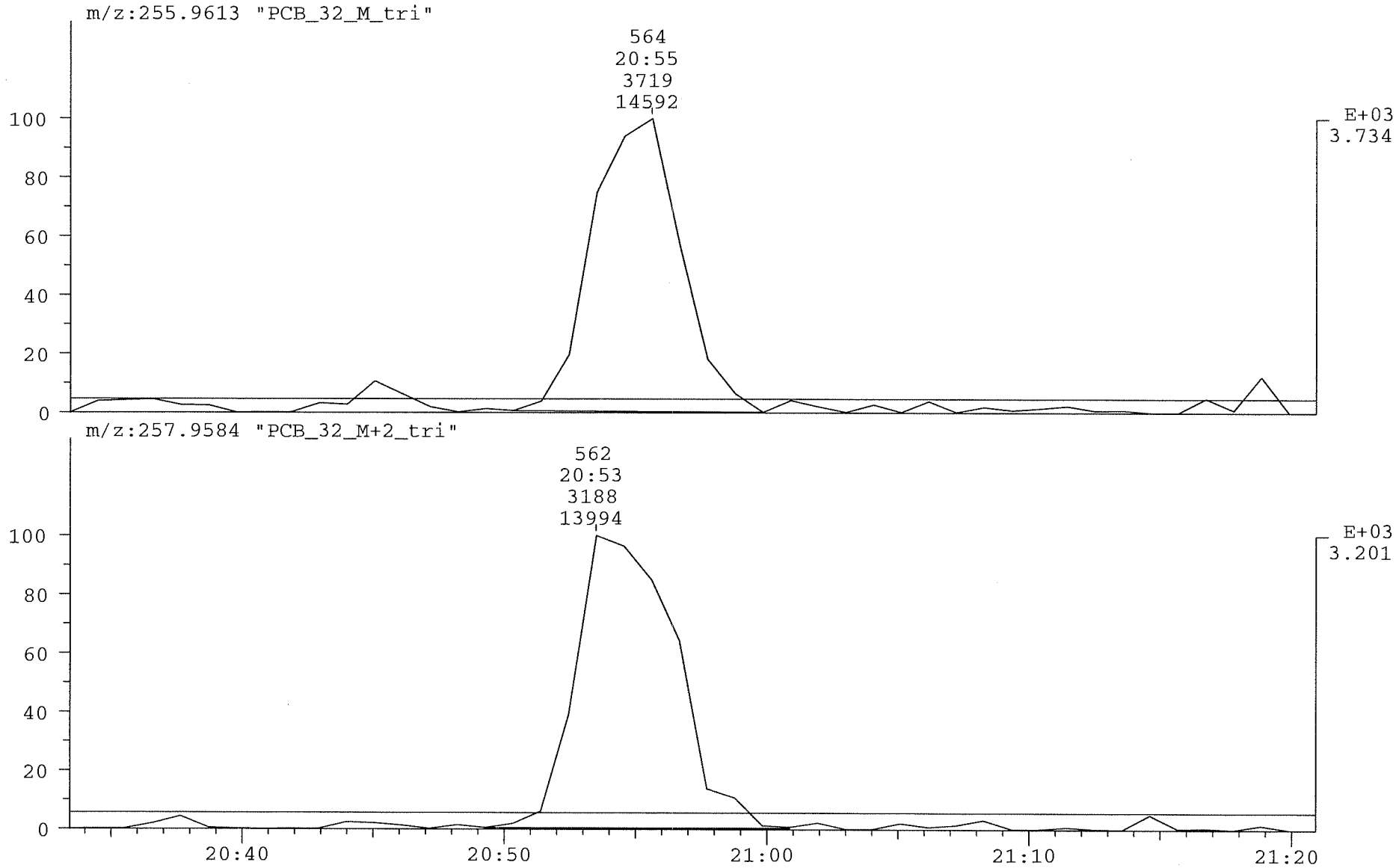
1377

CHRO: a080624i6 24-Jun-08 Elapse: 20:09.1 520
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 493 > 545 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1379

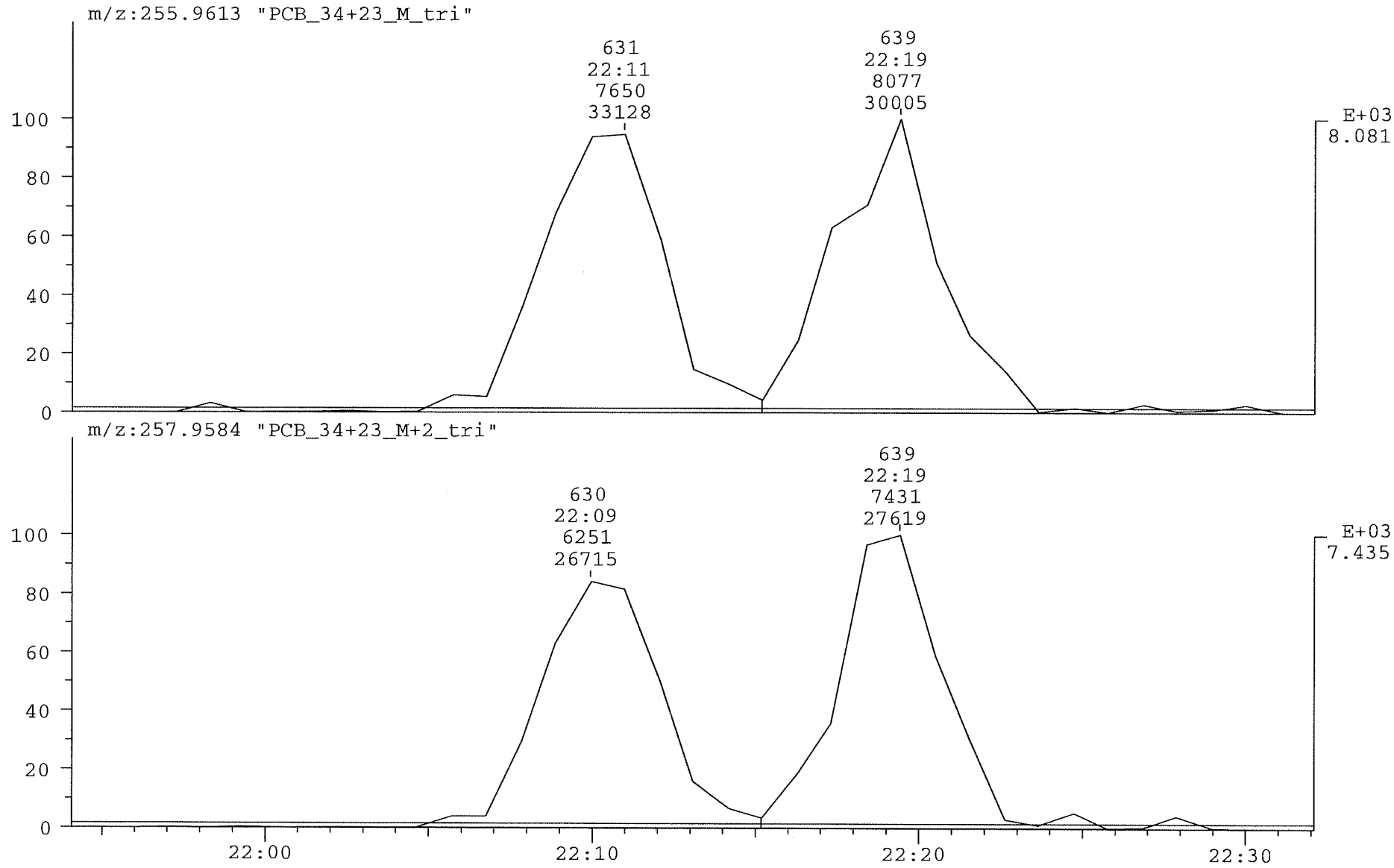
CHRO: a080624i6 24-Jun-08 Elapse: 20:54.5 563
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 543 > 588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1380

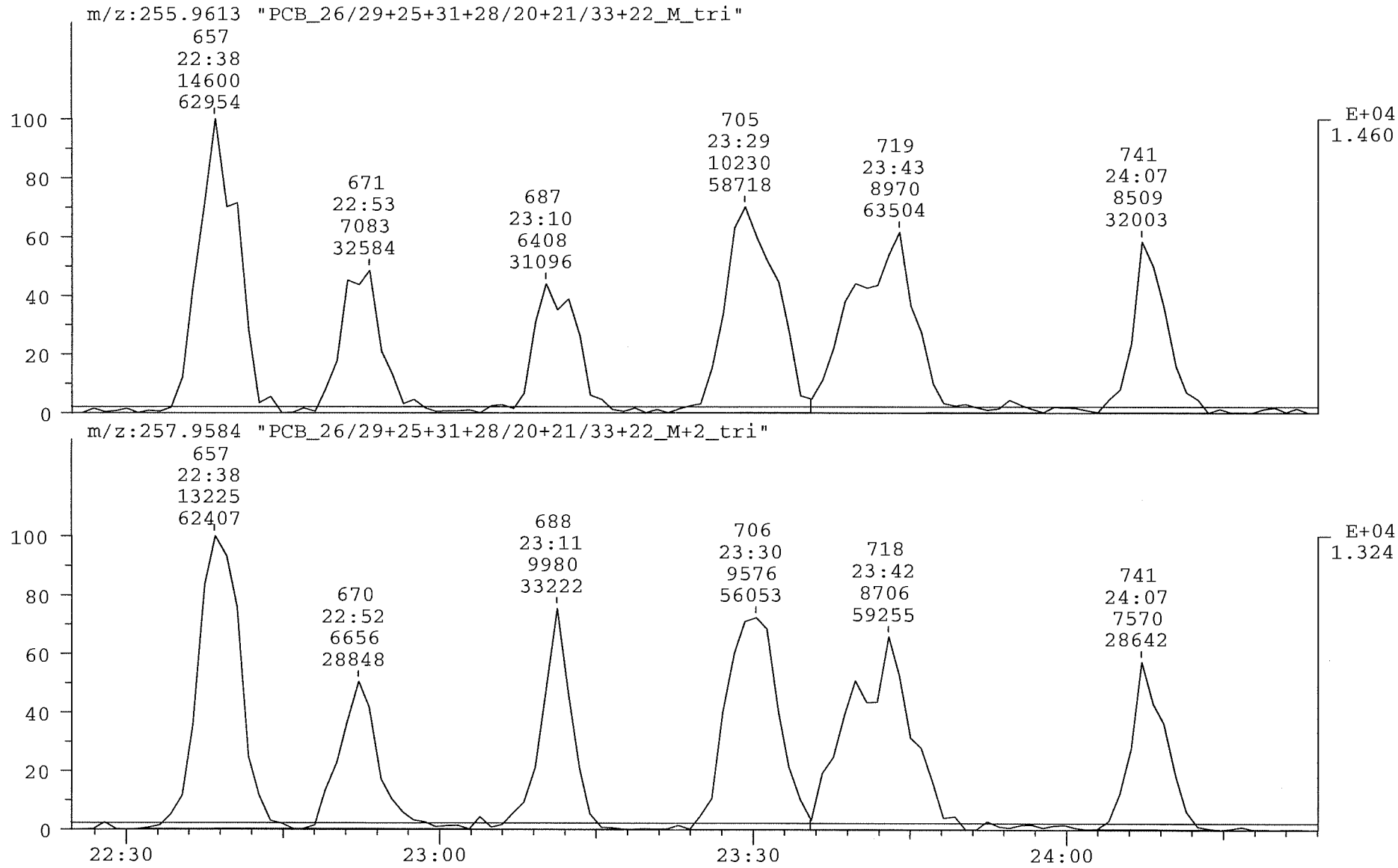
1379

CHRO: a080624i6 24-Jun-08 Elapse: 22:09.9 630
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 615 > 651 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1381

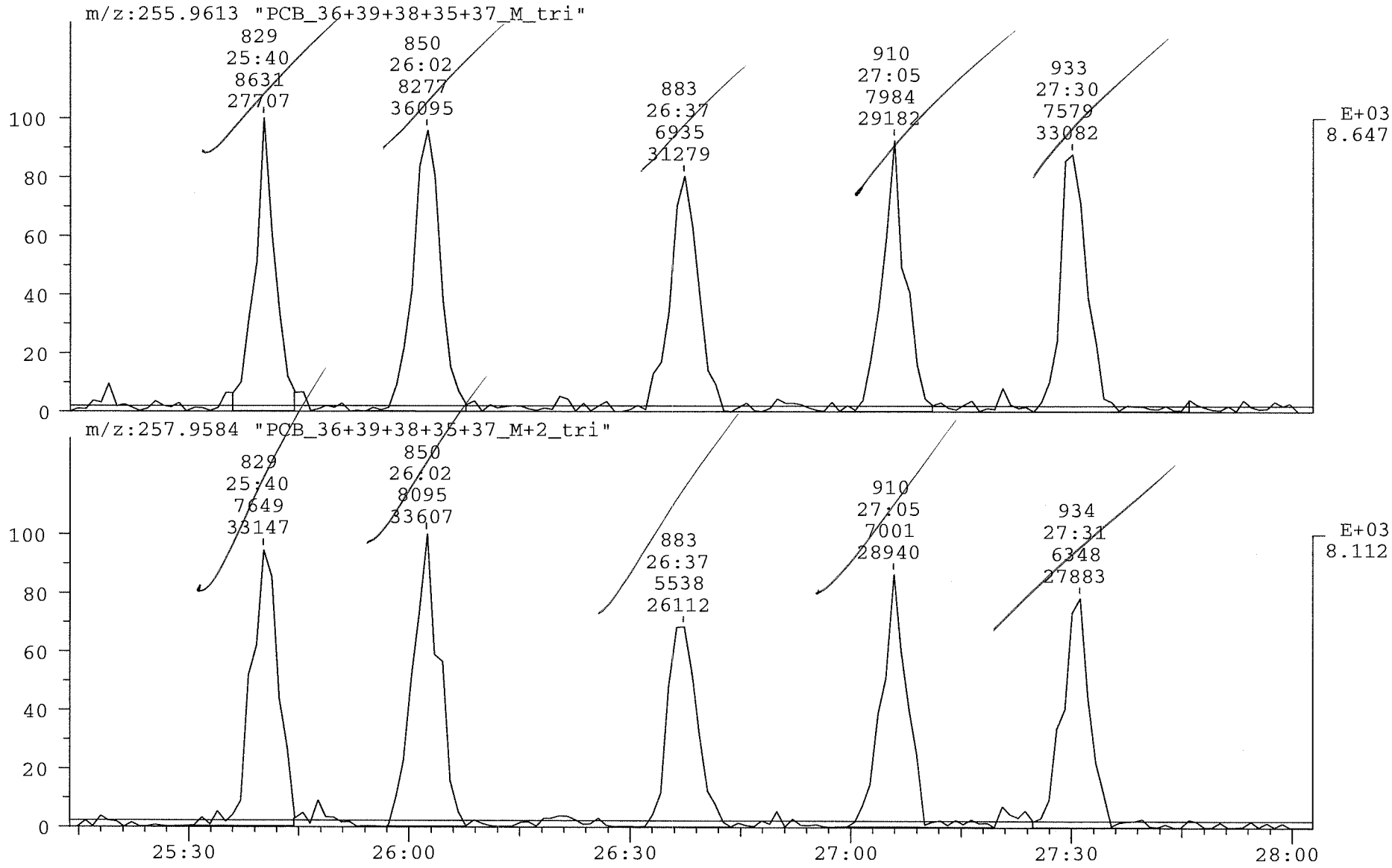
CHRO: a080624i6 24-Jun-08 Elapse: 23:36.6 712
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 644 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1382

1381

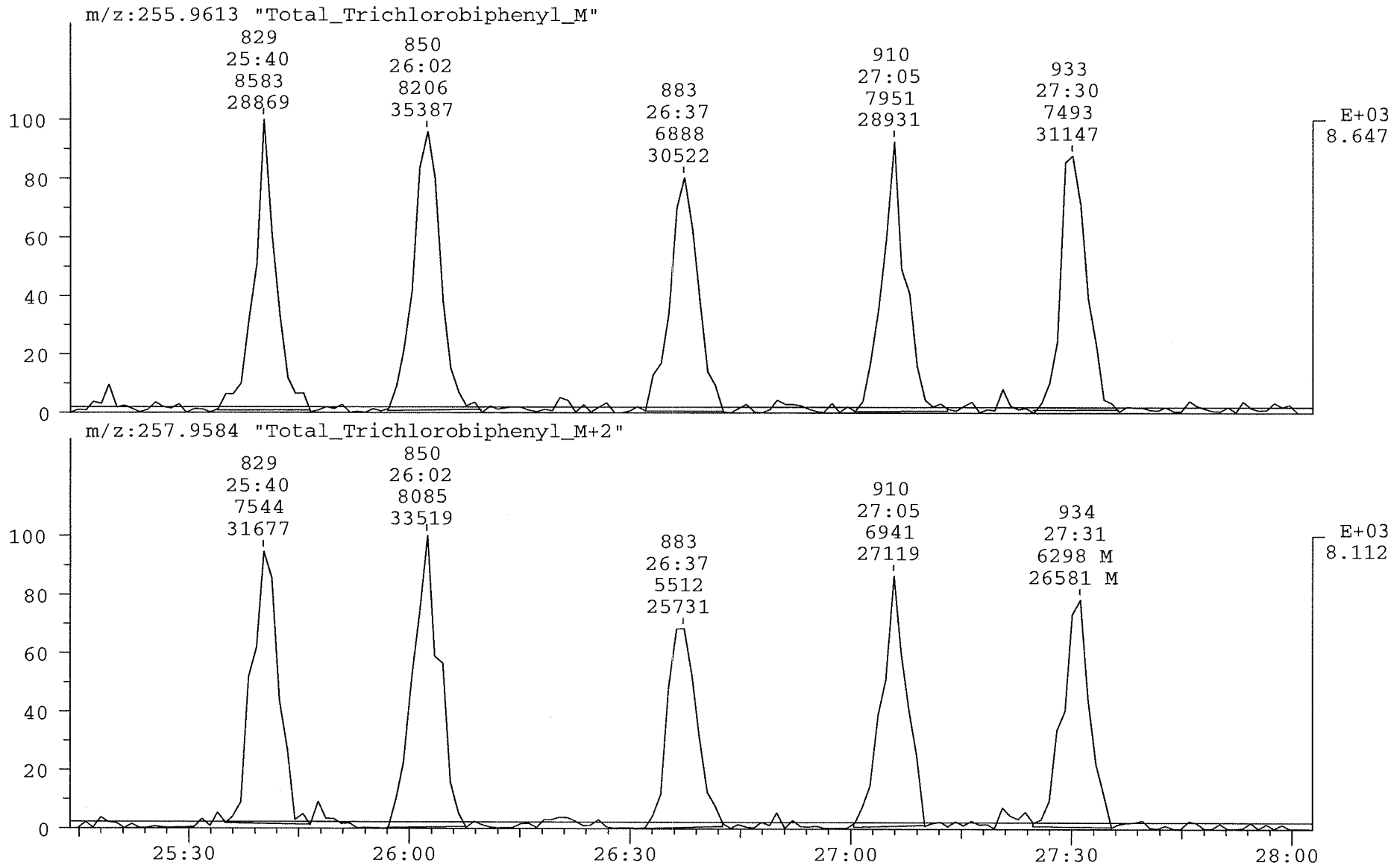
CHRO: a080624i6 24-Jun-08 Elapse: 26:38.3 884
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 804 > 964 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1383

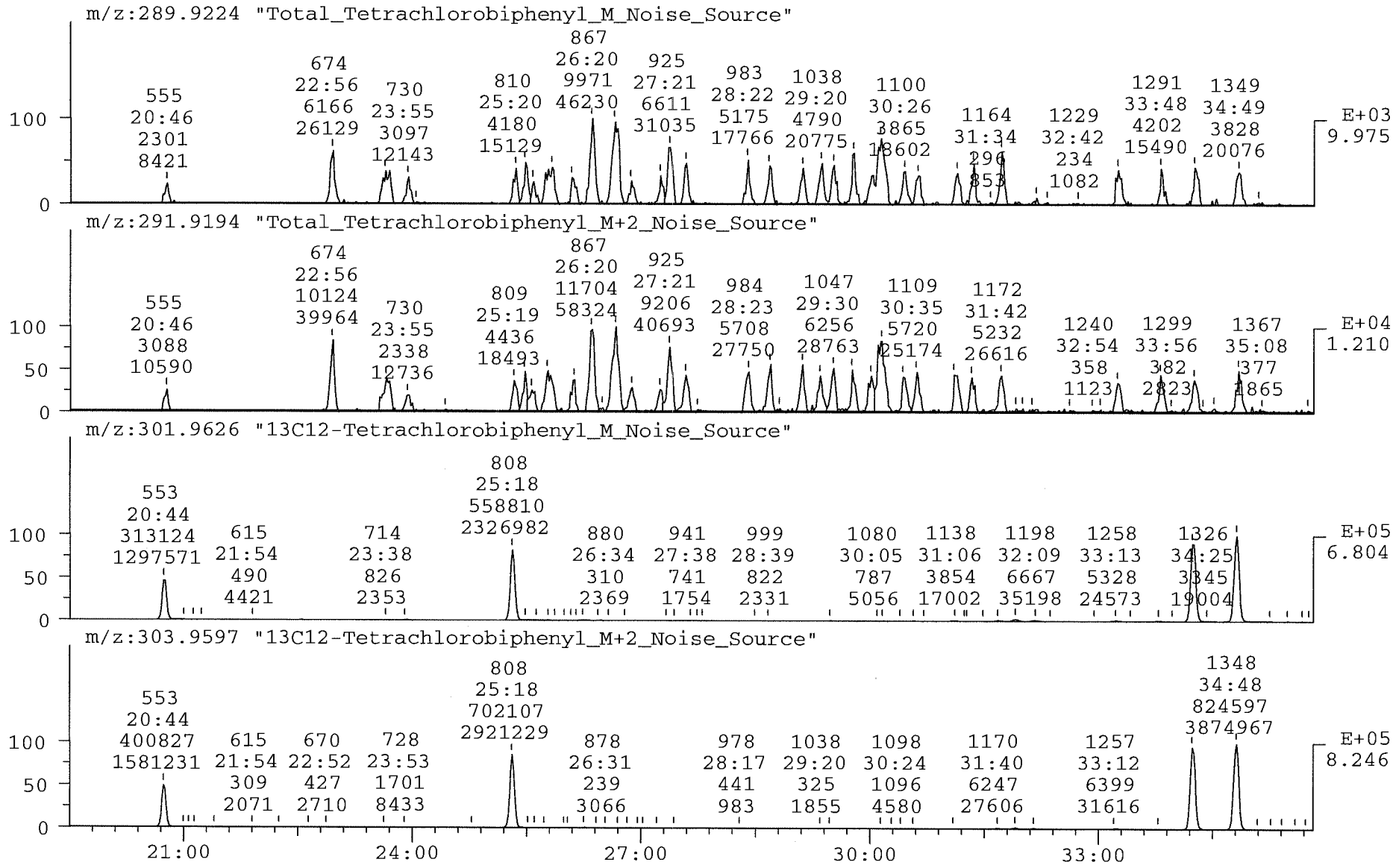
1382

CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 804 > 964 Masses: 181 > 510
Area: 5, 3.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1384

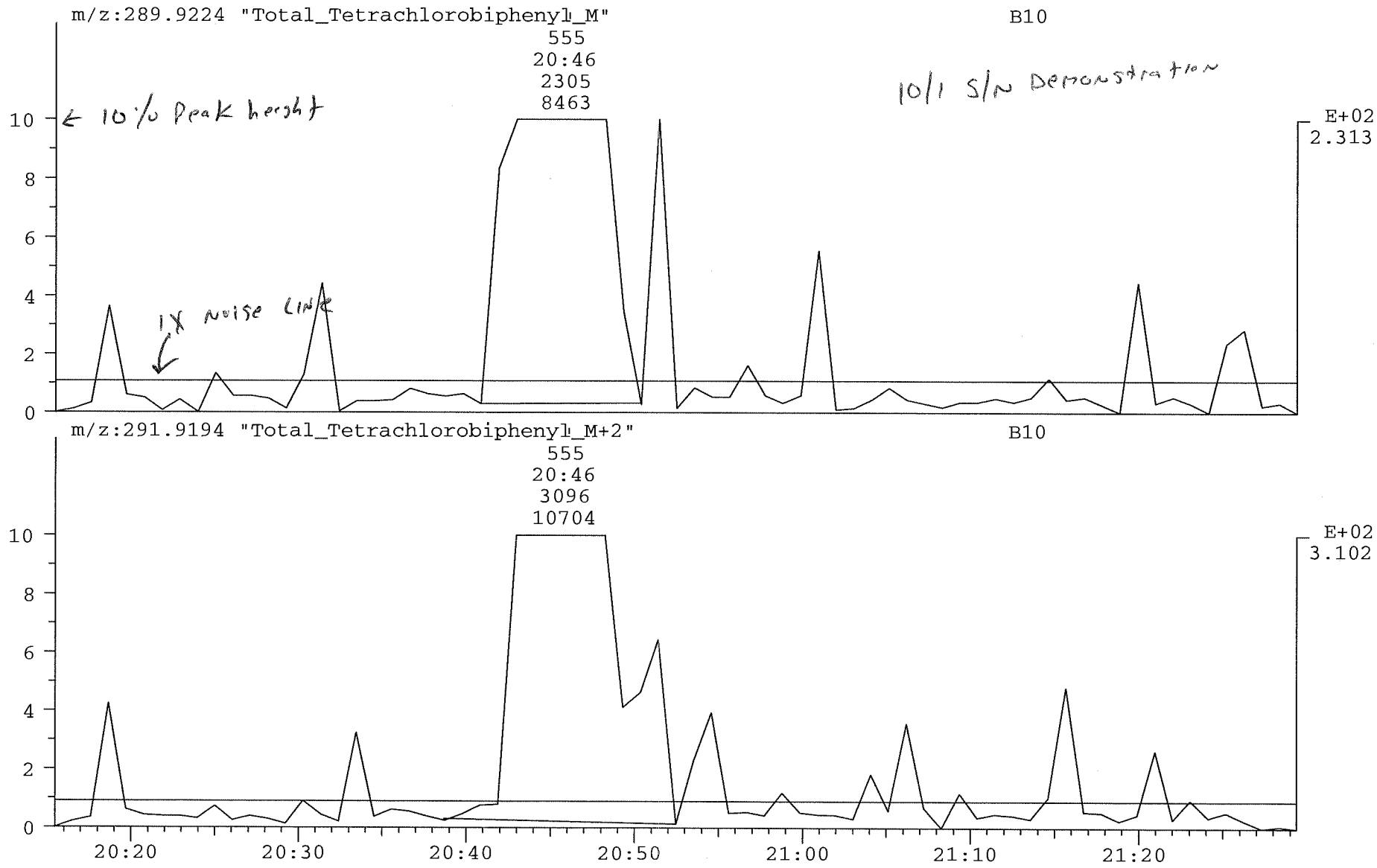
CHRO: a080624i6 24-Jun-08 Elapse: 27:39.5 942
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 483 > 1406 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1385

1384

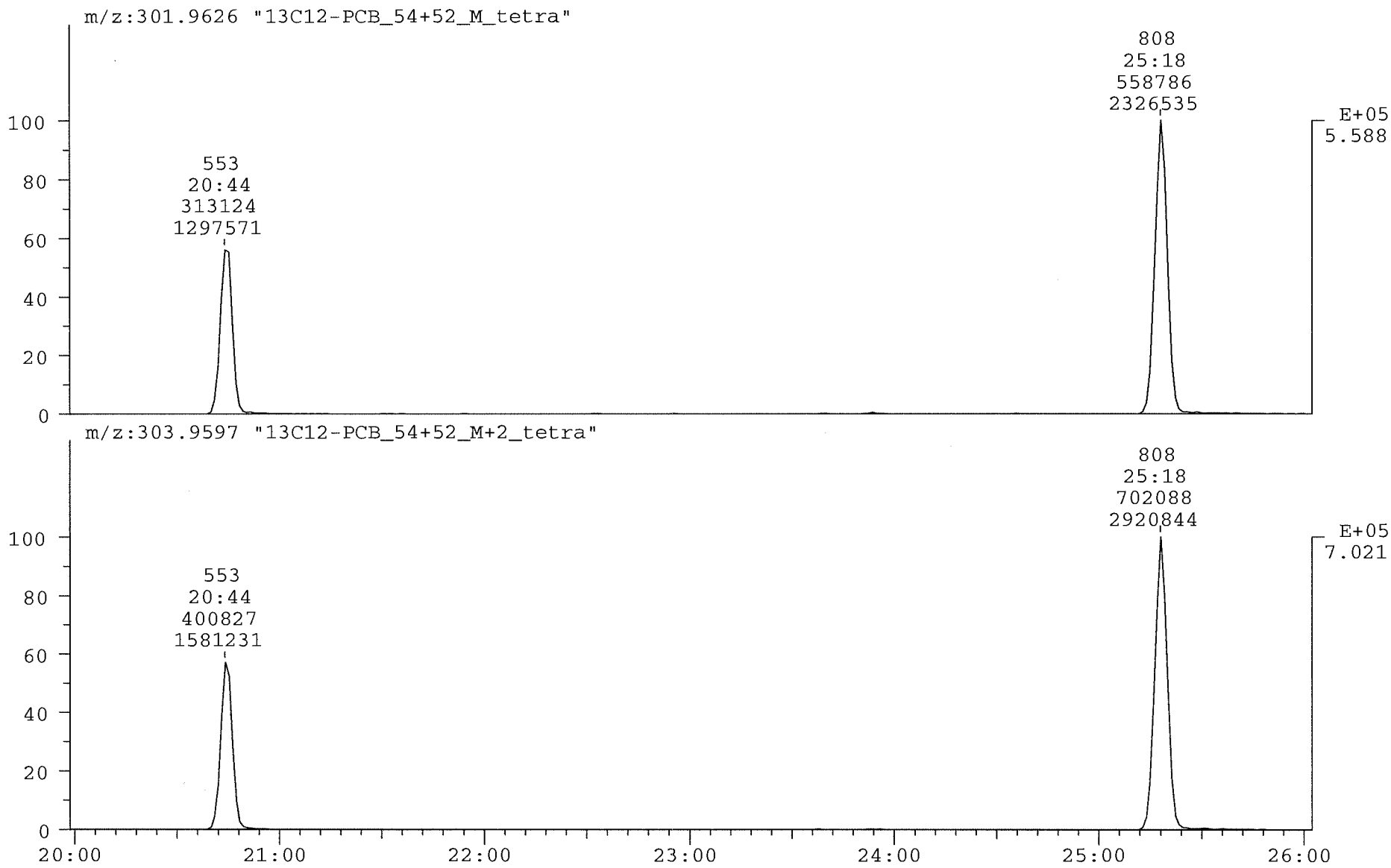
CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 526 > 596 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-1386

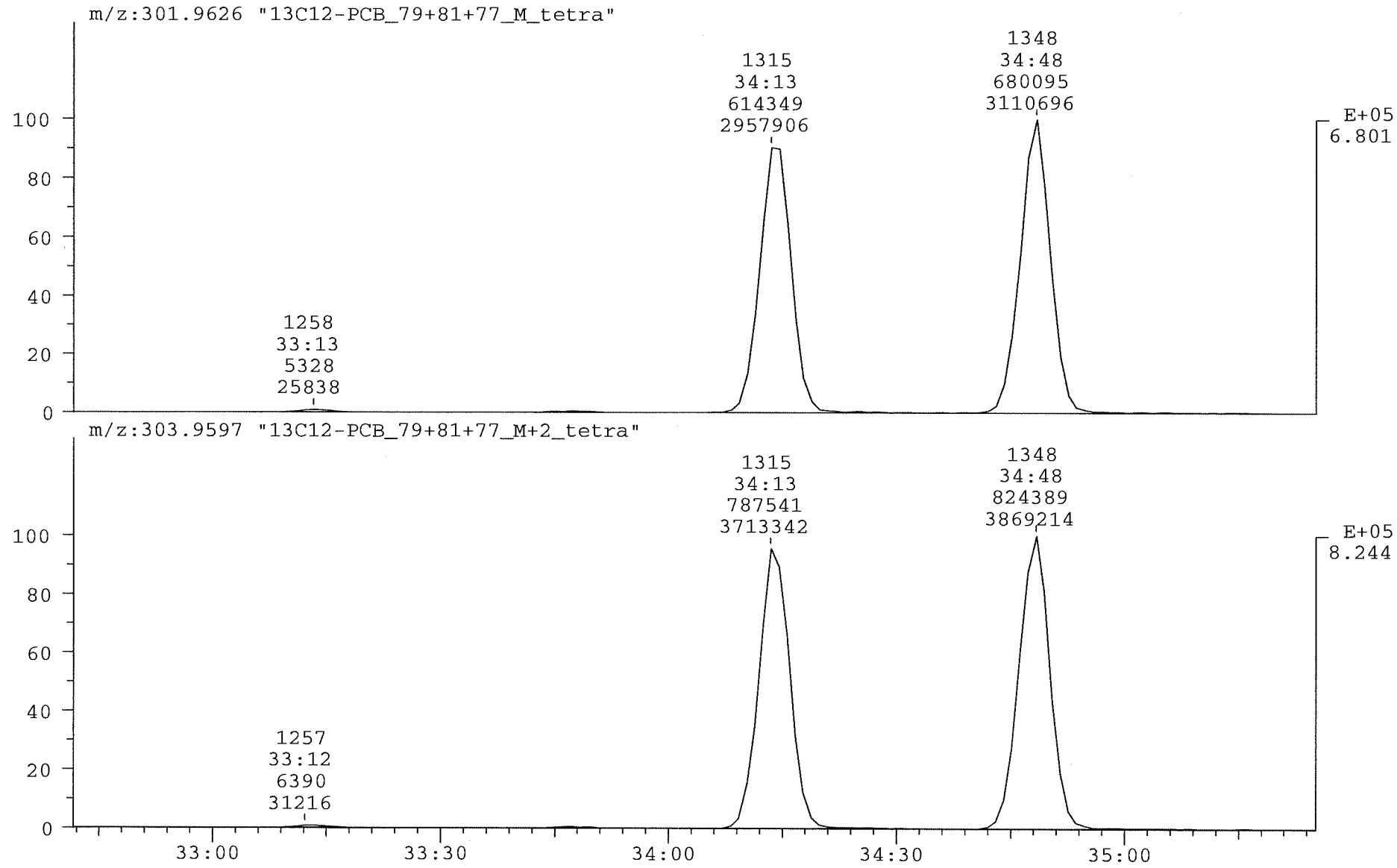
1385

CHRO: a080624i6 24-Jun-08 Elapse: 23:02.7 680
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 510 > 850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1387

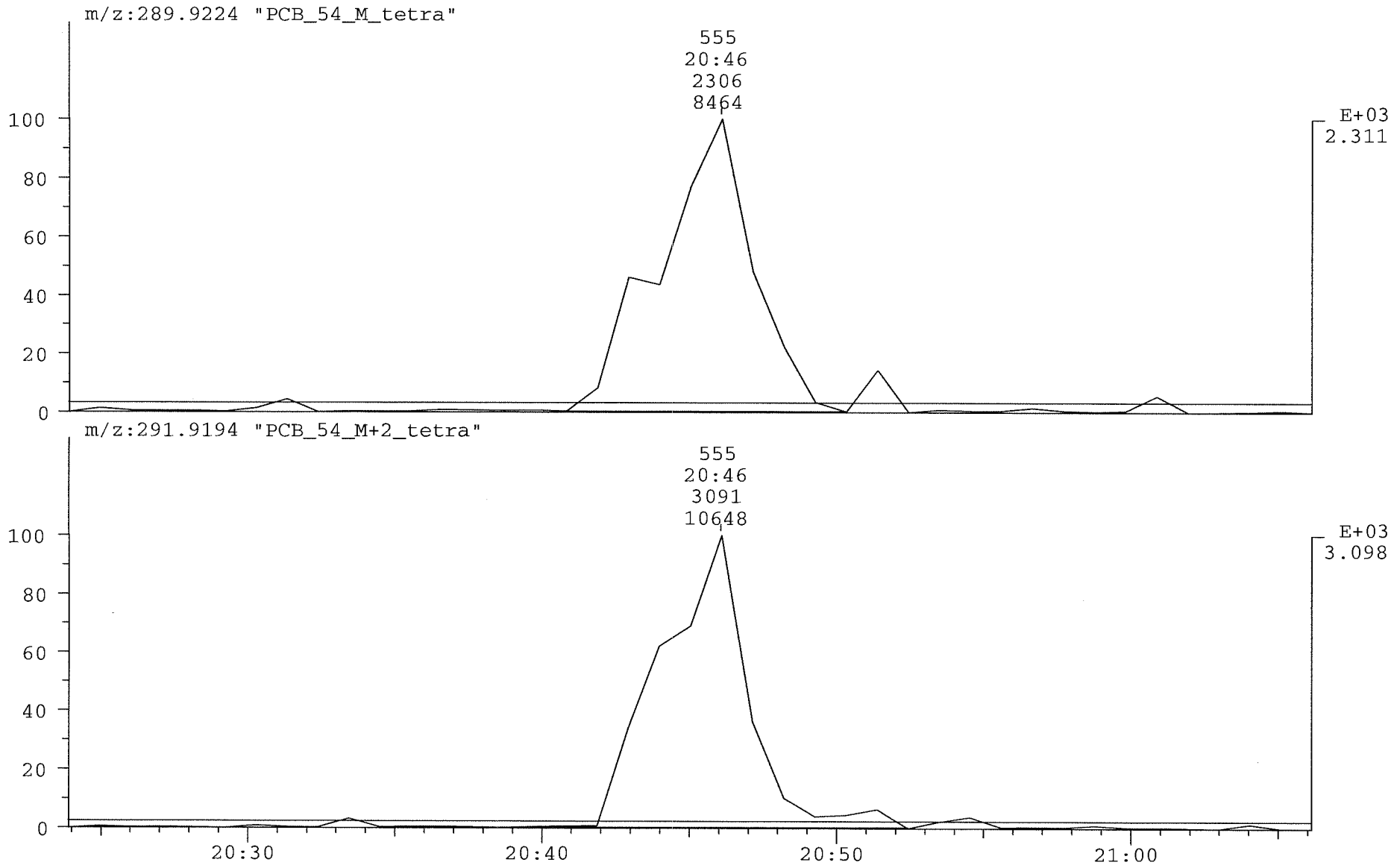
CHRO: a080624i6 24-Jun-08 Elapse: 34:00 1303
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1228 > 1383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1388

1387

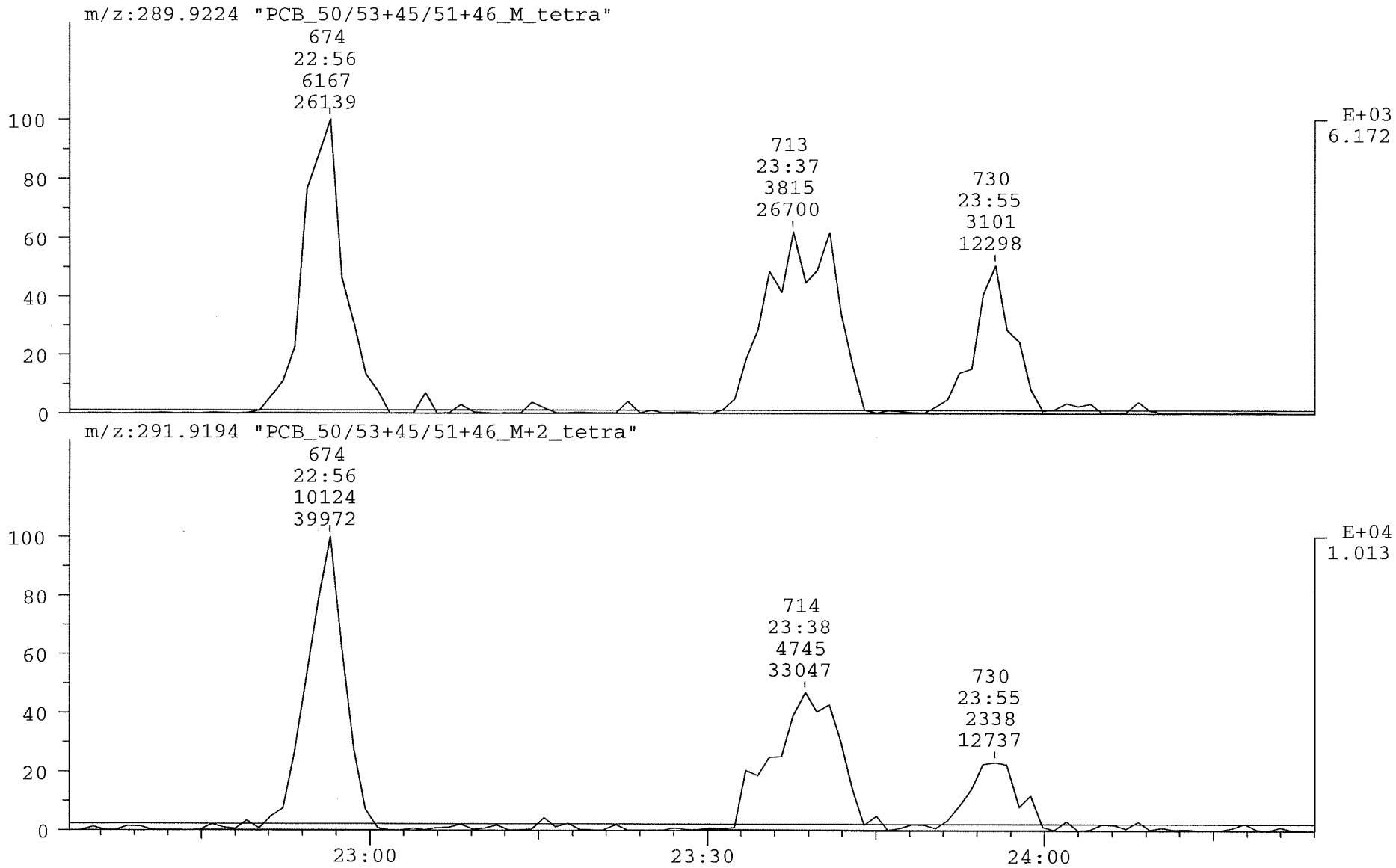
CHRO: a080624i6 24-Jun-08 Elapse: 20:45.0 554
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 534 > 574 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1389

1388

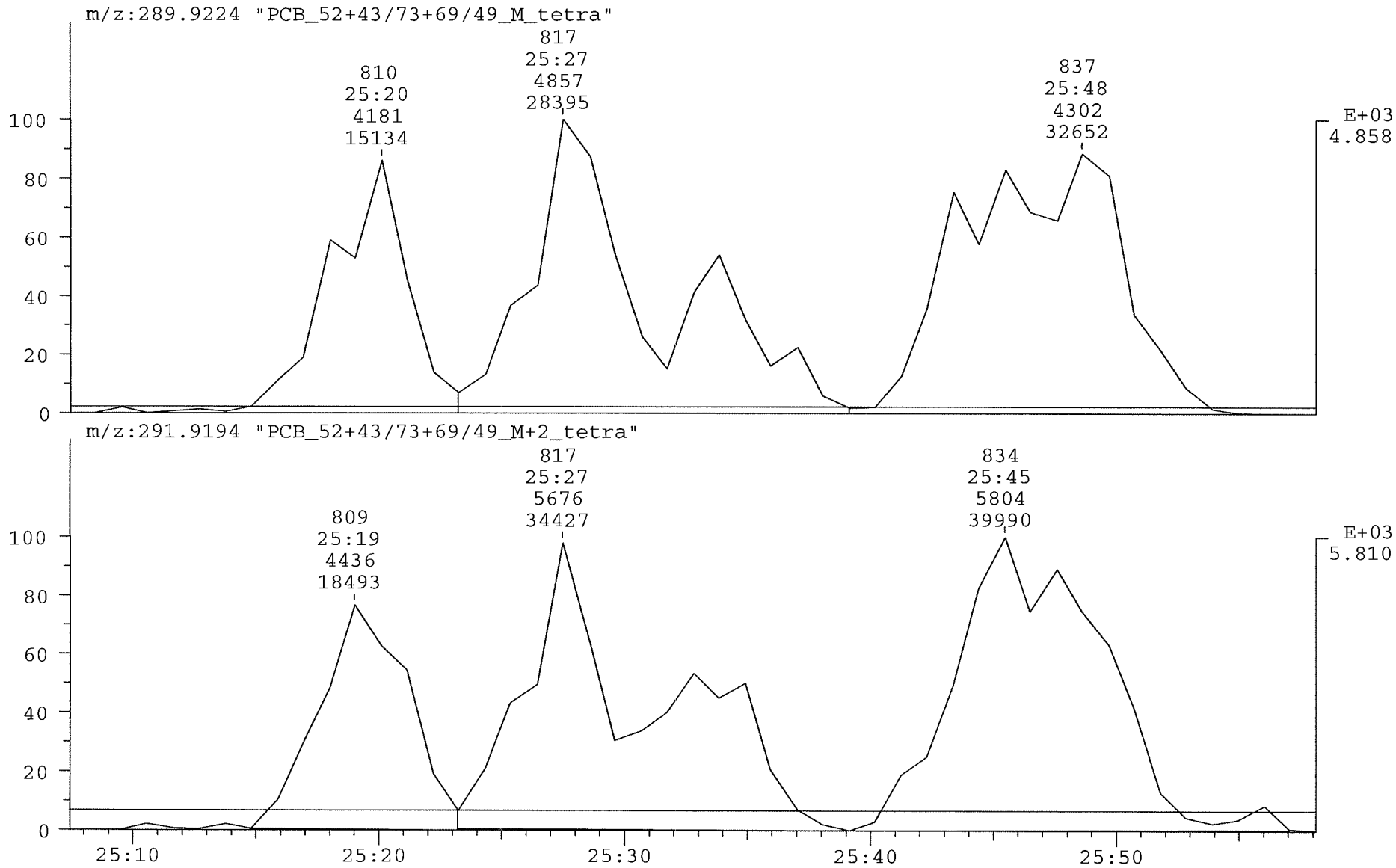
CHRO: a080624i6 24-Jun-08 Elapse: 23:31.2 707
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 652 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1390

1389

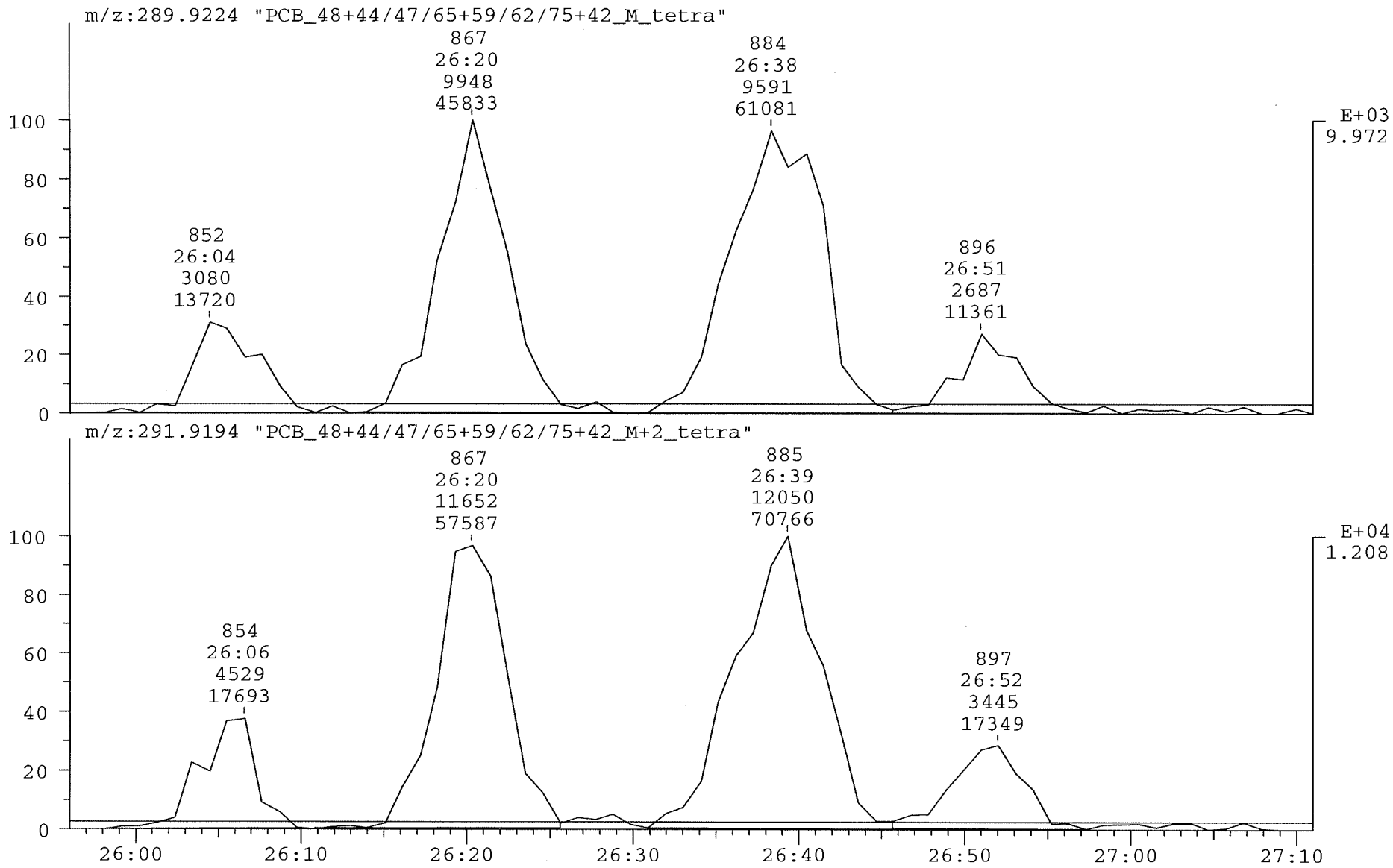
CHRO: a080624i6 24-Jun-08 Elapse: 25:37.0 826
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 798 > 846 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1391

1390

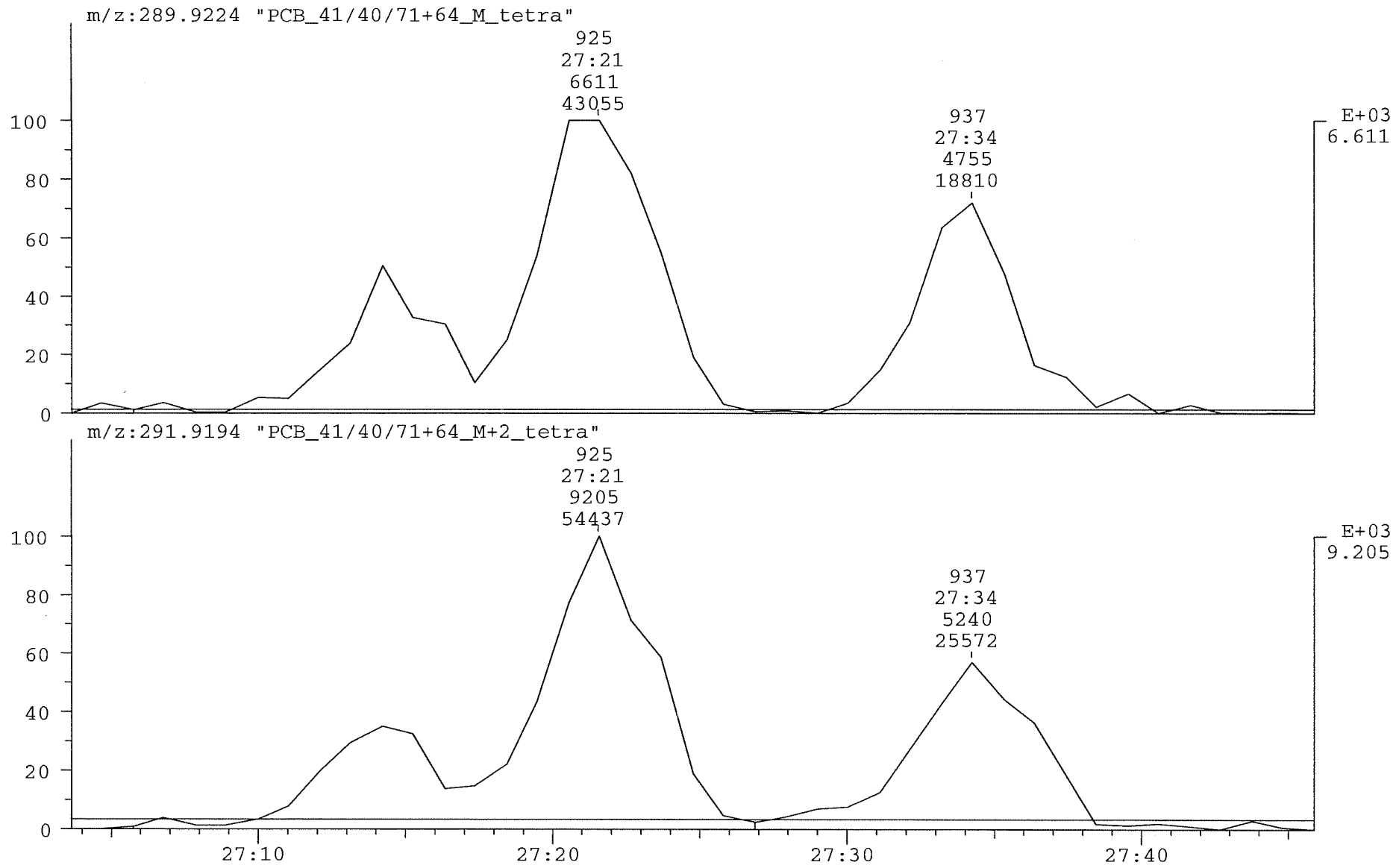
CHRO: a080624i6 24-Jun-08 Elapse: 26:29.8 876
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 844 > 915 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1392

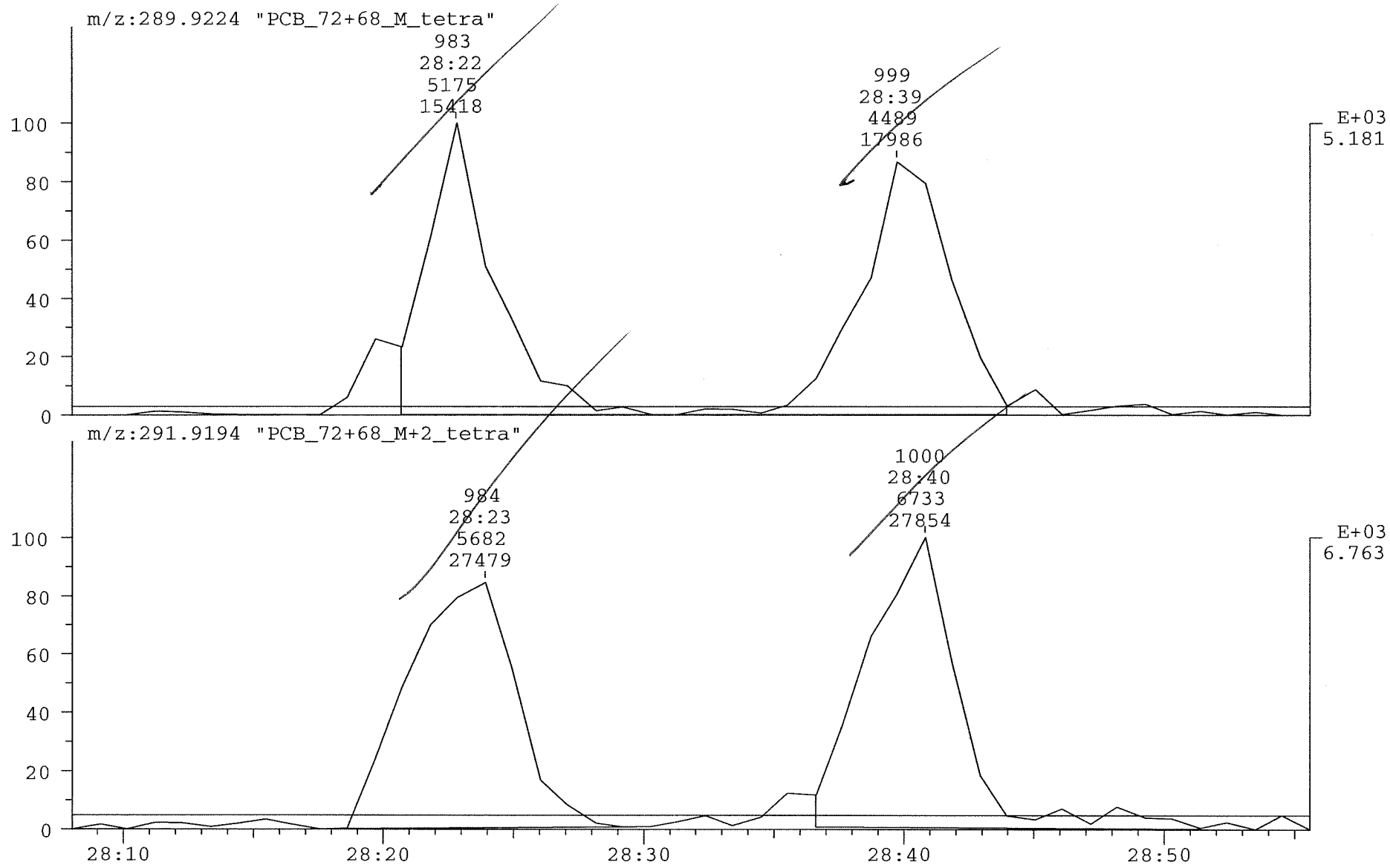
1391

CHRO: a080624i6 24-Jun-08 Elapse: 27:30.9 933
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 908 > 948 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



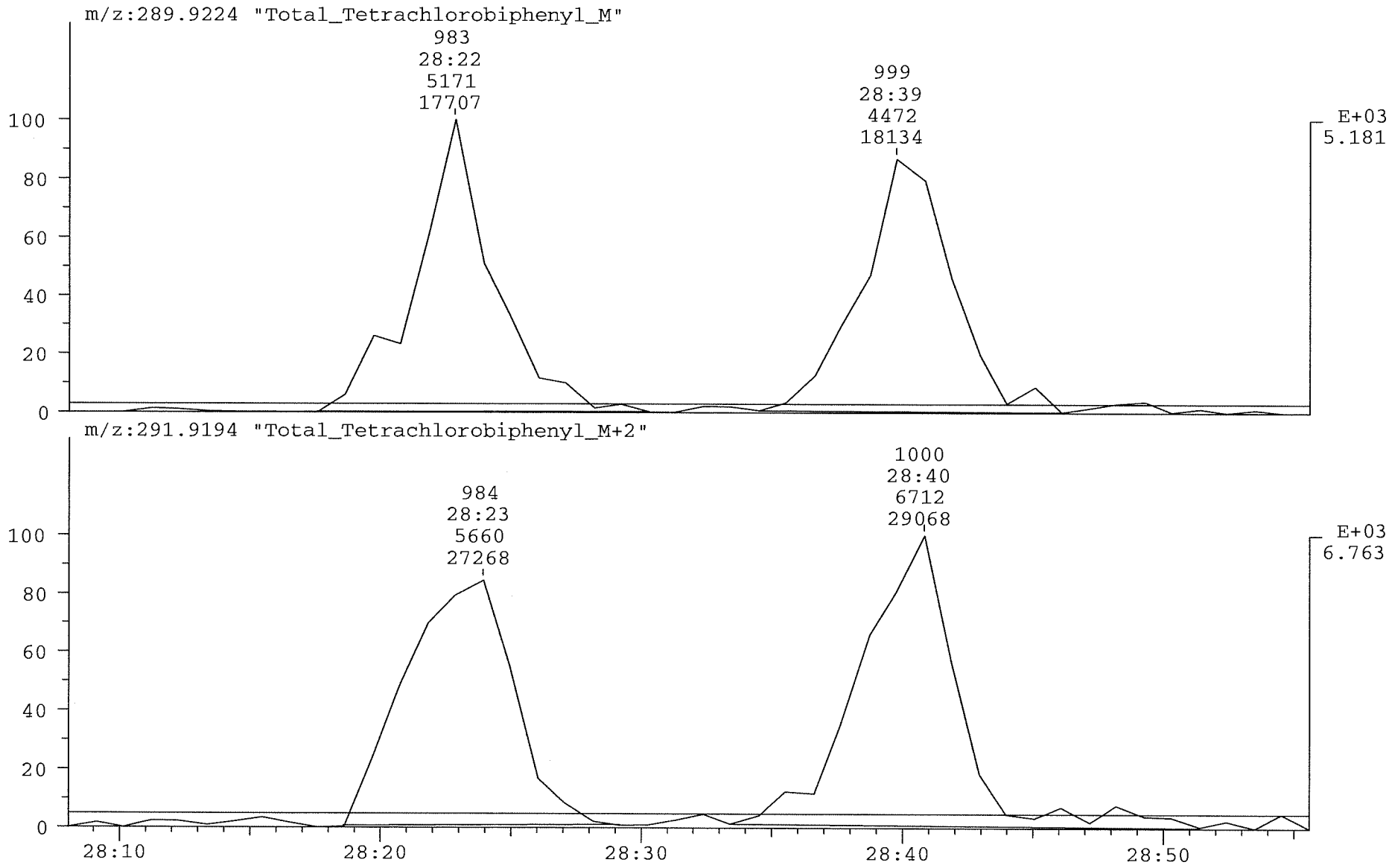
H-1393

CHRO: a080624i6 24-Jun-08 Elapse: 28:34.5 994
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 969 > 1014 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1394

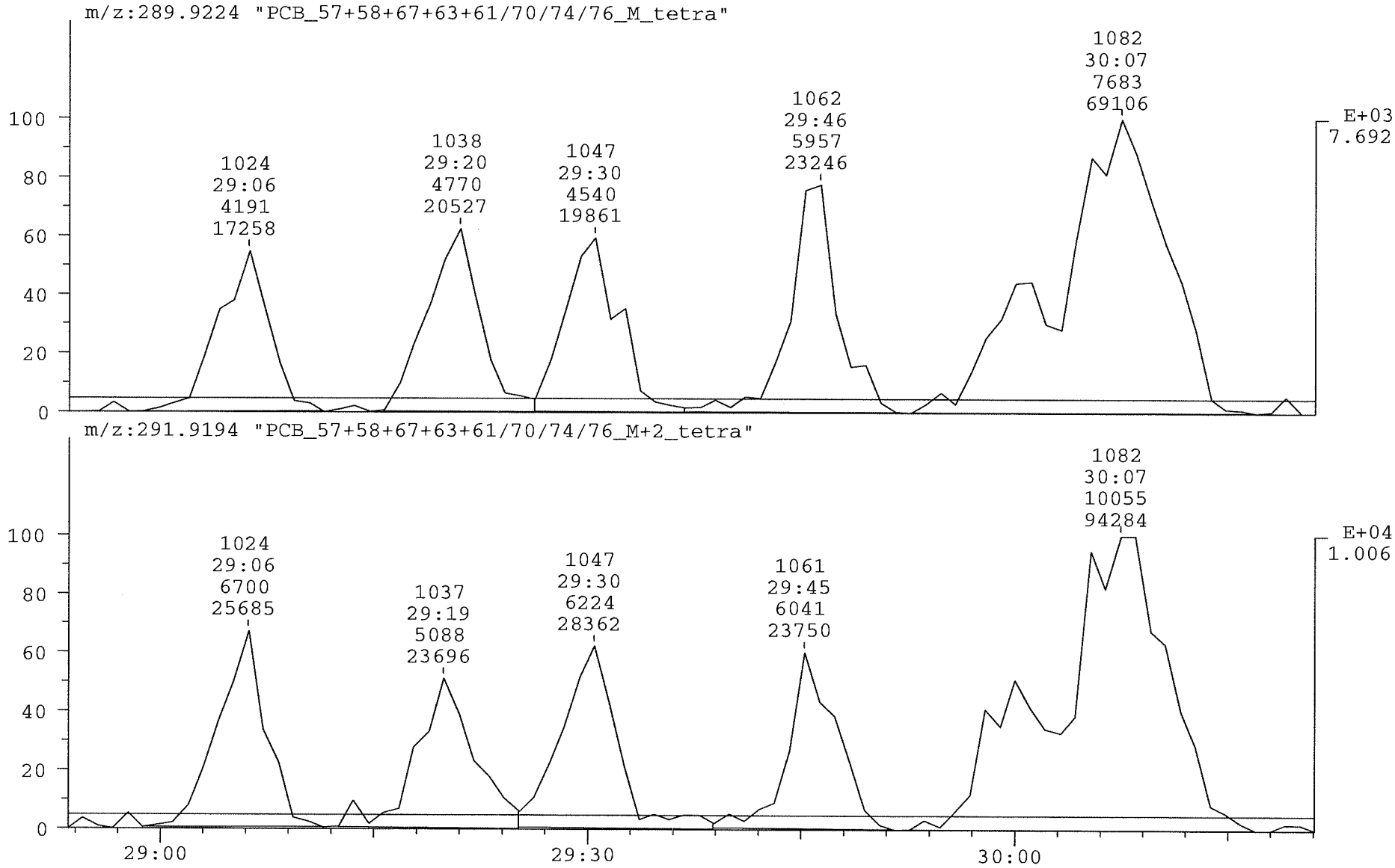
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 969 > 1014 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1395

1394

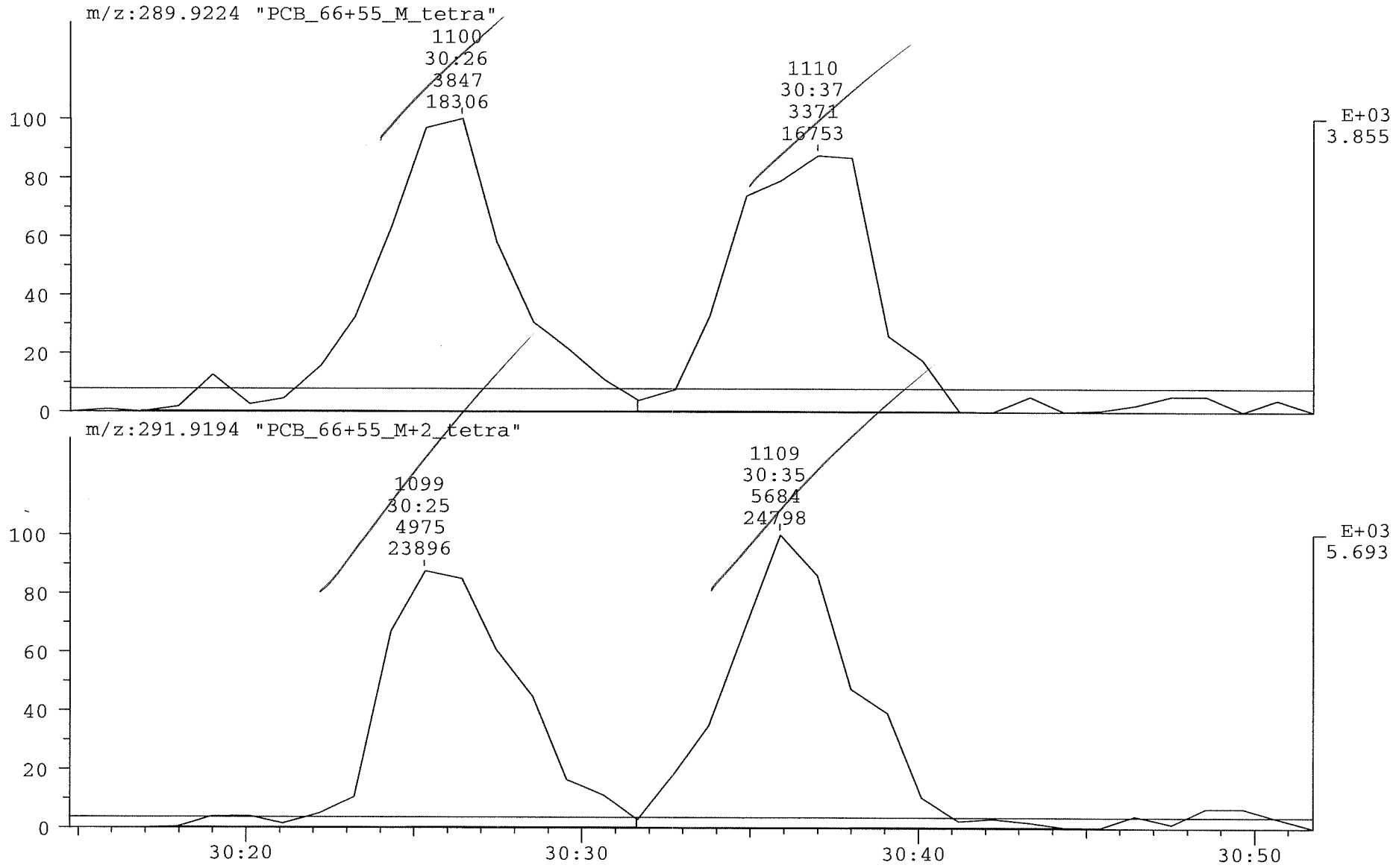
CHRO: a080624i6 24-Jun-08 Elapse: 29:38 1055
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1012 > 1095 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1396

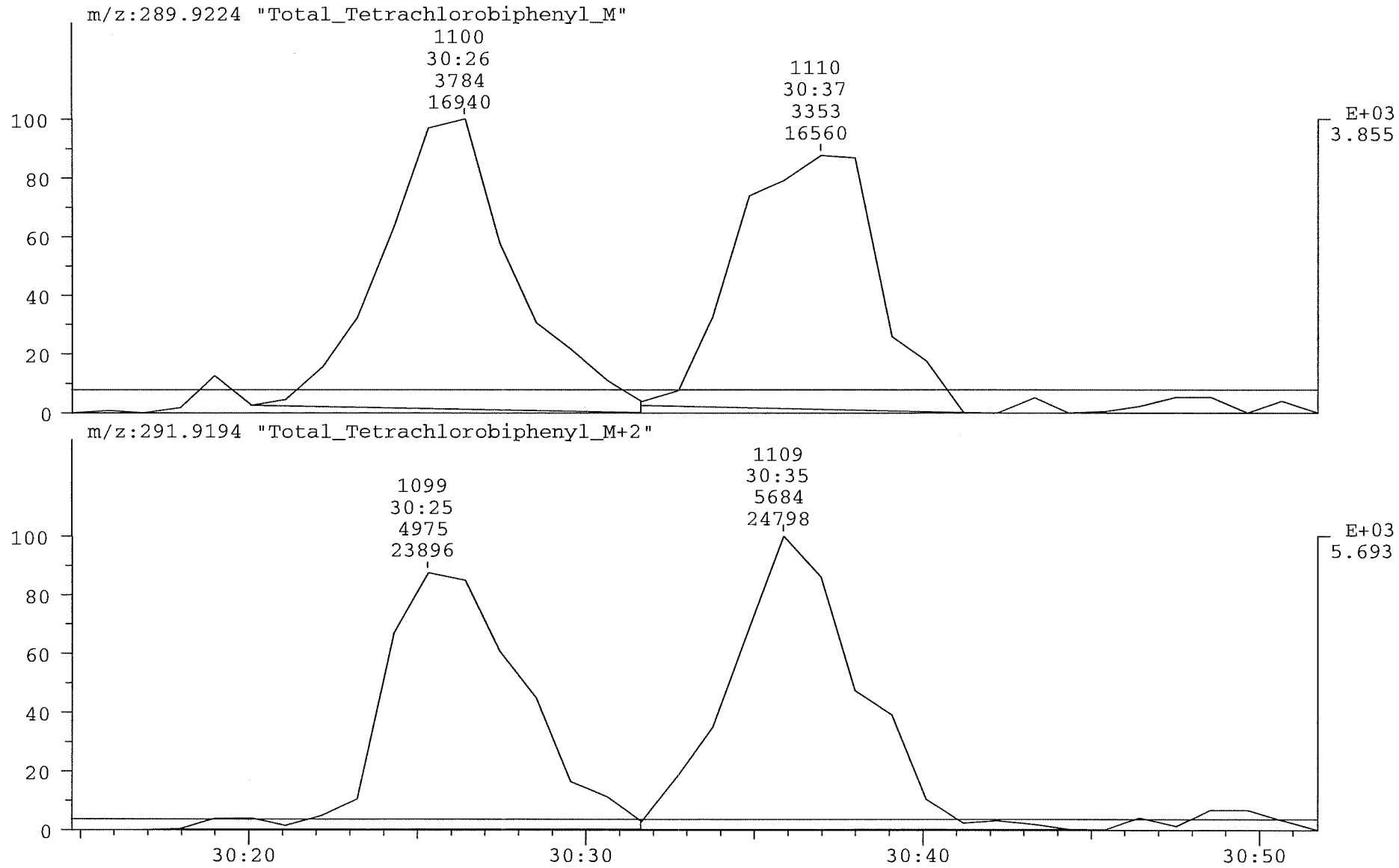
1395

CHRO: a080624i6 24-Jun-08 Elapse: 30:33 1107
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1089 > 1124 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



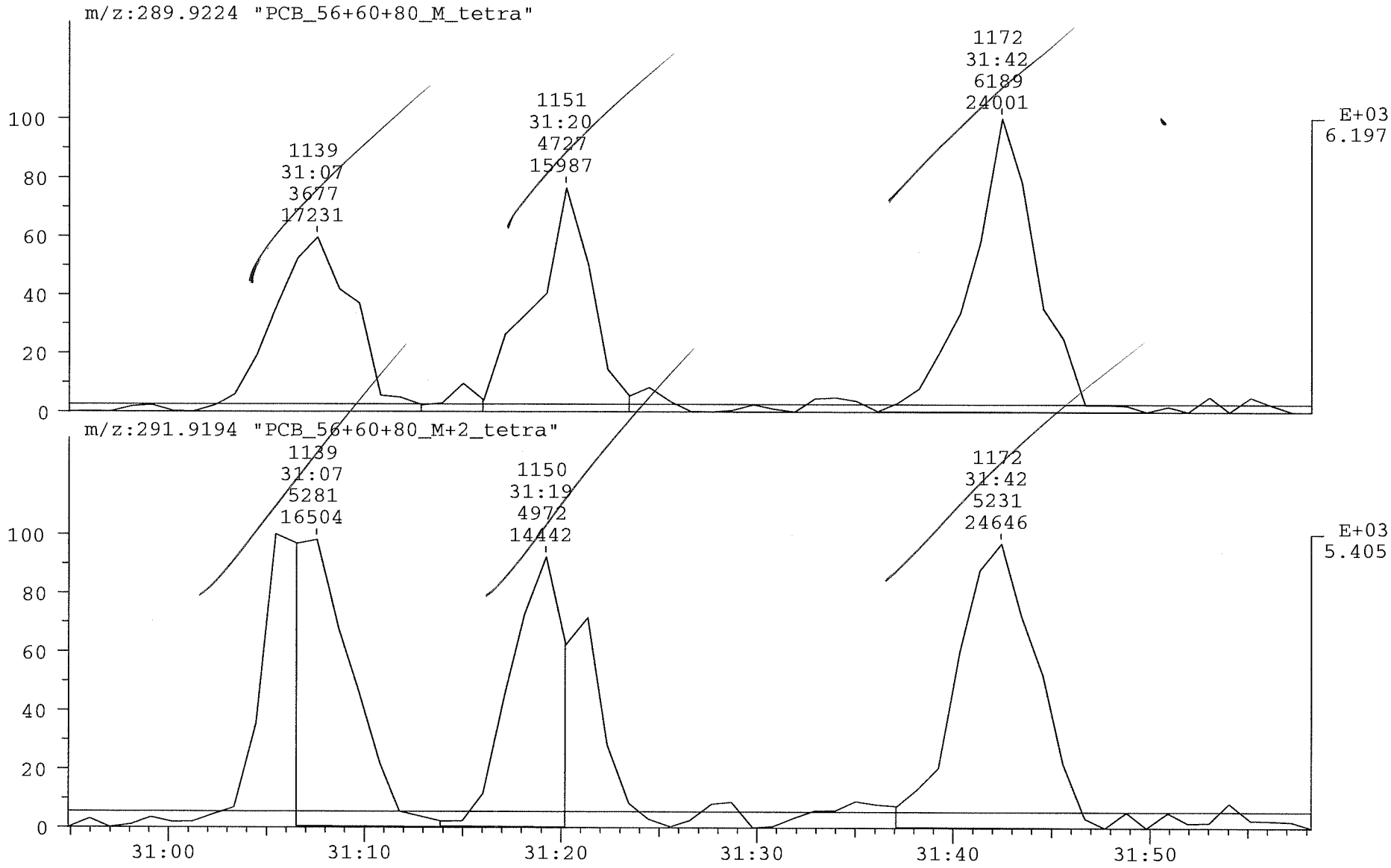
H-1397

CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1089 > 1124 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1398

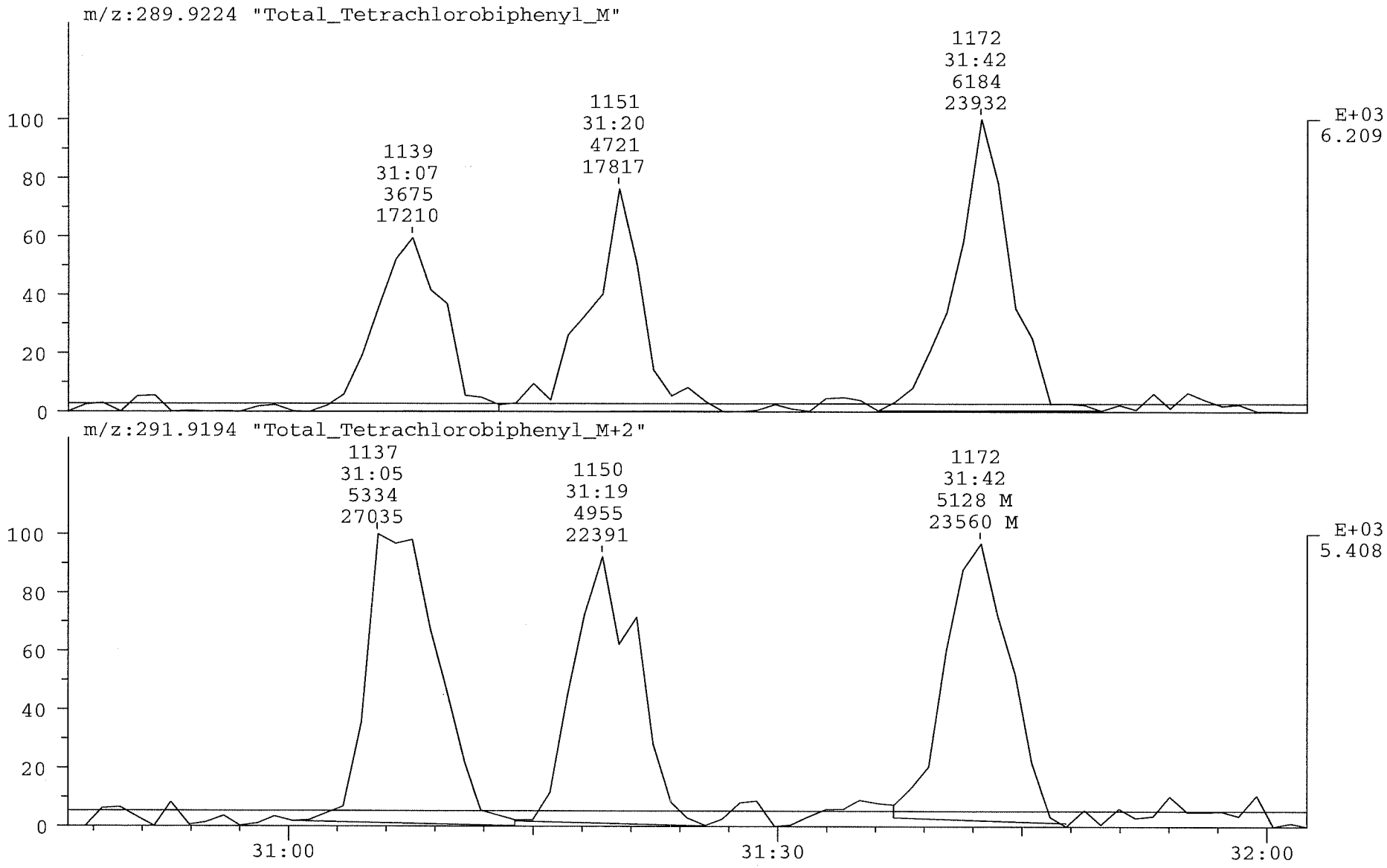
CHRO: a080624i6 24-Jun-08 Elapse: 31:26 1157
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1127 > 1187 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1399

1398

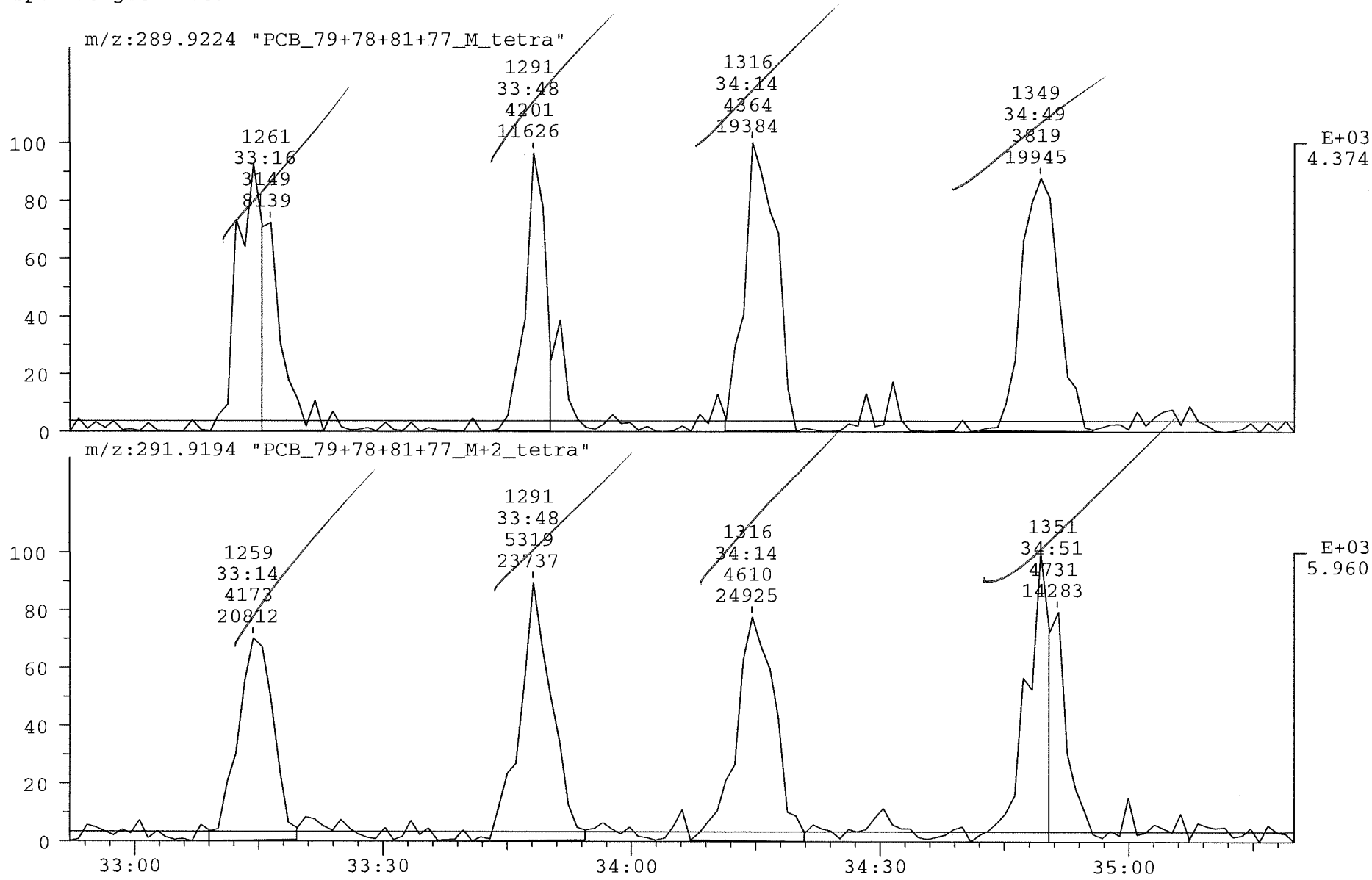
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1119 > 1191 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1400

1399

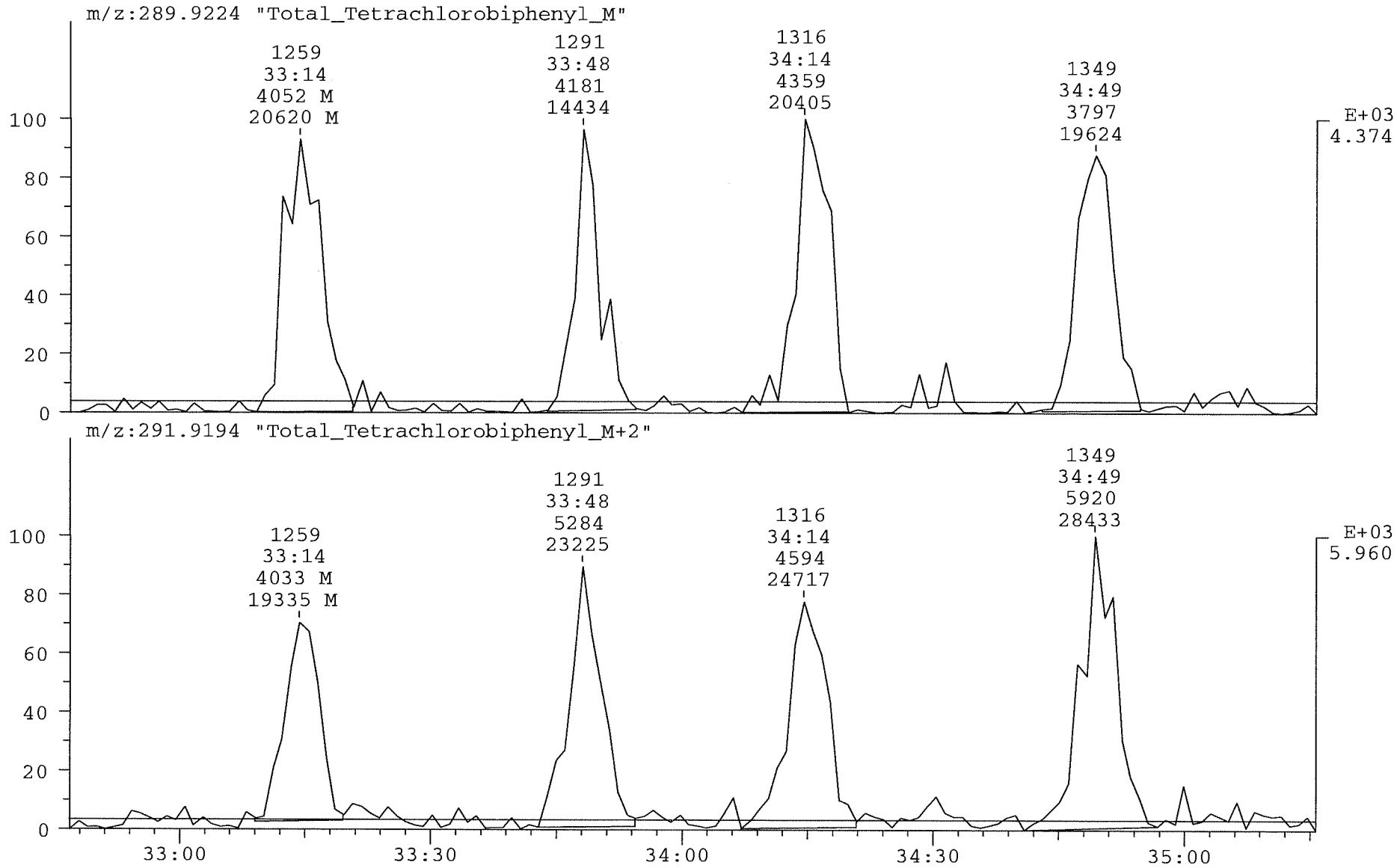
CHRO: a080624i6 24-Jun-08 Elapse: 34:00 1303
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1238 > 1378 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1401

1400

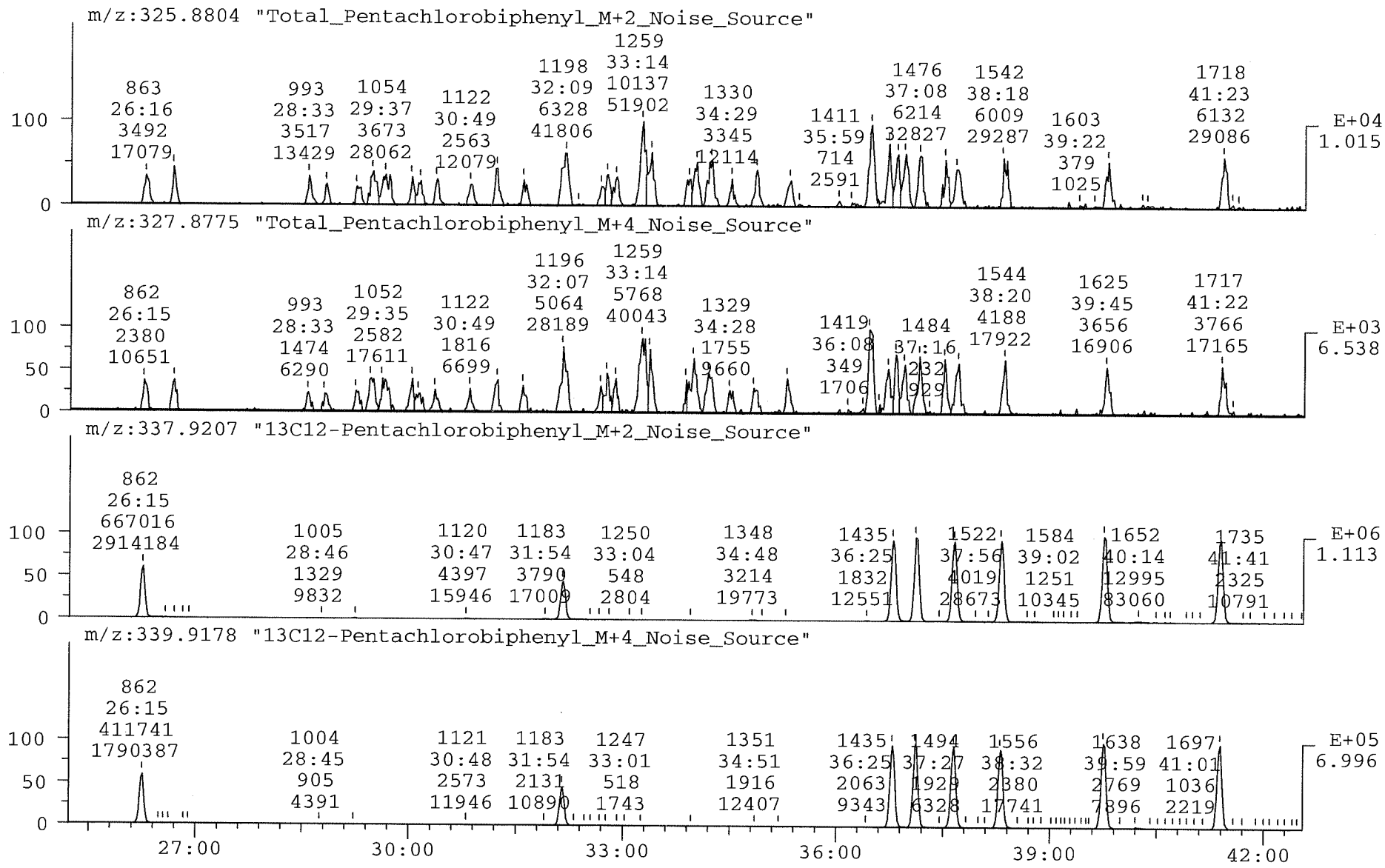
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1233 > 1374 Masses: 181 > 510
Area: 5, 1.20, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



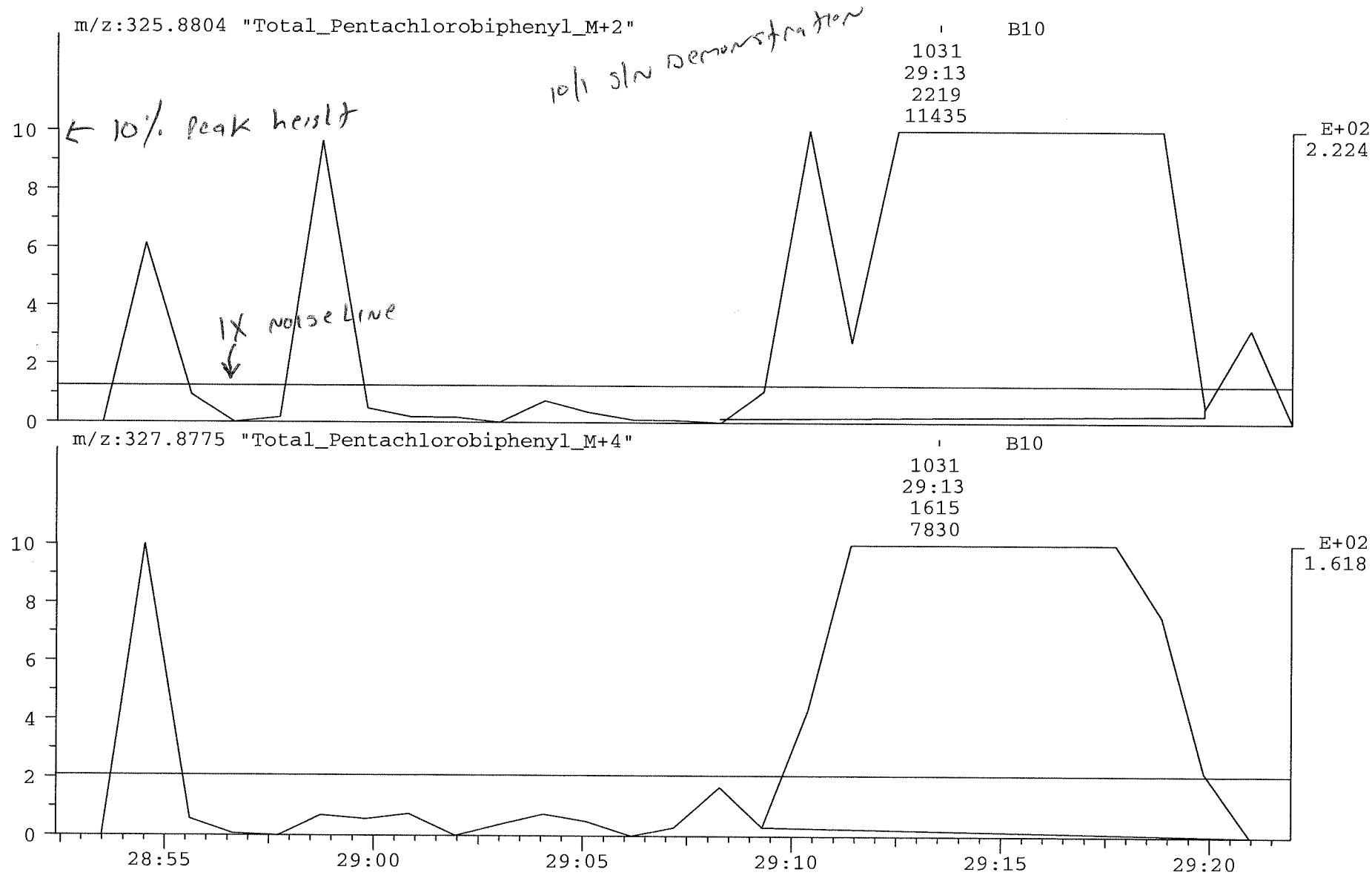
H-1402

1401

CHRO: a080624i6 24-Jun-08 Elapse: 33:53 1296
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 803 > 1783 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area

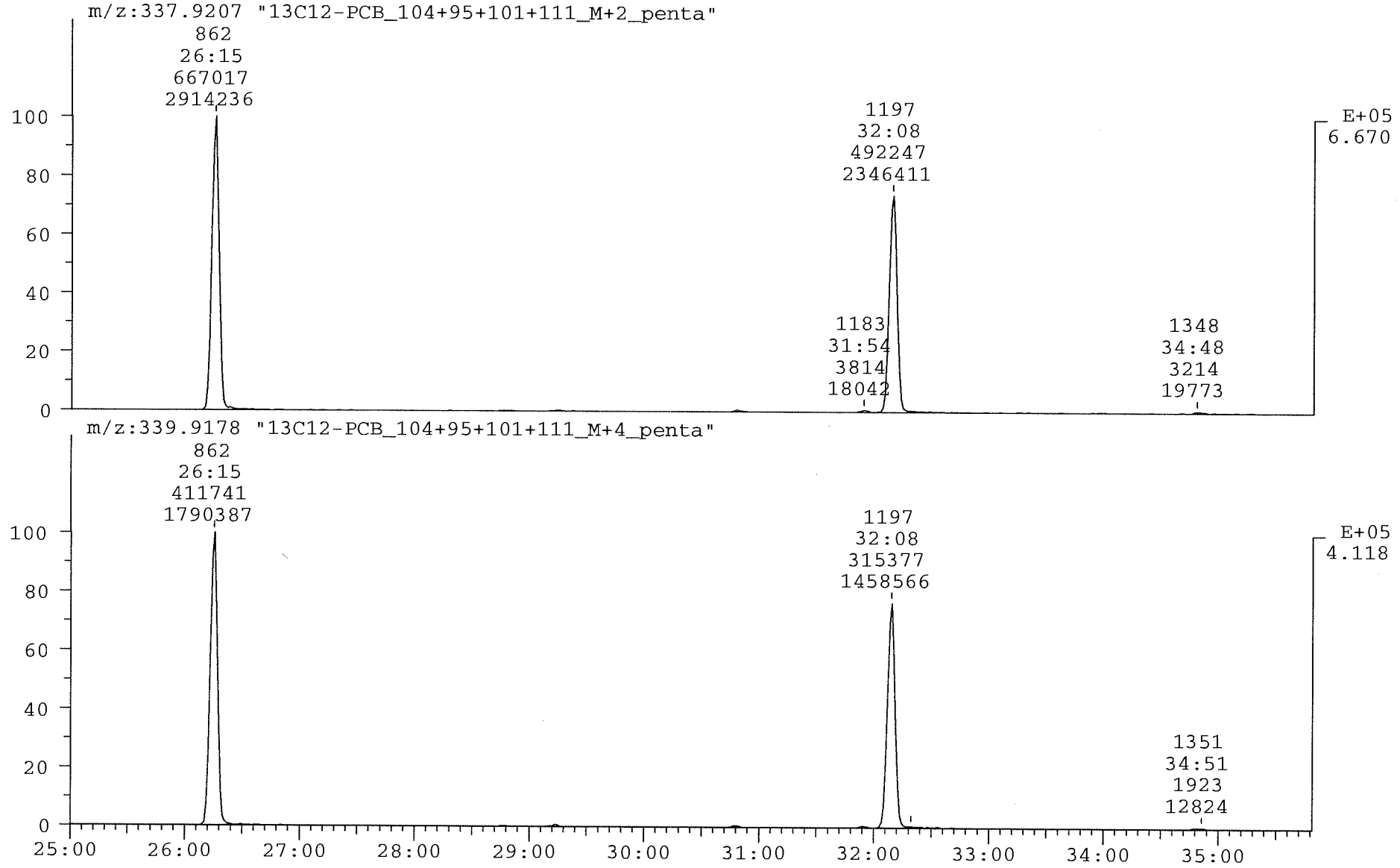


CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1011 > 1039 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-1404

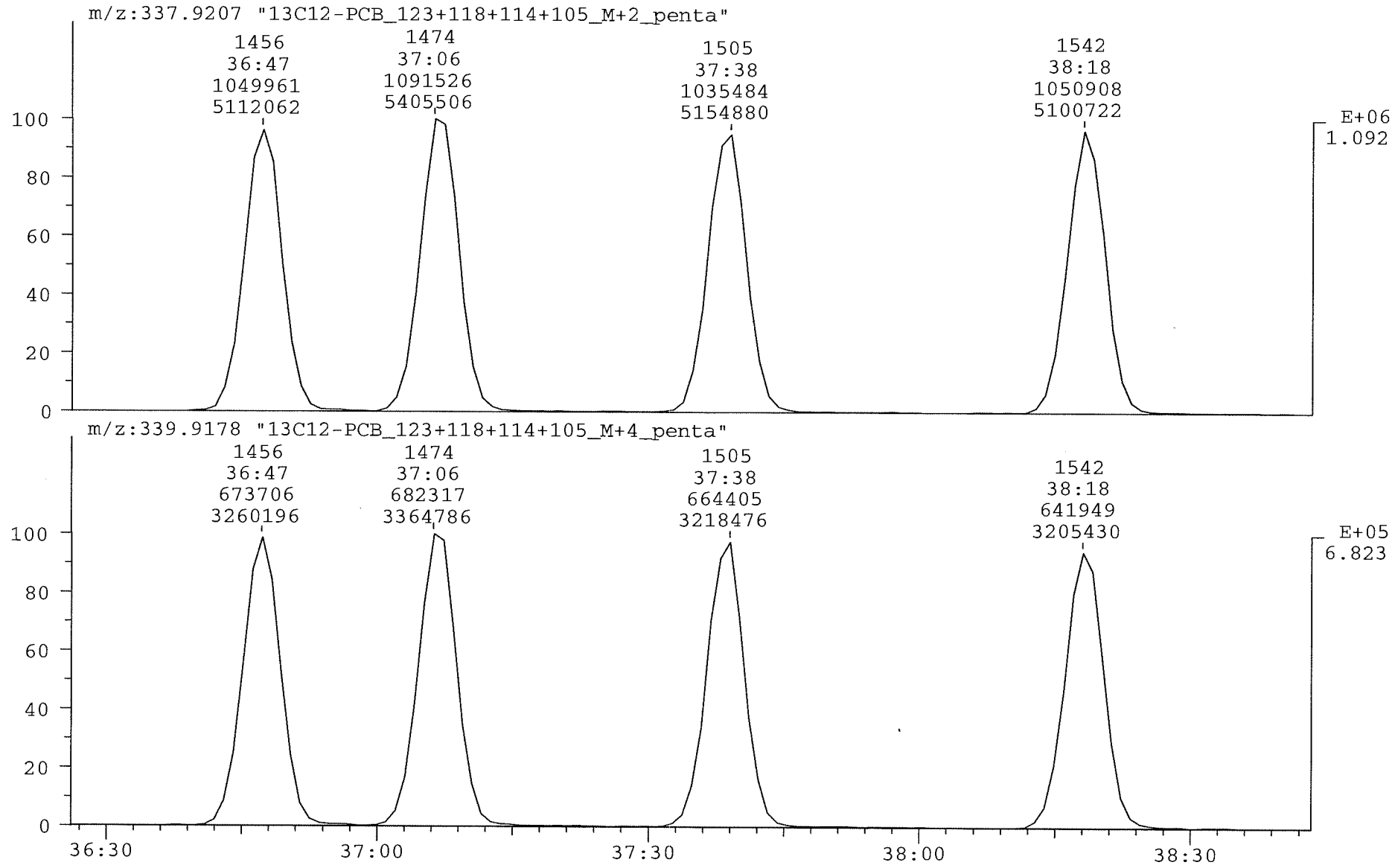
CHRO: a080624i6 24-Jun-08 Elapse: 30:24 1098
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 791 > 1406 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1405

1404

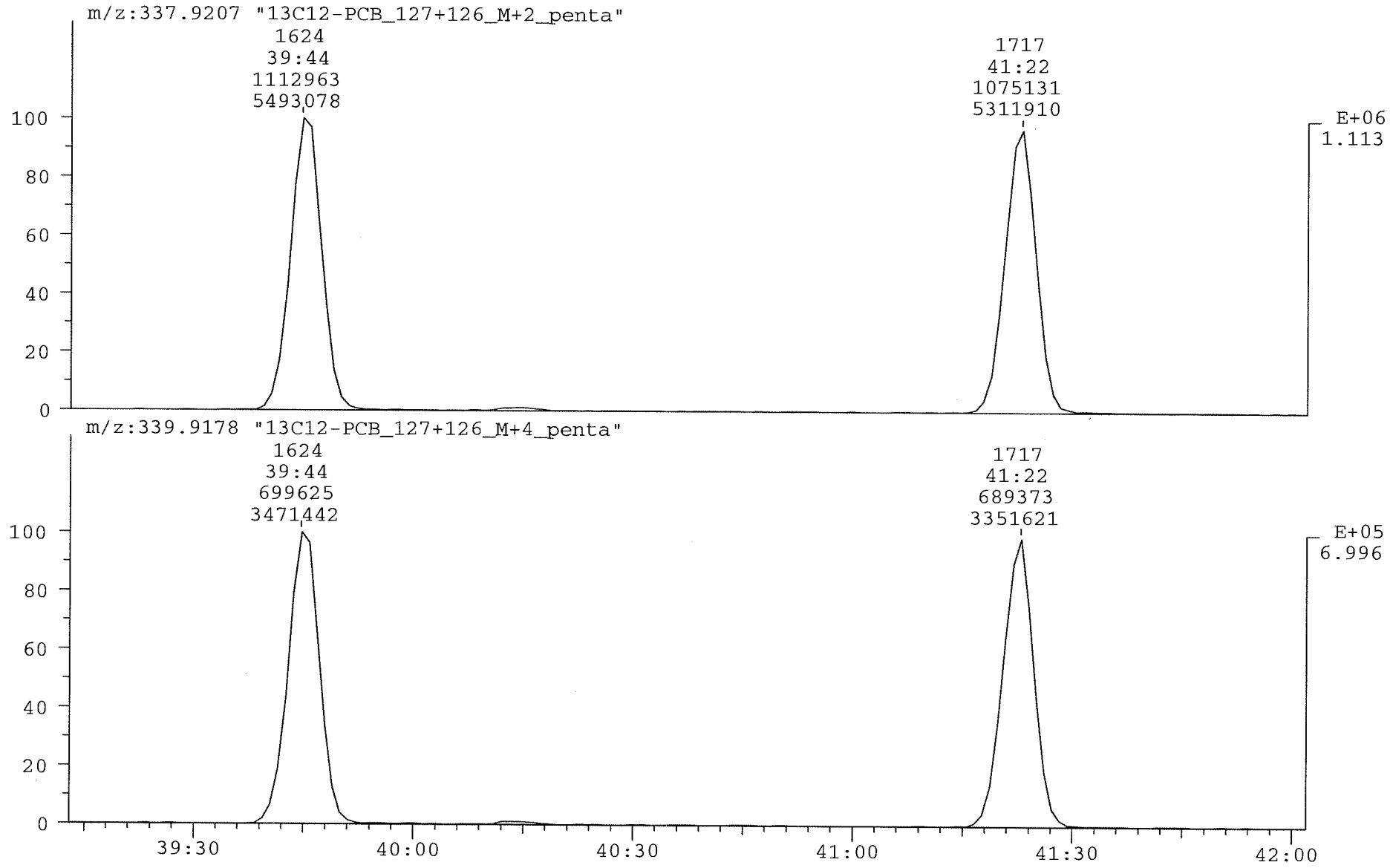
CHRO: a080624i6 24-Jun-08 Elapse: 37:34 1501
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1436 > 1566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1406

1405

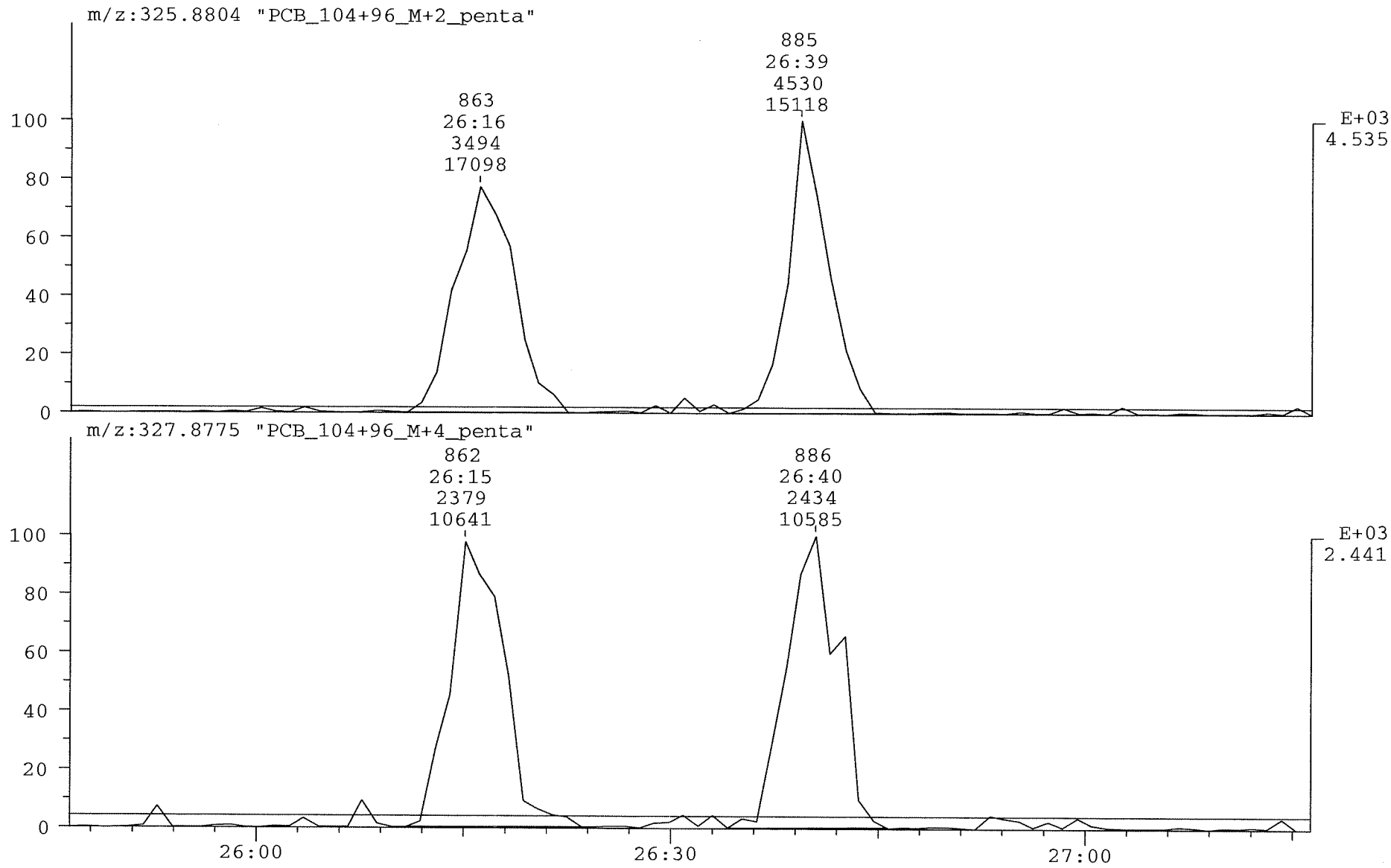
CHRO: a080624i6 24-Jun-08 Elapse: 40:37 1674
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1594 > 1754 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1407

1406

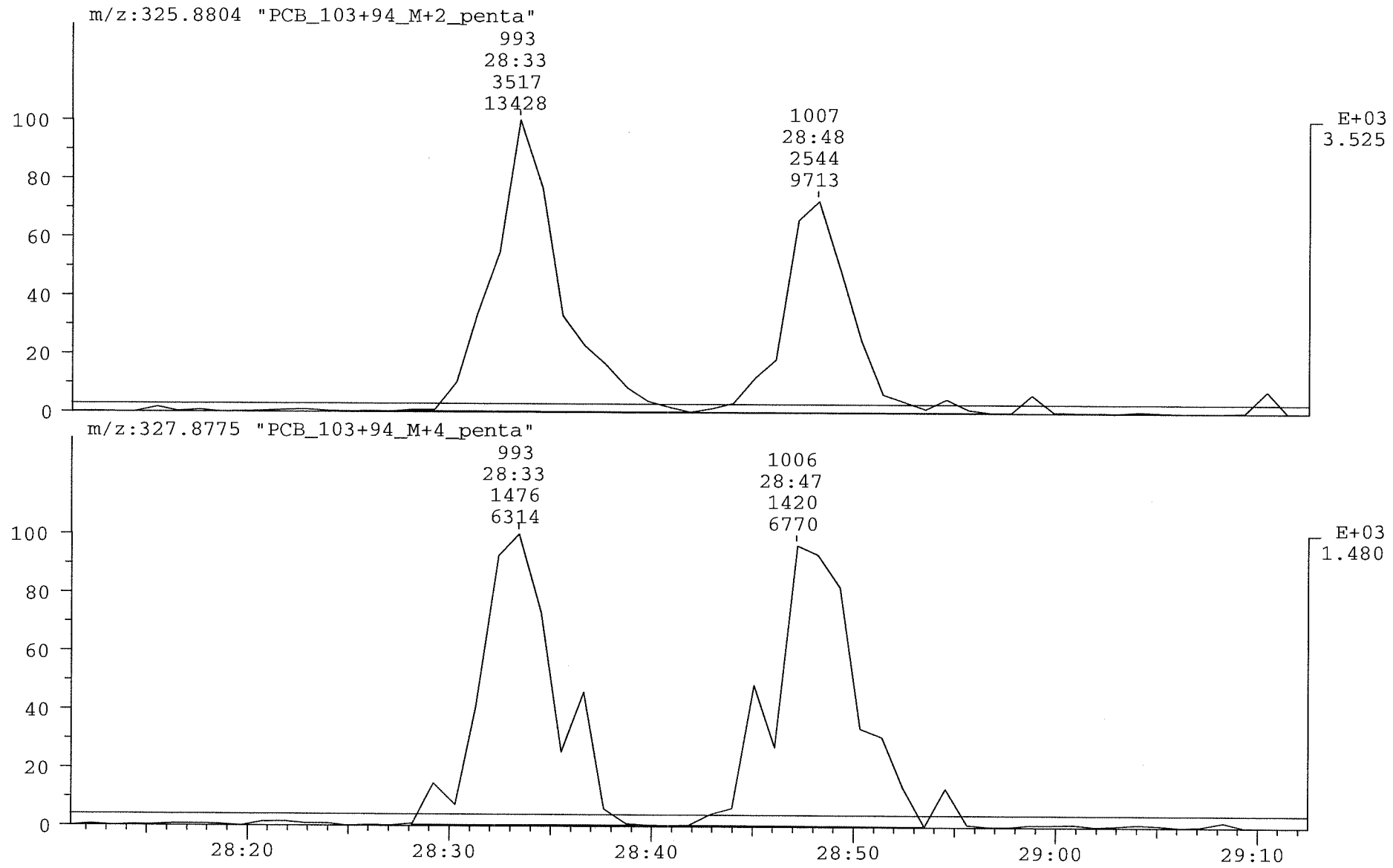
CHRO: a080624i6 24-Jun-08 Elapse: 26:28.7 875
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 835 > 920 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1408

1407

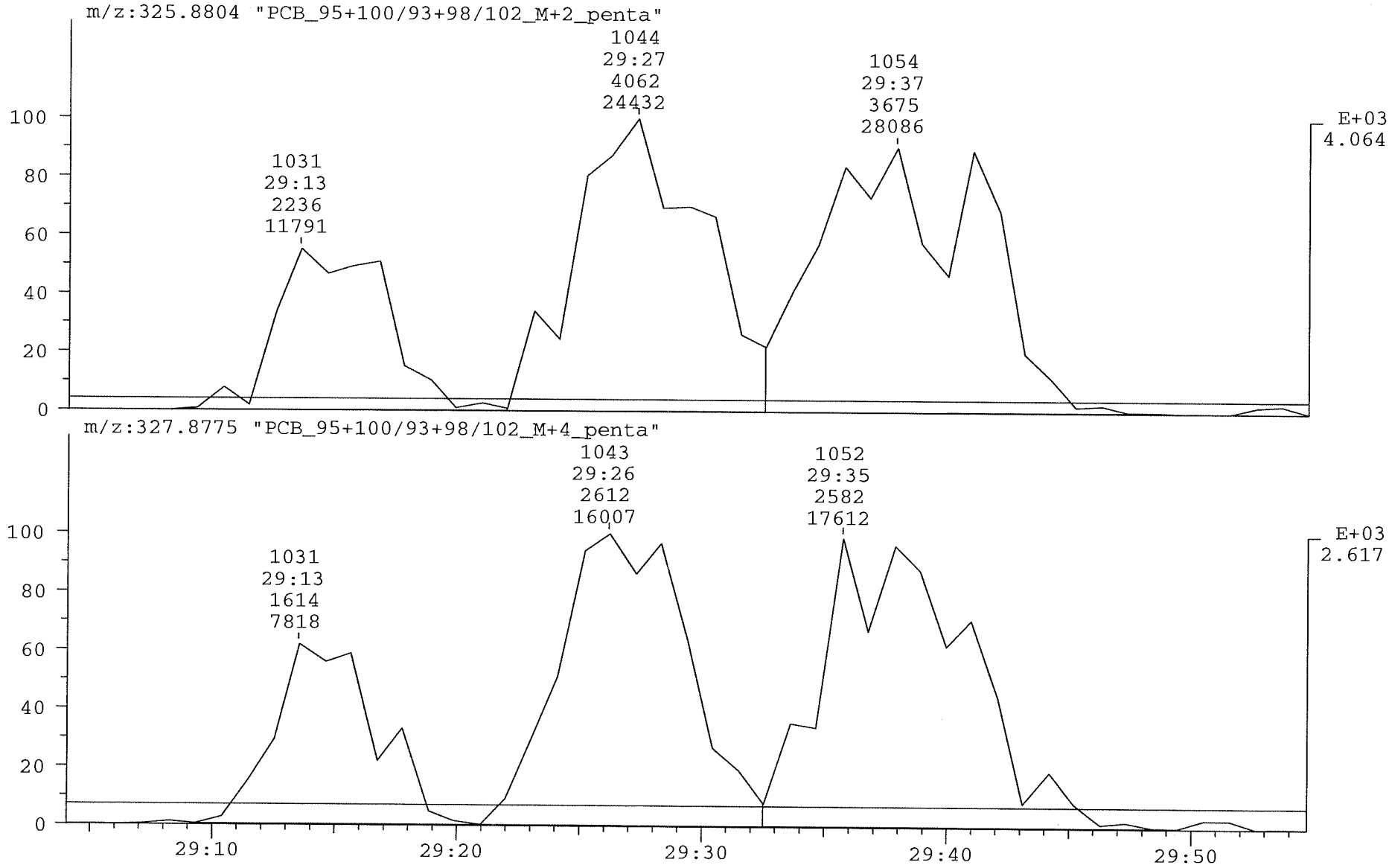
CHRO: a080624i6 24-Jun-08 Elapse: 28:42 1002
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 972 > 1030 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1409

1408

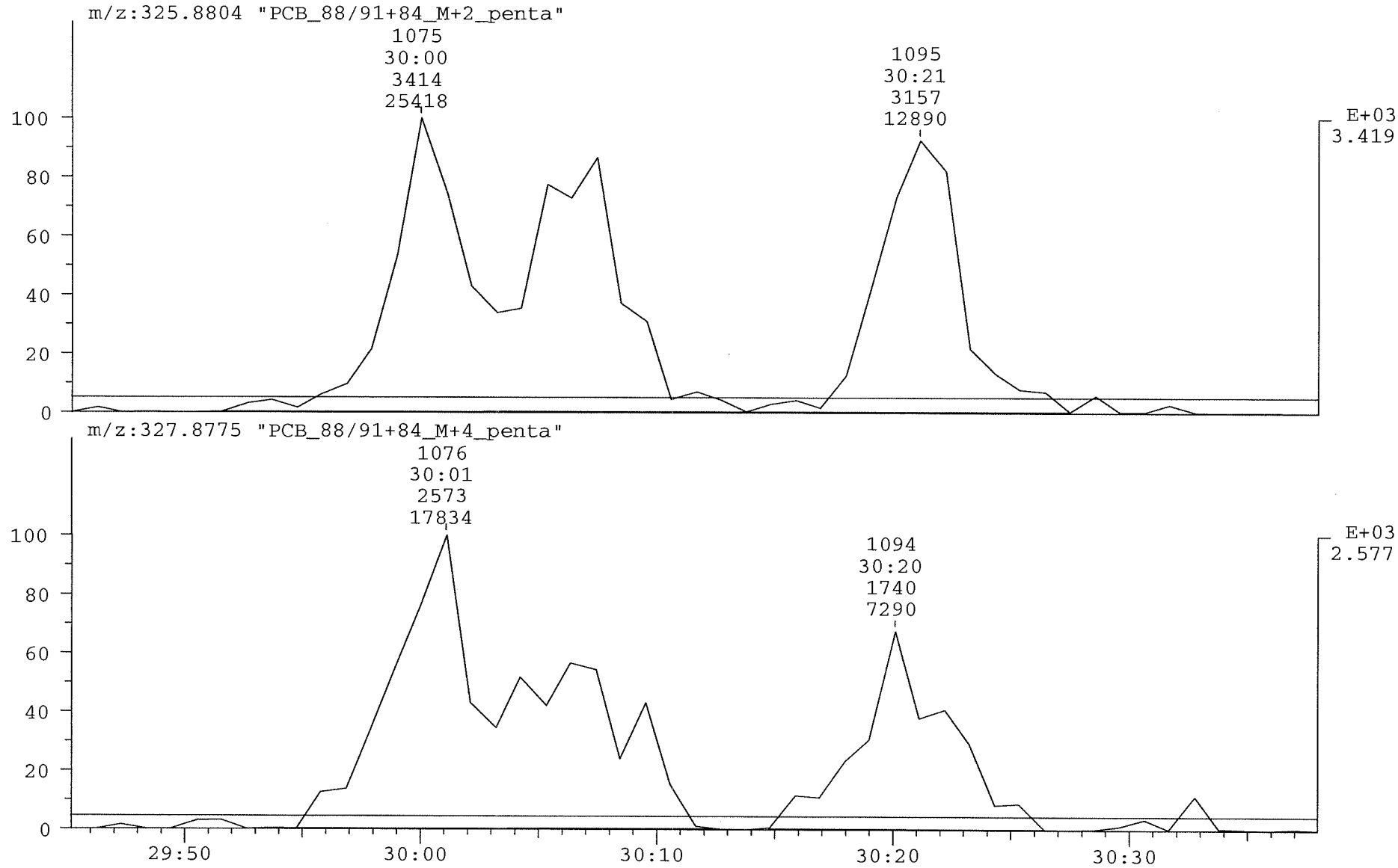
CHRO: a080624i6 24-Jun-08 Elapse: 29:28 1045
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1022 > 1070 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1410

1409

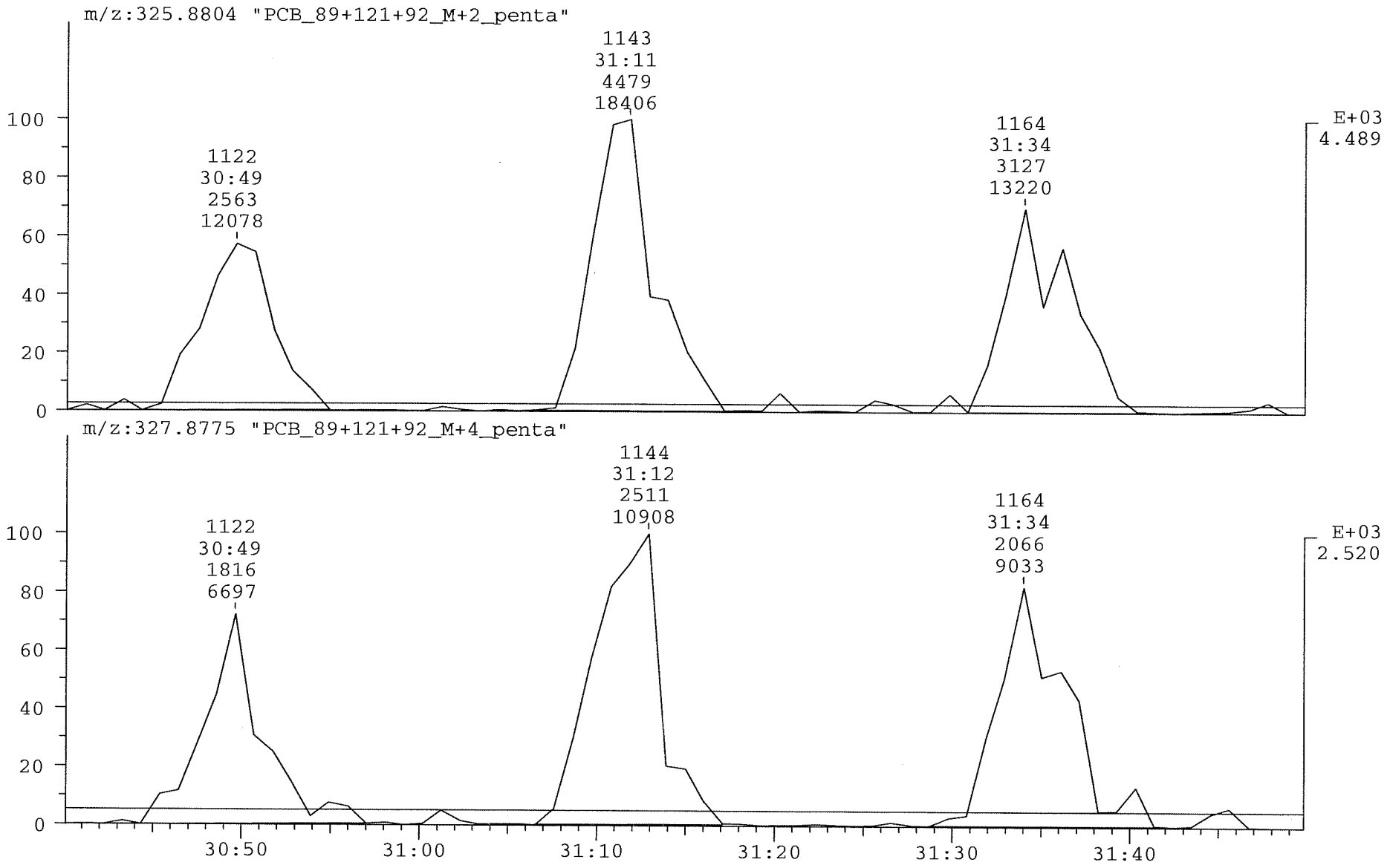
CHRO: a080624i6 24-Jun-08 Elapse: 30:12 1087
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1061 > 1111 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1411

1410

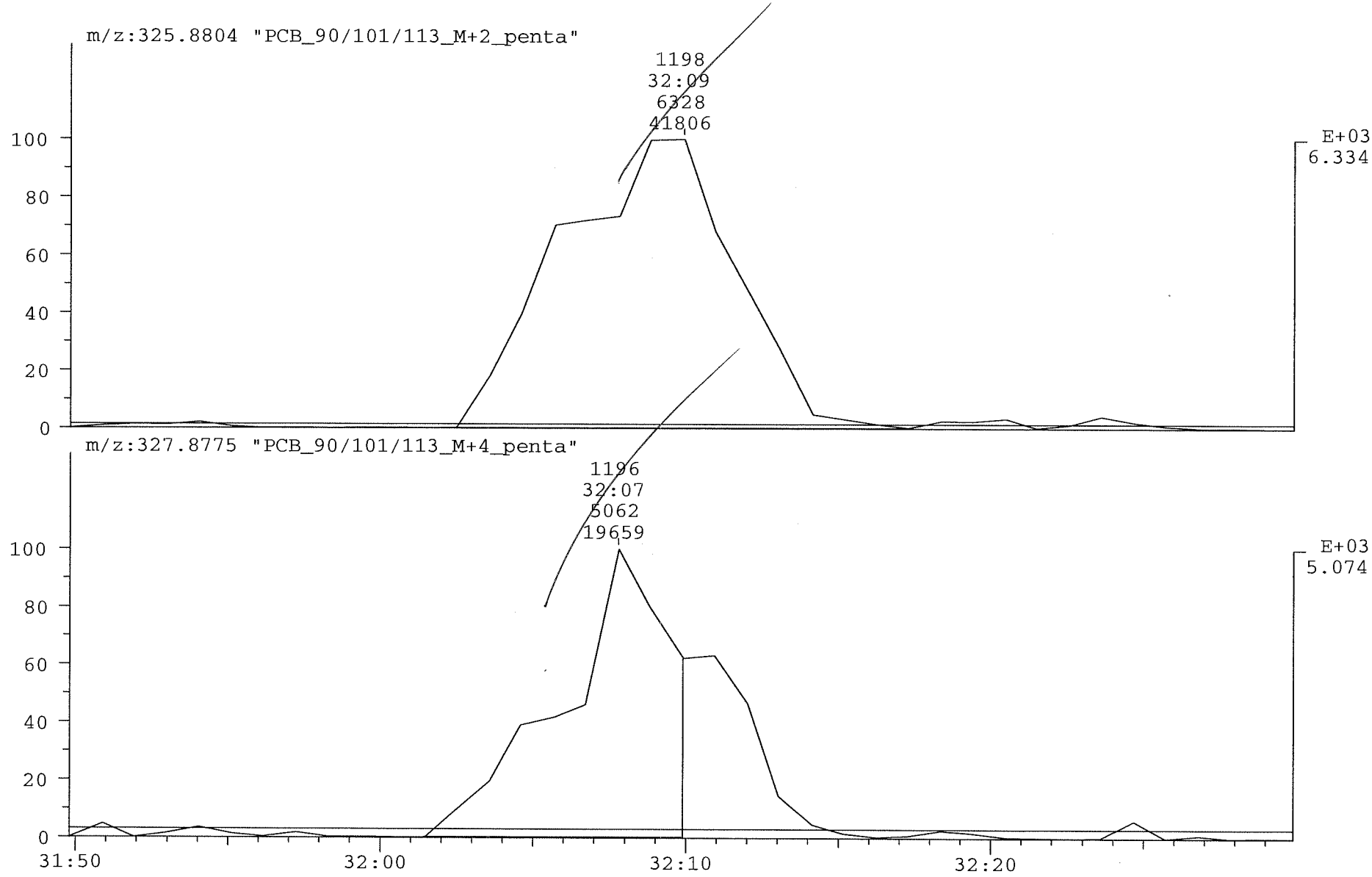
CHRO: a080624i6 24-Jun-08 Elapse: 31:15 1146
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1113 > 1179 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1412

1411

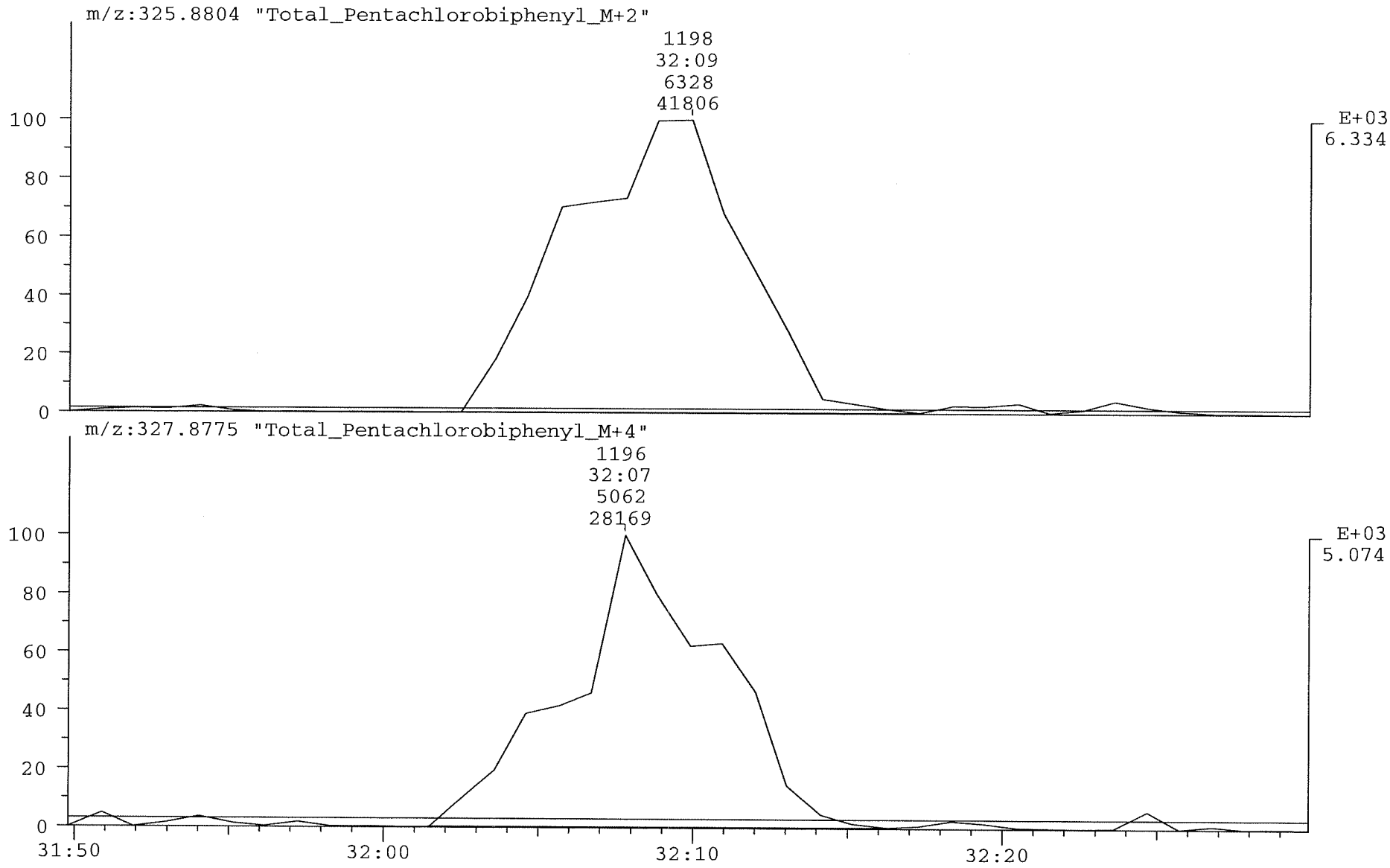
CHRO: a080624i6 24-Jun-08 Elapse: 32:08 1197
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1179 > 1217 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1413

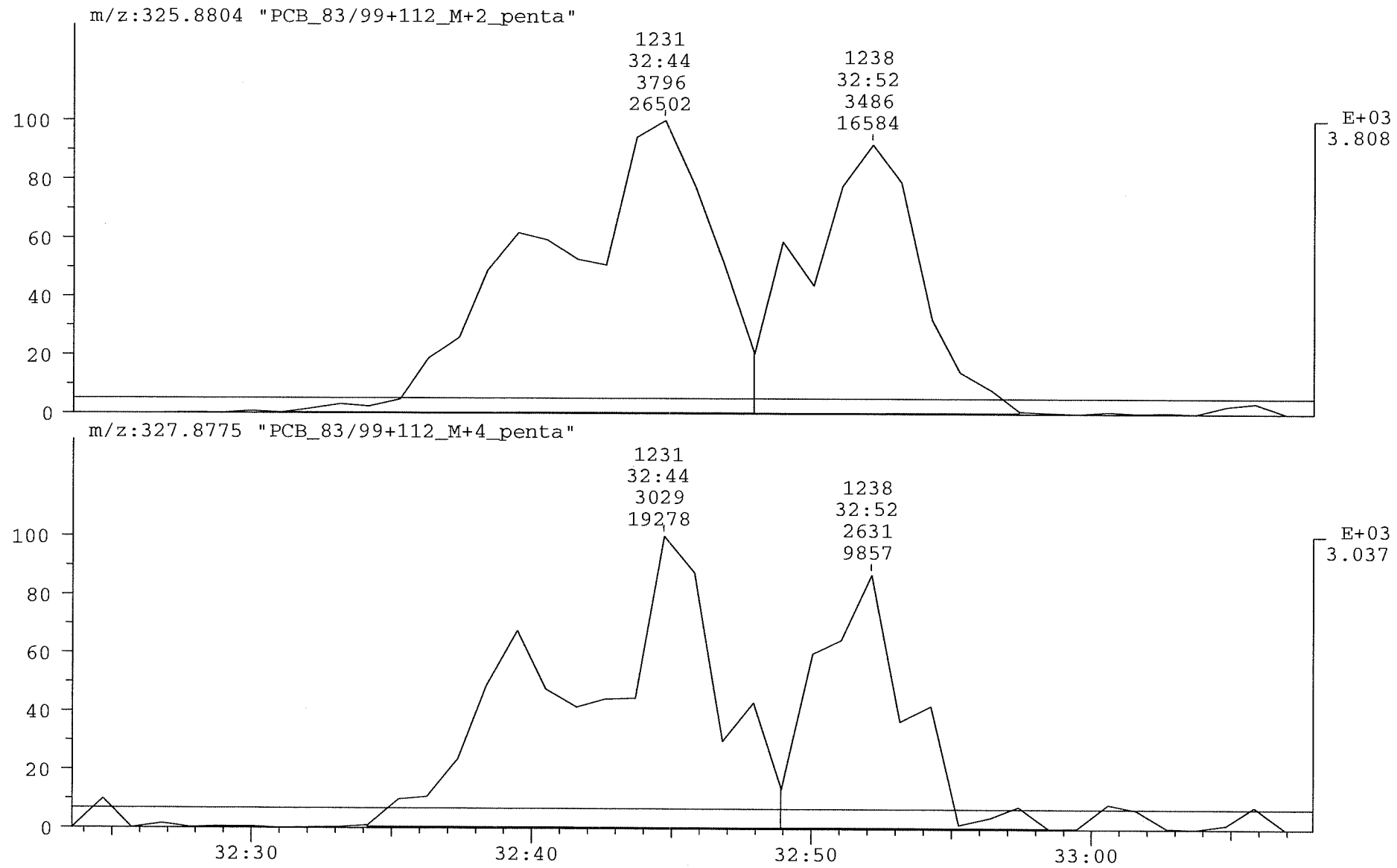
1412

CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1179 > 1217 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1414

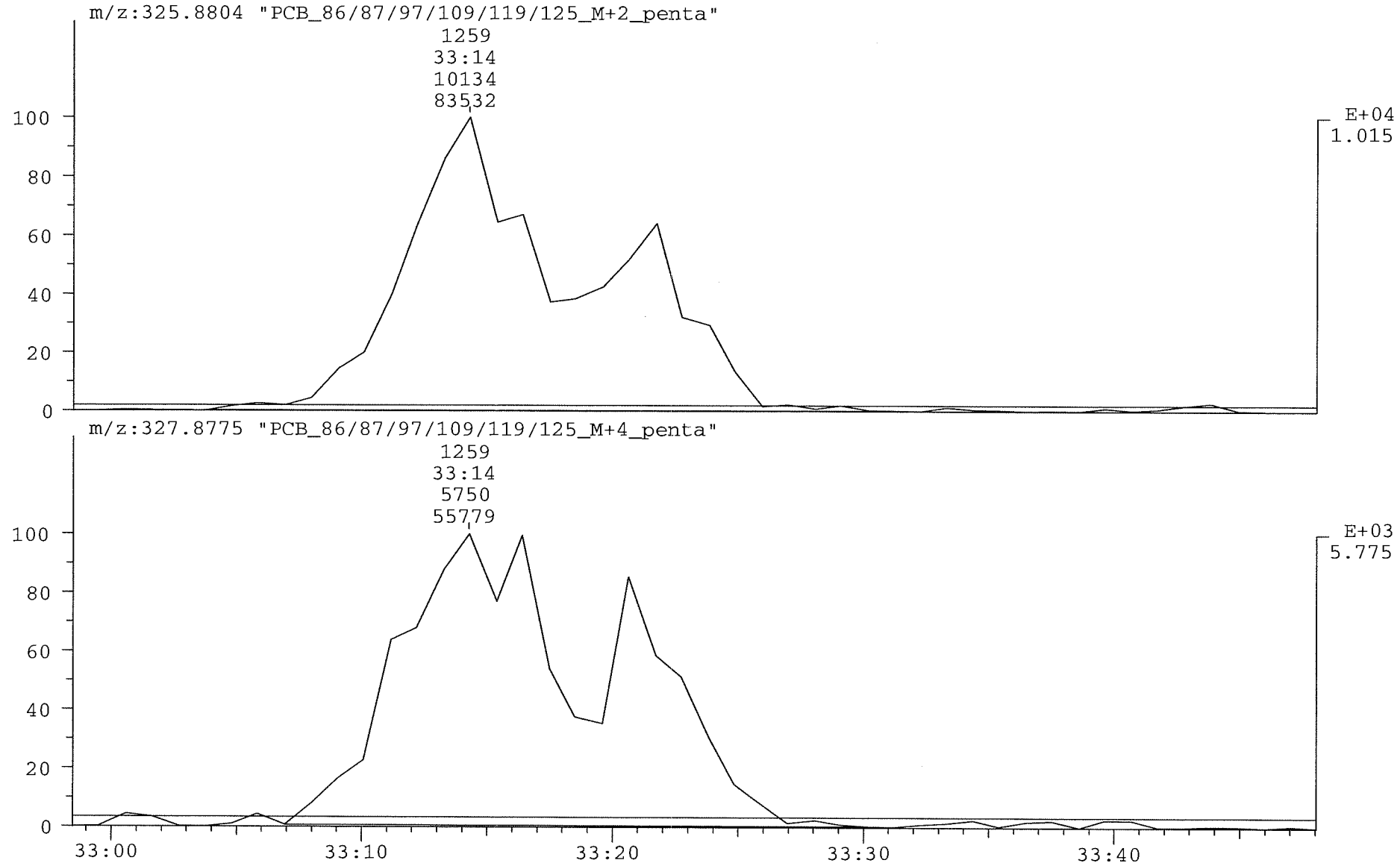
CHRO: a080624i6 24-Jun-08 Elapse: 32:52 1238
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1211 > 1253 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1415

1414

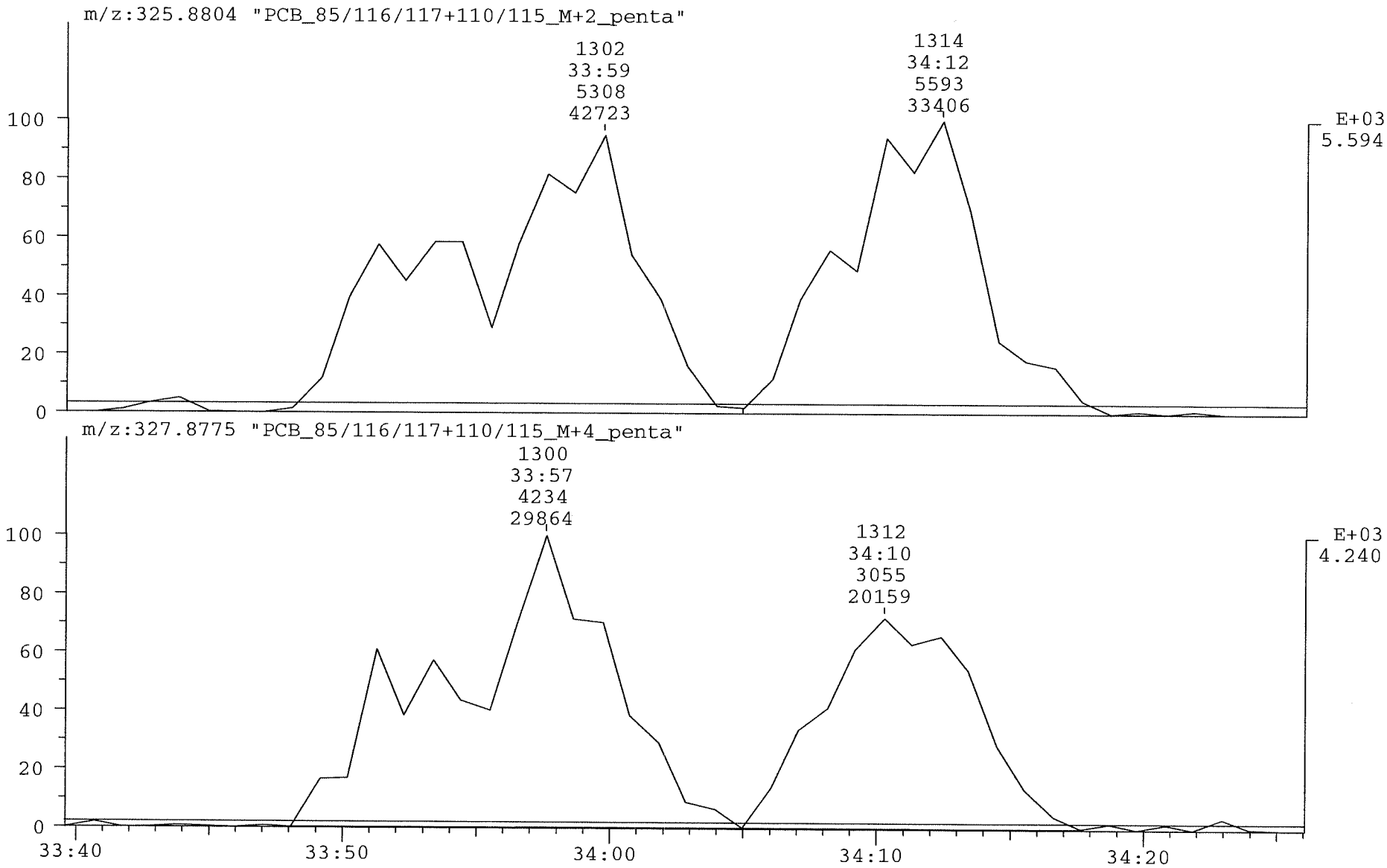
CHRO: a080624i6 24-Jun-08 Elapse: 33:19 1264
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1244 > 1291 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1416

1415

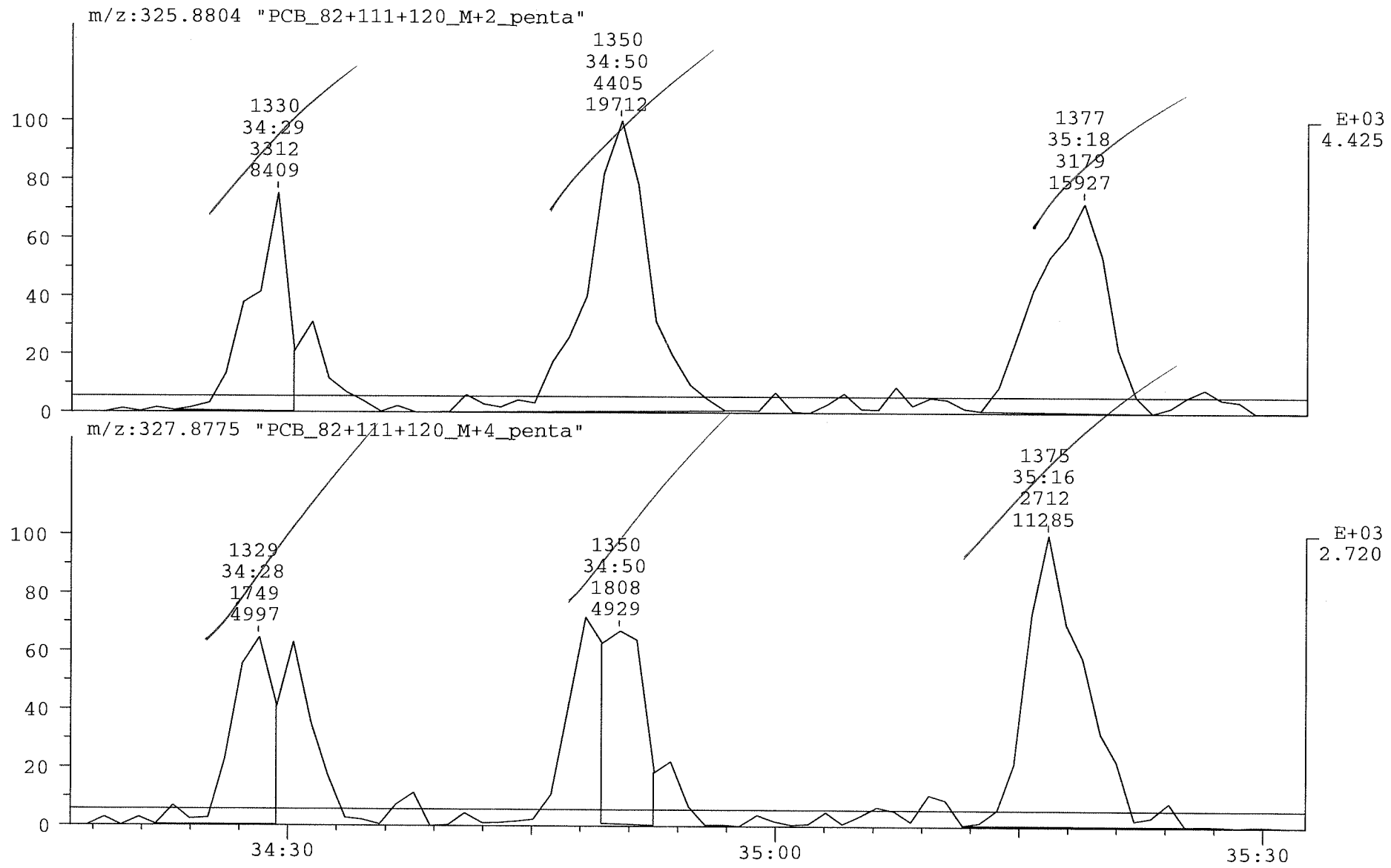
CHRO: a080624i6 24-Jun-08 Elapse: 34:07 1309
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1283 > 1327 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1417

1416

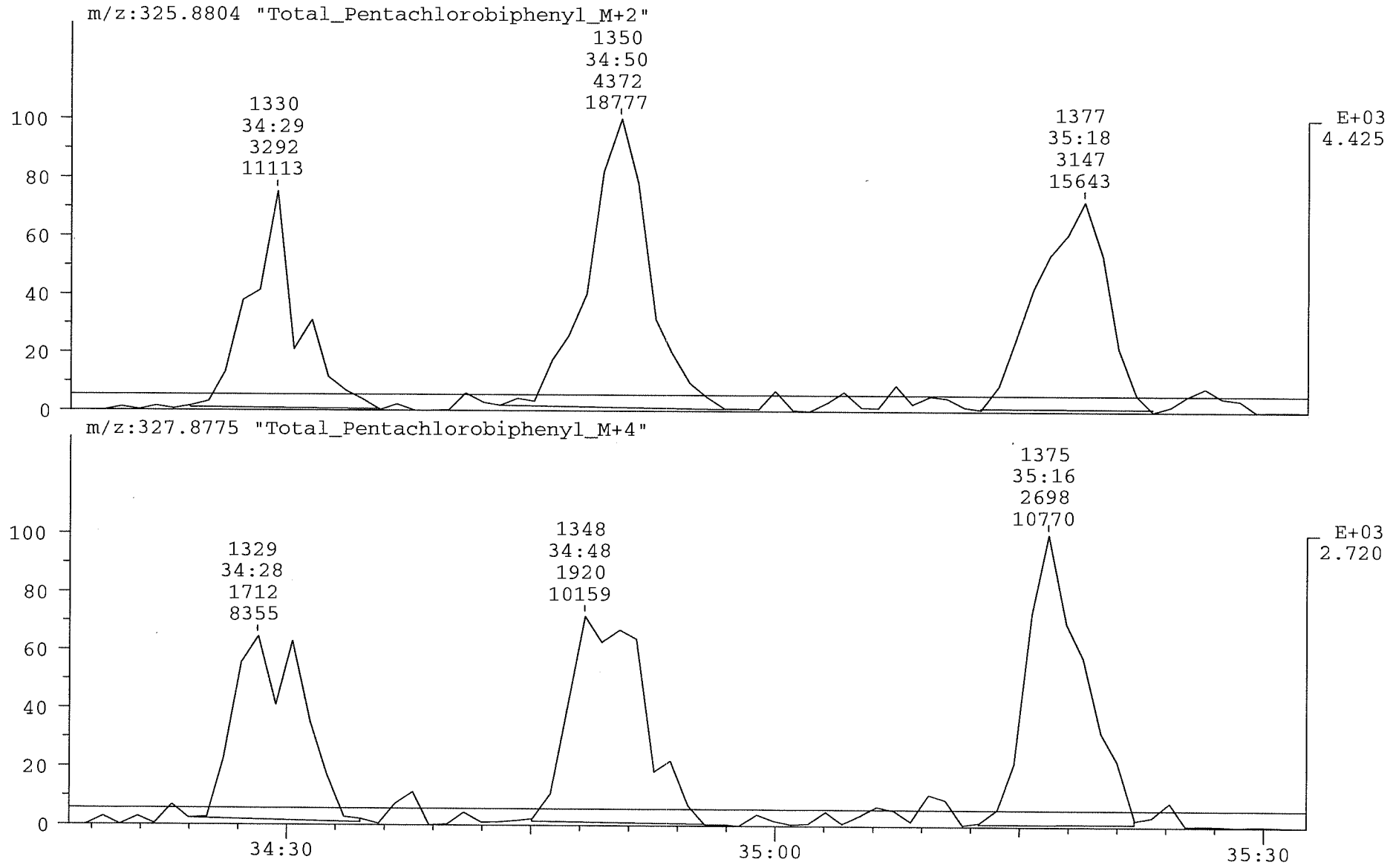
CHRO: a080624i6 24-Jun-08 Elapse: 34:39 1340
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1318 > 1390 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1418

1417

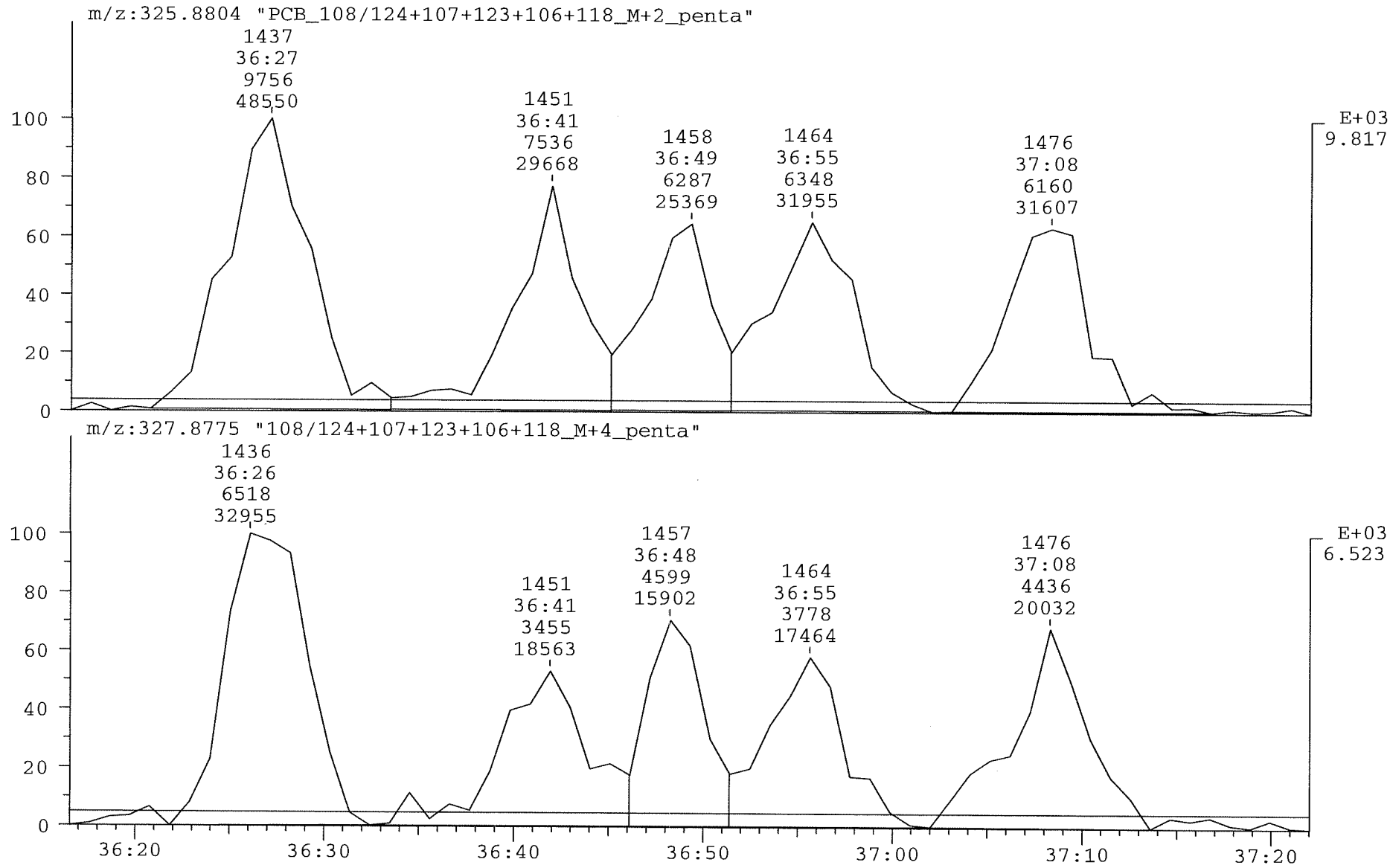
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1318 > 1390 Masses: 181 > 510
Area: 5, 1.20, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



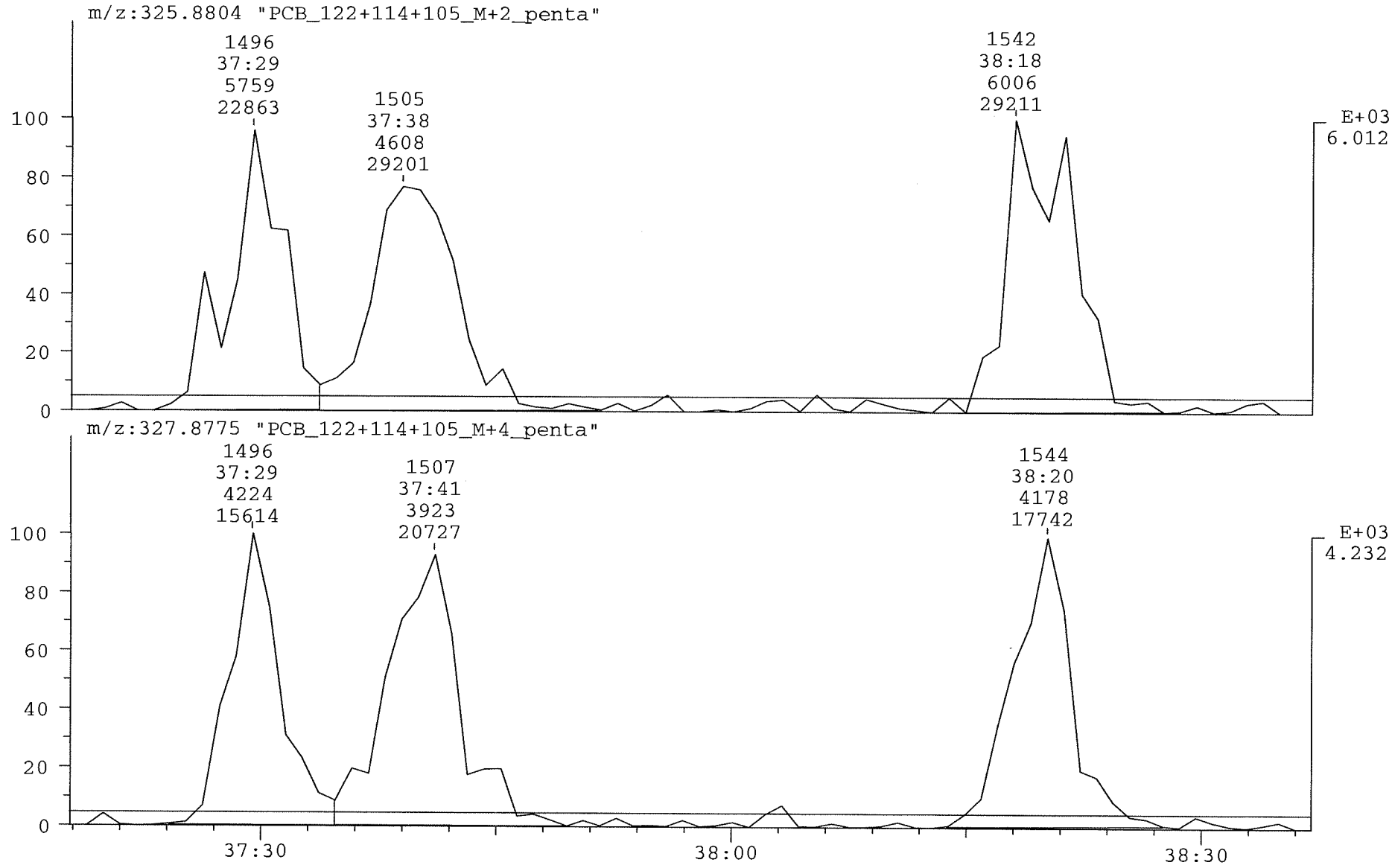
H-1419

1418

```
CHRO:  a080624i6                              24-Jun-08   Elapse:   36:58       1467
Samp:  Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1              Start :   15:19:17    2601
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :   1668 ICAL CS0.5
Oper:  DCG           Client:  TA Knoxville                Inlet :   GC     Vial   9
Peak:  100.00  ppm     Label wndw:   1427 > 1489          Masses:   181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3               Label :   -3, 3.0
Disp:  Height  Area
```



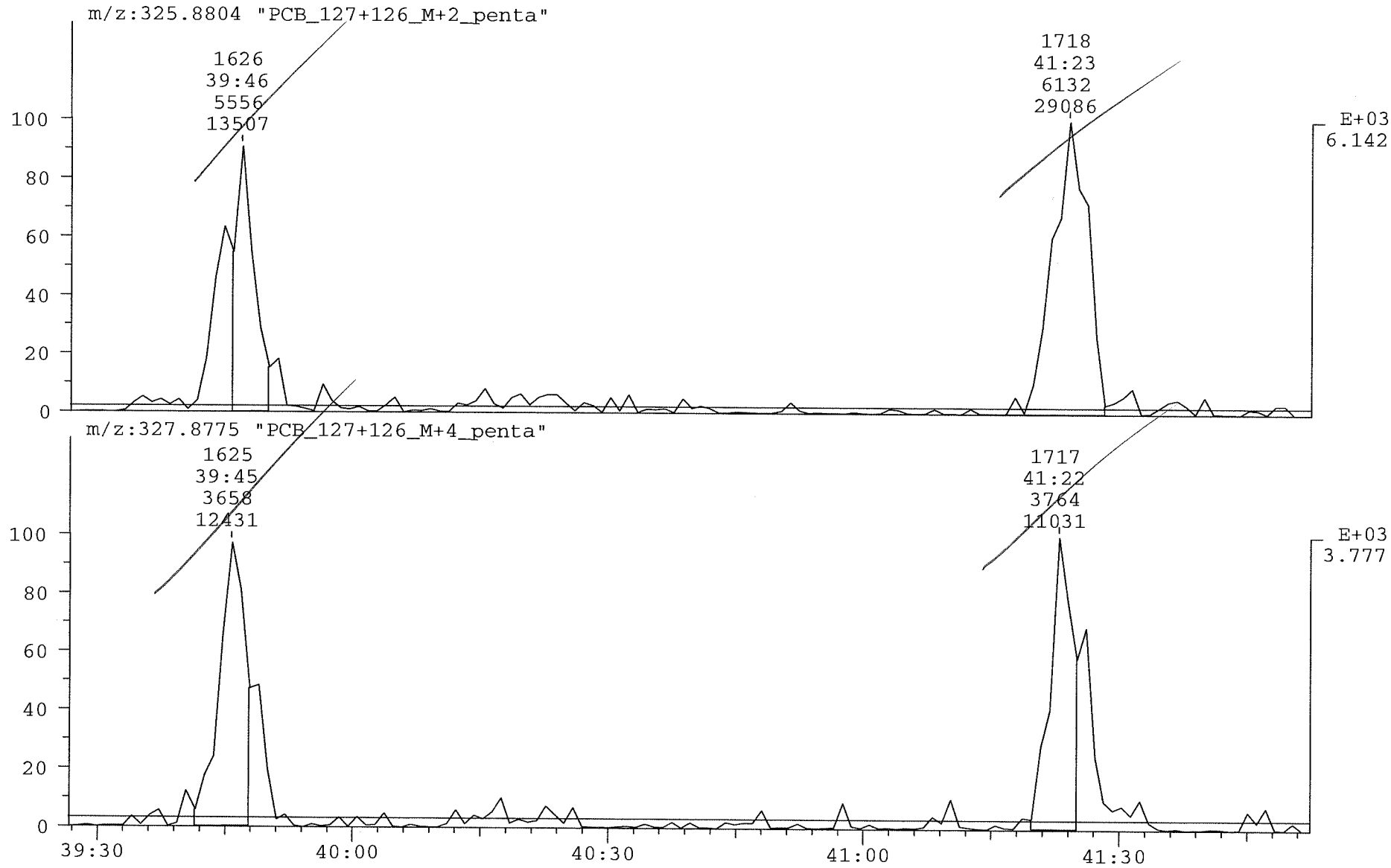
CHRO: a080624i6 24-Jun-08 Elapse: 37:56 1522
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1485 > 1560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1421

1420

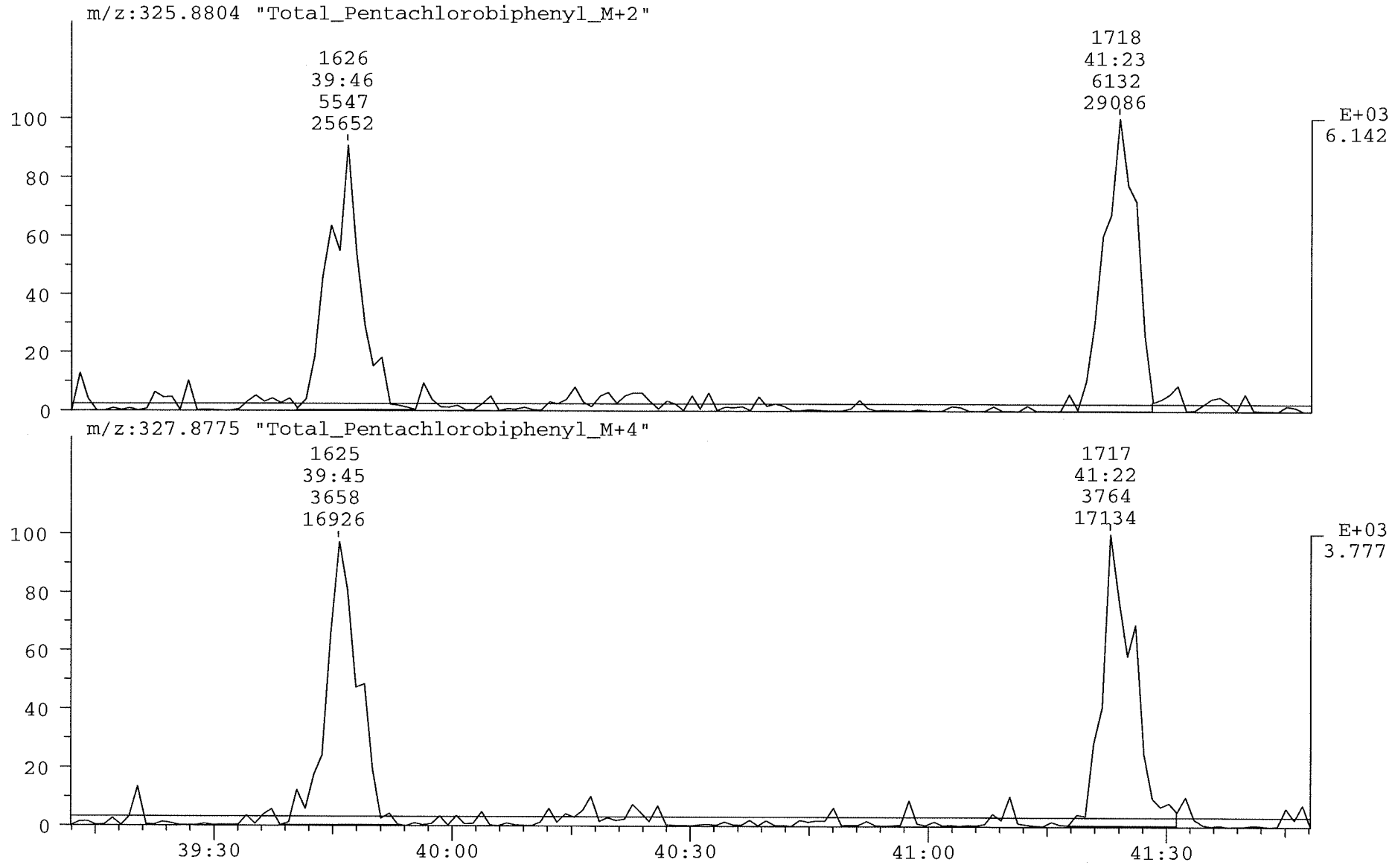
CHRO: a080624i6 24-Jun-08 Elapse: 40:38 1675
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1607 > 1745 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1422

1421

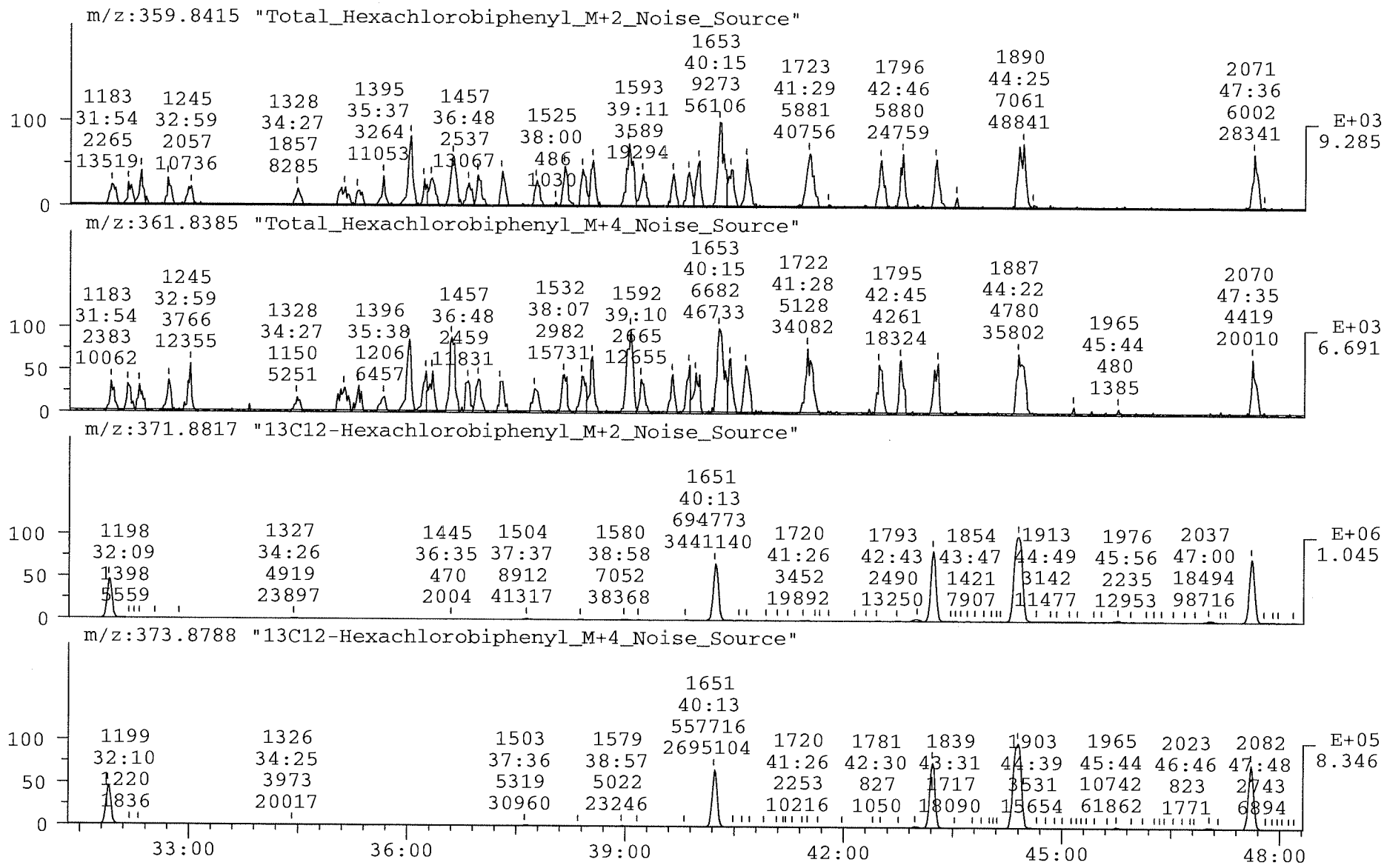
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1593 > 1741 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1423

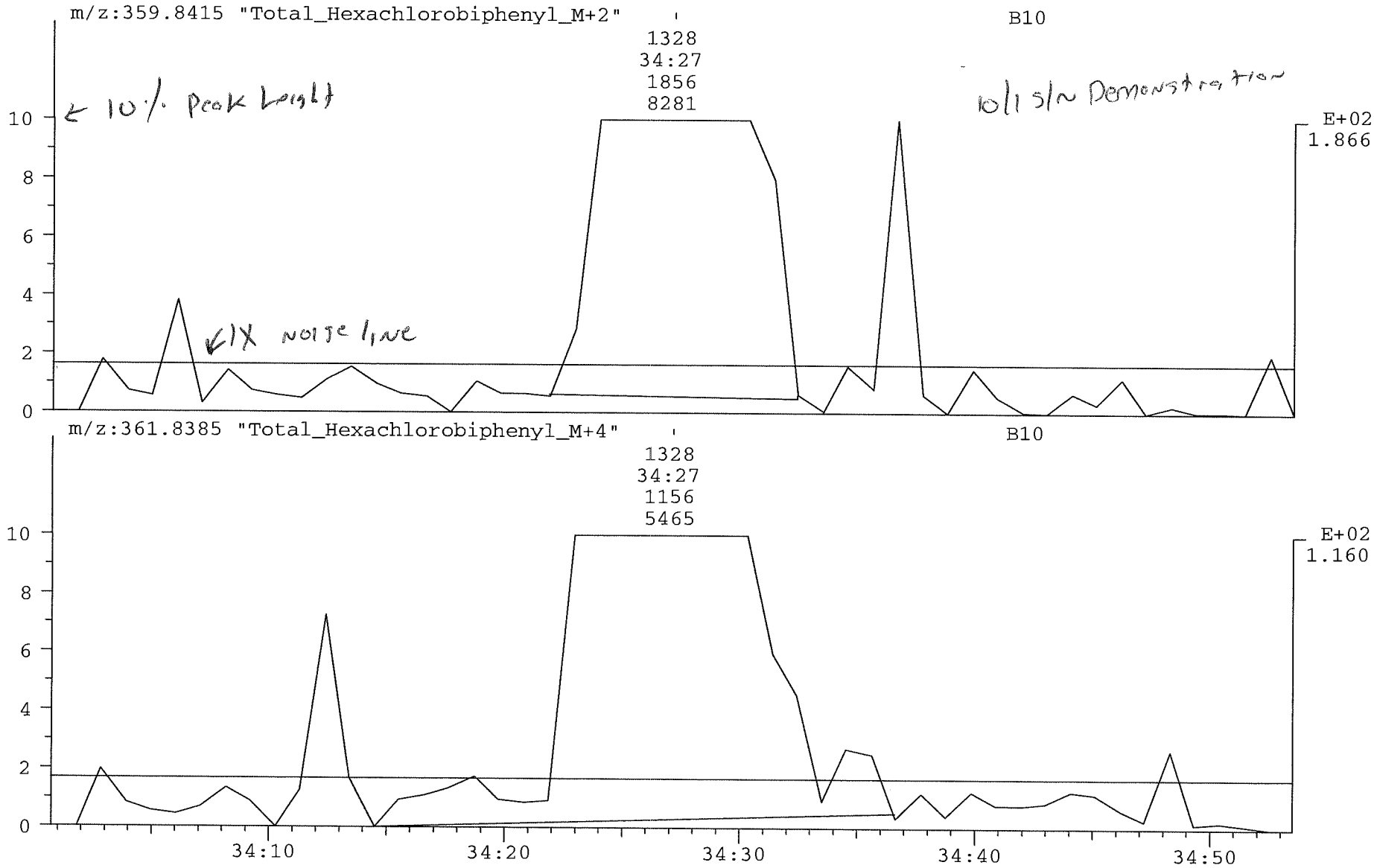
1422

CHRO: a080624i6 24-Jun-08 Elapse: 39:48 1628
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1151 > 2111 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1424

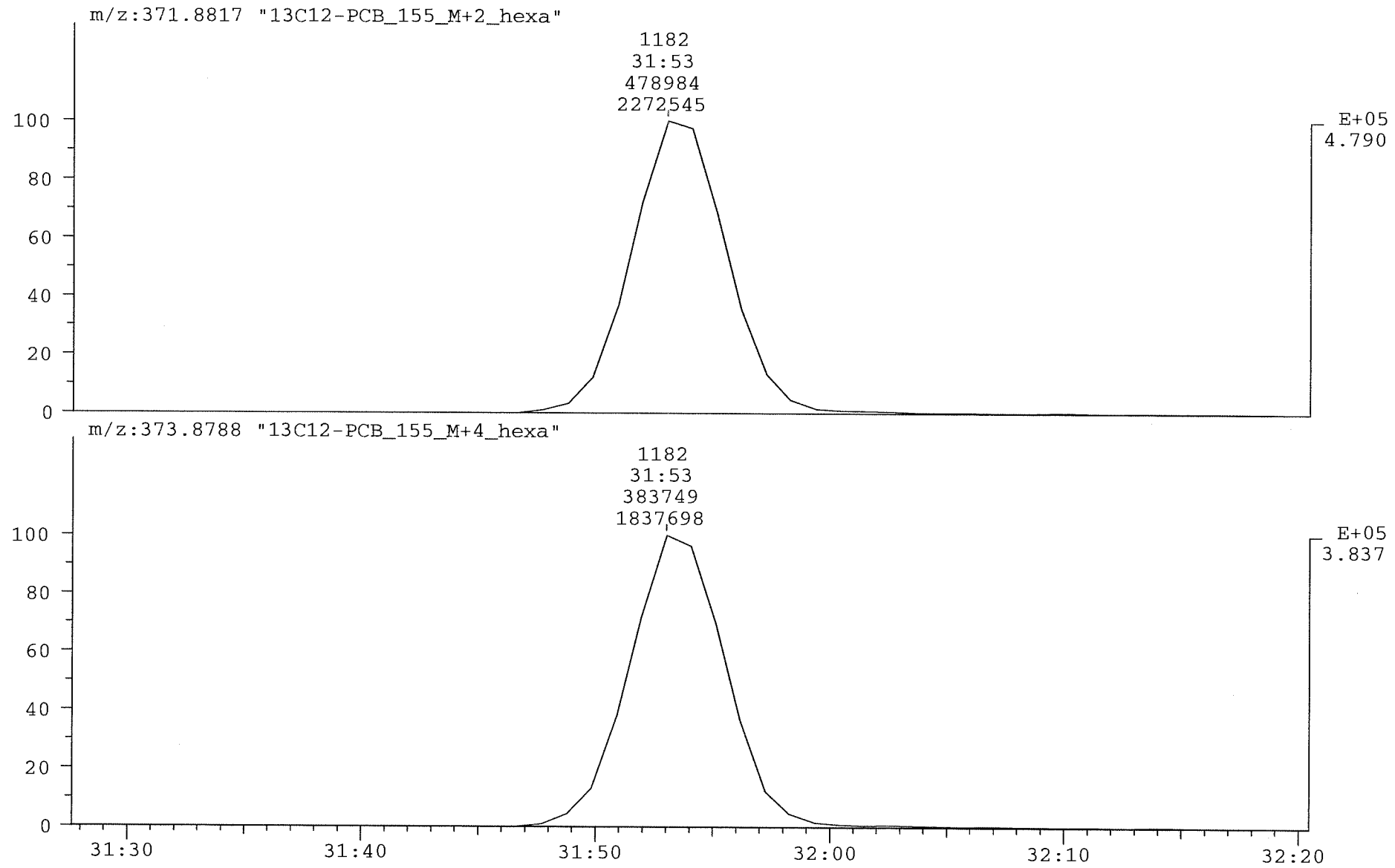
CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1303 > 1353 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-1425

1424

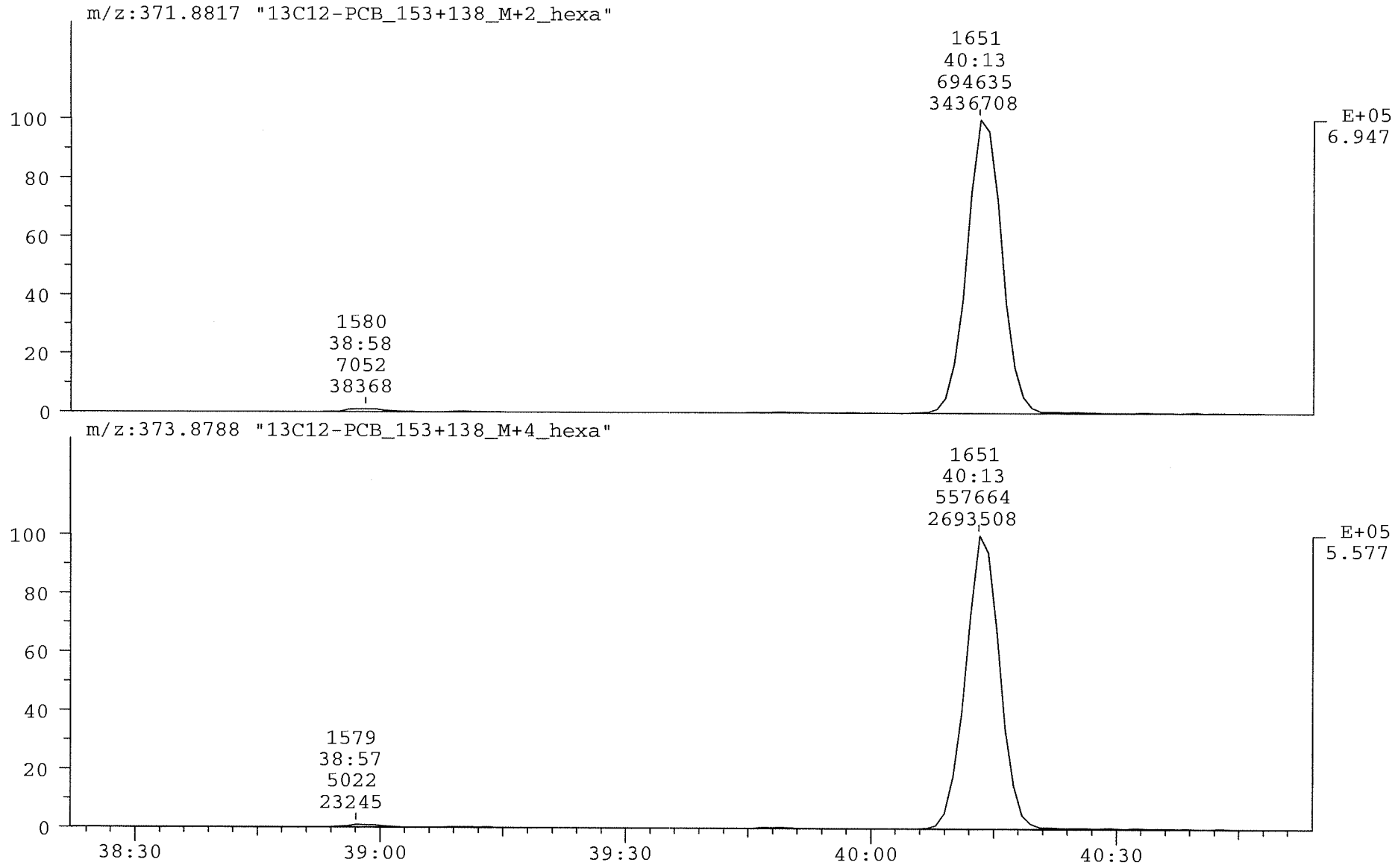
CHRO: a080624i6 24-Jun-08 Elapse: 31:54 1183
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1158 > 1208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1426

1425

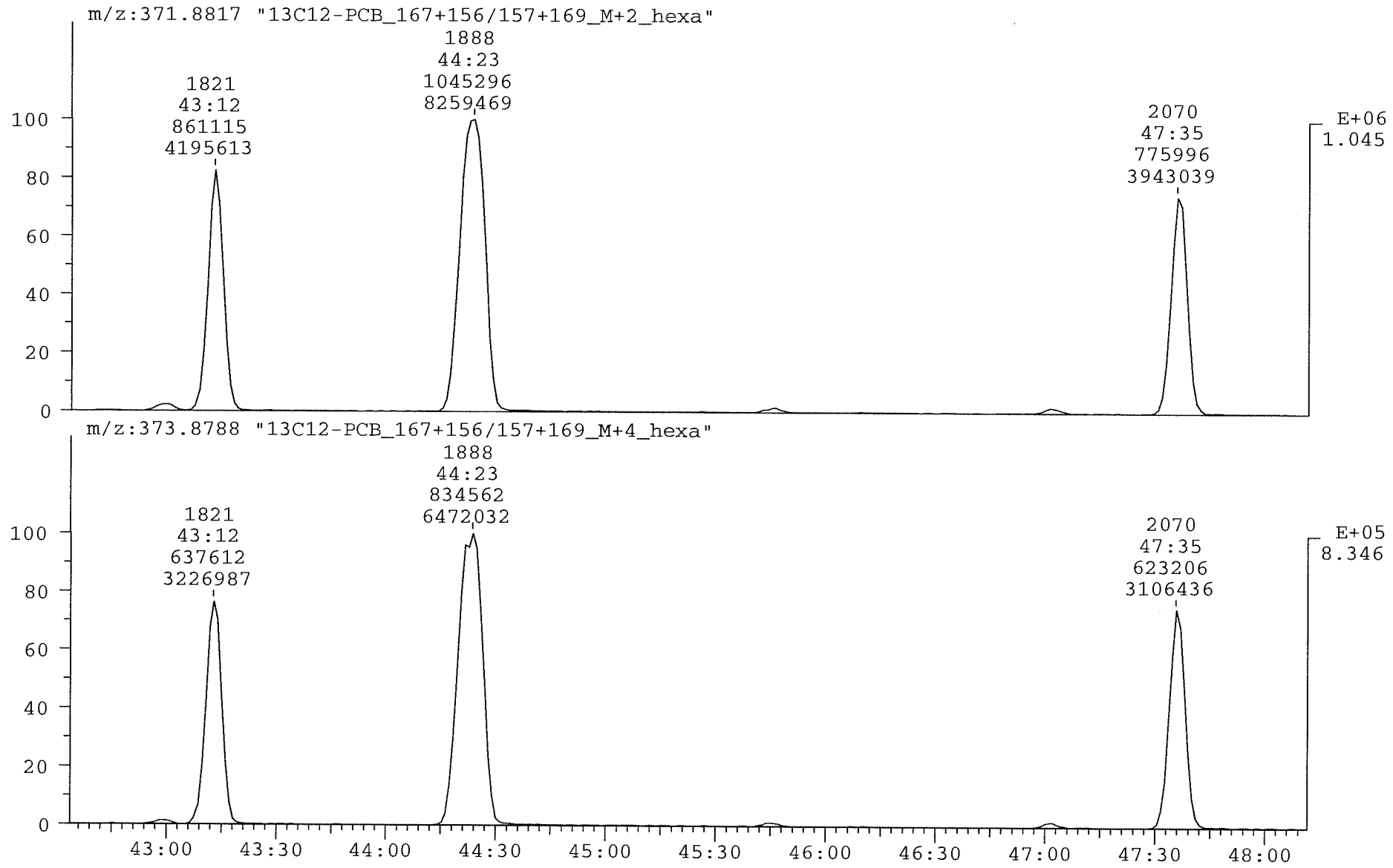
CHRO: a080624i6 24-Jun-08 Elapse: 39:38 1618
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1546 > 1690 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1427

1426

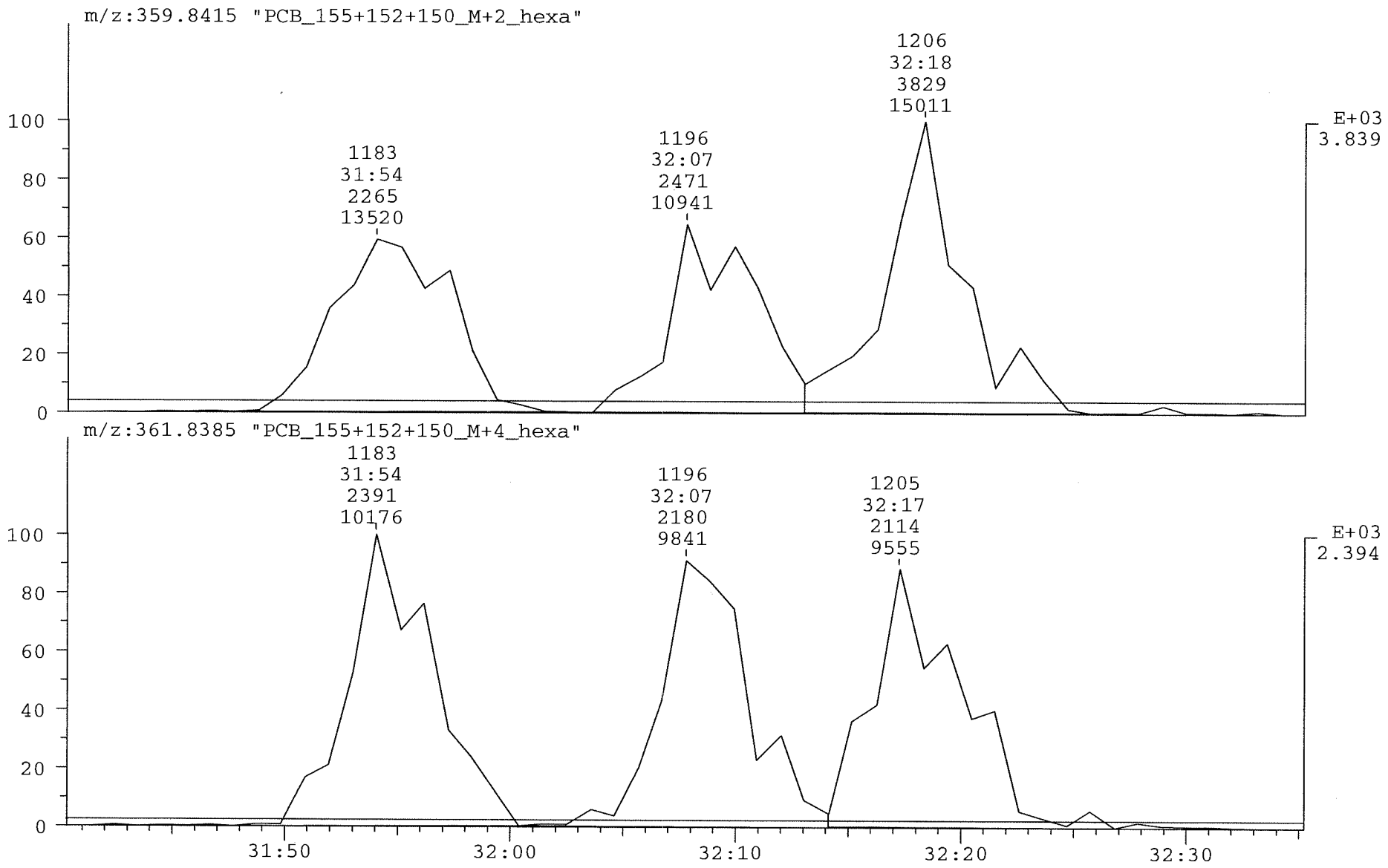
CHRO: a080624i6 24-Jun-08 Elapse: 45:27 1949
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1784 > 2104 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1428

1427

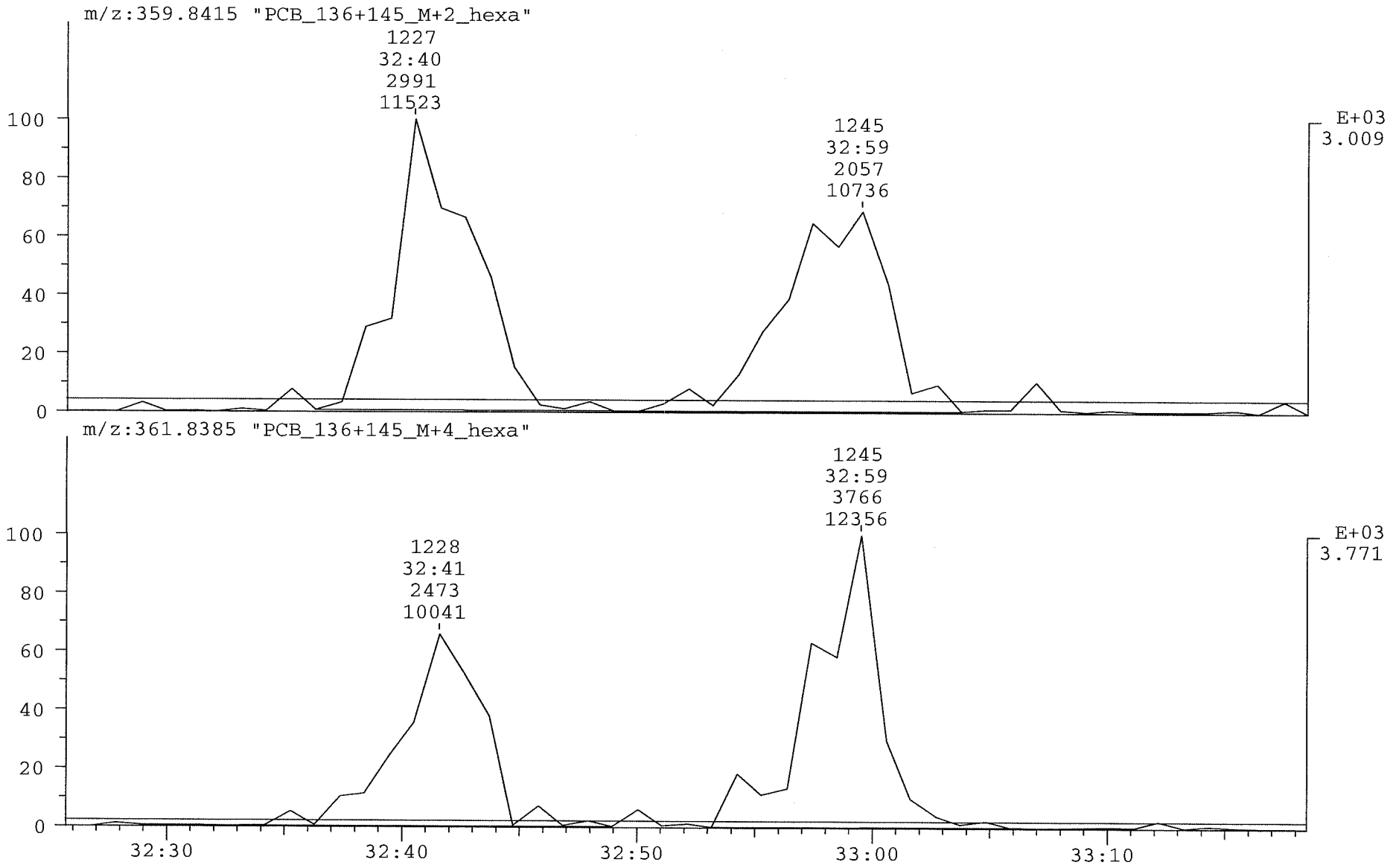
CHRO: a080624i6 24-Jun-08 Elapse: 32:08 1197
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1170 > 1222 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1429

1428

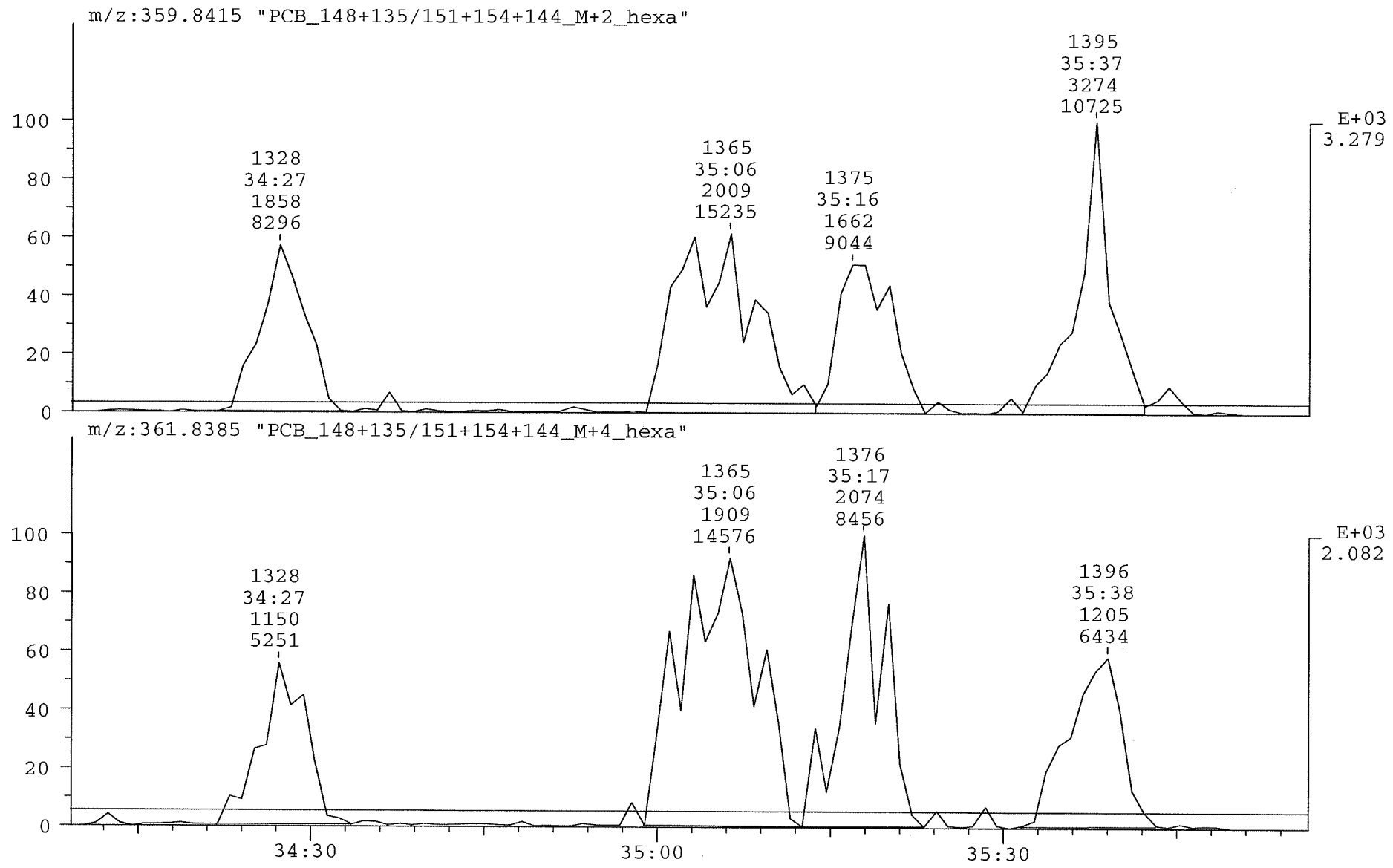
CHRO: a080624i6 24-Jun-08 Elapse: 32:52 1238
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1213 > 1263 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1430

1429

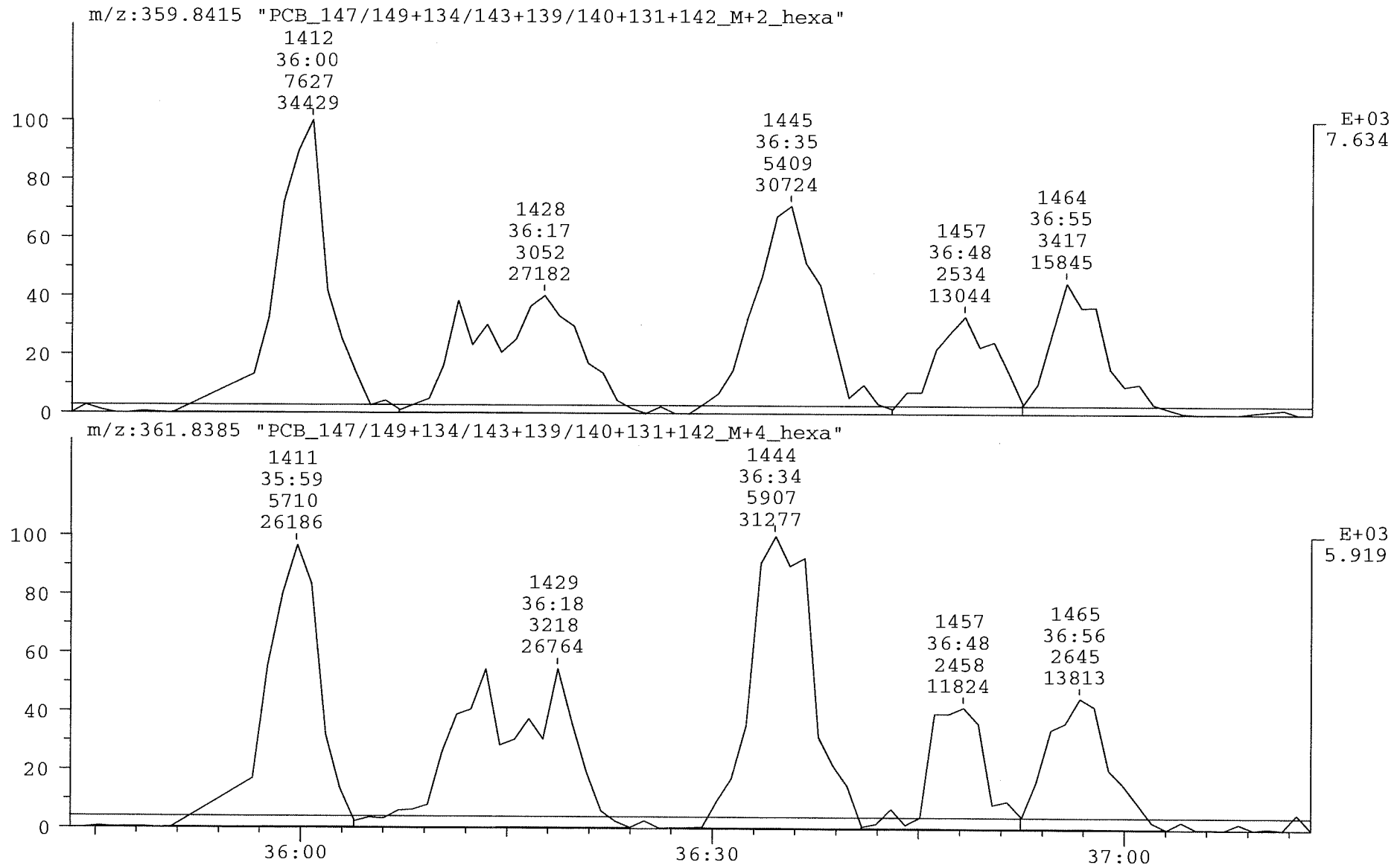
CHRO: a080624i6 24-Jun-08 Elapse: 35:07 1366
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1311 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1431

1430

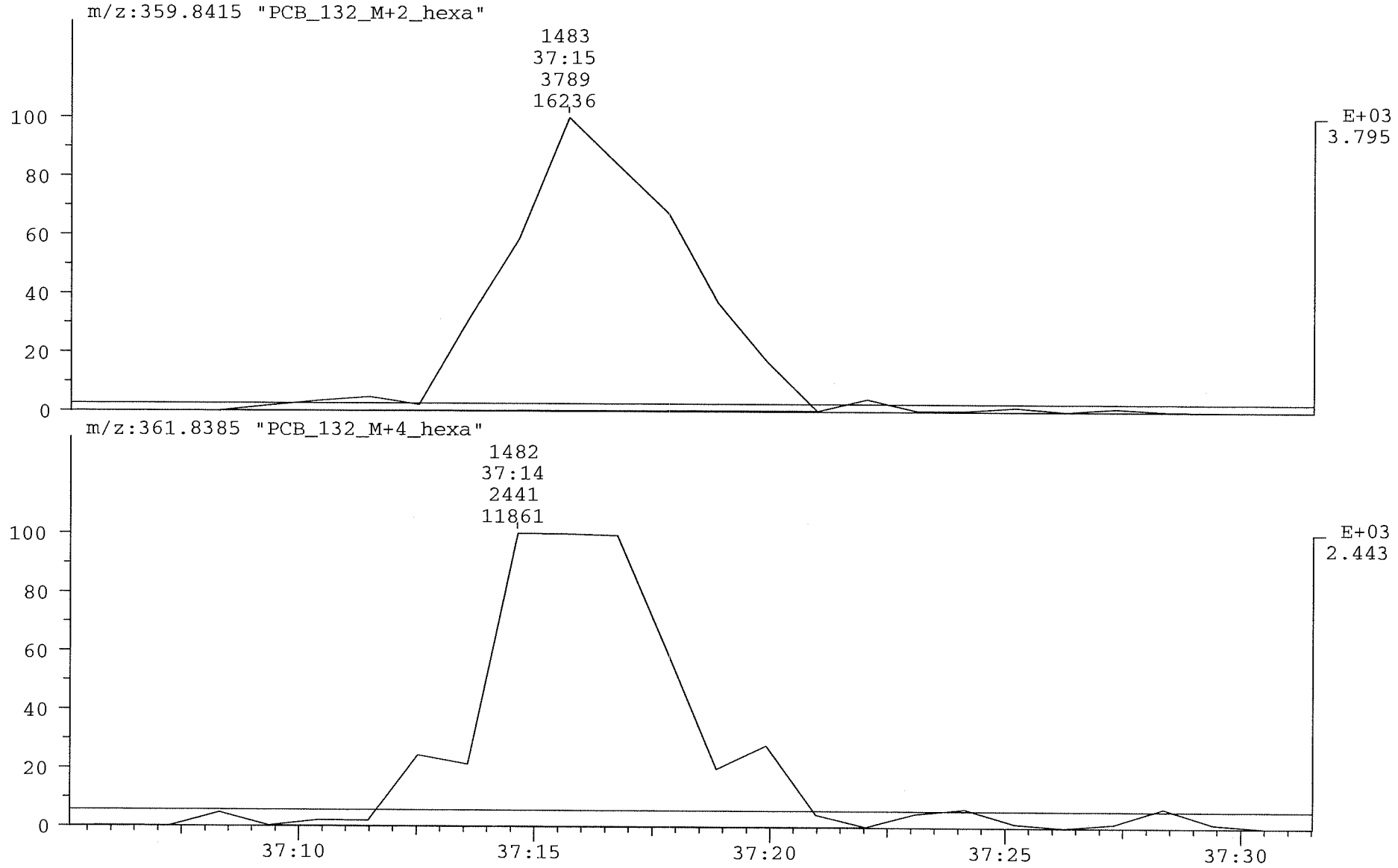
CHRO: a080624i6 24-Jun-08 Elapse: 36:34 1444
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1400 > 1481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1432

1431

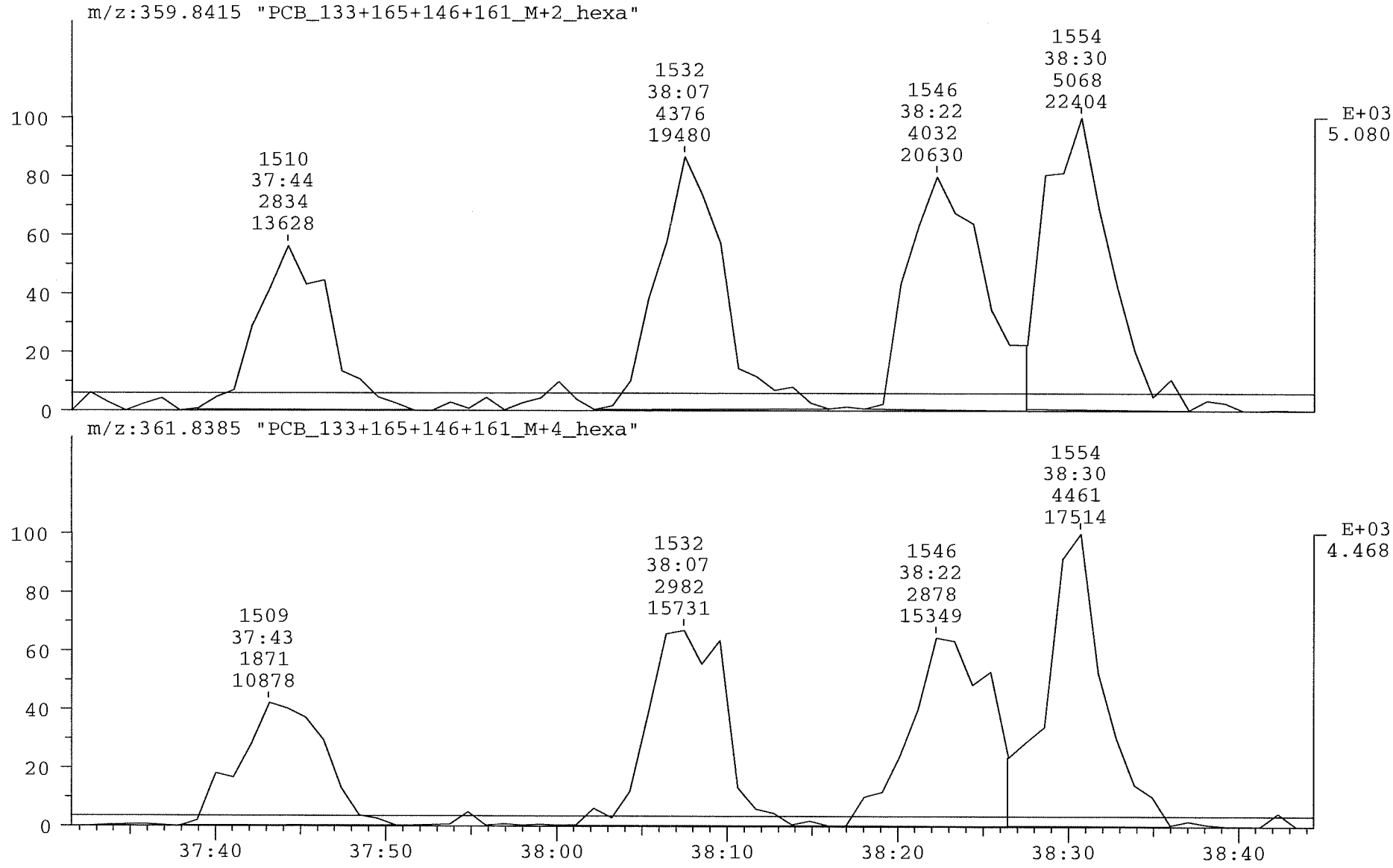
CHRO: a080624i6 24-Jun-08 Elapse: 37:15 1483
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1473 > 1498 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1433

1432

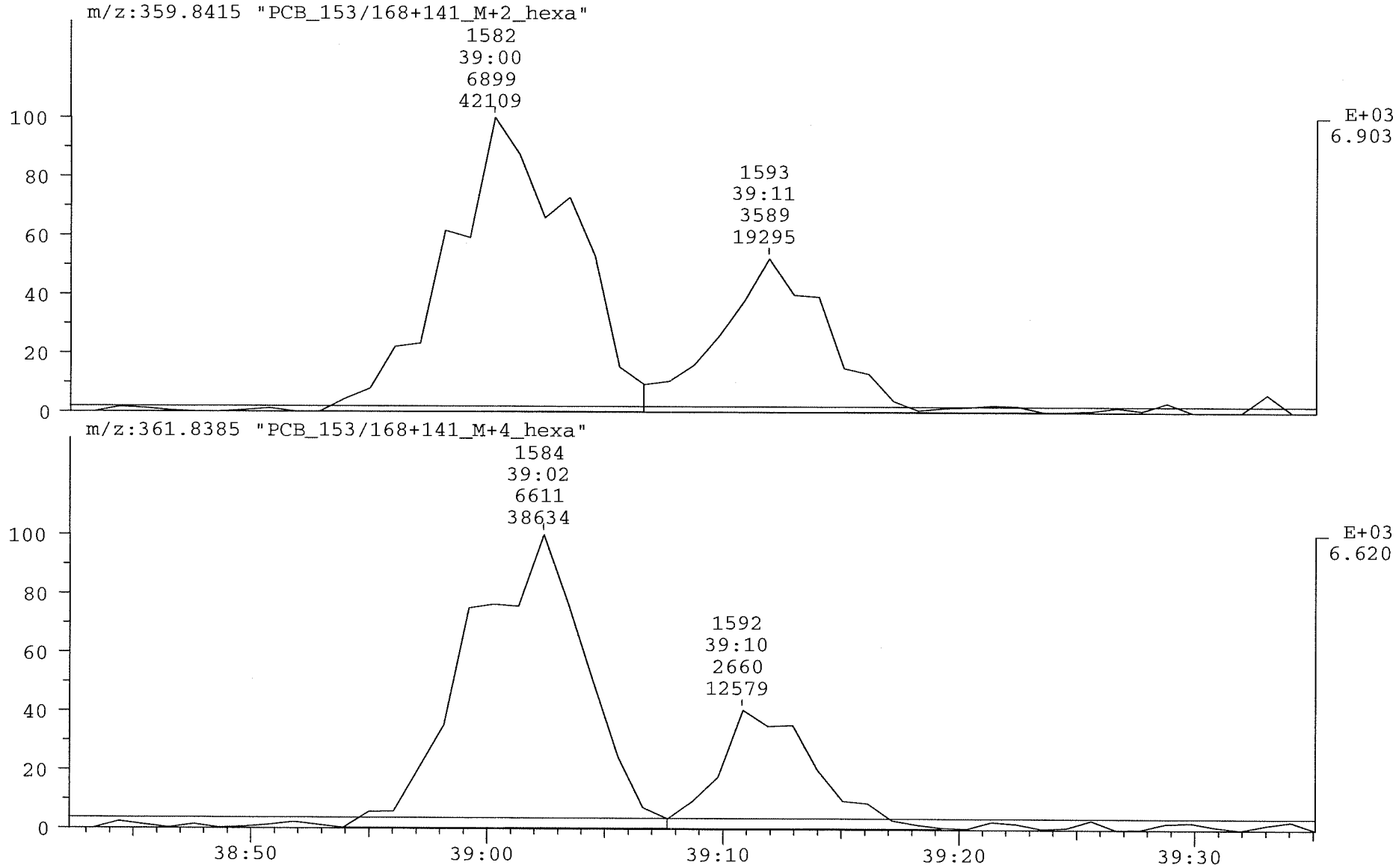
CHRO: a080624i6 24-Jun-08 Elapse: 38:09 1534
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1498 > 1567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1434

1433

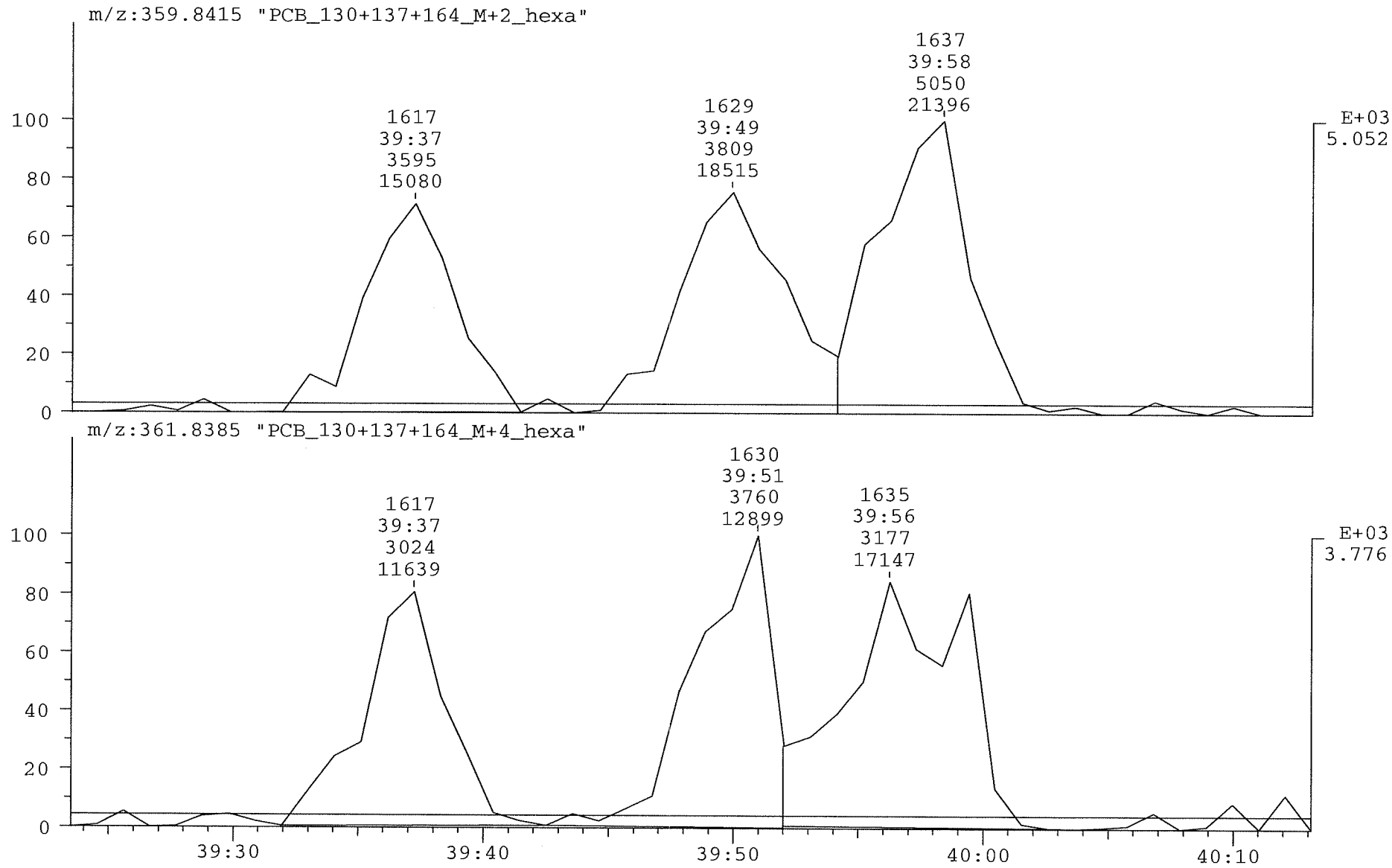
CHRO: a080624i6 24-Jun-08 Elapse: 39:08 1590
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1565 > 1615 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1435

1434

CHRO: a080624i6 24-Jun-08 Elapse: 39:49 1629
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1604 > 1651 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1436

1435

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CHRO:  a080624i6                              24-Jun-08   Elapse:  40:31      1668
Samp:  Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1              Start :  15:19:17   2601
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 ICAL CS0.5
Oper:  DCG          Client:  TA Knoxville                 Inlet :  GC     Vial  9
Peak:  100.00  ppm     Label wndw:   1643 > 1690          Masses:  181 > 510
Area:  5, 0.50, 0      Baseline  :   100, 7               Label :  -3, 3.0
Disp:  Height  Area
```
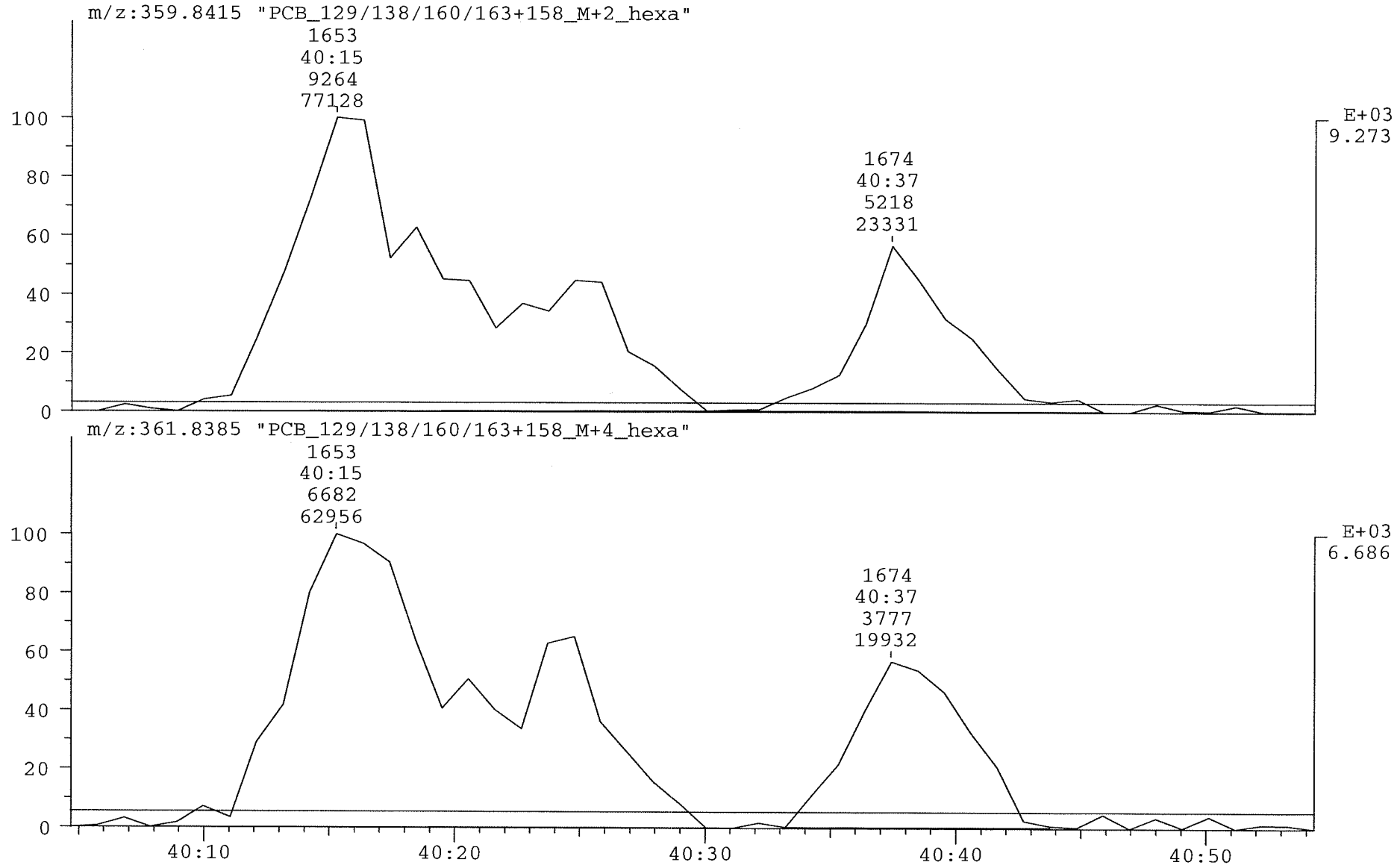
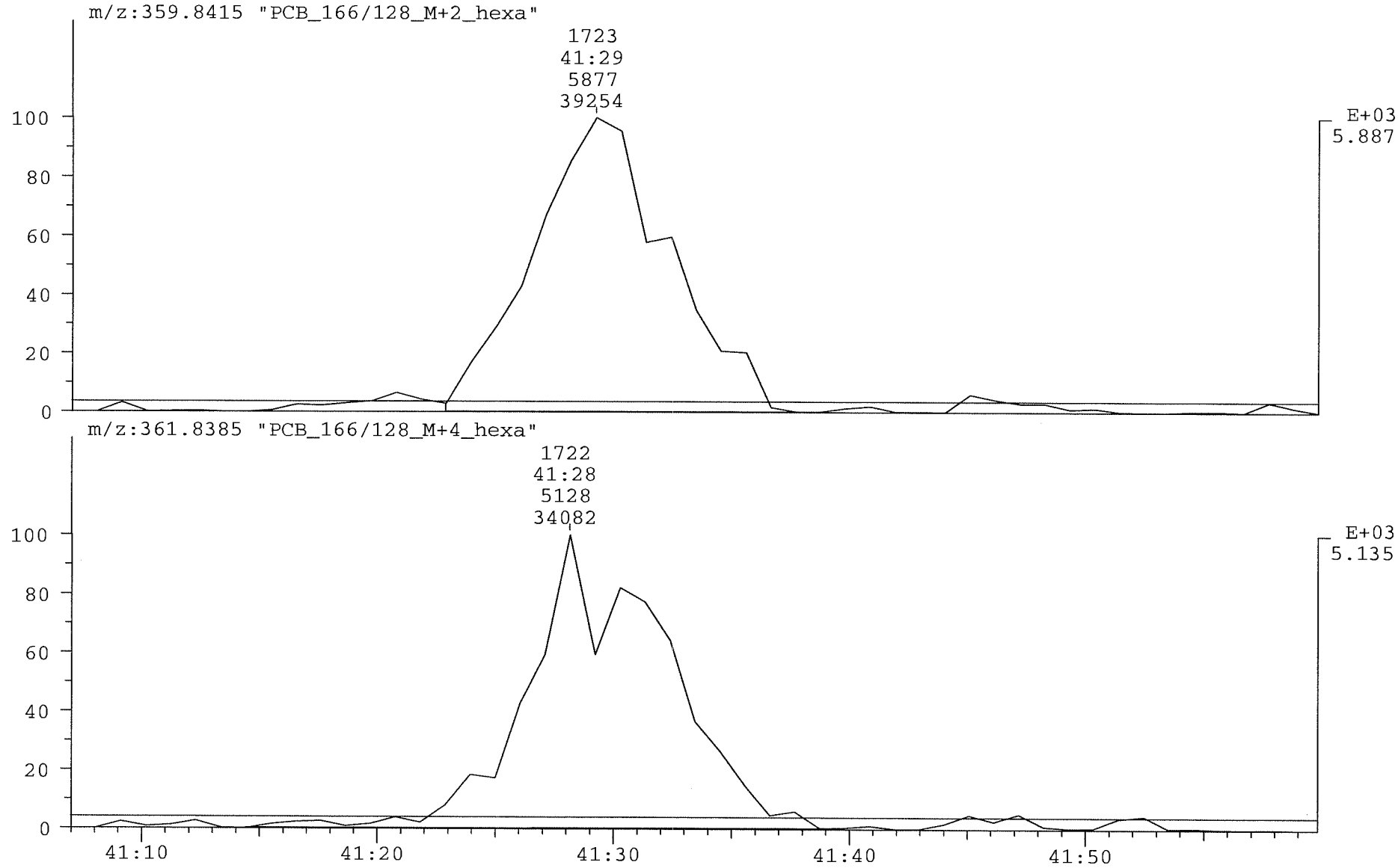



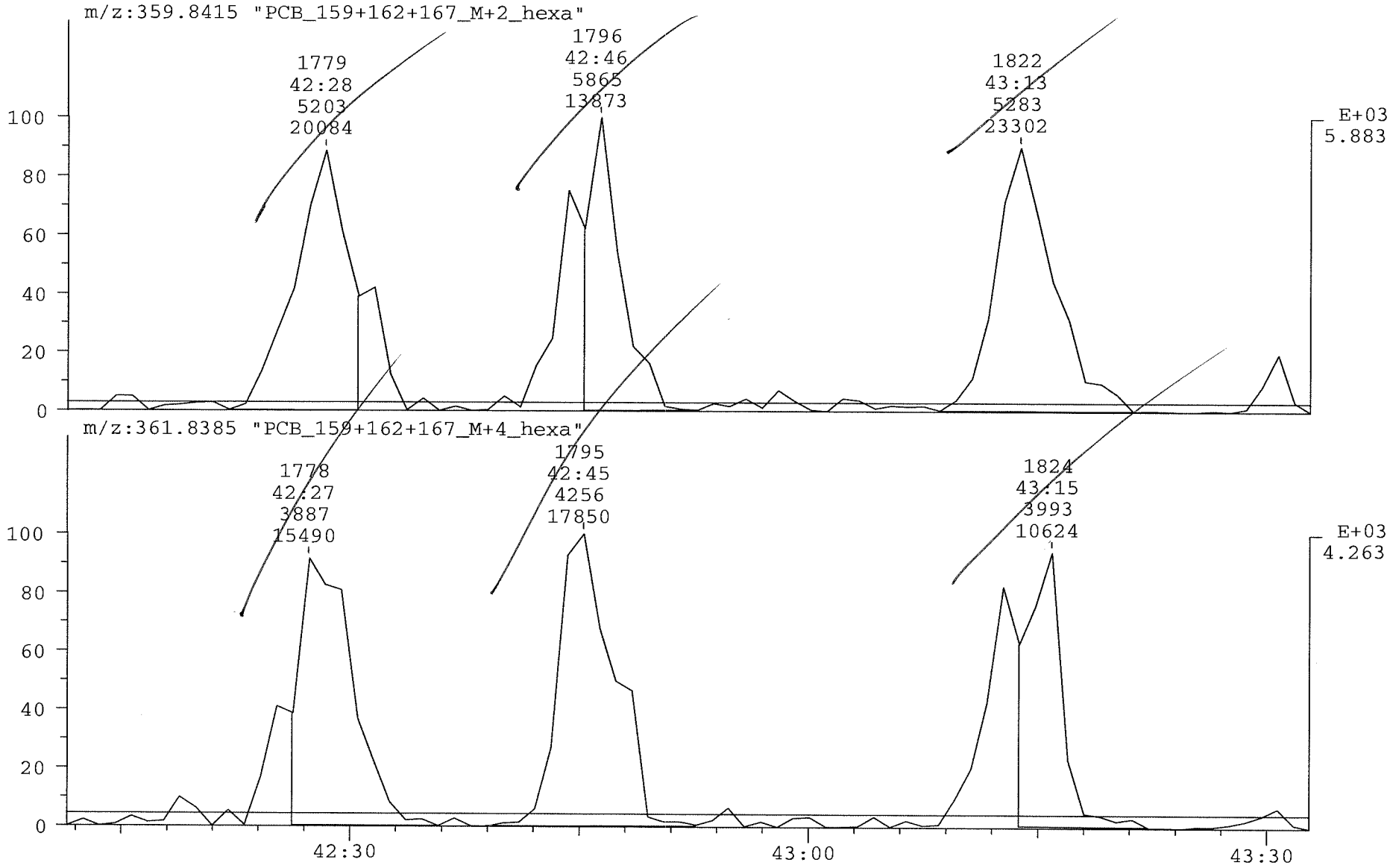
CHRO: a080624i6 24-Jun-08 Elapse: 41:33 1727
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1702 > 1752 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1438

1437

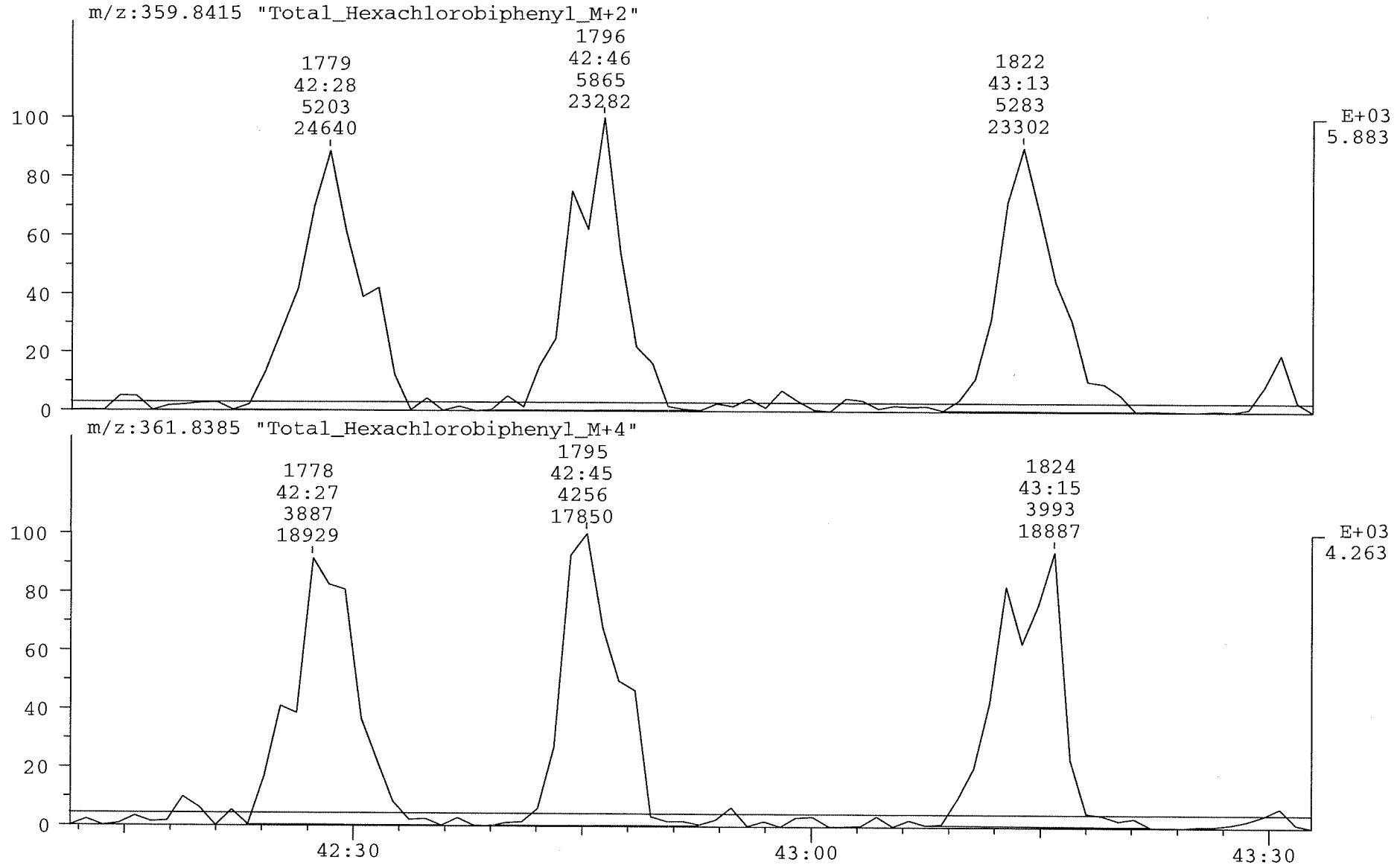
CHRO: a080624i6 24-Jun-08 Elapse: 42:53 1803
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1763 > 1840 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1439

1438

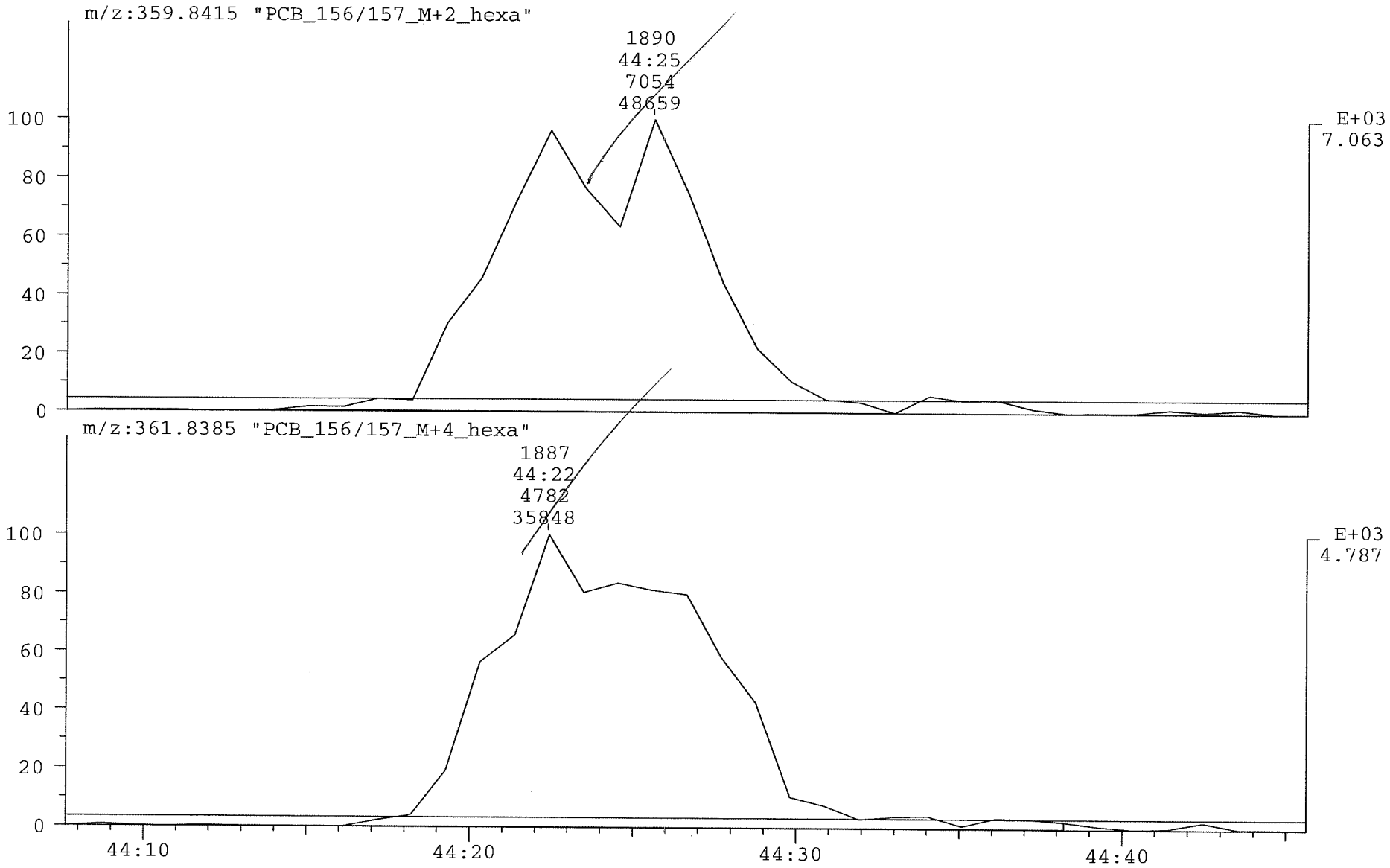
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1763 > 1840 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1440

1439

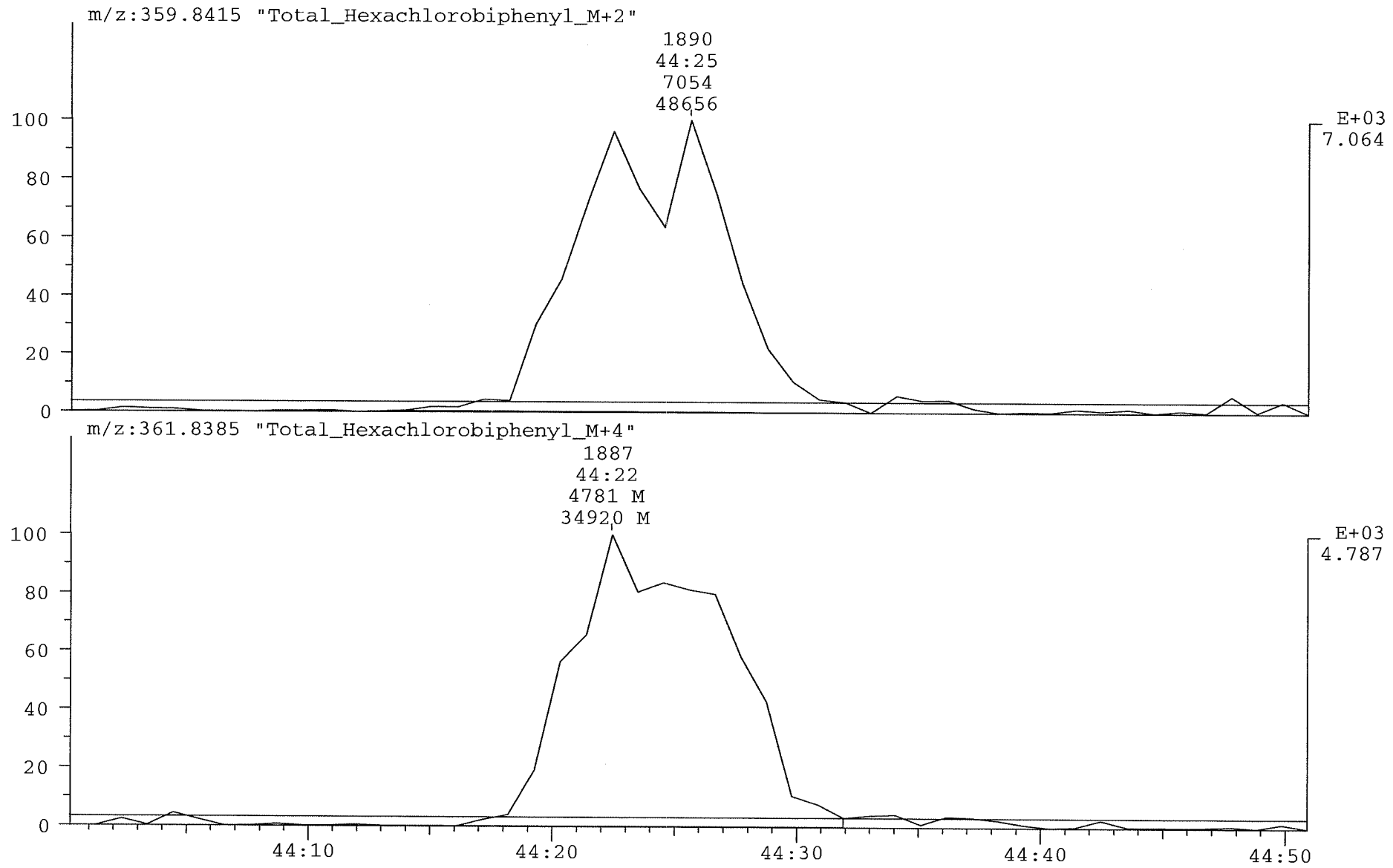
CHRO: a080624i6 24-Jun-08 Elapse: 44:23 1888
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1873 > 1909 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1441

1440

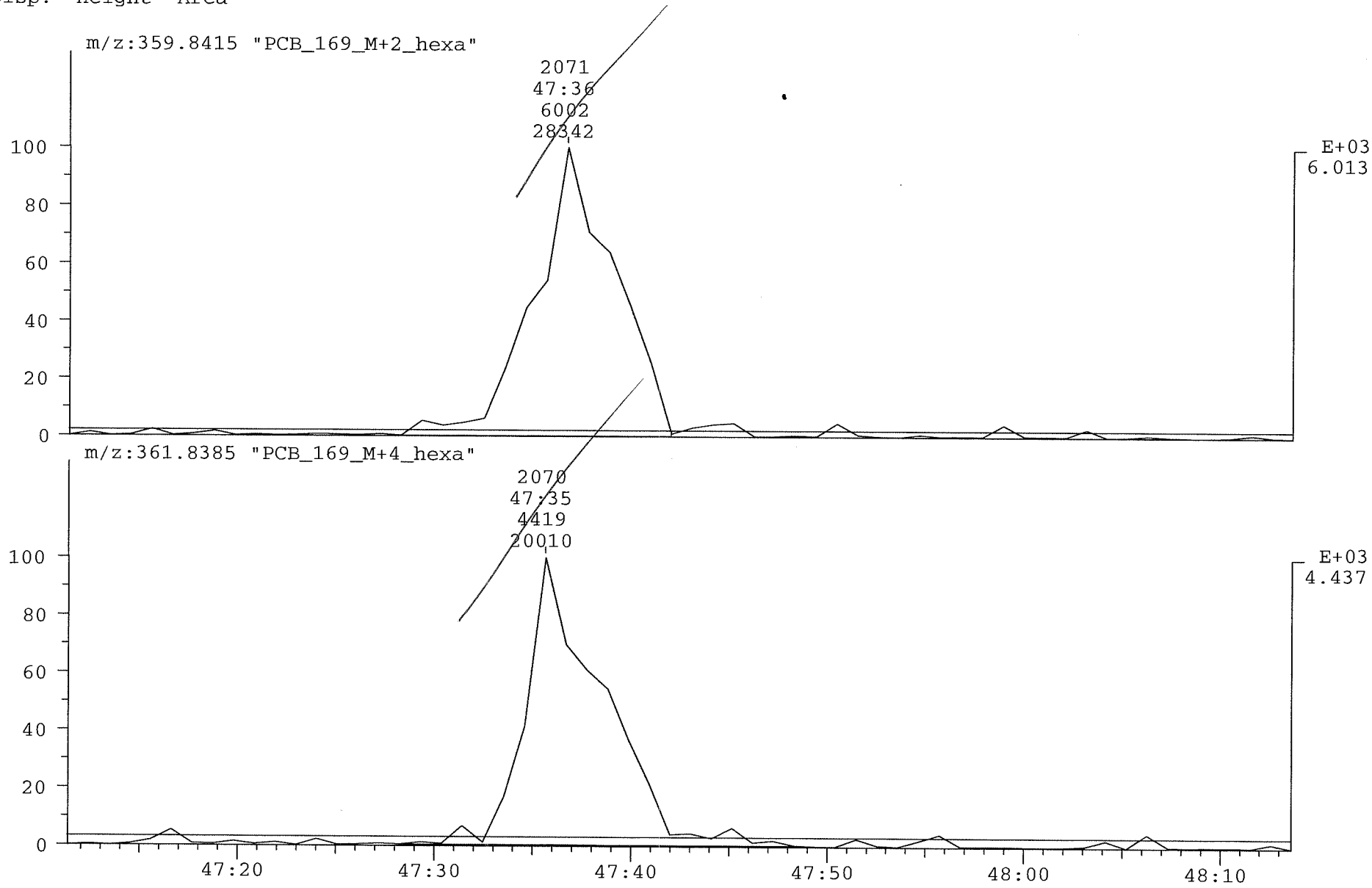
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1866 > 1914 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1442

1441

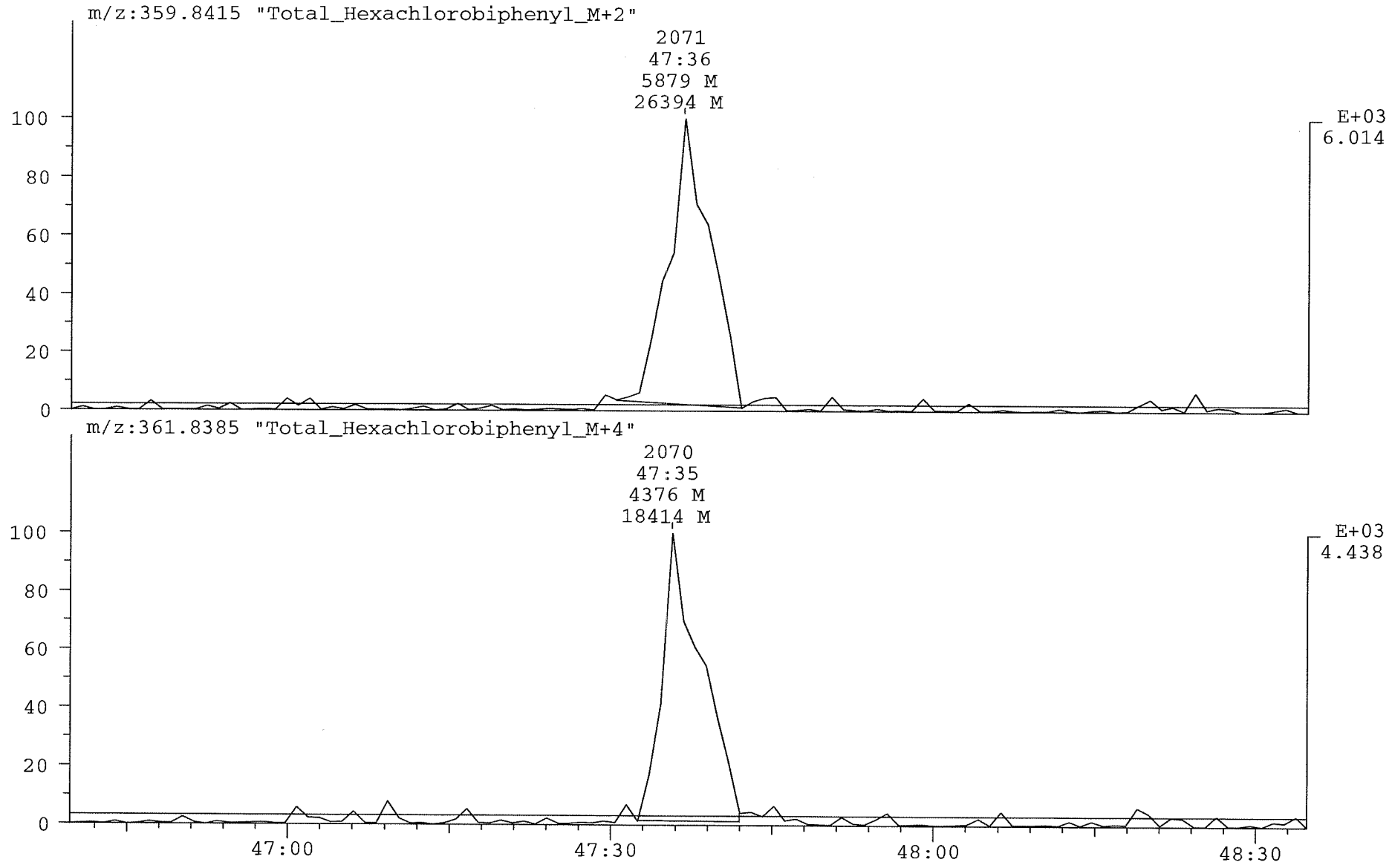
CHRO: a080624i6 24-Jun-08 Elapse: 47:37 2072
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2047 > 2106 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1443

1442

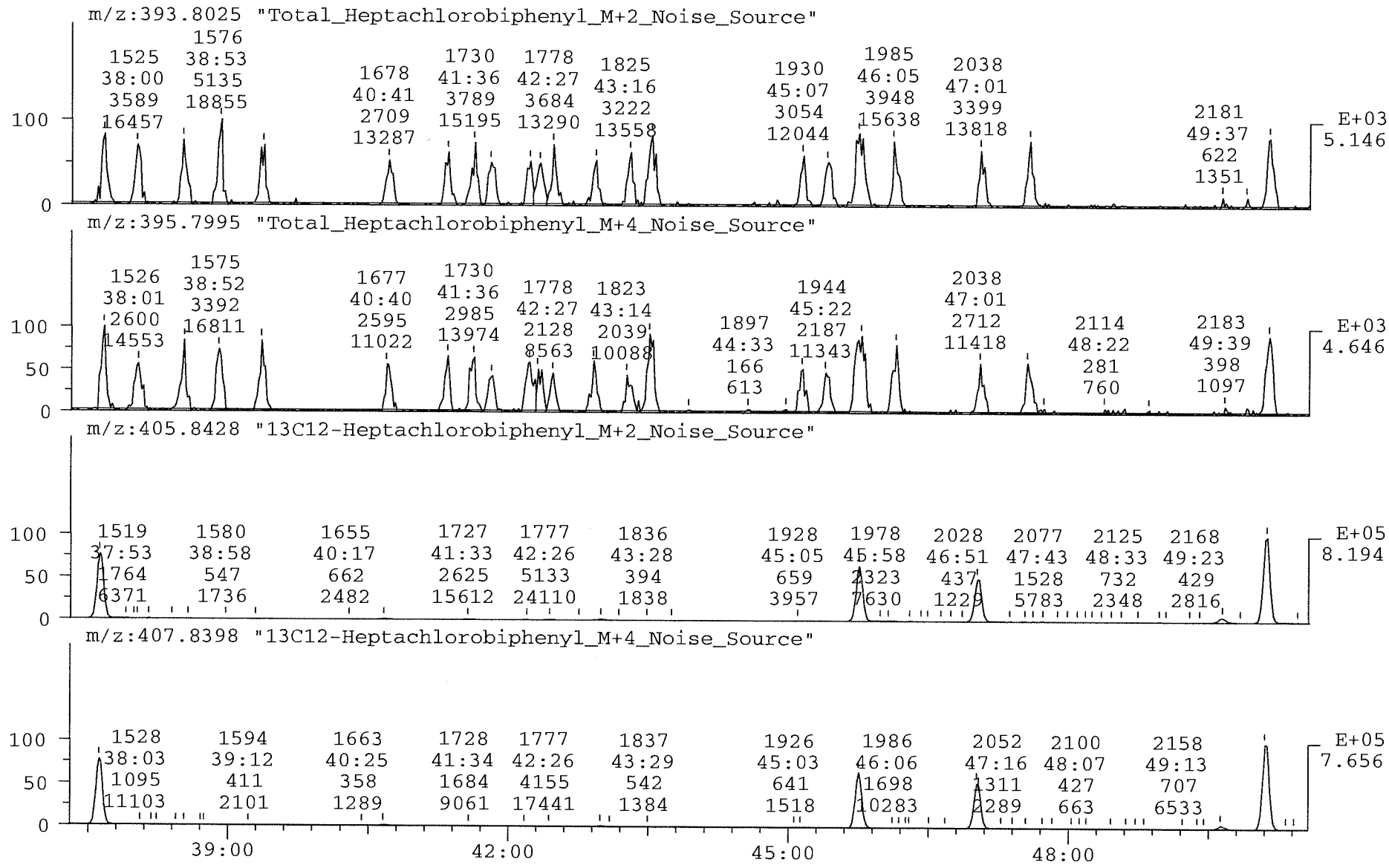
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2017 > 2126 Masses: 181 > 510
Area: 5, 2.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



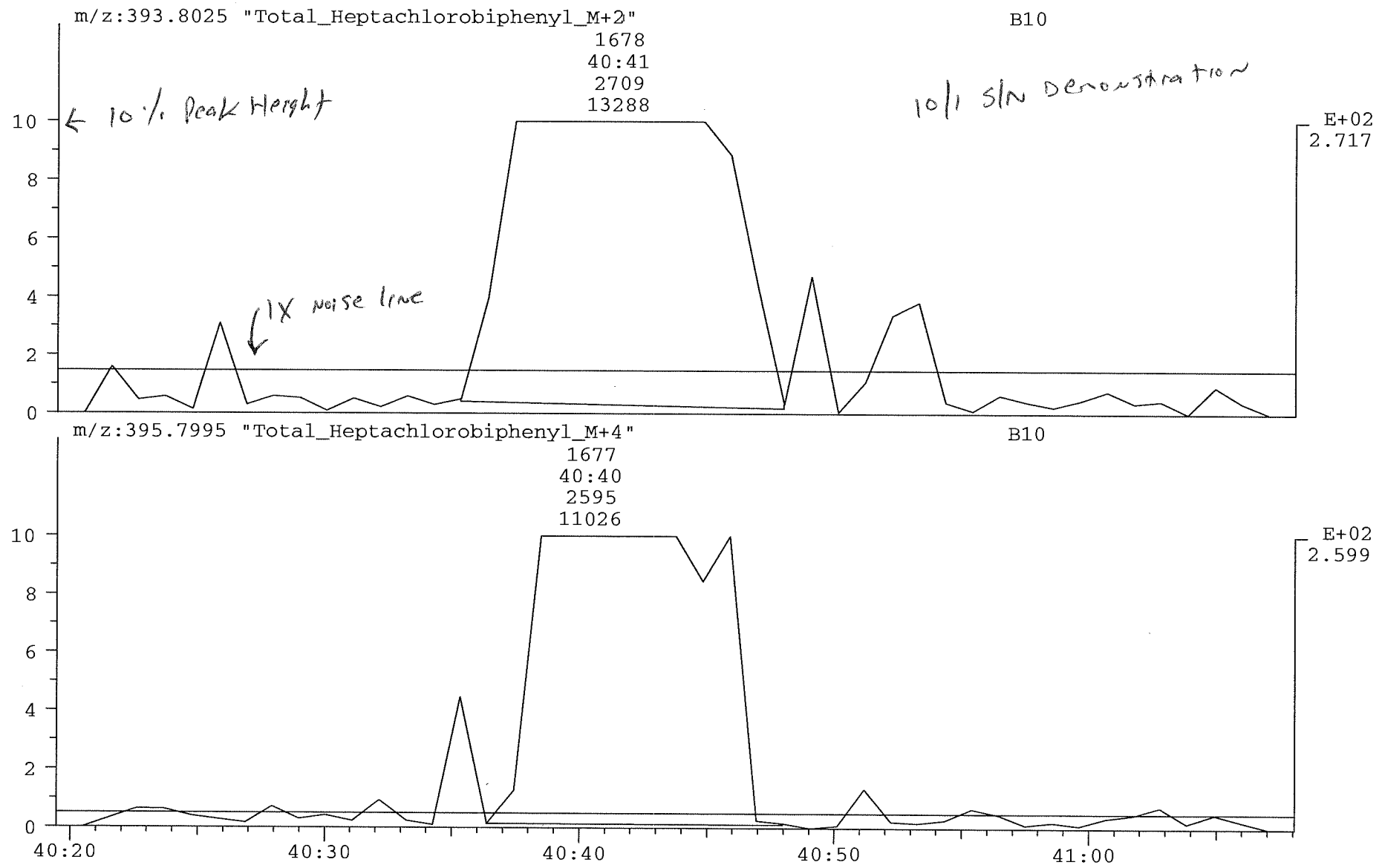
H-1444

1443

CHRO: a080624i6 24-Jun-08 Elapse: 43:56 1862
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1485 > 2235 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



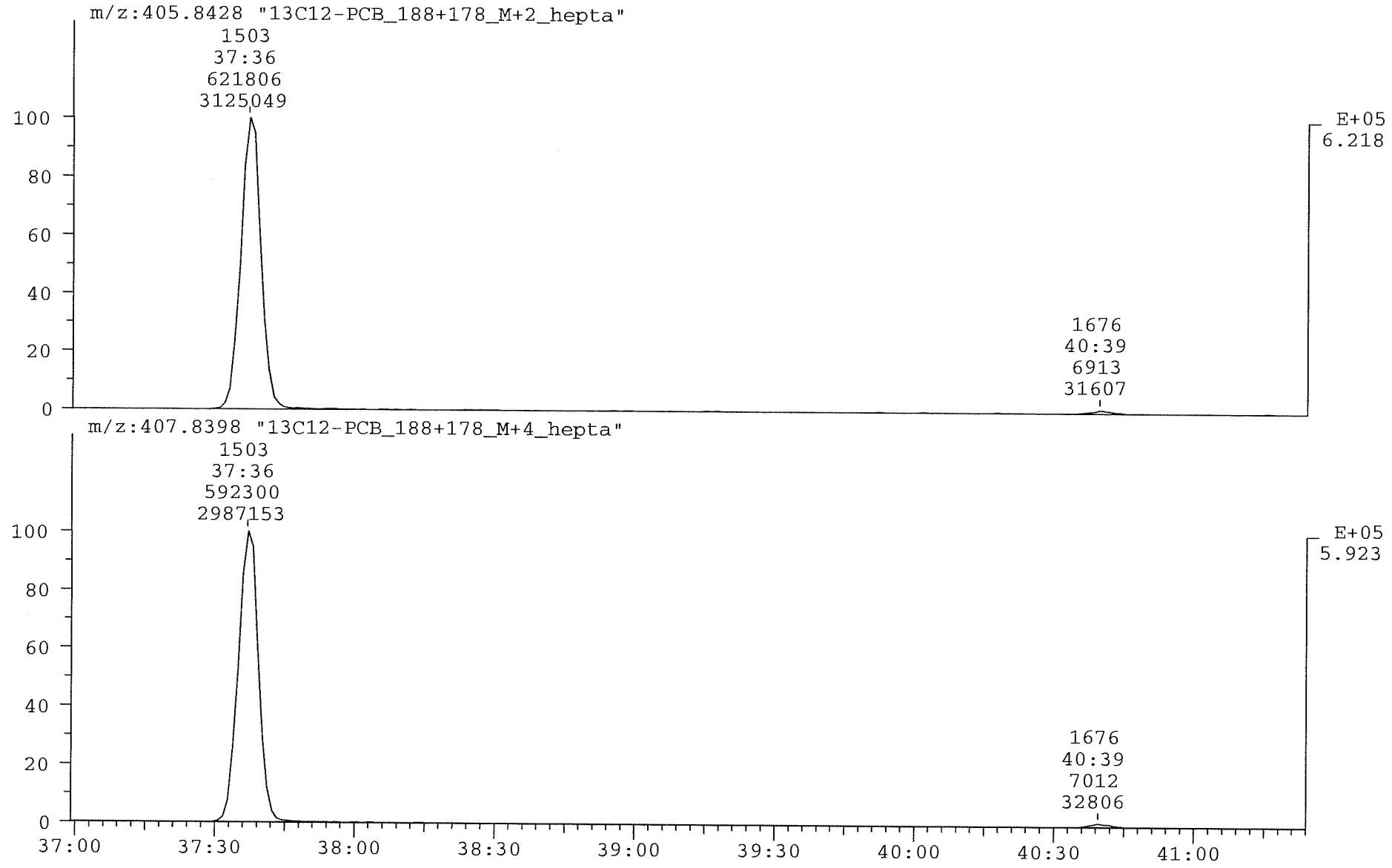
CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1657 > 1703 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-1446

1445

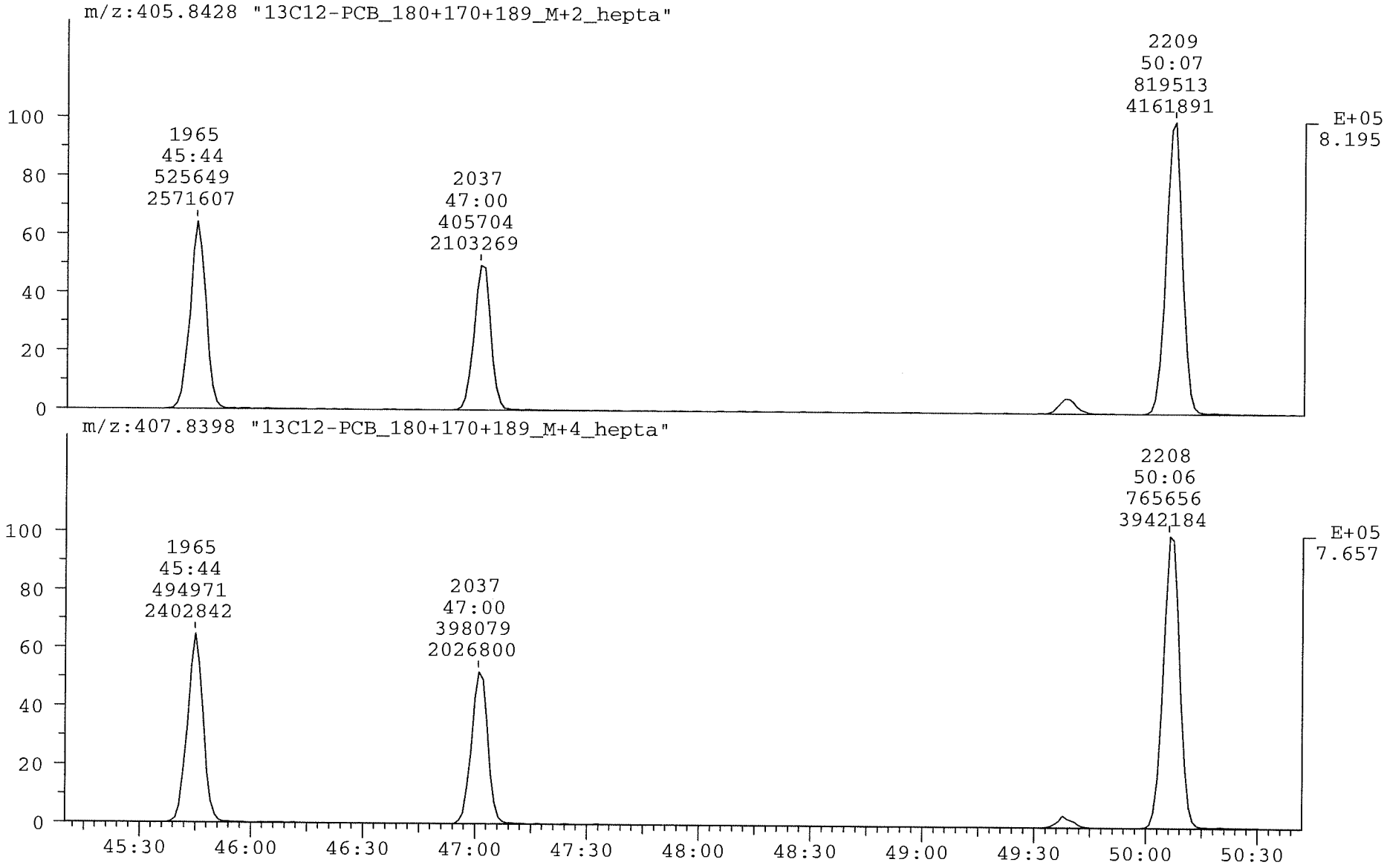
CHRO: a080624i6 24-Jun-08 Elapse: 39:10 1592
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1467 > 1718 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1447

1446

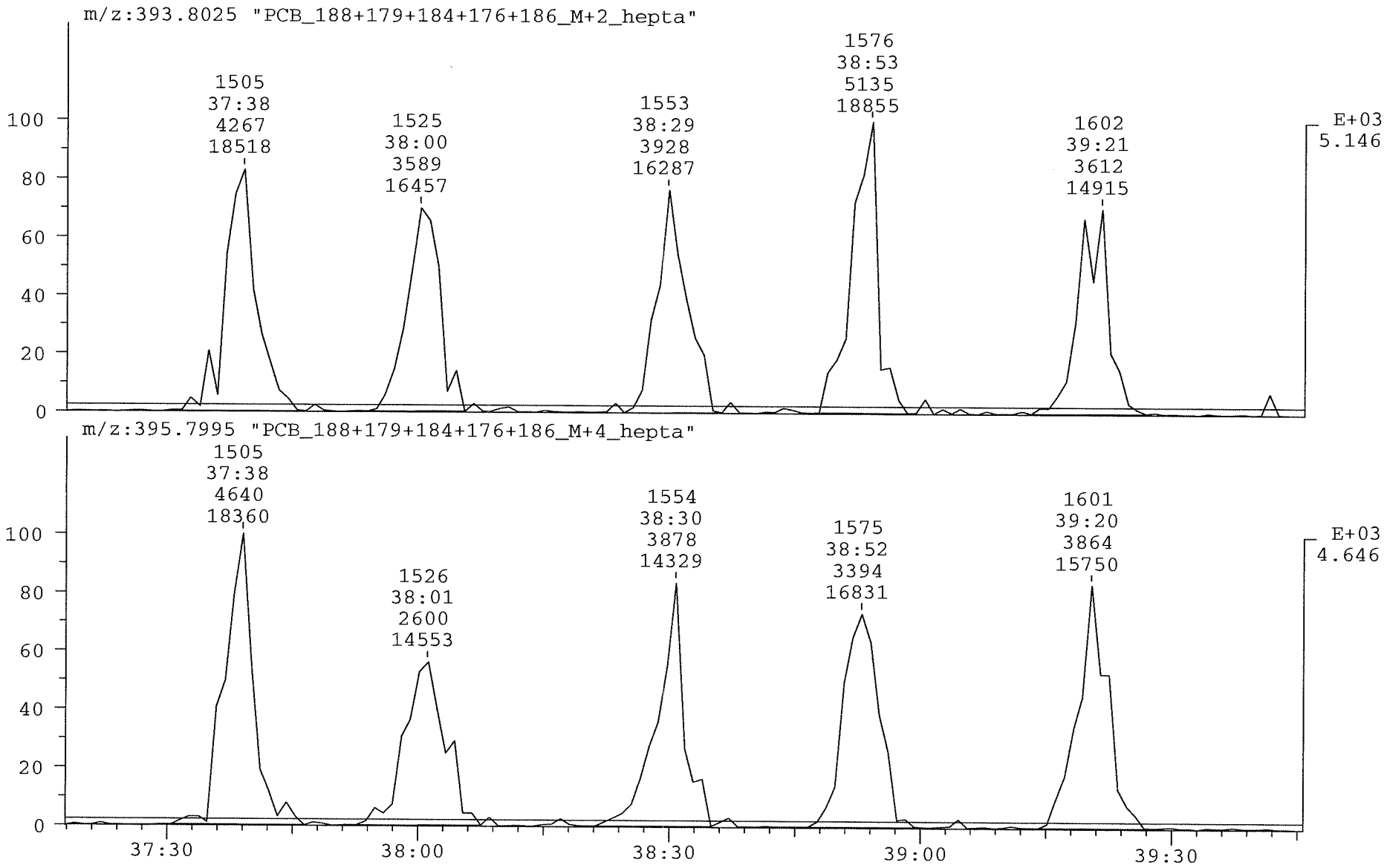
CHRO: a080624i6 24-Jun-08 Elapse: 47:58 2092
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1932 > 2242 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1448

1447

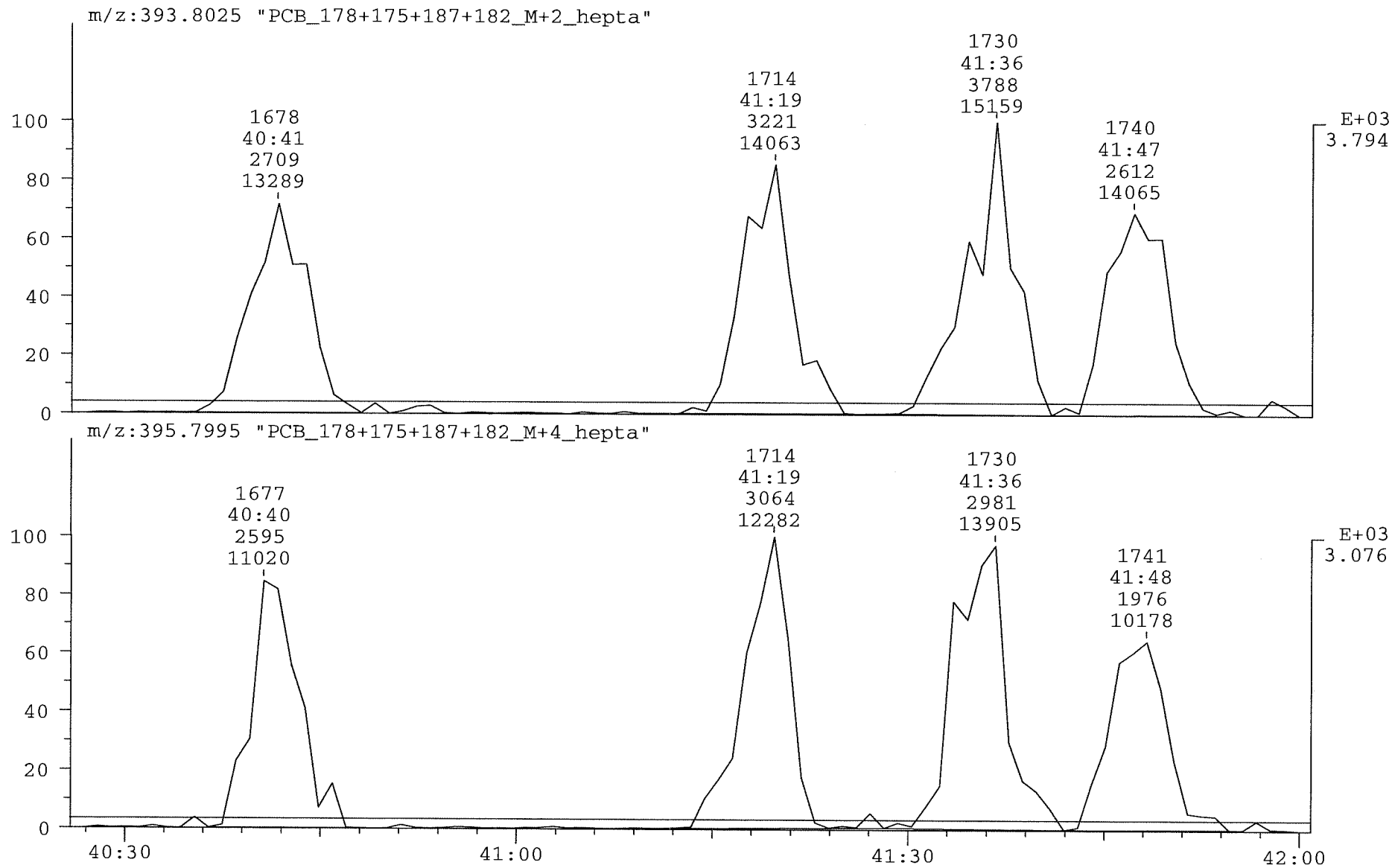
CHRO: a080624i6 24-Jun-08 Elapse: 38:31 1555
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1485 > 1625 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1449

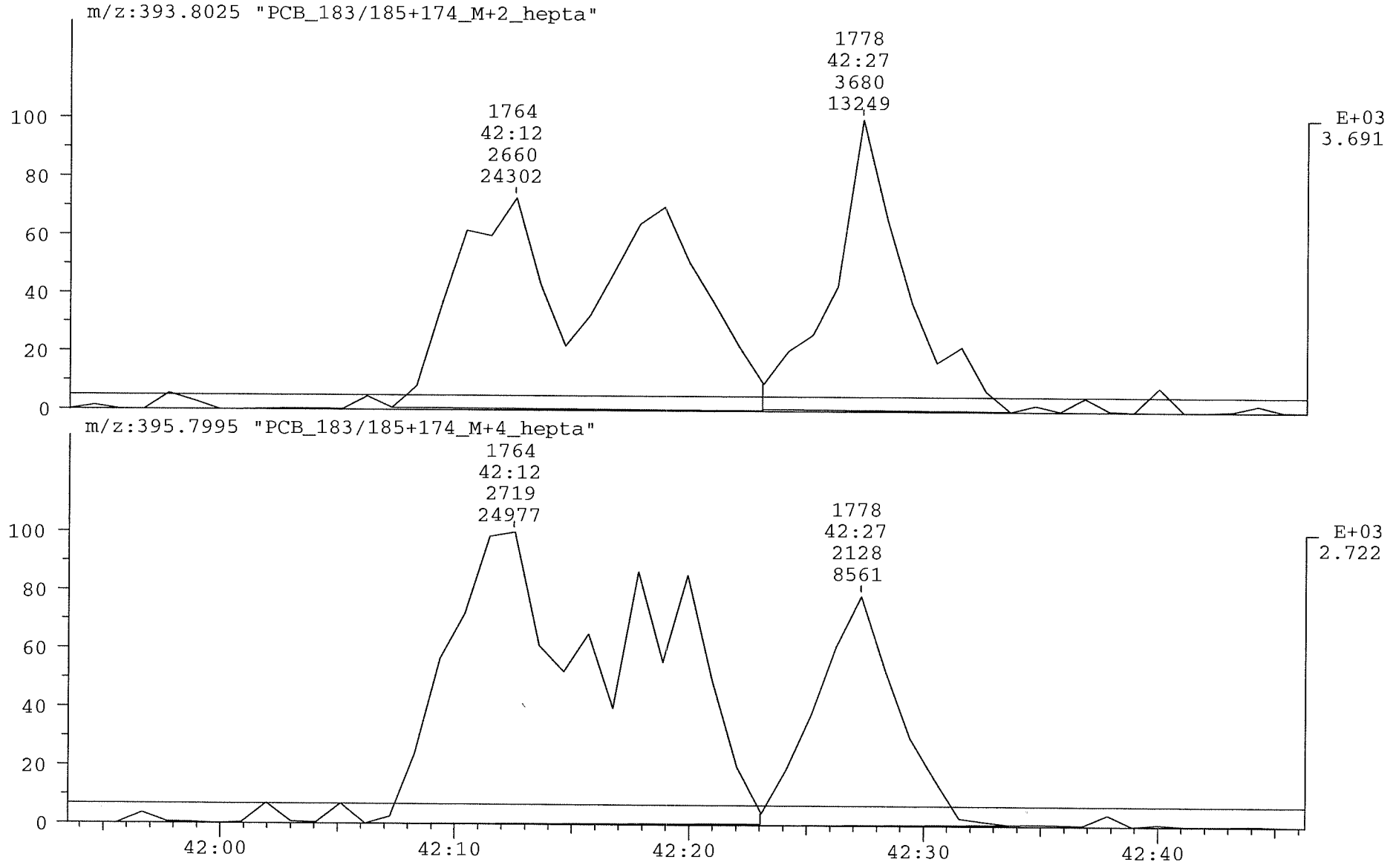
1448

CHRO: a080624i6 24-Jun-08 Elapse: 41:18 1713
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1663 > 1753 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



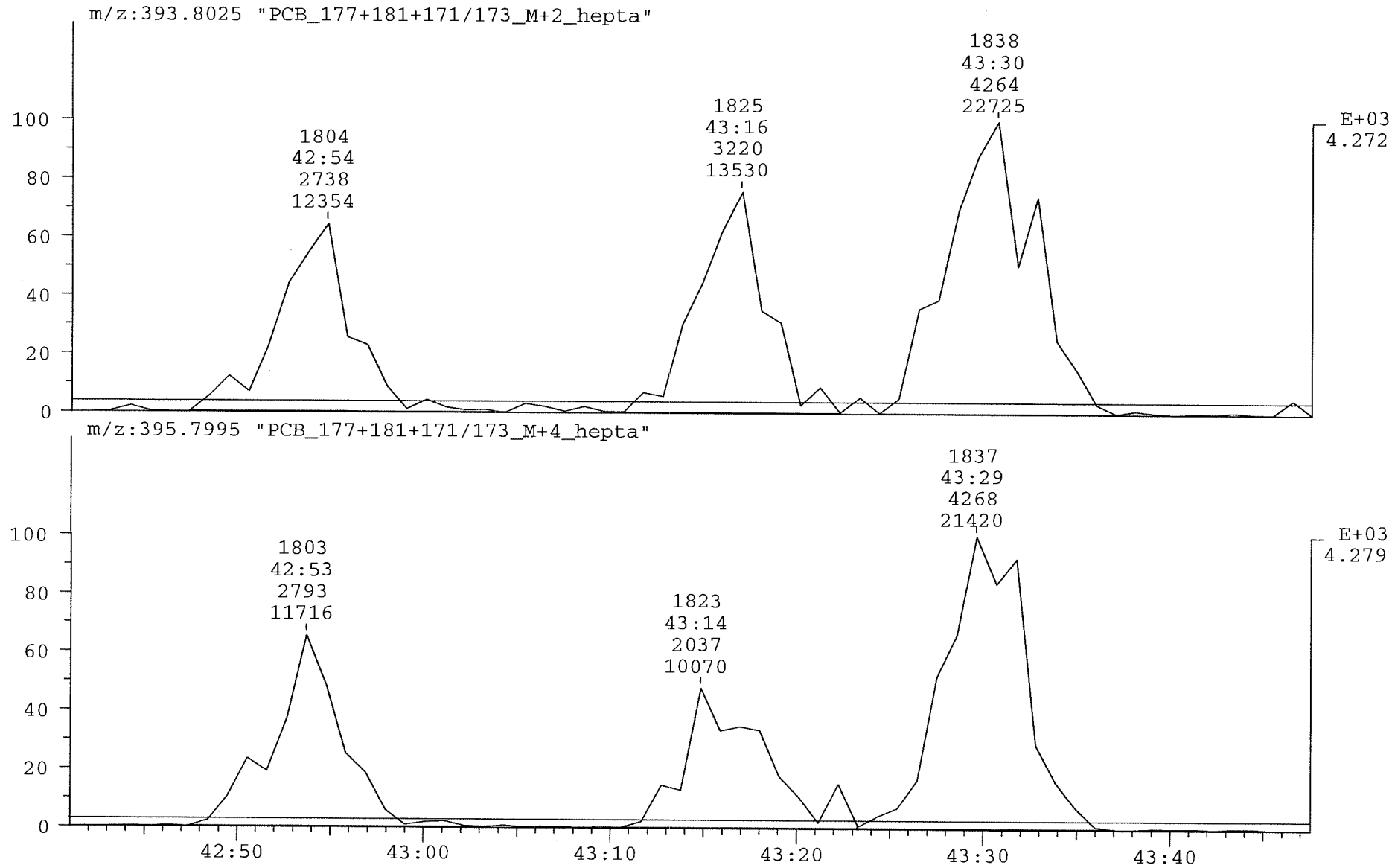
H-1450

CHRO: a080624i6 24-Jun-08 Elapse: 42:27 1778
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1746 > 1796 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1451

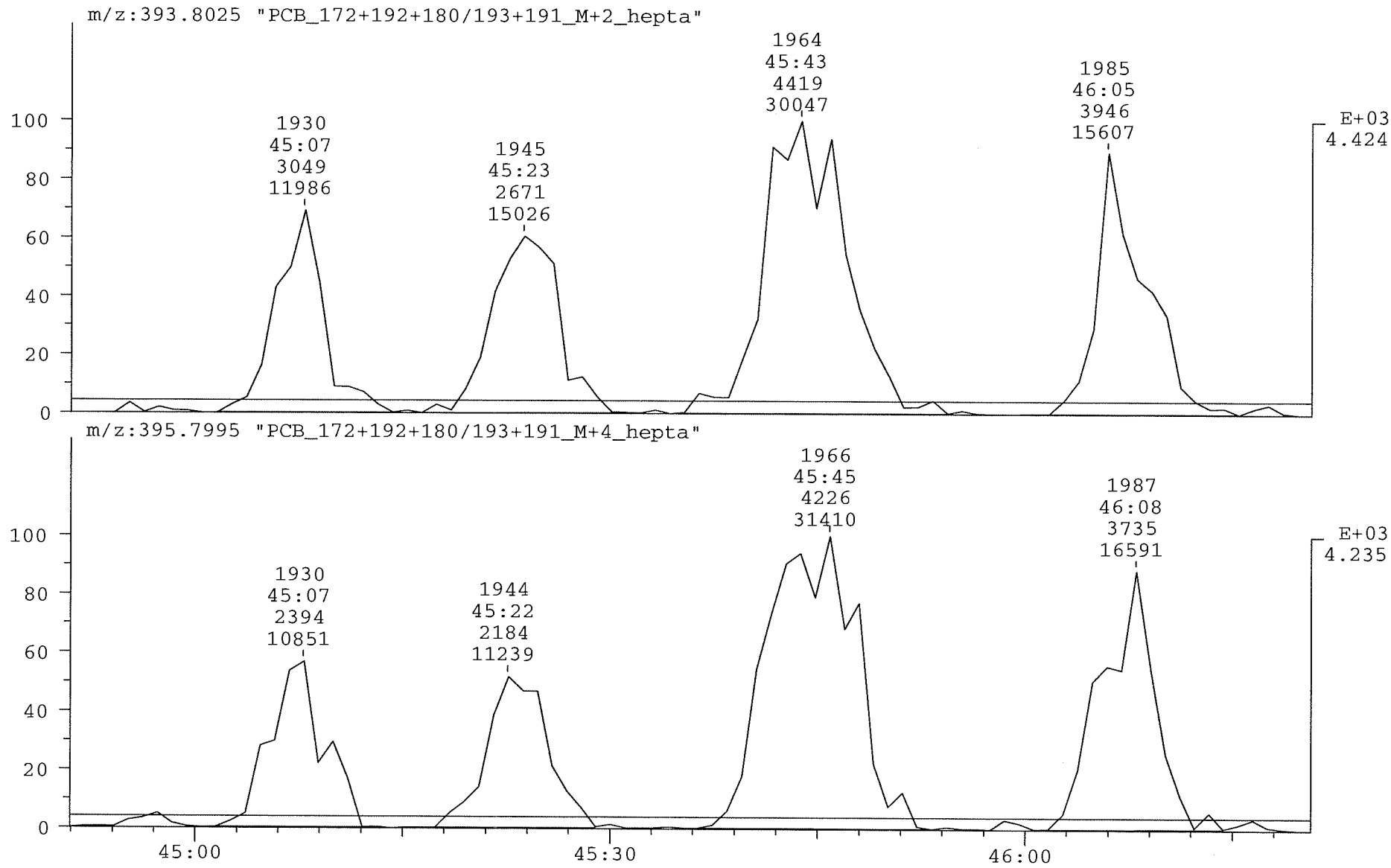
CHRO: a080624i6 24-Jun-08 Elapse: 43:15 1824
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1791 > 1854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1452

1451

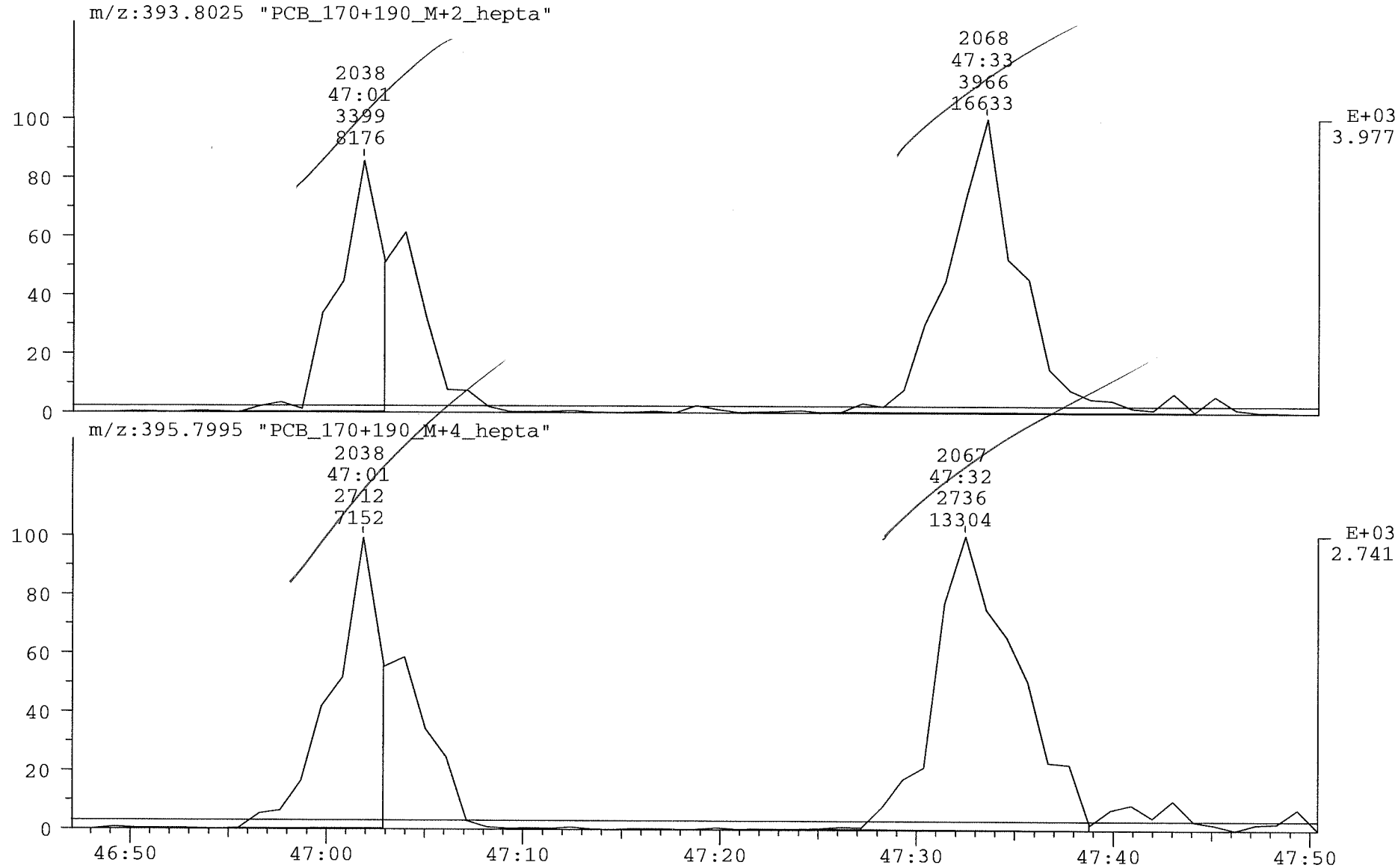
CHRO: a080624i6 24-Jun-08 Elapse: 45:43 1964
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1914 > 1999 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1453

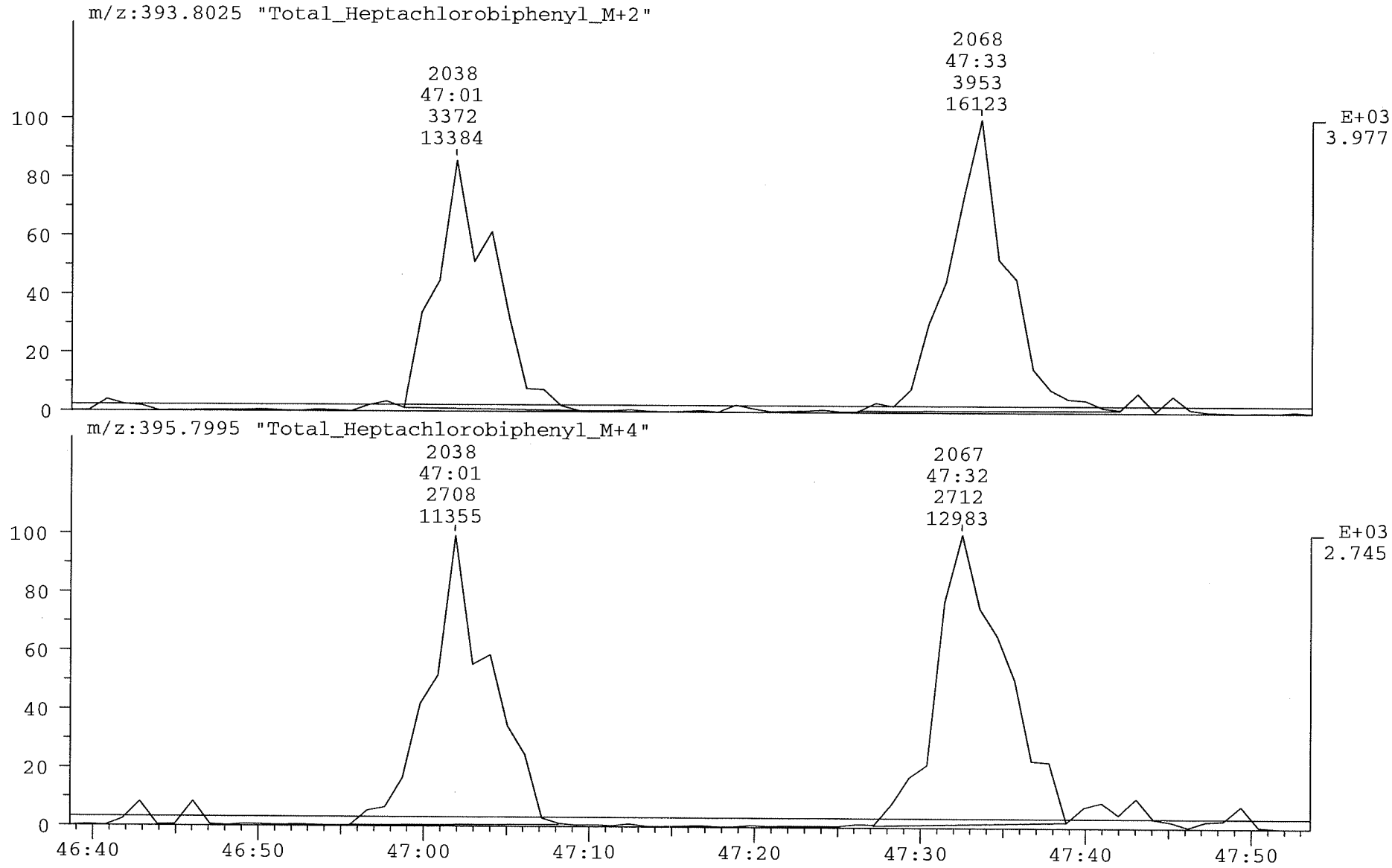
1452

CHRO: a080624i6 24-Jun-08 Elapse: 47:20 2056
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2024 > 2084 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1454

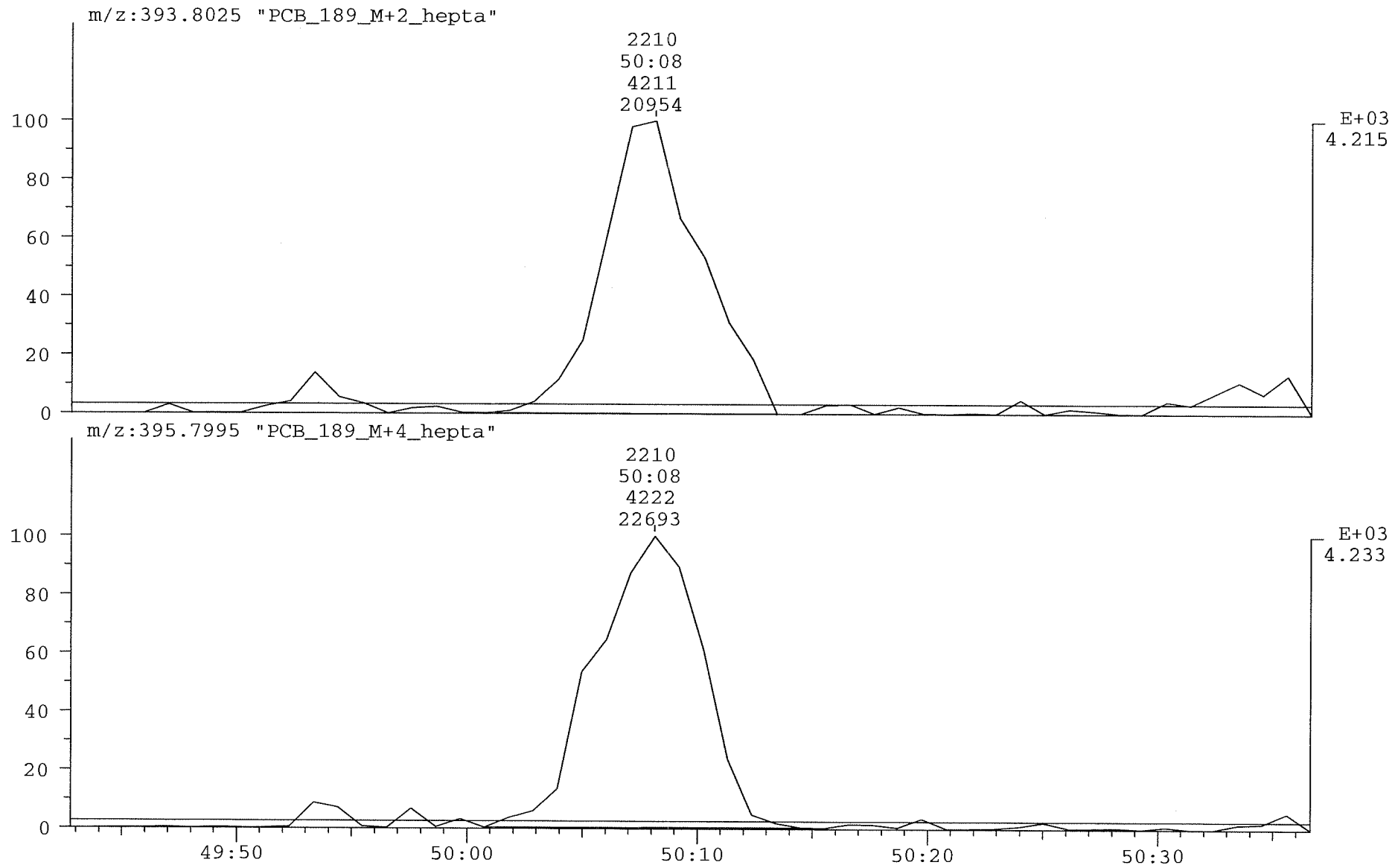
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2016 > 2087 Masses: 181 > 510
Area: 5, 2.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1455

1454

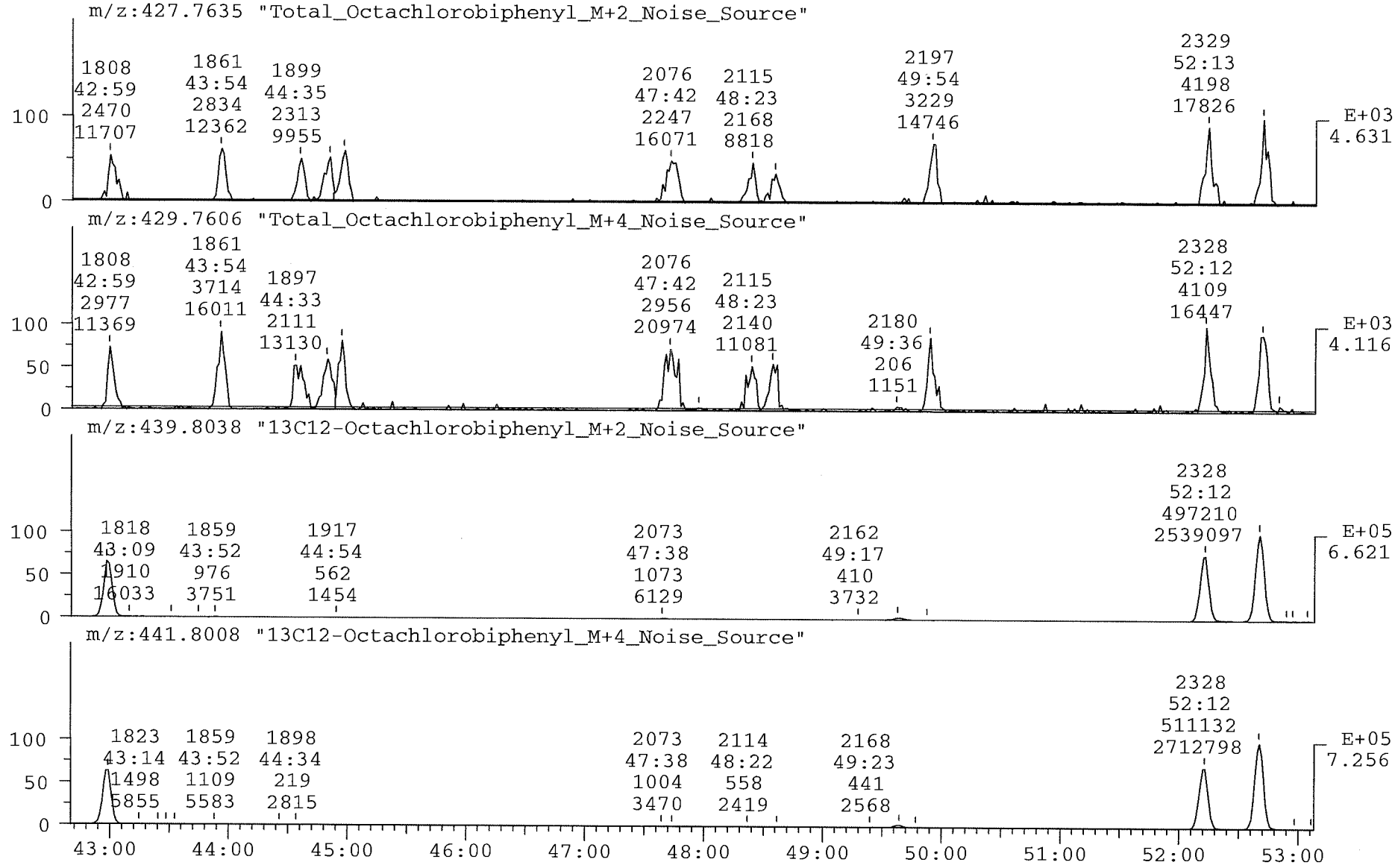
CHRO: a080624i6 24-Jun-08 Elapse: 50:08 2210
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2186 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1456

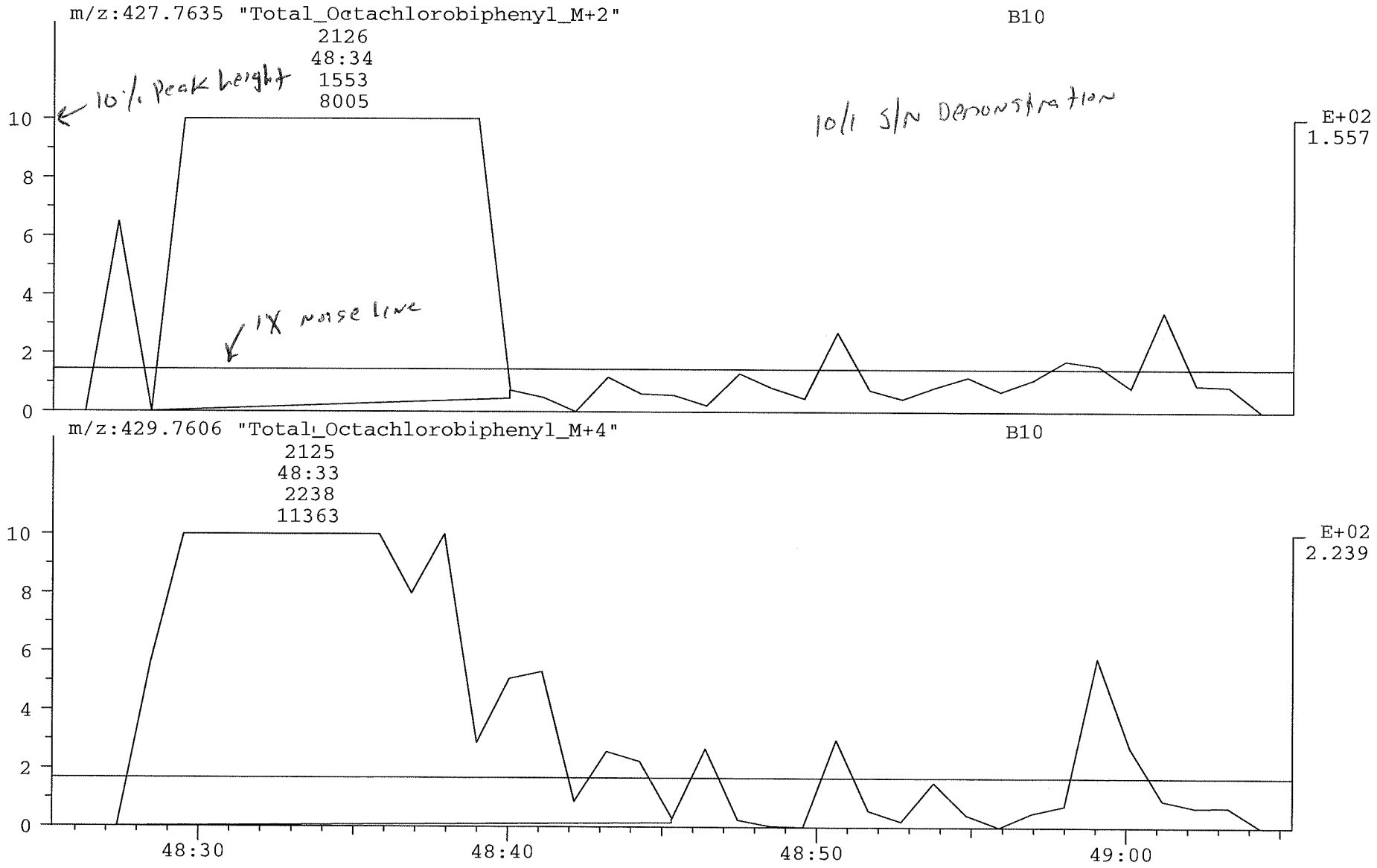
1455

CHRO: a080624i6 24-Jun-08 Elapse: 47:53 2087
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1790 > 2380 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1457

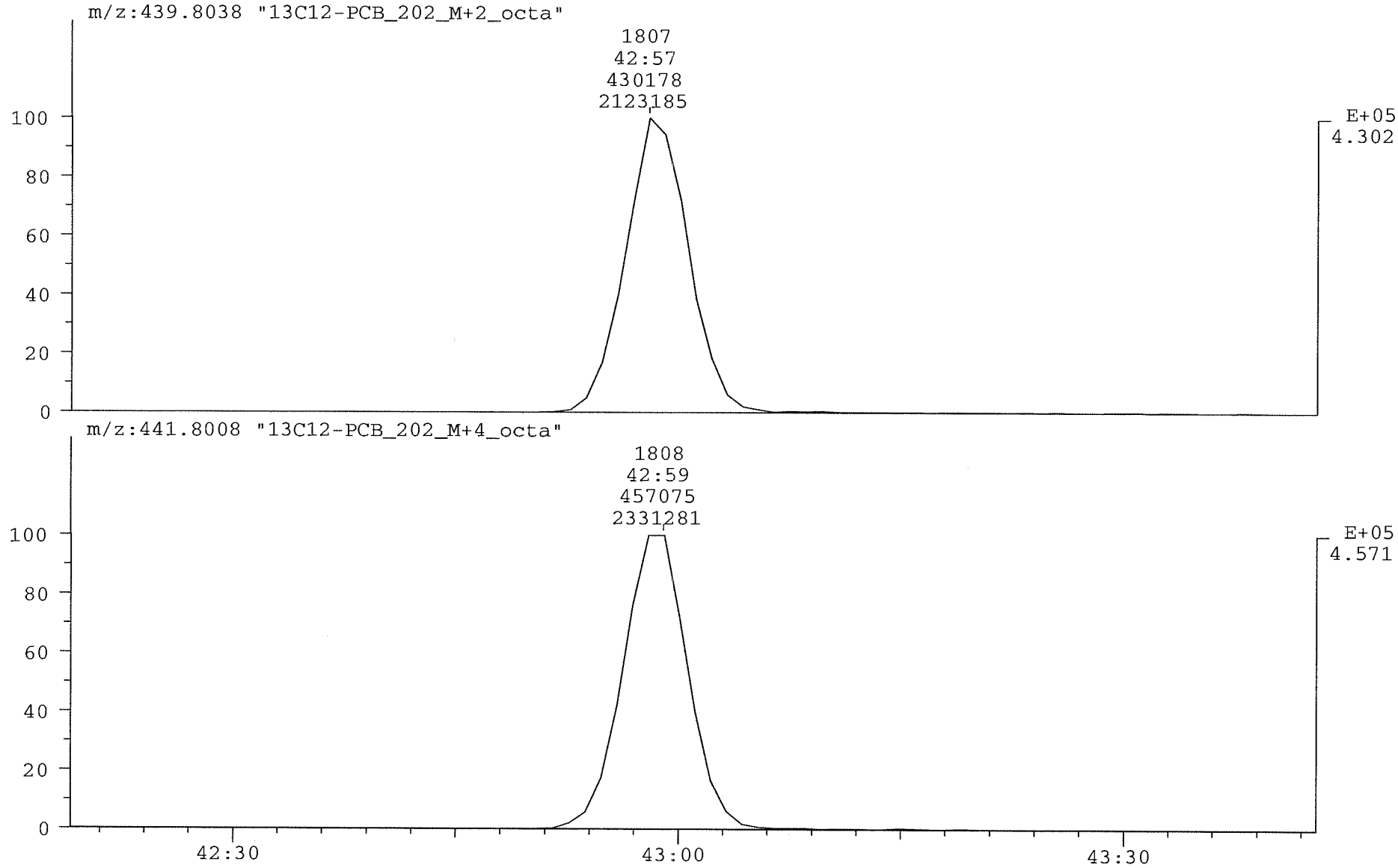
CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2117 > 2155 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-1458

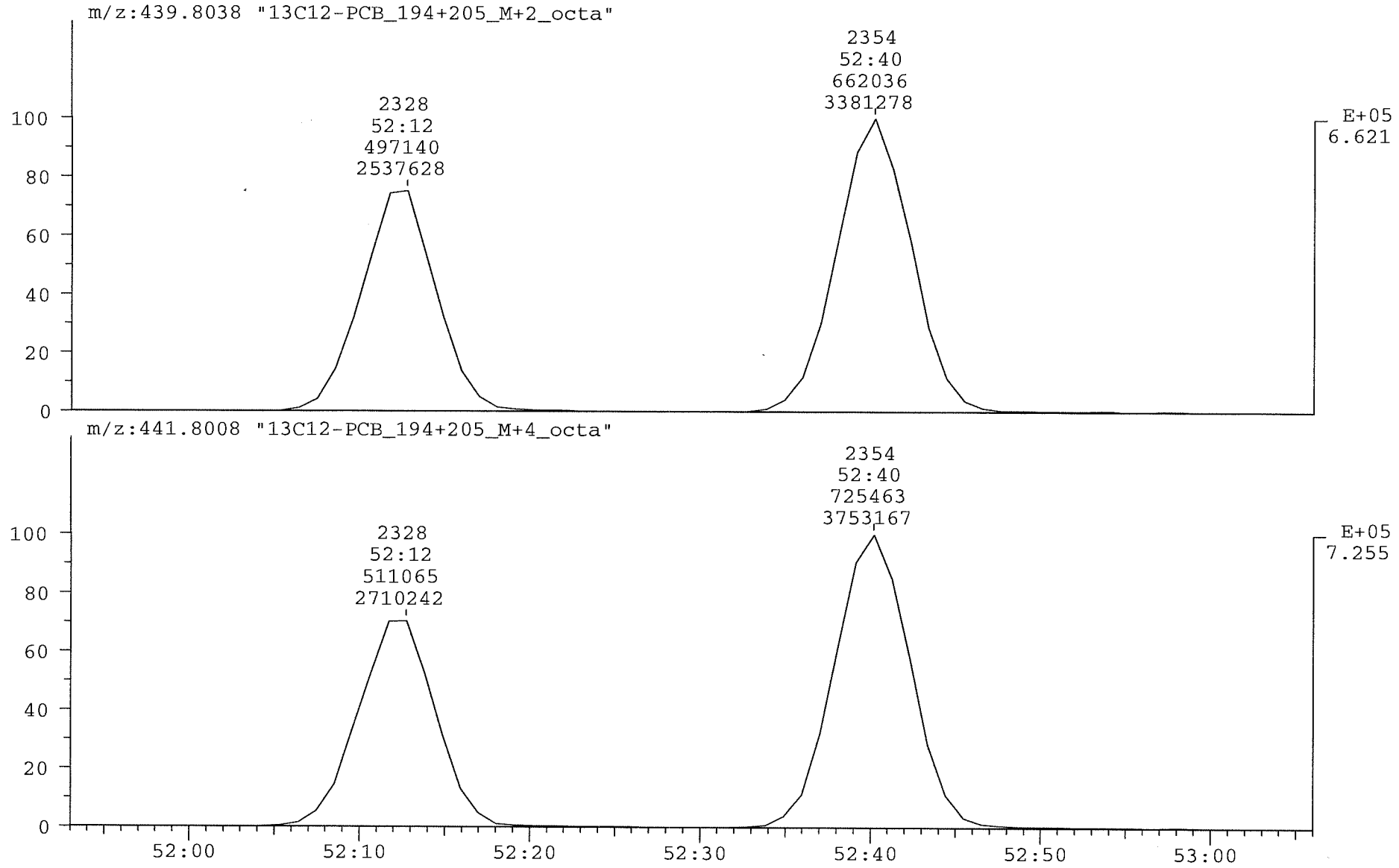
1457

CHRO: a080624i6 24-Jun-08 Elapse: 42:57 1807
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1770 > 1850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



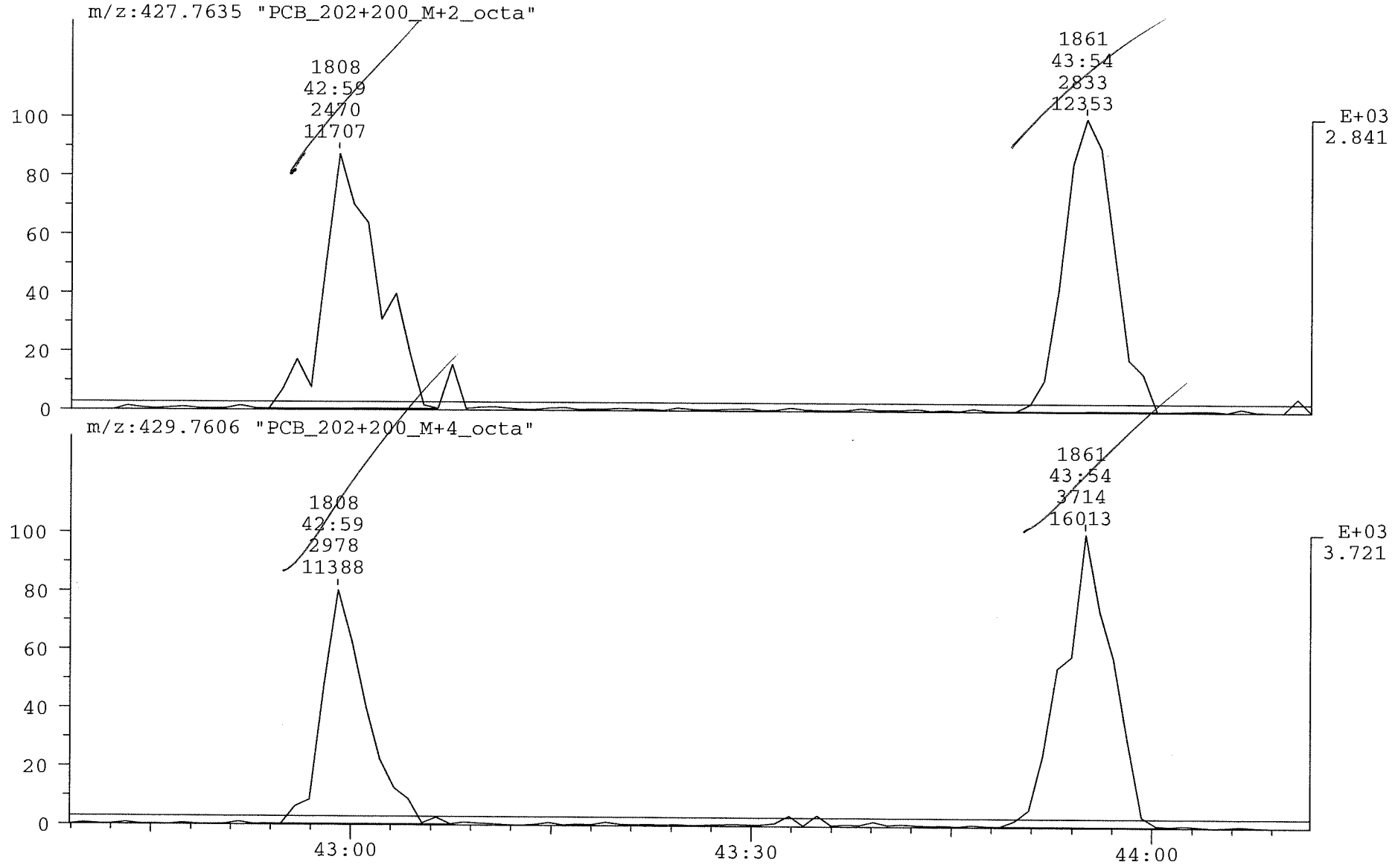
H-1459

CHRO: a080624i6 24-Jun-08 Elapse: 52:28 2343
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2309 > 2378 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1460

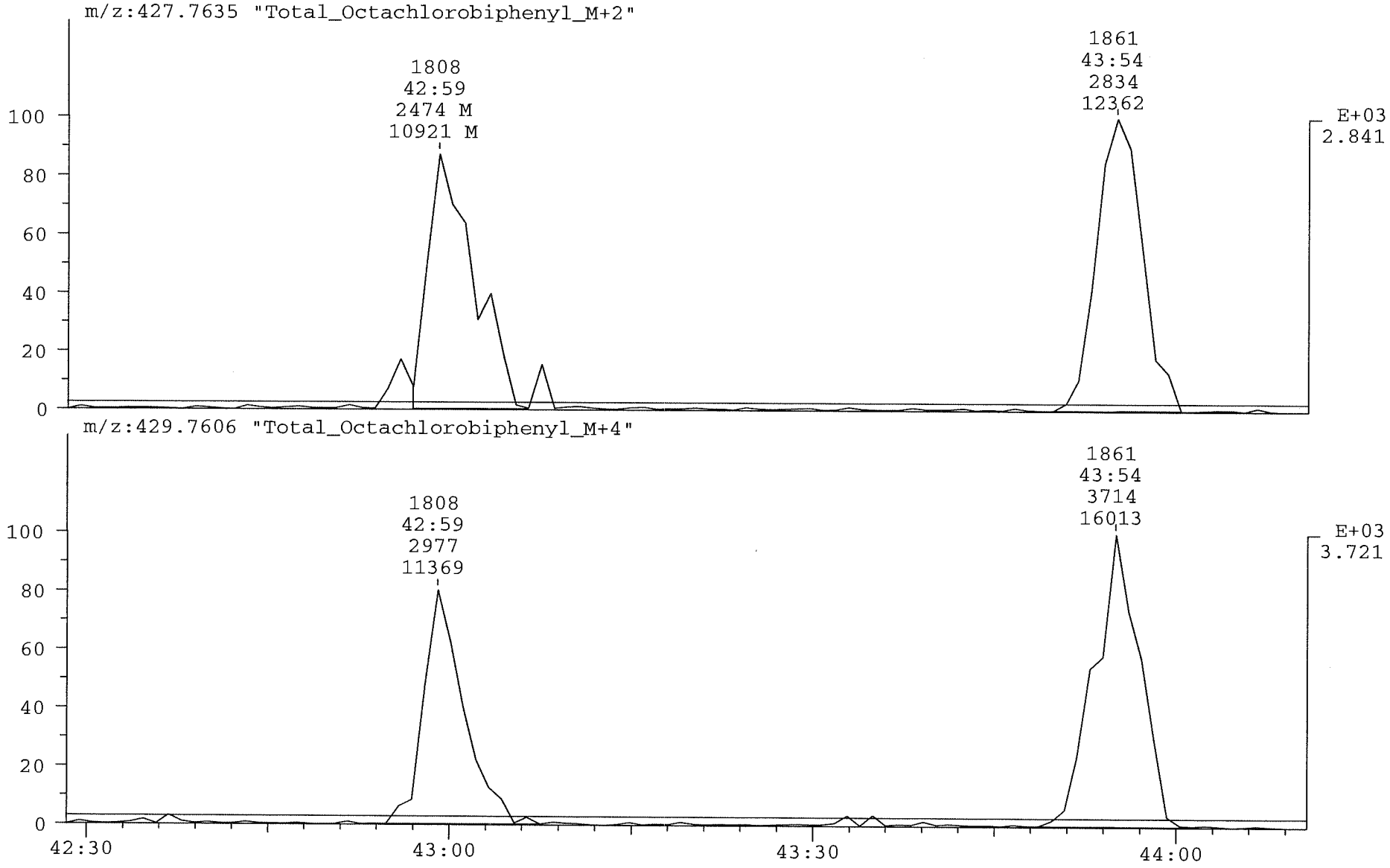
CHRO: a080624i6 24-Jun-08 Elapse: 43:29 1837
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1789 > 1877 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1461

1460

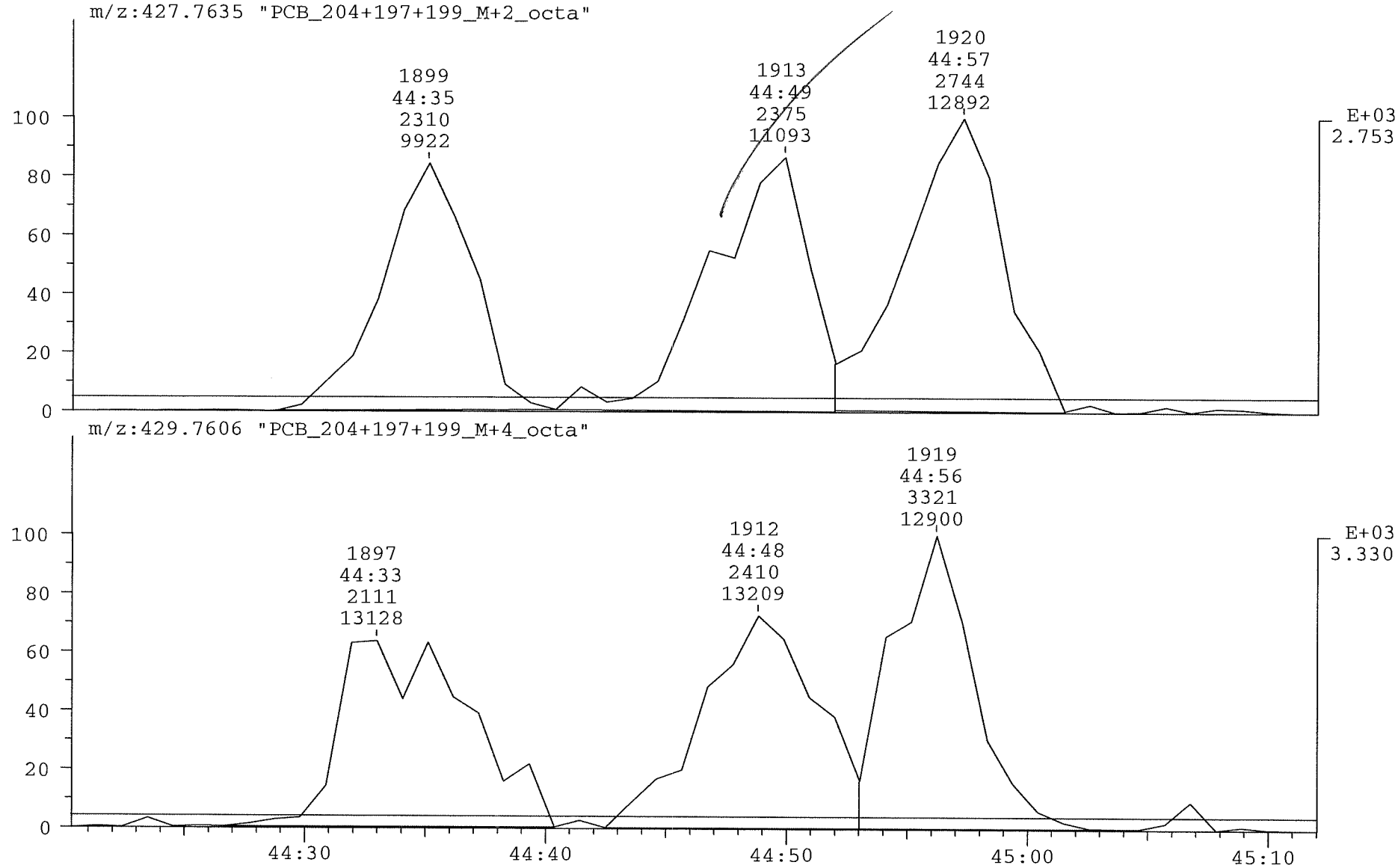
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1779 > 1876 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1462

1461

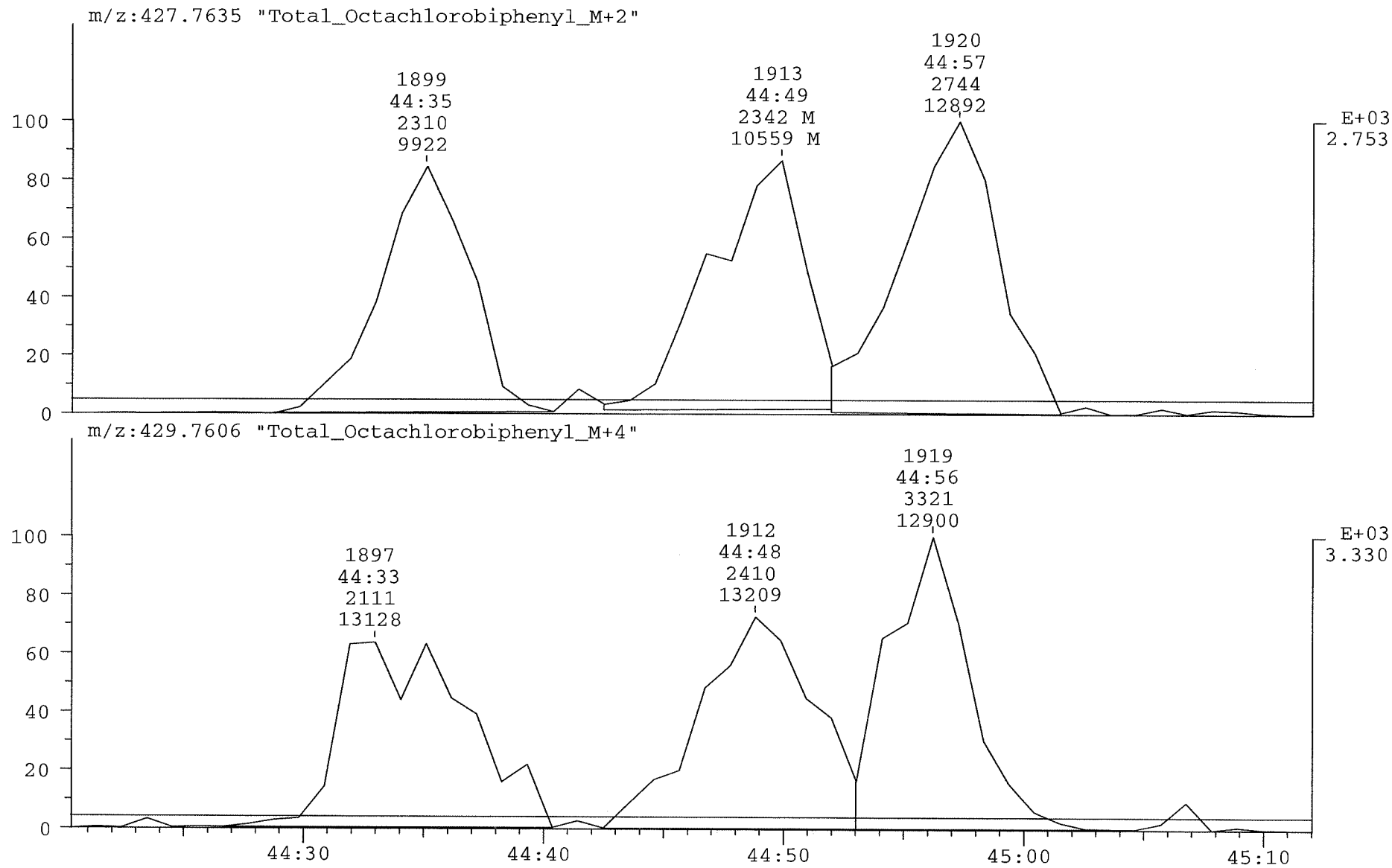
CHRO: a080624i6 24-Jun-08 Elapse: 44:35 1899
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1885 > 1934 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1463

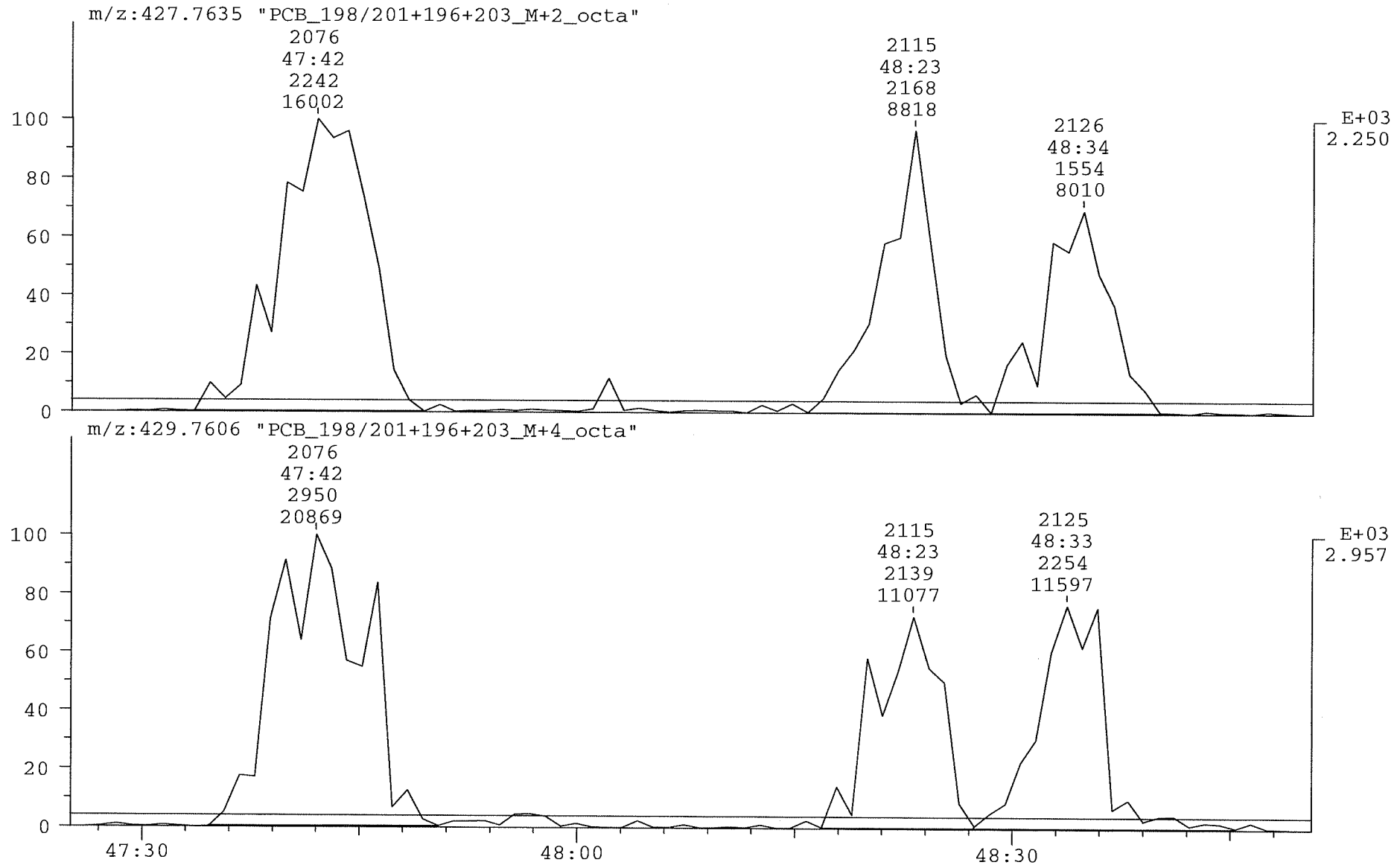
1462

CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1885 > 1934 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1464

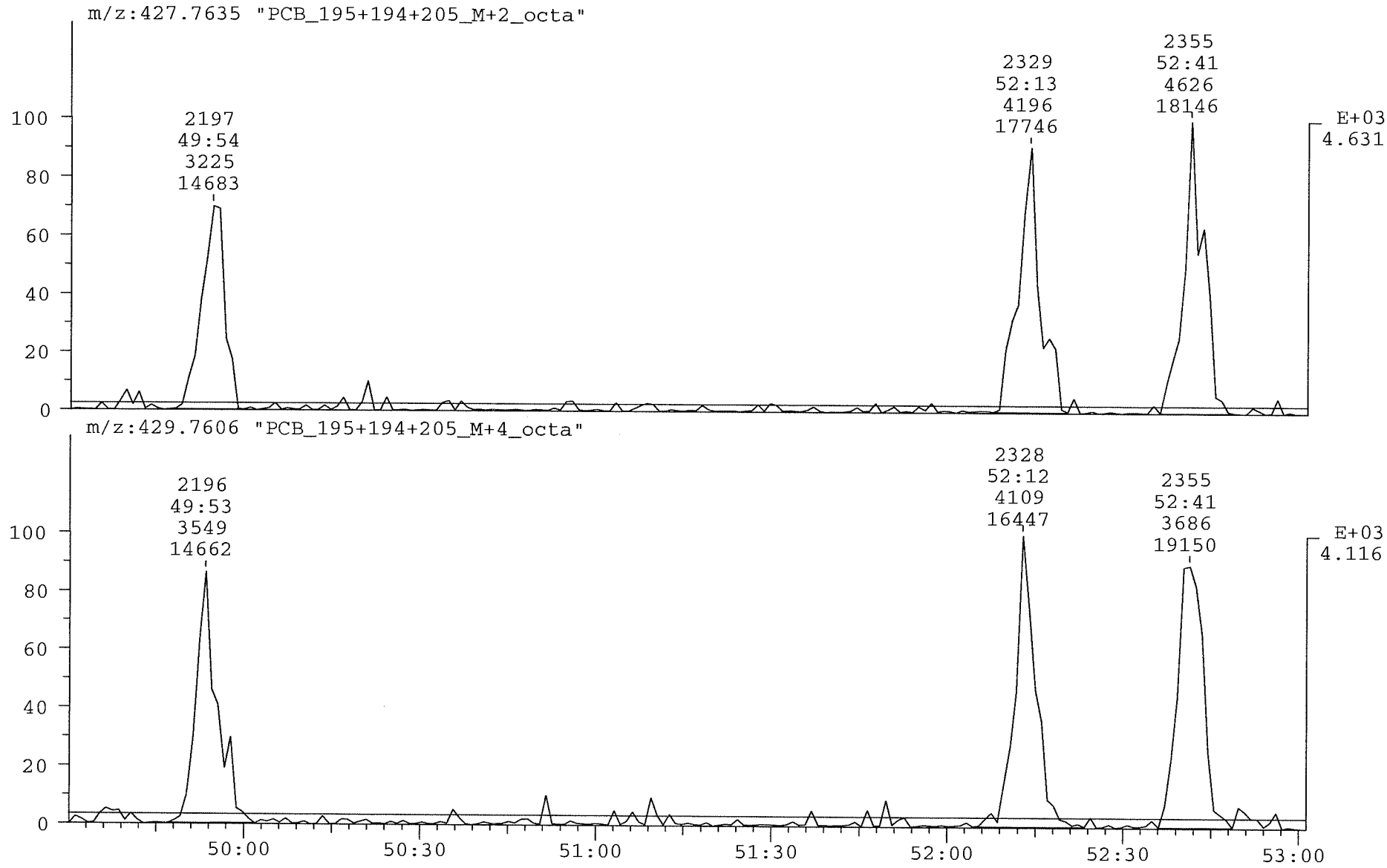
CHRO: a080624i6 24-Jun-08 Elapse: 48:22 2114
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2060 > 2141 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1465

1464

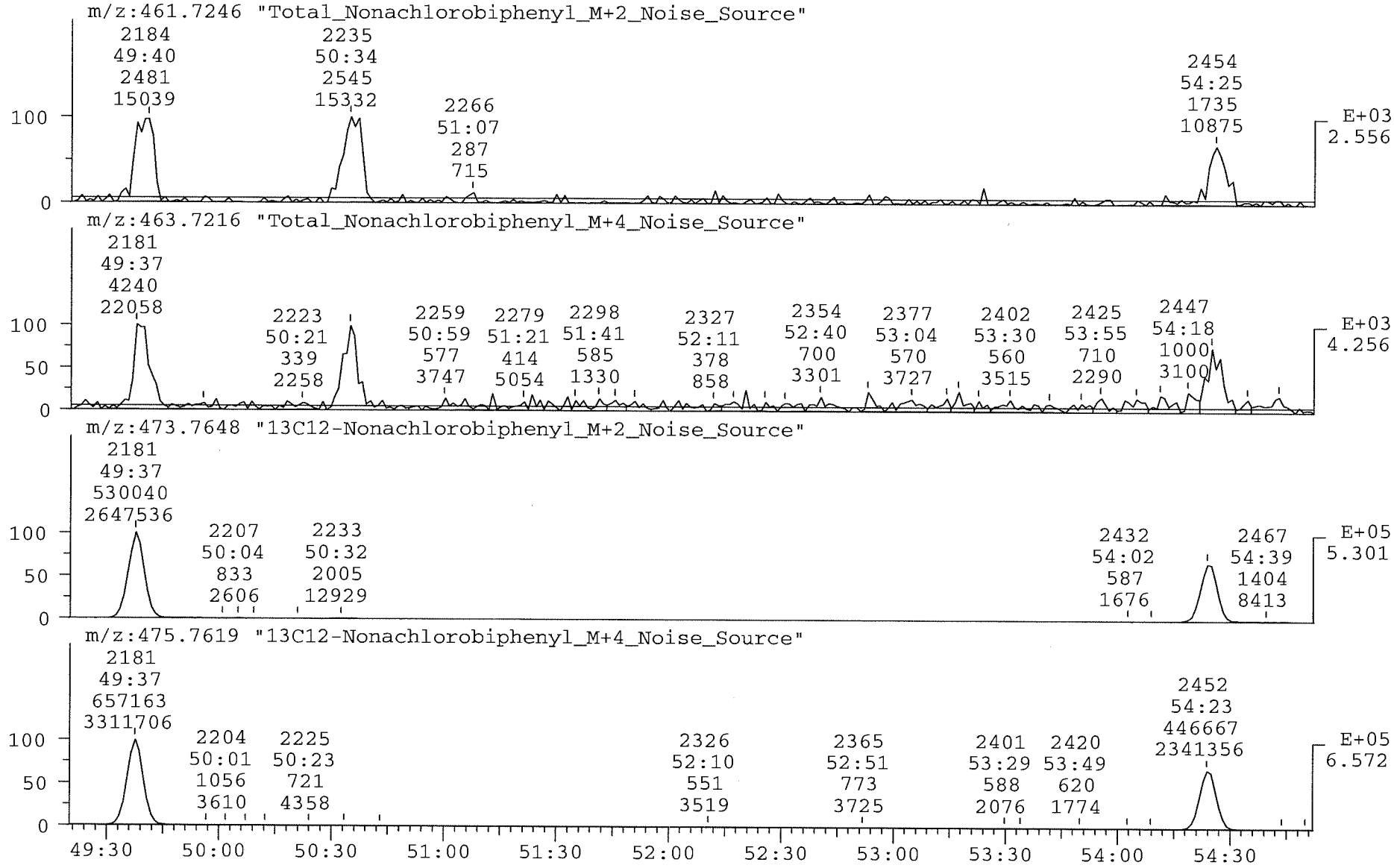
CHRO: a080624i6 24-Jun-08 Elapse: 52:13 2329
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2174 > 2374 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H1466

1465

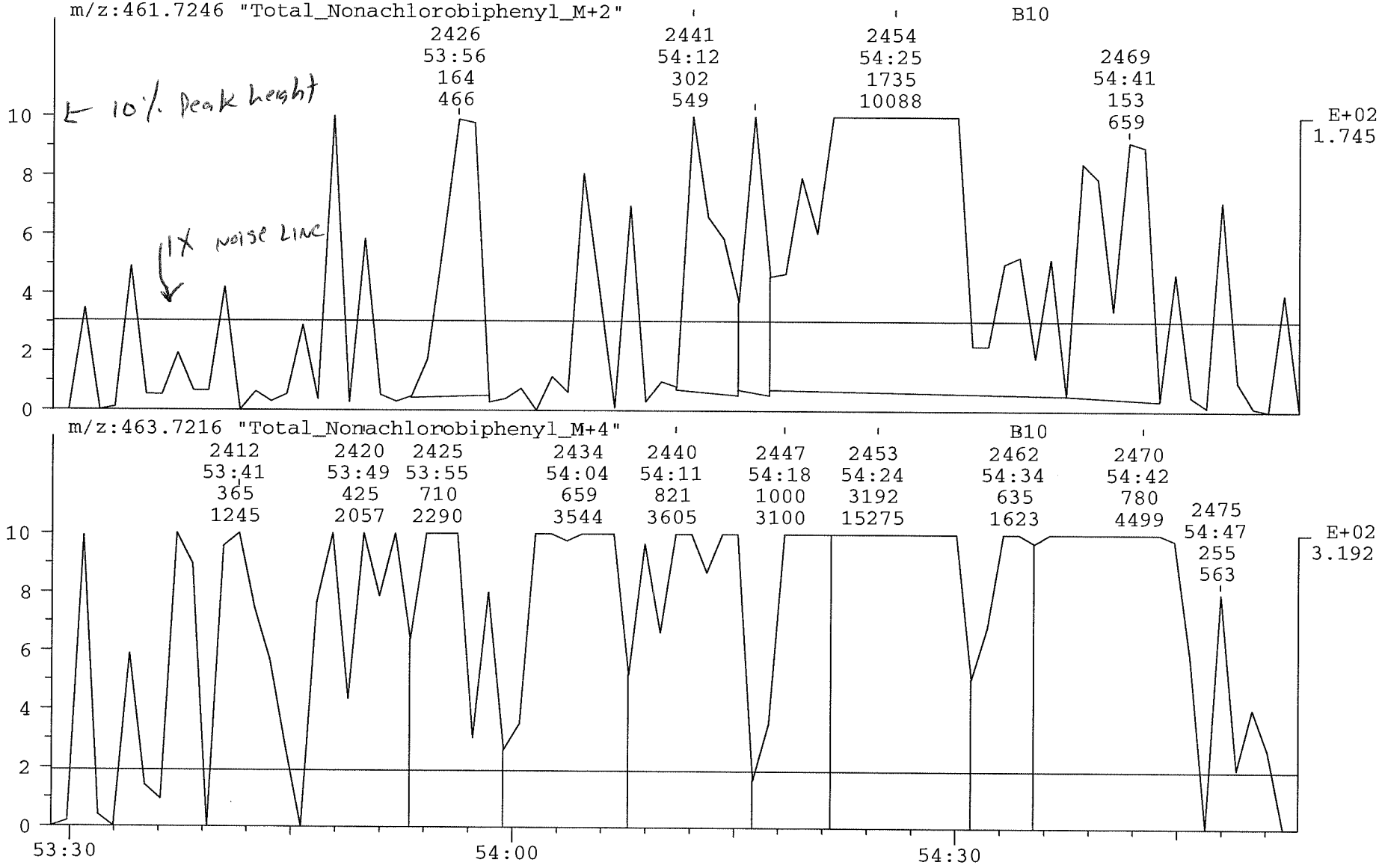
CHRO: a080624i6 24-Jun-08 Elapse: 52:06 2322
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2164 > 2479 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1467

CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2400 > 2480 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area

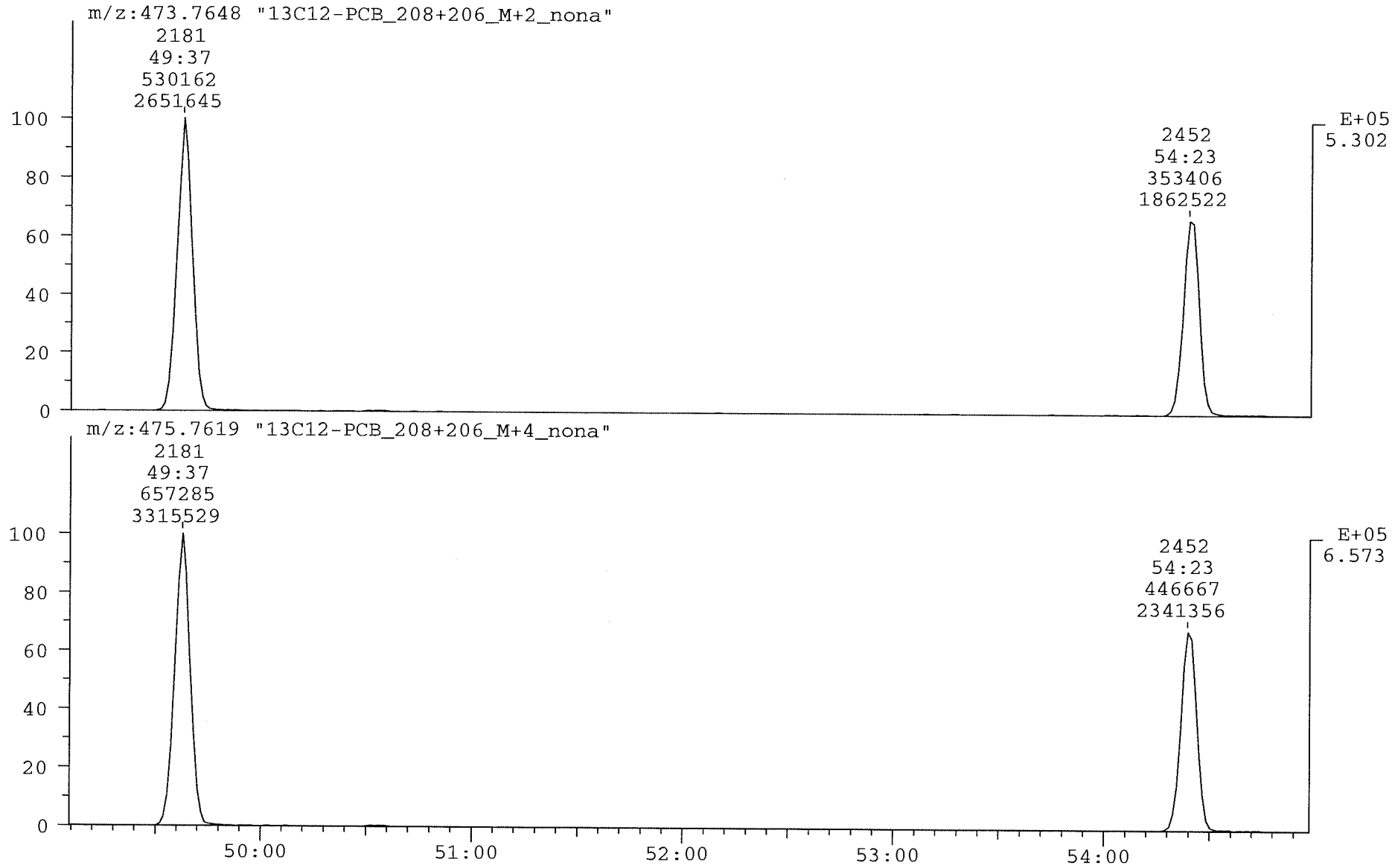
10/1 S/N demonstration



H1468

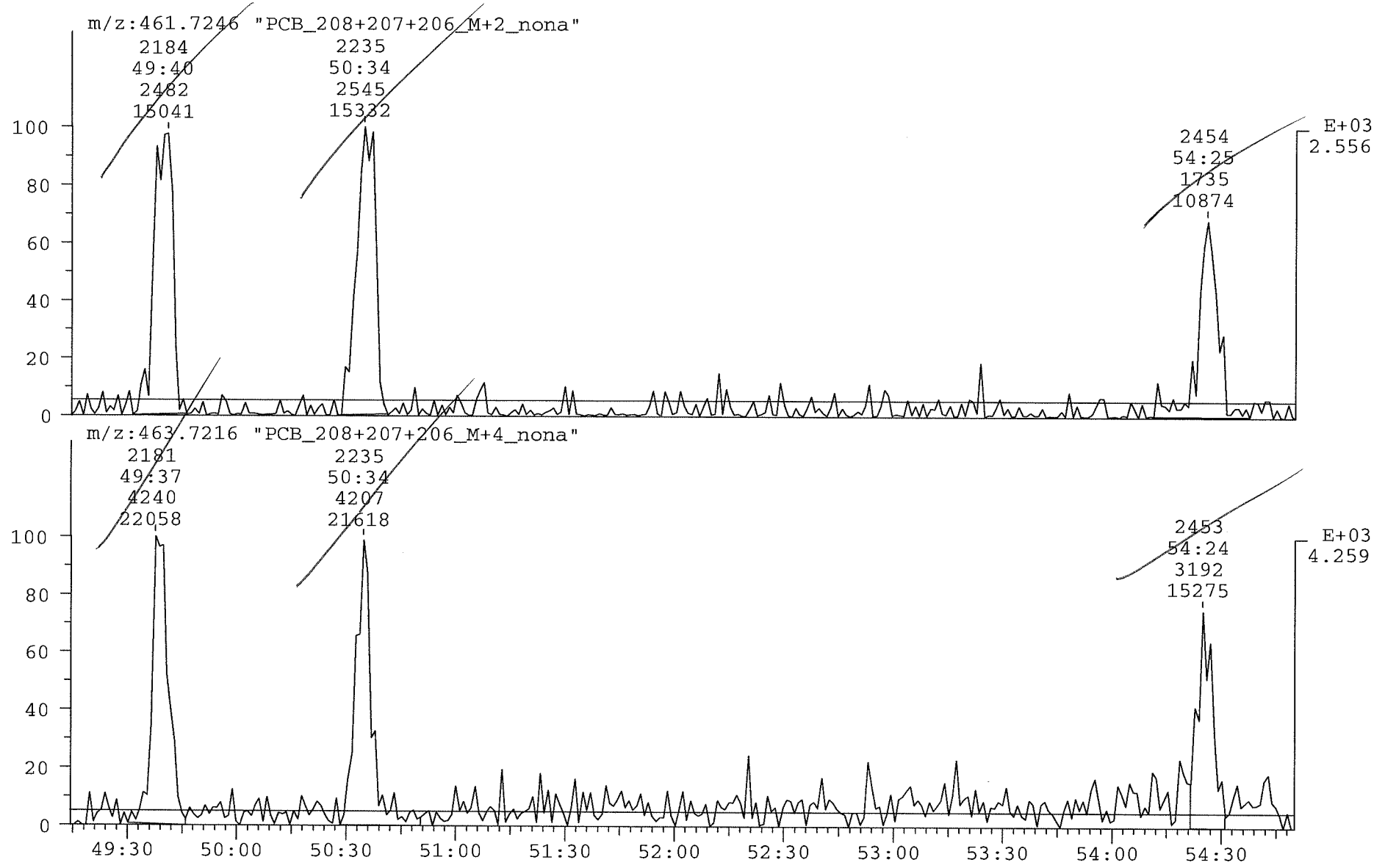
1467

CHRO: a080624i6 24-Jun-08 Elapse: 52:04 2320
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2155 > 2485 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1469

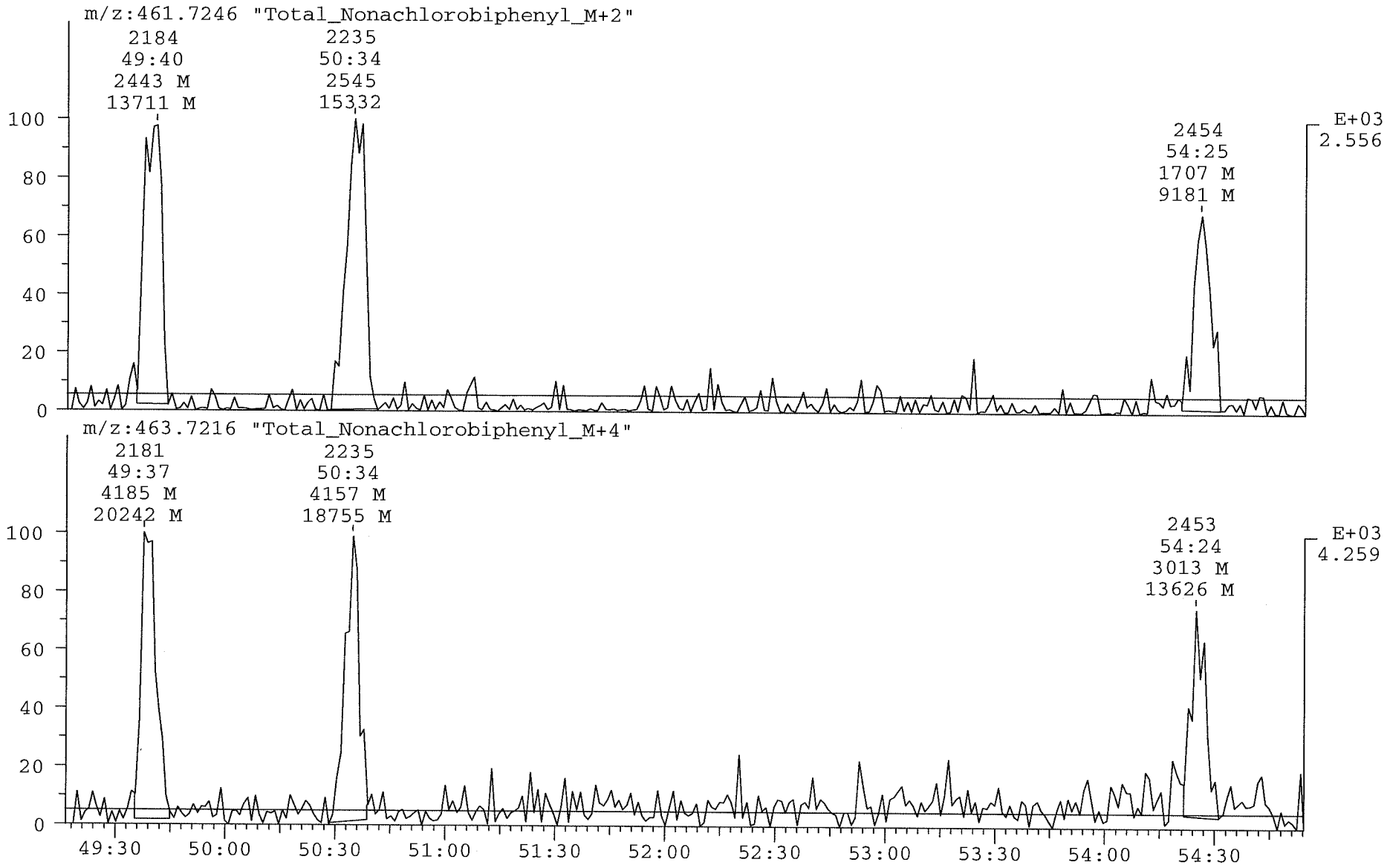
CHRO: a080624i6 24-Jun-08 Elapse: 52:06 2322
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2159 > 2477 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1470

1469

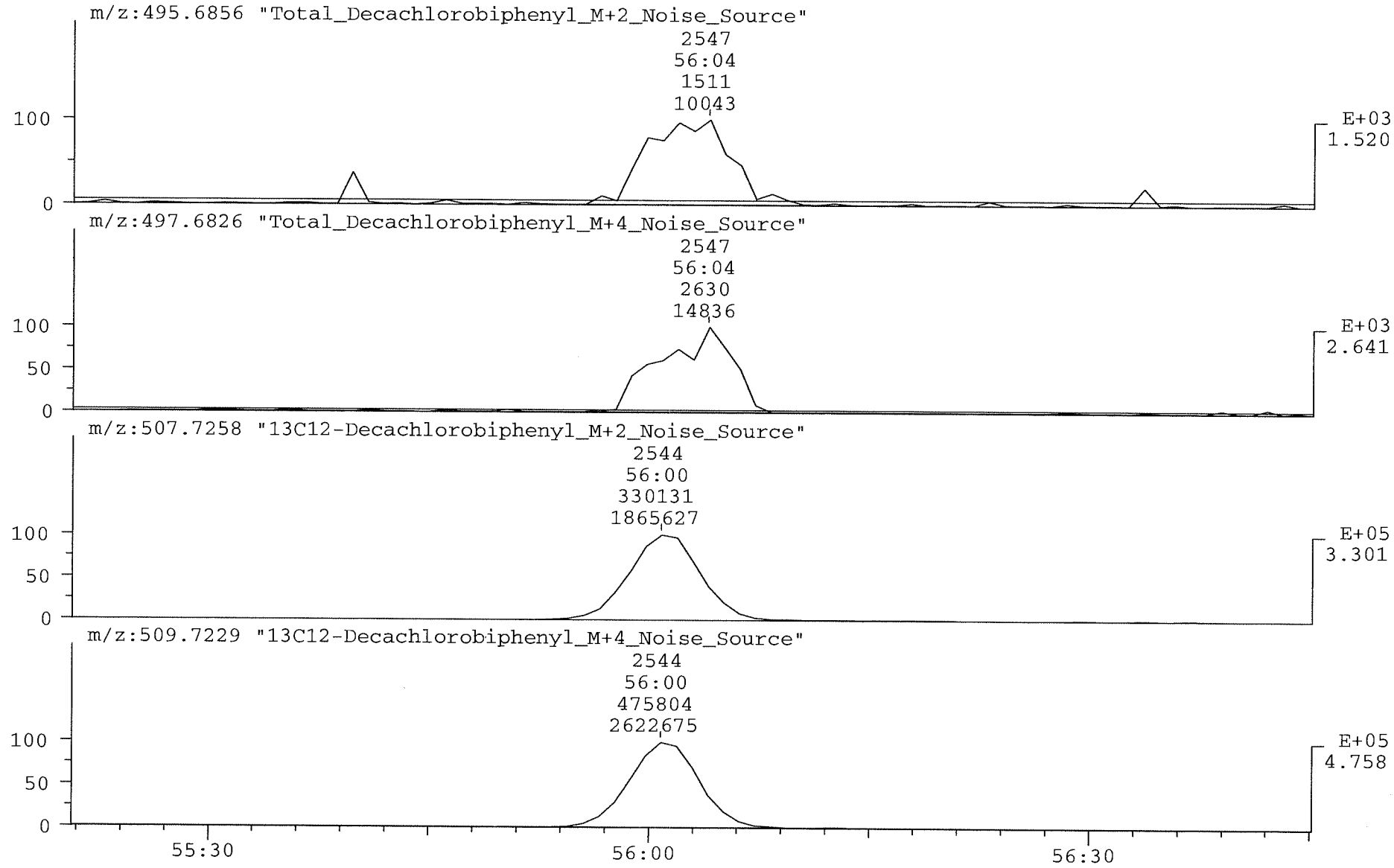
CHRO: a080624i6 24-Jun-08 Elapse: 56:46 2587
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2161 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1471

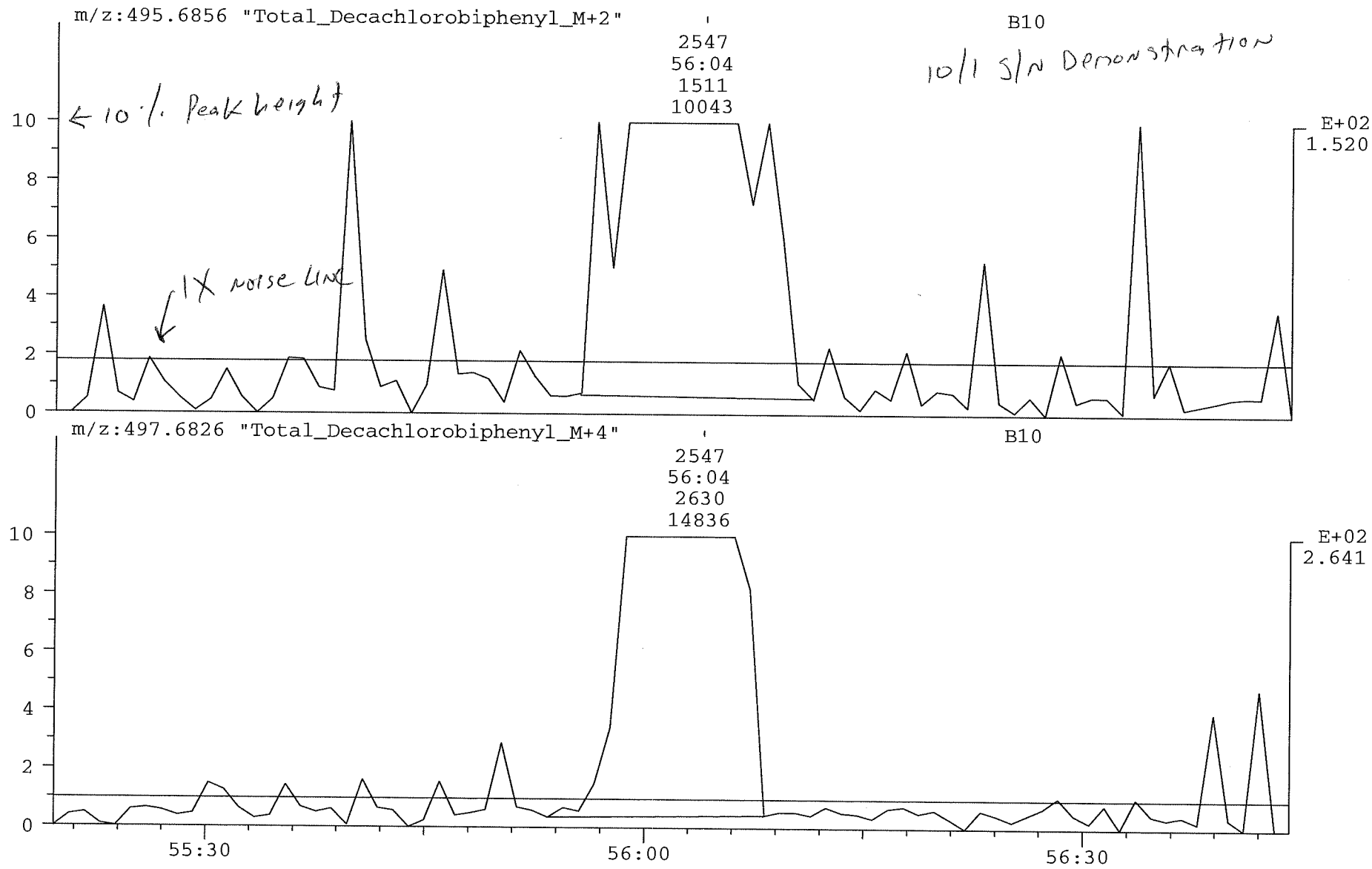
1470

CHRO: a080624i6 24-Jun-08 Elapse: 56:06 2549
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2506 > 2586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1472

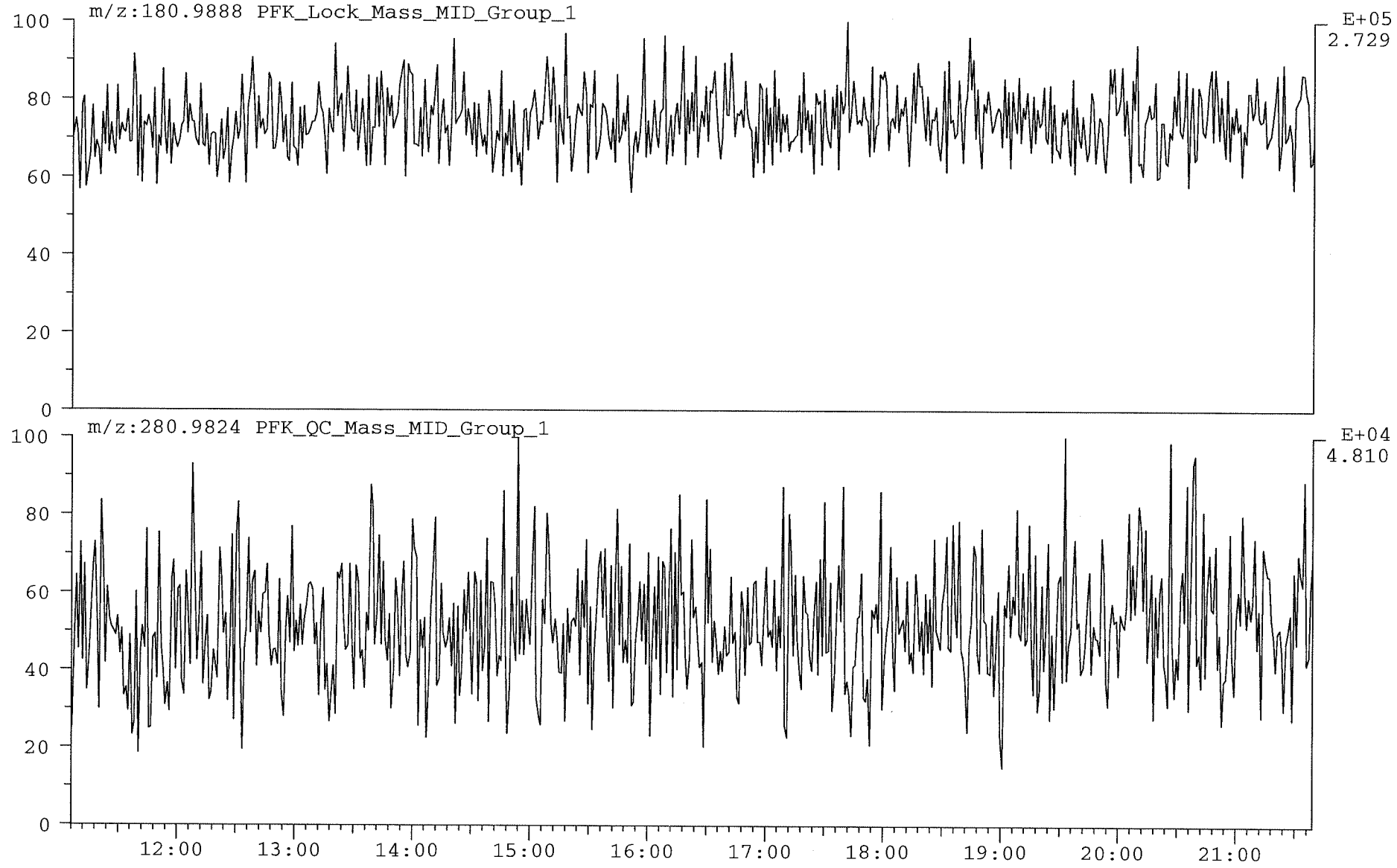
CHRO: a080624i6 24-Jun-08 Elapse: 14:44.9 213
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2505 > 2585 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 1.0
Disp: Height Area



H-1473

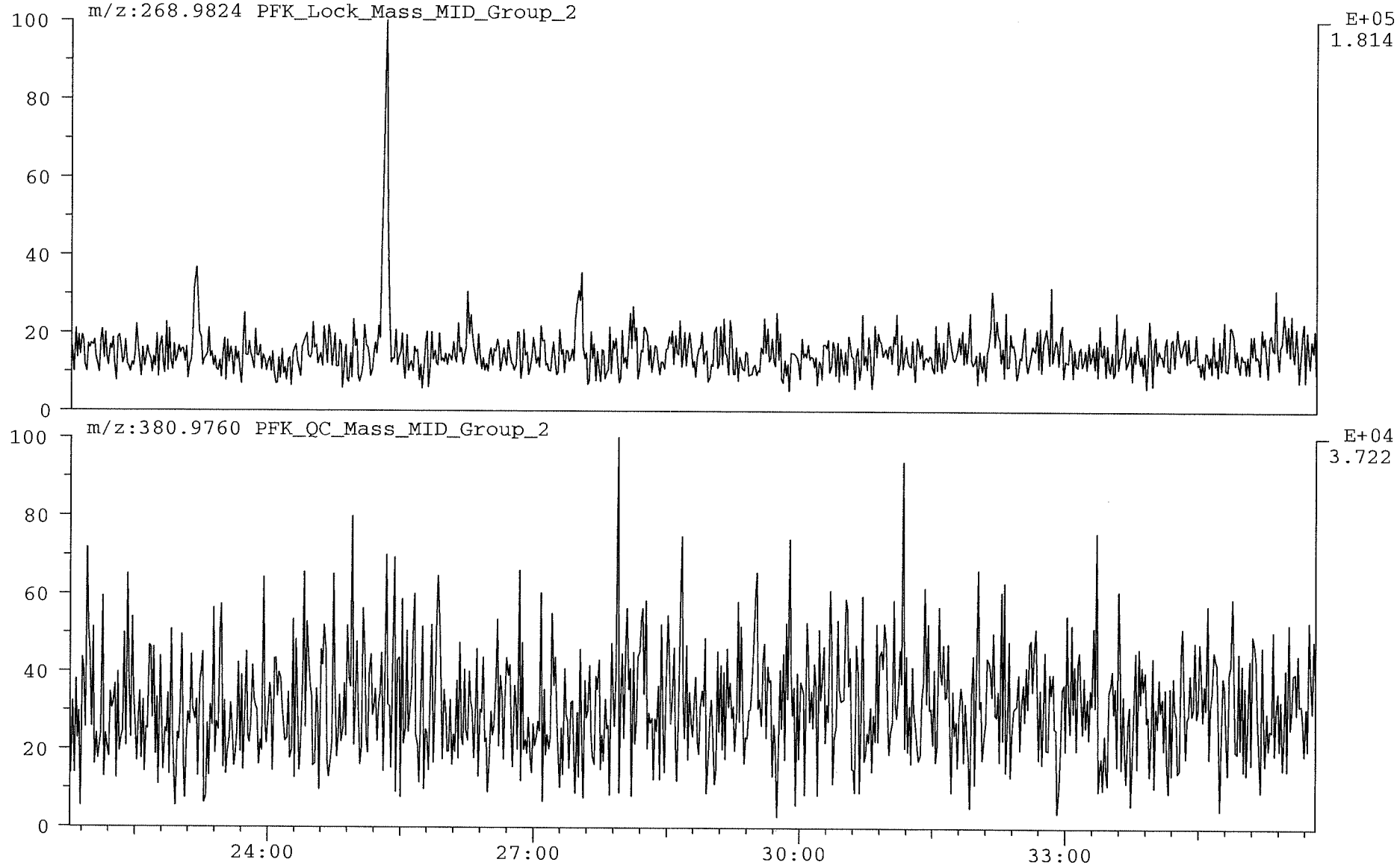
1472

CHRO: a080624i6 24-Jun-08 Elapse: 56:06 2549
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1474

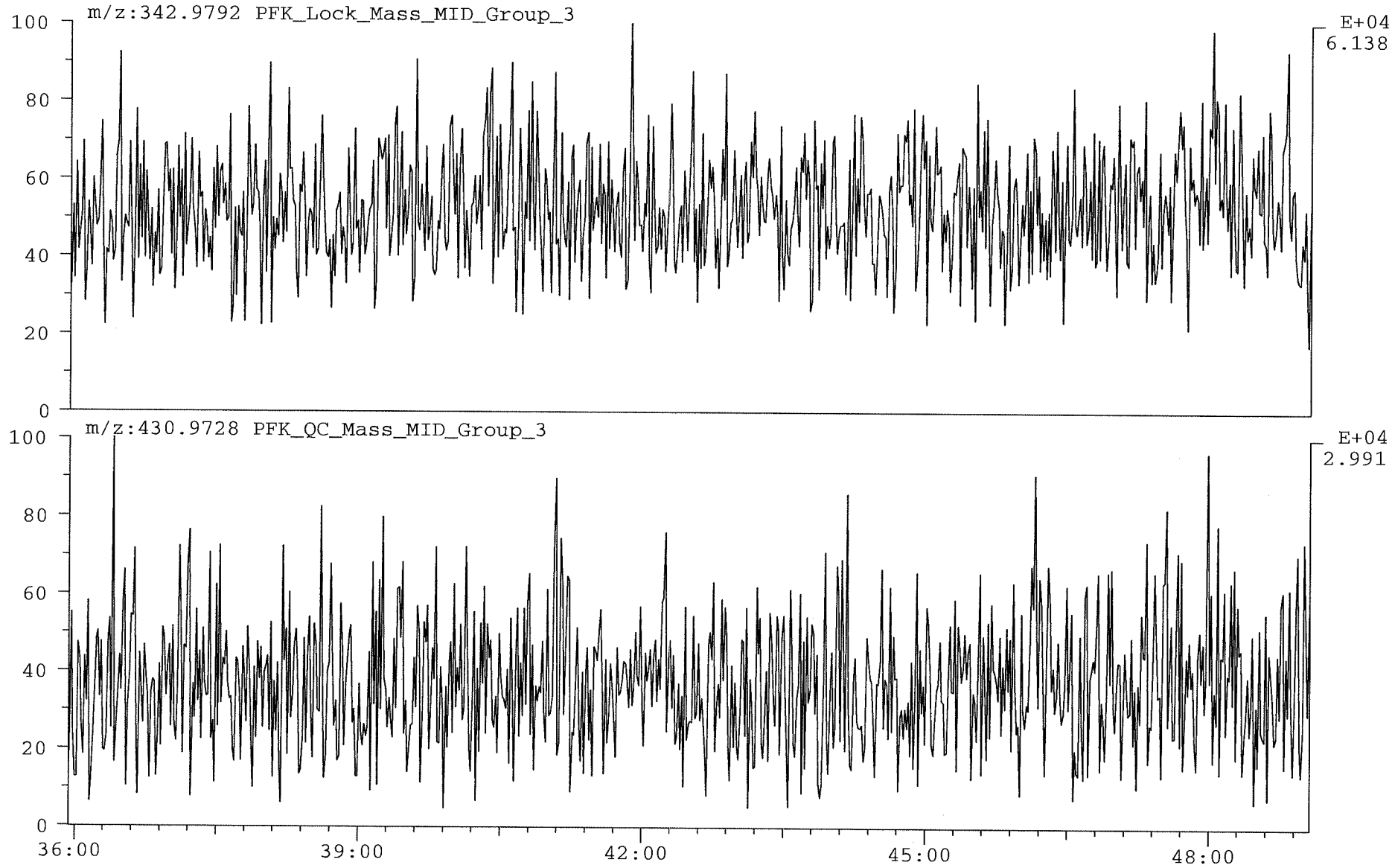
CHRO: a080624i6 24-Jun-08 Elapse: 56:06 2549
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 608 > 1406 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1475

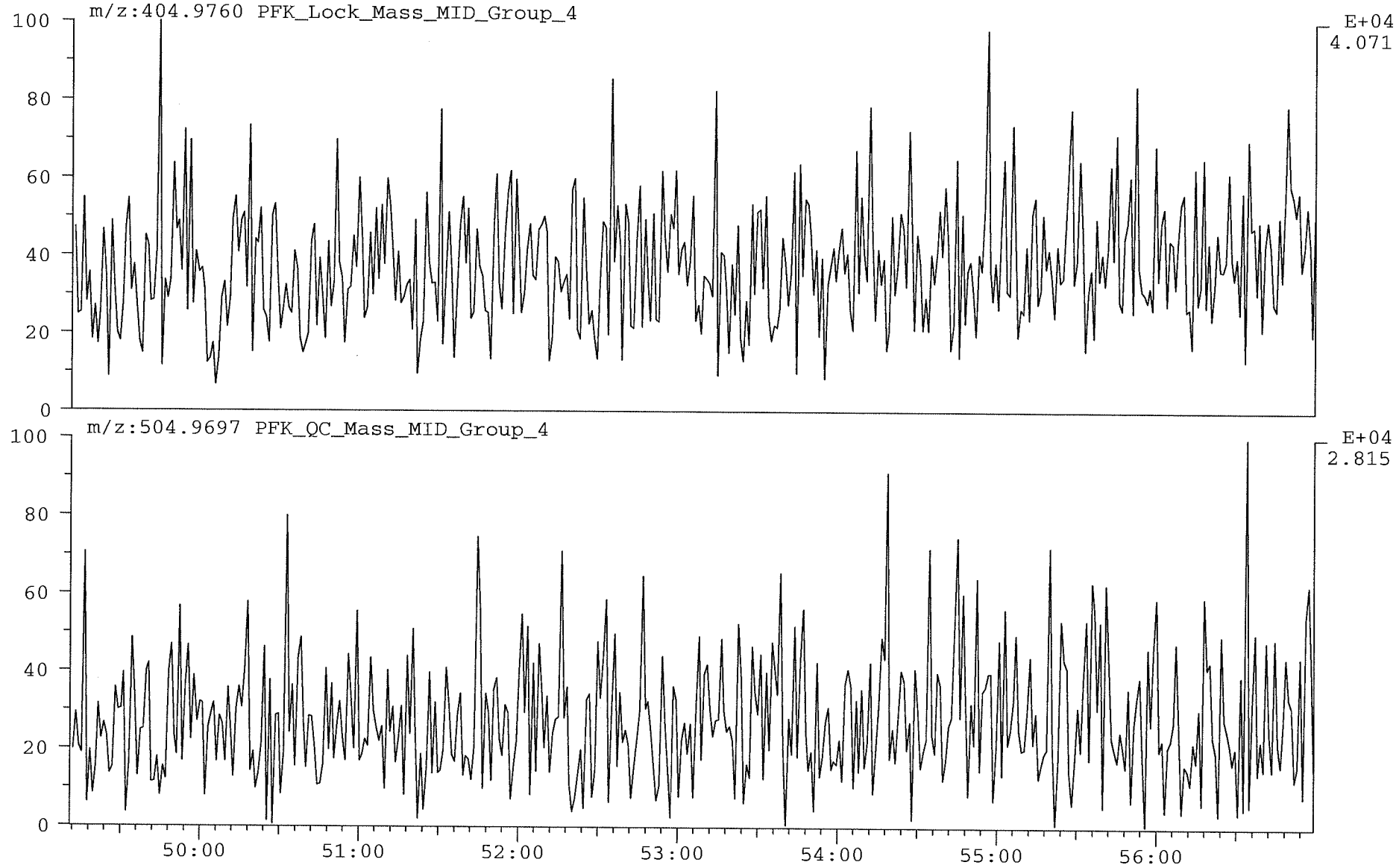
1474

CHRO: a080624i6 24-Jun-08 Elapse: 56:06 2549
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 1408 > 2154 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1476

CHRO: a080624i6 24-Jun-08 Elapse: 56:06 2549
Samp: Vial 9 WO=2990:71CS0.5 Meth=IE3 Dil=1 Start : 15:19:17 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS0.5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 9
Peak: 100.00 ppm Label wndw: 2157 > 2599 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1477

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a080624i6
Study: 1668 ICAL CS0.5
Sample: WO=2990:71CS0.5 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Injected volume: 2.00
Sample from Vial 9
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
Single File
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:10 min	35:50 min	1.00 sec
# 3	35:50 min	13:15 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	l	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg at	0.0	minutes	280 deg max
	75 deg at	2.0	minutes	
	150 deg at	7.0	minutes	
	270 deg at	55.0	minutes	
	270 deg at	57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.7567
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-14.8500
DRAWC	1.0000	DRAWS	0.0100	ECORR	0.9994
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	-210.0000	ELEN	55.7750
EMULT	1.7500	ENS	205.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	152.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	340.0000
FVINLET	269.0000	FVSRC	994.0000	FWIN	0.7000
GCTC	75.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.0784	HVANAL	1315.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4778.9940	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1837.0000	LENSS	8.4000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2351507.3768

MDACR	23.0000	MRANGE	1031.7567	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	5903.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-6.1500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.2964	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	3200.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.2200	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.0000	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	1694.0000
XLENSS	-96.6000	YLENS	2530.0000	YLENSS	-24.2000

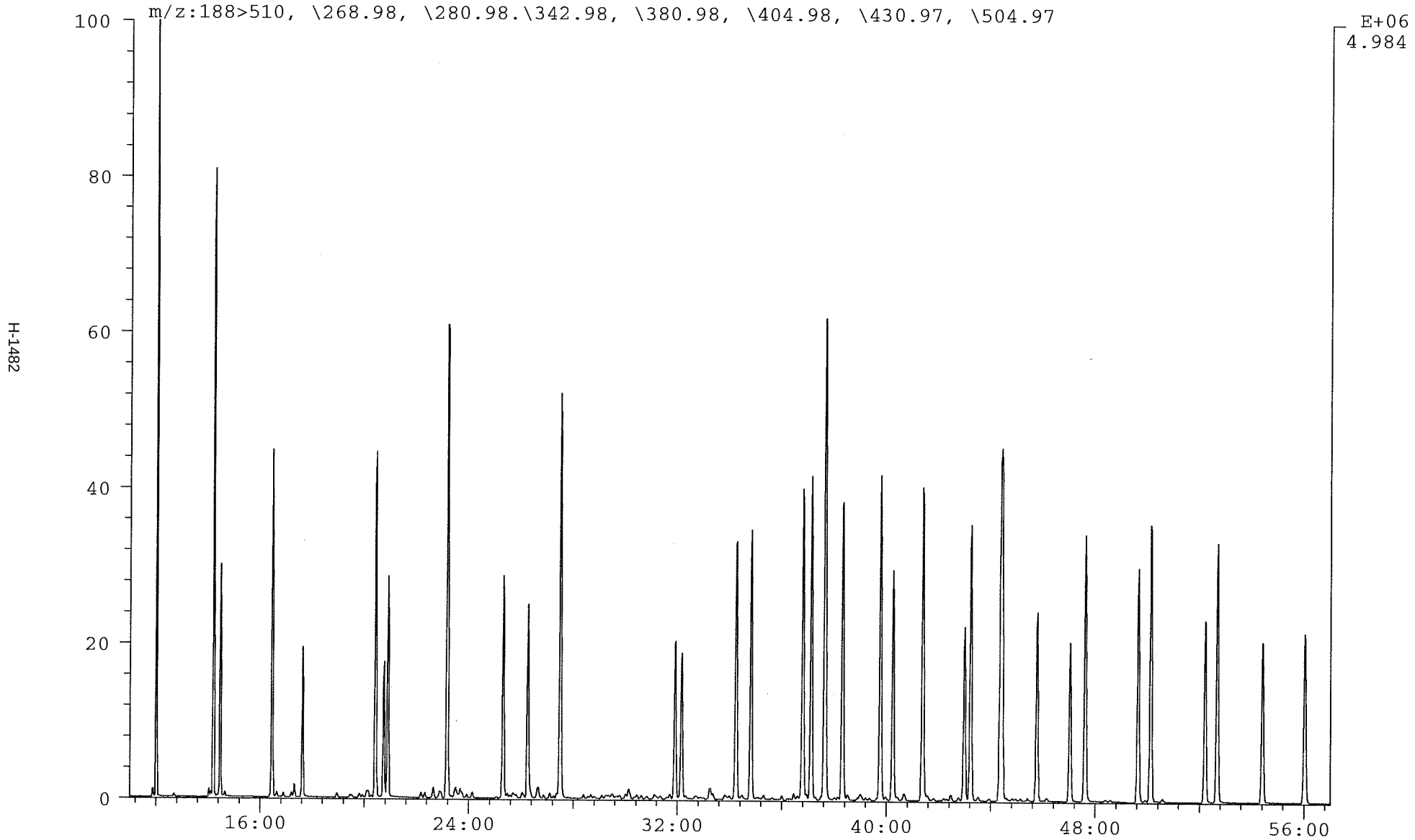
Scantype is electric
Sourcemode is EI POS

Analysis started at: 24-Jun-08 15:19:17.8

Autosampler has injected sample from vial 9
MID Time Window 1: Resolution is 6961
MID Time Window 2: Resolution is 9607
MID Time Window 3: Resolution is 9024
MID Time Window 4: Resolution is 10124
Analysis stopped at: 24-Jun-08 16:16:21.1 (run time 57.04 minutes)
Analysis stopped because MID run finished

Int. Calc DCS 7-8-08
@ BVN 7/9/08

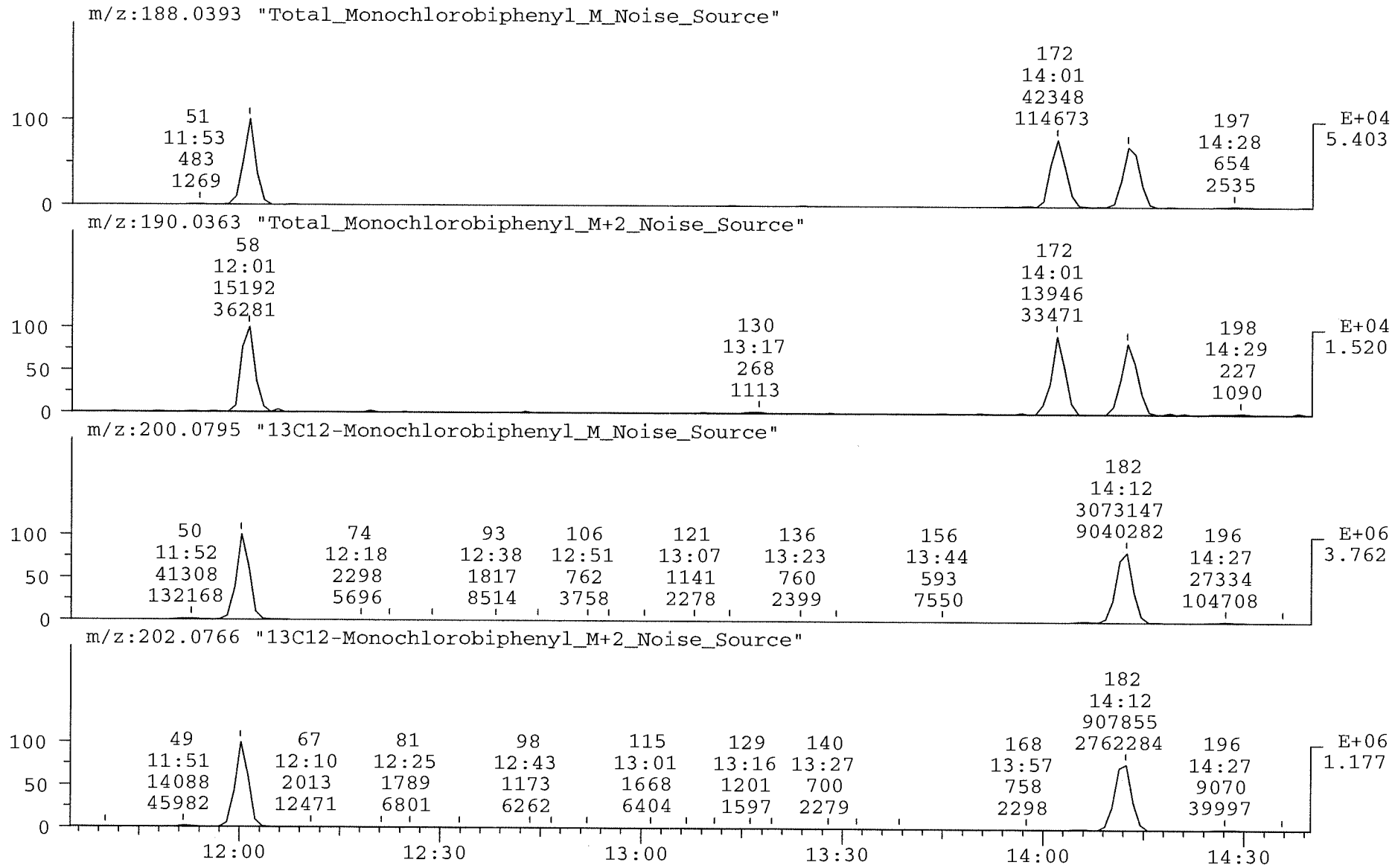
CHRO: a080624i1 24-Jun-08 Elapse: 56:05 2549
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1482

1481

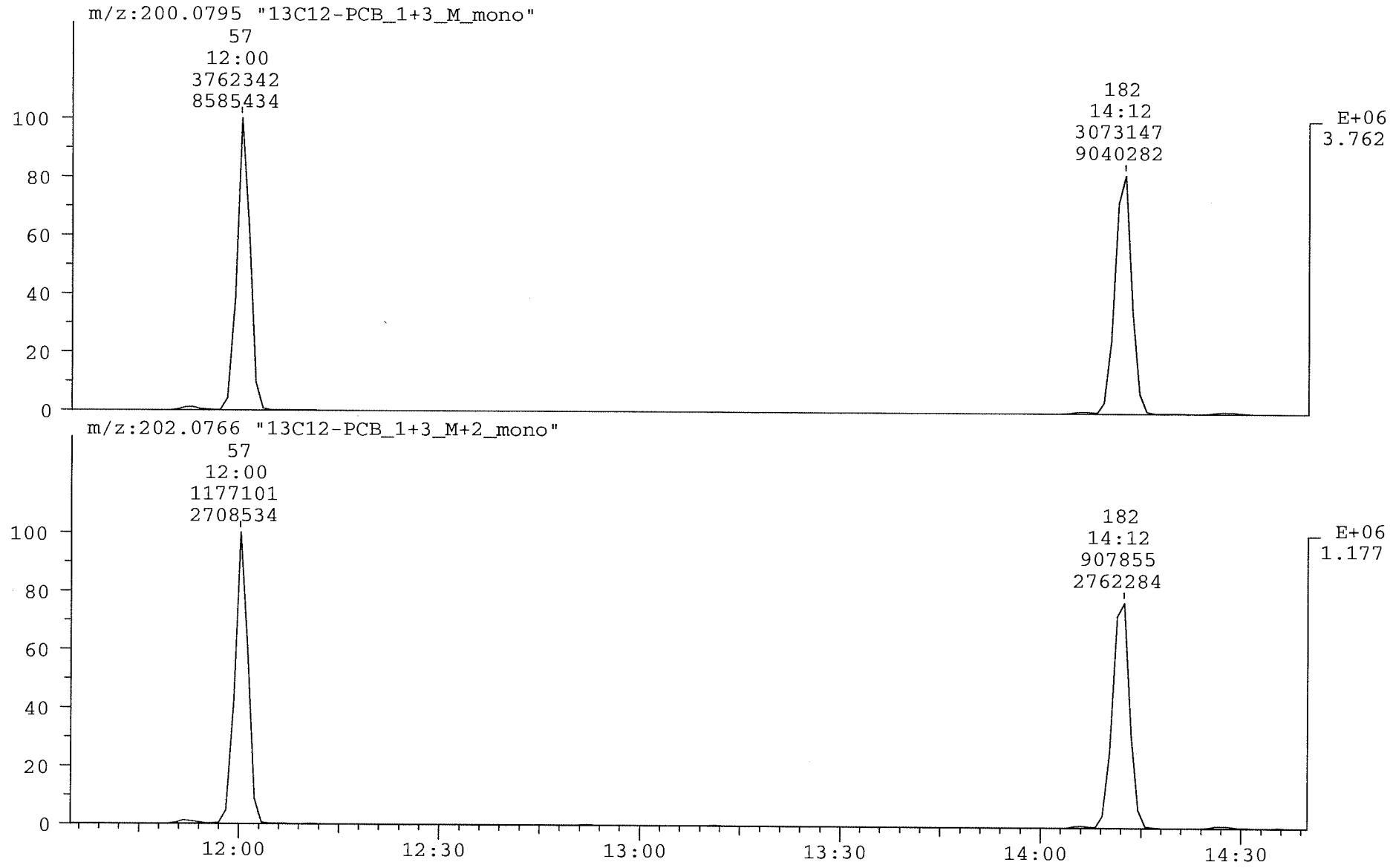
CHRO: a080624i1 24-Jun-08 Elapse: 13:20.5 133
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1483

1482

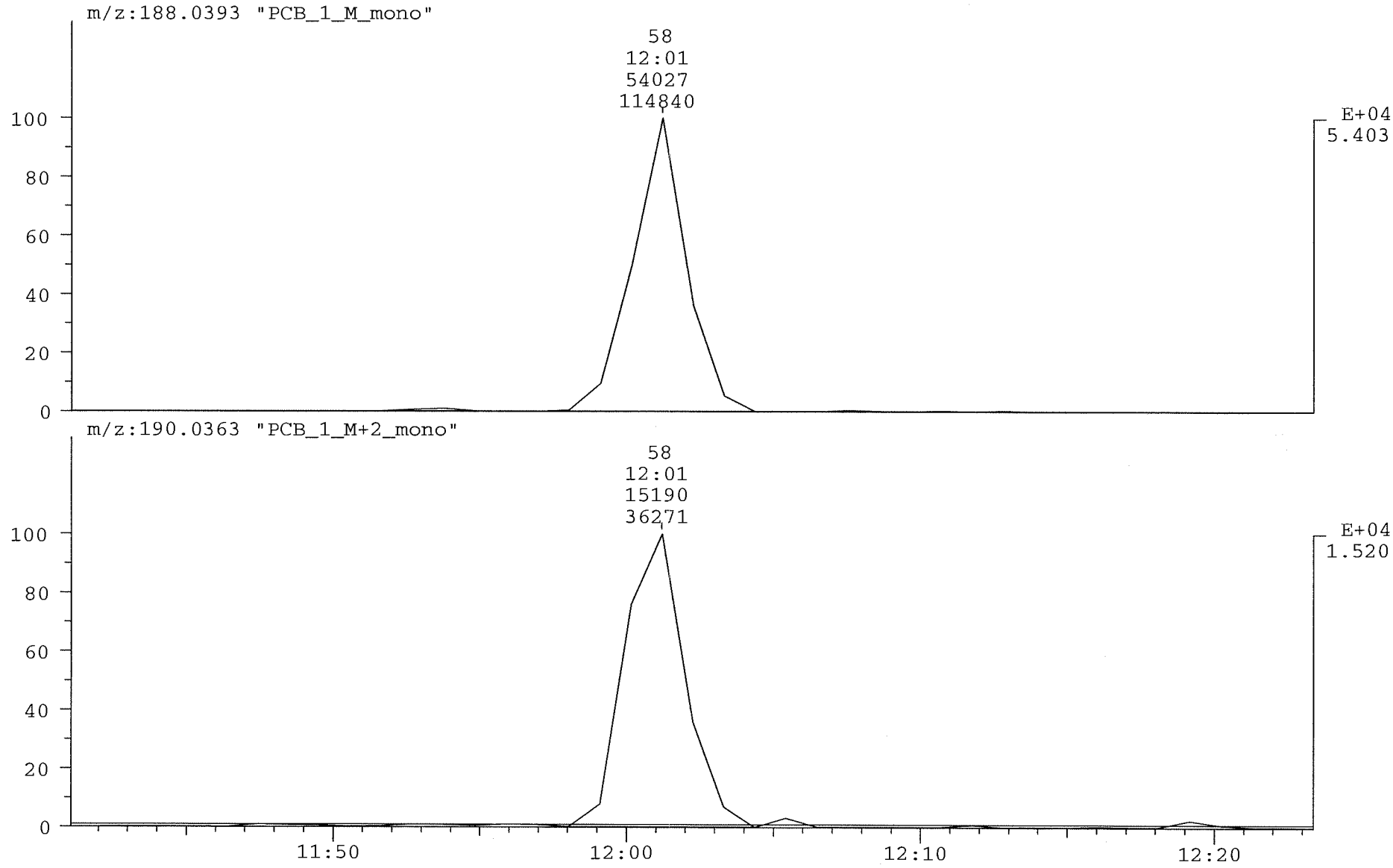
CHRO: a080624i1 24-Jun-08 Elapse: 13:20.5 133
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1484

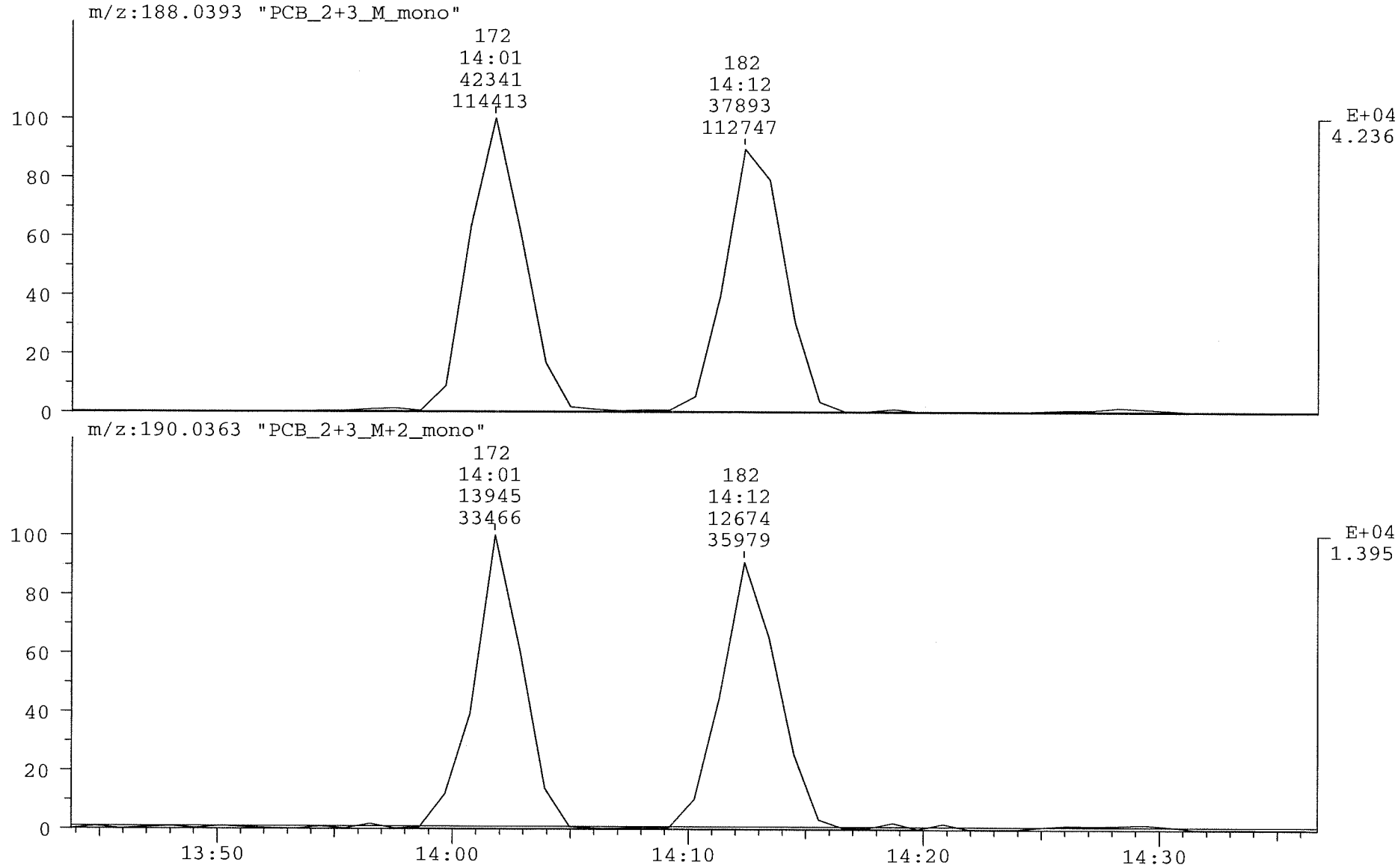
1483

CHRO: a080624i1 24-Jun-08 Elapse: 12:02.2 59
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 39 > 79 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



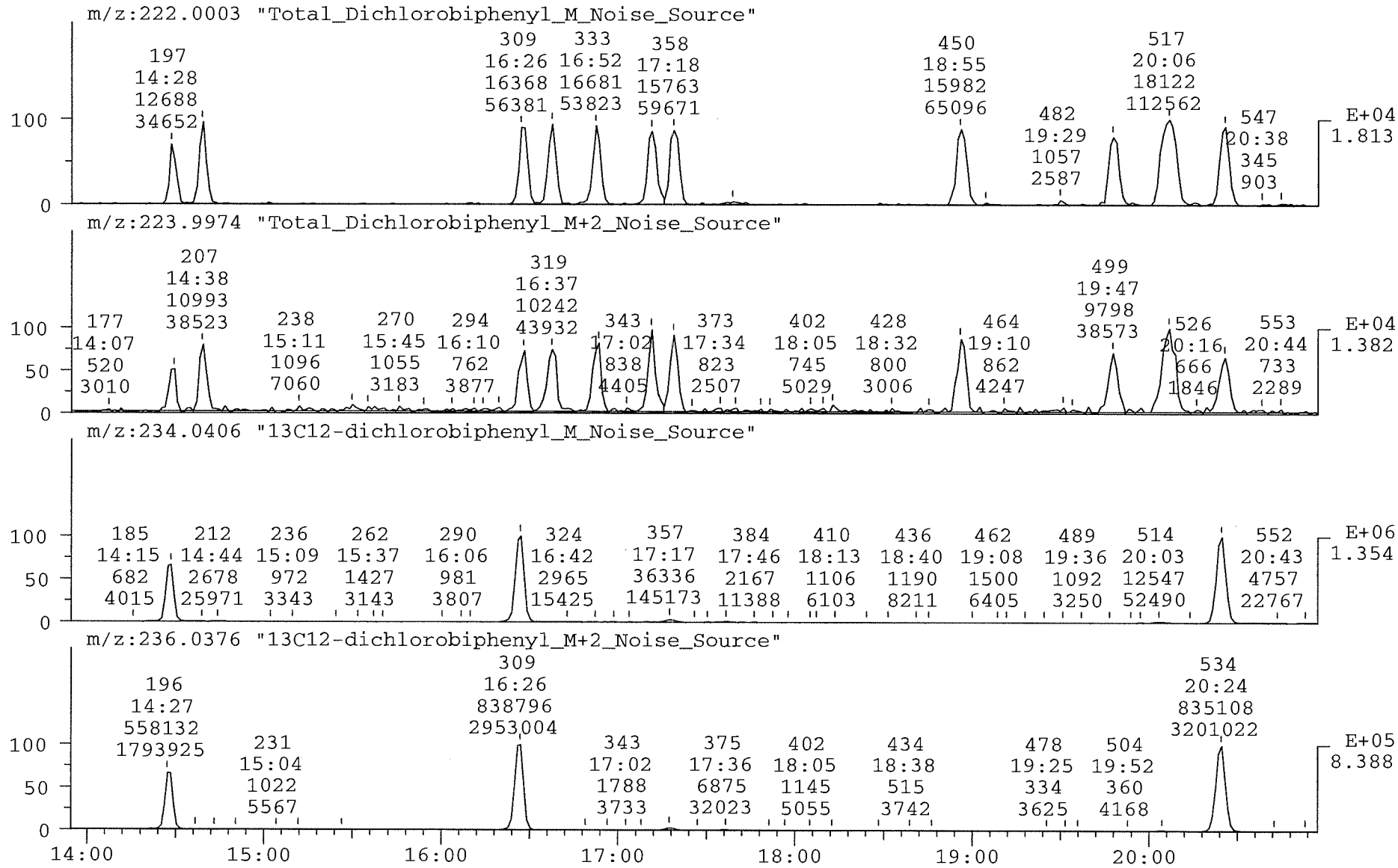
H-1485

CHRO: a080624i1 24-Jun-08 Elapse: 14:10.2 180
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 155 > 205 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1486

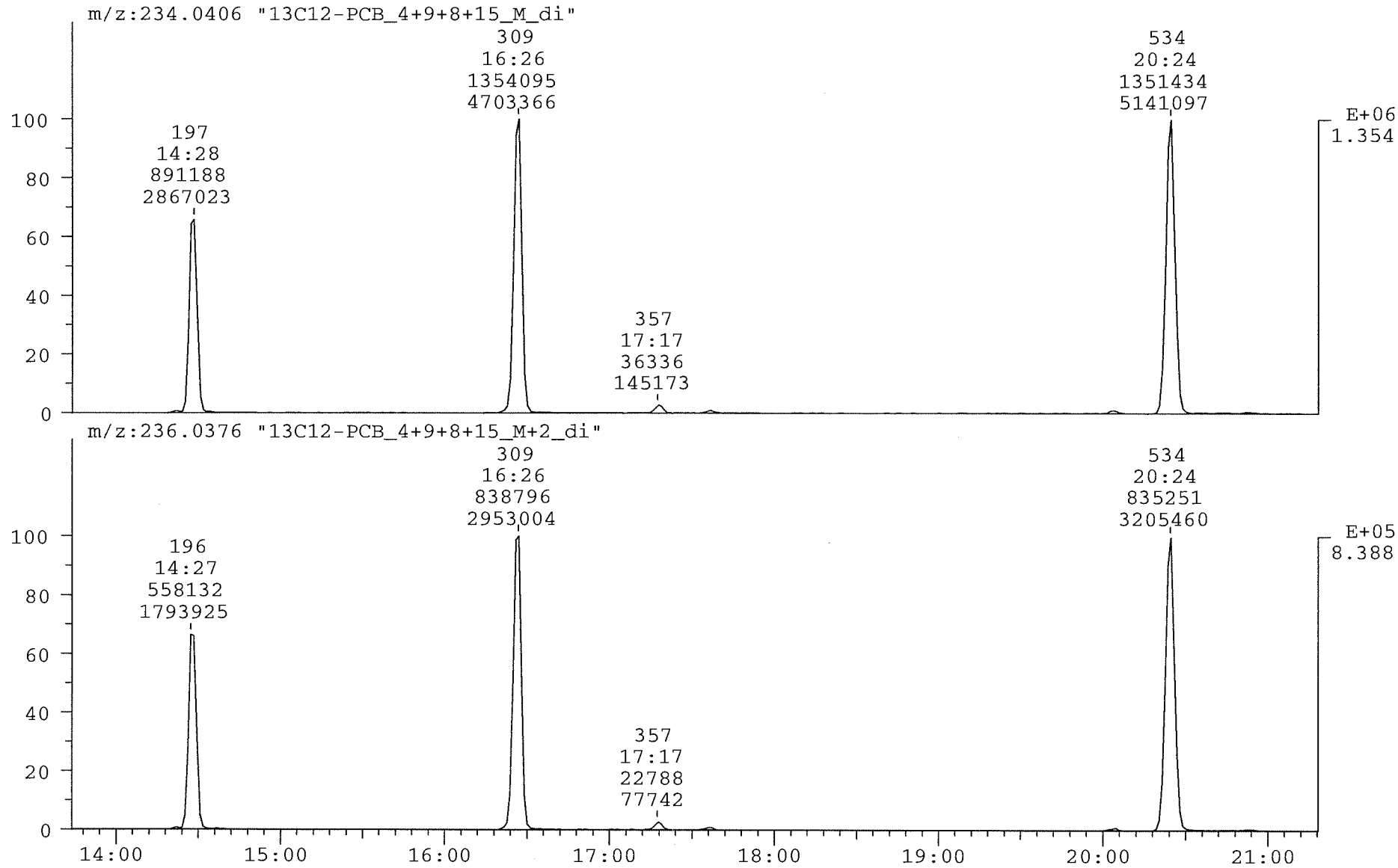
CHRO: a080624i1 24-Jun-08 Elapse: 17:25.9 365
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 165 > 565 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1487

1486

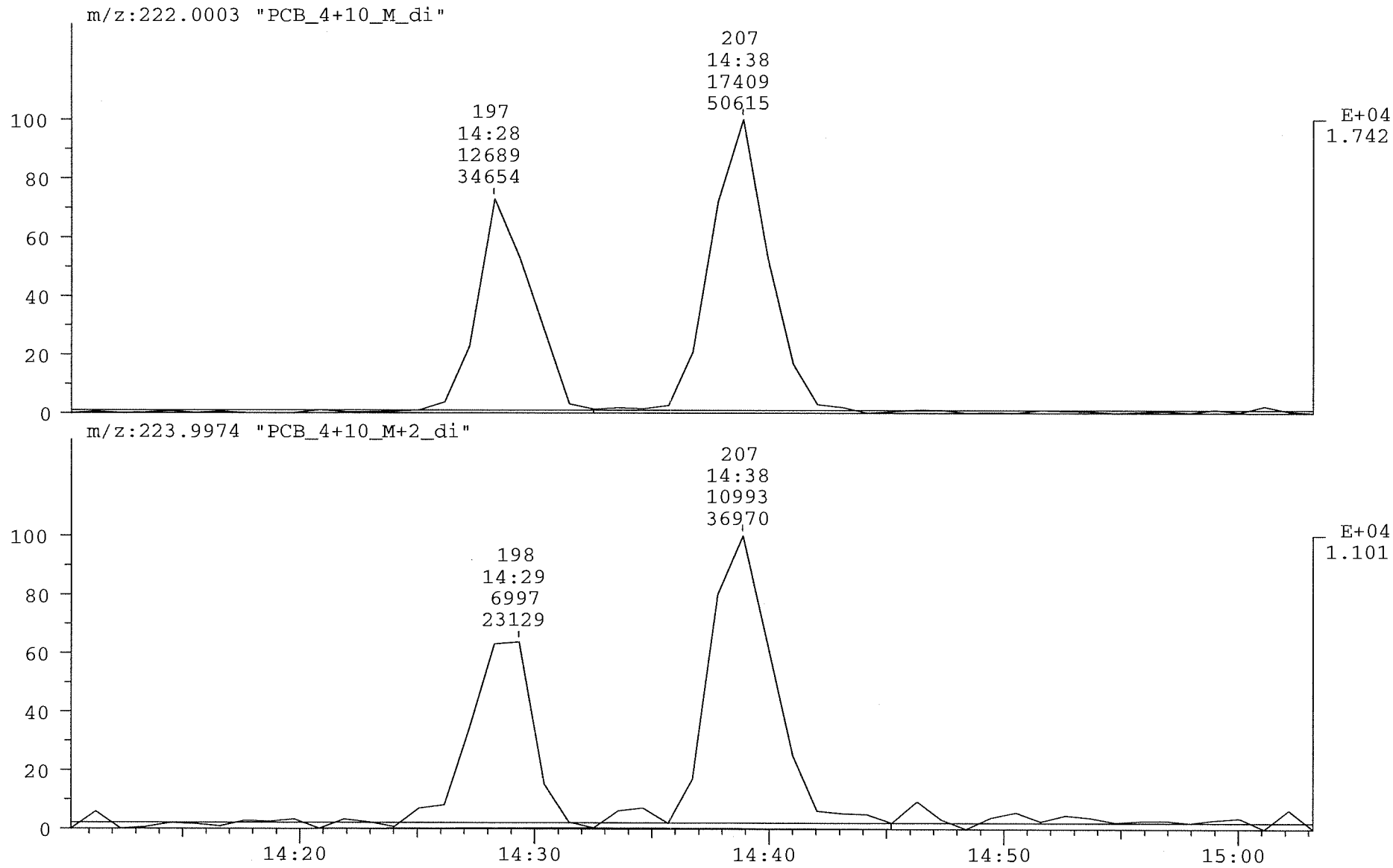
CHRO: a080624i1 24-Jun-08 Elapse: 17:25.9 365
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 155 > 585 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1488

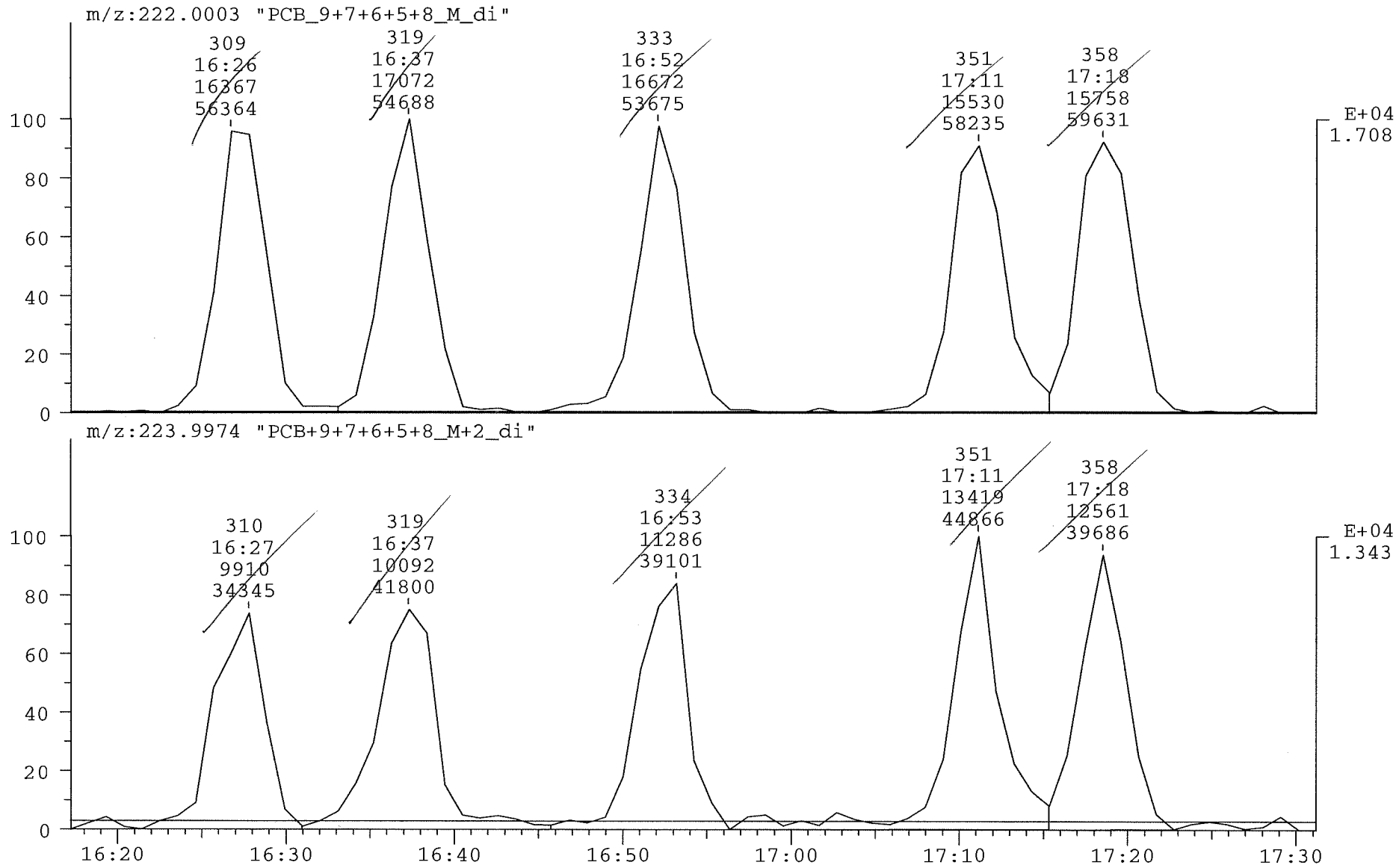
1487

CHRO: a080624i1 24-Jun-08 Elapse: 14:36.7 205
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 180 > 230 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1489

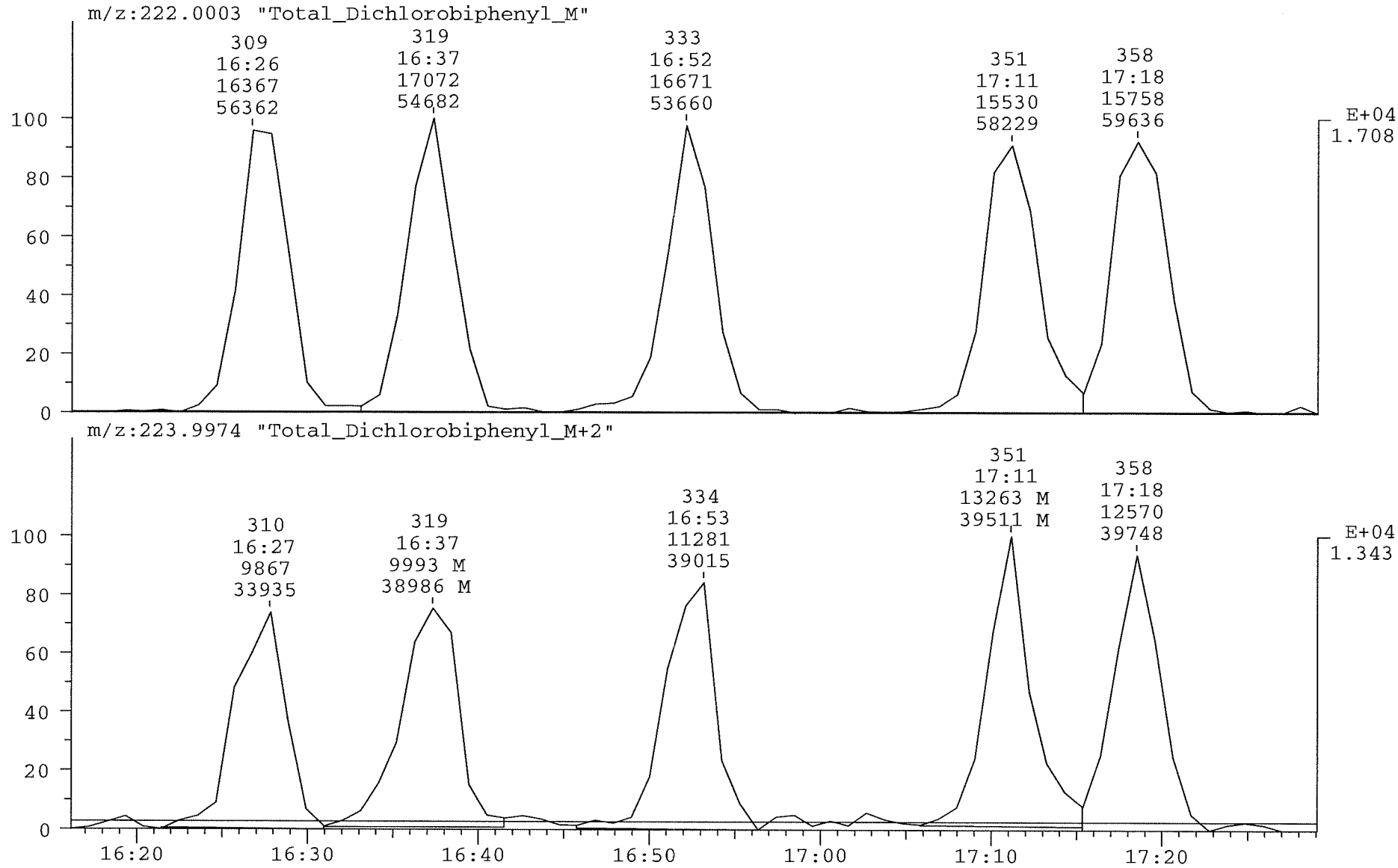
CHRO: a080624i1 24-Jun-08 Elapse: 16:56.3 337
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 300 > 370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1490

1489

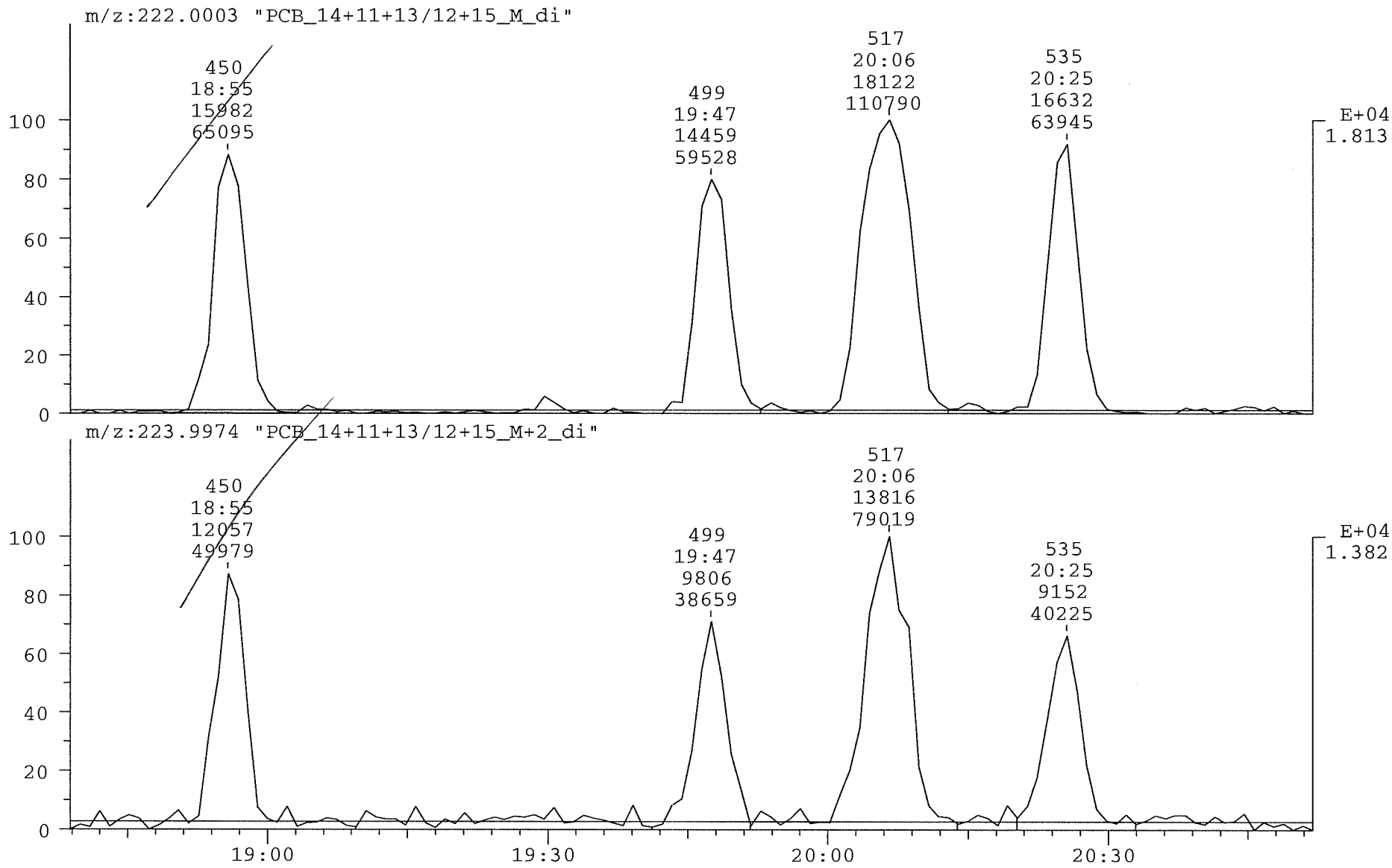
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 299 > 368 Masses: 181 > 510
Area: 5, 1.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1491

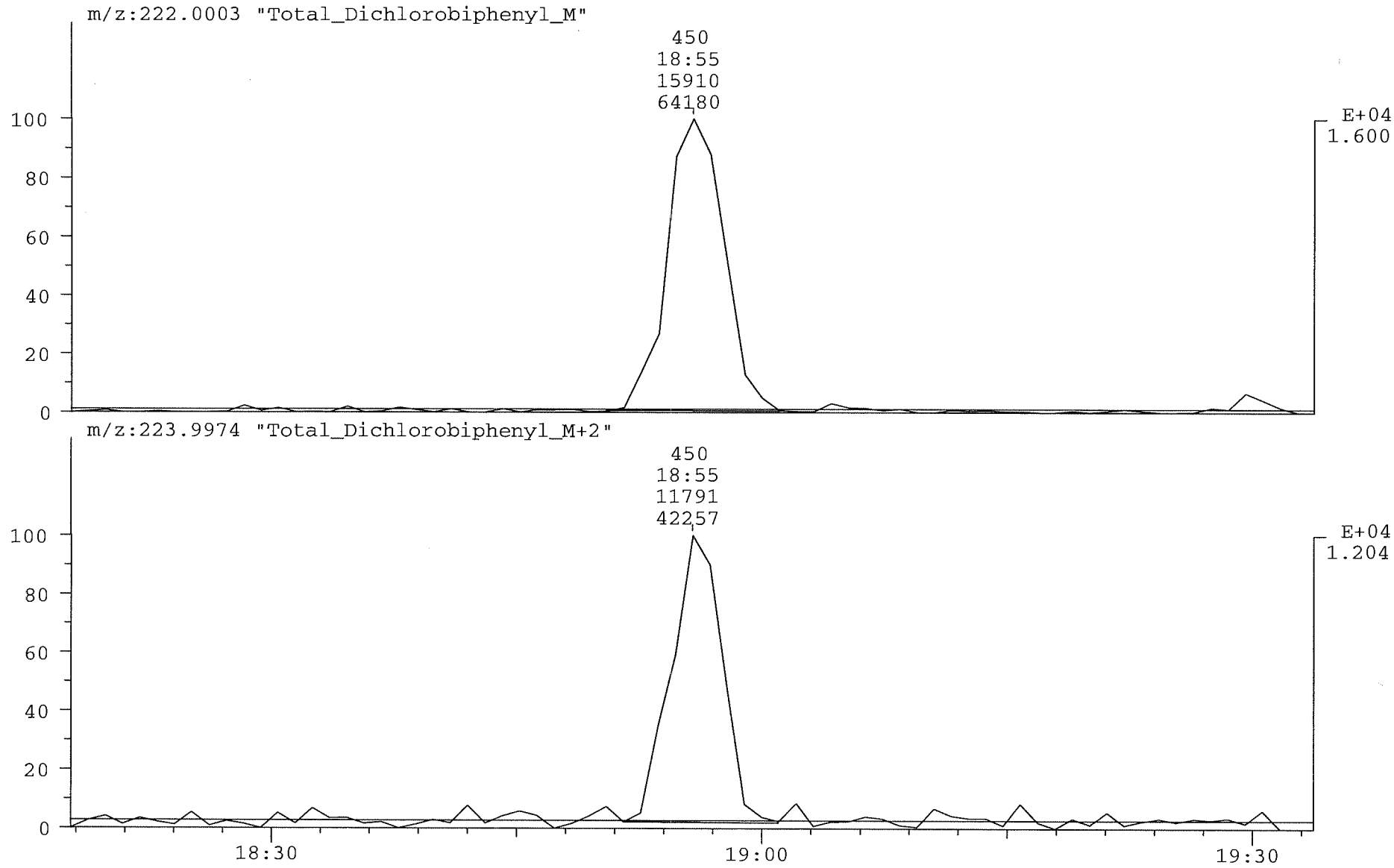
1490

CHRO: a080624i1 24-Jun-08 Elapse: 19:40.1 492
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 434 > 560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1492

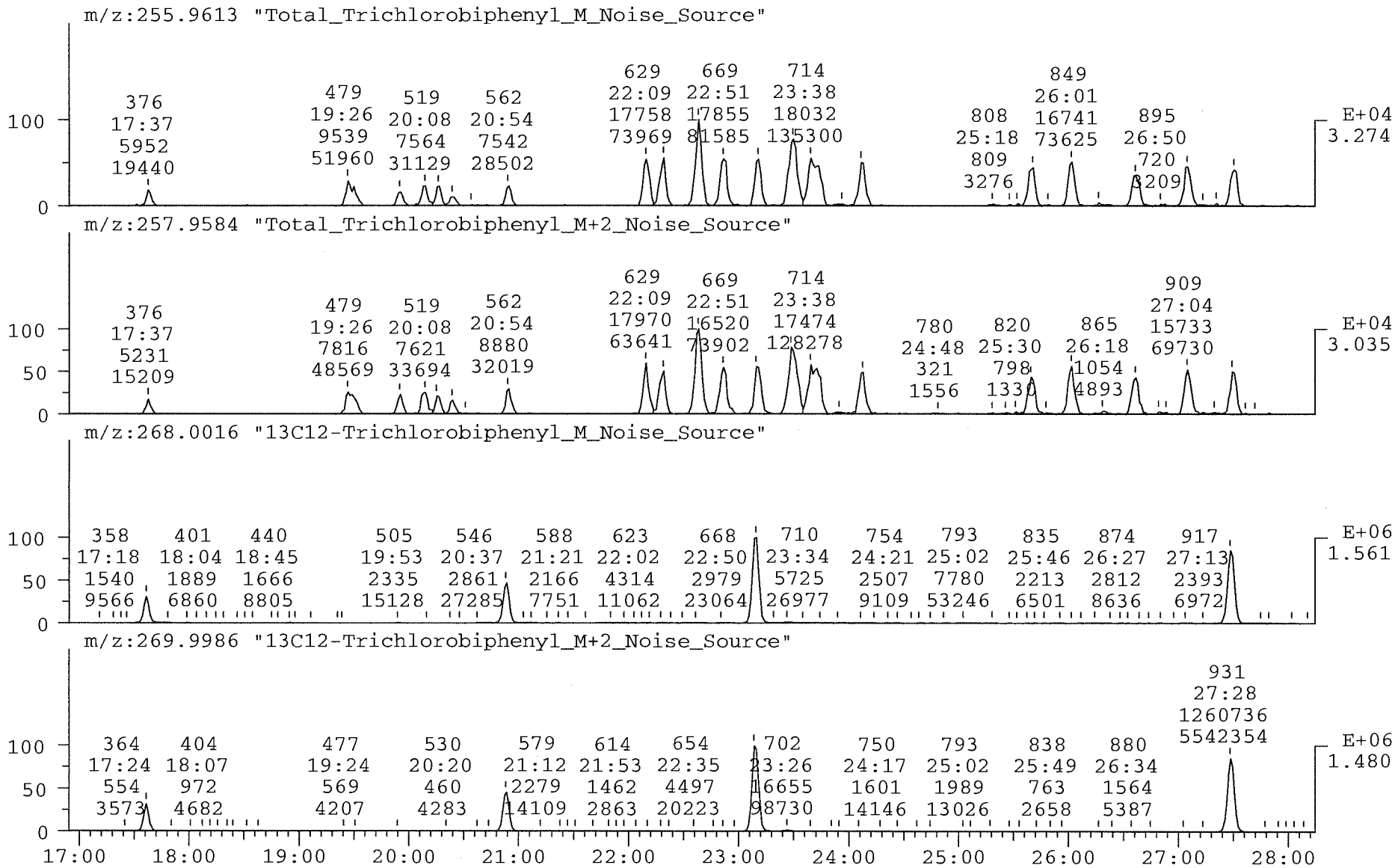
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 414 > 486 Masses: 181 > 510
Area: 5, 3.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1493

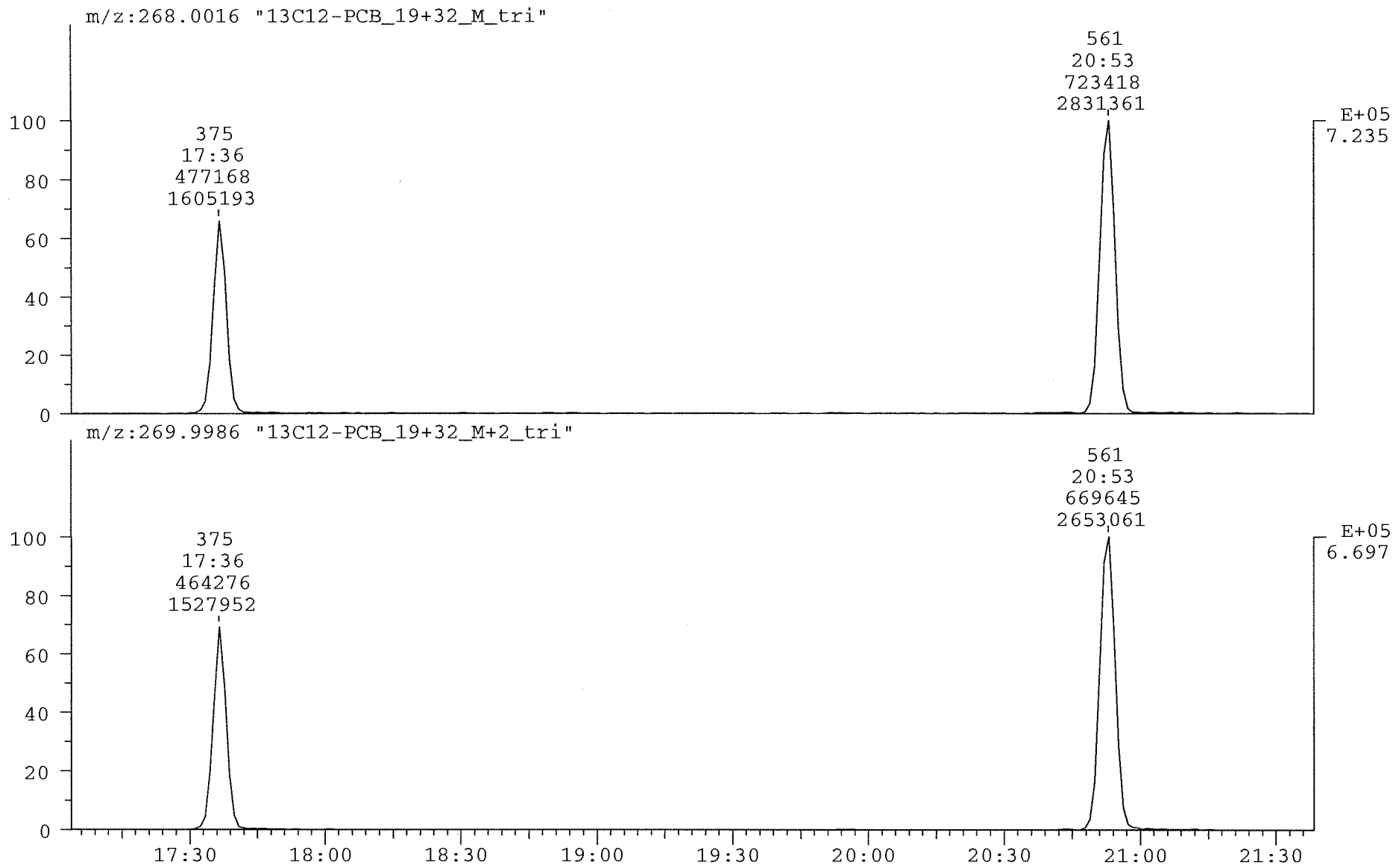
1492

CHRO: a080624i1 24-Jun-08 Elapse: 22:36.6 655
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 335 > 975 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1494

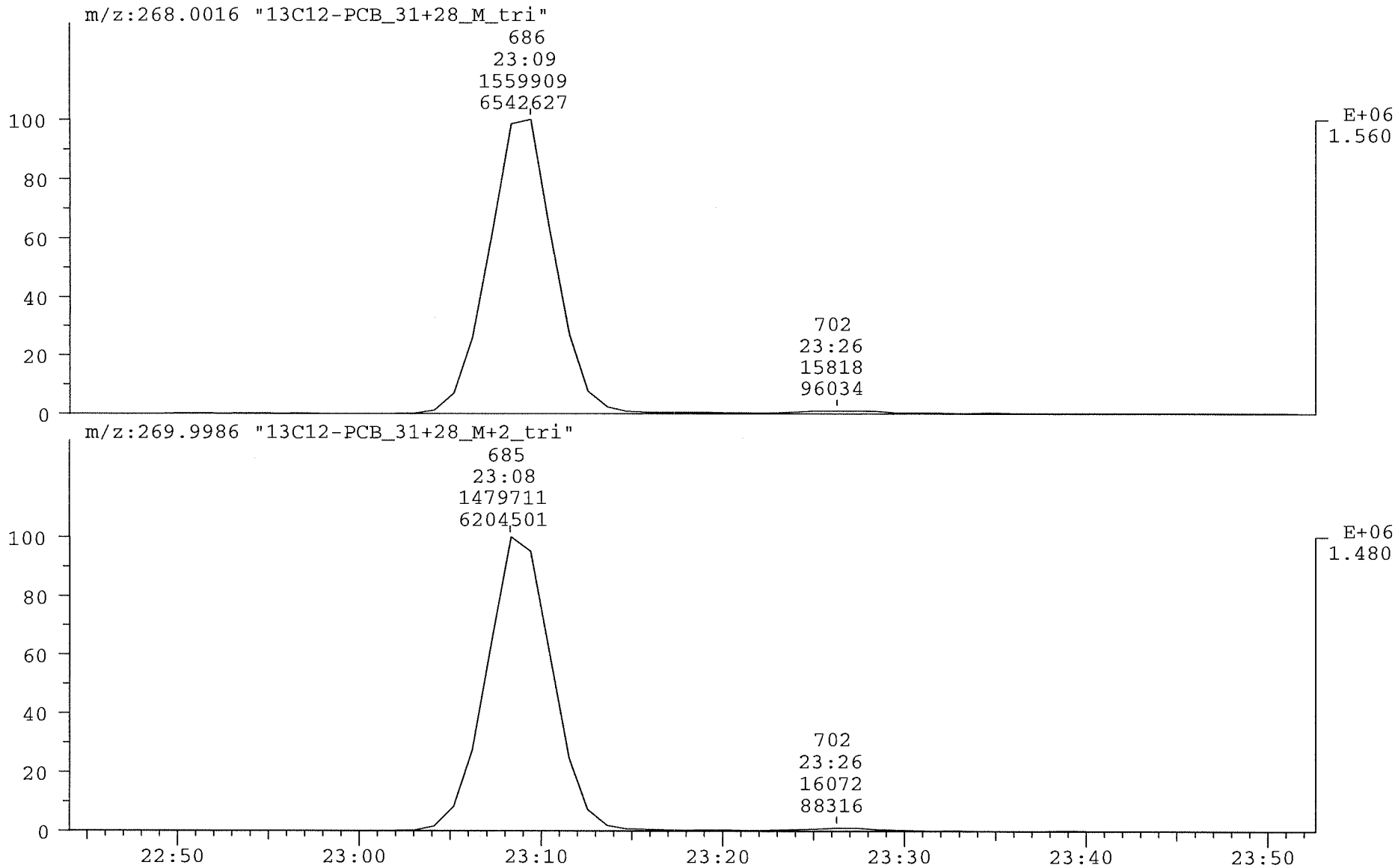
CHRO: a080624i1 24-Jun-08 Elapse: 18:59.9 454
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 344 > 604 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1495

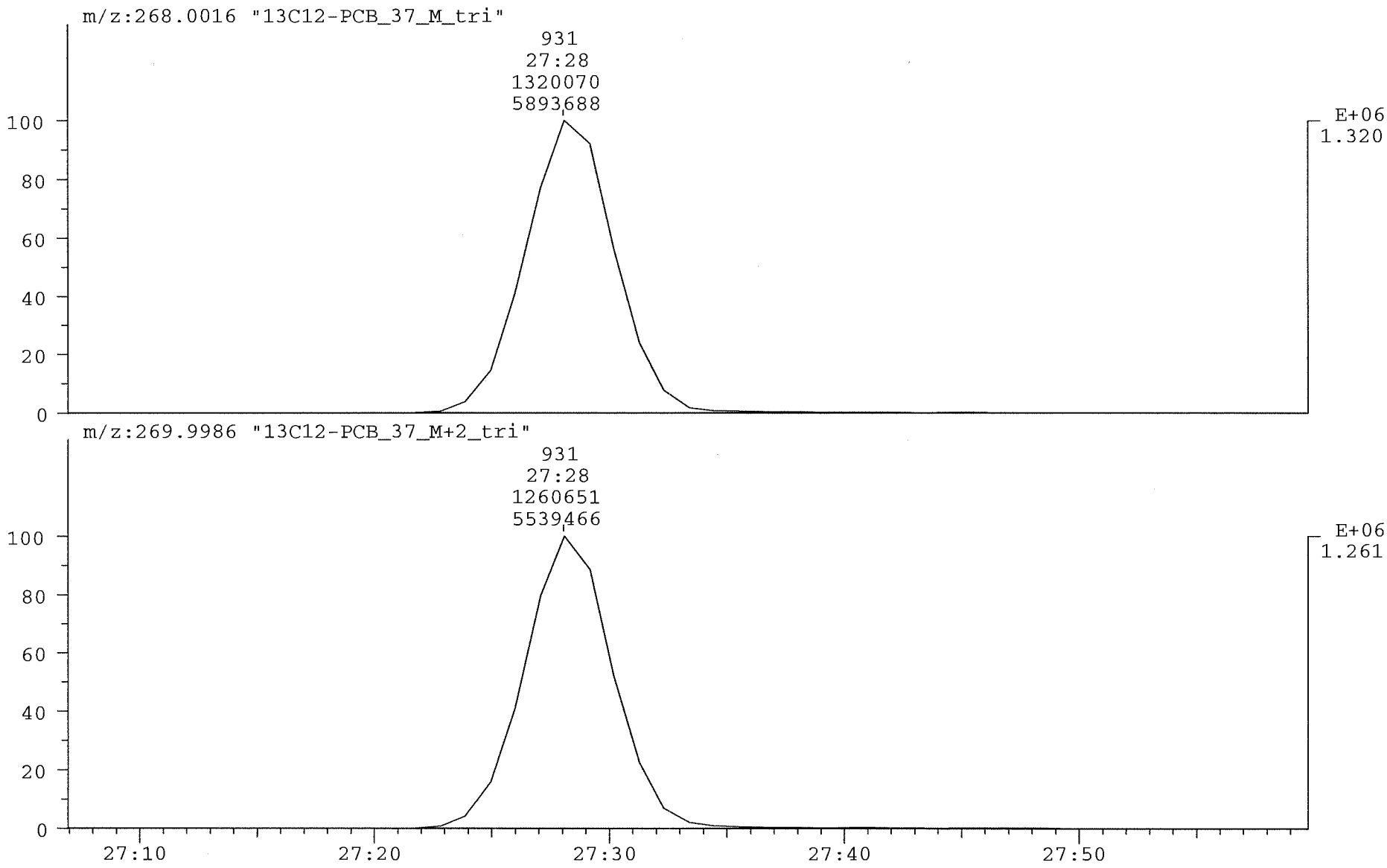
1494

CHRO: a080624i1 24-Jun-08 Elapse: 23:10.4 687
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1496

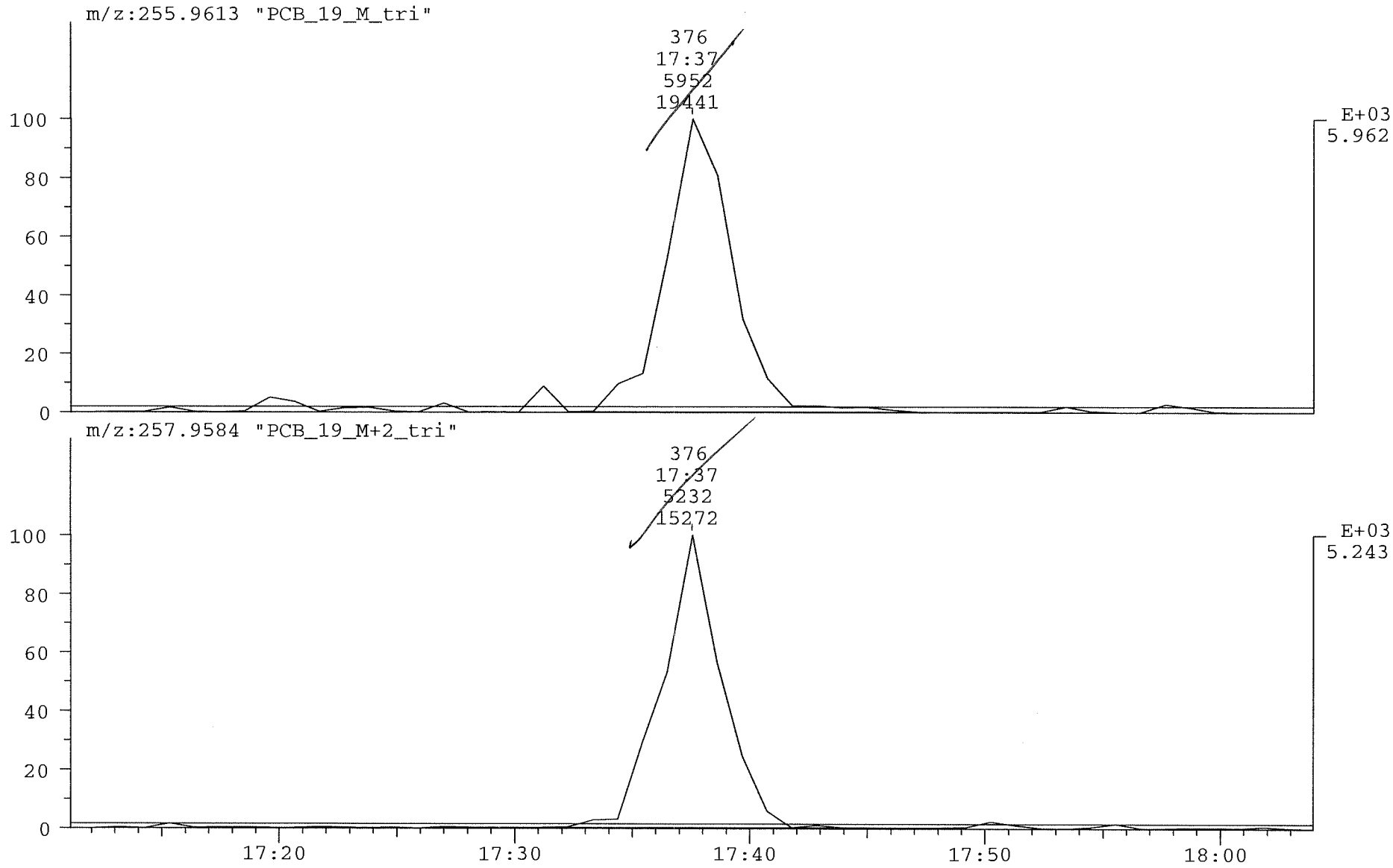
CHRO: a080624i1 24-Jun-08 Elapse: 27:28.1 931
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1497

1496

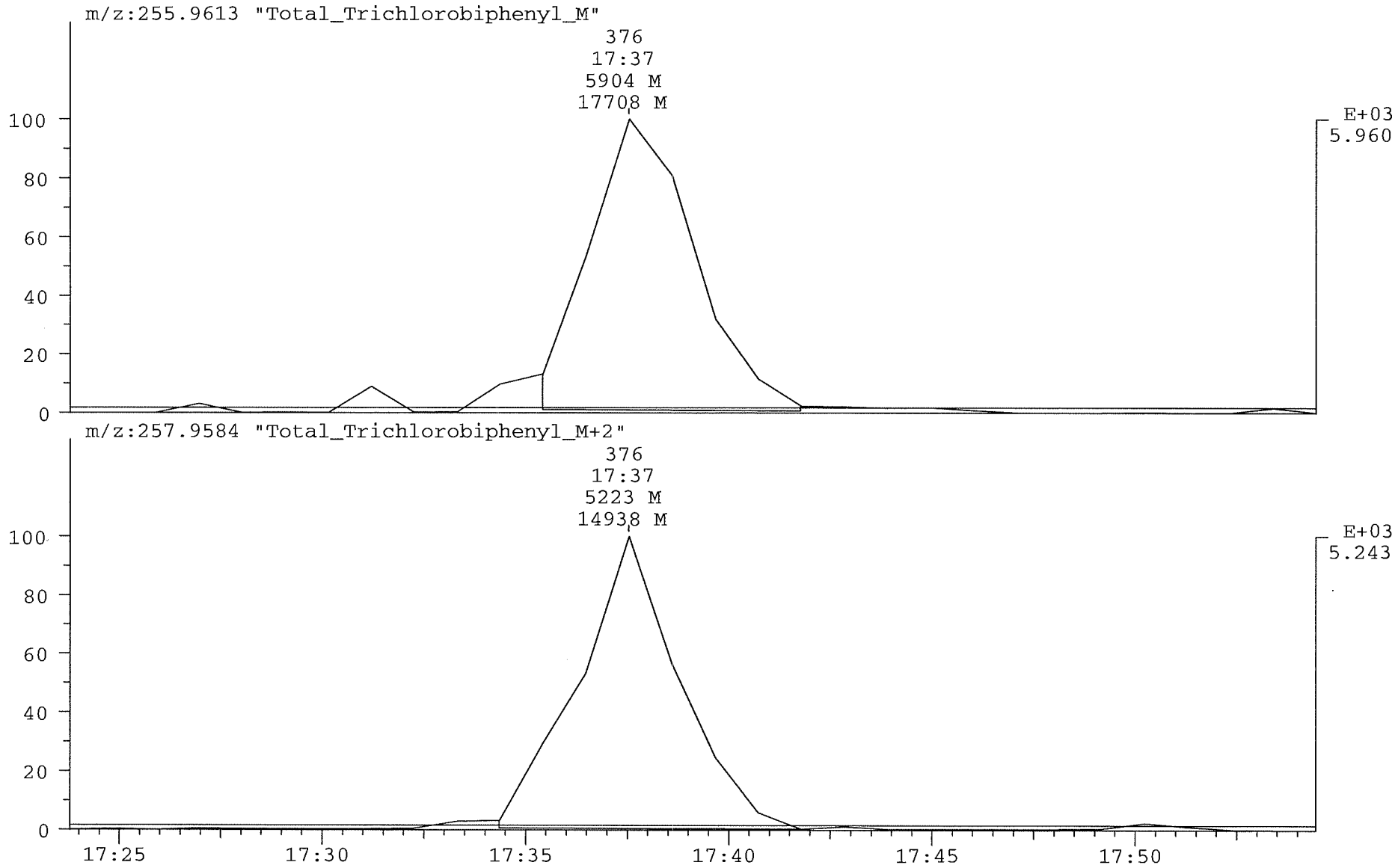
CHRO: a080624i1 24-Jun-08 Elapse: 17:37.5 376
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 351 > 401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1498

1497

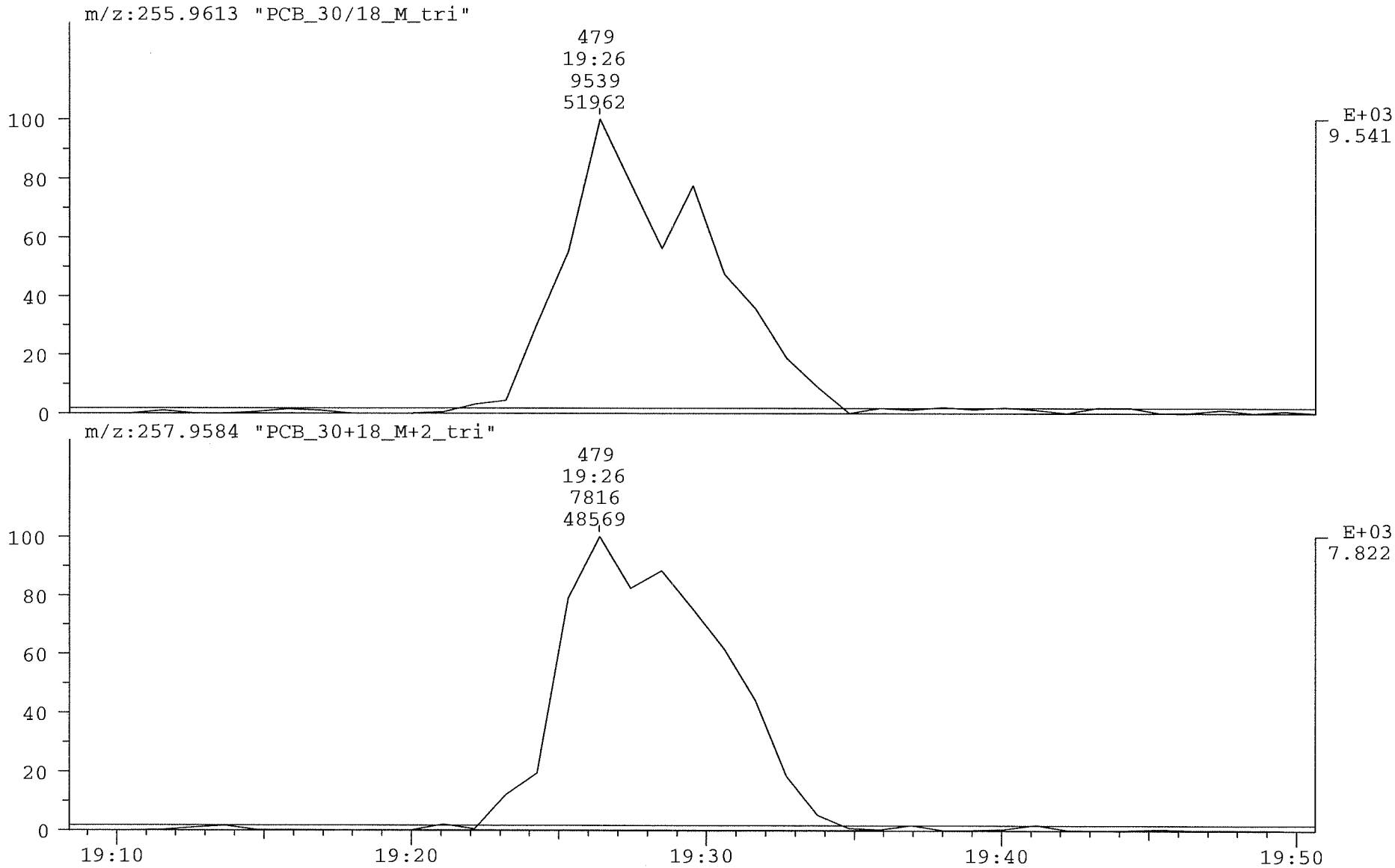
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 363 > 392 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1496

1498

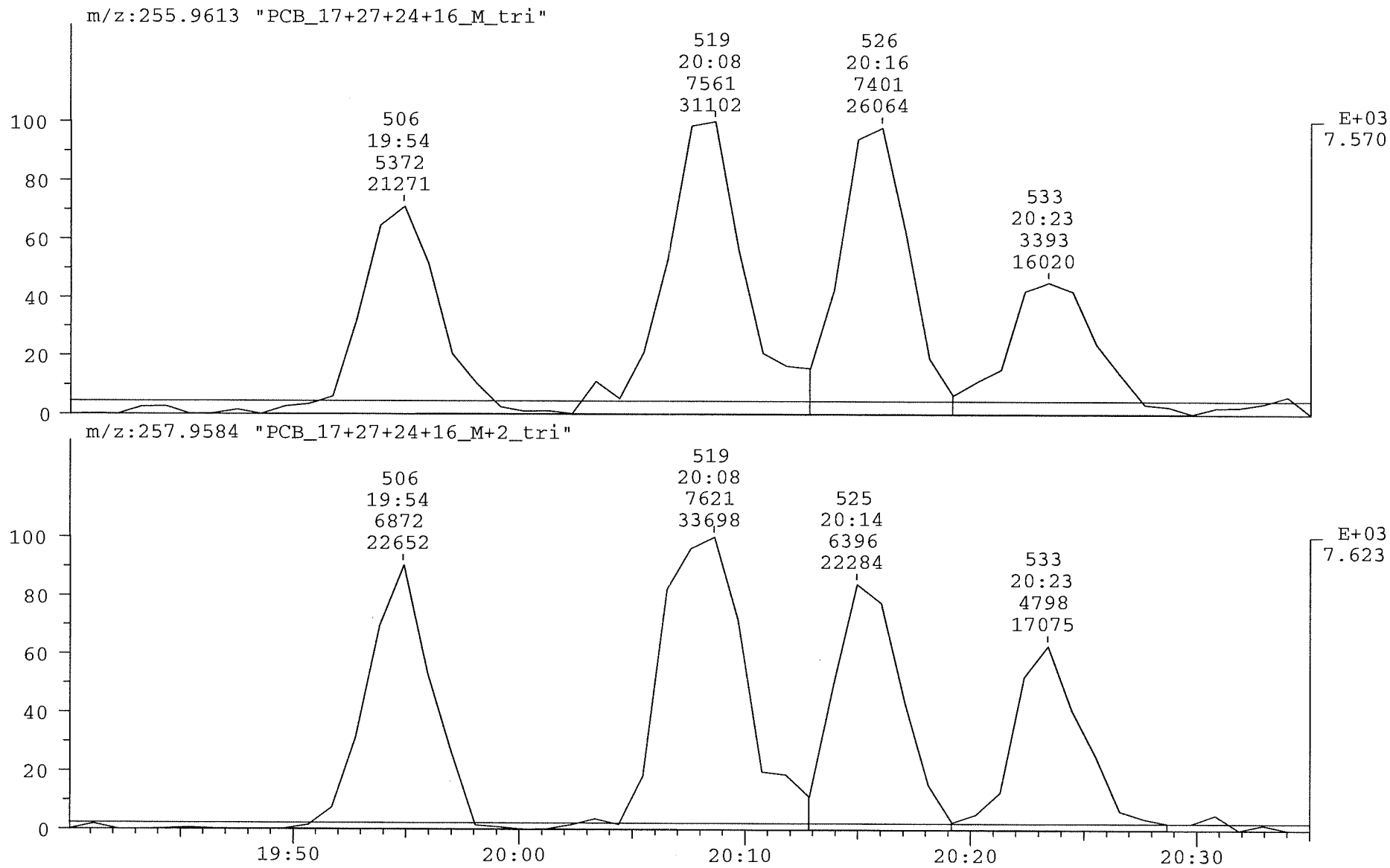
CHRO: a080624i1 24-Jun-08 Elapse: 19:29.5 482
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 462 > 502 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1500

1499

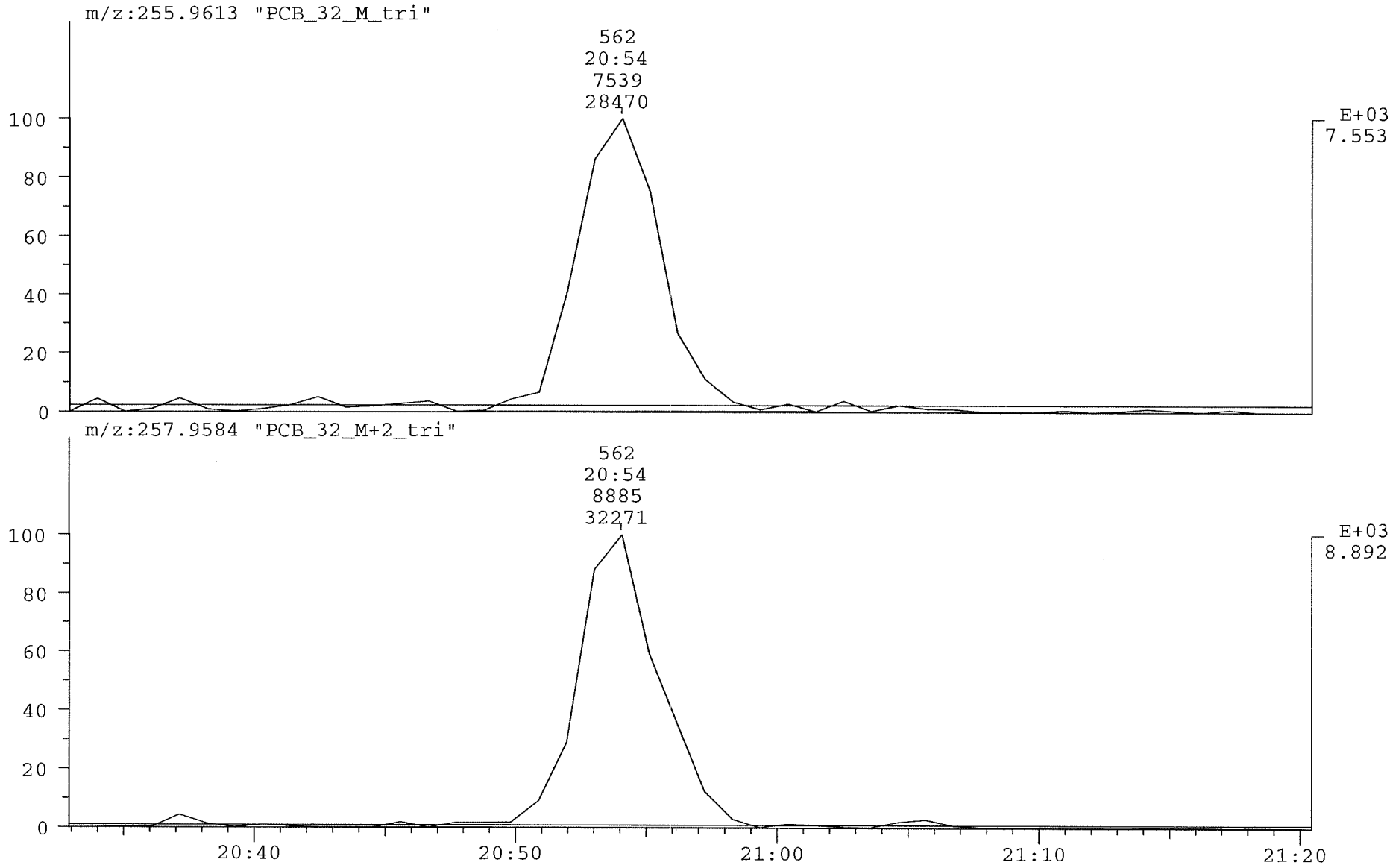
CHRO: a080624i1 24-Jun-08 Elapse: 20:08.6 519
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 492 > 544 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1501

1500

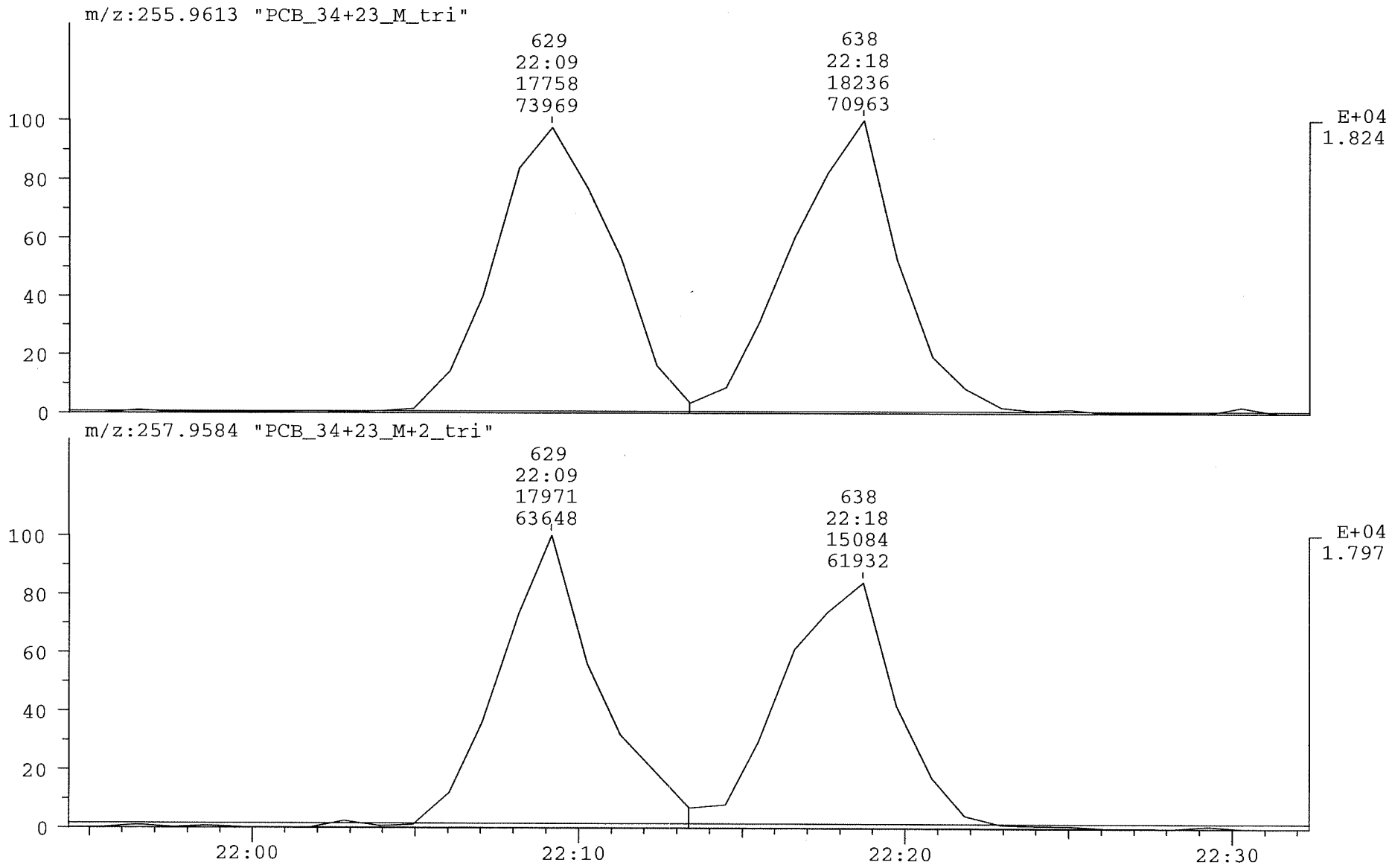
CHRO: a080624i1 24-Jun-08 Elapse: 20:54.0 562
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 542 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1502

1501

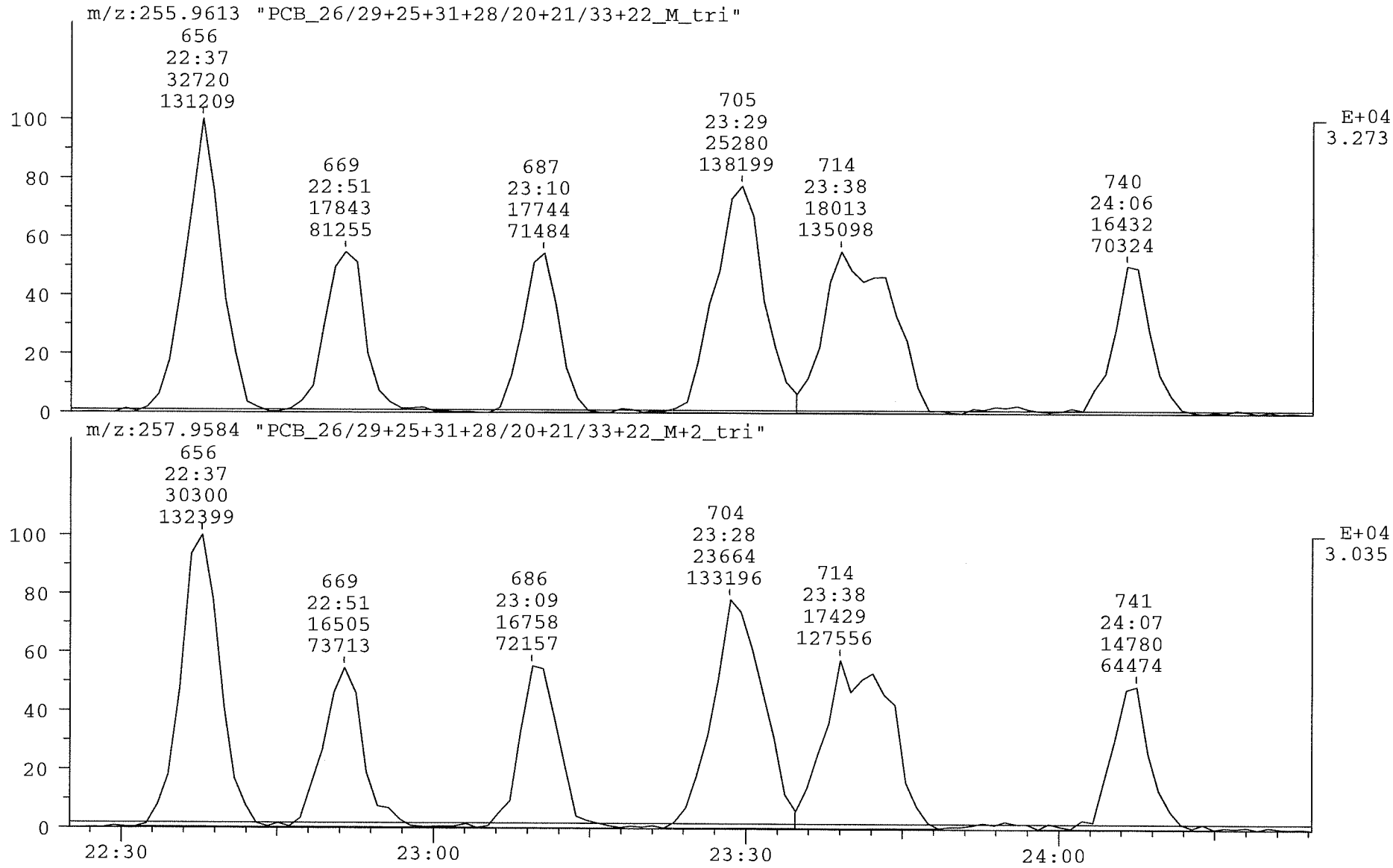
CHRO: a080624i1 24-Jun-08 Elapse: 22:10.2 630
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 615 > 651 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1503

1502

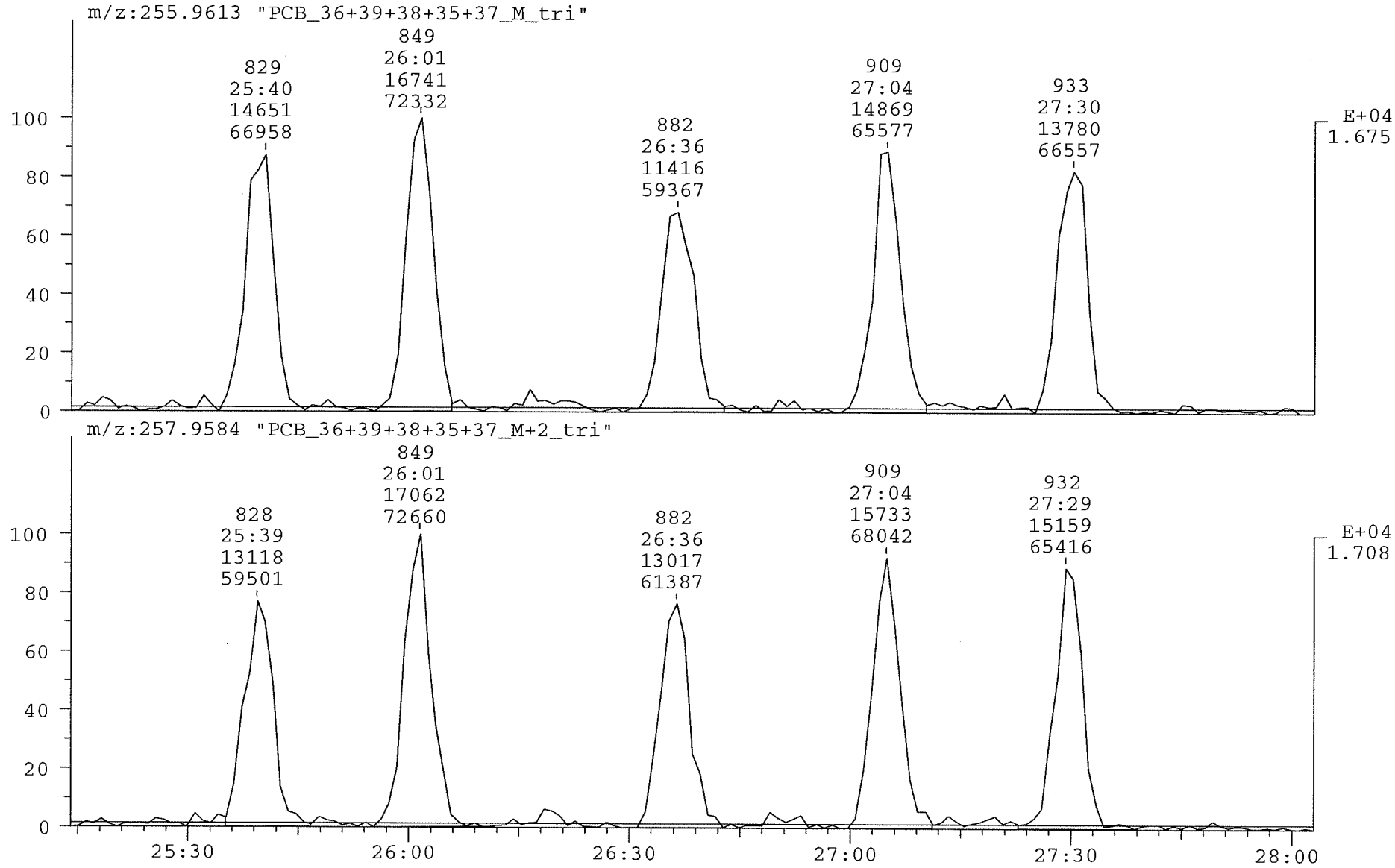
CHRO: a080624i1 24-Jun-08 Elapse: 23:36.8 712
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 644 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1504

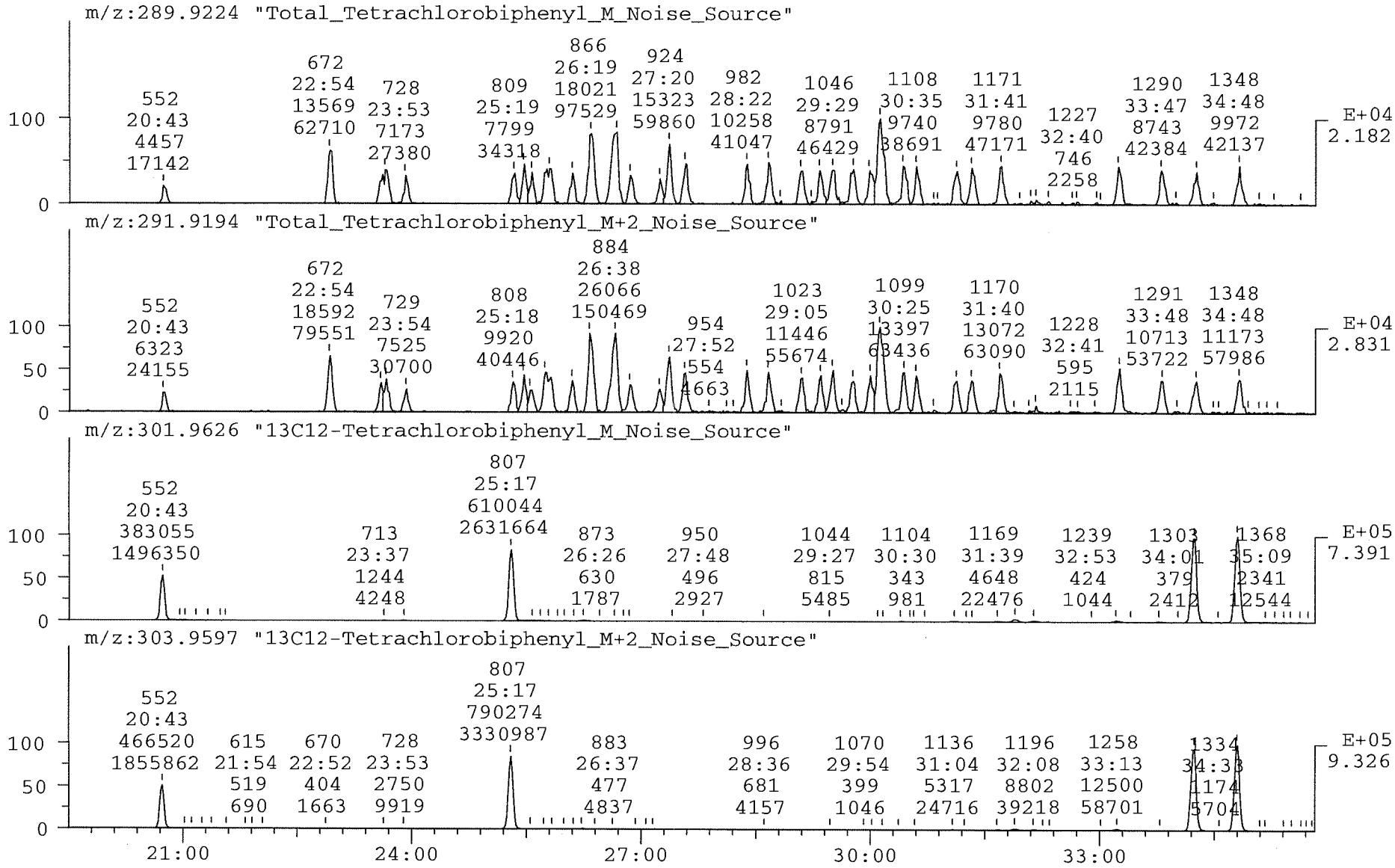
1503

CHRO: a080624i1 24-Jun-08 Elapse: 26:38.5 884
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 804 > 964 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1505

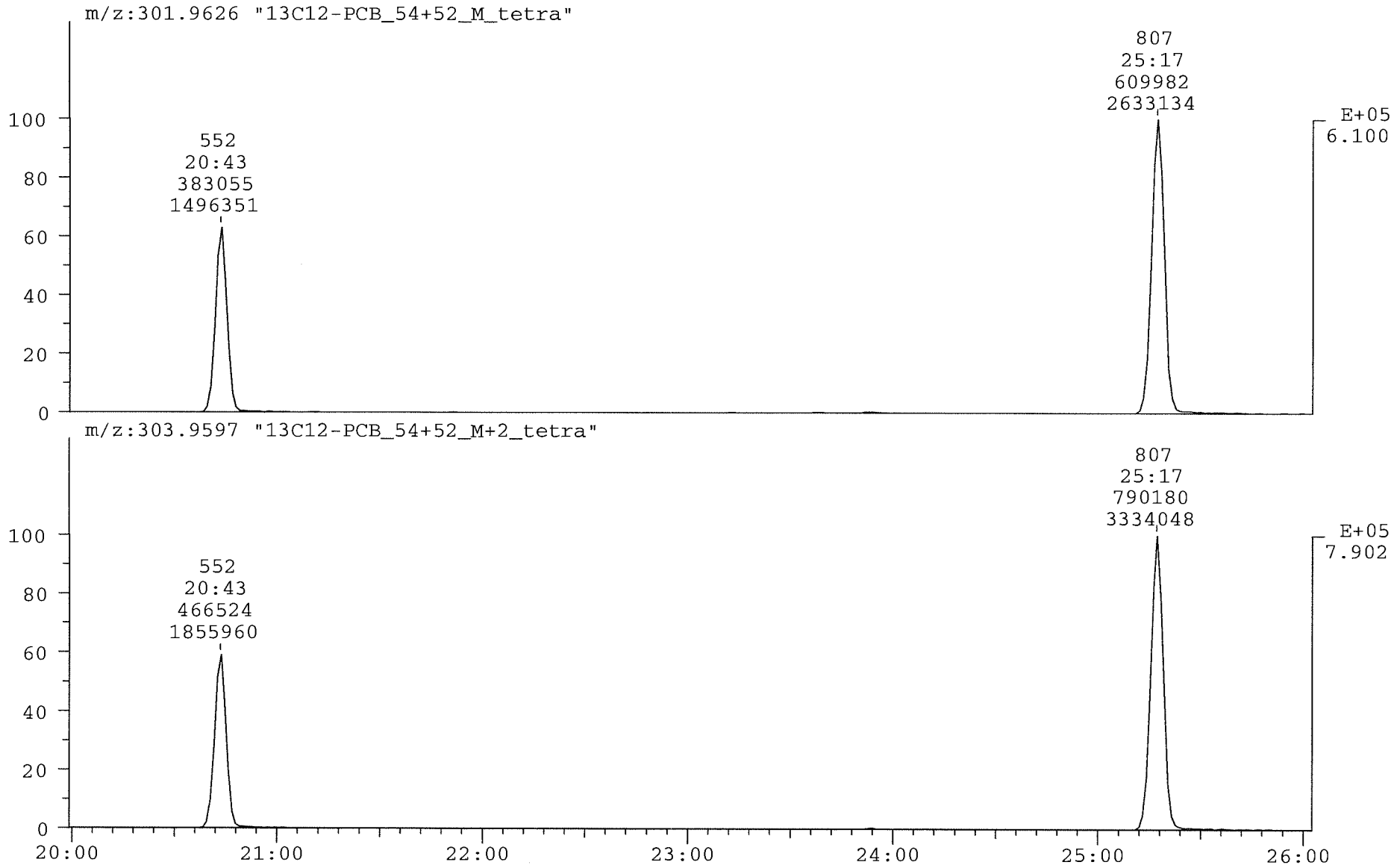
CHRO: a080624i1 24-Jun-08 Elapse: 27:38.6 941
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 482 > 1405 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1506

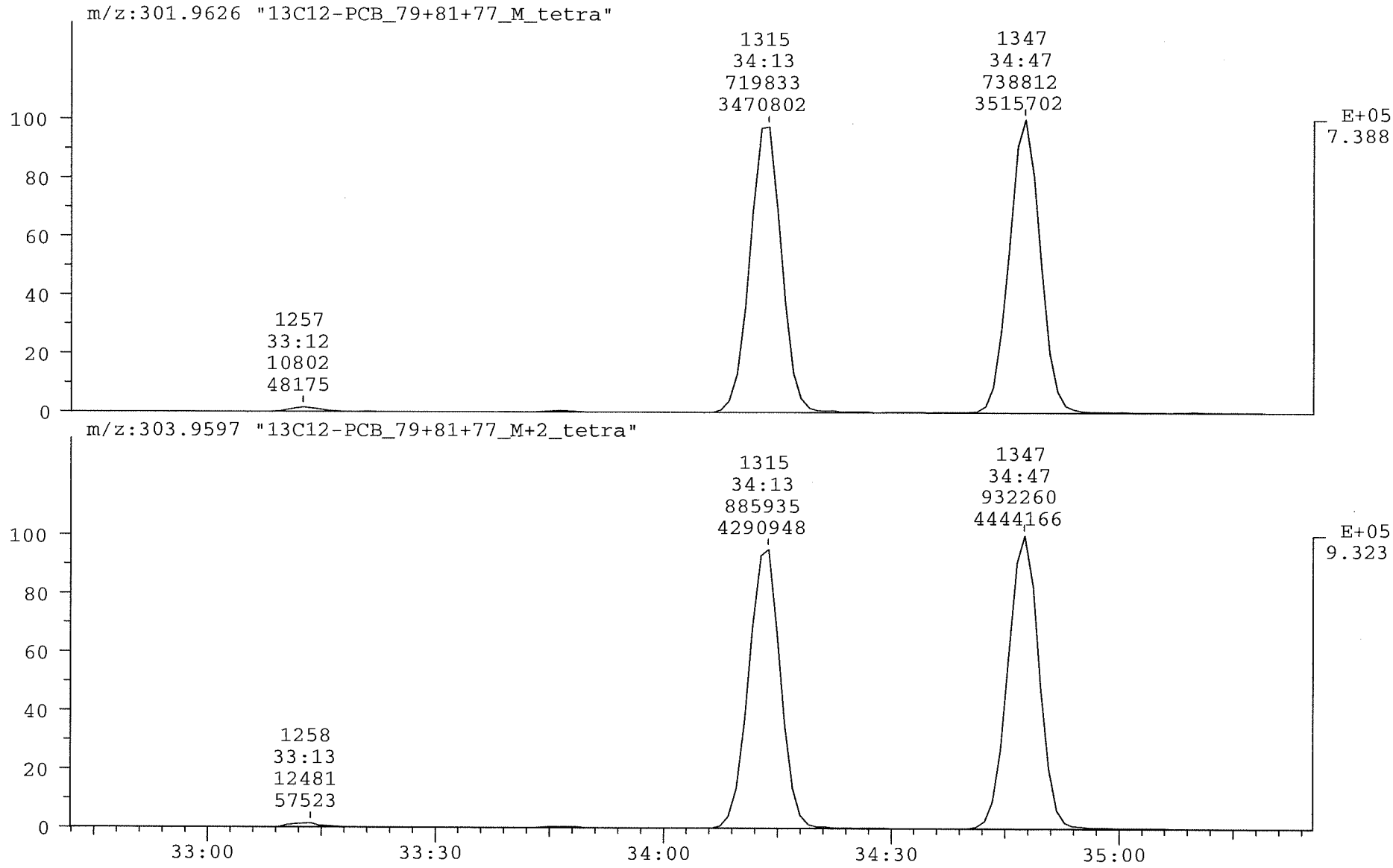
1505

CHRO: a080624i1 24-Jun-08 Elapse: 23:03.0 680
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 510 > 850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1507

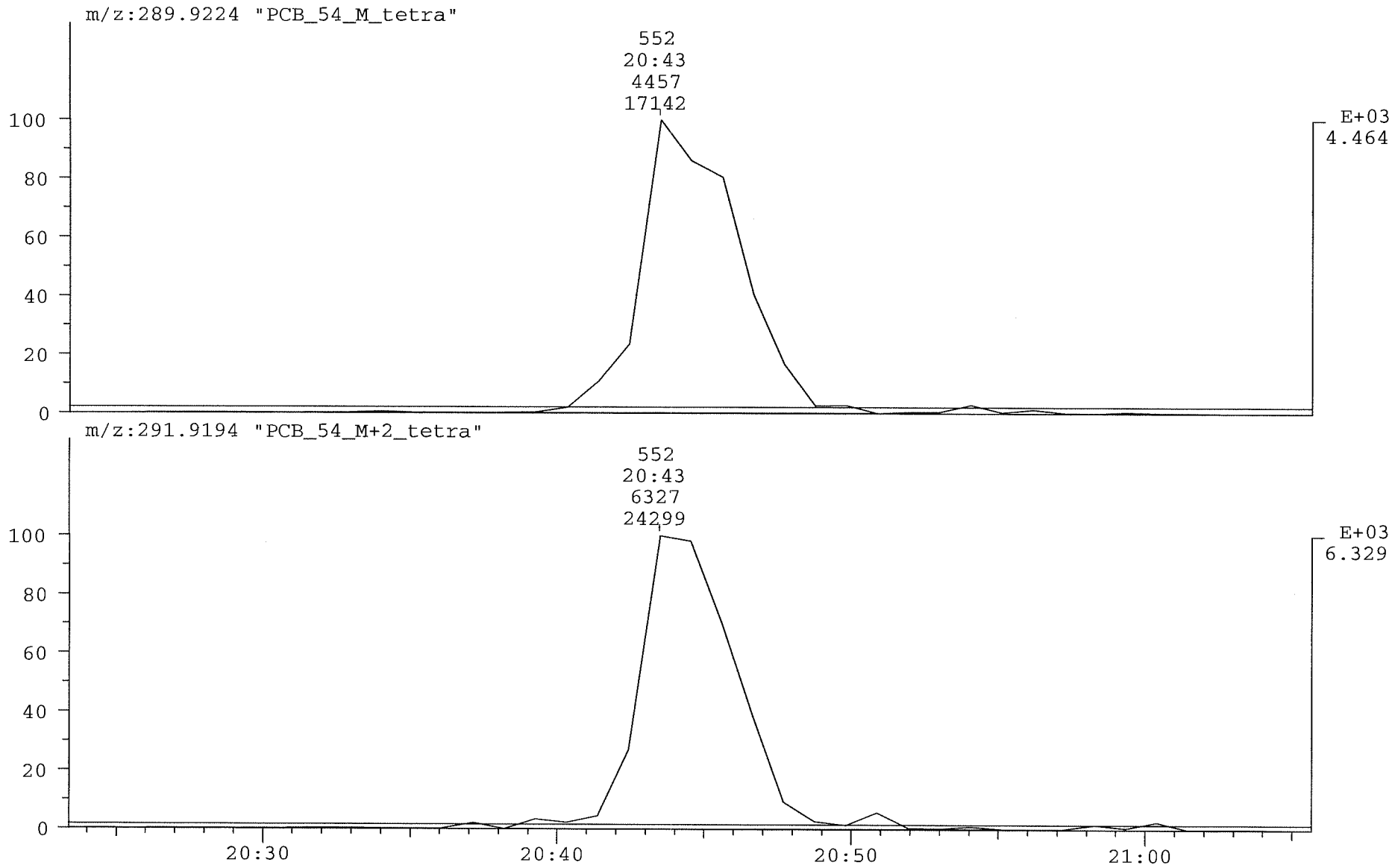
CHRO: a080624i1 24-Jun-08 Elapse: 34:01 1303
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1228 > 1383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1508

1507

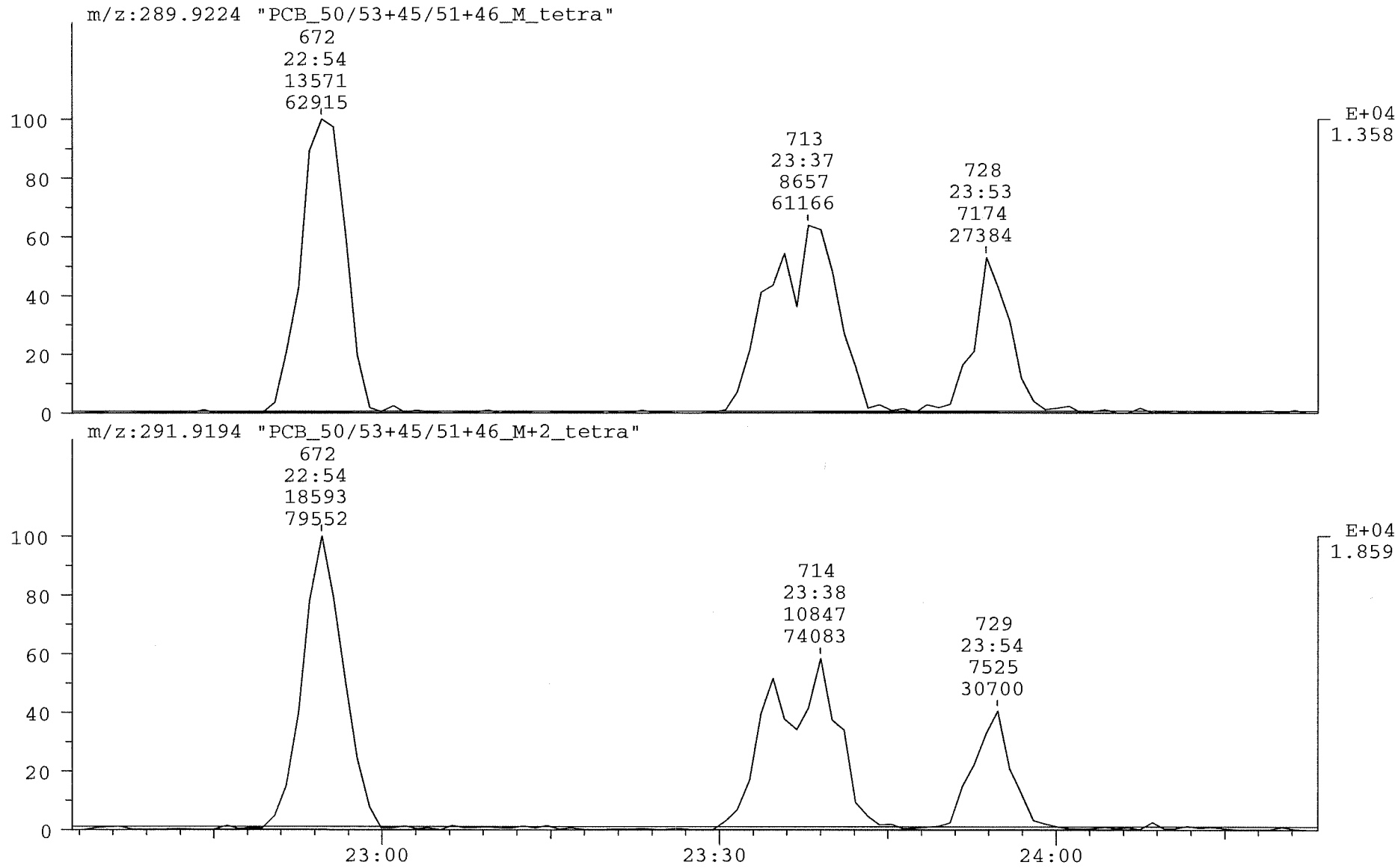
CHRO: a080624i1 24-Jun-08 Elapse: 20:44.5 553
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 533 > 573 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1509

1508

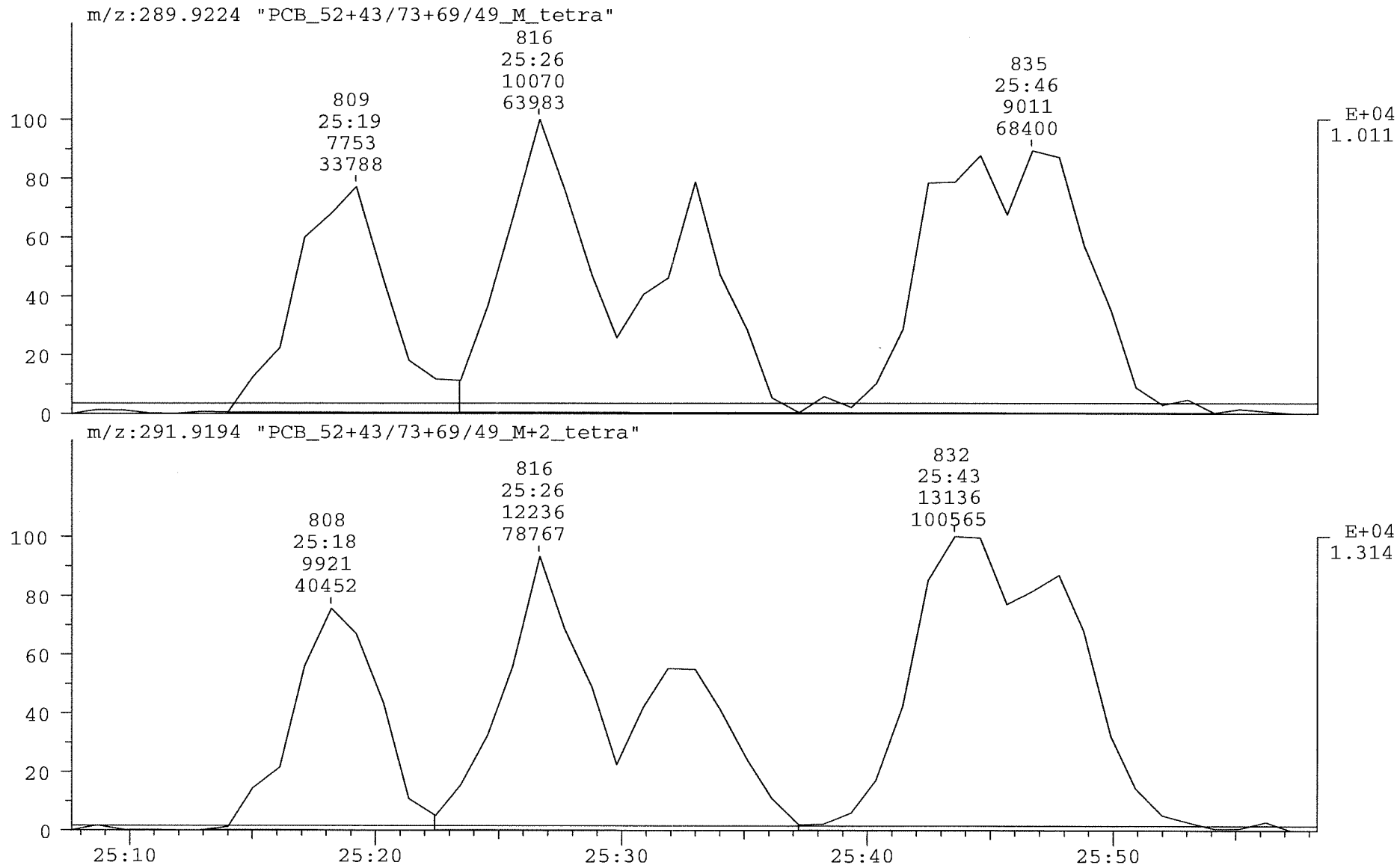
CHRO: a080624i1 24-Jun-08 Elapse: 23:30.5 706
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 651 > 756 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1510

1509

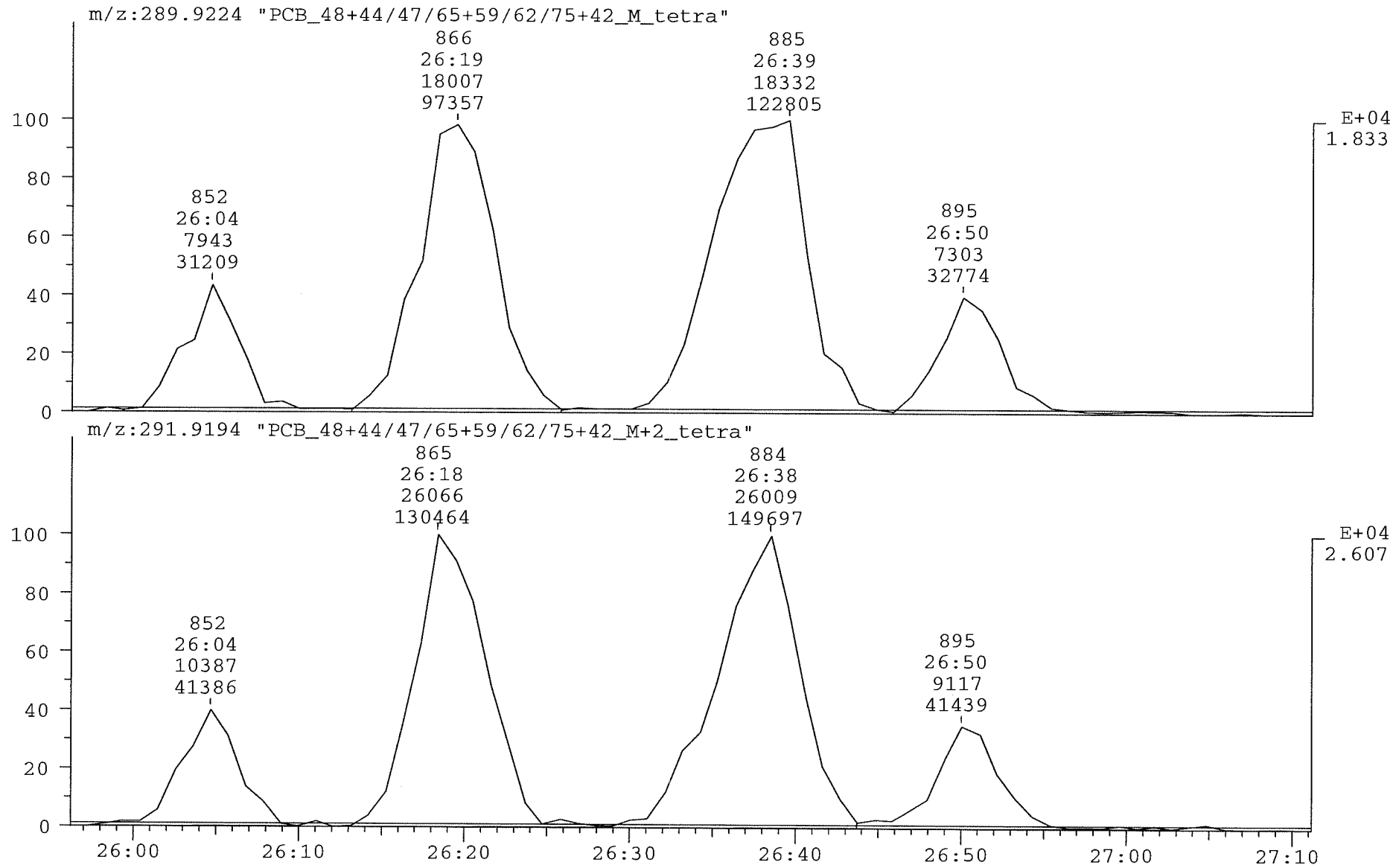
CHRO: a080624i1 24-Jun-08 Elapse: 25:37.2 826
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 798 > 846 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1511

1510

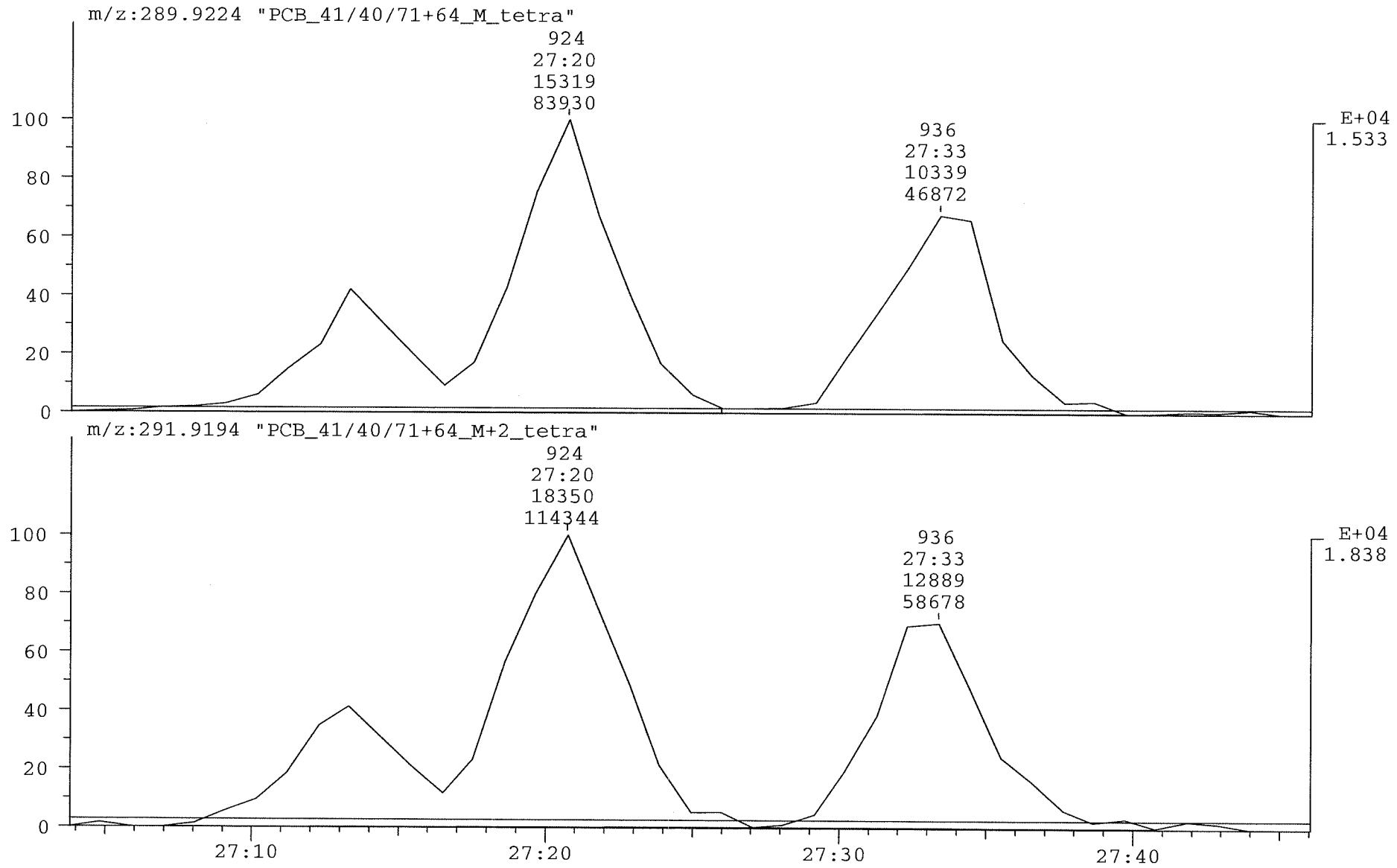
CHRO: a080624i1 24-Jun-08 Elapse: 26:30.0 876
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 844 > 915 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1512

1511

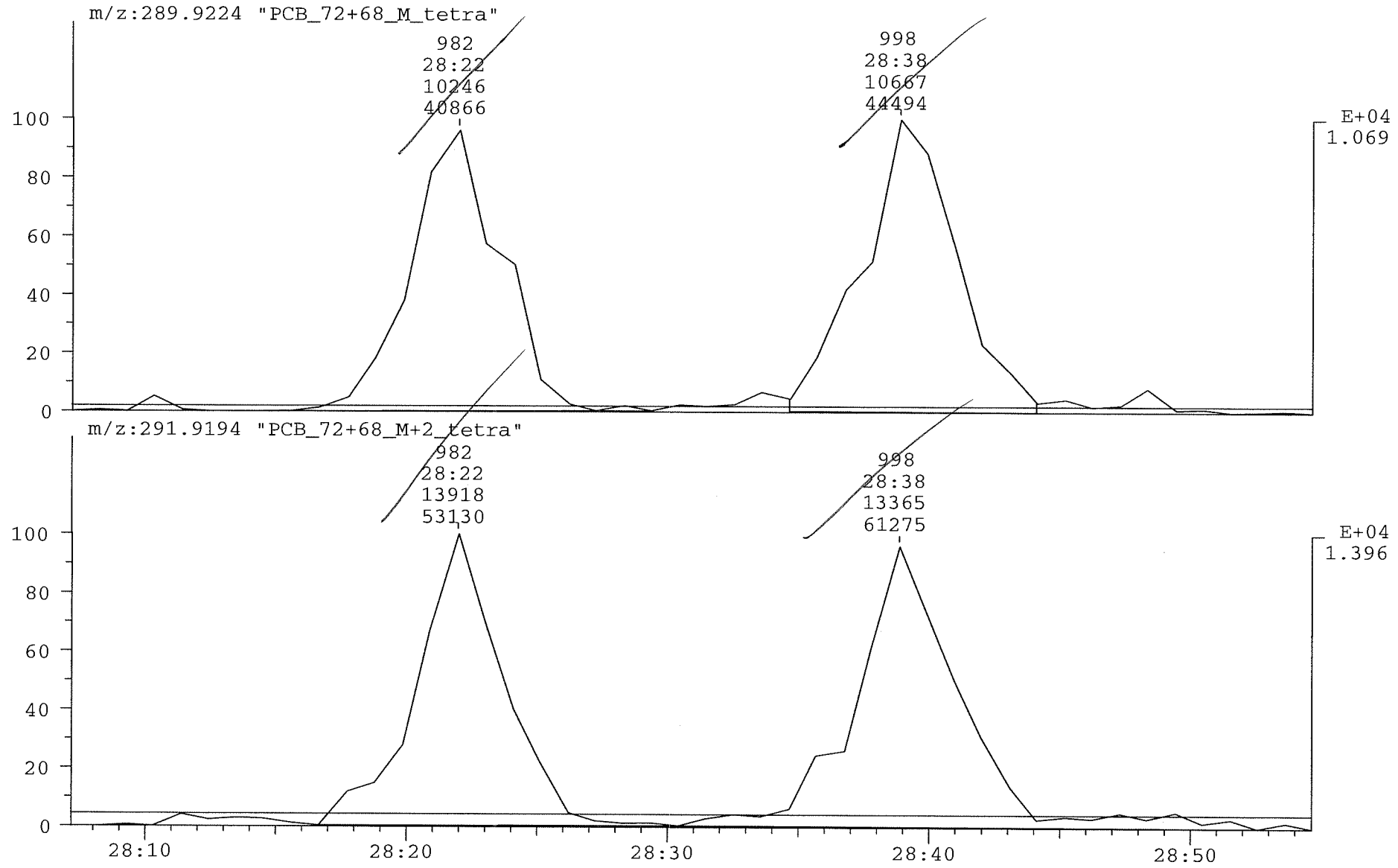
CHRO: a080624i1 24-Jun-08 Elapse: 27:30.2 933
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 908 > 948 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1513

1512

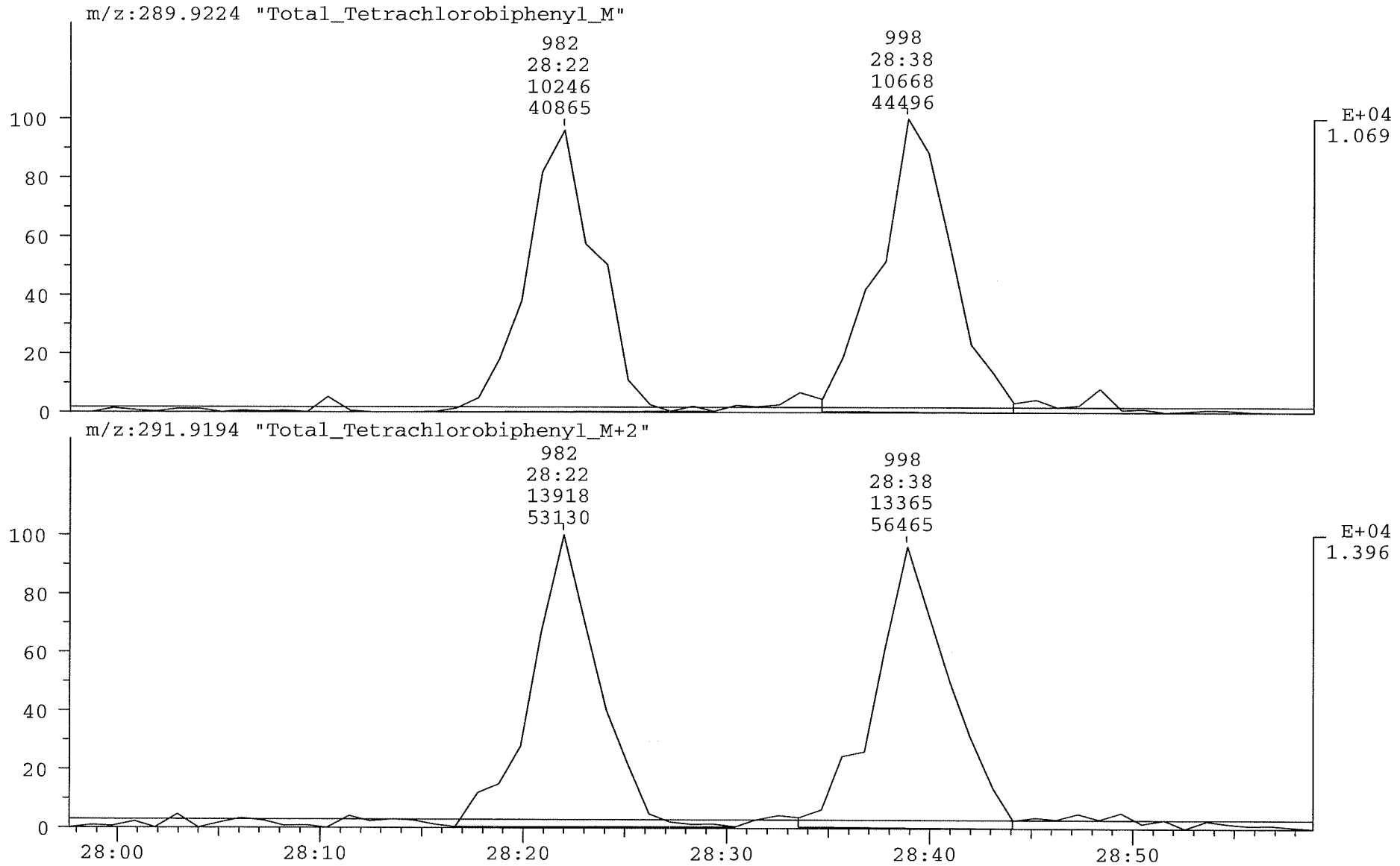
CHRO: a080624i1 24-Jun-08 Elapse: 28:33.5 993
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 968 > 1013 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1514

1513

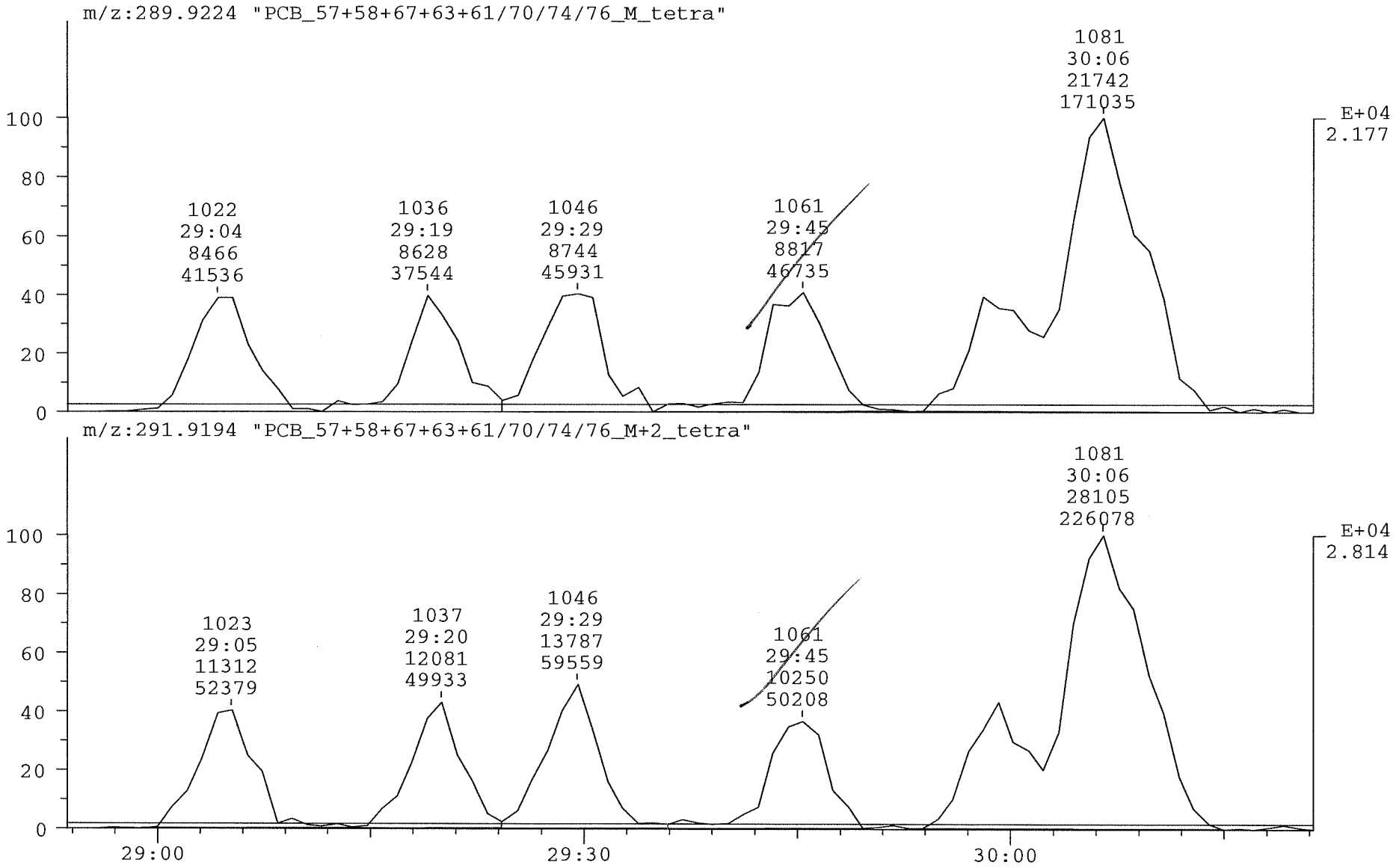
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 959 > 1017 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1515

1514

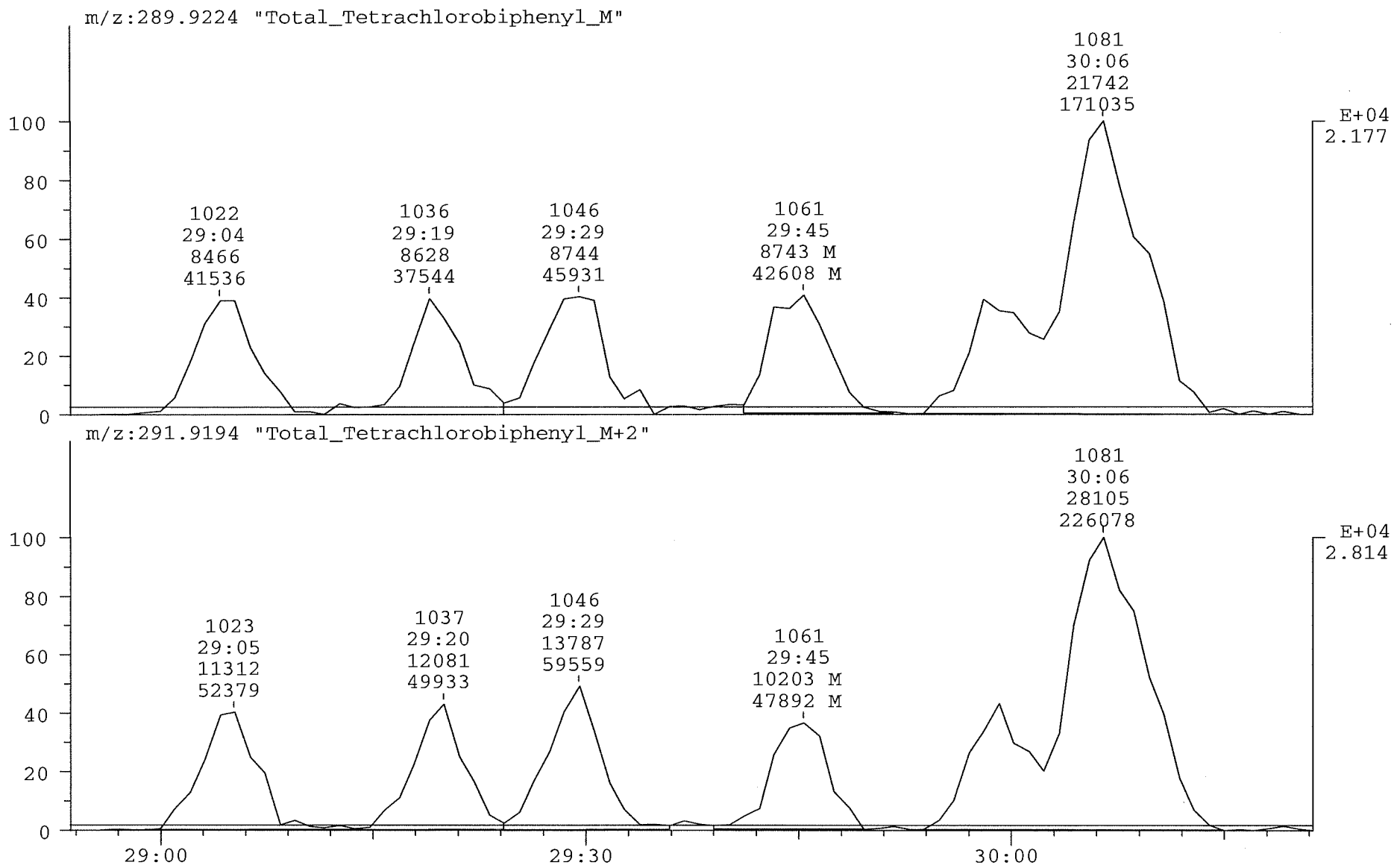
CHRO: a080624i1 24-Jun-08 Elapse: 29:39 1055
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1012 > 1095 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1516

1515

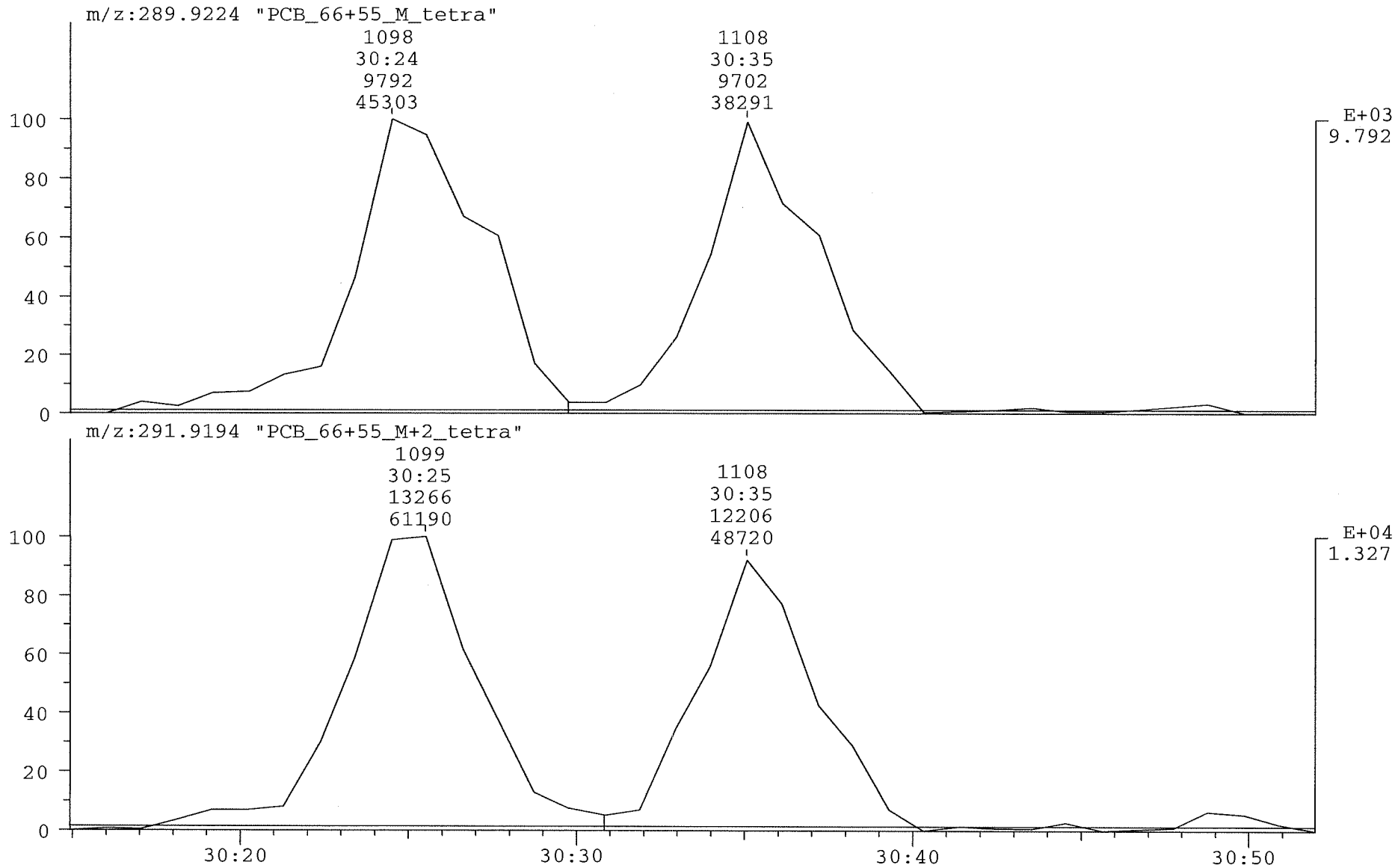
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1012 > 1095 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1517

1516

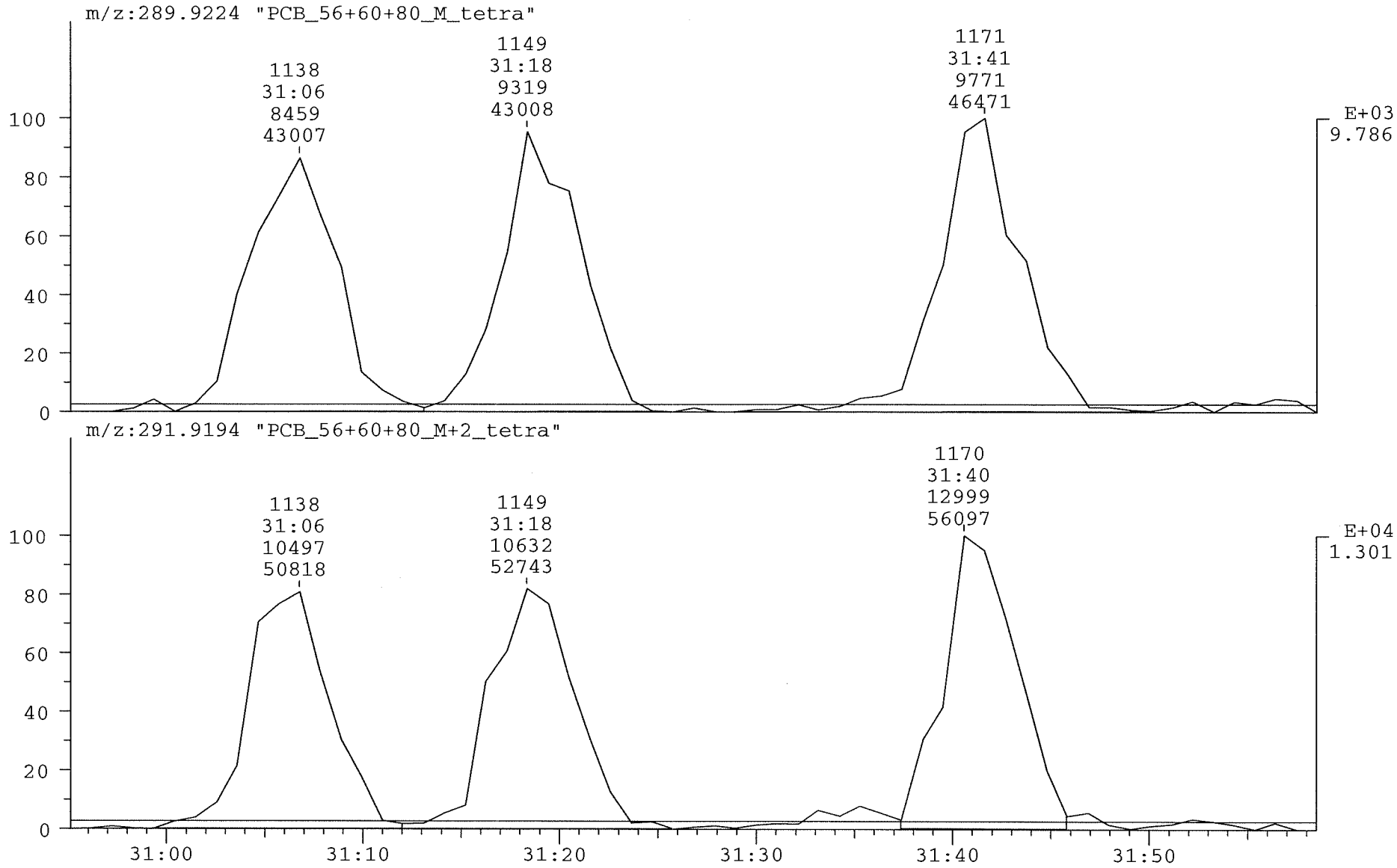
CHRO: a080624i1 24-Jun-08 Elapse: 30:34 1107
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1089 > 1124 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1518

1517

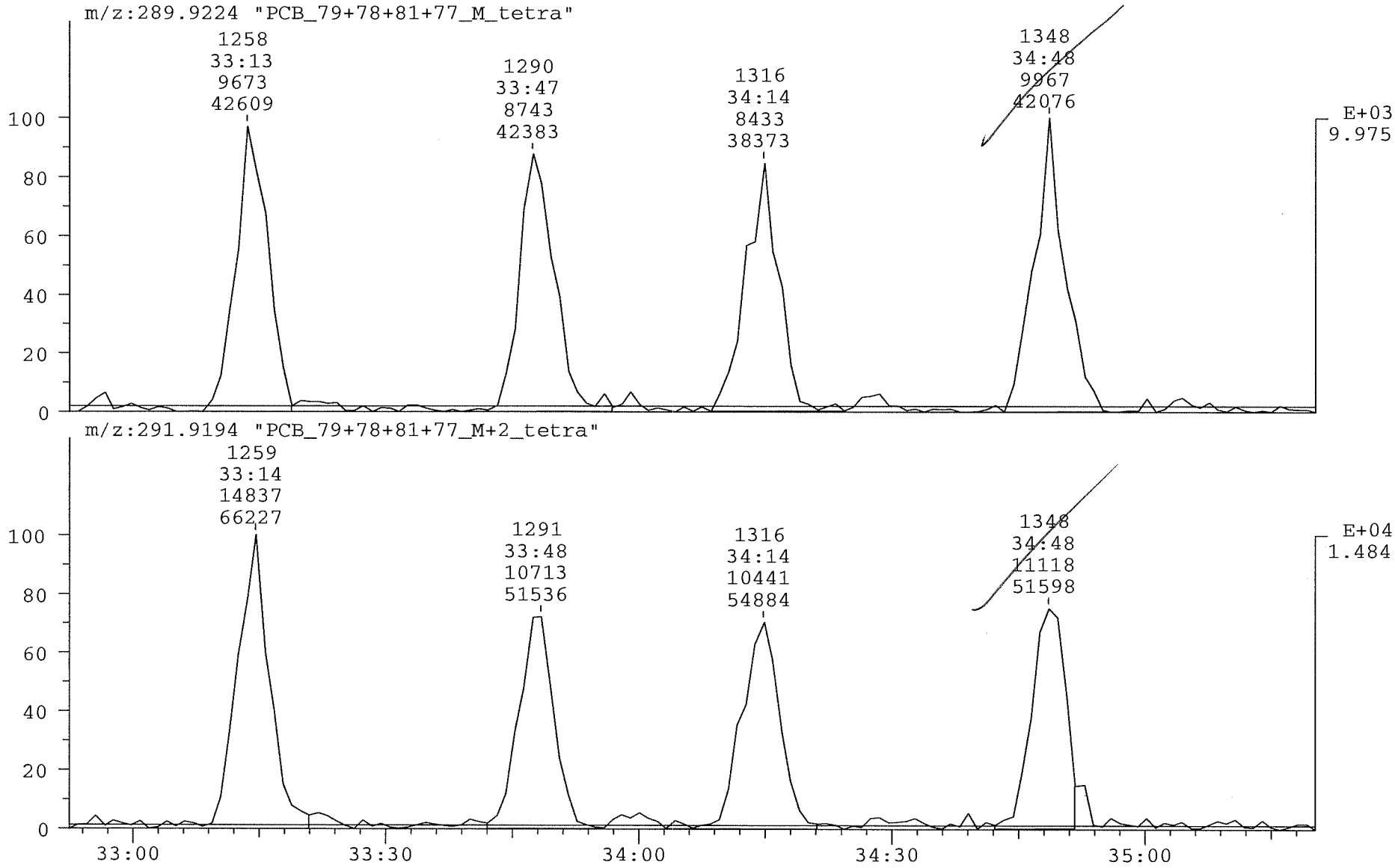
CHRO: a080624i1 24-Jun-08 Elapse: 31:26 1157
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1127 > 1187 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1519

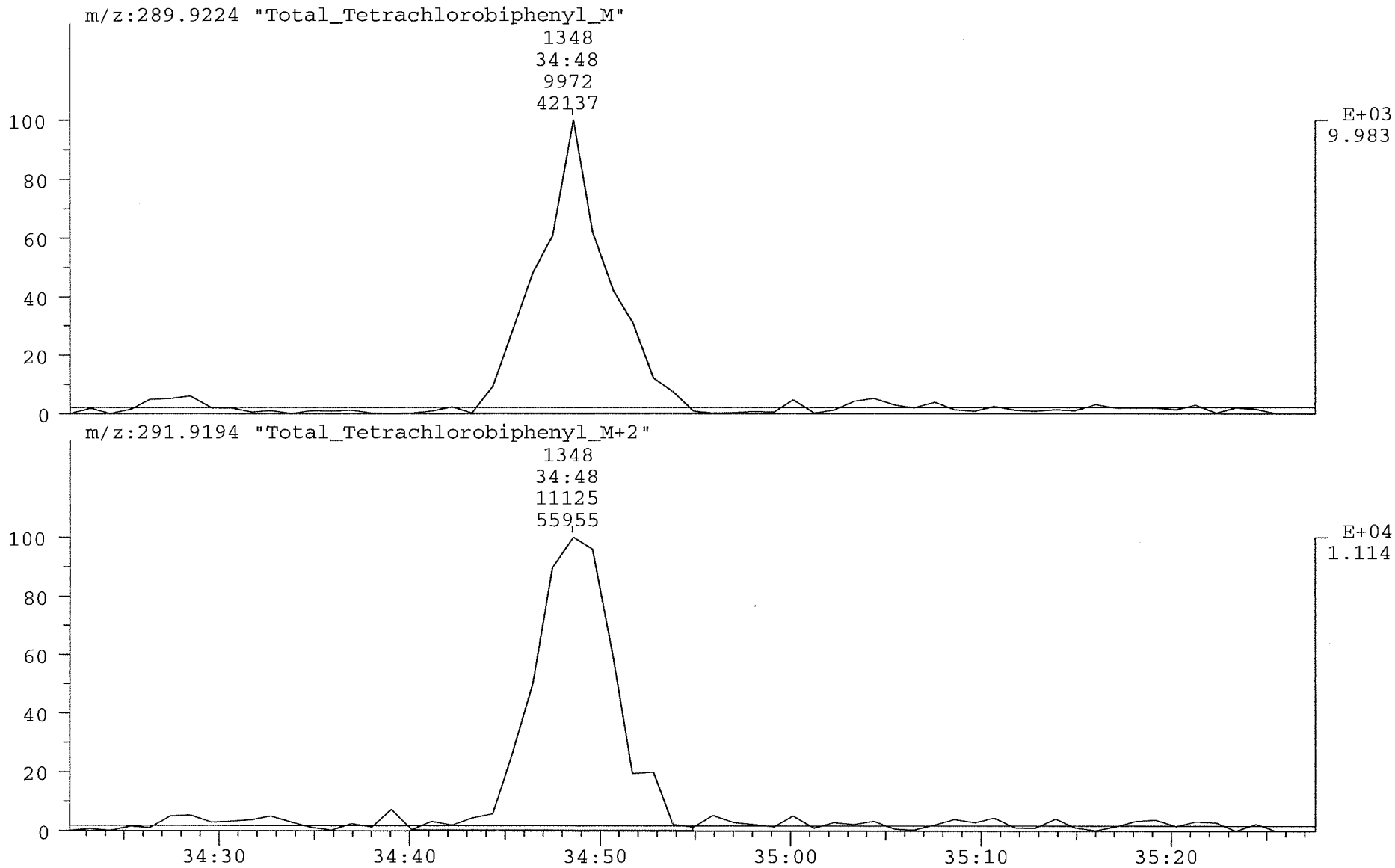
1518

CHRO: a080624i1 24-Jun-08 Elapse: 34:01 1303
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1238 > 1378 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



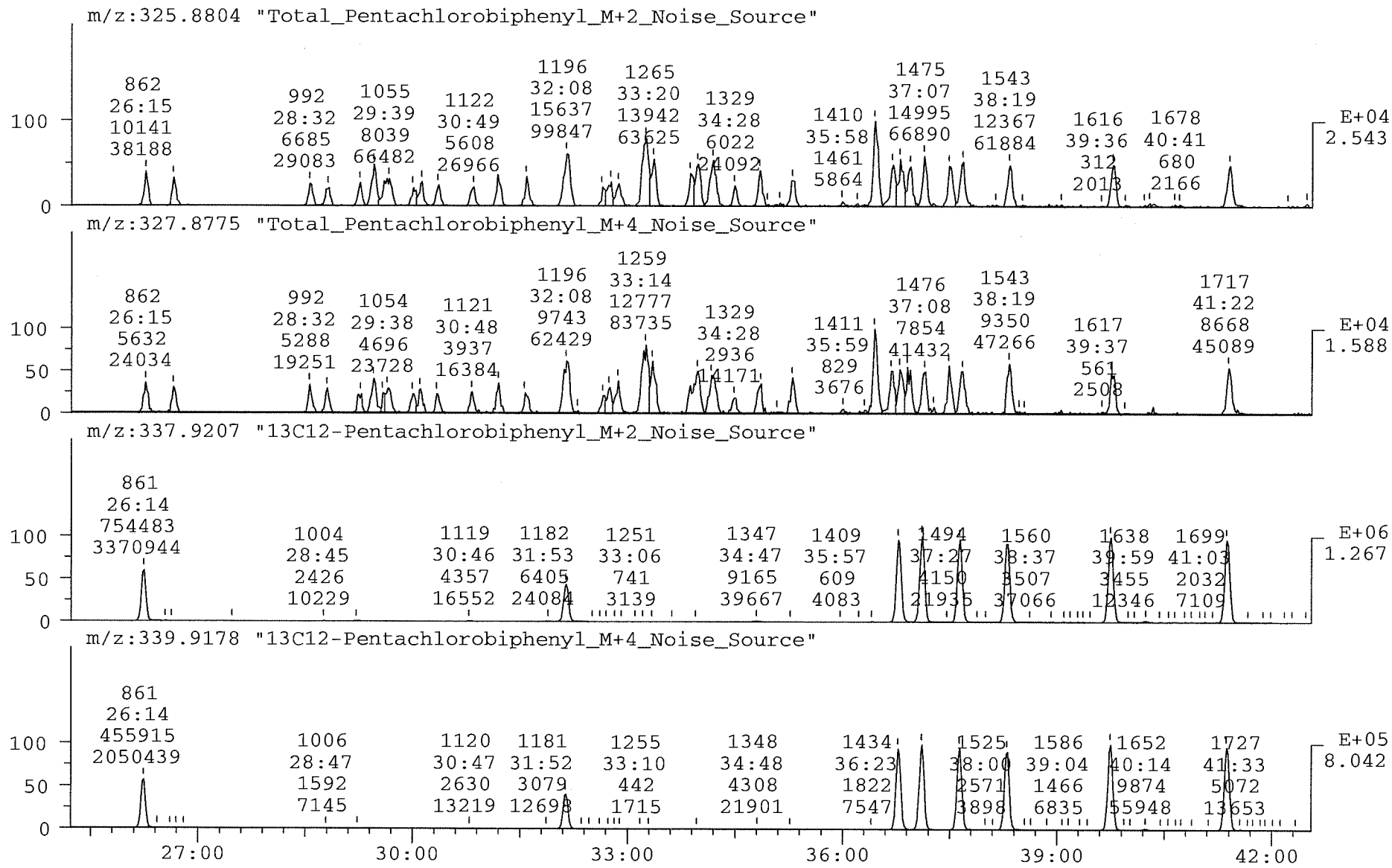
H-1520

CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1323 > 1385 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1521

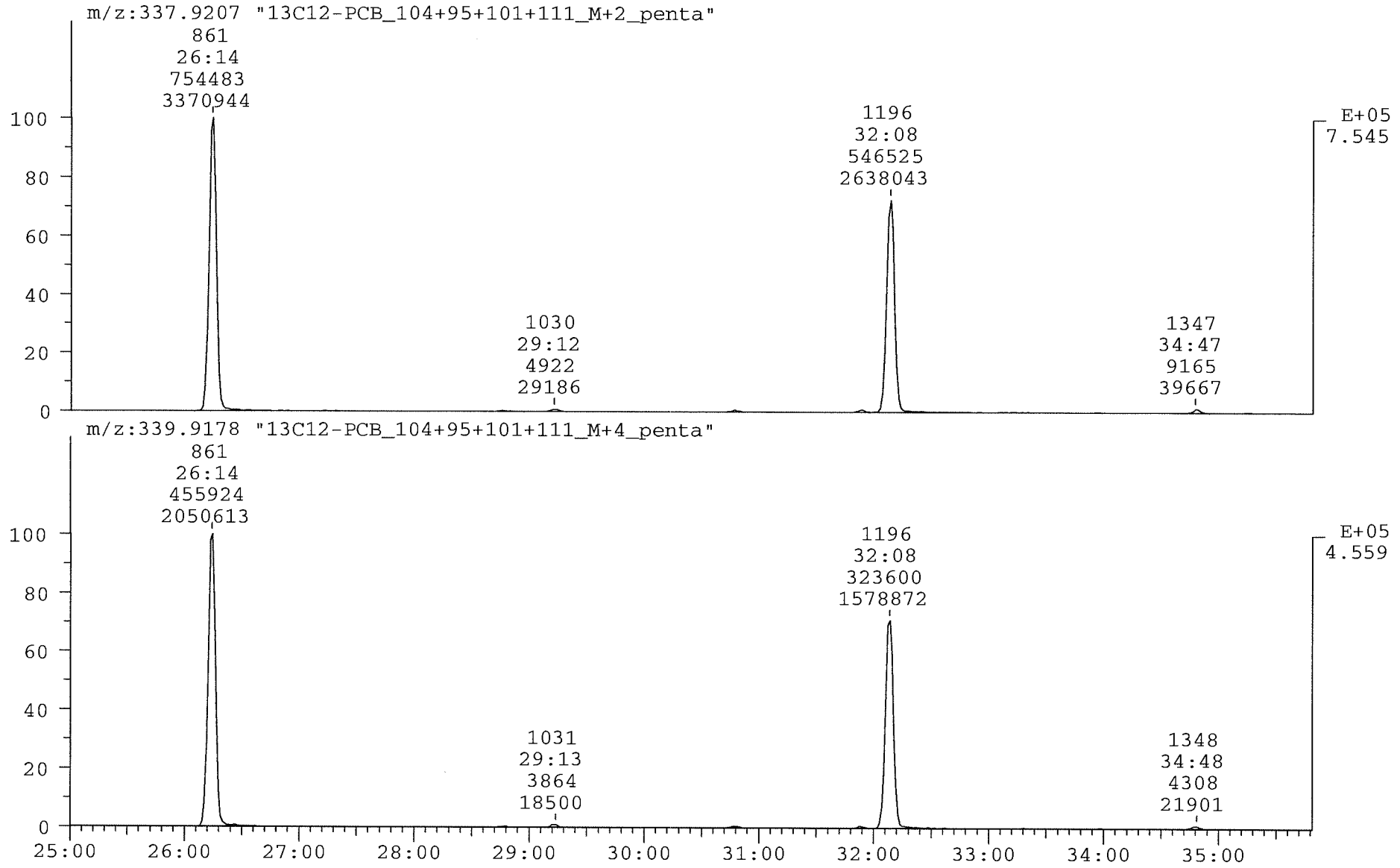
CHRO: a080624i1 24-Jun-08 Elapse: 33:52 1295
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 803 > 1783 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1522

1521

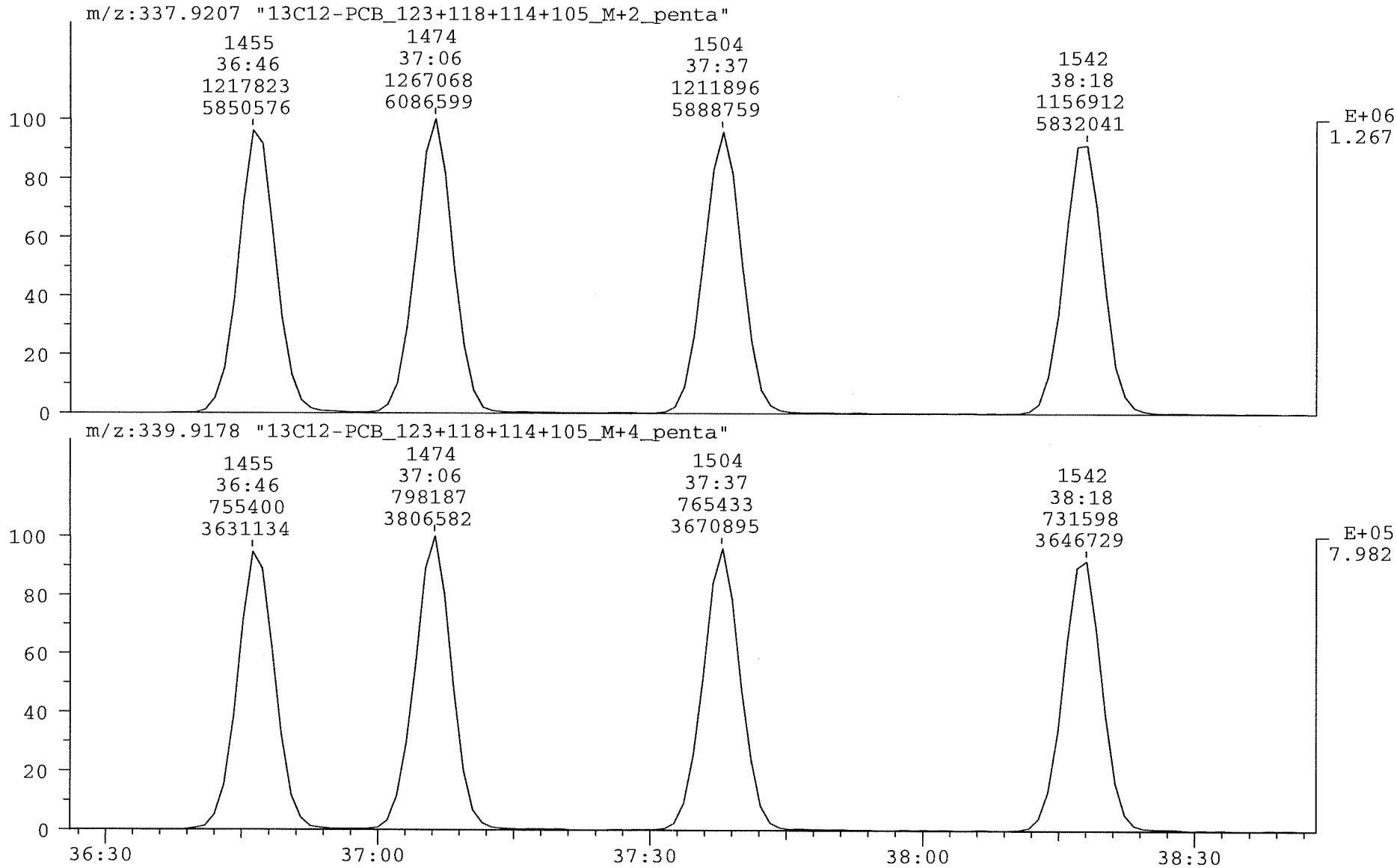
CHRO: a080624i1 24-Jun-08 Elapse: 30:24 1098
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 791 > 1405 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1523

1522

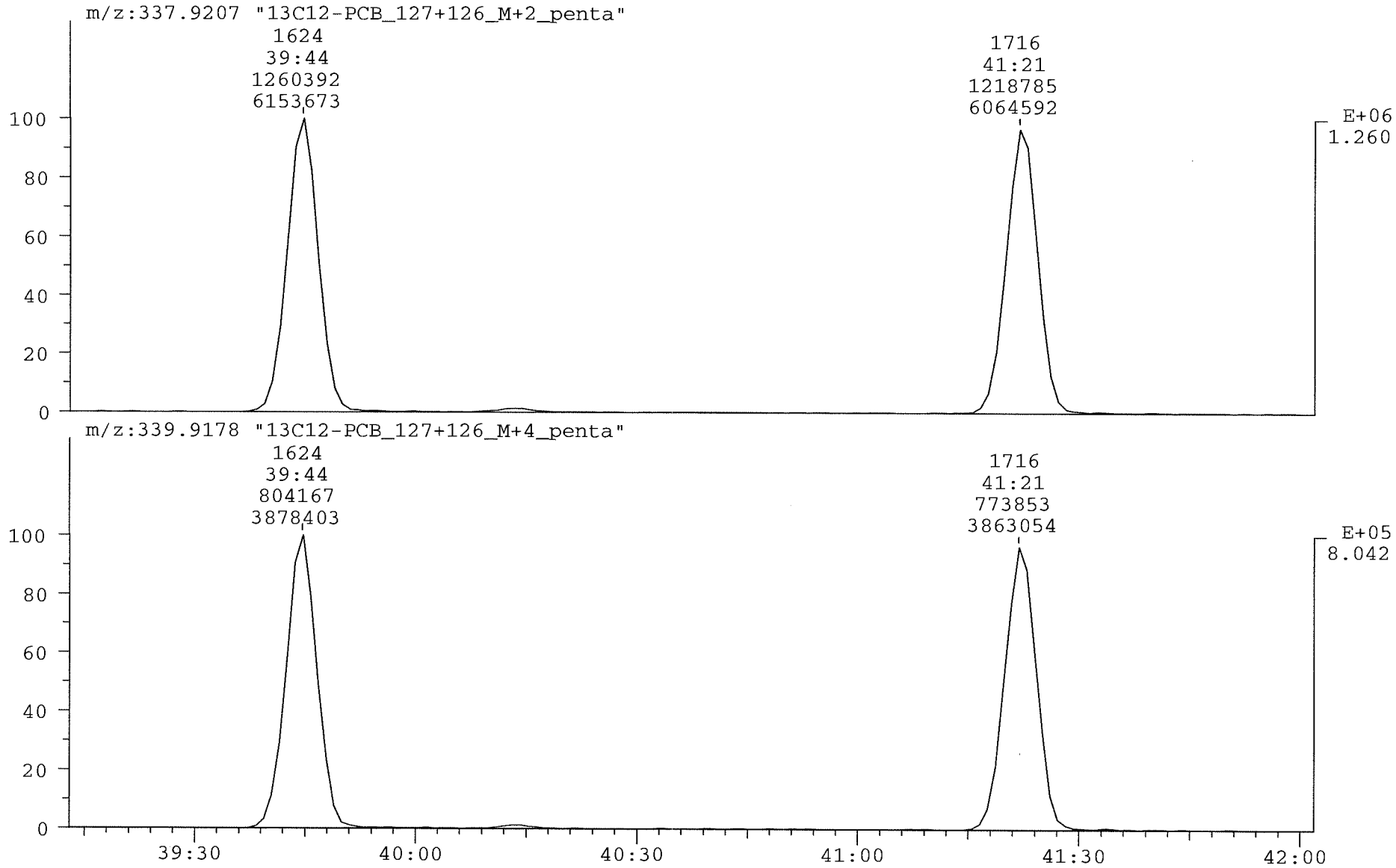
CHRO: a080624i1 24-Jun-08 Elapse: 37:34 1501
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1436 > 1566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1524

1523

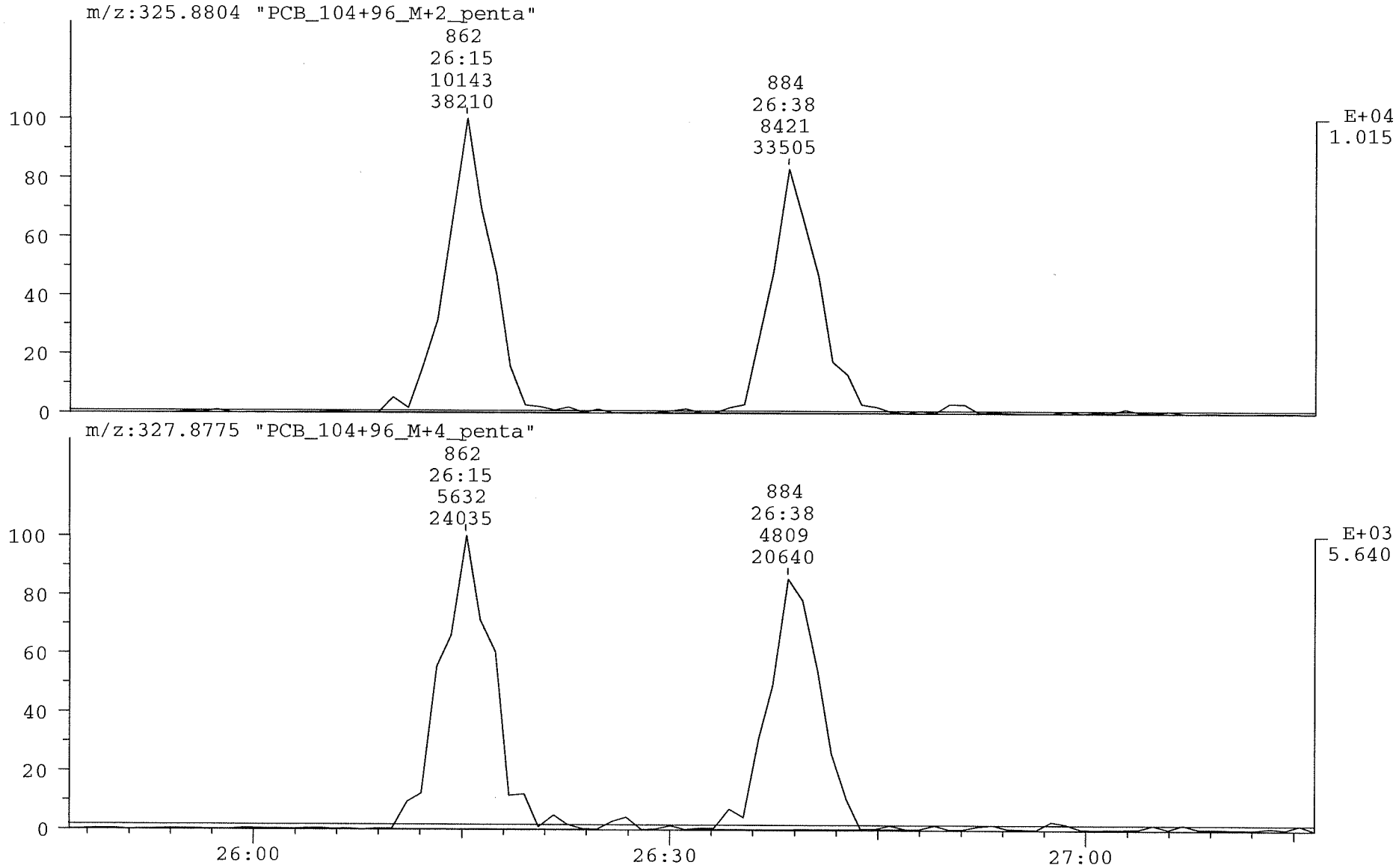
CHRO: a080624i1 24-Jun-08 Elapse: 40:37 1674
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1594 > 1754 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1525

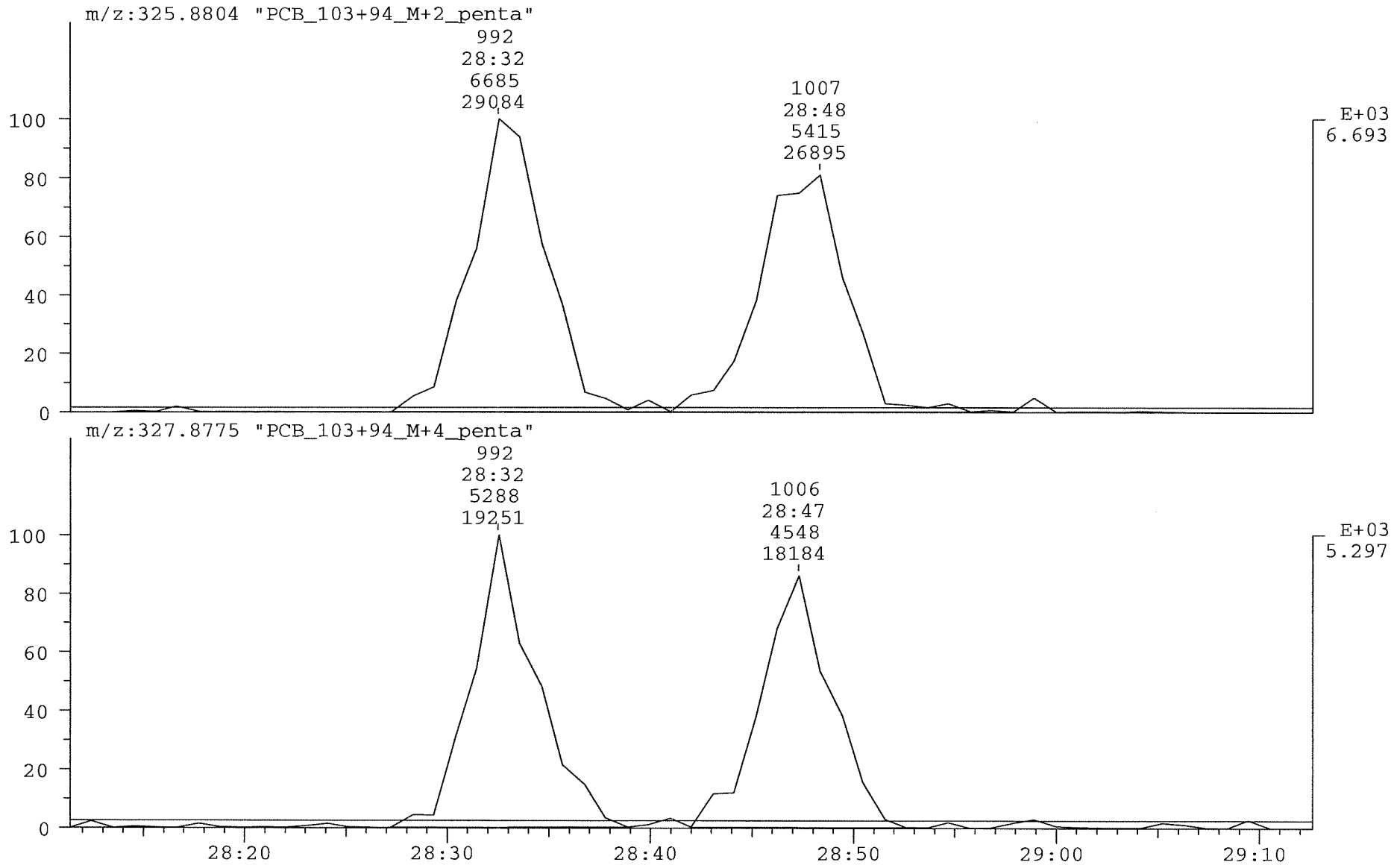
1524

CHRO: a080624i1 24-Jun-08 Elapse: 26:28.9 875
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 835 > 920 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1526

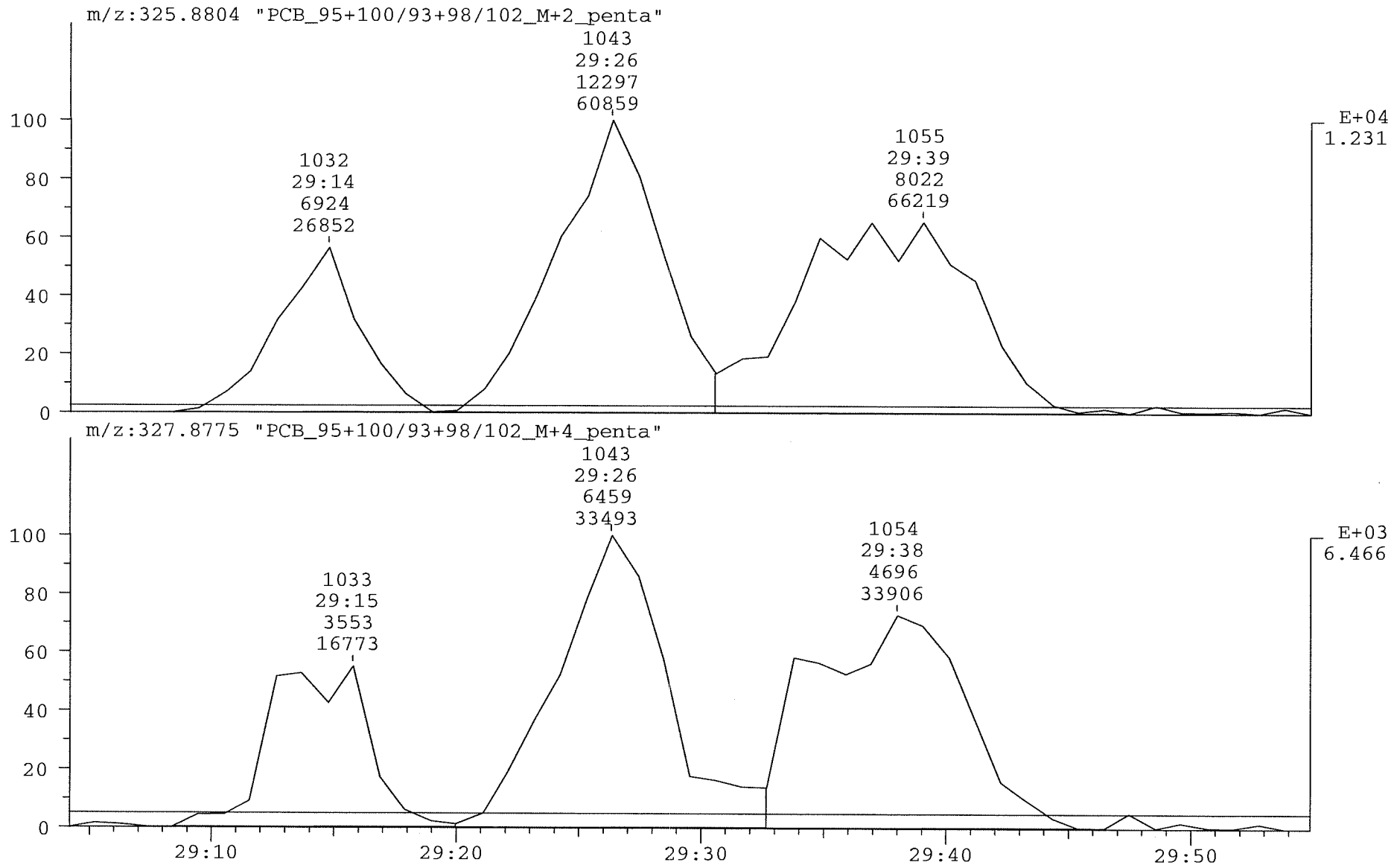
CHRO: a080624i1 24-Jun-08 Elapse: 28:43 1002
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 972 > 1030 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1527

1526

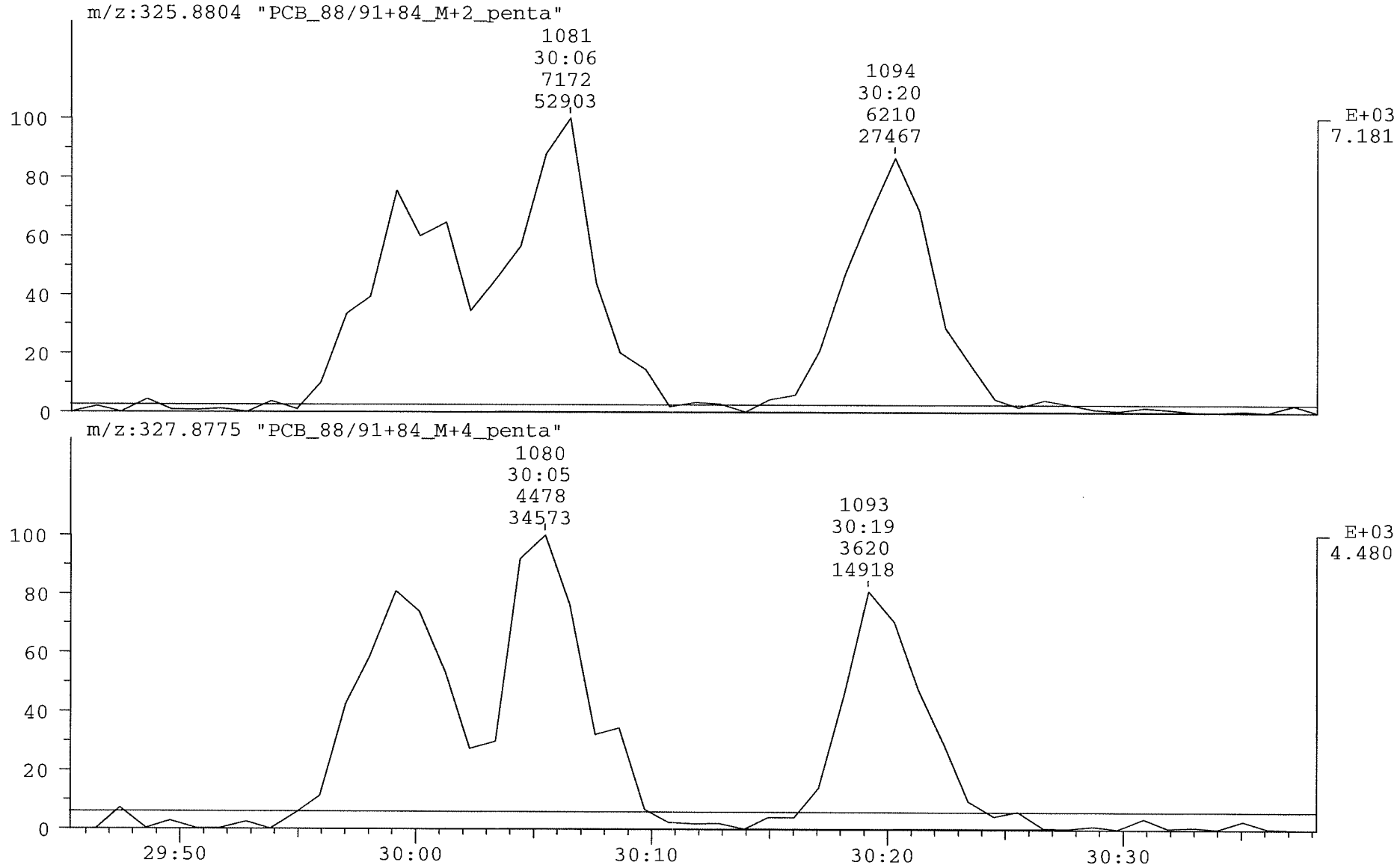
CHRO: a080624i1 24-Jun-08 Elapse: 29:28 1045
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1022 > 1070 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1528

1527

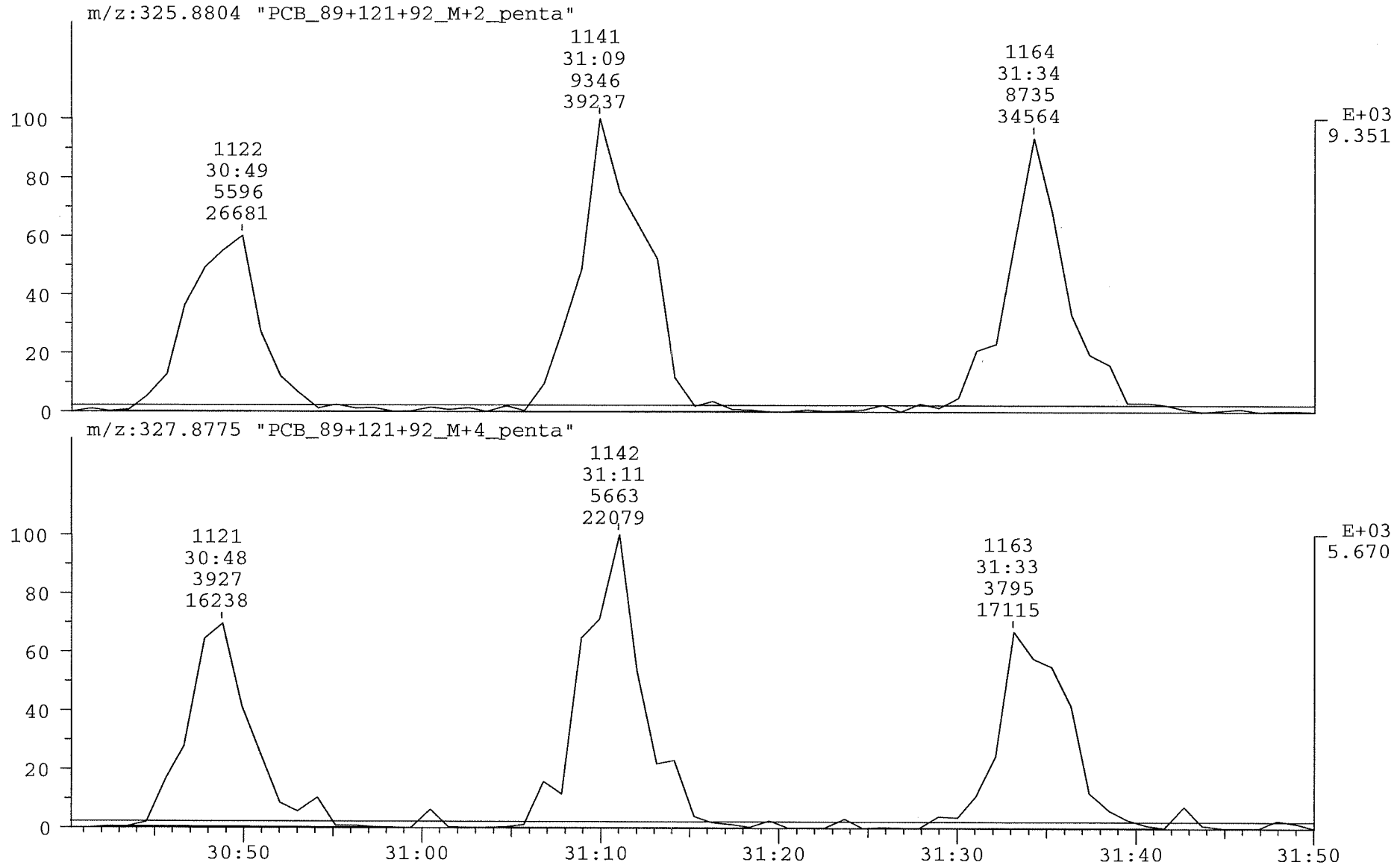
CHRO: a080624i1 24-Jun-08 Elapse: 30:12 1087
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1061 > 1111 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1529

1528

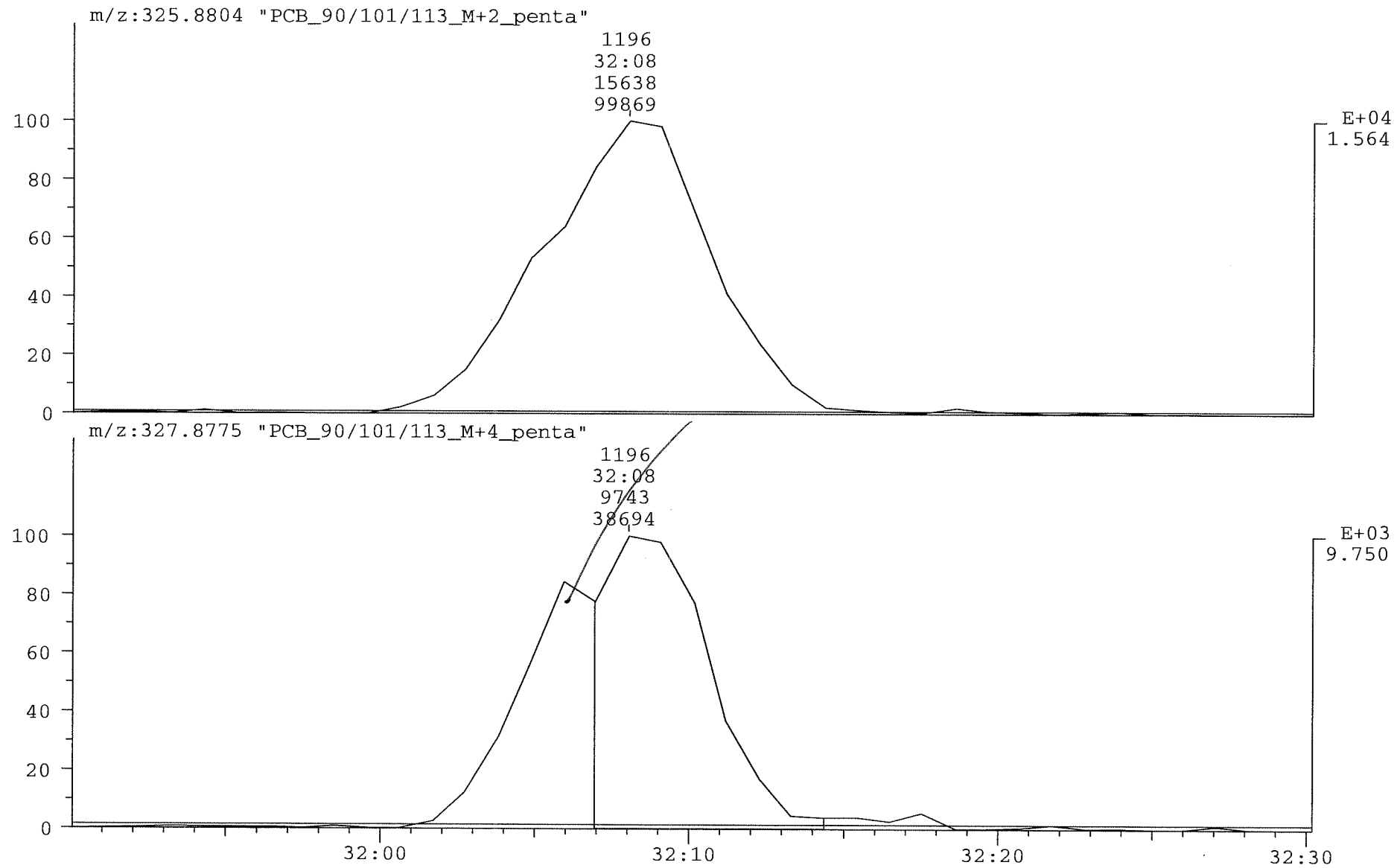
CHRO: a080624i1 24-Jun-08 Elapse: 31:15 1146
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1113 > 1179 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1530

1529

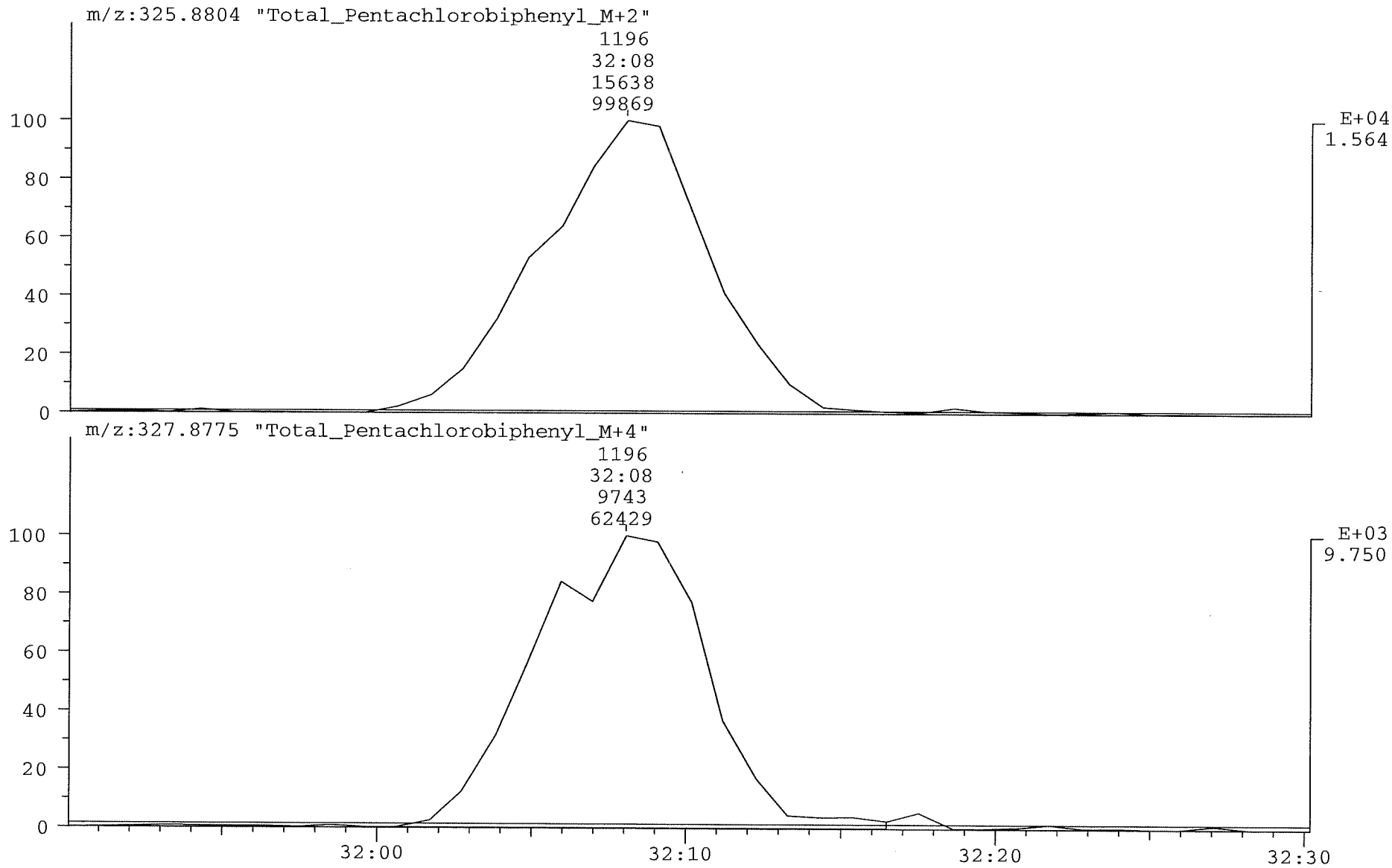
CHRO: a080624i1 24-Jun-08 Elapse: 32:09 1197
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1179 > 1217 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1531

1530

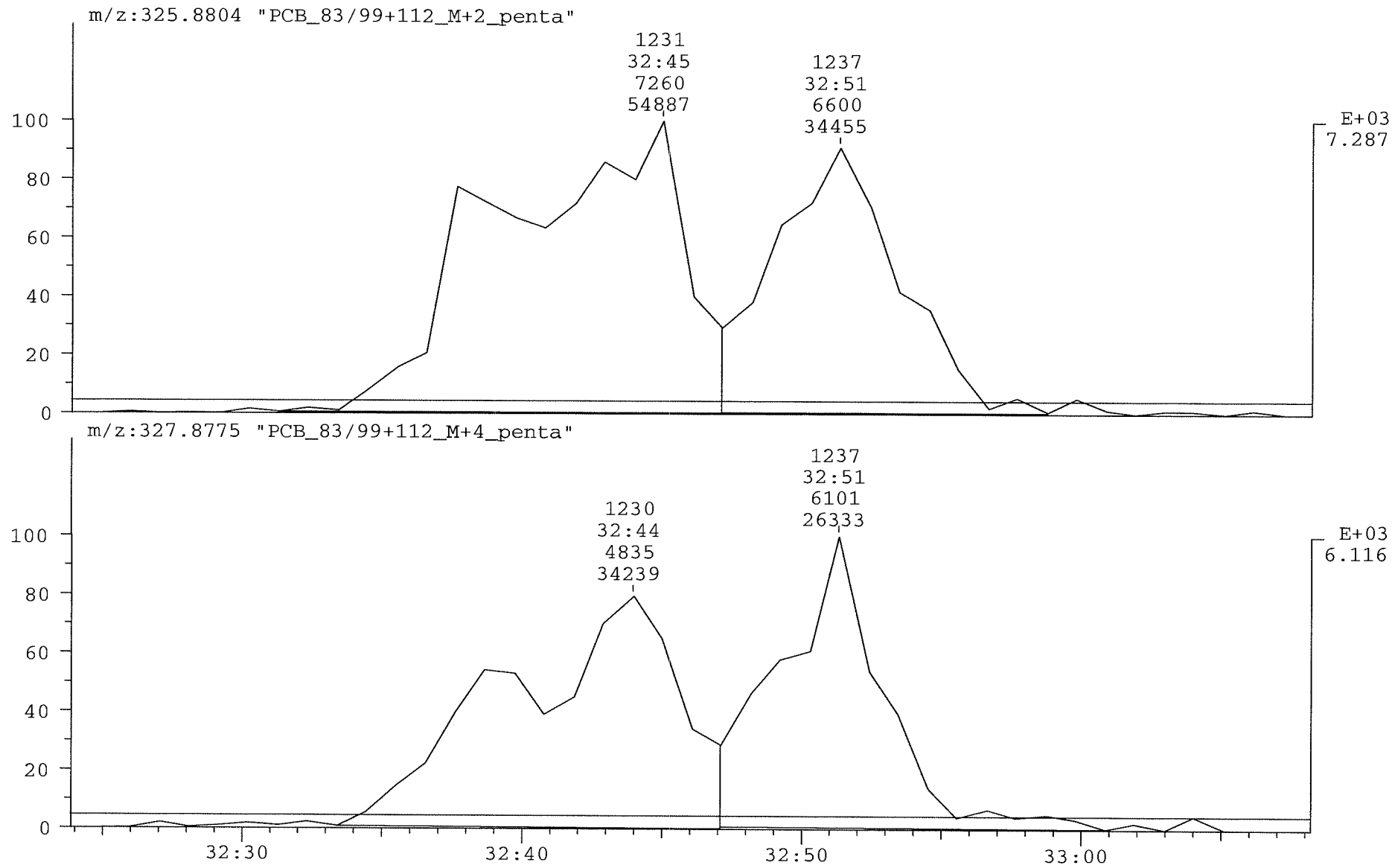
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1179 > 1217 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



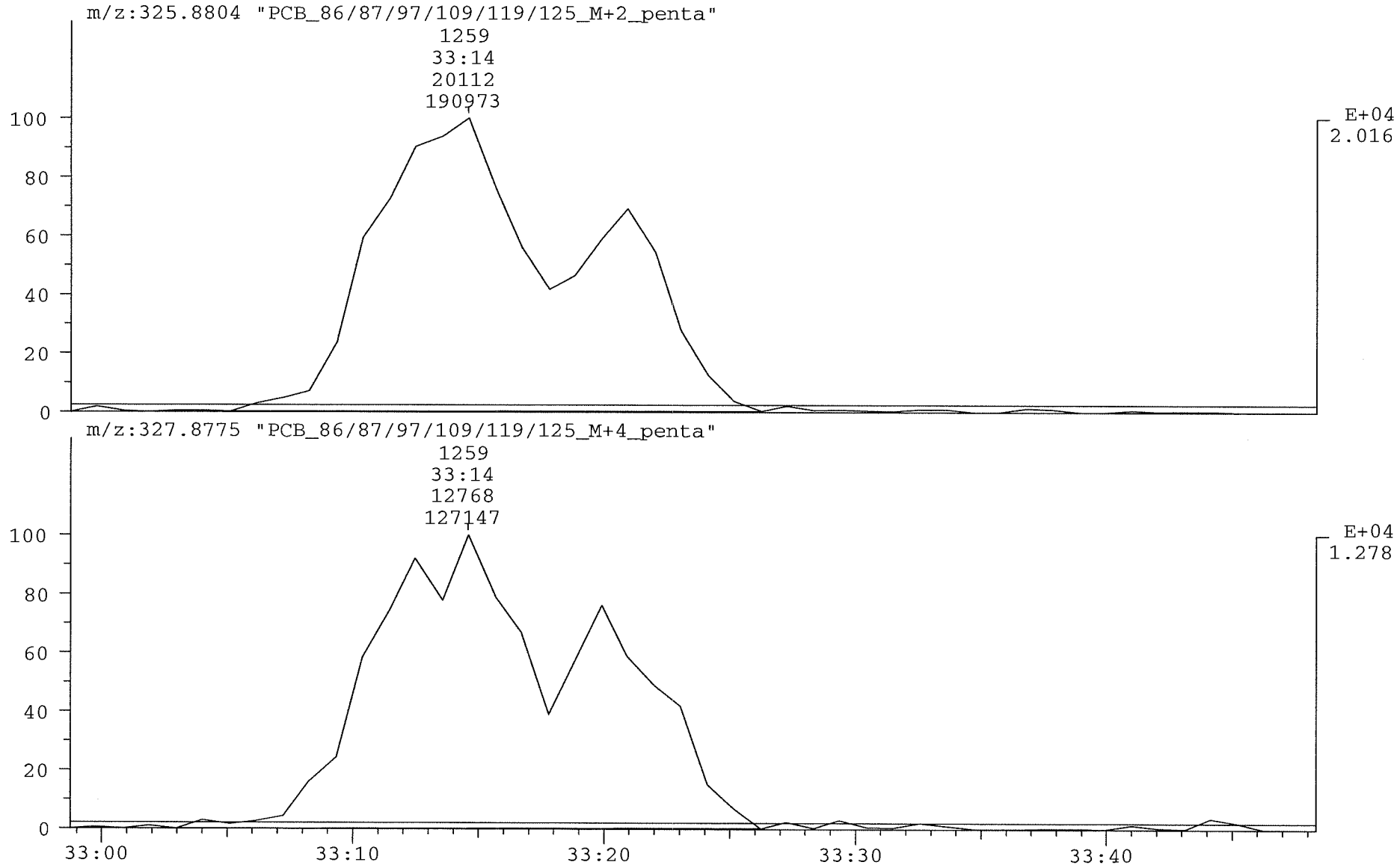
H-1532

1531

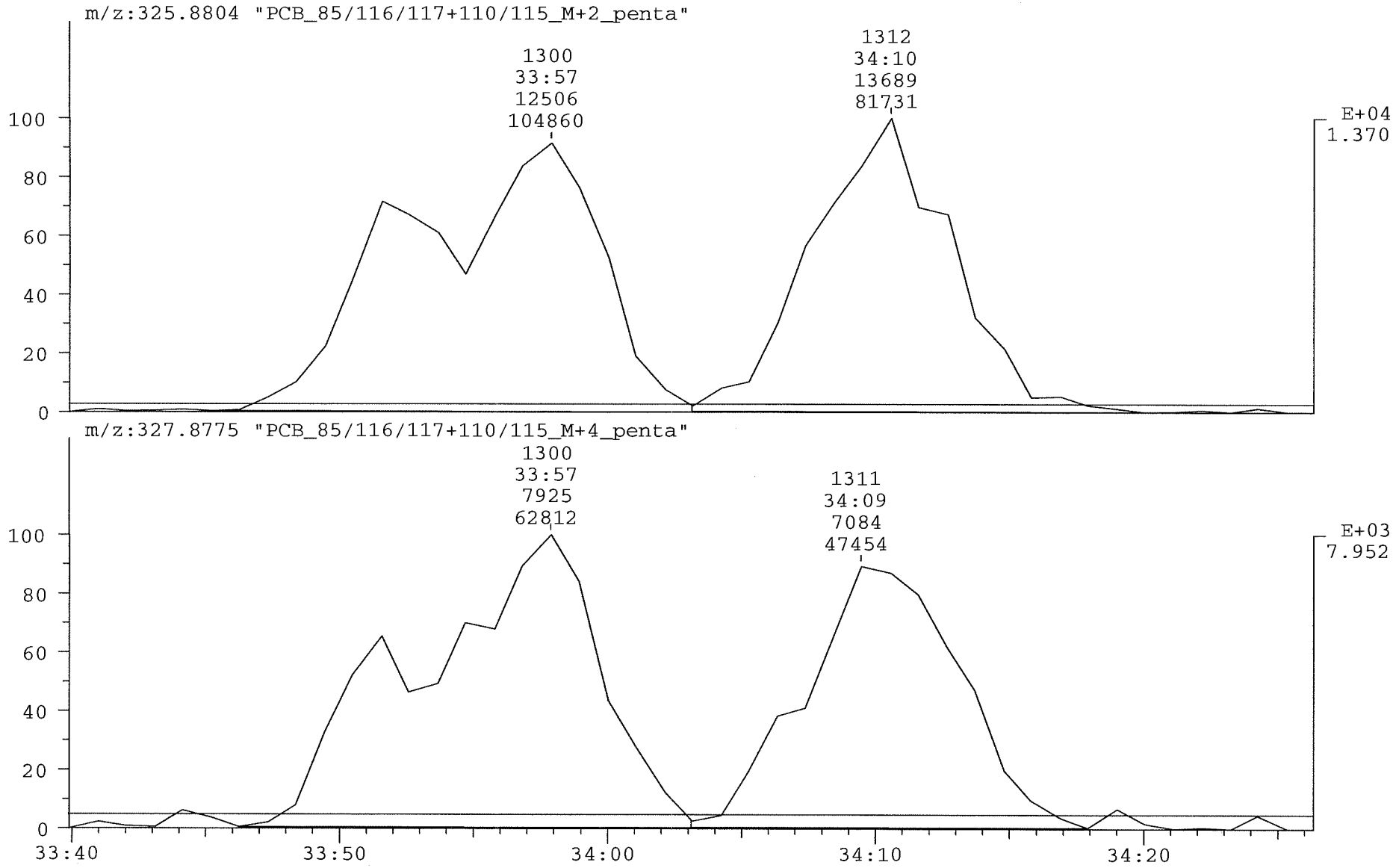
```
CHRO:  a080624i1                              24-Jun-08   Elapse:  32:52      1238
Samp:  Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1               Start :  16:21:11   2601
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 ICAL CS1
Oper:  DCG          Client:  TA Knoxville                 Inlet :  GC     Vial  10
Peak:  100.00  ppm     Label wndw:   1211 > 1253          Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 5               Label :  -3, 3.0
Disp:  Height  Area
```



CHRO: a080624i1 24-Jun-08 Elapse: 33:19 1264
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1244 > 1291 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



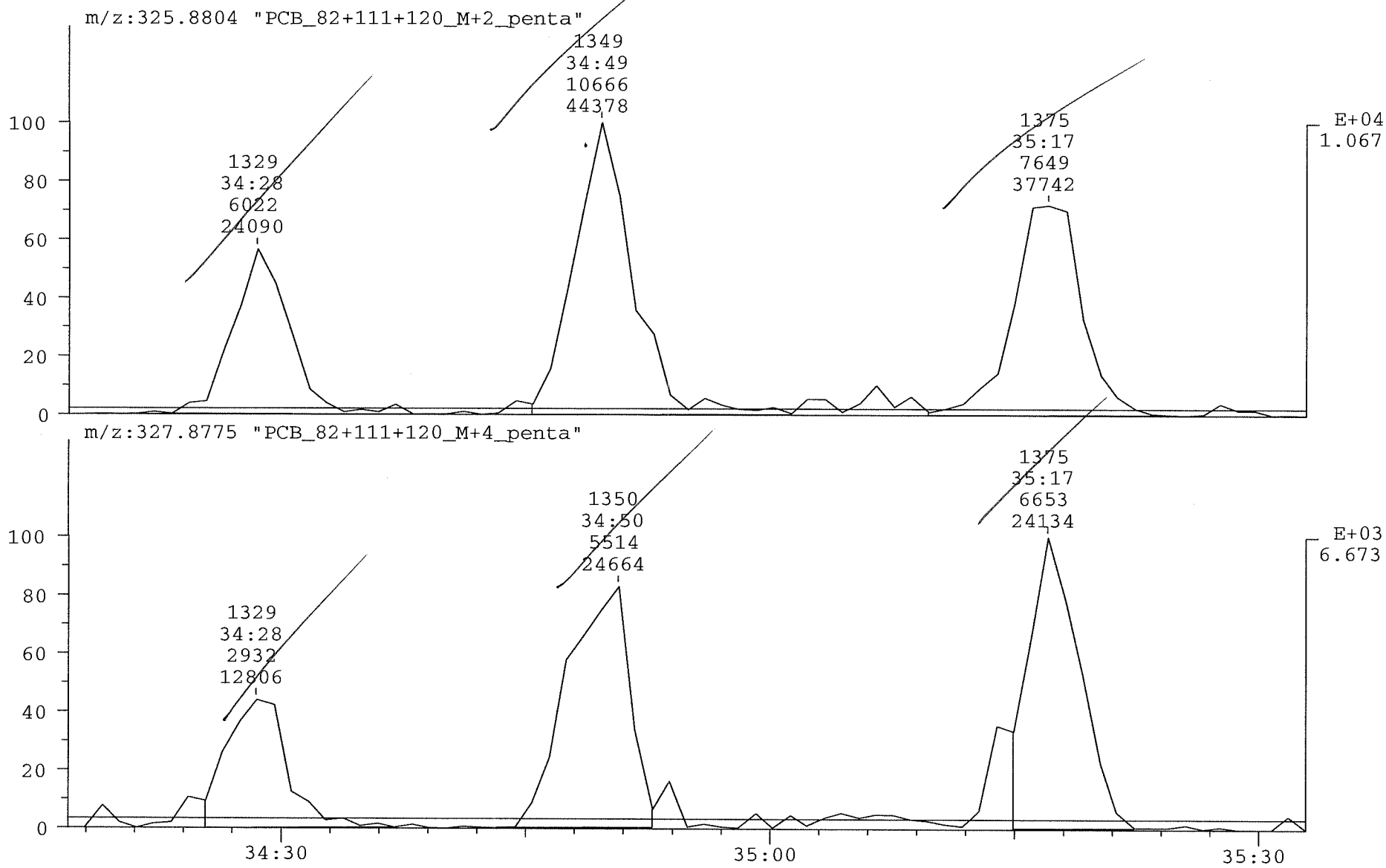
CHRO: a080624i1 24-Jun-08 Elapse: 34:07 1309
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1283 > 1327 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1535

1534

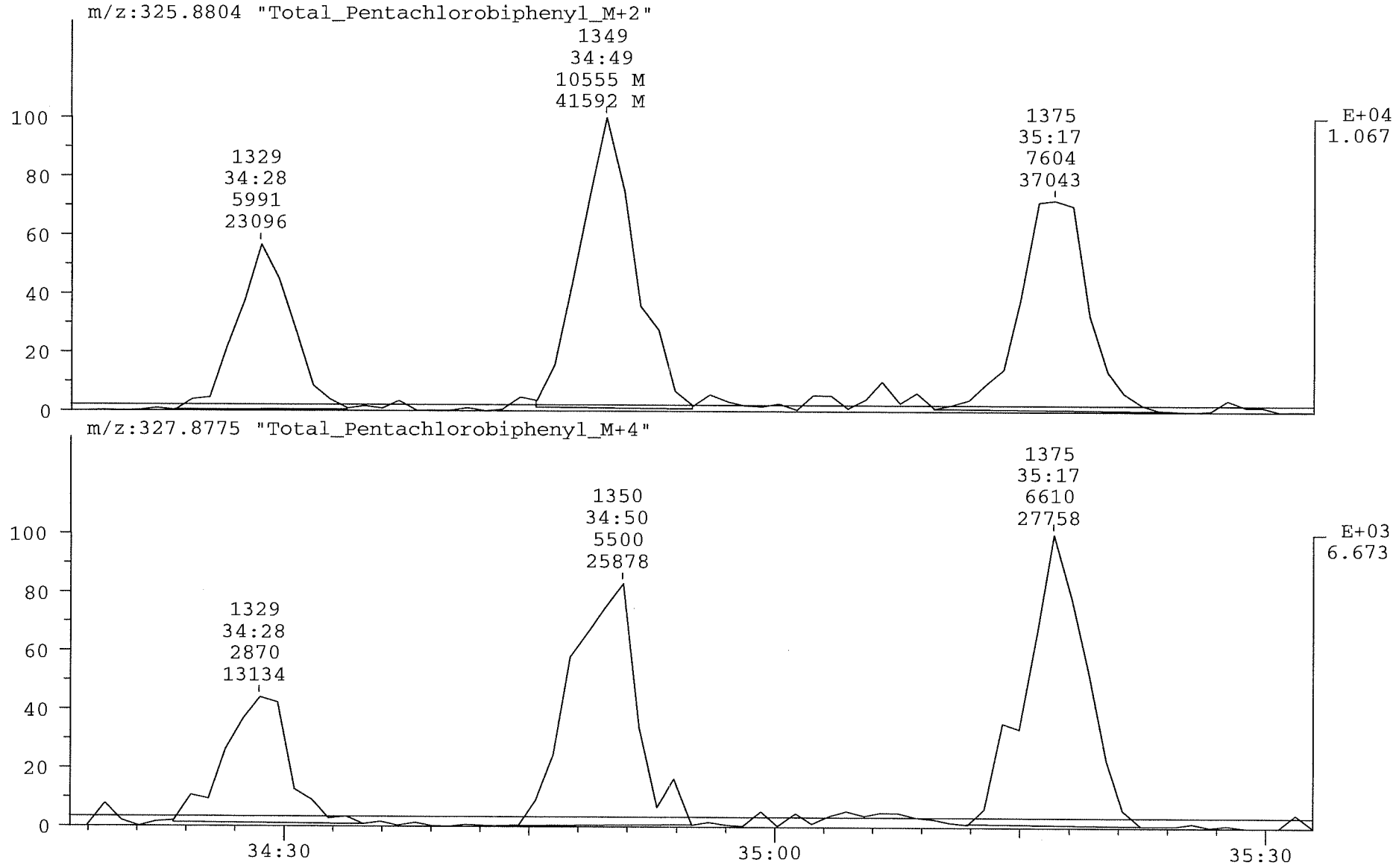
CHRO: a080624i1 24-Jun-08 Elapse: 34:40 1340
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1318 > 1390 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1536

1535

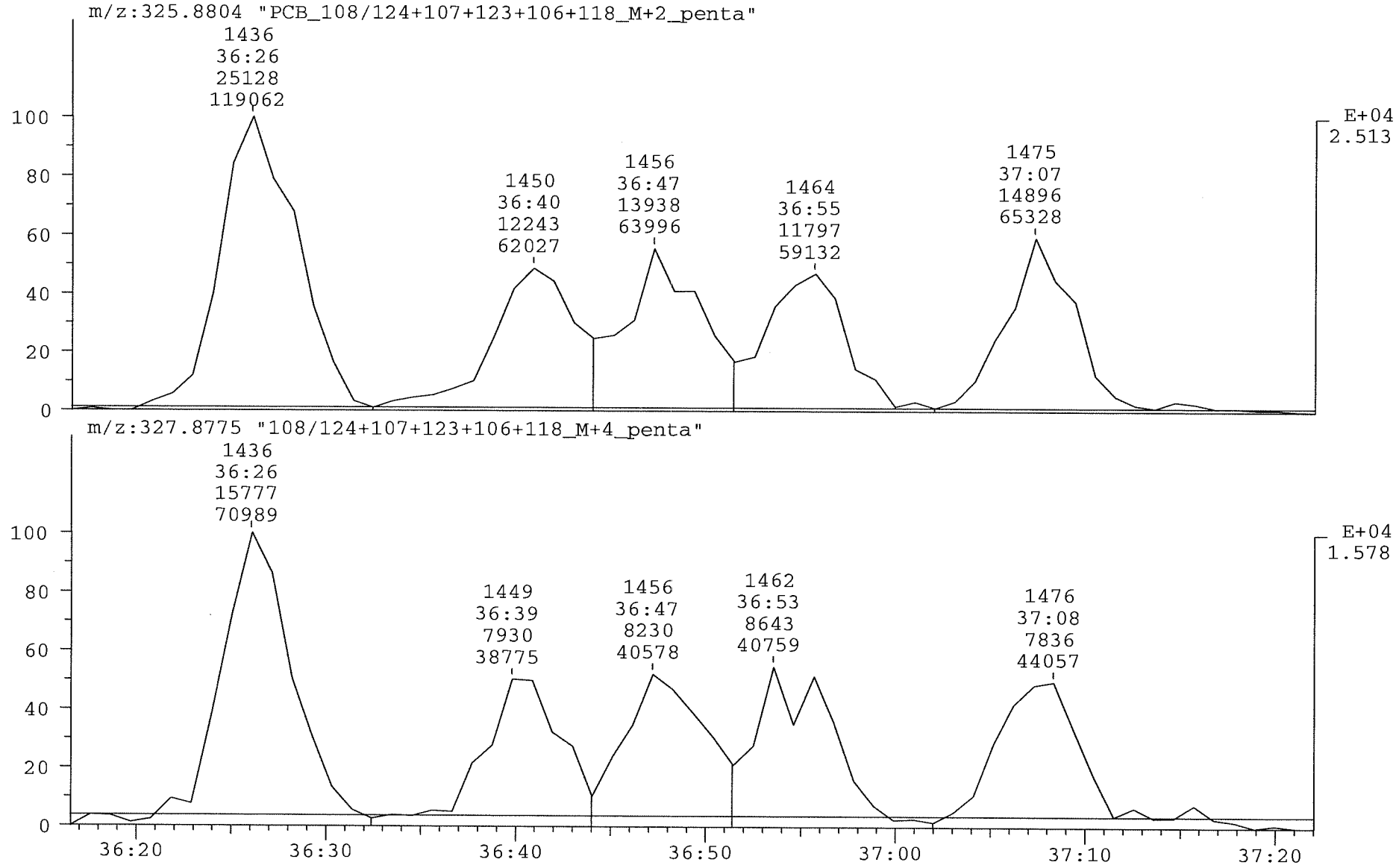
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1318 > 1390 Masses: 181 > 510
Area: 5, 2.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1537

1536

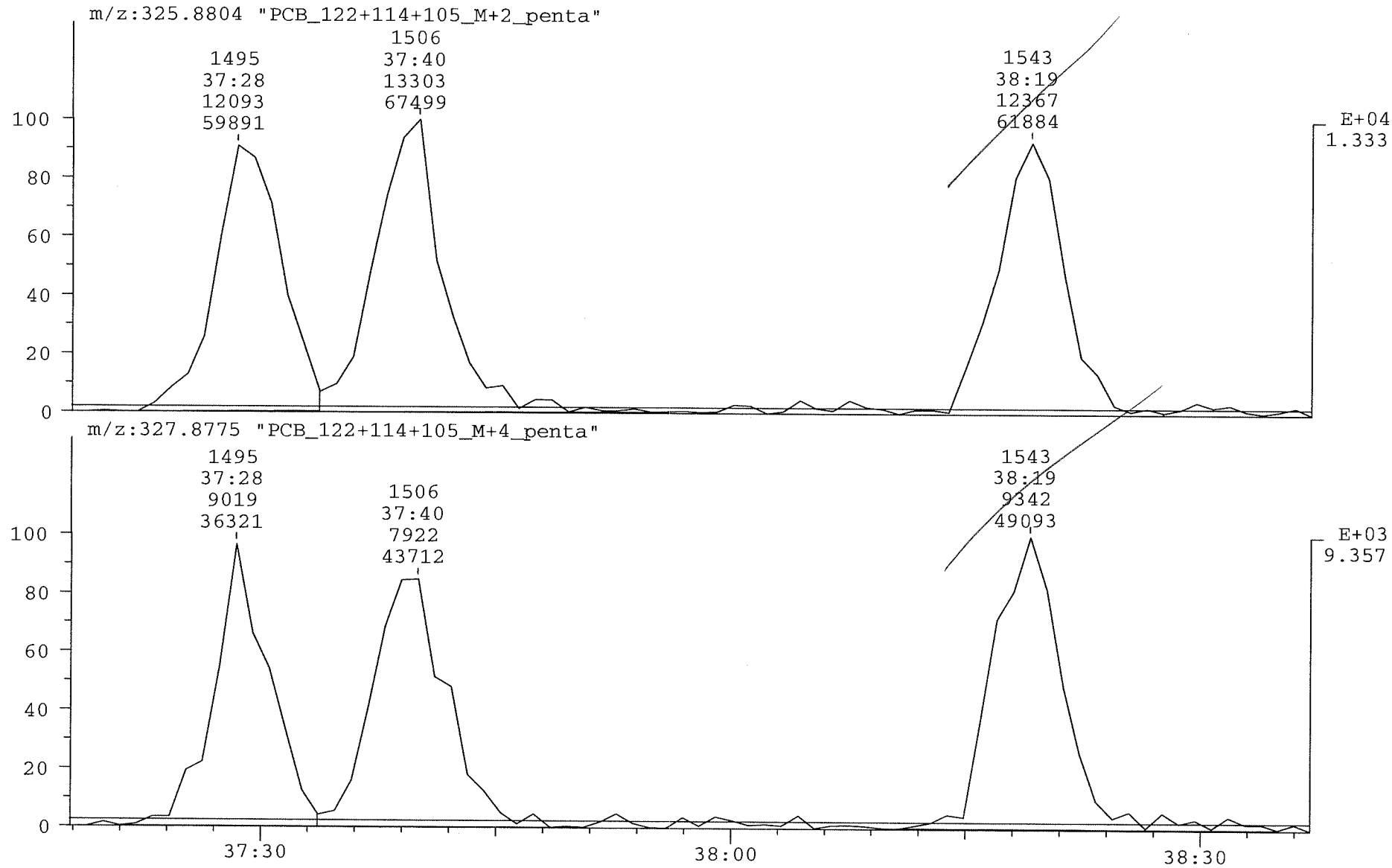
CHRO: a080624i1 24-Jun-08 Elapse: 36:58 1467
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1427 > 1489 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



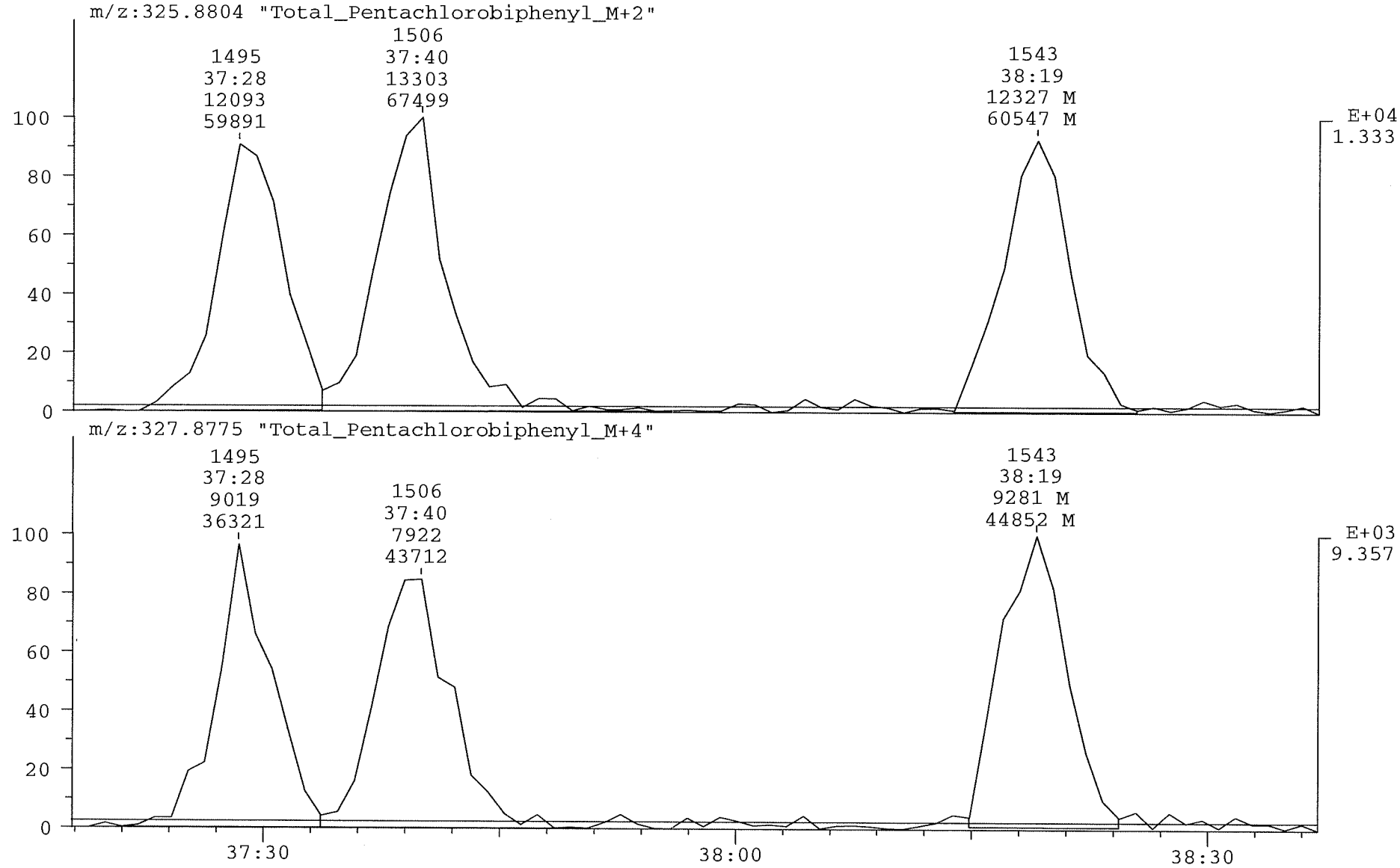
H-1538

1537

CHRO: a080624i1 24-Jun-08 Elapse: 37:56 1522
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1485 > 1560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



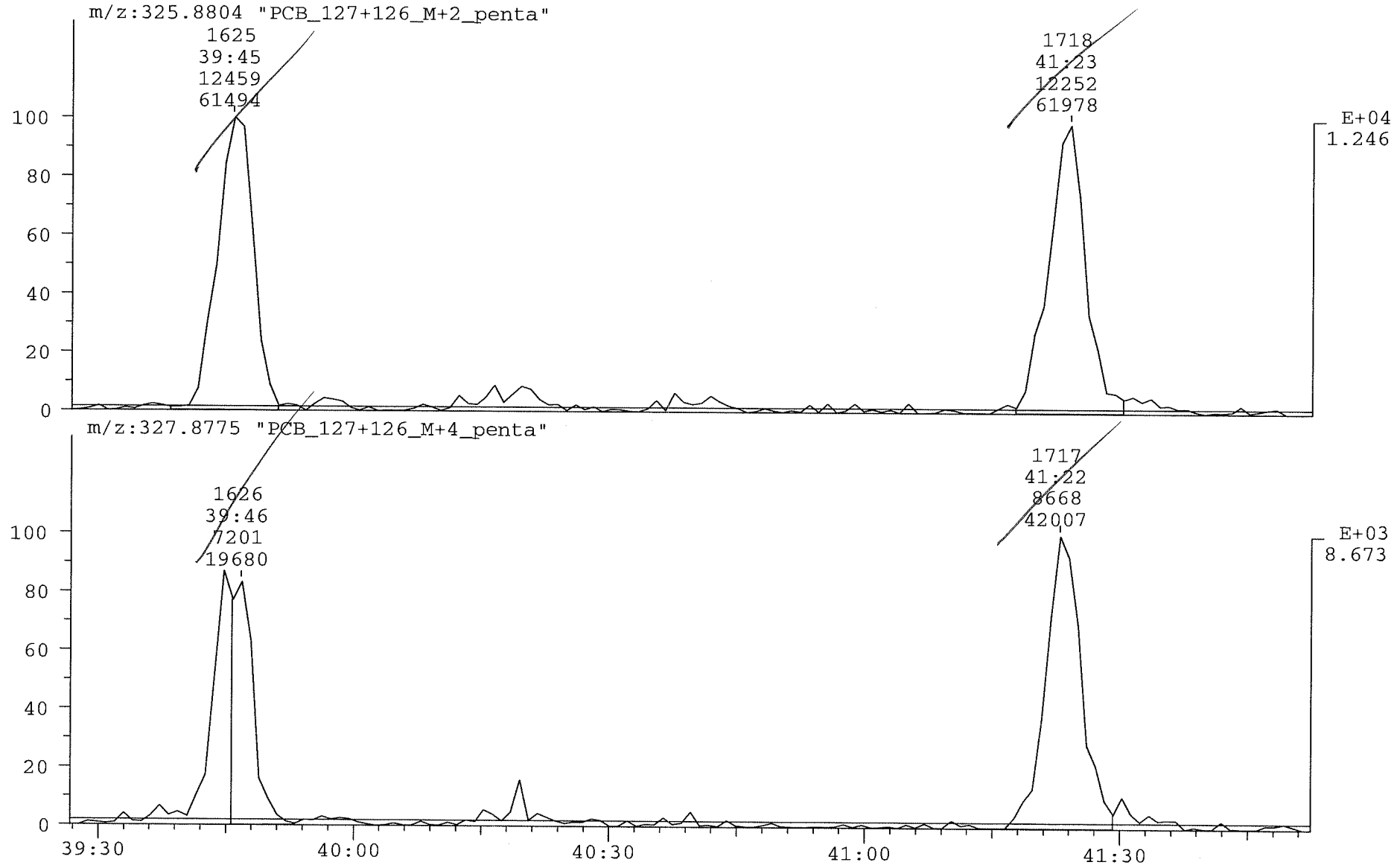
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1485 > 1560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1540

1539

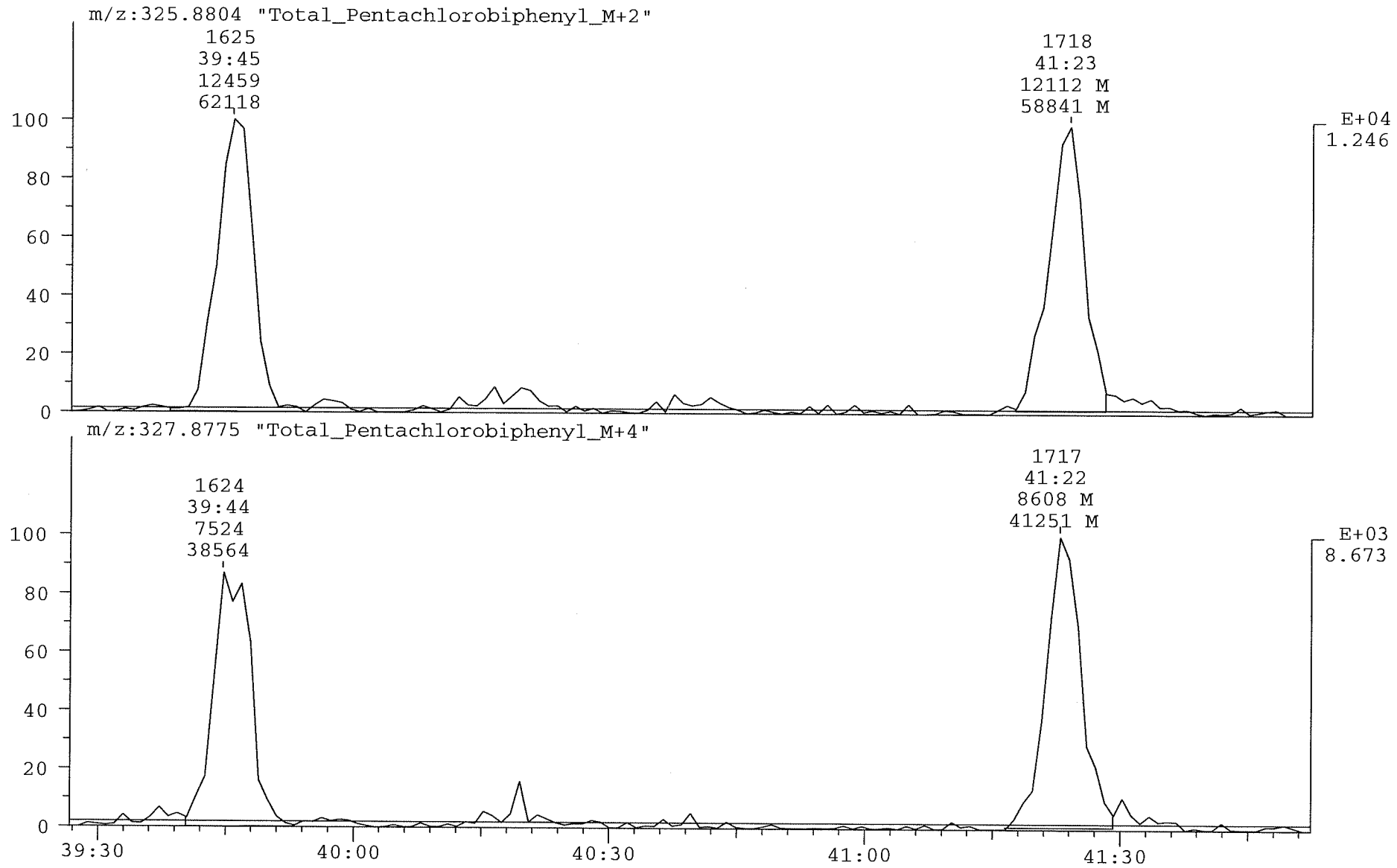
CHRO: a080624i1 24-Jun-08 Elapse: 40:38 1675
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1607 > 1745 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1541

1540

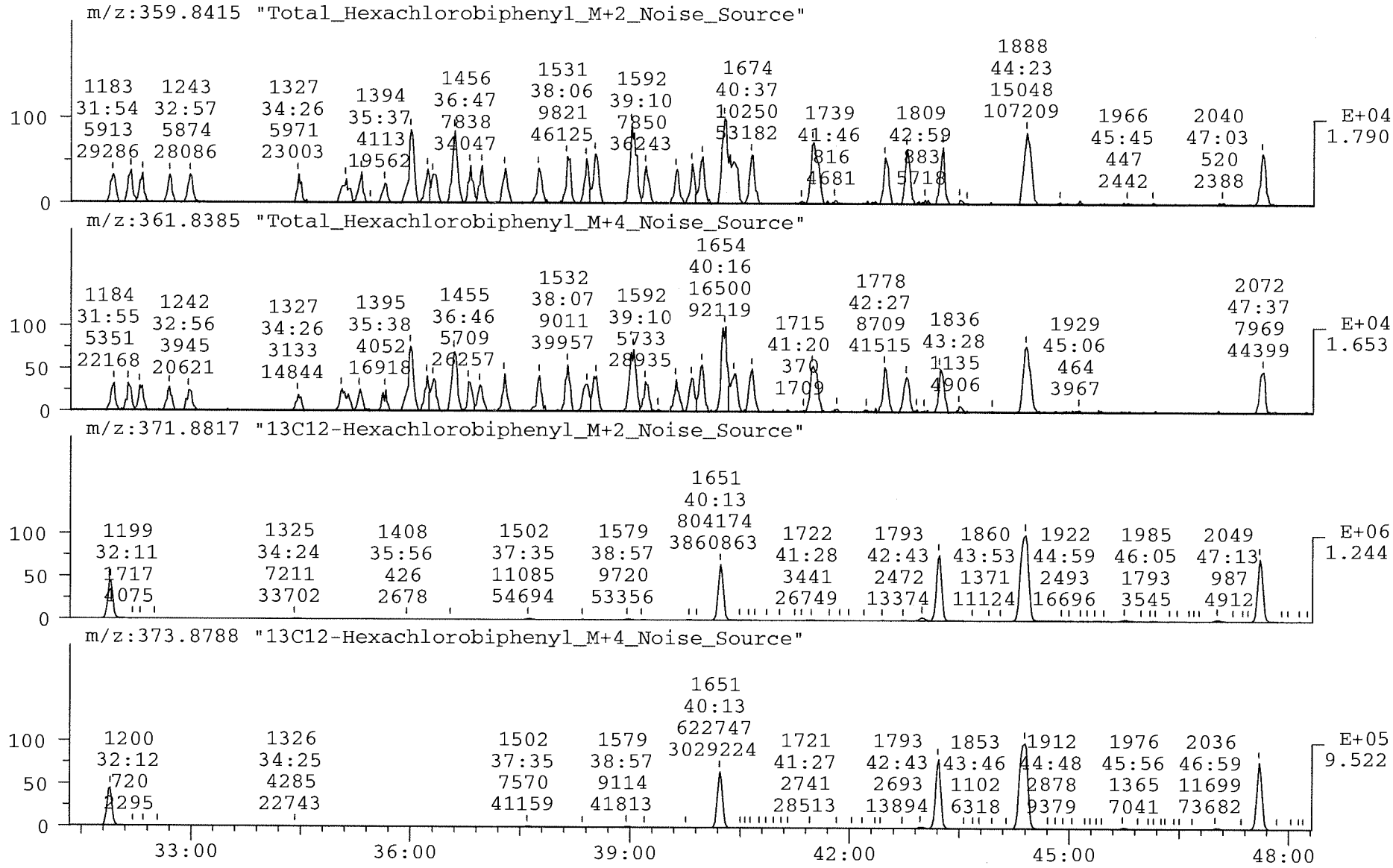
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1607 > 1745 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1542

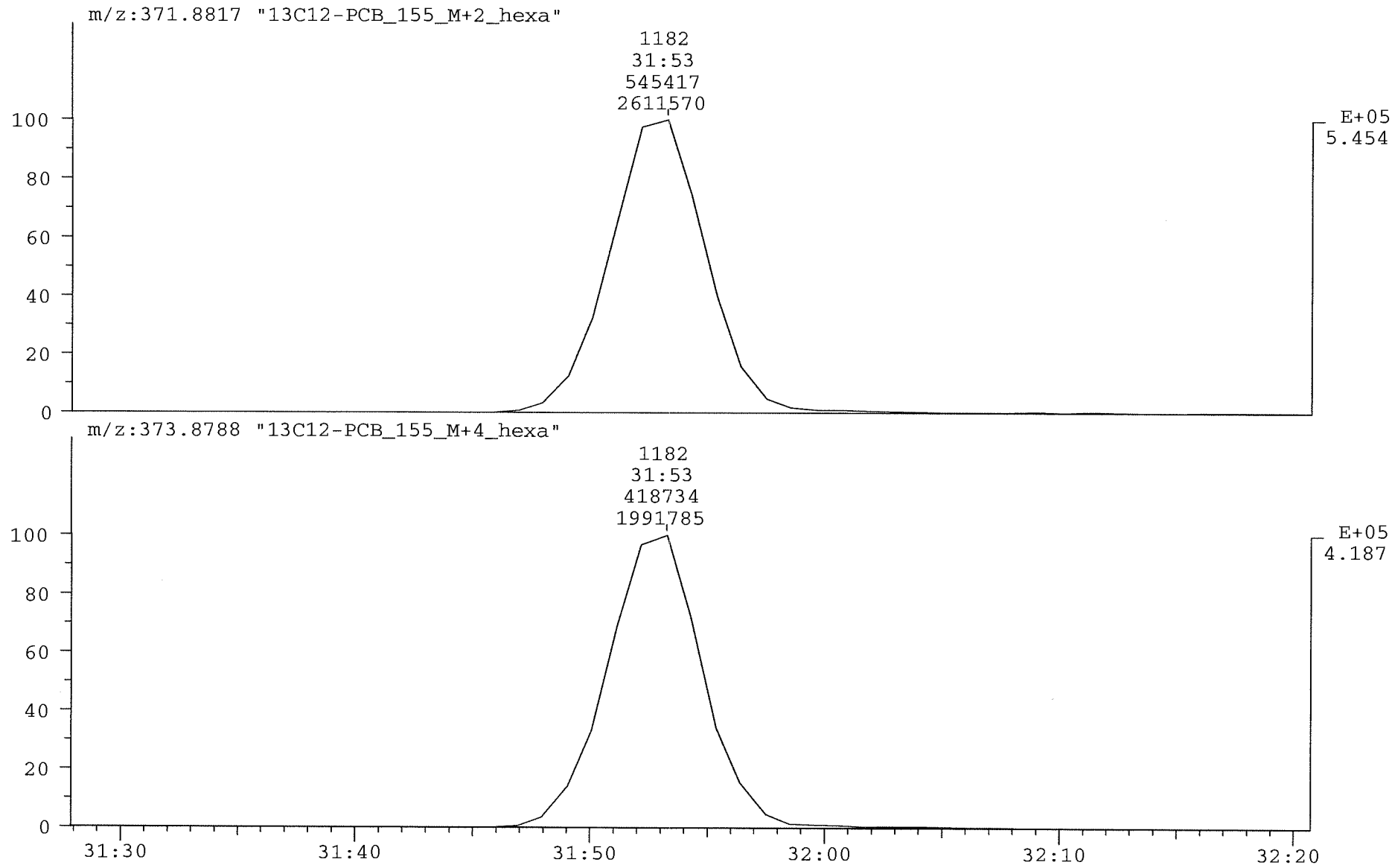
1541

CHRO: a080624i1 24-Jun-08 Elapse: 39:48 1628
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1151 > 2111 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1543

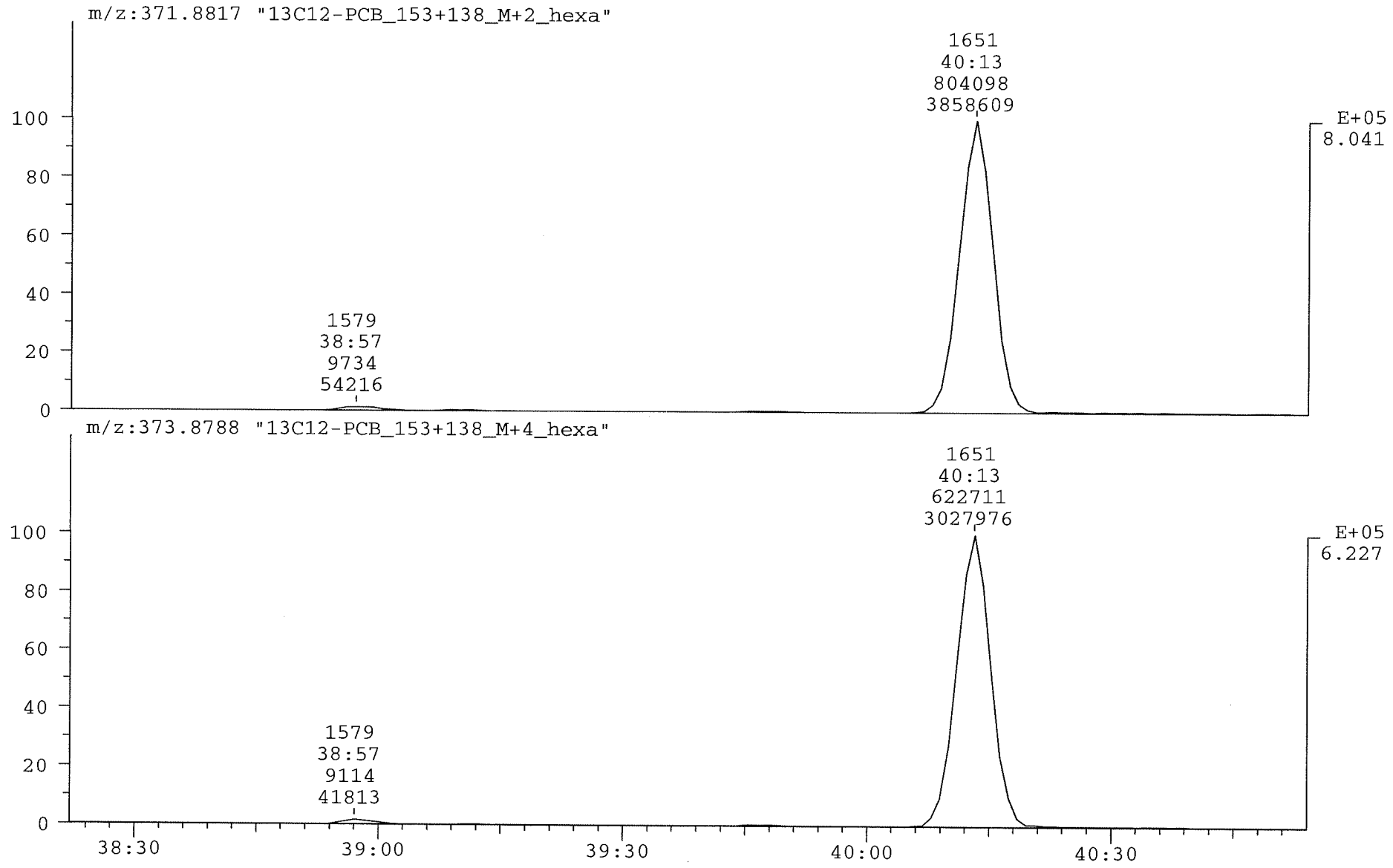
CHRO: a080624i1 24-Jun-08 Elapse: 31:54 1183
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1158 > 1208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1544

1543

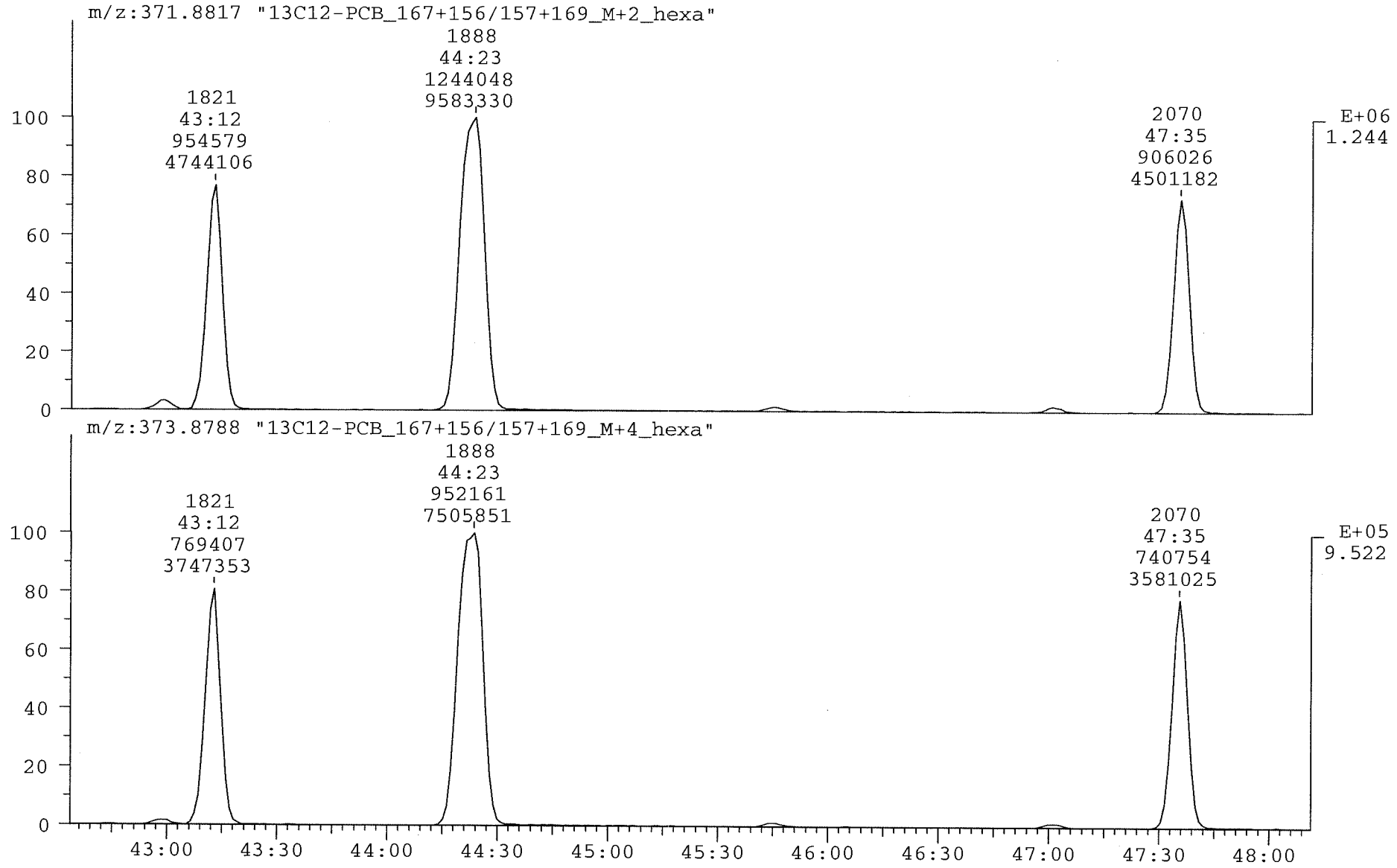
CHRO: a080624i1 24-Jun-08 Elapse: 39:38 1618
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1546 > 1690 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1545

1544

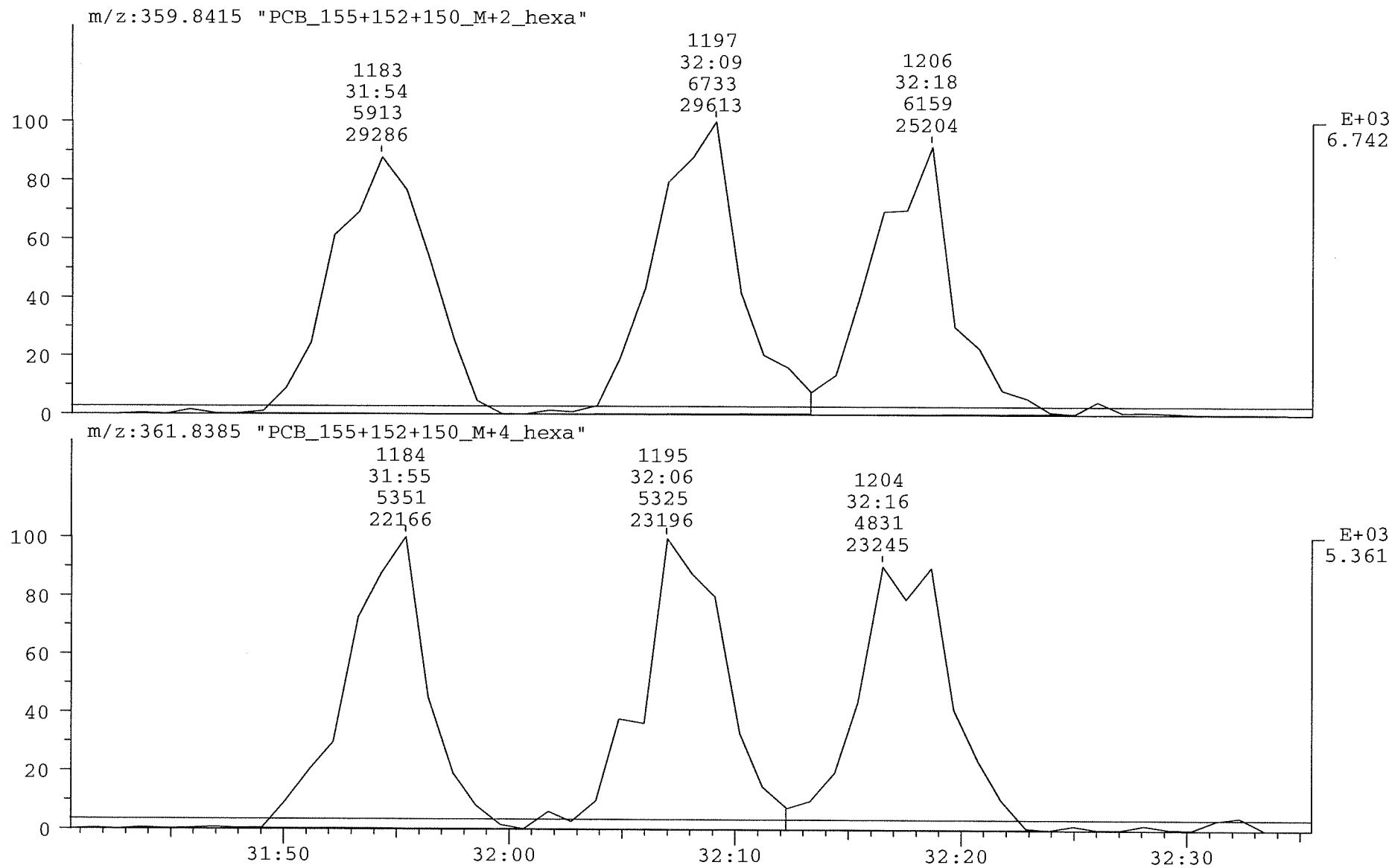
CHRO: a080624i1 24-Jun-08 Elapse: 45:27 1949
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1784 > 2104 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1546

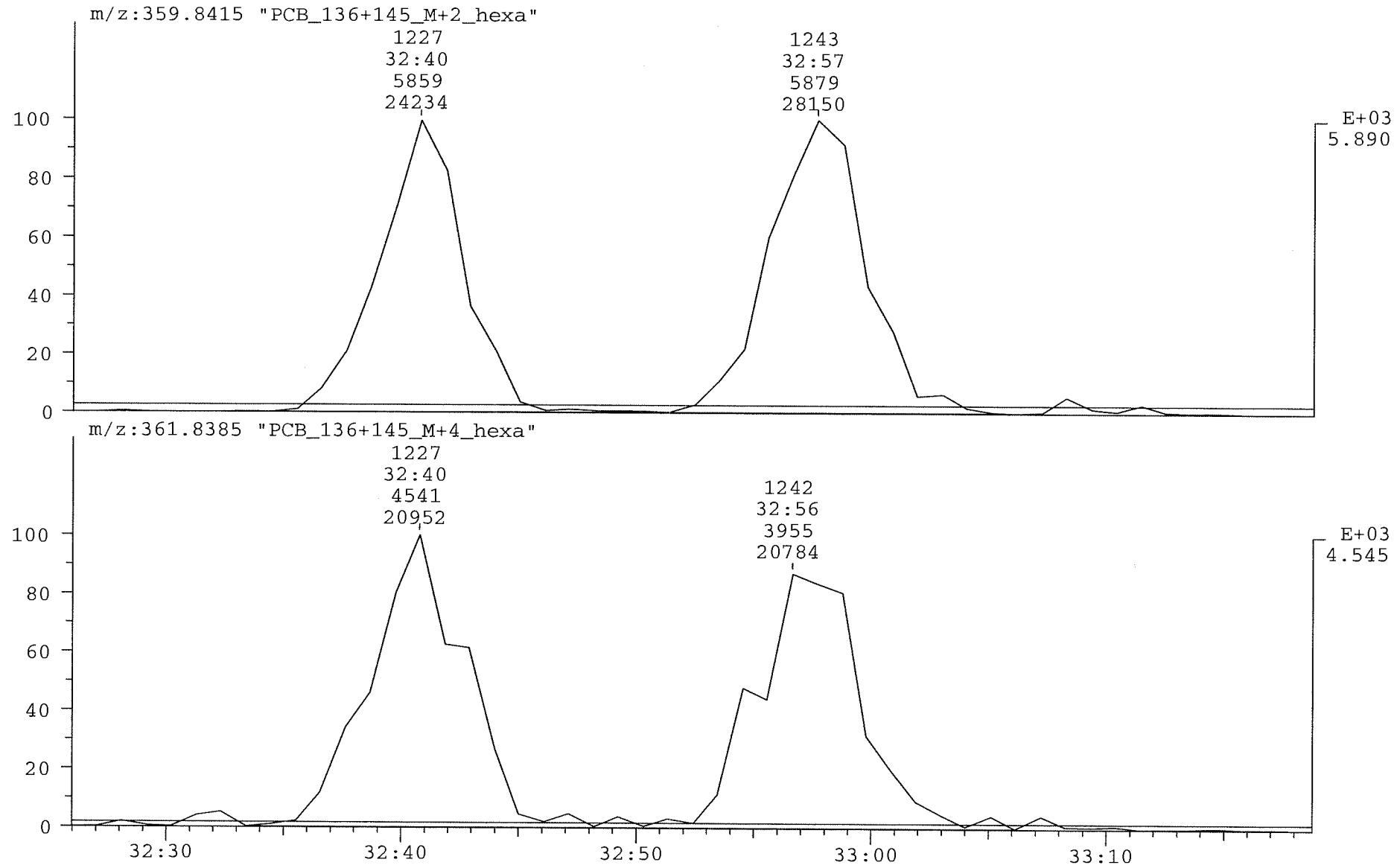
1545

CHRO: a080624i1 24-Jun-08 Elapse: 32:09 1197
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1170 > 1222 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1547

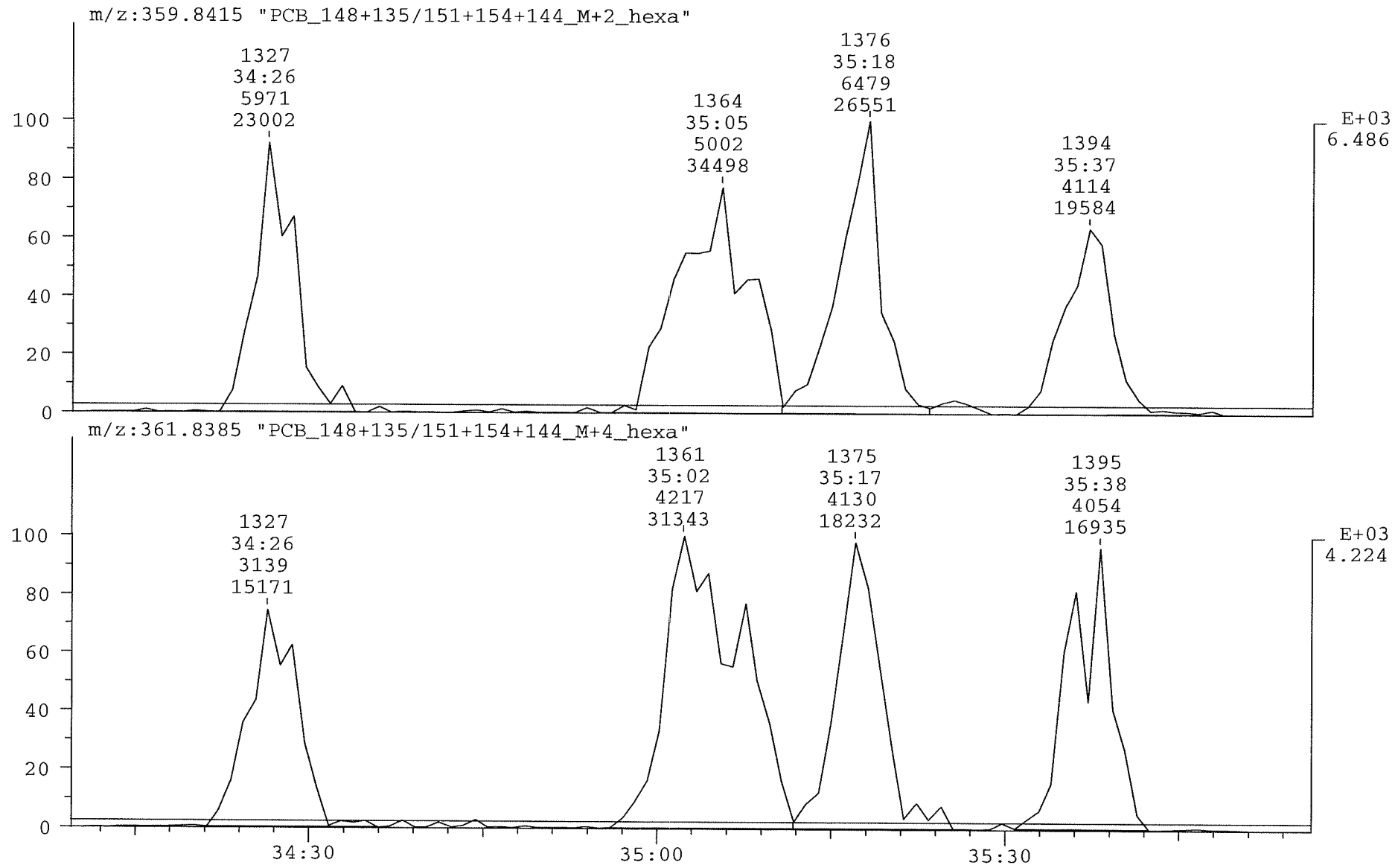
CHRO: a080624i1 24-Jun-08 Elapse: 32:52 1238
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1213 > 1263 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1548

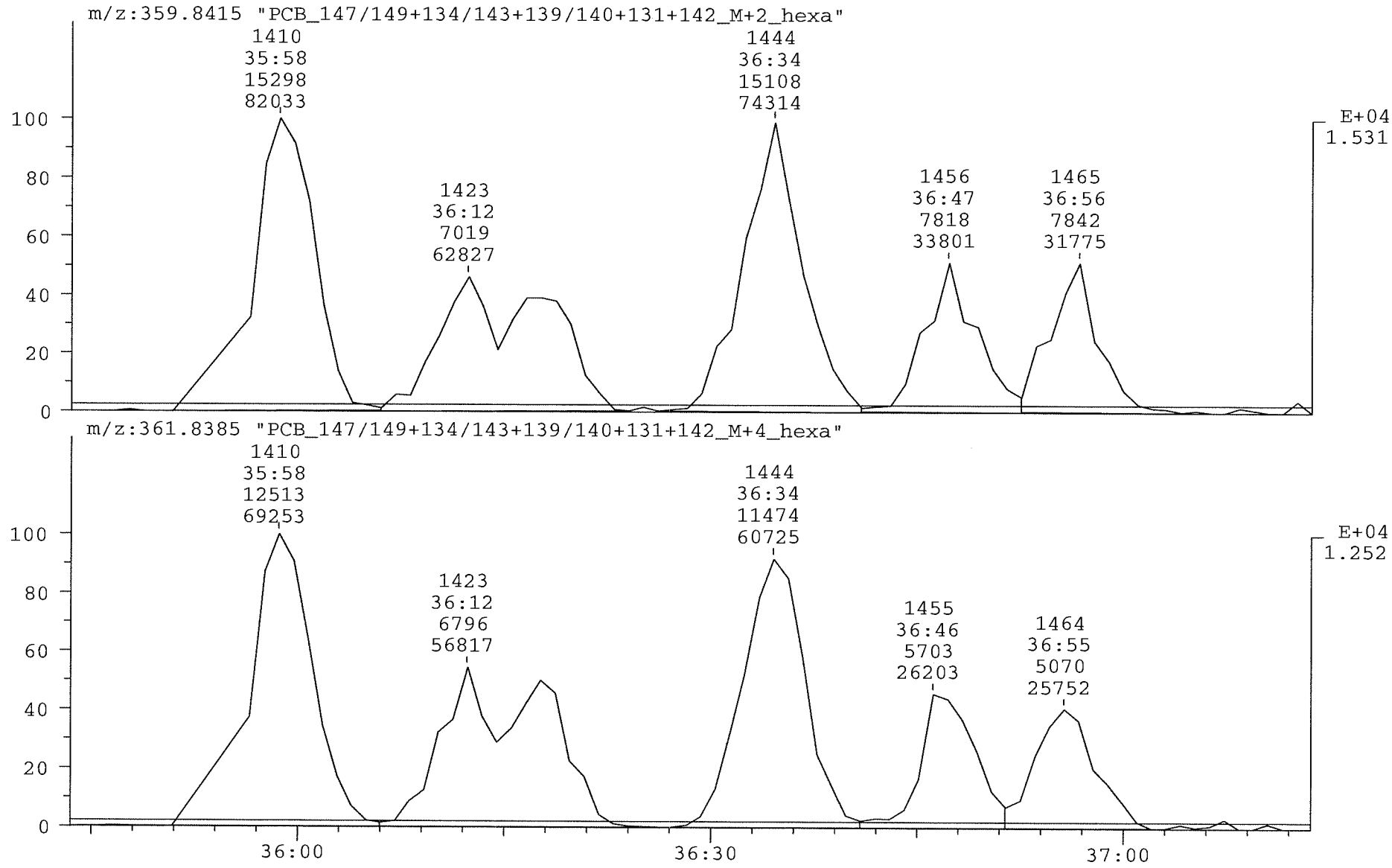
1547

```
CHRO:  a080624i1                                24-Jun-08   Elapse:   35:07      1366
Samp:  Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1                 Start :   16:21:11   2601
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :   1668 ICAL CS1
Oper:  DCG          Client:  TA Knoxville                   Inlet :   GC     Vial  10
Peak:  100.00  ppm     Label wndw:   1311 > 1408            Masses:   181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 6                 Label :   -3, 3.0
Disp:  Height  Area
```

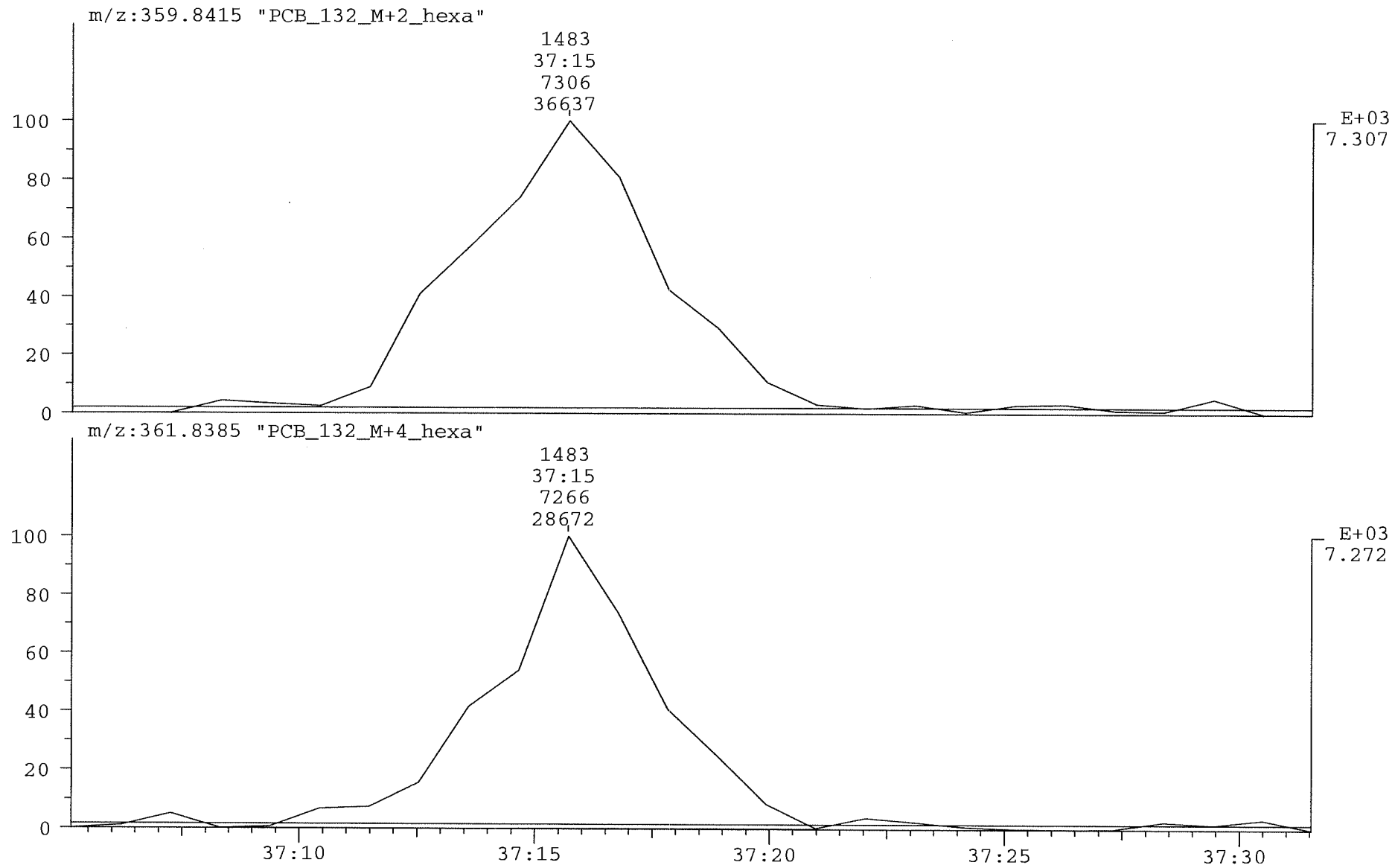


H-1549

```
CHRO:  a080624i1                                24-Jun-08   Elapse:   36:34      1444
Samp:  Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1                 Start :   16:21:11   2601
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :   1668 ICAL CS1
Oper:  DCG           Client:  TA Knoxville                  Inlet :   GC     Vial  10
Peak:  100.00  ppm     Label wndw:   1400 > 1481            Masses:   181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 6                 Label :   -3, 3.0
Disp:  Height  Area
```



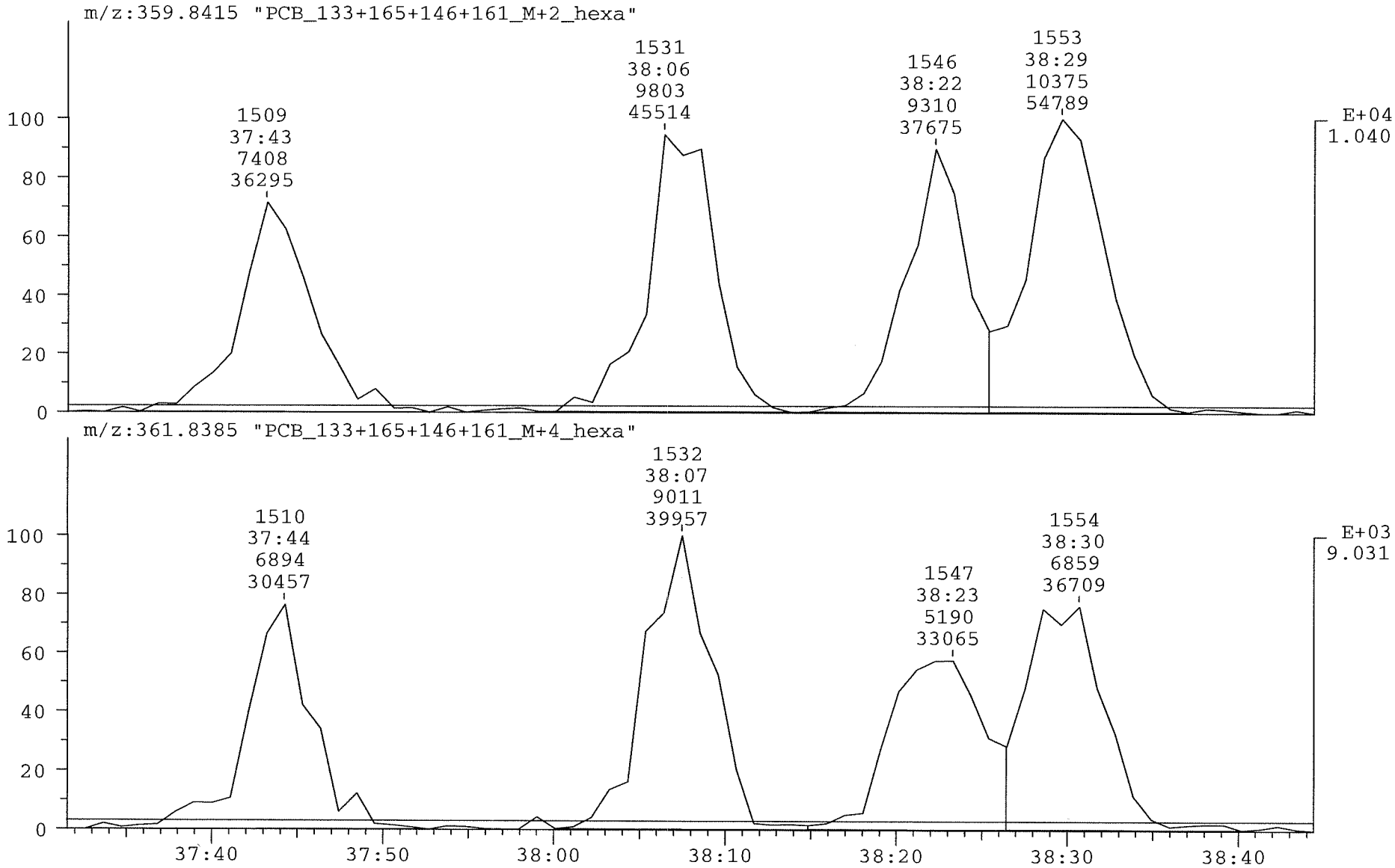
CHRO: a080624i1 24-Jun-08 Elapse: 37:15 1483
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1473 > 1498 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1551

1550

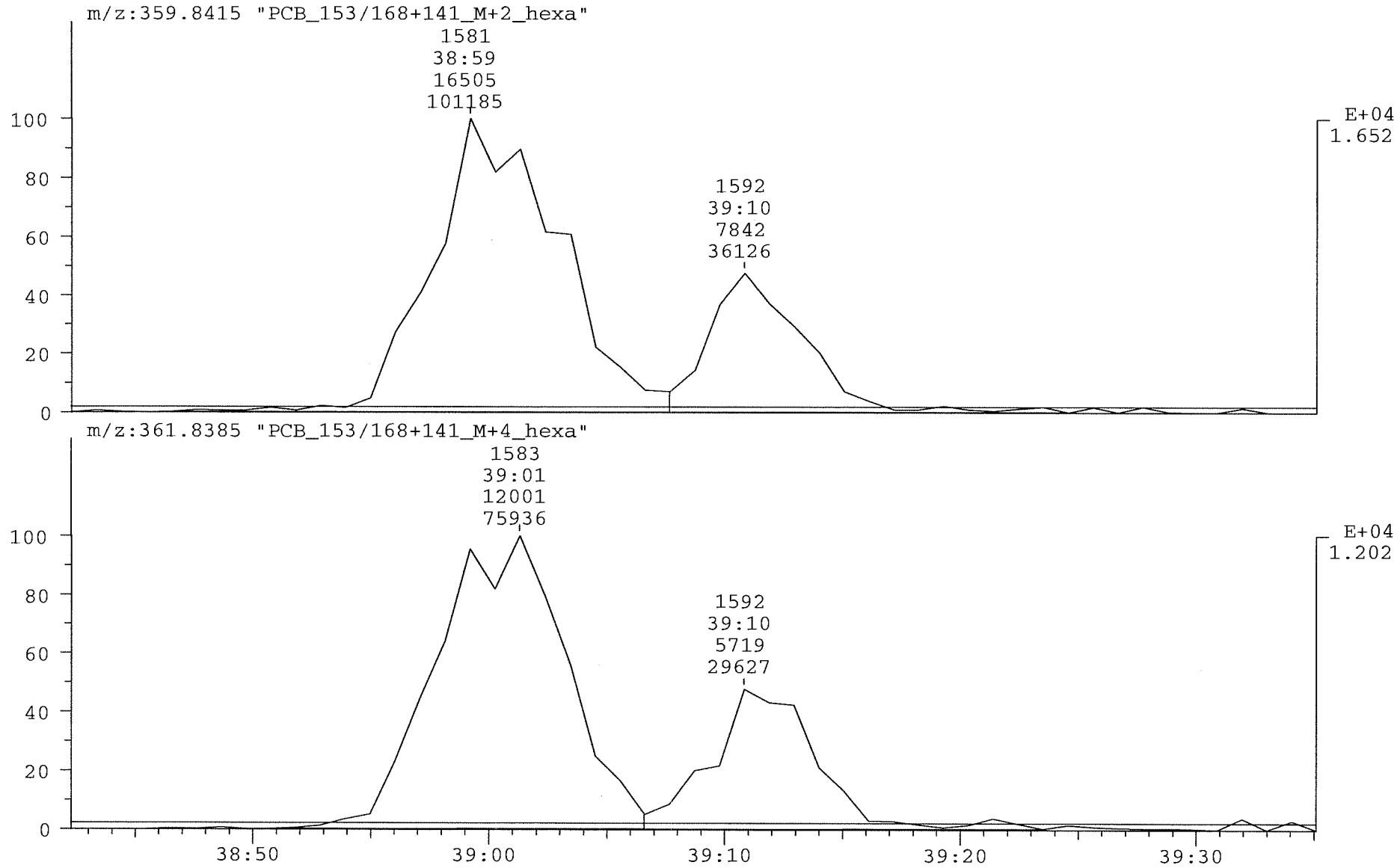
CHRO: a080624i1 24-Jun-08 Elapse: 38:09 1534
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1498 > 1567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1552

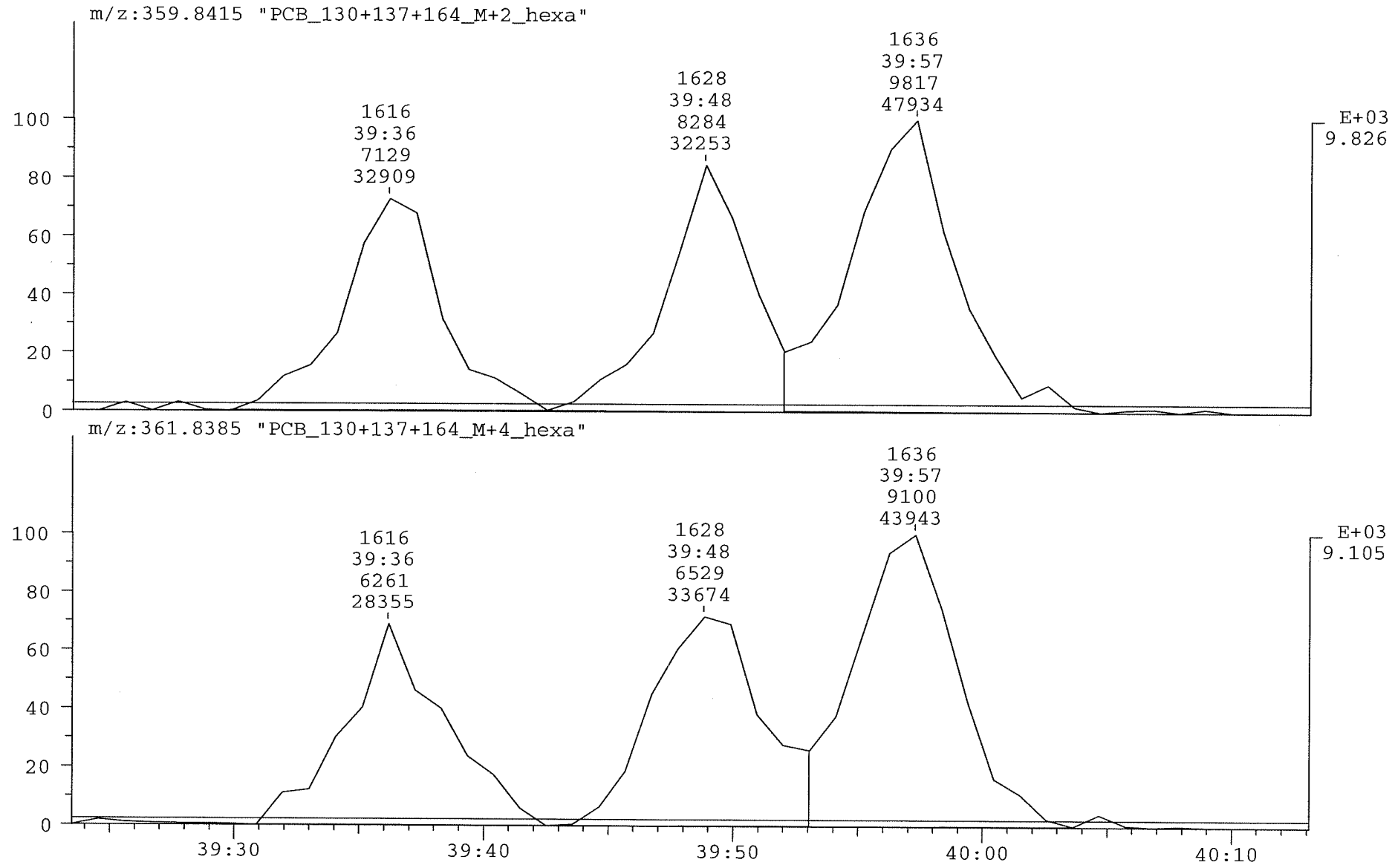
1551

CHRO: a080624i1 24-Jun-08 Elapse: 39:08 1590
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1565 > 1615 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



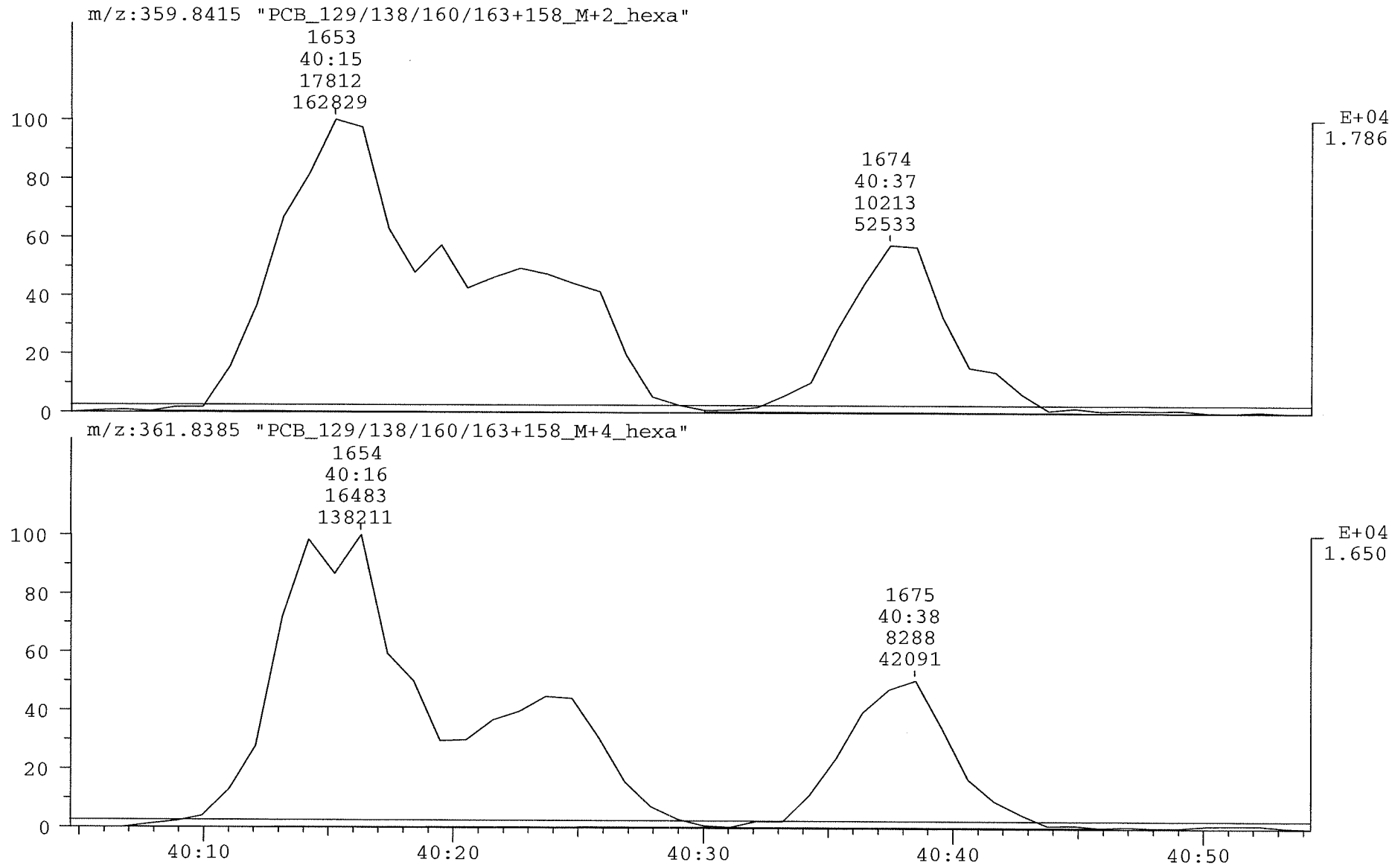
H-1553

CHRO: a080624i1 24-Jun-08 Elapse: 39:49 1629
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1604 > 1651 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



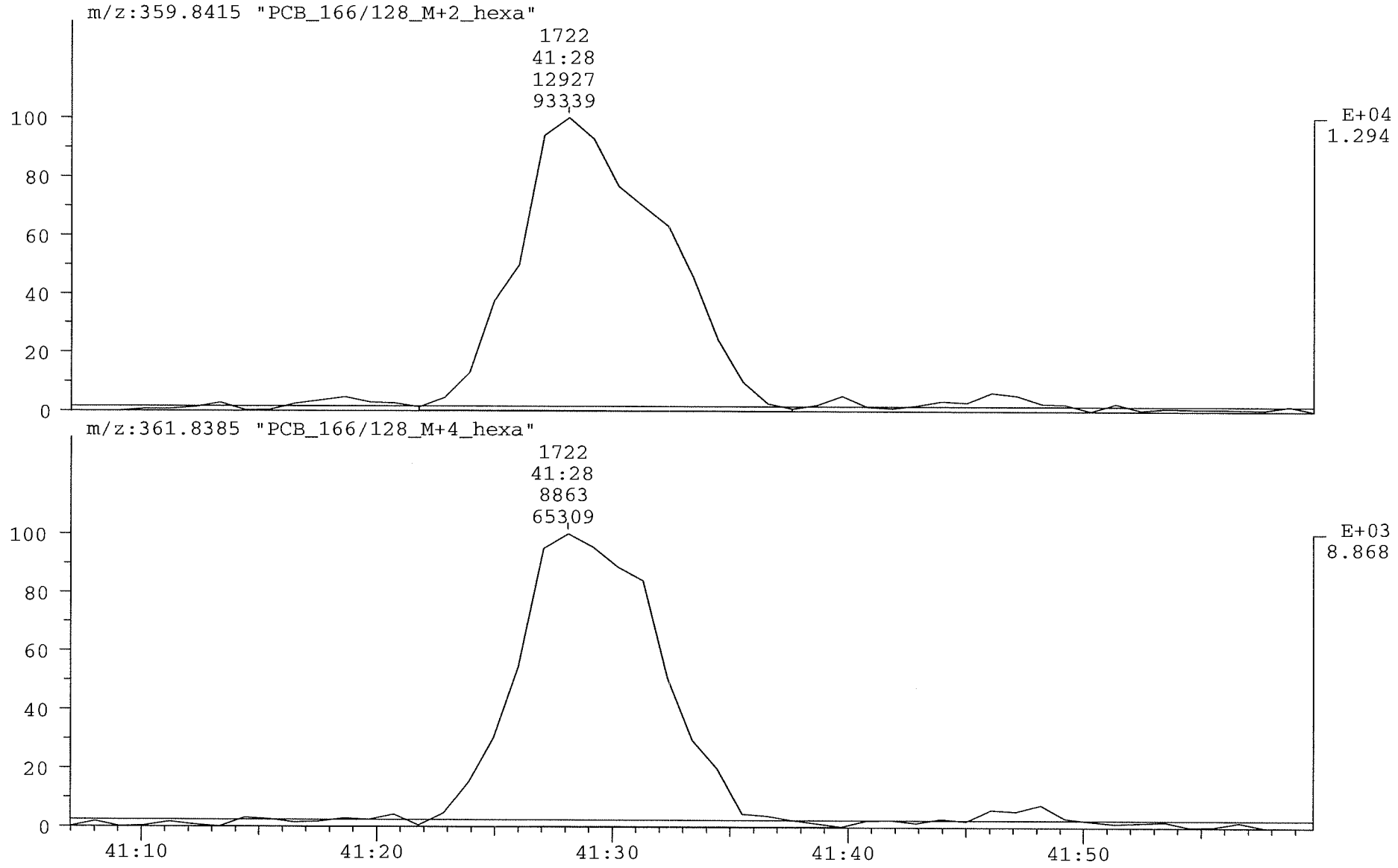
H-1554

CHRO: a080624i1 24-Jun-08 Elapse: 40:31 1668
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1643 > 1690 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



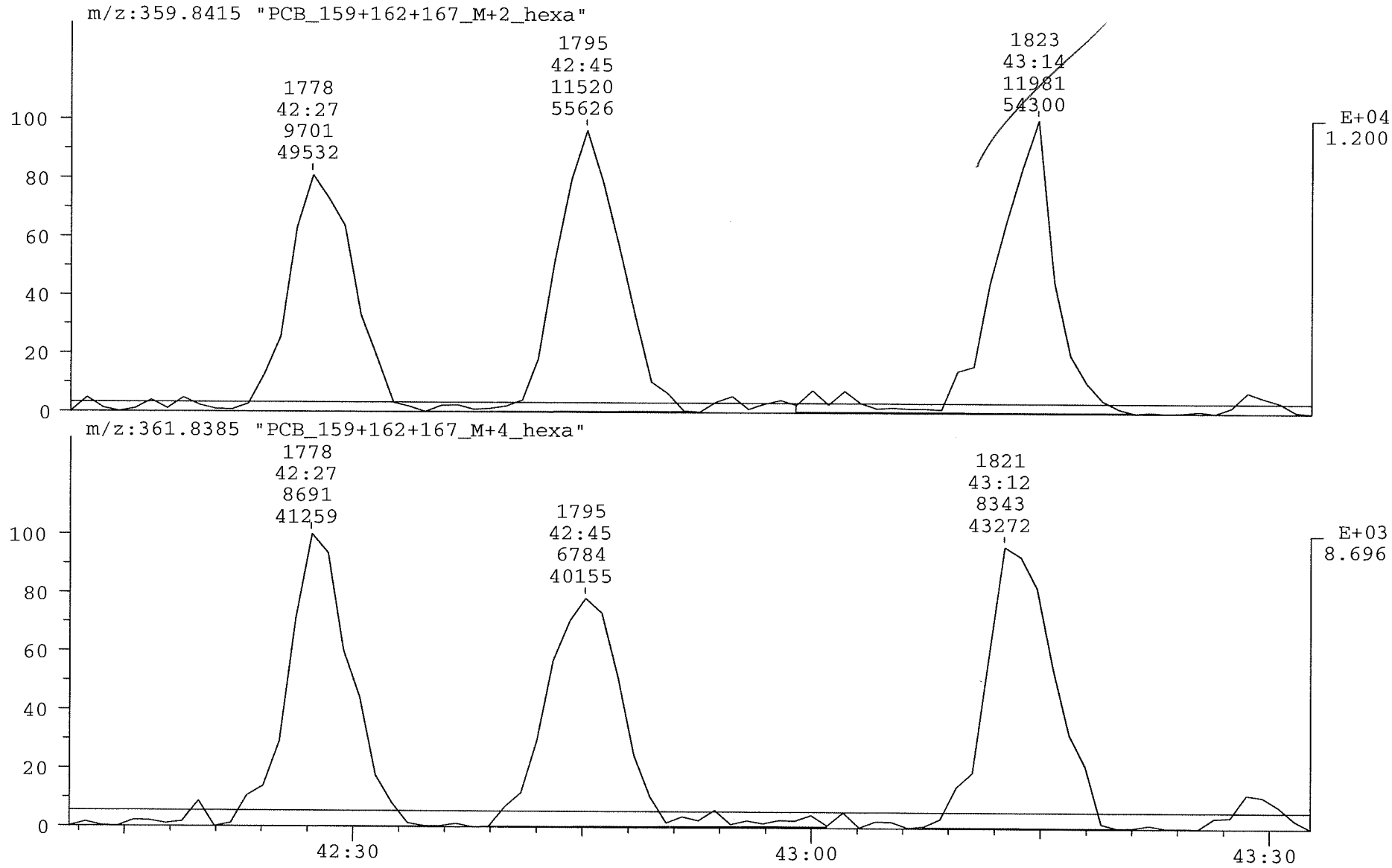
H-1555

CHRO: a080624i1 24-Jun-08 Elapse: 41:33 1727
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1702 > 1752 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



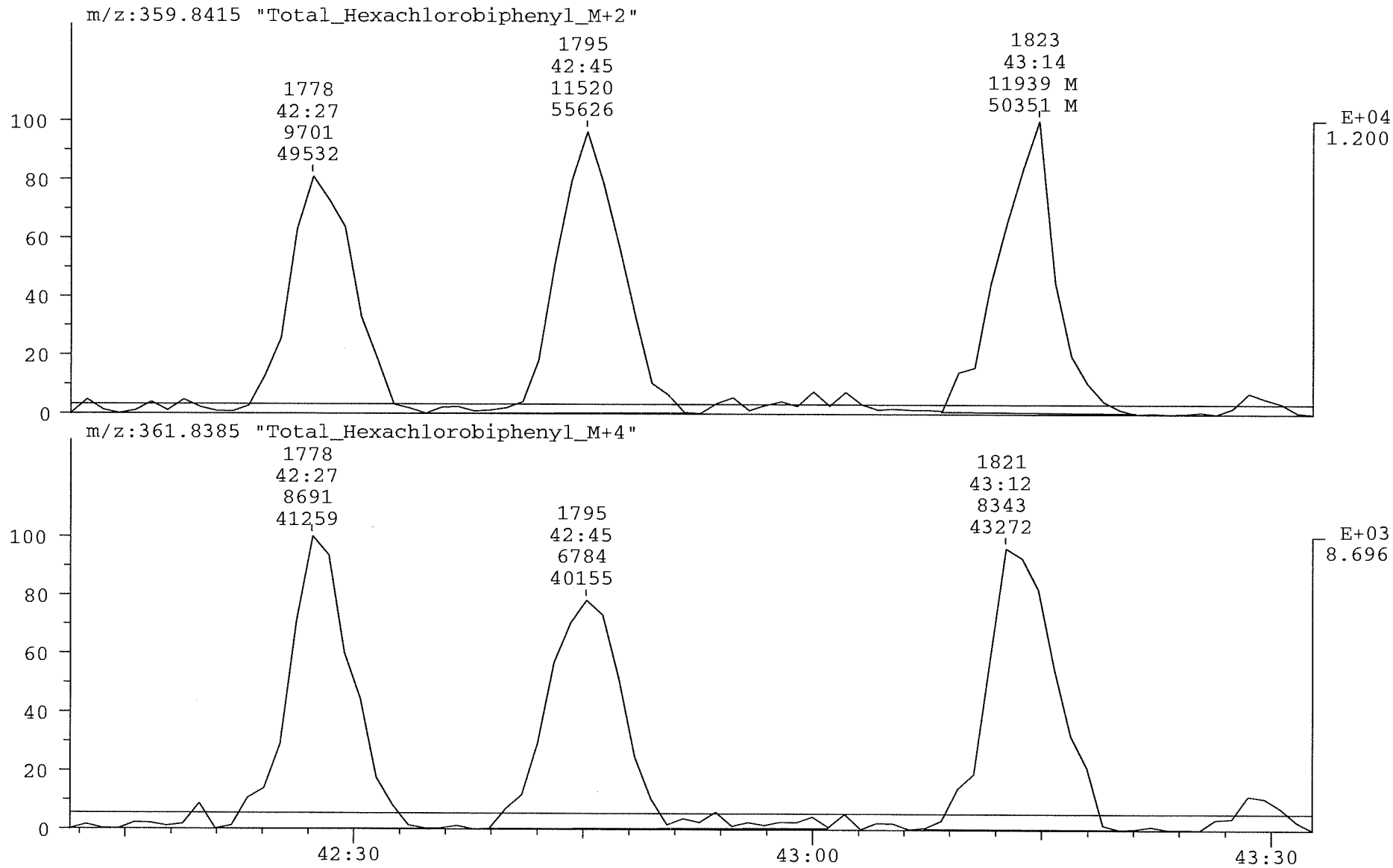
H-1556

CHRO: a080624i1 24-Jun-08 Elapse: 42:53 1803
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1763 > 1840 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1557

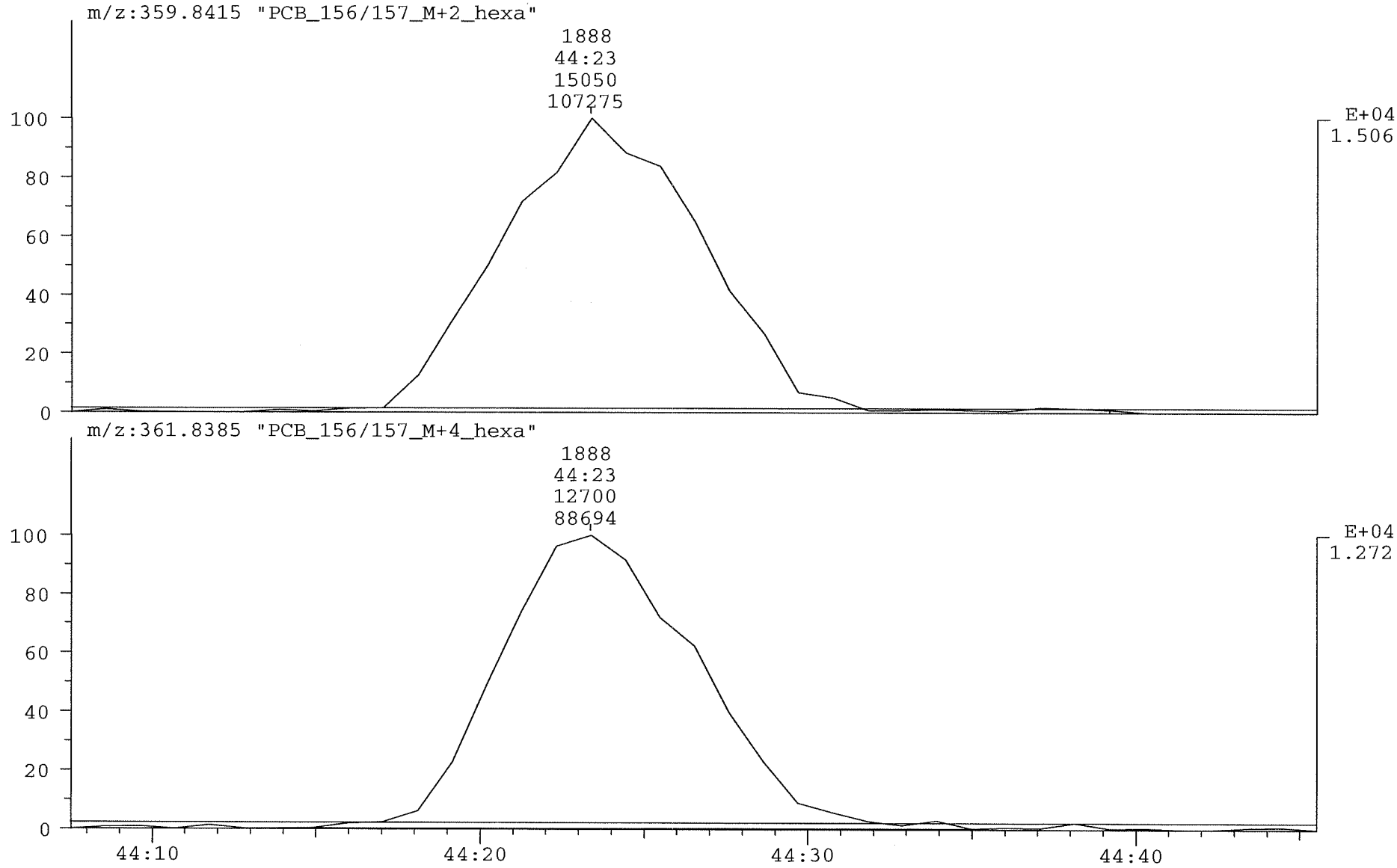
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1763 > 1840 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1558

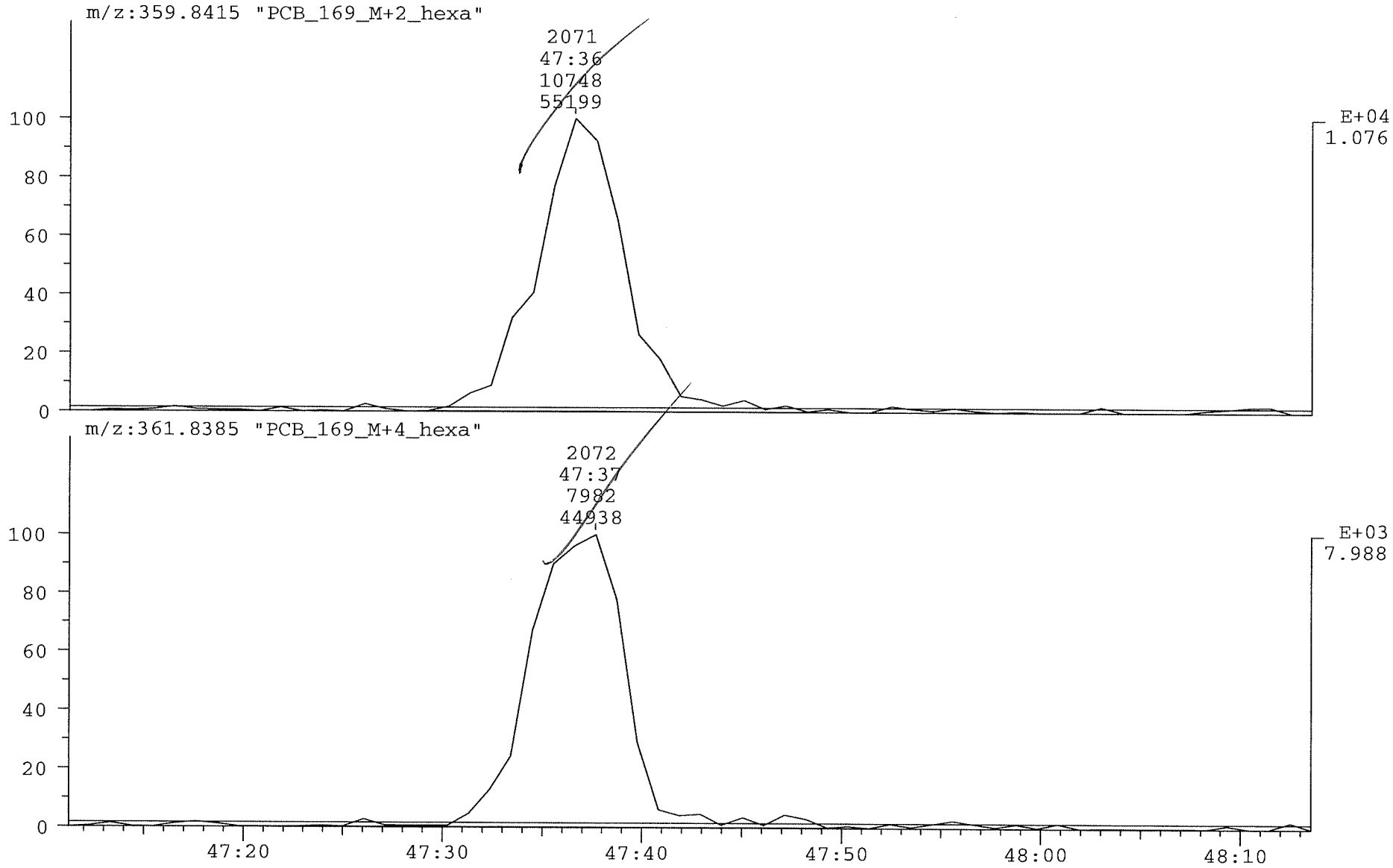
1557

CHRO: a080624i1 24-Jun-08 Elapse: 44:23 1888
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1873 > 1909 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1559

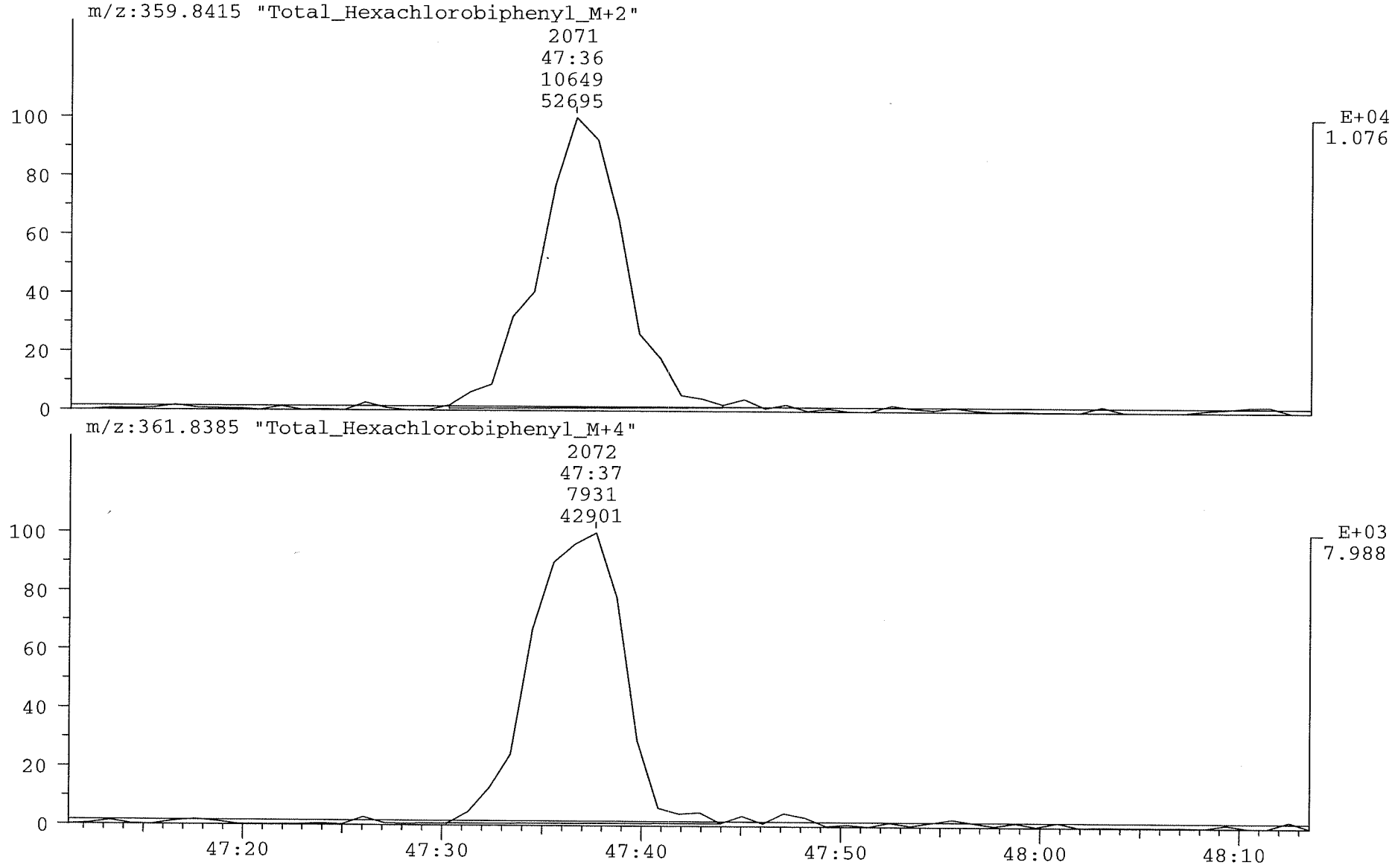
CHRO: a080624i1 24-Jun-08 Elapse: 47:37 2072
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2047 > 2106 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1560

1559

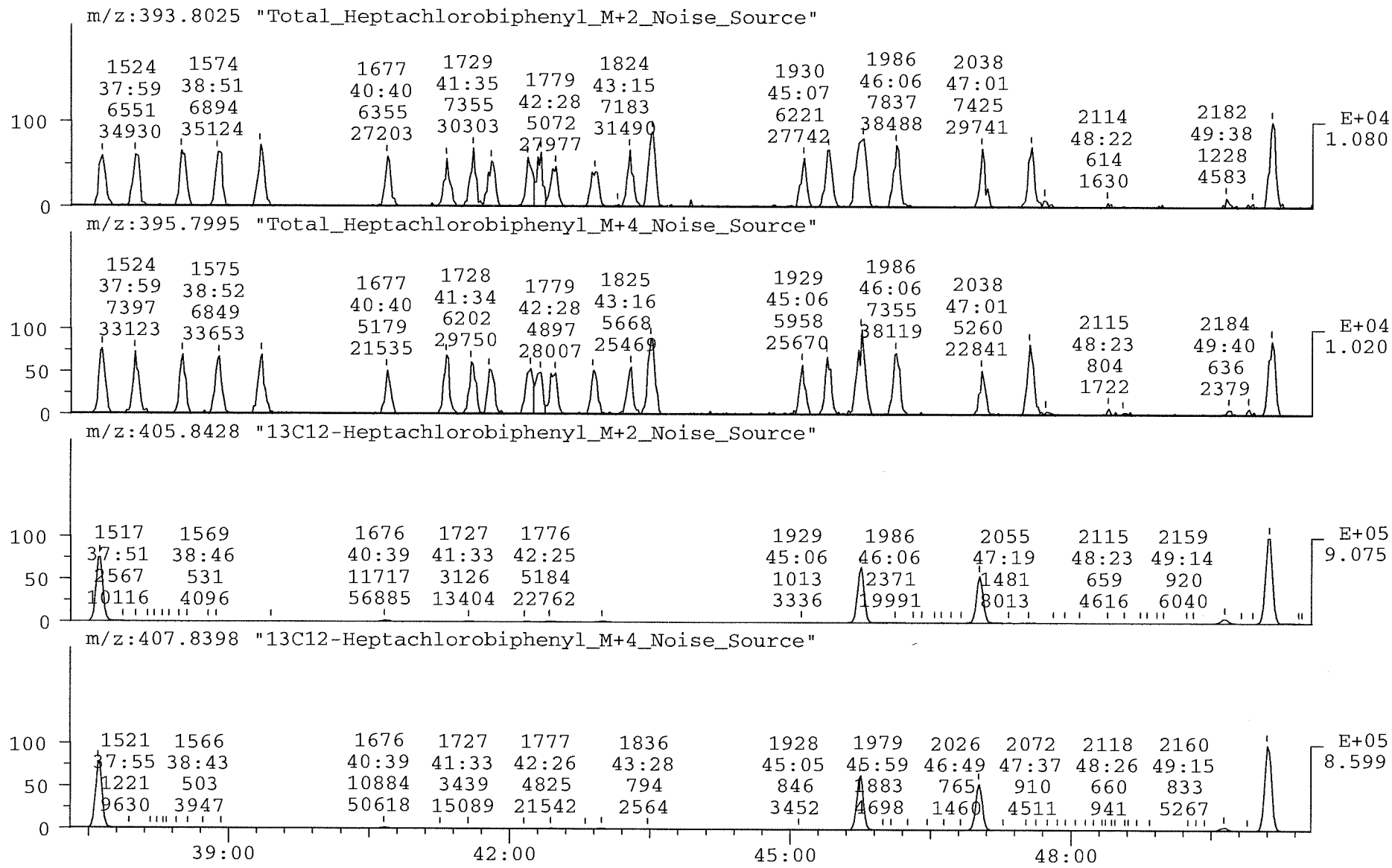
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2047 > 2106 Masses: 181 > 510
Area: 5, 5.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1561

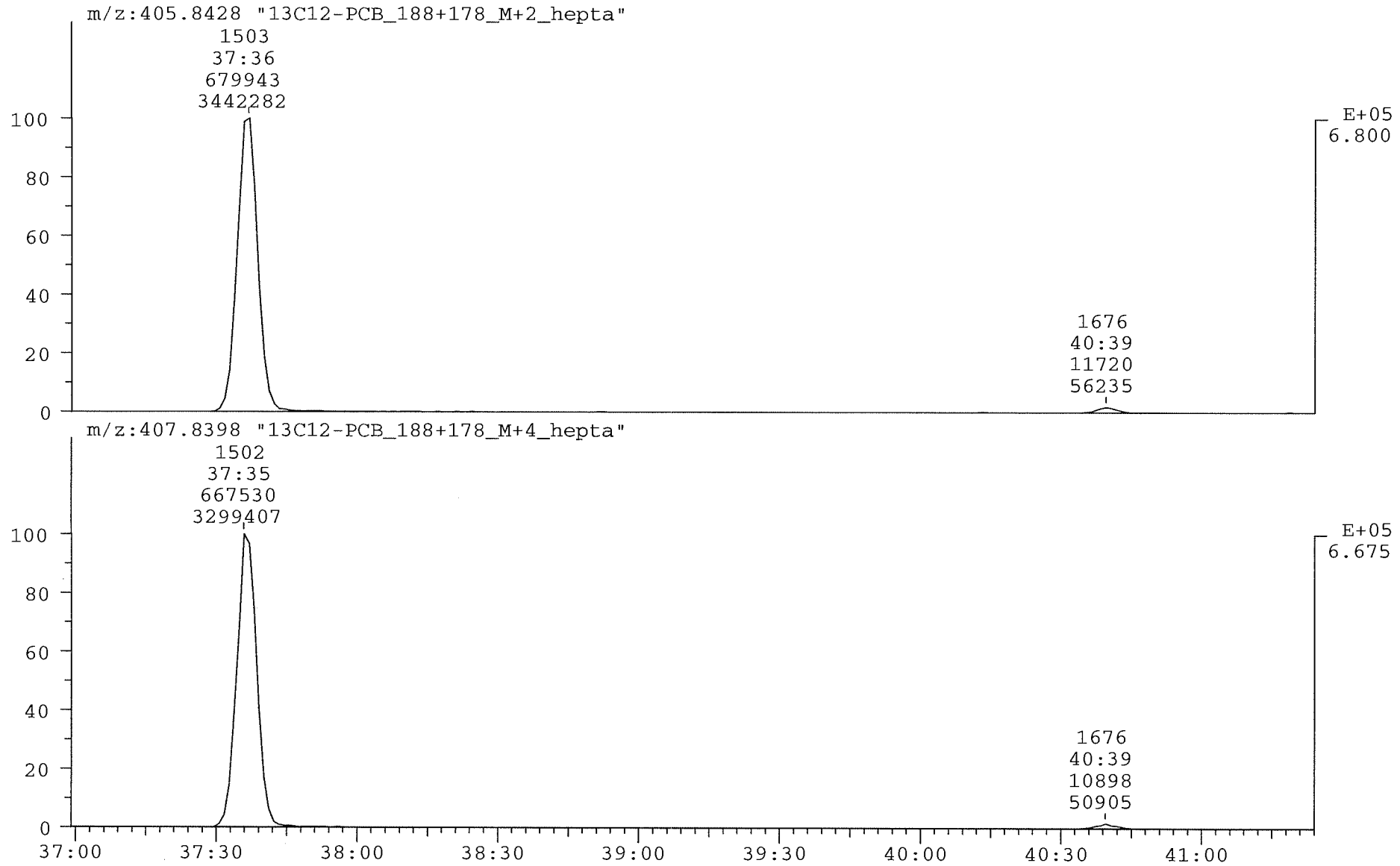
1560

CHRO: a080624i1 24-Jun-08 Elapse: 43:55 1862
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1485 > 2235 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1562

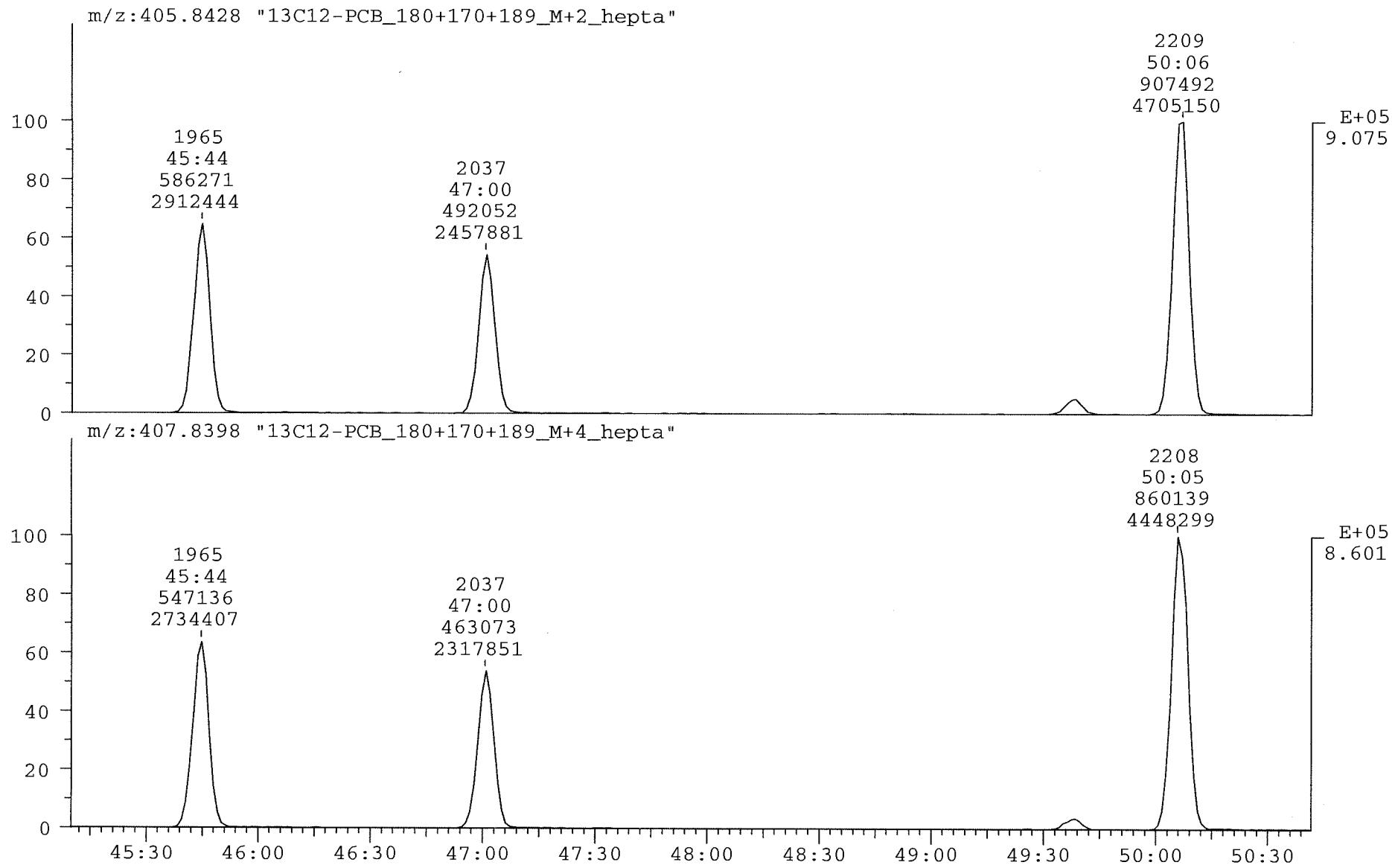
CHRO: a080624i1 24-Jun-08 Elapse: 39:10 1592
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1467 > 1718 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1563

1562

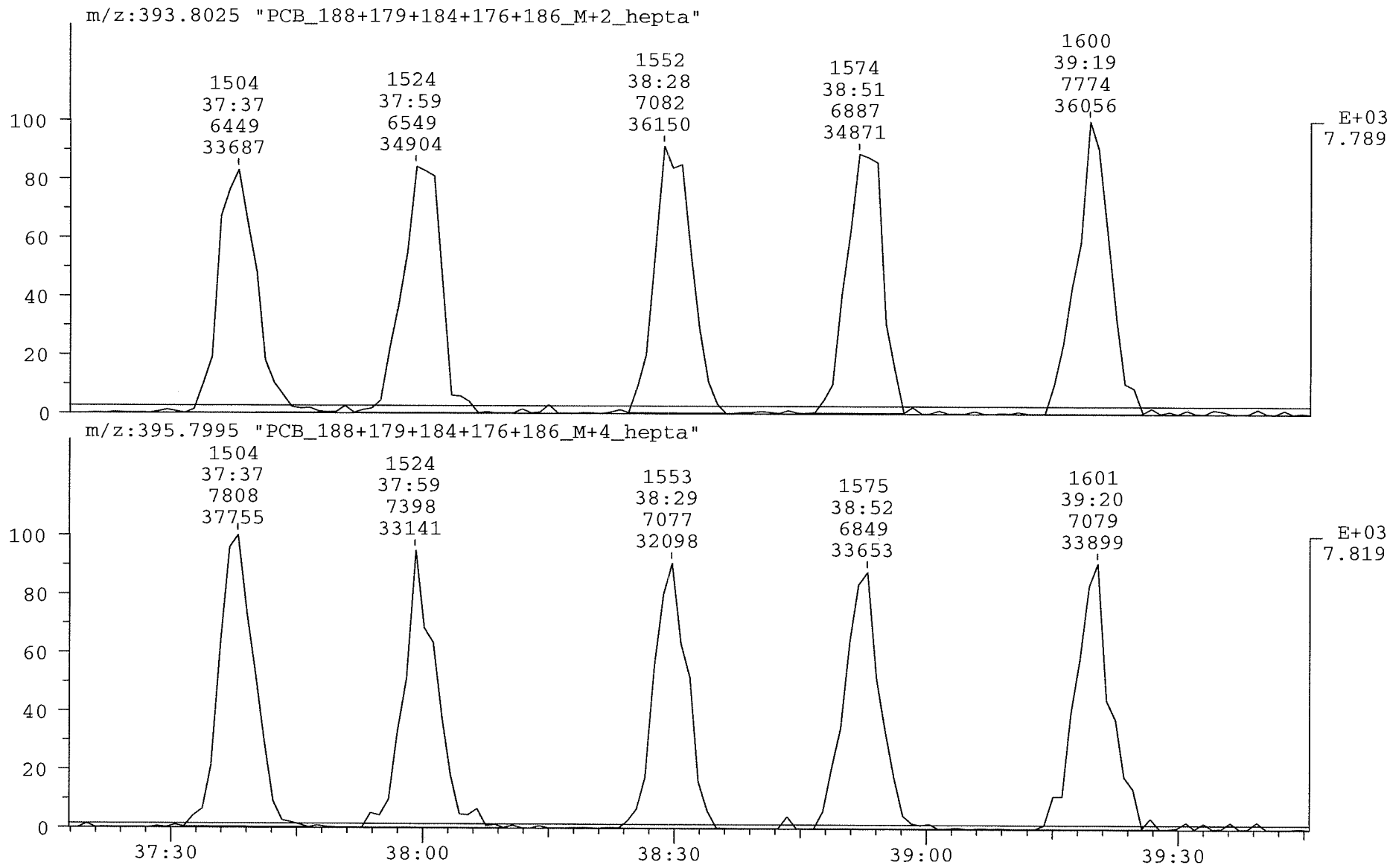
CHRO: a080624i1 24-Jun-08 Elapse: 47:58 2092
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1932 > 2242 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1564

1563

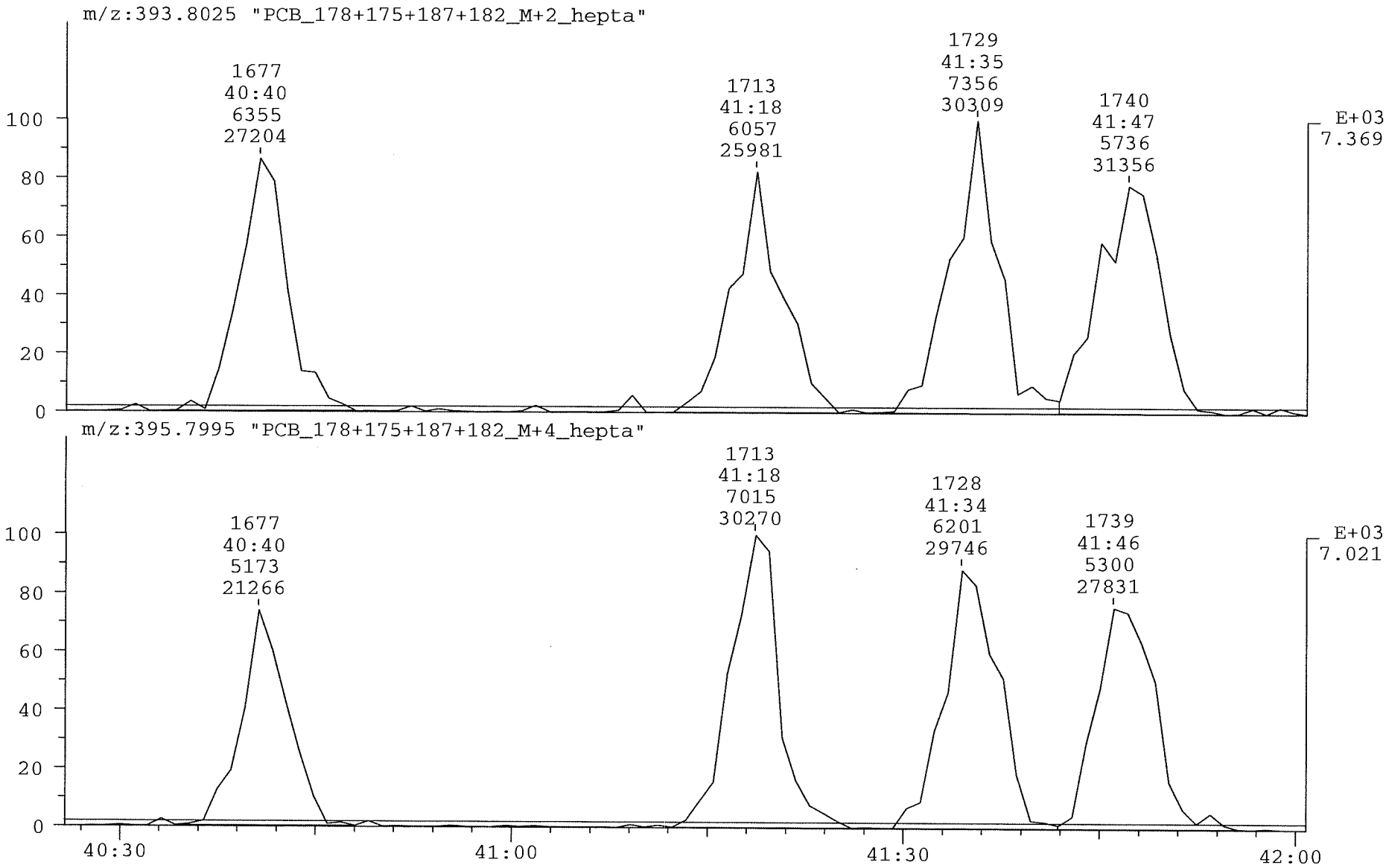
CHRO: a080624i1 24-Jun-08 Elapse: 38:31 1555
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1485 > 1625 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1565

1564

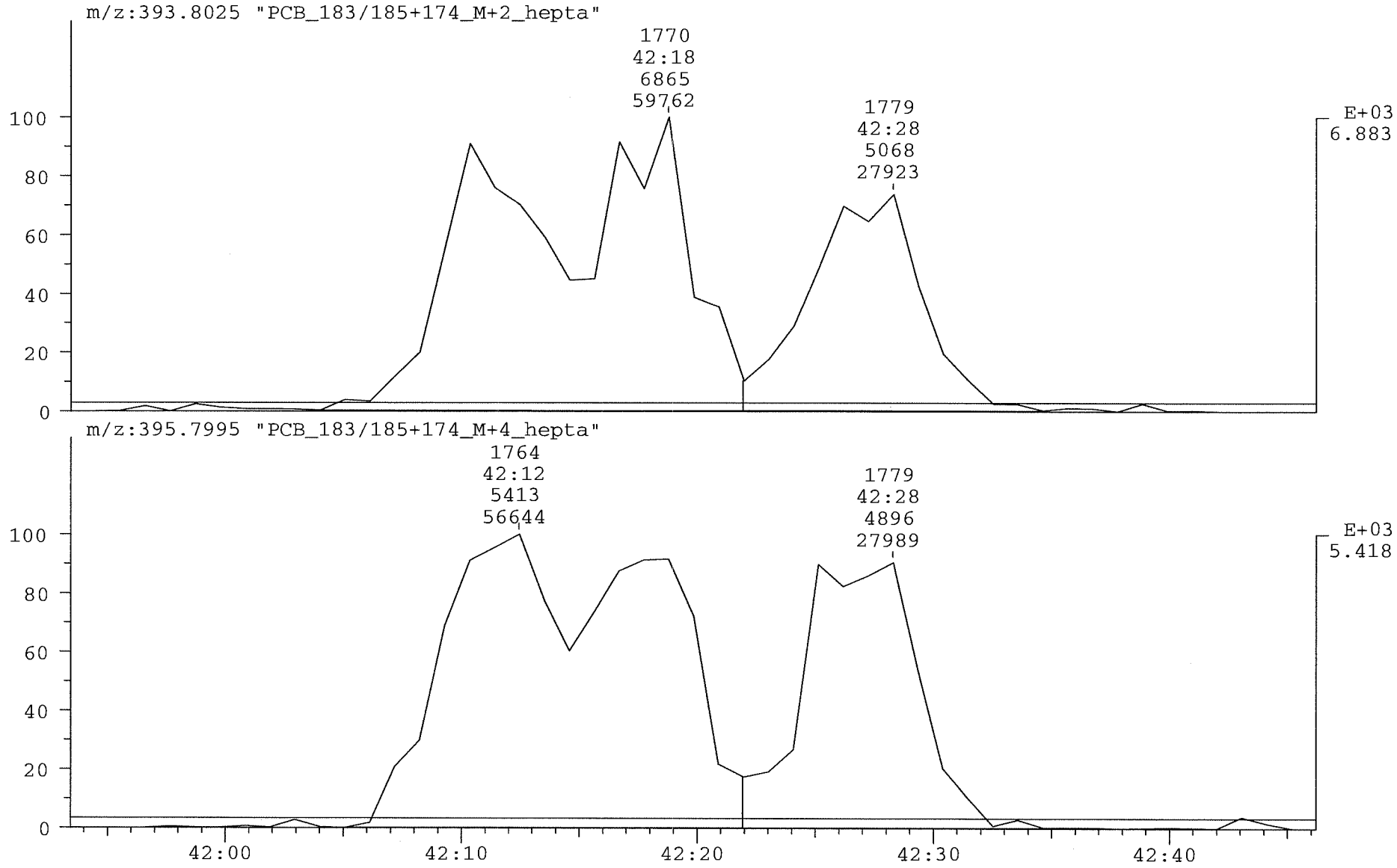
CHRO: a080624i1 24-Jun-08 Elapse: 41:18 1713
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1663 > 1753 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1566

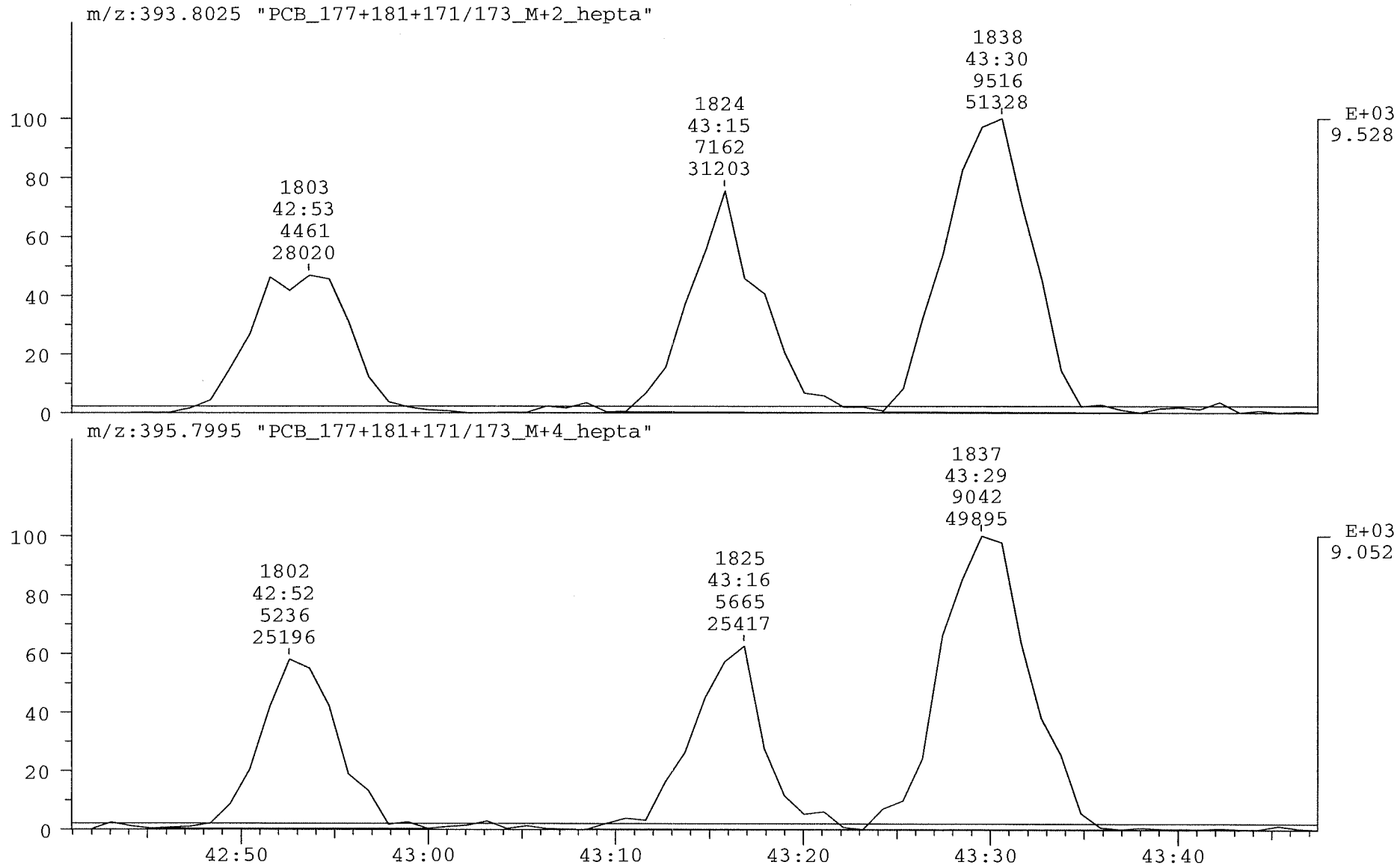
1565

CHRO: a080624i1 24-Jun-08 Elapse: 42:27 1778
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1746 > 1796 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1567

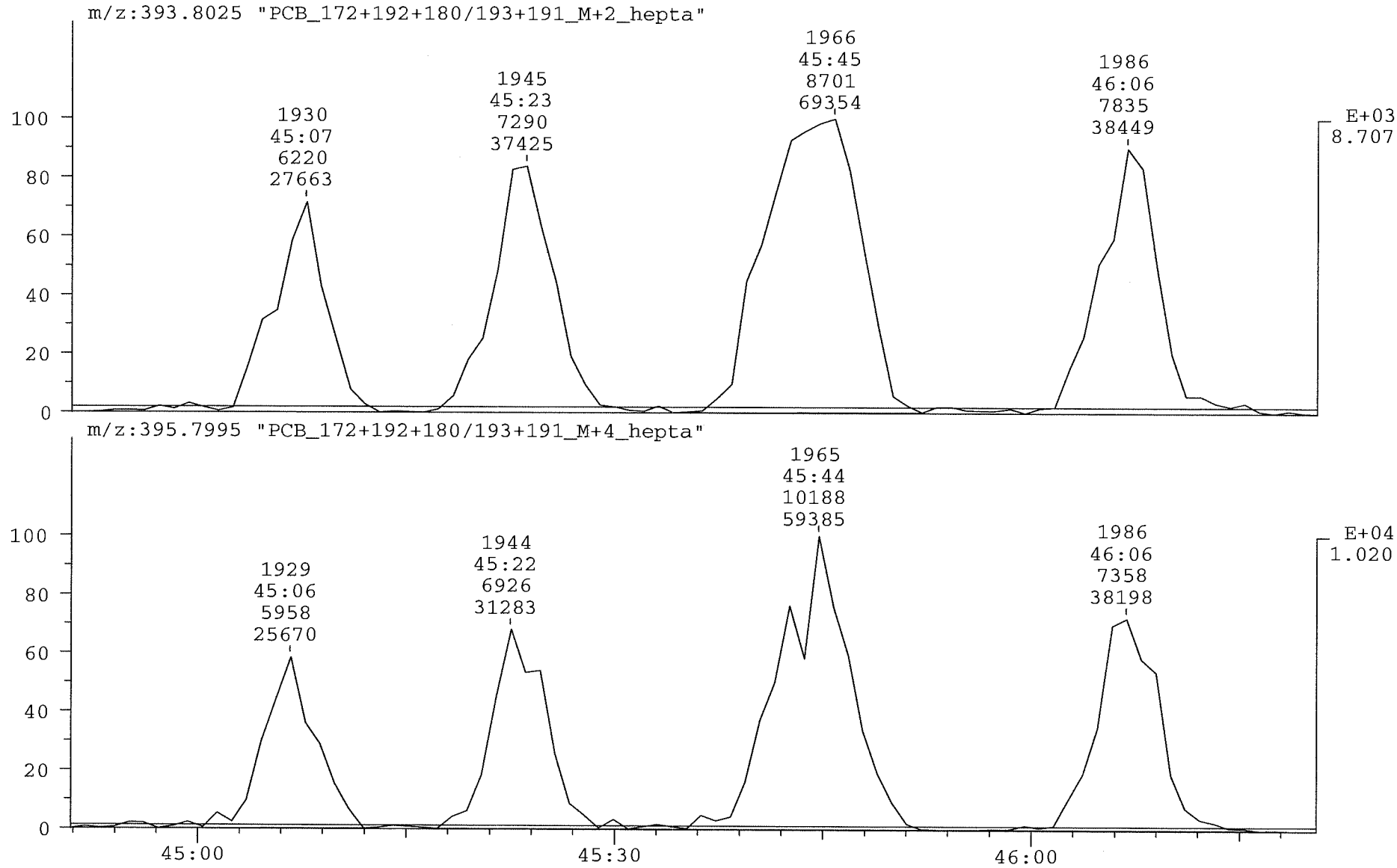
CHRO: a080624i1 24-Jun-08 Elapse: 43:15 1824
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1791 > 1854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1568

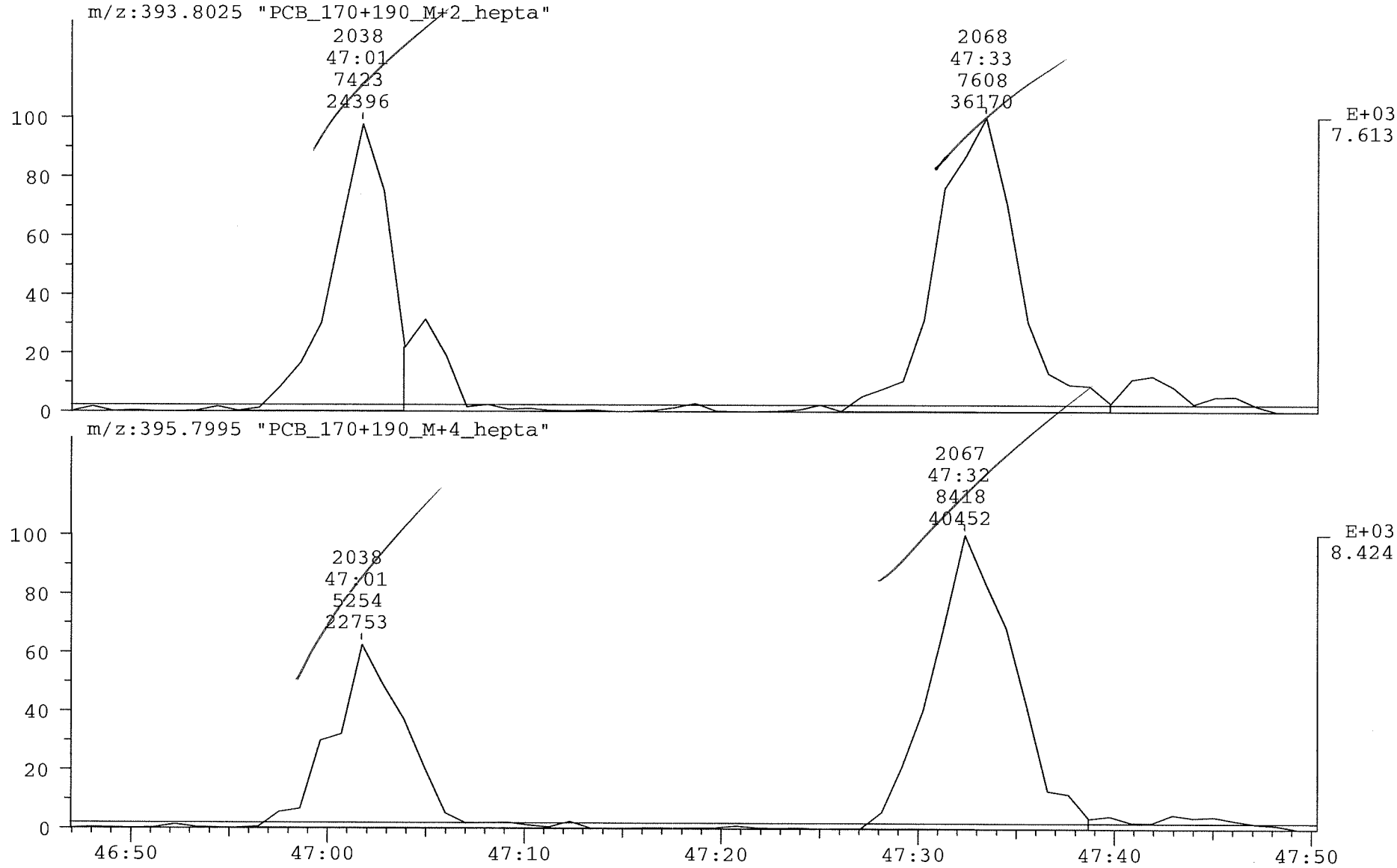
1567

CHRO: a080624i1 24-Jun-08 Elapse: 45:43 1964
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1914 > 1999 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1569

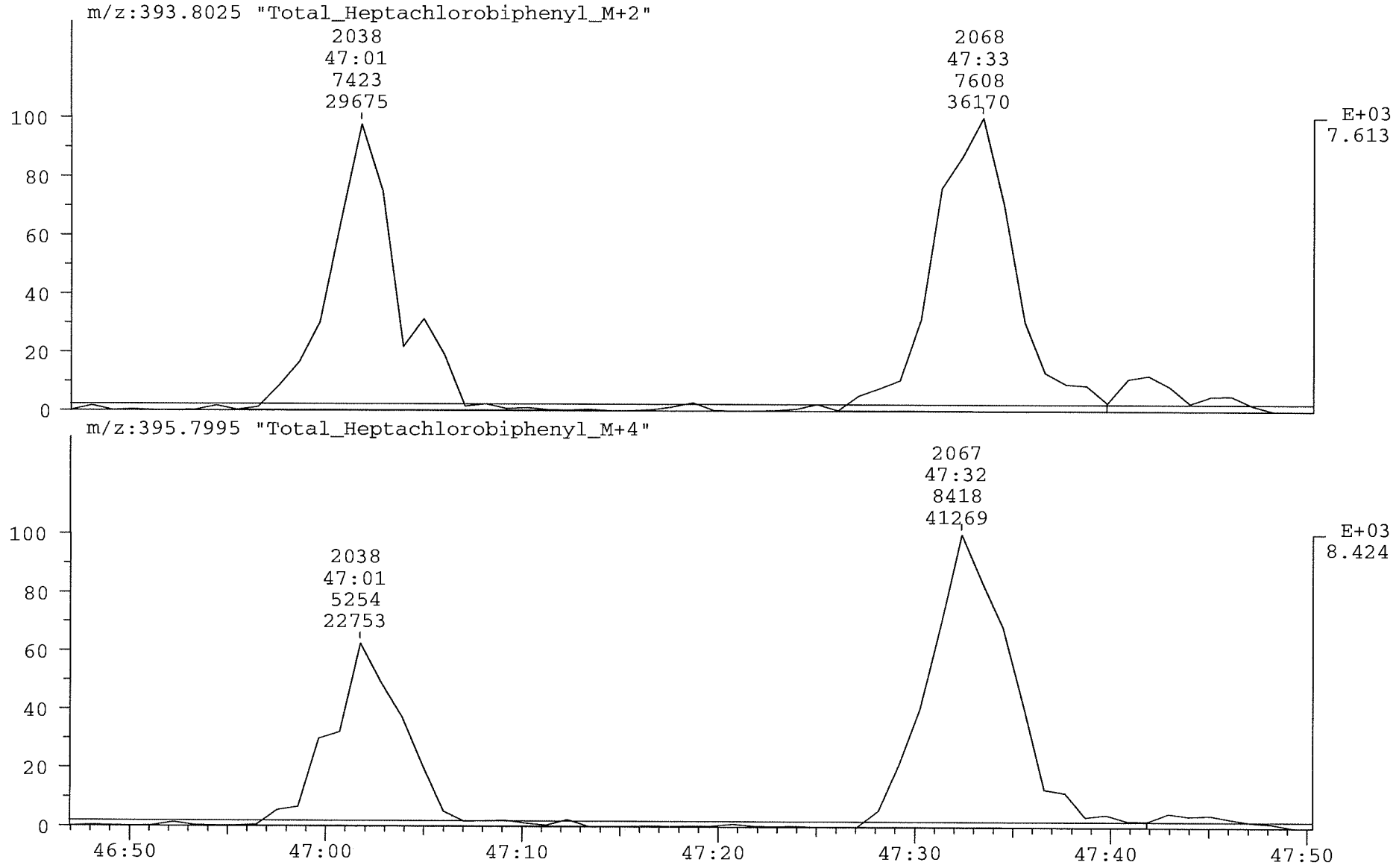
CHRO: a080624i1 24-Jun-08 Elapse: 47:20 2056
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2024 > 2084 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1570

1569

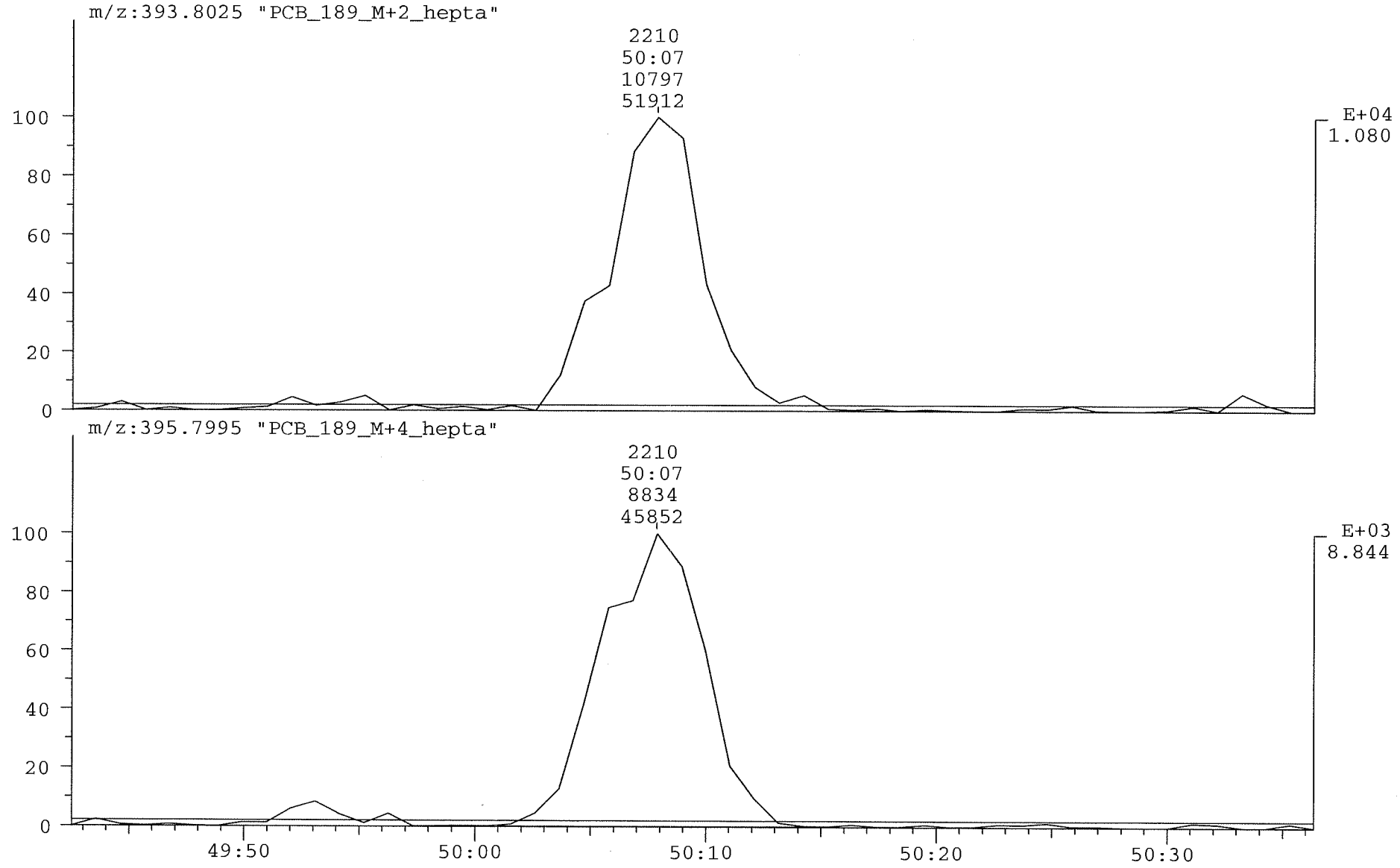
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2024 > 2084 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1571

1570

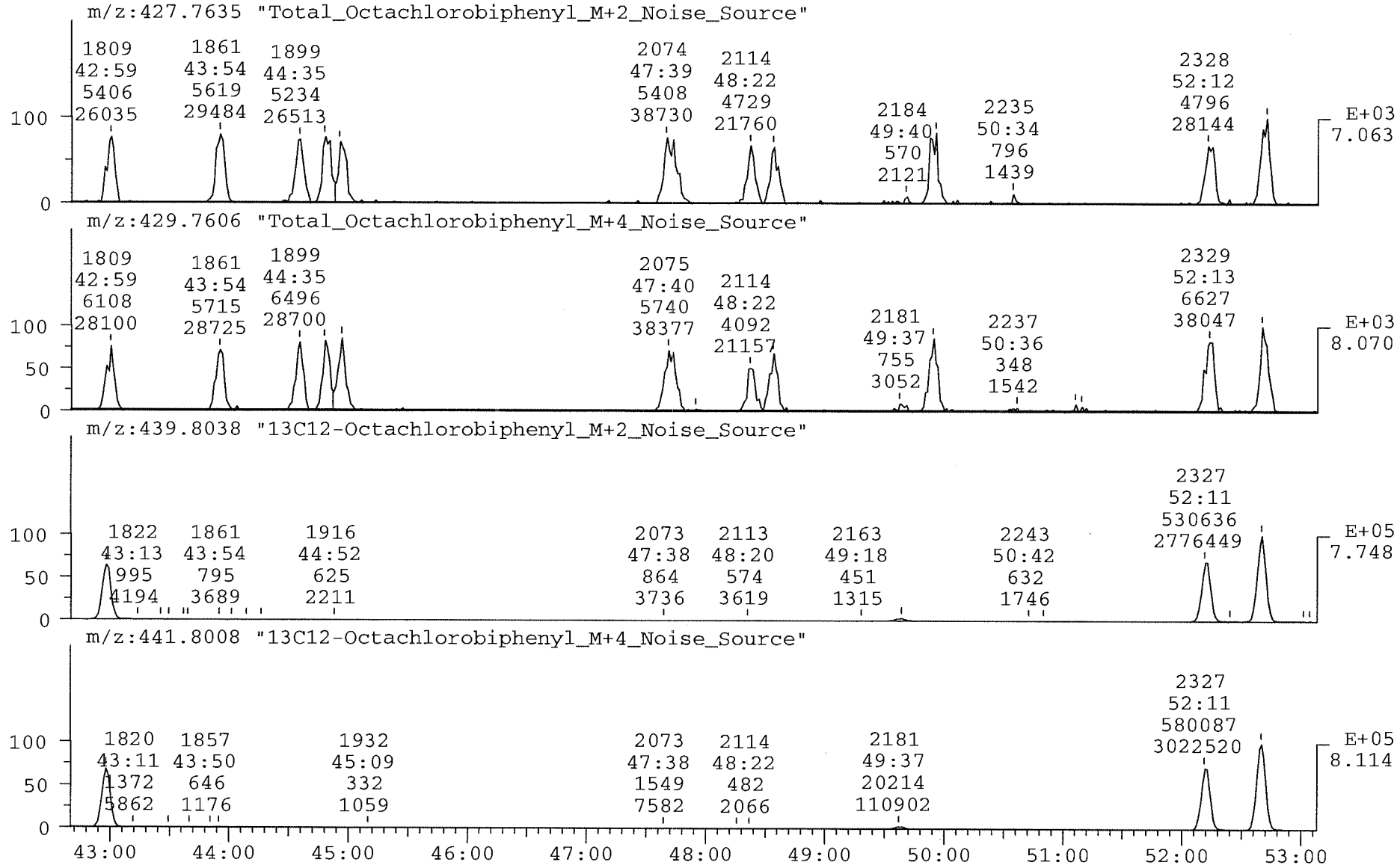
CHRO: a080624i1 24-Jun-08 Elapse: 50:07 2210
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2186 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1572

1571

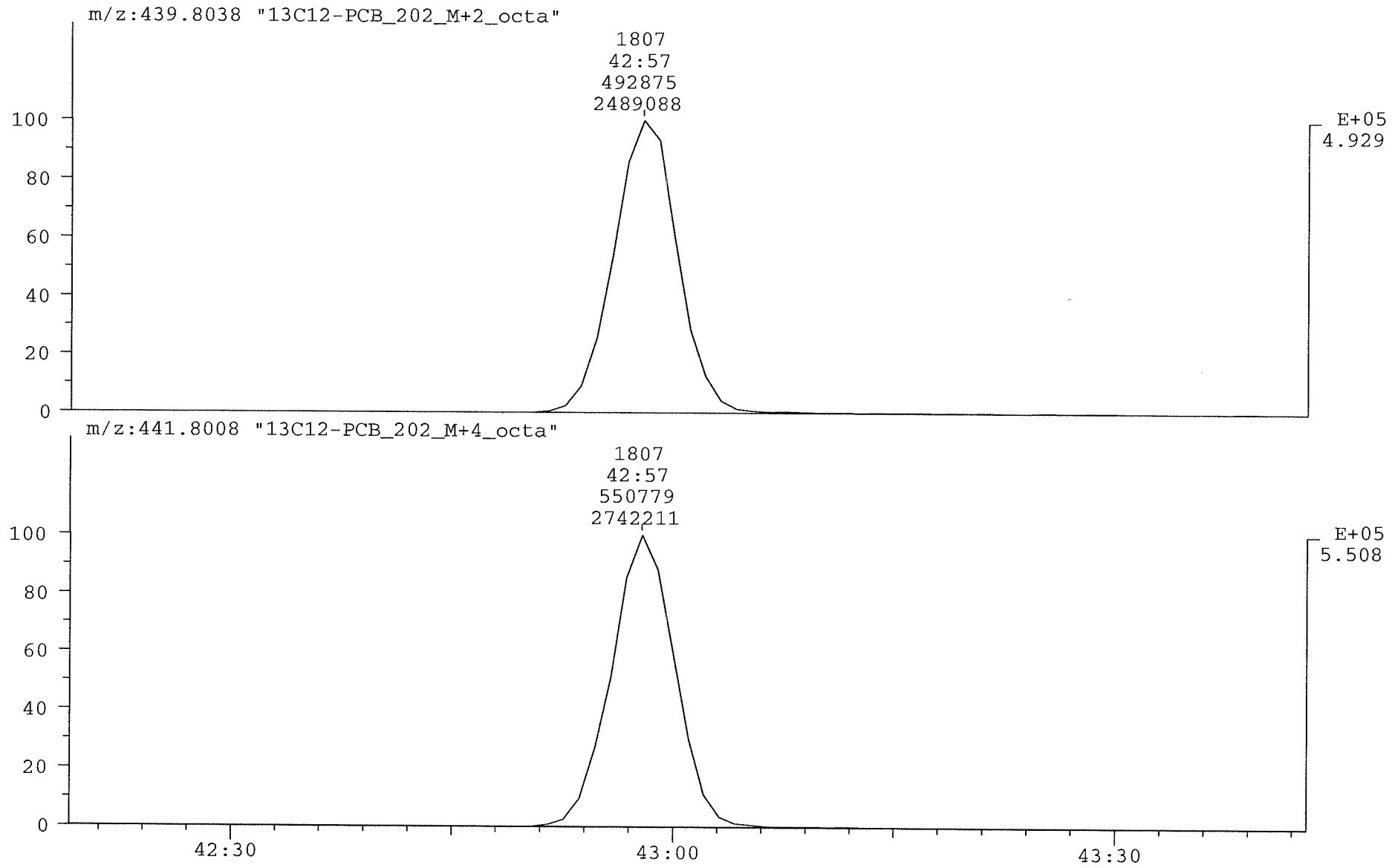
CHRO: a080624i1 24-Jun-08 Elapse: 47:54 2088
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1790 > 2381 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1573

1572

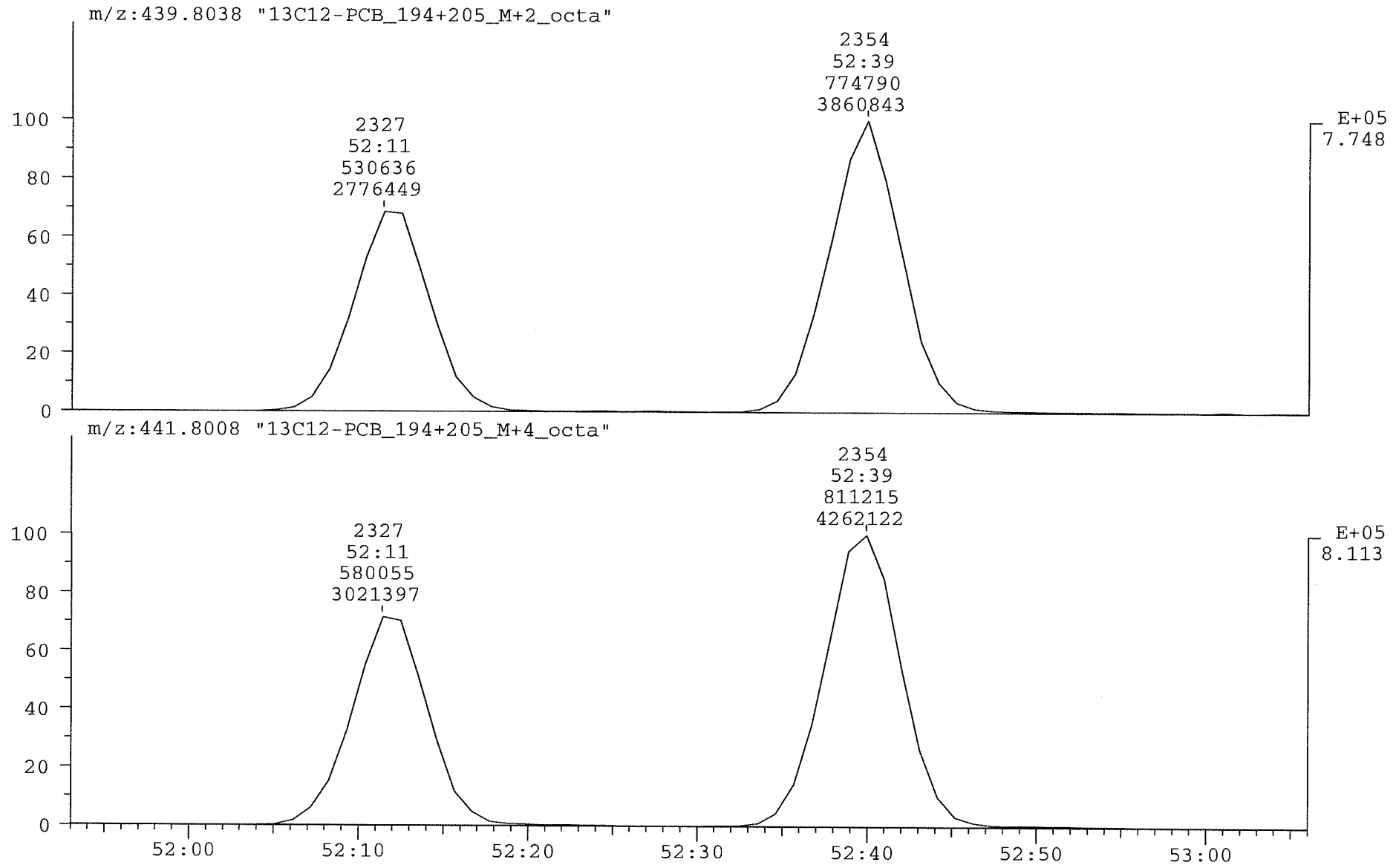
CHRO: a080624i1 24-Jun-08 Elapse: 42:57 1807
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1770 > 1850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1574

1573

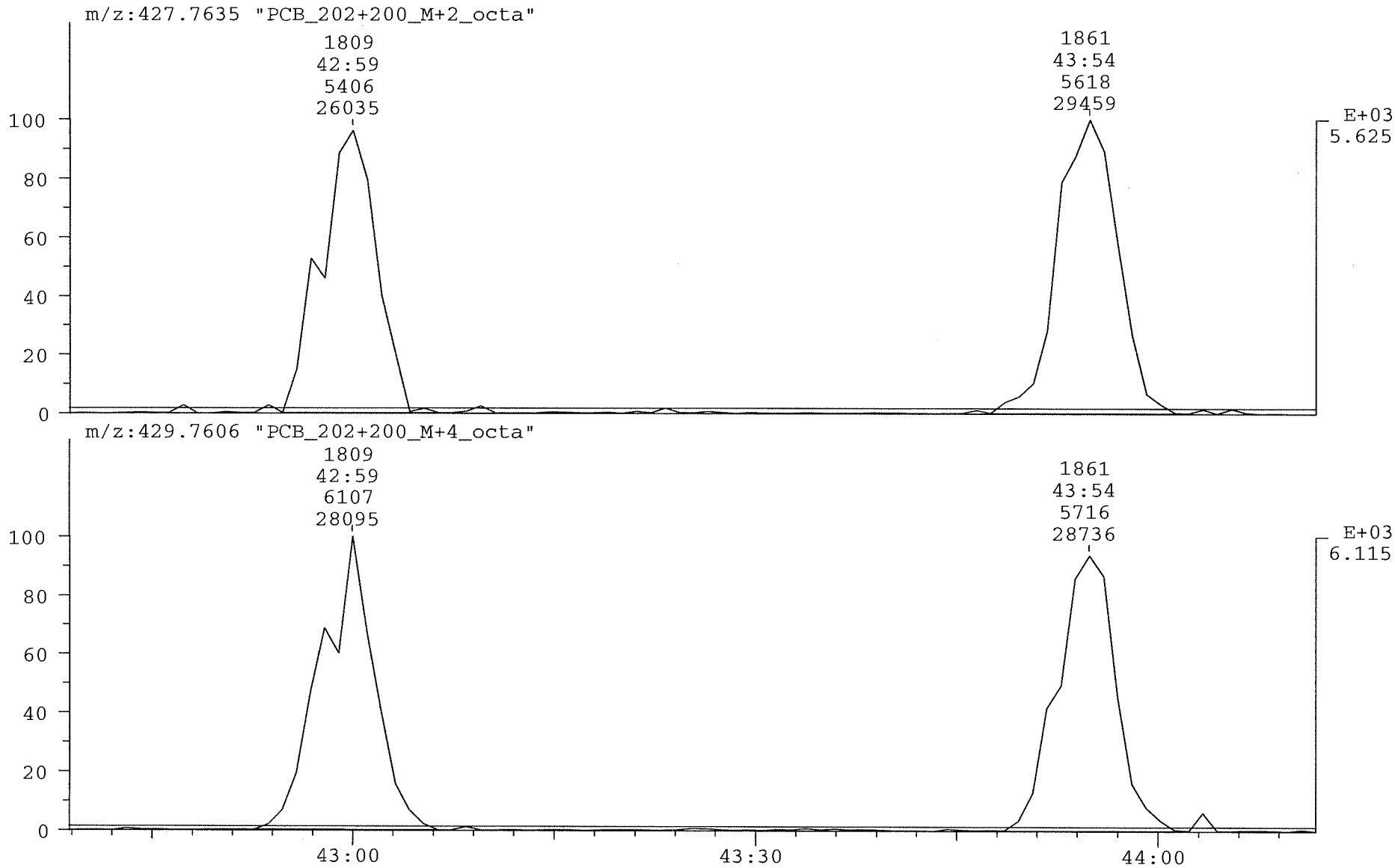
CHRO: a080624i1 24-Jun-08 Elapse: 52:29 2344
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2310 > 2379 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1575

1574

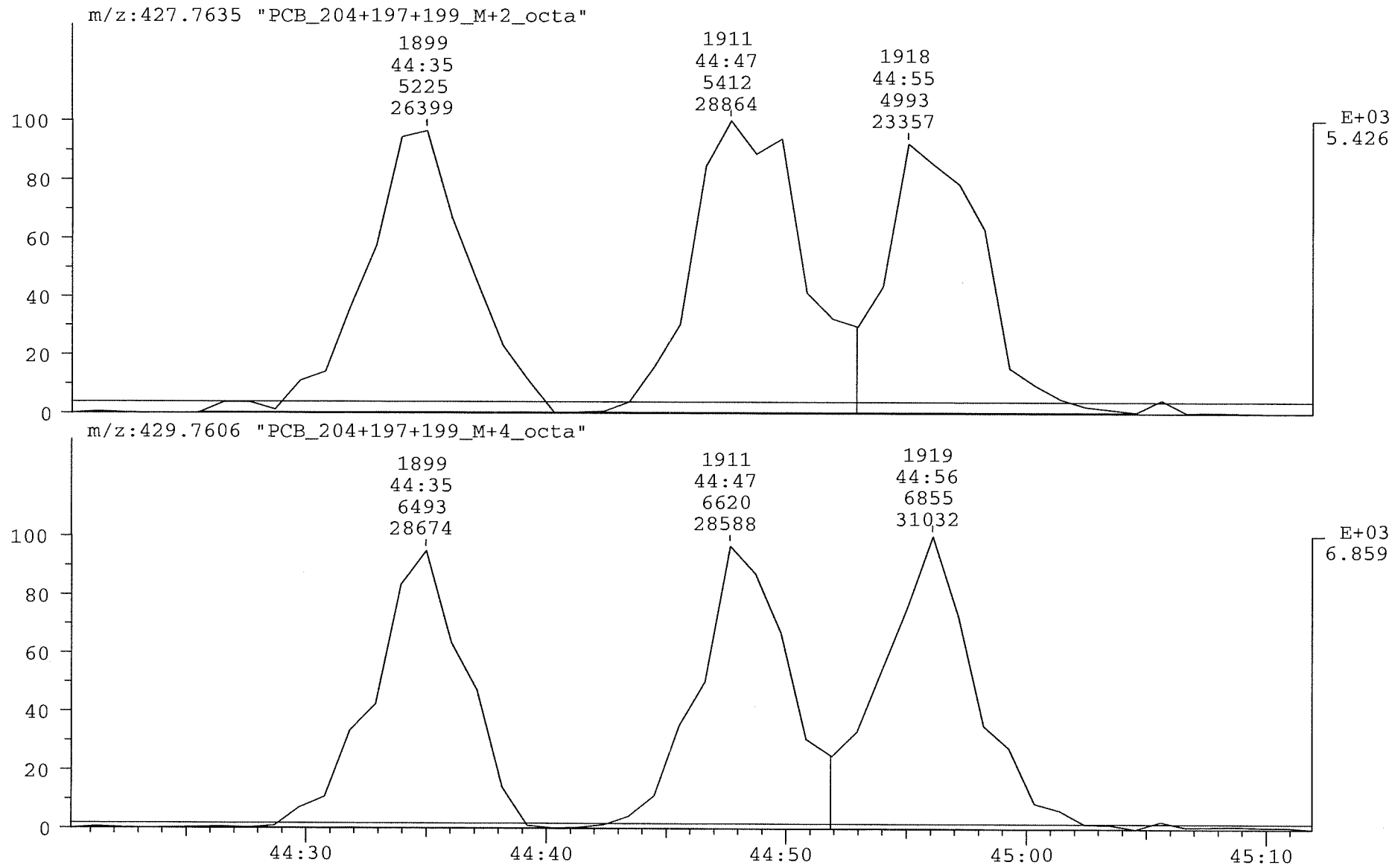
CHRO: a080624i1 24-Jun-08 Elapse: 43:29 1837
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1789 > 1877 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1576

1575

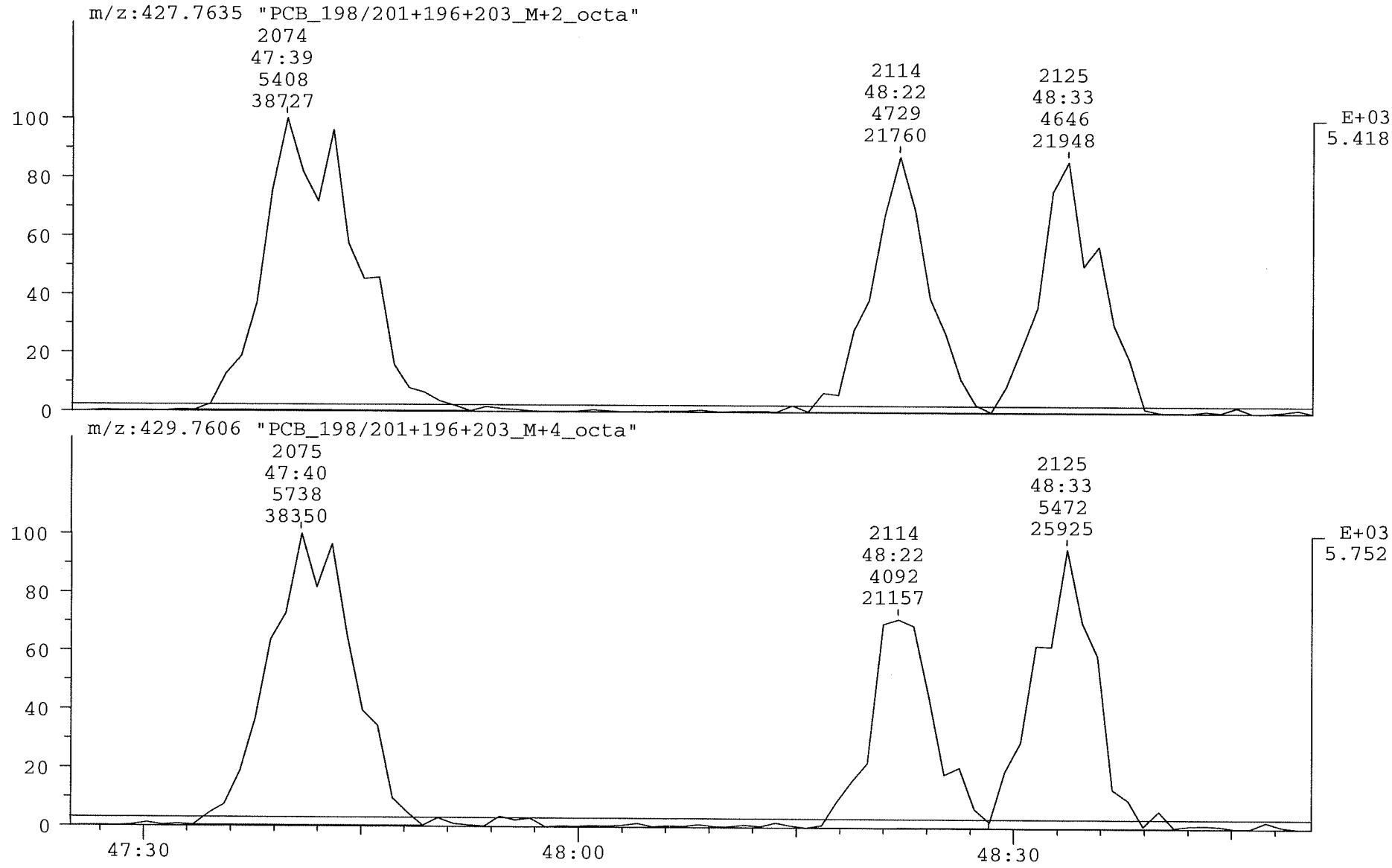
CHRO: a080624i1 24-Jun-08 Elapse: 44:35 1899
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1885 > 1934 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1577

1576

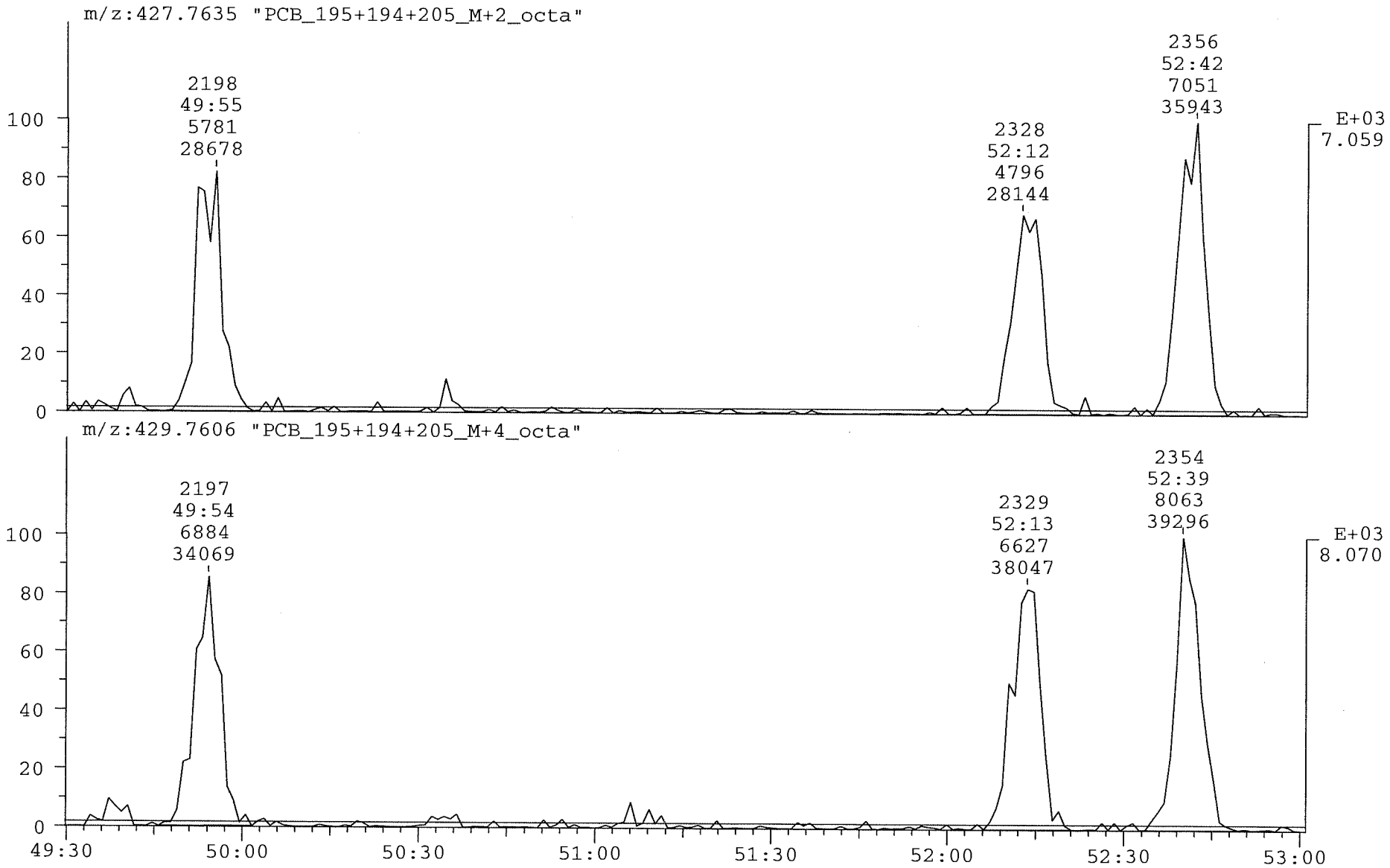
CHRO: a080624i1 24-Jun-08 Elapse: 48:22 2114
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2060 > 2141 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1578

1577

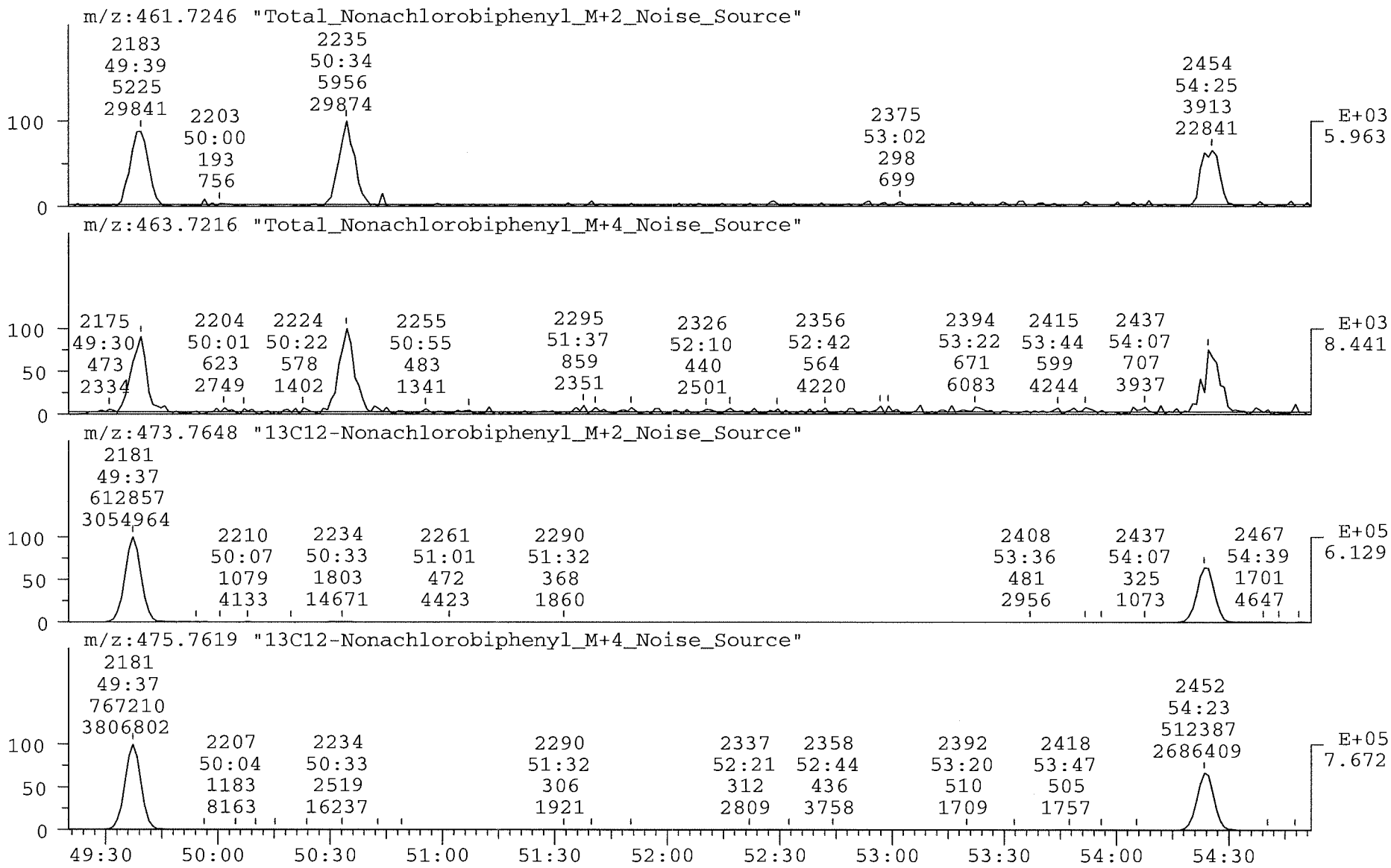
CHRO: a080624i1 24-Jun-08 Elapse: 52:13 2329
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2174 > 2374 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1579

1578

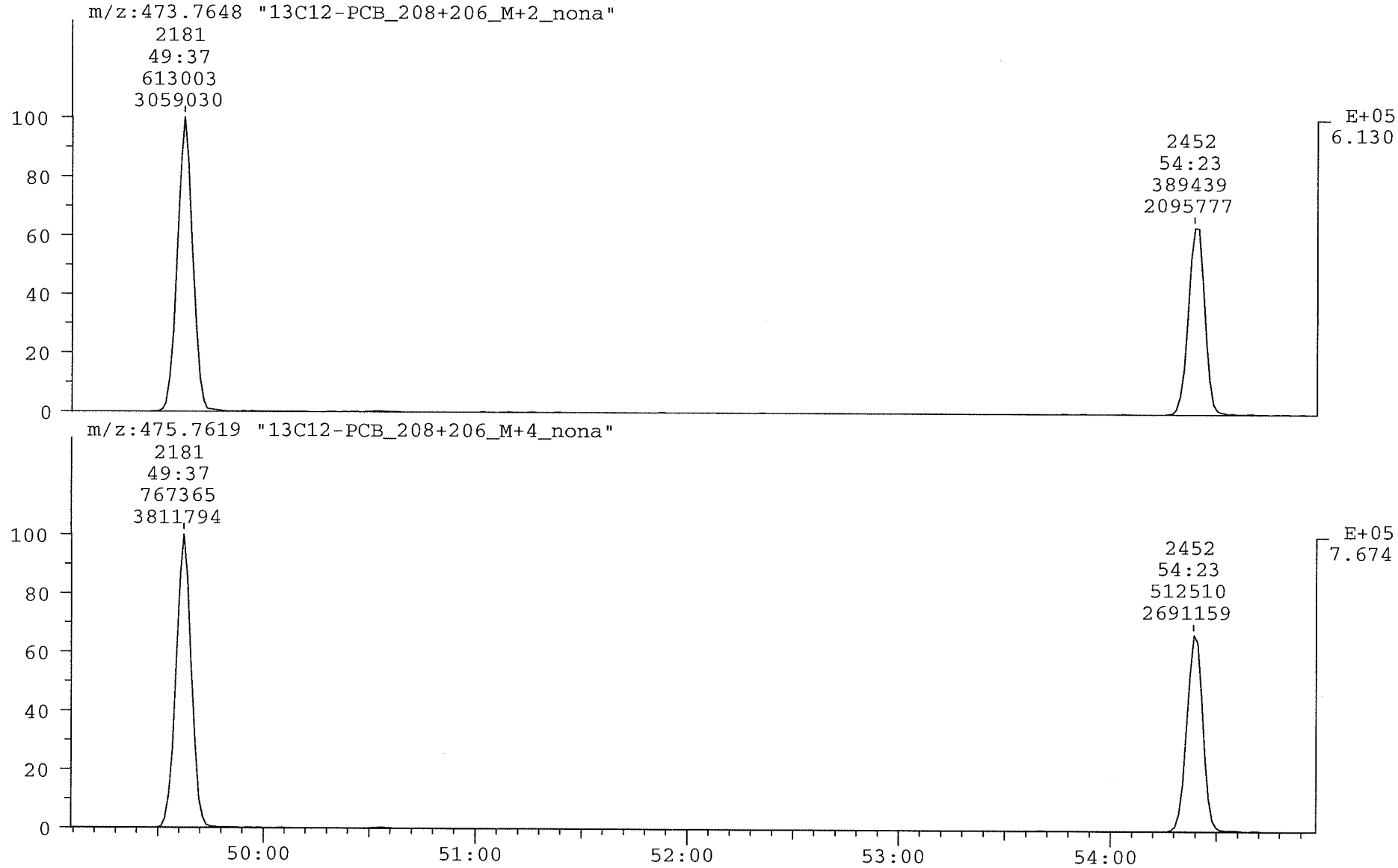
CHRO: a080624i1 24-Jun-08 Elapse: 52:06 2322
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2165 > 2479 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1580

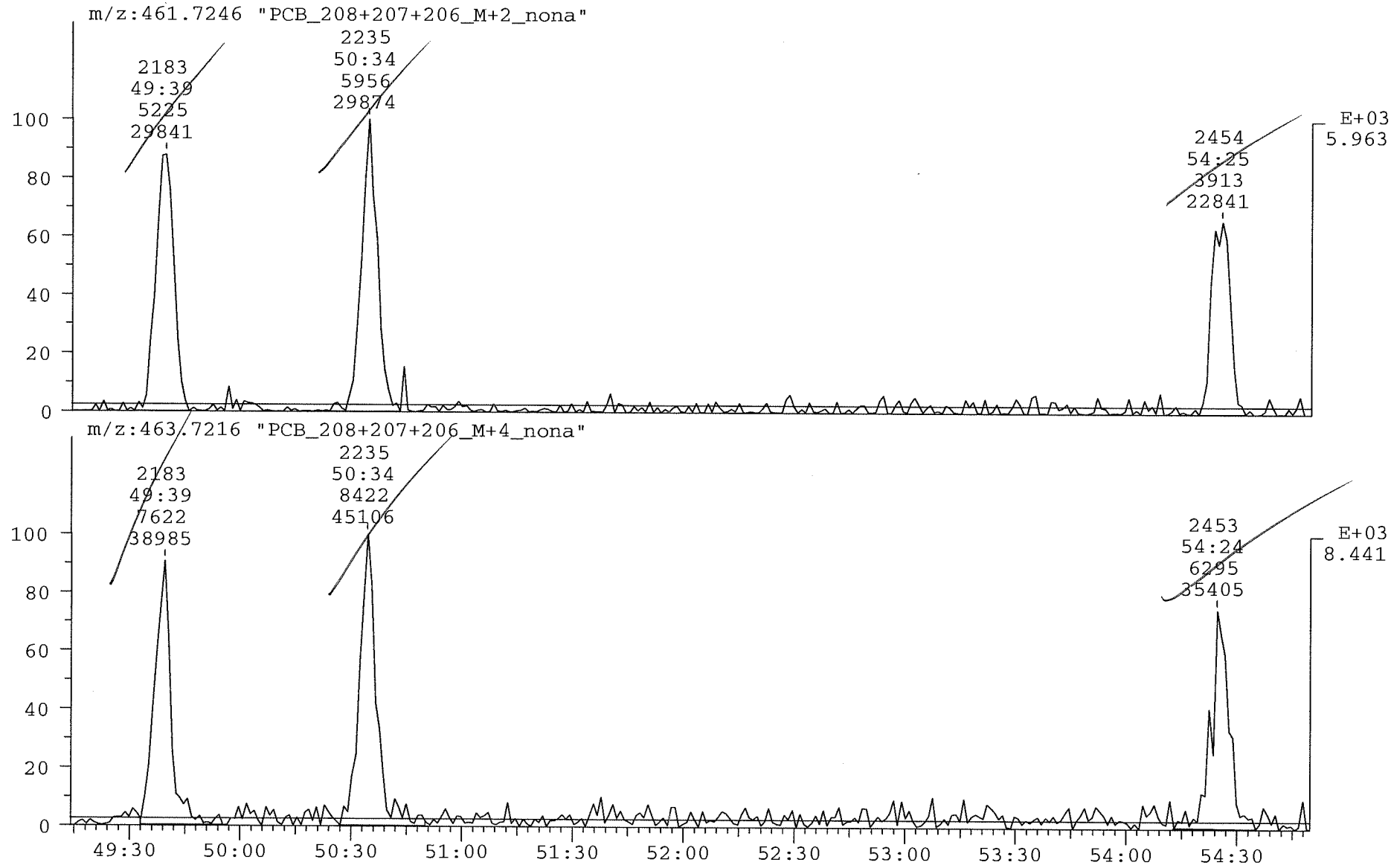
1579

CHRO: a080624i1 24-Jun-08 Elapse: 52:04 2320
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2155 > 2485 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1581

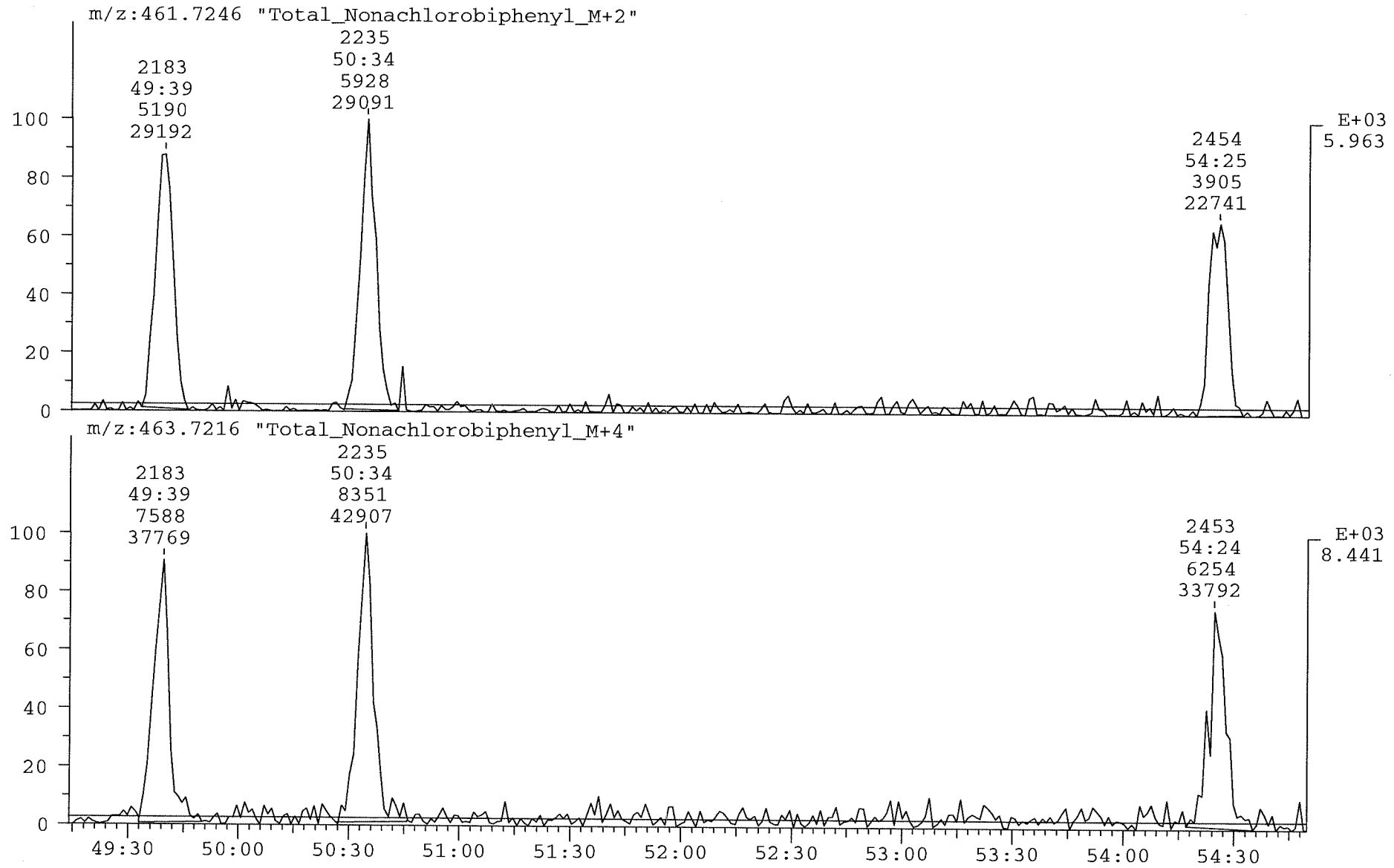
CHRO: a080624i1 24-Jun-08 Elapse: 52:06 2322
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2159 > 2477 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1582

1581

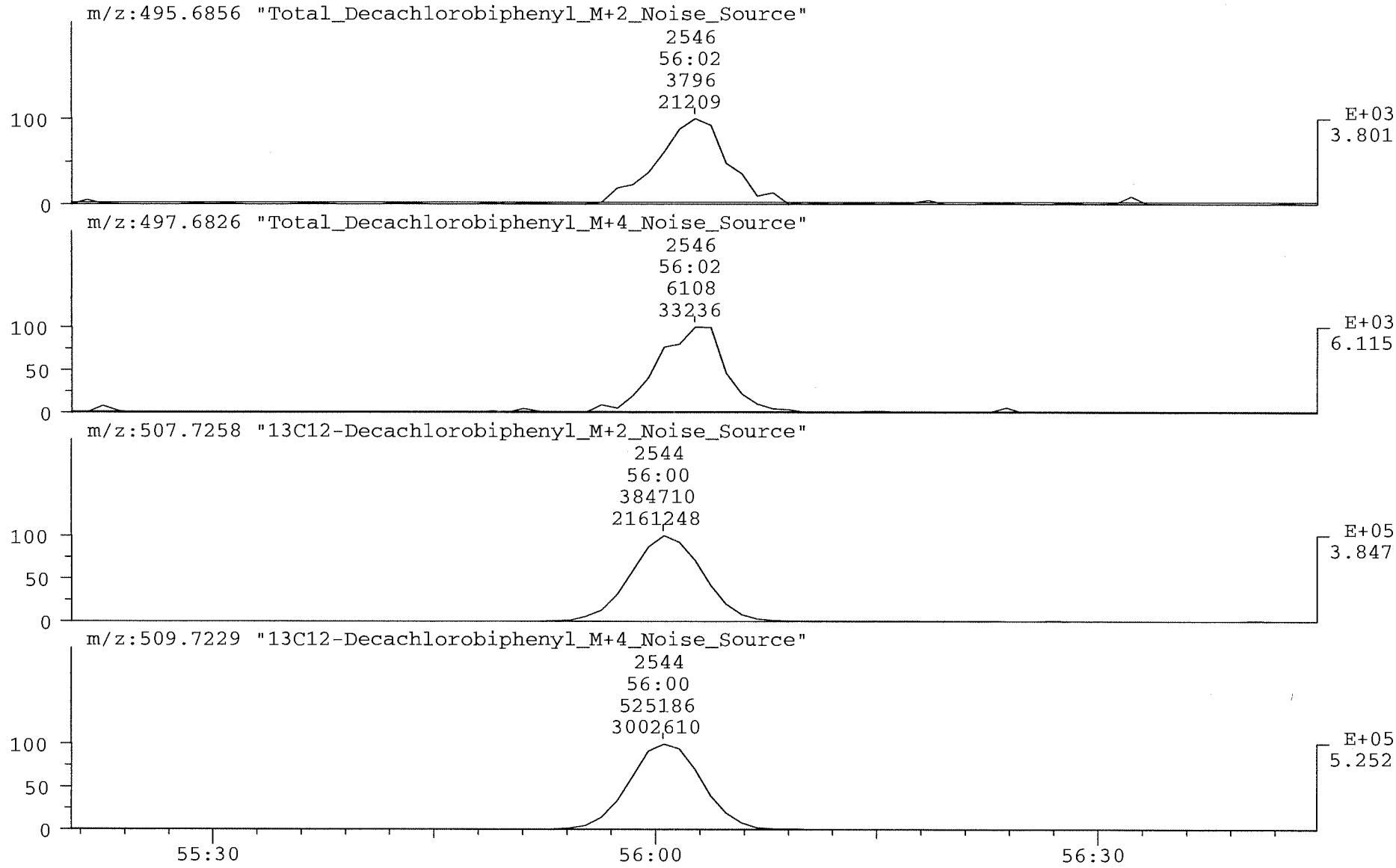
CHRO: a080624i1 24-Jun-08 Elapse: 56:47 2588
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2159 > 2477 Masses: 181 > 510
Area: 5, 2.00, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



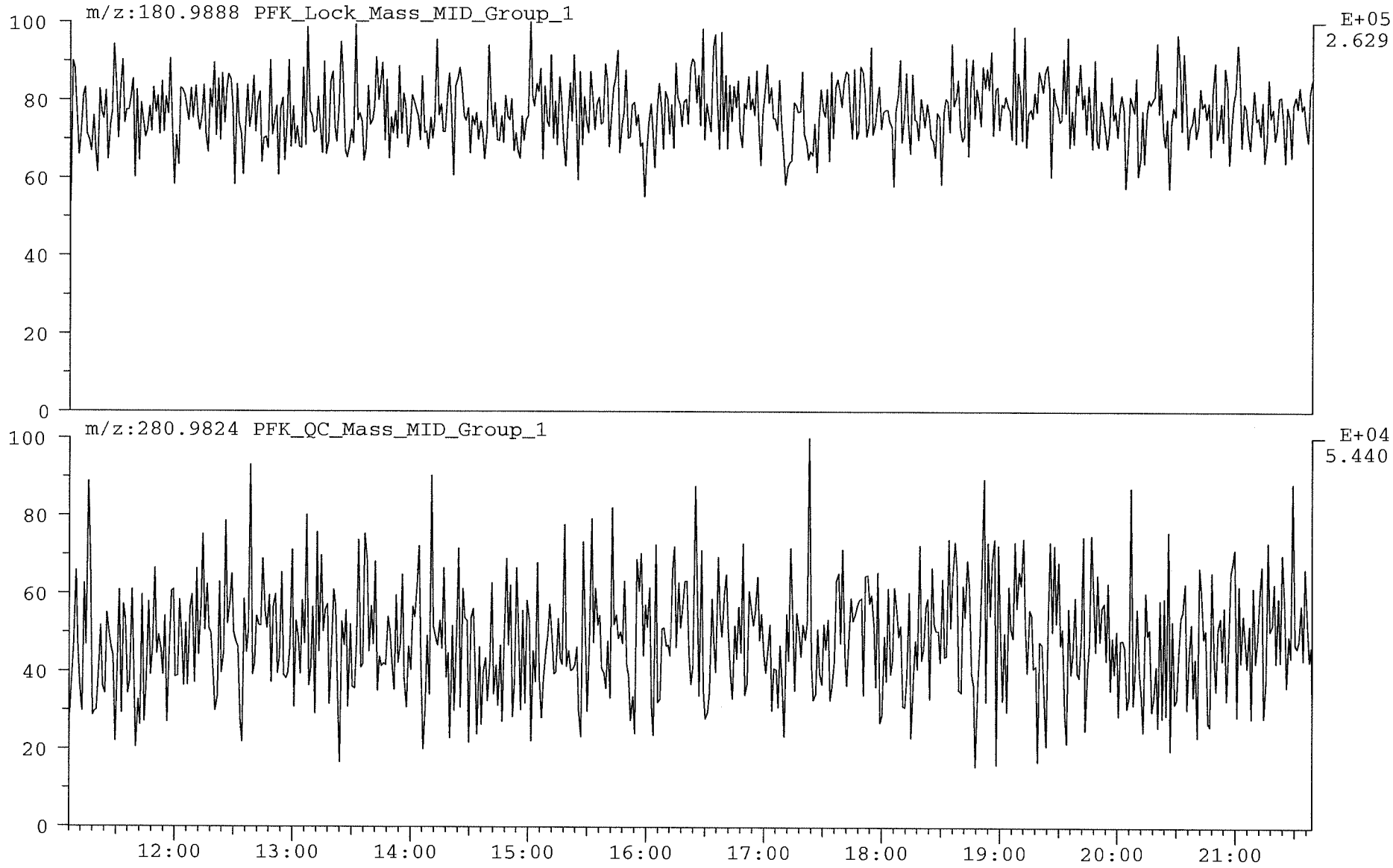
H-1583

1582

CHRO: a080624i1 24-Jun-08 Elapse: 56:05 2549
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2506 > 2586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area

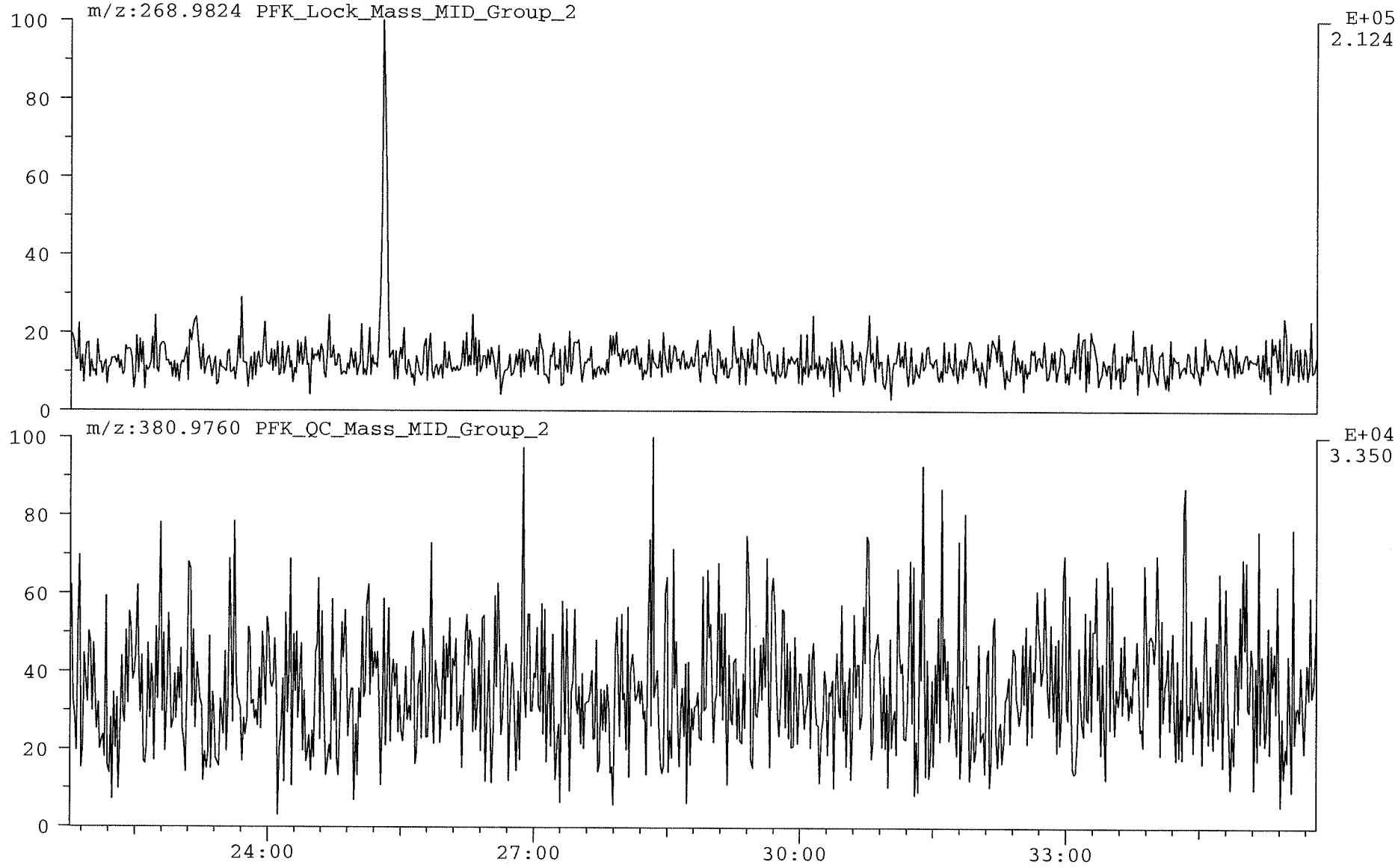


CHRO: a080624i1 24-Jun-08 Elapse: 56:05 2549
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1585

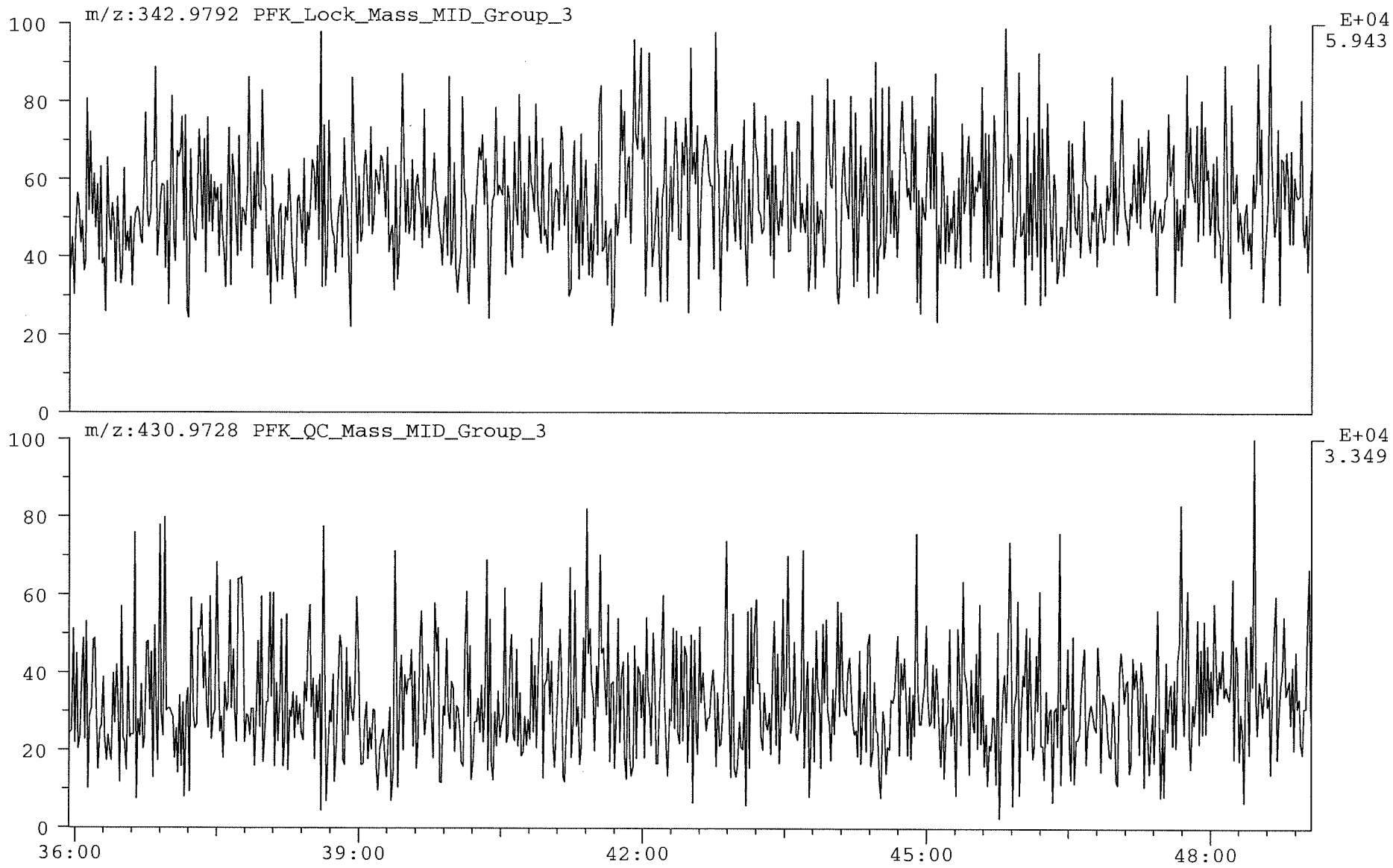
CHRO: a080624i1 24-Jun-08 Elapse: 56:05 2549
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 608 > 1405 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H1586

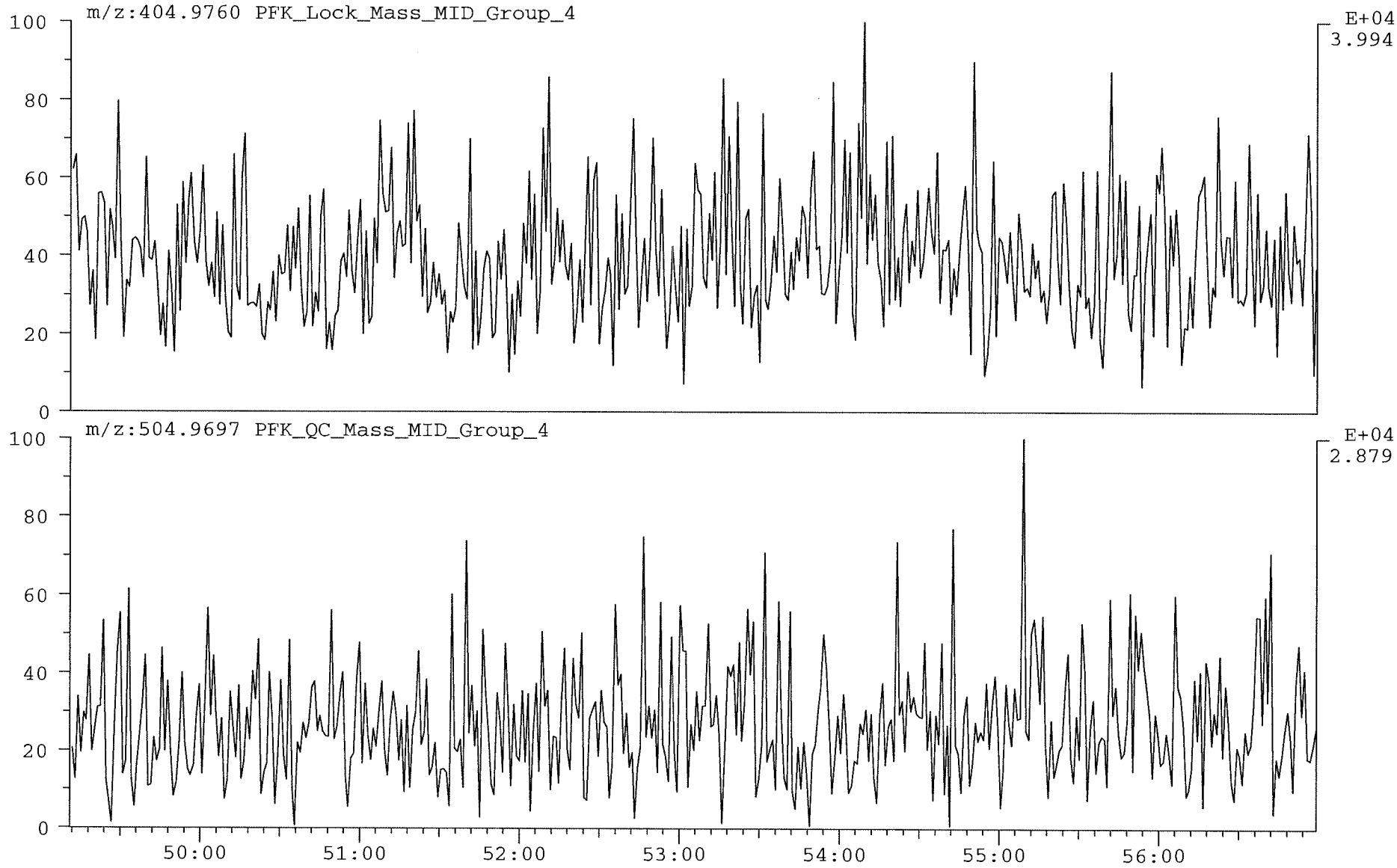
1585

CHRO: a080624i1 24-Jun-08 Elapse: 56:05 2549
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 1408 > 2154 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1587

CHRO: a080624i1 24-Jun-08 Elapse: 56:05 2549
Samp: Vial 10 WO=2990:71CS1 Meth=IE3 Dil=1 Start : 16:21:11 2601
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 10
Peak: 100.00 ppm Label wndw: 2157 > 2599 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1588

1587

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a080624i1
Study: 1668 ICAL CS1
Sample: WO=2990:71CS1 Meth=IE3 Dil=1
Amount:  0.00
Volume:  0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Injected volume:  2.00
Sample from Vial 10
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
Single File
  ICL procedure: sleep7x
  MID procedure: epa1668n

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio         1
   Damping Relay          FALSE
   Width first lock        0.10 amu
   Electric jump time        10 ms
   Magnetic jump time        60 ms
   Offset                    75 cts
   Electric range           300 %
   Sweep peak width        3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start          Measure       End         Cycletime
  # 1   11:00 min    10:40 min    21:40 min     1.00 sec
  # 2   21:40 min    14:10 min    35:50 min     1.00 sec
  # 3   35:50 min    13:15 min    49:05 min     1.00 sec
  # 4   49:05 min     7:55 min    57:00 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 1   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
```

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg	at 0.0	minutes	280 deg max
	75 deg	at 2.0	minutes	
	150 deg	at 7.0	minutes	
	270 deg	at 55.0	minutes	
	270 deg	at 57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.7567
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-14.8500
DRAWC	1.0000	DRAWS	0.0100	ECORR	0.9994
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	-210.0000	ELEN	55.7750
EMULT	1.7500	ENS	205.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	152.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	338.0000
FVINLET	279.0000	FVSRC	1005.0000	FWIN	0.7000
GCTC	75.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.7745	HVANAL	1312.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4778.9940	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1837.0000	LENSS	8.4000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2351507.3768

MDACR	23.0000	MRANGE	1031.7567	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	2626.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-6.1500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.2964	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	3200.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.8200	TCURR	0.8984
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.0000	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	1694.0000
XLENSS	-96.6000	YLENS	2530.0000	YLENSS	-24.2000

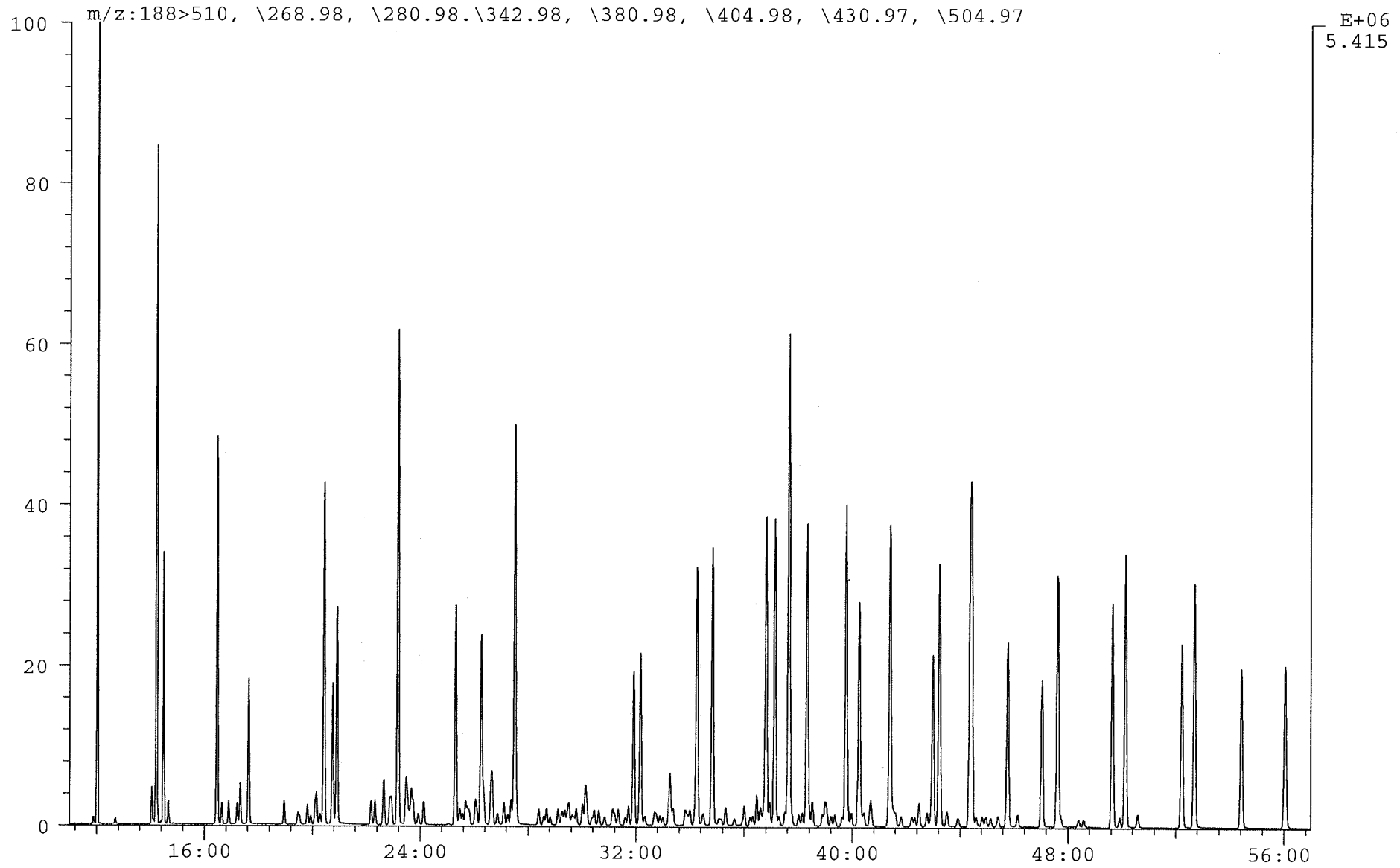
Scantype is electric
Sourcemode is EI POS

Analysis started at: 24-Jun-08 16:21:11.6

Autosampler has injected sample from vial 10
MID Time Window 1: Resolution is 6033
MID Time Window 2: Resolution is 10346
MID Time Window 3: Resolution is 11431
MID Time Window 4: Resolution is 13499
Analysis stopped at: 24-Jun-08 17:18:14.5 (run time 57.03 minutes)
Analysis stopped because MID run finished

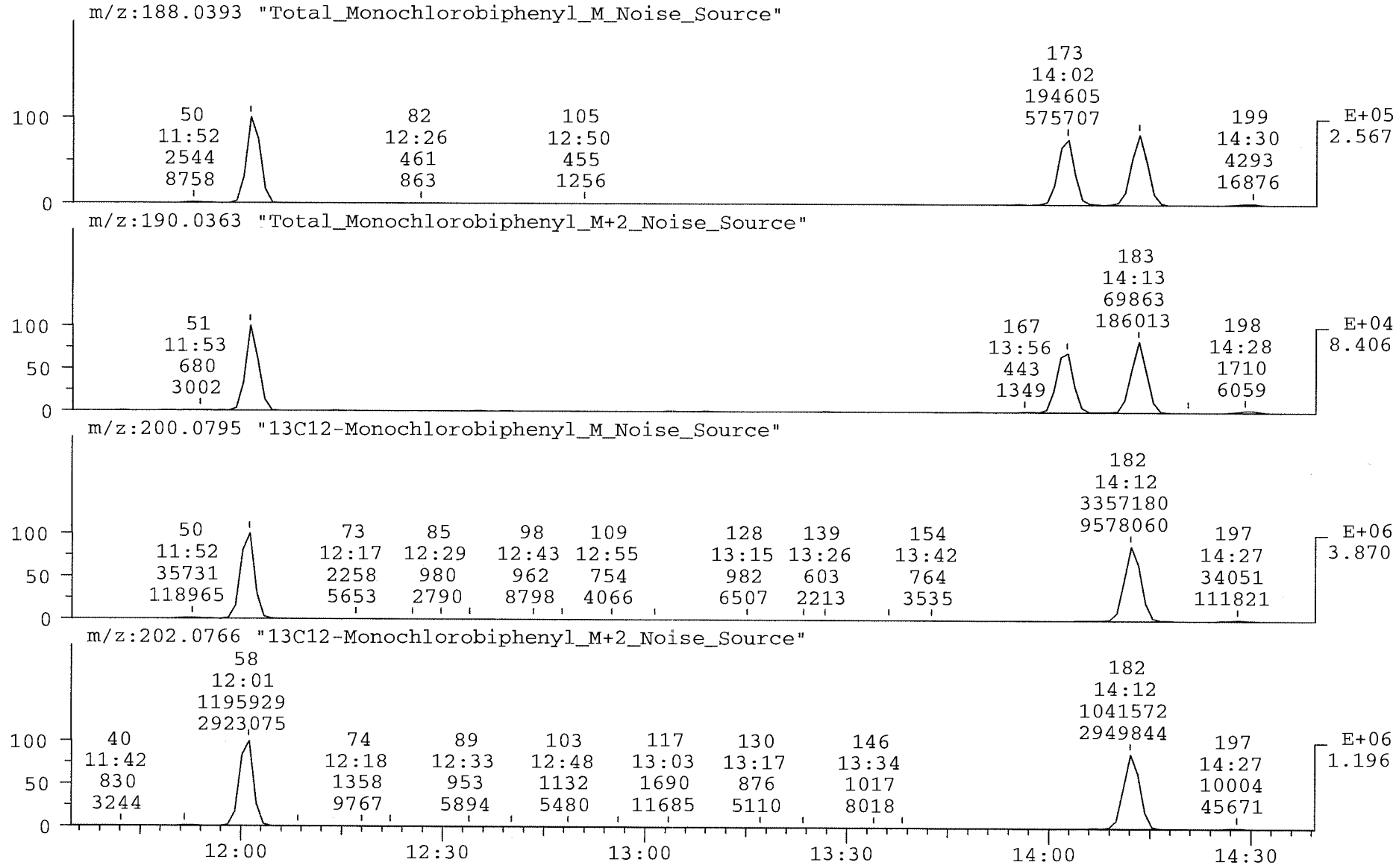
CHRO: a080624i2 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2 > 2598 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int Stds 7-708
Calib Stds 7.708
7/8/08



H-1593

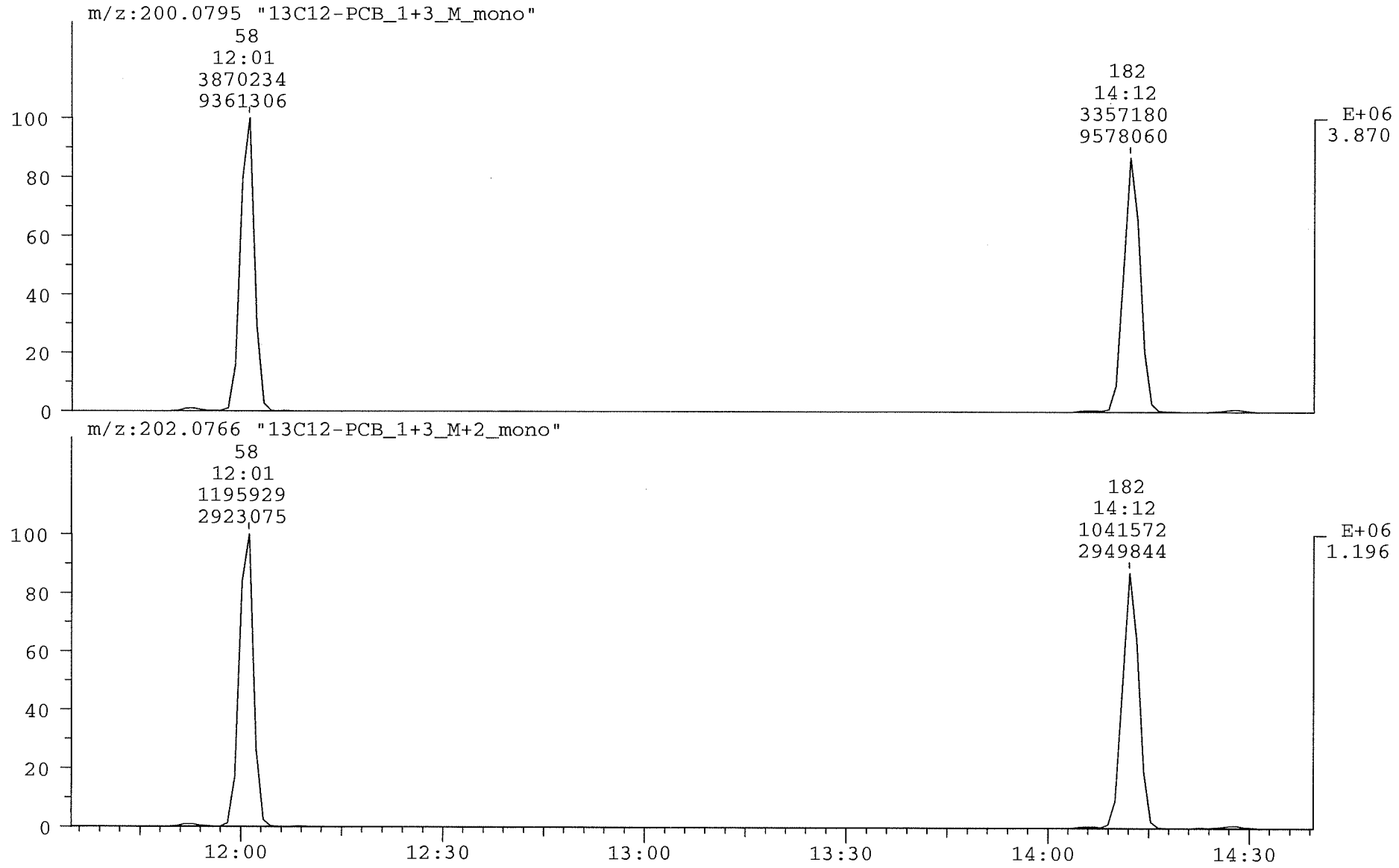
CHRO: a080624i2 24-Jun-08 Elapse: 13:20.3 133
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1594

1593

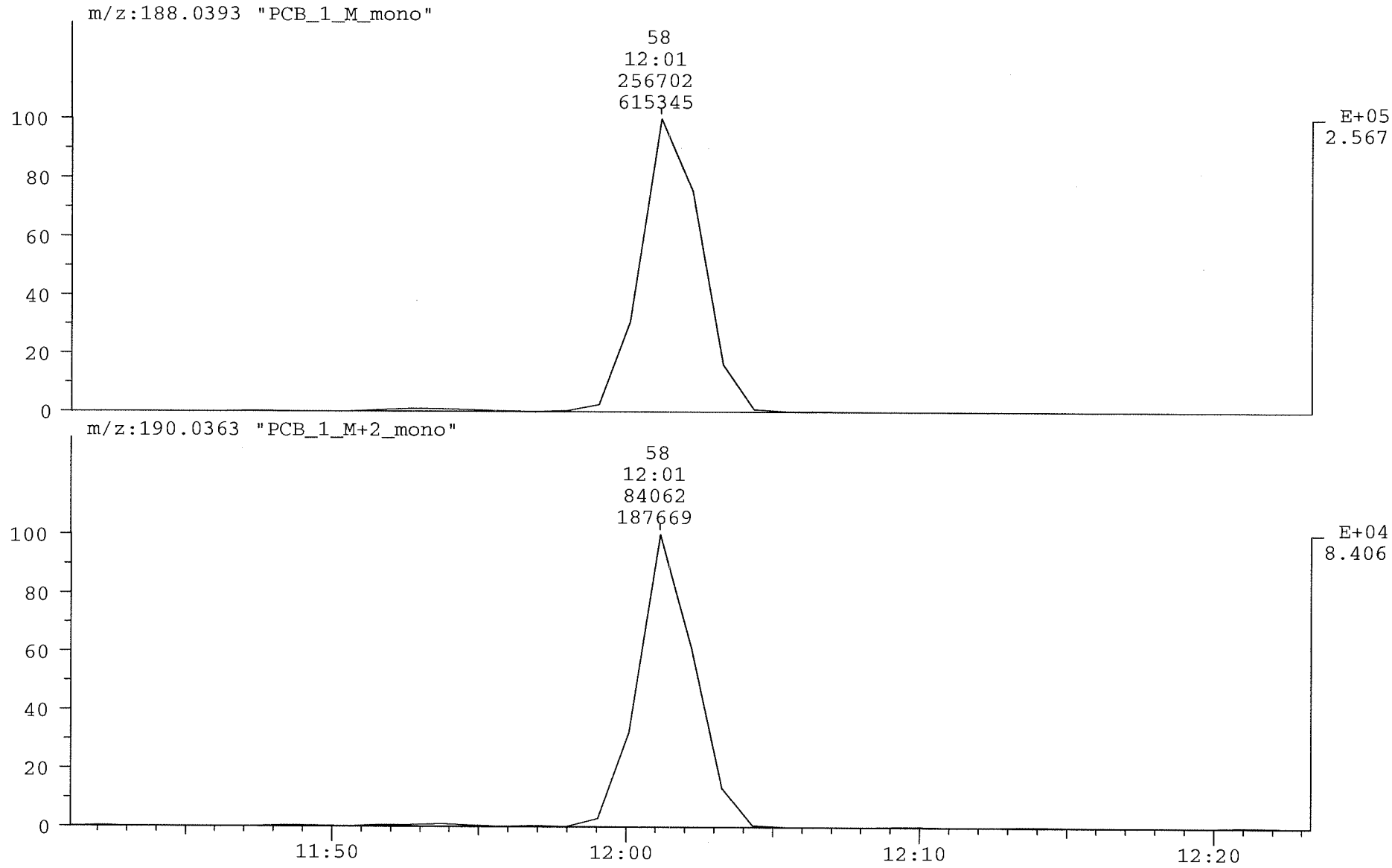
CHRO: a080624i2 24-Jun-08 Elapse: 13:20.3 133
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1595

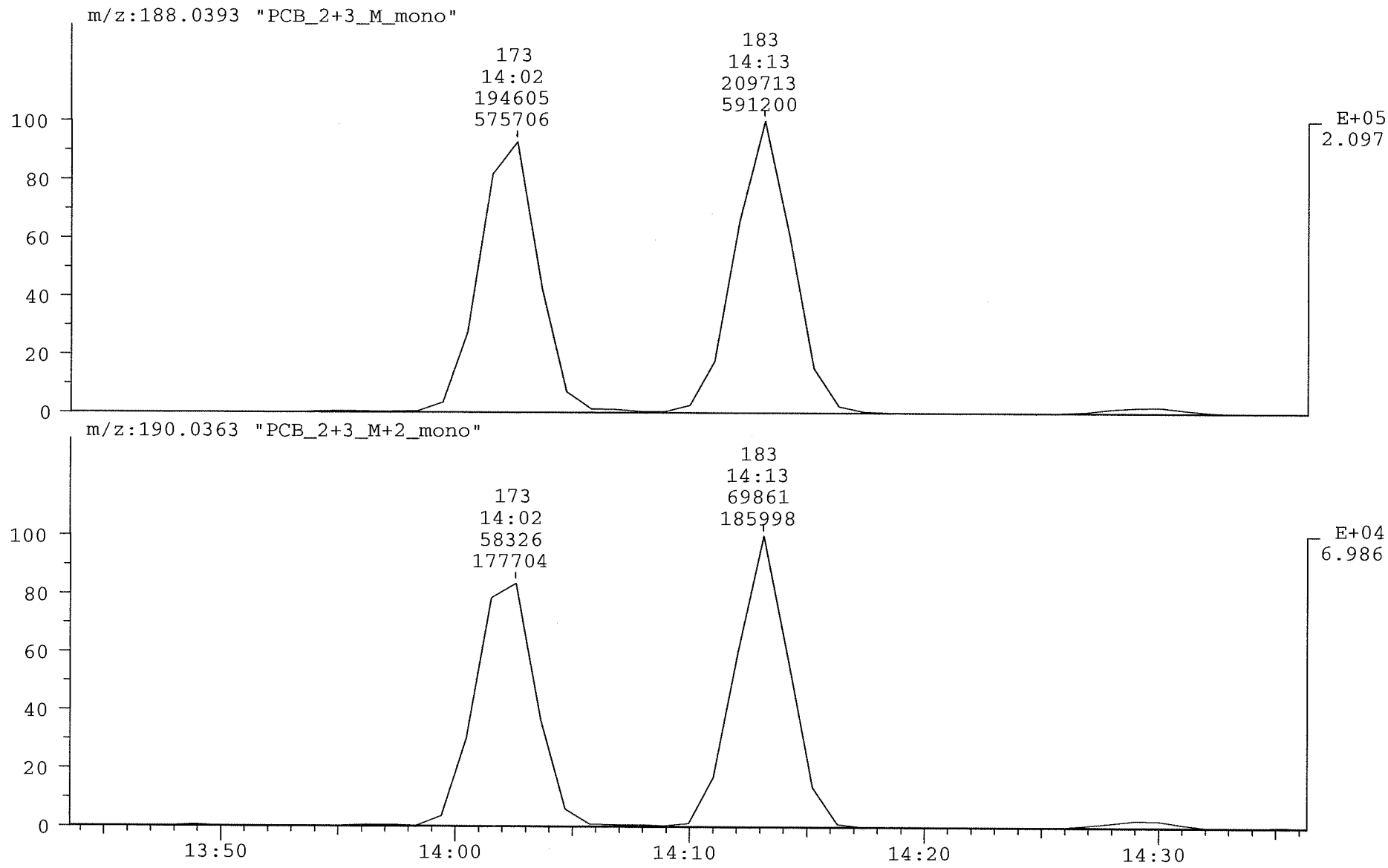
1594

CHRO: a080624i2 24-Jun-08 Elapse: 12:02.2 59
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 39 > 79 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1596

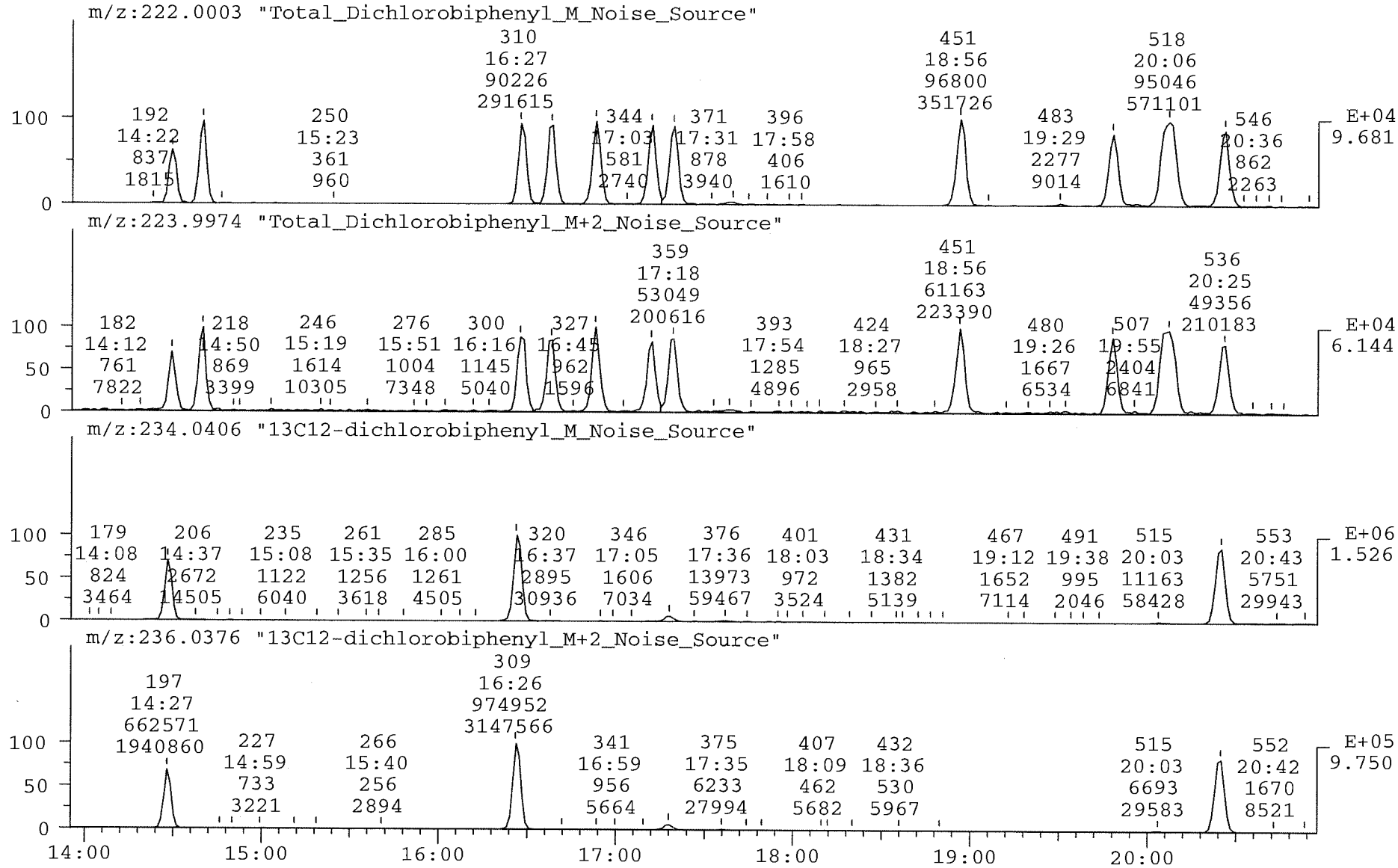
CHRO: a080624i2 24-Jun-08 Elapse: 14:09.9 180
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 155 > 205 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1597

1596

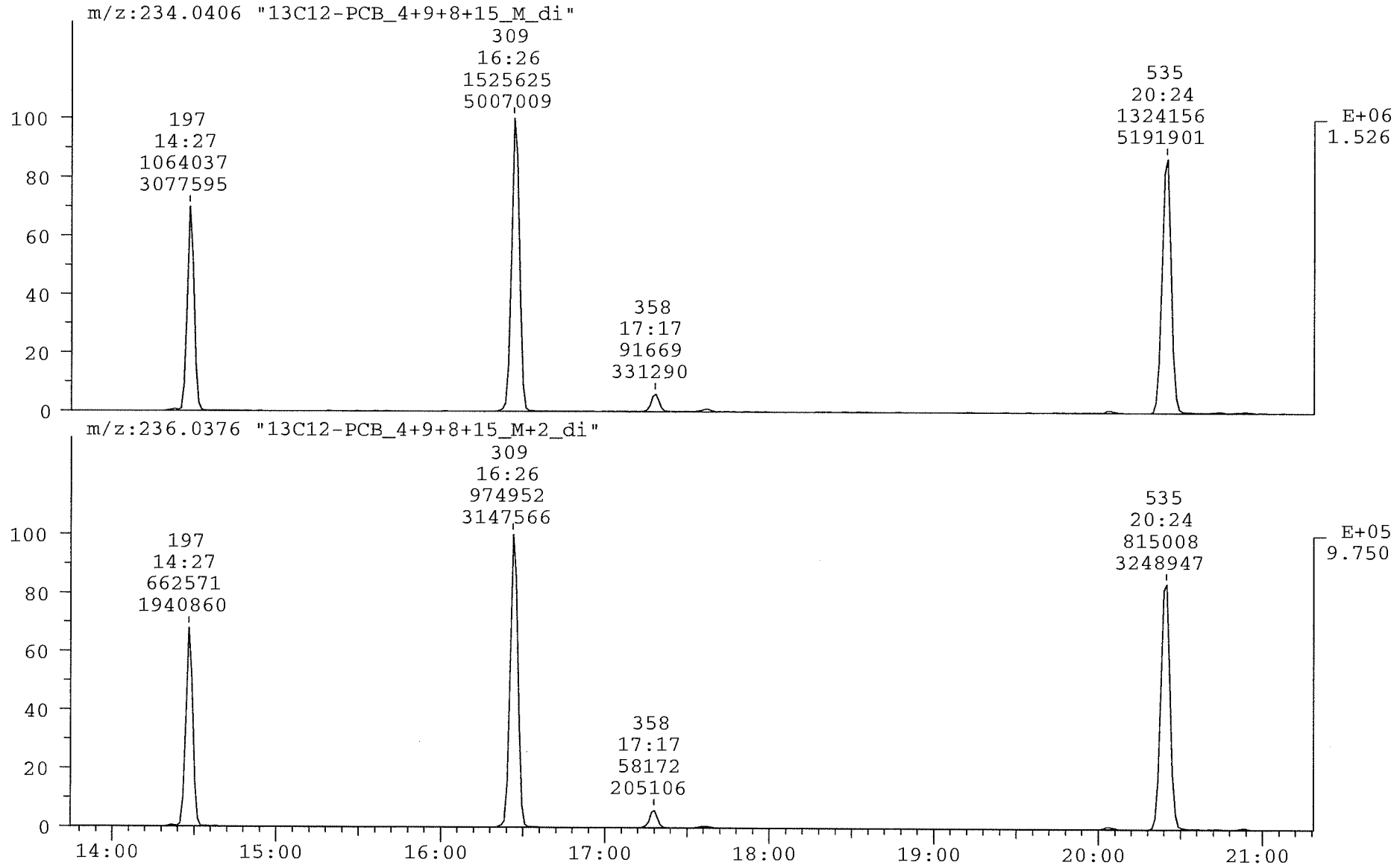
CHRO: a080624i2 24-Jun-08 Elapse: 17:26.3 366
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1598

1597

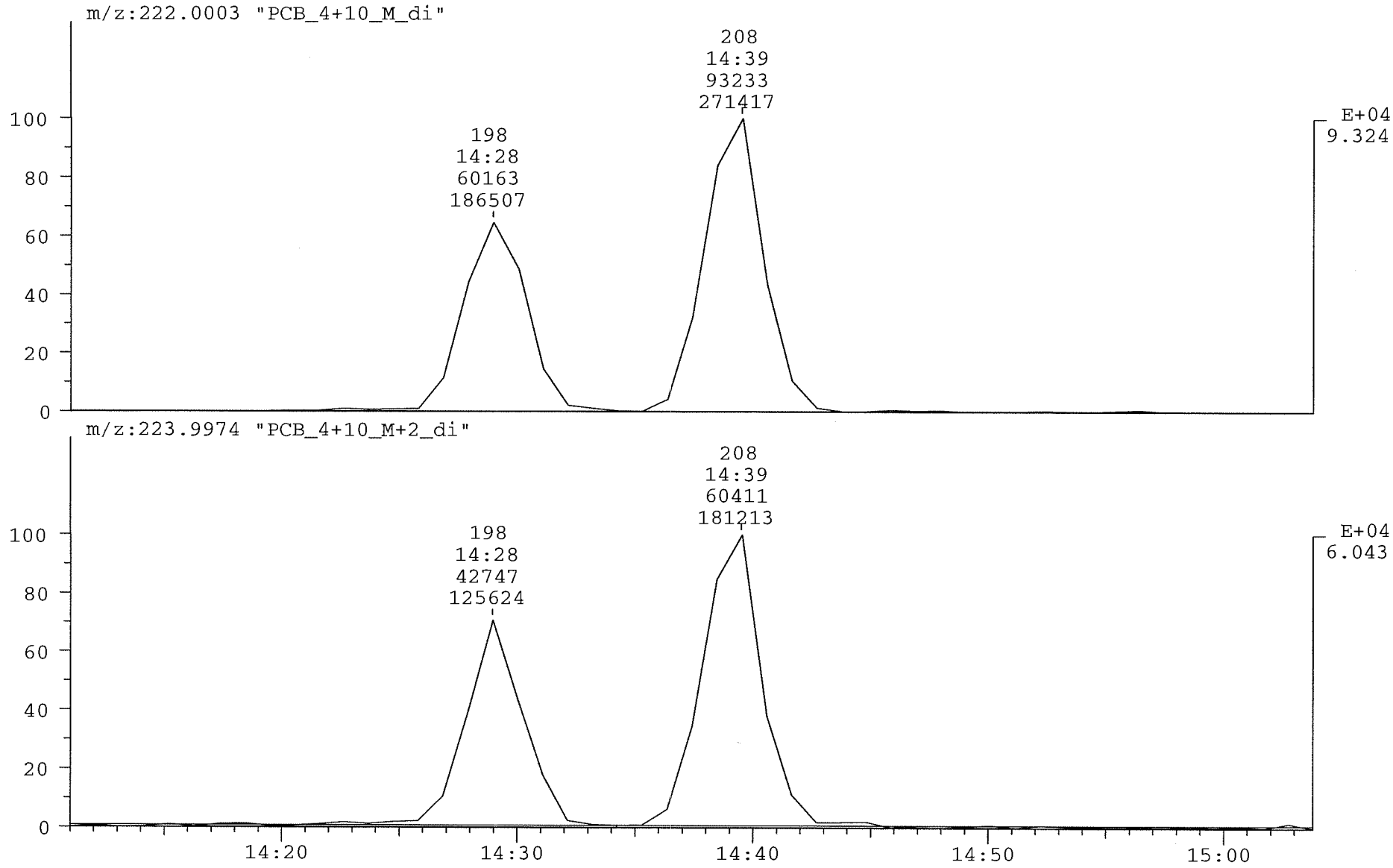
CHRO: a080624i2 24-Jun-08 Elapse: 17:26.3 366
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1599

1598

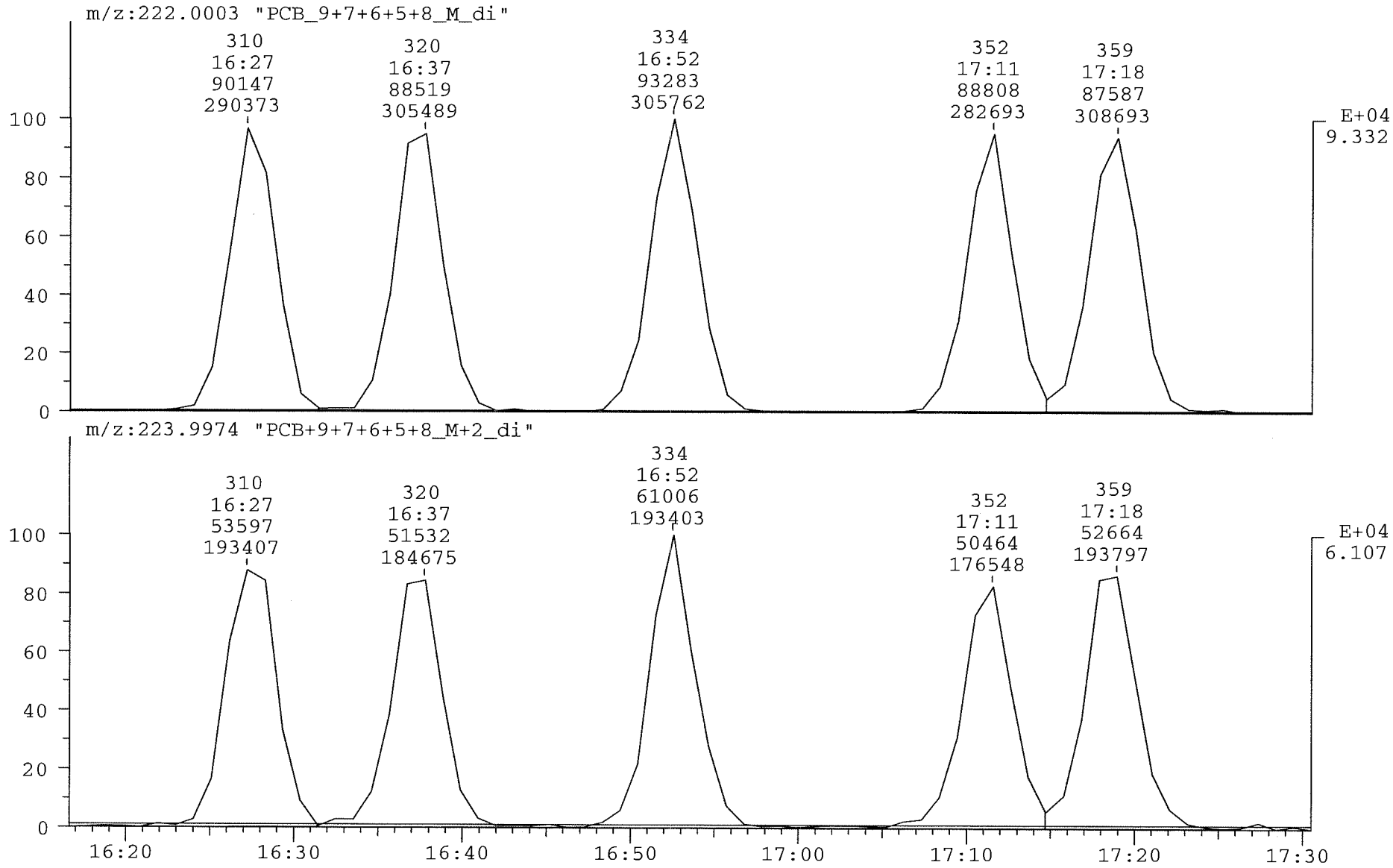
CHRO: a080624i2 24-Jun-08 Elapse: 14:37.4 206
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 181 > 231 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1600

1599

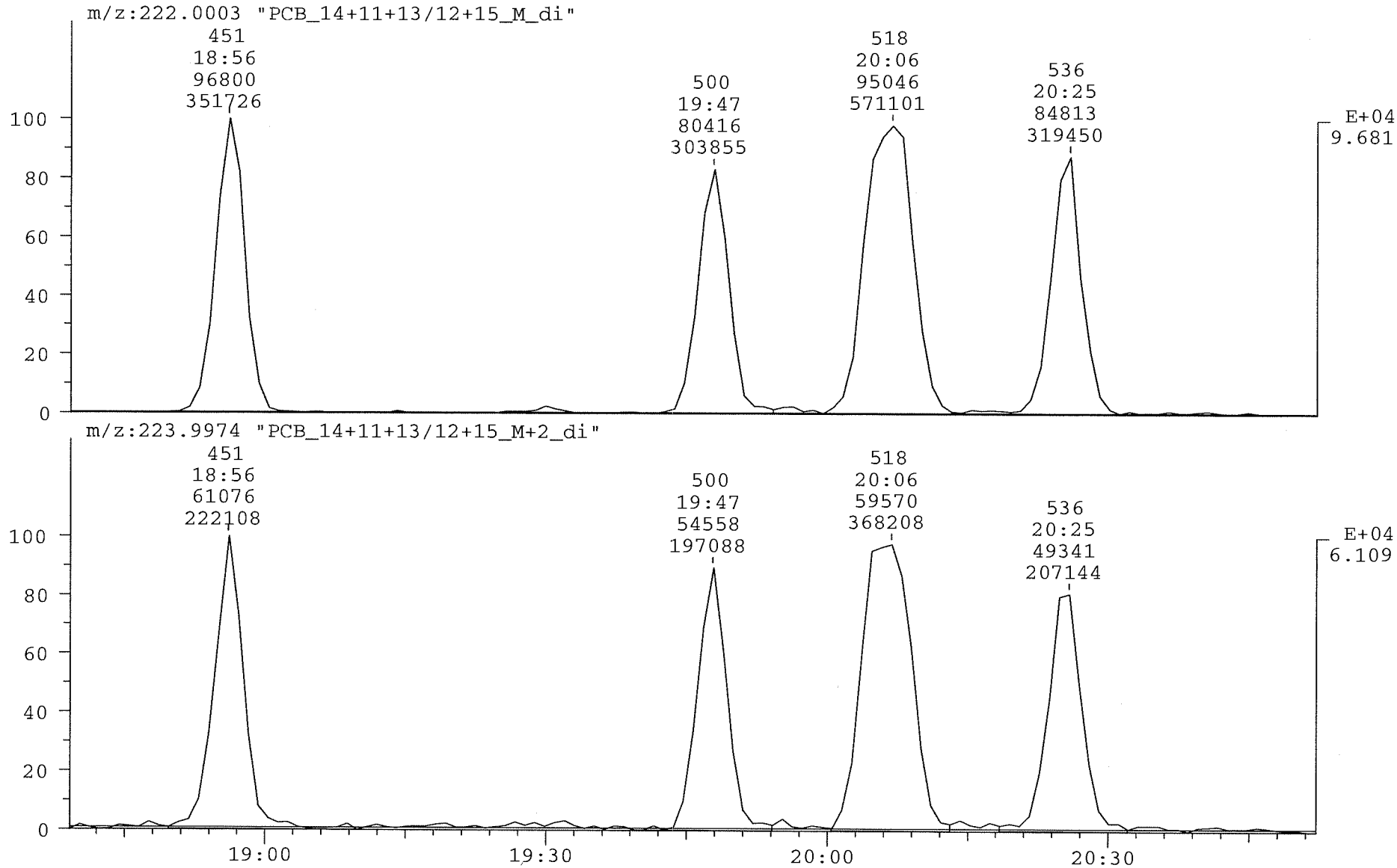
CHRO: a080624i2 24-Jun-08 Elapse: 16:55.7 337
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 300 > 370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1601

1600

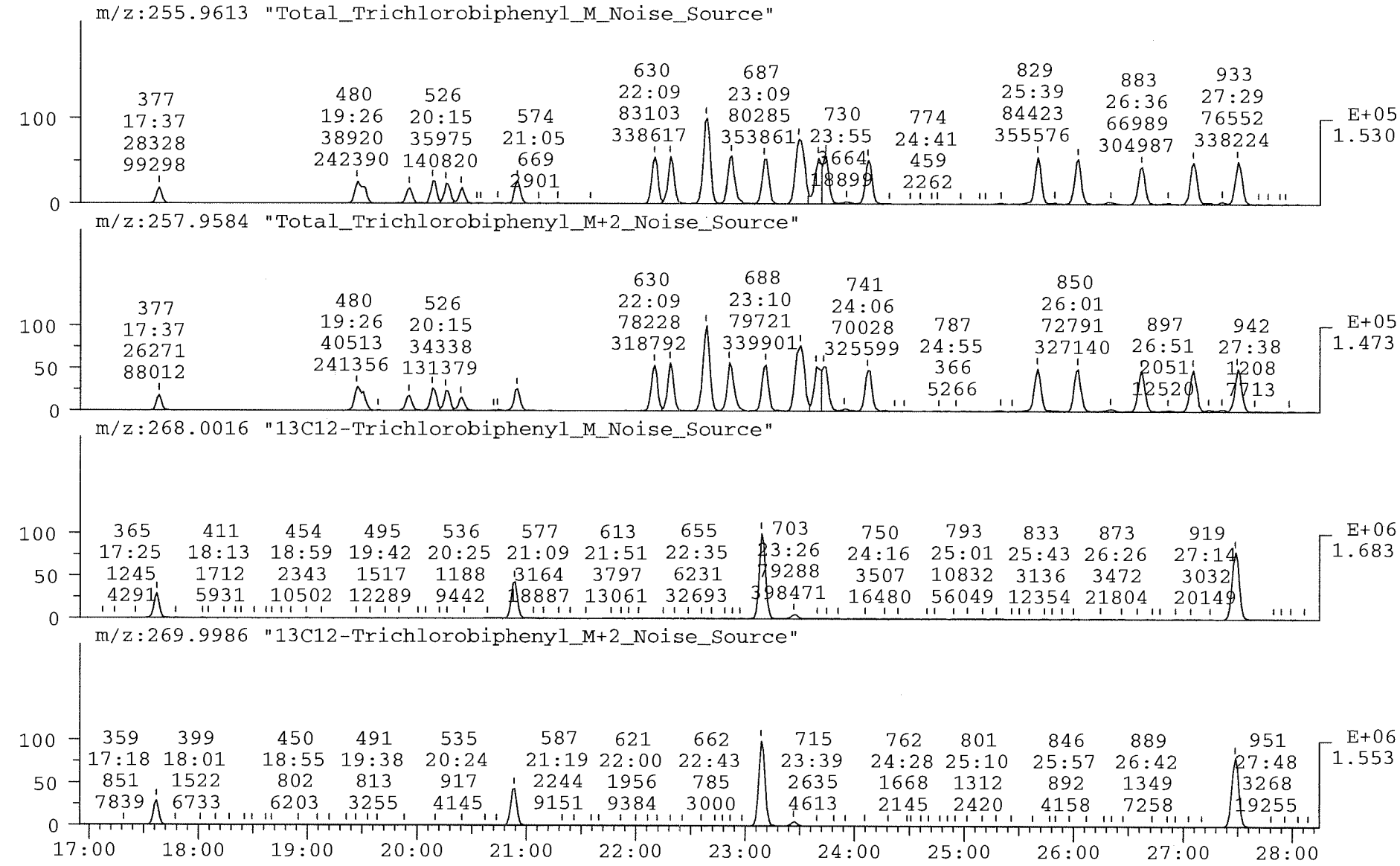
CHRO: a080624i2 24-Jun-08 Elapse: 19:40.4 493
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 435 > 561 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1602

1601

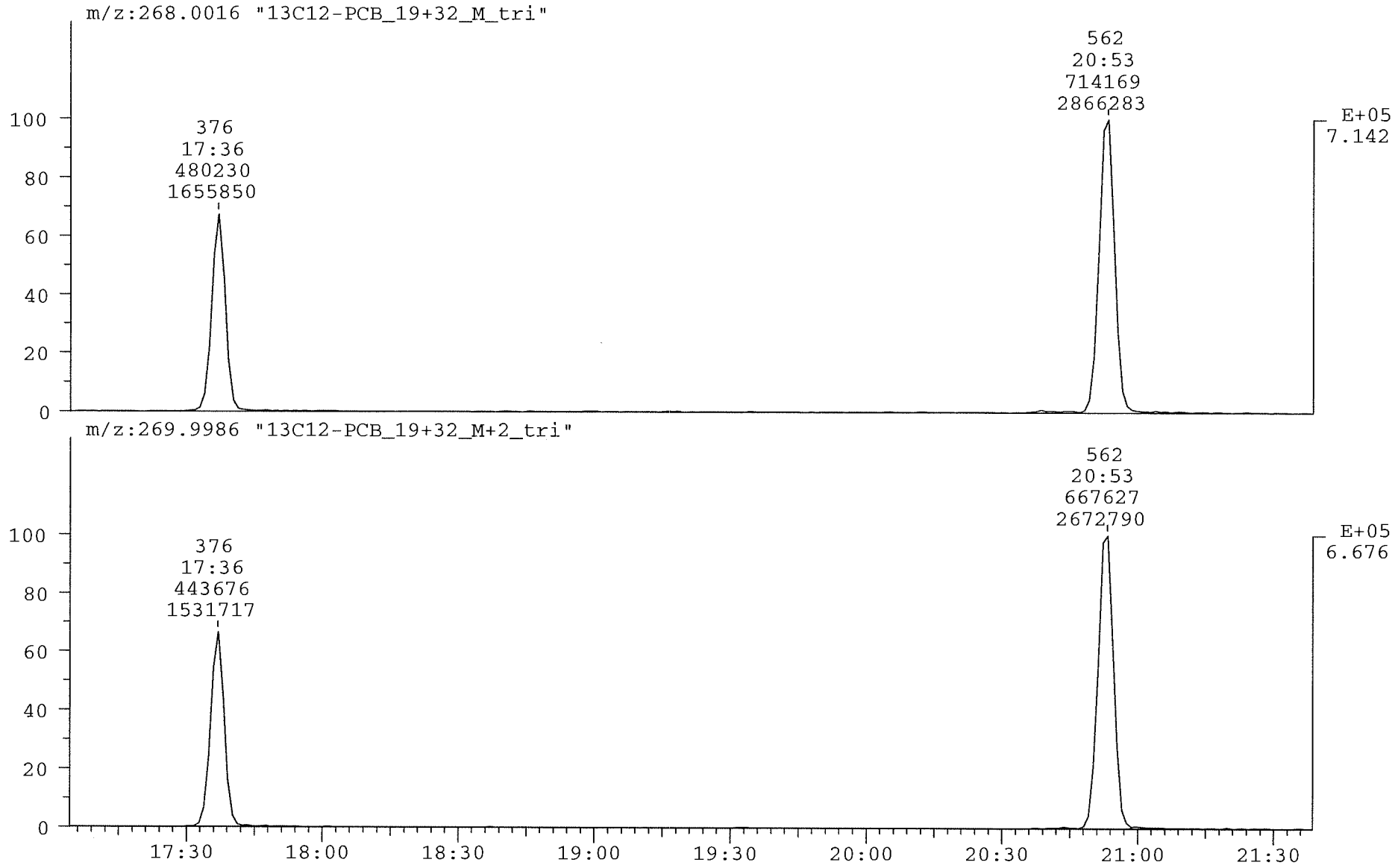
CHRO: a080624i2 24-Jun-08 Elapse: 22:37.9 656
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1603

1602

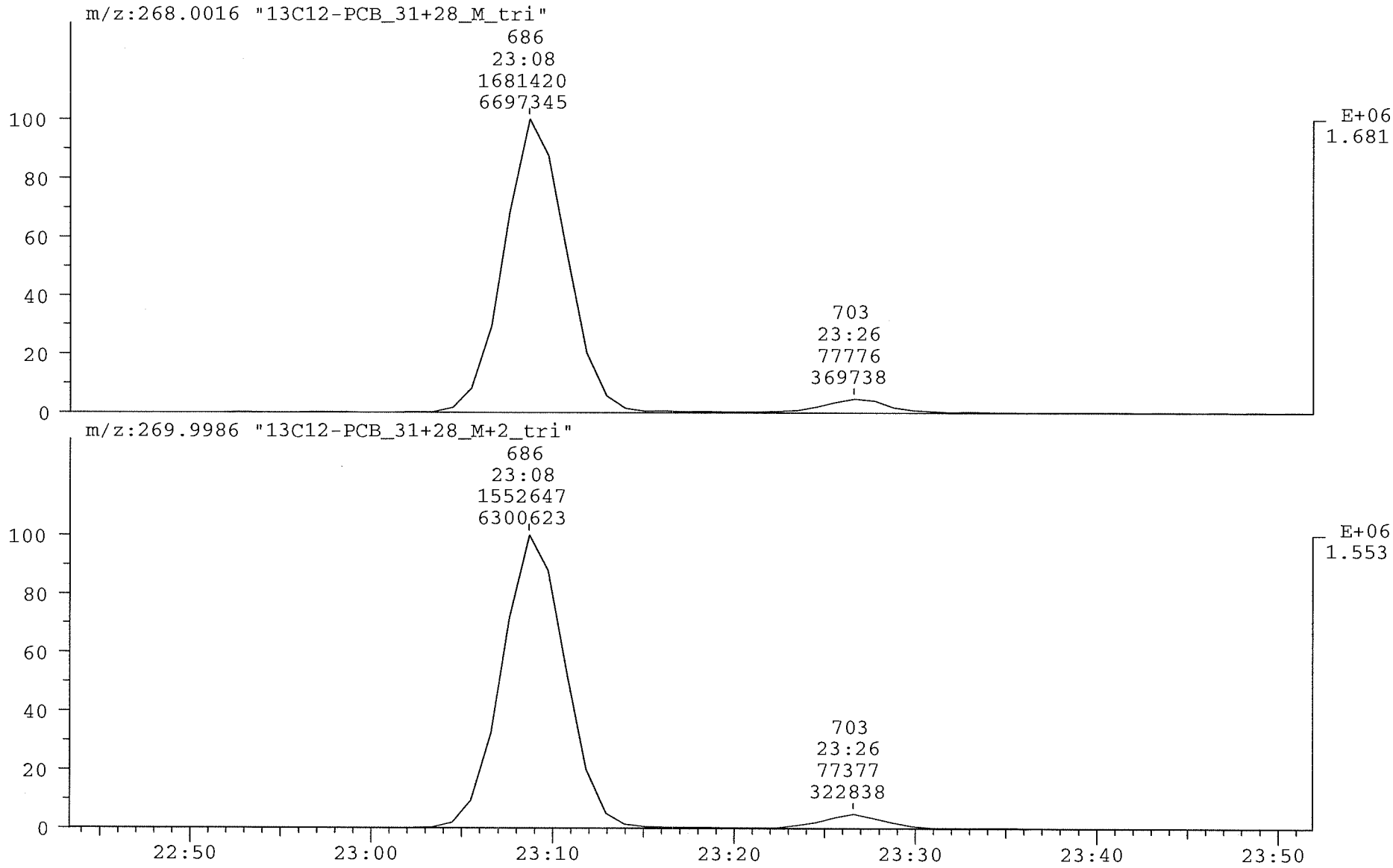
CHRO: a080624i2 24-Jun-08 Elapse: 19:00.2 455
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 345 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1604

1603

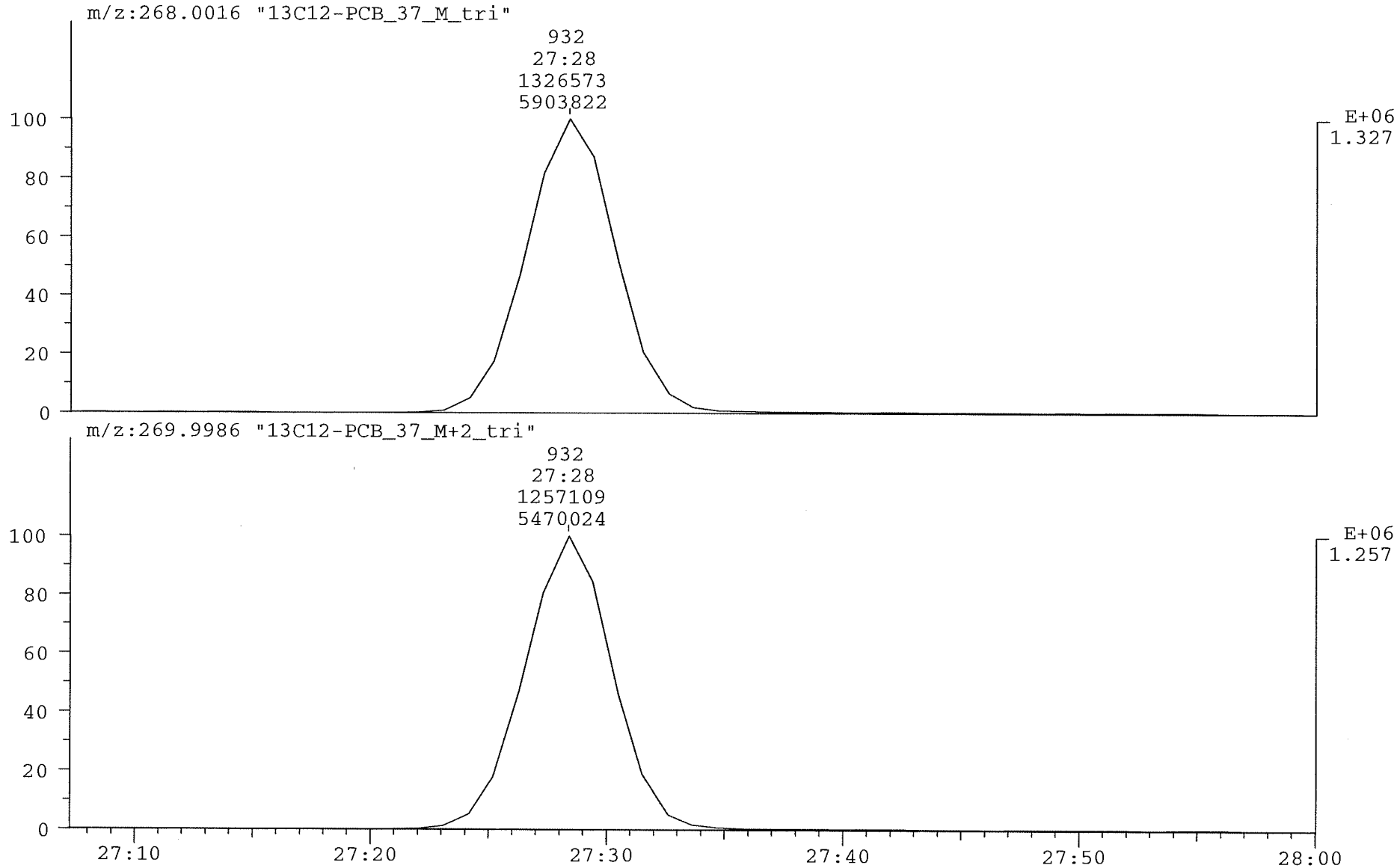
CHRO: a080624i2 24-Jun-08 Elapse: 23:09.7 687
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1605

1604

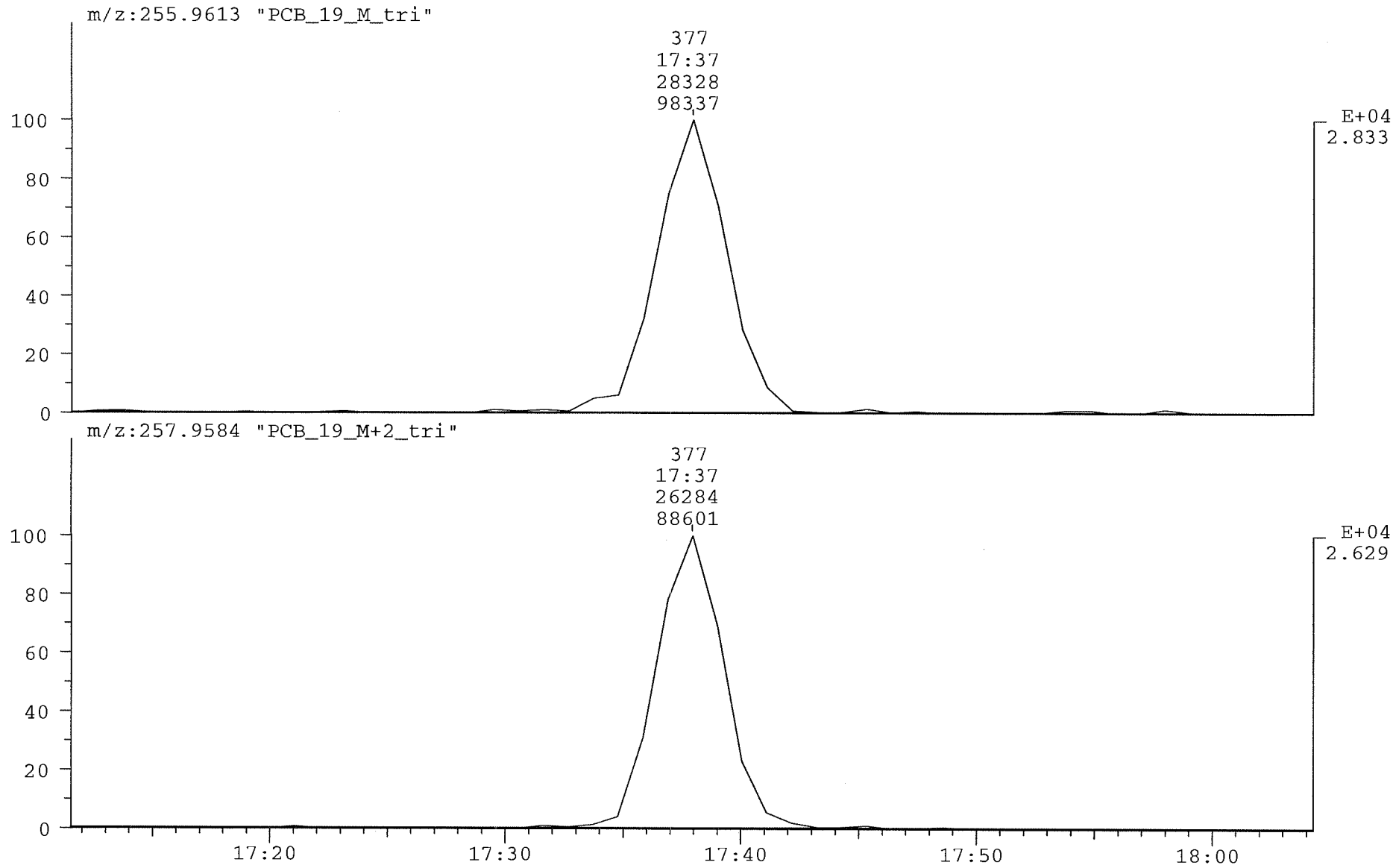
CHRO: a080624i2 24-Jun-08 Elapse: 27:28.4 932
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 912 > 962 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1606

1605

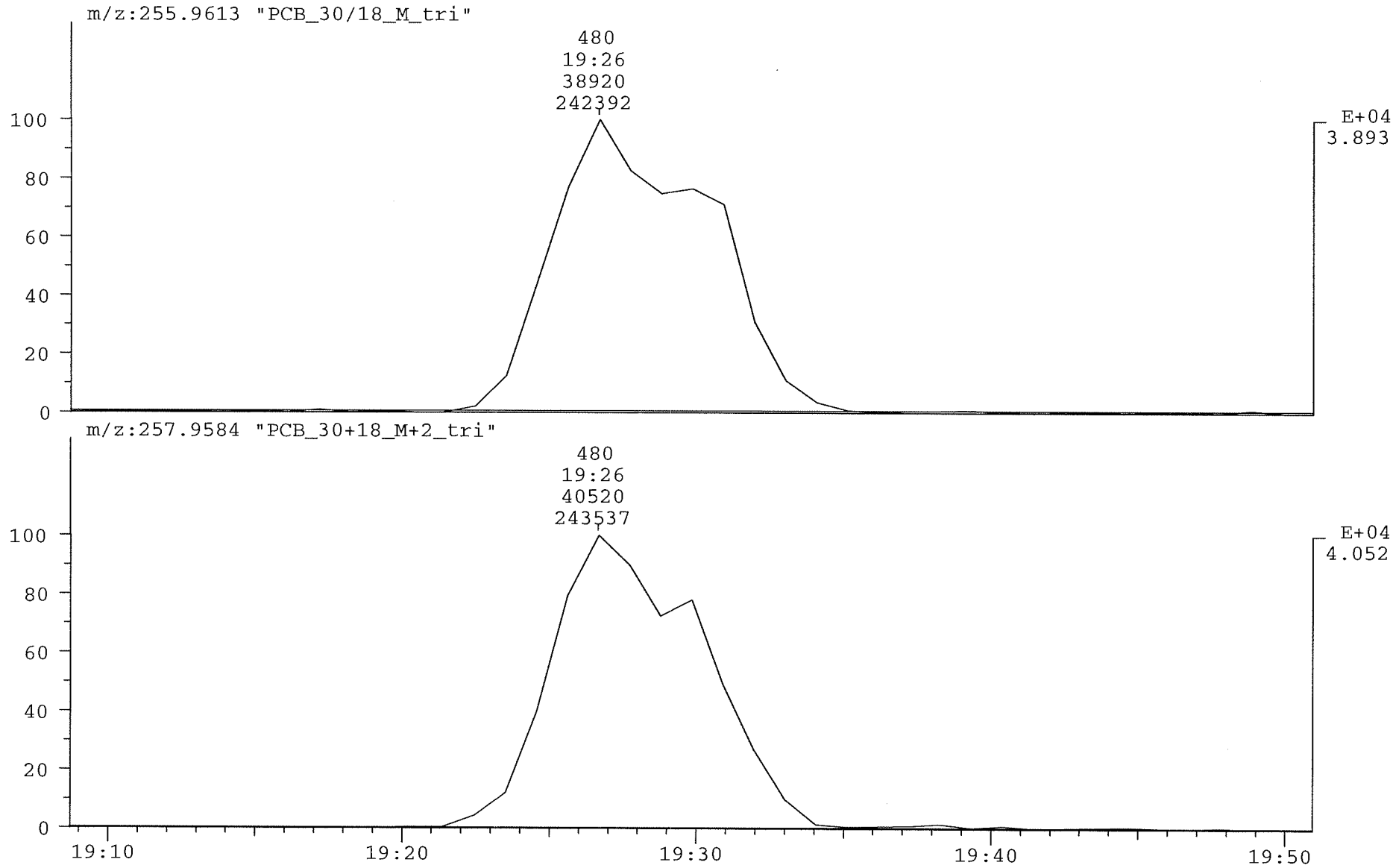
CHRO: a080624i2 24-Jun-08 Elapse: 17:37.9 377
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 352 > 402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1607

1606

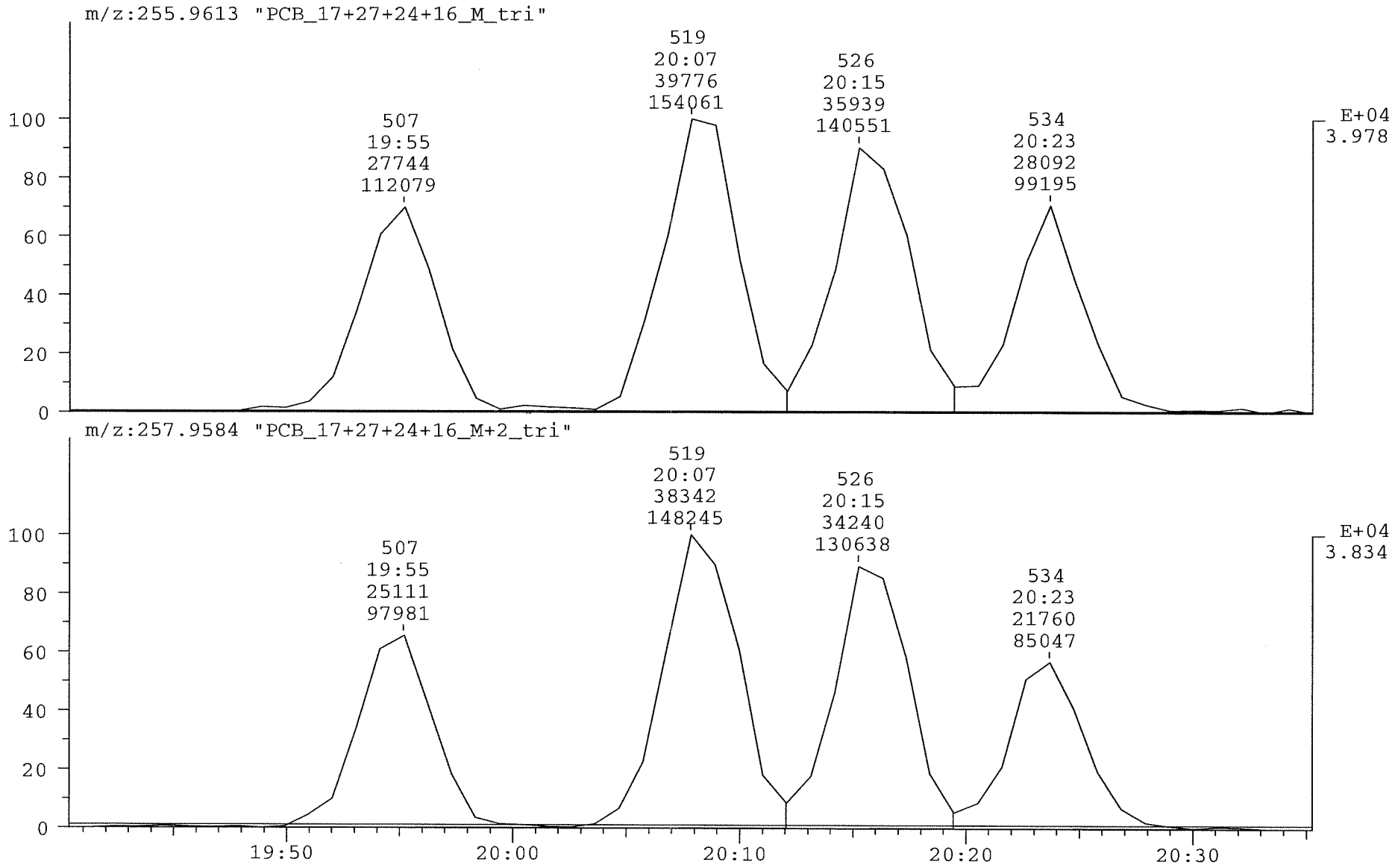
CHRO: a080624i2 24-Jun-08 Elapse: 19:29.8 483
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 463 > 503 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1608

1607

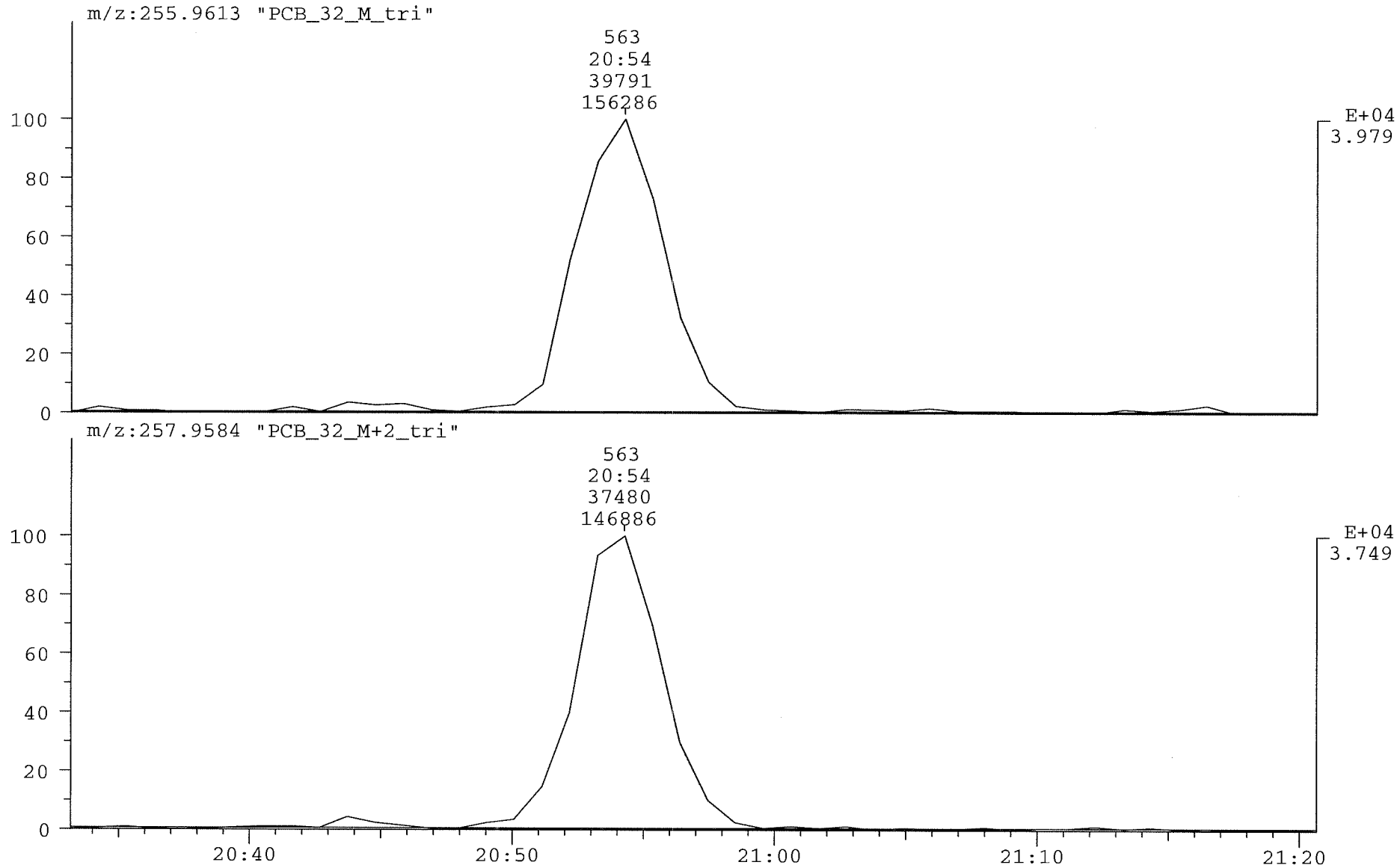
CHRO: a080624i2 24-Jun-08 Elapse: 20:08.9 520
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 493 > 545 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1609

1608

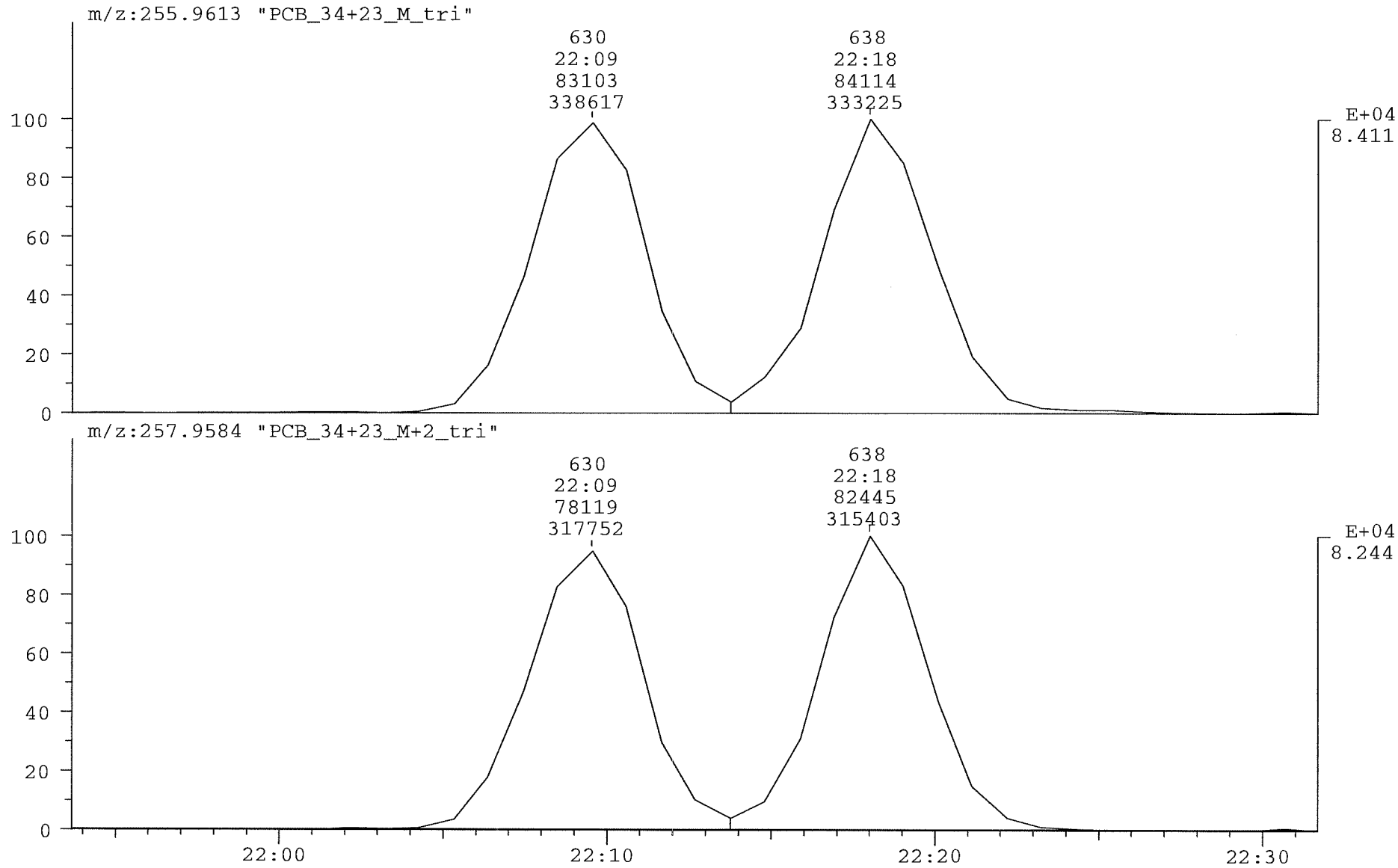
CHRO: a080624i2 24-Jun-08 Elapse: 20:54.2 563
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 543 > 588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1610

1609

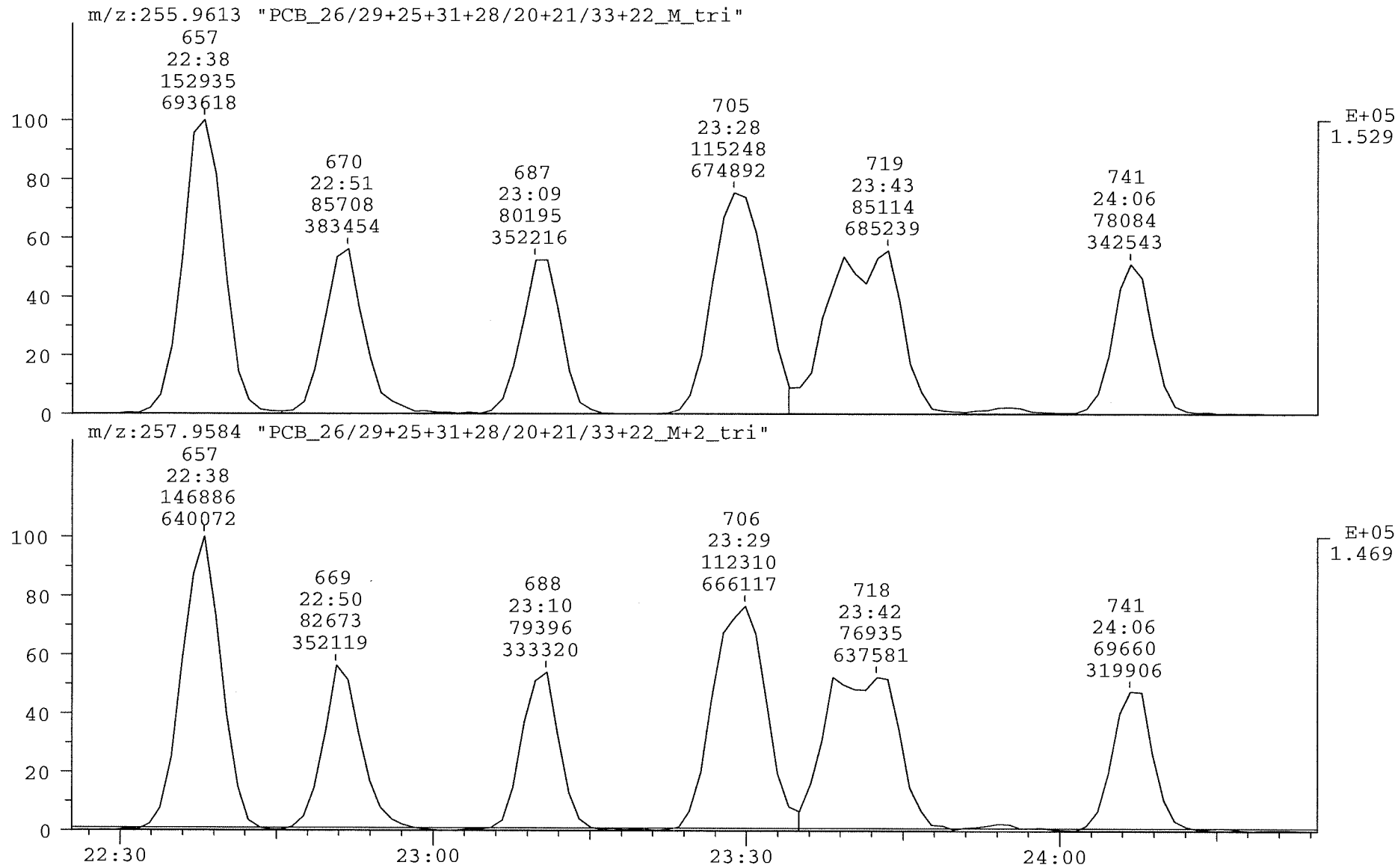
CHRO: a080624i2 24-Jun-08 Elapse: 22:09.5 630
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 615 > 651 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1611

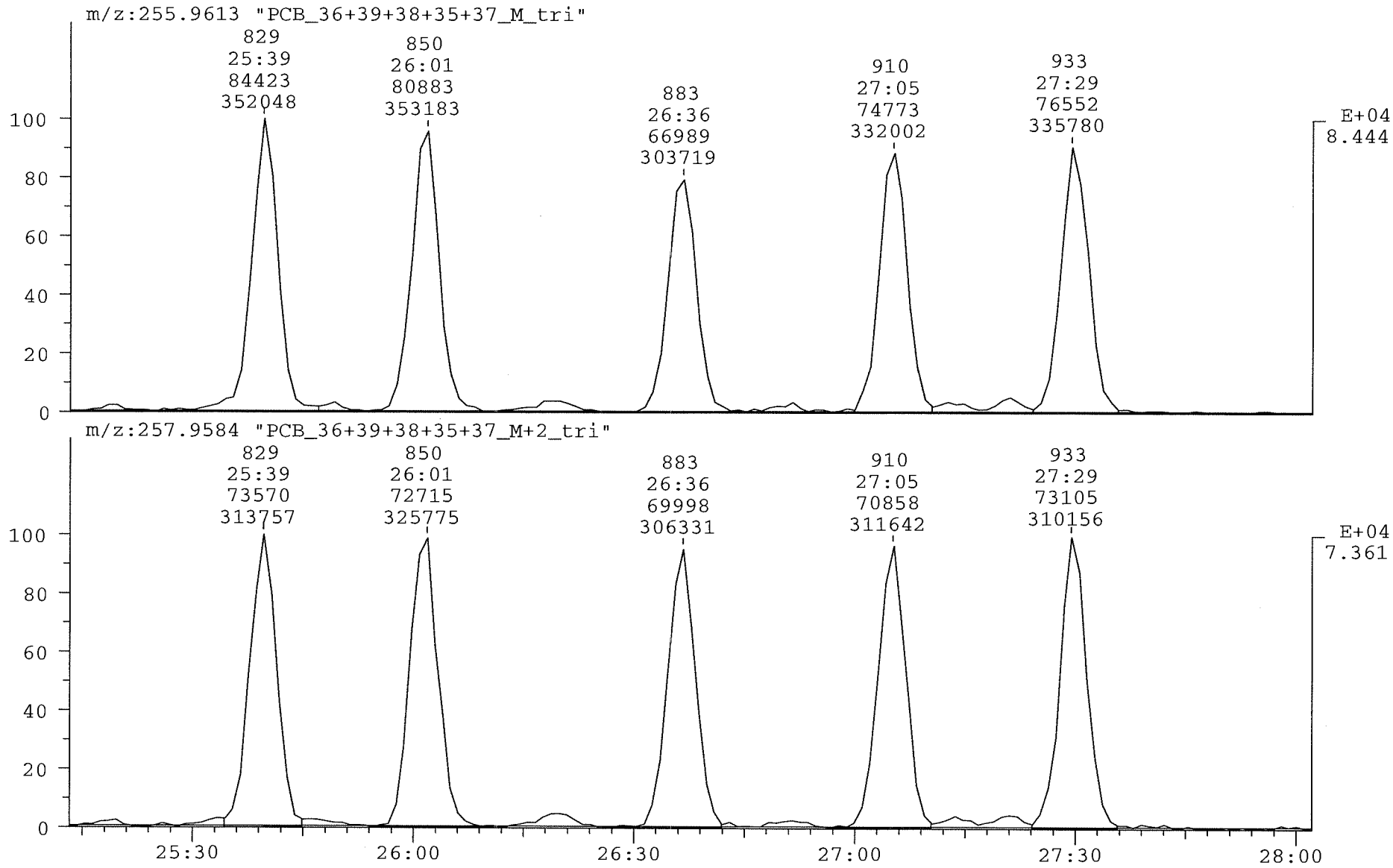
1610

CHRO: a080624i2 24-Jun-08 Elapse: 23:37.1 713
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 645 > 758 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1612

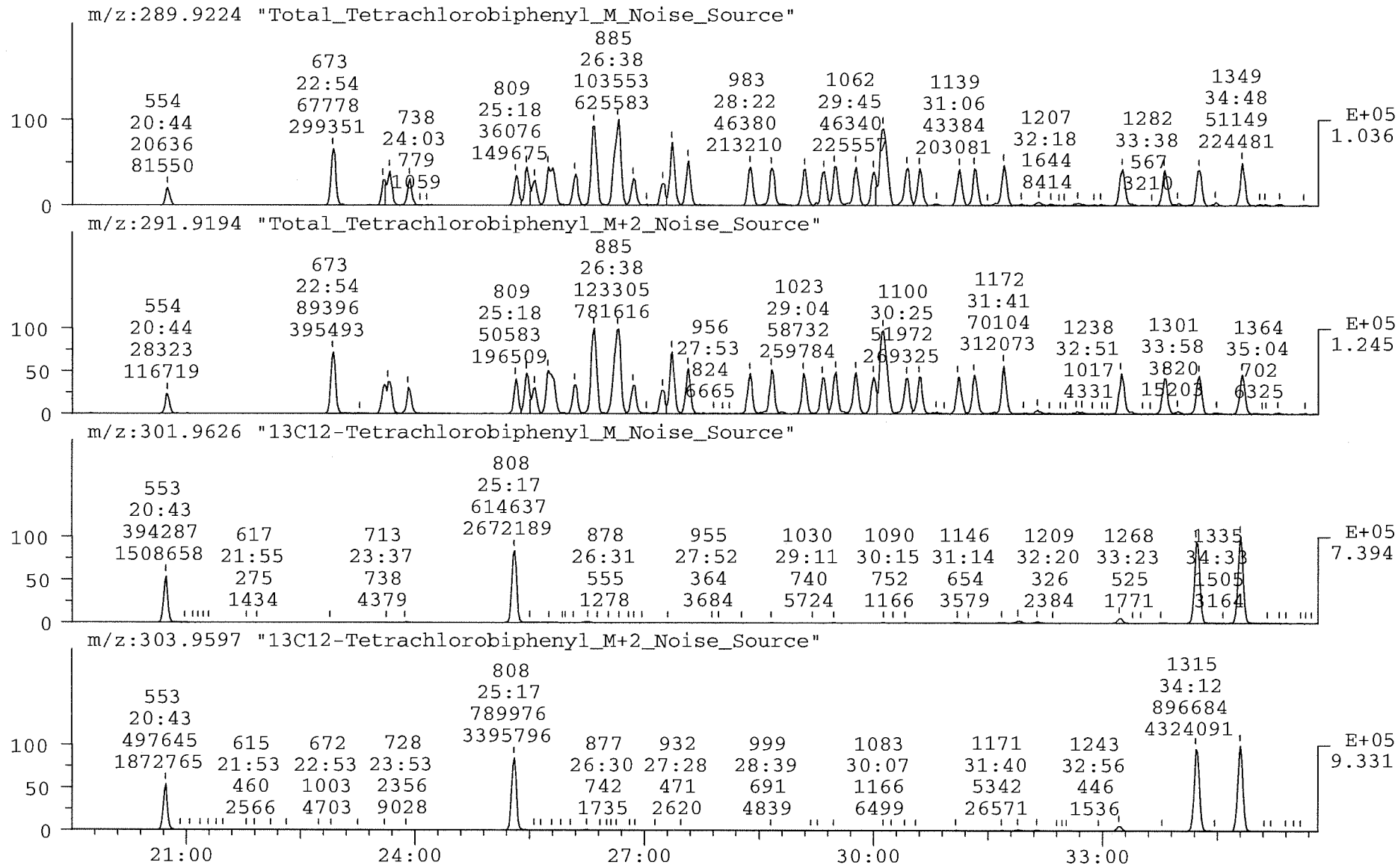
CHRO: a080624i2 24-Jun-08 Elapse: 26:37.7 884
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 804 > 964 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1613

1612

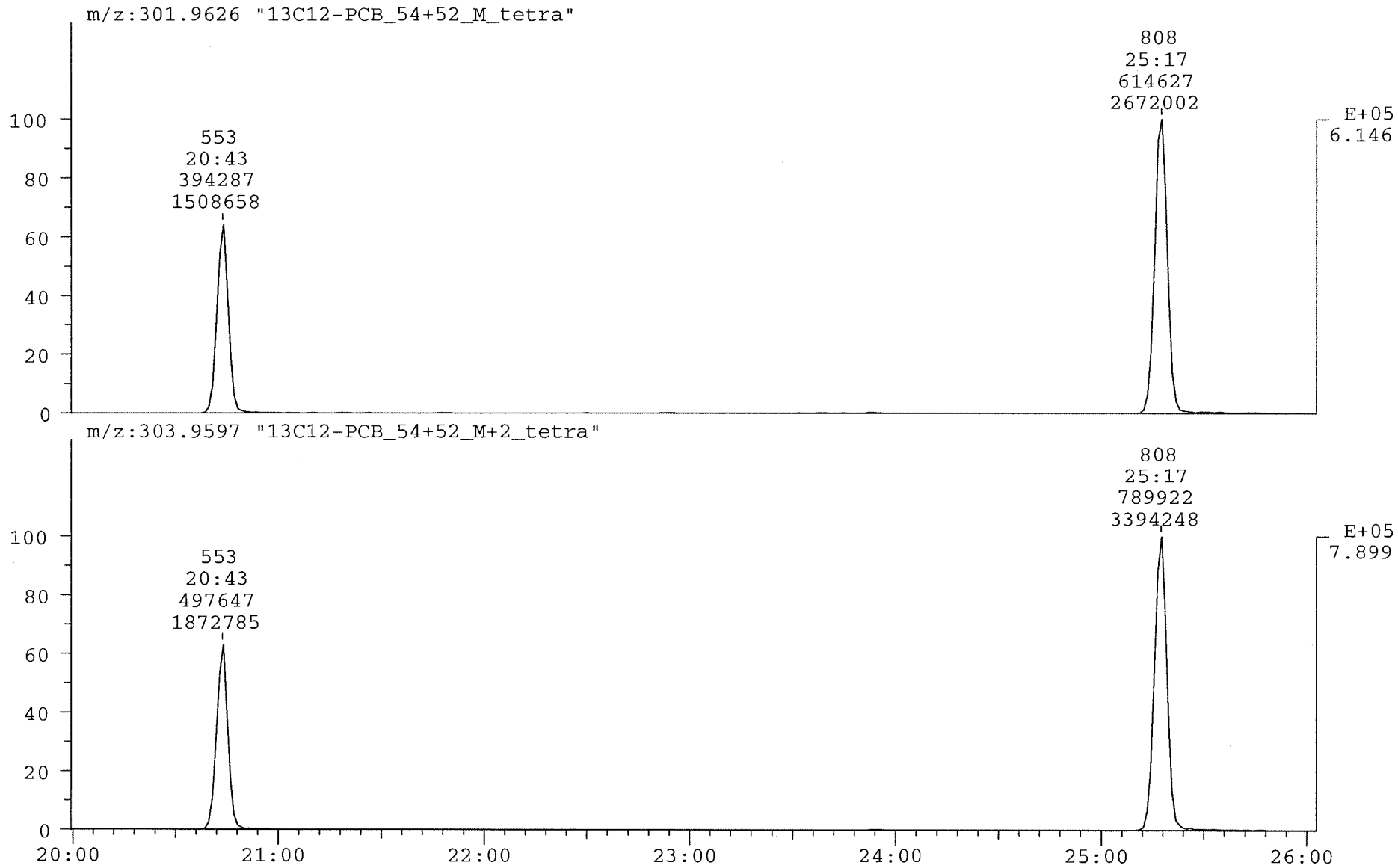
CHRO: a080624i2 24-Jun-08 Elapse: 27:38.9 942
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 483 > 1406 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1614

1613

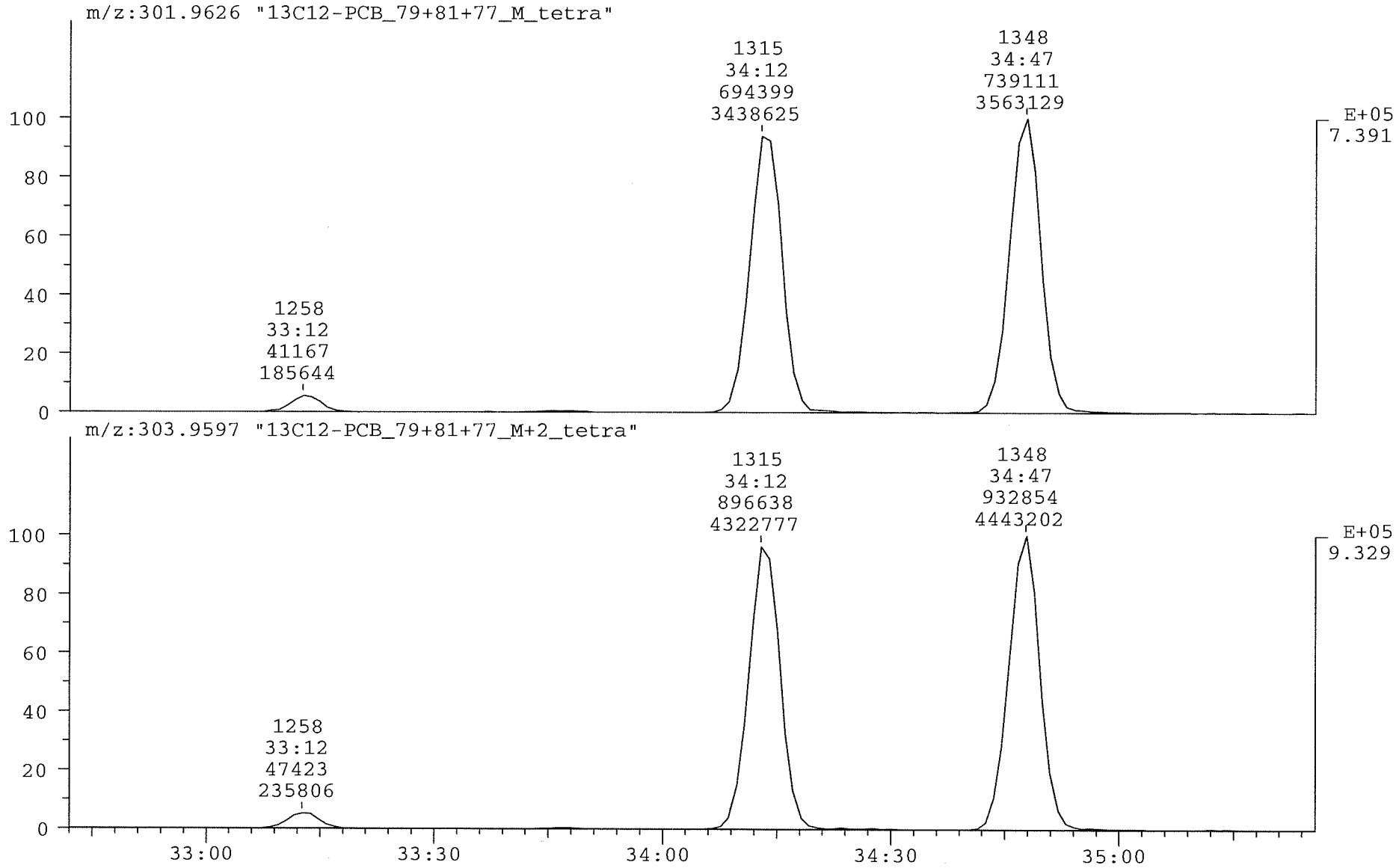
CHRO: a080624i2 24-Jun-08 Elapse: 23:03.3 681
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 511 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1615

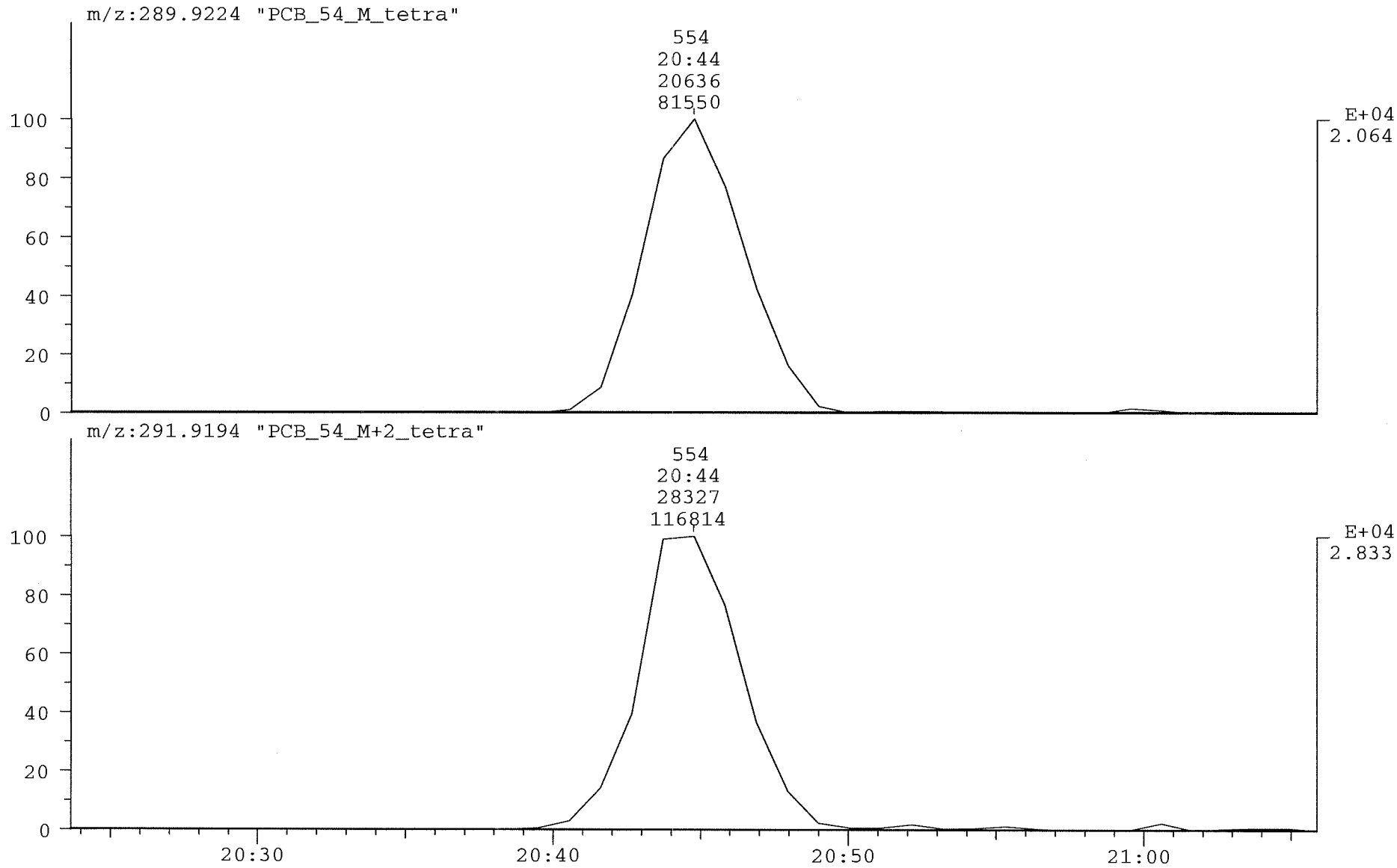
1614

CHRO: a080624i2 24-Jun-08 Elapse: 34:01 1304
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1229 > 1384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



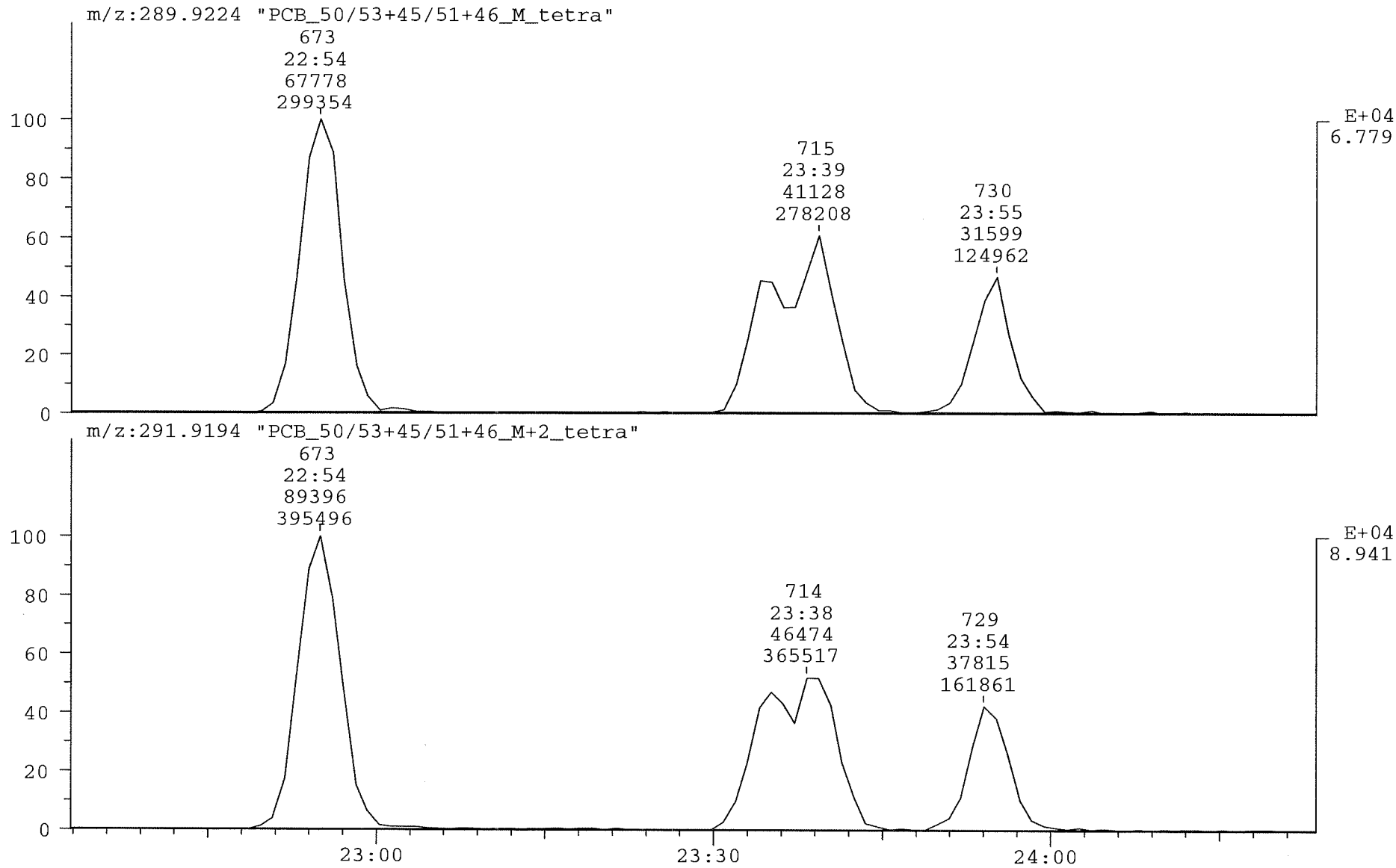
H-1616

CHRO: a080624i2 24-Jun-08 Elapse: 20:44.7 554
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 534 > 574 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1617

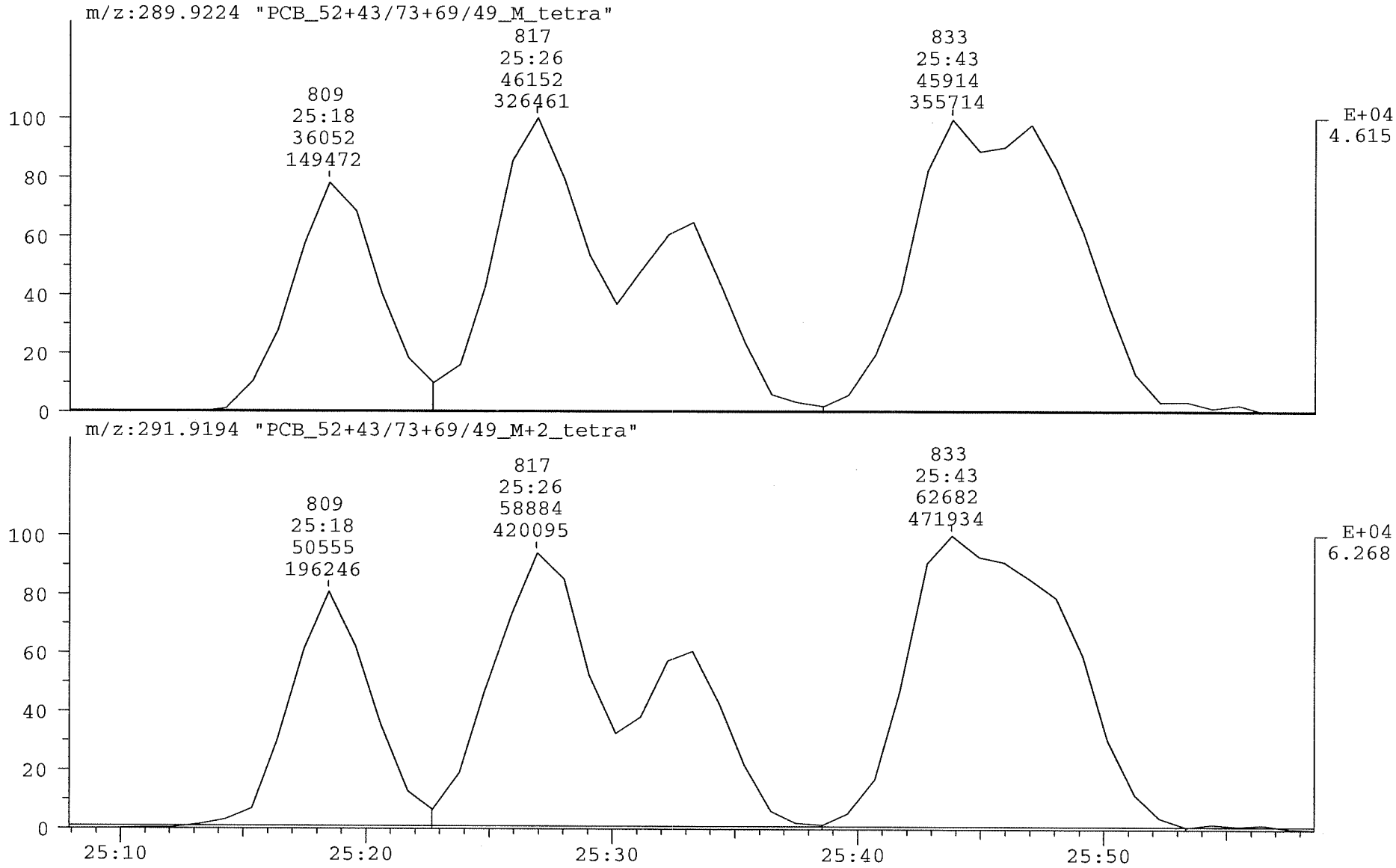
CHRO: a080624i2 24-Jun-08 Elapse: 23:30.8 707
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 652 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1618

1617

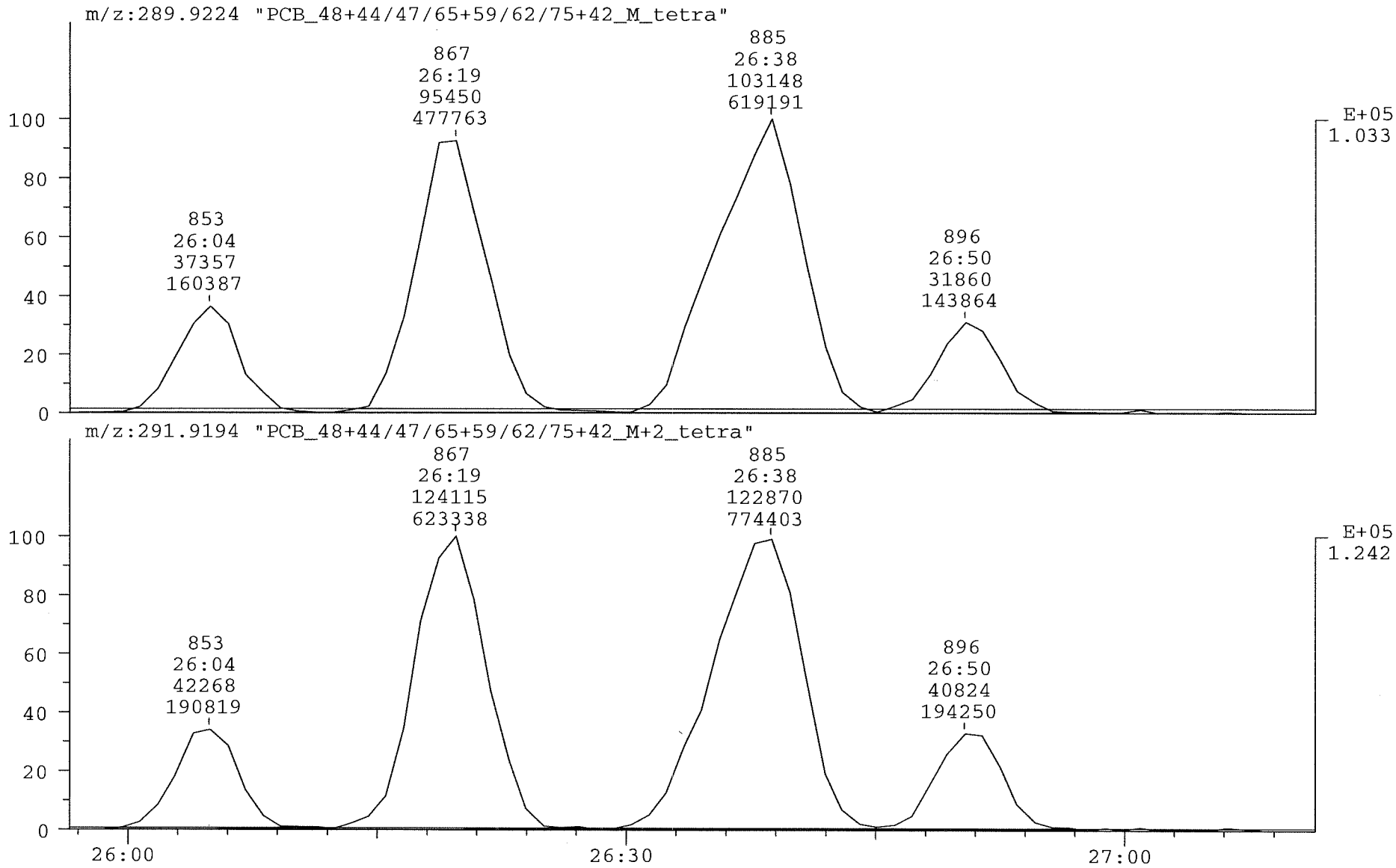
CHRO: a080624i2 24-Jun-08 Elapse: 25:37.4 827
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 799 > 847 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



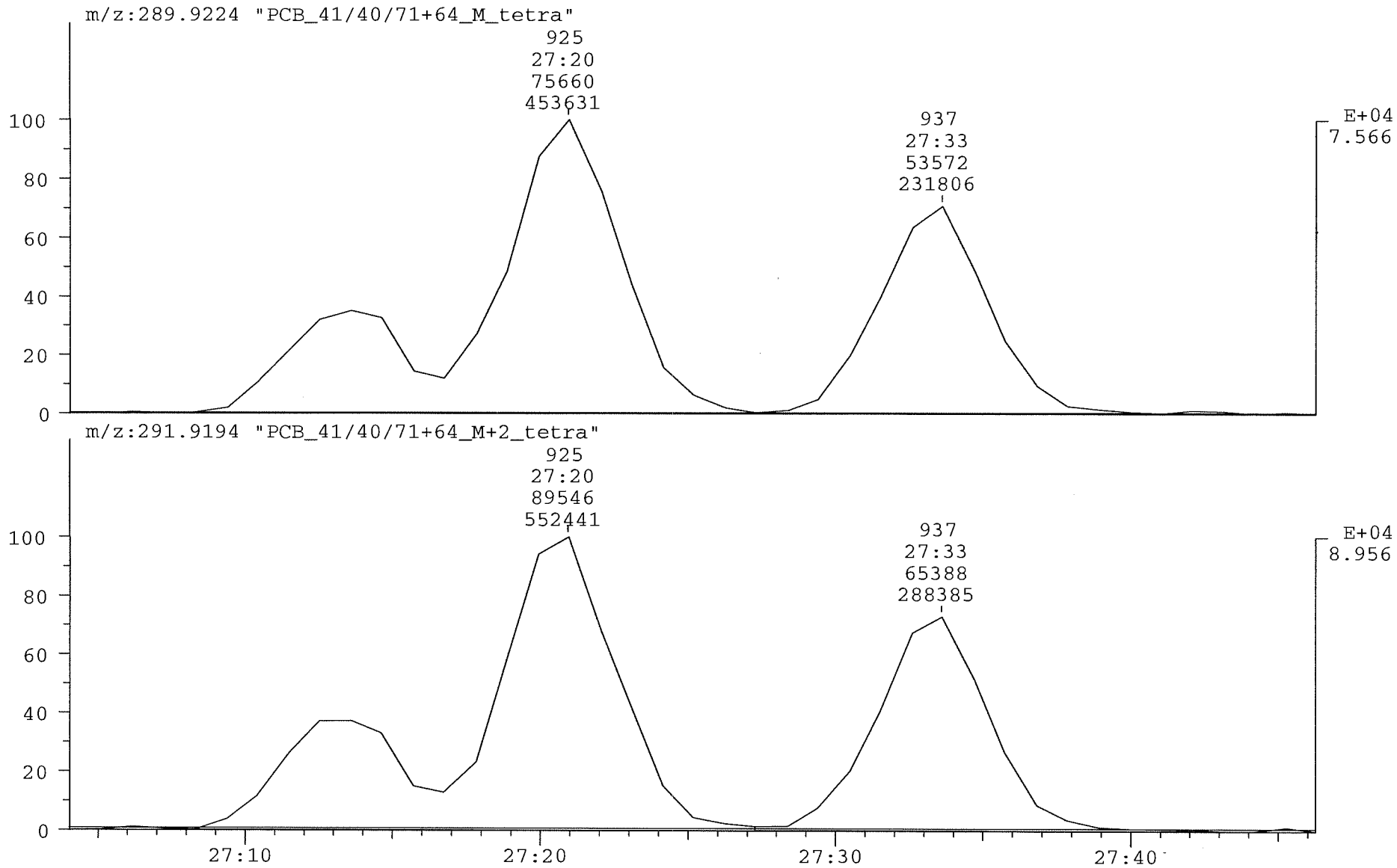
H-1619

1618

CHRO: a080624i2 24-Jun-08 Elapse: 26:30.2 877
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 845 > 916 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area

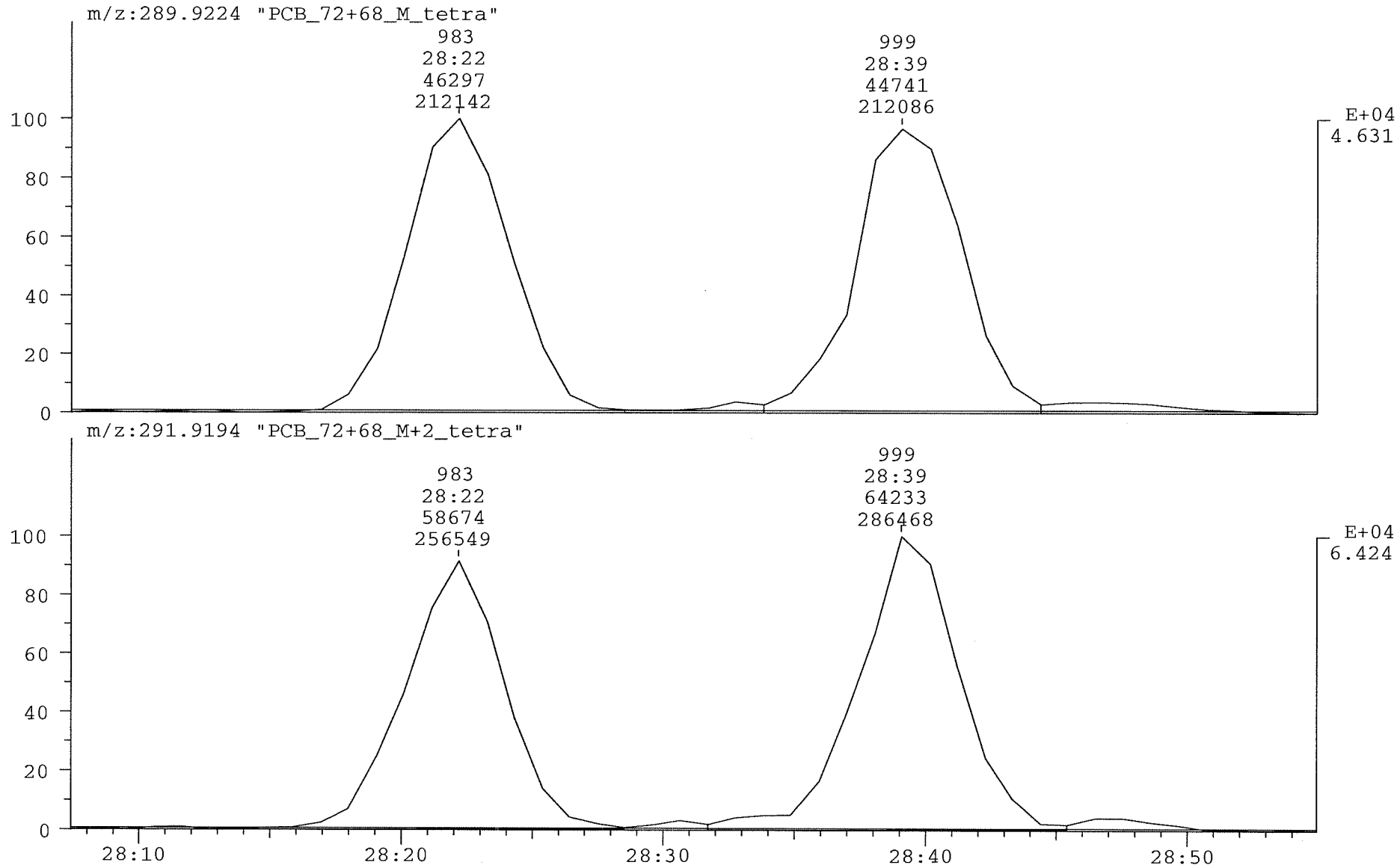


CHRO: a080624i2 24-Jun-08 Elapse: 27:30.5 934
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 909 > 949 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1621

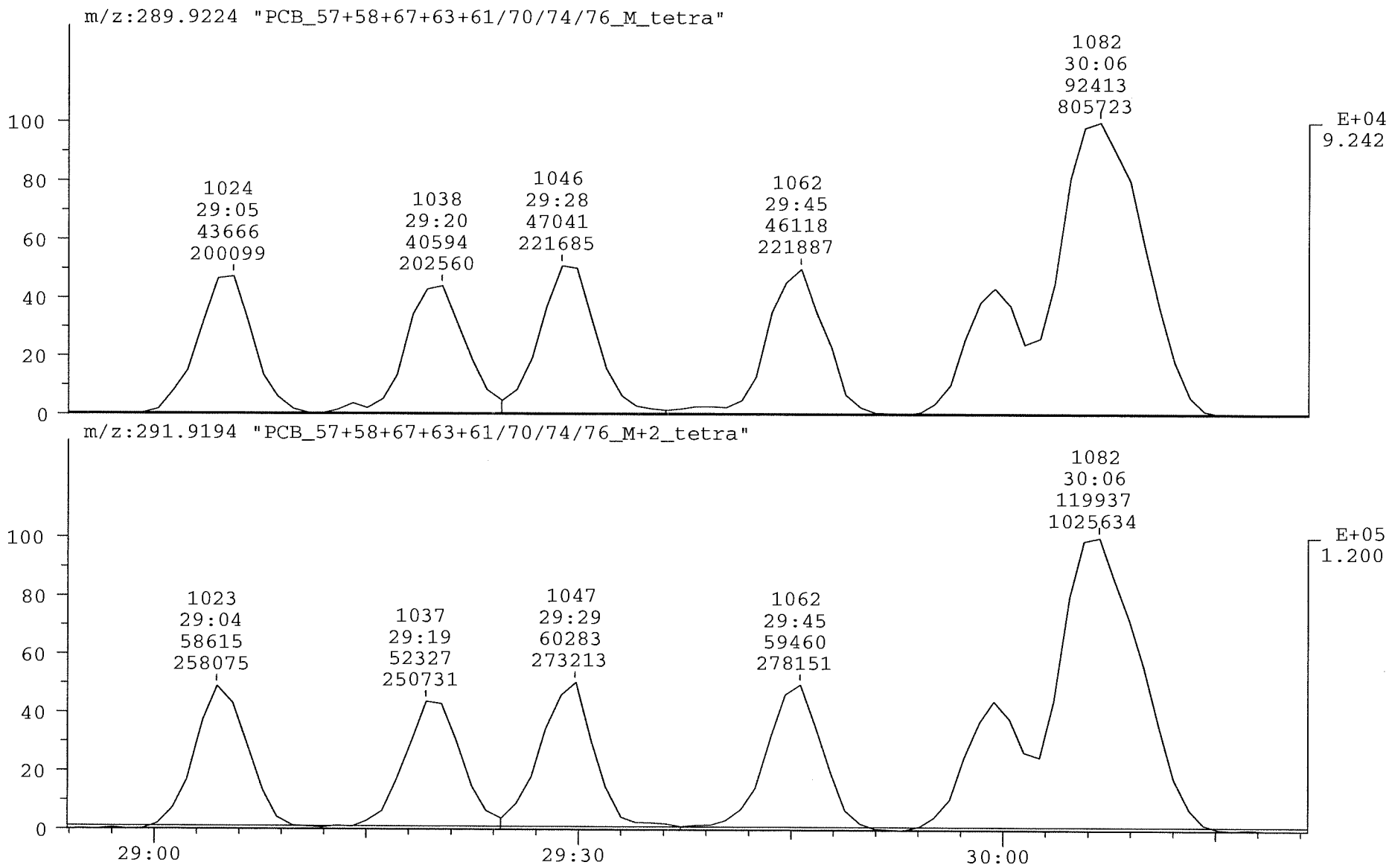
CHRO: a080624i2 24-Jun-08 Elapse: 28:33.8 994
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 969 > 1014 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1622

1621

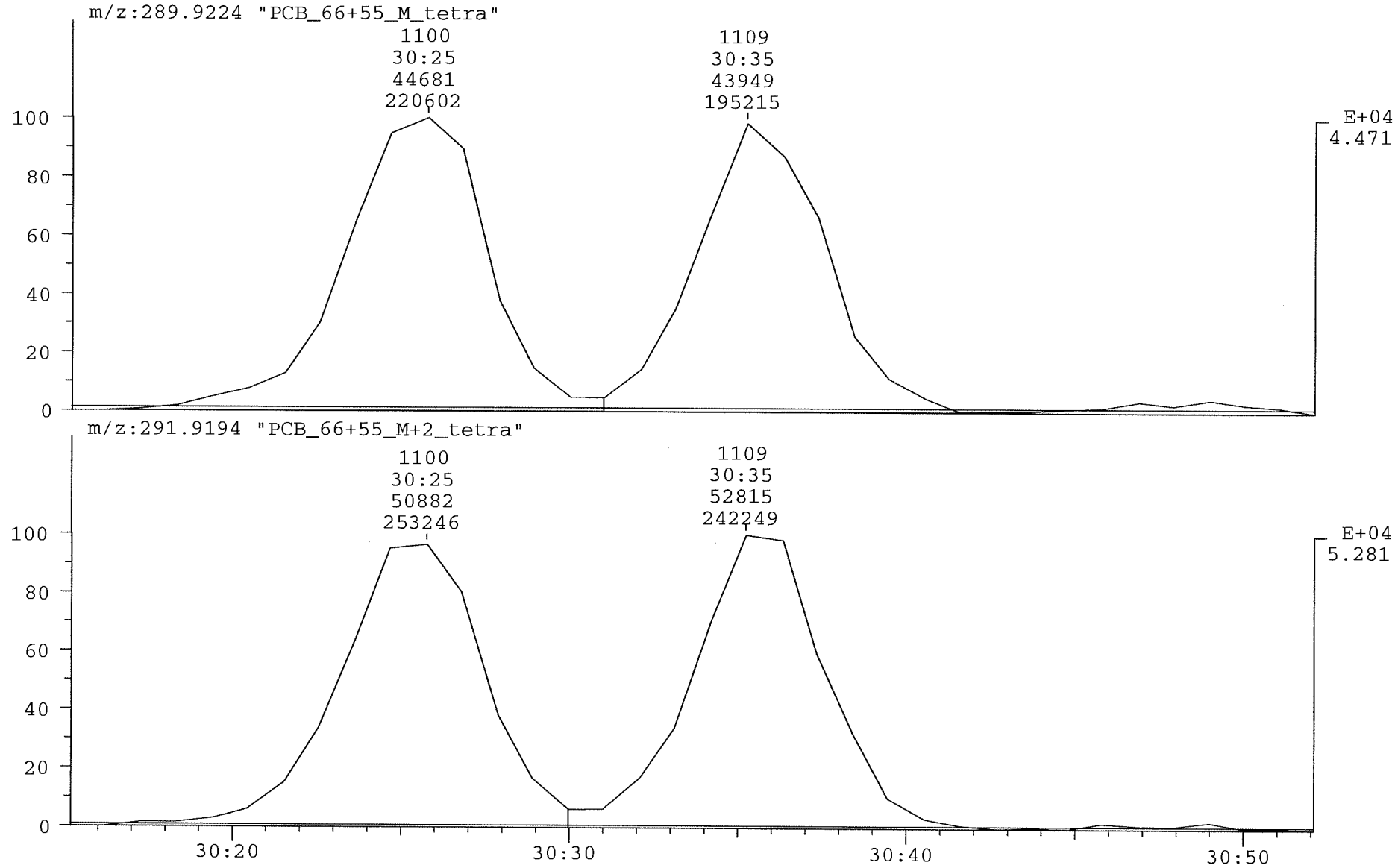
CHRO: a080624i2 24-Jun-08 Elapse: 29:39 1056
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1013 > 1096 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1623

1622

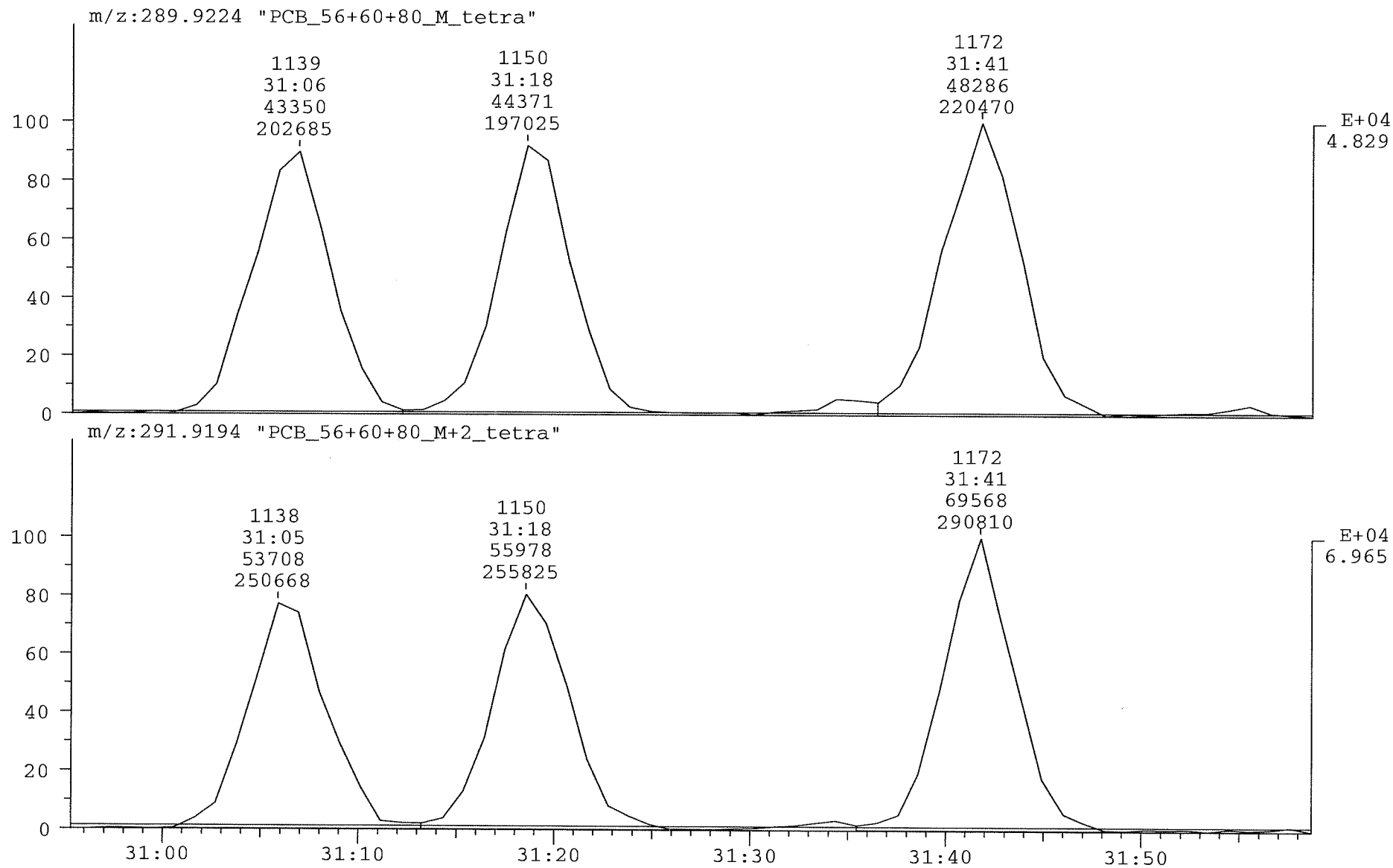
CHRO: a080624i2 24-Jun-08 Elapse: 30:34 1108
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1090 > 1125 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1624

1623

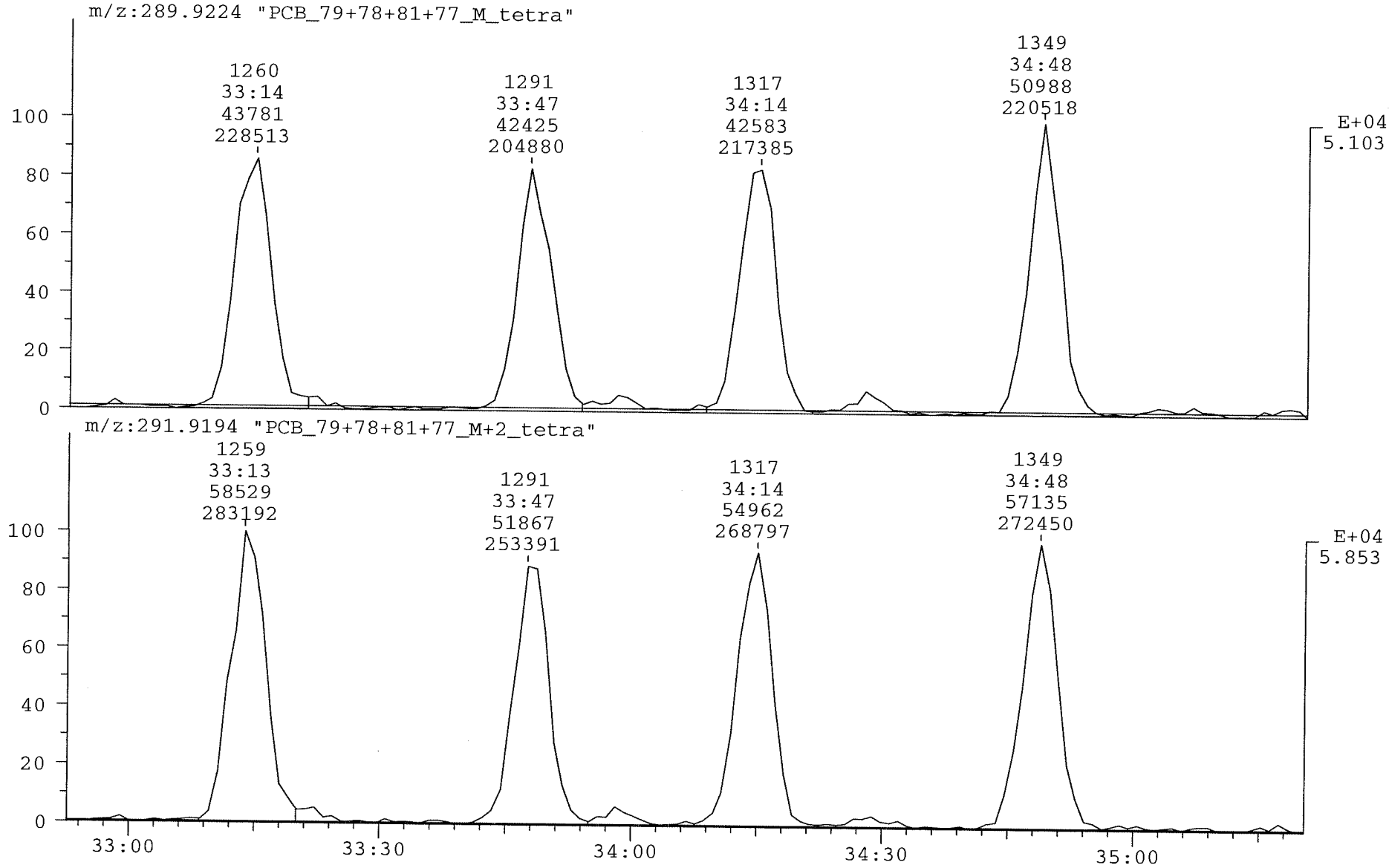
CHRO: a080624i2 24-Jun-08 Elapse: 31:27 1158
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1128 > 1188 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1625

1624

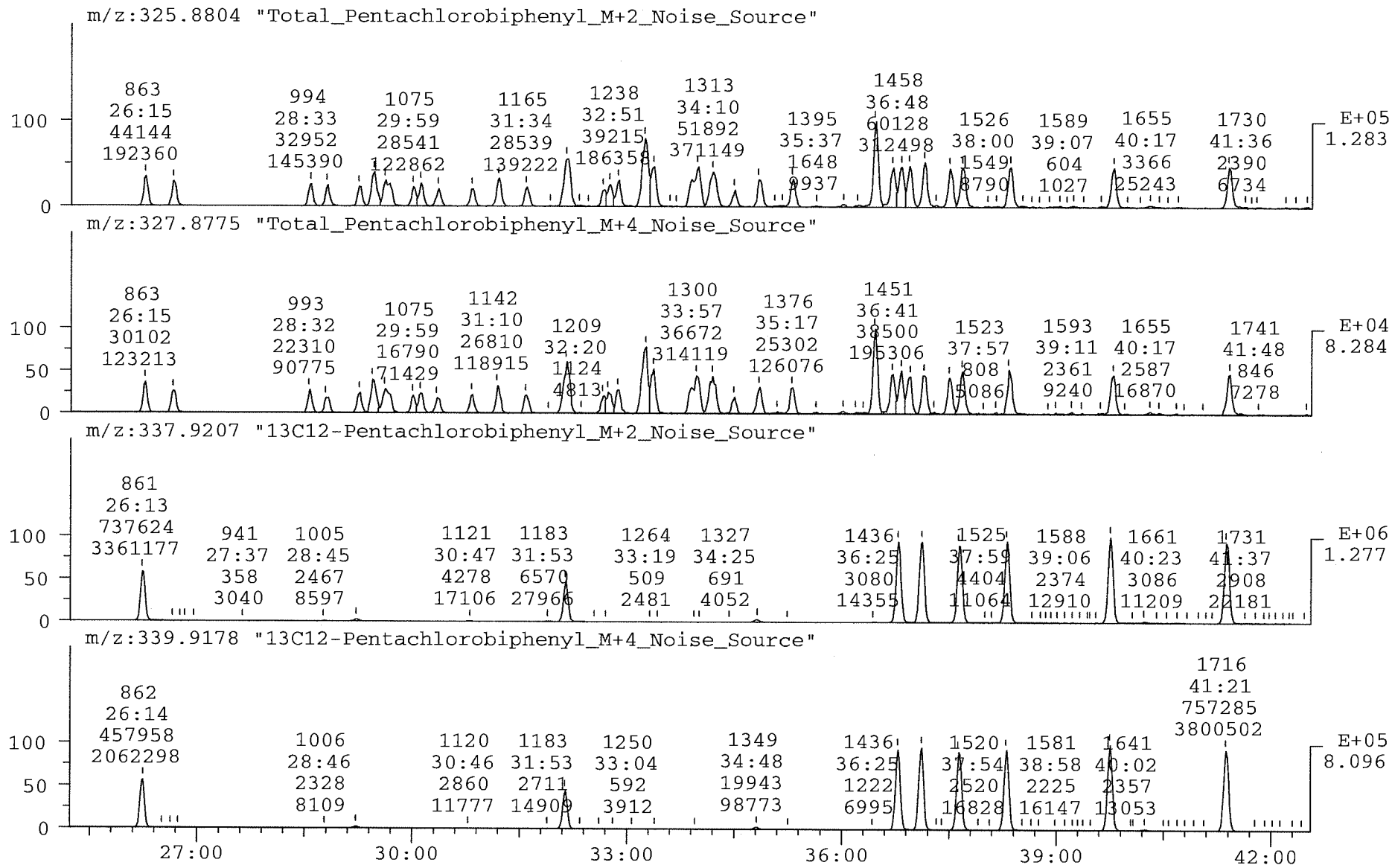
CHRO: a080624i2 24-Jun-08 Elapse: 34:01 1304
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1239 > 1379 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1626

1625

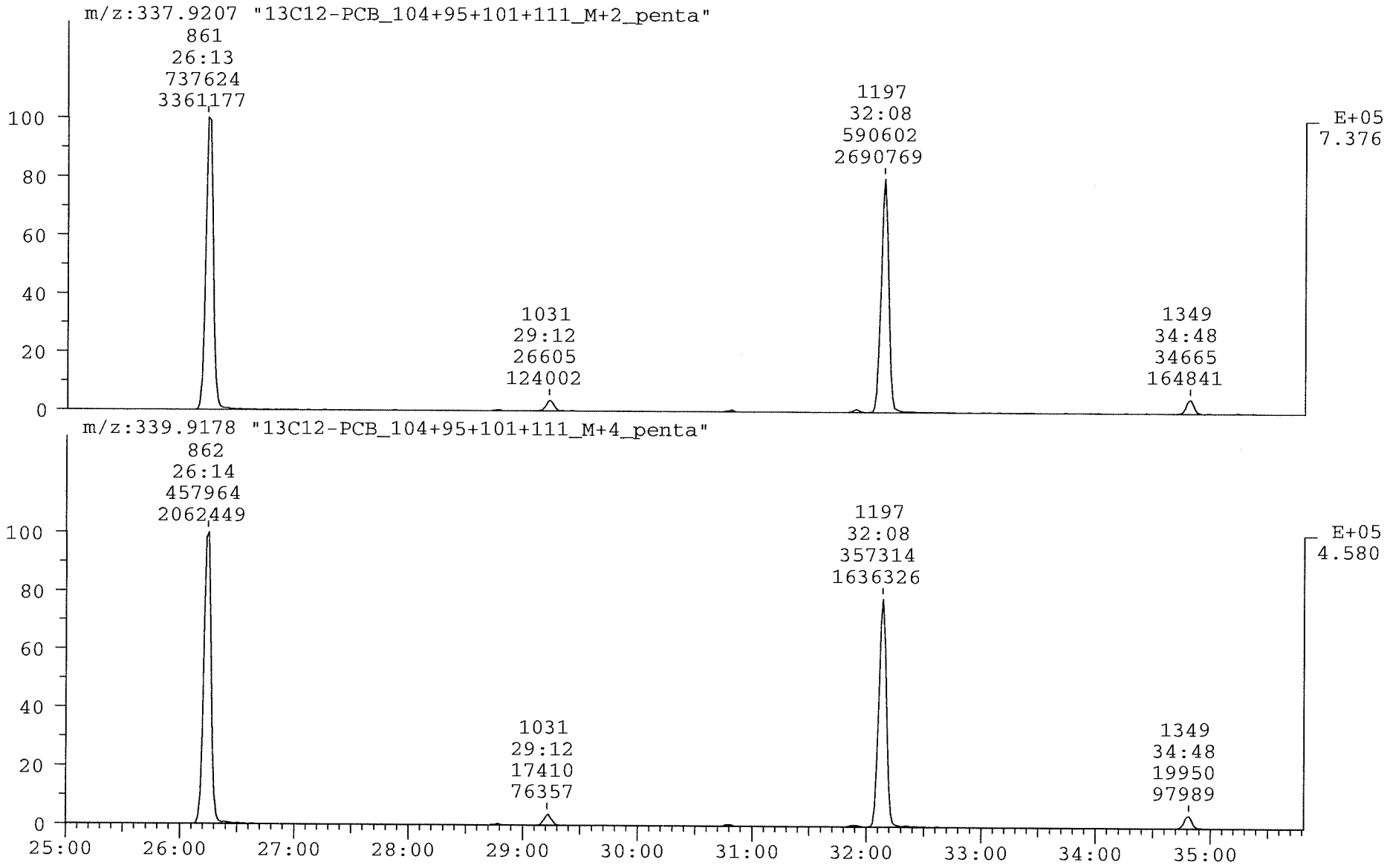
CHRO: a080624i2 24-Jun-08 Elapse: 33:52 1296
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 804 > 1783 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1627

1626

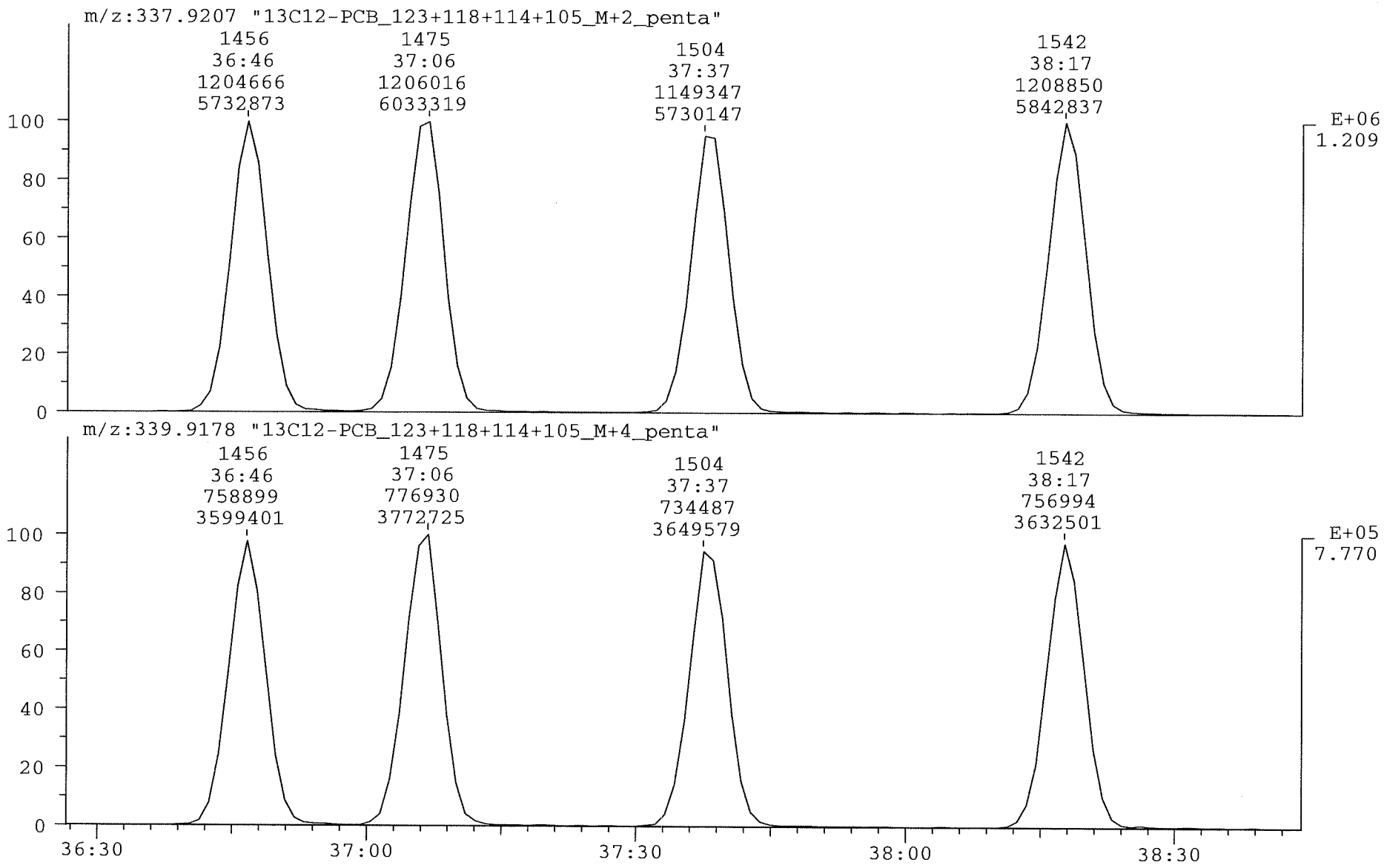
CHRO: a080624i2 24-Jun-08 Elapse: 30:23 1098
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 792 > 1406 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1628

1627

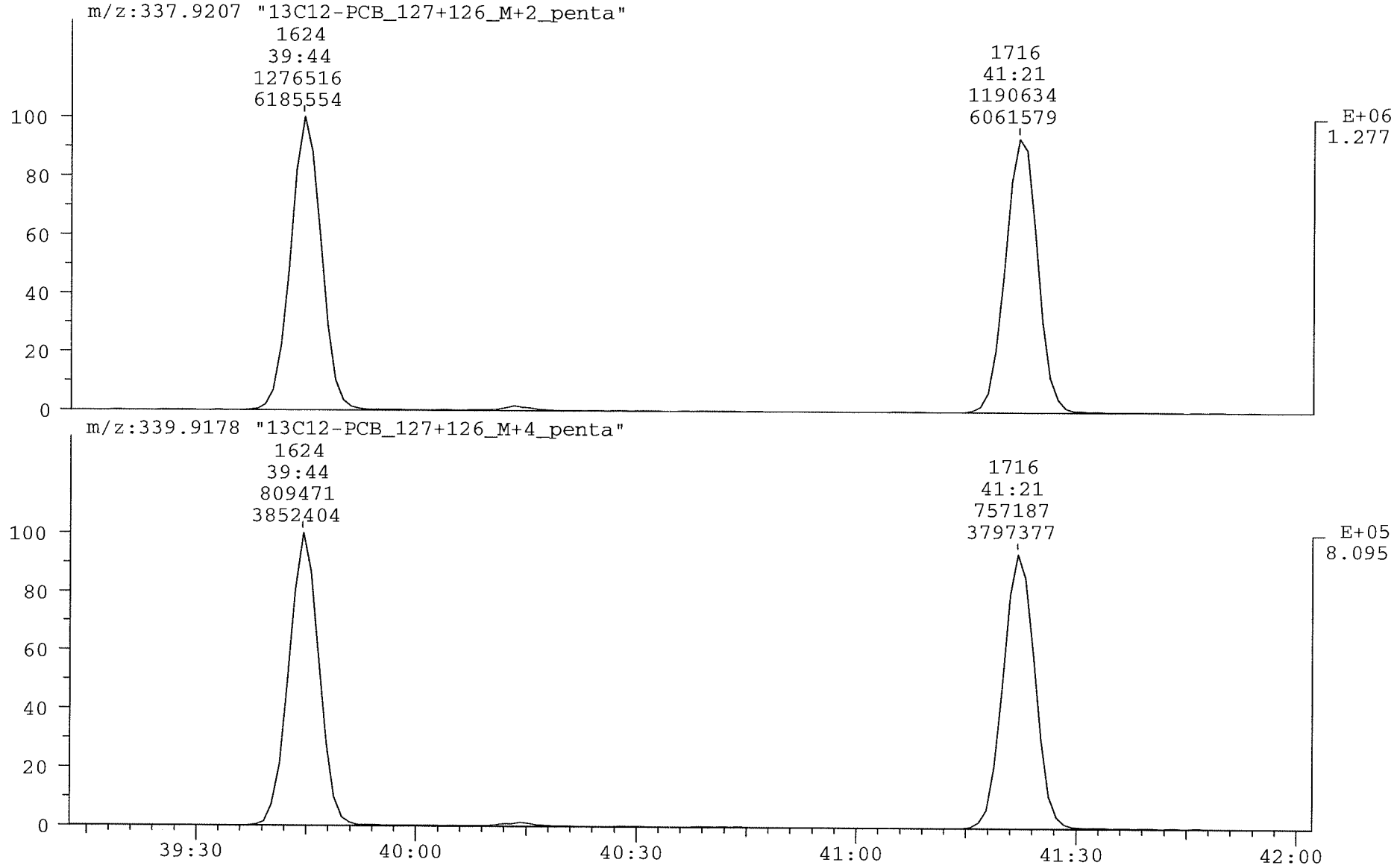
CHRO: a080624i2 24-Jun-08 Elapse: 37:35 1502
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1437 > 1567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1629

1628

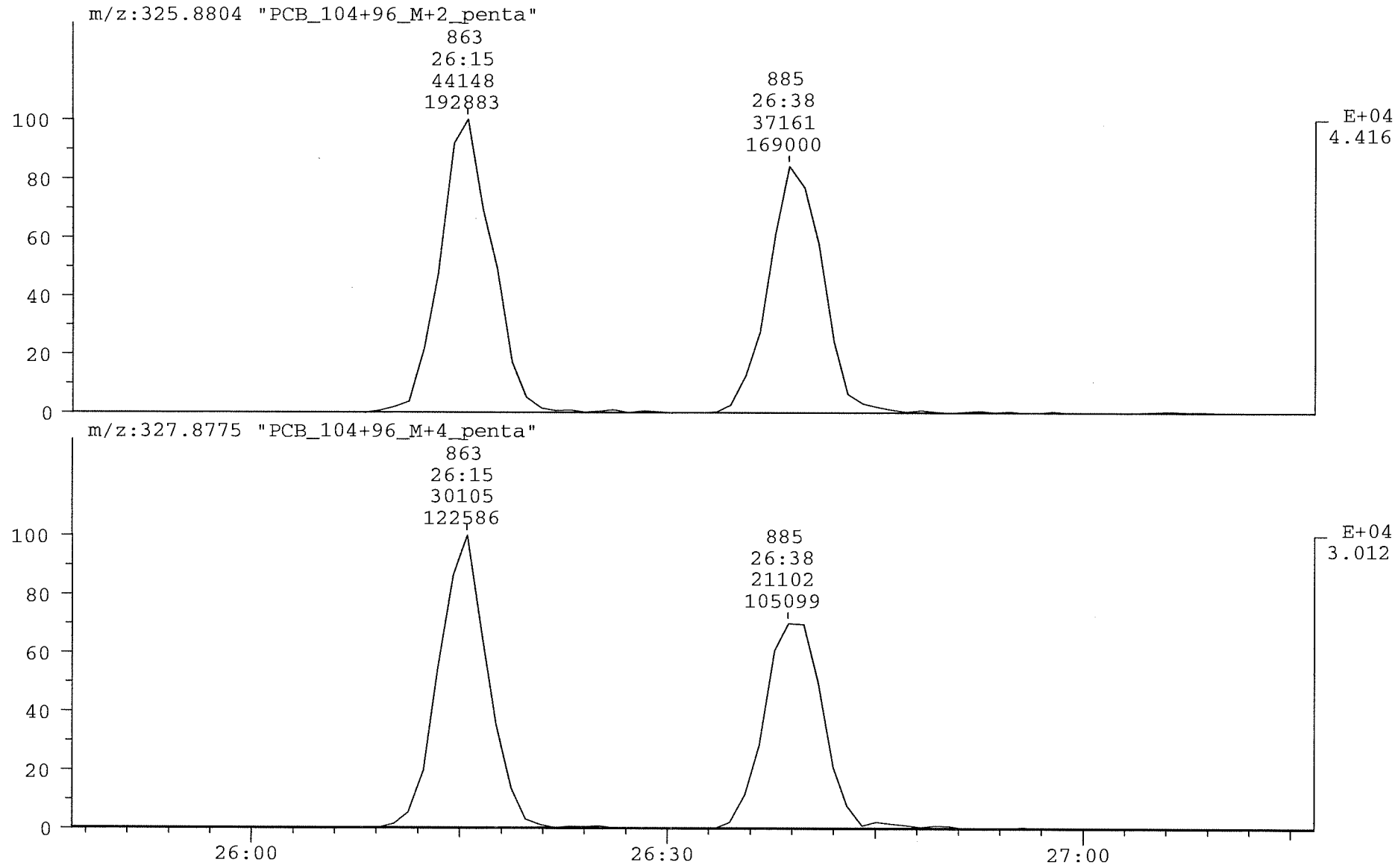
CHRO: a080624i2 24-Jun-08 Elapse: 40:37 1674
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1594 > 1754 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1630

1629

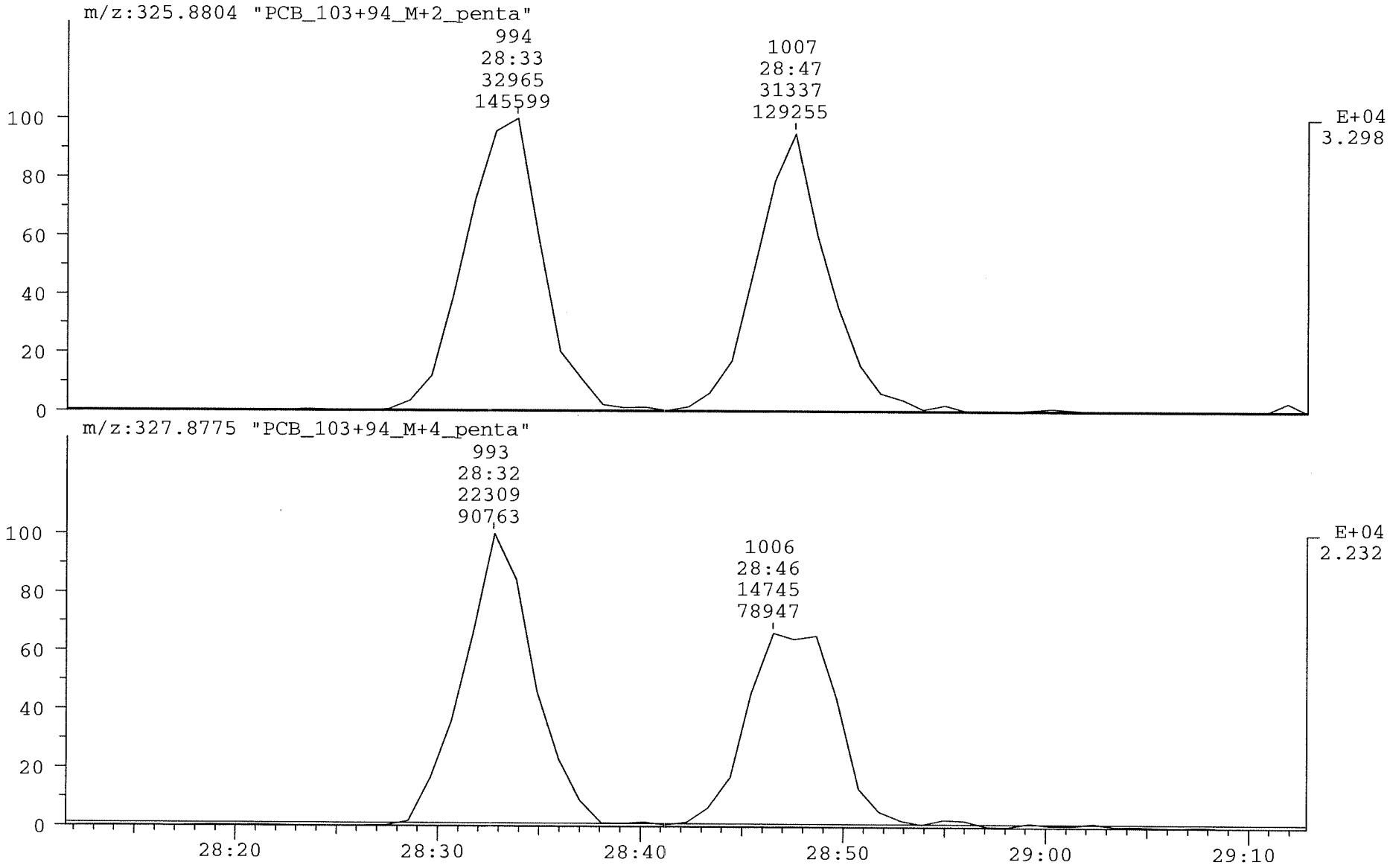
CHRO: a080624i2 24-Jun-08 Elapse: 26:29.2 876
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 836 > 921 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1631

1630

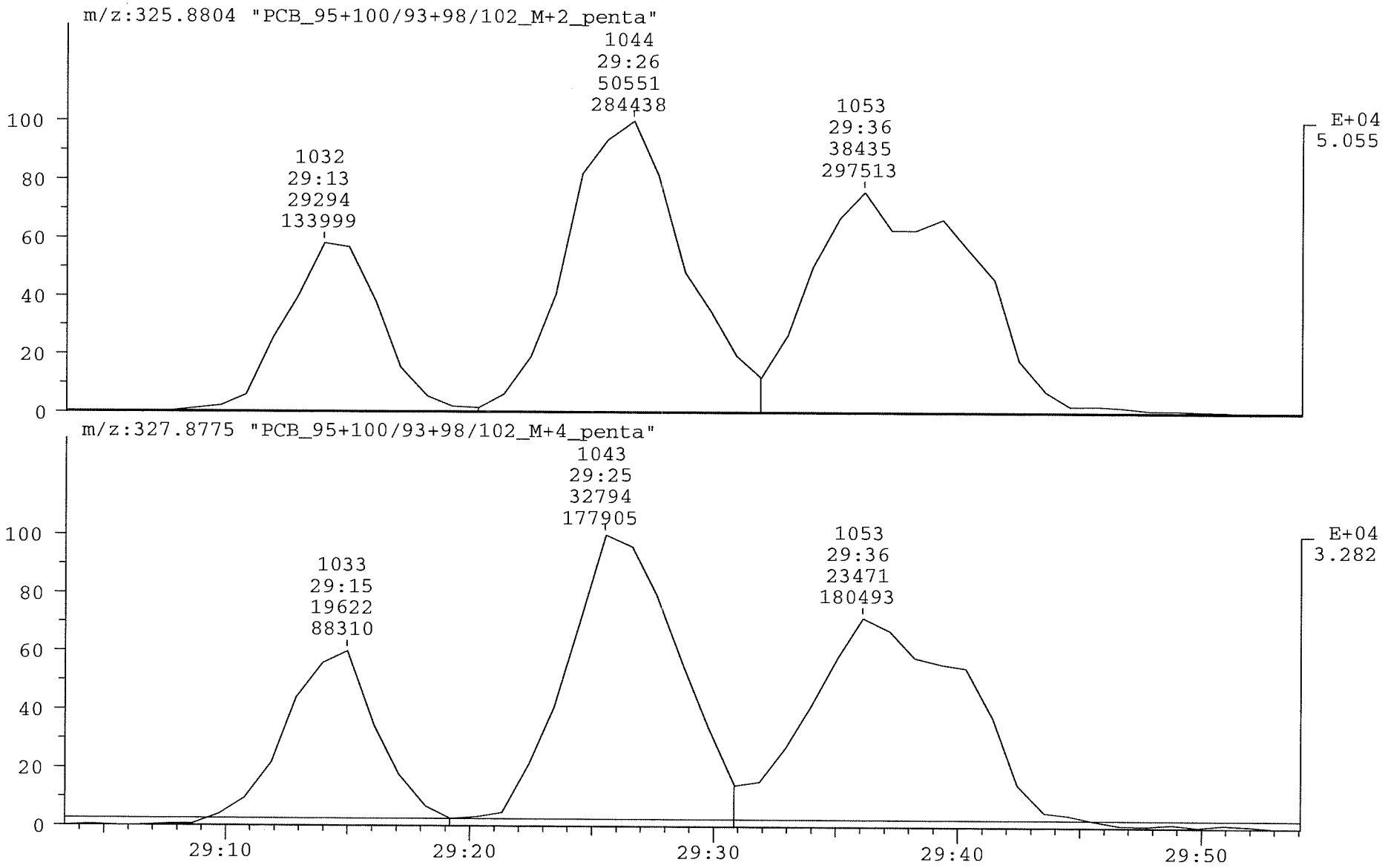
CHRO: a080624i2 24-Jun-08 Elapse: 28:43 1003
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 973 > 1031 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1632

1631

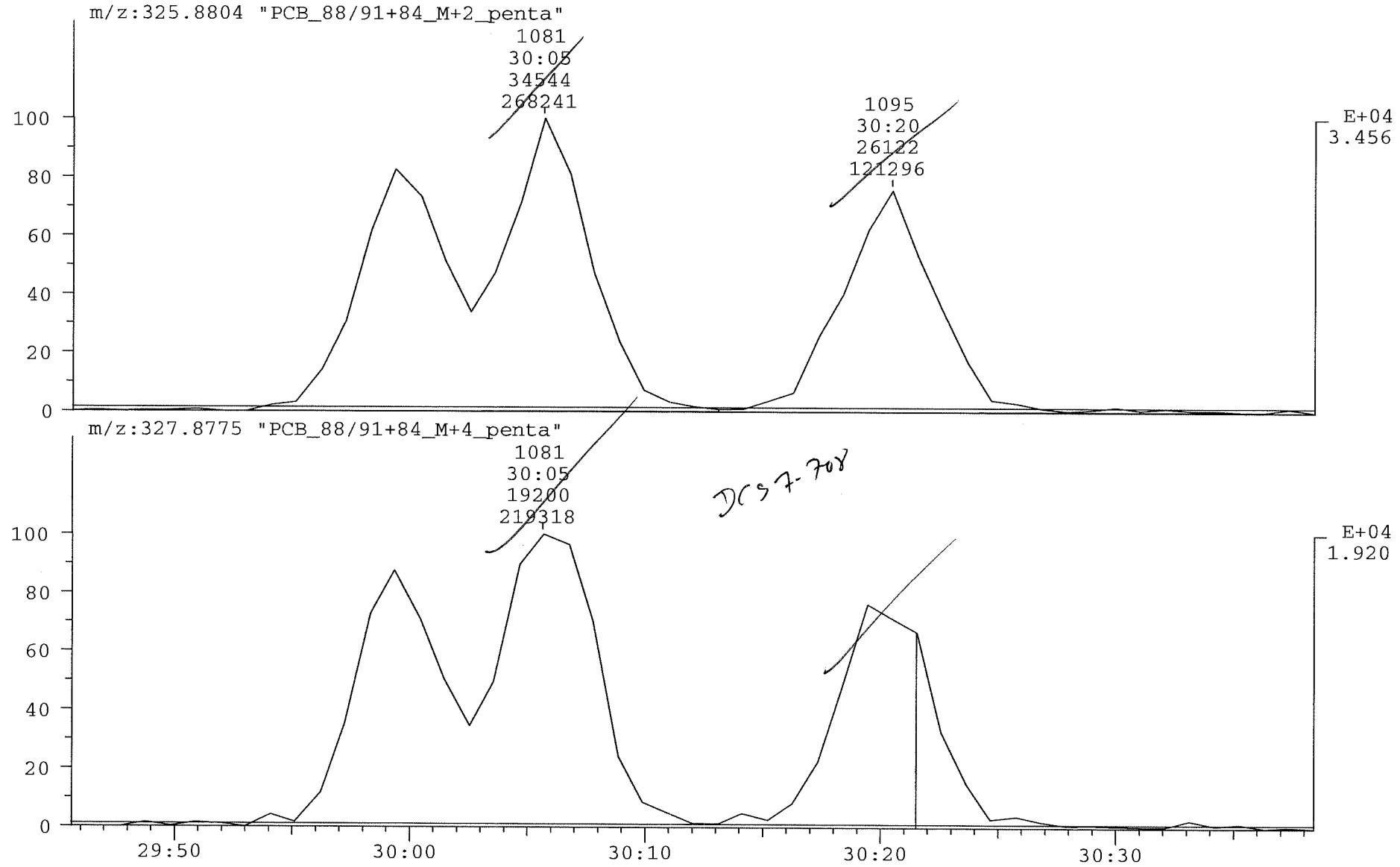
CHRO: a080624i2 24-Jun-08 Elapse: 29:27 1045
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1022 > 1070 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1633

1632

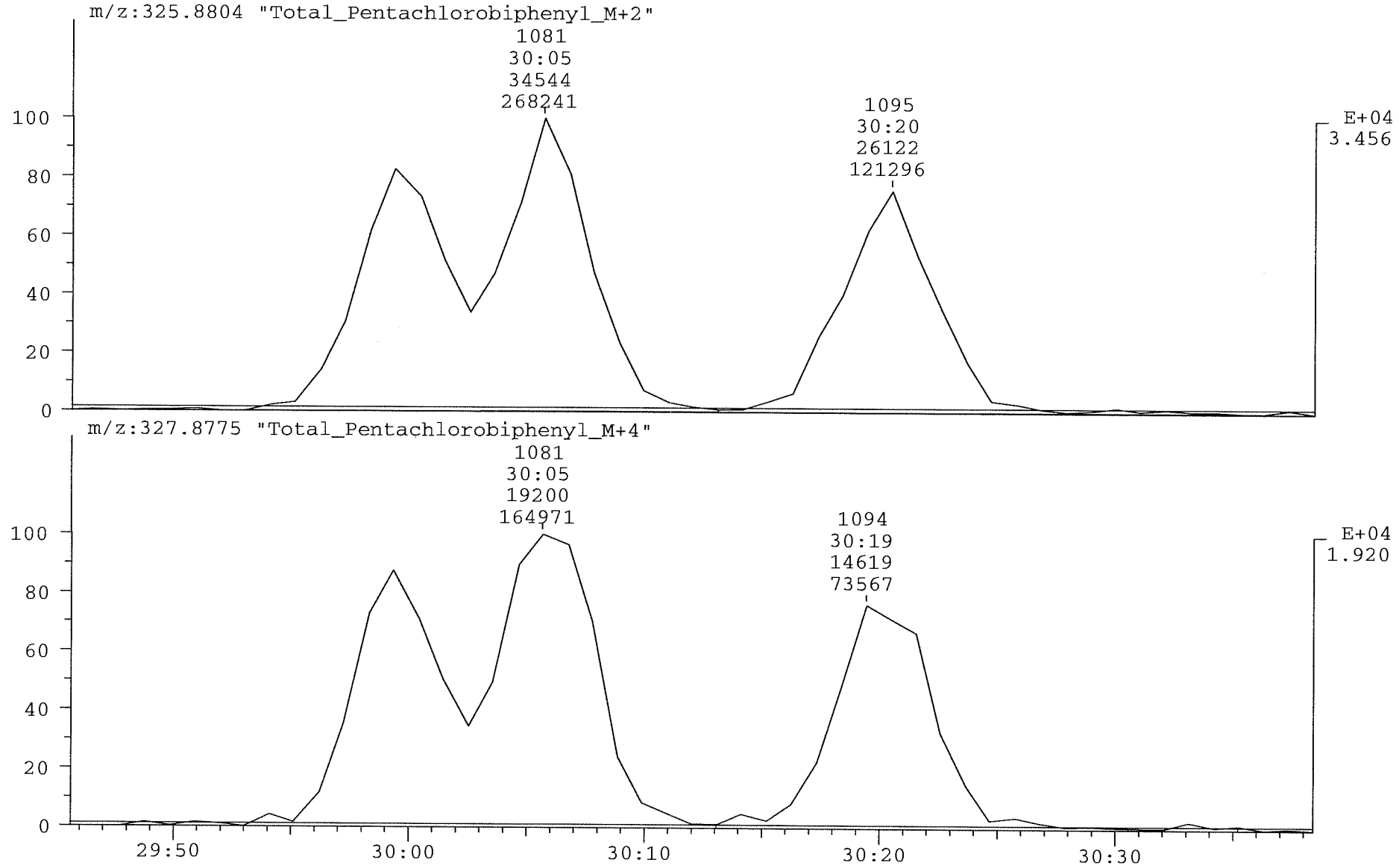
CHRO: a080624i2 24-Jun-08 Elapse: 30:13 1088
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1062 > 1112 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1634

1633

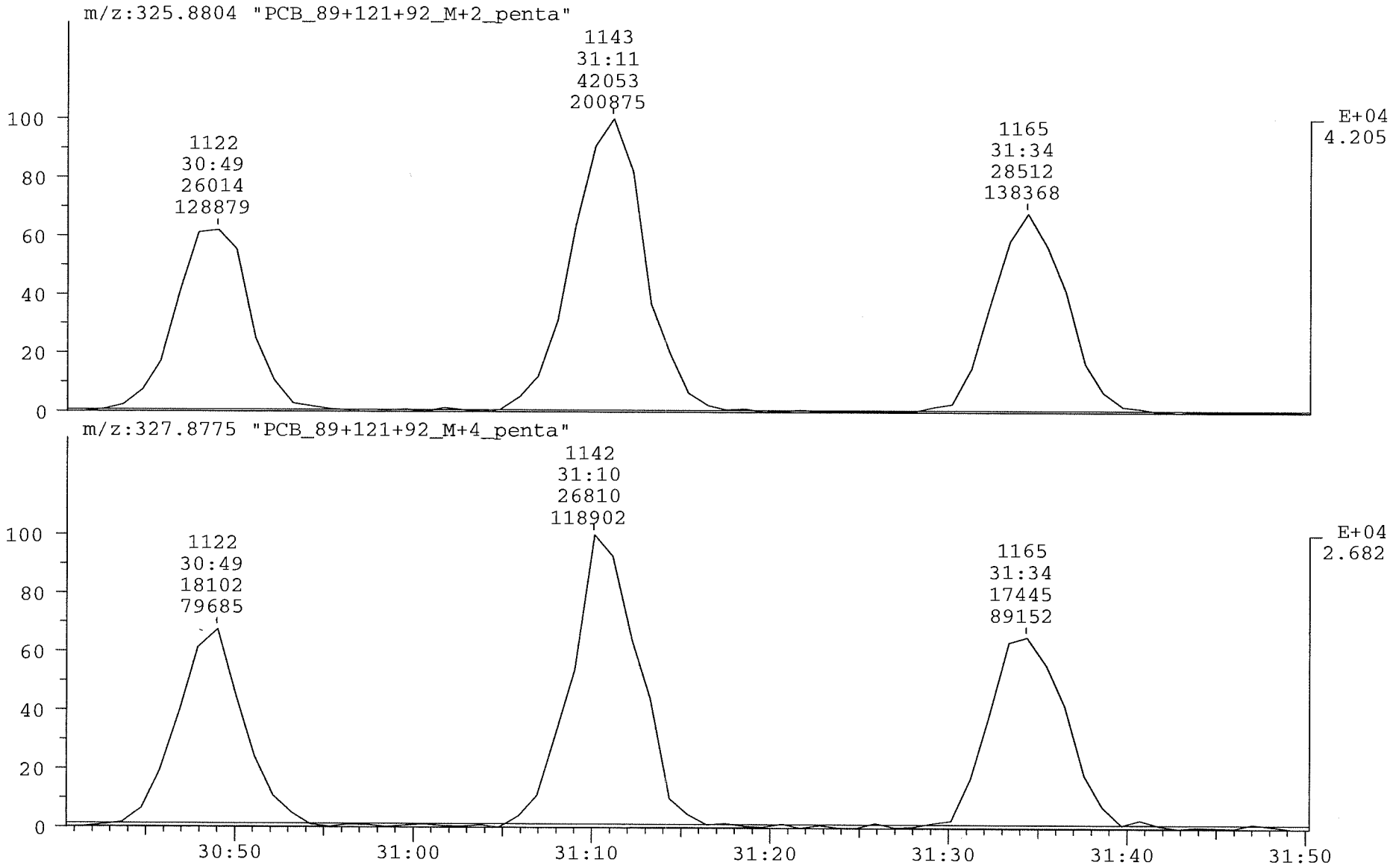
CHRO: a080624i2 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1062 > 1112 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1635

1634

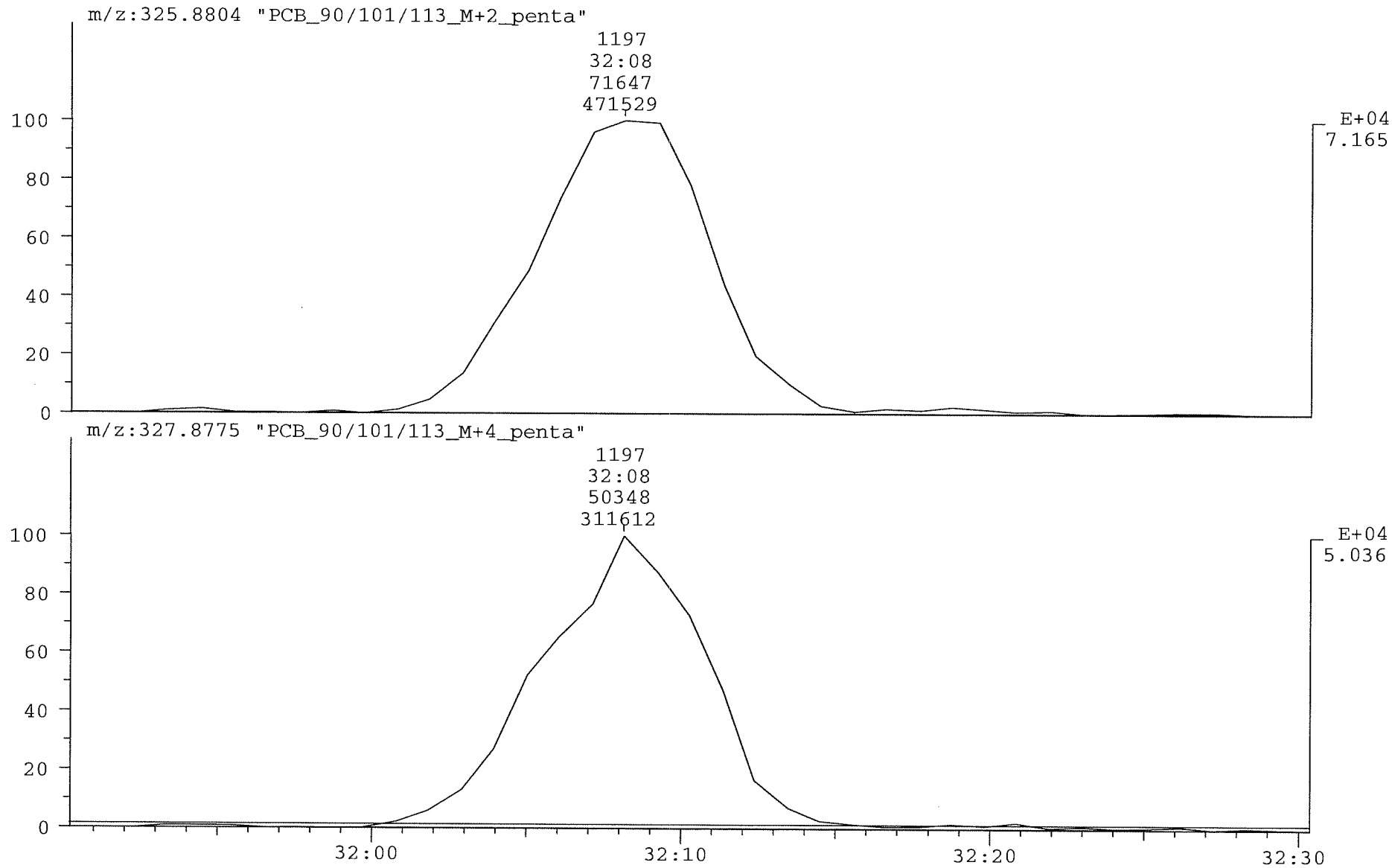
CHRO: a080624i2 24-Jun-08 Elapse: 31:15 1147
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1114 > 1180 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1636

1635

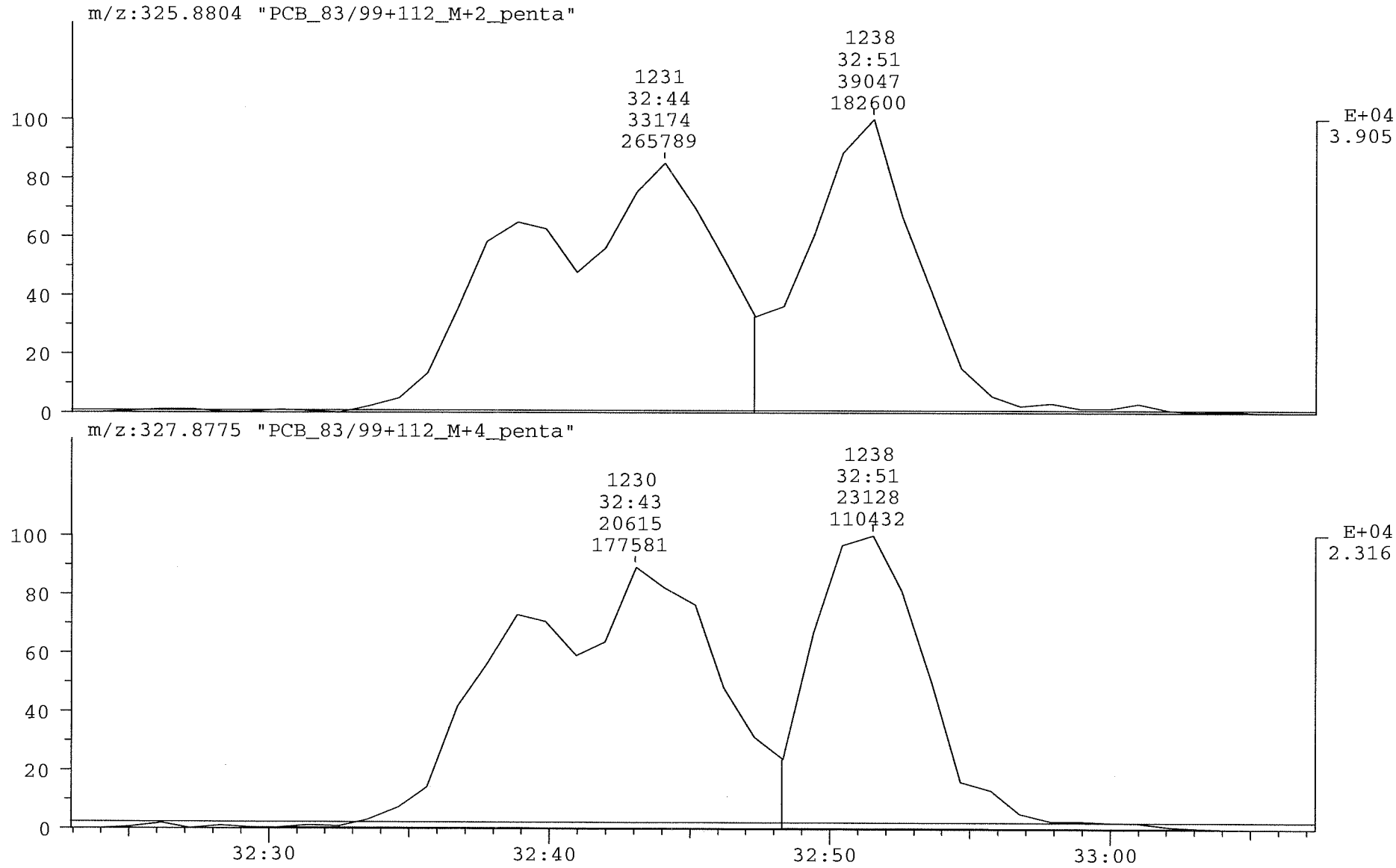
CHRO: a080624i2 24-Jun-08 Elapse: 32:09 1198
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1180 > 1218 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1637

1636

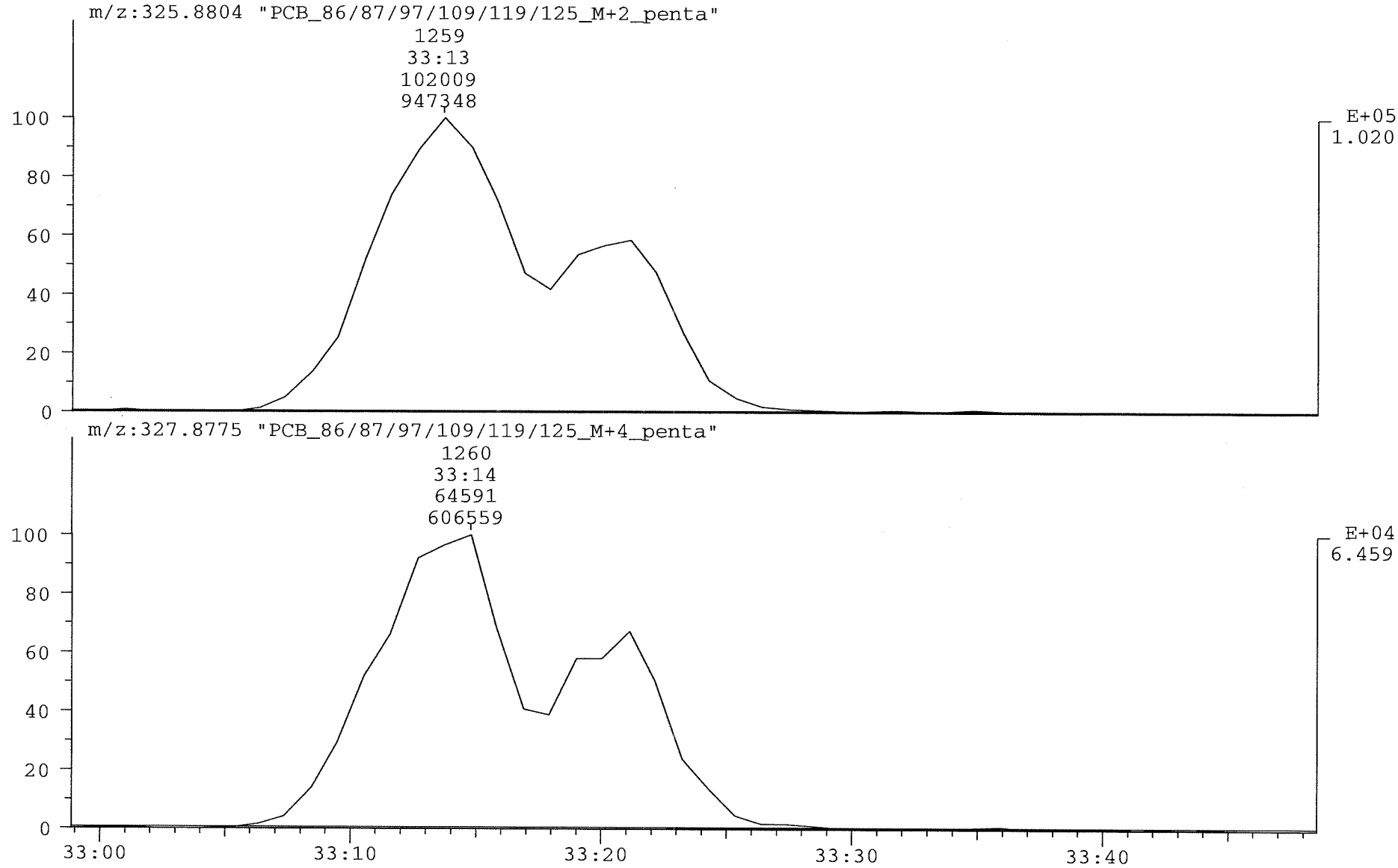
CHRO: a080624i2 24-Jun-08 Elapse: 32:51 1238
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1211 > 1253 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1638

1637

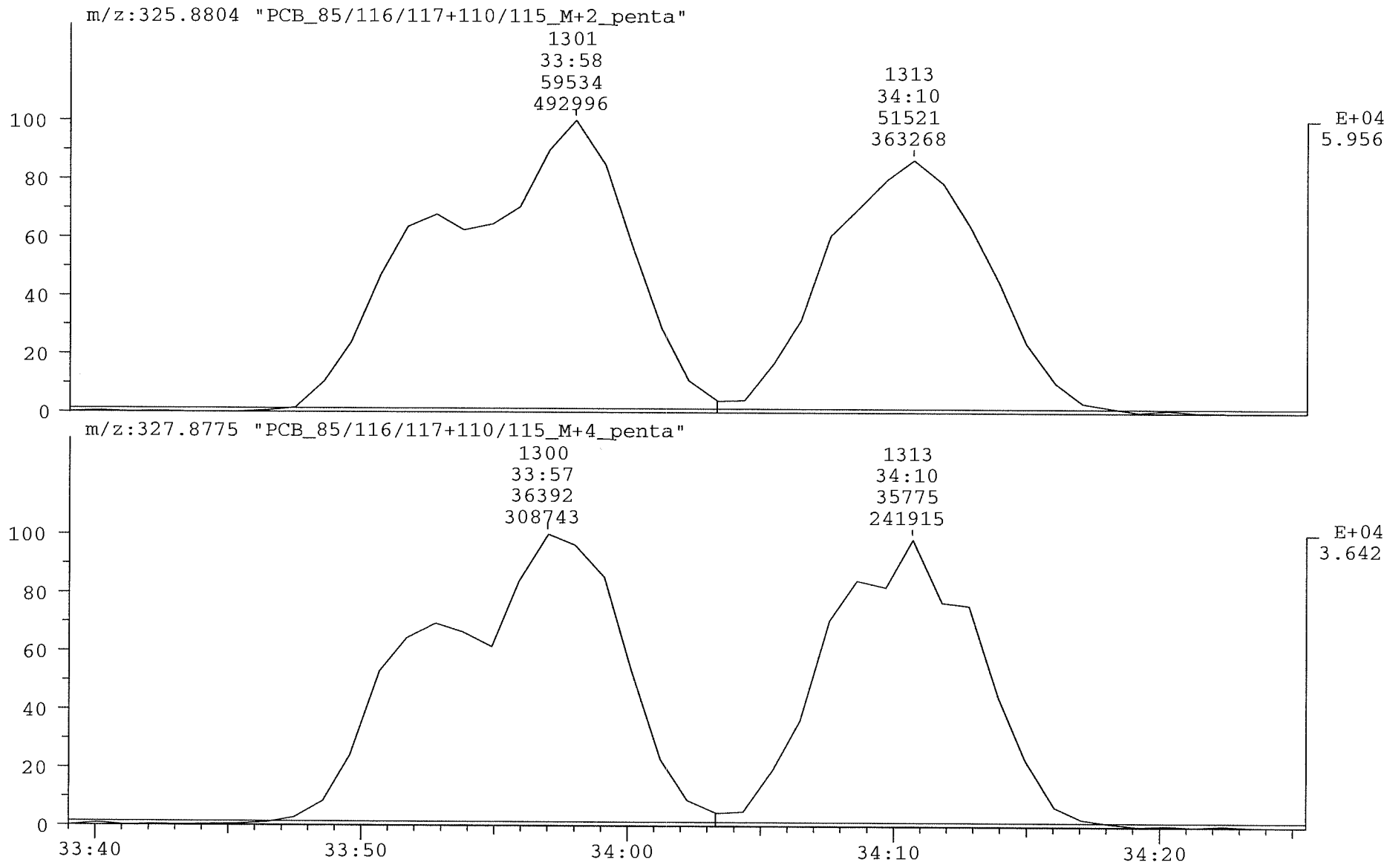
CHRO: a080624i2 24-Jun-08 Elapse: 33:20 1265
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1245 > 1292 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1639

1638

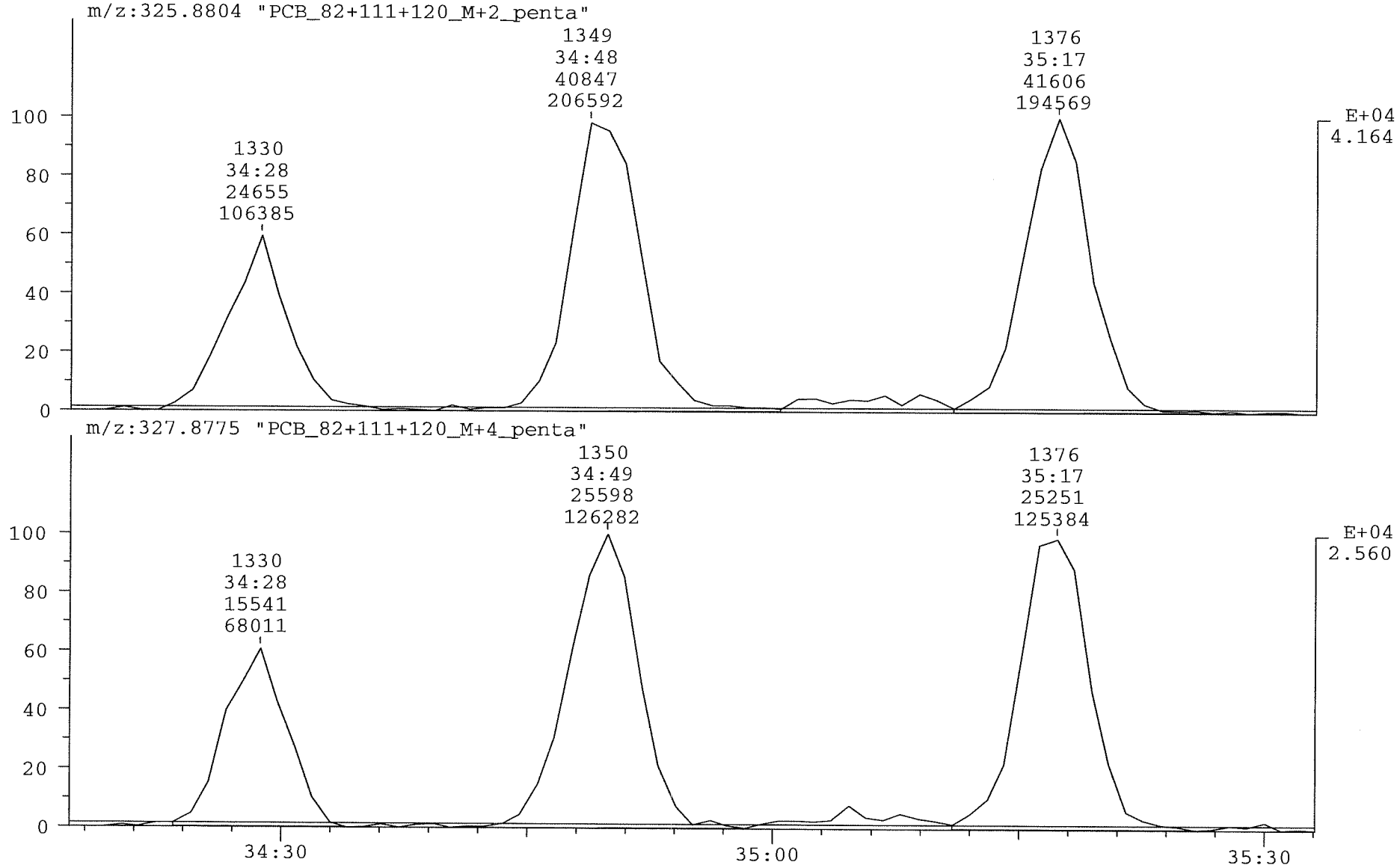
CHRO: a080624i2 24-Jun-08 Elapse: 34:06 1309
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1283 > 1327 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1640

1639

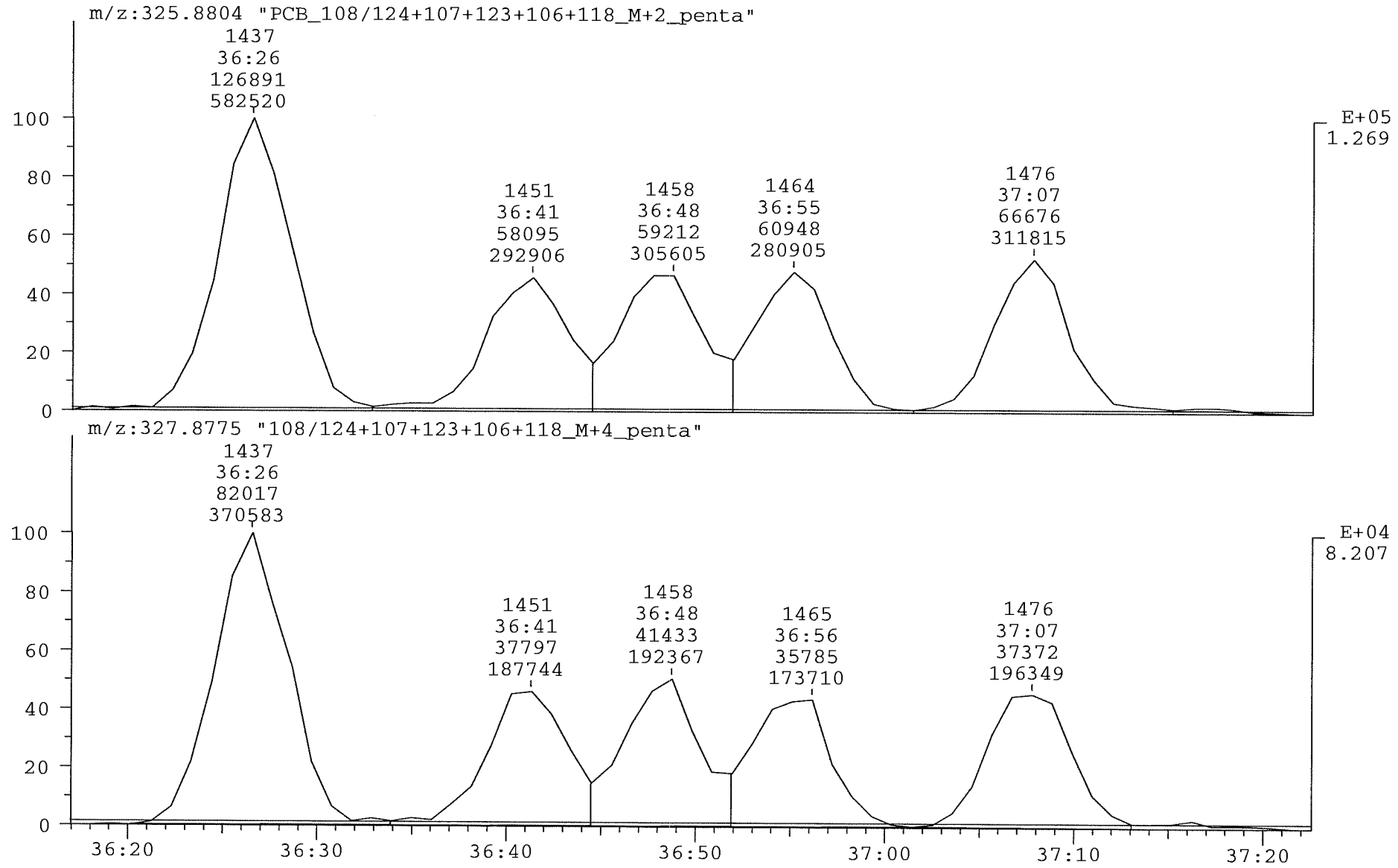
CHRO: a080624i2 24-Jun-08 Elapse: 34:40 1341
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1319 > 1391 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1641

1640

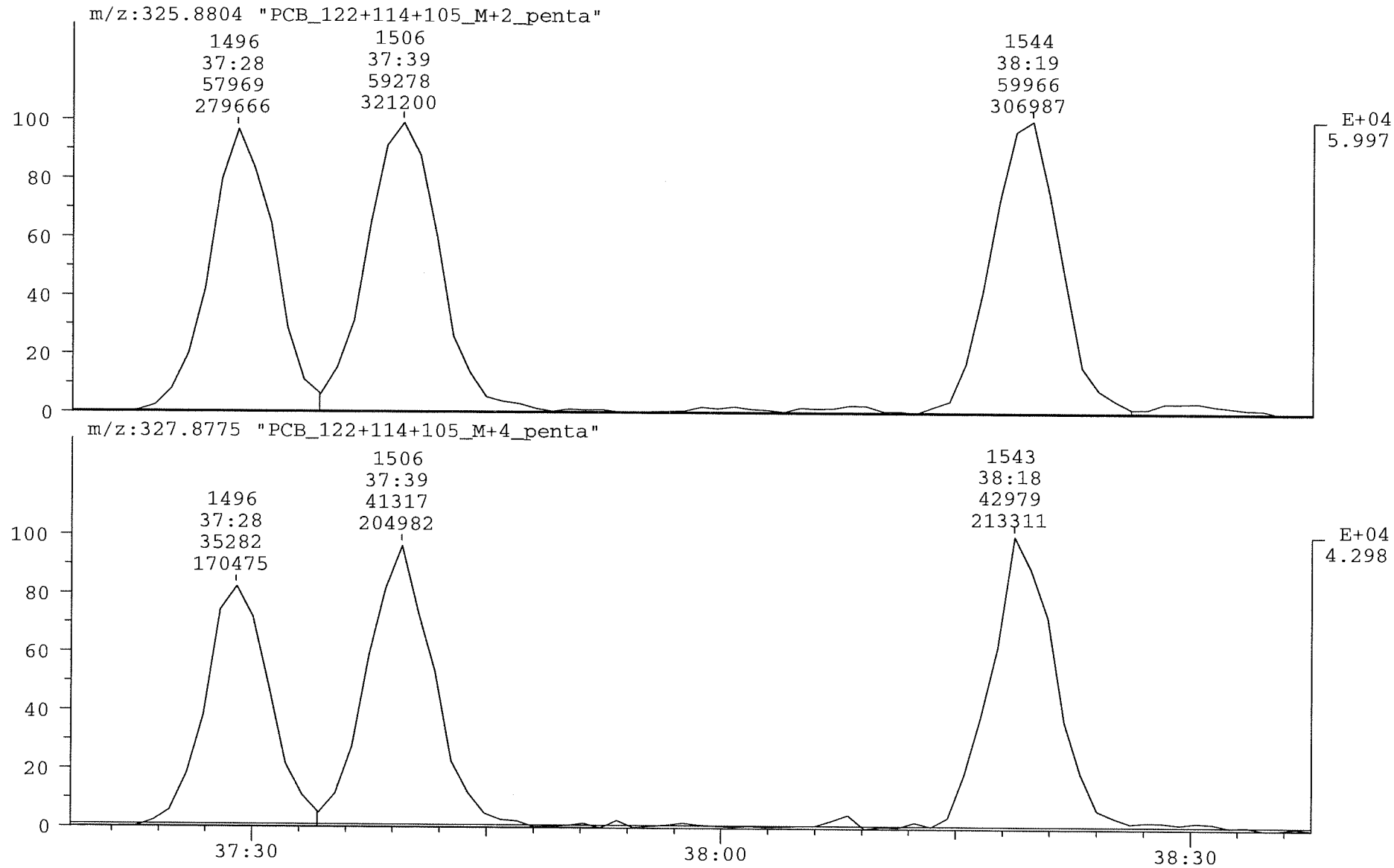
CHRO: a080624i2 24-Jun-08 Elapse: 36:59 1468
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1428 > 1490 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1642

1641

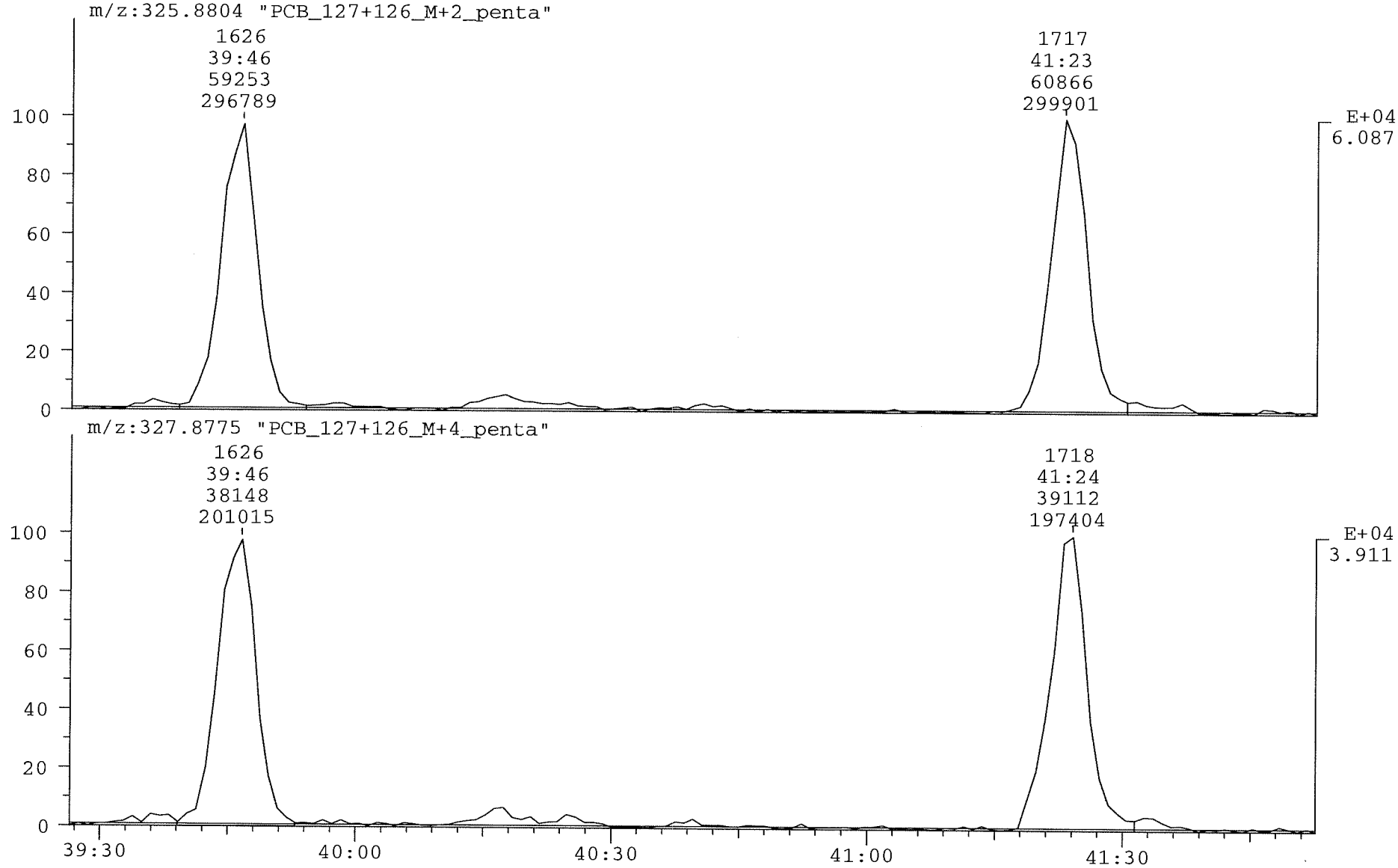
CHRO: a080624i2 24-Jun-08 Elapse: 37:57 1523
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1486 > 1561 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1643

1642

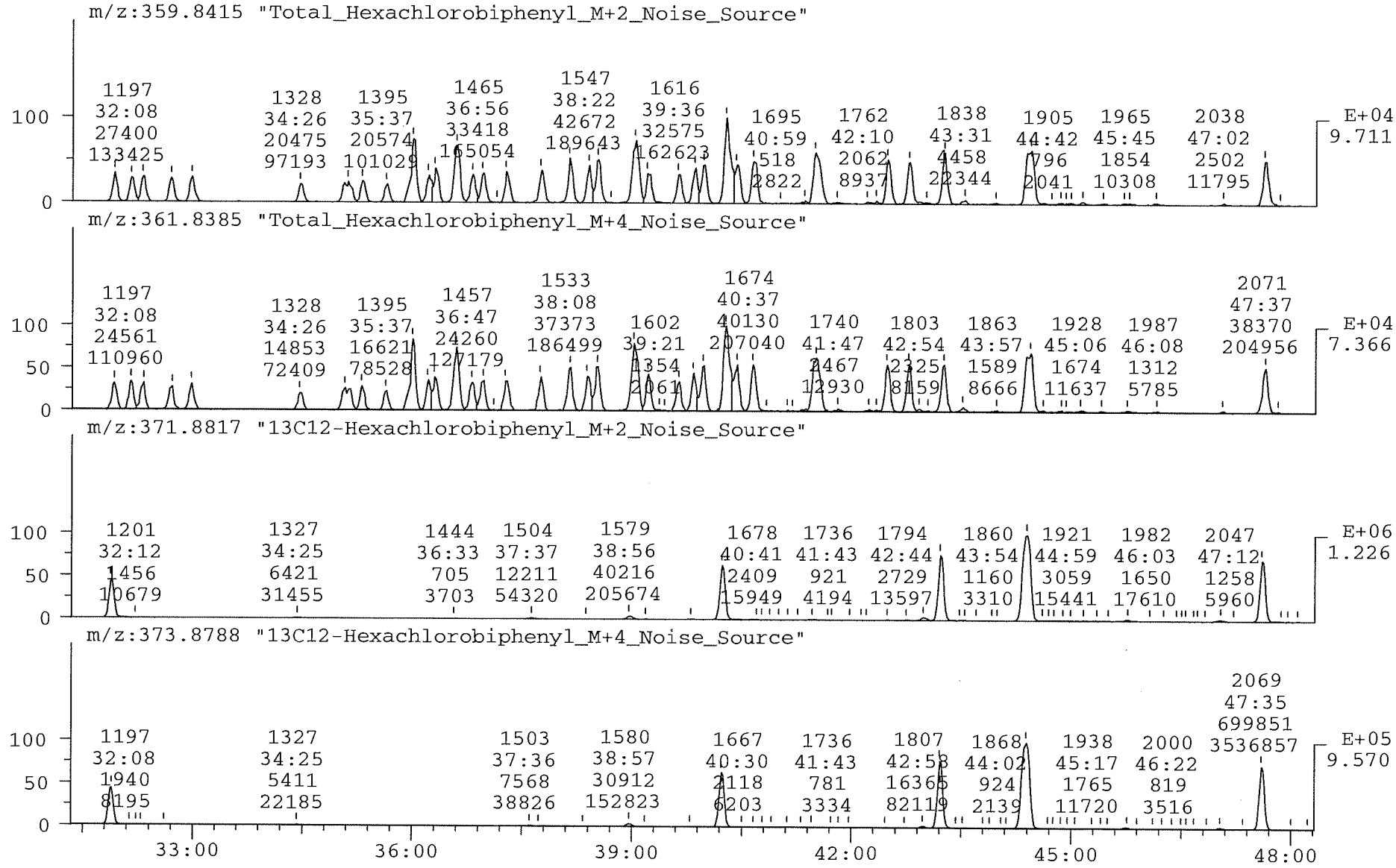
CHRO: a080624i2 24-Jun-08 Elapse: 40:38 1675
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1607 > 1745 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1644

1643

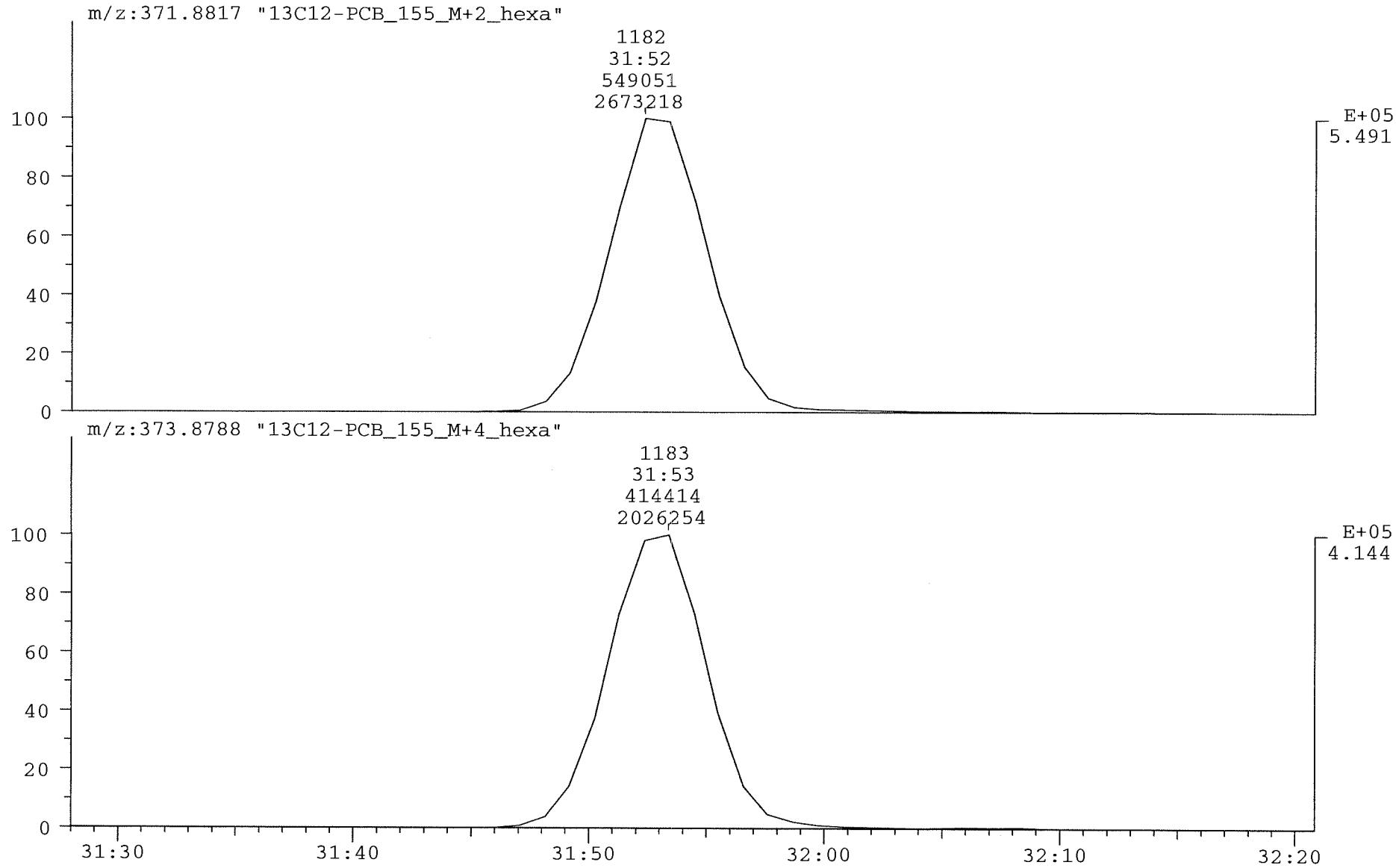
CHRO: a080624i2 24-Jun-08 Elapse: 39:48 1628
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1151 > 2110 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1645

1644

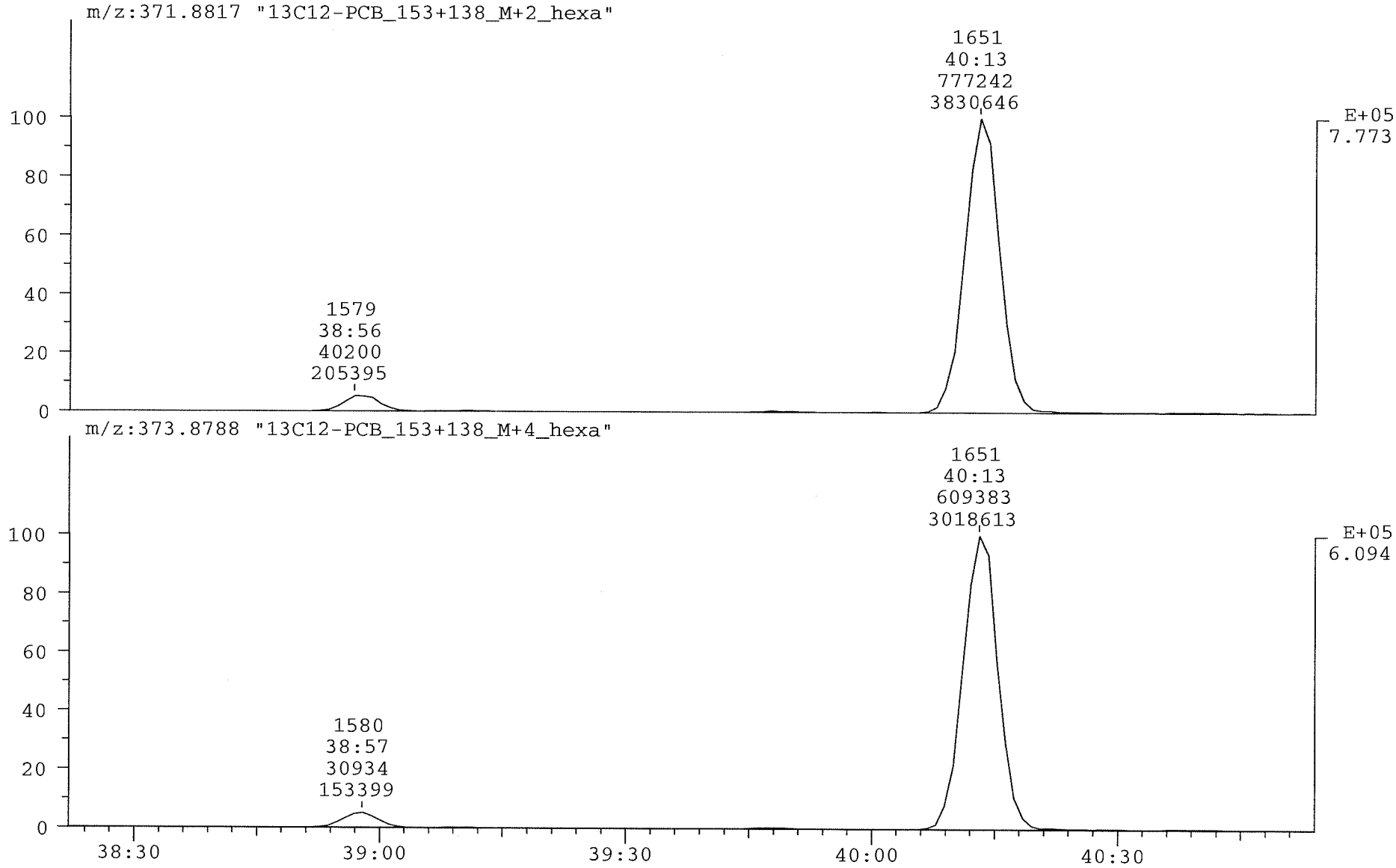
CHRO: a080624i2 24-Jun-08 Elapse: 31:54 1184
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1159 > 1209 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1646

1645

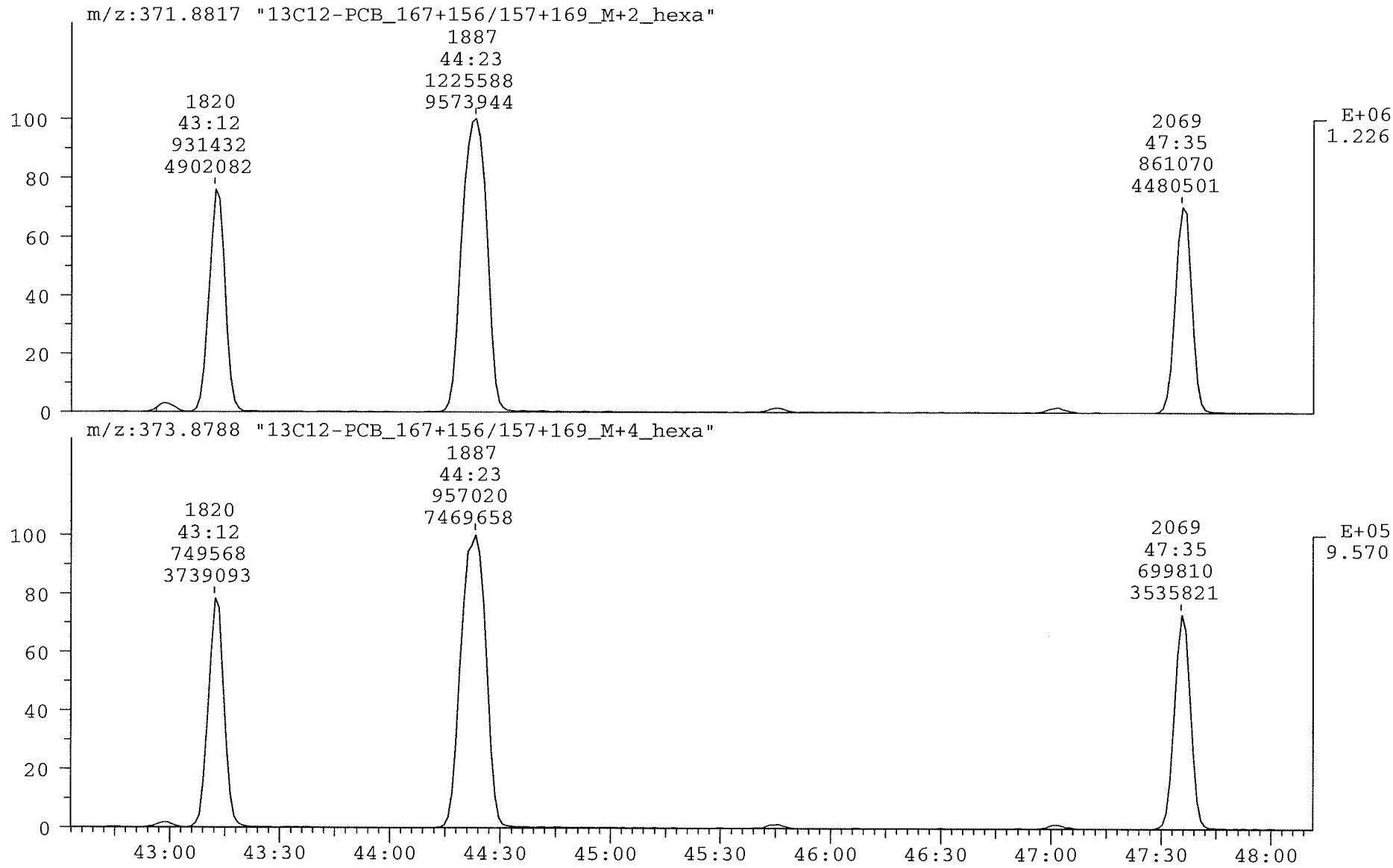
CHRO: a080624i2 24-Jun-08 Elapse: 39:38 1618
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1546 > 1690 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1647

1646

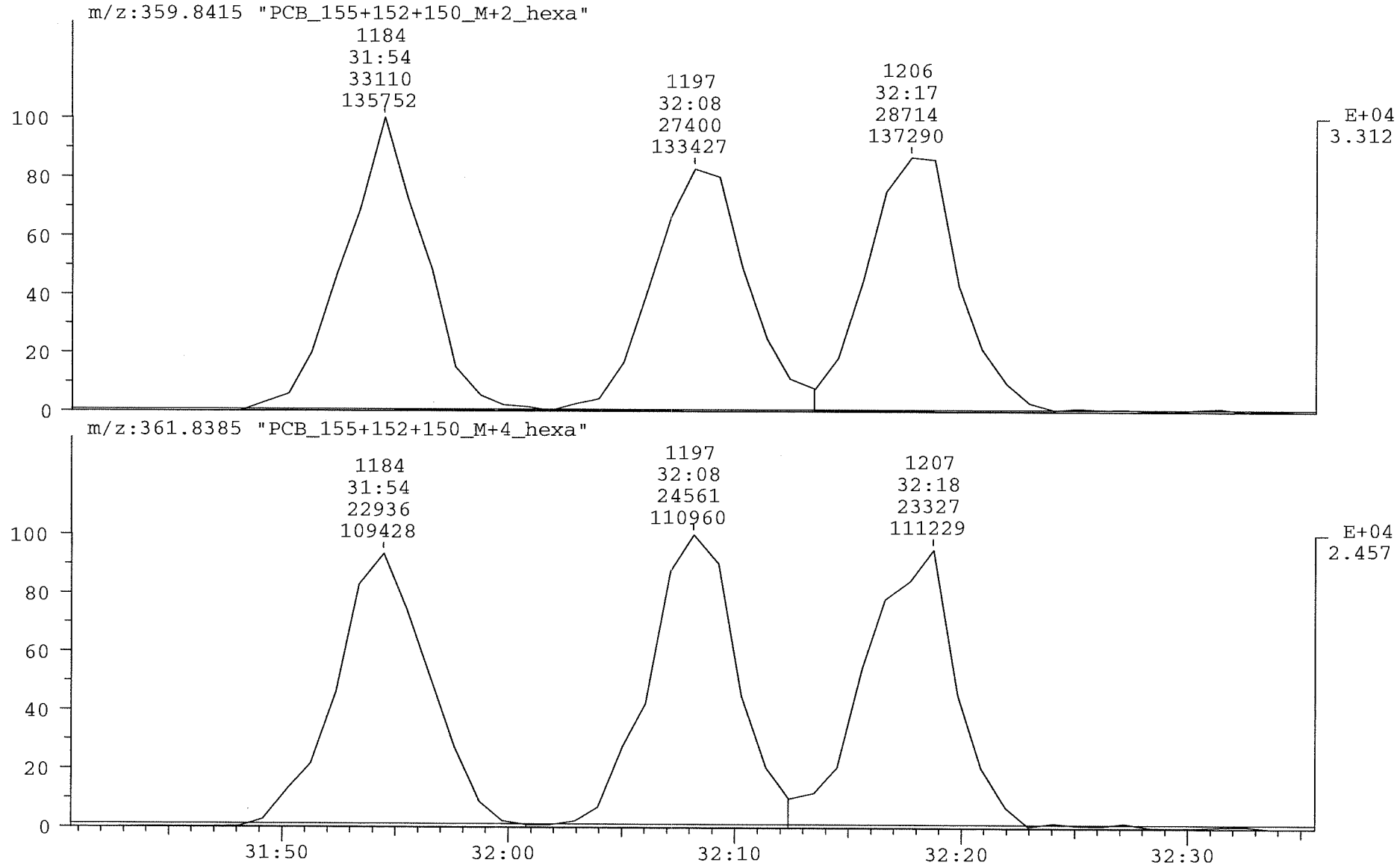
CHRO: a080624i2 24-Jun-08 Elapse: 45:27 1948
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1783 > 2103 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1648

1647

CHRO: a080624i2 24-Jun-08 Elapse: 32:09 1198
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1171 > 1223 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1649

1648

```
CHRO:  a080624i2                              24-Jun-08   Elapse:  32:51      1238
Samp:  Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1               Start :  17:22:17   2598
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 ICAL CS2
Oper:  DCG          Client:  TA Knoxville                 Inlet :  GC     Vial  11
Peak:  100.00  ppm     Label wndw:   1213 > 1263          Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3               Label :  -3, 3.0
Disp:  Height  Area
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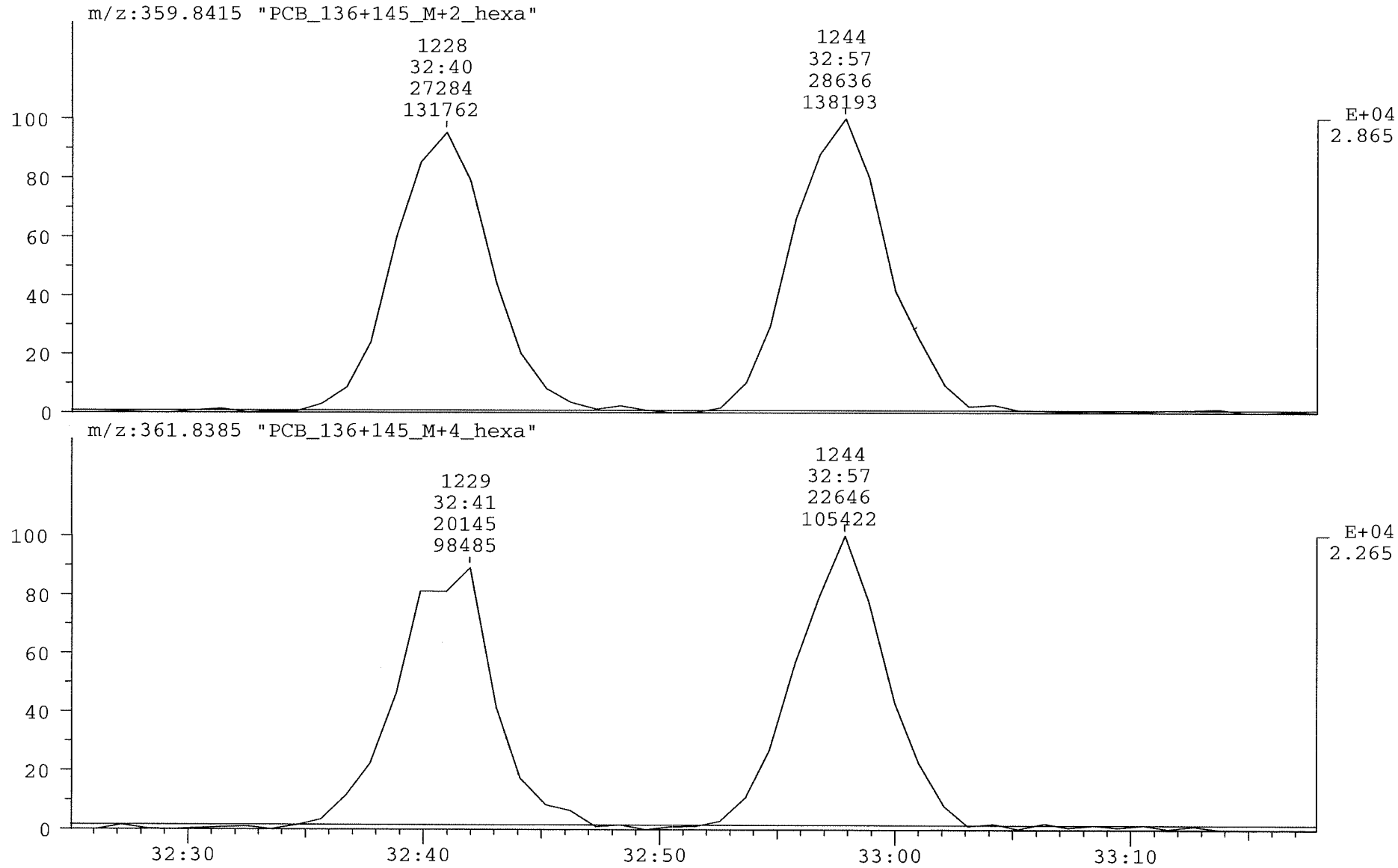
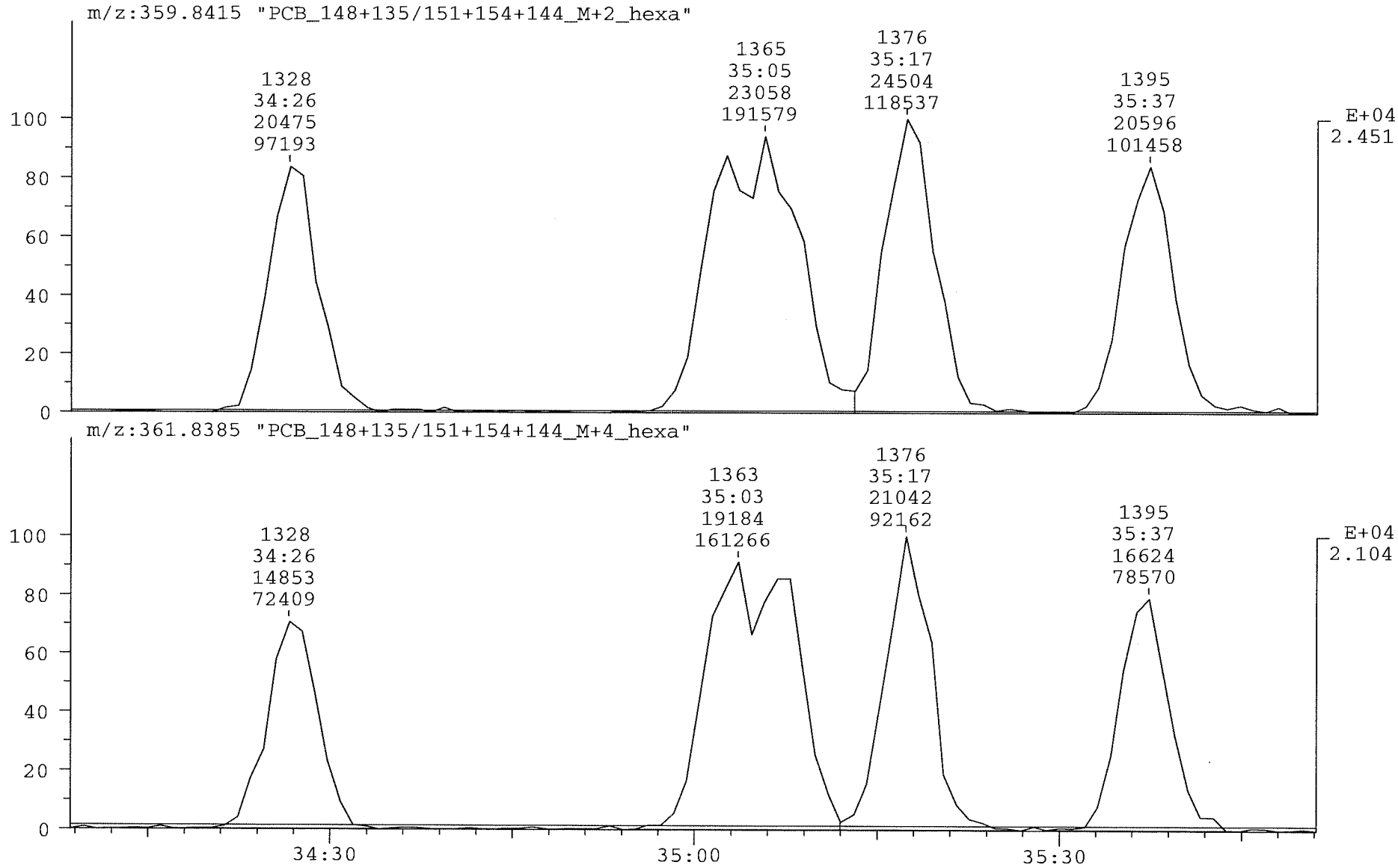


H-1650

1649

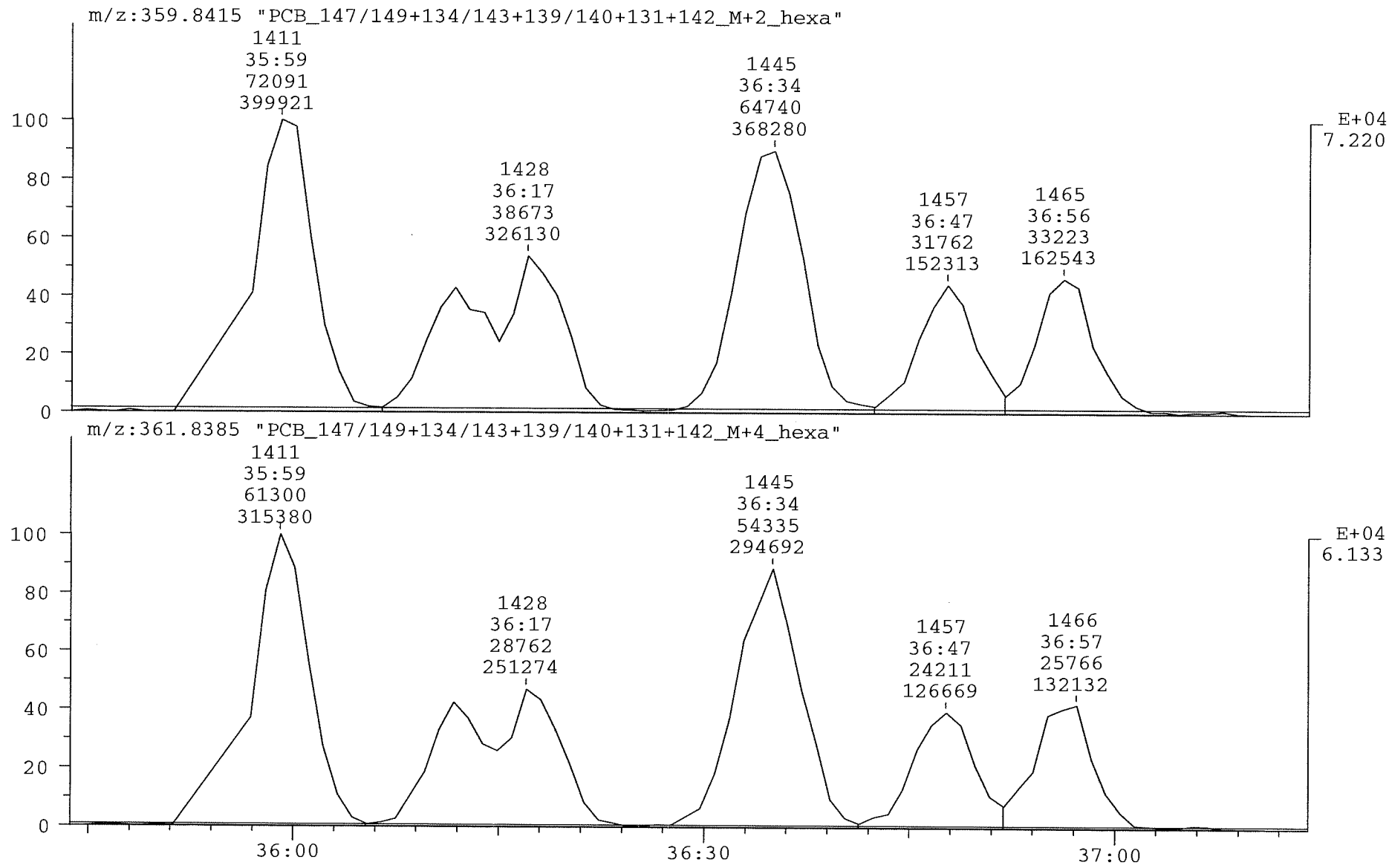
CHRO: a080624i2 24-Jun-08 Elapse: 35:06 1366
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1311 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1651

1650

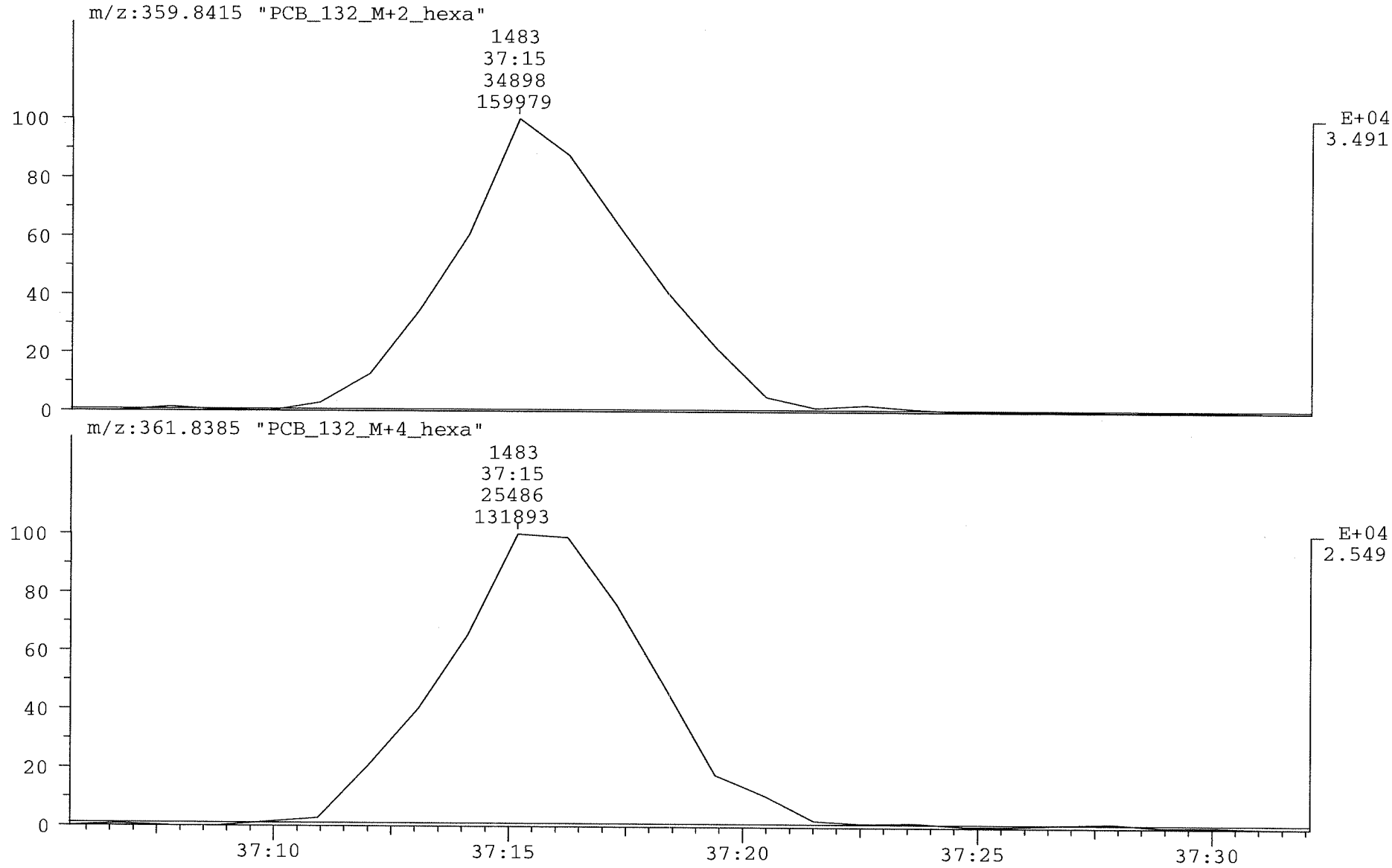
CHRO: a080624i2 24-Jun-08 Elapse: 36:34 1445
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1401 > 1482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1652

1651

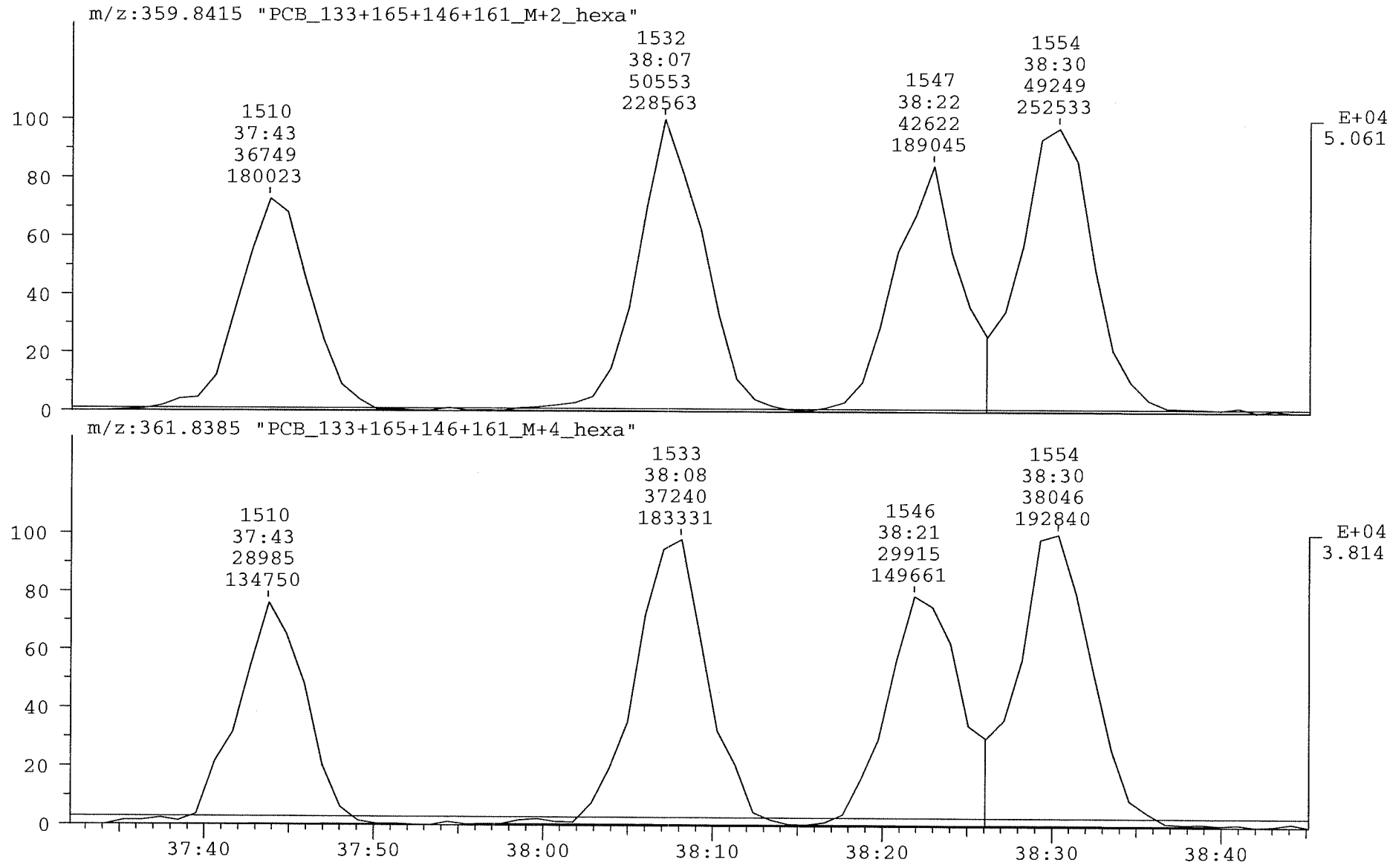
CHRO: a080624i2 24-Jun-08 Elapse: 37:16 1484
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1474 > 1499 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1653

1652

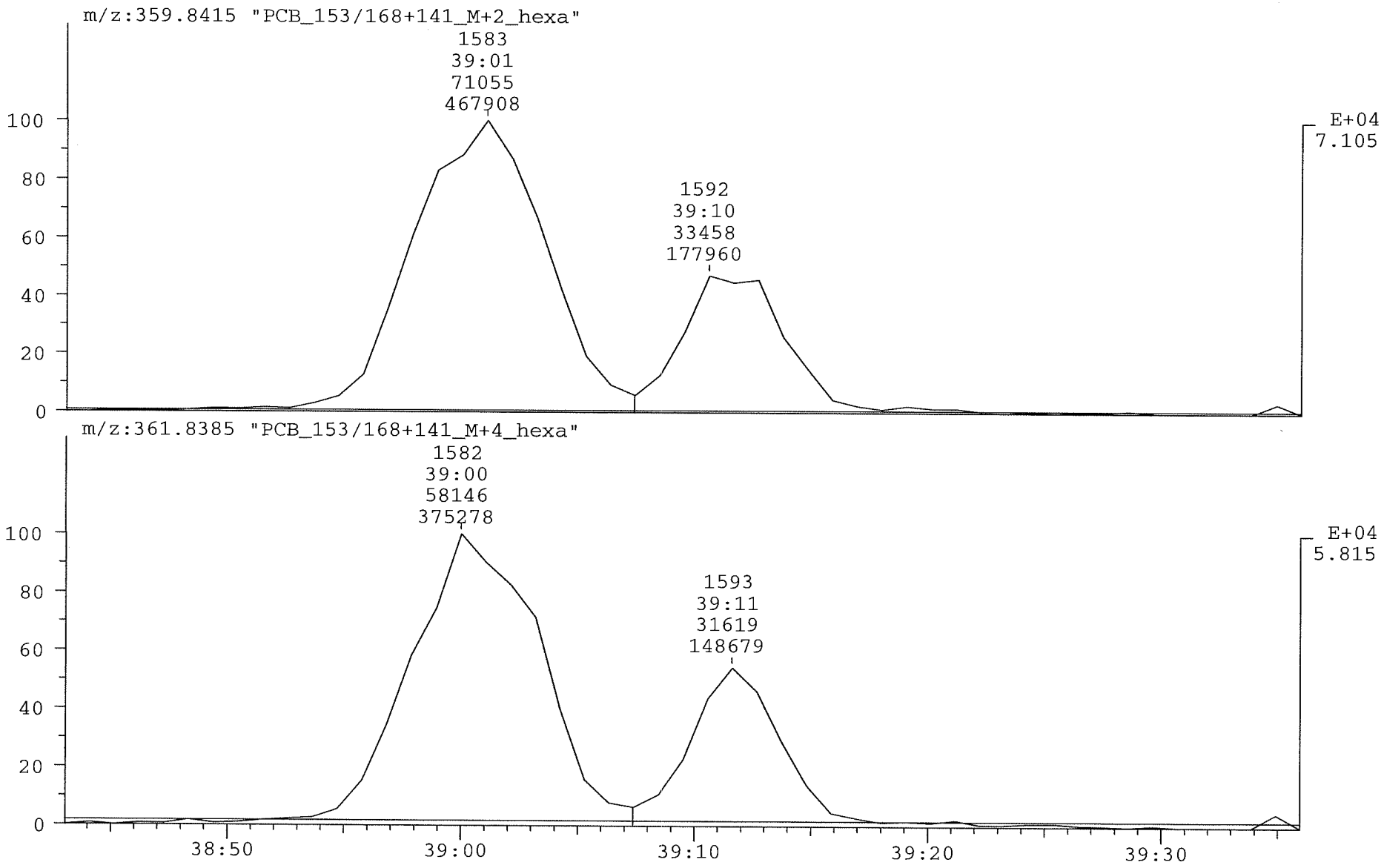
CHRO: a080624i2 24-Jun-08 Elapse: 38:10 1535
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1499 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1654

1653

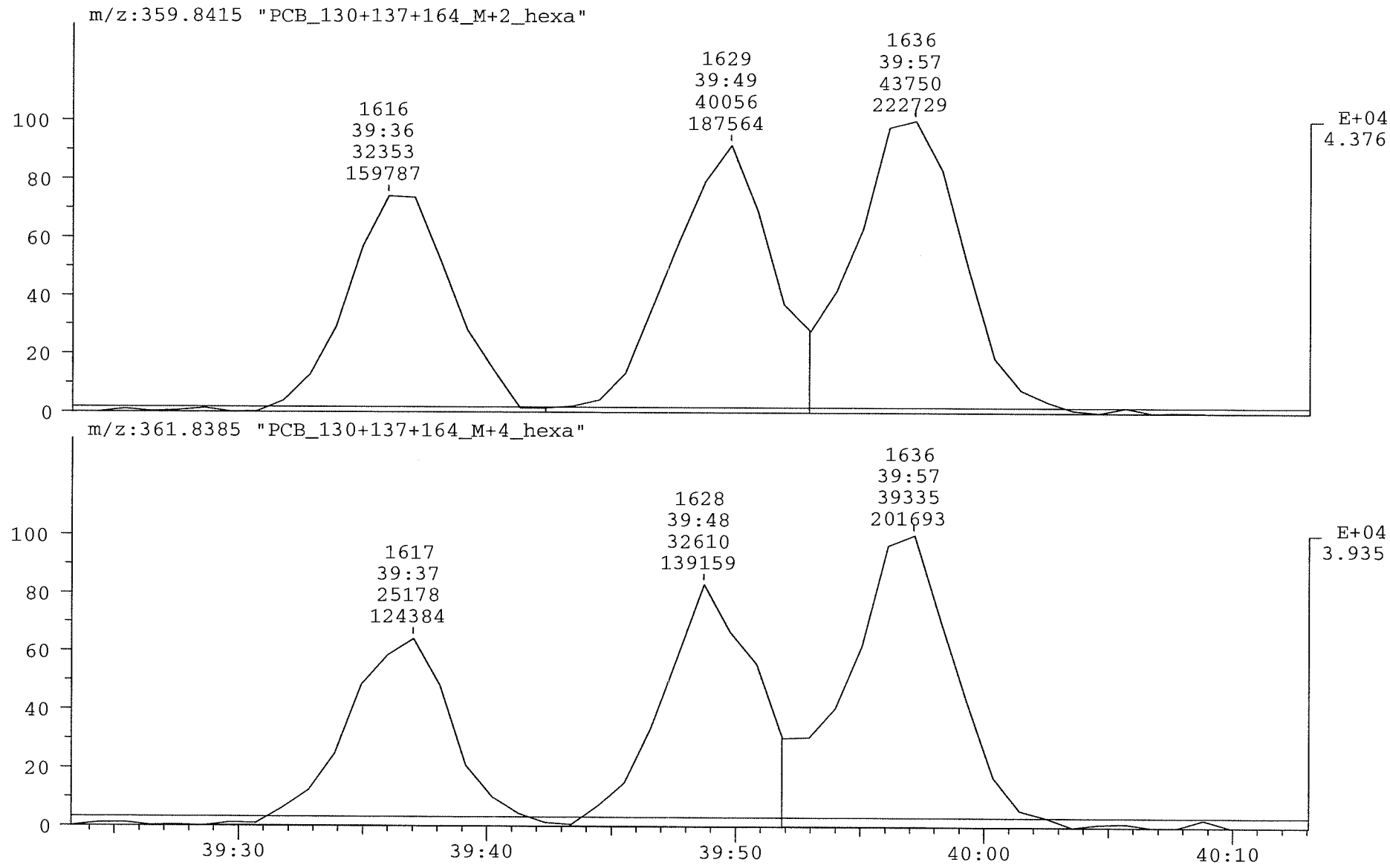
CHRO: a080624i2 24-Jun-08 Elapse: 39:09 1591
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1566 > 1616 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1655

1654

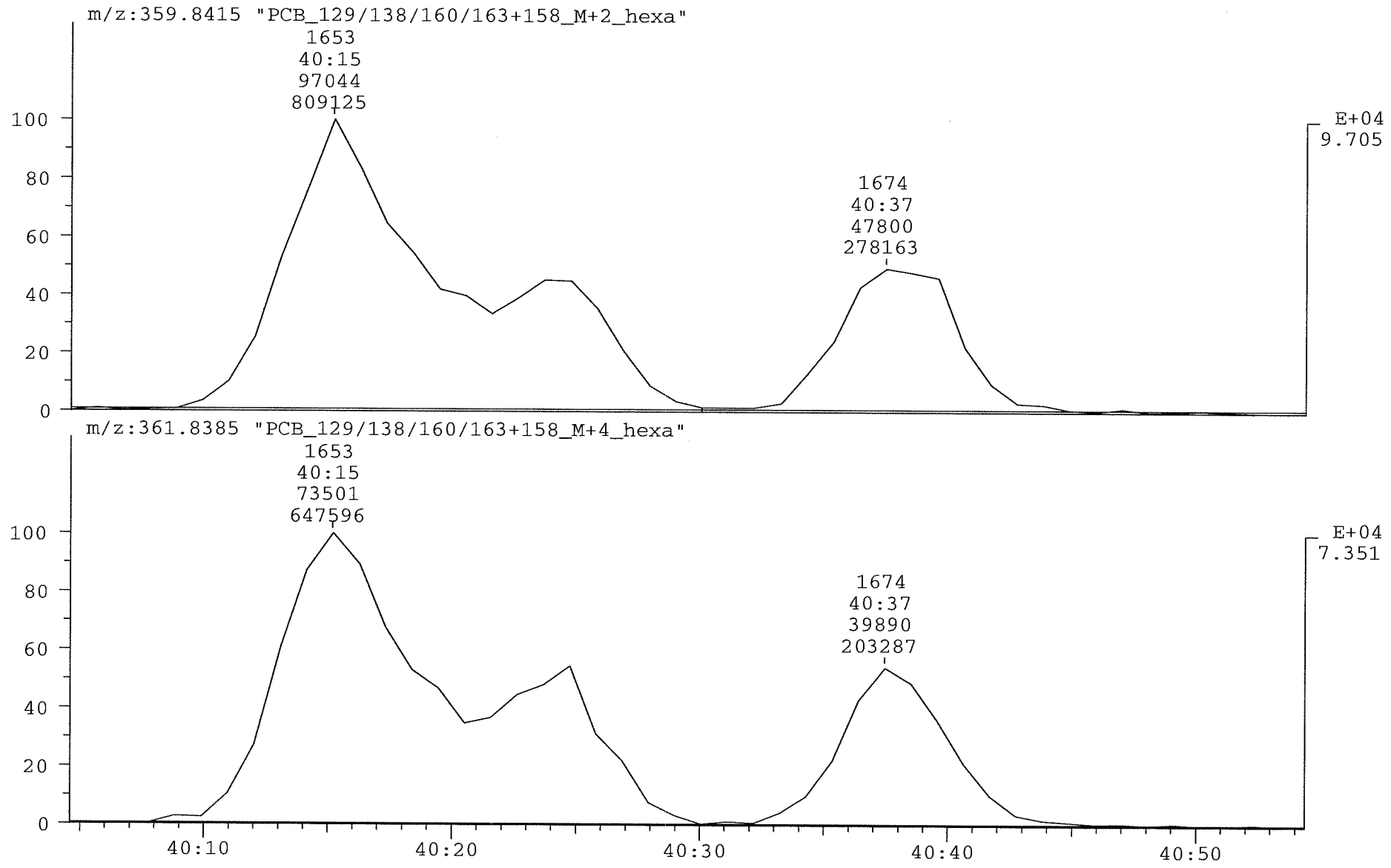
CHRO: a080624i2 24-Jun-08 Elapse: 39:49 1629
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1604 > 1651 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1656

1655

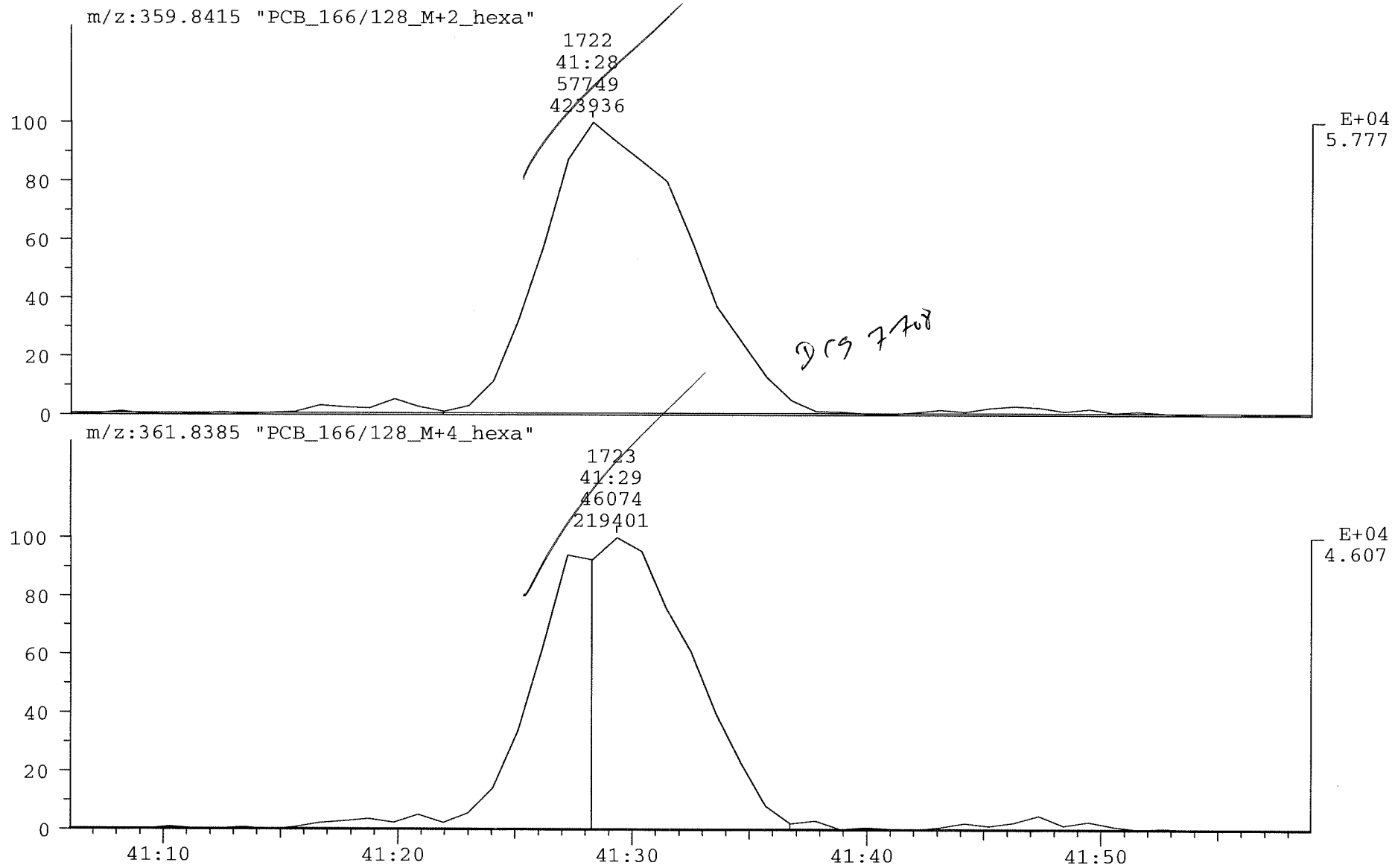
CHRO: a080624i2 24-Jun-08 Elapse: 40:31 1668
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1643 > 1690 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1957

1656

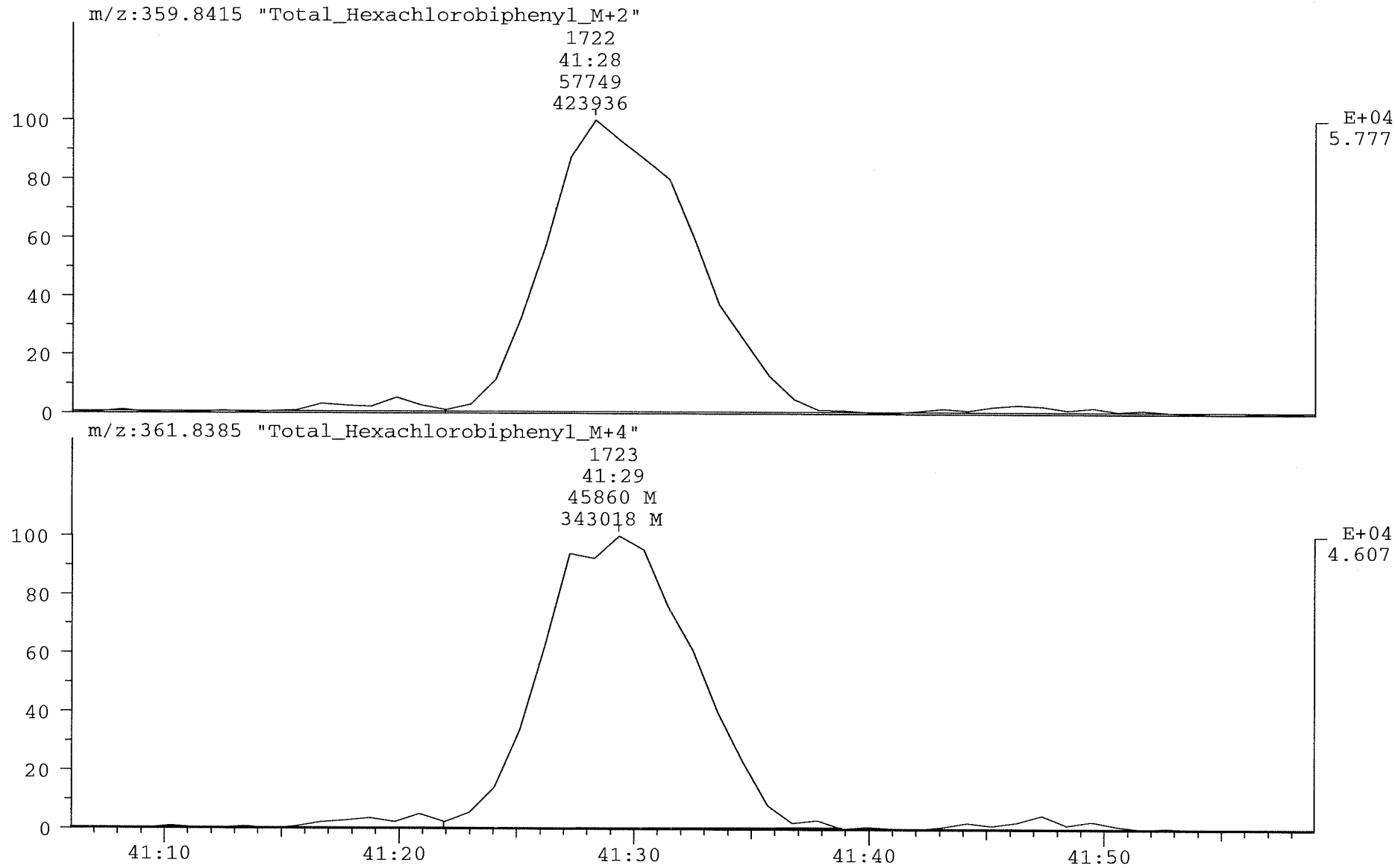
CHRO: a080624i2 24-Jun-08 Elapse: 41:32 1726
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1701 > 1751 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1658

1657

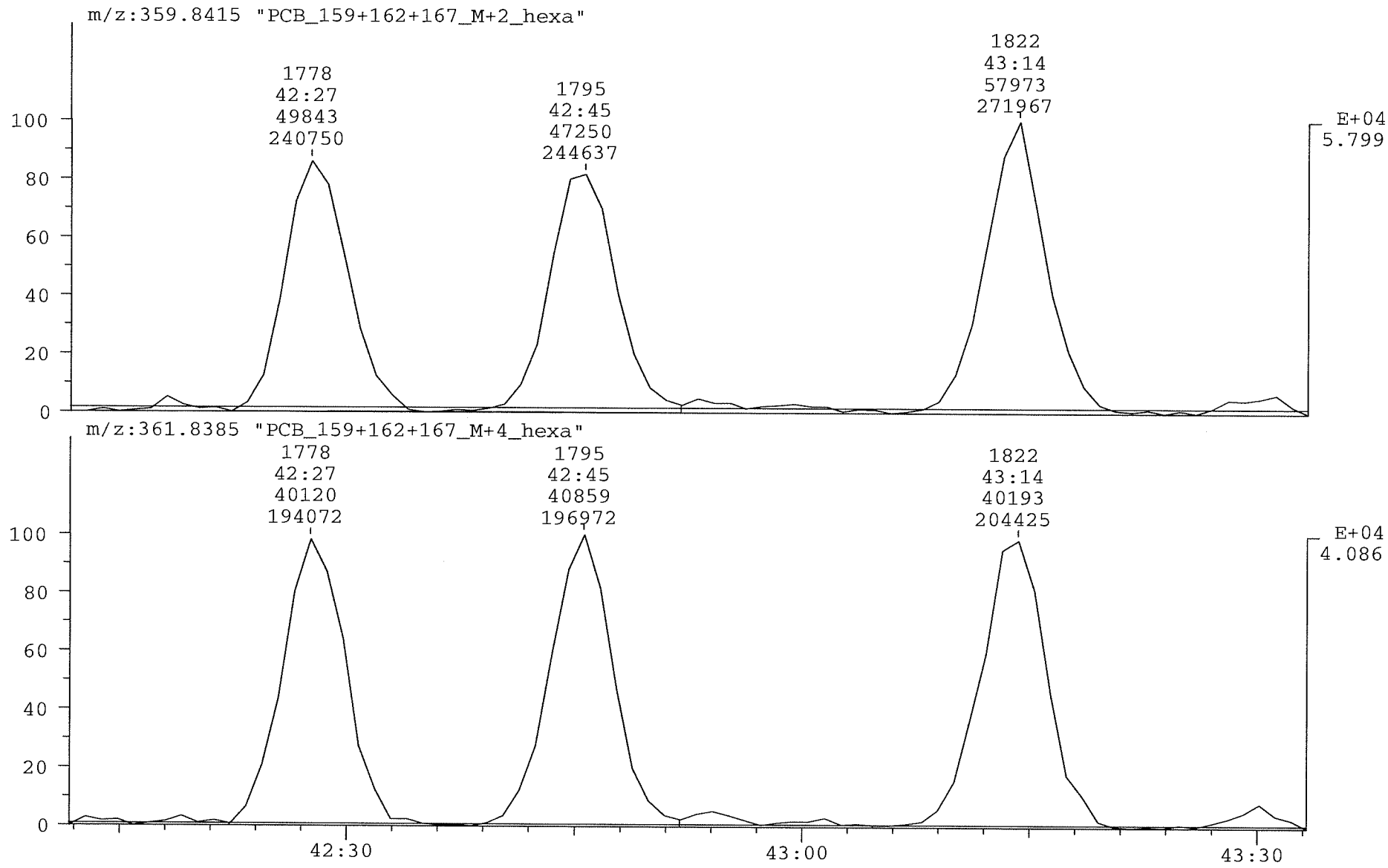
CHRO: a080624i2 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1701 > 1751 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1659

1658

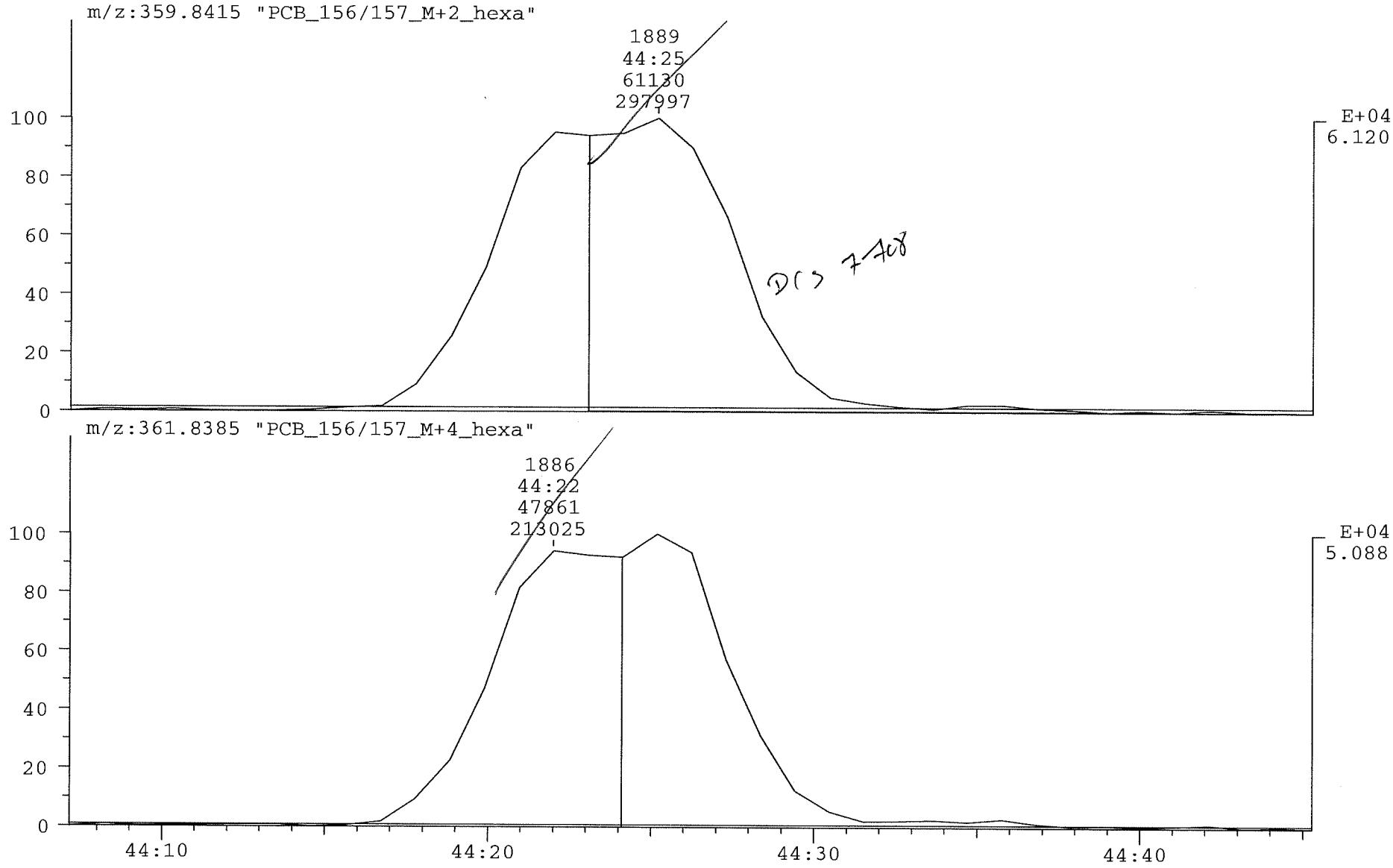
CHRO: a080624i2 24-Jun-08 Elapse: 42:54 1803
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1763 > 1840 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1660

1659

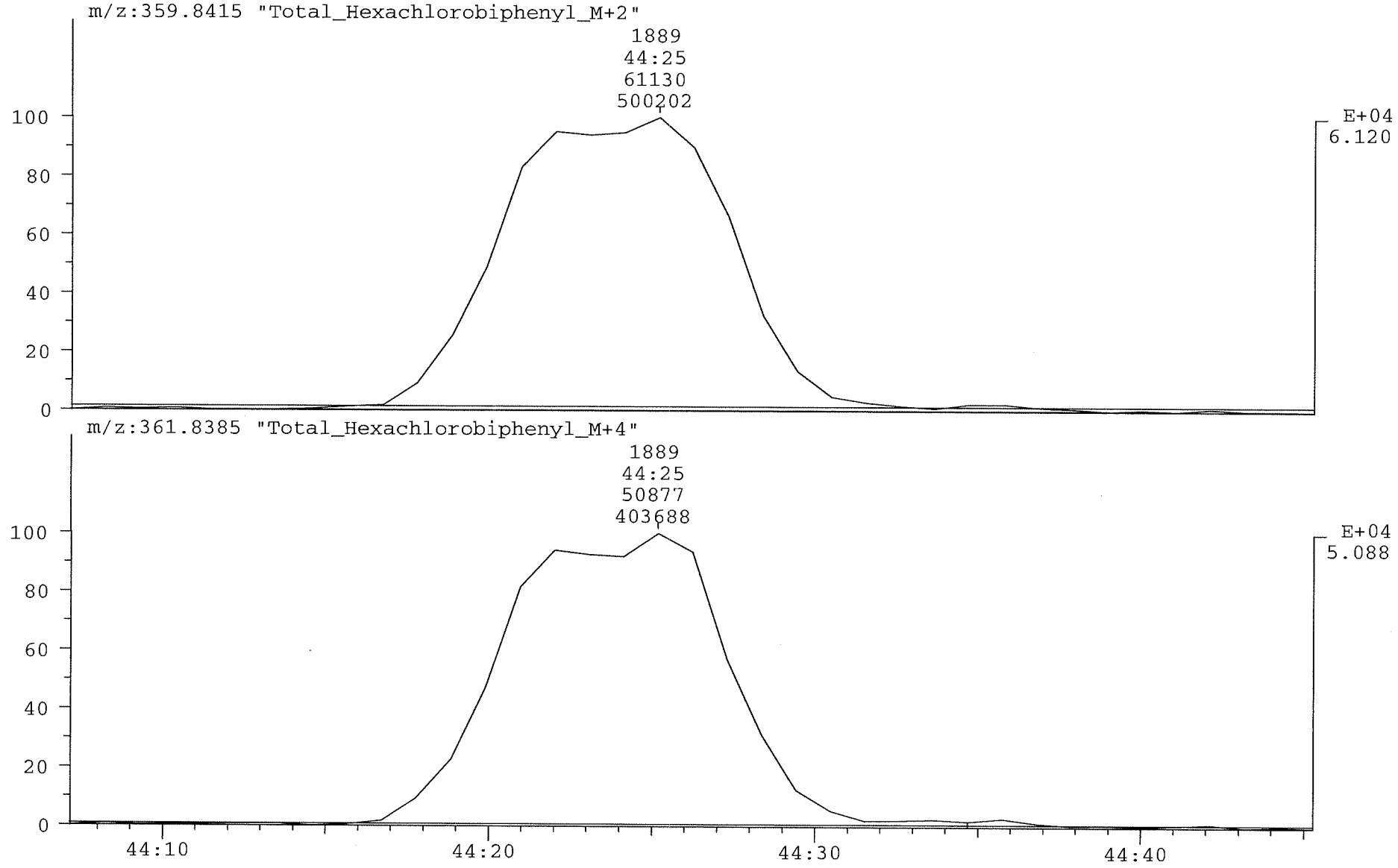
CHRO: a080624i2 24-Jun-08 Elapse: 44:23 1887
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1872 > 1908 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1661

1660

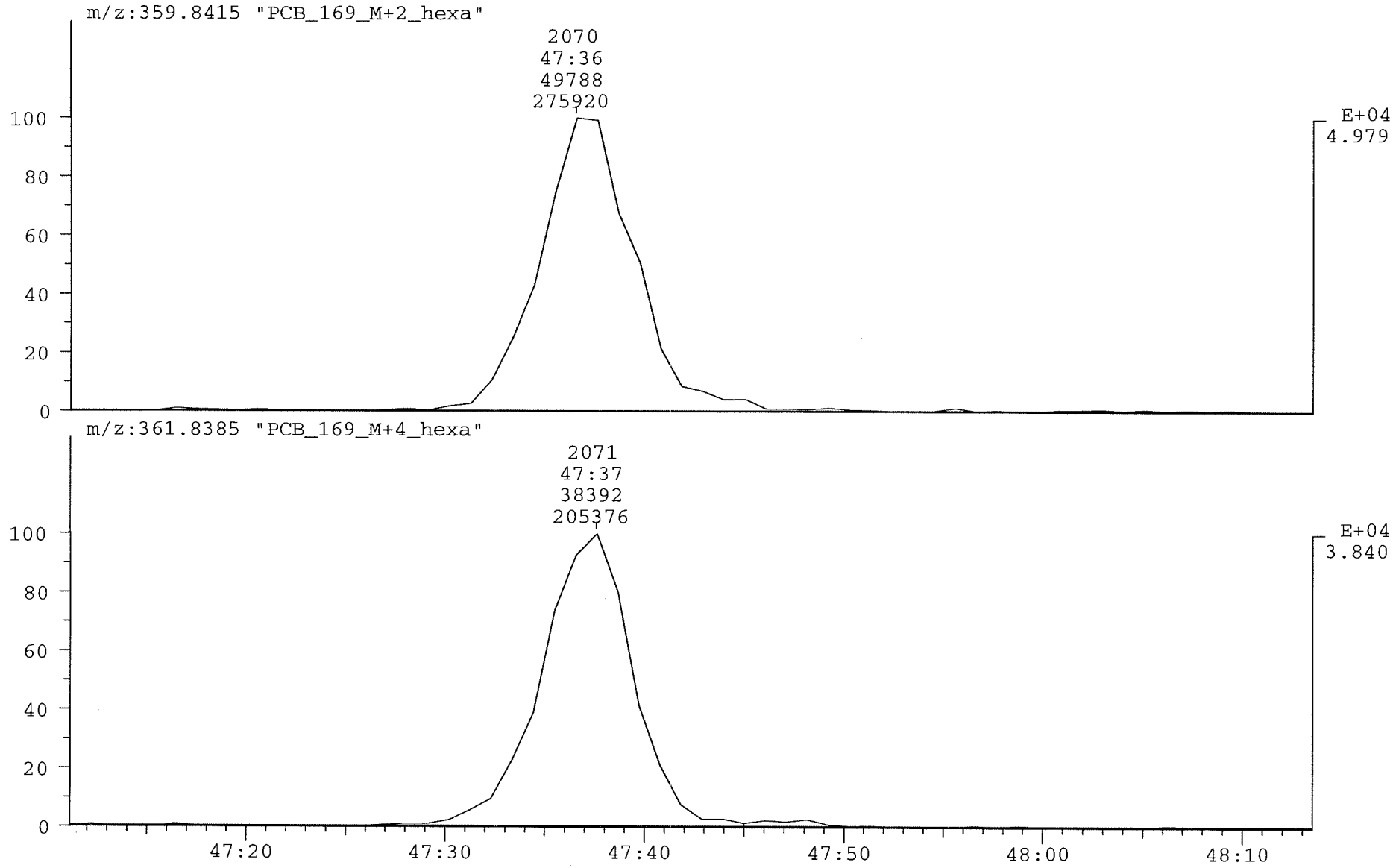
CHRO: a080624i2 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1872 > 1908 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1662

1661

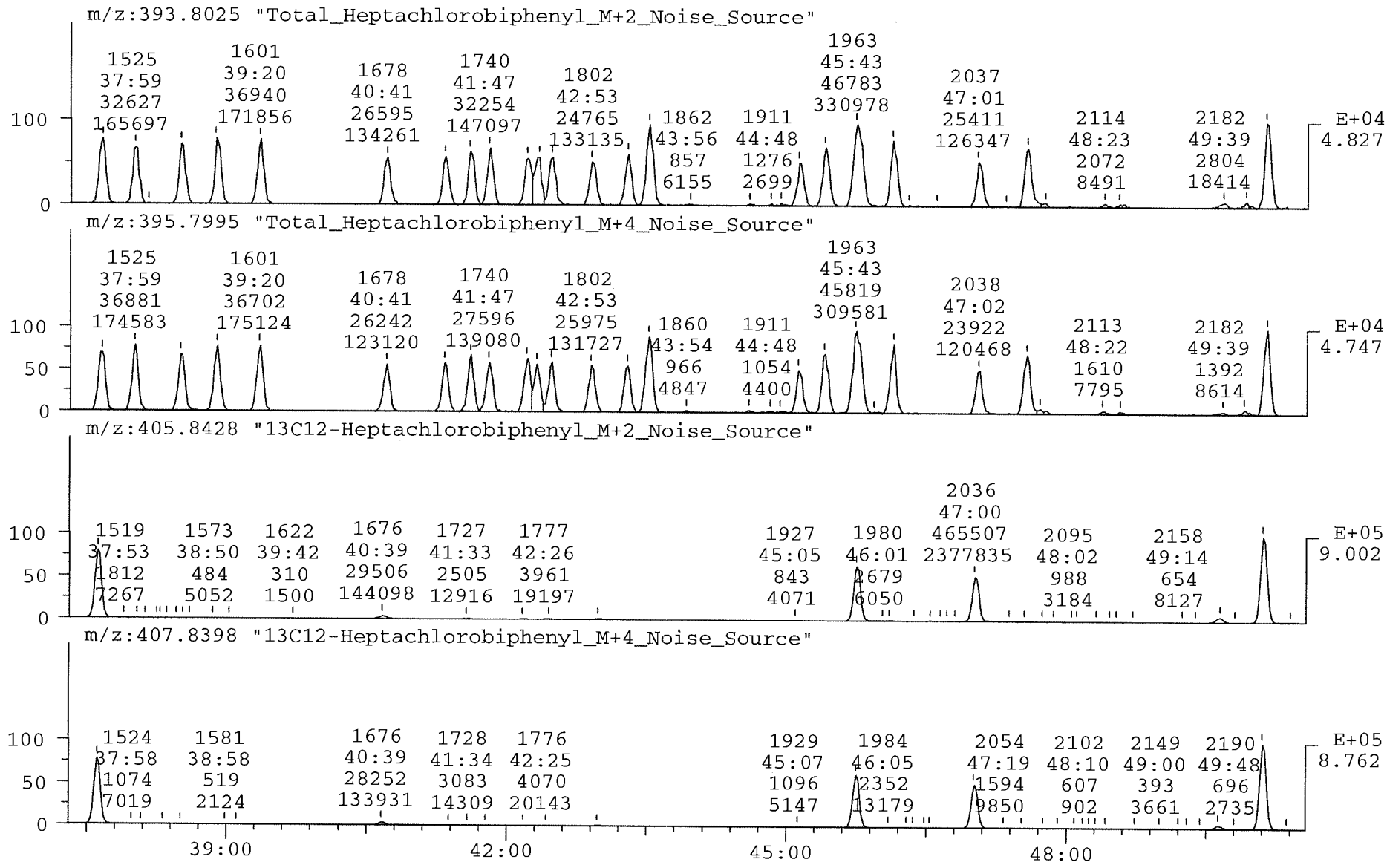
CHRO: a080624i2 24-Jun-08 Elapse: 47:37 2071
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2046 > 2105 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1663

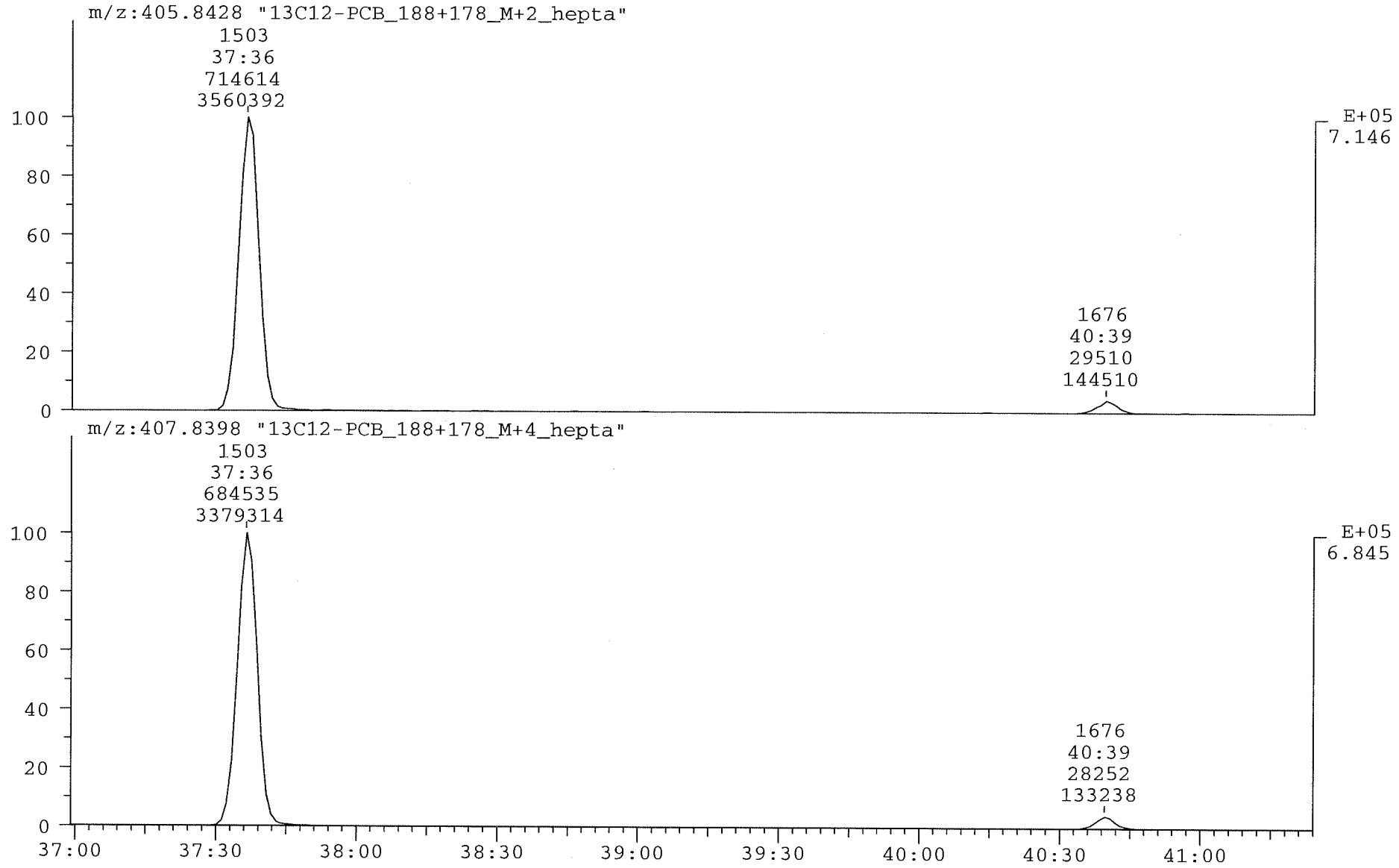
1662

CHRO: a080624i2 24-Jun-08 Elapse: 43:55 1861
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1486 > 2233 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1664

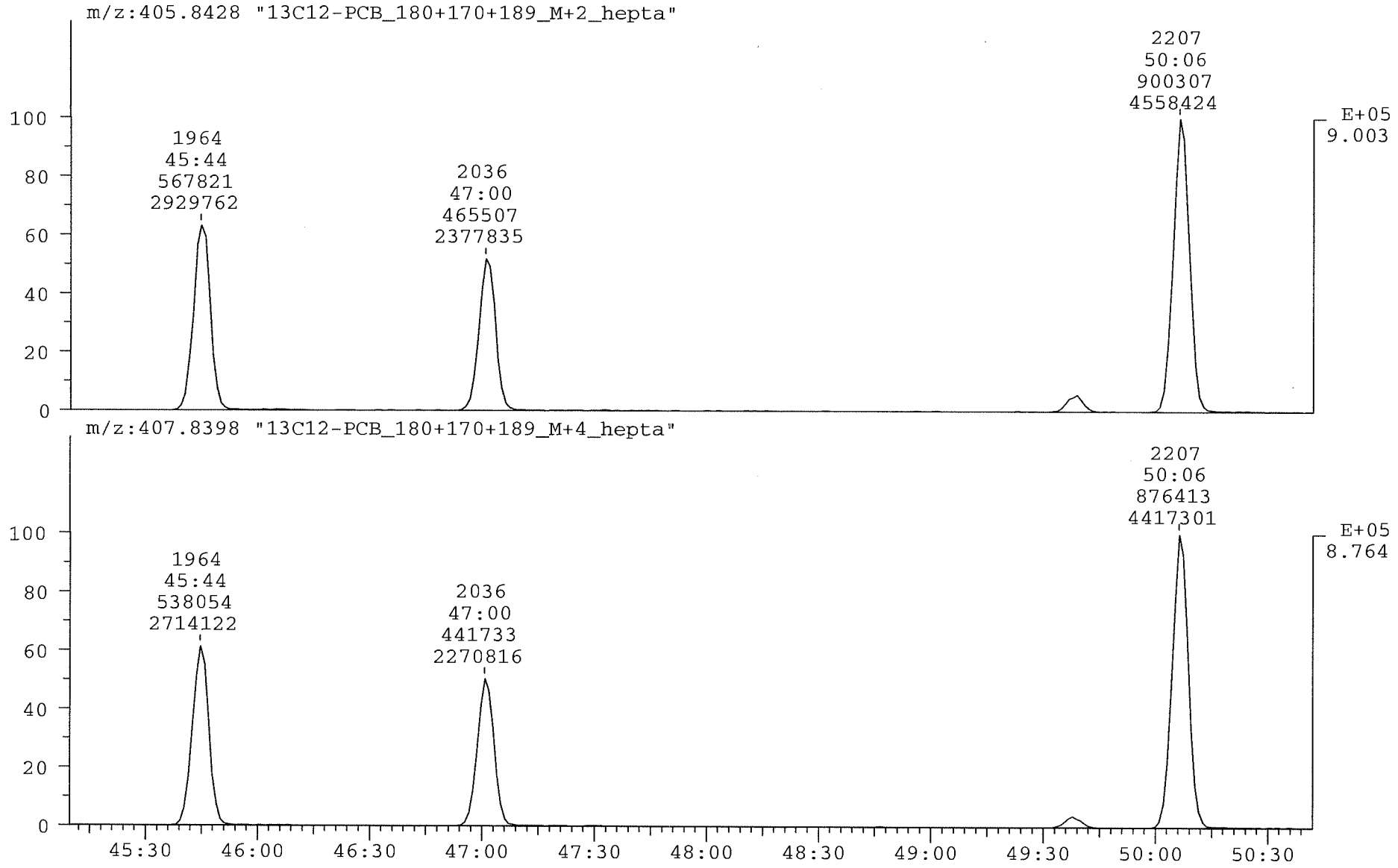
CHRO: a080624i2 24-Jun-08 Elapse: 39:10 1592
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1468 > 1718 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1665

1664

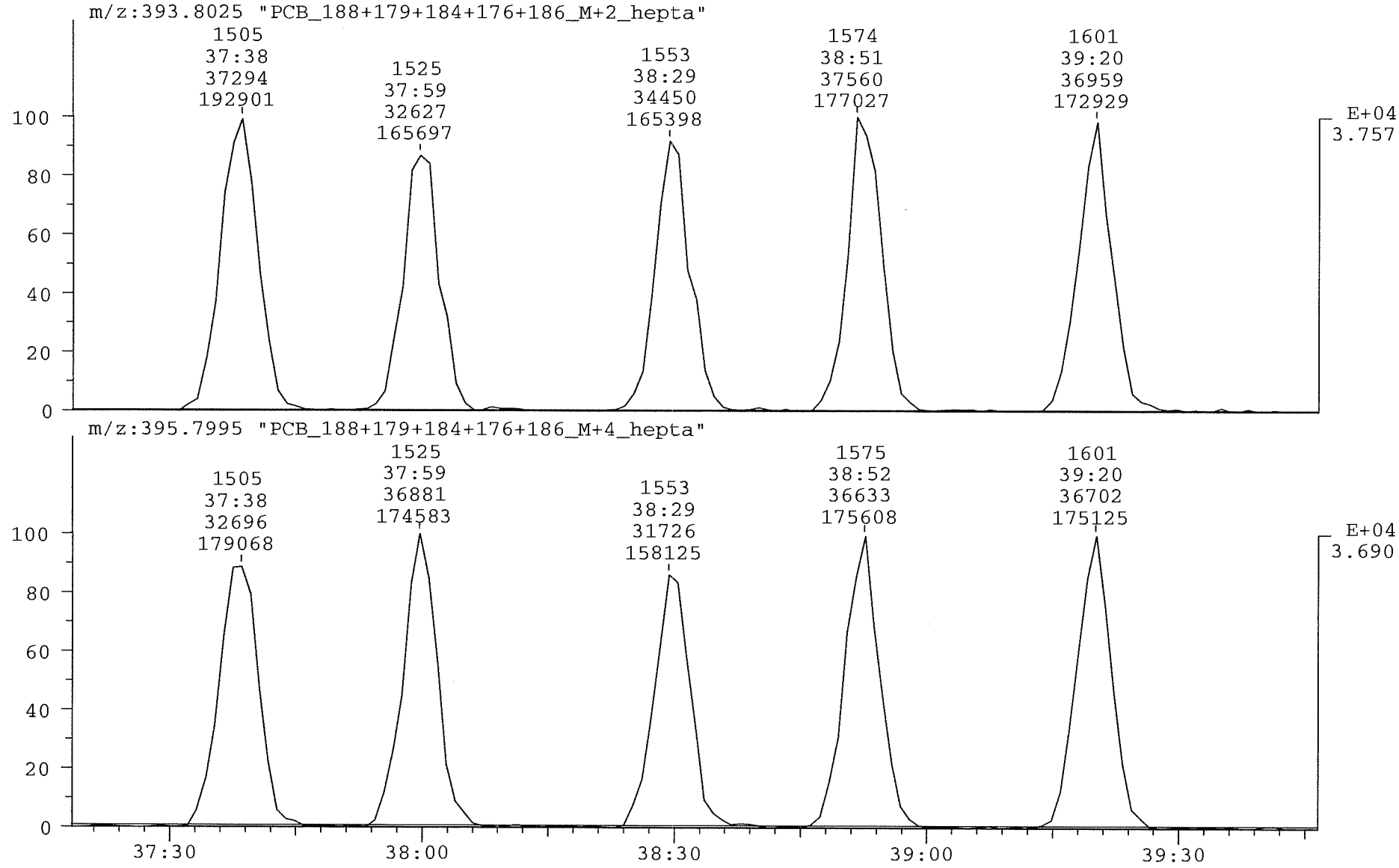
CHRO: a080624i2 24-Jun-08 Elapse: 47:58 2091
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1931 > 2241 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1666

1665

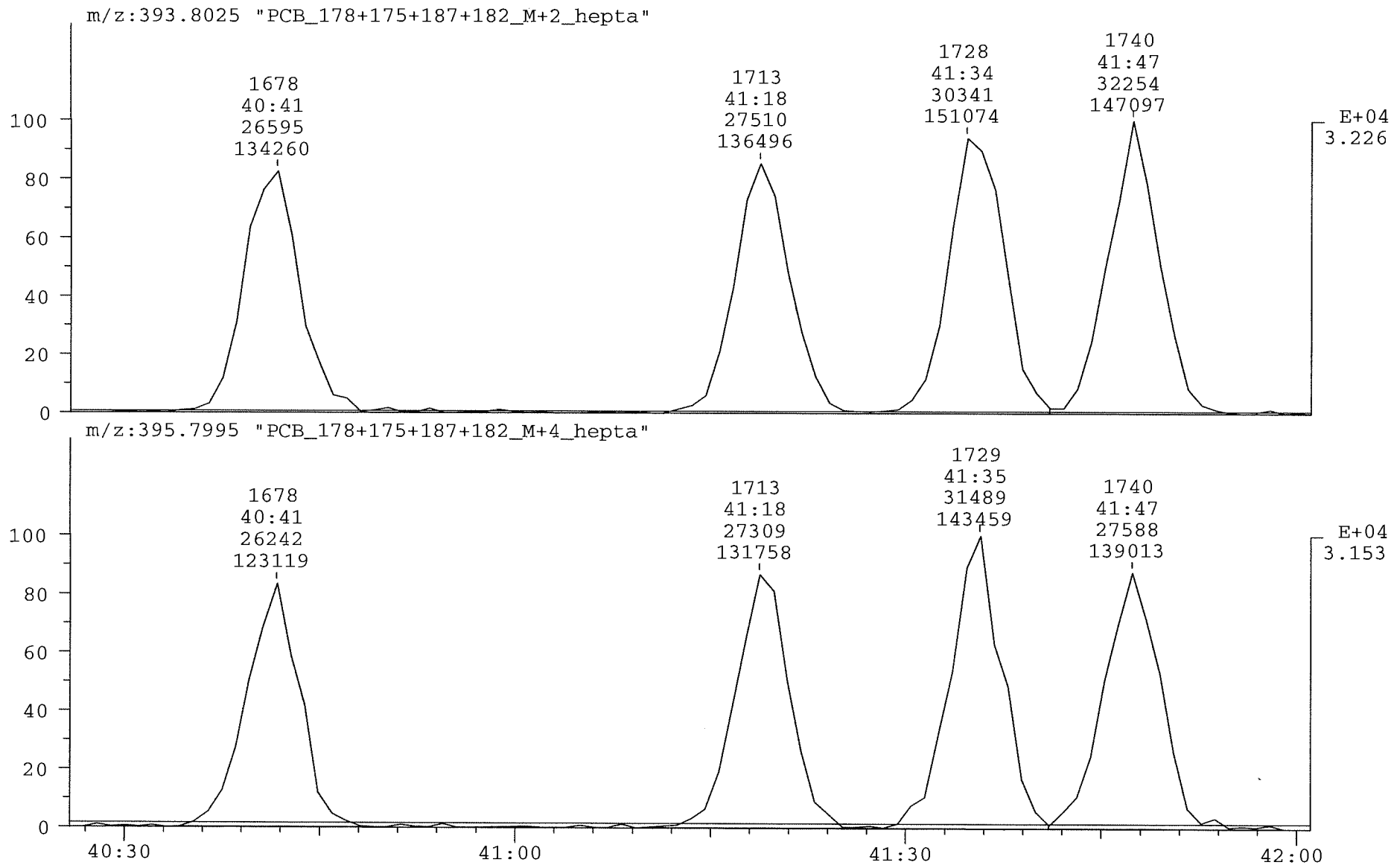
CHRO: a080624i2 24-Jun-08 Elapse: 38:32 1556
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1486 > 1626 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1667

1666

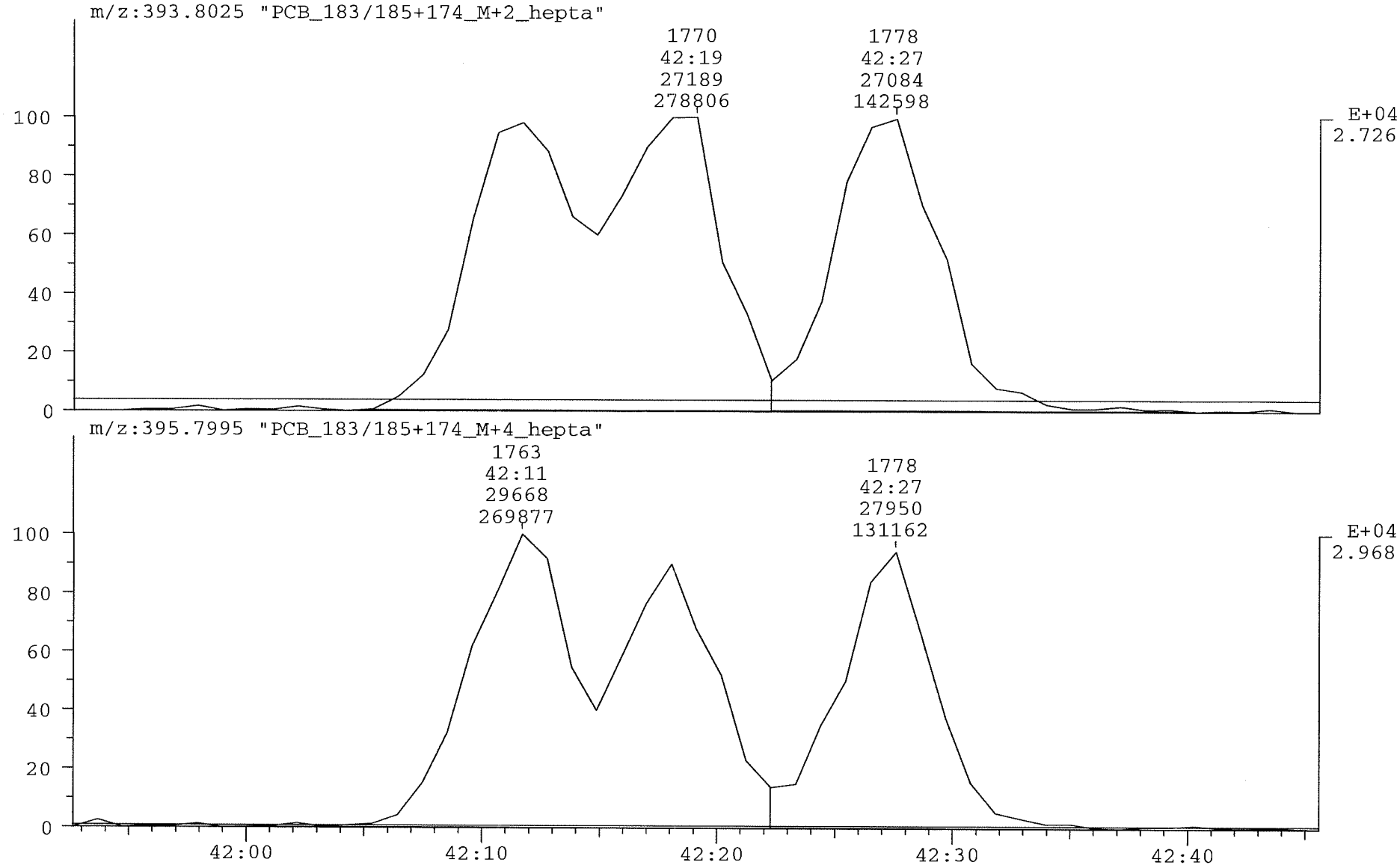
CHRO: a080624i2 24-Jun-08 Elapse: 41:18 1713
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1663 > 1753 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1668

1667

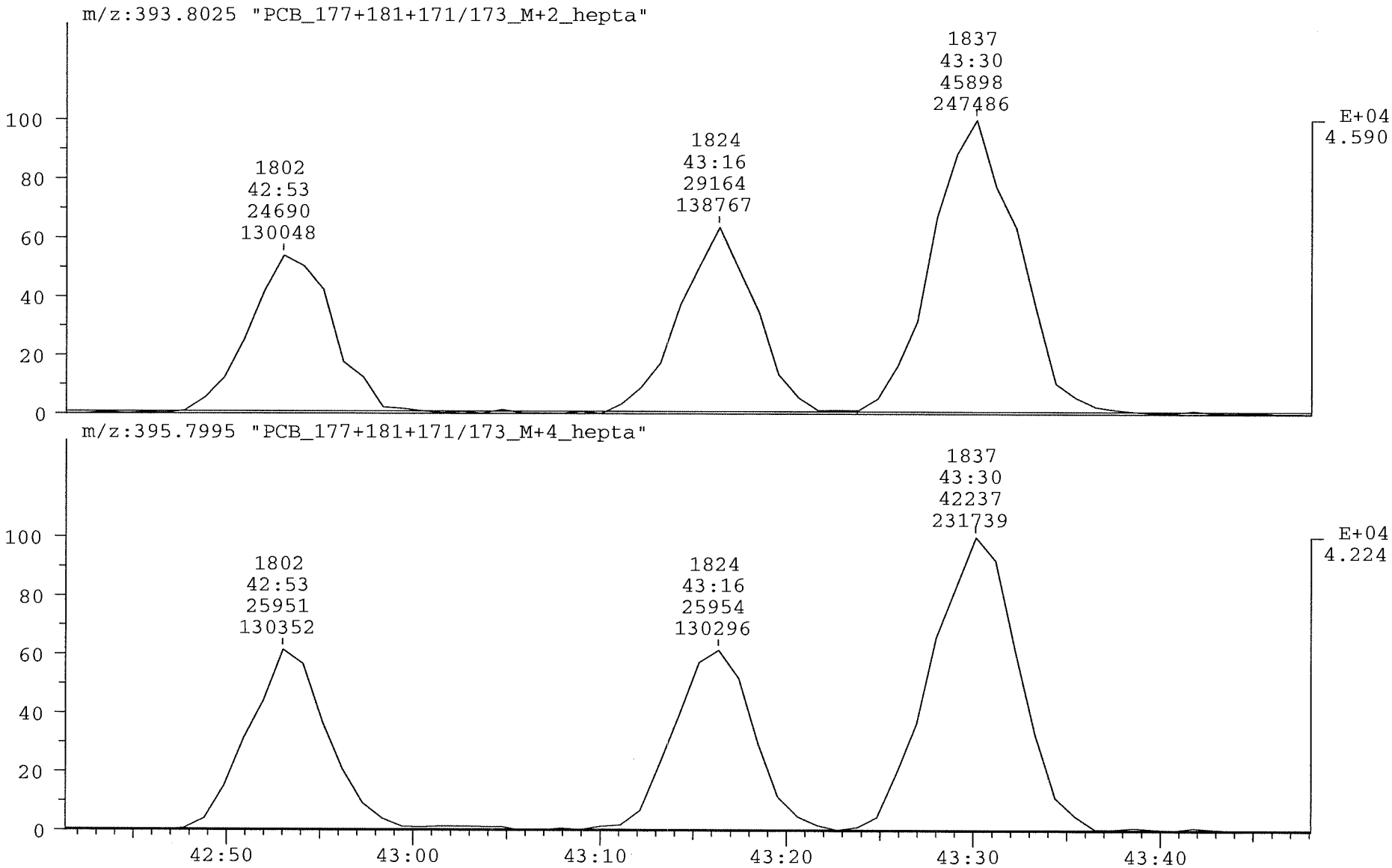
CHRO: a080624i2 24-Jun-08 Elapse: 42:26 1777
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1745 > 1795 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1669

1668

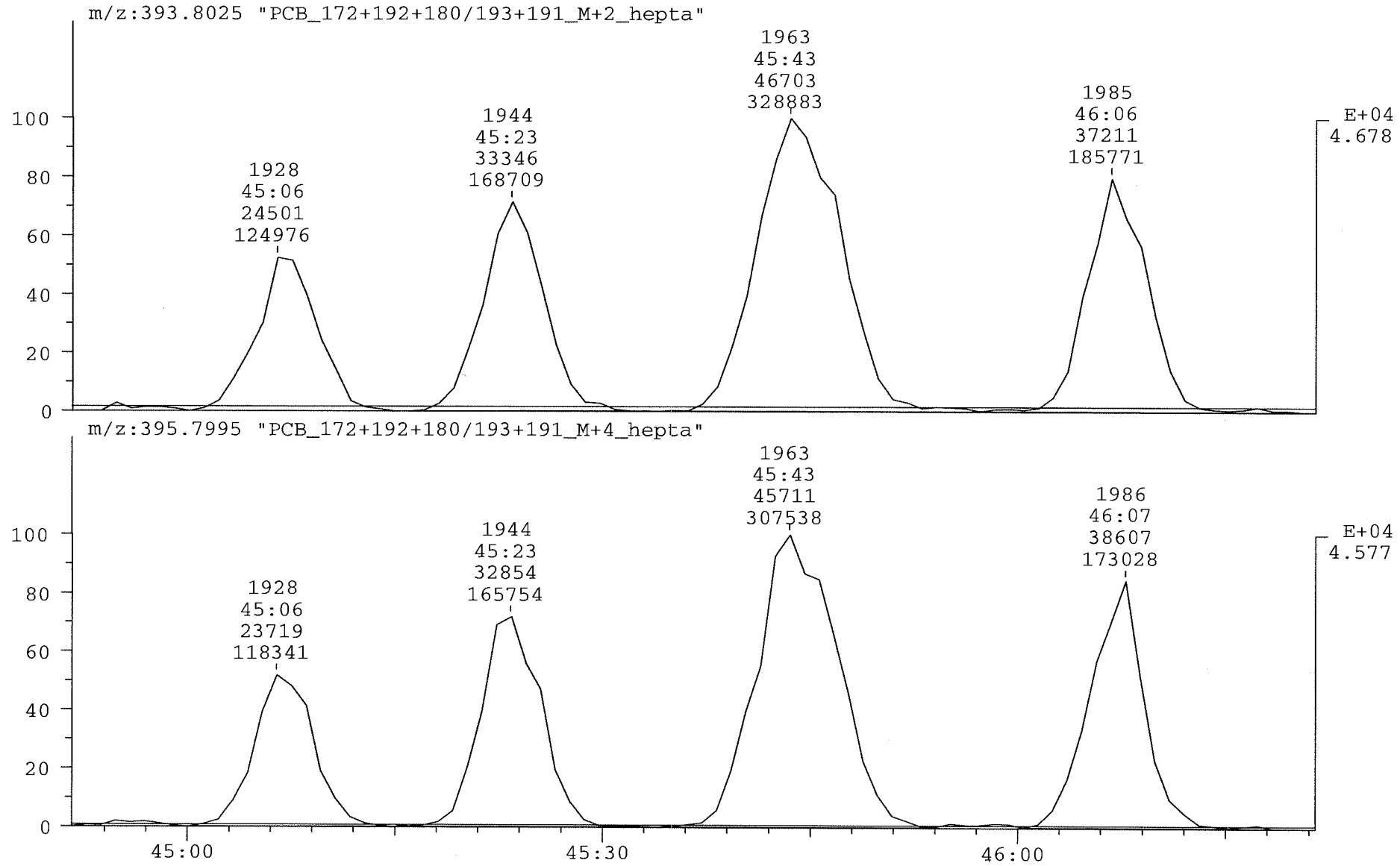
CHRO: a080624i2 24-Jun-08 Elapse: 43:16 1824
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1791 > 1854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1670

1669

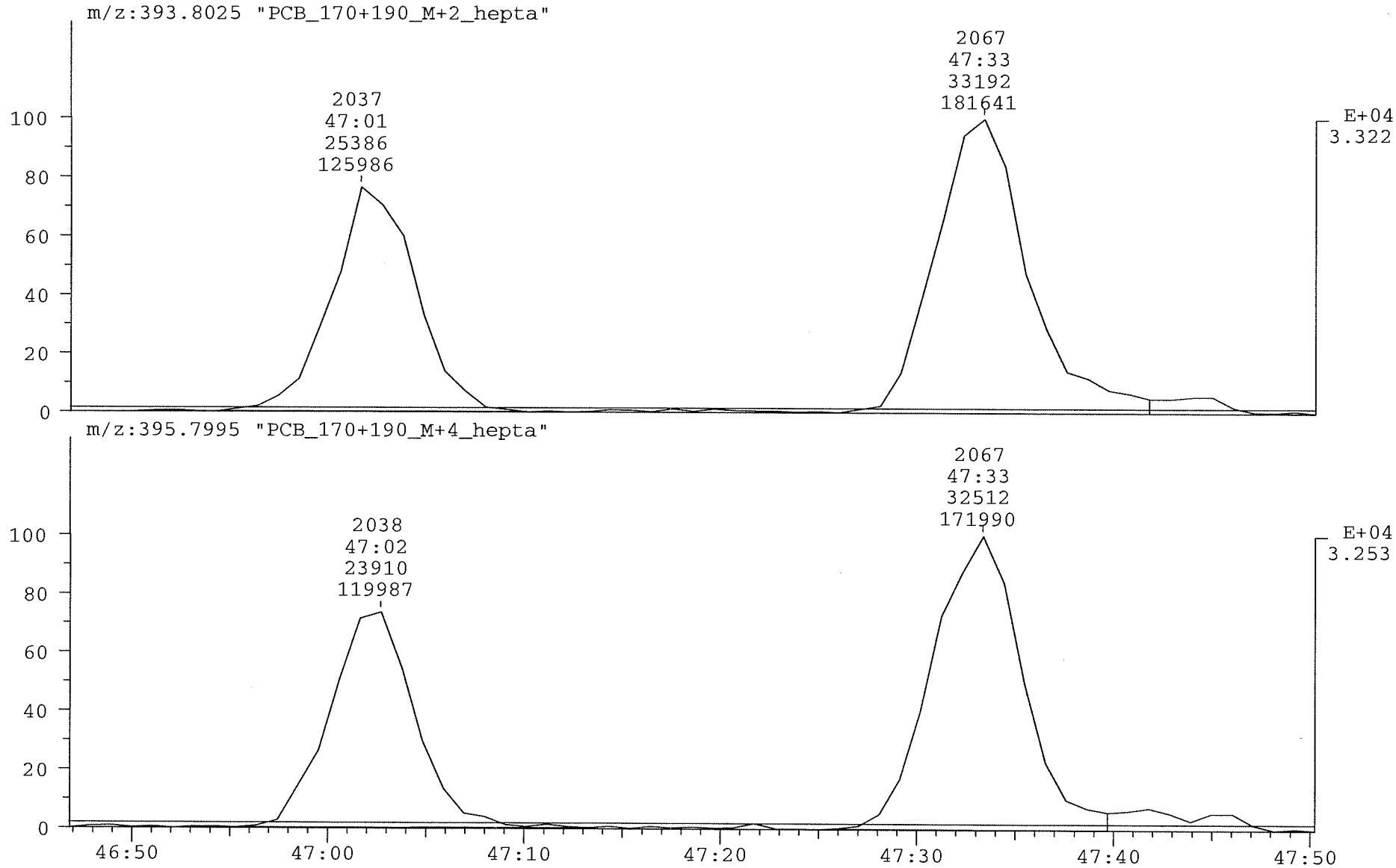
CHRO: a080624i2 24-Jun-08 Elapse: 45:44 1964
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1914 > 1999 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1671

1670

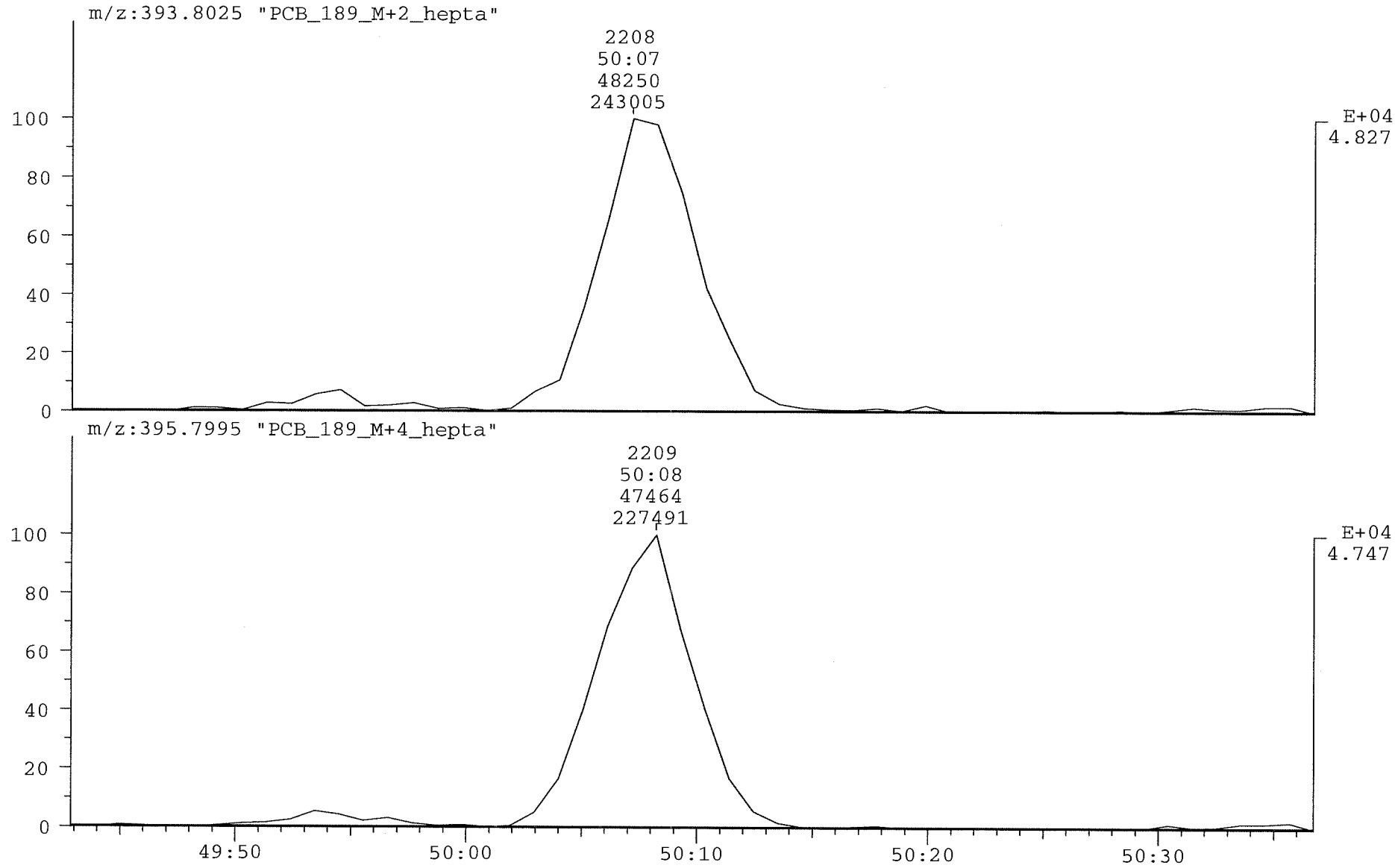
CHRO: a080624i2 24-Jun-08 Elapse: 47:20 2055
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2023 > 2083 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1672

1671

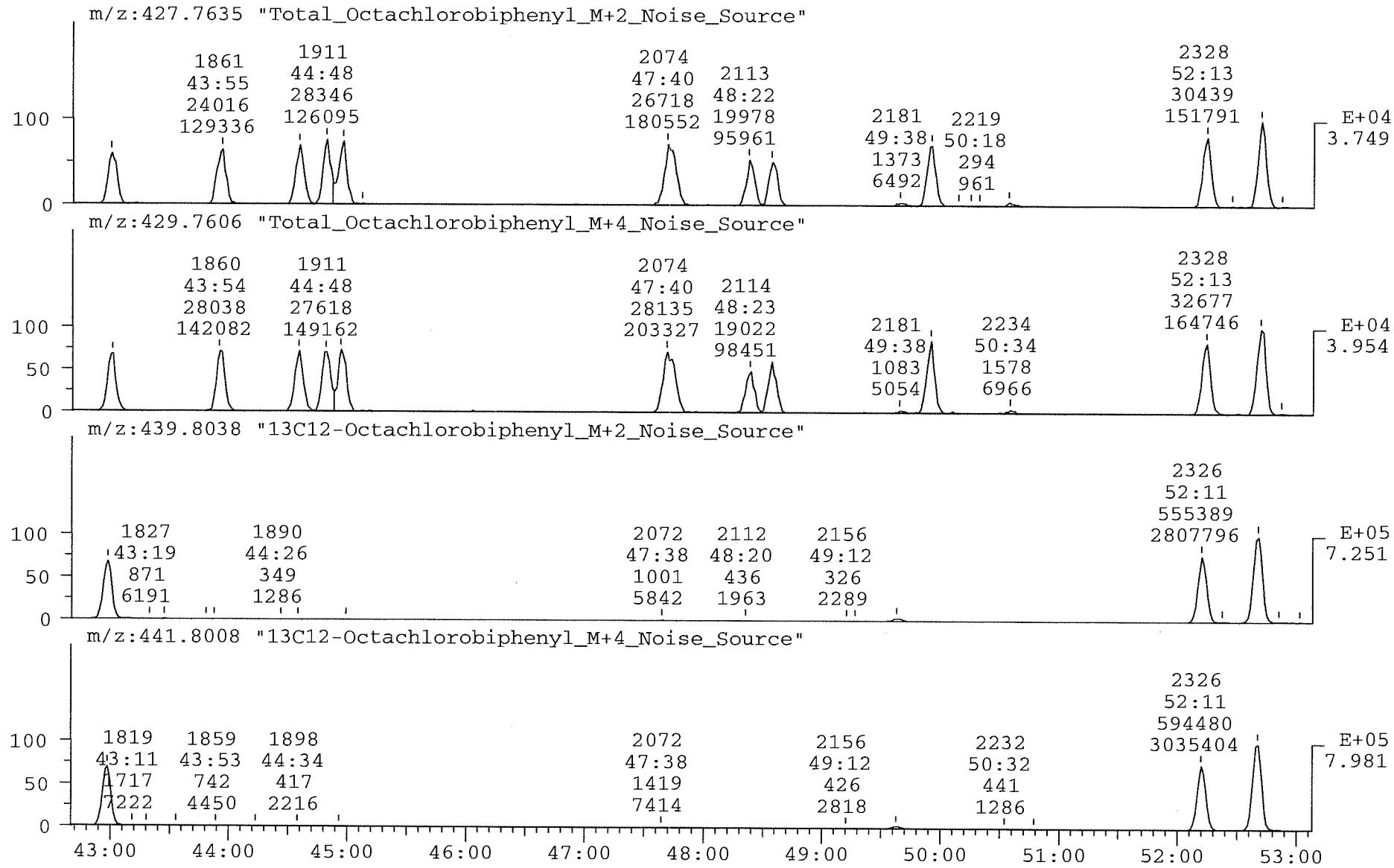
CHRO: a080624i2 24-Jun-08 Elapse: 50:08 2209
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2185 > 2236 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1673

1672

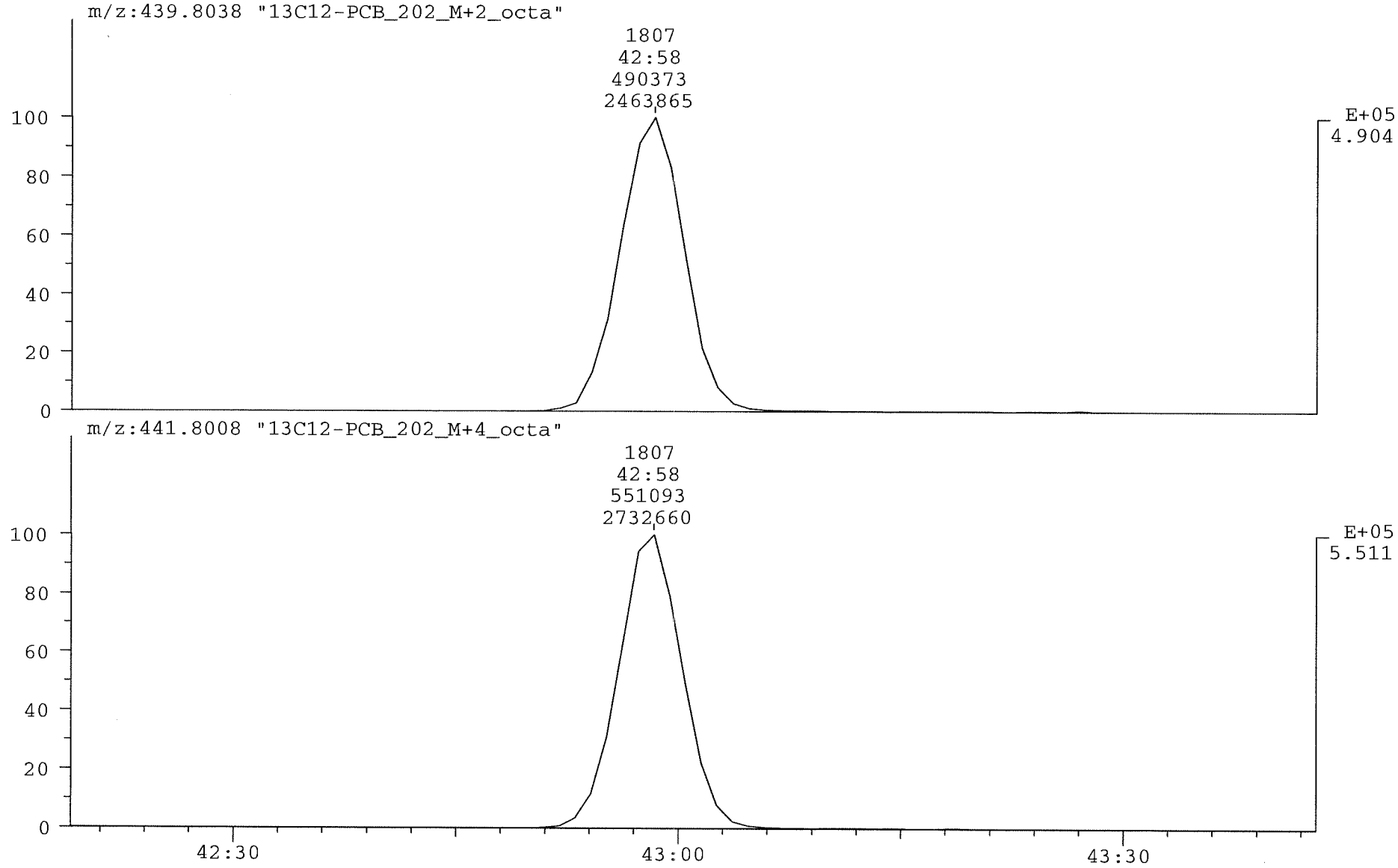
CHRO: a080624i2 24-Jun-08 Elapse: 47:54 2087
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1790 > 2379 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H1674

1673

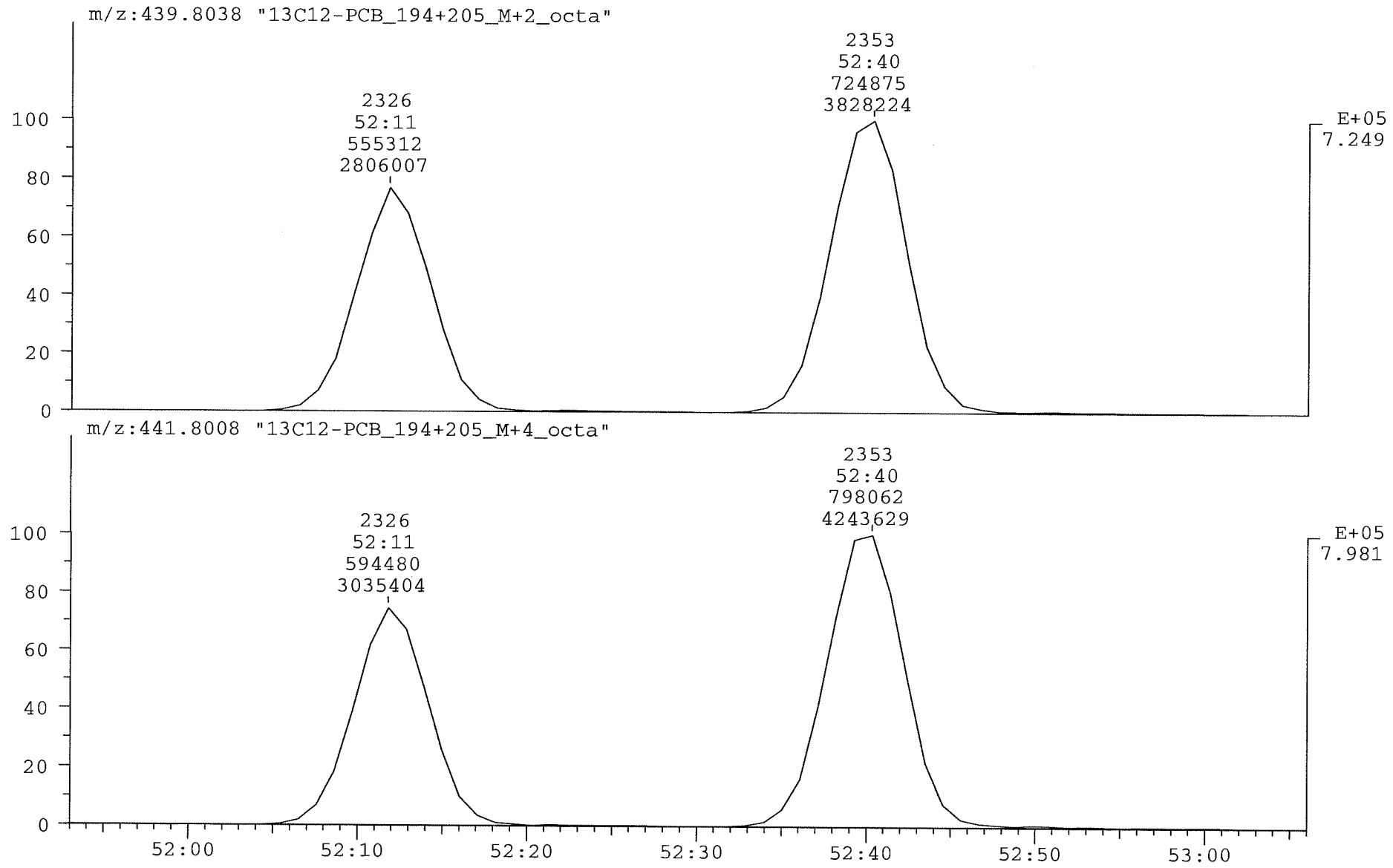
CHRO: a080624i2 24-Jun-08 Elapse: 42:58 1807
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1770 > 1849 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1675

1674

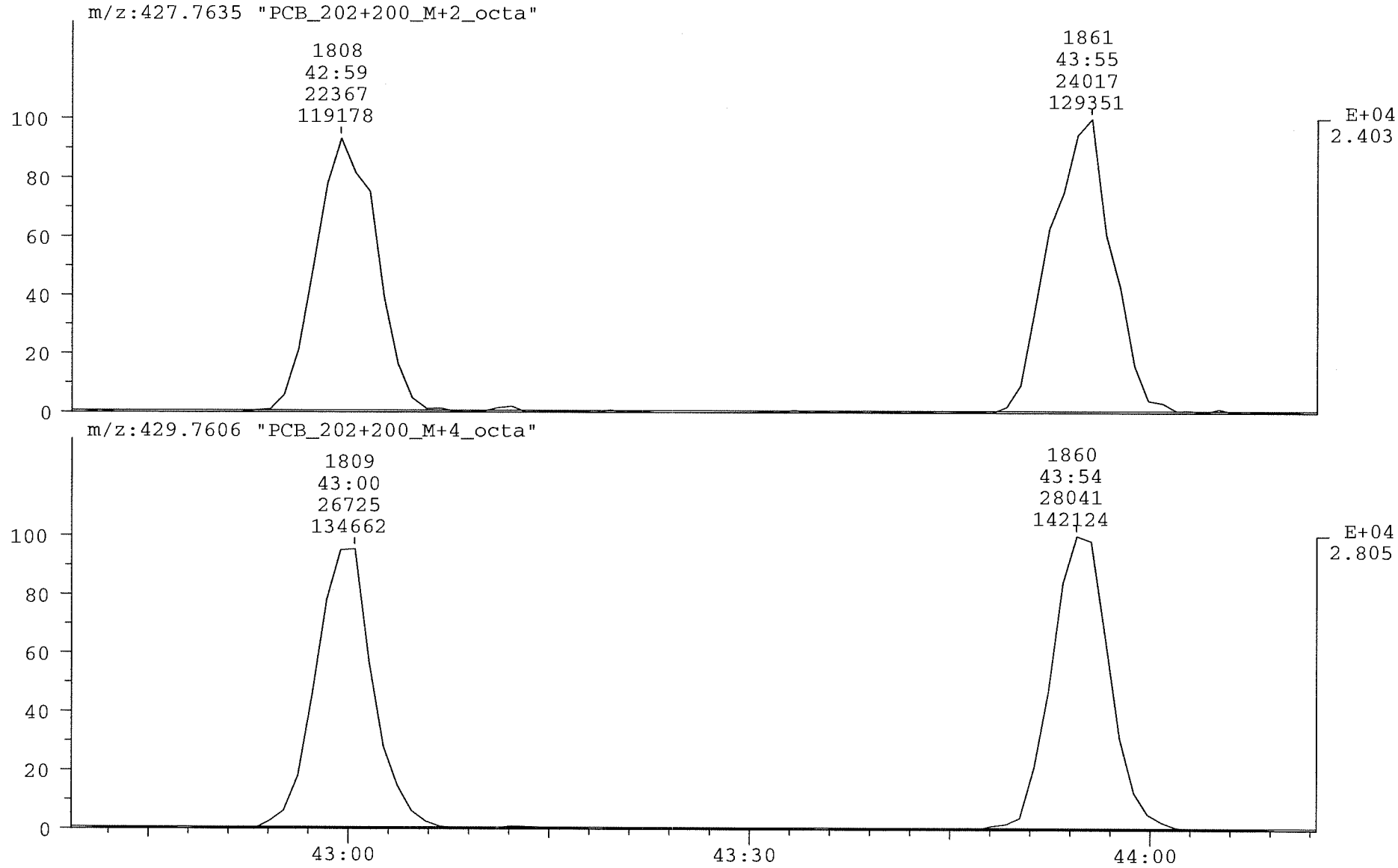
CHRO: a080624i2 24-Jun-08 Elapse: 52:28 2342
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2308 > 2377 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1676

1675

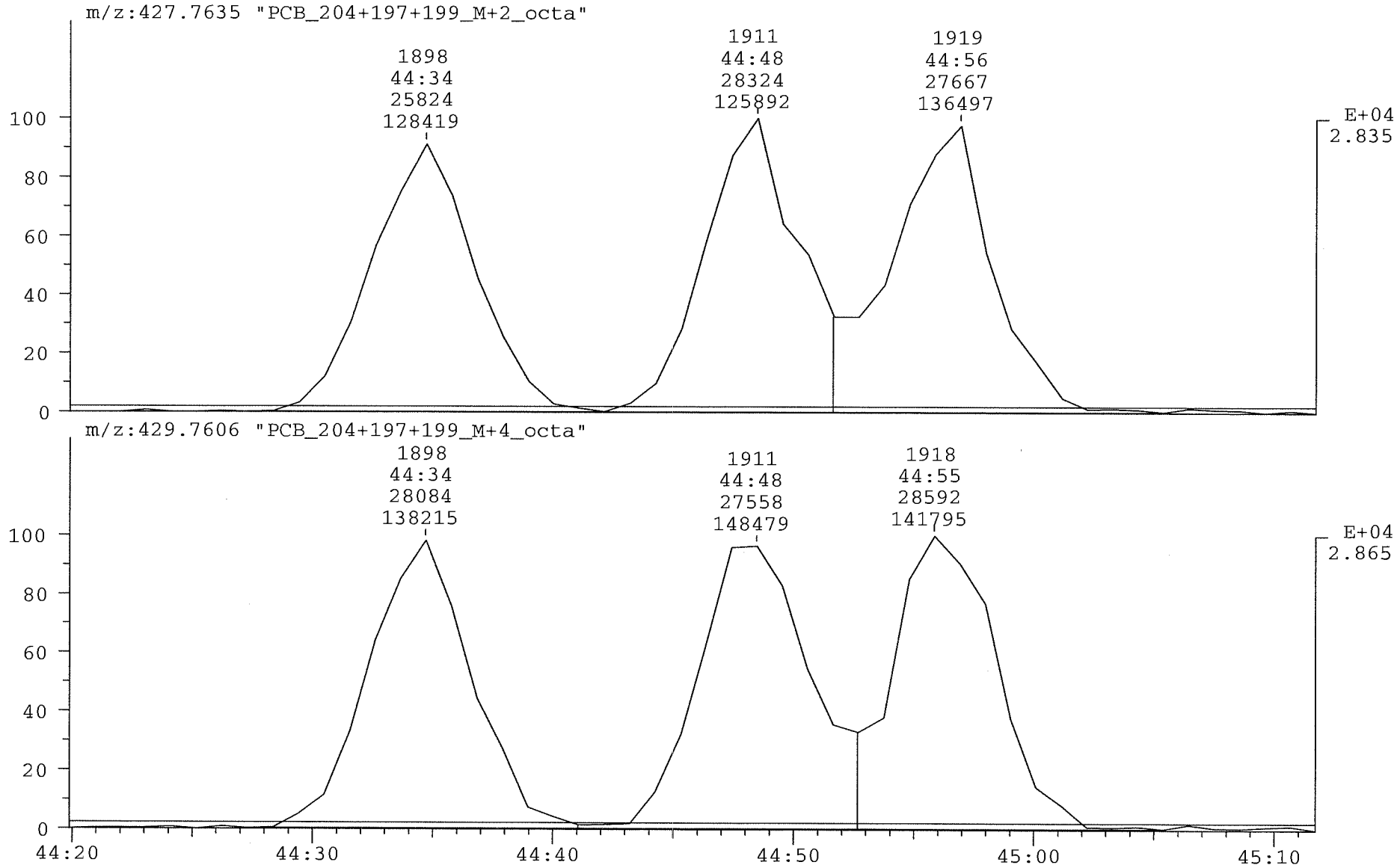
```
CHRO:  a080624i2                              24-Jun-08   Elapse:  43:30      1837
Samp:  Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1               Start :  17:22:17   2598
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 ICAL CS2
Oper:  DCG          Client:  TA Knoxville                 Inlet :  GC     Vial  11
Peak:  100.00  ppm     Label wndw:   1789 > 1877          Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3               Label :  -3, 3.0
Disp:  Height  Area
```



H-1677

1676

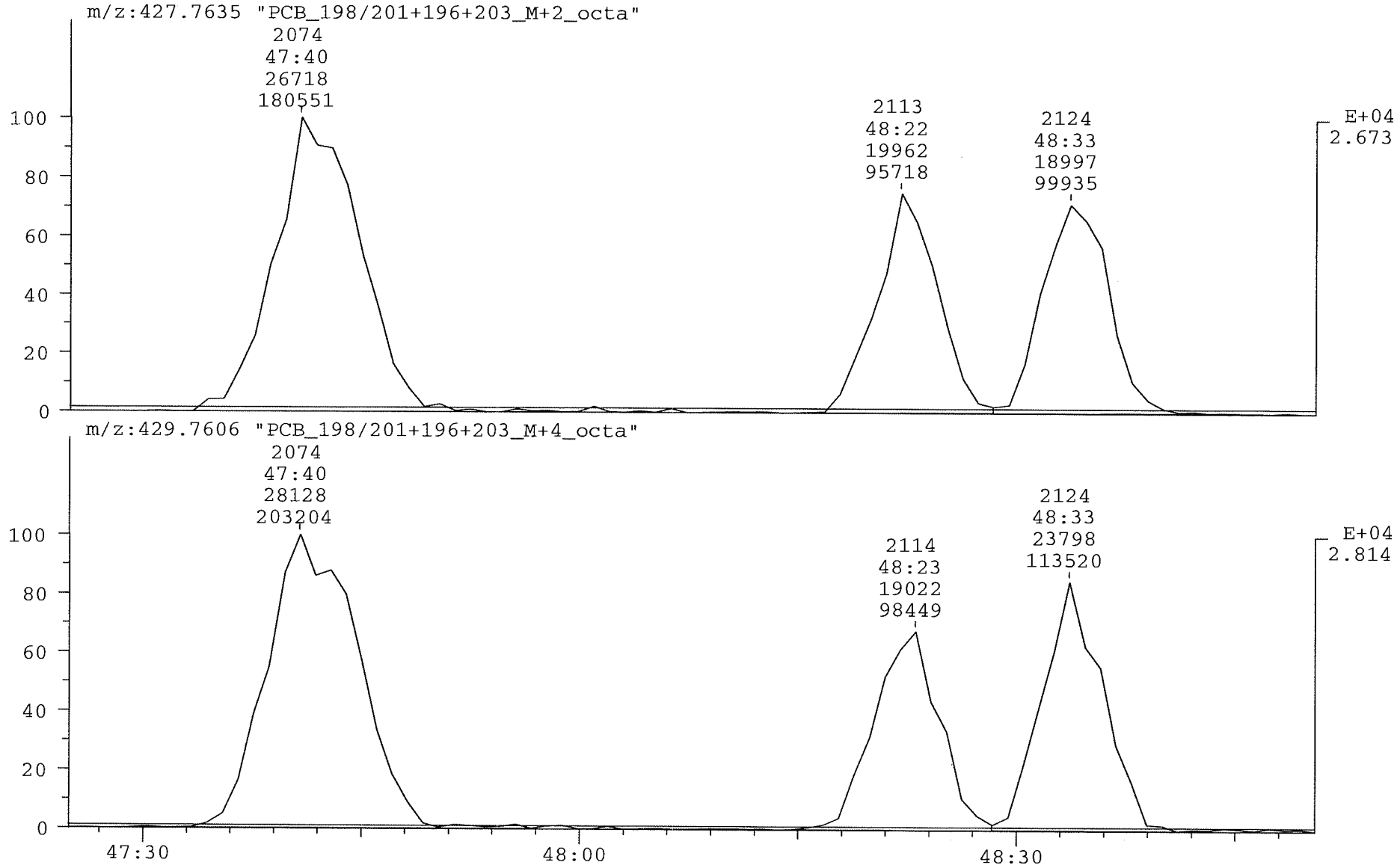
CHRO: a080624i2 24-Jun-08 Elapse: 44:34 1898
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1884 > 1933 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1678

1677

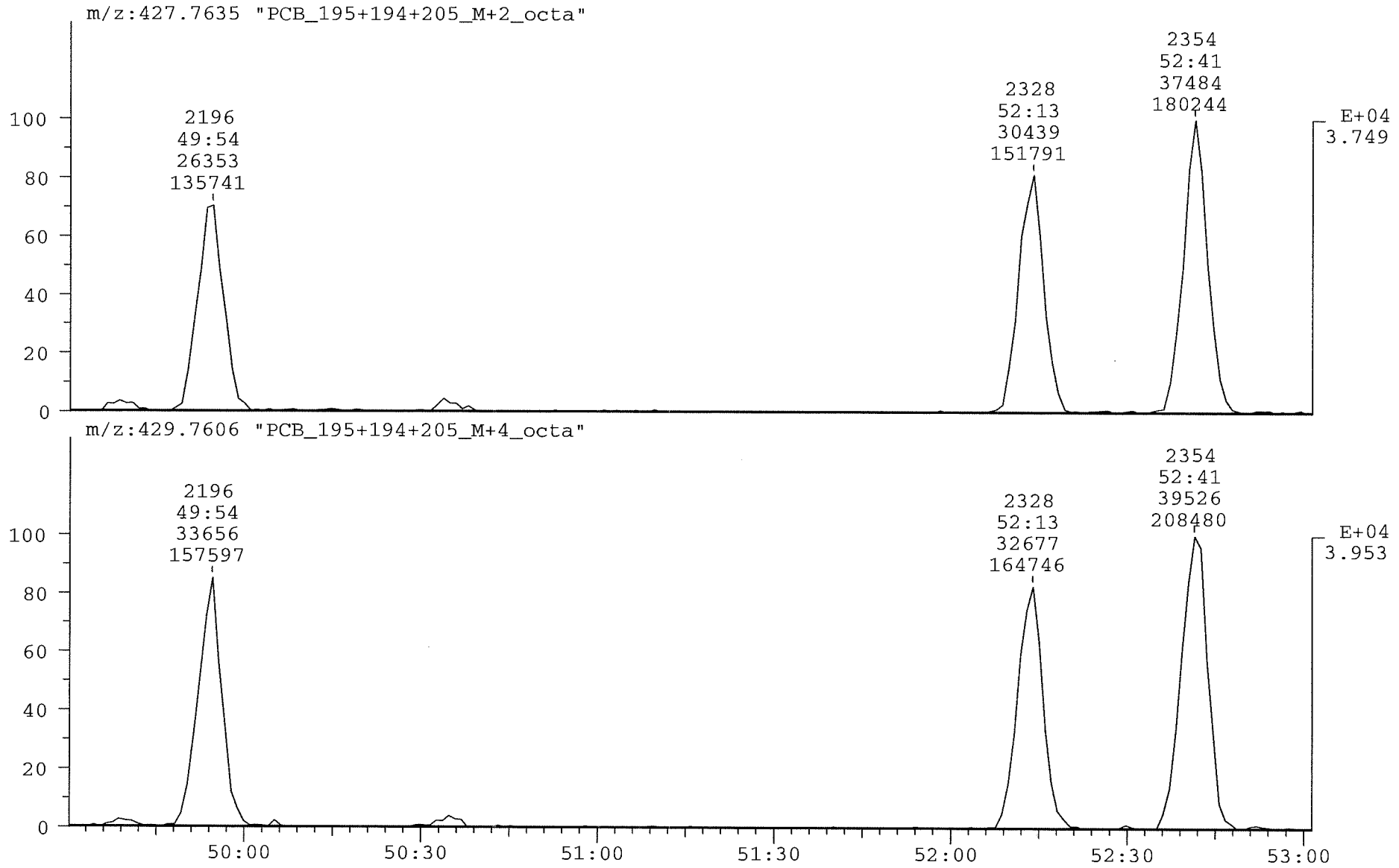
CHRO: a080624i2 24-Jun-08 Elapse: 48:22 2113
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2059 > 2140 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1676

1678

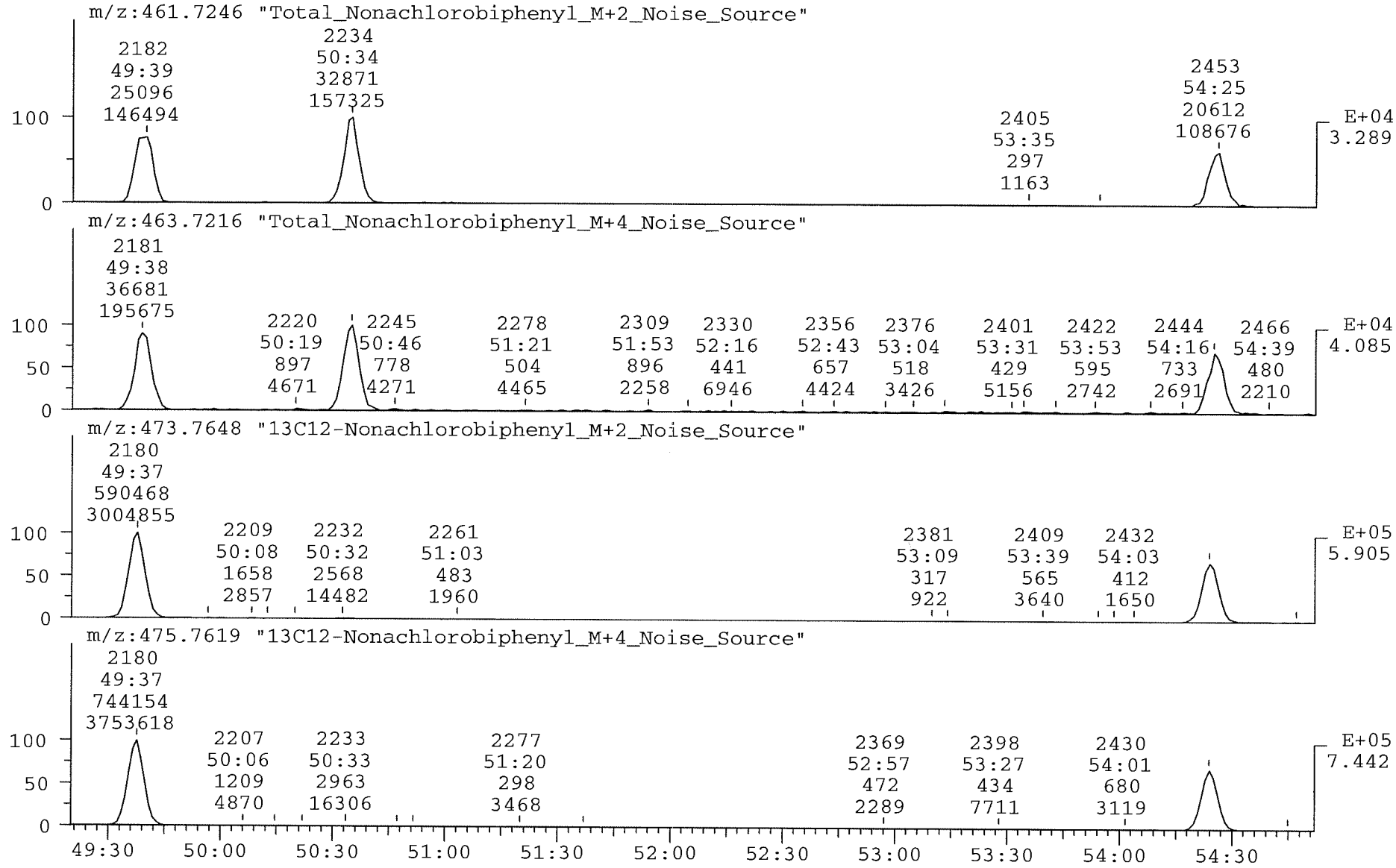
CHRO: a080624i2 24-Jun-08 Elapse: 52:13 2328
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2173 > 2373 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1680

1679

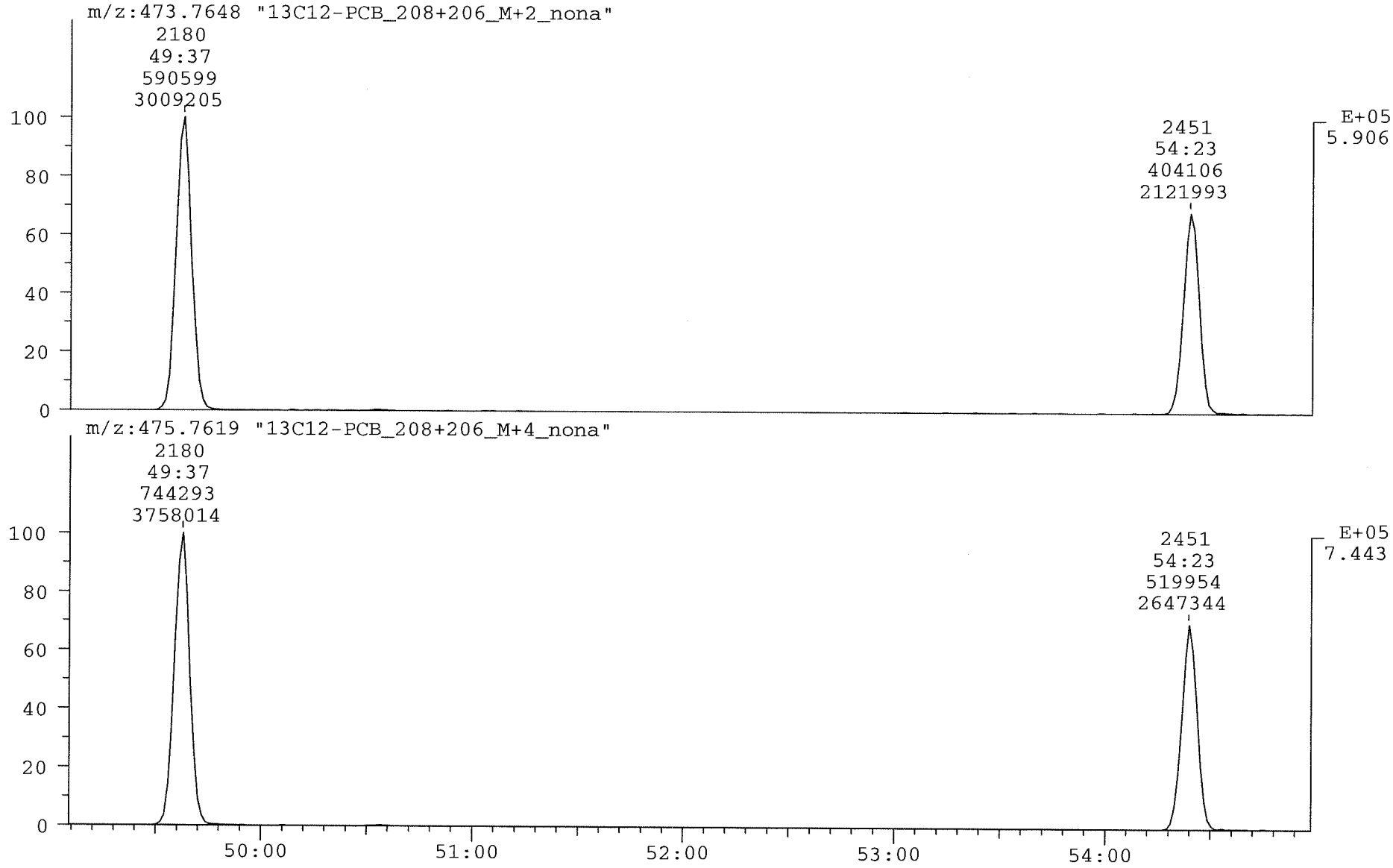
CHRO: a080624i2 24-Jun-08 Elapse: 52:06 2321
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2163 > 2478 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1681

1680

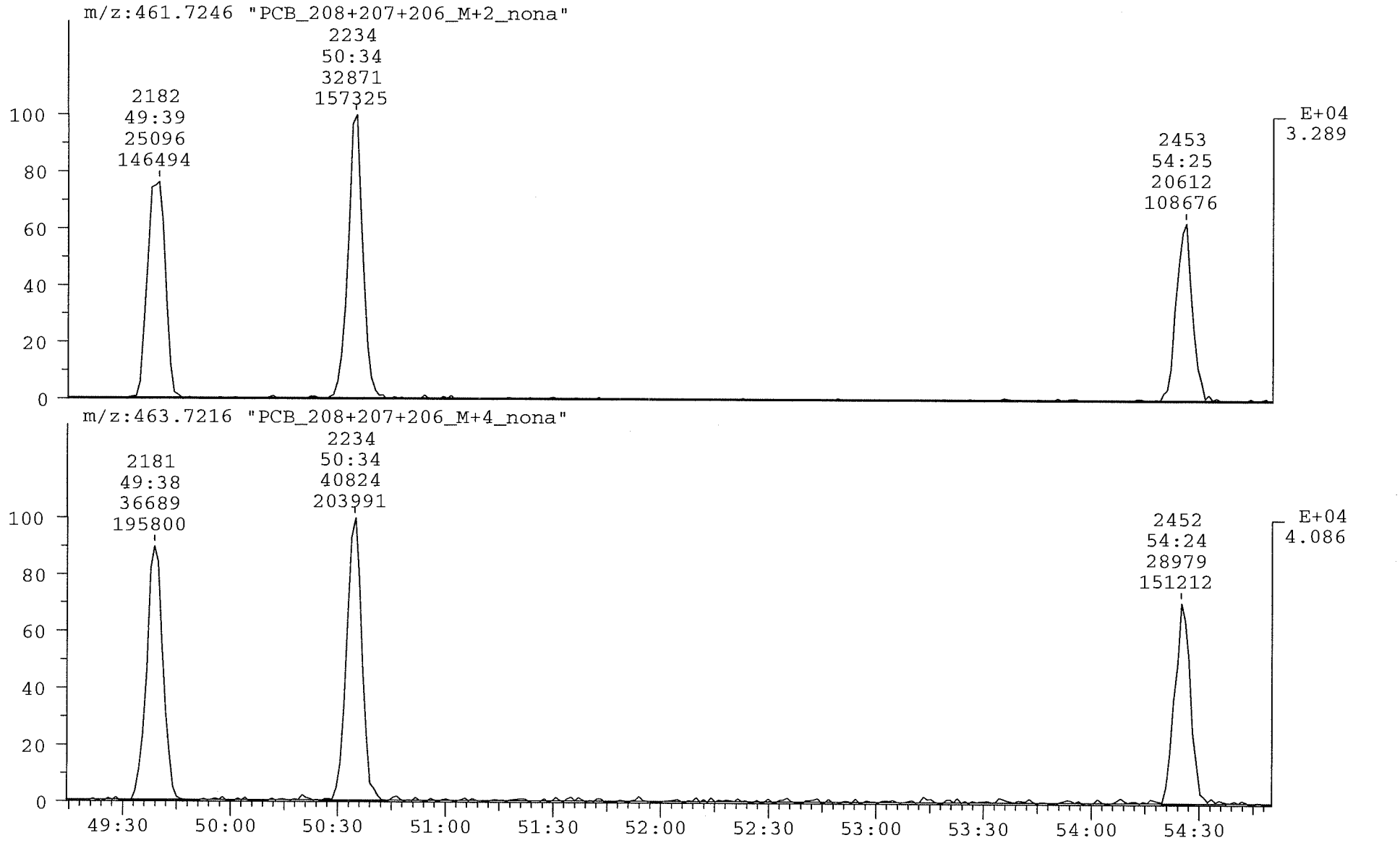
CHRO: a080624i2 24-Jun-08 Elapse: 52:04 2319
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2154 > 2484 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1682

1681

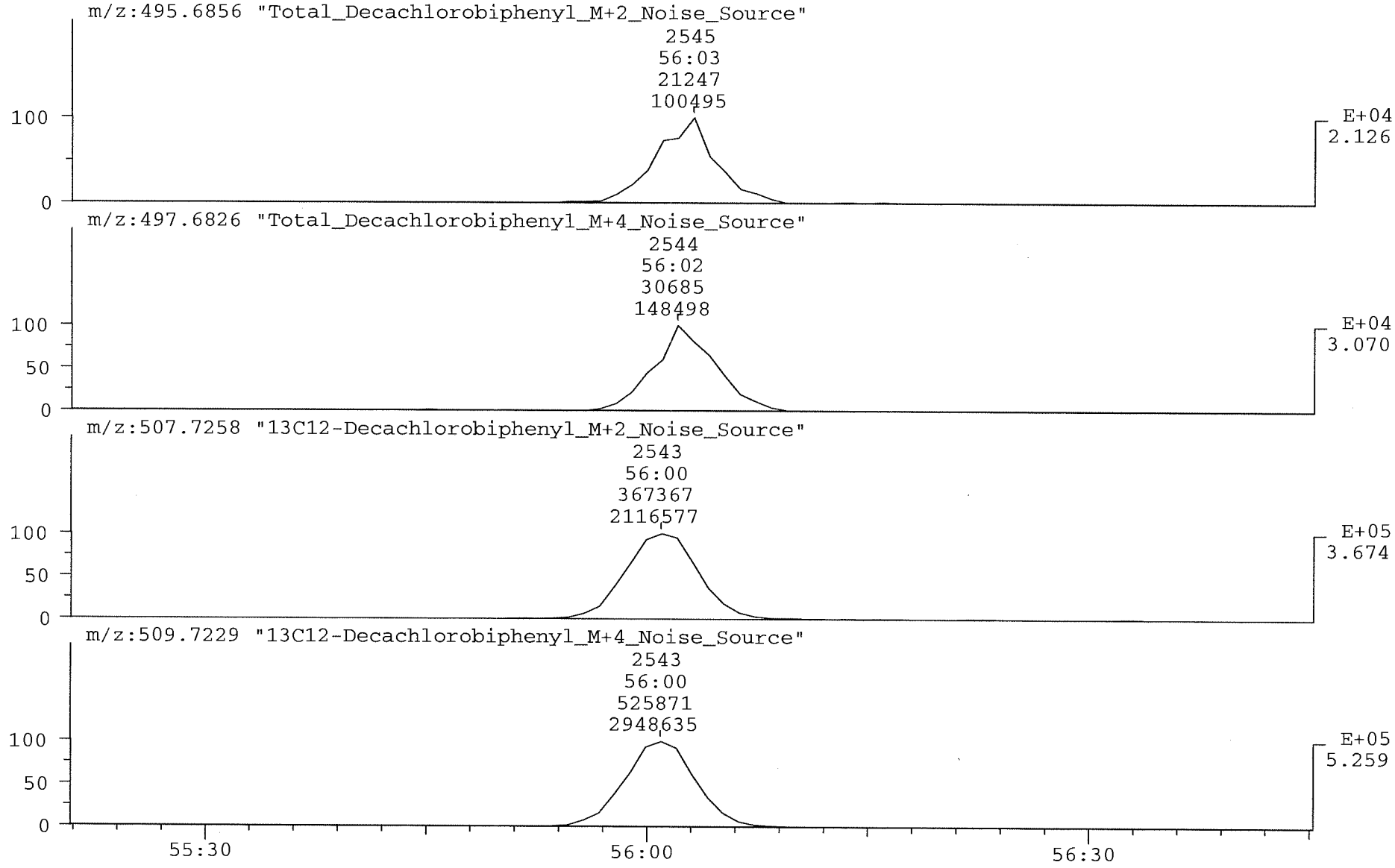
CHRO: a080624i2 24-Jun-08 Elapse: 52:06 2321
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2158 > 2476 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1683

1682

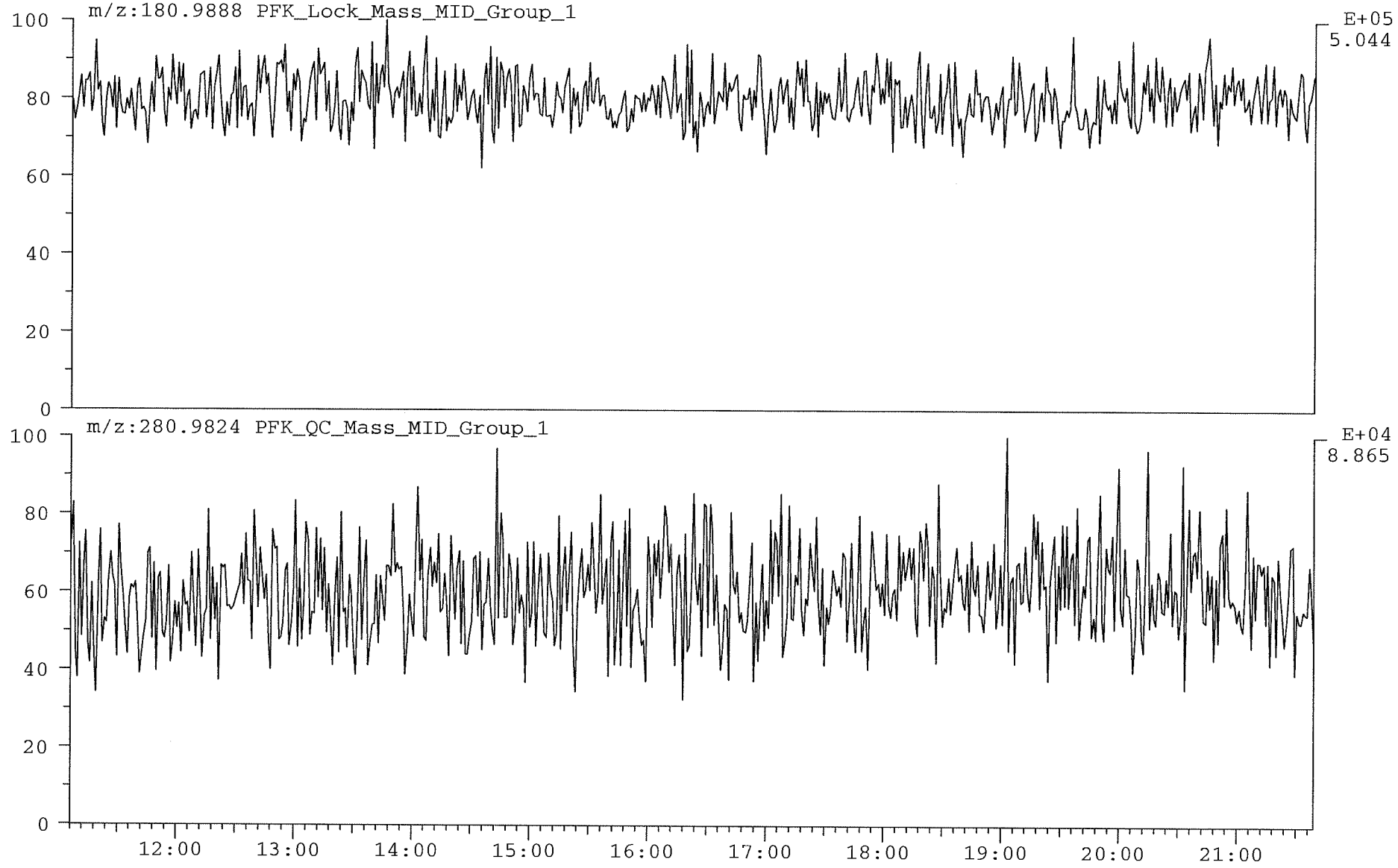
CHRO: a080624i2 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2505 > 2585 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1684

1683

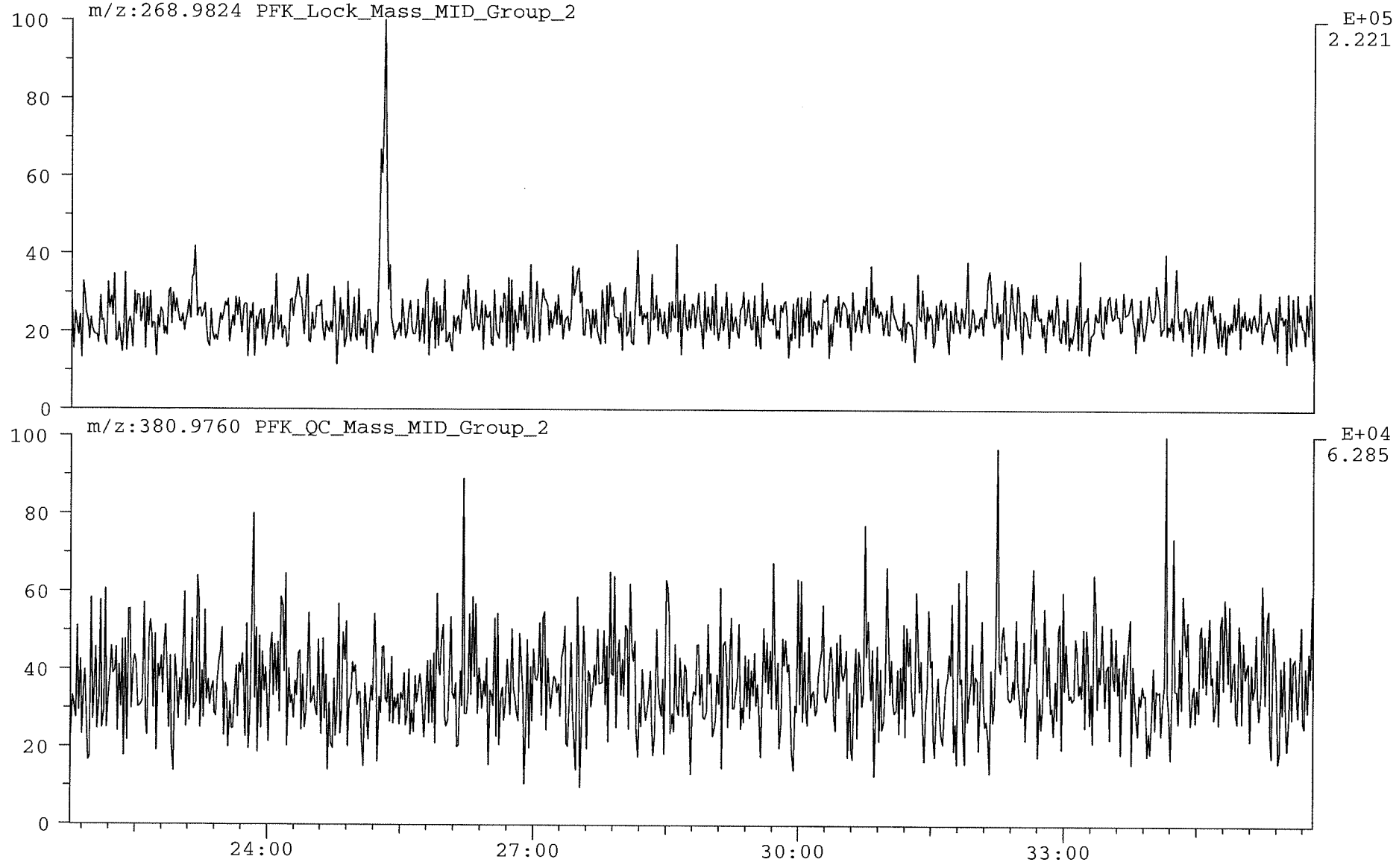
CHRO: a080624i2 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1685

1684

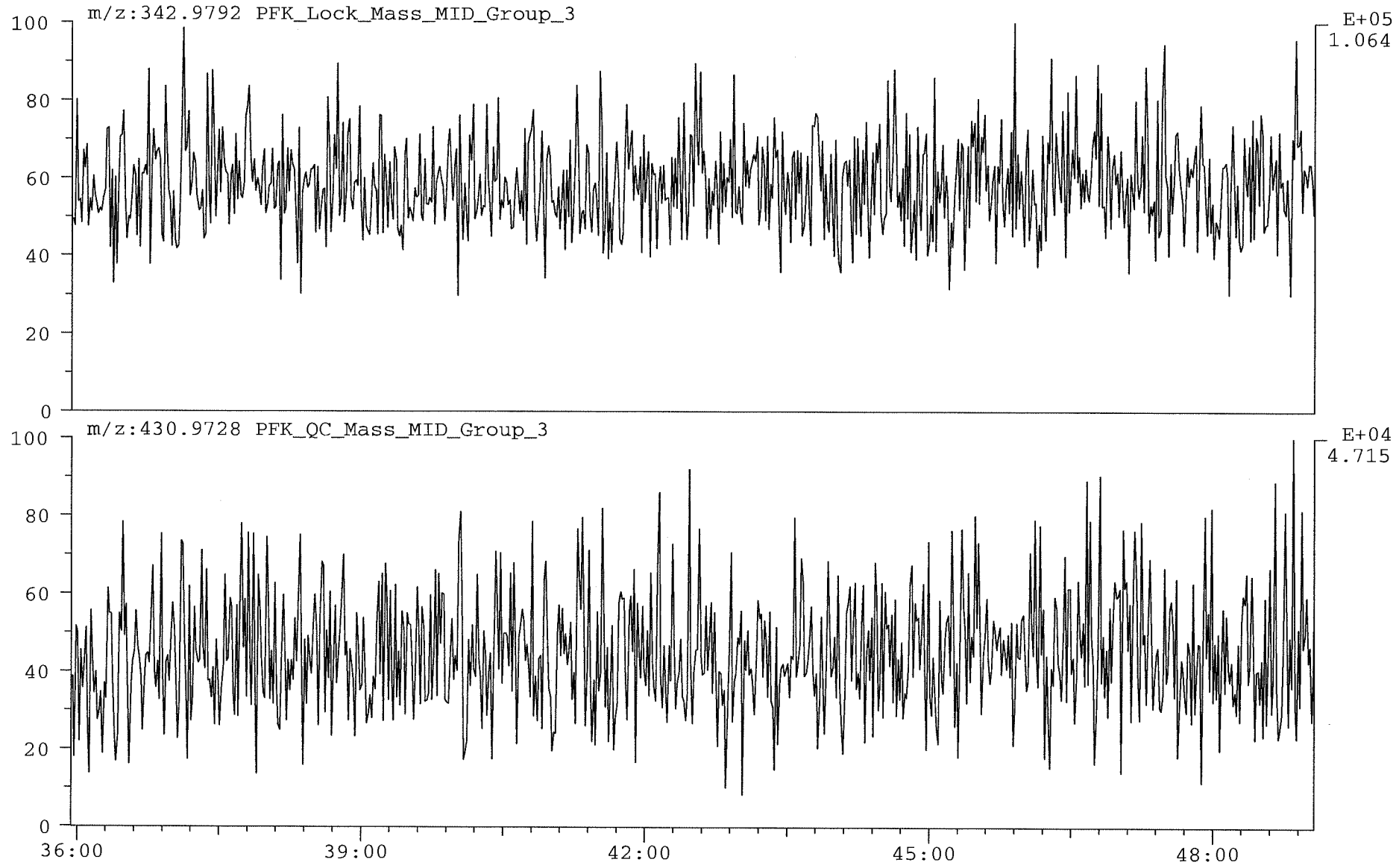
```
CHRO:  a080624i2                              24-Jun-08   Elapse:  56:06      2548
Samp:  Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1               Start :  17:22:17   2598
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 ICAL CS2
Oper:  DCG          Client:  TA Knoxville                 Inlet :  GC     Vial  11
Peak:  100.00  ppm     Label wndw:   608 > 1406           Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3              Label :  0, 0.0
Disp:  Height  Area
```



H-1686

1685

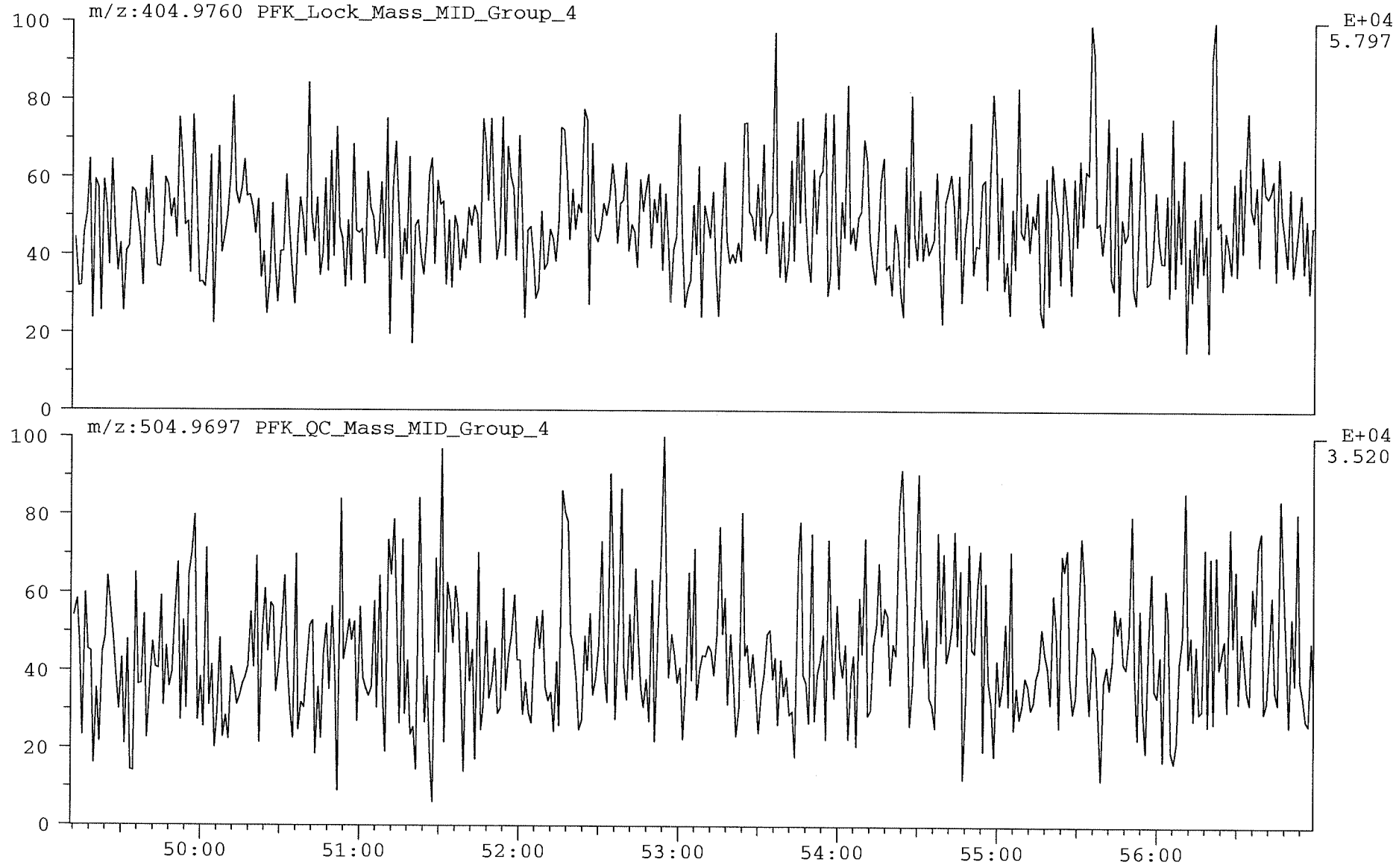
CHRO: a080624i2 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1409 > 2153 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1687

1686

CHRO: a080624i2 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 11 WO=2990:71CS2 Meth=IE3 Dil=1 Start : 17:22:17 2598
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2156 > 2598 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1688

1687

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a080624i2
Study: 1668 ICAL CS2
Sample: WO=2990:71CS2 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Injected volume: 2.00
Sample from Vial 11
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 1 of list 080624
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:10 min	35:50 min	1.00 sec
# 3	35:50 min	13:15 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	1	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg	at 0.0	minutes	280 deg max
	75 deg	at 2.0	minutes	
	150 deg	at 7.0	minutes	
	270 deg	at 55.0	minutes	
	270 deg	at 57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.7567
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-14.8500
DRAWC	1.0000	DRAWS	0.0100	ECORR	0.9994
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	-210.0000	ELEN	55.7750
EMULT	1.7500	ENS	205.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	152.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	344.0000
FVINLET	272.0000	FVSRC	990.0000	FWIN	0.7000
GCTC	73.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.4706	HVANAL	1312.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1837.0000	LENSS	8.4000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2351507.3768

MDACR	23.0000	MRANGE	1031.7567	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	2913.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-6.1500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.2964	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	3200.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.9300	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.0000	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	1694.0000
XLENSS	-96.6000	YLENS	2530.0000	YLENSS	-24.2000

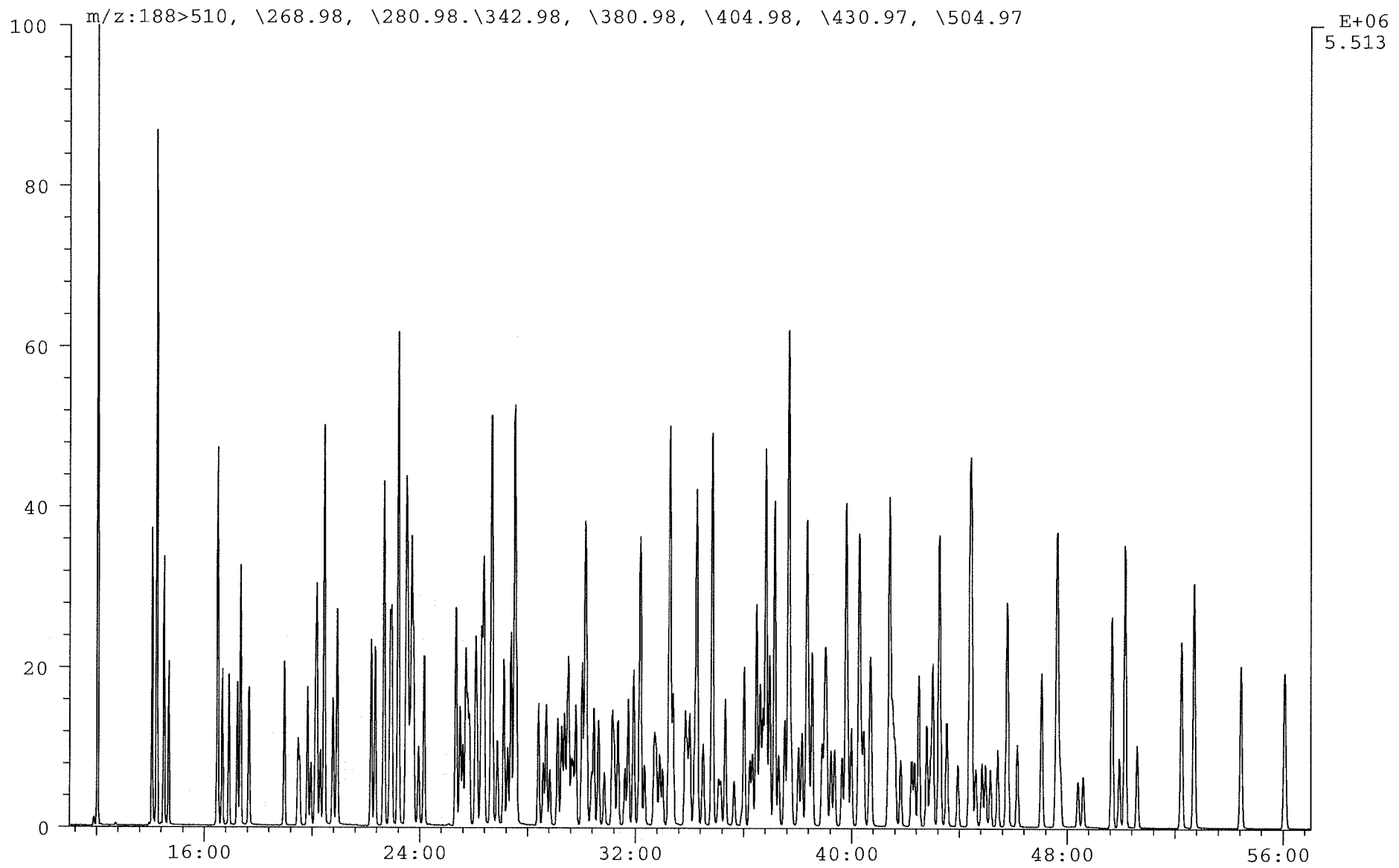
Scantype is electric
Sourcemode is EI POS

Analysis started at: 24-Jun-08 17:22:17.0

Autosampler has injected sample from vial 11
MID Time Window 1: Resolution is 6961
MID Time Window 2: Resolution is 9607
MID Time Window 3: Resolution is 9526
MID Time Window 4: Resolution is 10657
Analysis stopped at: 24-Jun-08 18:19:18.8 (run time 56.99 minutes)
Analysis stopped because user requested stop from analysis

IntCalc DCG 7-7-08
QC 7/8/08

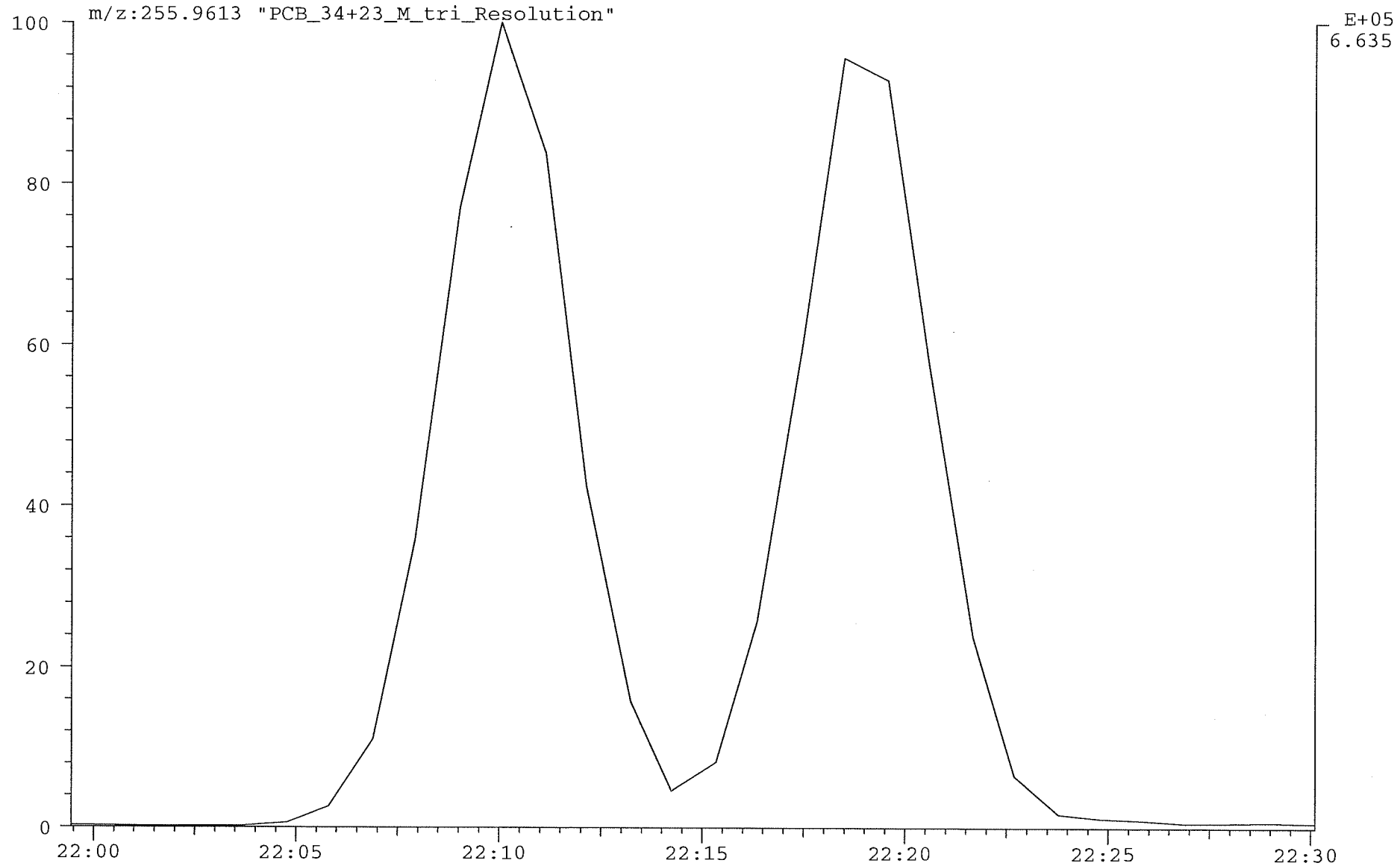
CHRO: a080624i3 24-Jun-08 Elapse: 40:30 1668
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1693

1692

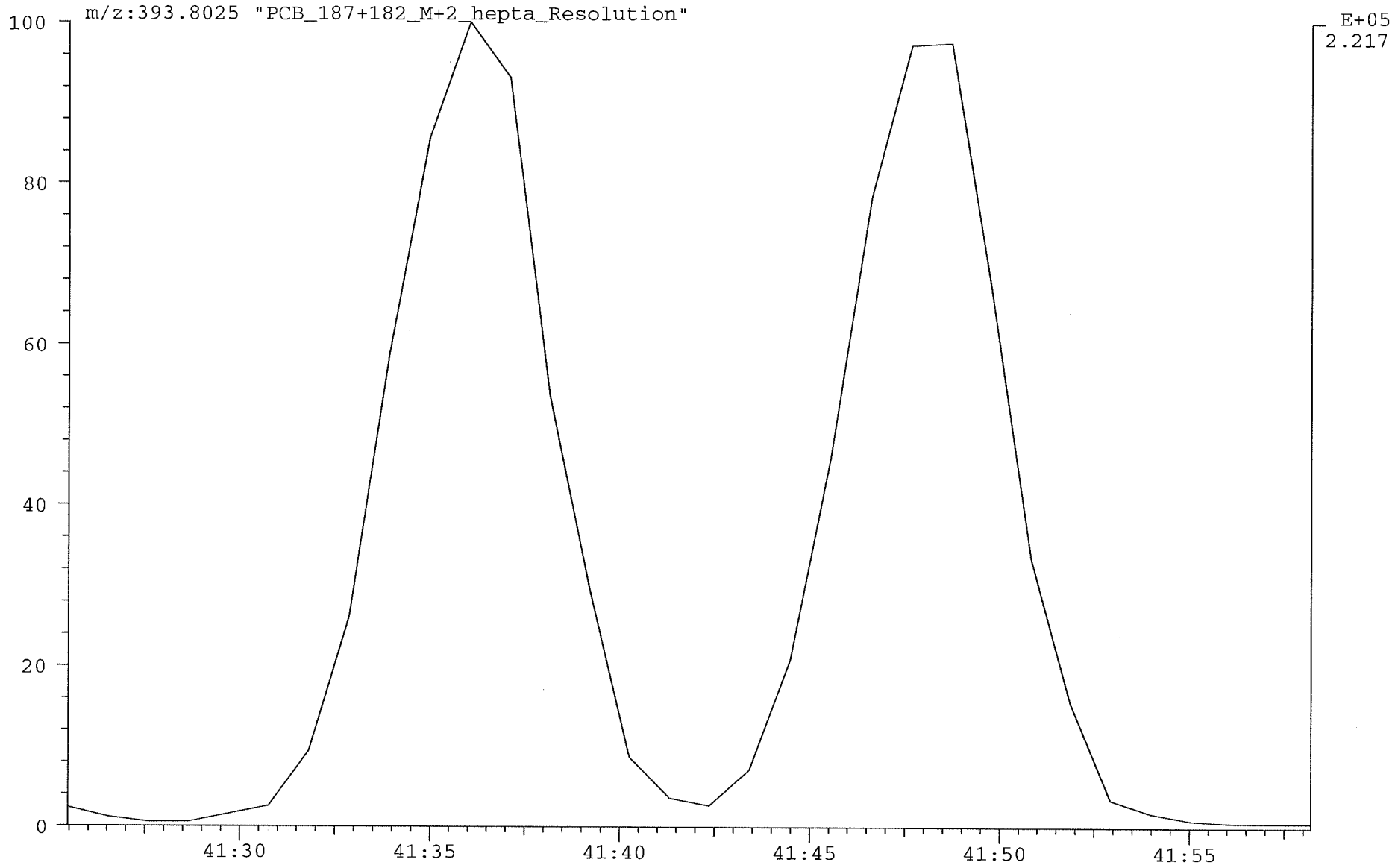
CHRO: a080624i3 24-Jun-08 Elapse: 22:10.0 630
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 620 > 649 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 3.0
Disp: Height Area



H-1694

1693

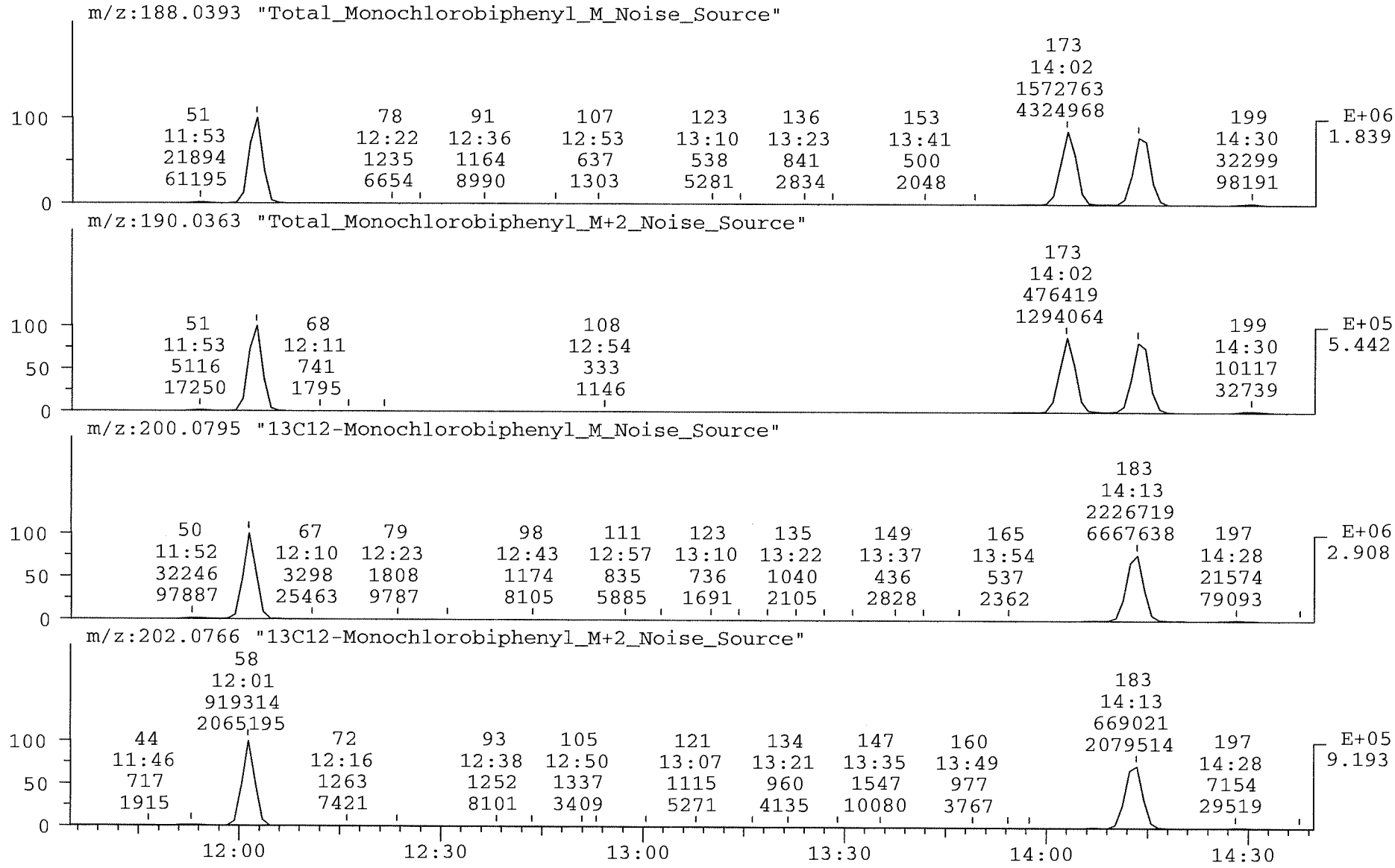
CHRO: a080624i3 24-Jun-08 Elapse: 41:45 1739
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1720 > 1751 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 3.0
Disp: Height Area



H-1695

1694

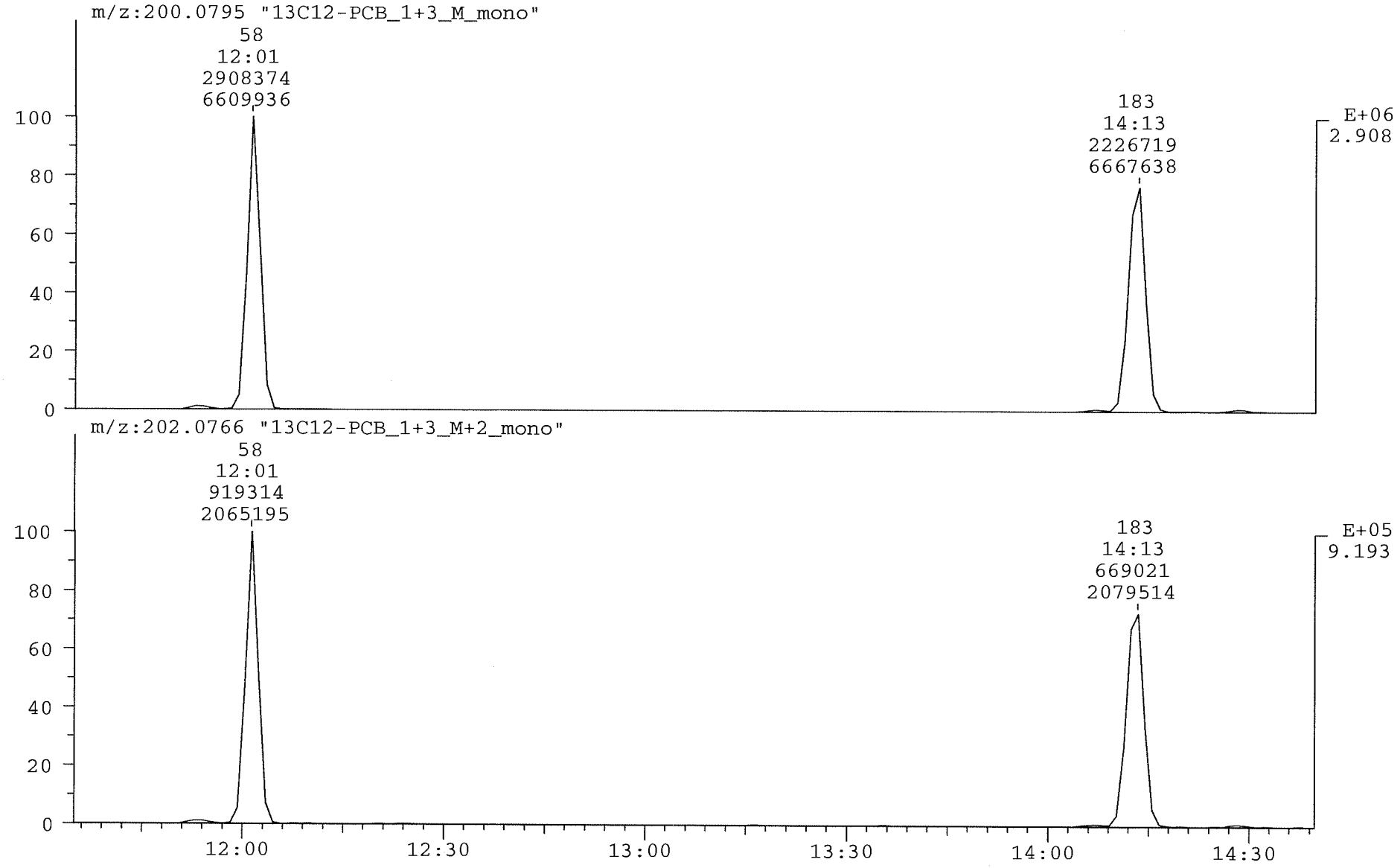
CHRO: a080624i3 24-Jun-08 Elapse: 13:20.5 133
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1696

1695

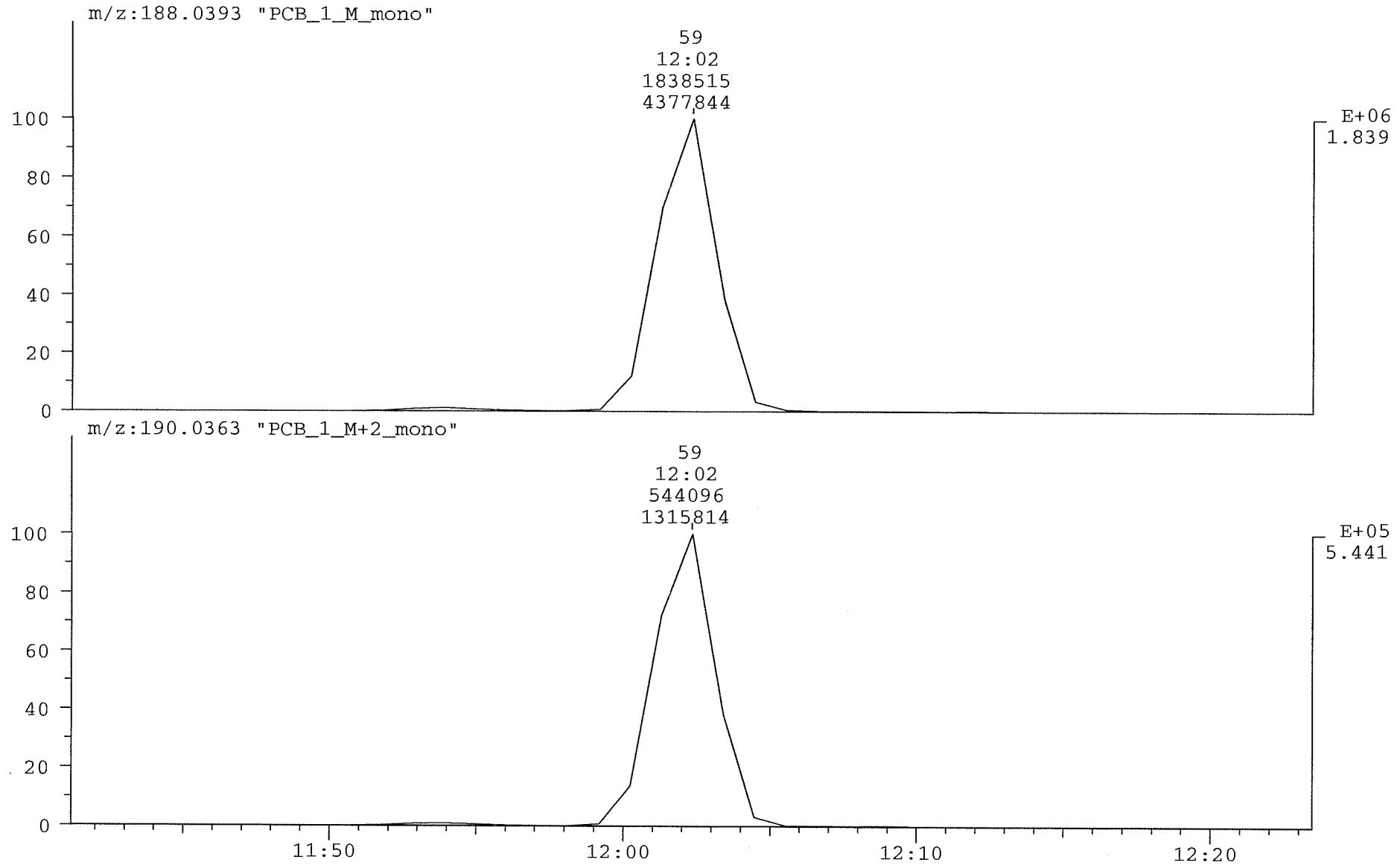
CHRO: a080624i3 24-Jun-08 Elapse: 13:20.5 133
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1697

1696

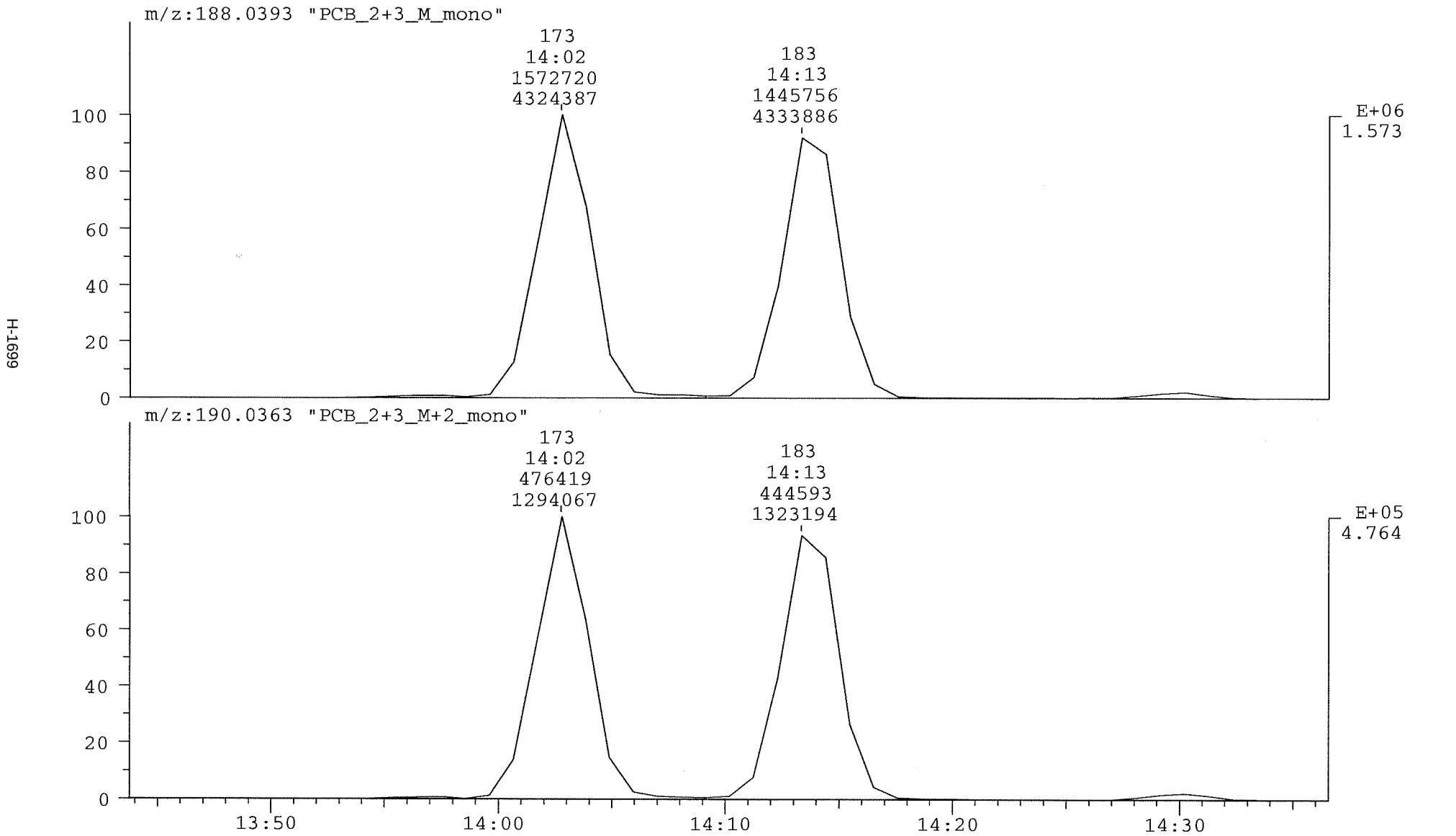
CHRO: a080624i3 24-Jun-08 Elapse: 12:02.3 59
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 39 > 79 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1698

1697

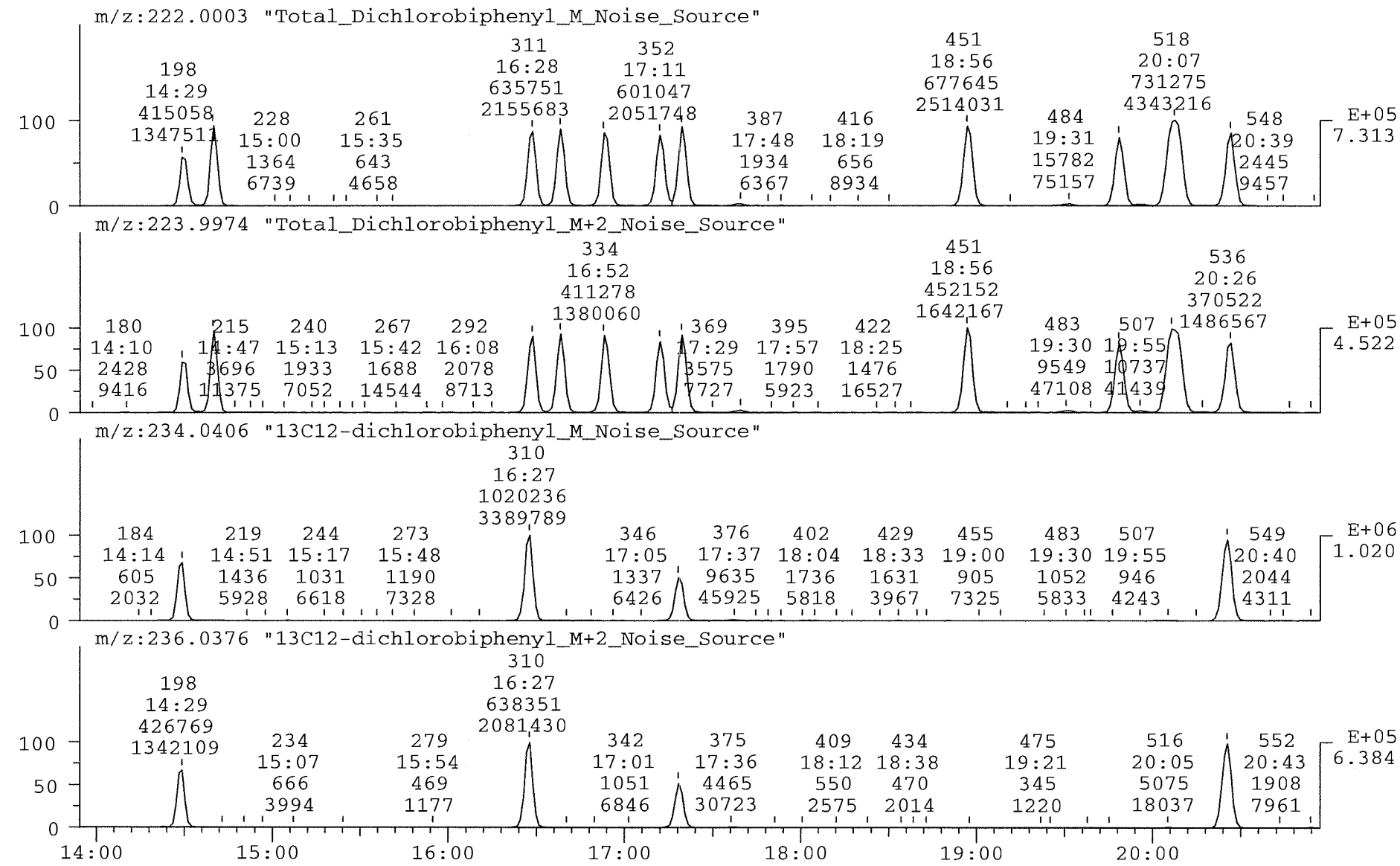
CHRO: a080624i3 24-Jun-08 Elapse: 14:10.2 180
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 155 > 205 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1699

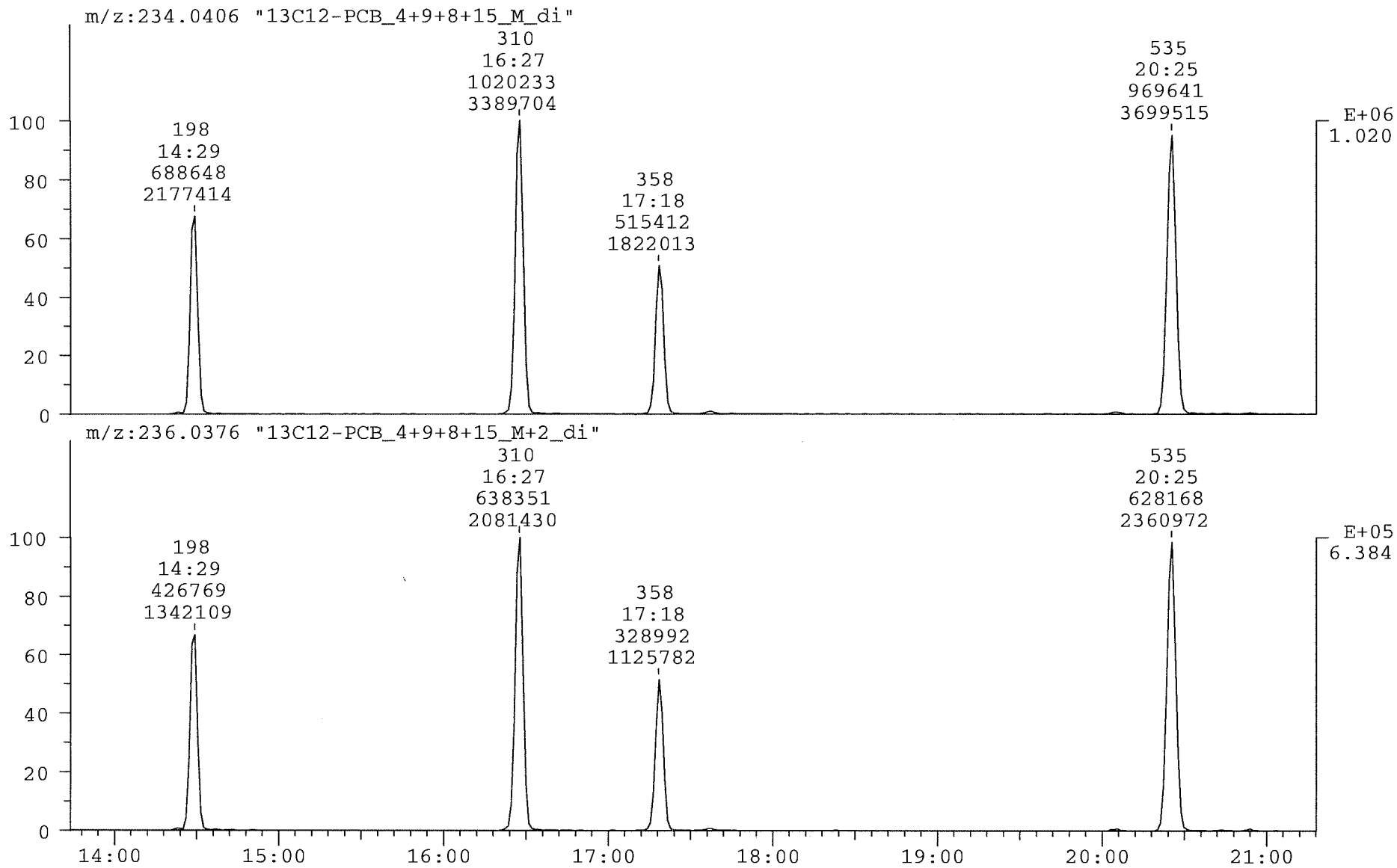
1698

CHRO: a080624i3 24-Jun-08 Elapse: 17:25.6 365
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 165 > 565 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1700

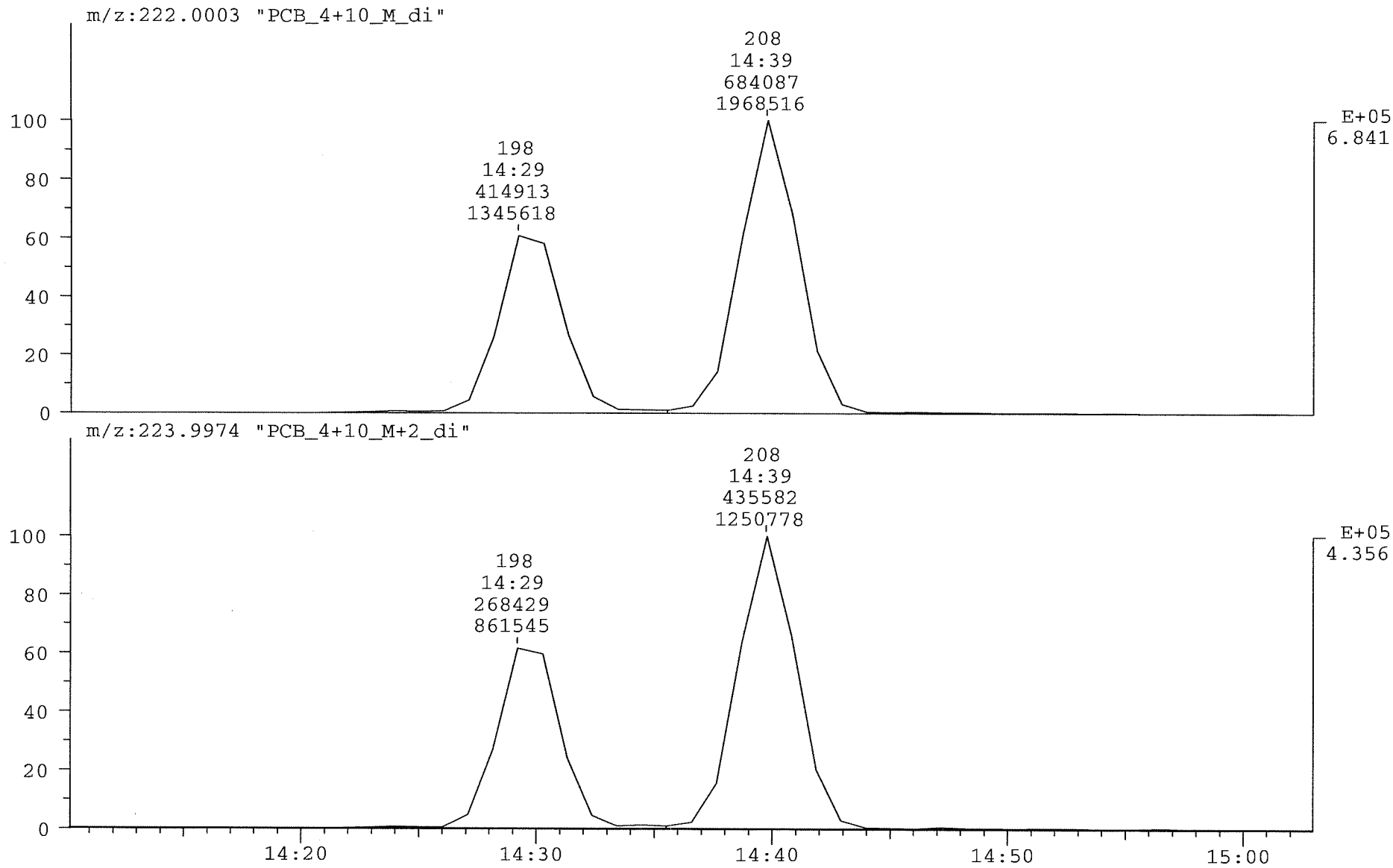
CHRO: a080624i3 24-Jun-08 Elapse: 17:25.6 365
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 155 > 585 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1701

1700

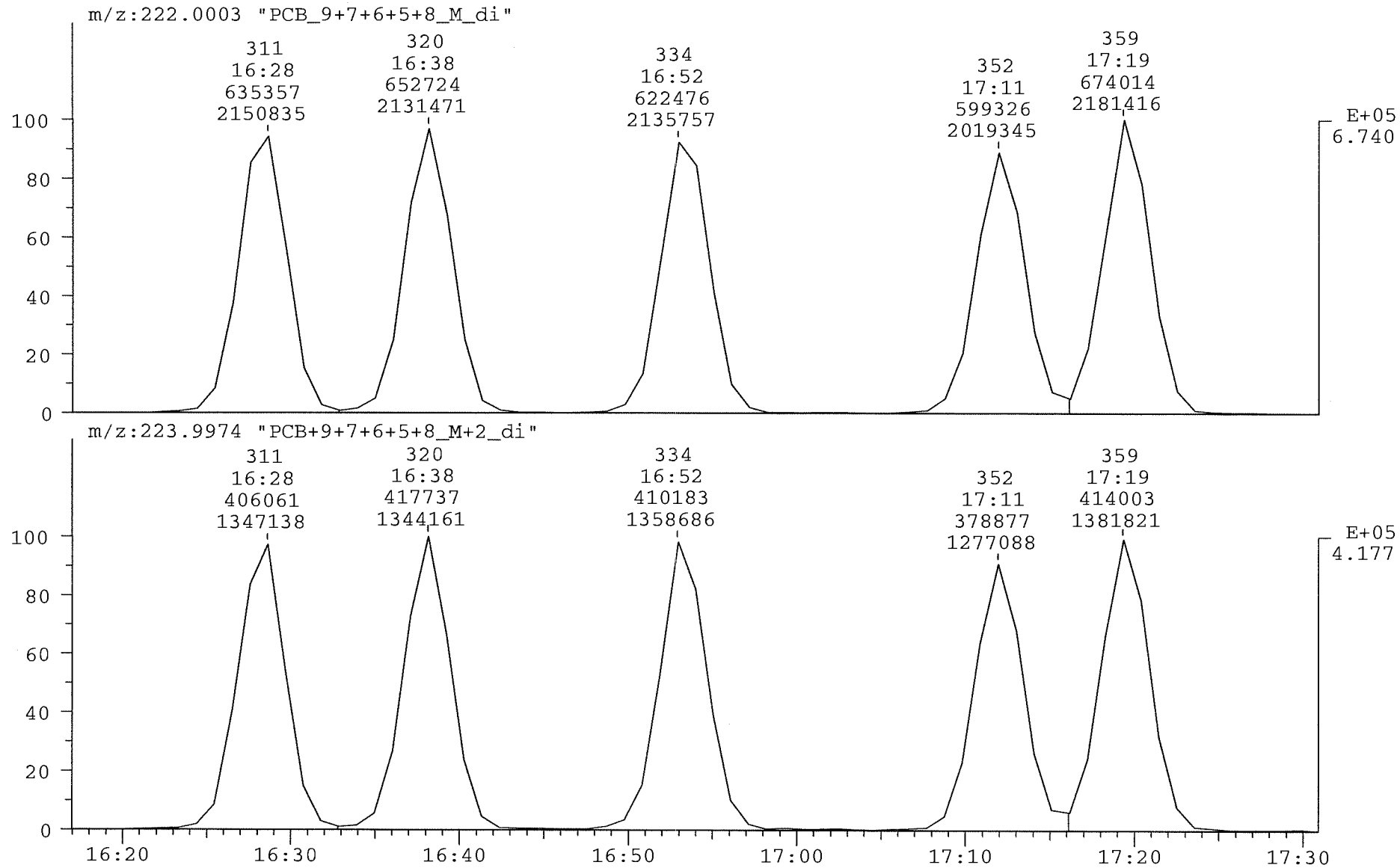
CHRO: a080624i3 24-Jun-08 Elapse: 14:36.6 205
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 180 > 230 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H1702

1701

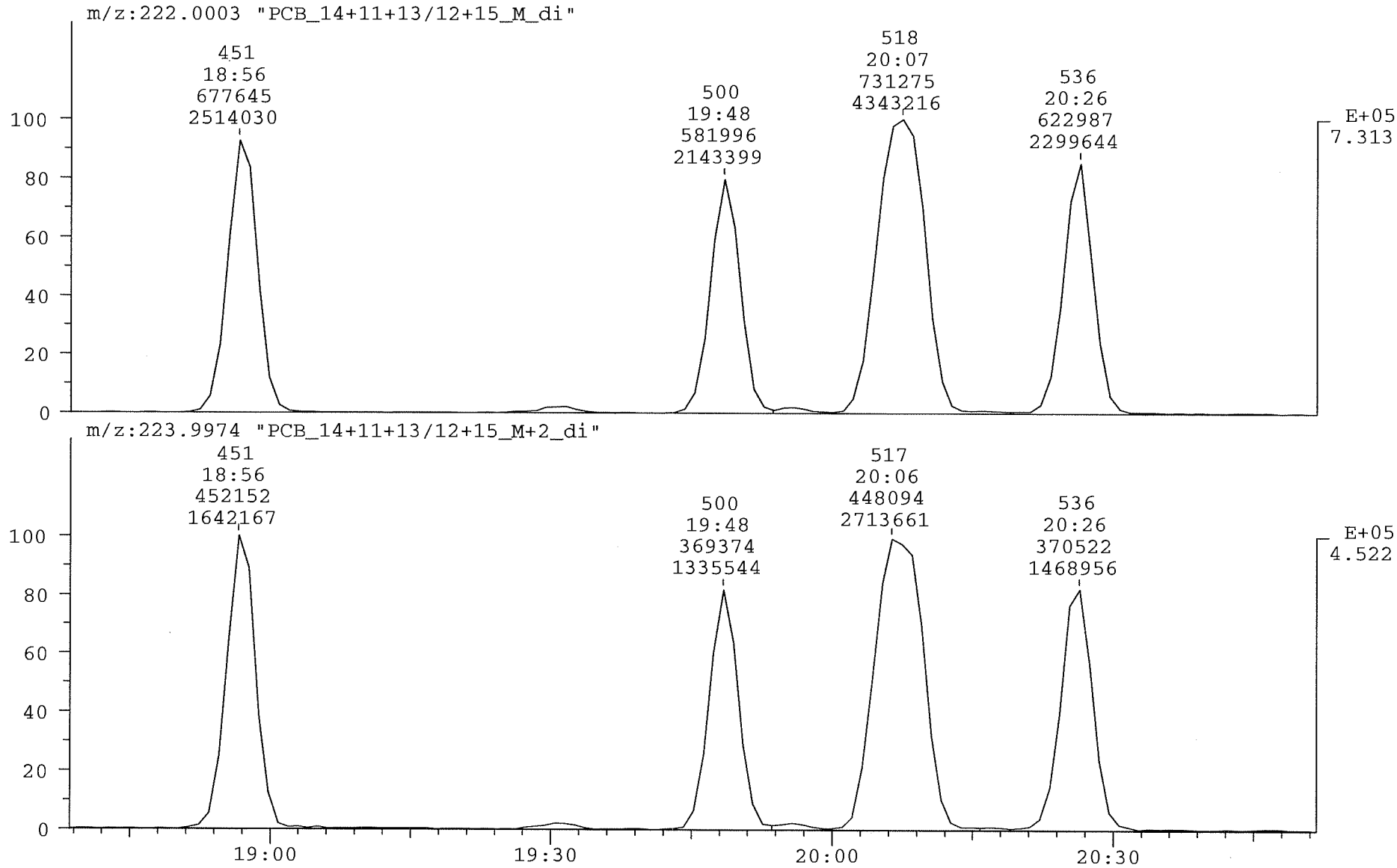
CHRO: a080624i3 24-Jun-08 Elapse: 16:56.0 337
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 300 > 370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1703

1702

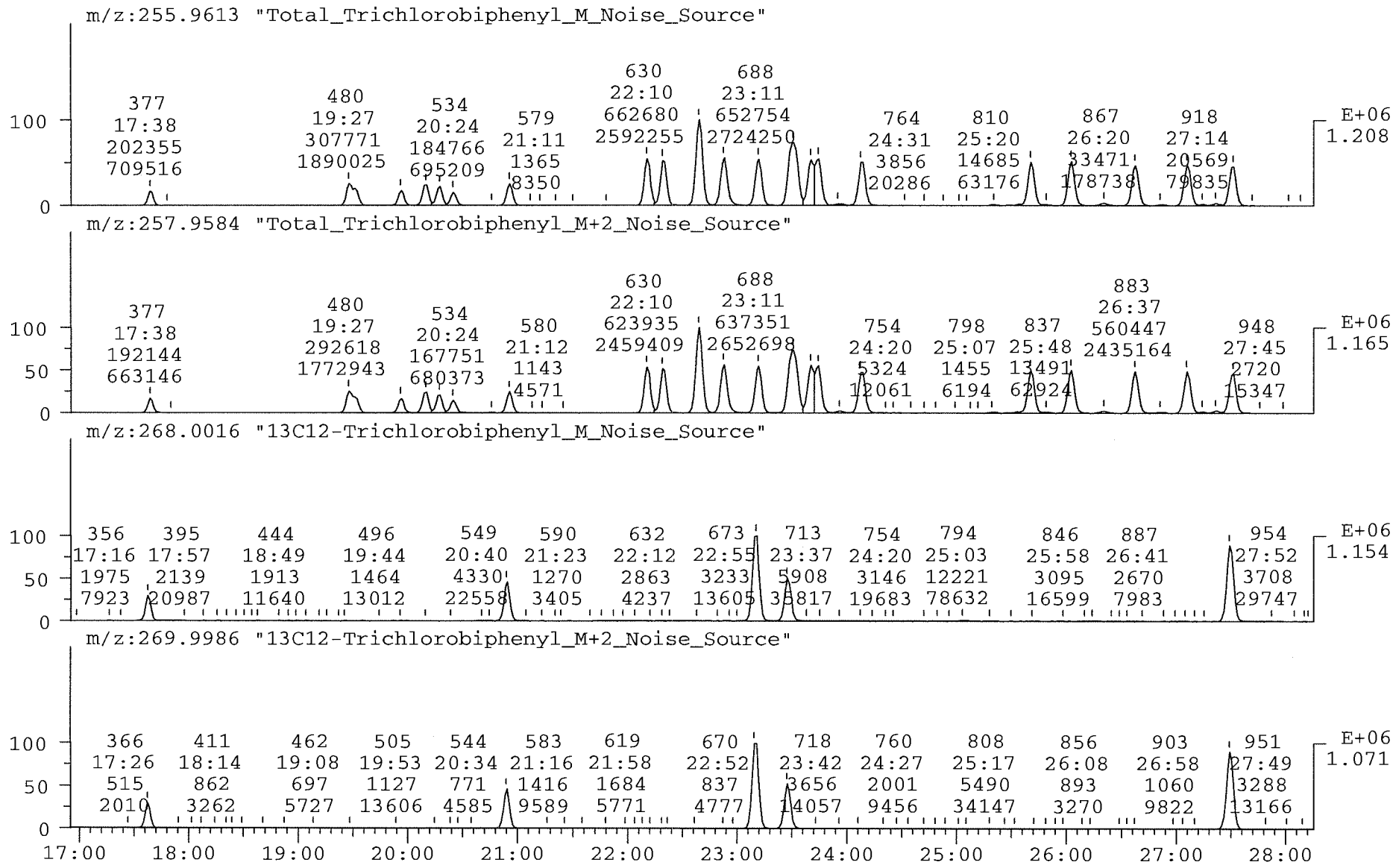
CHRO: a080624i3 24-Jun-08 Elapse: 19:39.9 492
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 434 > 560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1704

1703

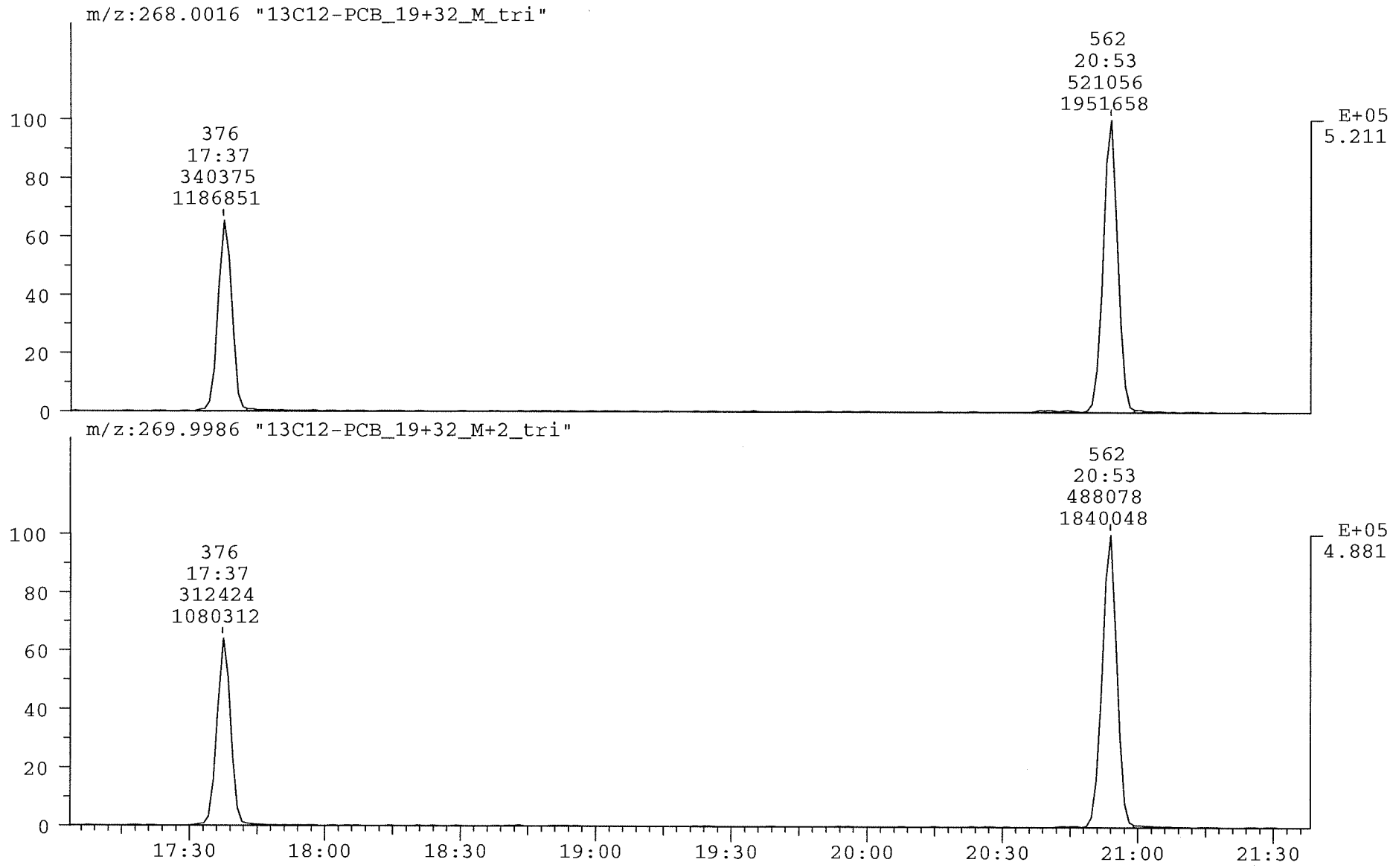
CHRO: a080624i3 24-Jun-08 Elapse: 22:37.4 656
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1705

1704

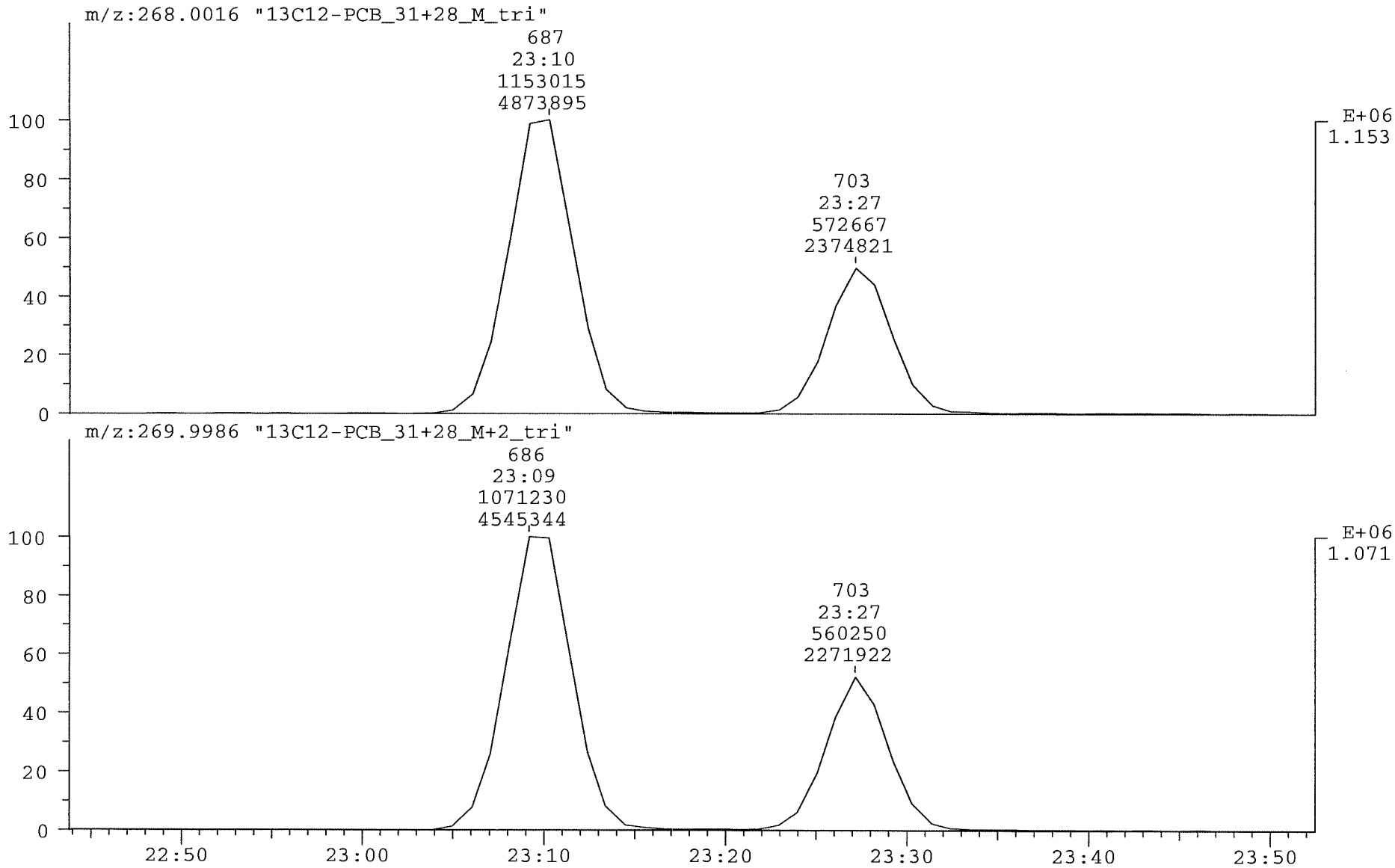
CHRO: a080624i3 24-Jun-08 Elapse: 18:59.7 454
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 344 > 604 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1706

1705

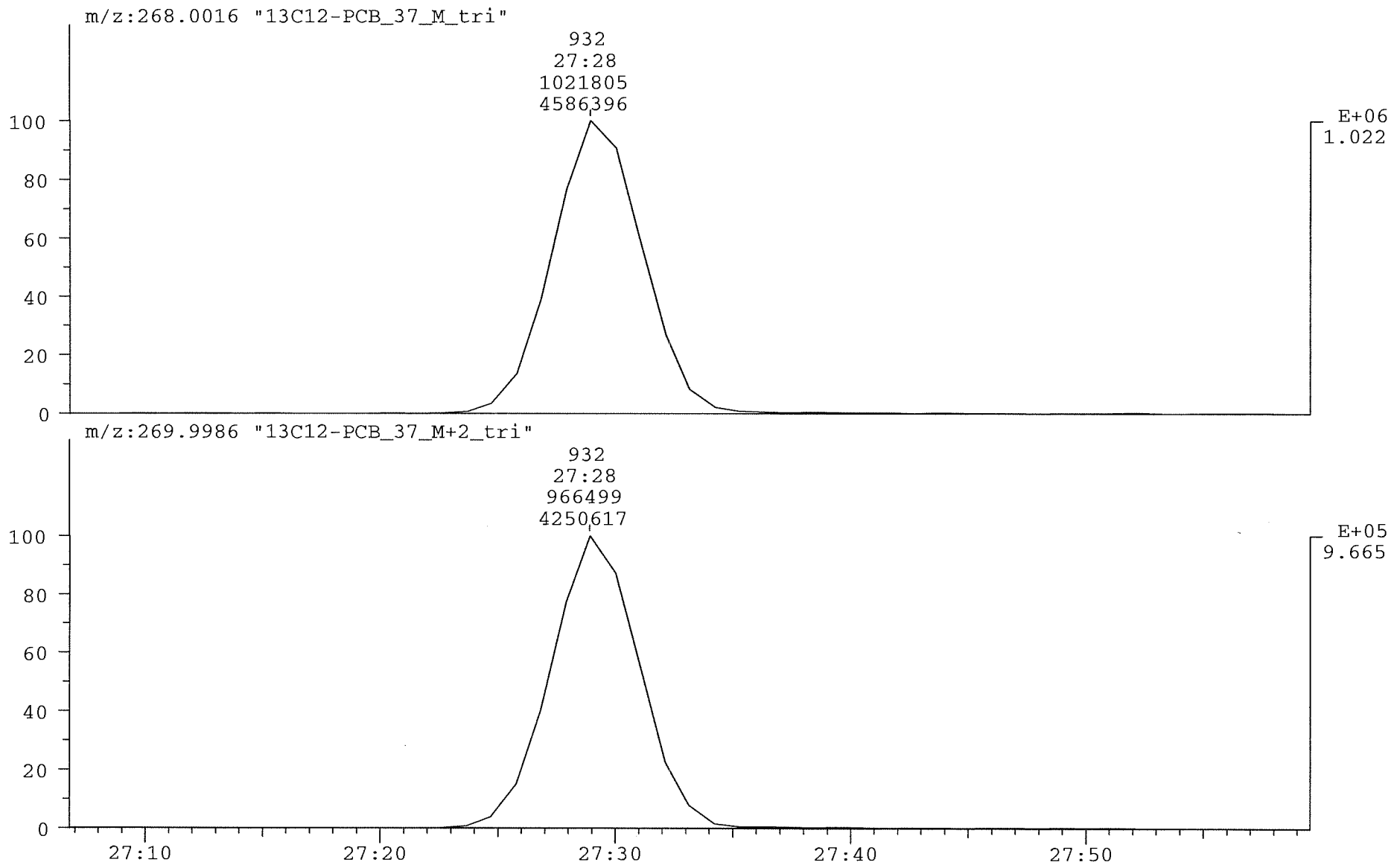
CHRO: a080624i3 24-Jun-08 Elapse: 23:10.2 687
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1707

1706

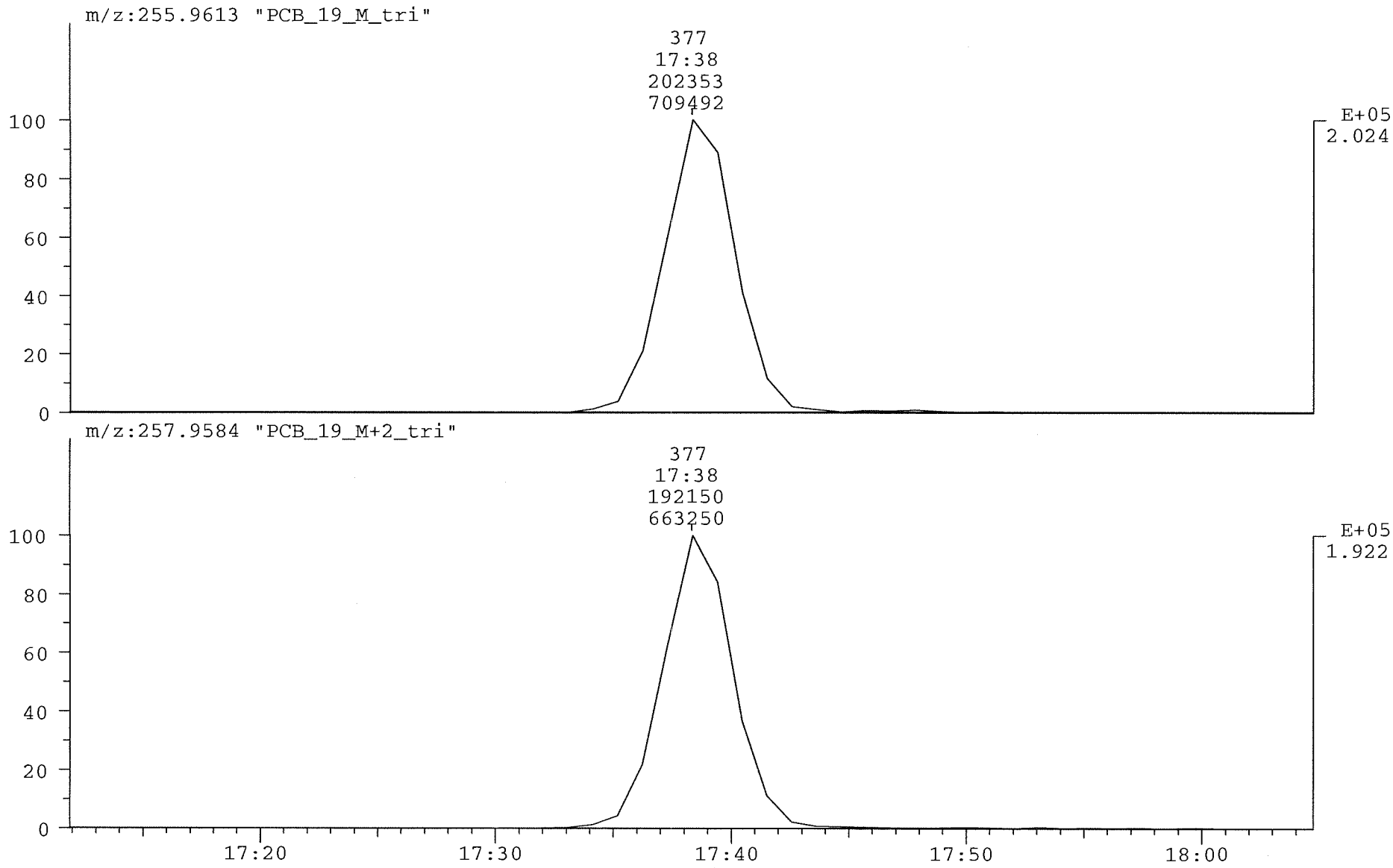
CHRO: a080624i3 24-Jun-08 Elapse: 27:27.9 931
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1708

1707

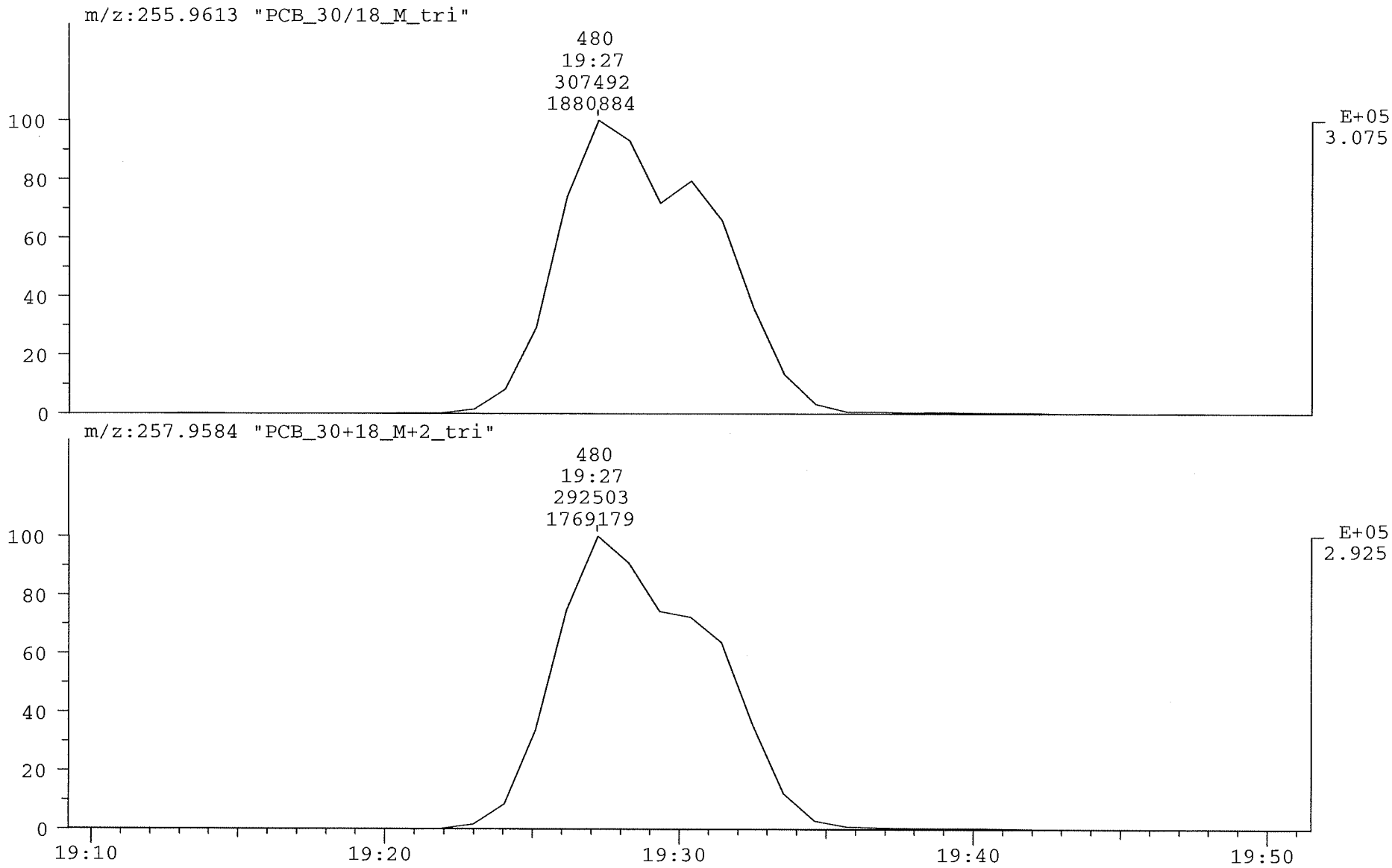
CHRO: a080624i3 24-Jun-08 Elapse: 17:38.3 377
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 352 > 402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1709

1708

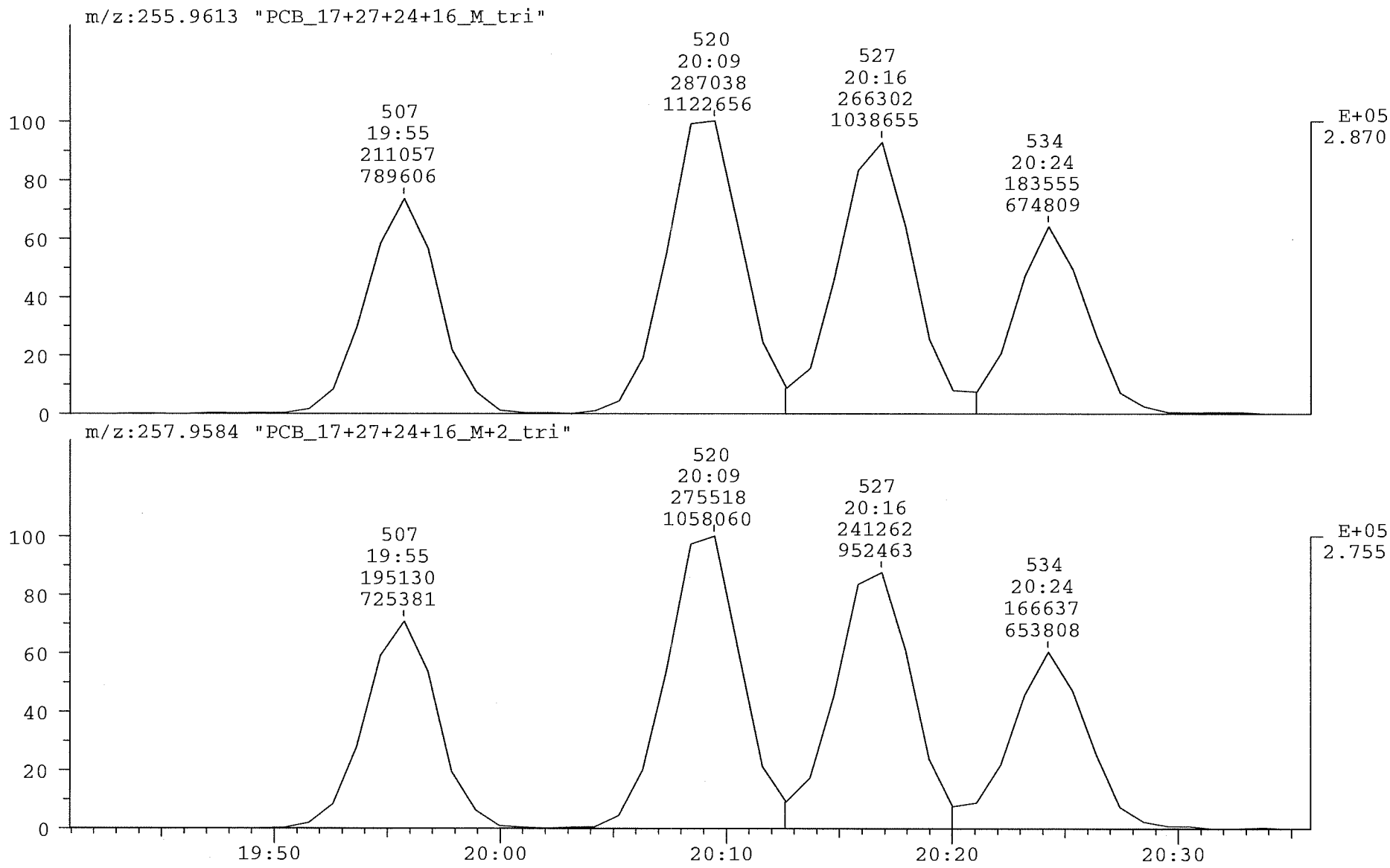
```
CHRO:  a080624i3                              24-Jun-08   Elapse:   19:30.3      483
Samp:  Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1               Start :   18:23:34    2602
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :   1668 ICAL CS3
Oper:  DCG           Client:  TA Knoxville                Inlet :   GC     Vial  12
Peak:  100.00  ppm     Label wndw:   463 > 503            Masses:   181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 12              Label :   -3, 3.0
Disp:  Height  Area
```



H-1710

1709

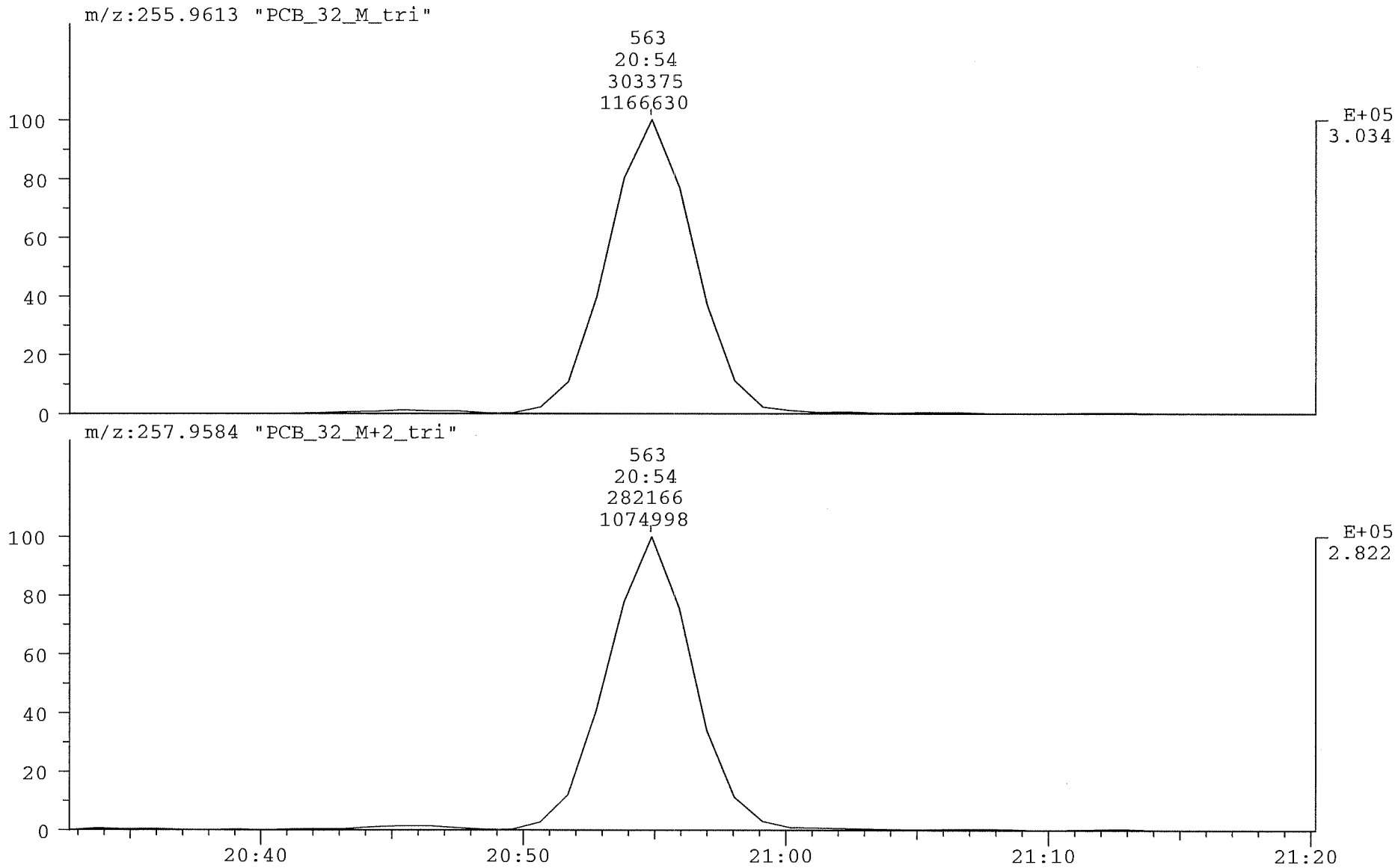
CHRO: a080624i3 24-Jun-08 Elapse: 20:09.4 520
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 493 > 545 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1711

1710

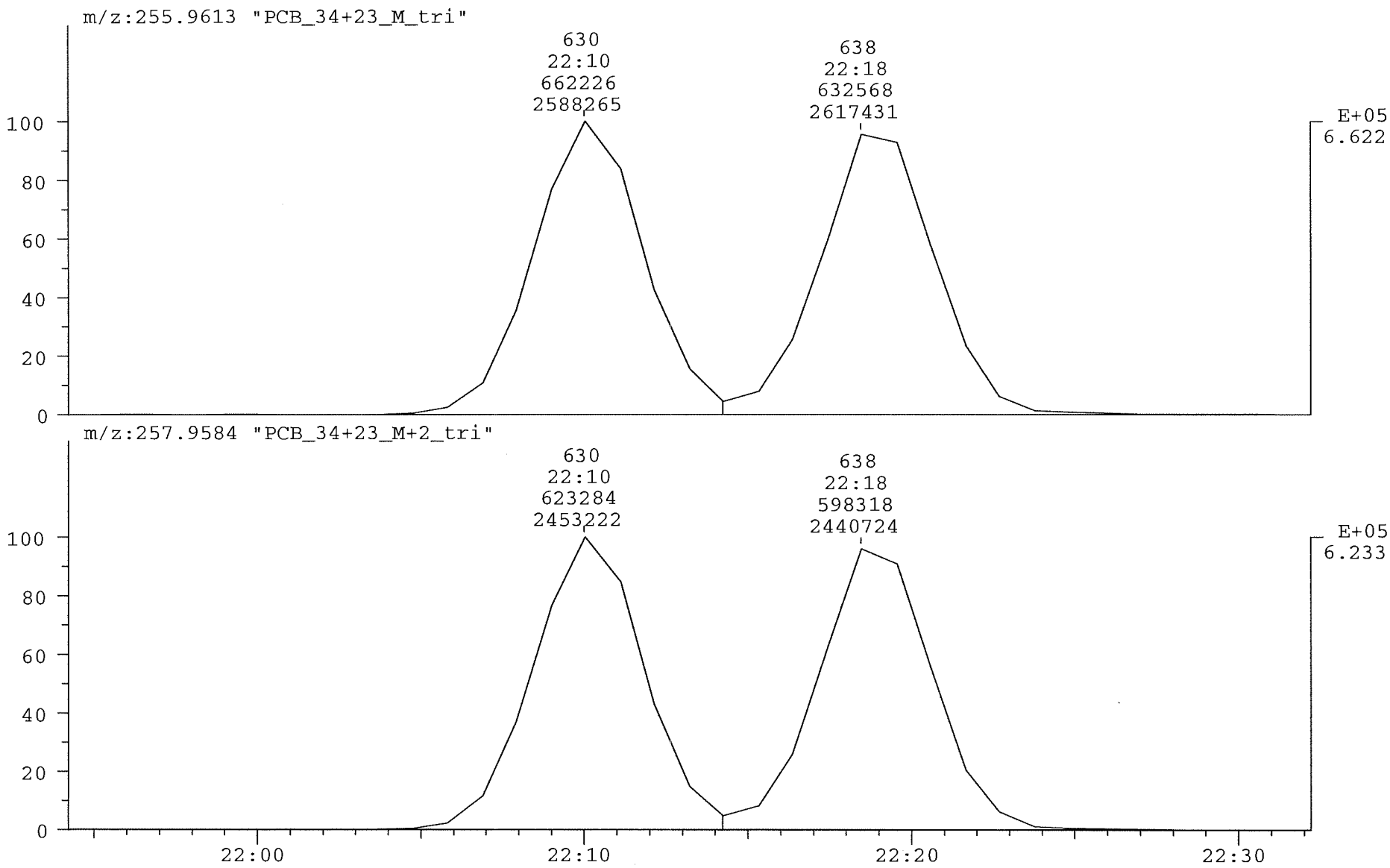
CHRO: a080624i3 24-Jun-08 Elapse: 20:53.8 562
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 542 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1712

1711

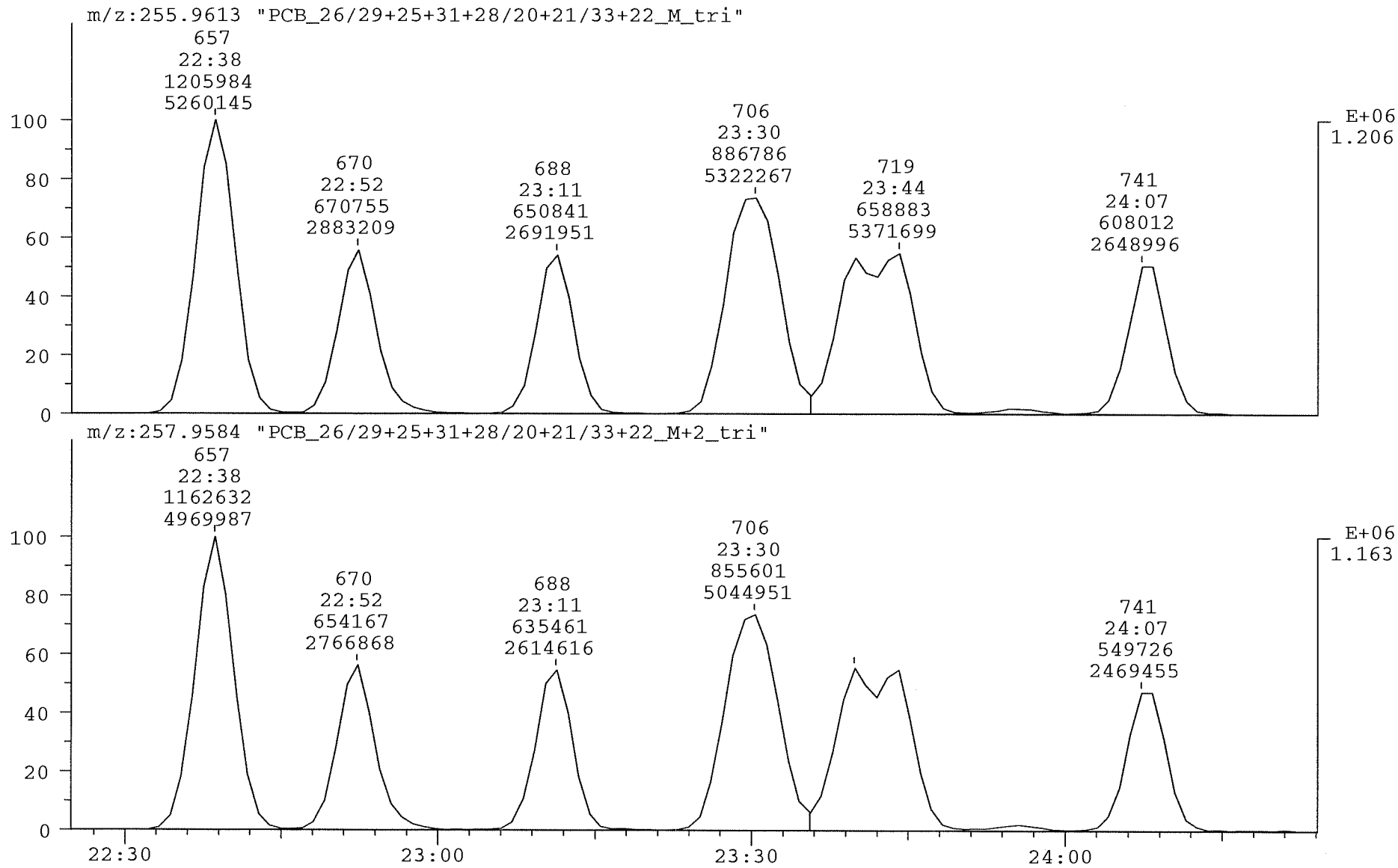
CHRO: a080624i3 24-Jun-08 Elapse: 22:10.0 630
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 615 > 651 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1713

1712

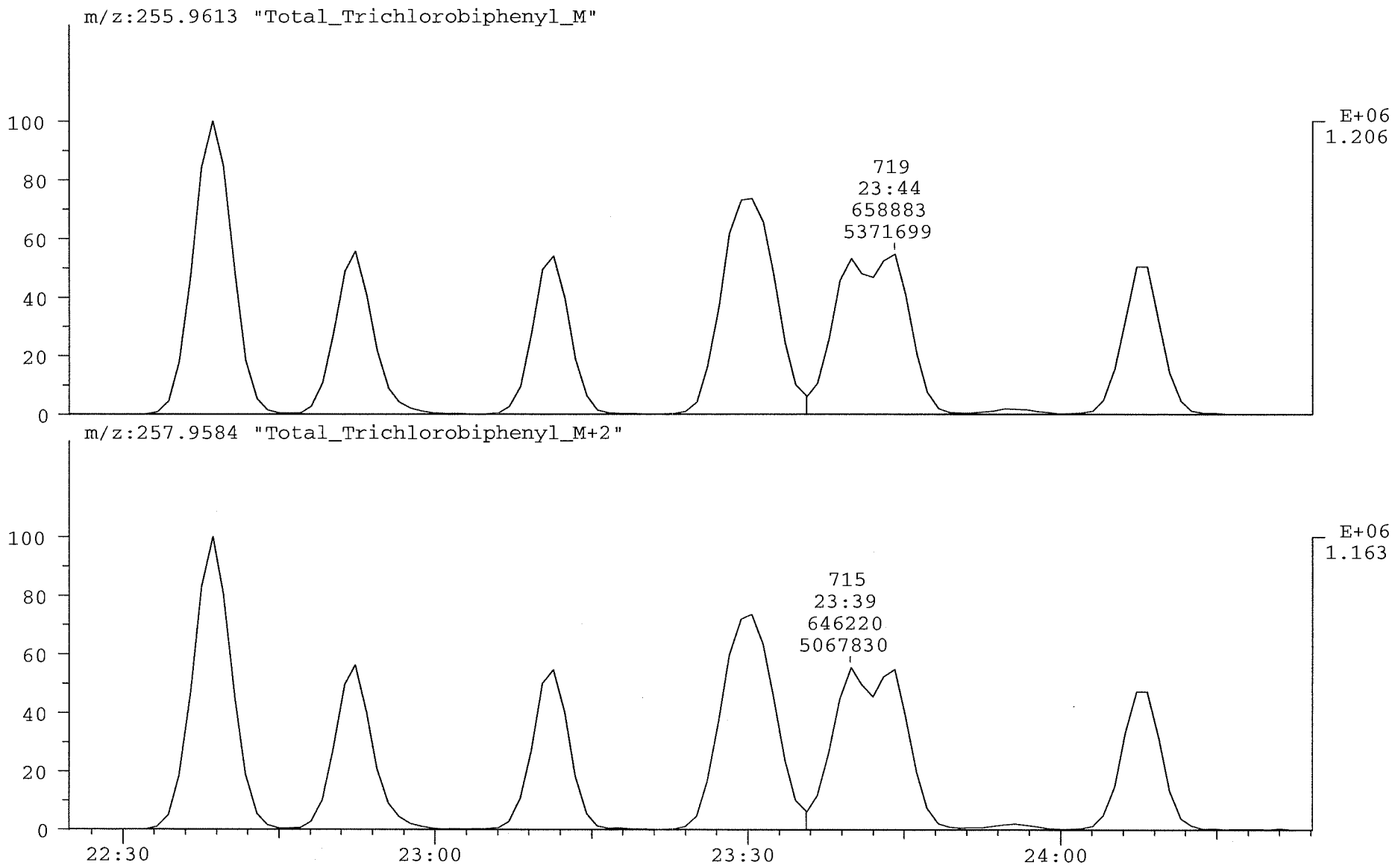
CHRO: a080624i3 24-Jun-08 Elapse: 23:36.6 712
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 644 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1714

1713

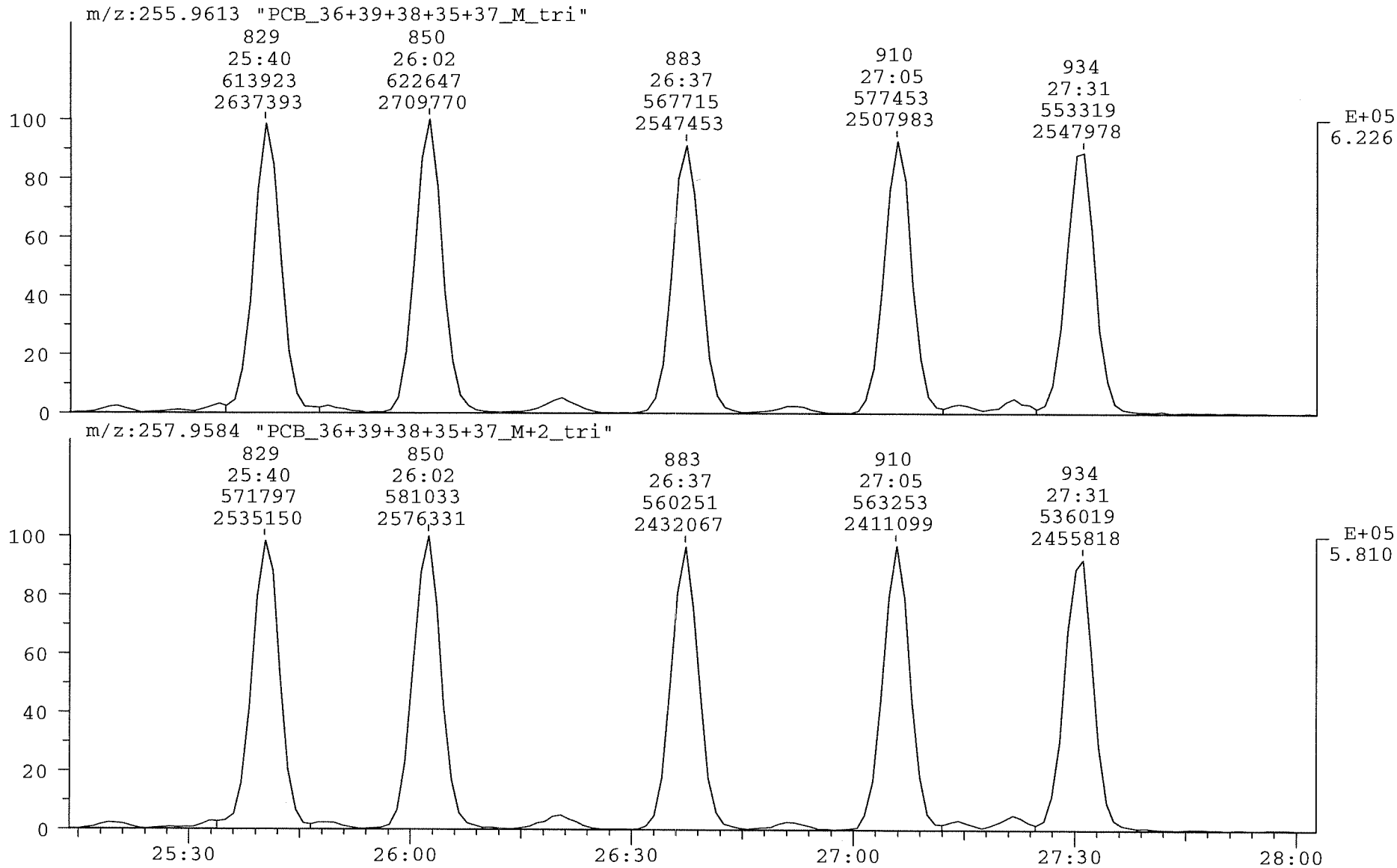
CHRO: a080624i3 24-Jun-08 Elapse: 23:39.8 715
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 713 > 720 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1715

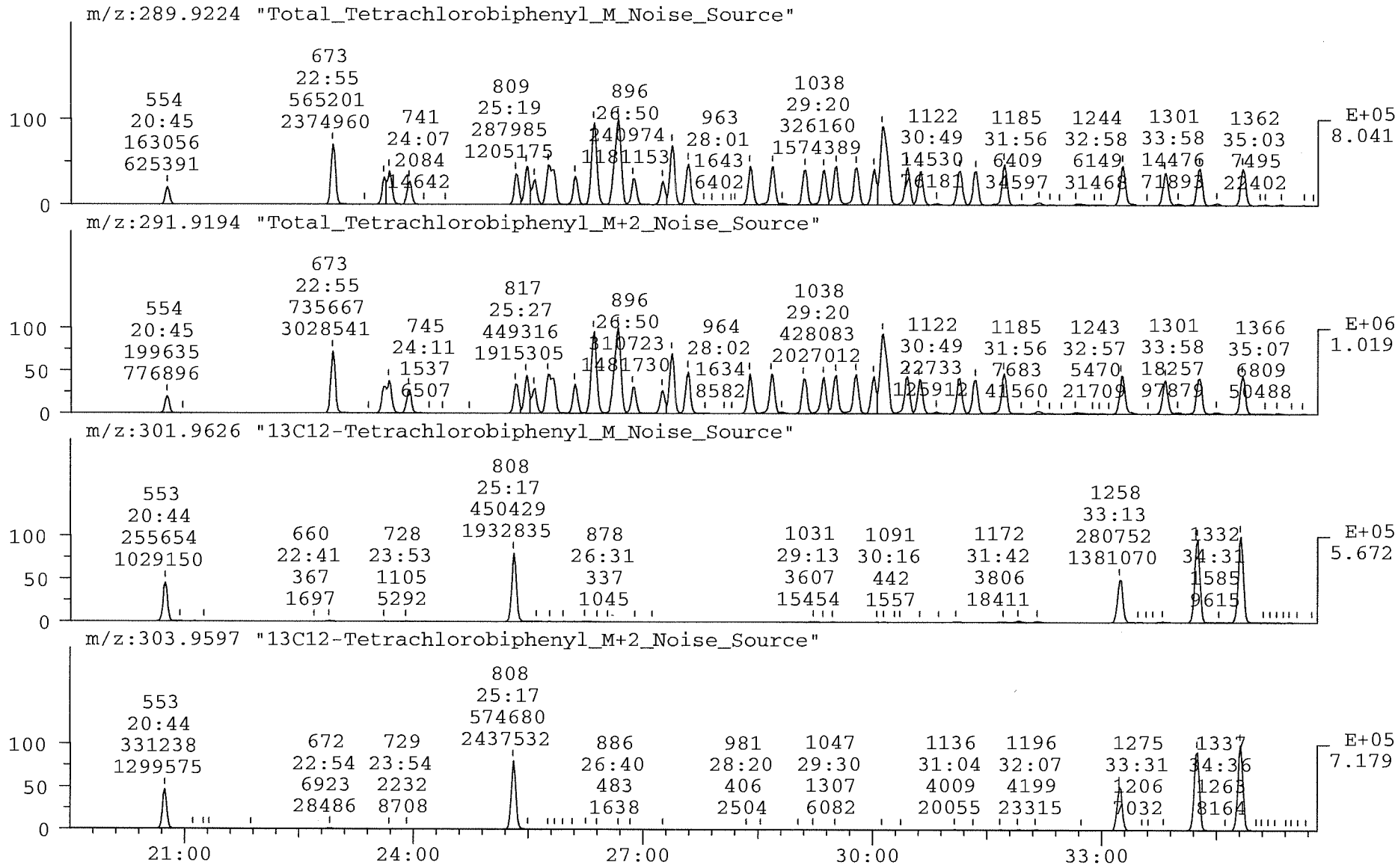
1714

CHRO: a080624i3 24-Jun-08 Elapse: 26:38.2 884
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 804 > 964 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1716

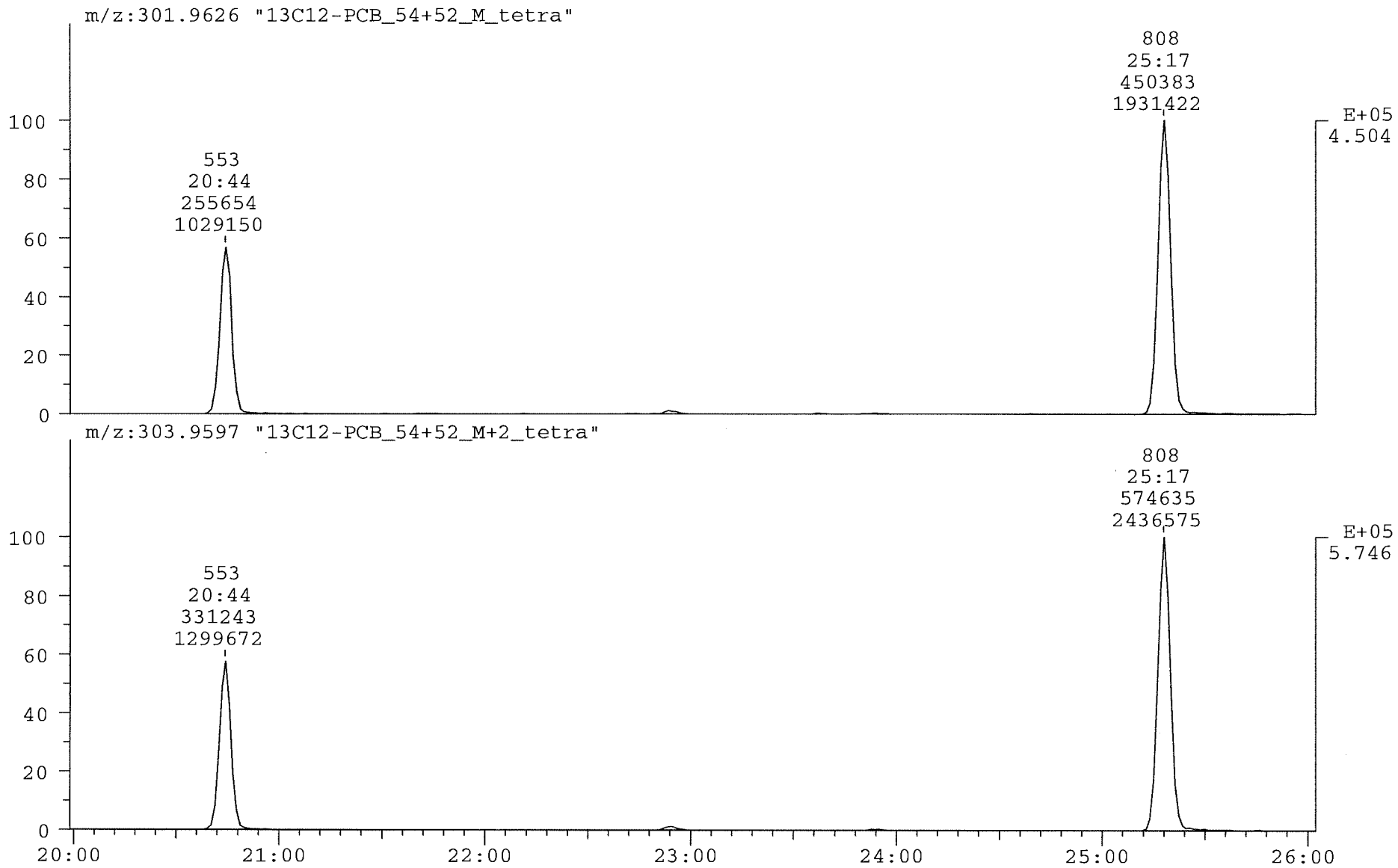
CHRO: a080624i3 24-Jun-08 Elapse: 27:39.4 942
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 483 > 1405 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1717

1716

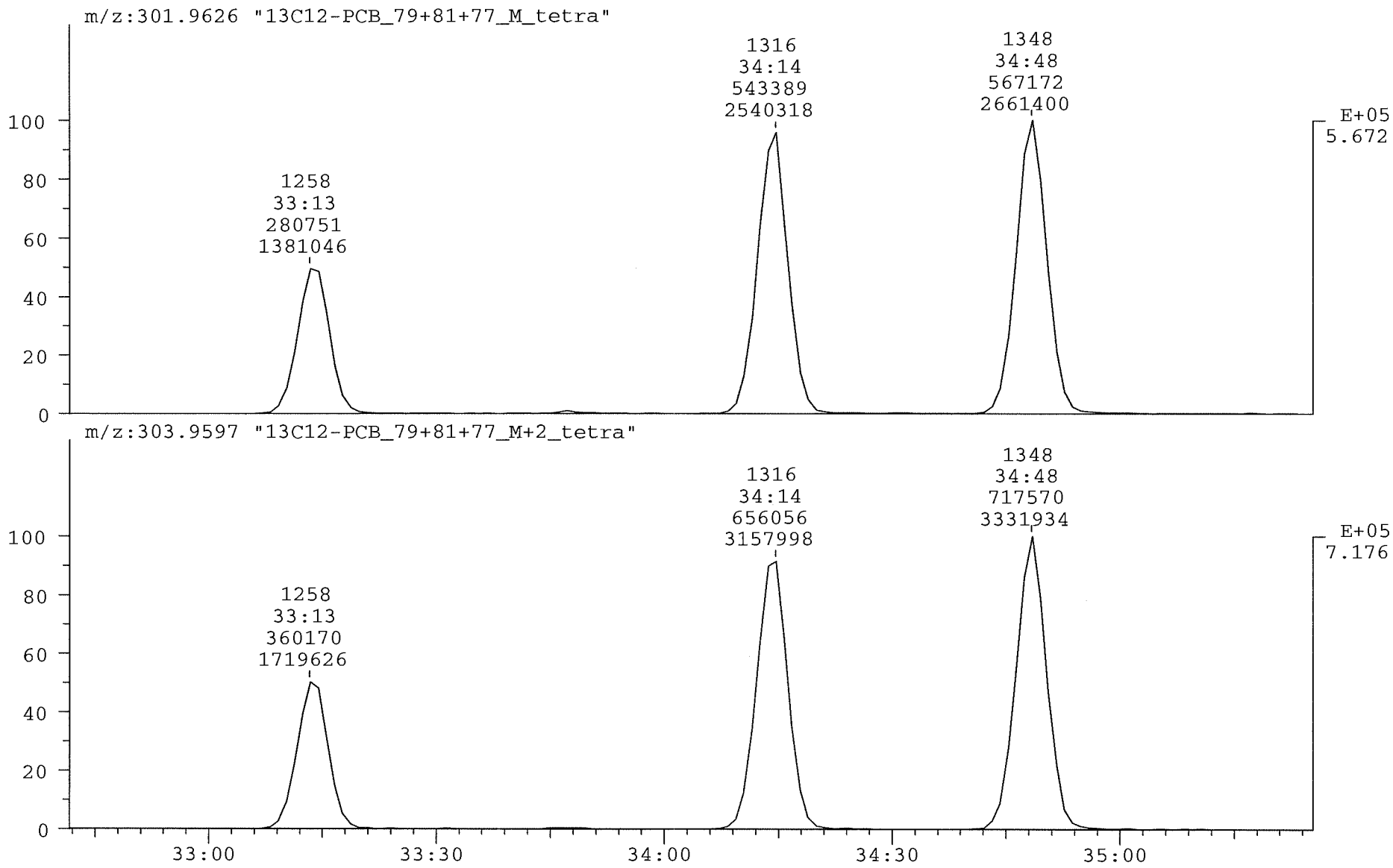
CHRO: a080624i3 24-Jun-08 Elapse: 23:02.8 680
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 510 > 850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1718

1717

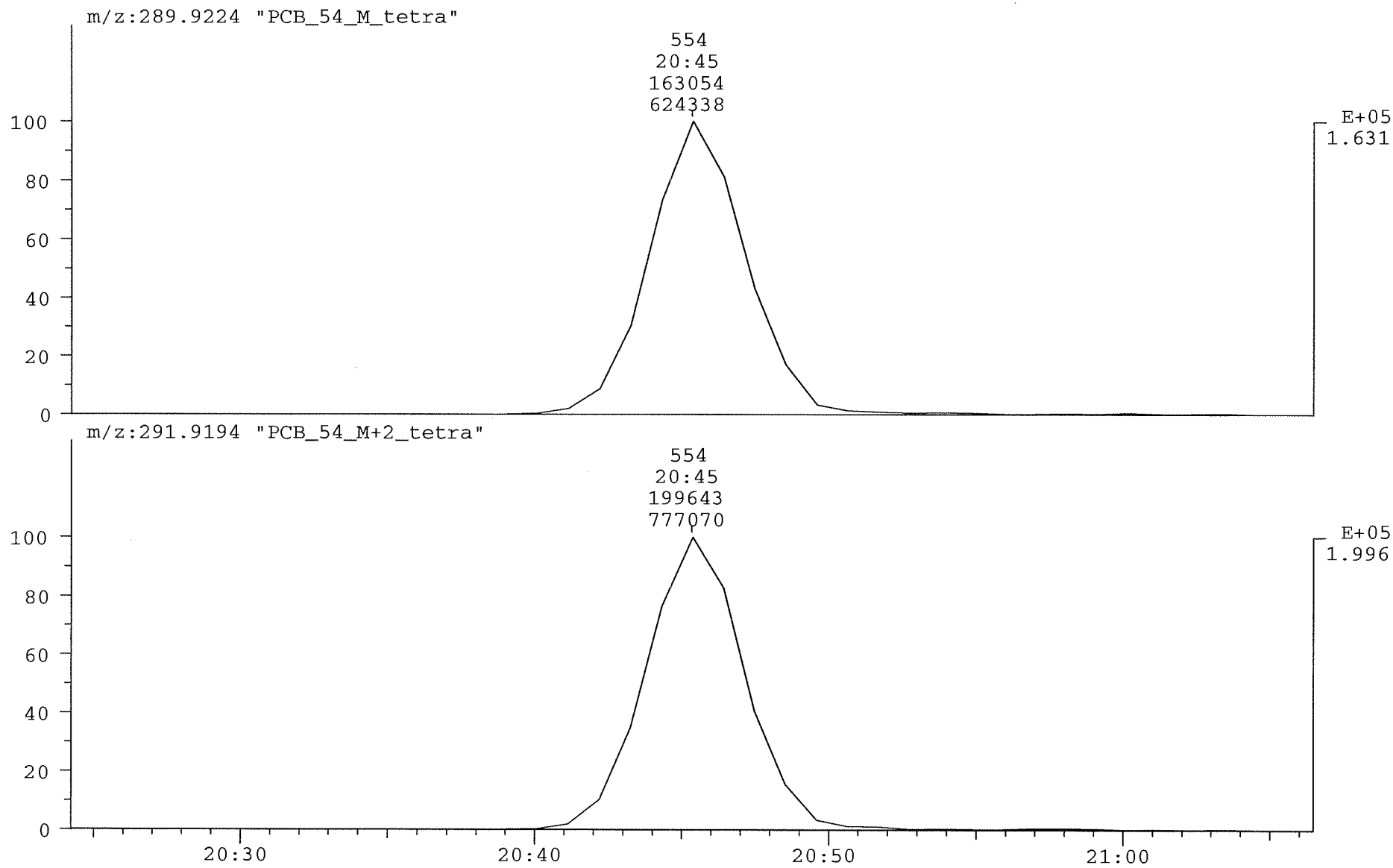
CHRO: a080624i3 24-Jun-08 Elapse: 34:00 1303
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1228 > 1383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1719

1718

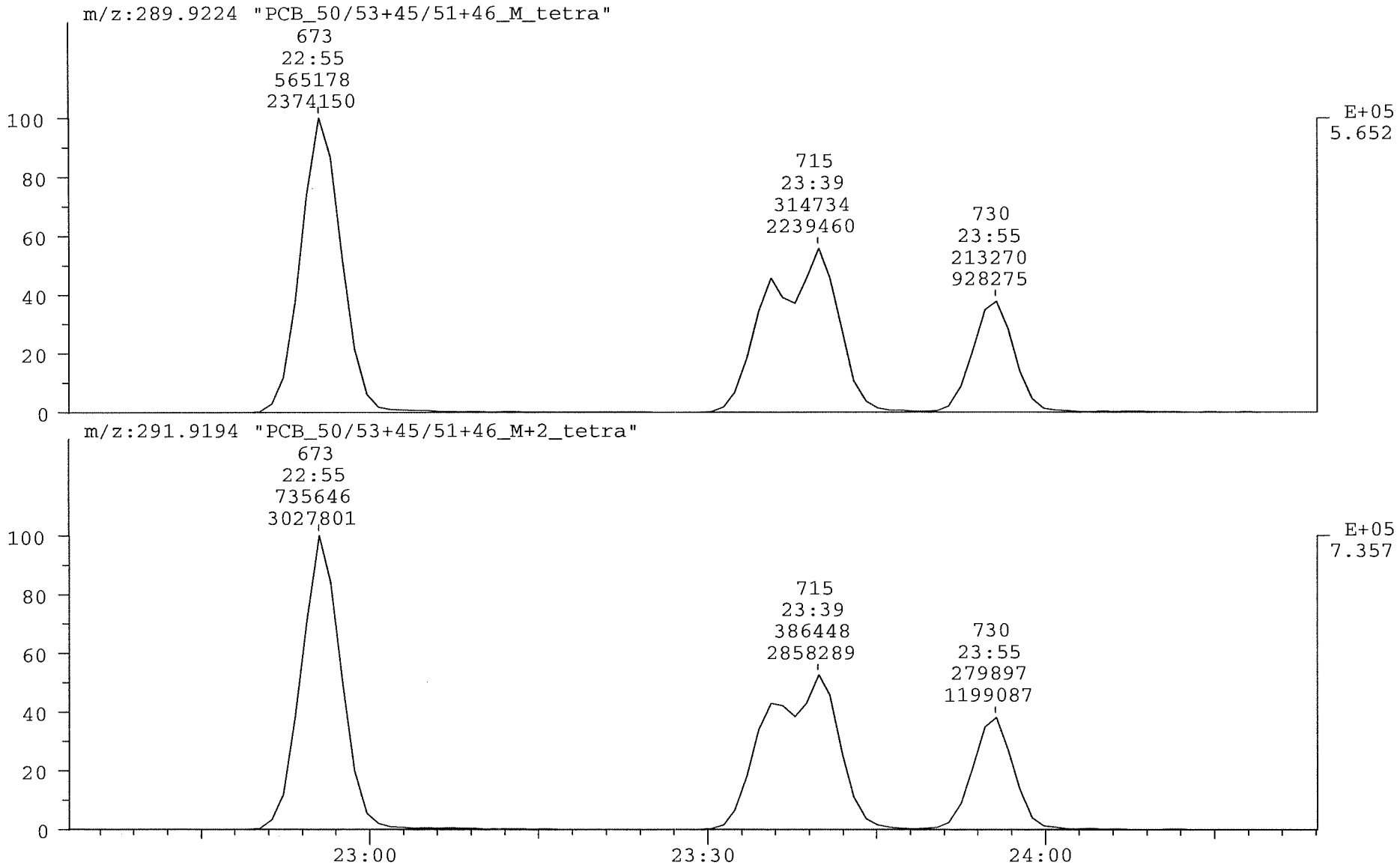
CHRO: a080624i3 24-Jun-08 Elapse: 20:45.3 554
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 534 > 574 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1720

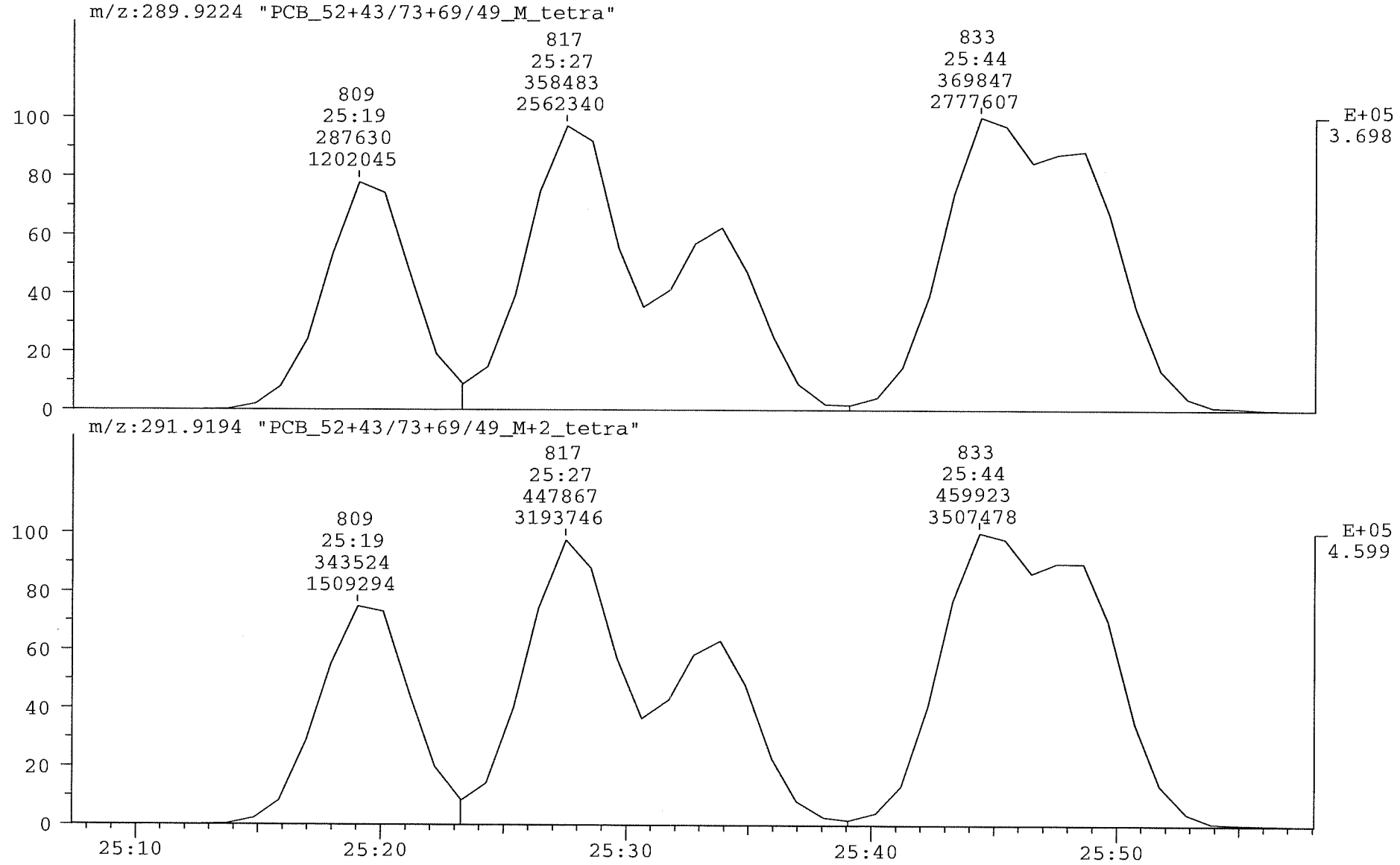
1719

CHRO: a080624i3 24-Jun-08 Elapse: 23:31.3 707
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 652 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1721

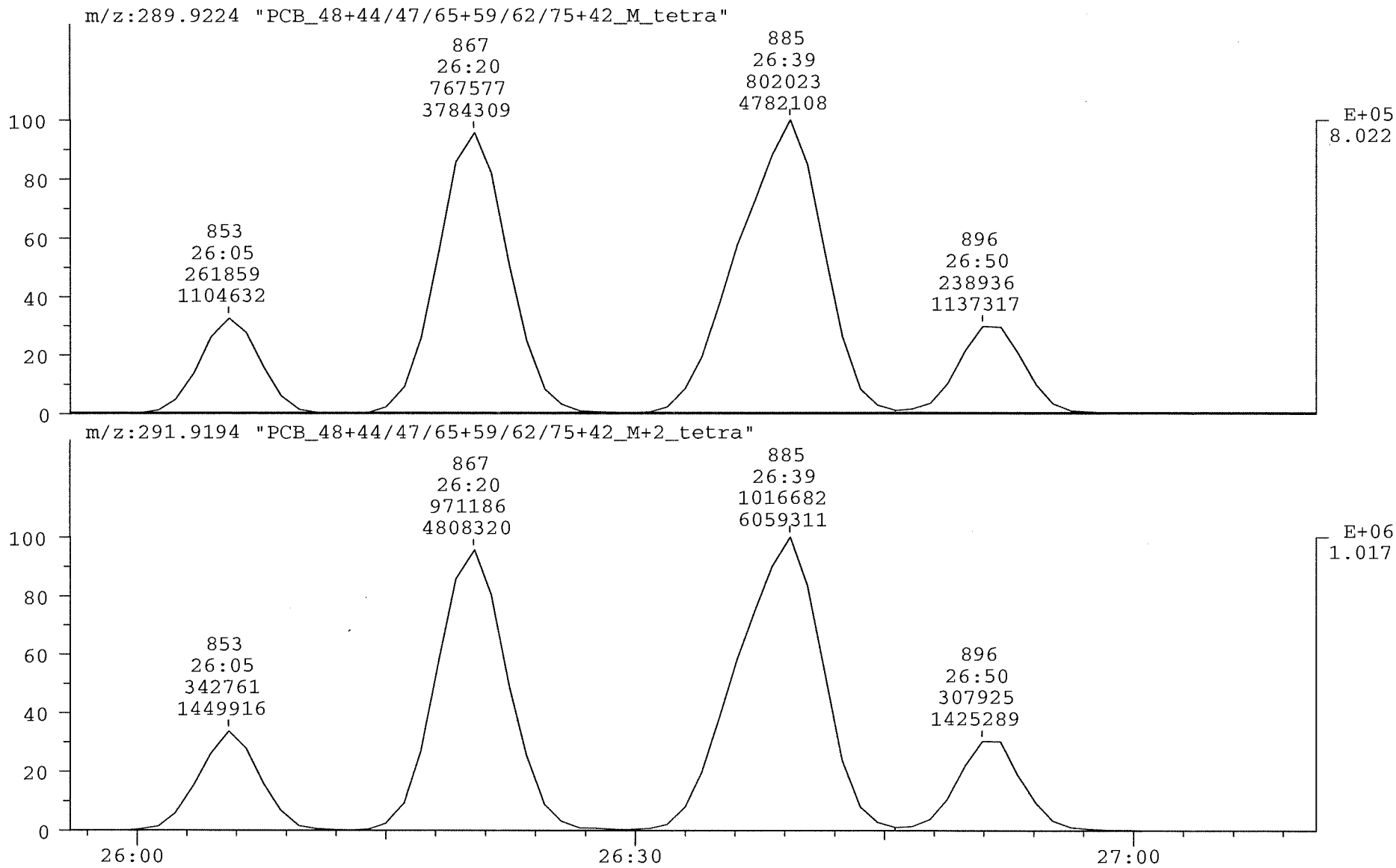
CHRO: a080624i3 24-Jun-08 Elapse: 25:36.9 826
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 798 > 846 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1722

1721

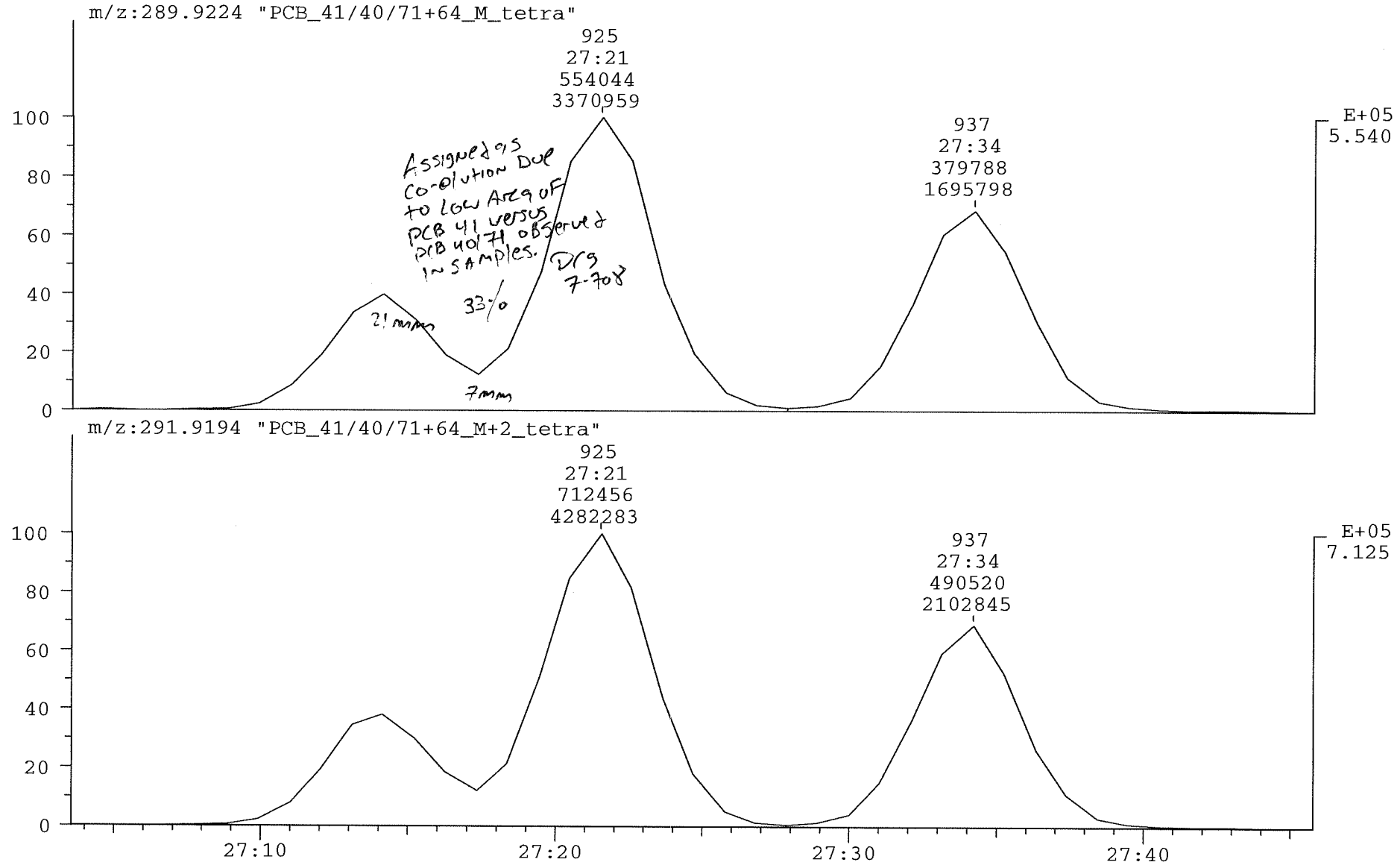
CHRO: a080624i3 24-Jun-08 Elapse: 26:29.7 876
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 844 > 915 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1723

1722

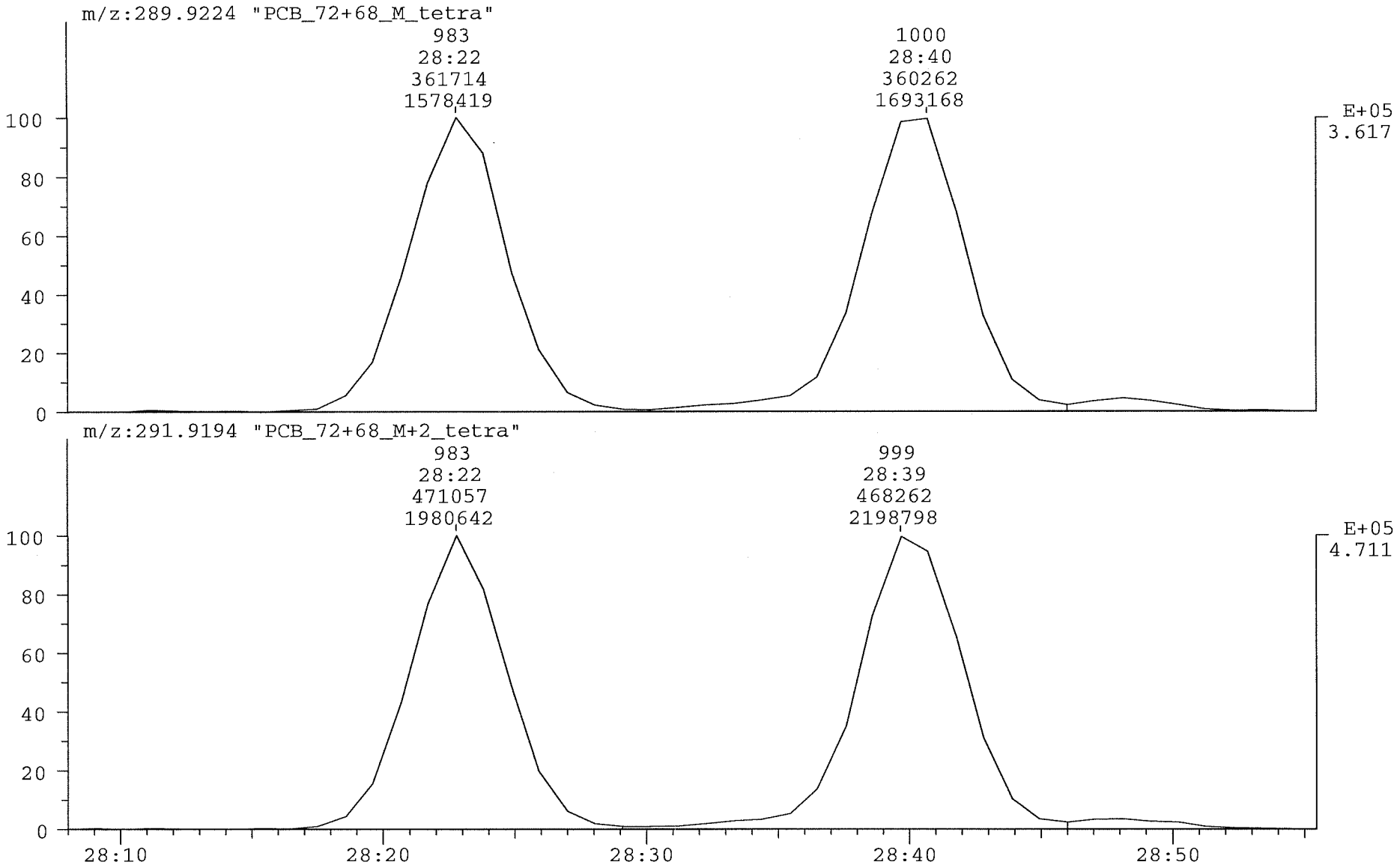
CHRO: a080624i3 24-Jun-08 Elapse: 27:30.9 933
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 908 > 948 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1724

1723

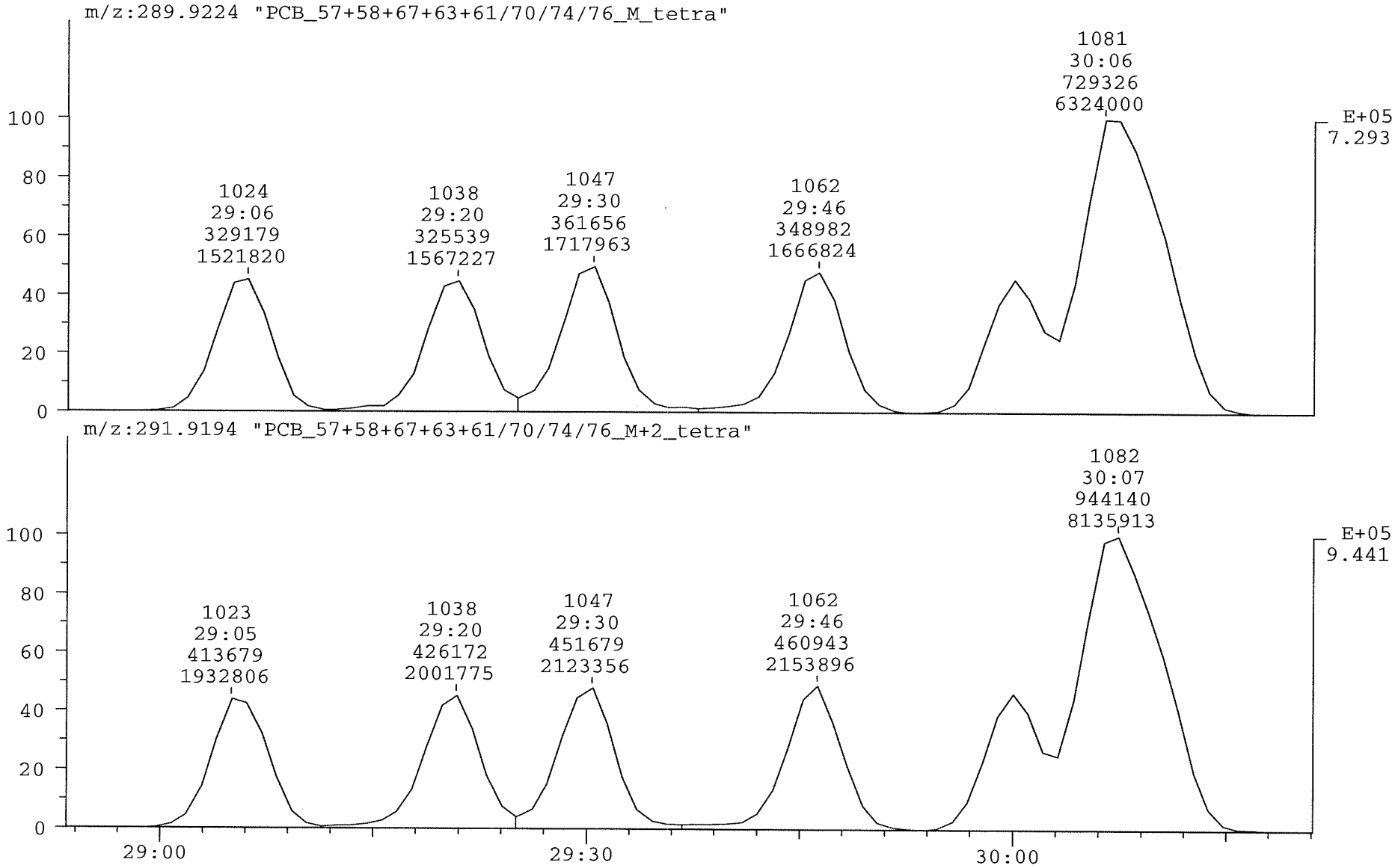
CHRO: a080624i3 24-Jun-08 Elapse: 28:34.3 994
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 969 > 1014 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1725

1724

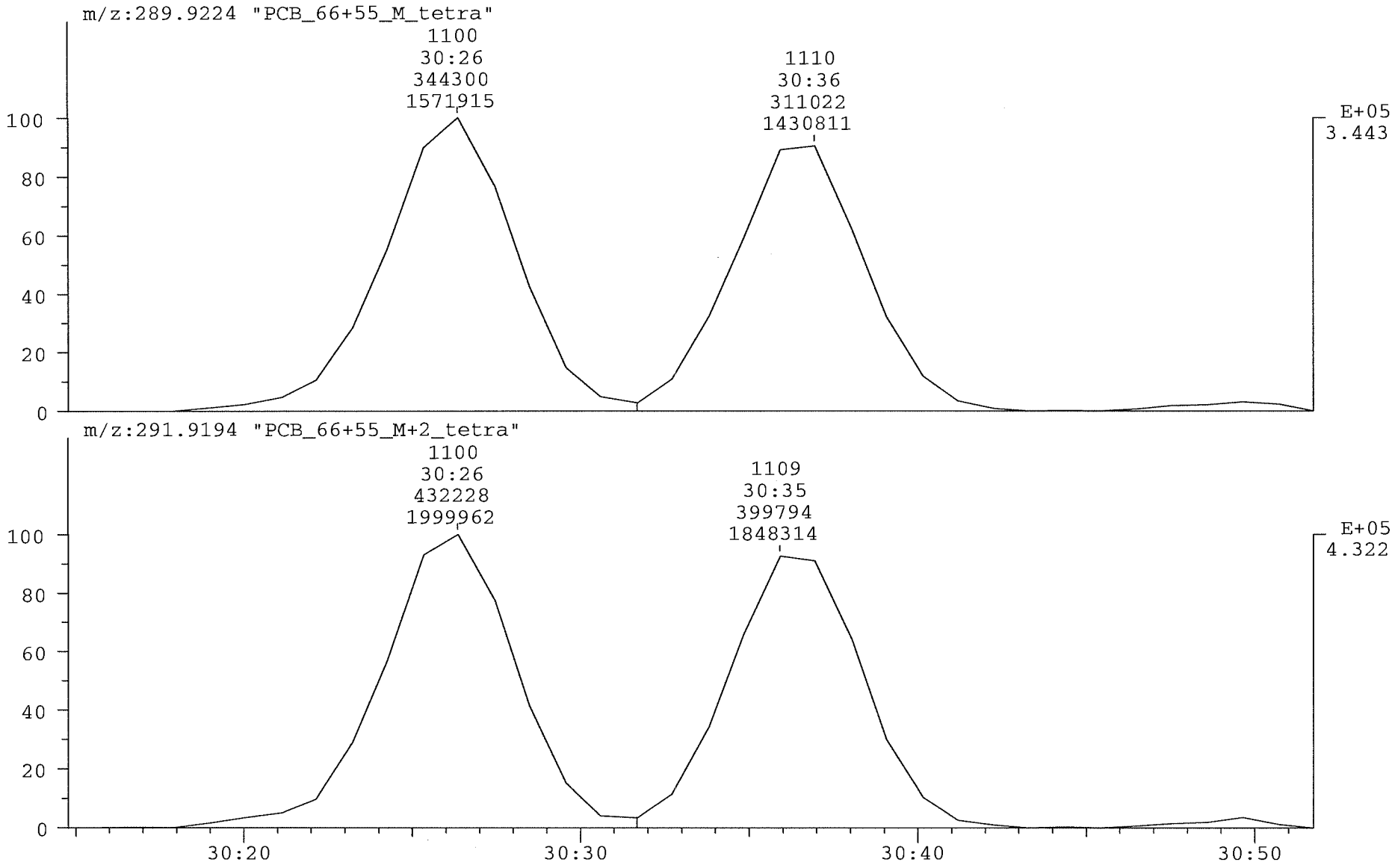
CHRO: a080624i3 24-Jun-08 Elapse: 29:38 1055
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1012 > 1095 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1726

1725

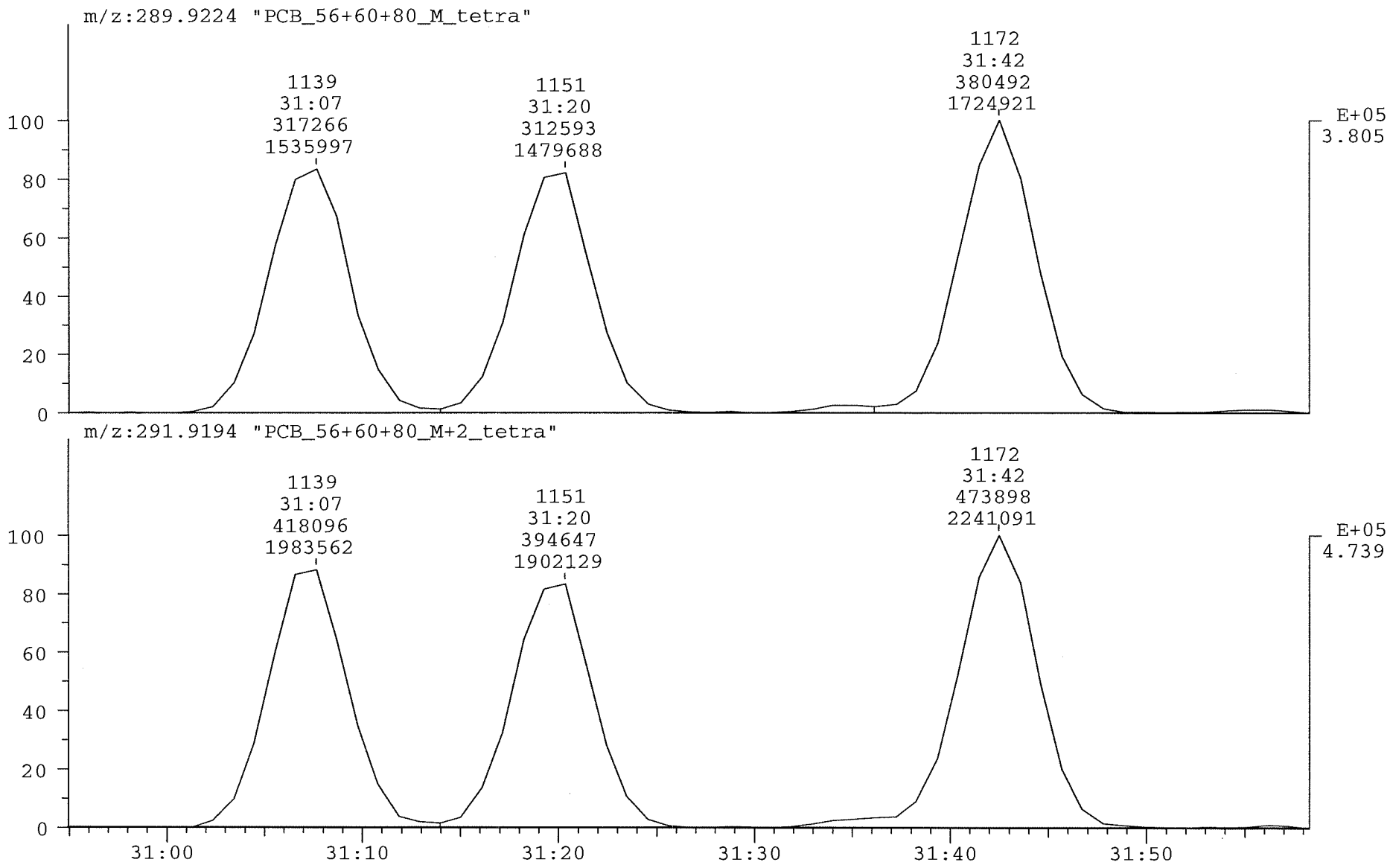
CHRO: a080624i3 24-Jun-08 Elapse: 30:33 1107
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1089 > 1124 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1727

1726

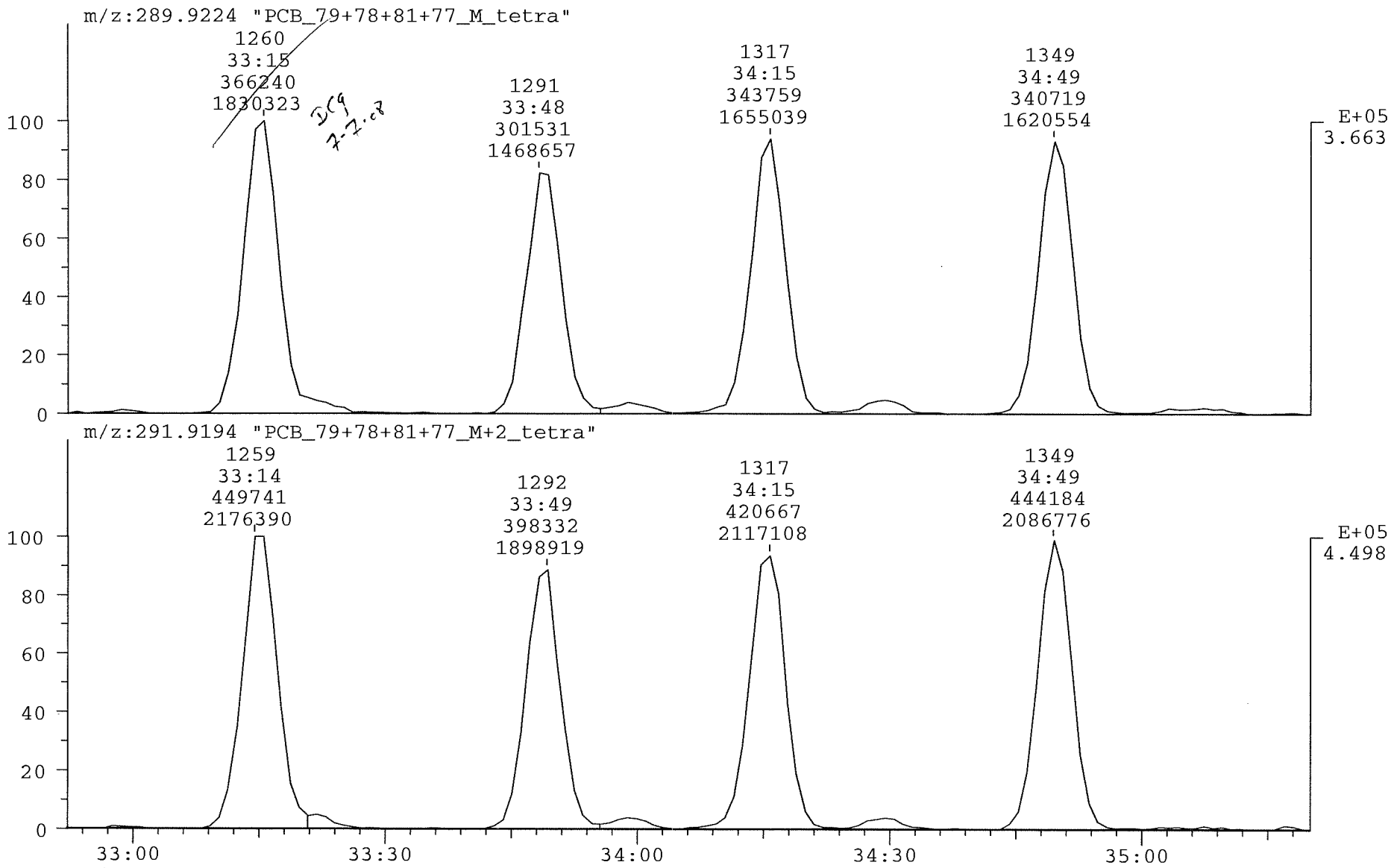
CHRO: a080624i3 24-Jun-08 Elapse: 31:26 1157
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1127 > 1187 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1728

1727

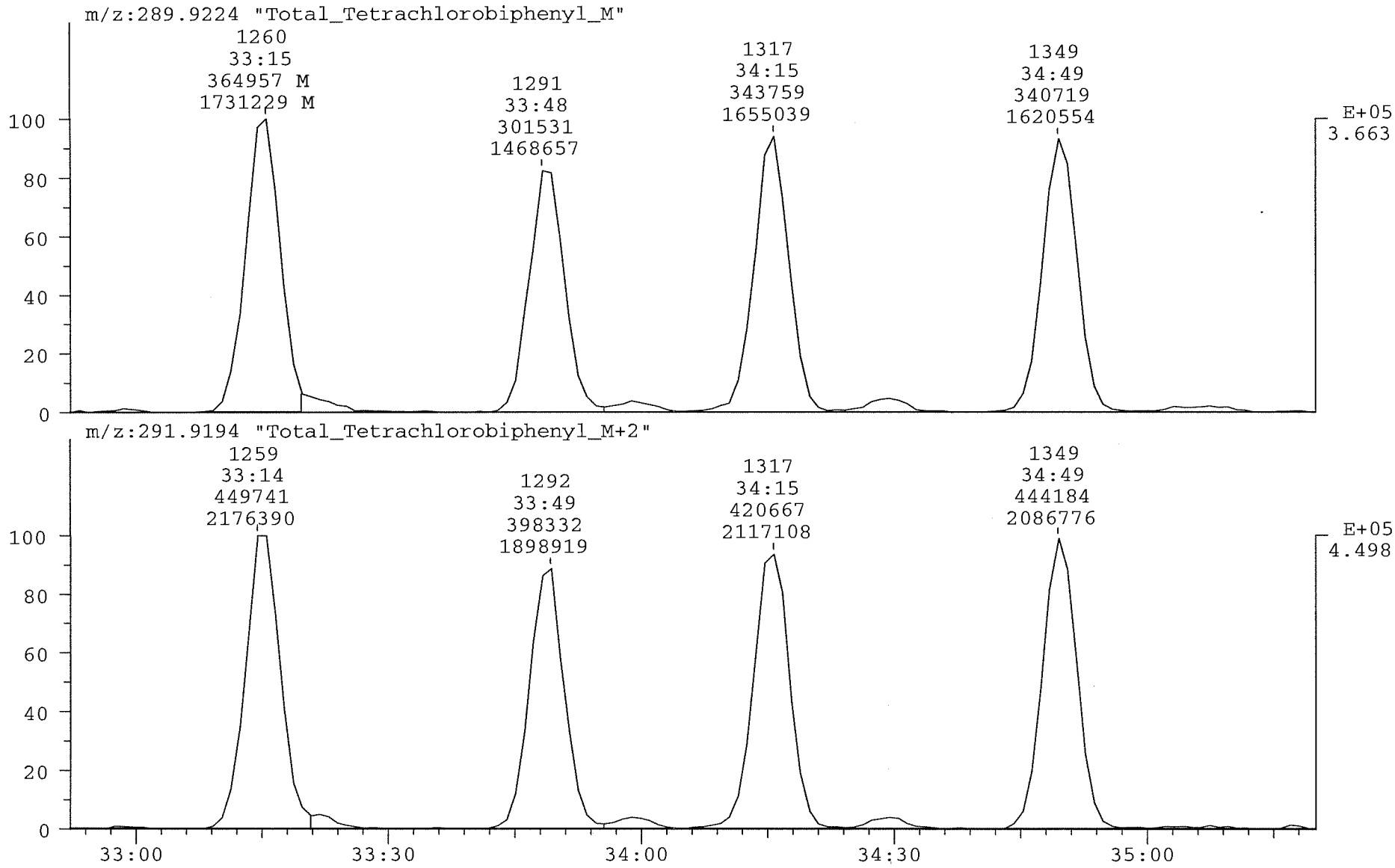
CHRO: a080624i3 24-Jun-08 Elapse: 34:00 1303
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1238 > 1378 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1729

1728

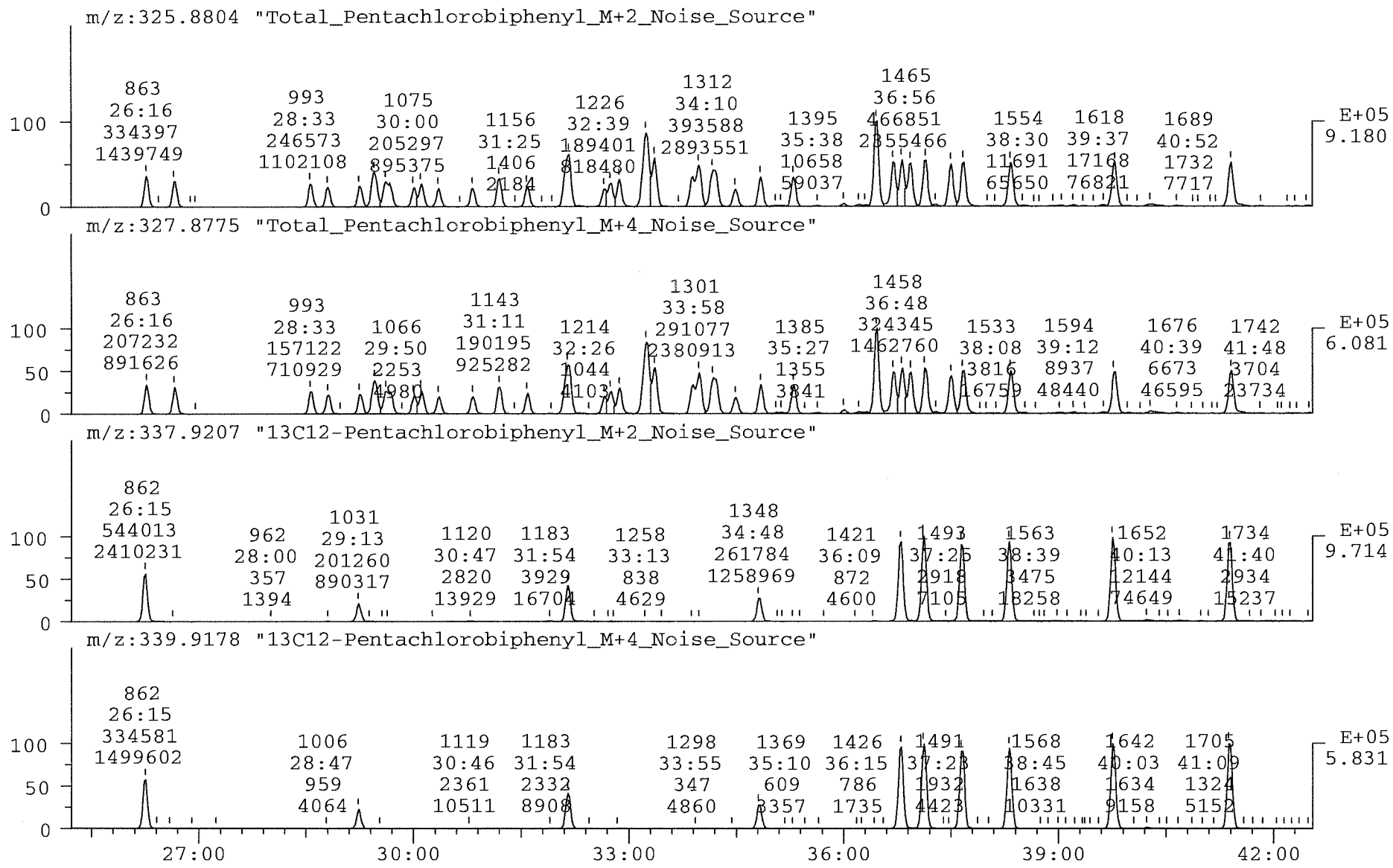
CHRO: a080624i3 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1238 > 1378 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1730

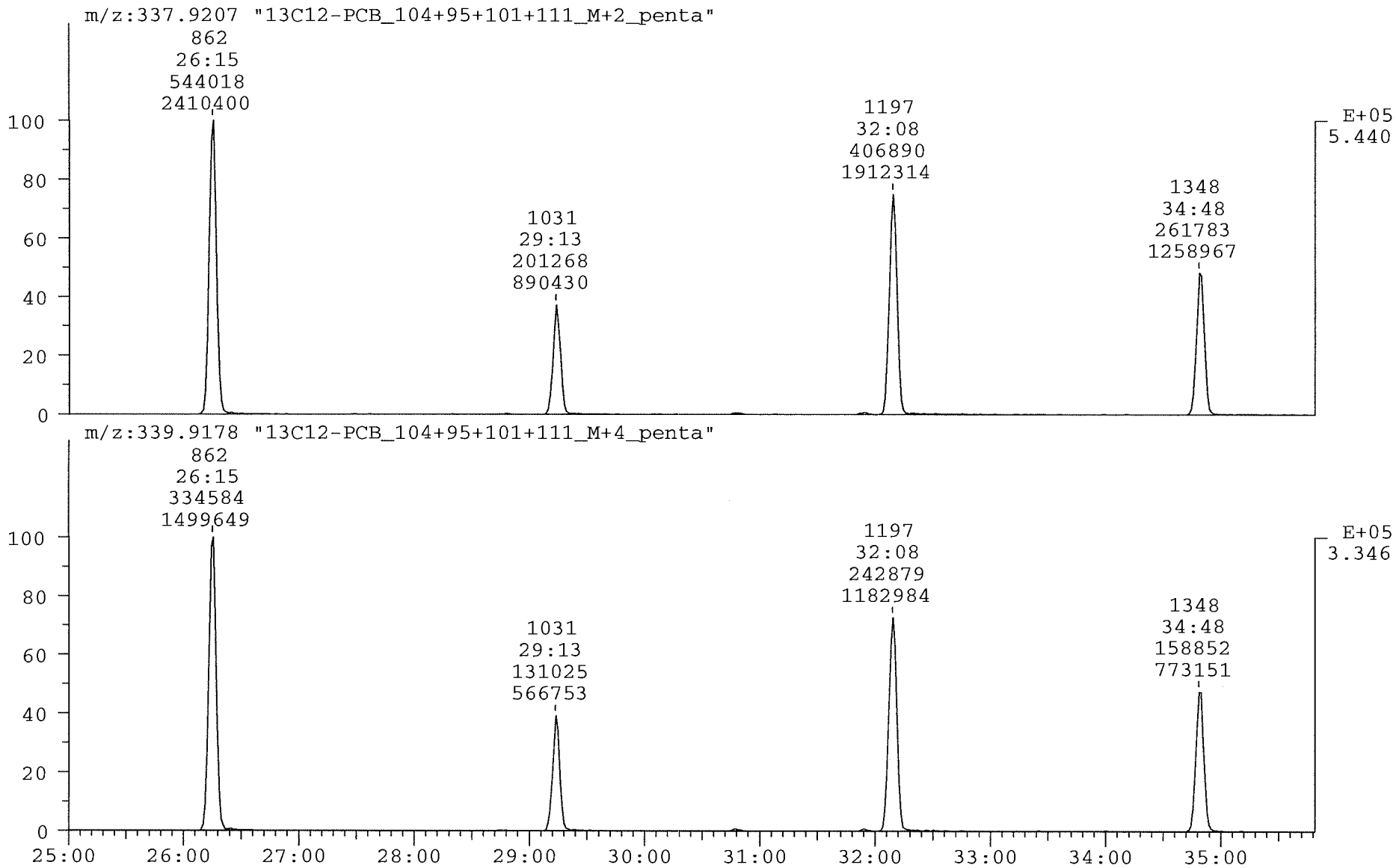
1729

CHRO: a080624i3 24-Jun-08 Elapse: 33:53 1296
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 803 > 1784 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1731

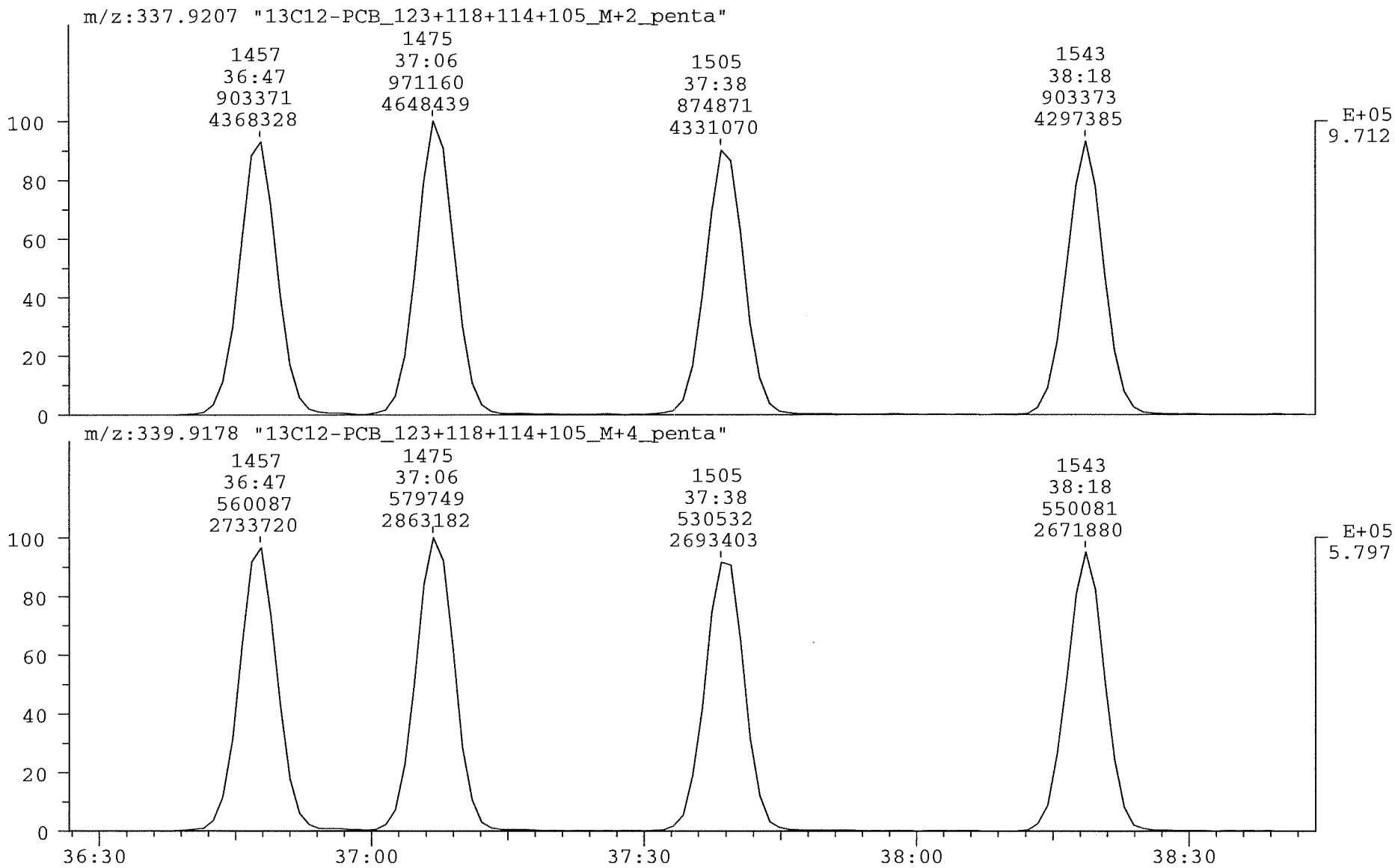
CHRO: a080624i3 24-Jun-08 Elapse: 30:24 1098
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 791 > 1405 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1732

1731

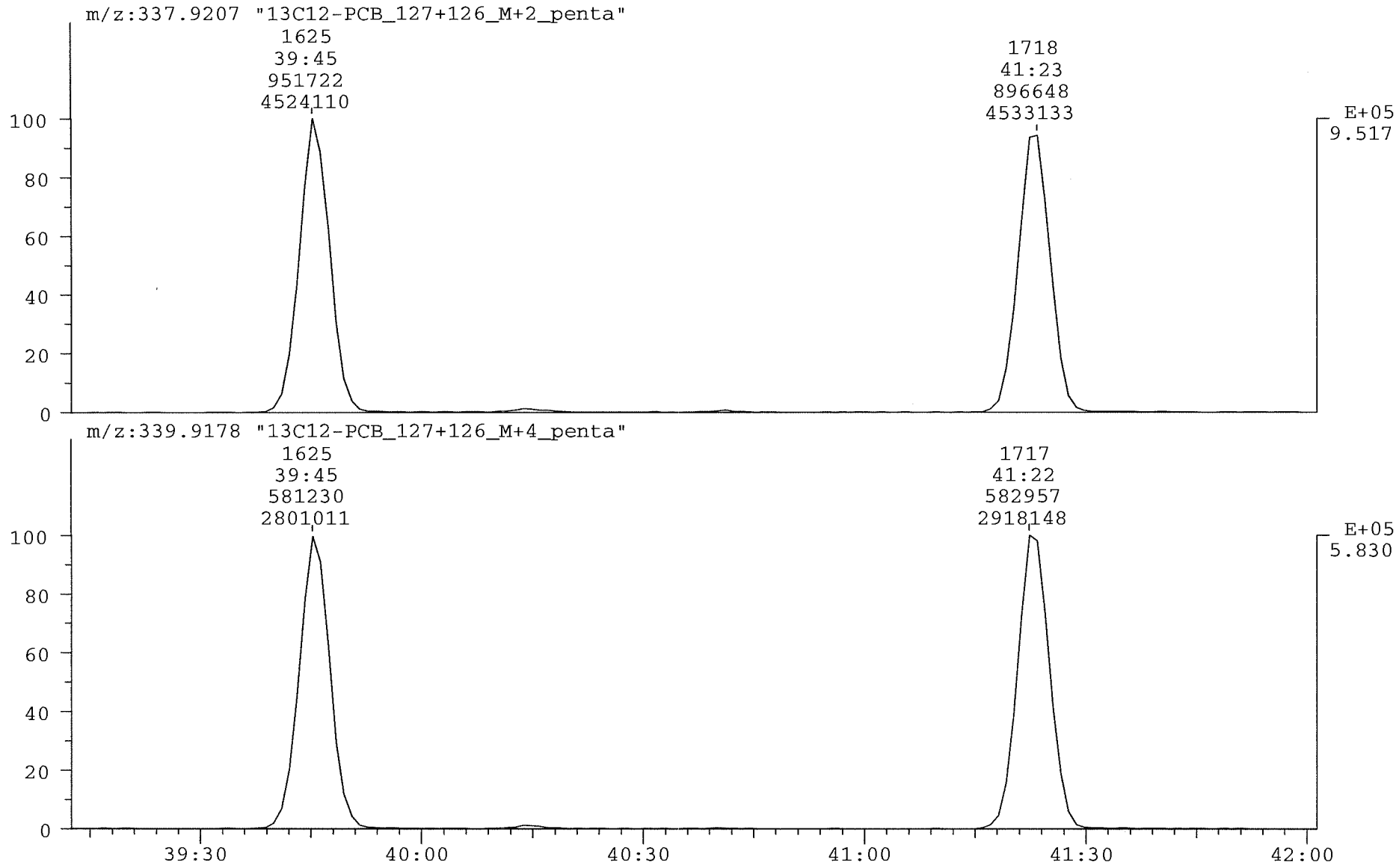
CHRO: a080624i3 24-Jun-08 Elapse: 37:35 1502
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1437 > 1567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1733

1732

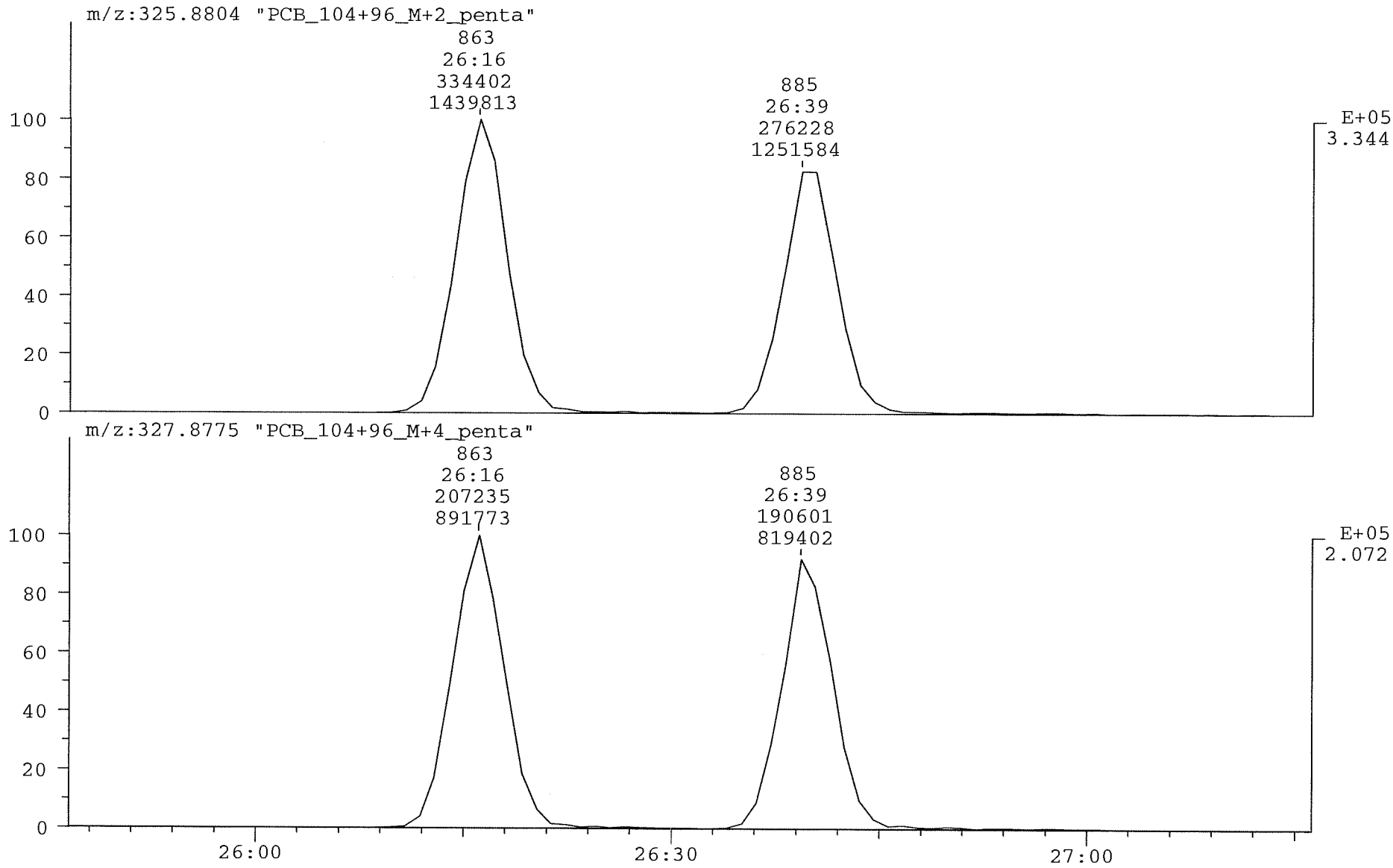
CHRO: a080624i3 24-Jun-08 Elapse: 40:36 1674
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1594 > 1754 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1734

1733

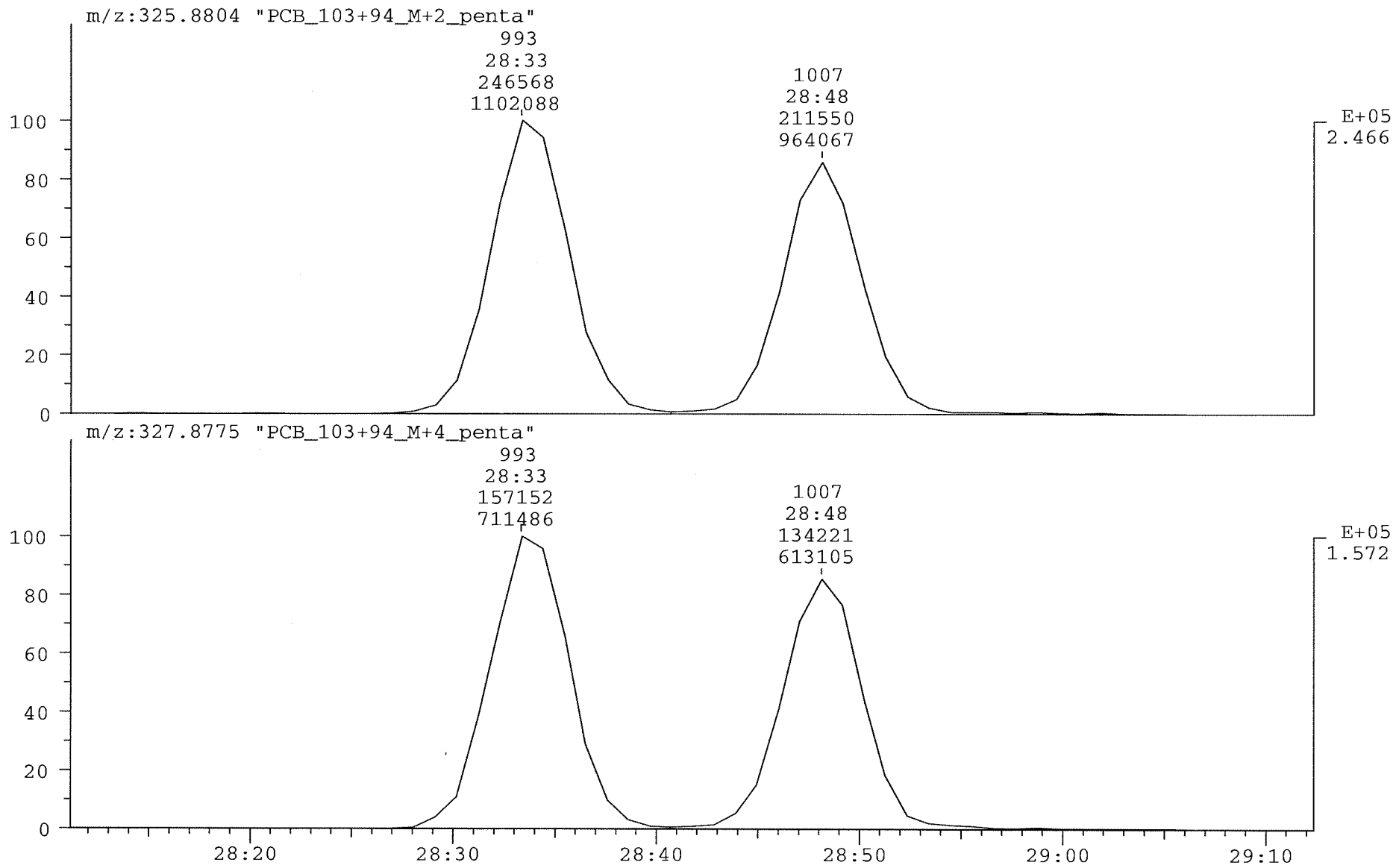
CHRO: a080624i3 24-Jun-08 Elapse: 26:28.7 875
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 835 > 920 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1735

1734

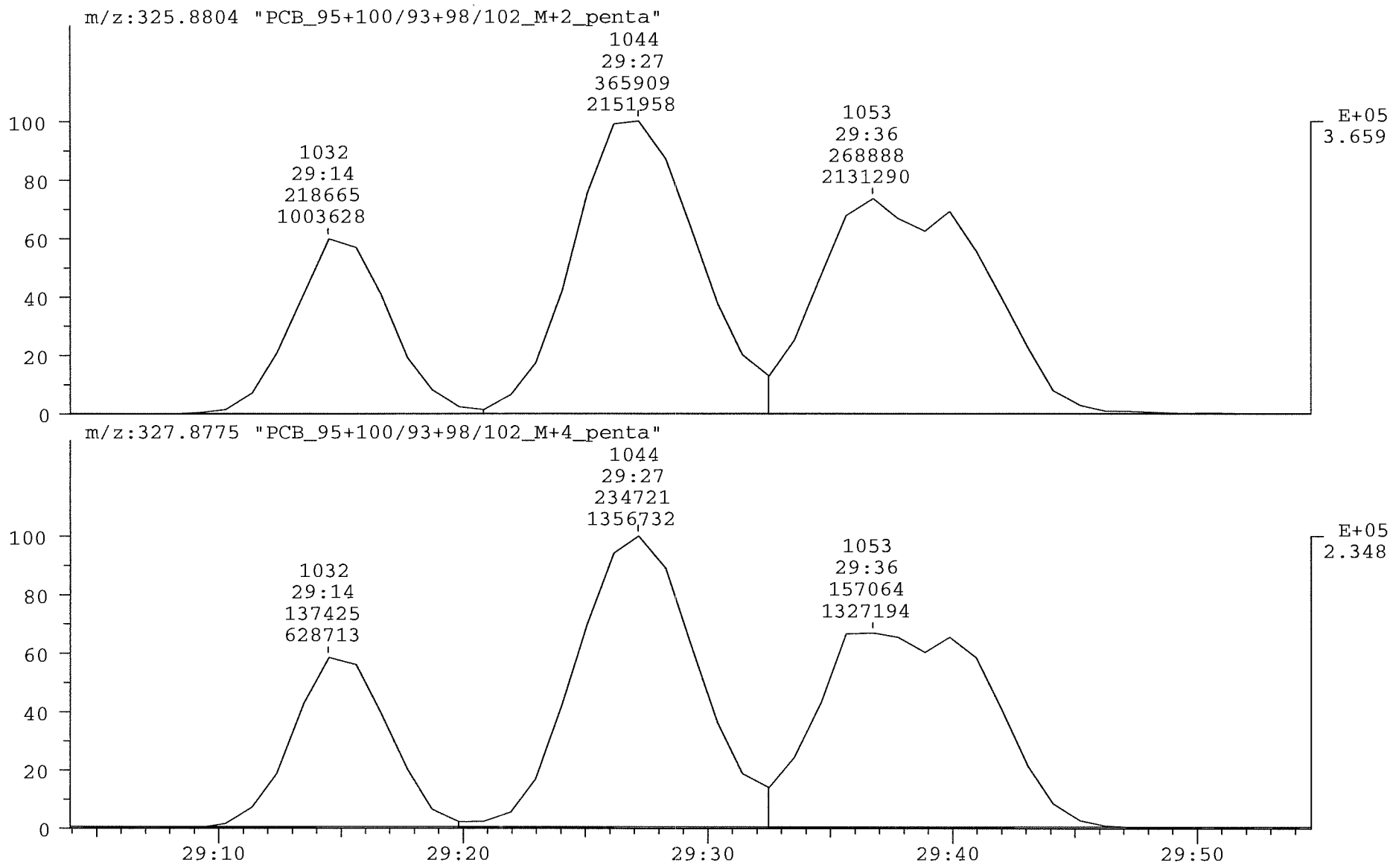
CHRO: a080624i3 24-Jun-08 Elapse: 28:42 1002
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 972 > 1030 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1736

1735

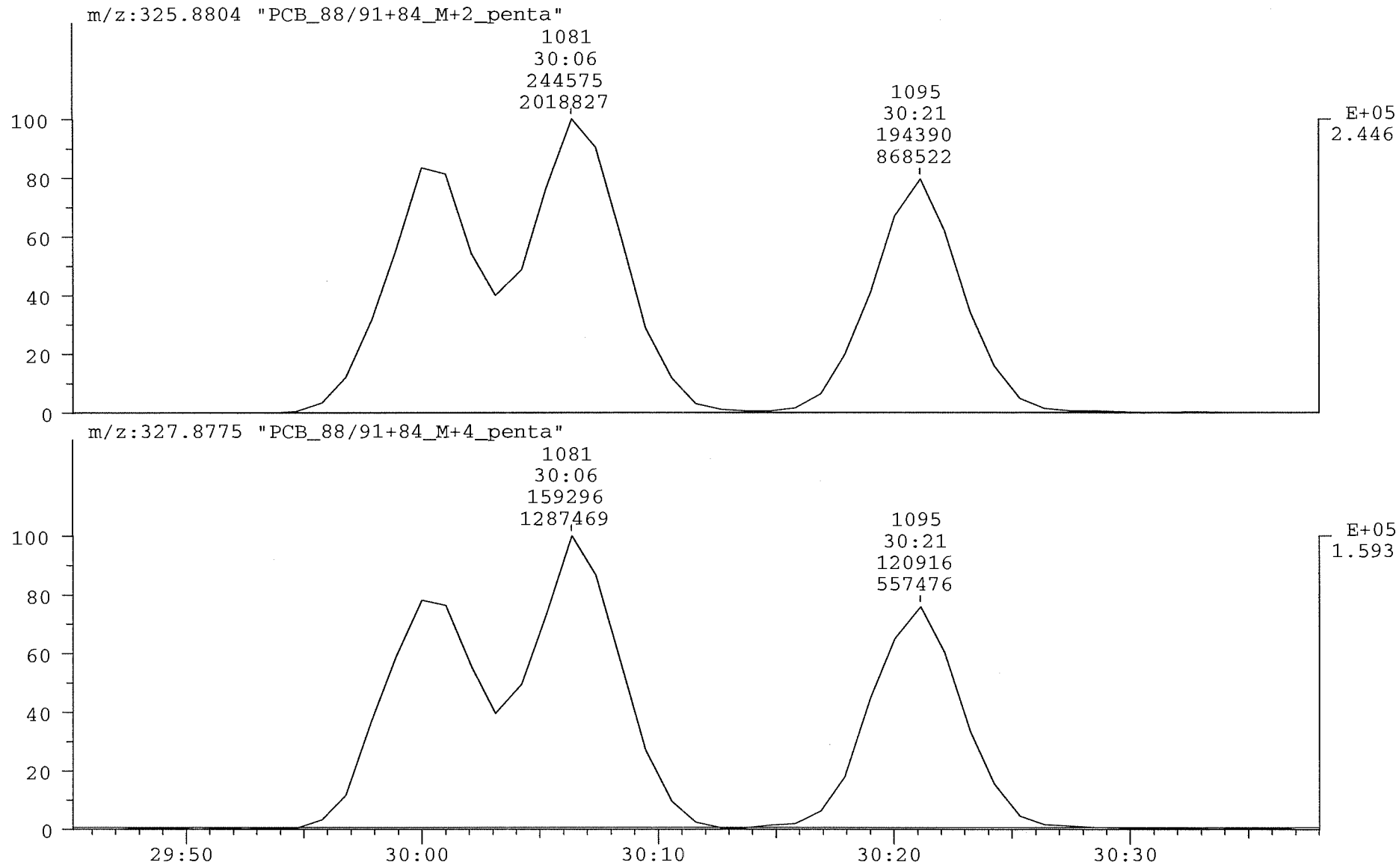
CHRO: a080624i3 24-Jun-08 Elapse: 29:28 1045
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1022 > 1070 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1737

1736

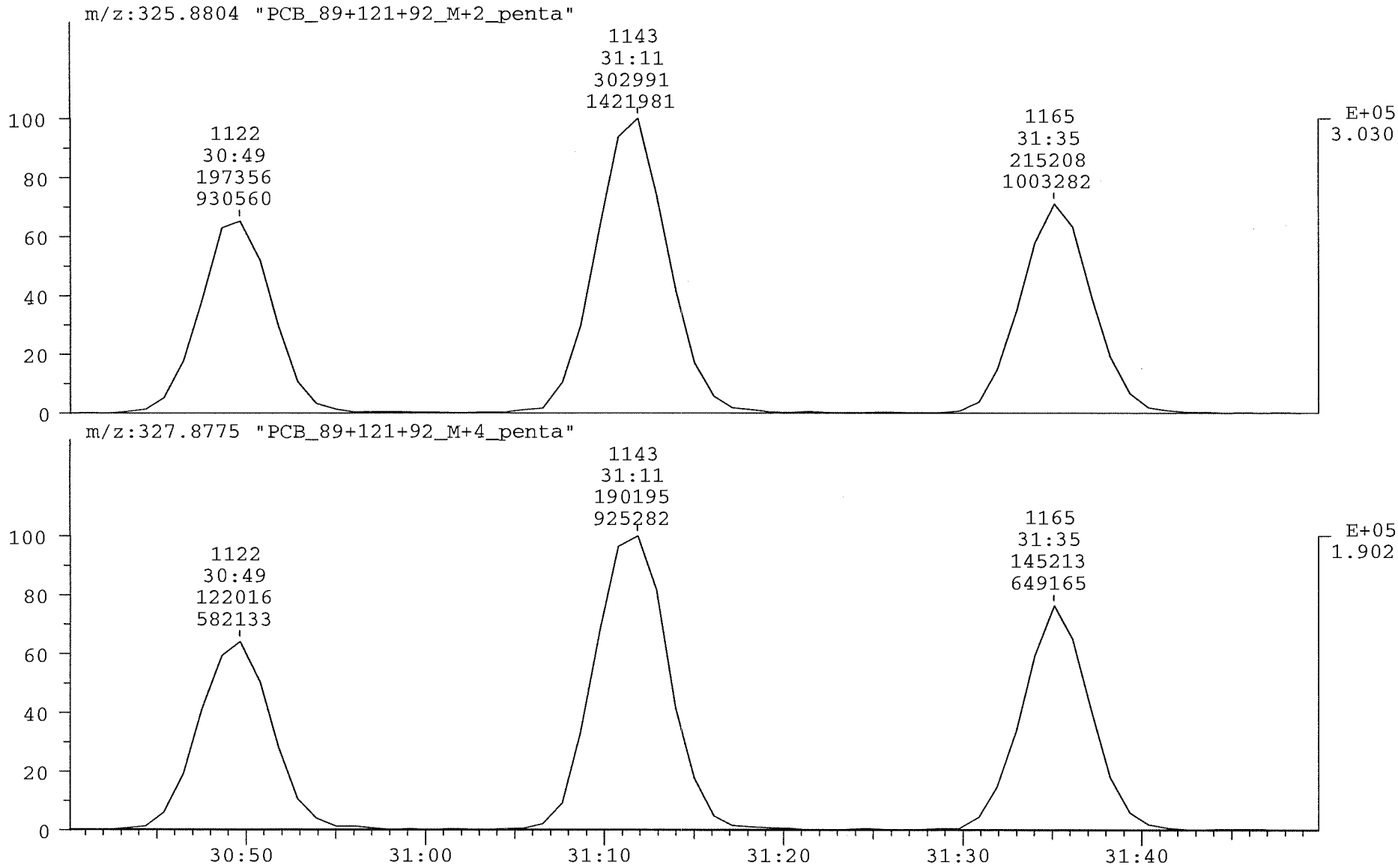
CHRO: a080624i3 24-Jun-08 Elapse: 30:12 1087
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1061 > 1111 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1738

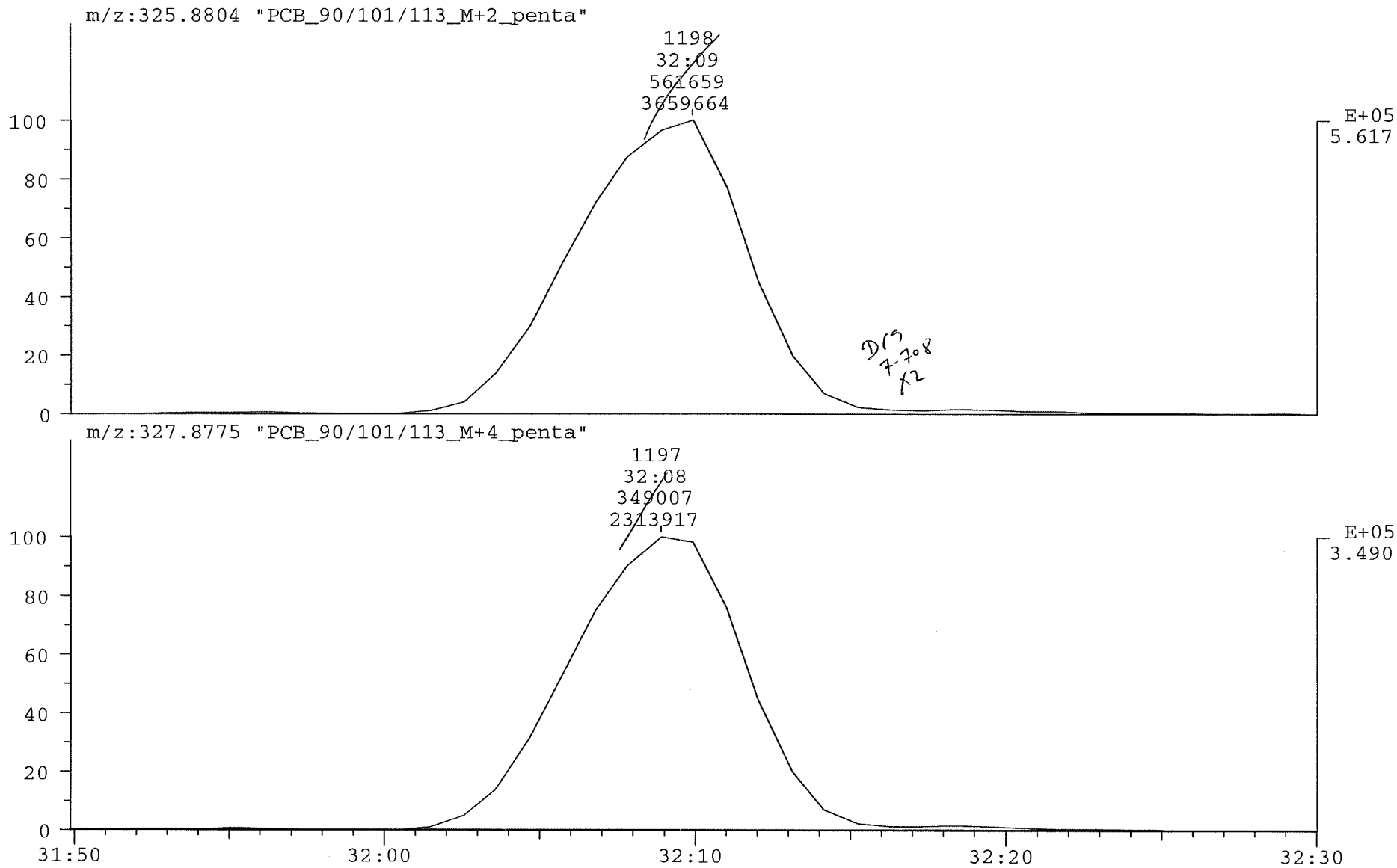
1737

CHRO: a080624i3 24-Jun-08 Elapse: 31:15 1146
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1113 > 1179 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1739

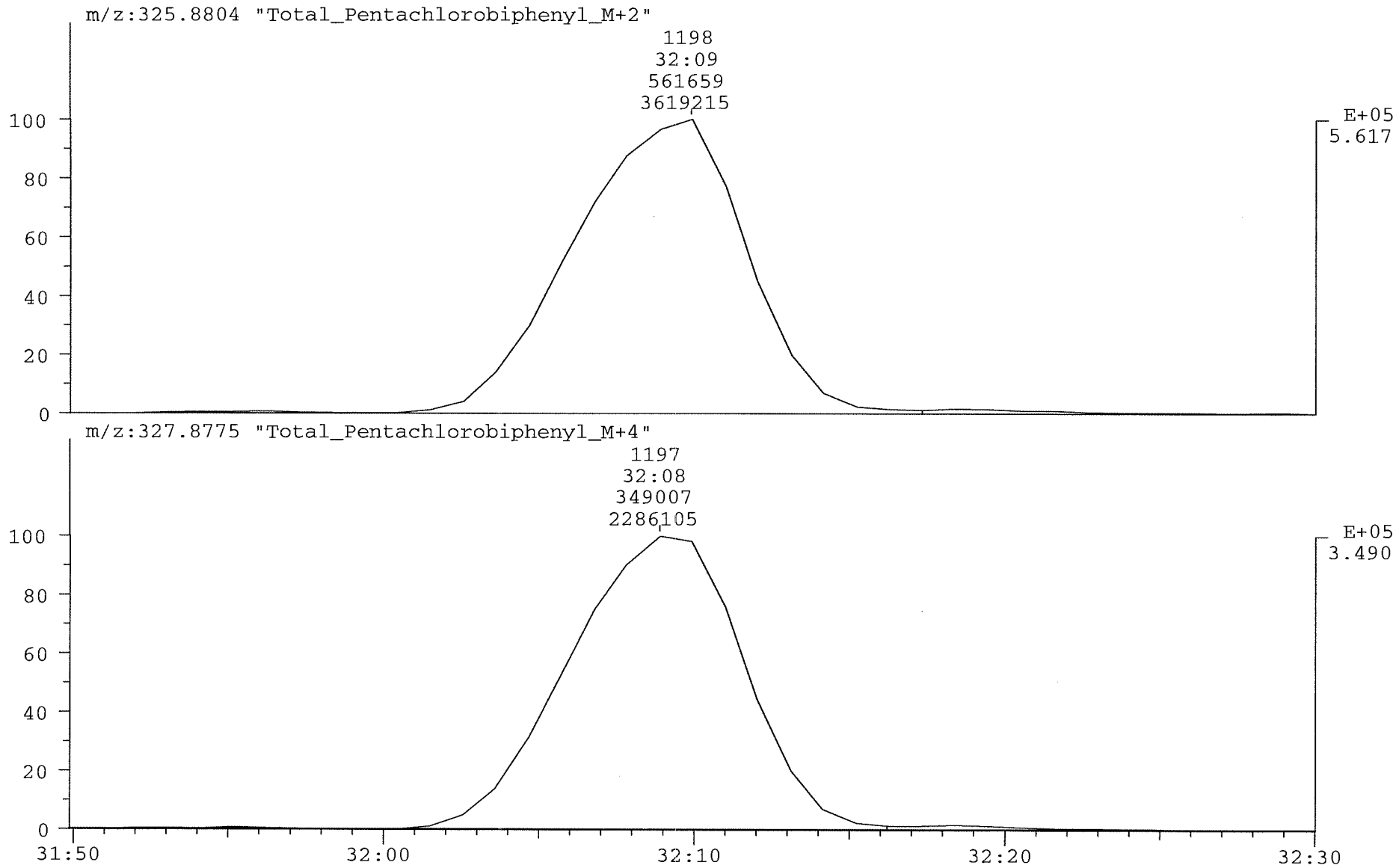
CHRO: a080624i3 24-Jun-08 Elapse: 32:08 1197
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1179 > 1217 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1740

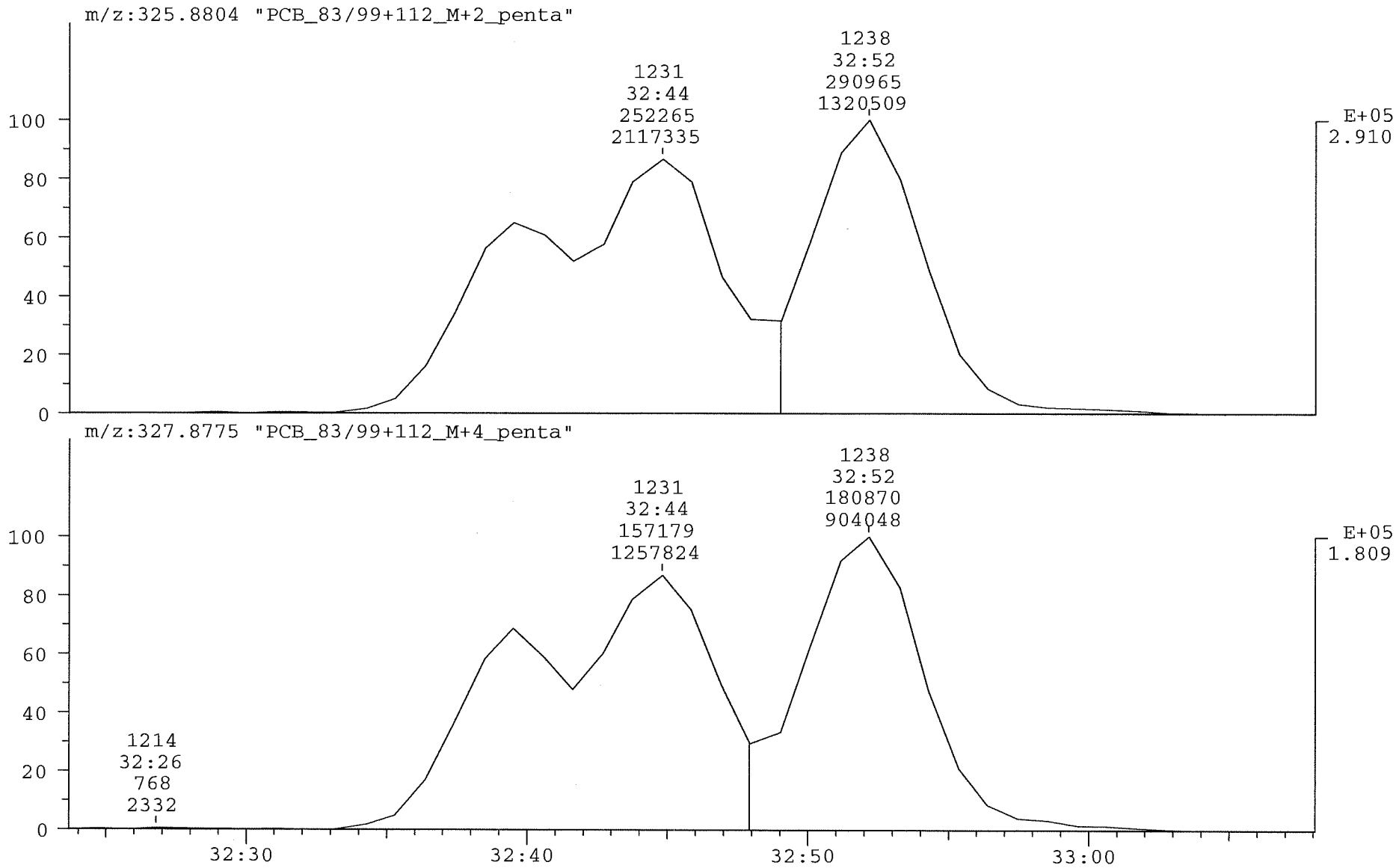
1739

CHRO: a080624i3 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1179 > 1217 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1741

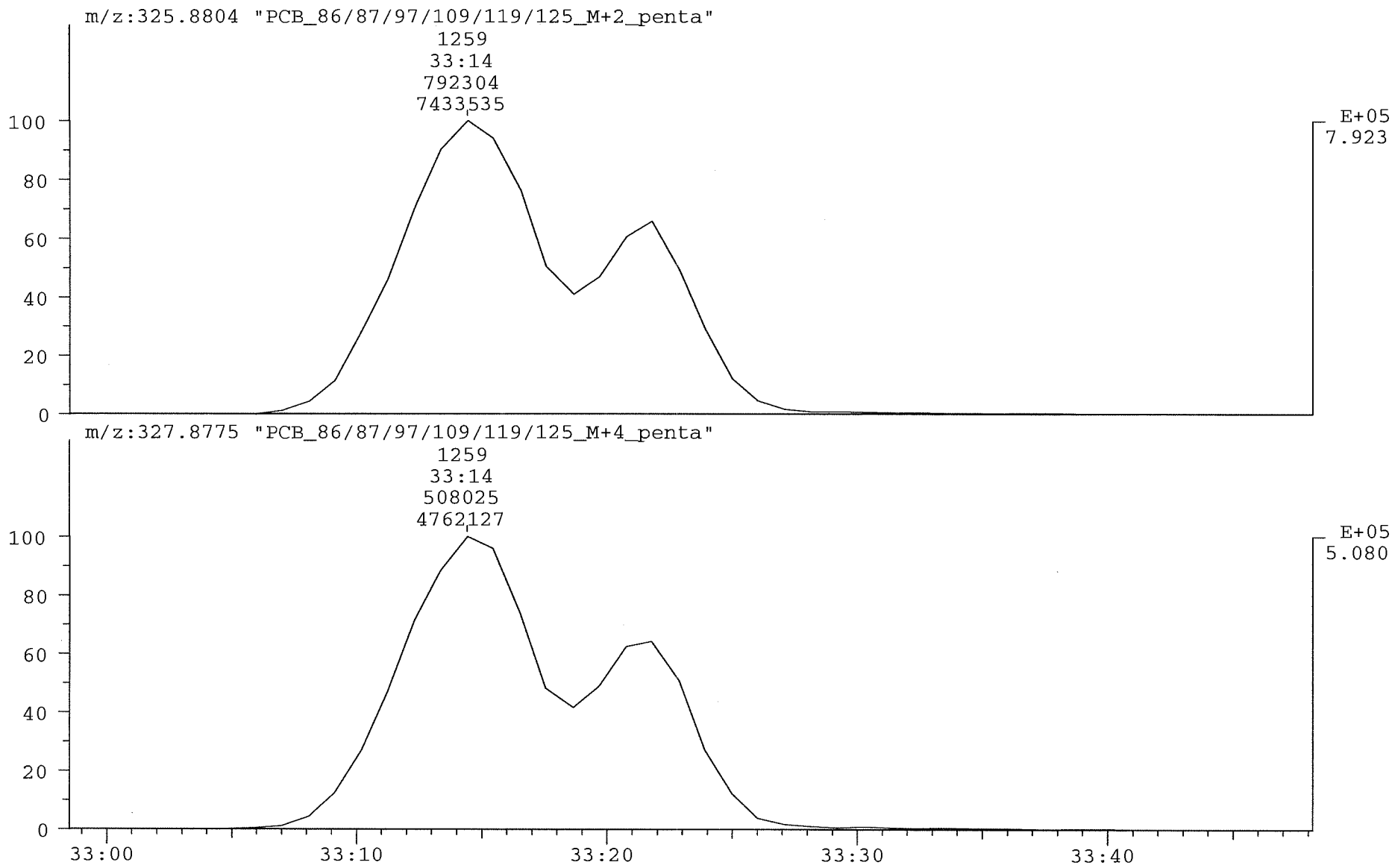
CHRO: a080624i3 24-Jun-08 Elapse: 32:52 1238
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1211 > 1253 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1742

1741

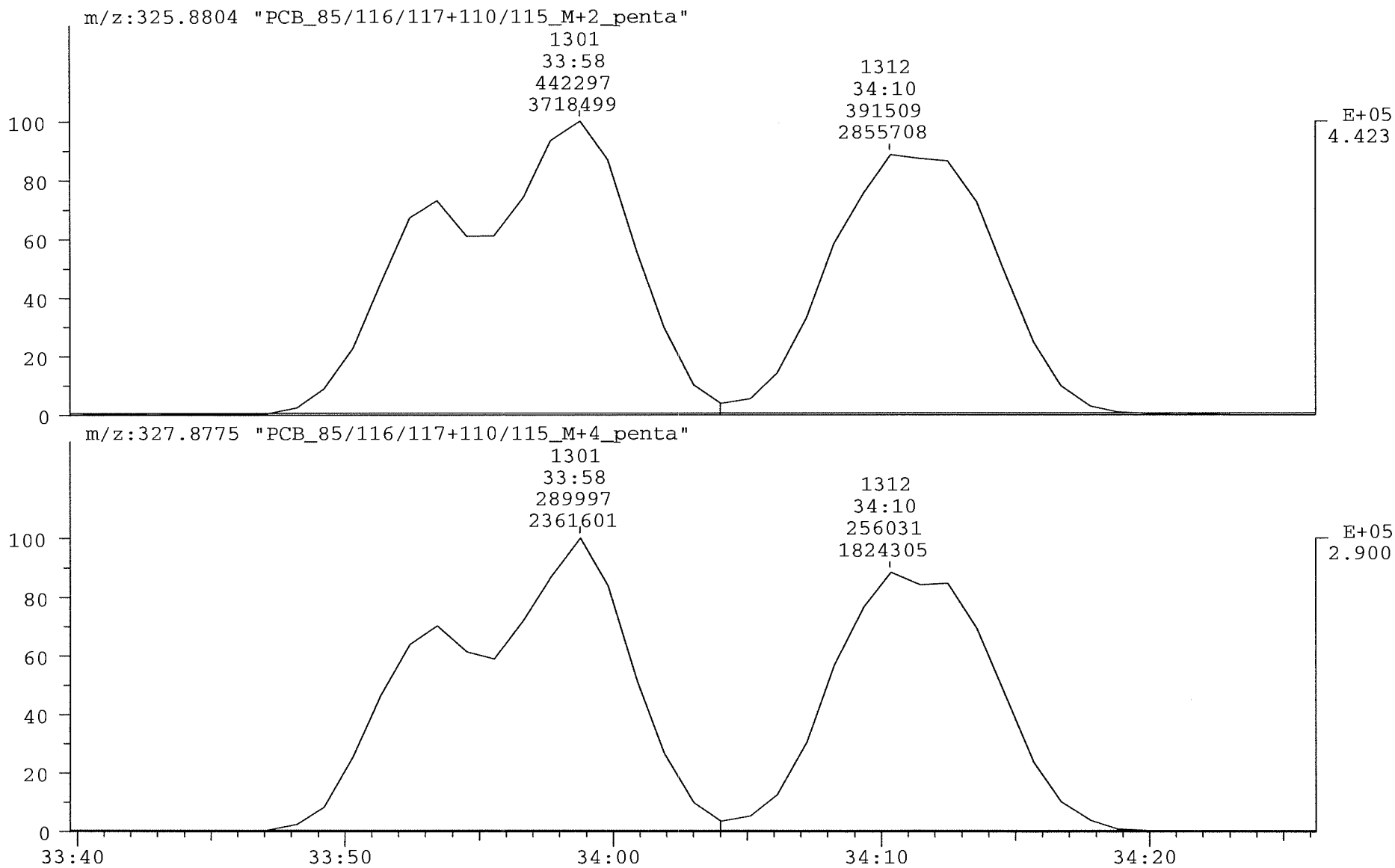
CHRO: a080624i3 24-Jun-08 Elapse: 33:19 1264
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1244 > 1291 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1743

1742

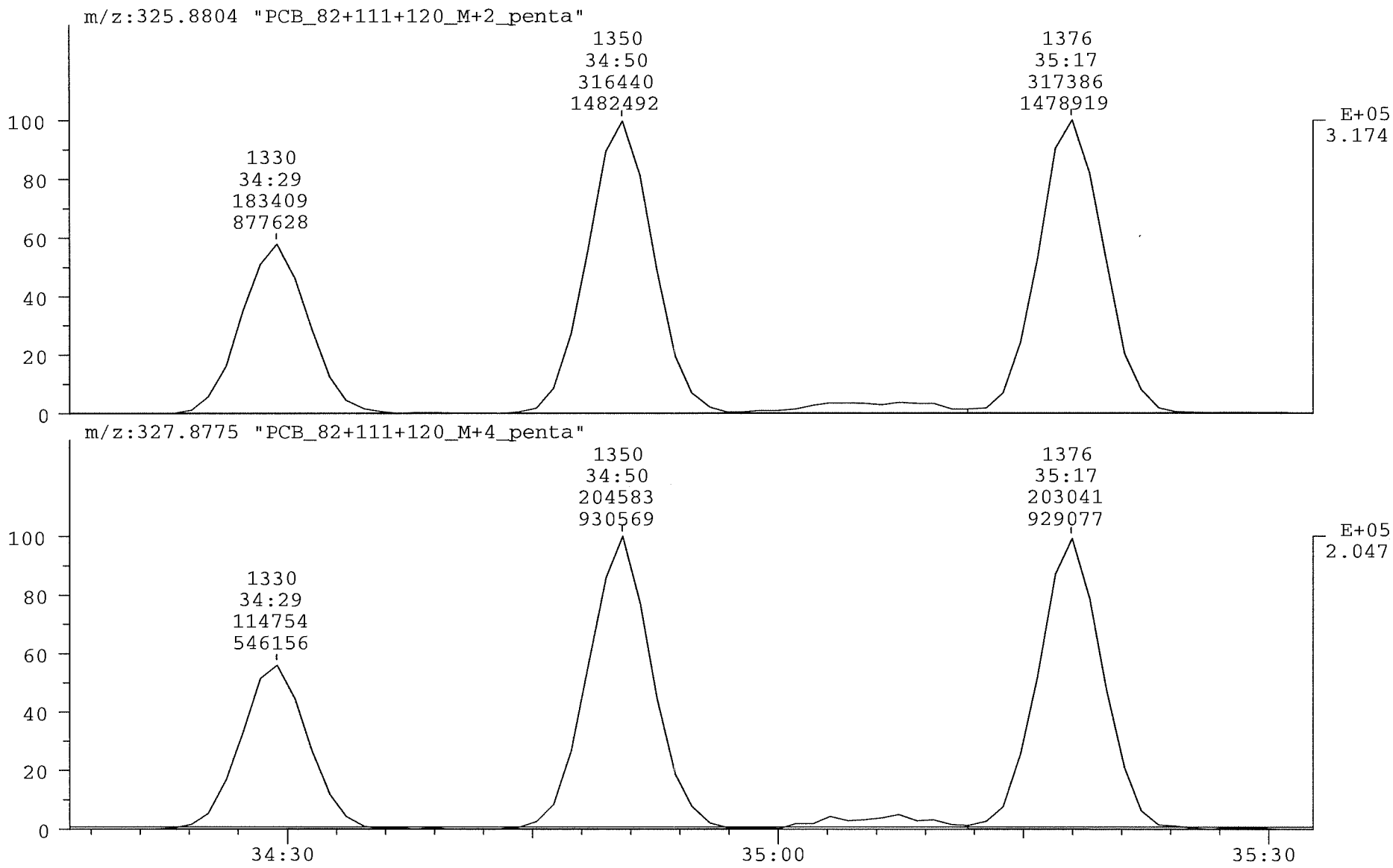
CHRO: a080624i3 24-Jun-08 Elapse: 34:07 1309
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1283 > 1327 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1744

1743

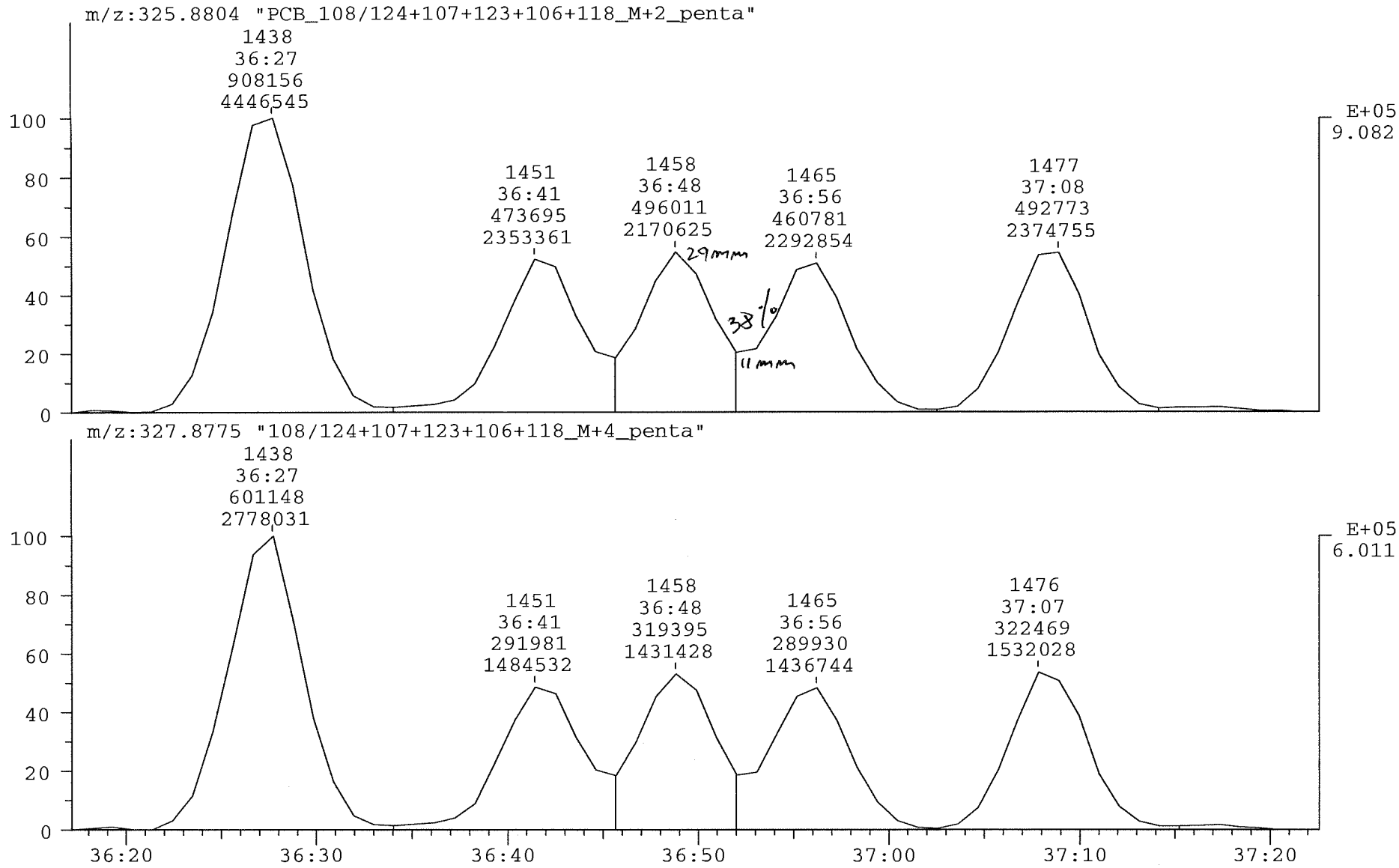
CHRO: a080624i3 24-Jun-08 Elapse: 34:39 1340
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1318 > 1390 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1745

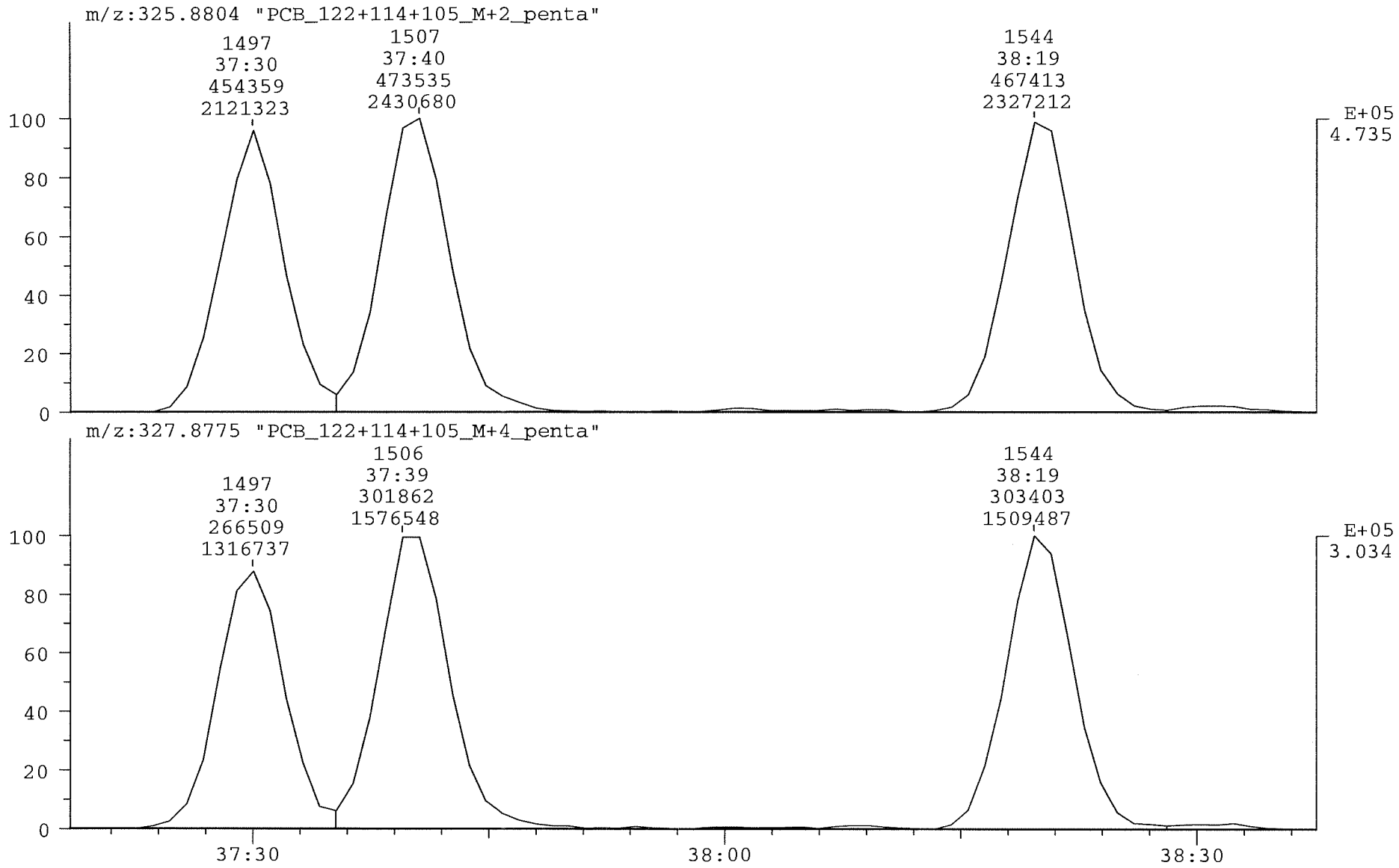
1744

CHRO: a080624i3 24-Jun-08 Elapse: 36:59 1468
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1428 > 1490 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1746

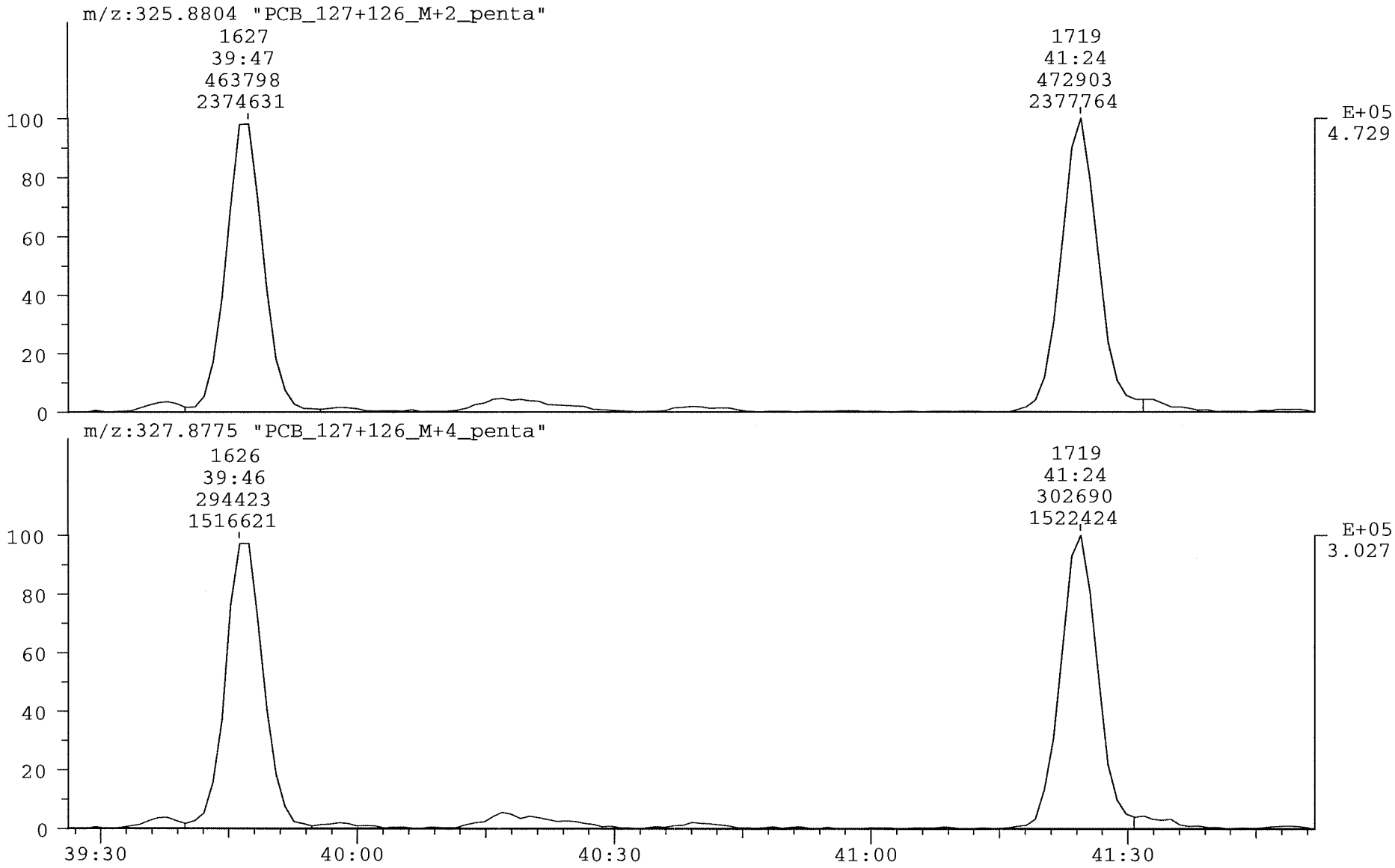
CHRO: a080624i3 24-Jun-08 Elapse: 37:57 1523
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1486 > 1561 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1747

1746

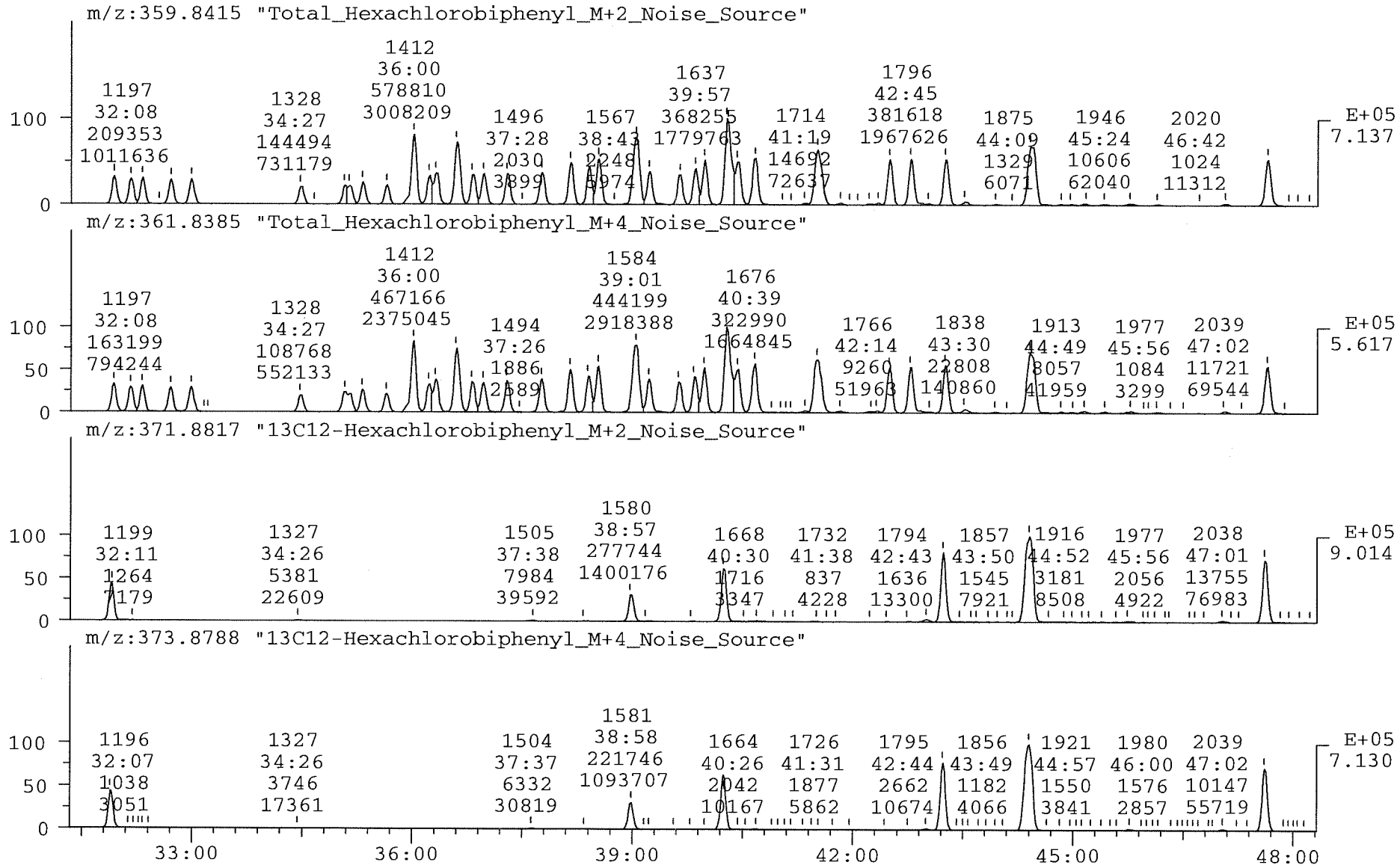
CHRO: a080624i3 24-Jun-08 Elapse: 40:37 1675
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1607 > 1745 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1748

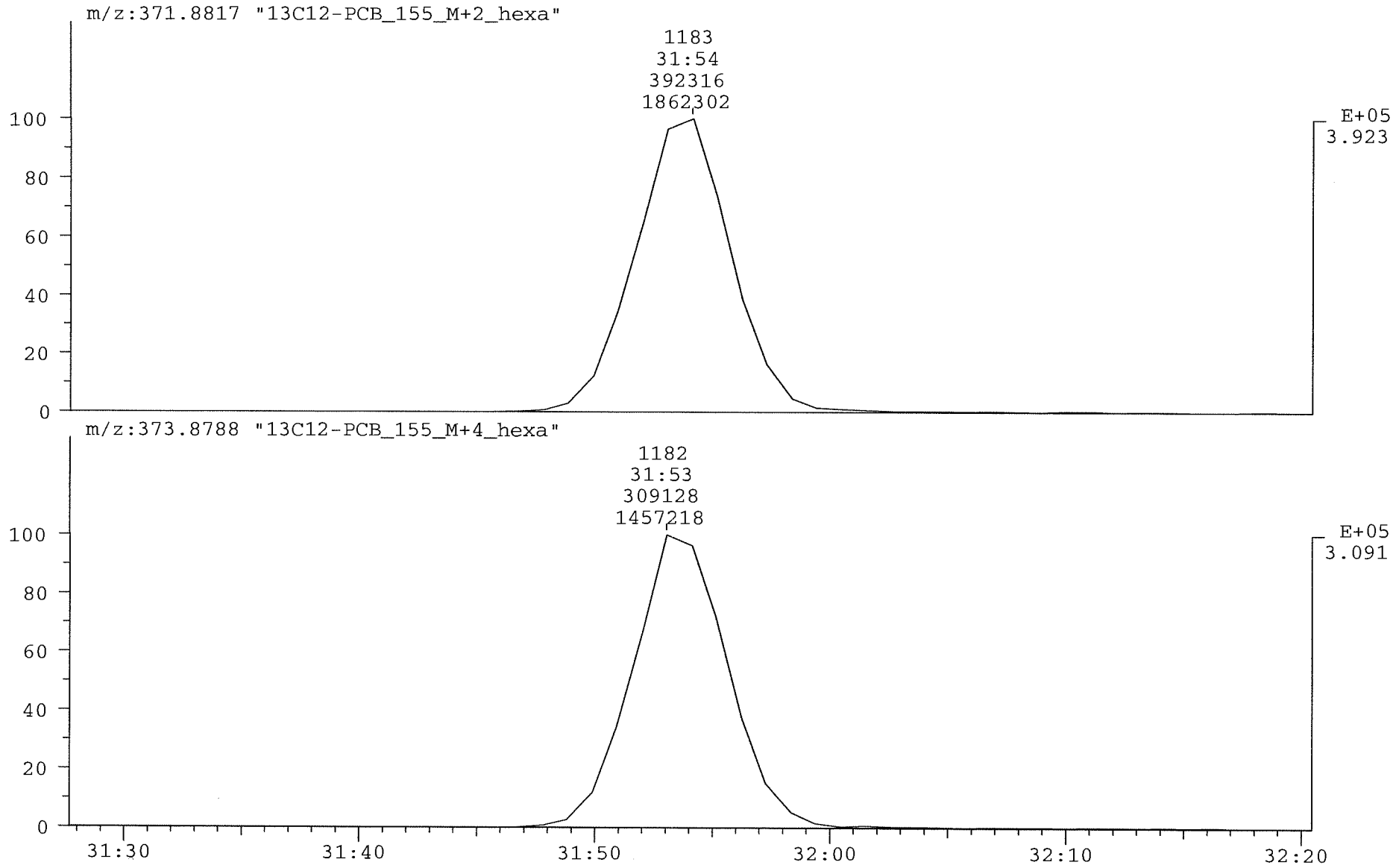
1747

CHRO: a080624i3 24-Jun-08 Elapse: 39:49 1629
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1151 > 2112 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1749

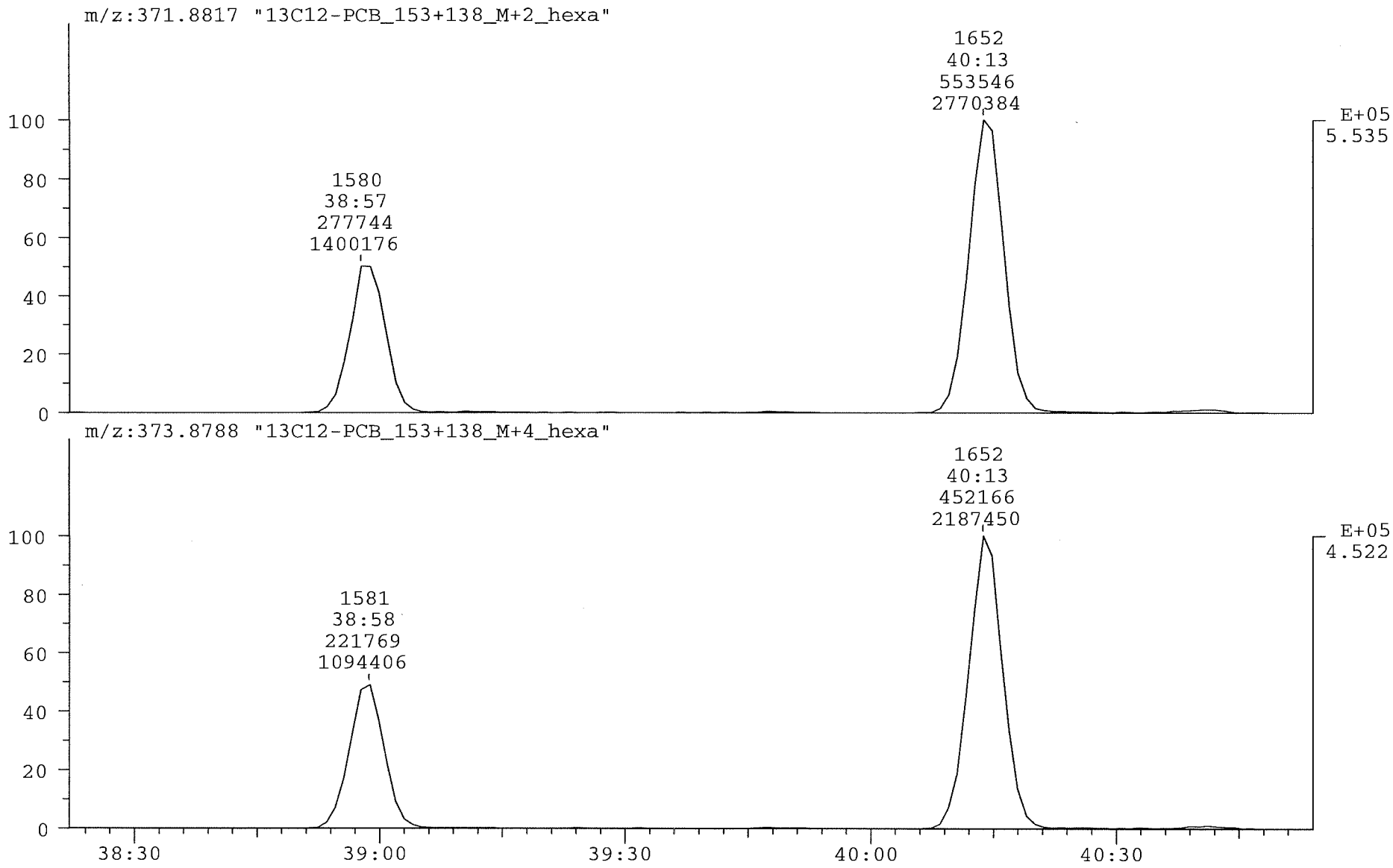
CHRO: a080624i3 24-Jun-08 Elapse: 31:54 1183
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1158 > 1208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1750

1749

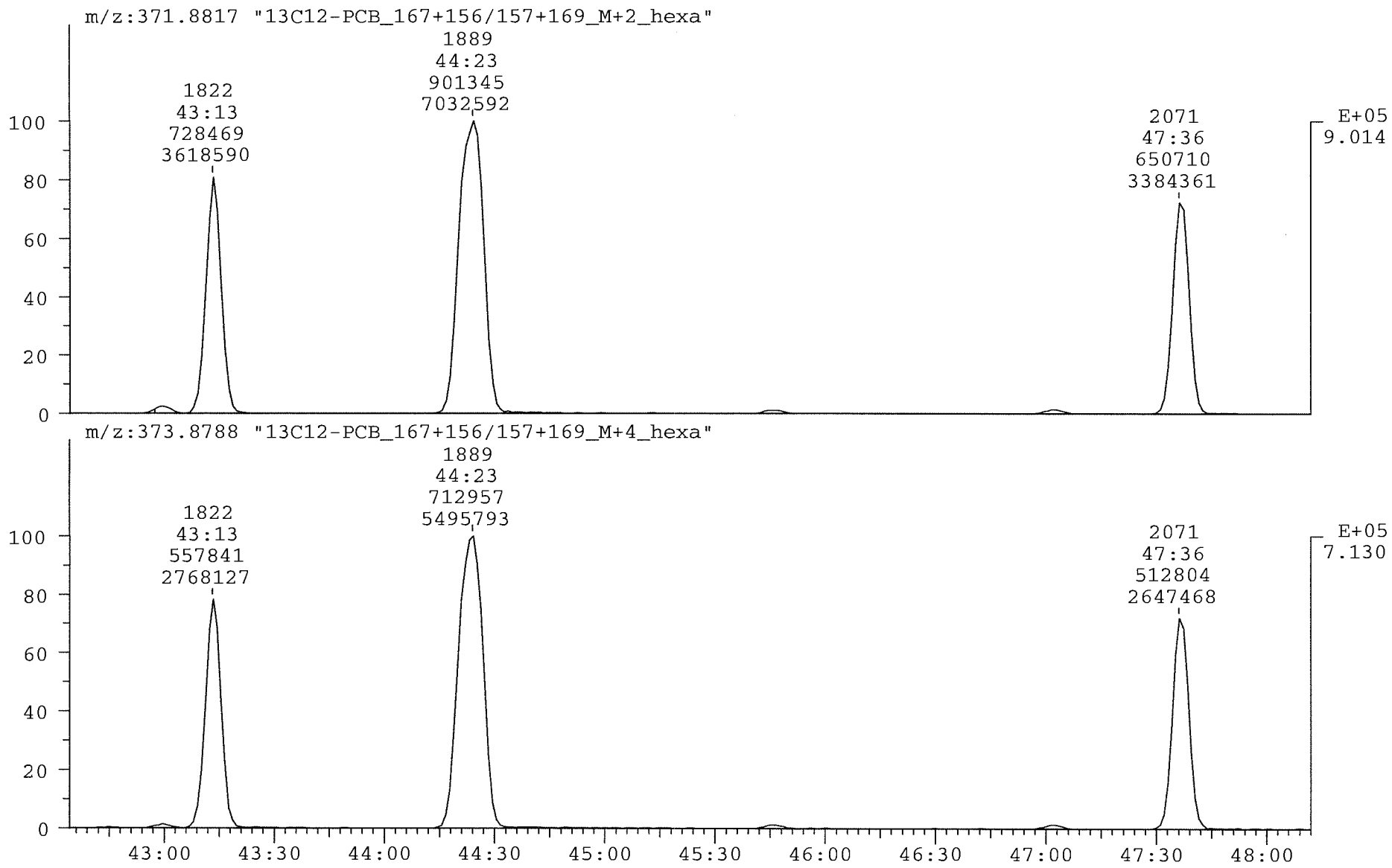
CHRO: a080624i3 24-Jun-08 Elapse: 39:37 1618
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1546 > 1690 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1751

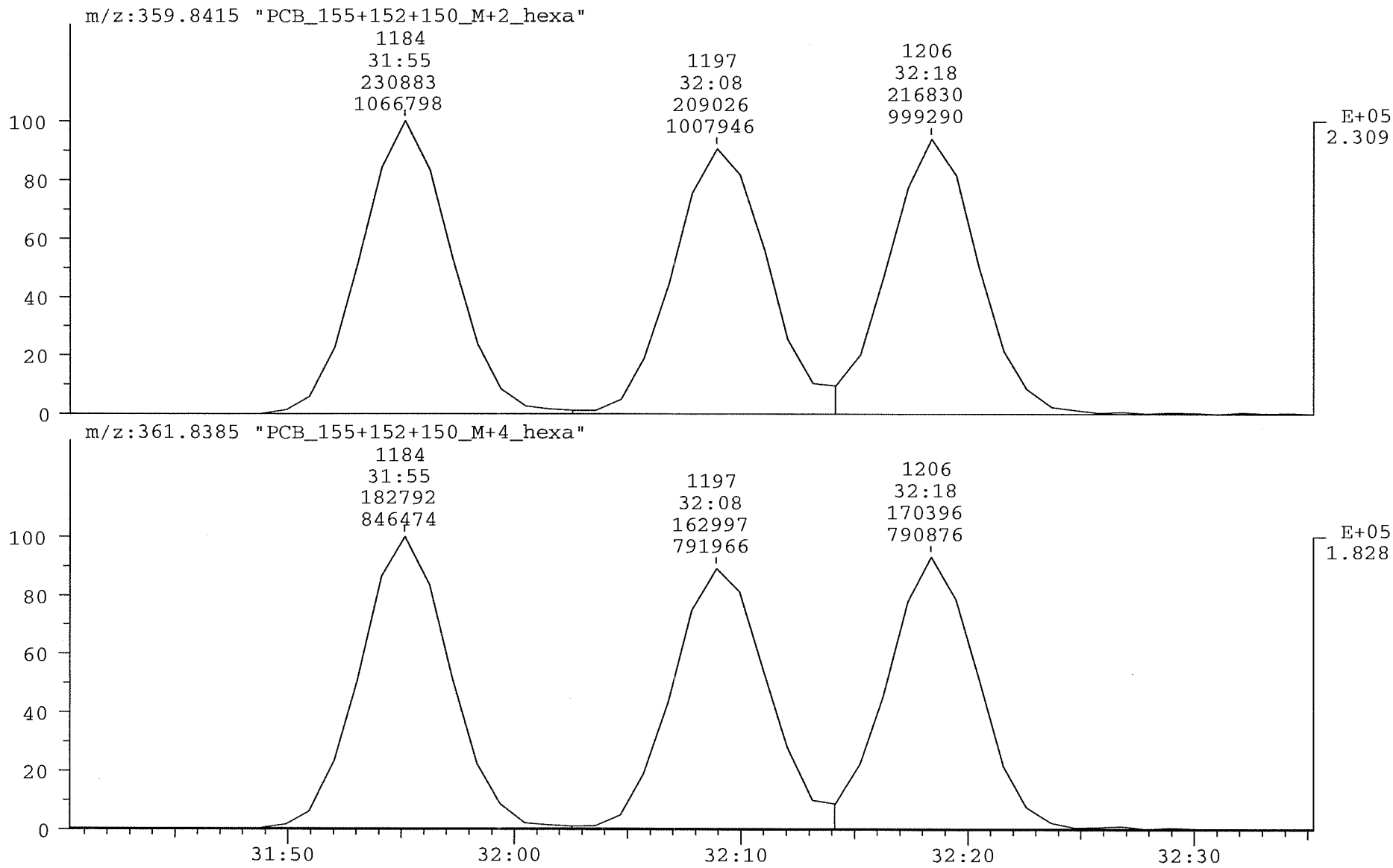
1750

CHRO: a080624i3 24-Jun-08 Elapse: 45:28 1950
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1785 > 2105 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1752

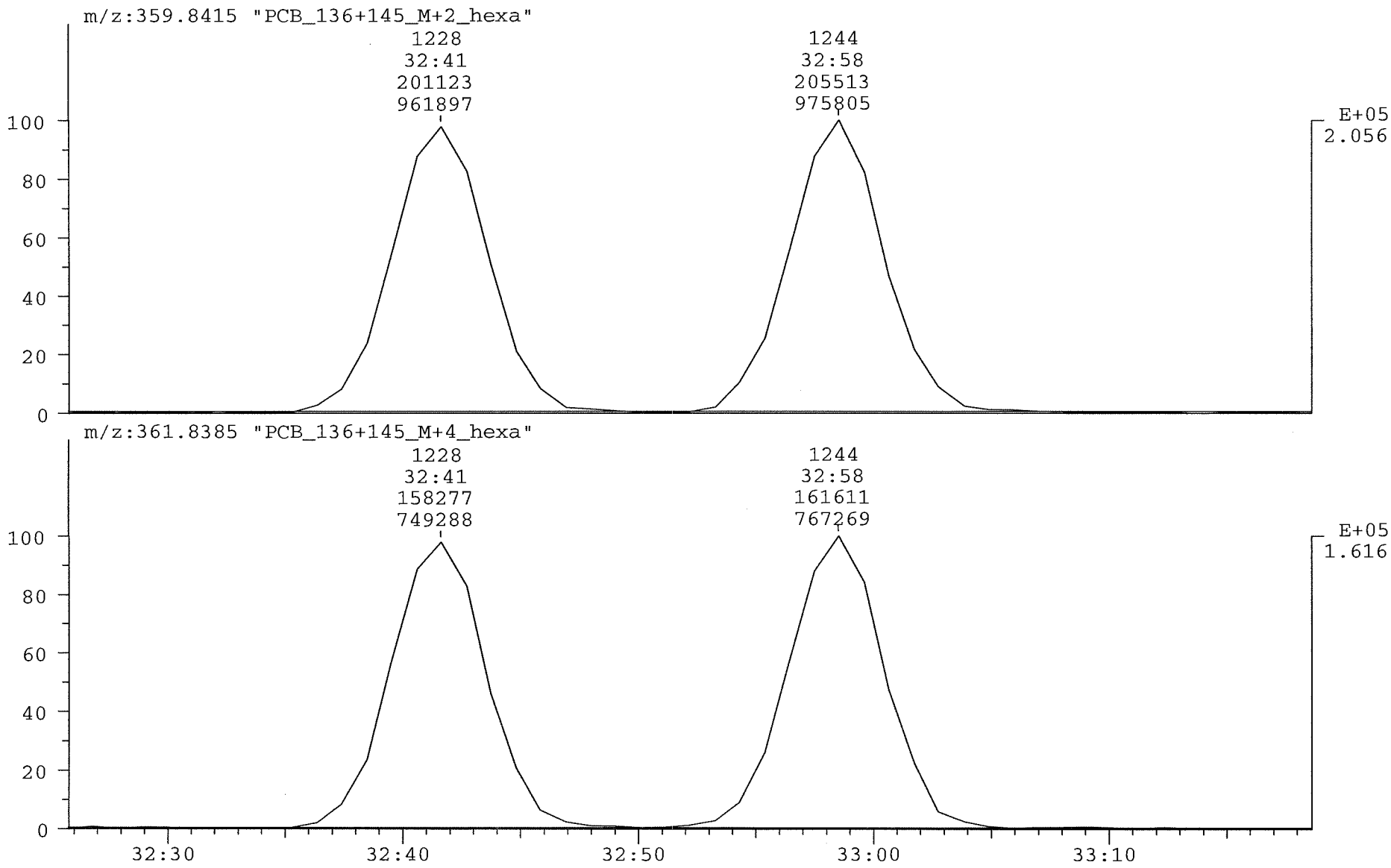
CHRO: a080624i3 24-Jun-08 Elapse: 32:08 1197
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1170 > 1222 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1753

1752

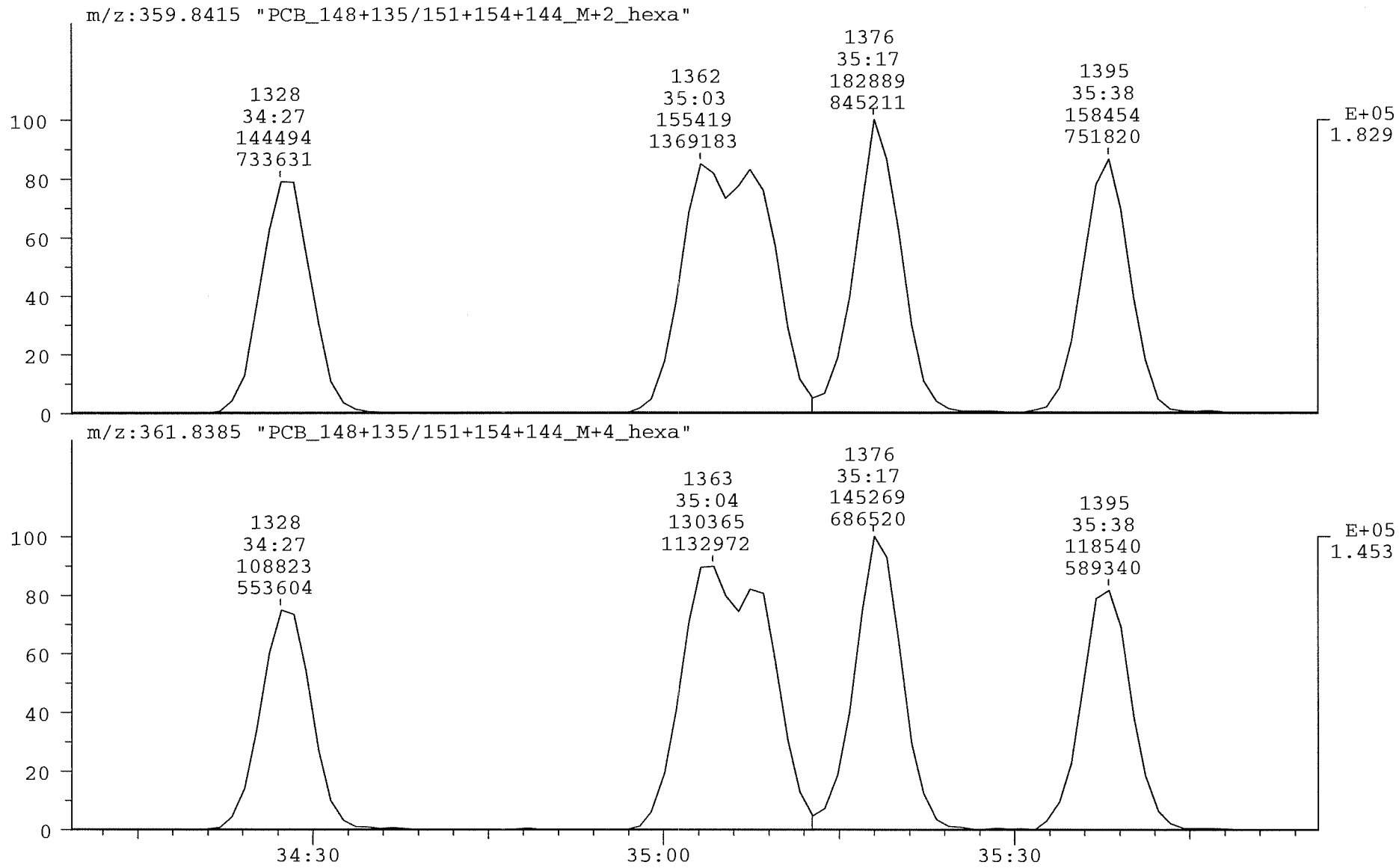
CHRO: a080624i3 24-Jun-08 Elapse: 32:52 1238
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1213 > 1263 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1754

1753

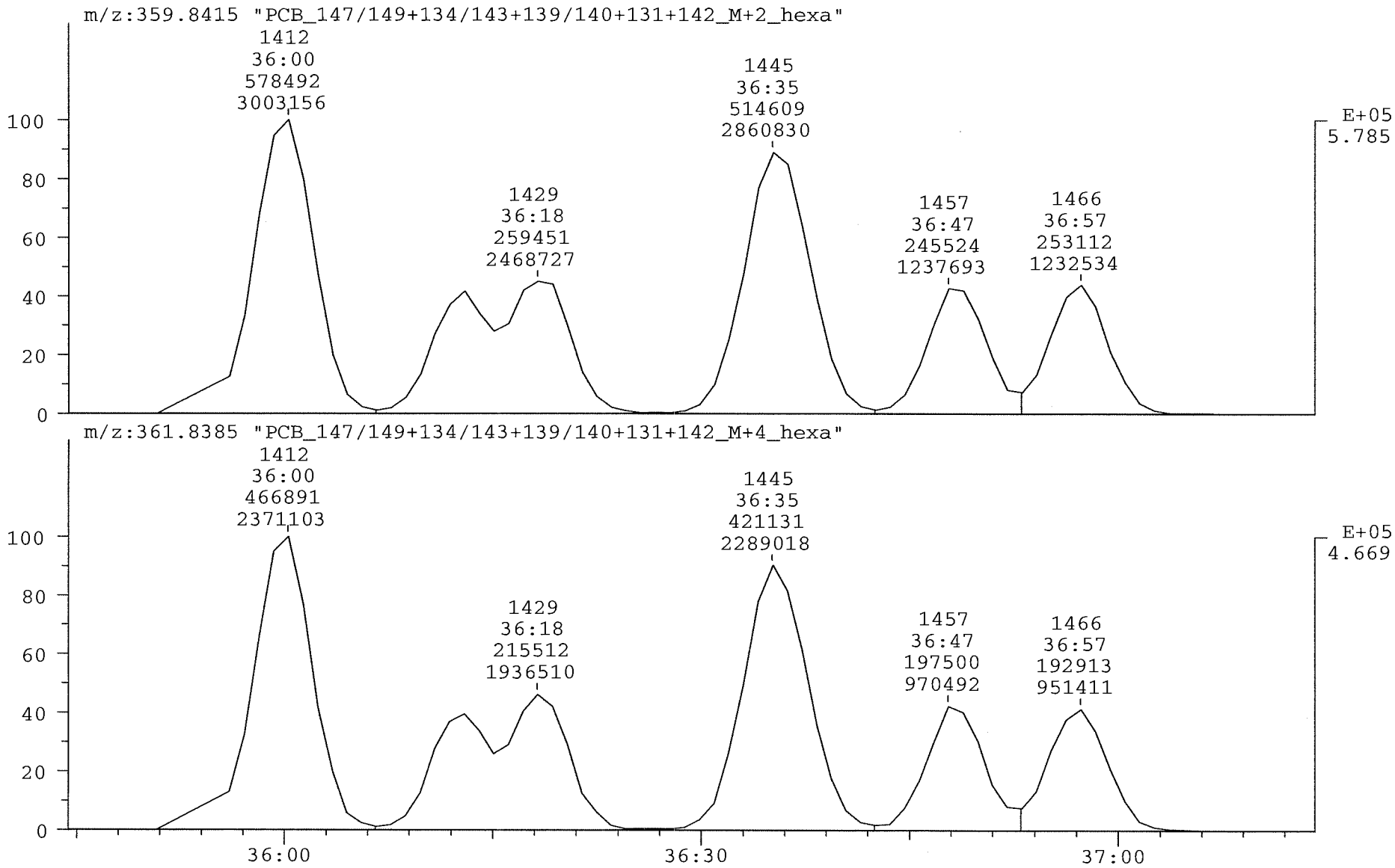
CHRO: a080624i3 24-Jun-08 Elapse: 35:07 1366
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1311 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



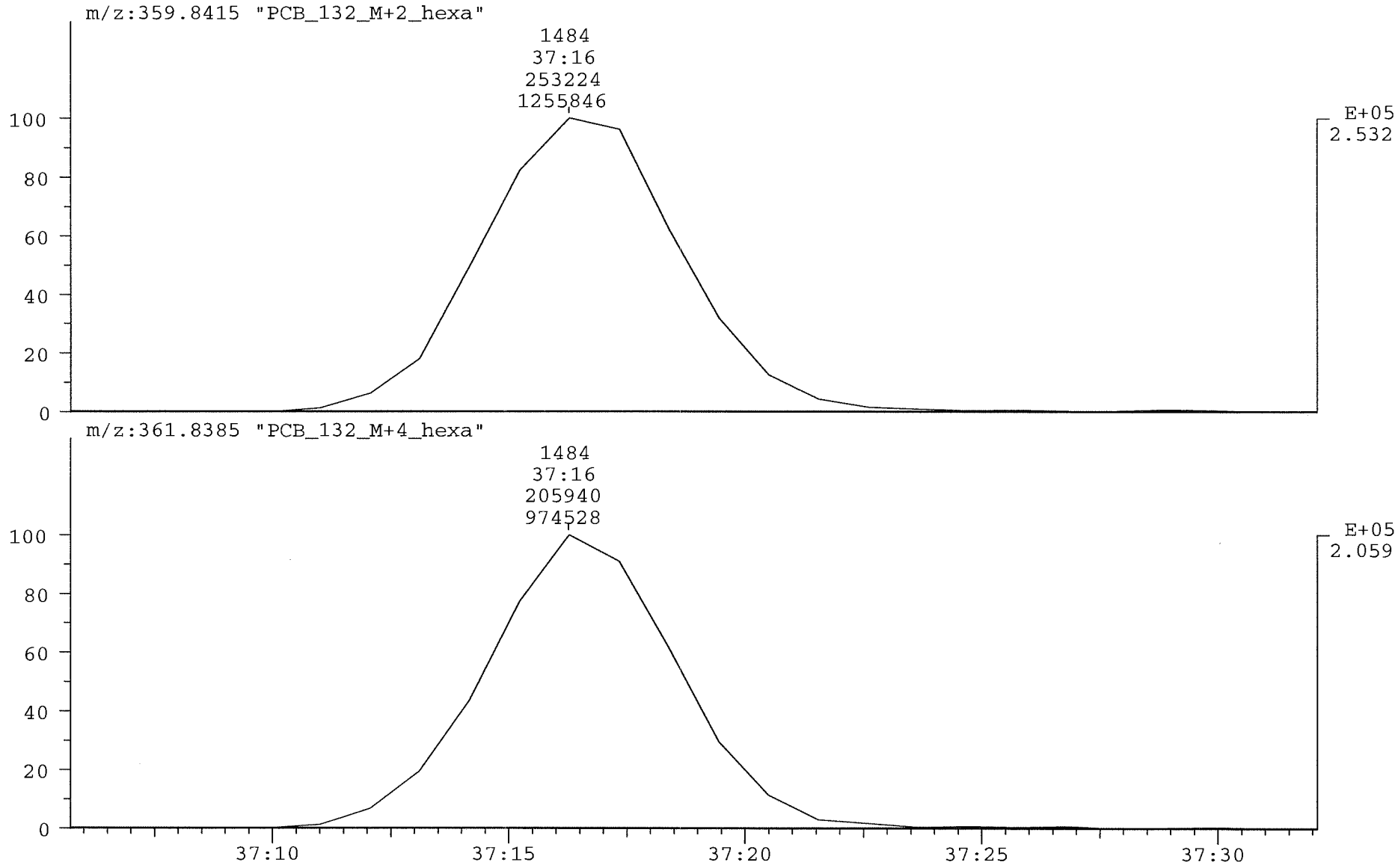
H-1755

1754

CHRO: a080624i3 24-Jun-08 Elapse: 36:35 1445
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1401 > 1482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



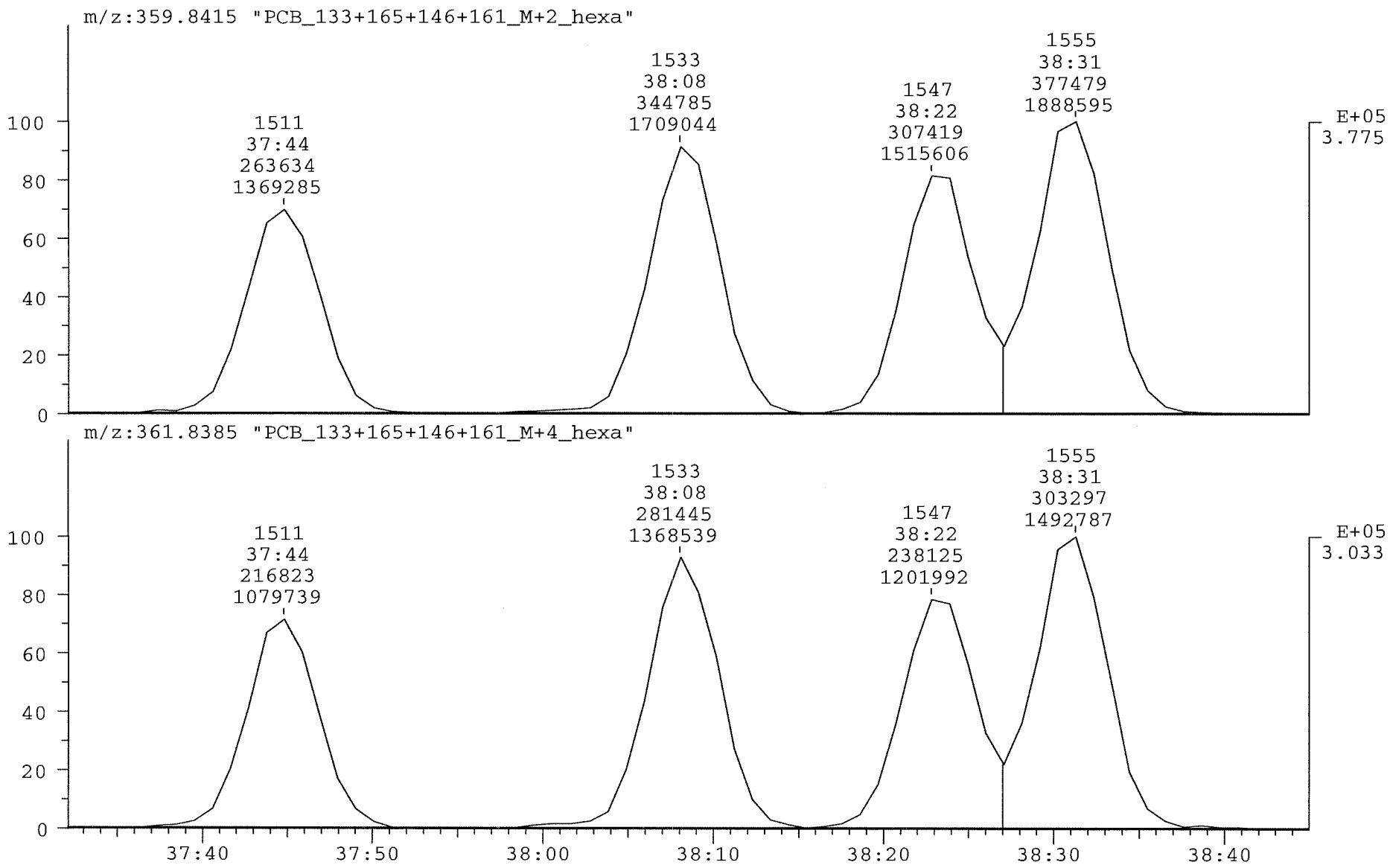
CHRO: a080624i3 24-Jun-08 Elapse: 37:16 1484
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1474 > 1499 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1757

1756

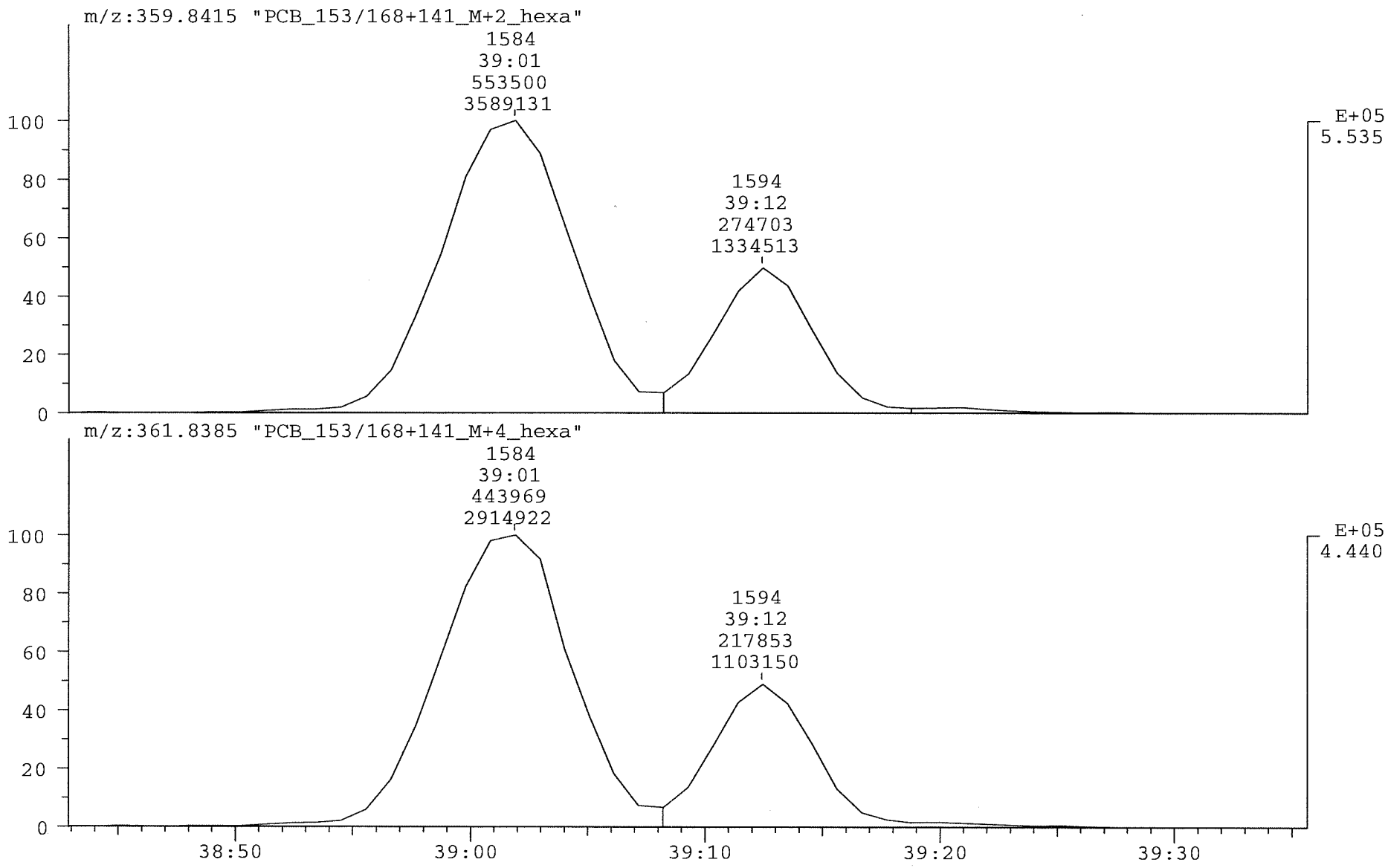
CHRO: a080624i3 24-Jun-08 Elapse: 38:10 1535
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1499 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1758

1757

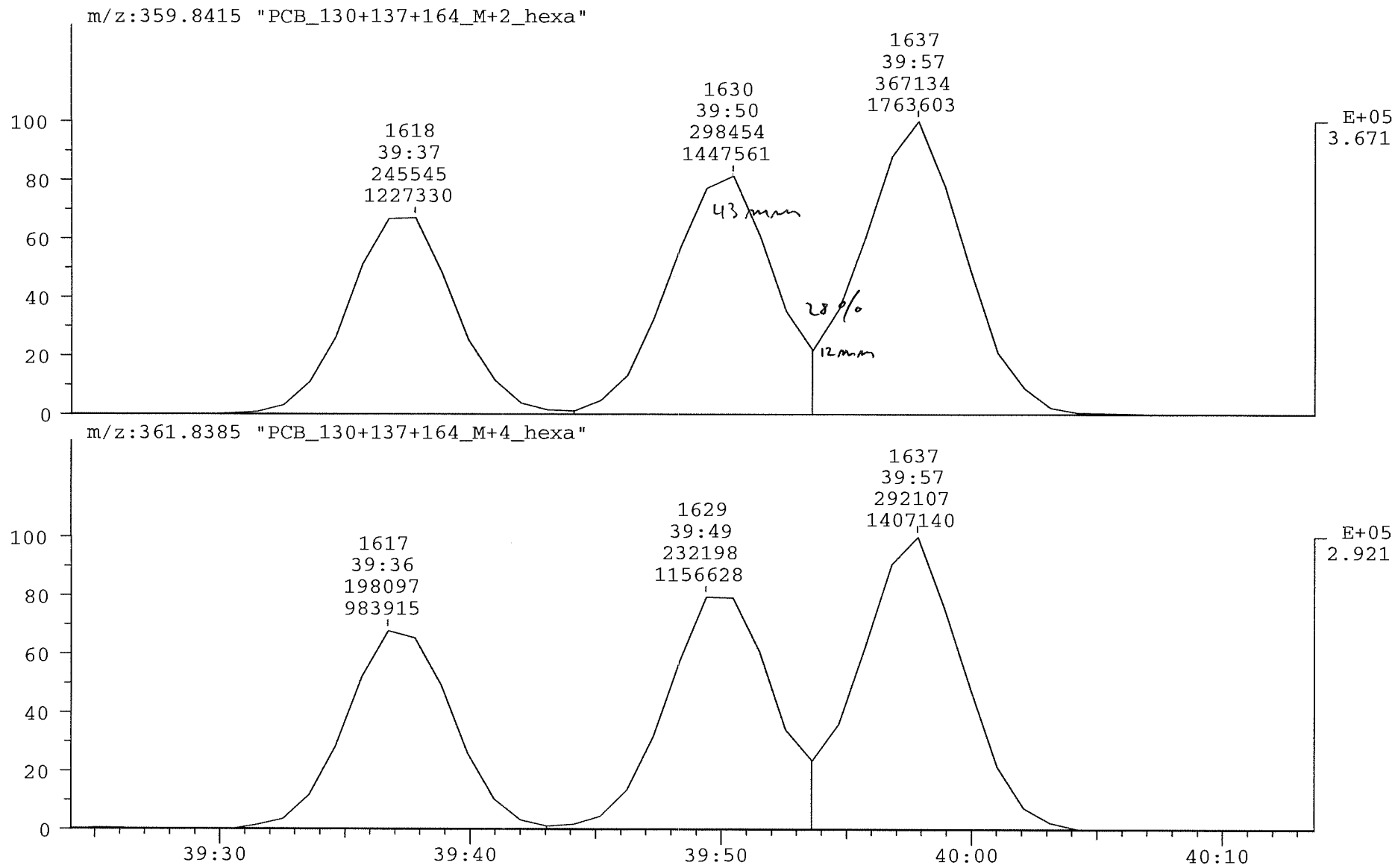
CHRO: a080624i3 24-Jun-08 Elapse: 39:09 1591
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1566 > 1616 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1759

1758

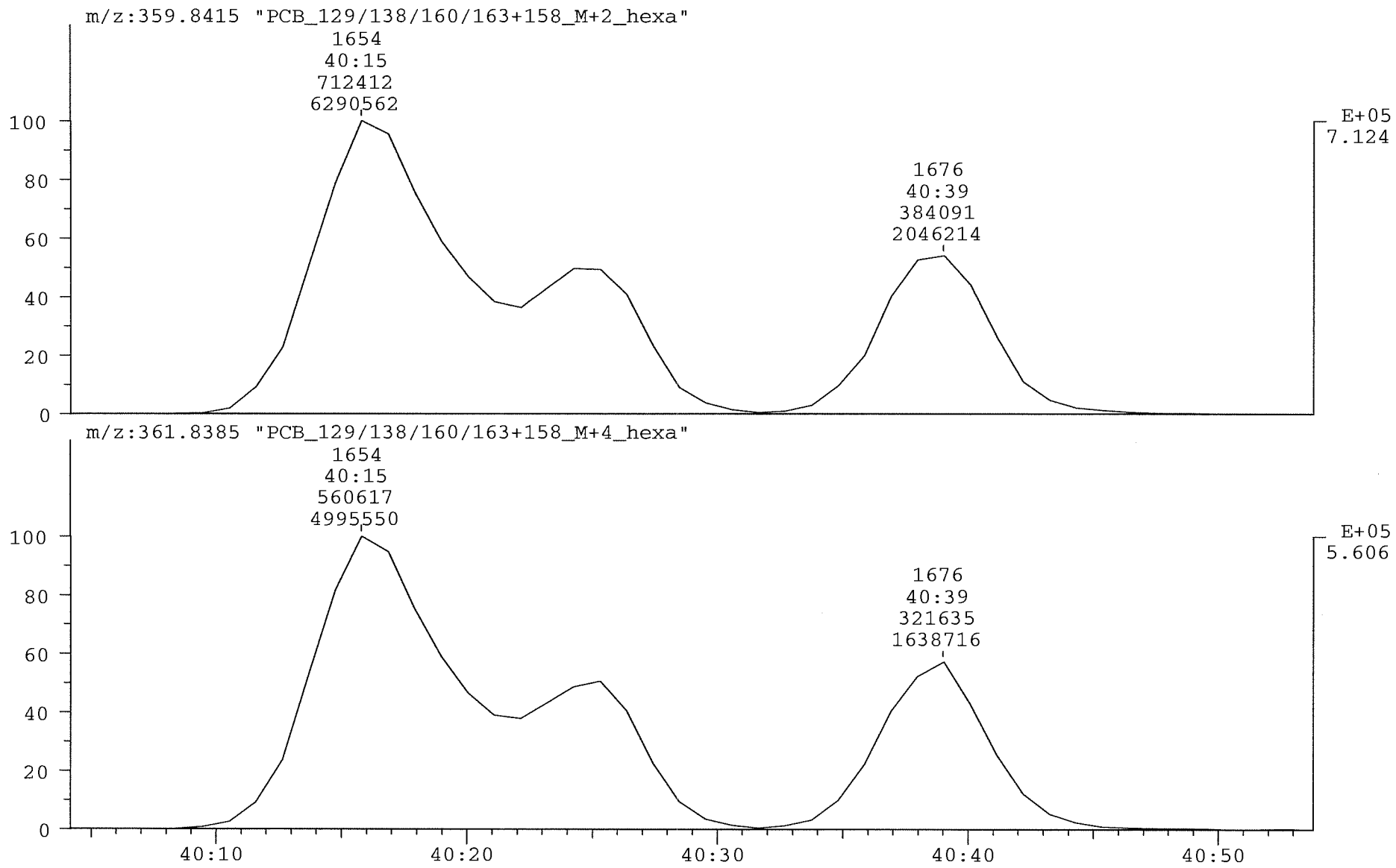
CHRO: a080624i3 24-Jun-08 Elapse: 39:50 1630
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1605 > 1652 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1760

1759

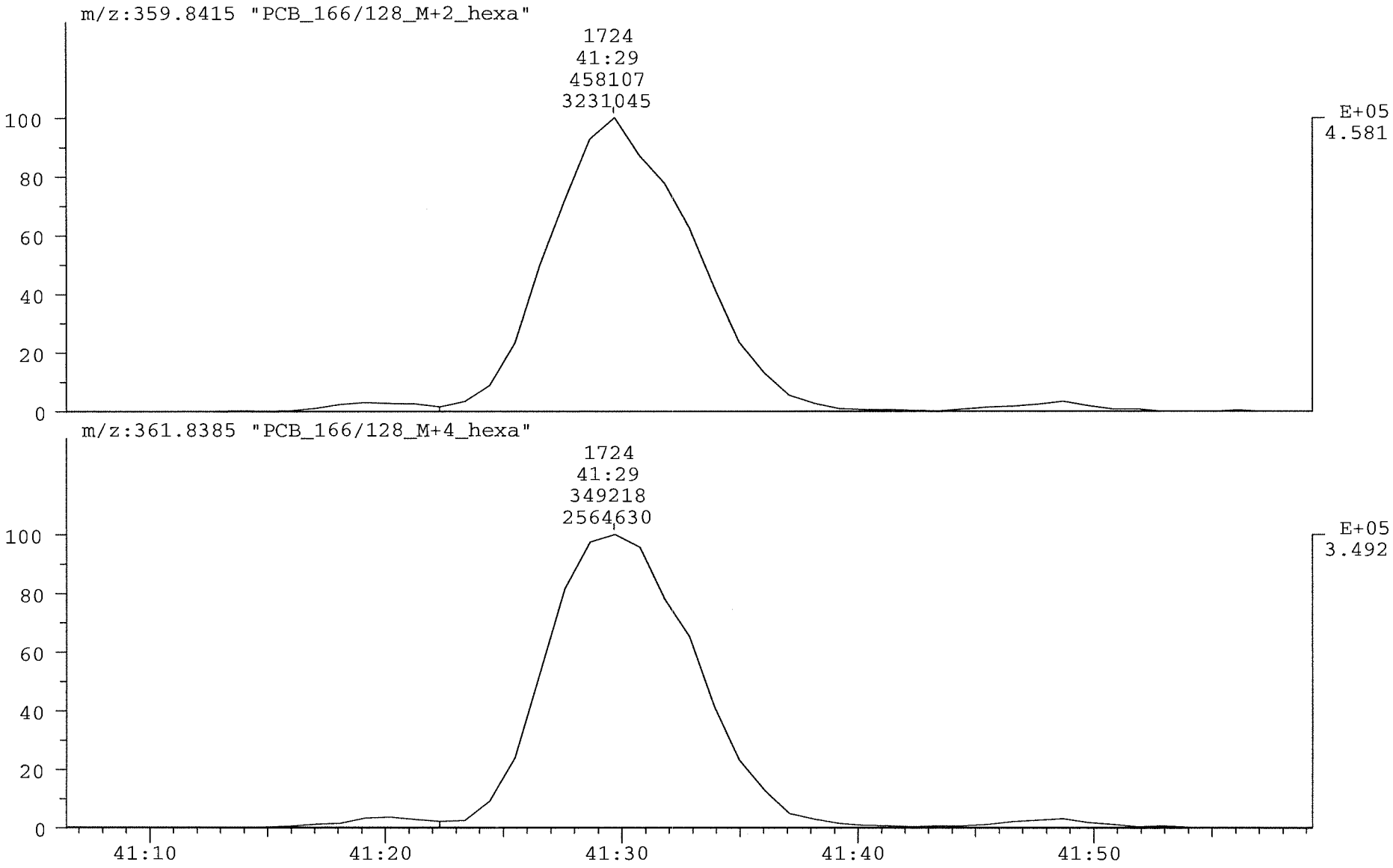
CHRO: a080624i3 24-Jun-08 Elapse: 40:30 1668
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1643 > 1690 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1761

1760

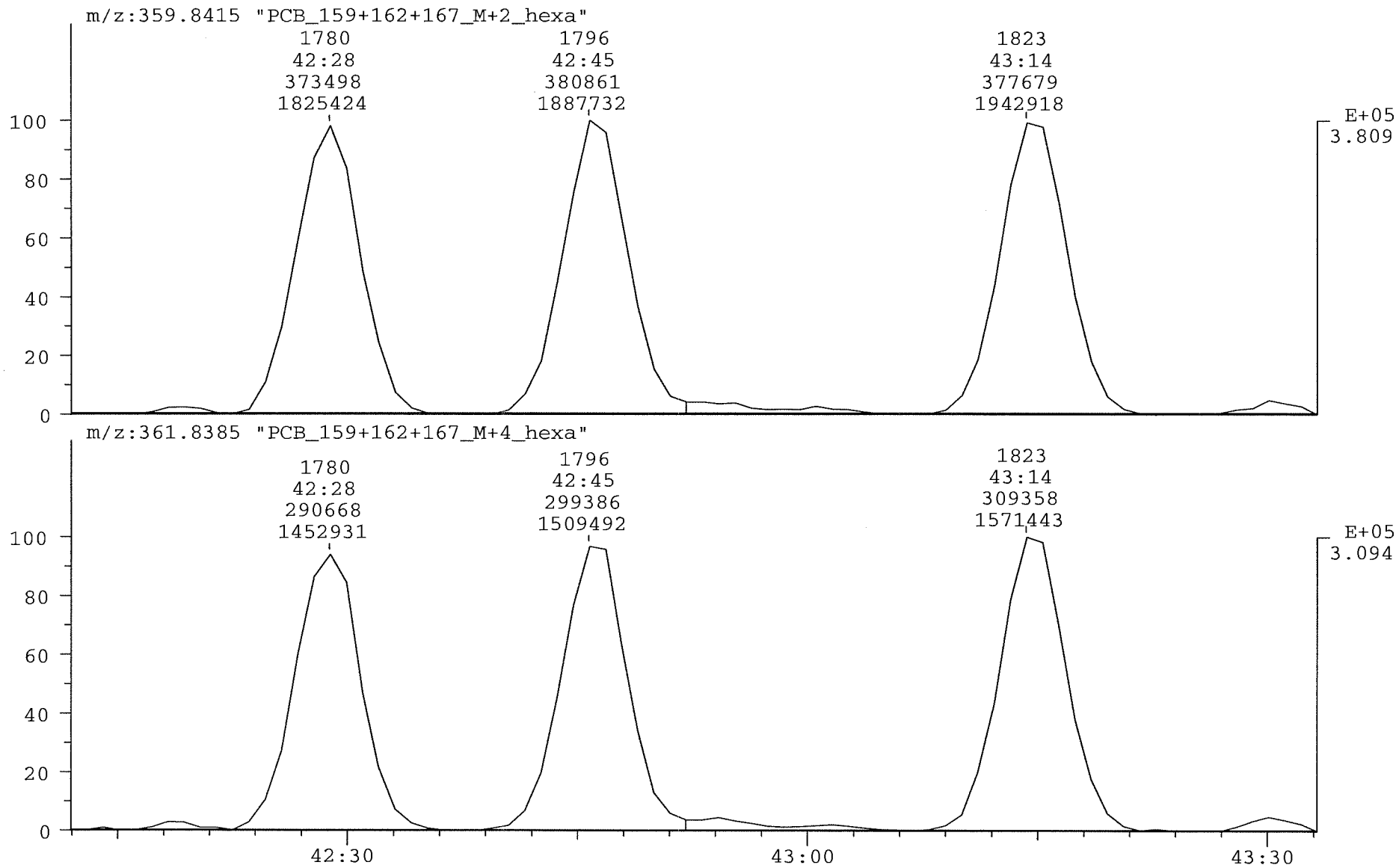
CHRO: a080624i3 24-Jun-08 Elapse: 41:32 1727
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1702 > 1752 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1762

1761

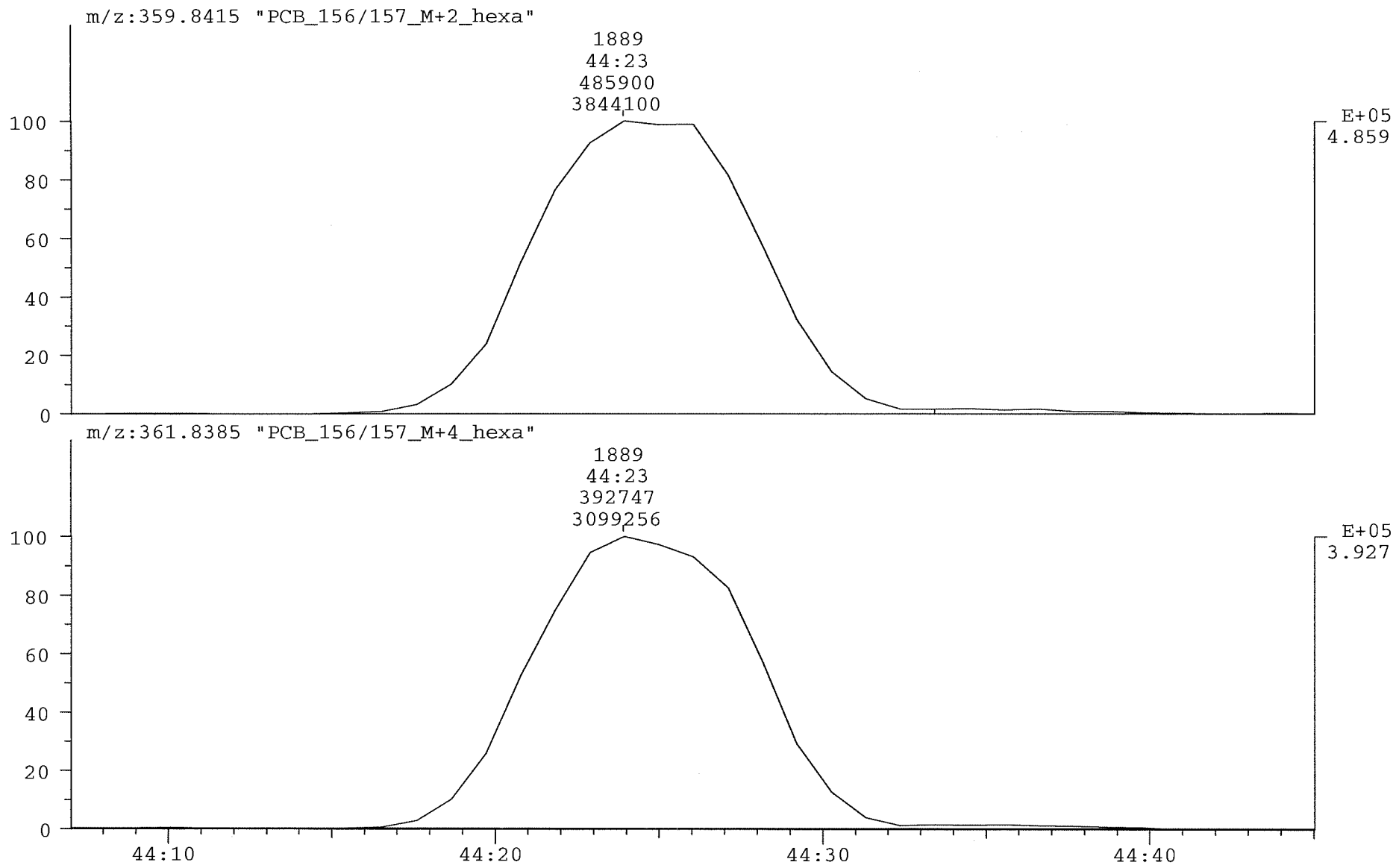
CHRO: a080624i3 24-Jun-08 Elapse: 42:54 1804
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1764 > 1841 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1763

1762

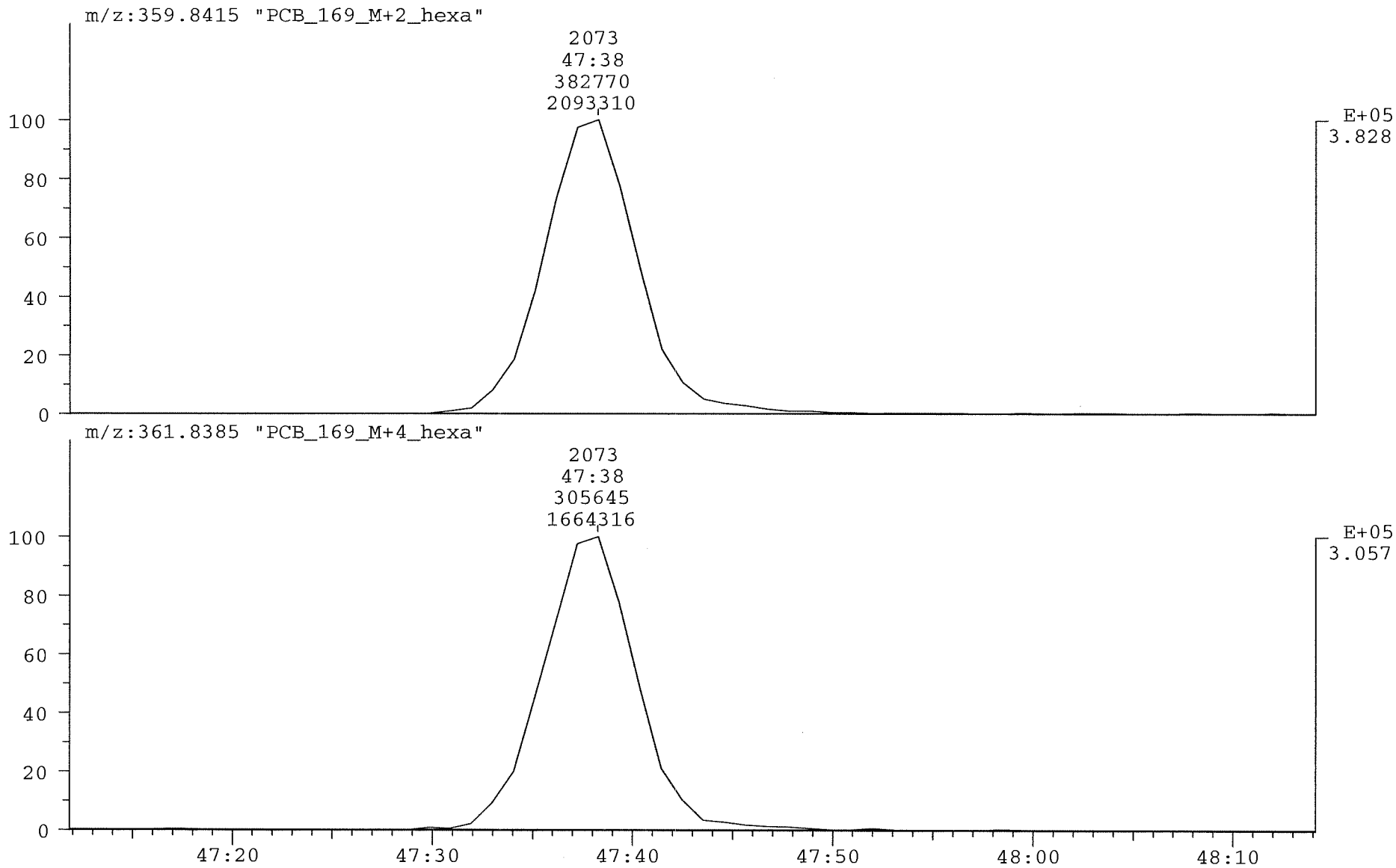
CHRO: a080624i3 24-Jun-08 Elapse: 44:22 1888
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1873 > 1909 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1764

1763

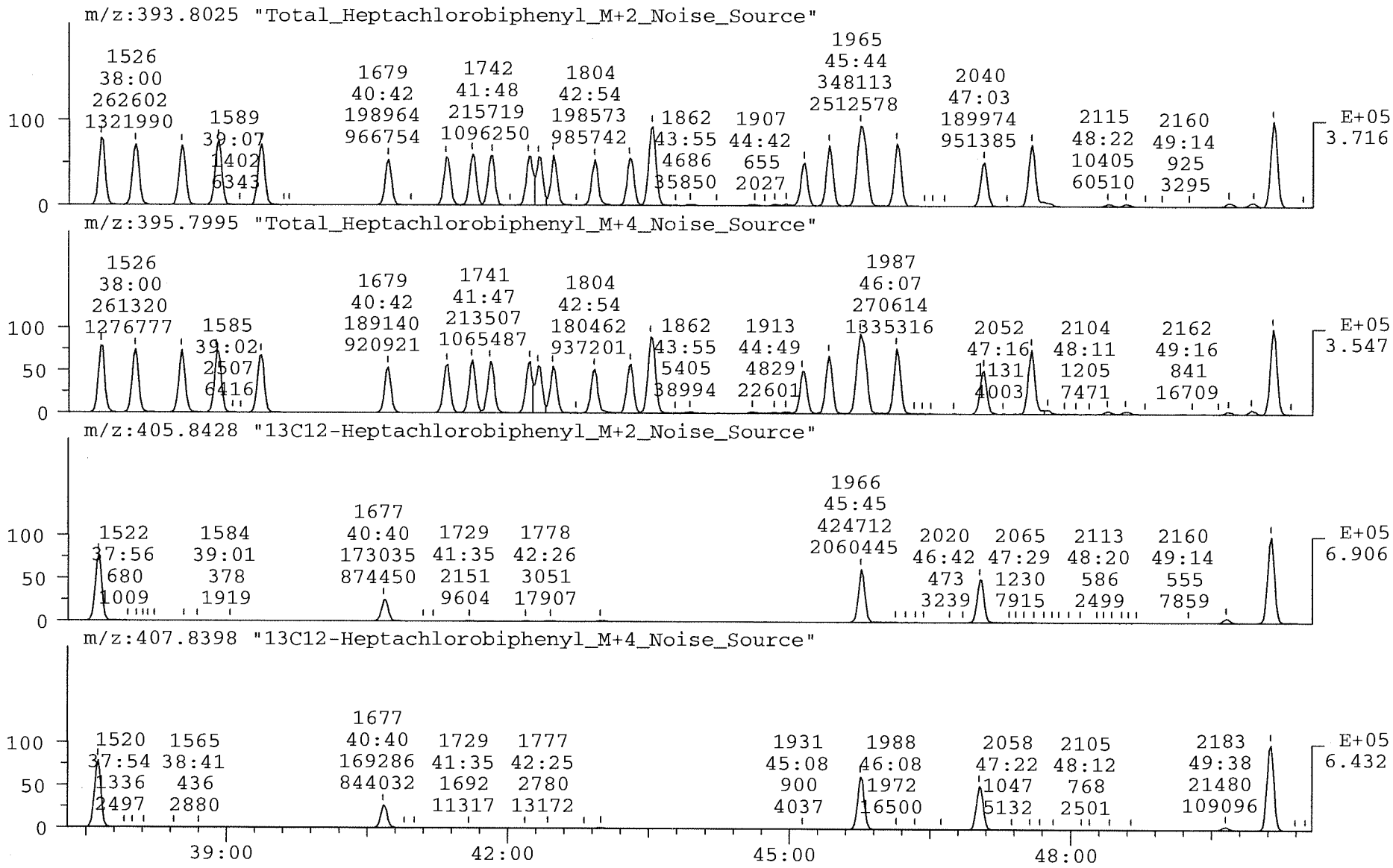
CHRO: a080624i3 24-Jun-08 Elapse: 47:38 2073
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2048 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1765

1764

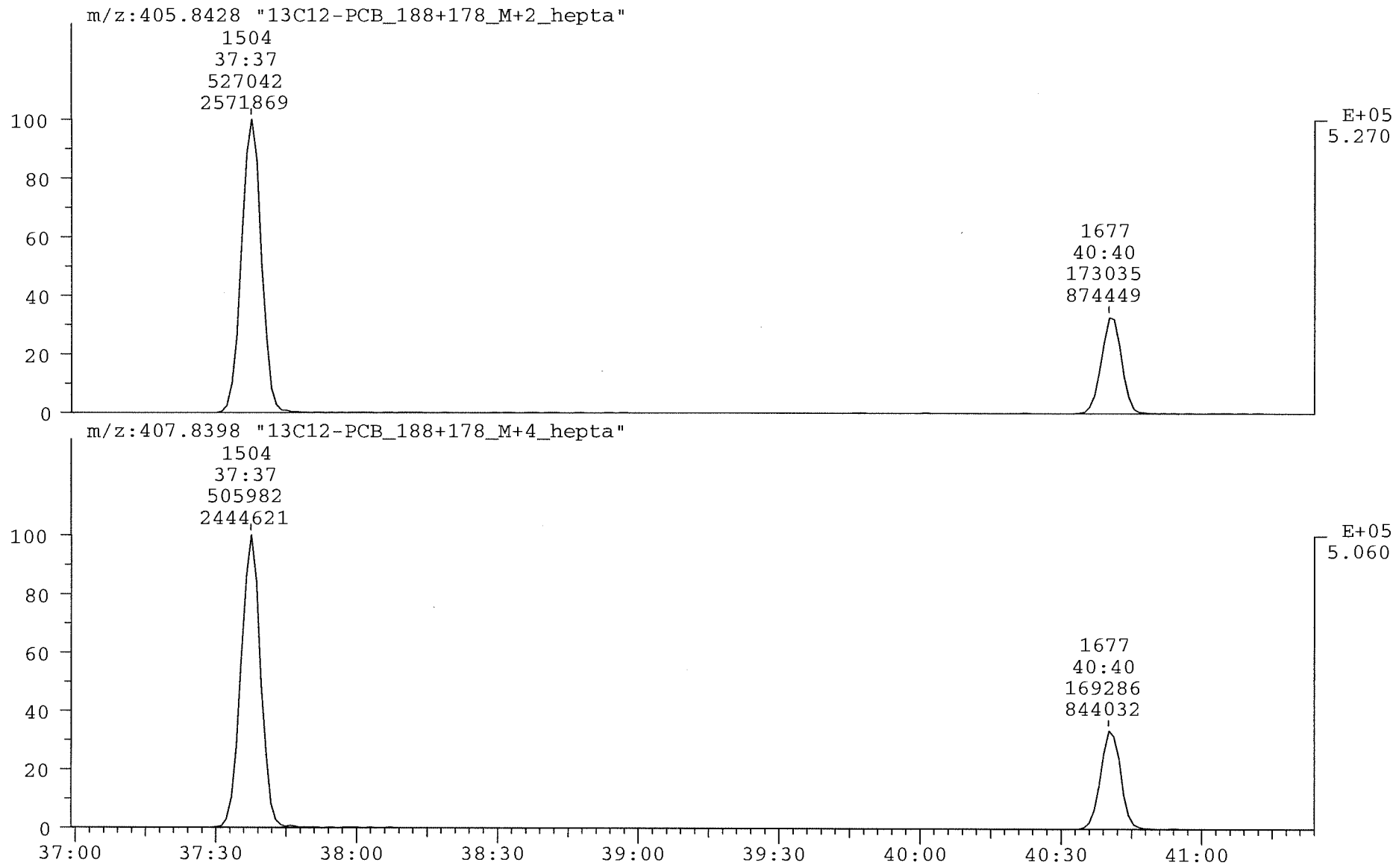
CHRO: a080624i3 24-Jun-08 Elapse: 43:56 1863
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1486 > 2235 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H1766

1765

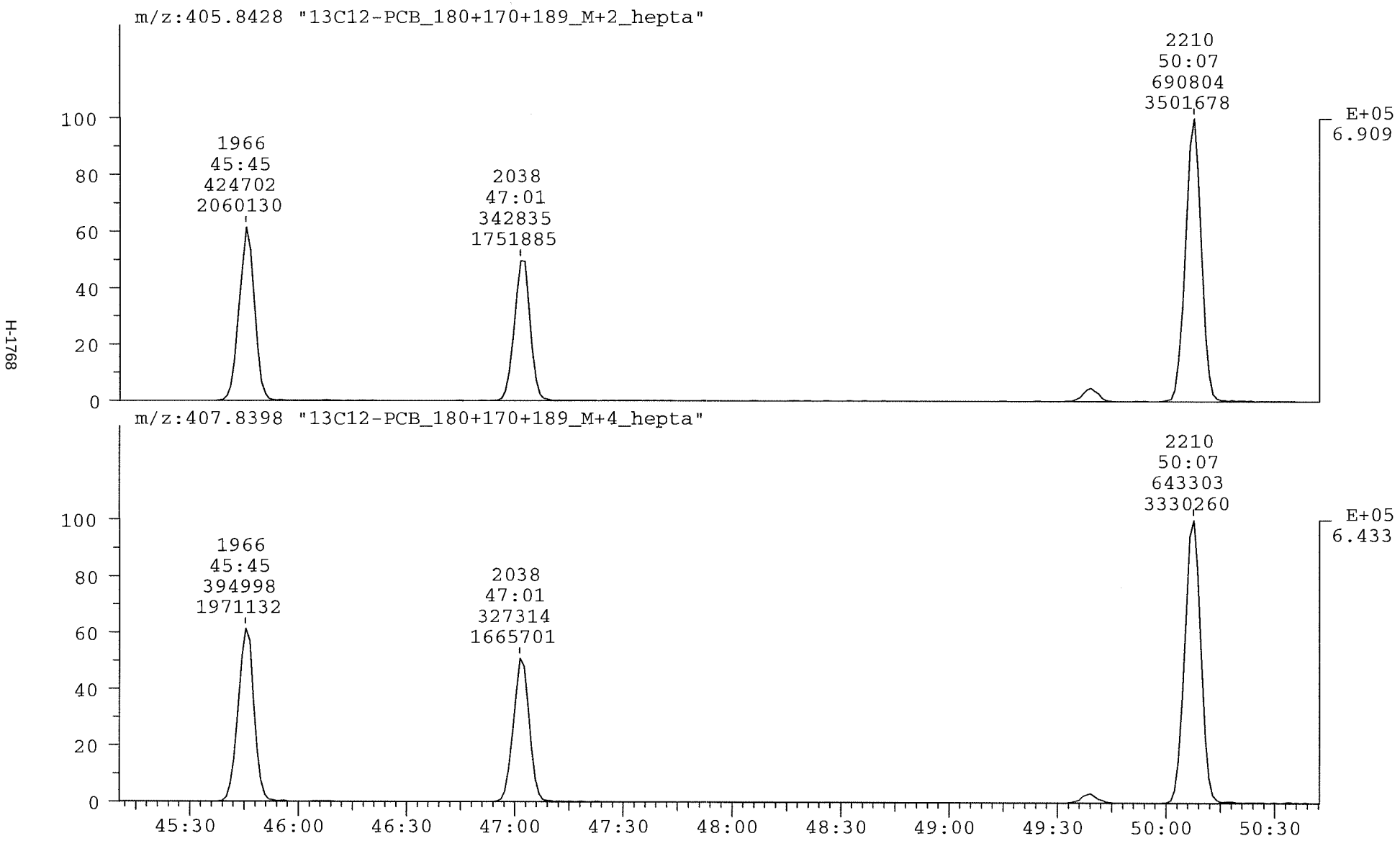
CHRO: a080624i3 24-Jun-08 Elapse: 39:11 1593
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1468 > 1719 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1767

1766

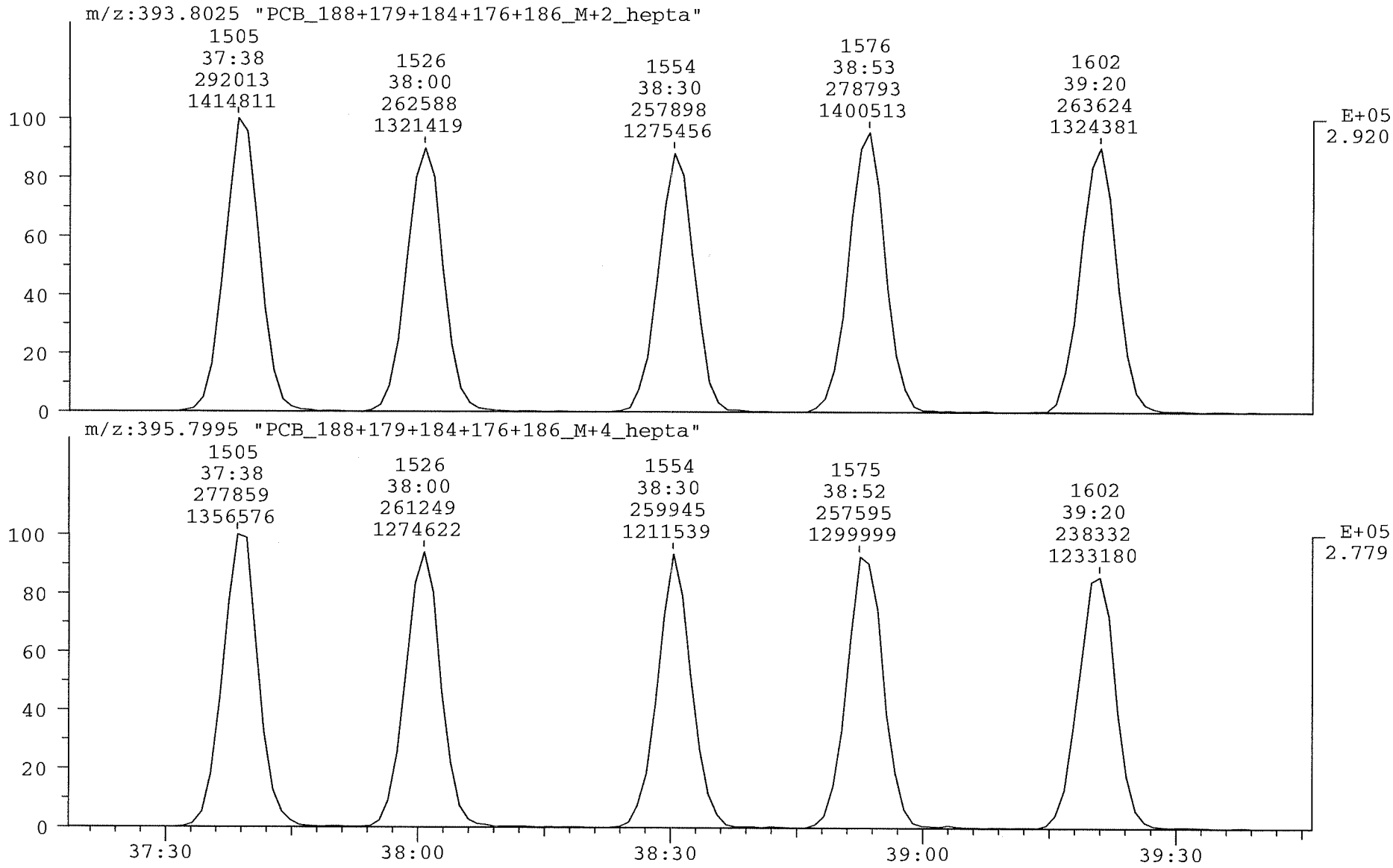
CHRO: a080624i3 24-Jun-08 Elapse: 47:59 2093
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1933 > 2243 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1768

1767

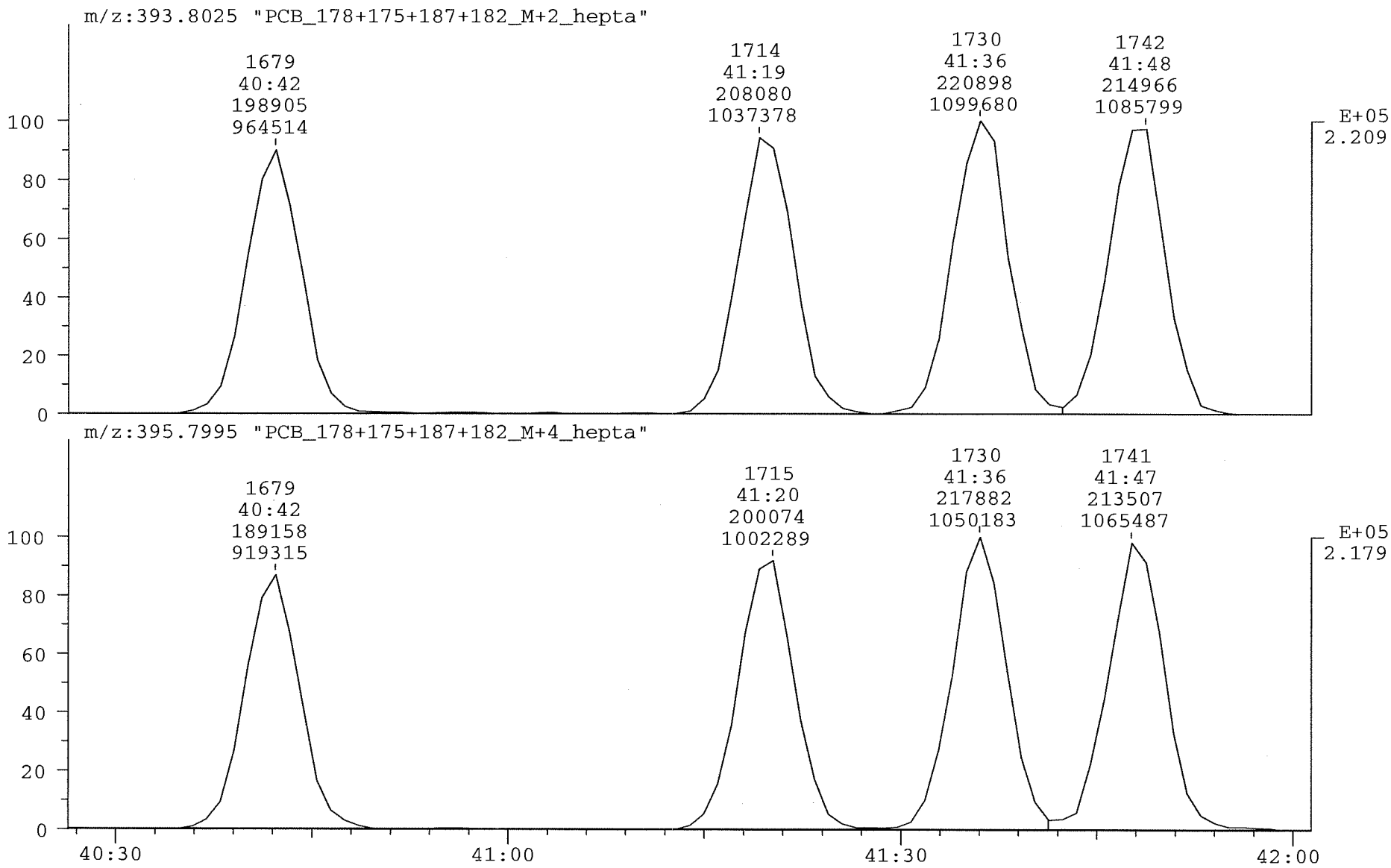
CHRO: a080624i3 24-Jun-08 Elapse: 38:32 1556
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1486 > 1626 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1769

1768

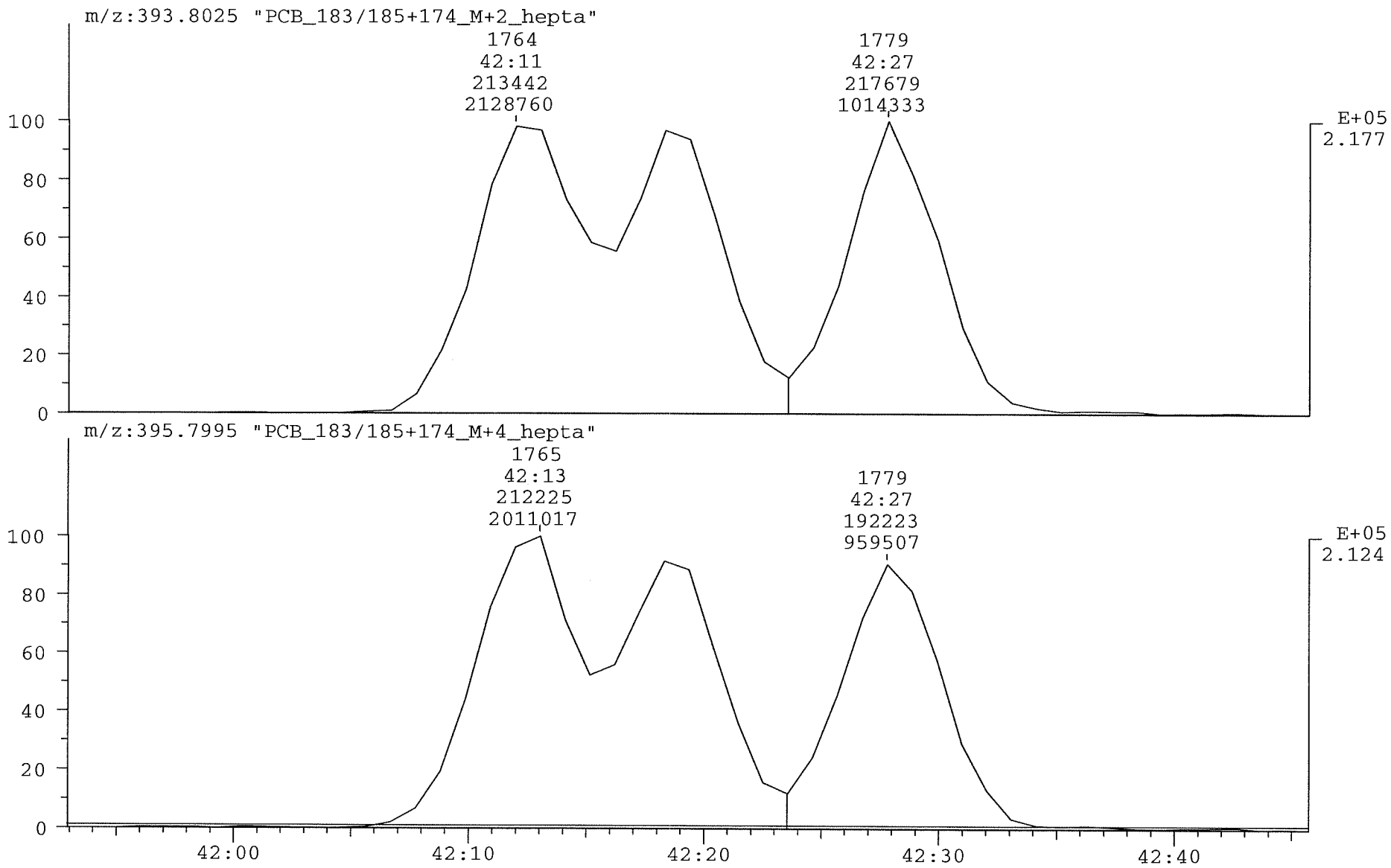
CHRO: a080624i3 24-Jun-08 Elapse: 41:19 1714
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1664 > 1754 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1770

1769

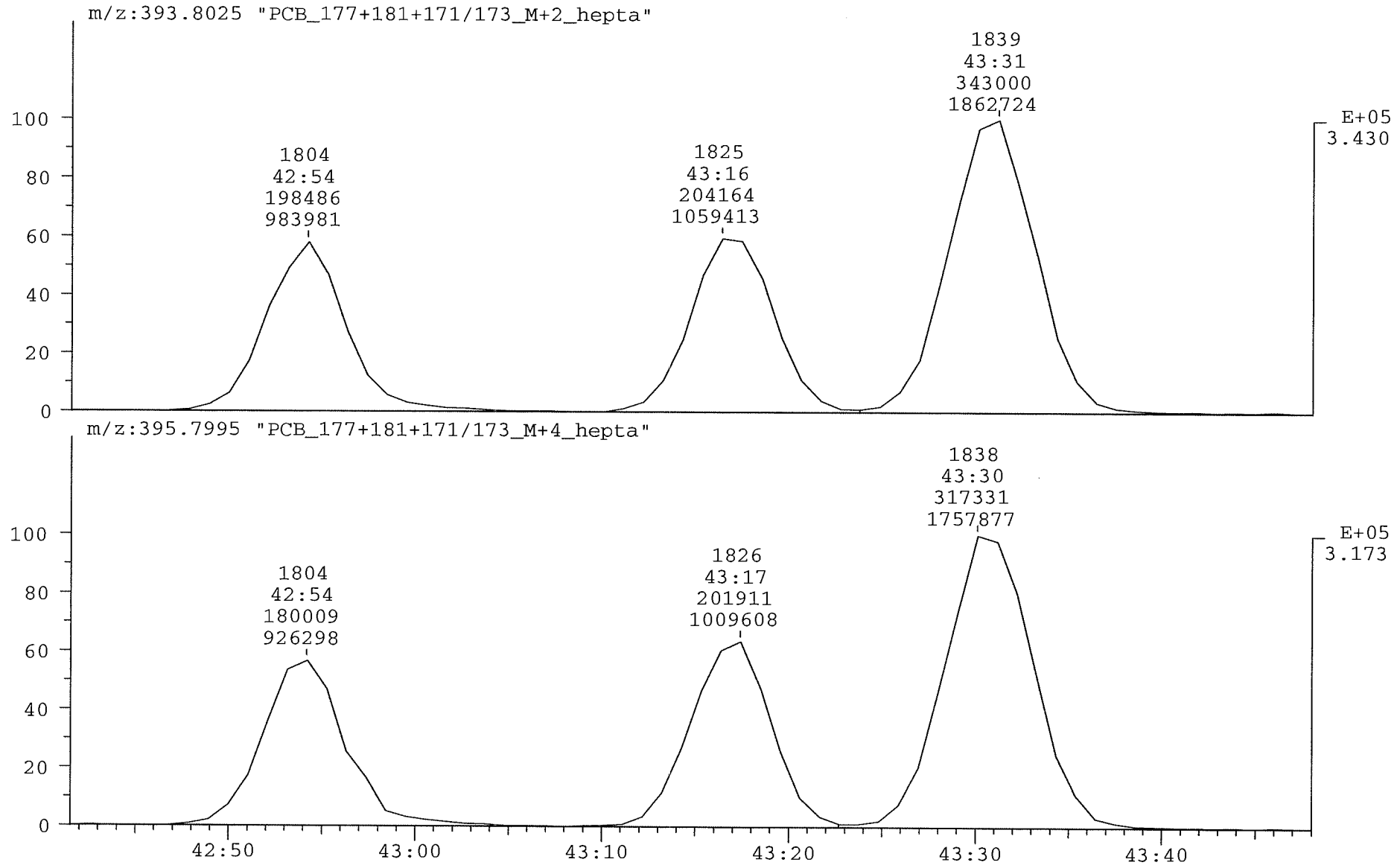
CHRO: a080624i3 24-Jun-08 Elapse: 42:26 1778
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1746 > 1796 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1771

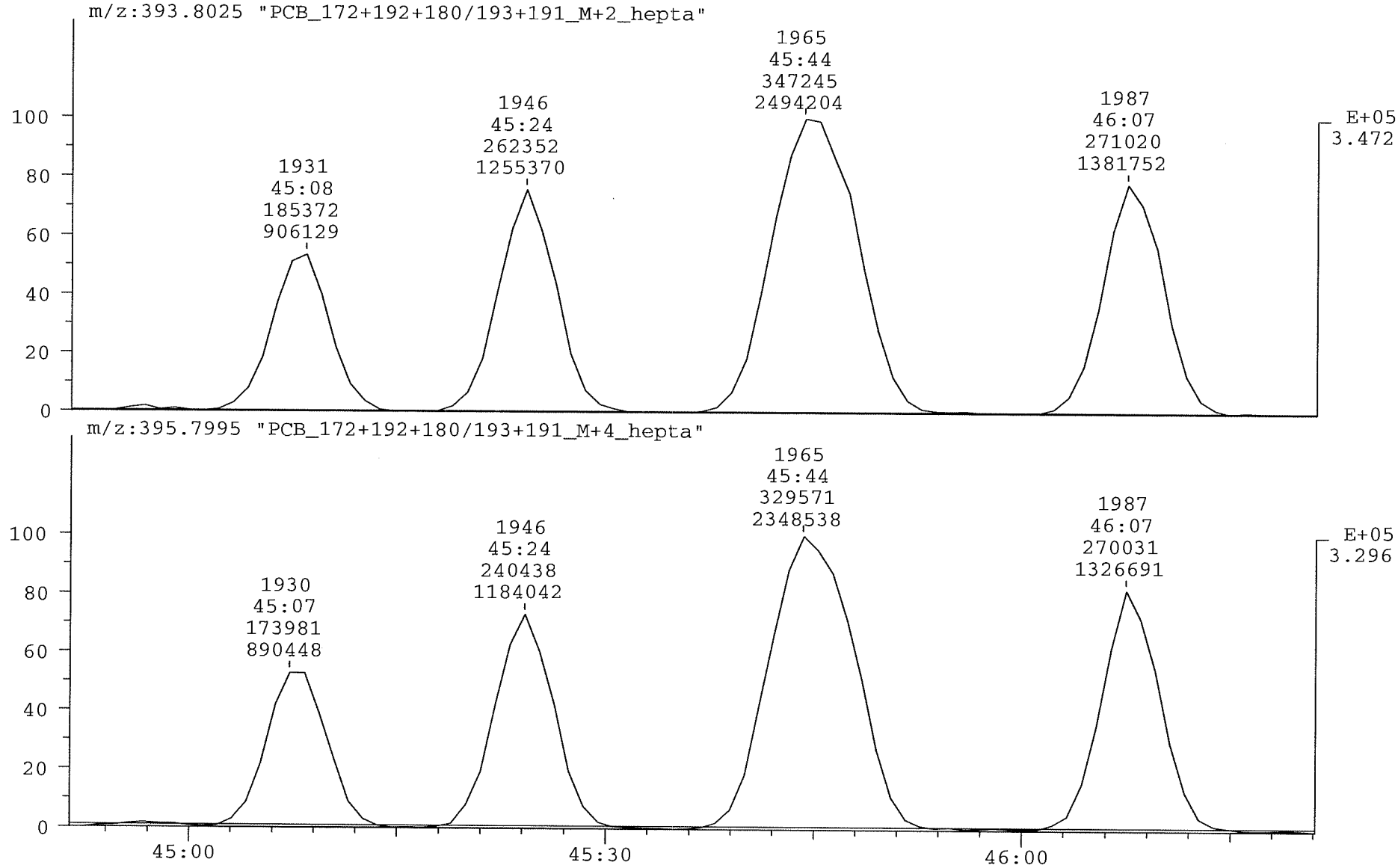
1770

CHRO: a080624i3 24-Jun-08 Elapse: 43:16 1825
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1792 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1772

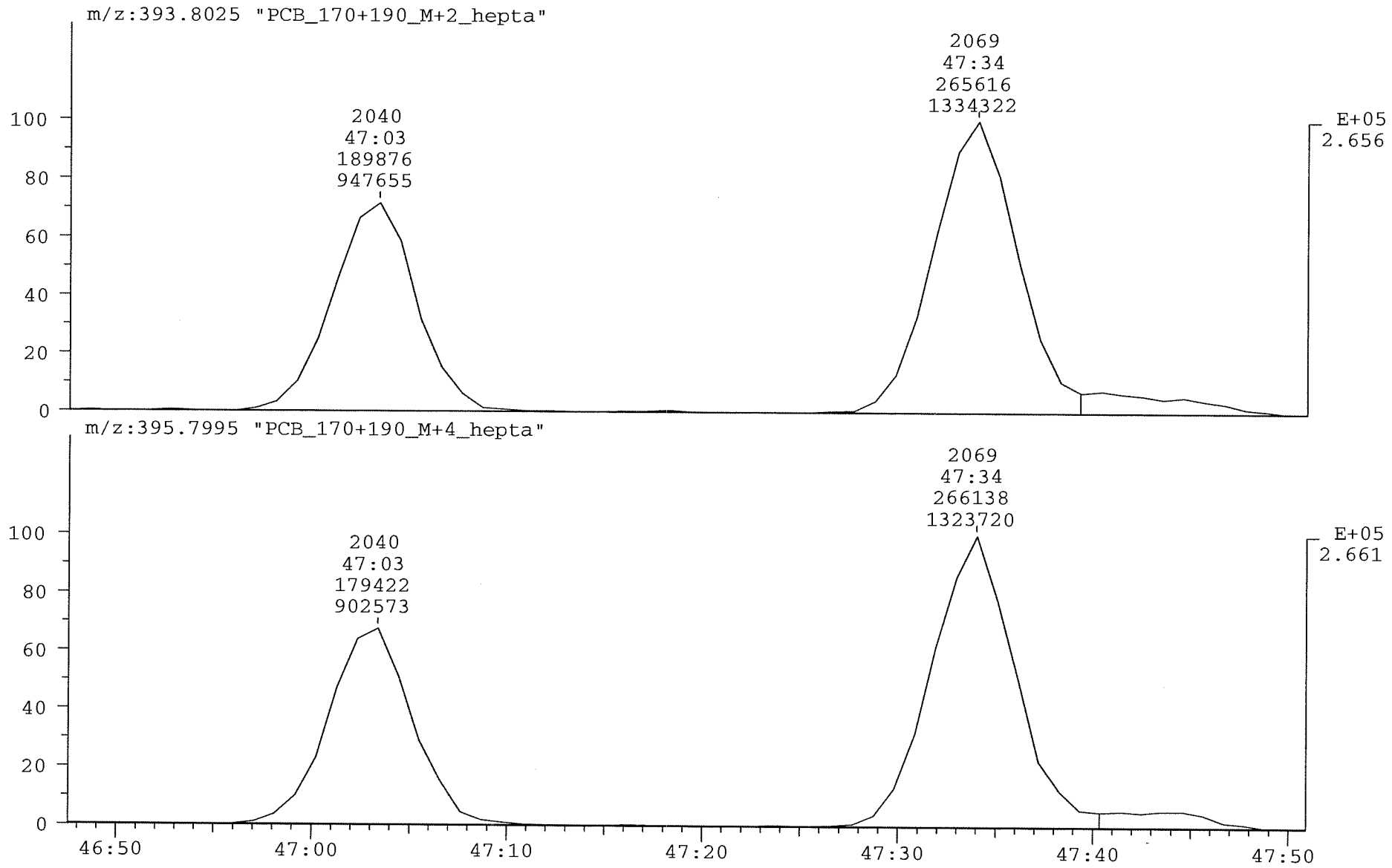
CHRO: a080624i3 24-Jun-08 Elapse: 45:44 1965
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1915 > 2000 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1773

1772

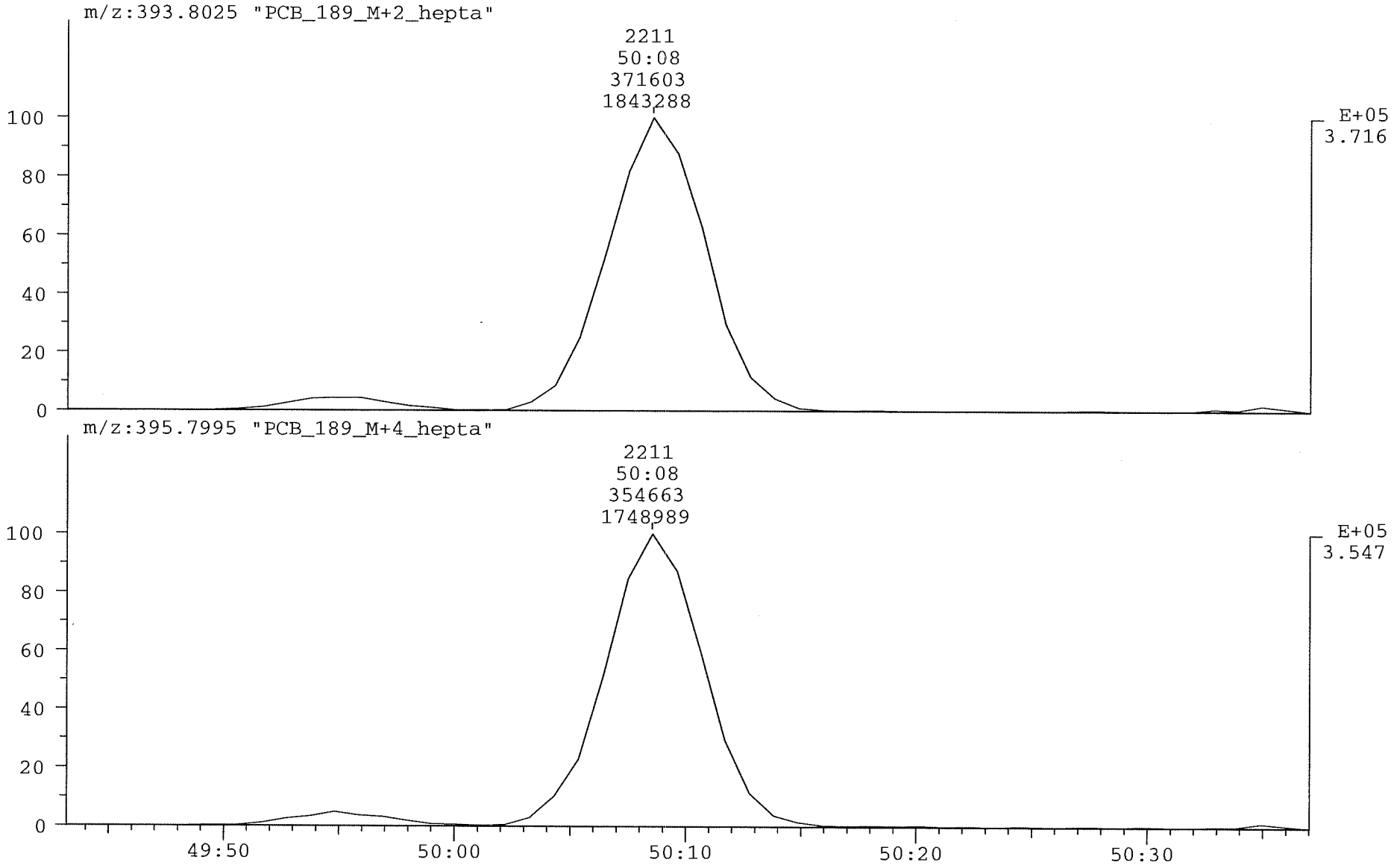
CHRO: a080624i3 24-Jun-08 Elapse: 47:21 2057
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2025 > 2085 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1774

1773

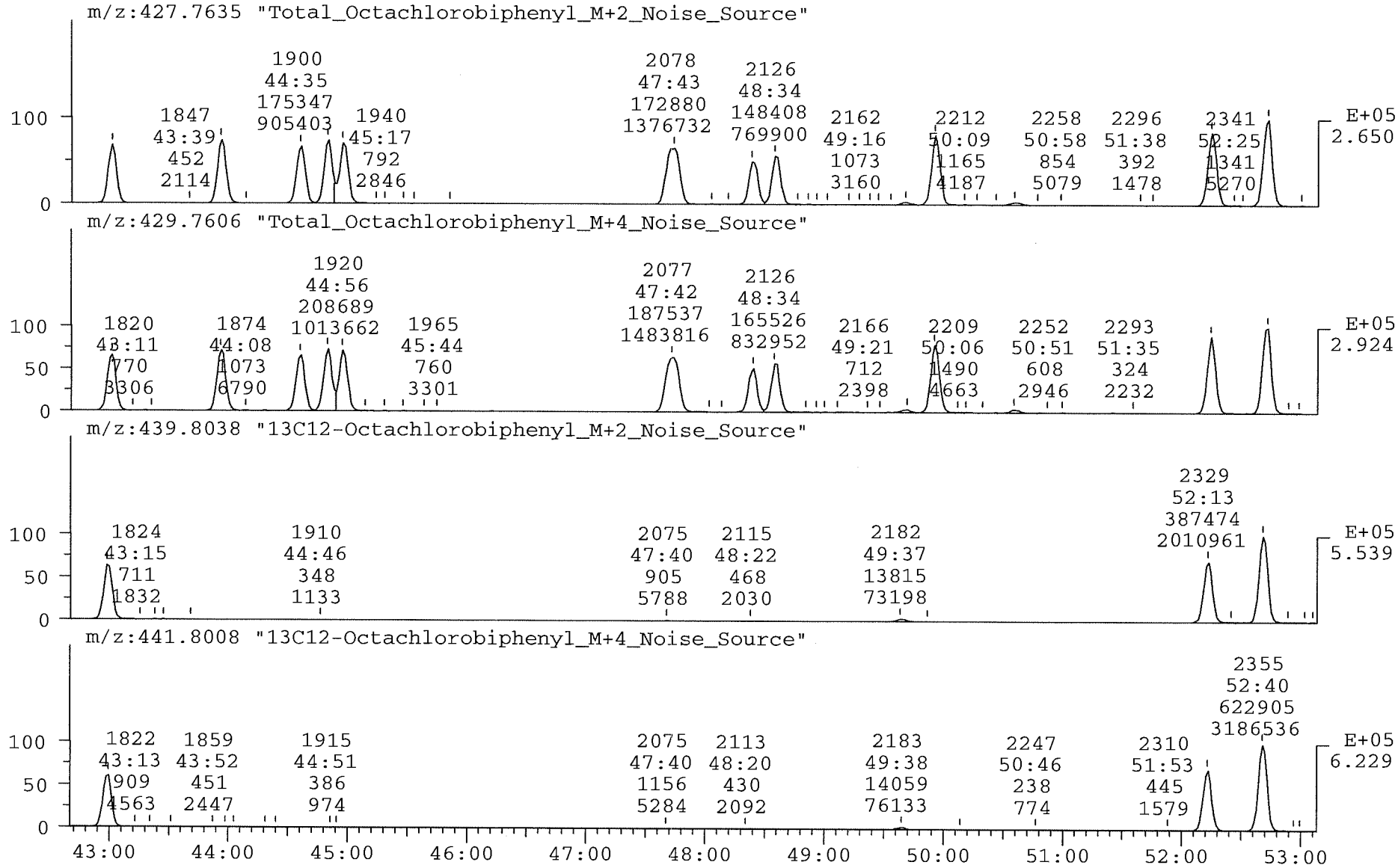
CHRO: a080624i3 24-Jun-08 Elapse: 50:08 2211
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2187 > 2238 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1775

1774

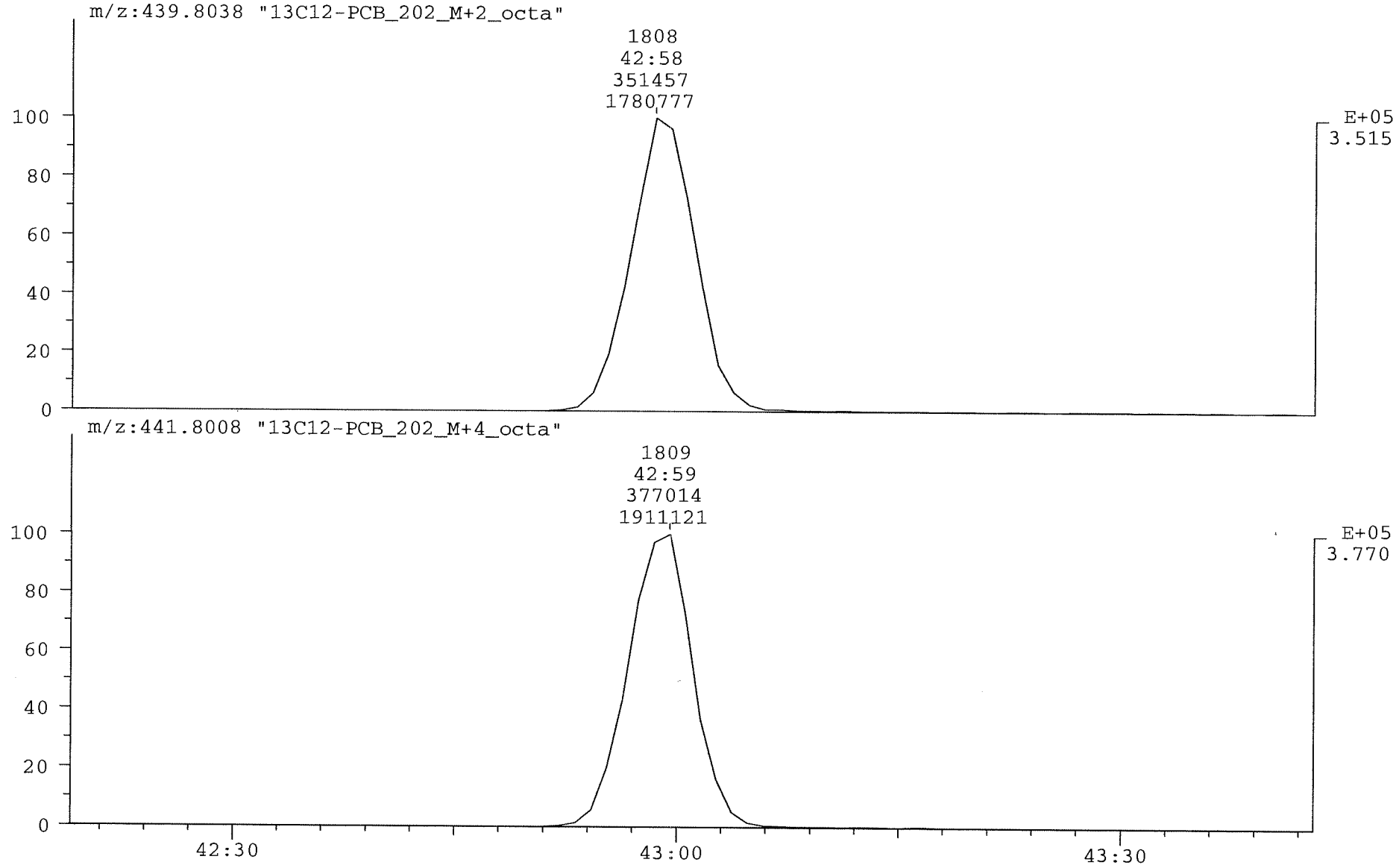
CHRO: a080624i3 24-Jun-08 Elapse: 47:54 2088
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1791 > 2381 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1776

1775

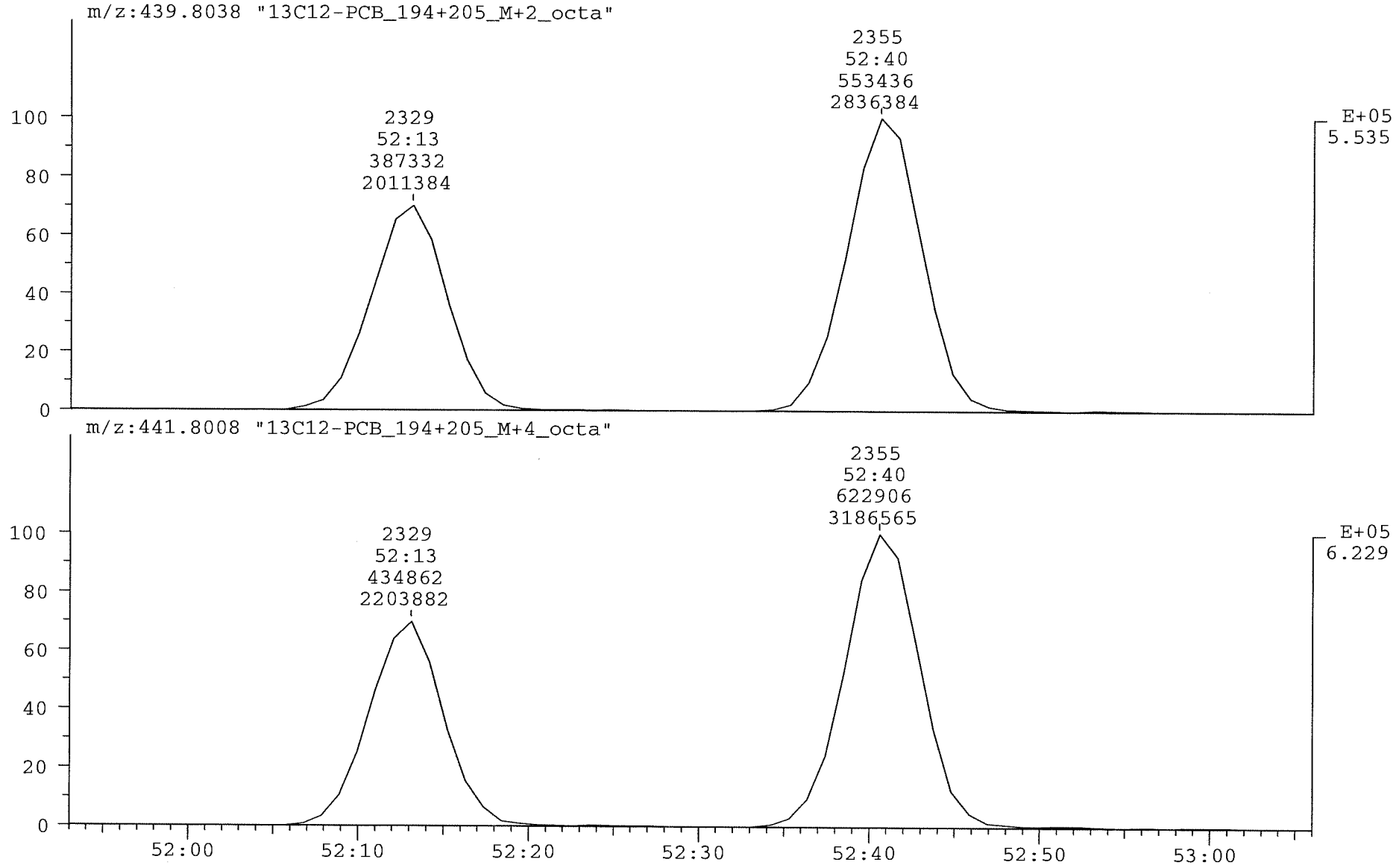
CHRO: a080624i3 24-Jun-08 Elapse: 42:58 1808
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1771 > 1850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1777

1776

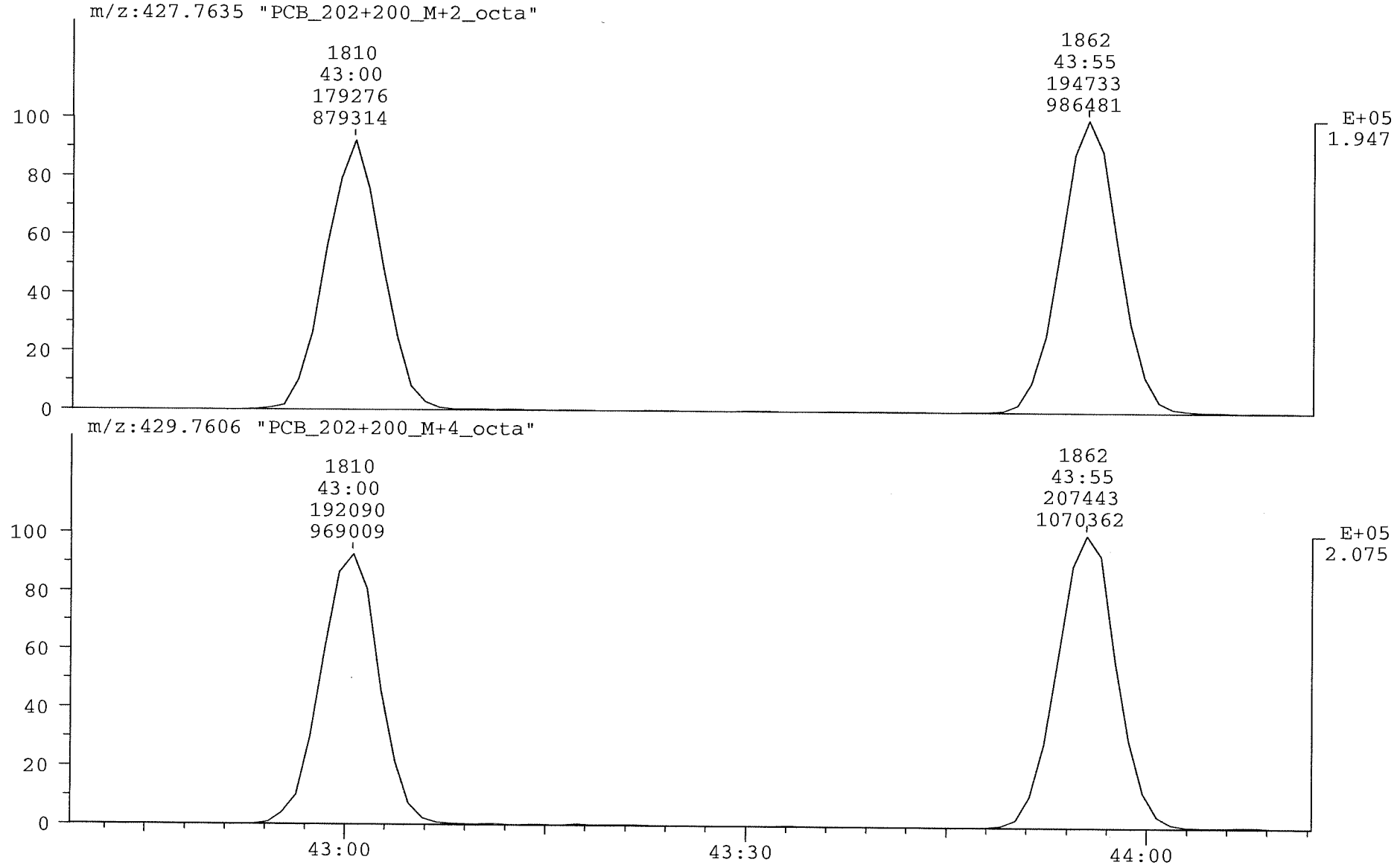
CHRO: a080624i3 24-Jun-08 Elapse: 52:28 2344
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2310 > 2379 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1778

1777

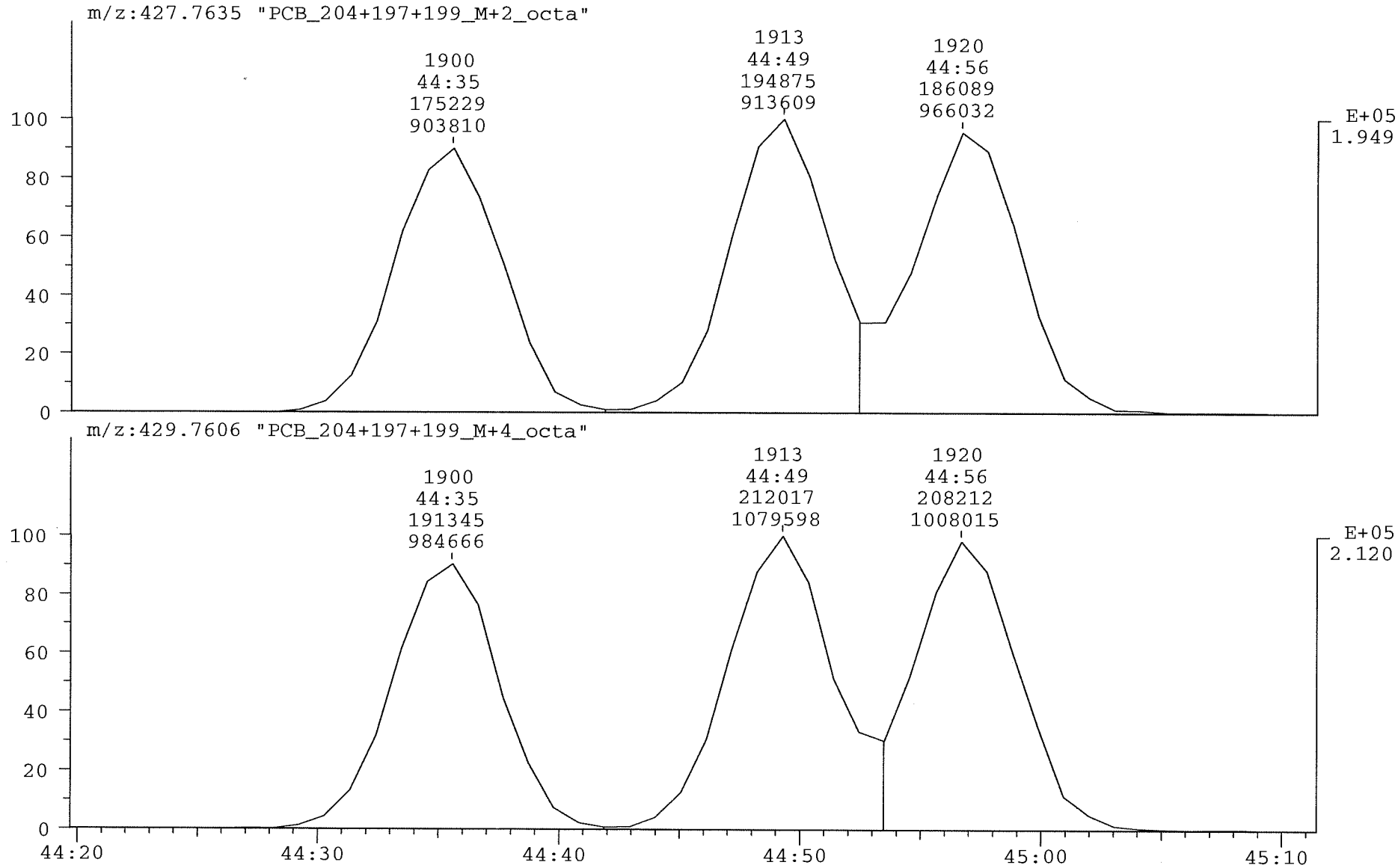
CHRO: a080624i3 24-Jun-08 Elapse: 43:30 1838
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1790 > 1878 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1779

1778

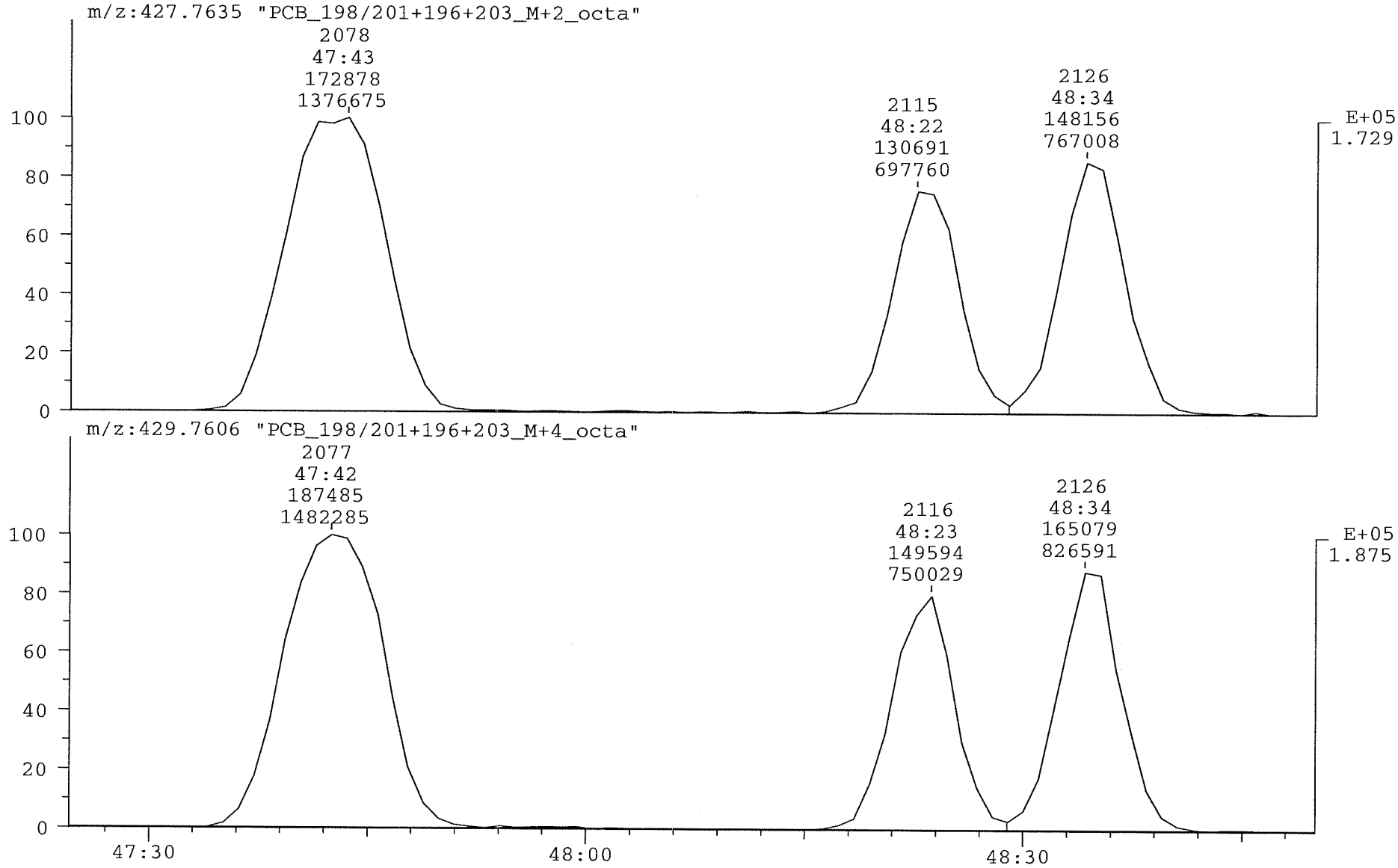
CHRO: a080624i3 24-Jun-08 Elapse: 44:34 1899
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1885 > 1934 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



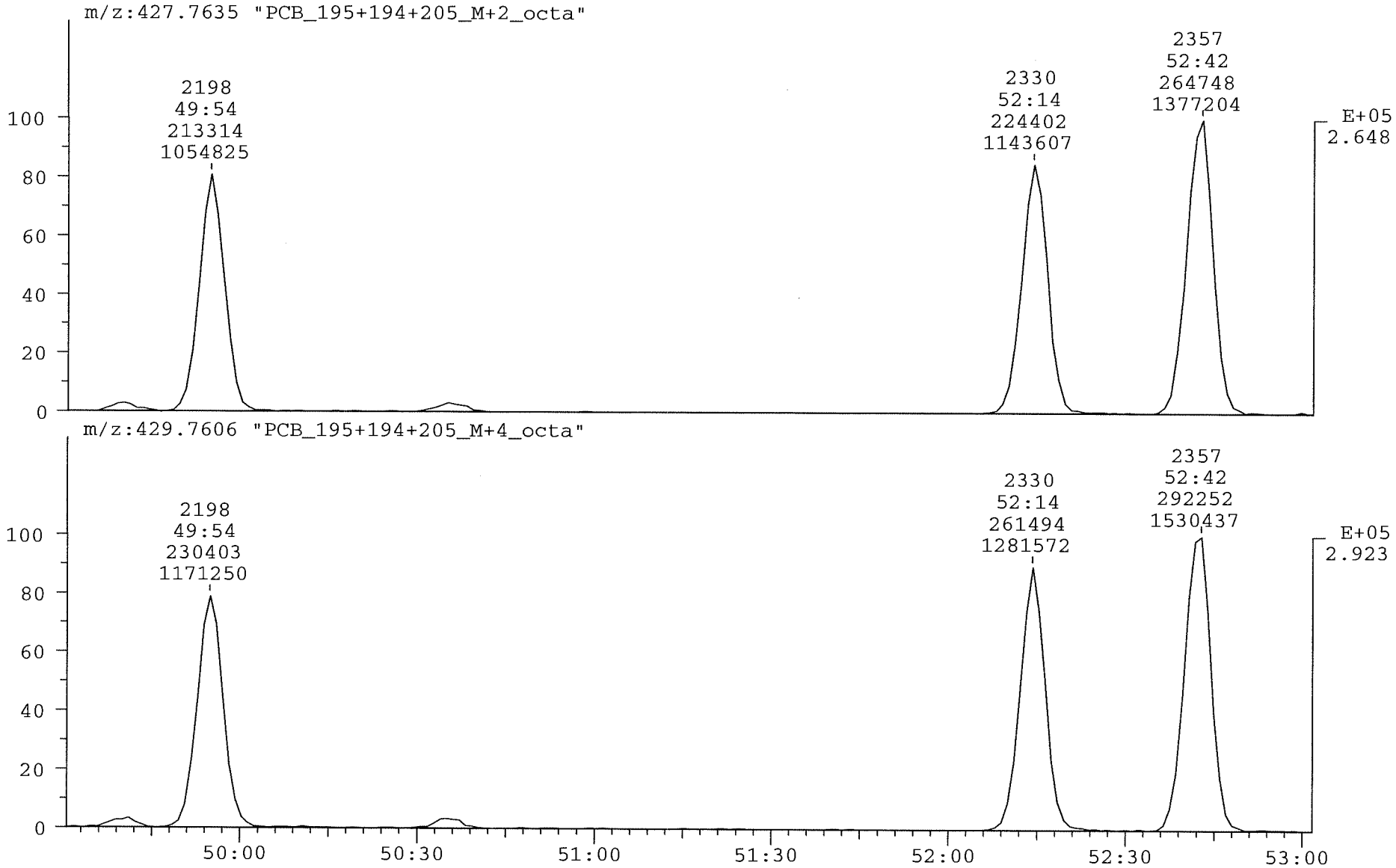
H-1780

1779

CHRO: a080624i3 24-Jun-08 Elapse: 48:21 2114
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2060 > 2141 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



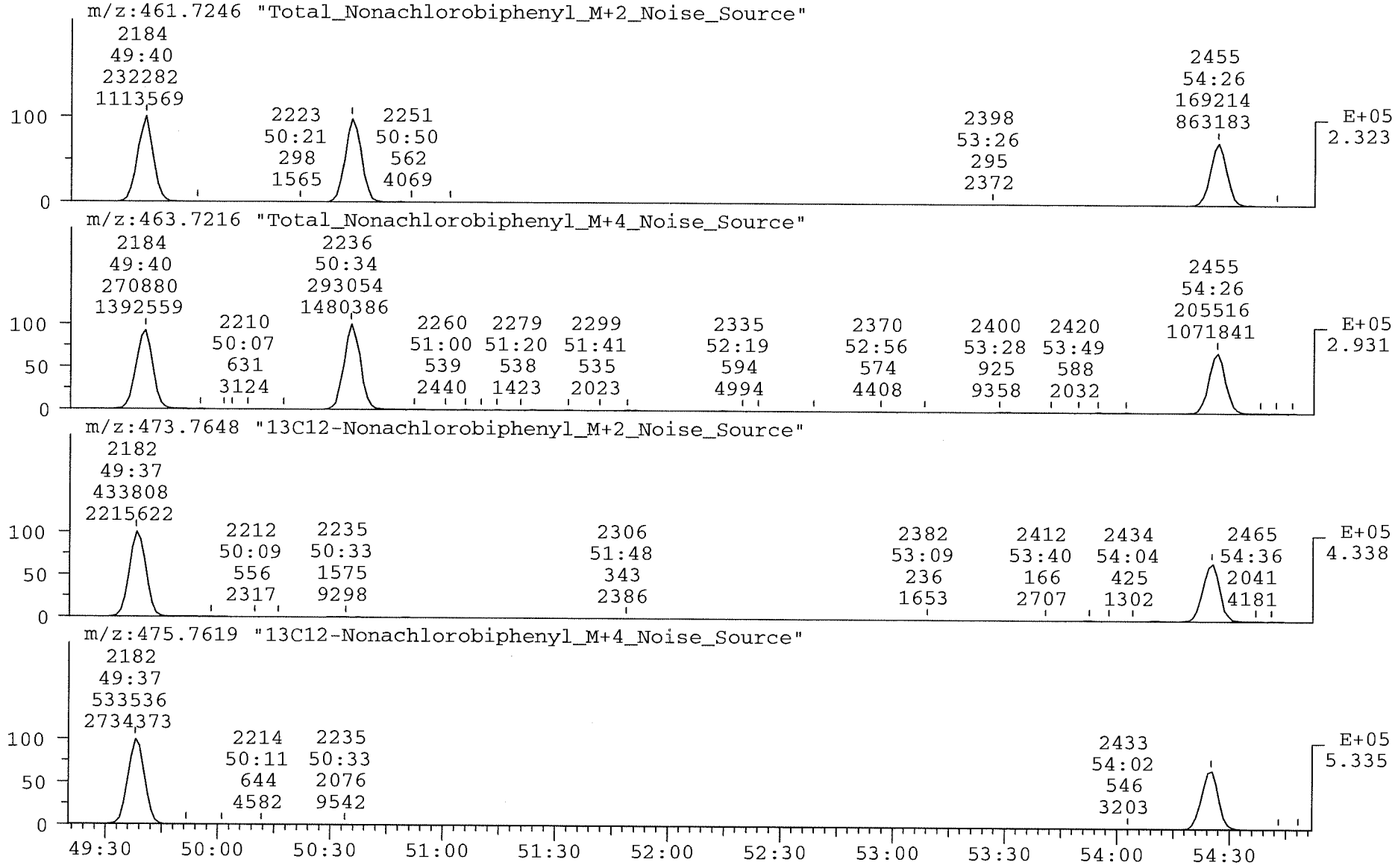
CHRO: a080624i3 24-Jun-08 Elapse: 52:14 2330
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2175 > 2375 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H1782

1781

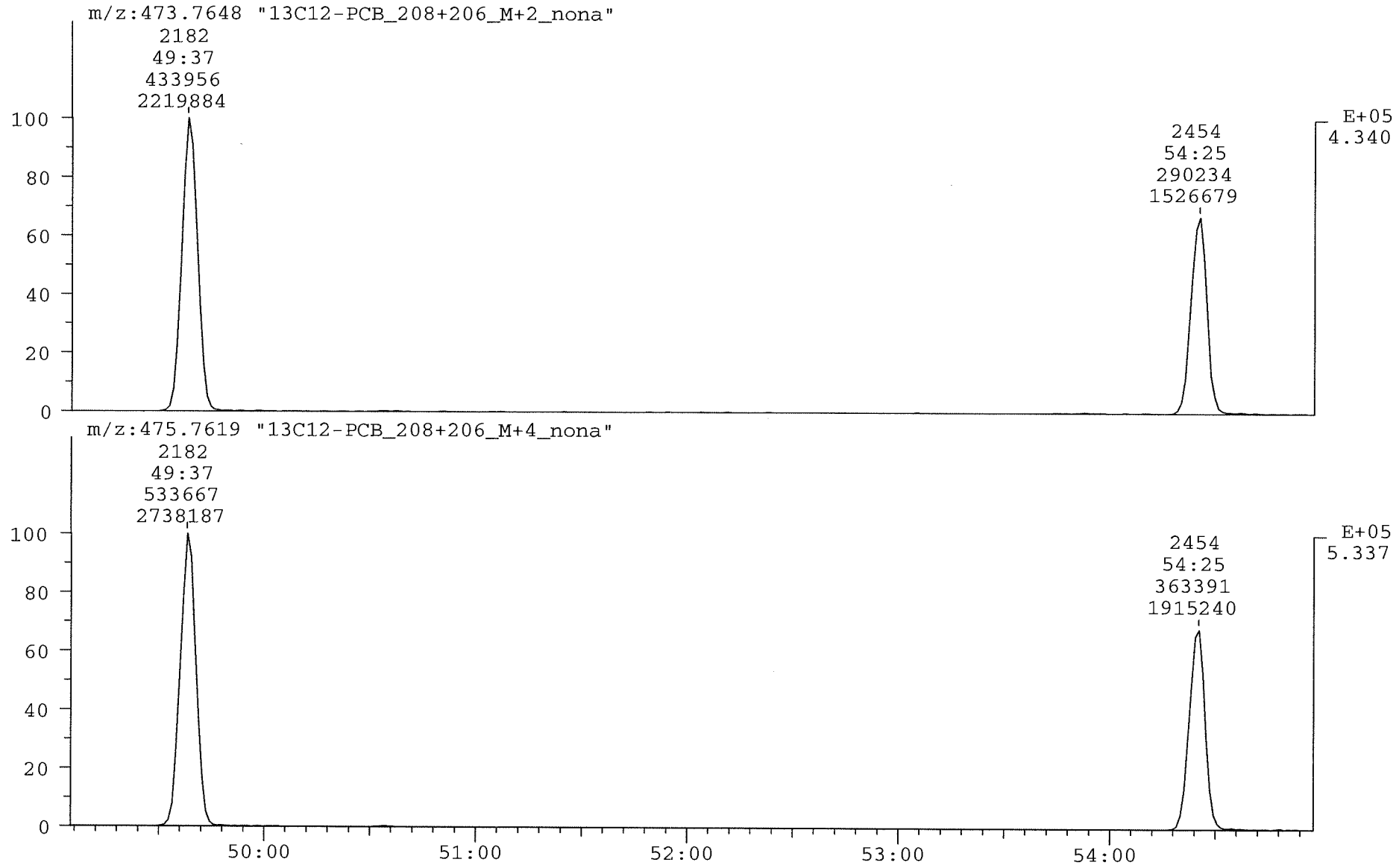
CHRO: a080624i3 24-Jun-08 Elapse: 52:05 2322
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2165 > 2479 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1783

1782

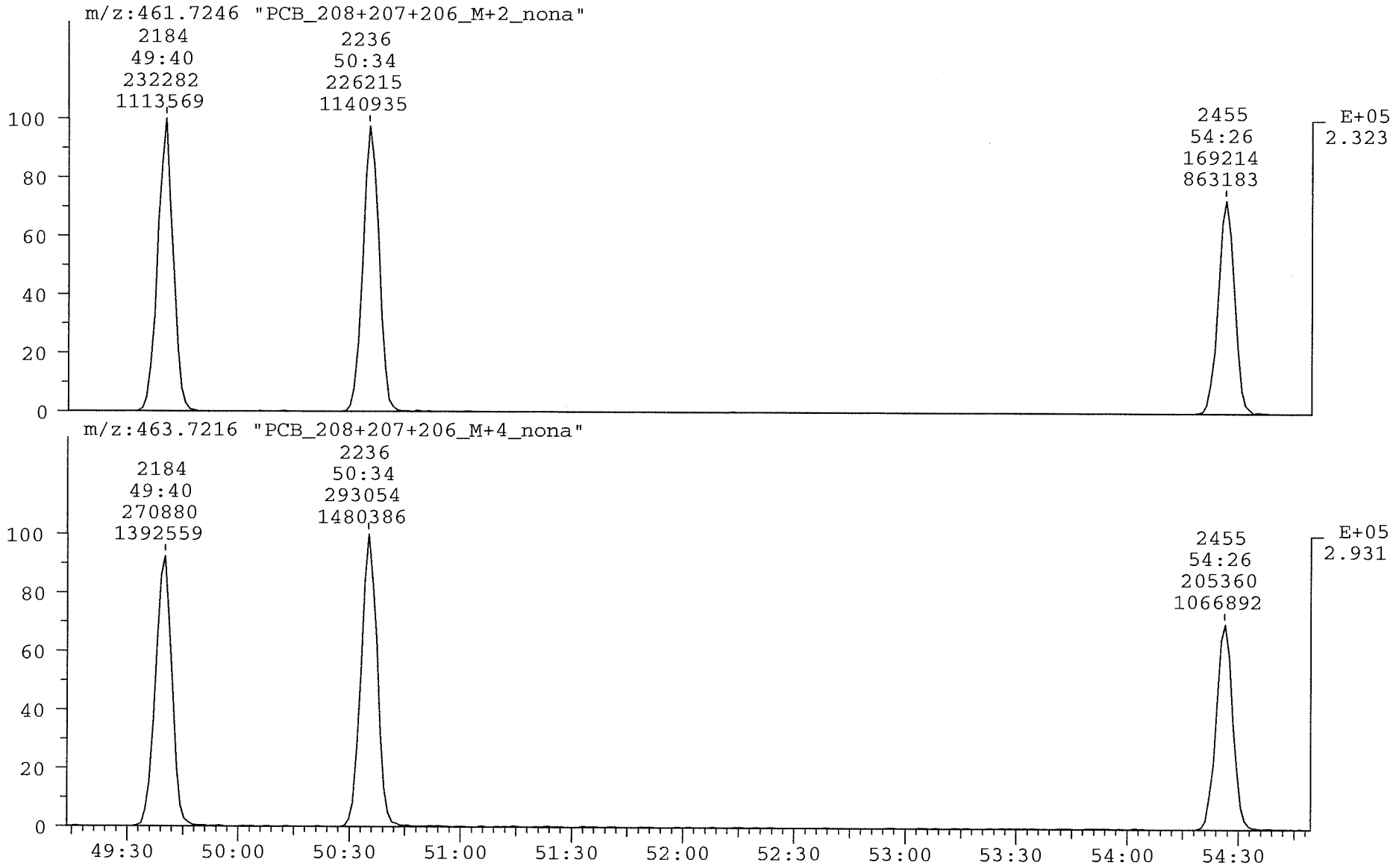
CHRO: a080624i3 24-Jun-08 Elapse: 52:03 2320
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2155 > 2485 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1784

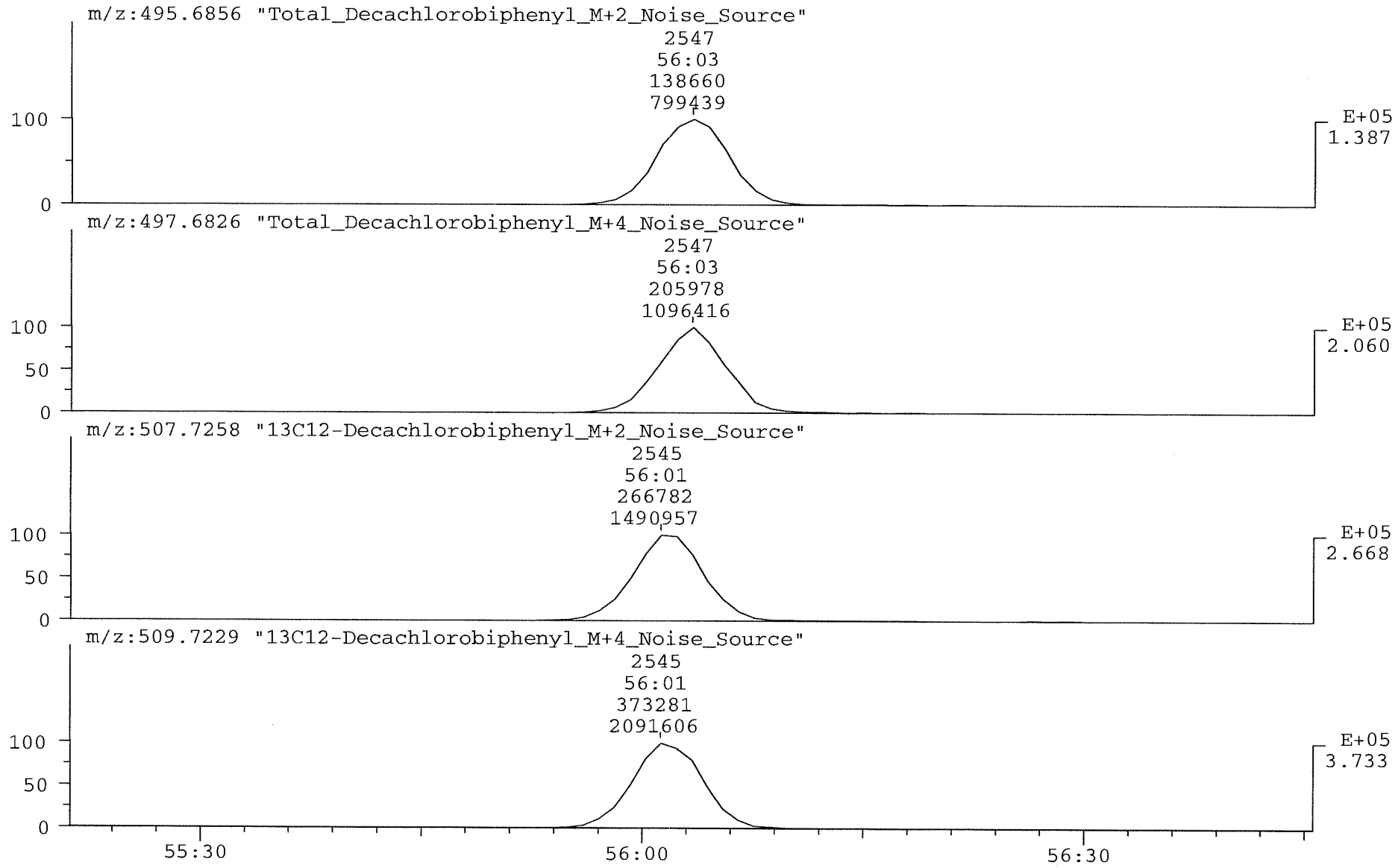
1783

CHRO: a080624i3 24-Jun-08 Elapse: 52:05 2322
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2159 > 2477 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1785

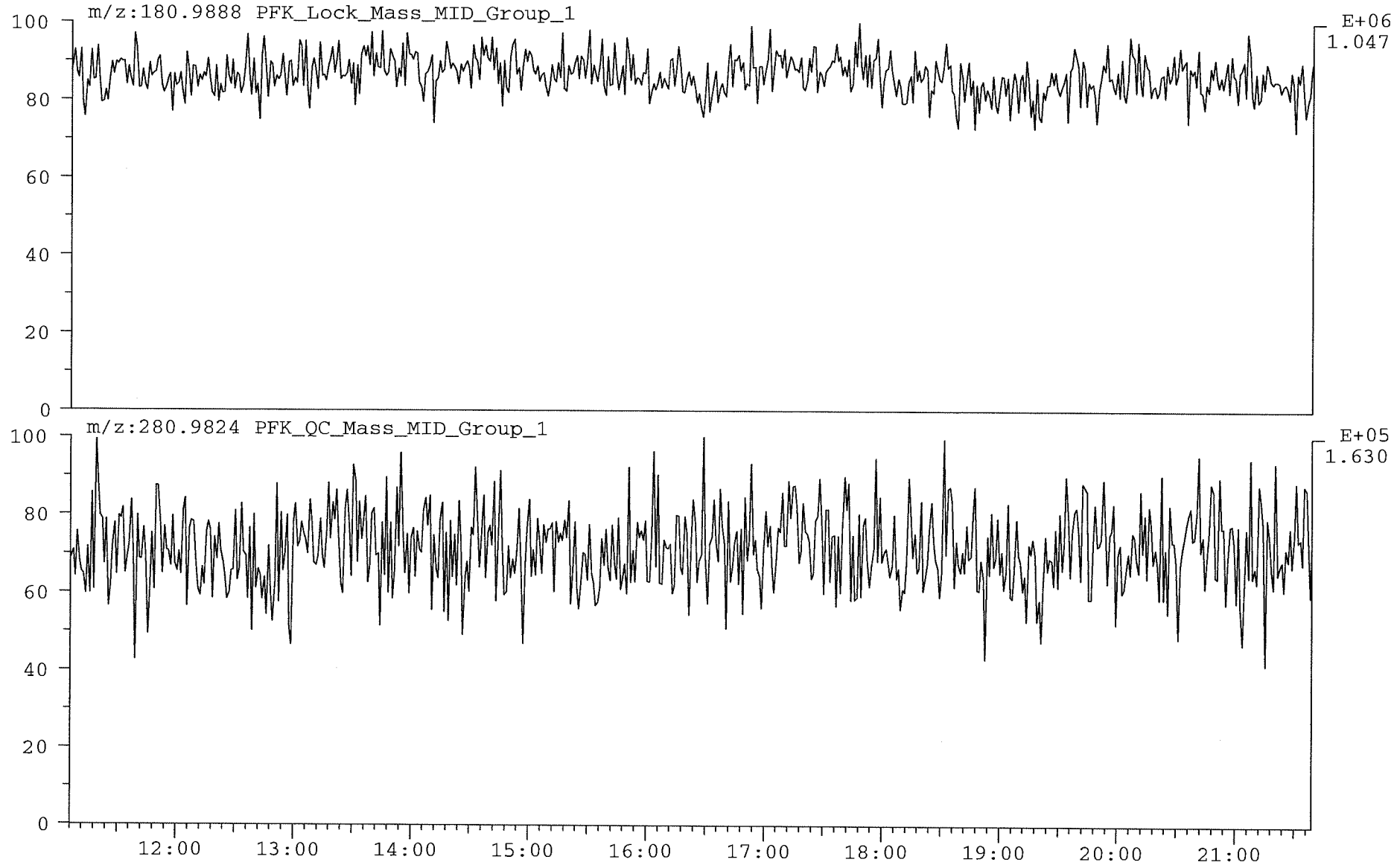
CHRO: a080624i3 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2507 > 2587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H1786

1785

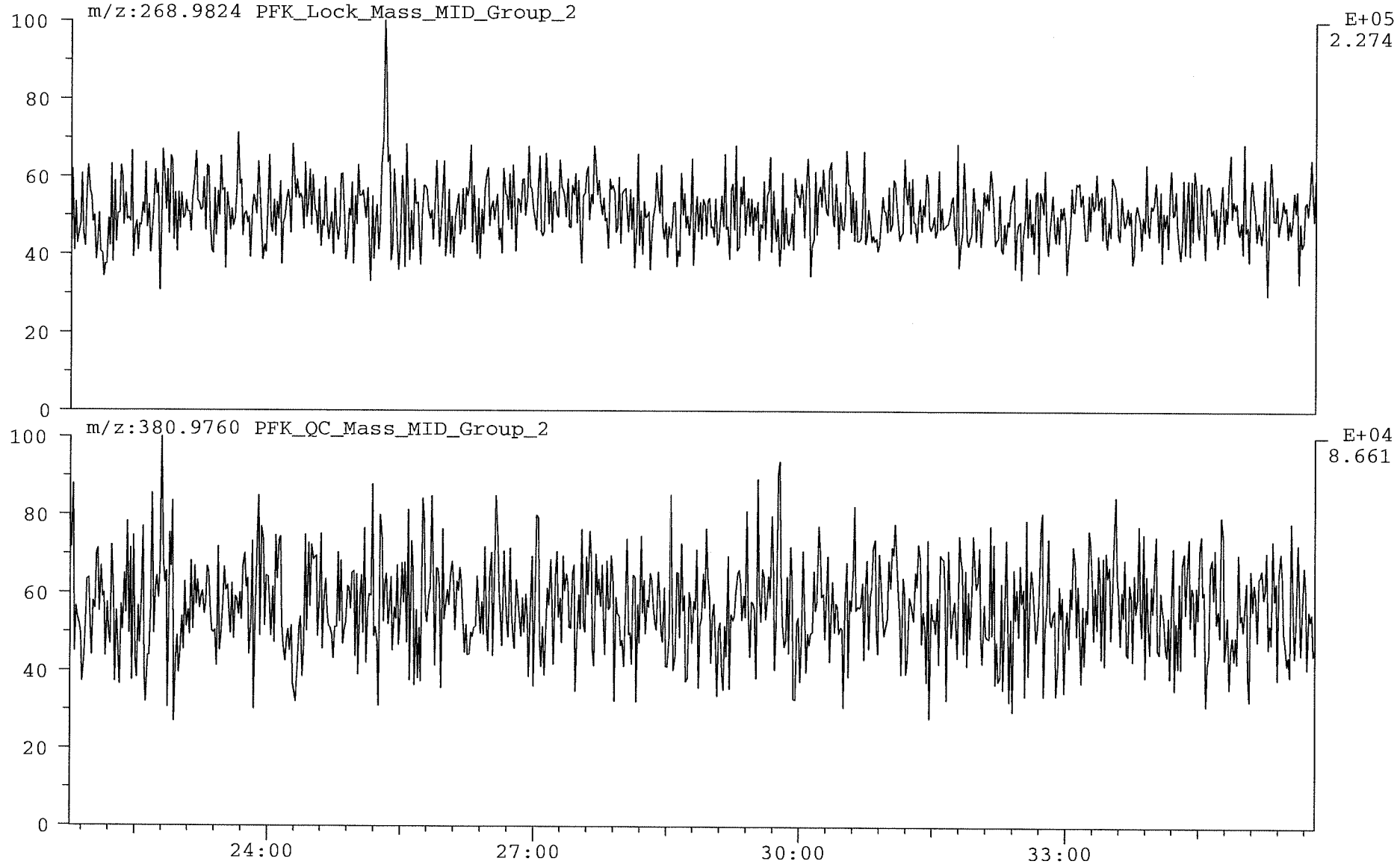
CHRO: a080624i3 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1787

1786

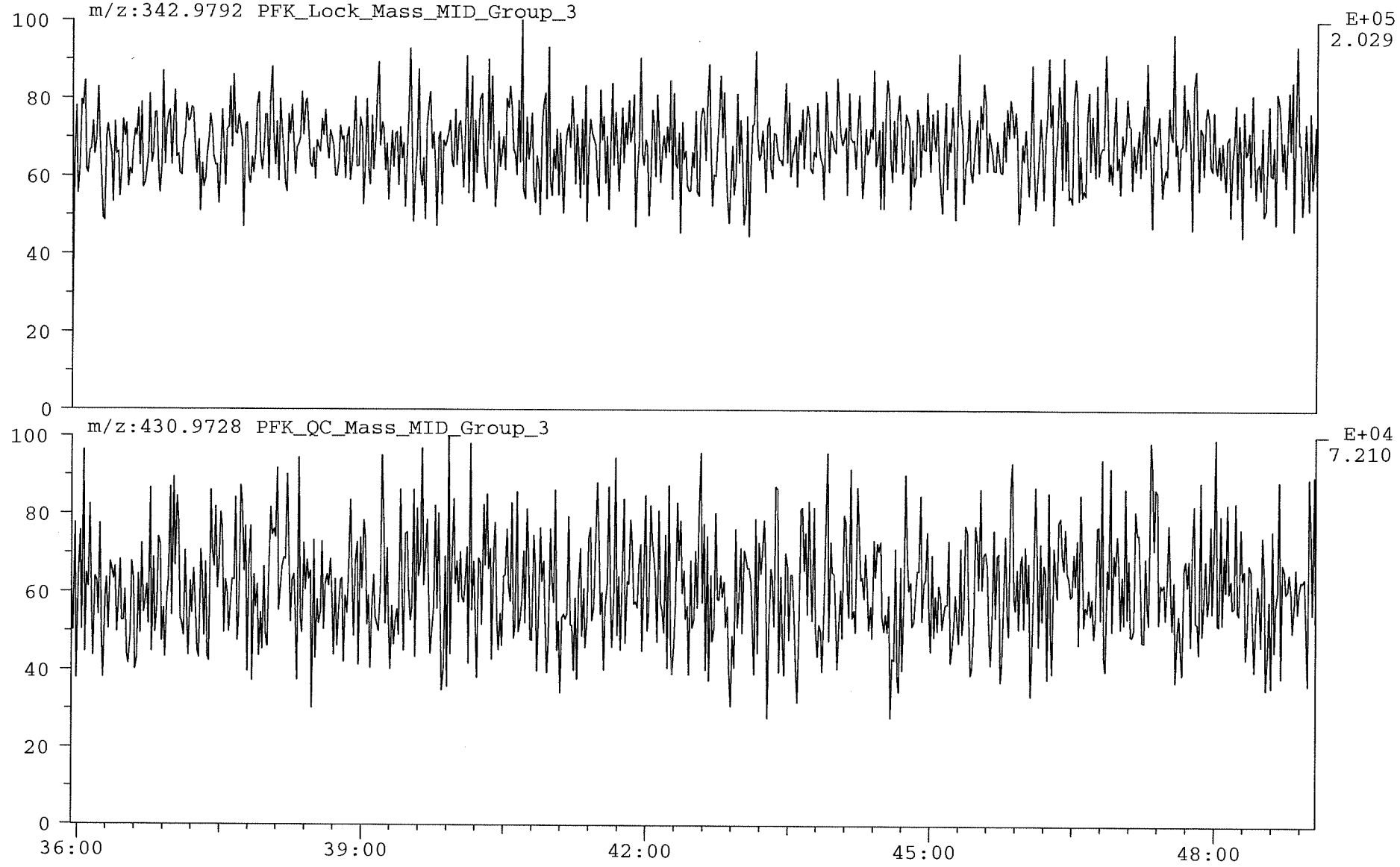
CHRO: a080624i3 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 607 > 1405 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H1788

1787

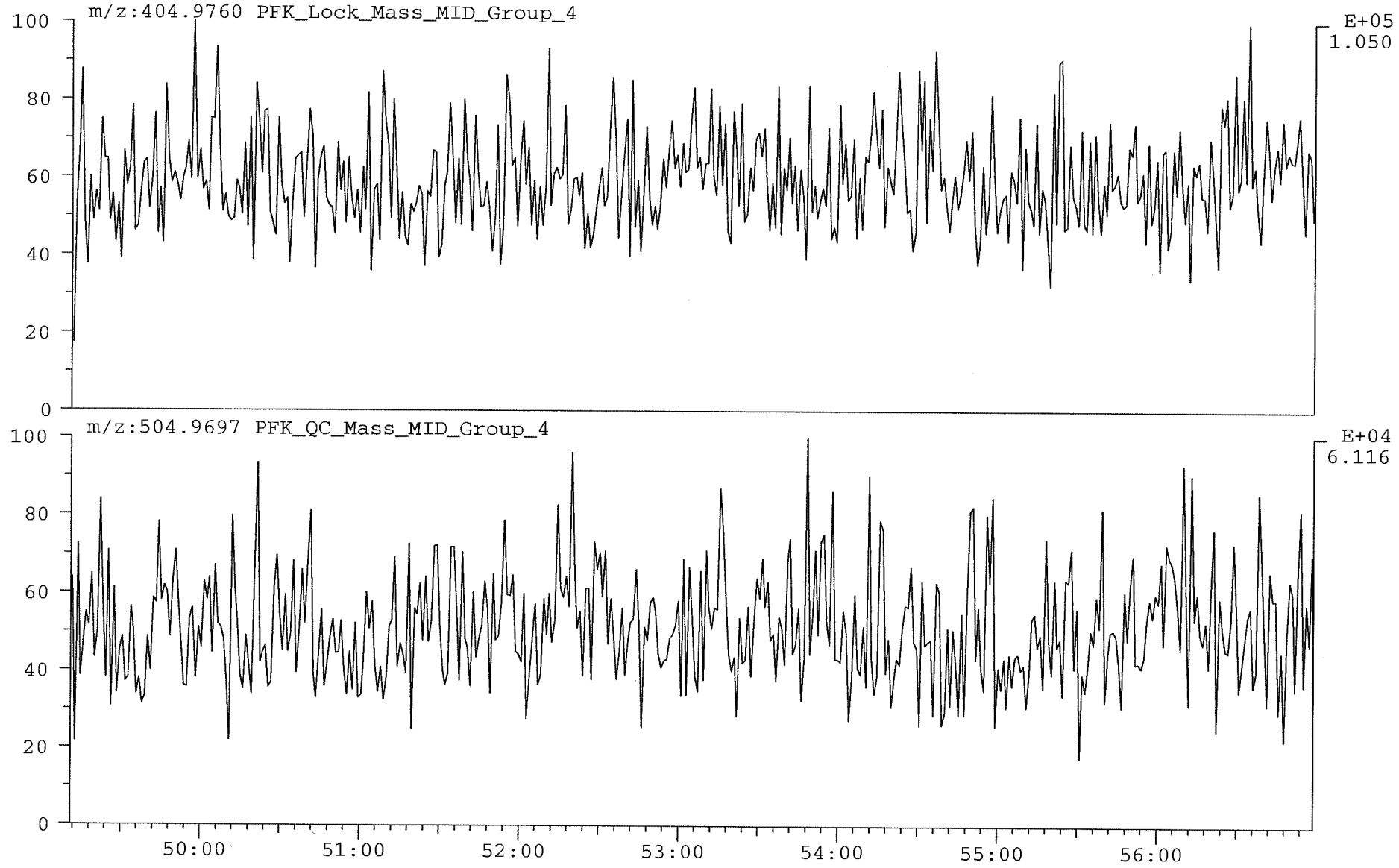
CHRO: a080624i3 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1408 > 2154 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1789

1788

CHRO: a080624i3 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 12 WO=2990:71CS3 Meth=IE3 Dil=1 Start : 18:23:34 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2157 > 2600 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1790

1789

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a080624i3
Study: 1668 ICAL CS3
Sample: WO=2990:71CS3 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Injected volume: 2.00
Sample from Vial 12
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 1 of list 080624
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:10 min	35:50 min	1.00 sec
# 3	35:50 min	13:15 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	1	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg	at 0.0	minutes	280 deg max
	75 deg	at 2.0	minutes	
	150 deg	at 7.0	minutes	
	270 deg	at 55.0	minutes	
	270 deg	at 57.0	minutes	

Inlet : Splitless mode
Purge time 1.5 min
Purge flow 40.0 ml/min
Gas saver is on
Saver time 3.0 min
Saver flow 15.0 ml/min
Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.7567
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-14.8500
DRAWC	1.0000	DRAWS	0.0100	ECORR	0.9995
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	-210.0000	ELEN	55.7750
EMULT	1.7500	ENS	205.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	152.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	335.0000
FVINLET	277.0000	FVSRC	979.0000	FWIN	0.7000
GCTC	75.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.4020	HVANAL	1311.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4778.9940	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1837.0000	LENSS	8.4000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2351507.3768

MDACR	23.0000	MRANGE	1031.7567	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	374.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-6.1500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10643.9045	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	3200.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.1300	TCURR	0.8984
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.0000	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	1694.0000
XLENSS	-96.6000	YLENS	2530.0000	YLENSS	-24.2000

Scantype is electric
Sourcemode is EI POS

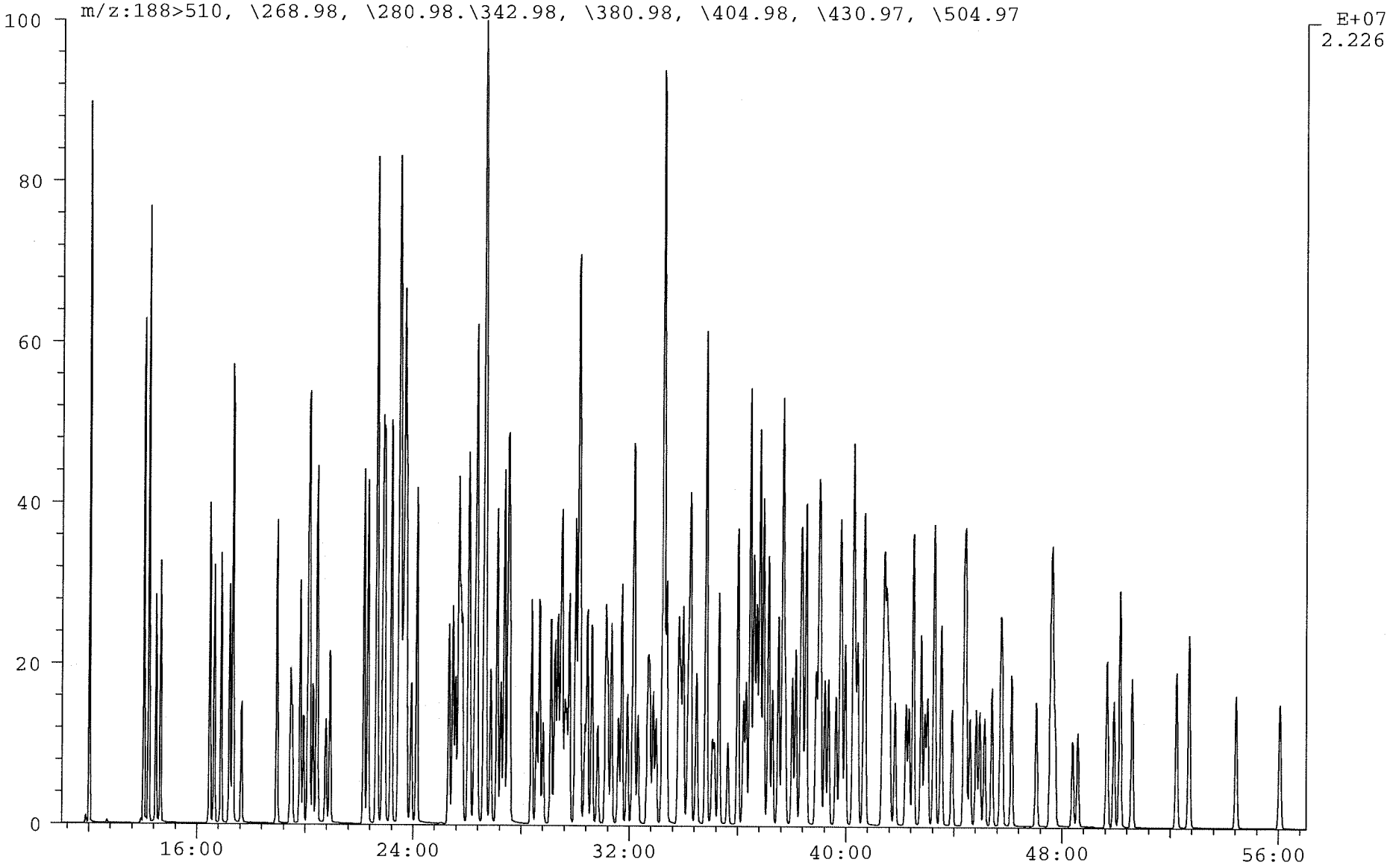
Analysis started at: 24-Jun-08 18:23:34.9

Autosampler has injected sample from vial 12
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 8406
MID Time Window 3: Resolution is 9024
MID Time Window 4: Resolution is 11249
Analysis stopped at: 24-Jun-08 19:20:38.4 (run time 57.04 minutes)
Analysis stopped because MID run finished

Int. Calib CS 7-708

QC USD 7/8/08

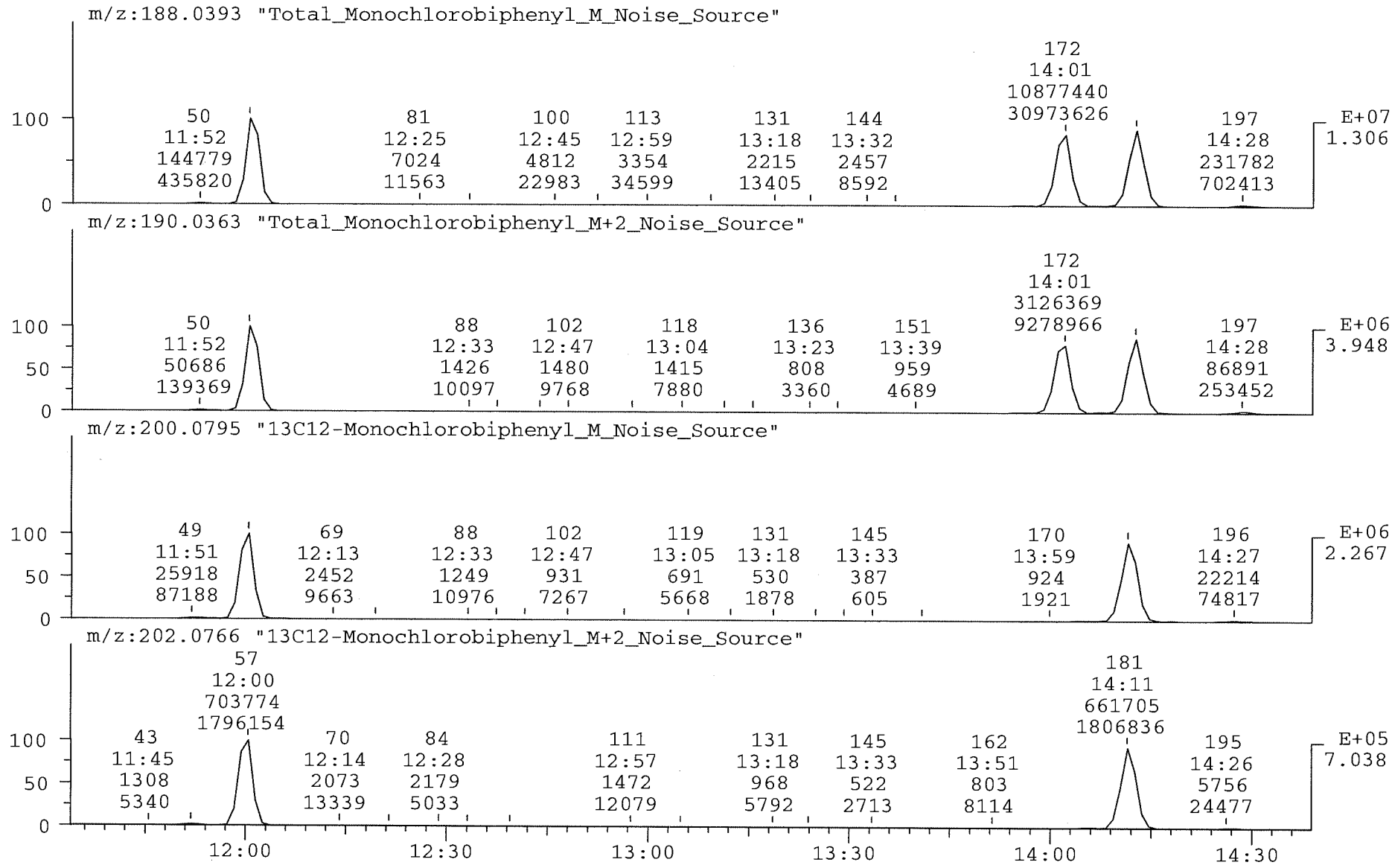
CHRO: a080624i4 24-Jun-08 Elapse: 47:27 2063
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1795

1794

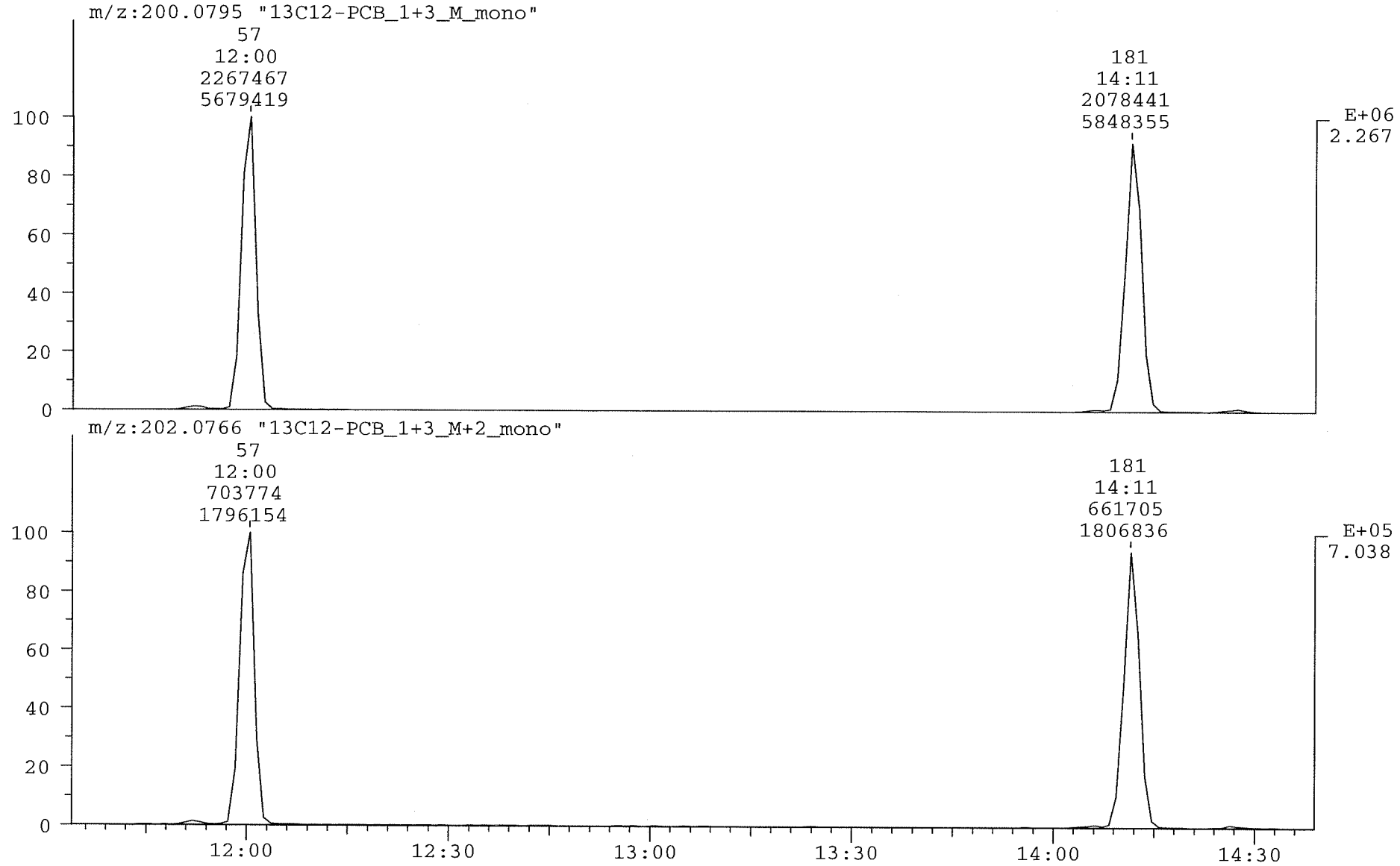
CHRO: a080624i4 24-Jun-08 Elapse: 13:19.6 132
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 32 > 207 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H1796

1795

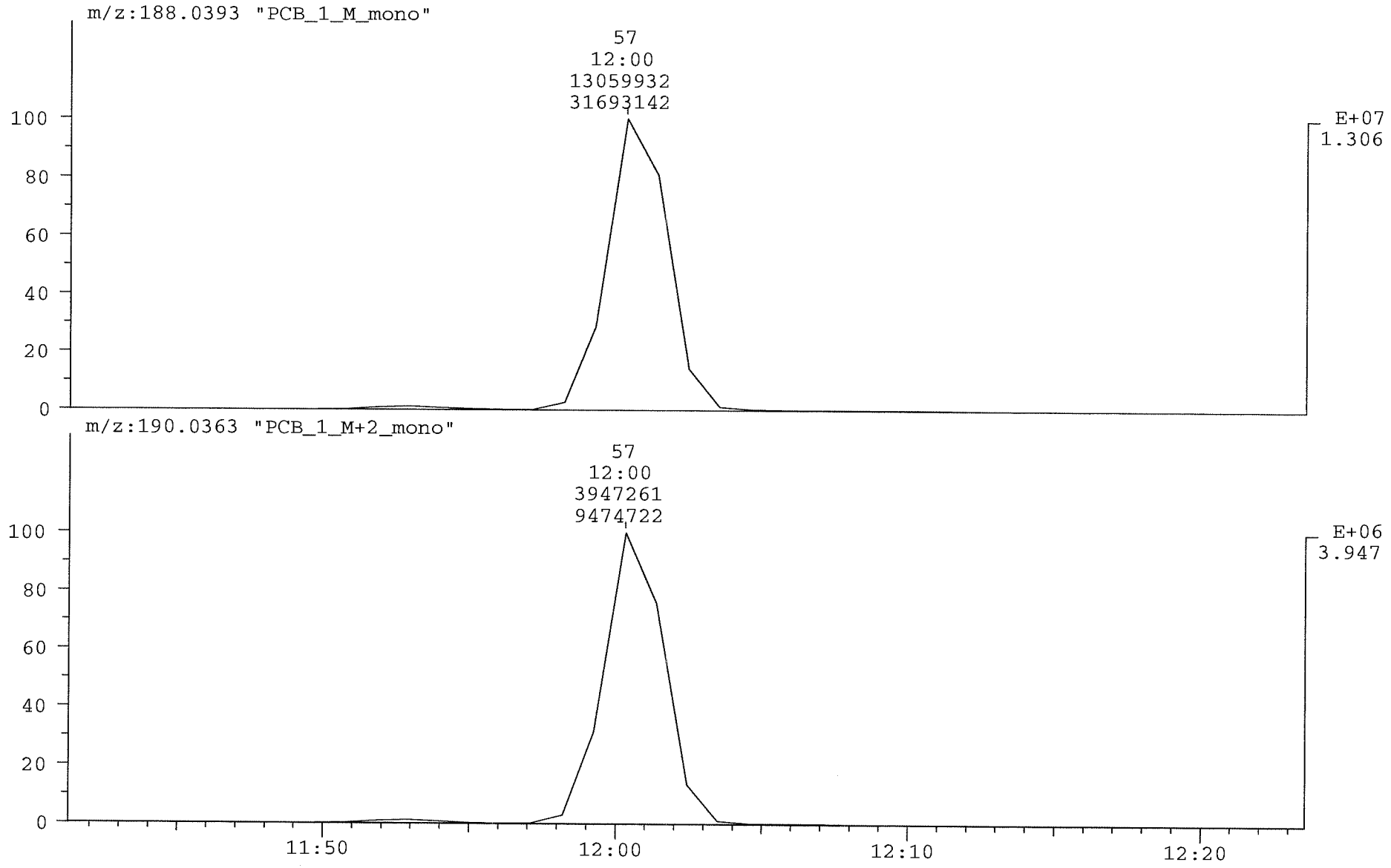
CHRO: a080624i4 24-Jun-08 Elapse: 13:19.6 132
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 32 > 207 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1797

1796

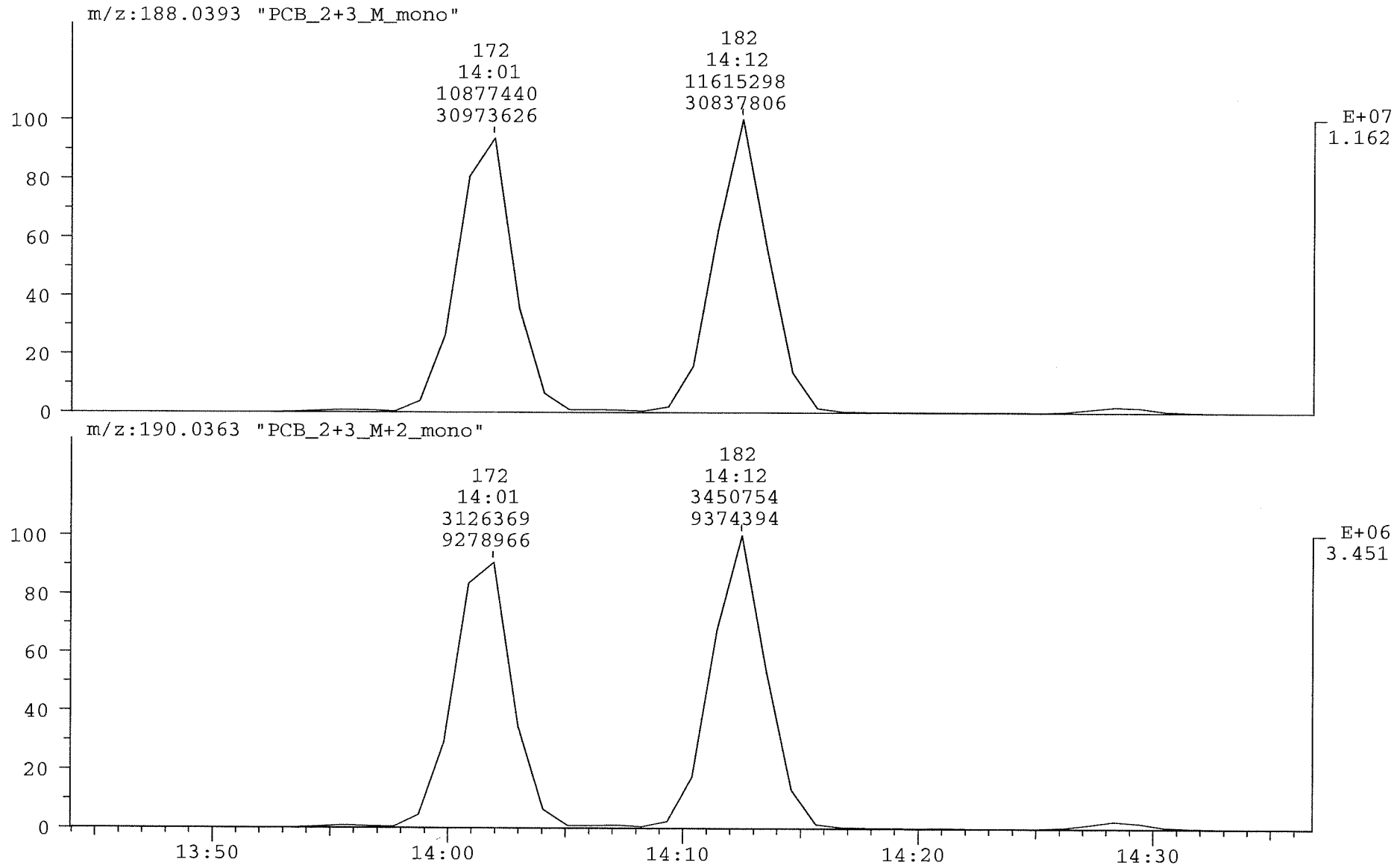
CHRO: a080624i4 24-Jun-08 Elapse: 12:02.4 59
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 39 > 79 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1798

1797

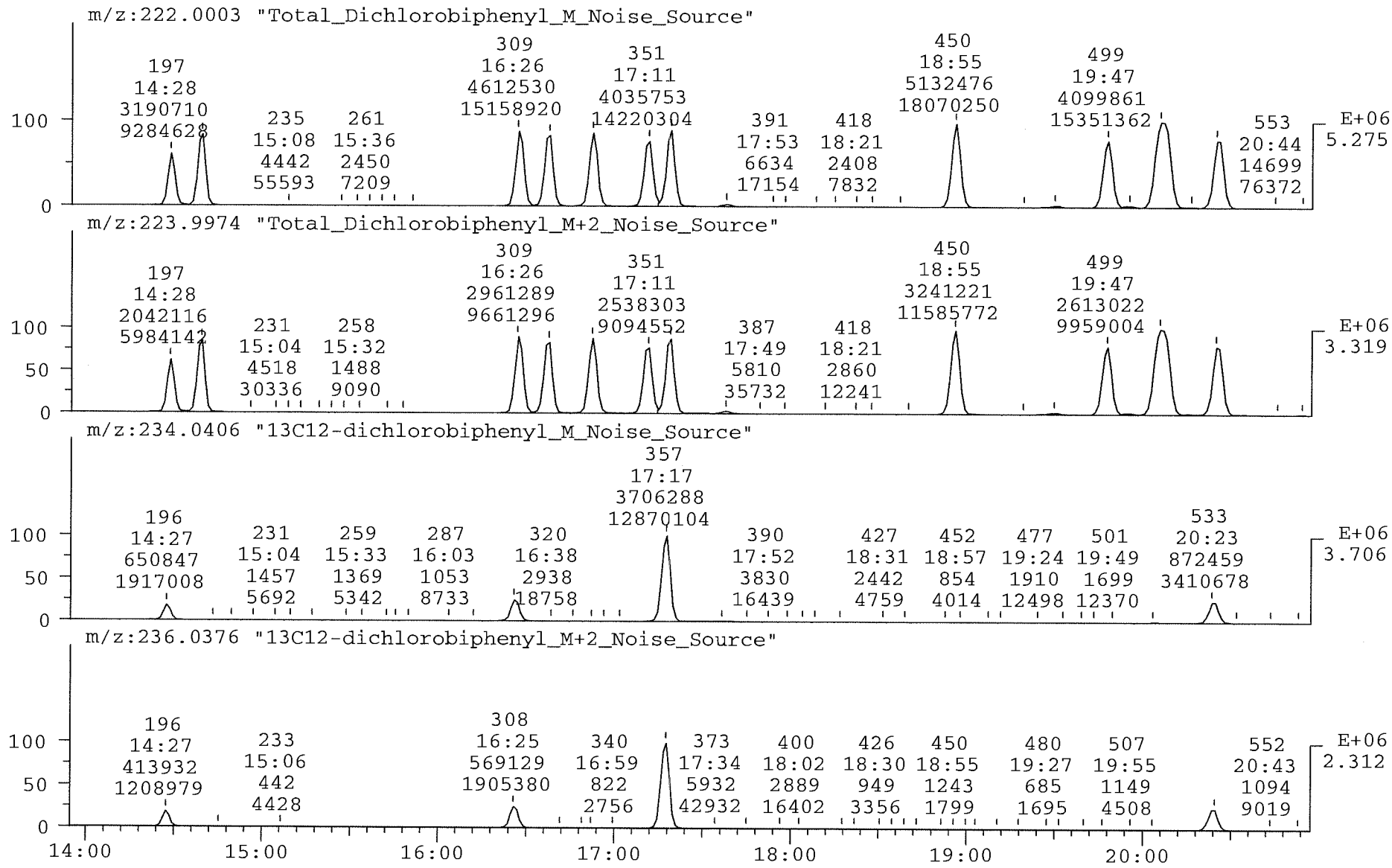
CHRO: a080624i4 24-Jun-08 Elapse: 14:10.3 180
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 155 > 205 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1769

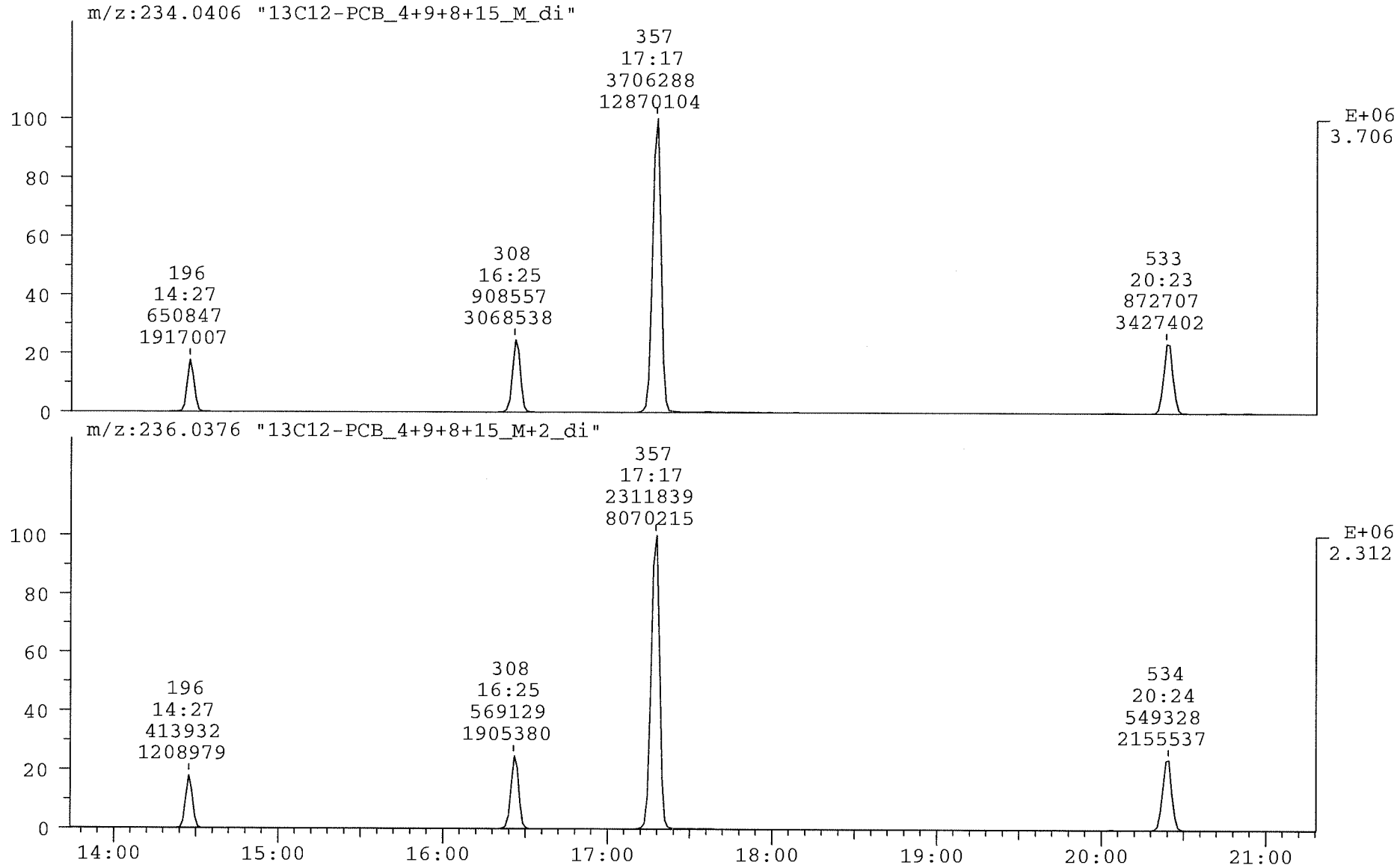
1798

CHRO: a080624i4 24-Jun-08 Elapse: 17:25.9 365
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 165 > 565 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1800

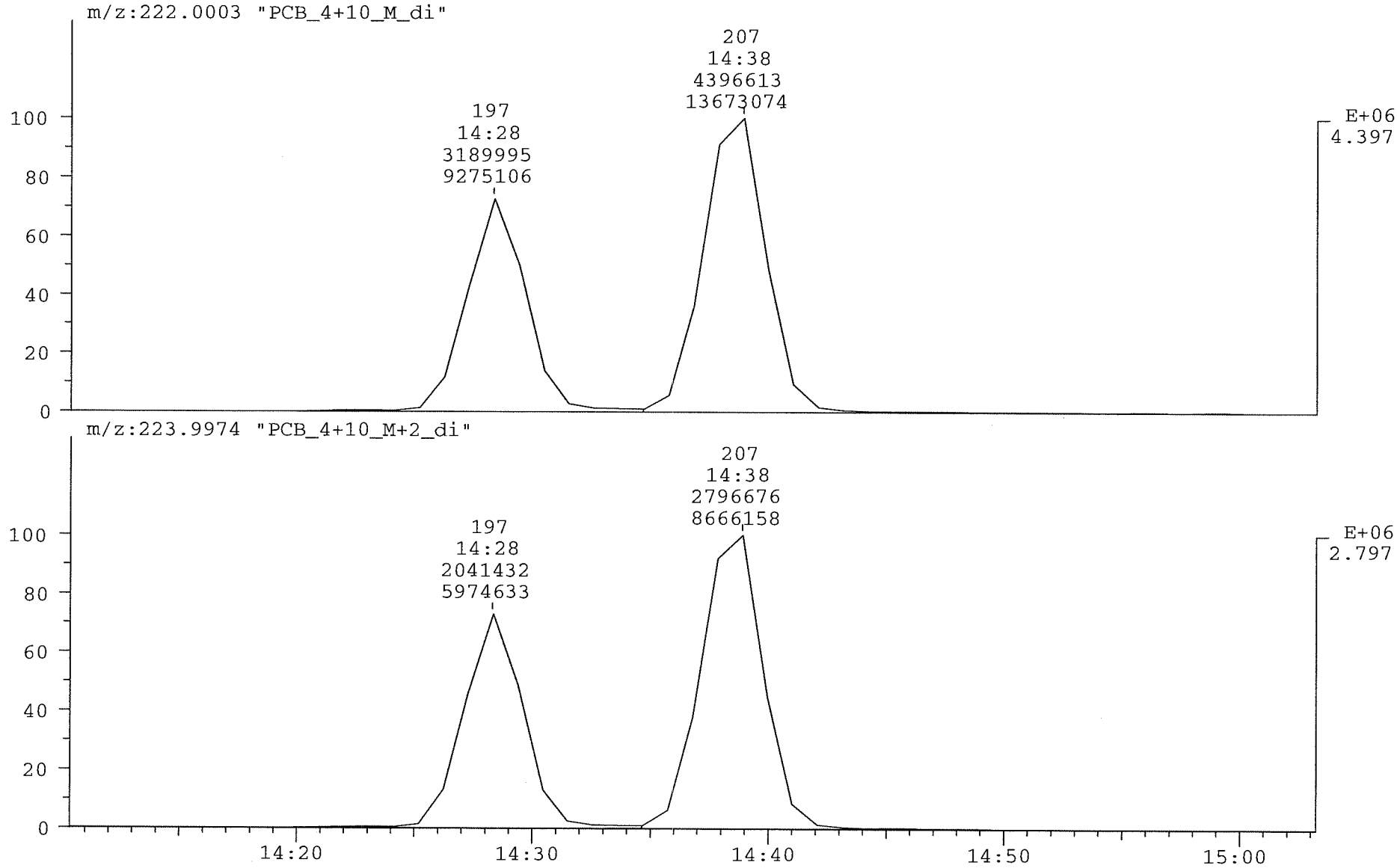
CHRO: a080624i4 24-Jun-08 Elapse: 17:25.9 365
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 155 > 585 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1801

1800

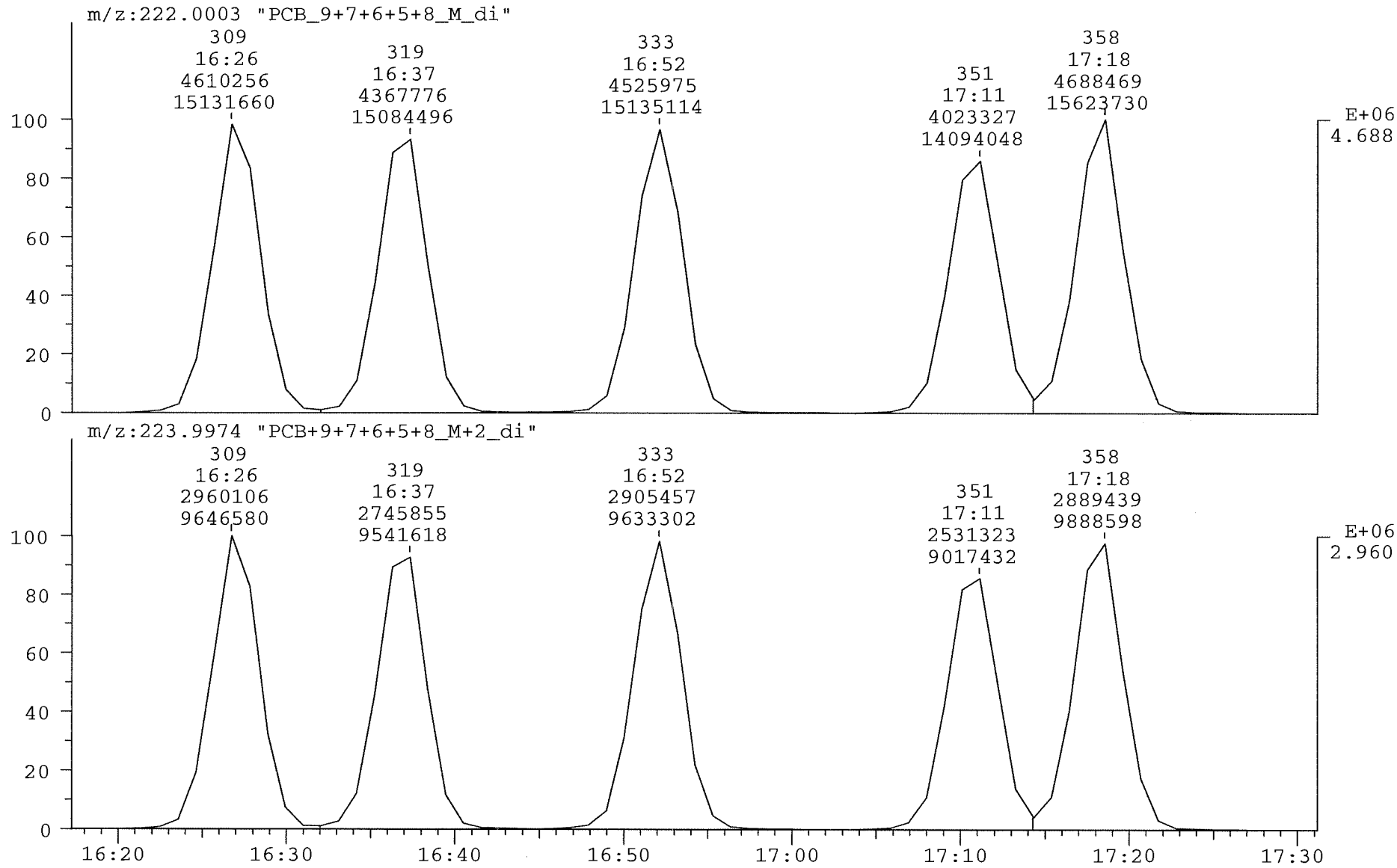
CHRO: a080624i4 24-Jun-08 Elapse: 14:36.8 205
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 180 > 230 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1802

1801

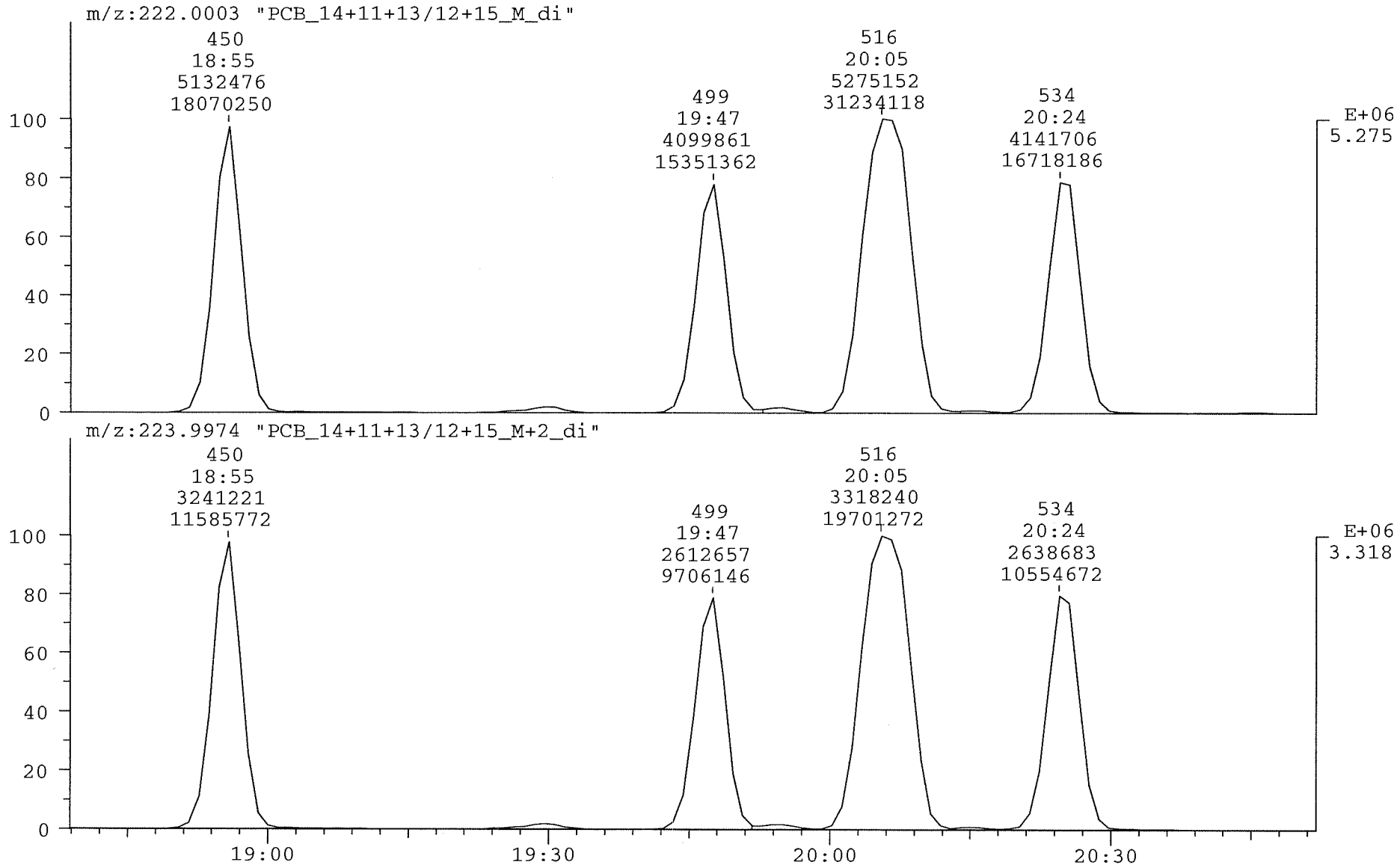
CHRO: a080624i4 24-Jun-08 Elapse: 16:56.3 337
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 300 > 370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1803

1802

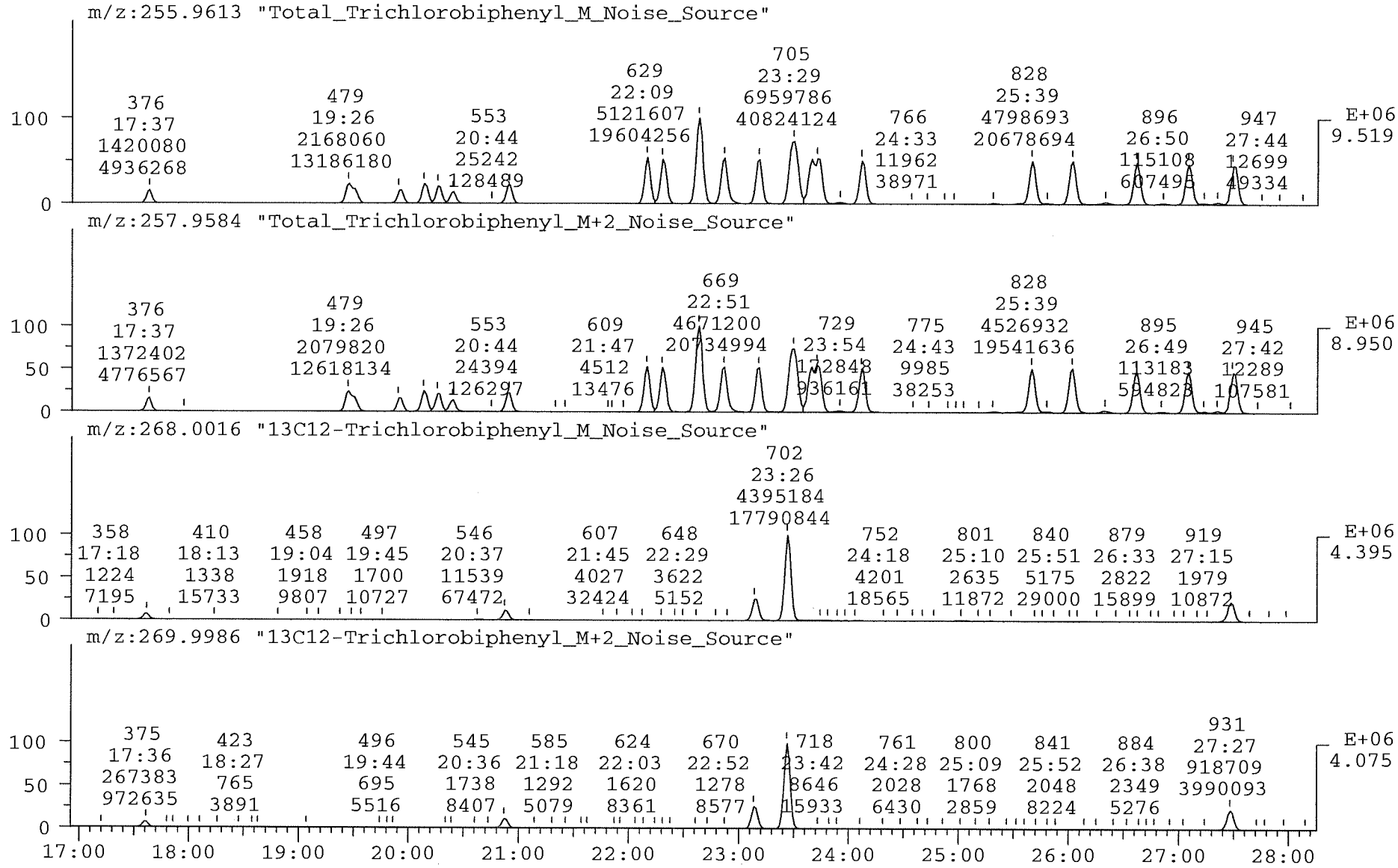
CHRO: a080624i4 24-Jun-08 Elapse: 19:40.1 492
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 434 > 560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1804

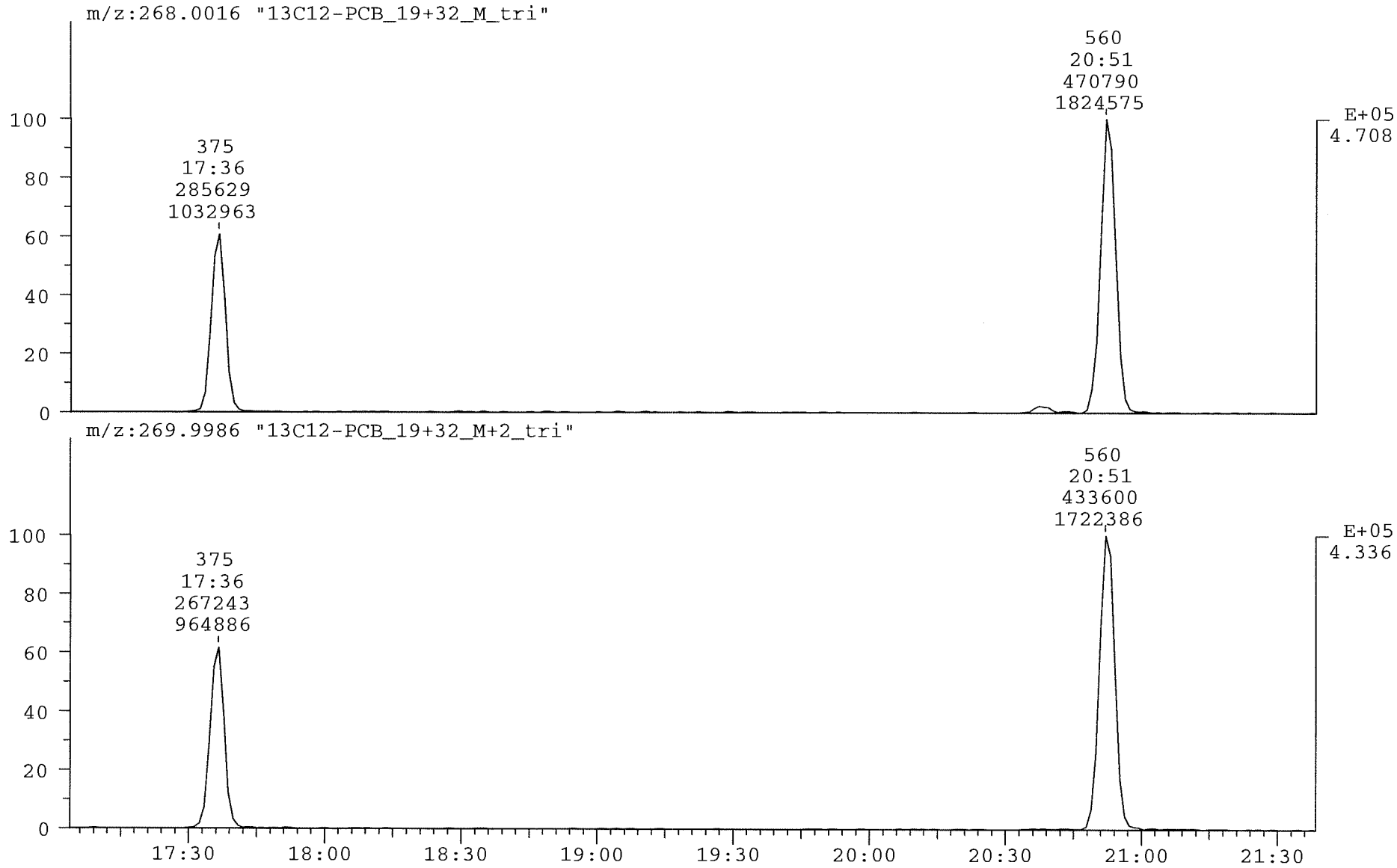
1803

CHRO: a080624i4 24-Jun-08 Elapse: 22:37.5 656
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1805

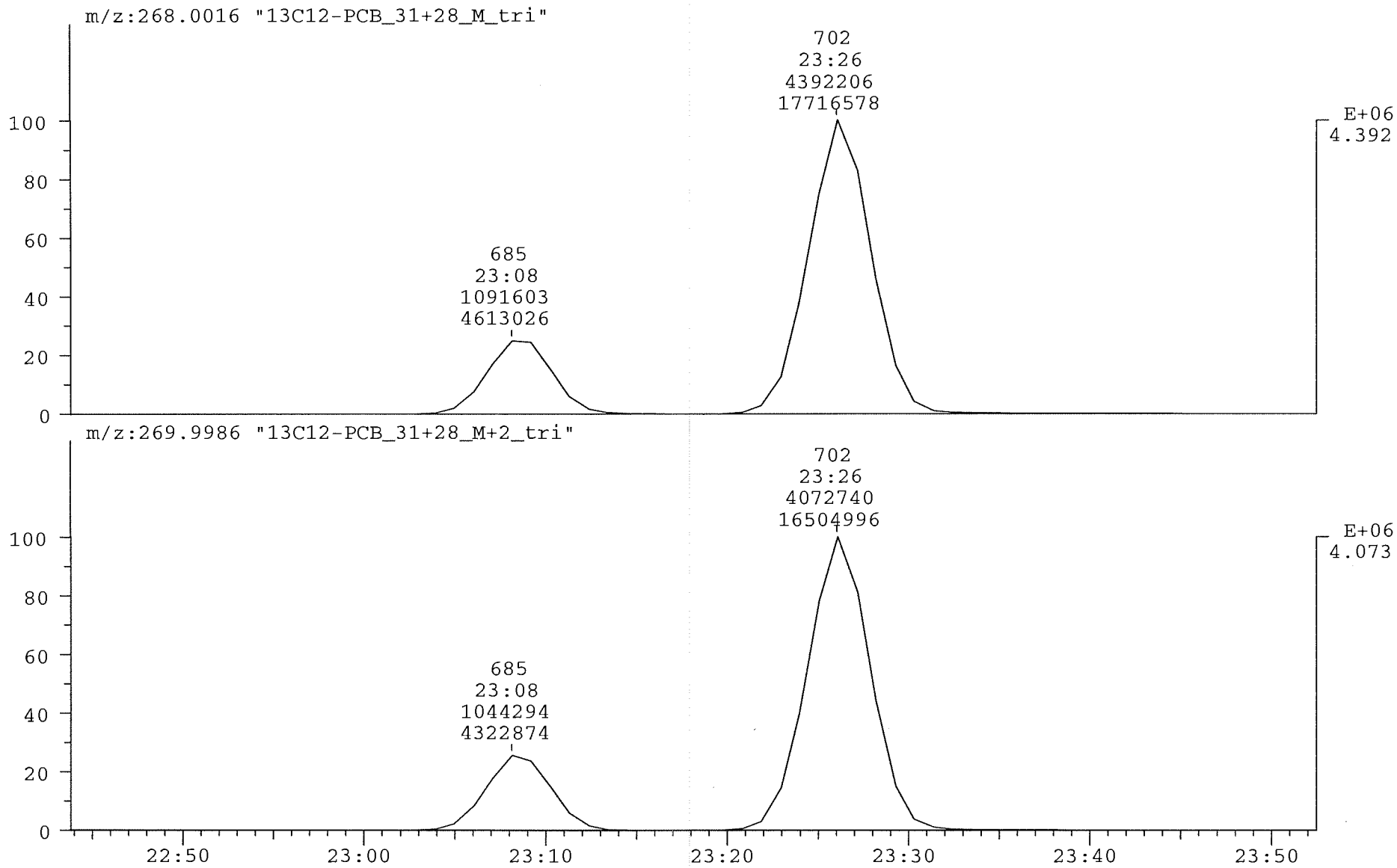
CHRO: a080624i4 24-Jun-08 Elapse: 18:59.9 454
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 344 > 604 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1806

1805

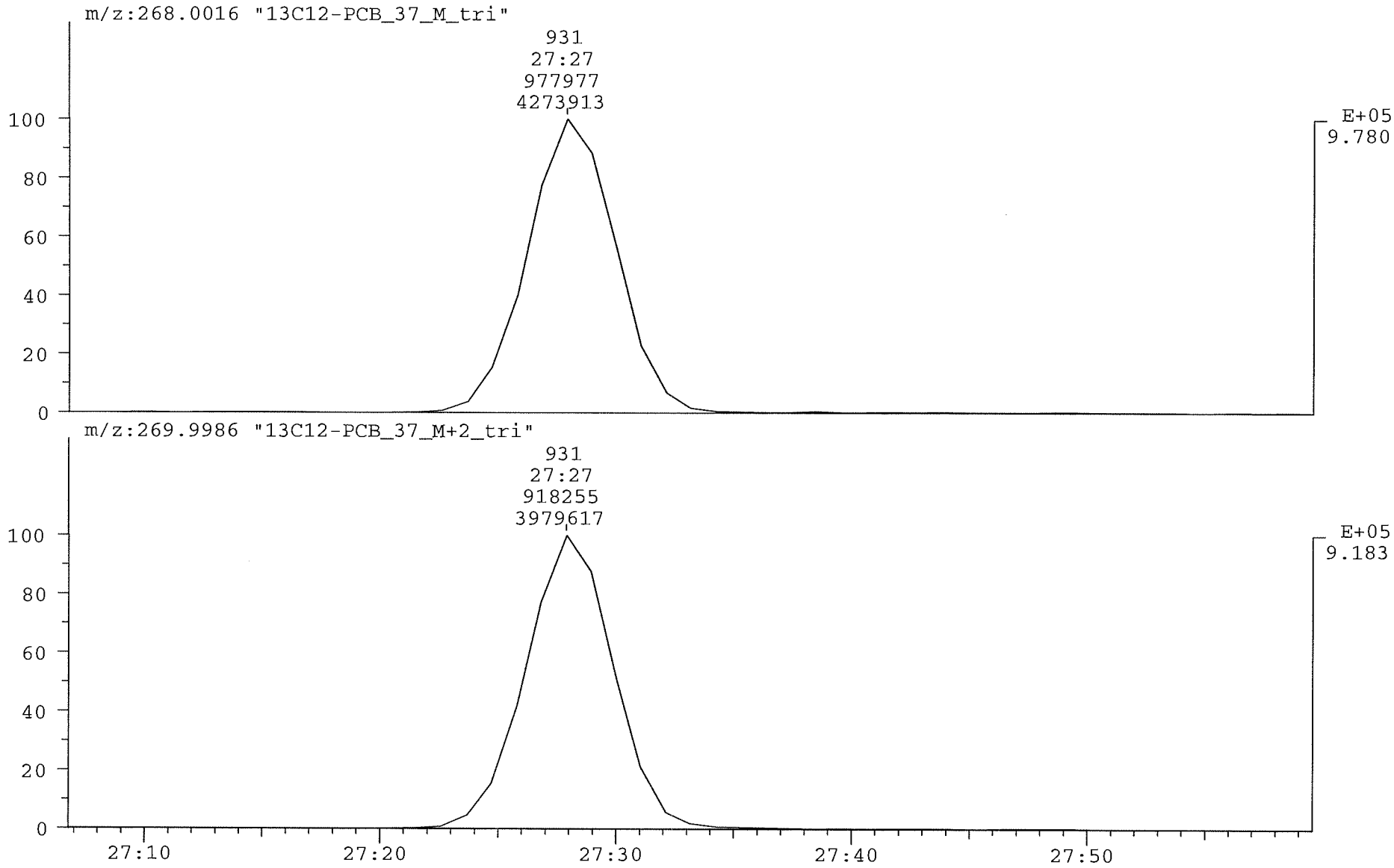
CHRO: a080624i4 24-Jun-08 Elapse: 23:10.2 687
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1807

1806

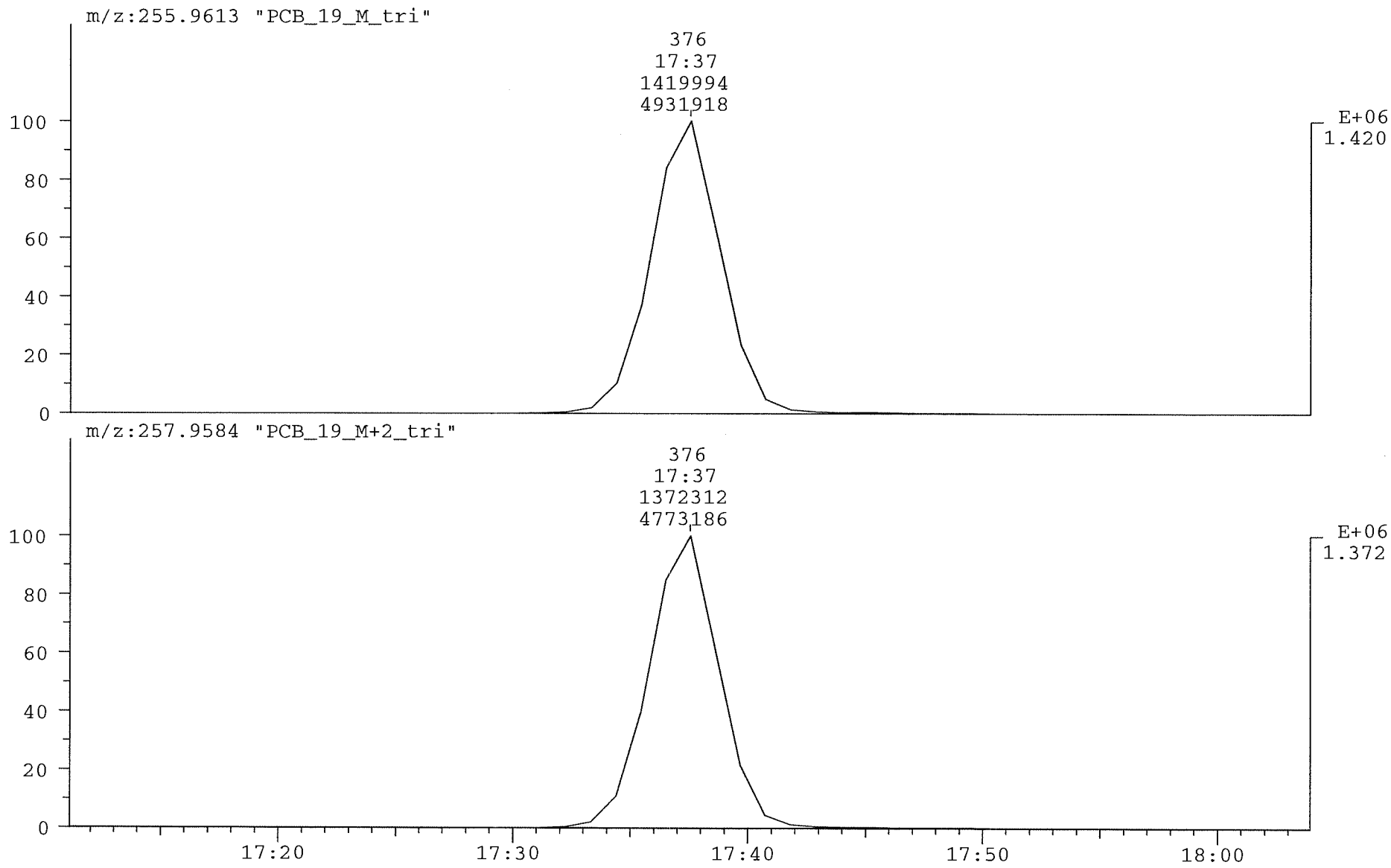
CHRO: a080624i4 24-Jun-08 Elapse: 27:27.9 931
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1808

1807

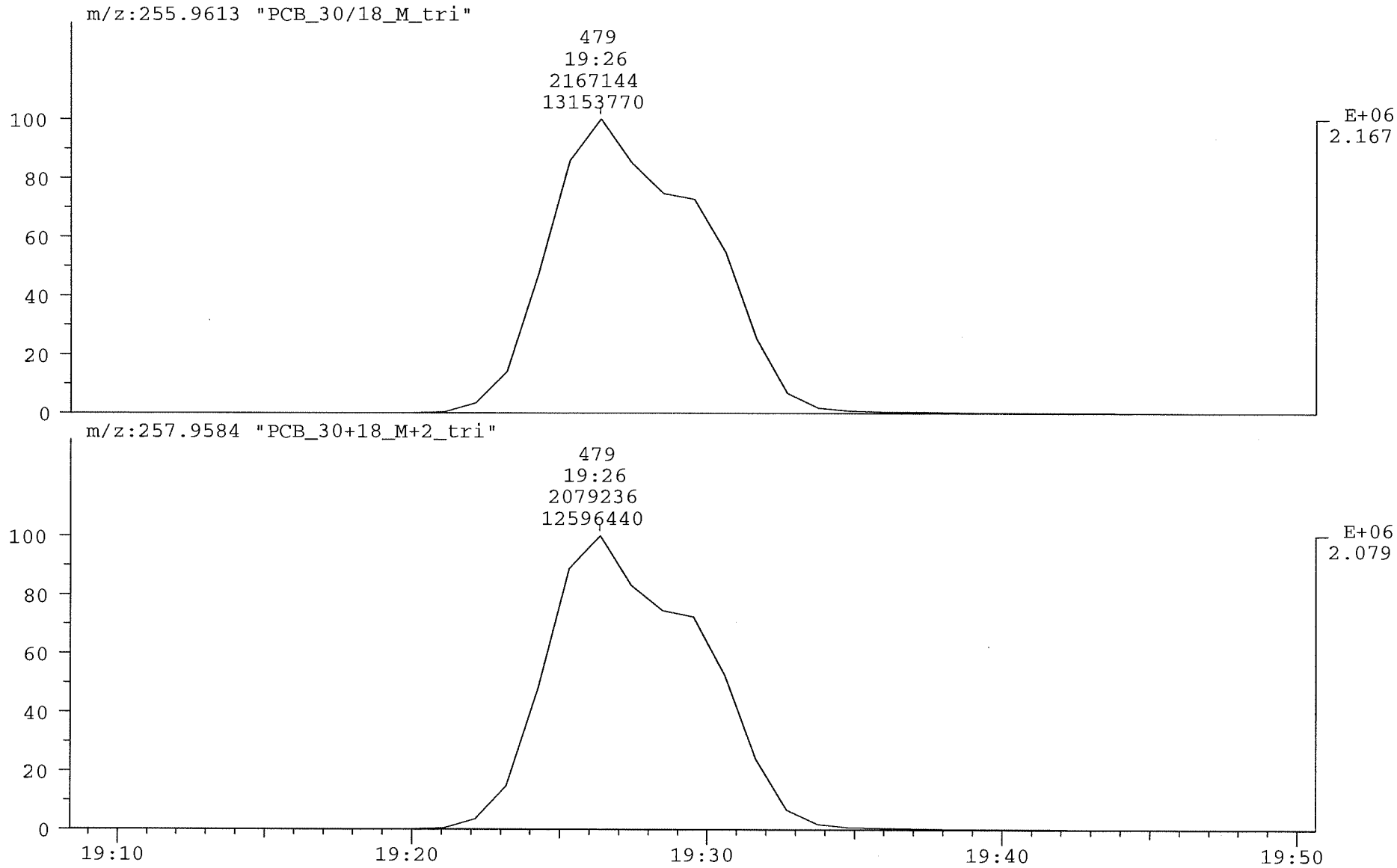
CHRO: a080624i4 24-Jun-08 Elapse: 17:37.5 376
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 351 > 401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1809

1808

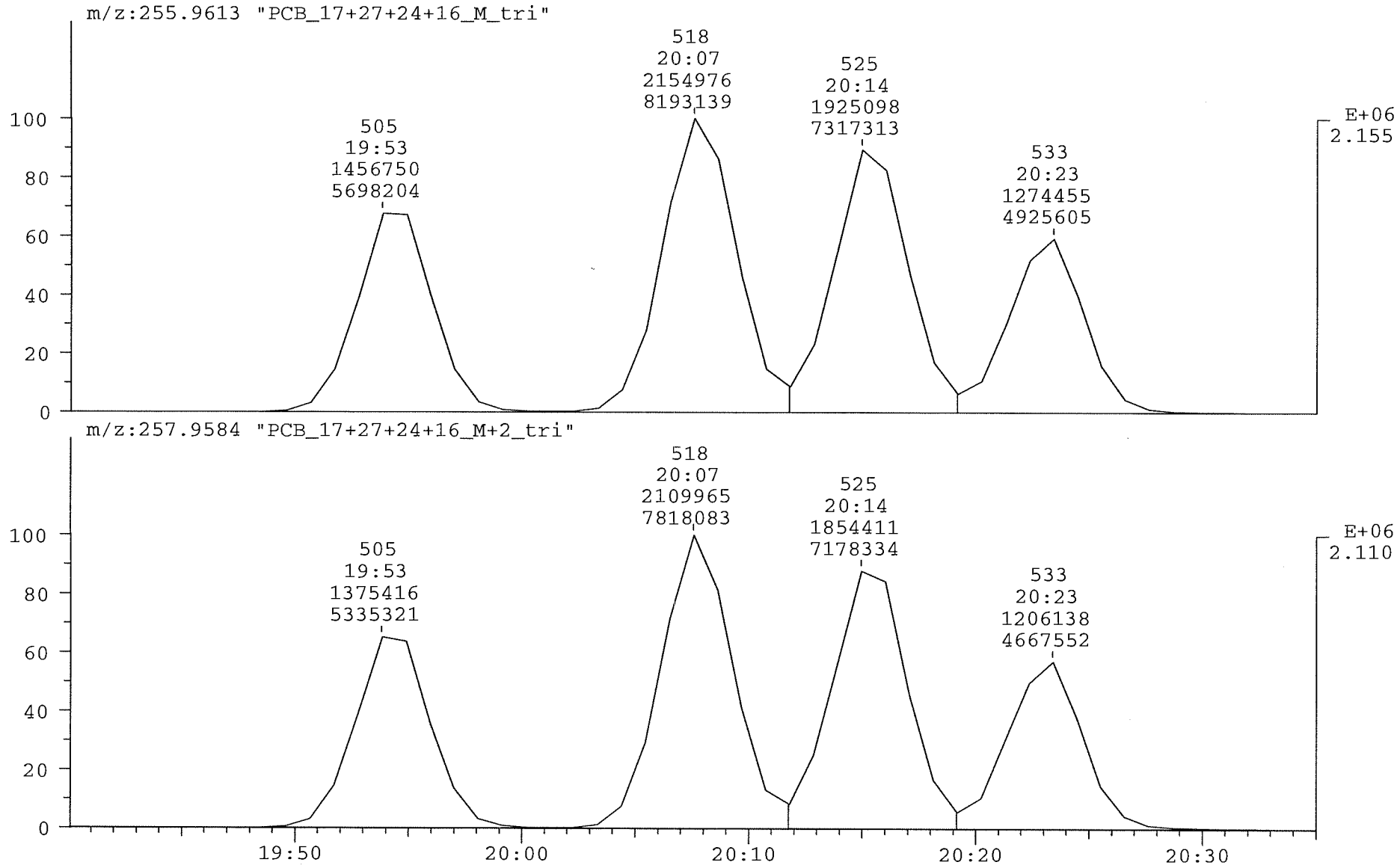
CHRO: a080624i4 24-Jun-08 Elapse: 19:29.5 482
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 462 > 502 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1810

1809

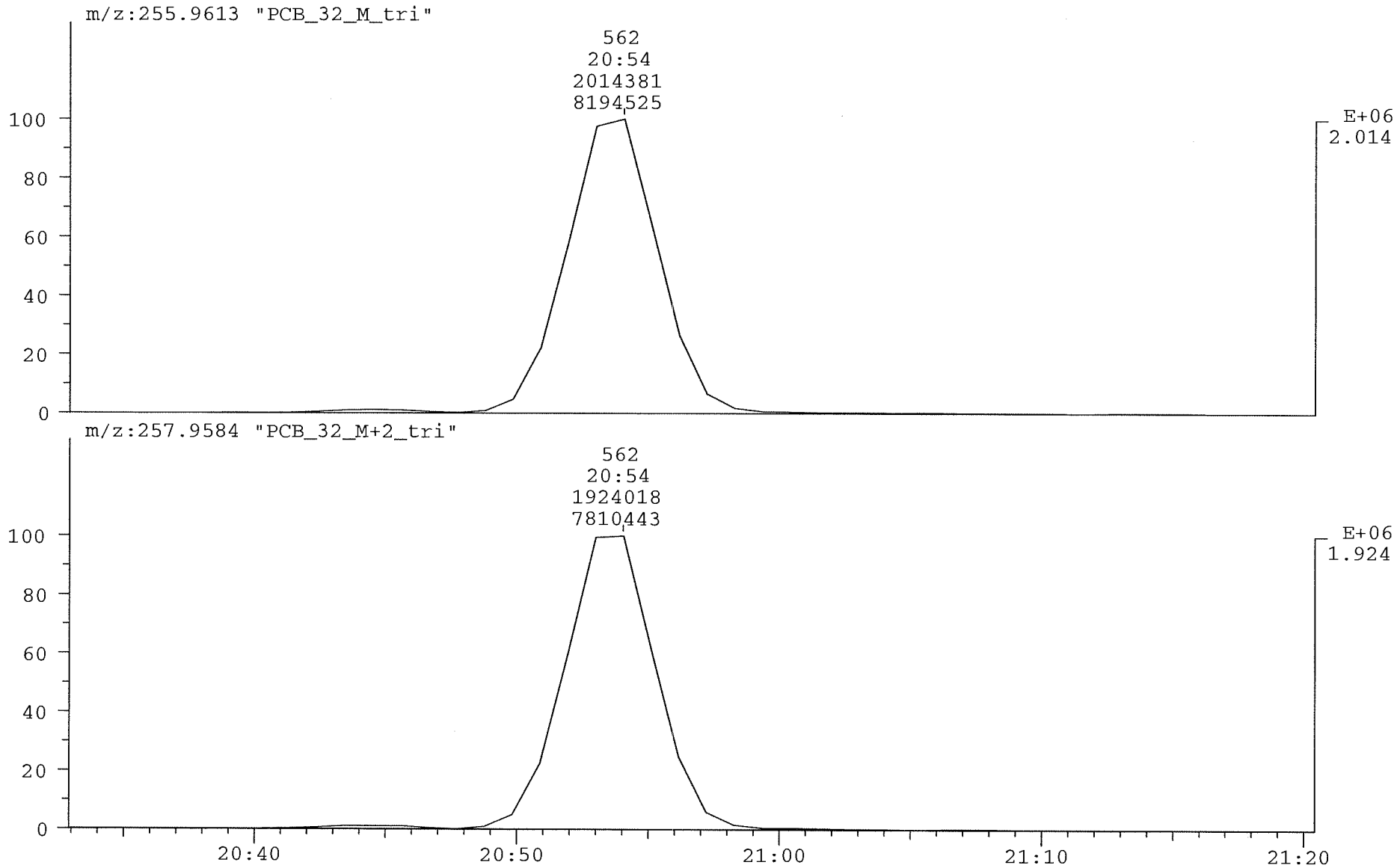
CHRO: a080624i4 24-Jun-08 Elapse: 20:08.6 519
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 492 > 544 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1811

1810

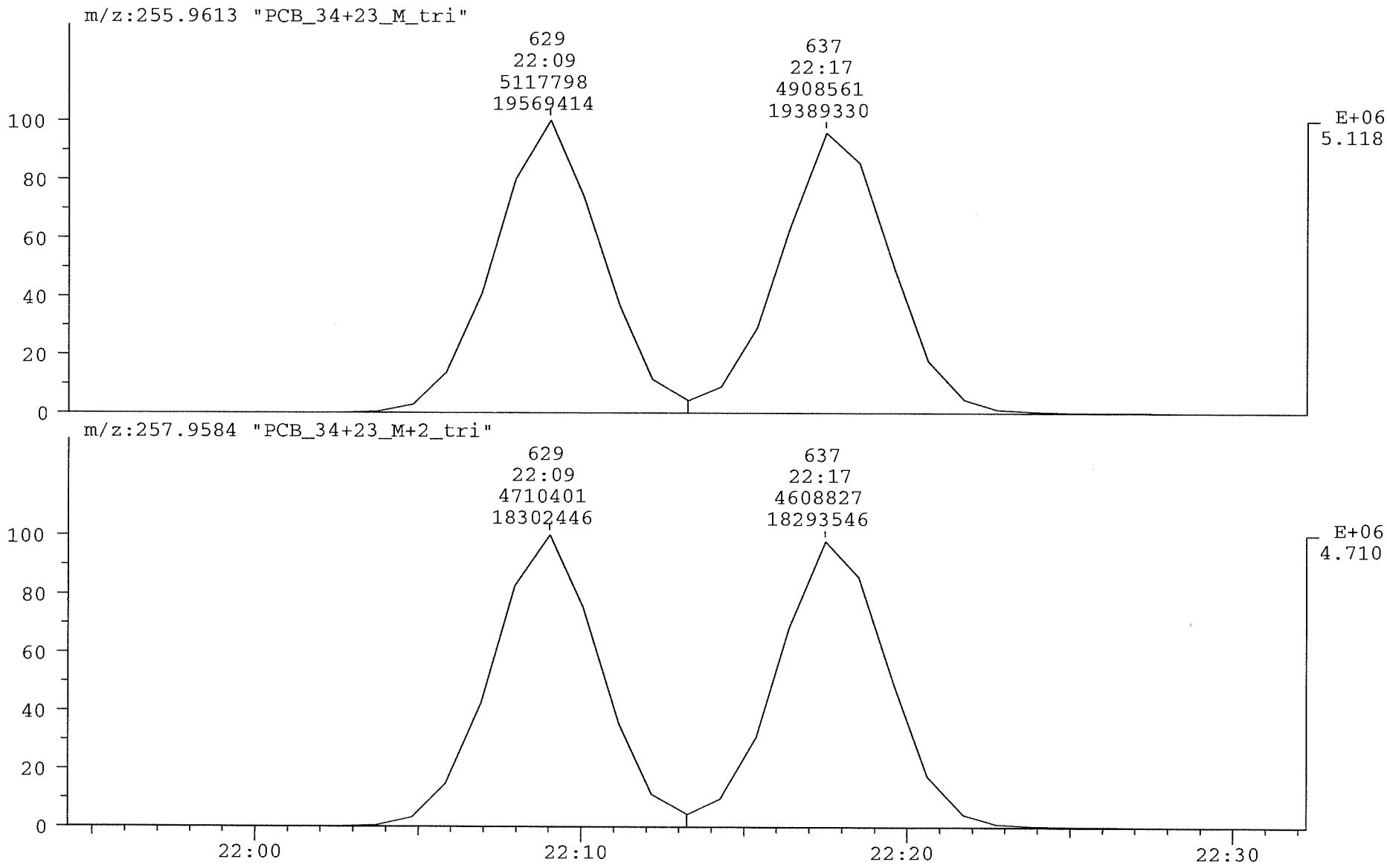
CHRO: a080624i4 24-Jun-08 Elapse: 20:54.0 562
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 542 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1812

1811

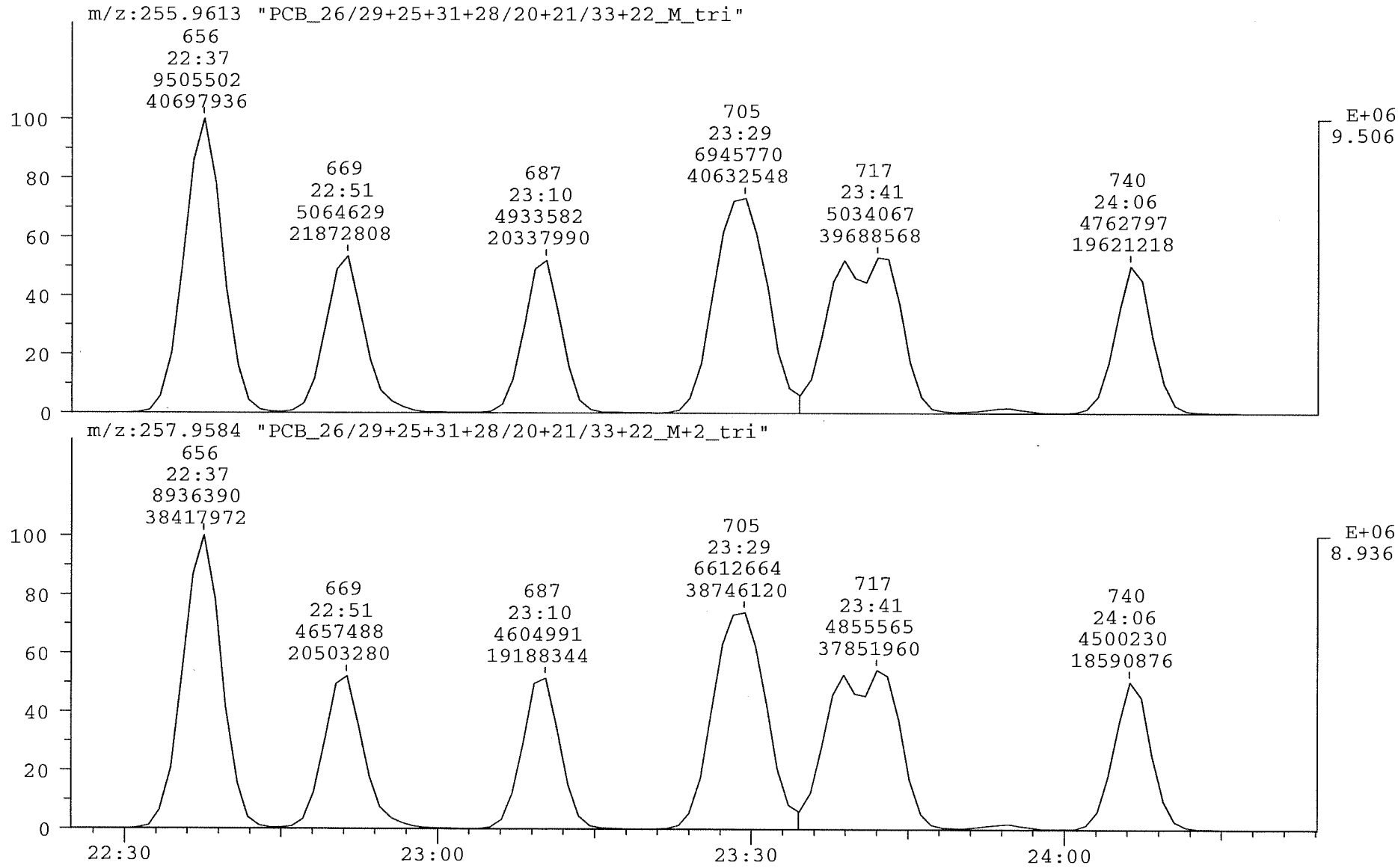
CHRO: a080624i4 24-Jun-08 Elapse: 22:10.0 630
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 615 > 651 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1813

1812

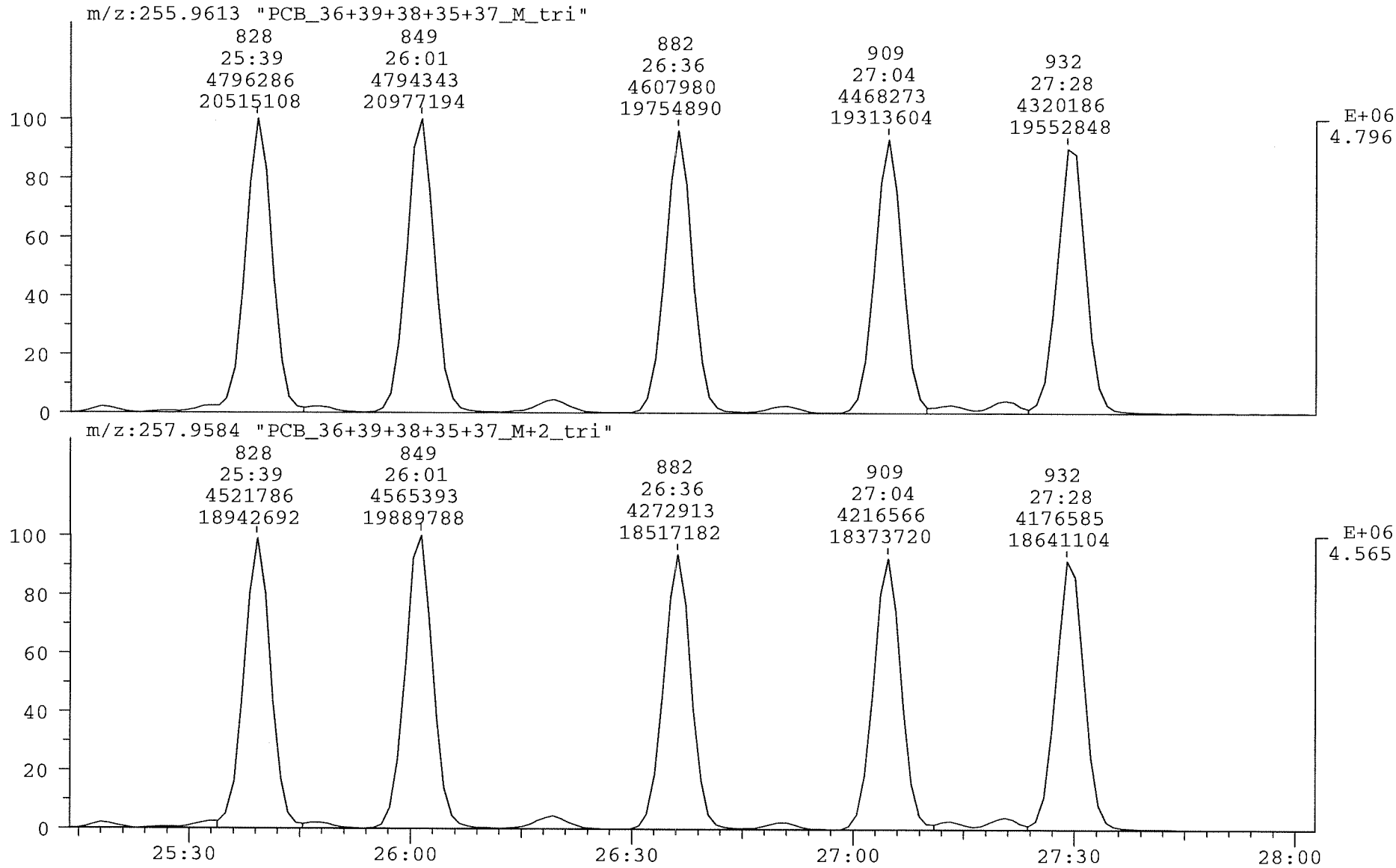
CHRO: a080624i4 24-Jun-08 Elapse: 23:36.6 712
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 644 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1814

1813

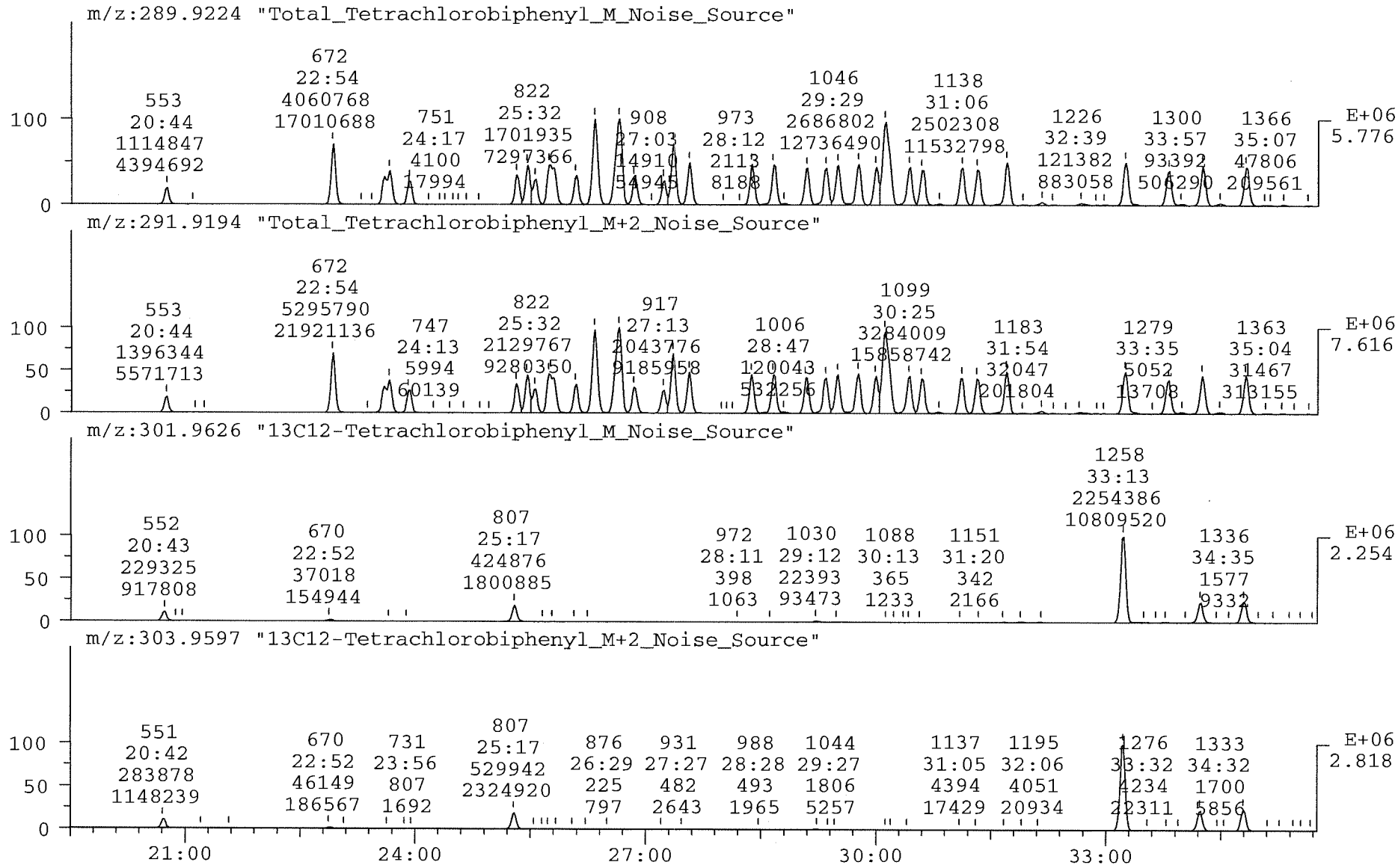
CHRO: a080624i4 24-Jun-08 Elapse: 26:38.2 884
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 804 > 964 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1815

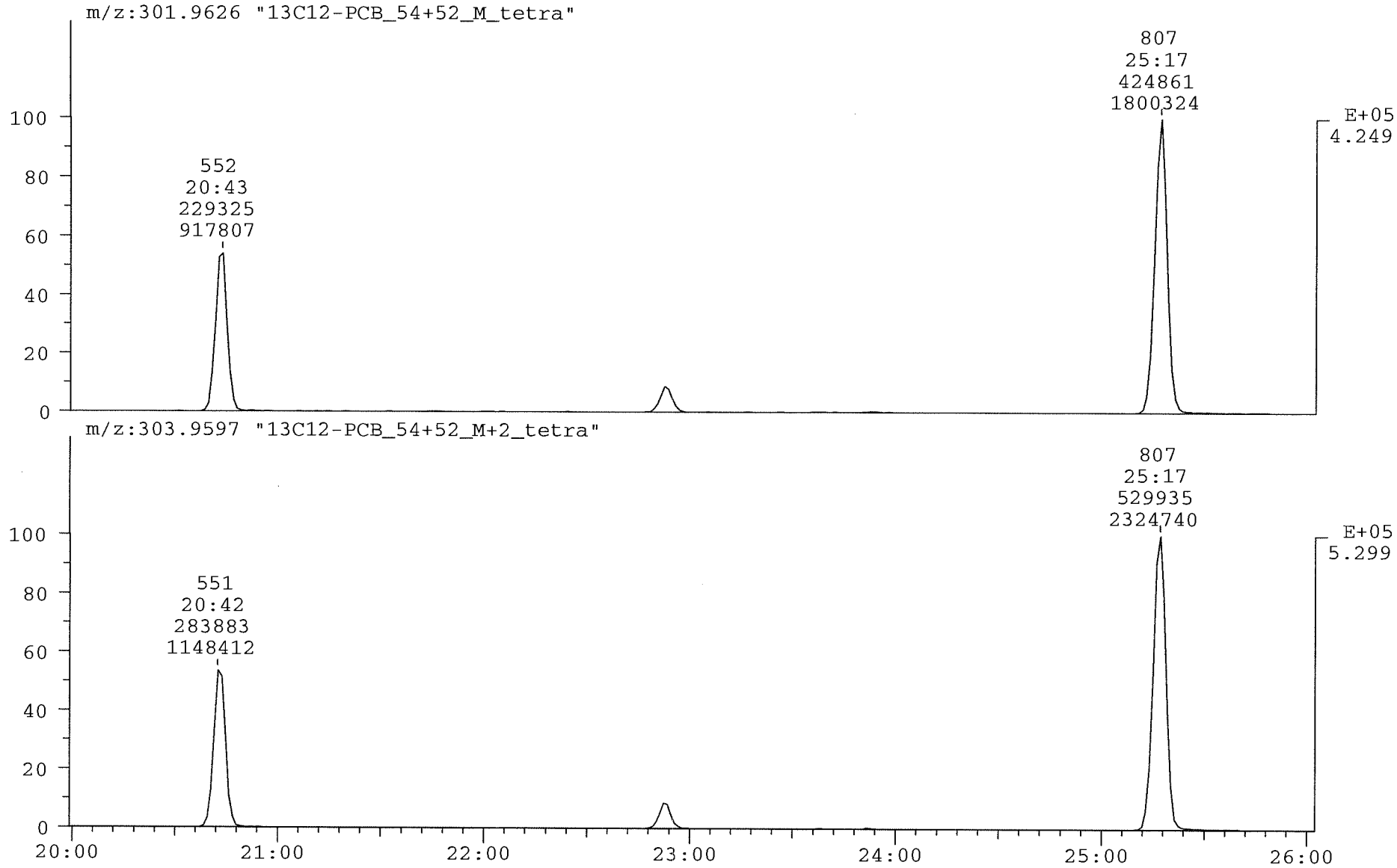
1814

CHRO: a080624i4 24-Jun-08 Elapse: 27:37.3 940
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 482 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1816

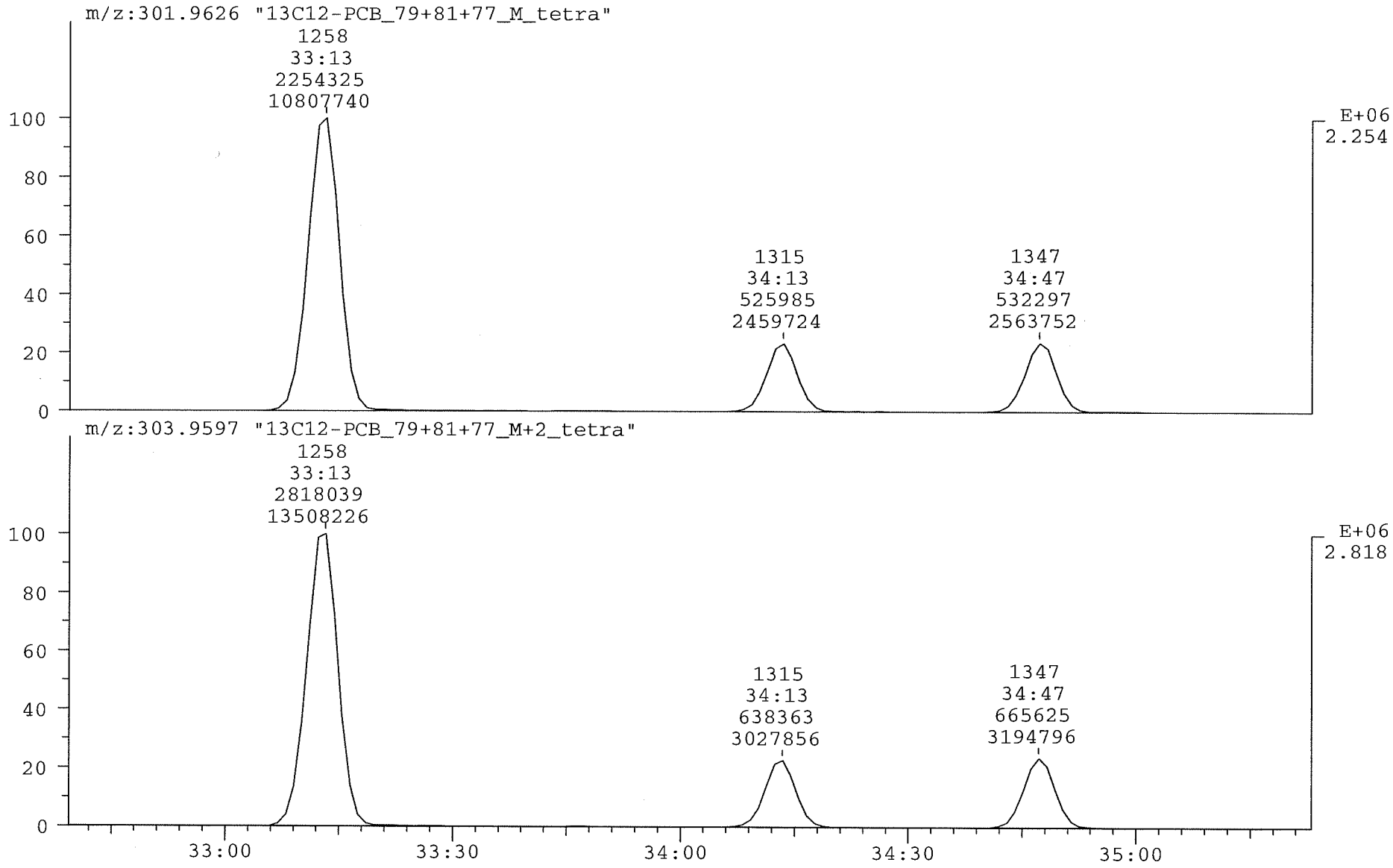
CHRO: a080624i4 24-Jun-08 Elapse: 23:02.8 680
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 510 > 850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1817

1816

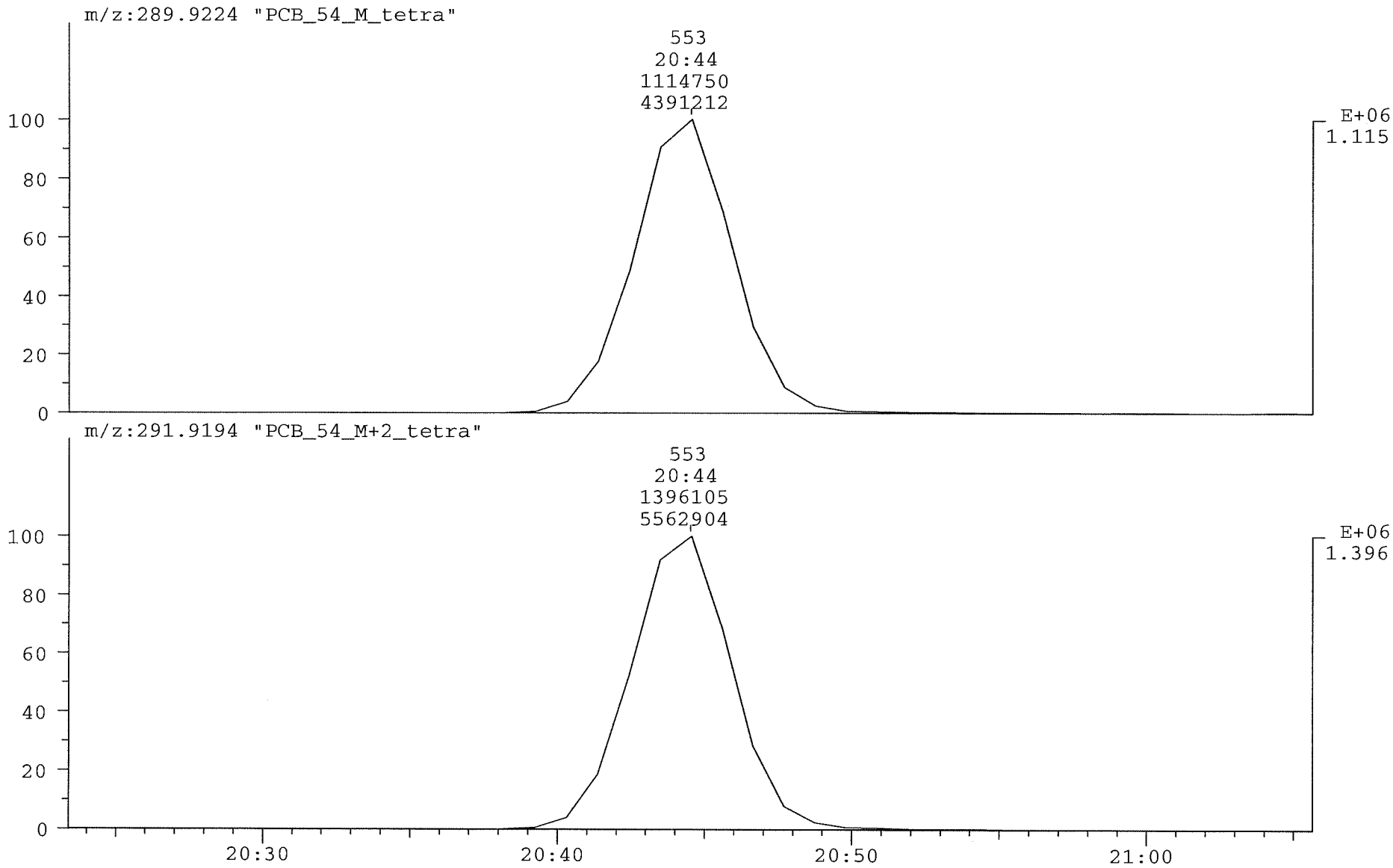
CHRO: a080624i4 24-Jun-08 Elapse: 33:58 1301
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1226 > 1381 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1818

1817

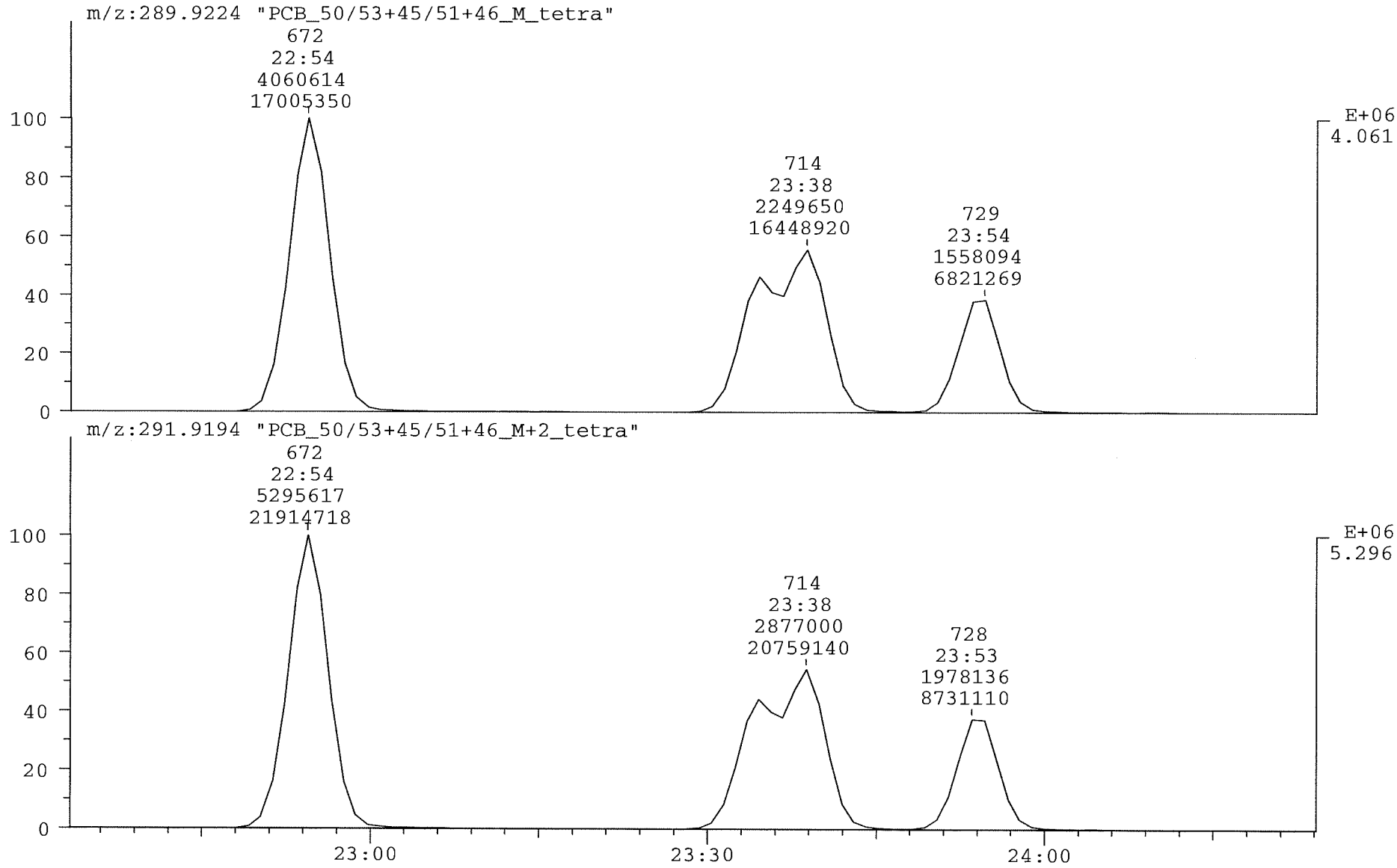
CHRO: a080624i4 24-Jun-08 Elapse: 20:44.5 553
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 533 > 573 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1819

1818

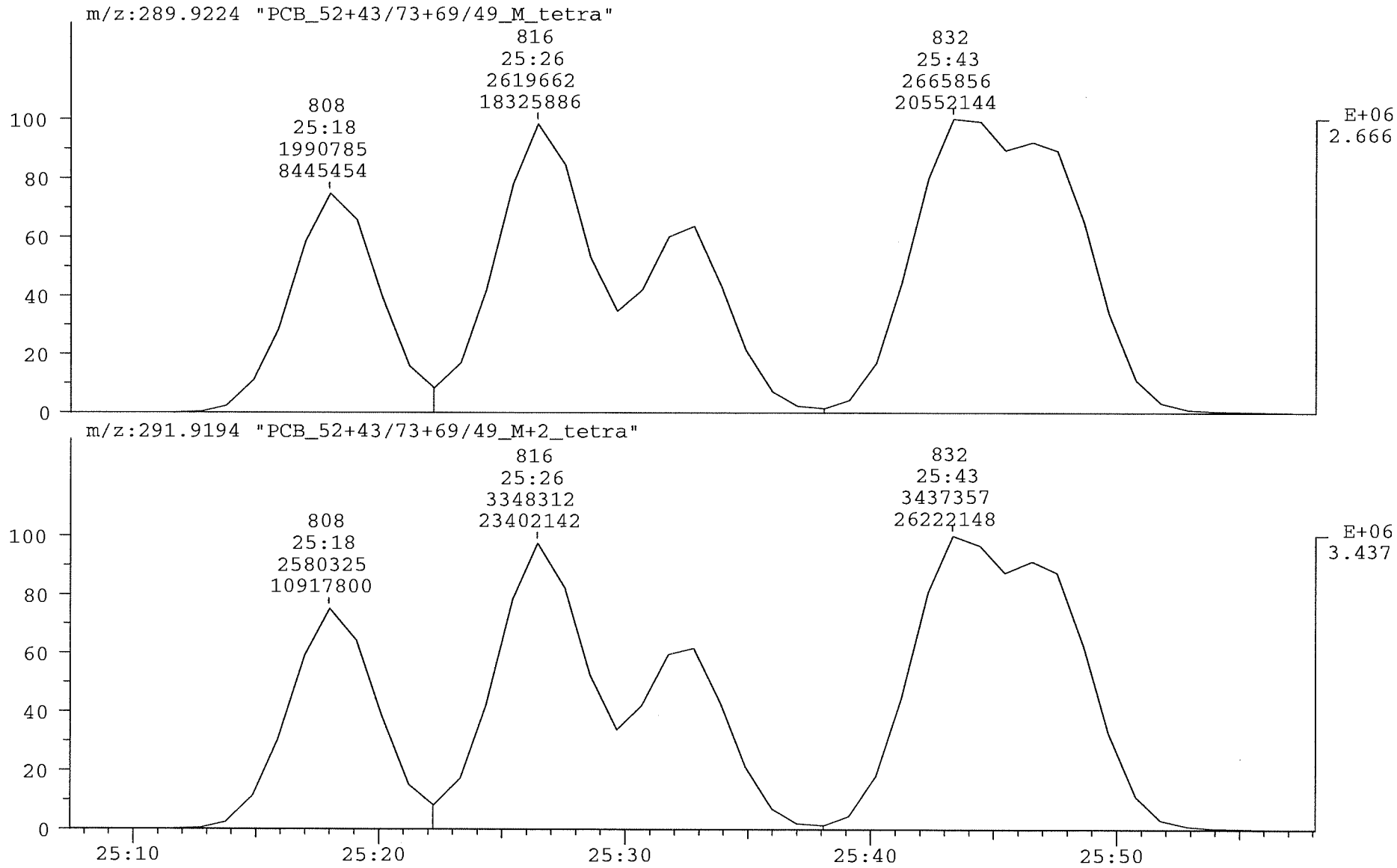
CHRO: a080624i4 24-Jun-08 Elapse: 23:31.4 707
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 652 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1820

1819

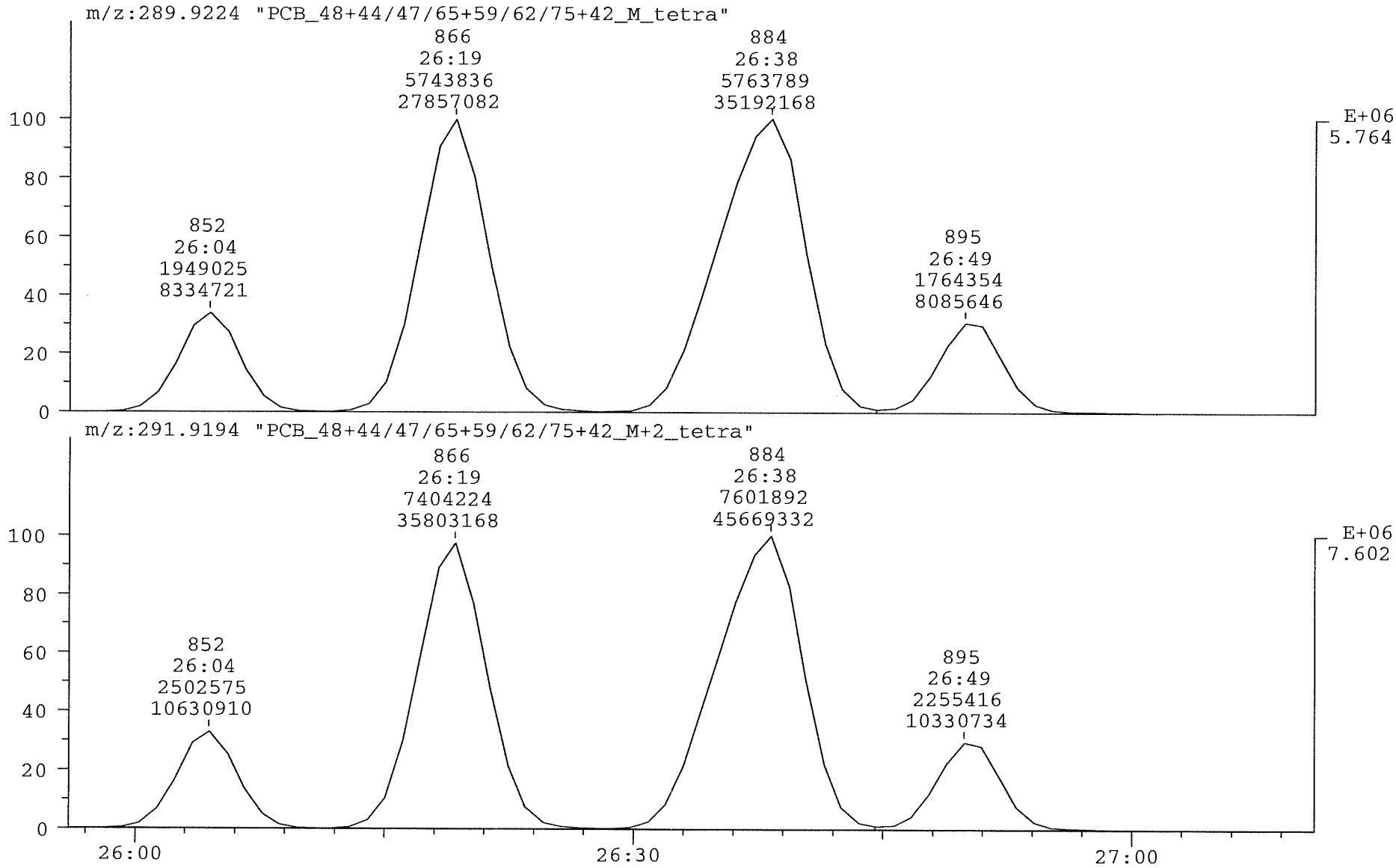
CHRO: a080624i4 24-Jun-08 Elapse: 25:37.9 826
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 798 > 846 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1821

1820

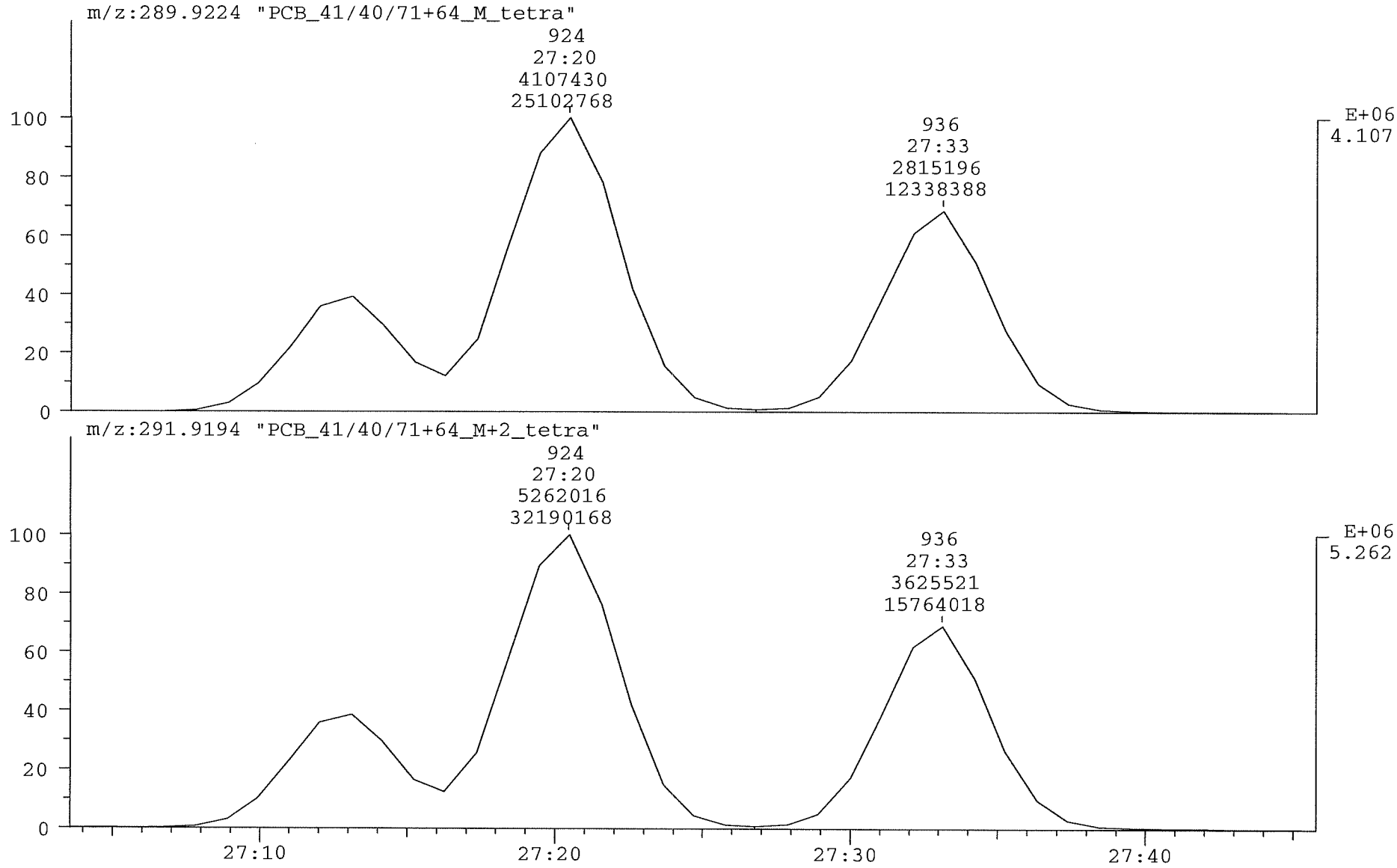
CHRO: a080624i4 24-Jun-08 Elapse: 26:29.8 876
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 844 > 915 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1822

1821

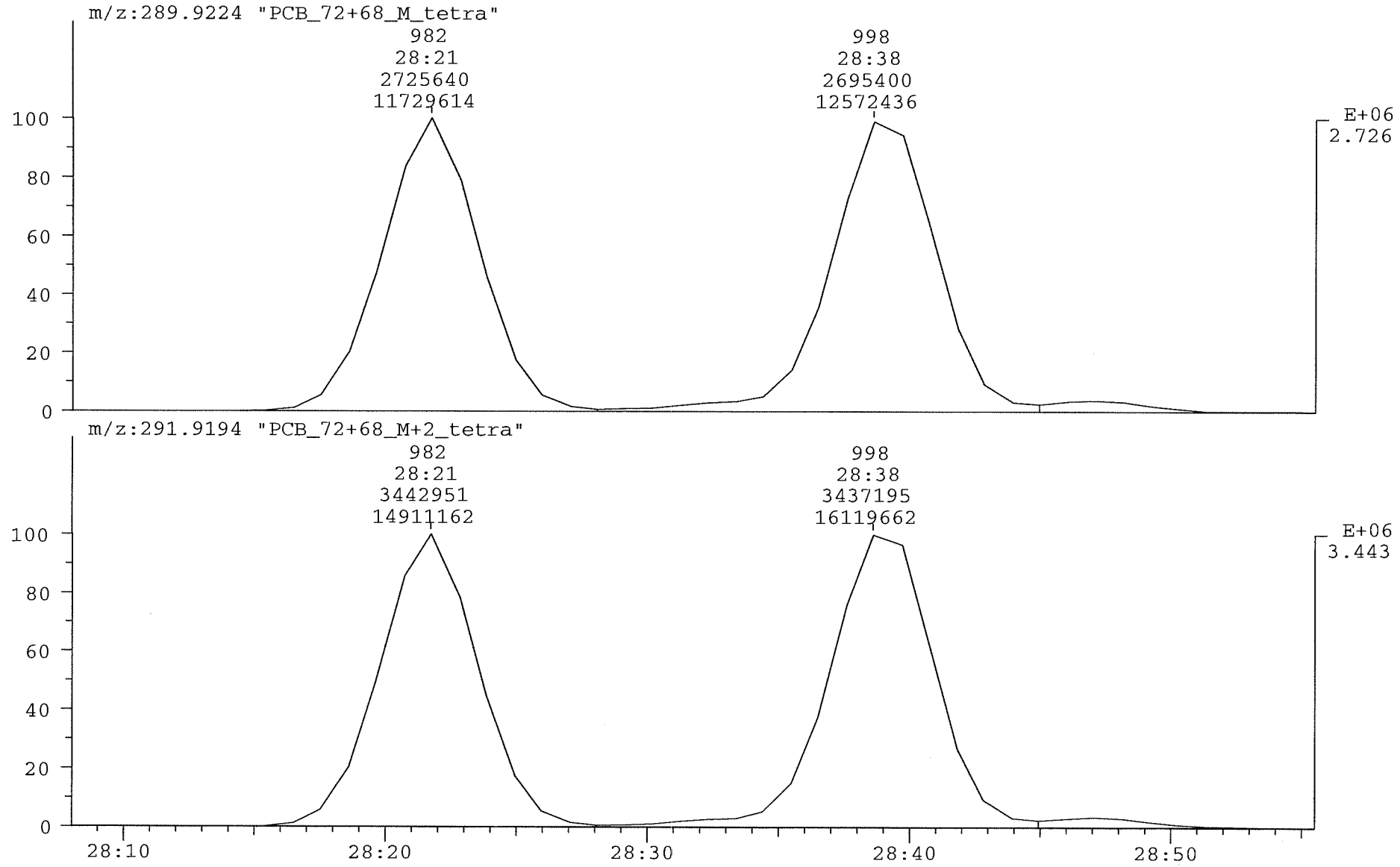
CHRO: a080624i4 24-Jun-08 Elapse: 27:30.9 933
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 908 > 948 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1823

1822

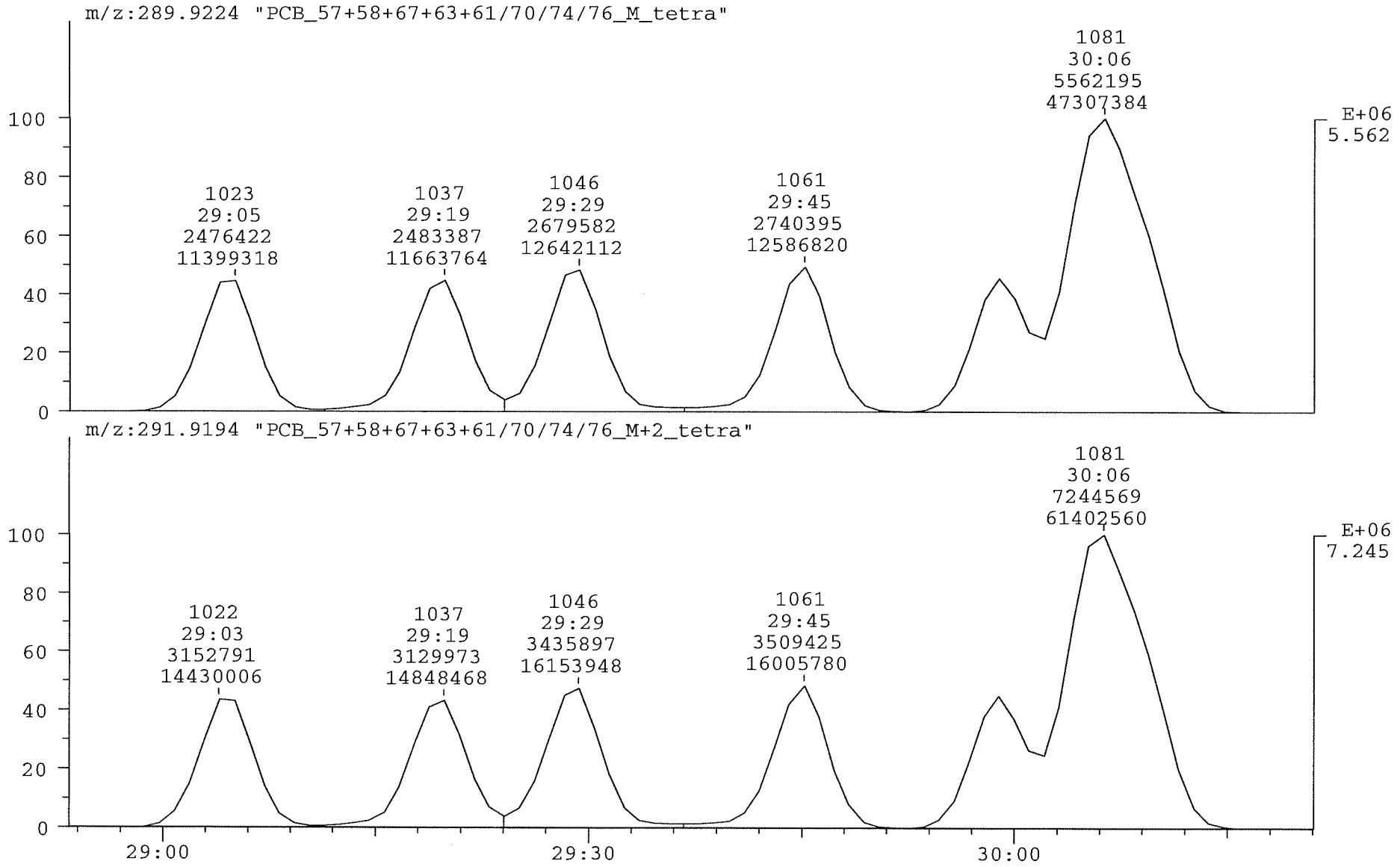
CHRO: a080624i4 24-Jun-08 Elapse: 28:34.4 994
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 969 > 1014 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1824

1823

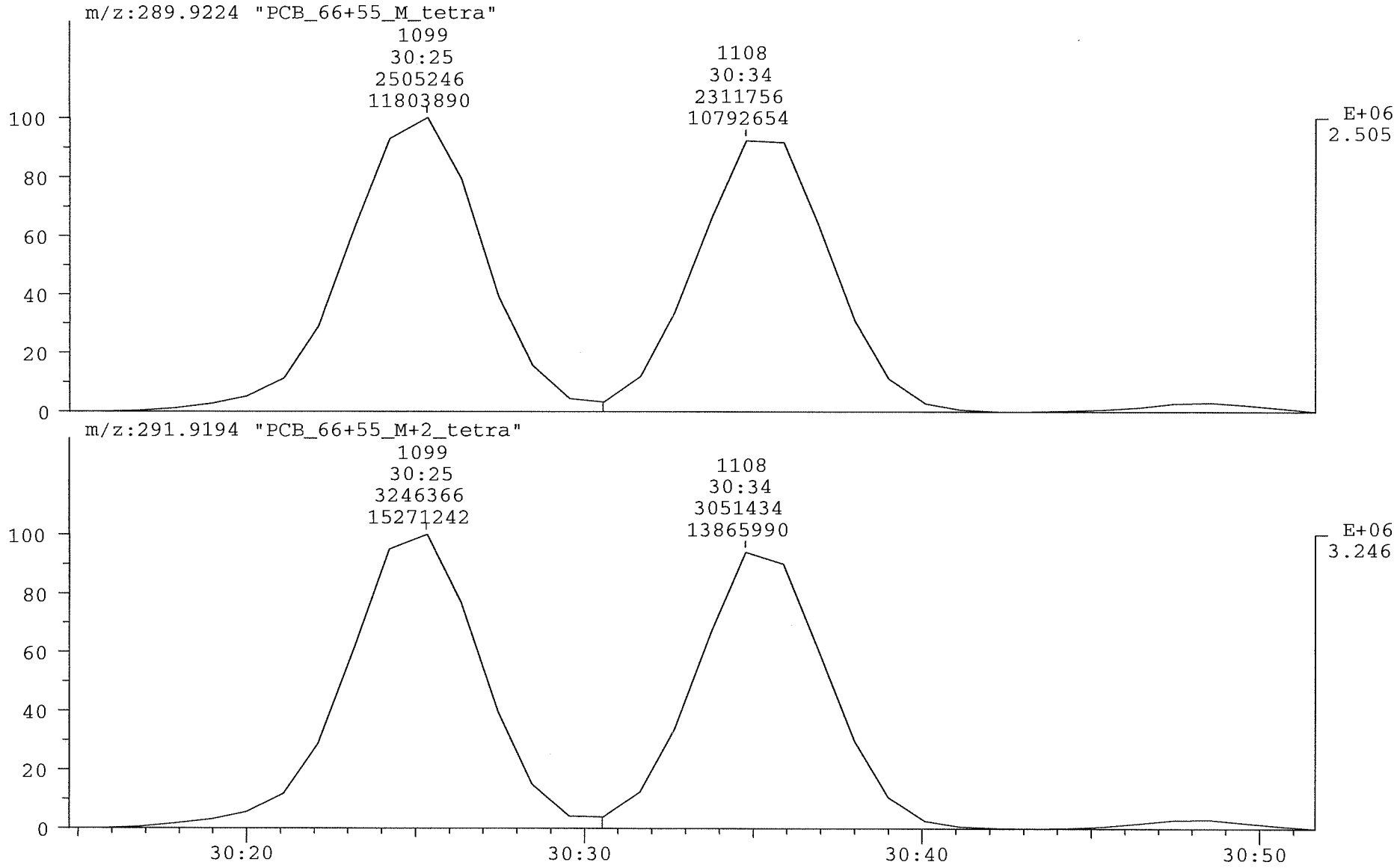
CHRO: a080624i4 24-Jun-08 Elapse: 29:38 1055
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1012 > 1095 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1825

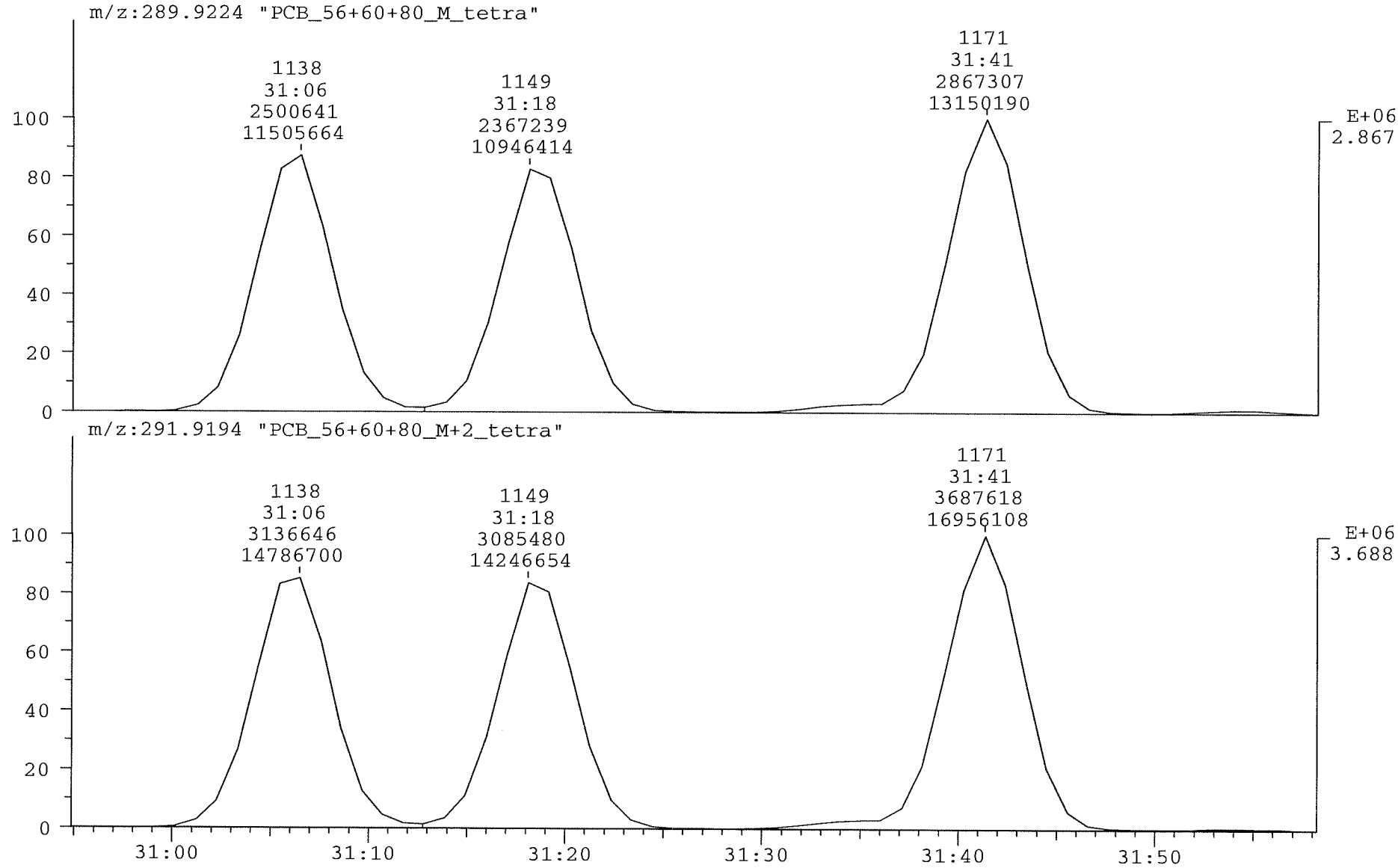
1824

CHRO: a080624i4 24-Jun-08 Elapse: 30:33 1107
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1089 > 1124 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



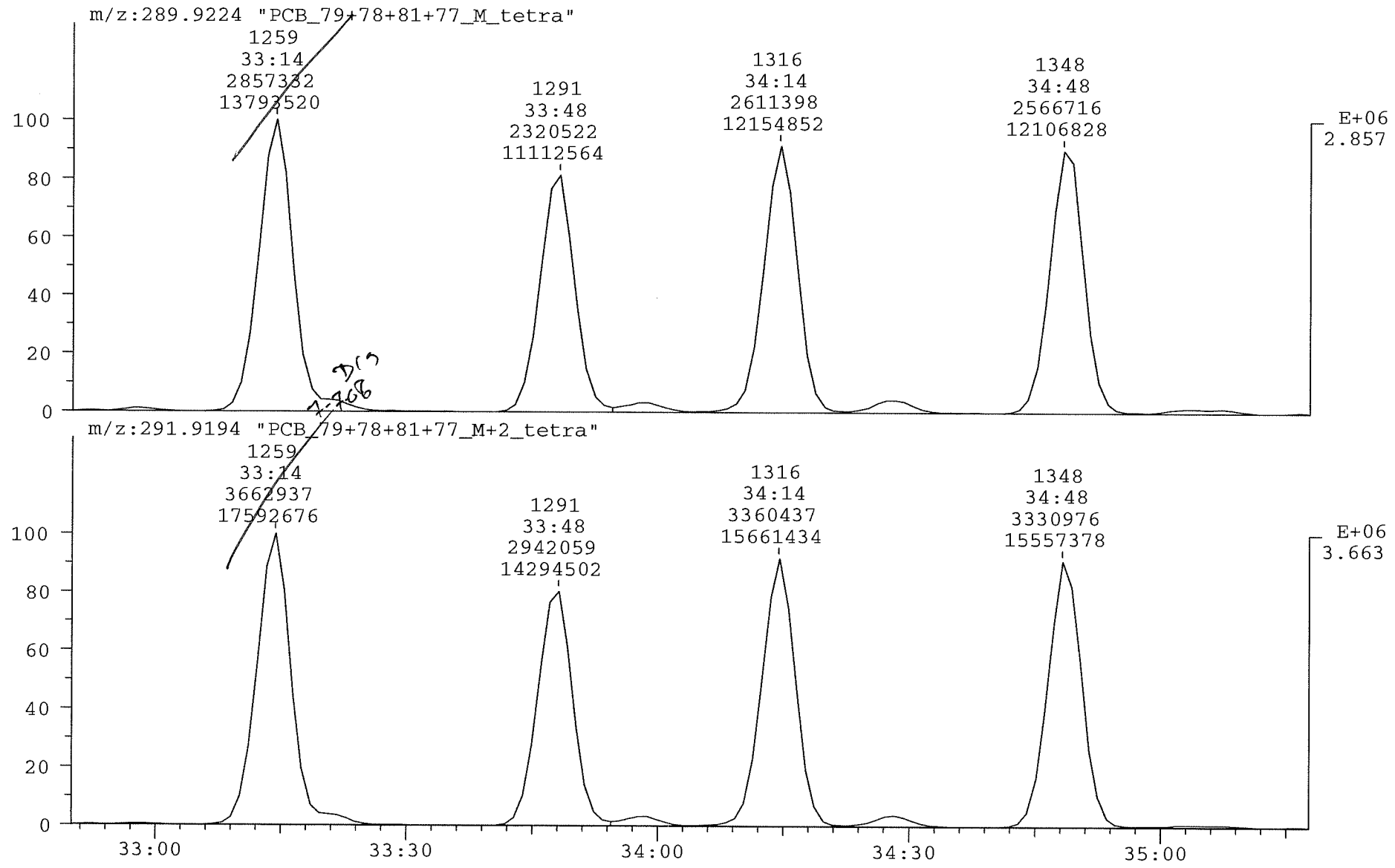
H-1826

CHRO: a080624i4 24-Jun-08 Elapse: 31:26 1157
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1127 > 1187 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1827

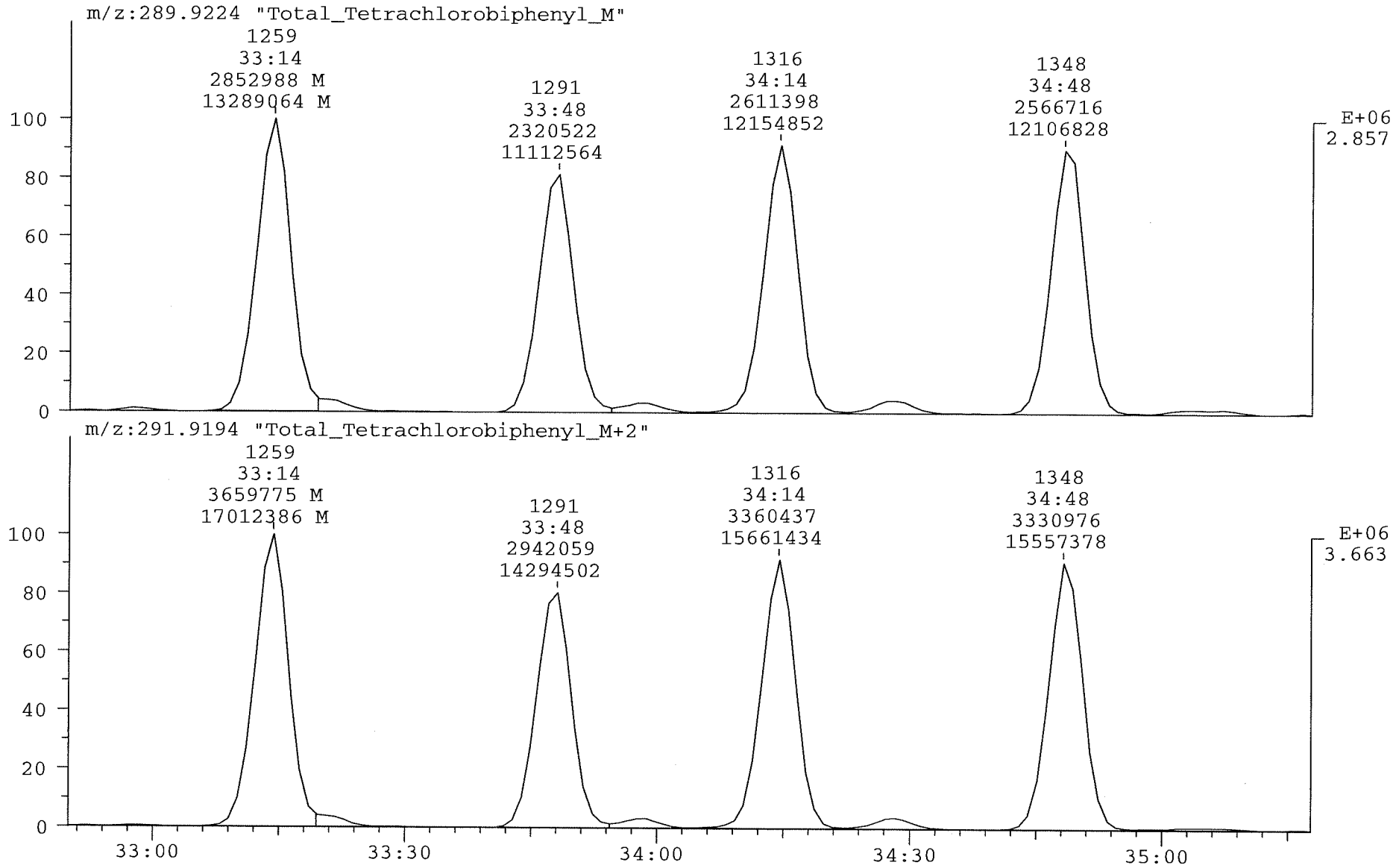
CHRO: a080624i4 24-Jun-08 Elapse: 33:58 1301
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1236 > 1376 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1828

1827

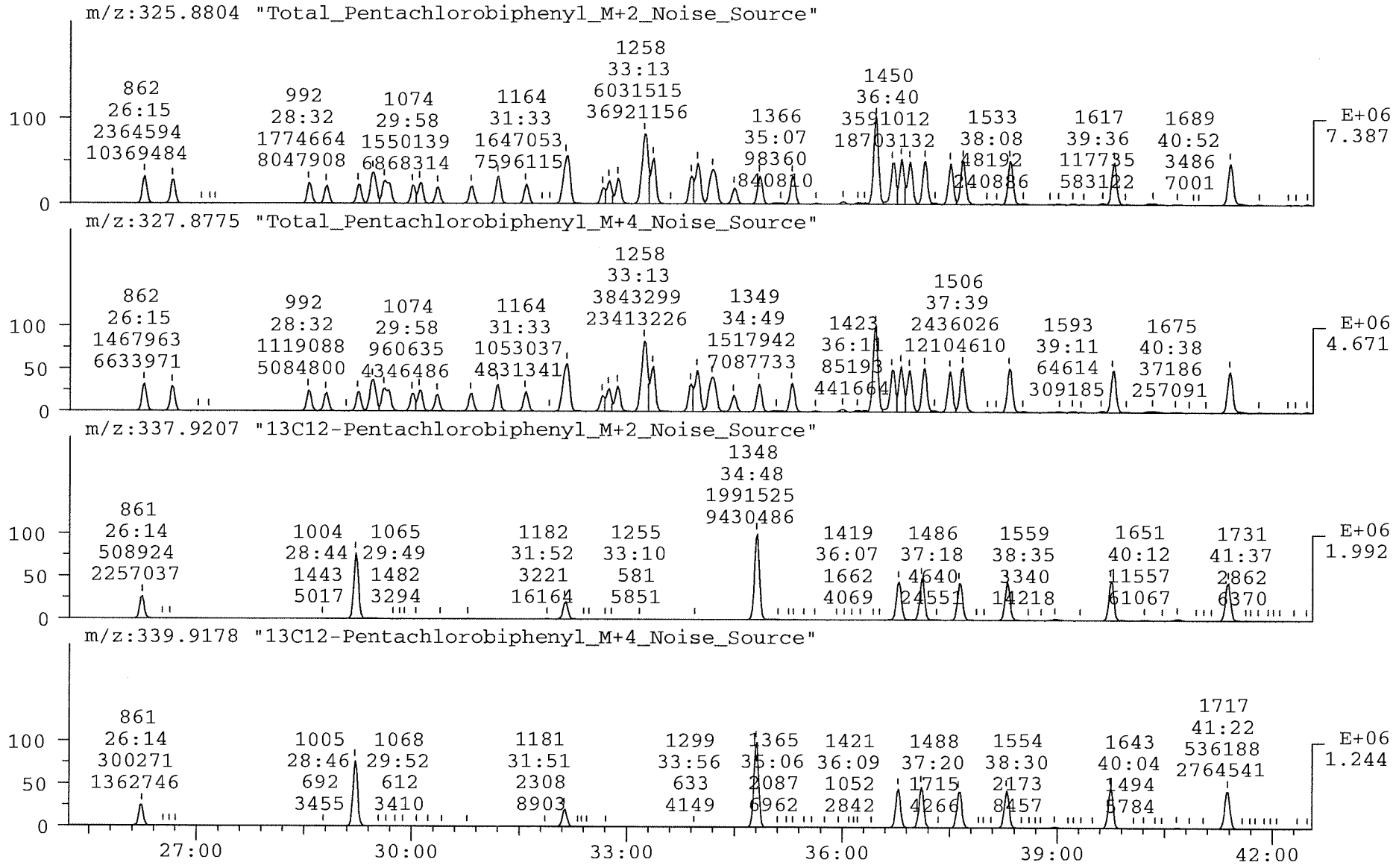
CHRO: a080624i4 24-Jun-08 Elapse: 56:04 2548
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1236 > 1376 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1829

1828

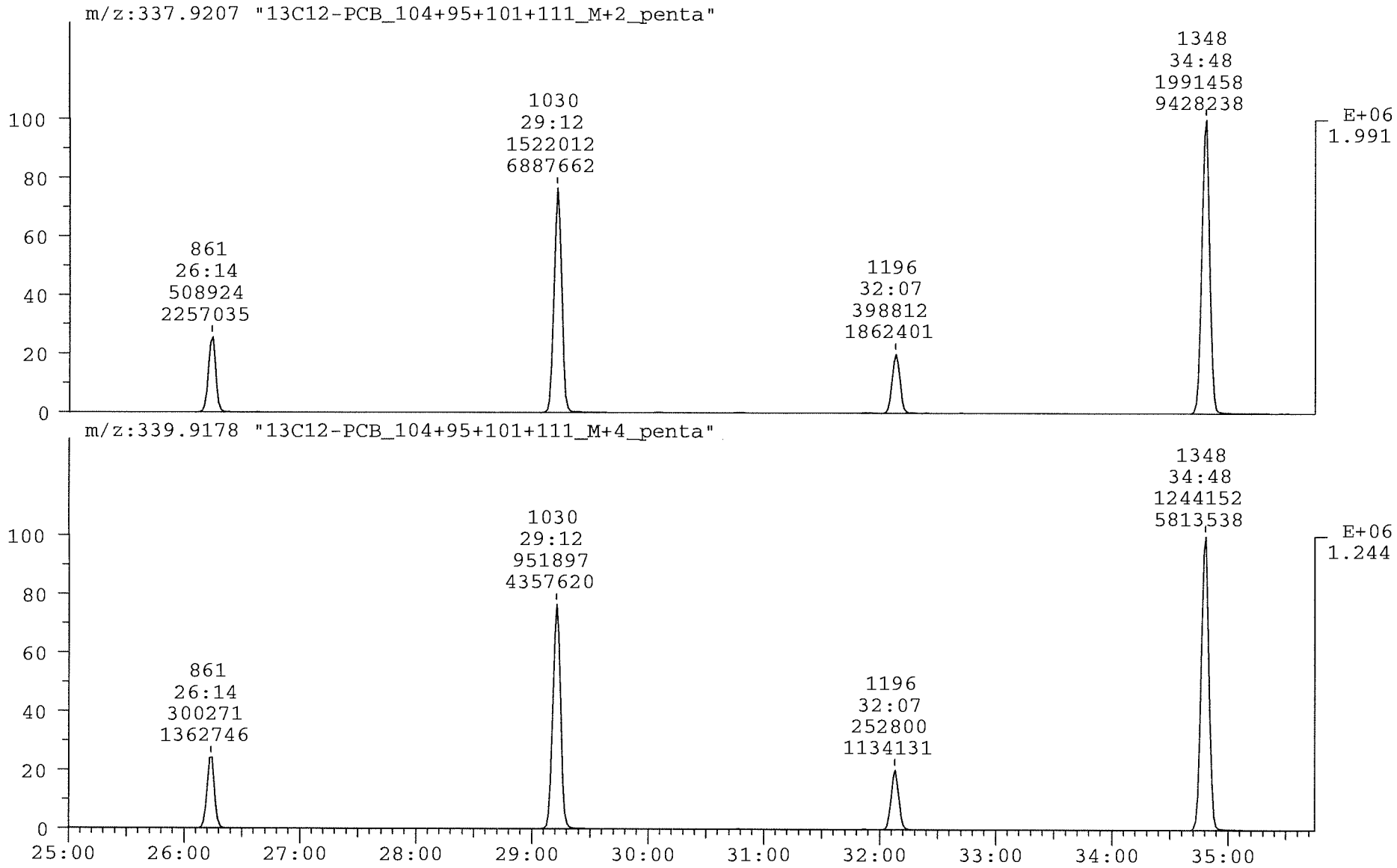
CHRO: a080624i4 24-Jun-08 Elapse: 33:53 1296
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 803 > 1784 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1830

1829

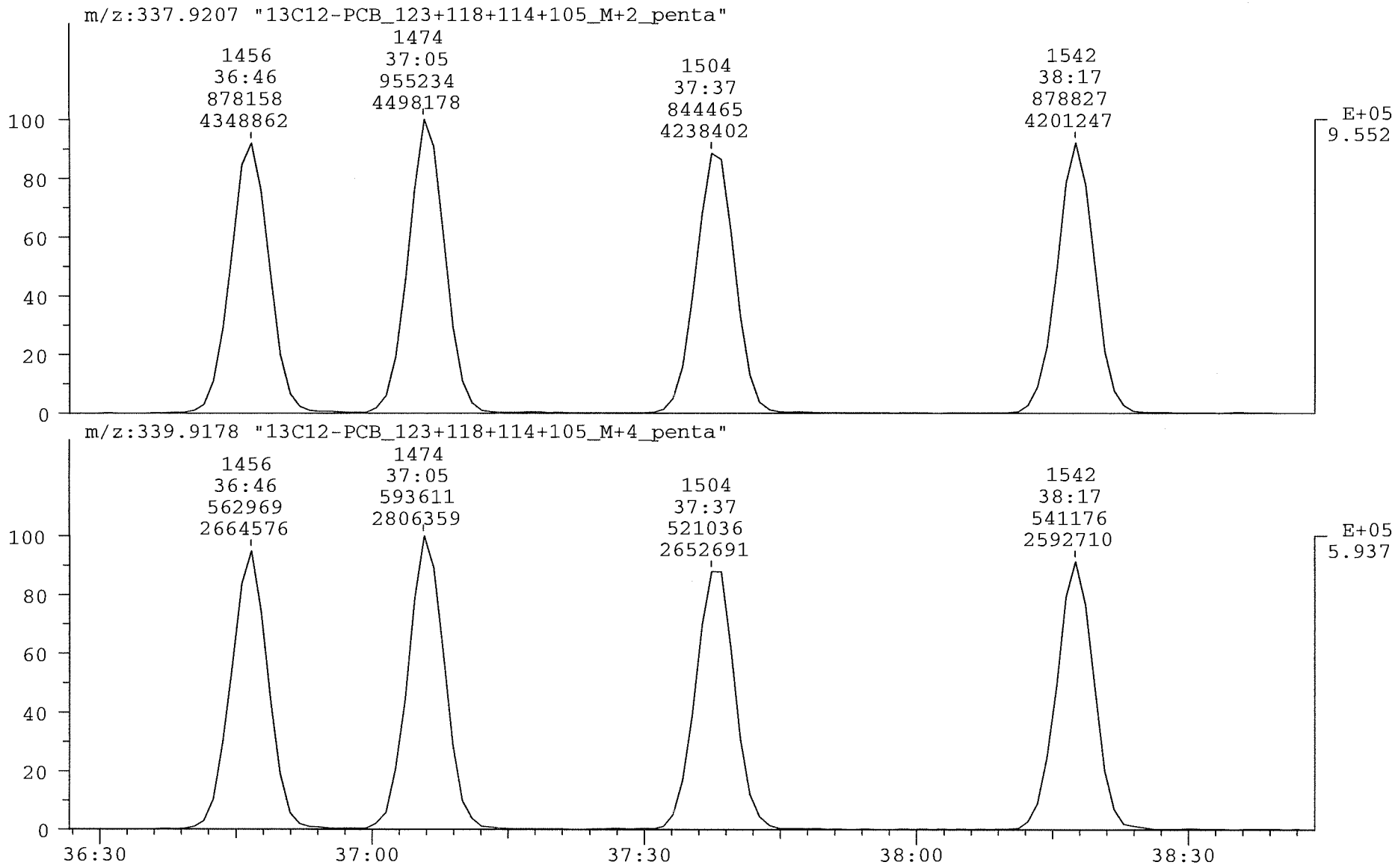
CHRO: a080624i4 24-Jun-08 Elapse: 30:22 1096
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 791 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1831

1830

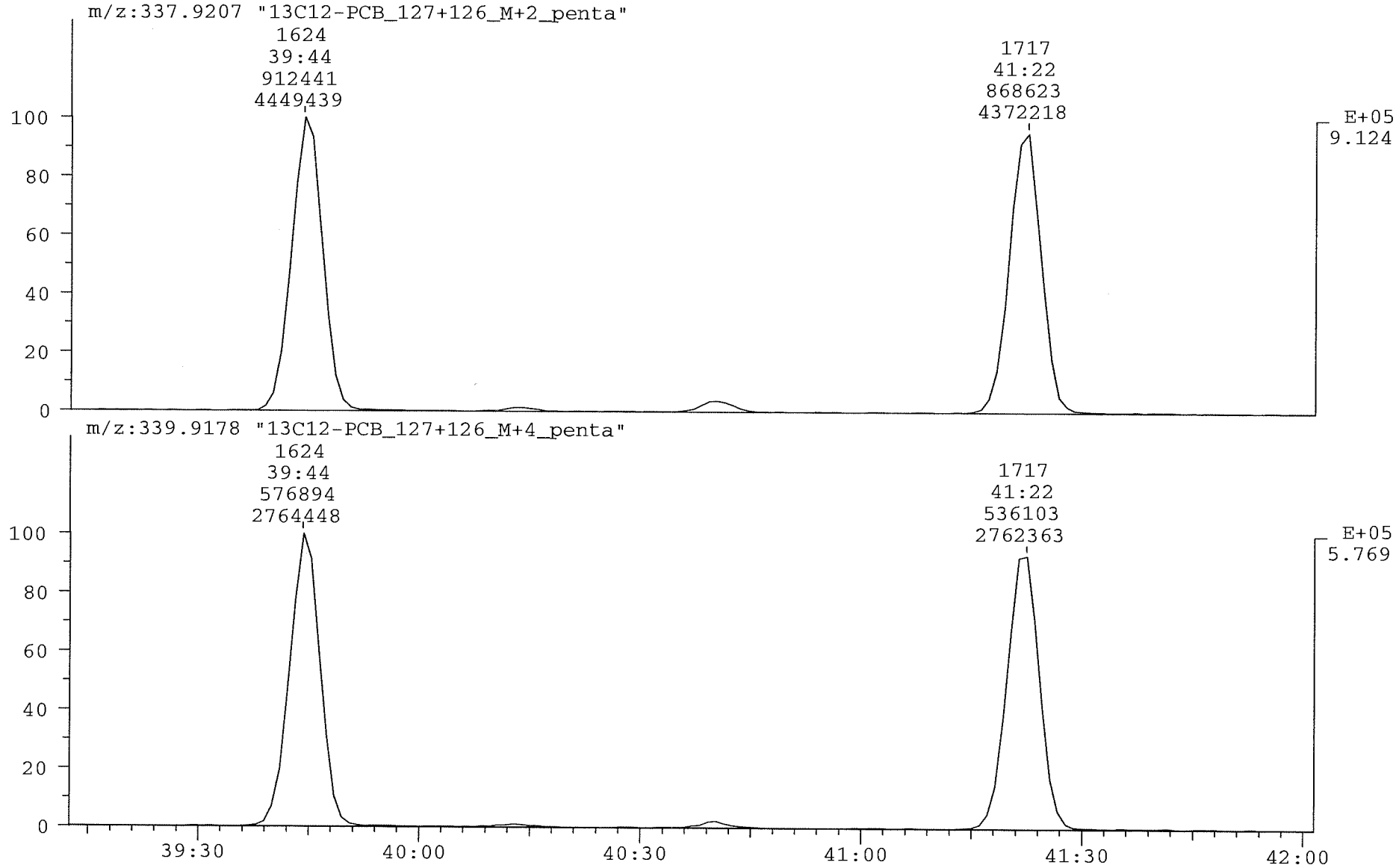
CHRO: a080624i4 24-Jun-08 Elapse: 37:35 1502
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1437 > 1567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1832

1831

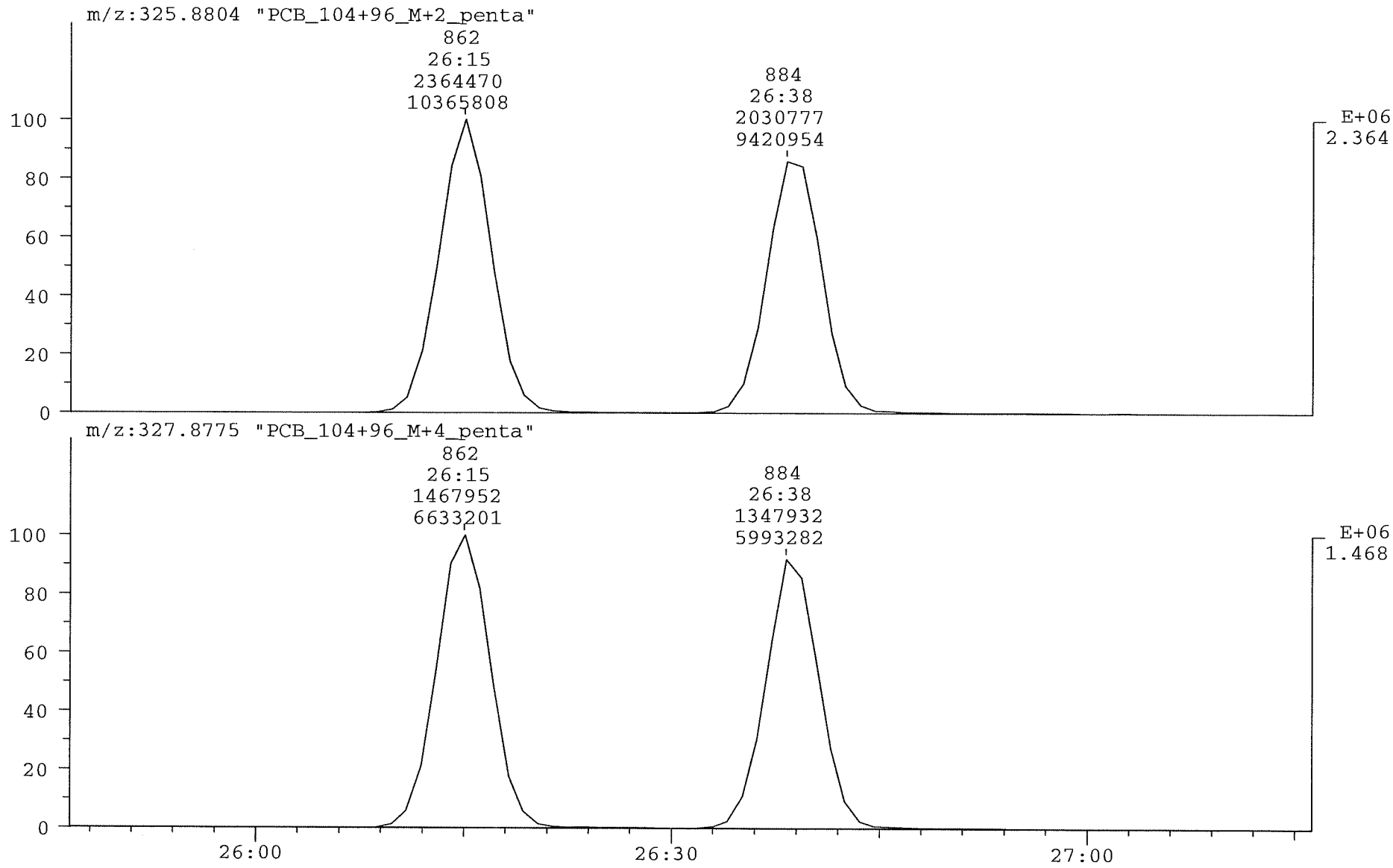
CHRO: a080624i4 24-Jun-08 Elapse: 40:36 1674
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1594 > 1754 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1833

1832

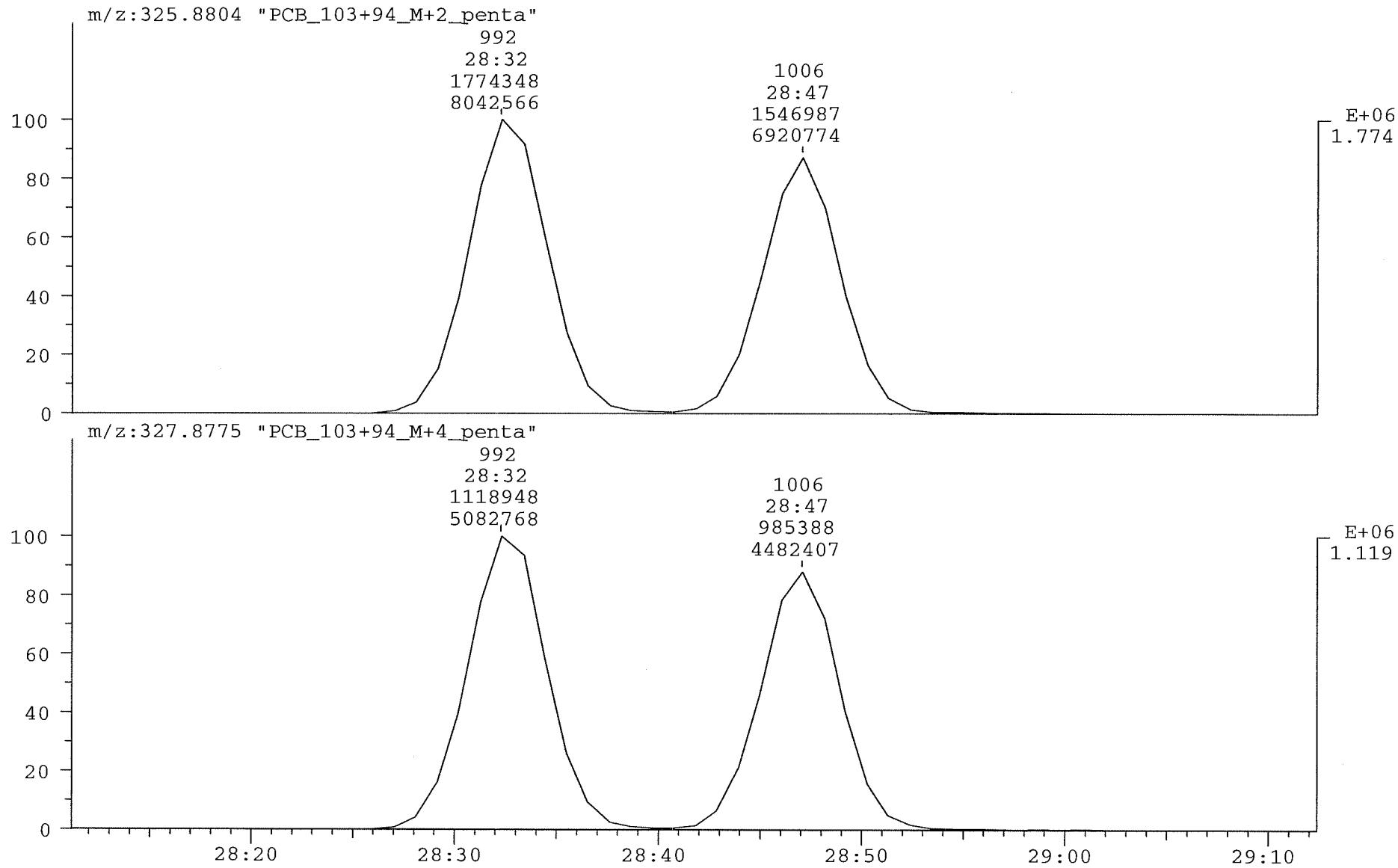
CHRO: a080624i4 24-Jun-08 Elapse: 26:28.7 875
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 835 > 920 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1834

1833

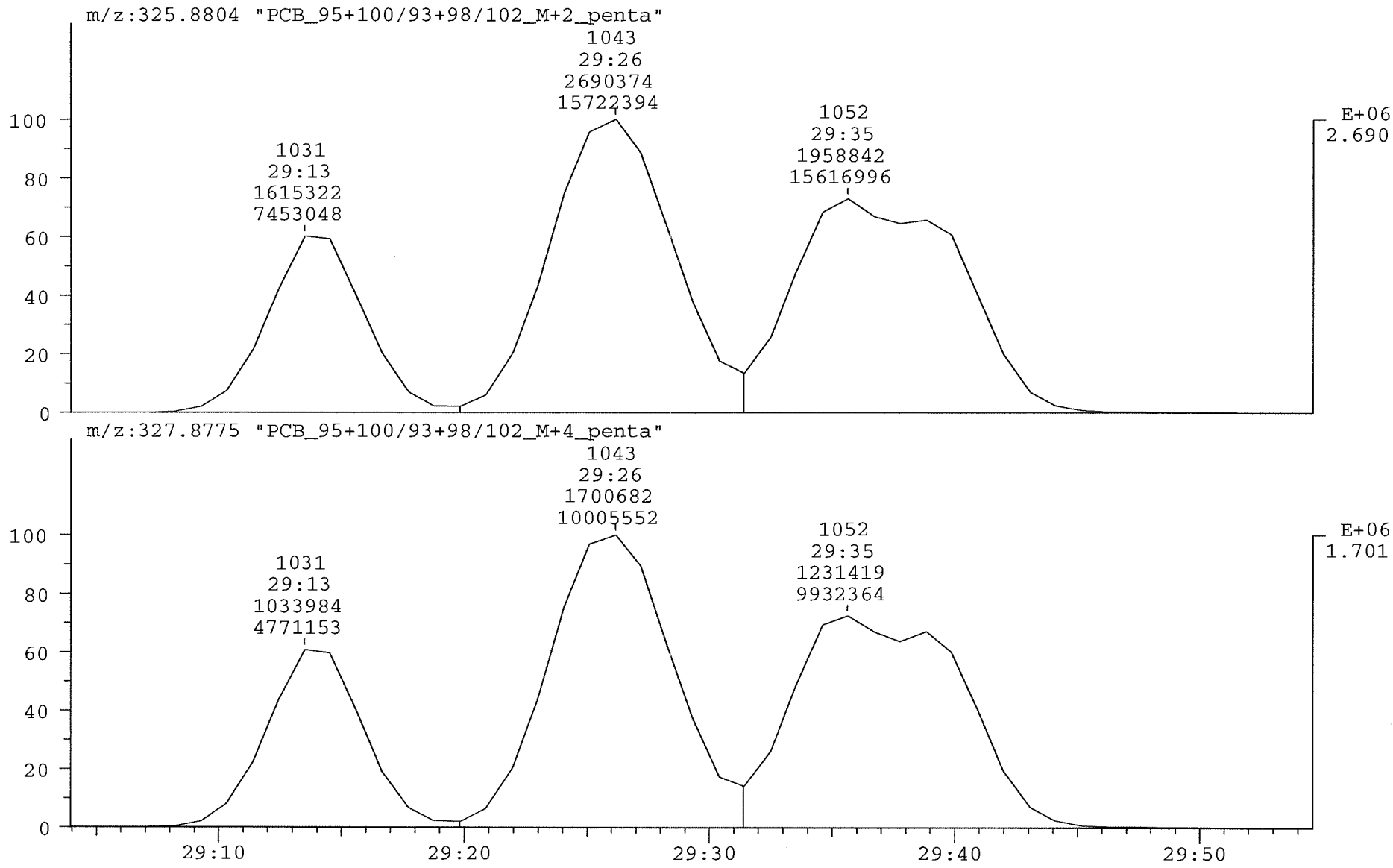
CHRO: a080624i4 24-Jun-08 Elapse: 28:42 1002
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 972 > 1030 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1835

1834

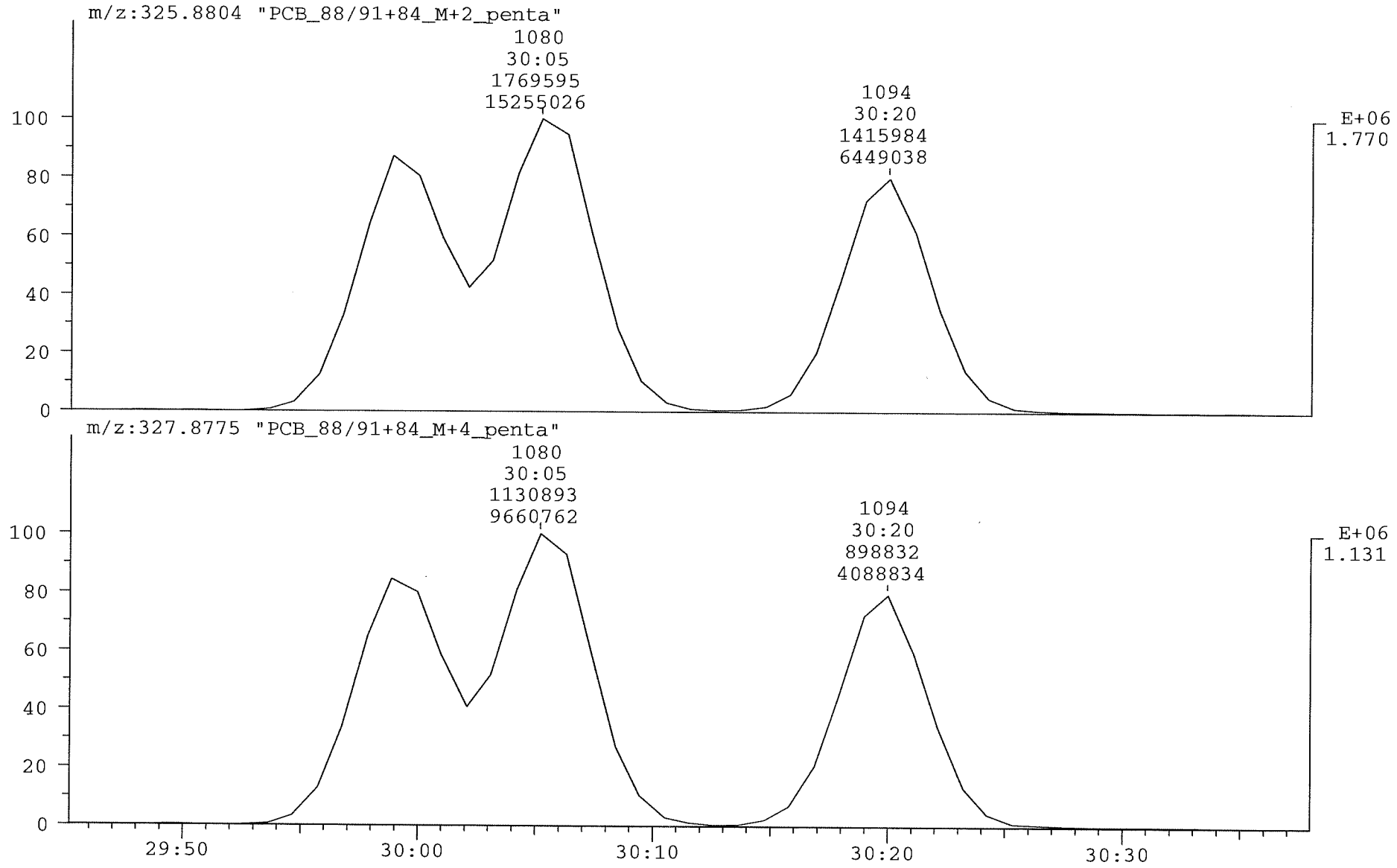
CHRO: a080624i4 24-Jun-08 Elapse: 29:28 1045
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1022 > 1070 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1836

1835

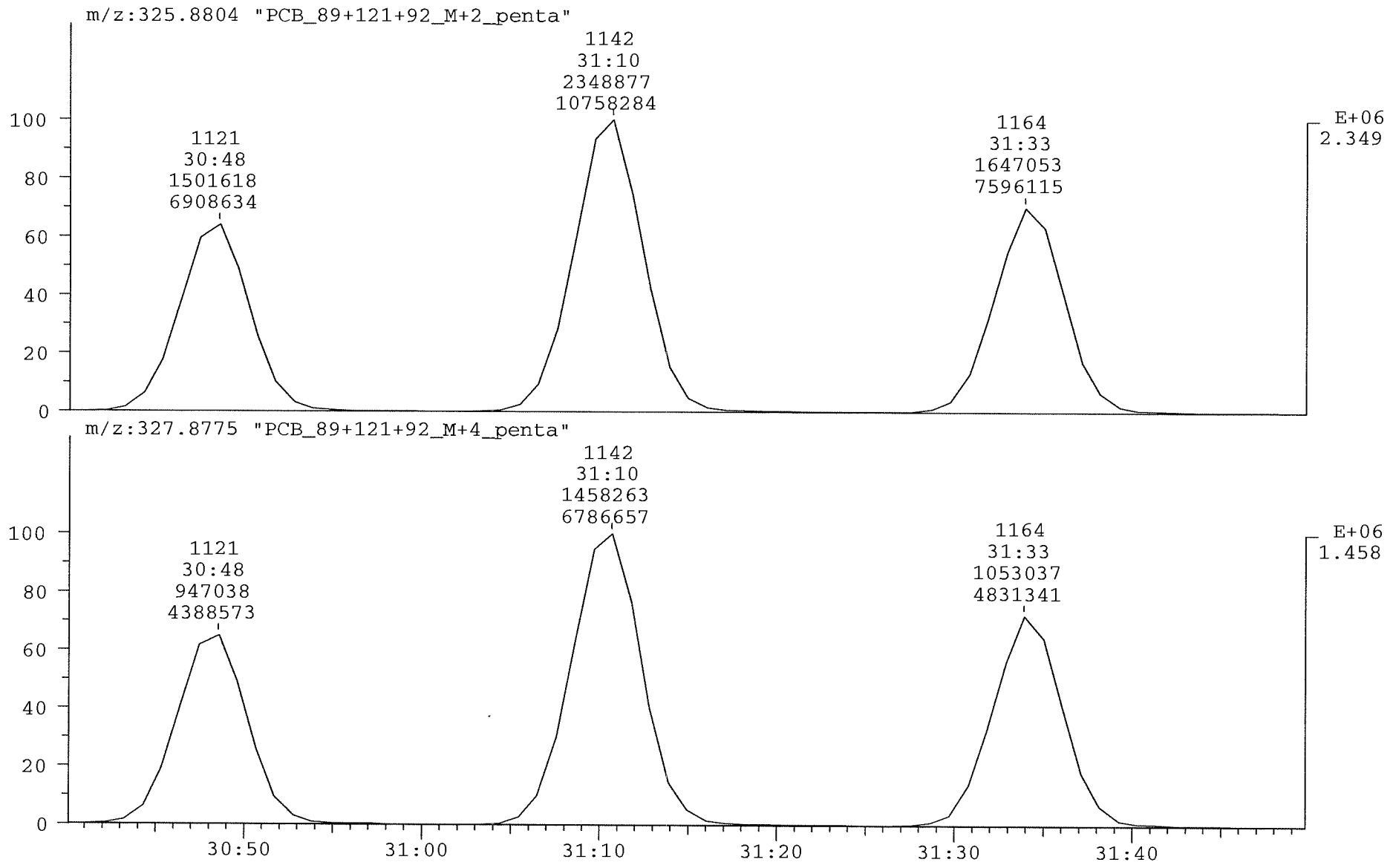
CHRO: a080624i4 24-Jun-08 Elapse: 30:12 1087
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1061 > 1111 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



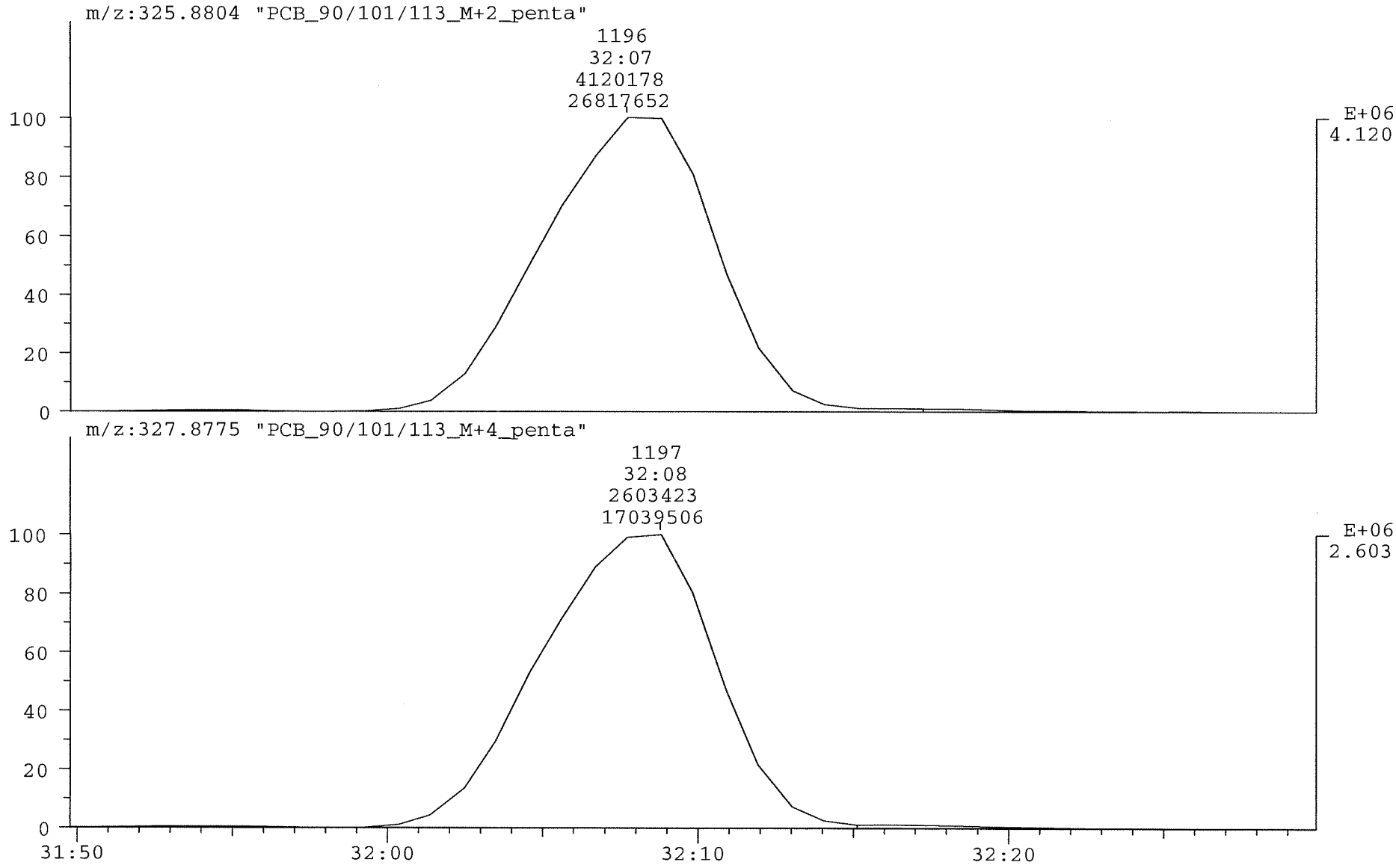
H-1837

1836

CHRO: a08624i4 24-Jun-08 Elapse: 31:14 1146
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1113 > 1179 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area

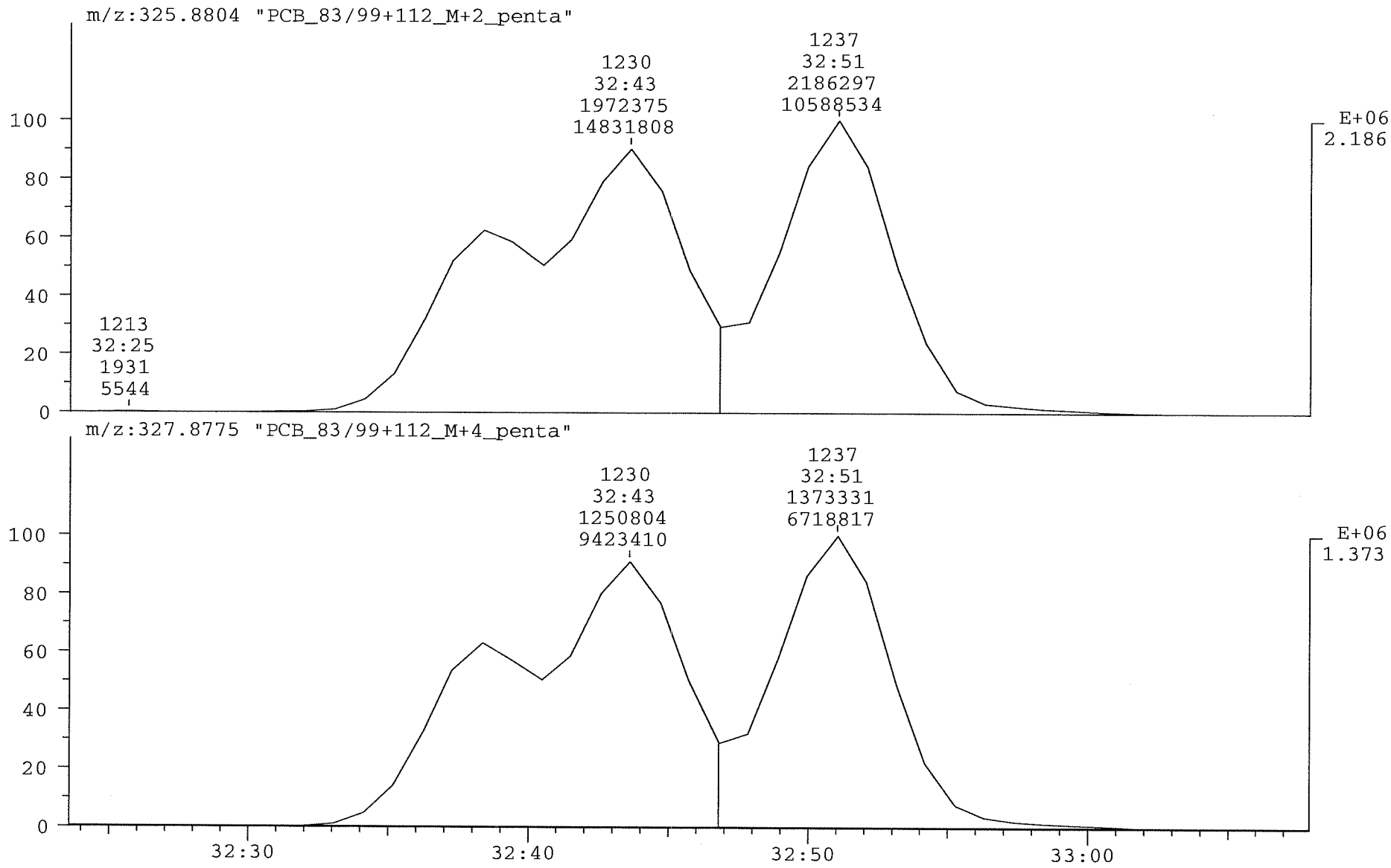


CHRO: a080624i4 24-Jun-08 Elapse: 32:08 1197
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1179 > 1217 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area

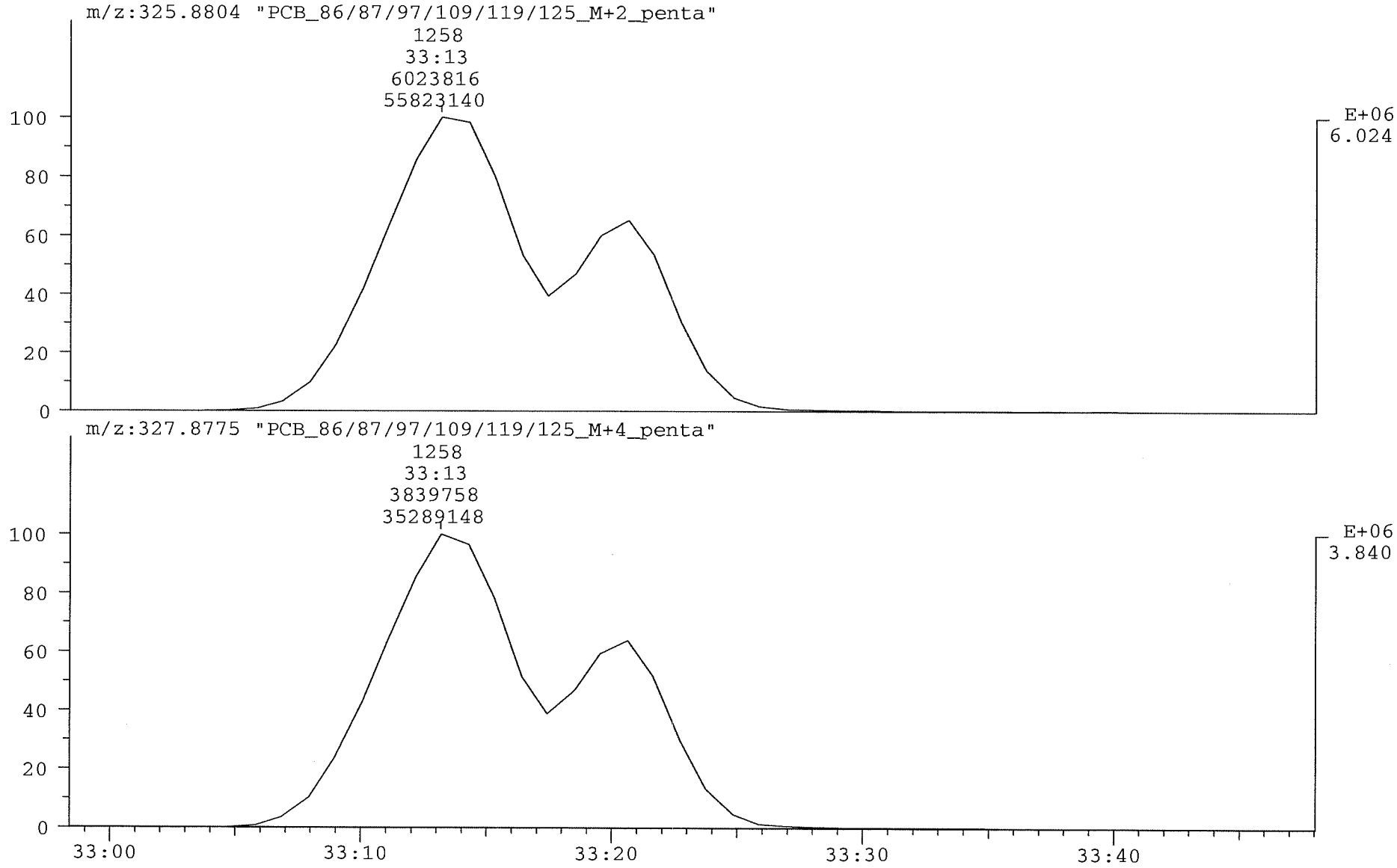


H-1839

CHRO: a080624i4 24-Jun-08 Elapse: 32:52 1238
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1211 > 1253 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



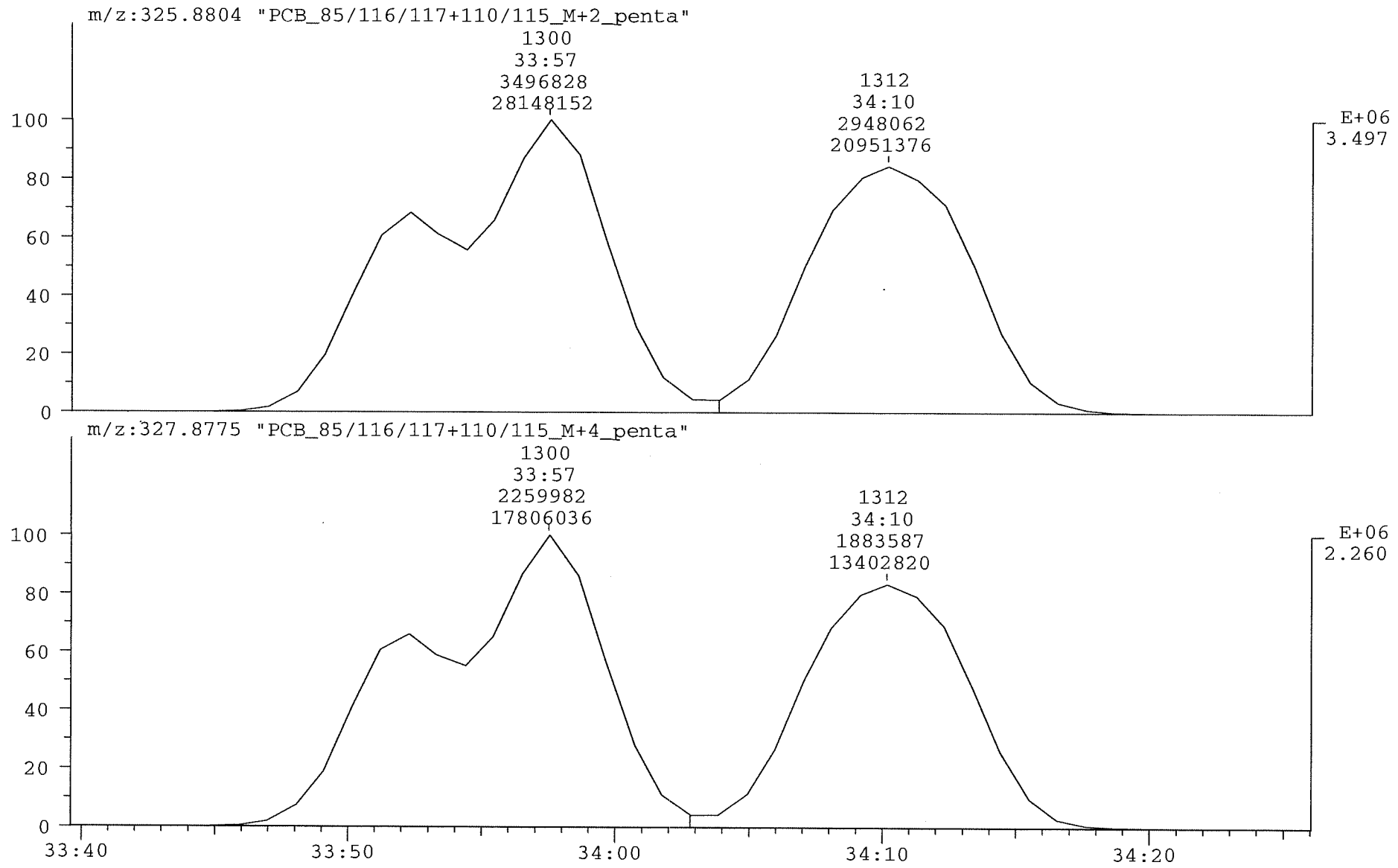
CHRO: a080624i4 24-Jun-08 Elapse: 33:19 1264
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1244 > 1291 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1841

1840

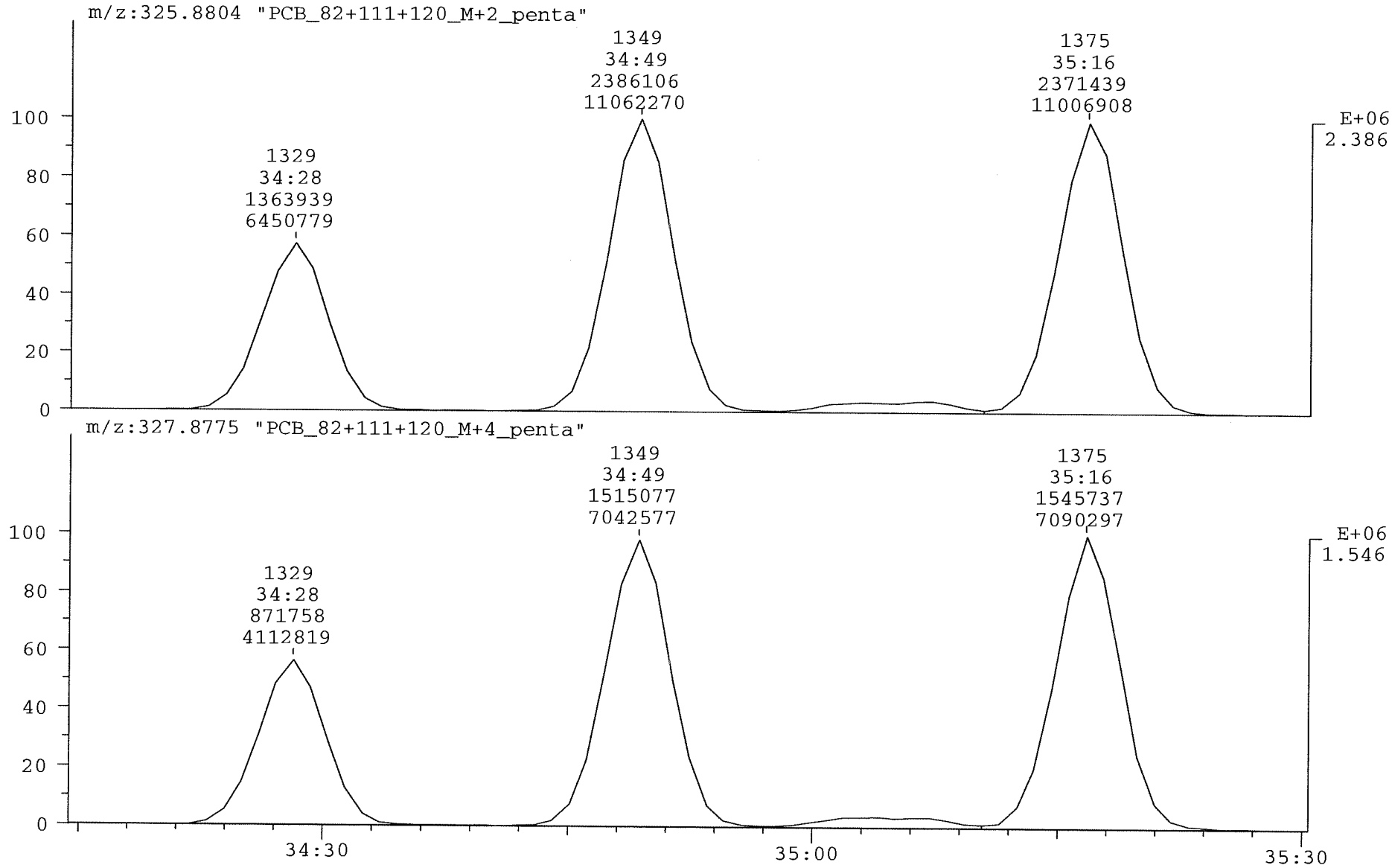
CHRO: a080624i4 24-Jun-08 Elapse: 34:07 1309
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1283 > 1327 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1842

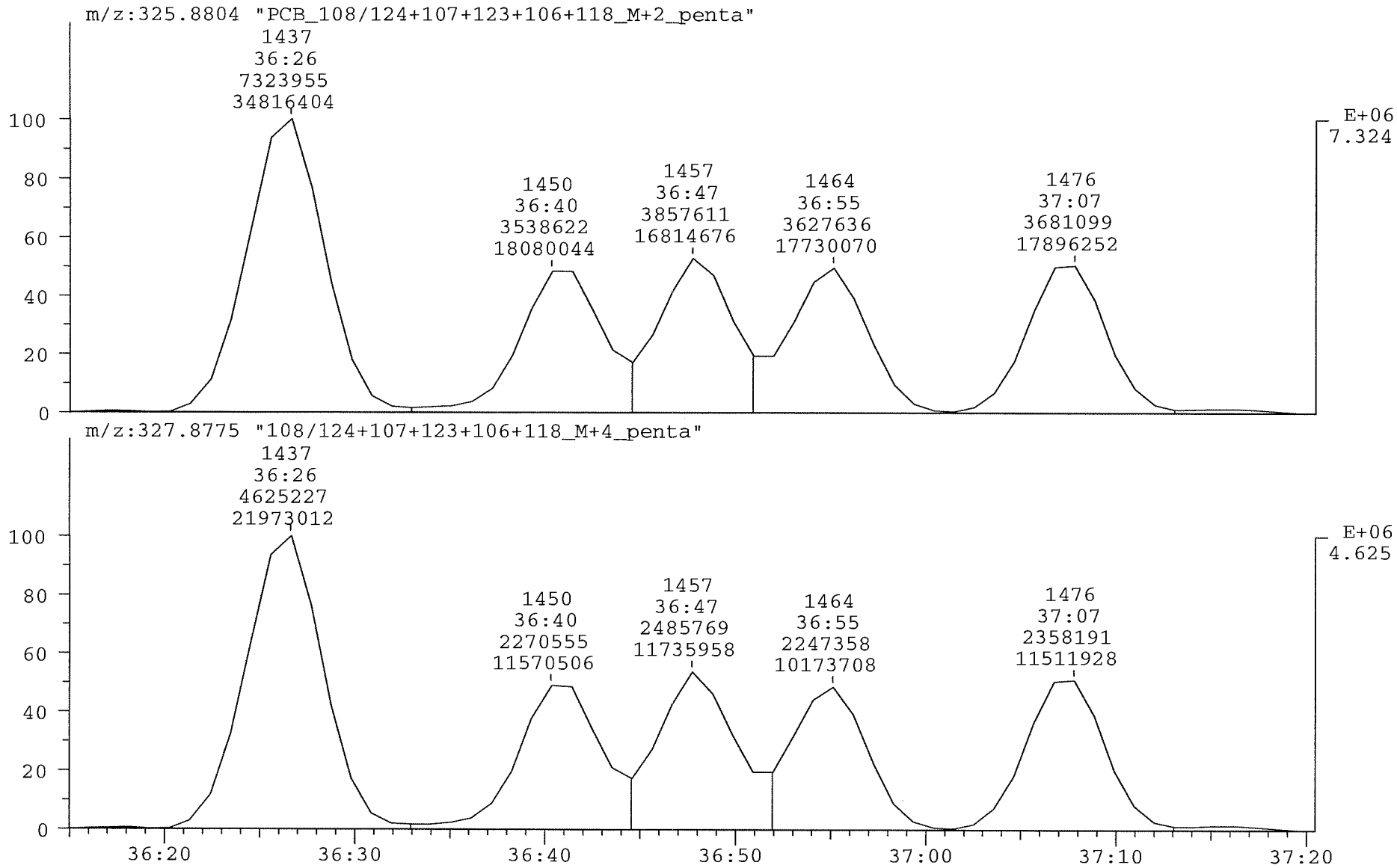
1841

CHRO: a080624i4 24-Jun-08 Elapse: 34:37 1338
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1316 > 1388 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area

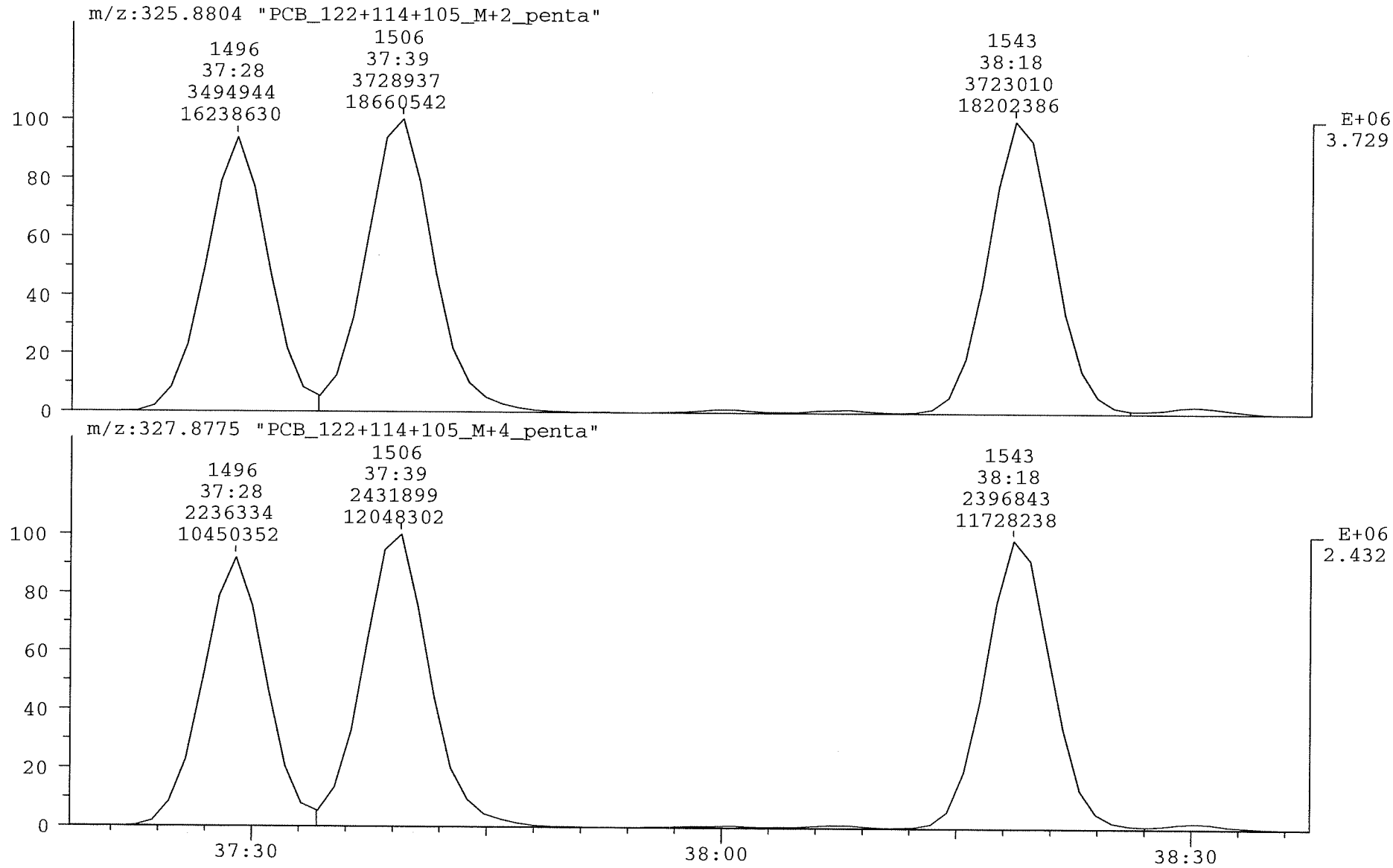


H-1843

CHRO: a080624i4 24-Jun-08 Elapse: 36:57 1466
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1426 > 1488 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



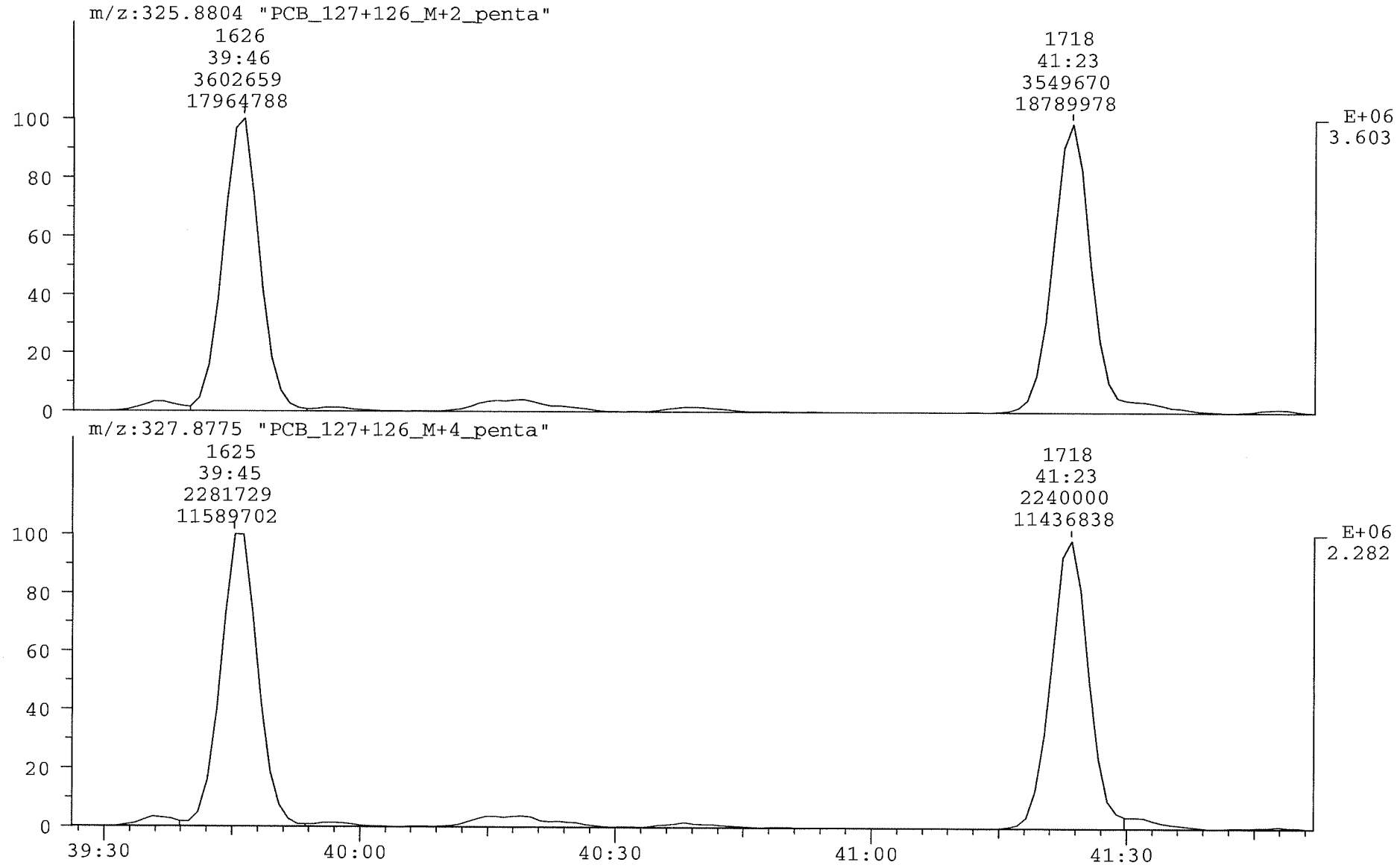
CHRO: a080624i4 24-Jun-08 Elapse: 37:57 1523
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1486 > 1561 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1845

1844

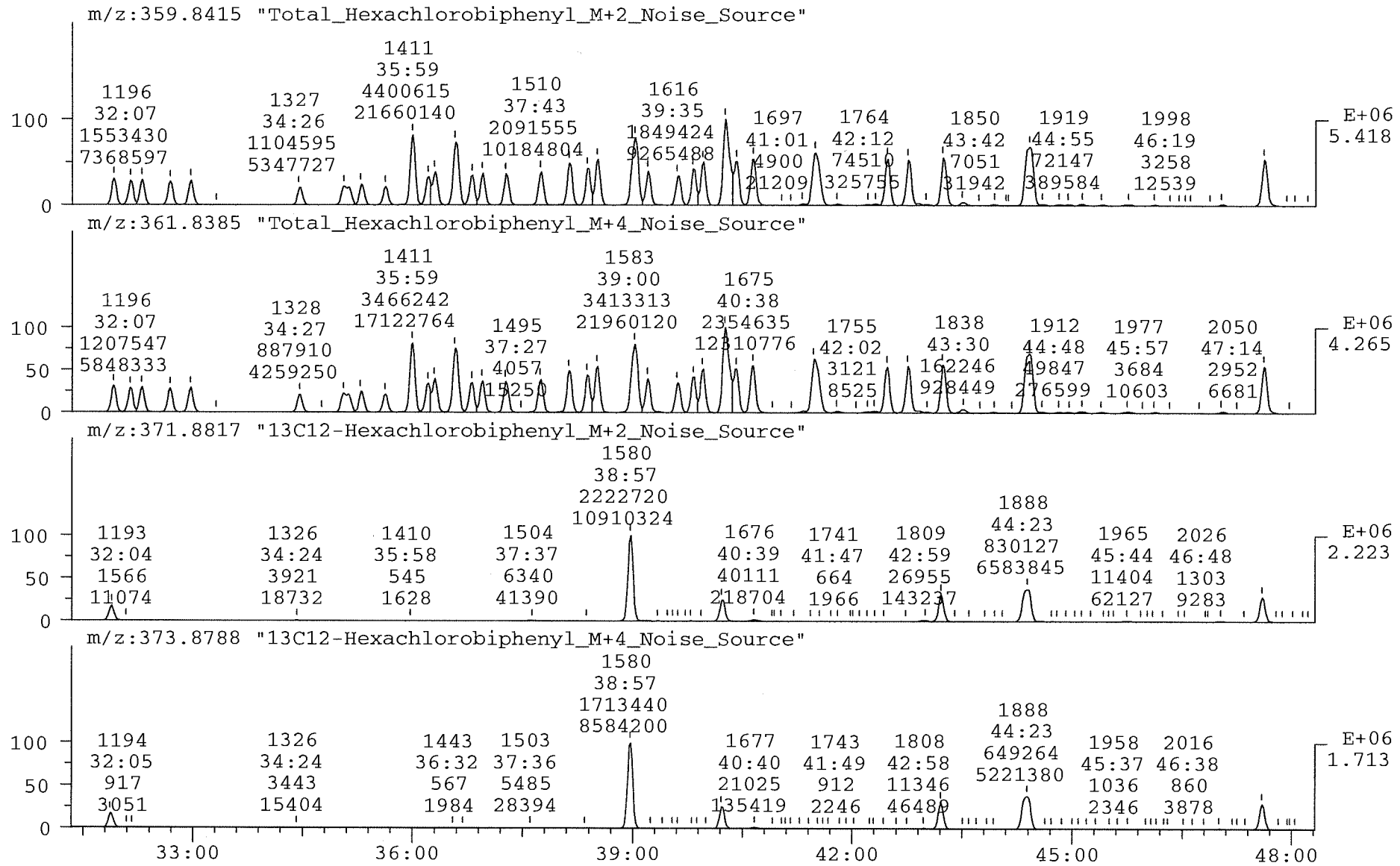
CHRO: a080624i4 24-Jun-08 Elapse: 40:38 1675
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1607 > 1745 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1846

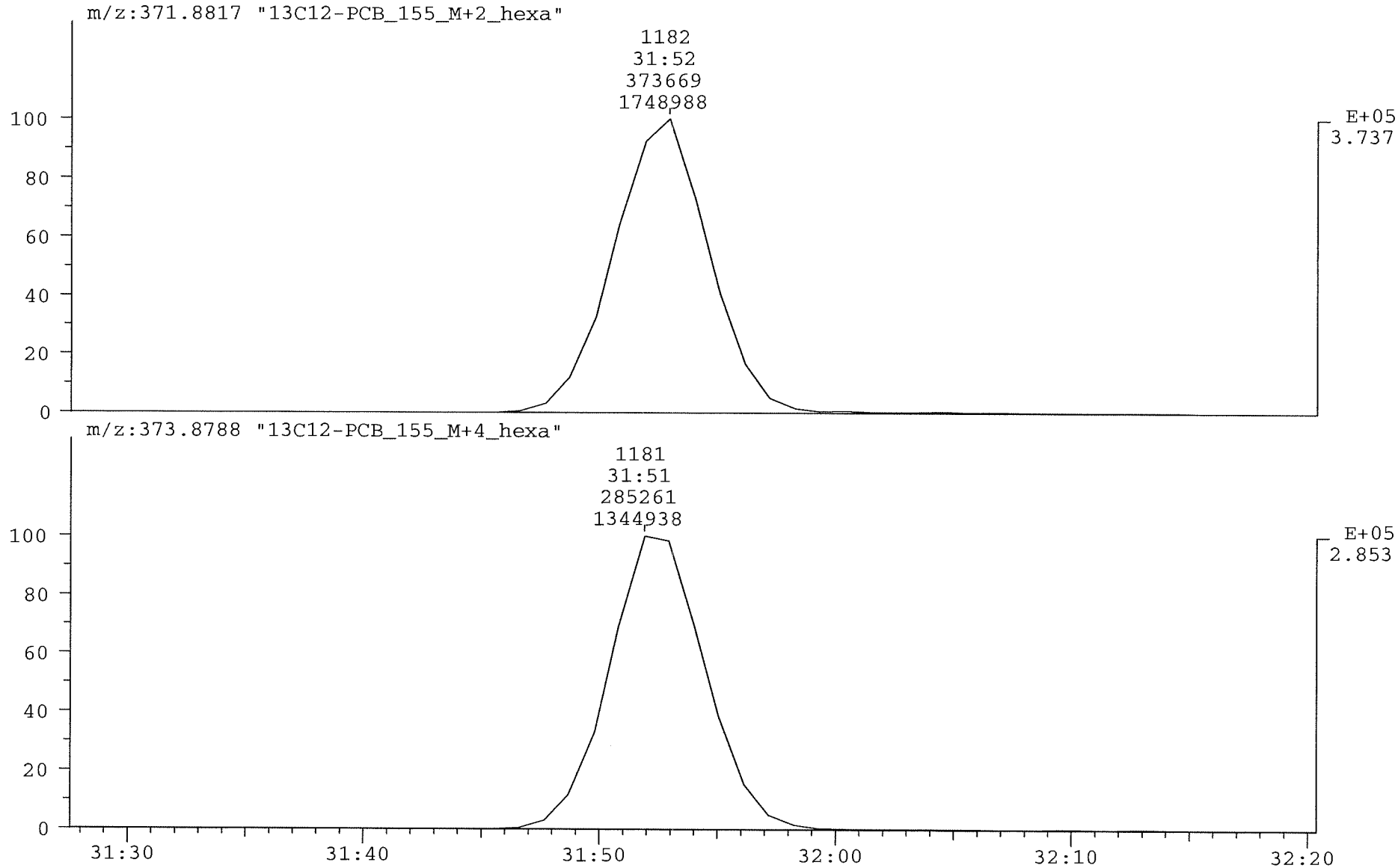
1845

CHRO: a080624i4 24-Jun-08 Elapse: 39:49 1629
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1151 > 2111 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area

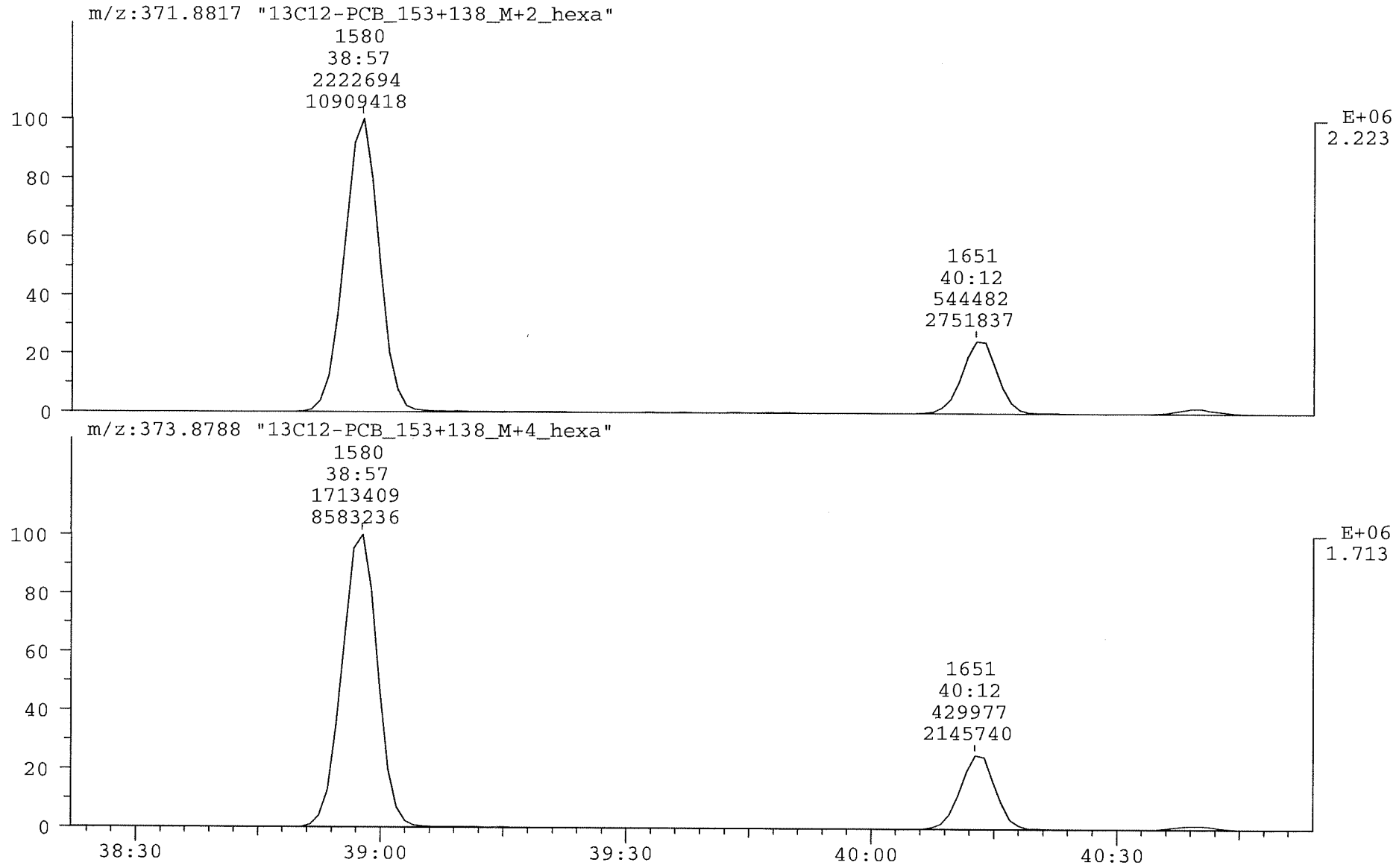


H-1847

CHRO: a080624i4 24-Jun-08 Elapse: 31:54 1183
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1158 > 1208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



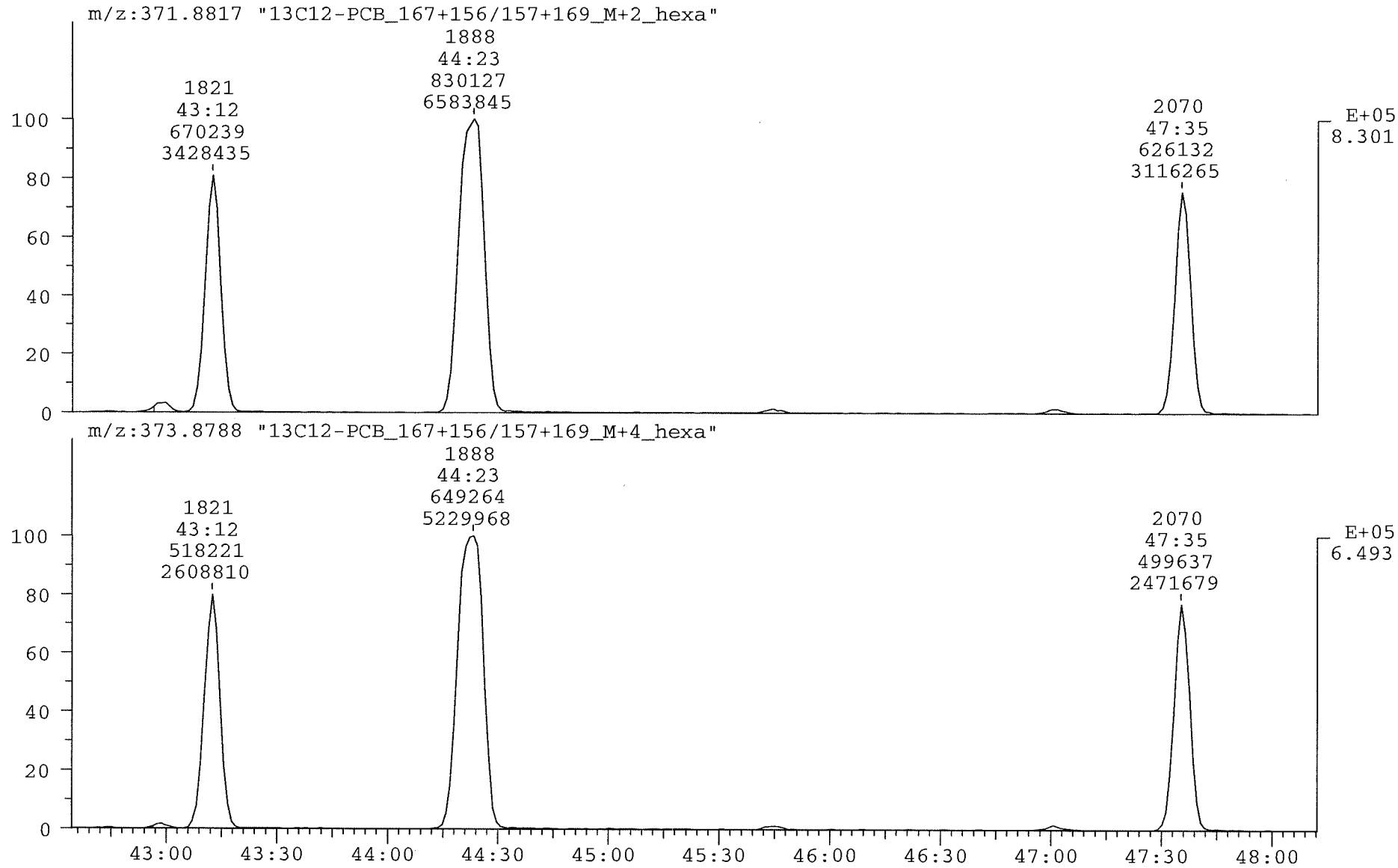
CHRO: a080624i4 24-Jun-08 Elapse: 39:37 1618
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1546 > 1690 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1849

1848

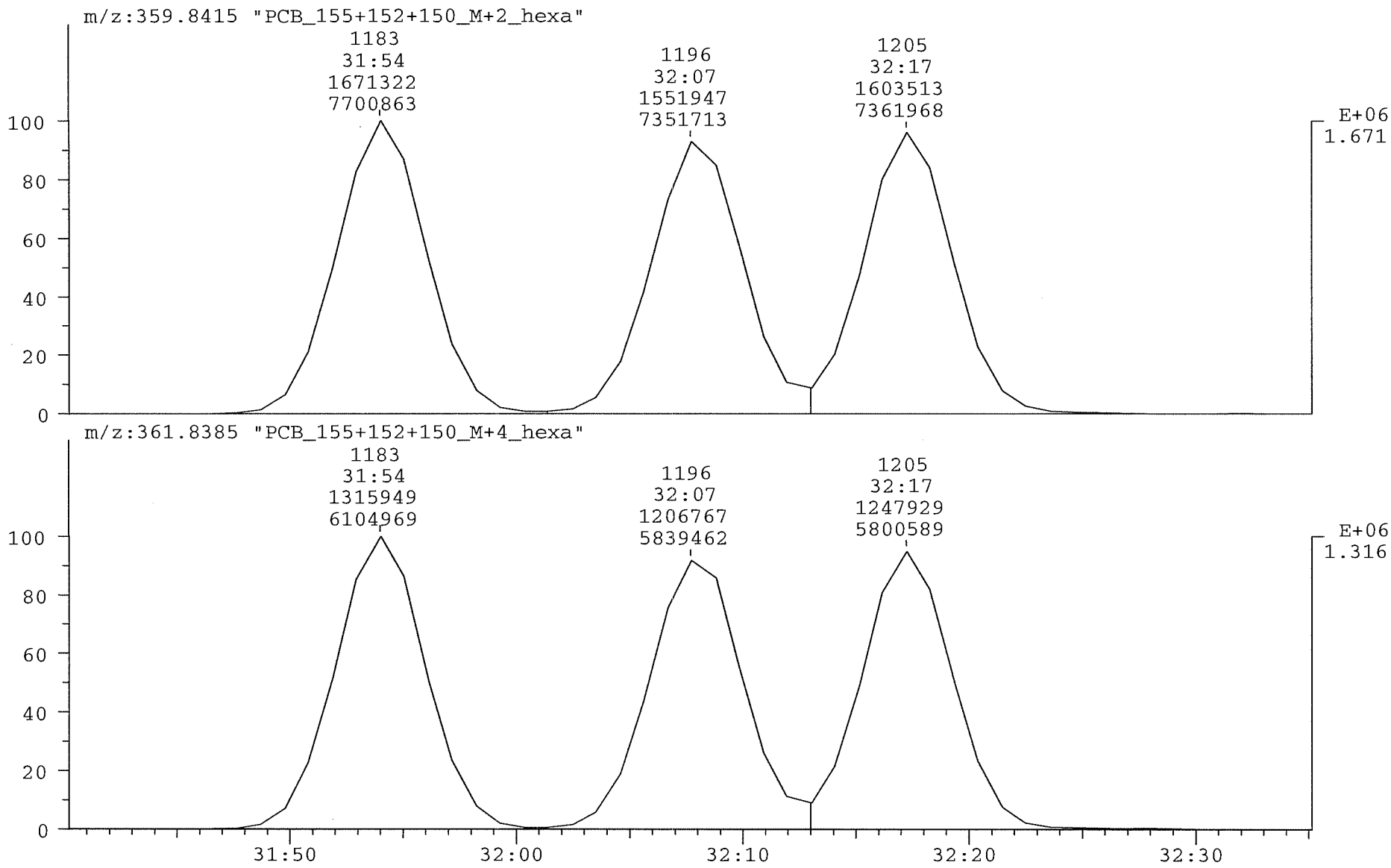
CHRO: a080624i4 24-Jun-08 Elapse: 45:28 1950
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1785 > 2105 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1850

1849

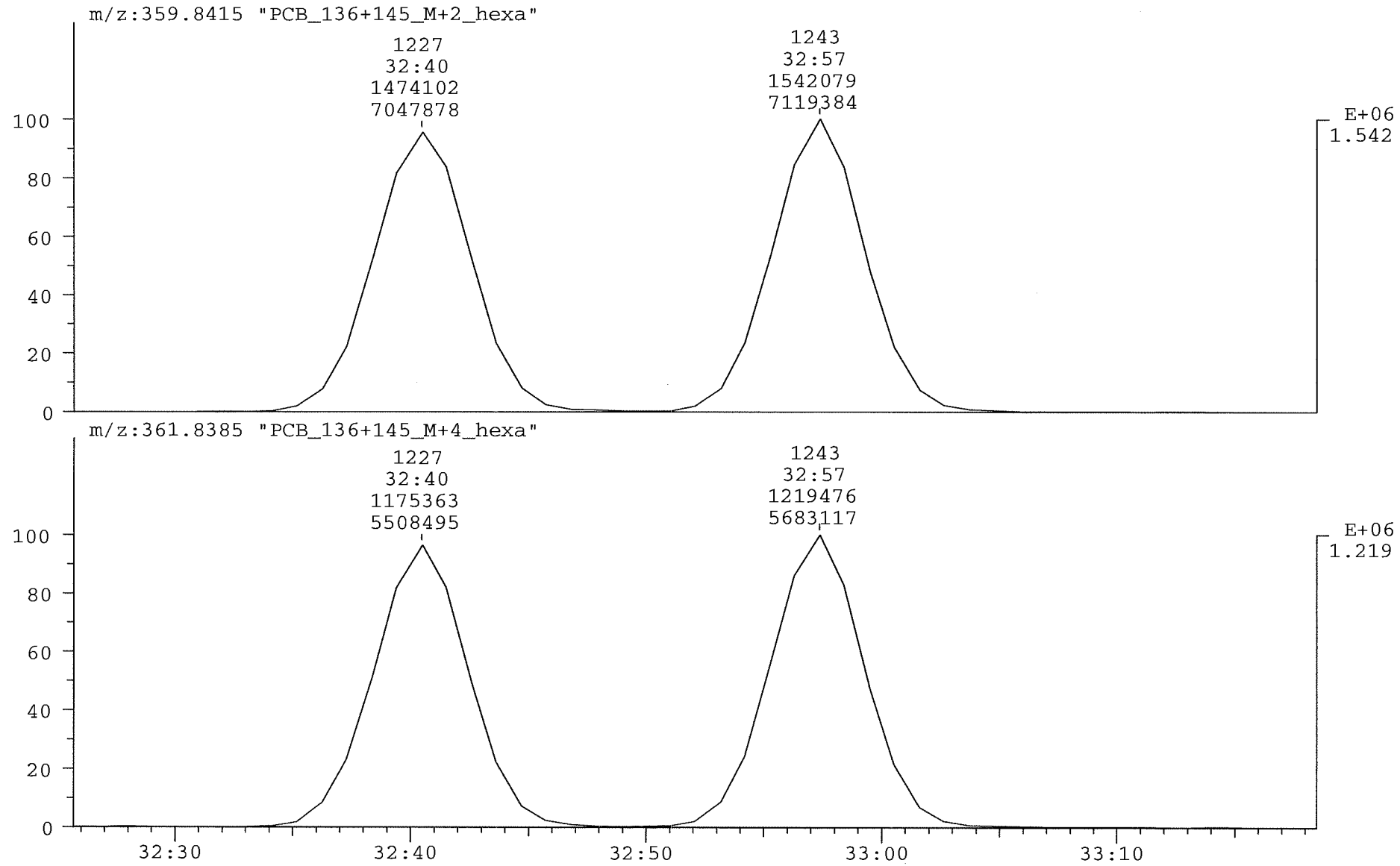
CHRO: a080624i4 24-Jun-08 Elapse: 32:08 1197
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1170 > 1222 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1851

1850

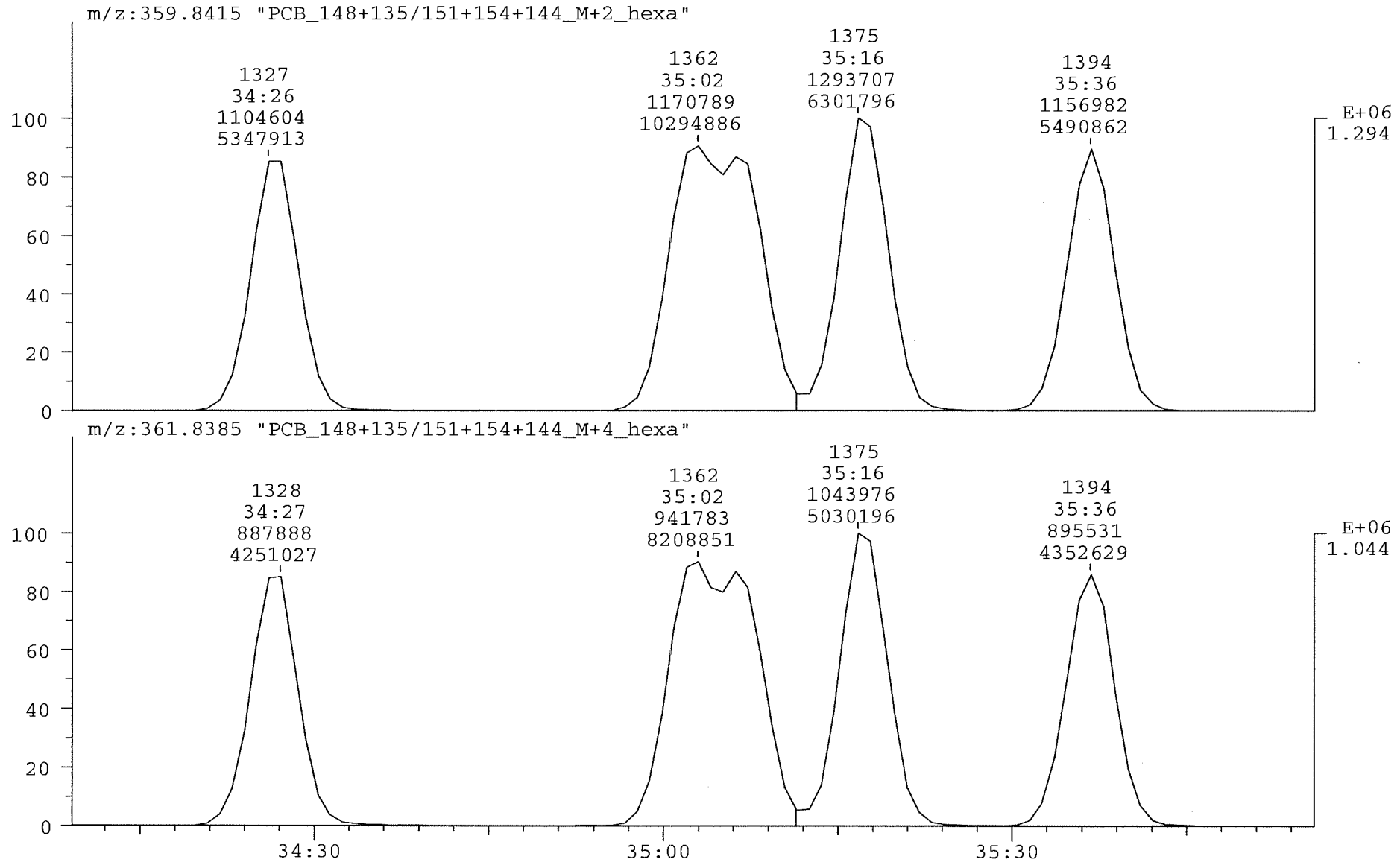
CHRO: a080624i4 24-Jun-08 Elapse: 32:52 1238
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1213 > 1263 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1852

1851

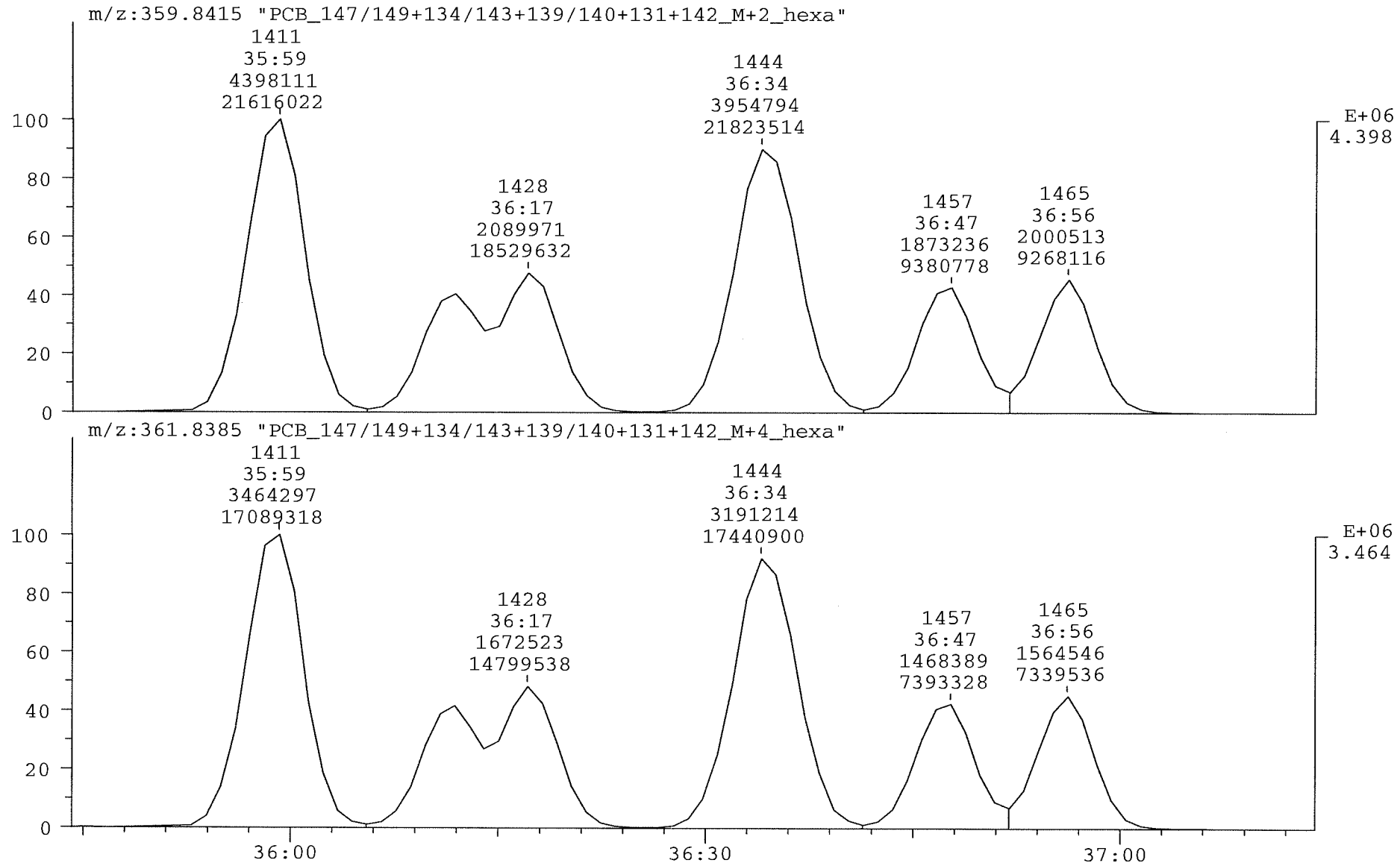
CHRO: a080624i4 24-Jun-08 Elapse: 35:07 1366
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1311 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1853

1852

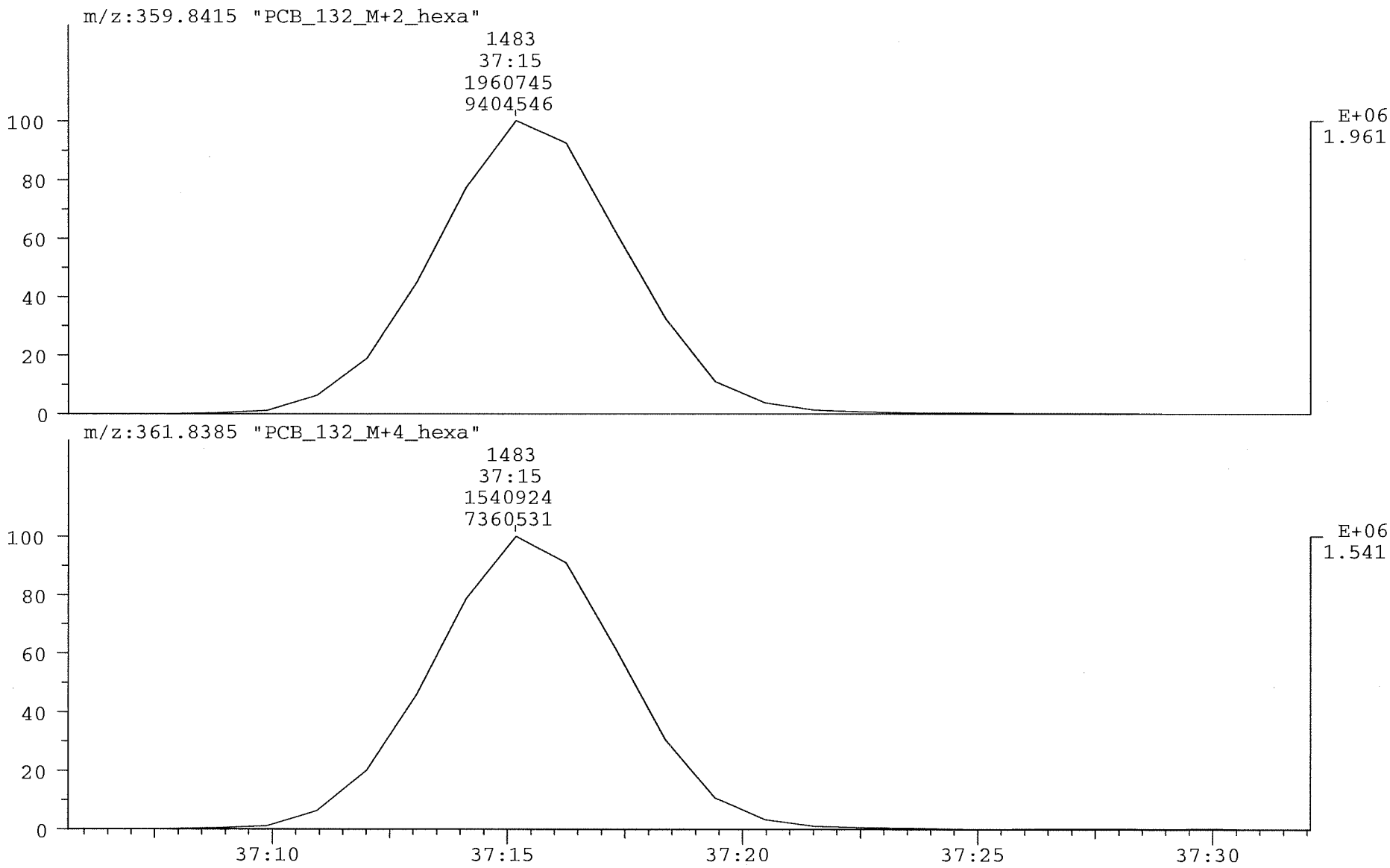
CHRO: a080624i4 24-Jun-08 Elapse: 36:35 1445
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1401 > 1482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1854

1853

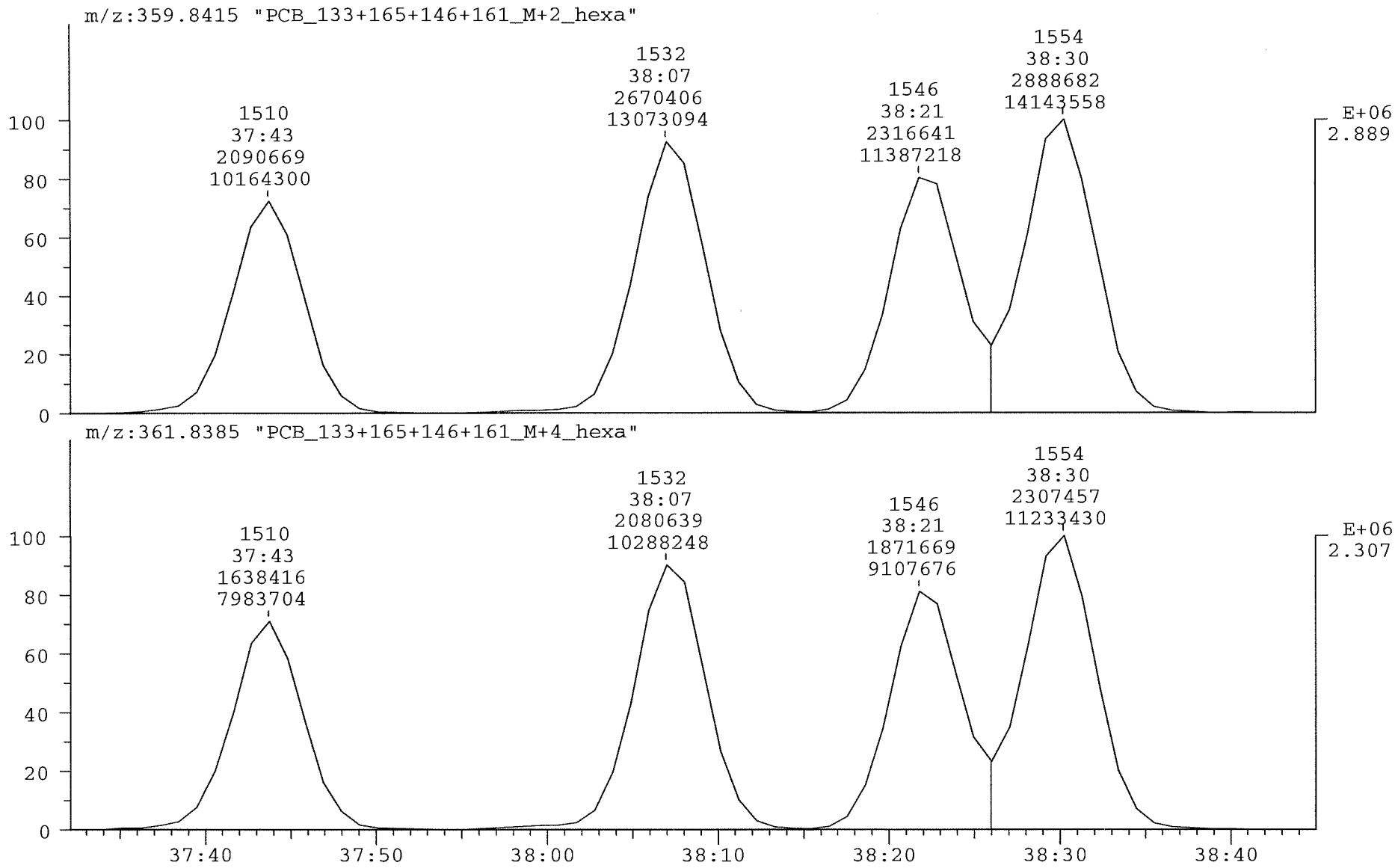
CHRO: a080624i4 24-Jun-08 Elapse: 37:16 1484
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1474 > 1499 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1855

1854

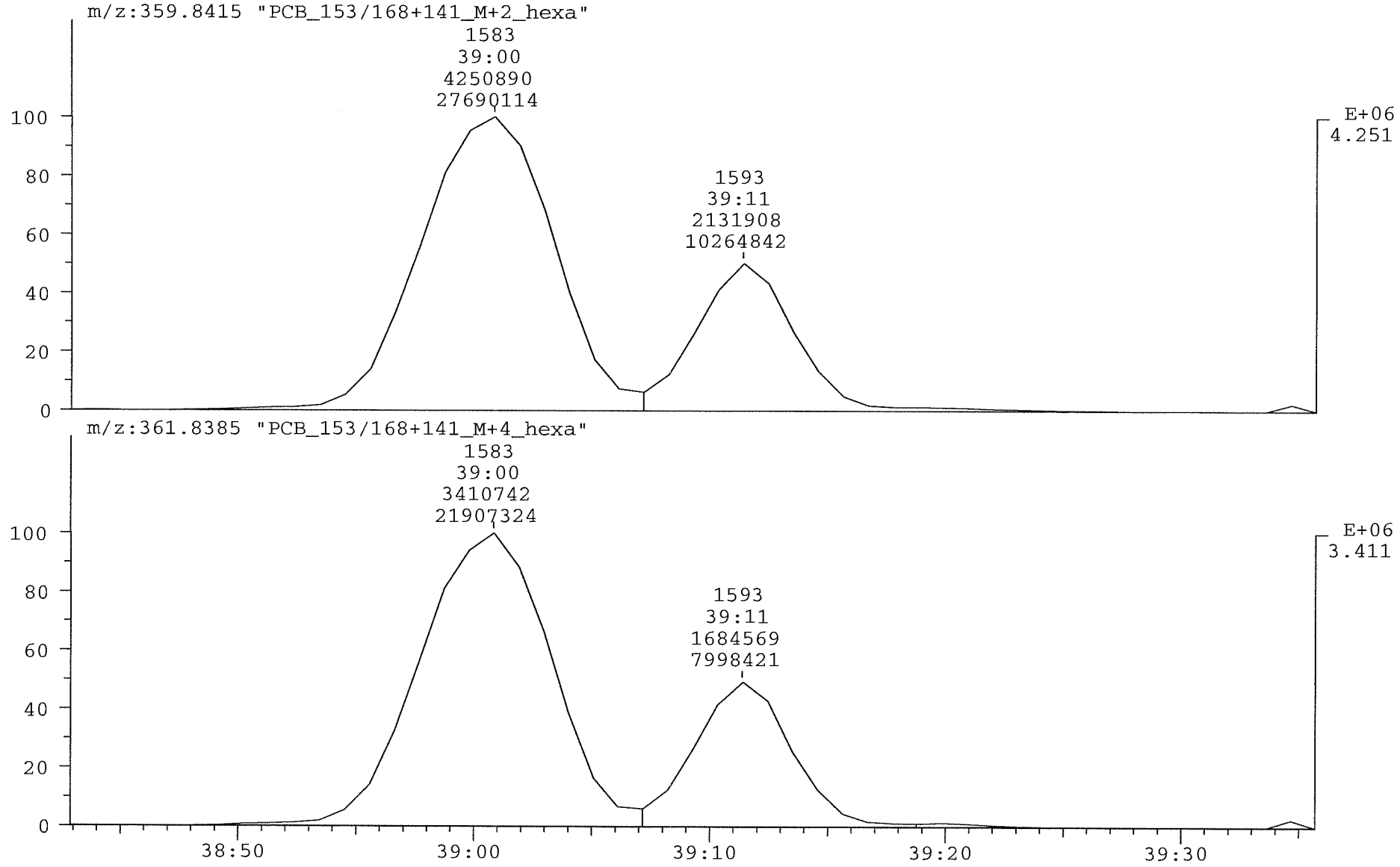
CHRO: a080624i4 24-Jun-08 Elapse: 38:10 1535
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1499 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1856

1855

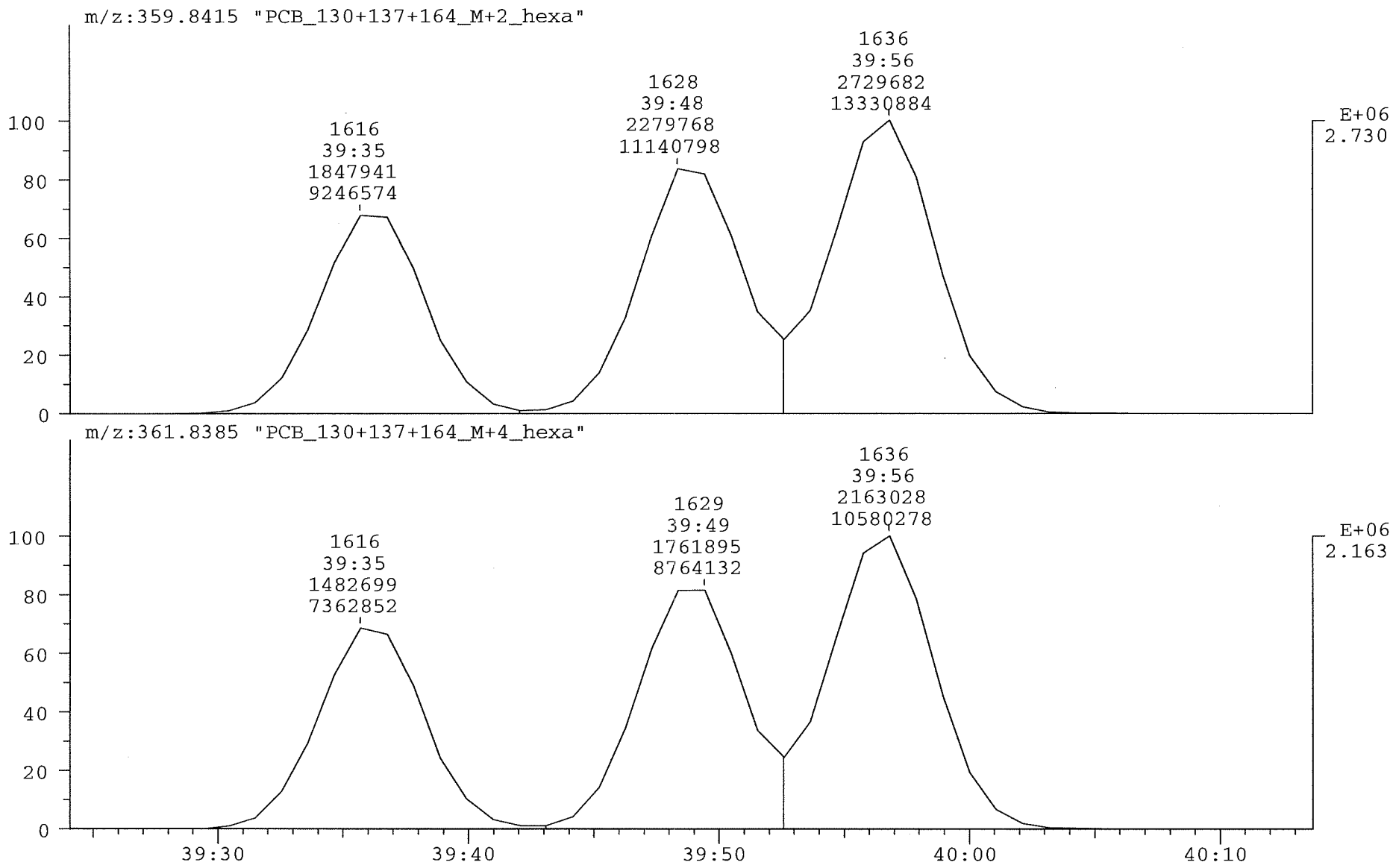
CHRO: a080624i4 24-Jun-08 Elapse: 39:09 1591
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1566 > 1616 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1857

1856

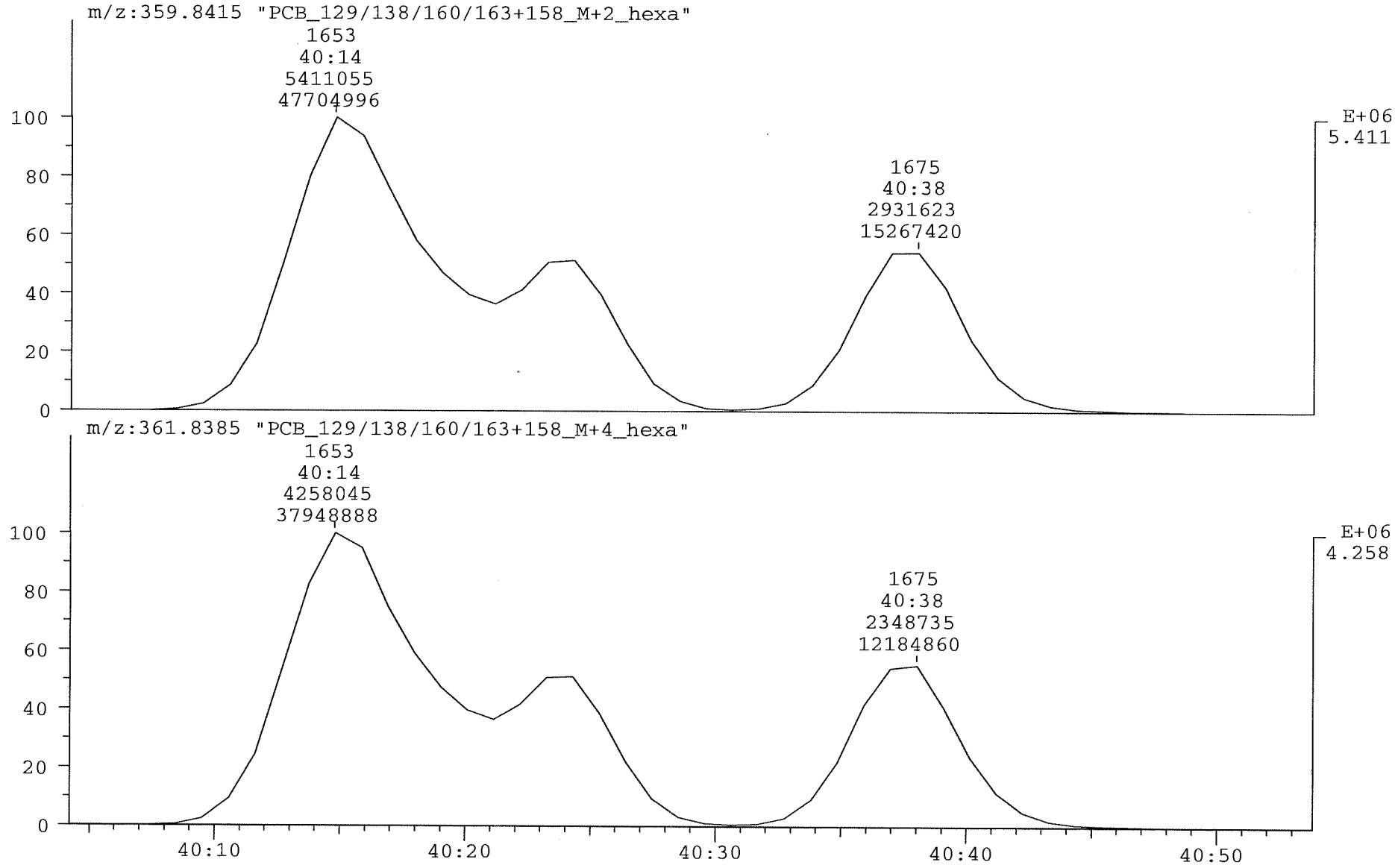
CHRO: a080624i4 24-Jun-08 Elapse: 39:50 1630
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1605 > 1652 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1858

1857

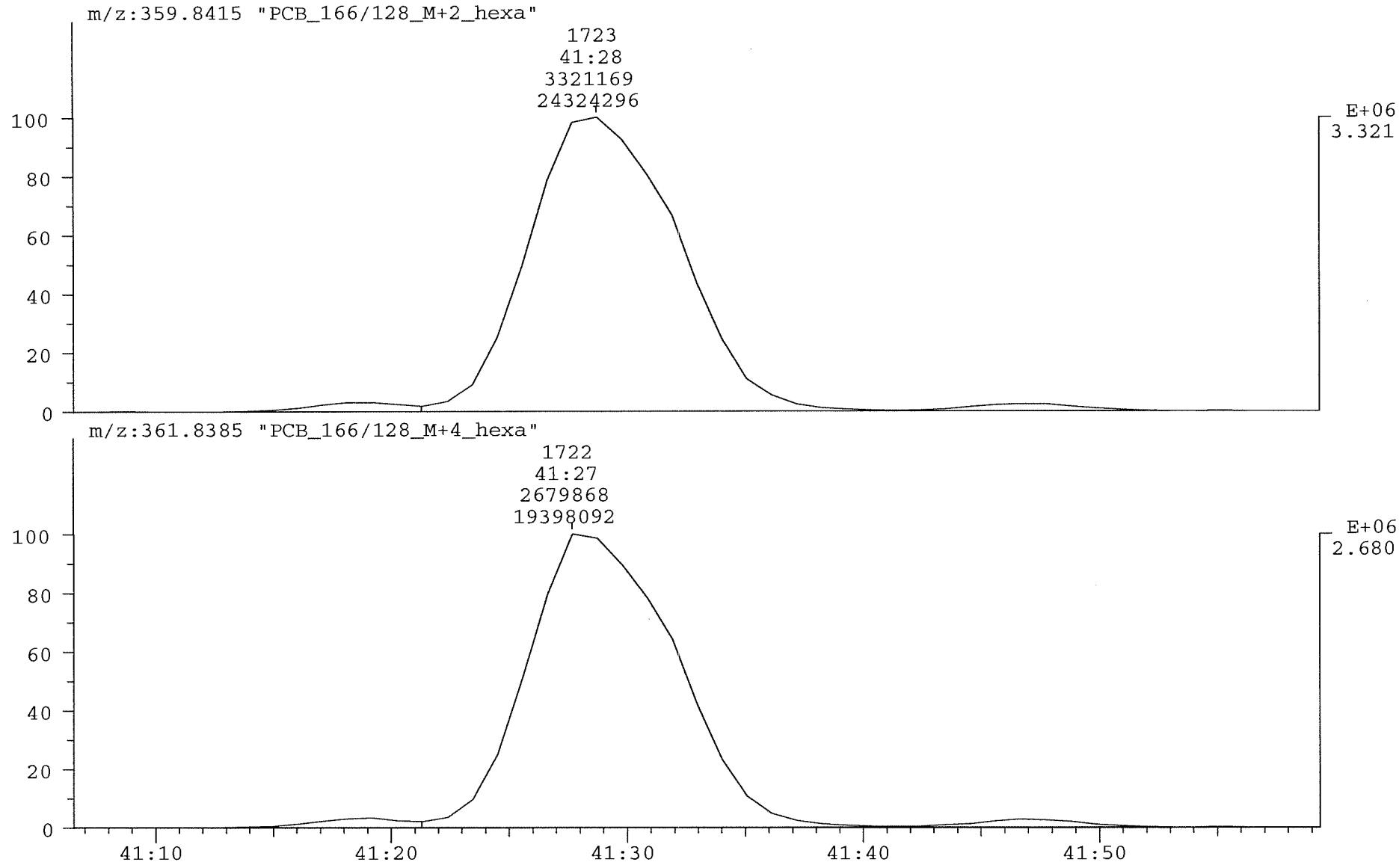
CHRO: a080624i4 24-Jun-08 Elapse: 40:30 1668
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1643 > 1690 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1859

1858

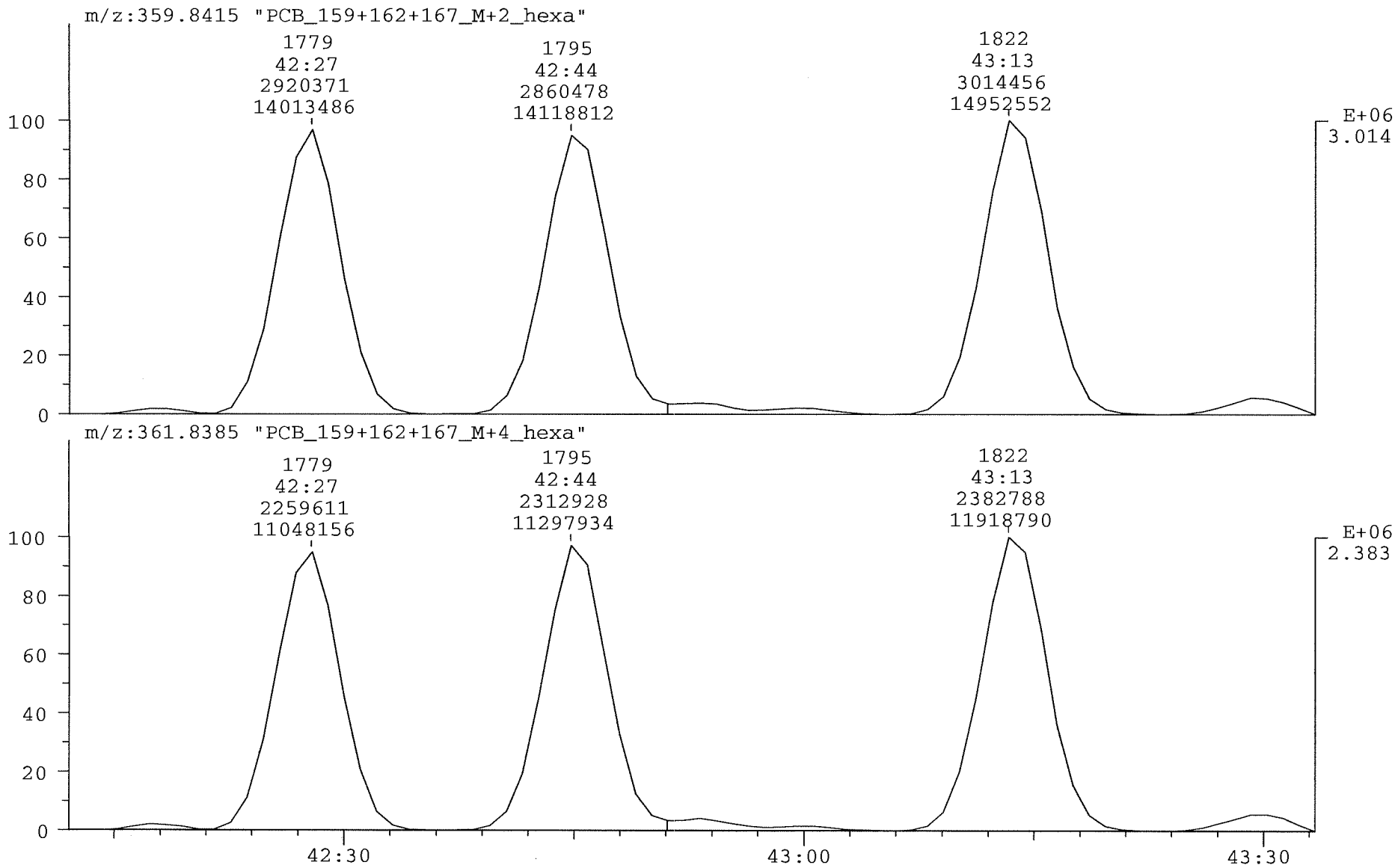
CHRO: a080624i4 24-Jun-08 Elapse: 41:32 1727
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1702 > 1752 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1860

1859

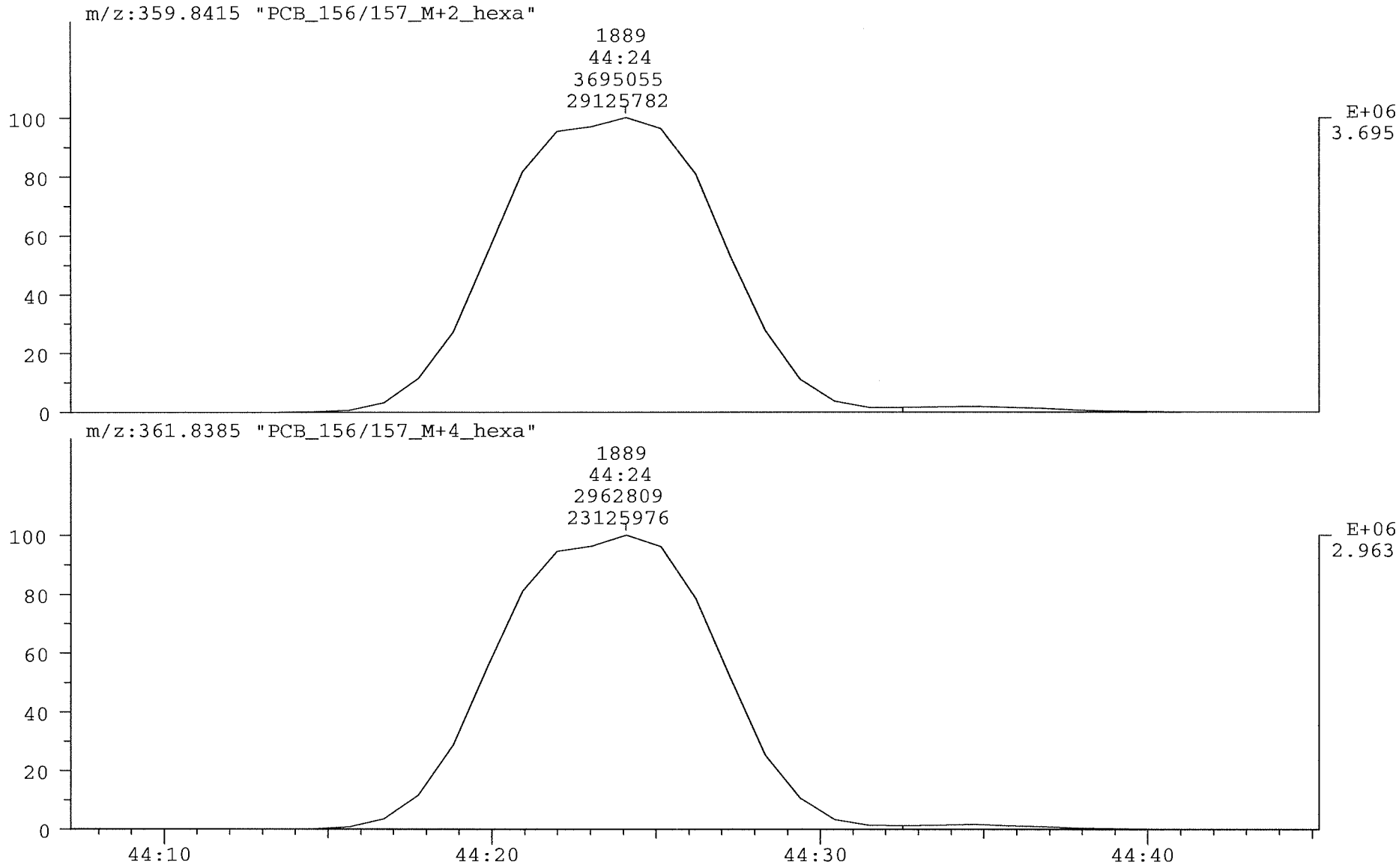
CHRO: a080624i4 24-Jun-08 Elapse: 42:54 1804
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1764 > 1841 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1861

1860

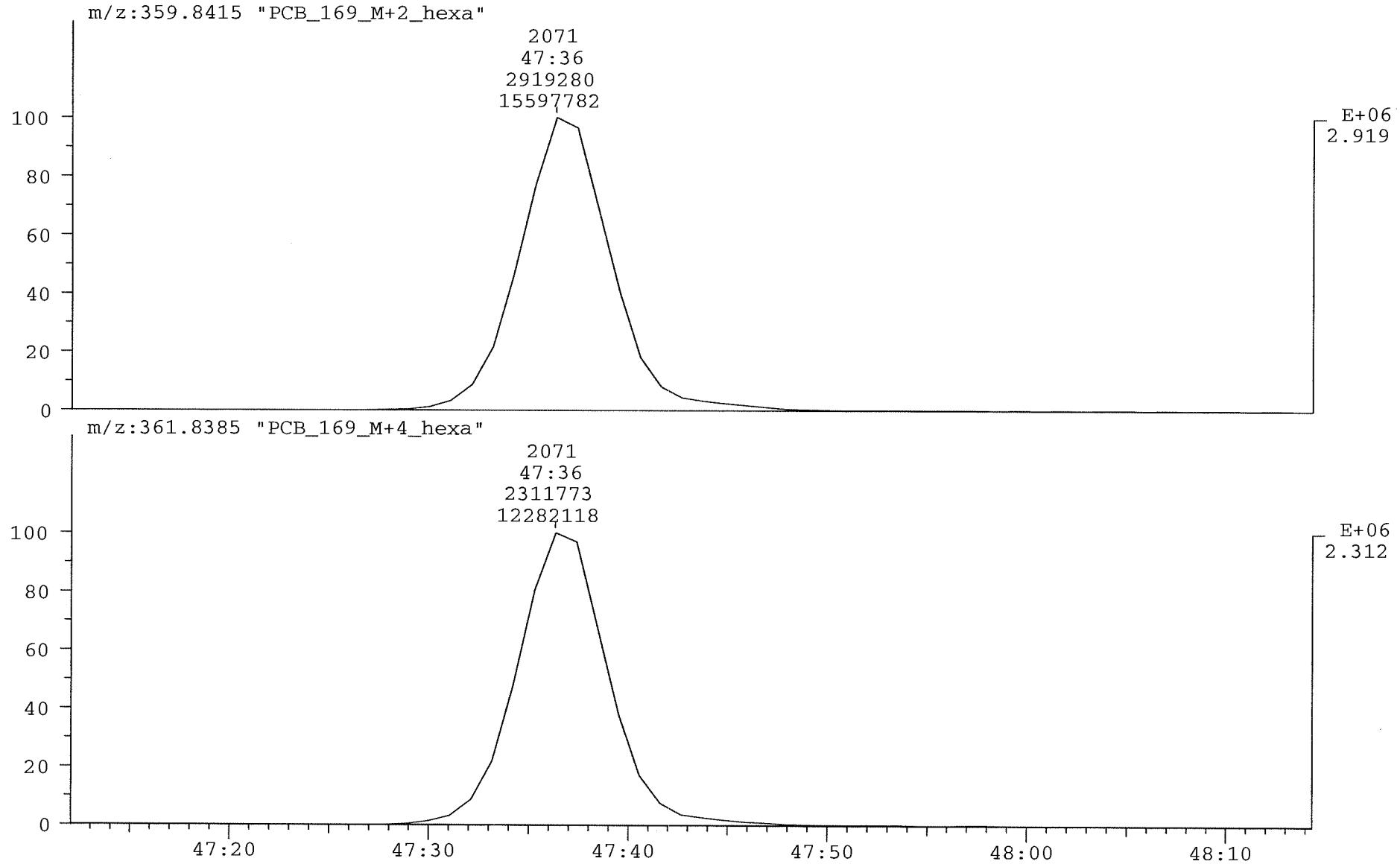
CHRO: a080624i4 24-Jun-08 Elapse: 44:23 1888
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1873 > 1909 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1862

1861

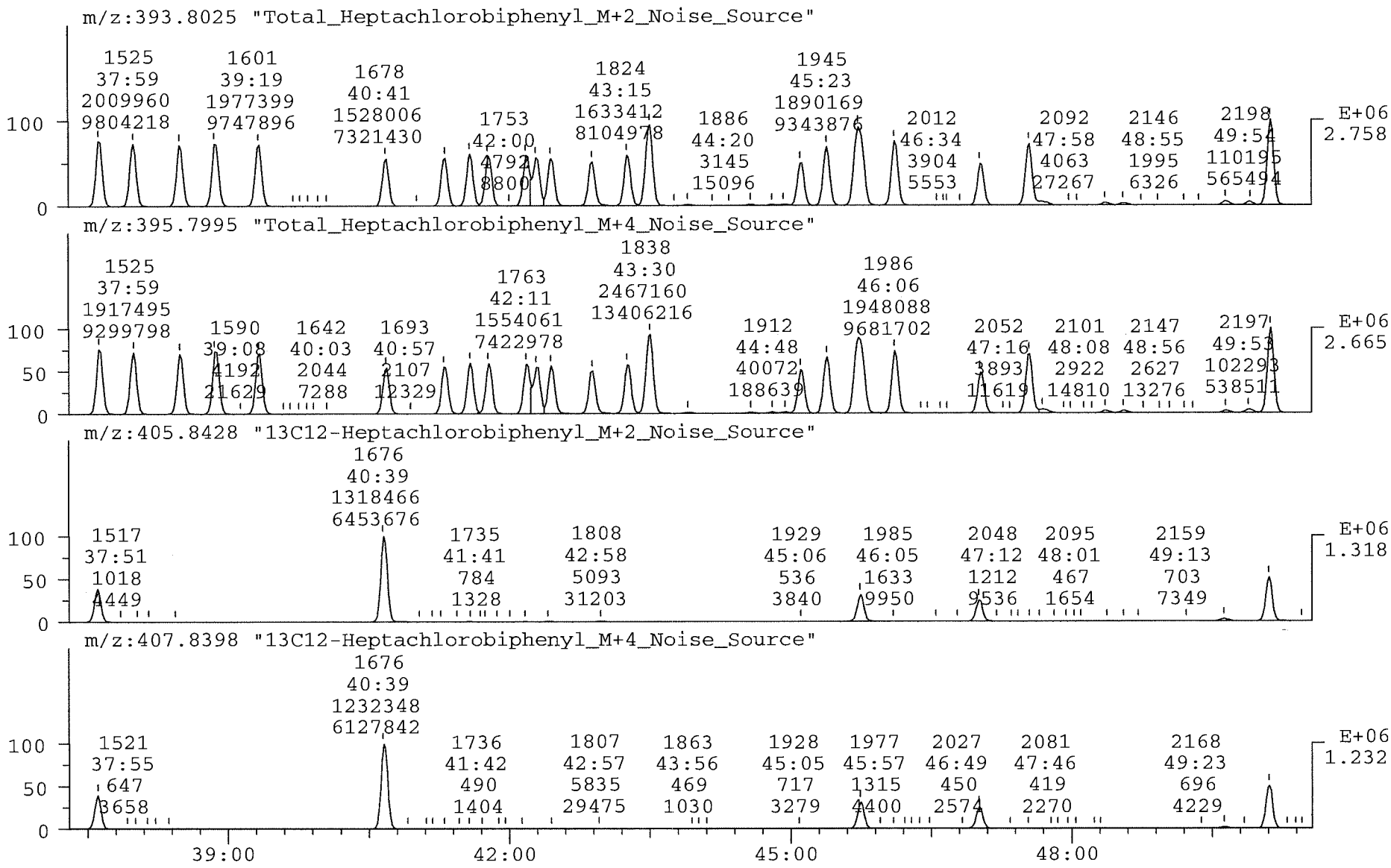
CHRO: a080624i4 24-Jun-08 Elapse: 47:38 2073
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2048 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1863

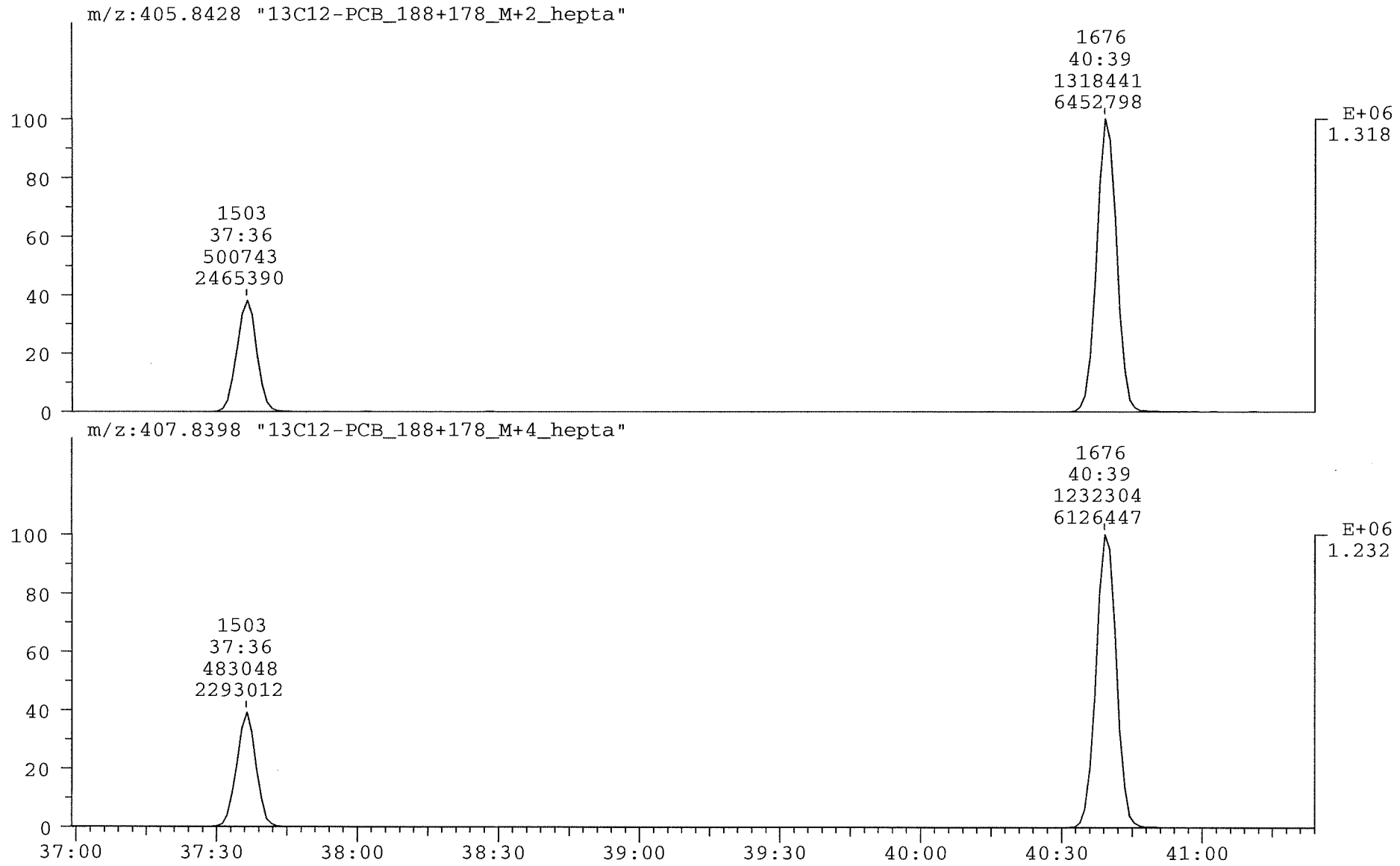
1862

CHRO: a080624i4 24-Jun-08 Elapse: 43:55 1862
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1486 > 2235 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1864

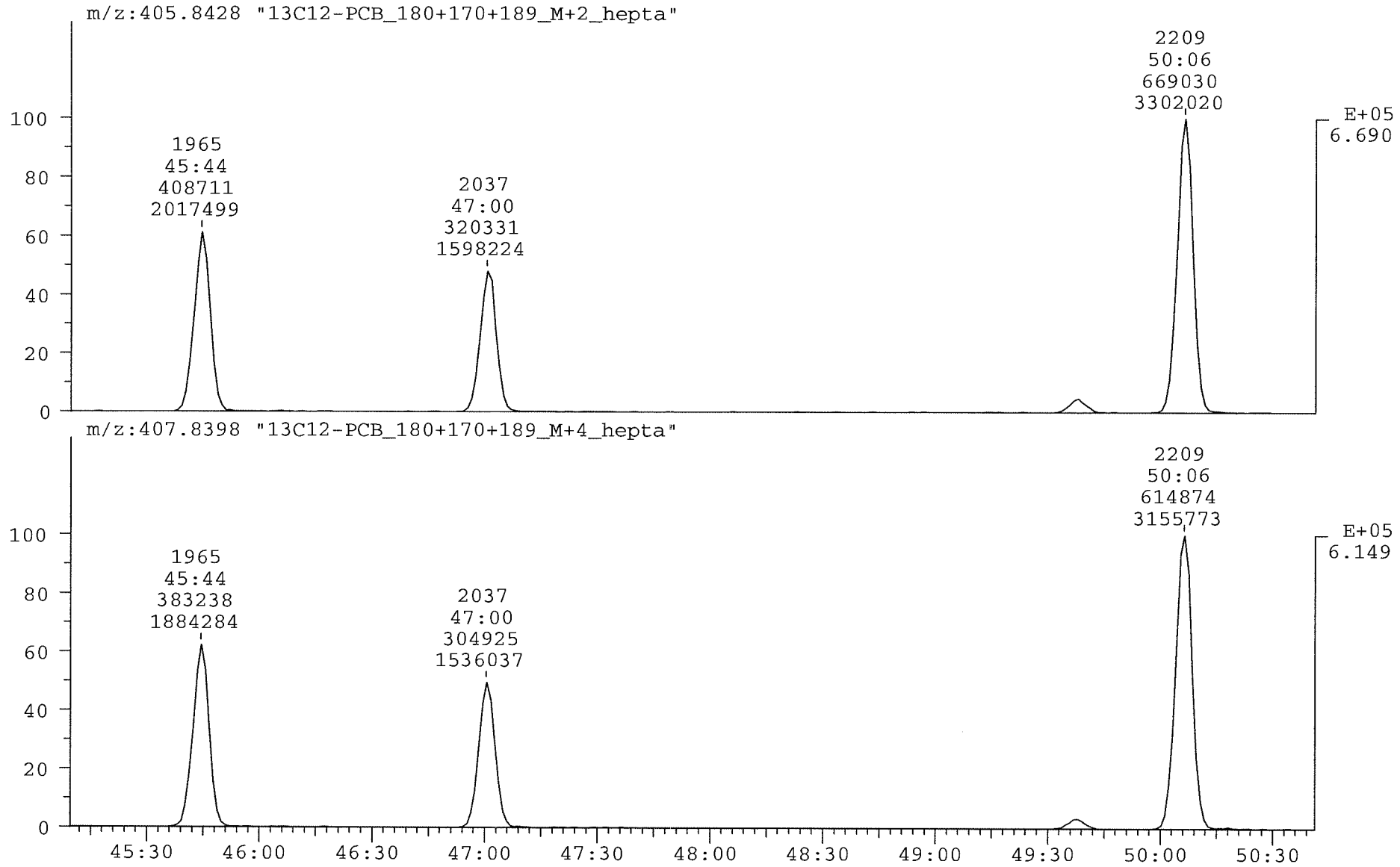
CHRO: a080624i4 24-Jun-08 Elapse: 39:11 1593
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1468 > 1719 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1865

1864

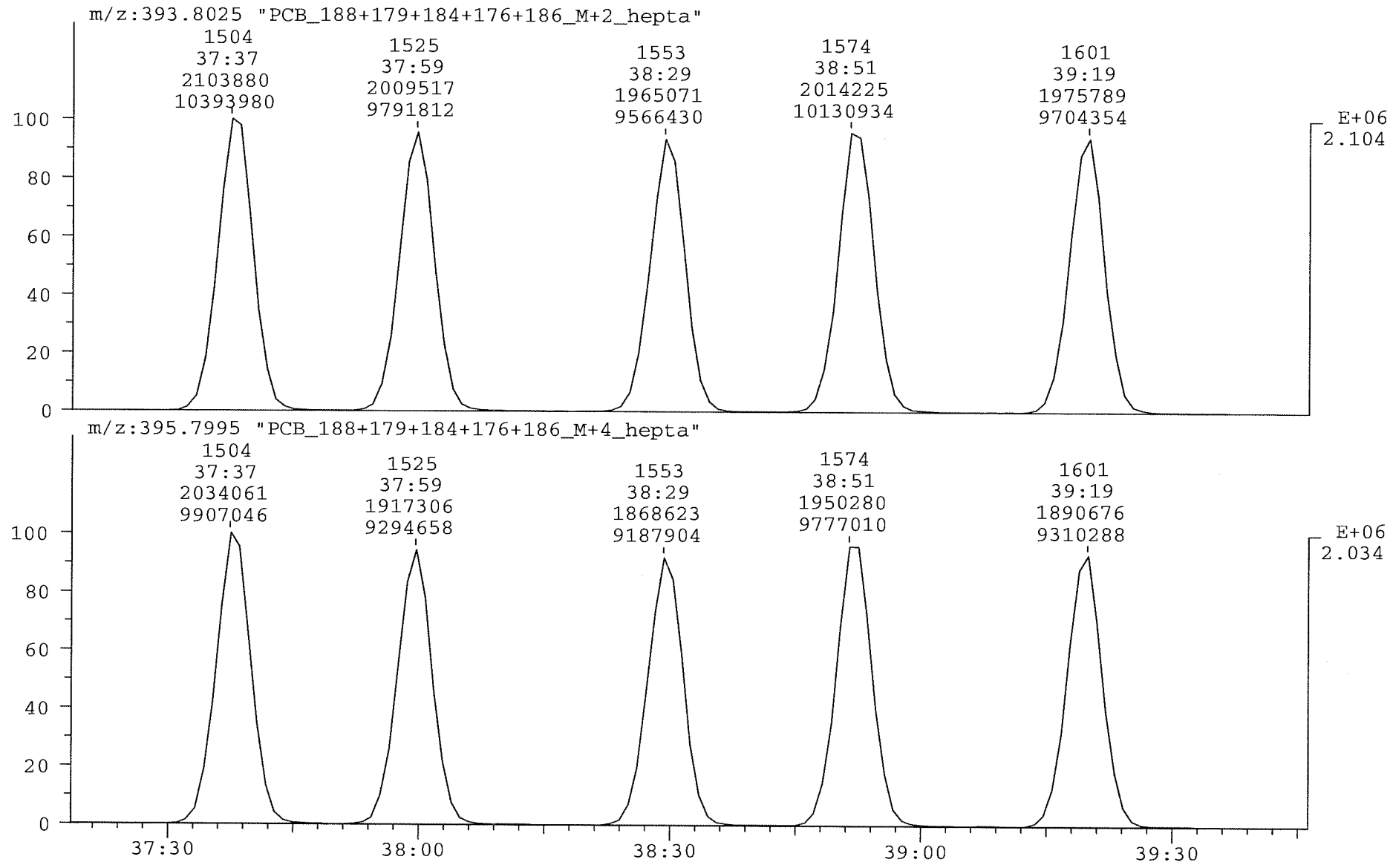
CHRO: a080624i4 24-Jun-08 Elapse: 47:58 2092
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1932 > 2242 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1866

1865

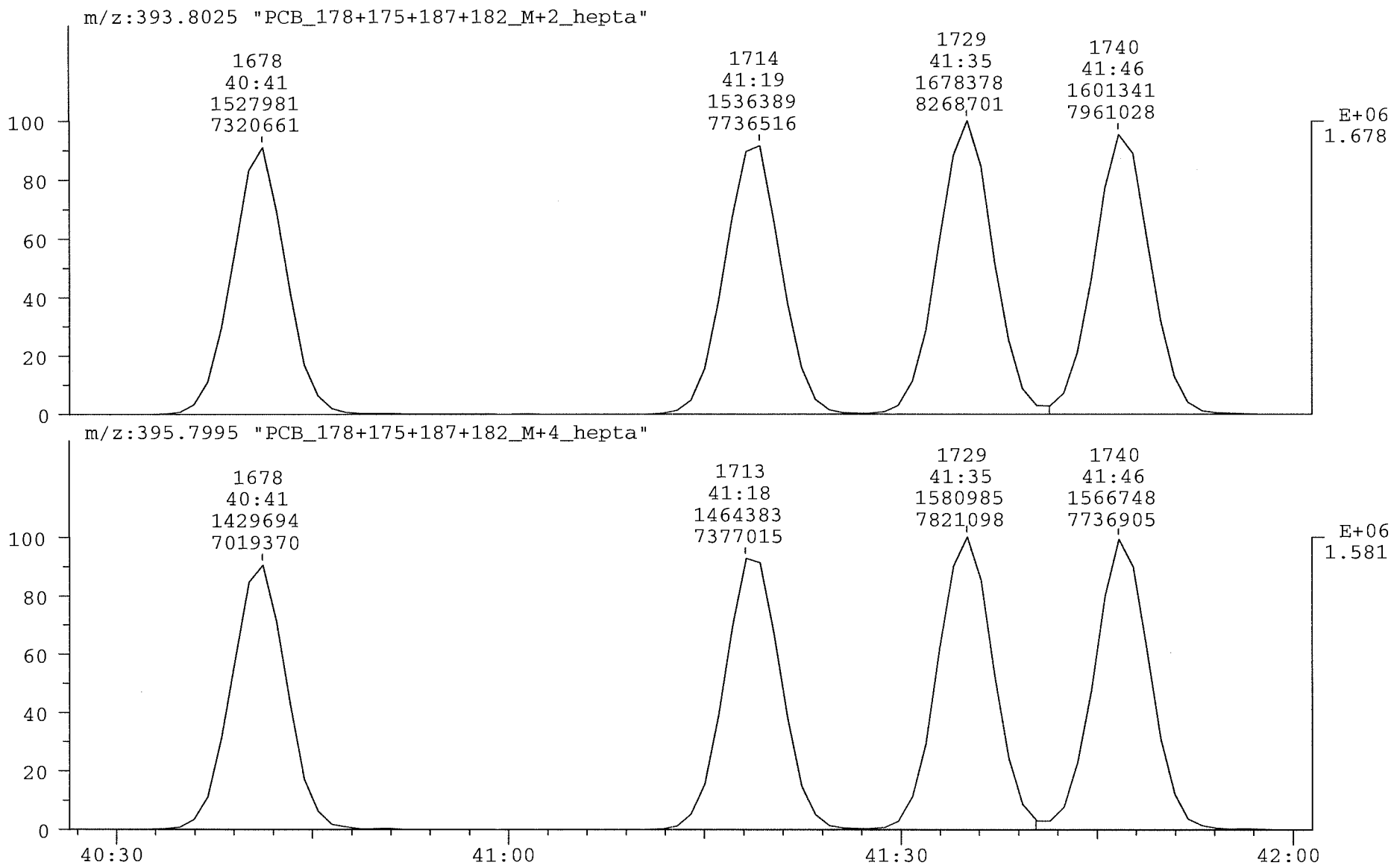
CHRO: a080624i4 24-Jun-08 Elapse: 38:32 1556
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1486 > 1626 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1867

1866

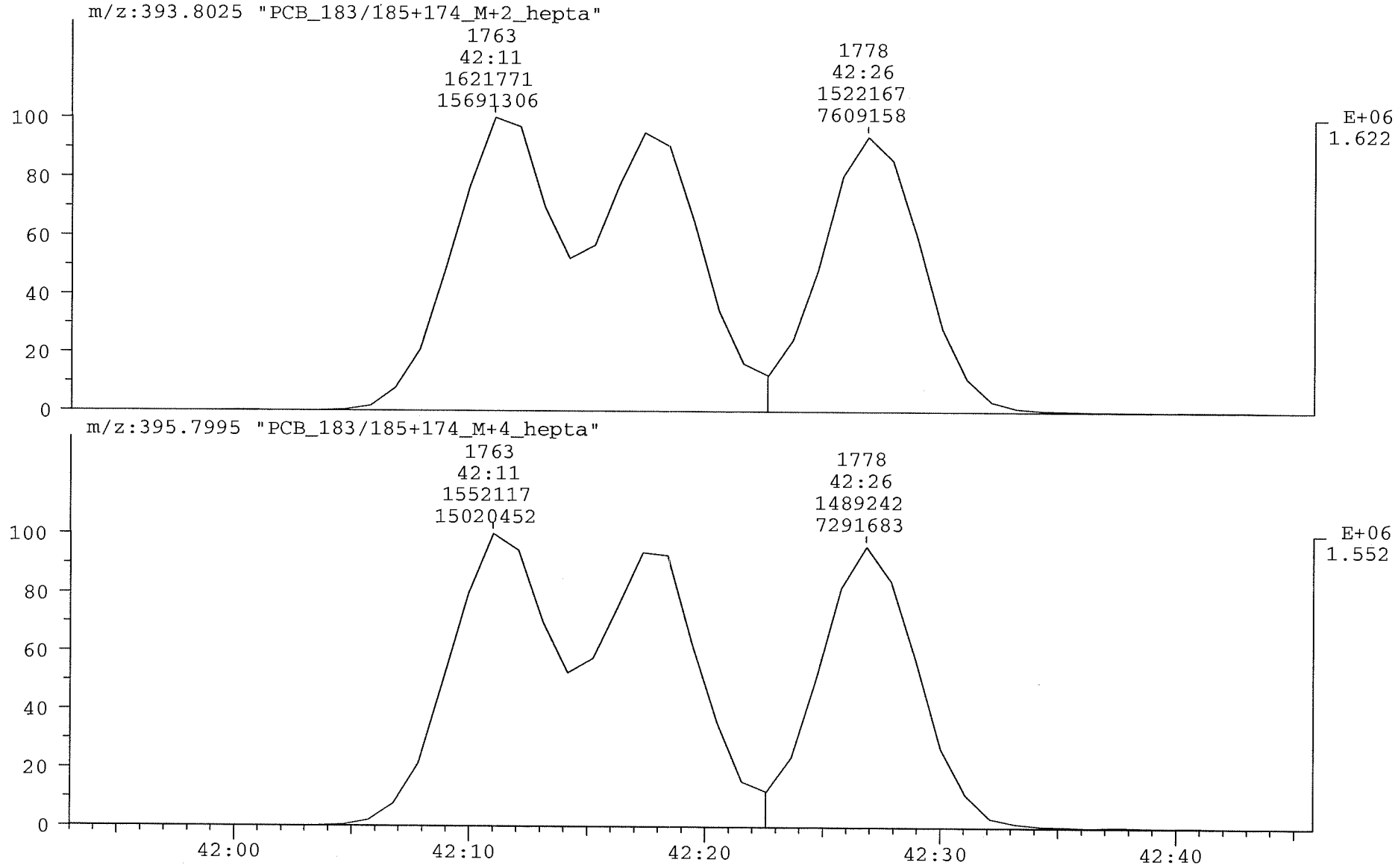
CHRO: a080624i4 24-Jun-08 Elapse: 41:19 1714
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1664 > 1754 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1868

1867

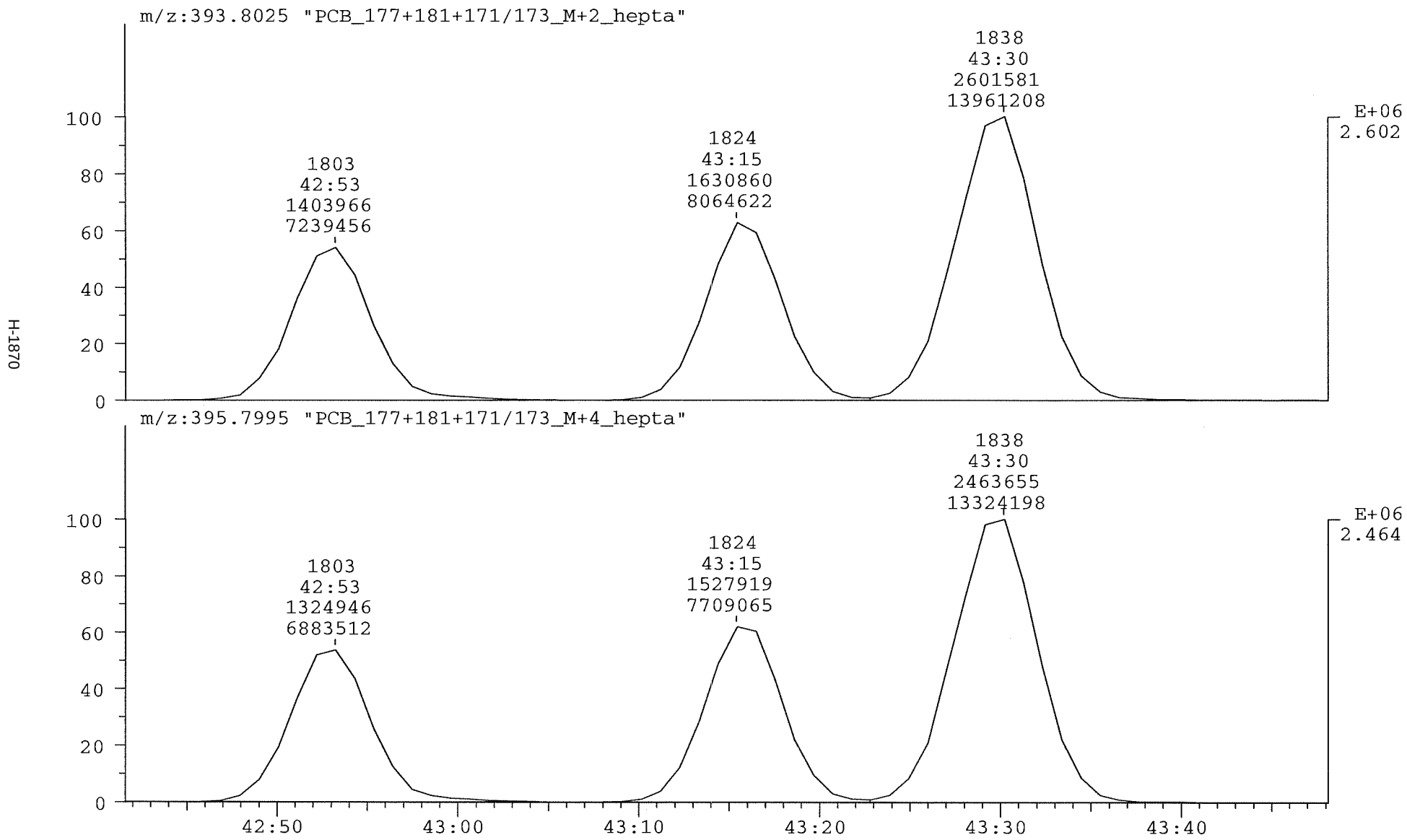
CHRO: a080624i4 24-Jun-08 Elapse: 42:26 1778
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1746 > 1796 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1869

1868

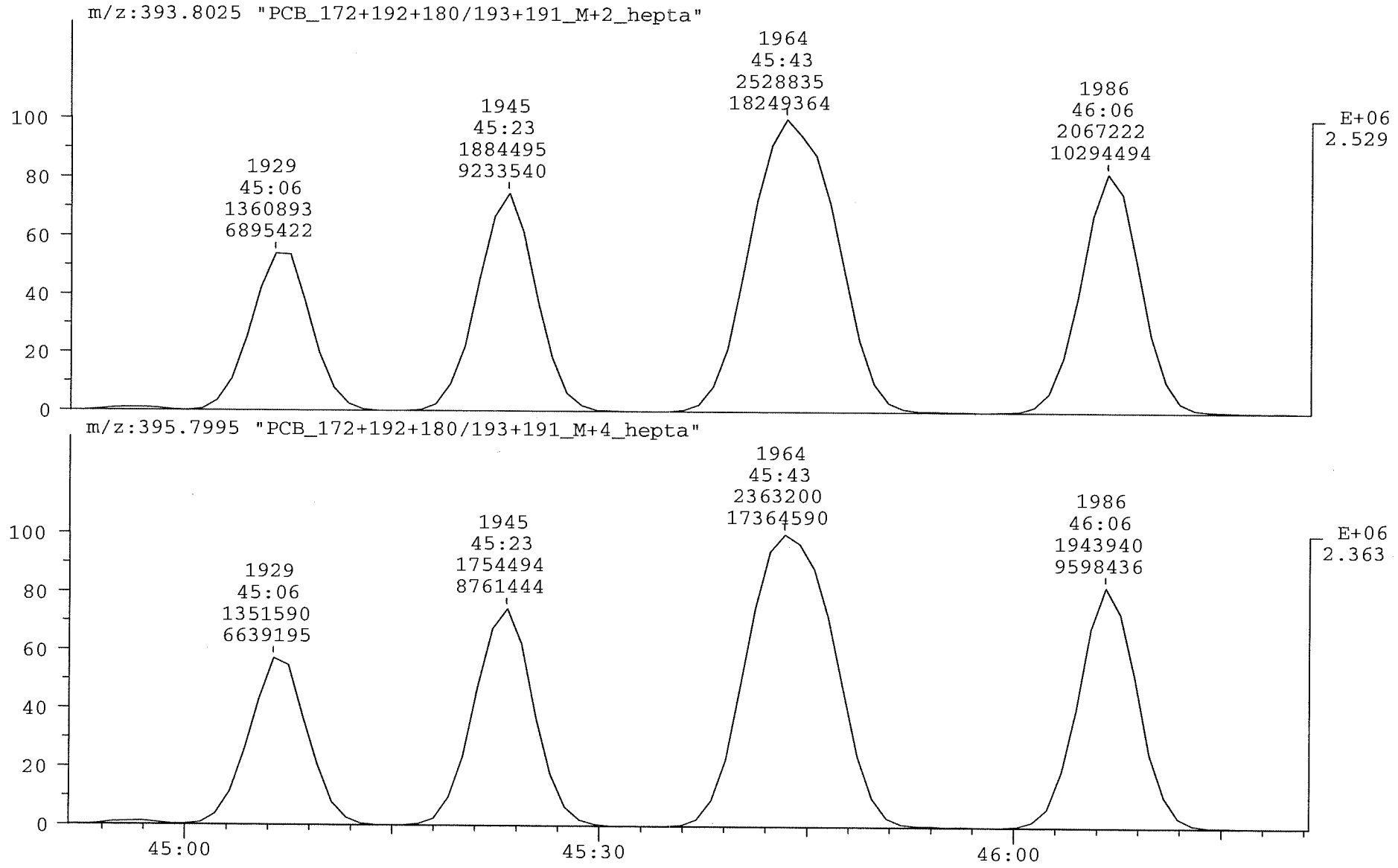
CHRO: a080624i4 24-Jun-08 Elapse: 43:16 1825
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1792 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1870

1869

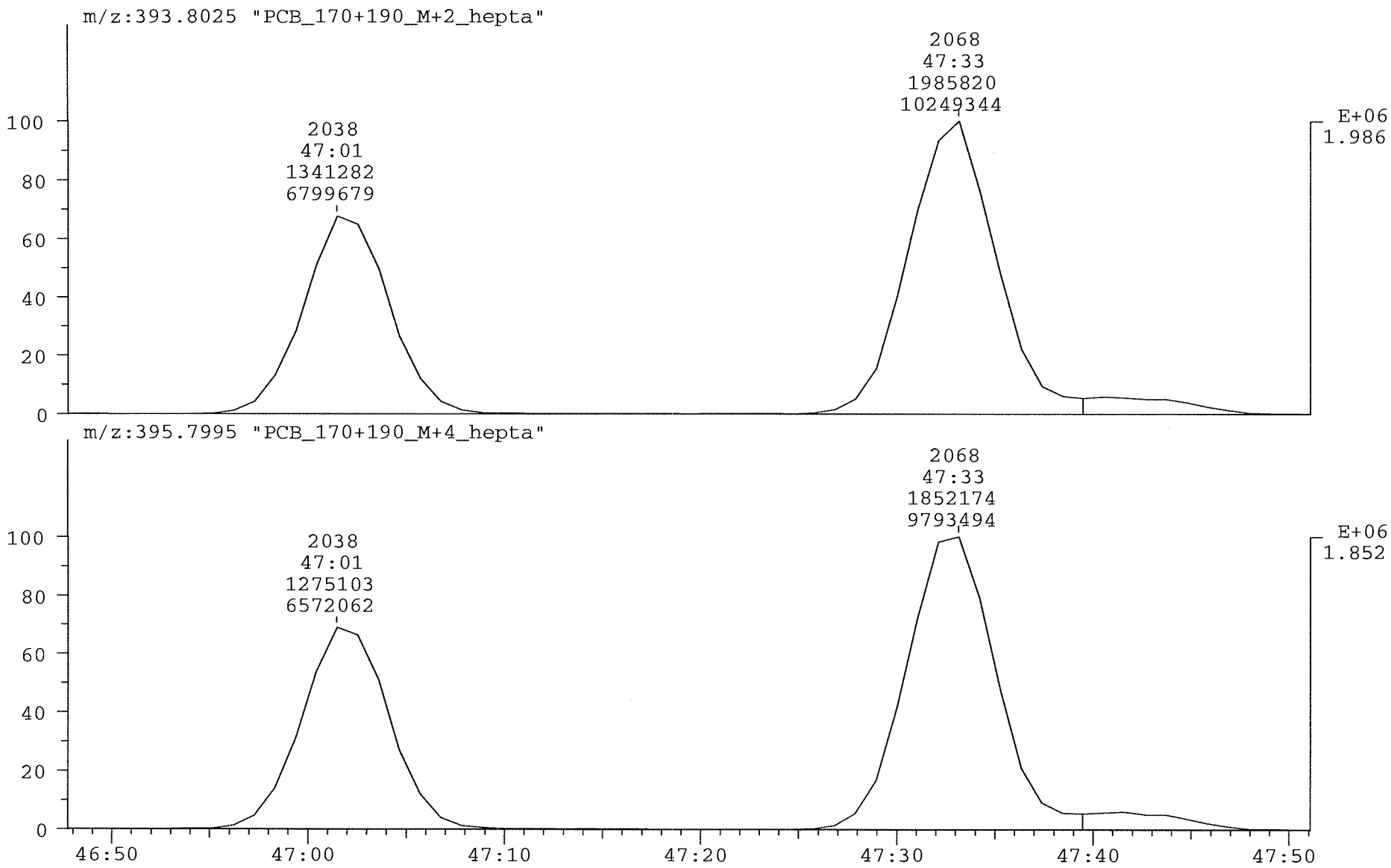
CHRO: a080624i4 24-Jun-08 Elapse: 45:44 1965
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1915 > 2000 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1871

1870

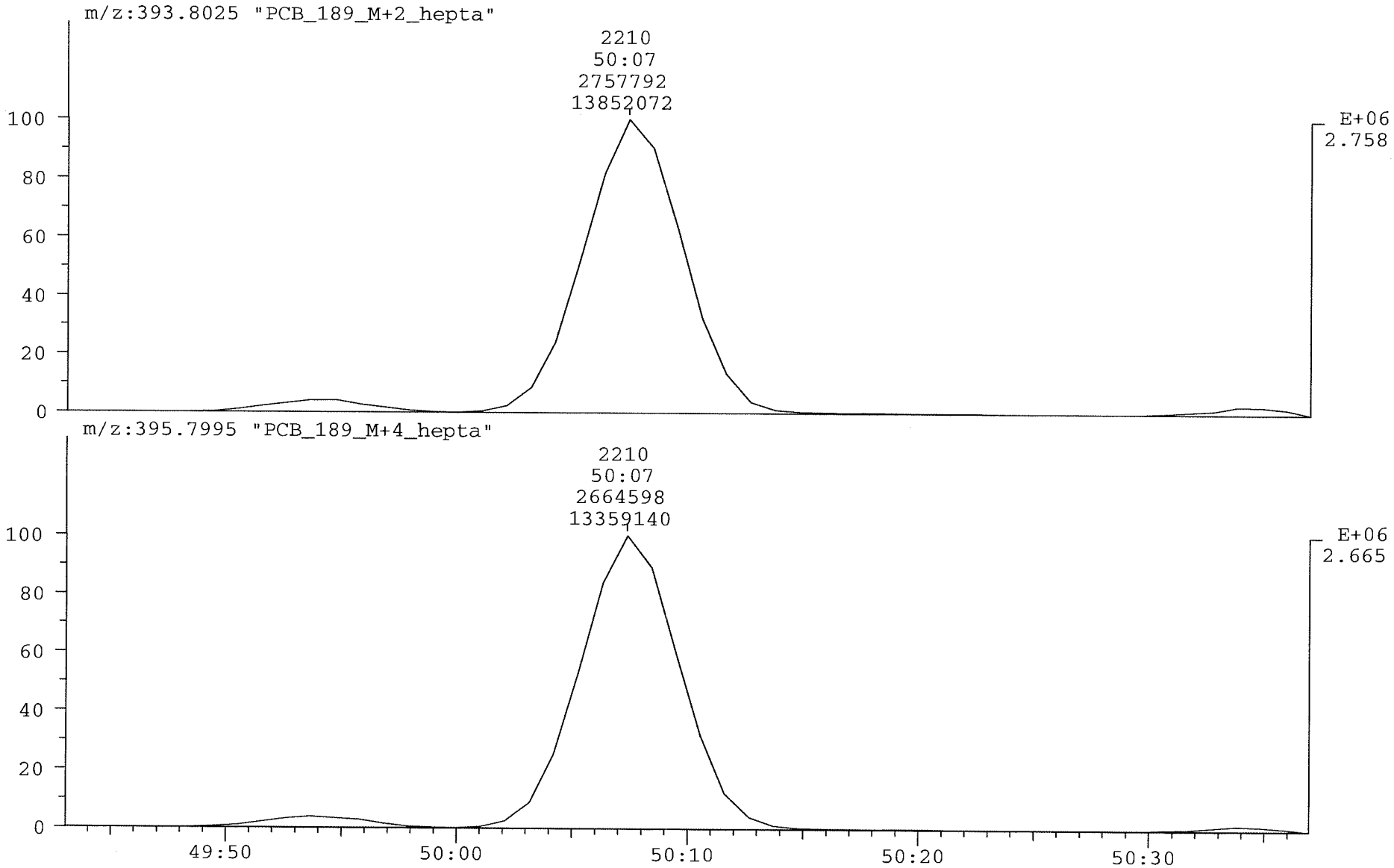
CHRO: a080624i4 24-Jun-08 Elapse: 47:21 2057
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2025 > 2085 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1872

1871

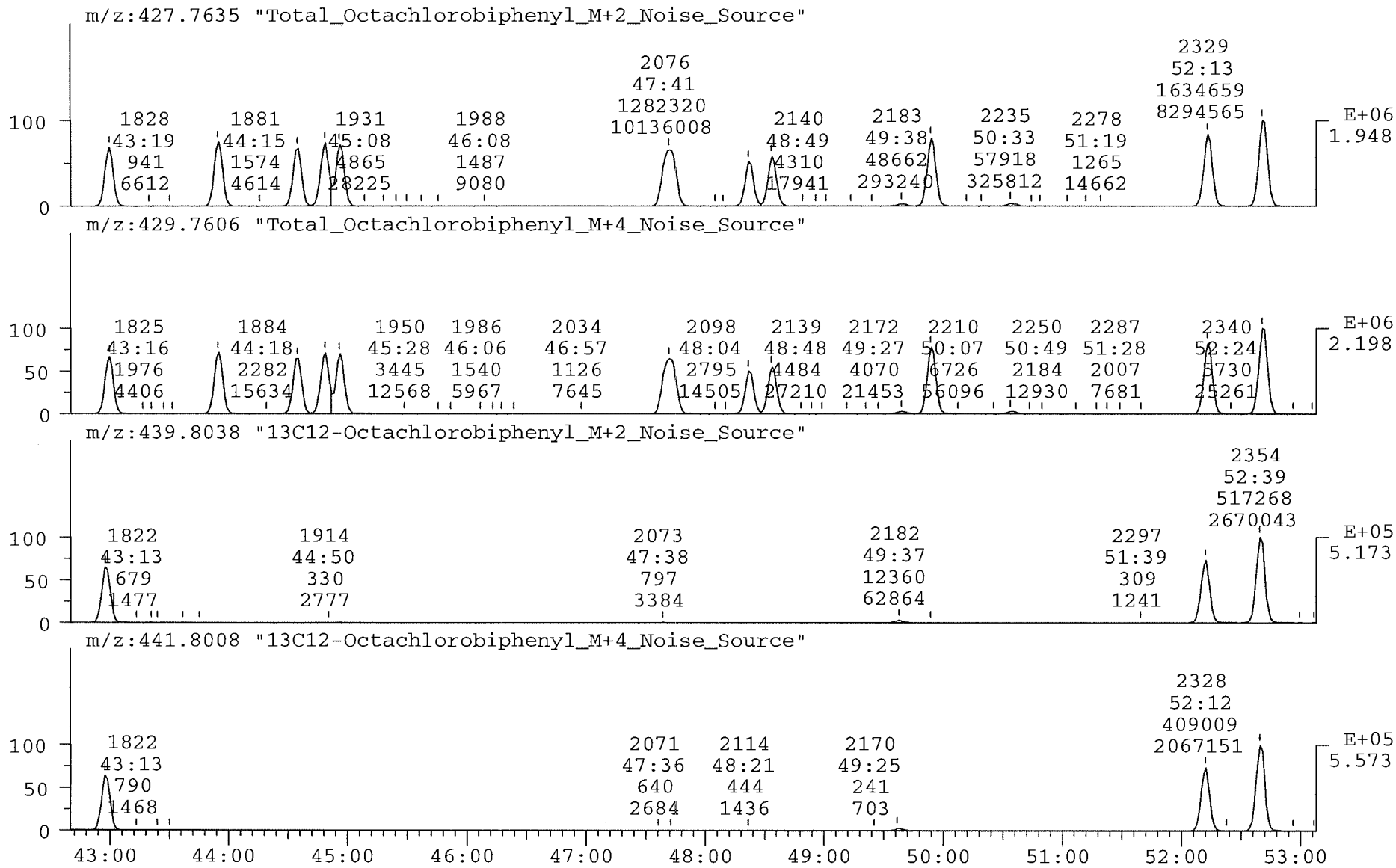
CHRO: a080624i4 24-Jun-08 Elapse: 50:08 2211
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2187 > 2238 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1873

1872

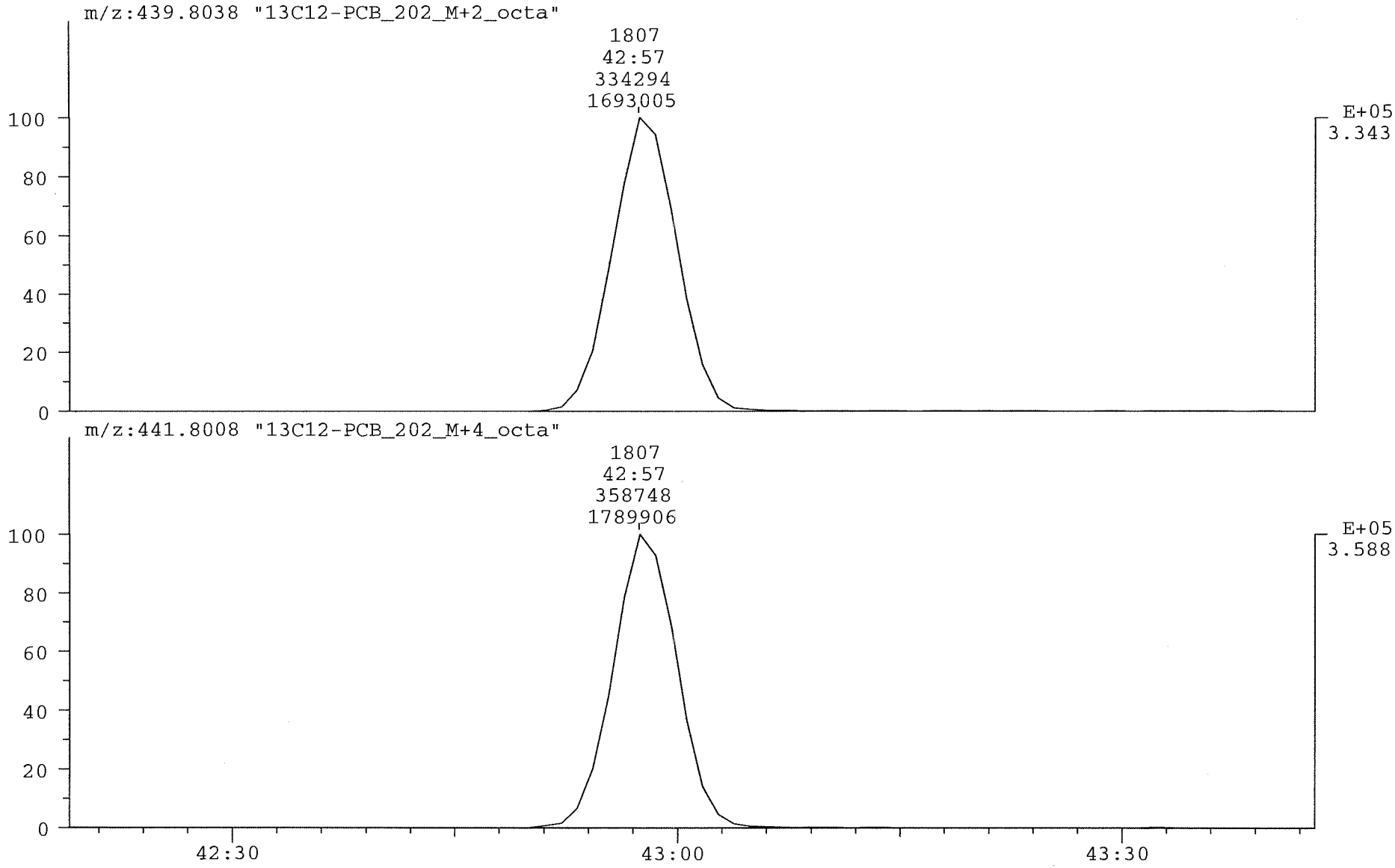
CHRO: a080624i4 24-Jun-08 Elapse: 47:54 2088
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1791 > 2381 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1874

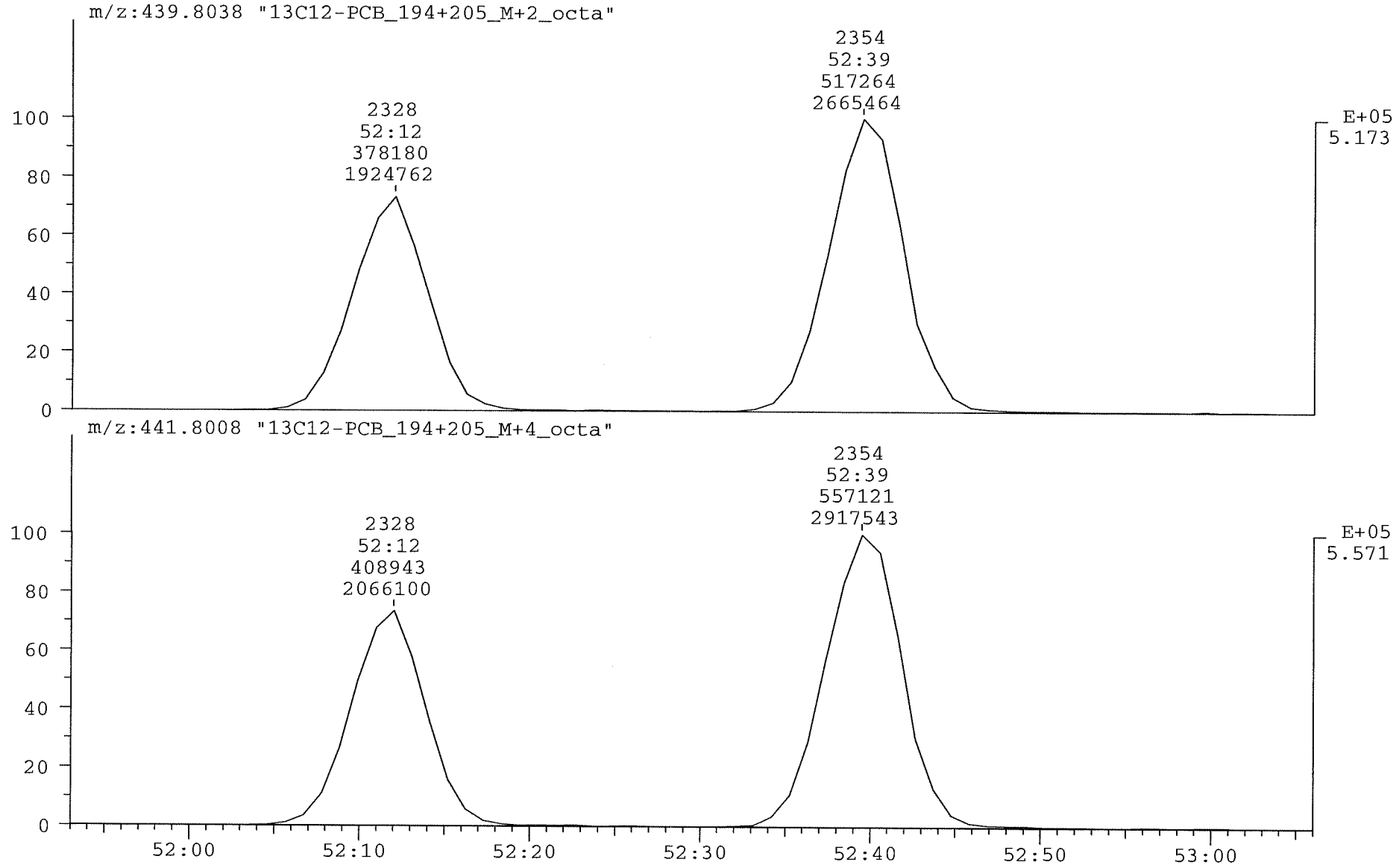
1873

CHRO: a080624i4 24-Jun-08 Elapse: 42:58 1808
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1771 > 1850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



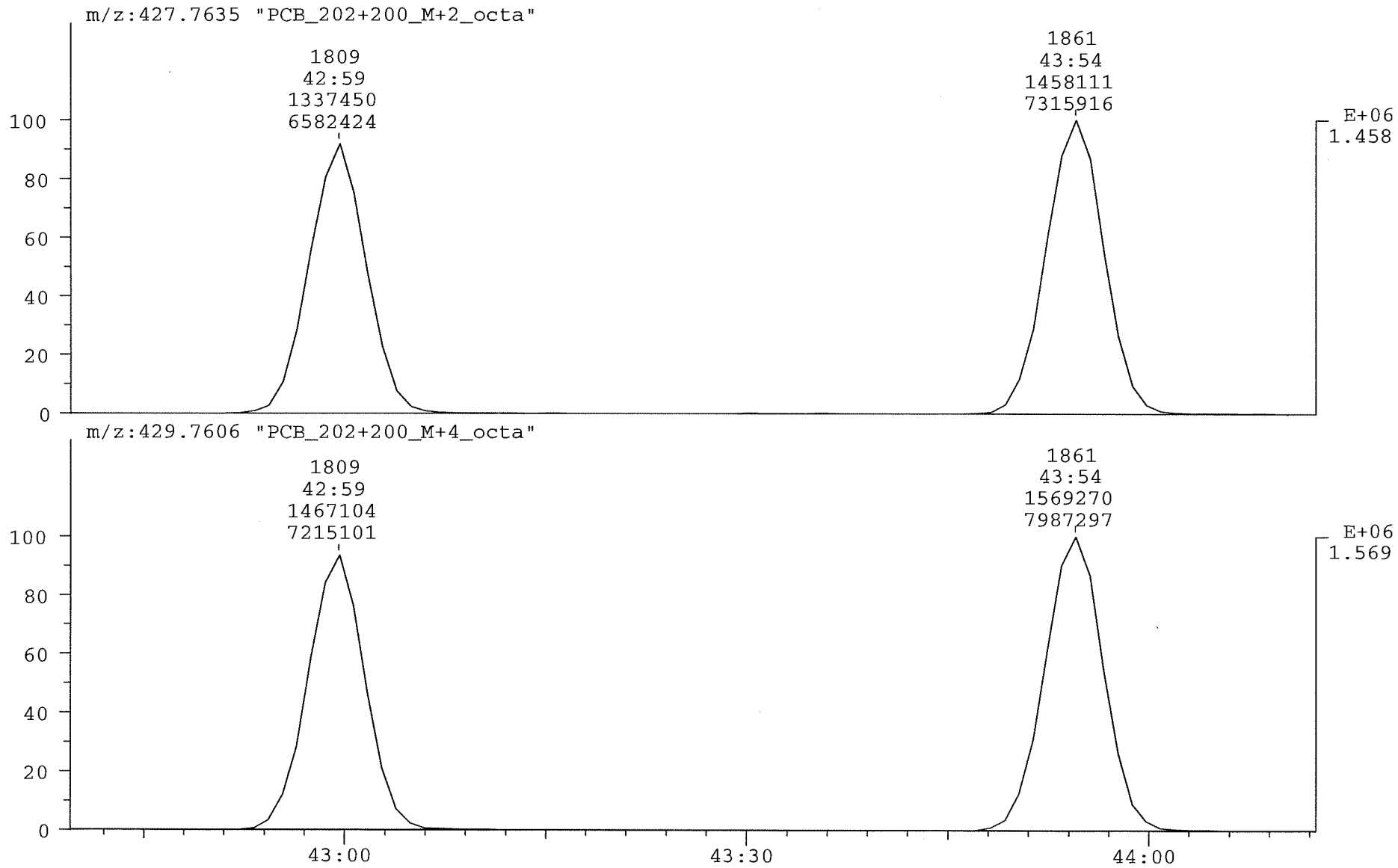
H-1875

CHRO: a080624i4 24-Jun-08 Elapse: 52:28 2344
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2310 > 2379 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1876

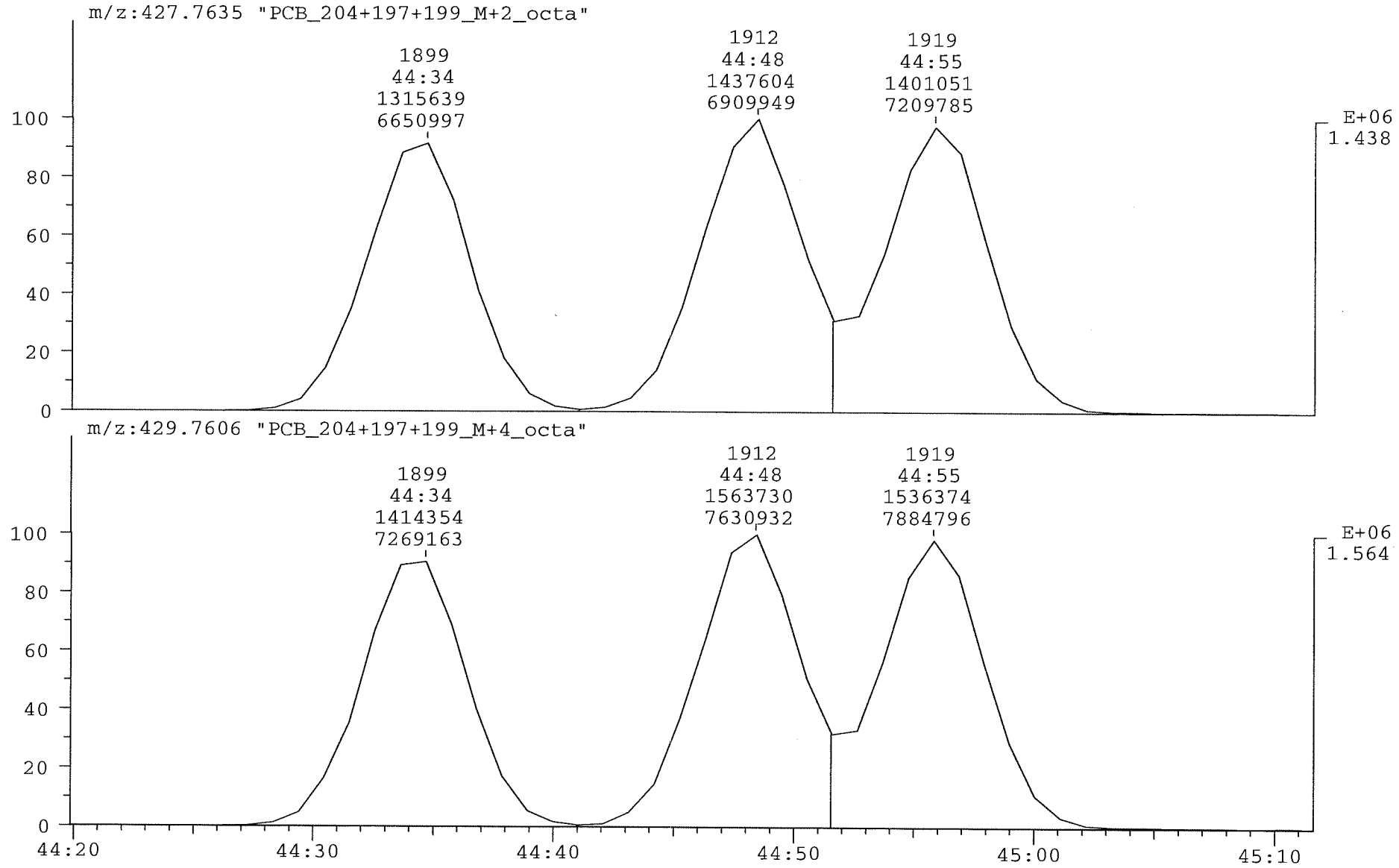
CHRO: a080624i4 24-Jun-08 Elapse: 43:30 1838
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1790 > 1878 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1877

1876

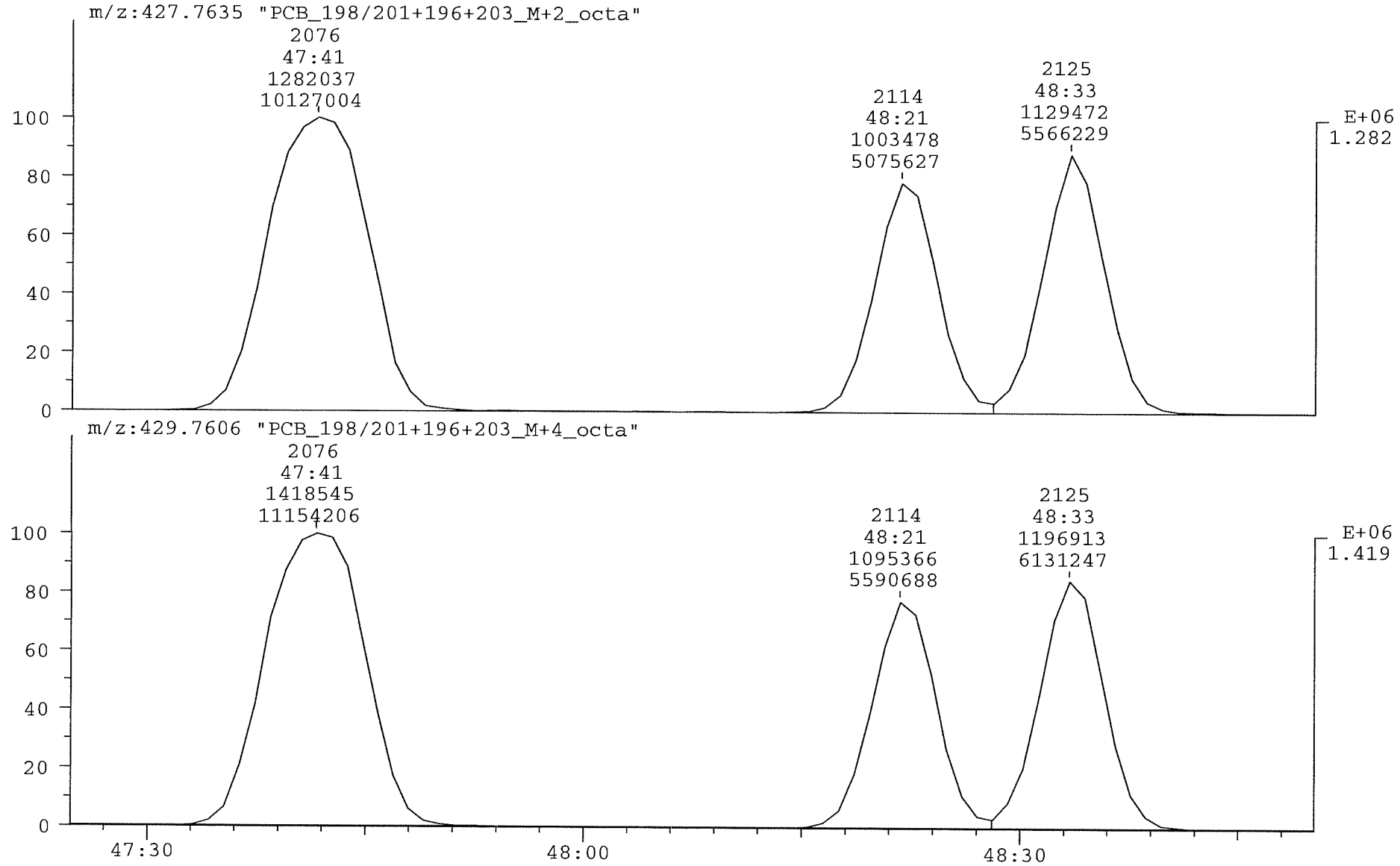
CHRO: a080624i4 24-Jun-08 Elapse: 44:34 1899
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1885 > 1934 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1878

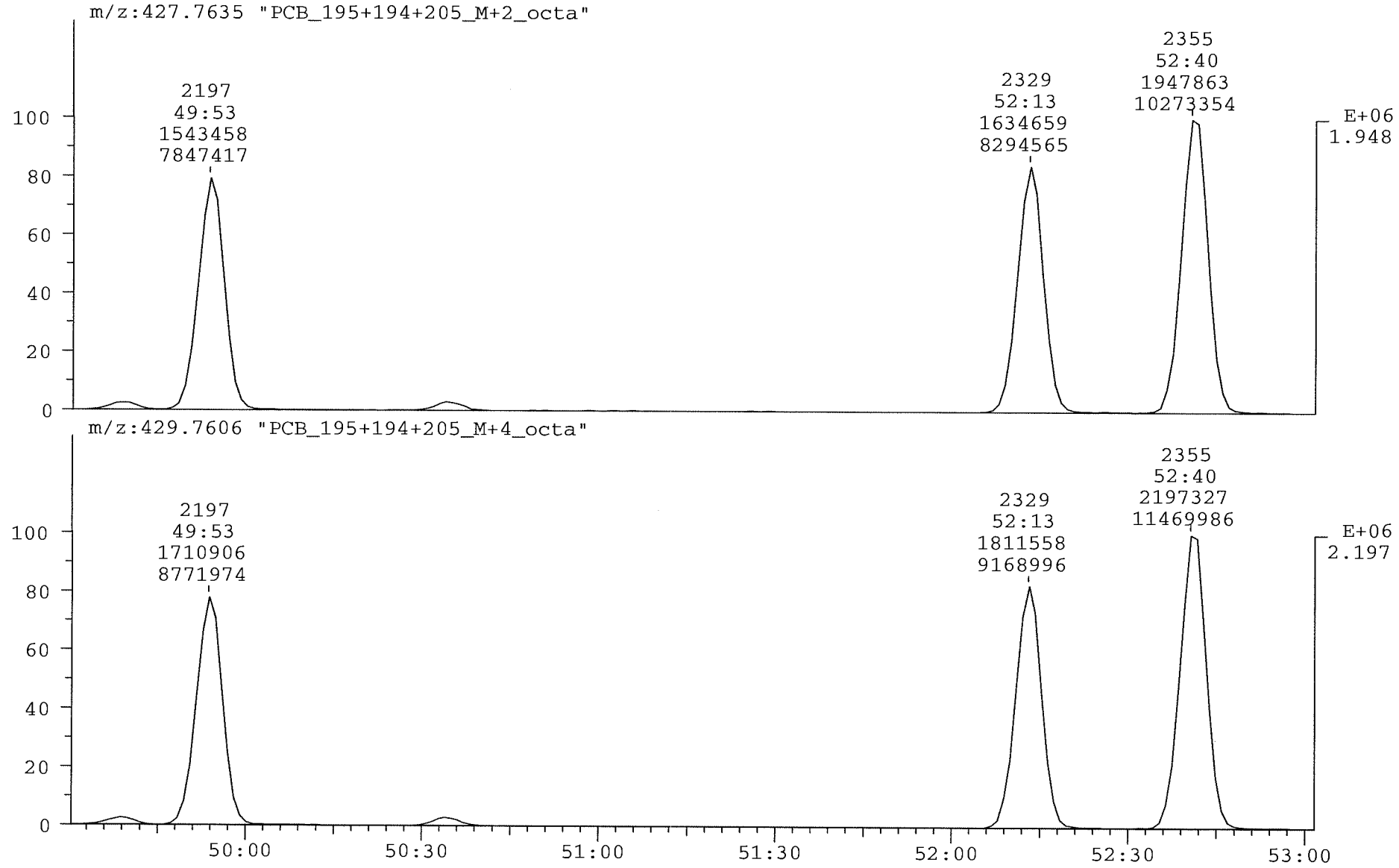
1877

CHRO: a080624i4 24-Jun-08 Elapse: 48:21 2114
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2060 > 2141 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1879

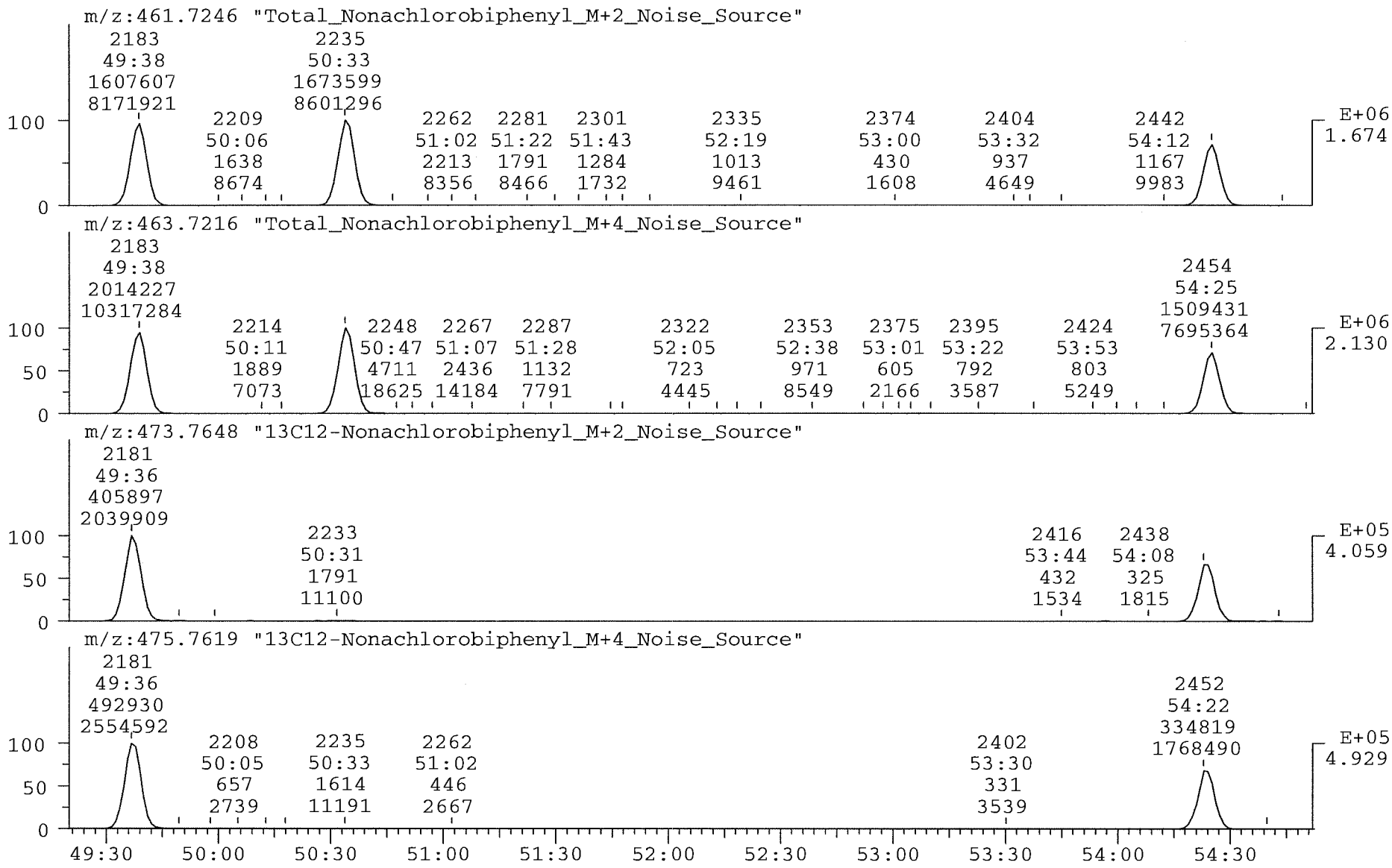
CHRO: a080624i4 24-Jun-08 Elapse: 52:14 2330
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2175 > 2375 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1880

1879

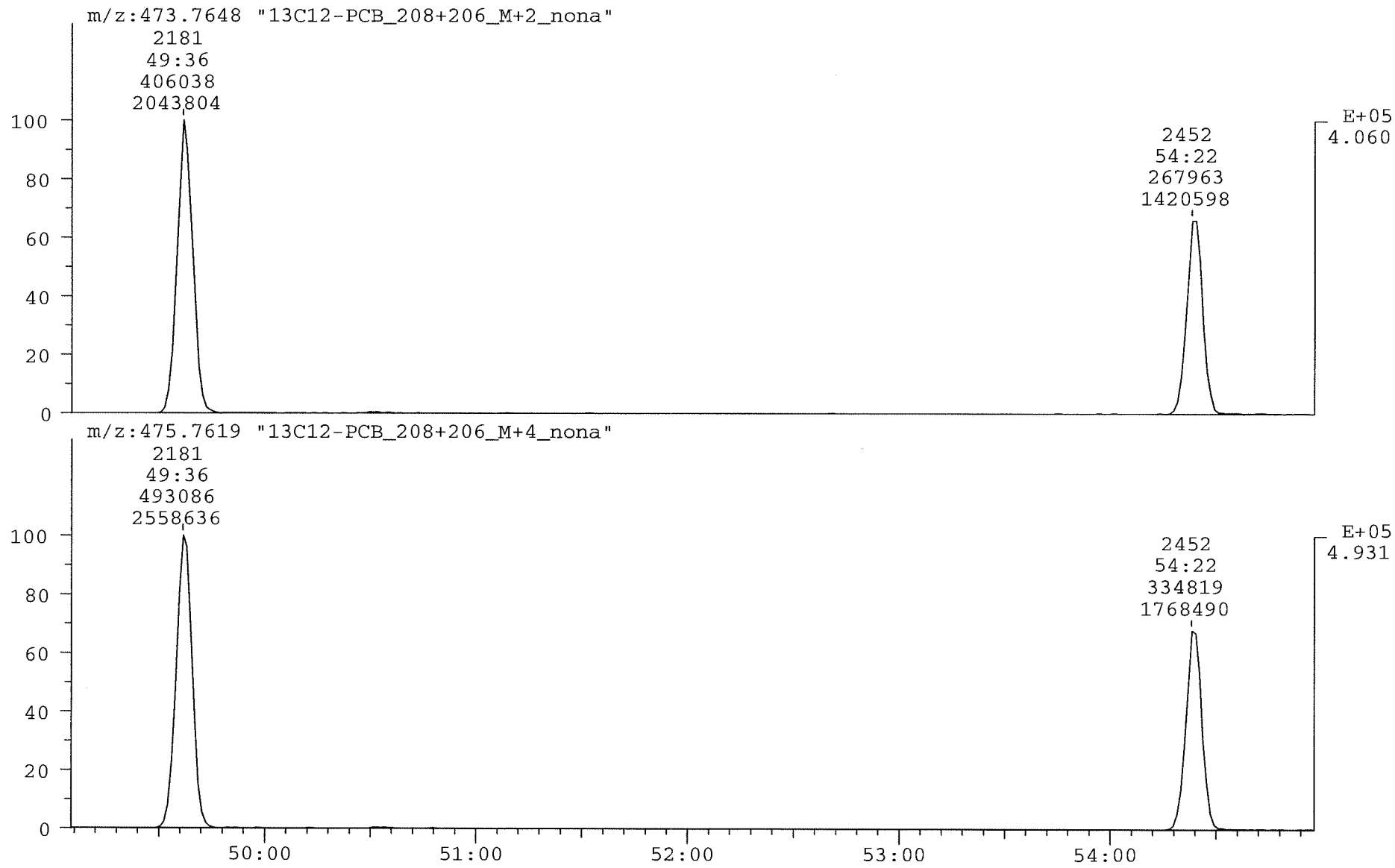
CHRO: a080624i4 24-Jun-08 Elapse: 52:05 2322
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2165 > 2480 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1881

1880

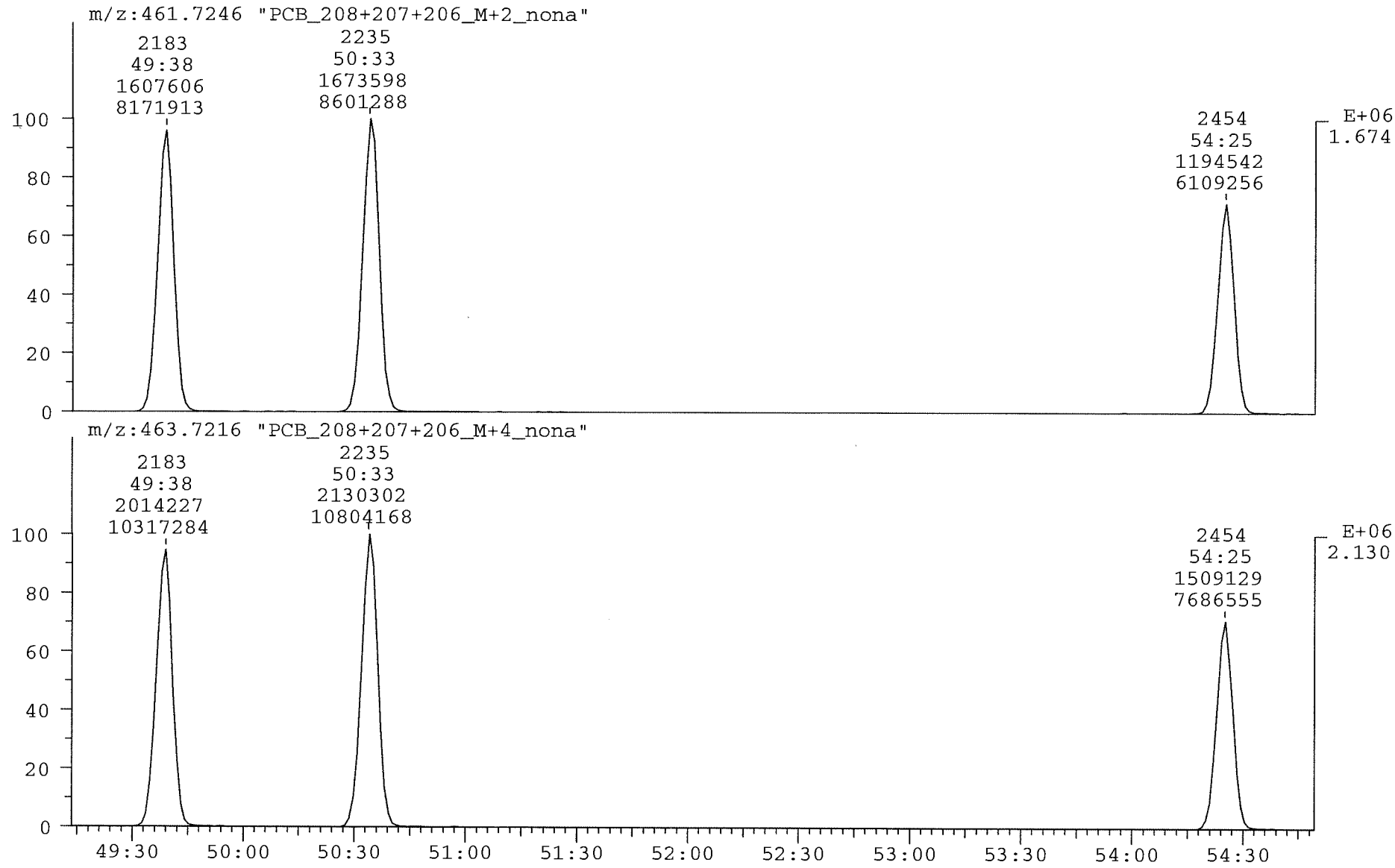
CHRO: a080624i4 24-Jun-08 Elapse: 52:03 2320
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2155 > 2485 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1882

1881

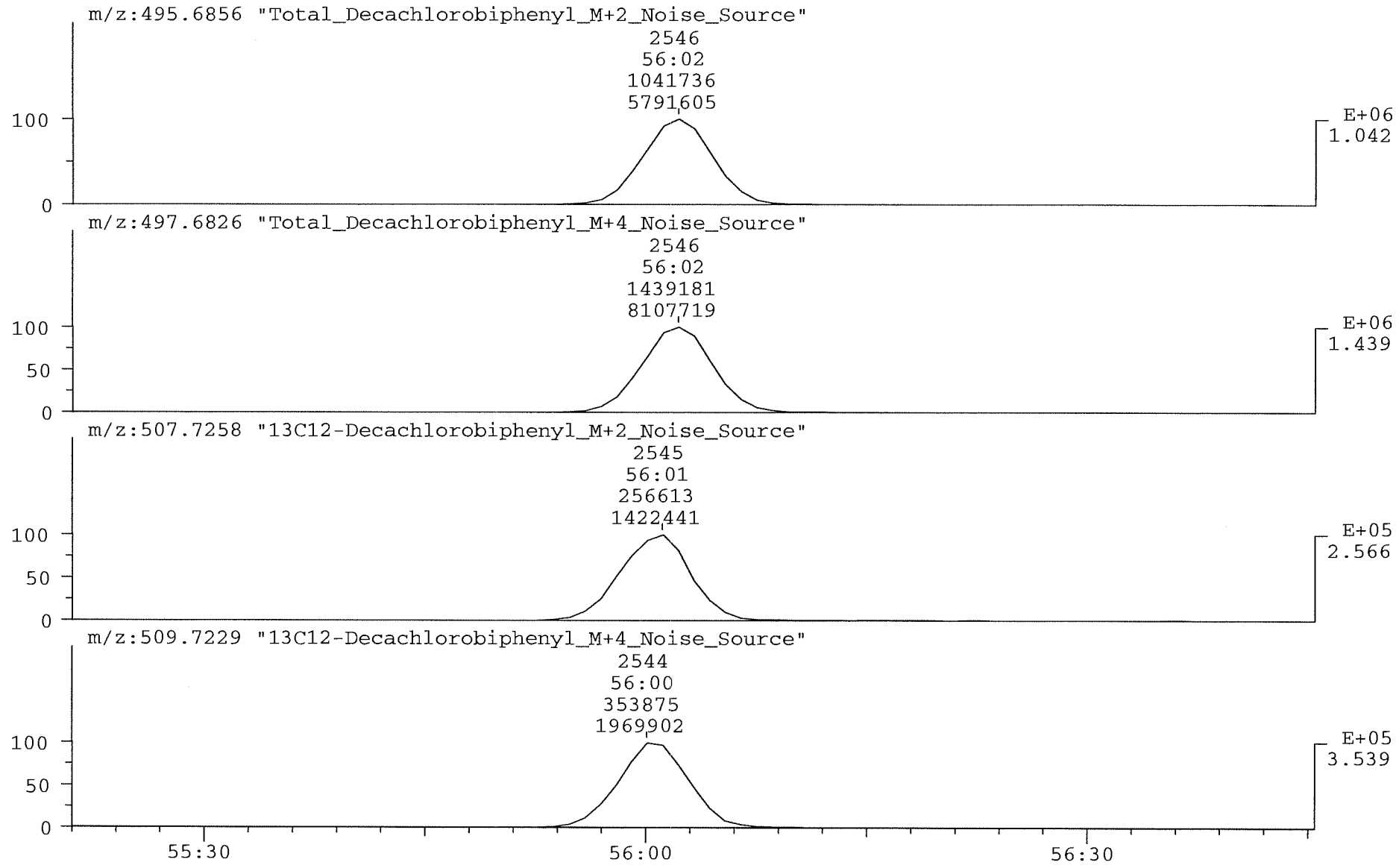
CHRO: a080624i4 24-Jun-08 Elapse: 52:05 2322
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2159 > 2477 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1883

1882

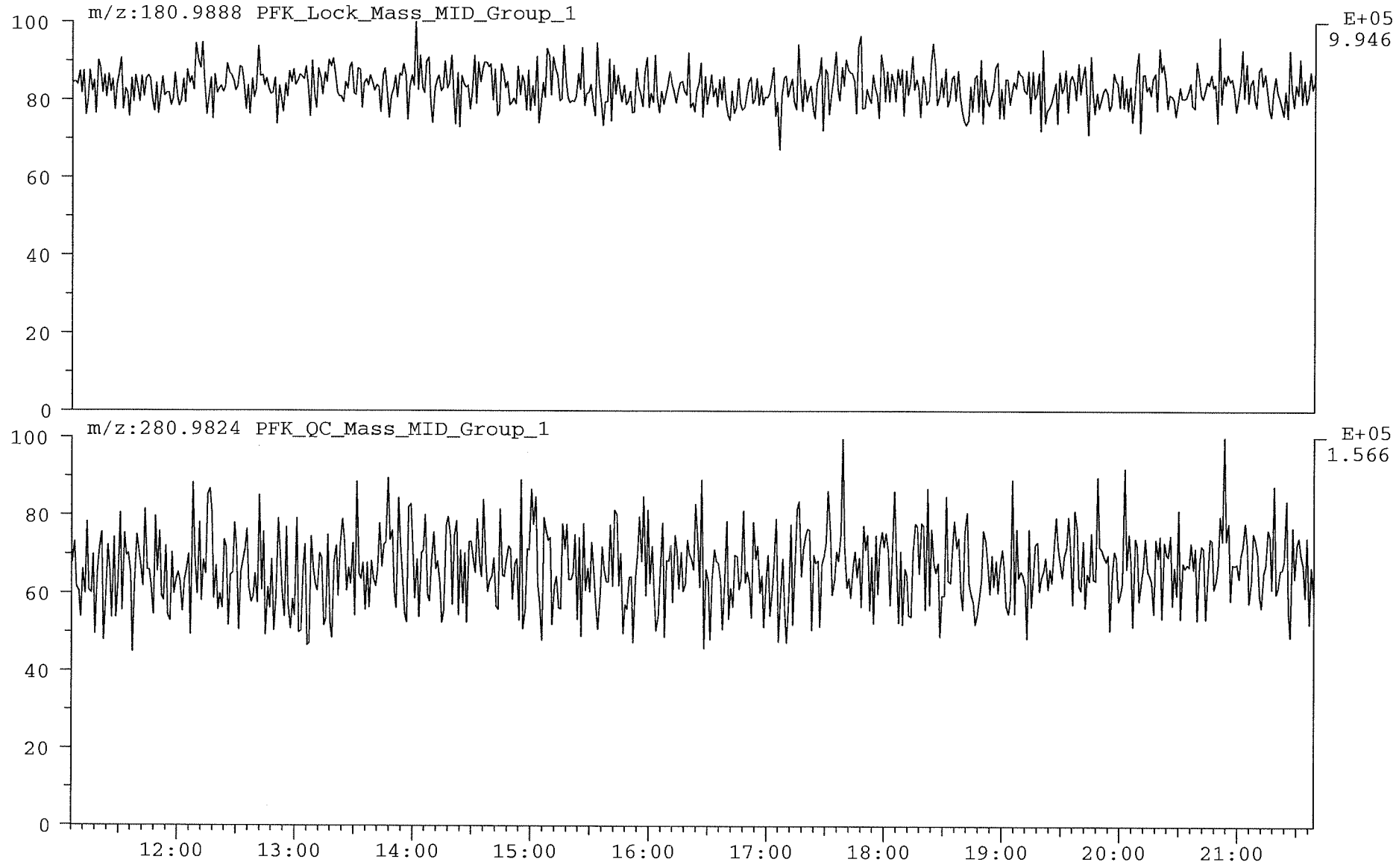
CHRO: a080624i4 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2507 > 2587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1884

1883

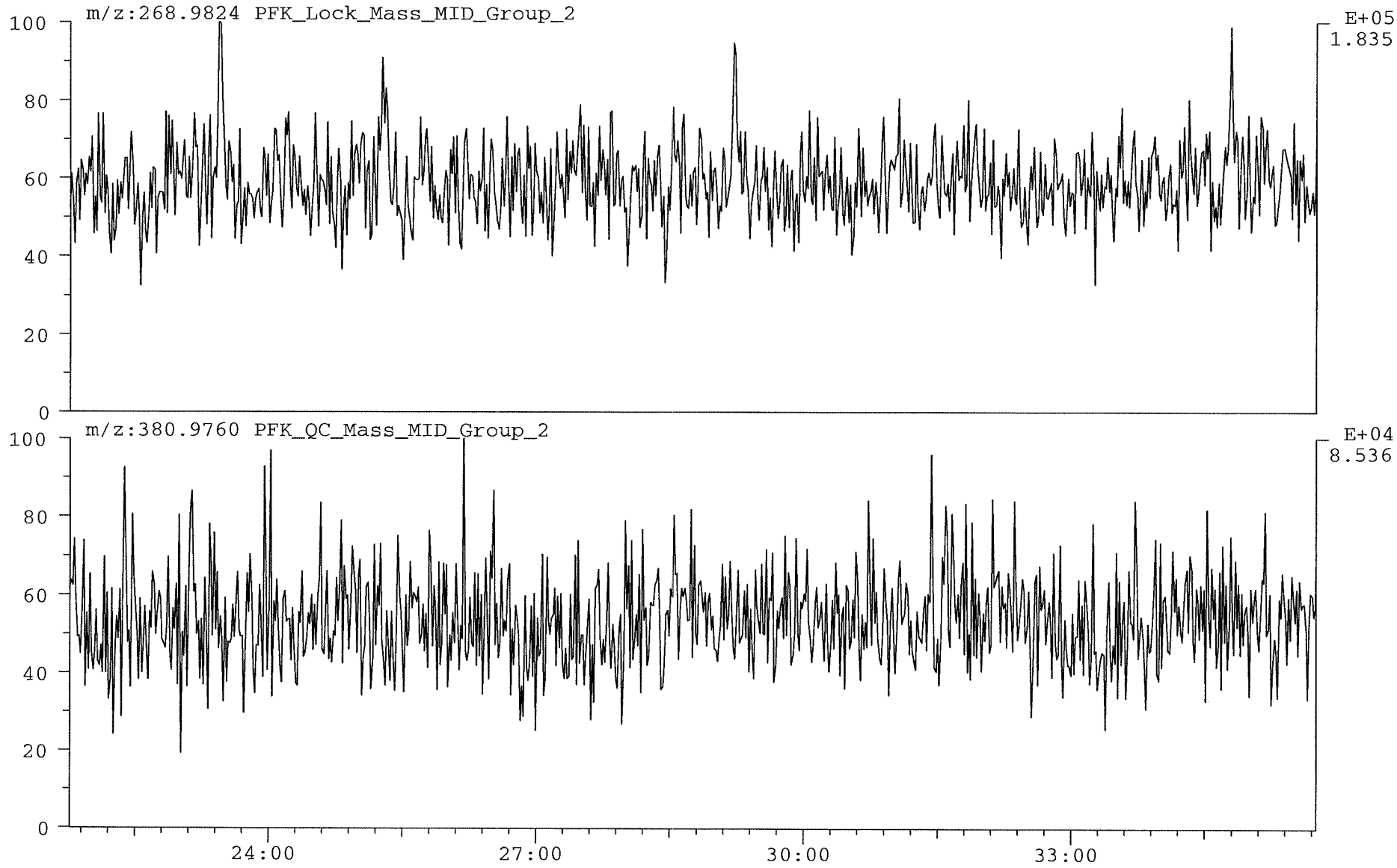
CHRO: a080624i4 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1885

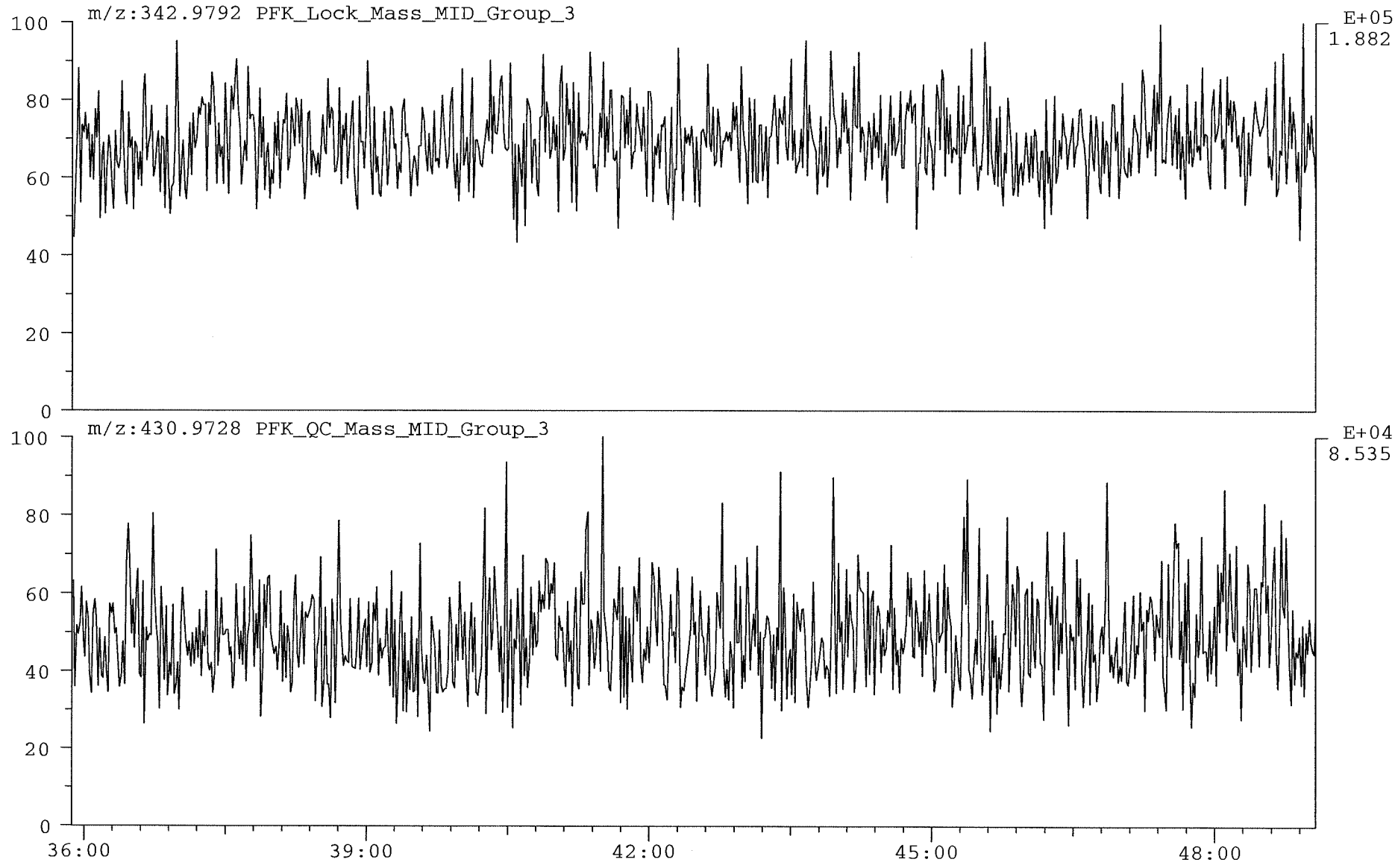
1884

CHRO: a080624i4 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 607 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1886

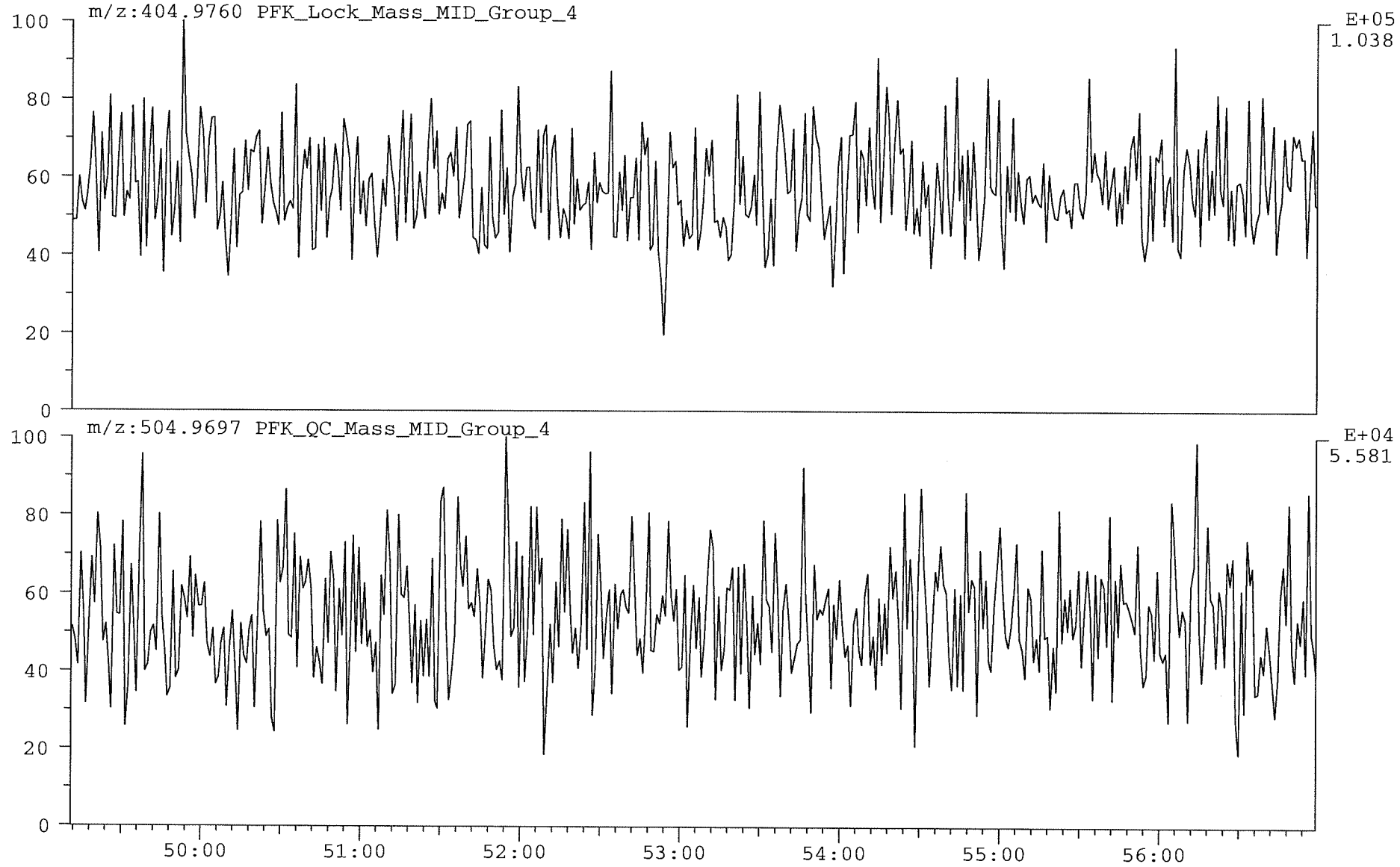
CHRO: a080624i4 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1405 > 2154 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1887

1886

CHRO: a080624i4 24-Jun-08 Elapse: 56:06 2550
Samp: Vial 13 WO=2990:71CS4 Meth=IE3 Dil=1 Start : 19:24:40 2602
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2157 > 2600 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1888

1887

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a080624i4
Study: 1668 ICAL CS4
Sample: WO=2990:71CS4 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Injected volume: 2.00
Sample from Vial 13
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 2 of list 080624
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:06 min	35:46 min	1.00 sec
# 3	35:46 min	13:19 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	l	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg at	0.0	minutes	280 deg max
	75 deg at	2.0	minutes	
	150 deg at	7.0	minutes	
	270 deg at	55.0	minutes	
	270 deg at	57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.7567
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-14.8500
DRAWC	1.0000	DRAWS	0.0100	ECORR	0.9994
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	-210.0000	ELEN	55.7750
EMULT	1.7500	ENS	205.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	152.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	342.0000
FVINLET	266.0000	FVSRC	990.0000	FWIN	0.7000
GCTC	197.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.0196	HVANAL	1305.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4781.4360	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1837.0000	LENSS	8.4000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2351507.3768

MDACR	23.0000	MRANGE	1031.7567	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	200.0000
NSCAN	2611.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-6.1500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10643.9045	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	3200.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.9600	TCURR	0.8203
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.0000	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	1694.0000
XLENSS	-96.6000	YLENS	2530.0000	YLENSS	-24.2000

Scantype is electric
Sourcemode is EI POS

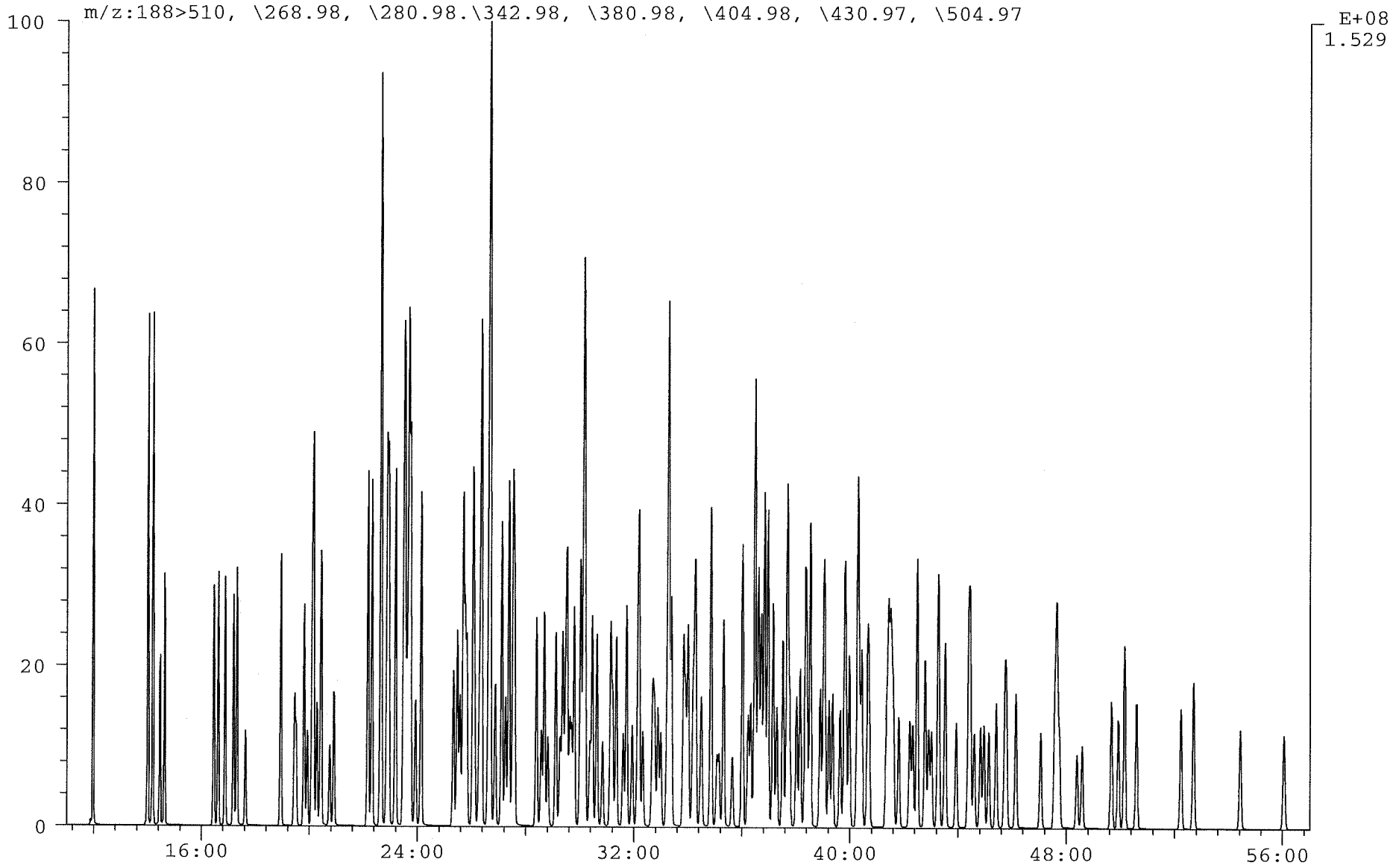
Analysis started at: 24-Jun-08 19:24:40.7

Autosampler has injected sample from vial 13
MID Time Window 1: Resolution is 8226
MID Time Window 2: Resolution is 9607
MID Time Window 3: Resolution is 9526
MID Time Window 4: Resolution is 9642
Analysis stopped at: 24-Jun-08 20:21:43.9 (run time 57.04 minutes)
Analysis stopped because MID run finished

Int Calc DCG 7-7-08

QC MSD 7/8/08

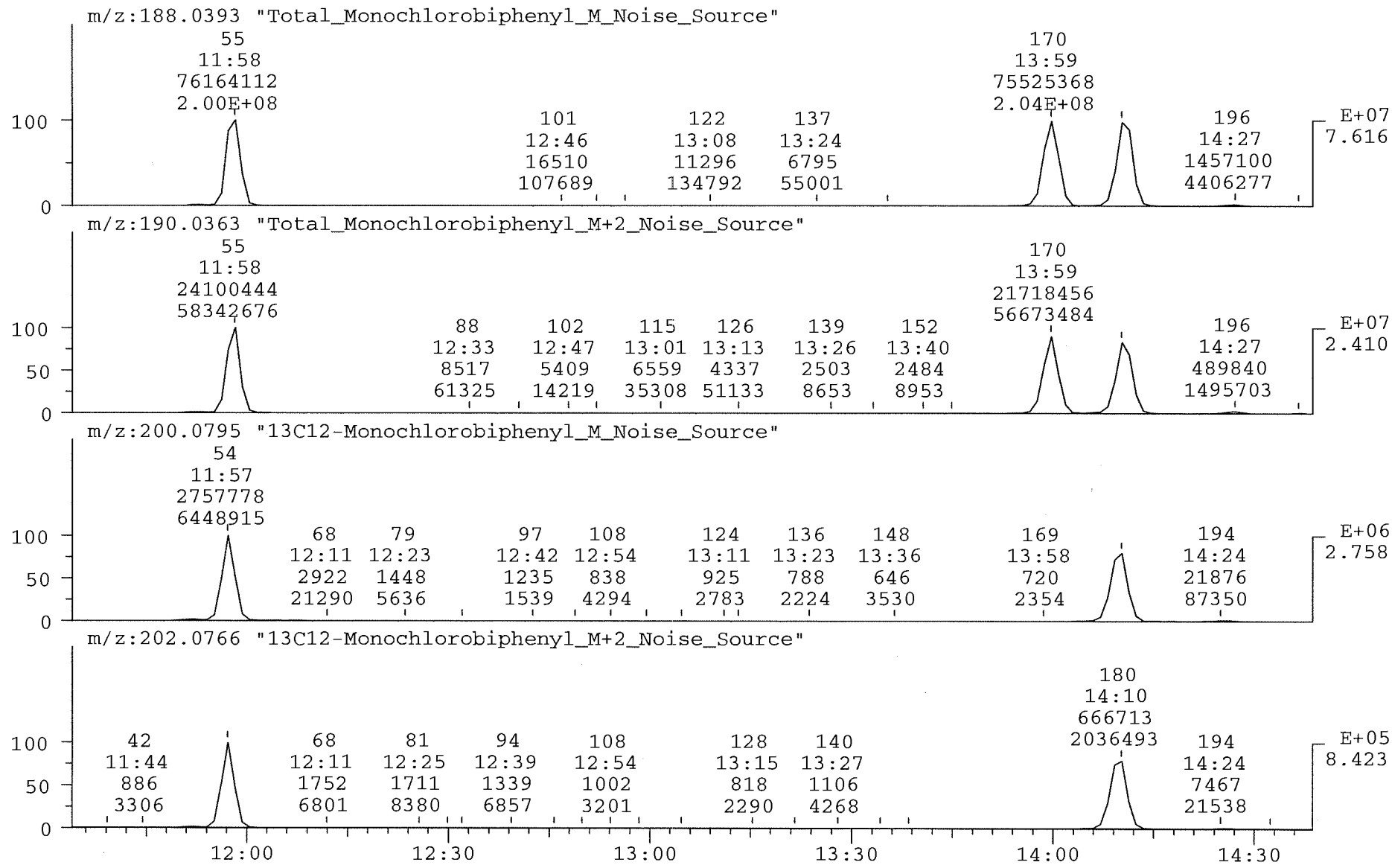
CHRO: a080624i5 24-Jun-08 Elapse: 56:08 2550
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2 > 2600 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1893

1892

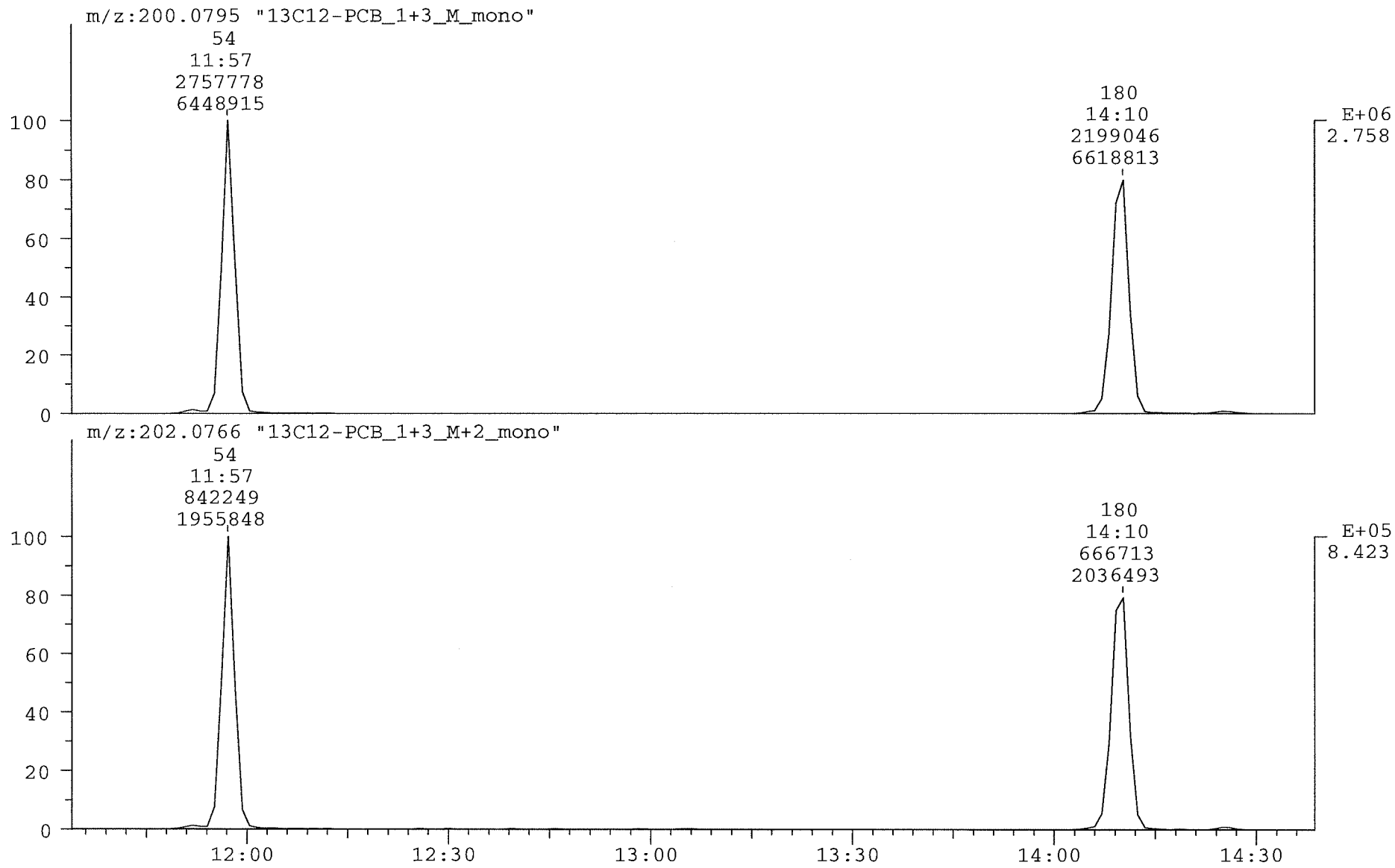
CHRO: a080624i5 24-Jun-08 Elapse: 13:19.5 132
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 32 > 207 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1894

1893

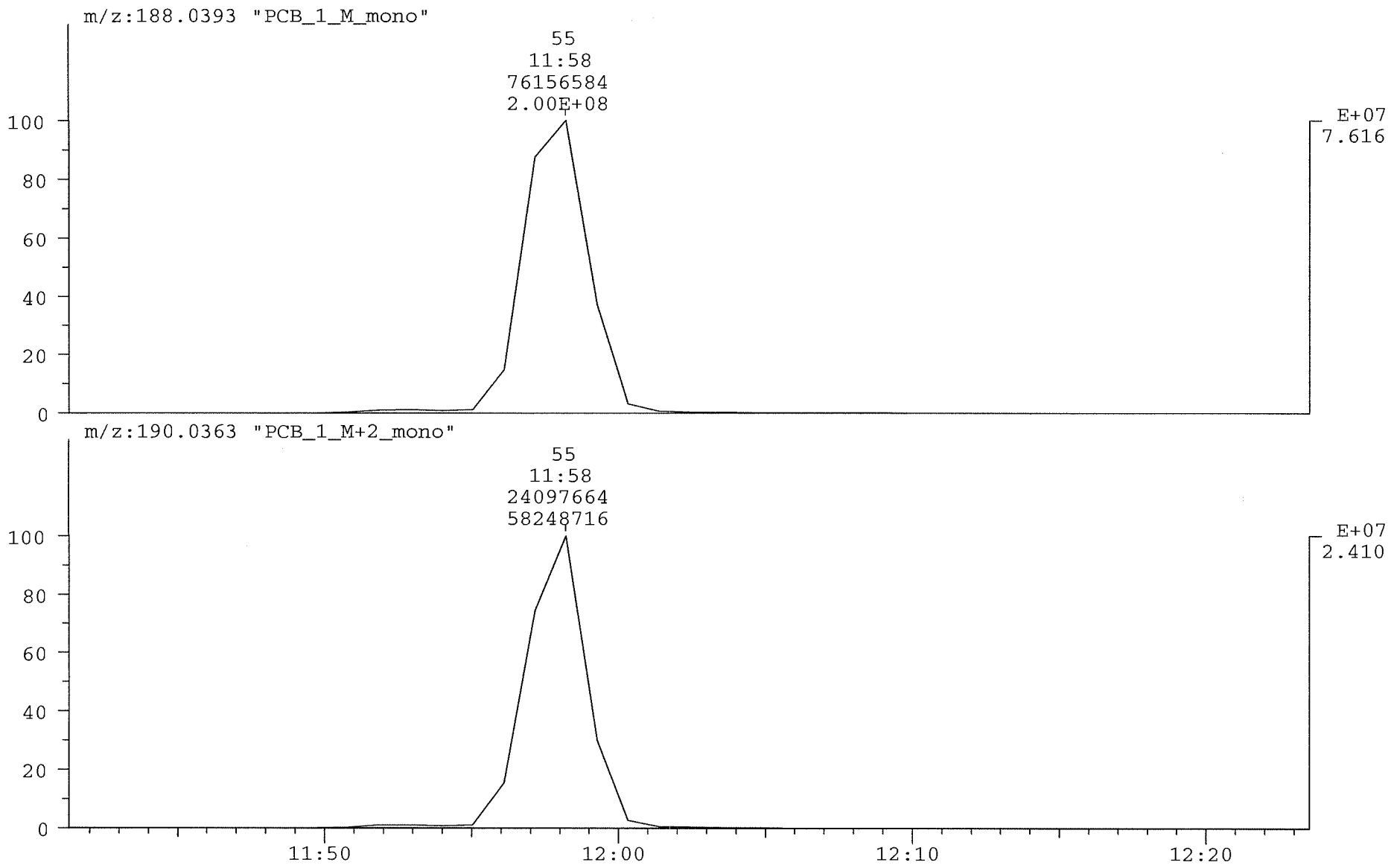
CHRO: a080624i5 24-Jun-08 Elapse: 13:19.5 132
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 32 > 207 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1895

1894

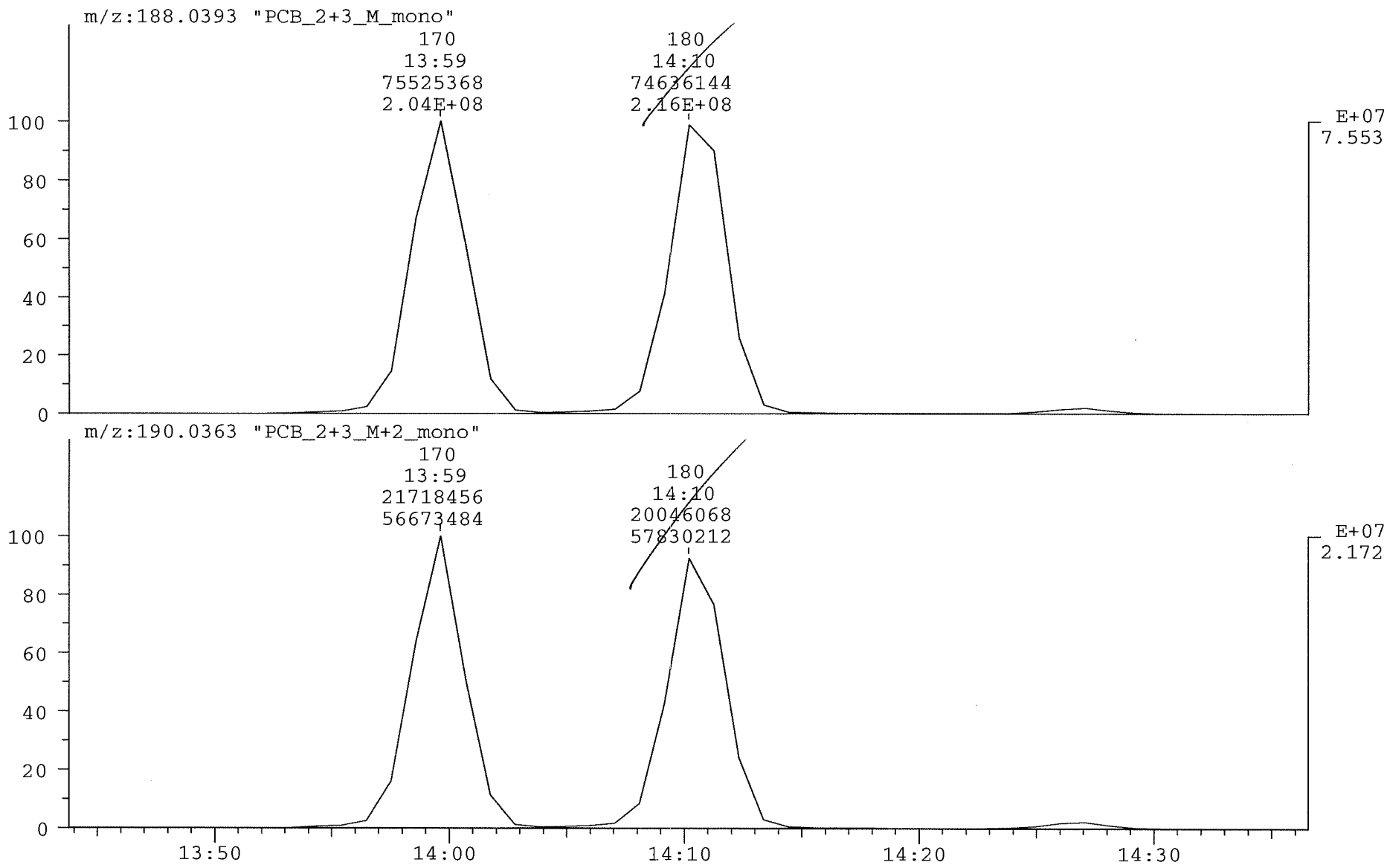
CHRO: a080624i5 24-Jun-08 Elapse: 12:02.4 59
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 39 > 79 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1896

1895

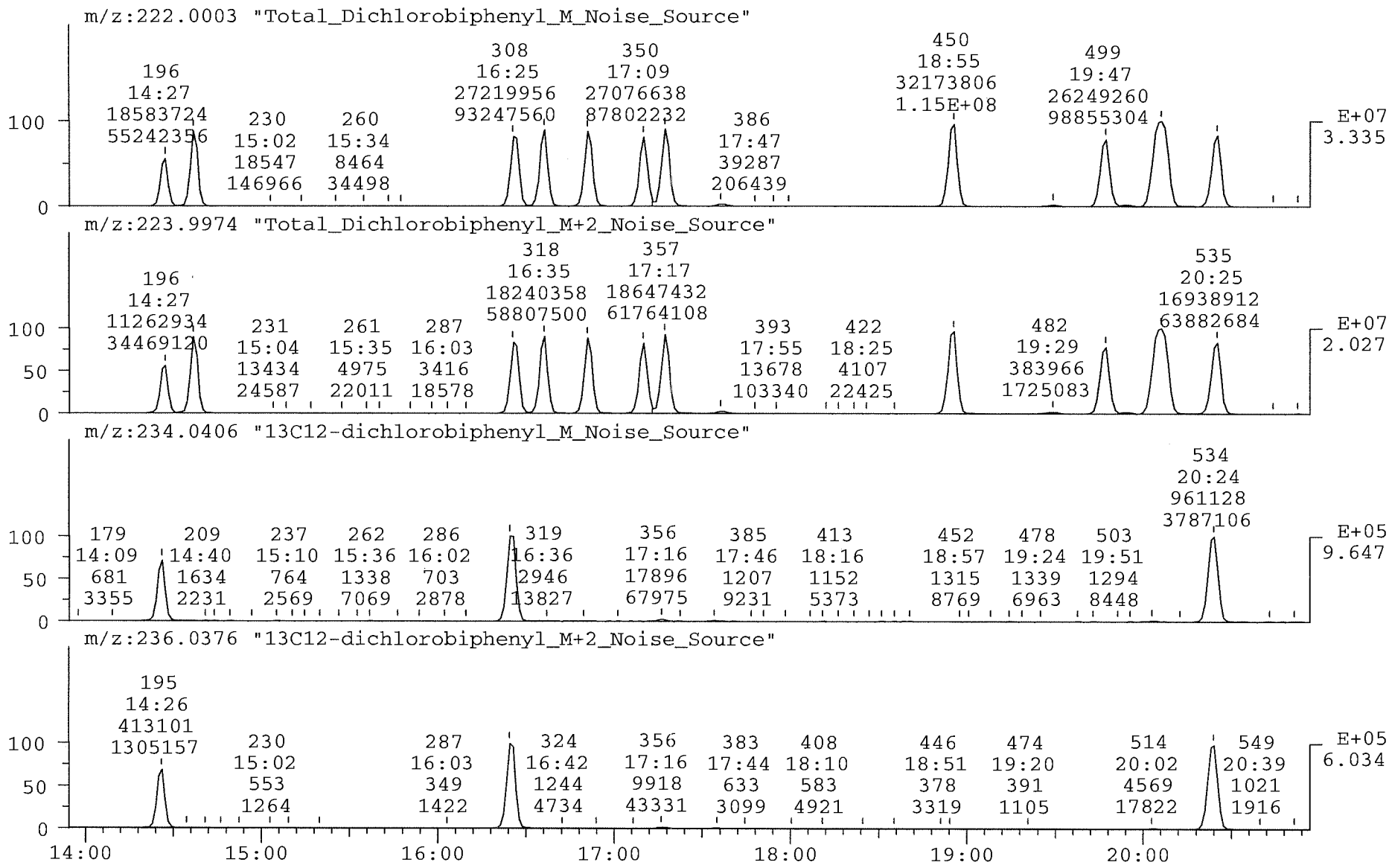
CHRO: a080624i5 24-Jun-08 Elapse: 14:10.2 180
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 155 > 205 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1897

1896

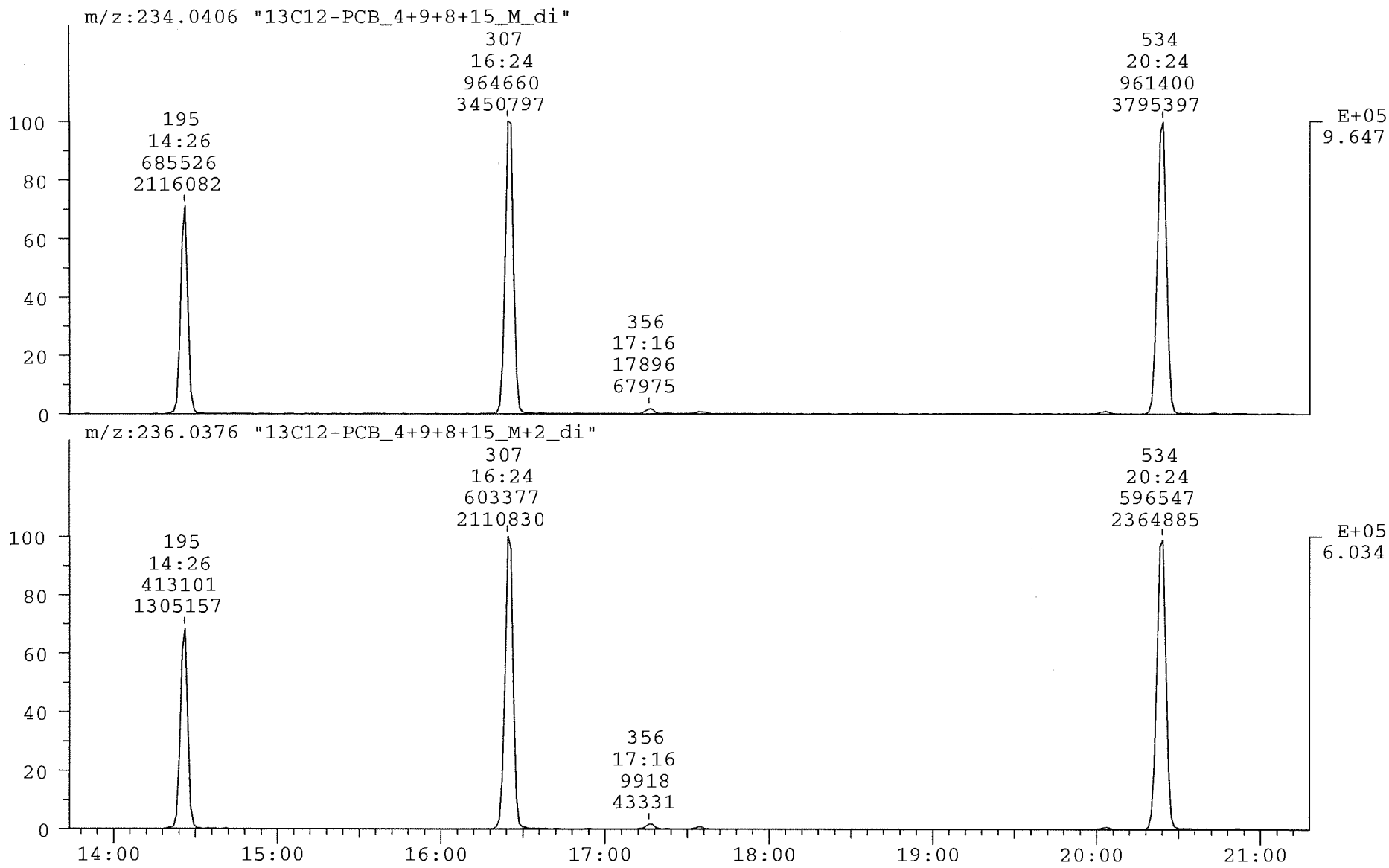
CHRO: a080624i5 24-Jun-08 Elapse: 17:25.5 365
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 165 > 565 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1898

1897

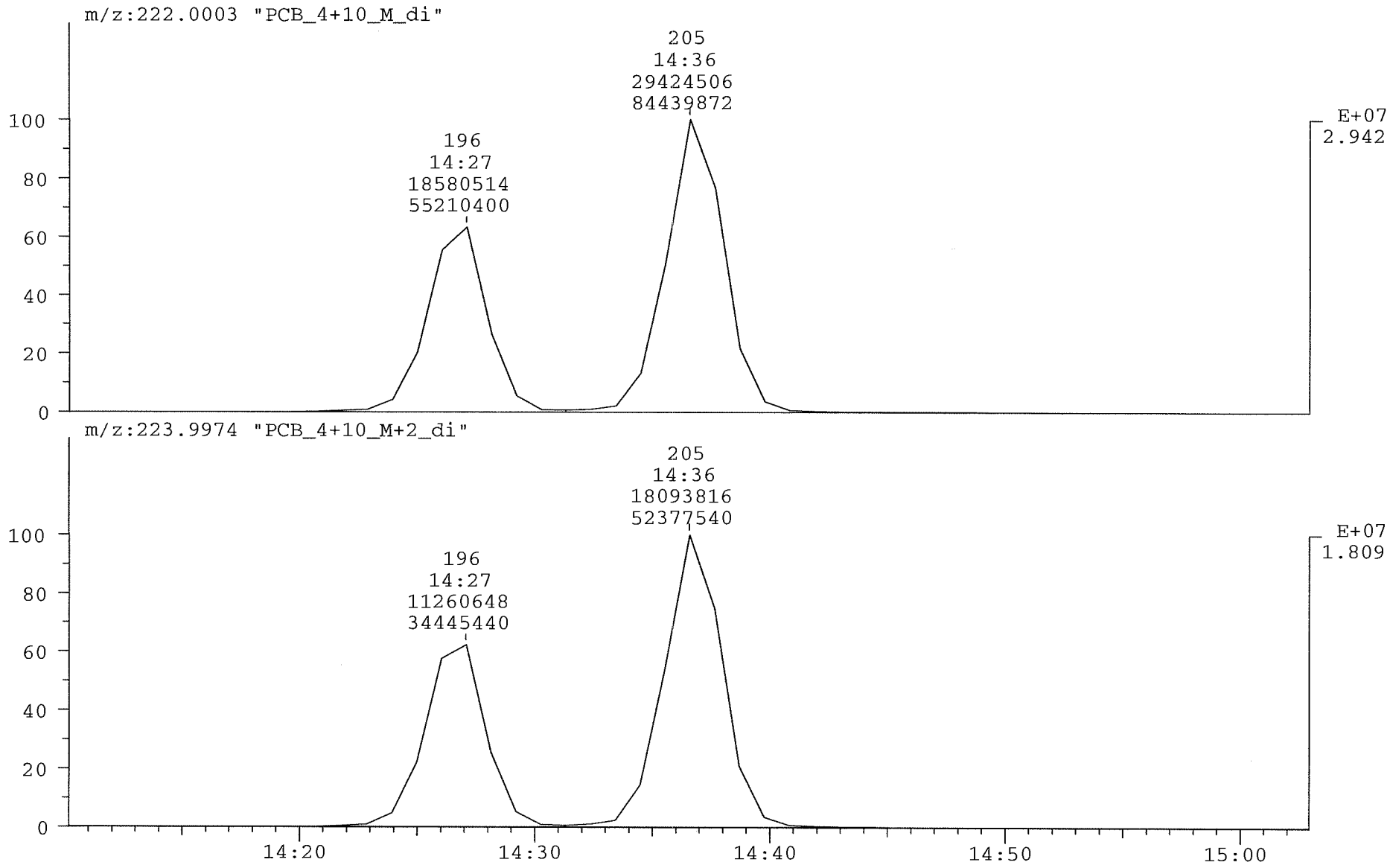
CHRO: a080624i5 24-Jun-08 Elapse: 17:25.5 365
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 155 > 585 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1899

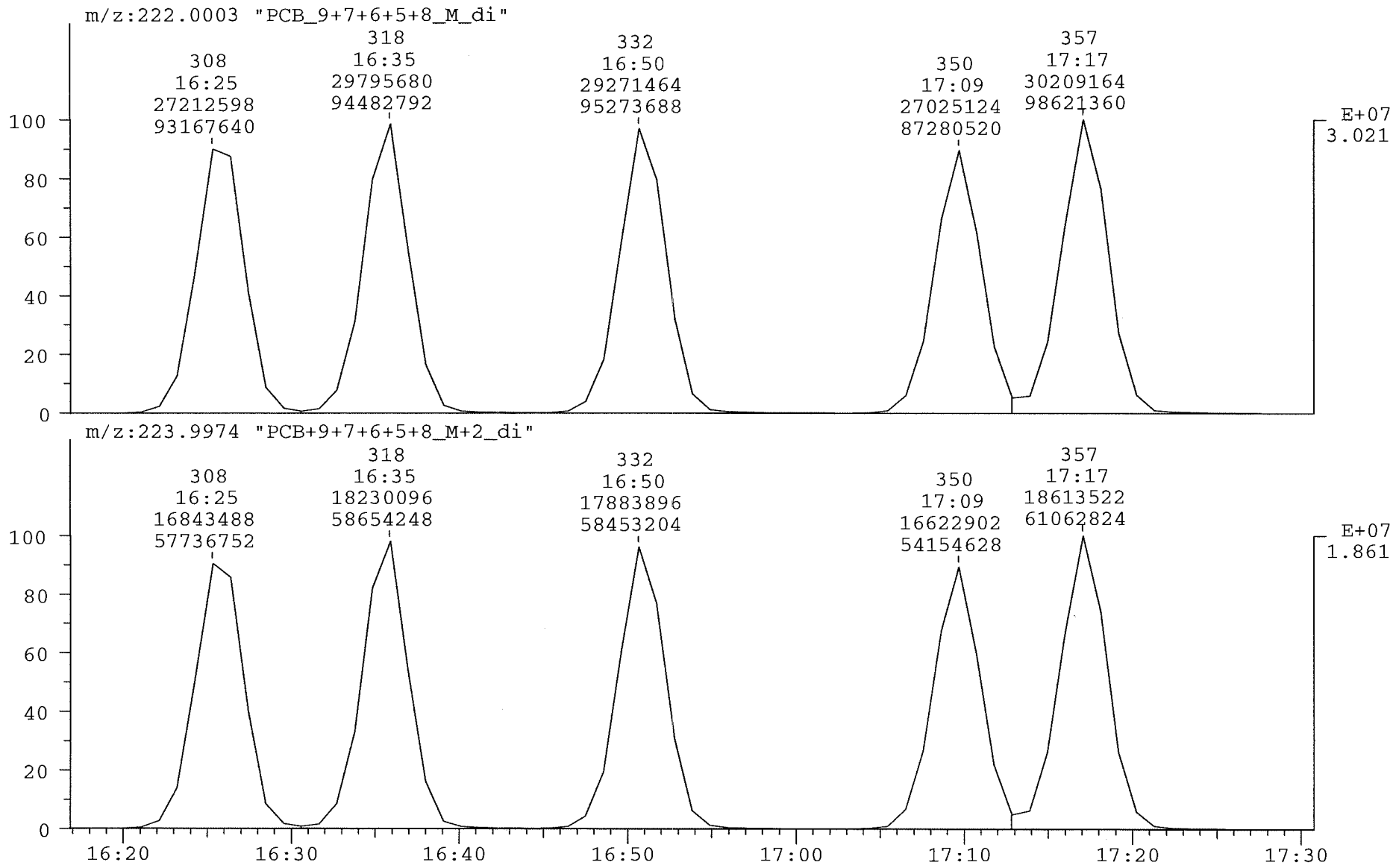
1898

CHRO: a080624i5 24-Jun-08 Elapse: 14:36.5 205
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 180 > 230 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1900

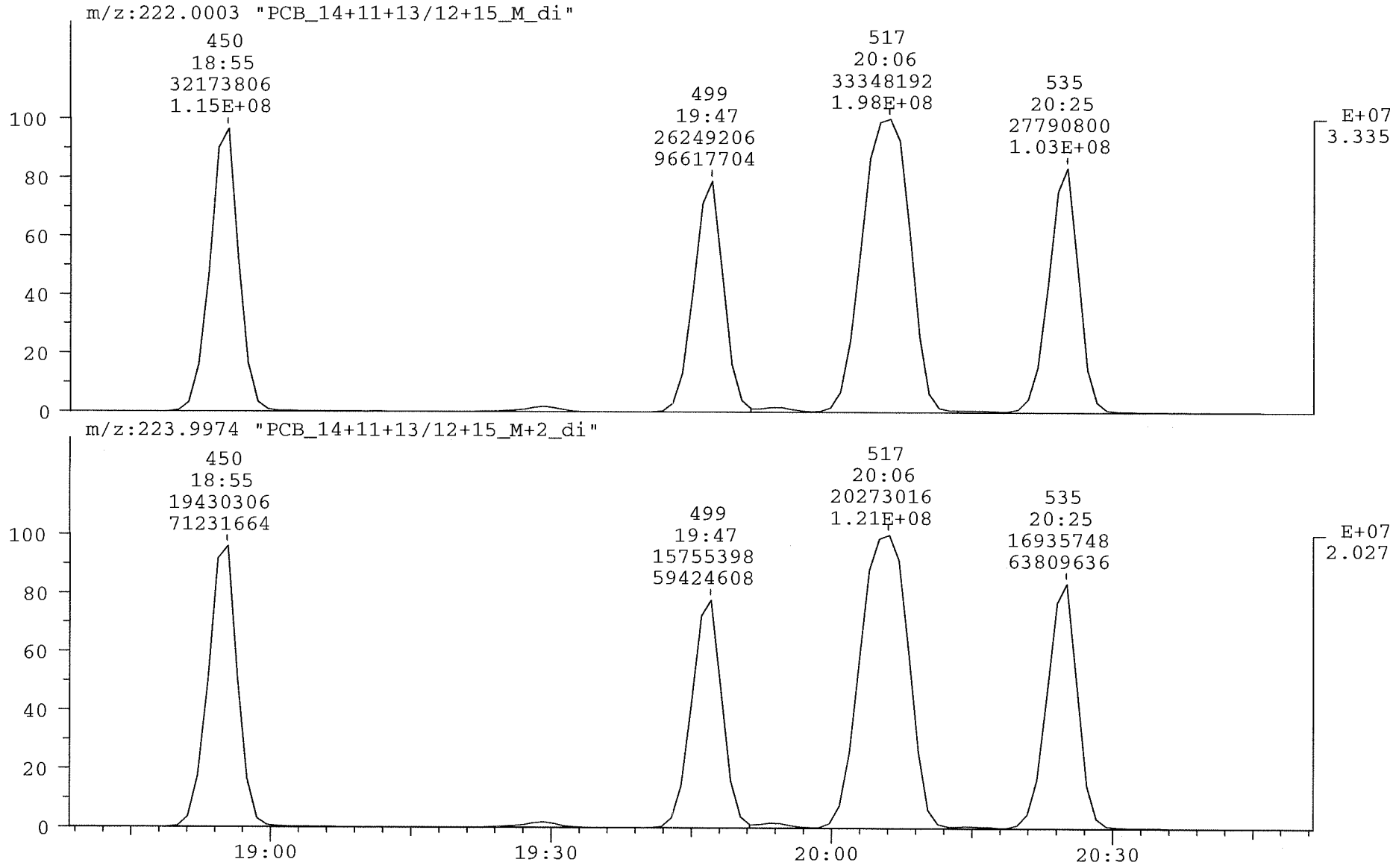
CHRO: a080624i5 24-Jun-08 Elapse: 16:55.9 337
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 300 > 370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1901

1900

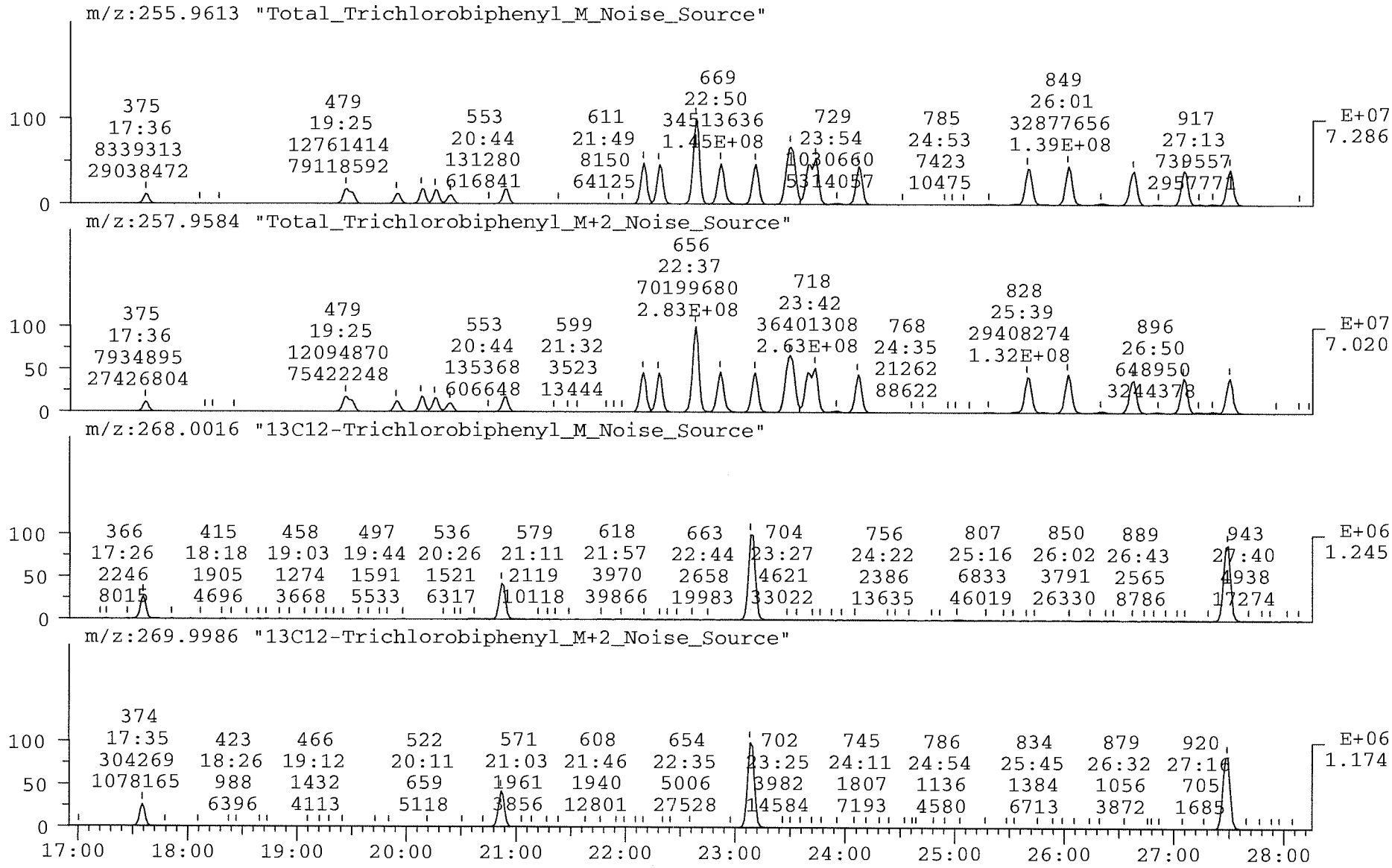
CHRO: a080624i5 24-Jun-08 Elapse: 19:39.6 492
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 434 > 560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1902

1901

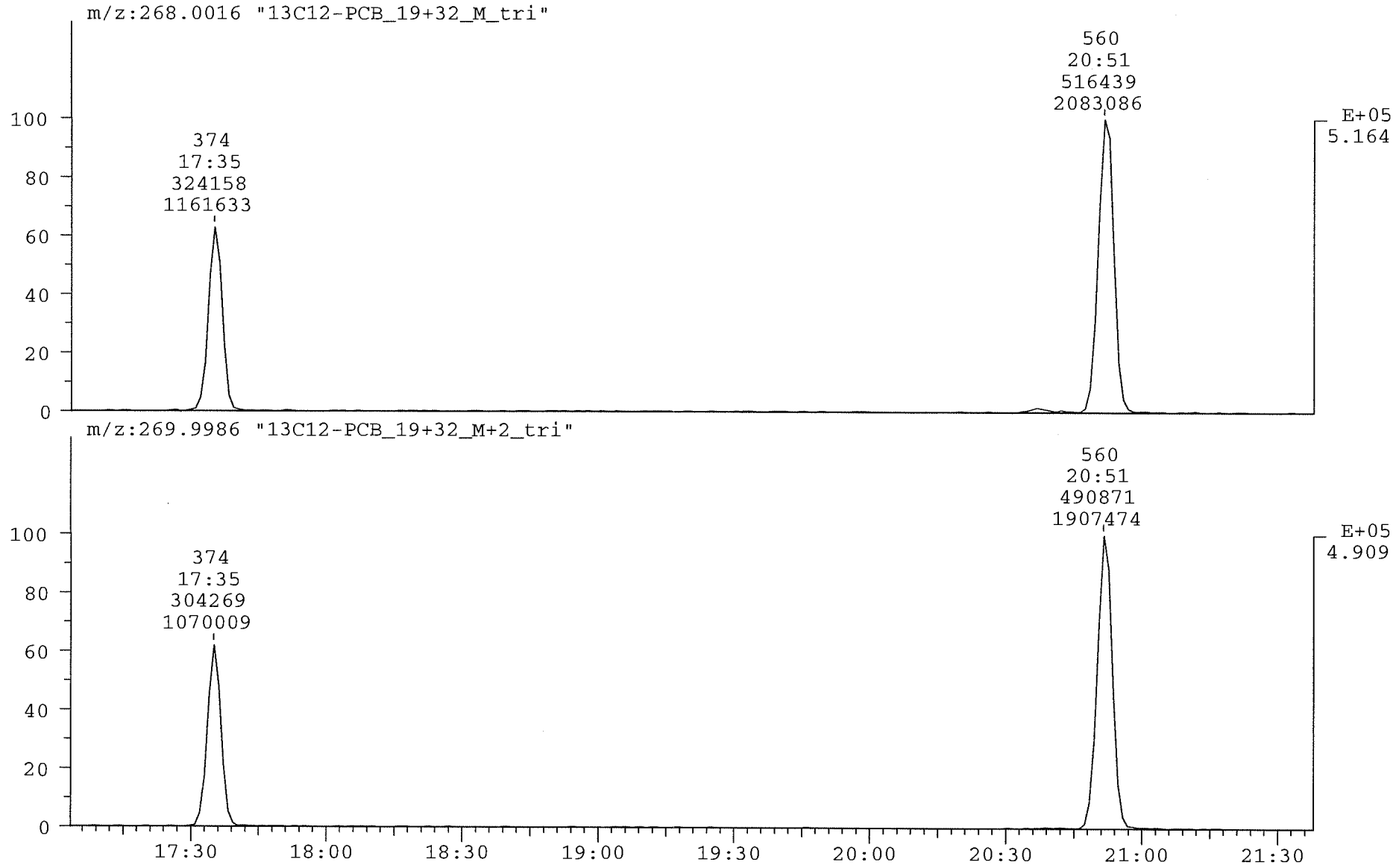
CHRO: a080624i5 24-Jun-08 Elapse: 22:37.2 656
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1903

1902

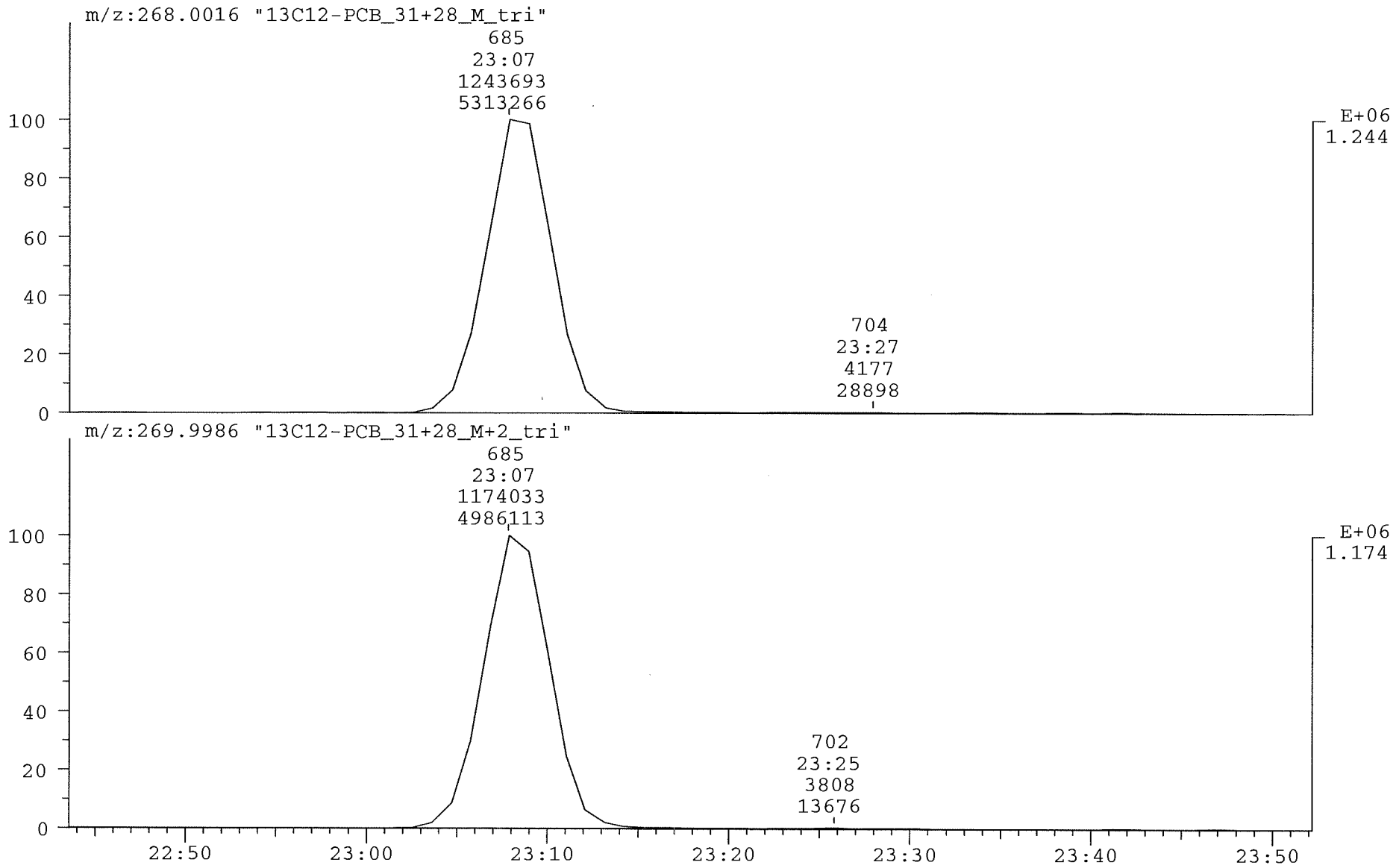
CHRO: a080624i5 24-Jun-08 Elapse: 18:59.5 454
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 344 > 604 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1904

1903

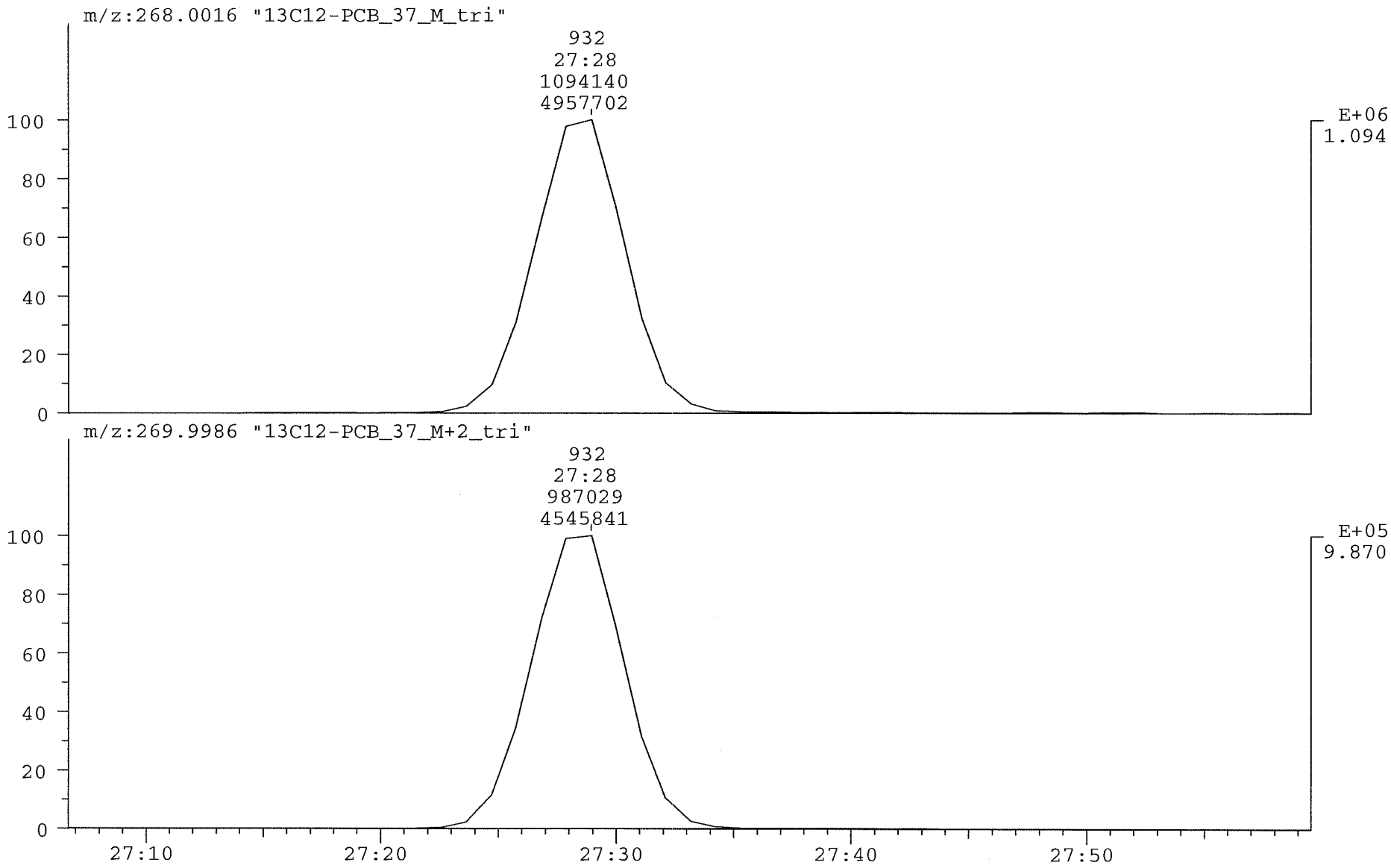
CHRO: a080624i5 24-Jun-08 Elapse: 23:09.9 687
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1905

1904

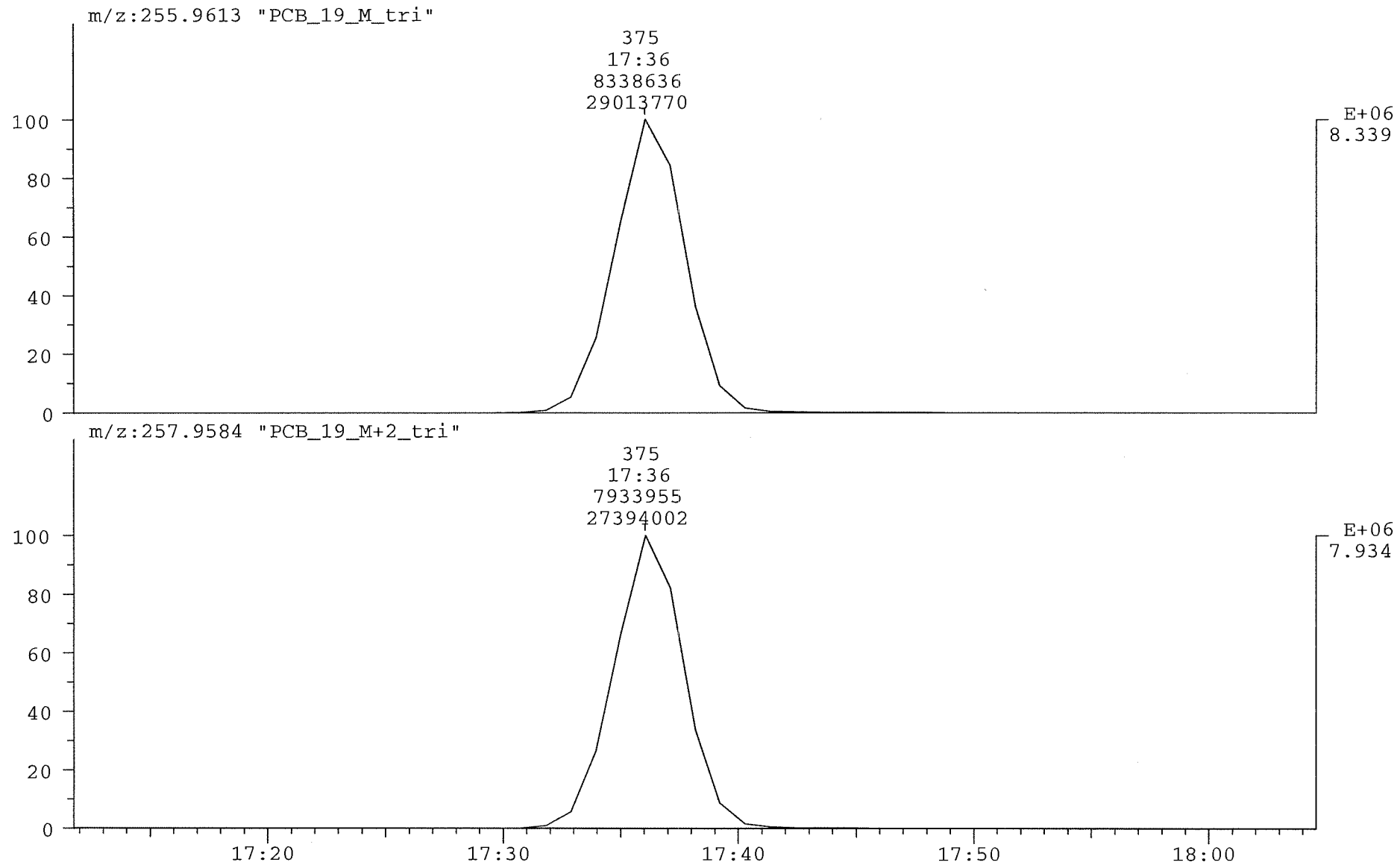
CHRO: a080624i5 24-Jun-08 Elapse: 27:27.8 931
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1906

1905

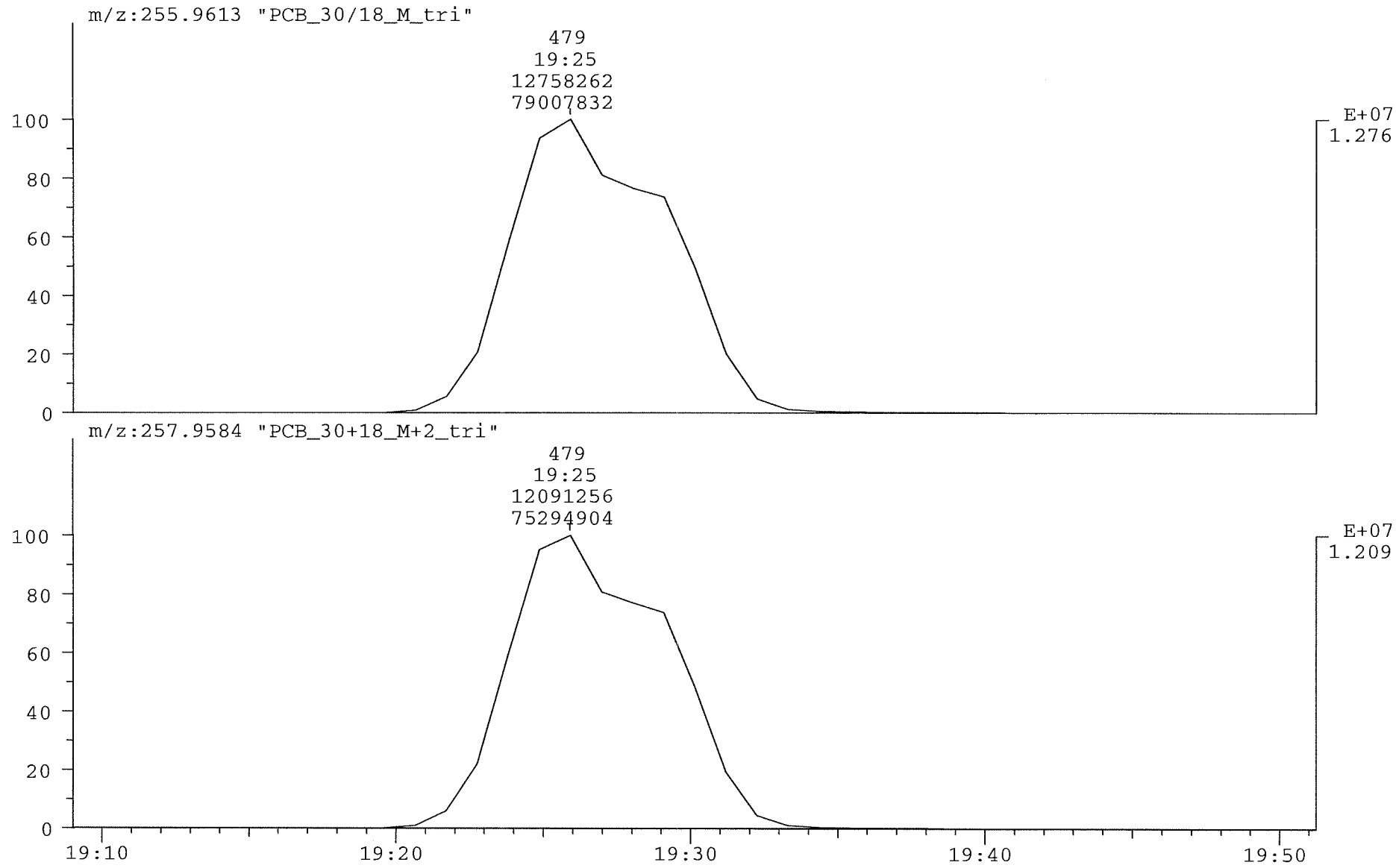
CHRO: a080624i5 24-Jun-08 Elapse: 17:38.1 377
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 352 > 402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1907

1906

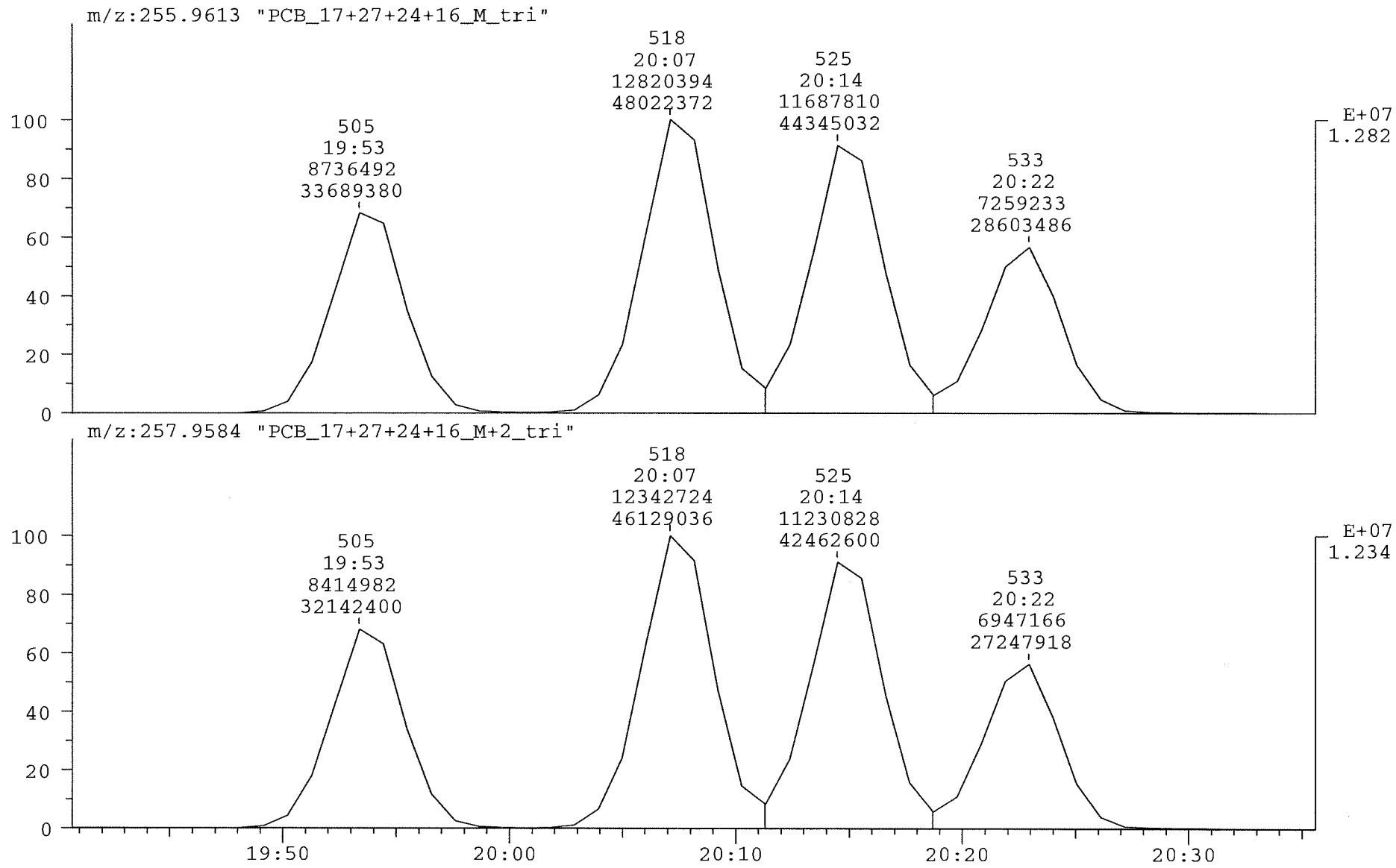
CHRO: a080624i5 24-Jun-08 Elapse: 19:30.1 483
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 463 > 503 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1908

1907

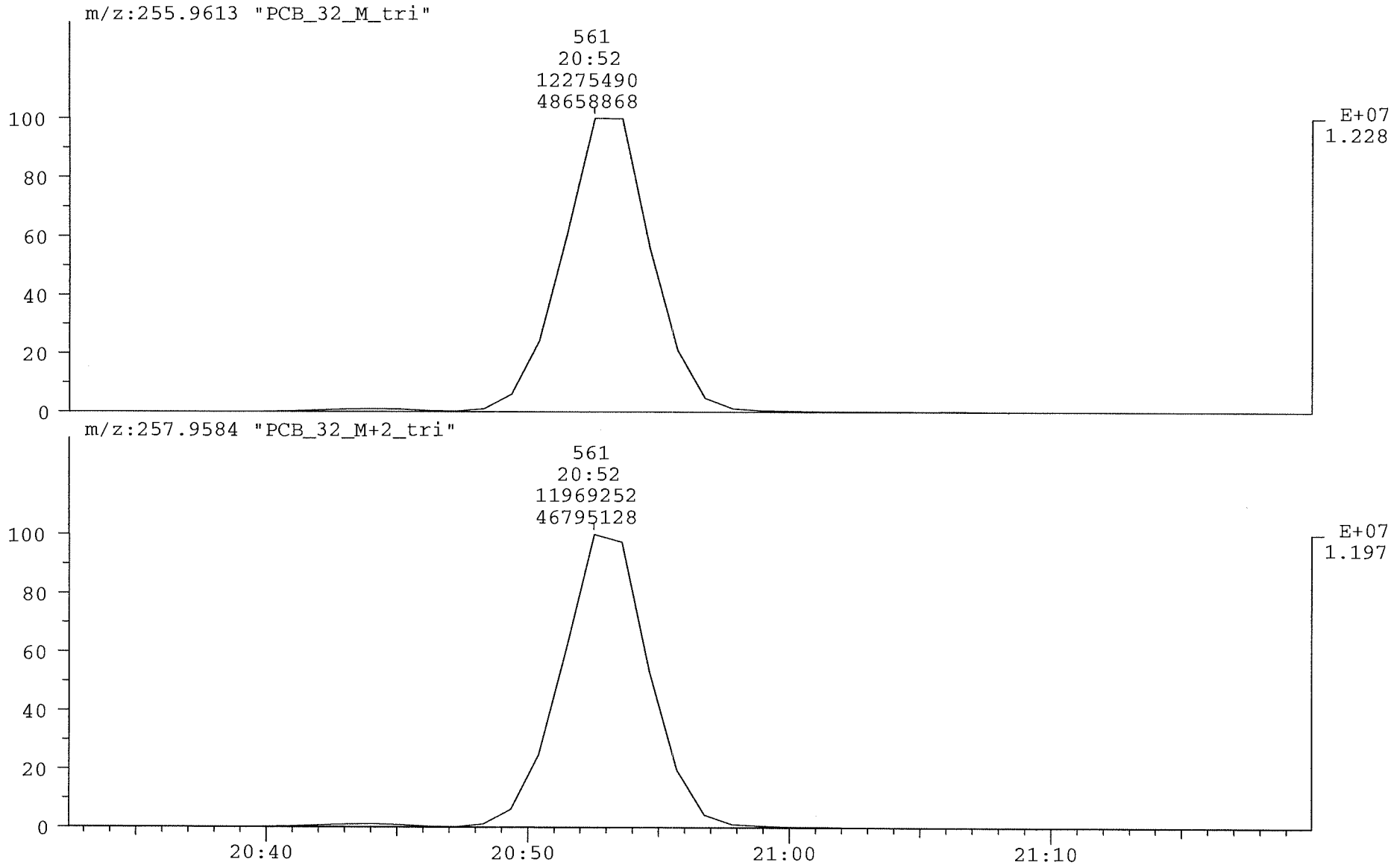
CHRO: a080624i5 24-Jun-08 Elapse: 20:09.2 520
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 493 > 545 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1909

1908

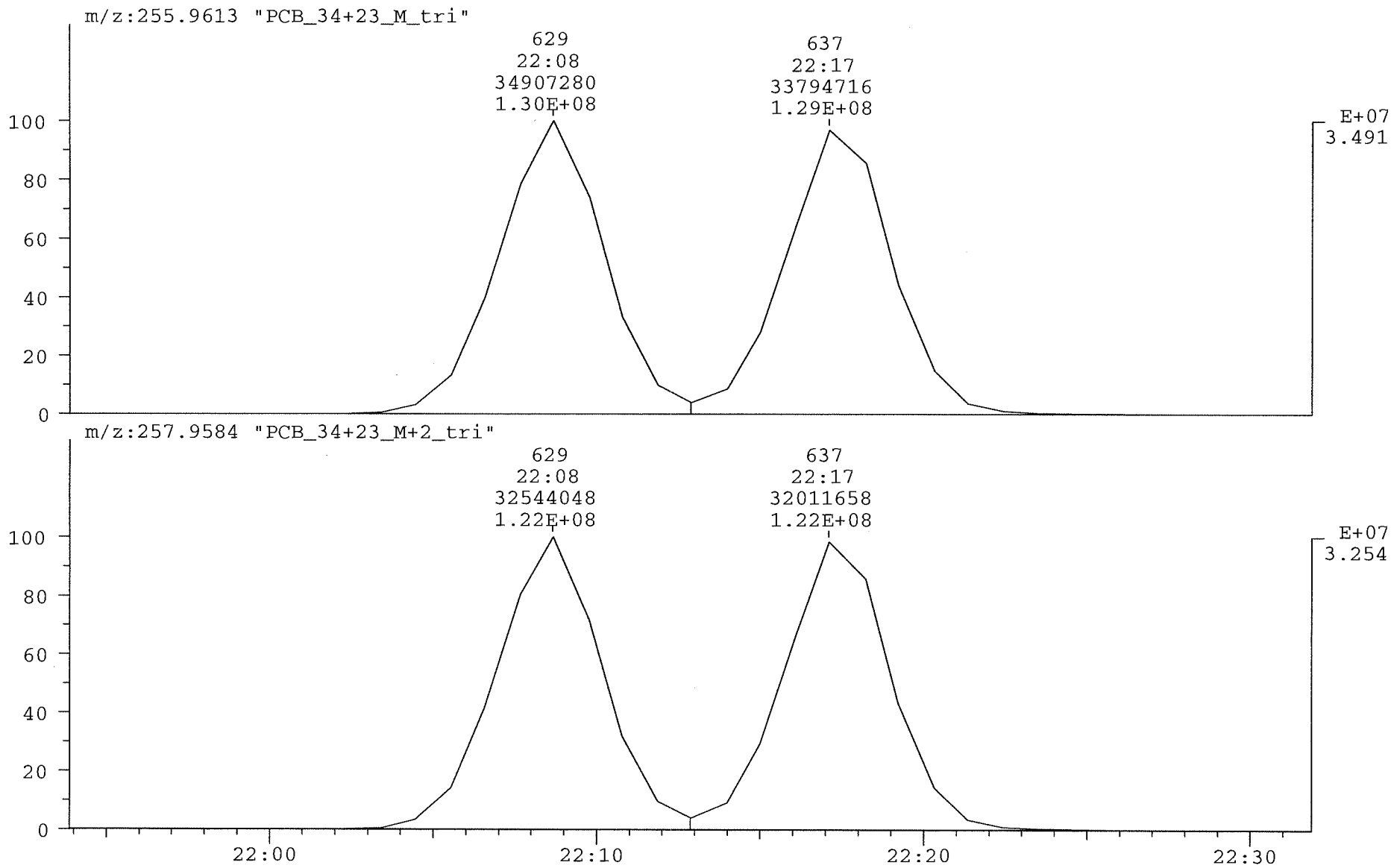
```
CHRO:  a080624i5                              24-Jun-08   Elapse:  20:53.6      562
Samp:  Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1               Start :  20:25:45    2600
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 ICAL CS5
Oper:  DCG           Client:  TA Knoxville                Inlet :  GC     Vial  14
Peak:  100.00  ppm     Label wndw:   542 > 587            Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3              Label :  -3, 3.0
Disp:  Height  Area
```



H-1910

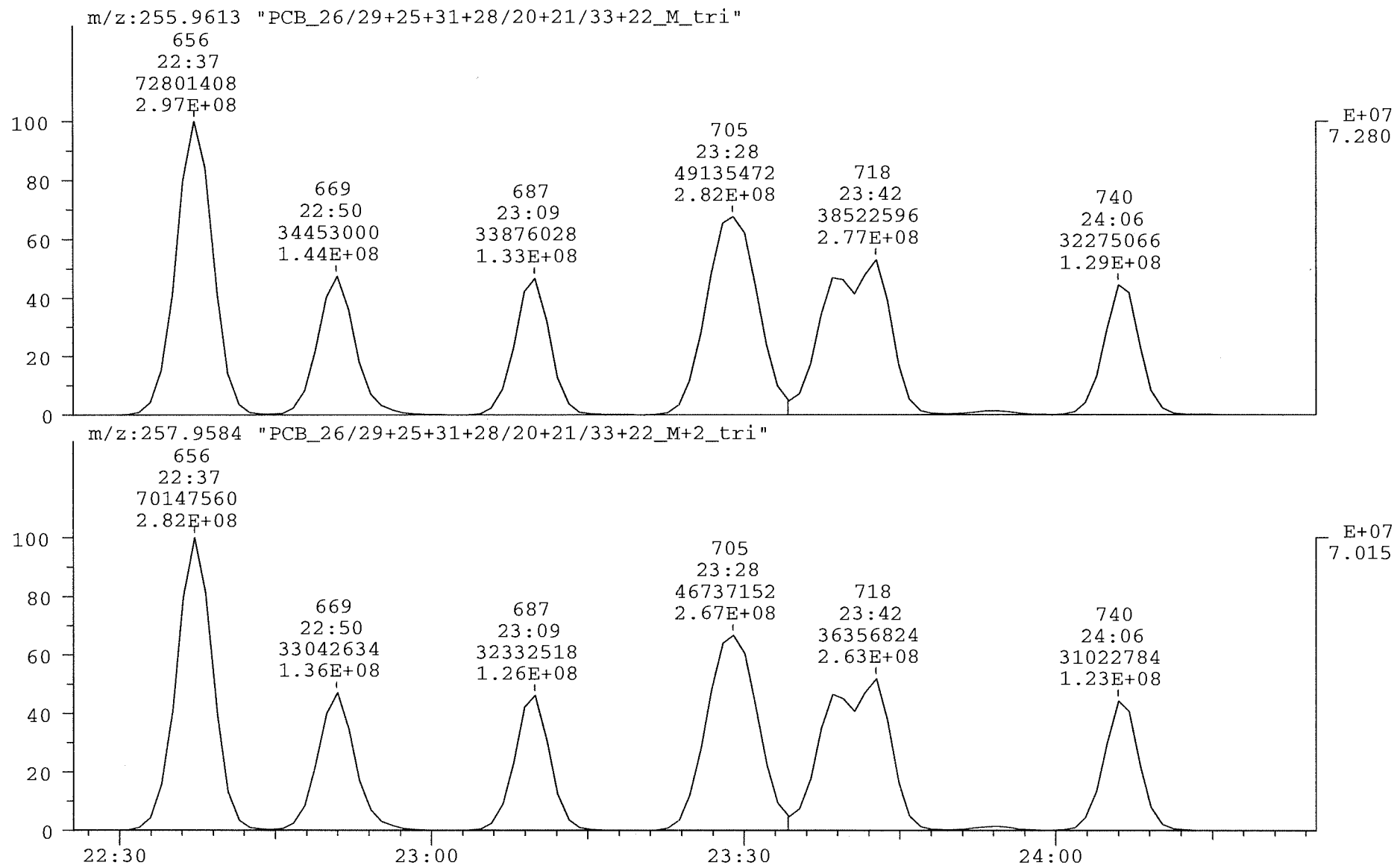
1909

CHRO: a080624i5 24-Jun-08 Elapse: 22:09.7 630
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 615 > 651 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



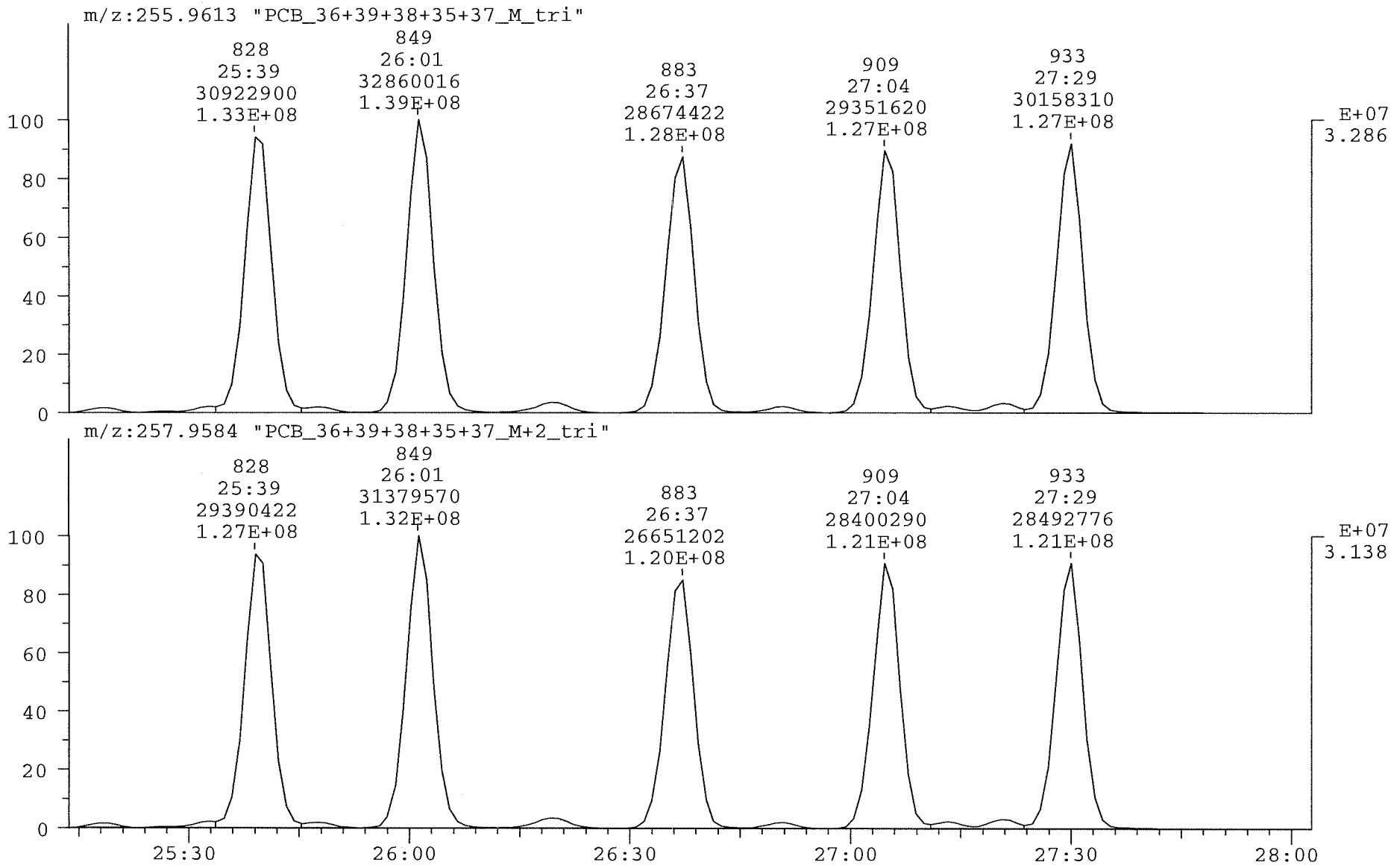
H-1911

```
CHRO:  a080624i5                              24-Jun-08   Elapse:  23:37.4      713
Samp:  Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1               Start :  20:25:45    2600
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 ICAL CS5
Oper:  DCG           Client:  TA Knoxville                Inlet :  GC     Vial  14
Peak:  100.00  ppm     Label wndw:   645 > 758            Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 6              Label :  -3, 3.0
Disp:  Height  Area
```



H-1912

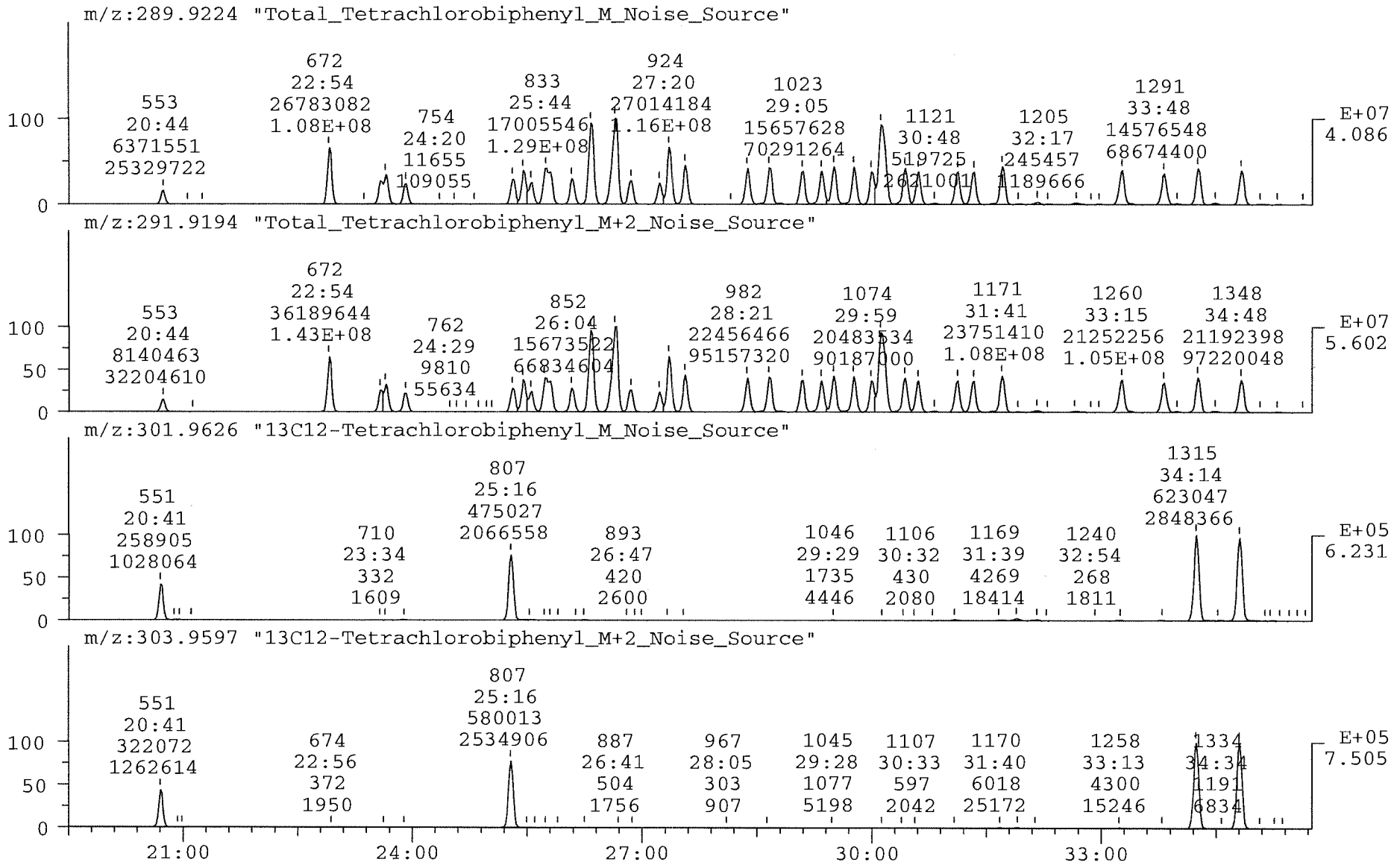
CHRO: a080624i5 24-Jun-08 Elapse: 26:38.2 884
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 804 > 964 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1913

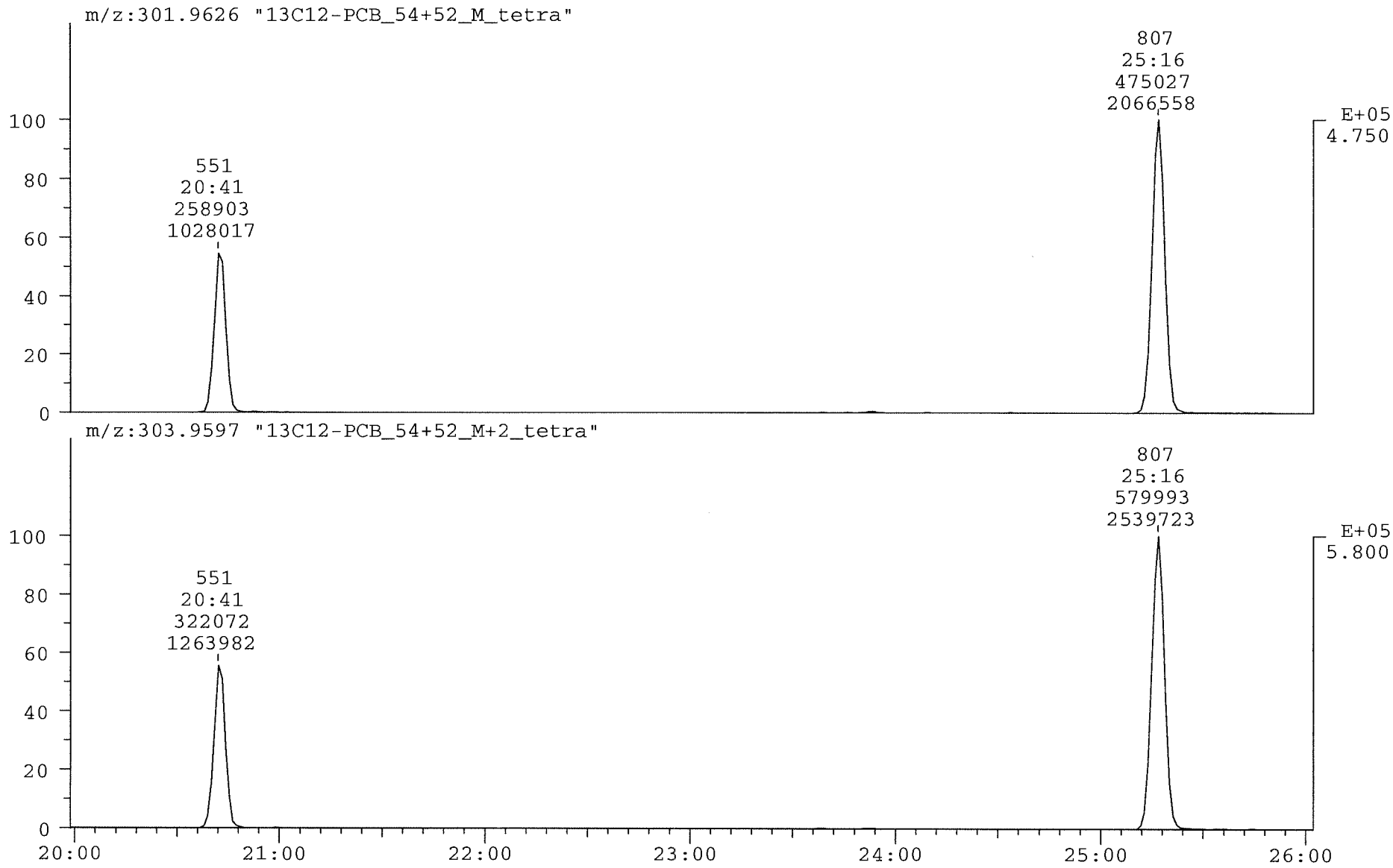
1912

CHRO: a080624i5 24-Jun-08 Elapse: 27:37.4 940
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 483 > 1401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1914

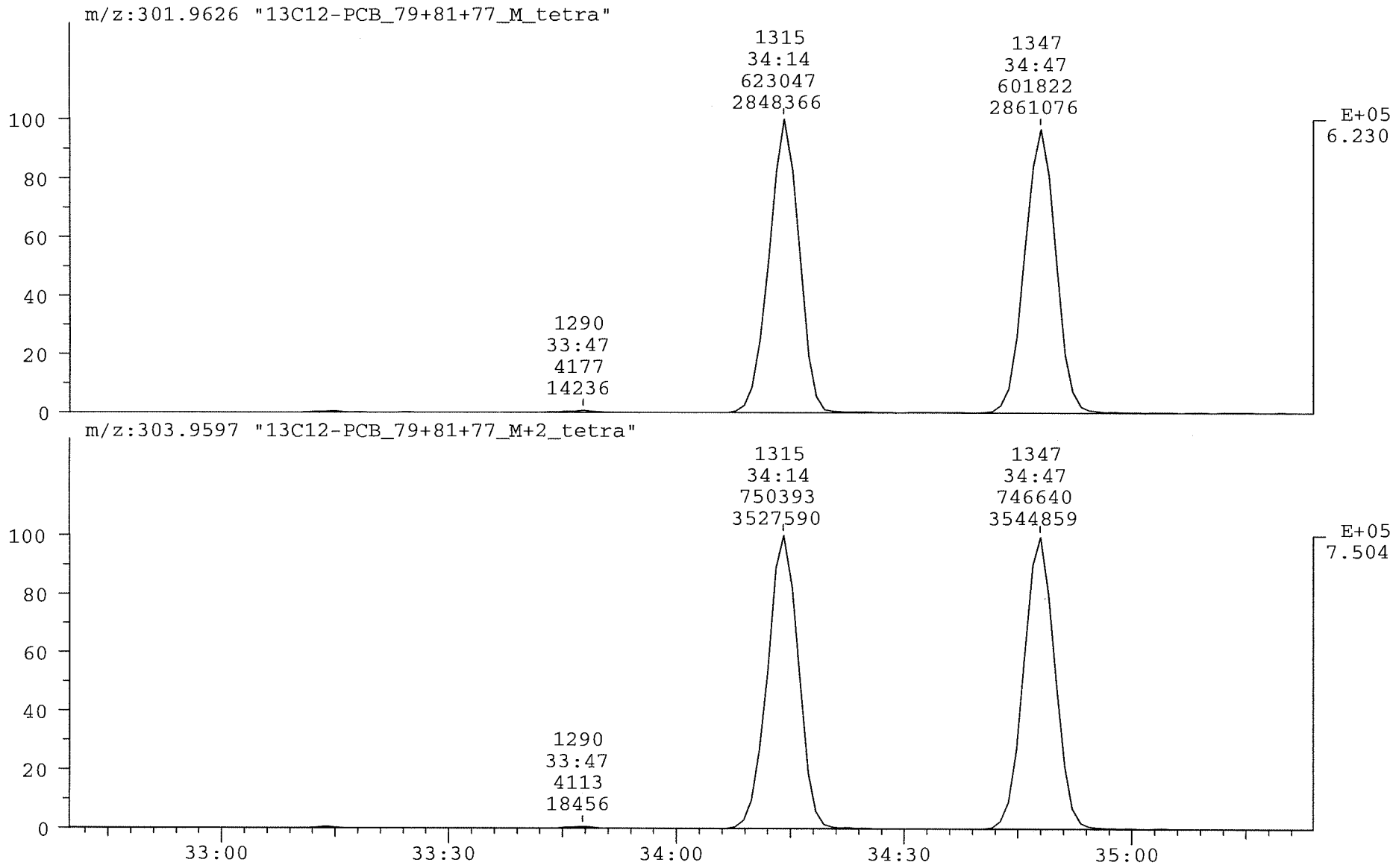
CHRO: a080624i5 24-Jun-08 Elapse: 23:02.6 680
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 510 > 850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1915

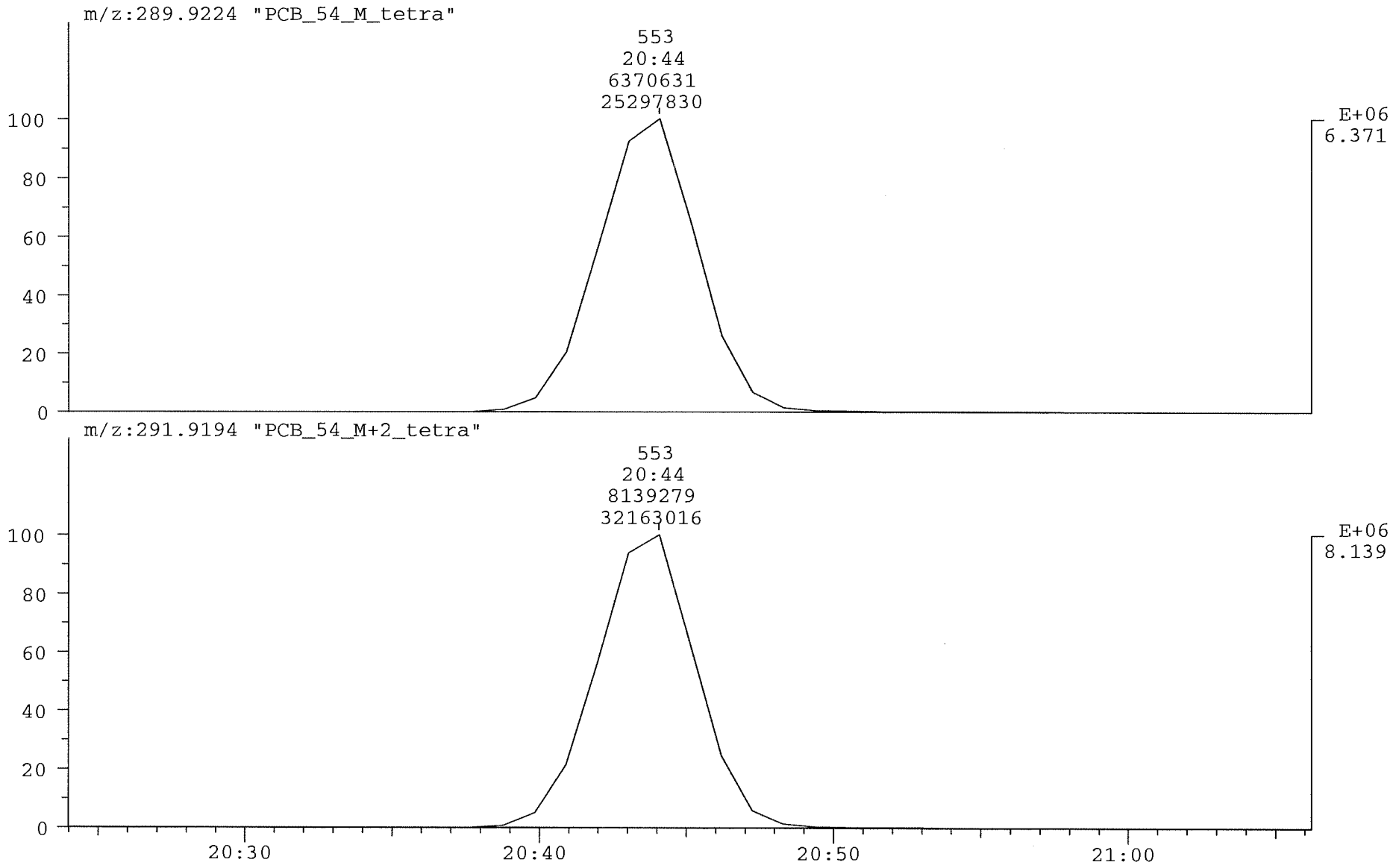
1914

CHRO: a080624i5 24-Jun-08 Elapse: 33:59 1301
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1226 > 1381 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



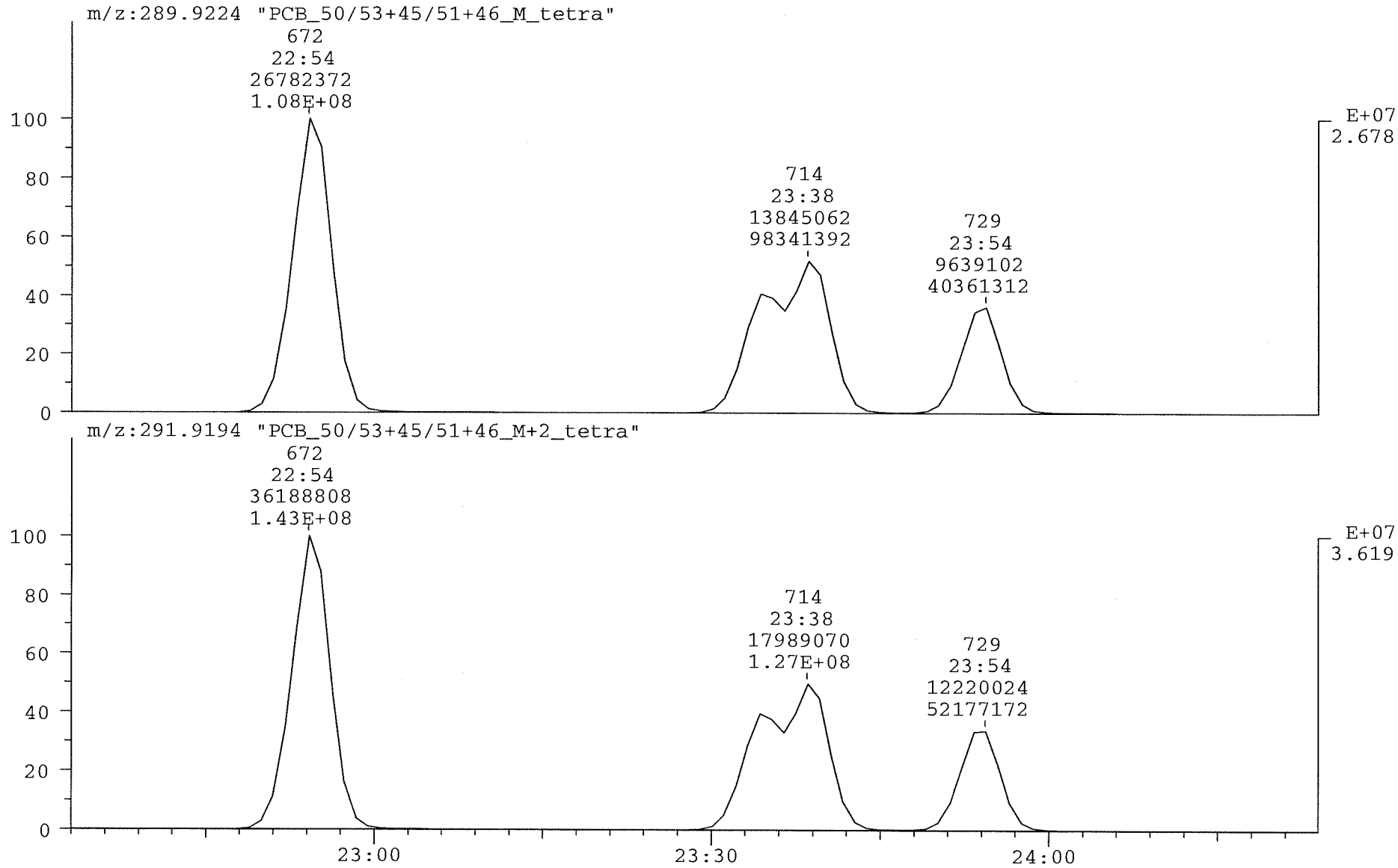
H-1916

CHRO: a080624i5 24-Jun-08 Elapse: 20:45.1 554
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 534 > 574 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



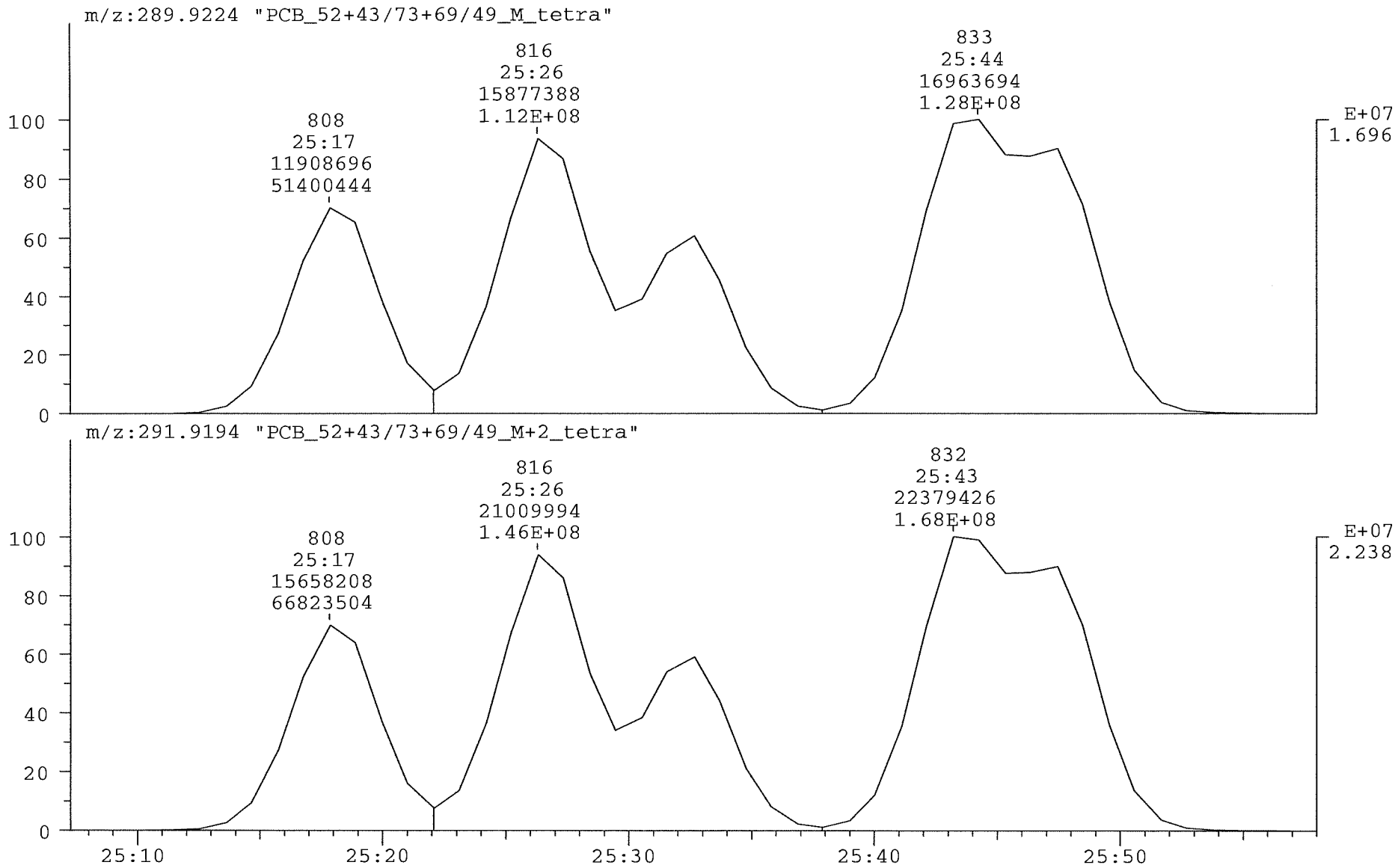
H-1917

CHRO: a080624i5 24-Jun-08 Elapse: 23:31.0 707
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 652 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



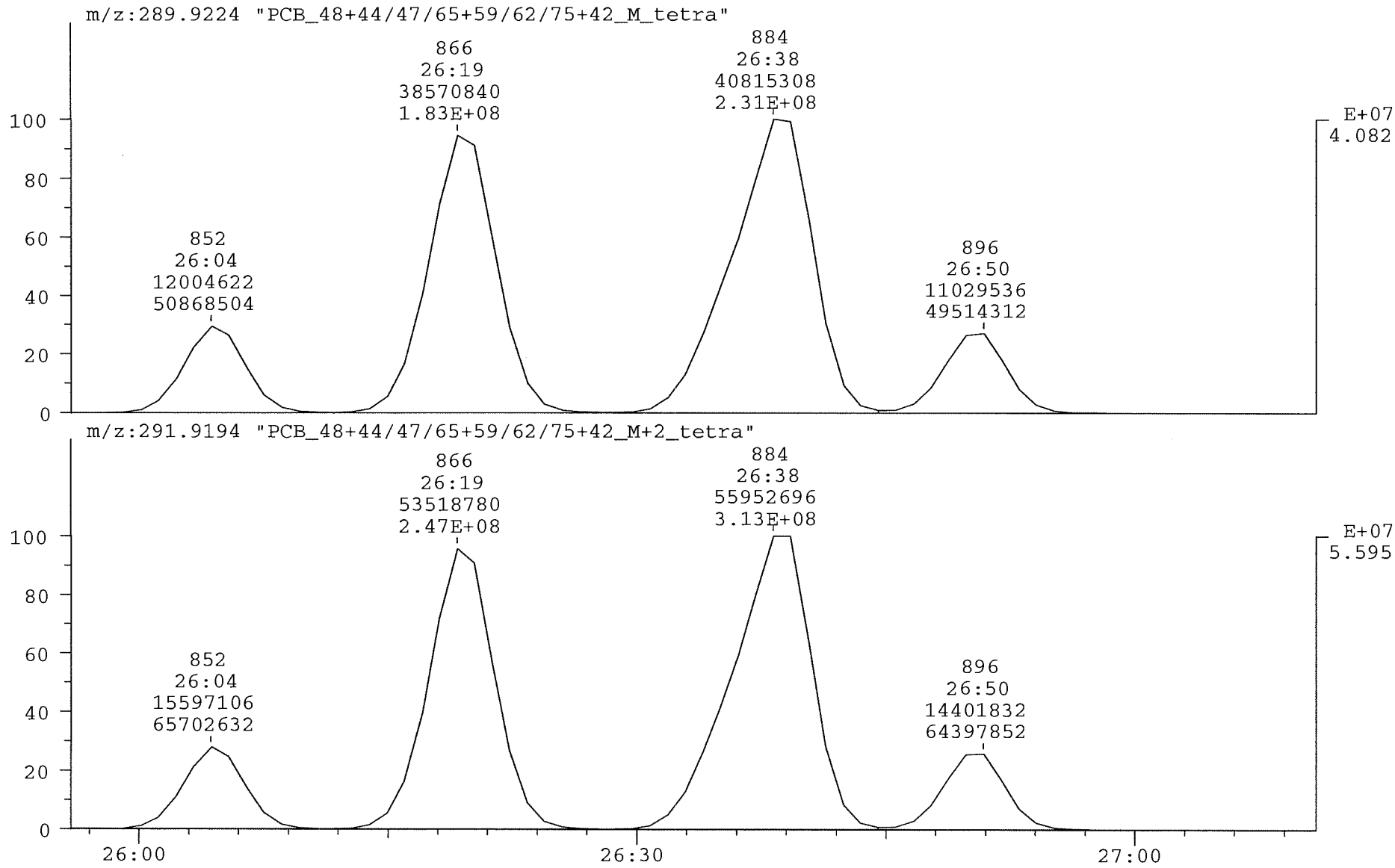
H-1918

CHRO: a080624i5 24-Jun-08 Elapse: 25:36.9 826
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 798 > 846 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1919

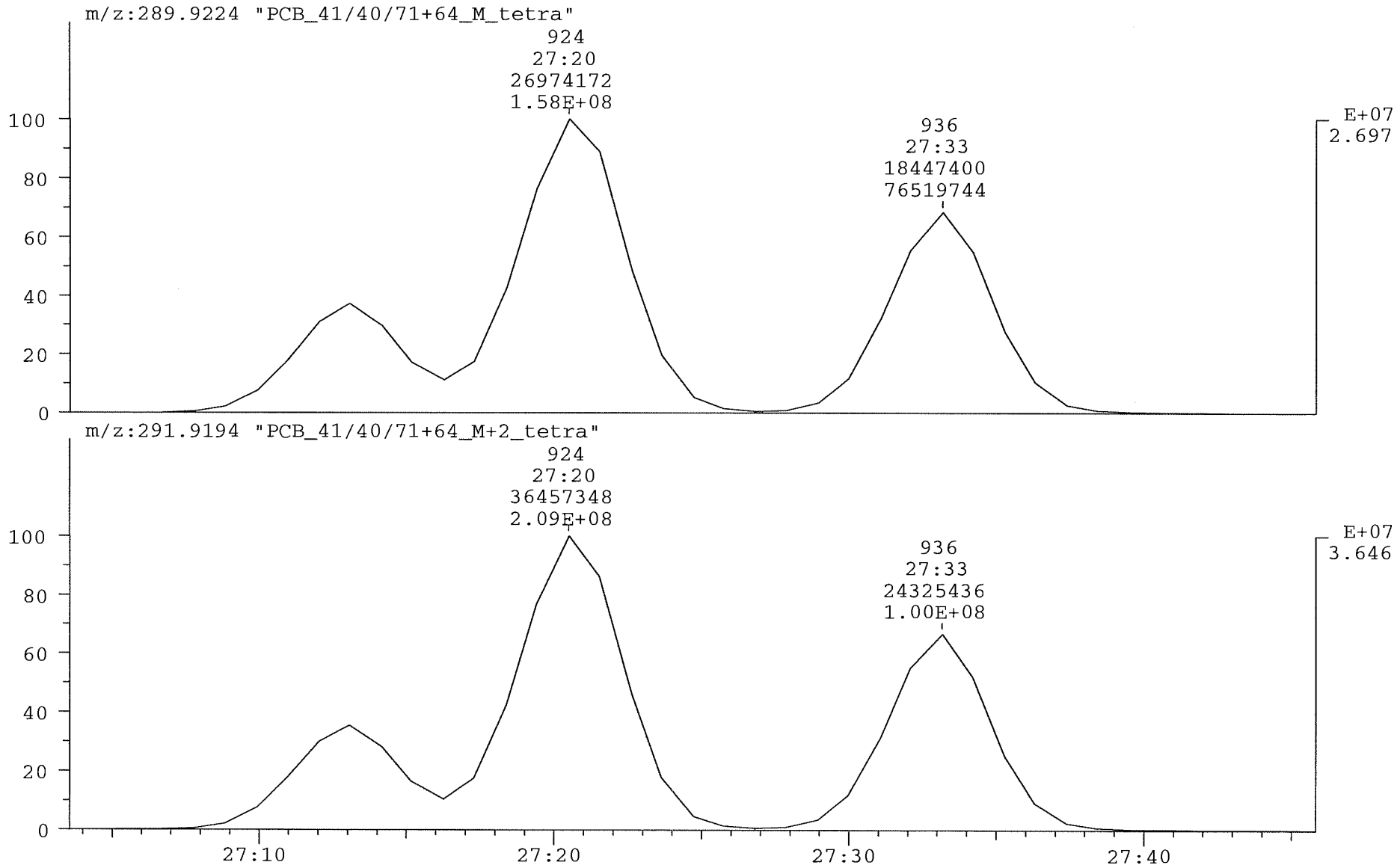
CHRO: a080624i5 24-Jun-08 Elapse: 26:29.7 876
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 844 > 915 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1920

1919

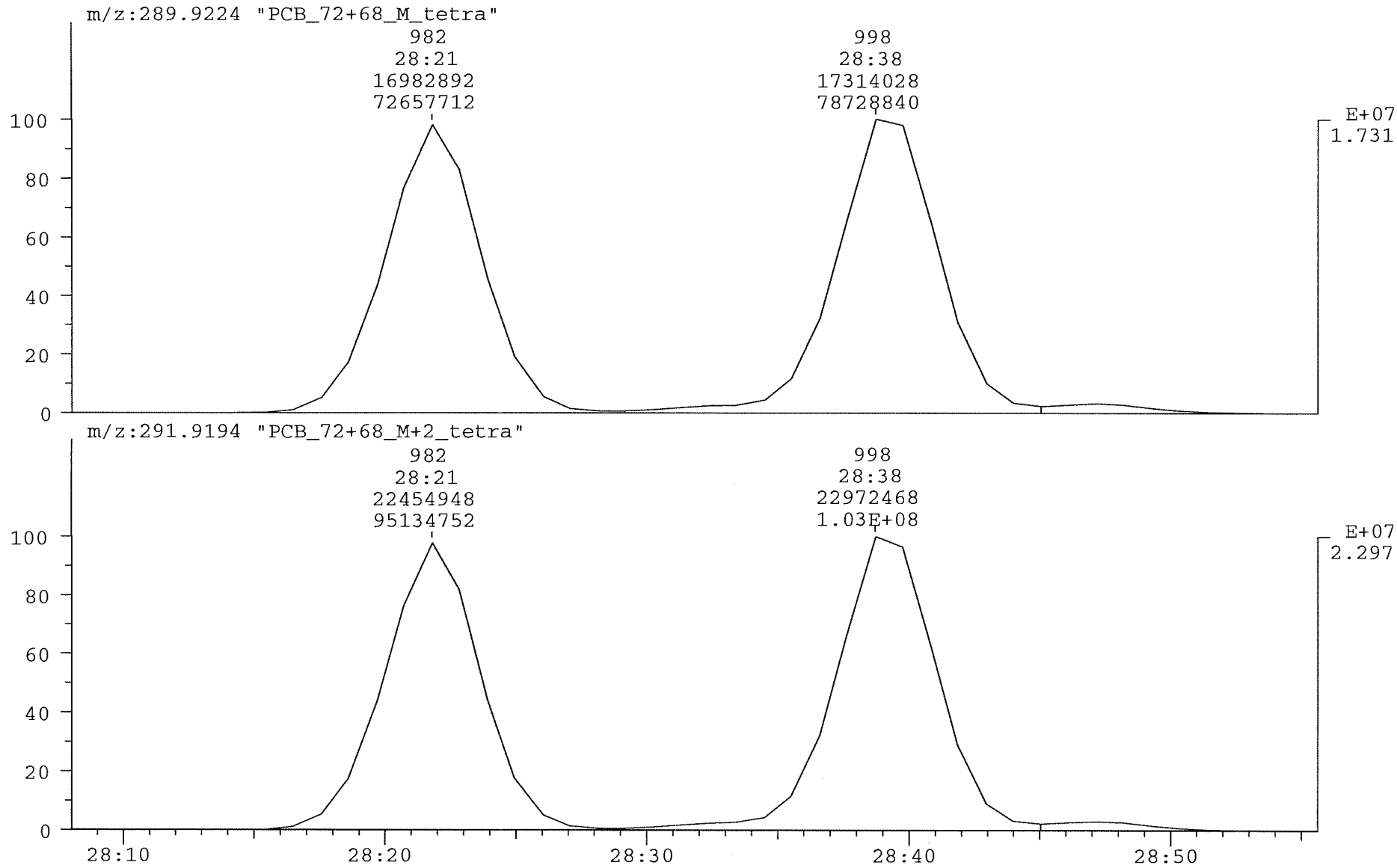
CHRO: a080624i5 24-Jun-08 Elapse: 27:29.9 933
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 908 > 948 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1921

1920

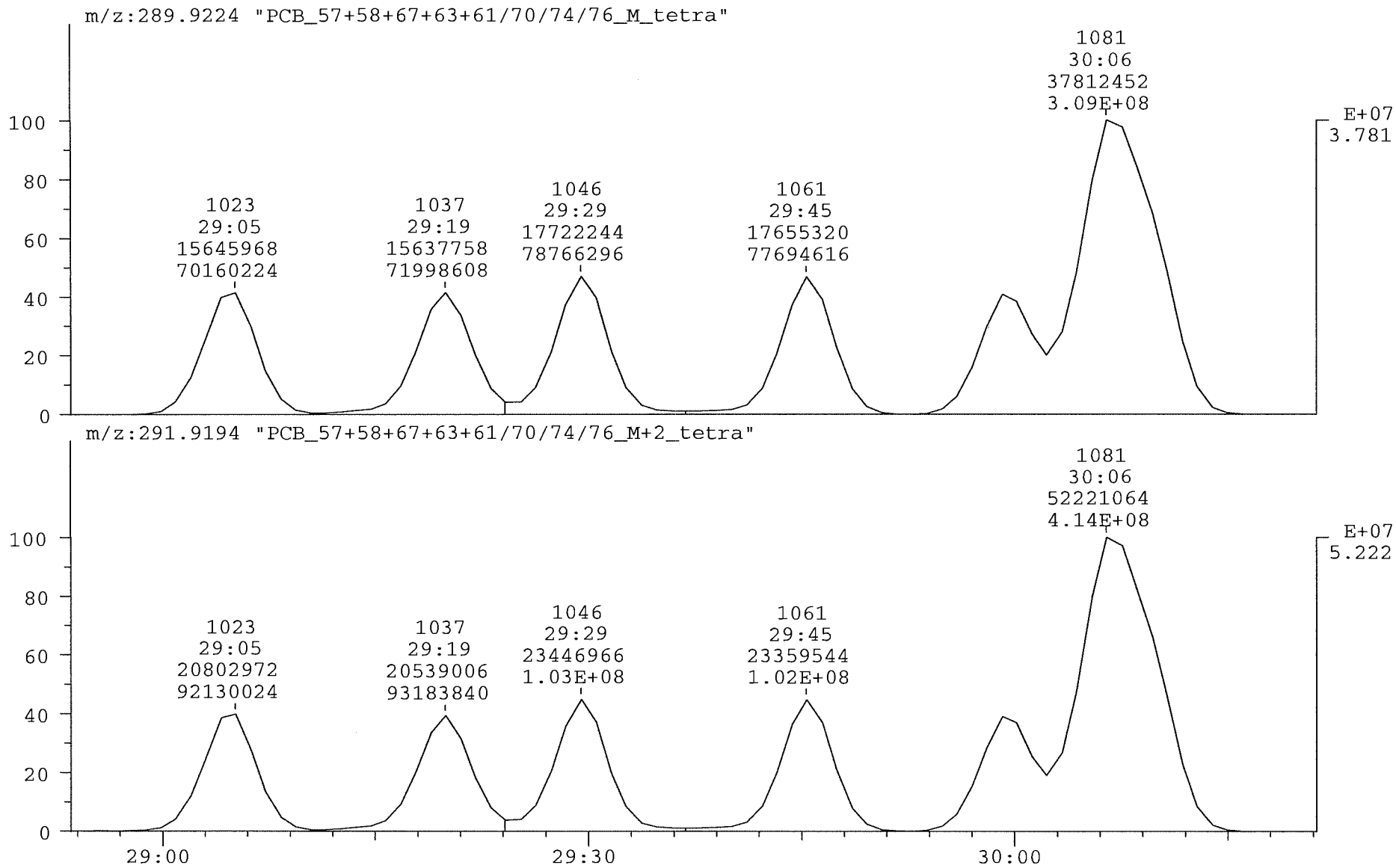
CHRO: a080624i5 24-Jun-08 Elapse: 28:34.5 994
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 969 > 1014 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1922

1921

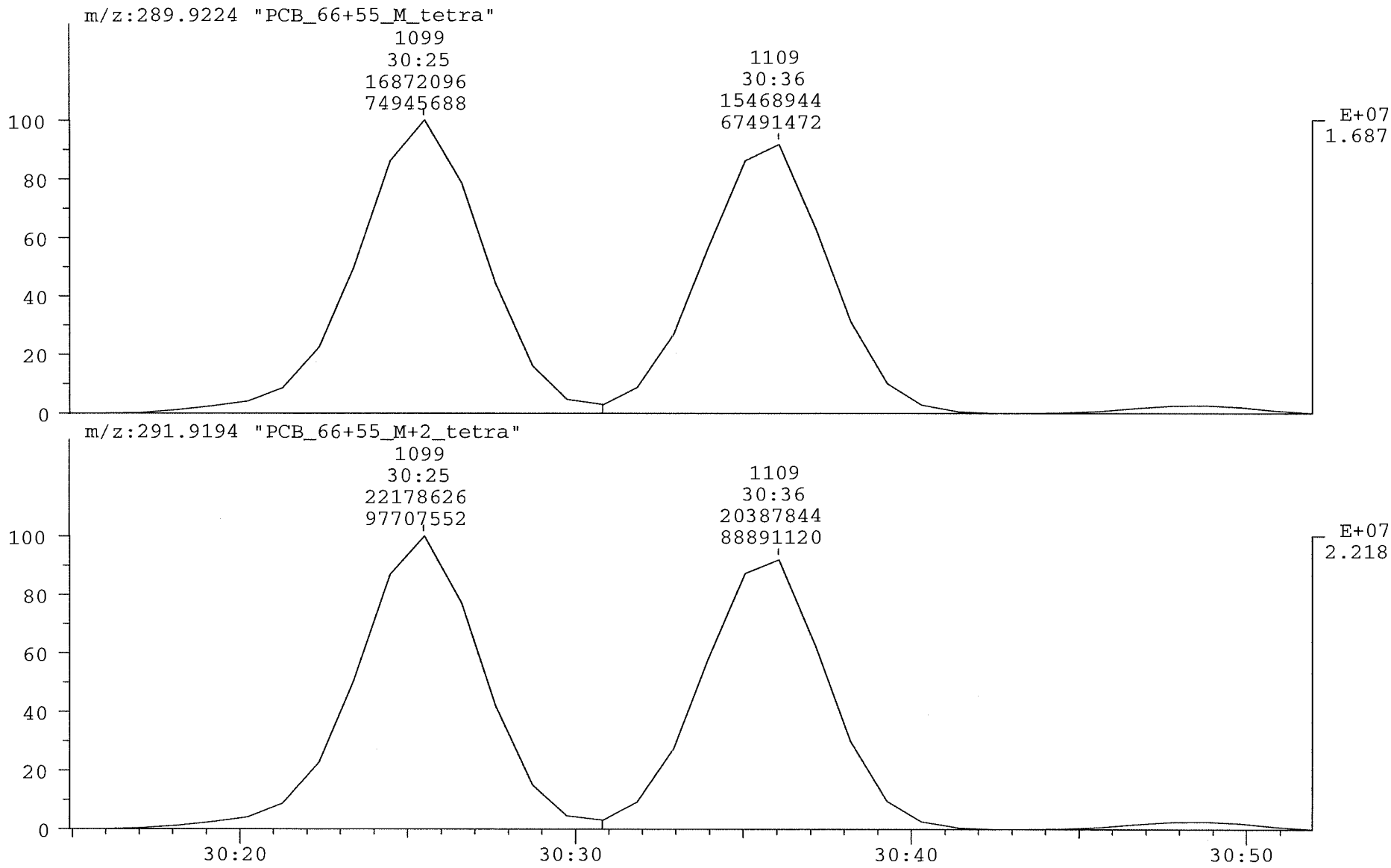
CHRO: a080624i5 24-Jun-08 Elapse: 29:39 1055
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1012 > 1095 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1923

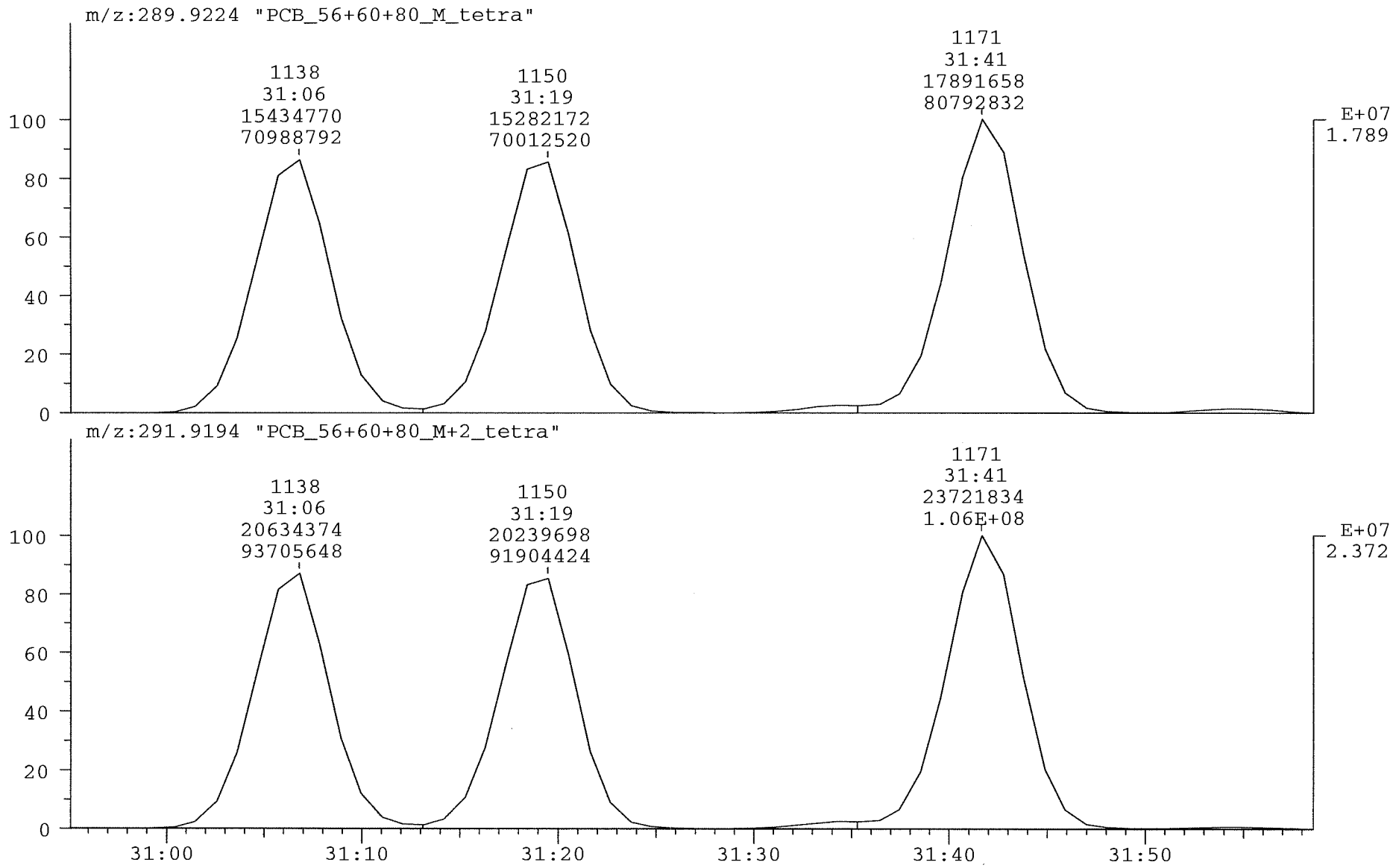
1922

CHRO: a080624i5 24-Jun-08 Elapse: 30:33 1107
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1089 > 1124 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1924

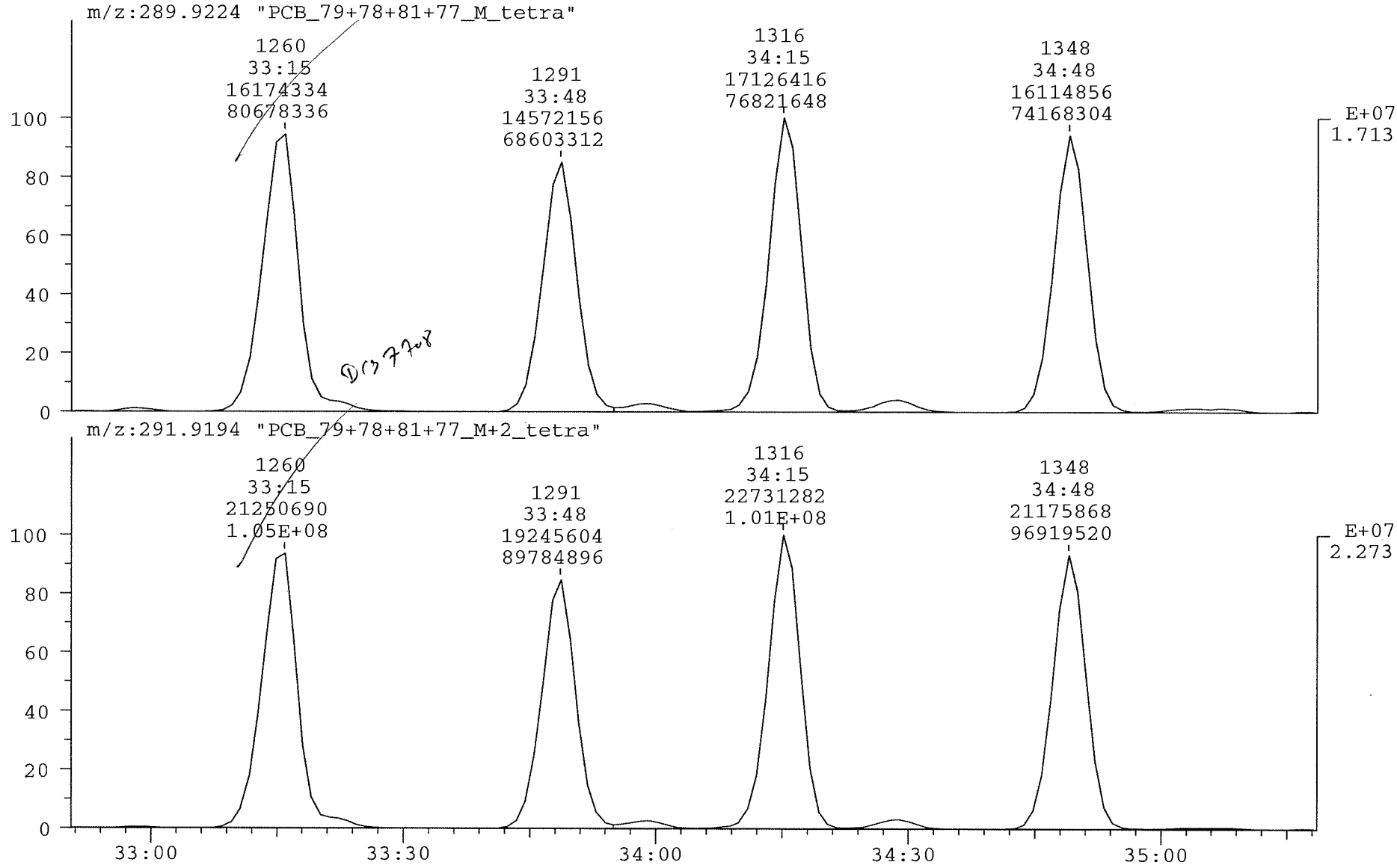
CHRO: a080624i5 24-Jun-08 Elapse: 31:26 1157
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1127 > 1187 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1925

1924

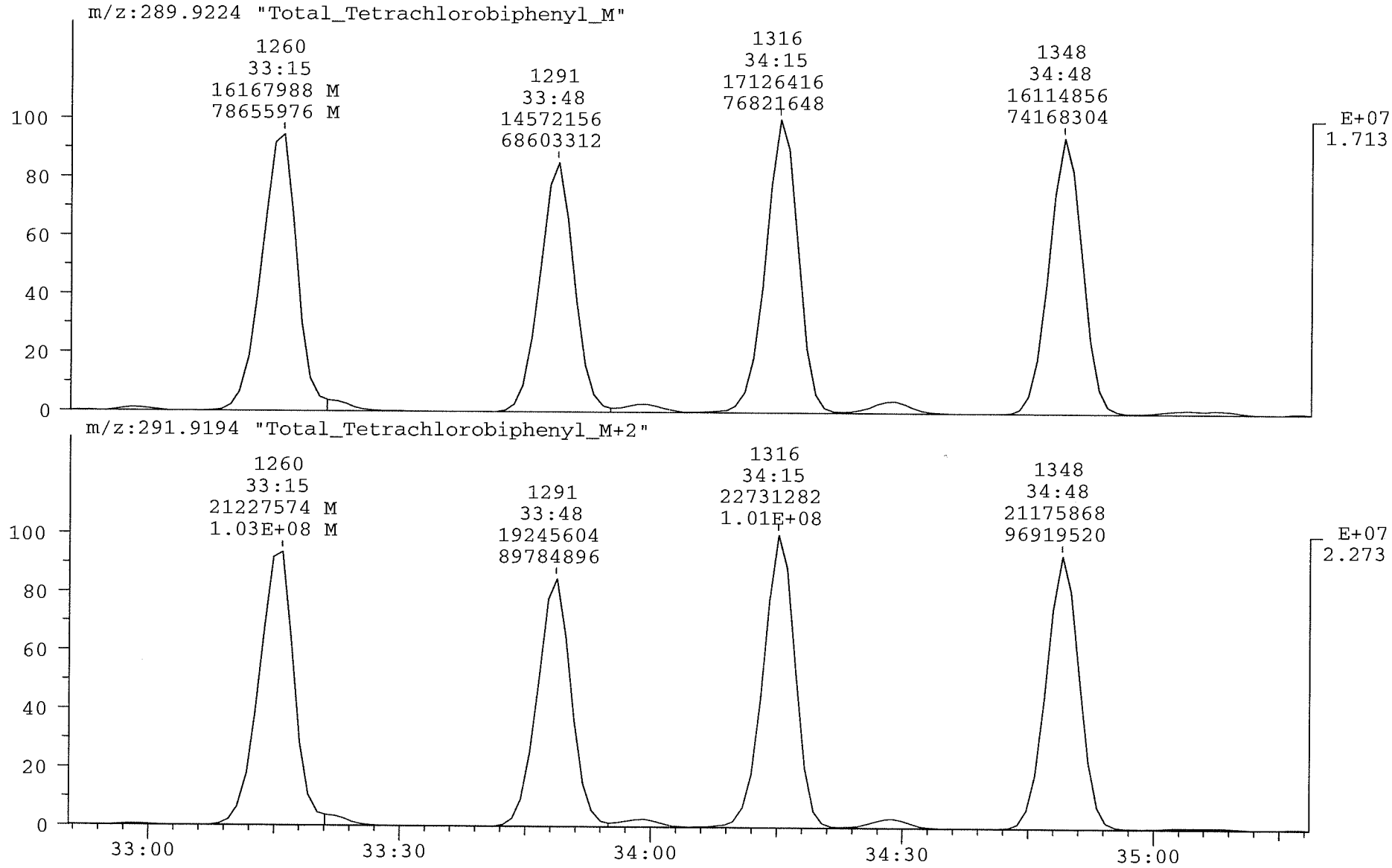
CHRO: a080624i5 24-Jun-08 Elapse: 33:59 1301
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1236 > 1376 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1926

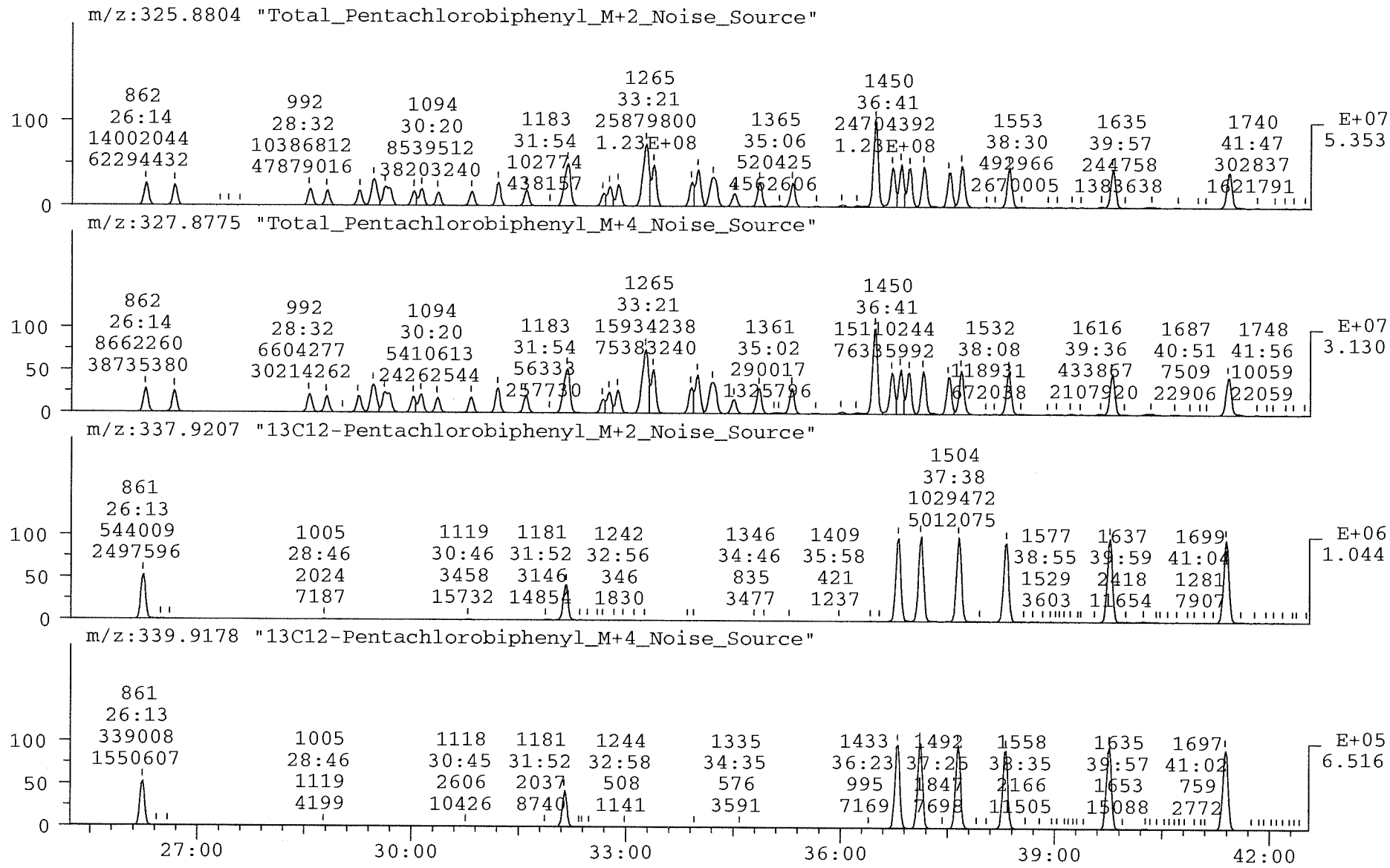
1925

CHRO: a080624i5 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1236 > 1376 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area

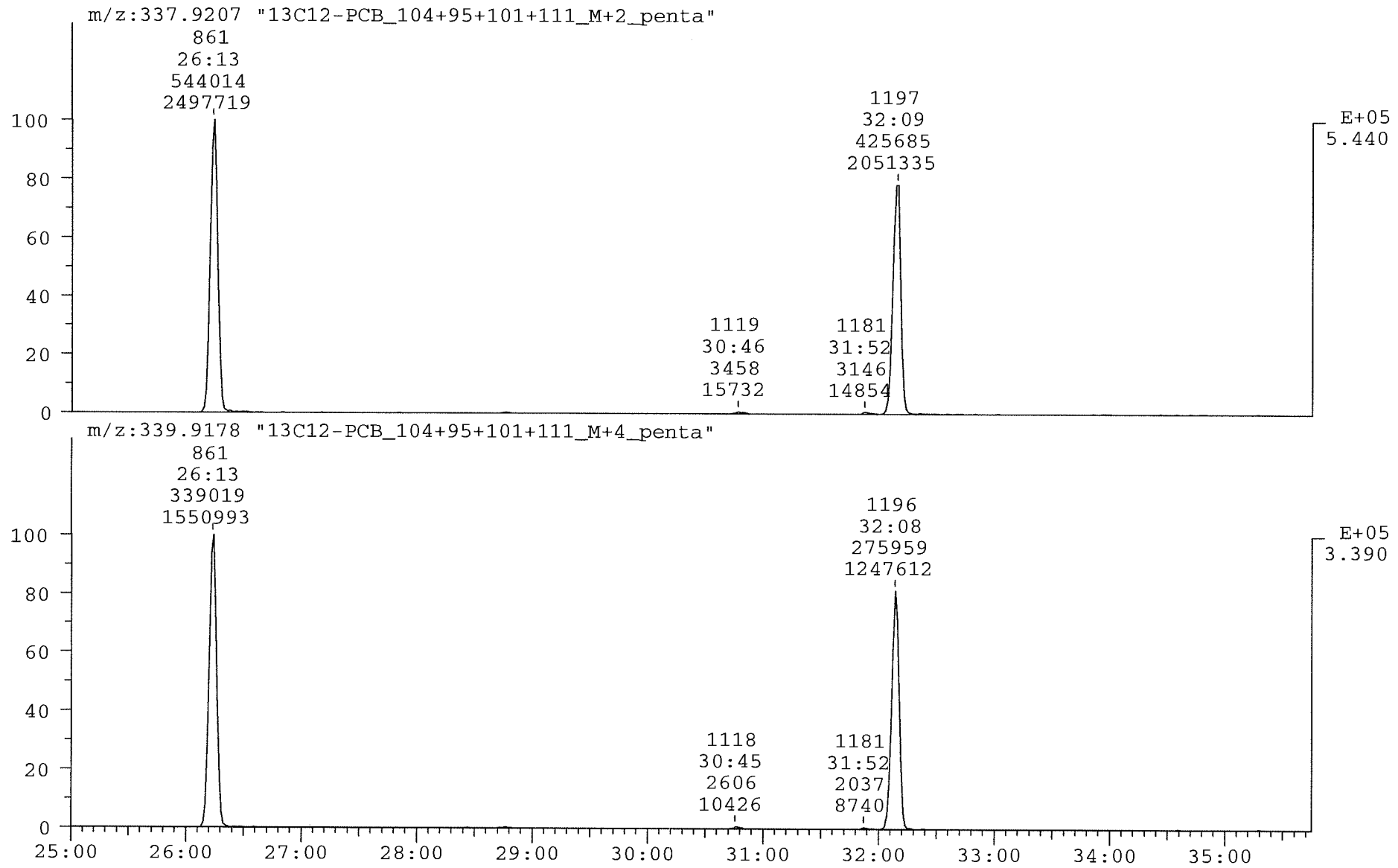


H-1927

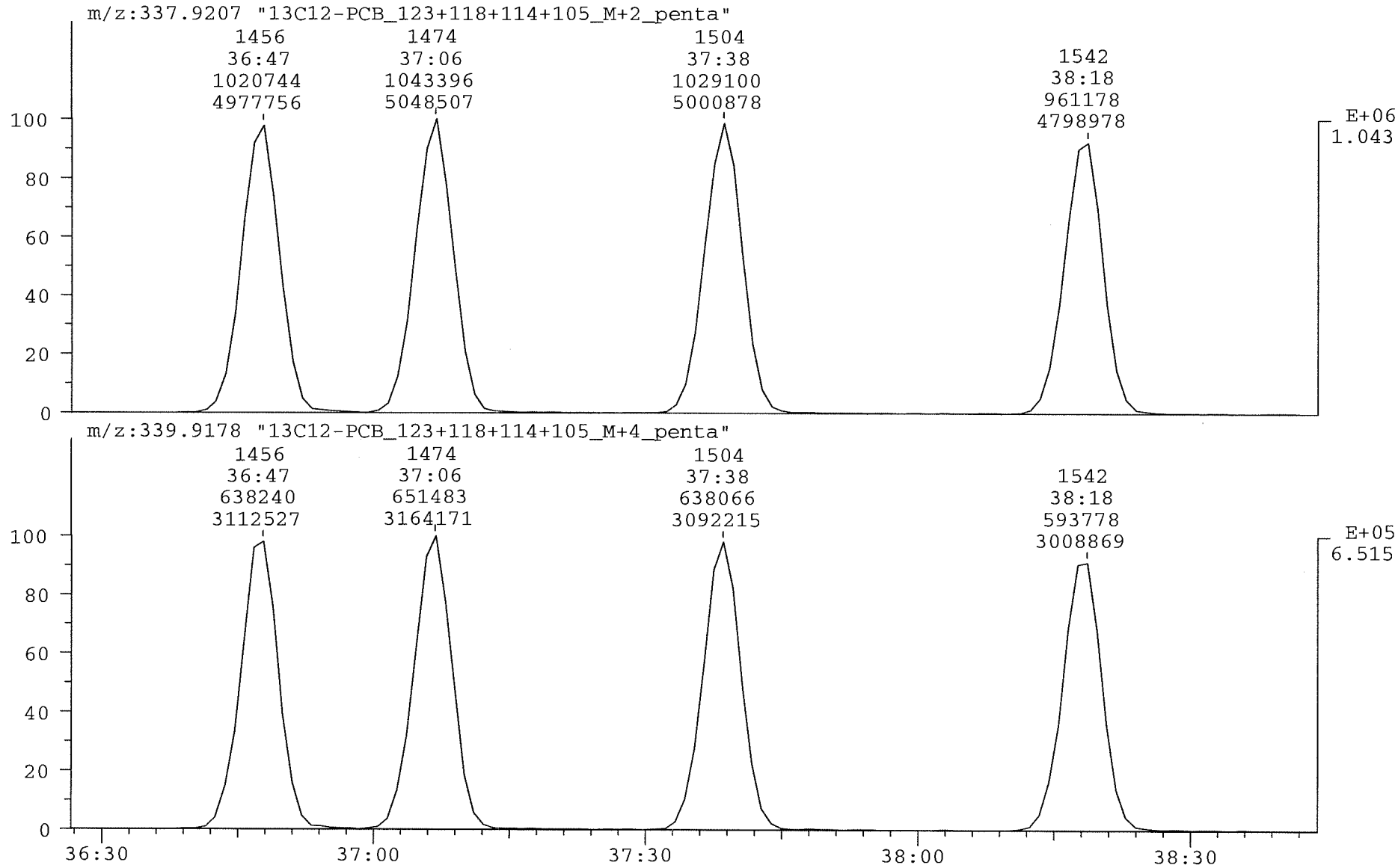
CHRO: a080624i5 24-Jun-08 Elapse: 33:52 1295
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 803 > 1783 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



CHRO: a080624i5 24-Jun-08 Elapse: 30:22 1096
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 791 > 1401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area

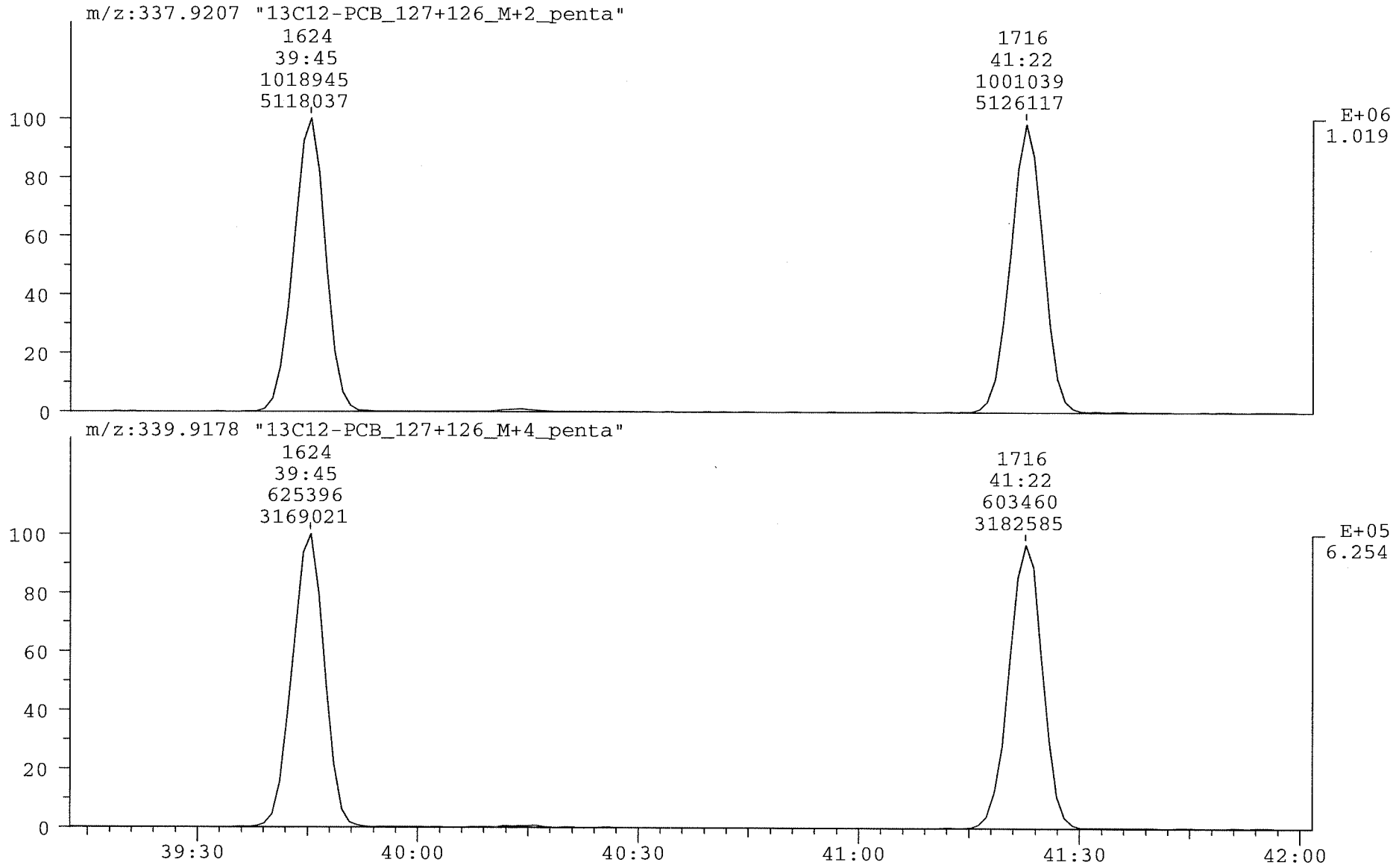


CHRO: a080624i5 24-Jun-08 Elapse: 37:35 1501
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1436 > 1566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1930

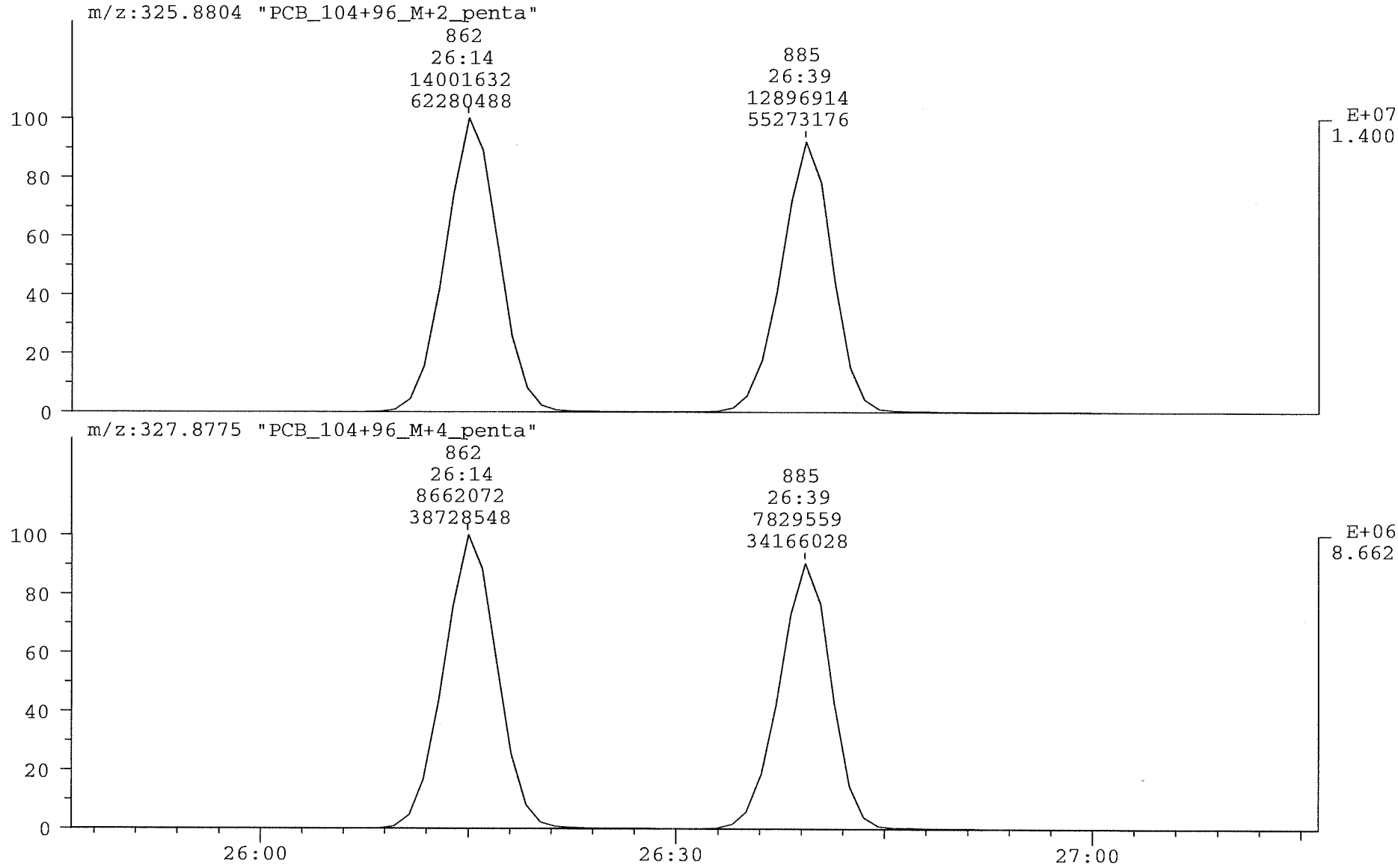
CHRO: a080624i5 24-Jun-08 Elapse: 40:37 1673
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1593 > 1753 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1931

1930

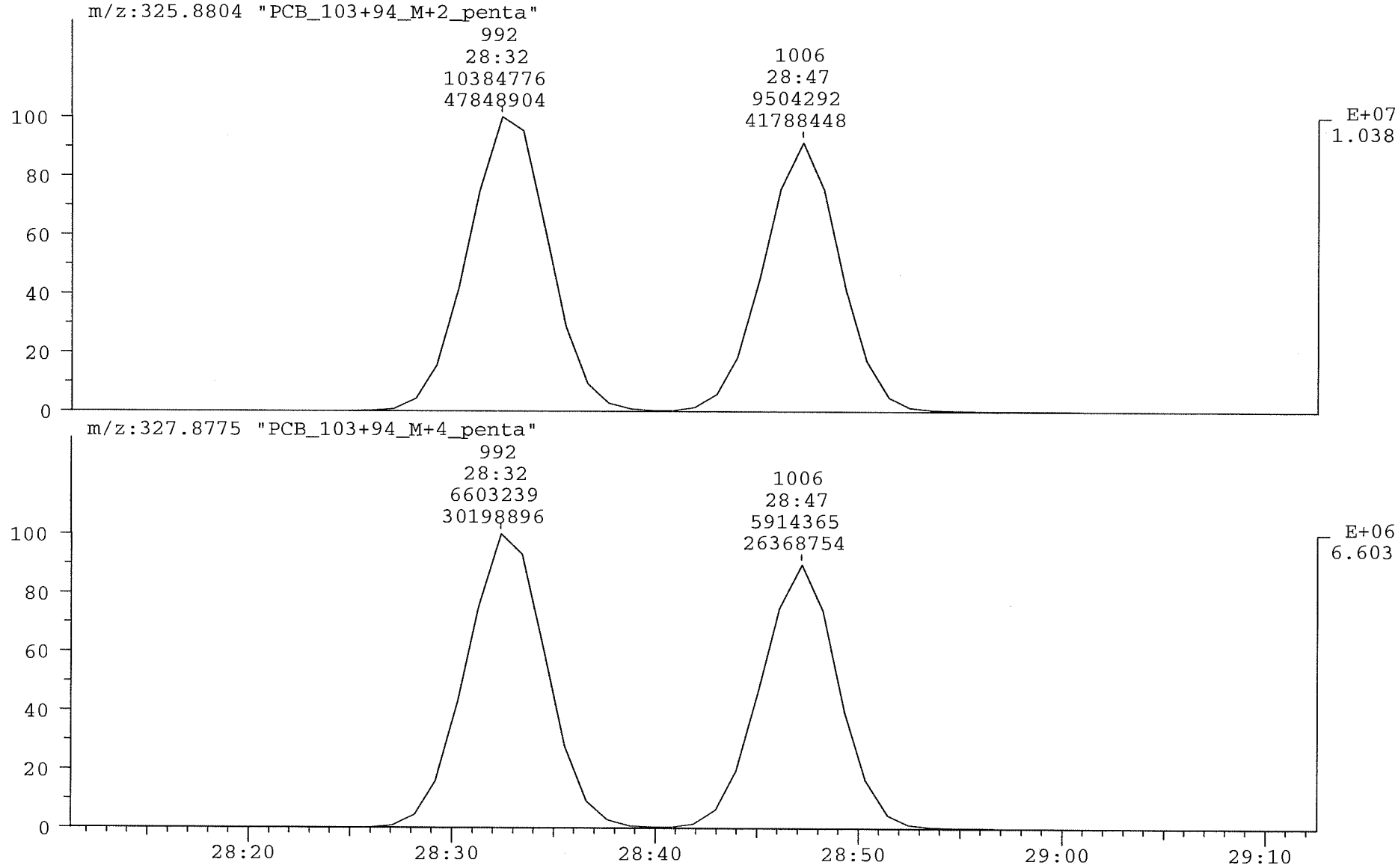
CHRO: a080624i5 24-Jun-08 Elapse: 26:28.6 875
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 835 > 920 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1932

1931

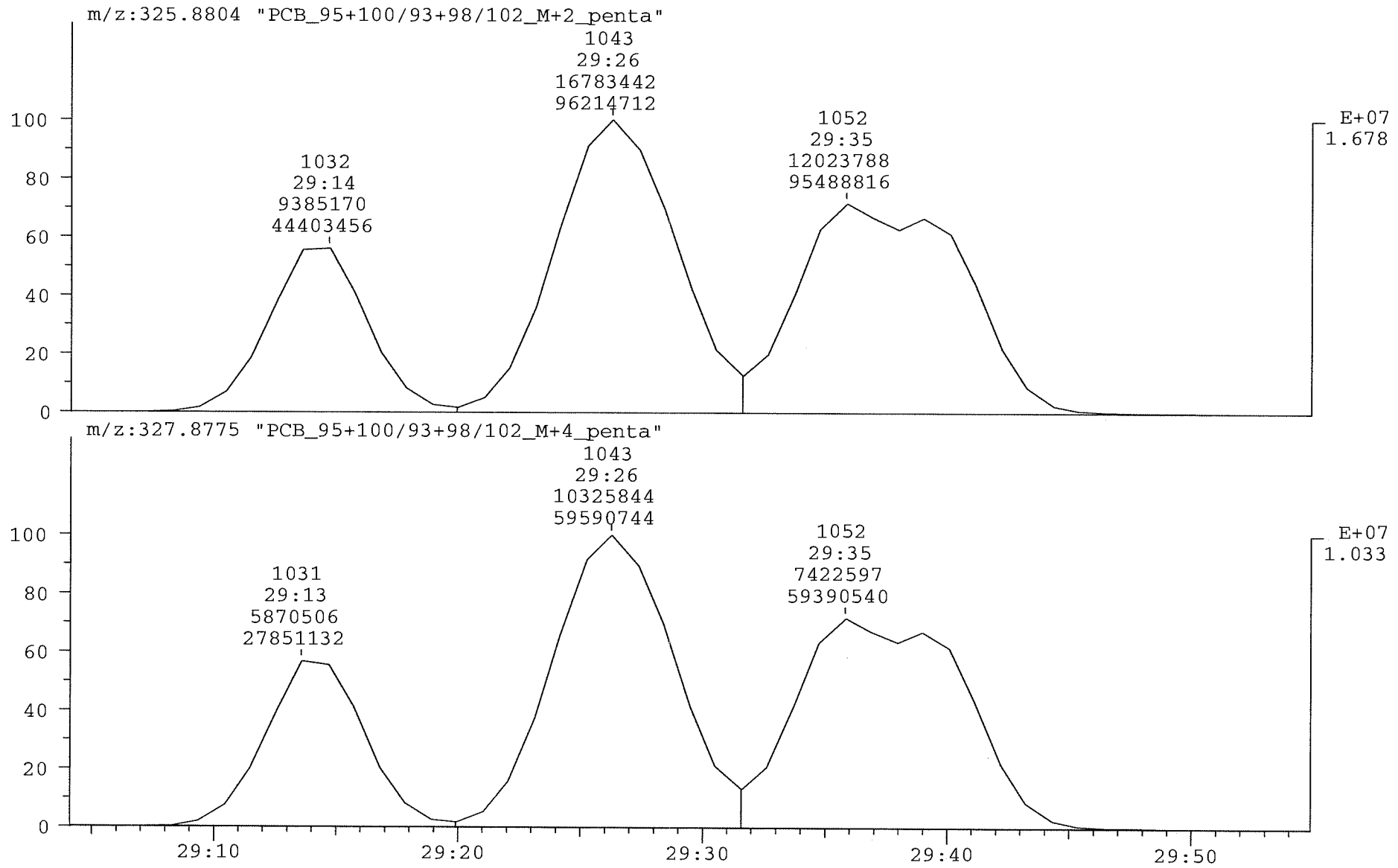
CHRO: a080624i5 24-Jun-08 Elapse: 28:42 1002
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 972 > 1030 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1933

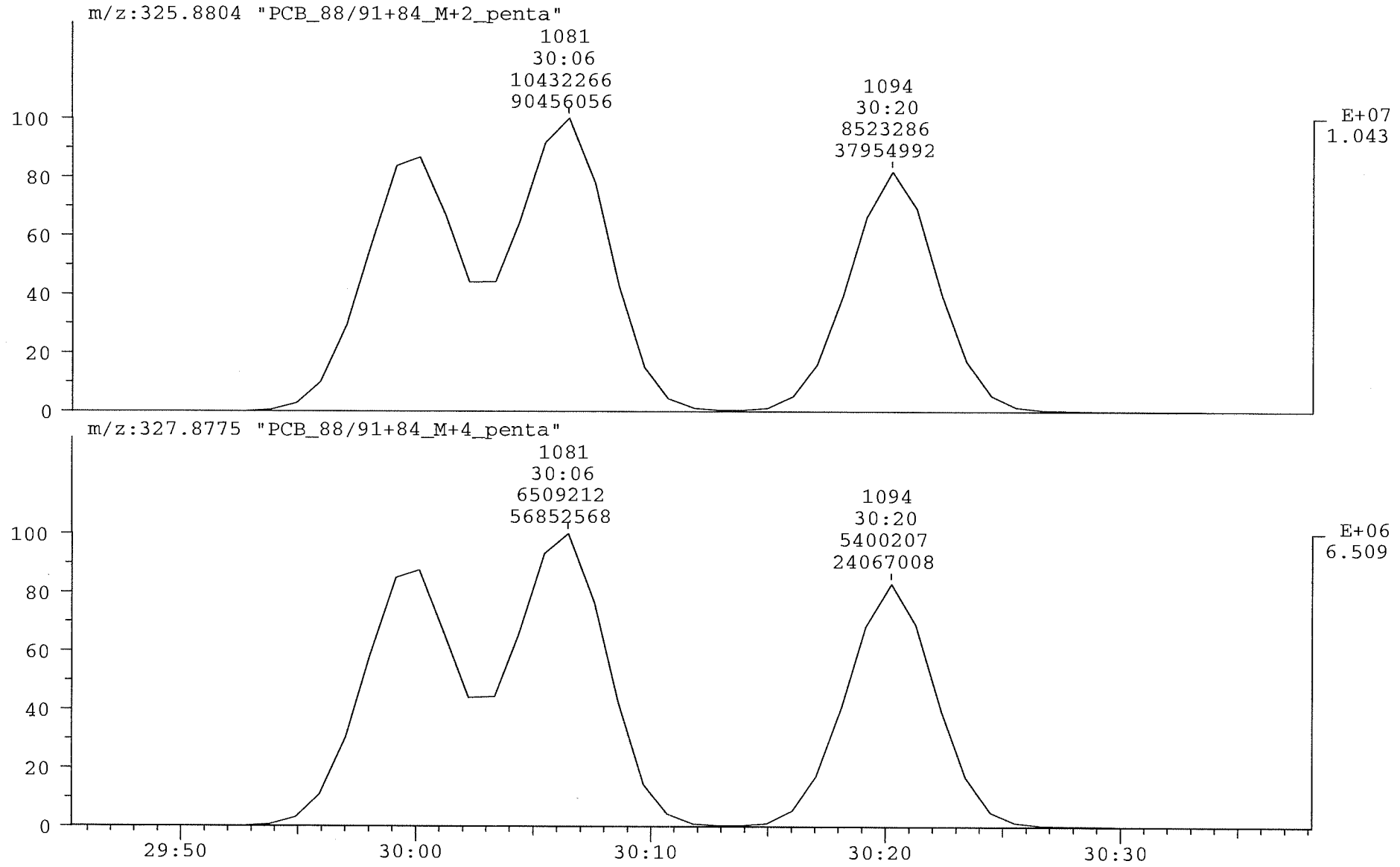
1932

CHRO: a080624i5 24-Jun-08 Elapse: 29:28 1045
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1022 > 1070 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-1934

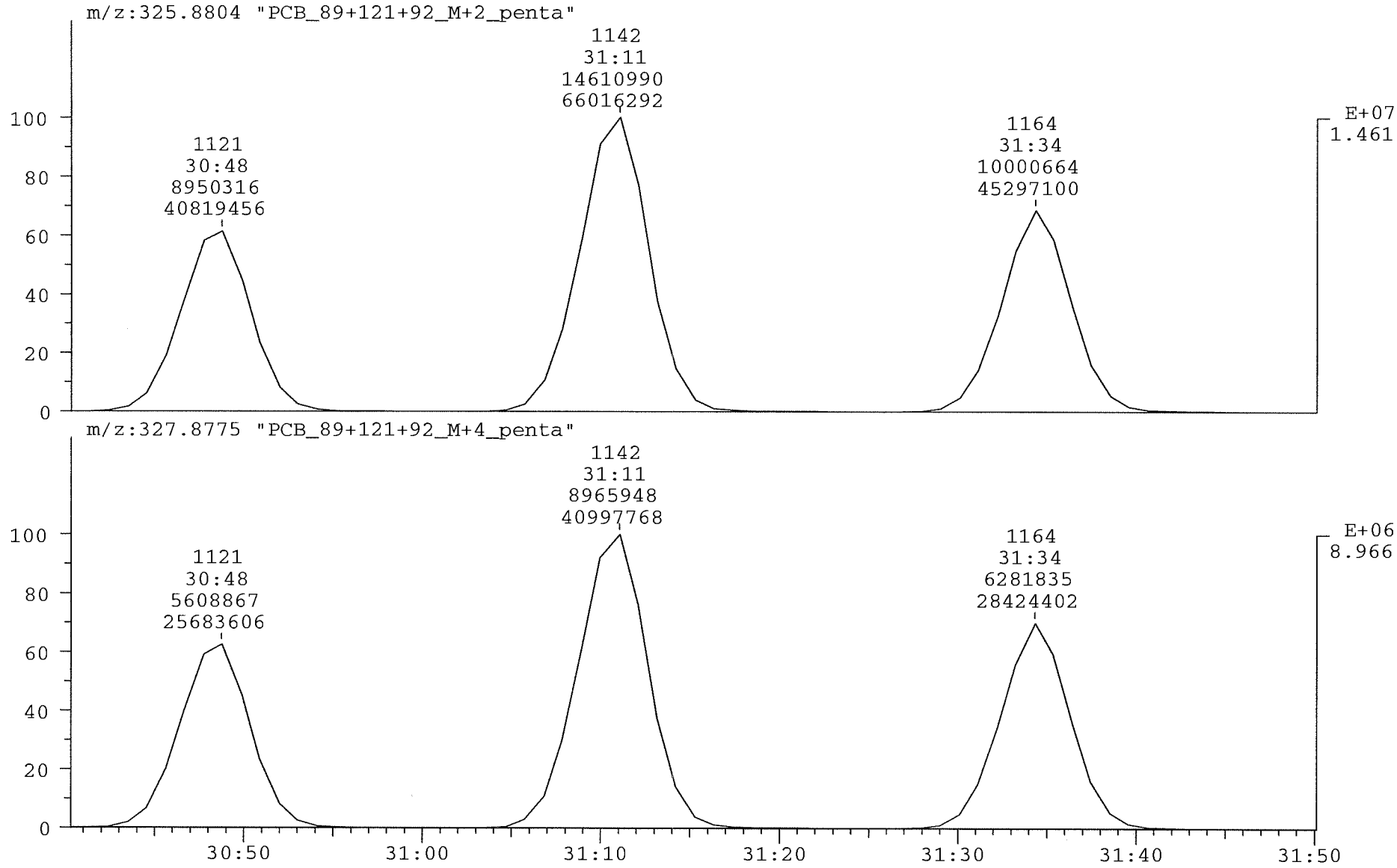
CHRO: a080624i5 24-Jun-08 Elapse: 30:12 1087
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1061 > 1111 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



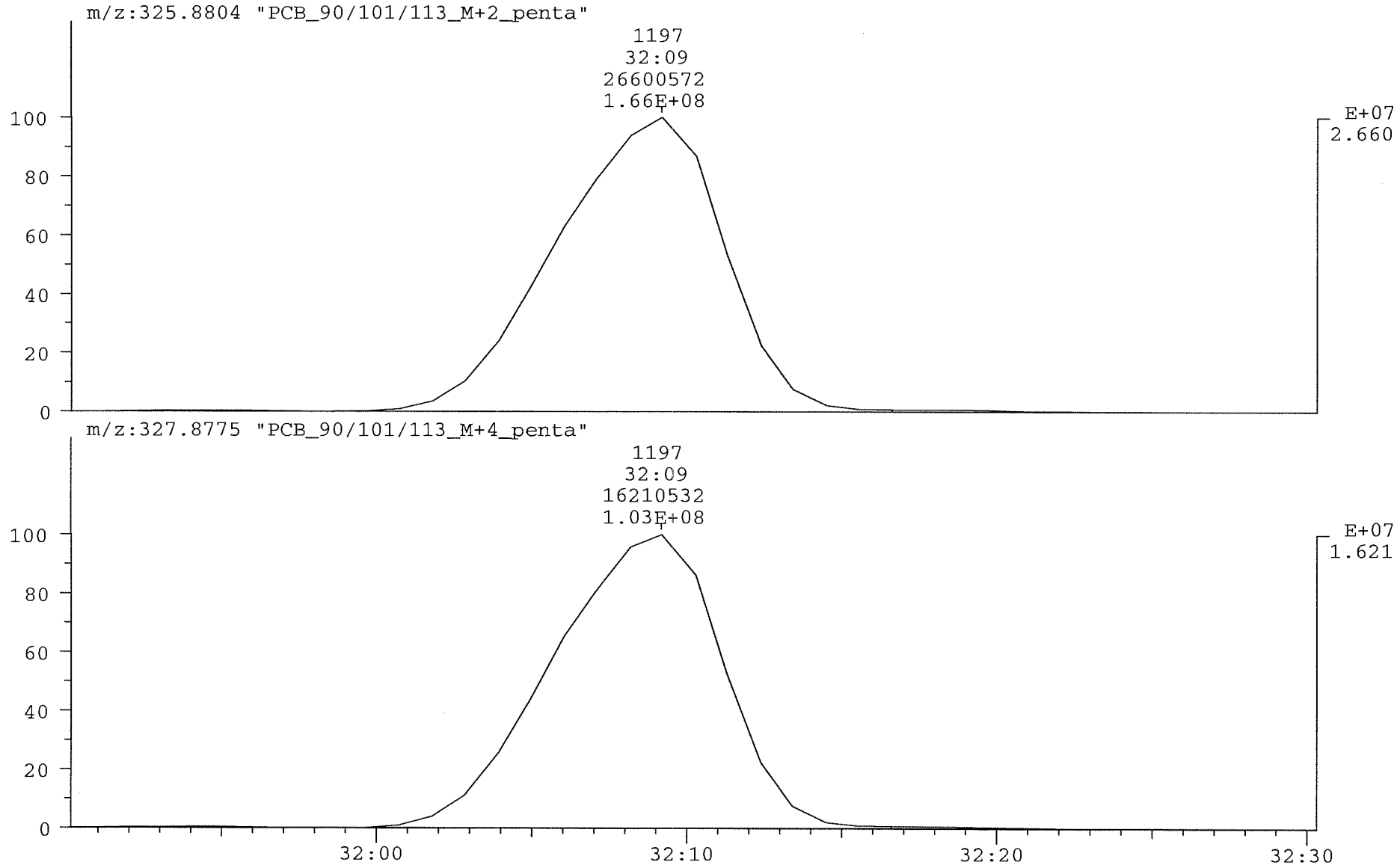
H-1935

1934

CHRO: a080624i5 24-Jun-08 Elapse: 31:15 1146
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1113 > 1179 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



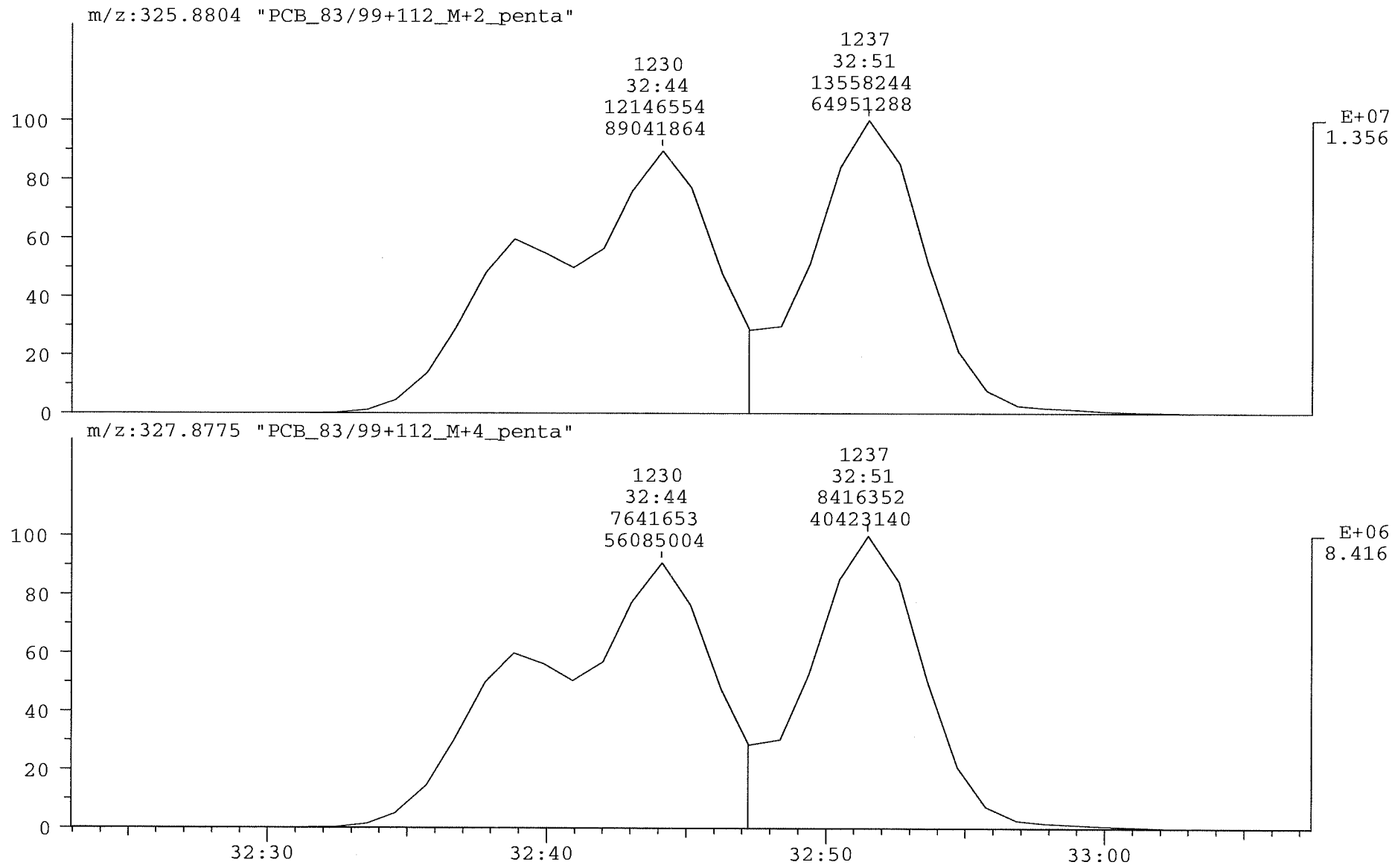
CHRO: a080624i5 24-Jun-08 Elapse: 32:09 1197
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1179 > 1217 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1937

1936

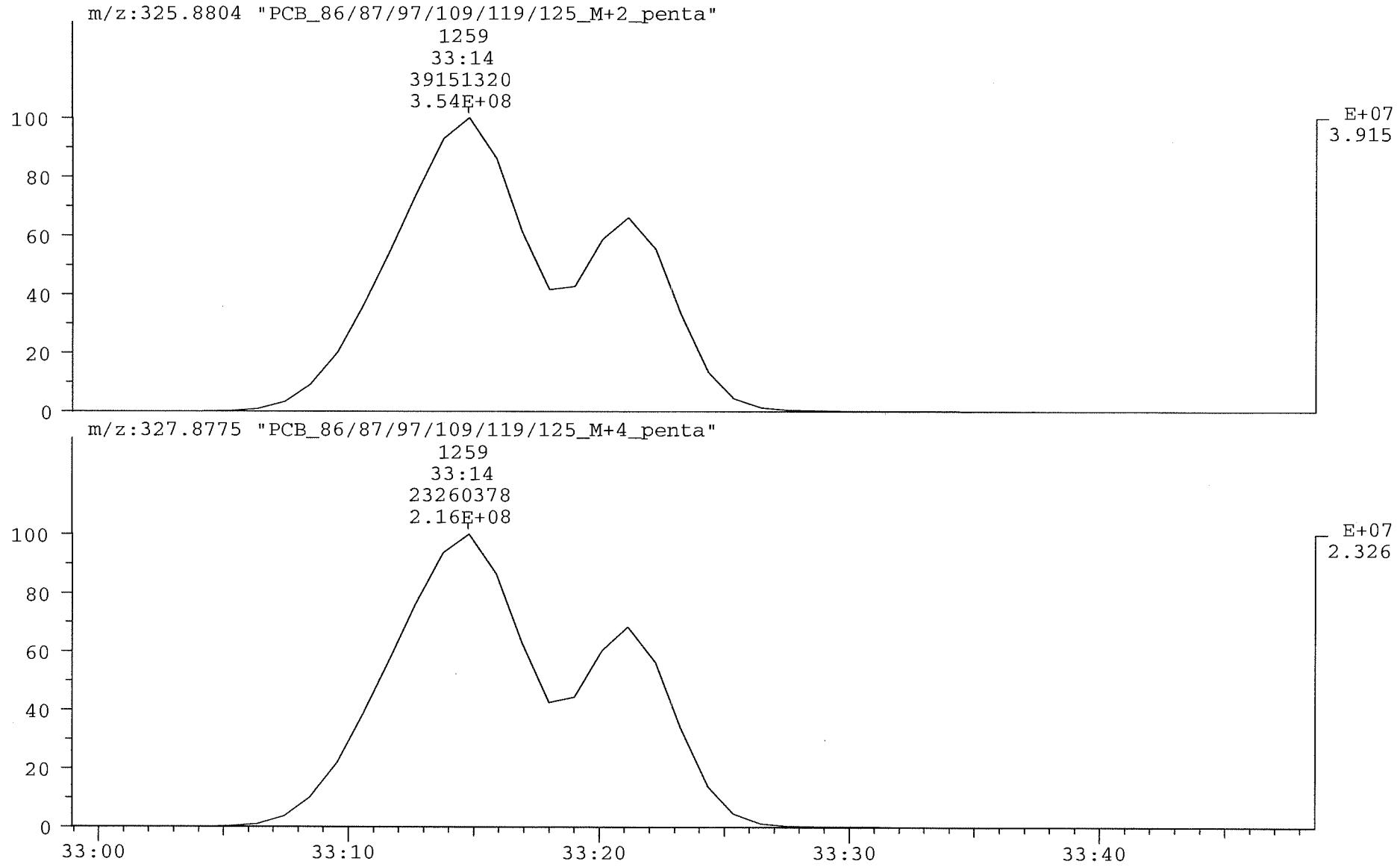
CHRO: a080624i5 24-Jun-08 Elapse: 32:51 1237
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1210 > 1252 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-1938

1937

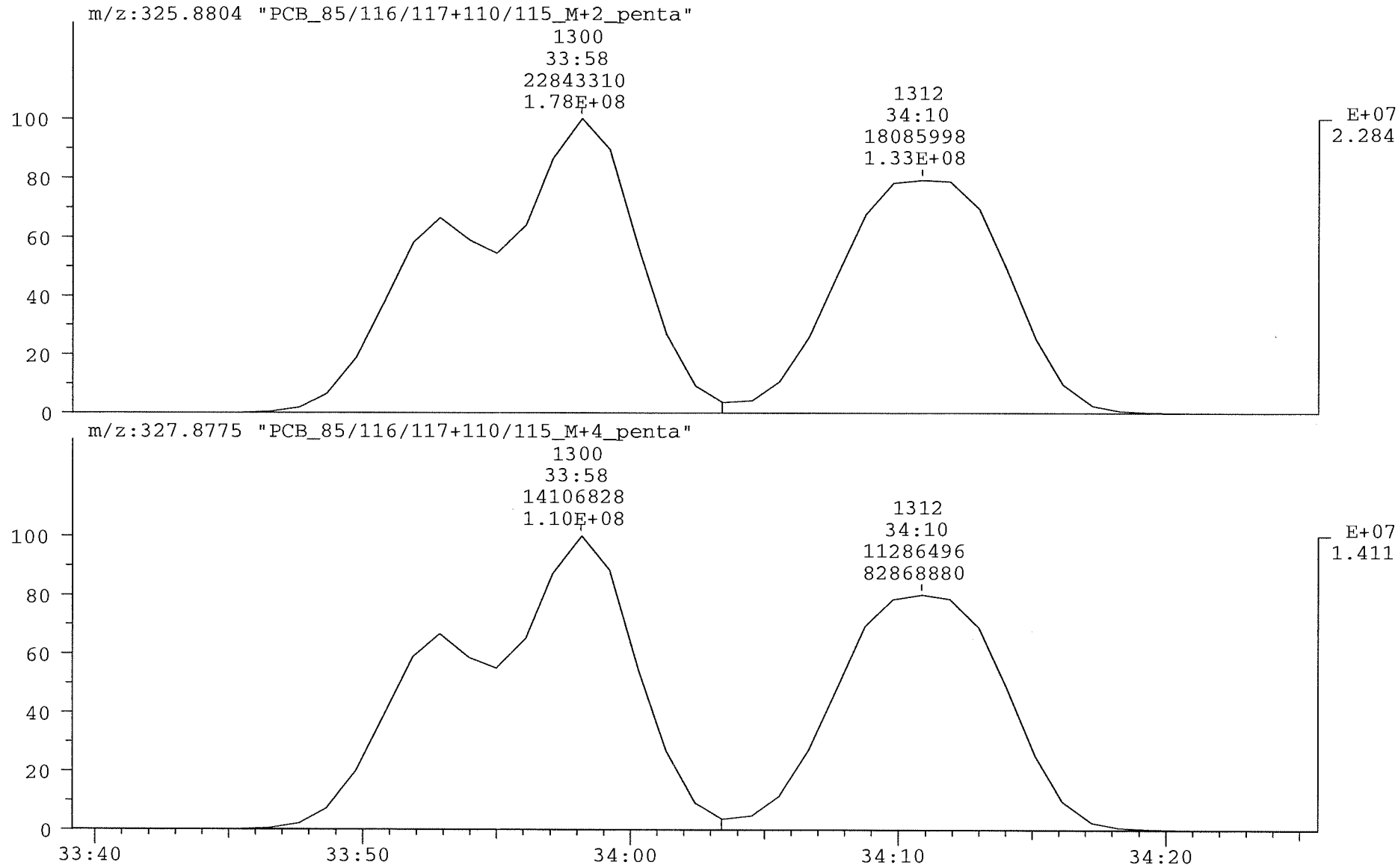
CHRO: a080624i5 24-Jun-08 Elapse: 33:20 1264
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1244 > 1291 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-1939

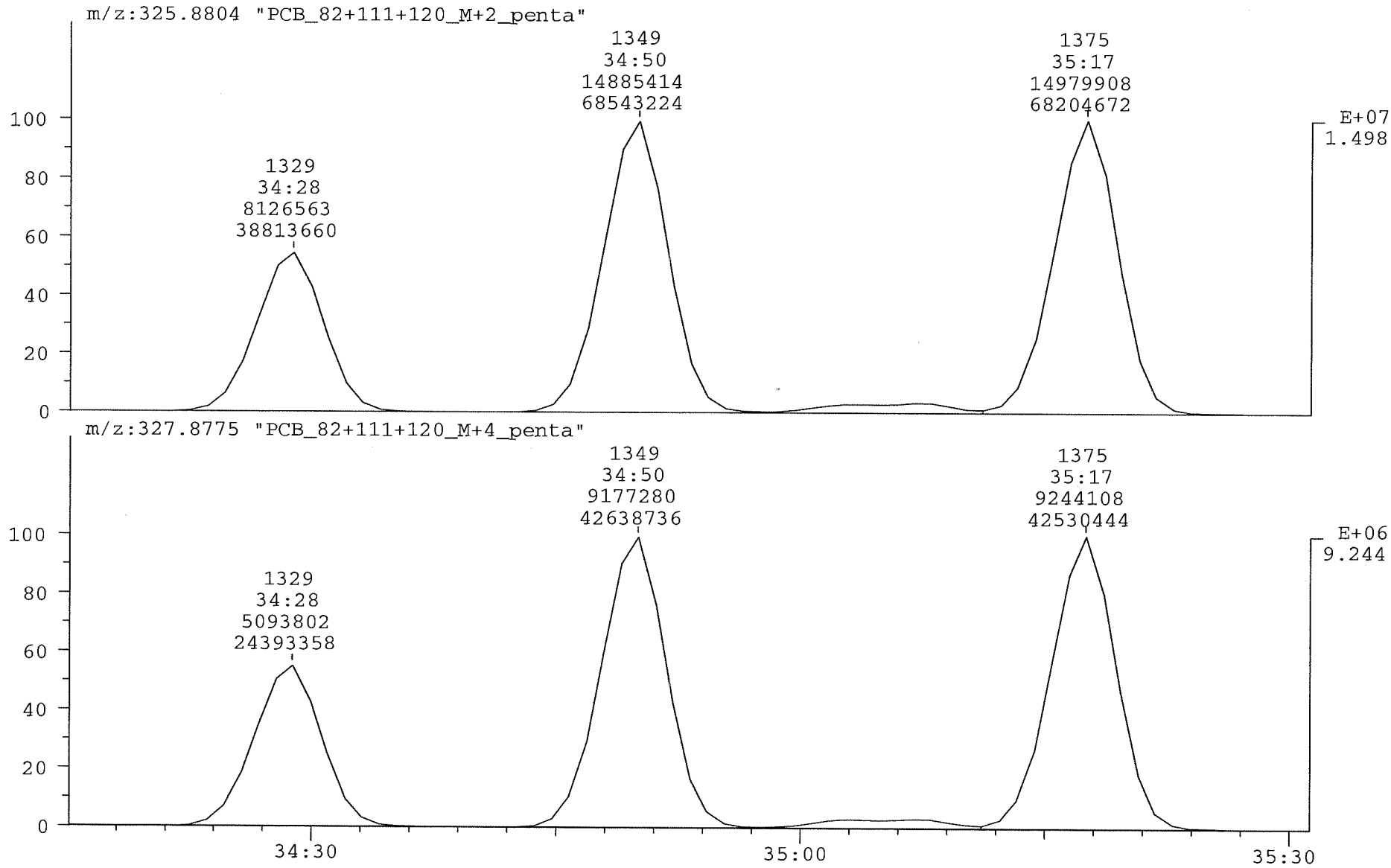
1938

CHRO: a080624i5 24-Jun-08 Elapse: 34:06 1308
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1282 > 1326 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area

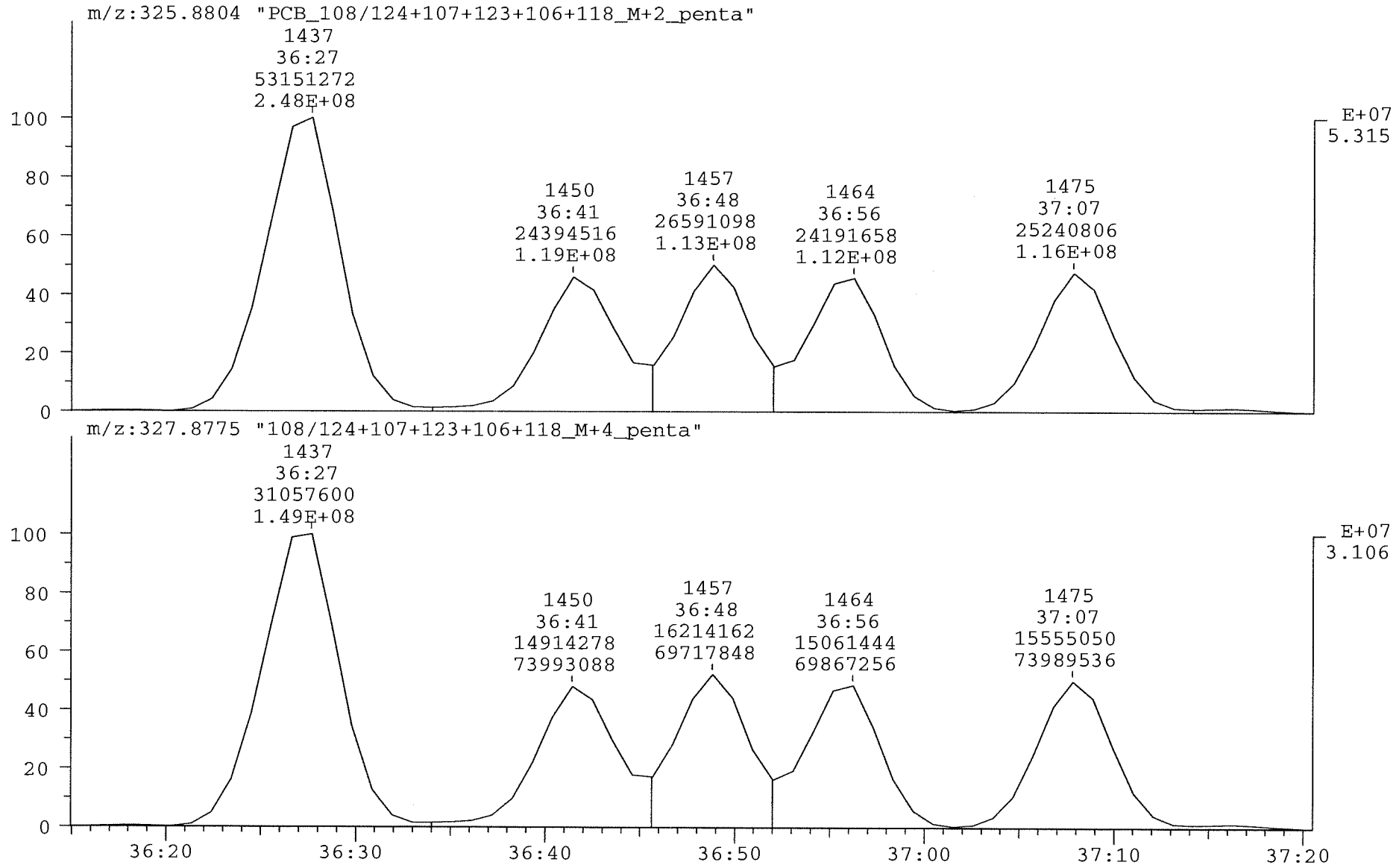


H-1940

CHRO: a080624i5 24-Jun-08 Elapse: 34:38 1338
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1316 > 1388 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area

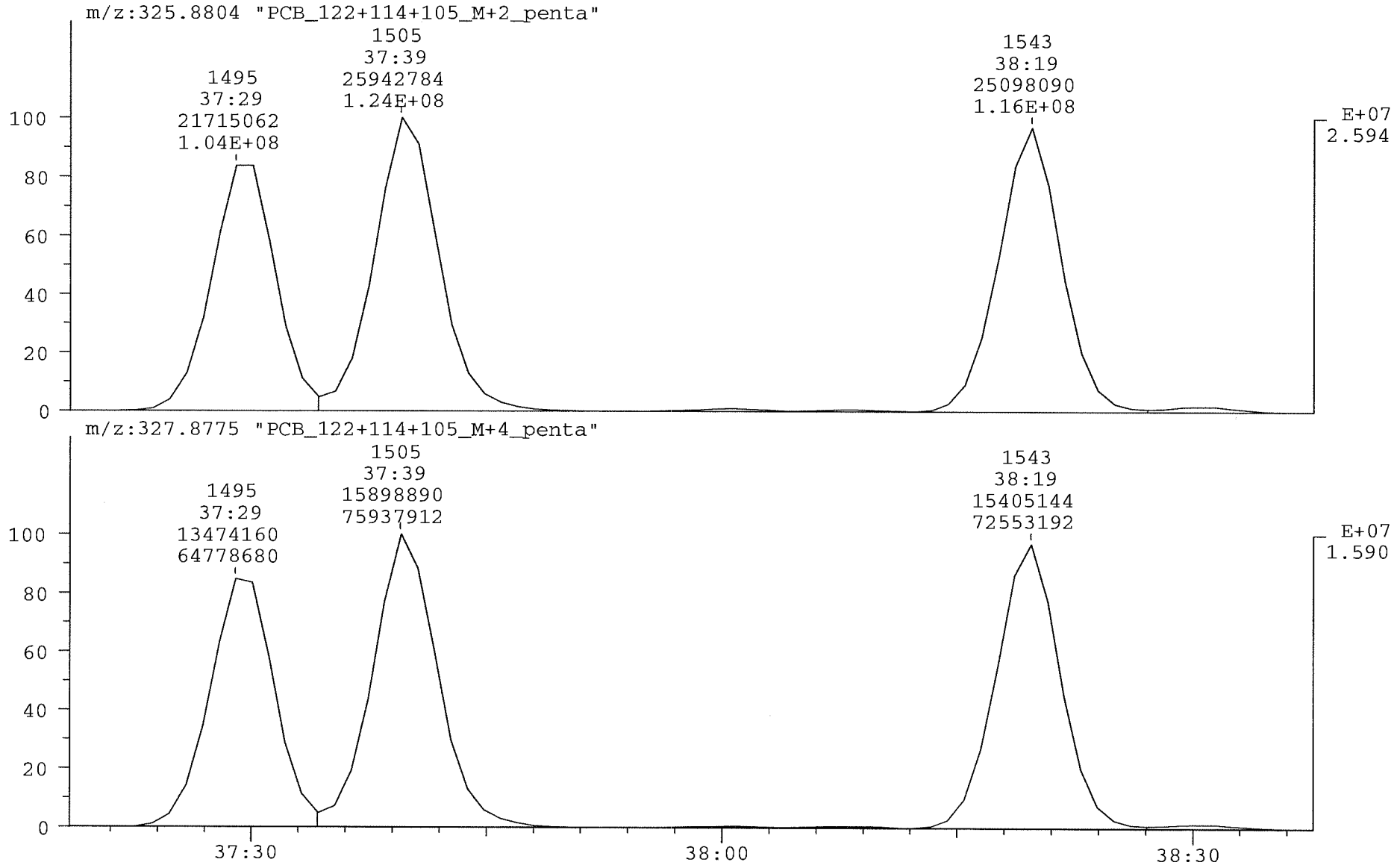


CHRO: a080624i5 24-Jun-08 Elapse: 36:57 1465
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1425 > 1487 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1942

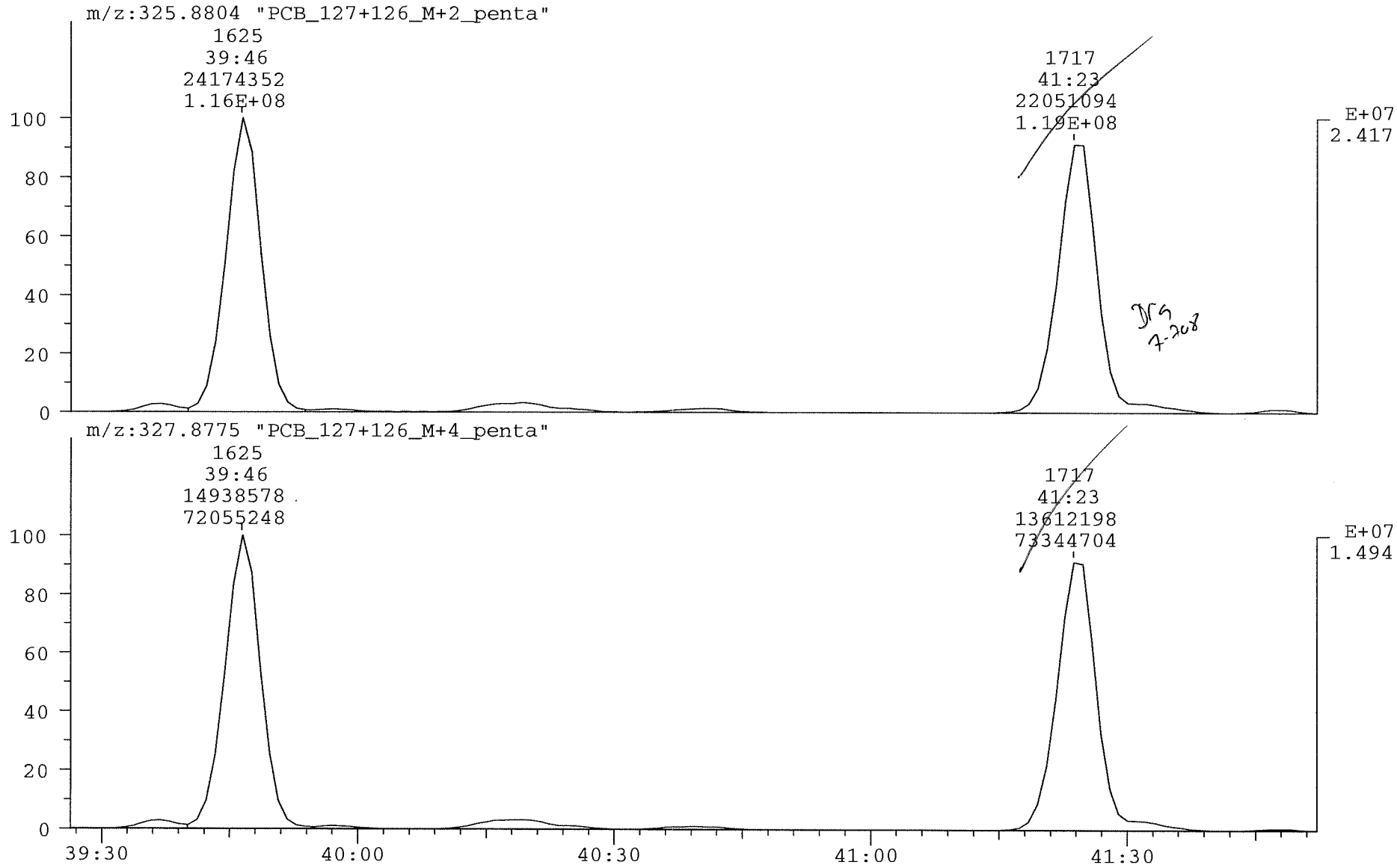
CHRO: a080624i5 24-Jun-08 Elapse: 37:57 1522
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1485 > 1560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1943

1942

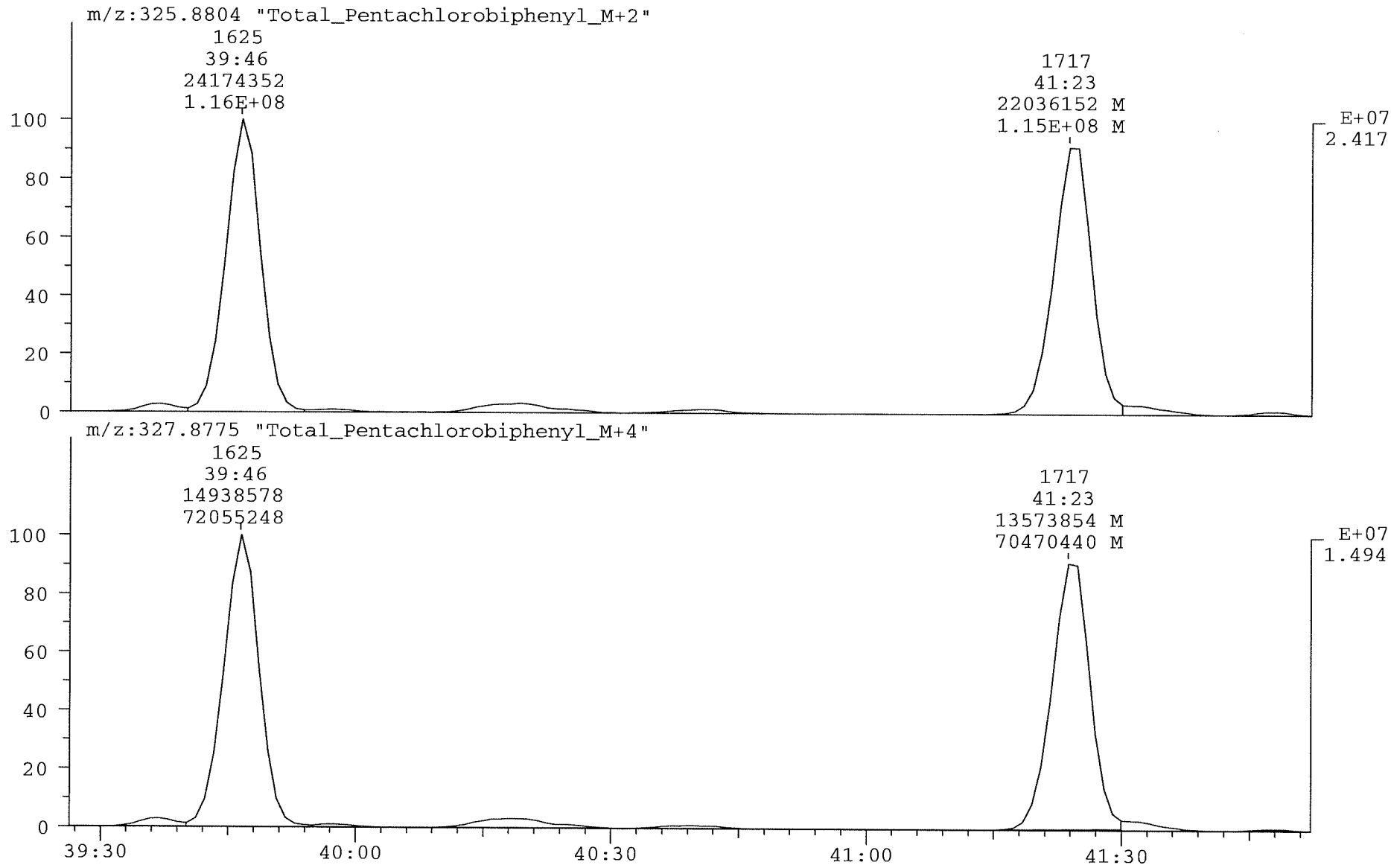
CHRO: a080624i5 24-Jun-08 Elapse: 40:38 1674
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1606 > 1744 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1944

1943

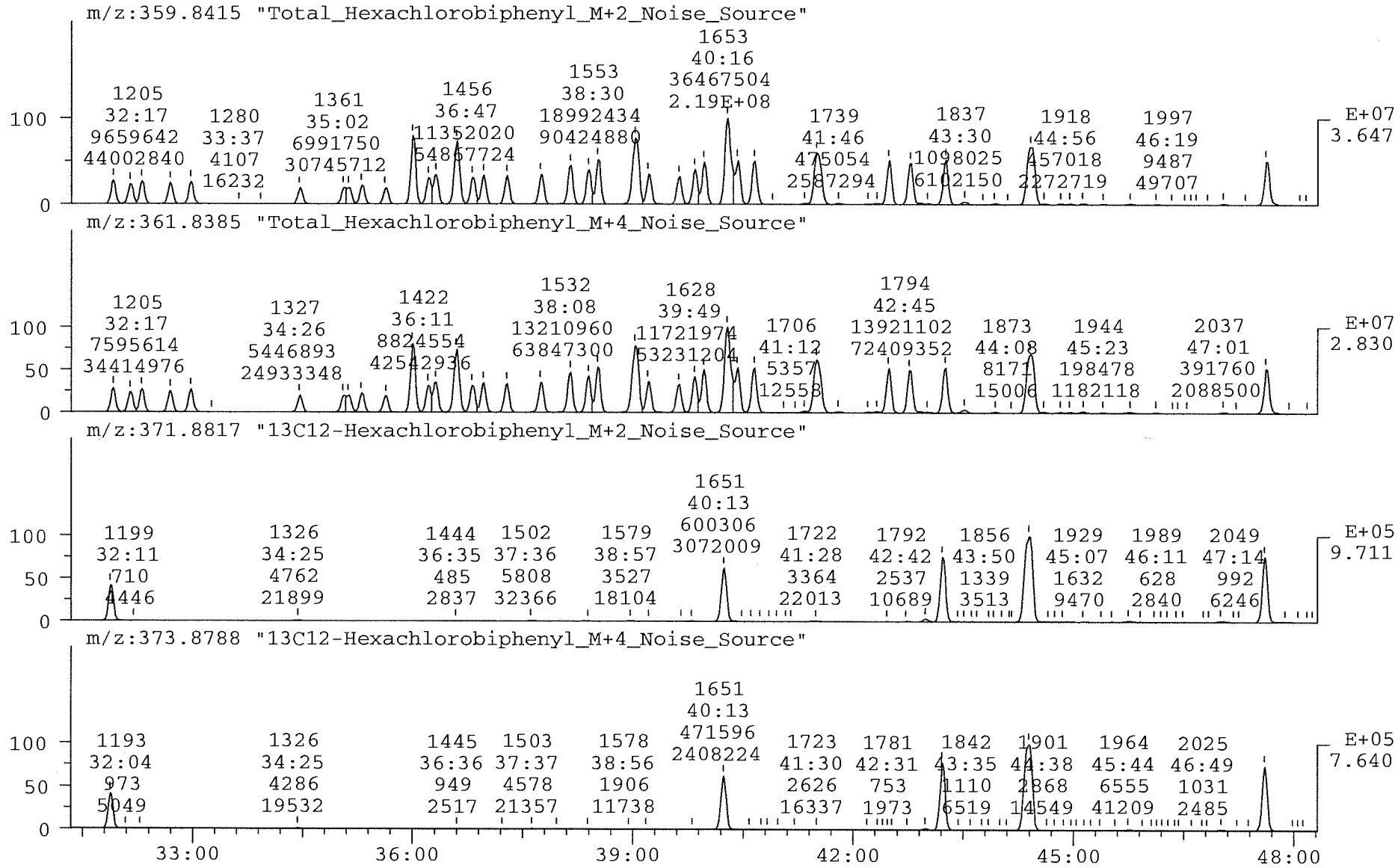
CHRO: a080624i5 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1606 > 1744 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1945

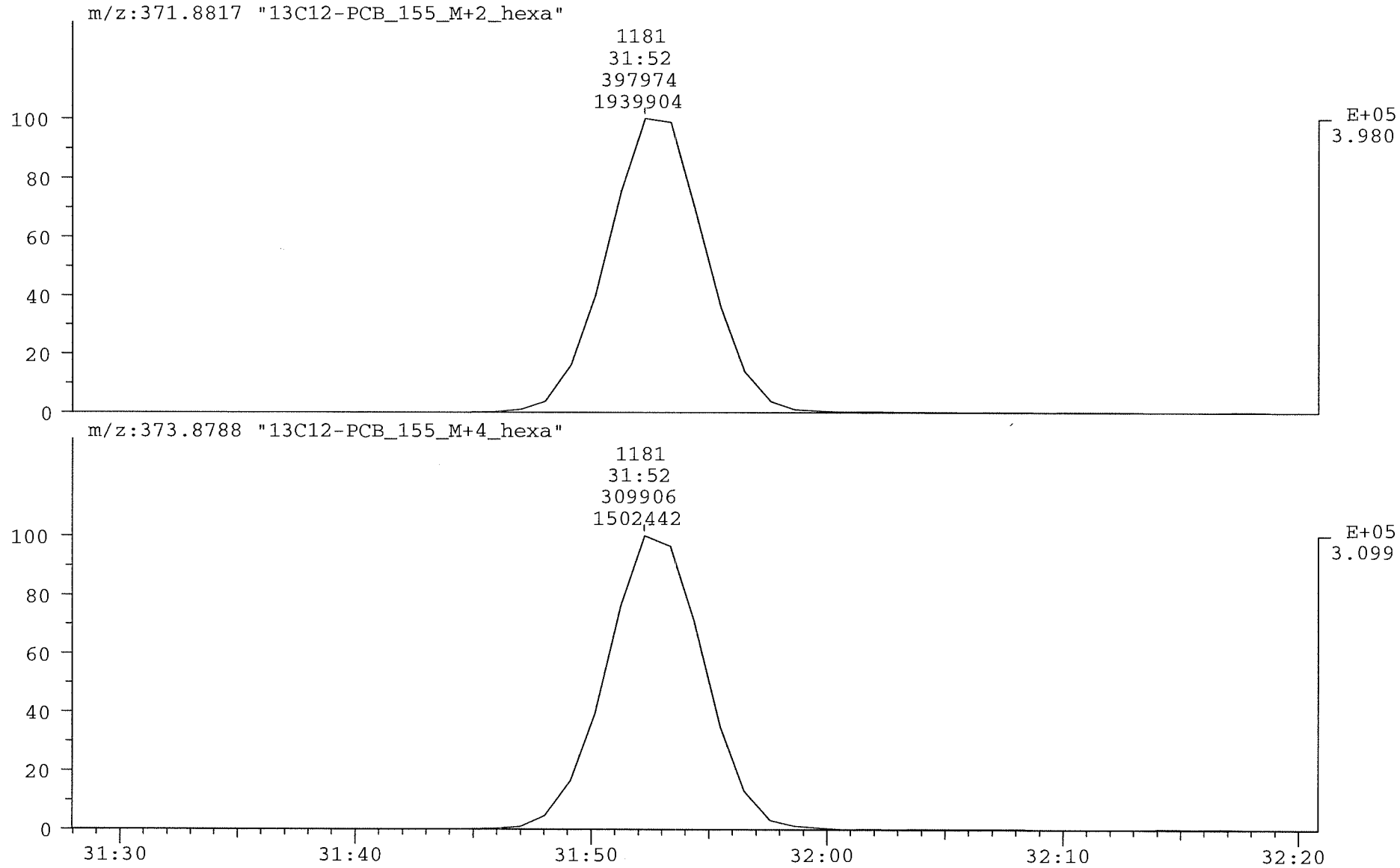
1944

CHRO: a080624i5 24-Jun-08 Elapse: 39:48 1627
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1151 > 2110 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



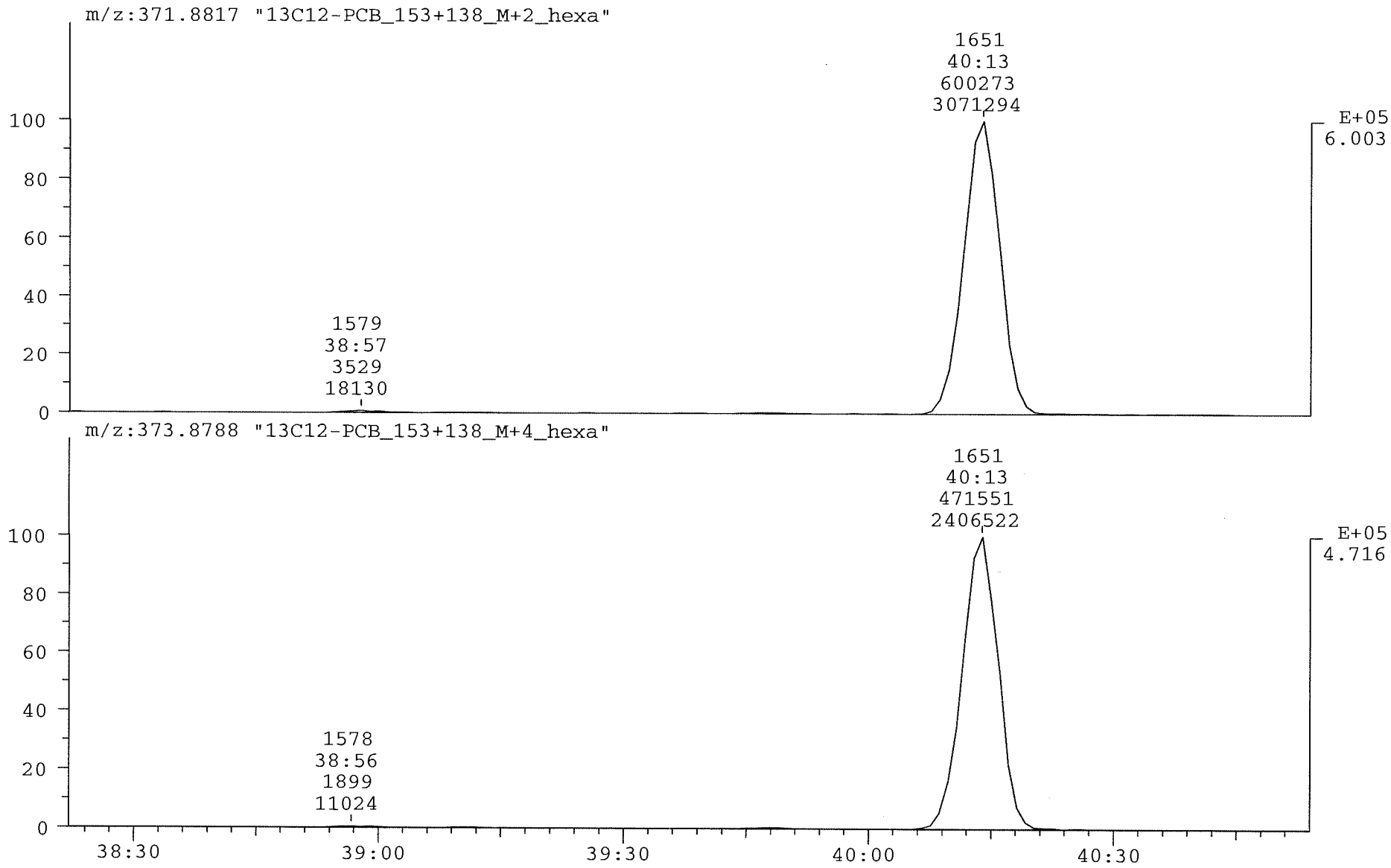
H-1946

CHRO: a080624i5 24-Jun-08 Elapse: 31:54 1183
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1158 > 1208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1947

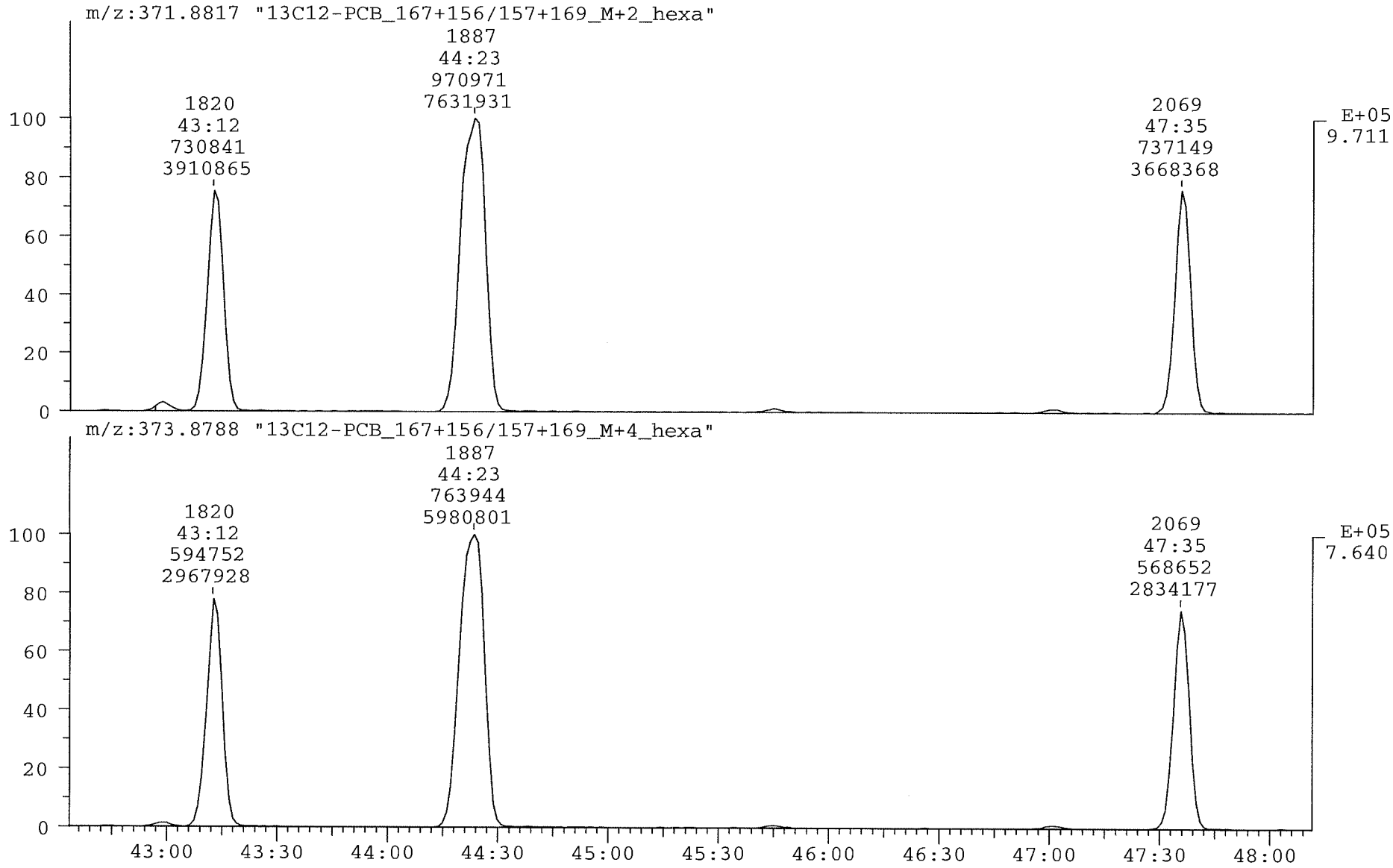
CHRO: a080624i5 24-Jun-08 Elapse: 39:37 1617
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1545 > 1689 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1948

1947

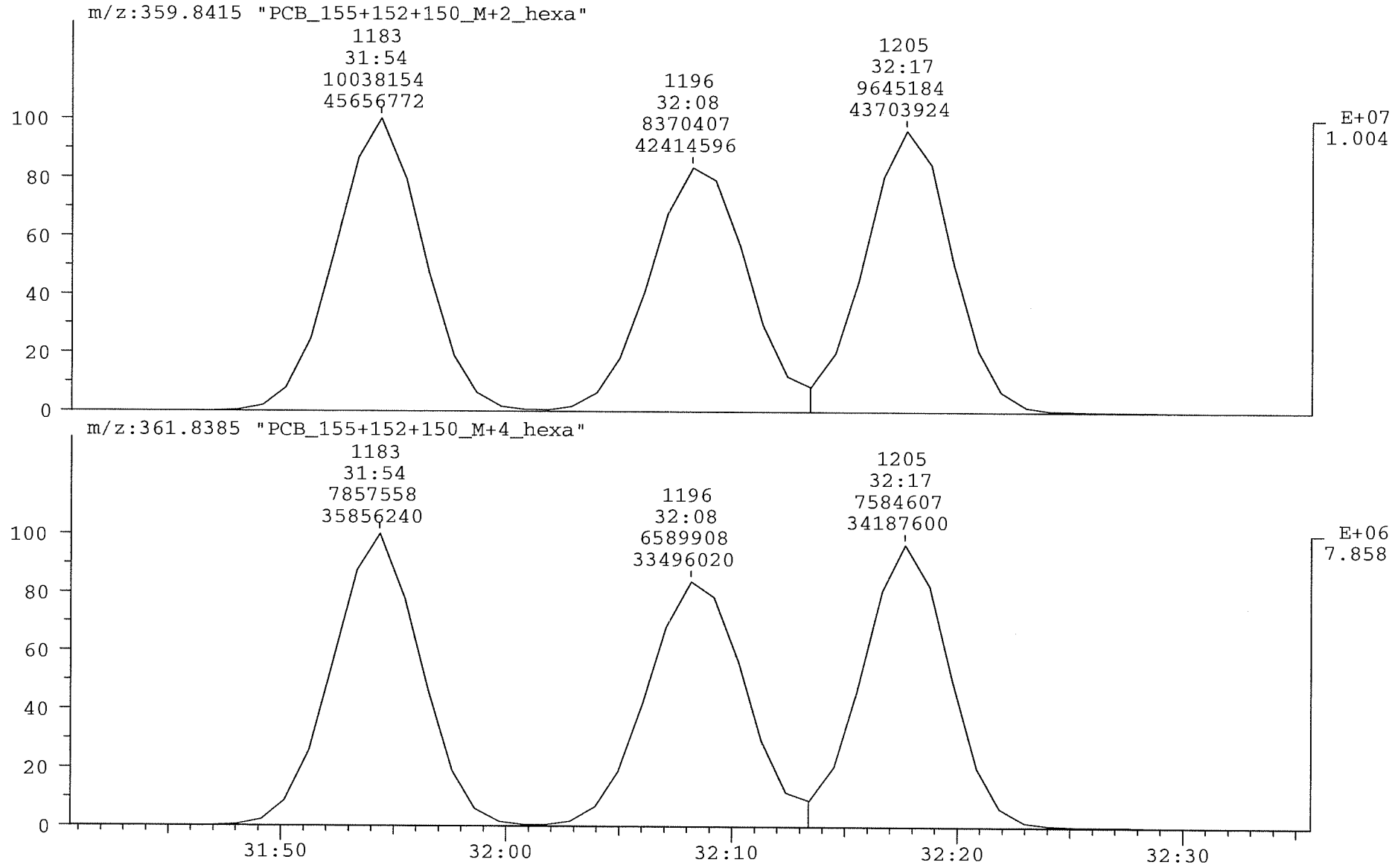
CHRO: a080624i5 24-Jun-08 Elapse: 45:27 1948
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1783 > 2103 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-1949

1948

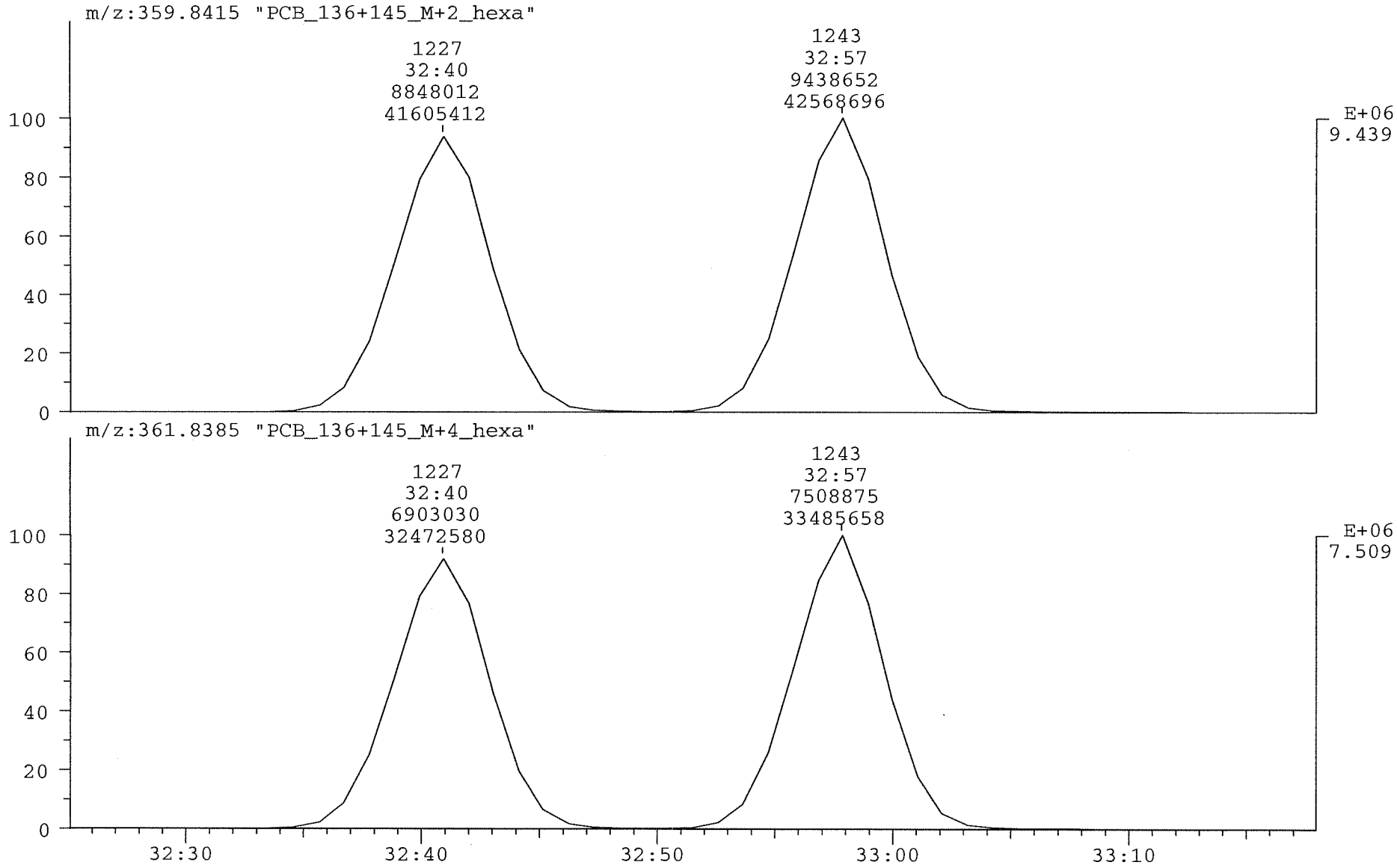
CHRO: a080624i5 24-Jun-08 Elapse: 32:09 1197
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1170 > 1222 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1950

1949

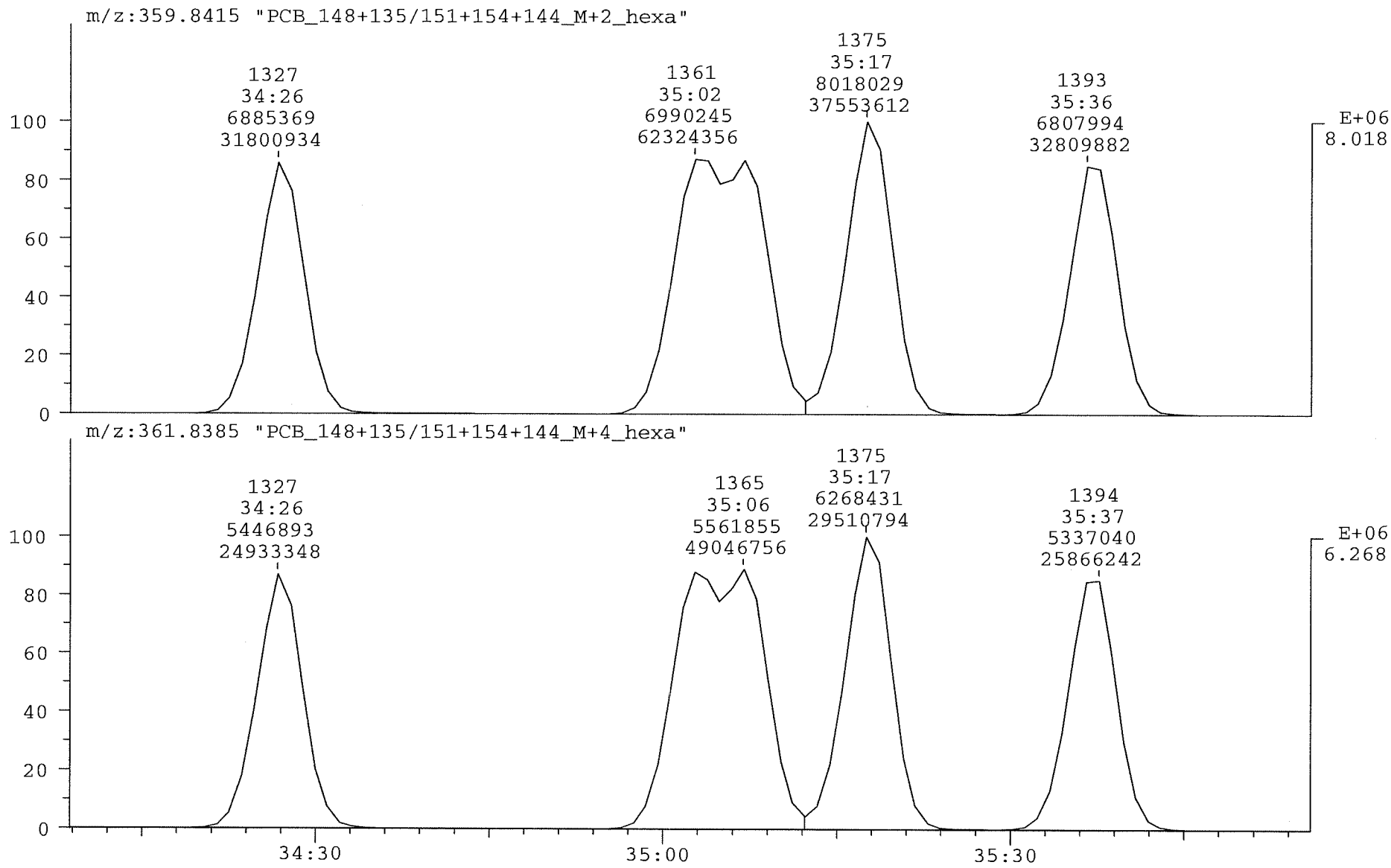
CHRO: a080624i5 24-Jun-08 Elapse: 32:51 1237
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1212 > 1262 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1951

1950

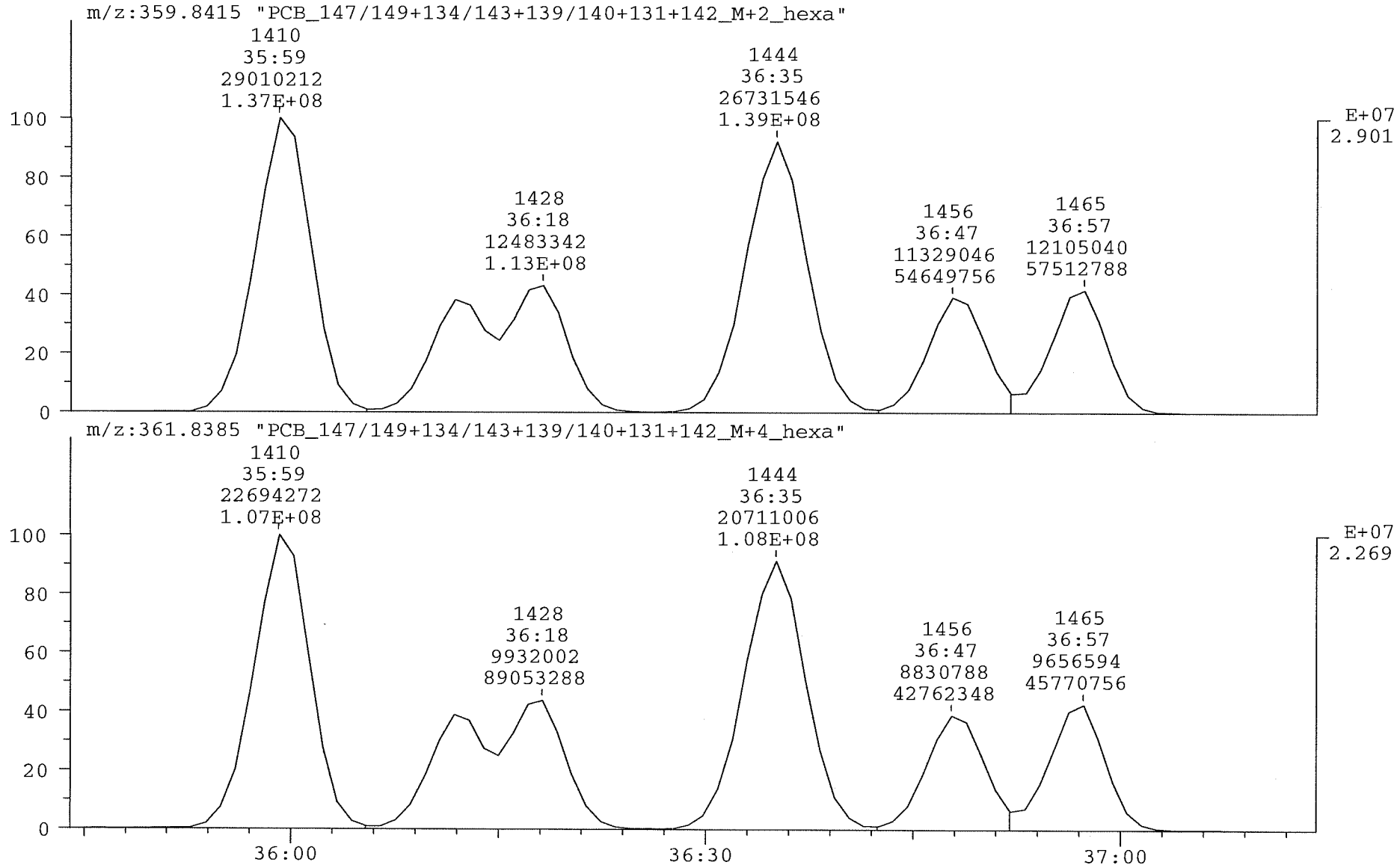
CHRO: a080624i5 24-Jun-08 Elapse: 35:06 1365
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1310 > 1407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1952

1951

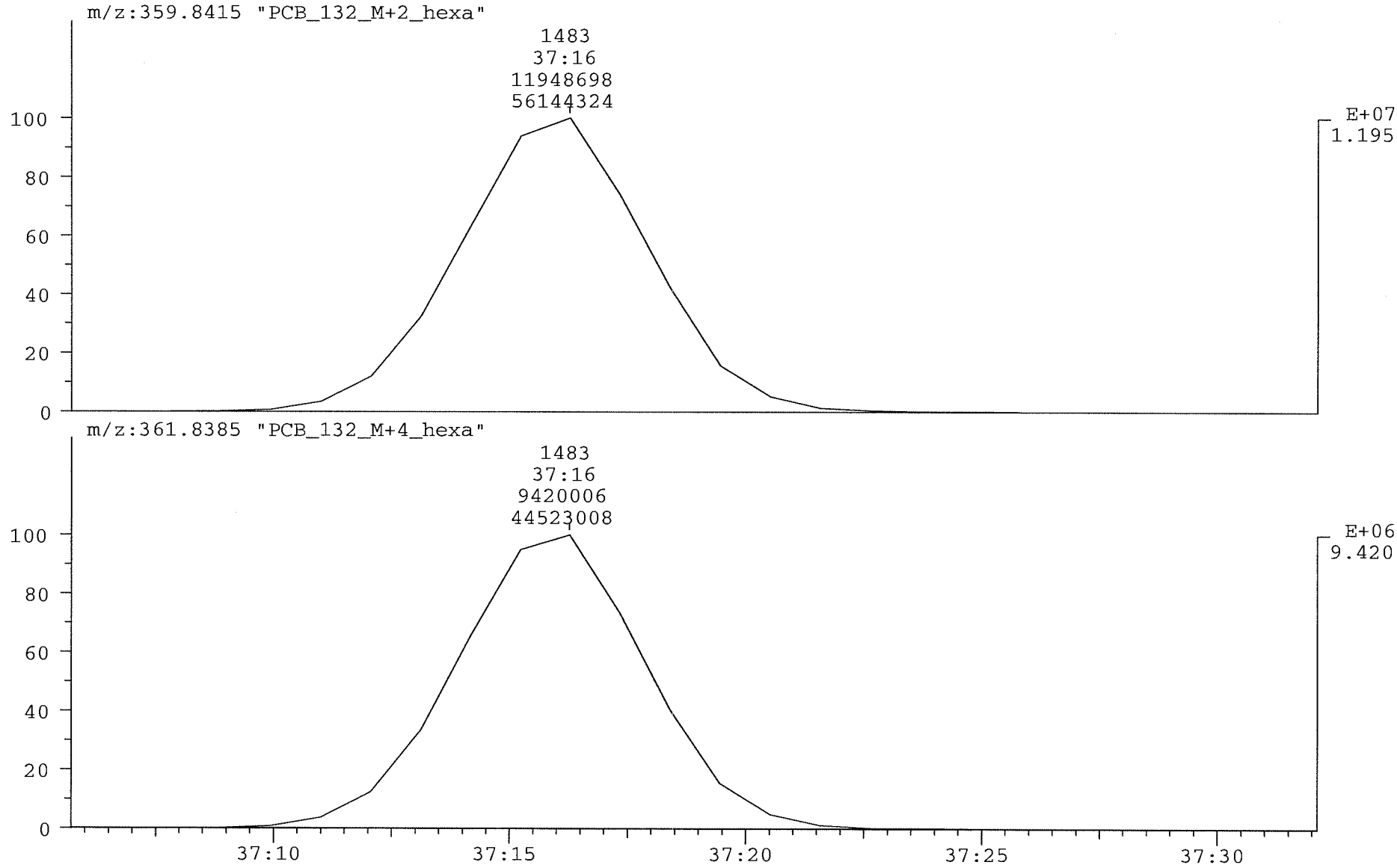
CHRO: a080624i5 24-Jun-08 Elapse: 36:35 1444
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1400 > 1481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-1953

1952

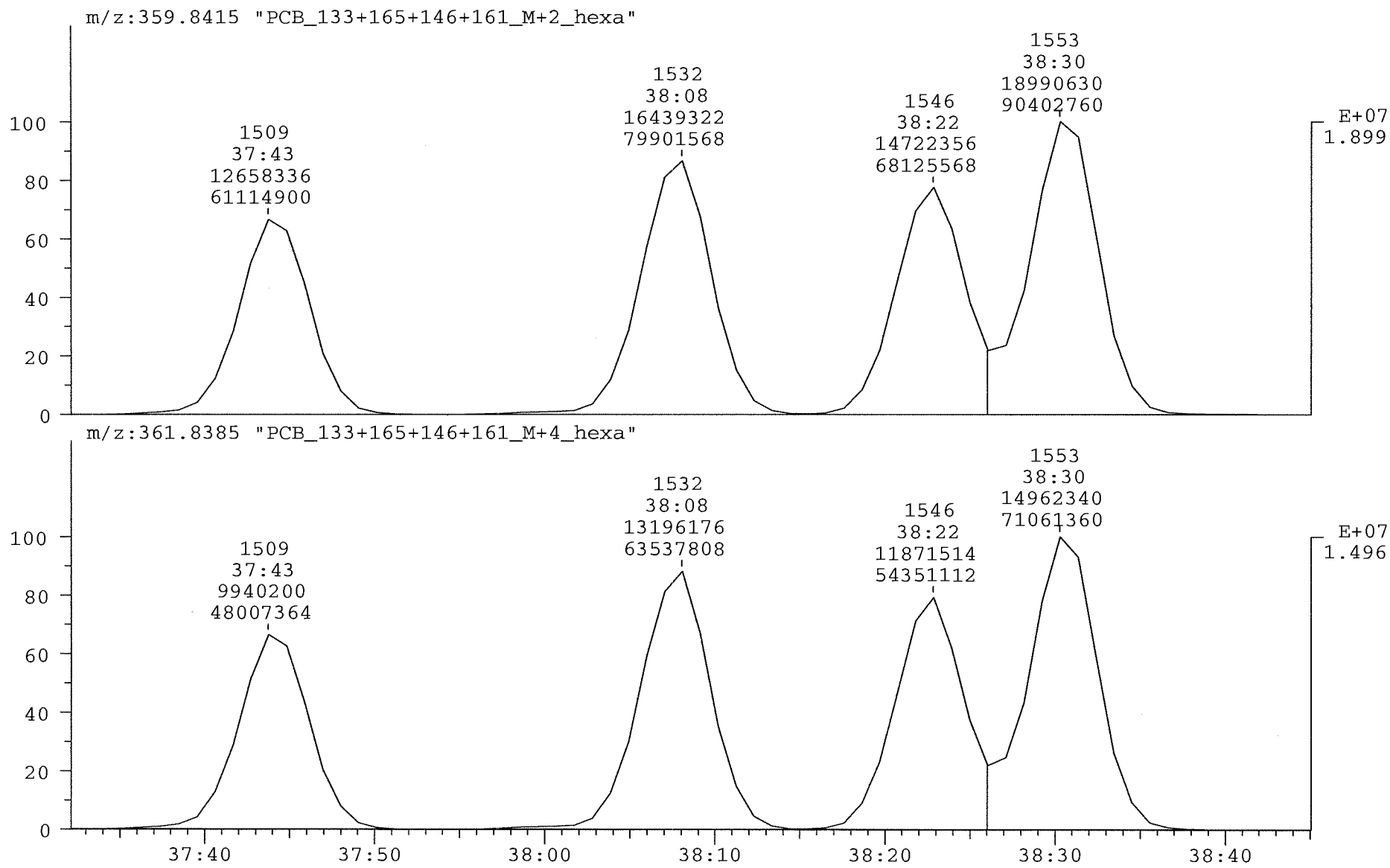
CHRO: a080624i5 24-Jun-08 Elapse: 37:16 1483
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1473 > 1498 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



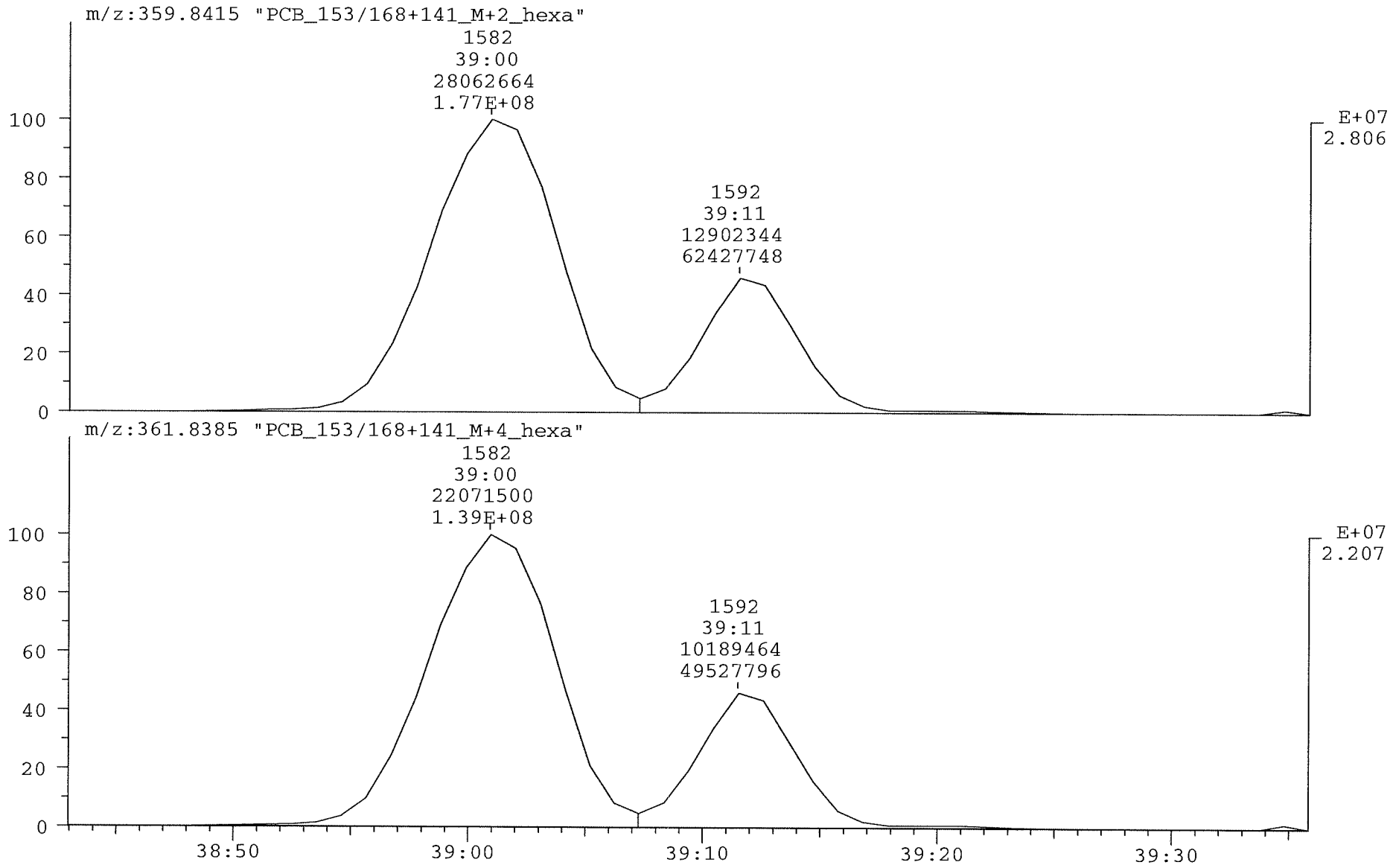
H-1954

1953

CHRO: a080624i5 24-Jun-08 Elapse: 38:10 1534
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1498 > 1567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



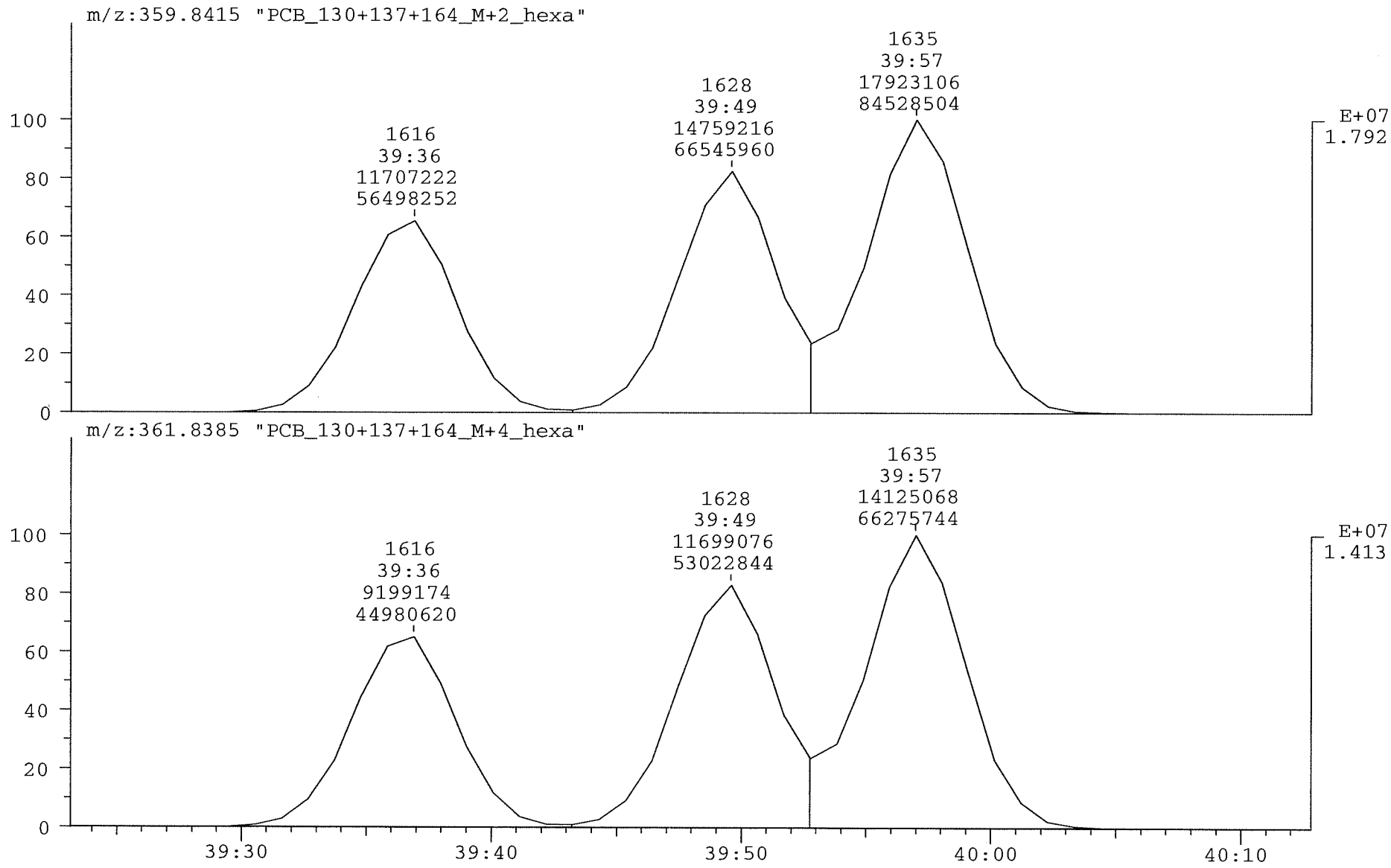
CHRO: a080624i5 24-Jun-08 Elapse: 39:09 1590
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1565 > 1615 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1956

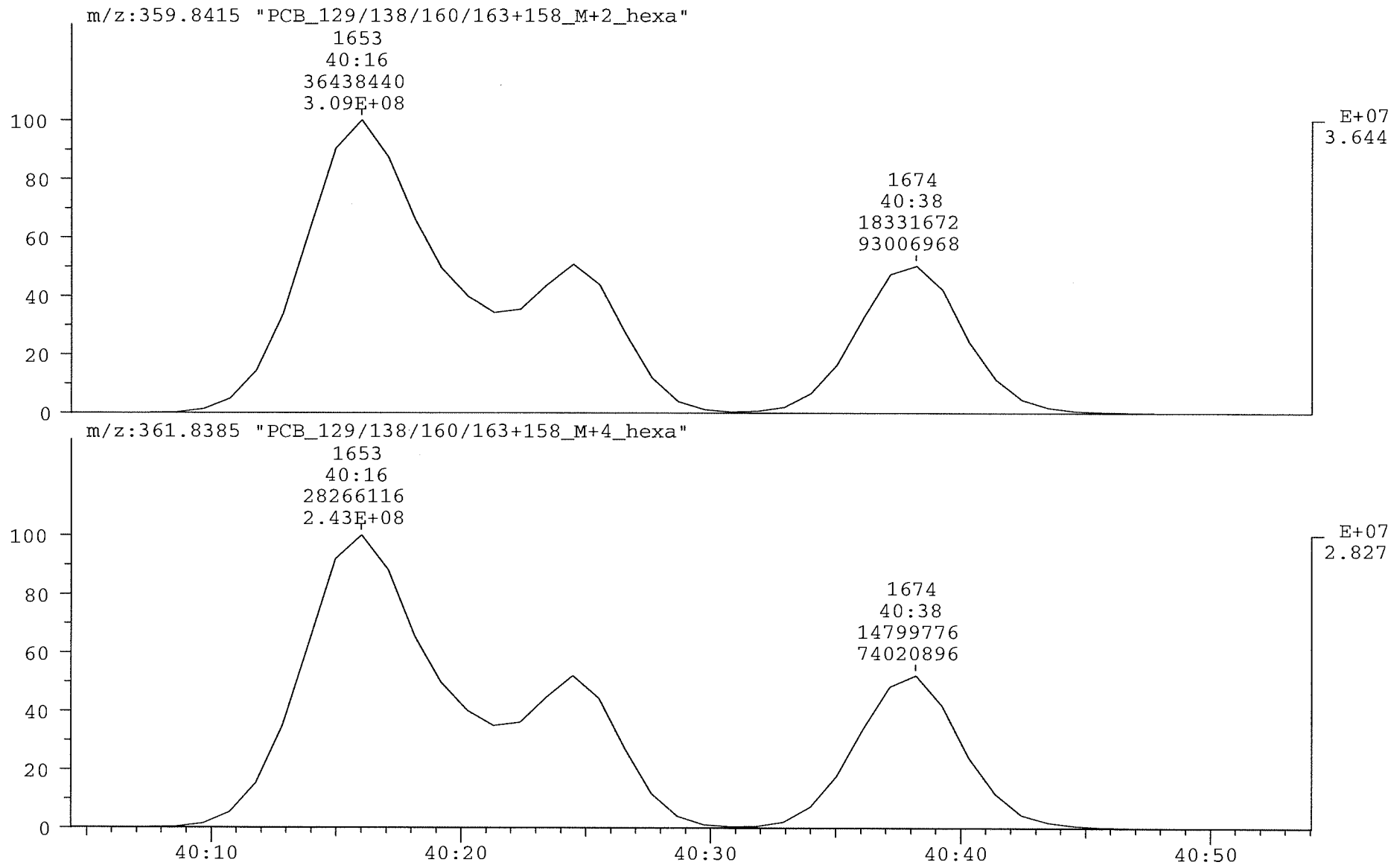
1955

CHRO: a080624i5 24-Jun-08 Elapse: 39:49 1628
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1603 > 1650 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area

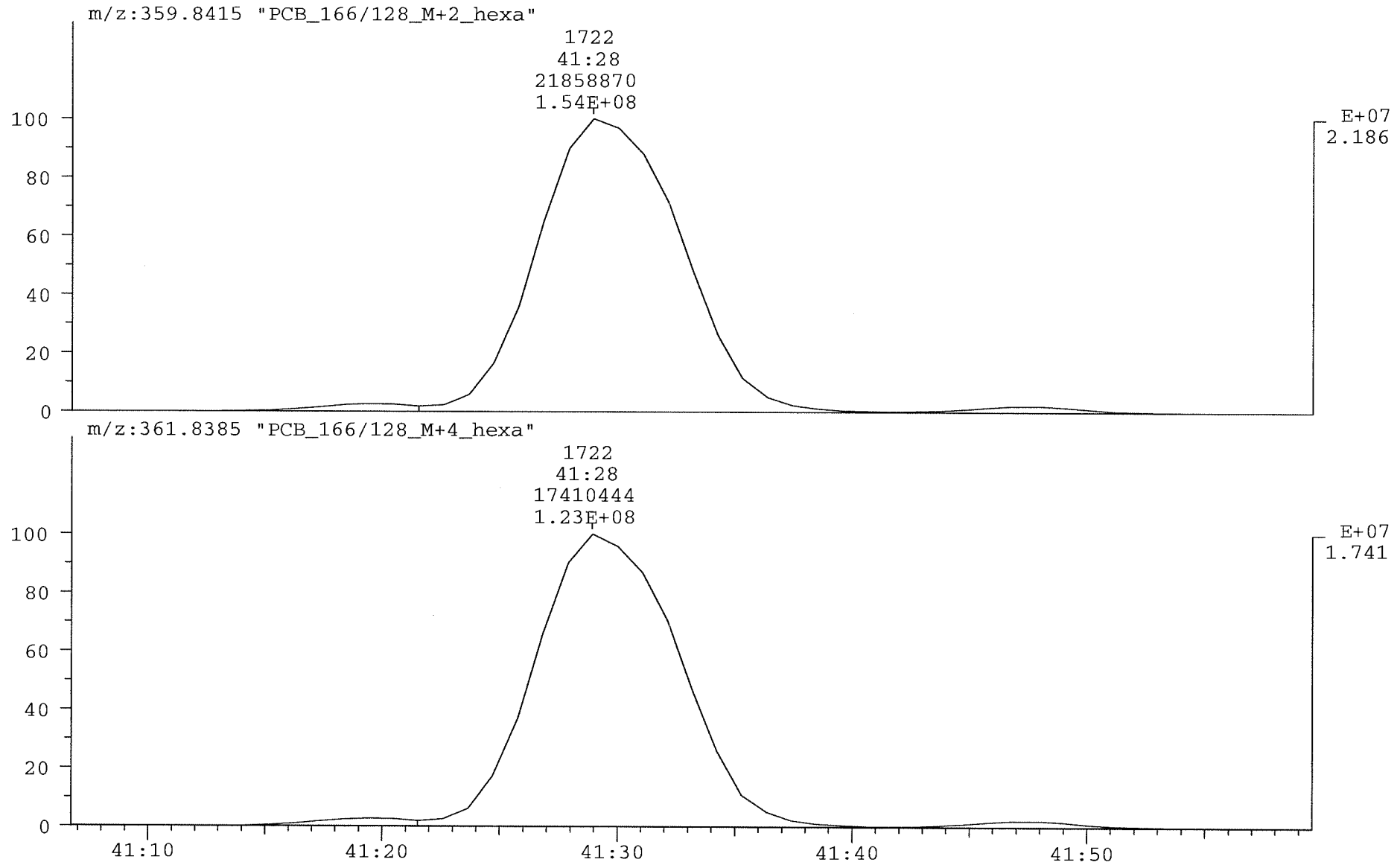


H-1957

CHRO: a080624i5 24-Jun-08 Elapse: 40:30 1667
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1642 > 1689 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



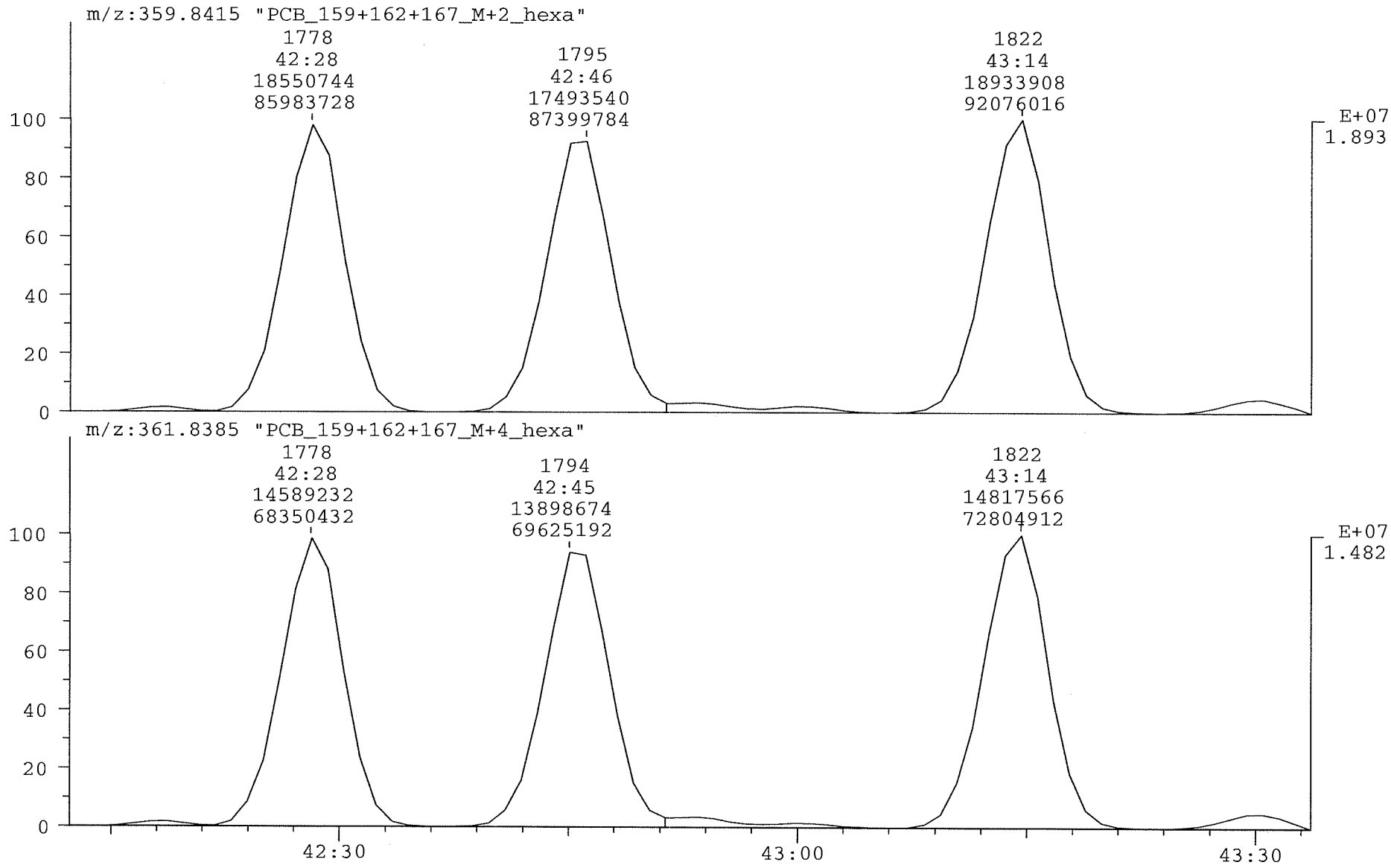
CHRO: a080624i5 24-Jun-08 Elapse: 41:33 1726
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1701 > 1751 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1959

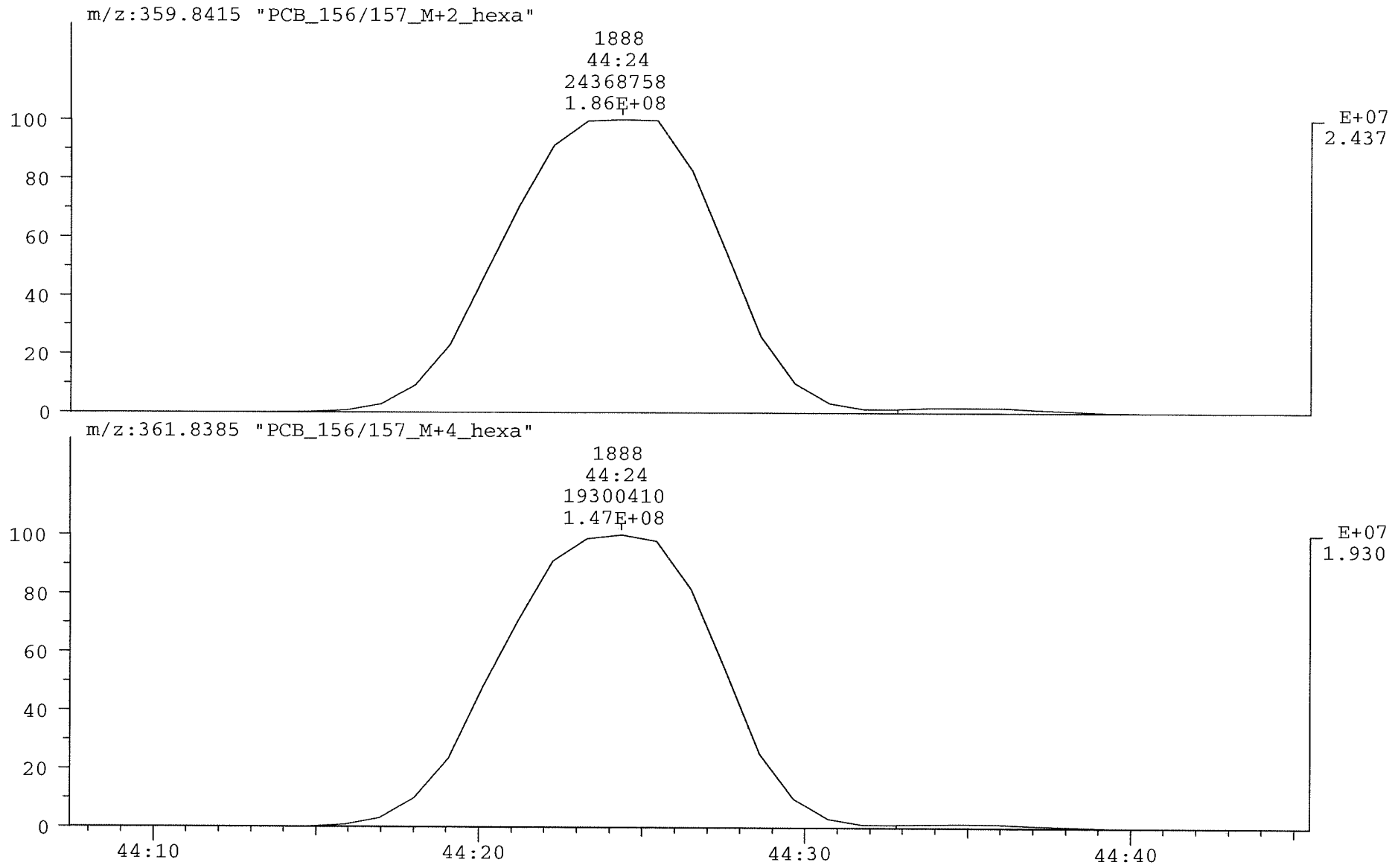
1958

CHRO: a080624i5 24-Jun-08 Elapse: 42:54 1803
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1763 > 1840 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area

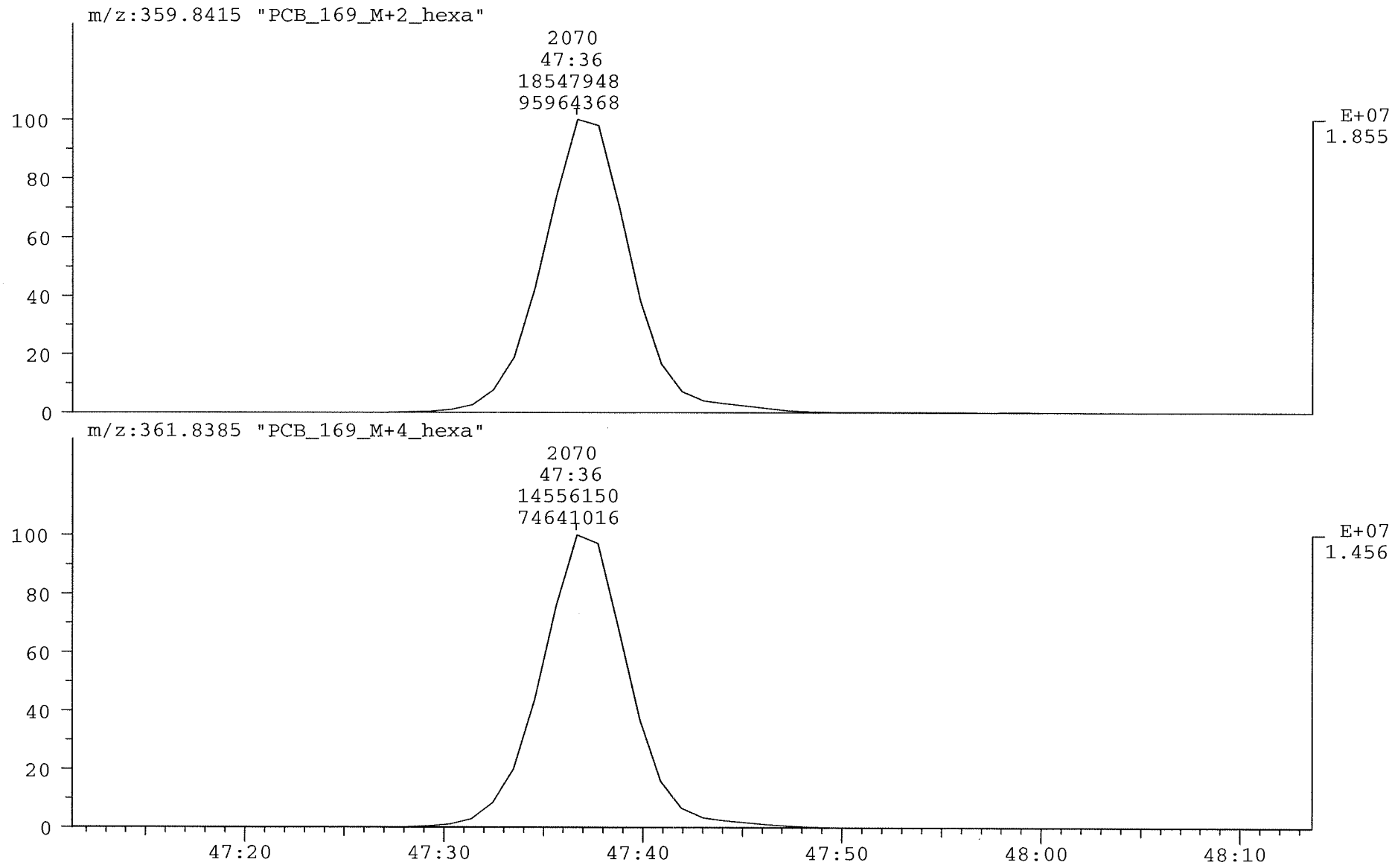


H-1960

CHRO: a080624i5 24-Jun-08 Elapse: 44:23 1887
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1872 > 1908 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



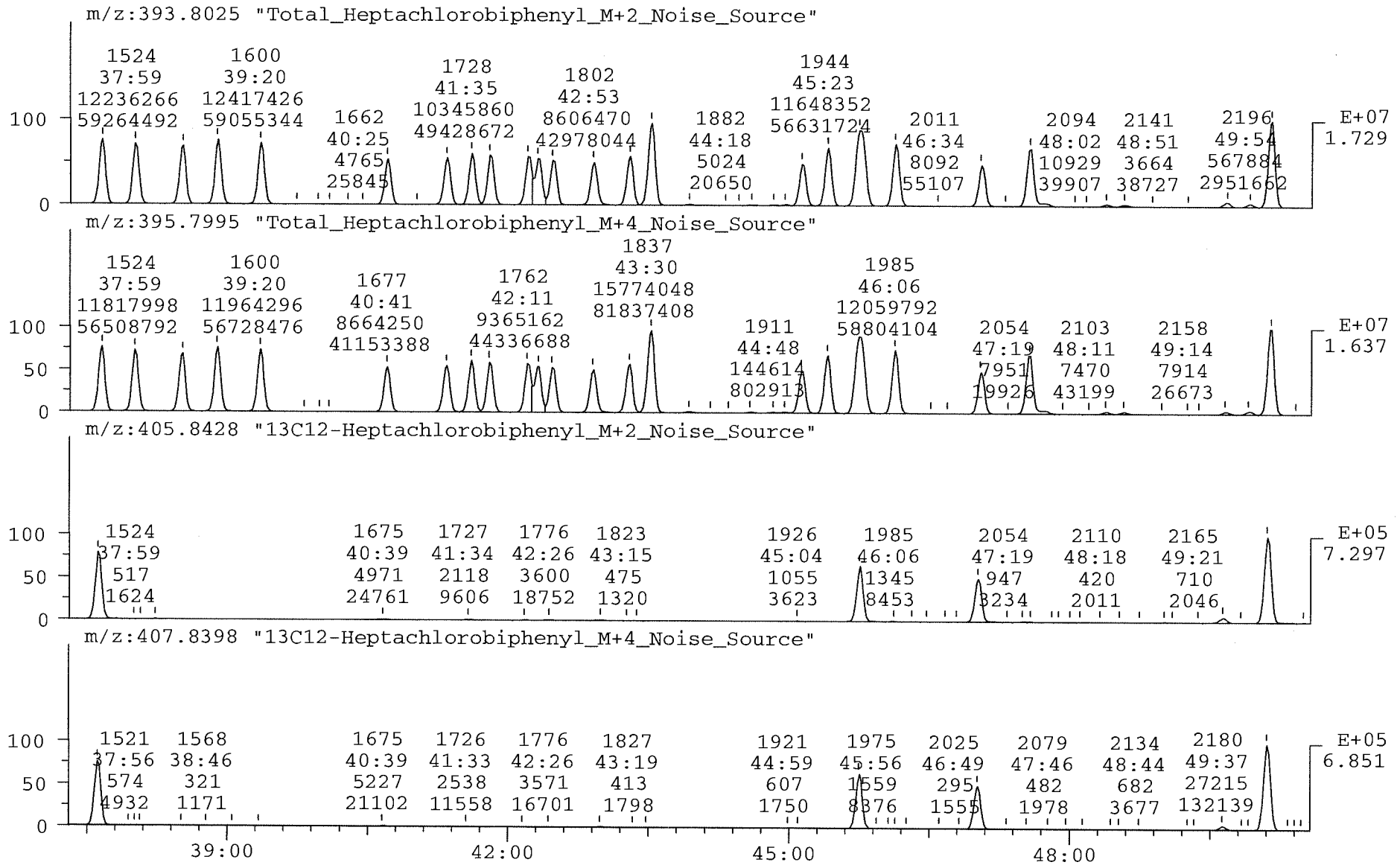
CHRO: a080624i5 24-Jun-08 Elapse: 47:37 2071
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2046 > 2105 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1962

1961

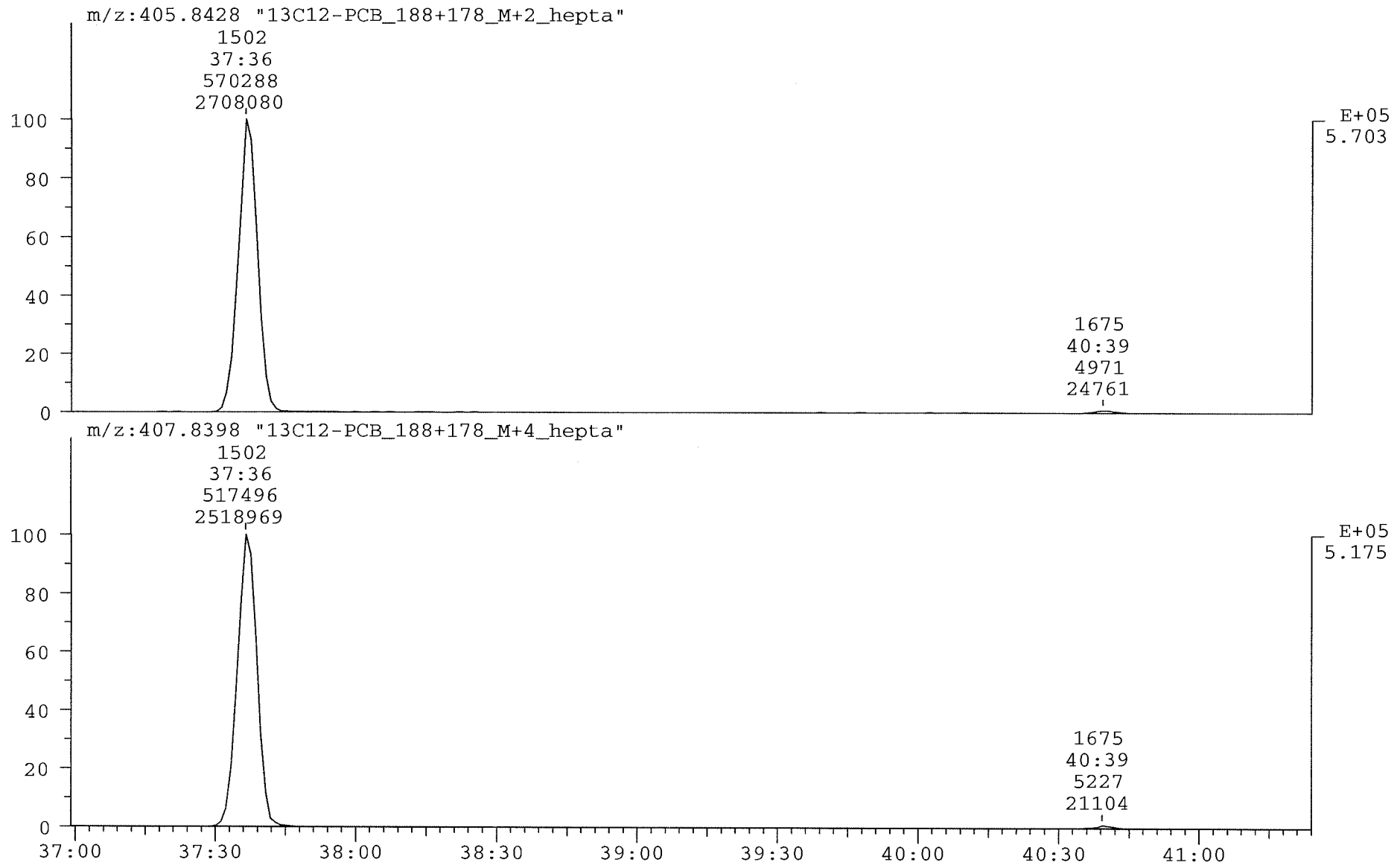
CHRO: a080624i5 24-Jun-08 Elapse: 43:55 1861
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1485 > 2233 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1963

1962

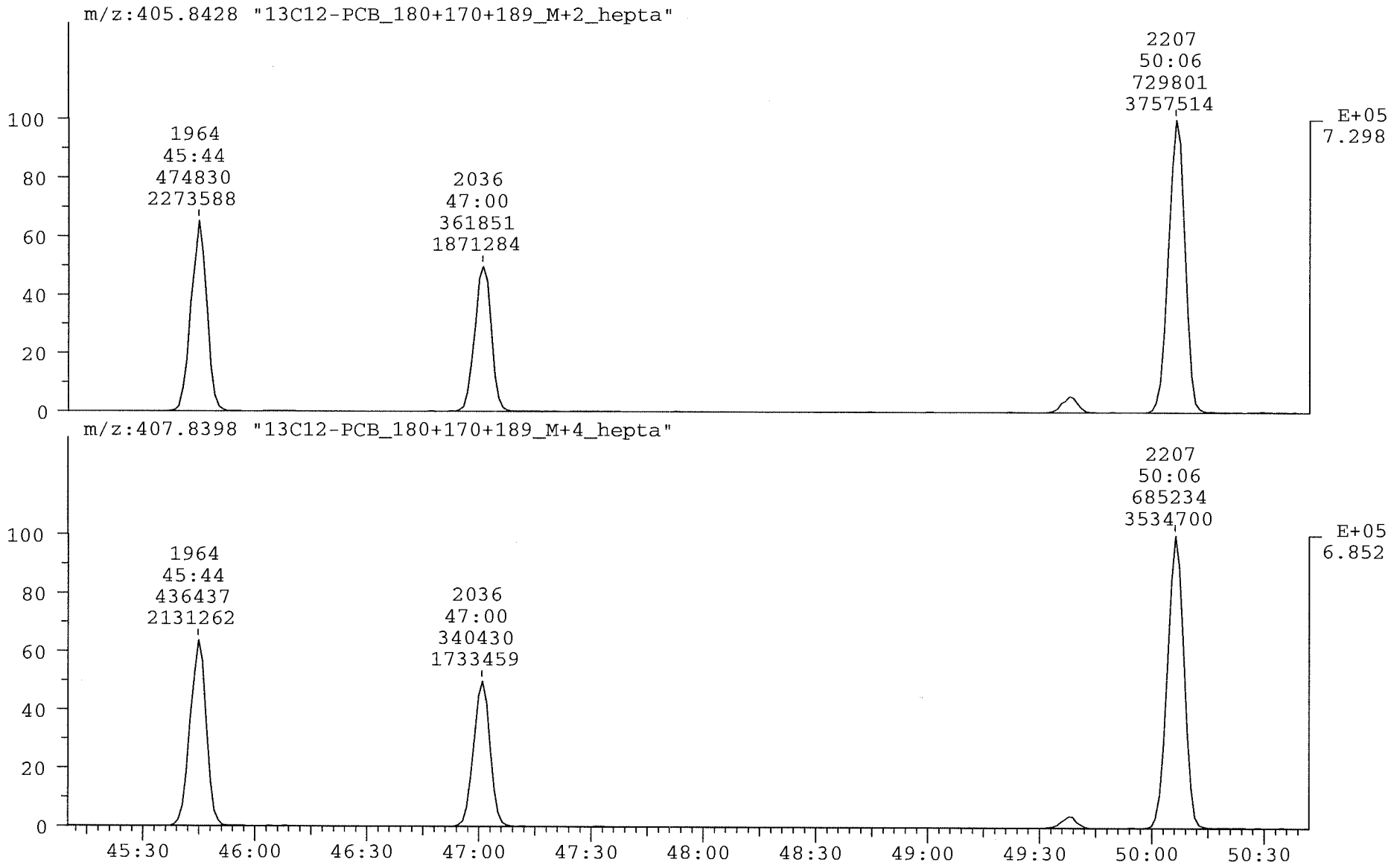
CHRO: a080624i5 24-Jun-08 Elapse: 39:11 1592
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1467 > 1717 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1964

1963

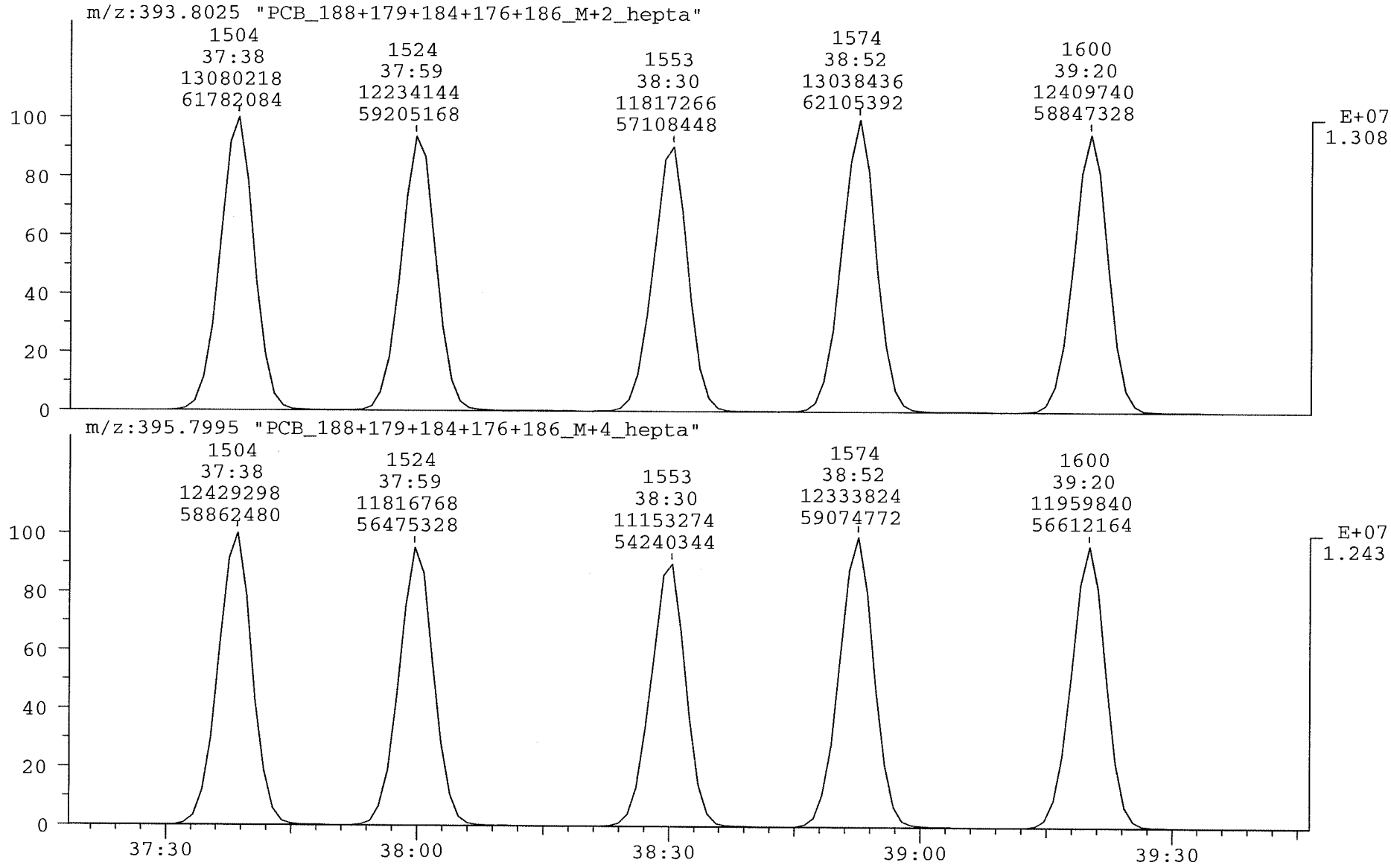
CHRO: a080624i5 24-Jun-08 Elapse: 47:58 2091
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1931 > 2241 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1965

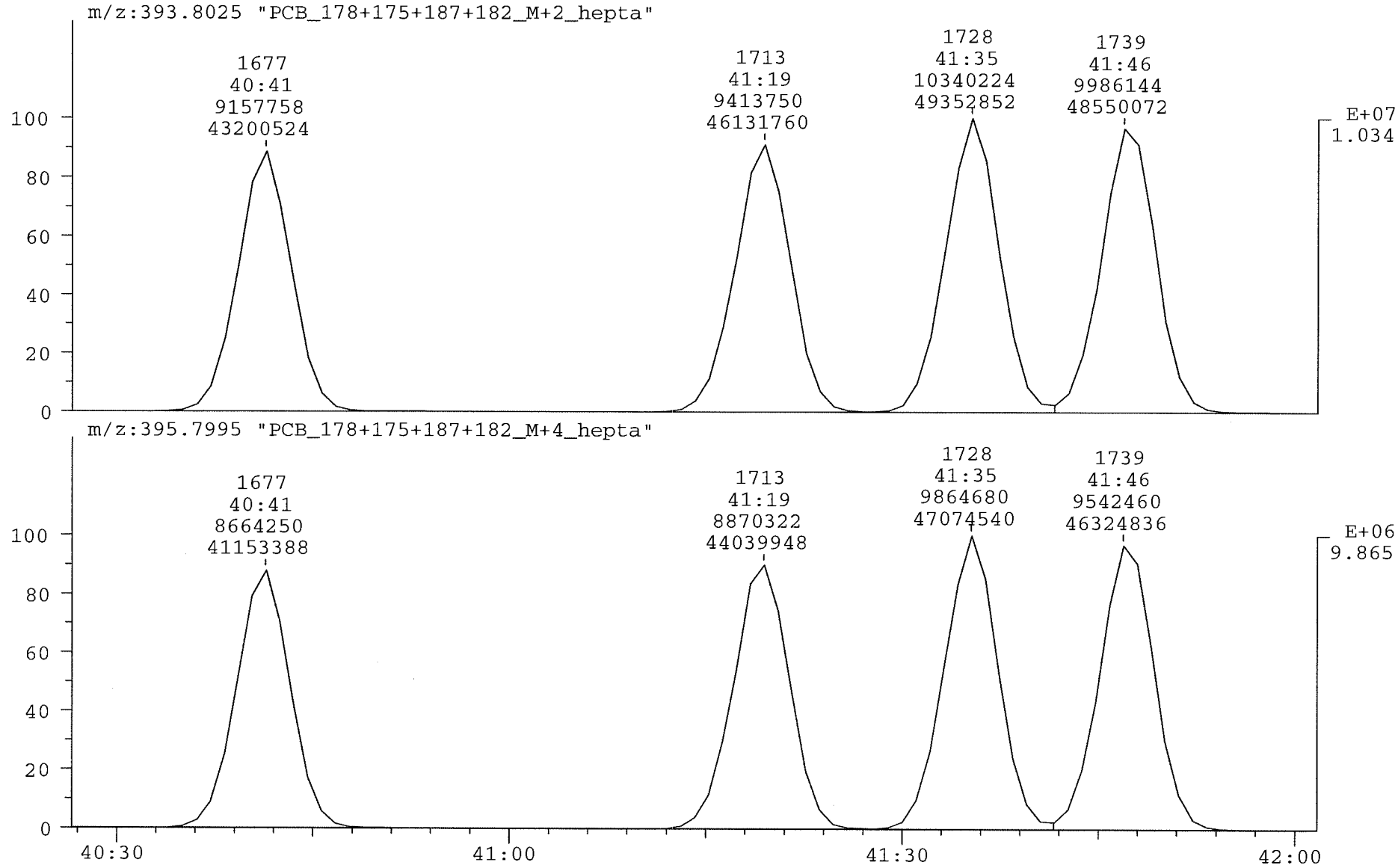
1964

CHRO: a080624i5 24-Jun-08 Elapse: 38:32 1555
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1485 > 1625 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1966

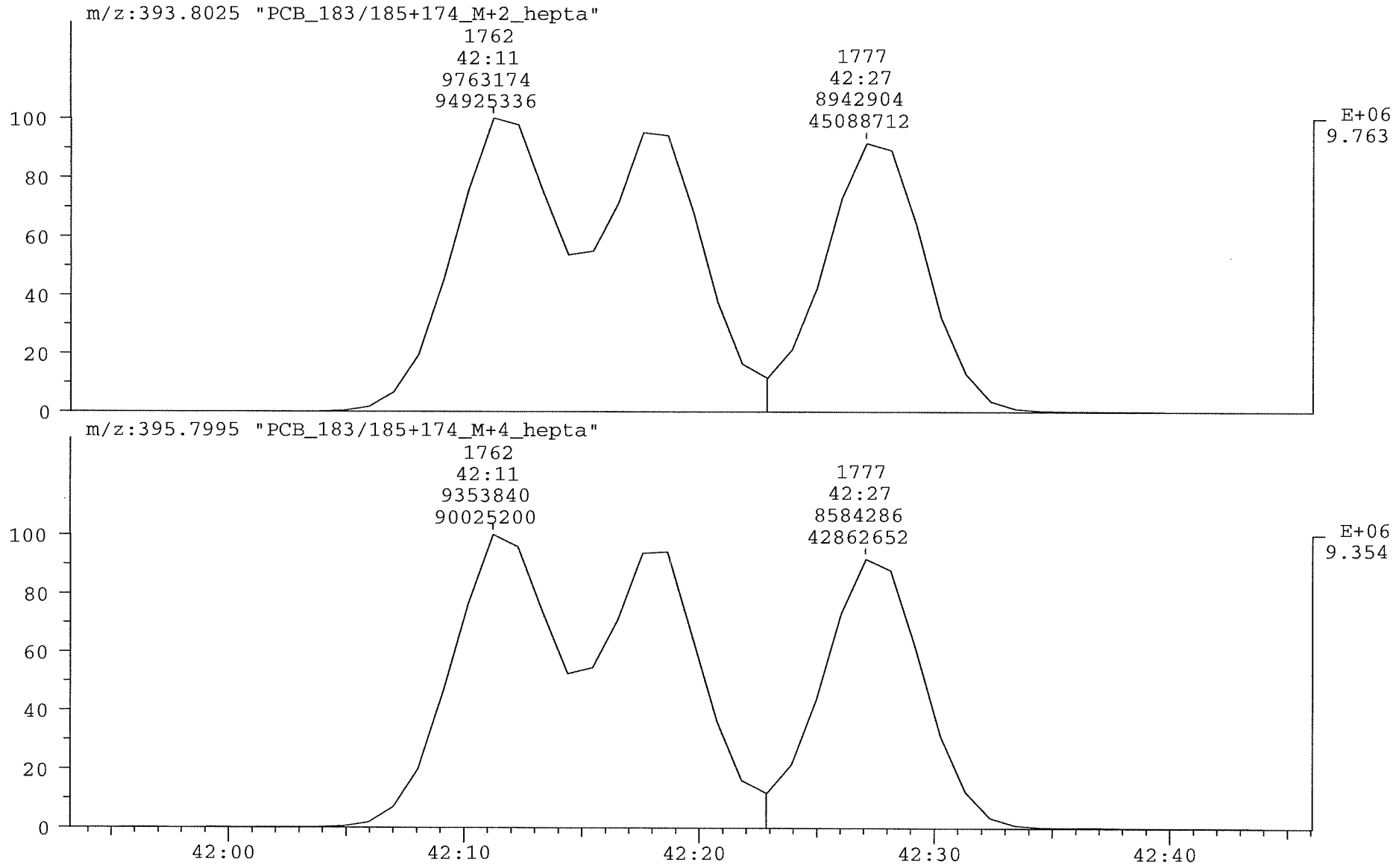
CHRO: a080624i5 24-Jun-08 Elapse: 41:19 1713
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1663 > 1753 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1967

1966

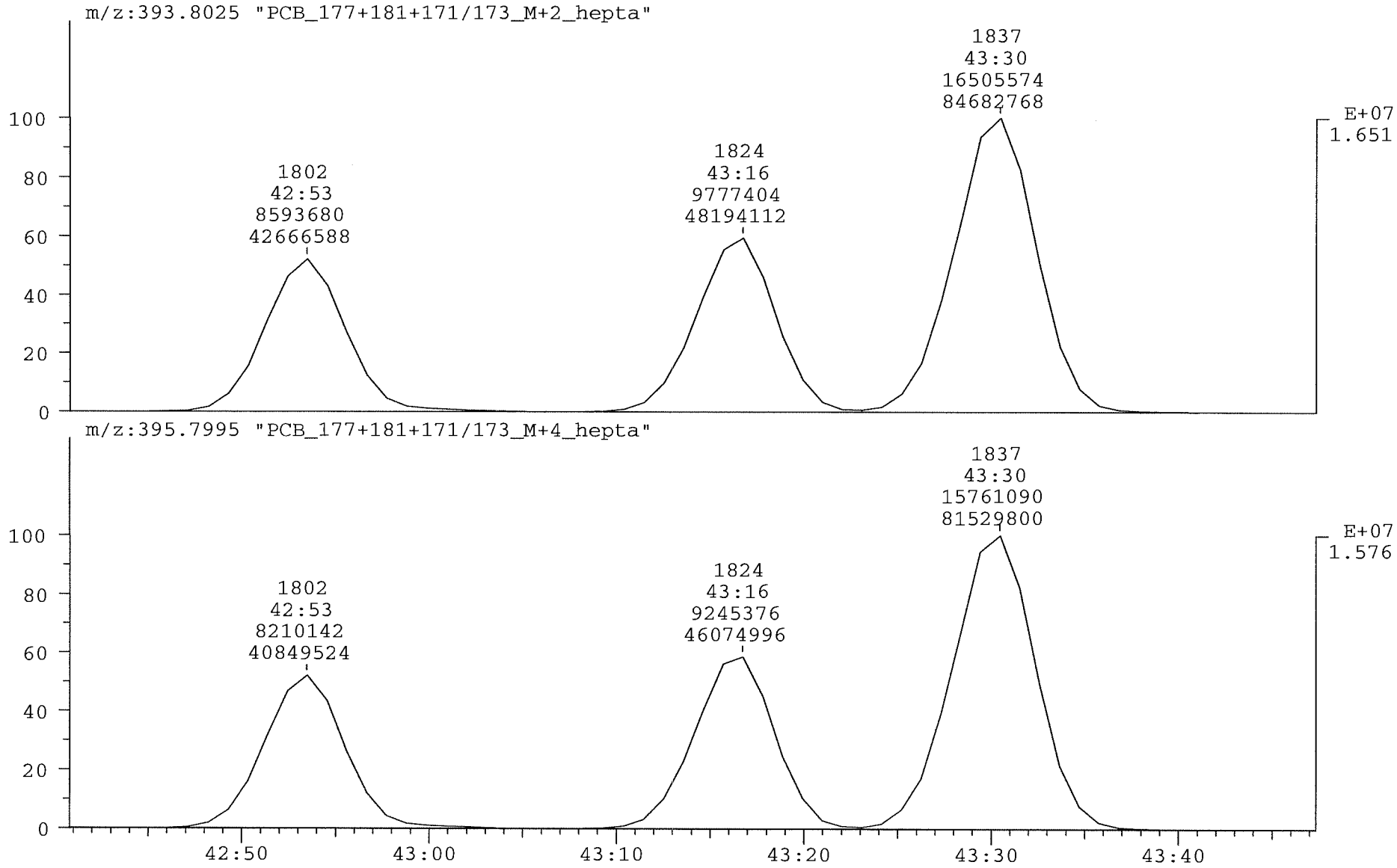
CHRO: a080624i5 24-Jun-08 Elapse: 42:27 1777
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1745 > 1795 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-1968

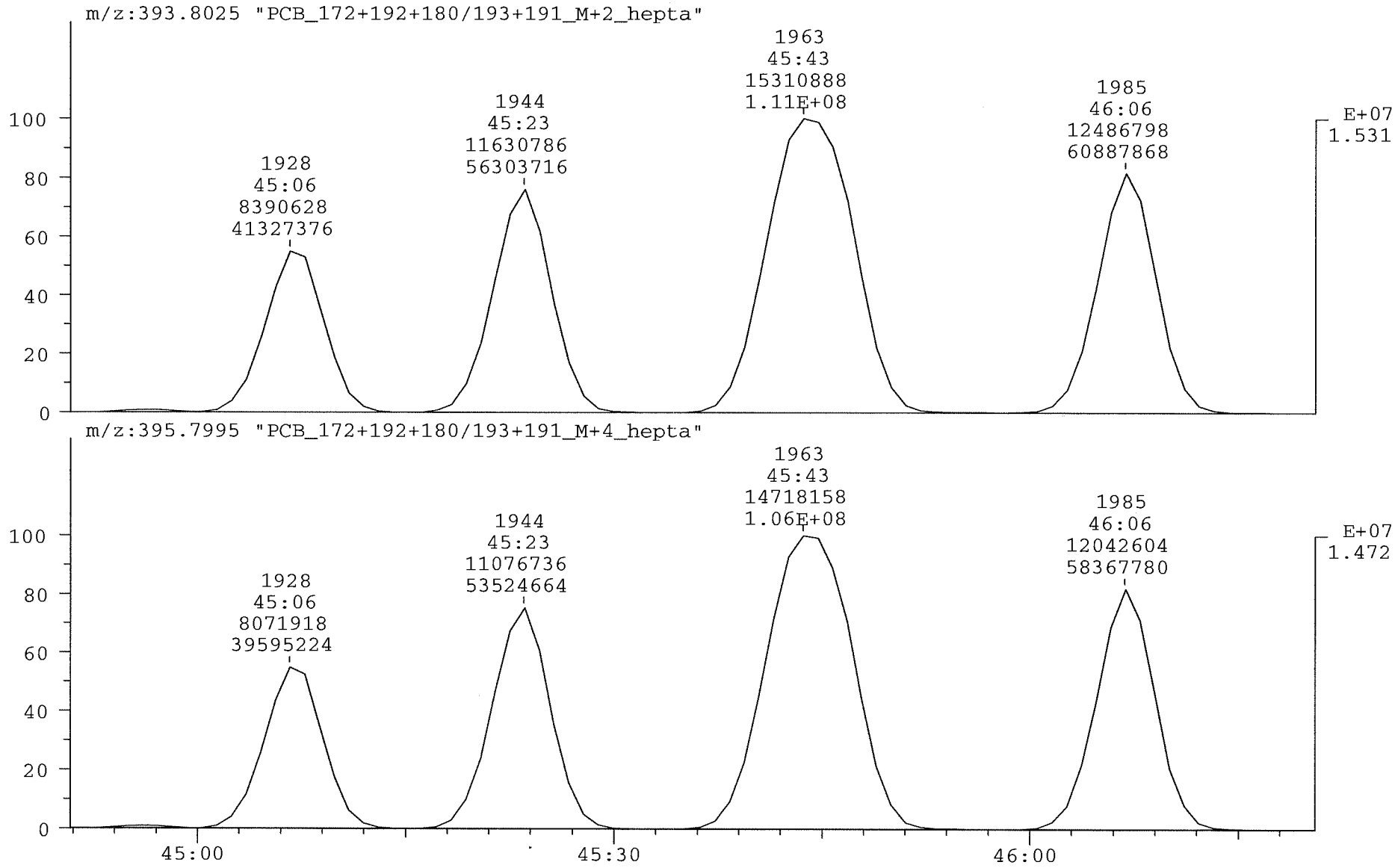
1967

CHRO: a080624i5 24-Jun-08 Elapse: 43:15 1823
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1790 > 1853 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1969

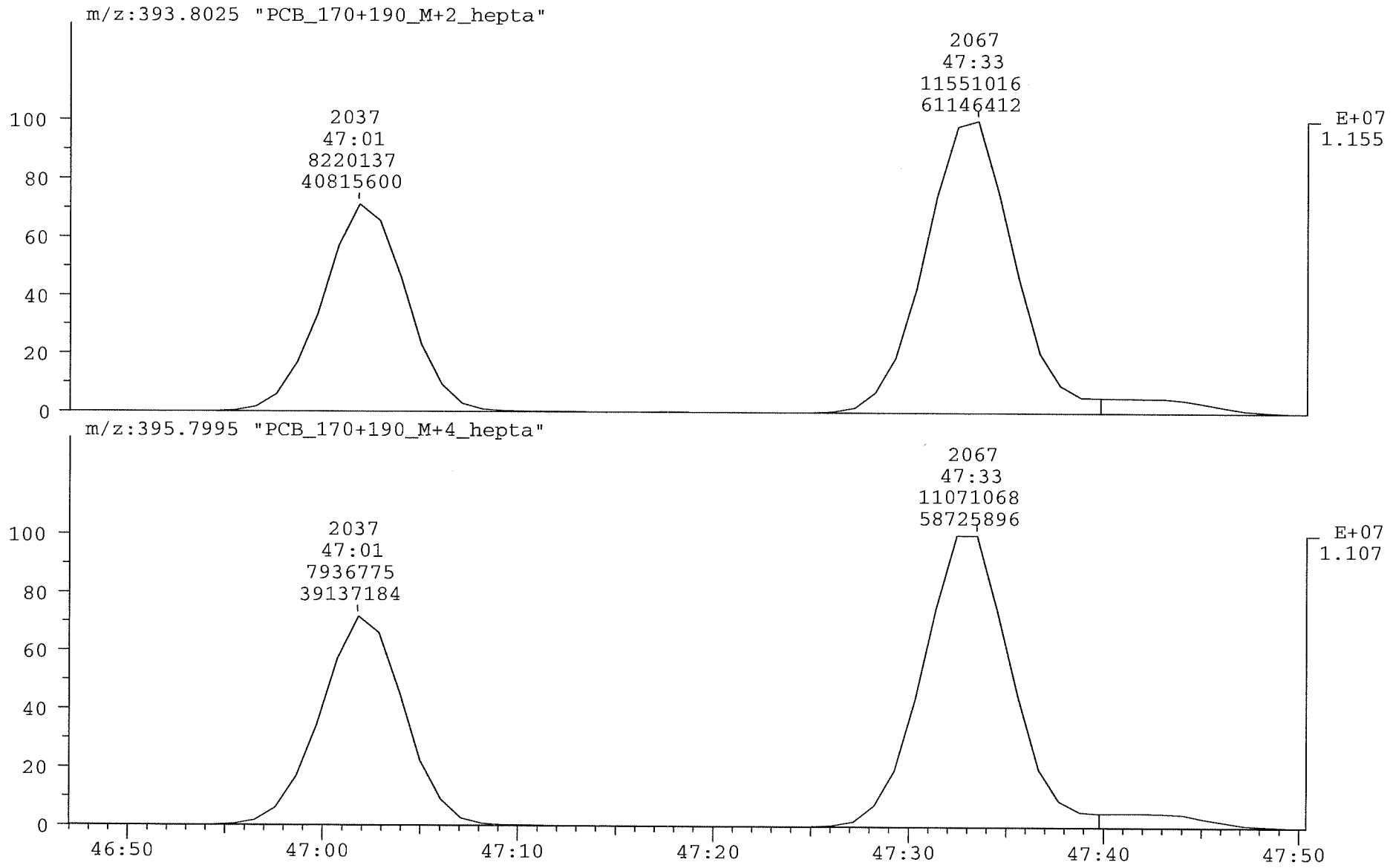
CHRO: a080624i5 24-Jun-08 Elapse: 45:43 1963
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1913 > 1998 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1970

1969

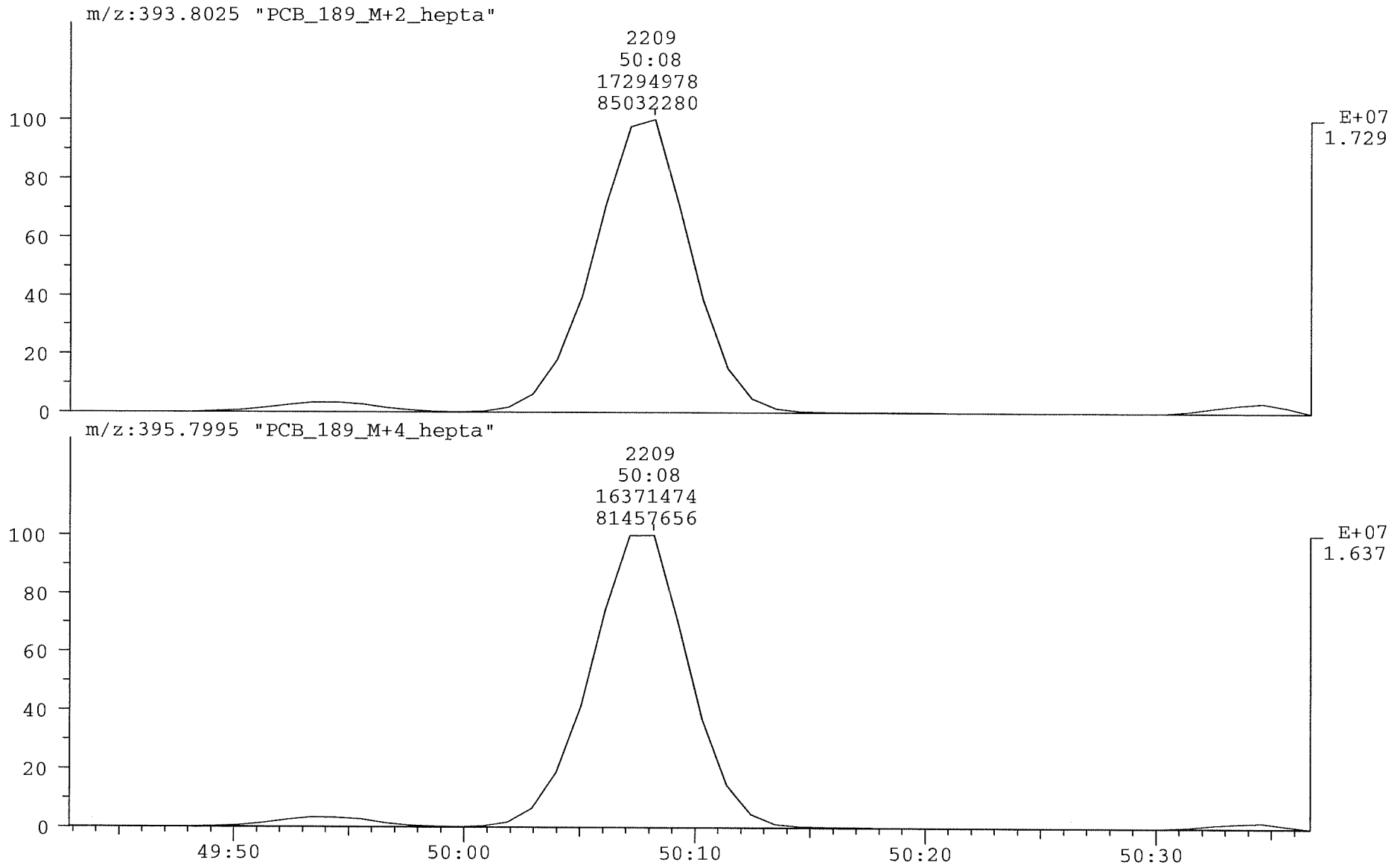
CHRO: a080624i5 24-Jun-08 Elapse: 47:20 2055
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2023 > 2083 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-1971

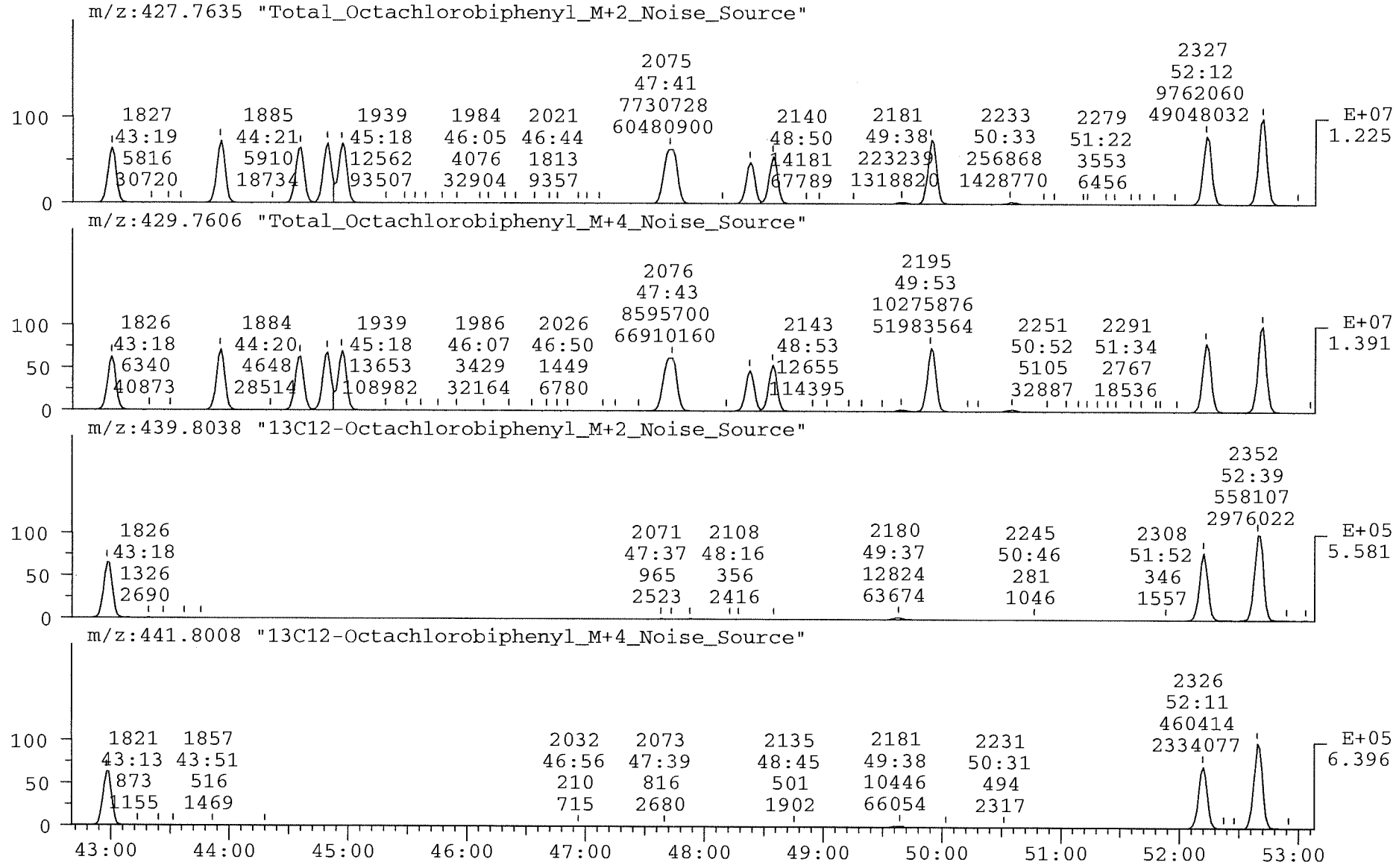
1970

CHRO: a080624i5 24-Jun-08 Elapse: 50:08 2209
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2185 > 2236 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1972

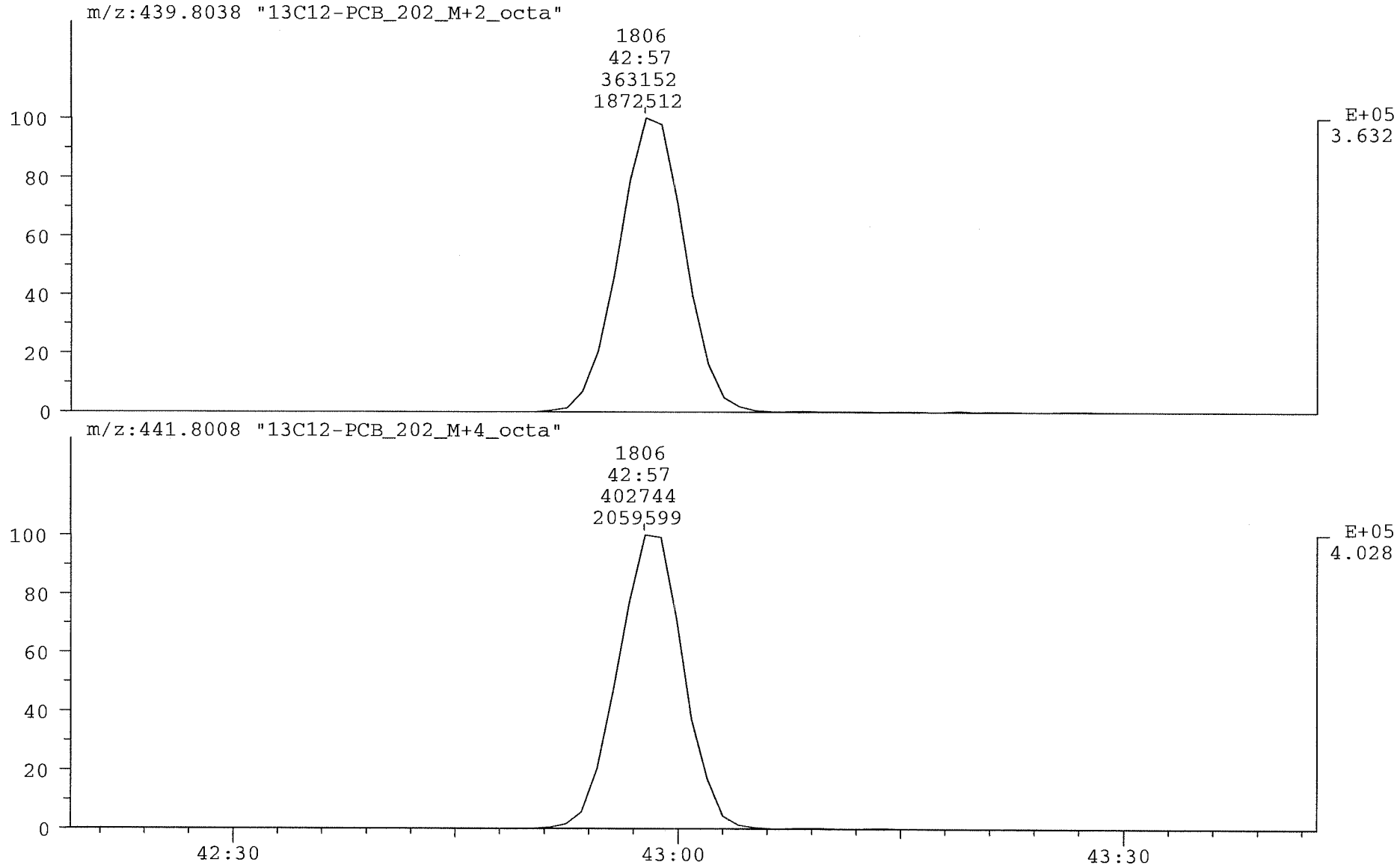
CHRO: a080624i5 24-Jun-08 Elapse: 47:53 2086
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1789 > 2379 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



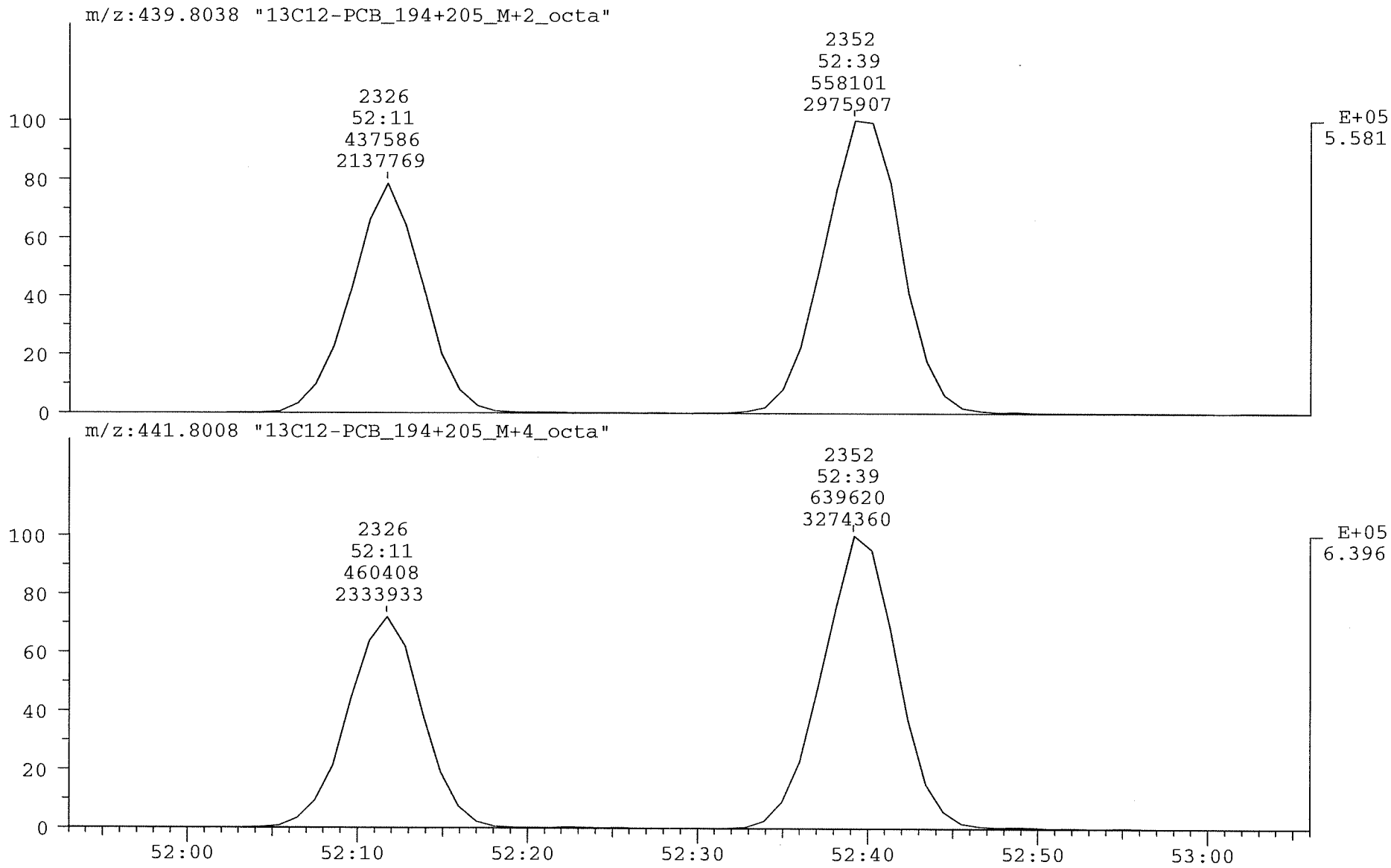
H-1973

1972

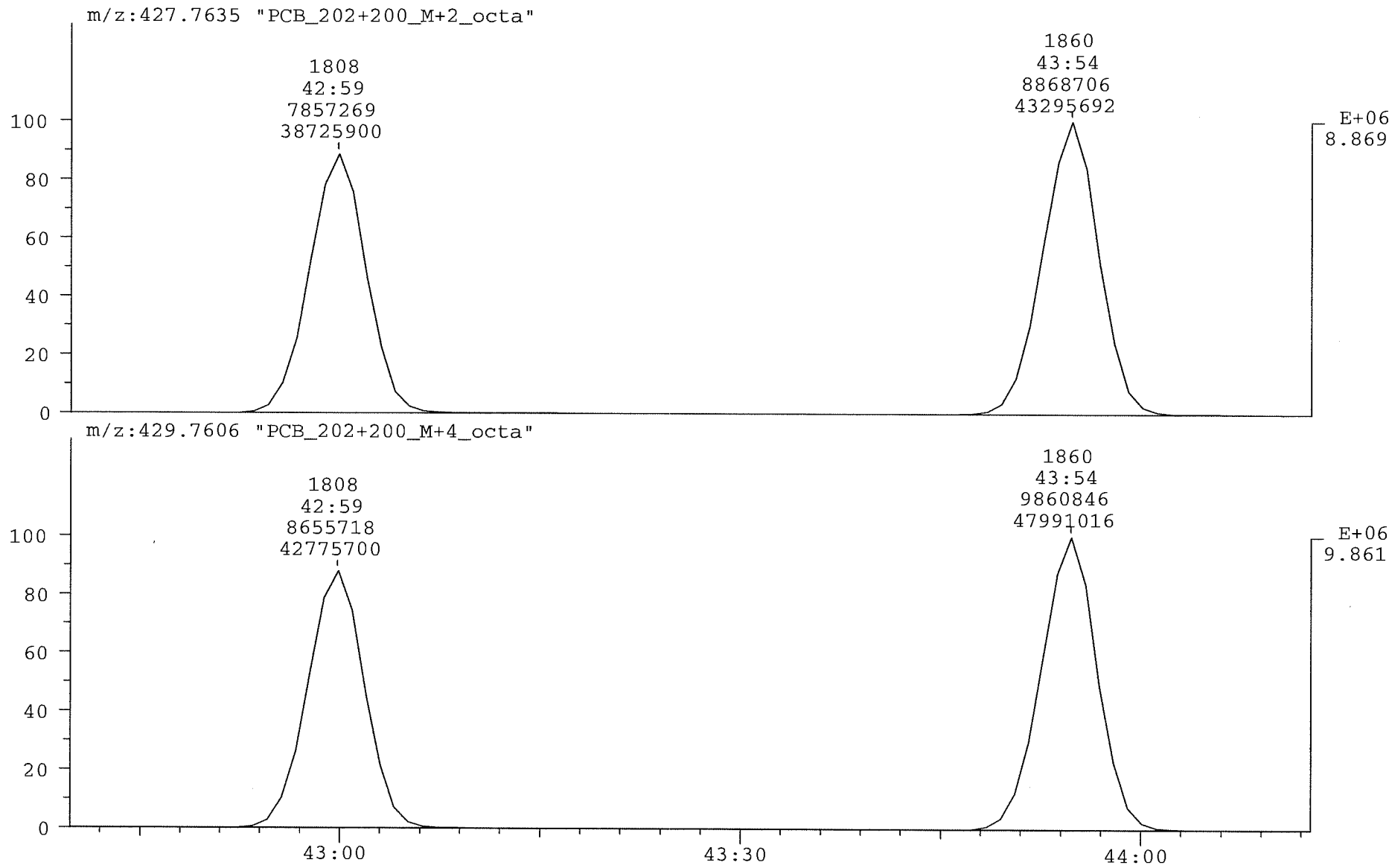
CHRO: a080624i5 24-Jun-08 Elapse: 42:57 1806
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1769 > 1849 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



CHRO: a080624i5 24-Jun-08 Elapse: 52:28 2342
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2308 > 2377 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



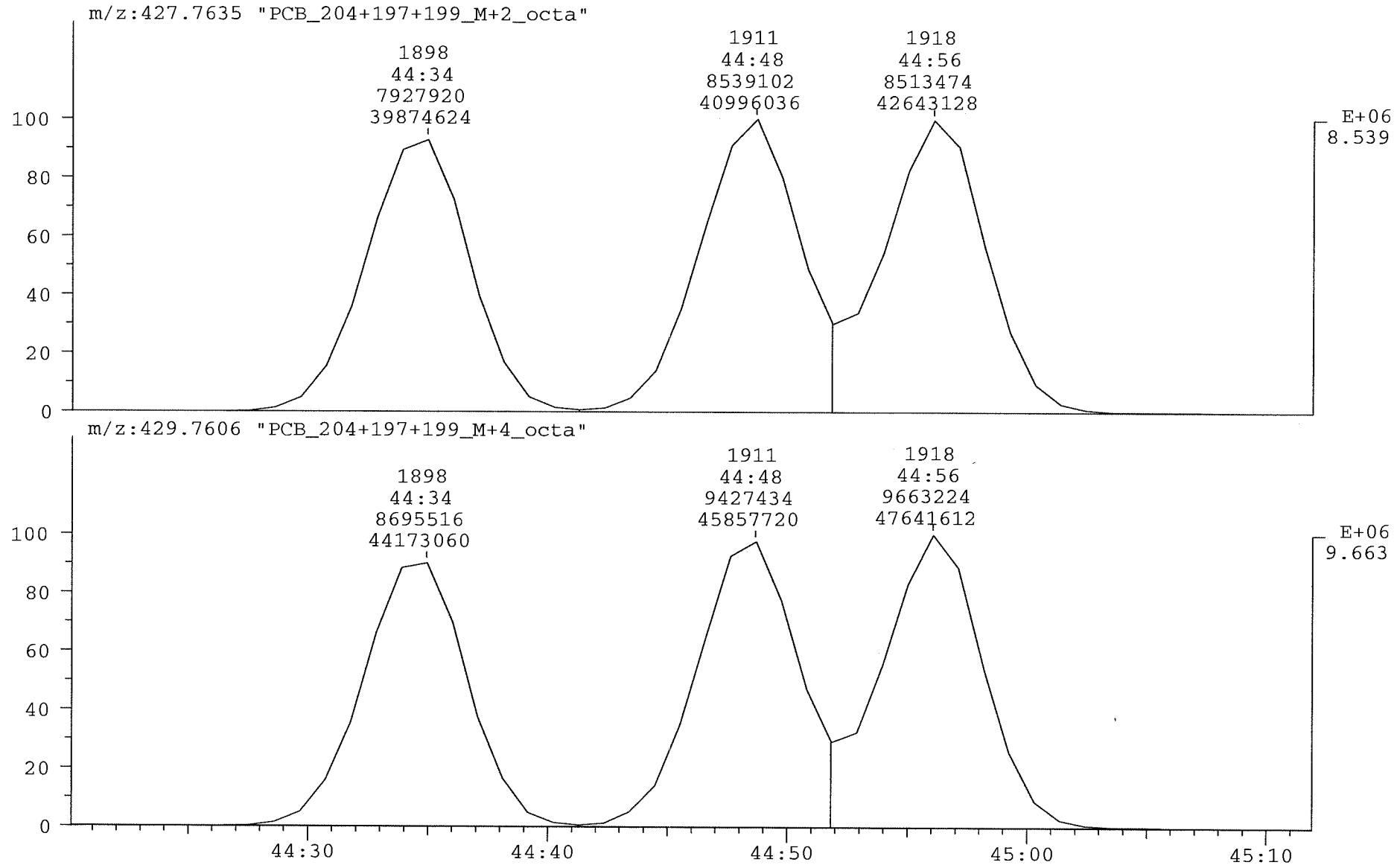
CHRO: a080624i5 24-Jun-08 Elapse: 43:30 1837
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1789 > 1877 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1976

1975

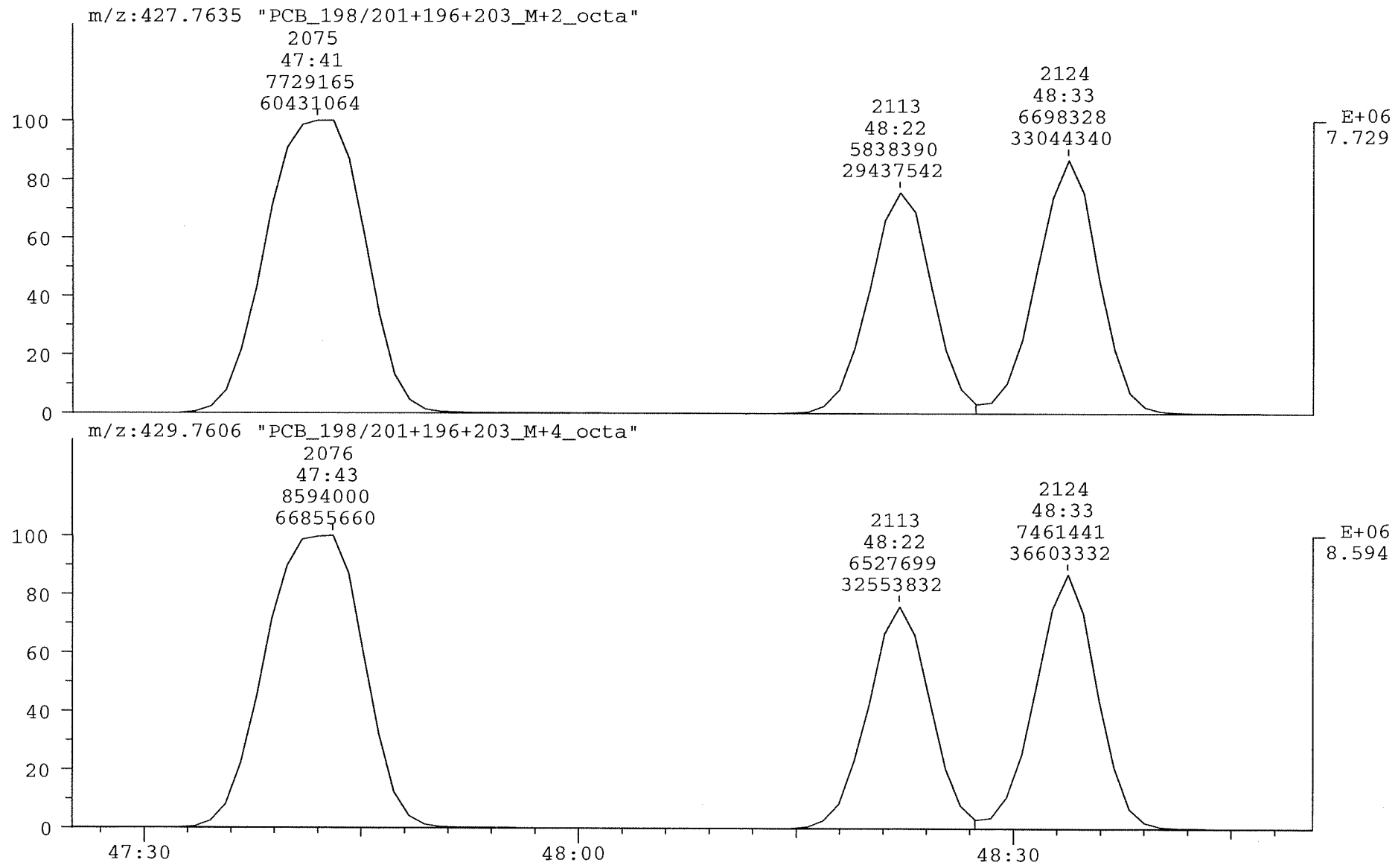
CHRO: a080624i5 24-Jun-08 Elapse: 44:34 1898
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1884 > 1933 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-1977

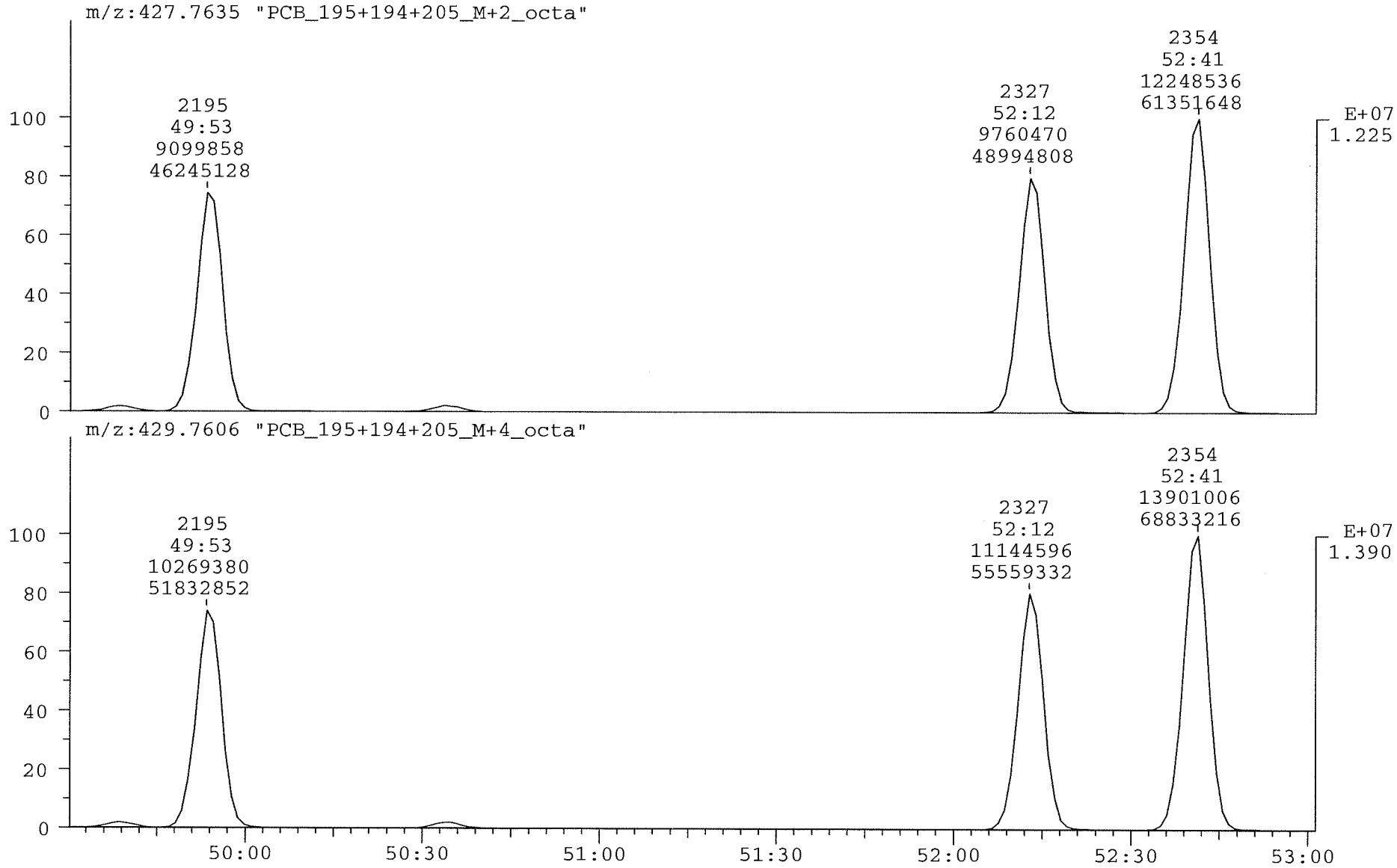
1976

CHRO: a080624i5 24-Jun-08 Elapse: 48:22 2113
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2059 > 2140 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1978

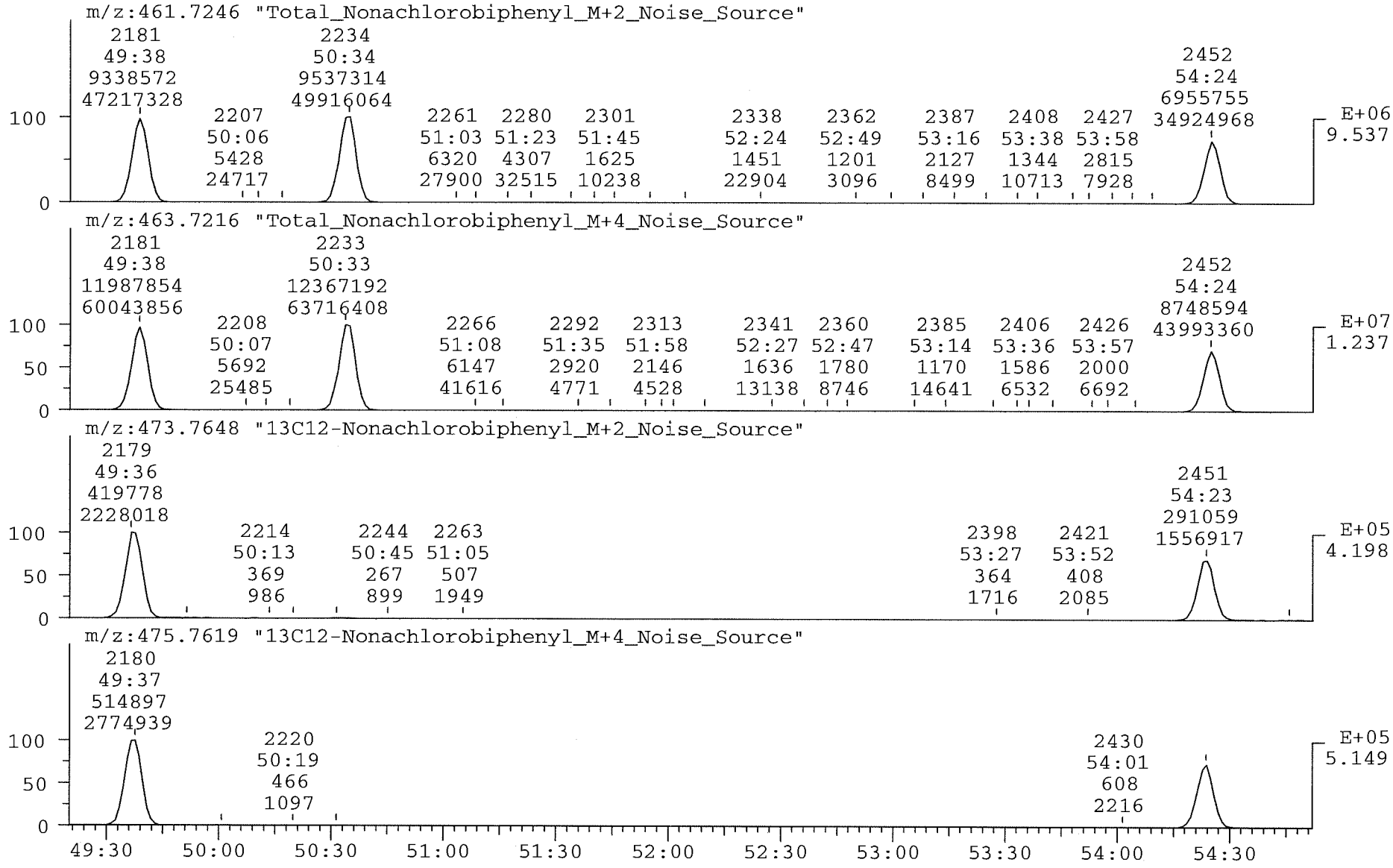
CHRO: a080624i5 24-Jun-08 Elapse: 52:13 2328
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2173 > 2373 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1976

1978

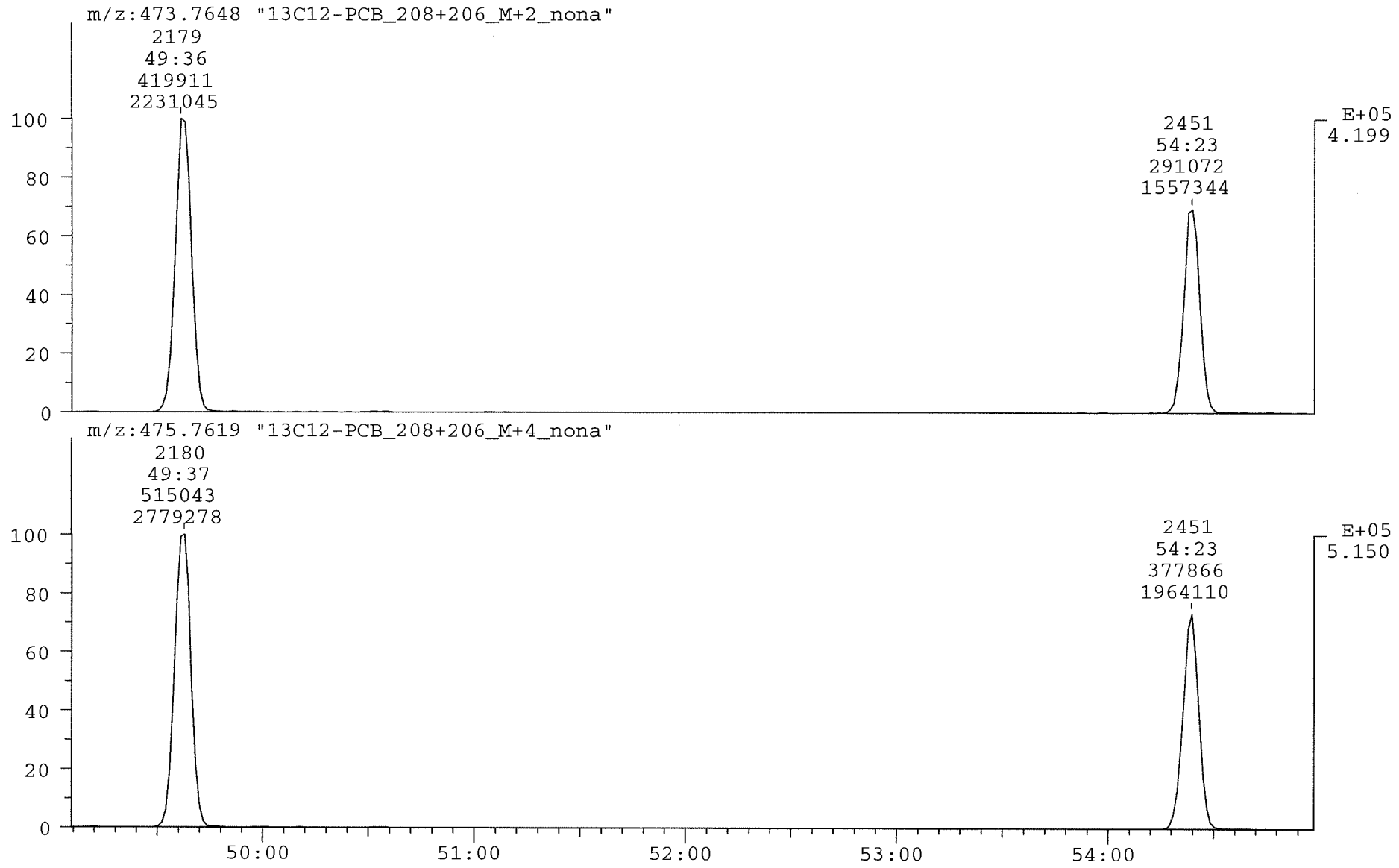
CHRO: a080624i5 24-Jun-08 Elapse: 52:06 2321
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2163 > 2478 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1980

1979

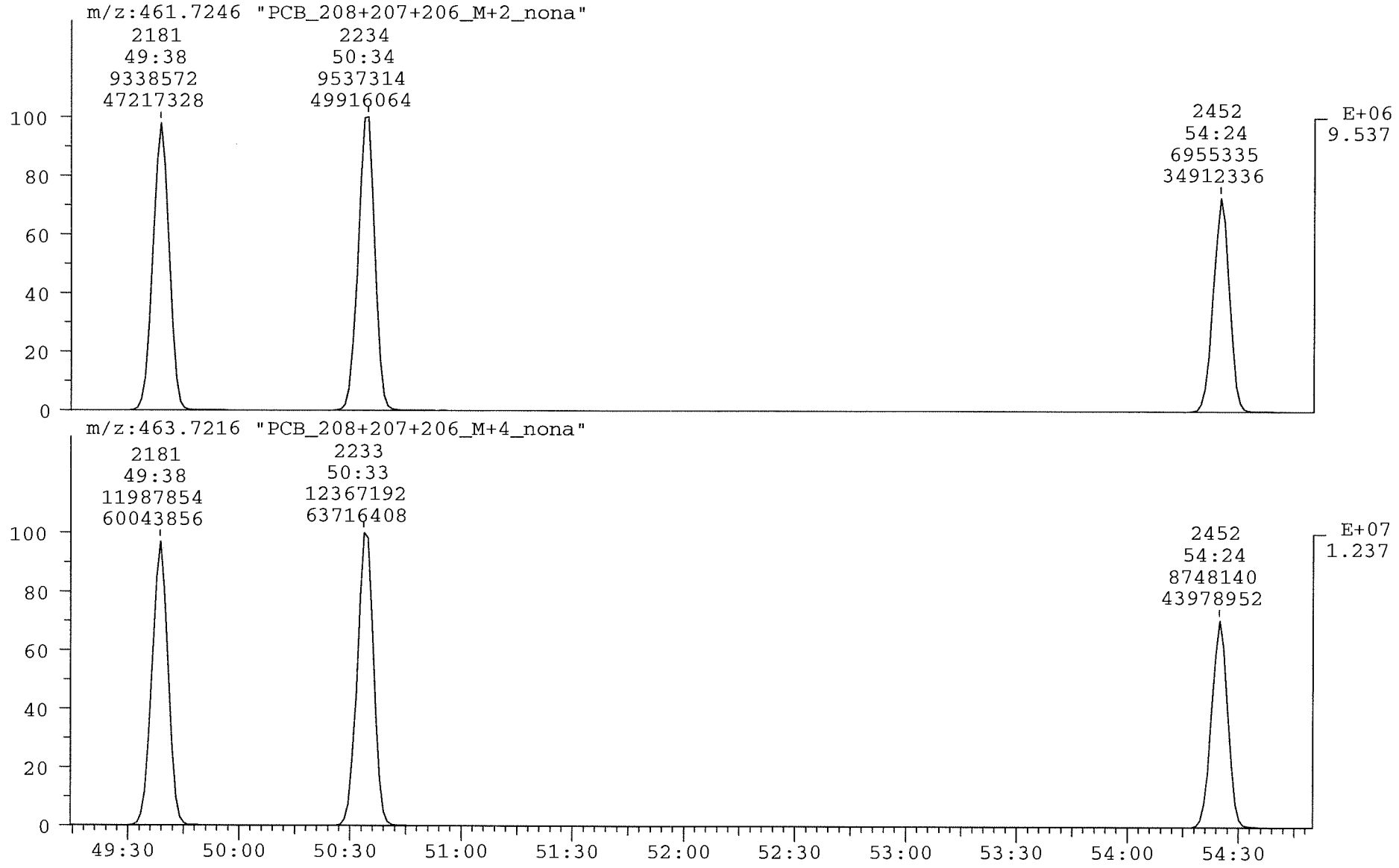
CHRO: a080624i5 24-Jun-08 Elapse: 52:04 2319
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2154 > 2484 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-1981

1980

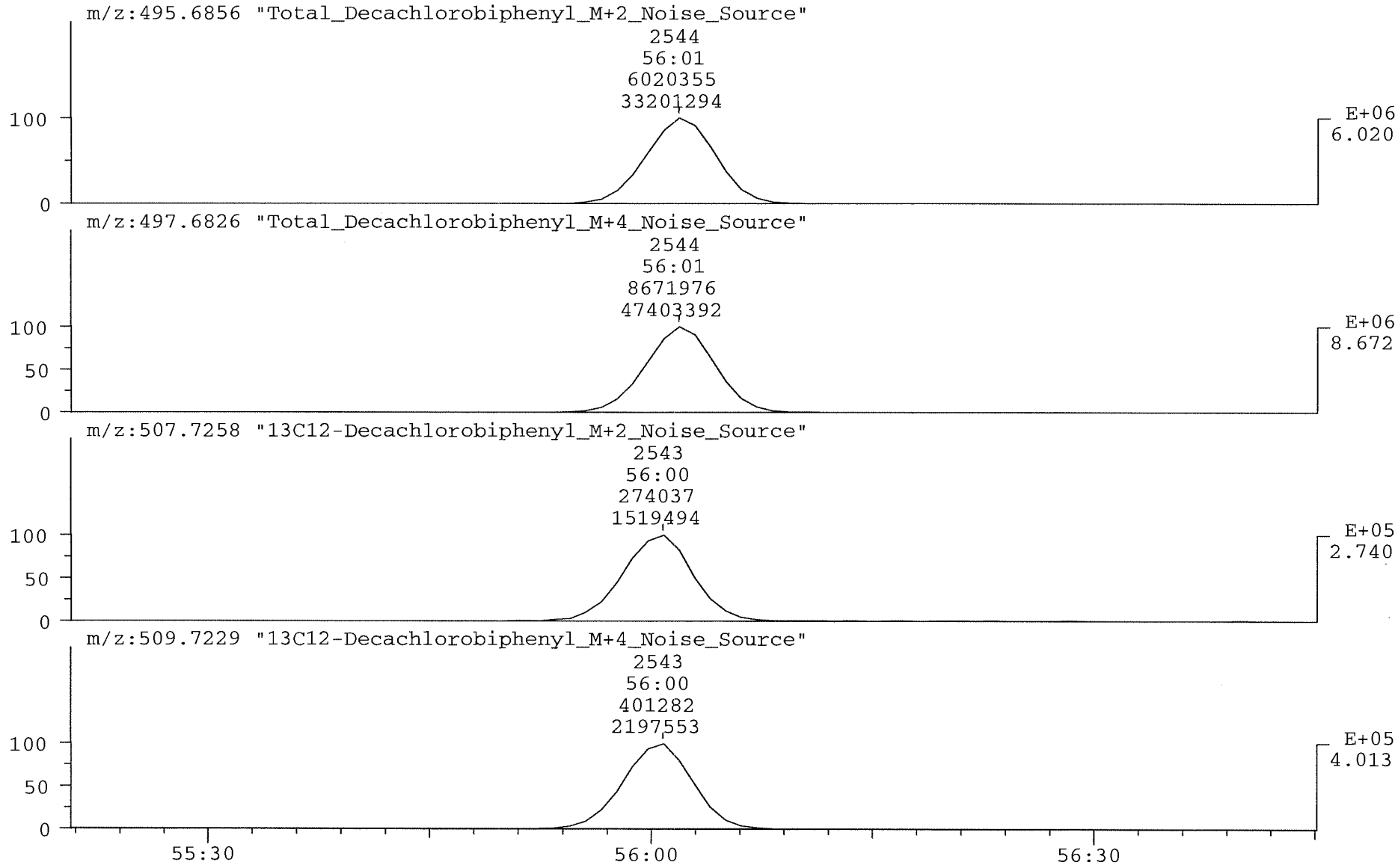
CHRO: a080624i5 24-Jun-08 Elapse: 52:06 2321
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2158 > 2476 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



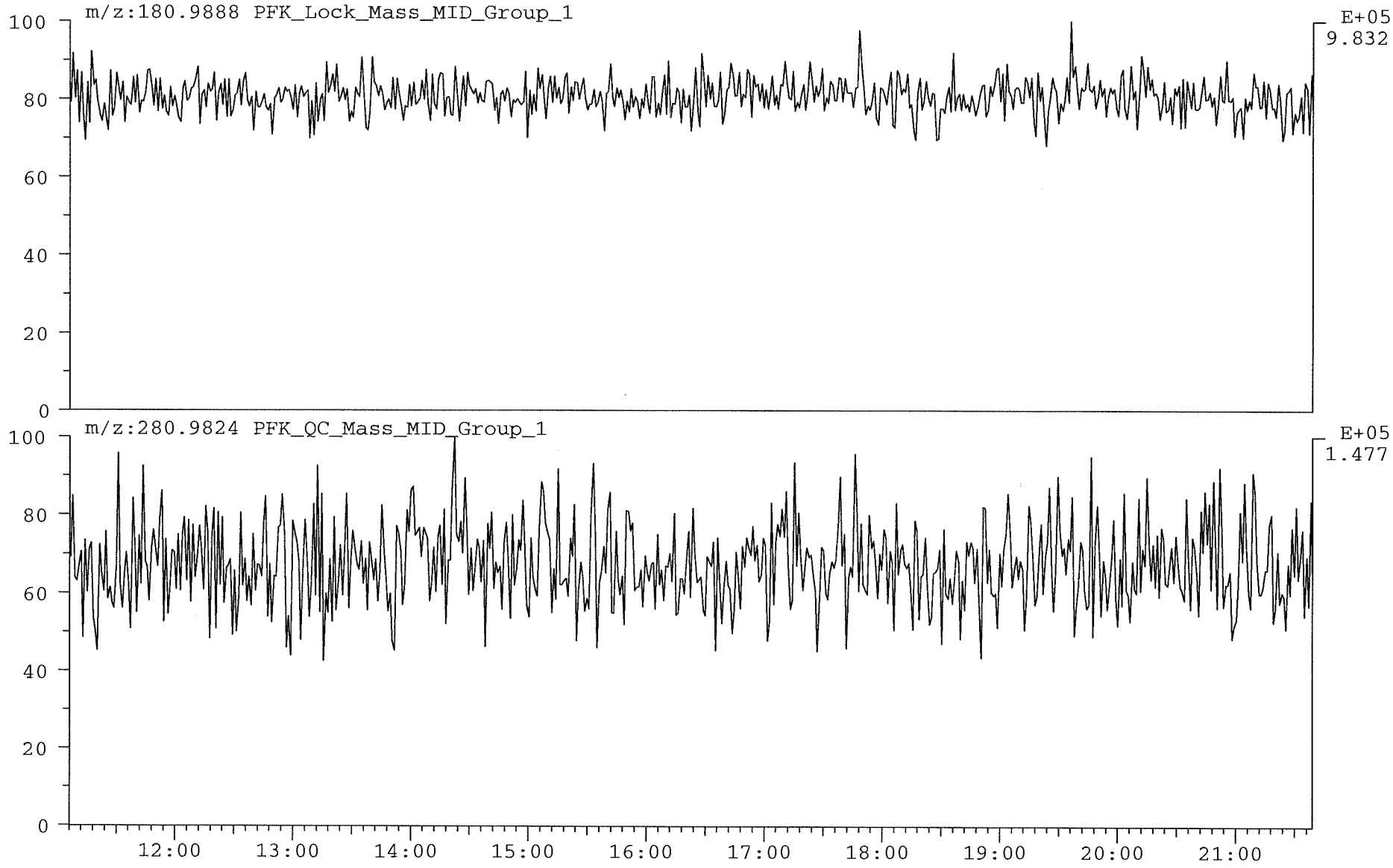
H-1982

1981

CHRO: a080624i5 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2505 > 2585 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



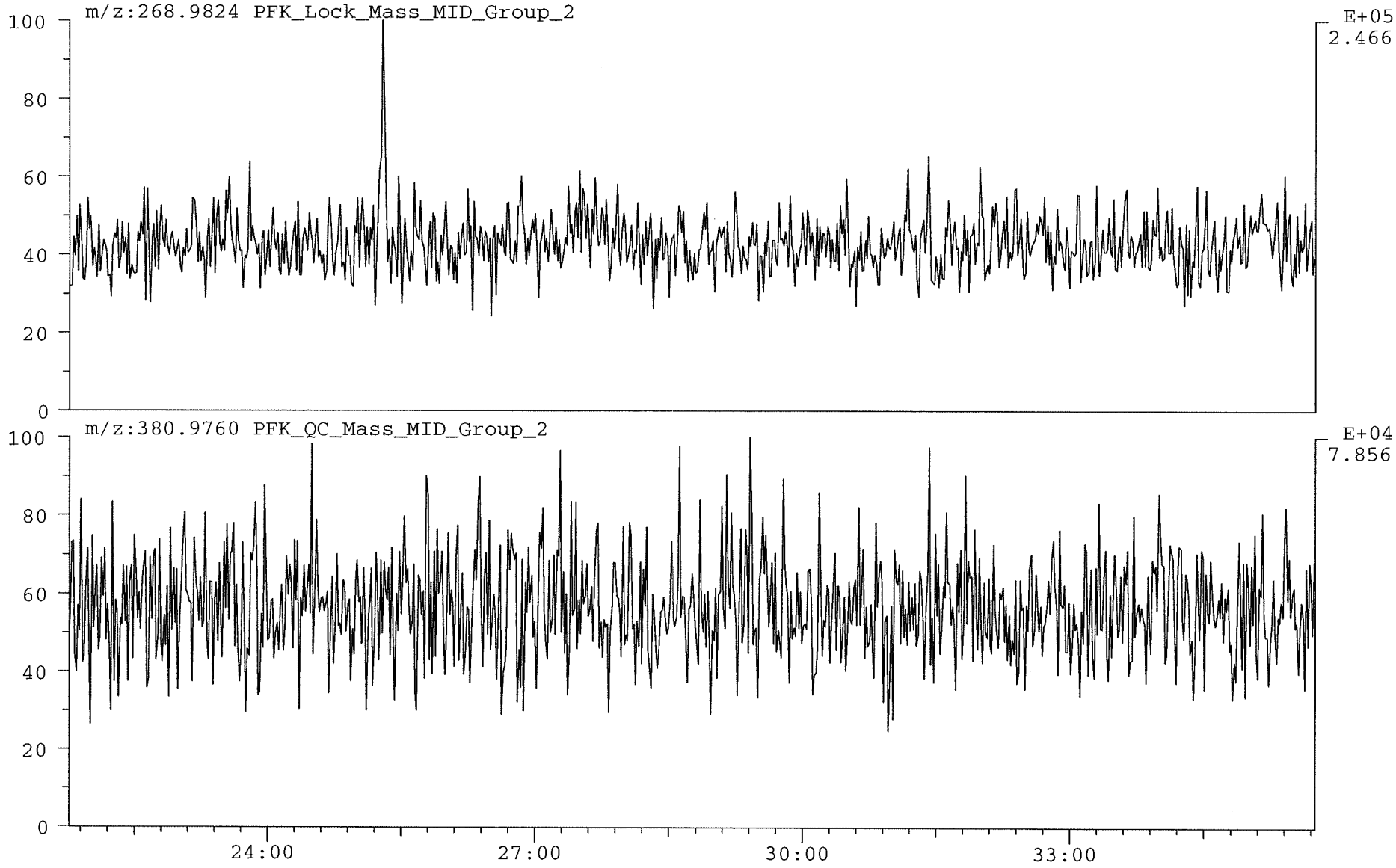
CHRO: a080624i5 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1984

1983

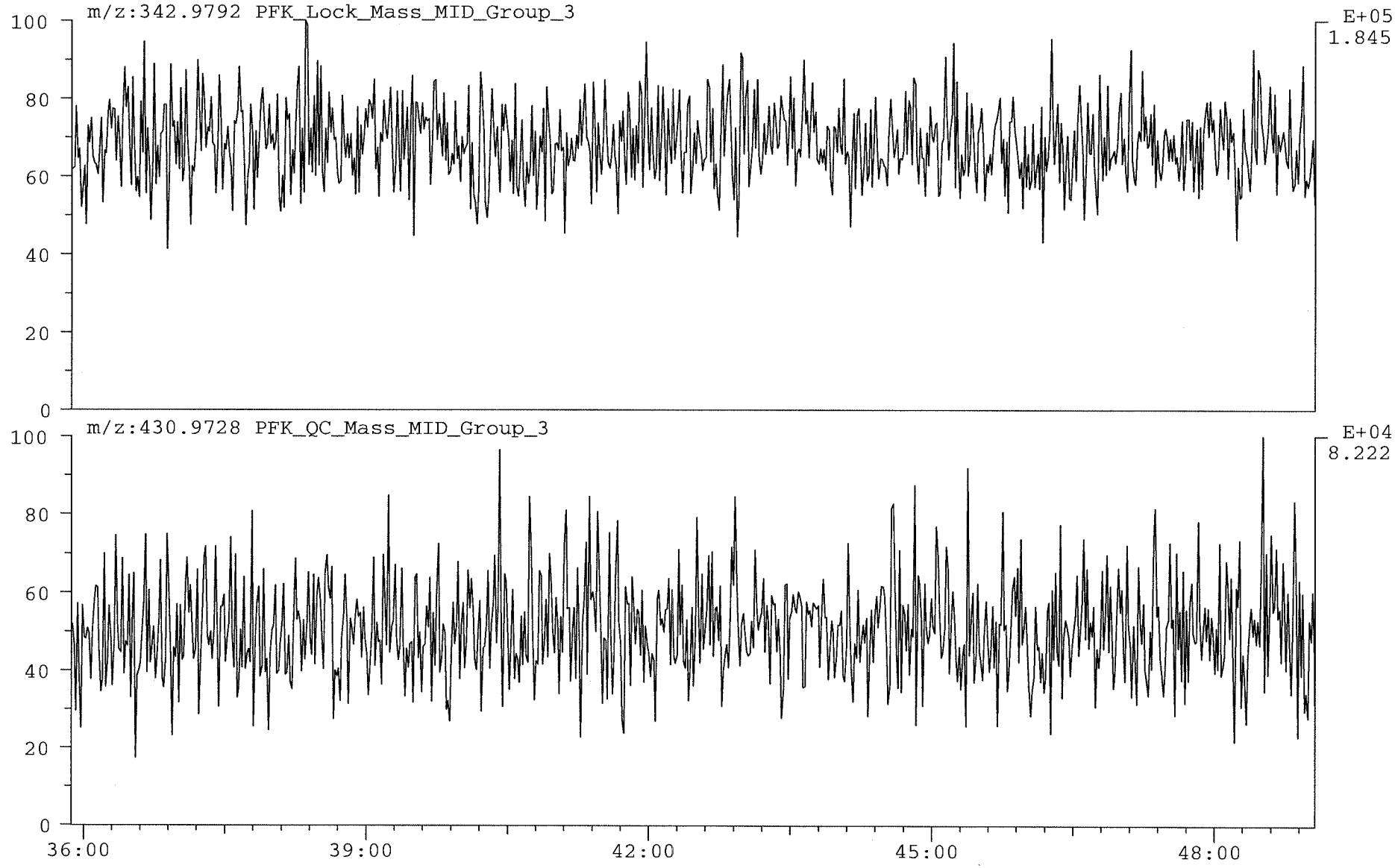
CHRO: a080624i5 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 608 > 1401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1985

1984

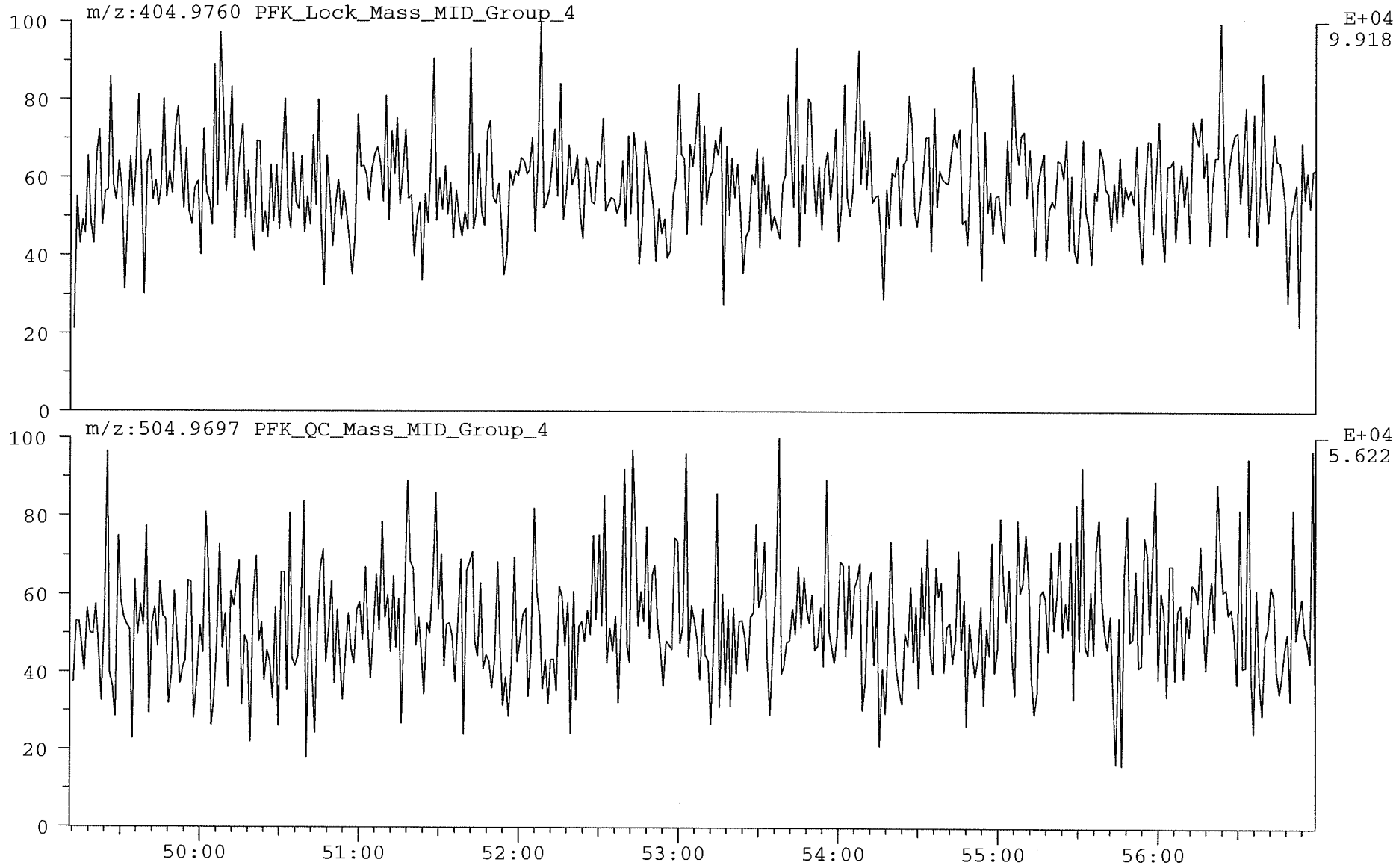
CHRO: a080624i5 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1404 > 2153 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1986

1985

CHRO: a080624i5 24-Jun-08 Elapse: 56:06 2548
Samp: Vial 14 WO=2990:71CS5 Meth=IE3 Dil=1 Start : 20:25:45 2600
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL CS5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2156 > 2598 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-1987

1986

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a080624i5
Study: 1668 ICAL CS5
Sample: WO=2990:71CS5 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Injected volume: 2.00
Sample from Vial 14
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 3 of list 080624
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:06 min	35:46 min	1.00 sec
# 3	35:46 min	13:19 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	l	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg	at 0.0	minutes	280 deg max
	75 deg	at 2.0	minutes	
	150 deg	at 7.0	minutes	
	270 deg	at 55.0	minutes	
	270 deg	at 57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.7567
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6706
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-14.8500
DRAWC	1.0000	DRAWS	0.0100	ECORR	0.9995
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	-210.0000	ELEN	55.7750
EMULT	1.7500	ENS	205.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	152.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	326.0000
FVINLET	271.0000	FVSRC	978.0000	FWIN	0.7000
GCTC	202.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.4216	HVANAL	1311.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4778.9940	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1837.0000	LENSS	8.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2345983.9047

MDACR	23.0000	MRANGE	1031.7567	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2611.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-6.1500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10643.9045	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	3200.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.2400	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.0000	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	1694.0000
XLENSS	-97.0000	YLENS	2530.0000	YLENSS	-24.2000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 24-Jun-08 20:25:45.6

Autosampler has injected sample from vial 14
MID Time Window 1: Resolution is 8226
MID Time Window 2: Resolution is 9607
MID Time Window 3: Resolution is 9526
MID Time Window 4: Resolution is 11249
Analysis stopped at: 24-Jun-08 21:22:48.5 (run time 57.03 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:74	Prep Batch		Lot No	
Data File	/20080624i/a080625ss.d	Prep Date		SDG No	
Analysis ID	104779	Prep Exp Date		Date Received	
Analysis Date	6/25/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	11:18	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
Total Monochlorobiphenyl		12012890	4411694			14.671218		14.671218	J	0.00342
13C12-PCB 1	12:00	6232815	2642311	1.586	10.00	10.560611	105.61	10.560611		0.00320
13C12-PCB 3	14:12	6377822	2131994	1.599	10.00	10.718449	107.18	10.718449		0.00317
PCB 1 (BZ)	12:00	4009578	1548065	1.313	5.000	4.899477	97.99	4.899477	J	0.00101
PCB 2 (BZ)	14:01	3969178	1472351	1.290	5.000	4.879820	97.60	4.879820	J	0.00114
PCB 3 (BZ)	14:12	4034134	1391278	1.293	5.000	4.891921	97.84	4.891921	J	0.00127
Total Dichlorobiphenyl		26442115	7084857			58.710508		58.710508	J	0.0760
13C12-PCB 4	14:27	2226486	704544	0.643	10.00	9.305013	93.05	9.305013		0.00634
13C12-PCB 9	16:26	3721277	1158485	1.000	10.00	10.000000	100.00	10.000000		0.00408
13C12-PCB 8	17:16	3894203	1111425	1.231	10.00	10.048901	100.49	10.048901	J	0.00433
13C12-PCB 15	20:23	4069619	1069529	1.108	10.00	9.870110	98.70	9.870110		0.00368
PCB 4 (BZ)	14:27	1385425	441810	1.254	5.000	4.962100	99.24	4.962100	J	0.00976
PCB 10 (BZ)	14:38	2072740	718341	1.344	5.000	4.898957	97.98	4.898957	J	0.00723
PCB 9 (BZ)	16:27	2226820	688178	1.461	5.000	4.841645	96.83	4.841645	J	0.00666
PCB 7 (BZ)	16:36	2326168	708568	1.451	5.000	5.092508	101.85	5.092508	J	0.00670
PCB 6 (BZ)	16:52	2190793	623841	1.459	5.000	4.769843	95.40	4.769843	J	0.00666
PCB 5 (BZ)	17:10	2110550	620555	1.376	5.000	4.872314	97.45	4.872314	J	0.00707
PCB 8 (BZ)	17:17	2297292	645127	1.488	5.000	4.904235	98.08	4.904235	J	0.00653
PCB 14 (BZ)	18:56	2306022	604989	1.735	5.000	4.222037	84.44	4.222037	J	0.00560
PCB 11 (BZ)	19:46	2249494	585507	1.453	5.000	4.917872	98.36	4.917872	J	0.00669
PCB 13 (BZ)	20:05	4718876	787381	1.473	10.00	10.176393	101.76	10.176393	C12J	0.00660
PCB 12 (BZ)		4718876			10.00			ND	C	0.000000
PCB 15 (BZ)	20:24	2557935	660560	1.244	5.000	5.052605	101.05	5.052605	J	0.00648
Total Trichlorobiphenyl		73208656	14540785			122.112598		122.112598	J	0.153
13C12-PCB 19	17:35	1371739	383584	0.598	10.00	9.416251	94.16	9.416251		0.0262
13C12-PCB 32	20:52	2436084	623174	1.000	10.00	10.000000	100.00	10.000000		0.0156
13C12-PCB 31	23:08	7643052	1861085	1.000	10.00	10.000000	100.00	10.000000		0.00524
13C12-PCB 28	23:26	7477196	1807362	0.987	10.00	9.911852	99.12	9.911852	J	0.00531
13C12-PCB 37	27:27	6718797	1495325	0.938	10.00	9.371775	93.72	9.371775		0.00559
PCB 19 (BZ)	17:37	826938	218548	1.211	5.000	4.978028	99.56	4.978028	J	0.0168
PCB 30 (BZ)	19:25	2174024	343946	1.610	10.00	9.843895	98.44	9.843895	C18J	0.0127
PCB 18 (BZ)		2174024			10.00			ND	C	0.000000
PCB 17 (BZ)	19:54	916593	250019	1.336	5.000	5.001481	100.03	5.001481	J	0.0153
PCB 27 (BZ)	20:07	1316970	347516	1.924	5.000	4.989986	99.80	4.989986	J	0.0106
PCB 24 (BZ)	20:15	1230445	342251	1.756	5.000	5.108180	102.16	5.108180	J	0.0116
PCB 16 (BZ)	20:22	787867	194305	1.172	5.000	4.900651	98.01	4.900651	J	0.0174
PCB 32 (BZ)	20:53	1360598	339189	1.977	5.000	5.017087	100.34	5.017087	J	0.0103
PCB 34 (BZ)	22:09	3927291	984823	1.141	5.000	5.122900	102.46	5.122900	J	0.00459
PCB 23 (BZ)	22:17	3917950	1010704	1.145	5.000	5.092862	101.86	5.092862	J	0.00457
PCB 29 (BZ)		8088006			10.00			ND	C26	0.000000
PCB 26 (BZ)	22:37	8088006	1827576	1.158	10.00	10.395404	103.95	10.395404	CJ	0.00452
PCB 25 (BZ)	22:51	4634570	977222	1.279	5.000	5.393211	107.86	5.393211	J	0.00409
PCB 31 (BZ)	23:10	4216547	1000622	1.201	5.000	5.225435	104.51	5.225435	J	0.00436
PCB 28 (BZ)	23:28	8210613	1388745	1.173	10.00	10.418041	104.18	10.418041	C20J	0.00446
PCB 20 (BZ)		8210613			10.00			ND	C	0.000000
PCB 21 (BZ)	23:38	8204407	1053306		10.00			ND	C	0.000000
PCB 33 (BZ)		8204407		1.181	10.00	10.339649	103.40	10.339649	C21J	0.00443
PCB 22 (BZ)	24:06	3942298	937655	1.158	5.000	5.066982	101.34	5.066982	J	0.00452
PCB 36 (BZ)	25:39	3930885	907591	1.171	5.000	4.996224	99.92	4.996224	J	0.00447

7/10/08

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Workorder	2990:74	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080625ss.d	**Prep Date**		**SDG No**	
Analysis ID	104779	**Prep Exp Date**		**Date Received**	
Analysis Date	6/25/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	11:18	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 39 (BZ)	26:01	4144315	911898	1.196	5.000	5.157391	103.15	5.157391	J	0.00438
PCB 38 (BZ)	26:36	3859531	860811	1.127	5.000	5.097052	101.94	5.097052	J	0.00464
PCB 35 (BZ)	27:04	3669237	839471	1.113	5.000	4.906695	98.13	4.906695	J	0.00470
PCB 37 (BZ)	27:29	3849571	857893	1.132	5.000	5.061443	101.23	5.061443	J	0.00462
Total Tetrachlorobiphenyl		198999962	37723131			408.643215		408.643215	J	0.315
13C12-PCB 54	20:42	1404706	359050	0.614	10.00	9.391280	93.91	9.391280		0.00791
13C12-PCB 52	25:17	3321038	738858	1.000	10.00	10.000000	100.00	10.000000		0.00409
13C12-PCB 79	33:12	5005107	1089214	1.061	10.00	10.529233	105.29	10.529233	J	0.00305
13C12-PCB 81	34:12	4424937	932920	1.305	10.00	10.209929	102.10	10.209929		0.00314
13C12-PCB 77	34:46	4535542	936173	1.372	10.00	9.954083	99.54	9.954083		0.00298
PCB 54 (BZ)	20:43	1712380	423239	1.204	10.00	10.124841	101.25	10.124841	J	0.0246
PCB 50 (BZ)		7722660			20.00			ND	C	0.000000
PCB 53 (BZ)	22:54	7722660	1836141	0.924	20.00	18.654934	93.27	18.654934	C50J	0.0123
PCB 45 (BZ)		7633558			20.00			ND	C	0.000000
PCB 51 (BZ)	23:38	7633558	1015410	0.872	20.00	19.539313	97.70	19.539313	C45J	0.0130
PCB 46 (BZ)	23:53	3362593	759530	0.728	10.00	10.309597	103.10	10.309597	J	0.0156
PCB 52 (BZ)	25:18	3853388	914583	0.928	10.00	9.268160	92.68	9.268160	J	0.0123
PCB 73 (BZ)	25:26	8334924	1204738	0.985	20.00	18.887052	94.44	18.887052	C43J	0.0115
PCB 43 (BZ)		8334924			20.00			ND	C	0.000000
PCB 69 (BZ)	25:43	9078769	1246053	1.075	20.00	18.850257	94.25	18.850257	C49J	0.0106
PCB 49 (BZ)		9078769			20.00			ND	C	0.000000
PCB 48 (BZ)	26:04	3881231	881922	0.874	10.00	9.911898	99.12	9.911898	J	0.0130
PCB 65 (BZ)		13022248			30.00			ND	C44	0.000000
PCB 47 (BZ)		13022248			30.00			ND	C44	0.000000
PCB 44 (BZ)	26:18	13022248	2575736	0.980	30.00	29.659147	98.86	29.659147	CJ	0.0116
PCB 62 (BZ)	26:37	15736570	2531881	1.236	30.00	28.417795	94.73	28.417795	C59J	0.00920
PCB 75 (BZ)		15736570			30.00			ND	C59	0.000000
PCB 59 (BZ)		15736570			30.00			ND	C	0.000000
PCB 42 (BZ)	26:49	3854295	865066	0.877	10.00	9.809438	98.09	9.809438	J	0.0130
PCB 41 (BZ)		11497999			30.00			ND	C40	0.000000
PCB 71 (BZ)	27:20	11497999	1843521	0.873	30.00	29.397256	97.99	29.397256	C40J	0.0130
PCB 40 (BZ)		11497999			30.00			ND	C	0.000000
PCB 64 (BZ)	27:33	5596414	1251057	1.300	10.00	9.608714	96.09	9.608714	J	0.00875
PCB 72 (BZ)	28:21	5357351	1206713	1.218	10.00	9.817515	98.18	9.817515	J	0.00933
PCB 68 (BZ)	28:38	5725159	1264070	1.332	10.00	9.593611	95.94	9.593611	J	0.00854
PCB 57 (BZ)	29:04	5155307	1164860	1.182	10.00	9.734997	97.35	9.734997	J	0.00962
PCB 58 (BZ)	29:18	5526614	1166058	1.221	10.00	10.102811	101.03	10.102811	J	0.00931
PCB 67 (BZ)	29:28	5928290	1258376	1.314	10.00	10.070078	100.70	10.070078	J	0.00865
PCB 63 (BZ)	29:44	5539964	1195217	1.307	10.00	9.460849	94.61	9.460849	J	0.00870
PCB 61 (BZ)		21580286			40.00			ND	C	0.000000
PCB 70 (BZ)	30:05	21580286	2601085	1.237	40.00	38.939132	97.35	38.939132	C61J	0.00919
PCB 76 (BZ)		21580286			40.00			ND	C61	0.000000
PCB 74 (BZ)		21580286			40.00			ND	C61	0.000000
PCB 66 (BZ)	30:24	5295341	1120172	1.222	10.00	9.672116	96.72	9.672116	J	0.00930
PCB 55 (BZ)	30:34	5006962	1117133	1.122	10.00	9.960479	99.60	9.960479	J	0.0101
PCB 56 (BZ)	31:05	5236302	1145944	1.204	10.00	9.707267	97.07	9.707267	J	0.00944
PCB 60 (BZ)	31:18	5341798	1194092	1.157	10.00	10.305116	103.05	10.305116	J	0.00983
PCB 80 (BZ)	31:41	5975942	1266851	1.357	10.00	9.829361	98.29	9.829361	J	0.00838
PCB 79 (BZ)	33:13	6064322	1277136	1.337	10.00	10.123941	101.24	10.123941	J	0.00850

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PCB's by EPA Method 1668A

Workorder	2990:74	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080625ss.d	**Prep Date**		**SDG No**	
Analysis ID	104779	**Prep Exp Date**		**Date Received**	
Analysis Date	6/25/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	11:18	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 78 (BZ)	33:47	5244340	1131095	1.152	10.00	10.161016	101.61	10.161016	J	0.00987
PCB 81 (BZ)	34:14	5394754	1125180	1.324	10.00	9.208239	92.08	9.208239	J	0.00860
PCB 77 (BZ)	34:48	5340201	1140272	1.237	10.00	9.518285	95.18	9.518285	J	0.00917
Total Pentachlorobiphenyl		157872382	28256488			465.242044		465.242044	J	0.549
13C12-PCB 104	26:12	2649146	589898	1.263	10.00	9.581493	95.81	9.581493		0.00620
13C12-PCB 95	29:12	2098491	470837	0.745	10.00	10.632734	106.33	10.632734	J	0.00819
13C12-PCB 101	32:07	2189119	460034	1.000	10.00	10.000000	100.00	10.000000		0.00783
13C12-PCB 111	34:47	2832616	603097	1.313	10.00	9.854931	98.55	9.854931	J	0.00596
13C12-PCB 123	36:45	5752686	1198315	0.970	10.00	10.020331	100.20	10.020331		0.00307
13C12-PCB 118	37:05	5997795	1198440	1.025	10.00	9.886689	98.87	9.886689		0.00291
13C12-PCB 114	37:37	5758851	1182532	0.959	10.00	10.146129	101.46	10.146129		0.00311
13C12-PCB 105	38:16	5635769	1144015	0.951	10.00	10.012806	100.13	10.012806		0.00314
13C12-PCB 127	39:44	5918571	1207184	1.000	10.00	10.000000	100.00	10.000000		0.00298
13C12-PCB 126	41:21	5893817	1185093	1.017	10.00	9.791717	97.92	9.791717		0.00293
PCB 104 (BZ)	26:15	3133124	708271	1.193	10.00	9.913597	99.14	9.913597	J	0.0171
PCB 96 (BZ)	26:38	3042990	697136	1.059	10.00	10.846726	108.47	10.846726	J	0.0192
PCB 103 (BZ)	28:32	2476552	565930	0.928	10.00	10.073806	100.74	10.073806	J	0.0219
PCB 94 (BZ)	28:47	2185283	467419	0.807	10.00	10.221821	102.22	10.221821	J	0.0252
PCB 95 (BZ)	29:13	2322692	517083	0.835	10.00	10.500241	105.00	10.500241	J	0.0244
PCB 100 (BZ)	29:25	4664334	800492	0.897	20.00	19.628689	98.14	19.628689	C93J	0.0227
PCB 93 (BZ)		4664334			20.00			ND	C	0.000000
PCB 102 (BZ)	29:35	4880642	603118	0.885	20.00	20.817462	104.09	20.817462	C98J	0.0230
PCB 98 (BZ)		4880642			20.00			ND	C	0.000000
PCB 88 (BZ)		4473296			20.00			ND	C	0.000000
PCB 91 (BZ)	30:05	4473296	530917	0.846	20.00	19.959579	99.80	19.959579	C88J	0.0240
PCB 84 (BZ)	30:20	2022461	432305	0.729	10.00	10.472412	104.72	10.472412	J	0.0279
PCB 89 (BZ)	30:47	2067539	442678	0.774	10.00	10.083397	100.83	10.083397	J	0.0263
PCB 121 (BZ)	31:09	3202977	685150	1.201	10.00	10.067112	100.67	10.067112	J	0.0169
PCB 92 (BZ)	31:33	2245062	476762	0.845	10.00	10.029187	100.29	10.029187	J	0.0241
PCB 113 (BZ)	32:07	8126234	1259001	1.007	30.00	30.461688	101.54	30.461688	C90J	0.0202
PCB 90 (BZ)		8126234			30.00			ND	C	0.000000
PCB 101 (BZ)		8126234			30.00			ND	C90	0.000000
PCB 83 (BZ)		4609993			20.00			ND	C	0.000000
PCB 99 (BZ)	32:43	4609993	593978	0.863	20.00	20.164320	100.82	20.164320	C83J	0.0236
PCB 112 (BZ)	32:51	3237740	653924	1.138	10.00	10.739741	107.40	10.739741	J	0.0179
PCB 109 (BZ)/108 (IUPAC)	33:13	17010935	1838246	1.040	60.00	61.743174	102.91	61.743174	C86J	0.0196
PCB 86 (BZ)		17010935			60.00			ND	C	0.000000
PCB 119 (BZ)		17010935			60.00			ND	C86	0.000000
PCB 97 (BZ)		17010935			60.00			ND	C86	0.000000
PCB 125 (BZ)		17010935			60.00			ND	C86	0.000000
PCB 87 (BZ)		17010935			60.00			ND	C86	0.000000
PCB 117 (BZ)		8737710			30.00			ND	C85	0.000000
PCB 116 (BZ)	33:56	8737710	1088463	1.037	30.00	31.806287	106.02	31.806287	C85J	0.0196
PCB 85 (BZ)		8737710			30.00			ND	C	0.000000
PCB 110 (BZ)	34:09	6673294	927875	1.197	20.00	21.044578	105.22	21.044578	CJ	0.0170
PCB 115 (BZ)		6673294			20.00			ND	C110	0.000000
PCB 82 (BZ)	34:28	1989357	414032	0.728	10.00	10.315148	103.15	10.315148	J	0.0279
PCB 111 (BZ)	34:49	3383779	719449	1.234	10.00	10.350967	103.51	10.350967	J	0.0165
PCB 120 (BZ)	35:16	3337144	701929	1.232	10.00	10.224883	102.25	10.224883	J	0.0165

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Data File	/20080624i/a080625ss.d	**Prep Date**		**SDG No**	
Analysis ID	104779	**Prep Exp Date**		**Date Received**	
Analysis Date	6/25/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	11:18	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 124 (BZ)		11190305			20.00			ND	C108	0.000000
PCB 108 (BZ)/107 (IUPAC)	36:25	11190305	2330093	1.002	20.00	19.229313	96.15	19.229313	CJ	0.0101
PCB 107 (BZ)/109 (IUPAC)	36:40	6128211	1246117	1.064	10.00	9.917031	99.17	9.917031	J	0.00954
PCB 123 (BZ)	36:47	6152799	1242747	1.014	10.00	10.547854	105.48	10.547854	J	0.00988
PCB 106 (BZ)	36:54	5613103	1179675	1.034	10.00	9.346996	93.47	9.346996	J	0.00982
PCB 118 (BZ)	37:06	5945016	1238120	1.040	10.00	9.530772	95.31	9.530772	J	0.00963
PCB 122 (BZ)	37:29	5240383	1054114	0.953	10.00	9.468032	94.68	9.468032	J	0.0107
PCB 114 (BZ)	37:38	6077345	1227096	1.141	10.00	9.248949	92.49	9.248949	J	0.00889
PCB 105 (BZ)	38:18	5844736	1228455	1.101	10.00	9.419425	94.19	9.419425	J	0.00953
PCB 127 (BZ)	39:45	5907595	1184361	1.079	10.00	9.427116	94.27	9.427116	J	0.00941
PCB 126 (BZ)	41:22	5949751	1201552	1.047	10.00	9.641741	96.42	9.641741	J	0.00967
Total Hexachlorobiphenyl		160213175	25606760			414.613488		414.613488	J	0.667
13C12-PCB 155	31:51	2131470	461698	1.072	10.00	9.082702	90.83	9.082702		0.00684
13C12-PCB 153	38:56	4080218	853729	0.800	10.00	10.560968	105.61	10.560968	J	0.00542
13C12-PCB 138	40:12	3935840	778984	1.000	10.00	10.000000	100.00	10.000000		0.00433
13C12-PCB 167	43:12	4848071	953503	1.288	10.00	9.563474	95.63	9.563474		0.00336
13C12-PCB 156	44:21	9882151	1260977	1.263	20.00	19.879740	99.40	19.879740		0.00343
13C12-PCB 157								ND		0.000000
13C12-PCB 169	47:34	4587222	898094	1.217	10.00	9.576829	95.77	9.576829		0.00356
PCB 155 (BZ)	31:54	2357800	493081	1.153	10.00	9.593972	95.94	9.593972	J	0.0233
PCB 152 (BZ)	32:07	2174994	465266	1.084	10.00	9.413466	94.13	9.413466	J	0.0248
PCB 150 (BZ)	32:17	2294032	474821	1.079	10.00	9.974676	99.75	9.974676	J	0.0249
PCB 136 (BZ)	32:40	2107340	434038	1.031	10.00	9.589517	95.90	9.589517	J	0.0261
PCB 145 (BZ)	32:56	2201412	443667	1.050	10.00	9.836324	98.36	9.836324	J	0.0256
PCB 148 (BZ)	34:26	1630674	334582	0.776	10.00	9.858849	98.59	9.858849	J	0.0347
PCB 151 (BZ)		3176499		0.754	20.00	19.765061	98.83	19.765061	C135J	0.0357
PCB 135 (BZ)	35:06	3176499	362709		20.00			ND	C	0.000000
PCB 154 (BZ)	35:16	1928654	395771	0.923	10.00	9.803325	98.03	9.803325	J	0.0292
PCB 144 (BZ)	35:35	1667297	346258	0.808	10.00	9.681048	96.81	9.681048	J	0.0333
PCB 147 (BZ)	35:58	8049922	1664331	0.862	20.00	19.337251	96.69	19.337251	CJ	0.0185
PCB 149 (BZ)		8049922			20.00			ND	C147	0.000000
PCB 134 (BZ)		6847426			20.00			ND	C	0.000000
PCB 143 (BZ)	36:17	6847426	734530	0.706	20.00	20.083203	100.42	20.083203	C134J	0.0226
PCB 139 (BZ)	36:34	7993339	1444868	0.826	20.00	20.038191	100.19	20.038191	CJ	0.0193
PCB 140 (BZ)		7993339			20.00			ND	C139	0.000000
PCB 131 (BZ)	36:46	3506999	751360	0.708	10.00	10.256820	102.57	10.256820	J	0.0226
PCB 142 (BZ)	36:55	3407404	681046	0.700	10.00	10.079429	100.79	10.079429	J	0.0228
PCB 132 (BZ)	37:15	3546006	727843	0.715	10.00	10.269369	102.69	10.269369	J	0.0223
PCB 133 (BZ)	37:42	3614906	745768	0.785	10.00	9.535373	95.35	9.535373	J	0.0203
PCB 165 (BZ)	38:07	4793593	964920	0.987	10.00	10.056673	100.57	10.056673	J	0.0162
PCB 146 (BZ)	38:21	4163494	880883	0.871	10.00	9.898061	98.98	9.898061	J	0.0183
PCB 161 (BZ)	38:29	5202617	1029602	1.084	10.00	9.938089	99.38	9.938089	J	0.0147
PCB 153 (BZ)	38:59	9646846	1495160	1.043	20.00	19.151878	95.76	19.151878	CJ	0.0153
PCB 168 (BZ)		9646846			20.00			ND	C153	0.000000
PCB 141 (BZ)	39:10	3936848	762382	0.782	10.00	10.424428	104.24	10.424428	J	0.0204
PCB 130 (BZ)	39:35	3283633	668566	0.709	10.00	9.590002	95.90	9.590002	J	0.0225
PCB 137 (BZ)	39:48	3714091	772263	0.835	10.00	9.210356	92.10	9.210356	J	0.0191
PCB 164 (BZ)	39:55	5195035	1063857	1.017	10.00	10.577374	105.77	10.577374	J	0.0157
PCB 138 (BZ)	40:14	17420144	1950274		40.00			ND	C129	0.000000

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:74	Prep Batch		Lot No	
Data File	/20080624i/a080625ss.d	Prep Date		SDG No	
Analysis ID	104779	Prep Exp Date		Date Received	
Analysis Date	6/25/2008	Matrix	UNKNOWN	Date Sampled	
Analysis Time	11:18	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.0	Code	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 163 (BZ)		17420144		0.905	40.00	39.857815	99.64	39.857815	C129J	0.0176
PCB 129 (BZ)		17420144			40.00			ND	C	0.000000
PCB 160 (BZ)		17420144			40.00			ND	C129	0.000000
PCB 158 (BZ)	40:37	5734082	1112221	1.182	10.00	10.045158	100.45	10.045158	J	0.0135
PCB 166 (BZ)	41:27	8959617	1204907	0.929	20.00	19.970276	99.85	19.970276	C128J	0.0172
PCB 128 (BZ)		8959617			20.00			ND	C	0.000000
PCB 159 (BZ)	42:26	5156532	1075433	1.051	10.00	10.159336	101.59	10.159336	J	0.0152
PCB 162 (BZ)	42:44	5198188	1075189	1.089	10.00	9.884039	98.84	9.884039	J	0.0147
PCB 167 (BZ)	43:13	5292363	1041714	1.101	10.00	9.915014	99.15	9.915014	J	0.0118
PCB 156 (BZ)	44:23	10466857	1320256	1.108	20.00	19.118554	95.59	19.118554	CJ	0.0178
PCB 157 (BZ)		10466857			20.00			ND	C156	0.000000
PCB 169 (BZ)	47:36	5544531	1002177	1.246	10.00	9.700565	97.01	9.700565	J	0.0111
Total Heptachlorobiphenyl		82273086	15278769			241.321734		241.321734	J	0.316
13C12-PCB 188	37:35	3708871	745673	1.244	10.00	9.738595	97.39	9.738595		0.00387
13C12-PCB 178	40:39	2508445	497541	0.853	10.00	9.605733	96.06	9.605733	J	0.00564
13C12-PCB 180	45:44	3061435	613449	1.000	10.00	10.000000	100.00	10.000000		0.00481
13C12-PCB 170	47:00	2550018	492942	0.848	10.00	9.822507	98.23	9.822507		0.00567
13C12-PCB 189	50:05	5542882	1127469	1.621	10.00	9.936995	99.37	9.936995		0.00263
PCB 188 (BZ)	37:37	4095738	856204	1.105	10.00	9.993743	99.94	9.993743	J	0.0121
PCB 179 (BZ)	37:58	3888071	764868	1.231	10.00	10.092735	100.93	10.092735	J	0.0131
PCB 184 (BZ)	38:29	4211711	832503	1.179	10.00	11.415042	114.15	11.415042	J	0.0136
PCB 176 (BZ)	38:51	3814073	780116	1.281	10.00	9.514207	95.14	9.514207	J	0.0125
PCB 186 (BZ)	39:18	3828874	776682	1.213	10.00	10.086559	100.87	10.086559	J	0.0132
PCB 178 (BZ)	40:40	2851191	568002	0.893	10.00	10.202523	102.03	10.202523	J	0.0180
PCB 175 (BZ)	41:18	2968934	596948	0.967	10.00	9.810854	98.11	9.810854	J	0.0166
PCB 187 (BZ)	41:34	3300038	654105	1.020	10.00	10.338357	103.38	10.338357	J	0.0158
PCB 182 (BZ)	41:46	3115014	610981	1.020	10.00	9.758714	97.59	9.758714	J	0.0158
PCB 183 (BZ)	42:11	6234103	641007	0.982	20.00	20.285944	101.43	20.285944	CJ	0.0164
PCB 185 (BZ)		6234103			20.00			ND	C183	0.000000
PCB 174 (BZ)	42:26	3021593	591125	0.936	10.00	10.315561	103.16	10.315561	J	0.0172
PCB 177 (BZ)	42:52	2816127	547650	0.906	10.00	9.932459	99.32	9.932459	J	0.0177
PCB 181 (BZ)	43:15	3055586	611702	0.981	10.00	9.953097	99.53	9.953097	J	0.0164
PCB 171 (BZ)		5555617			20.00			ND	C	0.000000
PCB 173 (BZ)	43:29	5555617	1028305	0.859	20.00	20.666735	103.33	20.666735	C171J	0.0187
PCB 172 (BZ)	45:06	2691291	545096	0.852	10.00	10.093779	100.94	10.093779	J	0.0189
PCB 192 (BZ)	45:22	3663094	745394	1.157	10.00	10.116900	101.17	10.116900	J	0.0139
PCB 193 (BZ)	45:42	7332127	1016862	1.148	20.00	20.408958	102.04	20.408958	C180J	0.0140
PCB 180 (BZ)		7332127			20.00			ND	C	0.000000
PCB 191 (BZ)	46:06	3853277	763643	1.285	10.00	9.582081	95.82	9.582081	J	0.0125
PCB 170 (BZ)	47:01	2705814	534257	1.083	10.00	9.797747	97.98	9.797747	J	0.0186
PCB 190 (BZ)	47:32	3731857	711927	1.261	10.00	9.456766	94.57	9.456766	J	0.0127
PCB 189 (BZ)	50:07	5538956	1101392	1.052	10.00	9.498971	94.99	9.498971	J	0.00839
Total Octachlorobiphenyl		50421172	9490643			180.117730		180.117730	J	0.110
13C12-PCB 202	42:57	2539758	501351	0.916	10.00	9.056738	90.57	9.056738		0.00423
13C12-PCB 194	52:10	3441102	690780	1.000	10.00	10.000000	100.00	10.000000		0.00344
13C12-PCB 205	52:38	4836172	939815	1.429	10.00	9.834946	98.35	9.834946		0.00241
PCB 202 (BZ)	42:58	3944568	795280	1.001	15.00	15.515759	103.44	15.515759	J	0.0106
PCB 200 (BZ)/201 (IUPAC)	43:53	4091754	804498	1.114	15.00	14.462121	96.41	14.462121	J	0.00949
PCB 204 (BZ)	44:33	3998671	789933	1.023	15.00	15.390322	102.60	15.390322	J	0.0103

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	2990:74	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080625ss.d	**Prep Date**		**SDG No**	
Analysis ID	104779	**Prep Exp Date**		**Date Received**	
Analysis Date	6/25/2008	**Matrix**	UNKNOWN	**Date Sampled**	
Analysis Time	11:18	**Initial Wt/Vol**		**Lims Test Code**	
Anal Exp Date		**Extract Vol**		**Method**	IE3
Instrument	M1D	**Dil Factor**	1.0	**Code**	IE3
Analyst	DCG				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 197 (BZ)	44:47	4306036	849902	1.080	15.00	15.698623	104.66	15.698623	J	0.00979
PCB 199 (BZ)/200 (IUPAC)	44:55	3953443	806102	1.069	15.00	14.561477	97.08	14.561477	J	0.00989
PCB 198 (BZ)	47:41	5919669	746864	0.774	30.00	30.113700	100.38	30.113700	CJ	0.0137
PCB 201 (BZ)/199 (IUPAC)		5919669			30.00			ND	C198	0.000000
PCB 196 (BZ)	48:21	3008202	594789	0.784	15.00	15.107708	100.72	15.107708	J	0.0135
PCB 203 (BZ)	48:33	3357405	642385	0.863	15.00	15.317948	102.12	15.317948	J	0.0122
PCB 195 (BZ)	49:52	5153241	999720	0.739	15.00	14.418971	96.13	14.418971	J	0.00763
PCB 194 (BZ)	52:11	5539925	1059096	0.805	15.00	14.230045	94.87	14.230045	J	0.00701
PCB 205 (BZ)	52:40	7148258	1402074	0.966	15.00	15.301054	102.01	15.301054	J	0.00584
Total Nonachlorobiphenyl		15214483	2954198			42.618099		42.618099	J	0.0177
13C12-PCB 208	49:36	3778712	748505	1.176	10.00	9.337679	93.38	9.337679		0.00369
13C12-PCB 206	54:22	2604087	515138	0.817	10.00	9.262663	92.63	9.262663		0.00532
PCB 208 (BZ)	49:37	5675757	1100913	1.011	15.00	14.856922	99.05	14.856922	J	0.00542
PCB 207 (BZ)	50:33	5358274	1028846	1.248	15.00	13.453310	89.69	13.453310	J	0.00520
PCB 206 (BZ)	54:23	4180452	824439	1.122	15.00	14.307867	95.39	14.307867	J	0.00709
13C12-PCB 209	56:00	2674293	476245	0.850	10.00	9.143080	91.43	9.143080		0.00349
PCB 209 (BZ)	56:01	4045976	751389	1.058	15.00	14.299757	95.33	14.299757	J	0.00412

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:74	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080625ss.d	**Prep Date**		**SDG No**	
Analysis ID	104779	**Prep Exp Date**		**Date Received**	
Analysis Date	06/25/08 11:18	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
188					**188.0393**	**190.0363**	**188.0393**	**190.0363**	**2.66-3.60**	
	Noise	00:00	00:00	0	190	160	76	64	1.19 *	/
	PCB 1 (BZ)	12:00	00:00	0	3071803	937775	1176756	371309	3.28	AVV/AVV
	PCB 2 (BZ)	14:01	00:00	0	3040671	928507	1131284	341067	3.27	ABV/ABV
	PCB 3 (BZ)	14:12	00:00	0	3101999	932135	1068711	322567	3.33	AVV/AVB
200					**200.0795**	**202.0766**	**200.0795**	**202.0766**	**2.66-3.60**	
	Noise	00:00	00:00	0	293	295	117	118	0.99 *	/
	13C12-PCB 1	12:00	00:00	0	4761814	1471001	2032269	610042	3.24	AVV/AVV
	13C12-PCB 3	14:12	00:00	0	4873723	1504099	1630346	501648	3.24	ABV/AVV
222					**222.0003**	**223.9974**	**222.0003**	**223.9974**	**1.33-1.79**	
	Noise	00:00	00:00	0	315	548	126	219	0.58 *	/
	PCB 4 (BZ)	14:27	00:00	0	831851	553574	264410	177400	1.50	ABV/ABV
	PCB 10 (BZ)	14:38	00:00	0	1257194	815546	429629	288712	1.54	AVV/AVV
	PCB 9 (BZ)	16:27	00:00	0	1370379	856441	426211	261967	1.60	ABV/ABV
	PCB 7 (BZ)	16:36	00:00	0	1412968	913200	425281	283287	1.55	AVV/AVV
	PCB 6 (BZ)	16:52	00:00	0	1325521	865272	383603	240238	1.53	AVB/AVB
	PCB 5 (BZ)	17:10	00:00	0	1298069	812481	376510	244045	1.60	ABV/ABV
	PCB 8 (BZ)	17:17	00:00	0	1415220	882072	396824	248303	1.60	AVB/AVB
	PCB 14 (BZ)	18:56	00:00	0	1405193	900829	377269	227720	1.56	ABV/ABV
	PCB 11 (BZ)	19:46	00:00	0	1381065	868429	362330	223177	1.59	ABV/AVV
	PCB 13 (BZ)	20:05	00:00	0	2890810	1828066	481883	305498	1.58	AVV/AVV
	PCB 15 (BZ)	20:24	00:00	0	1555201	1002734	406836	253724	1.55	AVV/AVB
234					**234.0406**	**236.0376**	**234.0406**	**236.0376**	**1.33-1.79**	
	Noise	00:00	00:00	0	298	175	119	70	1.70	/
	13C12-PCB 4	14:27	00:00	0	1375202	851284	435762	268782	1.62	AVV/ABV
	13C12-PCB 9	16:26	00:00	0	2293960	1427317	713885	444600	1.61	AVV/ABV
	13C12-PCB 8	17:16	00:00	0	2402958	1491245	681932	429493	1.61	AVV/AVV
	13C12-PCB 15	20:23	00:00	0	2510597	1559022	653141	416388	1.61	AVV/ABV
256					**255.9613**	**257.9584**	**255.9613**	**257.9584**	**0.88-1.20**	
	Noise	00:00	00:00	0	463	320	185	128	1.45 *	/
	PCB 19 (BZ)	17:37	00:00	0	424893	402045	111871	106677	1.06	ABV/ABV
	PCB 30 (BZ)	19:25	00:00	0	1120415	1053609	178114	165832	1.06	ABV/ABV
	PCB 17 (BZ)	19:54	00:00	0	480661	435932	128678	121341	1.10	ABV/ABV
	PCB 27 (BZ)	20:07	00:00	0	676868	640102	178509	169007	1.06	AVV/AVV
	PCB 24 (BZ)	20:15	00:00	0	630602	599843	170369	171882	1.05	AVV/AVV
	PCB 16 (BZ)	20:22	00:00	0	401901	385966	97638	96667	1.04	AVB/AVB
	PCB 32 (BZ)	20:53	00:00	0	702597	658001	175553	163636	1.07	AVV/AVB
	PCB 34 (BZ)	22:09	00:00	0	2023435	1903856	506817	478006	1.06	ABV/ABV
	PCB 23 (BZ)	22:17	00:00	0	2021547	1896403	519037	491667	1.07	AVB/AVB
	PCB 26 (BZ)	22:37	00:00	0	4165491	3922515	940177	887399	1.06	ABV/ABV
	PCB 25 (BZ)	22:51	00:00	0	2371259	2263311	504079	473143	1.05	AVV/AVV
	PCB 31 (BZ)	23:10	00:00	0	2165414	2051133	511556	489066	1.06	AVV/AVV
	PCB 28 (BZ)	23:28	00:00	0	4216199	3994414	718735	670010	1.06	AVV/AVV
	PCB 21 (BZ)	23:38	00:00	0	4196768	4007639	534012	519294	1.05	AVV/AVV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:74	Prep Batch		Lot No	
Data File	/20080624i/a080625ss.d	Prep Date		SDG No	
Analysis ID	104779	Prep Exp Date		Date Received	
Analysis Date	06/25/08 11:18	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	PCB 22 (BZ)	24:06	00:00	0	2035210	1907088	477563	460092	1.07	AVV/AVV
	PCB 36 (BZ)	25:39	00:00	0	2029714	1901171	460106	447485	1.07	AVV/AVV
	PCB 39 (BZ)	26:01	00:00	0	2124316	2019999	464986	446912	1.05	AVV/AVV
	PCB 38 (BZ)	26:36	00:00	0	1985226	1874305	445933	414878	1.06	AVV/AVV
	PCB 35 (BZ)	27:04	00:00	0	1885928	1783309	430534	408937	1.06	AVV/AVV
	PCB 37 (BZ)	27:29	00:00	0	1986203	1863368	440271	417622	1.07	AVV/AVV
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20	
	Noise	00:00	00:00	0	620	355	248	142	1.75 *	/
	13C12-PCB 19	17:35	00:00	0	719744	651995	203154	180430	1.10	AVV/AVV
	13C12-PCB 32	20:52	00:00	0	1267747	1168337	318730	304444	1.09	AVV/AVV
	13C12-PCB 31	23:08	00:00	0	3929719	3713333	959600	901485	1.06	AVV/ABV
	13C12-PCB 28	23:26	00:00	0	3885572	3591624	929667	877695	1.08	AVV/AVV
	13C12-PCB 37	27:27	00:00	0	3477158	3241639	764841	730484	1.07	AVV/ABV
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	Noise	00:00	00:00	0	508	555	203	222	0.91 *	/
	PCB 54 (BZ)	20:43	00:00	0	761340	951040	184157	239082	0.80	ABV/ABV
	PCB 53 (BZ)	22:54	00:00	0	3384387	4338273	810028	1026113	0.78	ABV/ABV
	PCB 51 (BZ)	23:38	00:00	0	3362301	4271257	444408	571002	0.79	AVV/AVV
	PCB 46 (BZ)	23:53	00:00	0	1452867	1909726	328361	431169	0.76	AVV/AVV
	PCB 52 (BZ)	25:18	00:00	0	1665972	2187416	397243	517340	0.76	ABV/ABV
	PCB 73 (BZ)	25:26	00:00	0	3673817	4661107	540041	664697	0.79	AVV/AVV
	PCB 69 (BZ)	25:43	00:00	0	3956457	5122312	538488	707565	0.77	AVB/AVB
	PCB 48 (BZ)	26:04	00:00	0	1691586	2189645	389510	492412	0.77	ABV/ABV
	PCB 44 (BZ)	26:18	00:00	0	5696899	7325349	1130985	1444751	0.78	AVV/AVV
	PCB 62 (BZ)	26:37	00:00	0	6858092	8878478	1097599	1434282	0.77	AVV/AVV
	PCB 42 (BZ)	26:49	00:00	0	1682024	2172271	379590	485476	0.77	AVB/AVB
	PCB 71 (BZ)	27:20	00:00	0	5022040	6475959	810121	1033400	0.78	AVV/AVV
	PCB 64 (BZ)	27:33	00:00	0	2425414	3171000	546602	704455	0.76	AVB/AVB
	PCB 72 (BZ)	28:21	00:00	0	2344952	3012399	529444	677269	0.78	ABV/ABV
	PCB 68 (BZ)	28:38	00:00	0	2483127	3242032	546874	717196	0.77	AVV/AVV
	PCB 57 (BZ)	29:04	00:00	0	2254617	2900690	500778	664082	0.78	ABV/ABV
	PCB 58 (BZ)	29:18	00:00	0	2409509	3117105	502632	663426	0.77	AVV/AVV
	PCB 67 (BZ)	29:28	00:00	0	2559559	3368731	541245	717131	0.76	AVV/AVV
	PCB 63 (BZ)	29:44	00:00	0	2413334	3126630	517626	677591	0.77	AVB/AVB
	PCB 70 (BZ)	30:05	00:00	0	9424165	12156121	1137229	1463856	0.78	ABB/ABB
	PCB 66 (BZ)	30:24	00:00	0	2328098	2967243	495859	624313	0.78	ABV/ABV
	PCB 55 (BZ)	30:34	00:00	0	2182973	2823989	478061	639072	0.77	AVB/AVB
	PCB 56 (BZ)	31:05	00:00	0	2316776	2919526	500272	645672	0.79	ABV/ABV
	PCB 60 (BZ)	31:18	00:00	0	2340375	3001423	520210	673882	0.78	AVV/AVB
	PCB 80 (BZ)	31:41	00:00	0	2606326	3369616	553942	712909	0.77	AVV/AVV
	PCB 79 (BZ)	33:13	00:00	0	2645902	3418420	562971	714165	0.77	MBV/MVV
	PCB 78 (BZ)	33:47	00:00	0	2284850	2959490	495187	635908	0.77	ABV/AVV
	PCB 81 (BZ)	34:14	00:00	0	2360837	3033917	492009	633171	0.78	AVV/AVV

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:74	Prep Batch		Lot No	
Data File	/20080624i/a080625ss.d	Prep Date		SDG No	
Analysis ID	104779	Prep Exp Date		Date Received	
Analysis Date	06/25/08 11:18	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	PCB 77 (BZ)	34:48	00:00	0	2344180	2996021	499054	641218	0.78	AVV/ABV
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89	
	Noise	00:00	00:00	0	155	148	62	59	1.05 *	/
	13C12-PCB 54	20:42	00:00	0	640985	763721	157624	201426	0.84	ABV/ABV
	13C12-PCB 52	25:17	00:00	0	1472151	1848887	329625	409233	0.80	ABV/ABV
	13C12-PCB 79	33:12	00:00	0	2219330	2785777	474800	614414	0.80	ABV/ABV
	13C12-PCB 81	34:12	00:00	0	1979340	2445597	416759	516161	0.81	ABV/AVV
	13C12-PCB 77	34:46	00:00	0	2018835	2516707	416533	519640	0.80	ABV/AVV
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78	
	Noise	00:00	00:00	0	753	448	301	179	1.68	/
	PCB 104 (BZ)	26:15	00:00	0	1924948	1208176	430197	278074	1.59	ABV/ABV
	PCB 96 (BZ)	26:38	00:00	0	1867388	1175602	425580	271556	1.59	AVV/AVV
	PCB 103 (BZ)	28:32	00:00	0	1507128	969424	343470	222460	1.55	ABV/ABV
	PCB 94 (BZ)	28:47	00:00	0	1338162	847121	287526	179893	1.58	AVV/AVV
	PCB 95 (BZ)	29:13	00:00	0	1420528	902164	309176	207907	1.57	ABV/ABV
	PCB 100 (BZ)	29:25	00:00	0	2876303	1788031	490221	310271	1.61	AVV/AVV
	PCB 102 (BZ)	29:35	00:00	0	2974049	1906593	366527	236591	1.56	AVB/AVV
	PCB 91 (BZ)	30:05	00:00	0	2723285	1750011	320745	210172	1.56	ABV/ABV
	PCB 84 (BZ)	30:20	00:00	0	1226013	796448	260792	171513	1.54	AVB/AVV
	PCB 89 (BZ)	30:47	00:00	0	1262060	805479	266986	175692	1.57	ABB/ABB
	PCB 121 (BZ)	31:09	00:00	0	1957031	1245946	415571	269579	1.57	ABV/ABV
	PCB 92 (BZ)	31:33	00:00	0	1359615	885447	289562	187200	1.54	AVB/AVB
	PCB 113 (BZ)	32:07	00:00	0	4977903	3148331	781599	477402	1.58	ABV/ABV
	PCB 99 (BZ)	32:43	00:00	0	2807007	1802986	365414	228564	1.56	ABV/ABV
	PCB 112 (BZ)	32:51	00:00	0	1988327	1249413	404156	249768	1.59	AVB/AVB
	PCB 109 (BZ)/108 (IUPAC	33:13	00:00	0	10424734	6586201	1124046	714200	1.58	ABB/ABB
	PCB 116 (BZ)	33:56	00:00	0	5330831	3406879	669181	419282	1.56	ABV/ABV
	PCB 110 (BZ)	34:09	00:00	0	4107751	2565543	568056	359819	1.60	AVB/AVB
	PCB 82 (BZ)	34:28	00:00	0	1209190	780167	249210	164822	1.55	ABV/ABB
	PCB 111 (BZ)	34:49	00:00	0	2073192	1310587	445076	274373	1.58	AVV/ABV
	PCB 120 (BZ)	35:16	00:00	0	2030270	1306874	424577	277352	1.55	AVV/AVV
	PCB 108 (BZ)/107 (IUPAC	36:25	00:00	0	6857940	4332365	1429786	900307	1.58	ABV/ABV
	PCB 107 (BZ)/109 (IUPAC	36:40	00:00	0	3727778	2400433	766286	479831	1.55	AVV/AVV
	PCB 123 (BZ)	36:47	00:00	0	3767066	2385733	762914	479833	1.58	AVV/AVV
	PCB 106 (BZ)	36:54	00:00	0	3427443	2185660	727168	452507	1.57	AVV/AVV
	PCB 118 (BZ)	37:06	00:00	0	3637451	2307565	751346	486774	1.58	AVB/AVV
	PCB 122 (BZ)	37:29	00:00	0	3200182	2040201	637983	416131	1.57	ABV/ABV
	PCB 114 (BZ)	37:38	00:00	0	3711738	2365607	731225	495871	1.57	AVV/AVV
	PCB 105 (BZ)	38:18	00:00	0	3571954	2272782	748879	479576	1.57	AVV/AVV
	PCB 127 (BZ)	39:45	00:00	0	3597343	2310252	720765	463596	1.56	AVV/AVV
	PCB 126 (BZ)	41:22	00:00	0	3625480	2324271	733746	467806	1.56	ABV/AVV
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78	
	Noise	00:00	00:00	0	188	173	75	69	1.09 *	/

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:74	Prep Batch		Lot No	
Data File	/20080624i/a080625ss.d	Prep Date		SDG No	
Analysis ID	104779	Prep Exp Date		Date Received	
Analysis Date	06/25/08 11:18	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78	
	13C12-PCB 104	26:12	00:00	0	1644097	1005049	370156	219742	1.64	ABV/ABV
	13C12-PCB 95	29:12	00:00	0	1298572	799919	292593	178244	1.62	ABV/ABV
	13C12-PCB 101	32:07	00:00	0	1356001	833118	284820	175214	1.63	ABV/AVV
	13C12-PCB 111	34:47	00:00	0	1755380	1077236	371278	231819	1.63	ABV/ABV
	13C12-PCB 123	36:45	00:00	0	3512593	2240093	723606	474709	1.57	ABV/ABV
	13C12-PCB 118	37:05	00:00	0	3701008	2296787	733717	464723	1.61	AVV/AVV
	13C12-PCB 114	37:37	00:00	0	3562644	2196207	739430	443102	1.62	AVV/AVV
	13C12-PCB 105	38:16	00:00	0	3455077	2180692	700787	443228	1.58	AVV/AVV
	13C12-PCB 127	39:44	00:00	0	3641669	2276902	746787	460397	1.60	AVV/ABV
	13C12-PCB 126	41:21	00:00	0	3587250	2306567	720462	464631	1.56	AVV/AVV
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	Noise	00:00	00:00	0	673	570	269	228	1.18	/
	PCB 155 (BZ)	31:54	00:00	0	1337442	1020358	278843	214238	1.31	ABV/ABV
	PCB 152 (BZ)	32:07	00:00	0	1230119	944875	267649	197617	1.30	AVV/AVV
	PCB 150 (BZ)	32:17	00:00	0	1293705	1000327	272365	202456	1.29	AVB/AVB
	PCB 136 (BZ)	32:40	00:00	0	1185616	921724	242744	191294	1.29	ABV/ABV
	PCB 145 (BZ)	32:56	00:00	0	1246146	955266	251861	191806	1.30	AVV/AVV
	PCB 148 (BZ)	34:26	00:00	0	912561	718113	181619	152963	1.27	ABB/ABV
	PCB 135 (BZ)	35:06	00:00	0	1789326	1387173	205228	157481	1.29	ABV/ABV
	PCB 154 (BZ)	35:16	00:00	0	1077864	850790	226377	169394	1.27	AVV/AVB
	PCB 144 (BZ)	35:35	00:00	0	925631	741666	189383	156875	1.25	AVB/ABB
	PCB 147 (BZ)	35:58	00:00	0	4476174	3573748	922775	741556	1.25	ABV/ABV
	PCB 143 (BZ)	36:17	00:00	0	3817364	3030062	415177	319353	1.26	AVV/AVV
	PCB 139 (BZ)	36:34	00:00	0	4472170	3521169	803951	640917	1.27	AVV/AVV
	PCB 131 (BZ)	36:46	00:00	0	1917685	1589314	418601	332759	1.21	AVV/AVV
	PCB 142 (BZ)	36:55	00:00	0	1890629	1516775	375343	305703	1.25	AVB/AVB
	PCB 132 (BZ)	37:15	00:00	0	1977911	1568095	415339	312504	1.26	ABB/ABV
	PCB 133 (BZ)	37:42	00:00	0	2035582	1579324	426902	318866	1.29	ABV/ABB
	PCB 165 (BZ)	38:07	00:00	0	2697924	2095669	540670	424250	1.29	AVV/ABV
	PCB 146 (BZ)	38:21	00:00	0	2324164	1839330	494122	386761	1.26	AVV/AVV
	PCB 161 (BZ)	38:29	00:00	0	2917569	2285048	572505	457097	1.28	AVB/AVB
	PCB 153 (BZ)	38:59	00:00	0	5374575	4272271	826399	668761	1.26	ABV/AVV
	PCB 141 (BZ)	39:10	00:00	0	2213693	1723155	422217	340165	1.28	AVB/AVV
	PCB 130 (BZ)	39:35	00:00	0	1836560	1447073	374415	294151	1.27	ABV/ABV
	PCB 137 (BZ)	39:48	00:00	0	2066053	1648038	434571	337692	1.25	AVV/AVV
	PCB 164 (BZ)	39:55	00:00	0	2897572	2297463	593710	470147	1.26	AVB/AVB
	PCB 138 (BZ)	40:14	00:00	0	9694756	7725388	1085559	864715	1.25	ABV/ABV
	PCB 158 (BZ)	40:37	00:00	0	3214345	2519737	622058	490163	1.28	AVB/AVB
	PCB 166 (BZ)	41:27	00:00	0	4967991	3991626	663621	541286	1.24	AVV/AVV
	PCB 159 (BZ)	42:26	00:00	0	2872904	2283628	601644	473789	1.26	AVB/AVB
	PCB 162 (BZ)	42:44	00:00	0	2900267	2297921	604168	471021	1.26	ABV/ABV
	PCB 167 (BZ)	43:13	00:00	0	2936700	2355663	576658	465056	1.25	AVB/ABB
	PCB 156 (BZ)	44:23	00:00	0	5772504	4694353	727728	592528	1.23	ABV/ABV

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:74	Prep Batch		Lot No	
Data File	/20080624i/a080625ss.d	Prep Date		SDG No	
Analysis ID	104779	Prep Exp Date		Date Received	
Analysis Date	06/25/08 11:18	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	PCB 169 (BZ)	47:36	00:00	0	3117446	2427085	557998	444179	1.28	ABV/AVV
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	193	145	77	58	1.33	/
	13C12-PCB 155	31:51	00:00	0	1201162	930308	261219	200479	1.29	ABV/ABV
	13C12-PCB 153	38:56	00:00	0	2278491	1801727	476155	377574	1.26	ABV/ABV
	13C12-PCB 138	40:12	00:00	0	2205149	1730691	442099	336885	1.27	ABV/ABV
	13C12-PCB 167	43:12	00:00	0	2718281	2129790	531716	421787	1.28	AVV/AVV
	13C12-PCB 156	44:21	00:00	0	5551212	4330939	711863	549114	1.28	ABV/ABV
	13C12-PCB 169	47:34	00:00	0	2554285	2032937	509687	388407	1.26	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	435	560	174	224	0.78 *	/
	PCB 188 (BZ)	37:37	00:00	0	2081647	2014091	437084	419120	1.03	ABV/ABV
	PCB 179 (BZ)	37:58	00:00	0	1993276	1894795	389469	375399	1.05	AVV/AVV
	PCB 184 (BZ)	38:29	00:00	0	2146962	2064749	418364	414139	1.04	AVV/AVV
	PCB 176 (BZ)	38:51	00:00	0	1943213	1870860	396675	383441	1.04	AVV/AVV
	PCB 186 (BZ)	39:18	00:00	0	1958630	1870244	389228	387454	1.05	AVV/AVV
	PCB 178 (BZ)	40:40	00:00	0	1456421	1394770	295576	272426	1.04	ABV/ABV
	PCB 175 (BZ)	41:18	00:00	0	1527294	1441640	299532	297416	1.06	ABV/ABV
	PCB 187 (BZ)	41:34	00:00	0	1700391	1599647	346520	307585	1.06	AVV/AVV
	PCB 182 (BZ)	41:46	00:00	0	1576117	1538897	306193	304788	1.02	AVB/AVB
	PCB 183 (BZ)	42:11	00:00	0	3186955	3047148	328058	312949	1.05	ABV/ABV
	PCB 174 (BZ)	42:26	00:00	0	1567290	1454303	307738	283387	1.08	AVB/AVB
	PCB 177 (BZ)	42:52	00:00	0	1441723	1374404	280162	267488	1.05	ABV/ABV
	PCB 181 (BZ)	43:15	00:00	0	1565007	1490579	311792	299910	1.05	AVV/AVV
	PCB 173 (BZ)	43:29	00:00	0	2825482	2730135	523466	504839	1.03	AVV/AVV
	PCB 172 (BZ)	45:06	00:00	0	1367915	1323376	274584	270512	1.03	AVB/AVB
	PCB 192 (BZ)	45:22	00:00	0	1868228	1794866	385399	359995	1.04	ABB/ABV
	PCB 193 (BZ)	45:42	00:00	0	3754781	3577346	517155	499707	1.05	ABB/AVV
	PCB 191 (BZ)	46:06	00:00	0	1959408	1893869	382008	381635	1.03	ABV/AVB
	PCB 170 (BZ)	47:01	00:00	0	1364622	1341192	267199	267058	1.02	ABV/ABV
	PCB 190 (BZ)	47:32	00:00	0	1877981	1853876	352743	359184	1.01	ABV/ABV
	PCB 189 (BZ)	50:07	00:00	0	2834935	2704021	572750	528642	1.05	AVV/AVB
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	153	143	61	57	1.07	/
	13C12-PCB 188	37:35	00:00	0	1911530	1797341	379638	366035	1.06	ABV/ABV
	13C12-PCB 178	40:39	00:00	0	1301504	1206941	260791	236750	1.08	ABV/ABB
	13C12-PCB 180	45:44	00:00	0	1591351	1470084	317953	295496	1.08	ABV/ABV
	13C12-PCB 170	47:00	00:00	0	1298401	1251617	254917	238025	1.04	ABV/ABV
	13C12-PCB 189	50:05	00:00	0	2845847	2697035	582083	545386	1.06	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	243	288	97	115	0.84	/
	PCB 202 (BZ)	42:58	00:00	0	1875055	2069513	379359	415921	0.91	ABV/ABV
	PCB 200 (BZ)/201 (IUPAC	43:53	00:00	0	1951320	2140434	392069	412429	0.91	ABV/ABB

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:74	**Prep Batch**		**Lot No**	
Data File	/20080624i/a080625ss.d	**Prep Date**		**SDG No**	
Analysis ID	104779	**Prep Exp Date**		**Date Received**	
Analysis Date	06/25/08 11:18	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

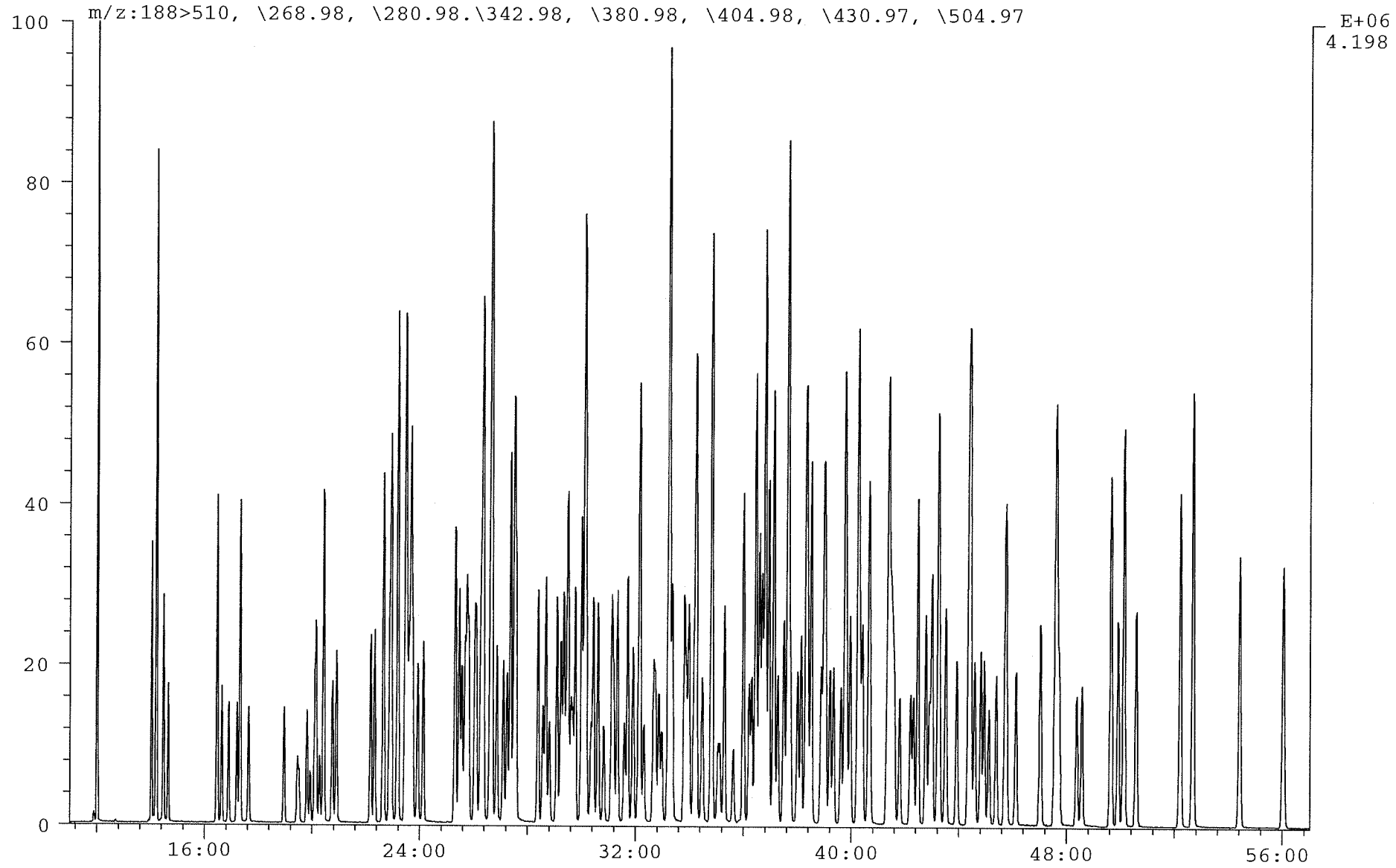
View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	PCB 204 (BZ)	44:33	00:00	0	1930396	2068275	384147	405786	0.93	ABV/ABV
	PCB 197 (BZ)	44:47	00:00	0	2040257	2265779	405289	444613	0.90	AVV/AVV
	PCB 199 (BZ)/200 (IUPAC	44:55	00:00	0	1898426	2055017	390512	415590	0.92	AVV/AVV
	PCB 198 (BZ)	47:41	00:00	0	2831085	3088584	354710	392154	0.92	ABV/ABV
	PCB 196 (BZ)	48:21	00:00	0	1432384	1575818	288552	306237	0.91	ABV/ABV
	PCB 203 (BZ)	48:33	00:00	0	1607892	1749513	311505	330880	0.92	AVB/AVV
	PCB 195 (BZ)	49:52	00:00	0	2427977	2725264	474112	525608	0.89	ABV/AVV
	PCB 194 (BZ)	52:11	00:00	0	2594368	2945557	495322	563774	0.88	ABV/ABV
	PCB 205 (BZ)	52:40	00:00	0	3385151	3763107	679650	722424	0.90	ABV/AVV
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	113	125	45	50	0.90	/
	13C12-PCB 202	42:57	00:00	0	1239459	1300299	245959	255392	0.95	ABV/ABV
	13C12-PCB 194	52:10	00:00	0	1651054	1790048	329166	361614	0.92	ABV/ABV
	13C12-PCB 205	52:38	00:00	0	2307196	2528976	451456	488359	0.91	AVV/AVV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	190	220	76	88	0.86	/
	PCB 208 (BZ)	49:37	00:00	0	2493382	3182375	487852	613061	0.78	ABV/ABV
	PCB 207 (BZ)	50:33	00:00	0	2359368	2998906	458022	570824	0.79	AVV/AVV
	PCB 206 (BZ)	54:23	00:00	0	1845936	2334516	364685	459754	0.79	ABB/AVB
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	140	160	56	64	0.88	/
	13C12-PCB 208	49:36	00:00	0	1677344	2101368	339610	408895	0.80	AVV/AVV
	13C12-PCB 206	54:22	00:00	0	1144982	1459105	225968	289170	0.78	ABV/AVV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	105	103	42	41	1.02 *	/
	PCB 209 (BZ)	56:01	00:00	0	1674257	2371719	307694	443695	0.71	ABV/ABV
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	105	100	42	40	1.05 *	/
	13C12-PCB 209	56:00	00:00	0	1134277	1540016	202357	273888	0.74	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

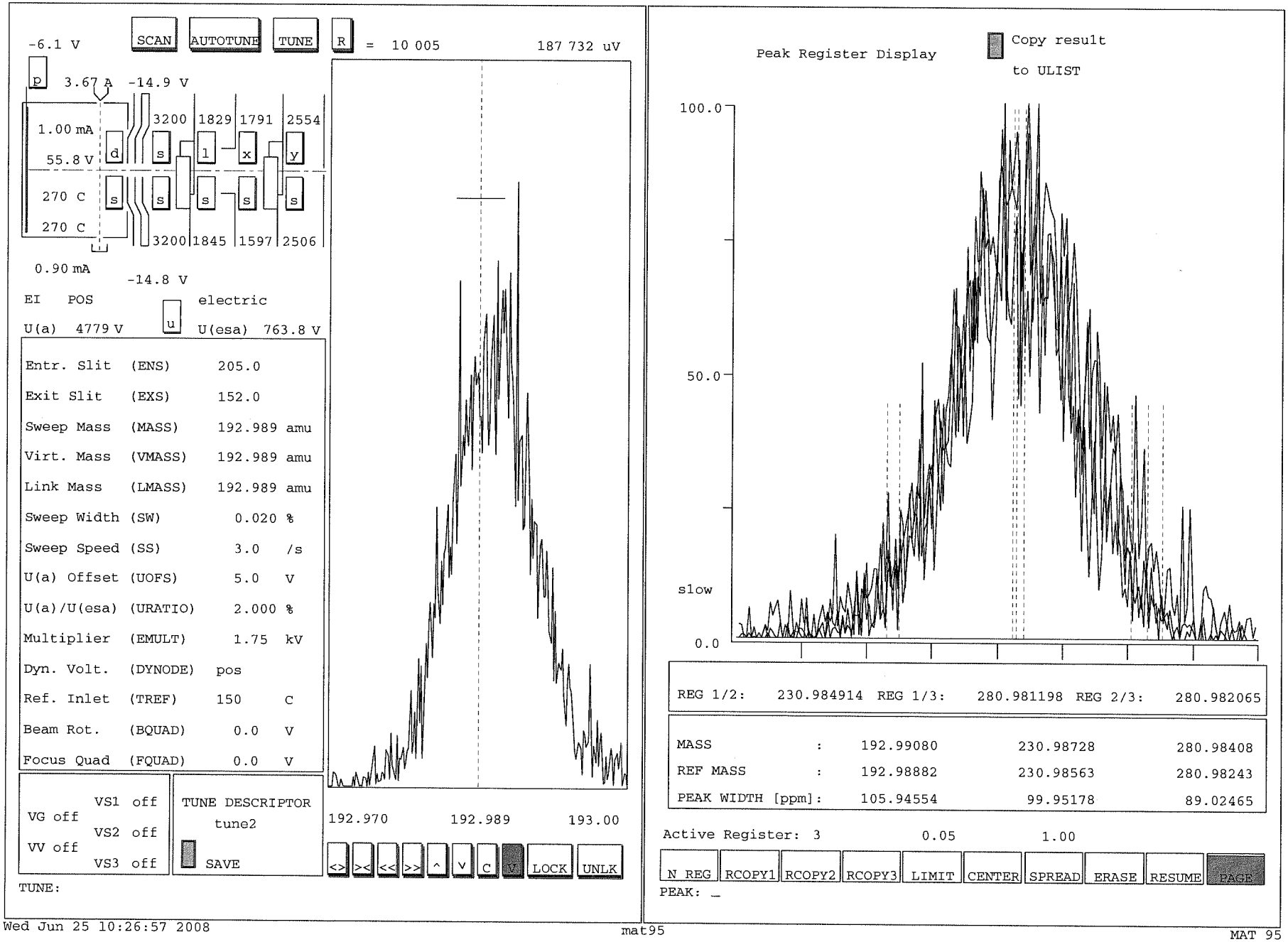
CHRO: a080625ss 25-Jun-08 Elapse: 56:04 2549
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2 > 2603 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int DCG 7-7-08
Calc DCG 7-9-08
QC 7-10-08



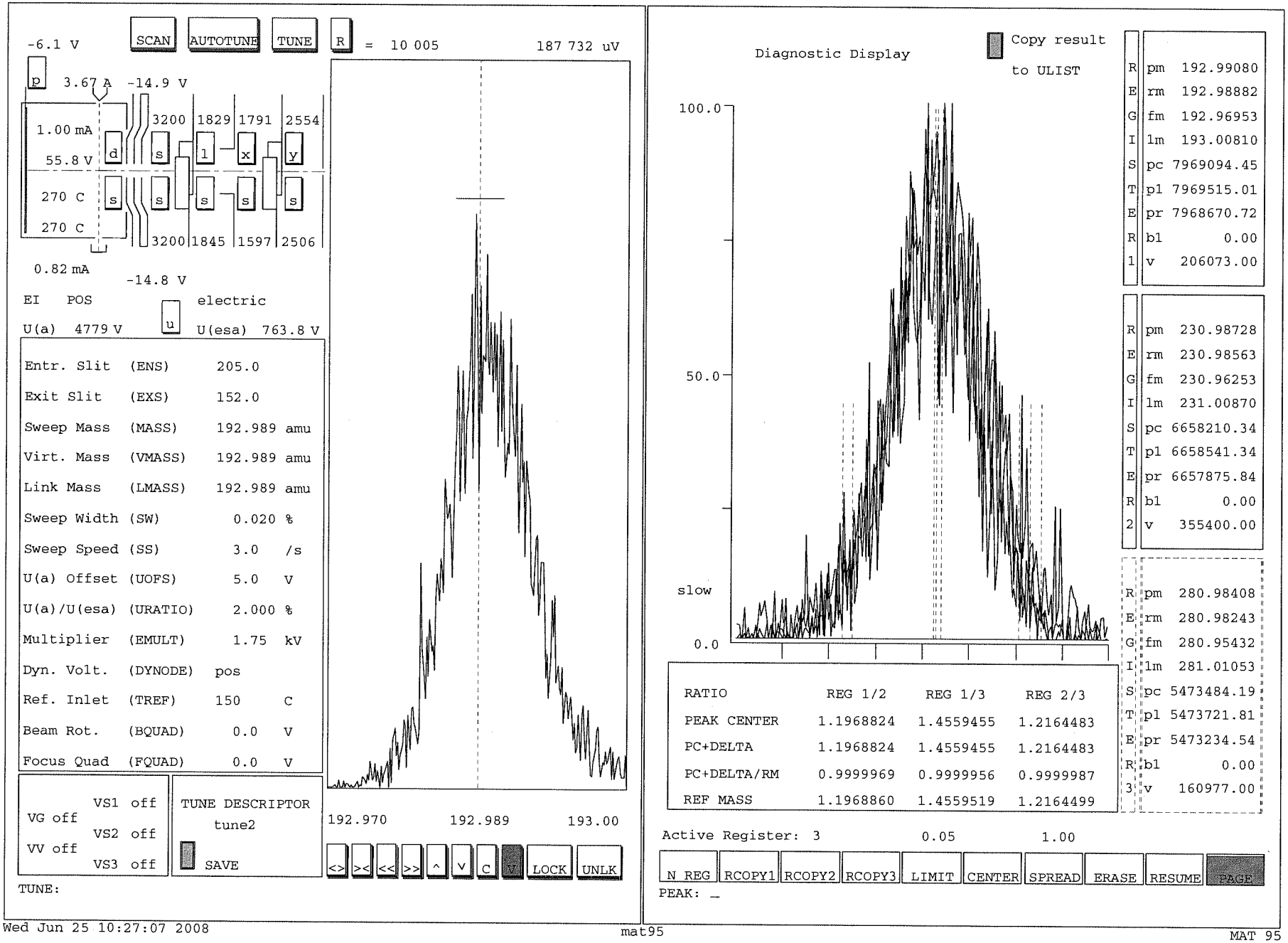
H-2004

2003


-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 005
187 732 uV
p
3.67 A
-14.9 V
1.00 mA
55.8 V
3200
1829
1791
2554
d
s
l
x
y
270 C
270 C
3200
1845
1597
2506
0.90 mA
-14.8 V
EI POS
electric
U(a) 4779 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VS1 off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
192.970
192.989
193.00
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 230.984914 REG 1/3: 280.981198 REG 2/3: 280.982065
MASS : 192.99080 230.98728 280.98408
REF MASS : 192.98882 230.98563 280.98243
PEAK WIDTH [ppm]: 105.94554 99.95178 89.02465
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Wed Jun 25 10:26:57 2008
mat95
MAT 95

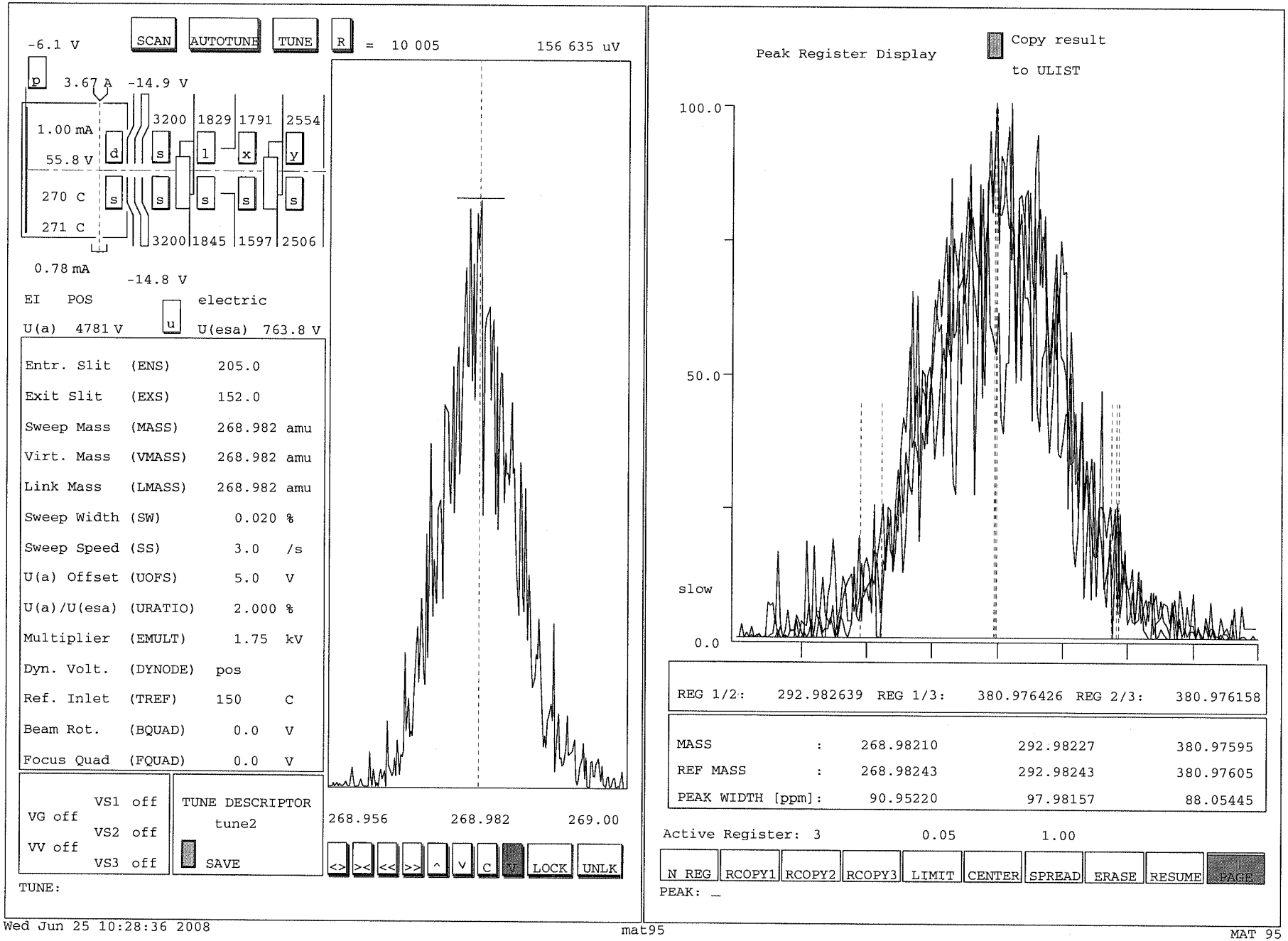
H-2005

2004


-6.1 V
SCAN
AUTOTUNE
TUNE
R = 10 005
187 732 uV
p
3.67 A
-14.9 V
1.00 mA
55.8 V
3200 1829 1791 2554
d s l x y
270 C
270 C
s s s s s
3200 1845 1597 2506
0.82 mA
-14.8 V
EI POS
electric
u
U(a) 4779 V
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
192.970 192.989 193.00
<> >< << >> ^ v C V LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 192.99080
E rm 192.98882
G fm 192.96953
I lm 193.00810
S pc 7969094.45
T pl 7969515.01
E pr 7968670.72
R bl 0.00
1 v 206073.00
R pm 230.98728
E rm 230.98563
G fm 230.96253
I lm 231.00870
S pc 6658210.34
T pl 6658541.34
E pr 6657875.84
R bl 0.00
2 v 355400.00
R pm 280.98408
E rm 280.98243
G fm 280.95432
I lm 281.01053
S pc 5473484.19
T pl 5473721.81
E pr 5473234.54
R bl 0.00
3 v 160977.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.1968824 1.4559455 1.2164483
PC+DELTA 1.1968824 1.4559455 1.2164483
PC+DELTA/RM 0.9999969 0.9999956 0.9999987
REF MASS 1.1968860 1.4559519 1.2164499
Active Register: 3
0.05
1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
Wed Jun 25 10:27:07 2008
mat95
MAT 95

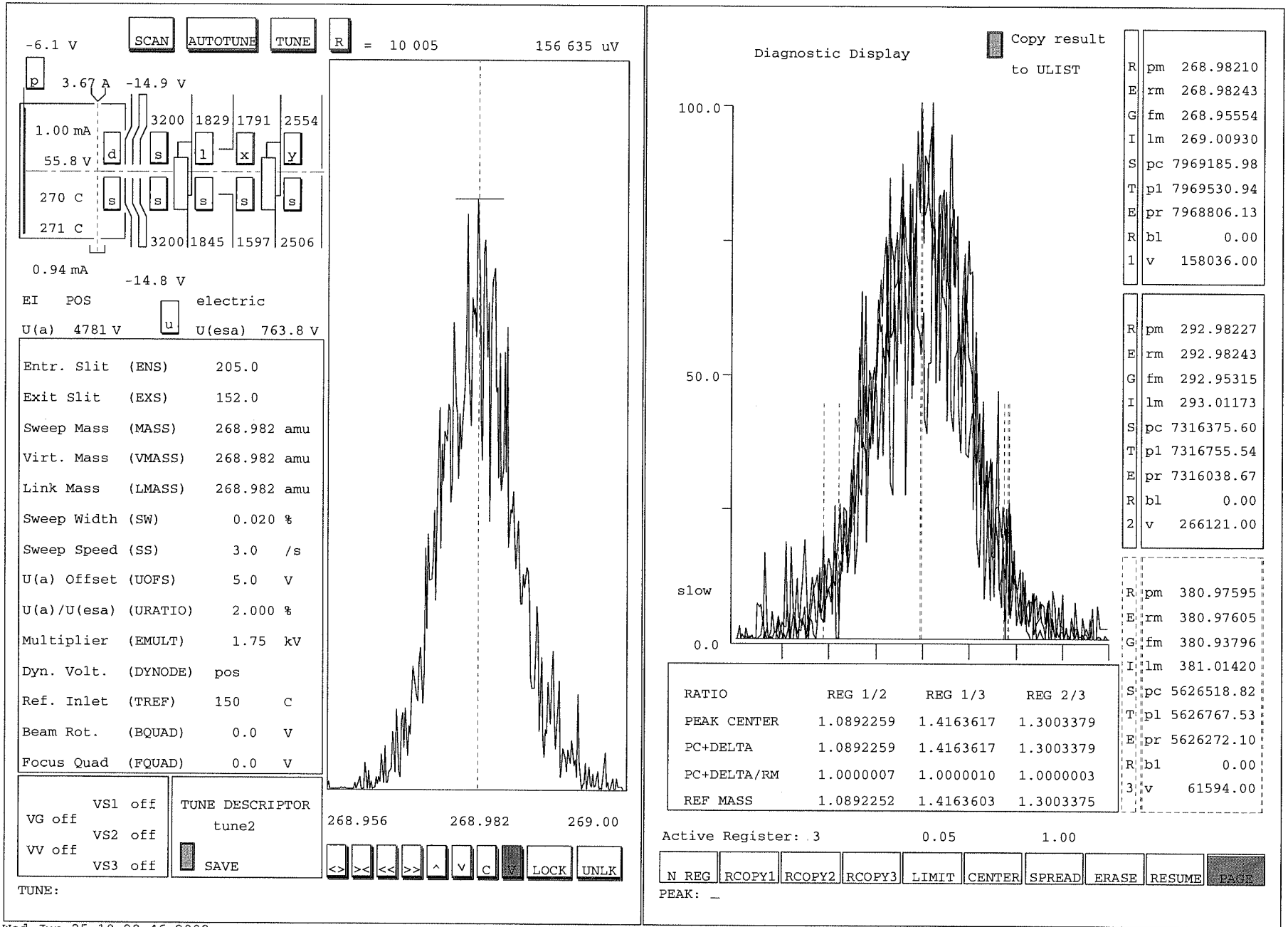
H-2006

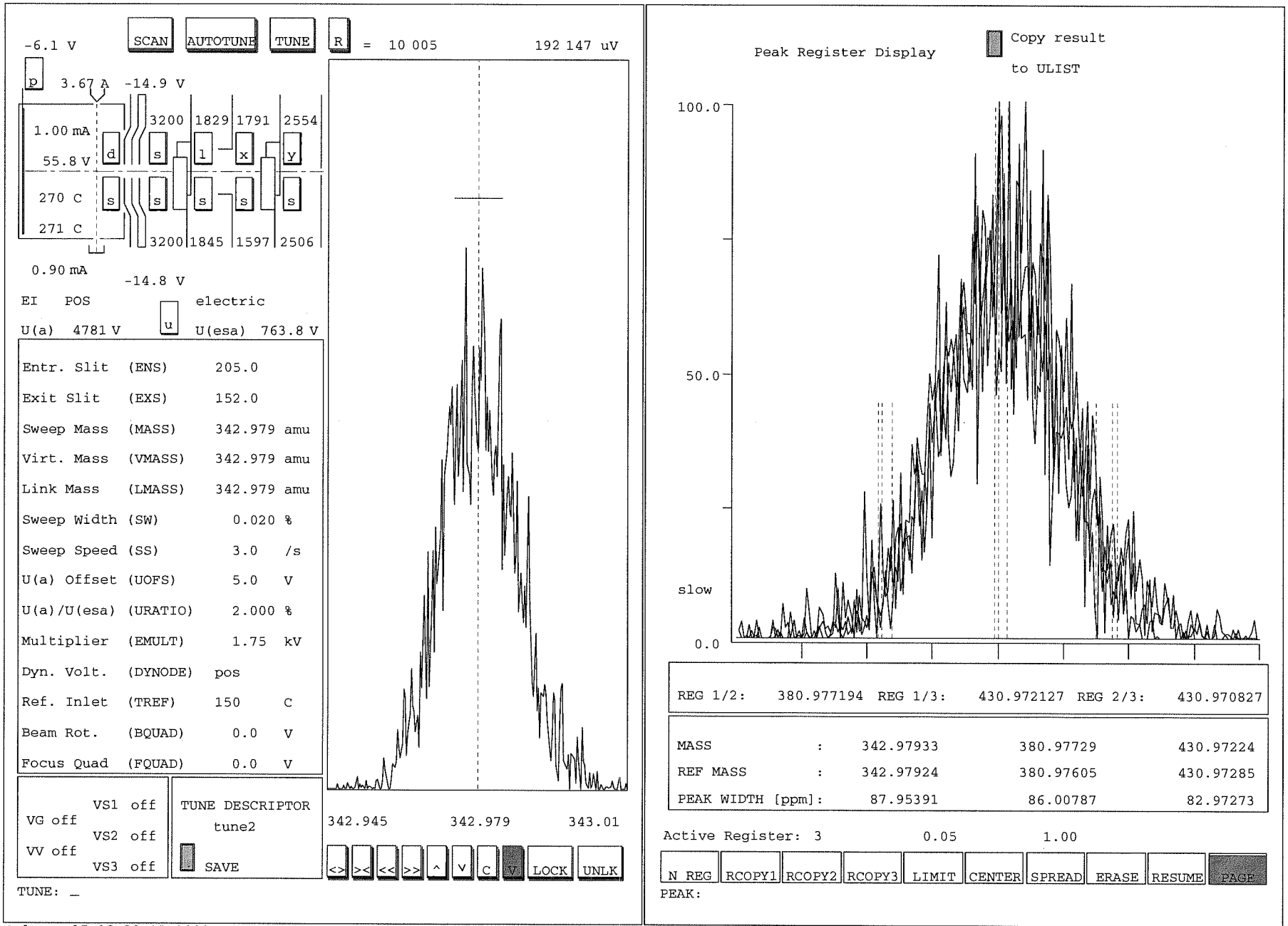
2005


-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 005
156 635 uV
p
3.67 A
-14.9 V
1.00 mA
55.8 V
270 C
271 C
3200 1829 1791 2554
3200 1845 1597 2506
d
s
l
x
y
0.78 mA
-14.8 V
EI POS
electric
U(a) 4781 V
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 268.982 amu
Virt. Mass (VMASS) 268.982 amu
Link Mass (LMASS) 268.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
268.956
268.982
269.00
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 292.982639 REG 1/3: 380.976426 REG 2/3: 380.976158
MASS : 268.98210 292.98227 380.97595
REF MASS : 268.98243 292.98243 380.97605
PEAK WIDTH [ppm]: 90.95220 97.98157 88.05445
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Wed Jun 25 10:28:36 2008
mat95
MAT 95

H-2007

2006

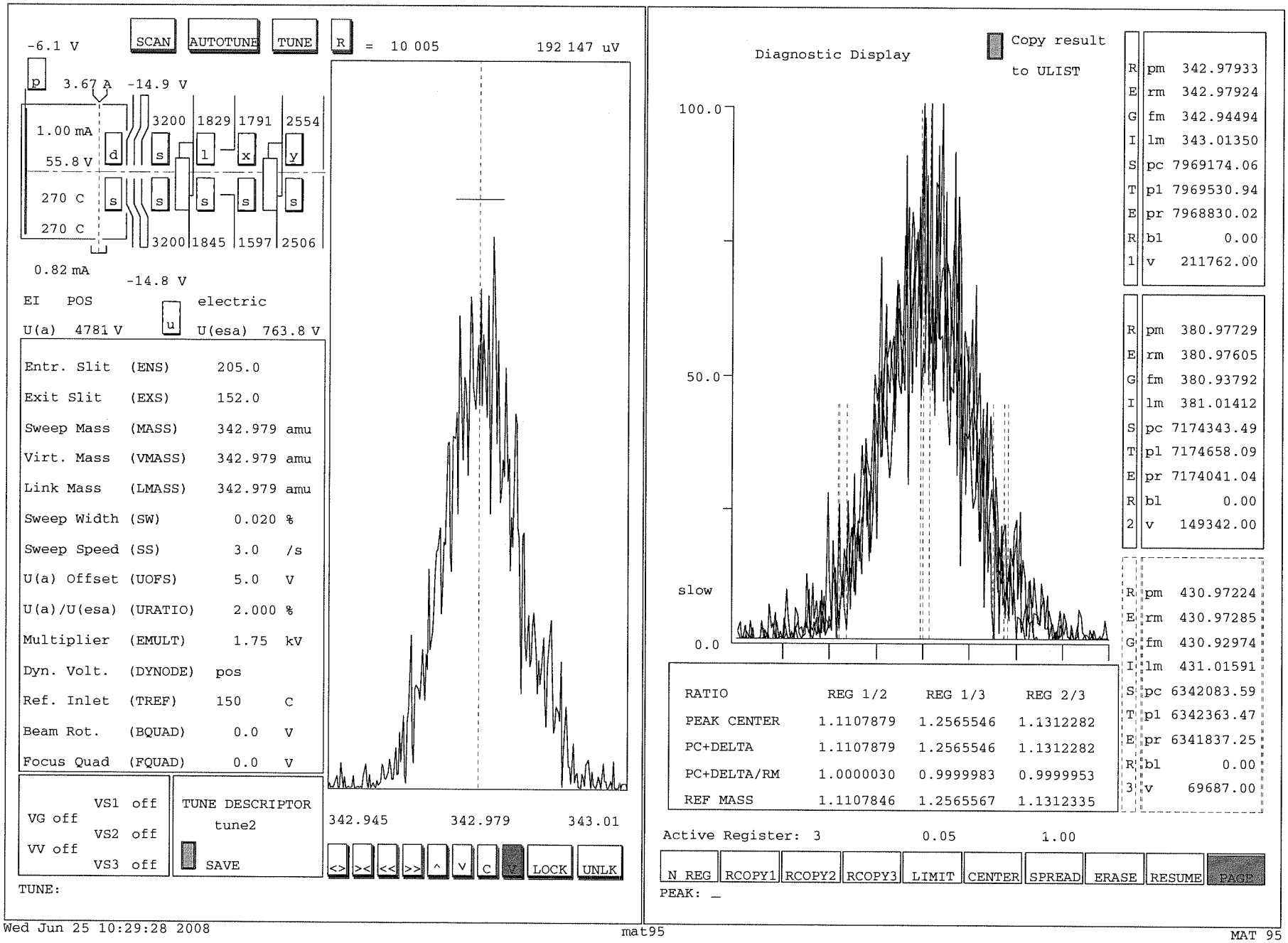

-6.1 V
SCAN
AUTOTUNE
TUNE
R = 10 005
156 635 uV
p 3.67 A -14.9 V
1.00 mA
55.8 V
3200 1829 1791 2554
d s l x y
270 C
271 C
s s s s s
3200 1845 1597 2506
0.94 mA
-14.8 V
EI POS
u
electric
U(a) 4781 V
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 268.982 amu
Virt. Mass (VMASS) 268.982 amu
Link Mass (LMASS) 268.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
268.956 268.982 269.00
<> >< << >> ^ v C V LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.0892259 1.4163617 1.3003379
PC+DELTA 1.0892259 1.4163617 1.3003379
PC+DELTA/RM 1.0000007 1.0000010 1.0000003
REF MASS 1.0892252 1.4163603 1.3003375
REG 1
pm 268.98210
rm 268.98243
fm 268.95554
lm 269.00930
pc 7969185.98
p1 7969530.94
pr 7968806.13
bl 0.00
v 158036.00
REG 2
pm 292.98227
rm 292.98243
fm 292.95315
lm 293.01173
pc 7316375.60
p1 7316755.54
pr 7316038.67
bl 0.00
v 266121.00
REG 3
pm 380.97595
rm 380.97605
fm 380.93796
lm 381.01420
pc 5626518.82
p1 5626767.53
pr 5626272.10
bl 0.00
v 61594.00
Active Register: 3 0.05 1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
Wed Jun 25 10:28:46 2008
mat95
MAT 95



Wed Jun 25 10:29:17 2008 mat95 MAT 95

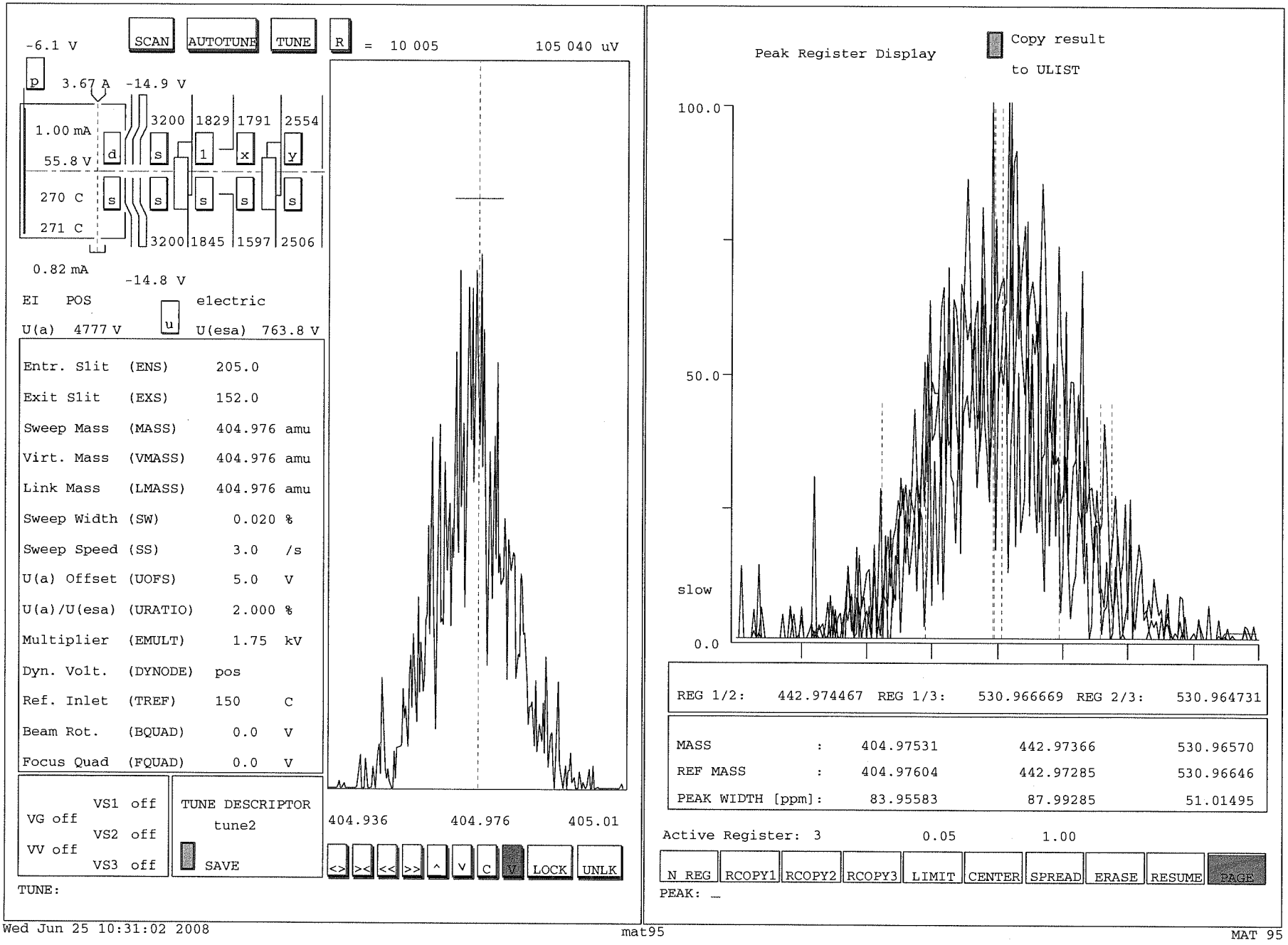
H-2009

2008


-6.1 V
SCAN
AUTOTUNE
TUNE
R = 10 005
192 147 uV
p
3.67 A -14.9 V
1.00 mA
55.8 V
3200 1829 1791 2554
d s l x y
270 C
270 C
s s s s s
3200 1845 1597 2506
0.82 mA
-14.8 V
EI POS
u
electric
U(a) 4781 V
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 342.979 amu
Virt. Mass (VMASS) 342.979 amu
Link Mass (LMASS) 342.979 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
342.945 342.979 343.01
<> >< << >> ^ v C V LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R E G I S T E R 1 pm 342.97933
rm 342.97924
fm 342.94494
lm 343.01350
pc 7969174.06
pl 7969530.94
pr 7968830.02
bl 0.00
v 211762.00
R E G I S T E R 2 pm 380.97729
rm 380.97605
fm 380.93792
lm 381.01412
pc 7174343.49
pl 7174658.09
pr 7174041.04
bl 0.00
v 149342.00
R E G I S T E R 3 pm 430.97224
rm 430.97285
fm 430.92974
lm 431.01591
pc 6342083.59
pl 6342363.47
pr 6341837.25
bl 0.00
v 69687.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.1107879 1.2565546 1.1312282
PC+DELTA 1.1107879 1.2565546 1.1312282
PC+DELTA/RM 1.0000030 0.9999983 0.9999953
REF MASS 1.1107846 1.2565567 1.1312335
Active Register: 3 0.05 1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
Wed Jun 25 10:29:28 2008
mat95
MAT 95

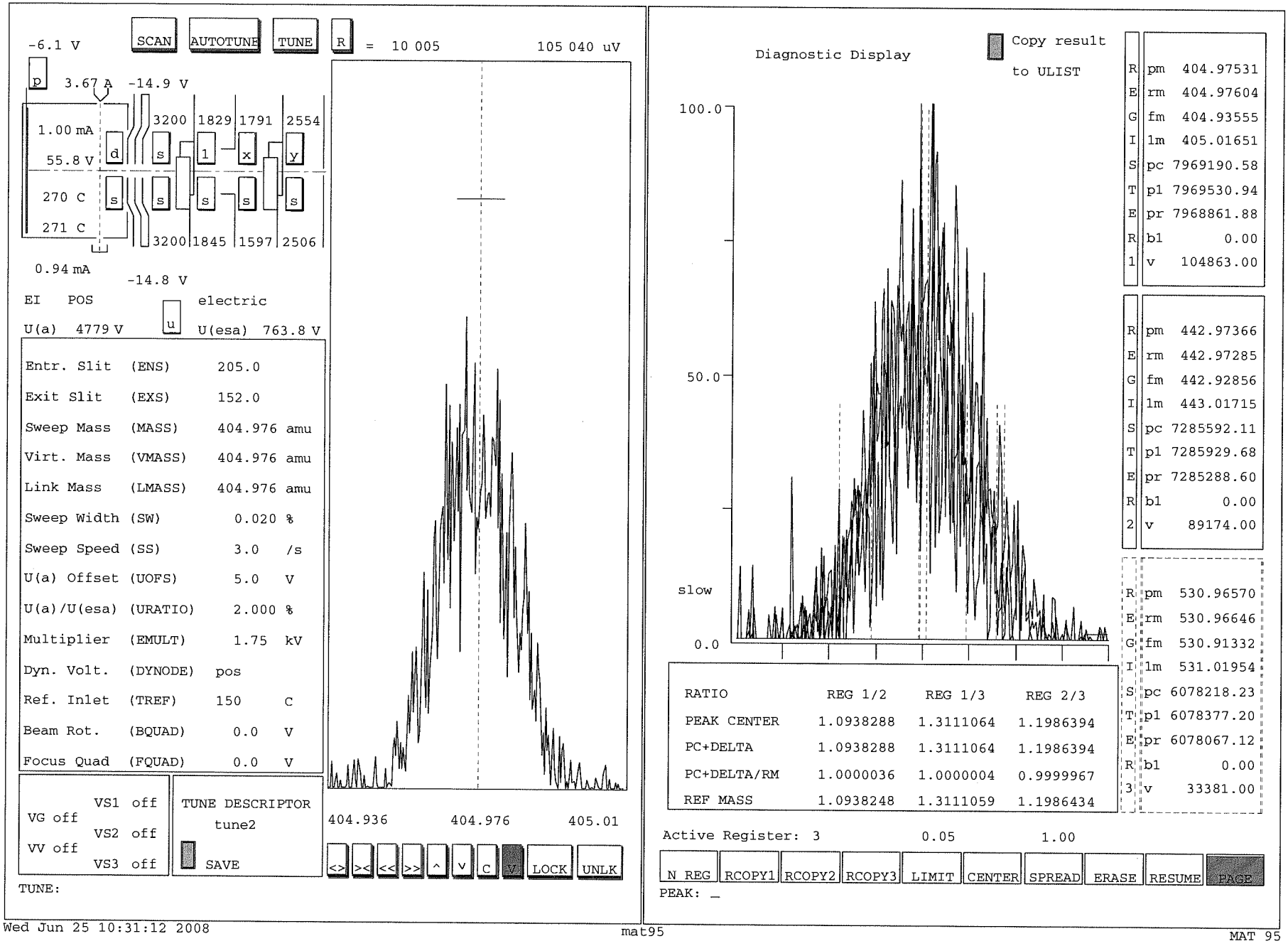
H-2010

2009


-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 005
105 040 uV
p
3.67 A
-14.9 V
1.00 mA
55.8 V
270 C
271 C
3200 1829 1791 2554
3200 1845 1597 2506
d
s
l
x
y
0.82 mA
-14.8 V
EI POS
electric
U(a) 4777 V
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 404.976 amu
Virt. Mass (VMASS) 404.976 amu
Link Mass (LMASS) 404.976 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VS1 off
VV off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
404.936
404.976
405.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Wed Jun 25 10:31:02 2008
mat95
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 442.974467 REG 1/3: 530.966669 REG 2/3: 530.964731
MASS : 404.97531 442.97366 530.96570
REF MASS : 404.97604 442.97285 530.96646
PEAK WIDTH [ppm]: 83.95583 87.99285 51.01495
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
MAT 95

H-2011

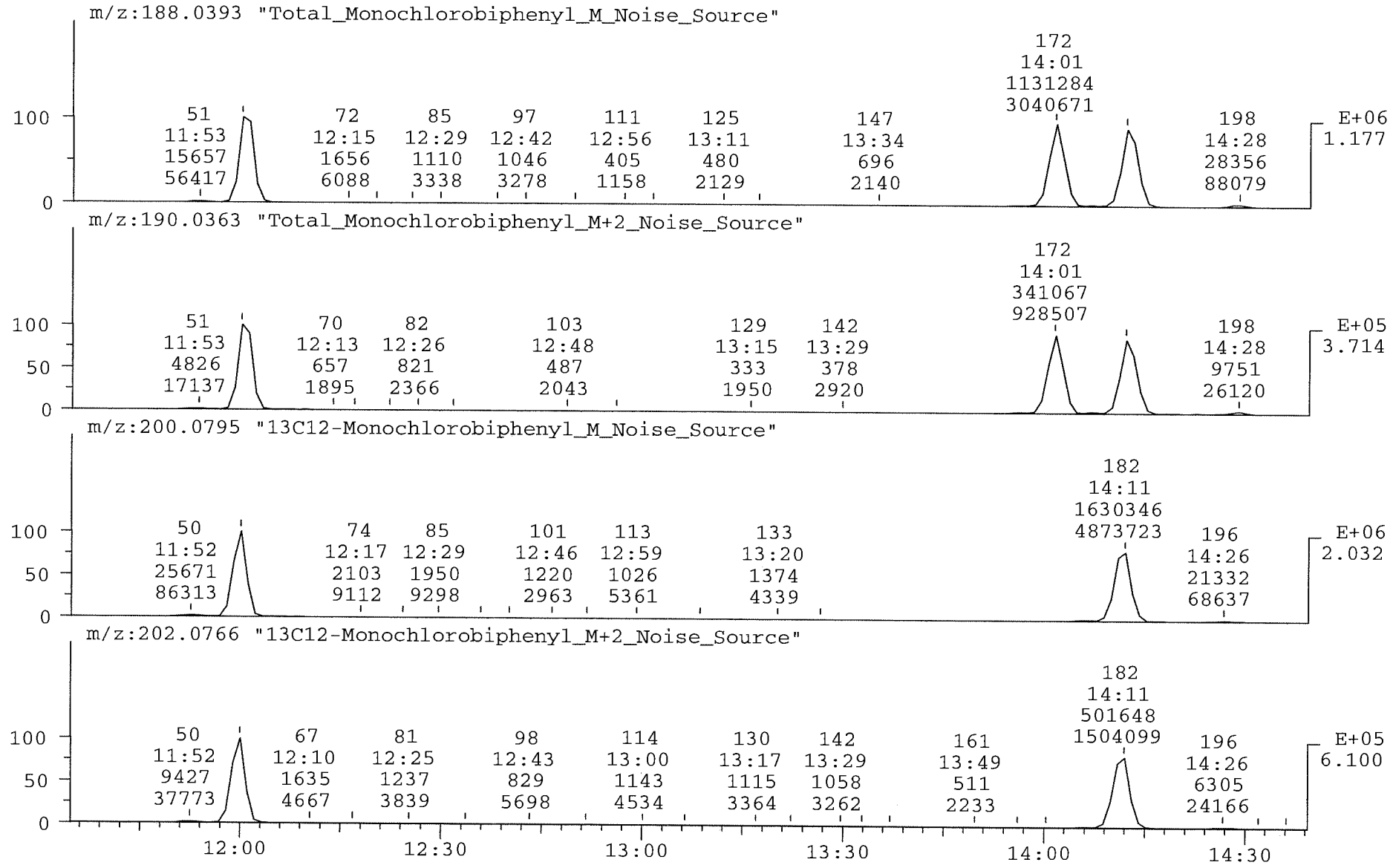
2010


-6.1 V
SCAN
AUTOTUNE
TUNE
R
= 10 005
105 040 uV
p
3.67 A
-14.9 V
1.00 mA
55.8 V
3200 1829 1791 2554
d s l x y
270 C
271 C
s s s s s
3200 1845 1597 2506
0.94 mA
-14.8 V
EI POS
electric
U(a) 4779 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 205.0
Exit Slit (EXS) 152.0
Sweep Mass (MASS) 404.976 amu
Virt. Mass (VMASS) 404.976 amu
Link Mass (LMASS) 404.976 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.000 %
Multiplier (EMULT) 1.75 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
404.936
404.976
405.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REGIST1 pm 404.97531
rm 404.97604
fm 404.93555
lm 405.01651
pc 7969190.58
p1 7969530.94
pr 7968861.88
b1 0.00
v 104863.00
REGIST2 pm 442.97366
rm 442.97285
fm 442.92856
lm 443.01715
pc 7285592.11
p1 7285929.68
pr 7285288.60
b1 0.00
v 89174.00
REGIST3 pm 530.96570
rm 530.96646
fm 530.91332
lm 531.01954
pc 6078218.23
p1 6078377.20
pr 6078067.12
b1 0.00
v 33381.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.0938288 1.3111064 1.1986394
PC+DELTA 1.0938288 1.3111064 1.1986394
PC+DELTA/RM 1.0000036 1.0000004 0.9999967
REF MASS 1.0938248 1.3111059 1.1986434
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Wed Jun 25 10:31:12 2008
mat95
MAT 95

H-2012

2011

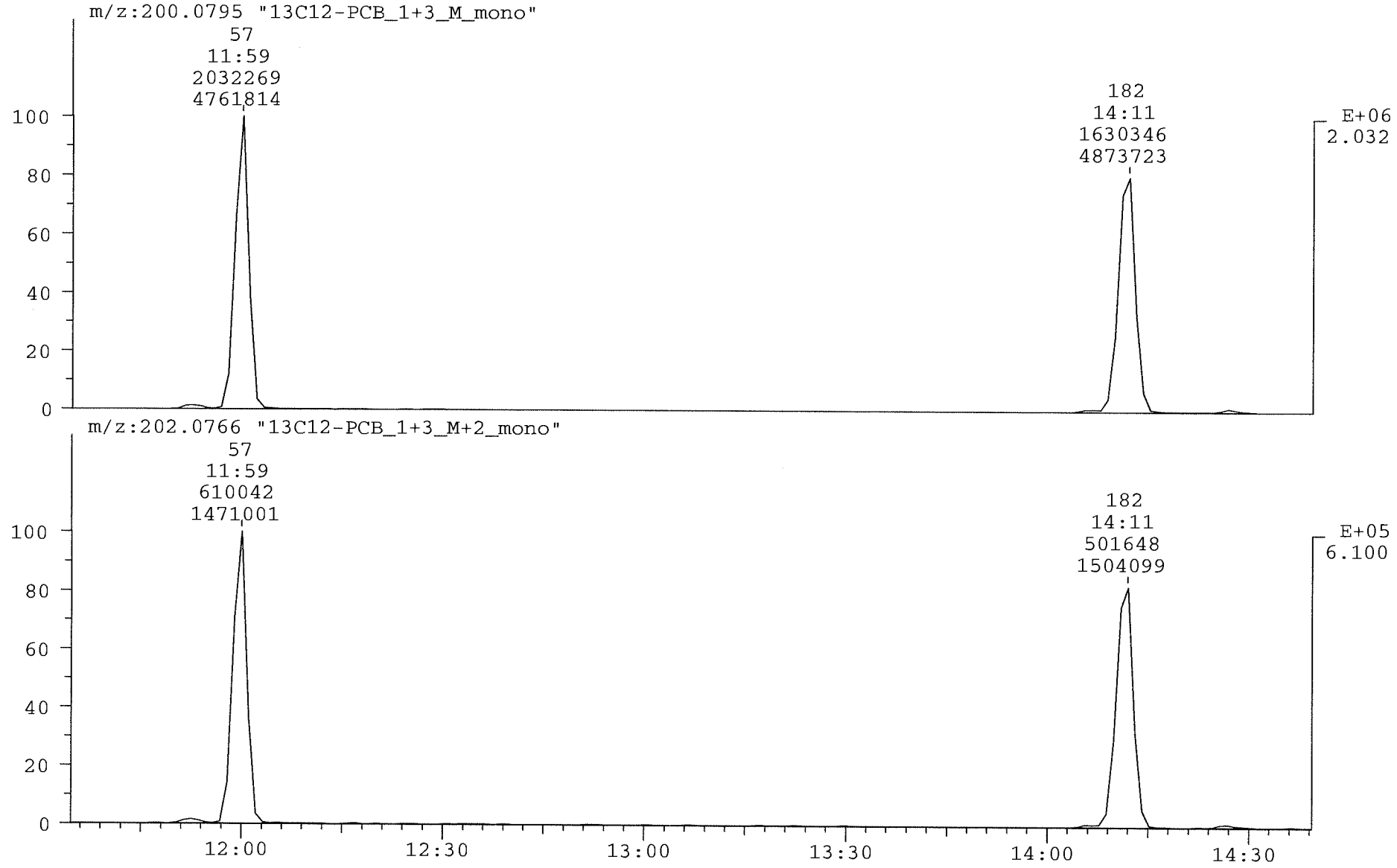
CHRO: a080625ss 25-Jun-08 Elapse: 13:20.2 133
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2013

2012

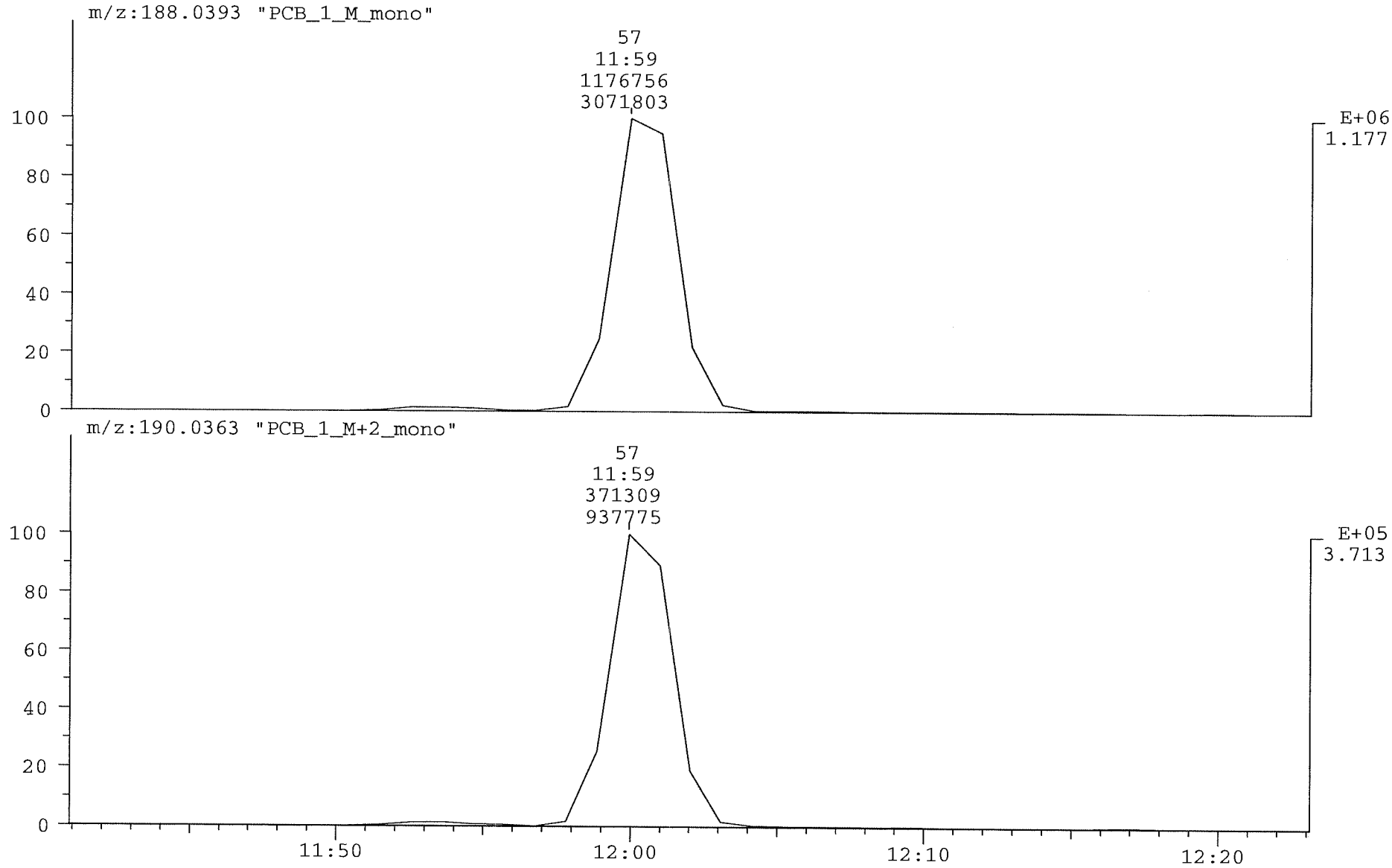
CHRO: a080625ss 25-Jun-08 Elapse: 13:20.2 133
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2014

2013

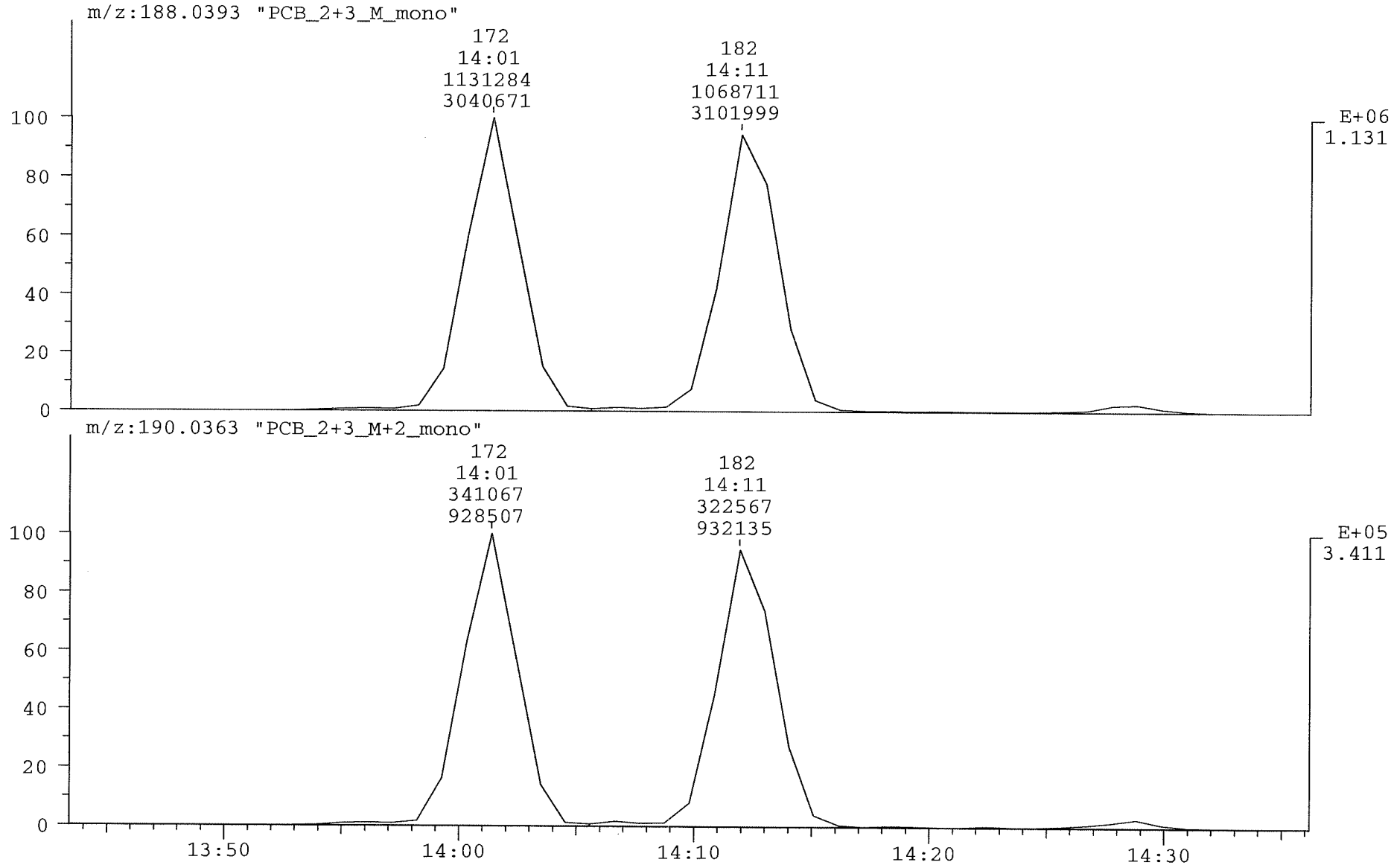
CHRO: a080625ss 25-Jun-08 Elapse: 12:02.0 59
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 39 > 79 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2015

2014

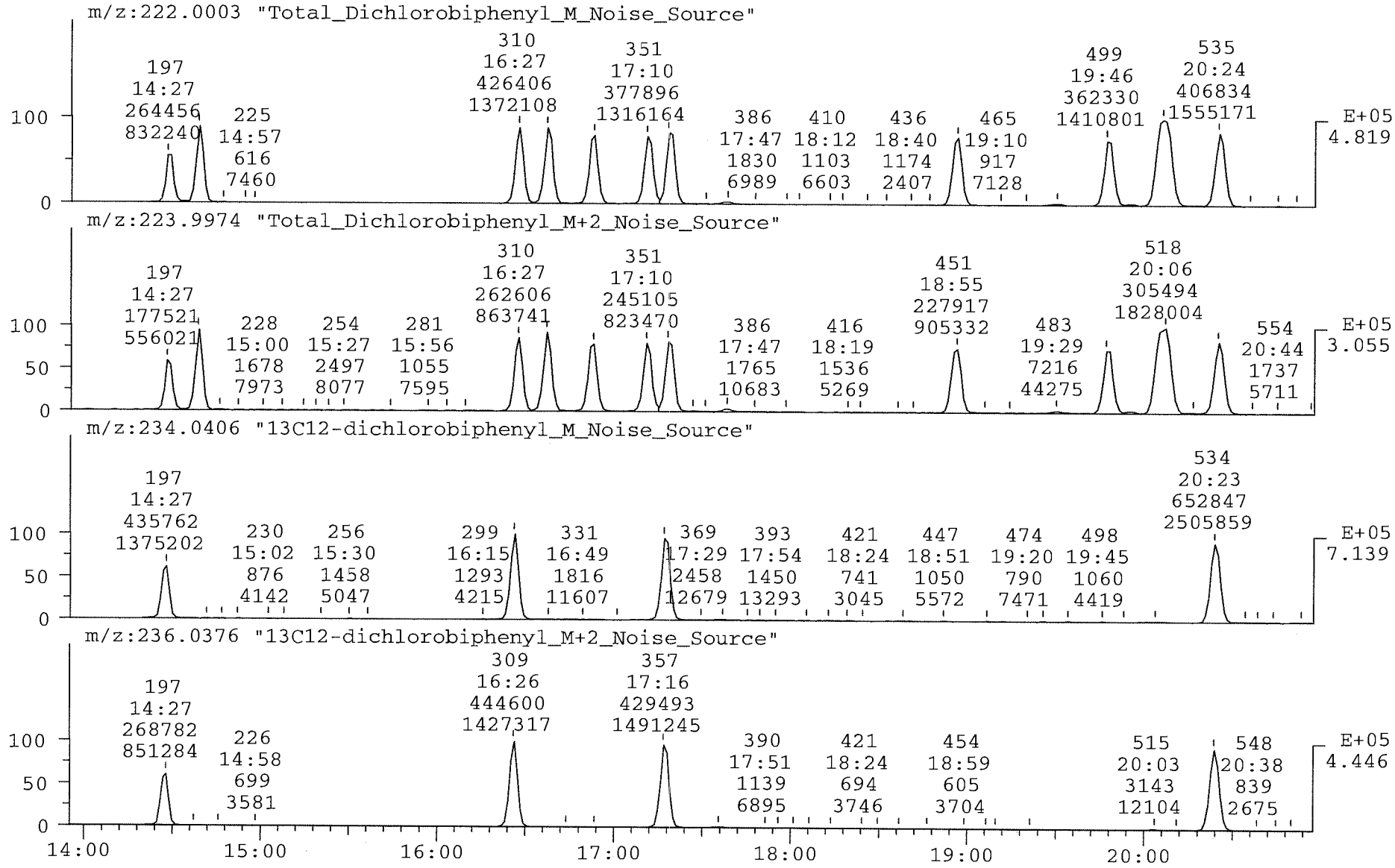
CHRO: a080625ss 25-Jun-08 Elapse: 14:09.8 180
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 155 > 205 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2016

2015

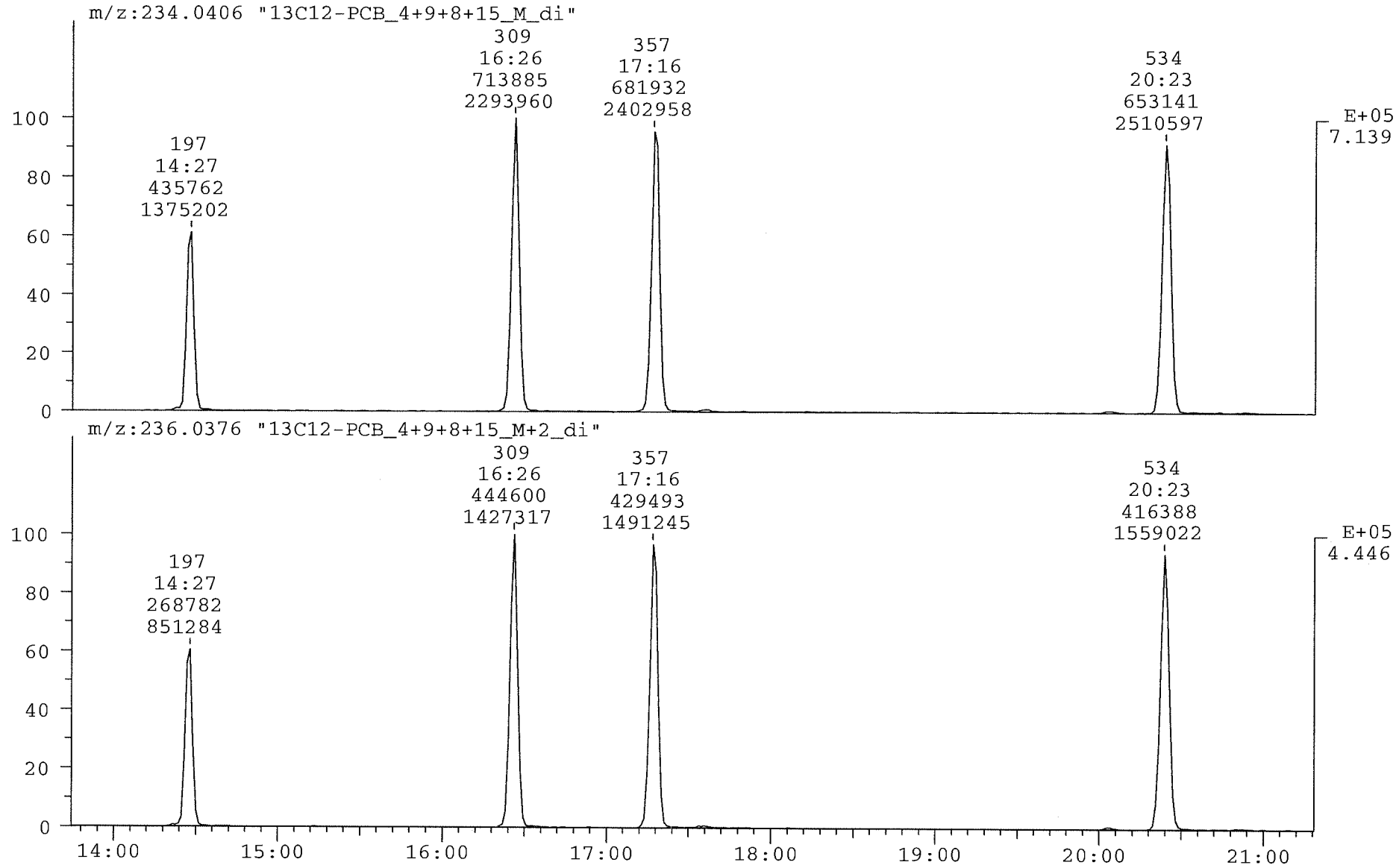
CHRO: a080625ss 25-Jun-08 Elapse: 17:26.2 366
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2017

2016

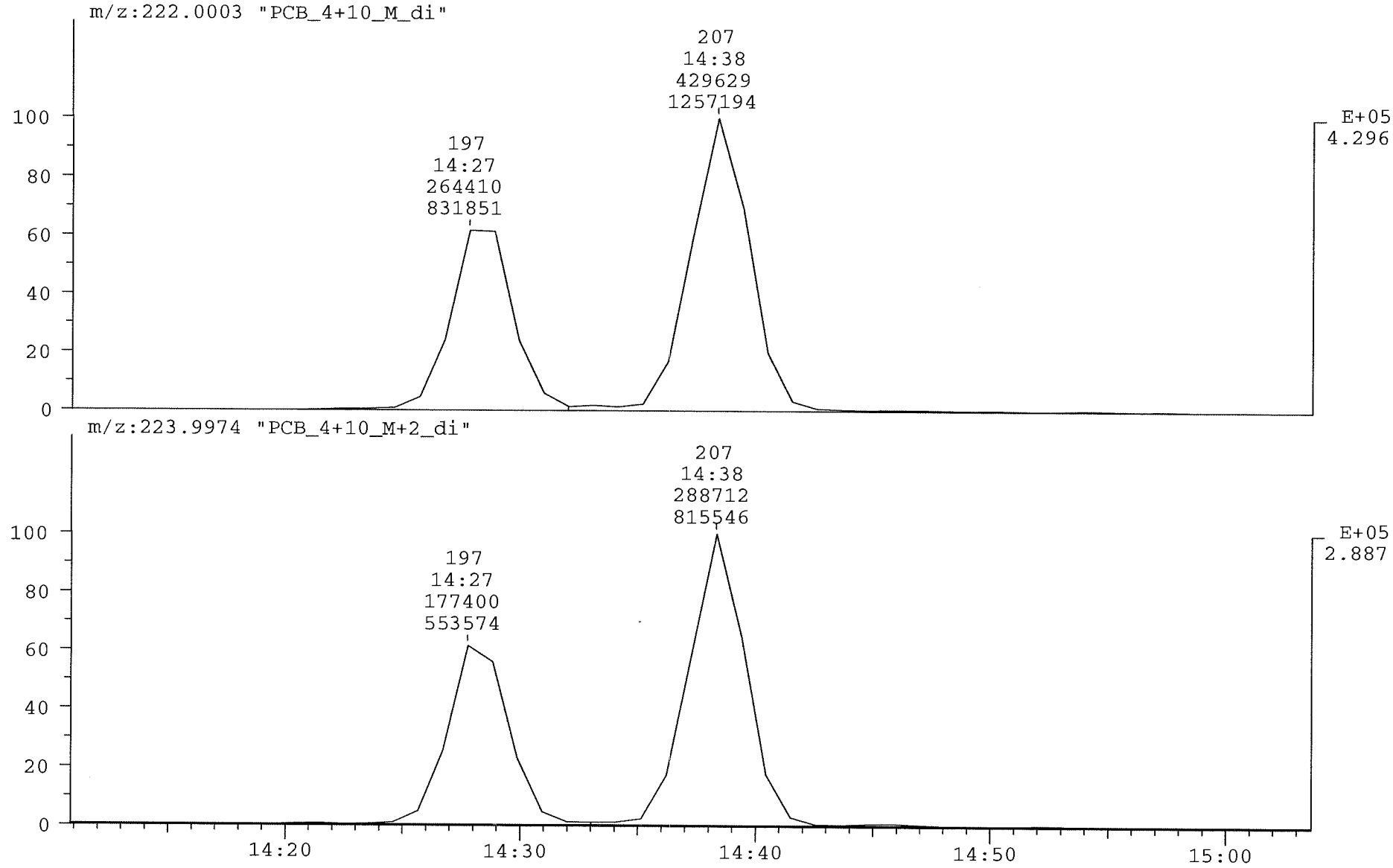
CHRO: a080625ss 25-Jun-08 Elapse: 17:26.2 366
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2018

2017

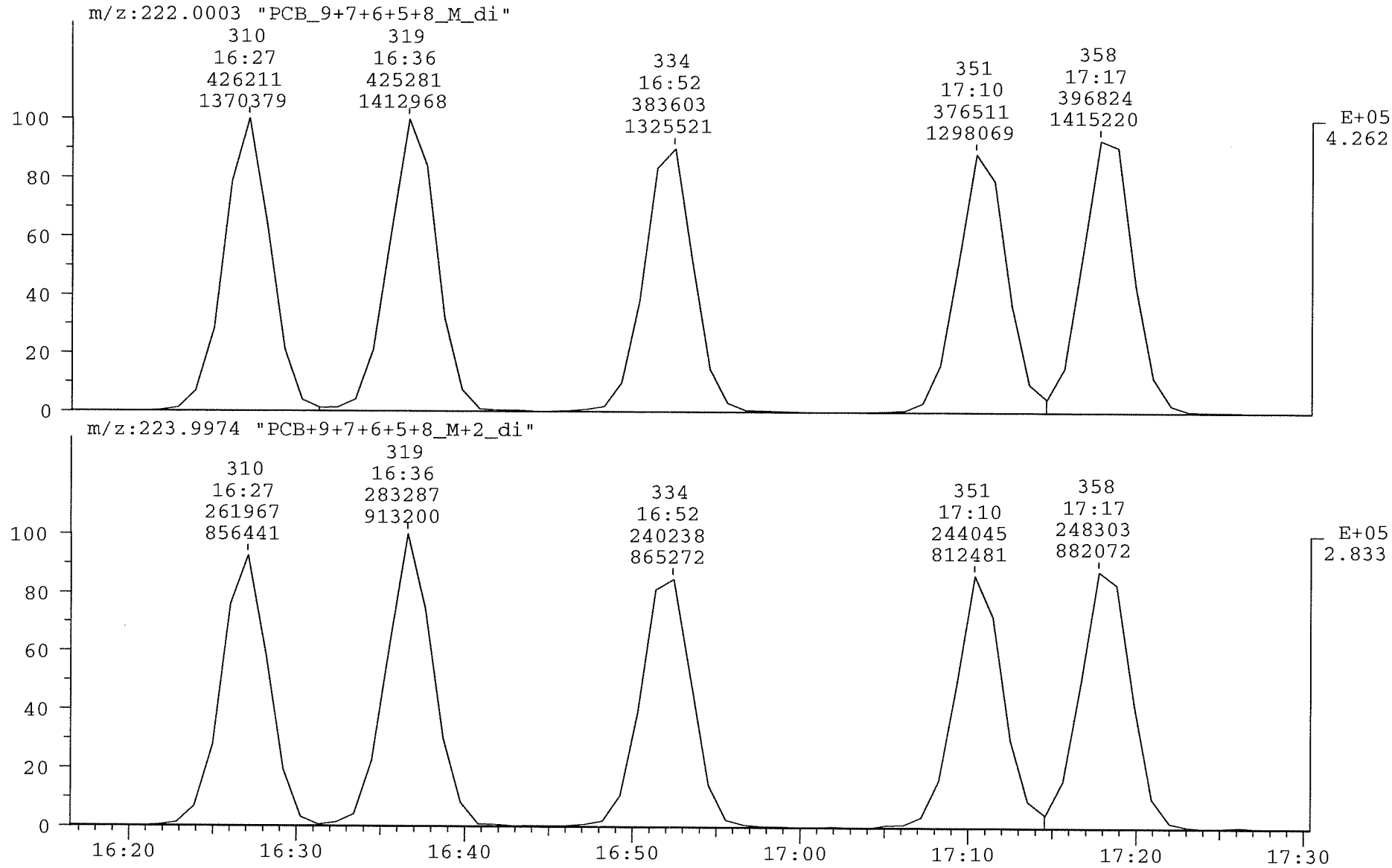
CHRO: a080625ss 25-Jun-08 Elapse: 14:37.2 206
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 181 > 231 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2019

2018

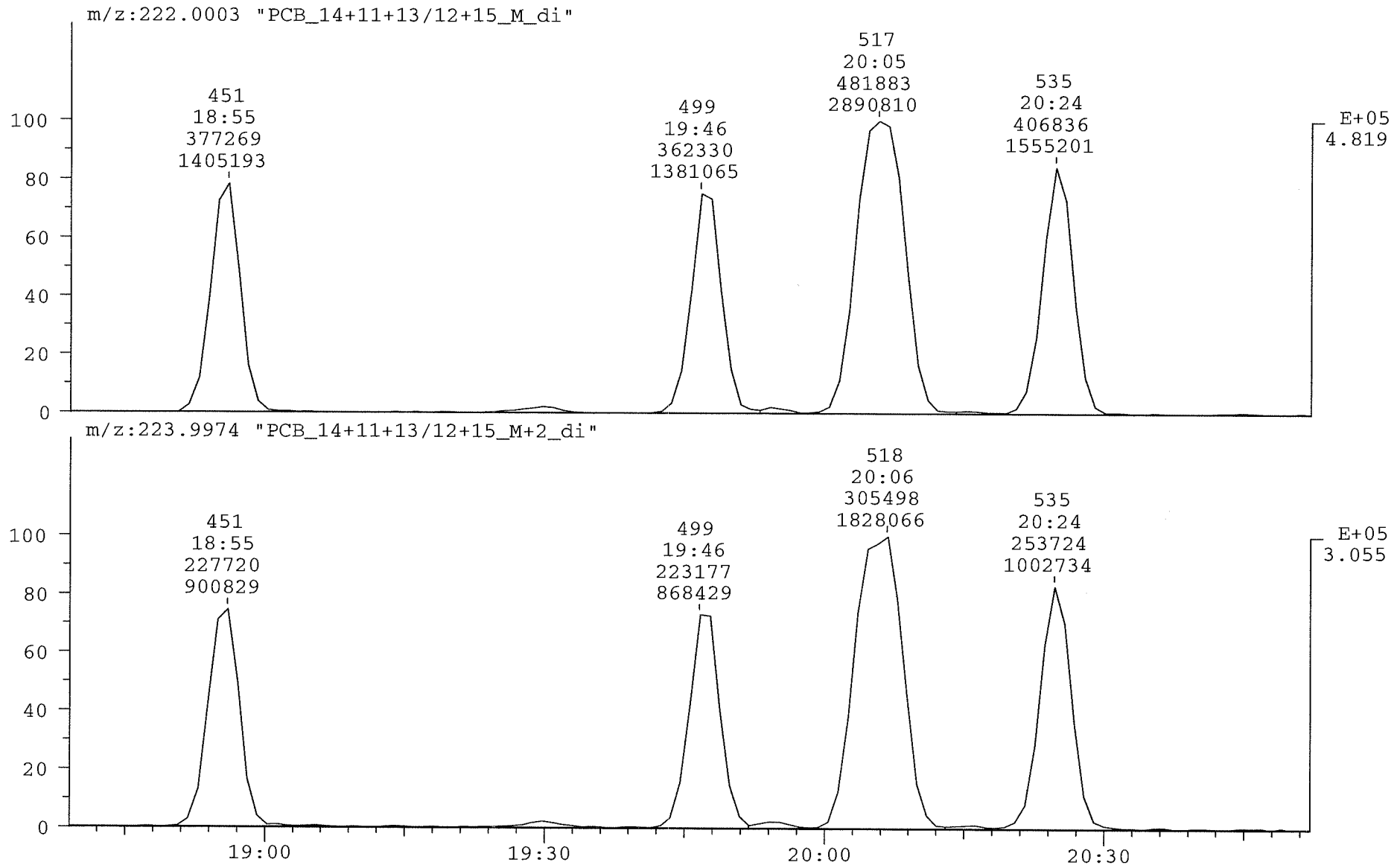
CHRO: a080625ss 25-Jun-08 Elapse: 16:55.5 337
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 300 > 370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2020

2019

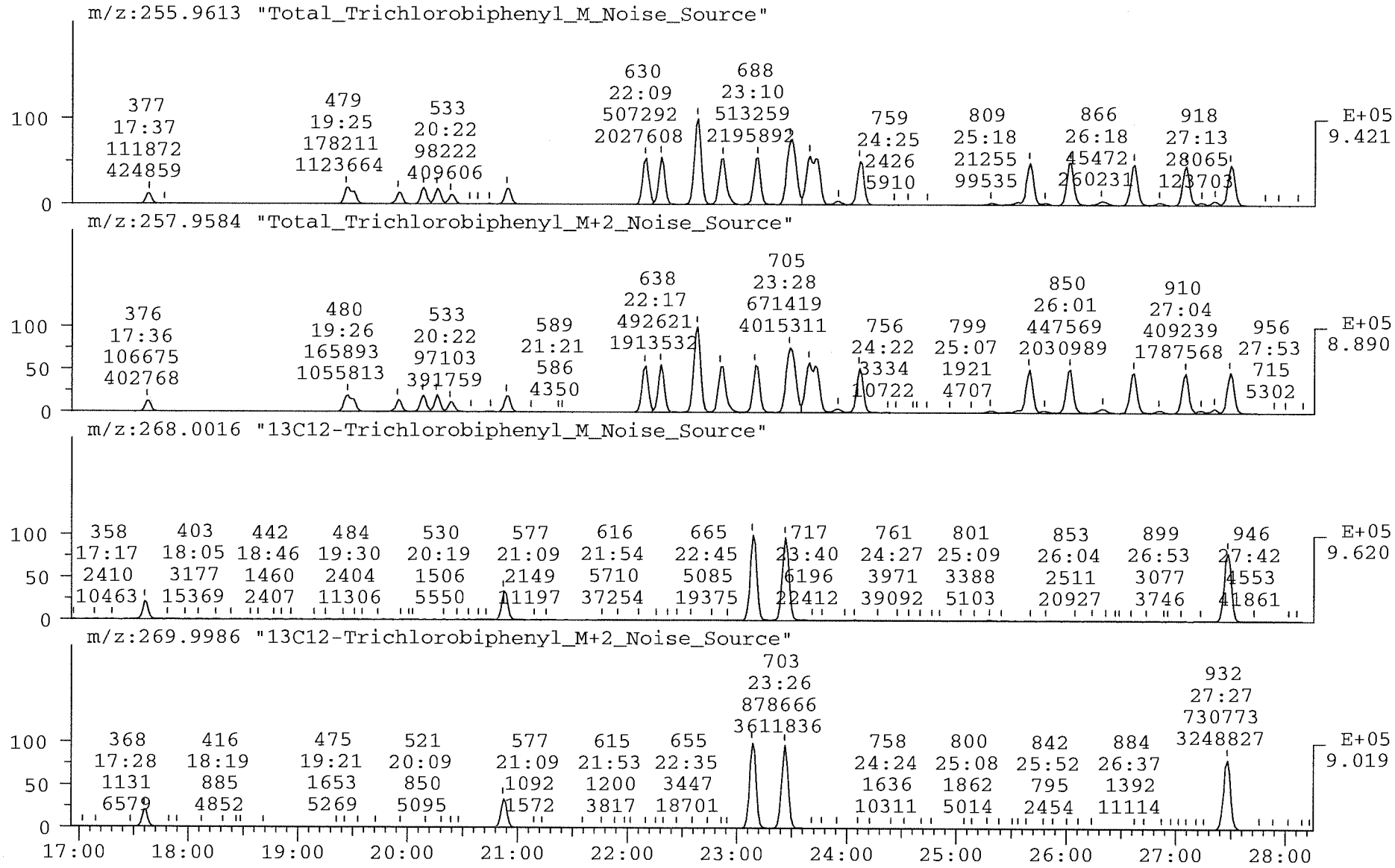
CHRO: a080625ss 25-Jun-08 Elapse: 19:40.2 493
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 435 > 561 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-2021

2020

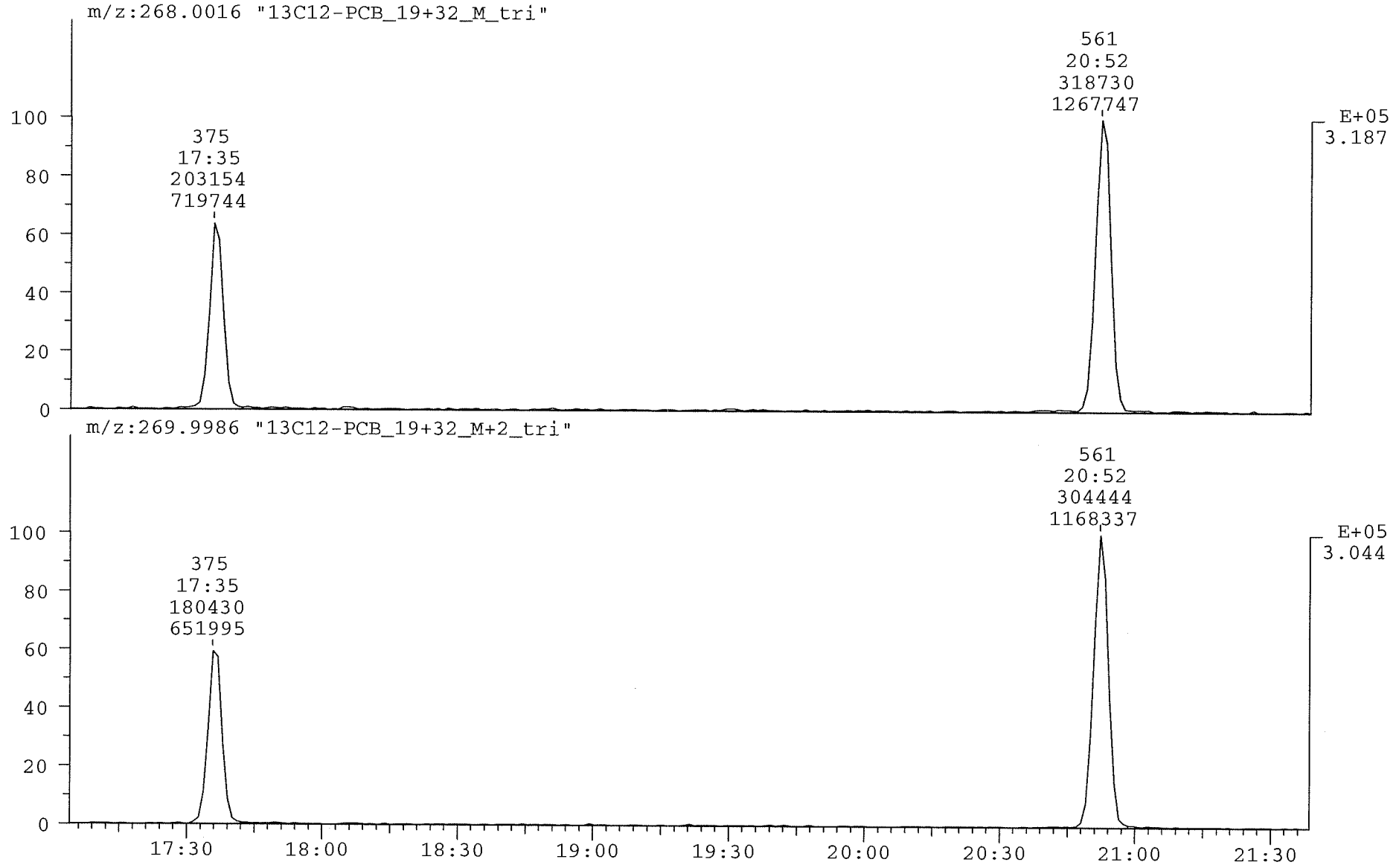
CHRO: a080625ss 25-Jun-08 Elapse: 22:37.5 657
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 337 > 977 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2022

2021

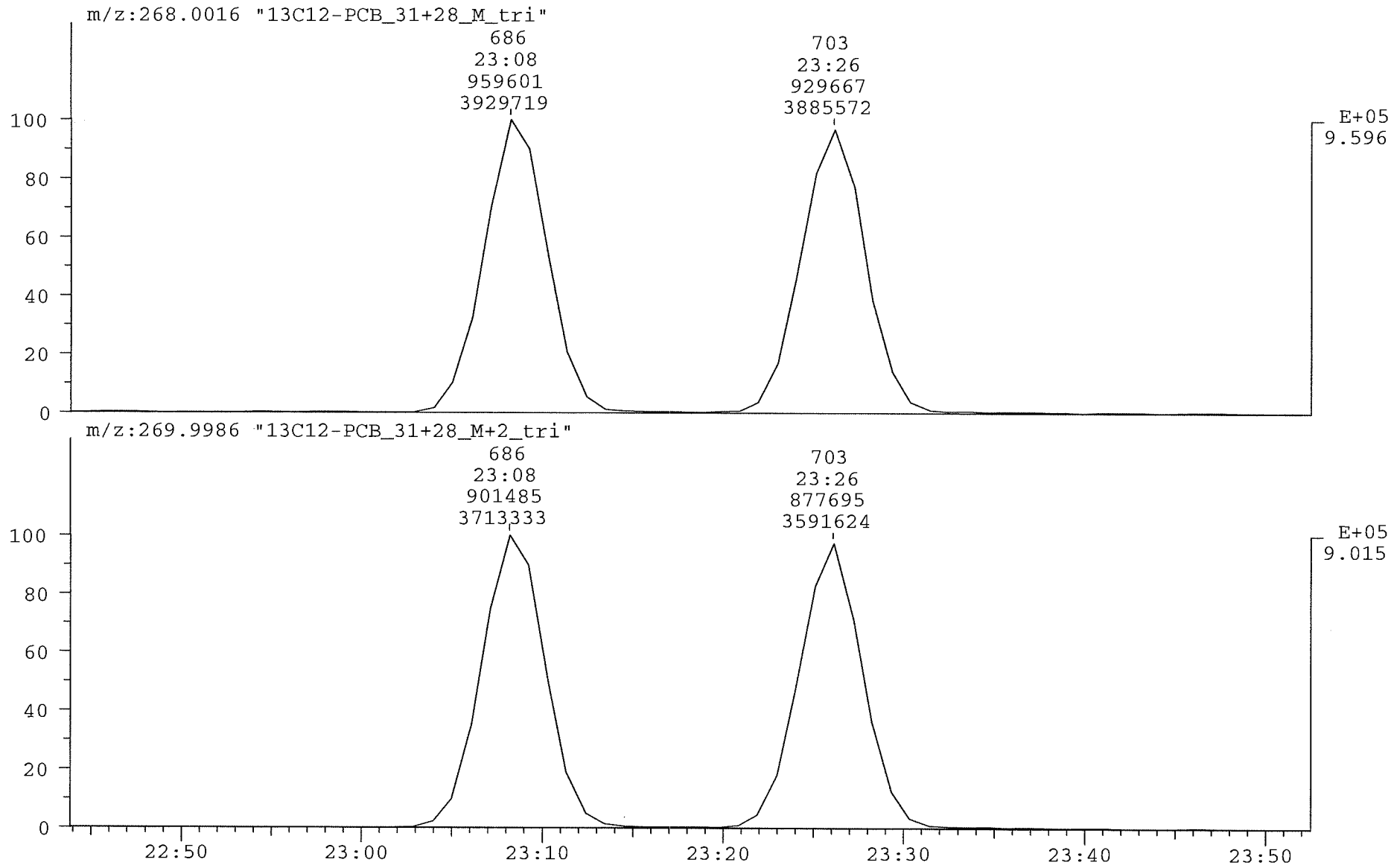
CHRO: a080625ss 25-Jun-08 Elapse: 19:00.1 455
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 345 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2023

2022

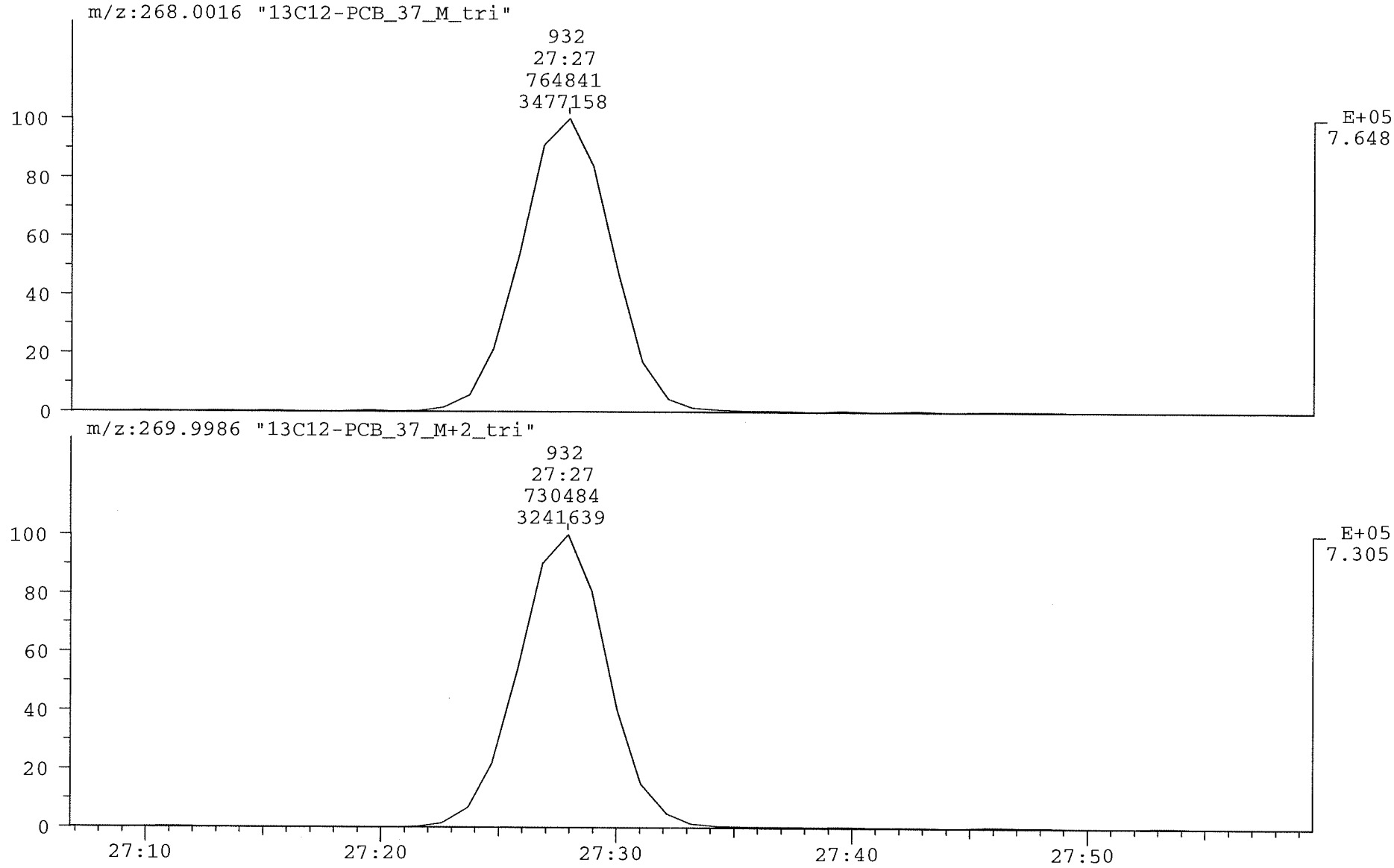
CHRO: a080625ss 25-Jun-08 Elapse: 23:10.3 688
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 663 > 728 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2024

2023

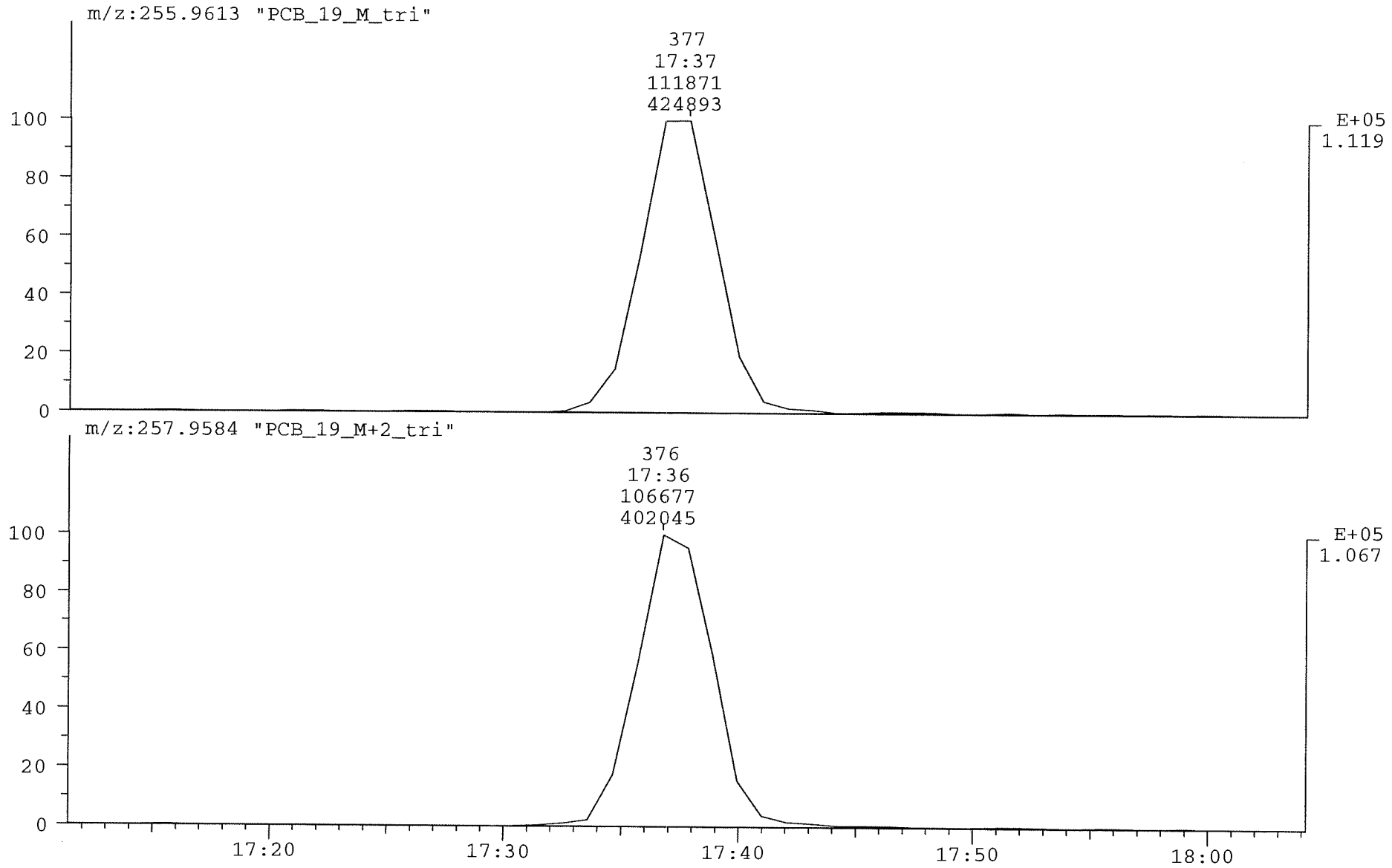
CHRO: a080625ss 25-Jun-08 Elapse: 27:27.9 932
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 912 > 962 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2025

2024

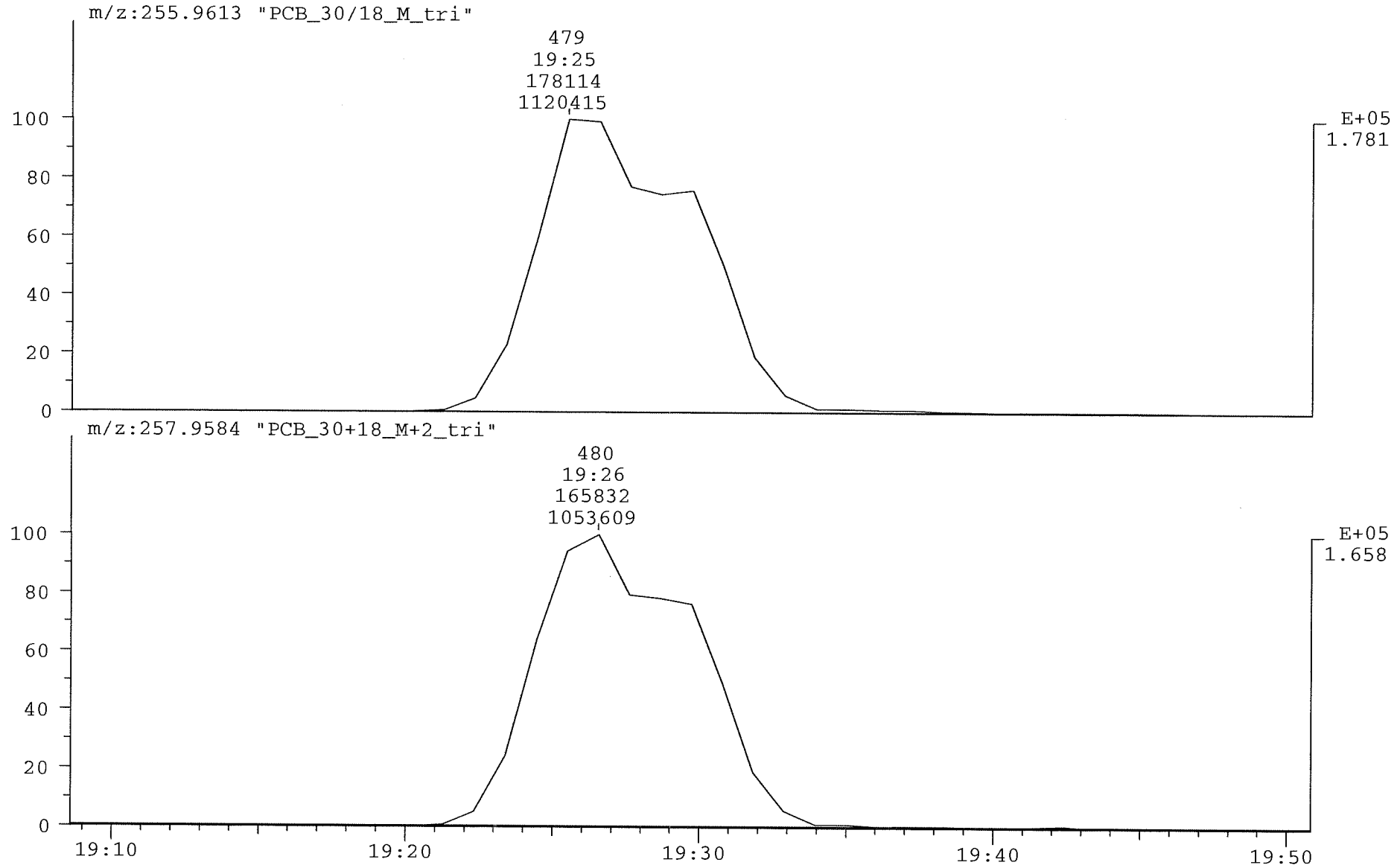
CHRO: a080625ss 25-Jun-08 Elapse: 17:37.8 377
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 352 > 402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2026

2025

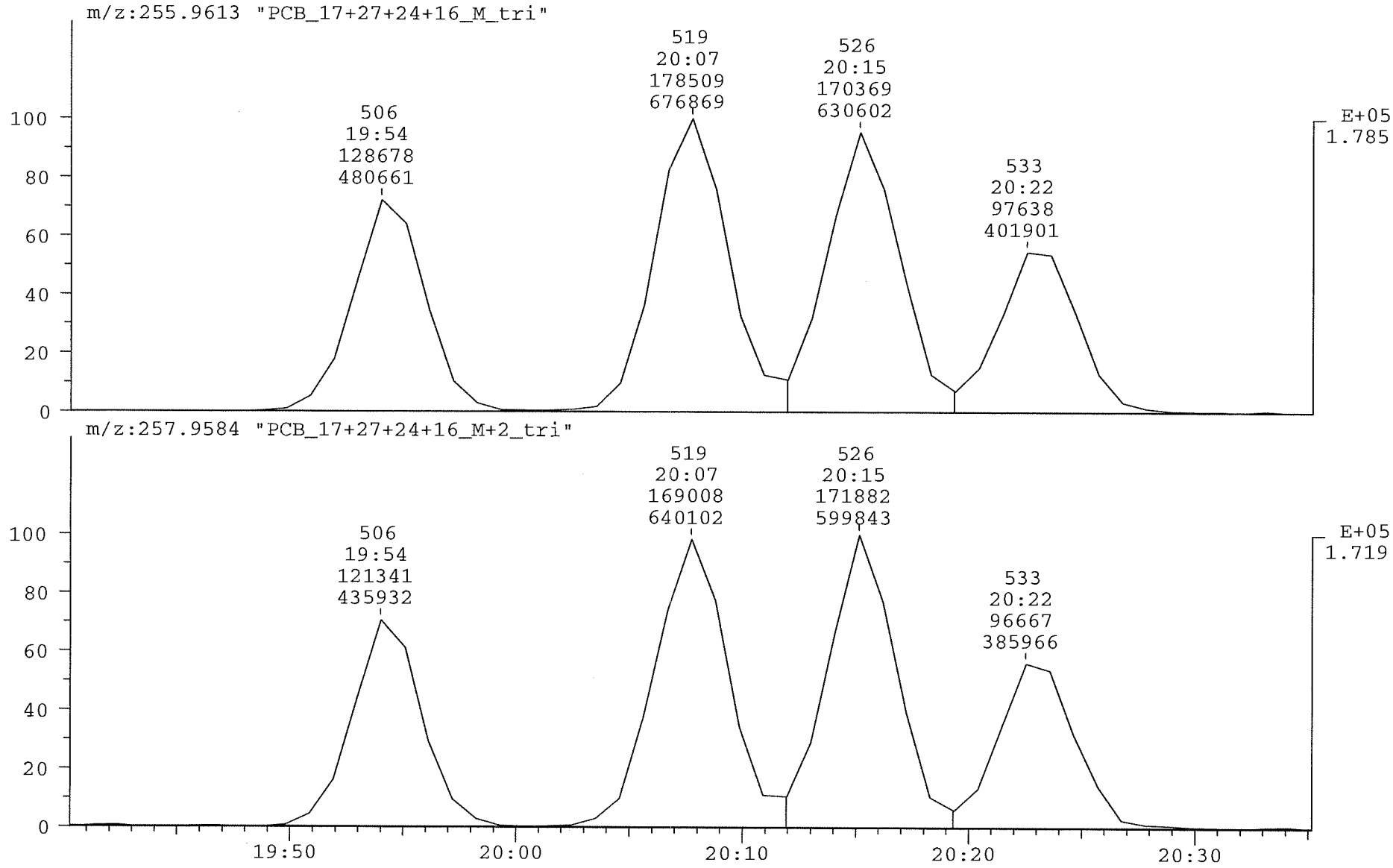
CHRO: a080625ss 25-Jun-08 Elapse: 19:29.7 483
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 463 > 503 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-2027

2026

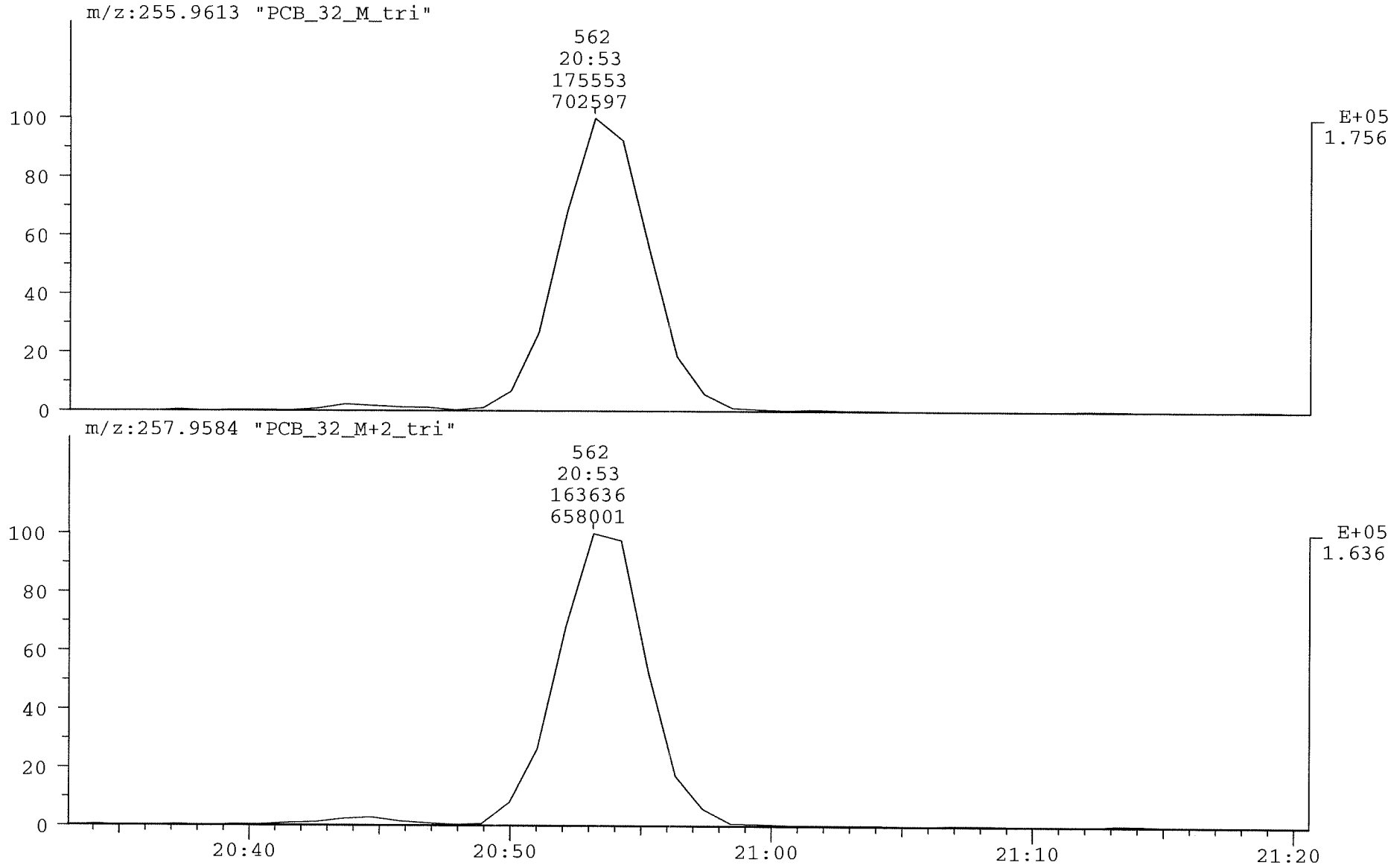
CHRO: a080625ss 25-Jun-08 Elapse: 20:08.8 520
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 493 > 545 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2028

2027

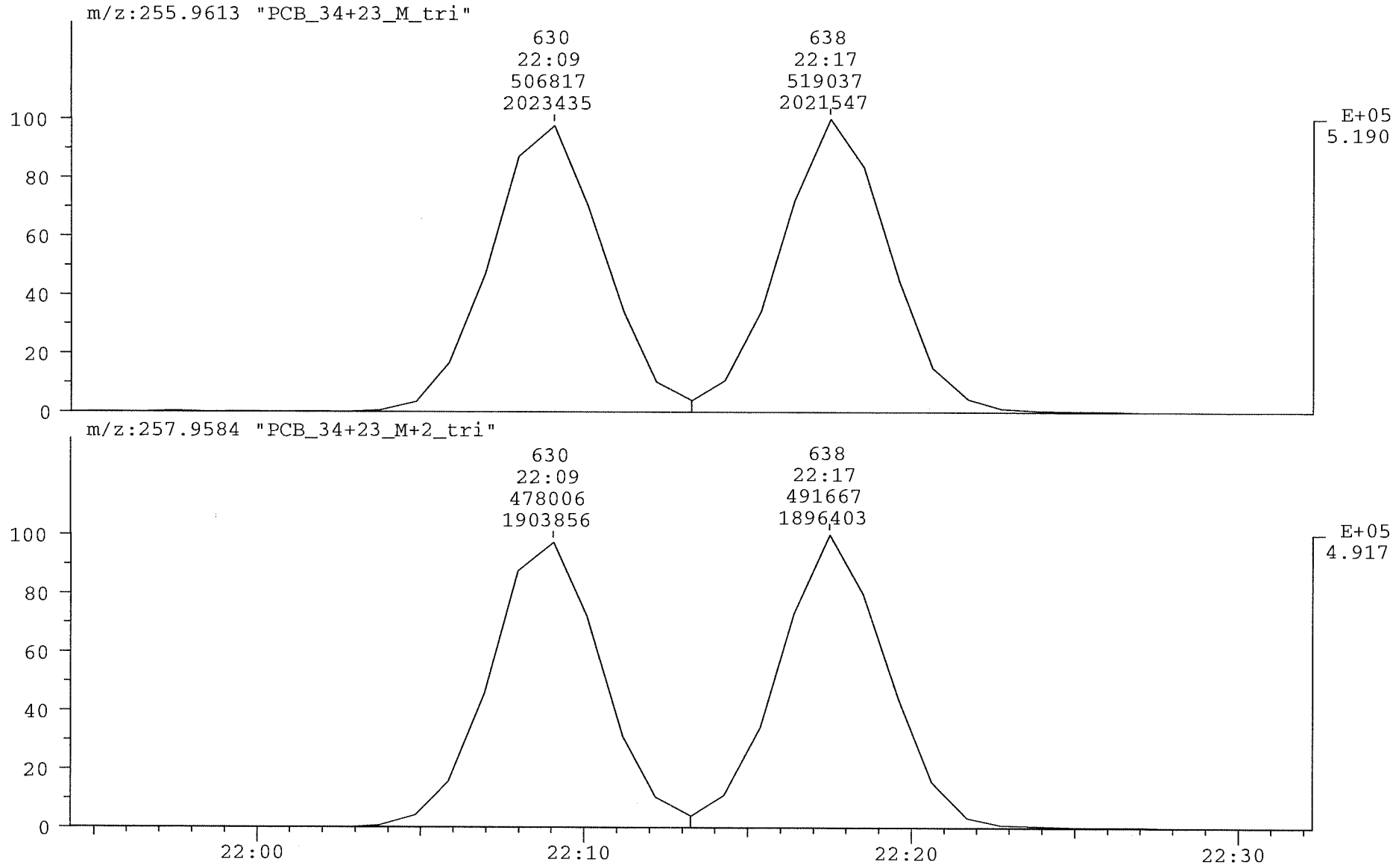
CHRO: a080625ss 25-Jun-08 Elapse: 20:54.2 563
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 543 > 588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2029

2028

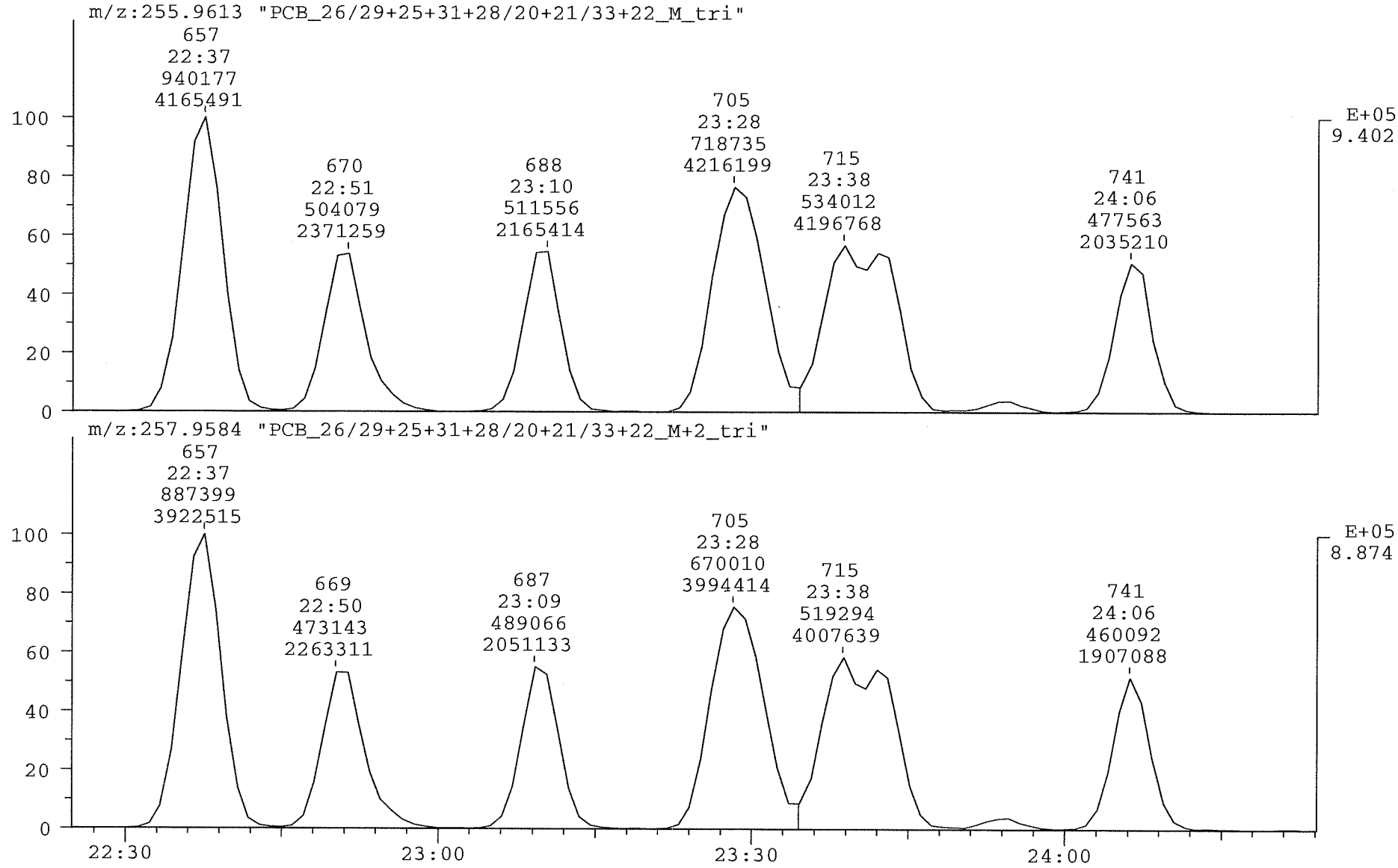
CHRO: a080625ss 25-Jun-08 Elapse: 22:10.1 631
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 616 > 652 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2030

2029

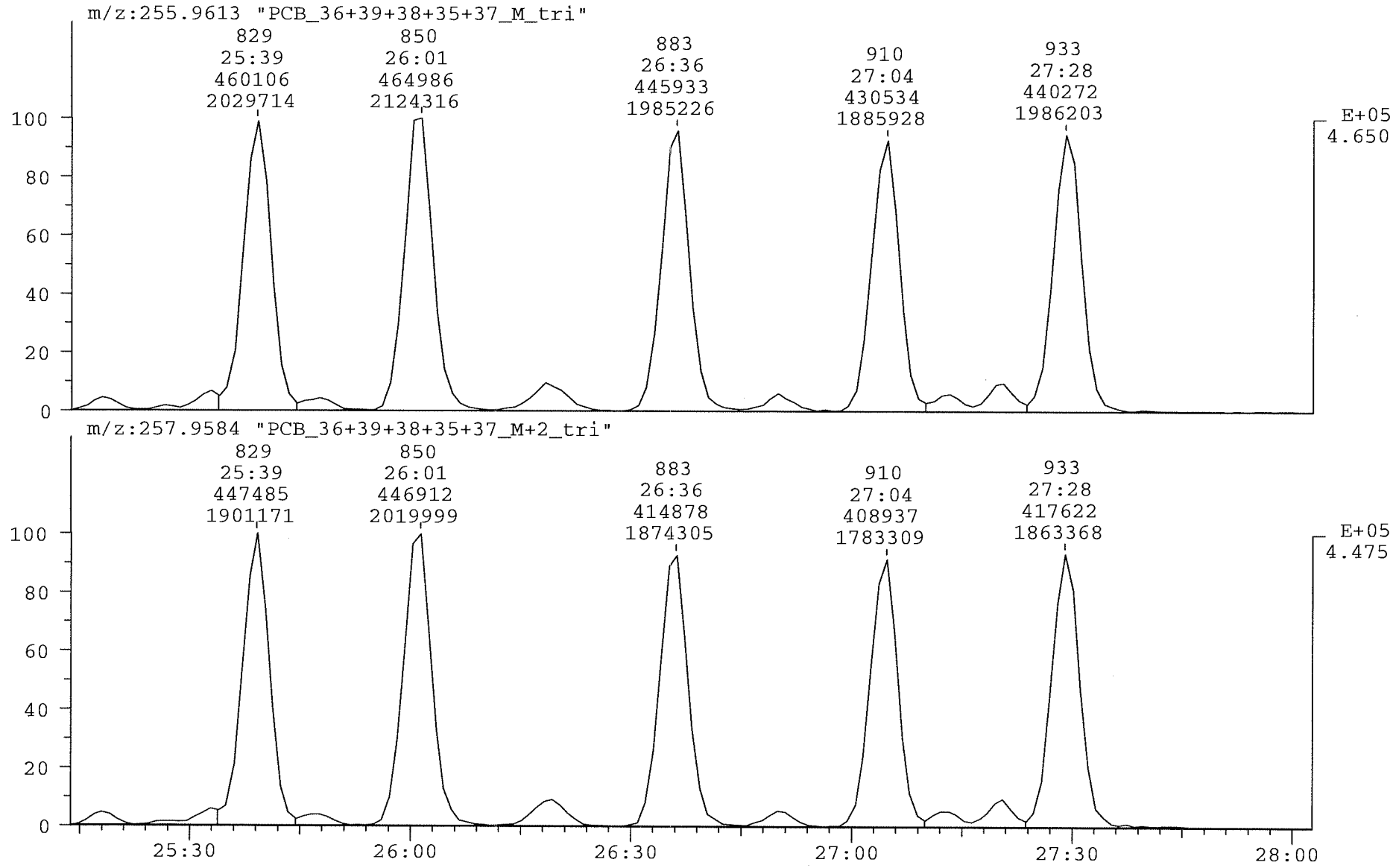
CHRO: a080625ss 25-Jun-08 Elapse: 23:36.6 713
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 645 > 758 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2031

2030

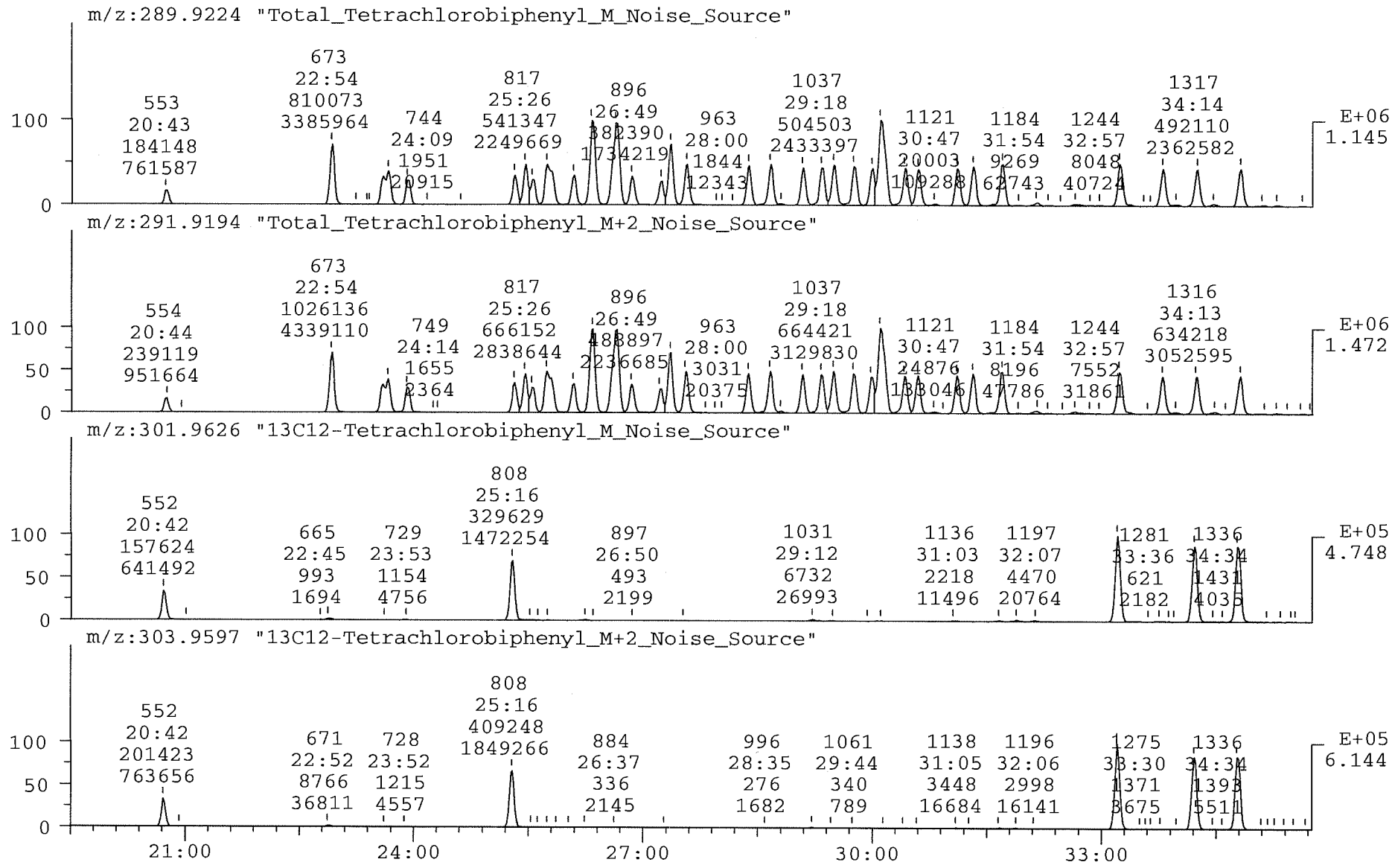
CHRO: a080625ss 25-Jun-08 Elapse: 26:38.2 885
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 805 > 965 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2032

2031

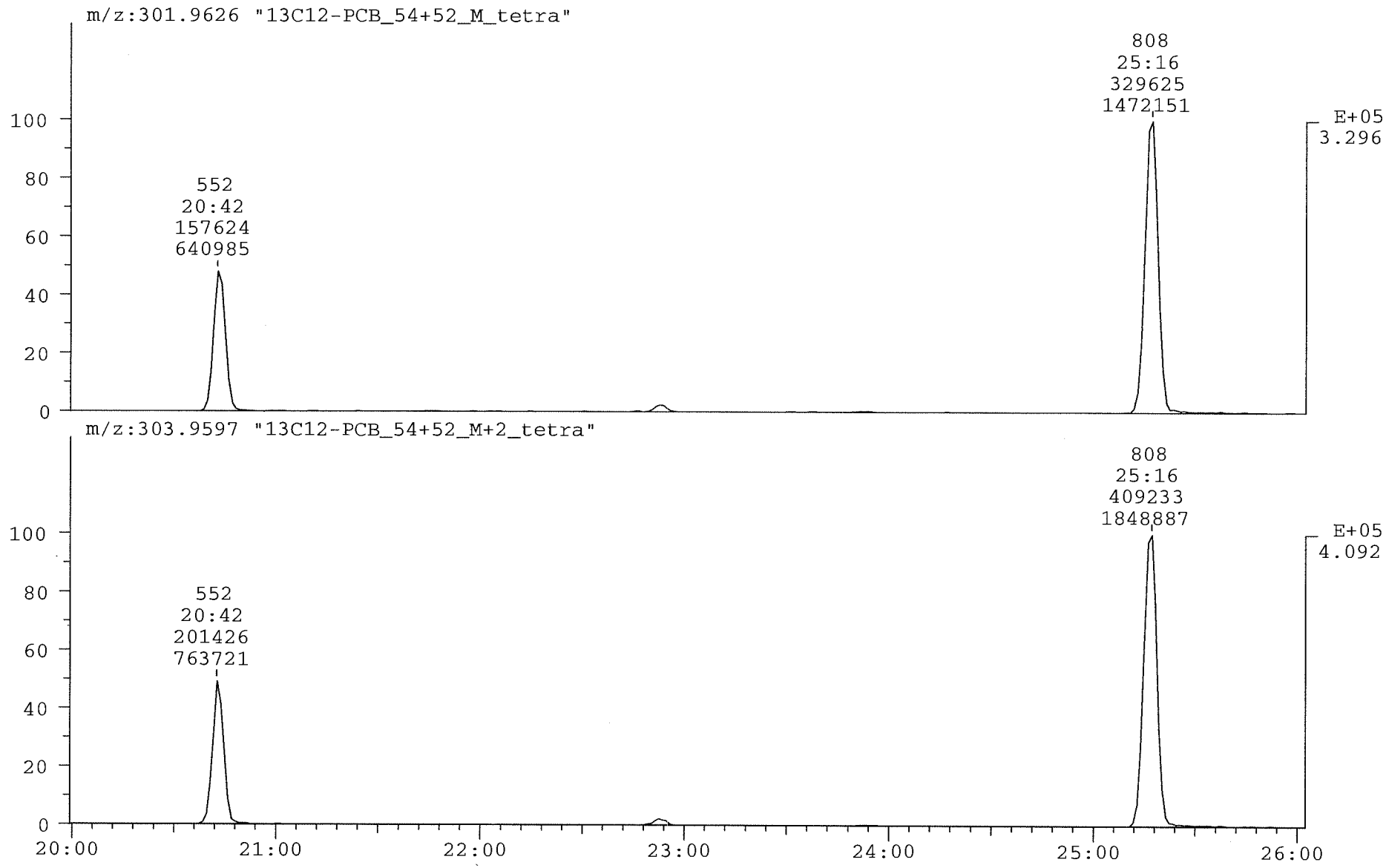
CHRO: a080625ss 25-Jun-08 Elapse: 27:37.3 941
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 483 > 1403 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2033

2032

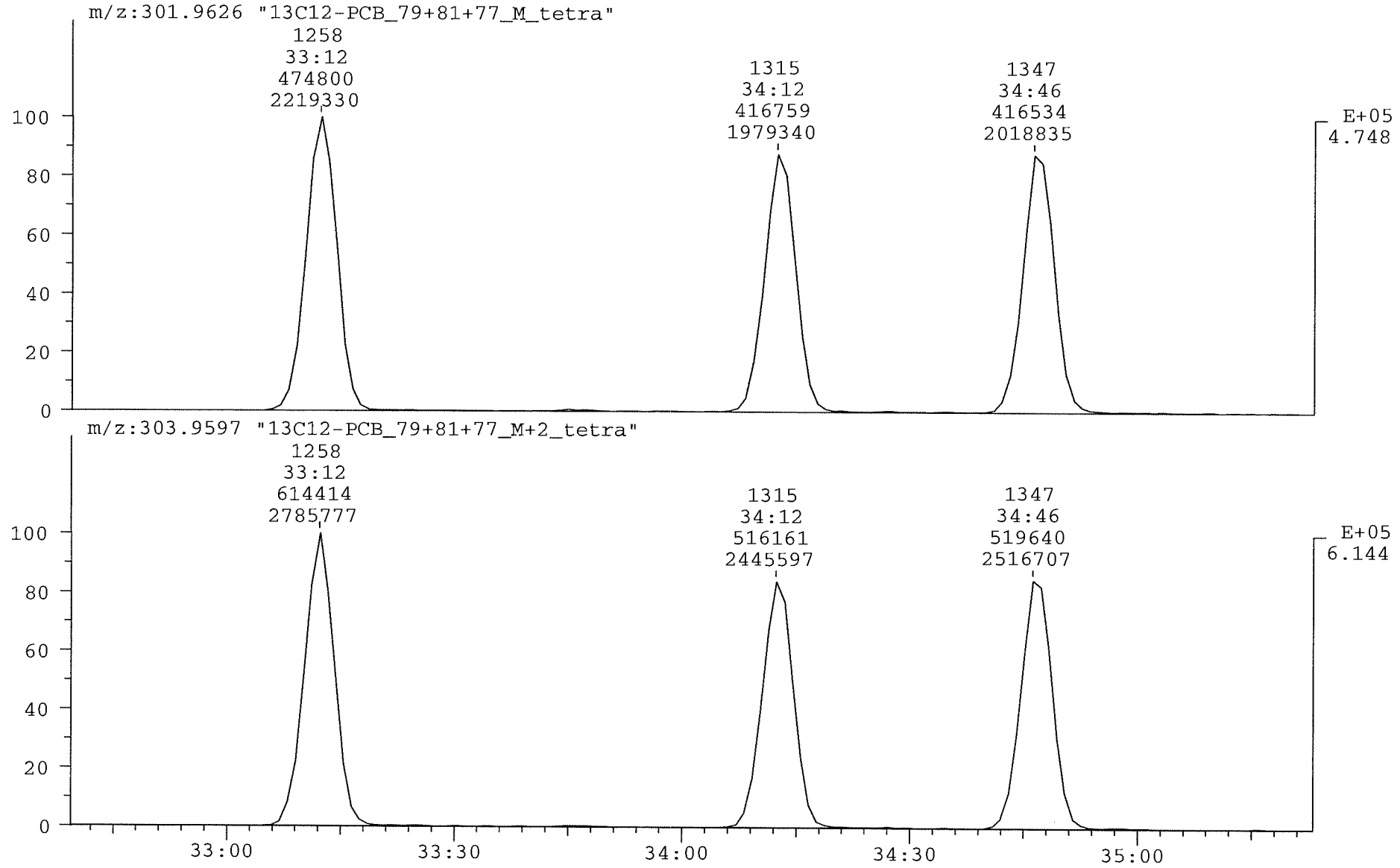
CHRO: a080625ss 25-Jun-08 Elapse: 23:02.8 681
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 511 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2034

2033

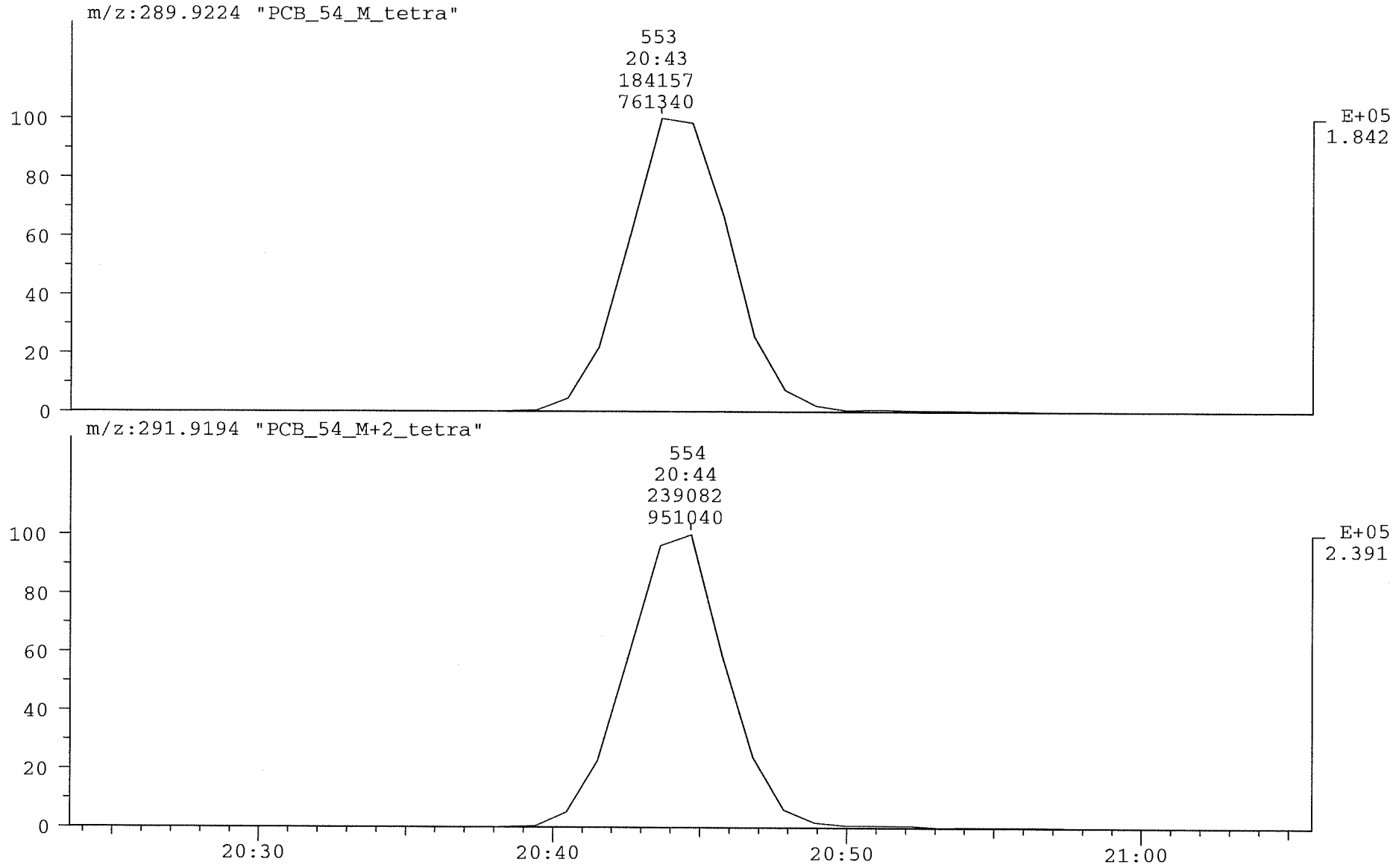
CHRO: a080625ss 25-Jun-08 Elapse: 33:58 1302
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1227 > 1382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2035

2034

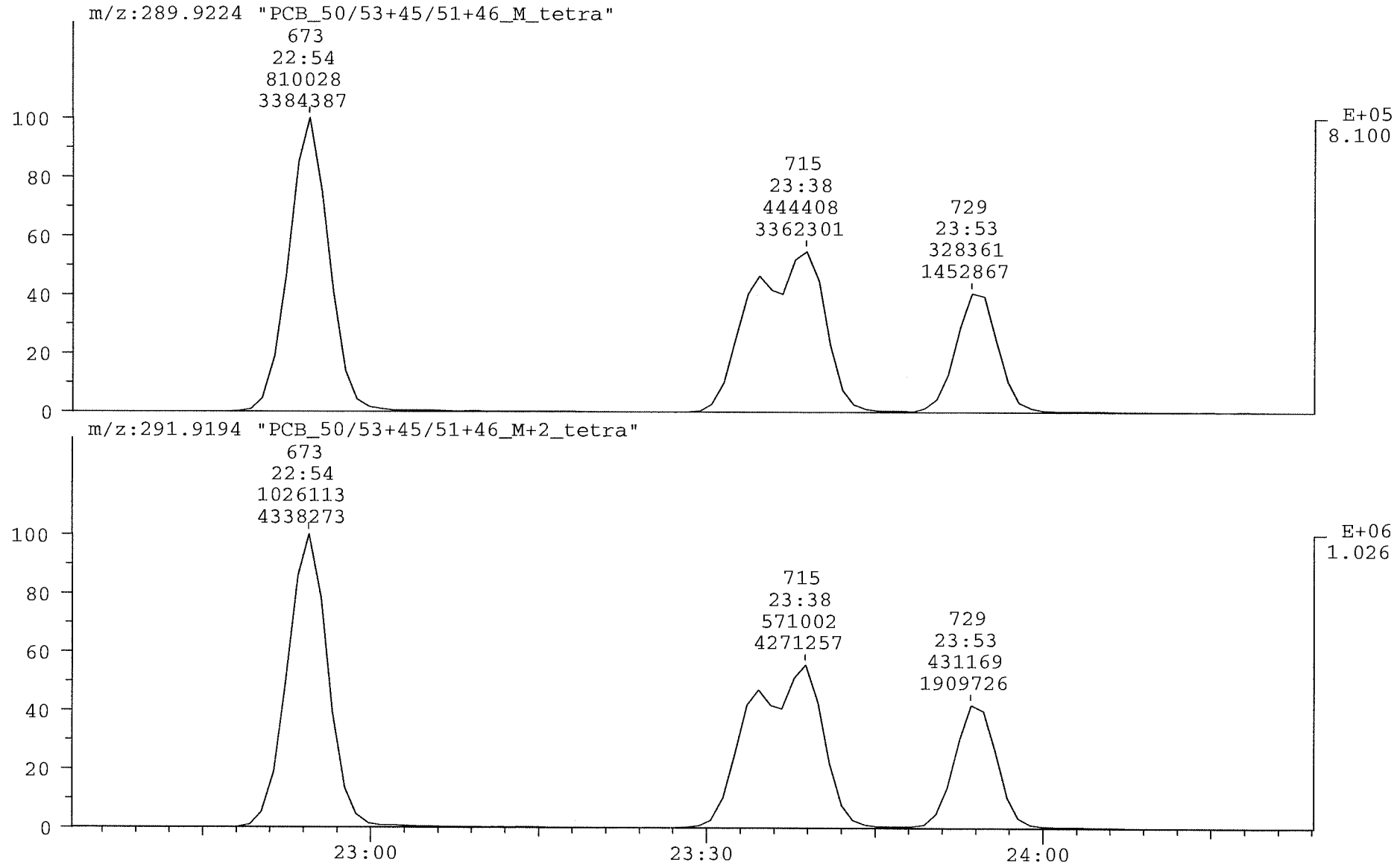
CHRO: a080625ss 25-Jun-08 Elapse: 20:44.7 554
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 534 > 574 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2036

2035

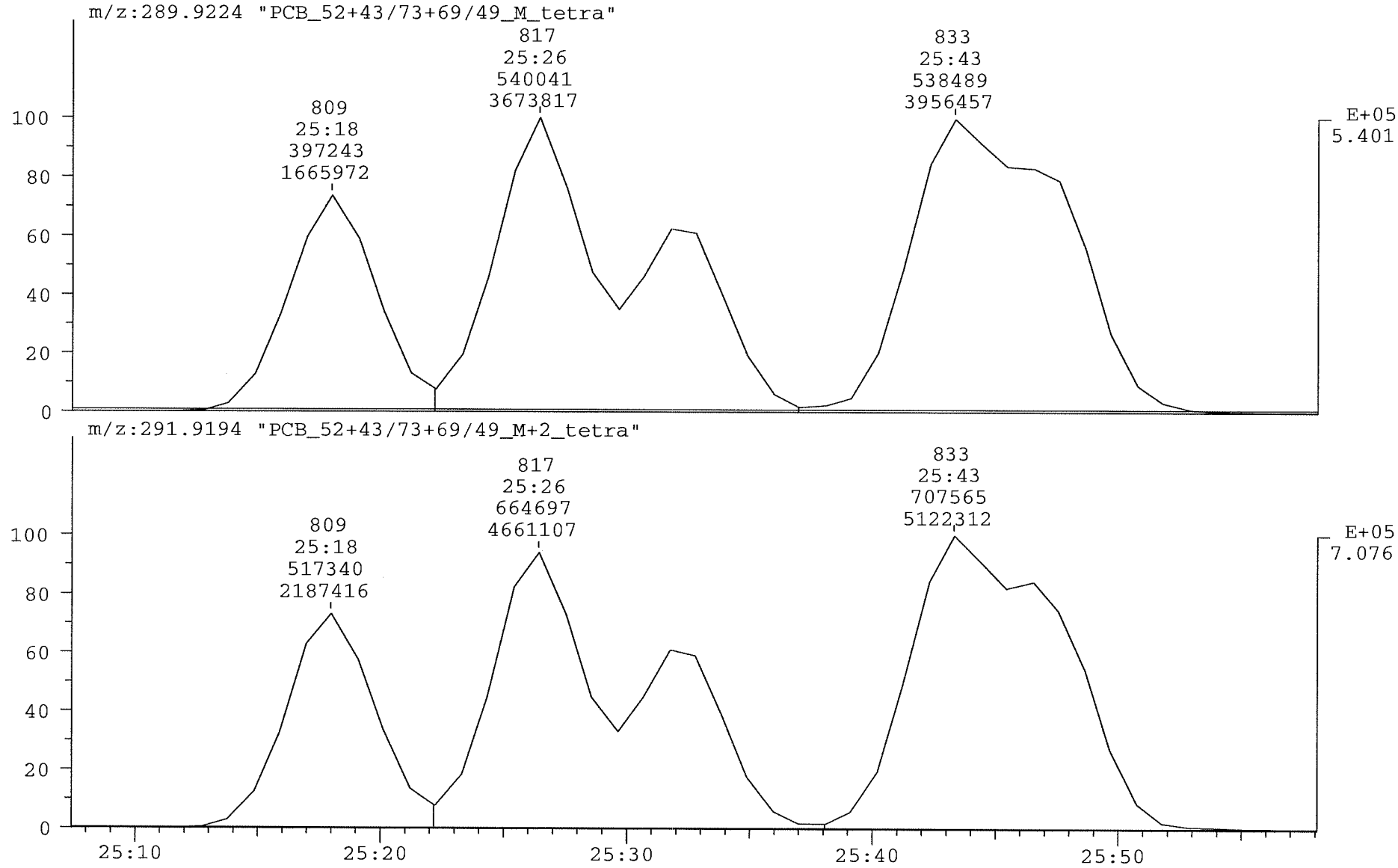
CHRO: a080625ss 25-Jun-08 Elapse: 23:31.4 708
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 653 > 758 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-2037

2036

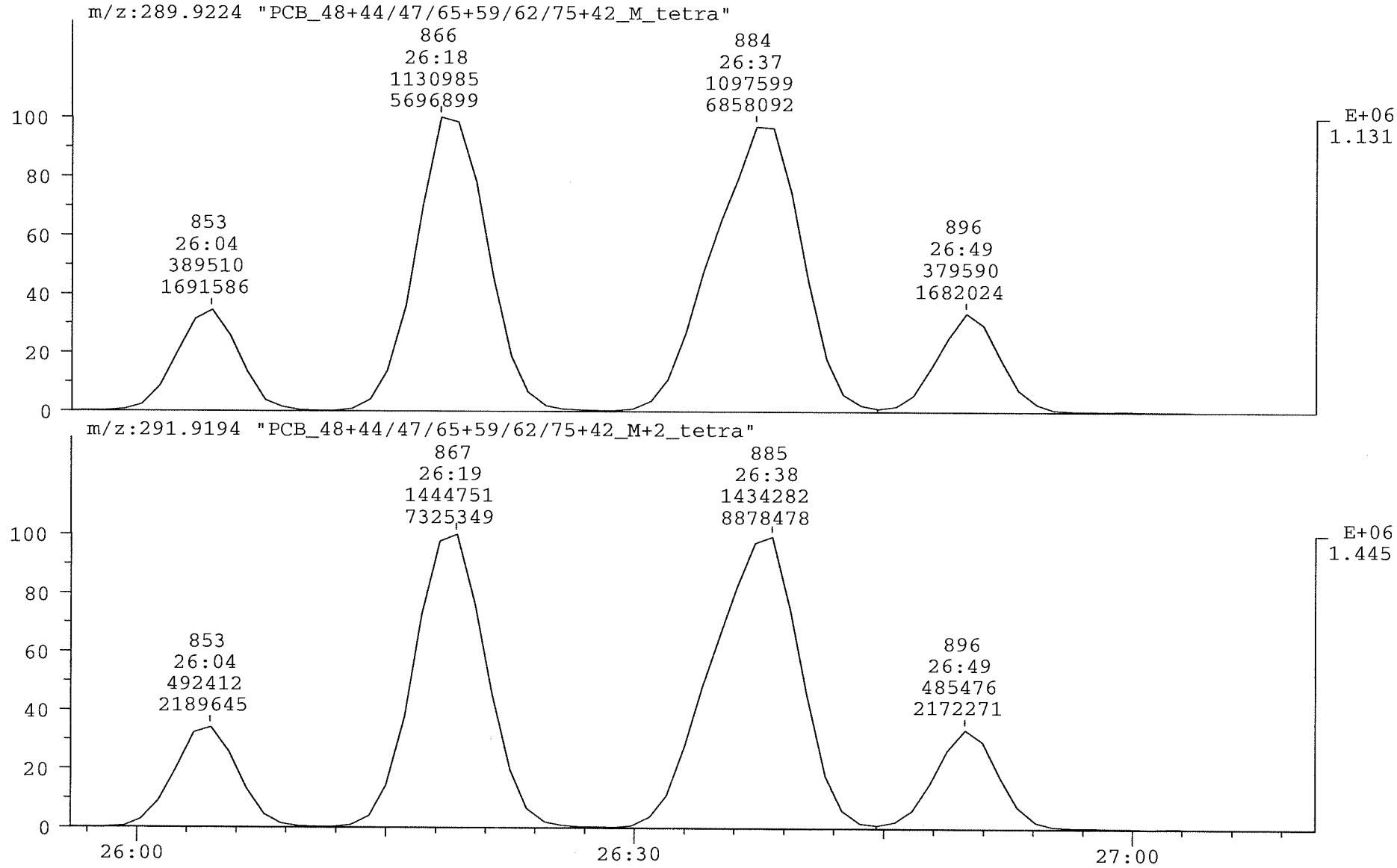
CHRO: a080625ss 25-Jun-08 Elapse: 25:37.9 827
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 799 > 847 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2038

2037

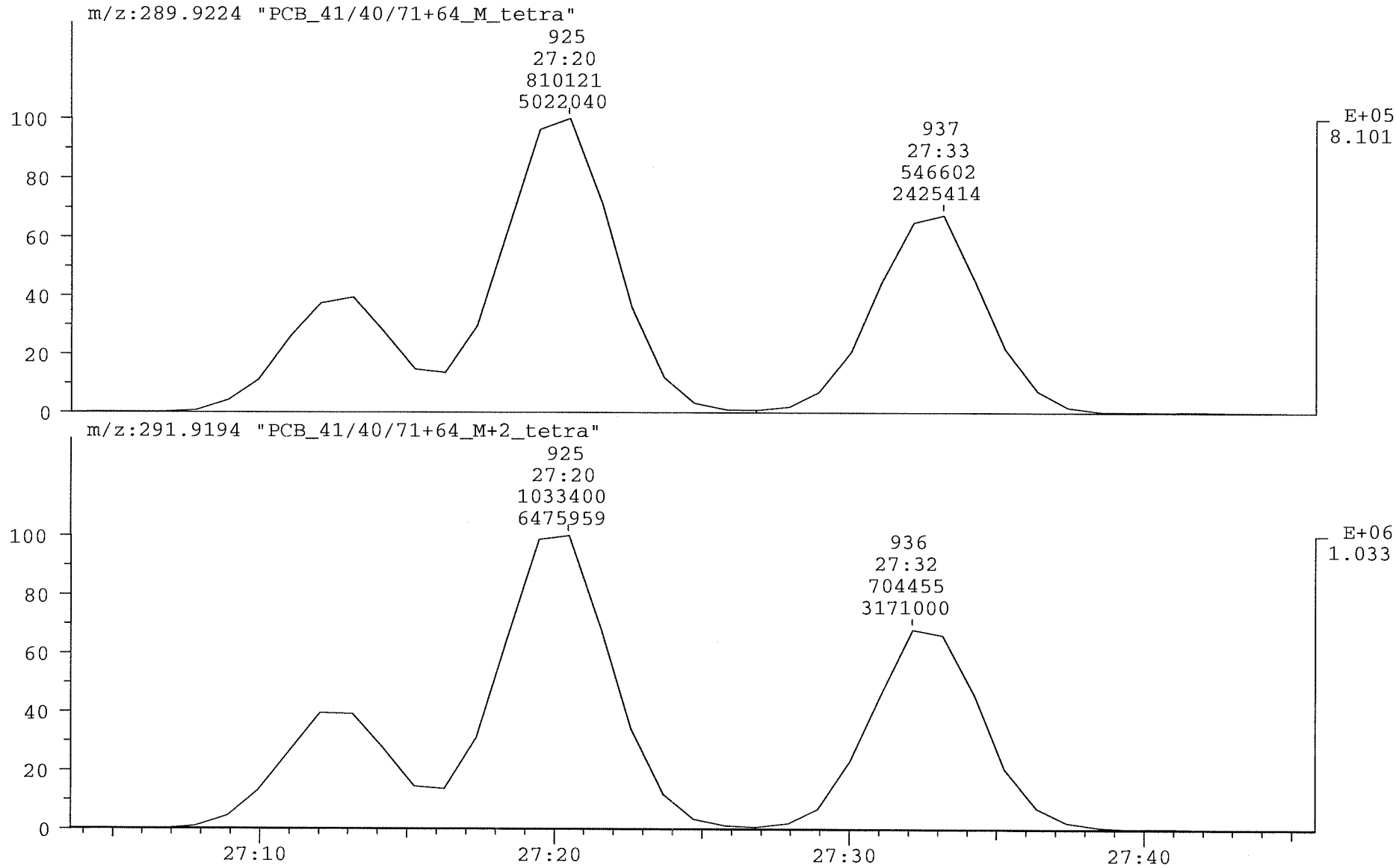
CHRO: a080625ss 25-Jun-08 Elapse: 26:29.8 877
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 845 > 916 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-2039

2038

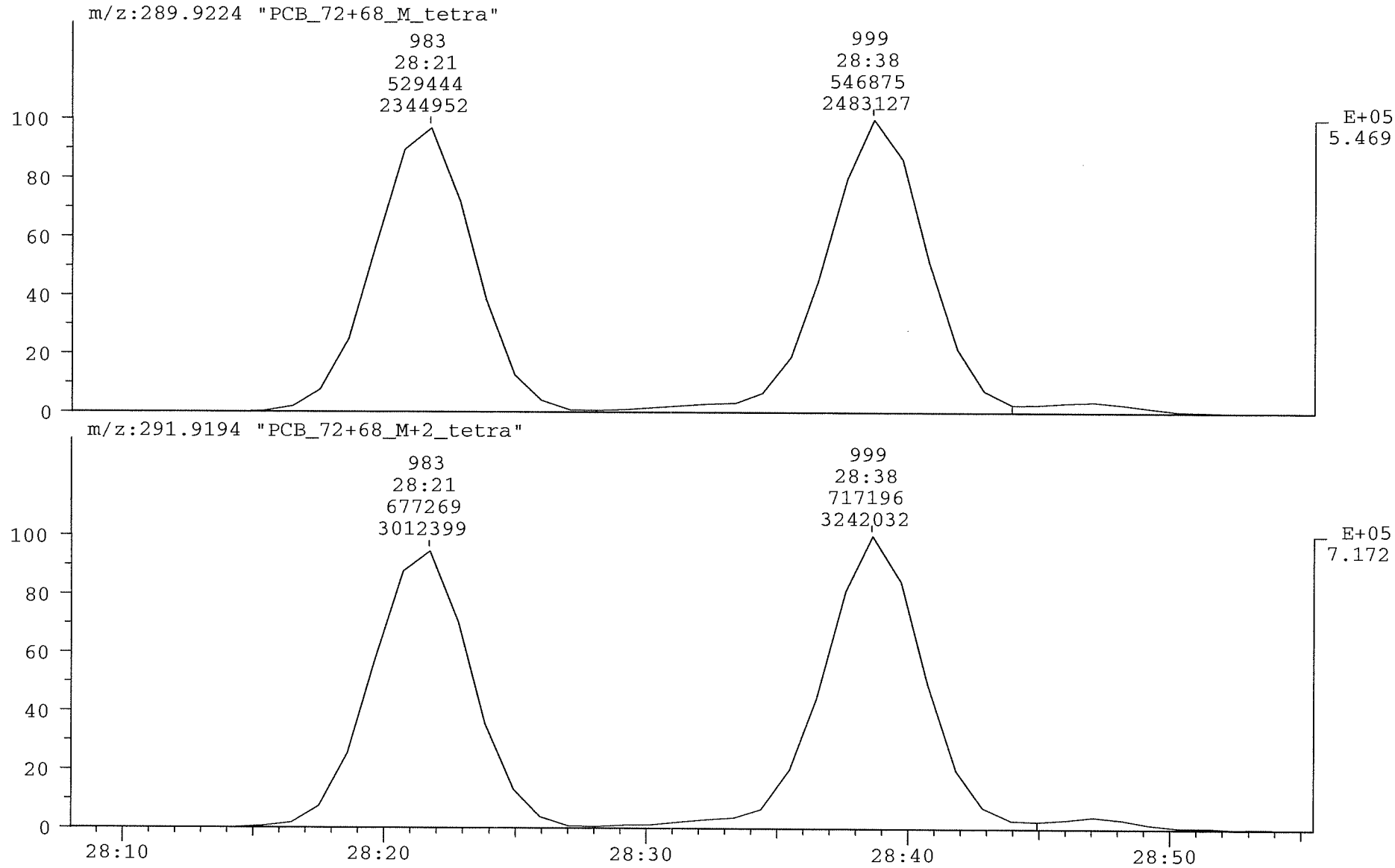
CHRO: a080625ss 25-Jun-08 Elapse: 27:30.0 934
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 909 > 949 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-2040

2039

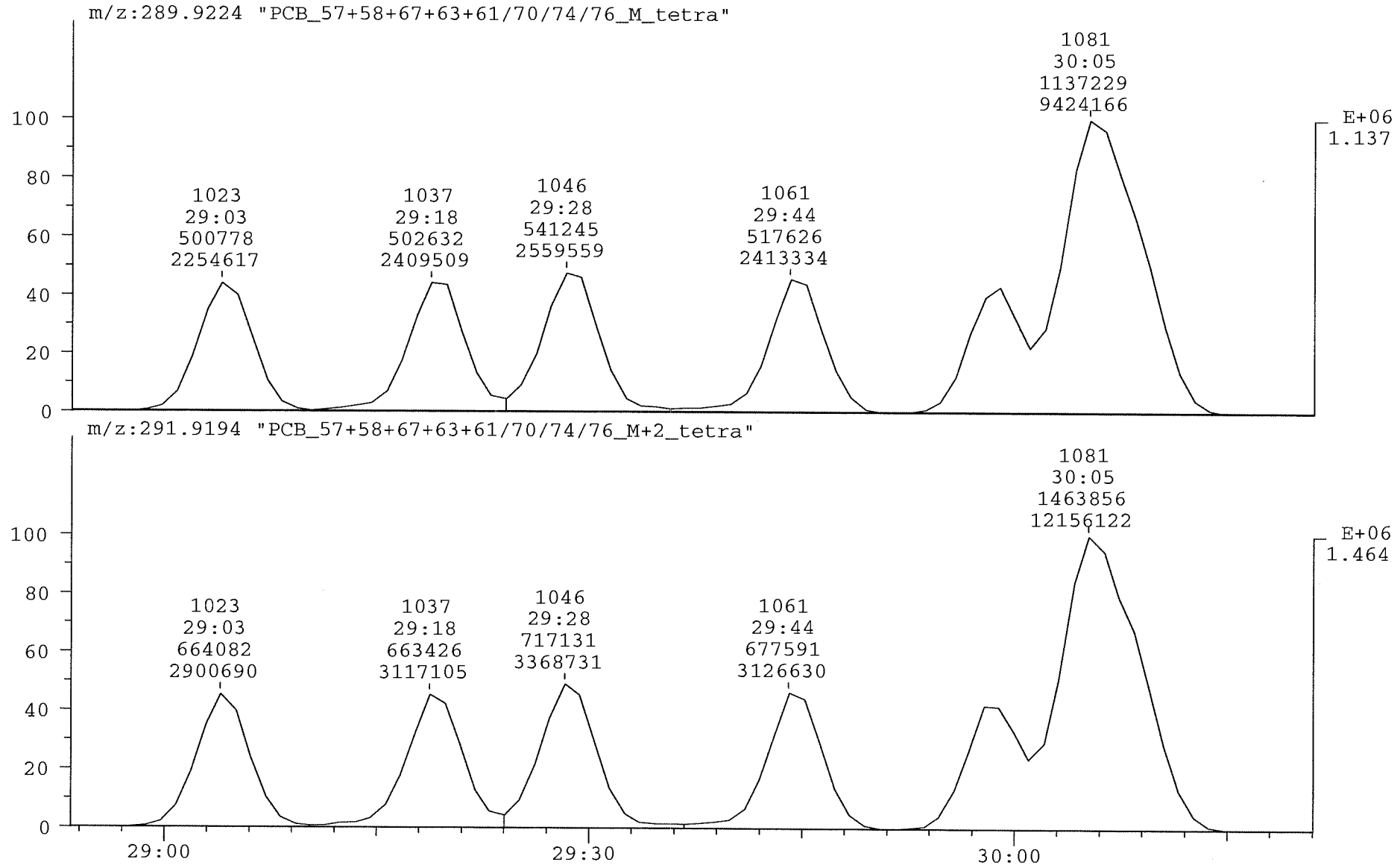
CHRO: a080625ss 25-Jun-08 Elapse: 28:34.4 995
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 970 > 1015 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2041

2040

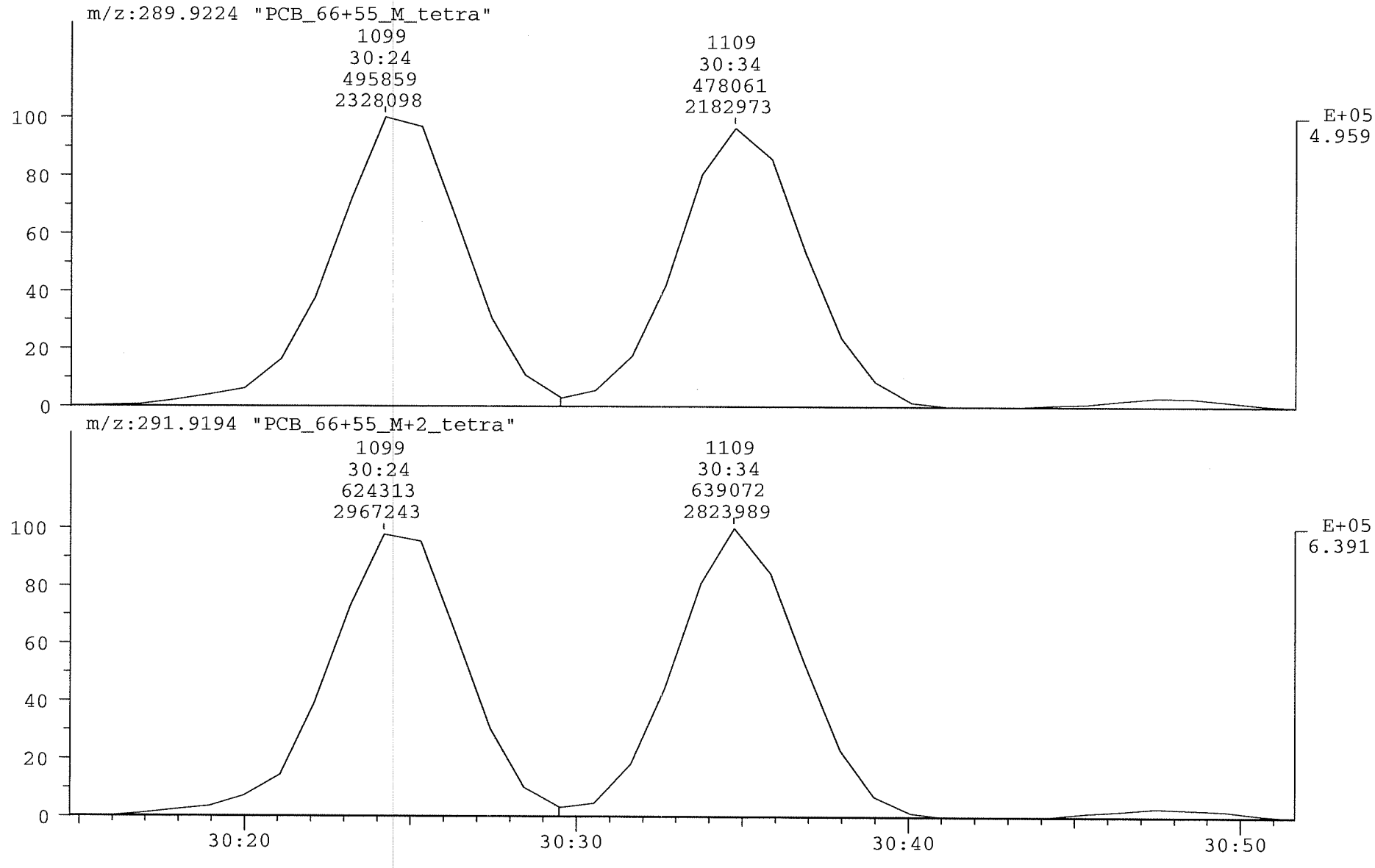
CHRO: a080625ss 25-Jun-08 Elapse: 29:38 1056
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1013 > 1096 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2042

2041

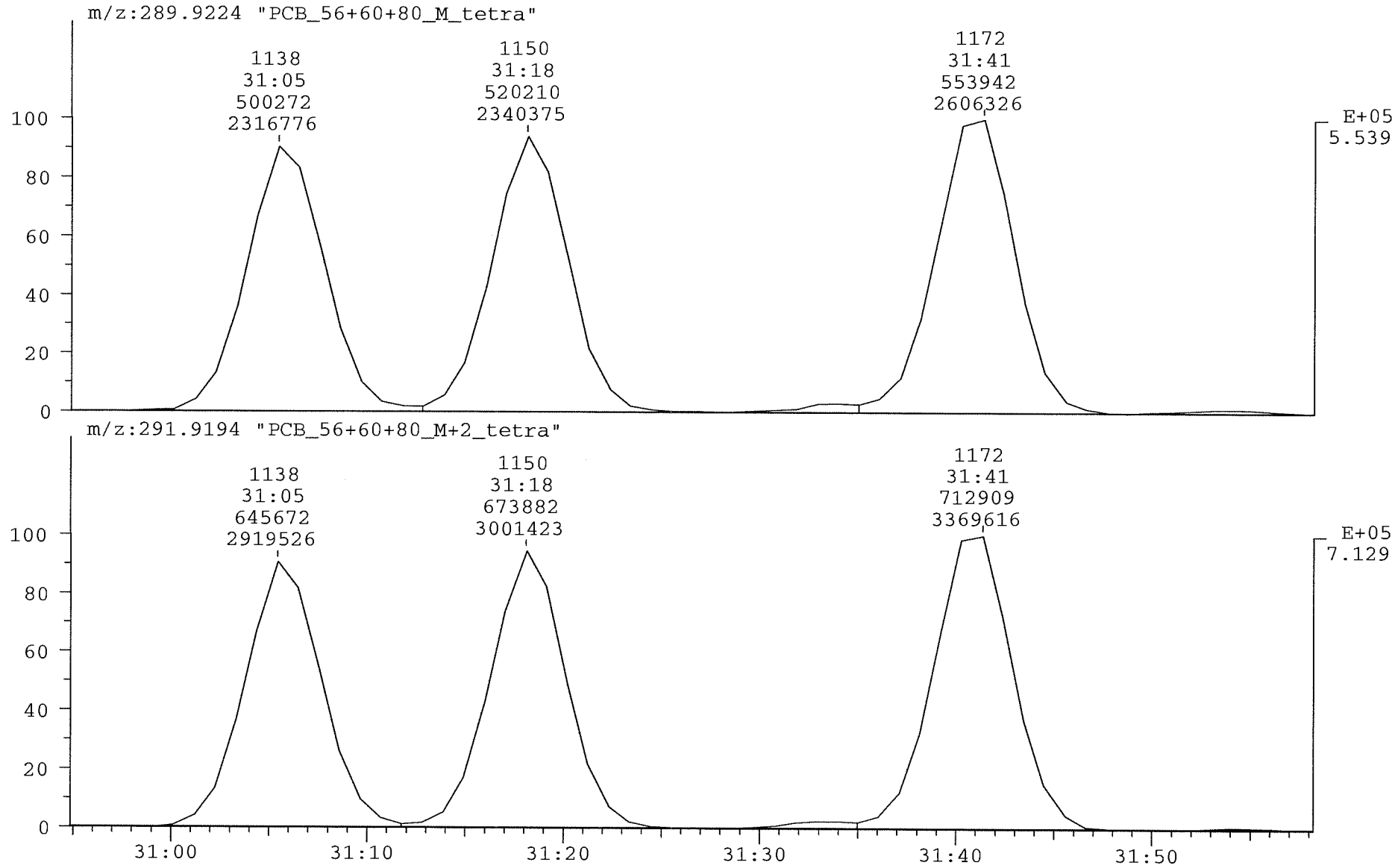
CHRO: a080625ss 25-Jun-08 Elapse: 30:33 1108
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1090 > 1125 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2043

2042

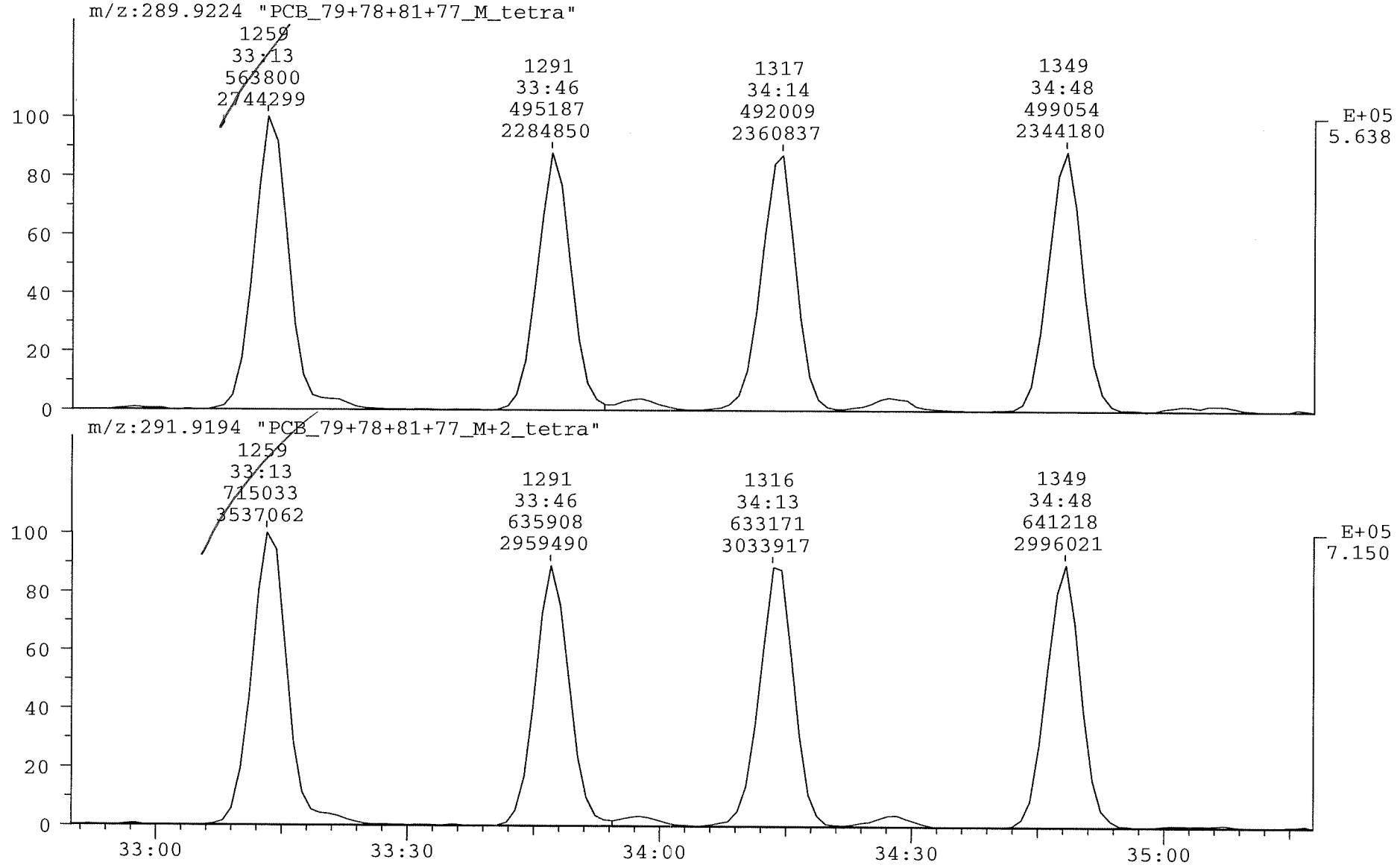
CHRO: a080625ss 25-Jun-08 Elapse: 31:26 1158
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1128 > 1188 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2044

2043

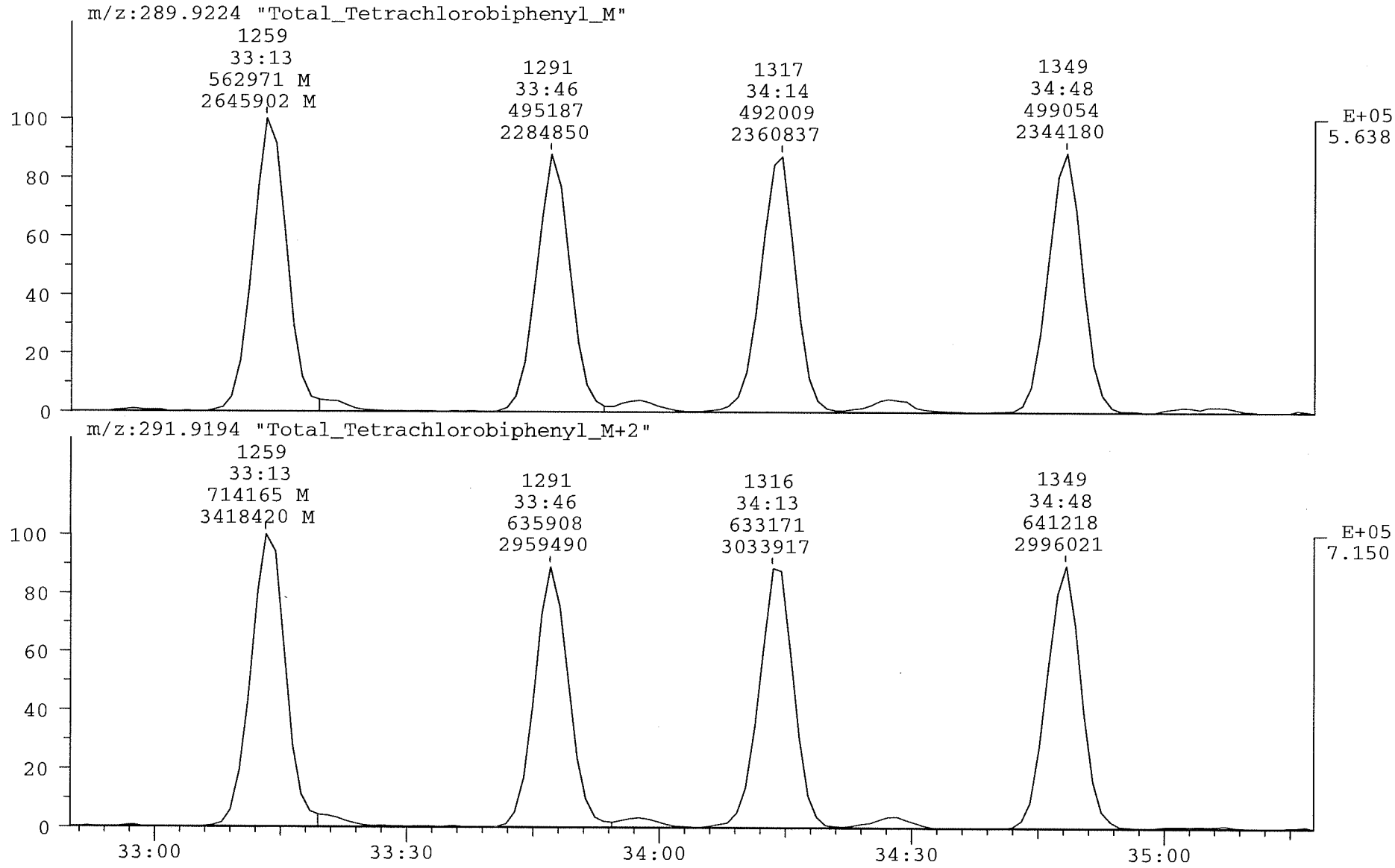
CHRO: a080625ss 25-Jun-08 Elapse: 33:58 1302
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1237 > 1377 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2045

2044

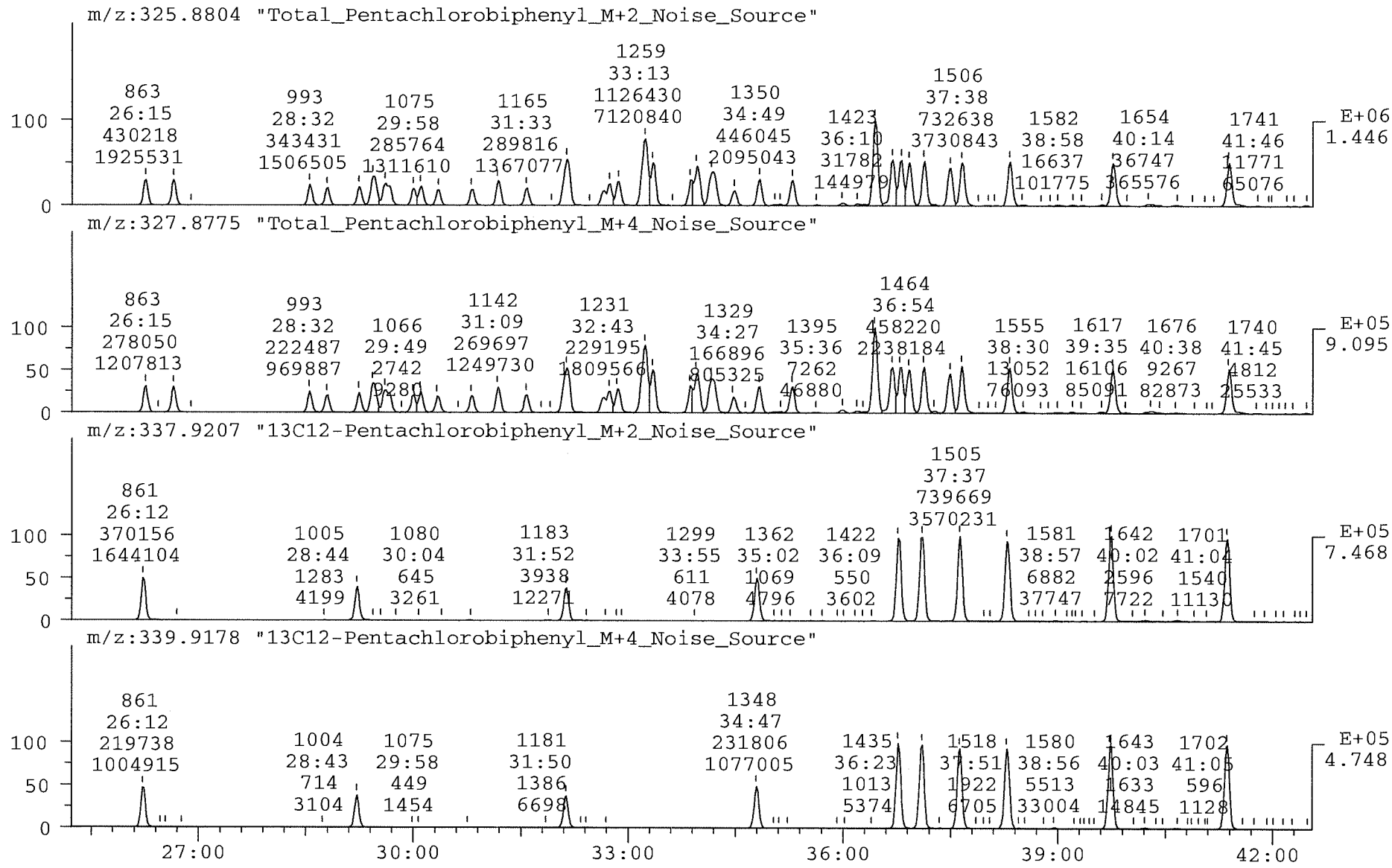
CHRO: a080625ss 25-Jun-08 Elapse: 11:00.7 1
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1237 > 1377 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2046

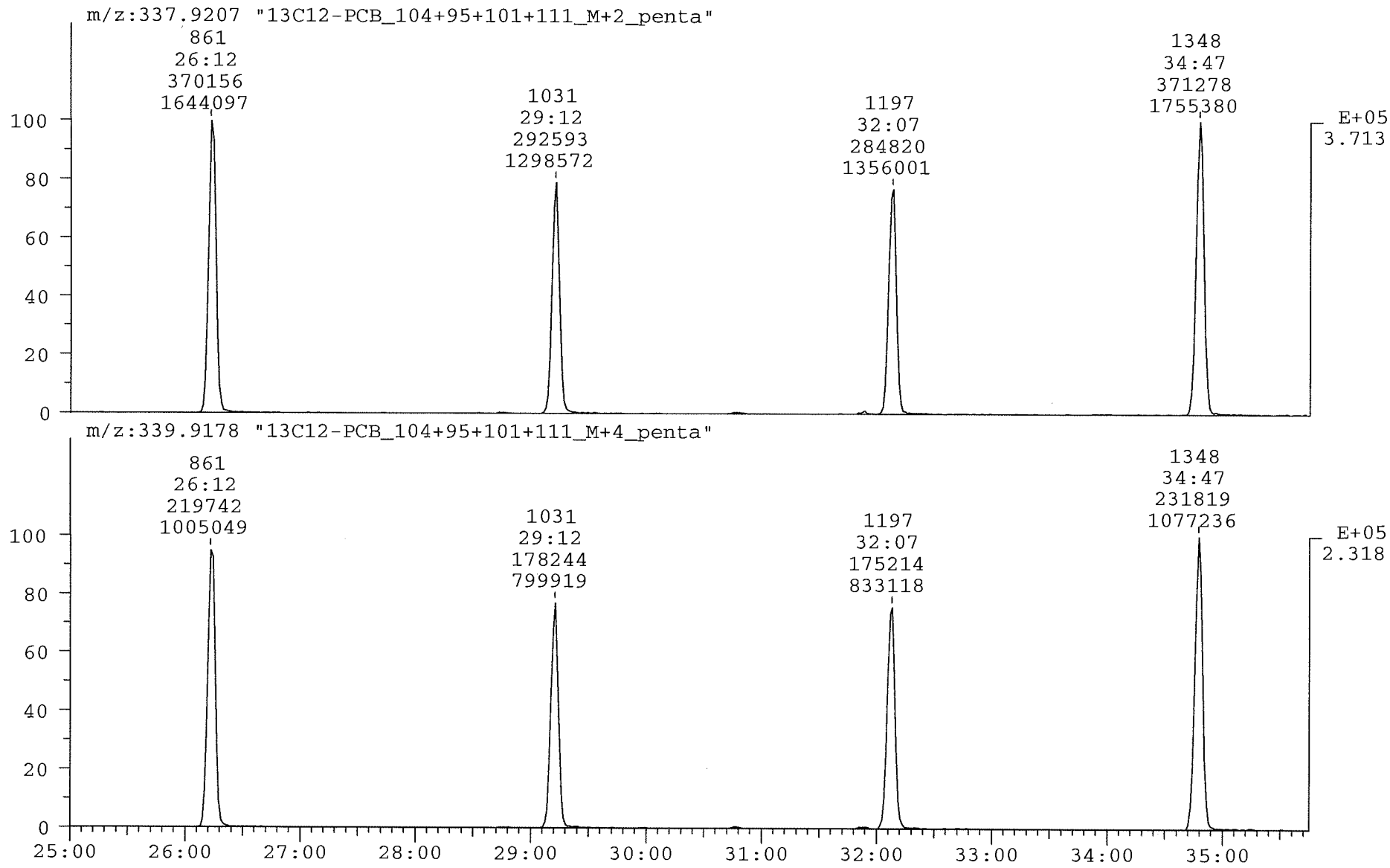
2045

CHRO: a080625ss 25-Jun-08 Elapse: 33:53 1297
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 804 > 1785 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area

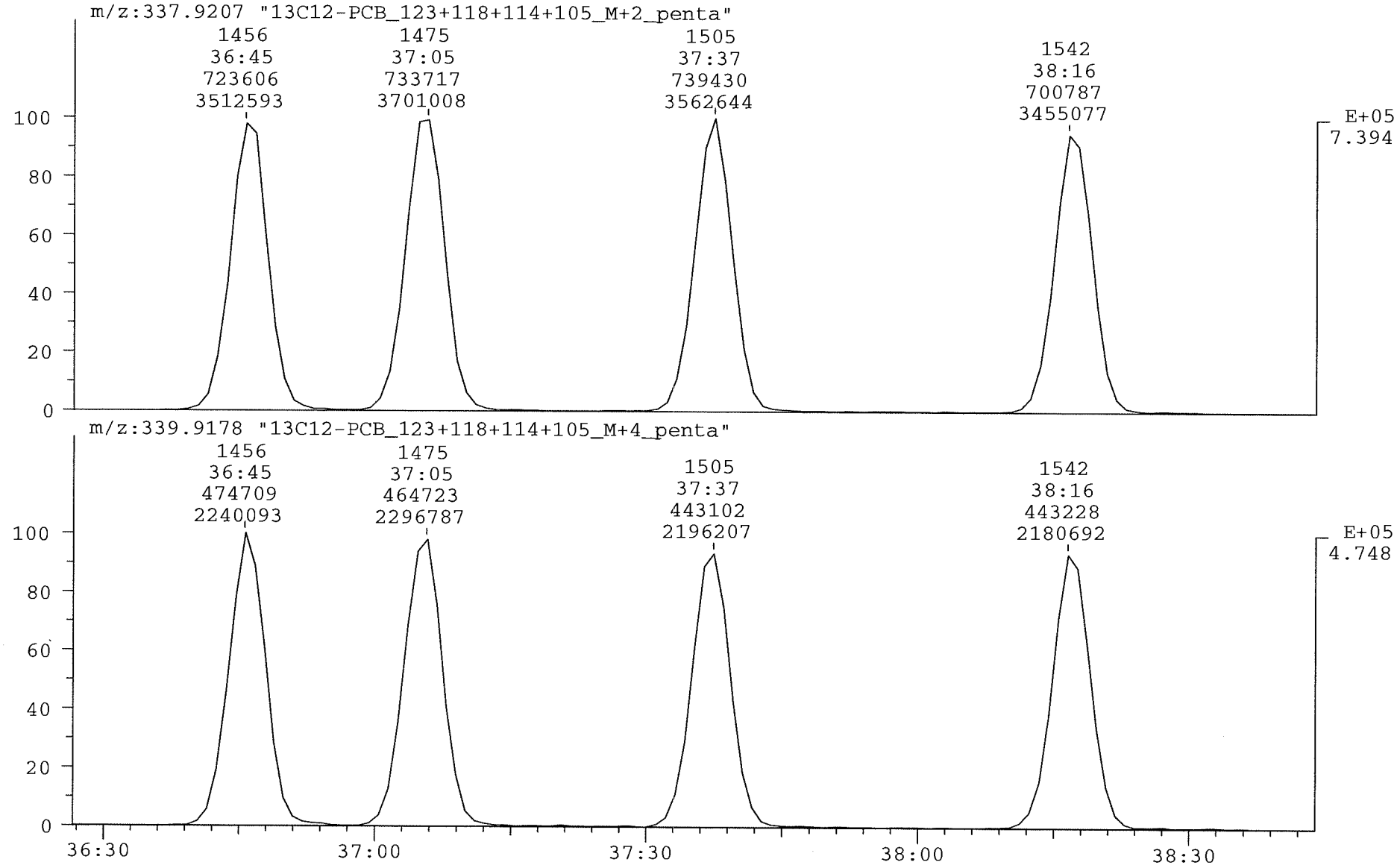


H-2047

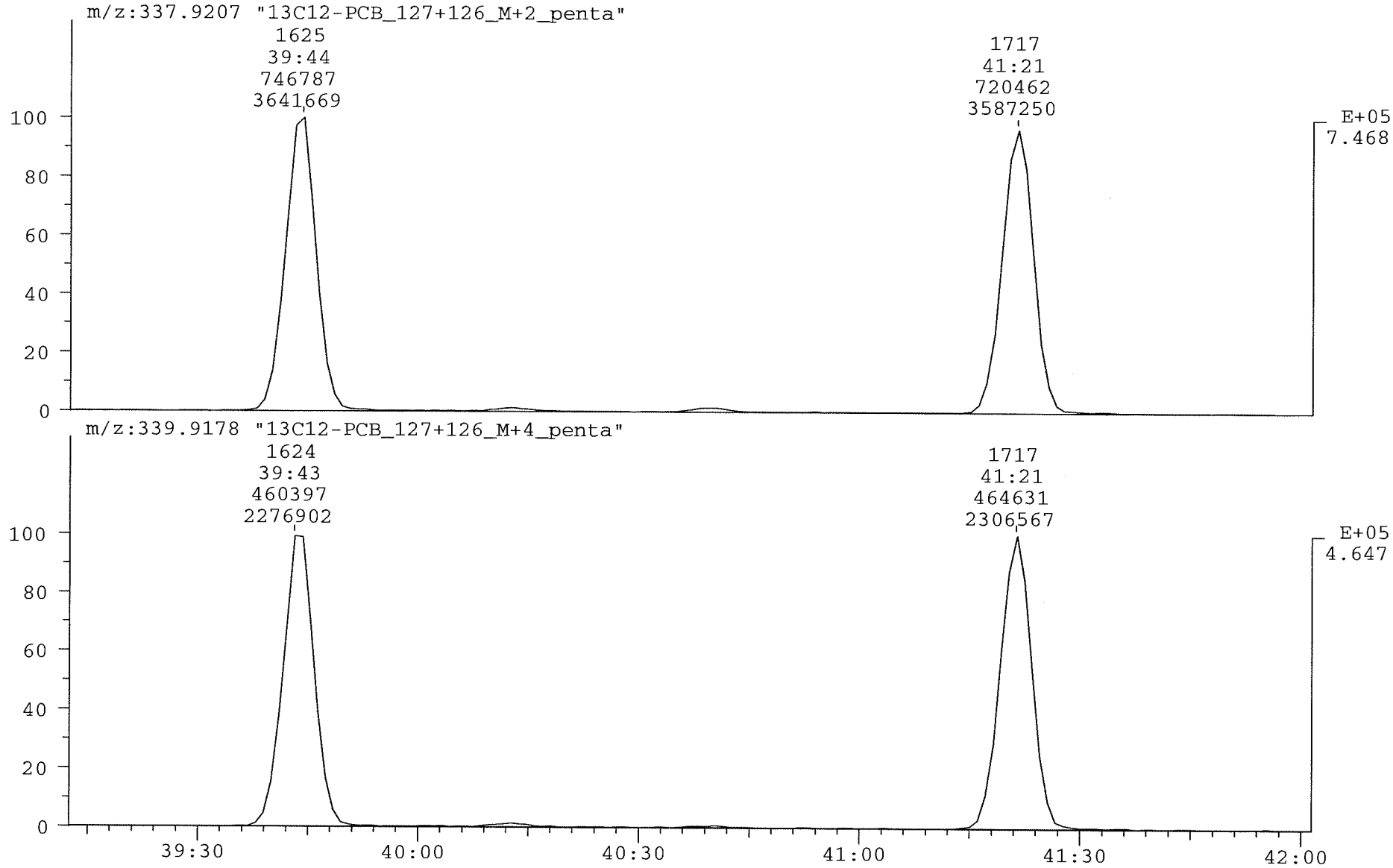
CHRO: a080625ss 25-Jun-08 Elapse: 30:22 1097
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 792 > 1403 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



CHRO: a080625ss 25-Jun-08 Elapse: 37:35 1503
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1438 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



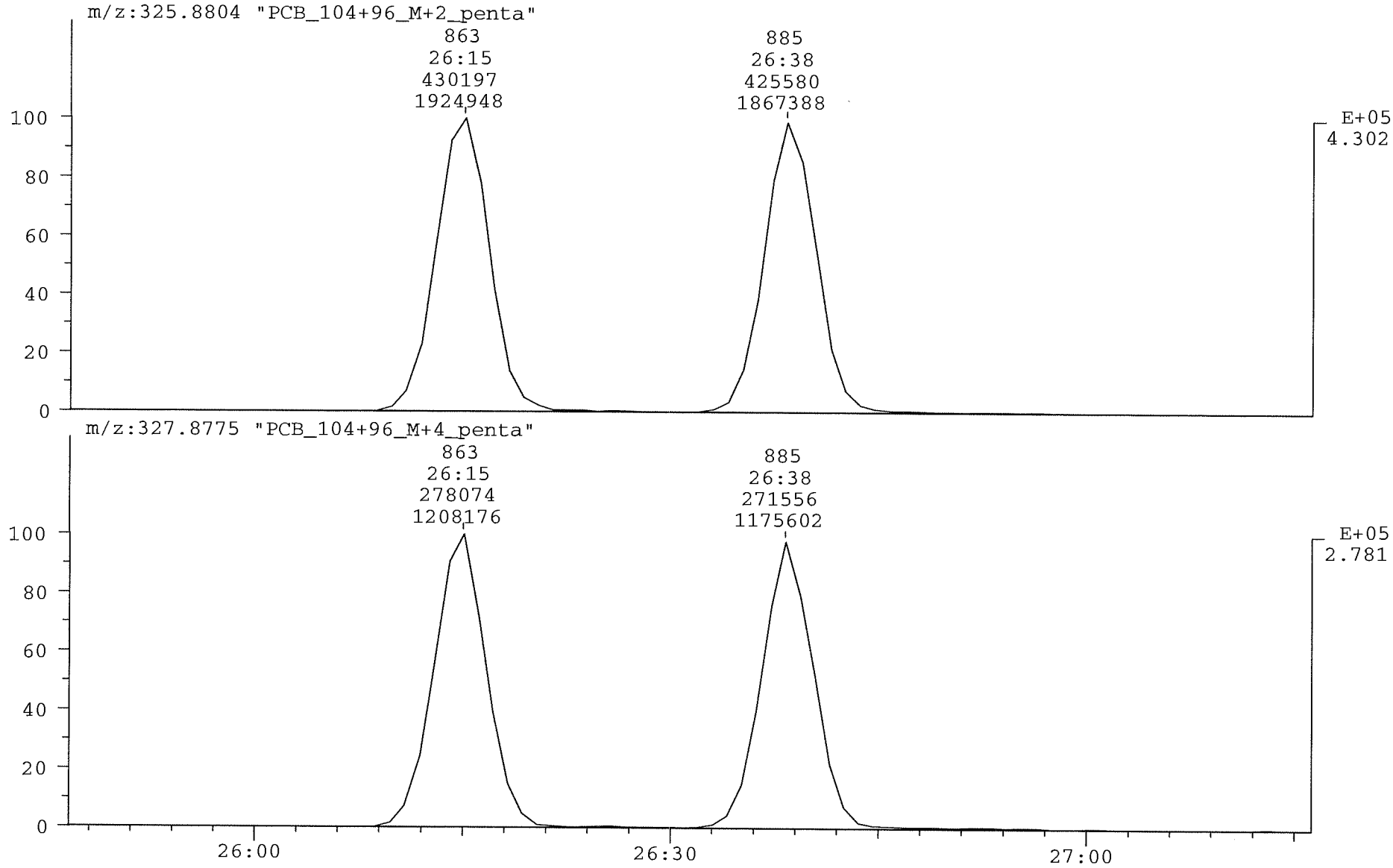
CHRO: a080625ss 25-Jun-08 Elapse: 40:36 1675
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1595 > 1755 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2050

2049

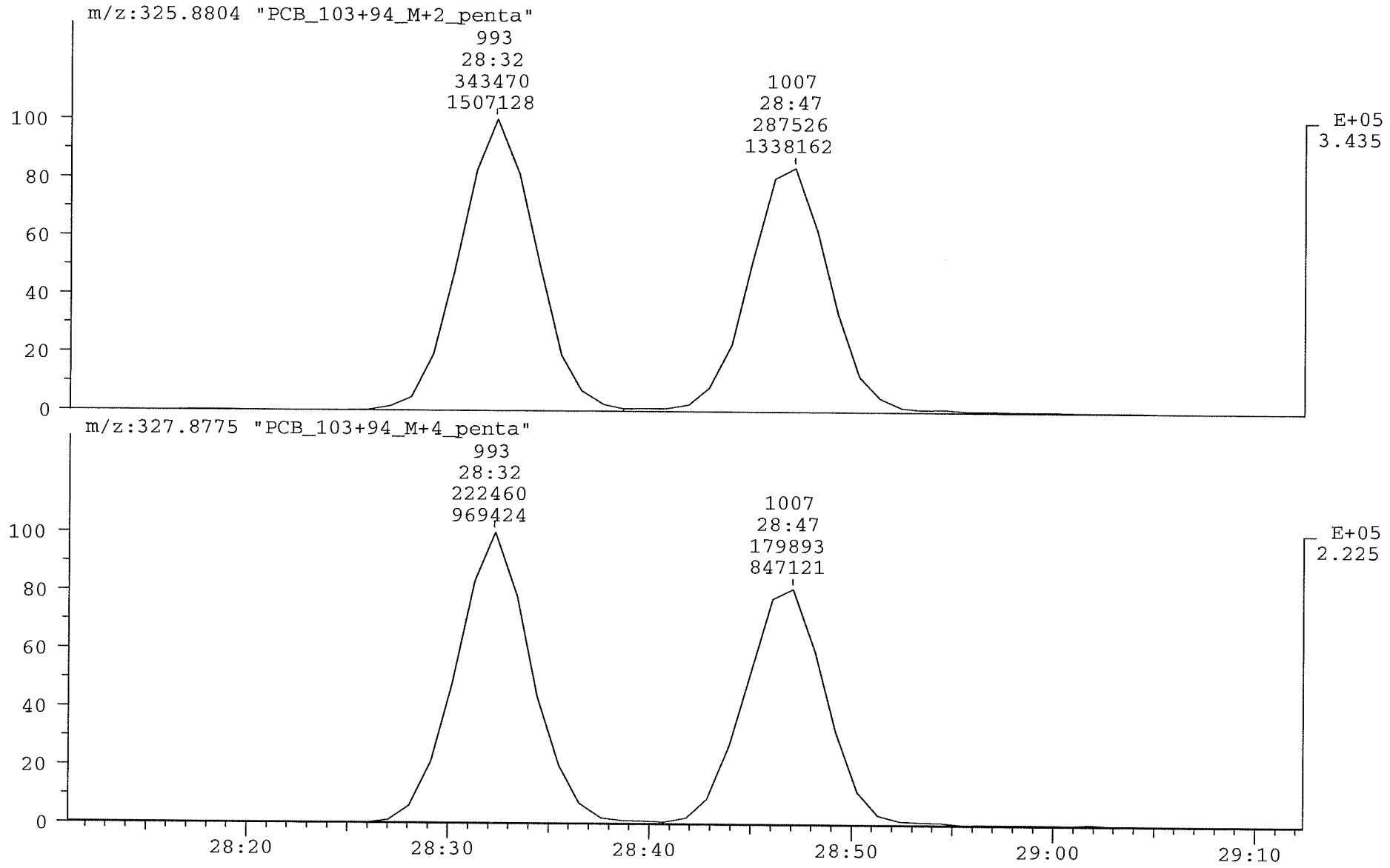
CHRO: a080625ss 25-Jun-08 Elapse: 26:28.7 876
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 836 > 921 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2051

2050

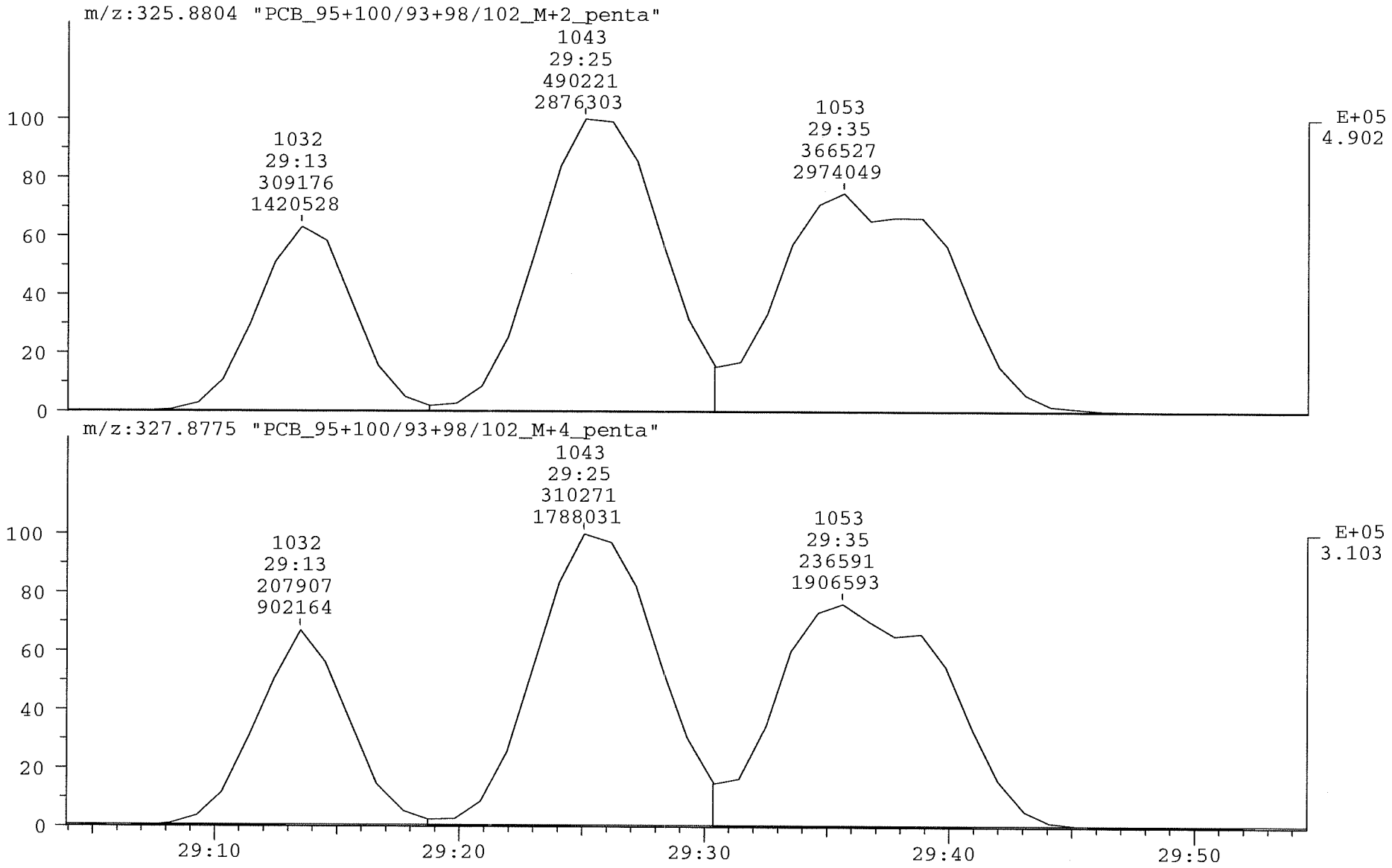
CHRO: a080625ss 25-Jun-08 Elapse: 28:42 1003
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 973 > 1031 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2052

2051

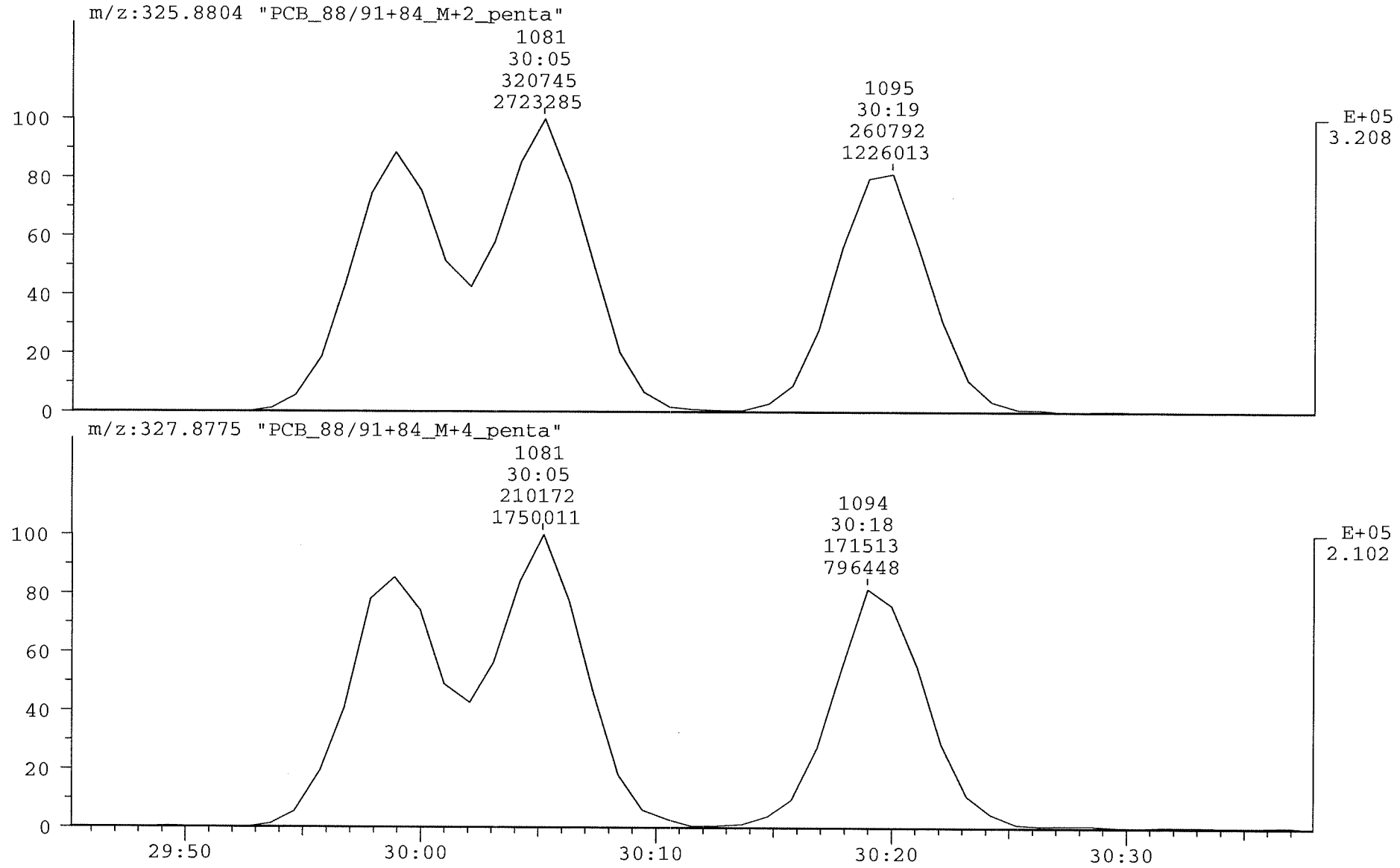
CHRO: a080625ss 25-Jun-08 Elapse: 29:28 1046
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1023 > 1071 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-2053

2052

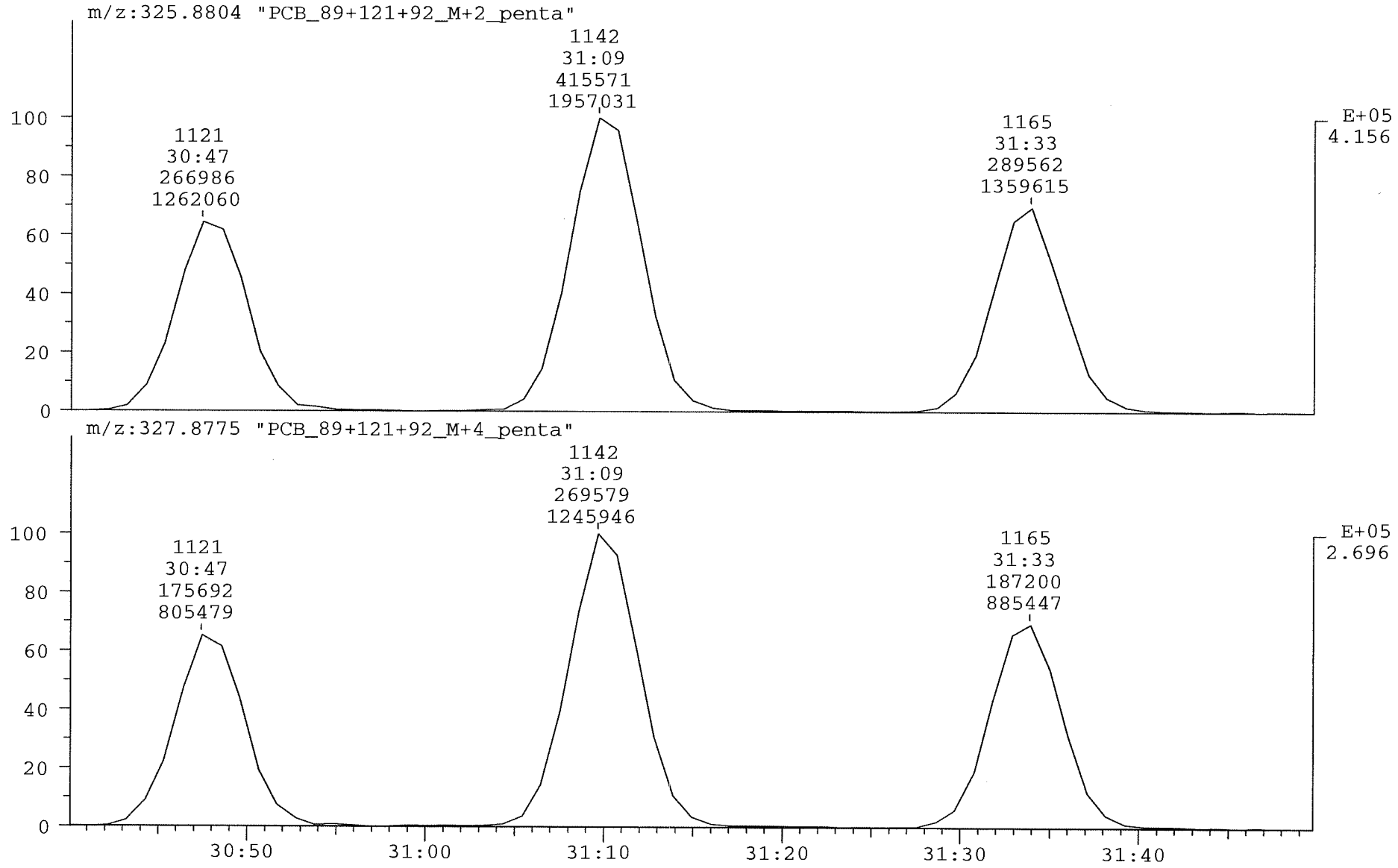
CHRO: a080625ss 25-Jun-08 Elapse: 30:12 1088
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1062 > 1112 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-2054

2053

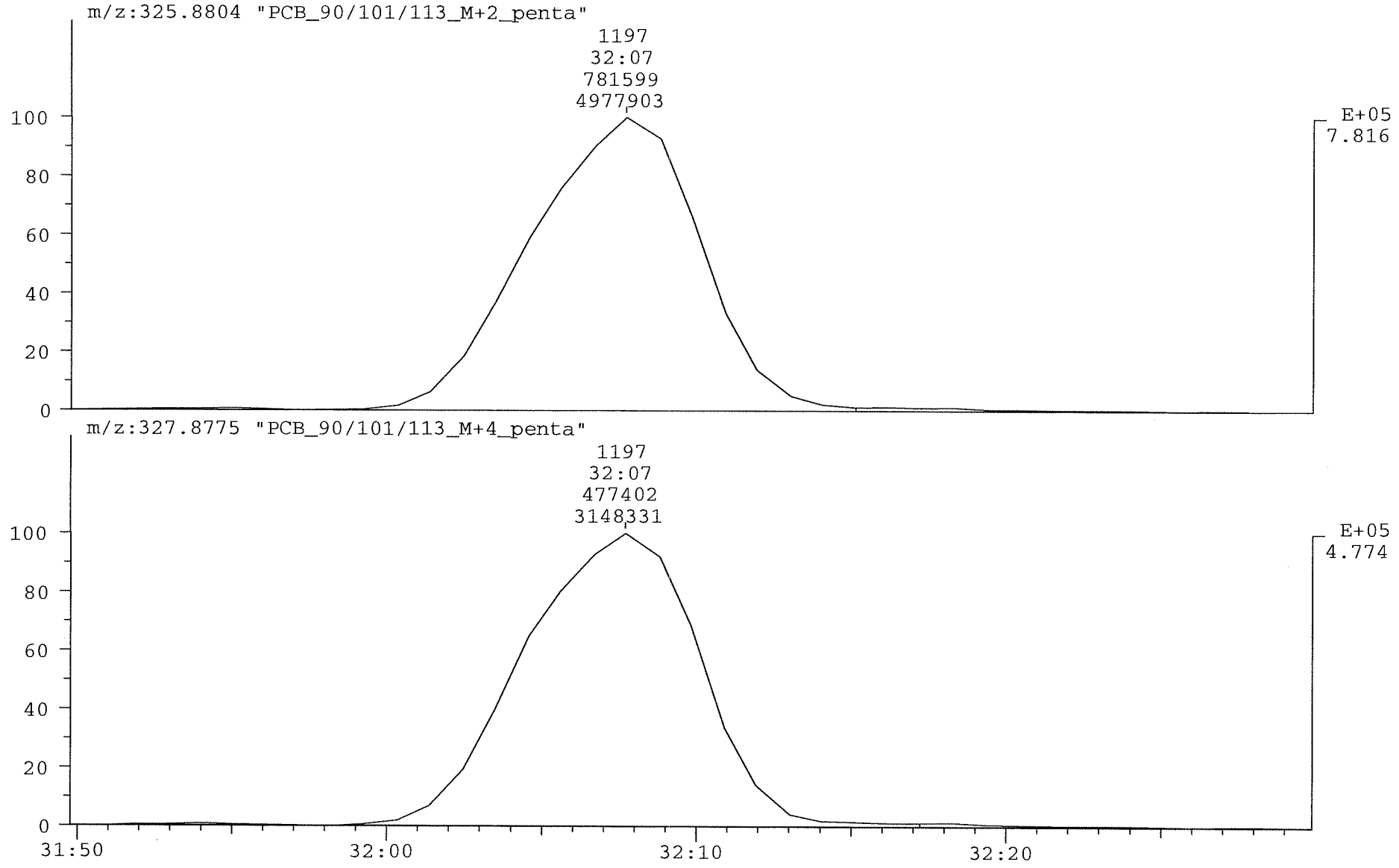
CHRO: a080625ss 25-Jun-08 Elapse: 31:14 1147
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1114 > 1180 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2055

2054

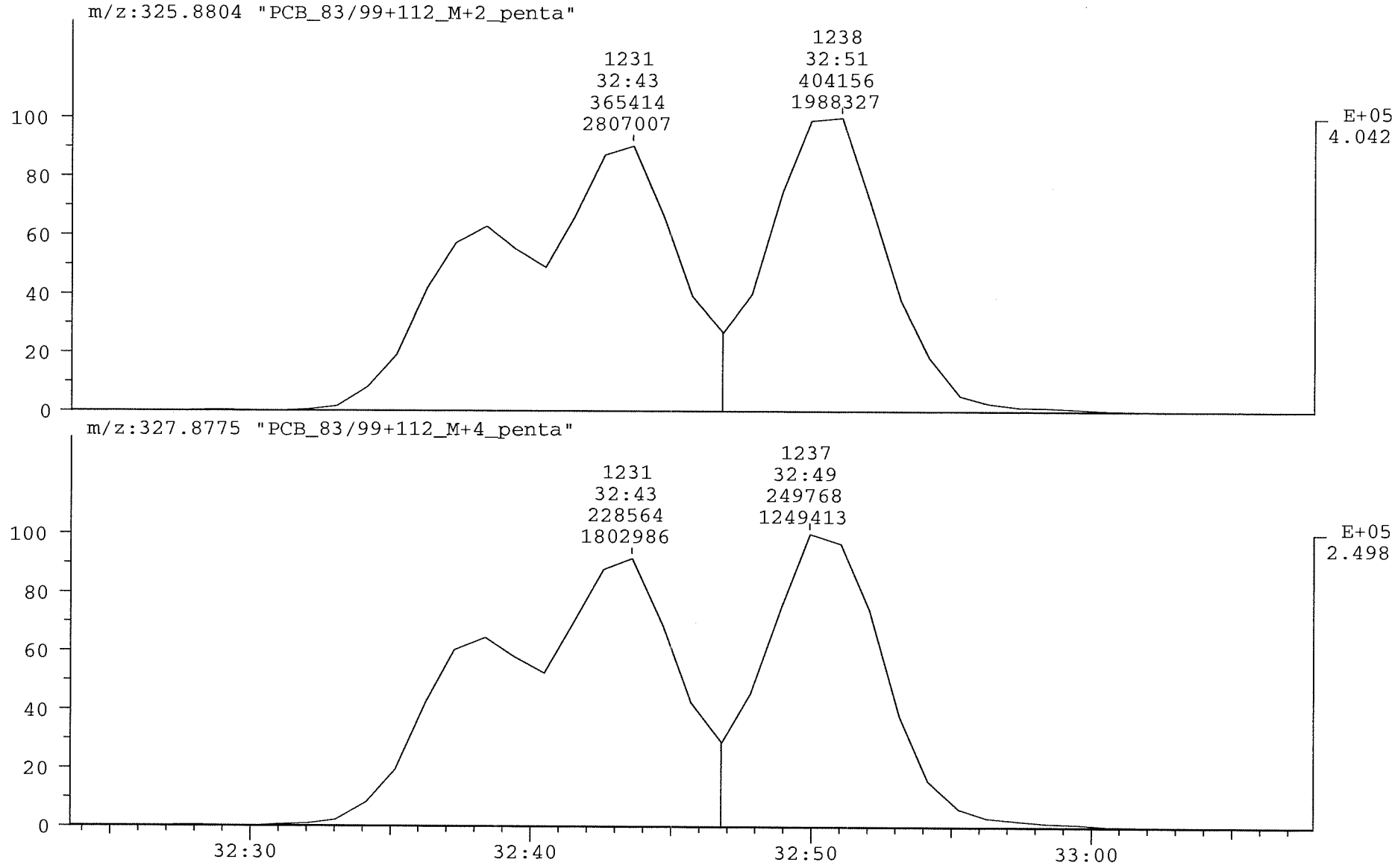
CHRO: a080625ss 25-Jun-08 Elapse: 32:08 1198
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1180 > 1218 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2056

2055

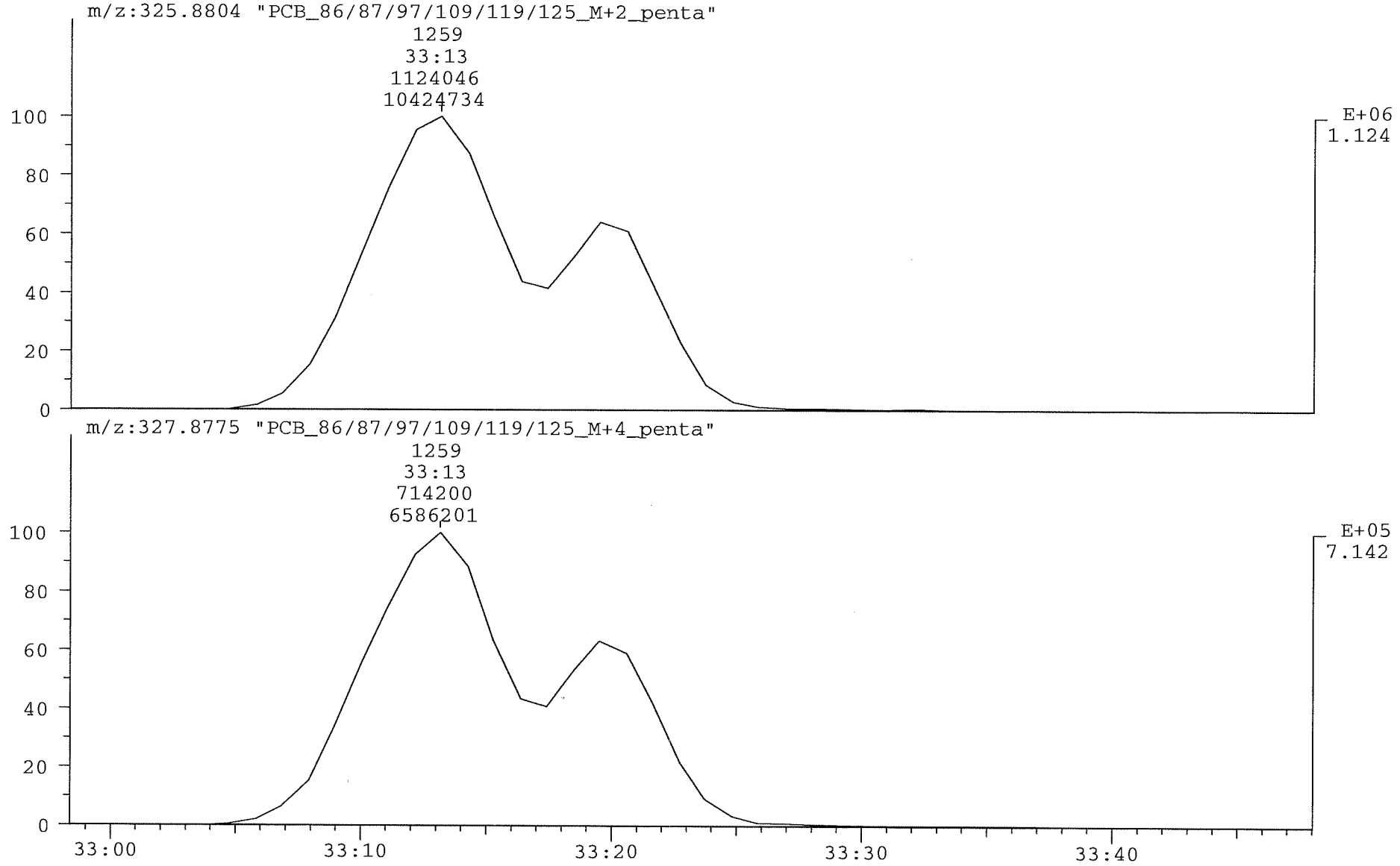
CHRO: a080625ss 25-Jun-08 Elapse: 32:52 1239
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1212 > 1254 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-2057

2056

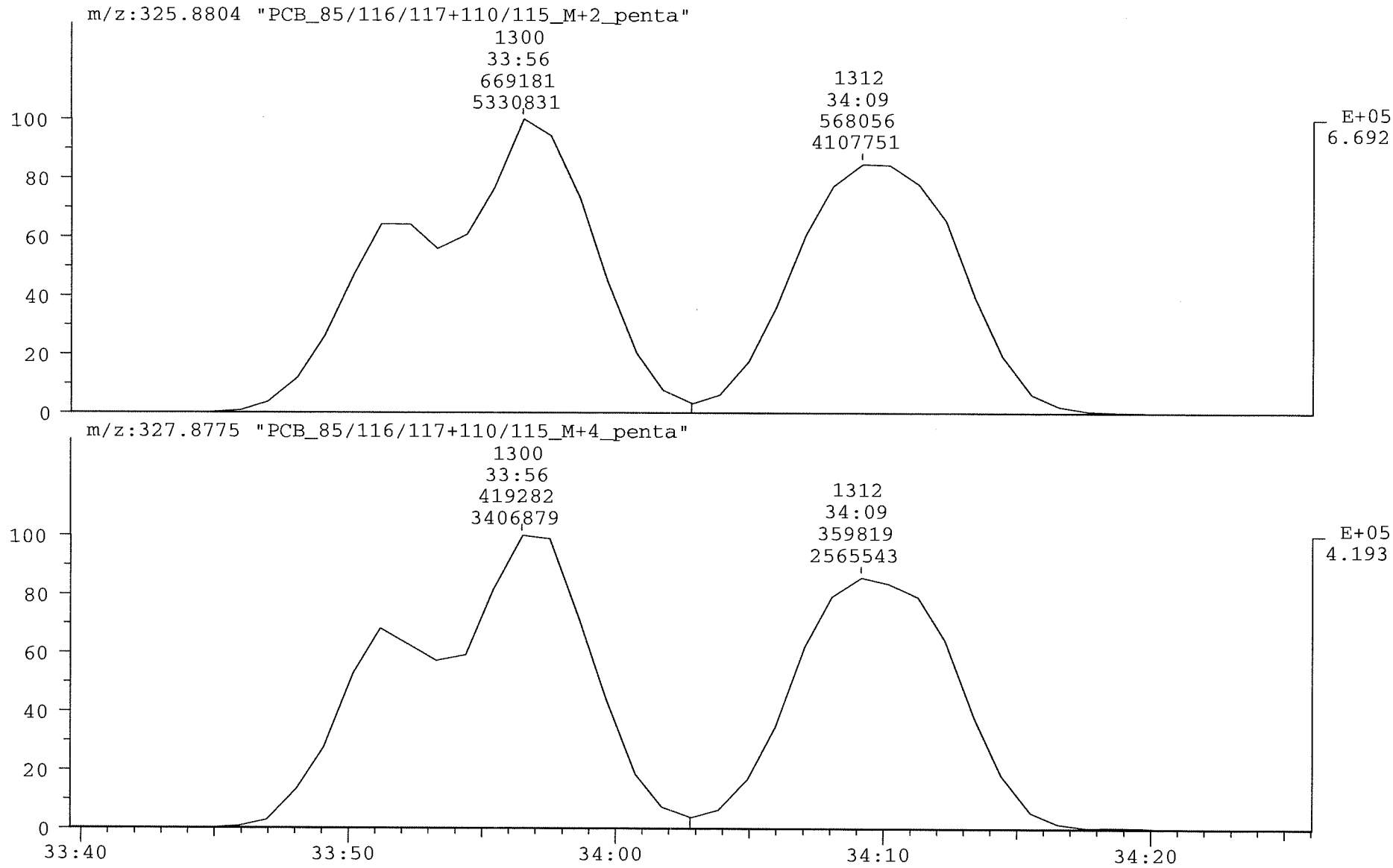
CHRO: a080625ss 25-Jun-08 Elapse: 33:19 1265
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1245 > 1292 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-2058

2057

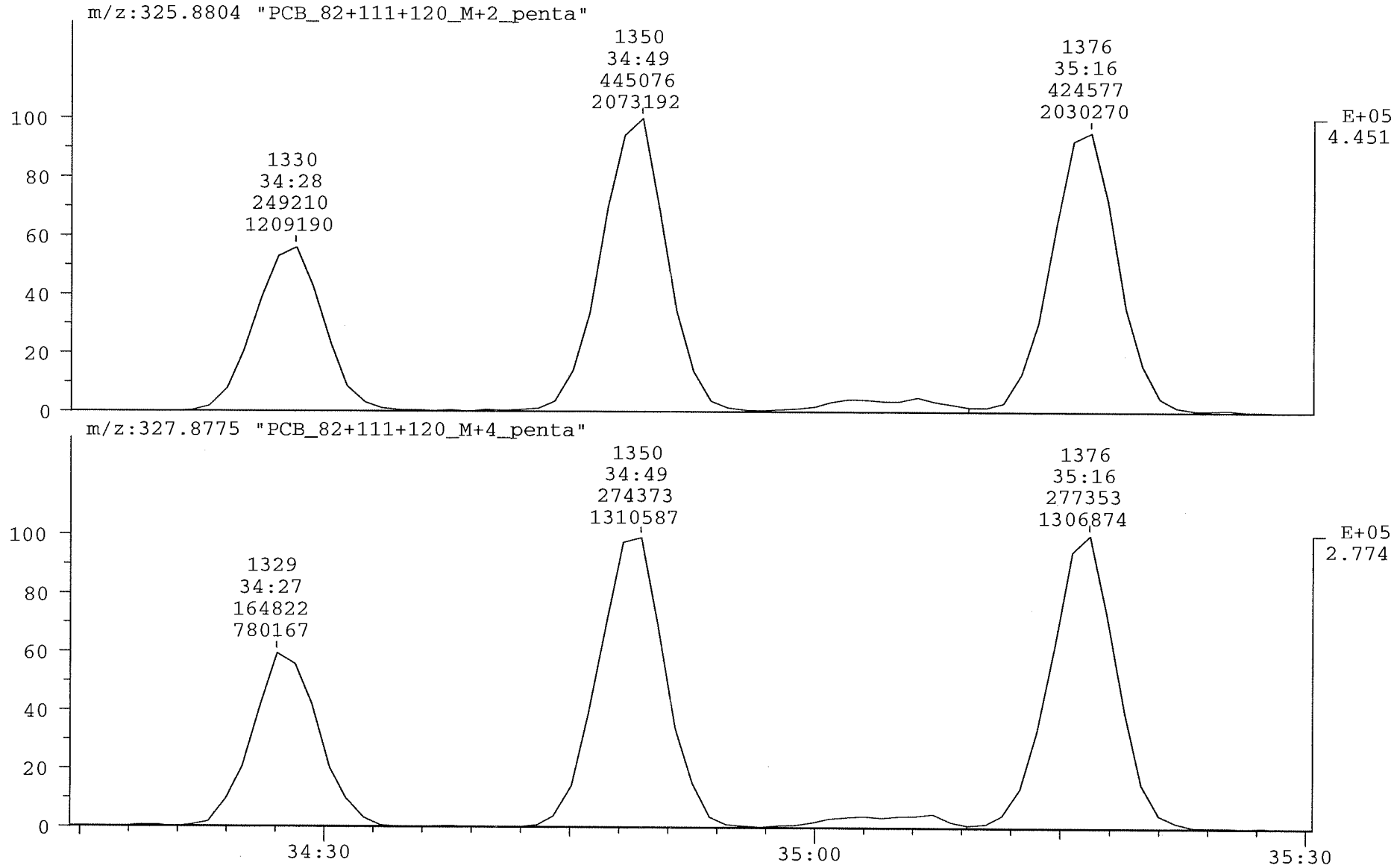
CHRO: a080625ss 25-Jun-08 Elapse: 34:07 1310
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1284 > 1328 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2056

2058

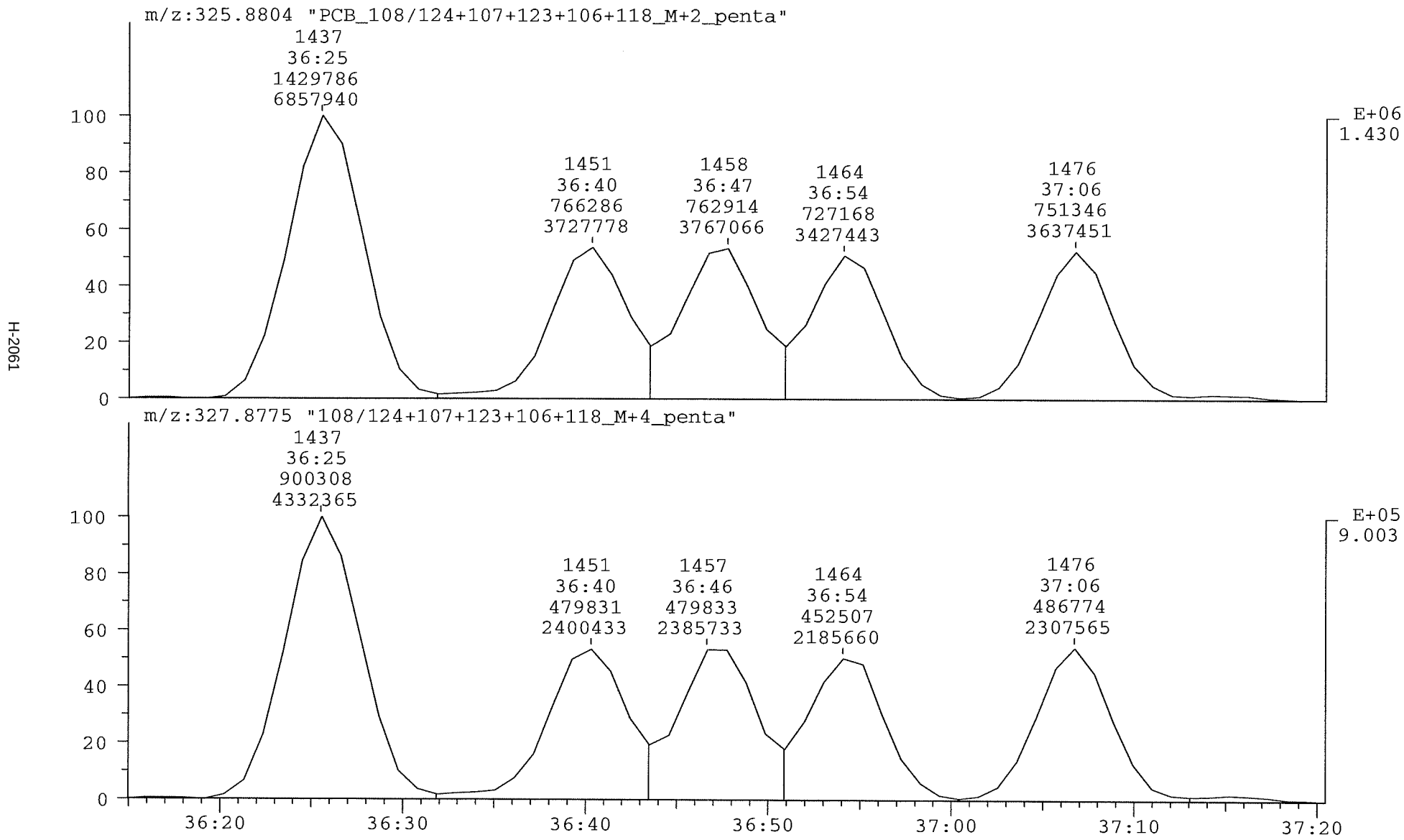
CHRO: a080625ss 25-Jun-08 Elapse: 34:37 1339
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1317 > 1389 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2060

2059

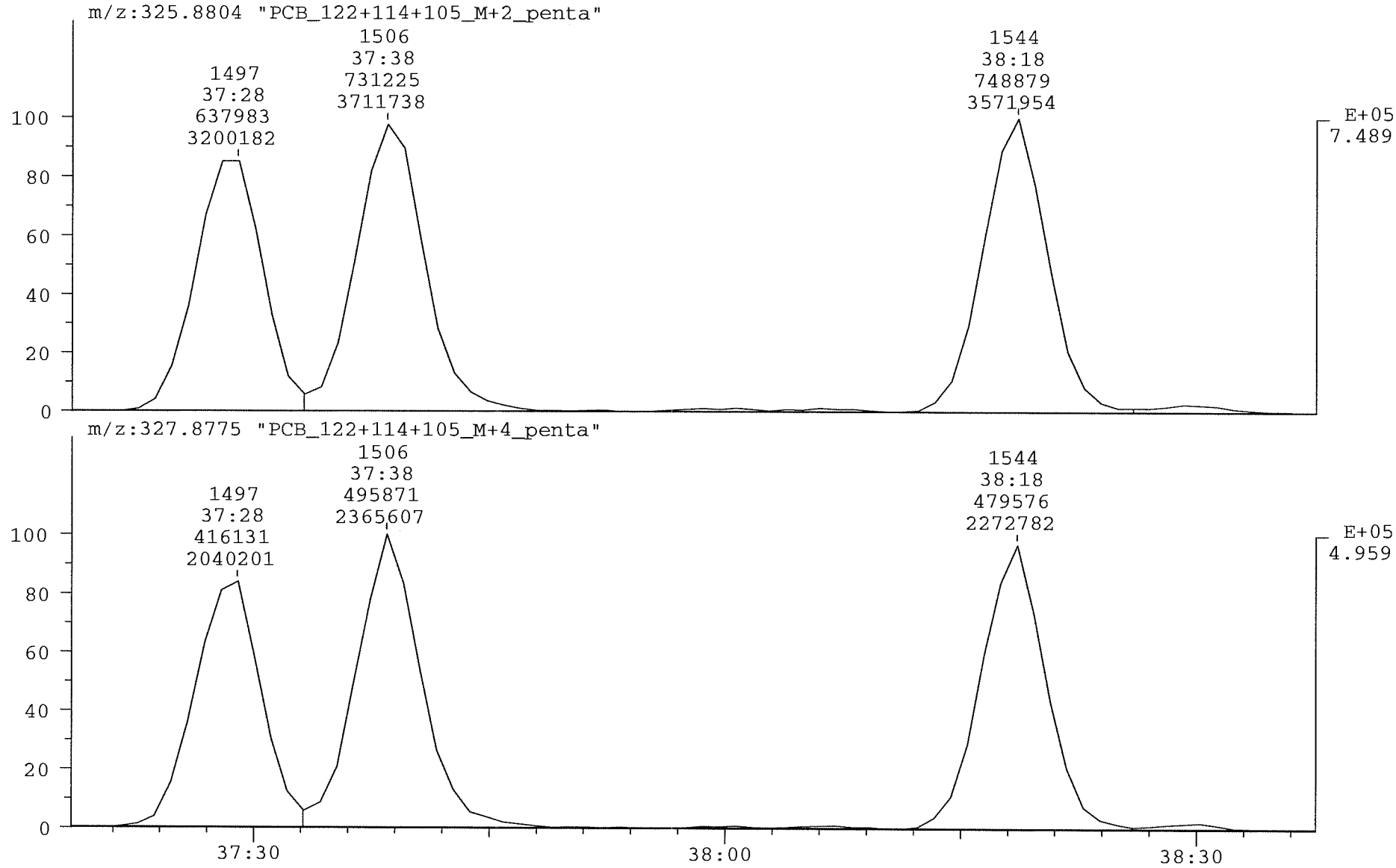
```
CHRO:  a080625ss                                25-Jun-08   Elapse:  36:57      1467
Samp:  Vial 15 WO=2990:74 Meth=IE3 Dil=1                    Start :  11:18:46   2603
Comm:  Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :  1668 ICAL SS
Oper:  DCG           Client:  TA Knoxville                  Inlet :  GC     Vial  15
Peak:  100.00  ppm     Label wndw:   1427 > 1489            Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3                 Label :  -3, 3.0
Disp:  Height  Area
```



H-2061

2060

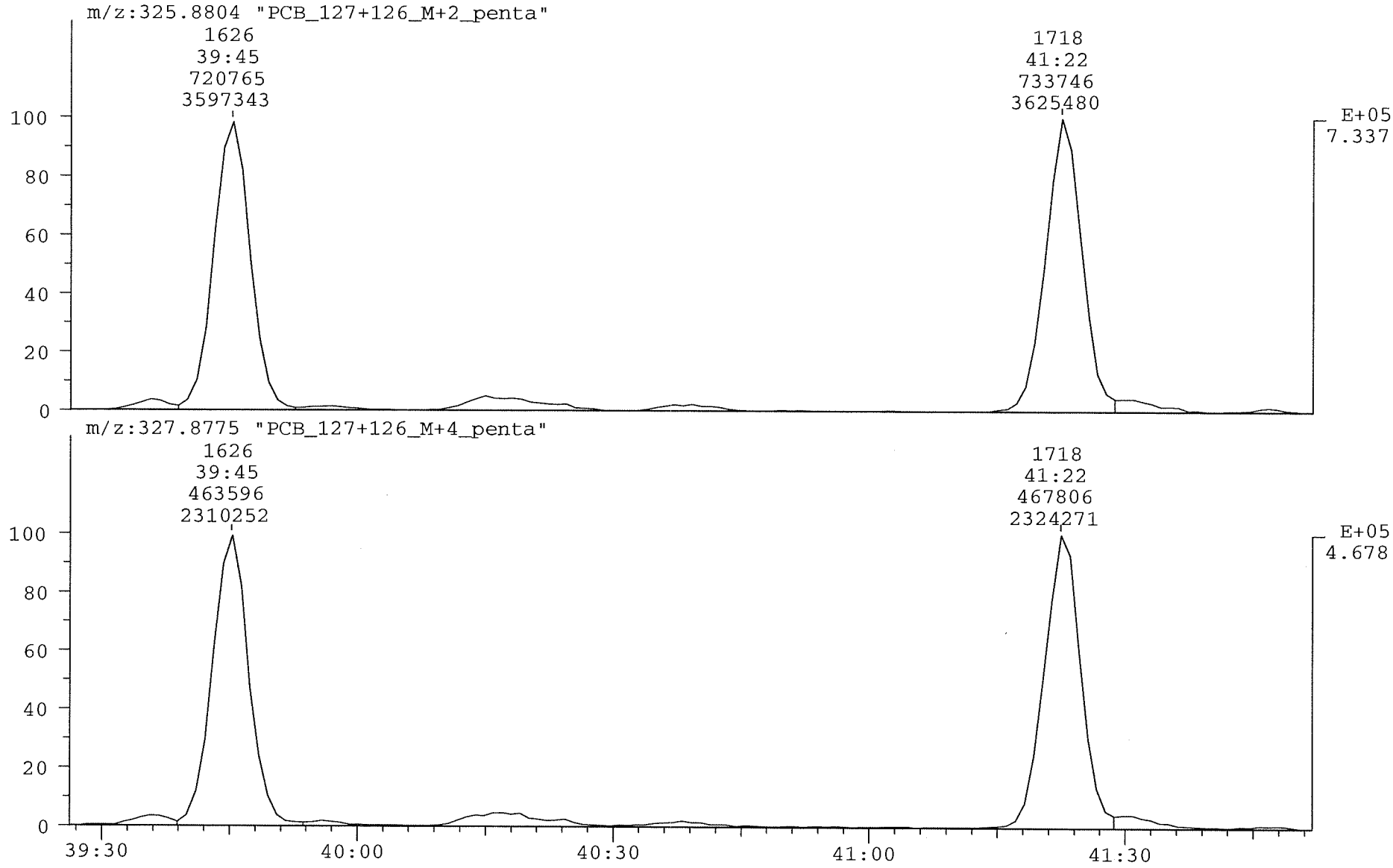
CHRO: a080625ss 25-Jun-08 Elapse: 37:57 1524
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1487 > 1562 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2062

2061

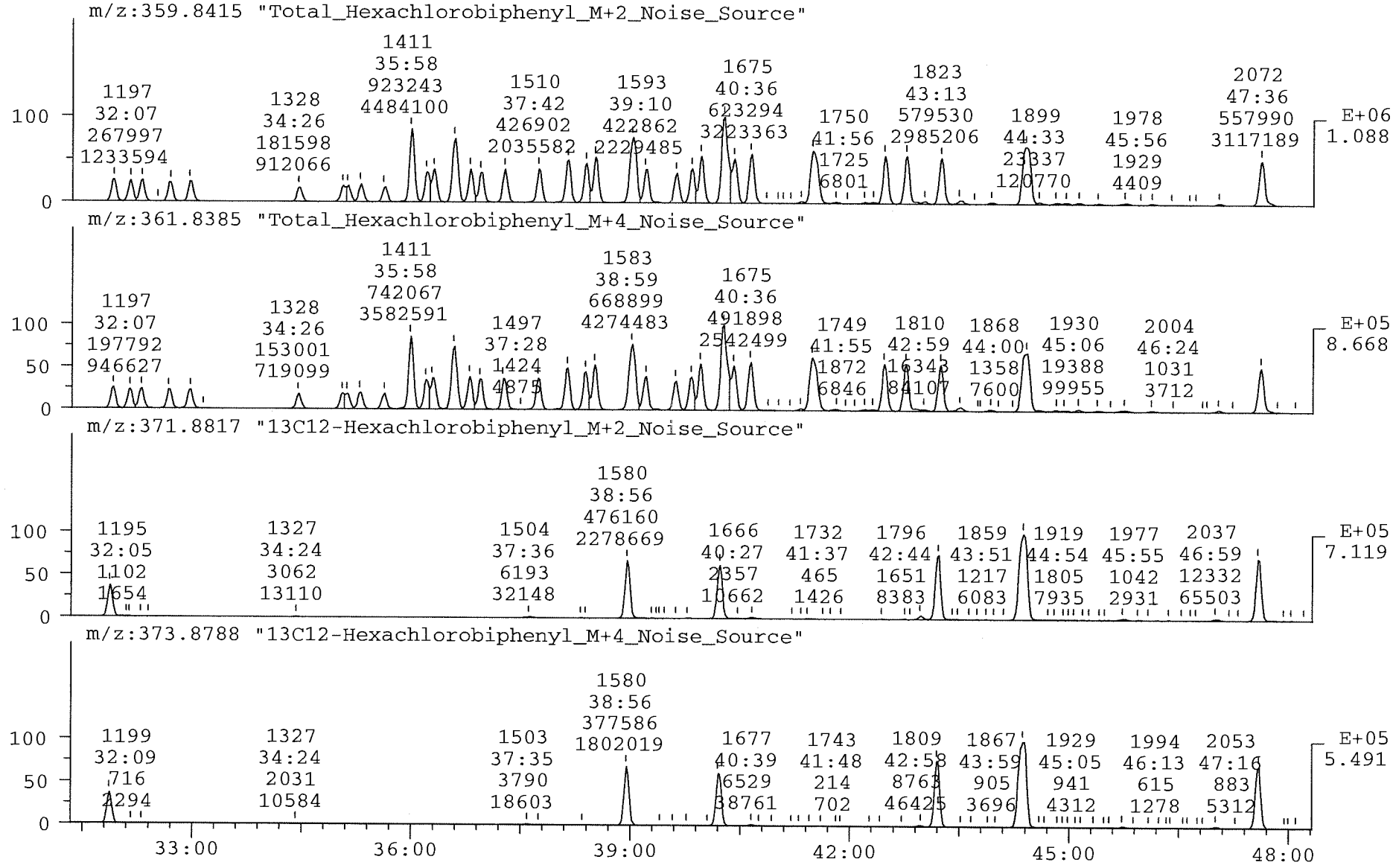
CHRO: a080625ss 25-Jun-08 Elapse: 40:38 1676
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1608 > 1746 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2063

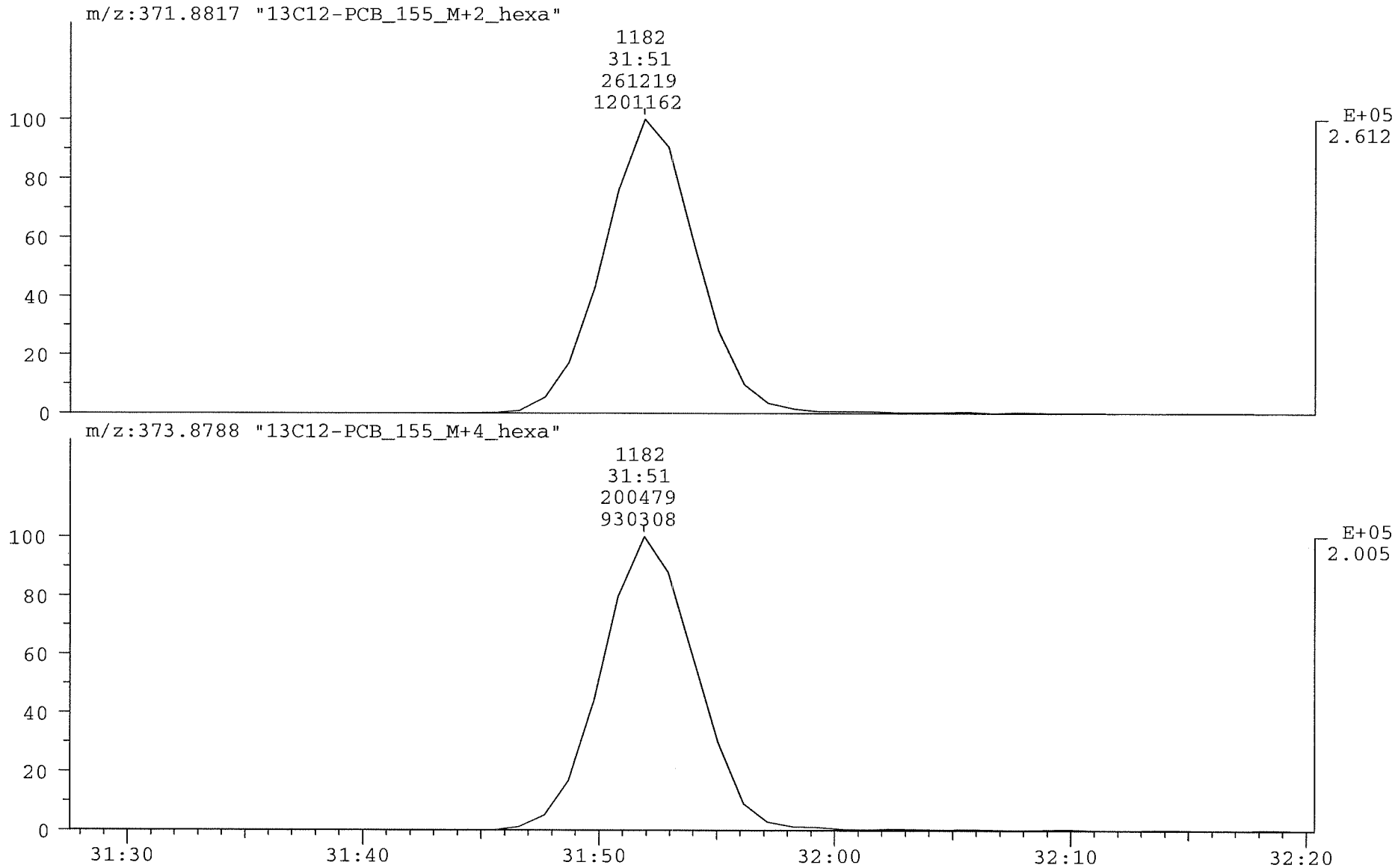
2062

CHRO: a080625ss 25-Jun-08 Elapse: 39:49 1630
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1152 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2064

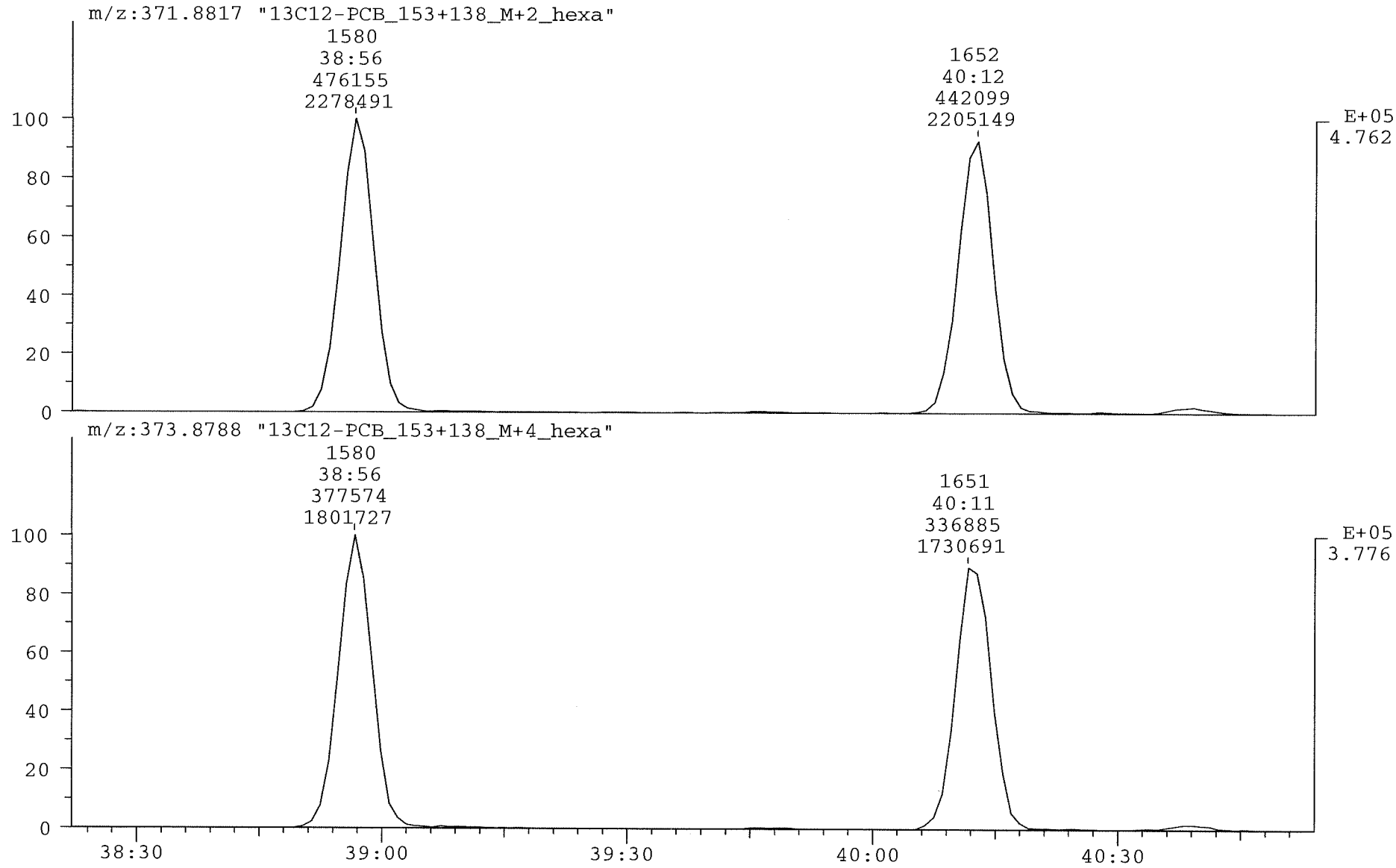
CHRO: a080625ss 25-Jun-08 Elapse: 31:54 1184
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1159 > 1209 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2065

2064

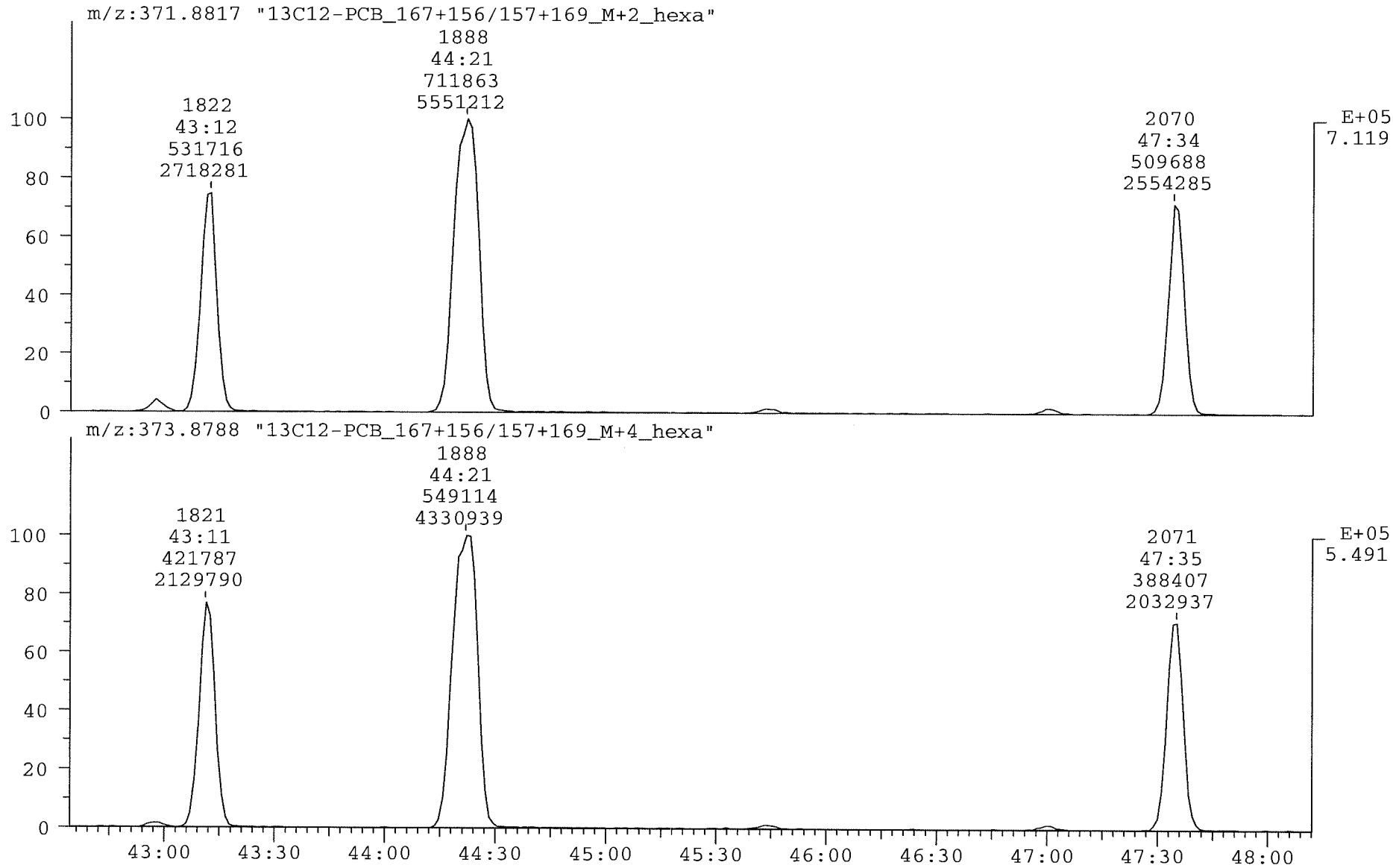
CHRO: a080625ss 25-Jun-08 Elapse: 39:37 1619
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1547 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2066

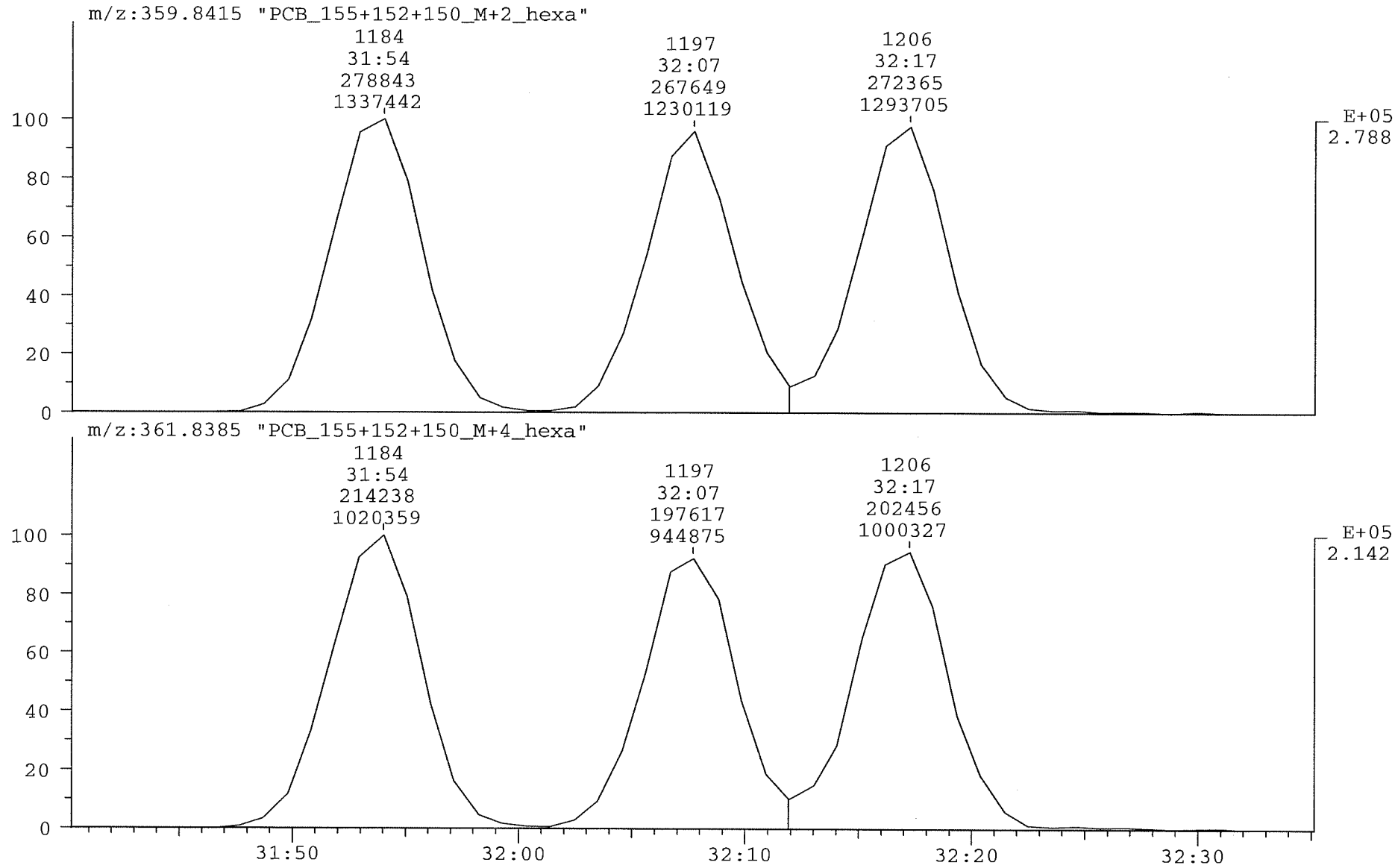
2065

CHRO: a080625ss 25-Jun-08 Elapse: 45:28 1951
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1786 > 2106 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-2067

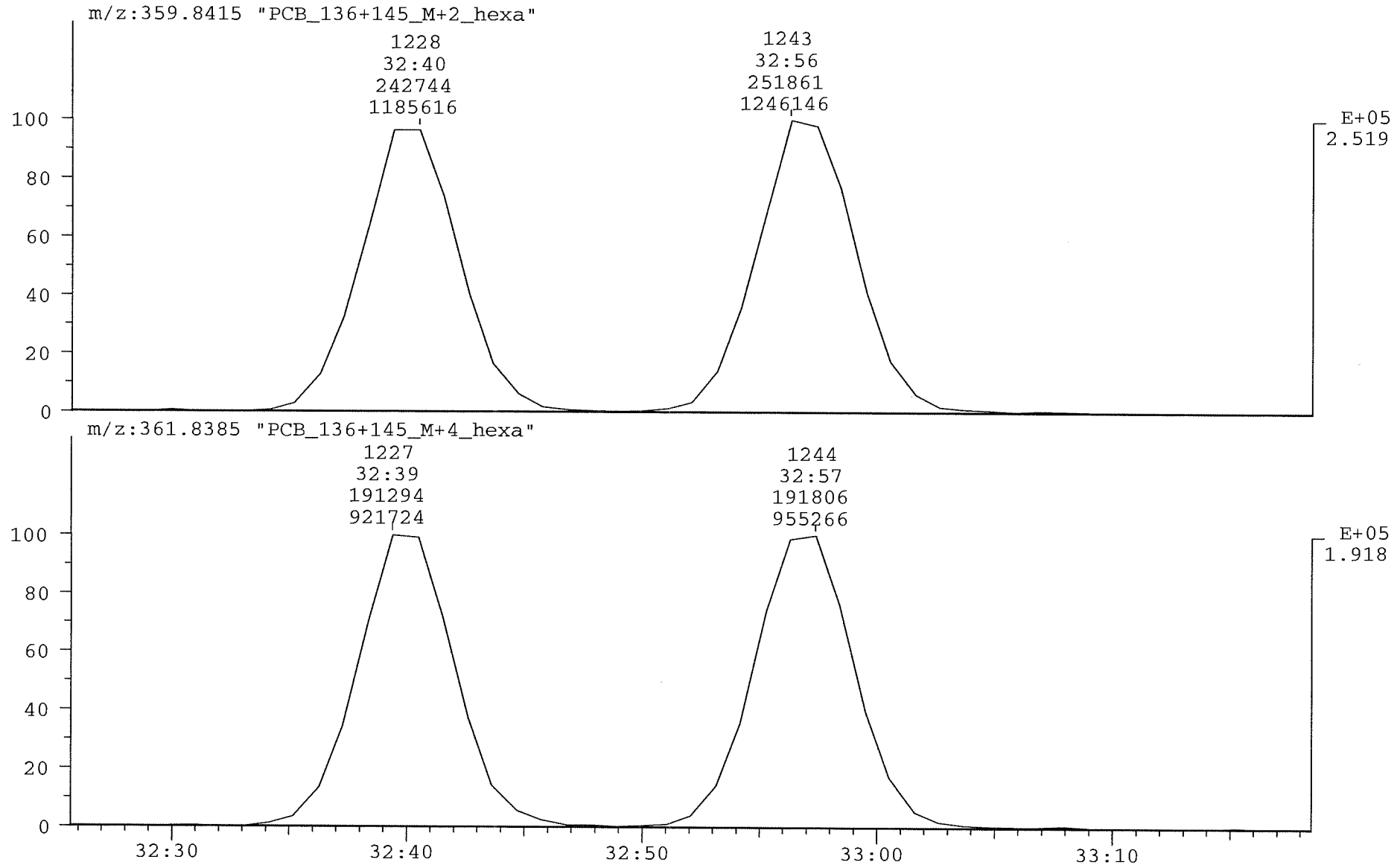
CHRO: a080625ss 25-Jun-08 Elapse: 32:08 1198
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1171 > 1223 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2068

2067

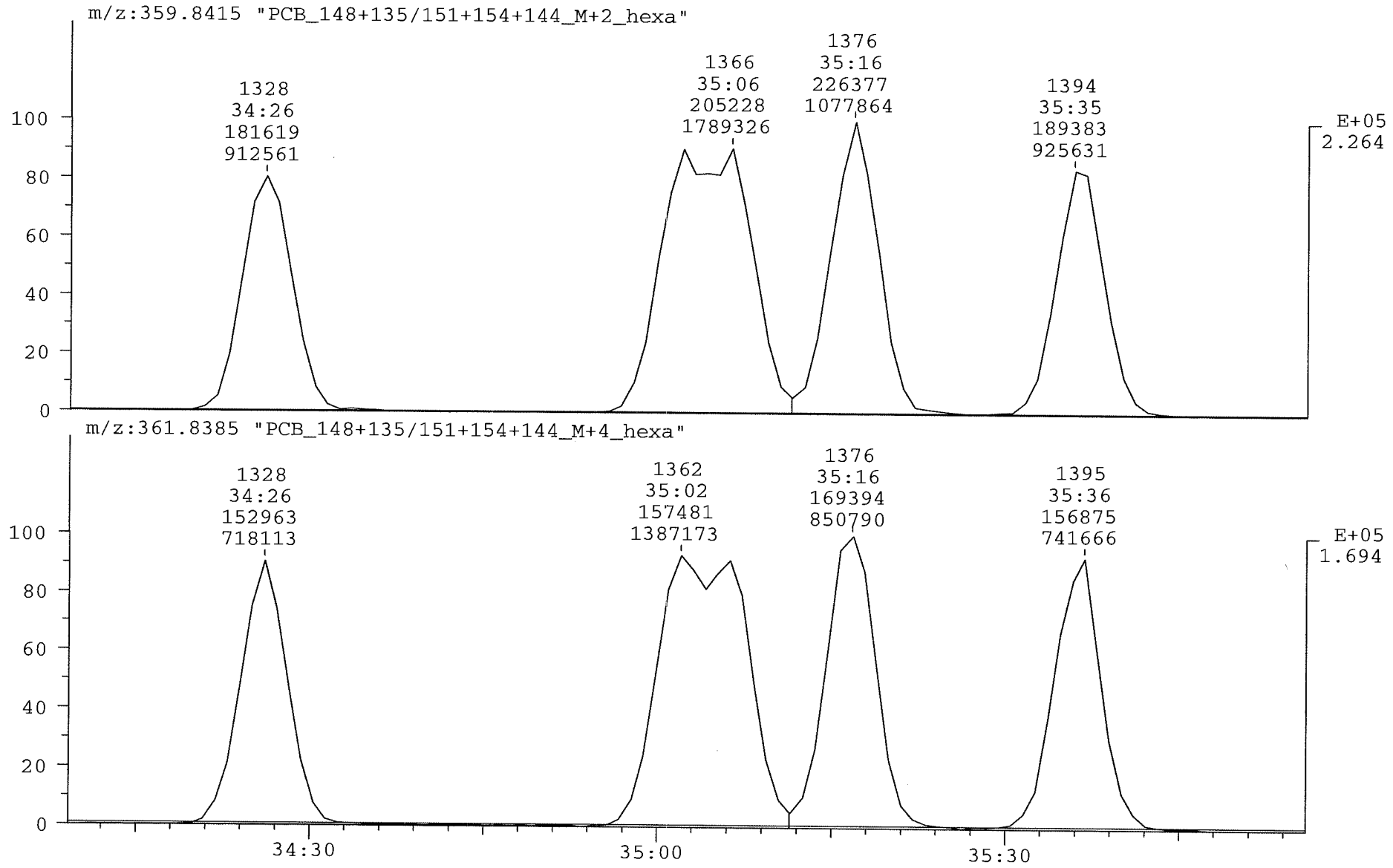
CHRO: a080625ss 25-Jun-08 Elapse: 32:52 1239
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1214 > 1264 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2069

2068

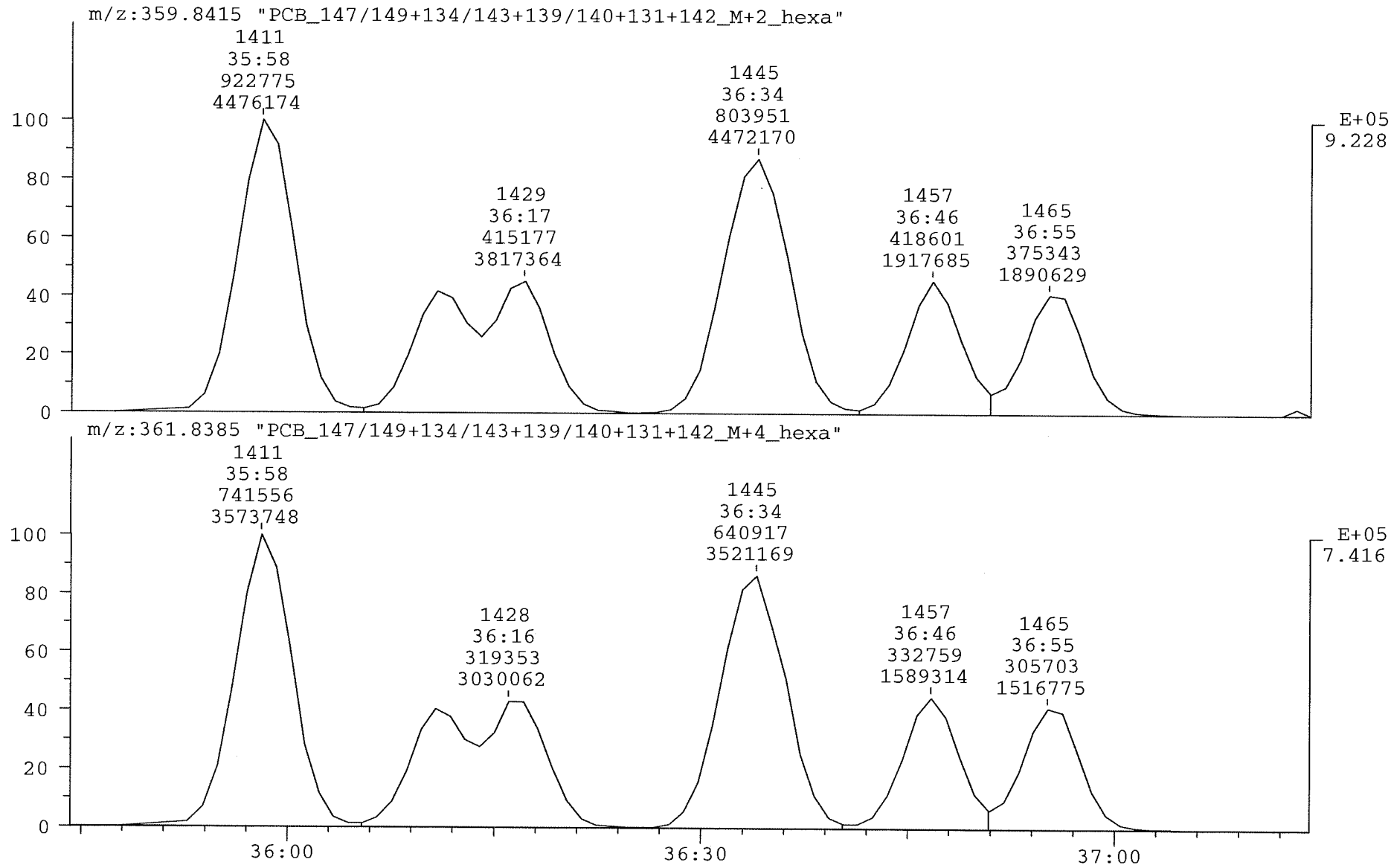
CHRO: a080625ss 25-Jun-08 Elapse: 35:07 1367
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1312 > 1409 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2070

2069

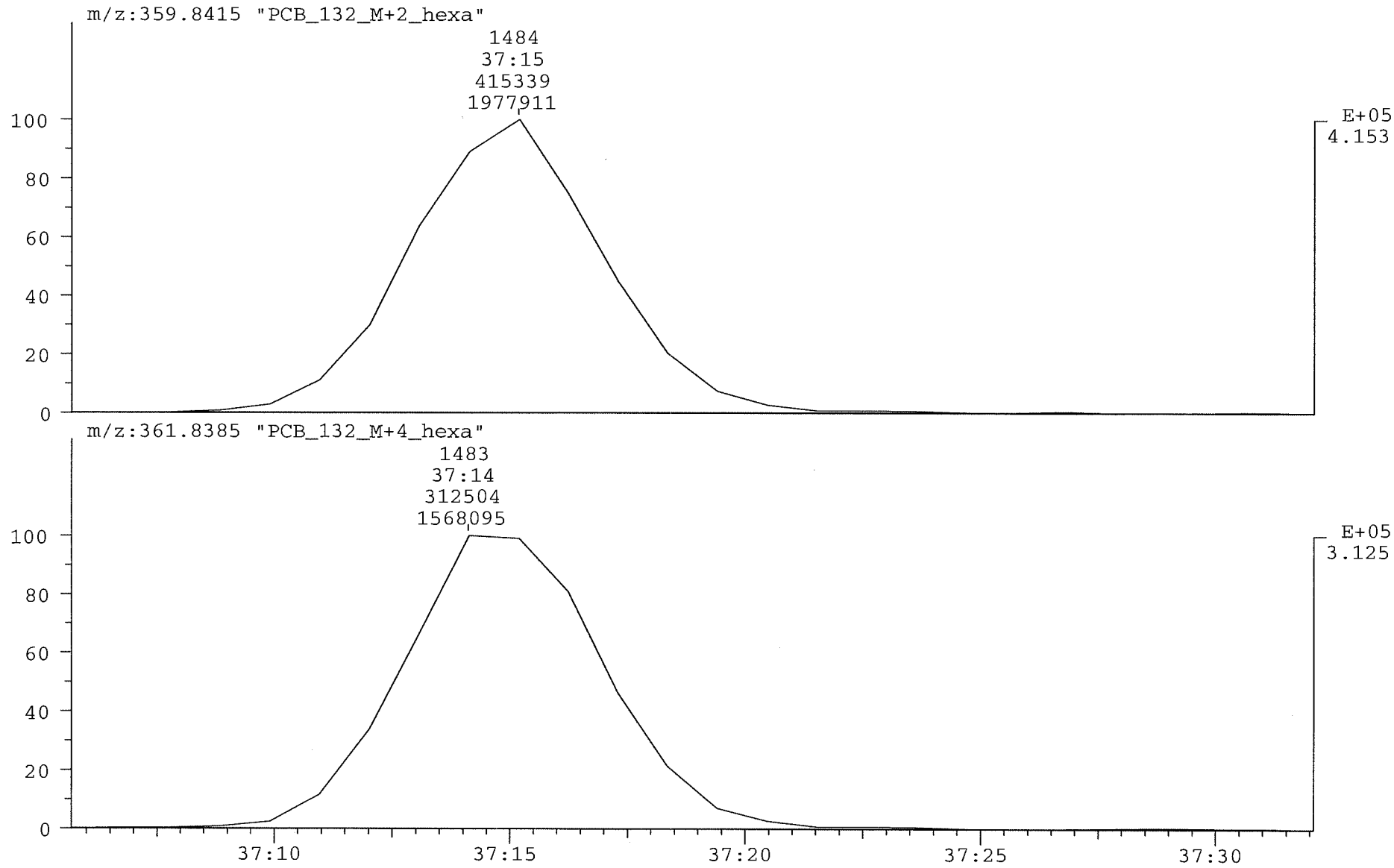
CHRO: a080625ss 25-Jun-08 Elapse: 36:35 1446
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1402 > 1483 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2071

2070

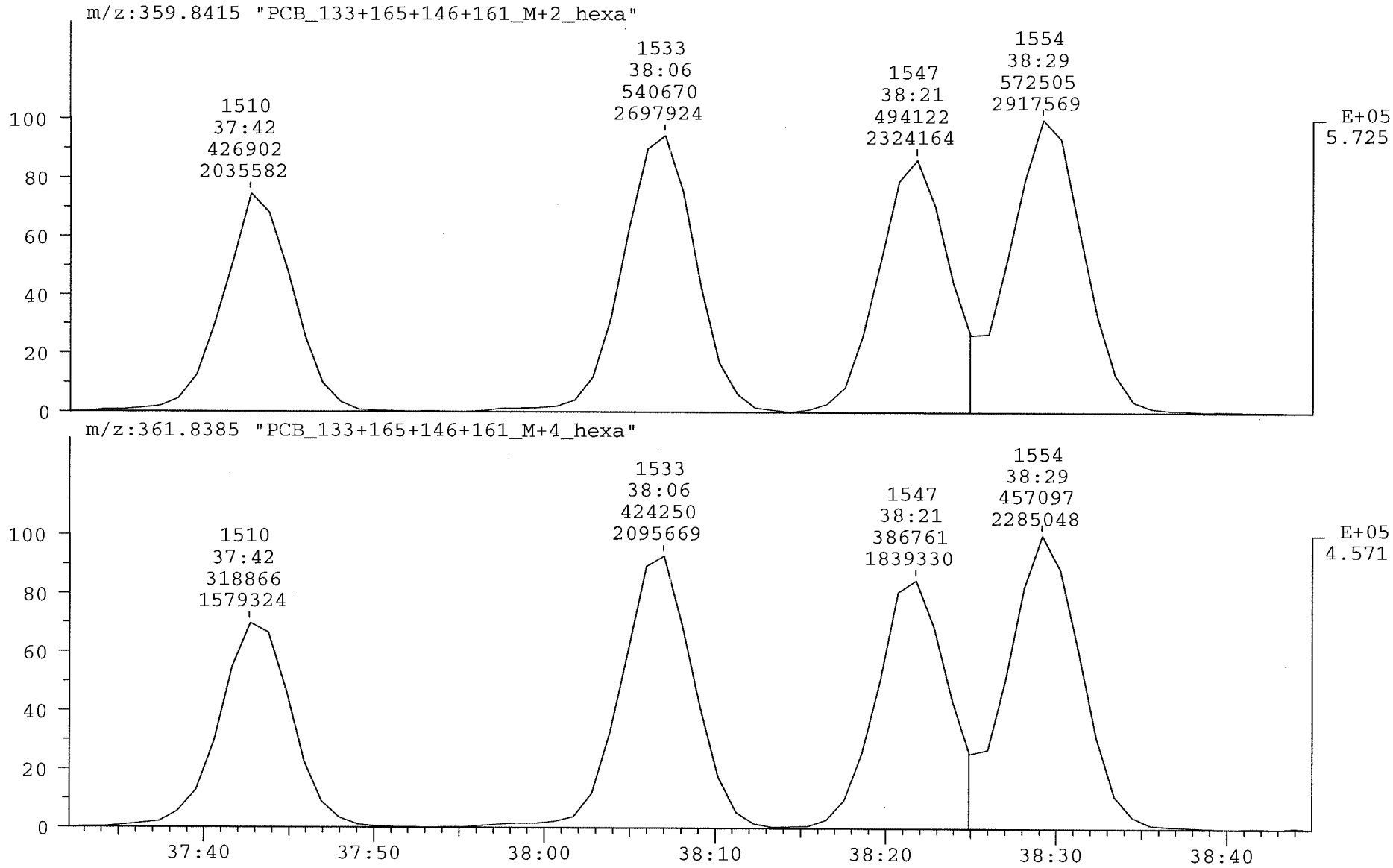
CHRO: a080625ss 25-Jun-08 Elapse: 37:16 1485
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1475 > 1500 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2072

2071

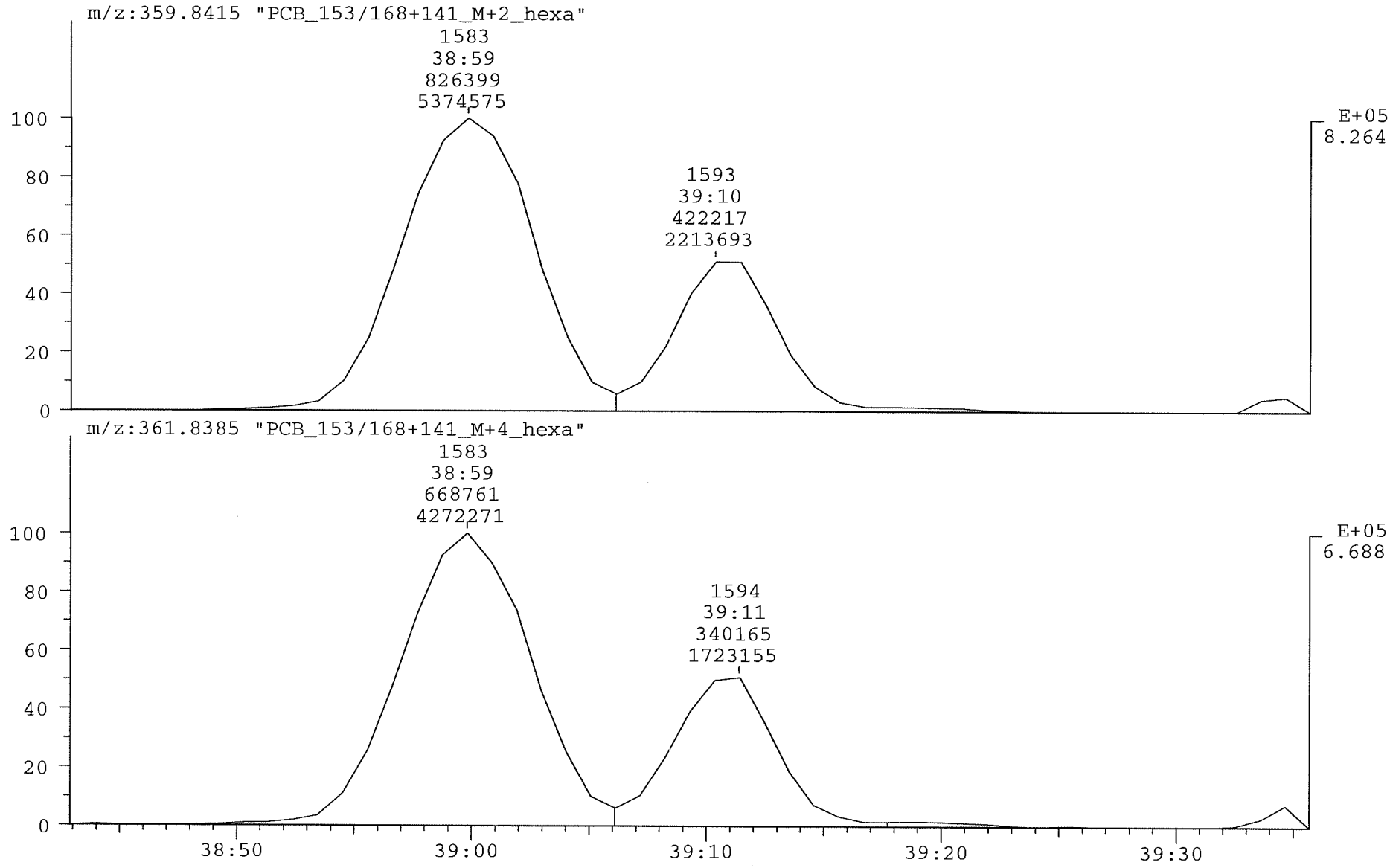
CHRO: a080625ss 25-Jun-08 Elapse: 38:10 1536
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1500 > 1569 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2073

2072

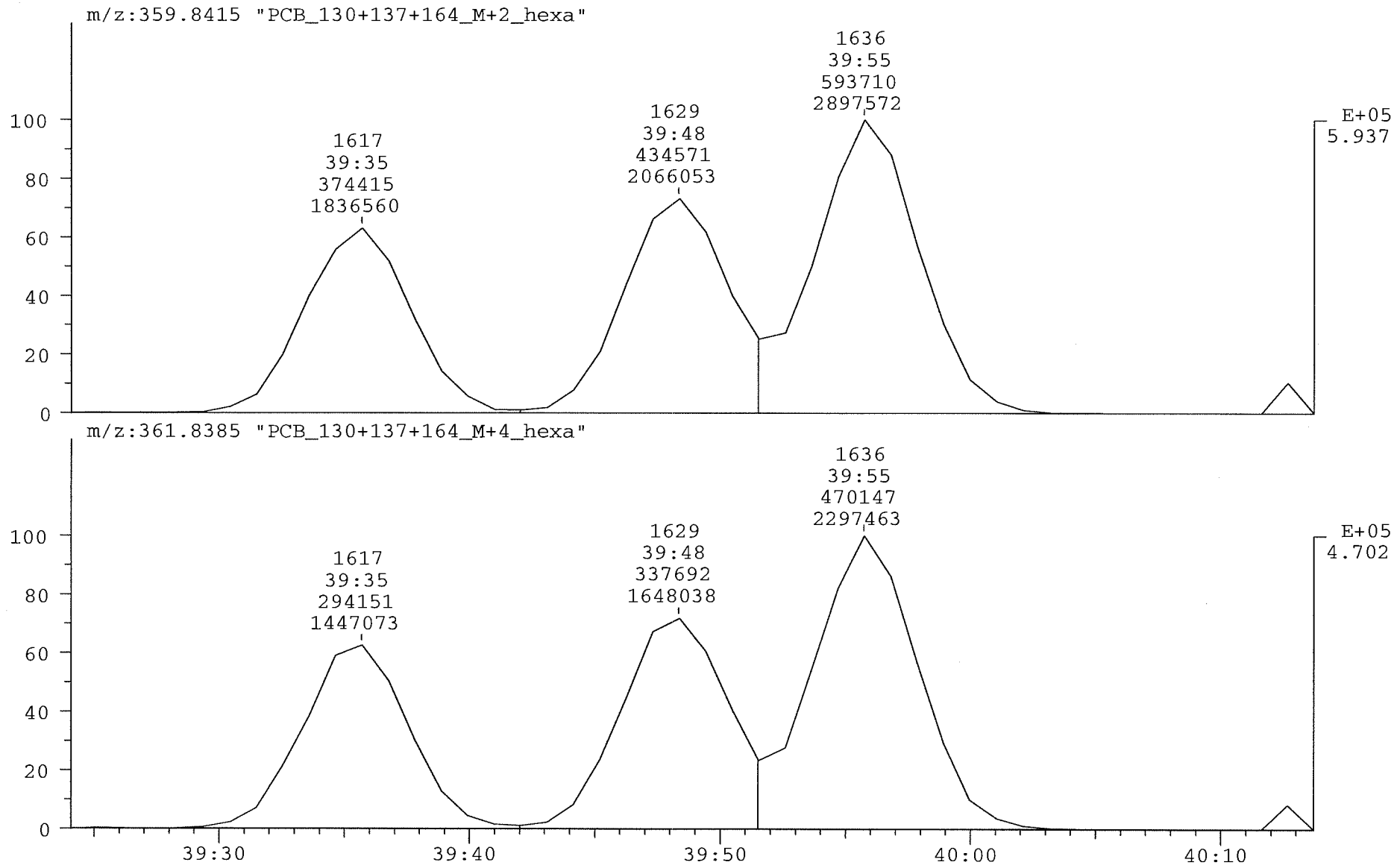
CHRO: a080625ss 25-Jun-08 Elapse: 39:09 1592
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1567 > 1617 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-2074

2073

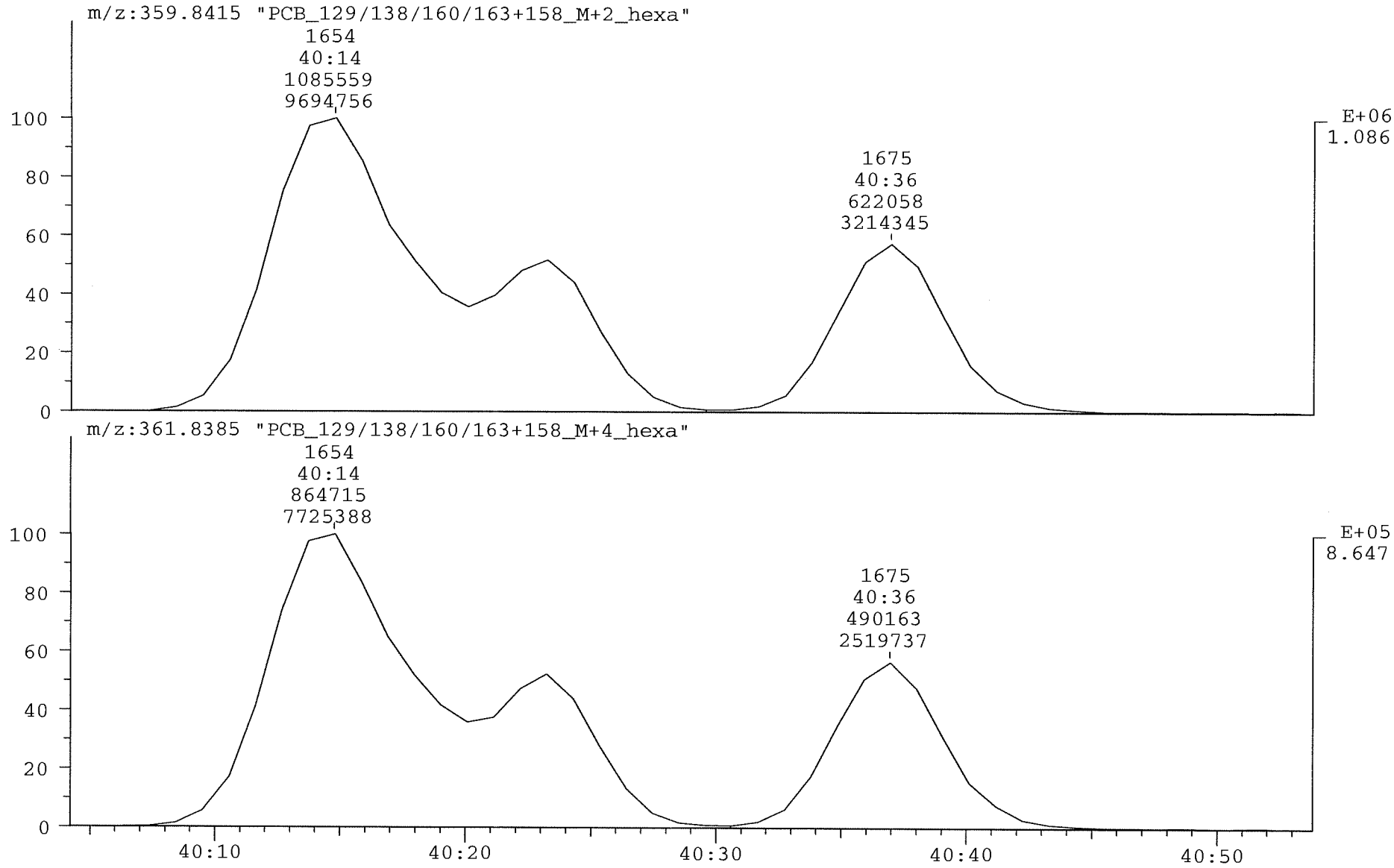
CHRO: a080625ss 25-Jun-08 Elapse: 39:50 1631
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1606 > 1653 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2075

2074

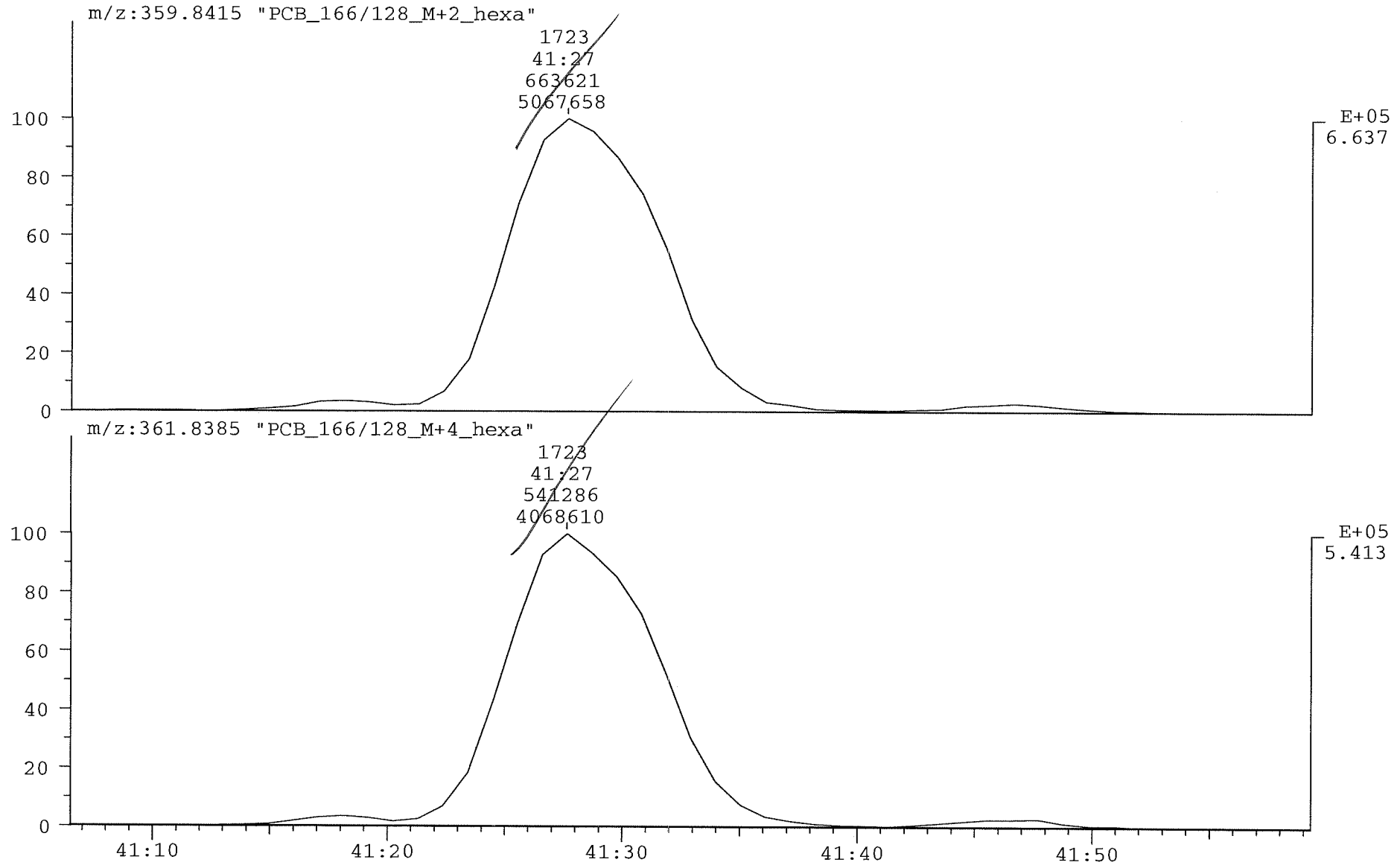
CHRO: a080625ss 25-Jun-08 Elapse: 40:30 1669
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1644 > 1691 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-2076

2075

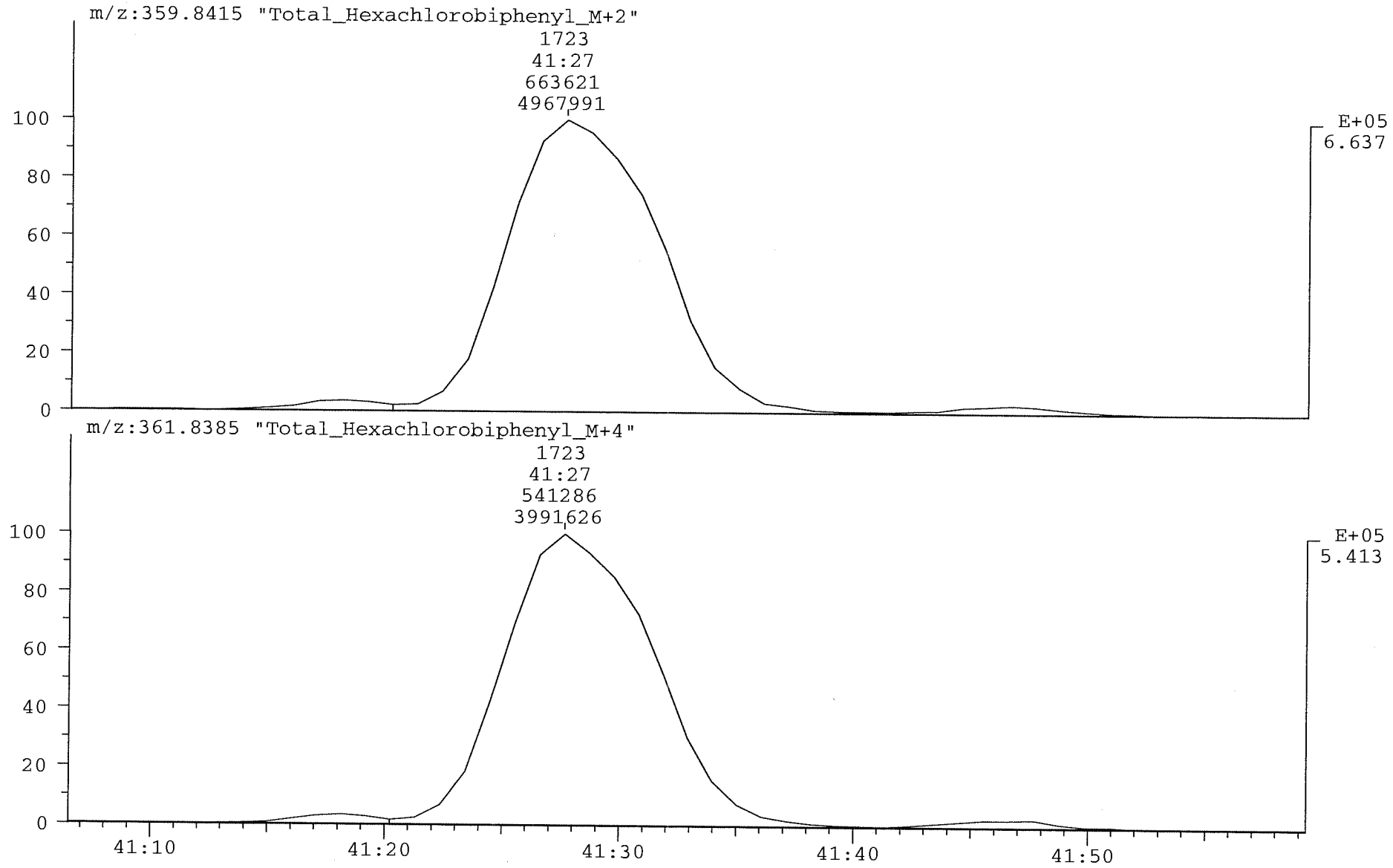
CHRO: a080625ss 25-Jun-08 Elapse: 41:32 1728
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1703 > 1753 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-2077

2076

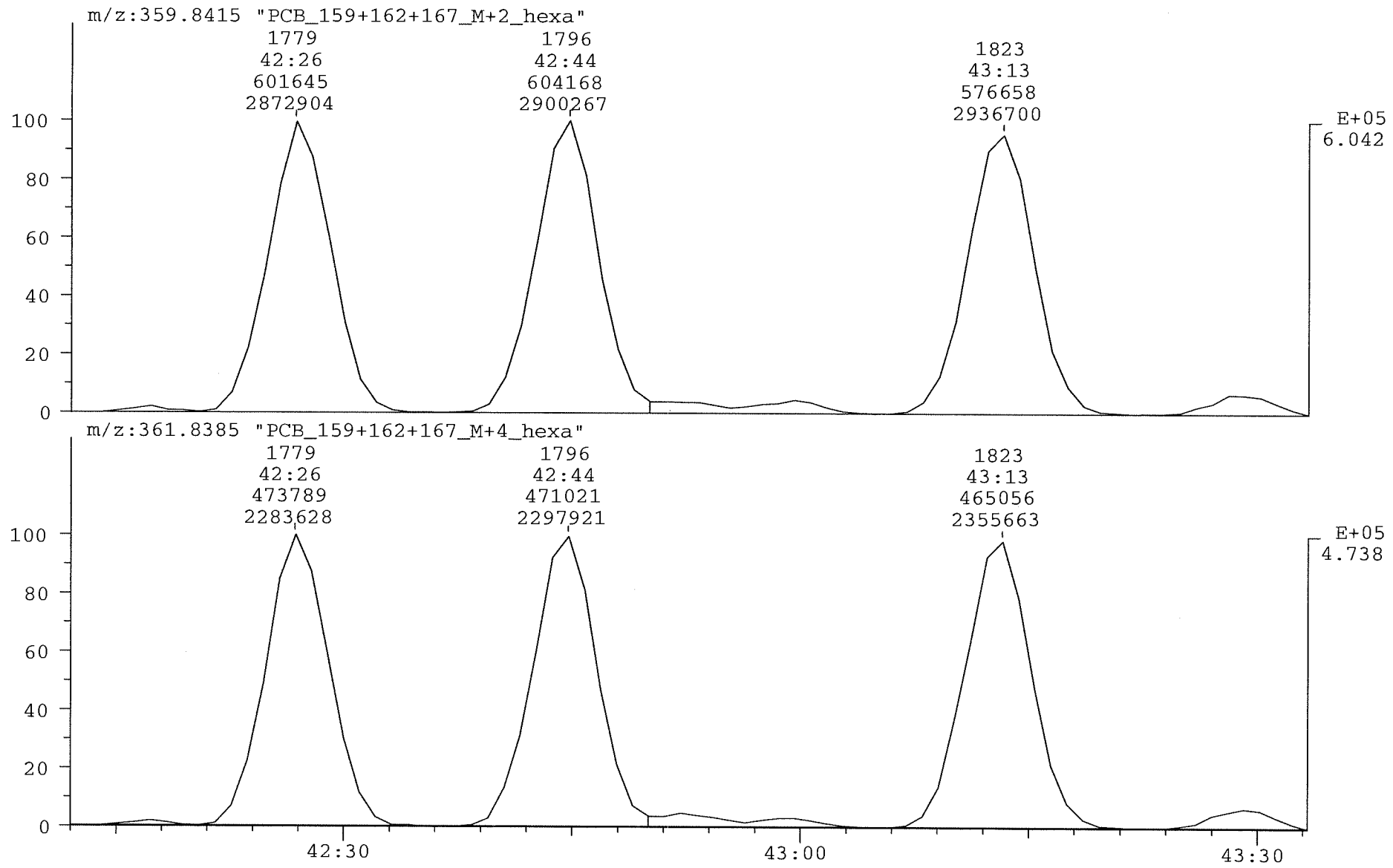
CHRO: a080625ss 25-Jun-08 Elapse: 11:00.7 1
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1703 > 1753 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-2078

2077

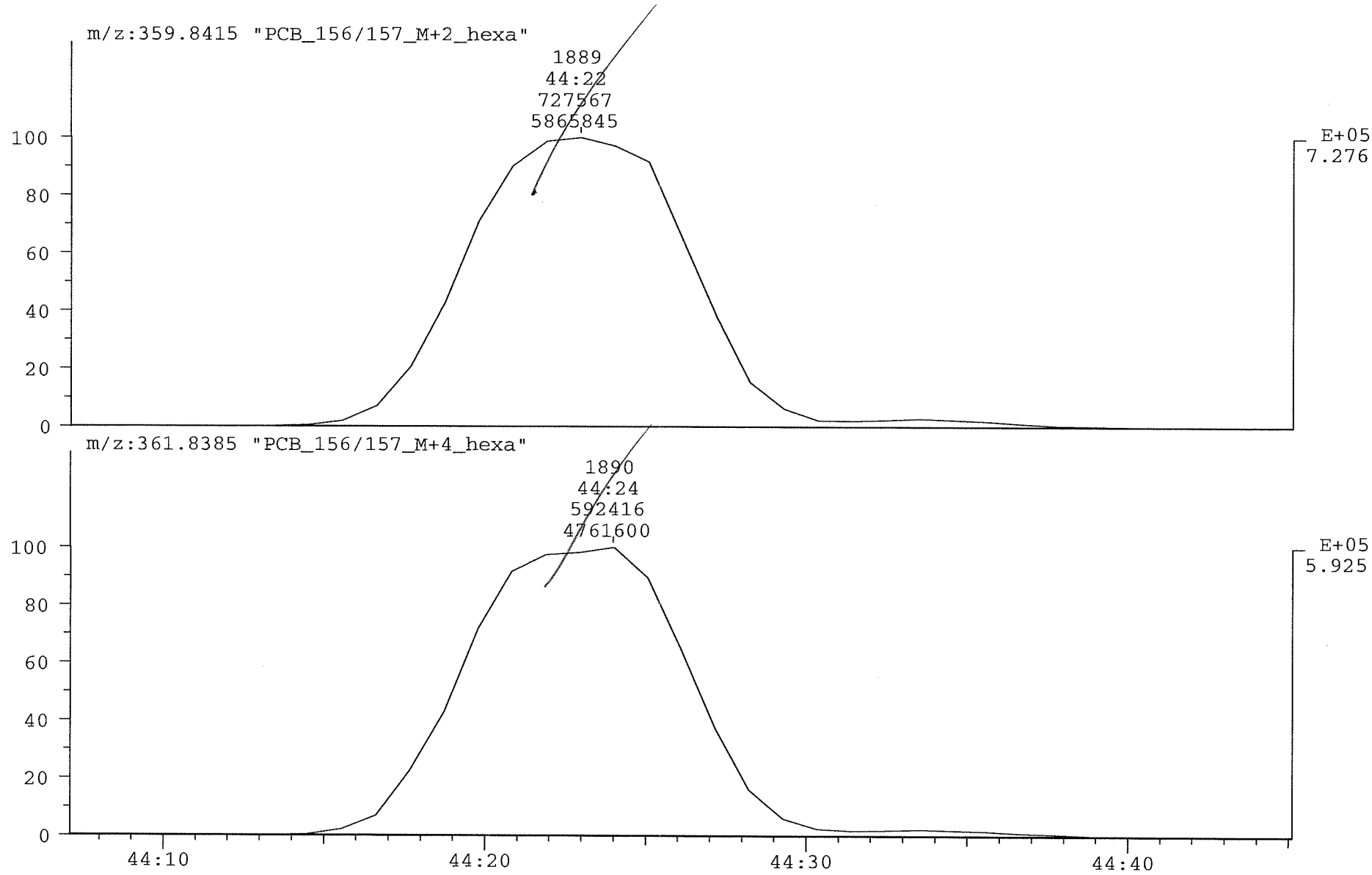
CHRO: a080625ss 25-Jun-08 Elapse: 42:54 1805
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1765 > 1842 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2079

2078

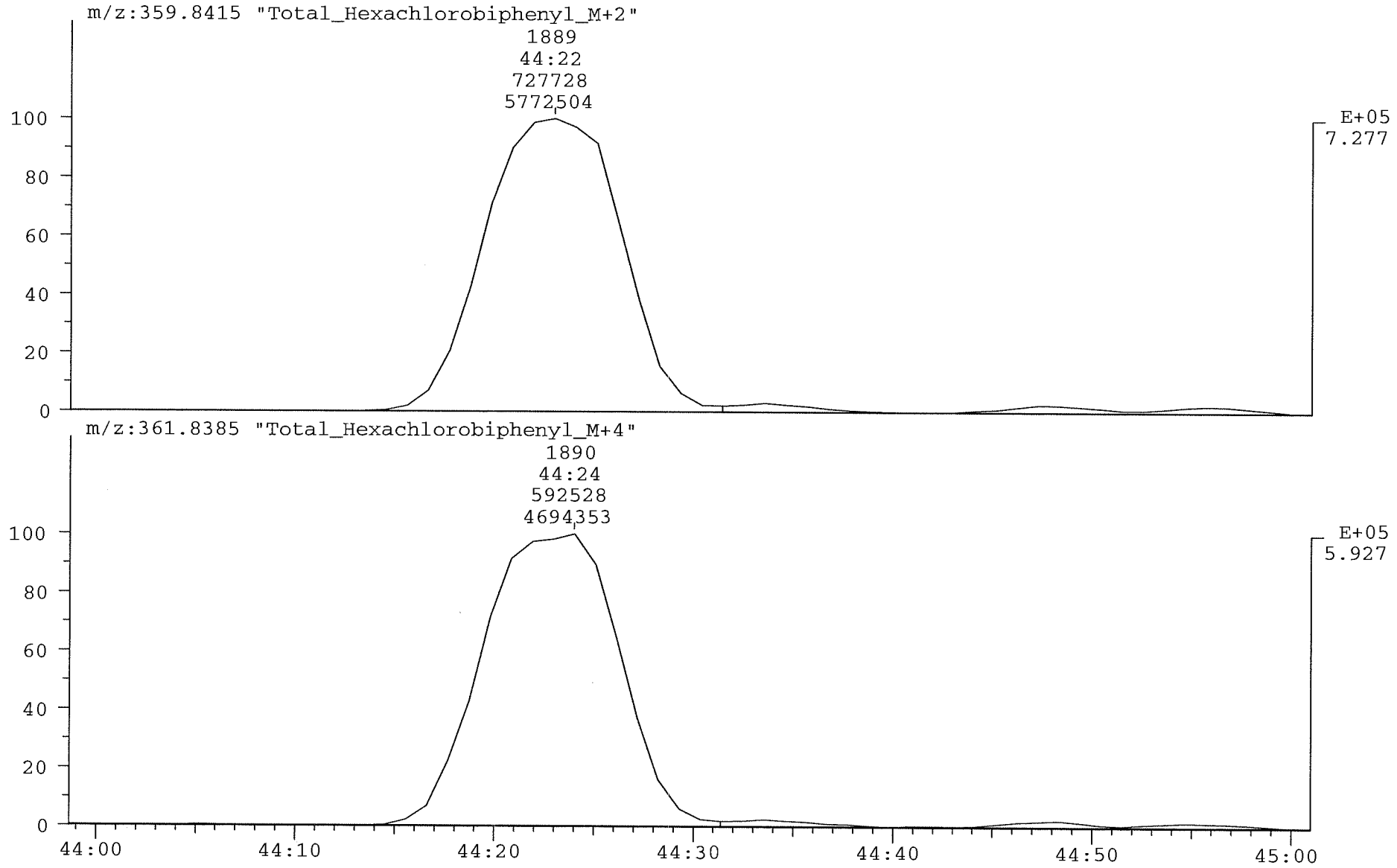
CHRO: a080625ss 25-Jun-08 Elapse: 44:22 1889
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1874 > 1910 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-2080

2079

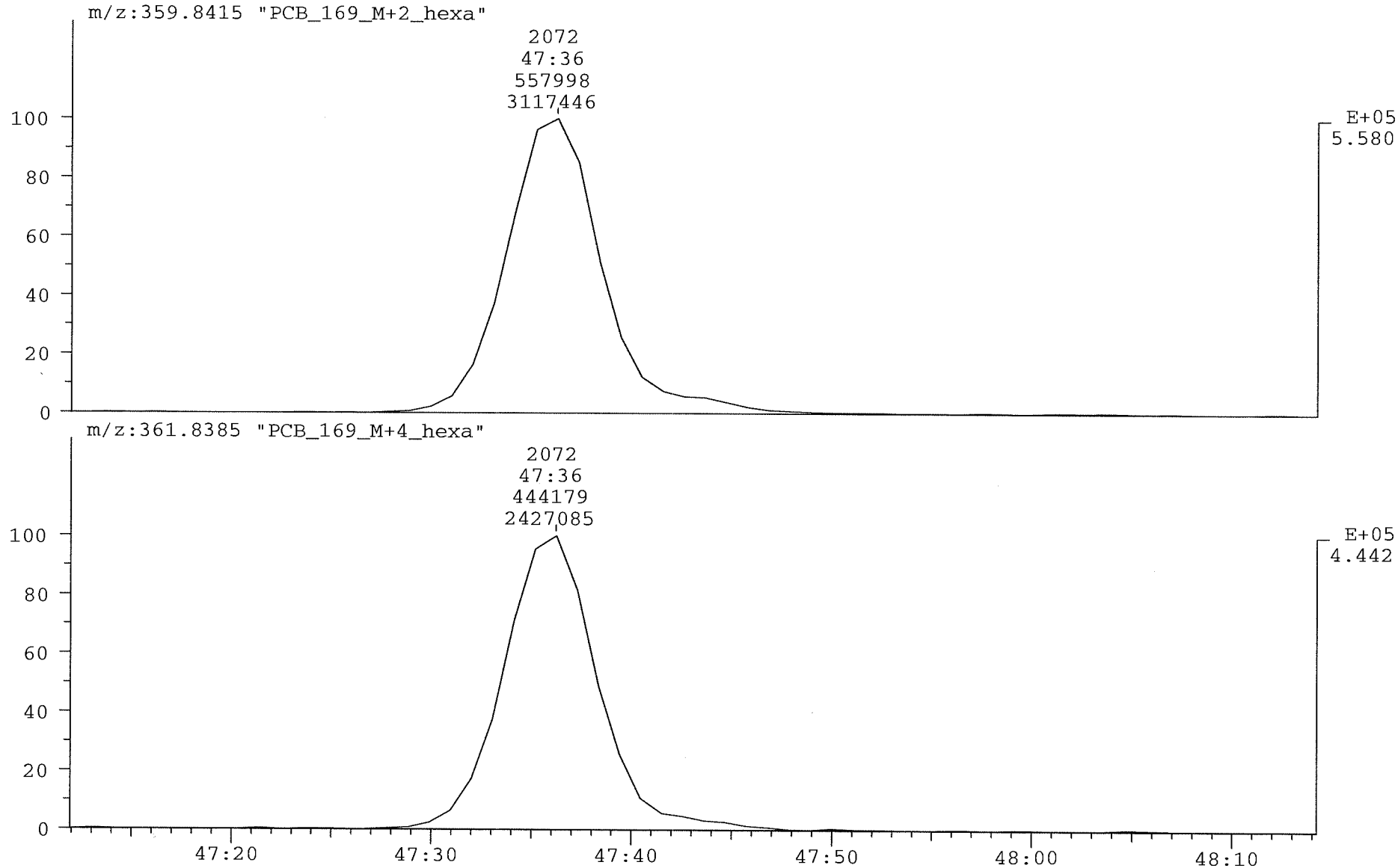
CHRO: a080625ss 25-Jun-08 Elapse: 11:00.7 1
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1866 > 1925 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-2081

2080

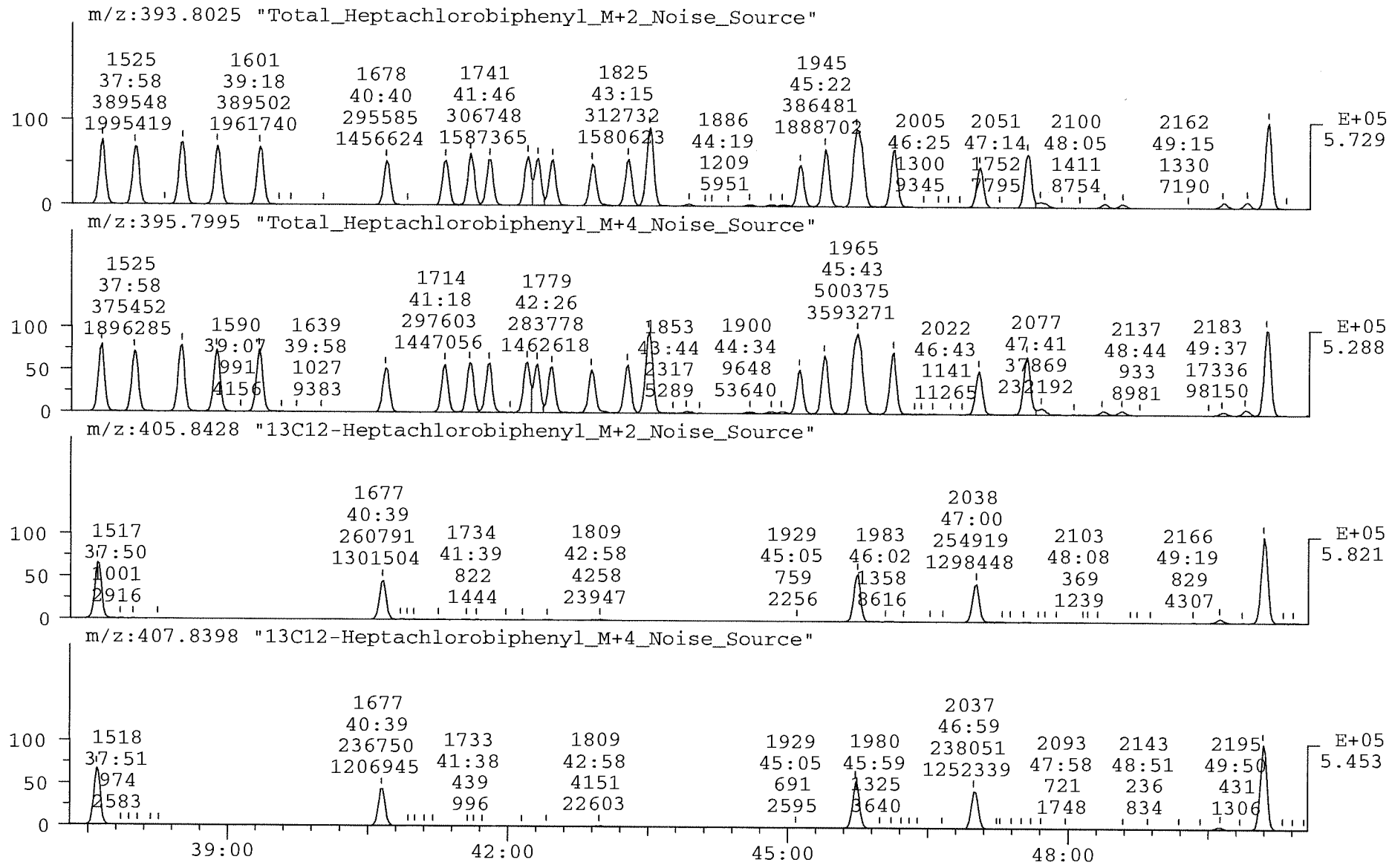
CHRO: a080625ss 25-Jun-08 Elapse: 47:38 2074
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2049 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2082

2081

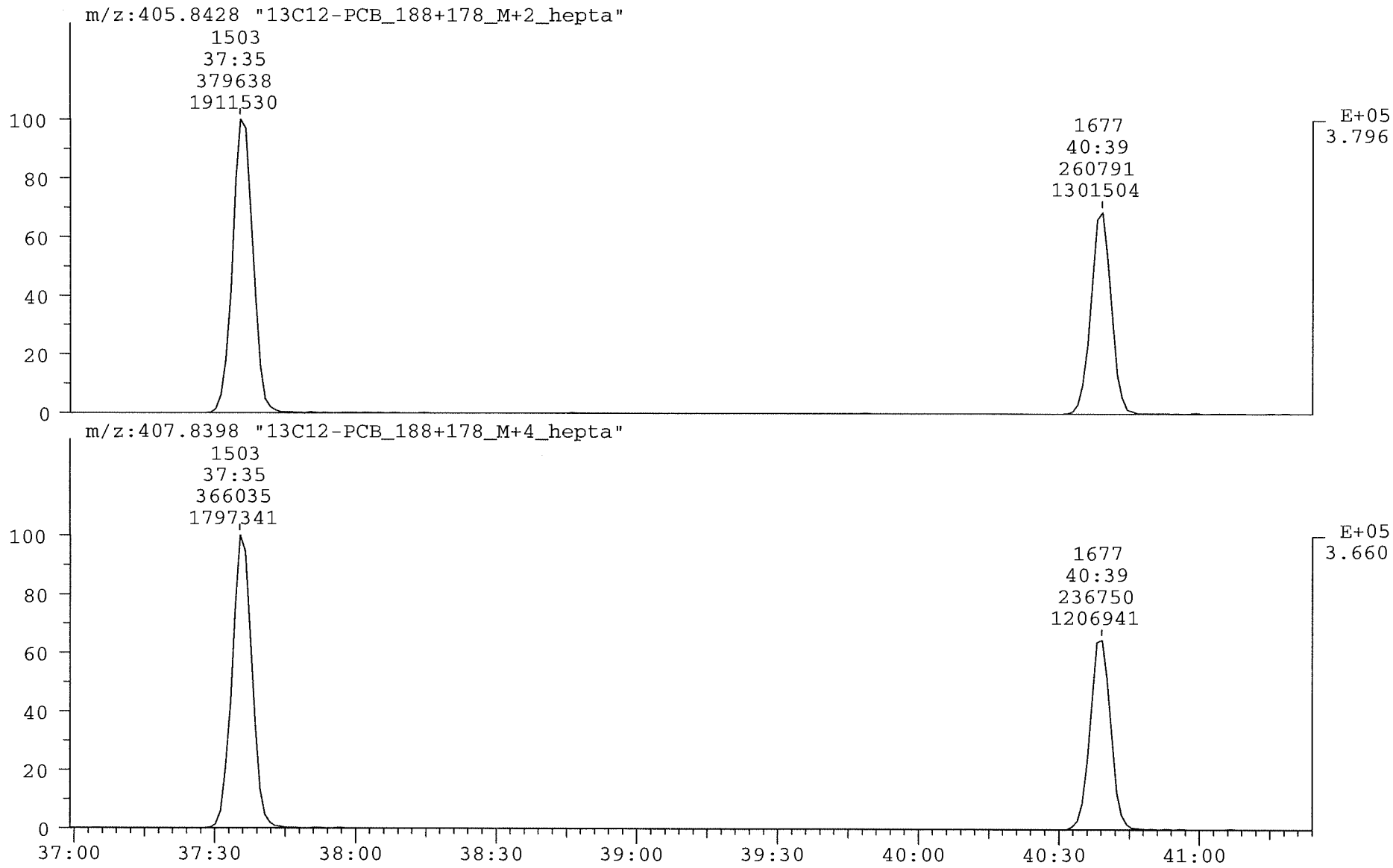
CHRO: a080625ss 25-Jun-08 Elapse: 43:56 1864
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1487 > 2236 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2083

2082

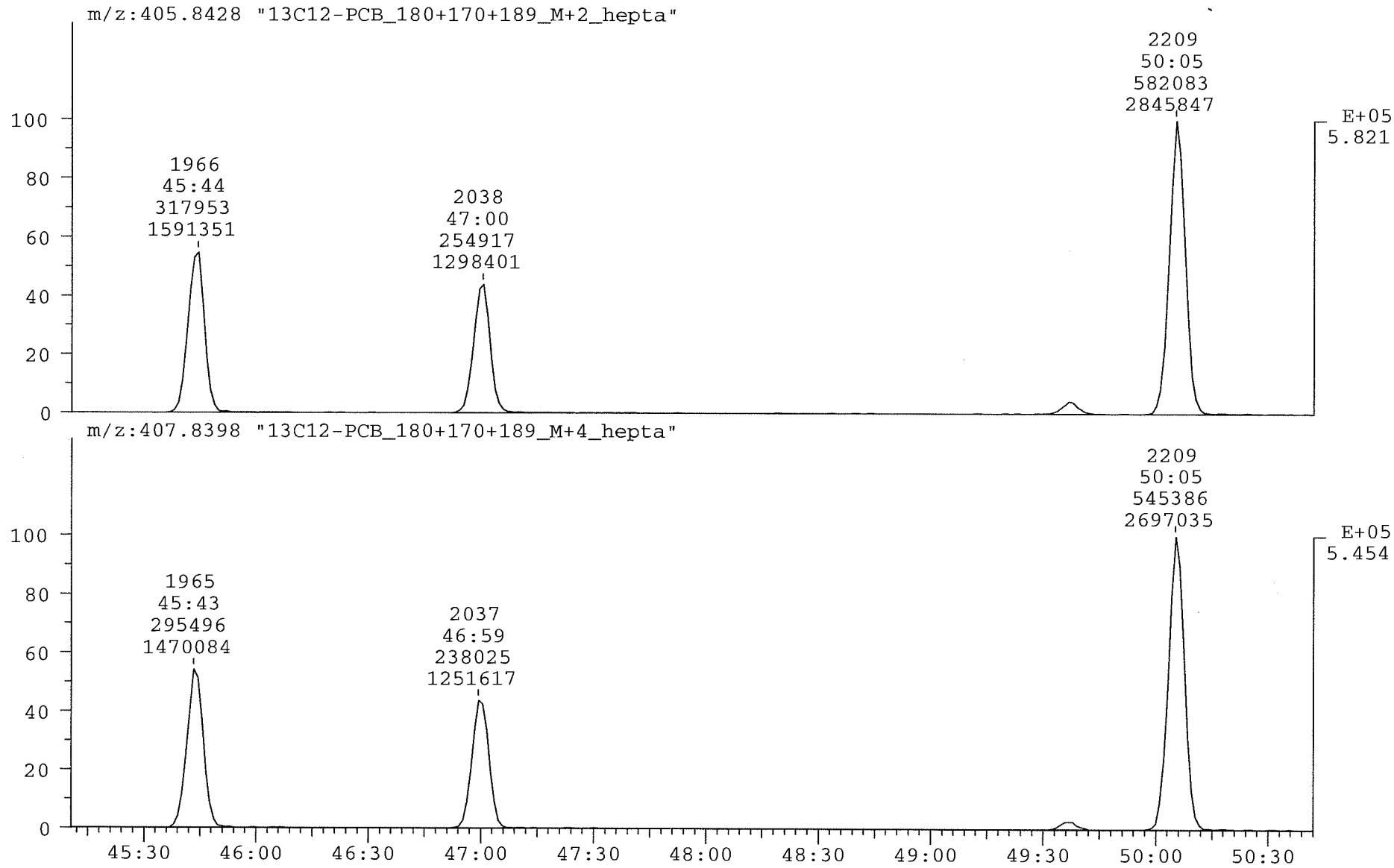
CHRO: a080625ss 25-Jun-08 Elapse: 39:11 1594
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1469 > 1720 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2084

2083

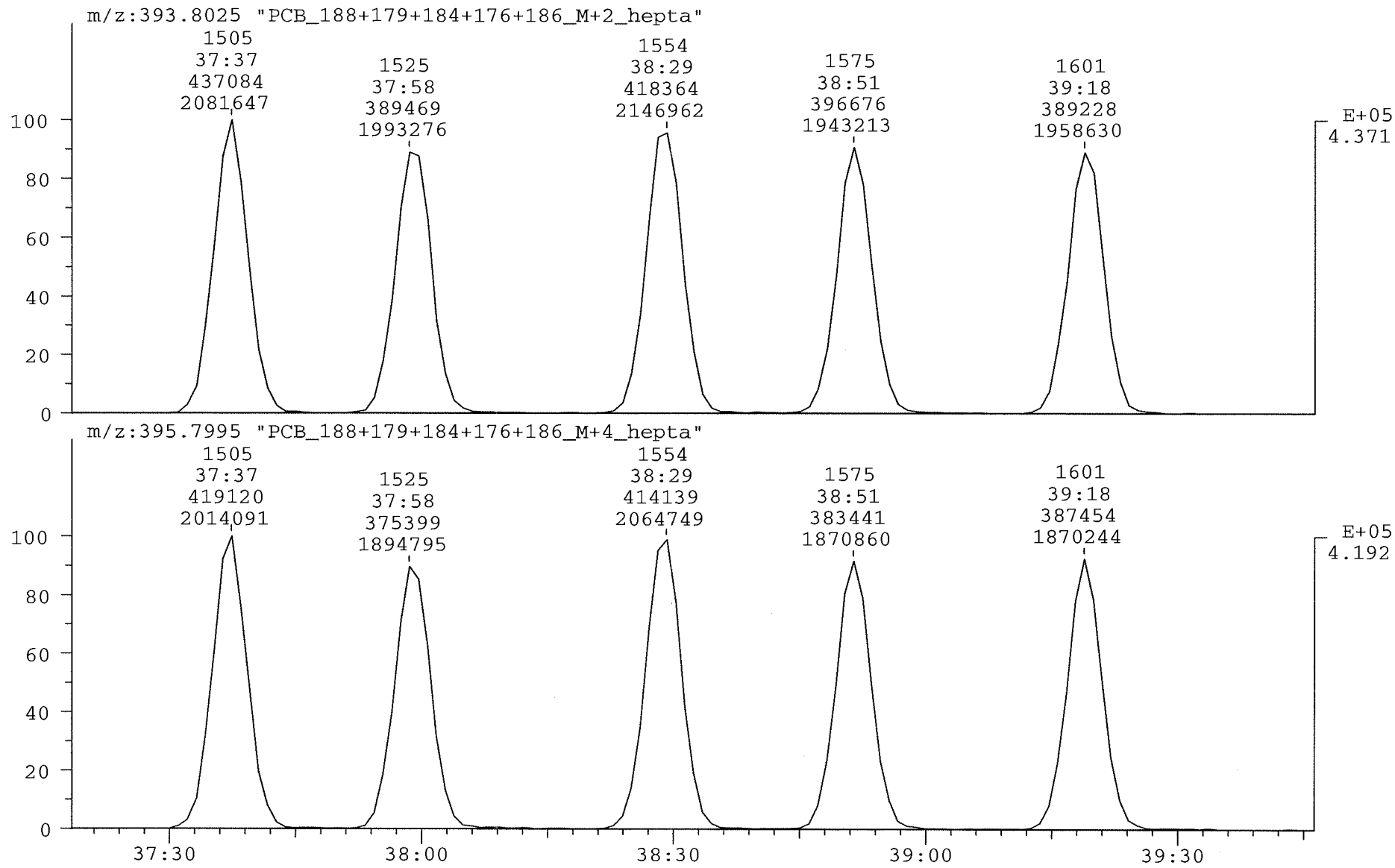
CHRO: a080625ss 25-Jun-08 Elapse: 47:59 2094
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1934 > 2244 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2085

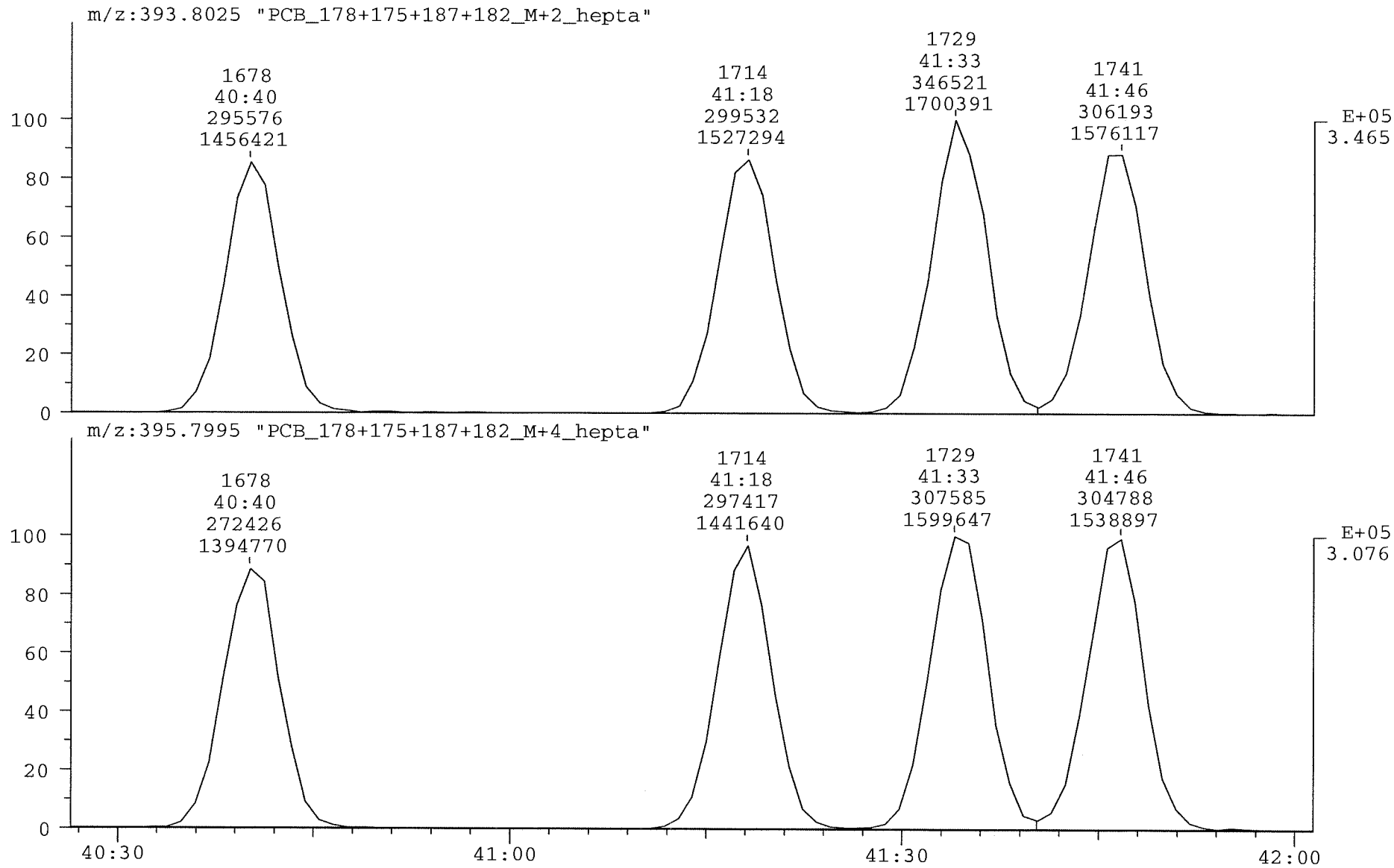
2084

CHRO: a080625ss 25-Jun-08 Elapse: 38:32 1557
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1487 > 1627 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2086

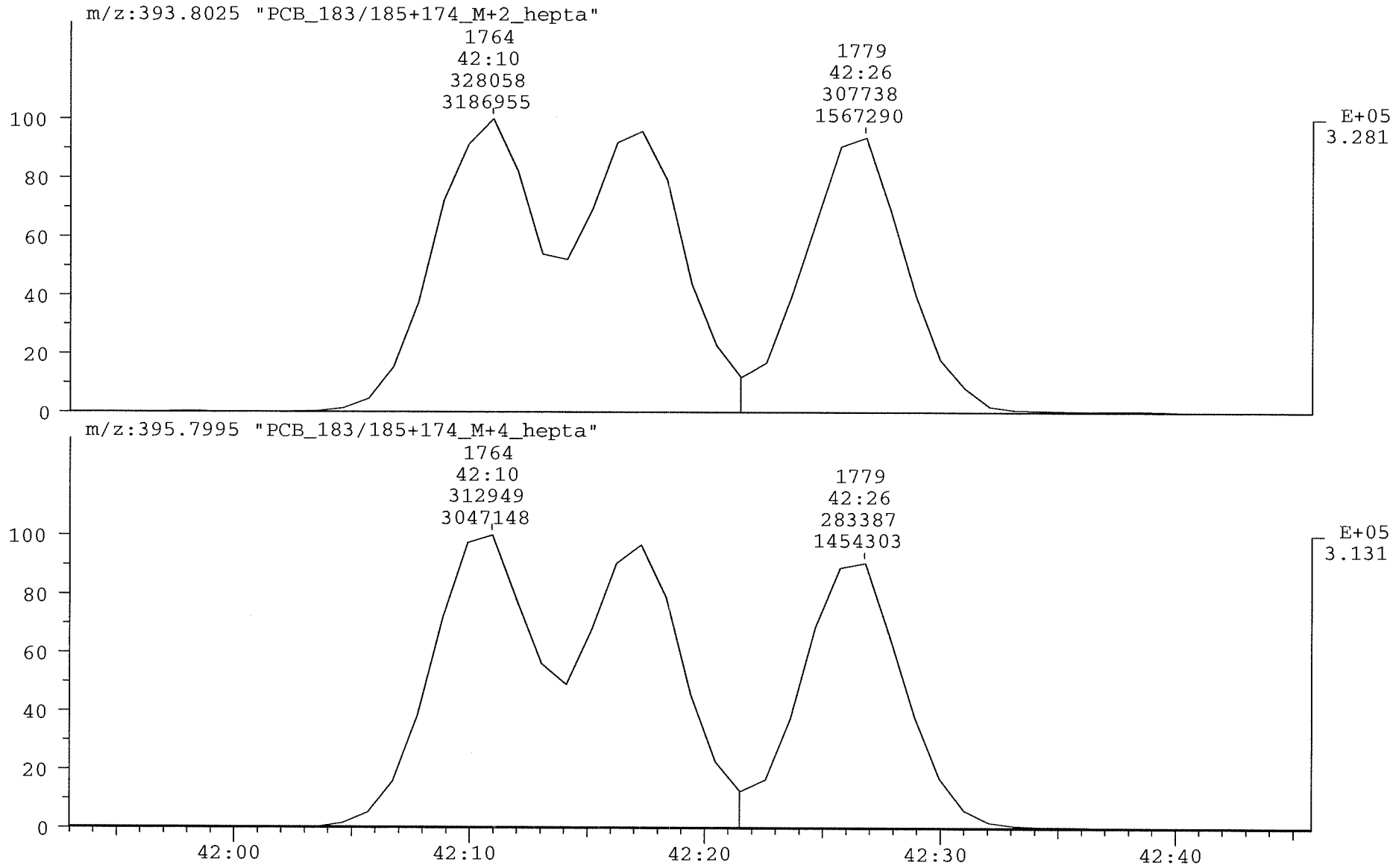
CHRO: a080625ss 25-Jun-08 Elapse: 41:19 1715
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1665 > 1755 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2087

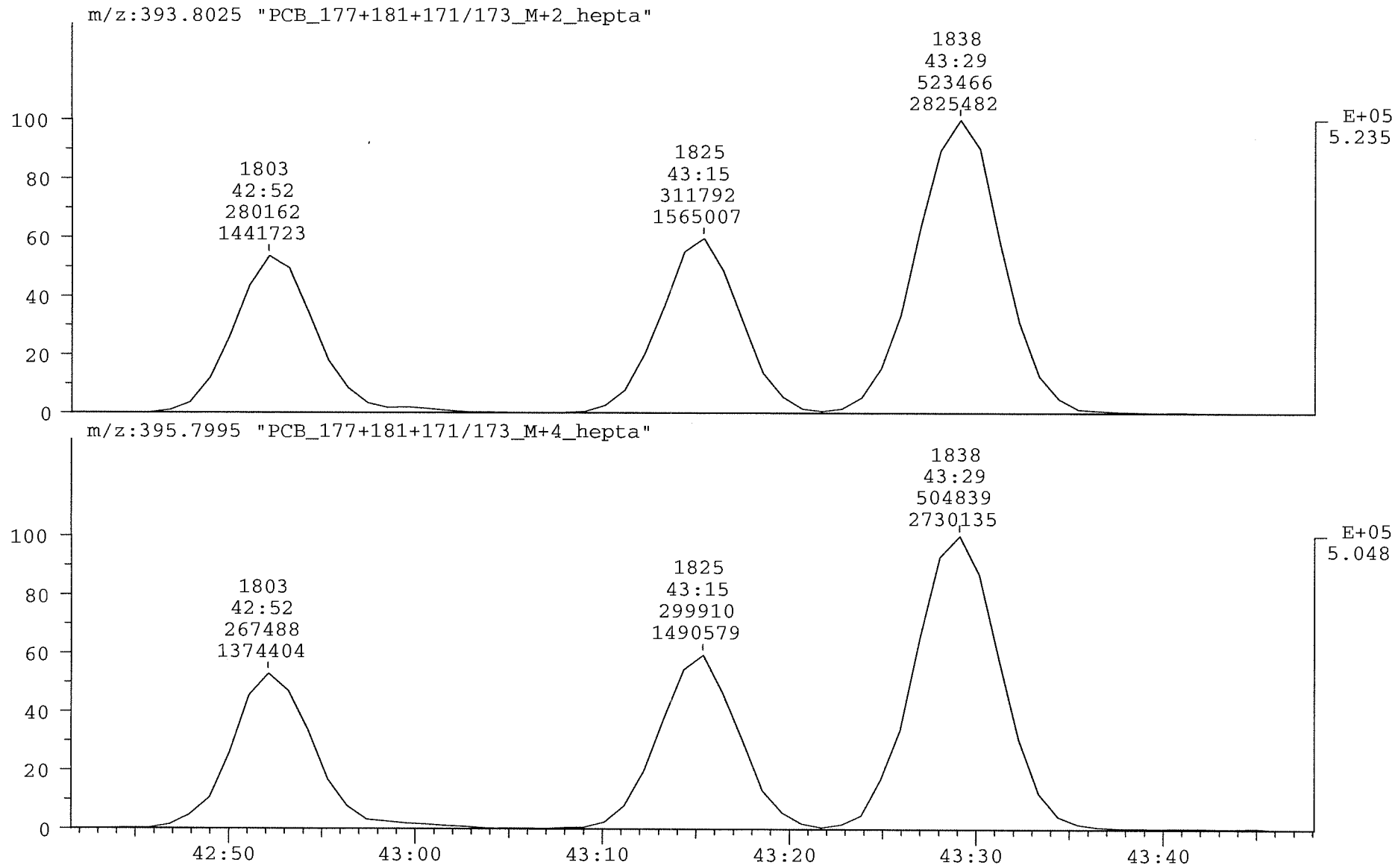
2086

CHRO: a080625ss 25-Jun-08 Elapse: 42:26 1779
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1747 > 1797 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-2088

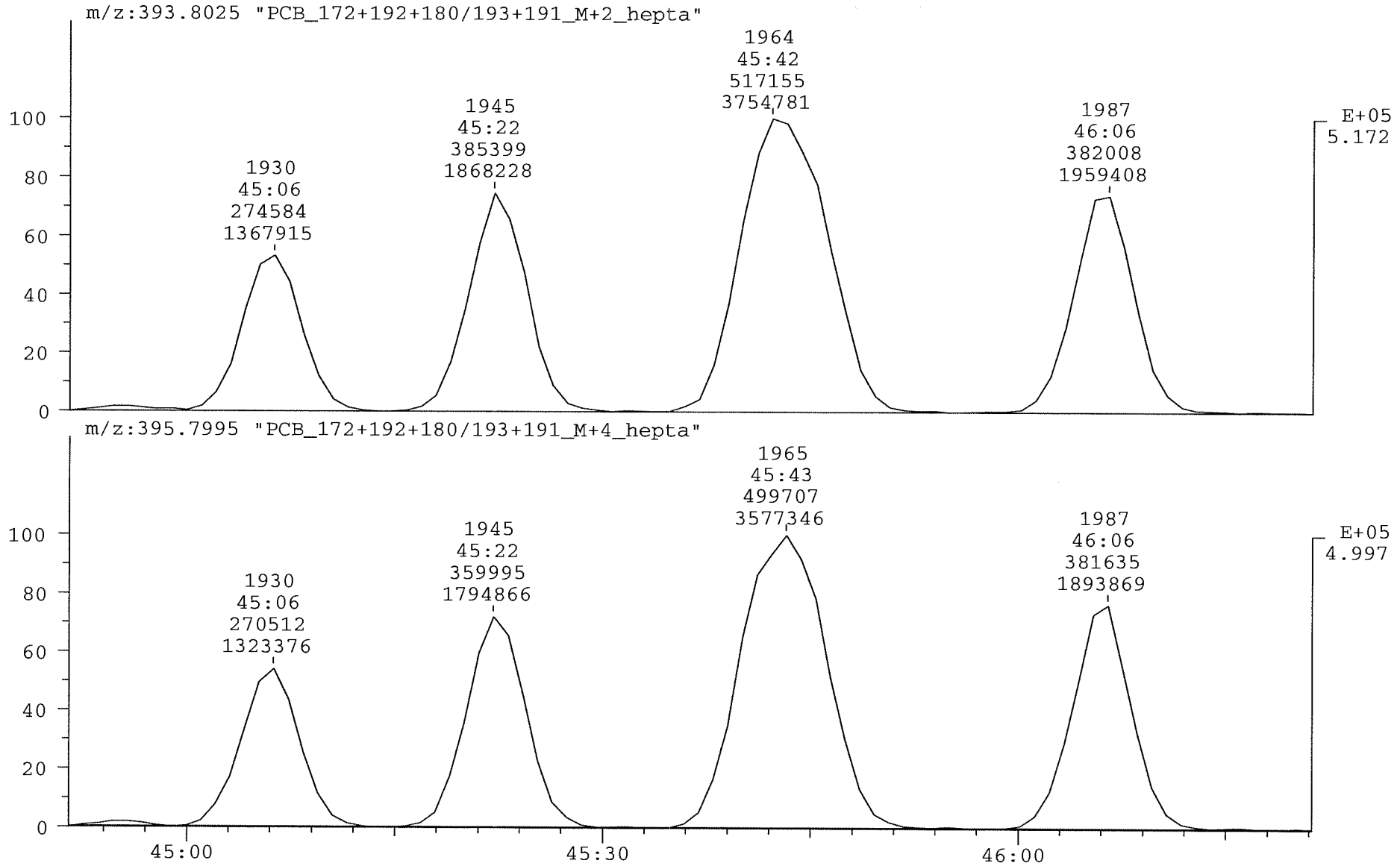
CHRO: a080625ss 25-Jun-08 Elapse: 43:16 1826
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1793 > 1856 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2089

2088

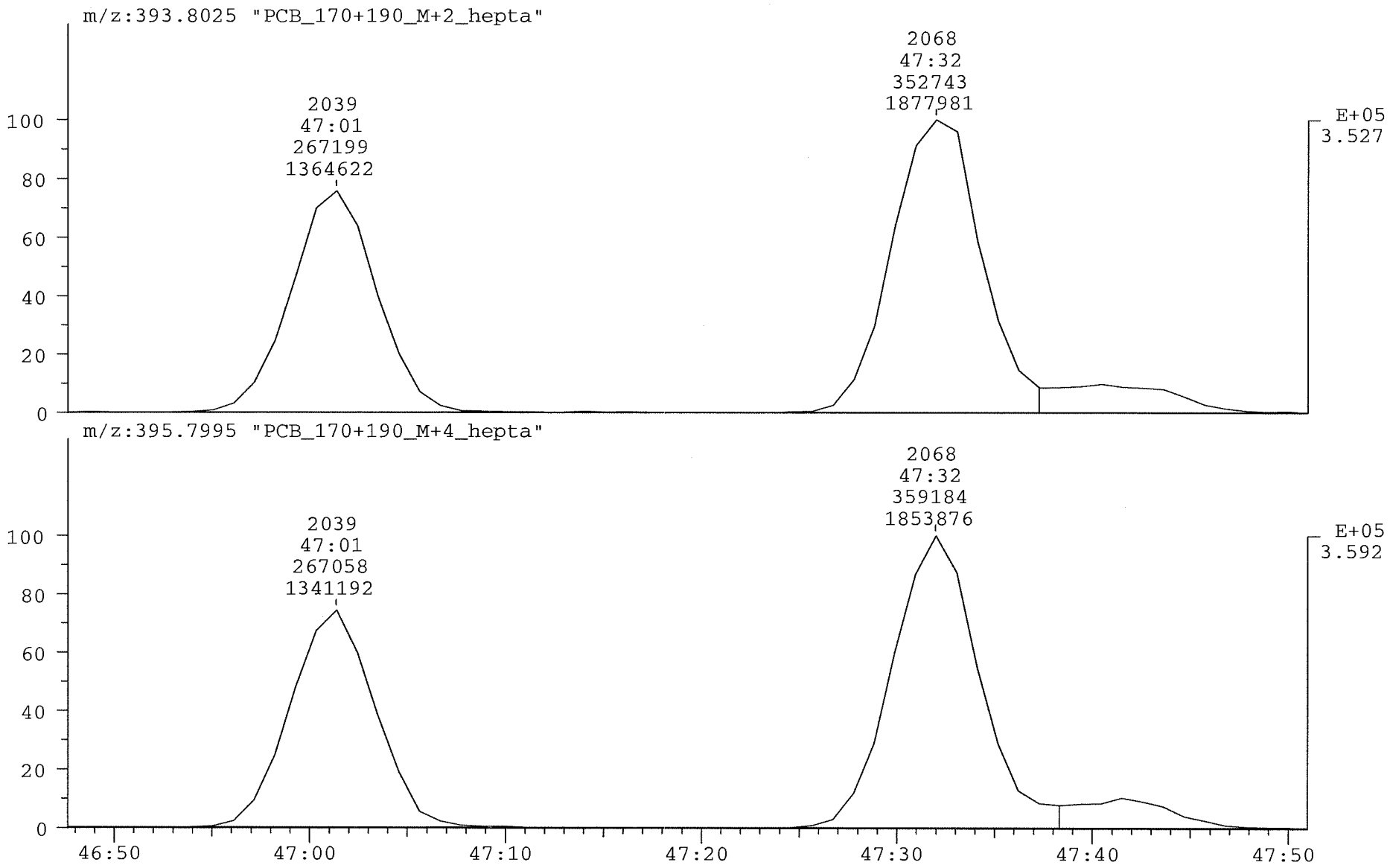
CHRO: a080625ss 25-Jun-08 Elapse: 45:44 1966
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1916 > 2001 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2090

2089

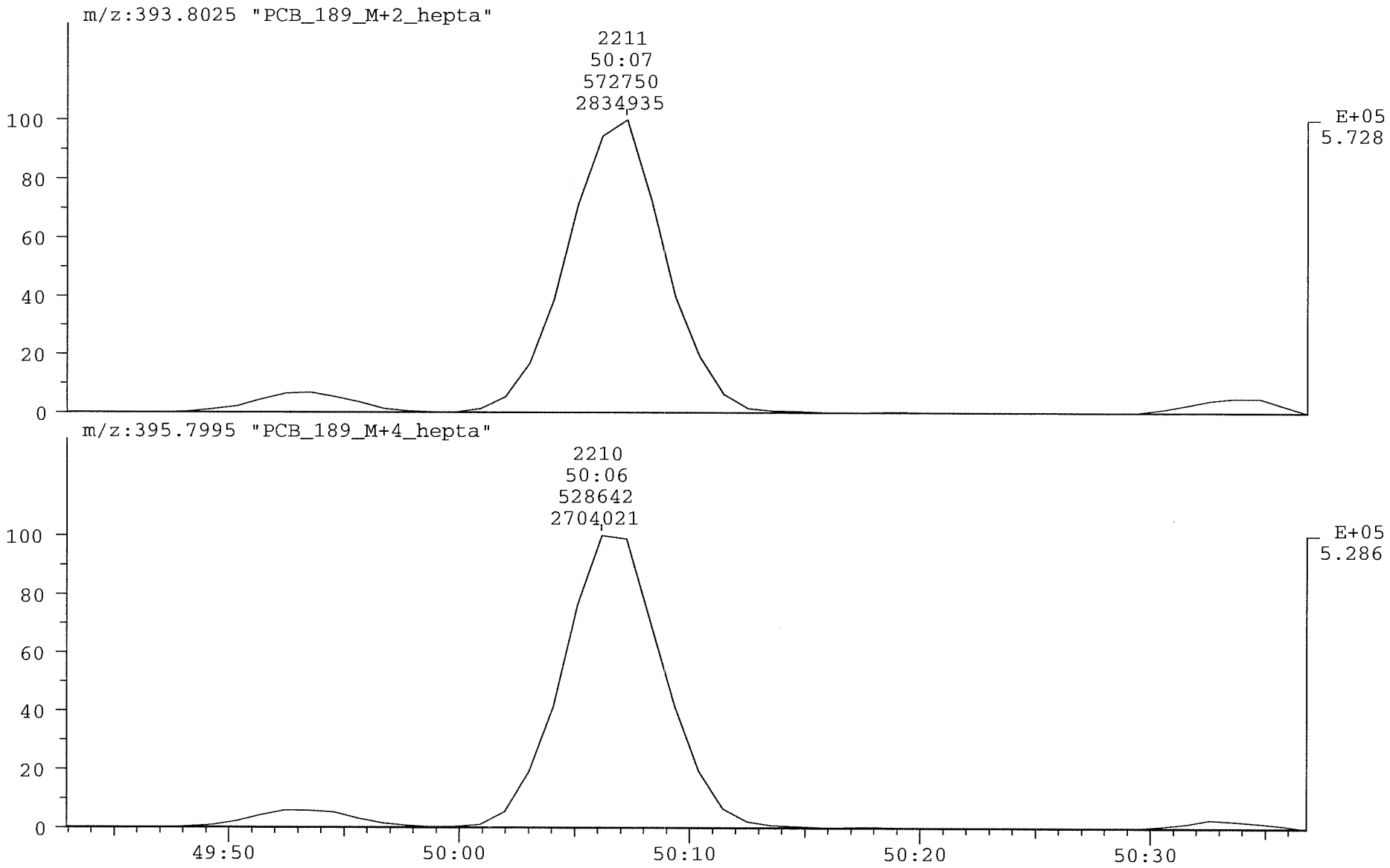
CHRO: a080625ss 25-Jun-08 Elapse: 47:21 2058
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2026 > 2086 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2091

2090

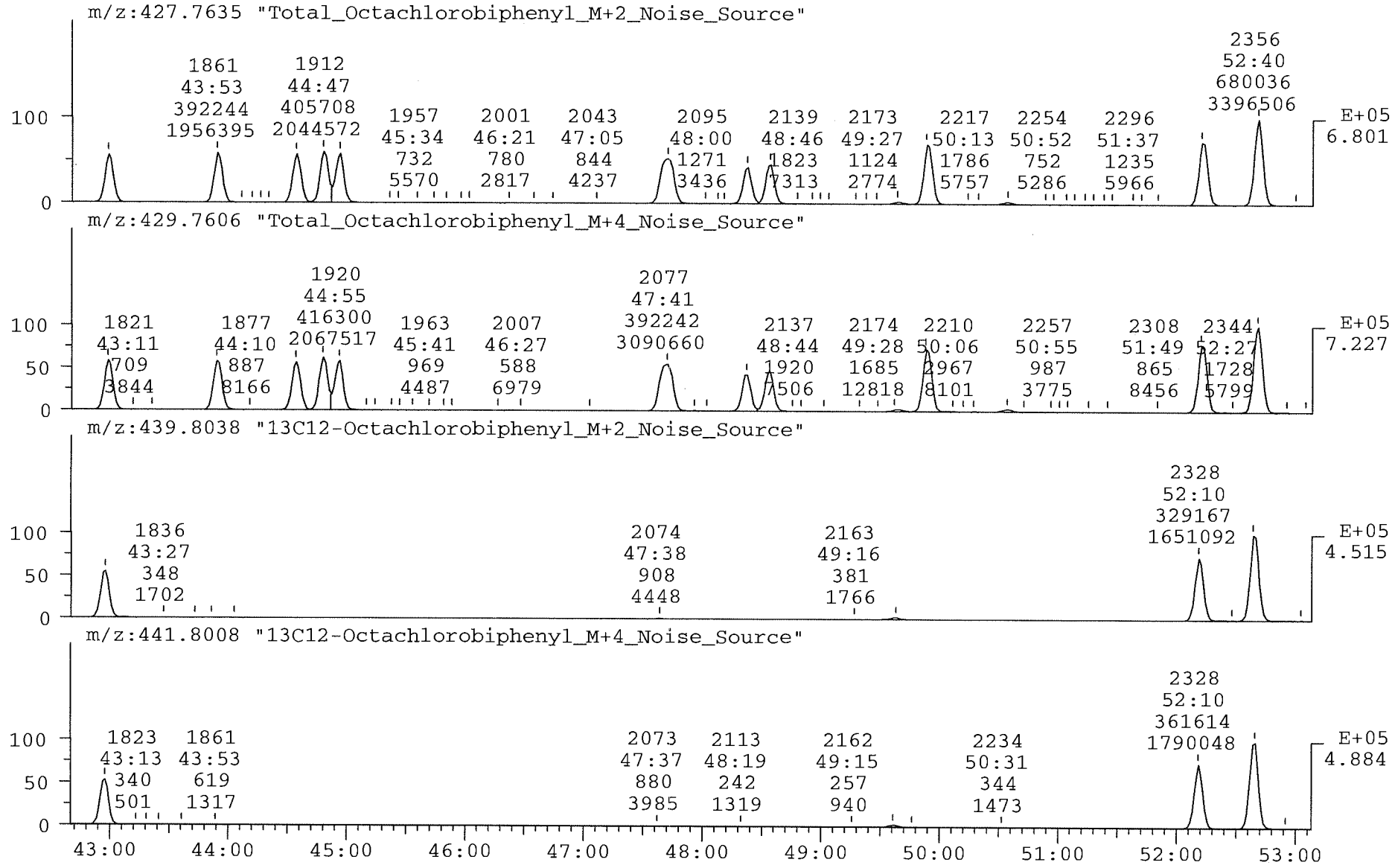
CHRO: a080625ss 25-Jun-08 Elapse: 50:08 2212
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2188 > 2239 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2062

2091

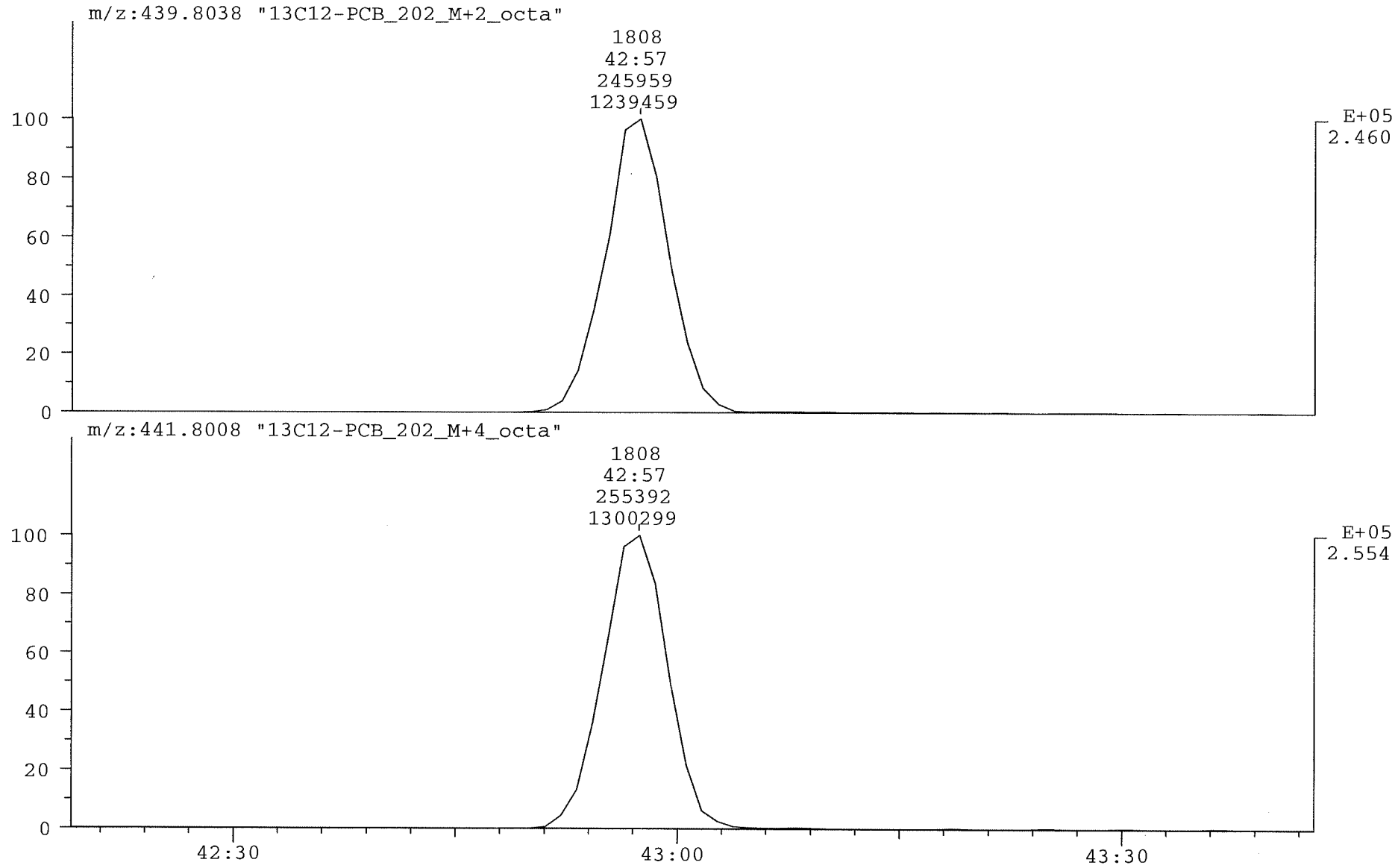
CHRO: a080625ss 25-Jun-08 Elapse: 47:54 2089
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1792 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2093

2092

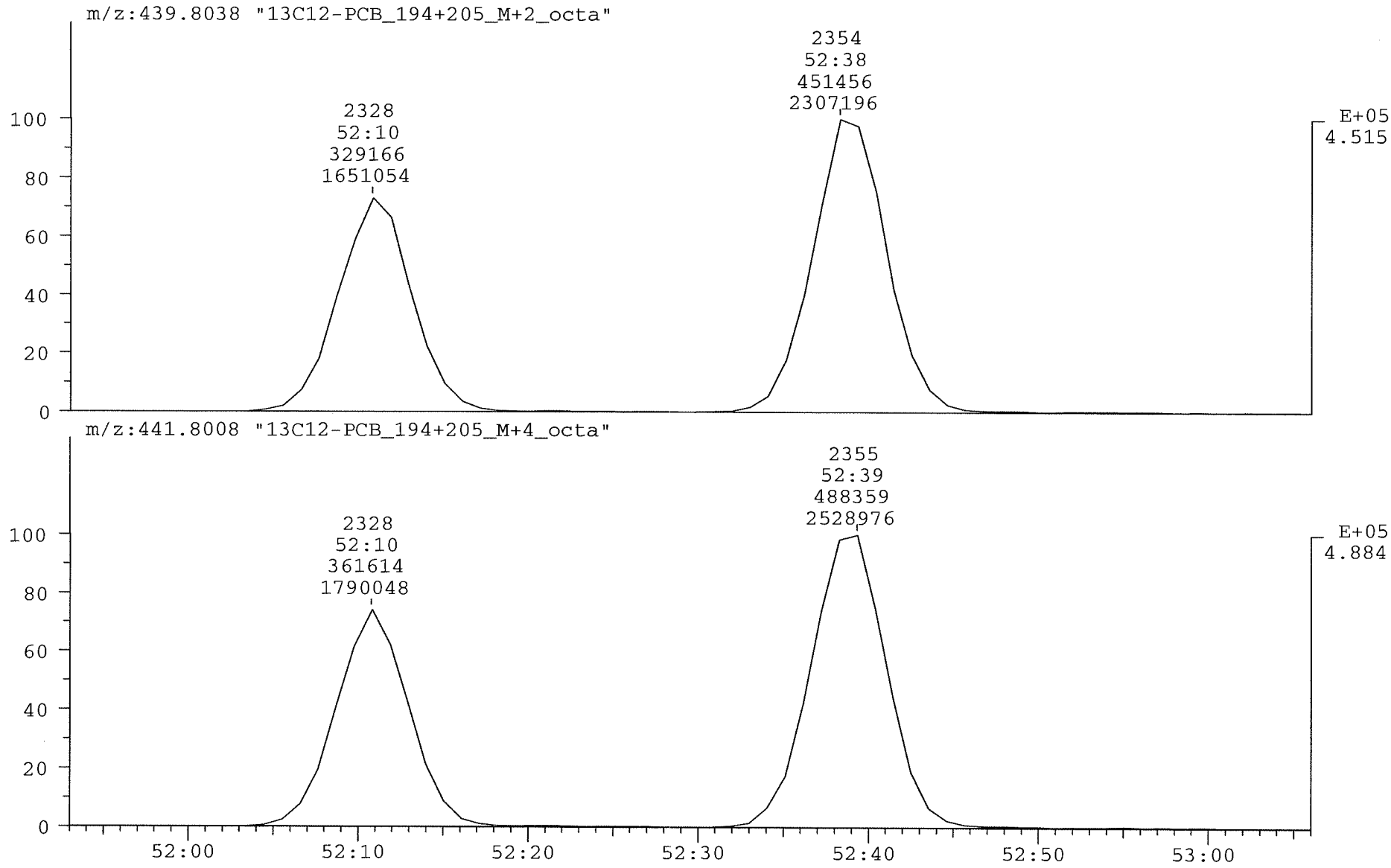
CHRO: a080625ss 25-Jun-08 Elapse: 42:58 1809
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1772 > 1851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2094

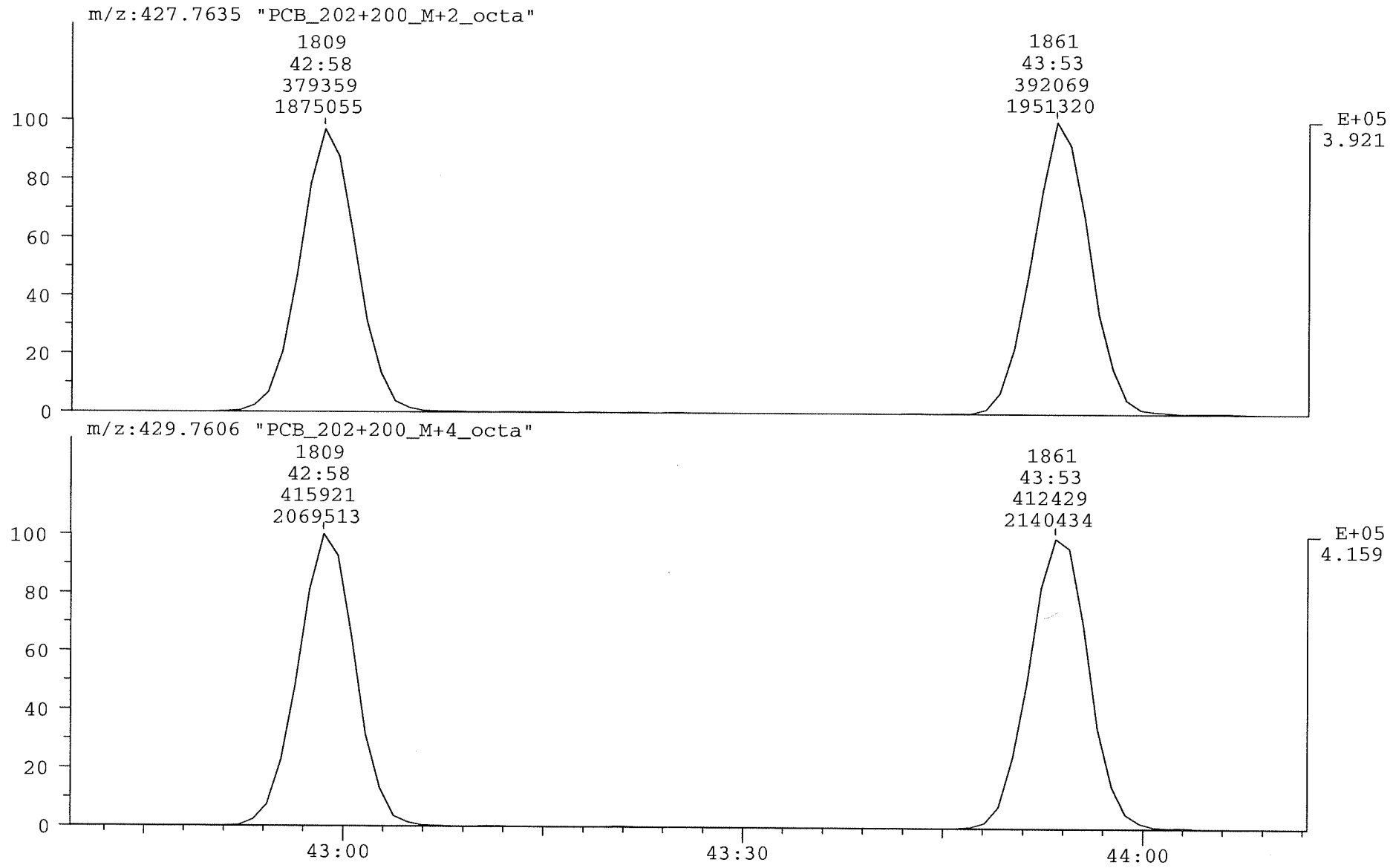
2093

CHRO: a080625ss 25-Jun-08 Elapse: 52:28 2345
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2311 > 2380 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2065

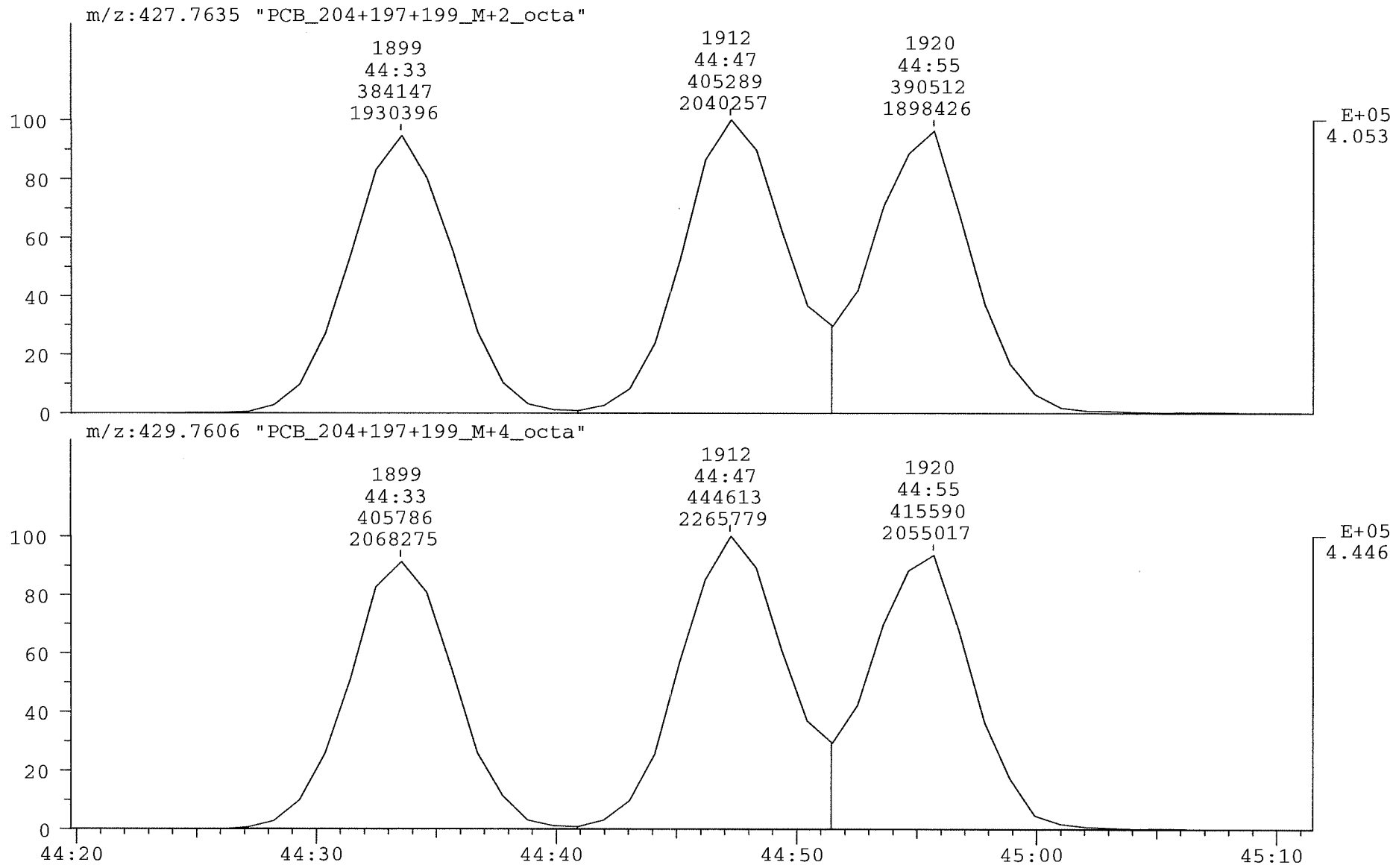
CHRO: a080625ss 25-Jun-08 Elapse: 43:30 1839
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1791 > 1879 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2096

2095

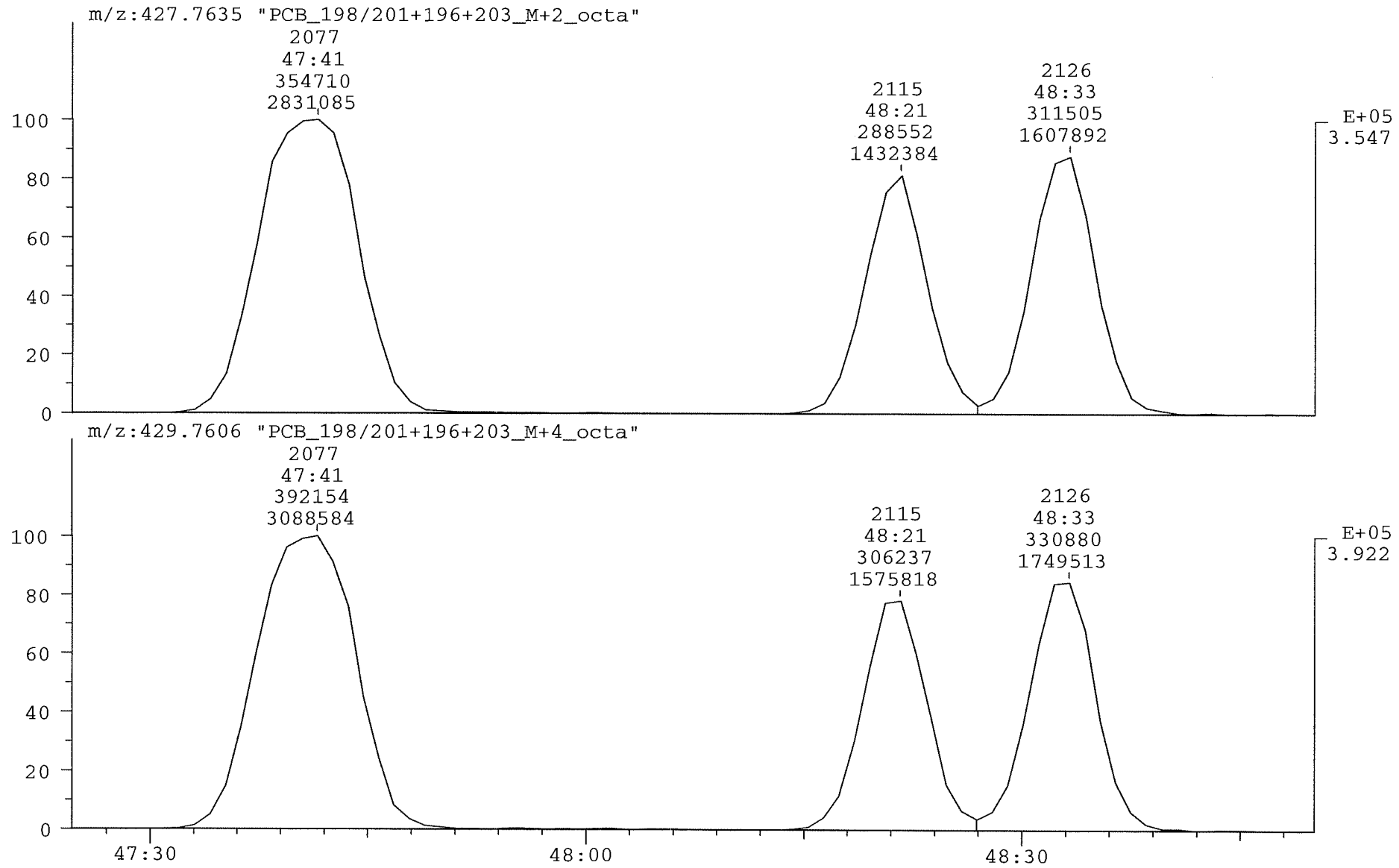
CHRO: a080625ss 25-Jun-08 Elapse: 44:34 1900
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1886 > 1935 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-2097

2096

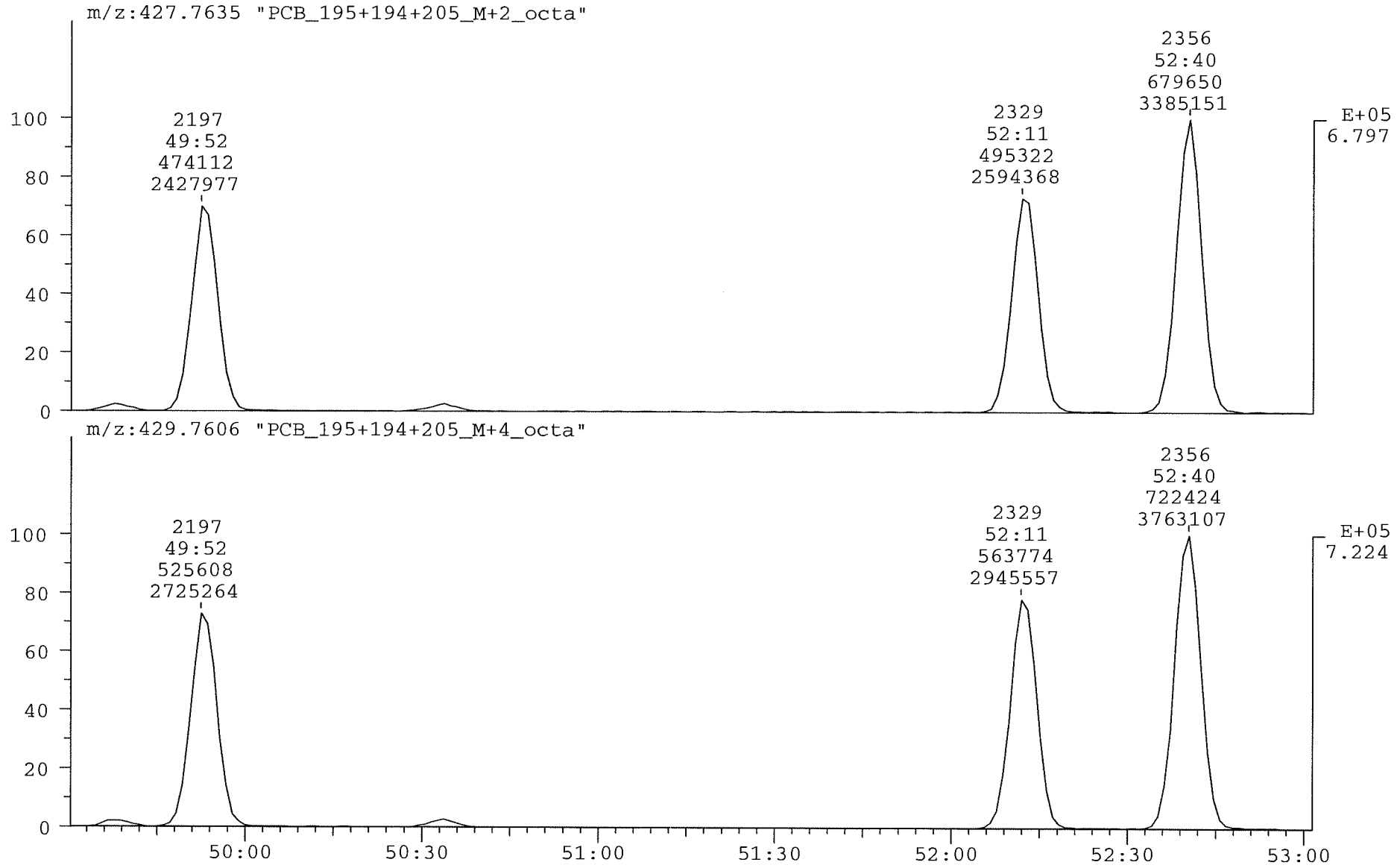
CHRO: a080625ss 25-Jun-08 Elapse: 48:21 2115
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2061 > 2142 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2098

2097

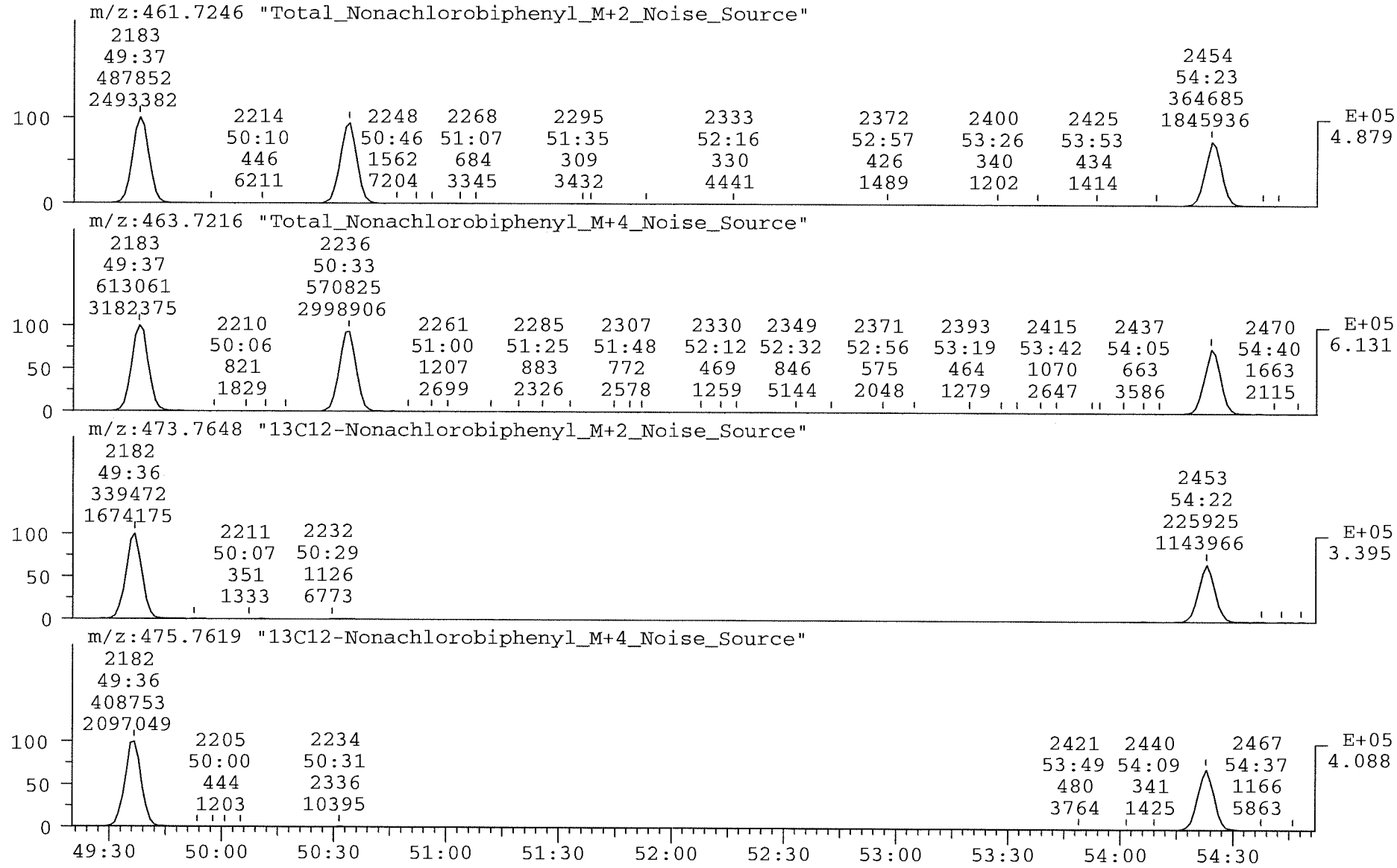
CHRO: a080625ss 25-Jun-08 Elapse: 52:13 2331
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2176 > 2376 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2099

2098

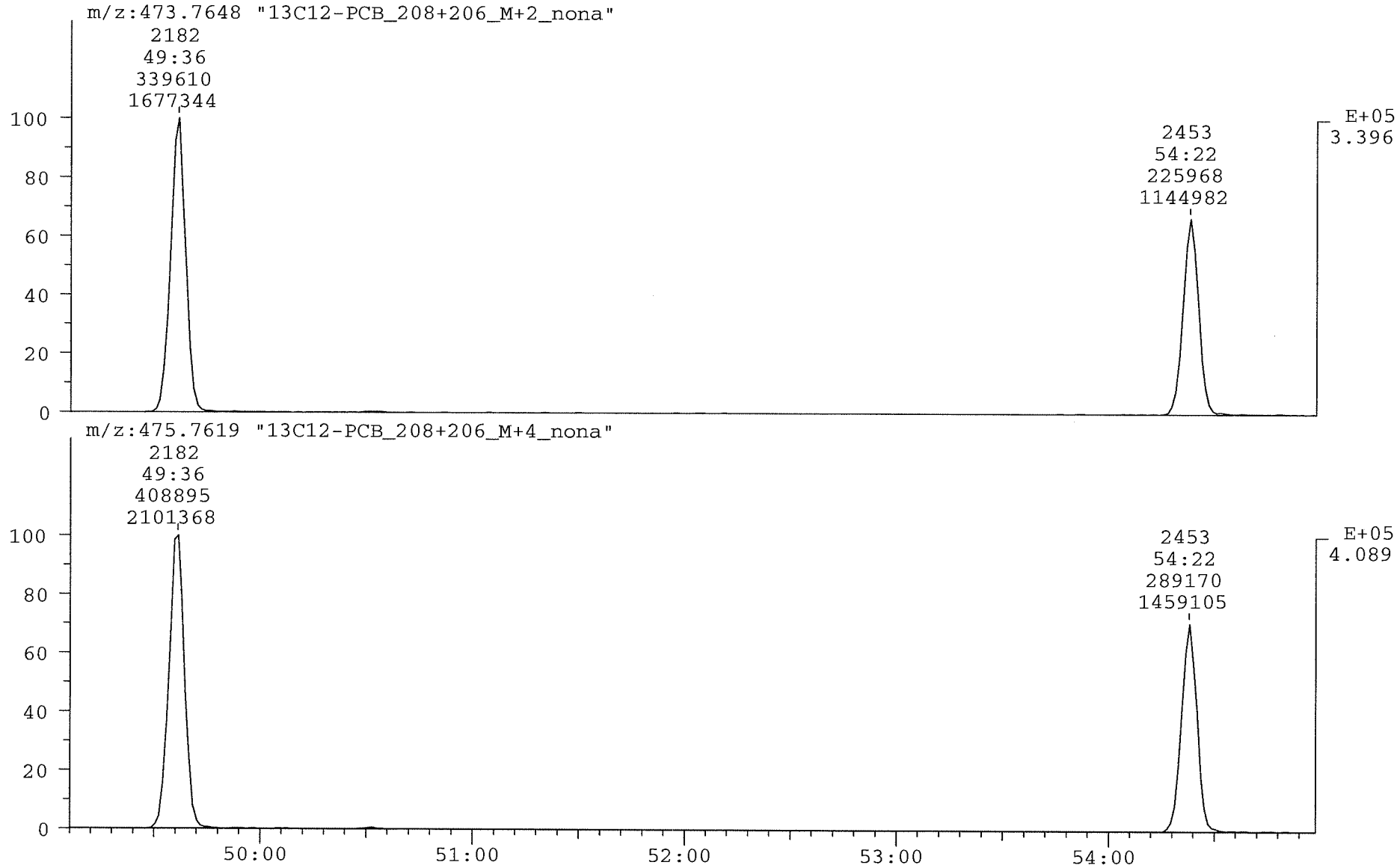
CHRO: a080625ss 25-Jun-08 Elapse: 52:05 2323
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2166 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2100

2099

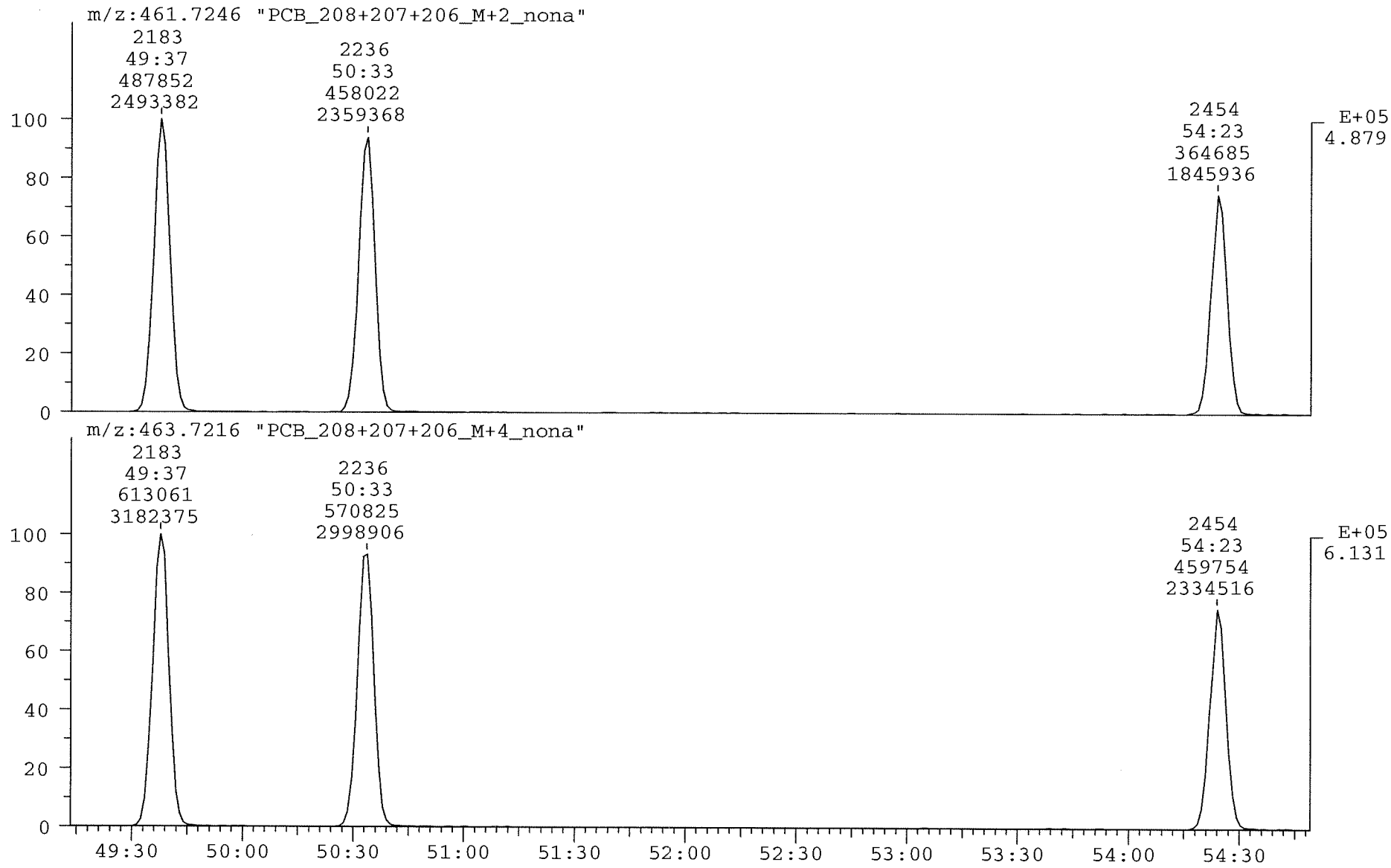
CHRO: a080625ss 25-Jun-08 Elapse: 52:04 2322
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2157 > 2487 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2101

2100

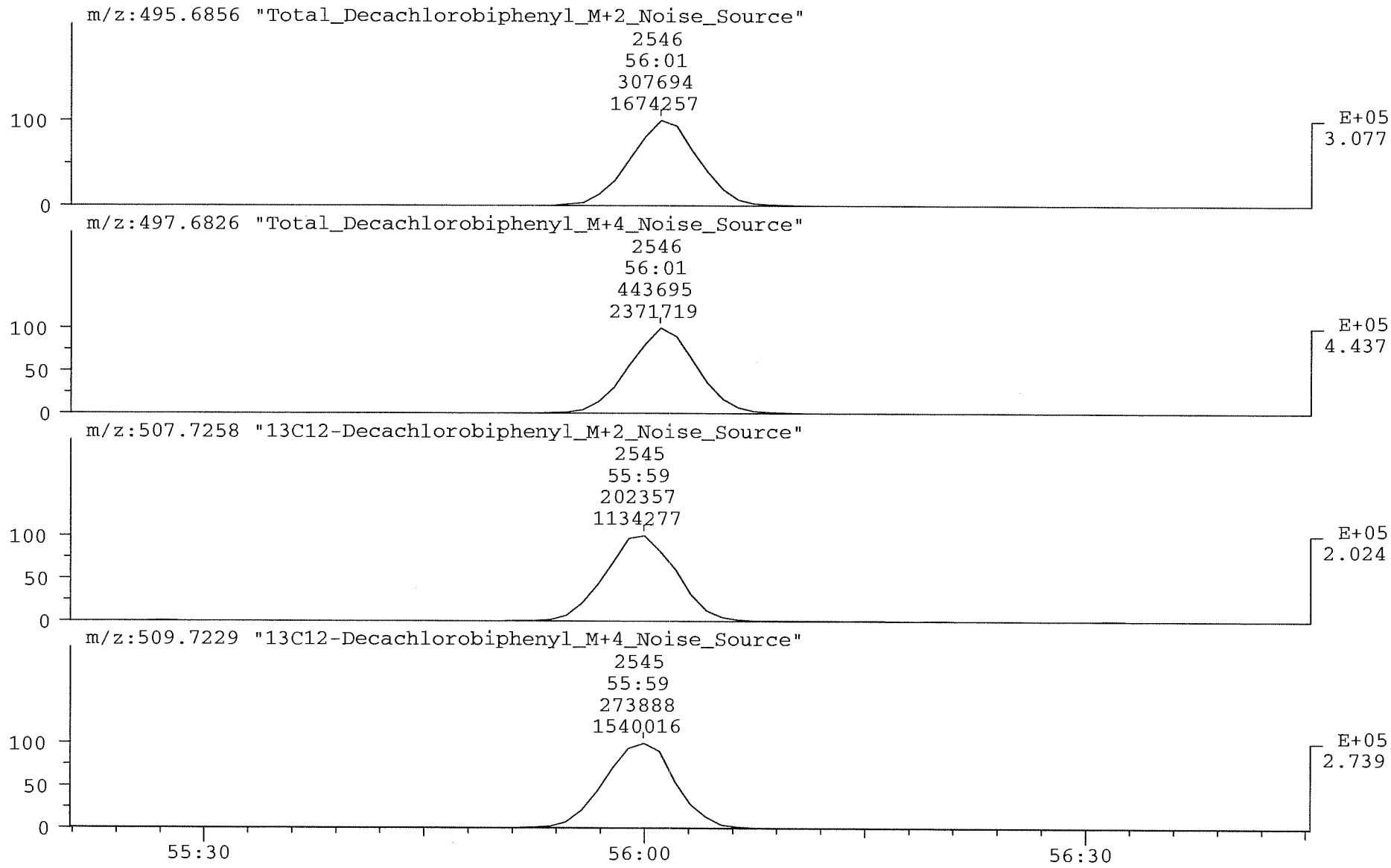
CHRO: a080625ss 25-Jun-08 Elapse: 52:05 2323
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2160 > 2478 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2102

2101

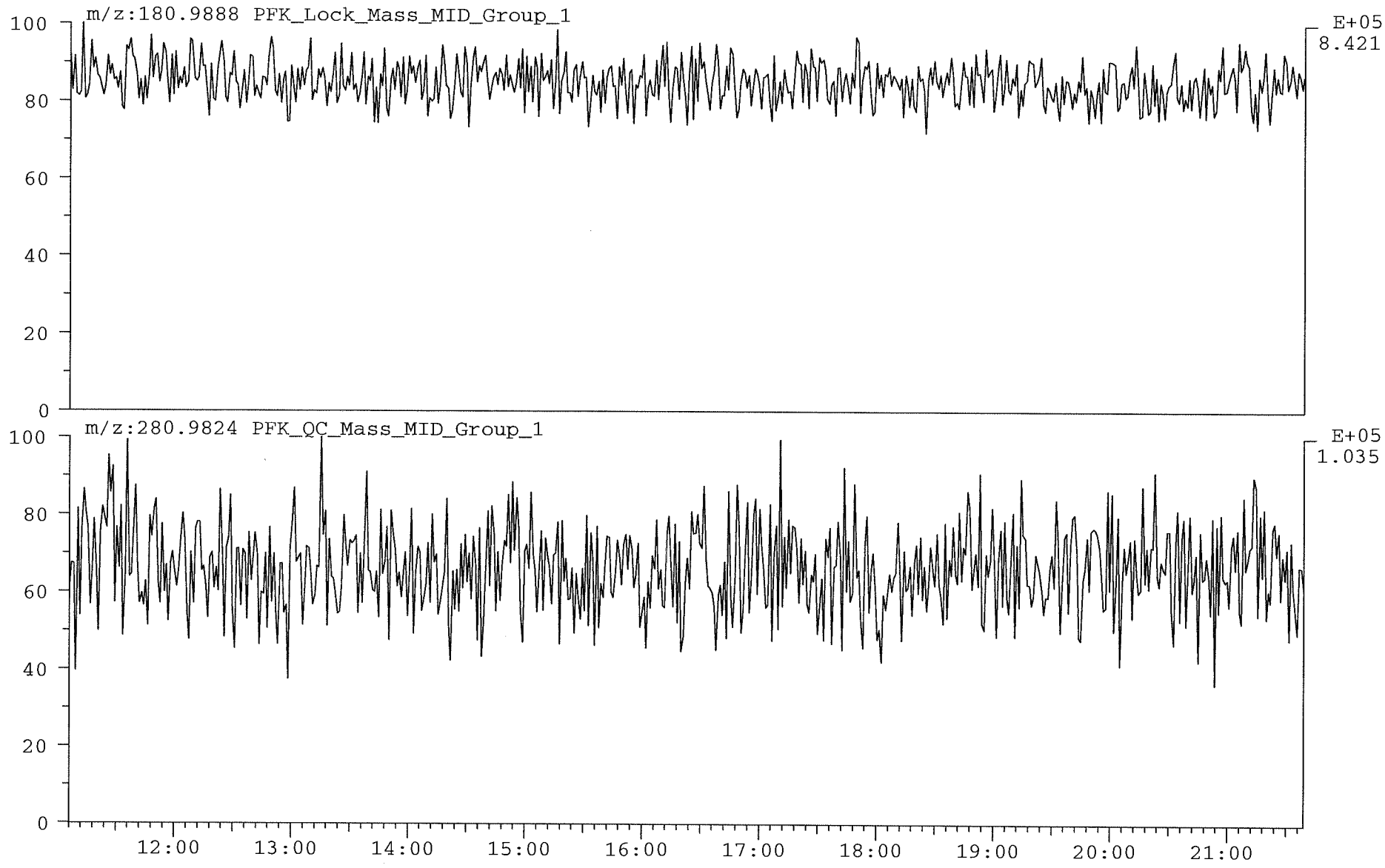
CHRO: a080625ss 25-Jun-08 Elapse: 56:06 2551
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2508 > 2588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2103

2102

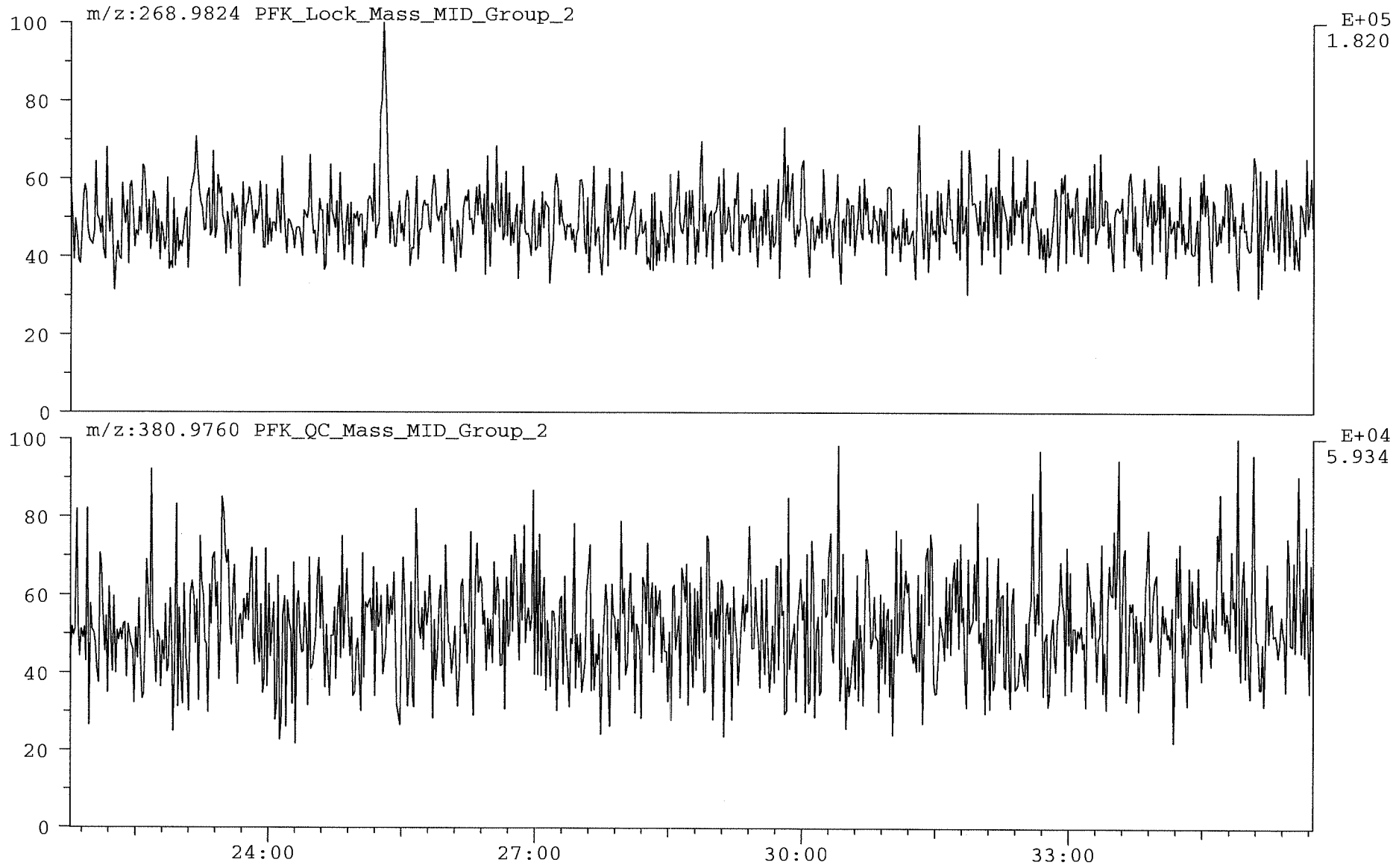
CHRO: a080625ss 25-Jun-08 Elapse: 56:06 2551
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2104

2103

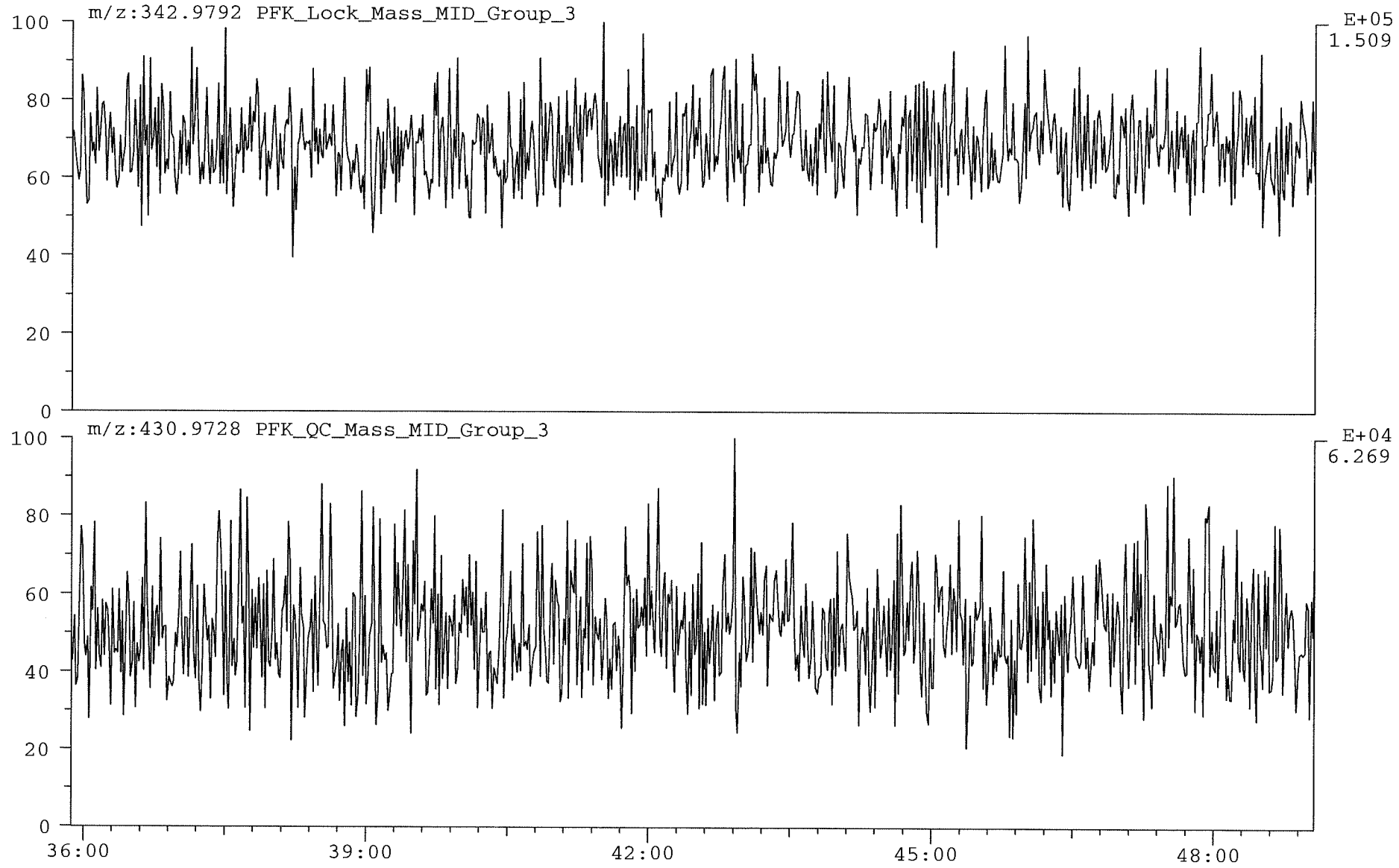
CHRO: a080625ss 25-Jun-08 Elapse: 56:06 2551
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 608 > 1403 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2105

2104

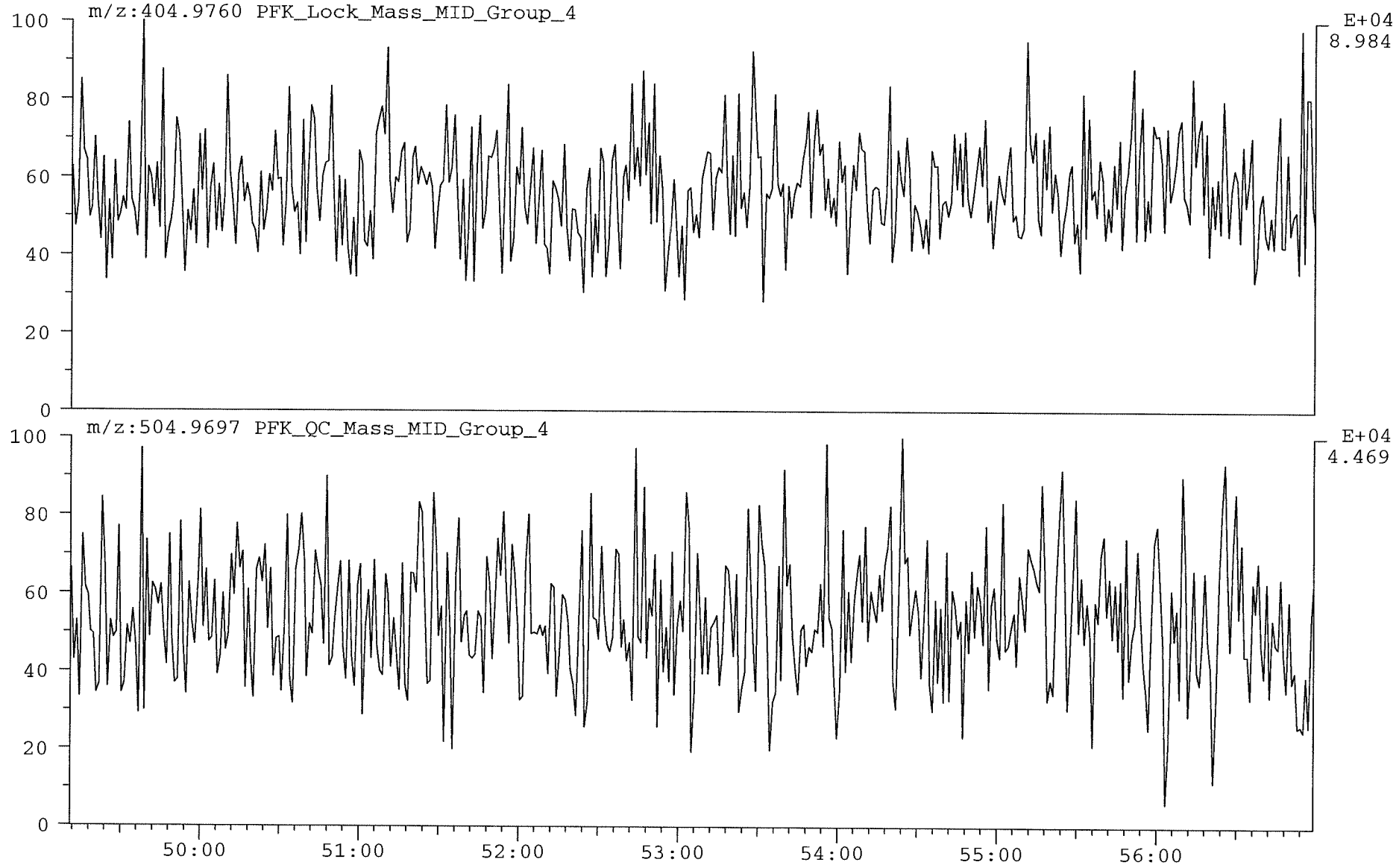
CHRO: a080625ss 25-Jun-08 Elapse: 56:06 2551
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1406 > 2155 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2106

2105

CHRO: a080625ss 25-Jun-08 Elapse: 56:06 2551
Samp: Vial 15 WO=2990:74 Meth=IE3 Dil=1 Start : 11:18:46 2603
Comm: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 ICAL SS
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2158 > 2601 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2107

2106

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a080625ss
Study: 1668 ICAL SS
Sample: WO=2990:74 Meth=IE3 Dil=1
Amount:  0.00
Volume:  0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080624i Ccal=20080624i
Injected volume:  2.00
Sample from Vial 15
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
Single File
  ICL procedure: sleep7x
  MID procedure: epa1668n

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.10 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:06 min   35:46 min    1.00 sec
  # 3   35:46 min   13:19 min   49:05 min    1.00 sec
  # 4   49:05 min    7:55 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 l   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
```

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	1	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	1	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	1	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.7567
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6706
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-14.8500
DRAWC	1.0000	DRAWS	0.0100	ECORR	0.9994
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	7.0000	ELEN	55.7750
EMULT	1.7500	ENS	205.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	152.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	343.0000
FVINLET	257.0000	FVSRC	971.0000	FWIN	0.7000
GCTC	75.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	2.1373	HVANAL	1300.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4778.9940	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1837.0000	LENSS	8.4000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2351507.3768

MDACR	23.0000	MRANGE	1031.7567	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	14.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-6.1500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10005.2863	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	3200.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.9300	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.0000	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	1694.0000
XLENSS	-97.0000	YLENS	2530.0000	YLENSS	-24.2000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 25-Jun-08 11:18:46.2

Autosampler has injected sample from vial 15
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 8406
MID Time Window 3: Resolution is 7794
MID Time Window 4: Resolution is 10124
Analysis stopped at: 25-Jun-08 12:15:49.5 (run time 57.04 minutes)
Analysis stopped because MID run finished

KNOX-ID-0013, Rev. 4, Analysis of Polychlorinated Biphenyl (PCB) Isomers by Isotope Dilution HRGC/HRMS

Table 2

RT References, Quantitation References, Retention Times (RT) and Relative Retiontion Times (RRT) for the 209 CB Congeners on SPB-Octyl

Cl No[1]	BZ/IUPAC No[2,3]	RT Ref[4]	Quantitaion Reference[5]	RT[6]	RRT[7]	RRT Limit[8]	RT Win[9] (sec)
Monochlorobiphenyls							
1	1L	9L	9L	12:02	0.7303	0.7152 - 0.7455	30
1	3L	9L	9L	14:14	0.8639	0.8487 - 0.8791	30
1	1	1L	1L	12:02	1.0007	0.9938 - 1.0076	10
1	2	3L	1L/3L	14:04	0.9882	0.9847 - 0.9917	6
1	3	3L	3L	14:14	1.0006	0.9971 - 1.0041	6
Dichlorobiphenyls							
2	4L	9L	9L	14:30	0.8800	0.8648 - 0.8952	30
2	9L	9L	9L	16:28	1.0000	0.9874 - 1.0126	25
2	8L	4L	4L/15L	17:20	1.1955	1.1920 - 1.1989	6
2	15L	9L	9L	20:26	1.2410	1.2309 - 1.2511	20
2	4	4L	4L	14:31	1.0011	0.9954 - 1.0069	10
2	10	4L	4L/15L	14:41	1.0126	1.0092 - 1.0161	6
2	9	4L	4L/15L	16:30	1.1380	1.1345 - 1.1414	6
2	7	4L	4L/15L	16:39	1.1487	1.1452 - 1.1521	6
2	6	4L	4L/15L	16:55	1.1667	1.1633 - 1.1702	6
2	5	4L	4L/15L	17:13	1.1878	1.1843 - 1.1912	6
2	8	4L	4L/15L	17:21	1.1970	1.1935 - 1.2004	6
2	14	15L	4L/15L	18:59	0.9284	0.9260 - 0.9309	6
2	11	15L	4L/15L	19:50	0.9702	0.9678 - 0.9727	6
2	13	15L	4L/15L	20:07	0.9843	0.9819 - 0.9868	6
2	12	15L	4L/15L	20:10	0.9865	0.9841 - 0.9890	6
2	15	15L	15L	20:27	1.0007	0.9966 - 1.0047	10
Trichlorobiphenyls							
3	19L	32L	32L	17:39	0.8436	0.8316 - 0.8555	30
3	32L	32L	32L	20:55	1.0000	0.9976 - 1.0024	6
3	31L	31L	31L	23:12	1.0000	0.9978 - 1.0022	6
3	28L	31L	31L	23:29	1.0126	1.0054 - 1.0198	20
3	37L	31L	31L	27:31	1.1865	1.1757 - 1.1973	30
3	19	19L	19L	17:40	1.0011	0.9964 - 1.0059	10
3	30	19L	19L	19:29	1.1041	1.1012 - 1.1069	6
3	18	19L	19L	19:32	1.1072	1.1044 - 1.1100	6
3	17	19L	19L	19:57	1.1308	1.1280 - 1.1336	6
3	27	19L	19L	20:11	1.1437	1.1409 - 1.1466	6
3	24	19L	19L	20:18	1.1501	1.1472 - 1.1529	6
3	16	19L	19L	20:26	1.1576	1.1548 - 1.1605	6
3	32	19L	19L	20:56	1.1865	1.1837 - 1.1894	6
3	34	19L	37L	22:12	1.2583	1.2555 - 1.2611	6
3	23	19L	37L	22:20	1.2659	1.2630 - 1.2687	6
3	29	19L	37L	22:41	1.2857	1.2810 - 1.2904	10
3	26	19L	37L	22:40	1.2848	1.2800 - 1.2895	10
3	25	37L	37L	22:54	0.8320	0.8302 - 0.8338	6
3	31	37L	37L	23:13	0.8437	0.8419 - 0.8455	6
3	28	37L	37L	23:30	0.8540	0.8509 - 0.8570	10
3	20	37L	37L	23:33	0.8558	0.8528 - 0.8588	10
3	21	37L	37L	23:41	0.8606	0.8576 - 0.8637	10
3	33	37L	37L	23:46	0.8635	0.8605 - 0.8665	10
3	22	37L	37L	24:09	0.8778	0.8760 - 0.8796	6
3	36	37L	37L	25:43	0.9343	0.9325 - 0.9362	6
3	39	37L	37L	26:04	0.9474	0.9456 - 0.9492	6
3	38	37L	37L	26:39	0.9686	0.9668 - 0.9704	6

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Cl No[1]	BZ/IUPAC No[2,3]	RT Ref[4]	Quantitaion Reference[5]	RT[6]	RRT[7]	RRT Limit[8]	RT Win[9] (sec)
3	35	37L	37L	27:08	0.9860	0.9842 - 0.9878	6
3	37	37L	37L	27:32	1.0007	0.9989 - 1.0025	6
Tetrachlorobiphenyls							
4	54L	52L	32L	20:46	0.8198	0.8132 - 0.8264	20
4	52L	52L	52L	25:20	1.0000	0.9918 - 1.0082	25
4	79L	81L	81L/77L	33:16	0.9705	0.9691 - 0.9720	6
4	81L	52L	52L	34:16	1.3530	1.3464 - 1.3596	20
4	77L	52L	52L	34:50	1.3754	1.3689 - 1.3820	20
4	54	54L	54L	20:46	1.0003	0.9963 - 1.0043	10
4	50	54L	81L/77L	22:58	1.1063	1.1023 - 1.1103	10
4	53	54L	81L/77L	22:57	1.1055	1.1015 - 1.1095	10
4	45	54L	81L/77L	23:37	1.1376	1.1336 - 1.1416	10
4	51	54L	81L/77L	23:42	1.1413	1.1373 - 1.1454	10
4	46	54L	81L/77L	23:57	1.1536	1.1512 - 1.1560	6
4	52	54L	81L/77L	25:22	1.2216	1.2192 - 1.2240	6
4	73	54L	81L/77L	25:29	1.2275	1.2251 - 1.2299	6
4	43	54L	81L/77L	25:35	1.2318	1.2294 - 1.2342	6
4	69	54L	81L/77L	25:46	1.2411	1.2371 - 1.2451	10
4	49	54L	81L/77L	25:51	1.2449	1.2409 - 1.2489	10
4	48	54L	81L/77L	26:07	1.2580	1.2556 - 1.2604	6
4	65	54L	81L/77L	26:22	1.2695	1.2655 - 1.2735	10
4	47	54L	81L/77L	26:23	1.2708	1.2668 - 1.2748	10
4	44	54L	81L/77L	26:21	1.2690	1.2649 - 1.2730	10
4	62	54L	81L/77L	26:38	1.2826	1.2786 - 1.2866	10
4	75	54L	81L/77L	26:42	1.2861	1.2820 - 1.2901	10
4	59	54L	81L/77L	26:41	1.2853	1.2812 - 1.2893	10
4	42	54L	81L/77L	26:53	1.2949	1.2925 - 1.2973	6
4	41	54L	81L/77L	27:16	1.3133	1.3093 - 1.3174	10
4	71	54L	81L/77L	27:23	1.3190	1.3150 - 1.3230	10
4	40	54L	81L/77L	27:24	1.3193	1.3153 - 1.3233	10
4	64	54L	81L/77L	27:36	1.3292	1.3268 - 1.3316	6
4	72	81L	81L/77L	28:25	0.8293	0.8278 - 0.8308	6
4	68	81L	81L/77L	28:42	0.8376	0.8361 - 0.8390	6
4	57	81L	81L/77L	29:08	0.8501	0.8486 - 0.8515	6
4	58	81L	81L/77L	29:23	0.8574	0.8559 - 0.8588	6
4	67	81L	81L/77L	29:32	0.8617	0.8603 - 0.8632	6
4	63	81L	81L/77L	29:49	0.8699	0.8684 - 0.8713	6
4	61	81L	81L/77L	30:02	0.8763	0.8734 - 0.8792	12
4	70	81L	81L/77L	30:08	0.8792	0.8763 - 0.8822	12
4	76	81L	81L/77L	30:09	0.8797	0.8768 - 0.8827	12
4	74	81L	81L/77L	30:12	0.8812	0.8788 - 0.8836	10
4	66	81L	81L/77L	30:29	0.8893	0.8879 - 0.8908	6
4	55	81L	81L/77L	30:39	0.8943	0.8929 - 0.8958	6
4	56	81L	81L/77L	31:09	0.9089	0.9075 - 0.9104	6
4	60	81L	81L/77L	31:22	0.9152	0.9138 - 0.9167	6
4	80	81L	81L/77L	31:45	0.9266	0.9251 - 0.9280	6
4	79	81L	81L/77L	33:18	0.9715	0.9700 - 0.9730	6
4	78	81L	81L/77L	33:51	0.9877	0.9862 - 0.9892	6
4	81	81L	81L	34:18	1.0008	0.9994 - 1.0023	6
4	77	77L	77L	34:51	1.0004	0.9990 - 1.0019	6
Pentachlorobiphenyls							

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Cl No[1]	BZ/IUPAC No[2,3]	RT Ref[4]	Quantitaion Reference[5]	RT[6]	RRT[7]	RRT Limit[8]	RT Win[9] (sec)
5	104L	101L	101L	26:17	0.8166	0.8114 - 0.8218	20
5	95L	104L	104L	29:15	1.1134	1.1102 - 1.1166	10
5	101L	101L	101L	32:11	1.0000	0.9935 - 1.0065	25
5	111L	101L	101L	34:51	1.0831	1.0779 - 1.0883	20
5	123L	101L	127L	36:50	1.1445	1.1393 - 1.1497	20
5	118L	101L	127L	37:09	1.1547	1.1495 - 1.1598	20
5	114L	101L	127L	37:41	1.1711	1.1659 - 1.1762	20
5	105L	101L	127L	38:21	1.1916	1.1865 - 1.1968	20
5	127L	127L	127L	39:47	1.0000	0.9948 - 1.0052	25
5	126L	101L	127L	41:25	1.2872	1.2820 - 1.2924	20
5	104	104L	104L	26:18	1.0008	0.9977 - 1.0040	10
5	96	104L	104L	26:42	1.0162	1.0131 - 1.0194	10
5	103	104L	104L	28:36	1.0885	1.0866 - 1.0904	6
5	94	104L	104L	28:50	1.0972	1.0953 - 1.0991	6
5	95	104L	104L	29:17	1.1145	1.1114 - 1.1177	10
5	100	104L	104L	29:28	1.1213	1.1182 - 1.1245	10
5	93	104L	104L	29:31	1.1232	1.1201 - 1.1264	10
5	102	104L	104L	29:38	1.1279	1.1247 - 1.1310	10
5	98	104L	104L	29:42	1.1304	1.1272 - 1.1336	10
5	88	104L	104L	30:03	1.1433	1.1395 - 1.1471	12
5	91	104L	104L	30:09	1.1471	1.1440 - 1.1503	10
5	84	104L	104L	30:23	1.1562	1.1543 - 1.1581	6
5	89	104L	104L	30:52	1.1744	1.1725 - 1.1763	6
5	121	104L	104L	31:13	1.1881	1.1862 - 1.1900	6
5	92	123L	104L	31:38	0.8588	0.8574 - 0.8601	6
5	113	104L	104L	32:09	1.2234	1.2203 - 1.2266	10
5	90	104L	104L	32:12	1.2253	1.2222 - 1.2285	10
5	101	104L	104L	32:12	1.2255	1.2224 - 1.2287	10
5	83	104L	104L	32:42	1.2442	1.2404 - 1.2480	12
5	99	104L	104L	32:47	1.2477	1.2446 - 1.2509	10
5	112	104L	104L	32:55	1.2526	1.2507 - 1.2545	6
5	109/108	104L	104L	33:14	1.2647	1.2596 - 1.2697	16
5	86	104L	104L	33:18	1.2670	1.2619 - 1.2721	16
5	119	104L	104L	33:17	1.2668	1.2617 - 1.2718	16
5	97	104L	104L	33:18	1.2674	1.2623 - 1.2725	16
5	125	104L	104L	33:22	1.2699	1.2649 - 1.2750	16
5	87	104L	104L	33:25	1.2715	1.2683 - 1.2746	10
5	117	104L	104L	33:55	1.2907	1.2869 - 1.2945	12
5	116	104L	104L	34:00	1.2940	1.2902 - 1.2978	12
5	85	104L	104L	34:02	1.2951	1.2919 - 1.2983	10
5	110	104L	104L	34:12	1.3013	1.2981 - 1.3044	10
5	115	104L	104L	34:15	1.3035	1.3004 - 1.3067	10
5	82	104L	104L	34:32	1.3139	1.3120 - 1.3158	6
5	111	104L	104L	34:53	1.3273	1.3254 - 1.3292	6
5	120	104L	104L	35:21	1.3450	1.3431 - 1.3469	6
5	124	104L	123L/114L/118L/105L/126L	36:30	1.3892	1.3860 - 1.3923	10
5	108/107	104L	123L/114L/118L/105L/126L	36:29	1.3885	1.3854 - 1.3917	10
5	107/109	104L	123L/114L/118L/105L/126L	36:45	1.3983	1.3964 - 1.4002	6
5	123	123L	123L	36:51	1.0004	0.9990 - 1.0018	6
5	106	123L	123L/114L/118L/105L/126L	36:58	1.0037	1.0024 - 1.0051	6
5	118	118L	118L	37:11	1.0006	0.9992 - 1.0019	6

KNOX-ID-0013, Rev. 4, Analysis of Polychlorinated Biphenyl (PCB) Isomers by Isotope Dilution HRGC/HRMS

Table 2

RT References, Quantitation References, Retention Times (RT) and Relative Retiontion Times (RRT) for the 209 CB Congeners on SPB-Octyl

Cl No[1]	BZ/IUPAC No[2,3]	RT Ref[4]	Quantitaion Reference[5]	RT[6]	RRT[7]	RRT Limit[8]	RT Win[9] (sec)
5	122	118L	123L/114L/118L/105L/126L	37:32	1.0103	1.0089 - 1.0116	6
5	114	114L	114L	37:42	1.0005	0.9992 - 1.0019	6
5	105	105L	105L	38:23	1.0008	0.9995 - 1.0021	6
5	127	105L	123L/114L/118L/105L/126L	39:49	1.0385	1.0372 - 1.0398	6
5	126	126L	126L	41:26	1.0004	0.9992 - 1.0016	6
Hexachlorobiphenyls							
6	155L	138L	101L	31:56	0.7929	0.7888 - 0.7970	20
6	153L	167L	156L/167L/169L	39:01	0.9018	0.8999 - 0.9038	10
6	138L	138L	138L	40:16	1.0000	0.9793 - 1.0207	100
6	167L	138L	138L	43:16	1.0742	1.0701 - 1.0783	20
6	156L	138L	138L	44:26	1.1033	1.1021 - 1.1046	6
6	157L	138L	138L	44:26	1.1033	1.0992 - 1.1075	20
6	169L	138L	138L	47:39	1.1833	1.1820 - 1.1845	6
6	155	155L	155L	31:57	1.0007	0.9981 - 1.0033	10
6	152	155L	155L	32:12	1.0082	1.0067 - 1.0098	6
6	150	155L	155L	32:21	1.0129	1.0114 - 1.0145	6
6	136	155L	155L	32:44	1.0249	1.0234 - 1.0265	6
6	145	155L	155L	33:00	1.0336	1.0320 - 1.0352	6
6	148	155L	155L	34:30	1.0804	1.0789 - 1.0820	6
6	151	155L	155L	35:06	1.0992	1.0966 - 1.1018	10
6	135	155L	155L	35:10	1.1015	1.0989 - 1.1041	10
6	154	155L	155L	35:21	1.1069	1.1043 - 1.1095	10
6	144	155L	155L	35:40	1.1171	1.1156 - 1.1187	6
6	147	155L	156L/167L/169L	36:02	1.1285	1.1258 - 1.1311	10
6	149	155L	156L/167L/169L	36:03	1.1288	1.1262 - 1.1314	10
6	134	155L	156L/167L/169L	36:15	1.1351	1.1325 - 1.1377	10
6	143	155L	156L/167L/169L	36:21	1.1385	1.1359 - 1.1411	10
6	139	155L	156L/167L/169L	36:37	1.1467	1.1441 - 1.1493	10
6	140	155L	156L/167L/169L	36:39	1.1476	1.1450 - 1.1502	10
6	131	155L	156L/167L/169L	36:50	1.1537	1.1521 - 1.1552	6
6	142	155L	156L/167L/169L	36:59	1.1584	1.1568 - 1.1599	6
6	132	155L	156L/167L/169L	37:19	1.1688	1.1662 - 1.1714	10
6	133	155L	156L/167L/169L	37:47	1.1834	1.1818 - 1.1850	6
6	165	167L	156L/167L/169L	38:11	0.8825	0.8814 - 0.8837	6
6	146	167L	156L/167L/169L	38:26	0.8883	0.8872 - 0.8895	6
6	161	167L	156L/167L/169L	38:34	0.8914	0.8902 - 0.8925	6
6	153	167L	156L/167L/169L	39:02	0.9024	0.9005 - 0.9043	10
6	168	167L	156L/167L/169L	39:05	0.9036	0.9016 - 0.9055	10
6	141	167L	156L/167L/169L	39:15	0.9073	0.9061 - 0.9085	6
6	130	167L	156L/167L/169L	39:40	0.9168	0.9157 - 0.9180	6
6	137	167L	156L/167L/169L	39:52	0.9217	0.9205 - 0.9228	6
6	164	167L	156L/167L/169L	40:00	0.9248	0.9236 - 0.9259	6
6	138	167L	156L/167L/169L	40:18	0.9315	0.9288 - 0.9342	14
6	163	167L	156L/167L/169L	40:18	0.9317	0.9290 - 0.9344	14
6	129	167L	156L/167L/169L	40:22	0.9332	0.9305 - 0.9359	14
6	160	167L	156L/167L/169L	40:27	0.9352	0.9332 - 0.9371	10
6	158	167L	156L/167L/169L	40:41	0.9403	0.9392 - 0.9415	6
6	166	167L	156L/167L/169L	41:31	0.9597	0.9578 - 0.9616	10
6	128	167L	156L/167L/169L	41:35	0.9611	0.9592 - 0.9631	10
6	159	167L	156L/167L/169L	42:31	0.9829	0.9818 - 0.9841	6
6	162	167L	156L/167L/169L	42:48	0.9895	0.9883 - 0.9906	6

KNOX-ID-0013, Rev. 4, Analysis of Polychlorinated Biphenyl (PCB) Isomers by Isotope Dilution HRGC/HRMS

Table 2

RT References, Quantitation References, Retention Times (RT) and Relative Retiontion Times (RRT) for the 209 CB Congeners on SPB-Octyl

Cl No[1]	BZ/IUPAC No[2,3]	RT Ref[4]	Quantitaion Reference[5]	RT[6]	RRT[7]	RRT Limit[8]	RT Win[9] (sec)
6	167	167L	167L	43:17	1.0007	0.9995 - 1.0018	6
6	156	156L	156L	44:25	0.9997	0.9986 - 1.0009	6
6	157	157L	156L	44:29	1.0011	0.9992 - 1.0030	10
6	169	169L	169L	47:40	1.0003	0.9993 - 1.0014	6
Heptachlorobiphenyls							
7	188L	180L	180L	37:40	0.8223	0.8187 - 0.8259	20
7	178L	180L	180L	40:43	0.8890	0.8853 - 0.8926	20
7	180L	180L	180L	45:48	1.0000	0.9964 - 1.0036	20
7	170L	180L	180L	47:04	1.0277	1.0241 - 1.0314	20
7	189L	180L	194L	50:10	1.0953	1.0917 - 1.0989	20
7	188	188L	188L	37:40	1.0003	0.9990 - 1.0016	6
7	179	188L	188L/170L	38:03	1.0104	1.0090 - 1.0117	6
7	184	188L	188L/170L	38:33	1.0236	1.0223 - 1.0250	6
7	176	188L	188L/170L	38:56	1.0337	1.0324 - 1.0350	6
7	186	188L	188L/170L	39:23	1.0456	1.0443 - 1.0470	6
7	178	188L	188L/170L	40:45	1.0819	1.0806 - 1.0832	6
7	175	188L	188L/170L	41:22	1.0986	1.0972 - 1.0999	6
7	187	188L	188L/170L	41:38	1.1056	1.1043 - 1.1070	6
7	182	188L	188L/170L	41:51	1.1111	1.1098 - 1.1125	6
7	183	188L	188L/170L	42:15	1.1219	1.1206 - 1.1232	6
7	185	188L	188L/170L	42:21	1.1247	1.1233 - 1.1260	6
7	174	188L	188L/170L	42:30	1.1287	1.1273 - 1.1300	6
7	177	188L	188L/170L	42:57	1.1403	1.1390 - 1.1417	6
7	181	188L	188L/170L	43:20	1.1505	1.1492 - 1.1518	6
7	171	188L	188L/170L	43:34	1.1570	1.1548 - 1.1592	10
7	173	188L	188L/170L	43:32	1.1561	1.1548 - 1.1574	6
7	172	189L	188L/170L	45:10	0.9005	0.8995 - 0.9015	6
7	192	189L	188L/170L	45:27	0.9059	0.9049 - 0.9069	6
7	193	189L	188L/170L	45:46	0.9124	0.9114 - 0.9133	6
7	180	189L	188L/170L	45:49	0.9134	0.9125 - 0.9144	6
7	191	189L	188L/170L	46:11	0.9206	0.9196 - 0.9216	6
7	170	189L	170L	47:05	0.9387	0.9377 - 0.9397	6
7	190	189L	188L/170L	47:36	0.9490	0.9480 - 0.9500	6
7	189	189L	189L	50:11	1.0004	0.9994 - 1.0014	6
Octachlorobiphenyls							
8	202L	194L	180L	43:01	0.8233	0.8201 - 0.8265	20
8	194L	194L	194L	52:16	1.0000	0.9960 - 1.0040	25
8	205L	194L	194L	52:43	1.0089	1.0041 - 1.0137	30
8	202	202L	202L	43:03	1.0005	0.9985 - 1.0024	10
8	200/201	202L	202L	43:59	1.0222	1.0202 - 1.0241	10
8	204	202L	202L	44:38	1.0374	1.0362 - 1.0385	6
8	197	202L	202L	44:52	1.0428	1.0416 - 1.0440	6
8	199/200	202L	202L	44:59	1.0456	1.0445 - 1.0468	6
8	198	202L	202L	47:43	1.1092	1.1072 - 1.1111	10
8	201/199	202L	202L	47:47	1.1106	1.1094 - 1.1118	6
8	196	205L	202L	48:26	0.9187	0.9177 - 0.9196	6
8	203	205L	202L	48:37	0.9222	0.9213 - 0.9232	6
8	195	205L	205L	49:58	0.9476	0.9467 - 0.9486	6
8	194	205L	205L	52:17	0.9916	0.9906 - 0.9925	6
8	205	205L	205L	52:44	1.0003	0.9994 - 1.0013	6
Nonachlorobiphenyls							

KNOX-ID-0013, Rev. 4, Analysis of Polychlorinated Biphenyl (PCB) Isomers by Isotope Dilution HRGC/HRMS

Table 2

RT References, Quantitation References, Retention Times (RT) and Relative Retiontion Times (RRT) for the 209 CB Congeners on SPB-Octyl

Cl No[1]	BZ/IUPAC No[2,3]	RT Ref[4]	Quantitaion Reference[5]	RT[6]	RRT[7]	RRT Limit[8]	RT Win[9] (sec)
9	208L	194L	194L	49:41	0.9506	0.9474 - 0.9538	20
9	206L	194L	194L	54:28	1.0421	1.0373 - 1.0469	30
9	208	208L	208L	49:42	1.0005	0.9995 - 1.0015	6
9	207	208L	206L/208L	50:38	1.0193	1.0183 - 1.0203	6
9	206	206L	206L	54:28	1.0002	0.9993 - 1.0012	6
Decachlorobiphenyls							
10	209L	194L	194L	56:05	1.0731	1.0683 - 1.0779	30
10	209	209L	209L	56:06	1.0004	0.9995 - 1.0013	6

1 Number of chlorines on congener.

2 Suffix "L" indicated labeled compound.

3 IUPAC Number per Table 2 of Method 1668A.

4 Retention time reference that is used to locate target congener.

5 Quantitation reference that is used to calculate the concentration of the target congener or labeled standard.

6 Average Retention Time of target congener based upon the 15 point ICAL Retention Time Study.

7 RRT between the RT for the congener and the RT for the reference.

8 Nominal limits based on an ± 0.5% of the RRT, adjusted for the nearest eluted isomer.

9 RT window width for congener or group of two or more congeners.

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r1.	Prep Date		SDG No	
Analysis ID	104267	Prep Exp Date		Date Received	
Analysis Date	06/10/08 14:37	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	170	113	68	45	1.51 *	/	
	PCB 2 (BZ)	14:04	00:00	0	1149253	353177	416681	126978	3.25	AVV/ABV	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	180	203	72	81	0.89 *	/	
	13C12-PCB 1	12:03	00:00	0	1826102	559083	713102	213911	3.27	AVV/AVV	
	13C12-PCB 3	14:15	00:00	0	1831180	544824	631971	187412	3.36	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	135	330	54	132	0.41 *	/	
	PCB 10 (BZ)	14:41	00:00	0	483666	312779	161593	104704	1.55	AVV/ABB	
	PCB 9 (BZ)	16:30	00:00	0	511059	322665	156523	98607	1.58	ABV/ABV	
	PCB 6 (BZ)	16:56	00:00	0	499579	313264	151400	95151	1.59	ABV/AVB	
	PCB 8 (BZ)	17:22	00:00	0	518210	327344	153763	97039	1.58	AVV/ABV	
	PCB 14 (BZ)	18:59	00:00	0	521163	331587	139721	87081	1.57	ABV/ABV	M
	PCB 11 (BZ)	19:51	00:00	0	494584	320505	129700	84814	1.54	ABV/AVV	M
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	218	155	87	62	1.40	/	
	13C12-PCB 4	14:31	00:00	0	509391	327645	172783	110619	1.55	AVV/AVV	
	13C12-PCB 9	16:29	00:00	0	815728	513901	245983	155325	1.59	ABV/ABV	
	13C12-PCB 8	17:21	00:00	0	889852	581419	263373	173167	1.53	AVV/AVV	
	13C12-PCB 15	20:28	00:00	0	867207	562546	226821	149662	1.54	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	153	105	61	42	1.45 *	/	
	PCB 30 (BZ)	19:30	00:00	0	248975	242871	68420	66848	1.03	ABV/ABV	M
	PCB 27 (BZ)	20:12	00:00	0	239702	239822	62904	61596	1.00	ABV/AVV	
	PCB 32 (BZ)	20:57	00:00	0	251680	250305	61952	61995	1.01	AVV/ABV	M
	PCB 34 (BZ)	22:14	00:00	0	744174	687632	173458	168466	1.08	ABV/ABV	M
	PCB 26 (BZ)	22:41	00:00	0	740294	711454	181593	169002	1.04	AVV/AVV	M
	PCB 31 (BZ)	23:14	00:00	0	792733	757689	199276	186352	1.05	AVV/AVV	M
	PCB 33 (BZ)	23:47	00:00	0	743478	703840	177025	168767	1.06	AVV/AVV	M
	PCB 36 (BZ)	25:44	00:00	0	766598	727924	177814	167145	1.05	ABV/ABV	
	PCB 38 (BZ)	26:40	00:00	0	699257	665774	153165	149532	1.05	ABV/AVV	M
	PCB 35 (BZ)	27:09	00:00	0	712540	670391	159849	152146	1.06	AVV/AVV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	228	150	91	60	1.52 *	/	
	13C12-PCB 19	17:40	00:00	0	272436	268548	80751	75789	1.01	AVV/AVV	
	13C12-PCB 32	20:56	00:00	0	475968	456581	126617	119452	1.04	AVV/AVV	
	13C12-PCB 31	23:13	00:00	0	1367709	1261528	345313	303837	1.08	ABV/ABV	
	13C12-PCB 28	23:31	00:00	0	1295044	1214617	308336	288922	1.07	AVV/AVV	
	13C12-PCB 37	27:33	00:00	0	1234733	1105803	274440	241321	1.12	AVV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	153	145	61	58	1.05 *	/	
	PCB 50 (BZ)	22:59	00:00	0	561498	708695	139226	174100	0.79	ABV/ABV	M

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r1.	Prep Date		SDG No	
Analysis ID	104267	Prep Exp Date		Date Received	
Analysis Date	06/10/08 14:37	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	PCB 45 (BZ)	23:38	00:00	0	508366	627630	118830	149848	0.81	ABB/ABB	M
	PCB 52 (BZ)	25:23	00:00	0	588405	751334	139618	168426	0.78	ABV/ABV	D
	PCB 49 (BZ)	25:52	00:00	0	613372	744449	141777	172711	0.82	AVV/AVV	DM
	PCB 75 (BZ)	26:43	00:00	0	805572	978908	190938	231819	0.82	AVV/ABV	DM
	PCB 41 (BZ)	27:17	00:00	0	485690	604710	104492	137929	0.80	AVV/AVV	
	PCB 72 (BZ)	28:27	00:00	0	790837	976036	169845	215876	0.81	ABV/ABV	
	PCB 57 (BZ)	29:09	00:00	0	736419	914962	167002	207238	0.80	AVV/AVV	
	PCB 63 (BZ)	29:49	00:00	0	769947	945758	174567	210808	0.81	ABV/ABV	
	PCB 66 (BZ)	30:29	00:00	0	759439	964314	165237	207382	0.79	ABV/ABB	
	PCB 79 (BZ)	33:18	00:00	0	847303	1053641	177180	225116	0.80	ABV/ABV	
	PCB 78 (BZ)	33:52	00:00	0	778235	968686	170894	205868	0.80	AVV/AVV	
	PCB 81 (BZ)	34:19	00:00	0	776277	976497	161743	210103	0.79	AVV/AVV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	133	125	53	50	1.06 *	/	
	13C12-PCB 54	20:47	00:00	0	263793	340314	70929	85620	0.78	ABV/ABB	
	13C12-PCB 52	25:21	00:00	0	483240	603457	111628	142142	0.80	AVV/AVV	
	13C12-PCB 79	33:17	00:00	0	716512	901263	152383	198072	0.80	ABV/ABV	
	13C12-PCB 81	34:17	00:00	0	616605	747733	135310	160888	0.82	ABV/ABV	
	13C12-PCB 77	34:51	00:00	0	634555	788749	128377	165717	0.80	ABV/ABV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	153	148	61	59	1.03 *	/	
	PCB 96 (BZ)	26:43	00:00	0	592480	369894	135202	87817	1.60	ABV/ABV	
	PCB 103 (BZ)	28:37	00:00	0	500127	304827	111271	64874	1.64	ABV/ABV	
	PCB 95 (BZ)	29:18	00:00	0	465385	291931	101202	64855	1.59	AVV/AVV	
	PCB 88 (BZ)	30:04	00:00	0	434907	258044	88619	59663	1.69	ABV/ABV	
	PCB 89 (BZ)	30:52	00:00	0	416005	257987	87466	57663	1.61	ABV/ABV	D
	PCB 92 (BZ)	31:39	00:00	0	457033	285769	97089	61970	1.60	ABV/ABB	
	PCB 113 (BZ)	32:10	00:00	0	594645	362041	120781	74803	1.64	ABV/AVV	
	PCB 83 (BZ)	32:42	00:00	0	387940	246699	82789	49782	1.57	ABV/ABV	
	PCB 119 (BZ)	33:18	00:00	0	650508	399446	140857	85819	1.63	ABV/ABV	M
	PCB 87 (BZ)	33:26	00:00	0	470924	284078	95496	59241	1.66	AVB/AVV	M
	PCB 85 (BZ)	34:03	00:00	0	484168	298419	100744	59780	1.62	AVV/ABV	DM
	PCB 82 (BZ)	34:33	00:00	0	406914	247129	83057	49952	1.65	ABV/ABV	
	PCB 120 (BZ)	35:22	00:00	0	687750	421475	140059	86829	1.63	AVB/ABB	D
	PCB 124 (BZ)	36:31	00:00	0	1372702	868487	289430	179447	1.58	AVV/AVV	
	PCB 106 (BZ)	36:59	00:00	0	1356626	850909	290571	183256	1.59	AVV/AVV	
	PCB 122 (BZ)	37:33	00:00	0	1262147	791745	262367	162552	1.59	AVV/AVV	D
	PCB 105 (BZ)	38:24	00:00	0	1347131	848233	268545	171469	1.59	AVV/ABV	
	PCB 127 (BZ)	39:50	00:00	0	1433207	871534	286545	181227	1.64	AVV/AVV	D
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	123	115	49	46	1.07 *	/	
	13C12-PCB 104	26:18	00:00	0	559557	351186	126976	78646	1.59	ABV/ABV	
	13C12-PCB 95	29:16	00:00	0	457283	286426	97636	63823	1.60	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r1.	Prep Date		SDG No	
Analysis ID	104267	Prep Exp Date		Date Received	
Analysis Date	06/10/08 14:37	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	13C12-PCB 101	32:12	00:00	0	448111	267283	95026	55934	1.68	AVV/ABV	
	13C12-PCB 111	34:52	00:00	0	572387	356693	125955	72298	1.60	ABV/ABV	
	13C12-PCB 123	36:51	00:00	0	1240327	758984	262222	158877	1.63	ABV/ABV	
	13C12-PCB 118	37:10	00:00	0	1292379	802351	263863	162154	1.61	AVV/AVV	
	13C12-PCB 114	37:43	00:00	0	1217154	755386	249067	153305	1.61	AVV/AVV	
	13C12-PCB 105	38:22	00:00	0	1206256	756069	245524	156979	1.60	ABV/ABV	
	13C12-PCB 127	39:49	00:00	0	1332480	812403	266105	161287	1.64	ABV/ABB	
	13C12-PCB 126	41:26	00:00	0	1292609	798309	267807	162608	1.62	ABV/AVV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	158	100	63	40	1.58 *	/	
	PCB 152 (BZ)	32:13	00:00	0	429902	328452	87467	68017	1.31	ABV/ABV	D
	PCB 136 (BZ)	32:44	00:00	0	440034	324945	92413	67083	1.35	ABV/ABV	D
	PCB 148 (BZ)	34:31	00:00	0	319628	255594	68187	53717	1.25	ABV/ABV	
	PCB 151 (BZ)	35:07	00:00	0	335950	259667	70922	54741	1.29	ABV/ABV	
	PCB 144 (BZ)	35:42	00:00	0	331834	258321	69434	53155	1.28	ABV/AVV	D
	PCB 143 (BZ)	36:22	00:00	0	637756	518691	127992	105833	1.23	AVV/AVV	D
	PCB 142 (BZ)	37:00	00:00	0	605938	475319	124368	98098	1.27	ABV/AVV	D
	PCB 133 (BZ)	37:48	00:00	0	636514	486203	136738	103115	1.31	ABV/ABV	
	PCB 161 (BZ)	38:34	00:00	0	889618	693142	176492	143622	1.28	ABV/ABV	
	PCB 153 (BZ)	39:04	00:00	0	807897	629100	157847	122164	1.28	AVV/AVV	
	PCB 130 (BZ)	39:41	00:00	0	613712	469496	127679	99122	1.31	AVV/ABB	
	PCB 129 (BZ)	40:23	00:00	0	577008	449621	115623	92456	1.28	ABV/ABB	
	PCB 166 (BZ)	41:32	00:00	0	898525	700004	178587	142466	1.28	AVV/AVV	
	PCB 159 (BZ)	42:32	00:00	0	910037	719226	180515	142218	1.27	AVV/AVV	
	PCB 167 (BZ)	43:18	00:00	0	962871	759088	199339	152647	1.27	ABV/AVV	
	PCB 156 (BZ)	44:26	00:00	0	950675	731543	190426	146499	1.30	ABV/ABV	D
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	123	115	49	46	1.07	/	
	13C12-PCB 155	31:57	00:00	0	443018	353951	93013	75297	1.25	ABV/ABV	
	13C12-PCB 153	39:02	00:00	0	733013	563446	149098	113505	1.30	ABV/ABV	
	13C12-PCB 138	40:18	00:00	0	675371	518763	138676	104277	1.30	ABV/ABV	M
	13C12-PCB 167	43:16	00:00	0	845989	657586	168958	133061	1.29	AVV/AVV	
	13C12-PCB 156	44:27	00:00	0	1670073	1280643	215013	168541	1.30	AVV/ABV	
	13C12-PCB 169	47:40	00:00	0	812856	625001	155988	124801	1.30	ABV/AVV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	120	160	48	64	0.75 *	/	
	PCB 179 (BZ)	38:04	00:00	0	587019	537424	124307	110692	1.09	ABV/ABV	D
	PCB 176 (BZ)	38:57	00:00	0	577596	547623	120971	109073	1.05	ABV/ABV	D
	PCB 178 (BZ)	40:45	00:00	0	422562	411147	84208	81164	1.03	ABV/ABV	
	PCB 175 (BZ)	41:23	00:00	0	449399	421640	90025	82106	1.07	ABV/ABV	
	PCB 183 (BZ)	42:16	00:00	0	498205	459839	99970	94223	1.08	ABV/ABV	
	PCB 177 (BZ)	42:57	00:00	0	410211	377269	79458	74339	1.09	AVV/AVB	D
	PCB 171 (BZ)	43:35	00:00	0	445540	414311	90576	84493	1.08	AVV/ABB	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r1.	Prep Date		SDG No	
Analysis ID	104267	Prep Exp Date		Date Received	
Analysis Date	06/10/08 14:37	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

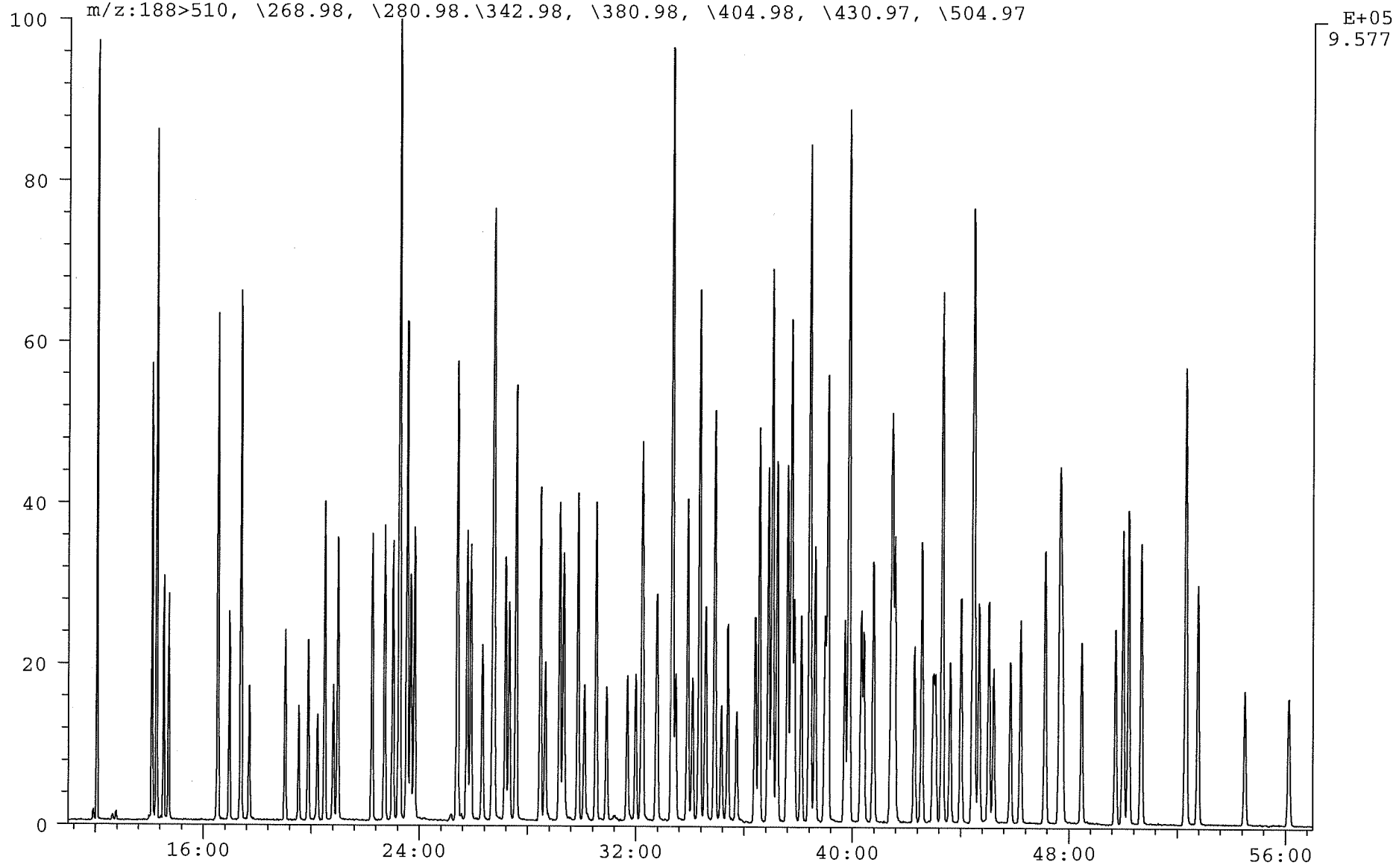
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	PCB 172 (BZ)	45:11	00:00	0	422888	401579	86137	78191	1.05	AVV/AVV	
	PCB 191 (BZ)	46:12	00:00	0	593402	560393	117065	113221	1.06	ABV/ABV	
	PCB 170 (BZ)	47:06	00:00	0	443820	408553	85769	84442	1.09	AVV/ABV	D
	PCB 190 (BZ)	47:37	00:00	0	606885	575880	115354	106789	1.05	AVV/ABV	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	133	100	53	40	1.33 *	/	
	13C12-PCB 188	37:41	00:00	0	565442	533565	116910	107590	1.06	ABV/ABV	
	13C12-PCB 178	40:44	00:00	0	370042	357586	75688	72045	1.03	ABV/AVV	
	13C12-PCB 180	45:48	00:00	0	477185	436107	94551	87322	1.09	ABV/ABV	
	13C12-PCB 170	47:04	00:00	0	403632	376832	75592	76291	1.07	ABV/ABV	
	13C12-PCB 189	50:10	00:00	0	968418	915397	190330	180686	1.06	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	140	150	56	60	0.93	/	
	PCB 200 (BZ)/201 (IUPAC	44:00	00:00	0	620731	675901	119002	131910	0.92	ABV/ABV	
	PCB 204 (BZ)	44:39	00:00	0	586288	643893	116506	129557	0.91	ABV/ABV	
	PCB 199 (BZ)/200 (IUPAC	45:00	00:00	0	615032	666010	116070	129402	0.92	AVV/AVV	D
	PCB 198 (BZ)	47:44	00:00	0	458943	489383	87701	93090	0.94	ABV/ABV	
	PCB 196 (BZ)	48:27	00:00	0	463916	514942	89794	102561	0.90	ABV/AVV	
	PCB 195 (BZ)	49:59	00:00	0	775806	841587	157259	166122	0.92	AVV/AVV	D
	PCB 194 (BZ)	52:18	00:00	0	836348	923751	160979	186026	0.91	ABB/ABV	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	143	128	57	51	1.12 *	/	
	13C12-PCB 202	43:03	00:00	0	384717	419458	75288	82770	0.92	ABB/ABV	
	13C12-PCB 194	52:16	00:00	0	497319	539686	94722	102523	0.92	ABV/ABV	
	13C12-PCB 205	52:44	00:00	0	669759	744490	130719	141465	0.90	AVV/AVV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	103	160	41	64	0.64 *	/	
	PCB 207 (BZ)	50:39	00:00	0	681543	868911	128920	175151	0.78	ABV/ABV	
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89		
	Noise	00:00	00:00	0	138	133	55	53	1.04 *	/	
	13C12-PCB 208	49:42	00:00	0	467692	591726	96334	115527	0.79	ABV/ABV	
	13C12-PCB 206	54:28	00:00	0	327171	413270	63998	77303	0.79	AVV/ABV	
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79		
	Noise	00:00	00:00	0	73	73	29	29	1.00 *	/	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79		
	Noise	00:00	00:00	0	108	125	43	50	0.86 *	/	
	13C12-PCB 209	56:06	00:00	0	305872	432082	52051	73937	0.71	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

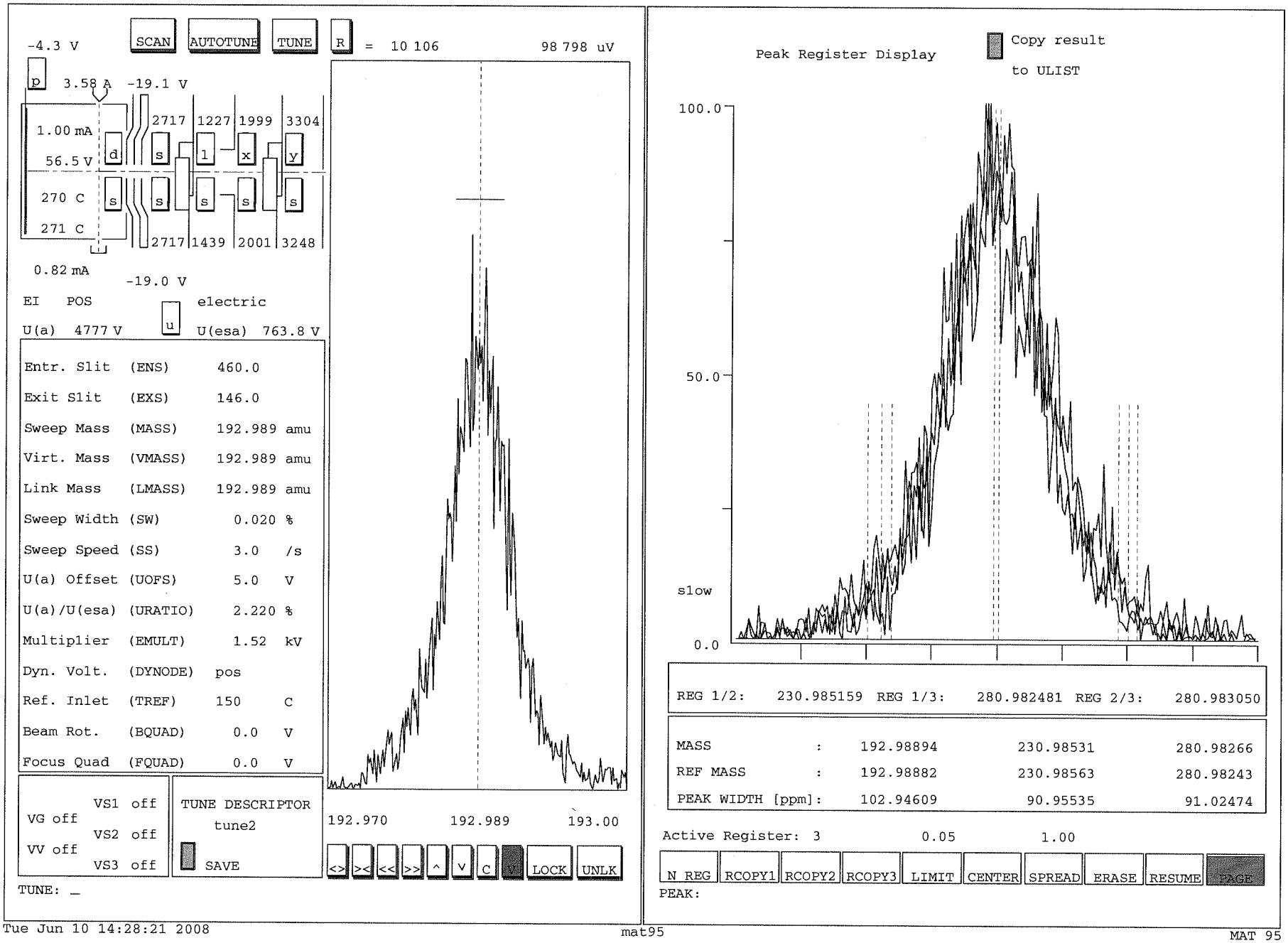
CHRO: a0806m1r1 10-Jun-08 Elapse: 56:11 2555
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int DG36-1008
Calc DG 6-25-08



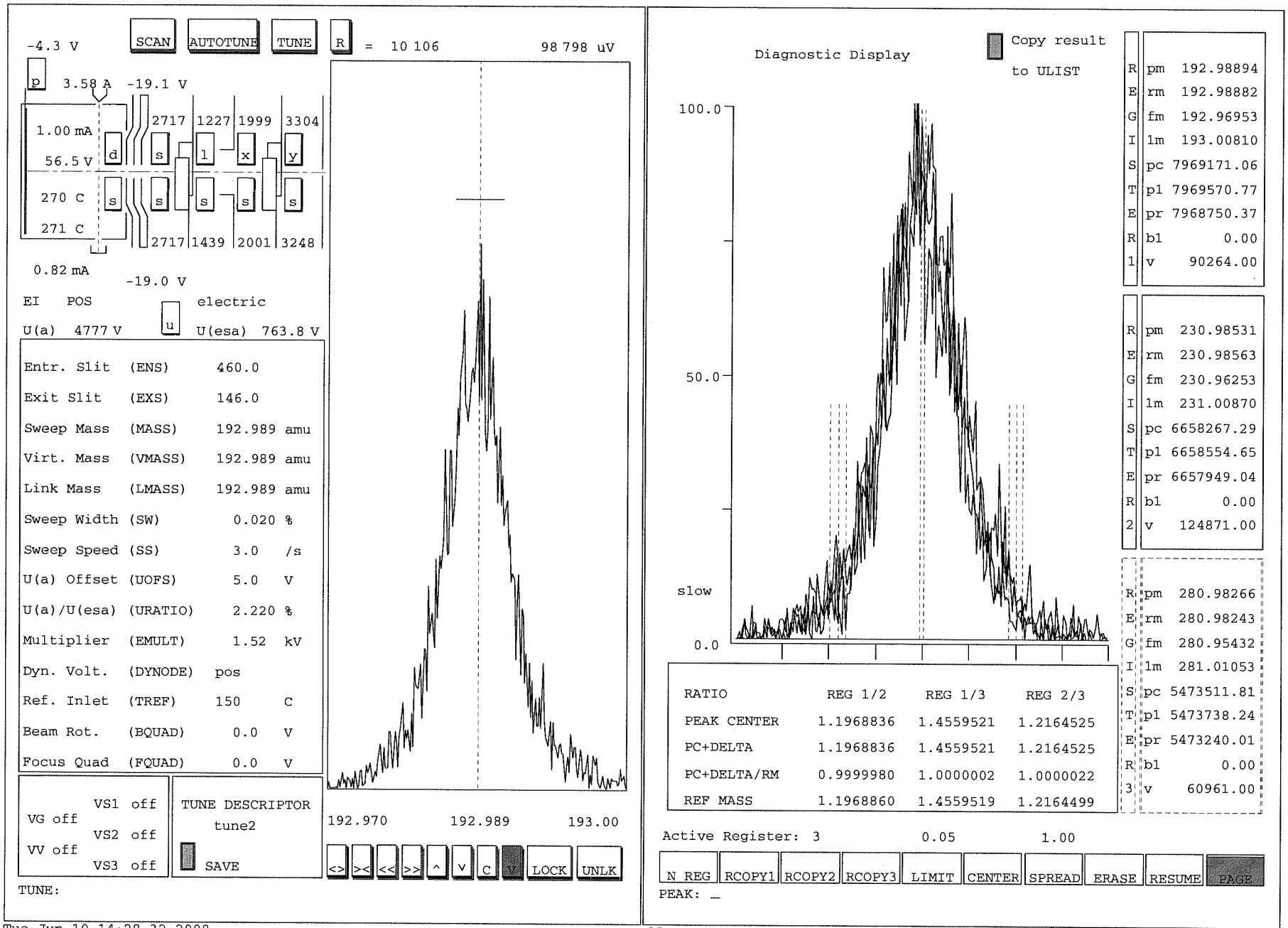
H-2122

2121


-4.3 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
98 798 uV
p
3.58 A
-19.1 V
1.00 mA
56.5 V
270 C
271 C
2717 1227 1999 3304
2717 1439 2001 3248
d
s
l
x
y
0.82 mA
-19.0 V
EI POS
electric
U(a) 4777 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 460.0
Exit Slit (EXS) 146.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.220 %
Multiplier (EMULT) 1.52 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VS1 off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
192.970
192.989
193.00
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 230.985159 REG 1/3: 280.982481 REG 2/3: 280.983050
MASS : 192.98894 230.98531 280.98266
REF MASS : 192.98882 230.98563 280.98243
PEAK WIDTH [ppm]: 102.94609 90.95535 91.02474
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Tue Jun 10 14:28:21 2008
mat95
MAT 95

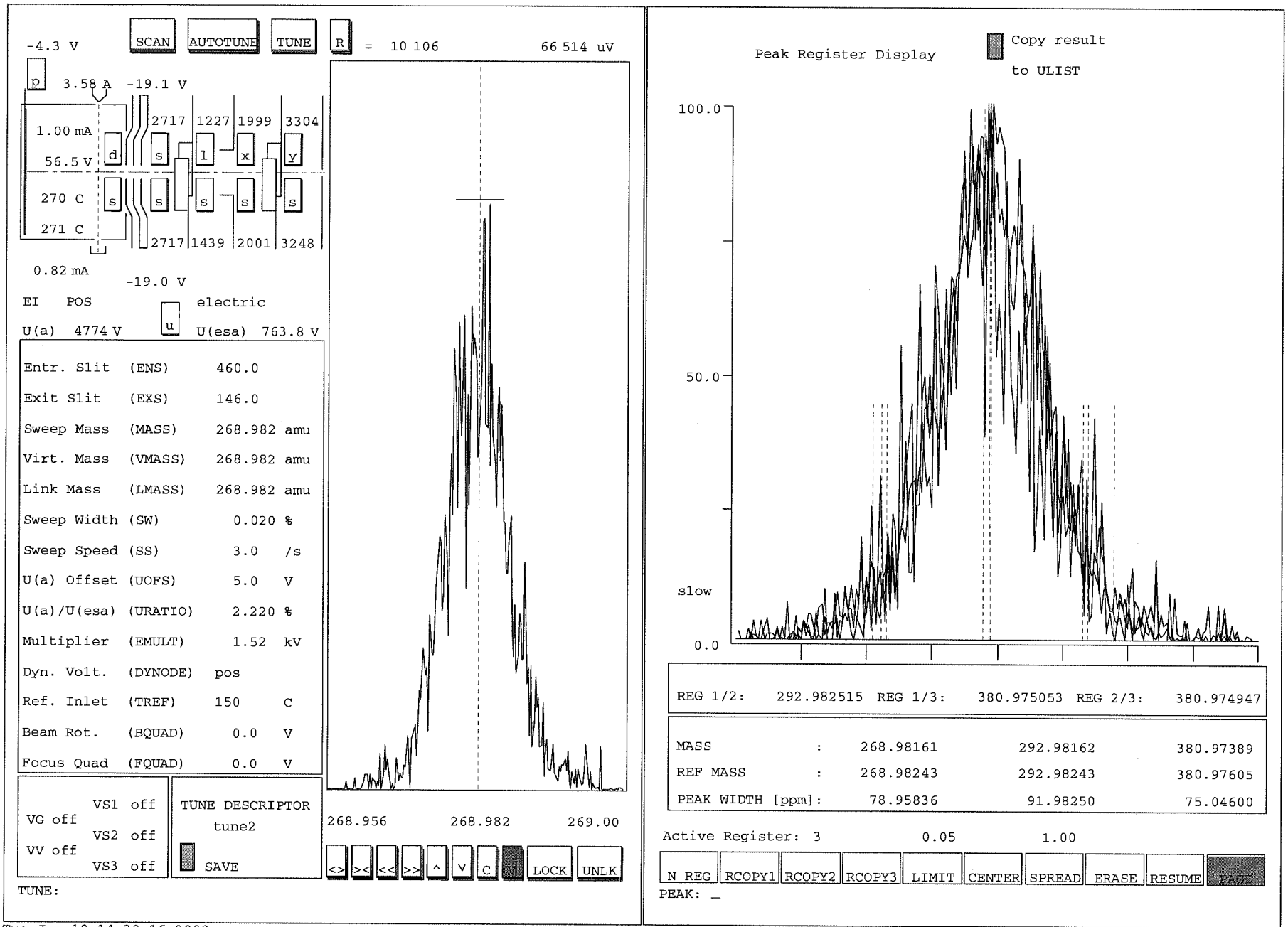
H-2123

2122


-4.3 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
98 798 uV
p
3.58 A
-19.1 V
1.00 mA
56.5 V
270 C
271 C
2717 1227 1999 3304
2717 1439 2001 3248
0.82 mA
-19.0 V
EI POS
electric
U(a) 4777 V
U(esa) 763.8 V
Entr. Slit (ENS) 460.0
Exit Slit (EXS) 146.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.220 %
Multiplier (EMULT) 1.52 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
192.970
192.989
193.00
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 192.98894
E rm 192.98882
G fm 192.96953
I 1m 193.00810
S pc 7969171.06
T p1 7969570.77
E pr 7968750.37
R b1 0.00
1 v 90264.00
R pm 230.98531
E rm 230.98563
G fm 230.96253
I 1m 231.00870
S pc 6658267.29
T p1 6658554.65
E pr 6657949.04
R b1 0.00
2 v 124871.00
R pm 280.98266
E rm 280.98243
G fm 280.95432
I 1m 281.01053
S pc 5473511.81
T p1 5473738.24
E pr 5473240.01
R b1 0.00
3 v 60961.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.1968836 1.4559521 1.2164525
PC+DELTA 1.1968836 1.4559521 1.2164525
PC+DELTA/RM 0.9999980 1.0000002 1.0000022
REF MASS 1.1968860 1.4559519 1.2164499
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Tue Jun 10 14:28:32 2008
mat95
MAT 95

H-2124

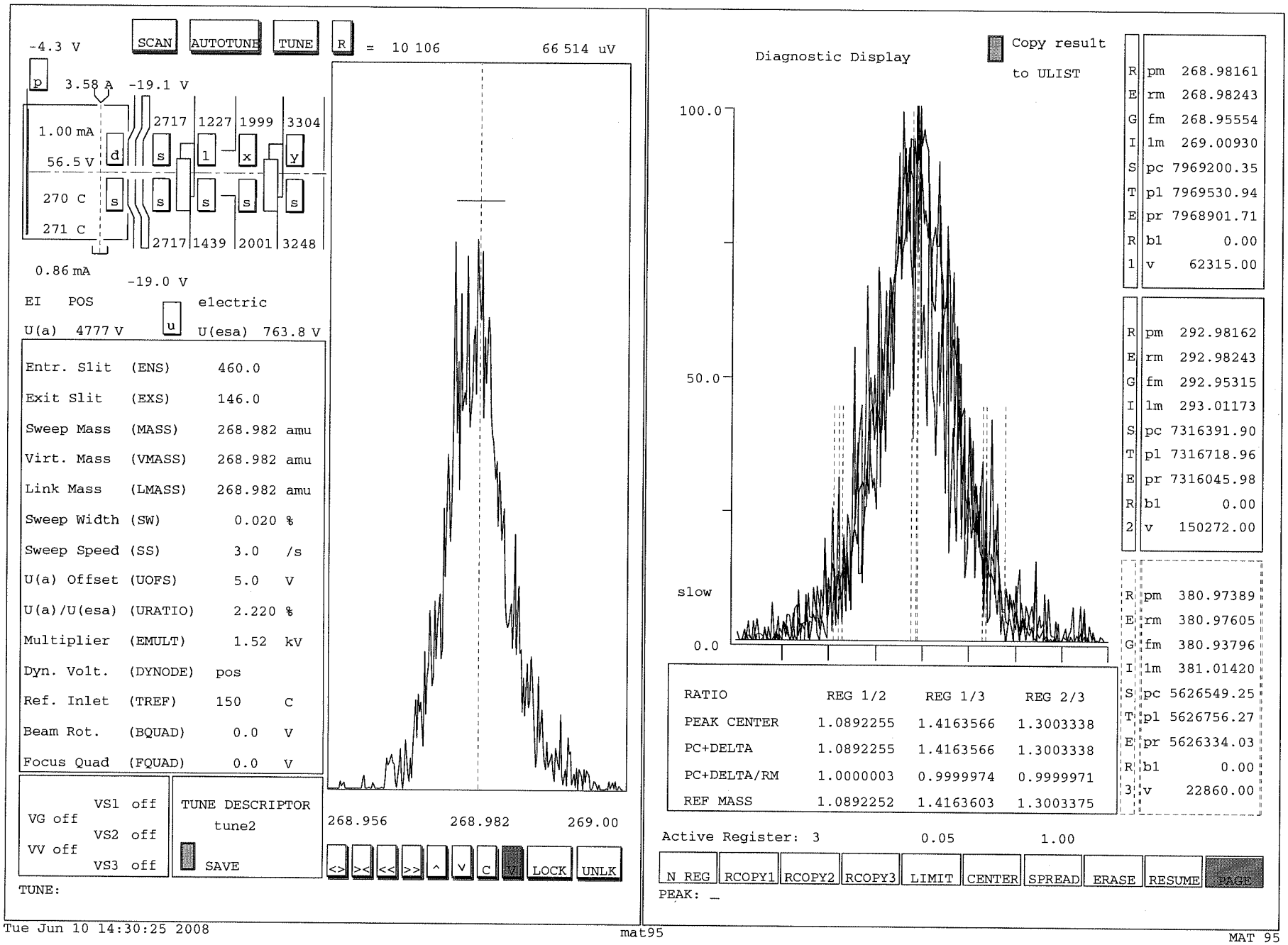
2123



Tue Jun 10 14:30:16 2008 mat95 MAT 95

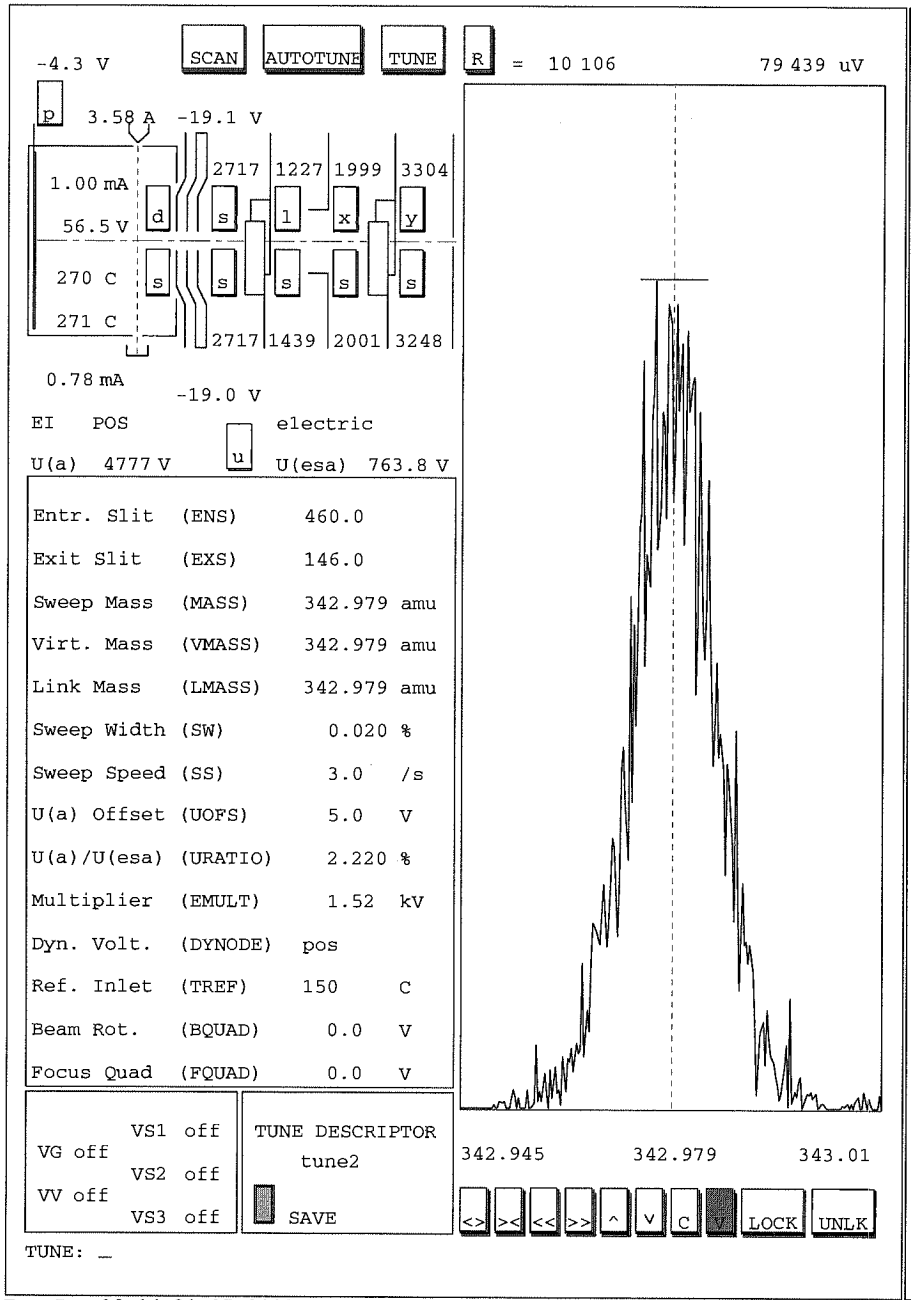
H-2125

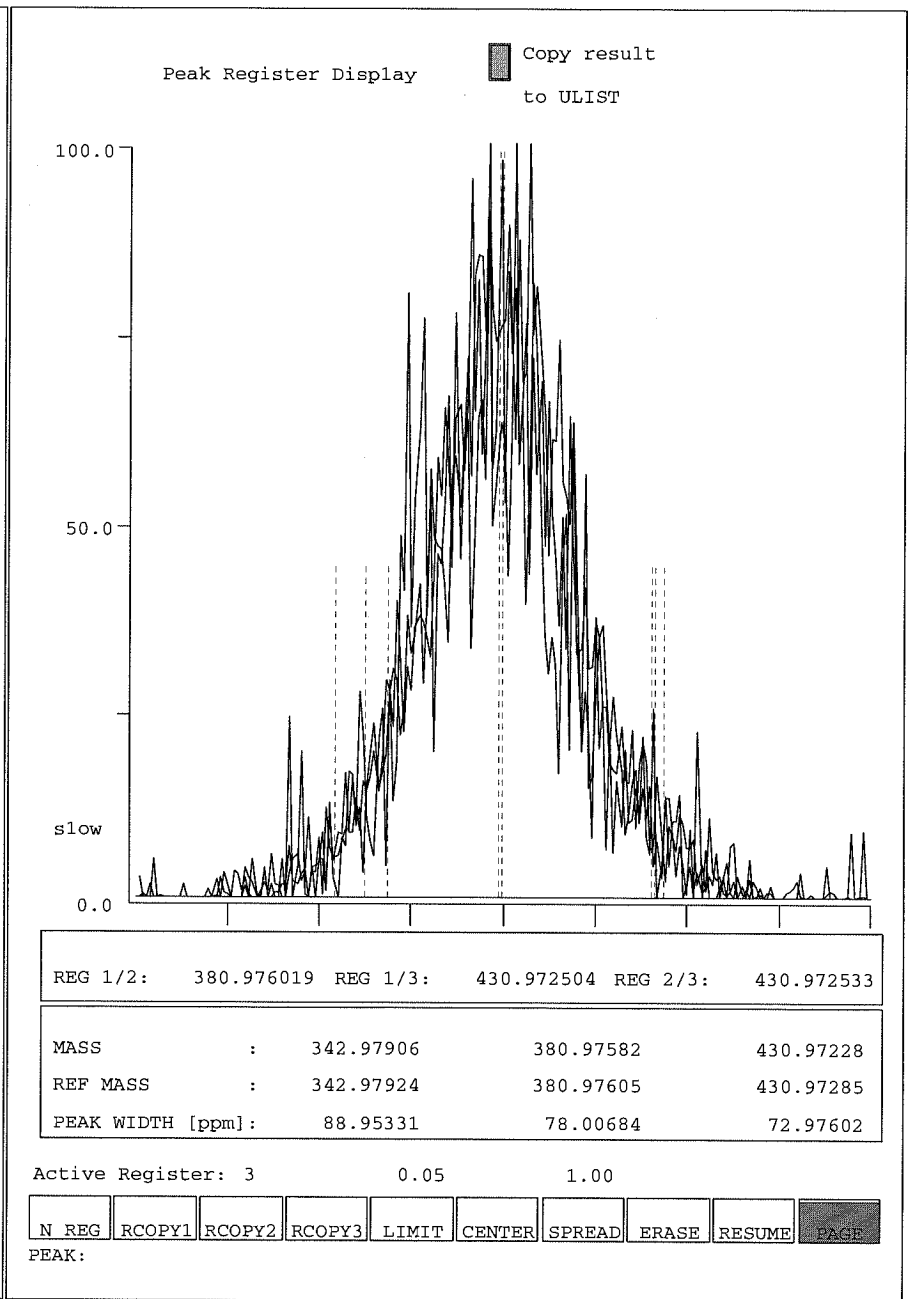
2124


-4.3 V
SCAN
AUTOTUNE
TUNE
R = 10 106
66 514 uV
p
3.58 A
-19.1 V
1.00 mA
56.5 V
270 C
271 C
2717 1227 1999 3304
2717 1439 2001 3248
0.86 mA
-19.0 V
EI POS
electric
U(a) 4777 V
U(esa) 763.8 V
Entr. Slit (ENS) 460.0
Exit Slit (EXS) 146.0
Sweep Mass (MASS) 268.982 amu
Virt. Mass (VMASS) 268.982 amu
Link Mass (LMASS) 268.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.220 %
Multiplier (EMULT) 1.52 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VS1 off
VV off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
268.956
268.982
269.00
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 268.98161
E rm 268.98243
G fm 268.95554
I lm 269.00930
S pc 7969200.35
T pl 7969530.94
E pr 7968901.71
R b1 0.00
1 v 62315.00
R pm 292.98162
E rm 292.98243
G fm 292.95315
I lm 293.01173
S pc 7316391.90
T pl 7316718.96
E pr 7316045.98
R b1 0.00
2 v 150272.00
R pm 380.97389
E rm 380.97605
G fm 380.93796
I lm 381.01420
S pc 5626549.25
T pl 5626756.27
E pr 5626334.03
R b1 0.00
3 v 22860.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.0892255 1.4163566 1.3003338
PC+DELTA 1.0892255 1.4163566 1.3003338
PC+DELTA/RM 1.0000003 0.9999974 0.9999971
REF MASS 1.0892252 1.4163603 1.3003375
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Tue Jun 10 14:30:25 2008
mat95
MAT 95

H-2126

2125

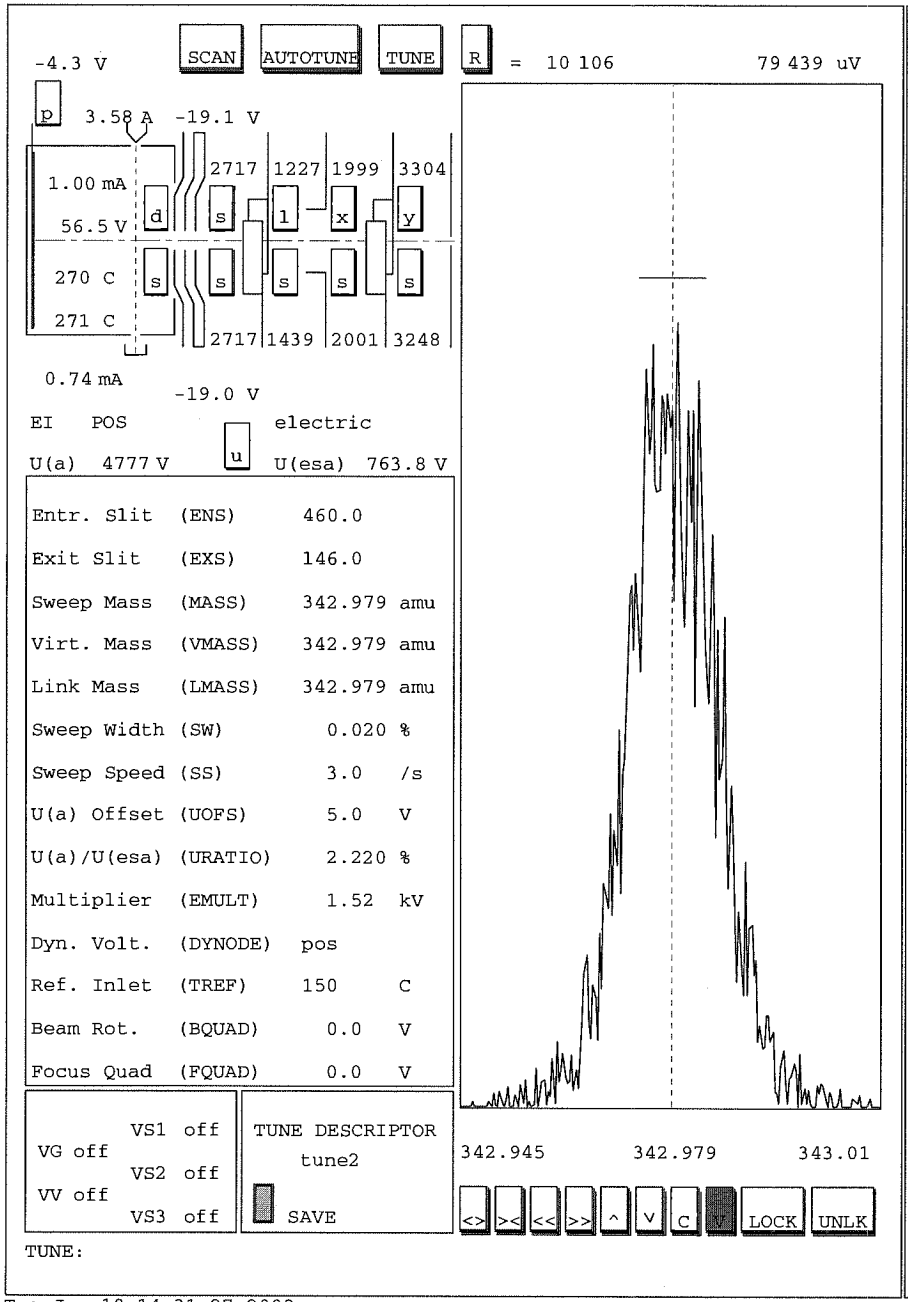


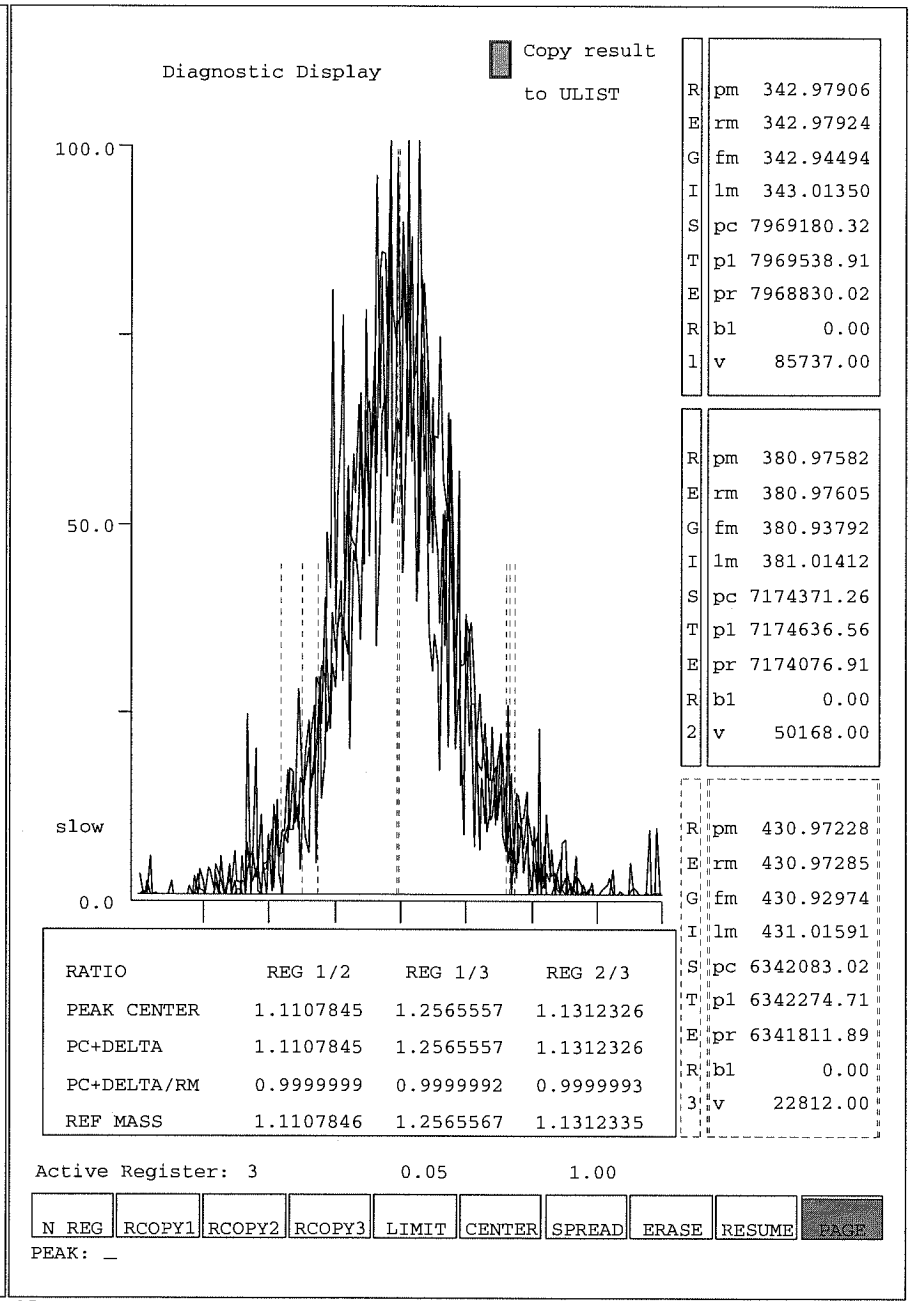


Tue Jun 10 14:31:17 2008 mat95 MAT 95

H-2127

2126

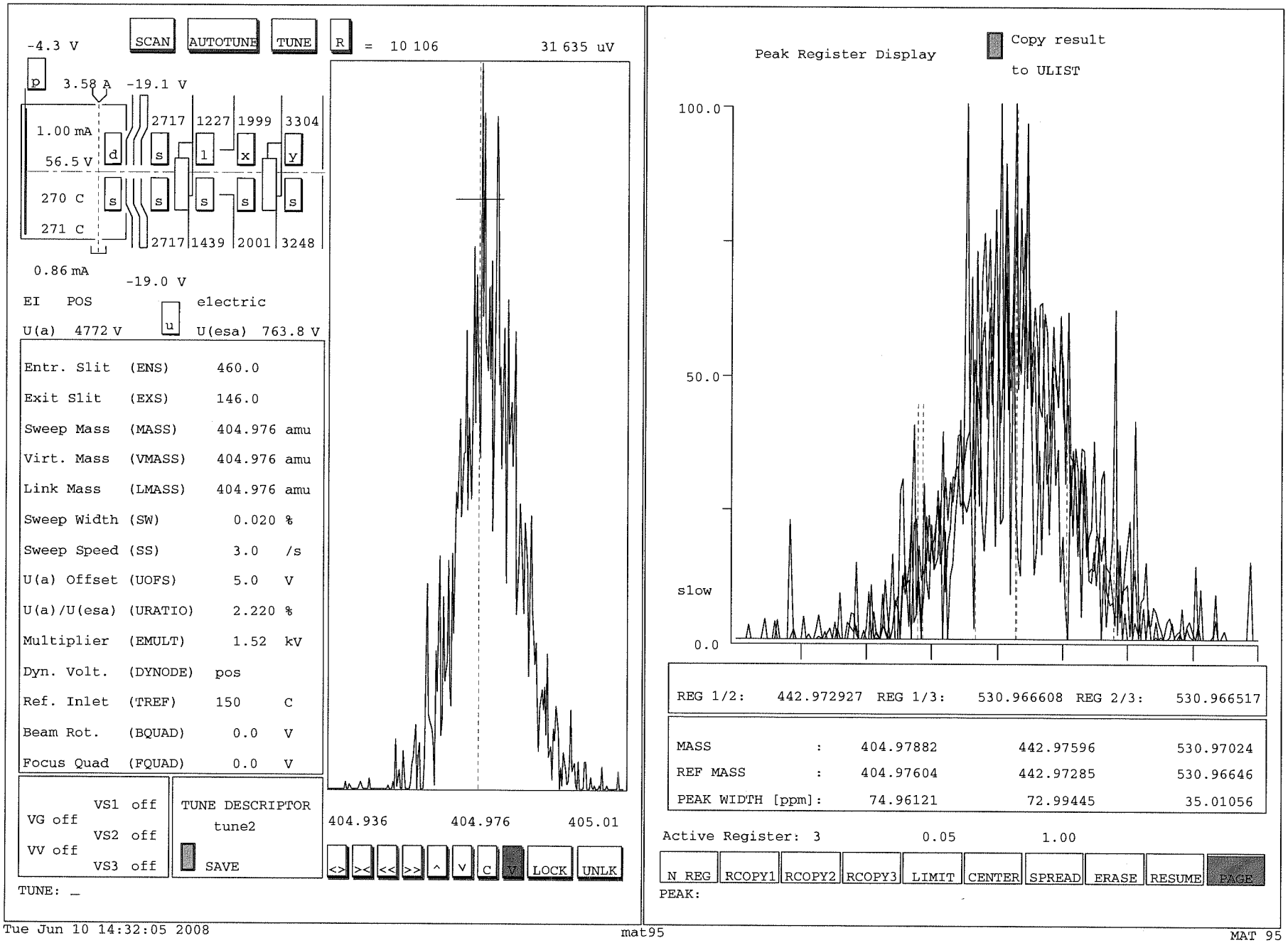




Tue Jun 10 14:31:27 2008 mat95 MAT 95

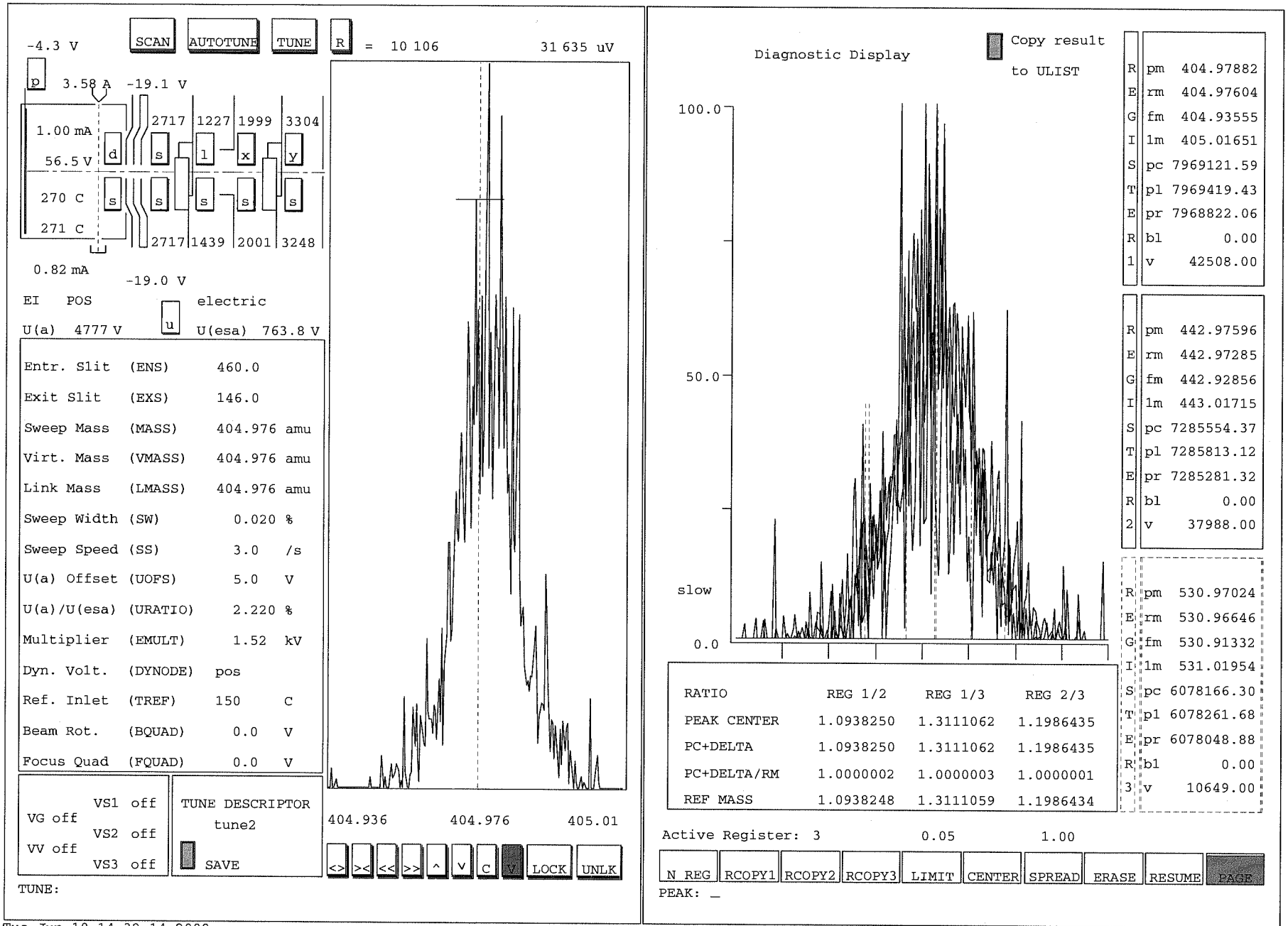
H-2128

2127


-4.3 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
31 635 uV
p
3.58 A
-19.1 V
1.00 mA
56.5 V
270 C
271 C
2717 1227 1999 3304
2717 1439 2001 3248
d
s
l
x
y
0.86 mA
-19.0 V
EI POS
electric
U(a) 4772 V
U(esa) 763.8 V
Entr. Slit (ENS) 460.0
Exit Slit (EXS) 146.0
Sweep Mass (MASS) 404.976 amu
Virt. Mass (VMASS) 404.976 amu
Link Mass (LMASS) 404.976 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.220 %
Multiplier (EMULT) 1.52 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VS1 off
VV off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
404.936
404.976
405.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
0.0
slow
REG 1/2: 442.972927 REG 1/3: 530.966608 REG 2/3: 530.966517
MASS : 404.97882 442.97596 530.97024
REF MASS : 404.97604 442.97285 530.96646
PEAK WIDTH [ppm]: 74.96121 72.99445 35.01056
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Tue Jun 10 14:32:05 2008
mat95
MAT 95

H-2129

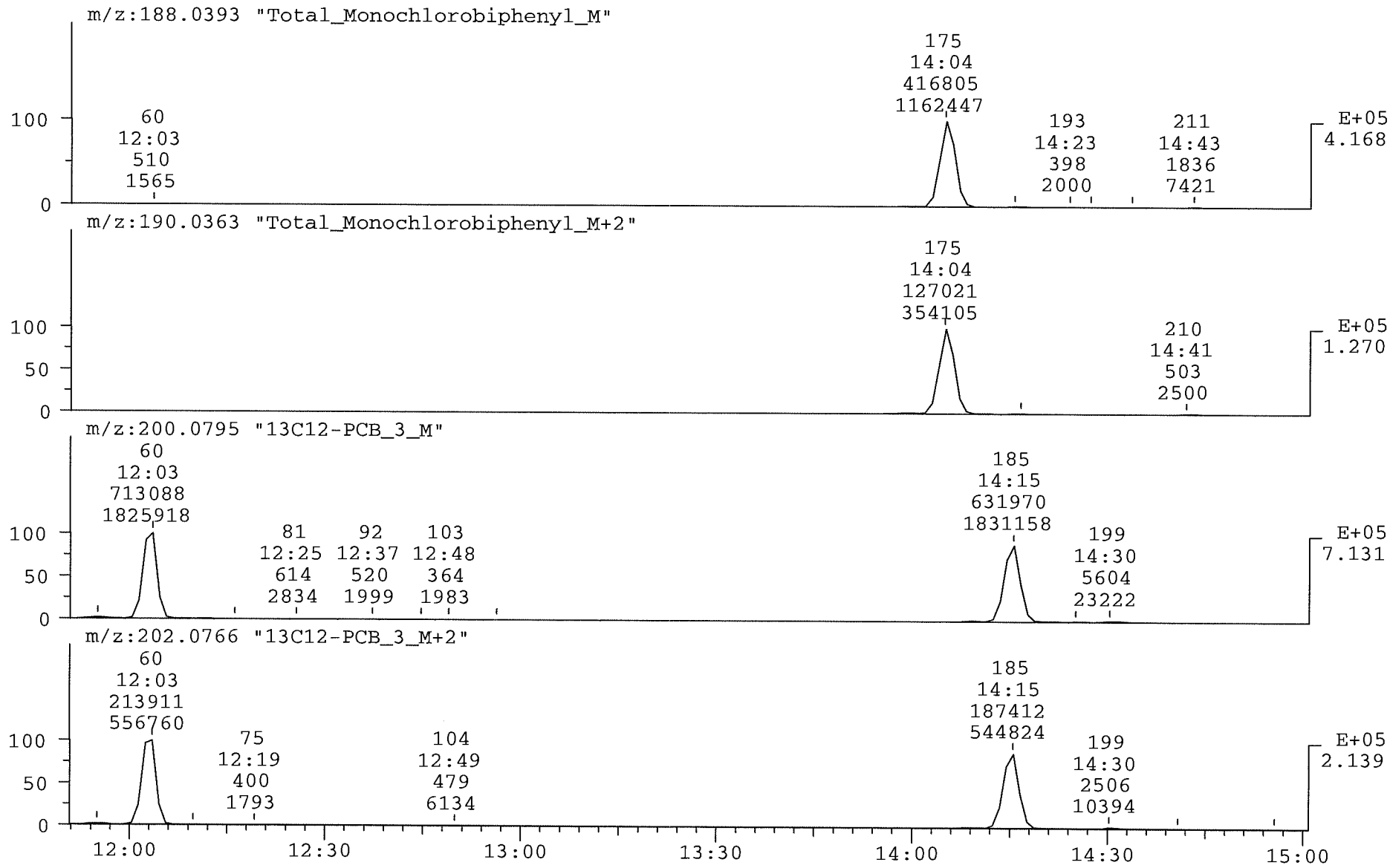
2128


-4.3 V
SCAN
AUTOTUNE
TUNE
R
= 10 106
31 635 uV
p
3.58 A
-19.1 V
1.00 mA
56.5 V
270 C
271 C
2717 1227 1999 3304
2717 1439 2001 3248
d
s
l
x
y
0.82 mA
-19.0 V
EI POS
electric
U(a) 4777 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 460.0
Exit Slit (EXS) 146.0
Sweep Mass (MASS) 404.976 amu
Virt. Mass (VMASS) 404.976 amu
Link Mass (LMASS) 404.976 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 2.220 %
Multiplier (EMULT) 1.52 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
404.936
404.976
405.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 404.97882
E rm 404.97604
G fm 404.93555
I 1m 405.01651
S pc 7969121.59
T pl 7969419.43
E pr 7968822.06
R bl 0.00
1 v 42508.00
R pm 442.97596
E rm 442.97285
G fm 442.92856
I 1m 443.01715
S pc 7285554.37
T pl 7285813.12
E pr 7285281.32
R bl 0.00
2 v 37988.00
R pm 530.97024
E rm 530.96646
G fm 530.91332
I 1m 531.01954
S pc 6078166.30
T pl 6078261.68
E pr 6078048.88
R bl 0.00
3 v 10649.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.0938250 1.3111062 1.1986435
PC+DELTA 1.0938250 1.3111062 1.1986435
PC+DELTA/RM 1.0000002 1.0000003 1.0000001
REF MASS 1.0938248 1.3111059 1.1986434
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Tue Jun 10 14:32:14 2008
mat95
MAT 95

H-2130

2129

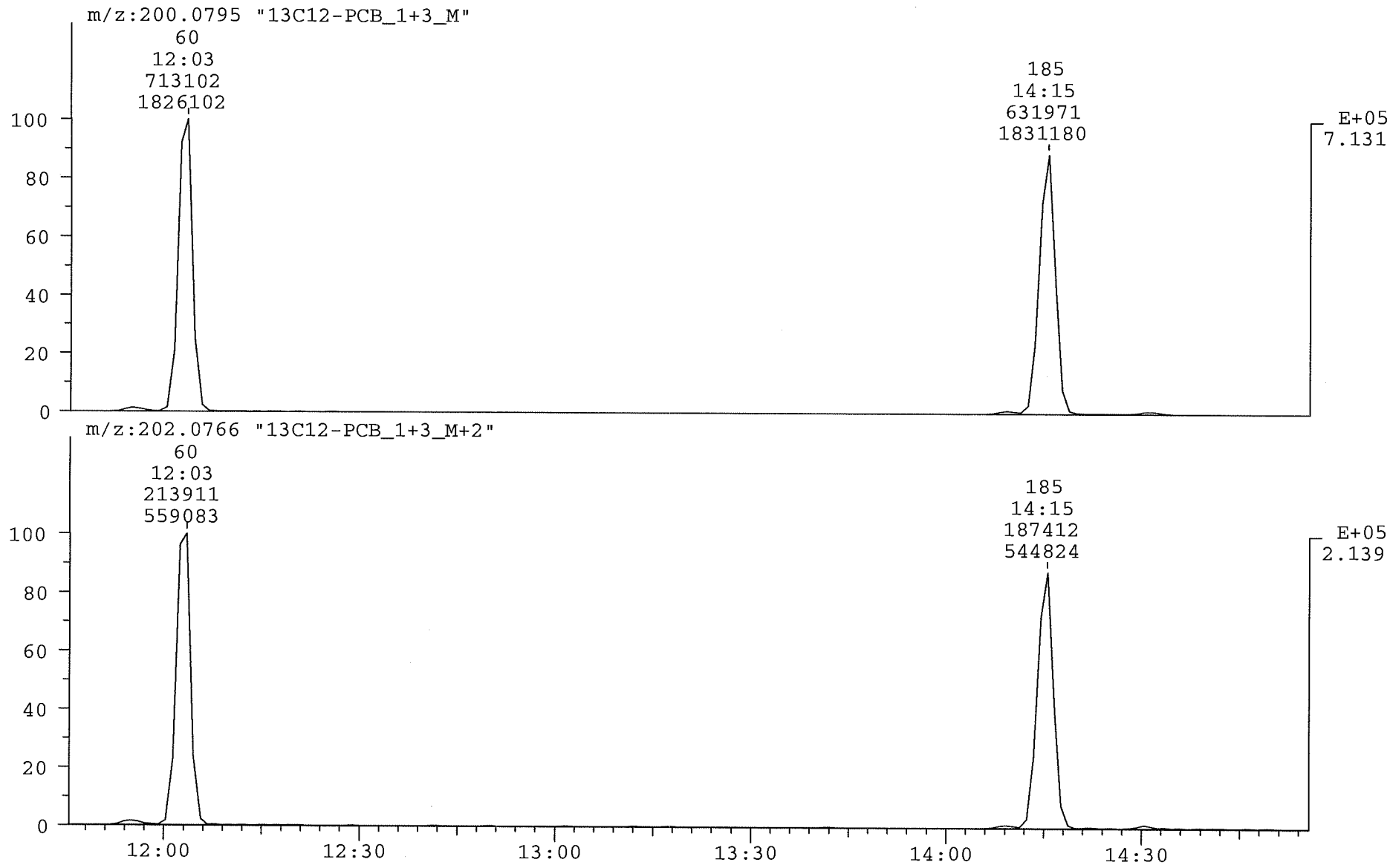
CHRO: a0806m1r1 10-Jun-08 Elapse: 13:25.8 138
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 48 > 228 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2131

2130

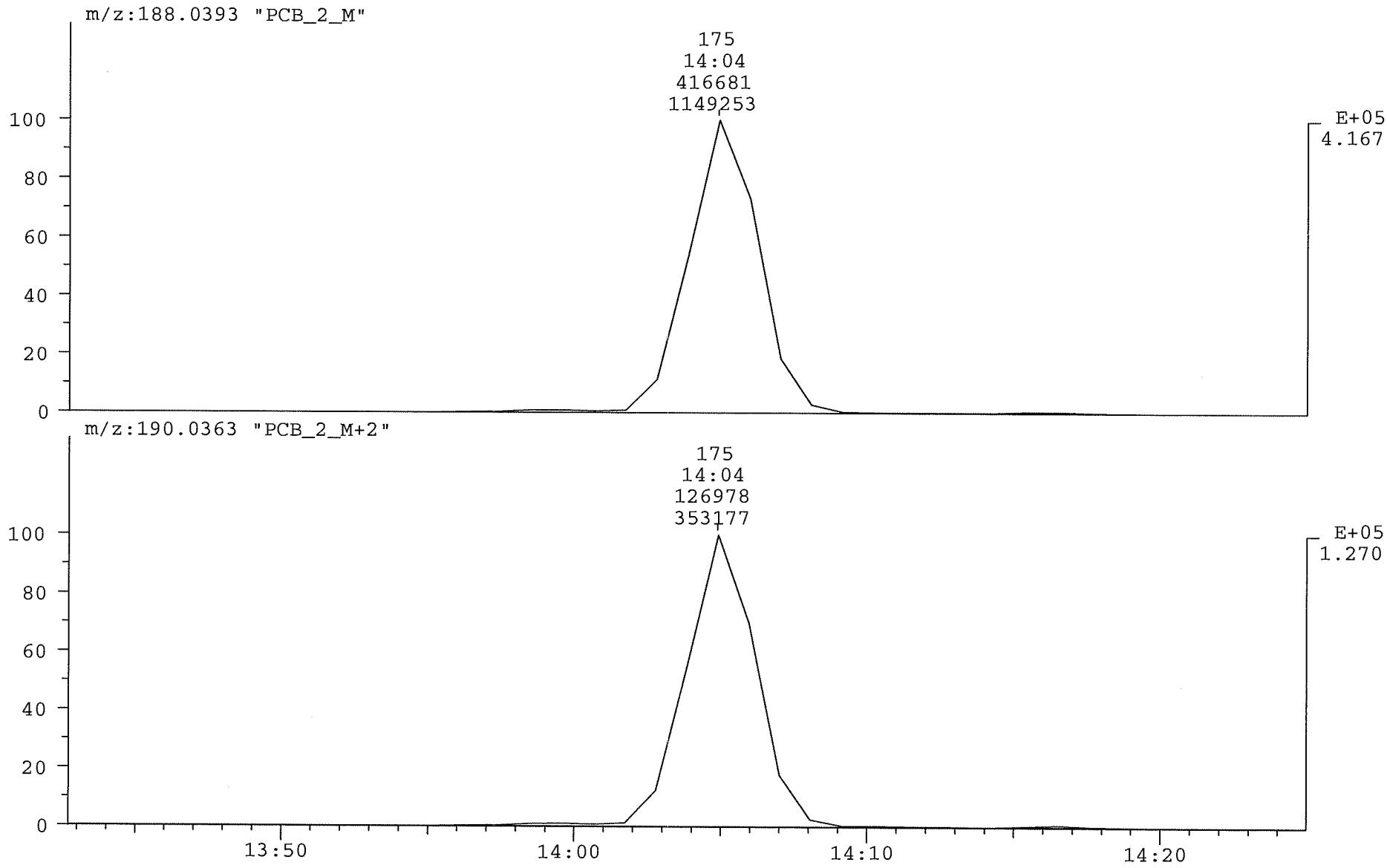
CHRO: a0806m1r1 10-Jun-08 Elapse: 13:20.5 133
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 43 > 223 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2132

2131

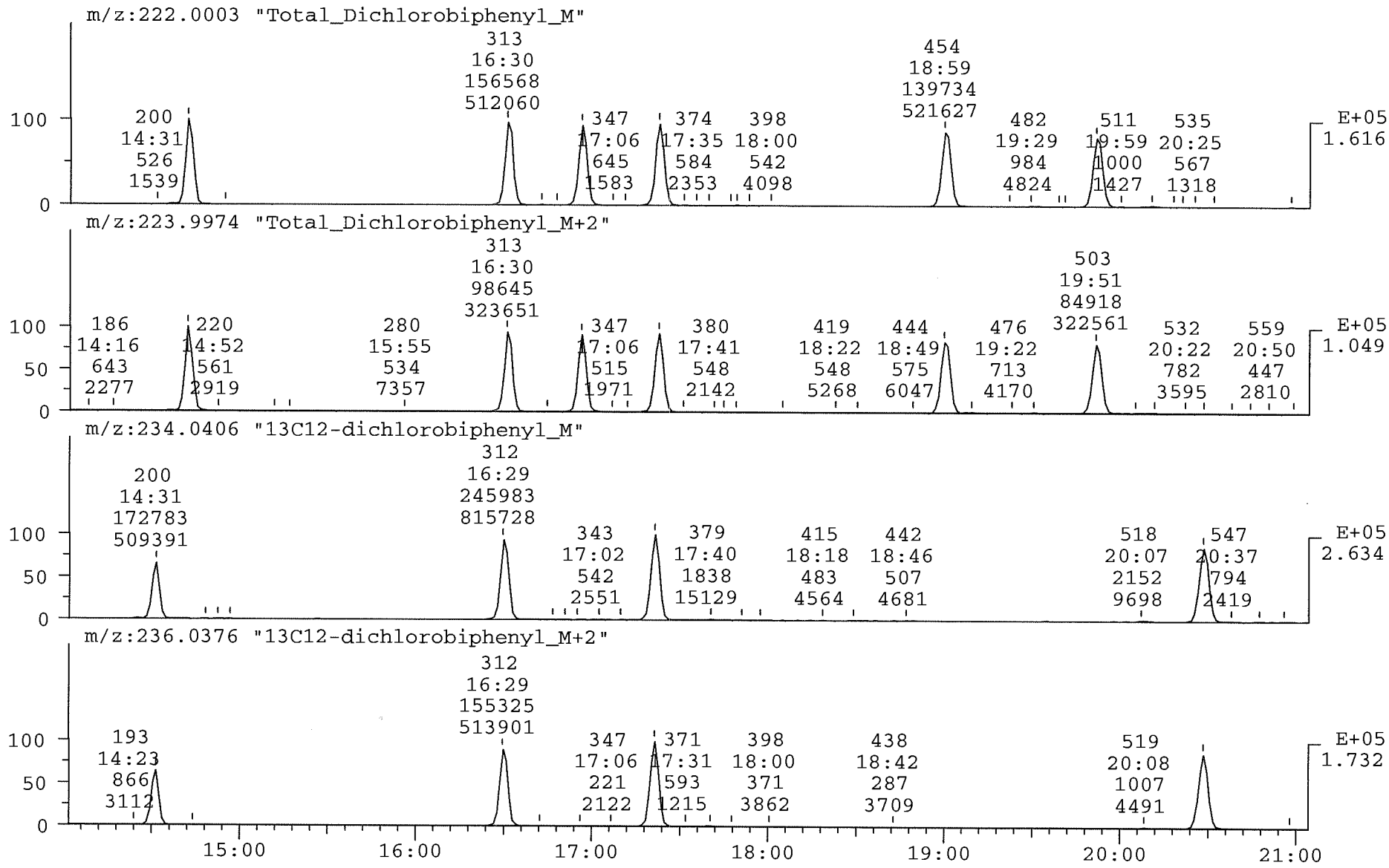
CHRO: a0806m1r1 10-Jun-08 Elapse: 14:03.8 174
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 154 > 194 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2133

2132

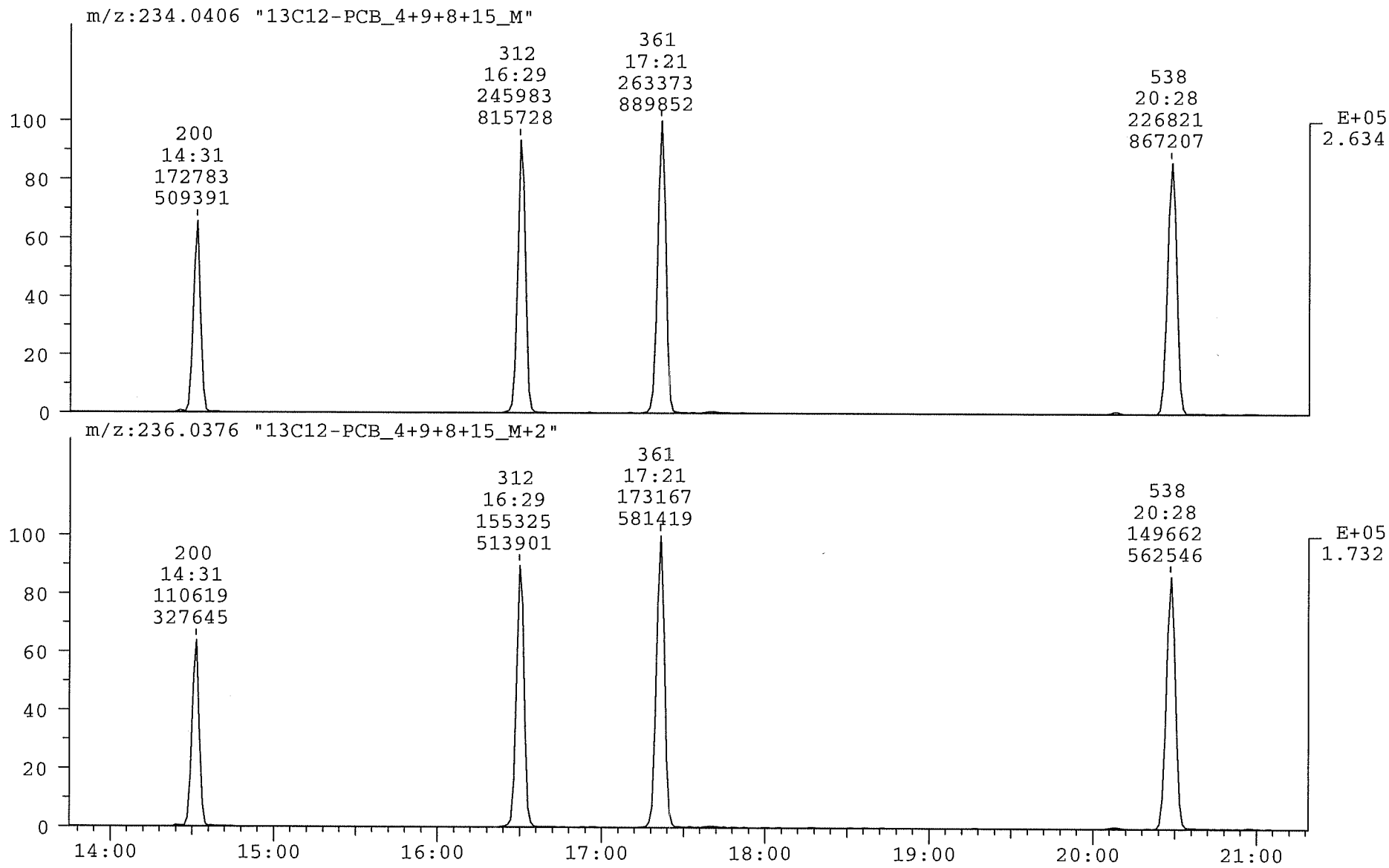
CHRO: a0806m1r1 10-Jun-08 Elapse: 17:33.9 372
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 172 > 572 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2134

2133

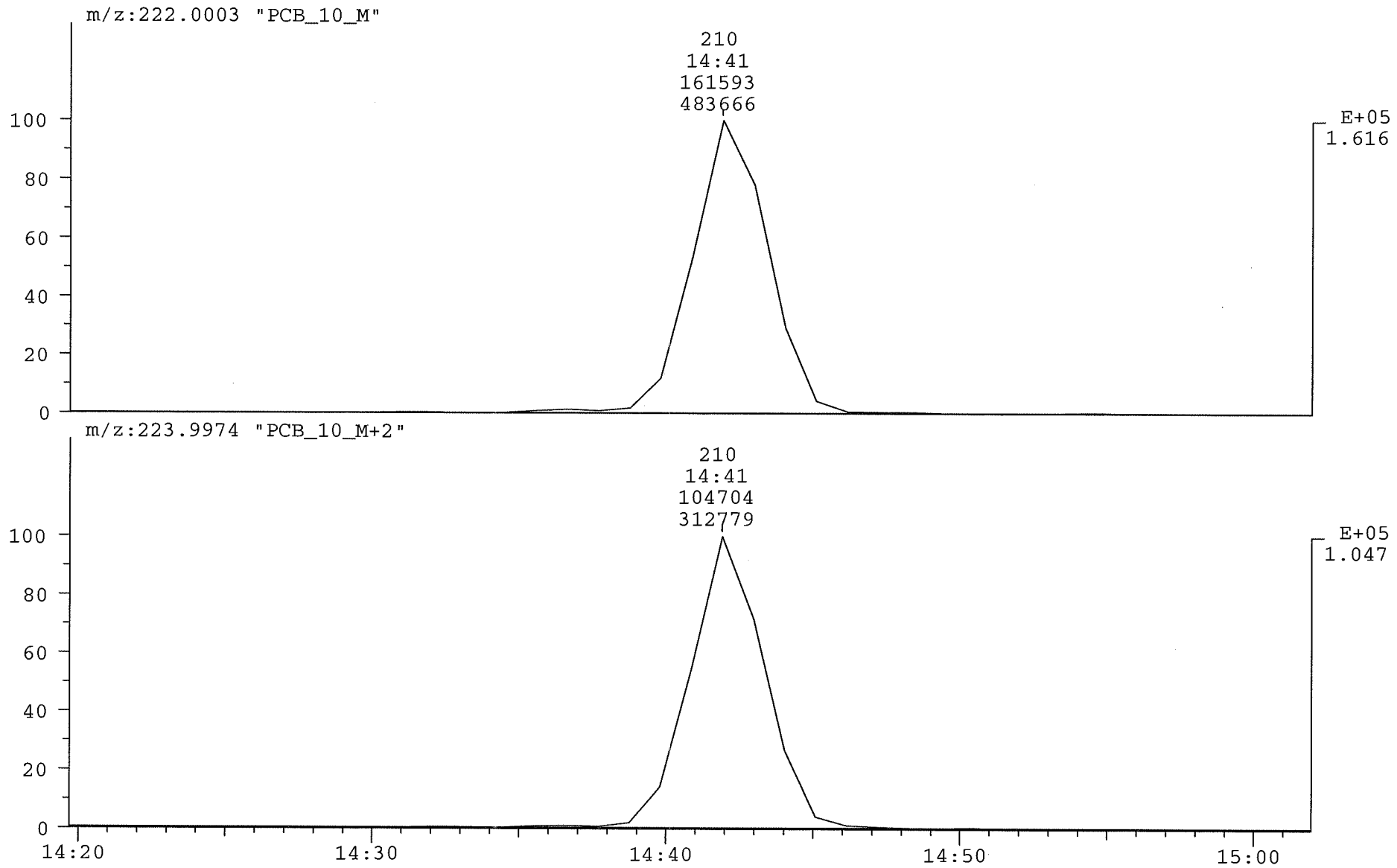
CHRO: a0806m1r1 10-Jun-08 Elapse: 17:26.7 366
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2135

2134

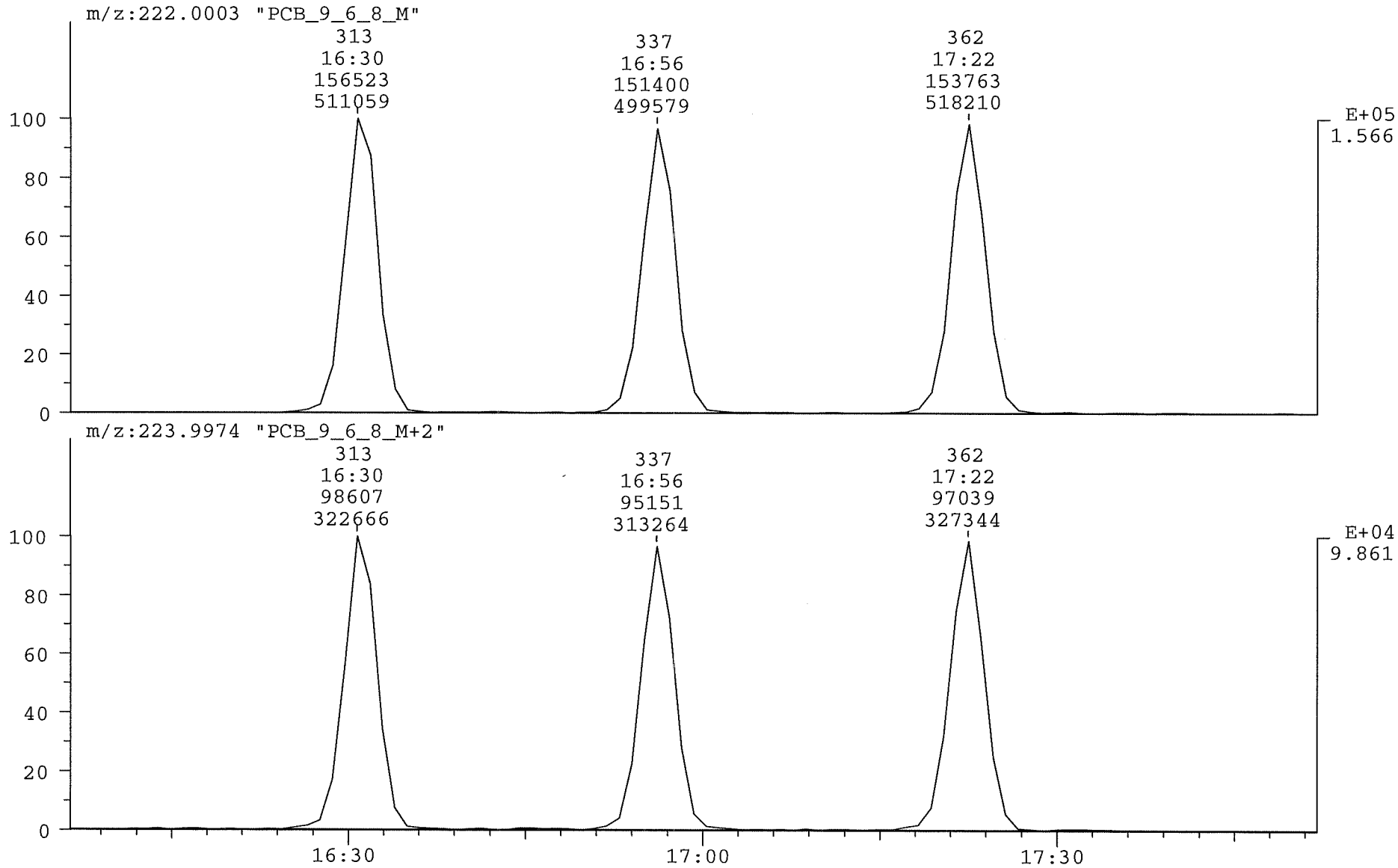
CHRO: a0806m1r1 10-Jun-08 Elapse: 14:40.8 209
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 189 > 229 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2136

2135

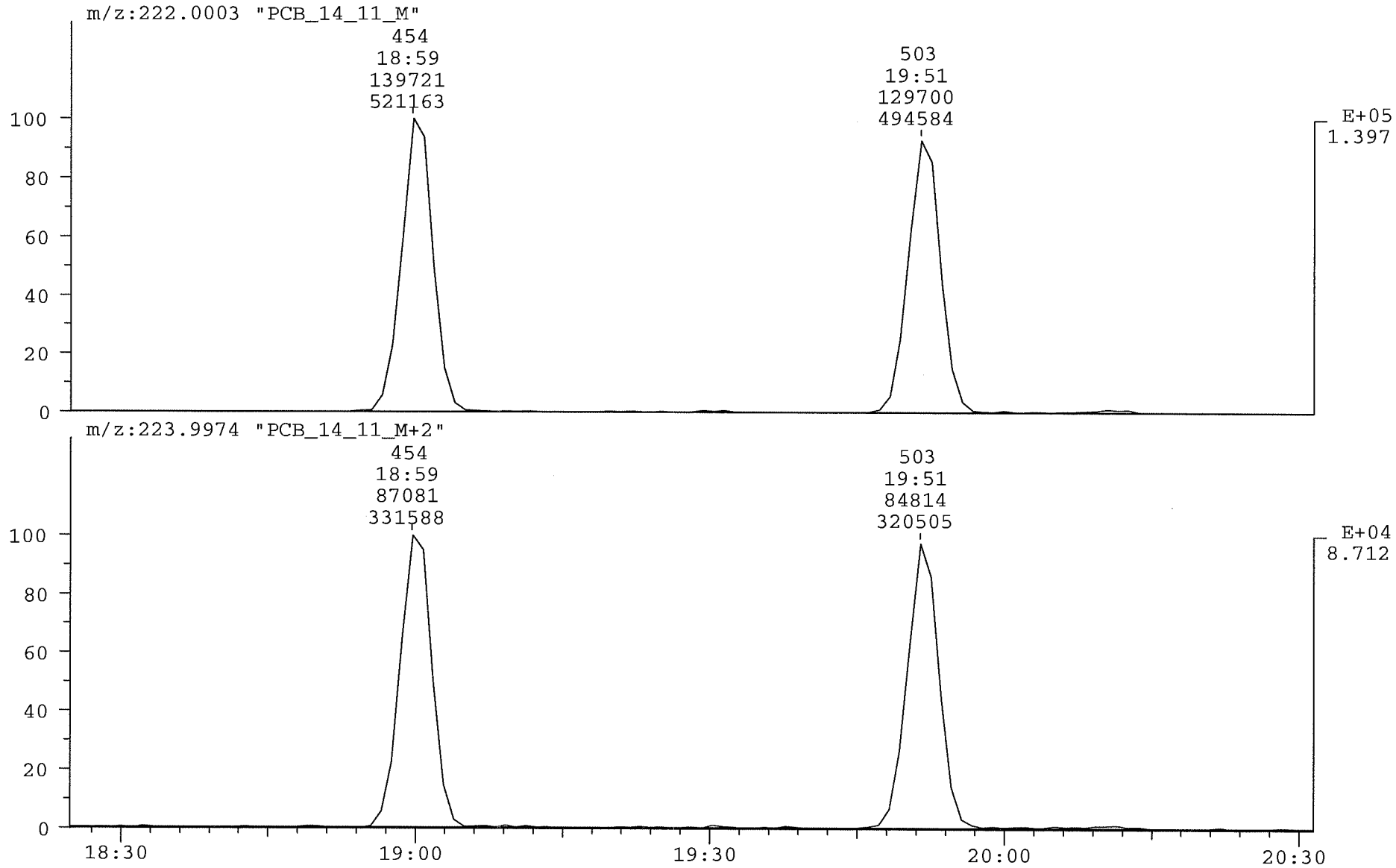
CHRO: a0806m1r1 10-Jun-08 Elapse: 16:59.2 340
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 290 > 390 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2137

2136

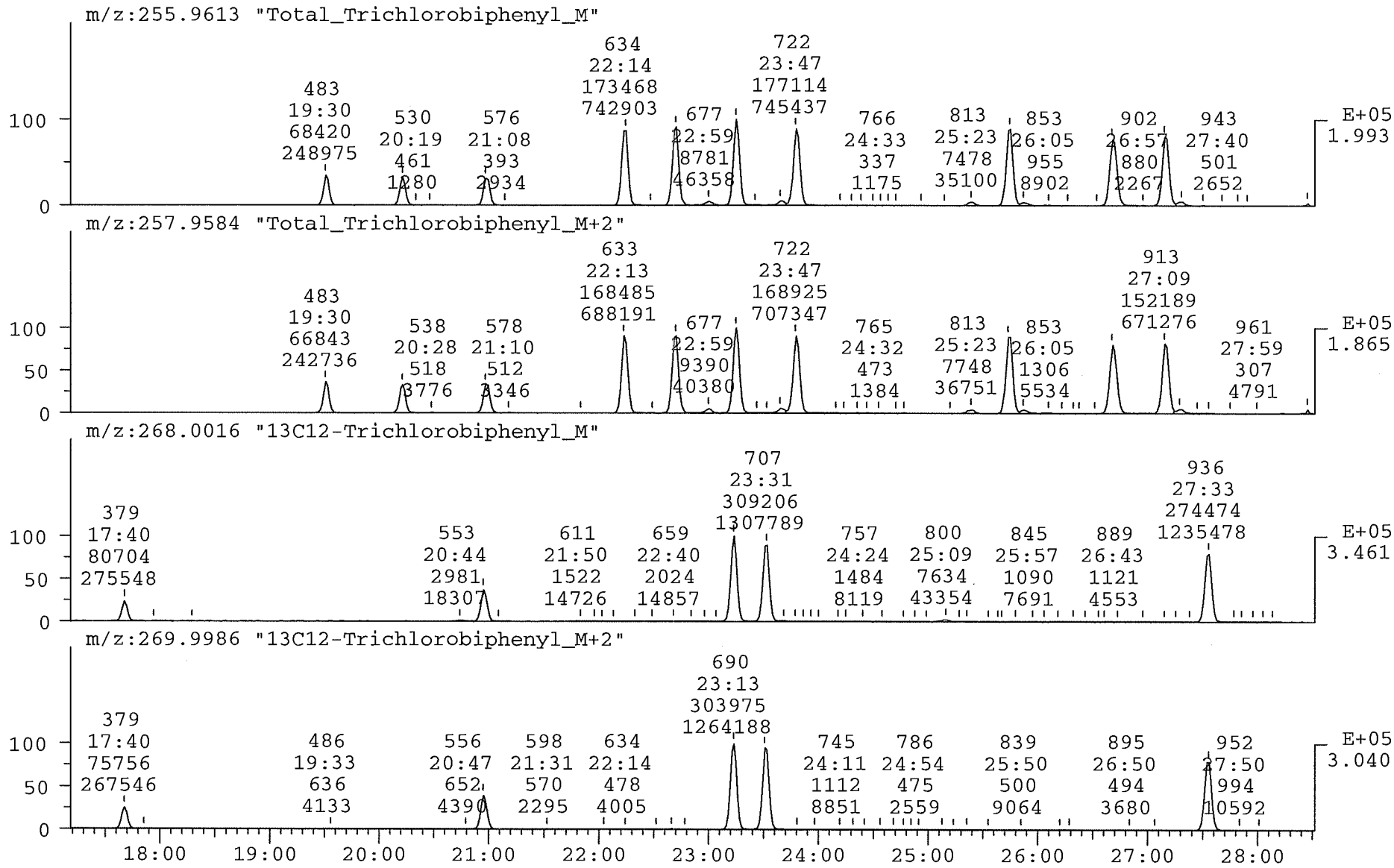
CHRO: a0806m1r1 10-Jun-08 Elapse: 19:28.1 481
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 421 > 541 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2138

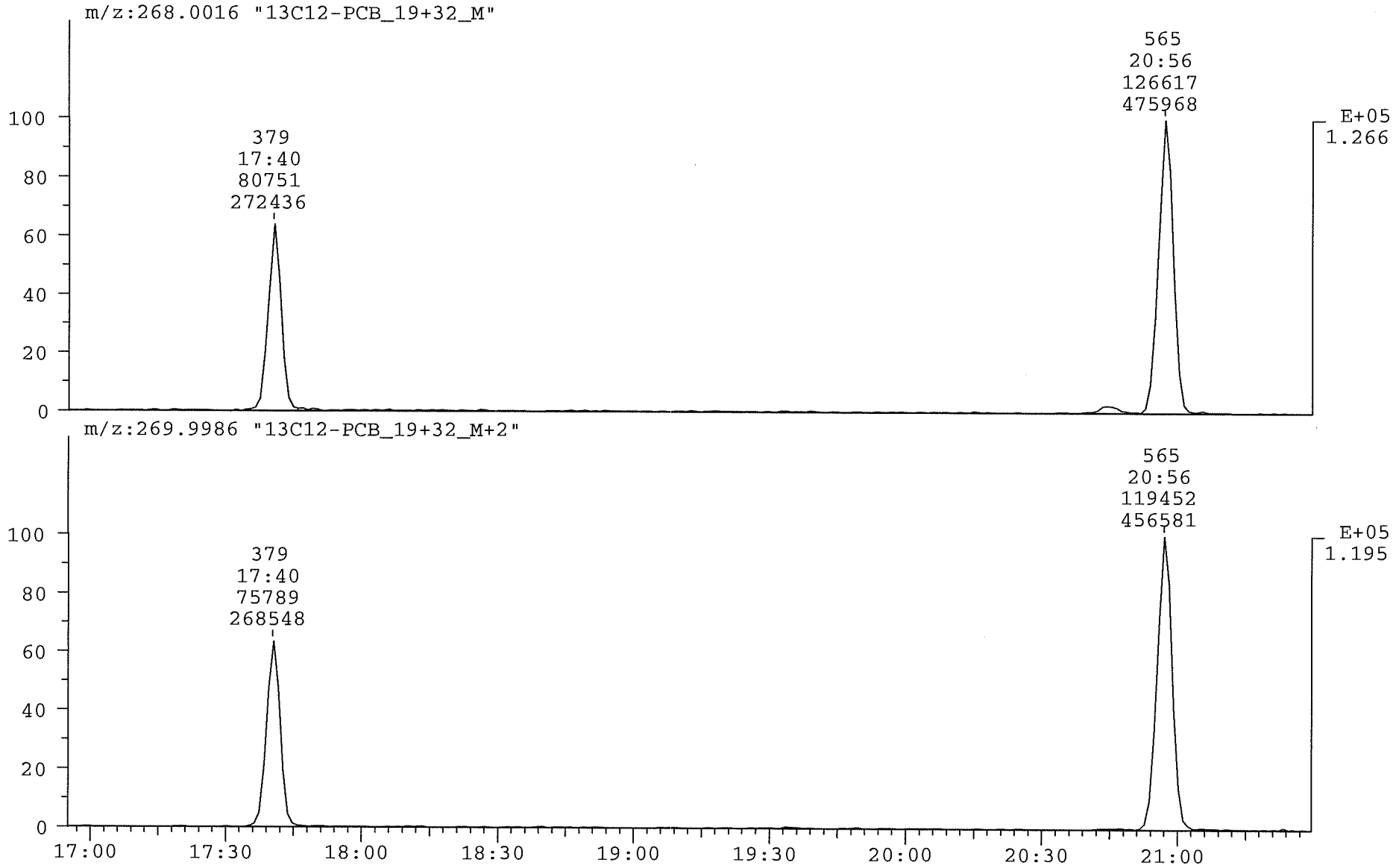
2137

CHRO: a0806m1r1 10-Jun-08 Elapse: 22:53.4 671
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 351 > 991 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2139

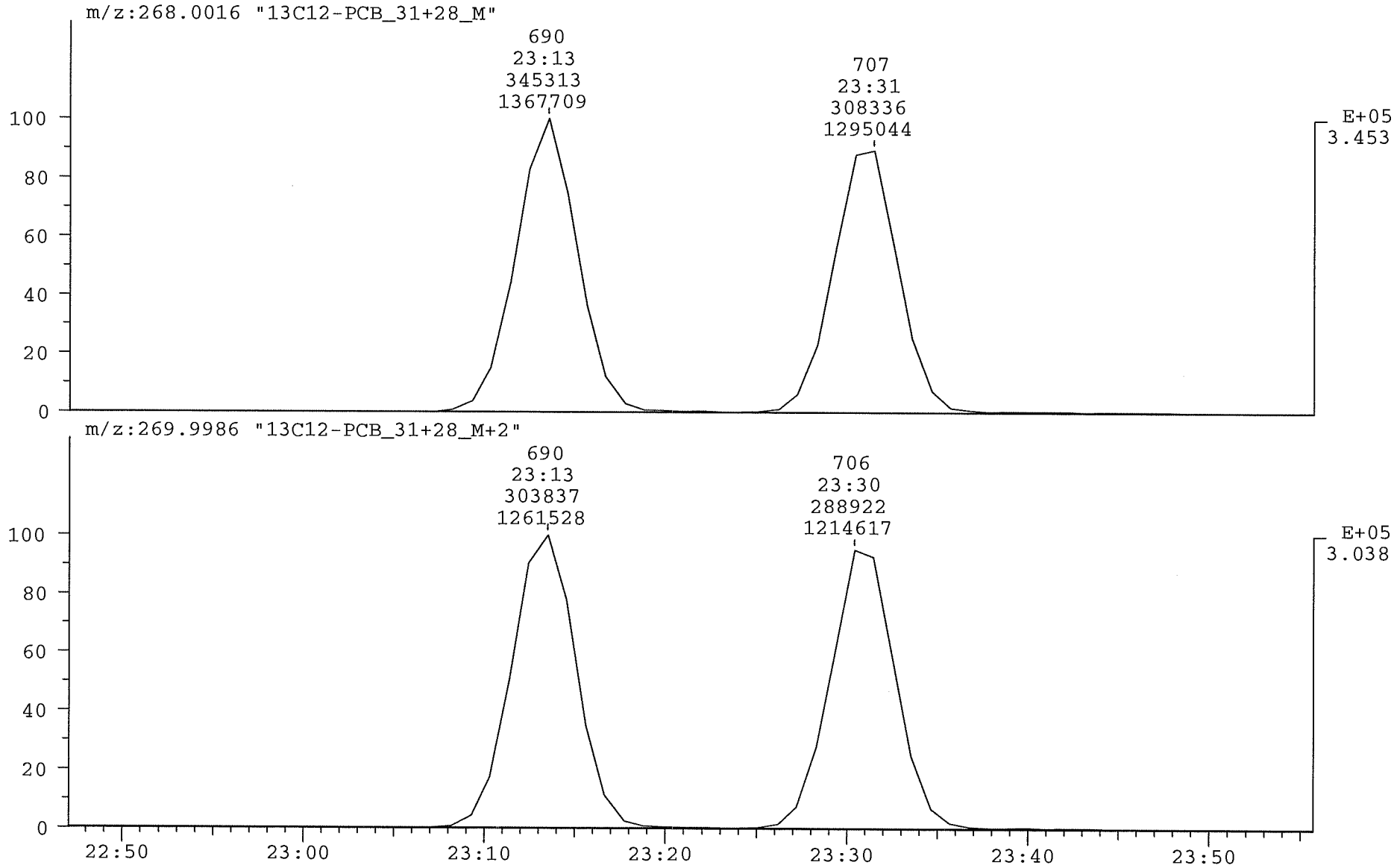
CHRO: a0806m1r1 10-Jun-08 Elapse: 19:01.7 456
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 336 > 596 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2140

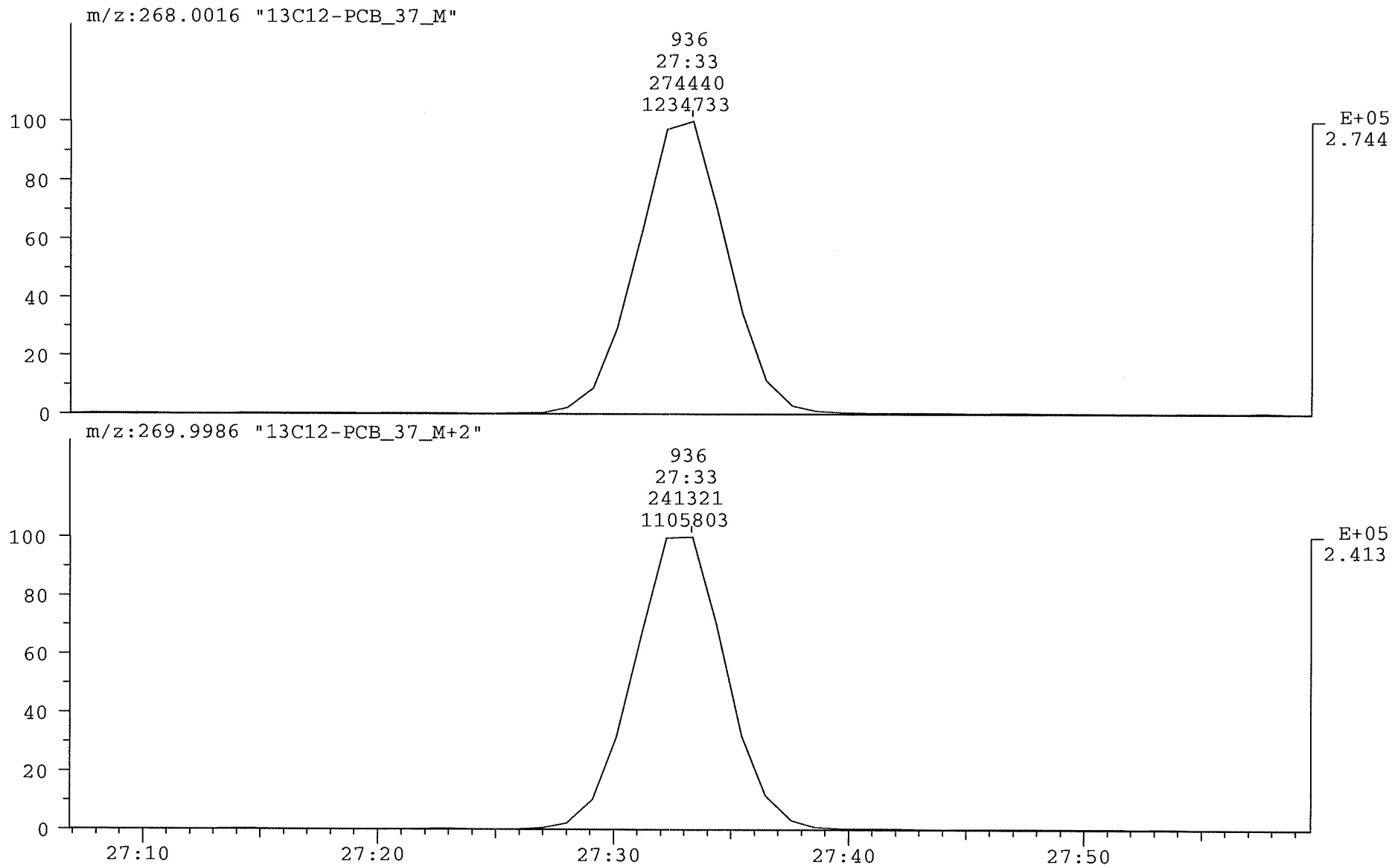
2139

CHRO: a0806m1r1 10-Jun-08 Elapse: 23:13.5 690
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2141

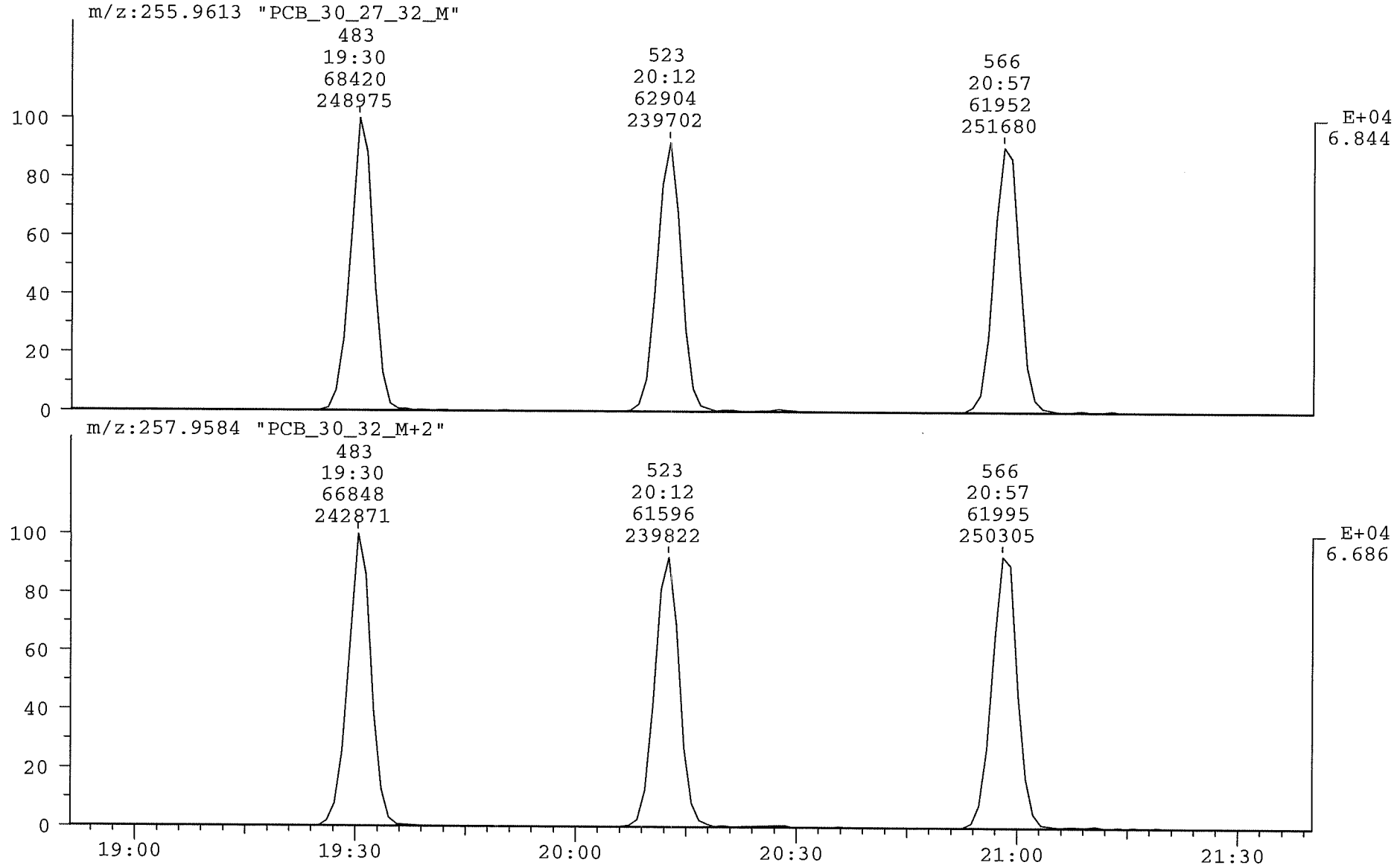
CHRO: a0806m1r1 10-Jun-08 Elapse: 27:33.3 936
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2142

2141

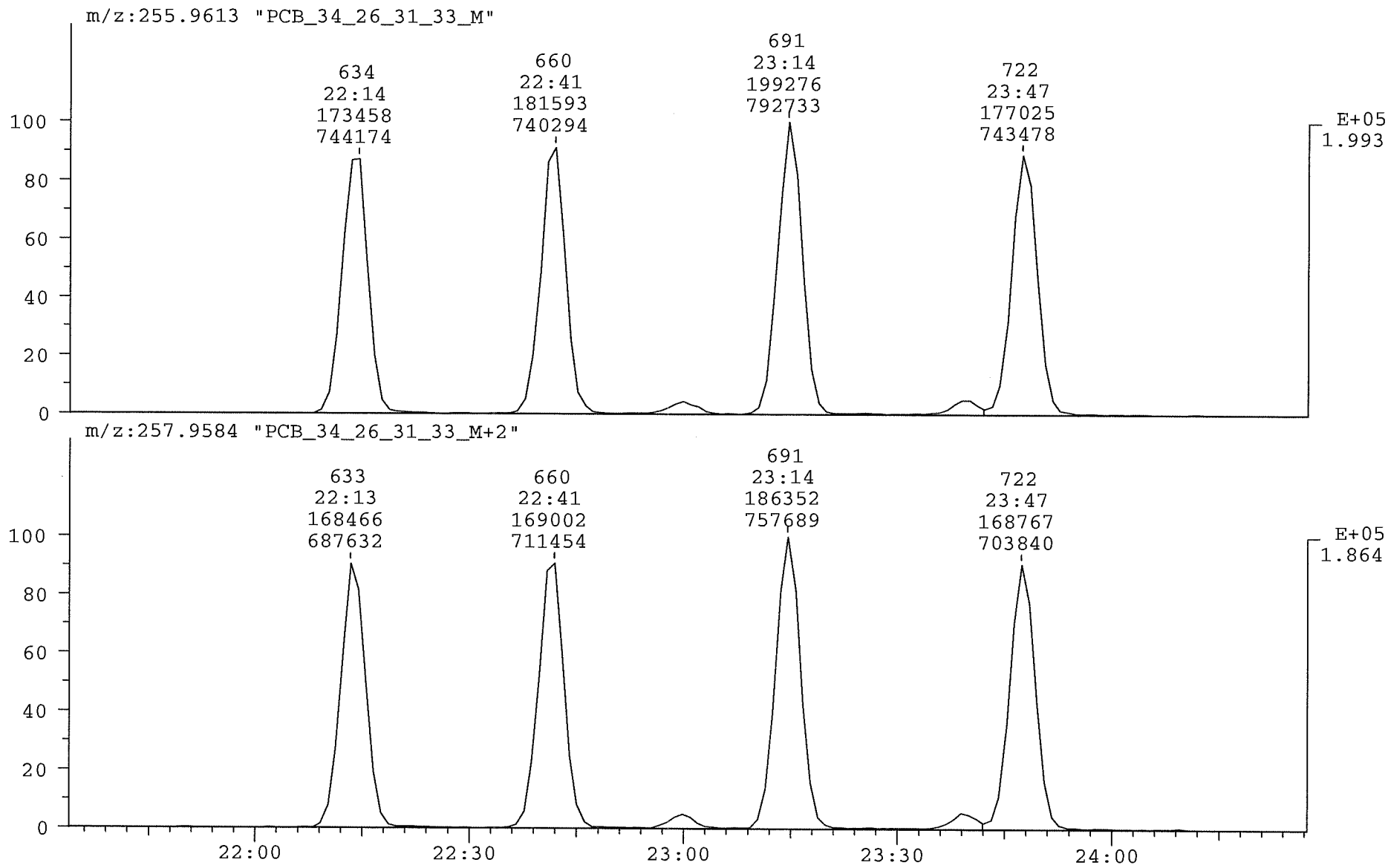
CHRO: a0806m1r1 10-Jun-08 Elapse: 20:15.6 526
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 446 > 606 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2143

2142

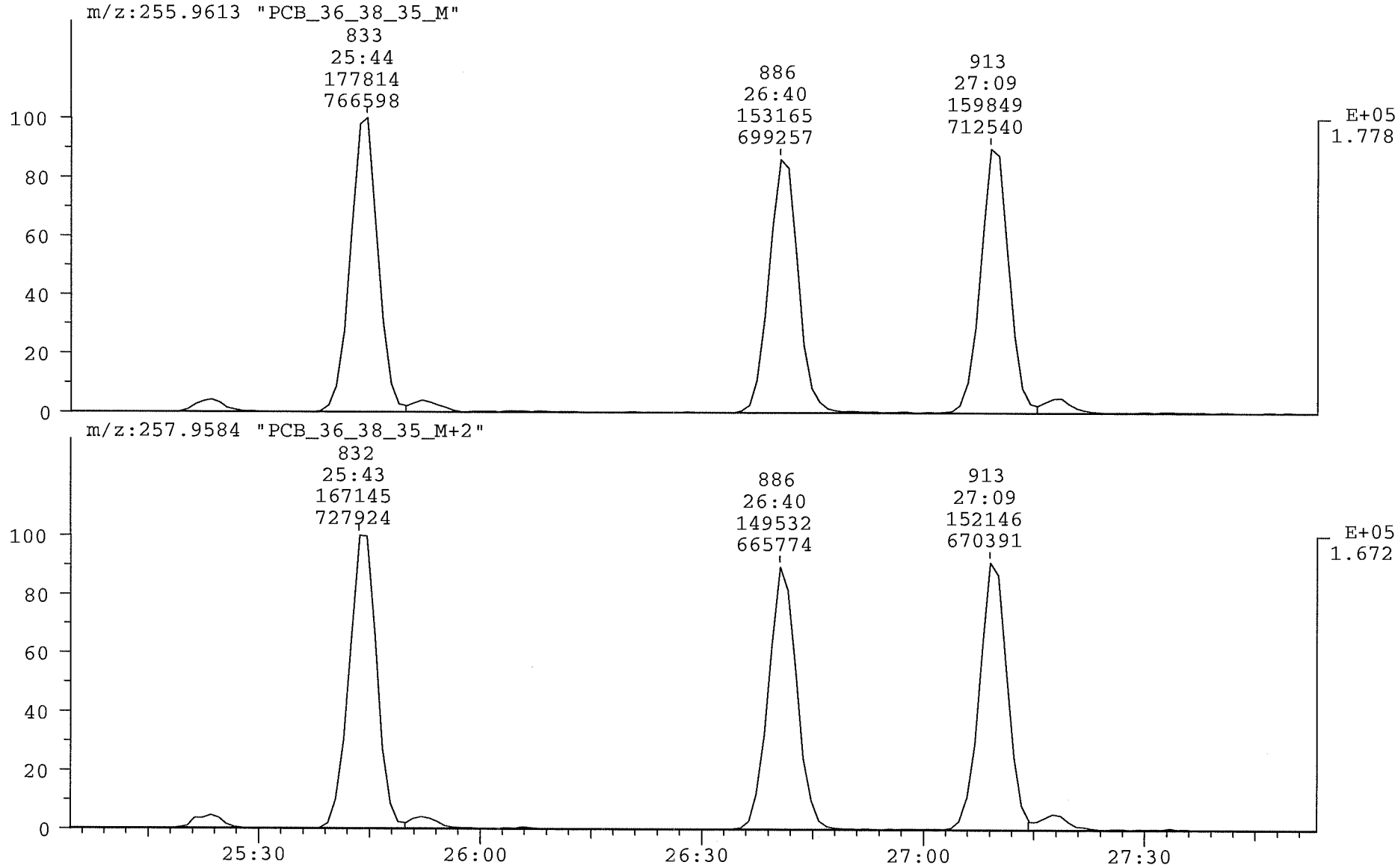
CHRO: a0806m1r1 10-Jun-08 Elapse: 23:02.9 680
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 600 > 760 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2144

2143

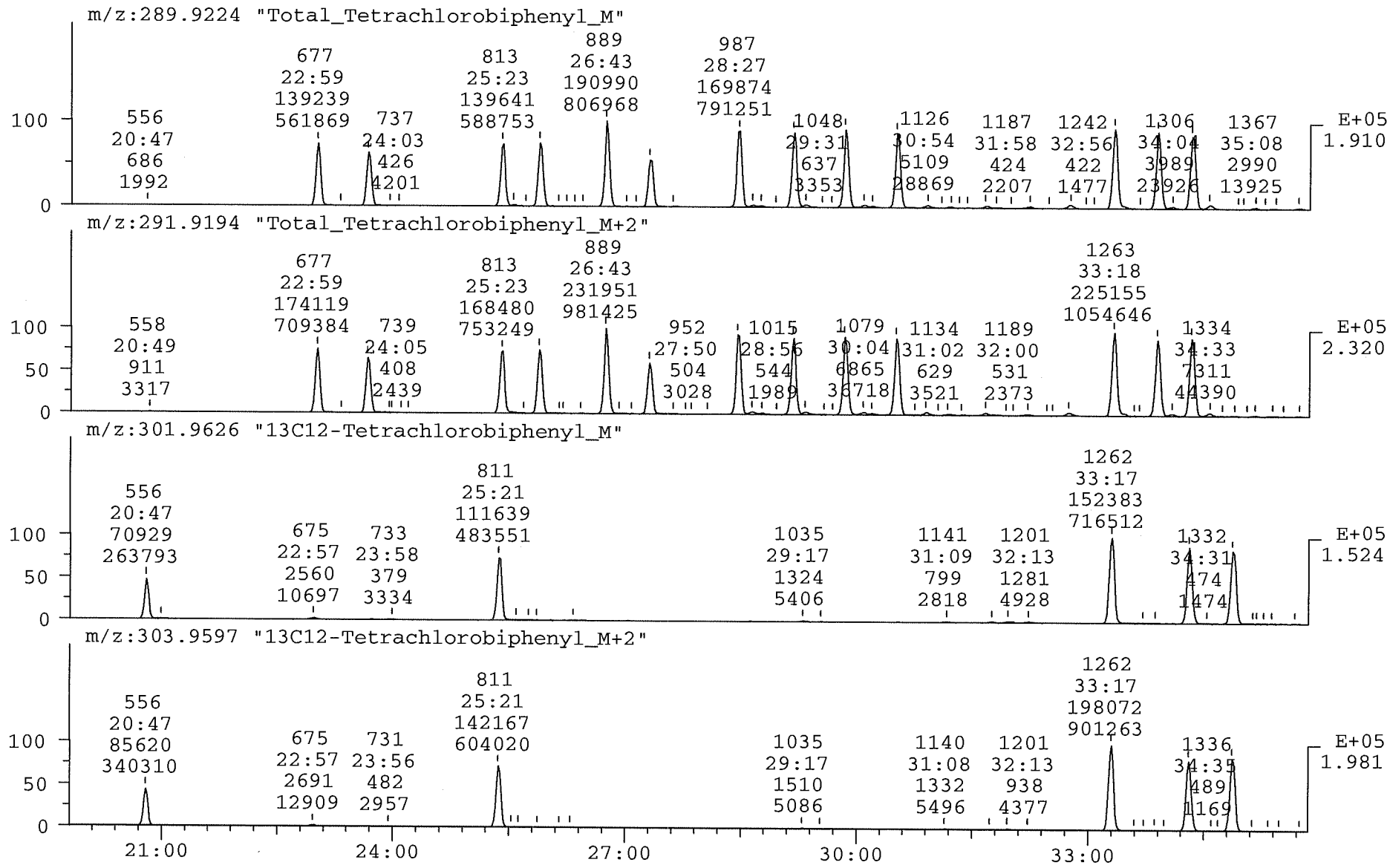
CHRO: a0806m1r1 10-Jun-08 Elapse: 26:28.8 875
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 795 > 955 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2145

2144

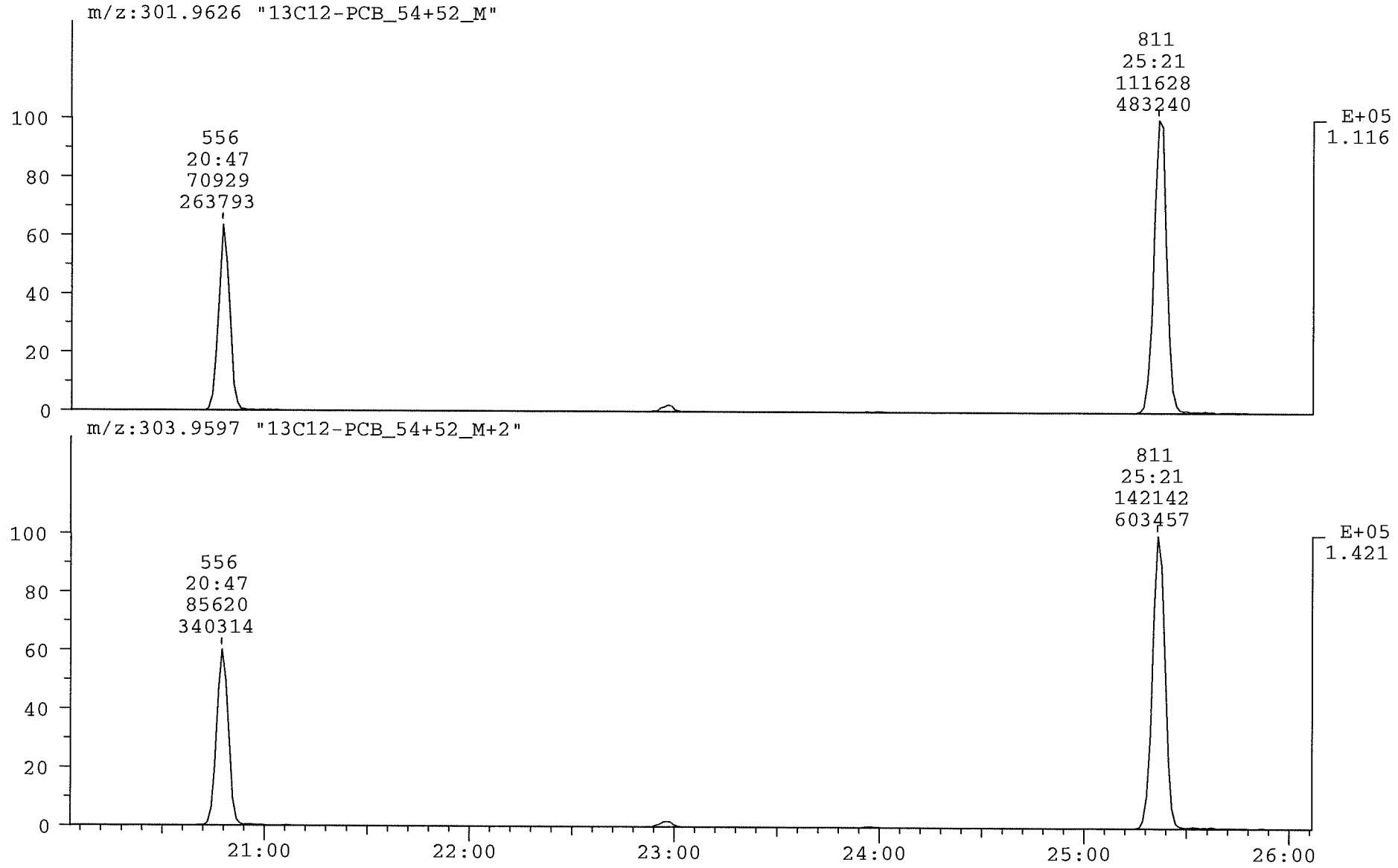
CHRO: a0806m1r1 10-Jun-08 Elapse: 27:49.1 951
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 500 > 1407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2146

2145

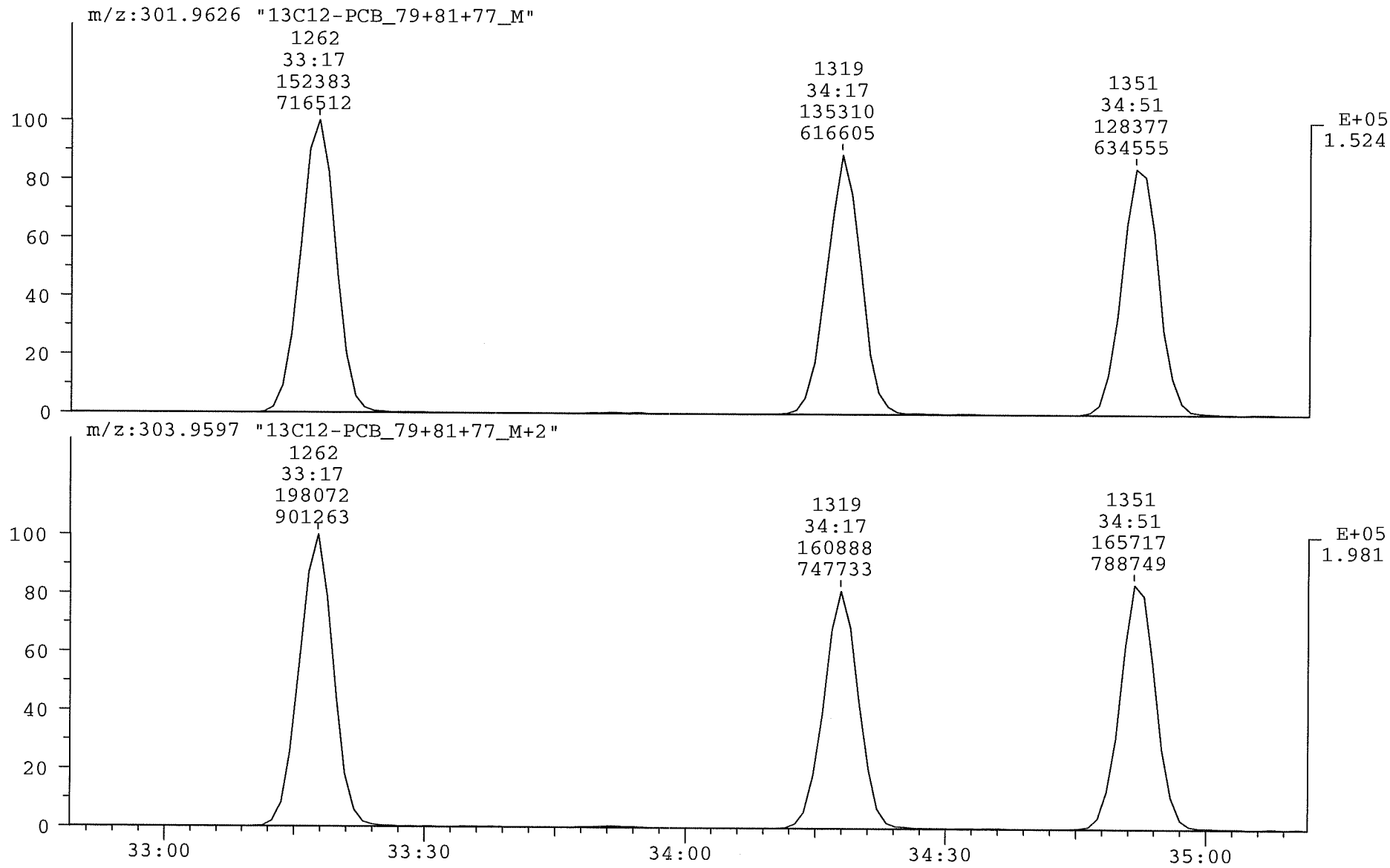
CHRO: a0806m1r1 10-Jun-08 Elapse: 23:07.1 684
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2147

2146

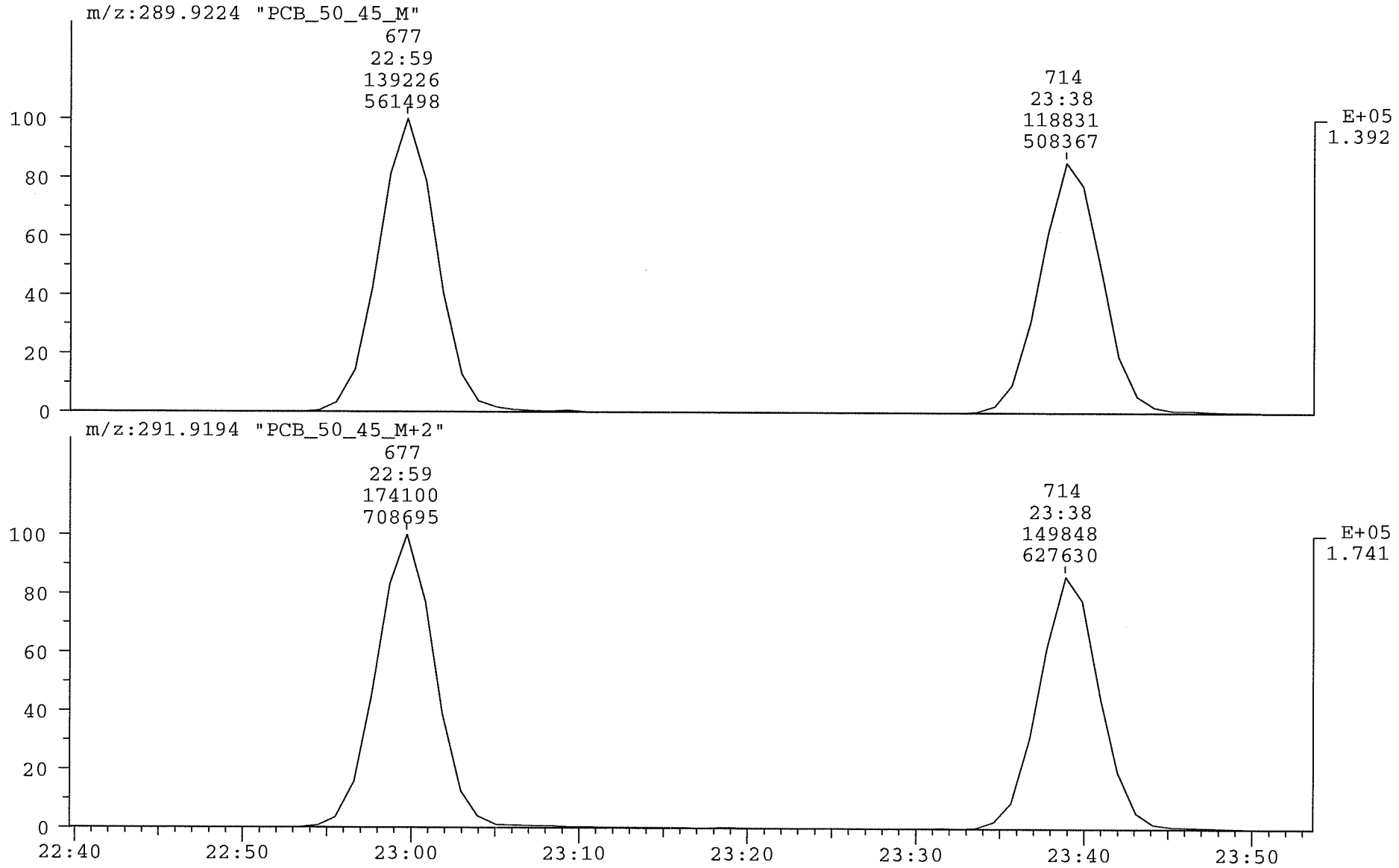
CHRO: a0806m1r1 10-Jun-08 Elapse: 34:03 1305
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1235 > 1370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2148

2147

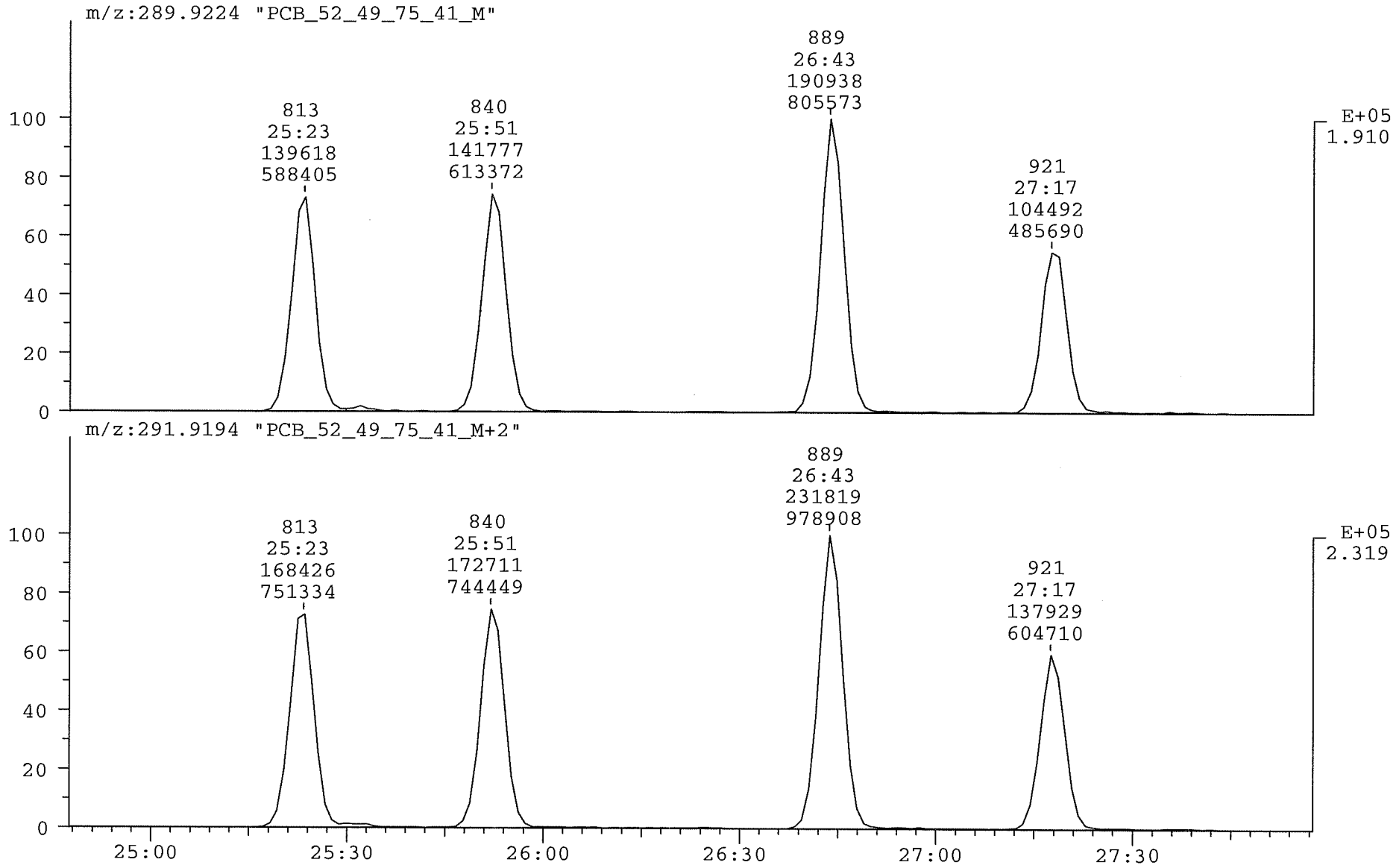
CHRO: a0806m1r1 10-Jun-08 Elapse: 23:21.9 698
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 658 > 728 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2149

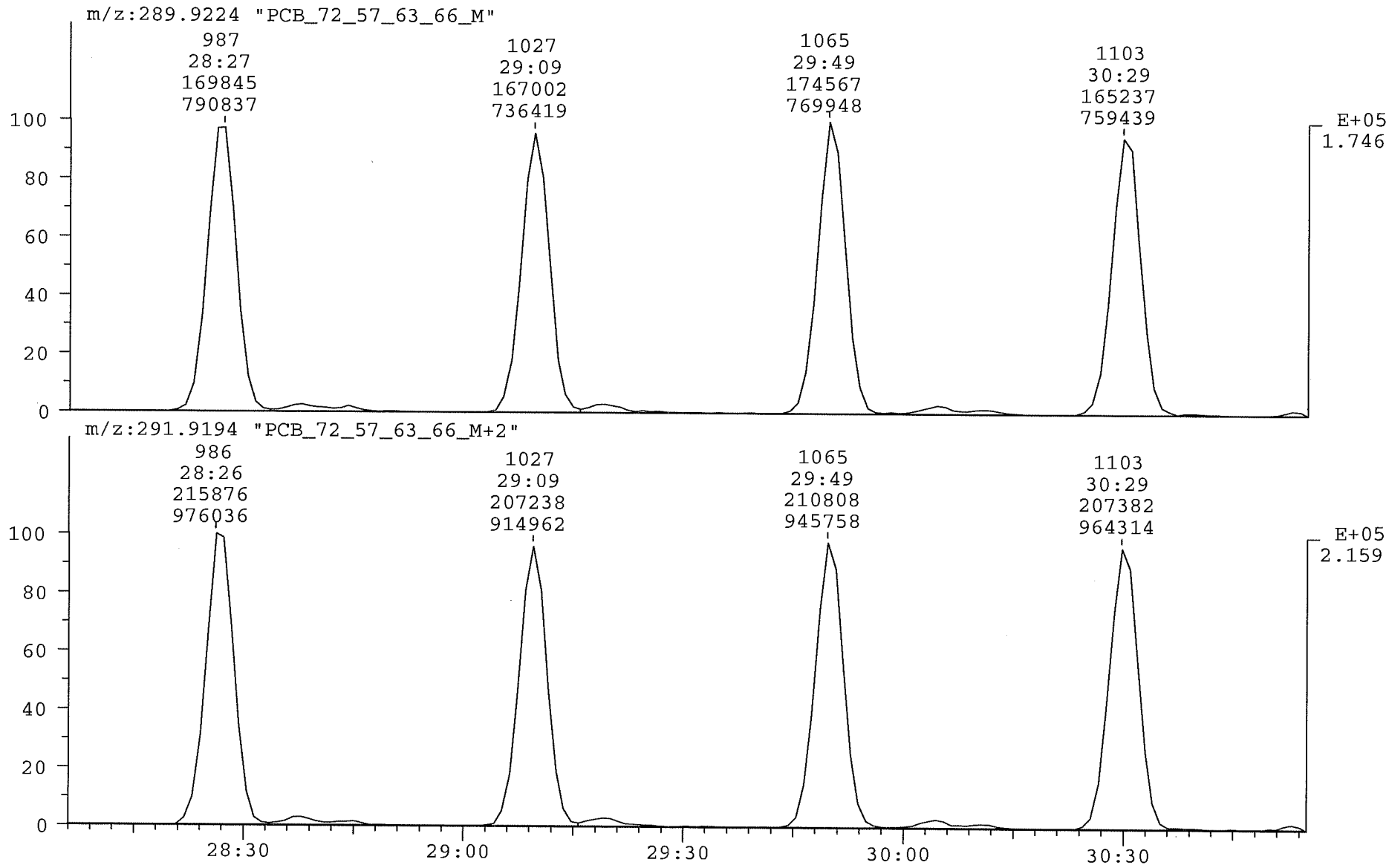
2148

CHRO: a0806m1r1 10-Jun-08 Elapse: 26:22.5 869
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 779 > 959 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2150

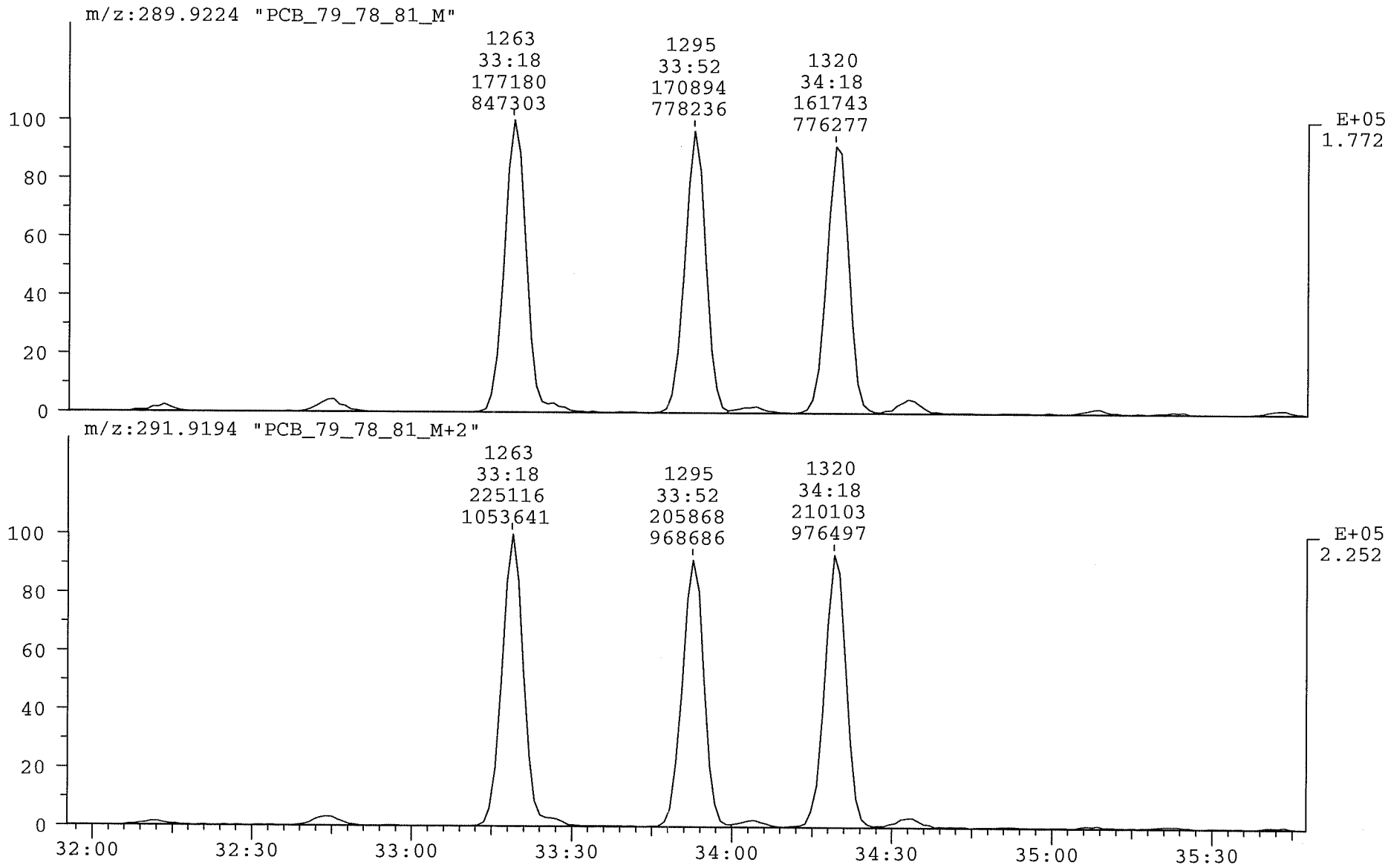
CHRO: a0806m1r1 10-Jun-08 Elapse: 29:30 1047
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 967 > 1127 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2151

2150

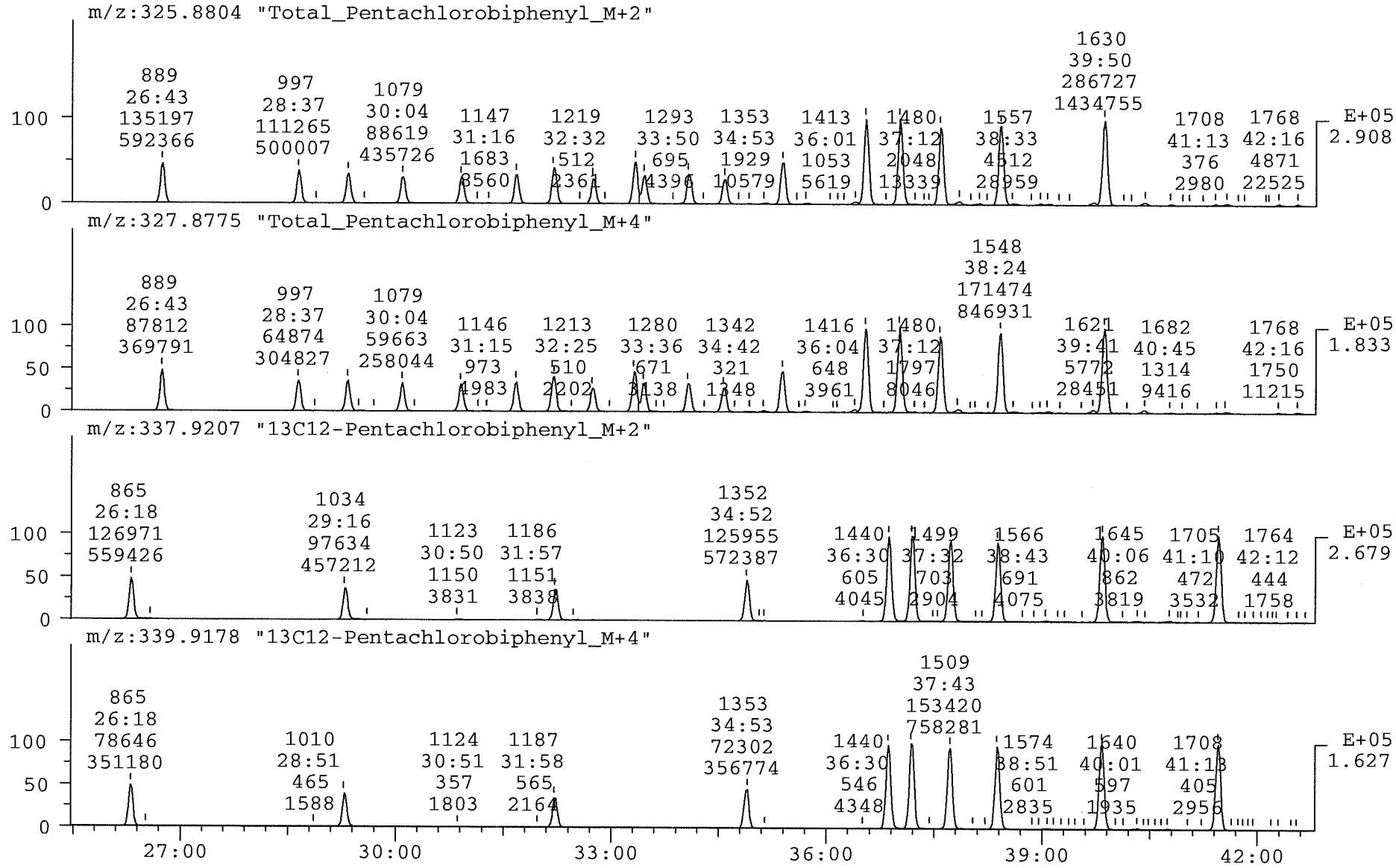
CHRO: a0806m1r1 10-Jun-08 Elapse: 33:51 1294
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1184 > 1404 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2152

2151

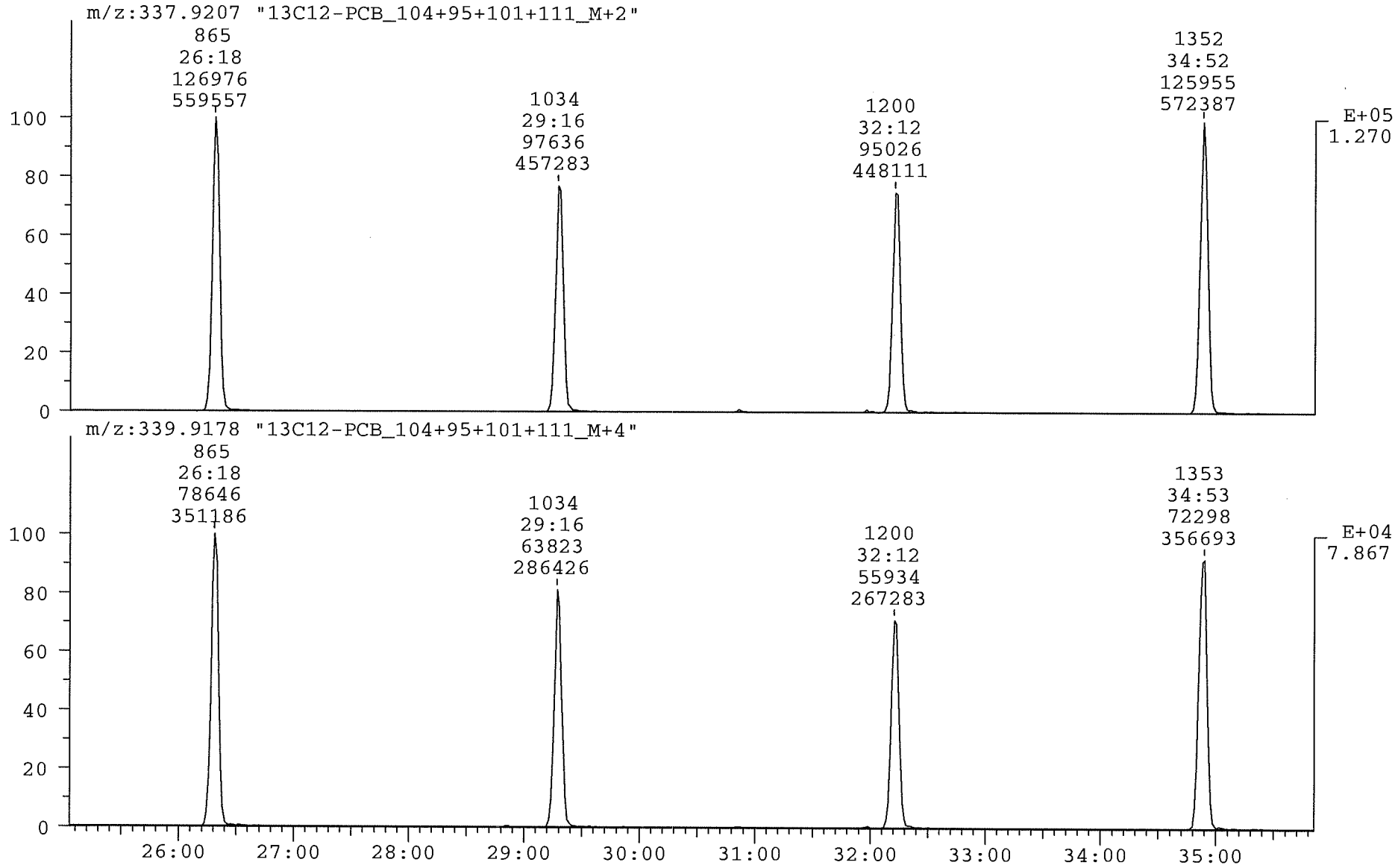
CHRO: a0806m1r1 10-Jun-08 Elapse: 34:08 1310
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 817 > 1798 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2153

2152

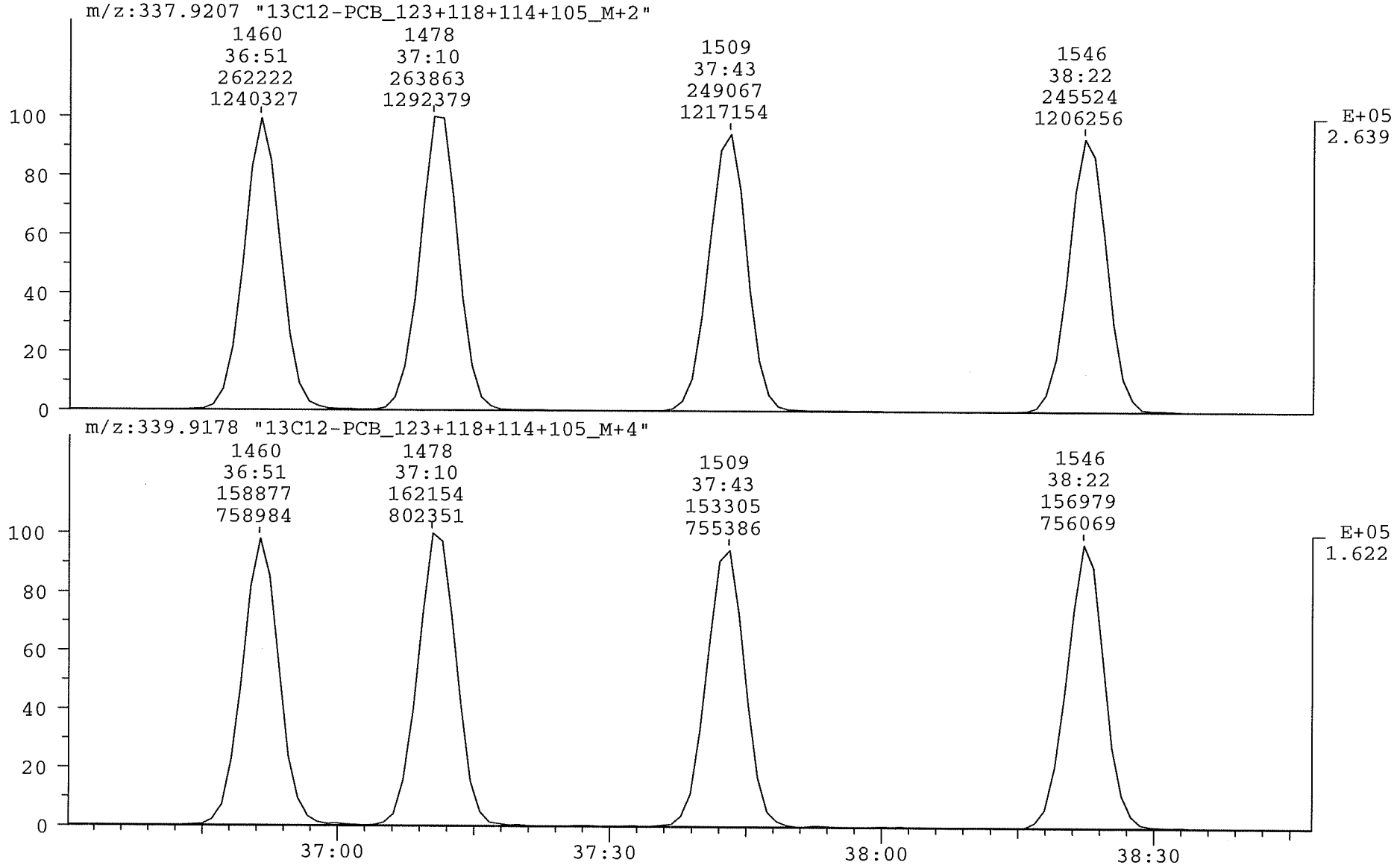
CHRO: a0806m1r1 10-Jun-08 Elapse: 30:26 1100
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 794 > 1407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2154

2153

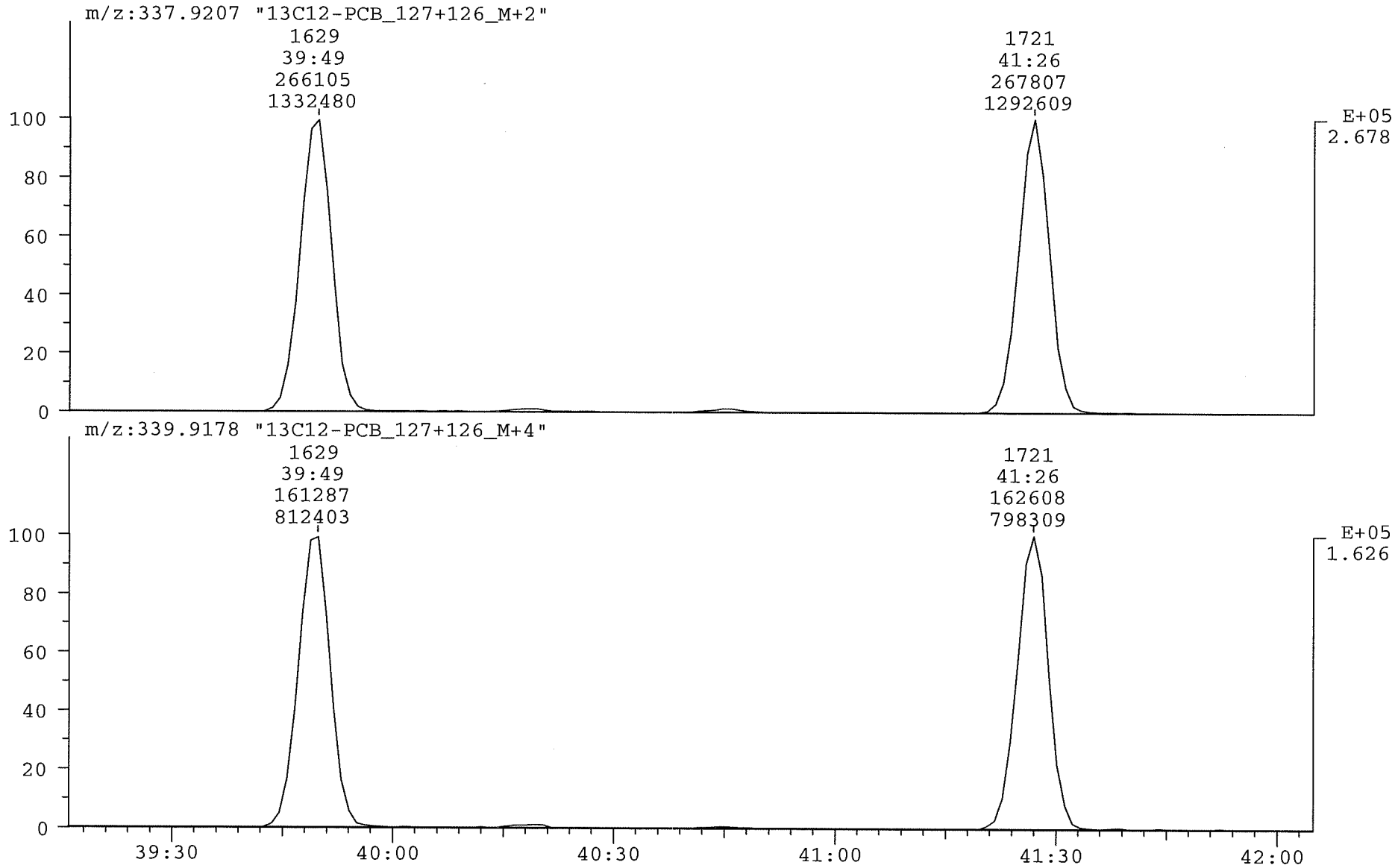
CHRO: a0806m1r1 10-Jun-08 Elapse: 37:38 1505
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1440 > 1570 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2155

2154

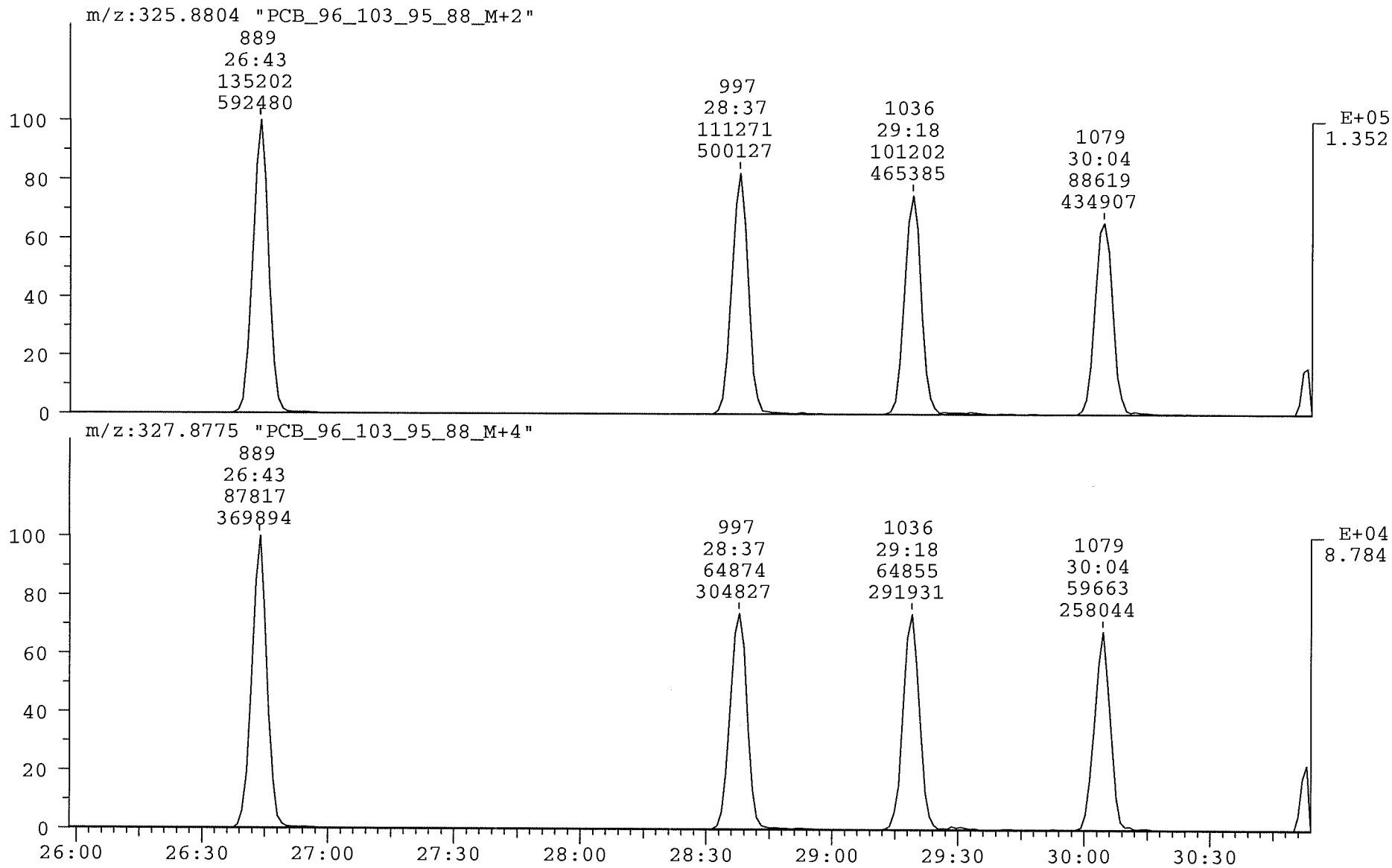
CHRO: a0806m1r1 10-Jun-08 Elapse: 40:40 1677
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1597 > 1757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2156

2155

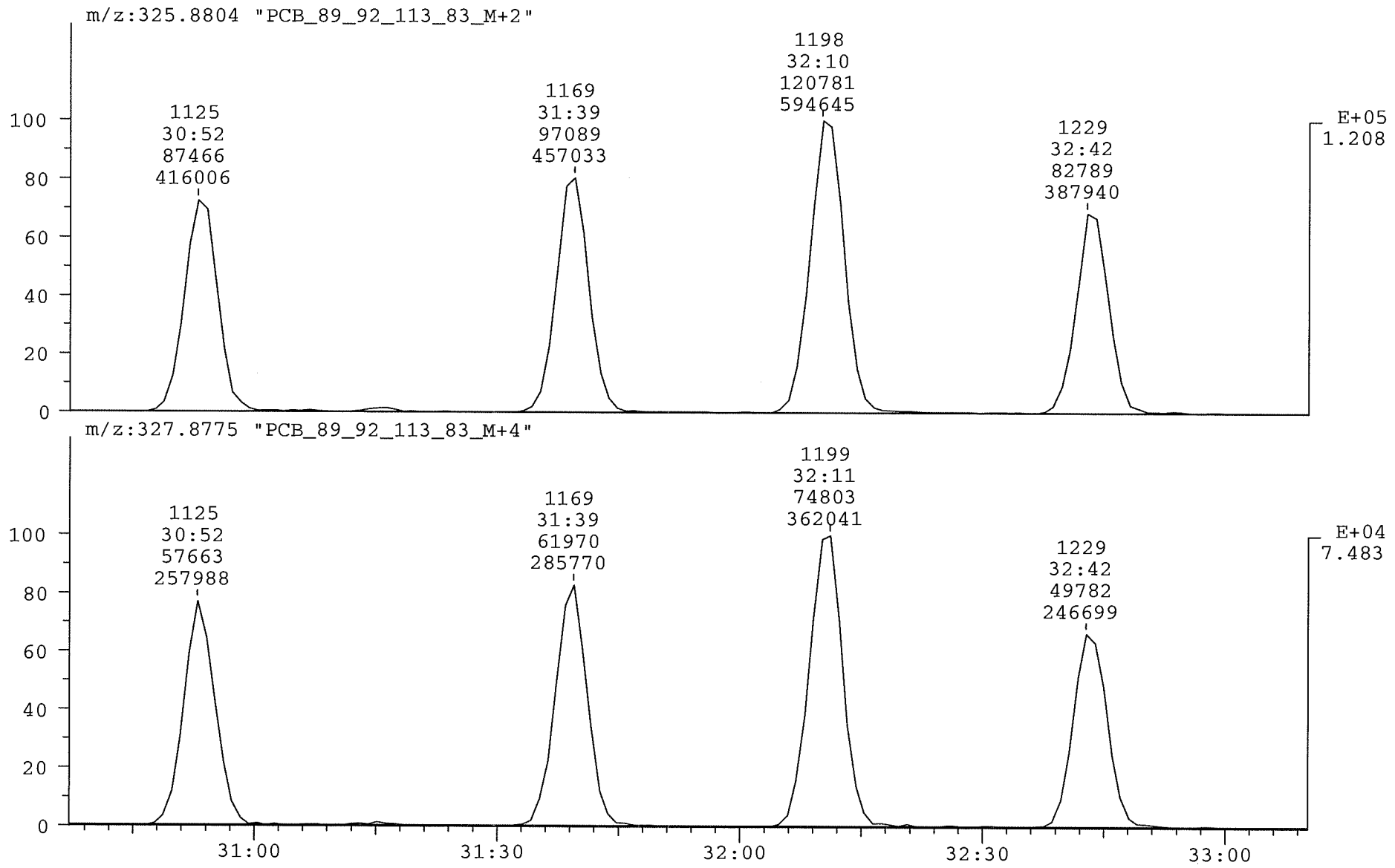
CHRO: a0806m1r1 10-Jun-08 Elapse: 28:26.1 986
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 846 > 1126 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2157

2156

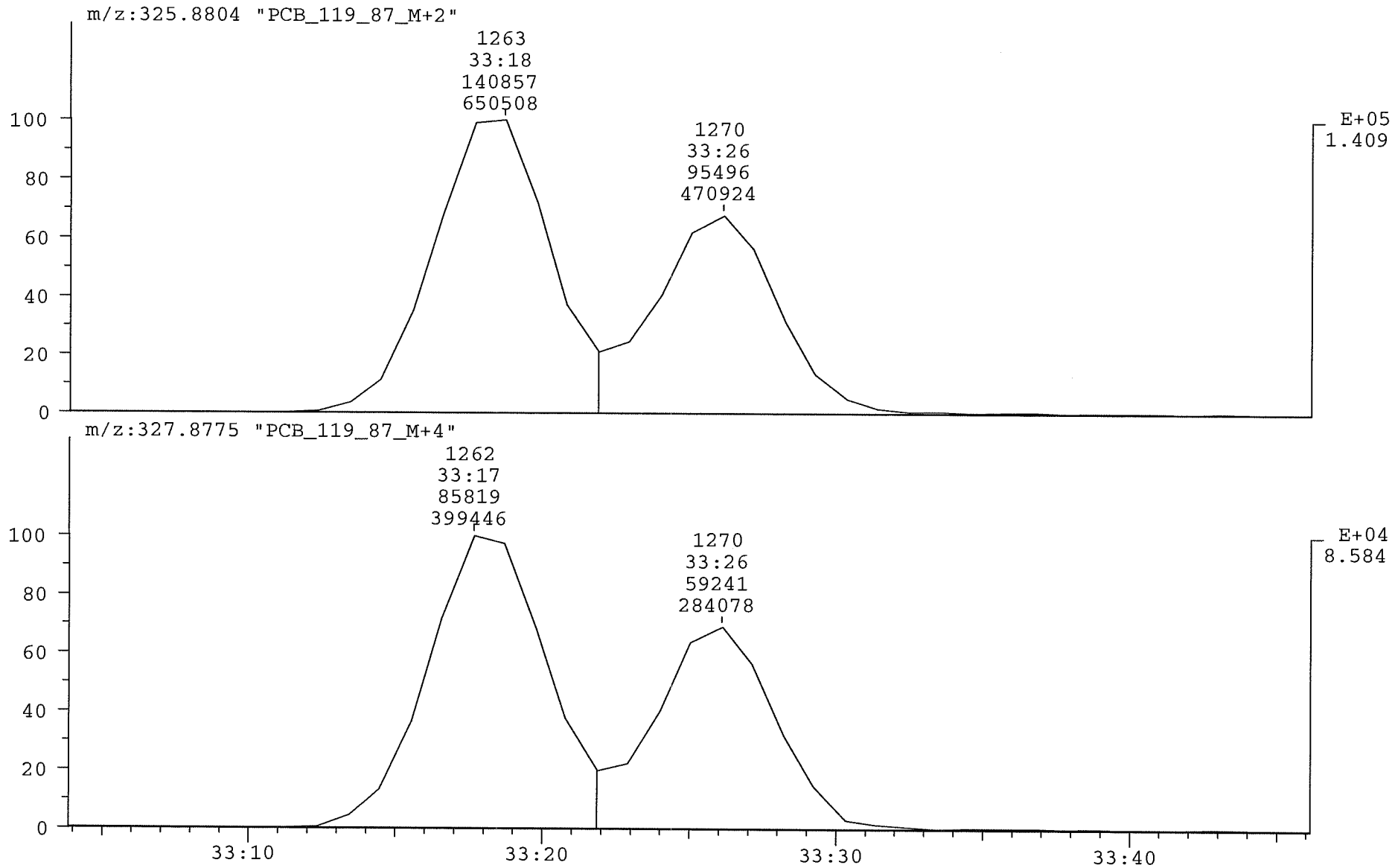
CHRO: a0806m1r1 10-Jun-08 Elapse: 31:51 1180
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1110 > 1255 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2158

2157

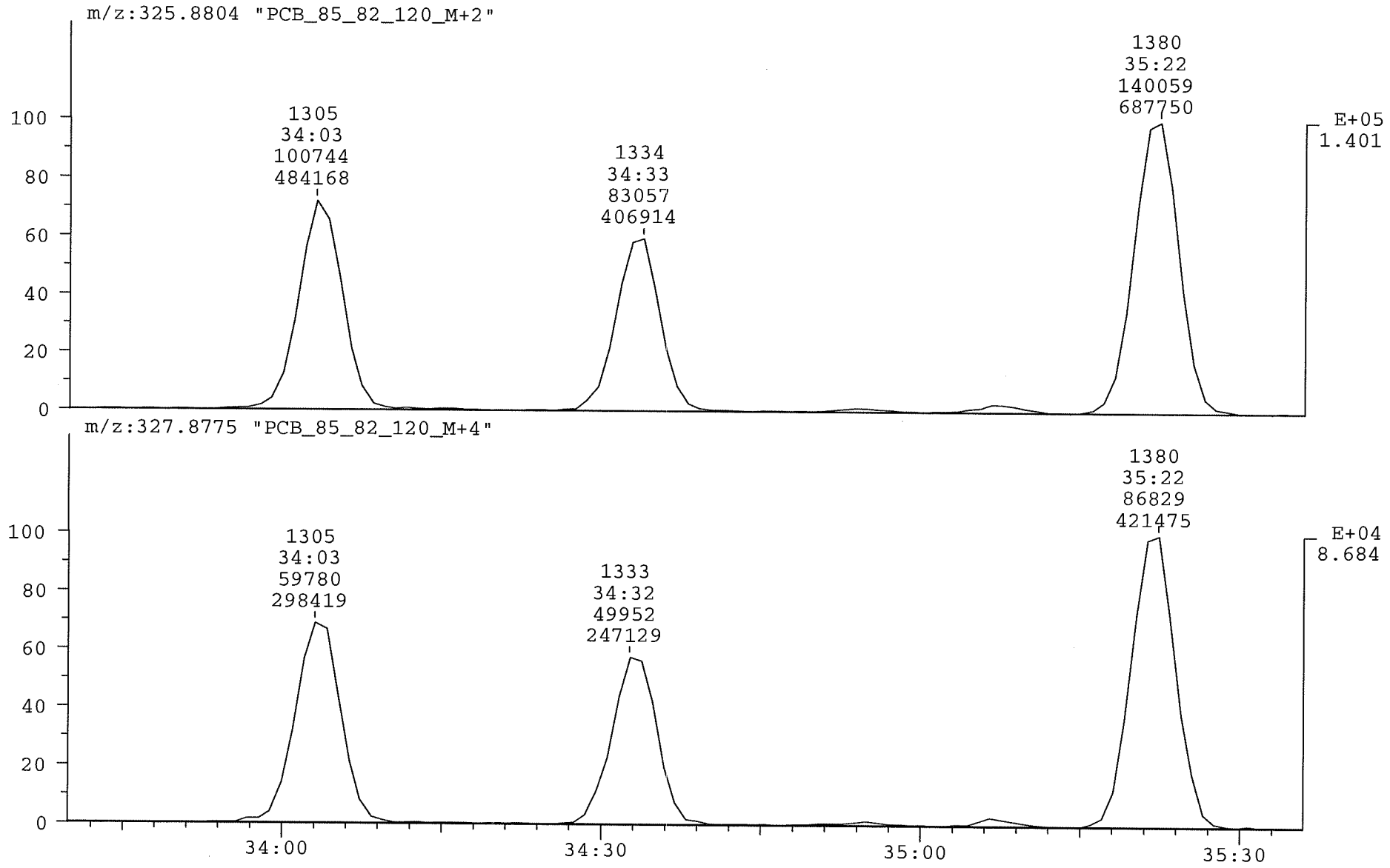
CHRO: a0806m1r1 10-Jun-08 Elapse: 33:25 1269
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1249 > 1289 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2159

2158

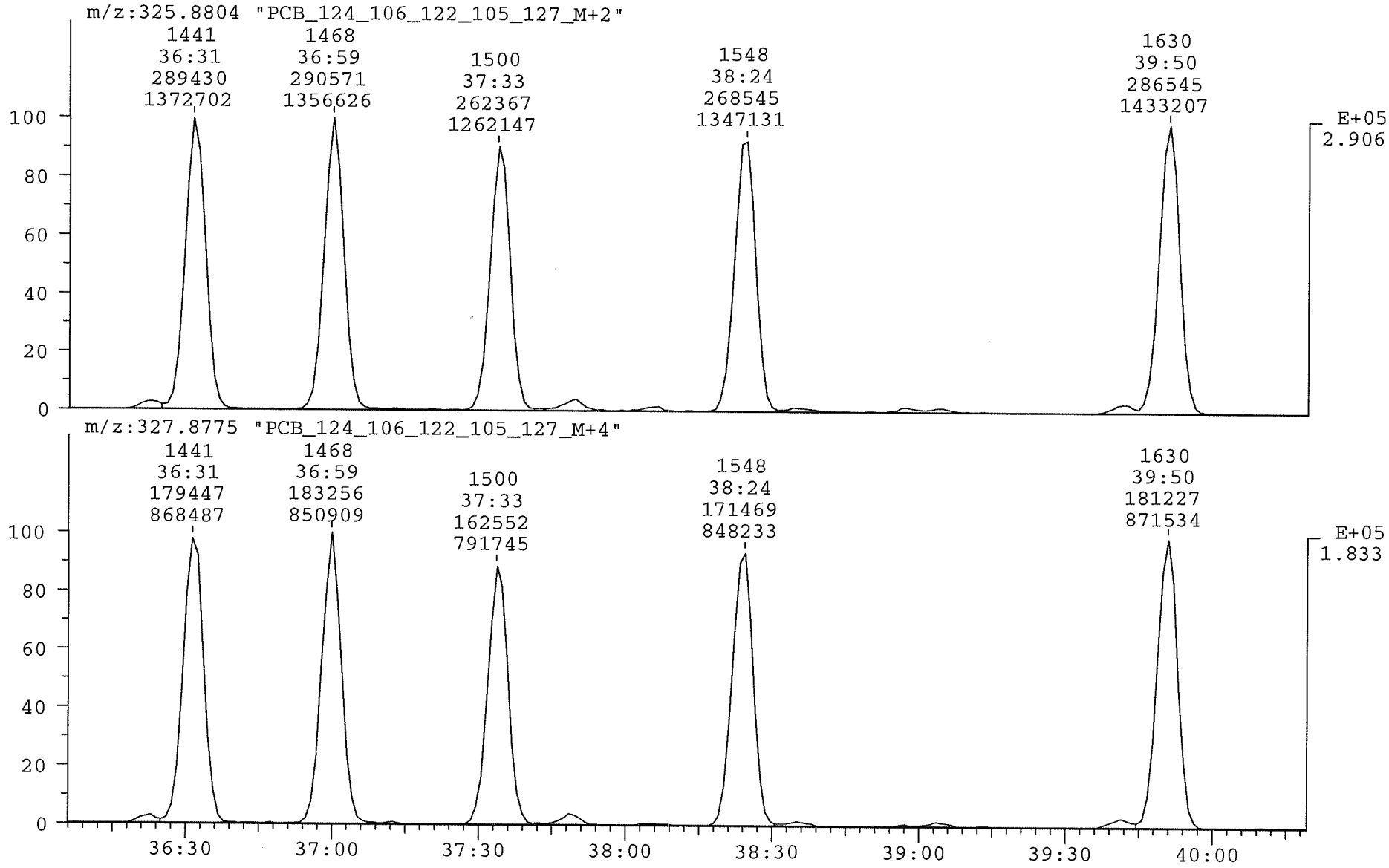
CHRO: a0806m1r1 10-Jun-08 Elapse: 34:27 1328
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1283 > 1393 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2160

2159

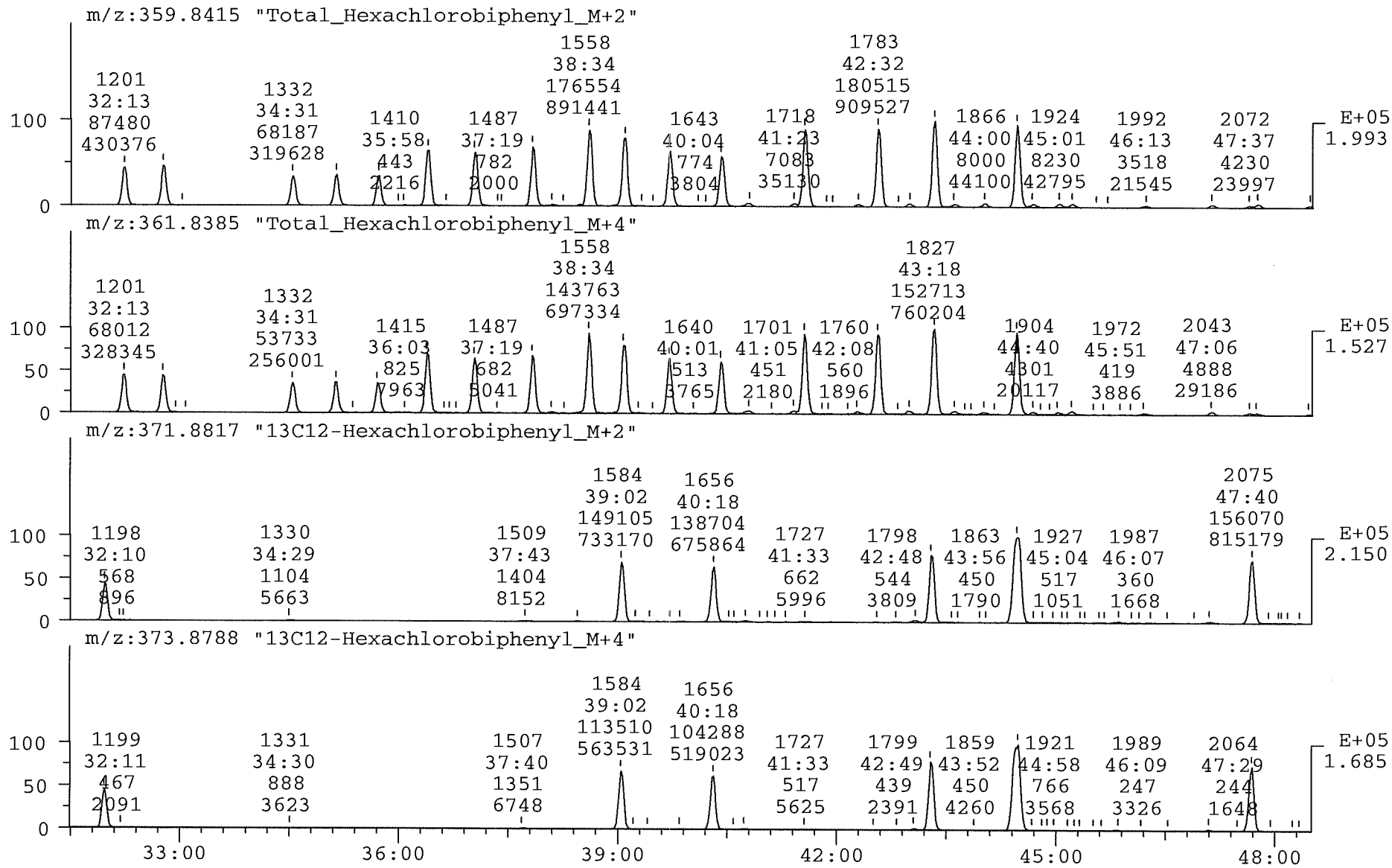
CHRO: a0806m1r1 10-Jun-08 Elapse: 38:17 1542
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1417 > 1657 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2161

2160

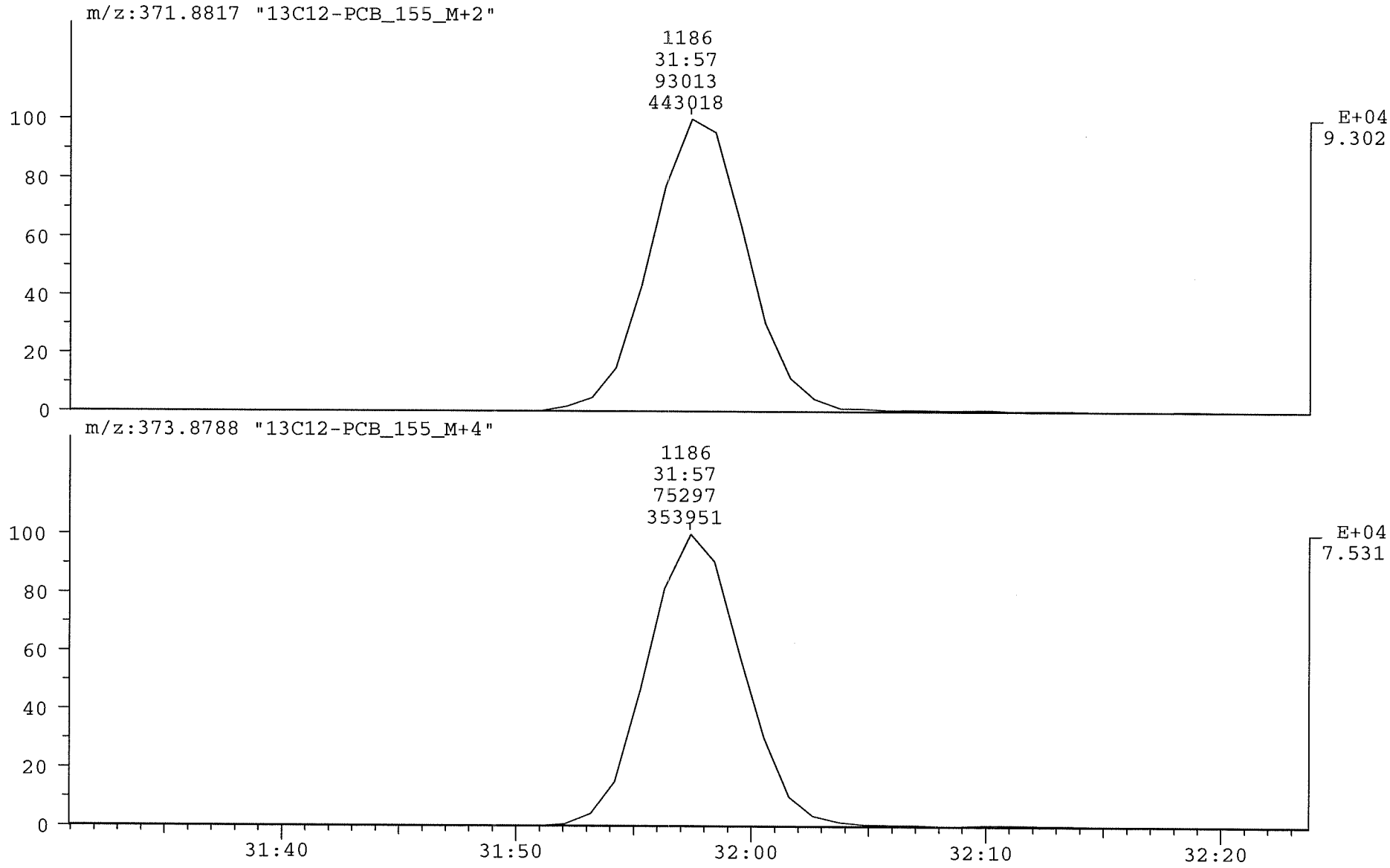
CHRO: a0806m1r1 10-Jun-08 Elapse: 39:59 1638
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1159 > 2122 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2162

2161

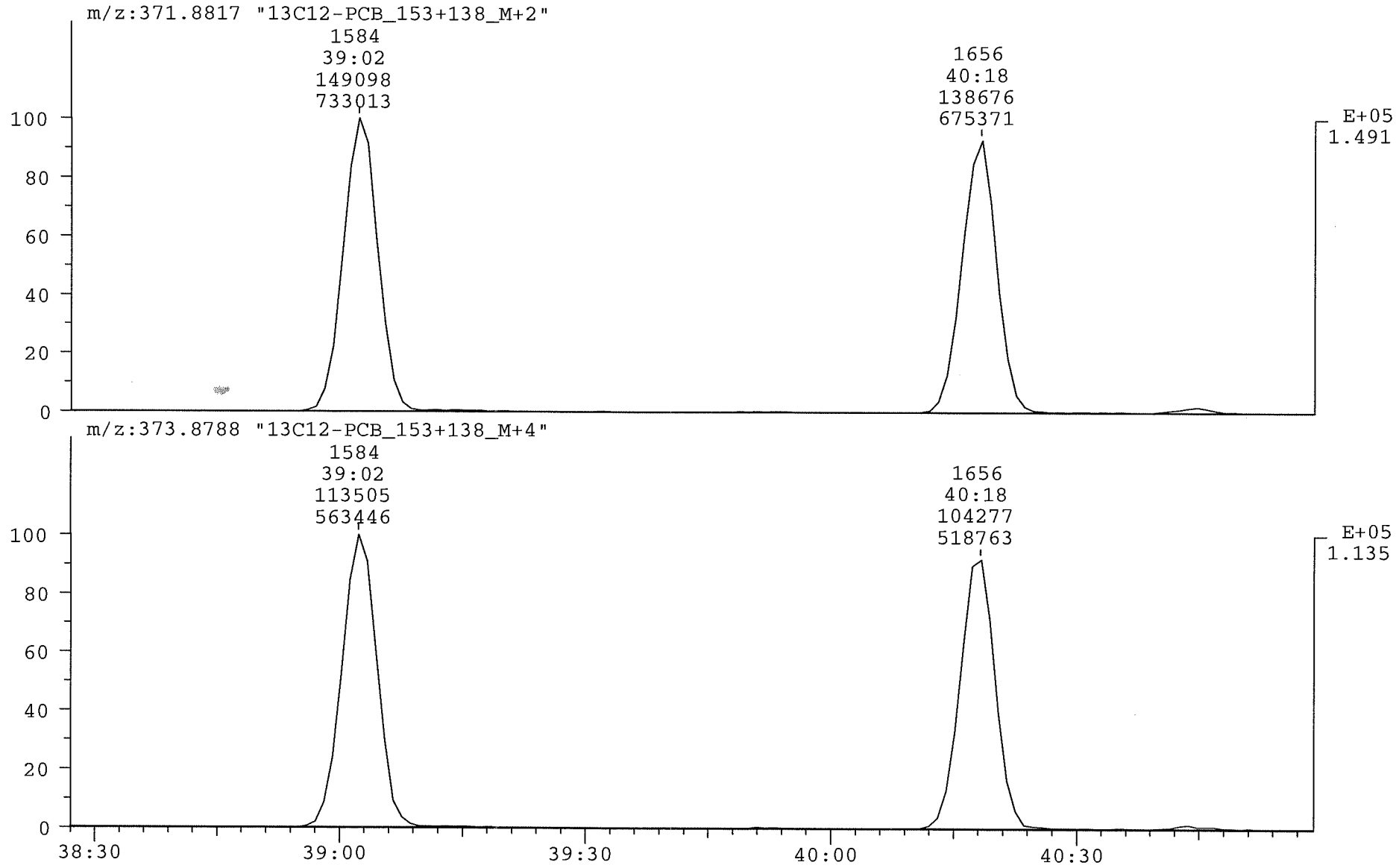
CHRO: a0806m1r1 10-Jun-08 Elapse: 31:57 1186
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1161 > 1211 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2163

2162

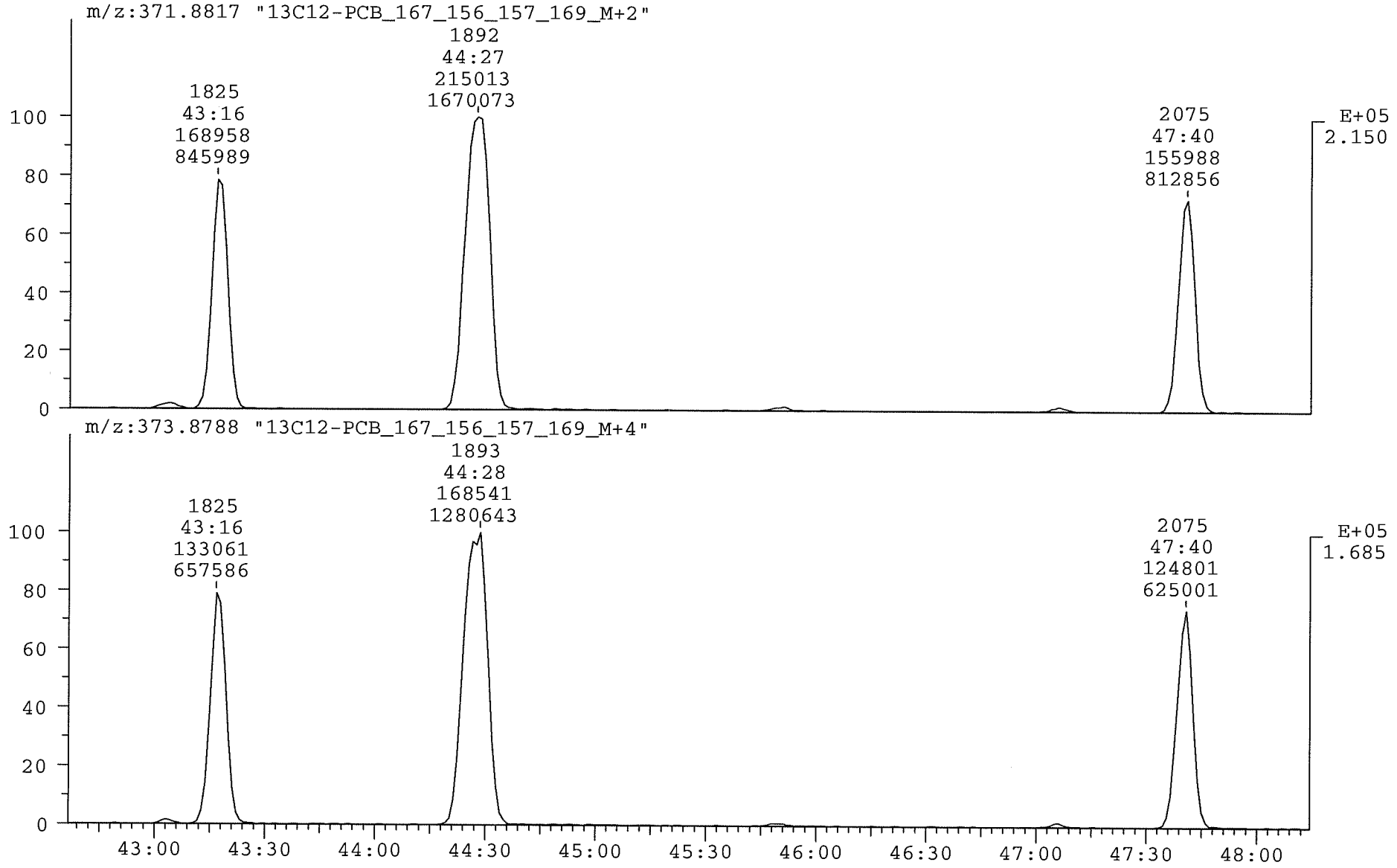
CHRO: a0806m1r1 10-Jun-08 Elapse: 39:43 1623
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1551 > 1695 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2164

2163

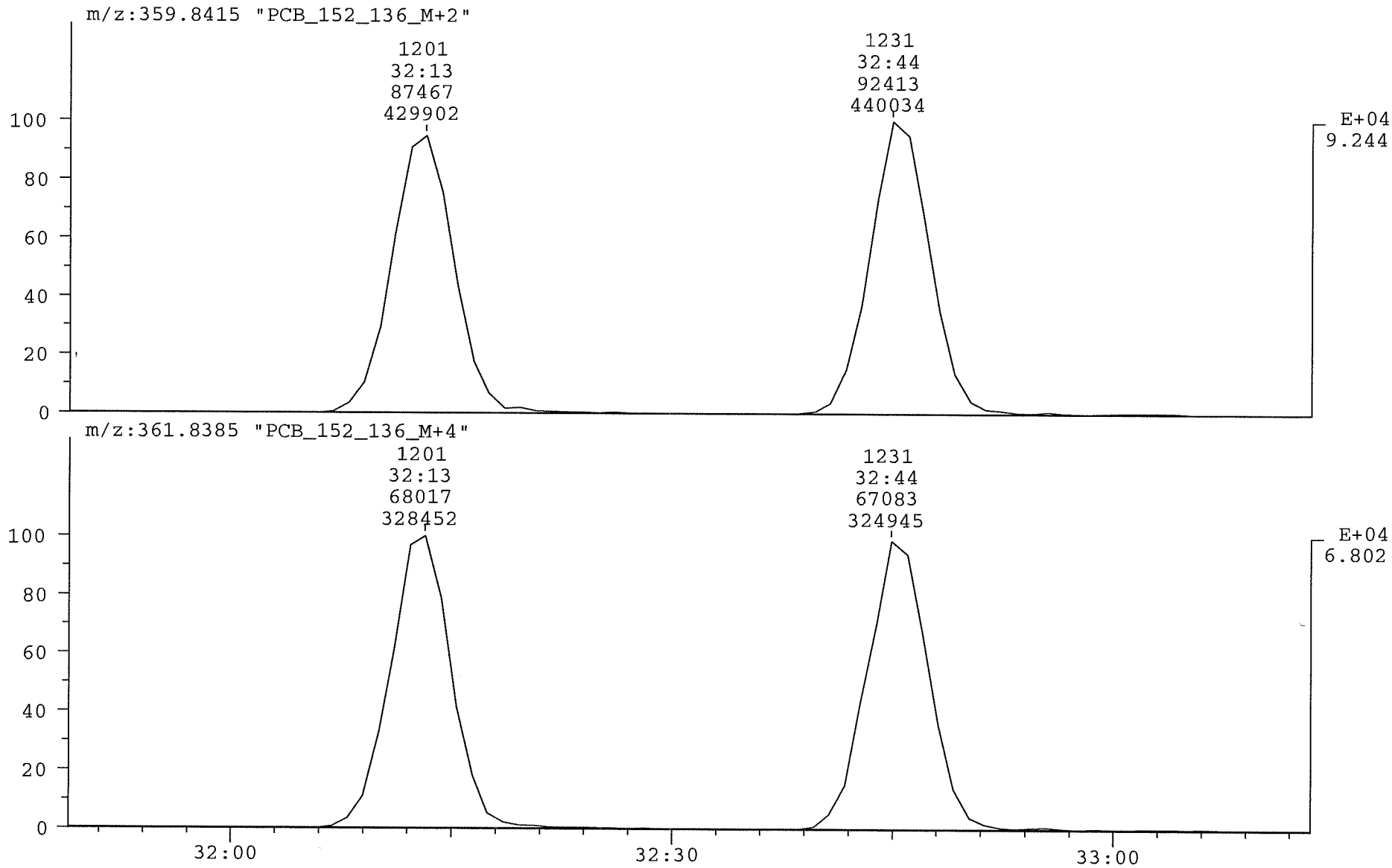
CHRO: a0806m1r1 10-Jun-08 Elapse: 45:30 1952
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1787 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2165

2164

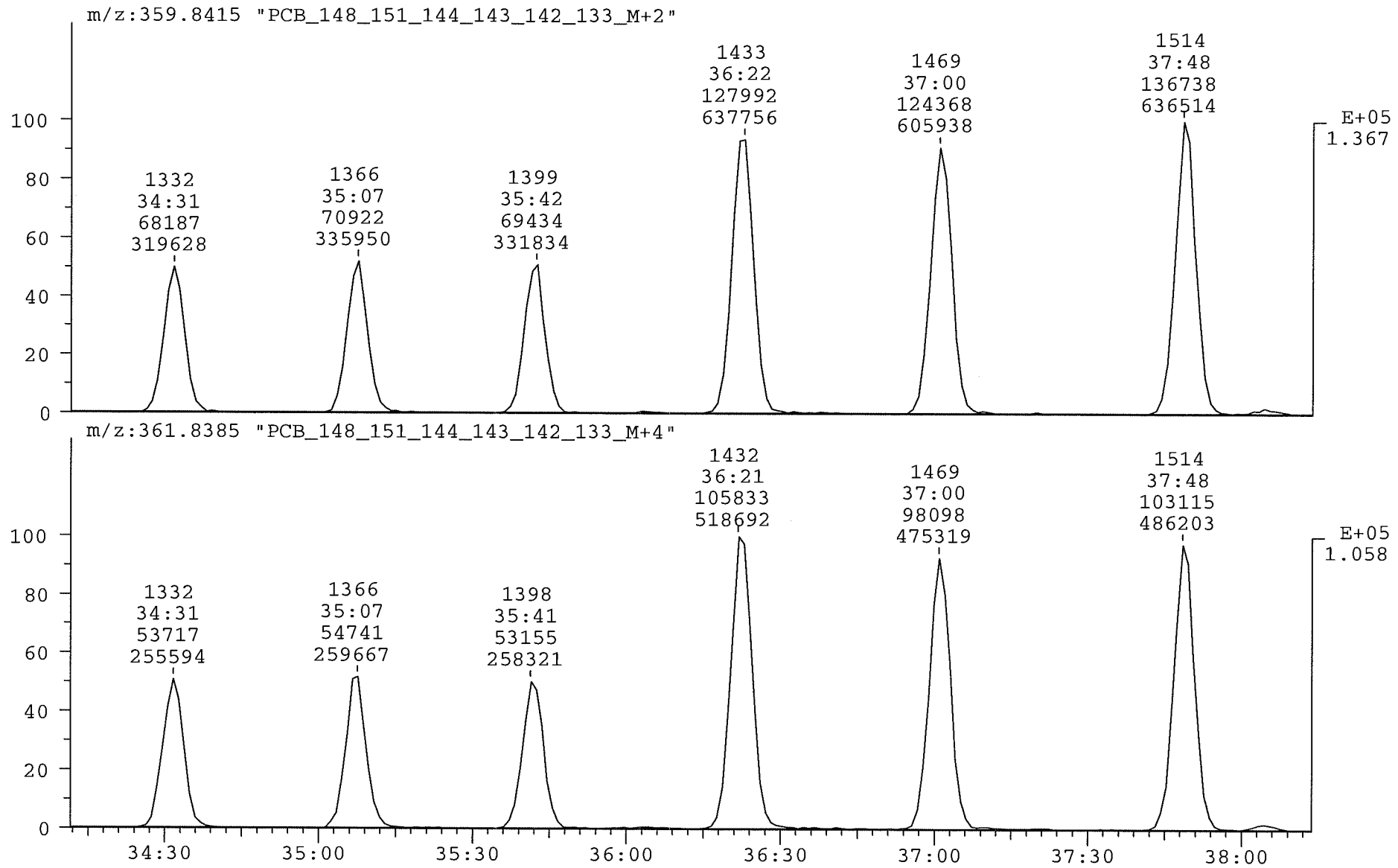
CHRO: a0806m1r1 10-Jun-08 Elapse: 32:31 1218
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1178 > 1258 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2166

2165

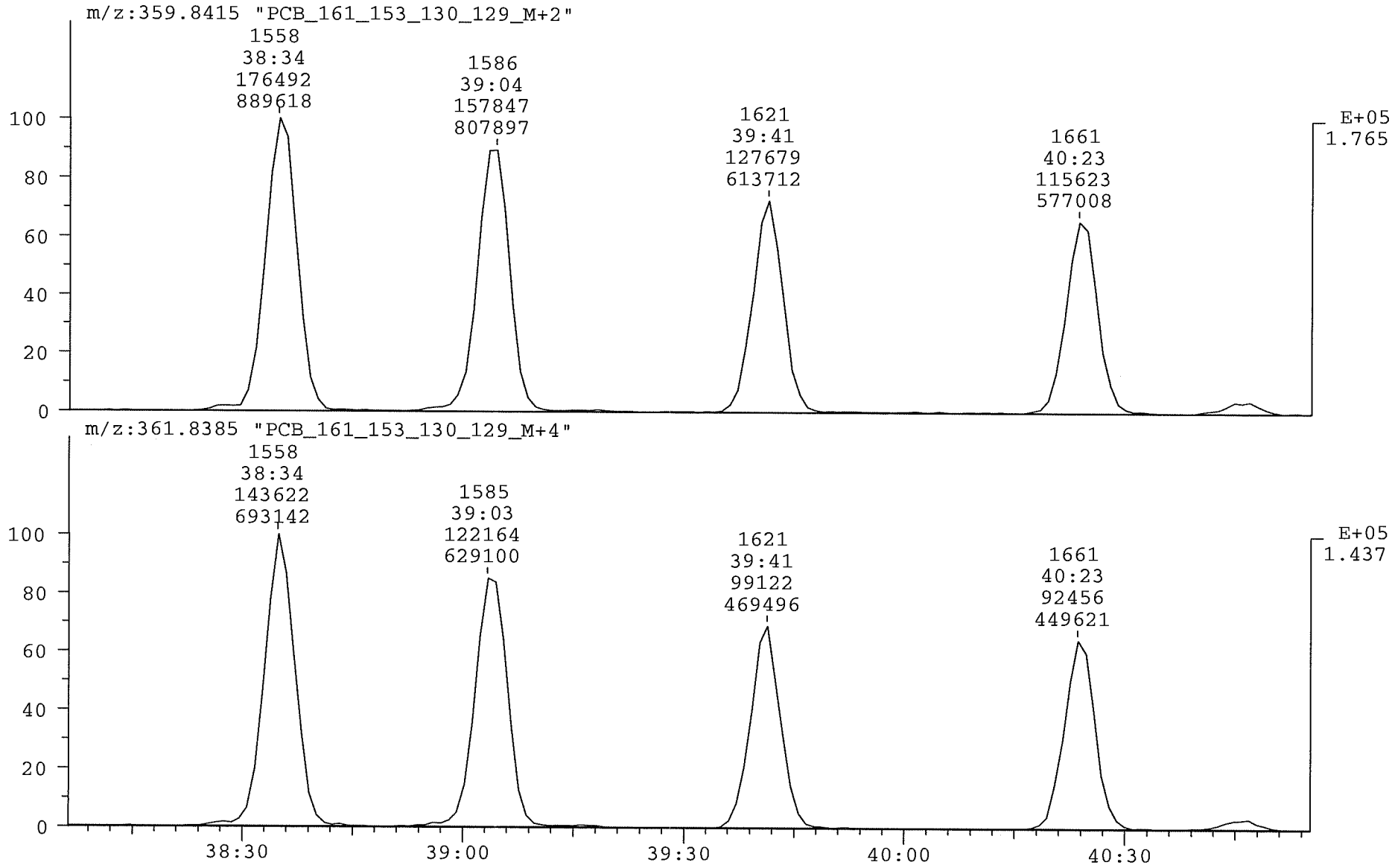
CHRO: a0806m1r1 10-Jun-08 Elapse: 36:12 1423
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1313 > 1538 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2167

2166

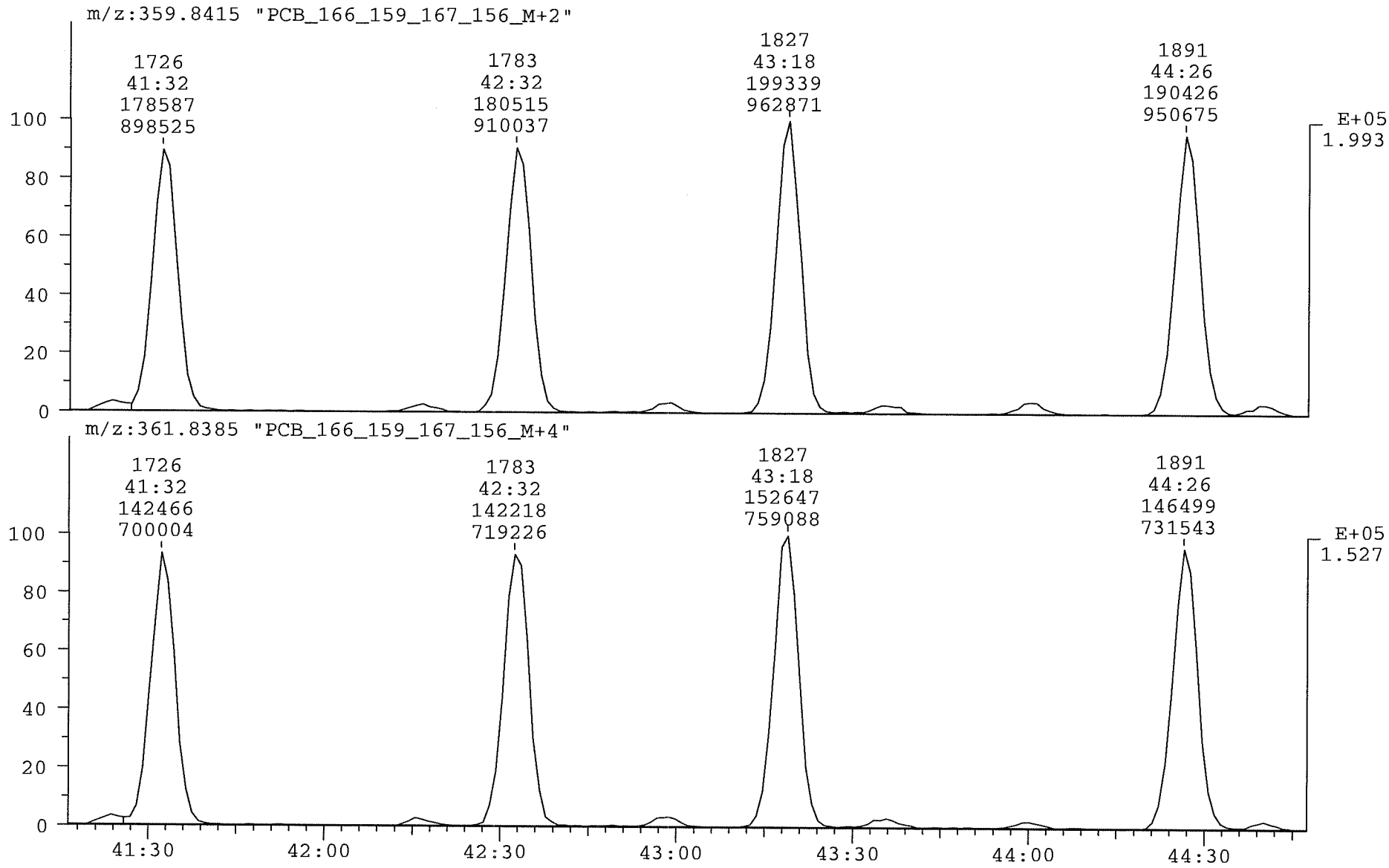
CHRO: a0806m1r1 10-Jun-08 Elapse: 39:30 1611
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1531 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2168

2167

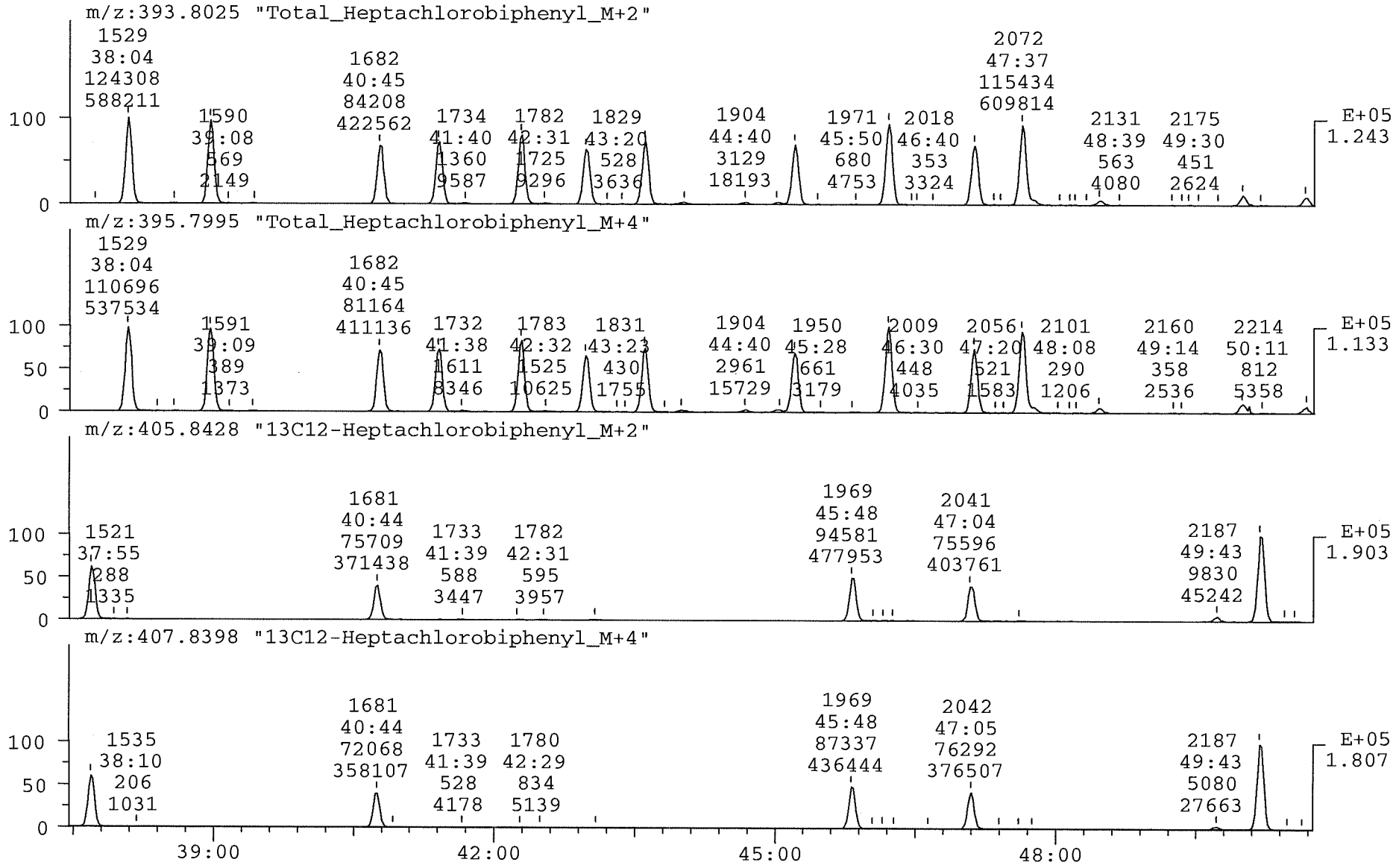
CHRO: a0806m1r1 10-Jun-08 Elapse: 43:01 1811
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1711 > 1911 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2169

2168

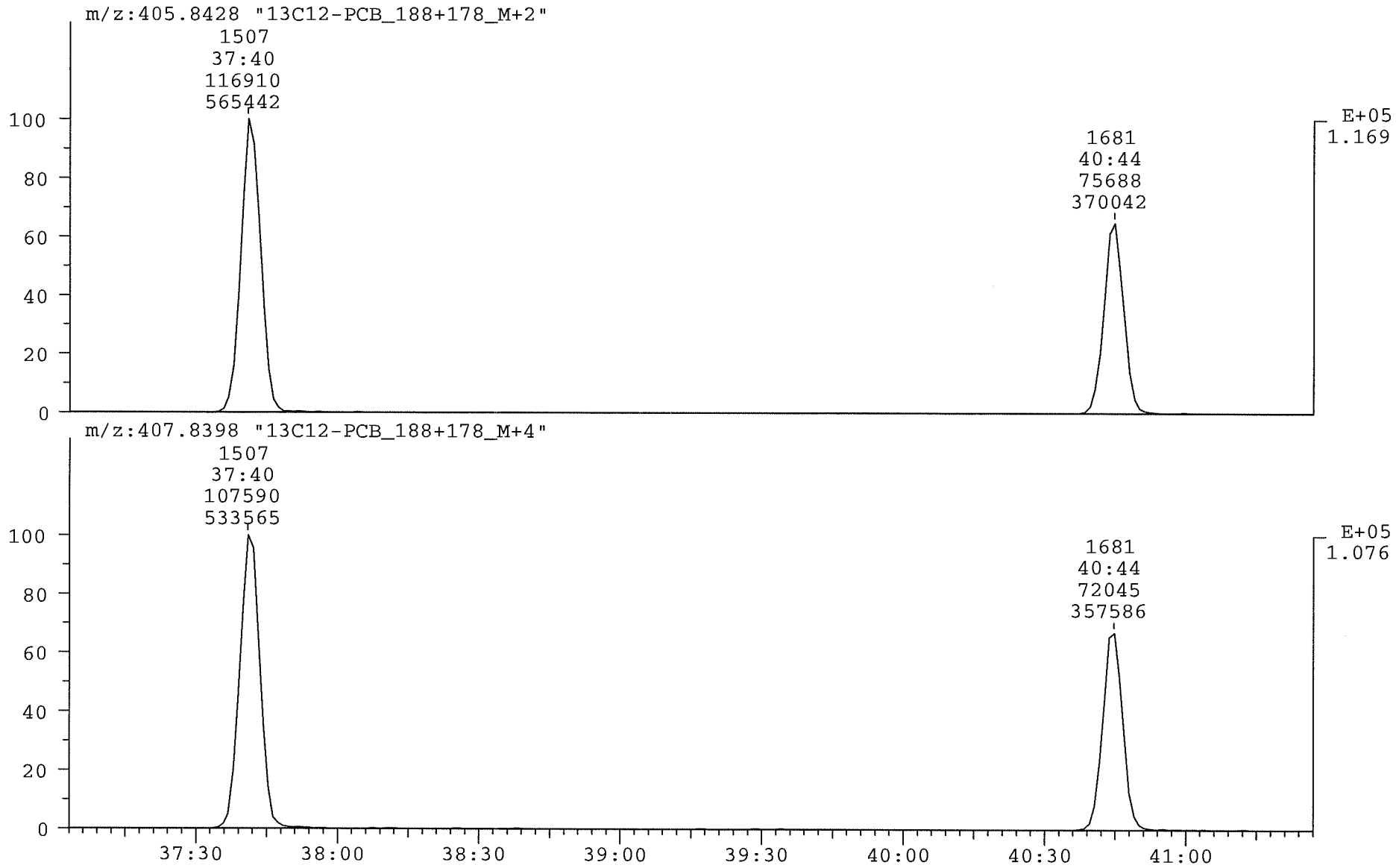
CHRO: a0806m1r1 10-Jun-08 Elapse: 44:06 1872
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1494 > 2246 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2170

2169

CHRO: a0806m1r1 10-Jun-08 Elapse: 39:14 1596
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1471 > 1721 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2171

2170

```
CHRO:  a0806m1r1                              10-Jun-08   Elapse:   48:01      2095
Samp:  Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1              Start :   14:37:42   2601
Comm:  Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :   2990:75 Mix 1
Oper:  DCG           Client:  TA Knoxville                Inlet :   GC     Vial  11
Peak:  100.00  ppm     Label wndw:   1935 > 2245          Masses:   181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3               Label :   -3, 3.0
Disp:  Height  Area
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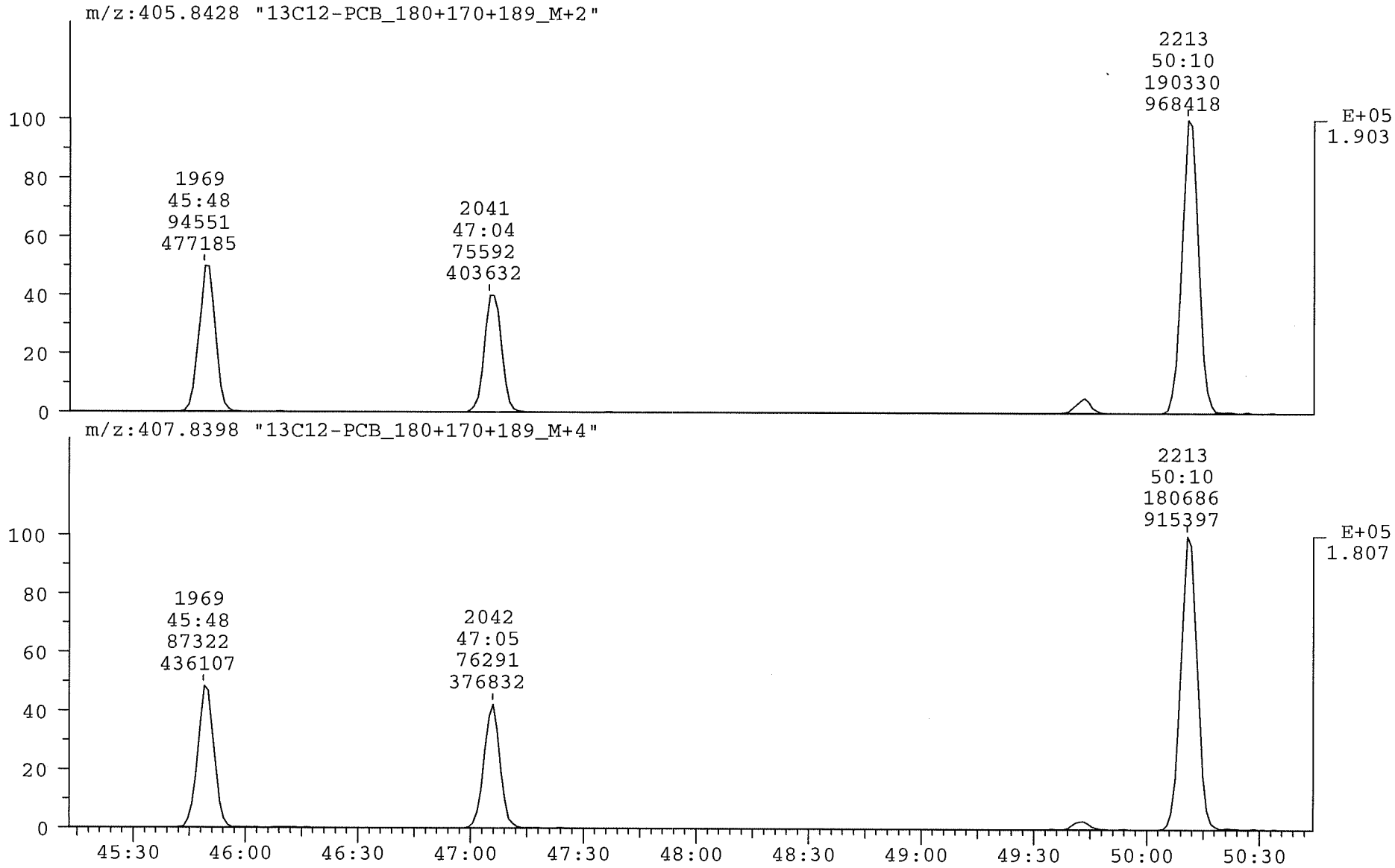
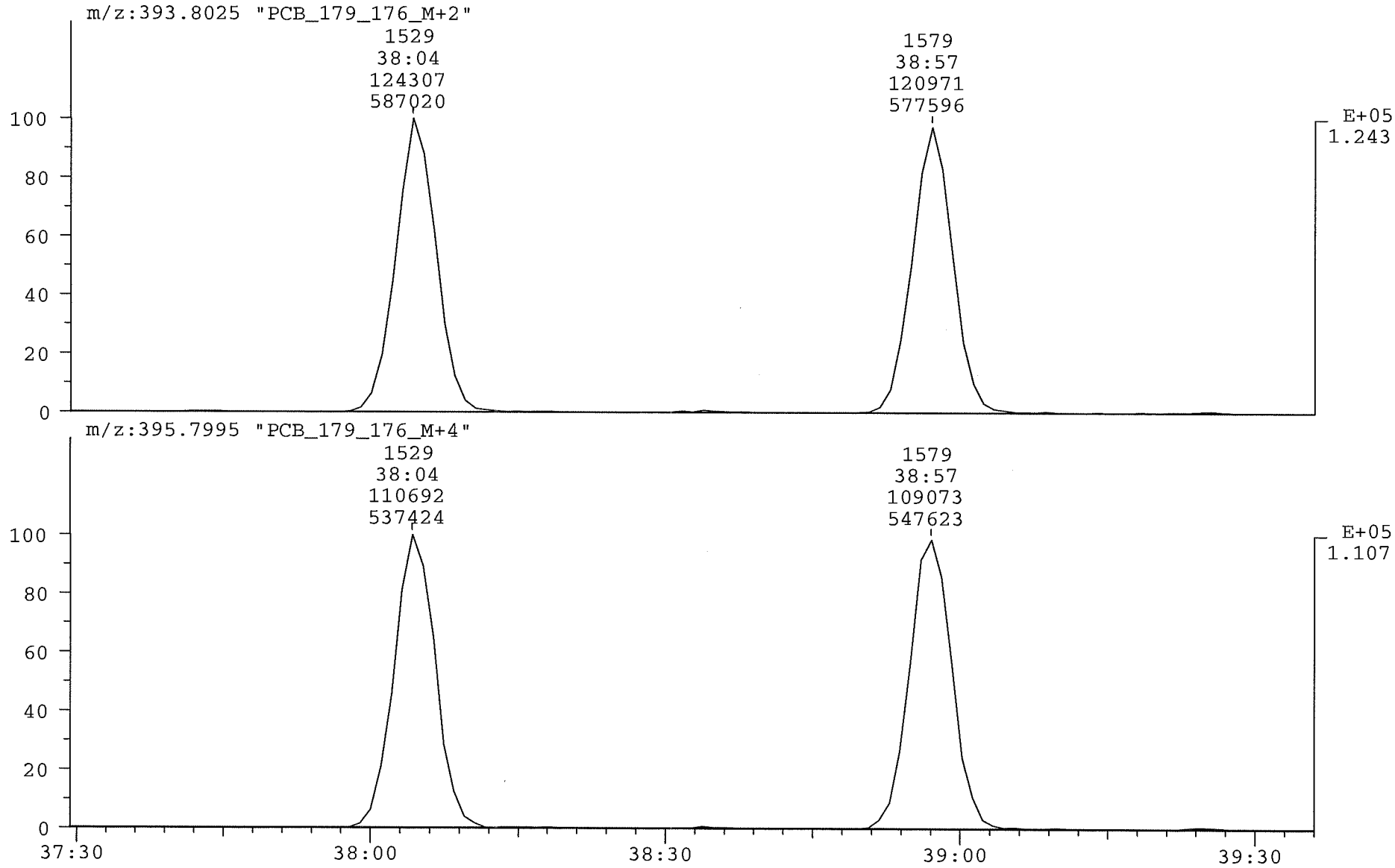


H-2172

2171

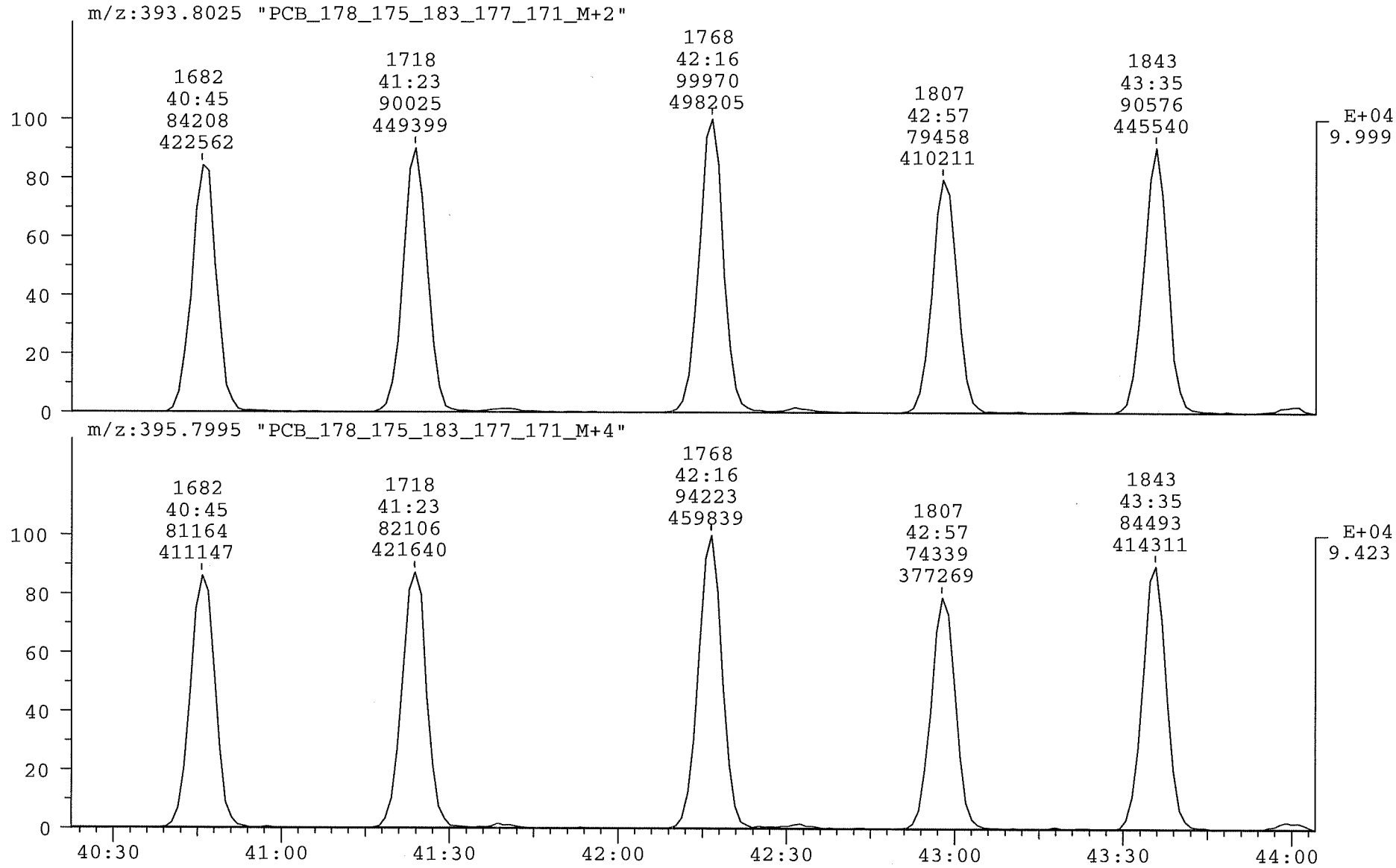
CHRO: a0806m1r1 10-Jun-08 Elapse: 38:32 1556
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1496 > 1616 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2173

2172

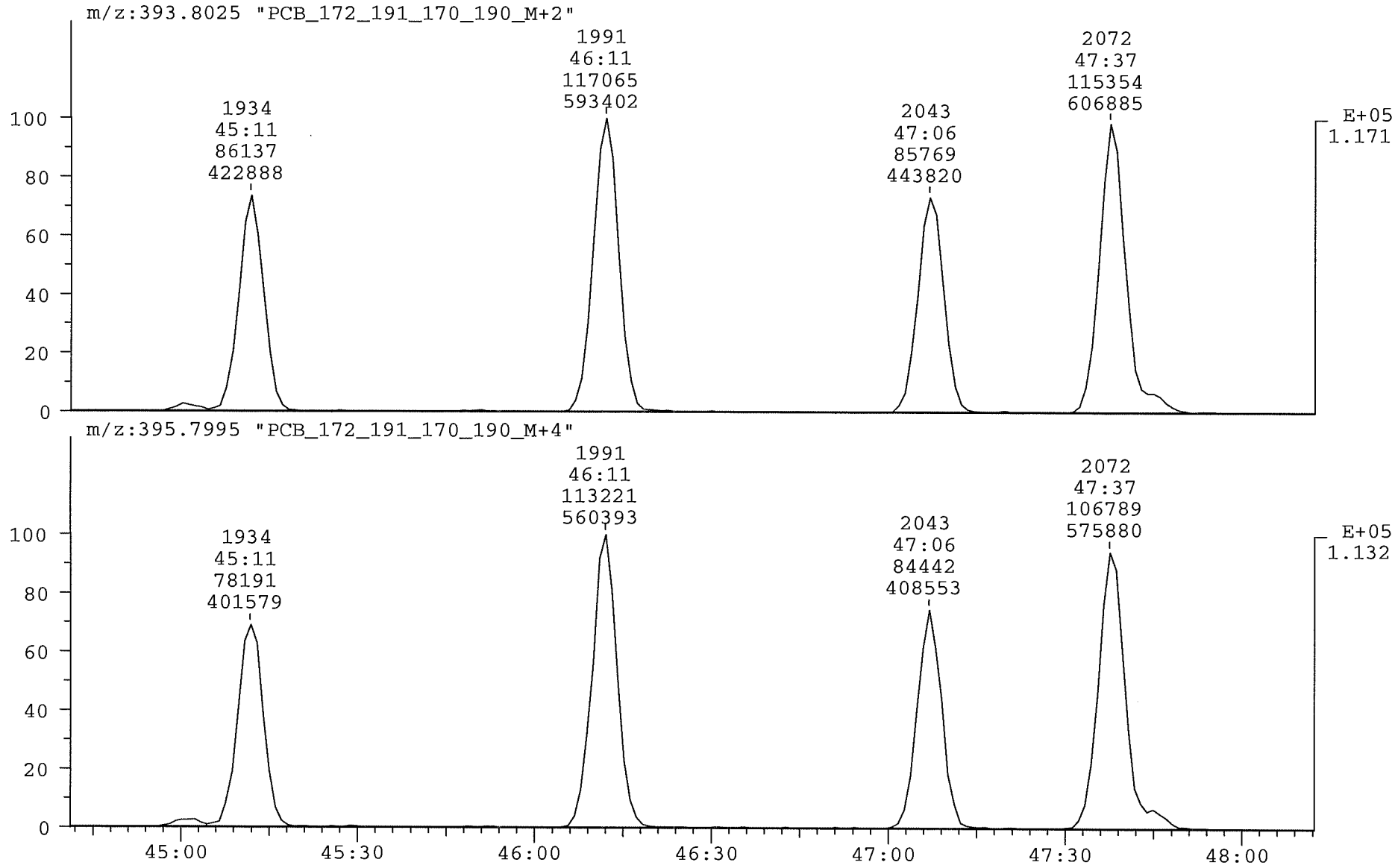
CHRO: a0806m1r1 10-Jun-08 Elapse: 42:13 1765
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1660 > 1870 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2174

2173

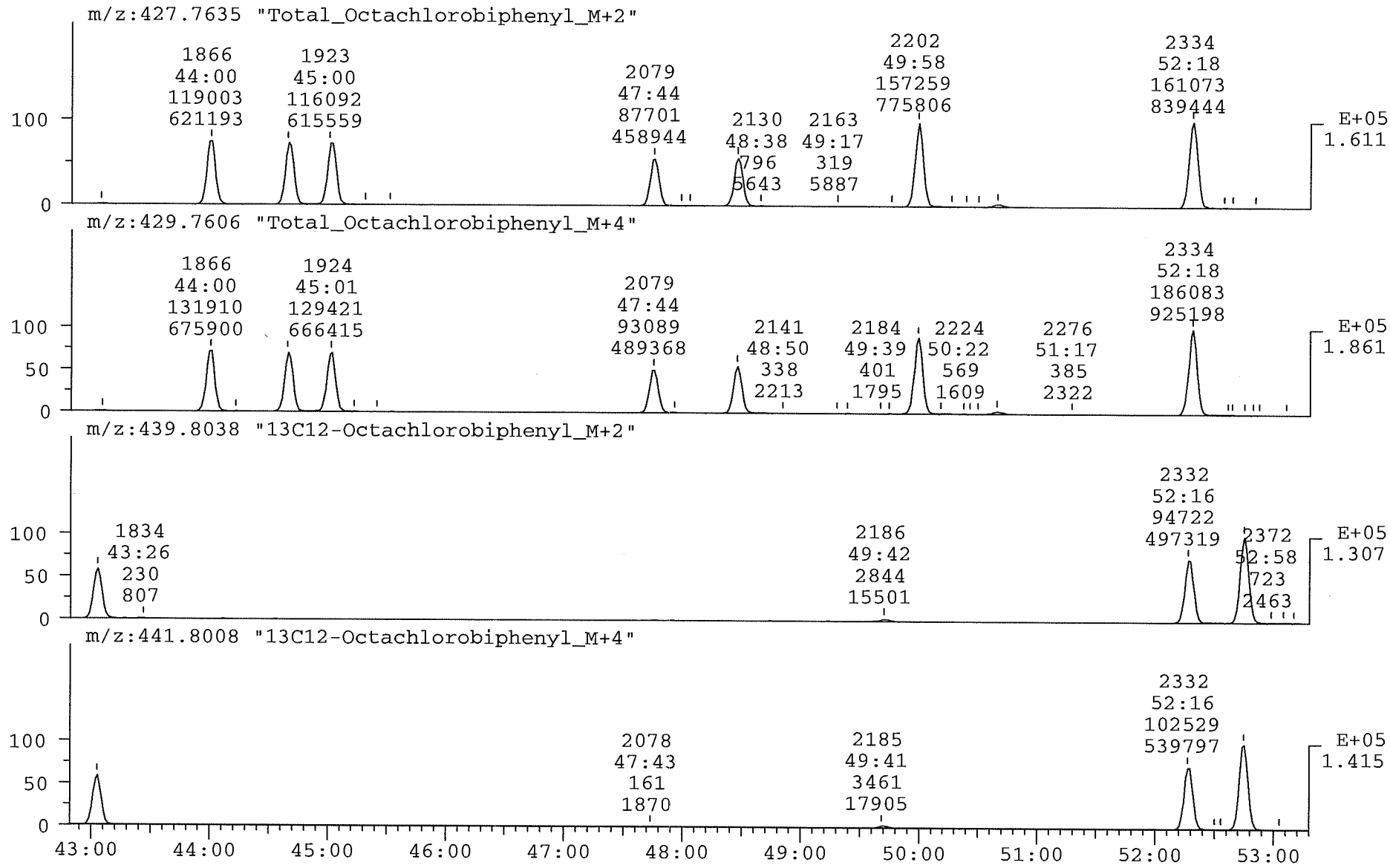
CHRO: a0806m1r1 10-Jun-08 Elapse: 46:26 2005
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1905 > 2105 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2175

2174

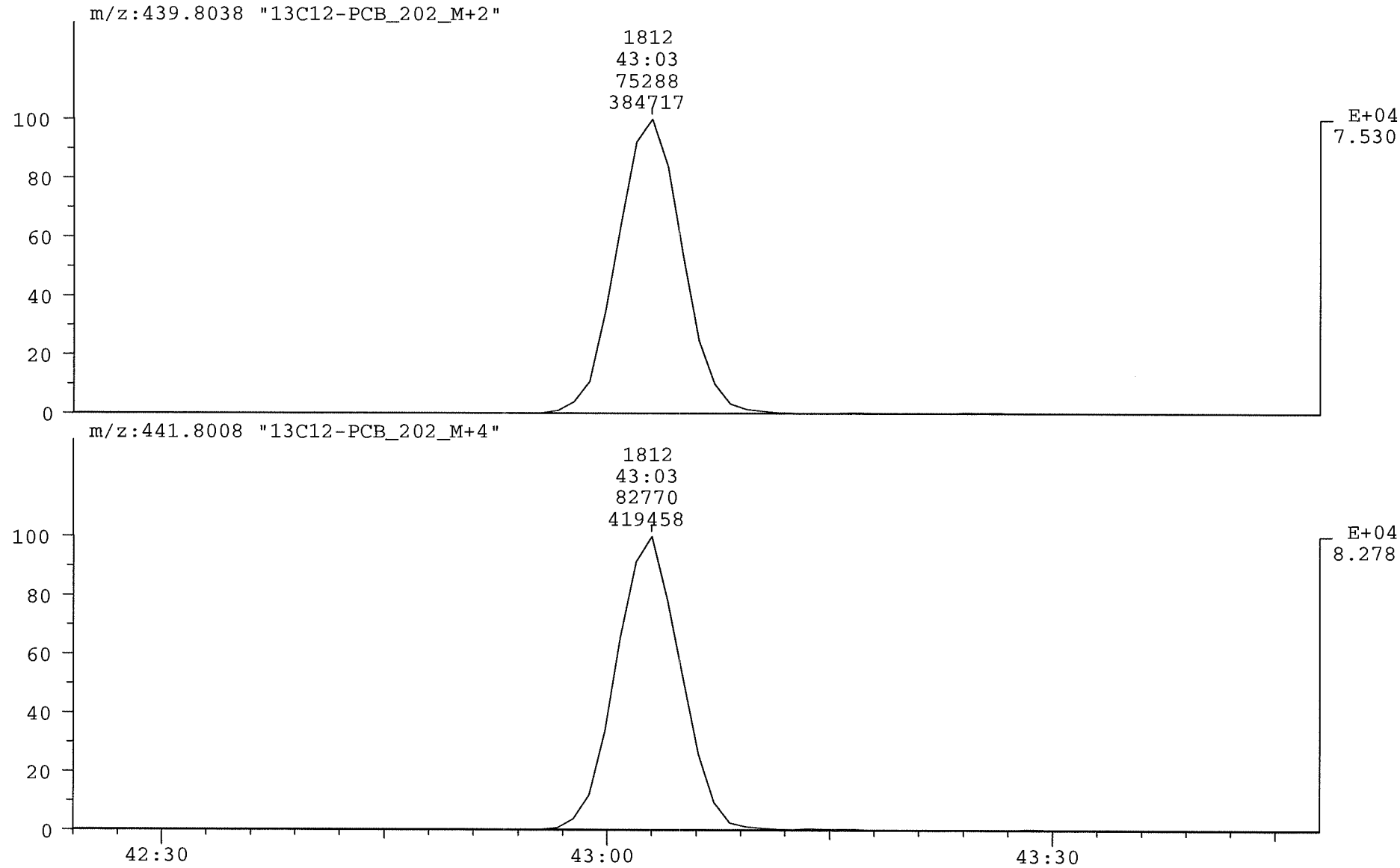
CHRO: a0806m1r1 10-Jun-08 Elapse: 48:02 2096
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1799 > 2390 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2176

2175

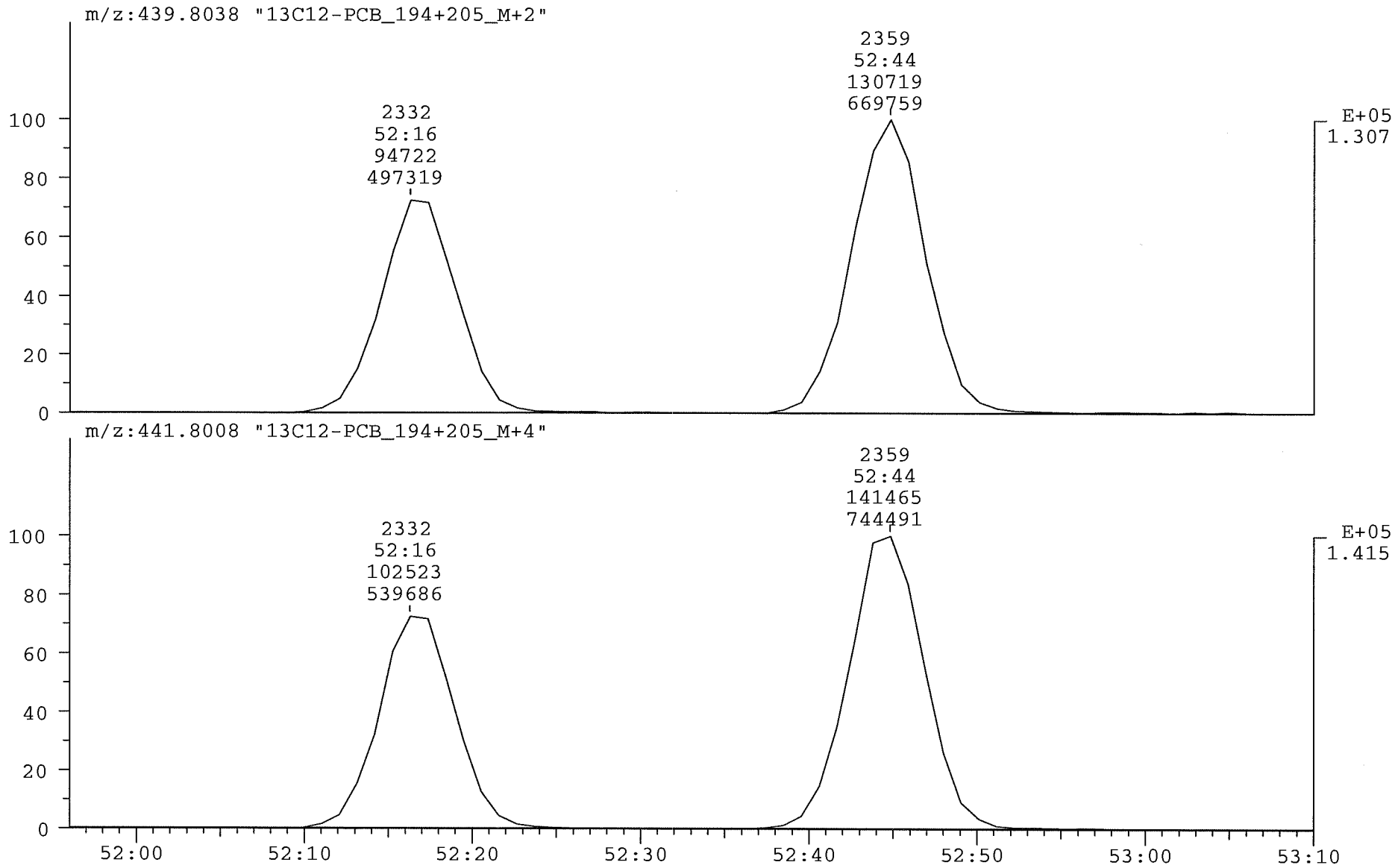
CHRO: a0806m1r1 10-Jun-08 Elapse: 43:03 1812
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1775 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2177

2176

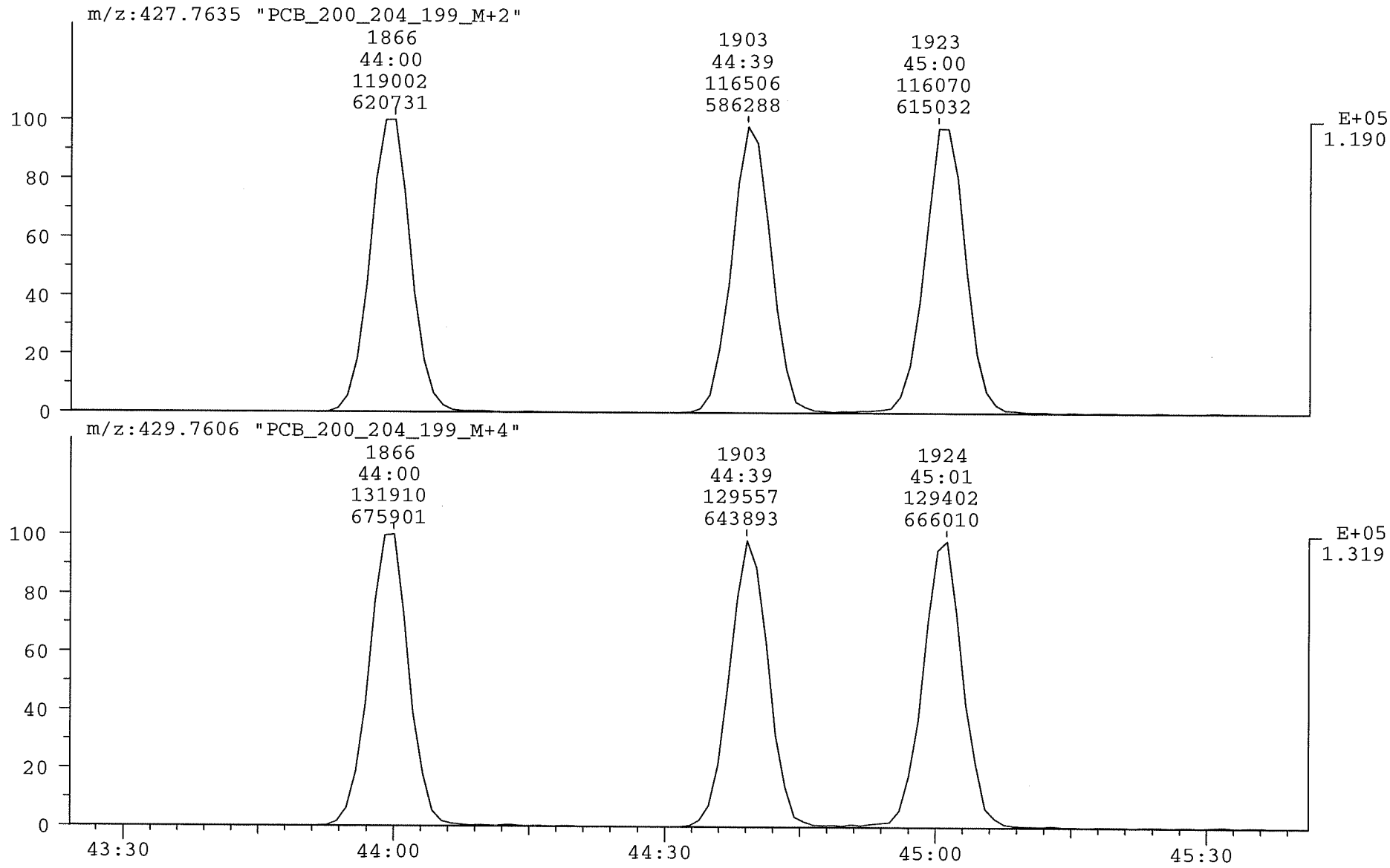
CHRO: a0806m1r1 10-Jun-08 Elapse: 52:33 2348
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2313 > 2383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2178

2177

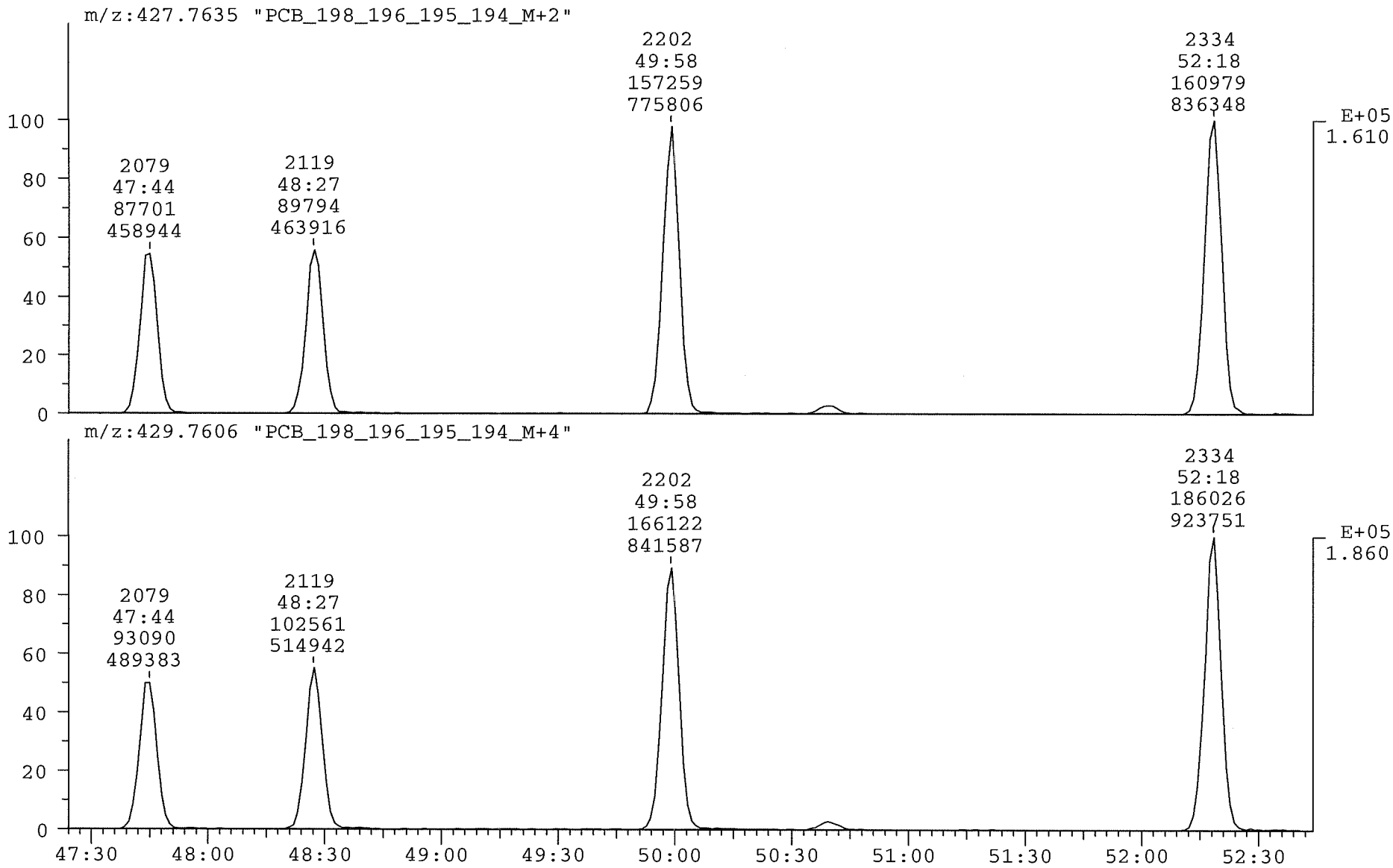
CHRO: a0806m1r1 10-Jun-08 Elapse: 44:32 1897
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1832 > 1962 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2179

2178

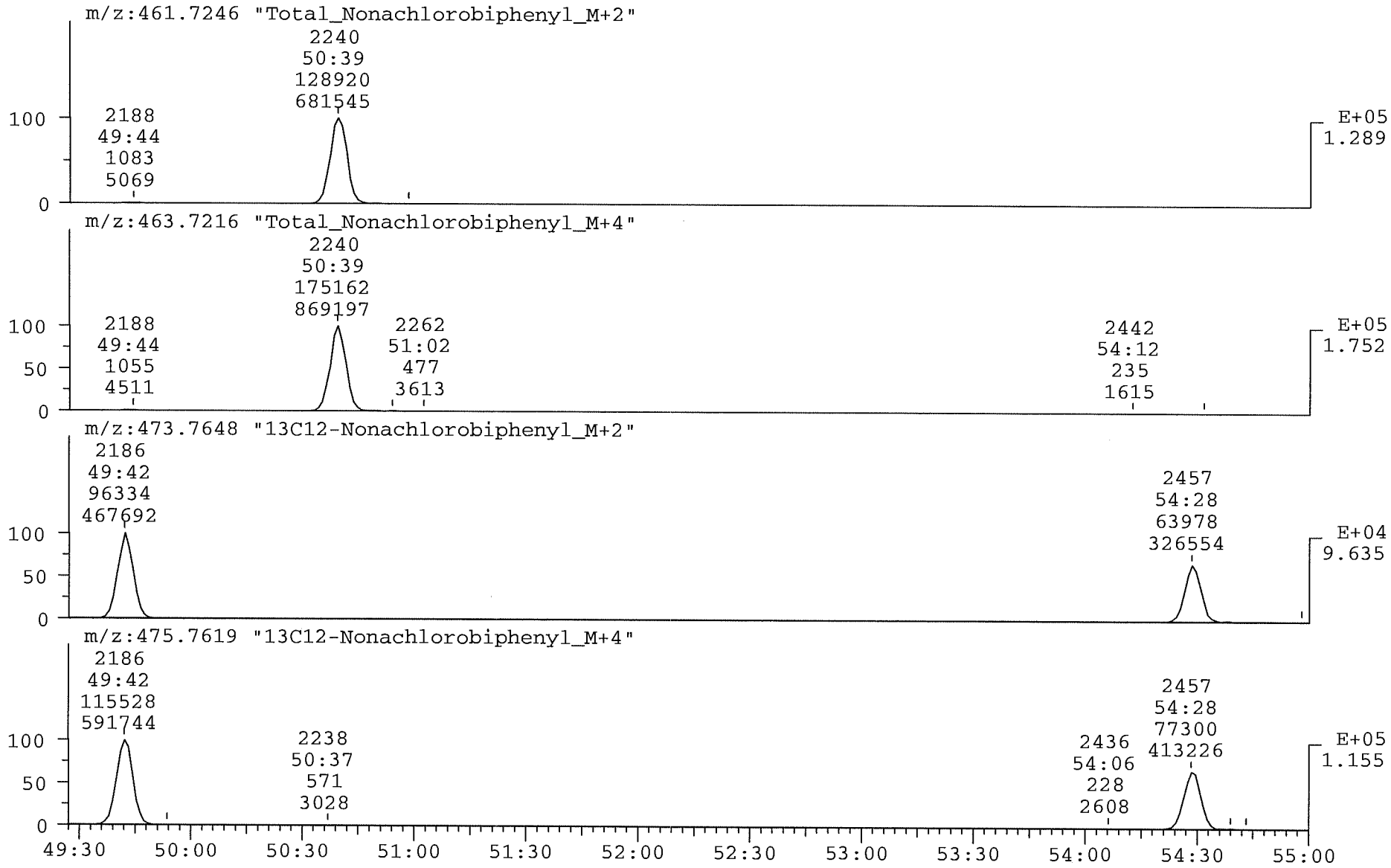
CHRO: a0806m1r1 10-Jun-08 Elapse: 50:04 2207
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2059 > 2358 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2180

2179

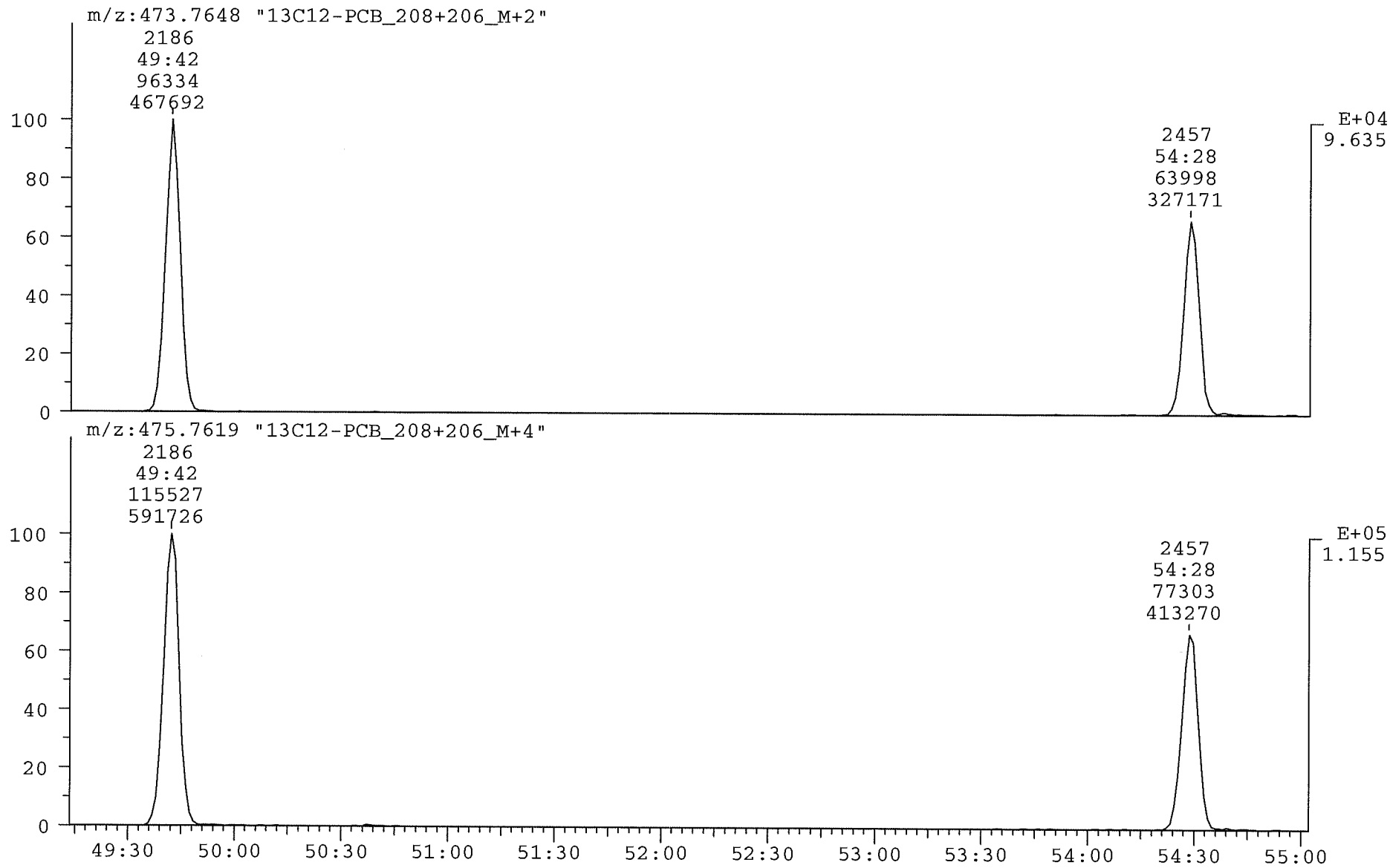
CHRO: a0806m1r1 10-Jun-08 Elapse: 52:13 2329
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2172 > 2487 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2181

2180

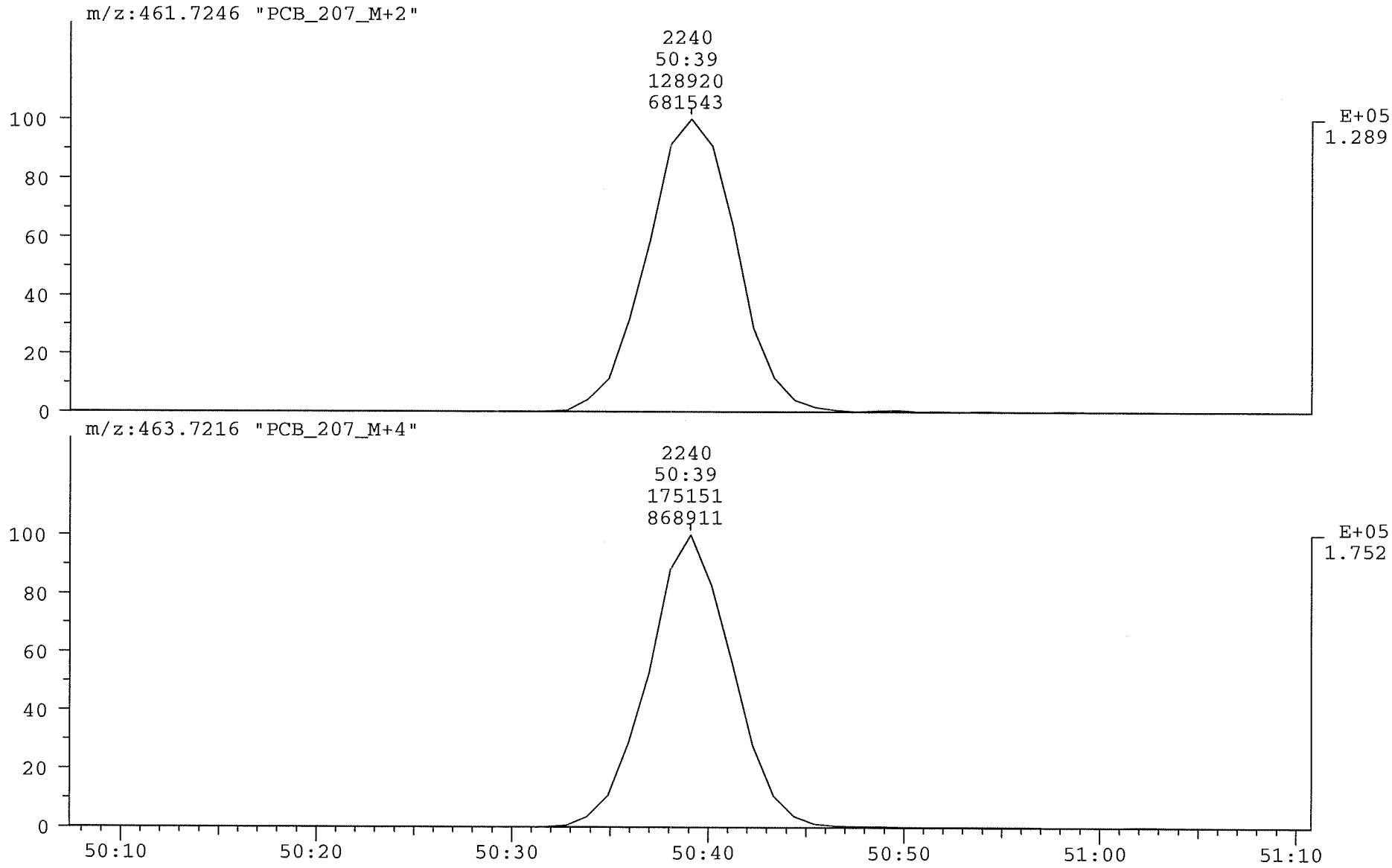
CHRO: a0806m1r1 10-Jun-08 Elapse: 52:07 2324
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2159 > 2489 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2182

2181

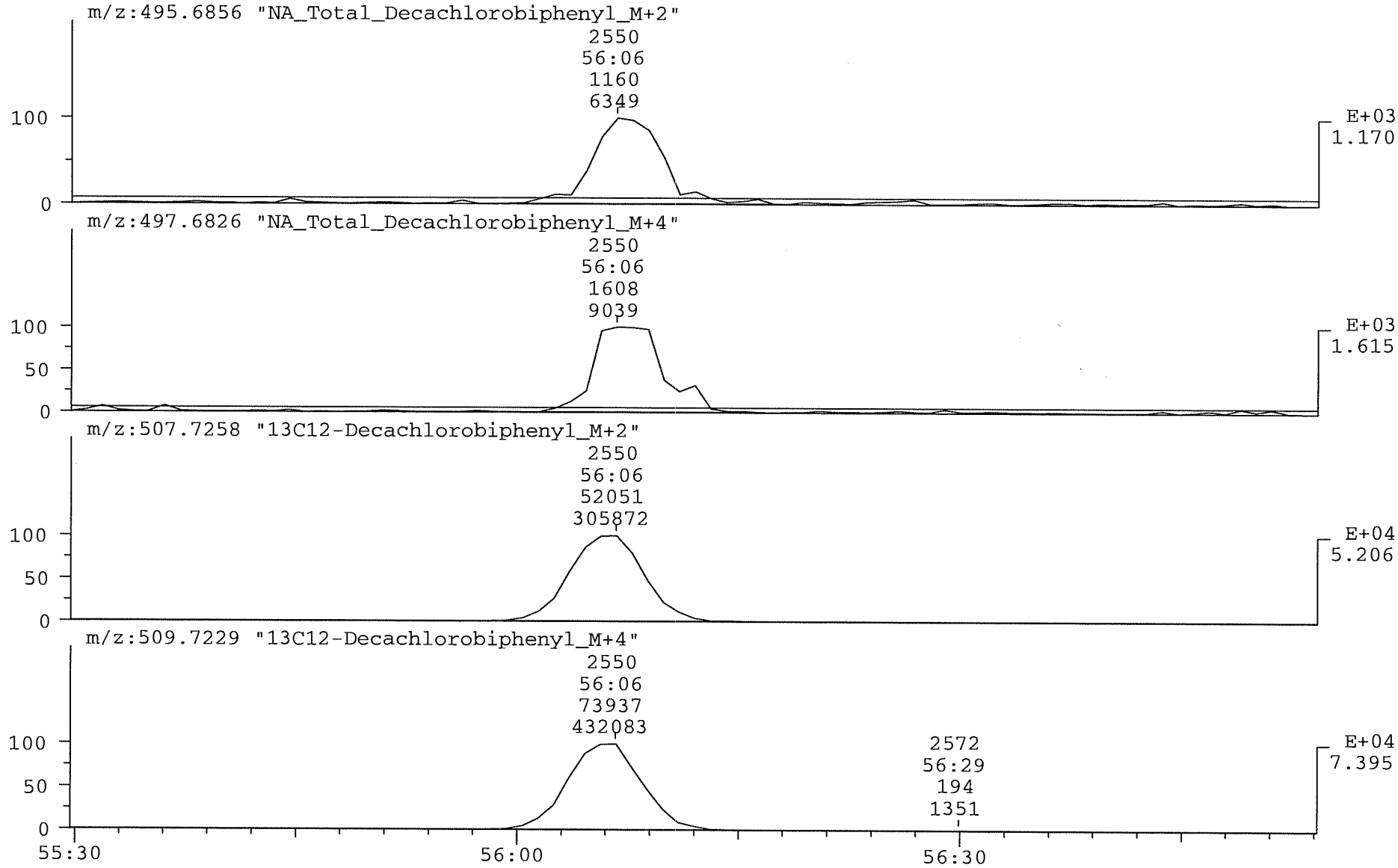
CHRO: a0806m1r1 10-Jun-08 Elapse: 50:39 2240
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2210 > 2270 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2183

2182

CHRO: a0806m1r1 10-Jun-08 Elapse: 56:11 2555
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 14:37:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2515 > 2595 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2184

2183

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m1r1
Study: 2990:75 Mix 1
Sample: WO=2990:75Mix1 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume: 2.00
Sample from Vial 11
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 1 of list 080609
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:12 min	35:52 min	1.00 sec
# 3	35:52 min	13:13 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	l	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5765
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0012
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	354.0000
FVINLET	255.0000	FVSRC	984.0000	FWIN	0.7000
GCTC	75.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.3627	HVANAL	1284.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2353344.3159

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	7179.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.1400	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 14:37:42.2

Autosampler has injected sample from vial 11
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 8964
MID Time Window 3: Resolution is 10085
MID Time Window 4: Resolution is 10657
Analysis stopped at: 10-Jun-08 15:34:44.8 (run time 57.02 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r2.	Prep Date		SDG No	
Analysis ID	104455	Prep Exp Date		Date Received	
Analysis Date	06/10/08 19:43	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	100	170	40	68	0.59 *	/	
	PCB 2 (BZ)	14:04	00:00	0	914755	269079	295144	90353	3.40	ABV/AVV	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	165	223	66	89	0.74 *	/	
	13C12-PCB 1	12:02	00:00	0	1436571	437719	629393	188357	3.28	AVV/AVV	
	13C12-PCB 3	14:14	00:00	0	1431479	436572	513061	159063	3.28	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	138	278	55	111	0.50 *	/	
	PCB 10 (BZ)	14:41	00:00	0	364283	232200	113126	72104	1.57	ABV/AVV	
	PCB 9 (BZ)	16:30	00:00	0	381001	240971	111299	68410	1.58	ABV/ABV	
	PCB 6 (BZ)	16:54	00:00	0	365680	241430	105413	68290	1.51	AVV/AVV	
	PCB 8 (BZ)	17:21	00:00	0	395157	252251	117919	72615	1.57	AVV/AVV	
	PCB 14 (BZ)	18:59	00:00	0	373804	234566	100586	61679	1.59	AVV/ABV	M
	PCB 11 (BZ)	19:50	00:00	0	359054	231793	93349	60669	1.55	ABV/ABV	M
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	220	135	88	54	1.63	/	
	13C12-PCB 4	14:30	00:00	0	363318	236385	126292	83869	1.54	ABV/ABB	
	13C12-PCB 9	16:29	00:00	0	590829	388435	169400	114265	1.52	ABV/ABV	
	13C12-PCB 8	17:20	00:00	0	675722	431537	201328	129791	1.57	AVV/AVV	
	13C12-PCB 15	20:27	00:00	0	632591	408509	169128	107747	1.55	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	115	128	46	51	0.90	/	
	PCB 30 (BZ)	19:29	00:00	0	172343	171196	45762	44257	1.01	ABV/ABV	M
	PCB 27 (BZ)	20:11	00:00	0	172845	167499	46388	43854	1.03	AVV/AVV	
	PCB 32 (BZ)	20:56	00:00	0	194784	187305	47282	46254	1.04	ABV/ABV	M
	PCB 34 (BZ)	22:12	00:00	0	584950	547804	144284	132434	1.07	ABV/AVV	M
	PCB 26 (BZ)	22:40	00:00	0	592477	553887	147571	141061	1.07	AVV/AVV	M
	PCB 31 (BZ)	23:13	00:00	0	644405	596930	153857	147917	1.08	AVV/AVV	M
	PCB 33 (BZ)	23:45	00:00	0	593870	565660	142180	137436	1.05	AVV/AVV	M
	PCB 36 (BZ)	25:43	00:00	0	616618	577022	144770	132780	1.07	ABV/ABV	
	PCB 38 (BZ)	26:40	00:00	0	589081	550422	126932	124319	1.07	ABV/AVV	D
	PCB 35 (BZ)	27:08	00:00	0	584378	541733	131544	121279	1.08	ABV/AVV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	258	175	103	70	1.47 *	/	
	13C12-PCB 19	17:39	00:00	0	206506	209156	62947	59930	0.99	AVV/AVV	
	13C12-PCB 32	20:55	00:00	0	365553	351994	94933	90451	1.04	AVV/AVV	
	13C12-PCB 31	23:12	00:00	0	1061457	967455	265543	240072	1.10	AVV/ABV	
	13C12-PCB 28	23:30	00:00	0	1017519	932396	241351	219124	1.09	AVV/AVV	
	13C12-PCB 37	27:31	00:00	0	973736	882468	224073	200829	1.10	ABV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	215	345	86	138	0.62 *	/	
	PCB 50 (BZ)	22:58	00:00	0	439581	544047	110863	134642	0.81	ABV/ABV	M

Notes:
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T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r2.	Prep Date		SDG No	
Analysis ID	104455	Prep Exp Date		Date Received	
Analysis Date	06/10/08 19:43	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	PCB 45 (BZ)	23:37	00:00	0	385632	478557	89506	111232	0.81	ABB/ABB	M
	PCB 52 (BZ)	25:22	00:00	0	457675	571258	107213	133270	0.80	ABV/ABV	D
	PCB 49 (BZ)	25:51	00:00	0	464339	579640	102674	131337	0.80	AVV/AVV	DM
	PCB 75 (BZ)	26:42	00:00	0	636083	789938	145169	176802	0.81	AVV/AVV	DM
	PCB 41 (BZ)	27:17	00:00	0	379047	481093	84742	104342	0.79	AVV/AVV	D
	PCB 72 (BZ)	28:25	00:00	0	625536	785435	145024	178863	0.80	ABV/ABV	
	PCB 57 (BZ)	29:08	00:00	0	603334	749564	133530	168930	0.80	ABV/AVV	
	PCB 63 (BZ)	29:49	00:00	0	622531	775657	140433	176008	0.80	AVV/ABV	
	PCB 66 (BZ)	30:29	00:00	0	620159	770823	136032	171549	0.80	ABB/ABB	
	PCB 79 (BZ)	33:18	00:00	0	669207	815752	141867	172196	0.82	ABV/ABV	
	PCB 78 (BZ)	33:51	00:00	0	598683	746436	126655	158978	0.80	AVV/AVV	
	PCB 81 (BZ)	34:18	00:00	0	597754	765097	125030	162059	0.78	AVV/AVV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	110	100	44	40	1.10 *	/	
	13C12-PCB 54	20:46	00:00	0	217150	279675	55357	71597	0.78	ABV/AVV	
	13C12-PCB 52	25:20	00:00	0	360557	456221	80680	106432	0.79	ABV/ABV	
	13C12-PCB 79	33:15	00:00	0	549993	703328	118289	148474	0.78	ABV/ABV	
	13C12-PCB 81	34:17	00:00	0	478199	593869	104604	128942	0.81	ABV/ABV	
	13C12-PCB 77	34:51	00:00	0	477909	603958	101562	131823	0.79	ABV/ABV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	168	113	67	45	1.49	/	
	PCB 96 (BZ)	26:42	00:00	0	486932	292684	111670	66446	1.66	ABV/ABV	
	PCB 103 (BZ)	28:36	00:00	0	405678	241406	89342	52648	1.68	AVV/AVV	D
	PCB 95 (BZ)	29:17	00:00	0	369994	228075	79959	47803	1.62	ABV/AVV	
	PCB 88 (BZ)	30:02	00:00	0	350852	212102	75311	45319	1.65	AVV/AVV	
	PCB 89 (BZ)	30:52	00:00	0	337815	210829	71517	45502	1.60	ABV/ABV	
	PCB 92 (BZ)	31:37	00:00	0	363595	222042	76987	46439	1.64	ABV/ABV	D
	PCB 113 (BZ)	32:09	00:00	0	478632	294480	102492	64746	1.63	AVV/AVV	
	PCB 83 (BZ)	32:42	00:00	0	312226	190124	64656	39063	1.64	AVV/ABV	
	PCB 119 (BZ)	33:17	00:00	0	525861	315221	112569	66916	1.67	ABV/ABV	DM
	PCB 87 (BZ)	33:24	00:00	0	356609	212924	74865	46582	1.67	AVB/AVB	M
	PCB 85 (BZ)	34:02	00:00	0	381956	234879	82764	47640	1.63	ABV/ABB	DM
	PCB 82 (BZ)	34:32	00:00	0	315432	191818	65504	37712	1.64	ABV/AVV	
	PCB 120 (BZ)	35:20	00:00	0	529784	321921	107705	67517	1.65	ABB/ABB	D
	PCB 124 (BZ)	36:30	00:00	0	1059404	659813	223022	135992	1.61	AVV/AVV	D
	PCB 106 (BZ)	36:58	00:00	0	1084935	677335	218926	138661	1.60	AVV/AVV	
	PCB 122 (BZ)	37:33	00:00	0	1004353	627485	209022	131815	1.60	AVV/AVV	
	PCB 105 (BZ)	38:22	00:00	0	1067331	678975	225334	145605	1.57	AVV/AVV	
	PCB 127 (BZ)	39:49	00:00	0	1116202	694514	230678	149067	1.61	AVV/AVV	D
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	123	115	49	46	1.07 *	/	
	13C12-PCB 104	26:16	00:00	0	445454	274766	98040	60477	1.62	AVV/ABV	
	13C12-PCB 95	29:16	00:00	0	352598	223208	82514	48125	1.58	AVV/ABV	

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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r2.	Prep Date		SDG No	
Analysis ID	104455	Prep Exp Date		Date Received	
Analysis Date	06/10/08 19:43	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	13C12-PCB 101	32:11	00:00	0	357929	224045	75180	46175	1.60	AVV/AVV	
	13C12-PCB 111	34:52	00:00	0	449542	266939	94447	54847	1.68	ABV/ABV	
	13C12-PCB 123	36:50	00:00	0	948030	576935	194444	117109	1.64	AVV/ABV	
	13C12-PCB 118	37:09	00:00	0	1007210	611385	215163	127269	1.65	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	963116	582676	199182	116520	1.65	AVV/AVV	
	13C12-PCB 105	38:21	00:00	0	969299	588976	195993	121840	1.65	AVV/ABB	
	13C12-PCB 127	39:48	00:00	0	1060048	638322	221394	131297	1.66	ABV/AVV	
	13C12-PCB 126	41:25	00:00	0	1015861	627951	197954	125364	1.62	ABV/AVV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	198	170	79	68	1.16	/	
	PCB 152 (BZ)	32:11	00:00	0	344079	262229	72027	56941	1.31	ABV/ABV	D
	PCB 136 (BZ)	32:44	00:00	0	342721	261296	72701	53211	1.31	ABV/AVV	D
	PCB 148 (BZ)	34:30	00:00	0	257177	192662	52924	37945	1.33	ABV/ABV	
	PCB 151 (BZ)	35:06	00:00	0	264311	193567	53009	38076	1.37	ABV/ABV	
	PCB 144 (BZ)	35:40	00:00	0	266807	201498	52217	44546	1.32	ABV/ABV	D
	PCB 143 (BZ)	36:21	00:00	0	475963	373854	98825	77772	1.27	AVV/ABV	D
	PCB 142 (BZ)	36:59	00:00	0	453730	364451	88715	74487	1.24	AVV/AVV	D
	PCB 133 (BZ)	37:47	00:00	0	479212	382275	97148	76468	1.25	ABV/ABV	
	PCB 161 (BZ)	38:34	00:00	0	679227	526515	138087	106100	1.29	ABB/ABV	
	PCB 153 (BZ)	39:02	00:00	0	616442	479844	121547	97976	1.28	ABV/AVV	
	PCB 130 (BZ)	39:39	00:00	0	461069	366527	88884	73869	1.26	ABB/ABV	D
	PCB 129 (BZ)	40:23	00:00	0	448280	344941	87910	73950	1.30	ABB/ABV	
	PCB 166 (BZ)	41:31	00:00	0	690127	551091	138755	109390	1.25	AVV/AVV	
	PCB 159 (BZ)	42:32	00:00	0	692106	542067	142018	109840	1.28	ABV/AVB	
	PCB 167 (BZ)	43:17	00:00	0	709888	552412	147478	111852	1.29	AVV/AVV	
	PCB 156 (BZ)	44:26	00:00	0	714456	552383	137419	111303	1.29	ABV/ABV	
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	85	90	34	36	0.94 *	/	
	13C12-PCB 155	31:56	00:00	0	358918	280141	78821	58893	1.28	ABB/ABB	
	13C12-PCB 153	39:01	00:00	0	563194	429916	116060	86106	1.31	ABV/ABV	
	13C12-PCB 138	40:16	00:00	0	520409	408812	105615	80859	1.27	ABV/ABV	
	13C12-PCB 167	43:16	00:00	0	642734	503281	129664	101041	1.28	AVV/AVV	
	13C12-PCB 156	44:26	00:00	0	1242717	971340	159049	126355	1.28	AVV/ABV	D
	13C12-PCB 169	47:39	00:00	0	608465	472488	116504	89835	1.29	ABV/ABV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	140	148	56	59	0.95	/	
	PCB 179 (BZ)	38:03	00:00	0	450703	420620	91283	87147	1.07	ABV/ABV	D
	PCB 176 (BZ)	38:55	00:00	0	452295	417215	88952	83398	1.08	ABV/ABV	D
	PCB 178 (BZ)	40:45	00:00	0	339125	316105	65438	61386	1.07	ABV/ABV	
	PCB 175 (BZ)	41:22	00:00	0	349637	323990	69751	63477	1.08	ABV/ABV	
	PCB 183 (BZ)	42:15	00:00	0	377824	347163	76701	73471	1.09	ABV/ABV	
	PCB 177 (BZ)	42:57	00:00	0	314218	295679	61053	60754	1.06	ABV/ABV	D
	PCB 171 (BZ)	43:34	00:00	0	332317	312380	64851	62470	1.06	ABB/ABB	

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r2.	Prep Date		SDG No	
Analysis ID	104455	Prep Exp Date		Date Received	
Analysis Date	06/10/08 19:43	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	PCB 172 (BZ)	45:10	00:00	0	333466	310404	64908	61820	1.07	AVV/AVV	
	PCB 191 (BZ)	46:10	00:00	0	449239	411512	88596	79249	1.09	ABV/ABV	
	PCB 170 (BZ)	47:05	00:00	0	330372	309363	64583	59523	1.07	ABV/ABV	D
	PCB 190 (BZ)	47:37	00:00	0	461514	439002	85722	80444	1.05	AVV/ABB	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	113	110	45	44	1.02	/	
	13C12-PCB 188	37:40	00:00	0	436245	411827	93192	86582	1.06	ABV/ABV	
	13C12-PCB 178	40:43	00:00	0	292724	273482	58010	52799	1.07	ABV/ABV	
	13C12-PCB 180	45:48	00:00	0	362900	341902	71106	66194	1.06	ABV/ABV	
	13C12-PCB 170	47:04	00:00	0	307251	284700	59942	56557	1.08	ABV/ABV	
	13C12-PCB 189	50:10	00:00	0	758997	715597	148264	141467	1.06	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	148	130	59	52	1.13 *	/	
	PCB 200 (BZ)/201 (IUPAC	43:58	00:00	0	489596	534525	99643	107591	0.92	ABV/ABV	
	PCB 204 (BZ)	44:38	00:00	0	462763	514986	89068	105482	0.90	ABV/ABV	
	PCB 199 (BZ)/200 (IUPAC	44:59	00:00	0	477392	527173	94950	103776	0.91	AVV/AVV	D
	PCB 198 (BZ)	47:43	00:00	0	340497	376862	68480	75779	0.90	ABV/ABV	
	PCB 196 (BZ)	48:26	00:00	0	350999	391911	67539	75373	0.90	ABV/ABV	
	PCB 195 (BZ)	49:58	00:00	0	581209	645626	116385	126988	0.90	AVV/AVV	D
	PCB 194 (BZ)	52:16	00:00	0	658805	705447	127047	139093	0.93	ABV/ABV	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	90	100	36	40	0.90	/	
	13C12-PCB 202	43:02	00:00	0	287952	332630	57474	65505	0.87	ABB/ABV	
	13C12-PCB 194	52:16	00:00	0	382091	417104	73749	81785	0.92	ABB/ABV	
	13C12-PCB 205	52:44	00:00	0	539206	579730	105790	113598	0.93	ABV/AVV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	113	130	45	52	0.87	/	
	PCB 207 (BZ)	50:38	00:00	0	516328	652646	97105	124836	0.79	ABV/ABV	
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89		
	Noise	00:00	00:00	0	133	138	53	55	0.96 *	/	
	13C12-PCB 208	49:41	00:00	0	365101	451242	69623	87236	0.81	ABV/ABV	
	13C12-PCB 206	54:28	00:00	0	261034	321467	51433	62370	0.81	AVV/AVV	
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79		
	Noise	00:00	00:00	0	70	93	28	37	0.76	/	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79		
	Noise	00:00	00:00	0	93	85	37	34	1.09 *	/	
	13C12-PCB 209	56:05	00:00	0	239595	326026	42392	57237	0.73	AVB/AVB	

Notes:
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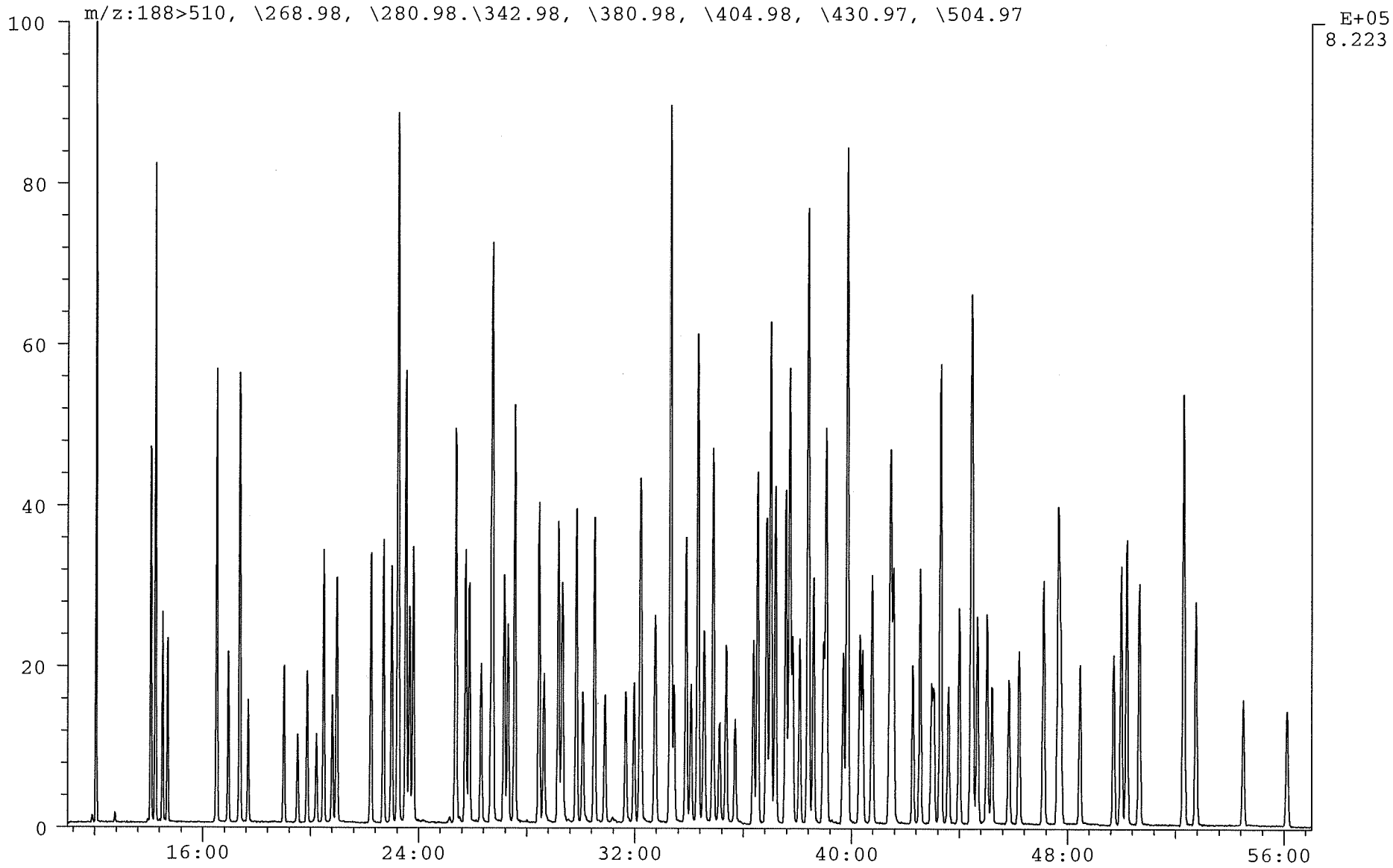
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

Int DCG 6-11-08
C4/cDC36.2508

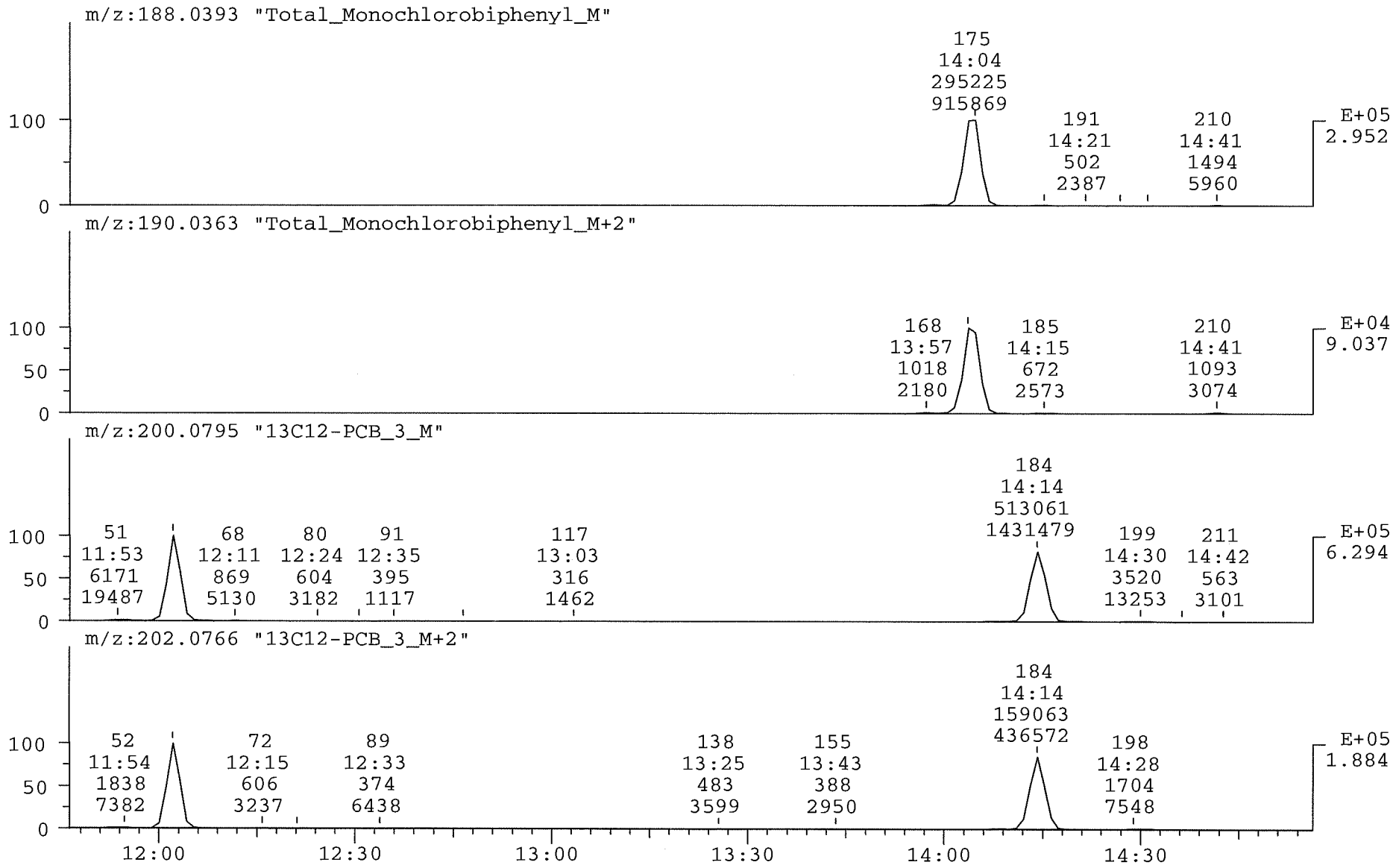
CHRO: a0806m1r2 10-Jun-08 Elapse: 56:09 2552
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2193

2192

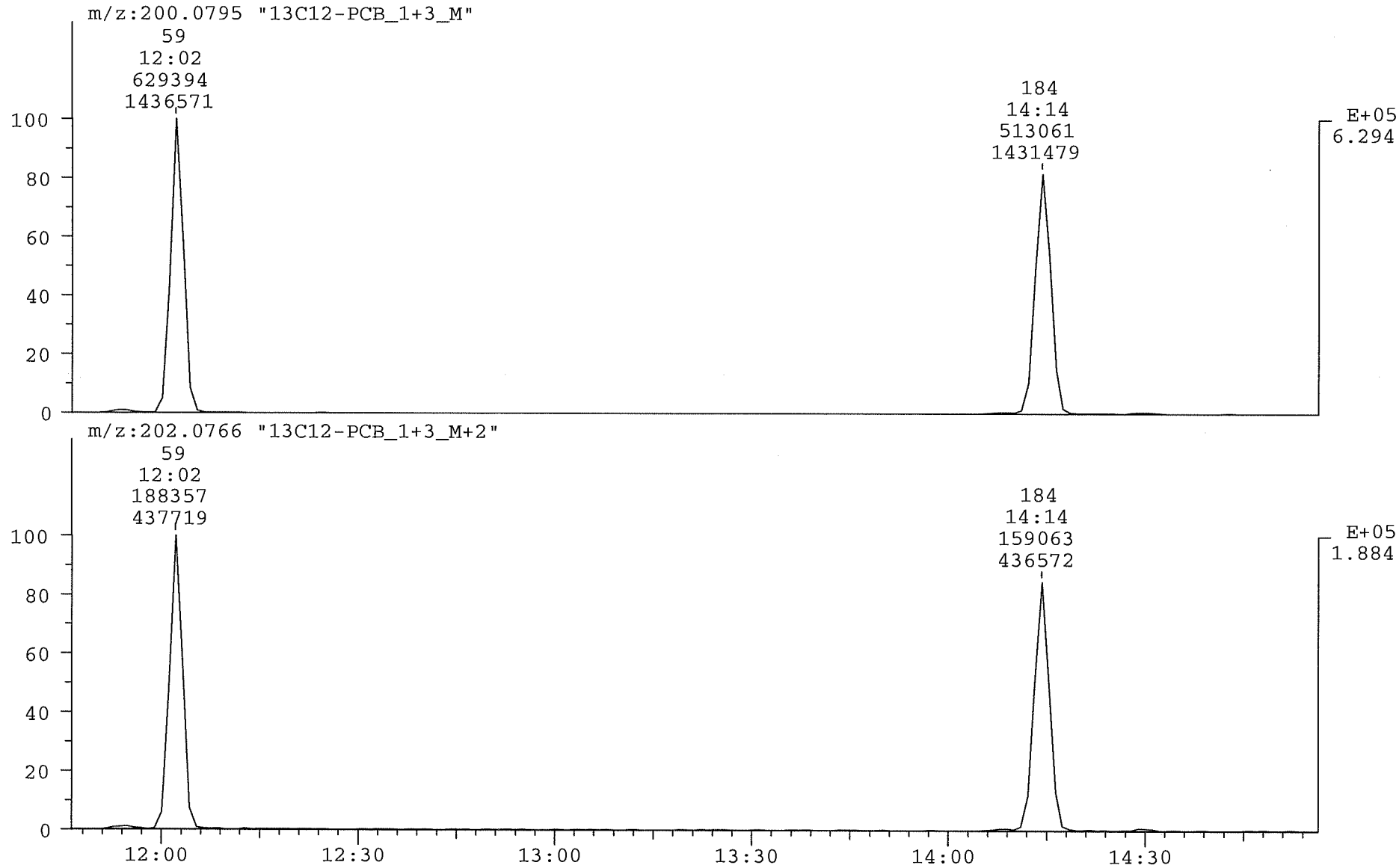
CHRO: a0806m1r2 10-Jun-08 Elapse: 13:21.3 134
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2194

2193

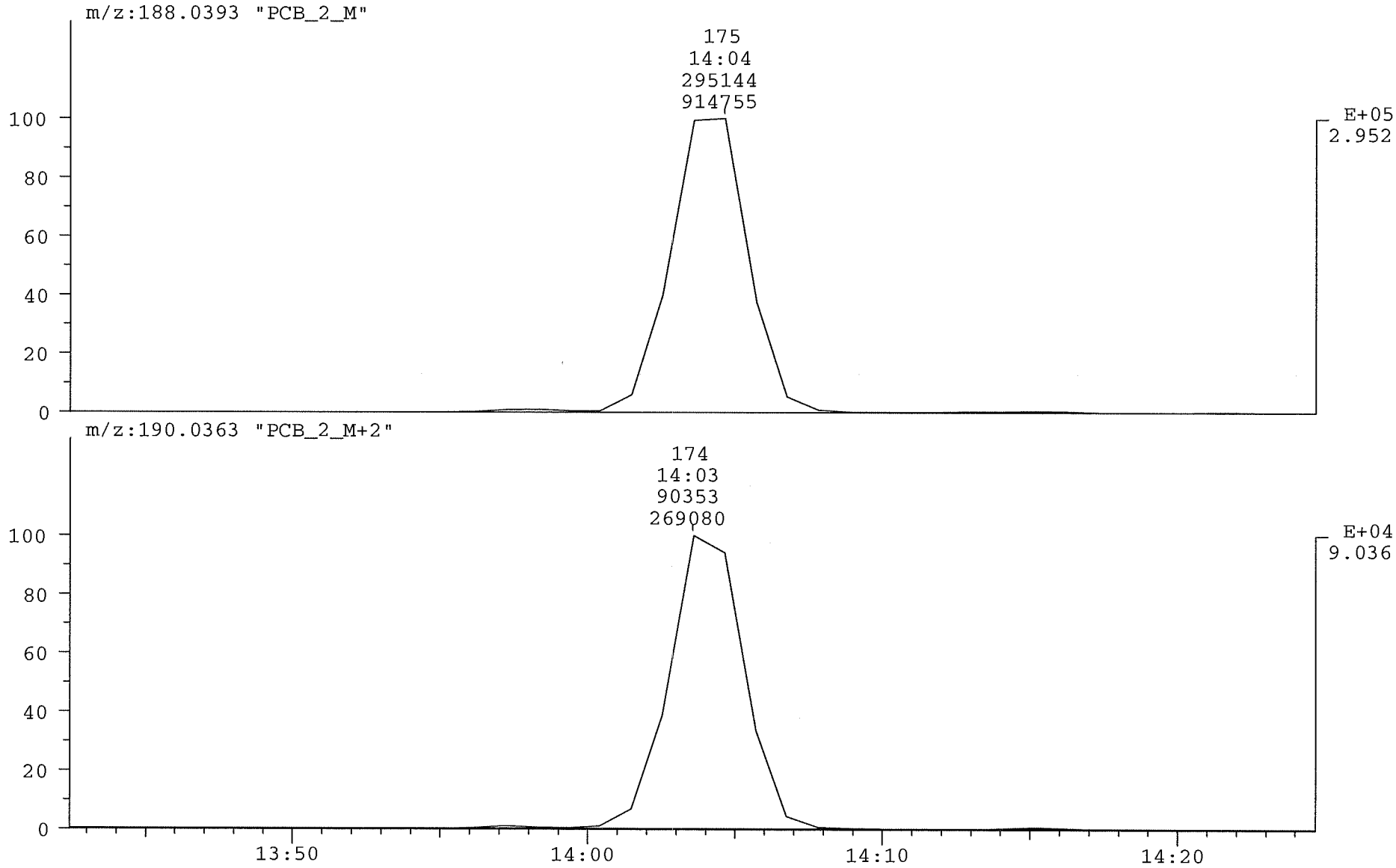
CHRO: a0806m1r2 10-Jun-08 Elapse: 13:21.3 134
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2195

2194

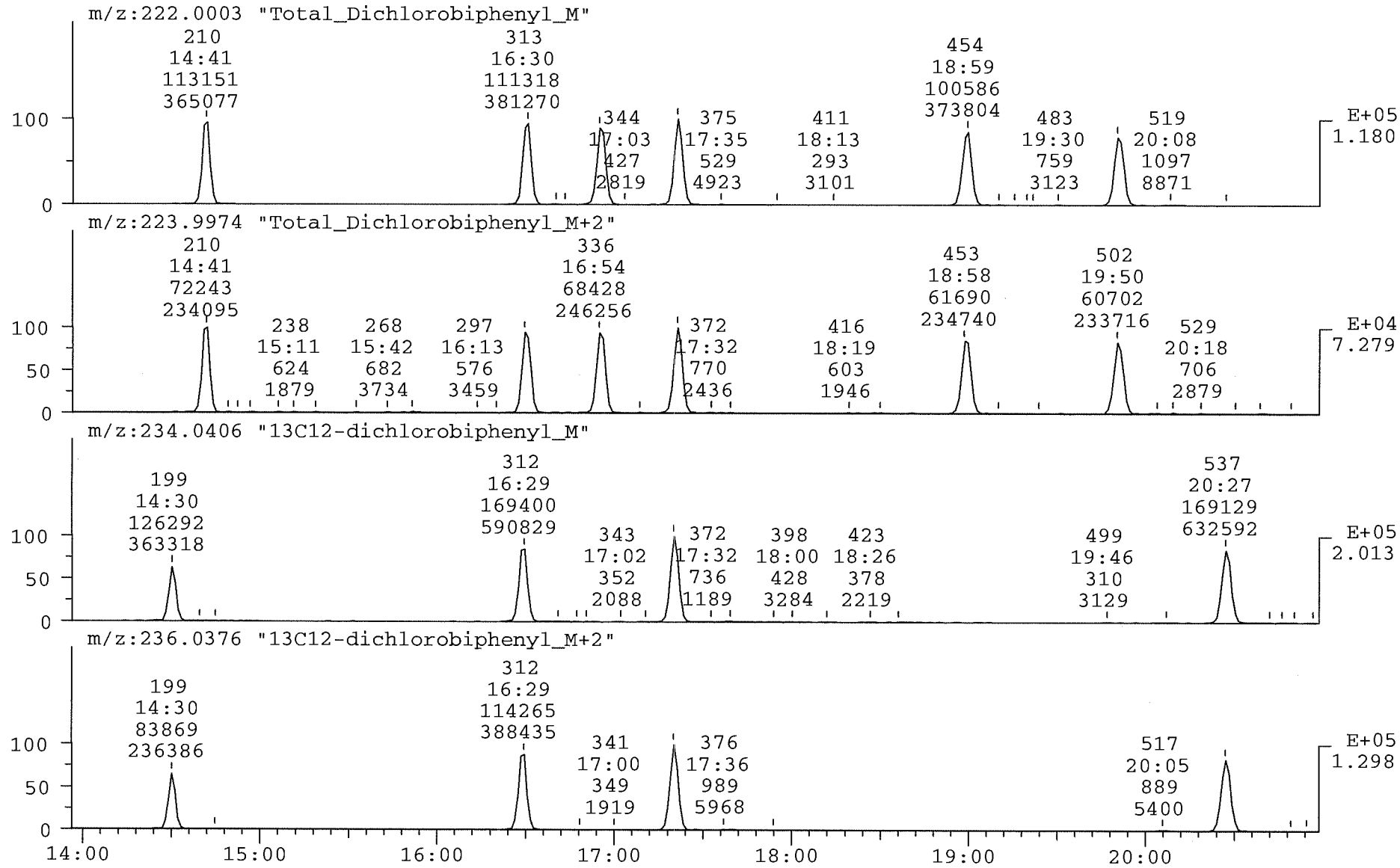
CHRO: a0806m1r2 10-Jun-08 Elapse: 14:03.6 174
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 154 > 194 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2196

2195

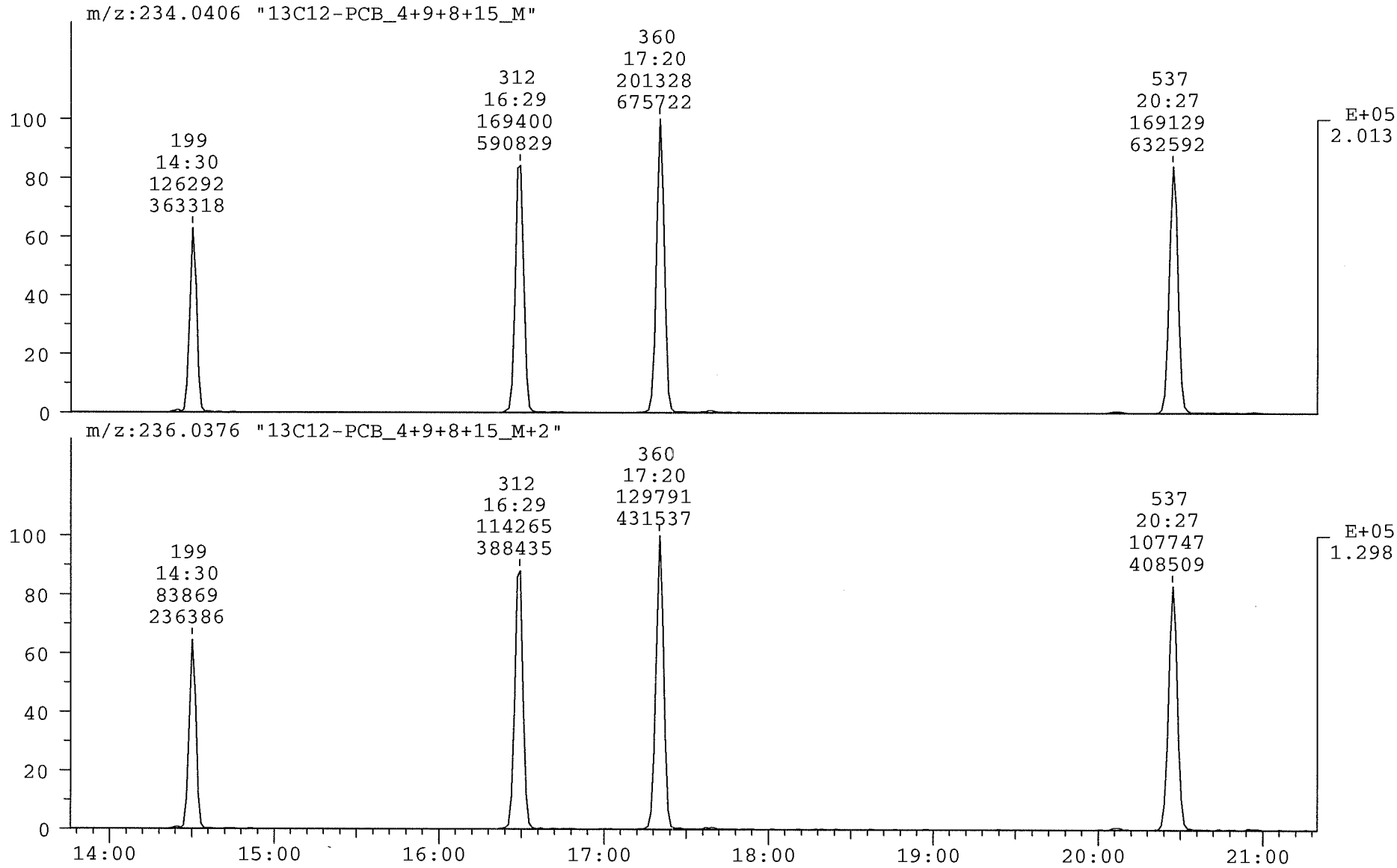
CHRO: a0806m1r2 10-Jun-08 Elapse: 17:27.4 367
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 167 > 567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2197

2196

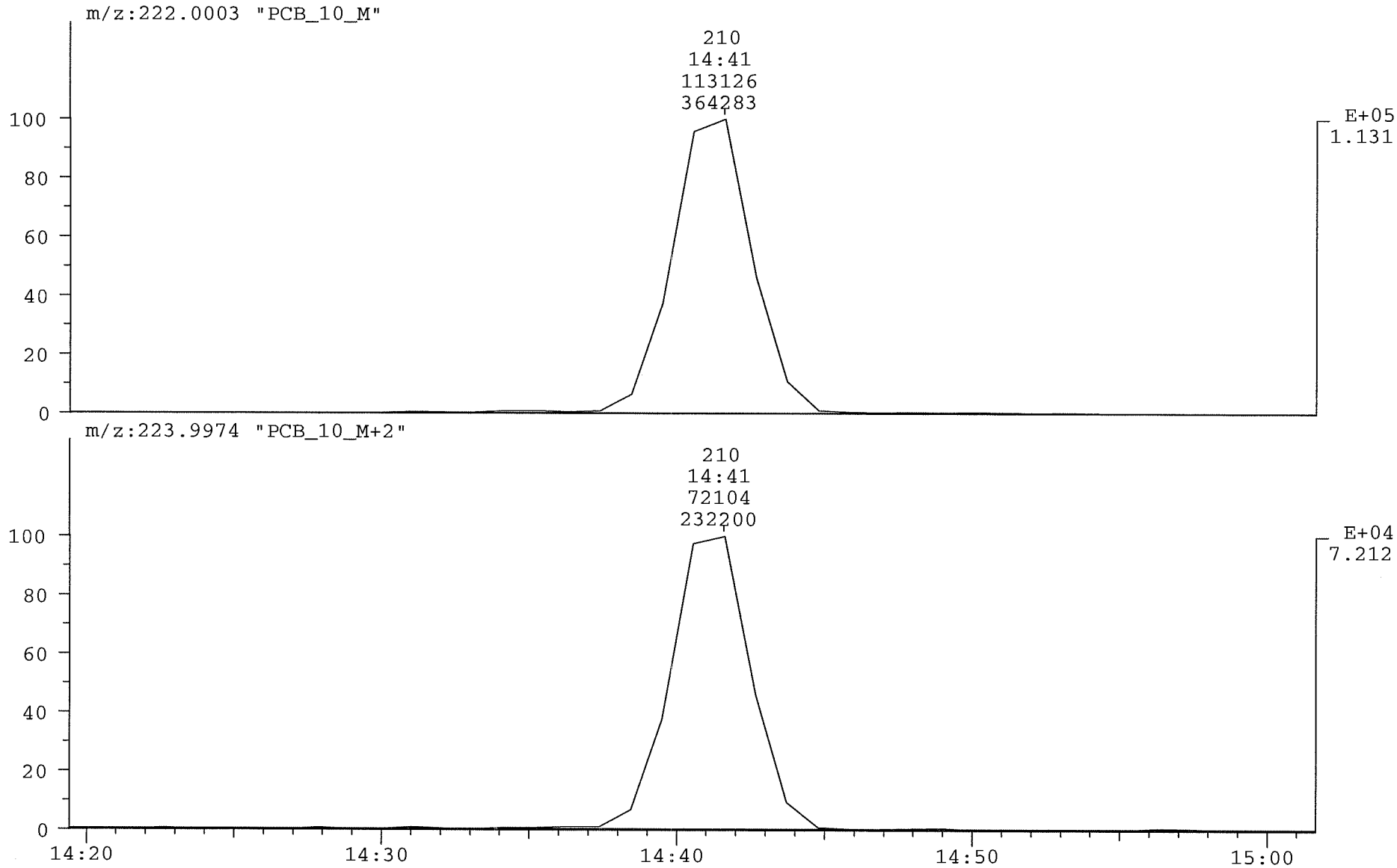
CHRO: a0806m1r2 10-Jun-08 Elapse: 17:27.4 367
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 157 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2198

2197

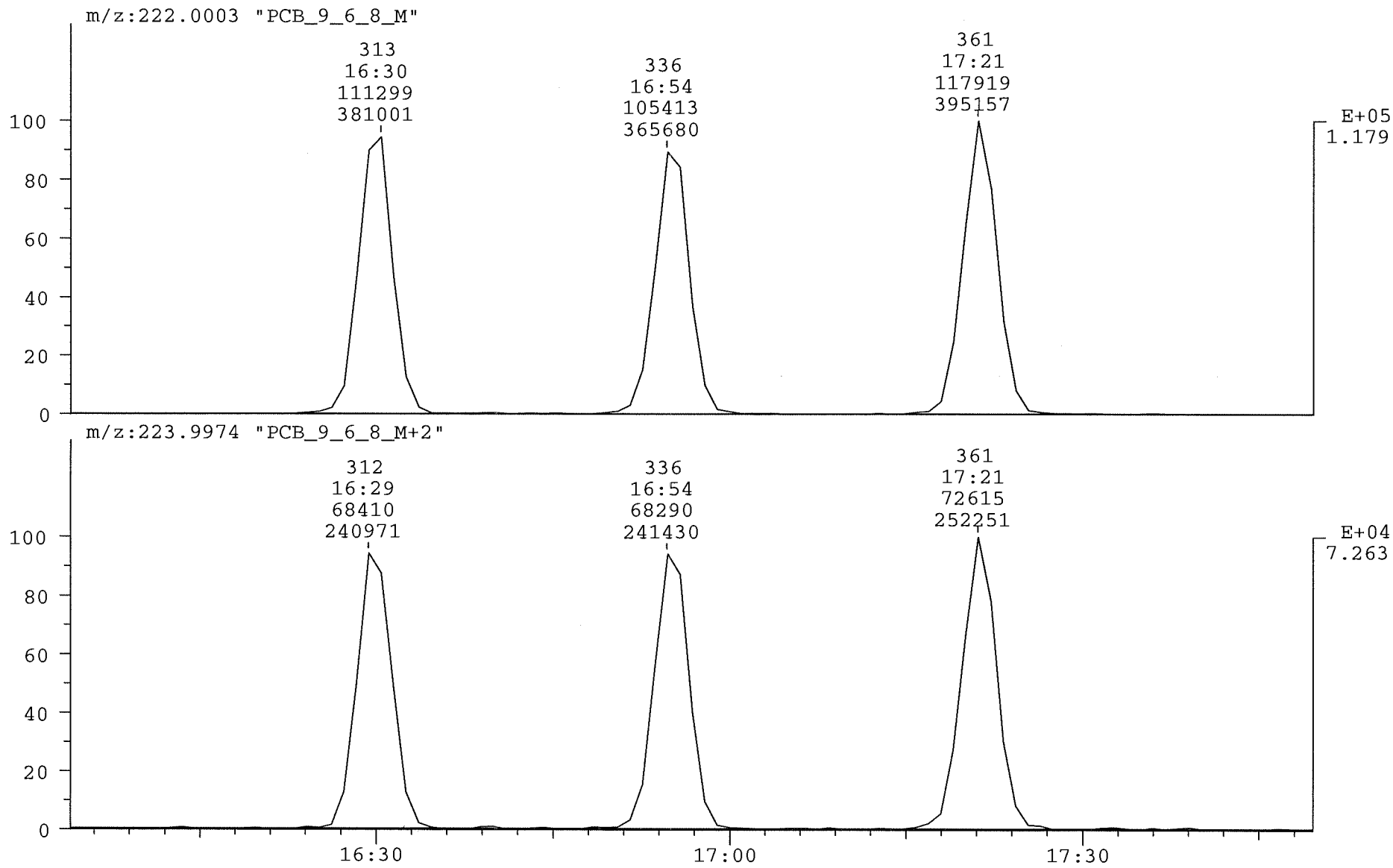
CHRO: a0806m1r2 10-Jun-08 Elapse: 14:40.5 209
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 189 > 229 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2199

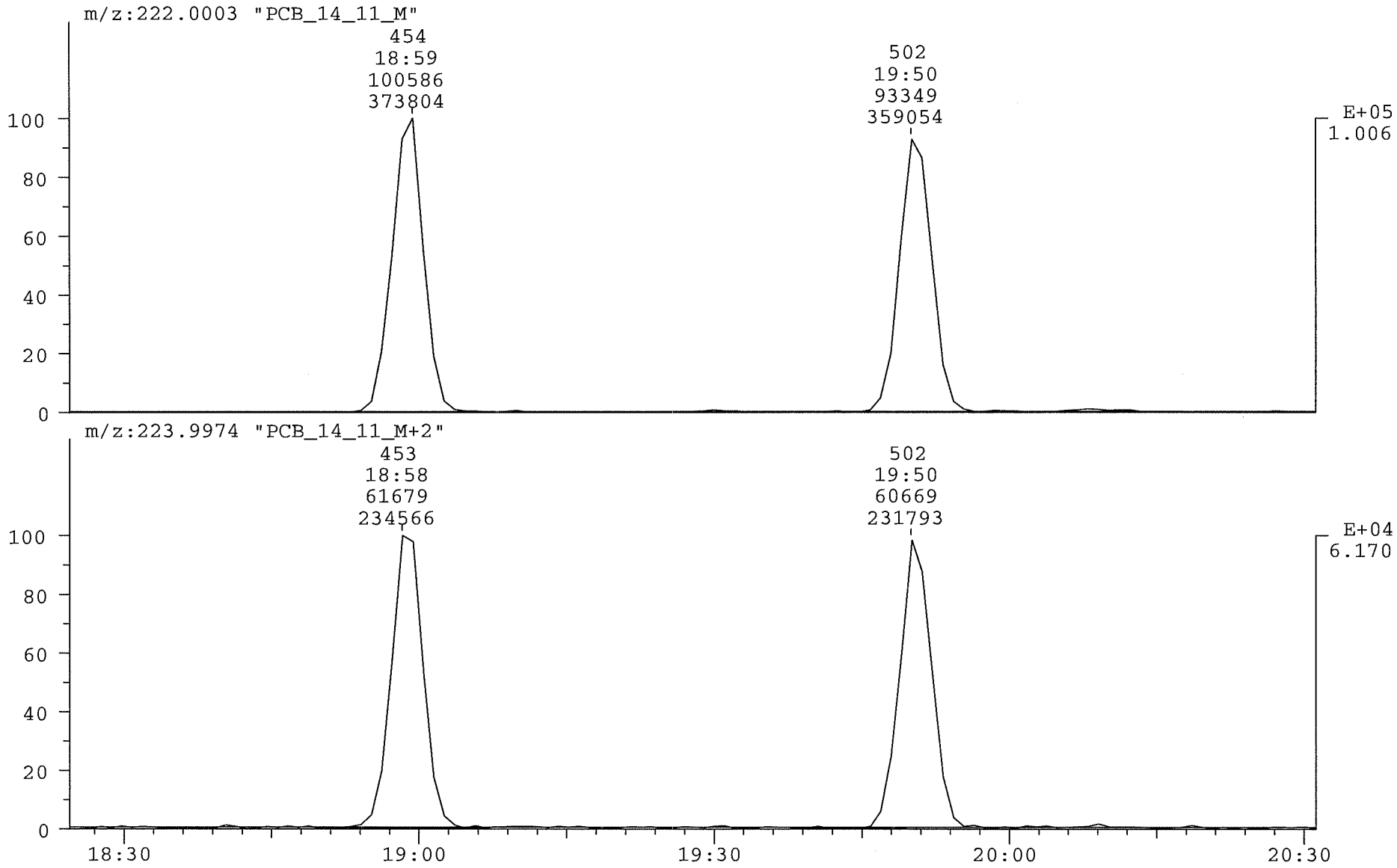
2198

CHRO: a0806m1r2 10-Jun-08 Elapse: 16:56.8 338
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 288 > 388 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2200

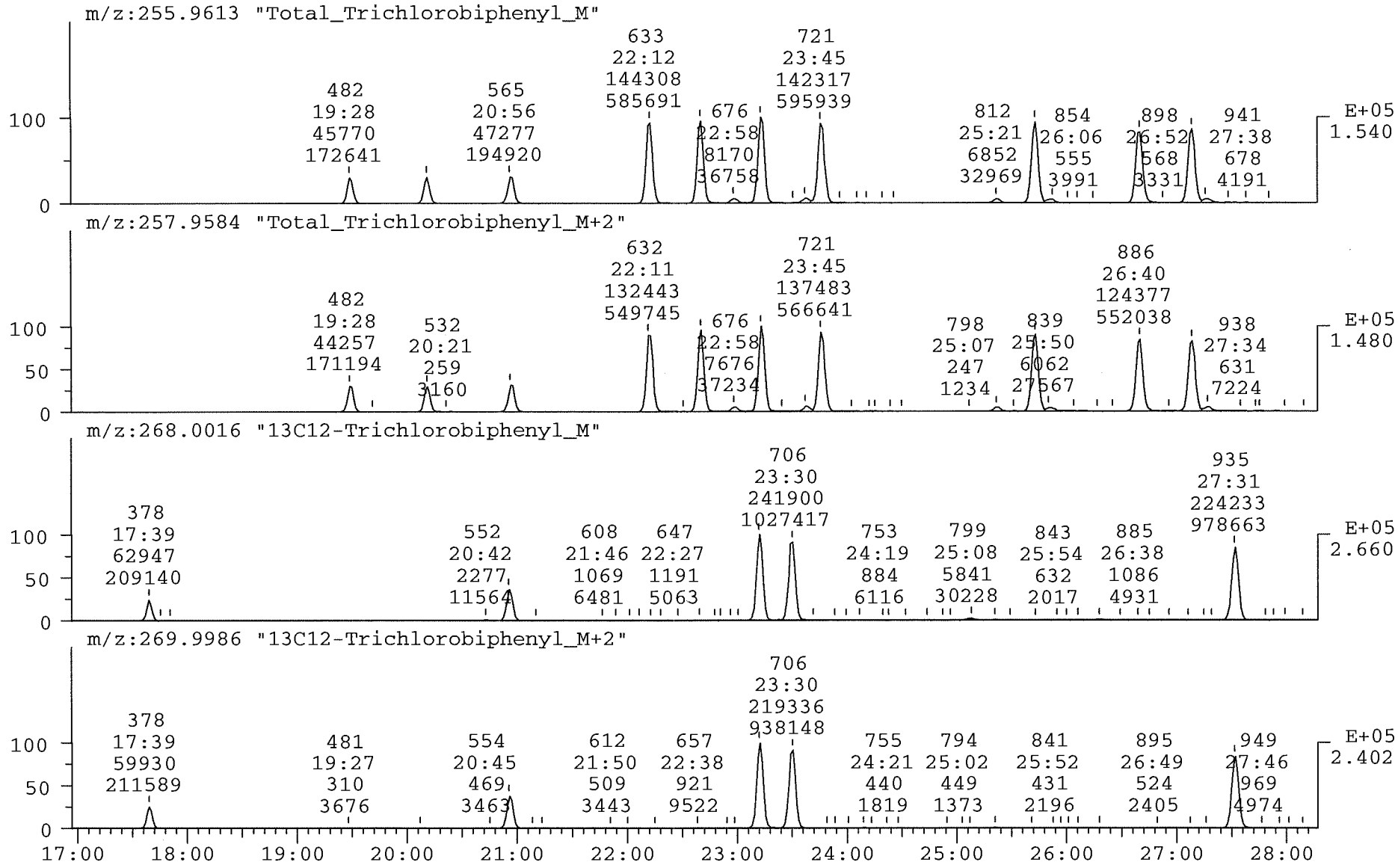
CHRO: a0806m1r2 10-Jun-08 Elapse: 19:27.9 481
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 421 > 541 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2201

2200

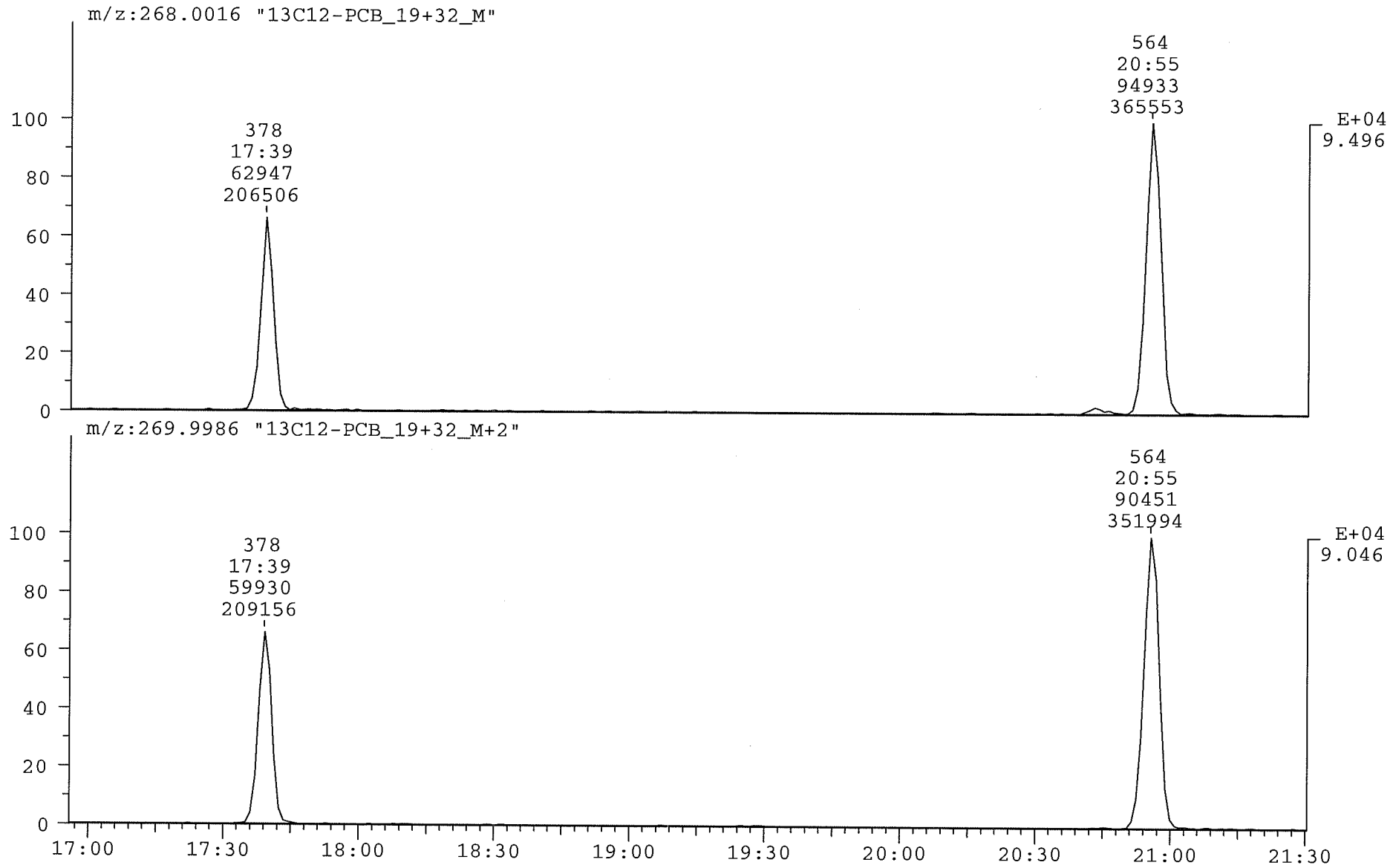
CHRO: a0806m1r2 10-Jun-08 Elapse: 22:39.3 658
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 338 > 978 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2202

2201

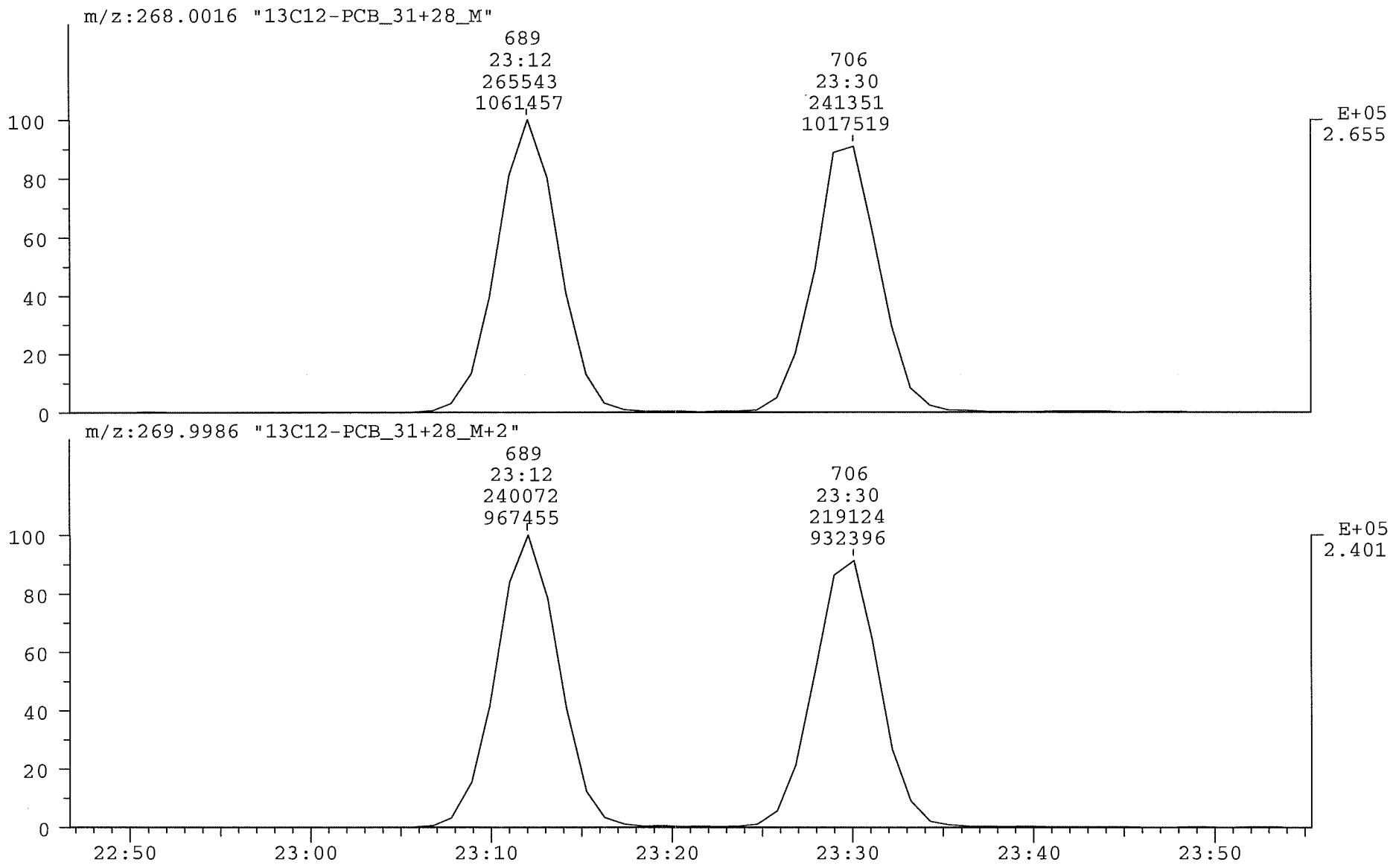
CHRO: a0806m1r2 10-Jun-08 Elapse: 19:02.5 457
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 337 > 597 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2203

2202

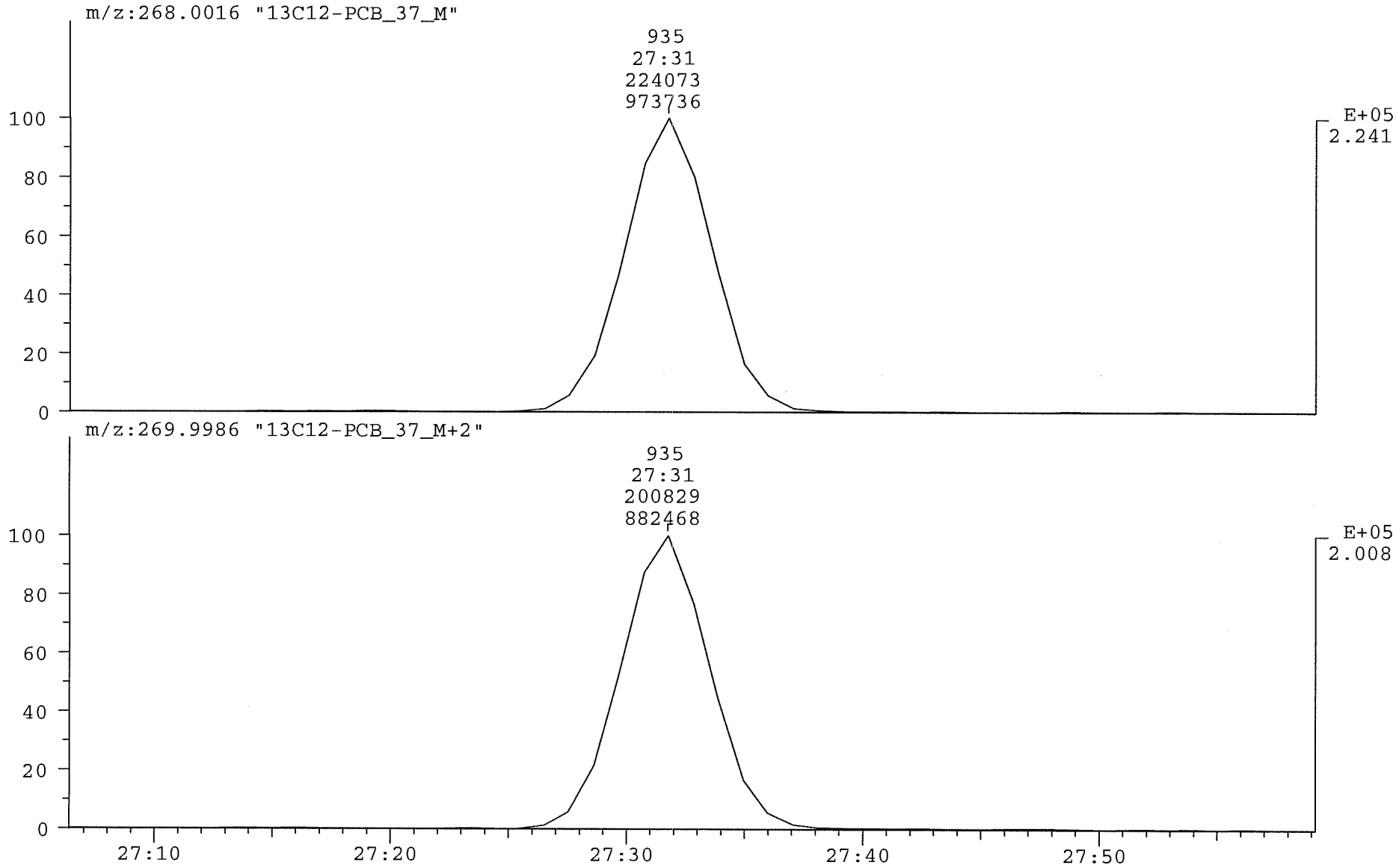
CHRO: a0806m1r2 10-Jun-08 Elapse: 23:13.1 690
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2204

2203

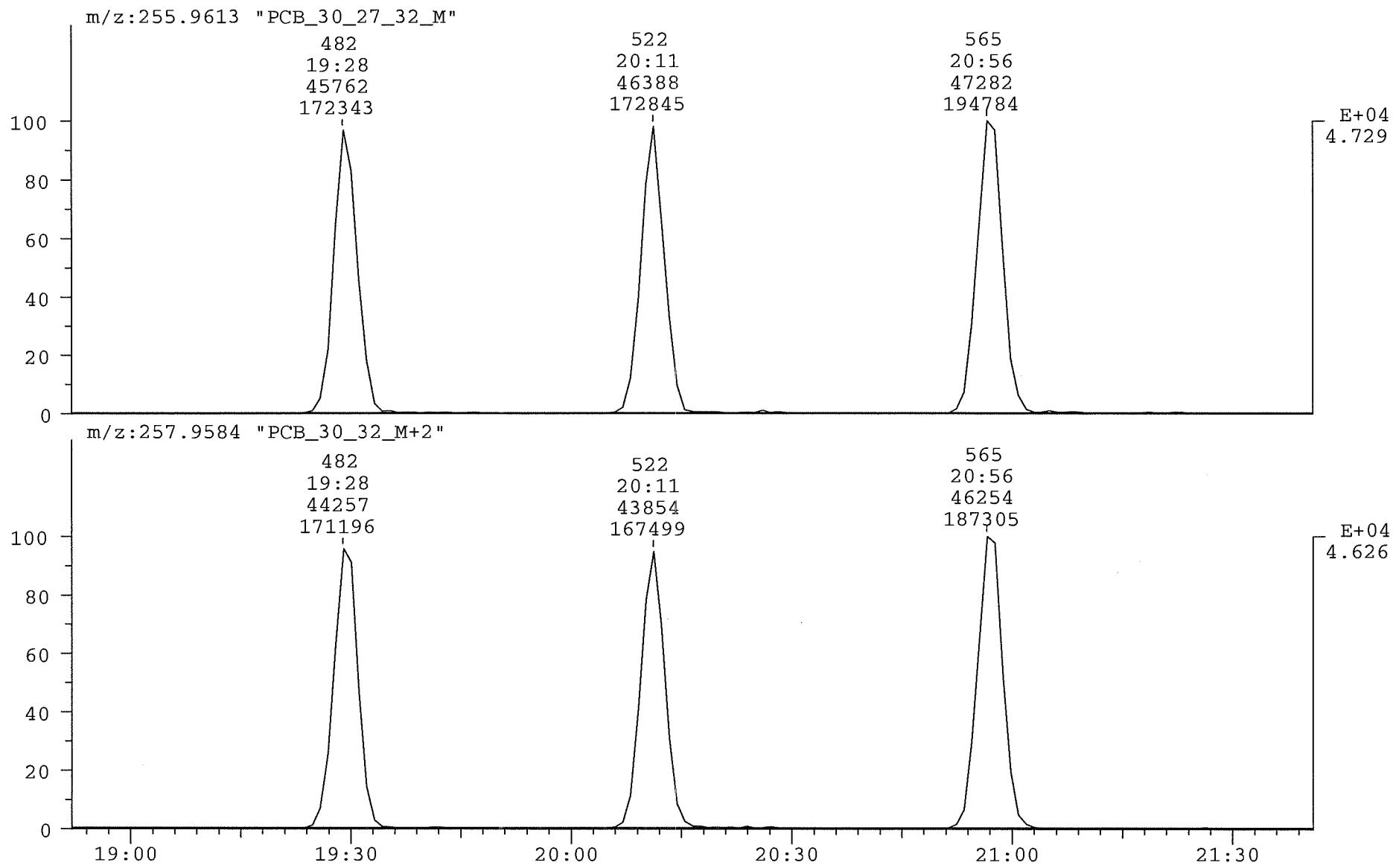
CHRO: a0806m1r2 10-Jun-08 Elapse: 27:32.8 936
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2205

2204

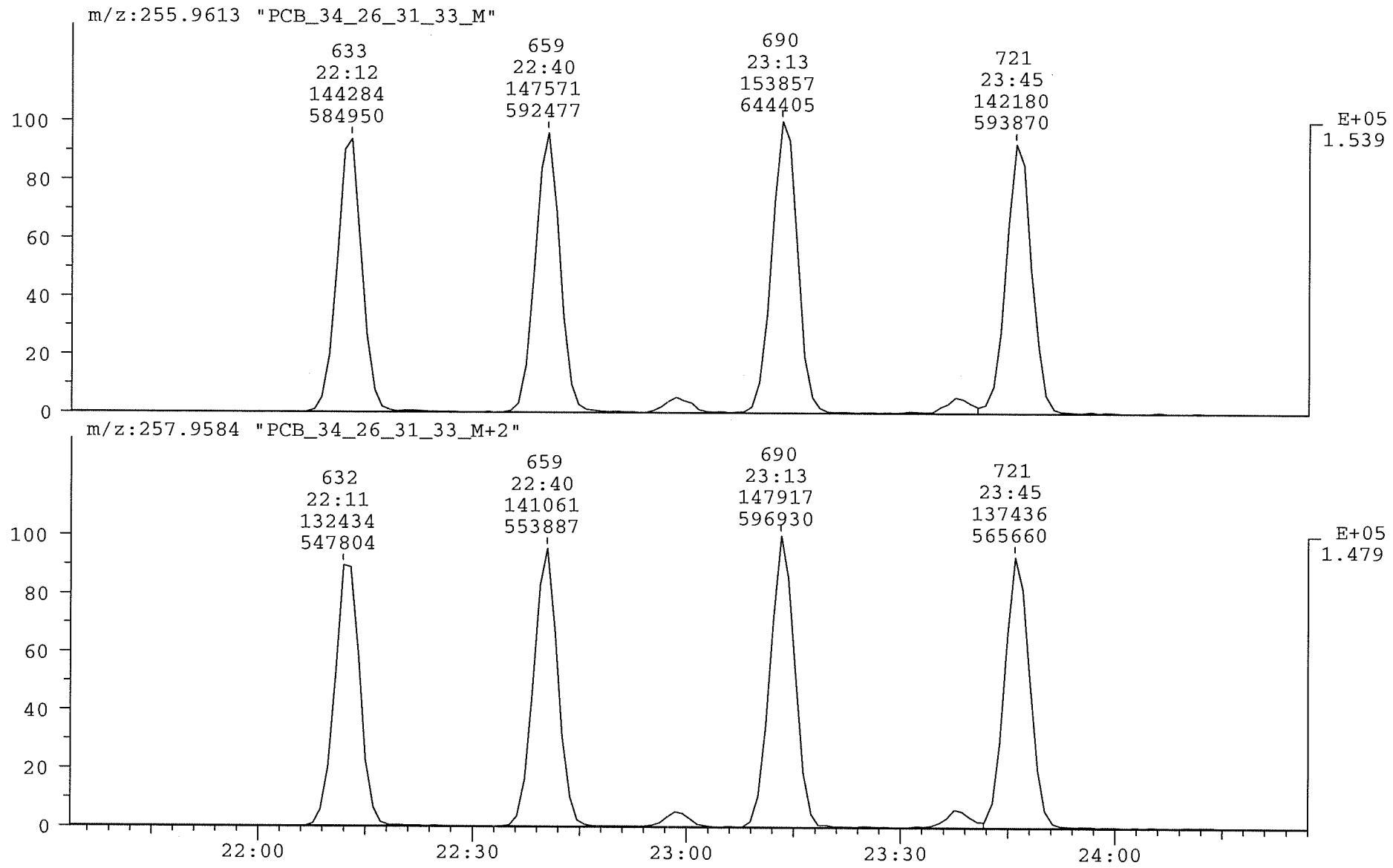
CHRO: a0806m1r2 10-Jun-08 Elapse: 20:16.4 527
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 447 > 607 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2206

2205

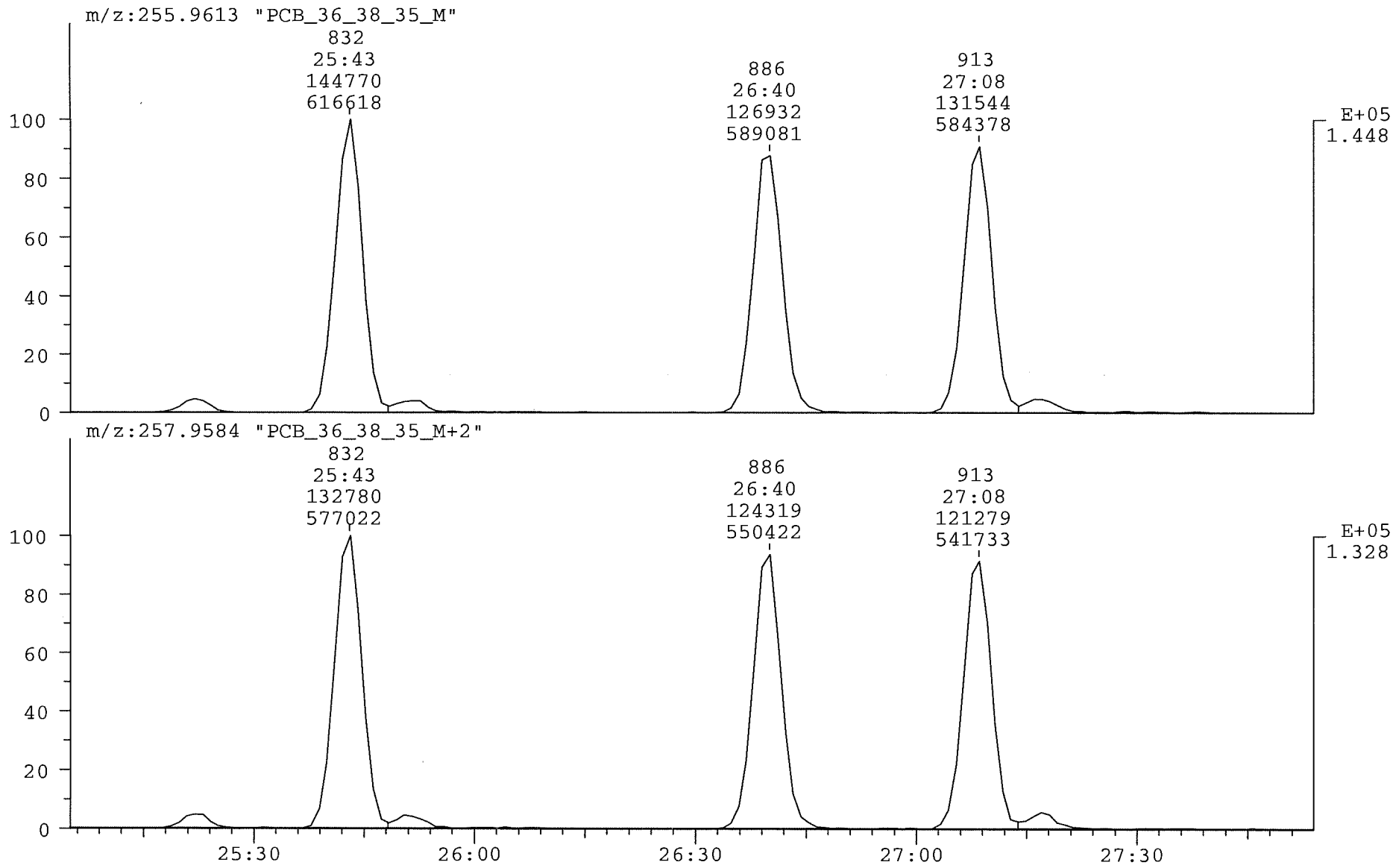
```
CHRO:  a0806m1r2                              10-Jun-08   Elapse:   23:02.5      680
Samp:  Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1              Start :   19:43:17    2601
Comm:  Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :   2990:75 Mix 1
Oper:  DCG           Client:  TA Knoxville                Inlet :   GC     Vial  11
Peak:  100.00  ppm     Label wndw:   600 > 760            Masses:   181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3               Label :   -3, 3.0
Disp:  Height  Area
```



H-2207

2206

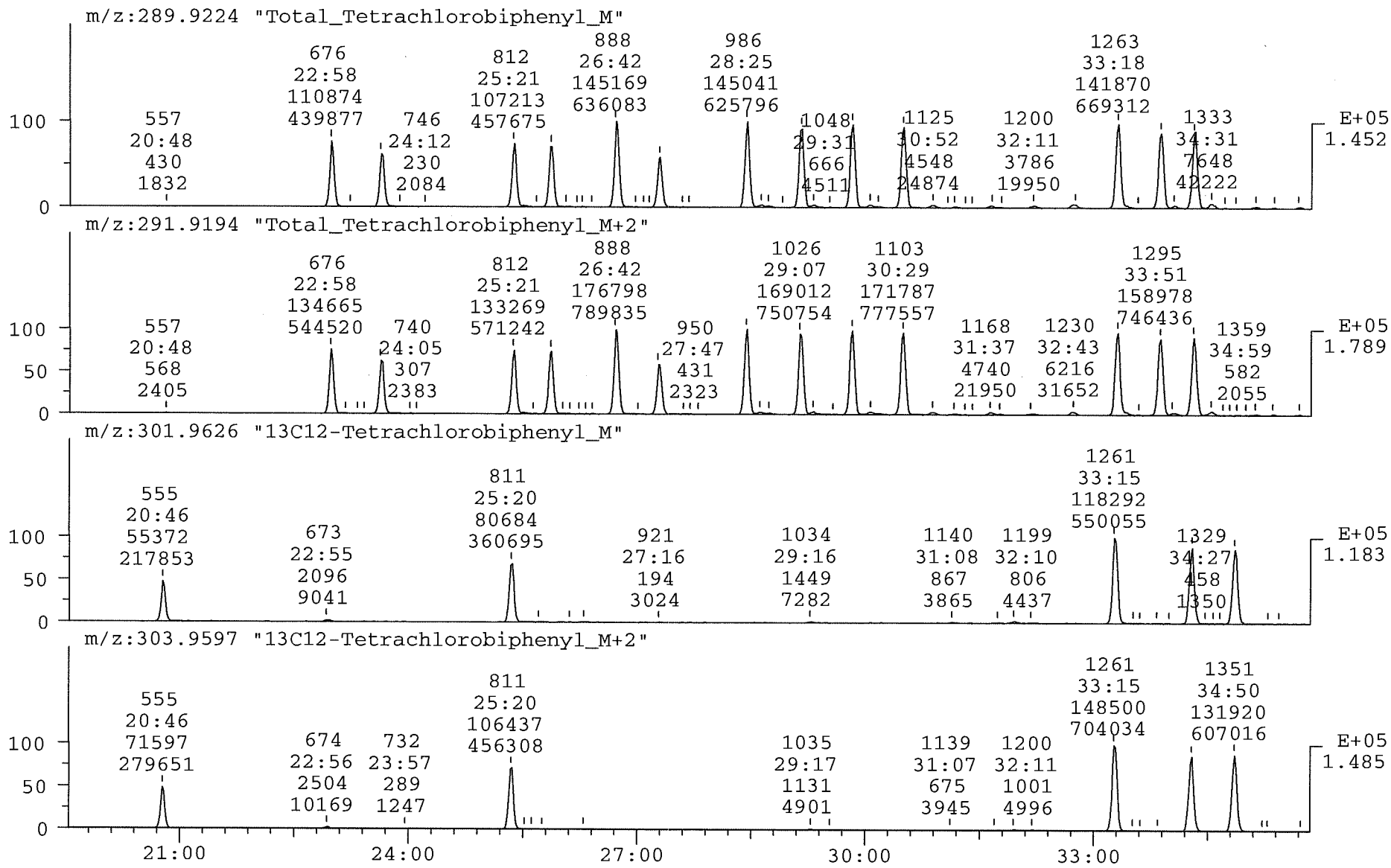
CHRO: a0806m1r2 10-Jun-08 Elapse: 26:29.4 876
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 796 > 956 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2208

2207

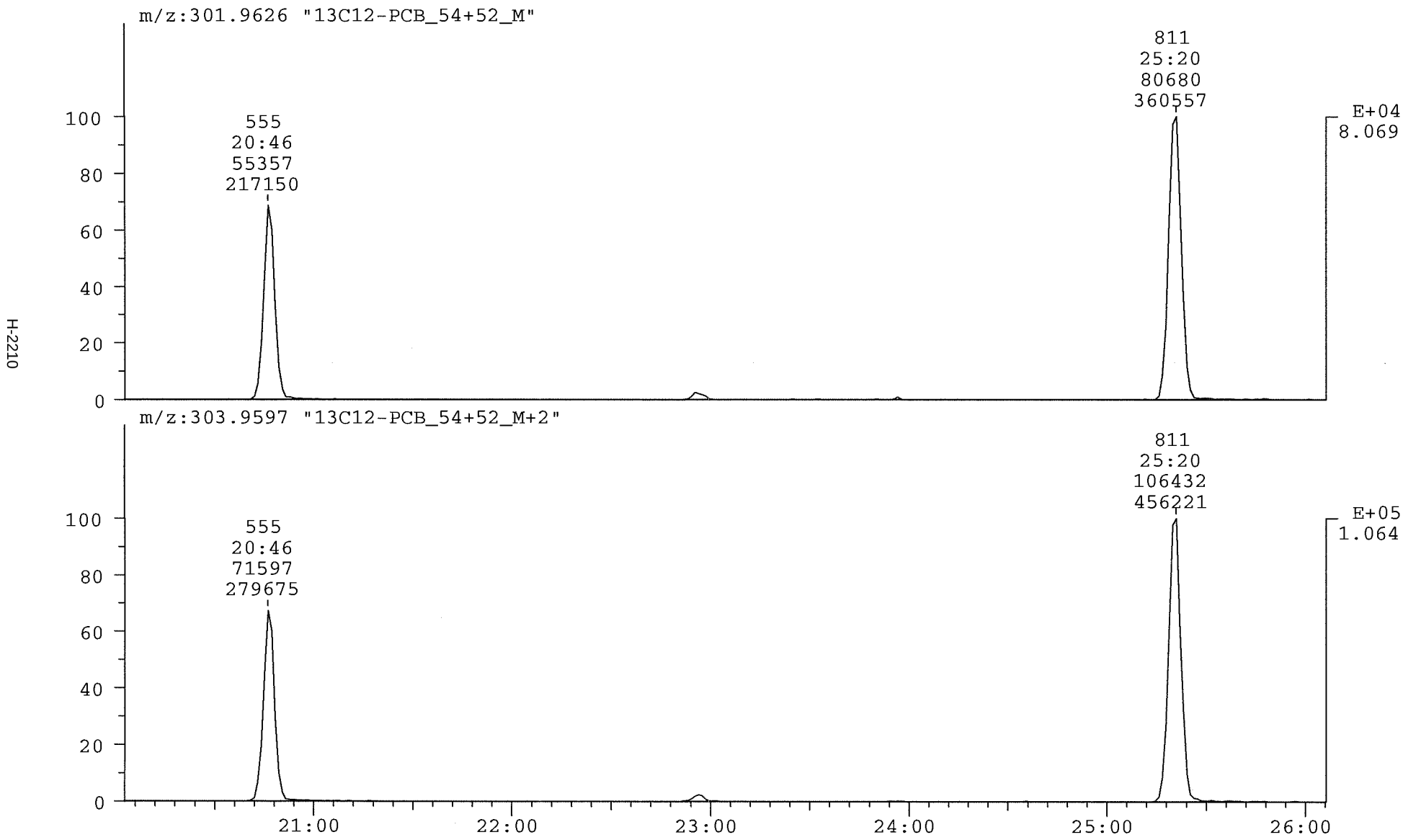
CHRO: a0806m1r2 10-Jun-08 Elapse: 27:41.3 944
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 485 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2209

2208

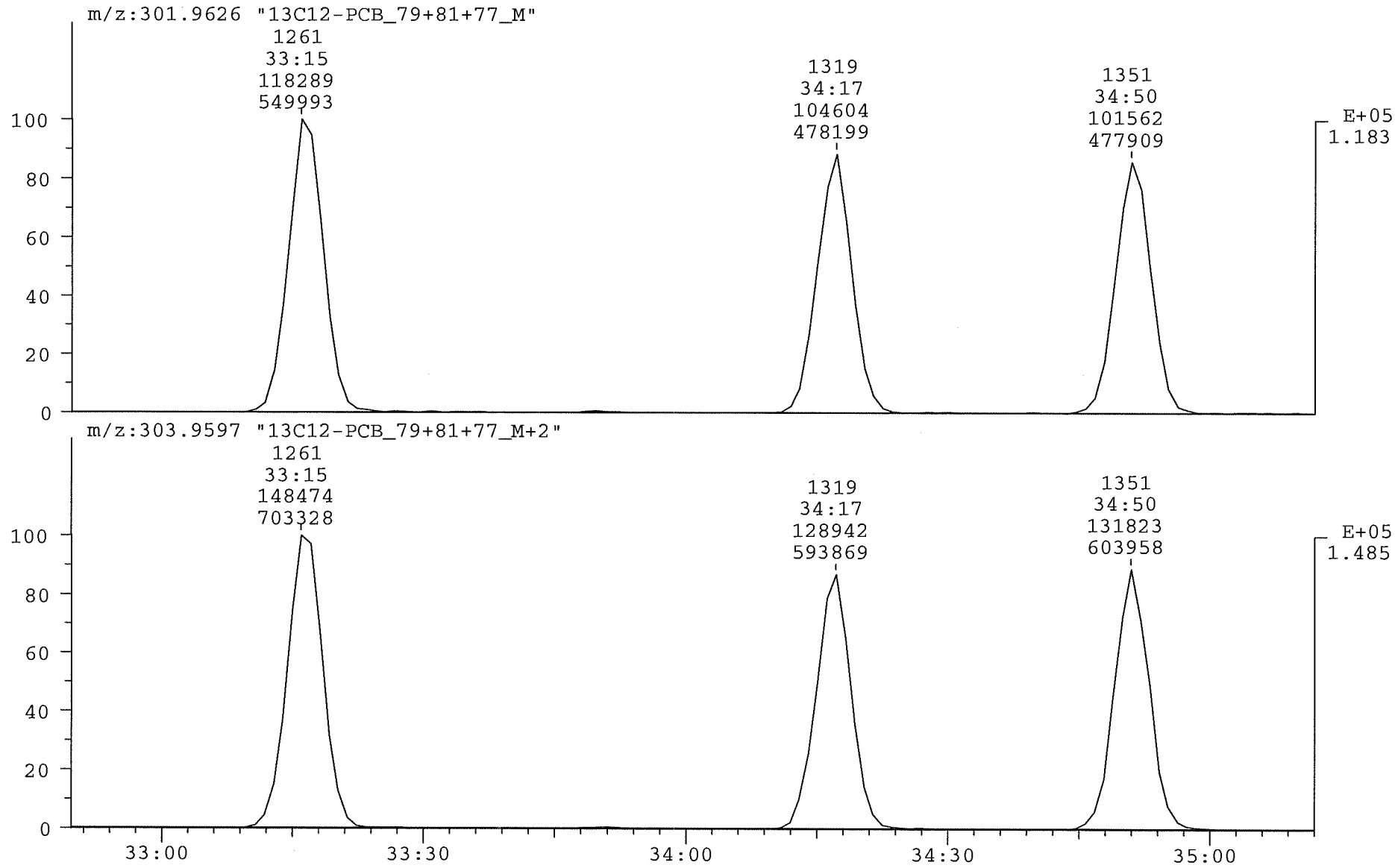
CHRO: a0806m1r2 10-Jun-08 Elapse: 23:06.8 684
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2210

2209

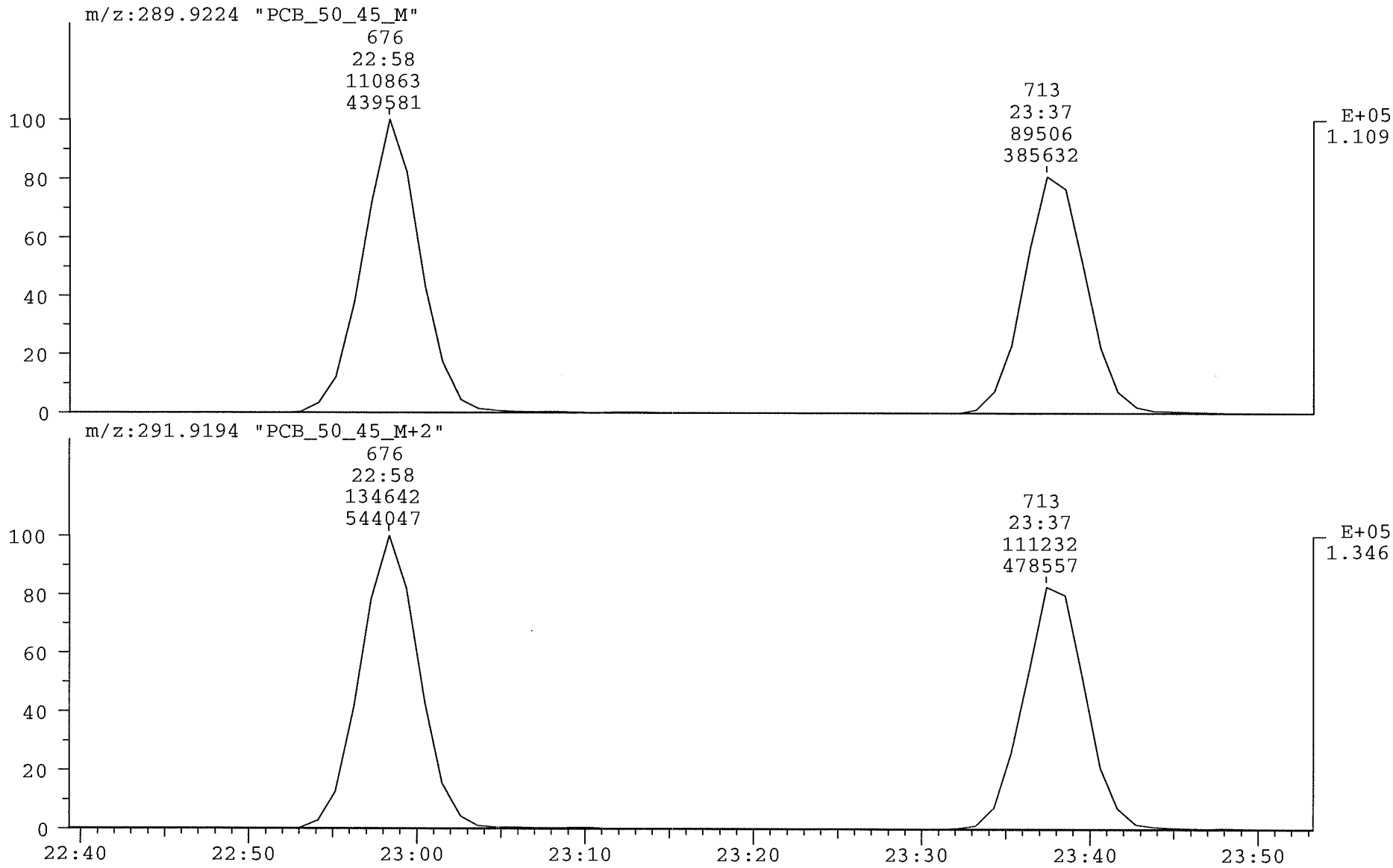
CHRO: a0806m1r2 10-Jun-08 Elapse: 34:03 1306
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1236 > 1371 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2211

2210

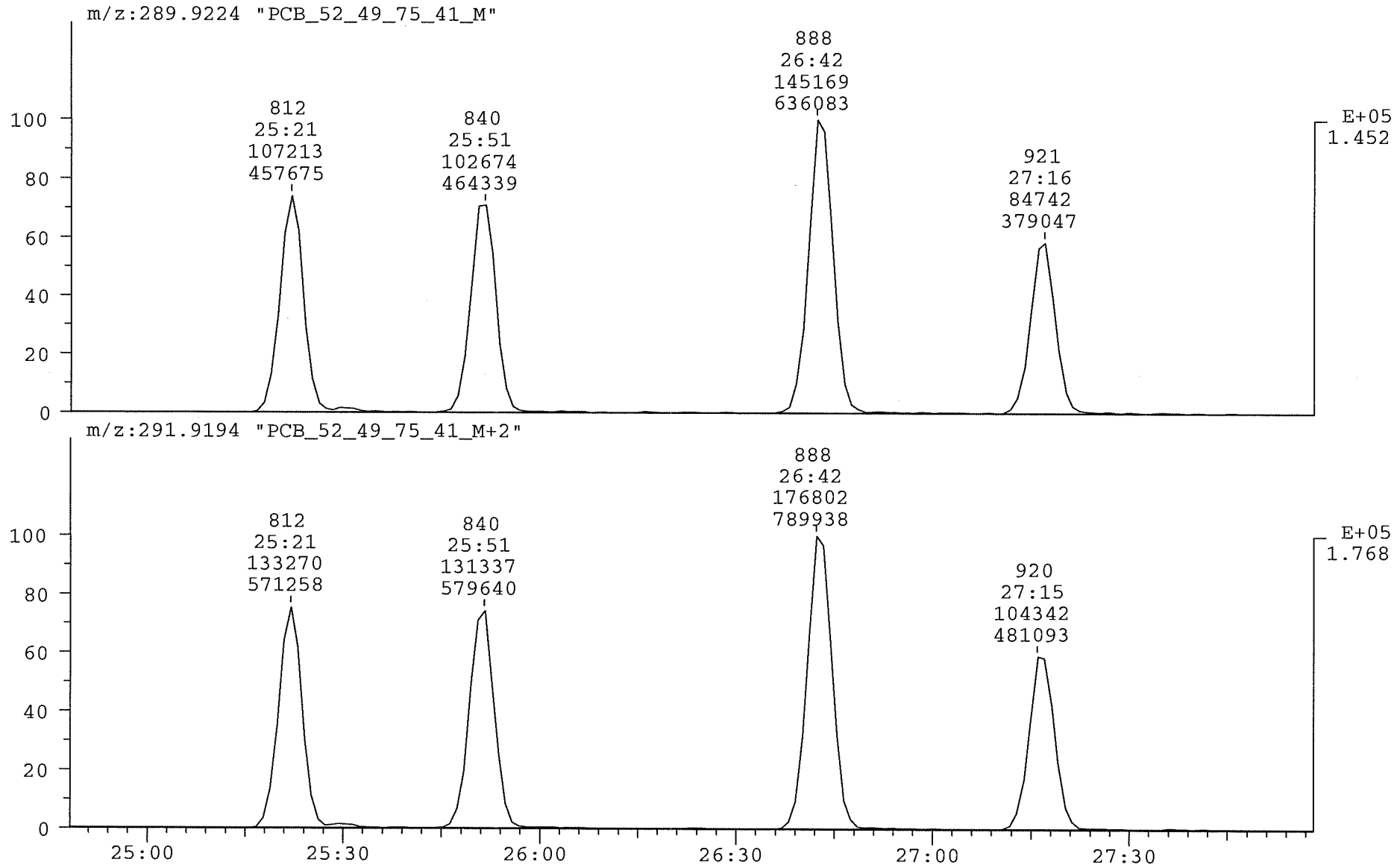
CHRO: a0806m1r2 10-Jun-08 Elapse: 23:21.6 698
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 658 > 728 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2212

2211

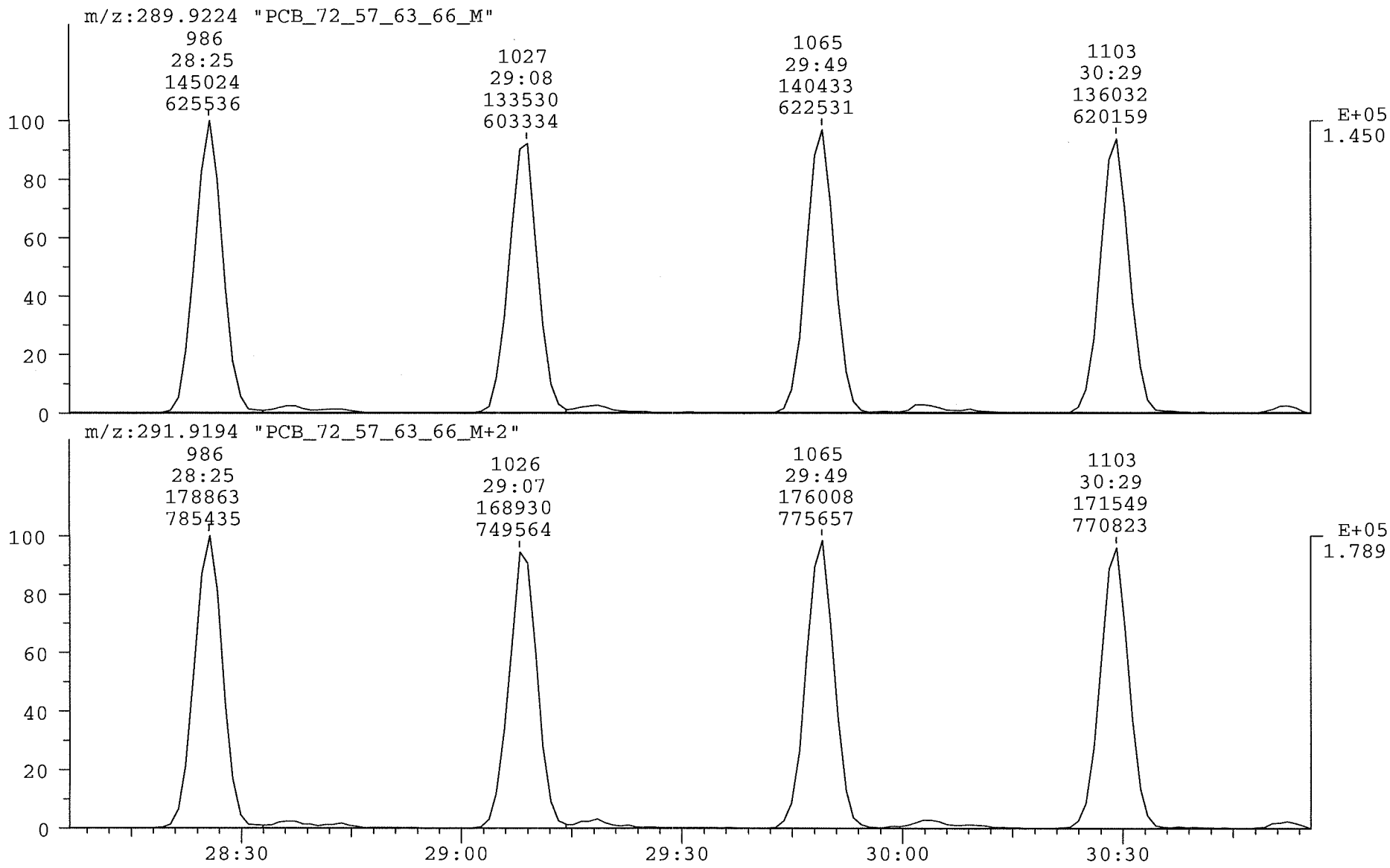
CHRO: a0806m1r2 10-Jun-08 Elapse: 26:23.1 870
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 780 > 960 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2213

2212

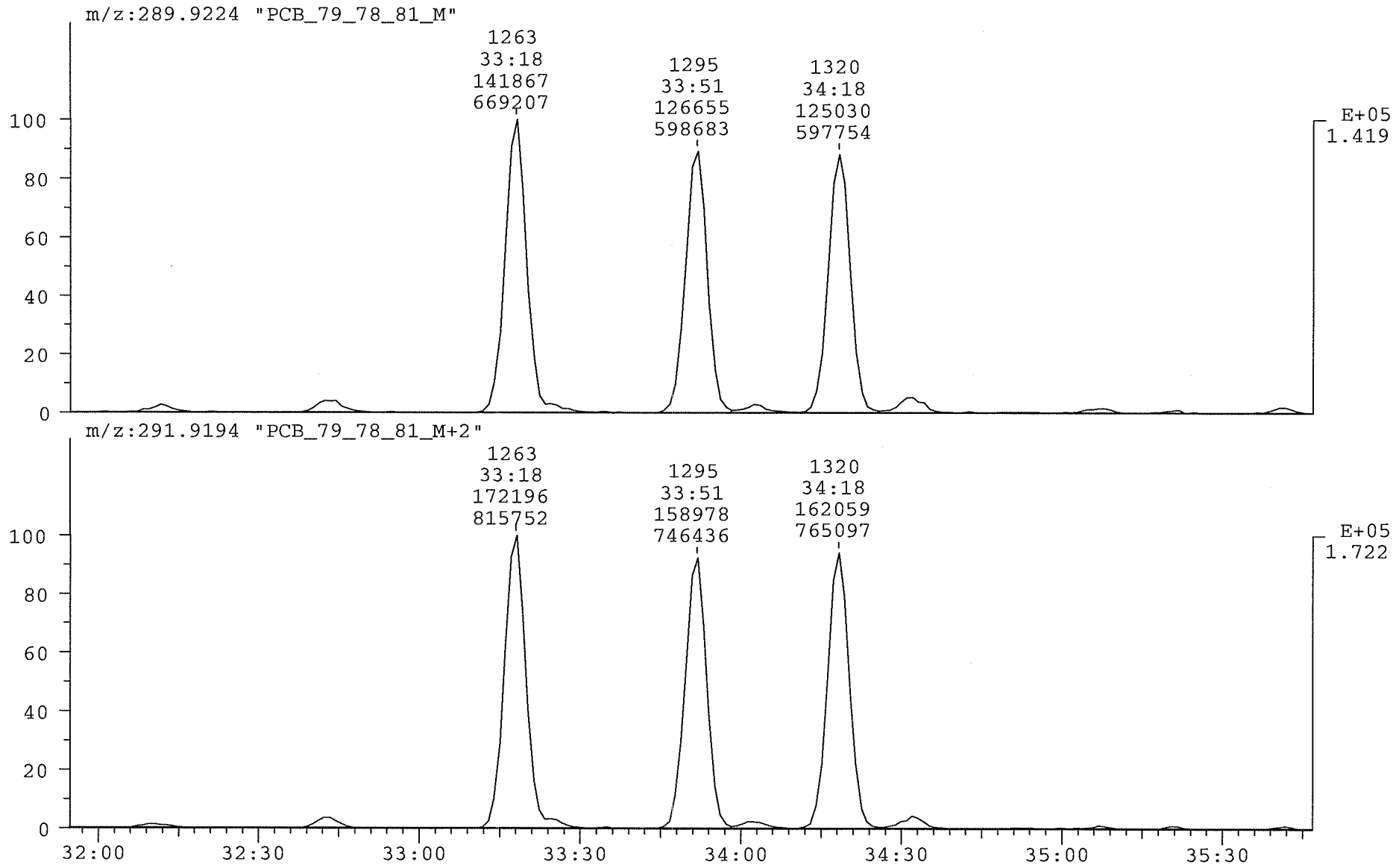
CHRO: a0806m1r2 10-Jun-08 Elapse: 29:31 1048
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 968 > 1128 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2214

2213

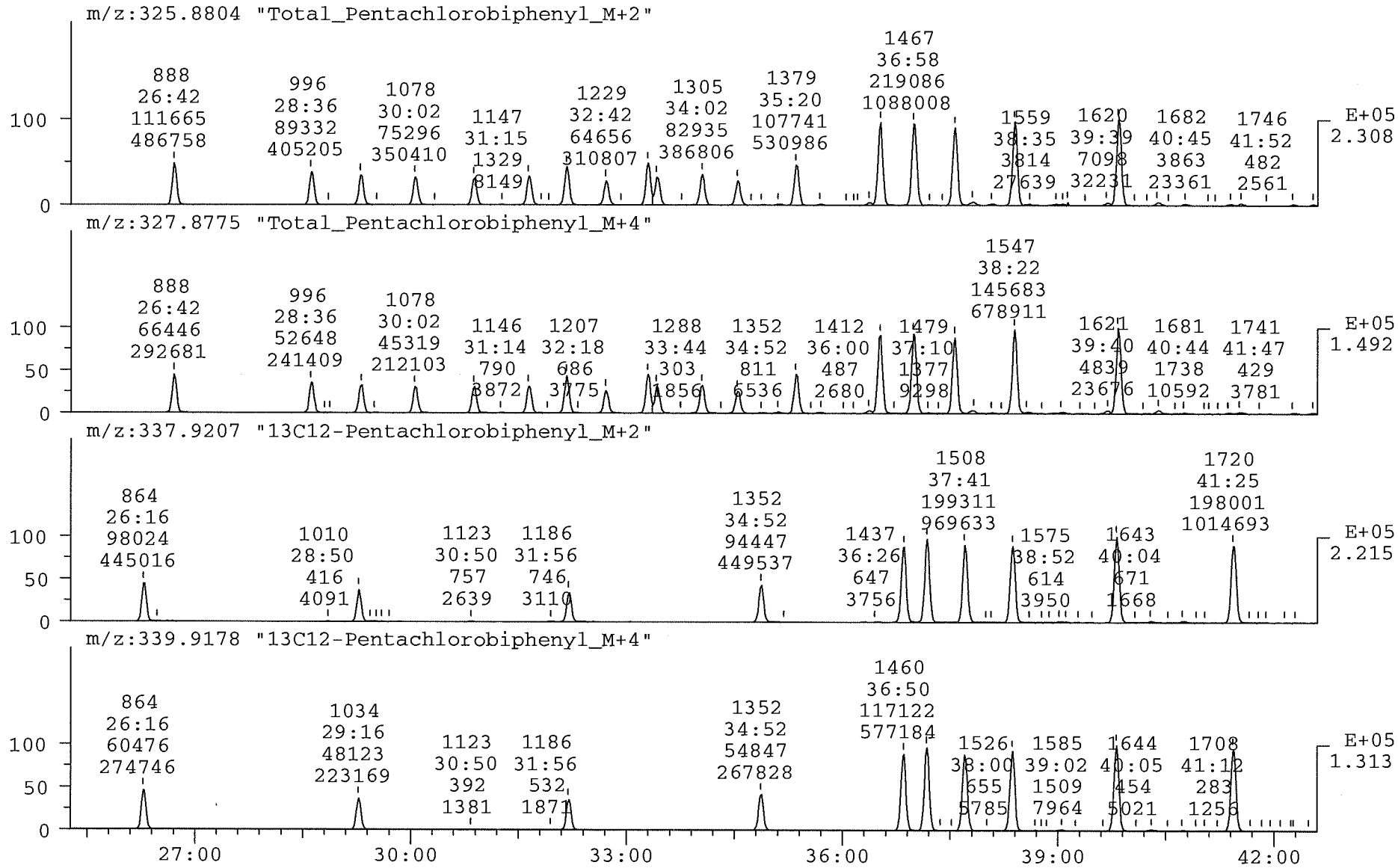
CHRO: a0806m1r2 10-Jun-08 Elapse: 33:50 1294
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1184 > 1404 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2215

2214

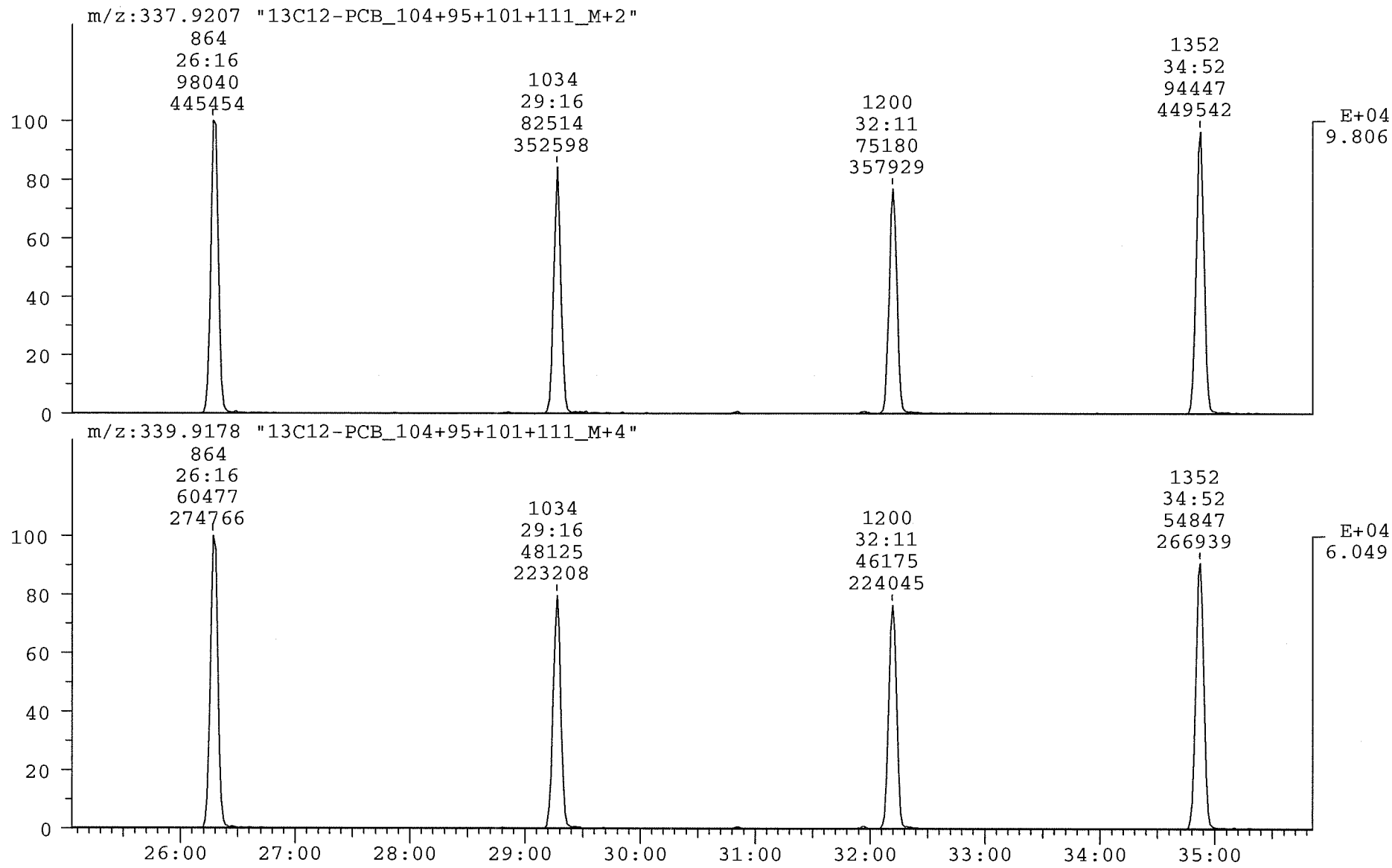
CHRO: a0806m1r2 10-Jun-08 Elapse: 33:56 1299
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 806 > 1787 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2216

2215

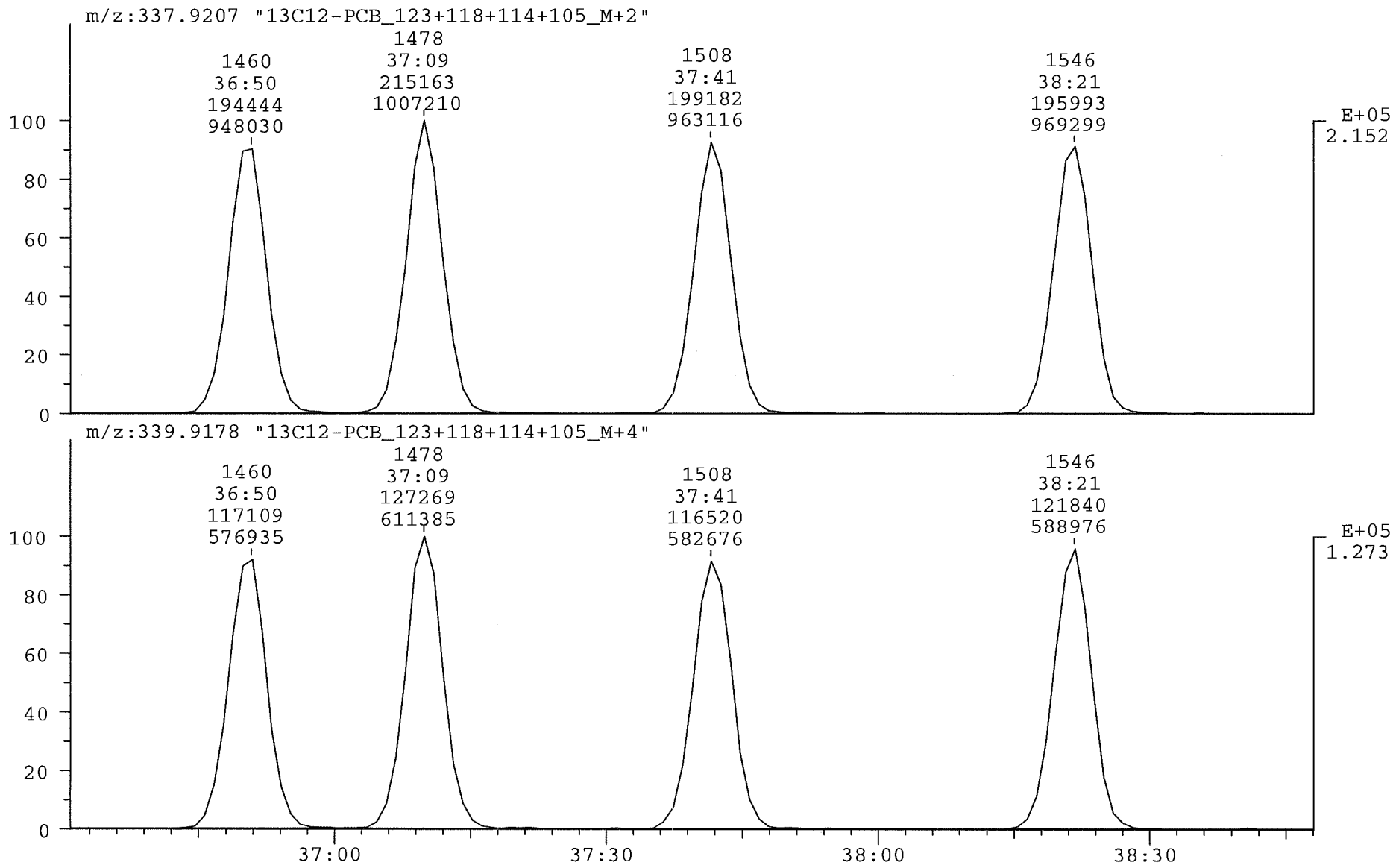
CHRO: a0806m1r2 10-Jun-08 Elapse: 30:27 1101
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 794 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2217

2216

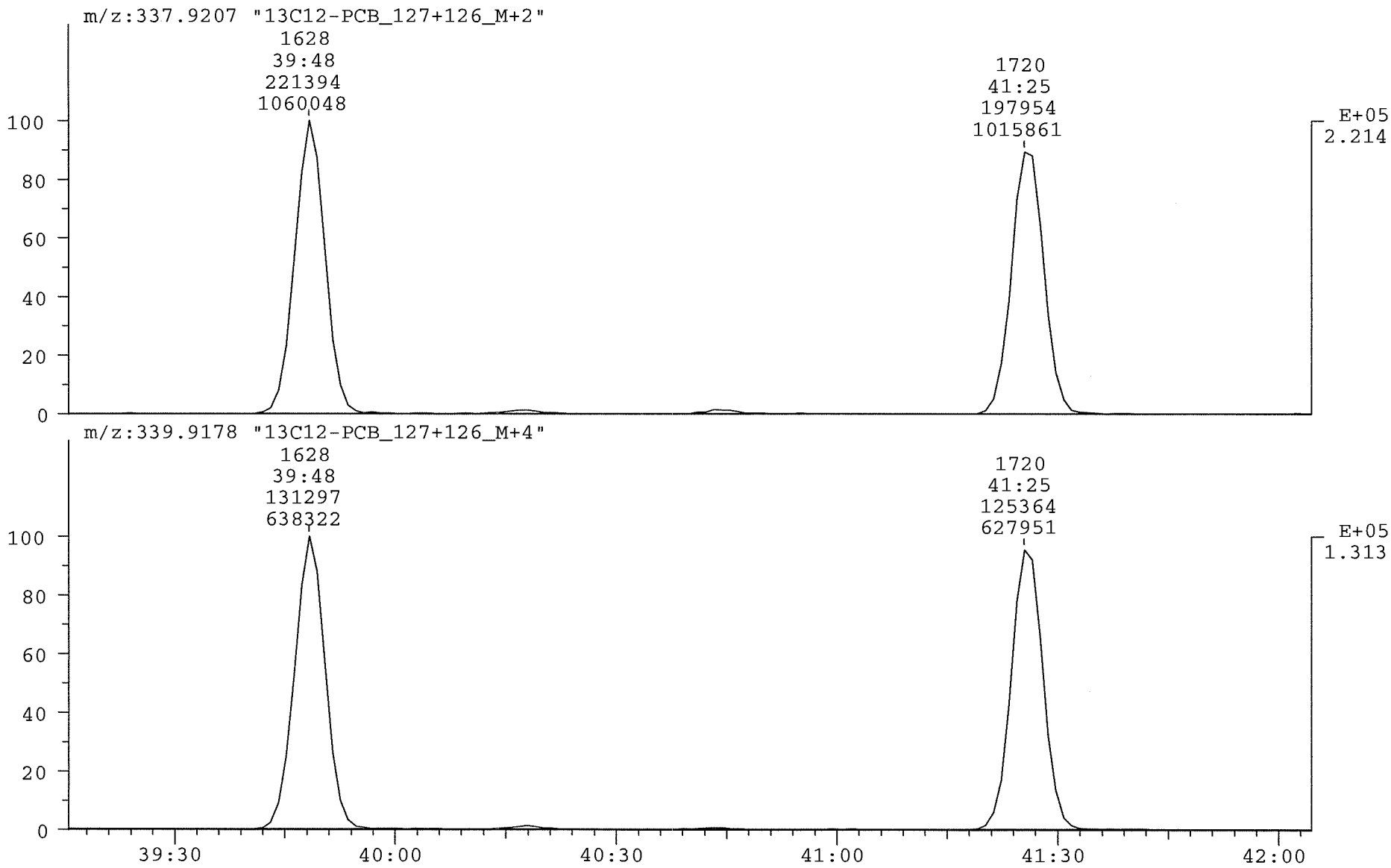
CHRO: a0806m1r2 10-Jun-08 Elapse: 37:39 1506
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1441 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2218

2217

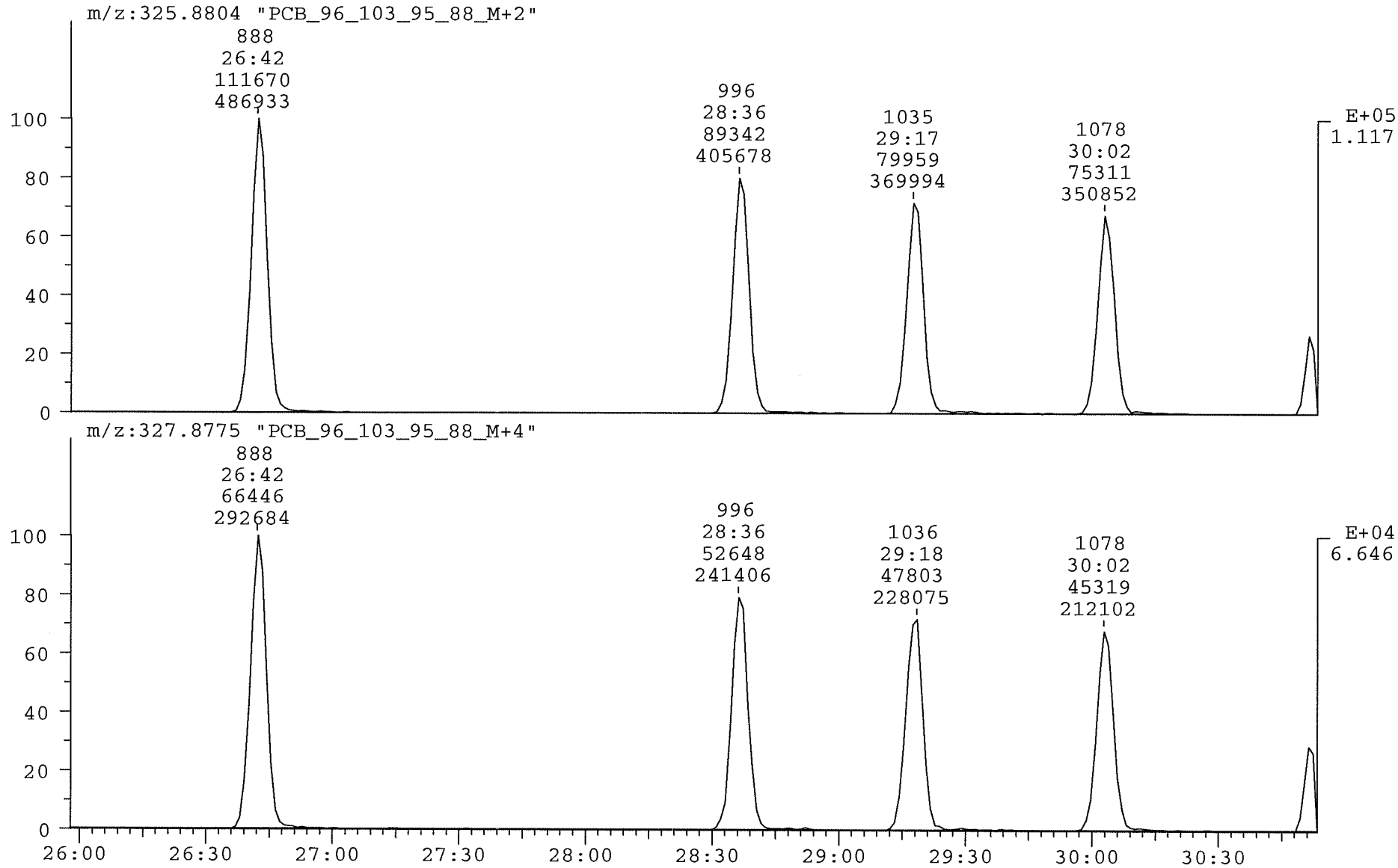
CHRO: a0806m1r2 10-Jun-08 Elapse: 40:40 1677
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1597 > 1757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2219

2218

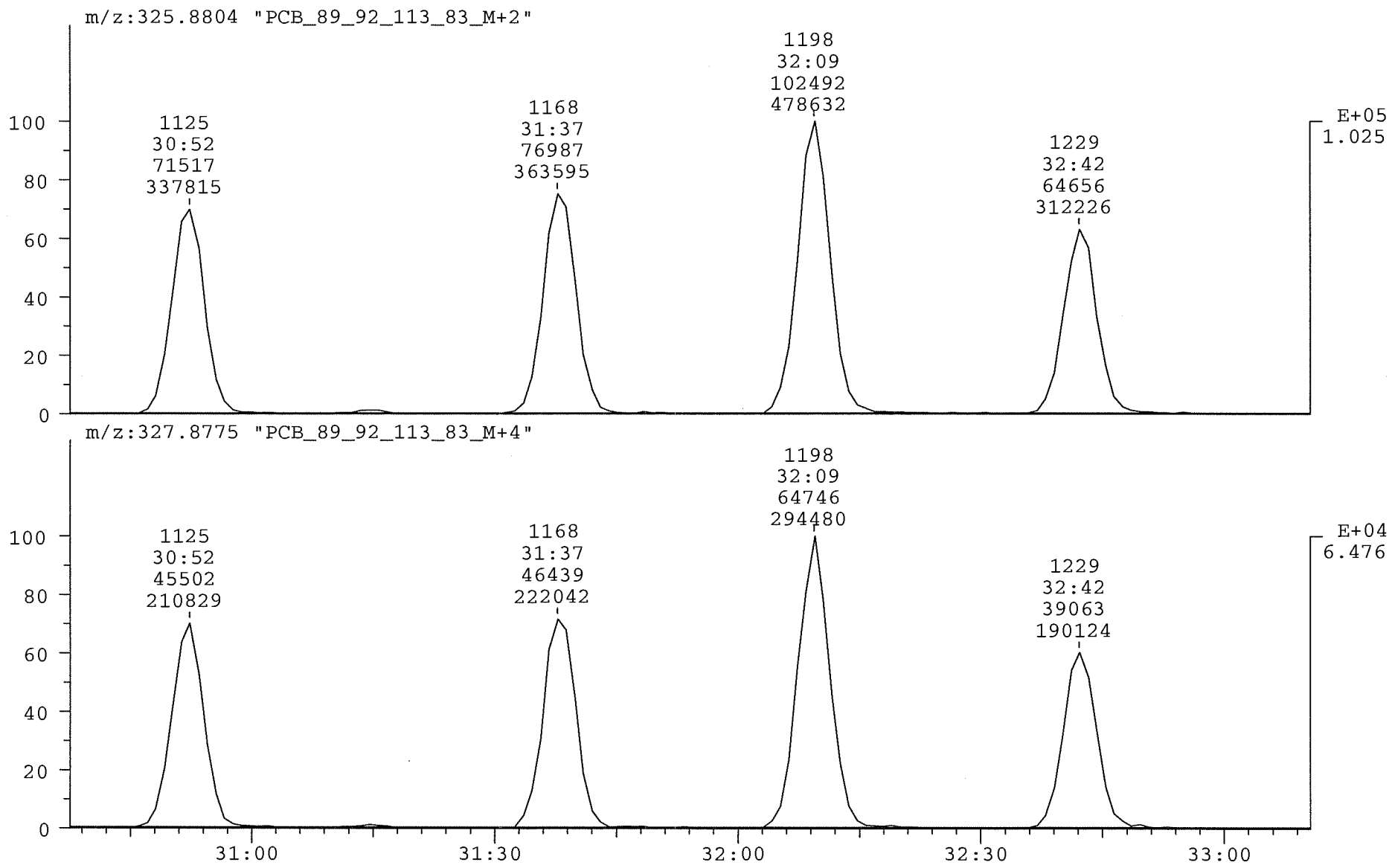
CHRO: a0806m1r2 10-Jun-08 Elapse: 28:25.6 986
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 846 > 1126 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2220

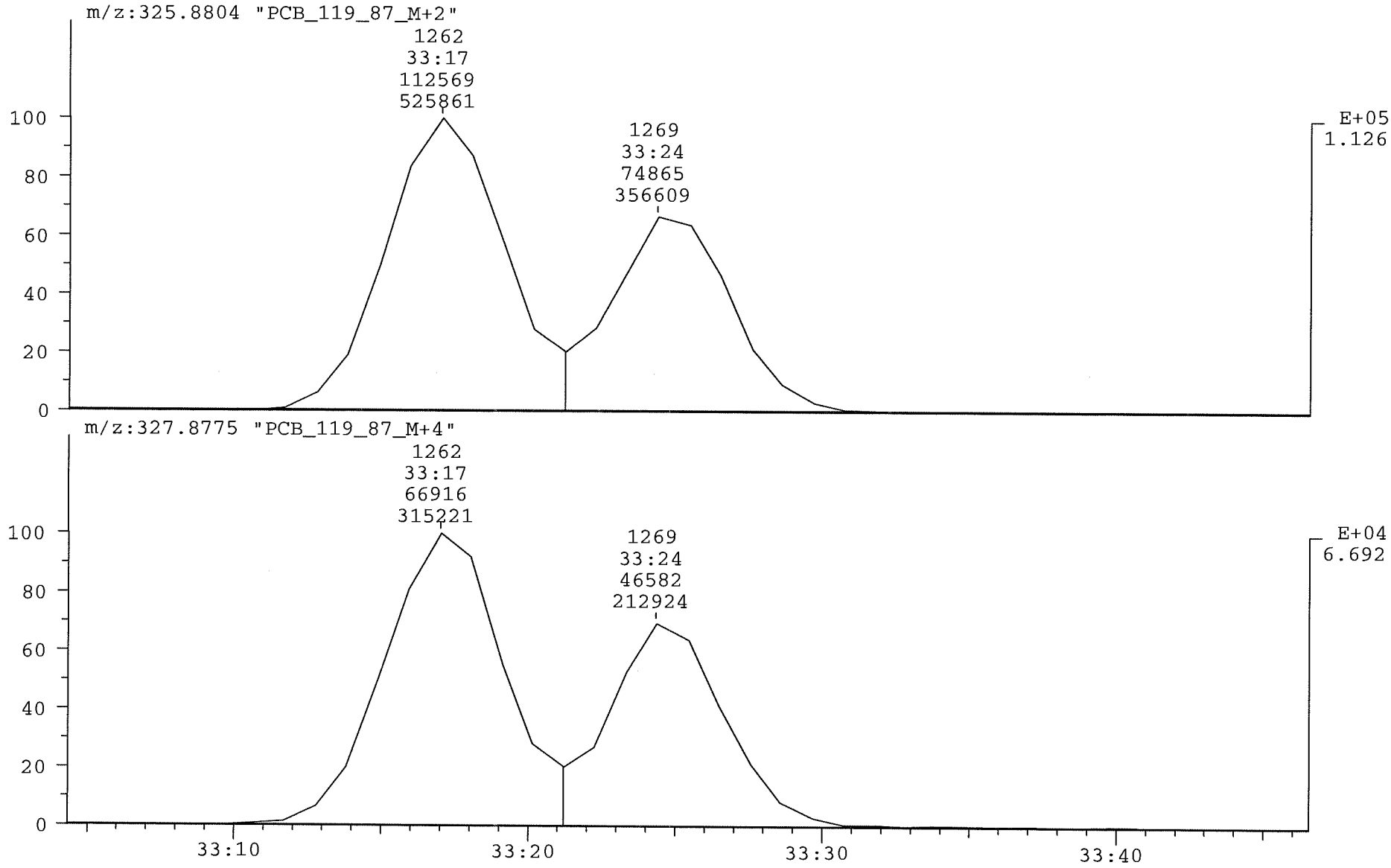
2219

CHRO: a0806m1r2 10-Jun-08 Elapse: 31:51 1181
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1111 > 1256 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2221

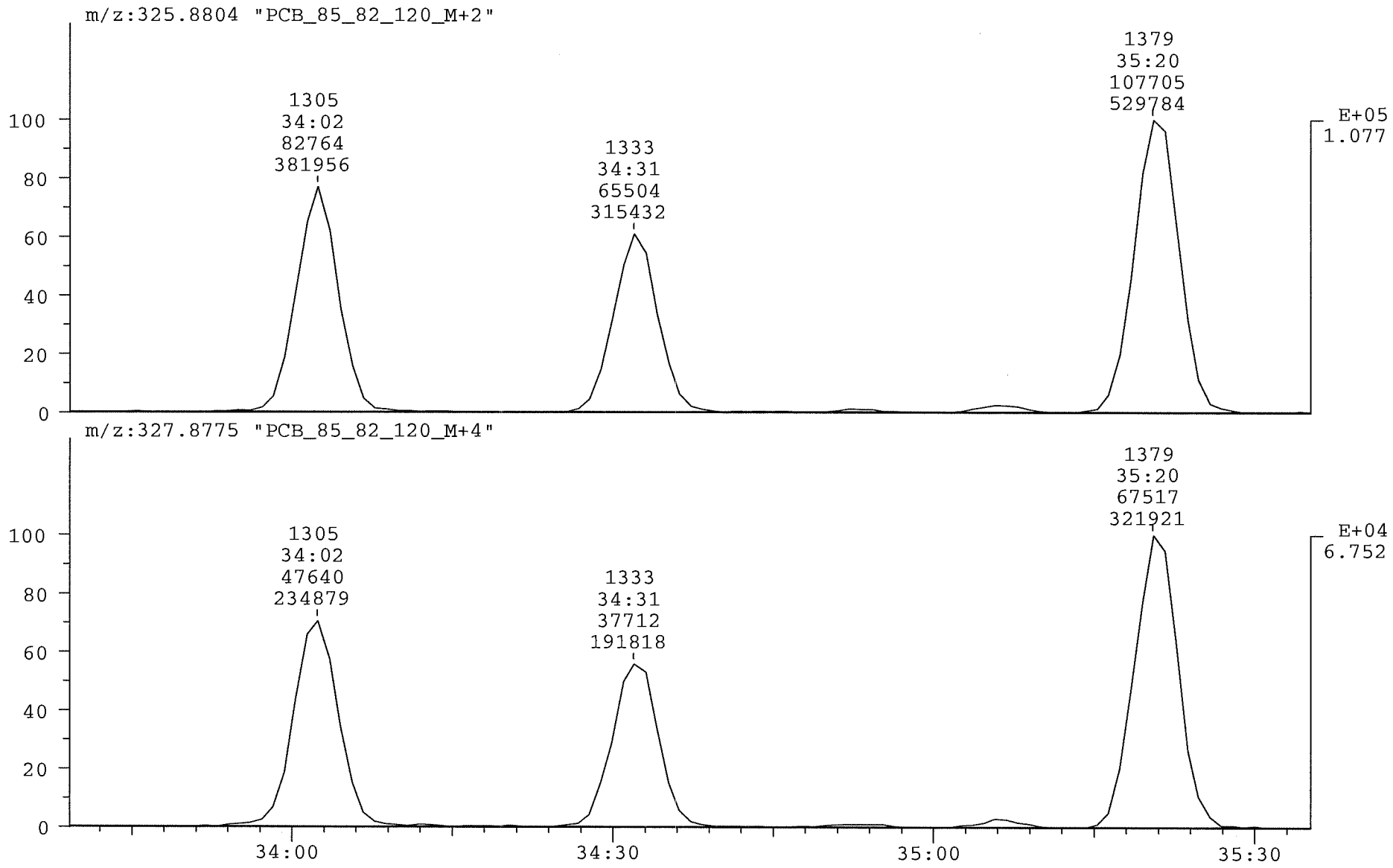
CHRO: a0806m1r2 10-Jun-08 Elapse: 33:25 1270
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1250 > 1290 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2222

2221

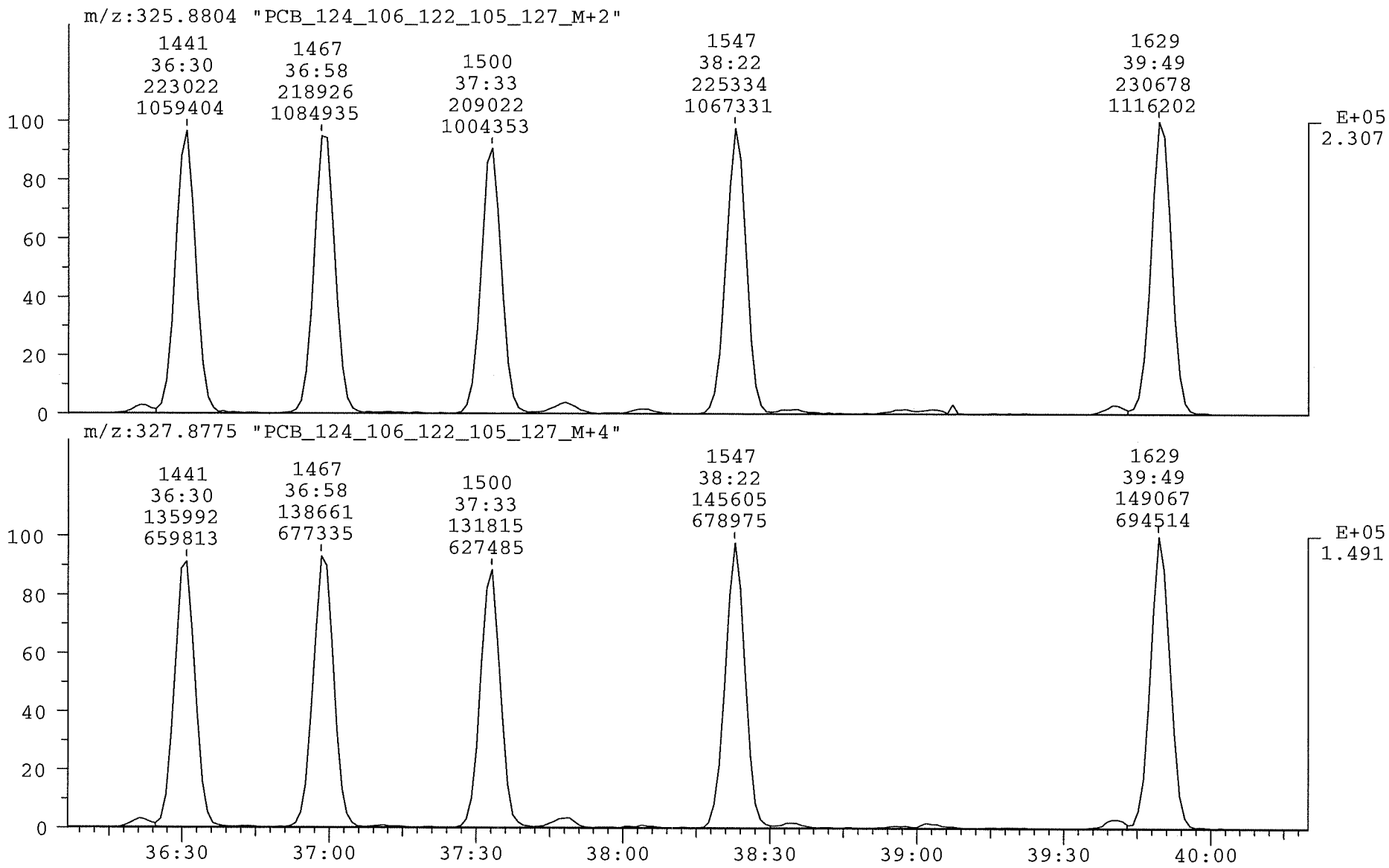
CHRO: a0806m1r2 10-Jun-08 Elapse: 34:26 1328
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1283 > 1393 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2223

2222

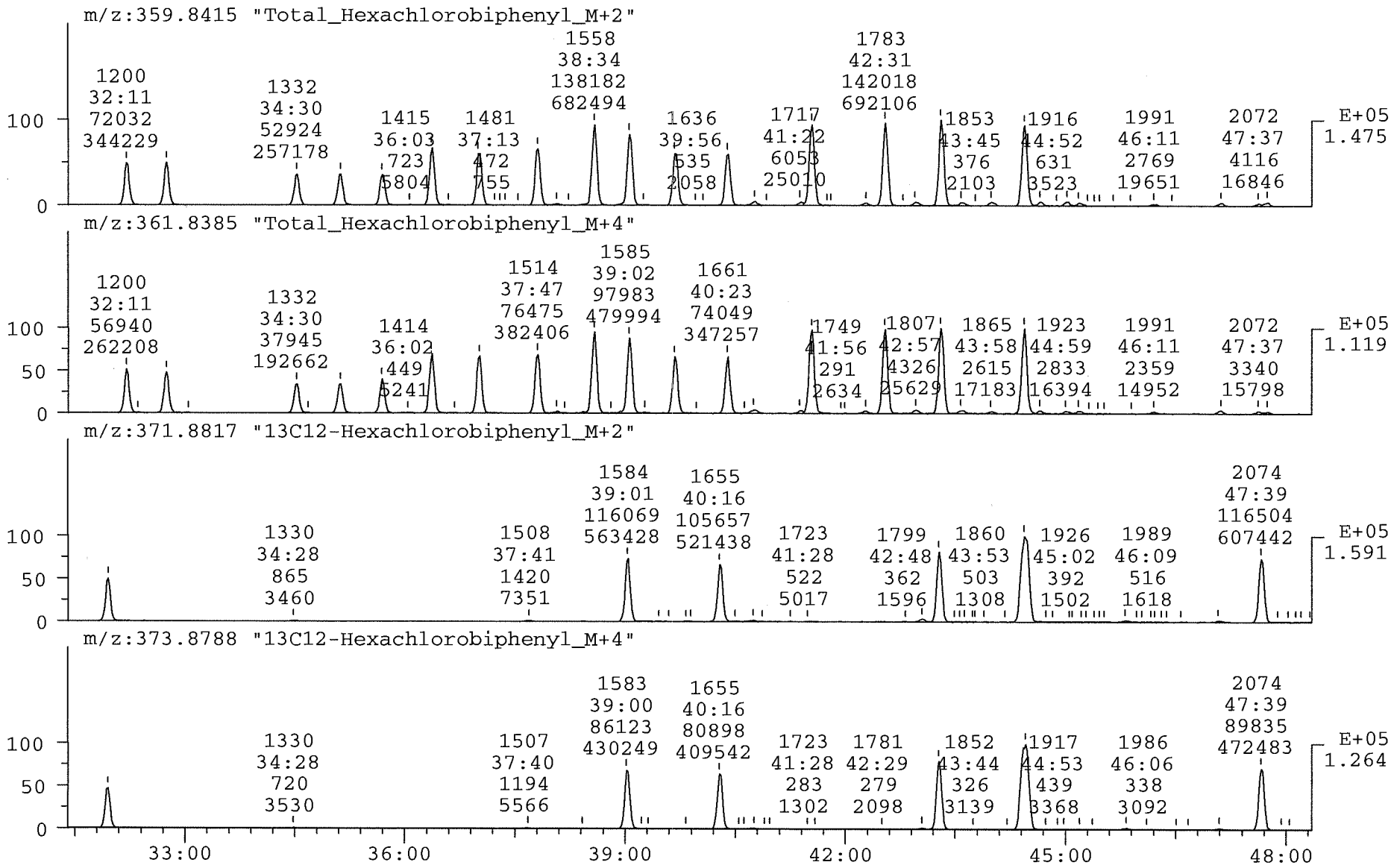
CHRO: a0806m1r2 10-Jun-08 Elapse: 38:18 1543
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1418 > 1658 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2224

2223

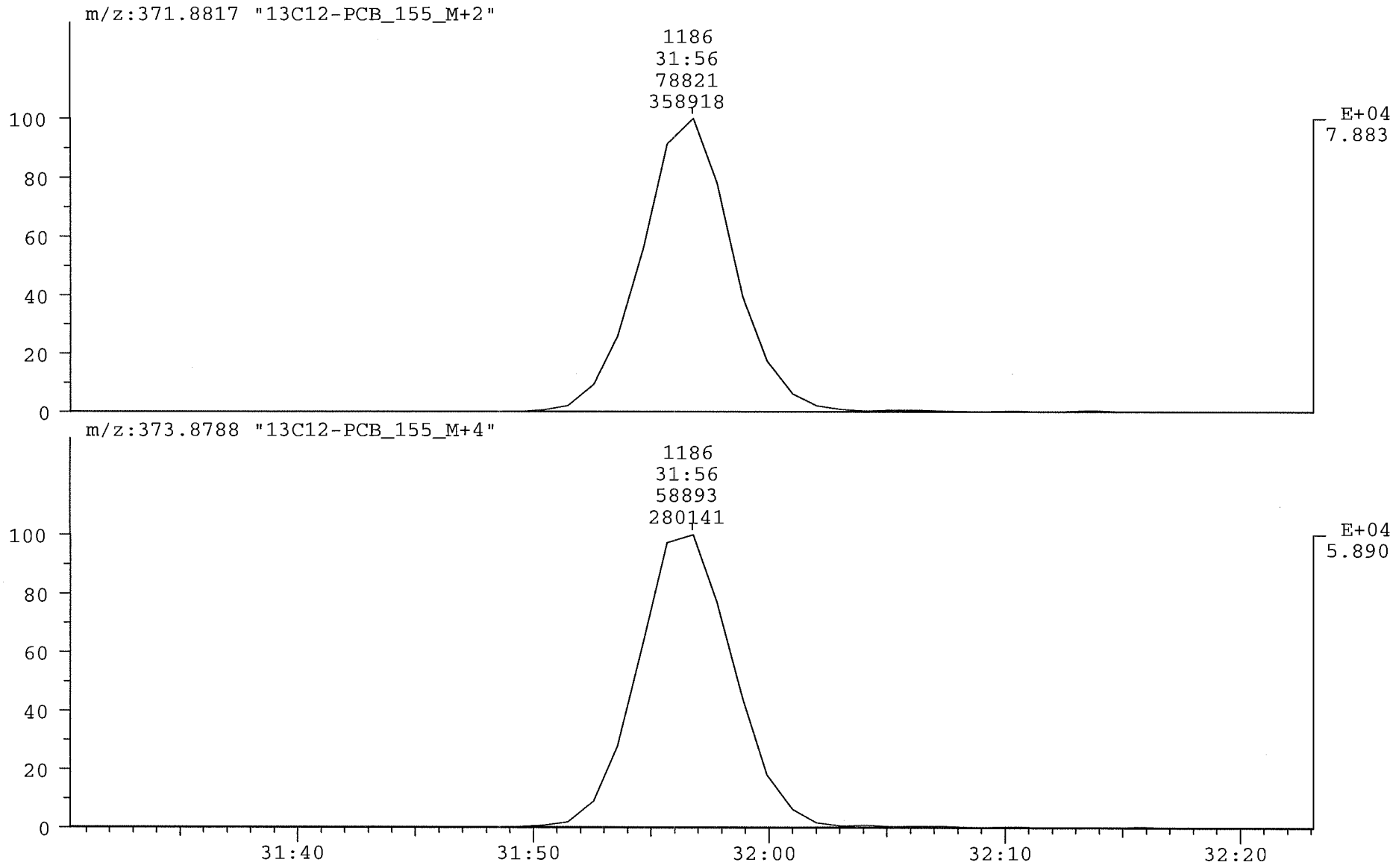
CHRO: a0806m1r2 10-Jun-08 Elapse: 39:52 1632
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1155 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2225

2224

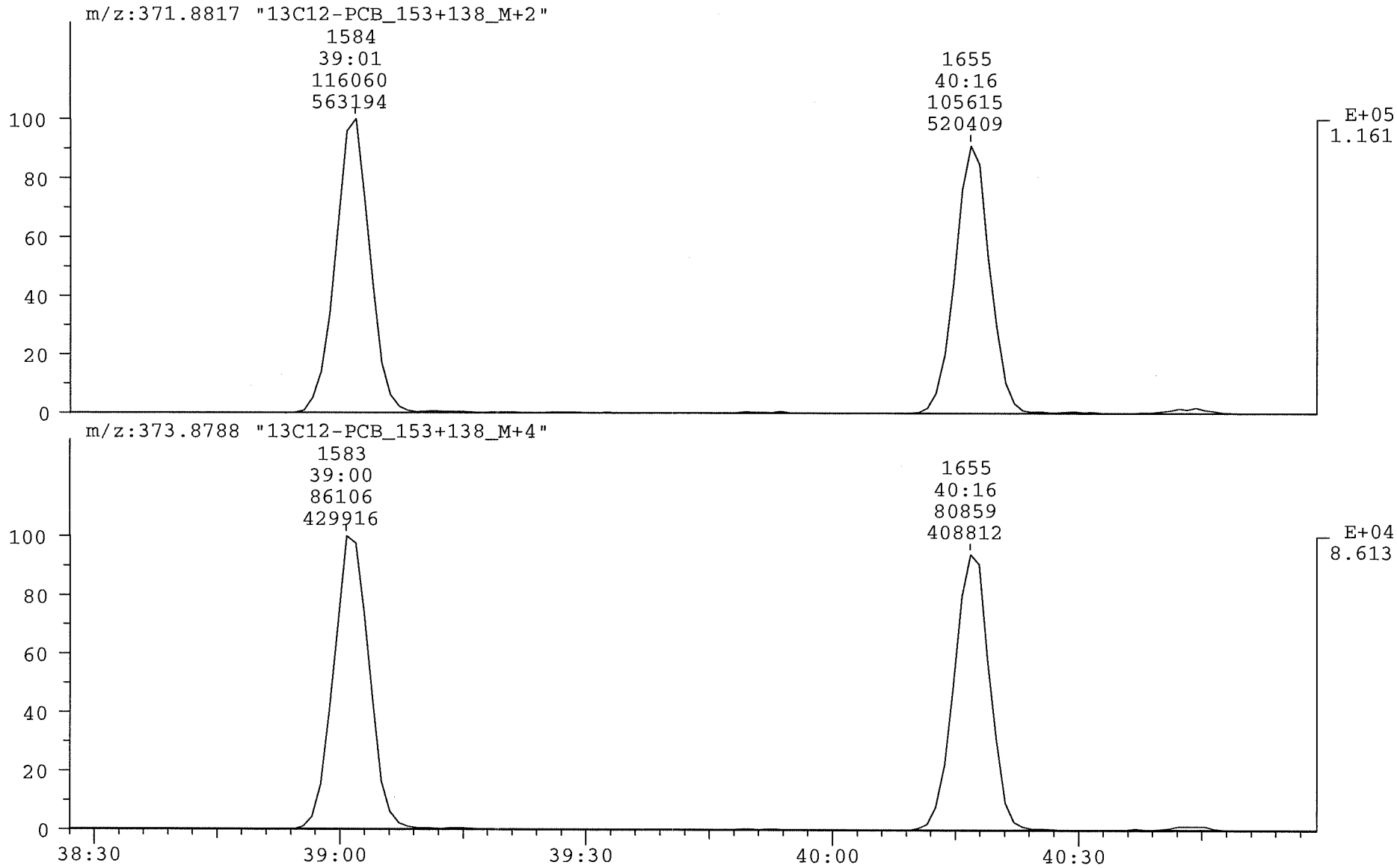
CHRO: a0806m1r2 10-Jun-08 Elapse: 31:56 1186
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1161 > 1211 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2226

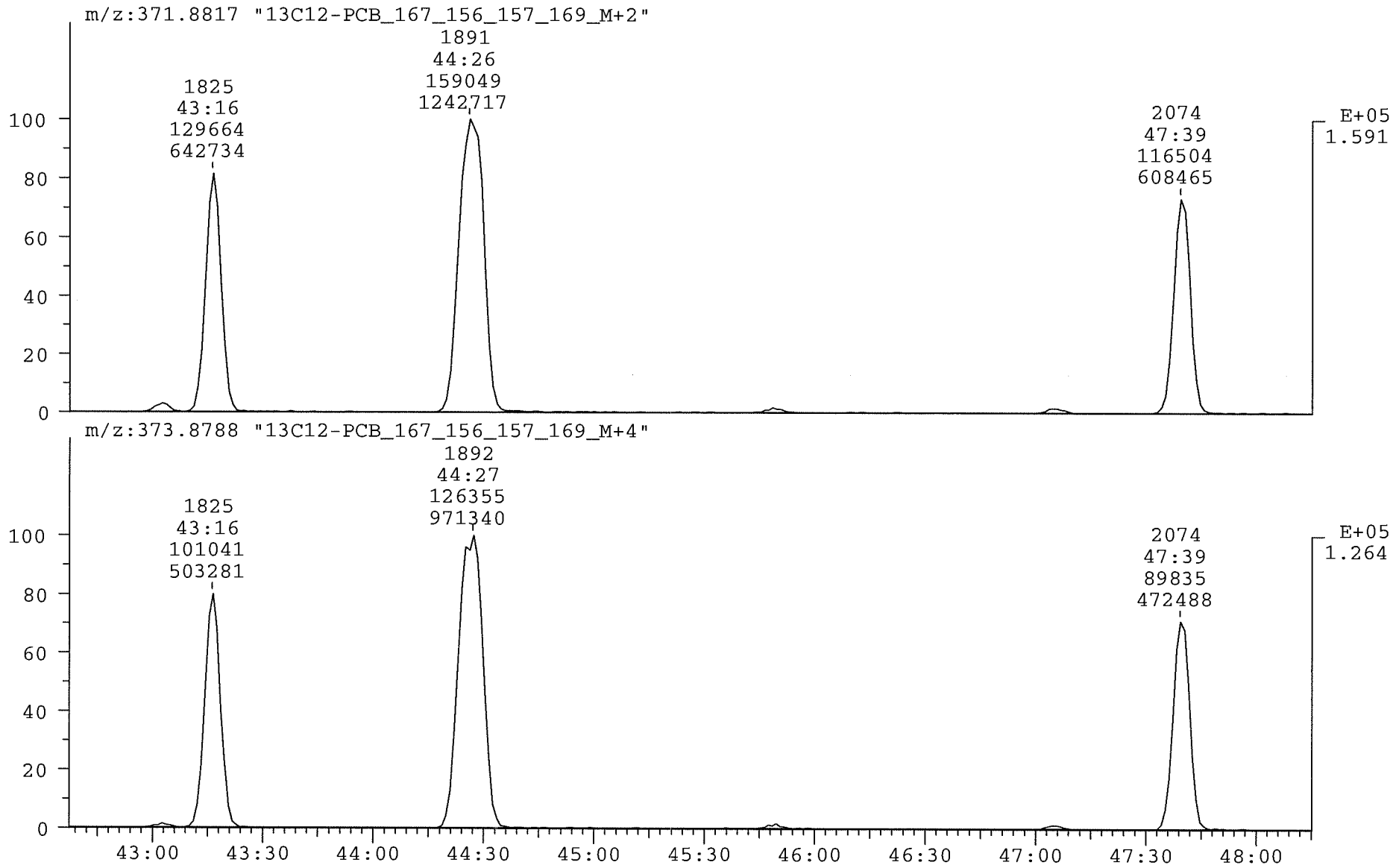
2225

CHRO: a0806m1r2 10-Jun-08 Elapse: 39:43 1623
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1551 > 1695 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2227

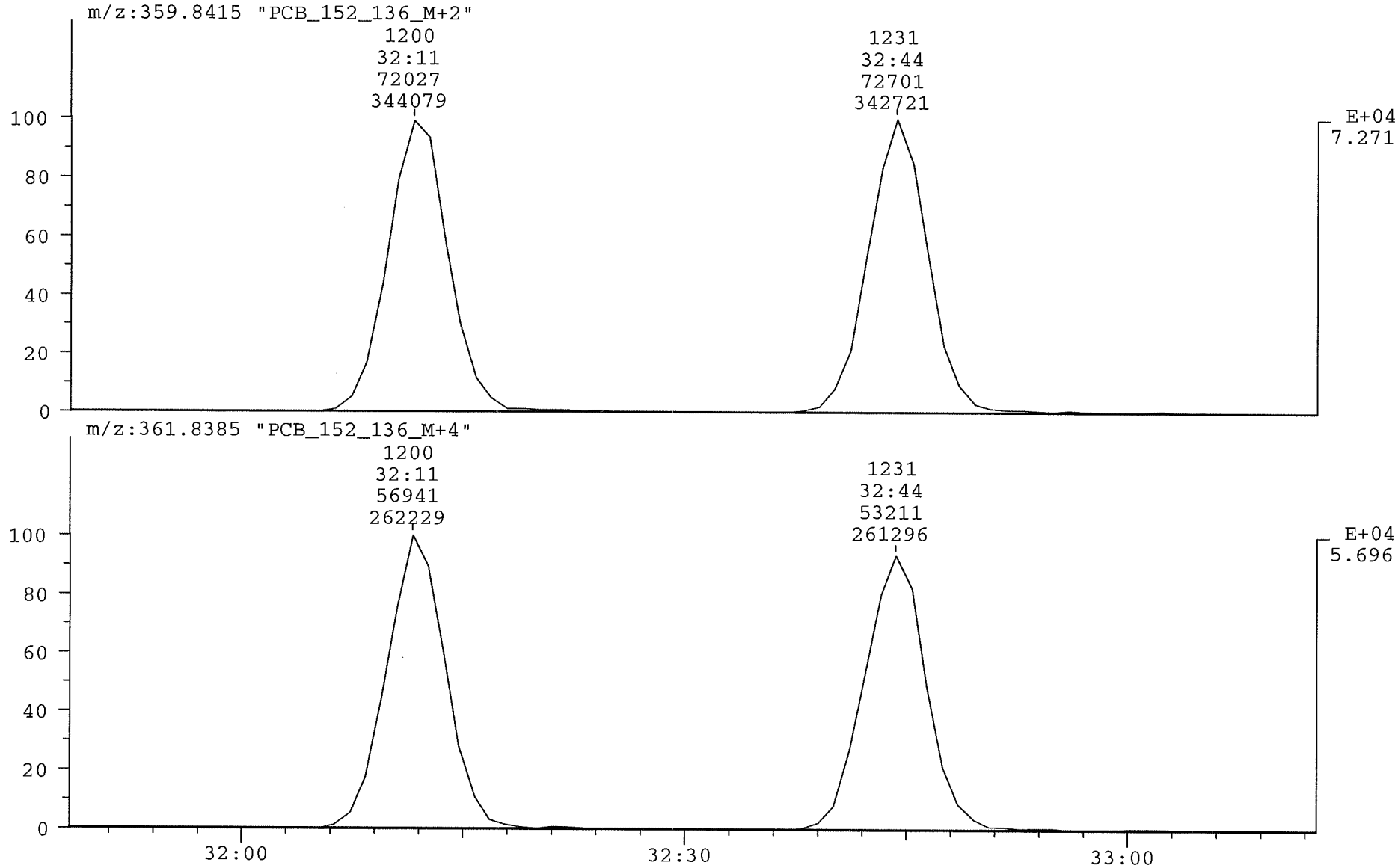
CHRO: a0806m1r2 10-Jun-08 Elapse: 45:31 1953
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1788 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2228

2227

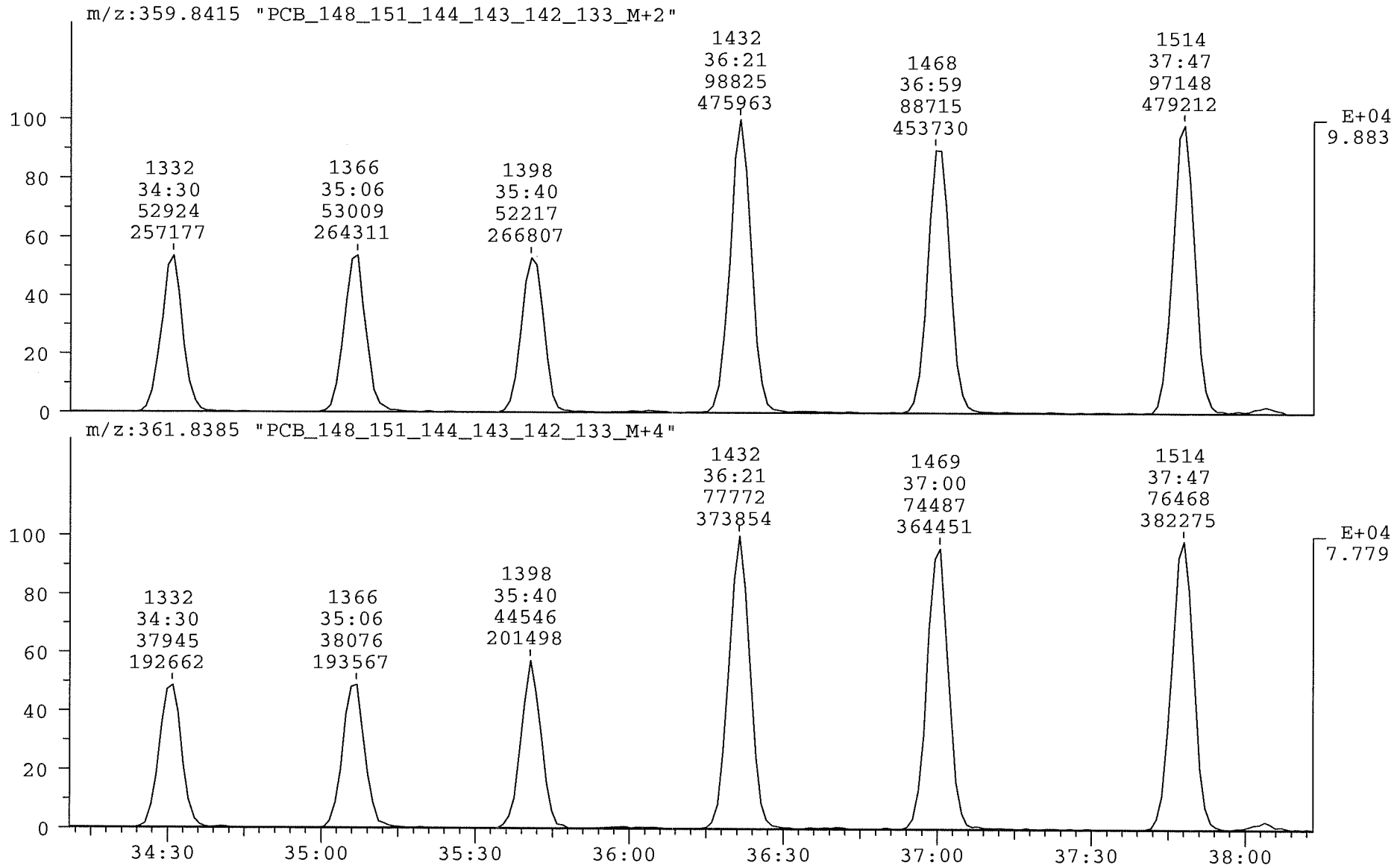
CHRO: a0806m1r2 10-Jun-08 Elapse: 32:30 1218
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1178 > 1258 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2229

2228

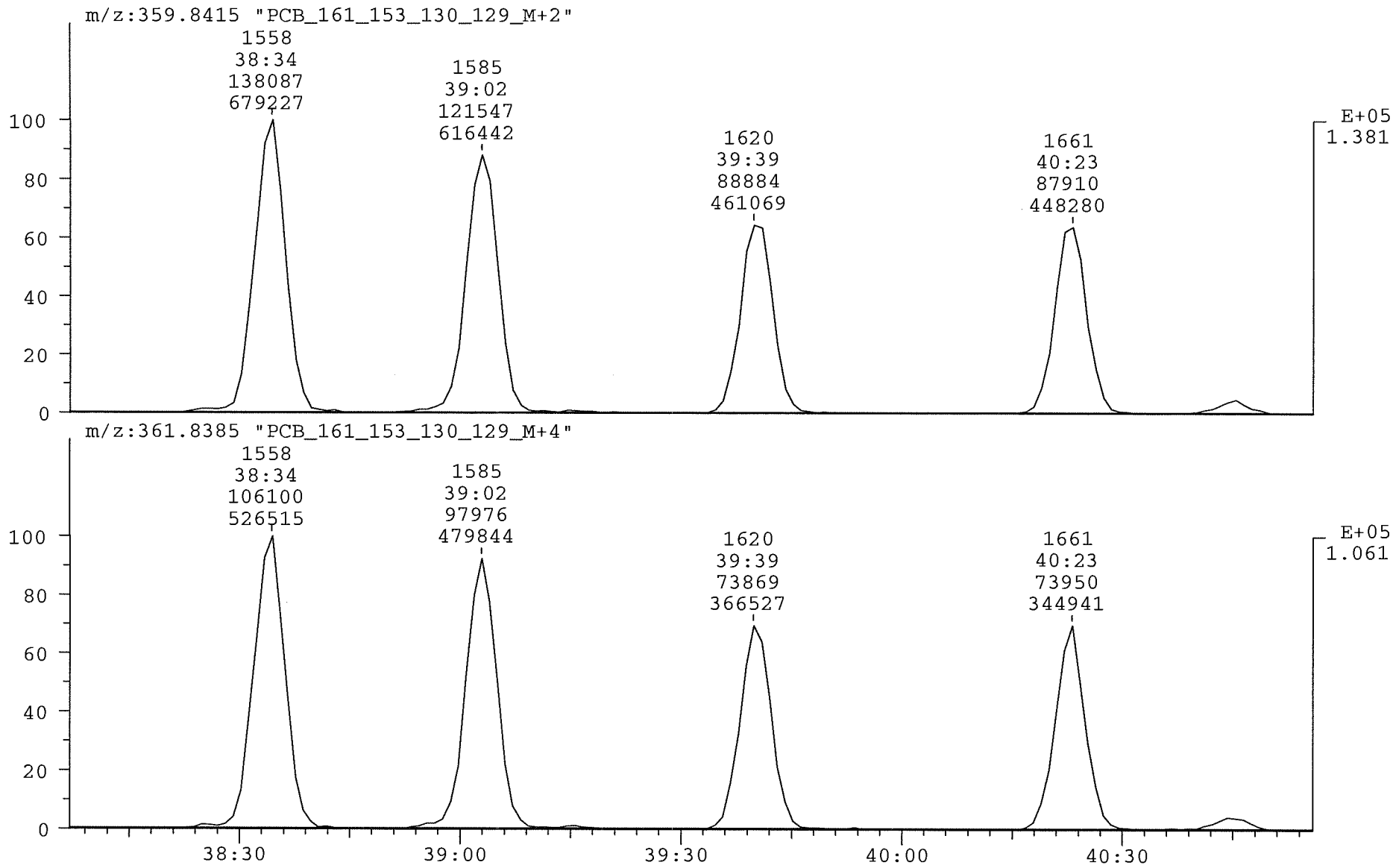
CHRO: a0806m1r2 10-Jun-08 Elapse: 36:11 1423
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1313 > 1538 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2230

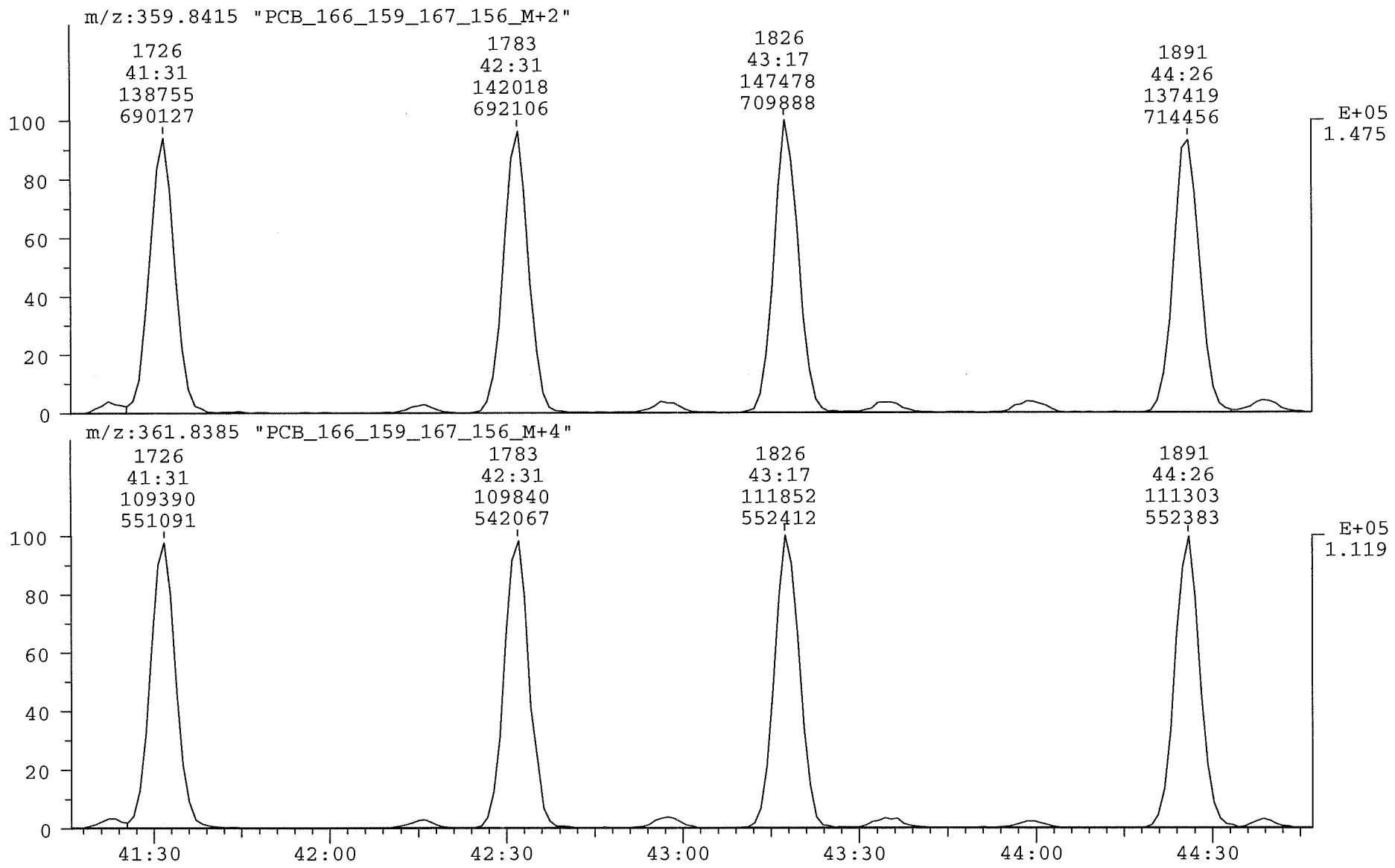
2229

CHRO: a0806m1r2 10-Jun-08 Elapse: 39:31 1612
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1532 > 1692 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2231

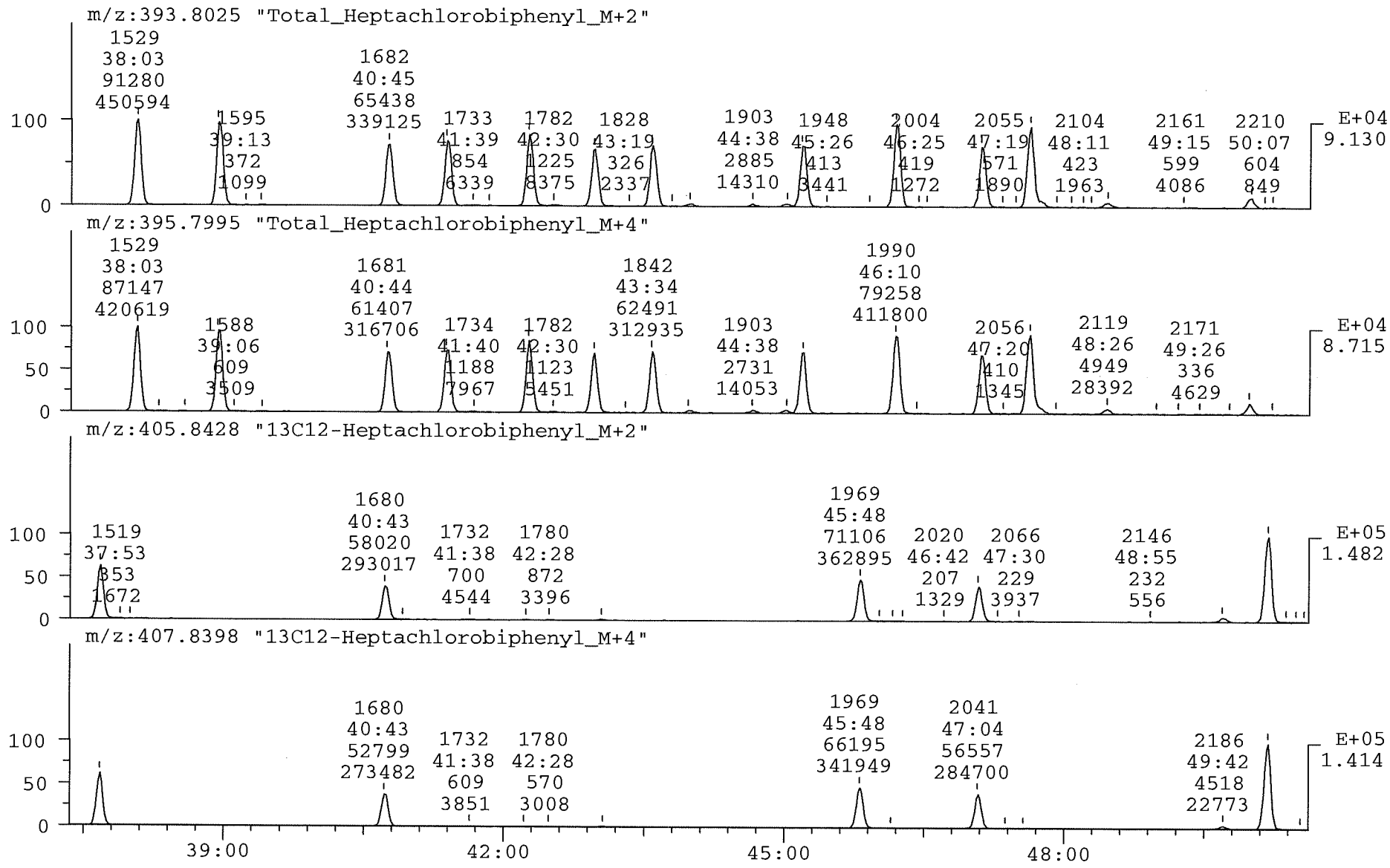
CHRO: a0806m1r2 10-Jun-08 Elapse: 43:01 1811
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1711 > 1911 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2232

2231

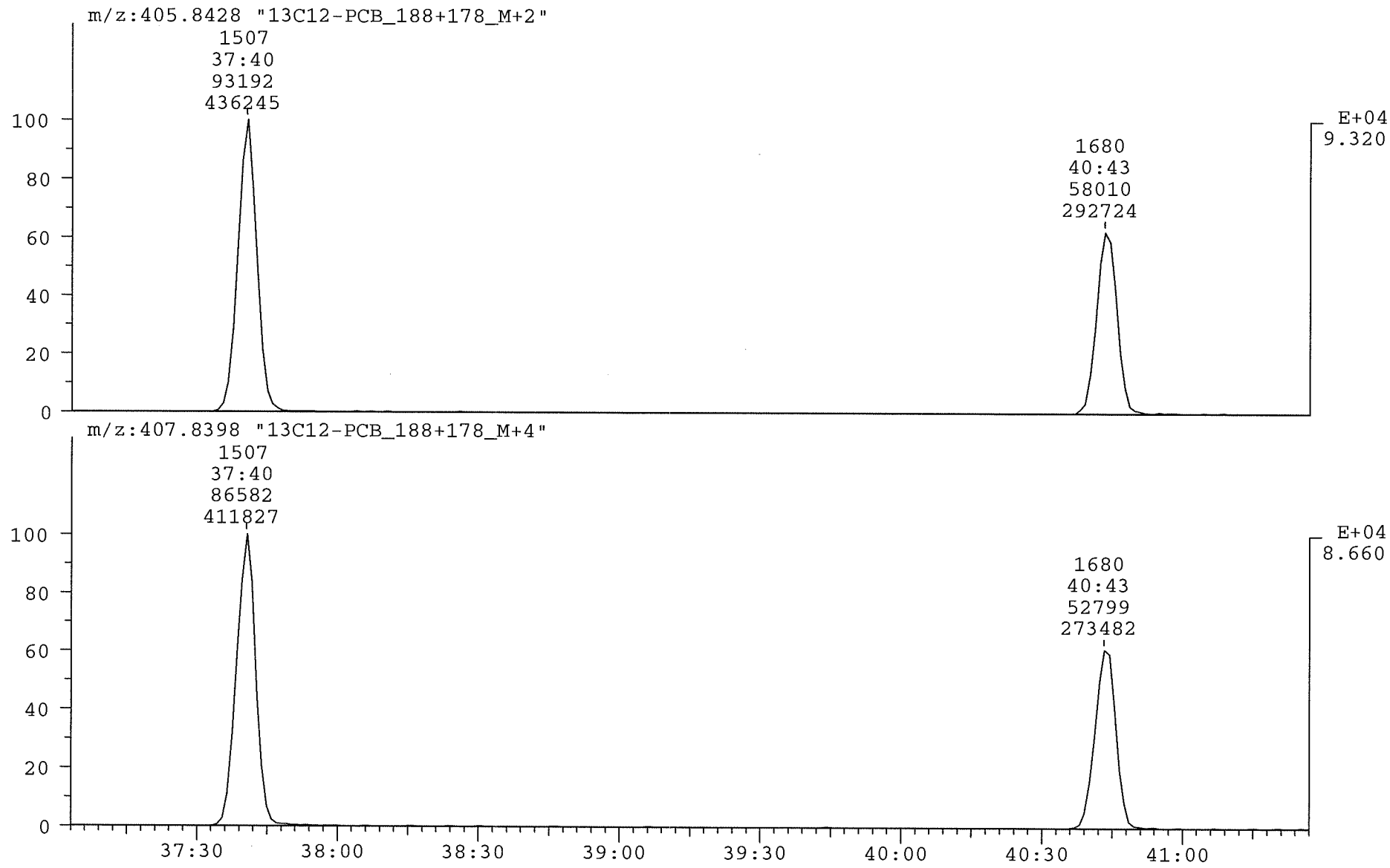
CHRO: a0806m1r2 10-Jun-08 Elapse: 43:58 1865
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1489 > 2238 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2233

2232

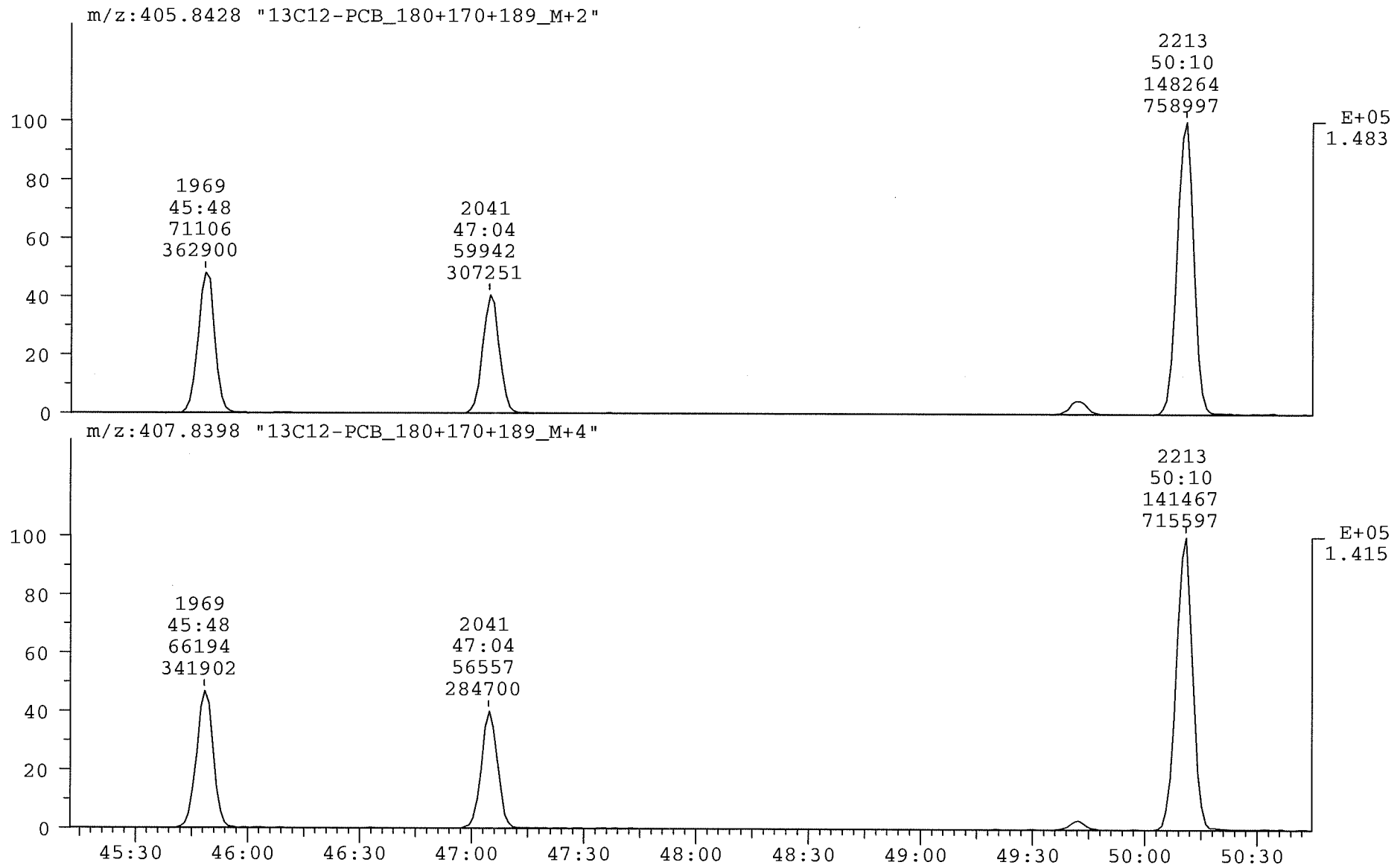
CHRO: a0806m1r2 10-Jun-08 Elapse: 39:15 1597
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1472 > 1721 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2234

2233

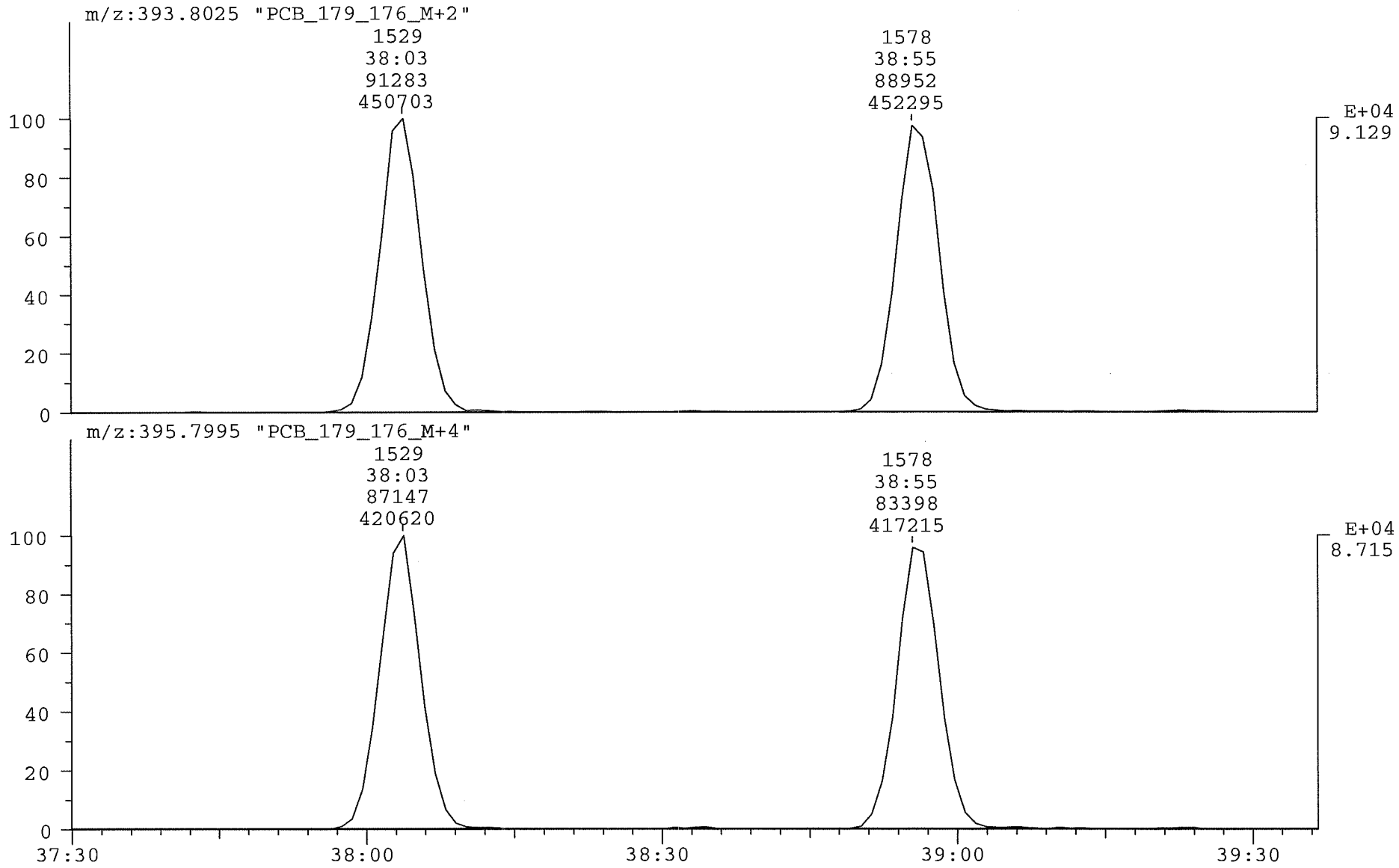
CHRO: a0806m1r2 10-Jun-08 Elapse: 48:01 2095
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1935 > 2245 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2235

2234

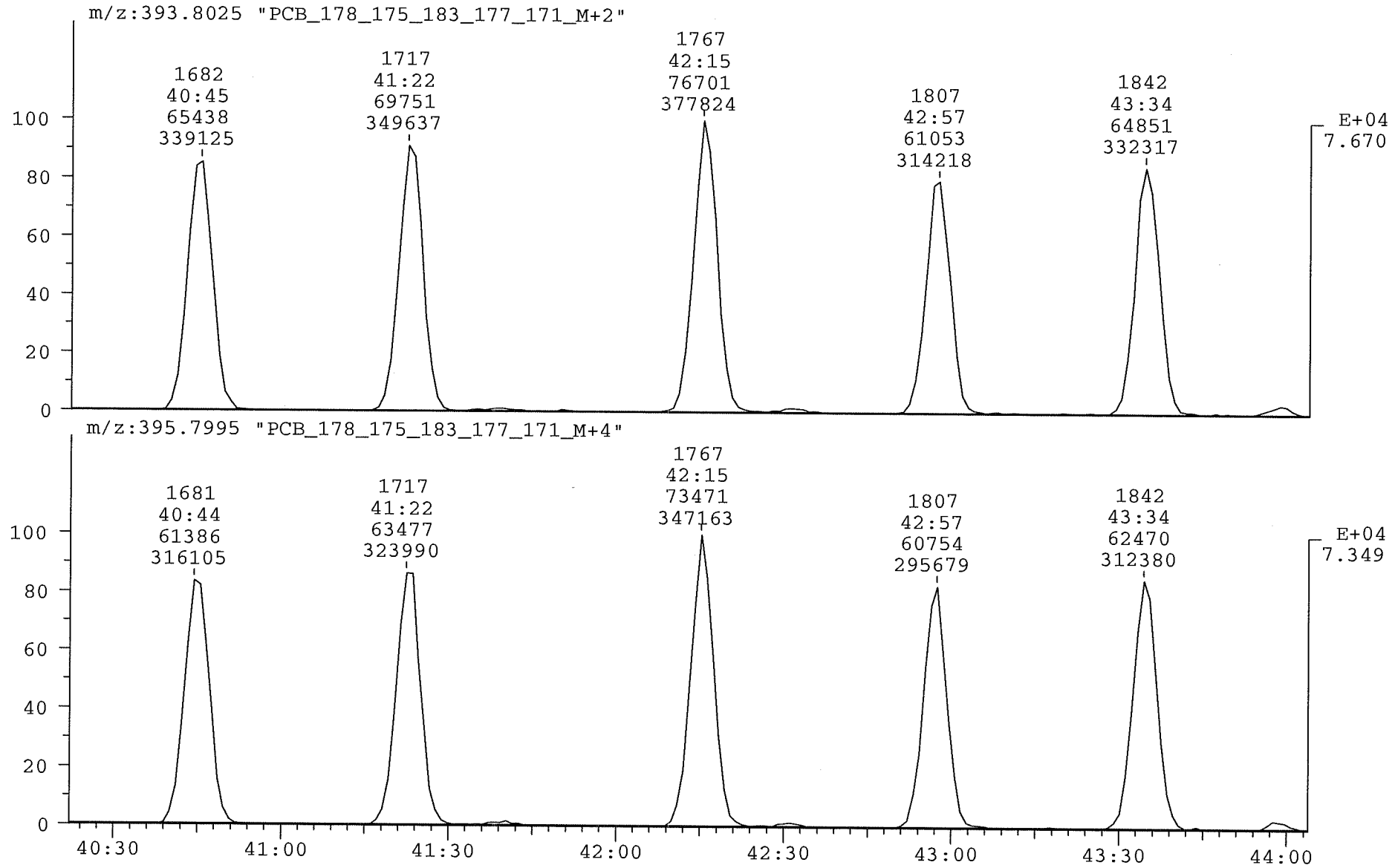
CHRO: a0806m1r2 10-Jun-08 Elapse: 38:33 1557
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1497 > 1617 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2236

2235

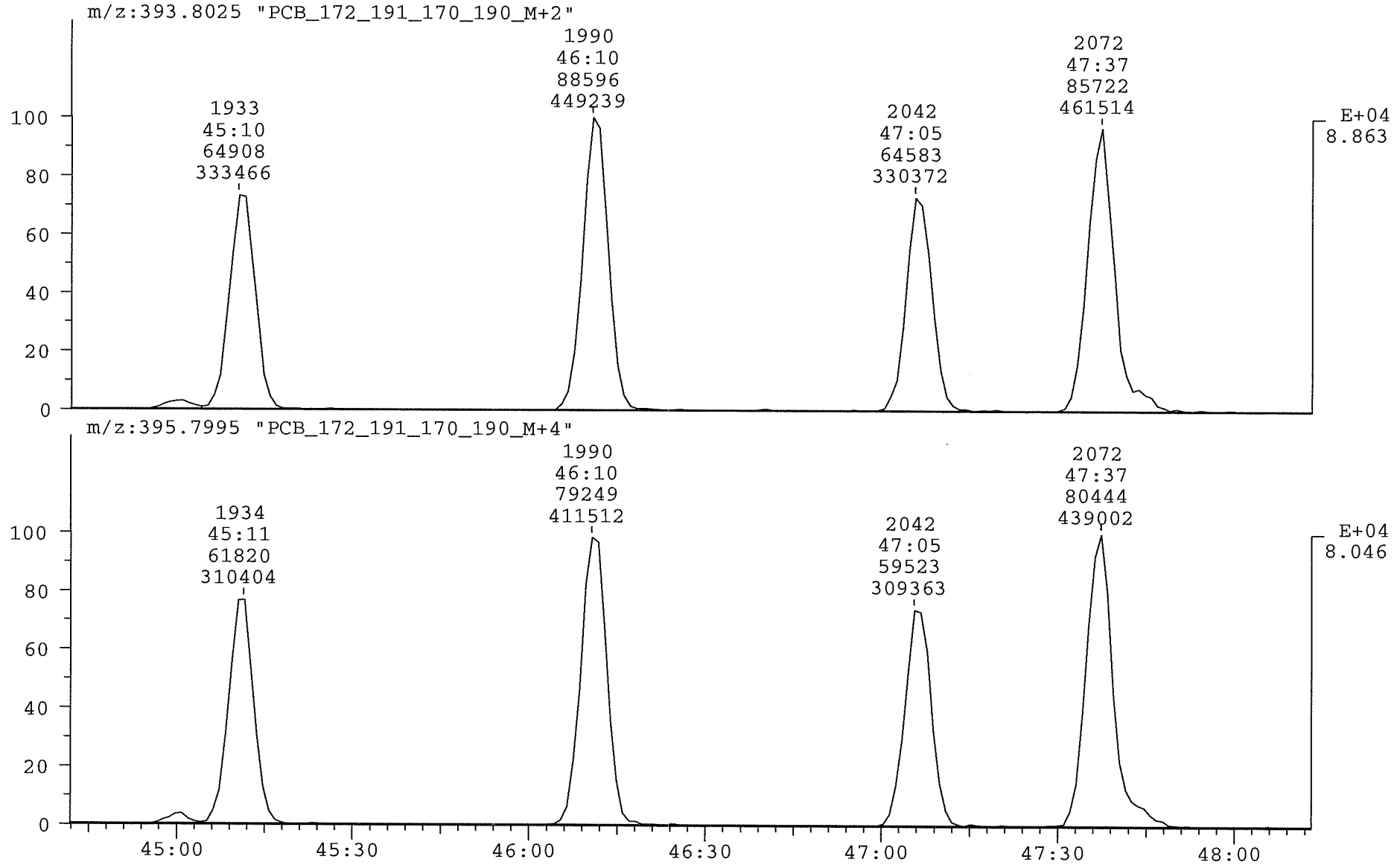
CHRO: a0806m1r2 10-Jun-08 Elapse: 42:12 1765
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1660 > 1870 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2237

2236

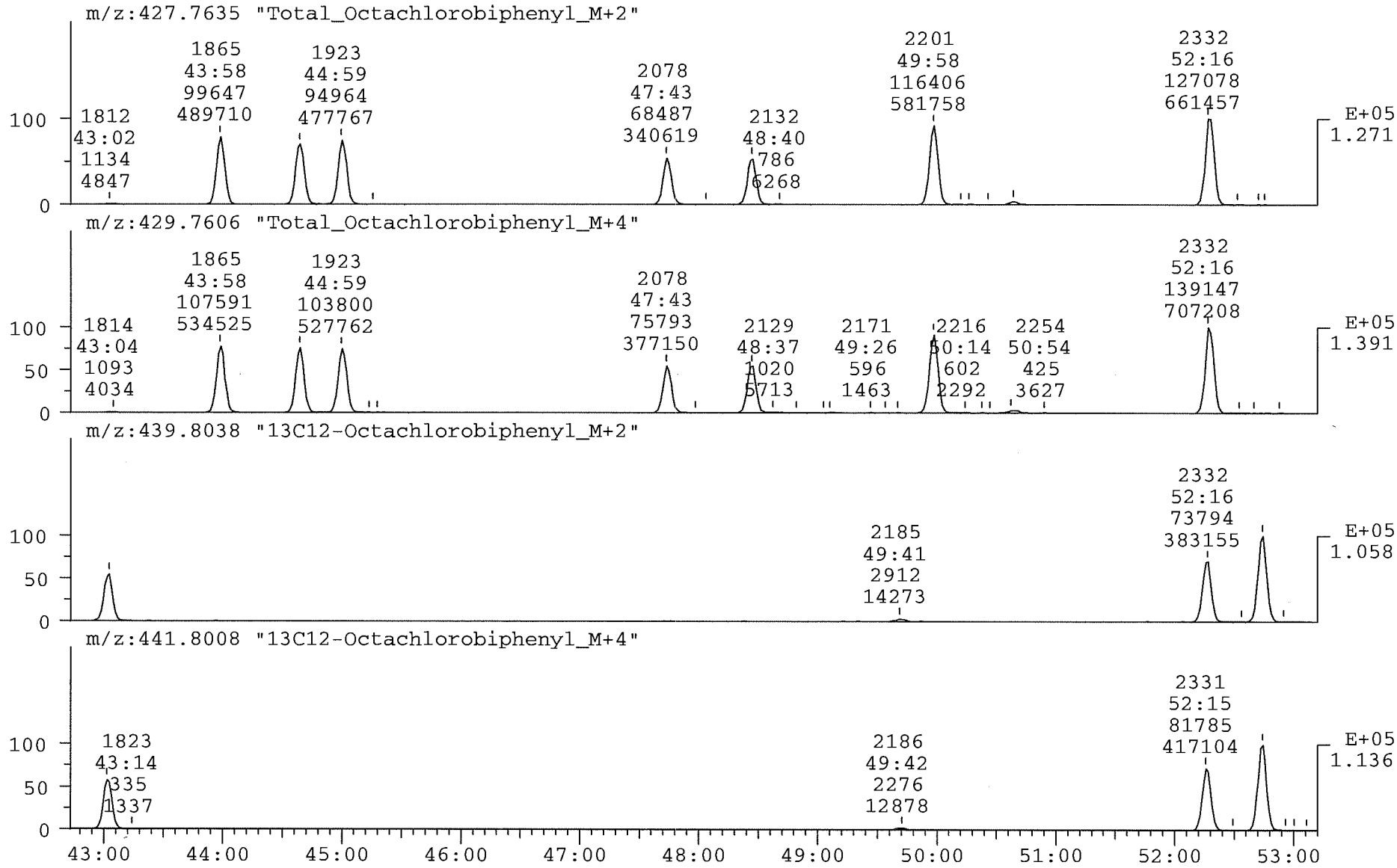
CHRO: a0806m1r2 10-Jun-08 Elapse: 46:27 2006
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1906 > 2106 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2238

2237

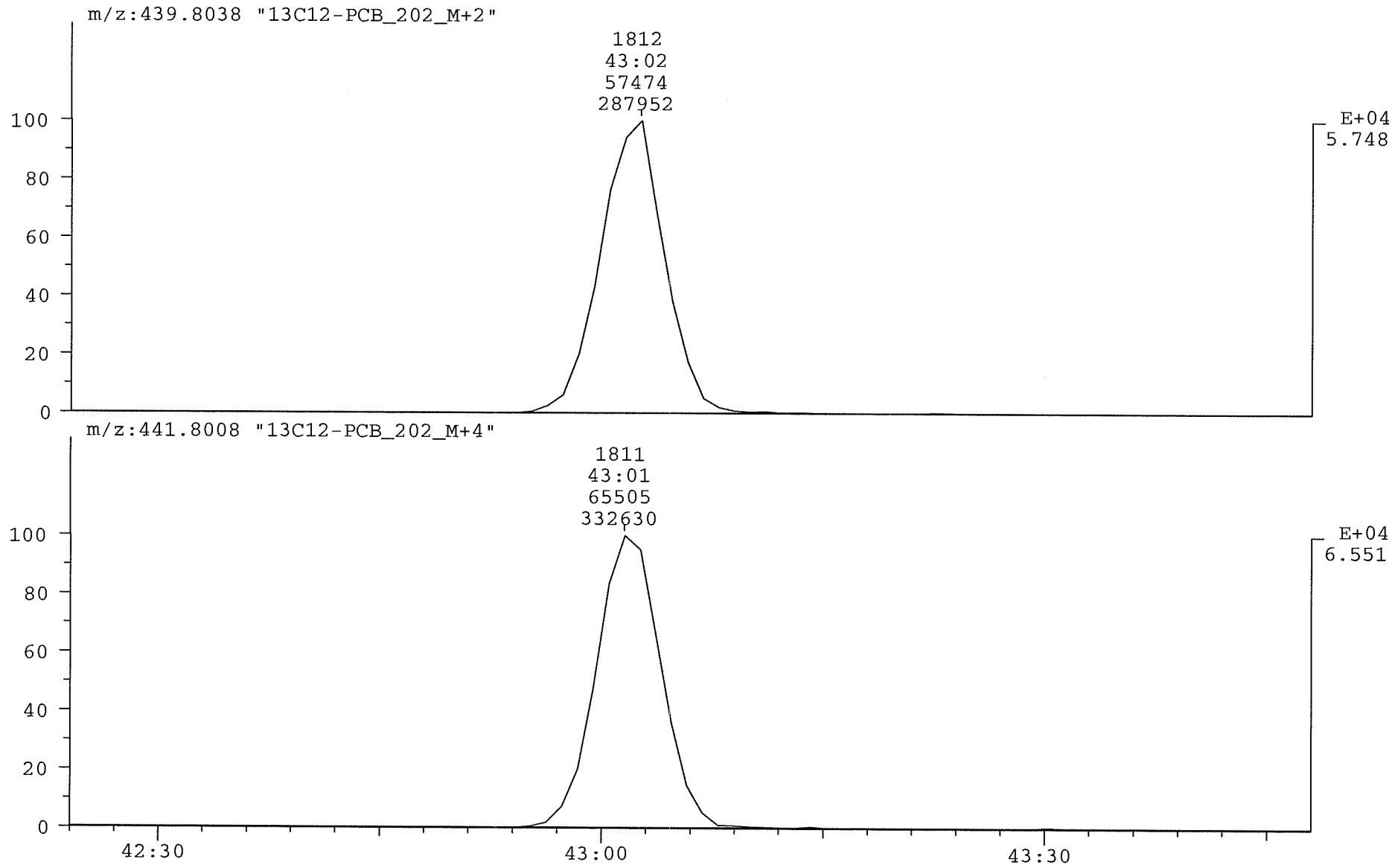
CHRO: a0806m1r2 10-Jun-08 Elapse: 47:57 2091
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1793 > 2384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2239

2238

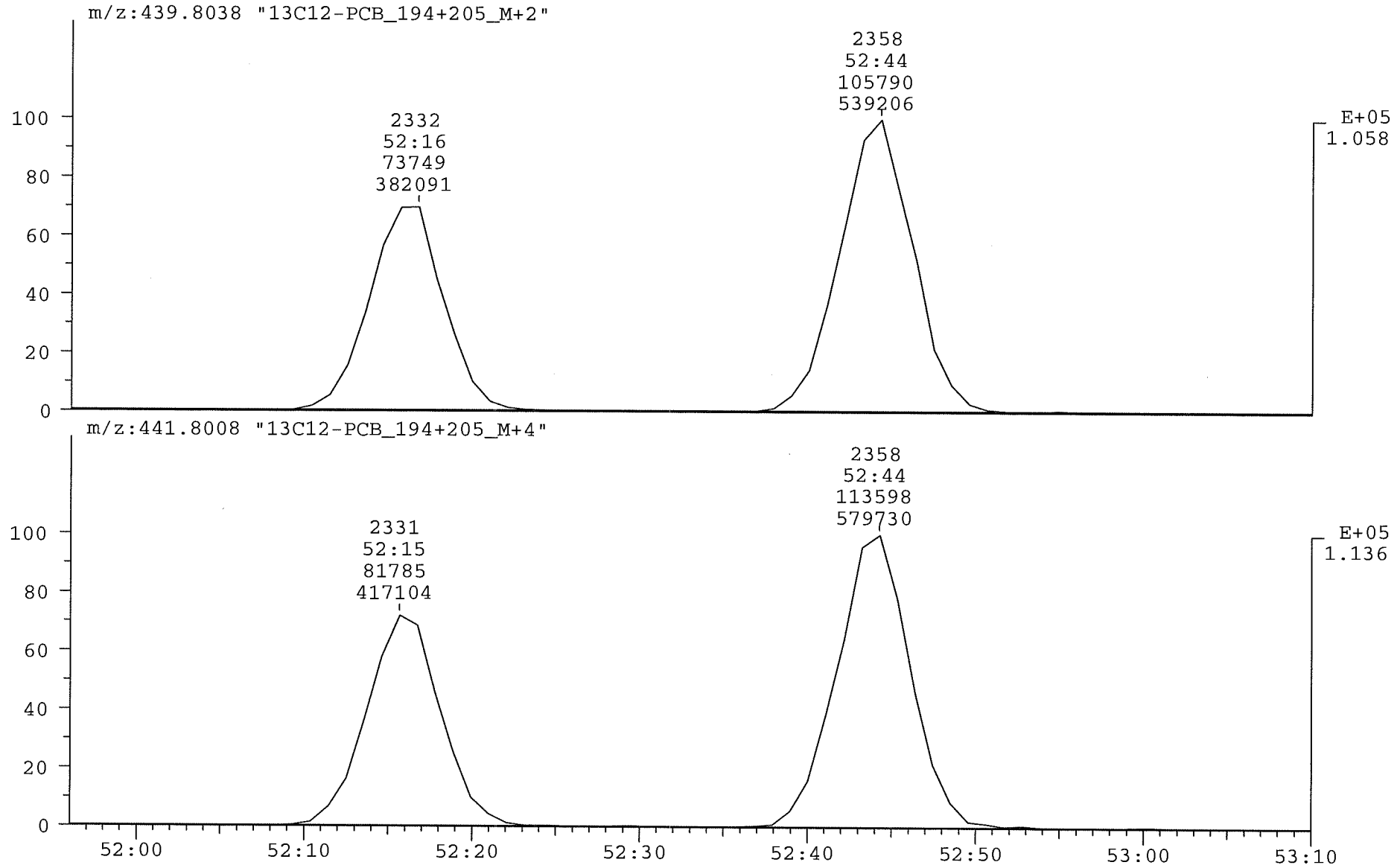
CHRO: a0806m1r2 10-Jun-08 Elapse: 43:02 1812
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1775 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2240

2239

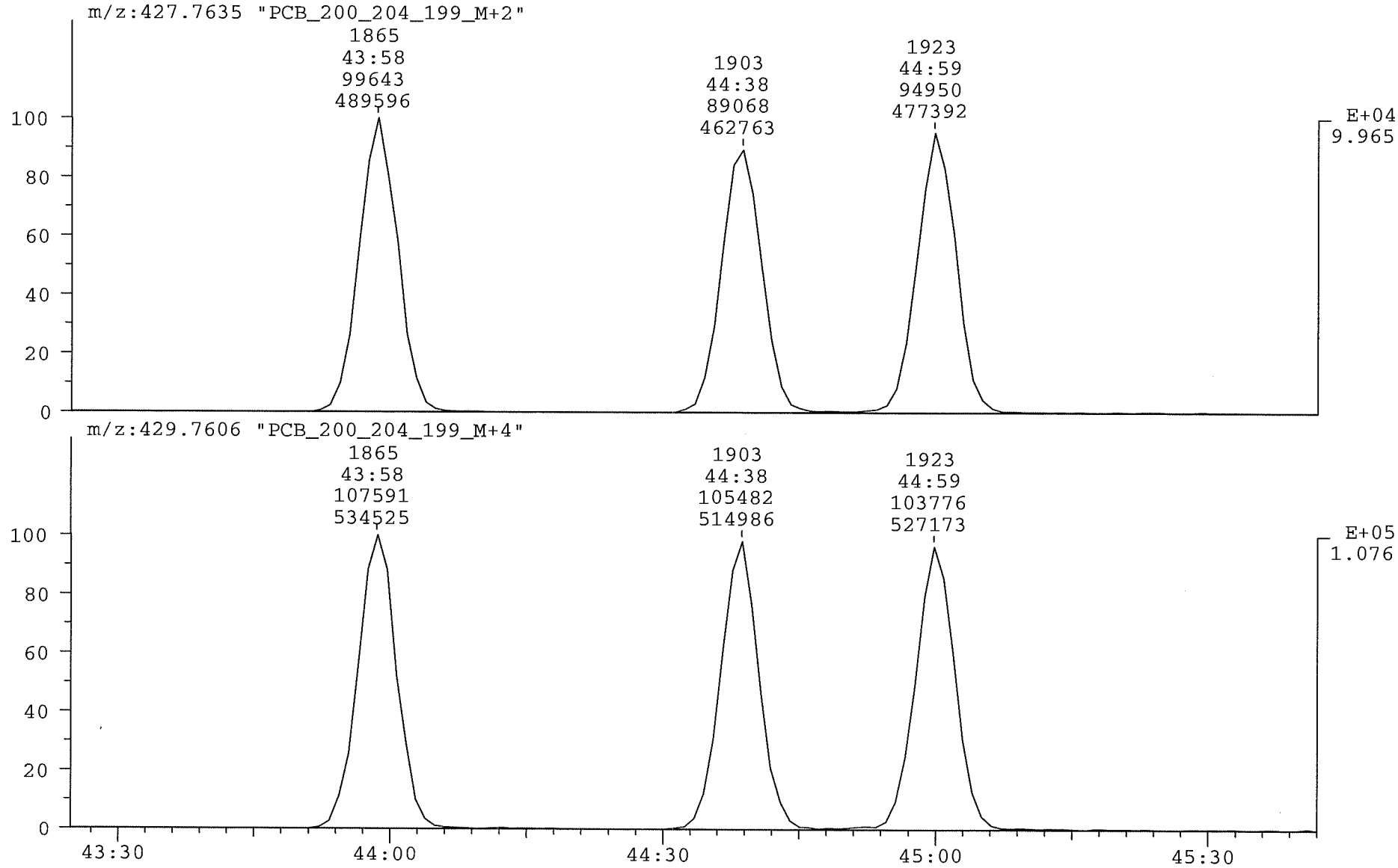
CHRO: a0806m1r2 10-Jun-08 Elapse: 52:32 2347
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2312 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2241

2240

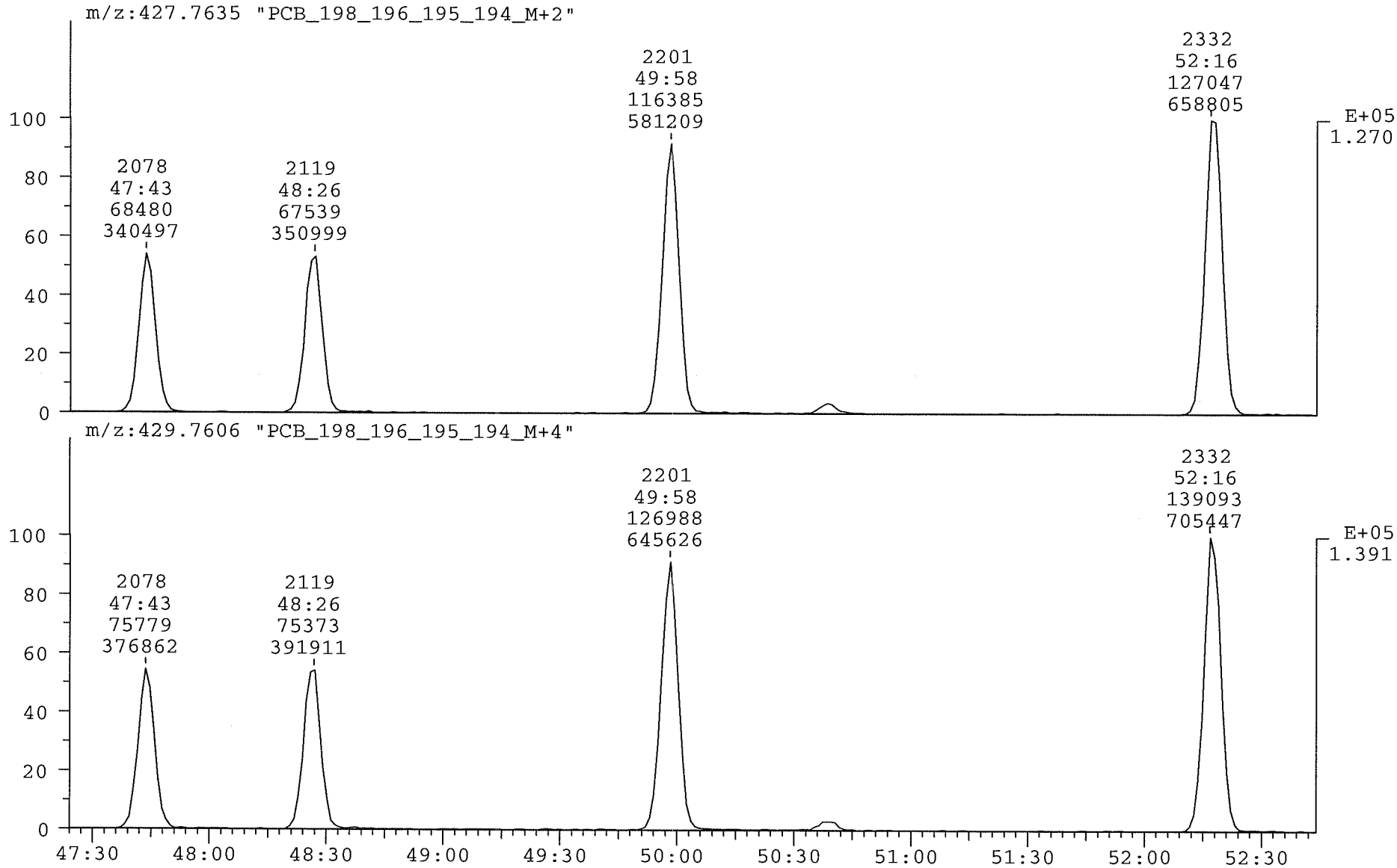
CHRO: a0806m1r2 10-Jun-08 Elapse: 44:33 1898
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1833 > 1963 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2242

2241

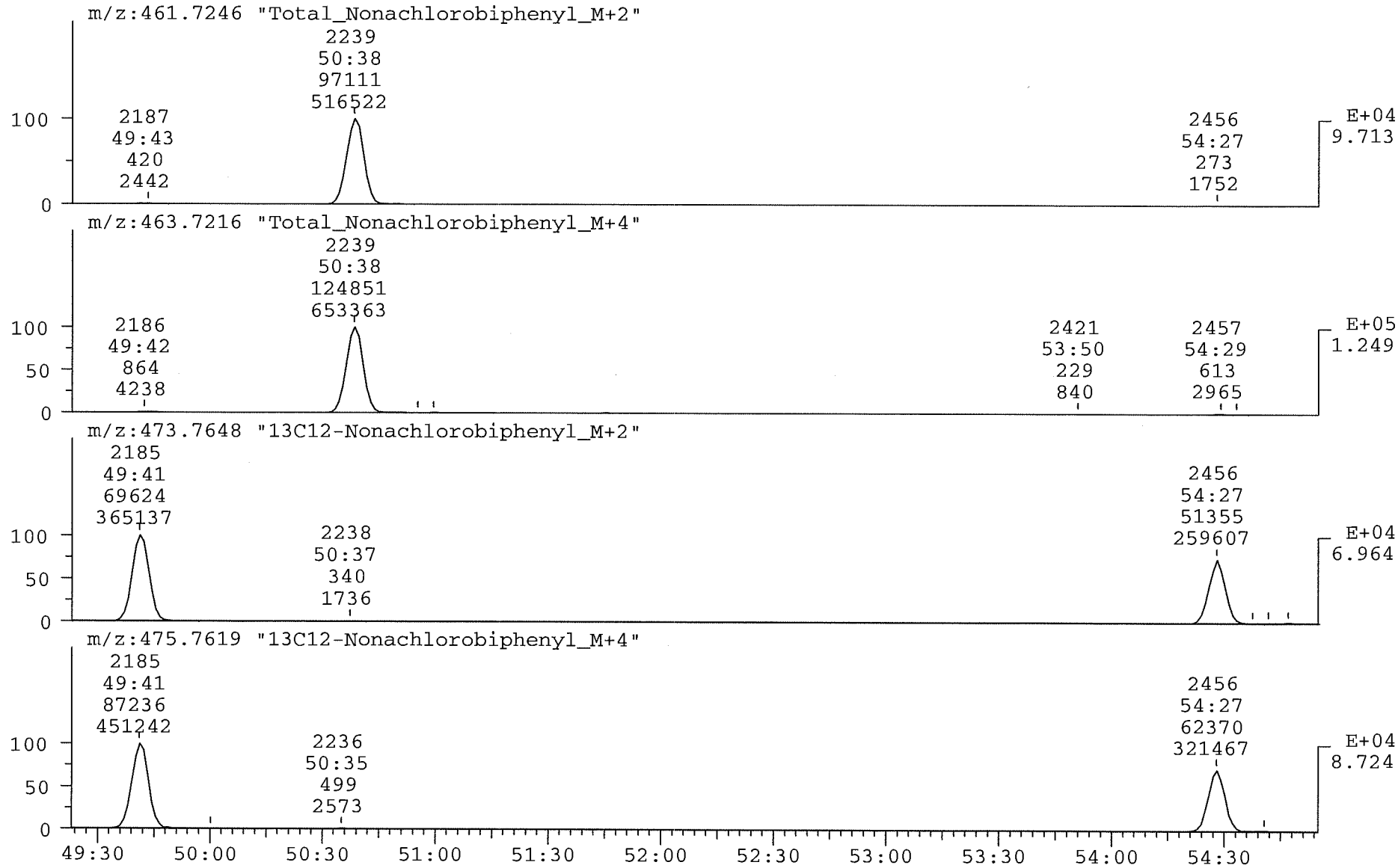
CHRO: a0806m1r2 10-Jun-08 Elapse: 50:04 2207
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2060 > 2358 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2243

2242

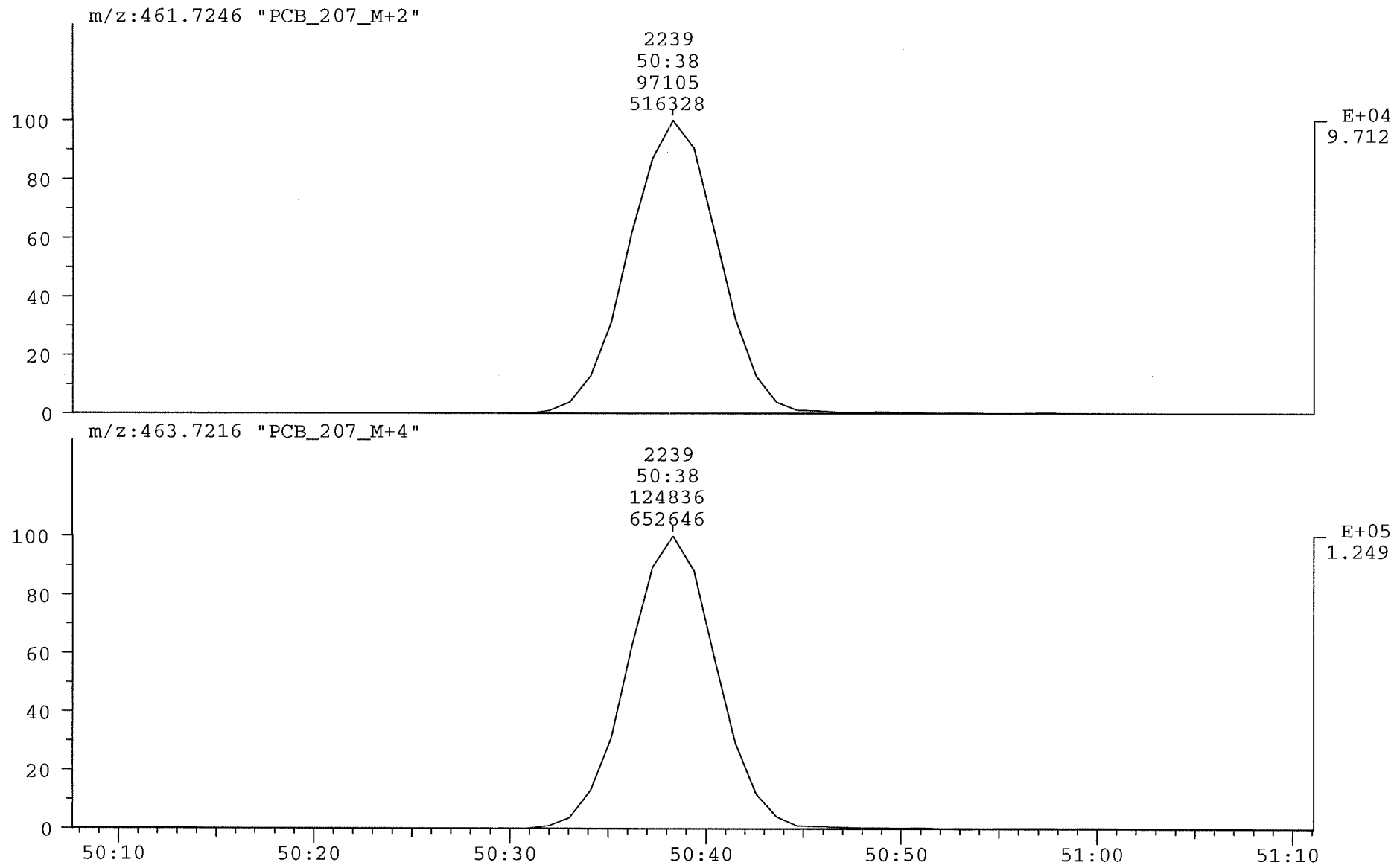
CHRO: a0806m1r2 10-Jun-08 Elapse: 52:09 2325
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2168 > 2482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2244

2243

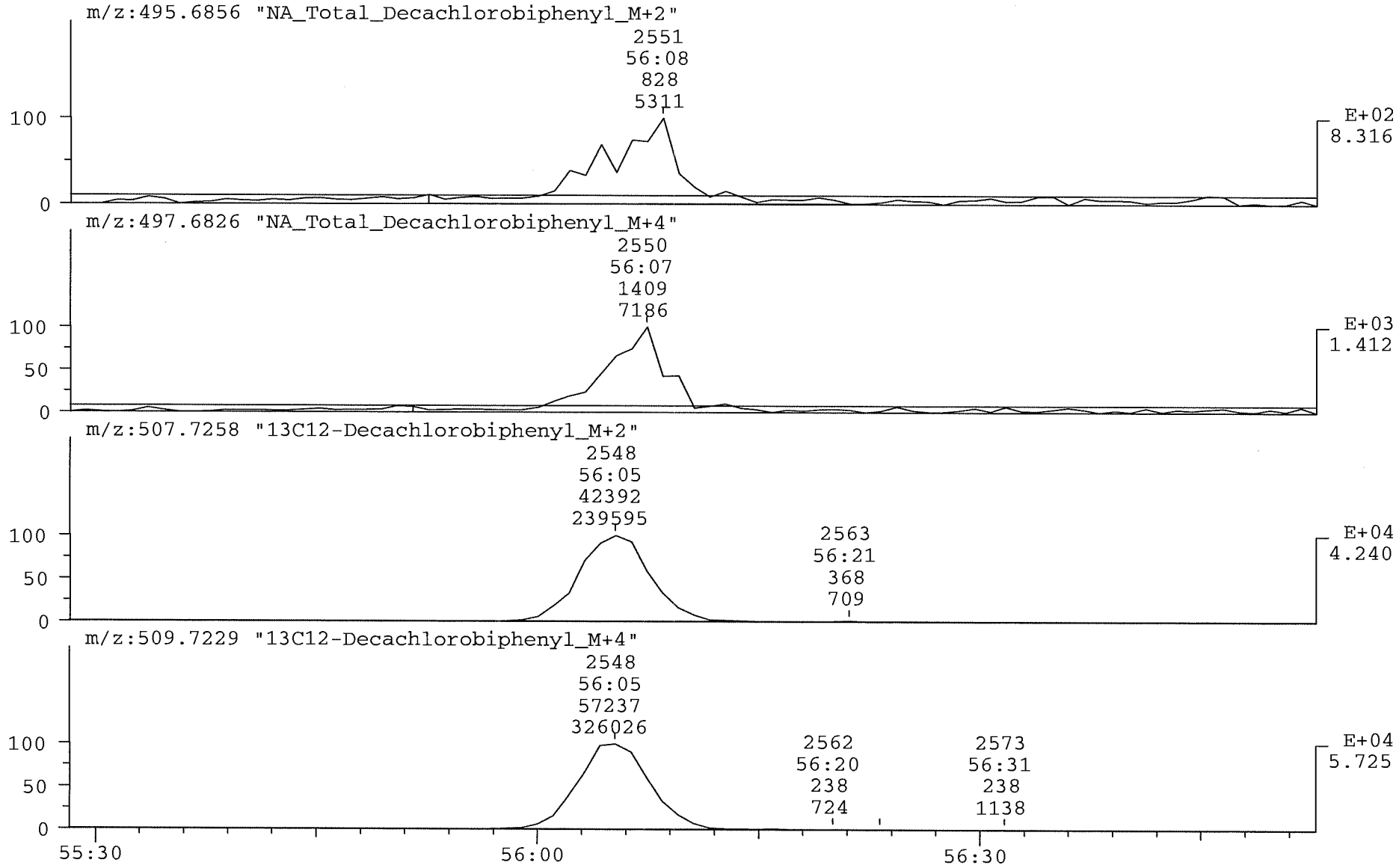
CHRO: a0806m1r2 10-Jun-08 Elapse: 50:39 2240
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2210 > 2270 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2245

2244

CHRO: a0806m1r2 10-Jun-08 Elapse: 56:10 2553
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 19:43:17 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2513 > 2593 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2246

2245

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m1r2
Study: 2990:75 Mix 1
Sample: WO=2990:75Mix1 Meth=IE3 Dil=1
Amount:  0.00
Volume:  0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume:  2.00
Sample from Vial 11
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 6 of list 080609
  ICL procedure: sleep7x
  MID procedure: epa1668n

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.10 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:12 min   35:52 min    1.00 sec
  # 3   35:52 min   13:13 min   49:05 min    1.00 sec
  # 4   49:05 min    7:55 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 1   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
```

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5529
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0010
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	357.0000
FVINLET	273.0000	FVSRC	985.0000	FWIN	0.7000
GCTC	203.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.3137	HVANAL	1284.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2609.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.1400	TCURR	0.8984
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 19:43:17.6

Autosampler has injected sample from vial 11
MID Time Window 1: Resolution is 8227
MID Time Window 2: Resolution is 8965
MID Time Window 3: Resolution is 10716
MID Time Window 4: Resolution is 10657
Analysis stopped at: 10-Jun-08 20:40:20.9 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r3.	Prep Date		SDG No	
Analysis ID	104456	Prep Exp Date		Date Received	
Analysis Date	06/11/08 00:48	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	133	158	53	63	0.84 *	/	
	PCB 2 (BZ)	14:03	00:00	0	897074	267743	314631	92963	3.35	ABV/ABV	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	190	223	76	89	0.85 *	/	
	13C12-PCB 1	12:01	00:00	0	1362133	404644	523806	155320	3.37	AVV/AVV	
	13C12-PCB 3	14:13	00:00	0	1367990	400050	461814	139218	3.42	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	110	245	44	98	0.45 *	/	
	PCB 10 (BZ)	14:40	00:00	0	360755	226531	118659	76847	1.59	AVB/AVV	
	PCB 9 (BZ)	16:29	00:00	0	385507	246671	117330	73705	1.56	ABV/ABV	
	PCB 6 (BZ)	16:54	00:00	0	369507	227007	110082	63650	1.63	ABV/ABV	
	PCB 8 (BZ)	17:20	00:00	0	383553	245722	114275	71490	1.56	AVV/AVB	
	PCB 14 (BZ)	18:58	00:00	0	372352	249844	95924	65725	1.49	ABV/ABV	M
	PCB 11 (BZ)	19:49	00:00	0	348290	220260	90931	58184	1.58	AVV/ABV	M
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	200	135	80	54	1.48	/	
	13C12-PCB 4	14:29	00:00	0	358322	241439	118708	80711	1.48	AVV/AVV	
	13C12-PCB 9	16:28	00:00	0	603019	383967	176780	112441	1.57	AVV/AVV	
	13C12-PCB 8	17:19	00:00	0	655086	424366	190288	124153	1.54	AVV/AVV	
	13C12-PCB 15	20:26	00:00	0	612711	401638	162740	108512	1.53	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	140	110	56	44	1.27 *	/	
	PCB 30 (BZ)	19:28	00:00	0	168580	170031	43818	44967	0.99	ABV/ABV	M
	PCB 27 (BZ)	20:10	00:00	0	170523	169988	46124	44070	1.00	ABV/ABV	
	PCB 32 (BZ)	20:56	00:00	0	186683	188139	47222	48006	0.99	ABV/AVB	M
	PCB 34 (BZ)	22:11	00:00	0	558802	520496	136285	126469	1.07	ABV/ABV	M
	PCB 26 (BZ)	22:40	00:00	0	573879	533136	135885	129721	1.08	AVV/ABV	D
	PCB 31 (BZ)	23:12	00:00	0	608932	581157	154244	145029	1.05	AVV/AVV	M
	PCB 33 (BZ)	23:45	00:00	0	562451	531805	137150	131380	1.06	AVV/AVV	M
	PCB 36 (BZ)	25:41	00:00	0	596074	568929	137814	137213	1.05	AVV/ABV	M
	PCB 38 (BZ)	26:38	00:00	0	570176	538882	123329	118603	1.06	ABV/AVV	M
	PCB 35 (BZ)	27:07	00:00	0	568407	521781	132603	120959	1.09	AVV/AVV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	223	178	89	71	1.25 *	/	
	13C12-PCB 19	17:38	00:00	0	207824	204803	56313	59750	1.01	AVV/AVV	
	13C12-PCB 32	20:55	00:00	0	359094	345326	96192	93690	1.04	AVB/AVV	
	13C12-PCB 31	23:11	00:00	0	1009761	938615	242290	230996	1.08	ABV/ABV	
	13C12-PCB 28	23:29	00:00	0	983009	905719	231285	215667	1.09	AVV/AVV	
	13C12-PCB 37	27:30	00:00	0	928069	849626	201958	189281	1.09	AVV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	145	168	58	67	0.87	/	
	PCB 50 (BZ)	22:58	00:00	0	412468	518881	102096	127107	0.79	ABV/ABV	DM

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r3.	Prep Date		SDG No	
Analysis ID	104456	Prep Exp Date		Date Received	
Analysis Date	06/11/08 00:48	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	PCB 45 (BZ)	23:37	00:00	0	375408	476204	90435	112703	0.79	ABV/ABB	M
	PCB 52 (BZ)	25:21	00:00	0	446145	518210	99135	123249	0.86	ABV/ABV	D
	PCB 49 (BZ)	25:50	00:00	0	443820	558928	102980	129469	0.79	AVV/AVV	DM
	PCB 75 (BZ)	26:42	00:00	0	596407	759139	136805	177373	0.79	ABV/ABV	DM
	PCB 41 (BZ)	27:15	00:00	0	362692	457572	81581	103409	0.79	AVV/AVV	D
	PCB 72 (BZ)	28:24	00:00	0	595882	749460	136895	167876	0.80	ABV/ABV	
	PCB 57 (BZ)	29:07	00:00	0	557540	698692	127450	154881	0.80	AVV/AVV	
	PCB 63 (BZ)	29:48	00:00	0	583056	731743	130928	164286	0.80	AVV/ABV	
	PCB 66 (BZ)	30:28	00:00	0	590842	731043	133786	166852	0.81	ABV/ABB	
	PCB 79 (BZ)	33:17	00:00	0	625281	775922	129326	167835	0.81	ABV/ABV	
	PCB 78 (BZ)	33:50	00:00	0	577986	727700	124228	160002	0.79	AVV/ABV	
	PCB 81 (BZ)	34:17	00:00	0	596973	730380	126255	156217	0.82	AVV/AVV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	118	128	47	51	0.92 *	/	
	13C12-PCB 54	20:45	00:00	0	205688	253874	53692	63711	0.81	AVV/ABV	
	13C12-PCB 52	25:19	00:00	0	343438	429742	81061	100097	0.80	ABV/ABV	
	13C12-PCB 79	33:15	00:00	0	527859	663729	116400	140411	0.80	ABV/ABV	
	13C12-PCB 81	34:16	00:00	0	459690	571870	98177	123229	0.80	ABV/ABB	
	13C12-PCB 77	34:51	00:00	0	468933	576796	99961	119412	0.81	AVV/ABV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	133	140	53	56	0.95 *	/	
	PCB 96 (BZ)	26:42	00:00	0	453009	276663	100281	61840	1.64	ABV/ABV	
	PCB 103 (BZ)	28:36	00:00	0	381179	229752	80811	47530	1.66	ABV/ABV	D
	PCB 95 (BZ)	29:17	00:00	0	361834	216210	81007	47009	1.67	AVV/ABV	
	PCB 88 (BZ)	30:02	00:00	0	318779	197209	70795	39986	1.62	ABV/AVV	
	PCB 89 (BZ)	30:51	00:00	0	318682	194341	68442	42793	1.64	ABV/ABV	
	PCB 92 (BZ)	31:37	00:00	0	339066	205236	72650	44860	1.65	ABV/ABB	
	PCB 113 (BZ)	32:08	00:00	0	445081	269853	91192	57581	1.65	AVV/ABV	
	PCB 83 (BZ)	32:41	00:00	0	302246	185453	62060	38749	1.63	AVV/AVB	
	PCB 119 (BZ)	33:17	00:00	0	491976	305861	104141	67213	1.61	ABV/ABV	DM
	PCB 87 (BZ)	33:24	00:00	0	348800	211672	74137	42049	1.65	AVV/AVV	M
	PCB 85 (BZ)	34:01	00:00	0	366093	226251	76491	46575	1.62	ABV/ABV	DM
	PCB 82 (BZ)	34:30	00:00	0	299077	195533	62545	41228	1.53	ABV/ABB	
	PCB 120 (BZ)	35:20	00:00	0	523354	320106	107932	65741	1.63	ABB/ABB	D
	PCB 124 (BZ)	36:30	00:00	0	1034040	634162	207176	130109	1.63	AVV/AVV	D
	PCB 106 (BZ)	36:57	00:00	0	1062199	652430	217333	132261	1.63	AVV/AVV	
	PCB 122 (BZ)	37:31	00:00	0	977145	621266	201362	124893	1.57	AVV/AVV	D
	PCB 105 (BZ)	38:22	00:00	0	1046147	651256	218836	137318	1.61	ABV/ABV	
	PCB 127 (BZ)	39:49	00:00	0	1103460	669932	226517	138252	1.65	AVV/AVB	D
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	128	120	51	48	1.06 *	/	
	13C12-PCB 104	26:16	00:00	0	434552	262059	99772	57297	1.66	ABV/ABV	
	13C12-PCB 95	29:15	00:00	0	351294	214708	75191	48131	1.64	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r3.	Prep Date		SDG No	
Analysis ID	104456	Prep Exp Date		Date Received	
Analysis Date	06/11/08 00:48	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	13C12-PCB 101	32:10	00:00	0	339084	203721	73270	40817	1.66	AVV/AVV	
	13C12-PCB 111	34:51	00:00	0	436056	269145	95018	53668	1.62	ABV/ABV	
	13C12-PCB 123	36:49	00:00	0	923932	558605	192465	115816	1.65	ABV/ABV	
	13C12-PCB 118	37:09	00:00	0	968231	596479	197230	122630	1.62	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	940420	574055	195055	119514	1.64	AVV/AVV	
	13C12-PCB 105	38:20	00:00	0	923225	562949	191072	120302	1.64	AVV/AVB	
	13C12-PCB 127	39:48	00:00	0	1014946	613347	211806	129265	1.65	ABV/ABV	
	13C12-PCB 126	41:25	00:00	0	979980	599426	200906	123571	1.63	AVV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	145	148	58	59	0.98 *	/	
	PCB 152 (BZ)	32:11	00:00	0	323464	249997	69323	52903	1.29	ABV/ABV	D
	PCB 136 (BZ)	32:43	00:00	0	325096	252446	67270	50914	1.29	ABV/ABV	D
	PCB 148 (BZ)	34:29	00:00	0	251134	196785	55180	38746	1.28	ABV/ABB	
	PCB 151 (BZ)	35:05	00:00	0	247597	194306	49354	40639	1.27	ABV/ABV	
	PCB 144 (BZ)	35:39	00:00	0	259195	198092	52703	40618	1.31	ABV/ABV	D
	PCB 143 (BZ)	36:21	00:00	0	471558	361725	96179	74908	1.30	AVV/ABV	
	PCB 142 (BZ)	36:59	00:00	0	451247	353441	90716	71891	1.28	ABV/ABV	D
	PCB 133 (BZ)	37:47	00:00	0	468707	366783	93225	75486	1.28	AVV/ABV	
	PCB 161 (BZ)	38:33	00:00	0	665996	512020	132932	103700	1.30	ABV/ABV	
	PCB 153 (BZ)	39:01	00:00	0	629799	484625	122385	94731	1.30	AVV/AVV	
	PCB 130 (BZ)	39:39	00:00	0	462170	362543	92509	72572	1.27	AVV/AVV	D
	PCB 129 (BZ)	40:21	00:00	0	440694	348184	87313	69402	1.27	AVV/ABV	
	PCB 166 (BZ)	41:30	00:00	0	670293	529260	132530	108018	1.27	AVV/AVV	
	PCB 159 (BZ)	42:30	00:00	0	670045	517216	134494	102856	1.30	AVV/AVV	
	PCB 167 (BZ)	43:17	00:00	0	688450	544166	142877	110997	1.27	AVV/AVV	
	PCB 156 (BZ)	44:24	00:00	0	724170	559364	140576	109357	1.29	ABV/ABV	D
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	183	160	73	64	1.14	/	
	13C12-PCB 155	31:55	00:00	0	325950	260600	70399	57279	1.25	ABV/ABV	
	13C12-PCB 153	39:00	00:00	0	560325	434437	114659	91752	1.29	ABV/ABV	
	13C12-PCB 138	40:16	00:00	0	512833	402371	101860	79960	1.27	ABV/ABV	M
	13C12-PCB 167	43:15	00:00	0	615094	477940	119640	96868	1.29	AVV/AVV	
	13C12-PCB 156	44:26	00:00	0	1247966	960497	163947	125141	1.30	AVV/ABV	
	13C12-PCB 169	47:39	00:00	0	603698	468415	120360	91581	1.29	ABV/ABV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	118	160	47	64	0.73 *	/	
	PCB 179 (BZ)	38:02	00:00	0	446148	414462	88771	84216	1.08	ABV/ABV	D
	PCB 176 (BZ)	38:55	00:00	0	448929	415120	86021	84470	1.08	ABV/ABV	D
	PCB 178 (BZ)	40:44	00:00	0	323535	317669	65255	64048	1.02	ABV/ABV	
	PCB 175 (BZ)	41:22	00:00	0	336987	325726	65968	68471	1.03	ABV/ABV	
	PCB 183 (BZ)	42:14	00:00	0	366636	342036	74038	68784	1.07	AVV/ABV	
	PCB 177 (BZ)	42:56	00:00	0	310915	290150	62011	59578	1.07	ABV/ABV	D
	PCB 171 (BZ)	43:34	00:00	0	329165	314914	63964	64192	1.05	ABV/ABB	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX1	Prep Batch		Lot No	
Data File	/20080610rt/a0806m1r3.	Prep Date		SDG No	
Analysis ID	104456	Prep Exp Date		Date Received	
Analysis Date	06/11/08 00:48	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

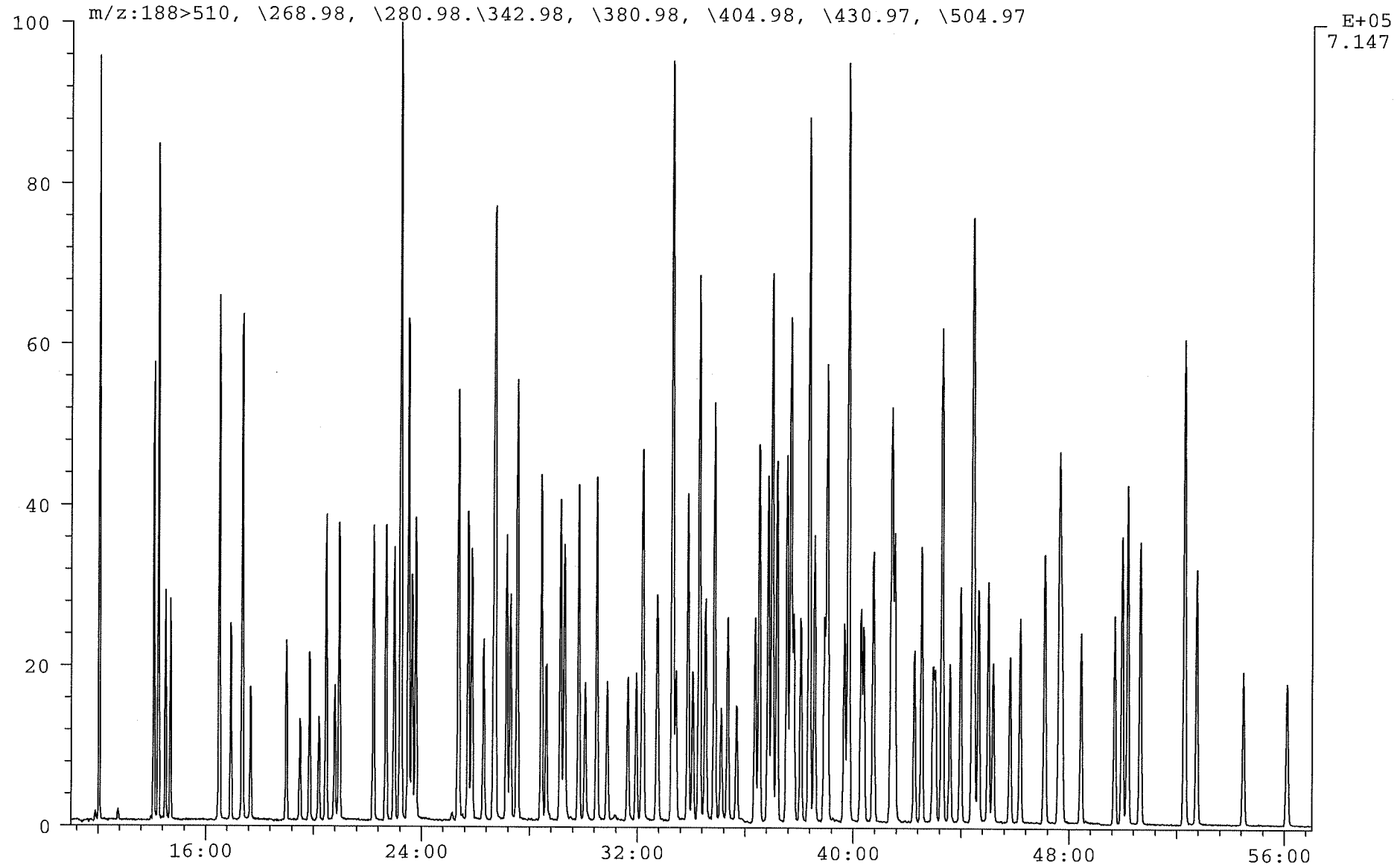
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	PCB 172 (BZ)	45:10	00:00	0	324460	307780	63159	64857	1.05	AVV/AVV	
	PCB 191 (BZ)	46:10	00:00	0	437231	424213	86663	86333	1.03	ABV/ABV	
	PCB 170 (BZ)	47:05	00:00	0	326682	308762	62831	59680	1.06	ABV/AVB	D
	PCB 190 (BZ)	47:35	00:00	0	459426	443088	84659	85029	1.04	ABV/ABV	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	115	118	46	47	0.98	/	
	13C12-PCB 188	37:39	00:00	0	436943	407183	85985	83765	1.07	ABV/ABV	
	13C12-PCB 178	40:42	00:00	0	287911	269929	59491	53057	1.07	ABV/ABV	
	13C12-PCB 180	45:48	00:00	0	365937	334329	70655	67387	1.09	ABV/ABV	
	13C12-PCB 170	47:04	00:00	0	298264	288763	58573	58405	1.03	ABV/ABV	
	13C12-PCB 189	50:09	00:00	0	755677	728508	152238	148236	1.04	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	128	135	51	54	0.94	/	
	PCB 200 (BZ)/201 (IUPAC	43:58	00:00	0	468999	526205	93448	102897	0.89	ABV/ABV	
	PCB 204 (BZ)	44:37	00:00	0	465873	521917	91964	100704	0.89	AVV/AVV	
	PCB 199 (BZ)/200 (IUPAC	44:59	00:00	0	469771	521862	95941	100752	0.90	AVV/AVV	
	PCB 198 (BZ)	47:43	00:00	0	340214	390103	67835	75399	0.87	ABV/ABV	
	PCB 196 (BZ)	48:25	00:00	0	355246	387700	72981	79349	0.92	ABV/ABV	
	PCB 195 (BZ)	49:56	00:00	0	589473	647678	111741	123392	0.91	AVV/ABV	D
	PCB 194 (BZ)	52:16	00:00	0	631159	700035	122618	137190	0.90	ABV/ABV	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	155	143	62	57	1.09 *	/	
	13C12-PCB 202	43:01	00:00	0	298388	323487	57063	63042	0.92	ABV/ABV	
	13C12-PCB 194	52:15	00:00	0	376232	420233	73936	82868	0.90	ABV/ABV	
	13C12-PCB 205	52:43	00:00	0	521963	571165	101225	115092	0.91	ABV/ABV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	133	163	53	65	0.82	/	
	PCB 207 (BZ)	50:37	00:00	0	517913	656035	98976	125371	0.79	ABV/ABV	
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89		
	Noise	00:00	00:00	0	123	133	49	53	0.92 *	/	
	13C12-PCB 208	49:40	00:00	0	372511	460738	74938	92914	0.81	ABB/ABV	
	13C12-PCB 206	54:27	00:00	0	255616	318905	51535	67473	0.80	AVV/ABB	
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79		
	Noise	00:00	00:00	0	93	85	37	34	1.09 *	/	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79		
	Noise	00:00	00:00	0	98	98	39	39	1.00 *	/	
	13C12-PCB 209	56:04	00:00	0	242158	352189	43903	62664	0.69	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: a0806m1r3 11-Jun-08 Elapse: 56:10 2553
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

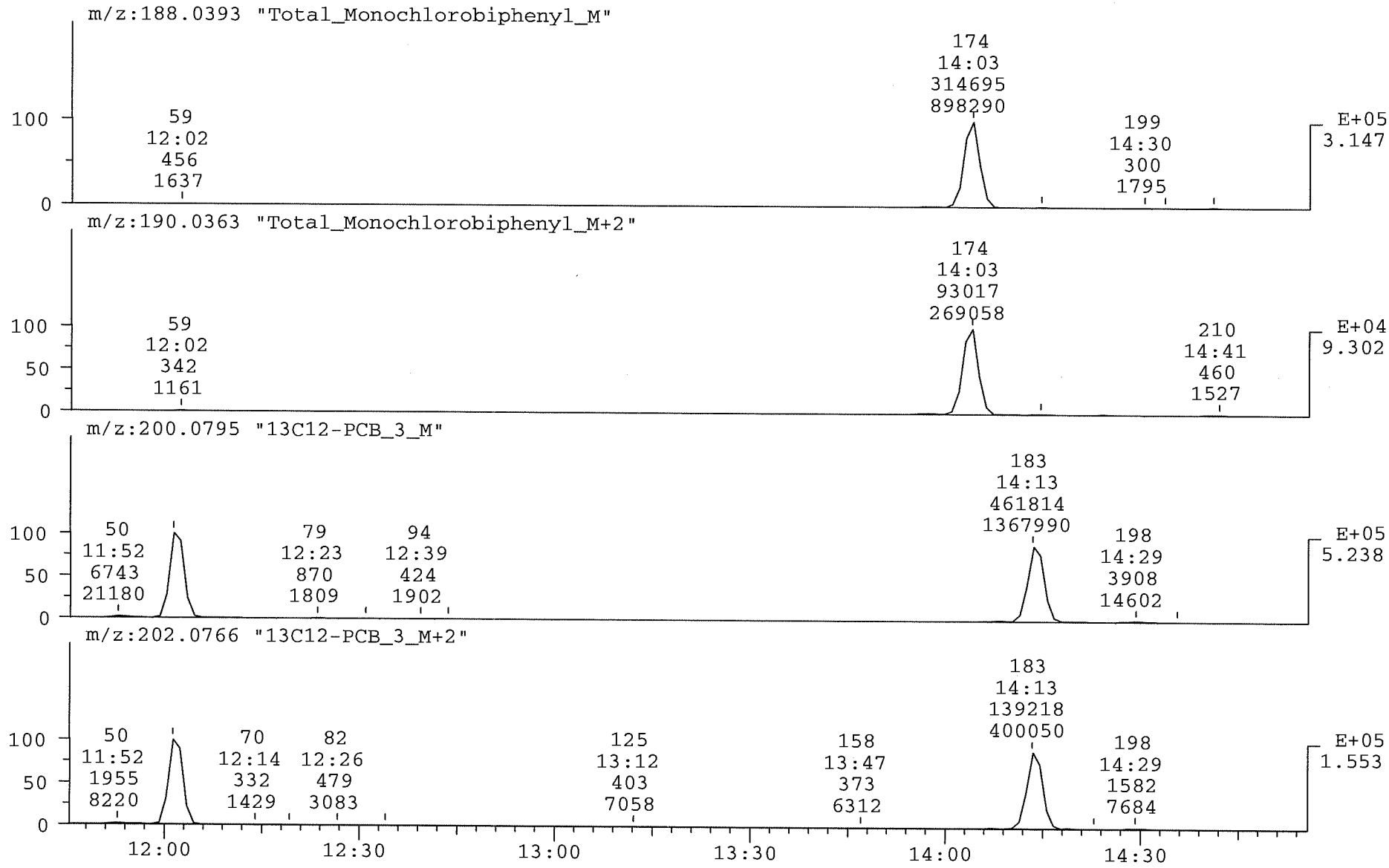
Int DCS 6-11-08
Calc Sys 6-25-08



H-2255

2254

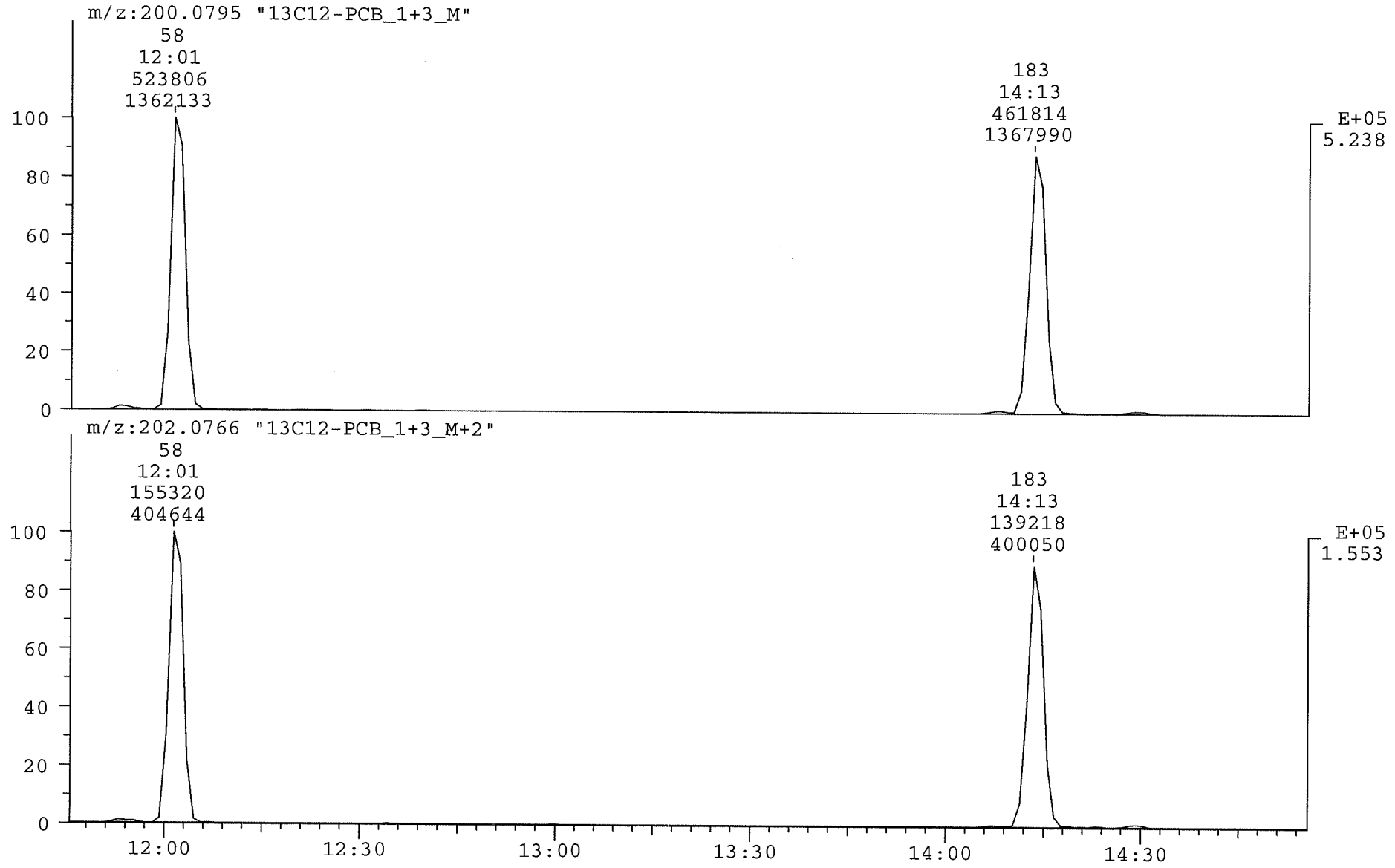
CHRO: a0806m1r3 11-Jun-08 Elapse: 13:20.6 133
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 43 > 223 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2256

2255

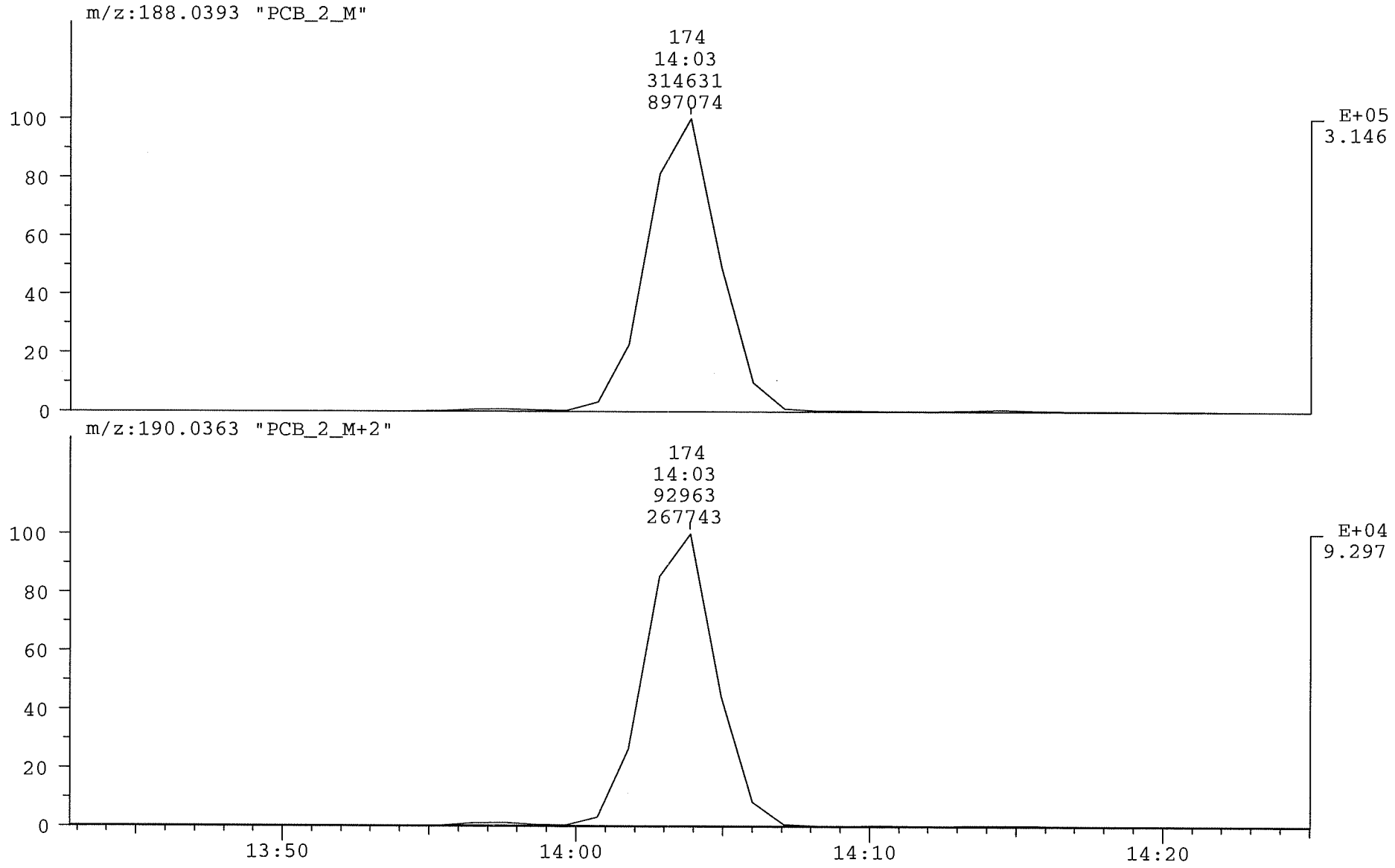
CHRO: a0806m1r3 11-Jun-08 Elapse: 13:20.6 133
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 43 > 223 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2257

2256

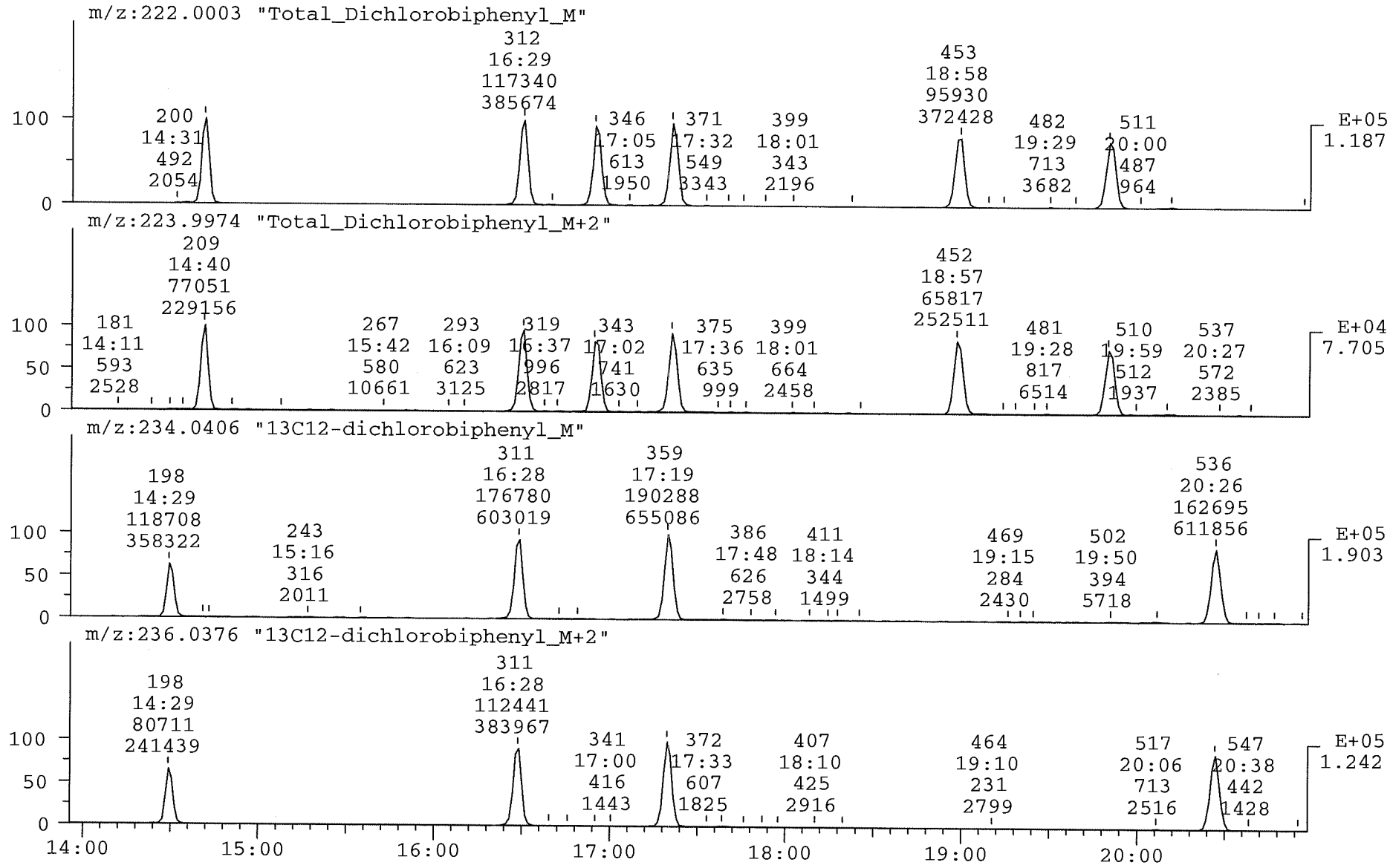
CHRO: a0806m1r3 11-Jun-08 Elapse: 14:03.9 174
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 154 > 194 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2258

2257

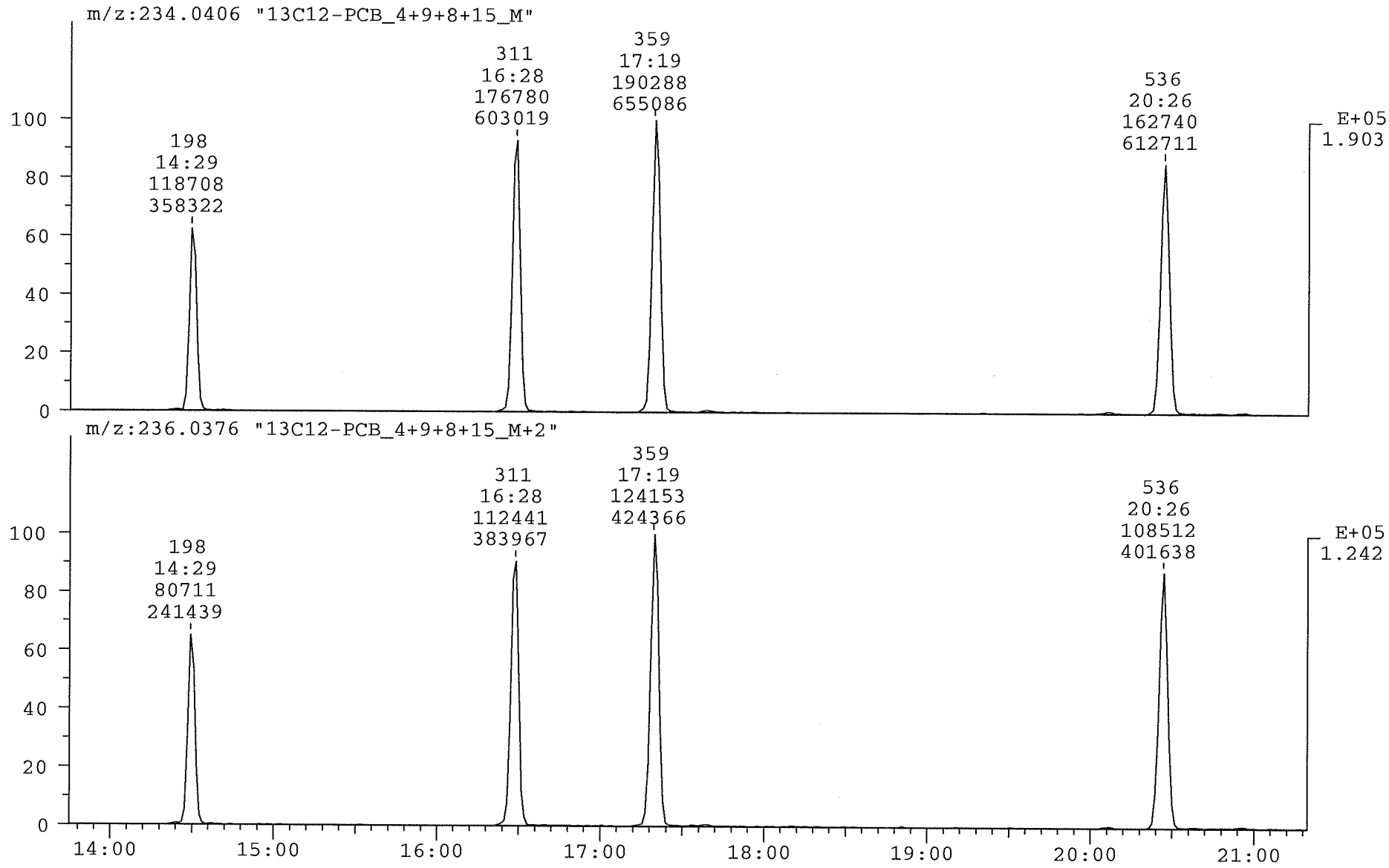
CHRO: a0806m1r3 11-Jun-08 Elapse: 17:26.8 366
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2259

2258

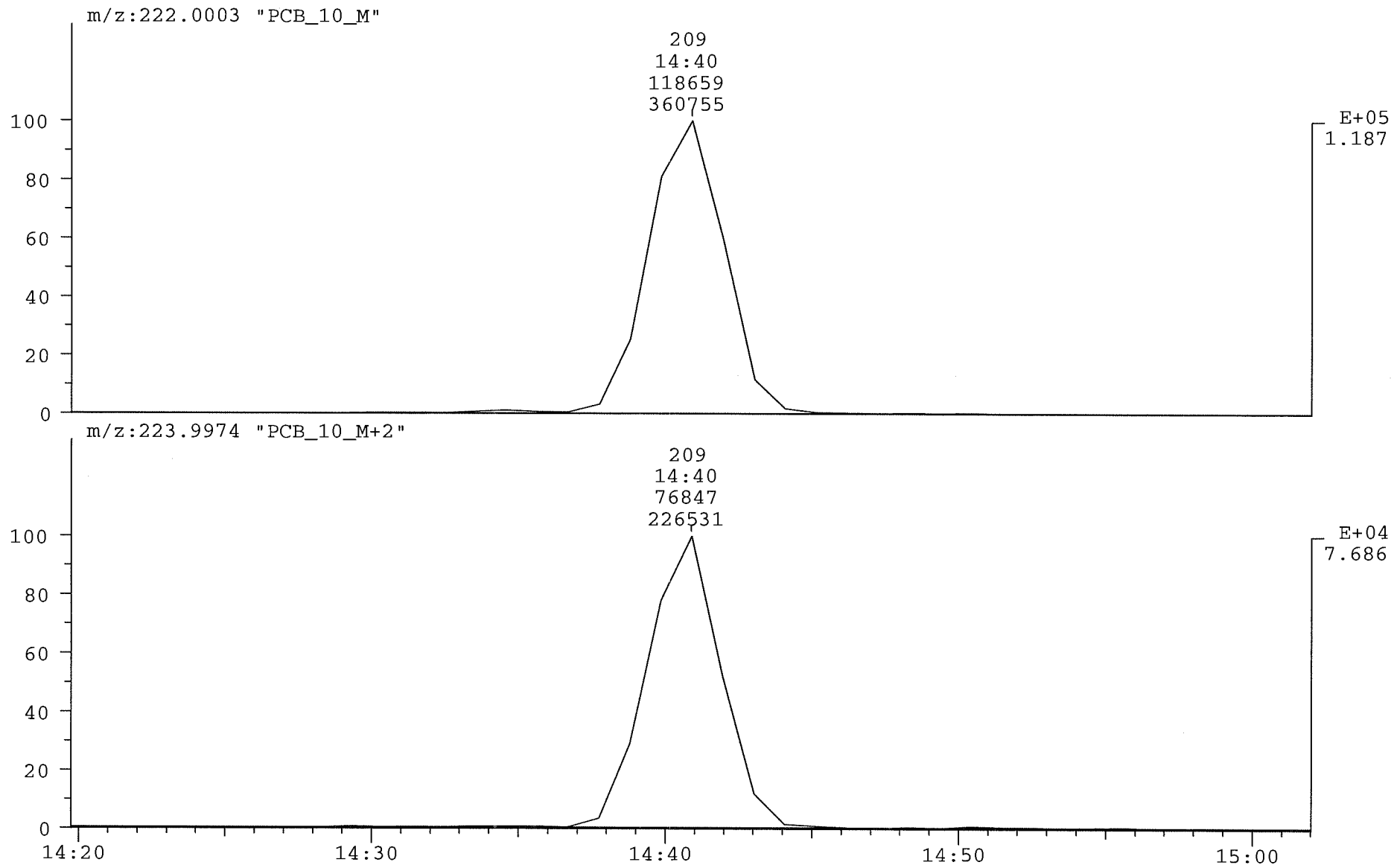
CHRO: a0806m1r3 11-Jun-08 Elapse: 17:26.8 366
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2260

2259

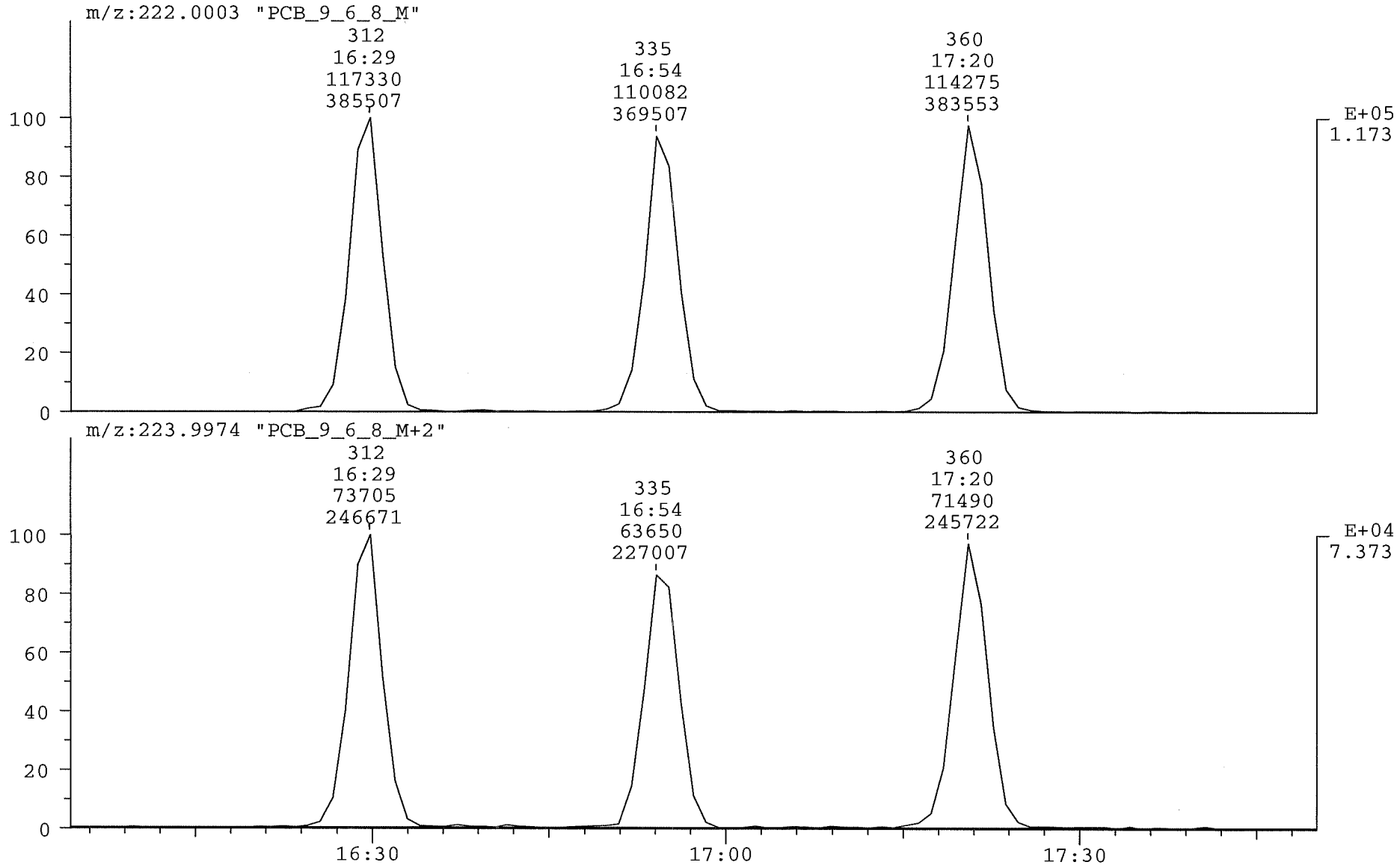
CHRO: a0806m1r3 11-Jun-08 Elapse: 14:40.9 209
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 189 > 229 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2261

2260

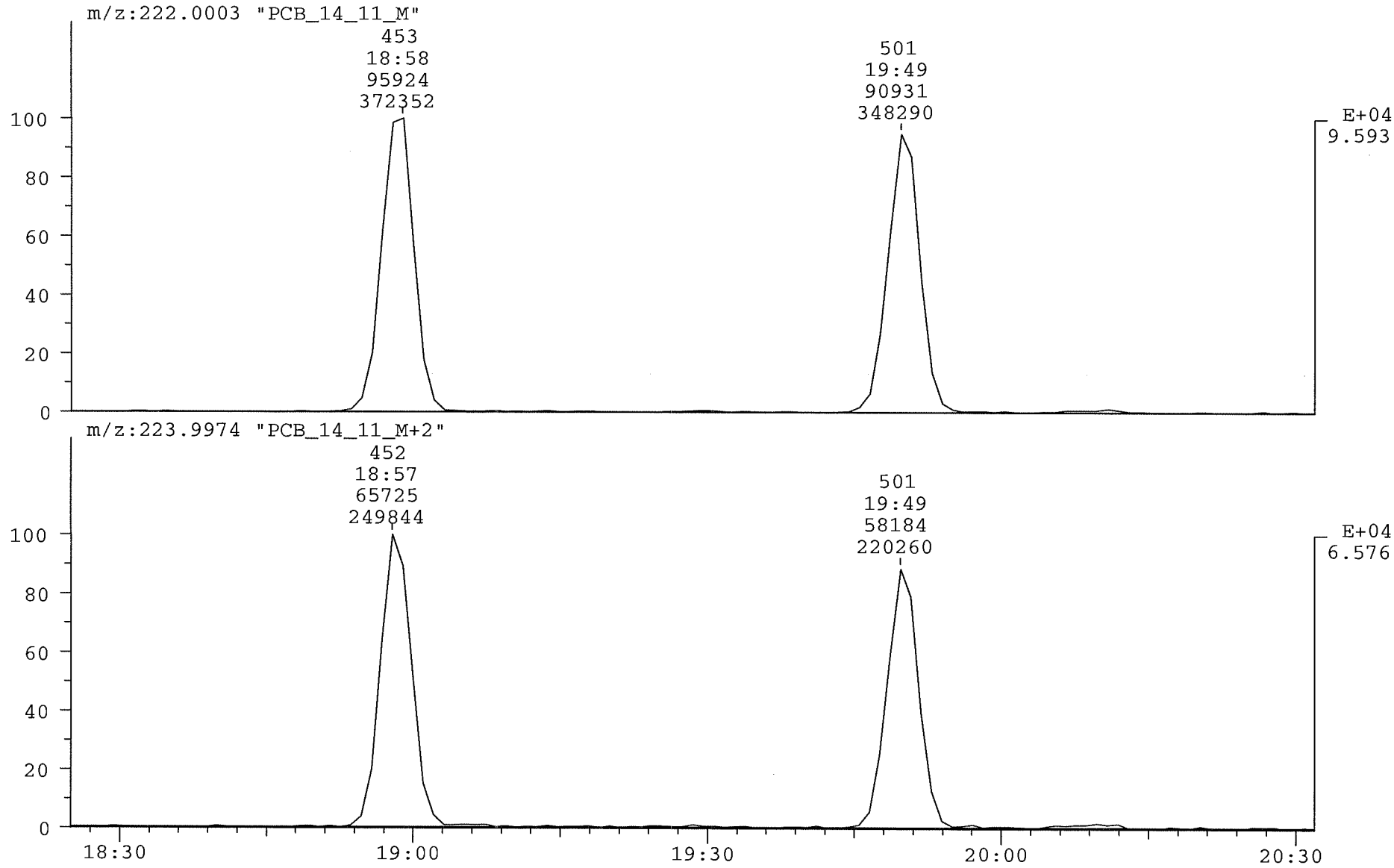
CHRO: a0806m1r3 11-Jun-08 Elapse: 16:57.2 338
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 288 > 388 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2262

2261

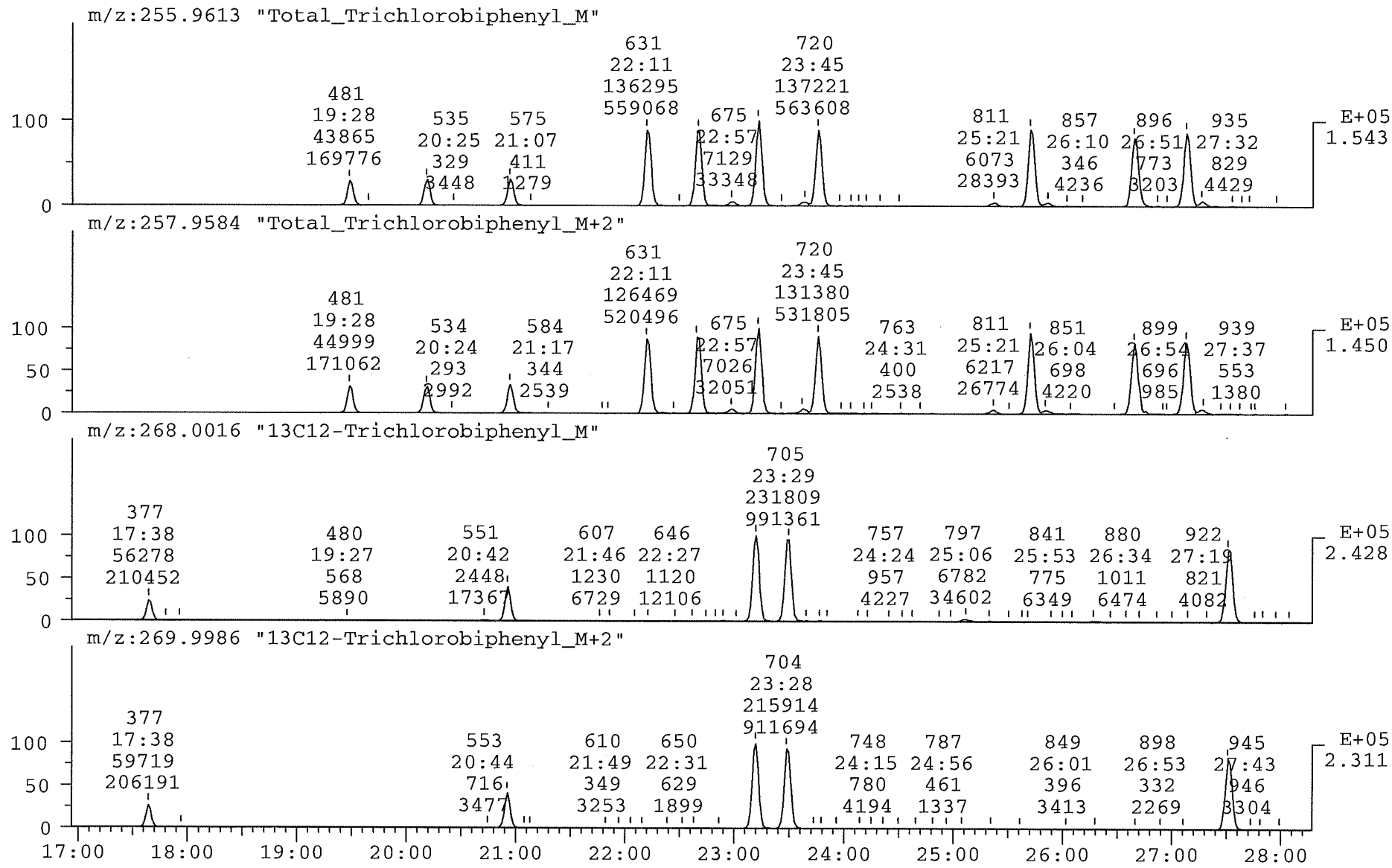
CHRO: a0806m1r3 11-Jun-08 Elapse: 19:28.4 481
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 421 > 541 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2263

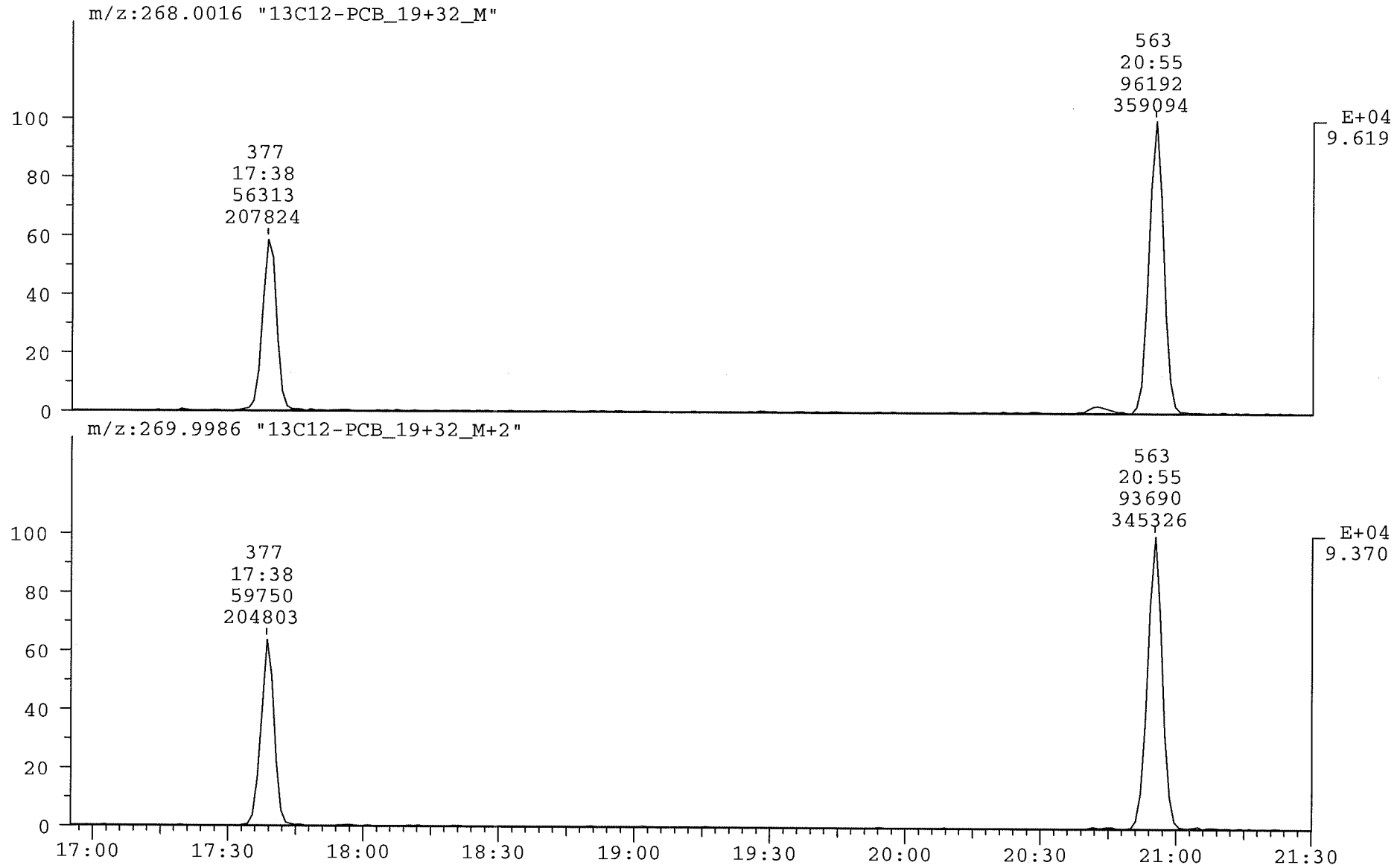
2262

CHRO: a0806m1r3 11-Jun-08 Elapse: 22:38.9 657
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 337 > 977 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2264

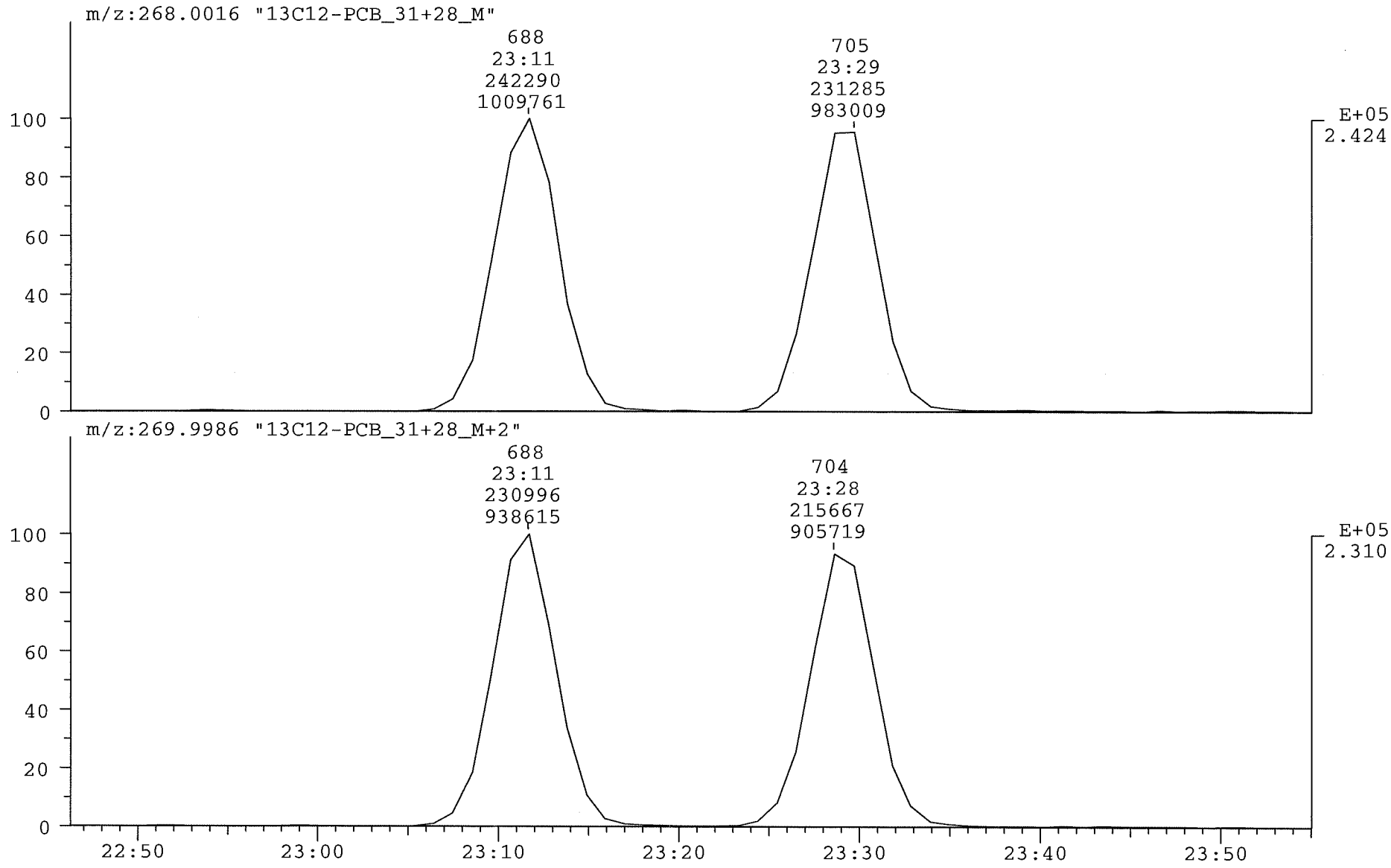
CHRO: a0806m1r3 11-Jun-08 Elapse: 19:02.0 456
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 336 > 596 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2265

2264

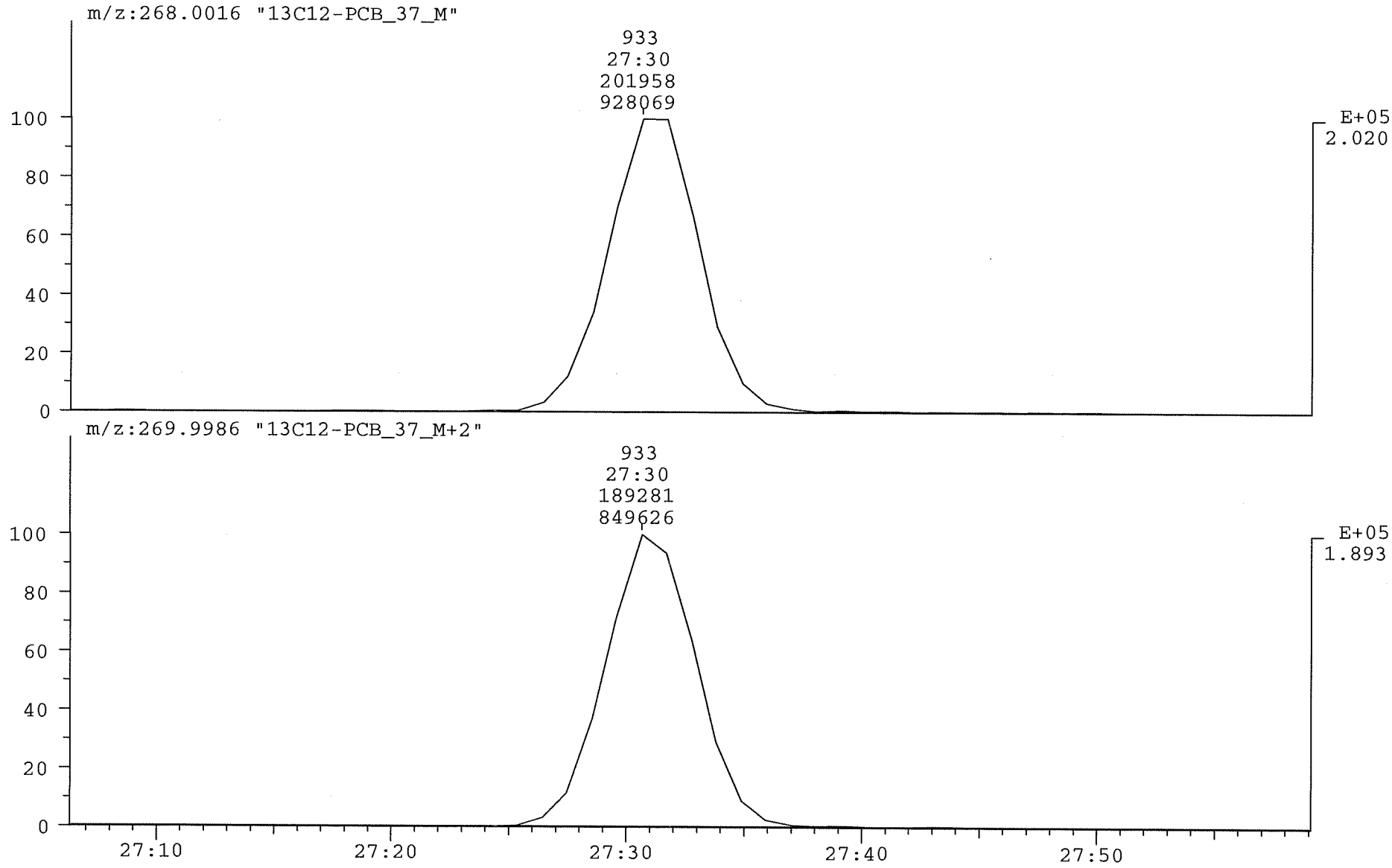
CHRO: a0806m1r3 11-Jun-08 Elapse: 23:12.7 689
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 664 > 729 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2266

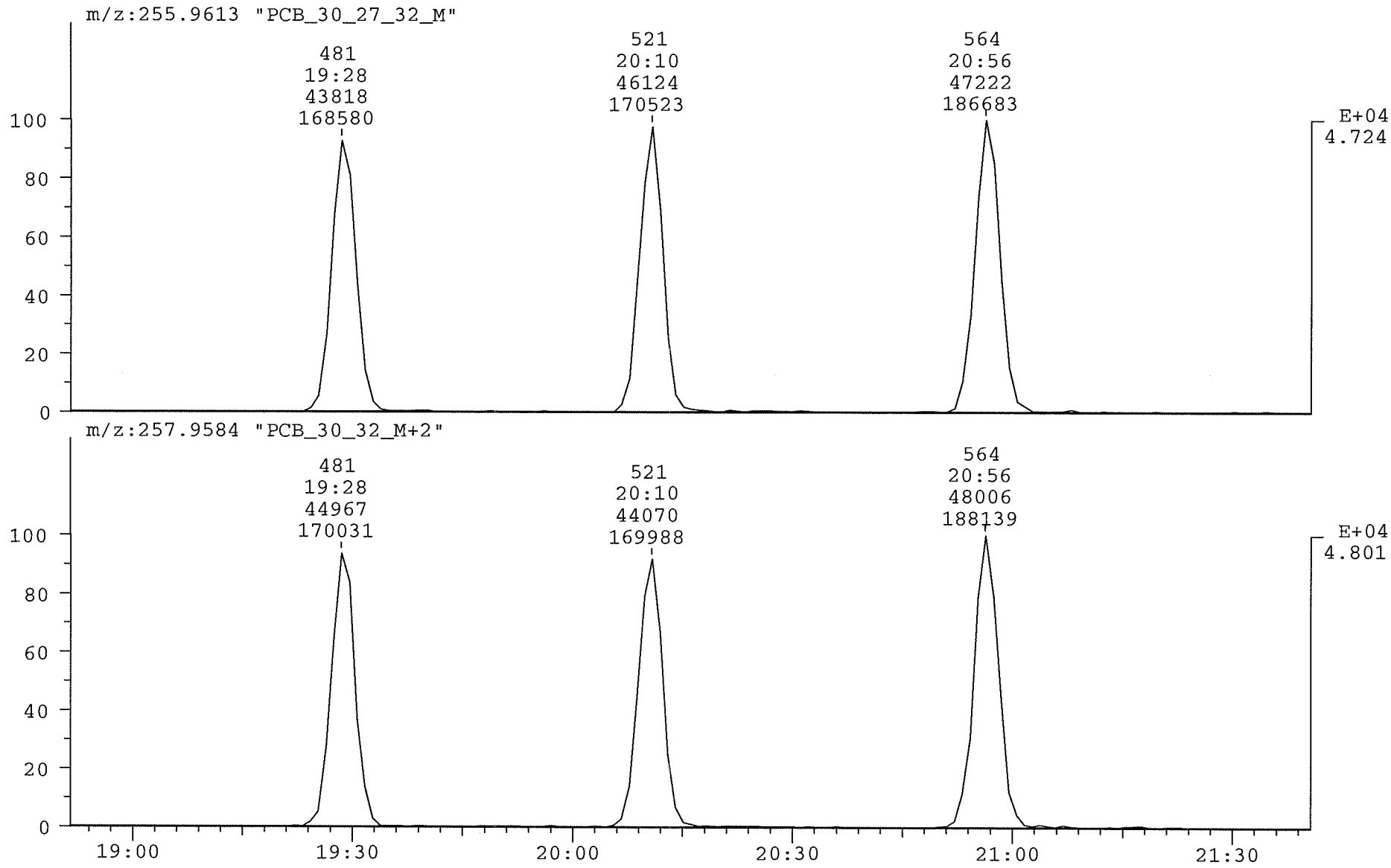
2265

CHRO: a0806m1r3 11-Jun-08 Elapse: 27:32.7 935
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 910 > 960 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2267

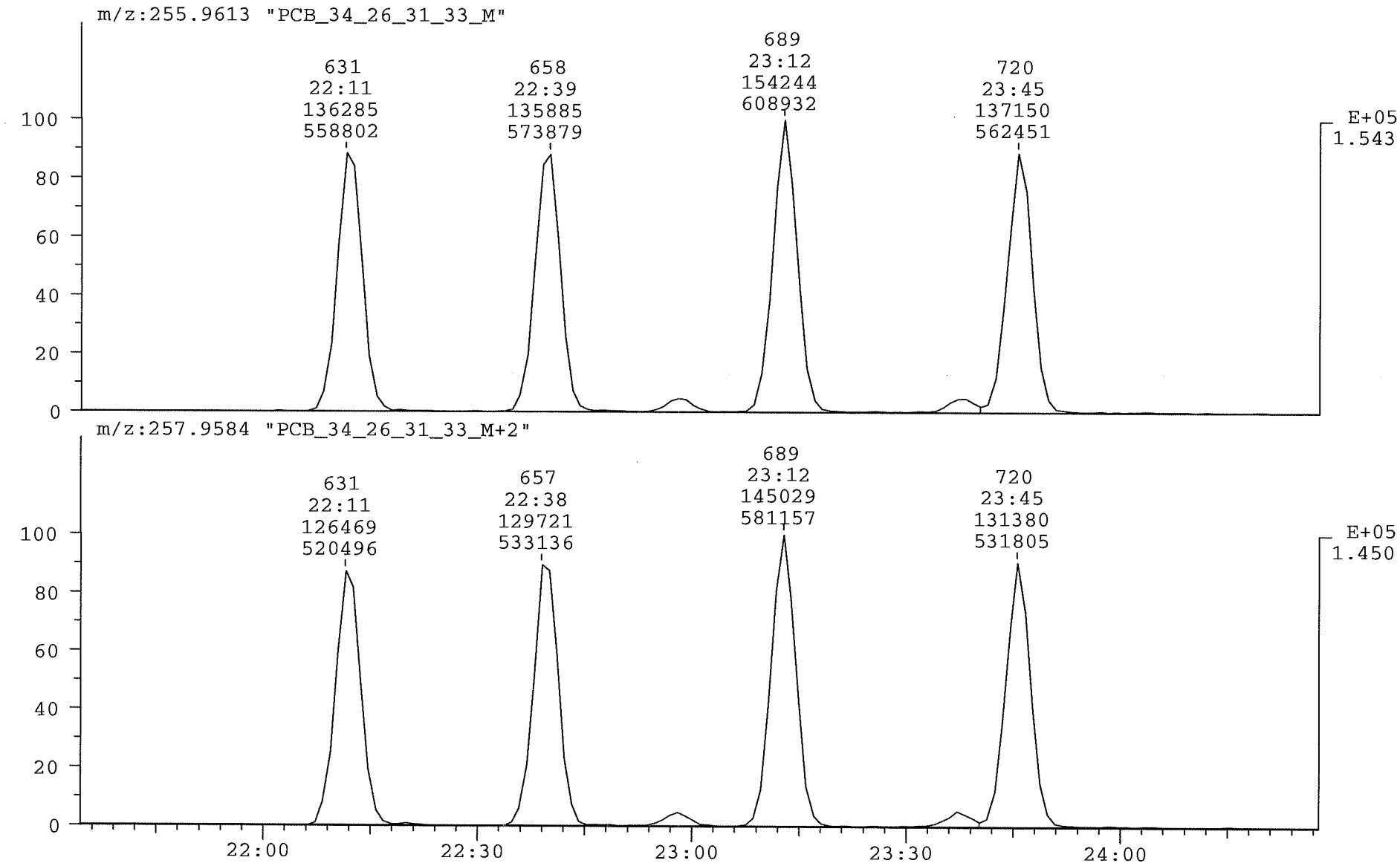
CHRO: a0806m1r3 11-Jun-08 Elapse: 20:16.1 526
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 446 > 606 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2268

2267

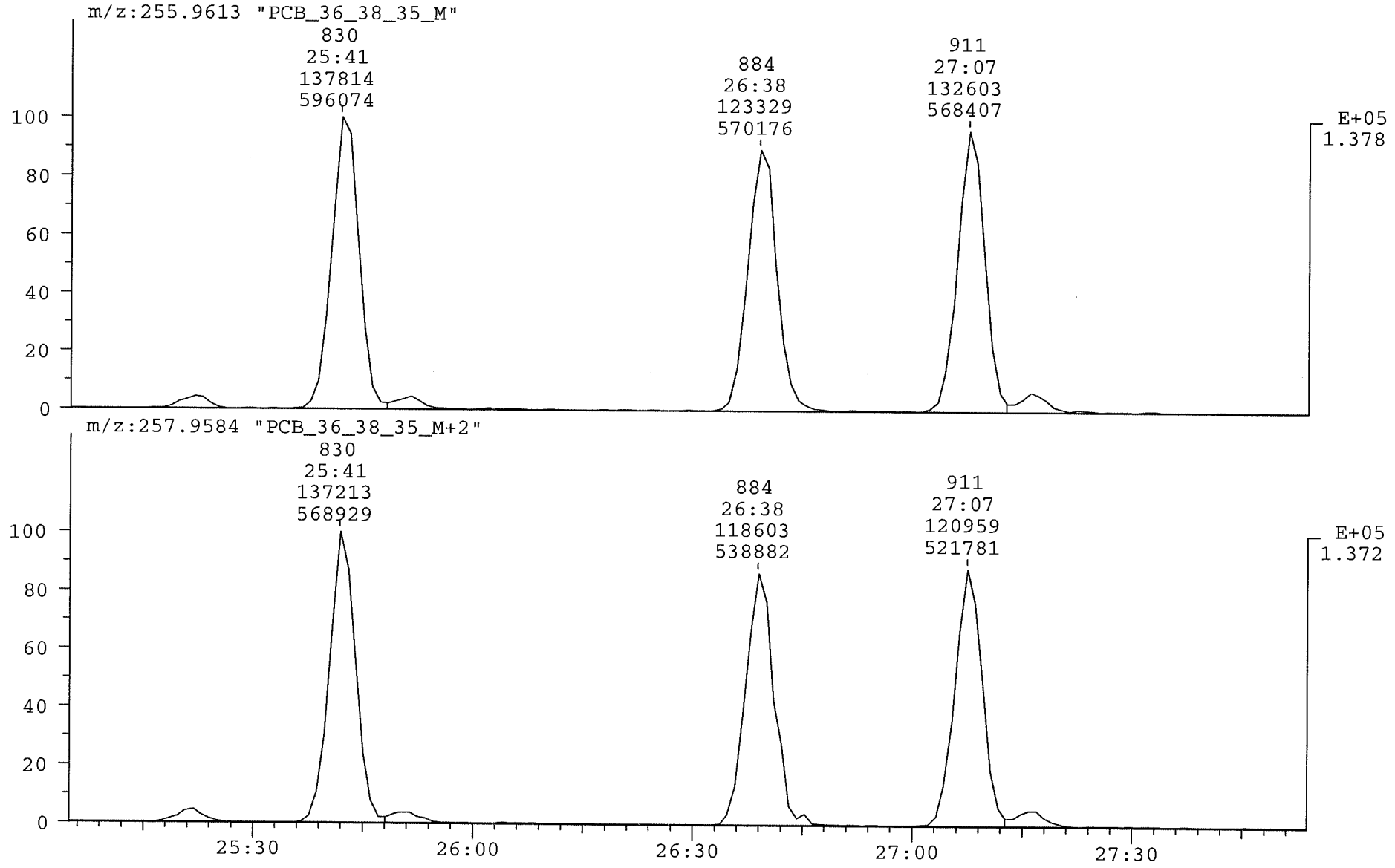
CHRO: a0806m1r3 11-Jun-08 Elapse: 23:03.2 680
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 600 > 760 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2269

2268

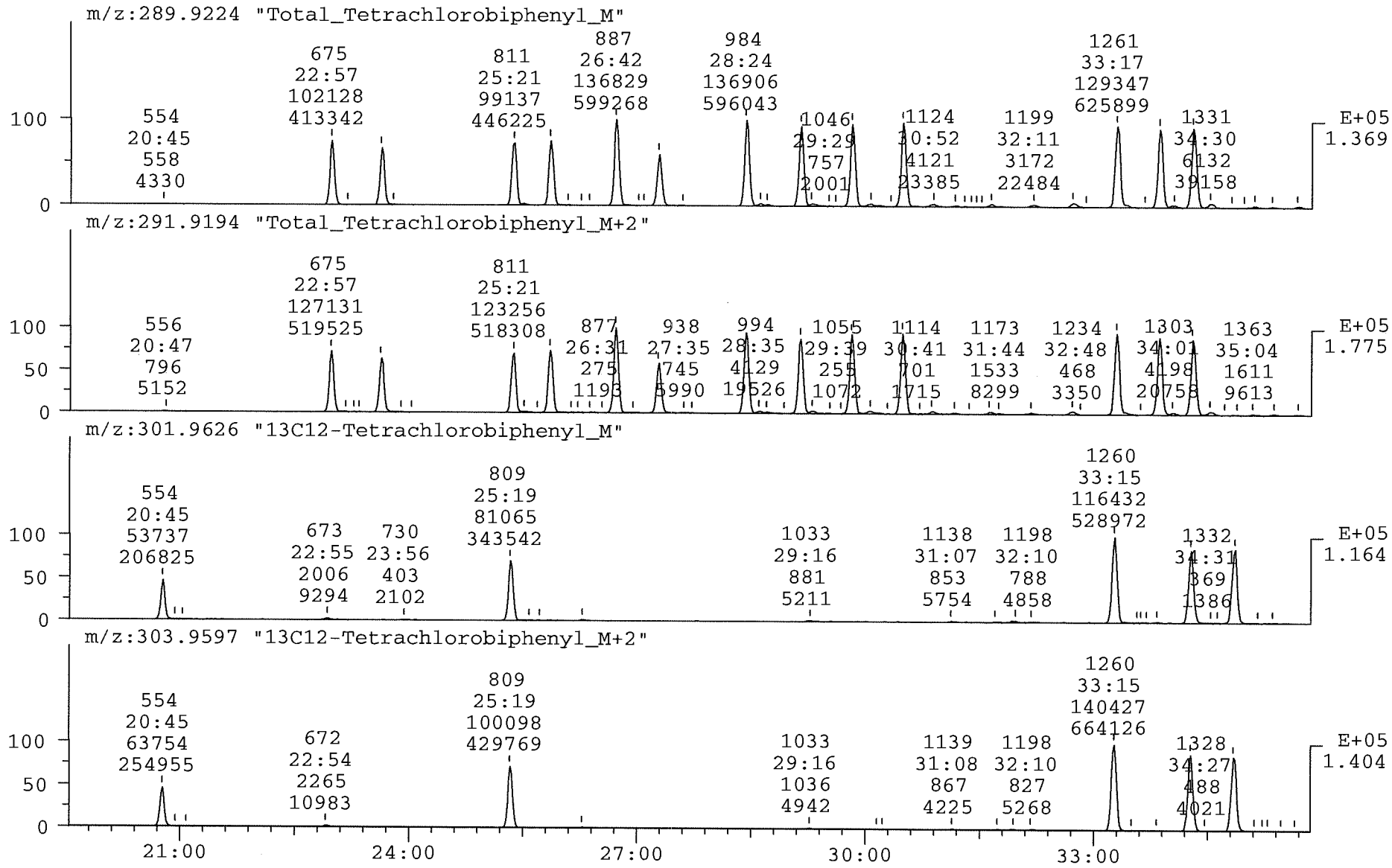
CHRO: a0806m1r3 11-Jun-08 Elapse: 26:29.3 875
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 795 > 955 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2270

2269

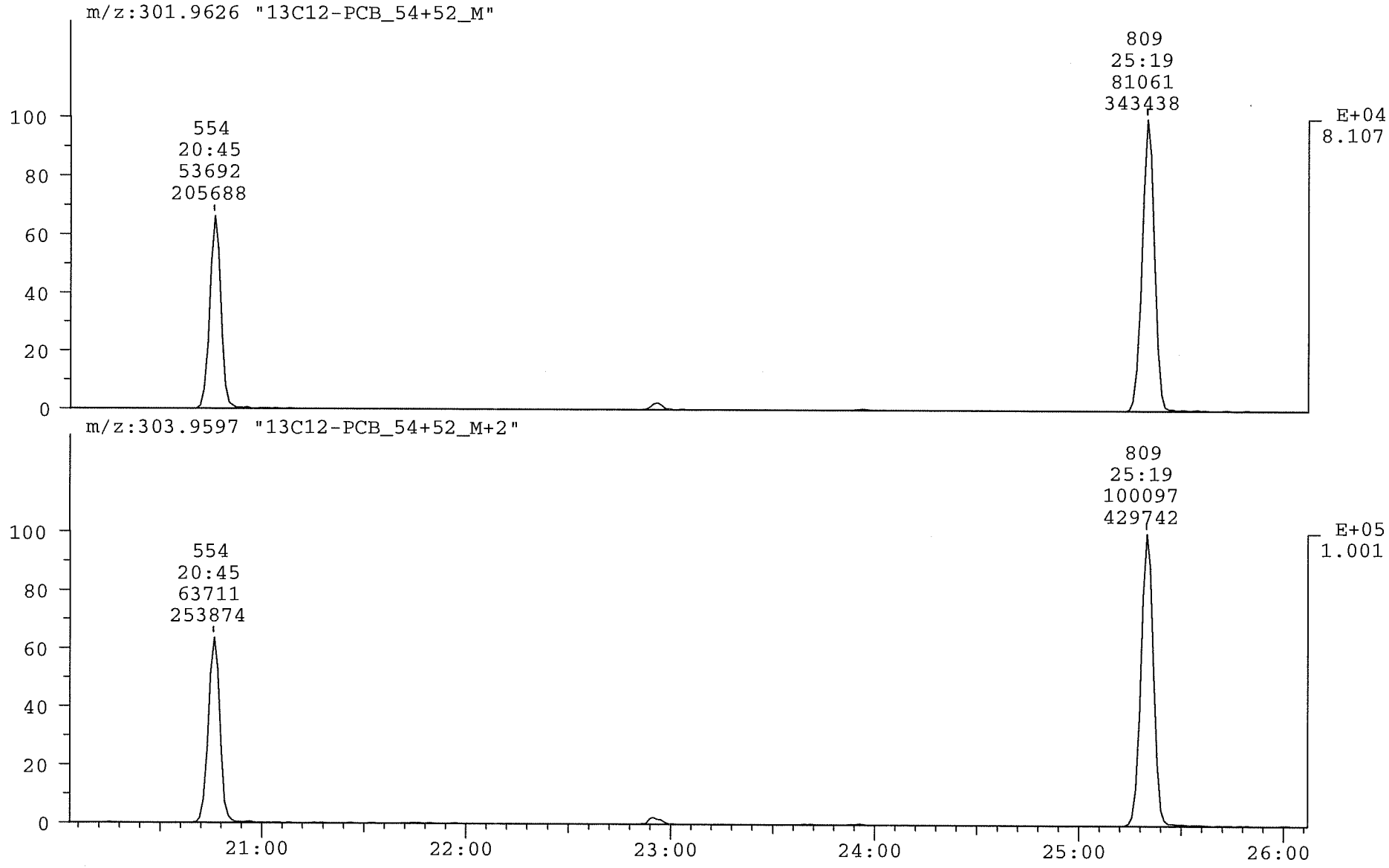
CHRO: a0806m1r3 11-Jun-08 Elapse: 27:41.2 943
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 484 > 1407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2271

2270

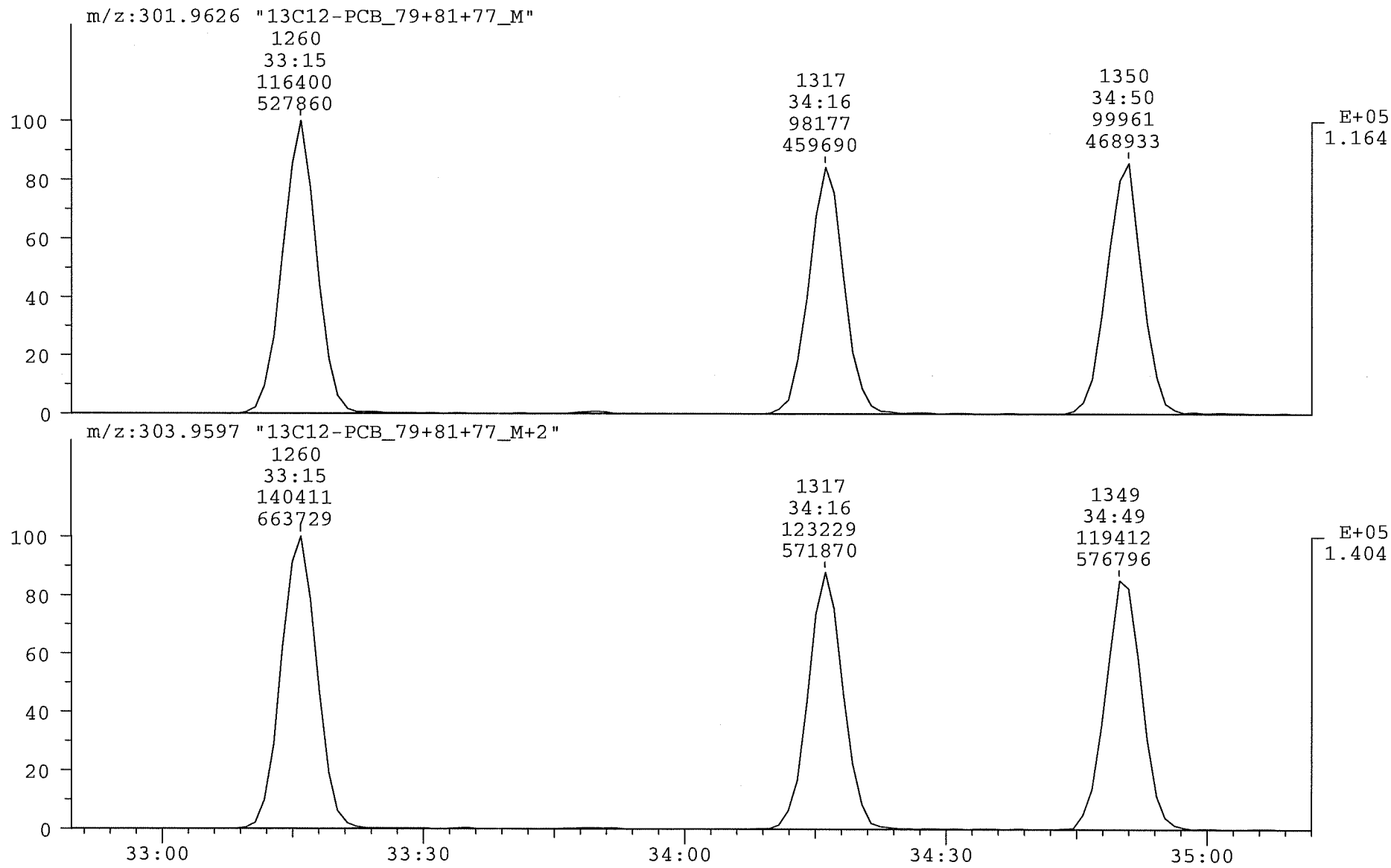
CHRO: a0806m1r3 11-Jun-08 Elapse: 23:07.4 684
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-272

2271

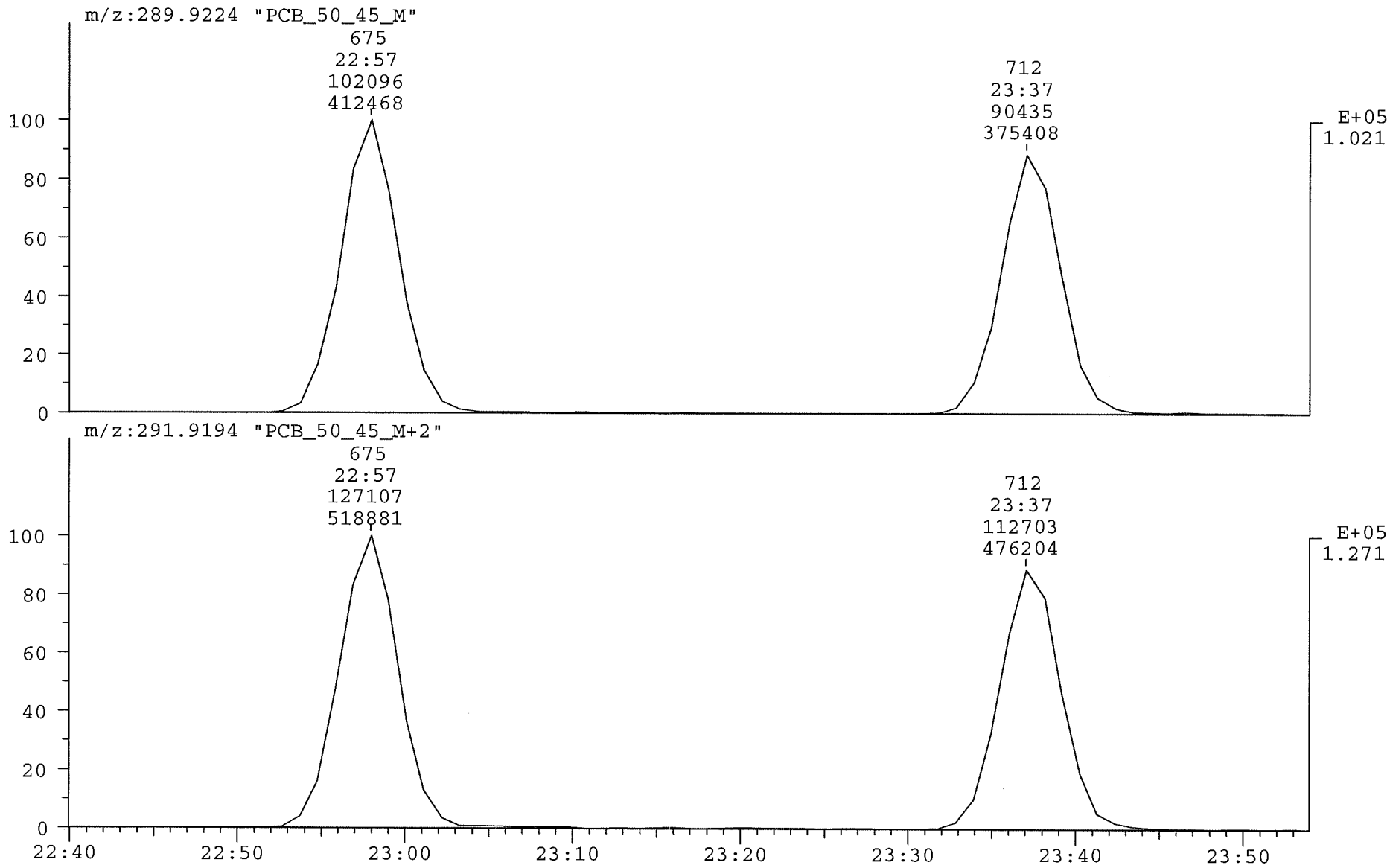
CHRO: a0806m1r3 11-Jun-08 Elapse: 34:03 1305
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1235 > 1370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2273

2272

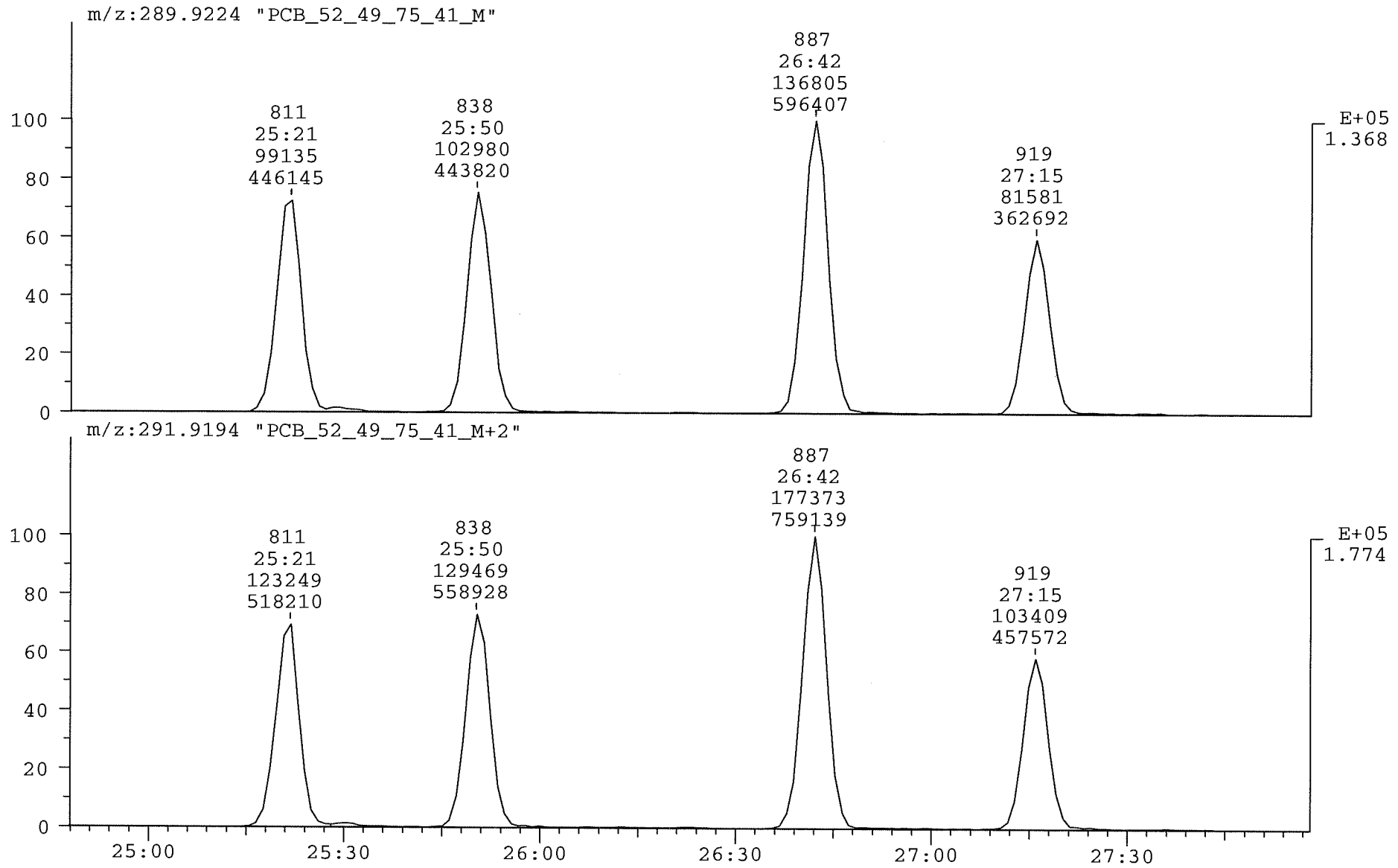
CHRO: a0806m1r3 11-Jun-08 Elapse: 23:22.2 698
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 658 > 728 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2274

2273

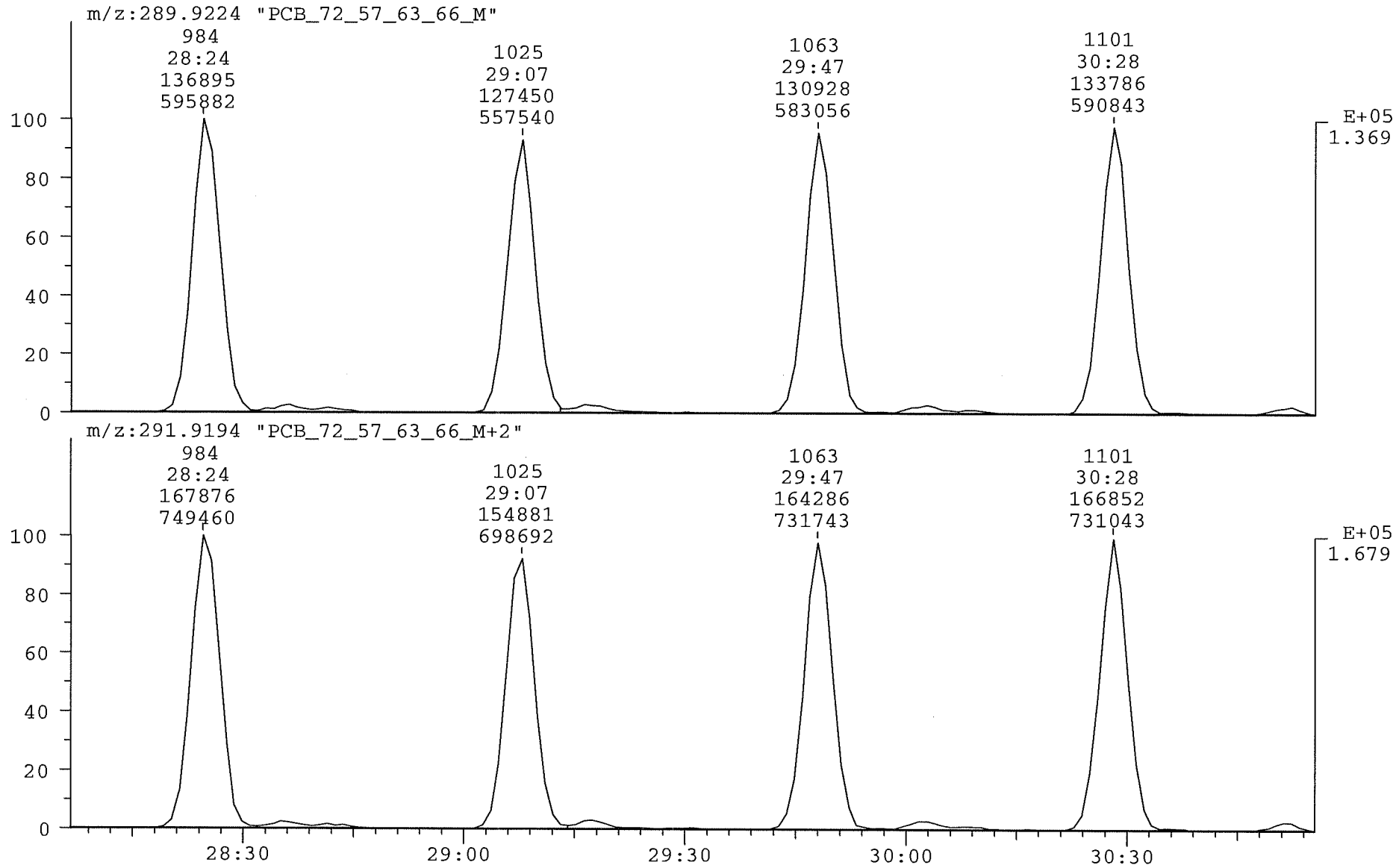
CHRO: a0806m1r3 11-Jun-08 Elapse: 26:23.0 869
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 779 > 959 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2275

2274

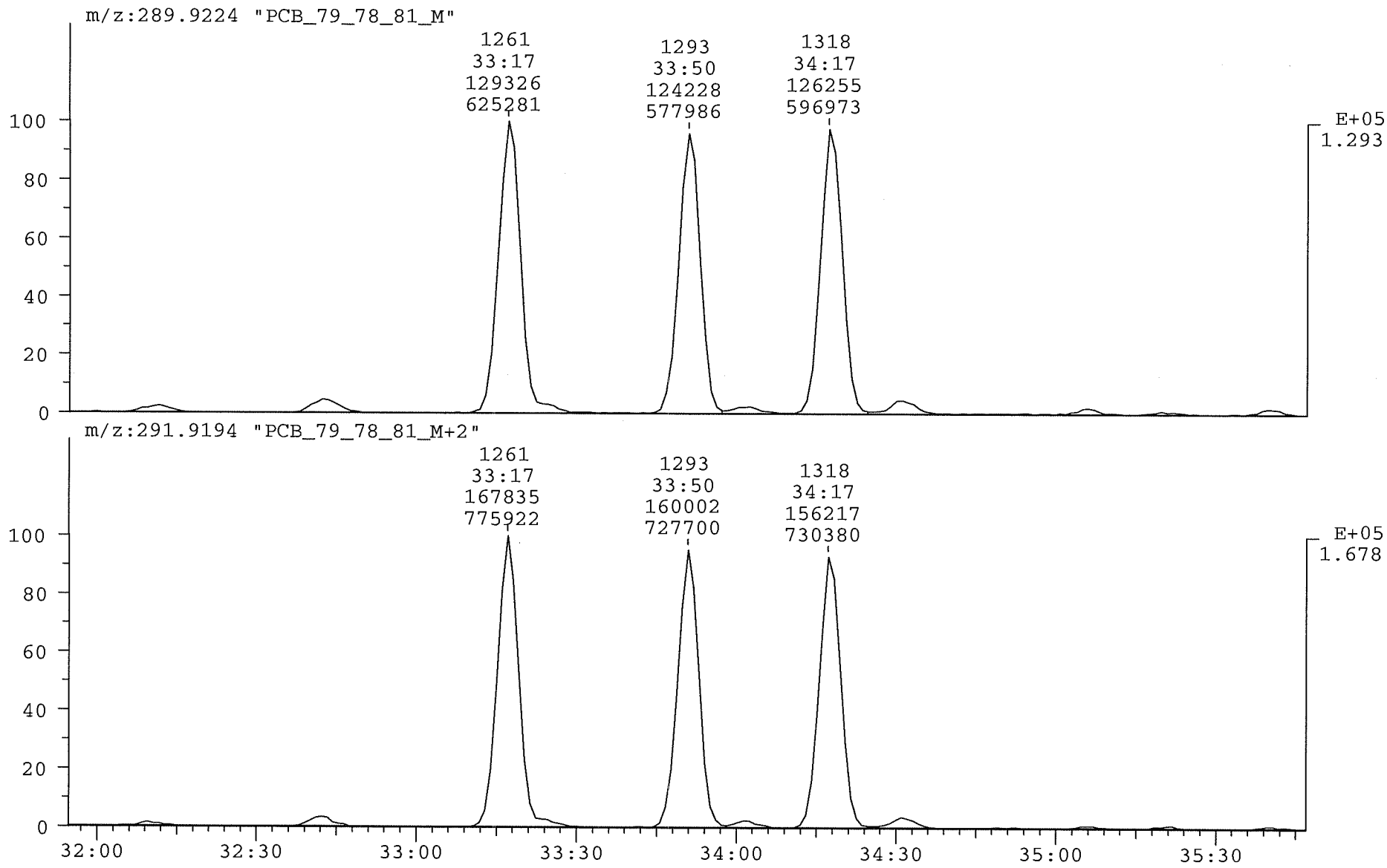
CHRO: a0806m1r3 11-Jun-08 Elapse: 29:31 1047
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 967 > 1127 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2276

2275

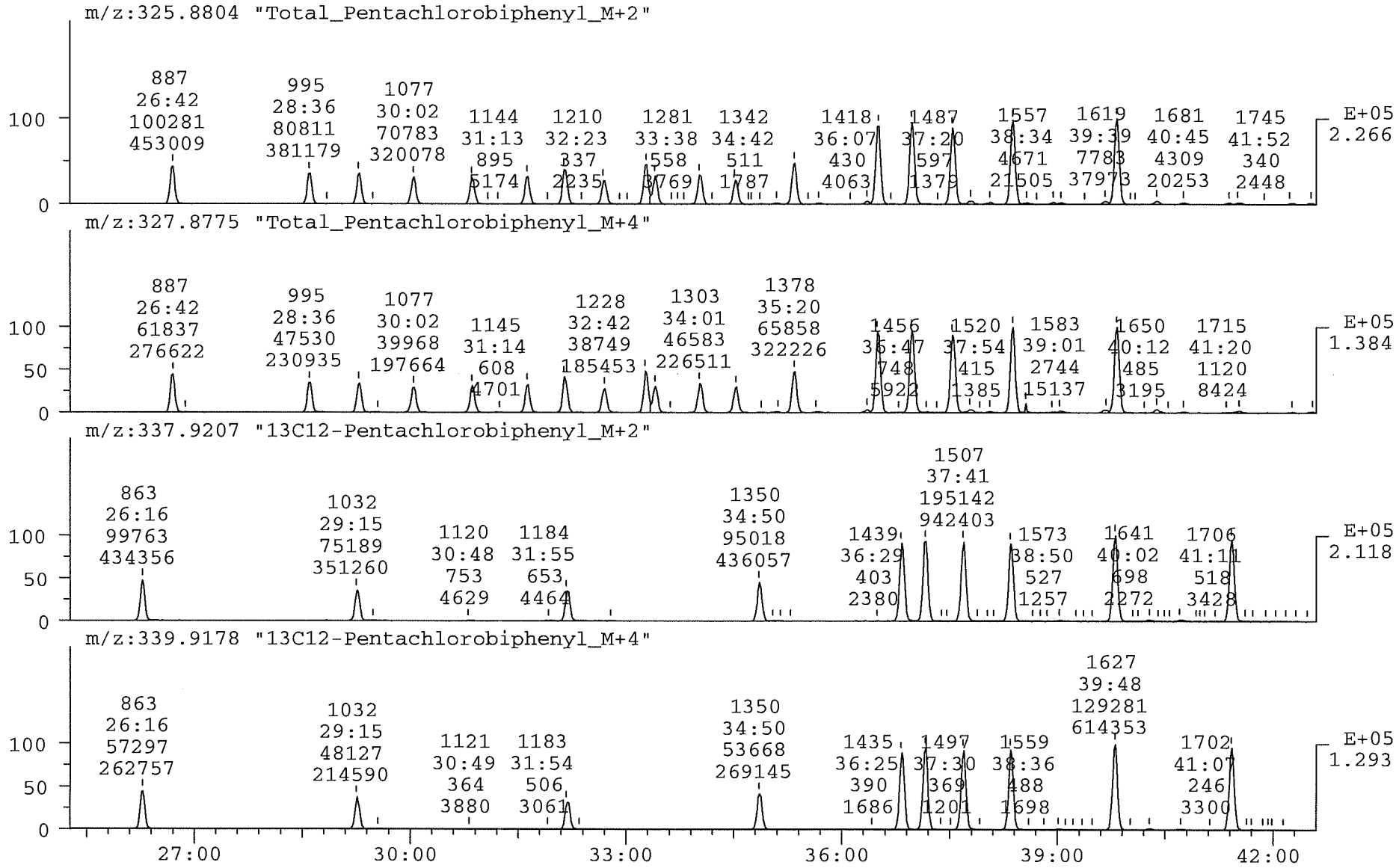
CHRO: a0806m1r3 11-Jun-08 Elapse: 33:50 1293
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1183 > 1403 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2277

2276

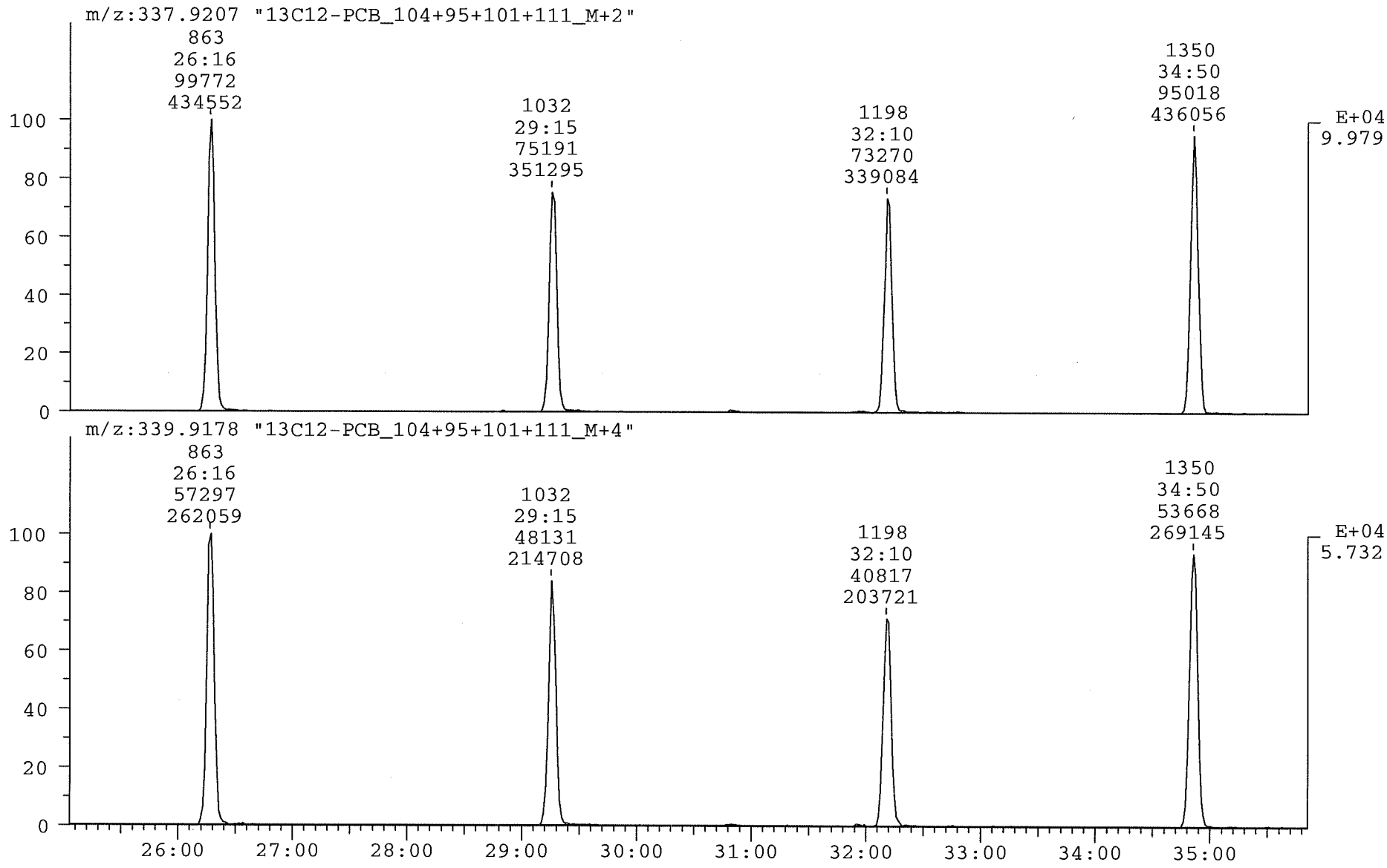
CHRO: a0806m1r3 11-Jun-08 Elapse: 33:56 1298
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 806 > 1786 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2278

2277

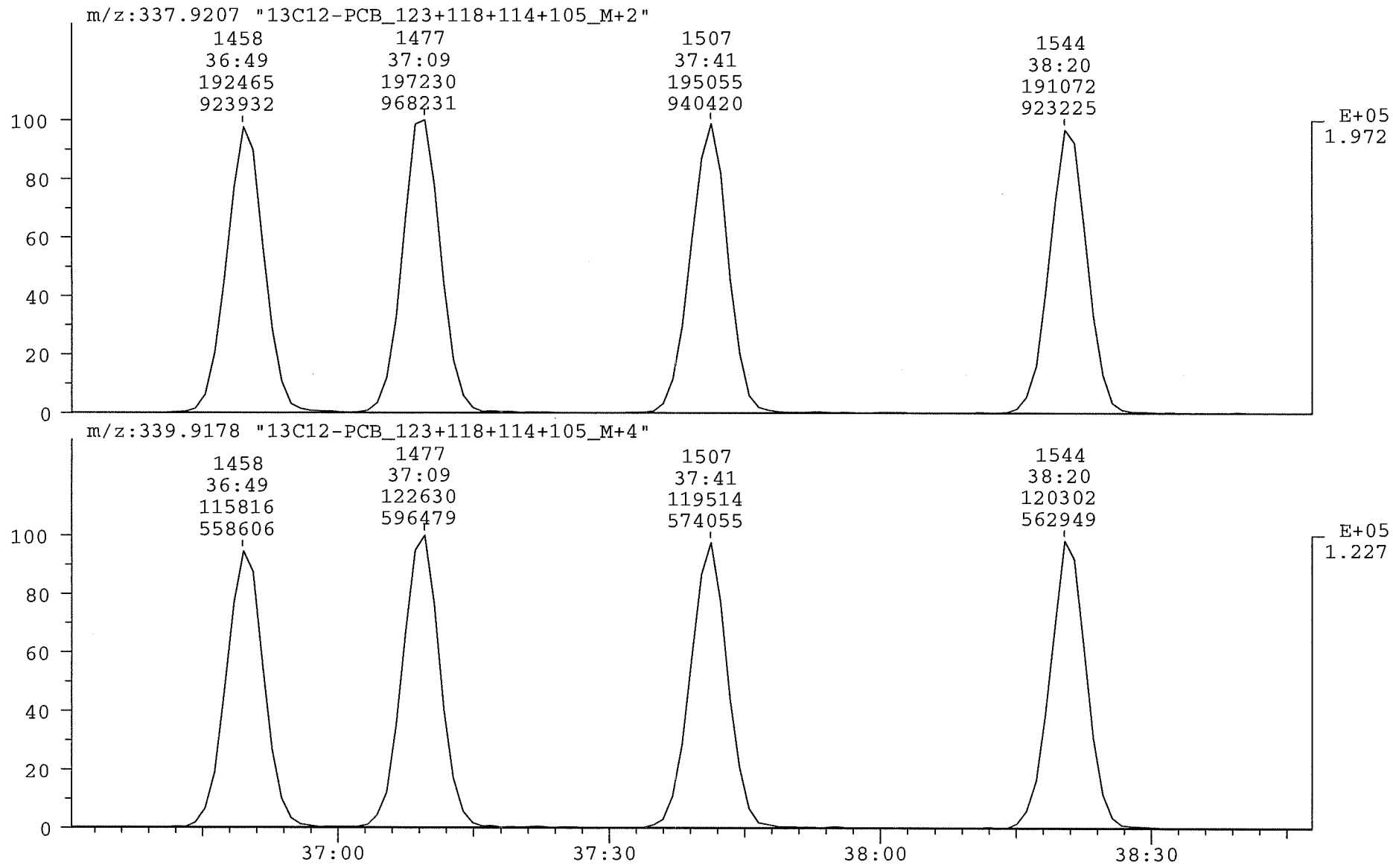
CHRO: a0806m1r3 11-Jun-08 Elapse: 30:26 1100
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 793 > 1407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2279

2278

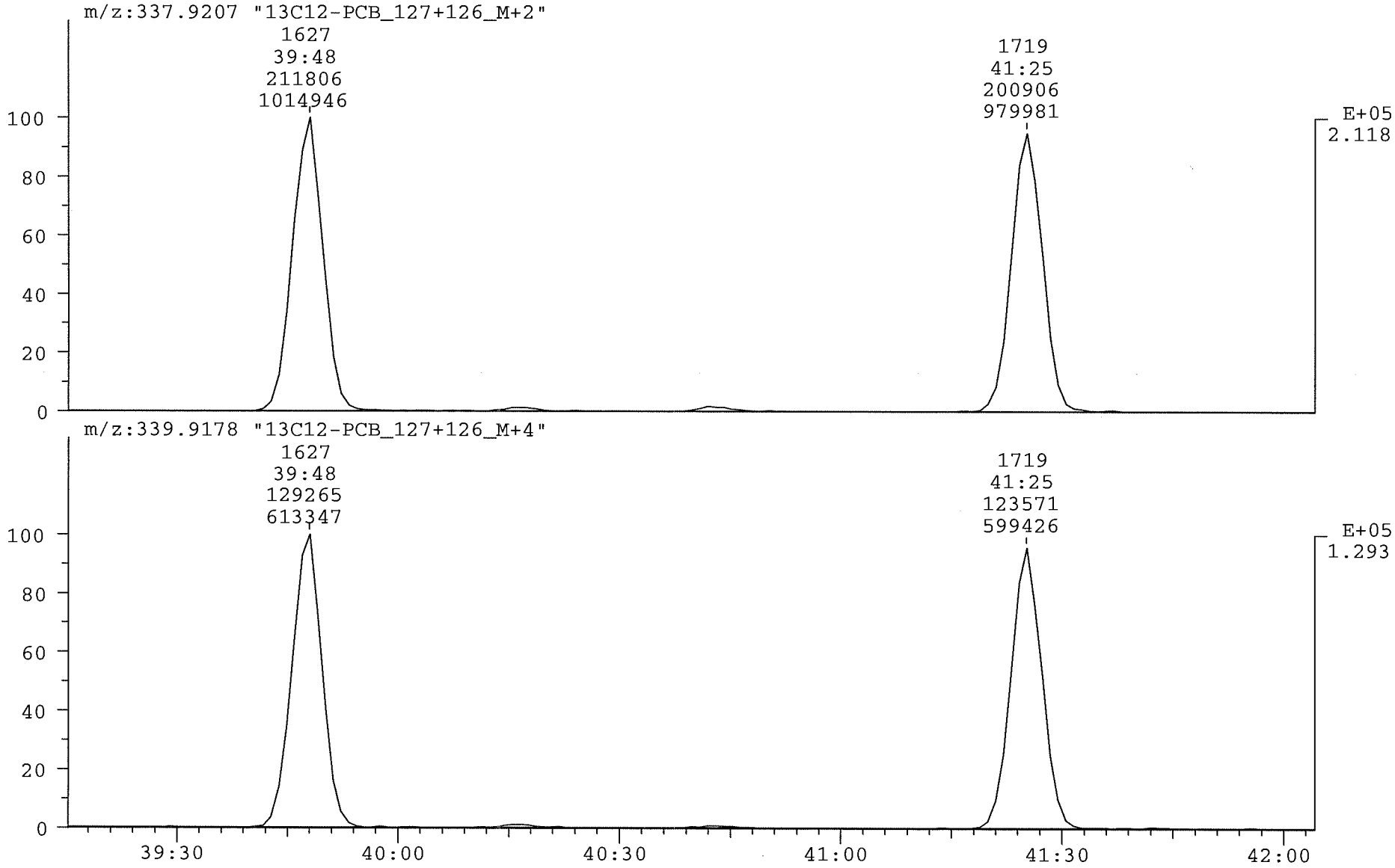
CHRO: a0806m1r3 11-Jun-08 Elapse: 37:39 1505
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1440 > 1570 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2280

2279

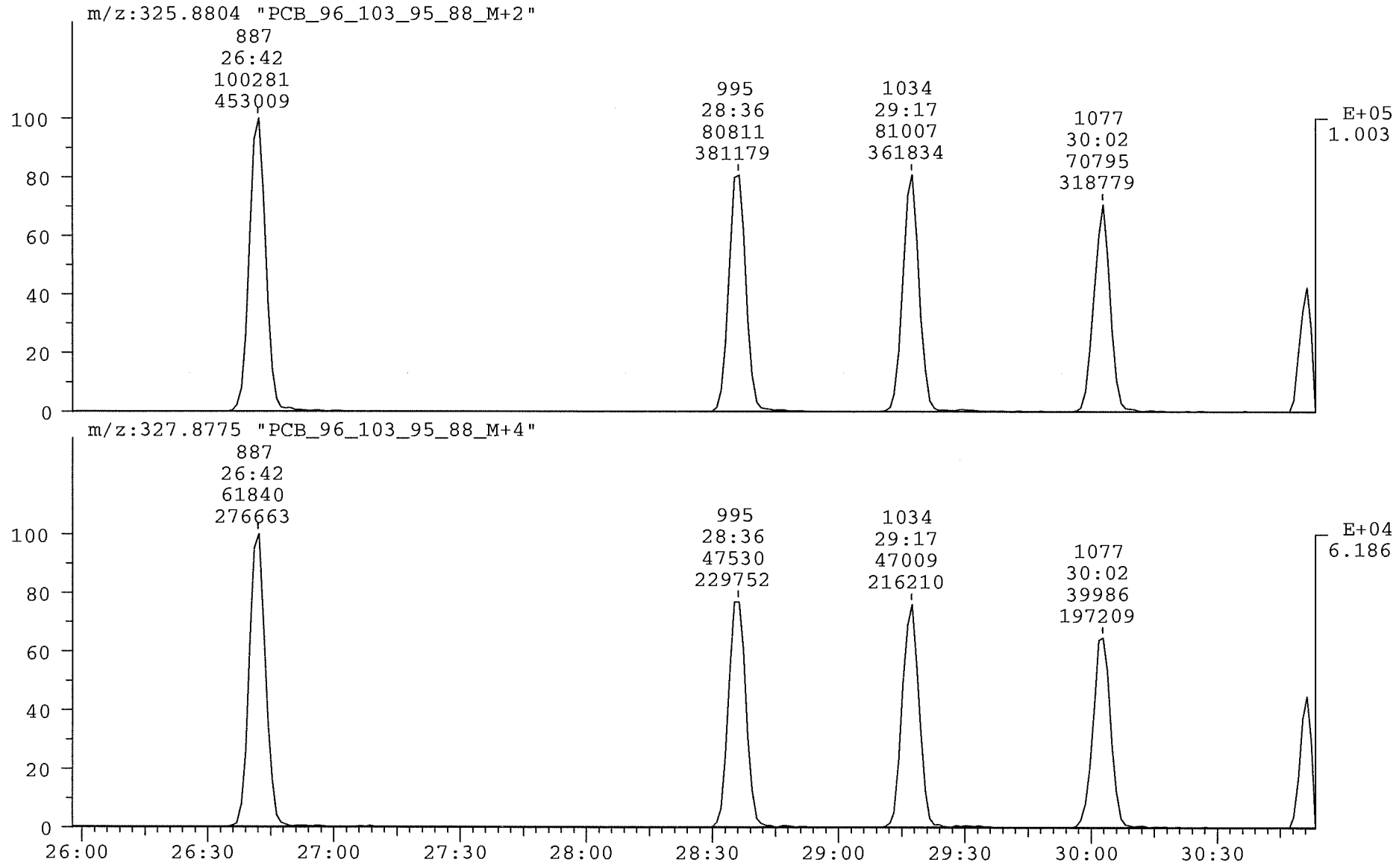
CHRO: a0806m1r3 11-Jun-08 Elapse: 40:39 1676
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1596 > 1756 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2281

2280

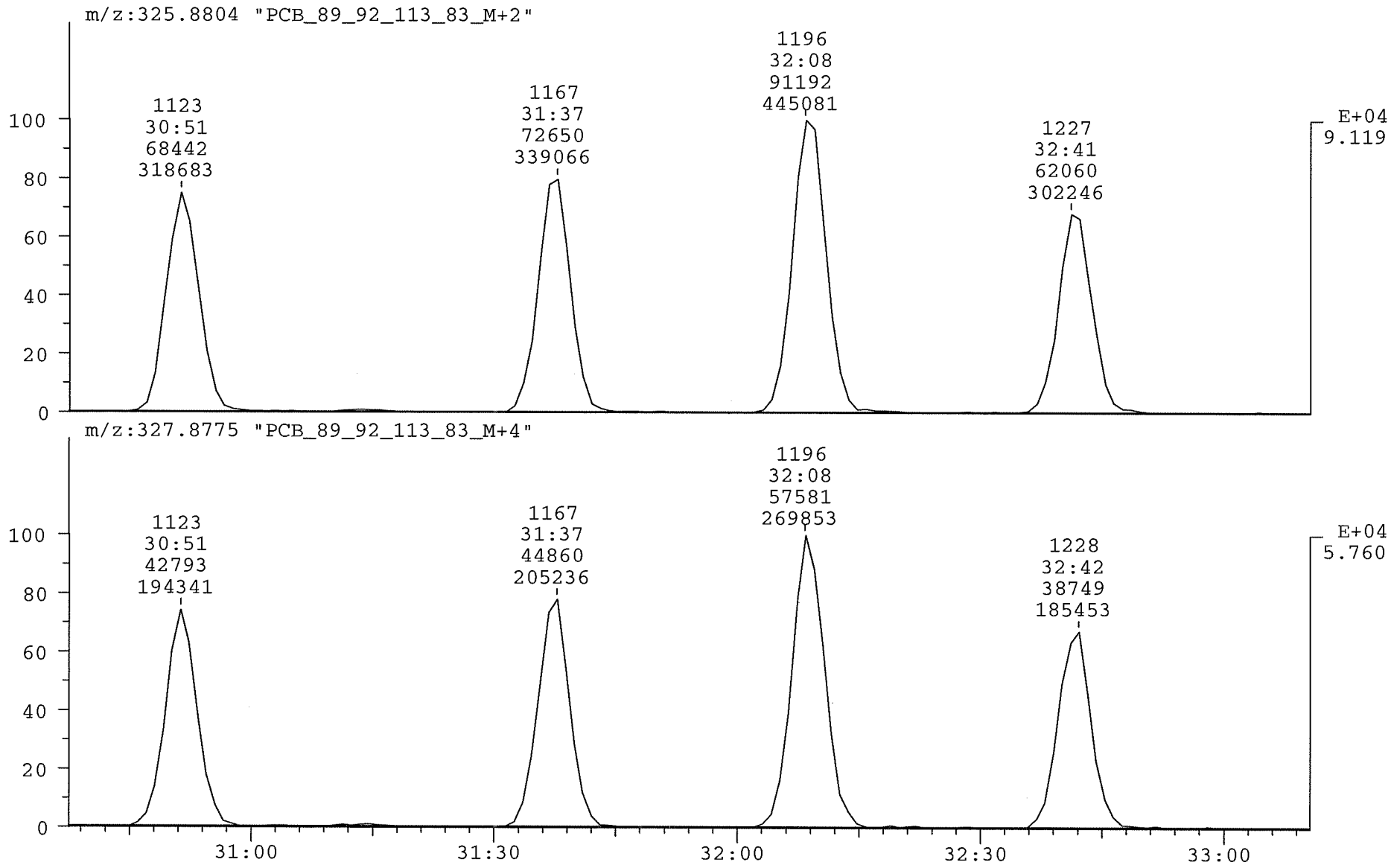
CHRO: a0806m1r3 11-Jun-08 Elapse: 28:25.6 985
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 845 > 1125 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2282

2281

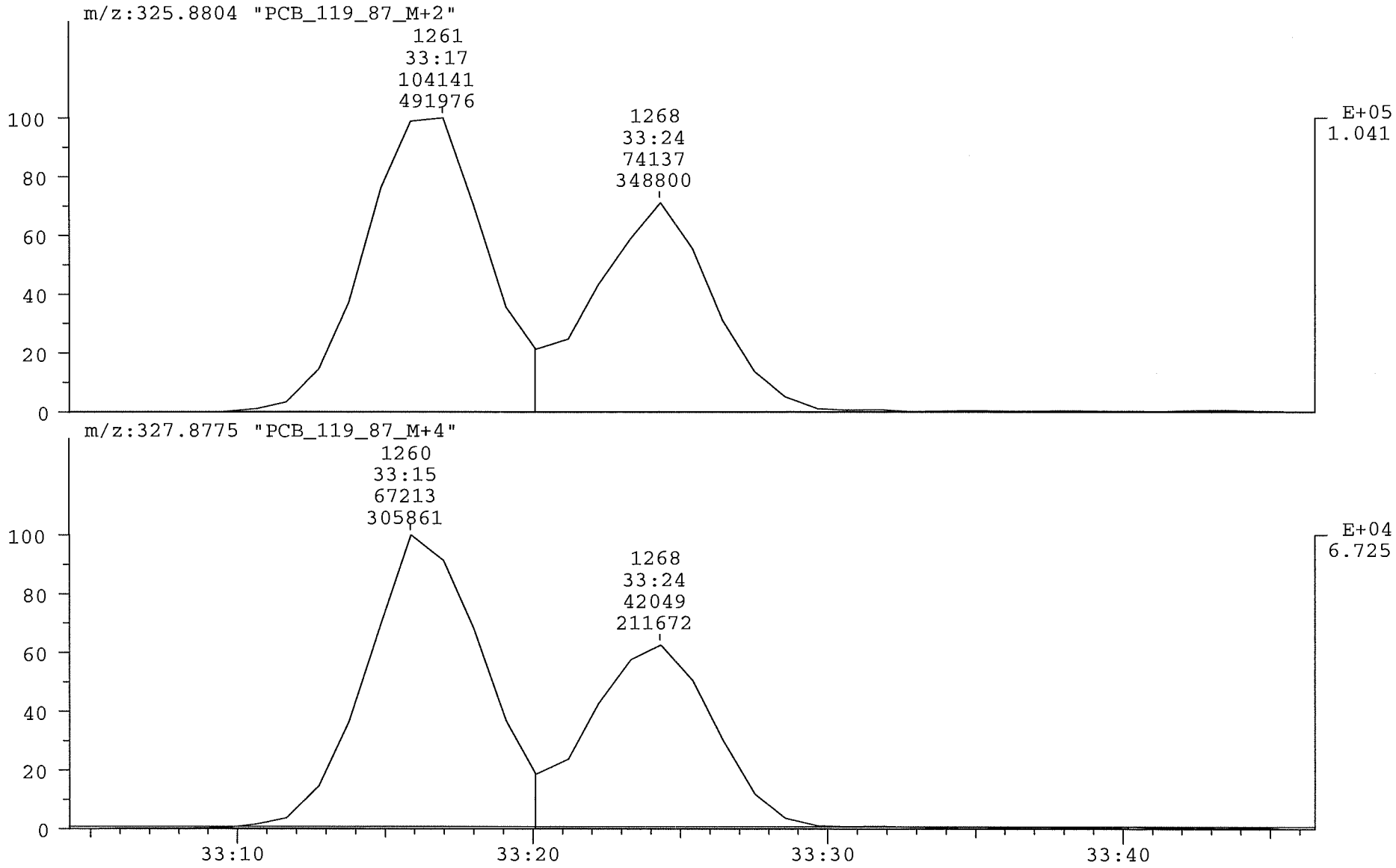
CHRO: a0806m1r3 11-Jun-08 Elapse: 31:51 1180
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1110 > 1255 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2283

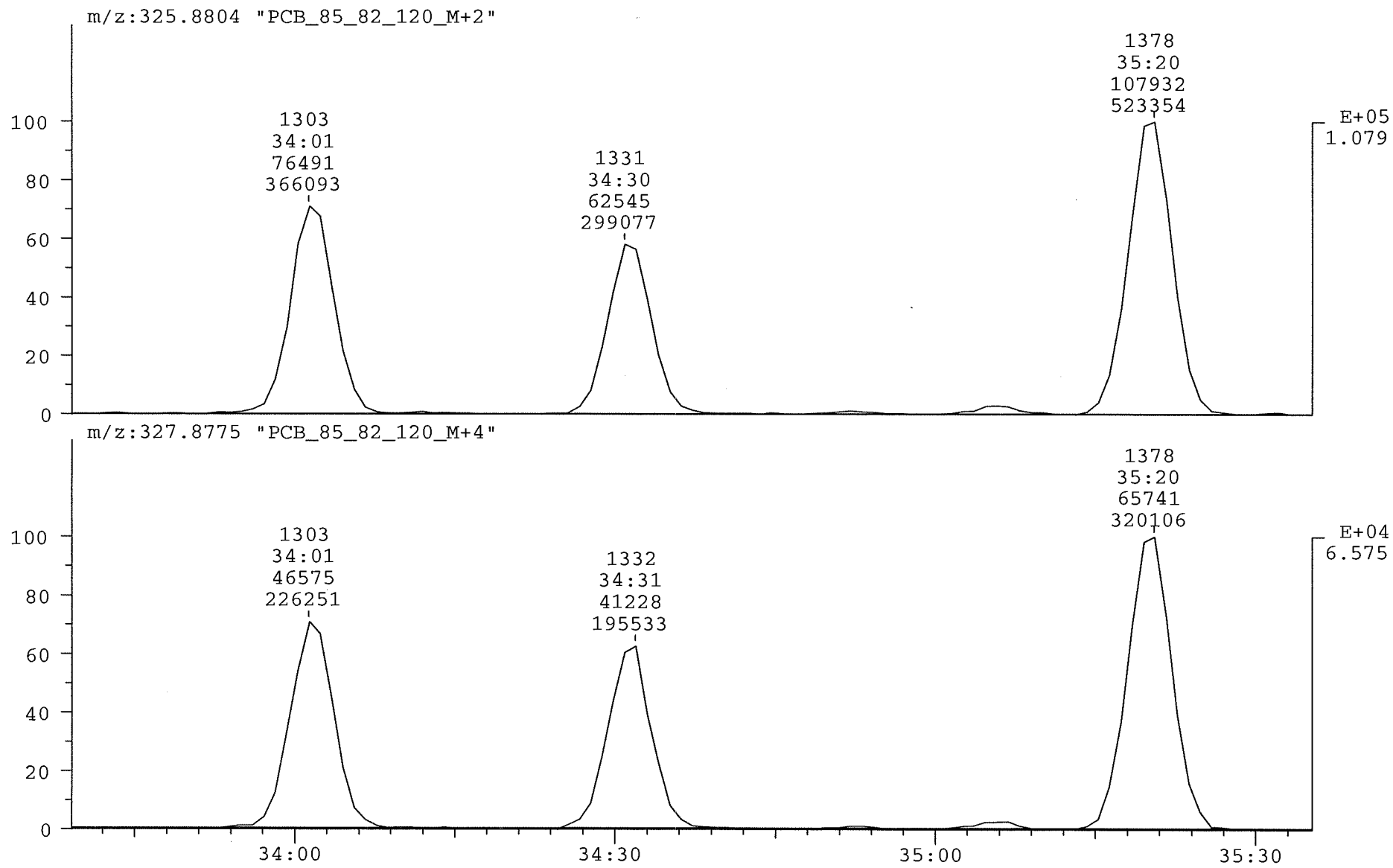
2282

CHRO: a0806m1r3 11-Jun-08 Elapse: 33:25 1269
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1249 > 1289 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2284

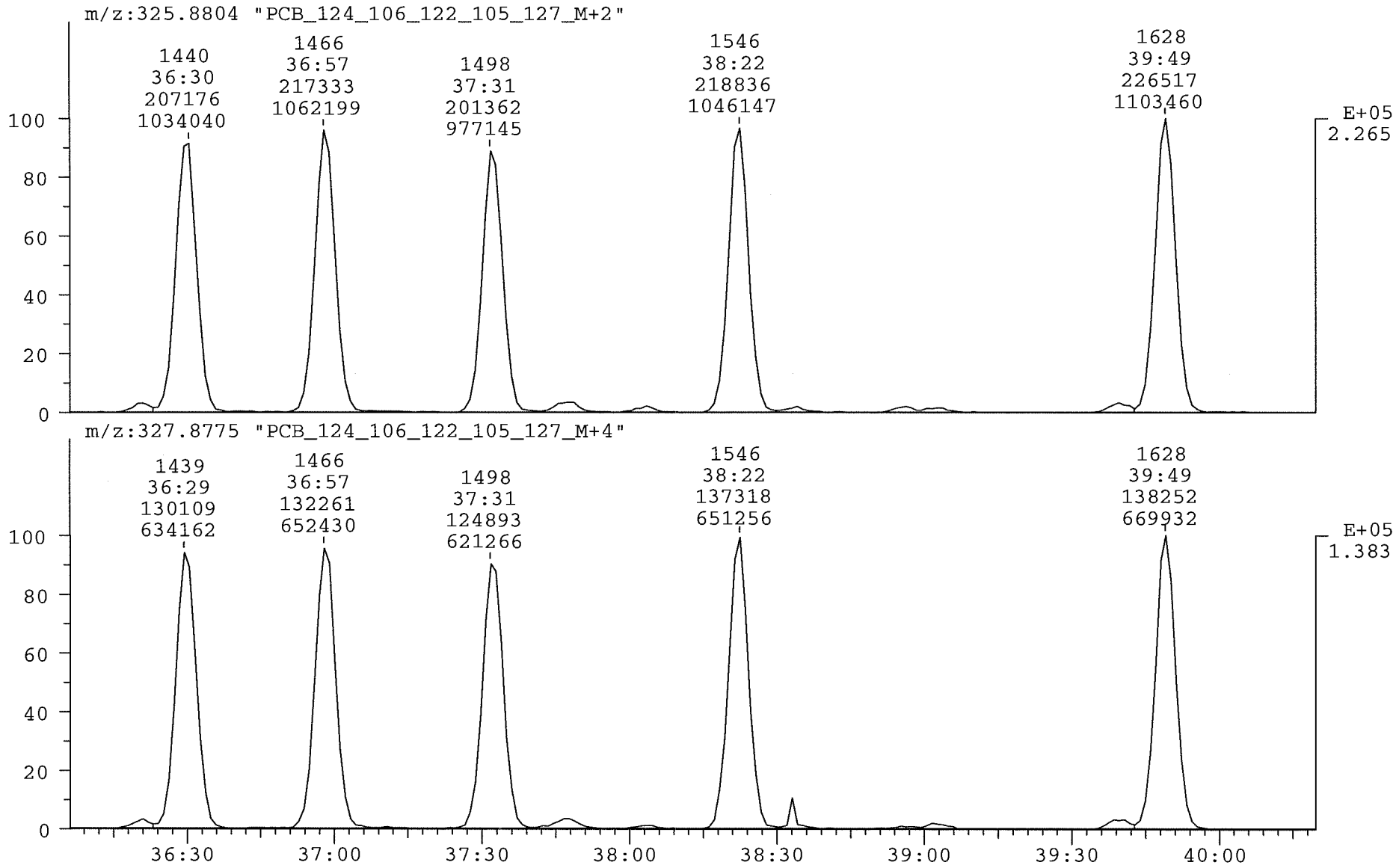
CHRO: a0806m1r3 11-Jun-08 Elapse: 34:26 1327
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1282 > 1392 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2285

2284

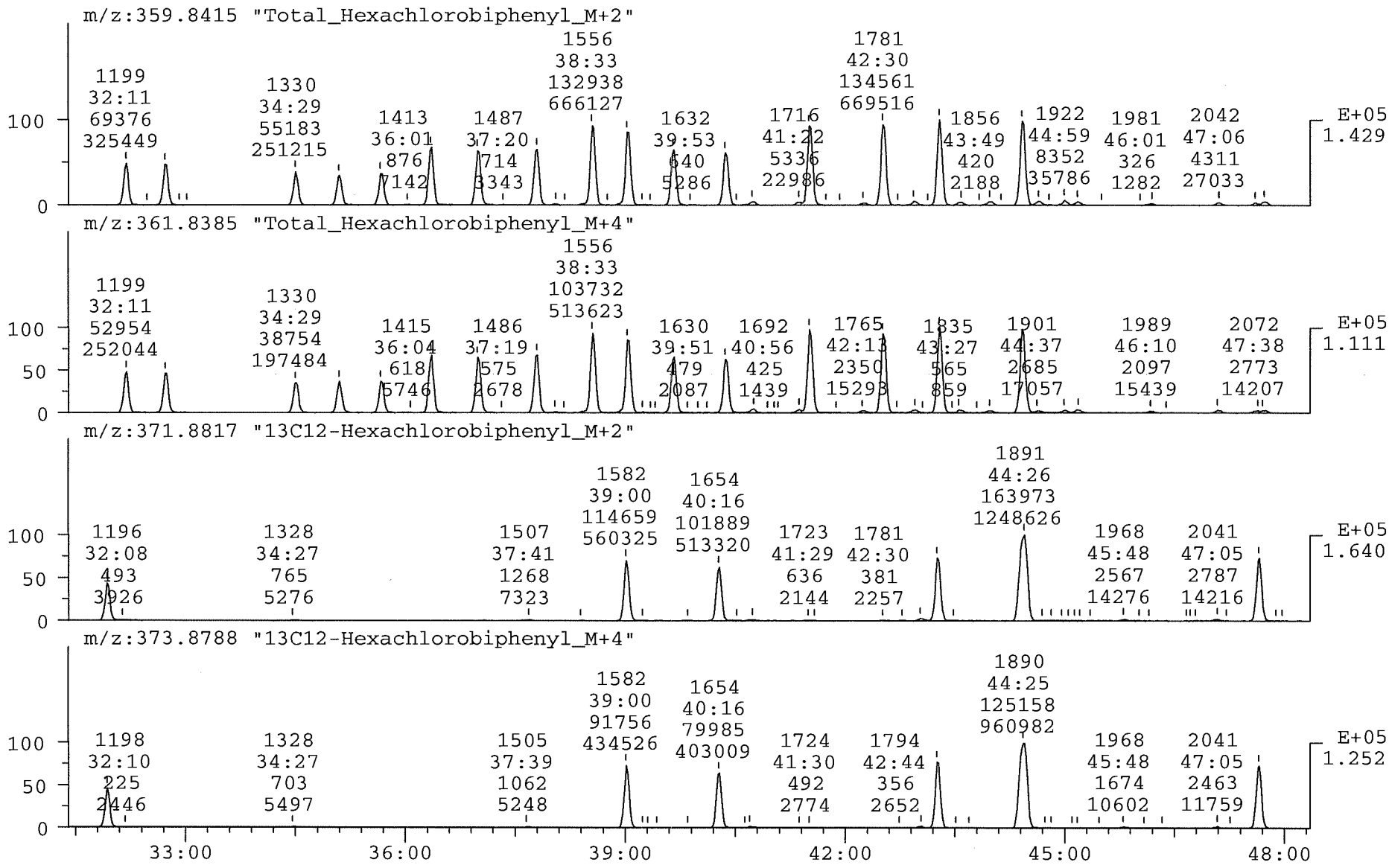
CHRO: a0806m1r3 11-Jun-08 Elapse: 38:18 1542
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1417 > 1657 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2286

2285

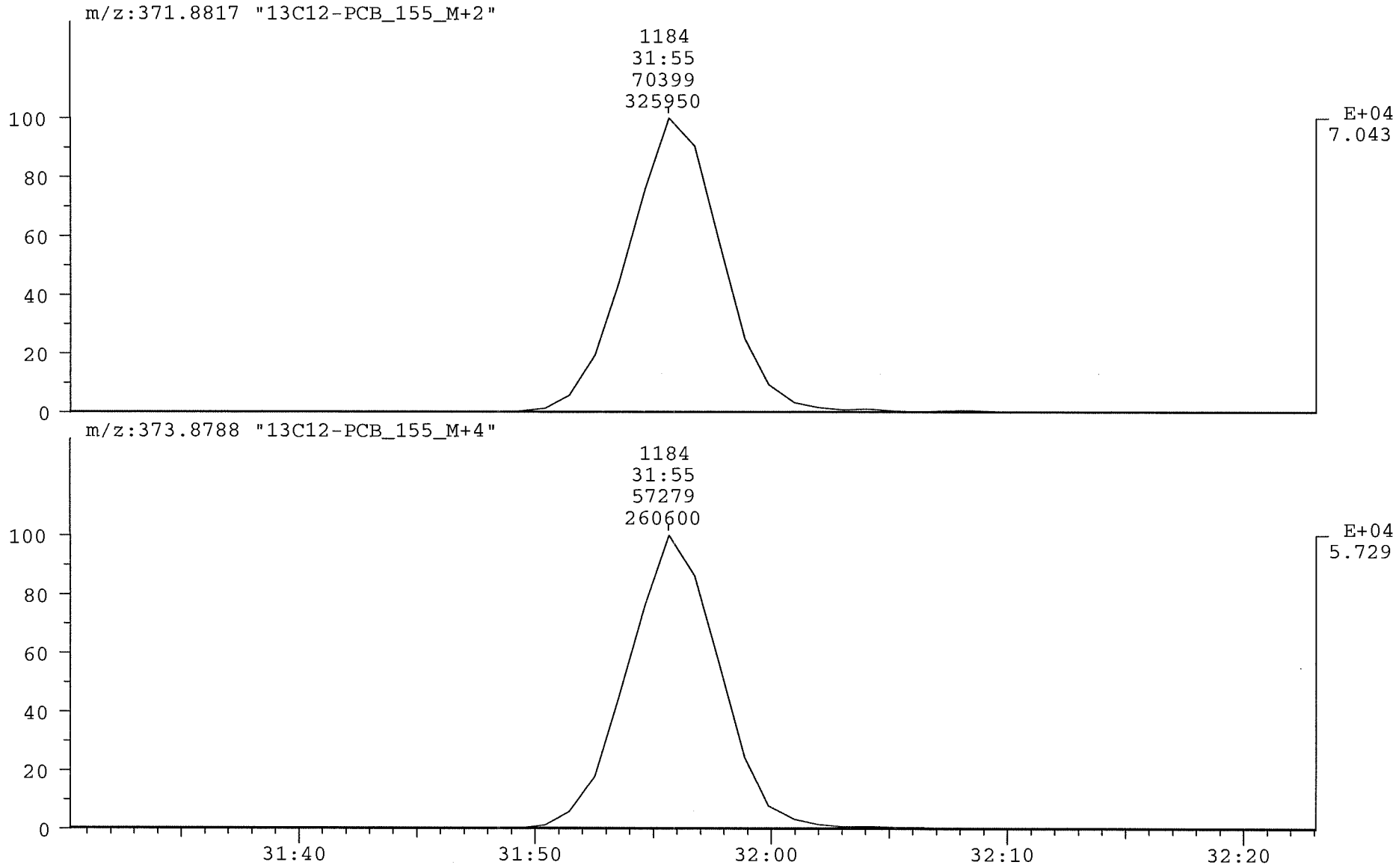
CHRO: a0806m1r3 11-Jun-08 Elapse: 39:52 1631
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1154 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2287

2286

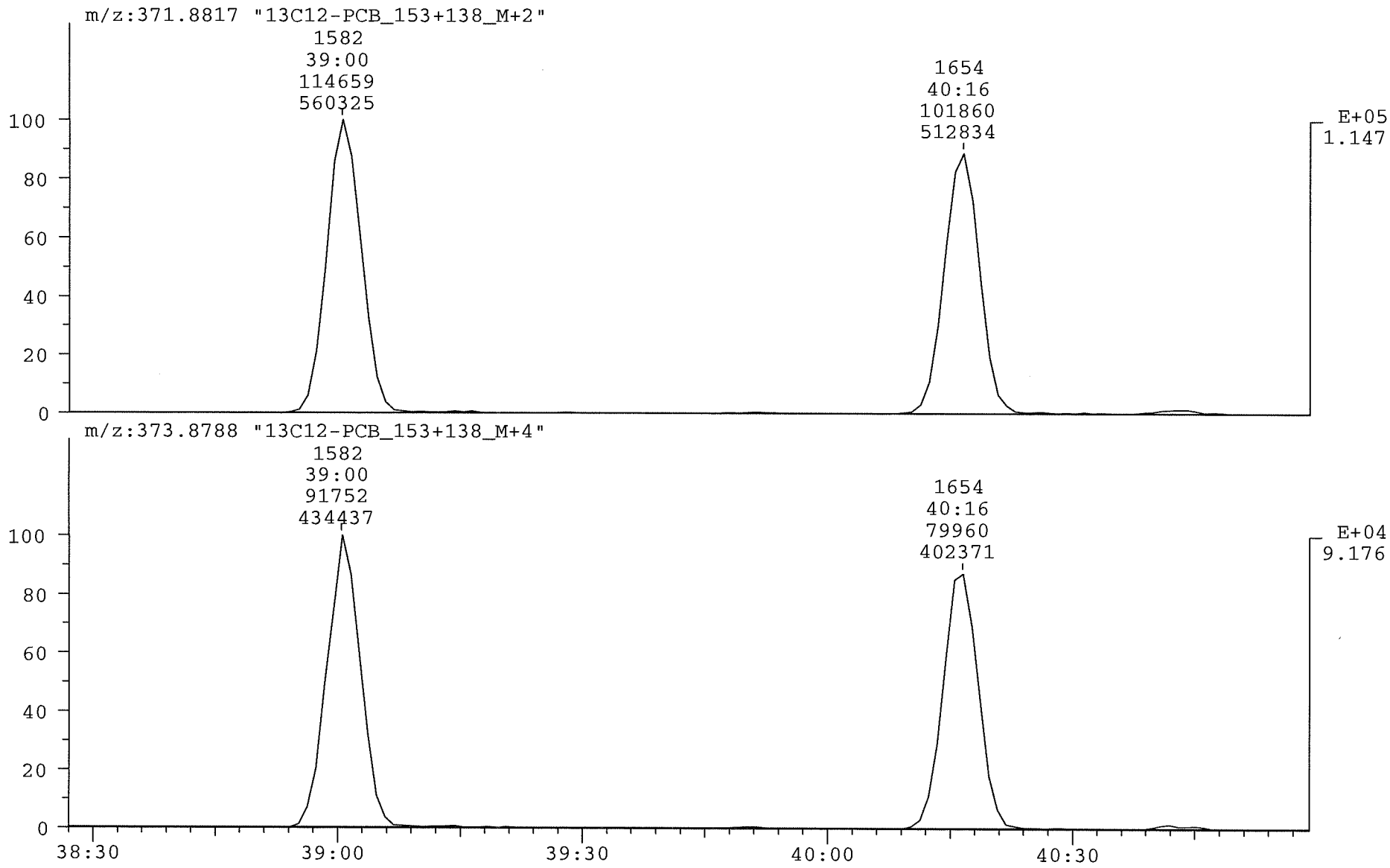
CHRO: a0806m1r3 11-Jun-08 Elapse: 31:56 1185
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1160 > 1210 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2288

2287

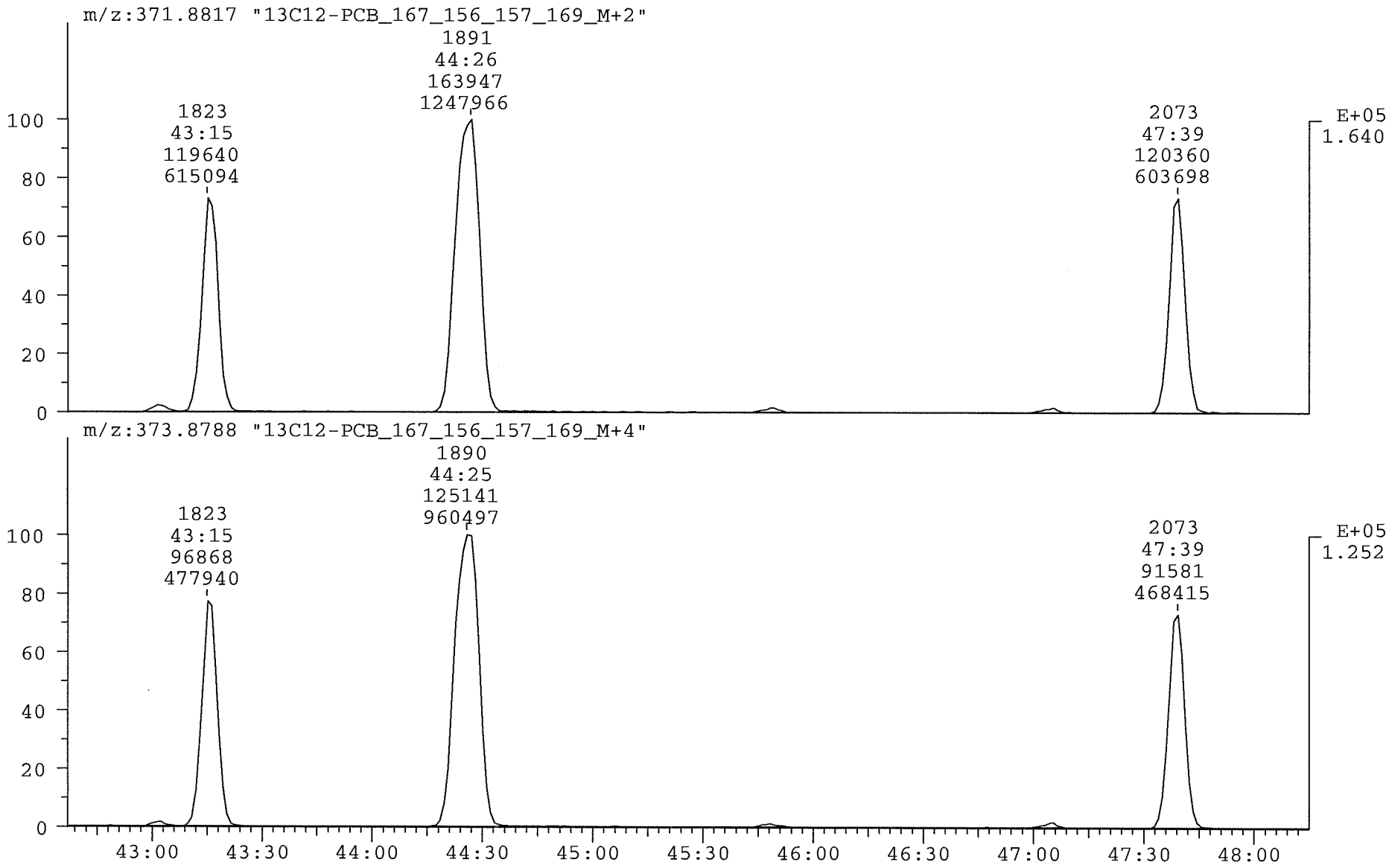
CHRO: a0806m1r3 11-Jun-08 Elapse: 39:42 1622
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1550 > 1694 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2289

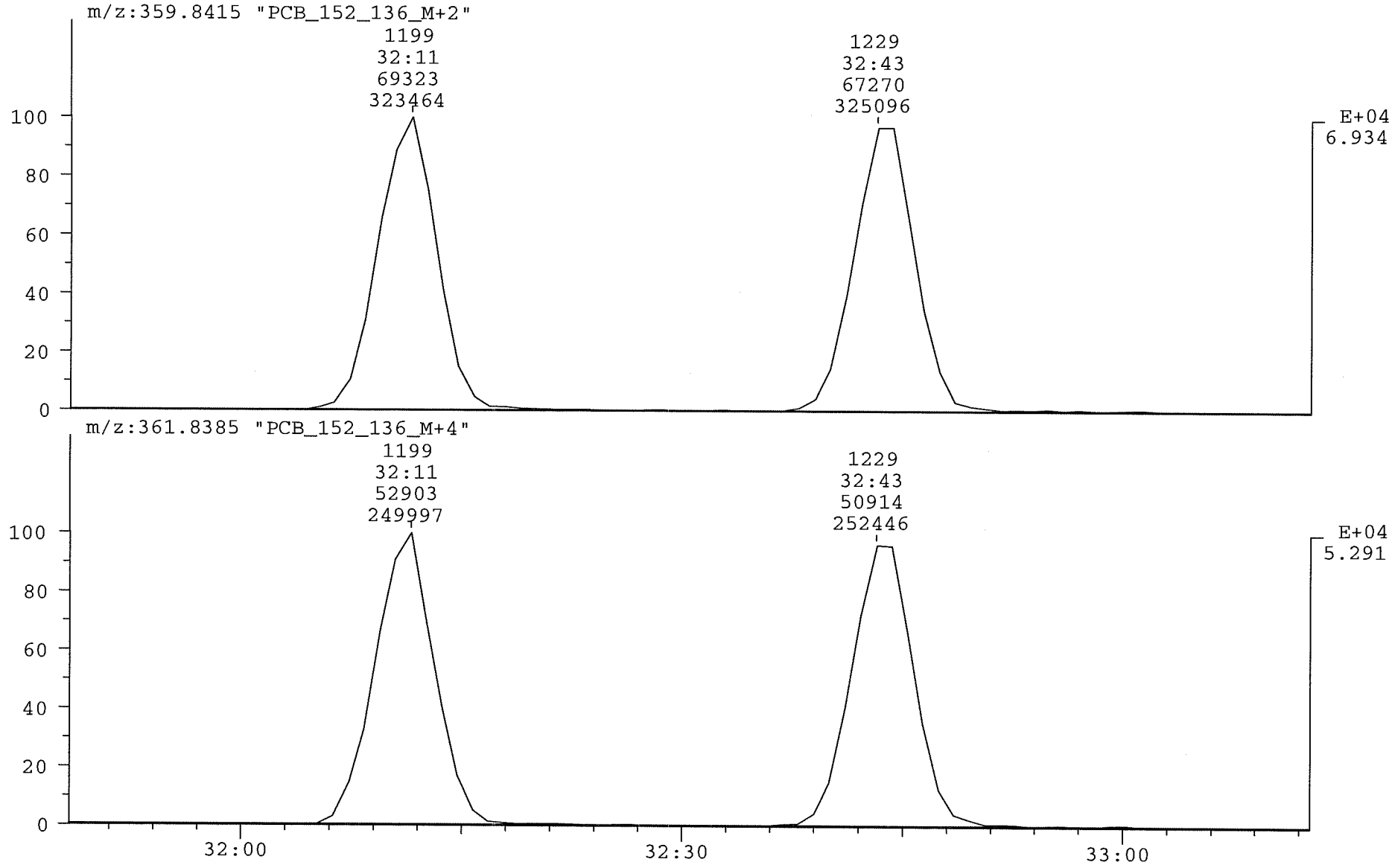
2288

CHRO: a0806m1r3 11-Jun-08 Elapse: 45:31 1952
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1787 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2290

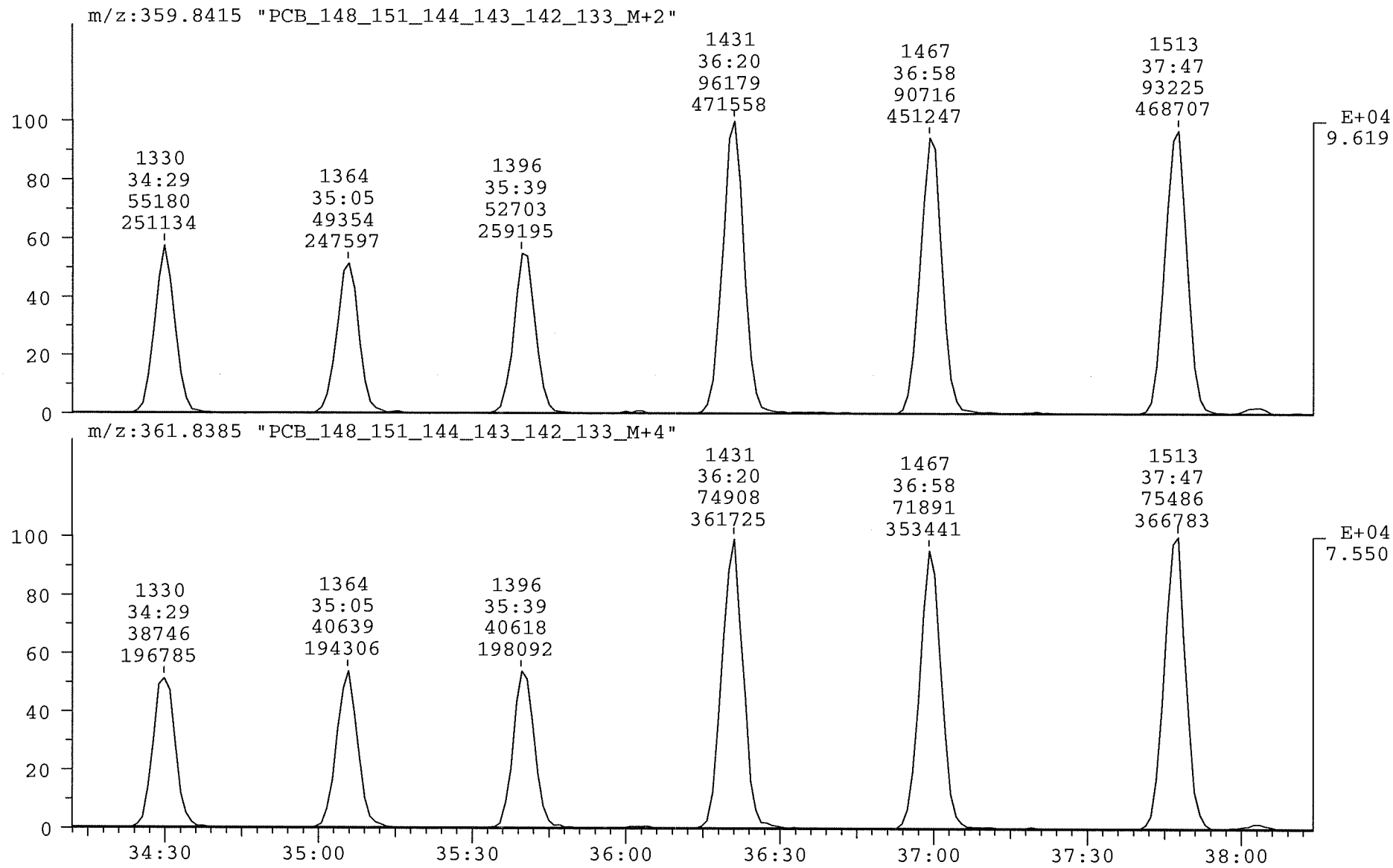
CHRO: a0806m1r3 11-Jun-08 Elapse: 32:30 1217
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1177 > 1257 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2291

2290

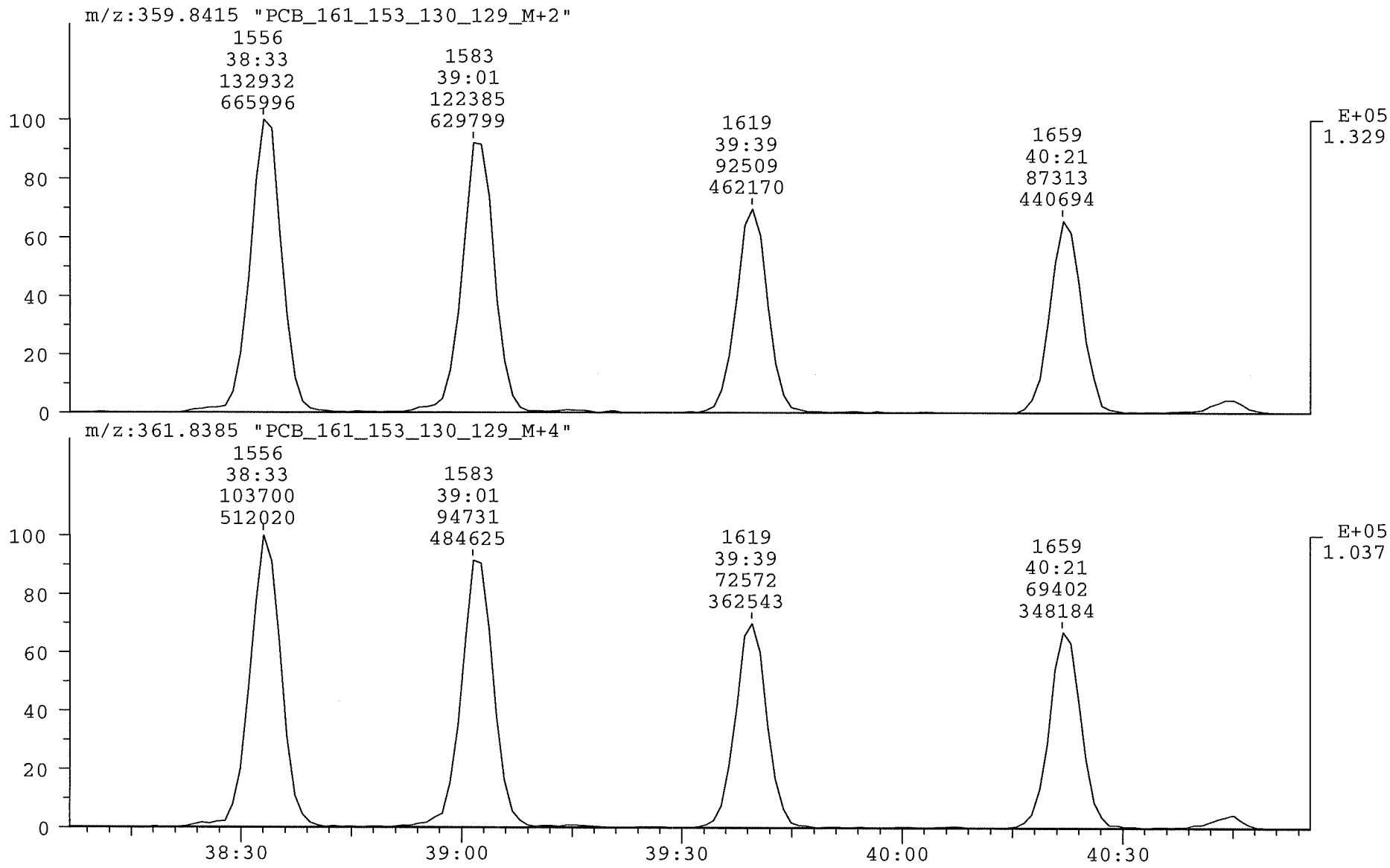
CHRO: a0806m1r3 11-Jun-08 Elapse: 36:12 1423
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1313 > 1538 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2292

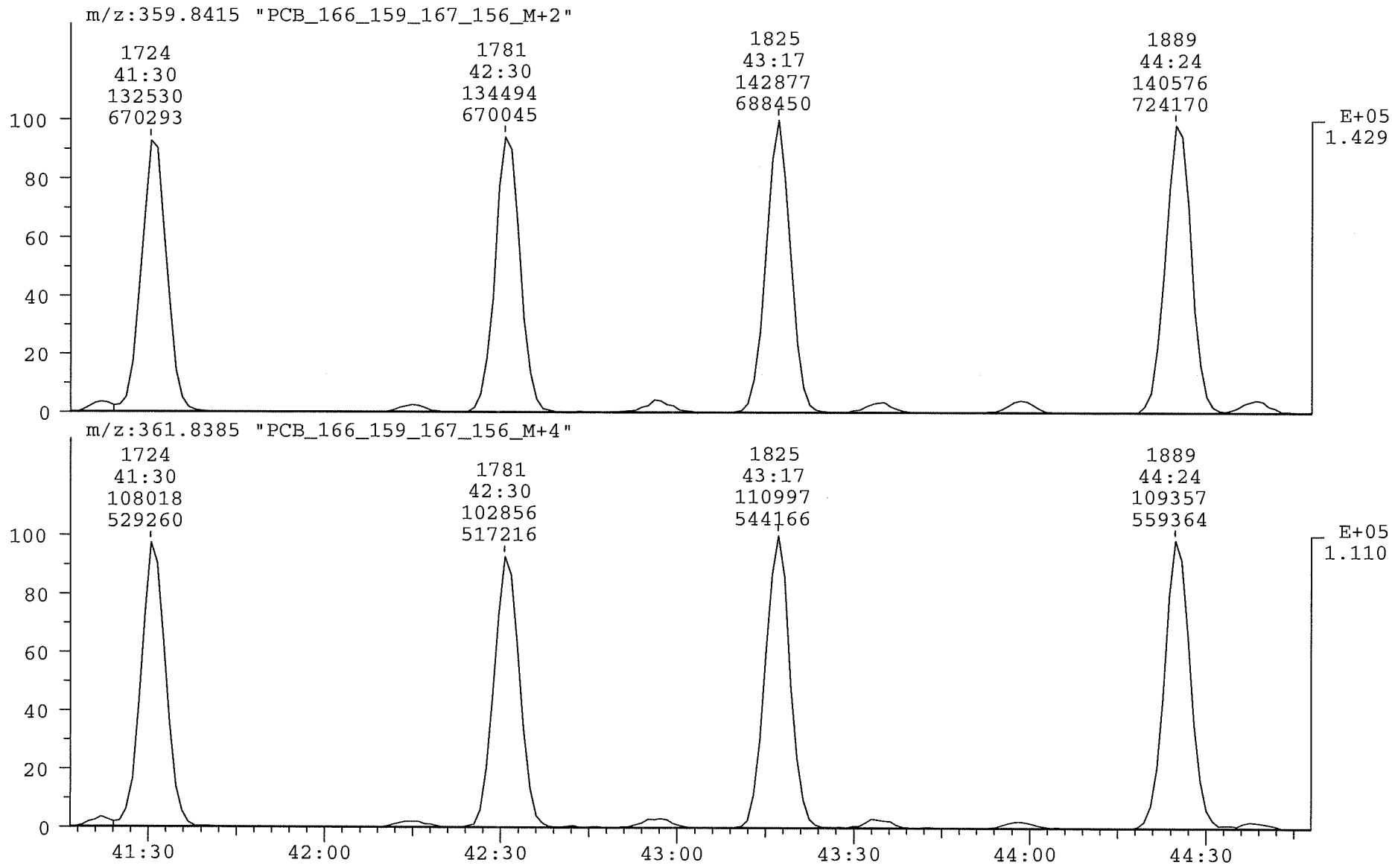
2291

CHRO: a0806m1r3 11-Jun-08 Elapse: 39:31 1611
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1531 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2293

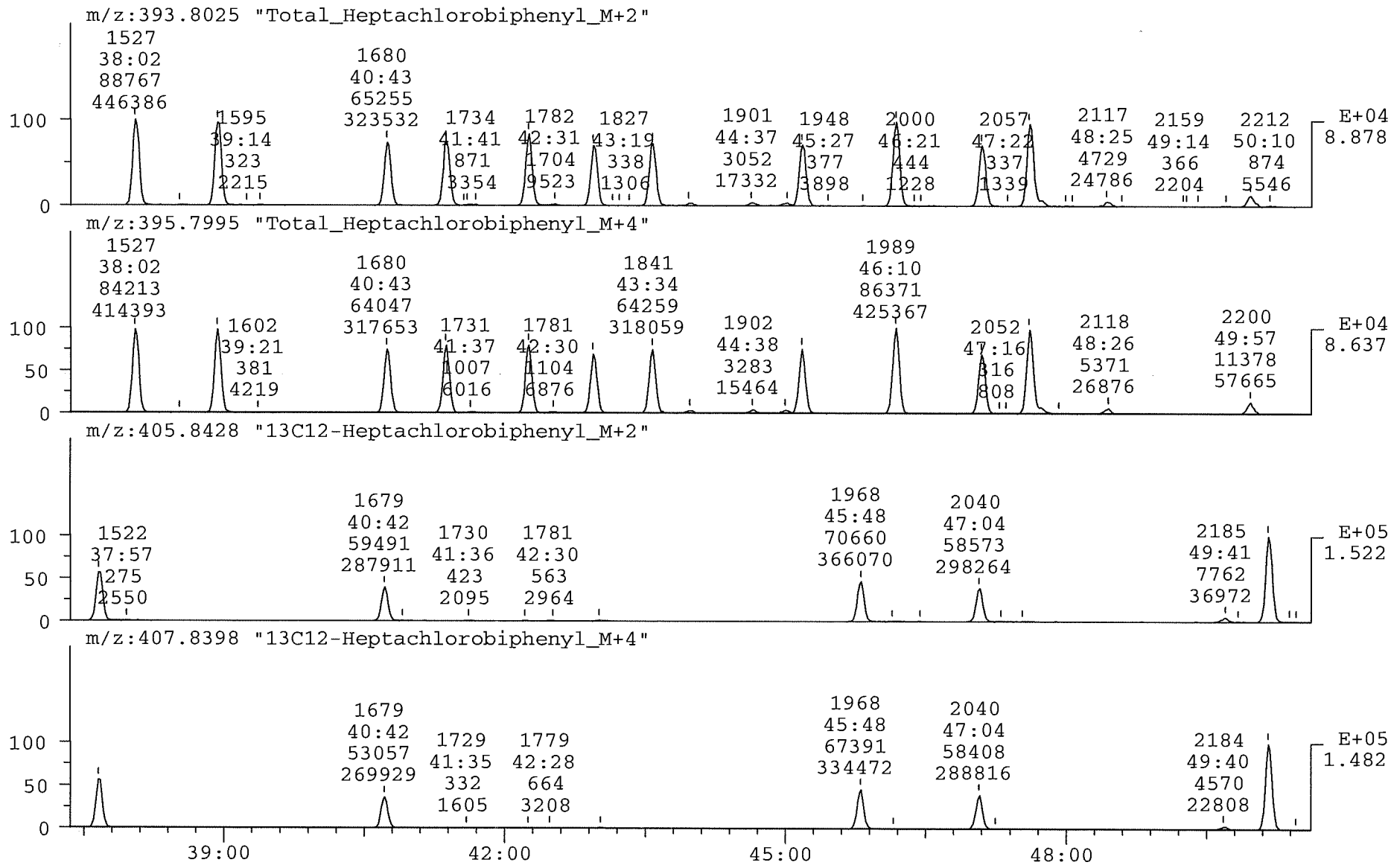
CHRO: a0806m1r3 11-Jun-08 Elapse: 43:02 1811
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1711 > 1911 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2294

2293

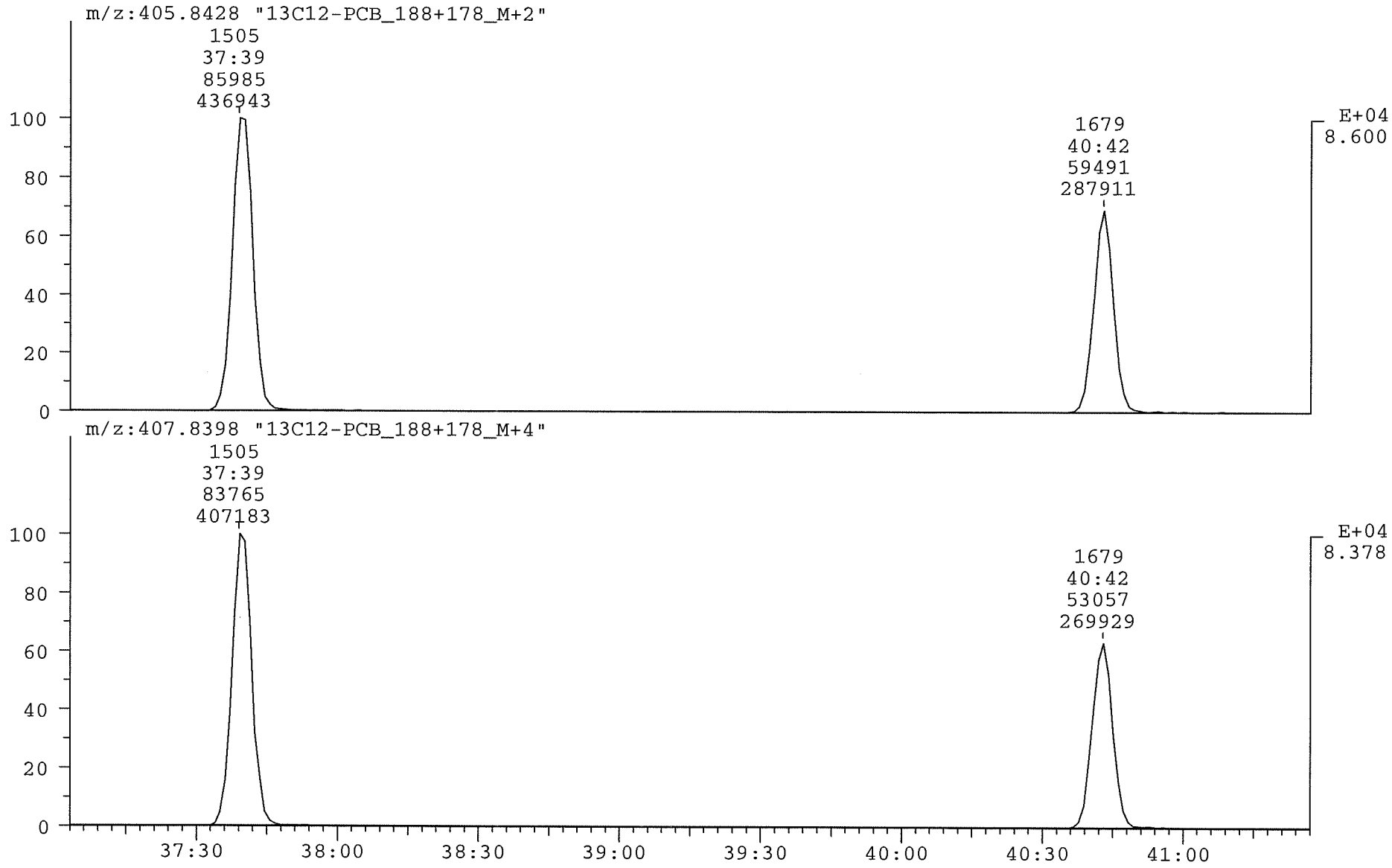
CHRO: a0806m1r3 11-Jun-08 Elapse: 43:59 1865
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1488 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2295

2294

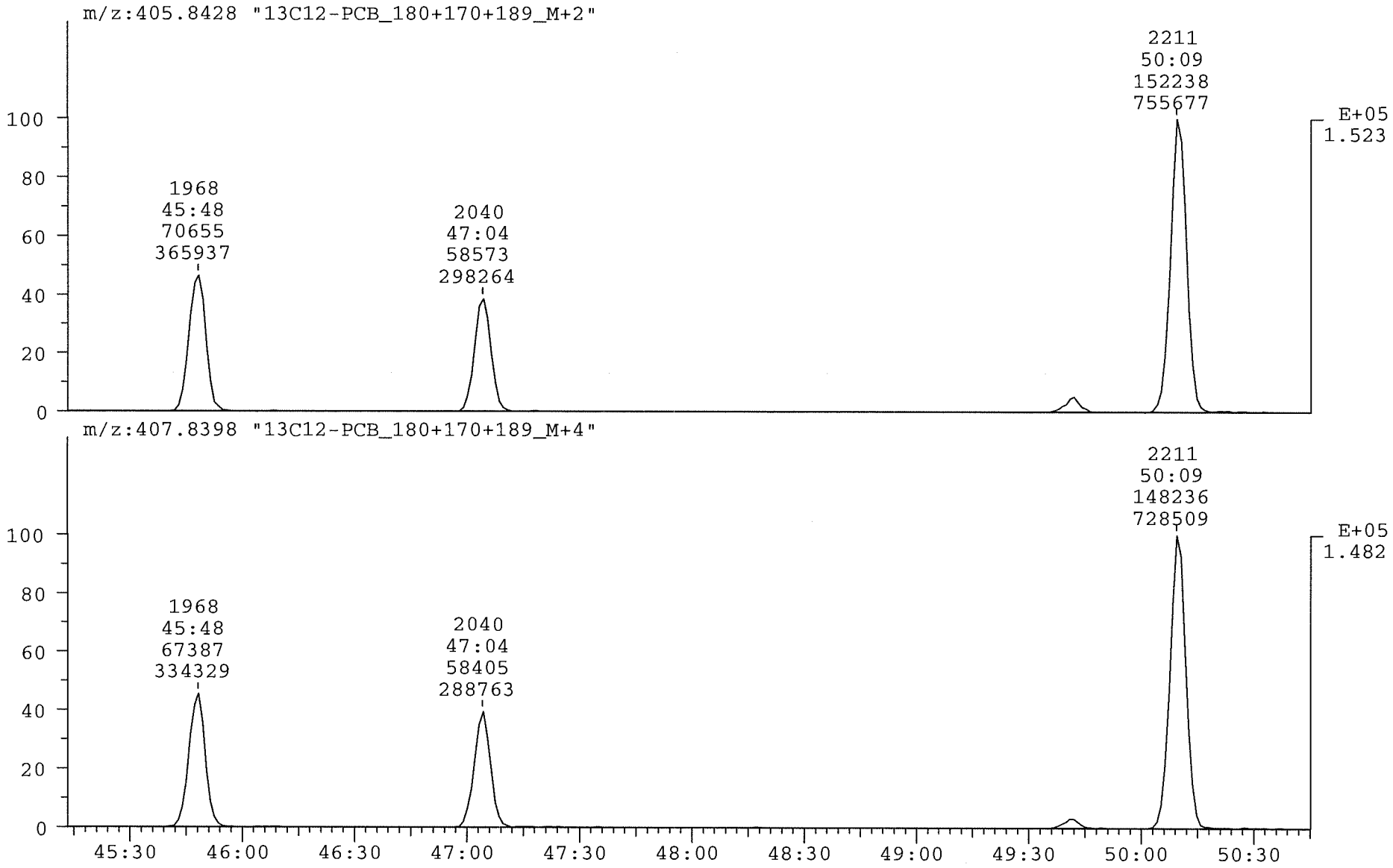
CHRO: a0806m1r3 11-Jun-08 Elapse: 39:15 1596
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1471 > 1721 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2296

2295

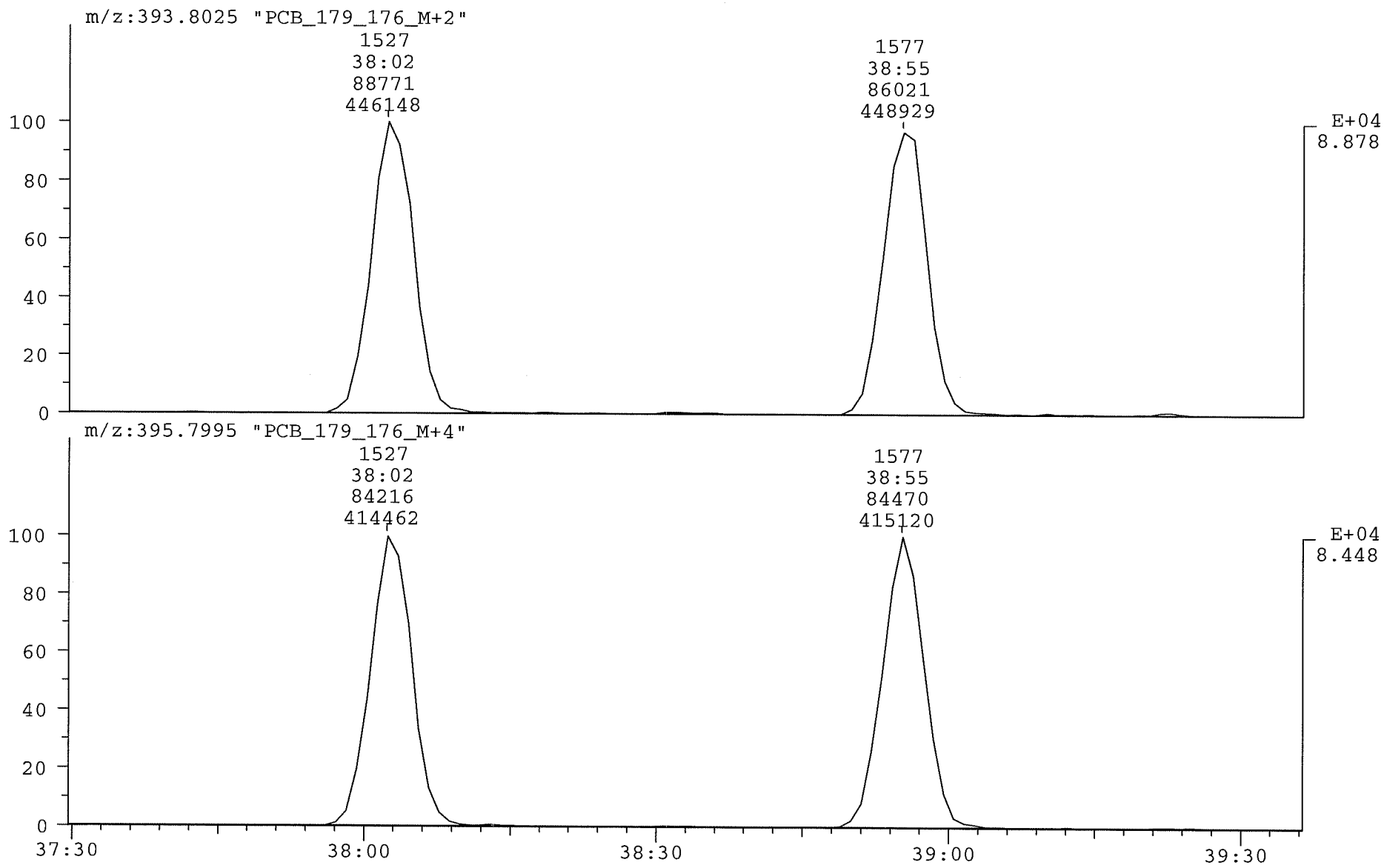
CHRO: a0806m1r3 11-Jun-08 Elapse: 48:02 2095
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1935 > 2245 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2297

2296

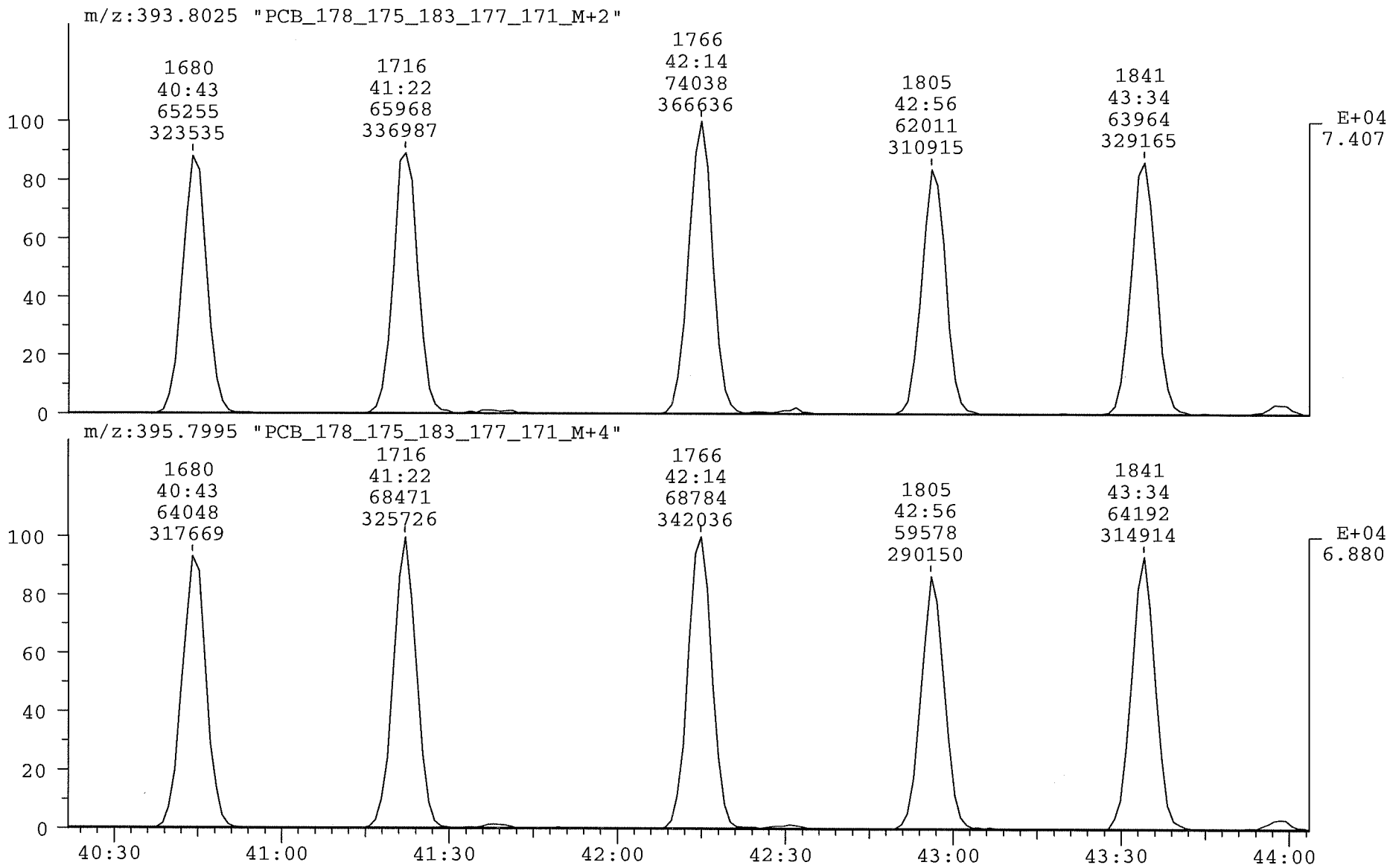
CHRO: a0806m1r3 11-Jun-08 Elapse: 38:33 1556
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1496 > 1616 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2298

2297

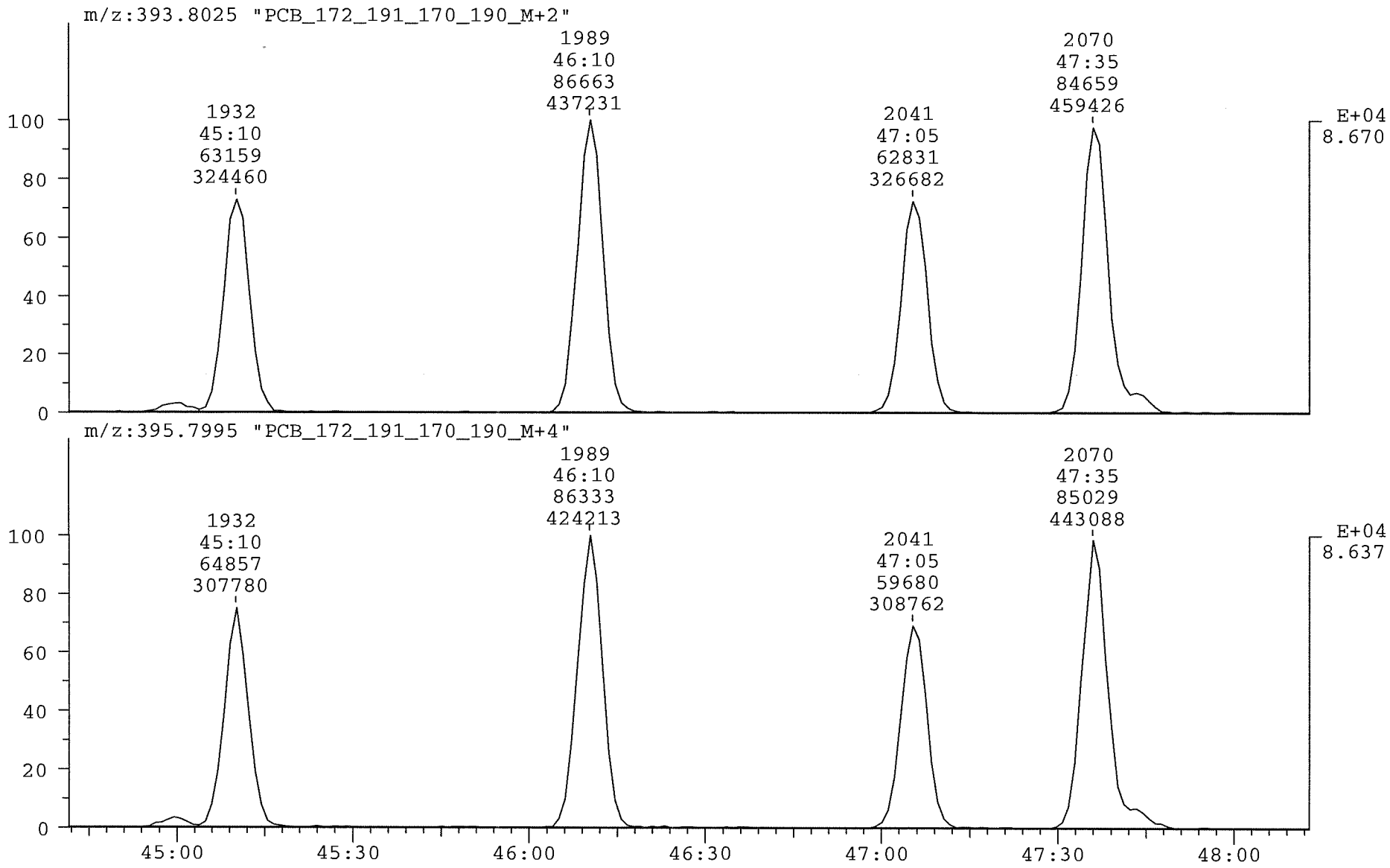
CHRO: a0806m1r3 11-Jun-08 Elapse: 42:12 1764
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1659 > 1869 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2296

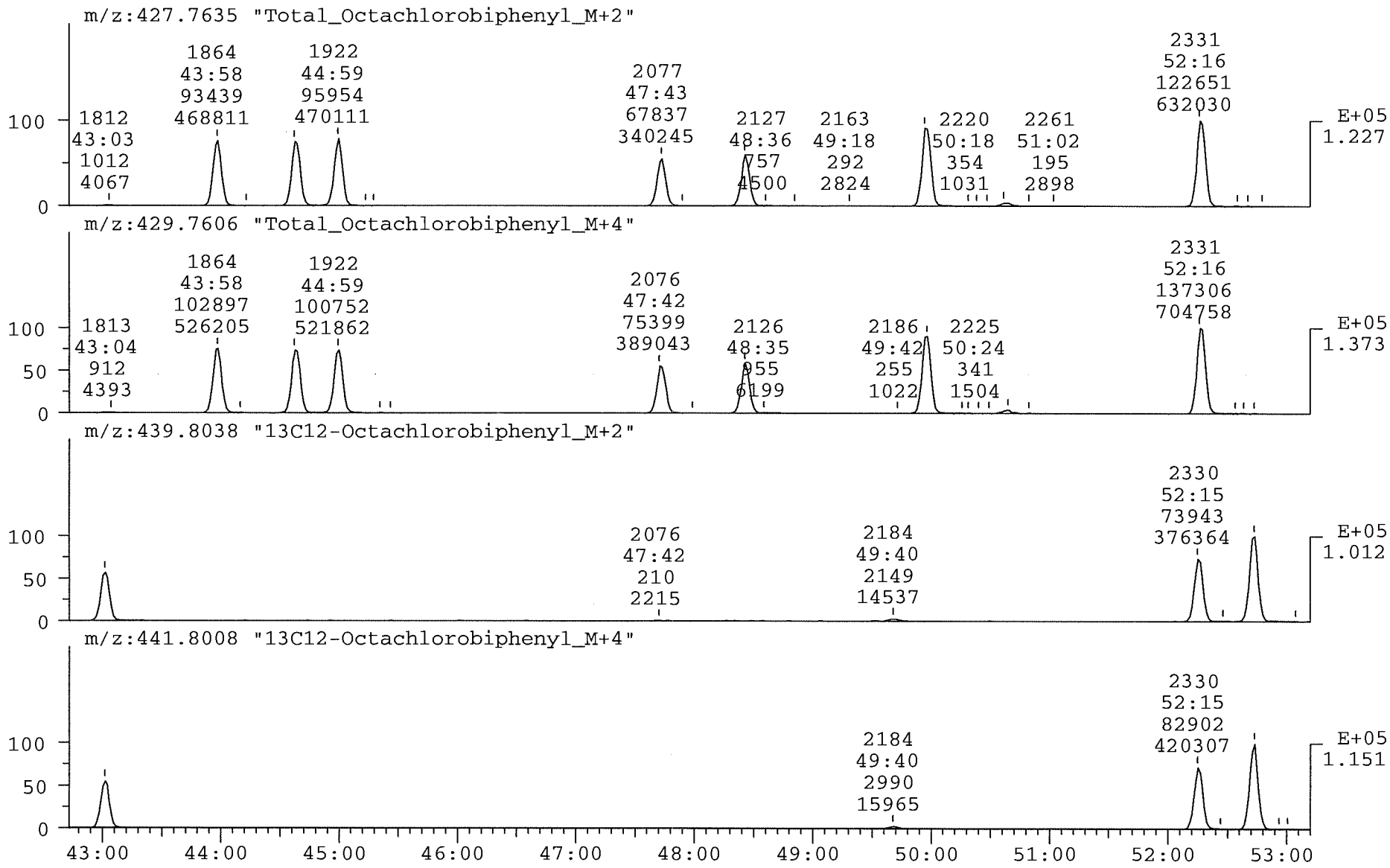
2298

CHRO: a0806m1r3 11-Jun-08 Elapse: 46:27 2005
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1905 > 2105 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2300

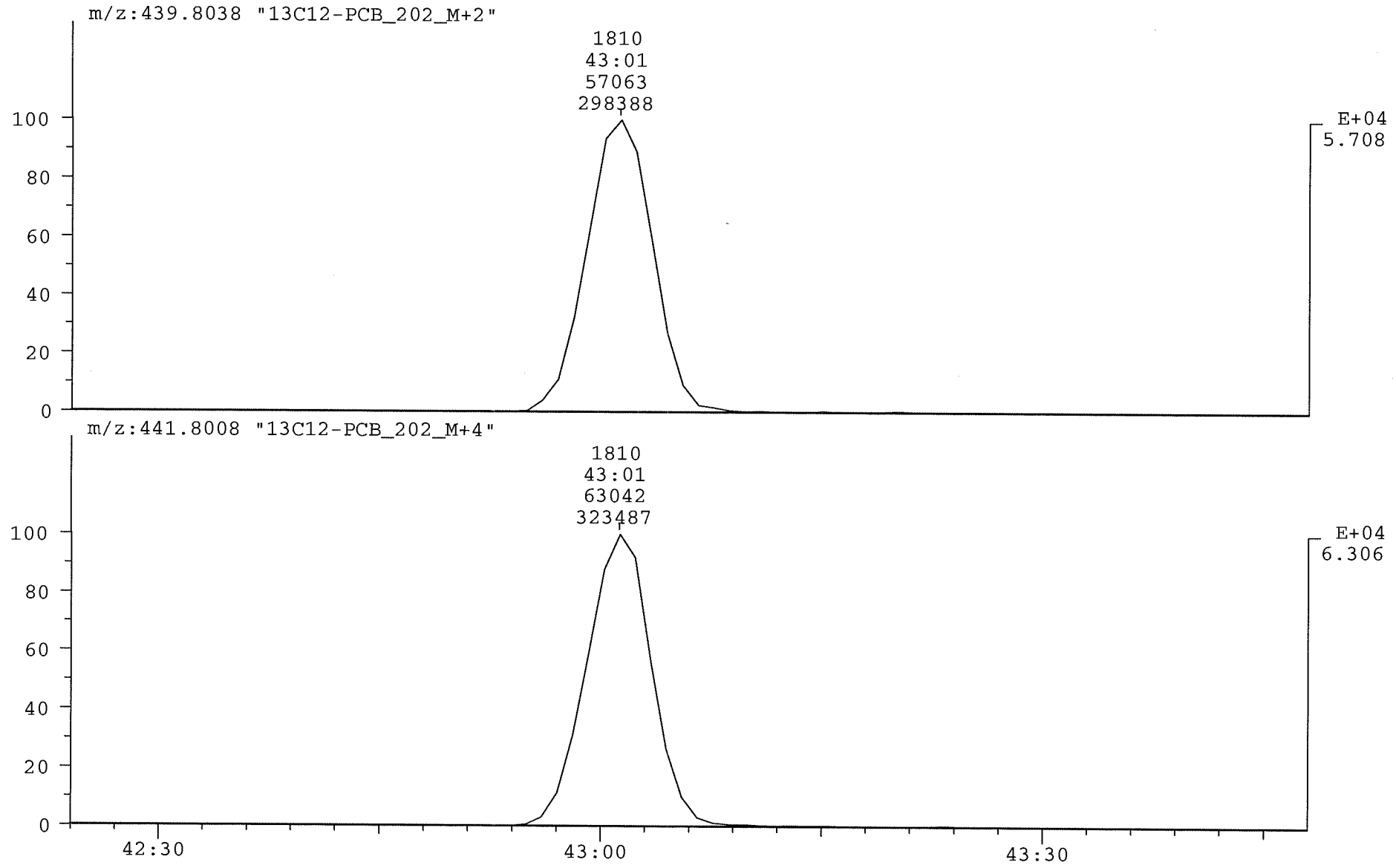
CHRO: a0806m1r3 11-Jun-08 Elapse: 47:57 2090
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1793 > 2384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2301

2300

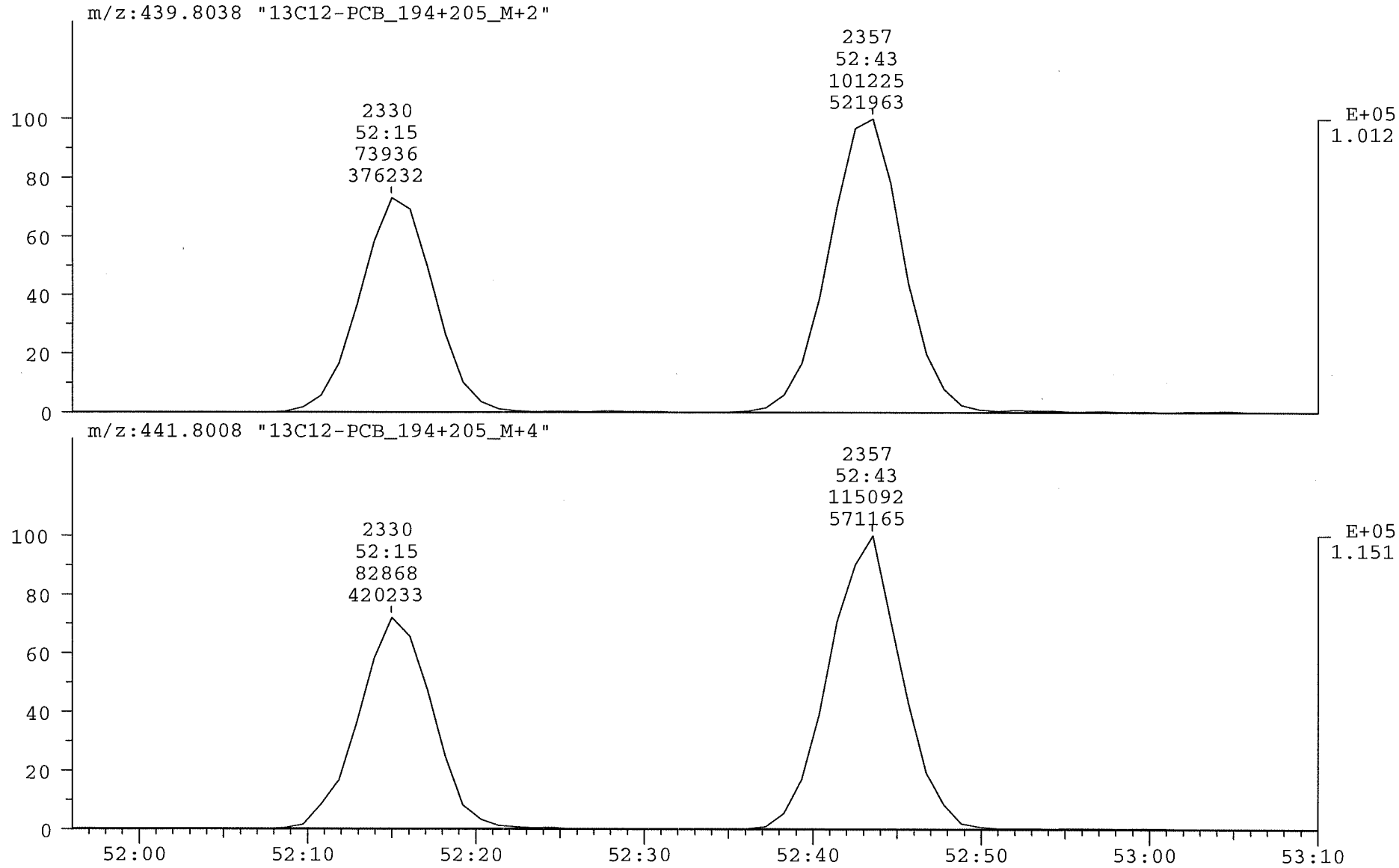
CHRO: a0806m1r3 11-Jun-08 Elapse: 43:03 1812
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1775 > 1854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2302

2301

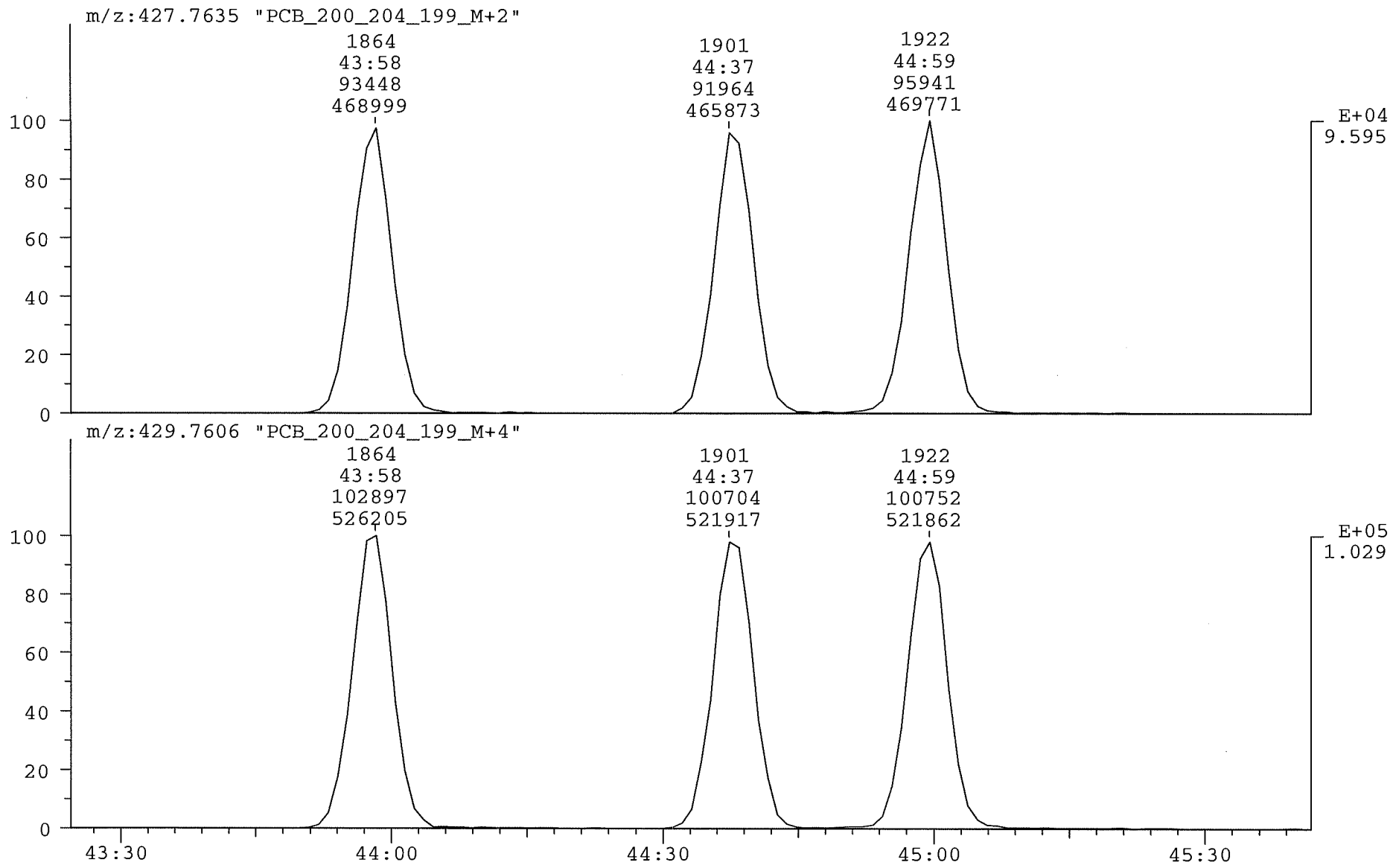
CHRO: a0806m1r3 11-Jun-08 Elapse: 52:32 2347
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2312 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2303

2302

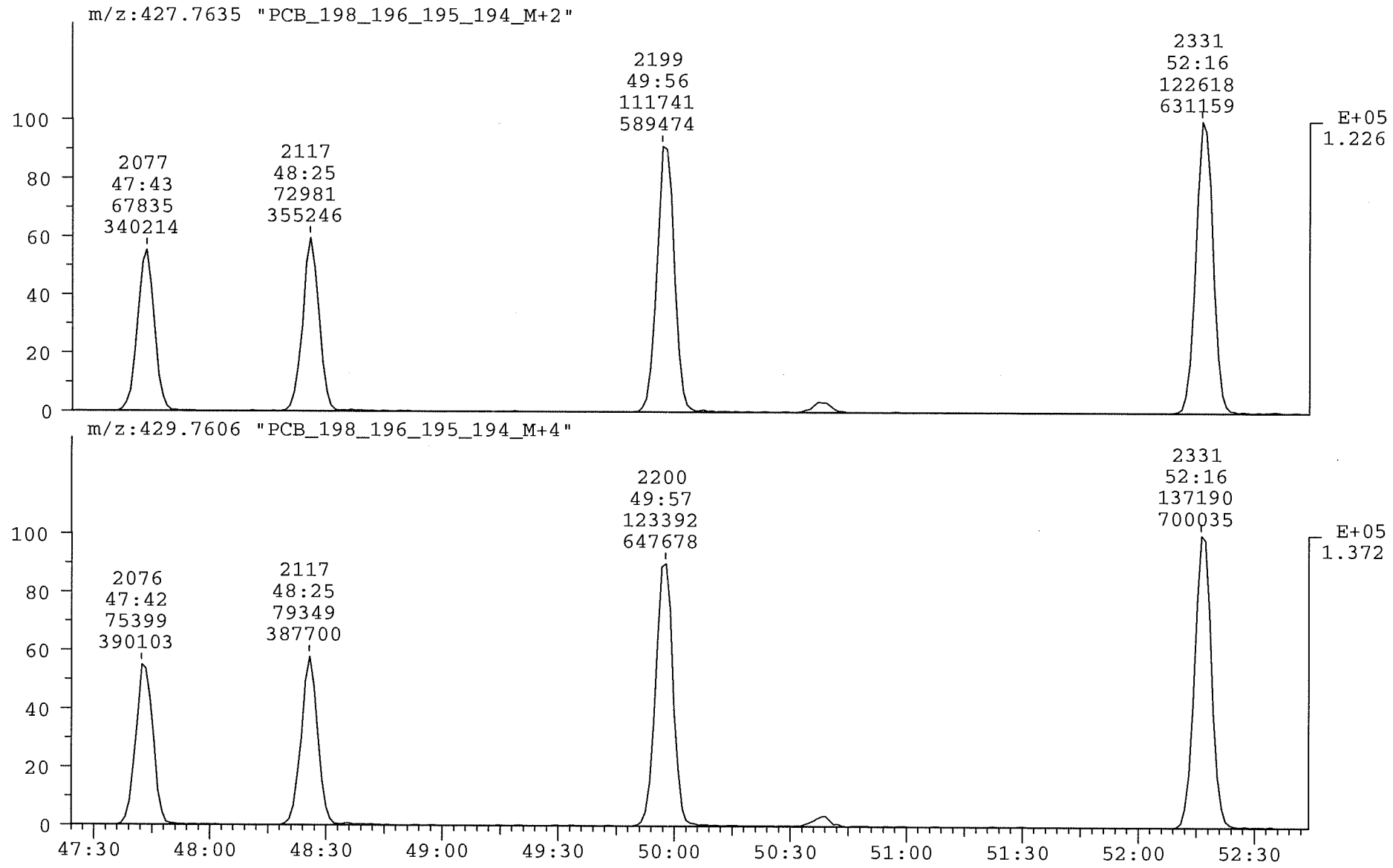
CHRO: a0806m1r3 11-Jun-08 Elapse: 44:33 1897
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 1832 > 1962 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2304

2303

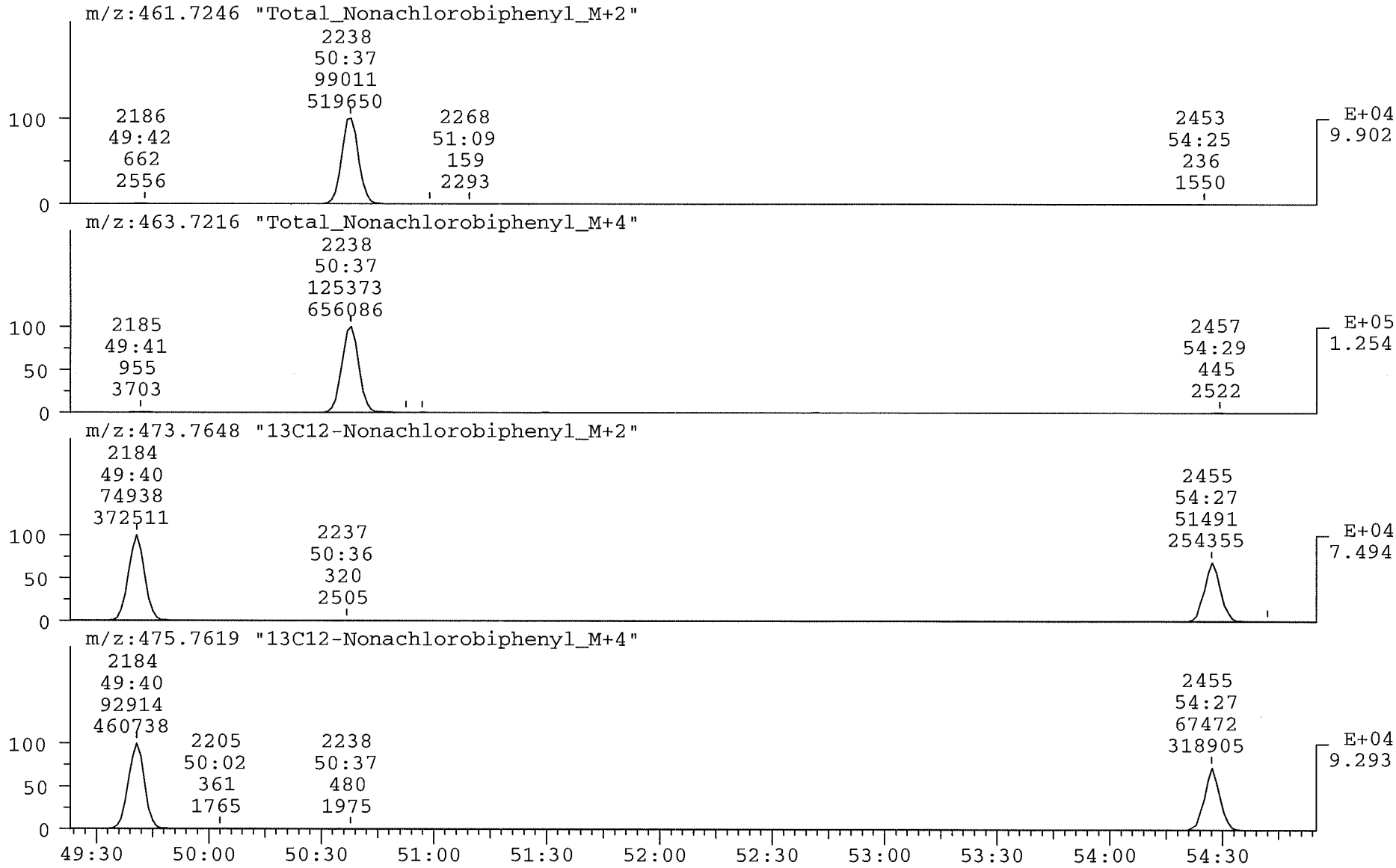
CHRO: a0806m1r3 11-Jun-08 Elapse: 50:04 2206
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2059 > 2357 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2305

2304

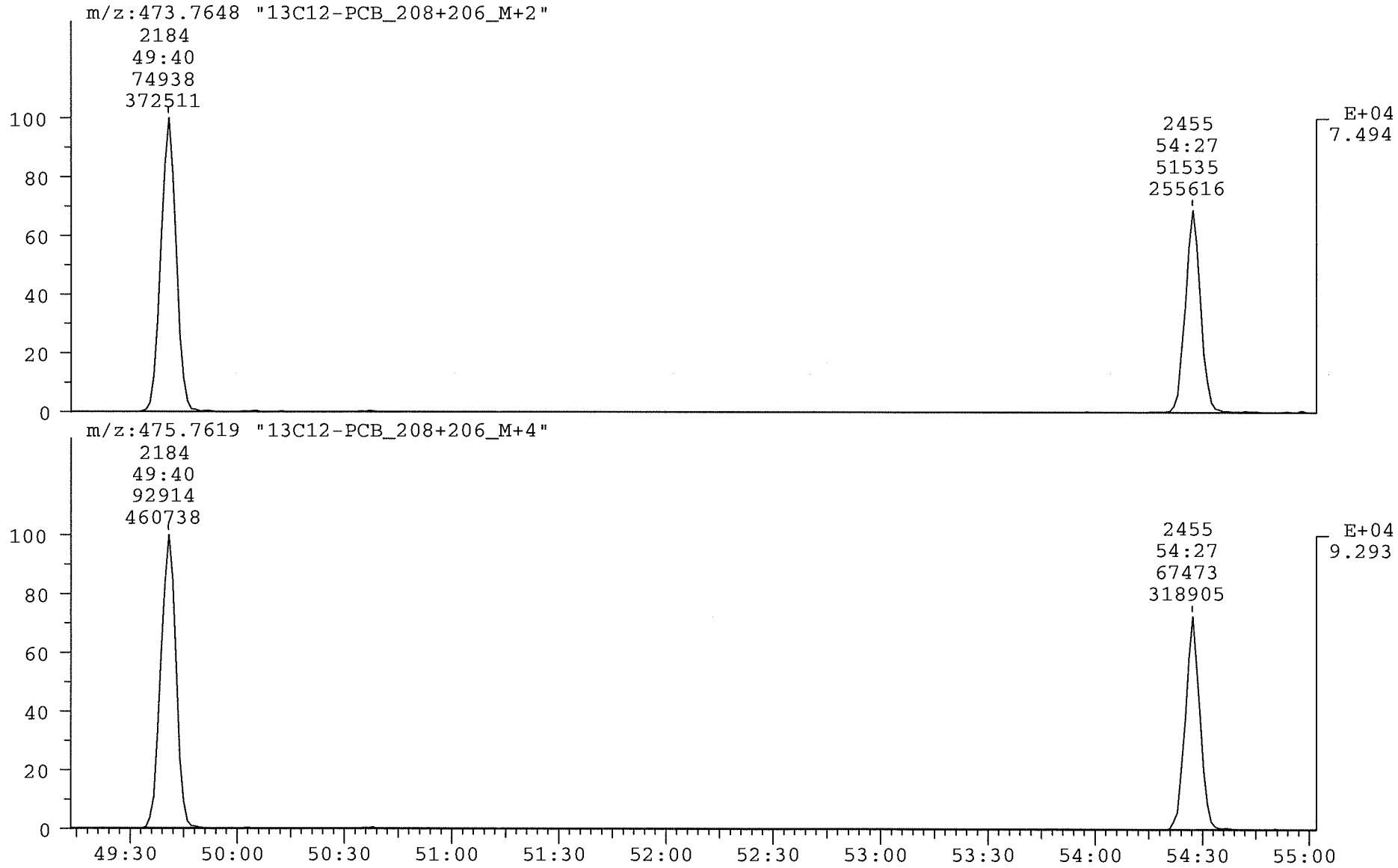
CHRO: a0806m1r3 11-Jun-08 Elapse: 52:08 2324
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2306

2305

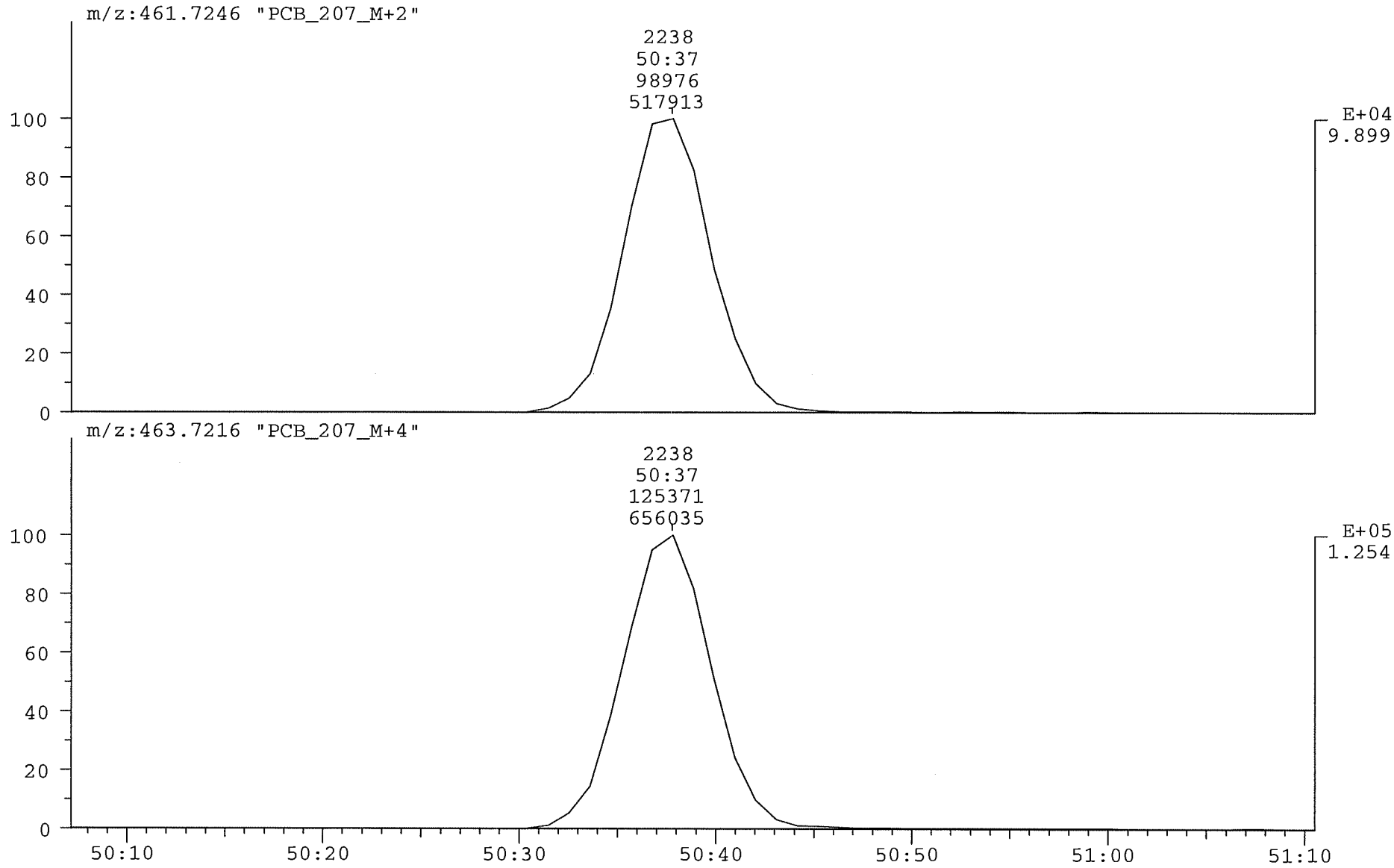
CHRO: a0806m1r3 11-Jun-08 Elapse: 52:07 2323
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2158 > 2488 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2307

2306

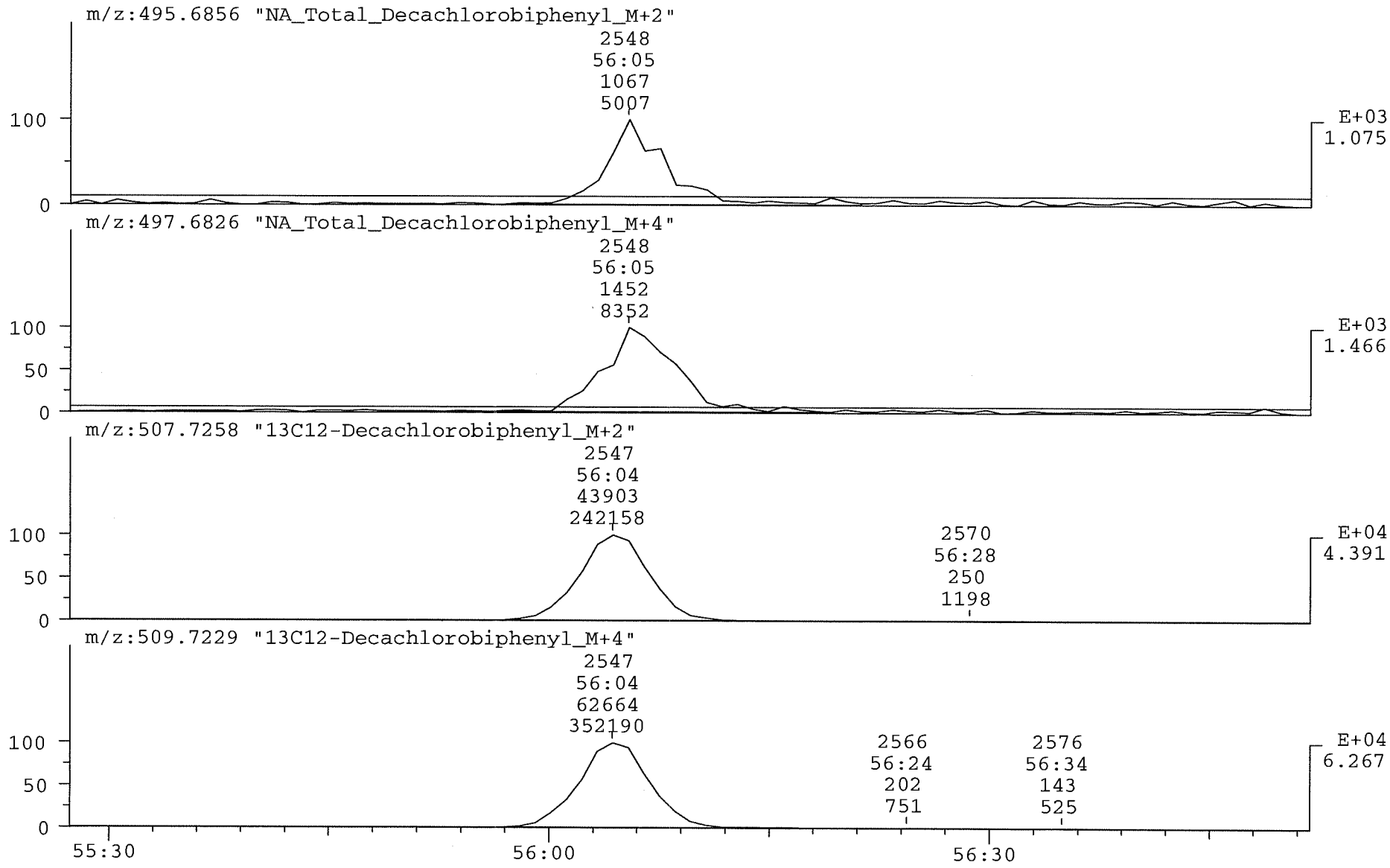
CHRO: a0806m1r3 11-Jun-08 Elapse: 50:38 2239
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2209 > 2269 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2308

2307

CHRO: a0806m1r3 11-Jun-08 Elapse: 56:09 2552
Samp: Vial 11 WO=2990:75Mix1 Meth=IE3 Dil=1 Start : 00:48:42 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 1
Oper: DCG Client: TA Knoxville Inlet : GC Vial 11
Peak: 100.00 ppm Label wndw: 2512 > 2592 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2309

2308

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m1r3
Study: 2990:75 Mix 1
Sample: WO=2990:75Mix1 Meth=IE3 Dil=1
Amount:  0.00
Volume:  0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume:  2.00
Sample from Vial 11
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 11 of list 080609
  ICL procedure: sleep7x
  MID procedure: epa1668n

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.10 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:12 min   35:52 min    1.00 sec
  # 3   35:52 min   13:13 min   49:05 min    1.00 sec
  # 4   49:05 min    7:55 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 1   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
```

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode

Purge time	1.5 min
Purge flow	40.0 ml/min
Gas saver is on	
Saver time	3.0 min
Saver flow	15.0 ml/min

Column : Constant Flow 1.0 ml

Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5529
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0010
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	347.0000
FVINLET	257.0000	FVSRC	997.0000	FWIN	0.7000
GCTC	211.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.3529	HVANAL	1262.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2607.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.9200	TCURR	0.9375
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 11-Jun-08 00:48:42.2

Autosampler has injected sample from vial 11
MID Time Window 1: Resolution is 8226
MID Time Window 2: Resolution is 9606
MID Time Window 3: Resolution is 10085
MID Time Window 4: Resolution is 9642
Analysis stopped at: 11-Jun-08 01:45:45.1 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r1.	Prep Date		SDG No	
Analysis ID	104457	Prep Exp Date		Date Received	
Analysis Date	06/10/08 15:38	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	175	213	70	85	0.82 *	/	
	13C12-PCB 1	12:02	00:00	0	1687294	508723	689222	207147	3.32	AVV/AVV	
	13C12-PCB 3	14:14	00:00	0	1720361	515422	597612	178707	3.34	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	135	300	54	120	0.45 *	/	
	PCB 7 (BZ)	16:40	00:00	0	457440	299030	137371	87171	1.53	AVV/AVV	D
	PCB 5 (BZ)	17:14	00:00	0	424865	276079	123923	78241	1.54	AVV/AVV	
	PCB 12 (BZ)	20:11	00:00	0	438592	288484	118278	76186	1.52	ABV/ABV	DM
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	245	148	98	59	1.66	/	
	13C12-PCB 4	14:30	00:00	0	464803	306322	152184	101402	1.52	ABV/ABV	
	13C12-PCB 9	16:29	00:00	0	768404	484633	233350	144599	1.59	AVV/ABV	
	13C12-PCB 8	17:20	00:00	0	781988	511315	222534	148440	1.53	AVV/AVV	
	13C12-PCB 15	20:27	00:00	0	750984	480044	192568	124201	1.56	AVV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	143	140	57	56	1.02	/	
	PCB 18 (BZ)	19:33	00:00	0	153742	143738	41548	38268	1.07	ABV/ABB	DM
	PCB 24 (BZ)	20:18	00:00	0	200127	199790	48958	52563	1.00	ABV/ABV	DM
	PCB 23 (BZ)	22:21	00:00	0	652870	611042	162034	151562	1.07	AVV/AVV	DM
	PCB 28 (BZ)	23:31	00:00	0	707945	681402	171964	166386	1.04	ABV/ABV	
	PCB 22 (BZ)	24:10	00:00	0	668228	646447	160165	152557	1.03	AVV/AVV	
	PCB 39 (BZ)	26:05	00:00	0	740903	708722	169119	155613	1.05	ABV/ABV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	218	148	87	59	1.47 *	/	
	13C12-PCB 19	17:39	00:00	0	244791	246055	65850	66984	0.99	AVV/ABV	
	13C12-PCB 32	20:56	00:00	0	444977	419028	114319	101534	1.06	ABV/AVV	
	13C12-PCB 31	23:12	00:00	0	1287919	1185394	318028	296292	1.09	AVV/ABV	
	13C12-PCB 28	23:30	00:00	0	1214318	1115238	294846	275953	1.09	AVV/AVV	
	13C12-PCB 37	27:32	00:00	0	1147881	1031483	263833	237333	1.11	AVV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	198	153	79	61	1.30 *	/	
	PCB 53 (BZ)	22:58	00:00	0	518589	638561	121448	150350	0.81	ABV/ABV	
	PCB 51 (BZ)	23:43	00:00	0	529013	660814	129949	158884	0.80	ABB/ABB	DM
	PCB 73 (BZ)	25:30	00:00	0	681813	847037	159862	197441	0.80	ABV/ABV	D
	PCB 48 (BZ)	26:08	00:00	0	533506	665546	120579	150825	0.80	AVV/AVV	D
	PCB 62 (BZ)	26:39	00:00	0	657996	822321	149586	191779	0.80	AVV/AVV	M
	PCB 71 (BZ)	27:24	00:00	0	724166	899808	166720	200004	0.80	ABV/AVV	M
	PCB 68 (BZ)	28:43	00:00	0	747347	934879	160801	197891	0.80	ABV/ABV	
	PCB 58 (BZ)	29:24	00:00	0	705911	878180	155404	191873	0.80	ABV/AVV	
	PCB 61 (BZ)	30:03	00:00	0	680672	839437	141723	184498	0.81	AVV/ABV	

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r1.	Prep Date		SDG No	
Analysis ID	104457	Prep Exp Date		Date Received	
Analysis Date	06/10/08 15:38	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	PCB 55 (BZ)	30:40	00:00	0	683391	836277	149827	181440	0.82	AVV/AVV	
	PCB 60 (BZ)	31:23	00:00	0	699580	886433	147512	184663	0.79	AVV/AVV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	133	123	53	49	1.08 *	/	
	13C12-PCB 54	20:47	00:00	0	246819	287525	58213	71464	0.86	ABV/ABV	
	13C12-PCB 52	25:21	00:00	0	456115	567807	104412	133055	0.80	ABV/ABV	
	13C12-PCB 79	33:17	00:00	0	621409	777318	130420	164169	0.80	ABV/ABV	
	13C12-PCB 81	34:17	00:00	0	526140	682308	113733	148923	0.77	ABV/ABV	
	13C12-PCB 77	34:51	00:00	0	575904	702482	119046	149726	0.82	AVV/ABB	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	228	145	91	58	1.57	/	
	PCB 94 (BZ)	28:51	00:00	0	393528	236602	84506	55180	1.66	ABV/ABV	
	PCB 100 (BZ)	29:29	00:00	0	454134	281030	100685	62477	1.62	AVV/ABV	
	PCB 91 (BZ)	30:10	00:00	0	426354	260625	94069	56884	1.64	ABV/AVV	
	PCB 121 (BZ)	31:14	00:00	0	577298	351368	126676	81570	1.64	ABV/ABV	D
	PCB 90 (BZ)	32:13	00:00	0	412861	251857	87343	53759	1.64	ABV/ABV	DM
	PCB 99 (BZ)	32:48	00:00	0	488722	293040	102858	64421	1.67	ABV/AVV	
	PCB 109 (BZ)/108 (IUPAC	33:15	00:00	0	581014	333300	122133	74757	1.74	AVV/AVV	
	PCB 117 (BZ)	33:56	00:00	0	551786	337203	118847	72785	1.64	ABV/AVV	
	PCB 111 (BZ)	34:53	00:00	0	582595	363263	123045	77047	1.60	ABB/ABB	D
	PCB 108 (BZ)/107 (IUPAC	36:30	00:00	0	1193496	760228	246069	154093	1.57	ABV/ABV	M
	PCB 118 (BZ)	37:11	00:00	0	1203016	759058	258963	160553	1.58	AVV/AVV	
	PCB 114 (BZ)	37:43	00:00	0	1228688	785695	255055	167465	1.56	AVV/AVV	
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	128	108	51	43	1.19 *	/	
	13C12-PCB 104	26:18	00:00	0	515307	315063	115137	70455	1.64	ABV/ABV	
	13C12-PCB 95	29:16	00:00	0	403380	243709	87424	52005	1.66	ABV/ABV	
	13C12-PCB 101	32:12	00:00	0	420475	257651	89663	56937	1.63	ABV/AVV	
	13C12-PCB 111	34:52	00:00	0	530884	319338	109752	67593	1.66	ABV/ABV	
	13C12-PCB 123	36:50	00:00	0	1095632	678490	228755	143661	1.61	ABV/ABV	
	13C12-PCB 118	37:10	00:00	0	1152063	695421	238935	143525	1.66	AVV/AVV	
	13C12-PCB 114	37:42	00:00	0	1105138	677850	223192	137676	1.63	AVV/ABB	
	13C12-PCB 105	38:21	00:00	0	1086131	668979	216580	133233	1.62	ABV/ABV	
	13C12-PCB 127	39:49	00:00	0	1215943	748304	246482	154386	1.62	ABV/ABV	
	13C12-PCB 126	41:26	00:00	0	1152063	715449	232730	144394	1.61	AVV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	175	203	70	81	0.86 *	/	
	PCB 150 (BZ)	32:22	00:00	0	403092	317860	83252	67610	1.27	ABV/ABV	D
	PCB 145 (BZ)	33:01	00:00	0	387223	292415	78608	59720	1.32	ABV/ABB	D
	PCB 135 (BZ)	35:11	00:00	0	287604	219080	59541	47439	1.31	ABV/ABB	D
	PCB 149 (BZ)	36:04	00:00	0	624405	493728	123687	100903	1.26	ABV/ABV	M
	PCB 139 (BZ)	36:38	00:00	0	608332	483231	130317	101349	1.26	AVV/AVV	
	PCB 132 (BZ)	37:20	00:00	0	548565	423043	112717	86832	1.30	AVV/AVV	D

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r1.	Prep Date		SDG No	
Analysis ID	104457	Prep Exp Date		Date Received	
Analysis Date	06/10/08 15:38	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	PCB 165 (BZ)	38:12	00:00	0	740126	590885	152415	119329	1.25	ABV/AVV	
	PCB 168 (BZ)	39:07	00:00	0	807569	626662	161430	126777	1.29	AVV/AVV	
	PCB 137 (BZ)	39:53	00:00	0	624651	487378	126999	97172	1.28	ABV/ABV	
	PCB 160 (BZ)	40:28	00:00	0	757340	593964	150782	124532	1.28	ABV/ABV	
	PCB 128 (BZ)	41:35	00:00	0	583749	466600	113318	94026	1.25	ABV/ABV	D
	PCB 162 (BZ)	42:49	00:00	0	833460	648591	167350	135388	1.29	ABV/ABV	
	PCB 157 (BZ)	44:30	00:00	0	829183	650088	171091	130102	1.28	ABB/ABB	M
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	103	80	41	32	1.28	/	
	13C12-PCB 155	31:57	00:00	0	389768	304635	87731	63163	1.28	ABV/ABV	
	13C12-PCB 153	39:01	00:00	0	647165	489674	128537	98891	1.32	ABV/ABV	
	13C12-PCB 138	40:17	00:00	0	622386	480187	128055	98625	1.30	ABV/ABV	
	13C12-PCB 167	43:17	00:00	0	747537	576024	152185	113651	1.30	AVB/AVV	
	13C12-PCB 156	44:27	00:00	0	1514043	1158668	195187	144391	1.31	AVV/ABV	D
	13C12-PCB 169	47:40	00:00	0	720560	551551	143377	111980	1.31	ABV/ABV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	173	140	69	56	1.23 *	/	
	PCB 184 (BZ)	38:34	00:00	0	558146	519399	115242	105292	1.07	ABV/ABV	
	PCB 186 (BZ)	39:23	00:00	0	513894	484811	98743	95856	1.06	ABV/AVV	D
	PCB 187 (BZ)	41:40	00:00	0	436320	422040	87524	84776	1.03	AVV/ABV	
	PCB 185 (BZ)	42:22	00:00	0	405644	378787	80421	75988	1.07	ABV/AVV	
	PCB 181 (BZ)	43:20	00:00	0	413870	383282	84677	78753	1.08	ABV/ABV	
	PCB 192 (BZ)	45:28	00:00	0	489363	471818	97337	93947	1.04	ABV/ABV	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	148	118	59	47	1.26 *	/	
	13C12-PCB 188	37:41	00:00	0	499956	467285	98265	91903	1.07	ABV/ABV	
	13C12-PCB 178	40:44	00:00	0	344198	313597	70773	66386	1.10	ABV/ABV	
	13C12-PCB 180	45:49	00:00	0	435232	405190	84441	82119	1.07	ABV/ABV	
	13C12-PCB 170	47:05	00:00	0	359669	340189	69996	67315	1.06	ABV/ABV	
	13C12-PCB 189	50:11	00:00	0	869964	823583	170847	159036	1.06	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	153	148	61	59	1.03 *	/	
	PCB 197 (BZ)	44:53	00:00	0	568792	628767	111575	122744	0.90	ABV/ABV	
	PCB 201 (BZ)/199 (IUPAC	47:48	00:00	0	407777	469771	78184	91389	0.87	ABB/ABV	
	PCB 203 (BZ)	48:38	00:00	0	433170	489854	82821	96782	0.88	AVV/AVV	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	143	143	57	57	1.00	/	
	13C12-PCB 202	43:02	00:00	0	339012	372648	69339	74878	0.91	ABB/ABV	
	13C12-PCB 194	52:17	00:00	0	446358	484926	85814	94614	0.92	ABV/ABV	
	13C12-PCB 205	52:44	00:00	0	596501	645554	117544	127383	0.92	AVV/AVV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		

Notes:
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TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r1.	Prep Date		SDG No	
Analysis ID	104457	Prep Exp Date		Date Received	
Analysis Date	06/10/08 15:38	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

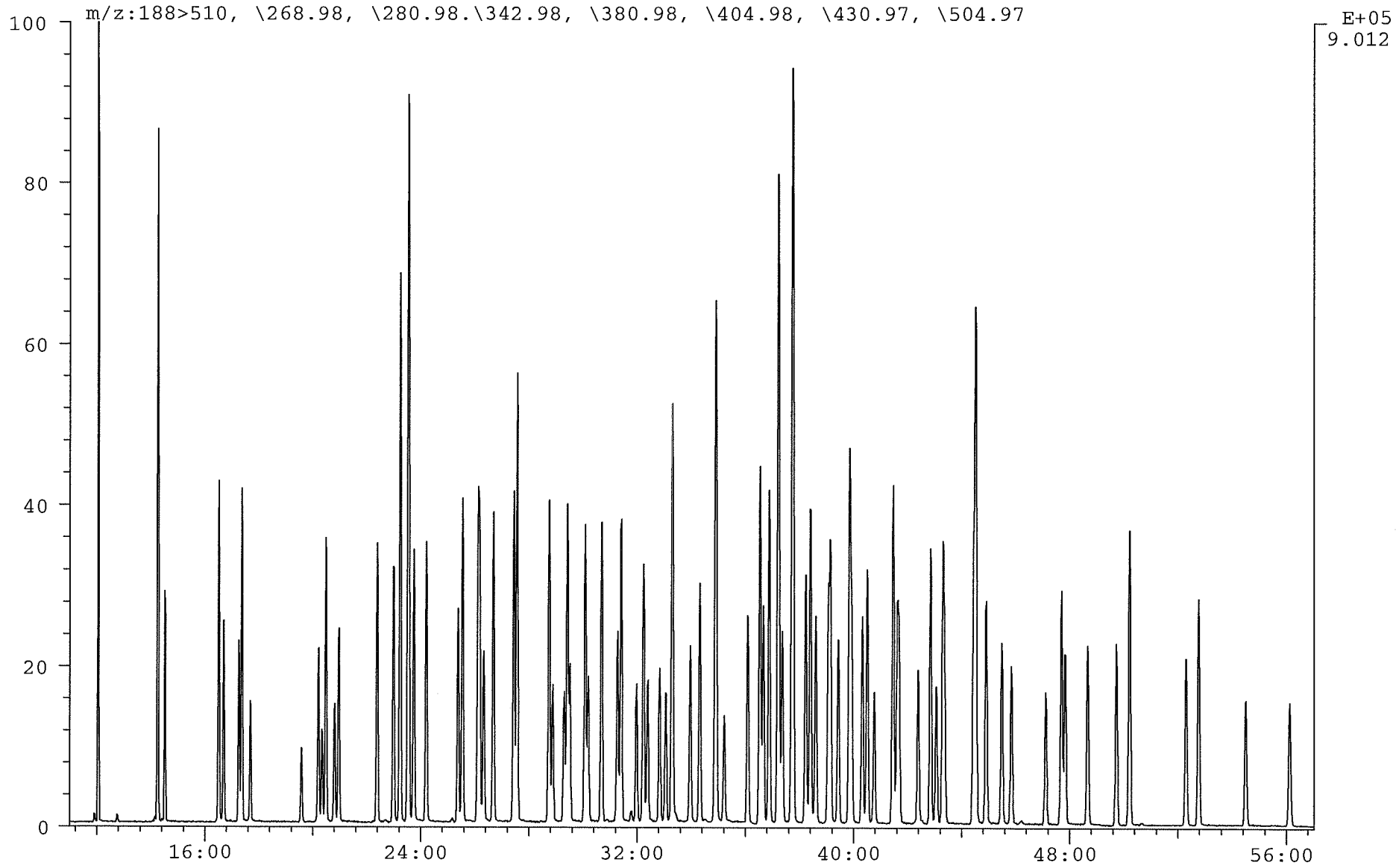
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	120	118	48	47	1.02 *	/
	13C12-PCB 208	49:42	00:00	0	410551	510438	82634	102156	0.80	ABV/ABV
	13C12-PCB 206	54:29	00:00	0	289220	356459	54780	68456	0.81	AVV/AVV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79	
	Noise	00:00	00:00	0	83	95	33	38	0.87 *	/
	13C12-PCB 209	56:06	00:00	0	278901	380145	49370	69120	0.73	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

Int DCG 6-10-08
Calibrs 6-25-08

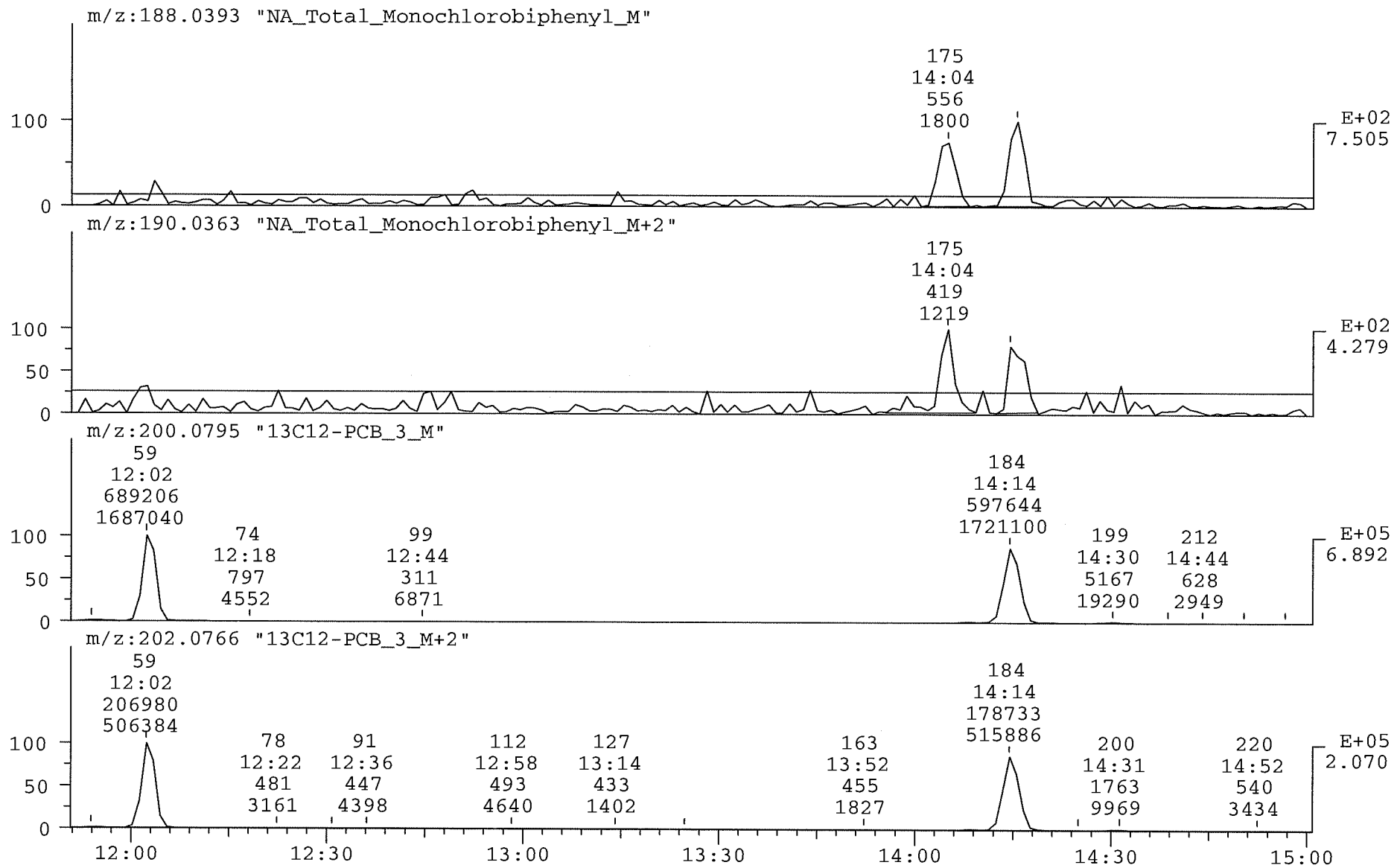
CHRO: a0806m2r1 10-Jun-08 Elapse: 56:11 2555
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2318

2317

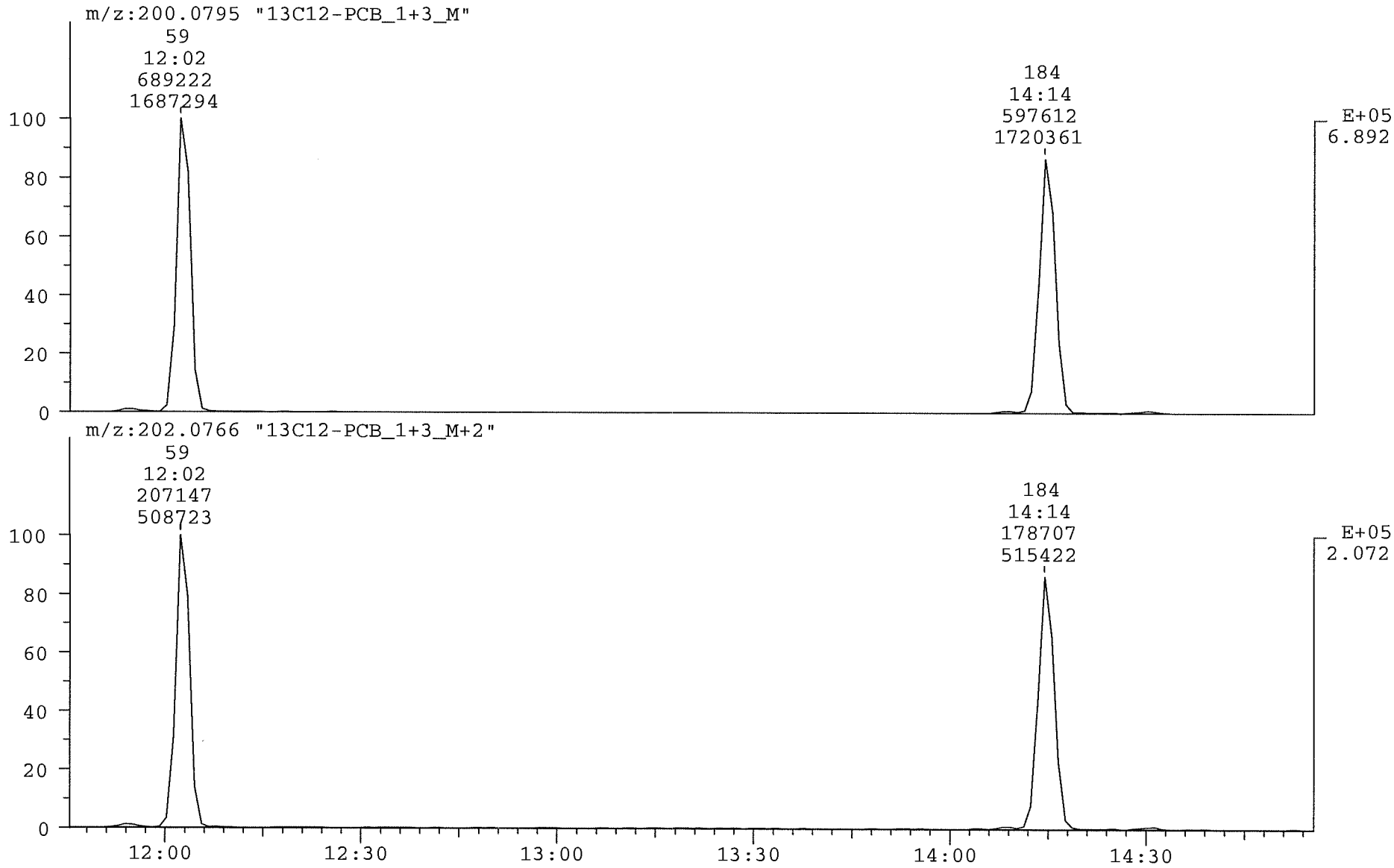
CHRO: a0806m2r1 10-Jun-08 Elapse: 13:25.8 138
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 48 > 228 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2319

2318

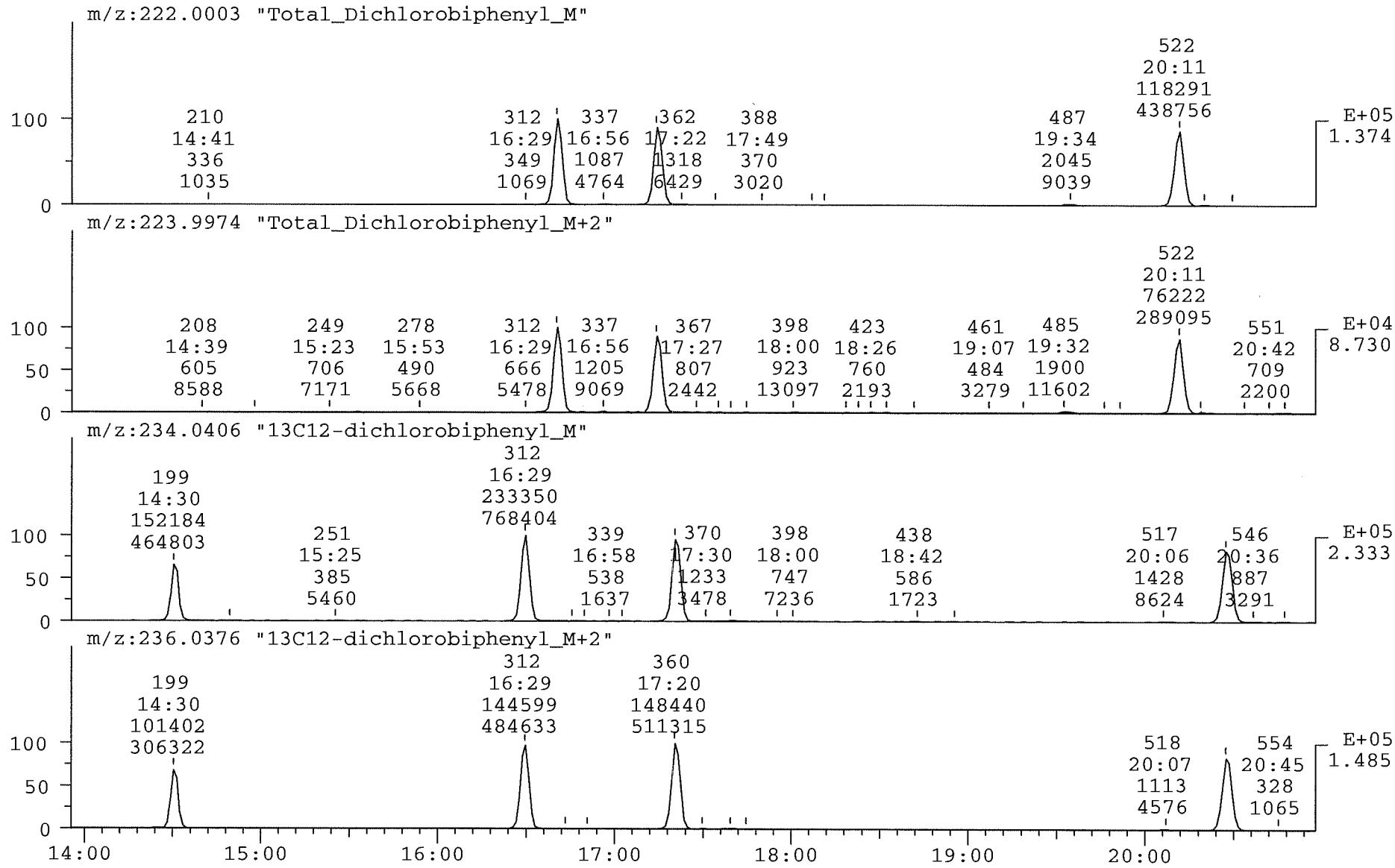
CHRO: a0806m2r1 10-Jun-08 Elapse: 13:20.5 133
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 43 > 223 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2320

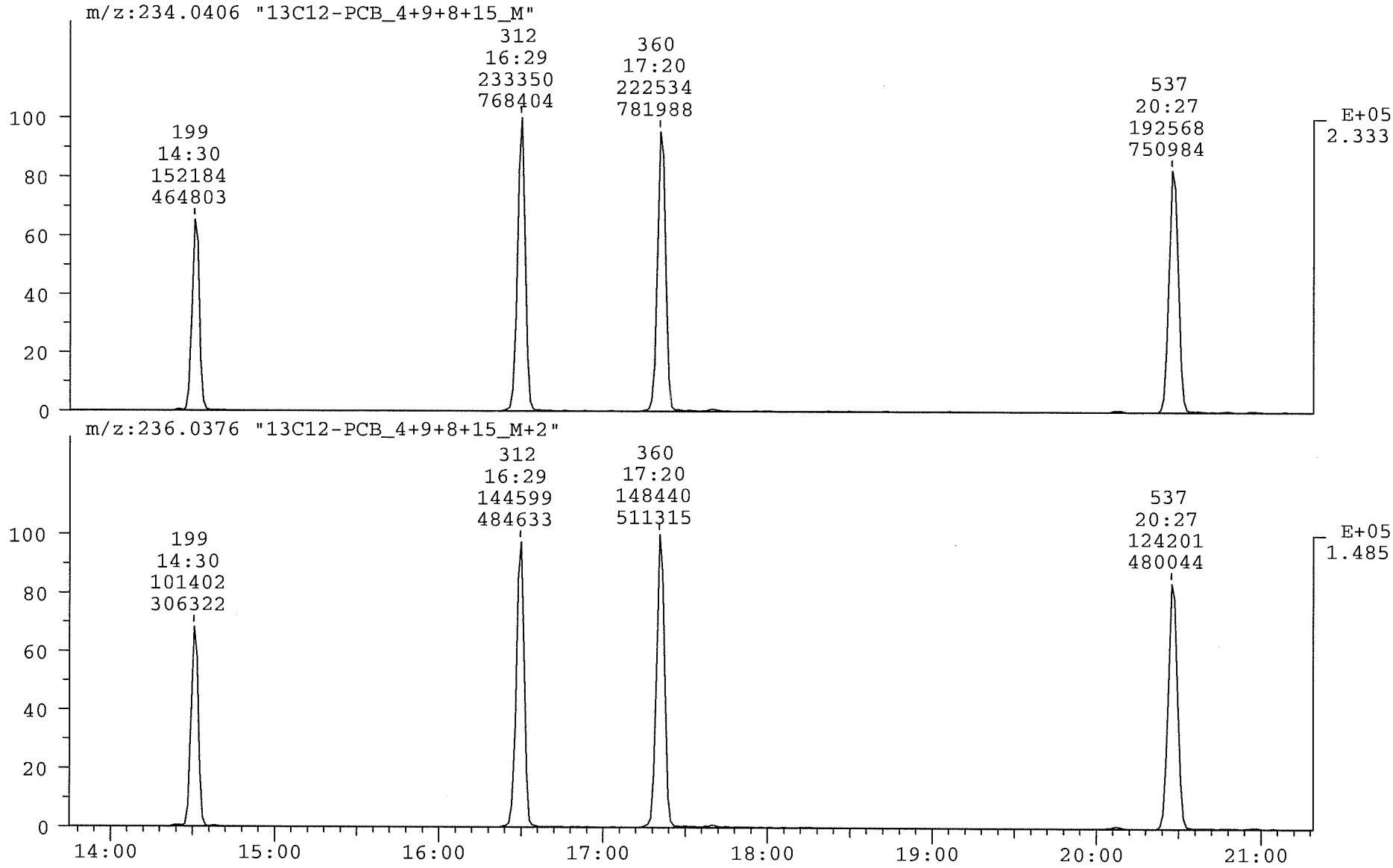
2319

CHRO: a0806m2r1 10-Jun-08 Elapse: 17:26.6 366
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2321

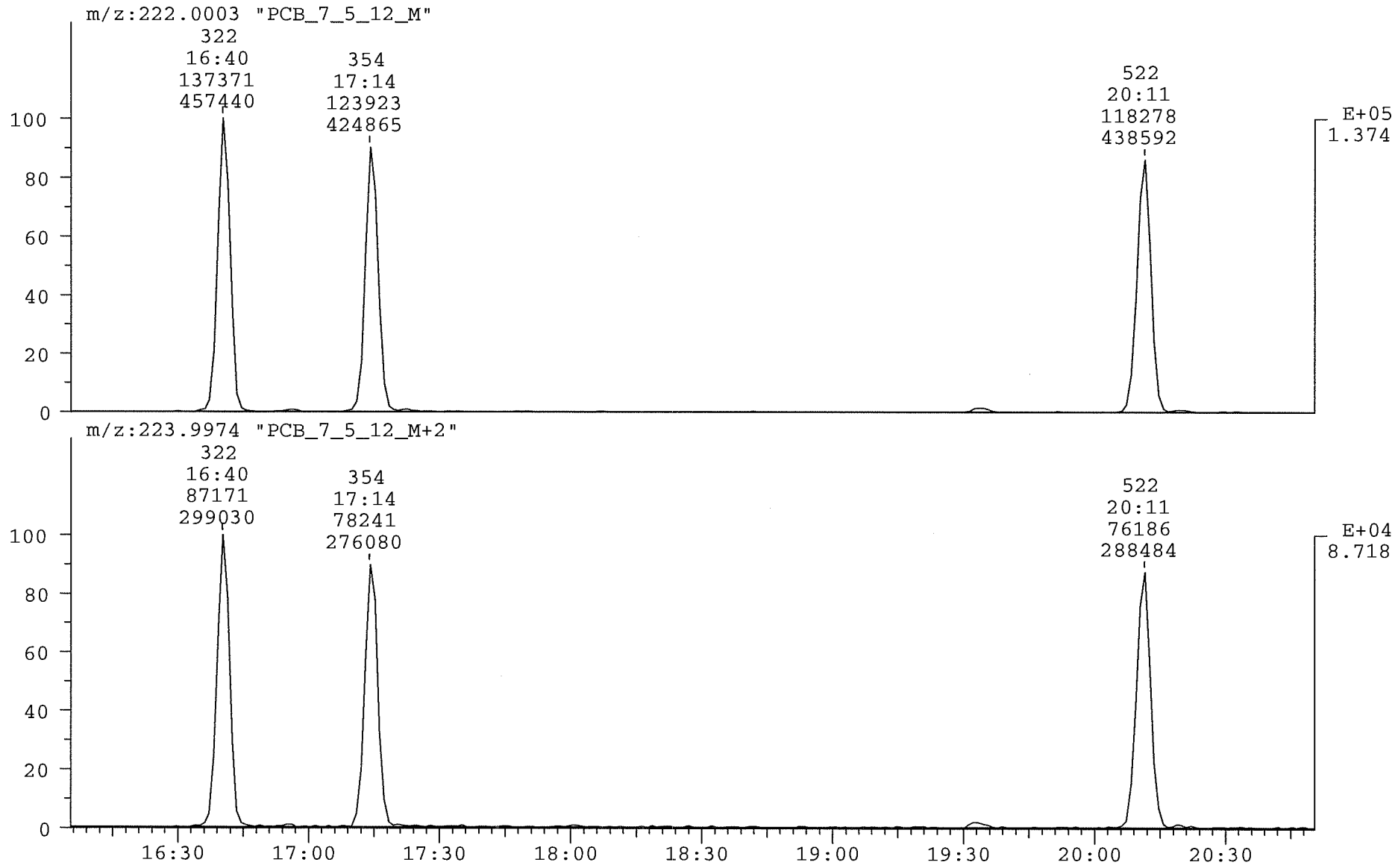
CHRO: a0806m2r1 10-Jun-08 Elapse: 17:26.6 366
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2322

2321

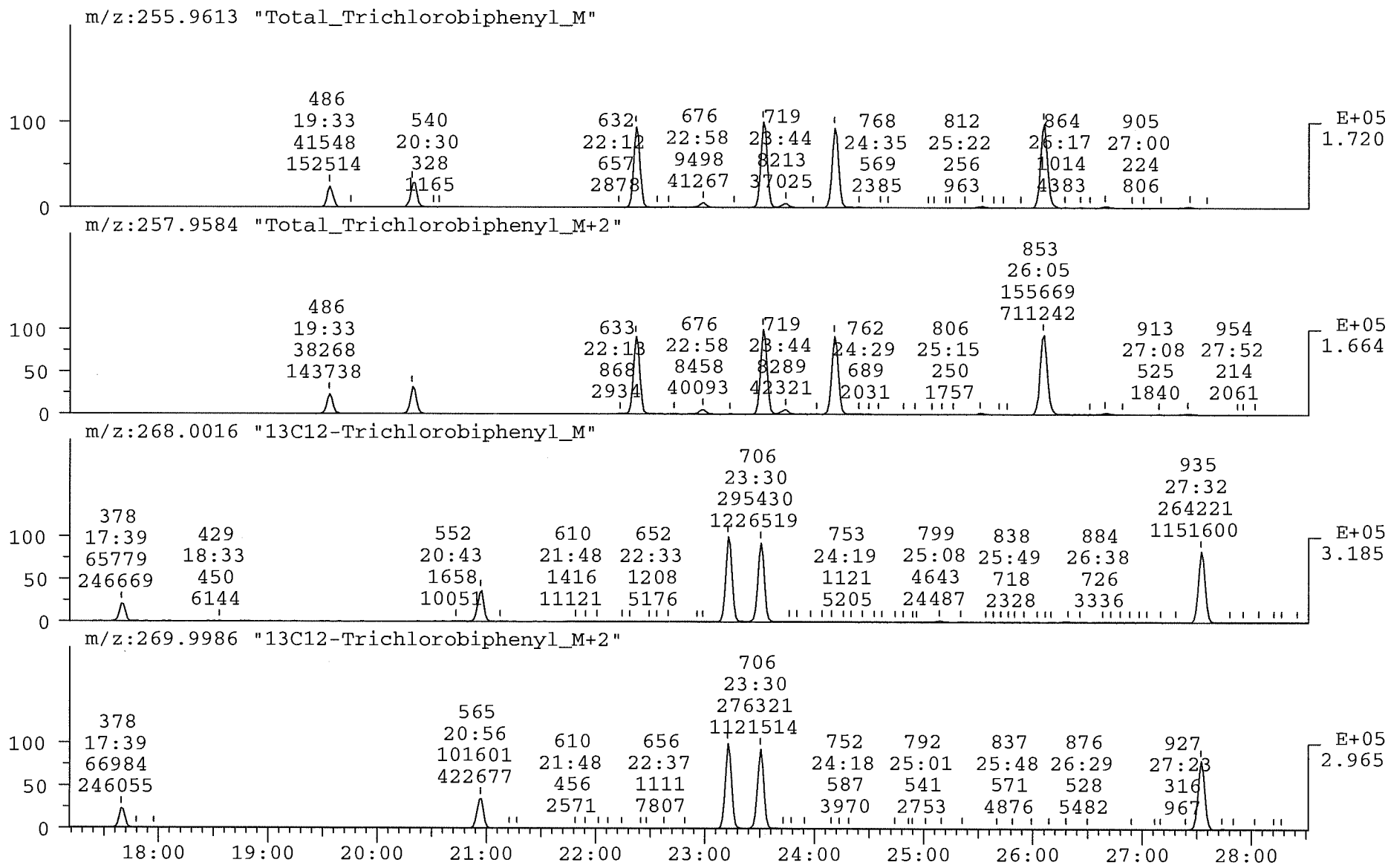
CHRO: a0806m2r1 10-Jun-08 Elapse: 18:27.9 424
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 289 > 559 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2323

2322

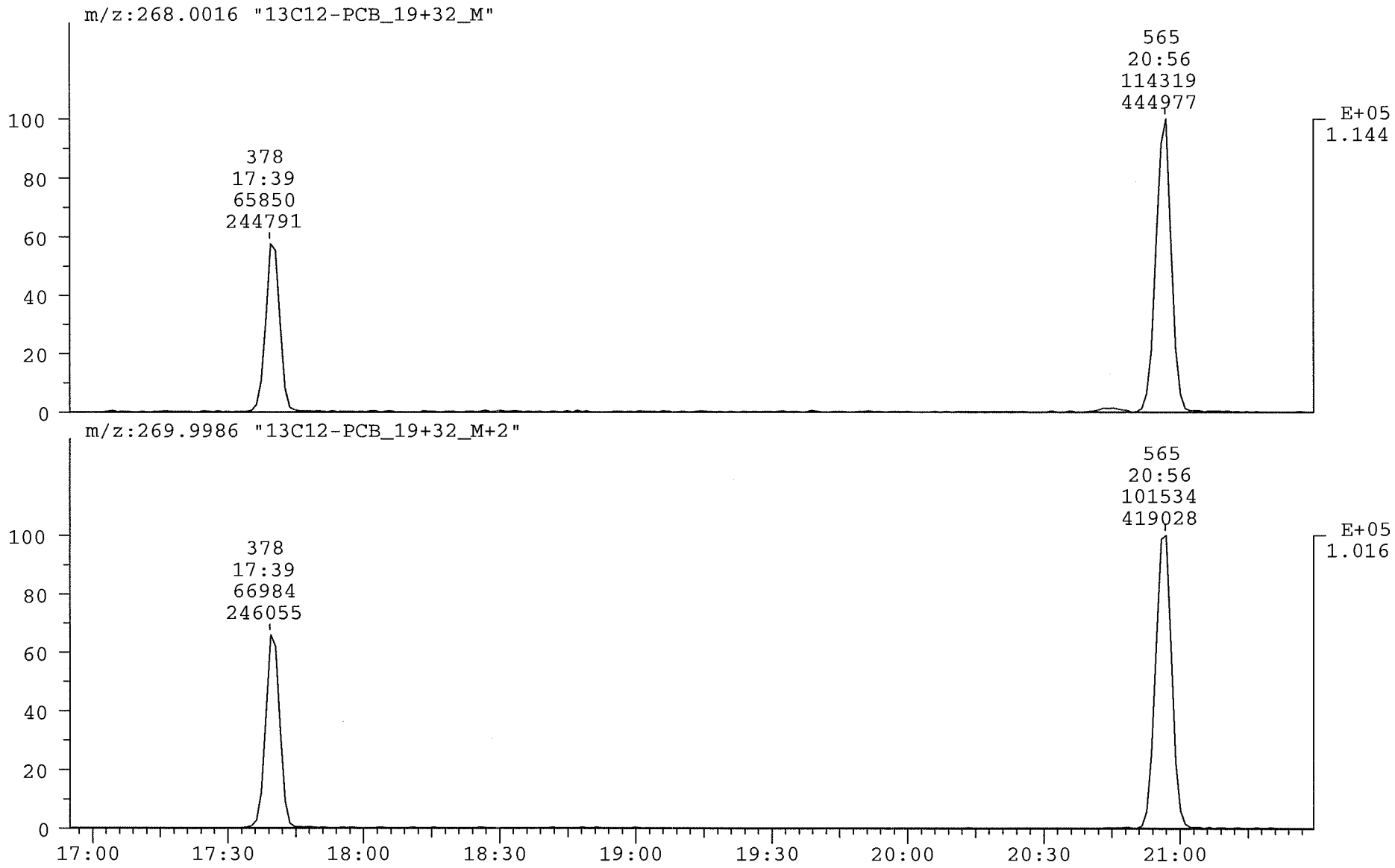
CHRO: a0806m2r1 10-Jun-08 Elapse: 22:53.3 671
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 351 > 991 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2324

2323

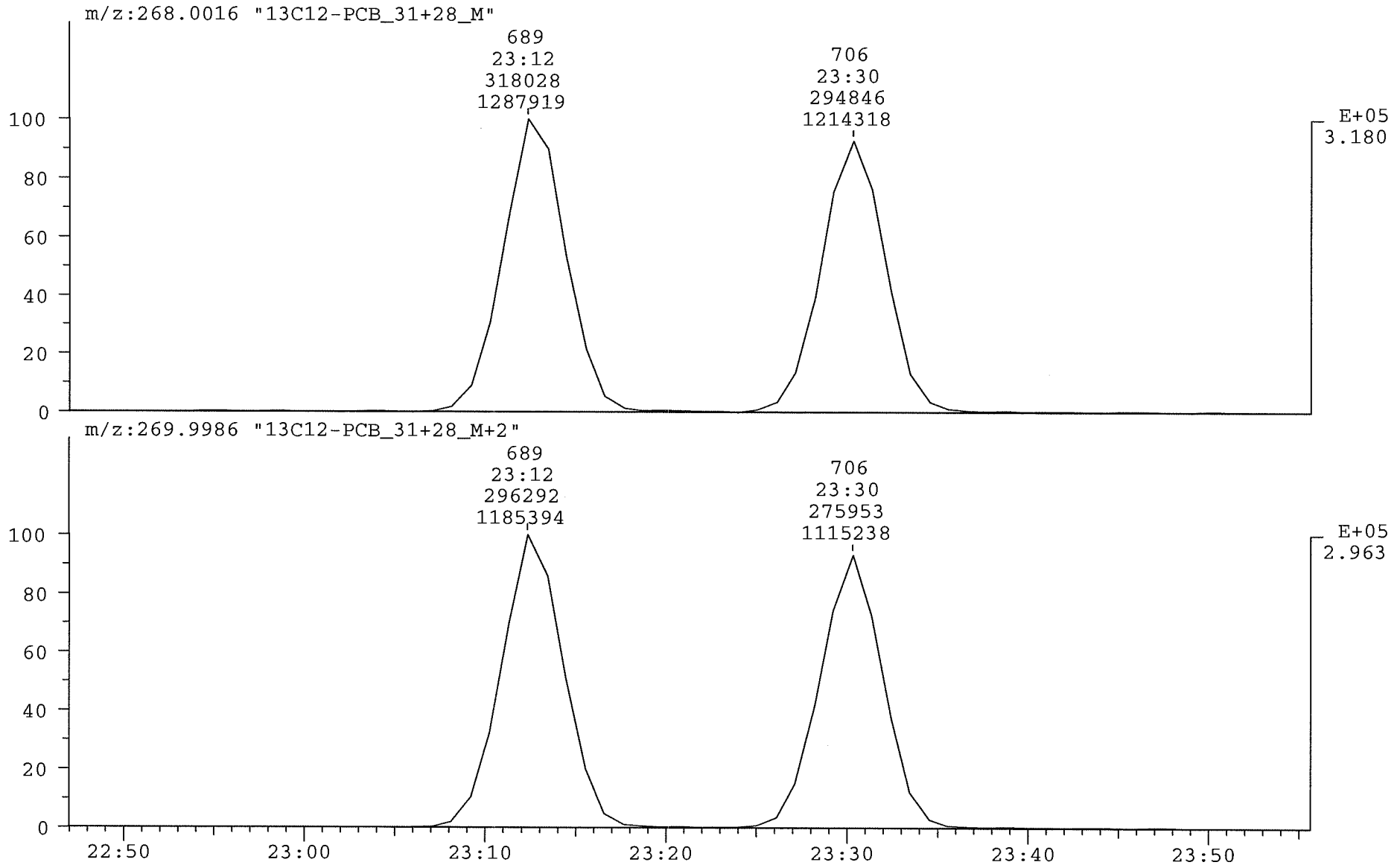
CHRO: a0806m2r1 10-Jun-08 Elapse: 19:01.7 456
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 336 > 596 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2325

2324

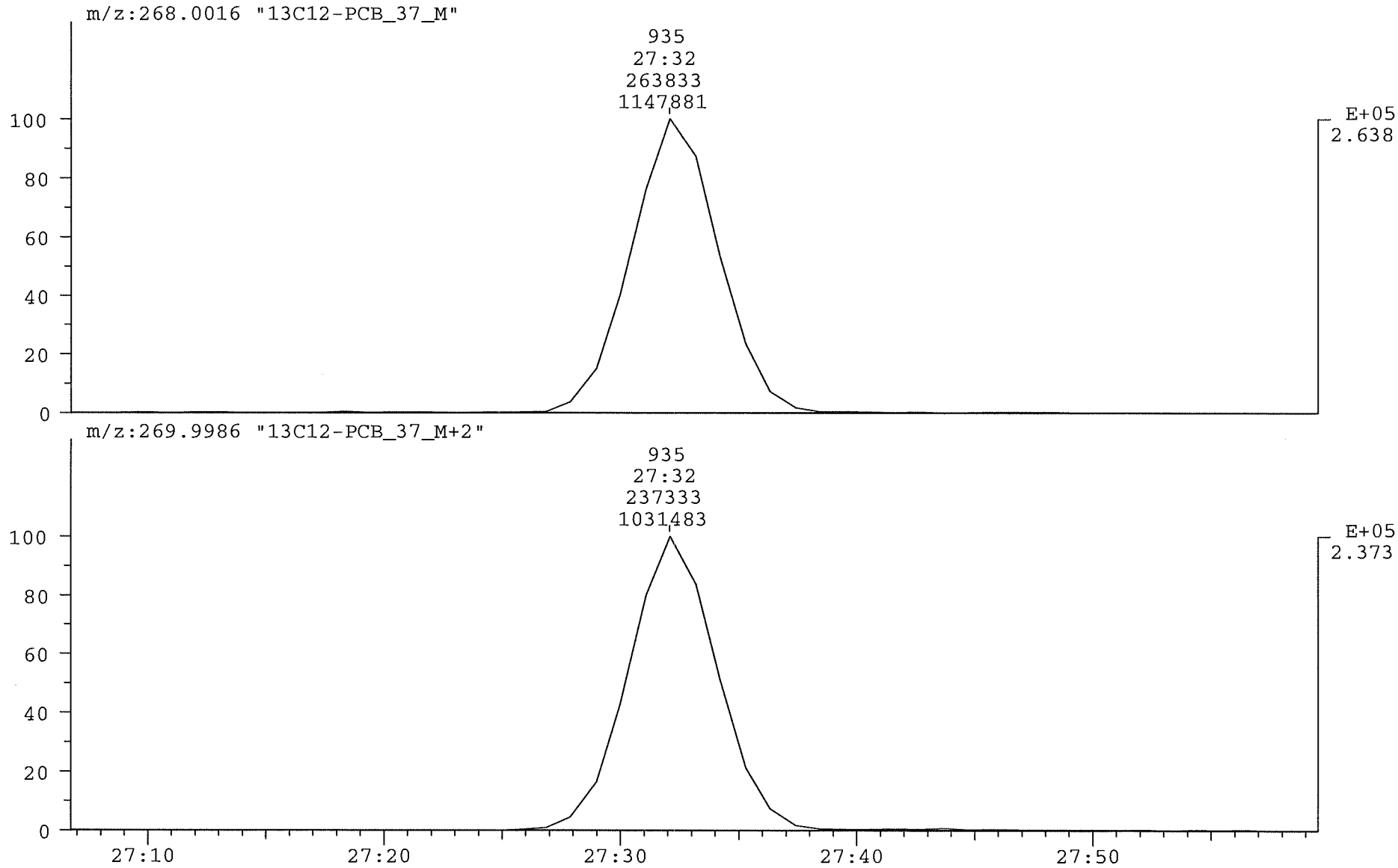
CHRO: a0806m2r1 10-Jun-08 Elapse: 23:13.4 690
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2326

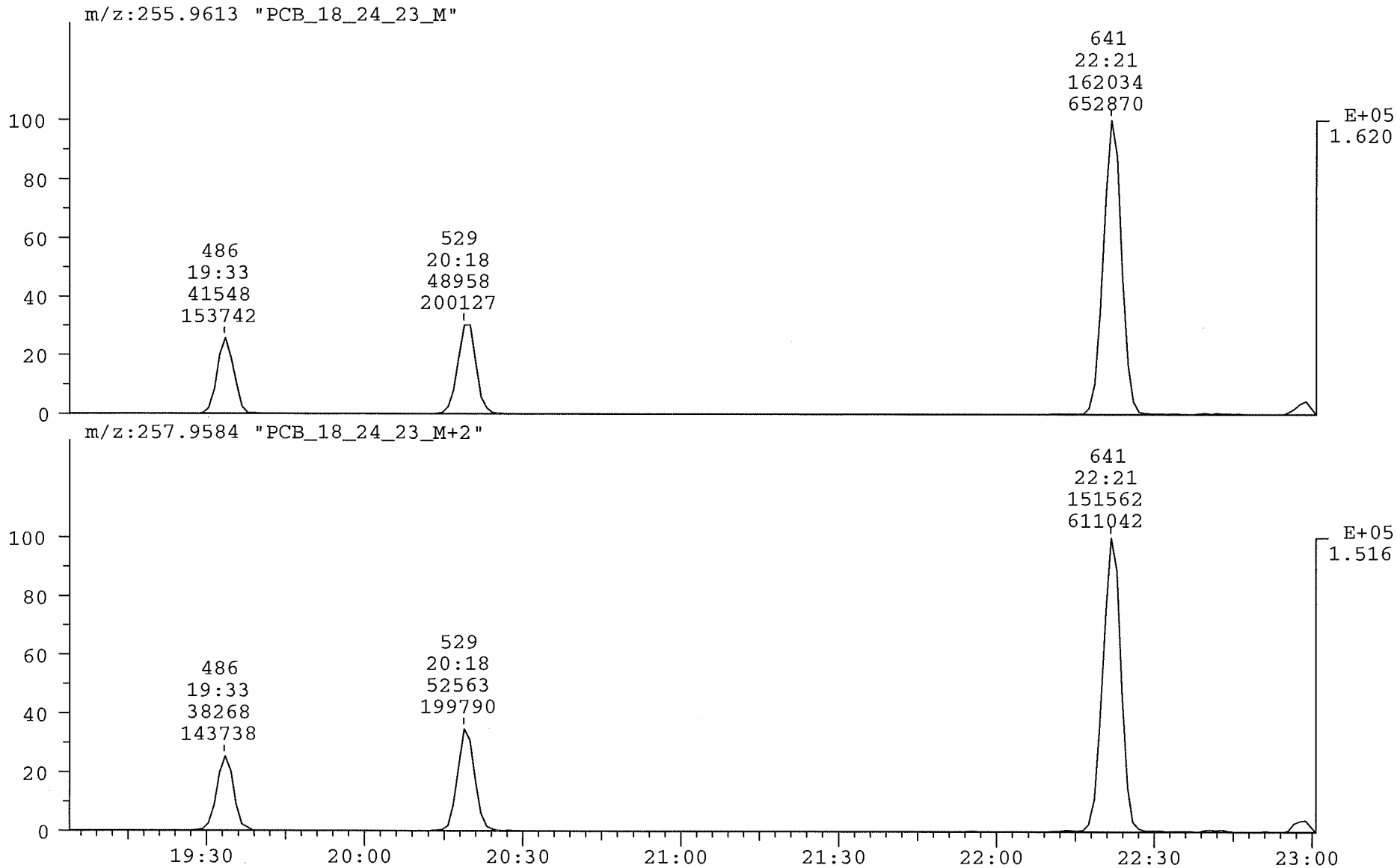
2325

CHRO: a0806m2r1 10-Jun-08 Elapse: 27:33.2 936
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2327

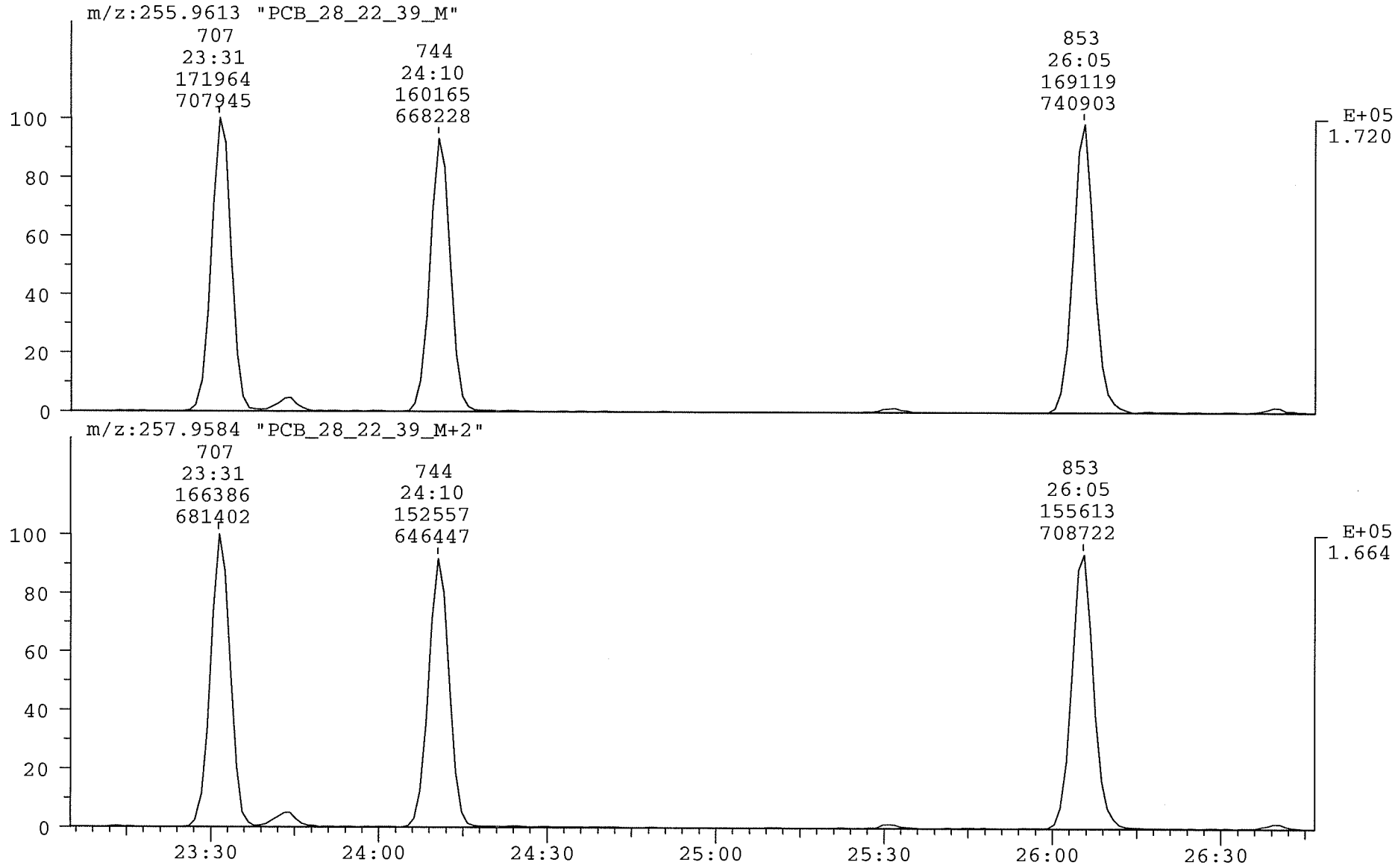
CHRO: a0806m2r1 10-Jun-08 Elapse: 21:00.9 568
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 458 > 678 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2328

2327

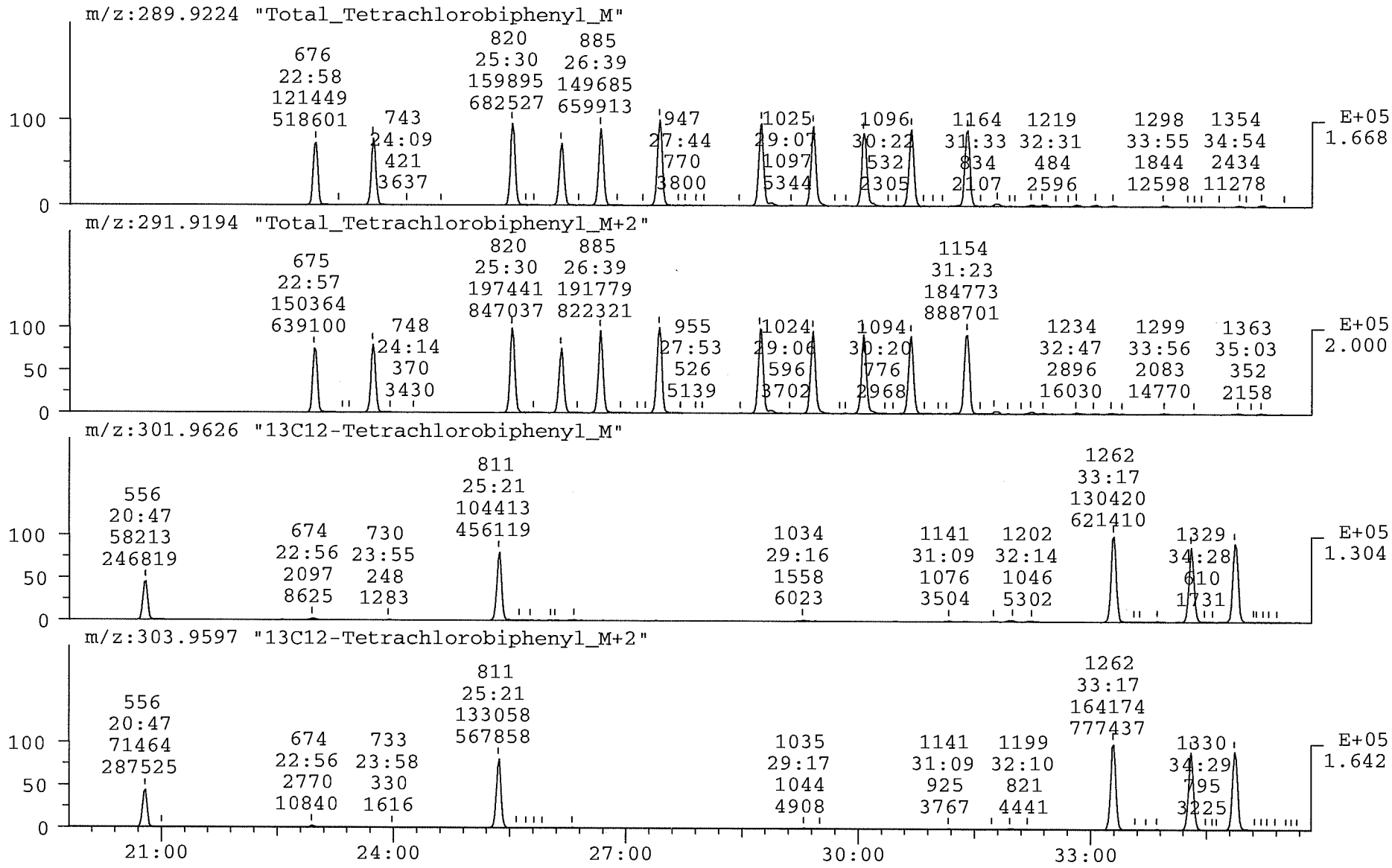
CHRO: a0806m2r1 10-Jun-08 Elapse: 24:50.5 782
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 682 > 892 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2329

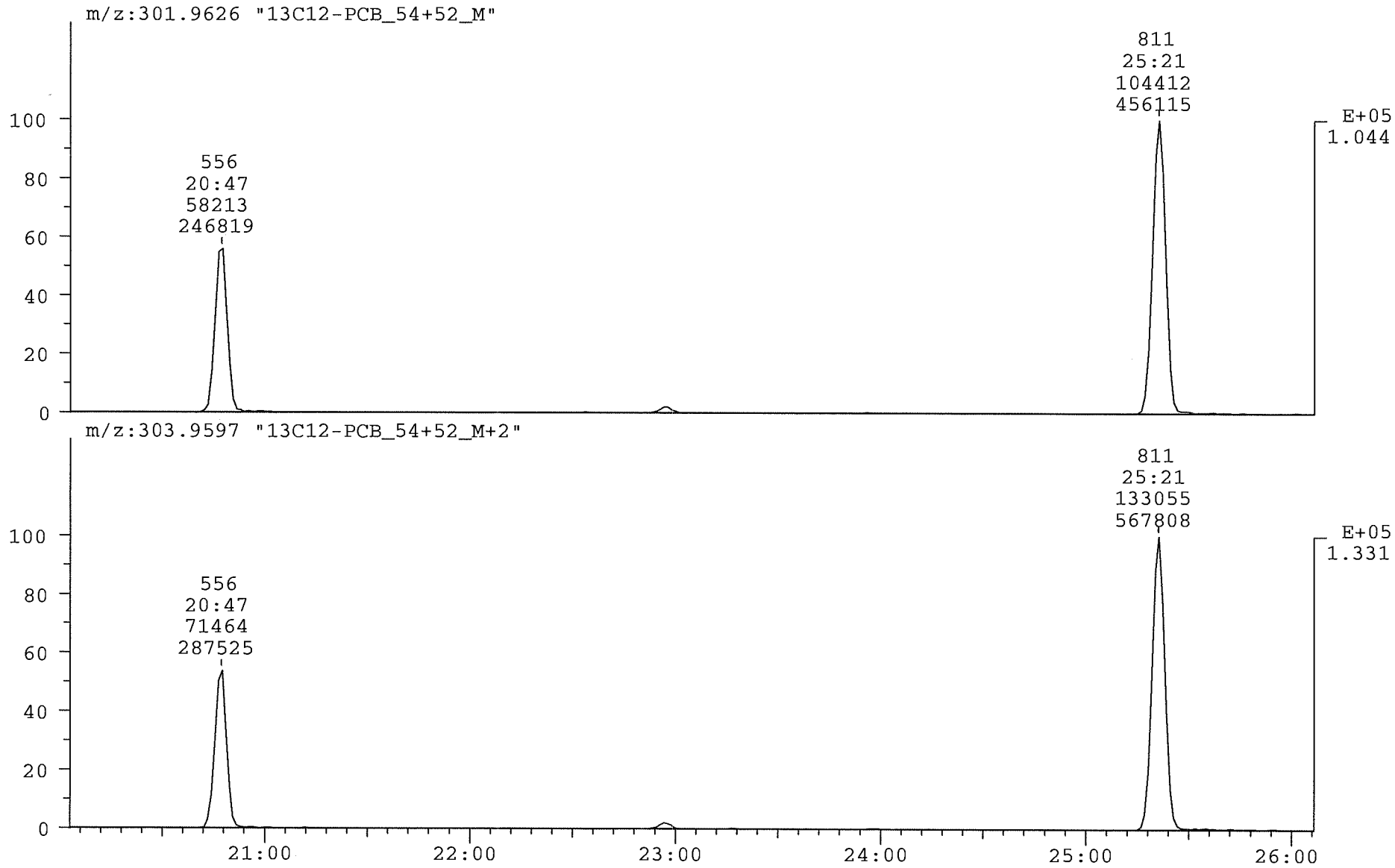
2328

CHRO: a0806m2r1 10-Jun-08 Elapse: 27:49.9 951
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 500 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2330

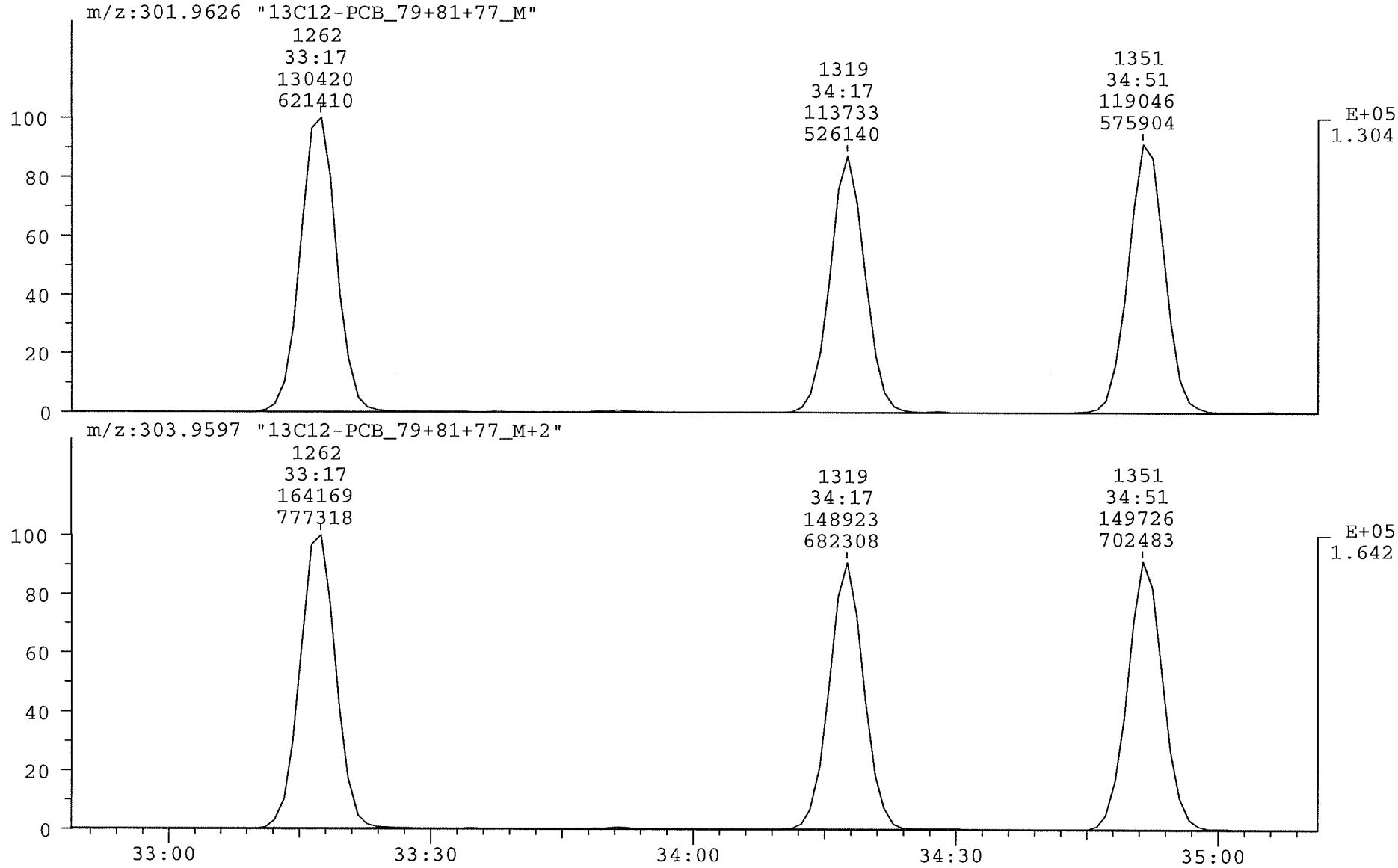
CHRO: a0806m2r1 10-Jun-08 Elapse: 23:07.1 684
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2331

2330

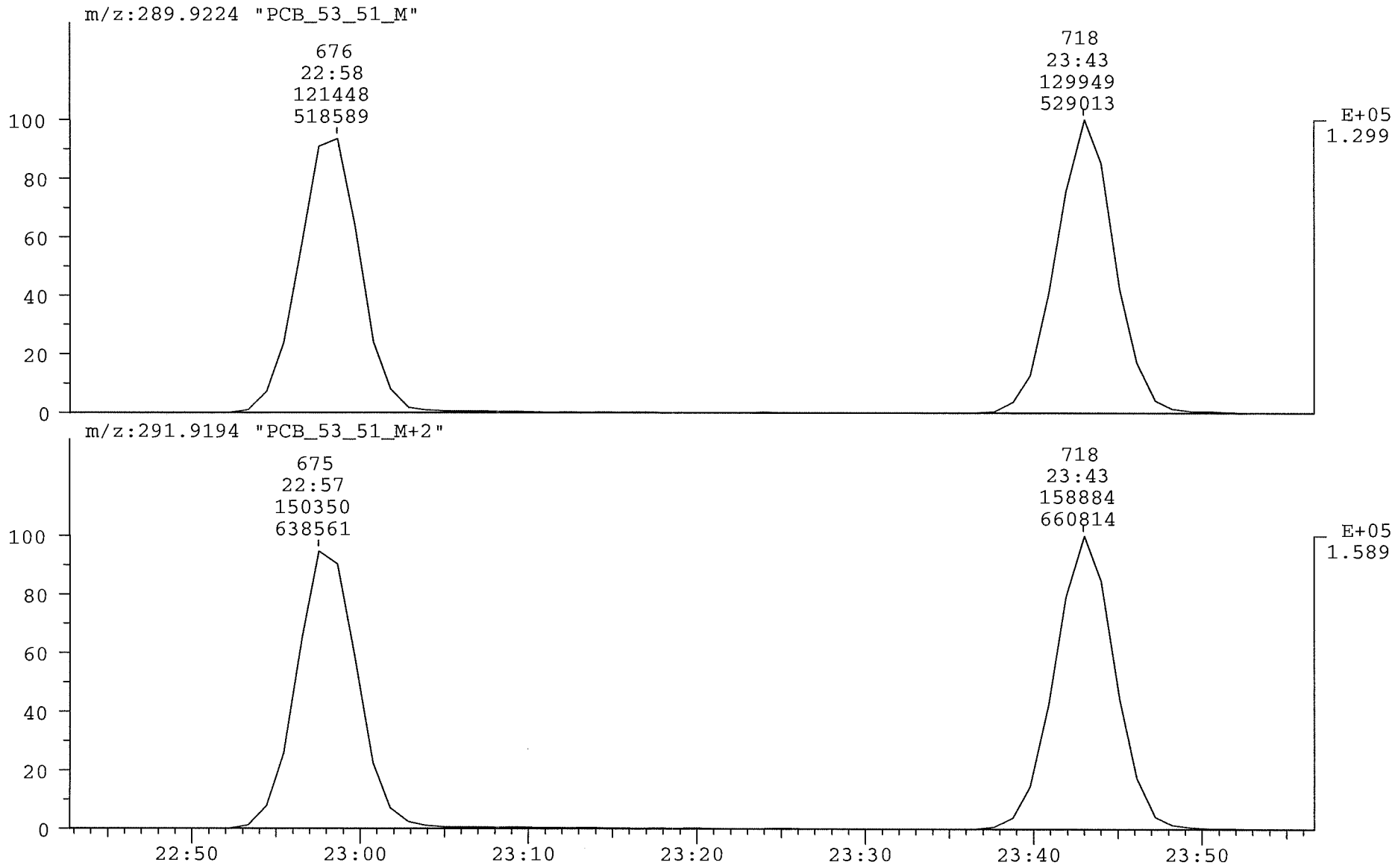
CHRO: a0806m2r1 10-Jun-08 Elapse: 34:02 1305
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1235 > 1370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2332

2331

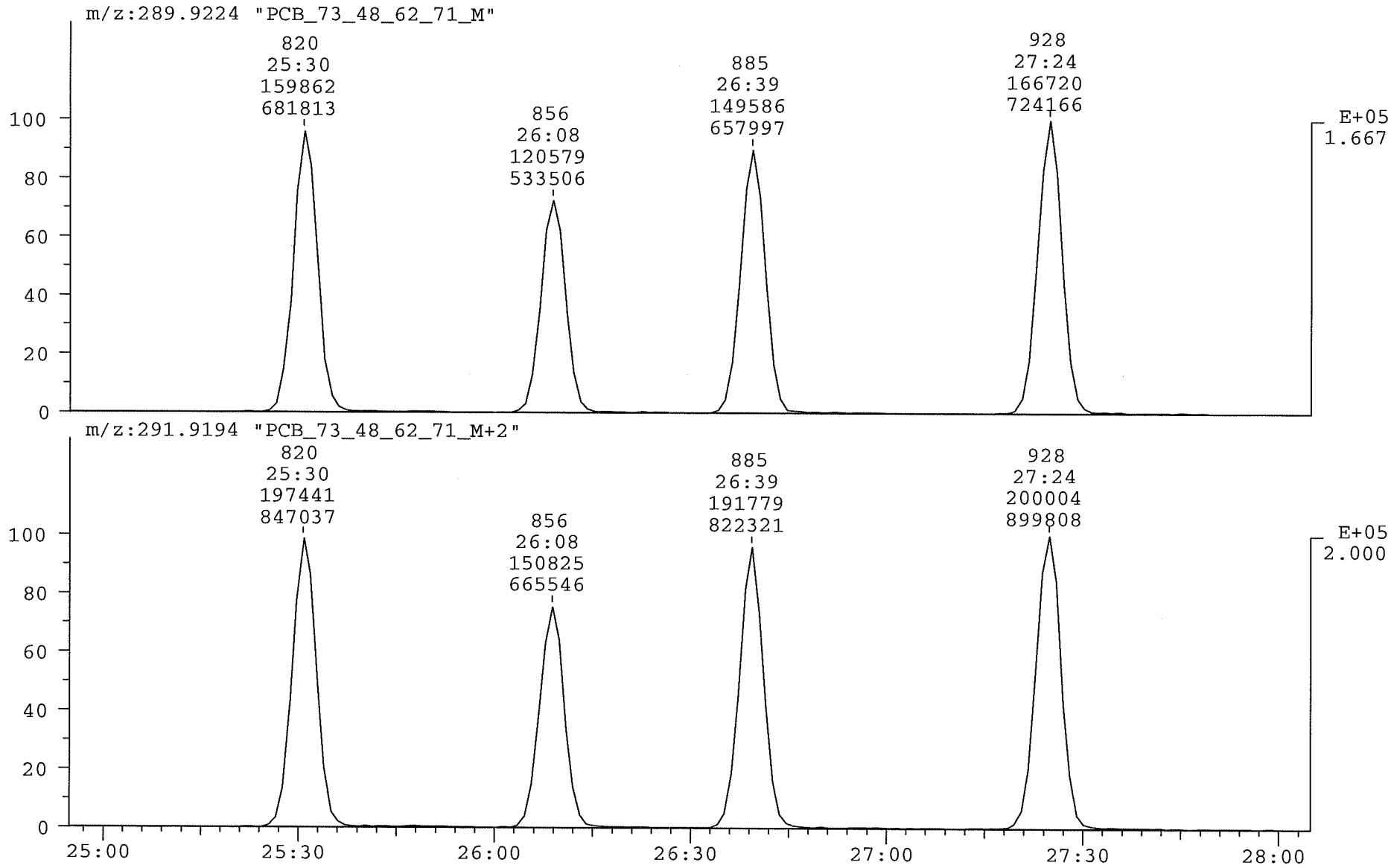
CHRO: a0806m2r1 10-Jun-08 Elapse: 23:25.9 701
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 661 > 731 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2333

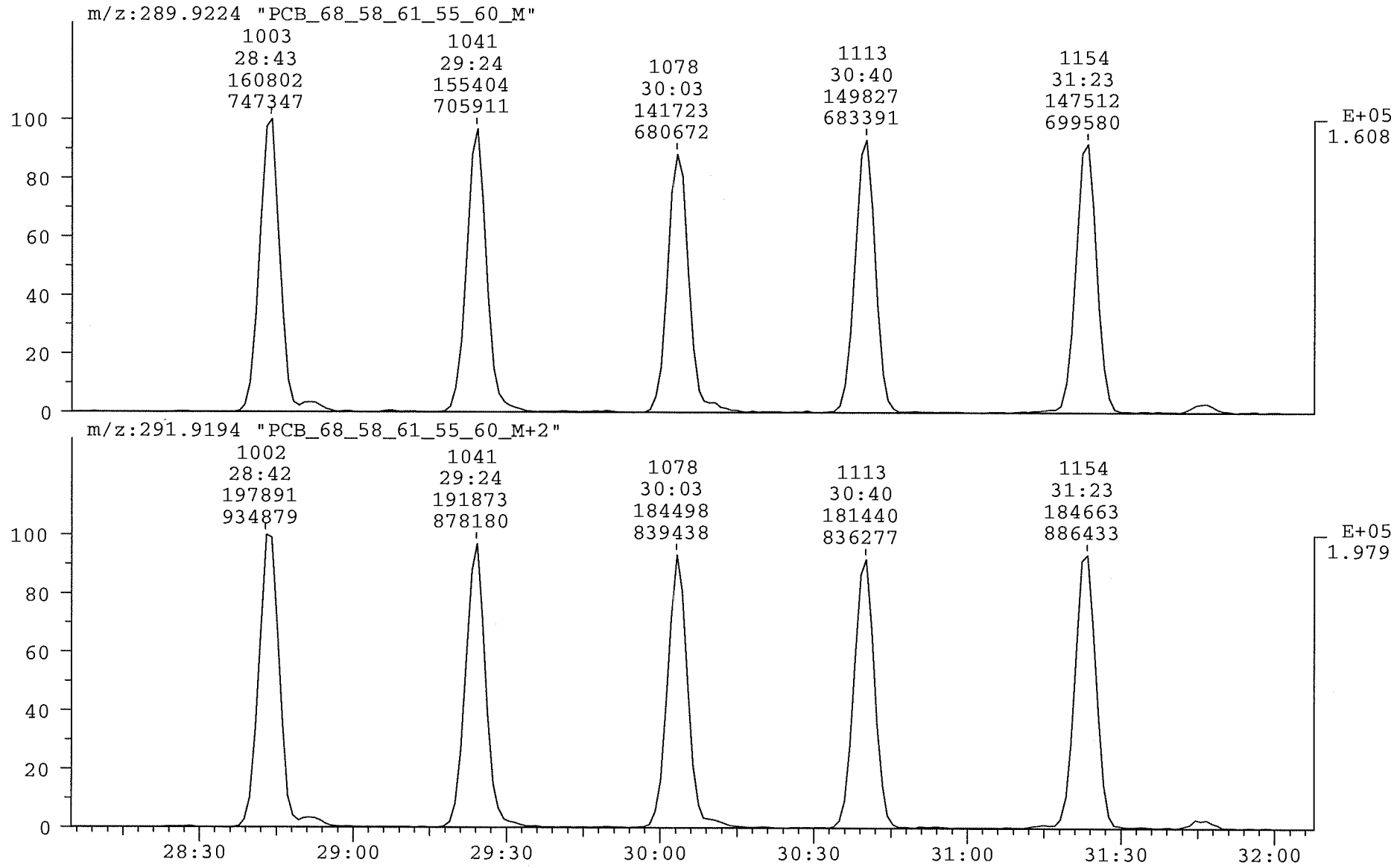
2332

CHRO: a0806m2r1 10-Jun-08 Elapse: 26:29.8 876
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 786 > 966 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2334

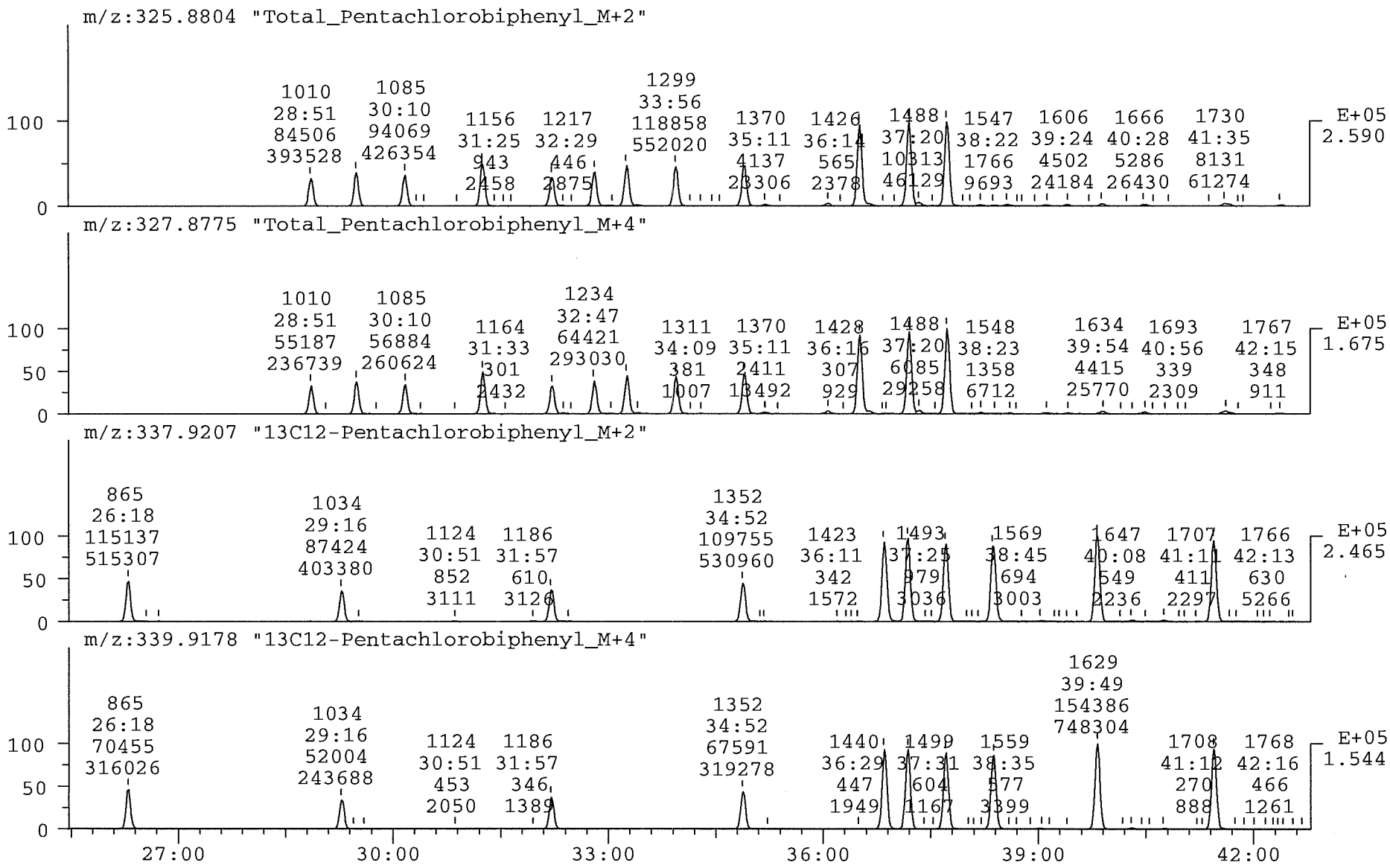
CHRO: a0806m2r1 10-Jun-08 Elapse: 30:06 1081
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 966 > 1196 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2335

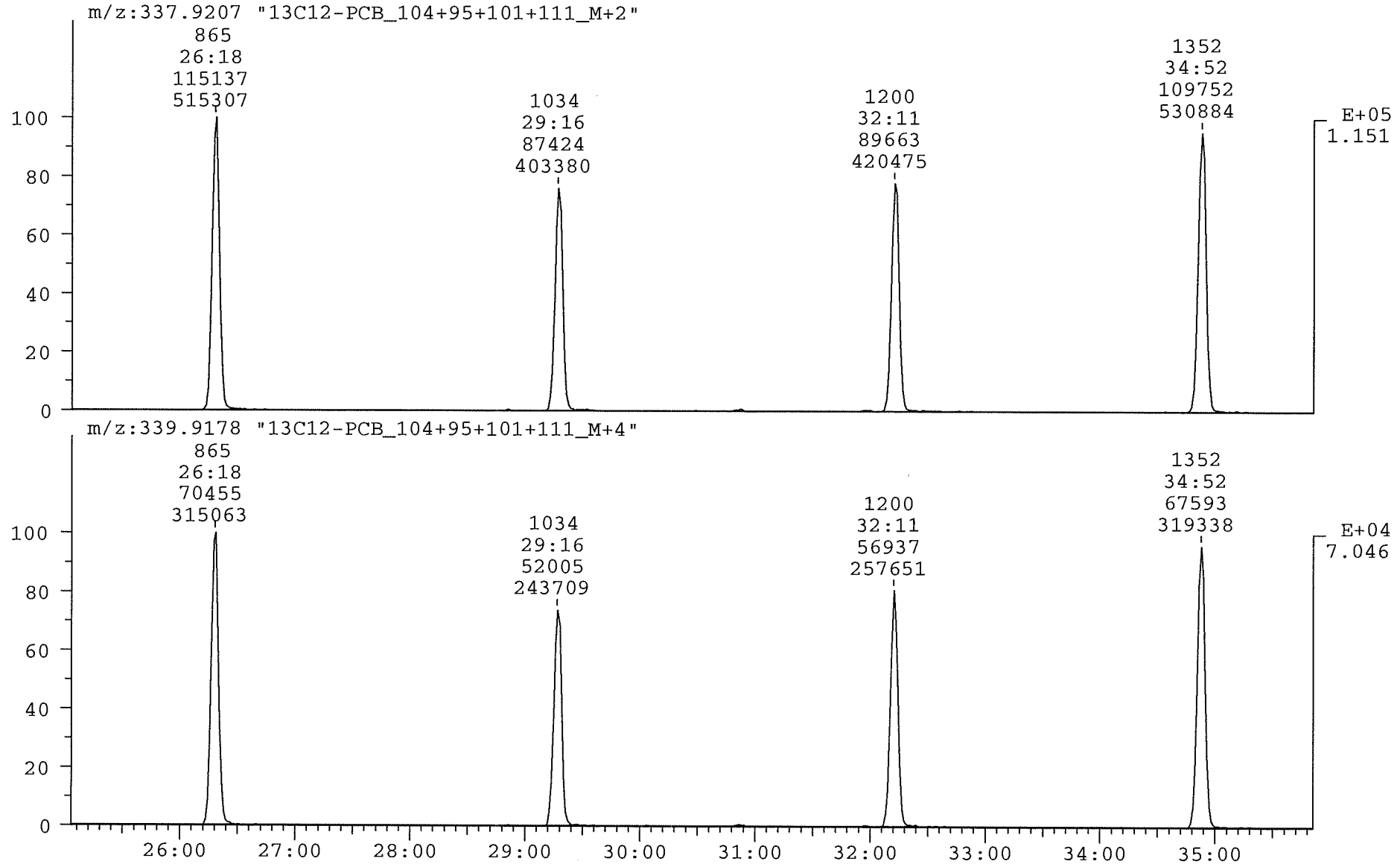
2334

CHRO: a0806m2r1 10-Jun-08 Elapse: 34:08 1310
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 817 > 1798 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2336

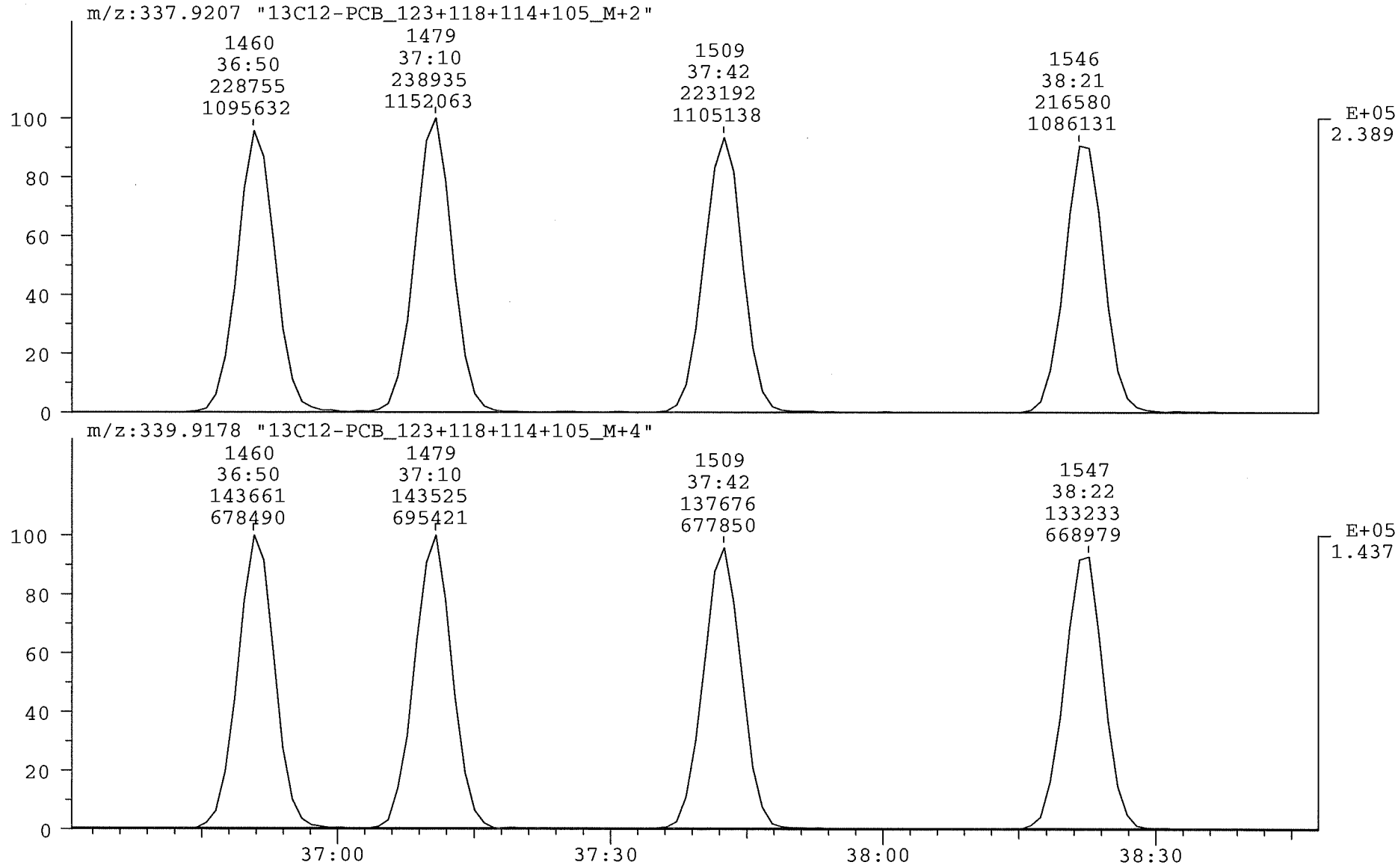
CHRO: a0806m2r1 10-Jun-08 Elapse: 30:27 1101
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 794 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2337

2336

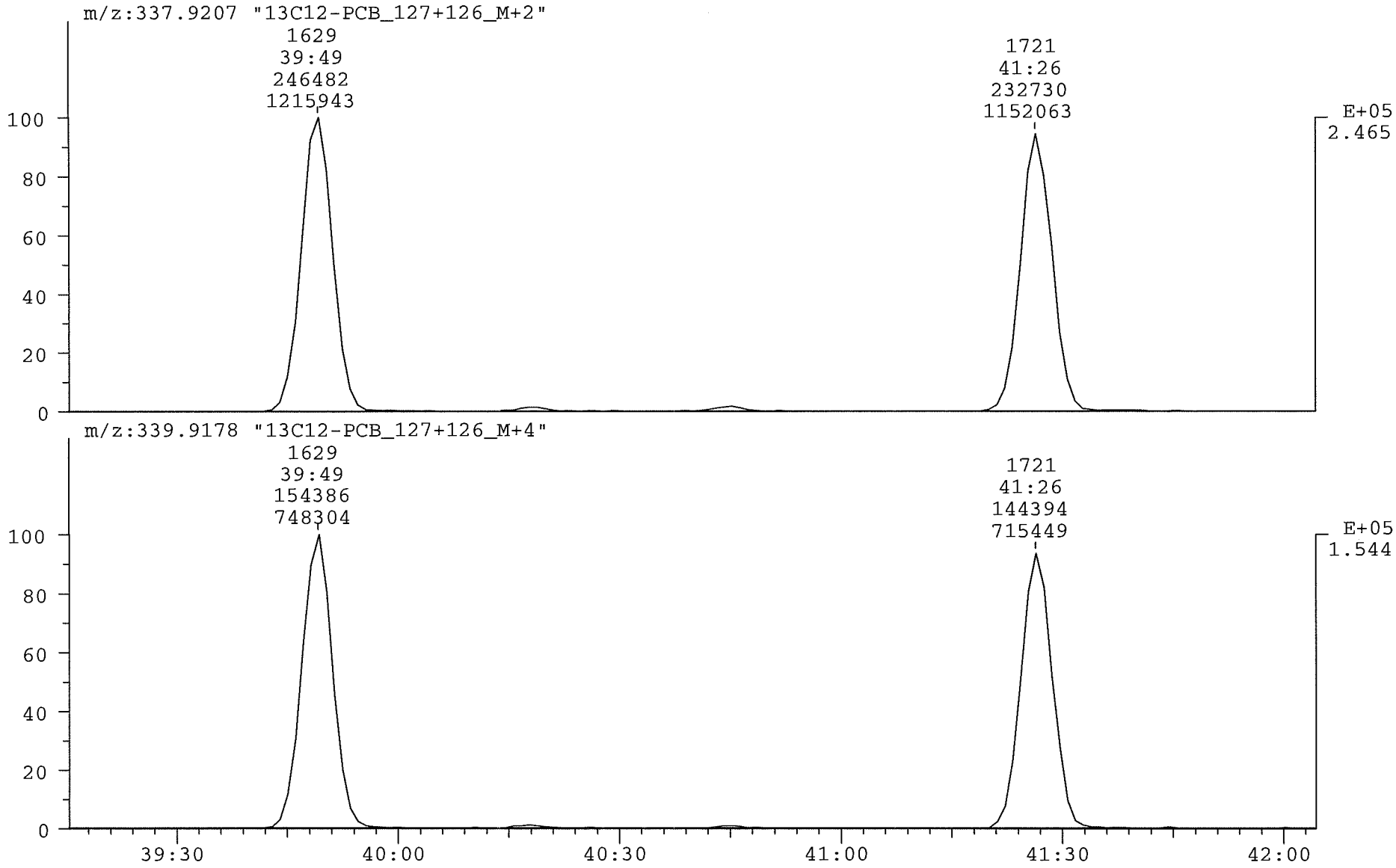
CHRO: a0806m2r1 10-Jun-08 Elapse: 37:39 1506
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1441 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2338

2337

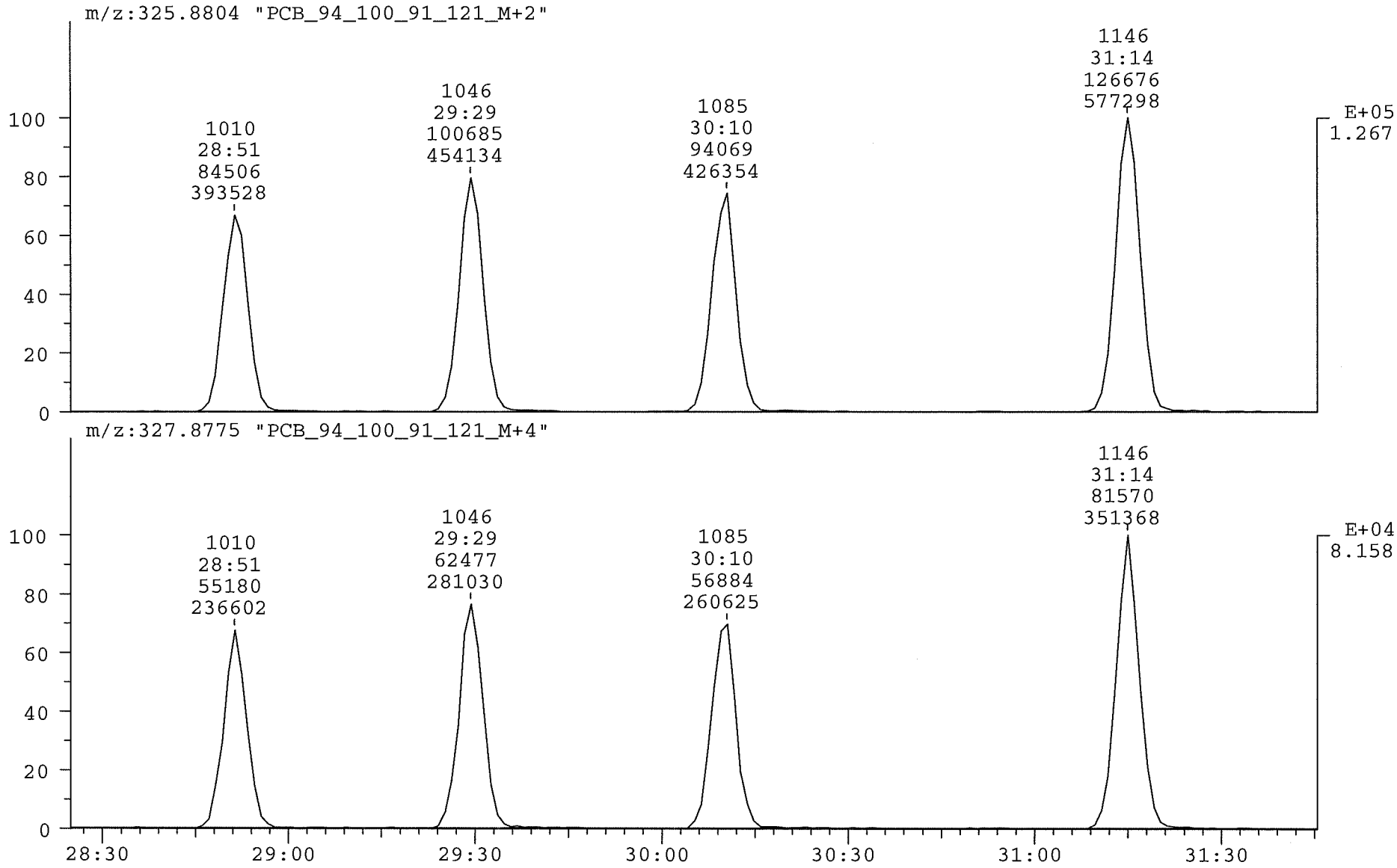
CHRO: a0806m2r1 10-Jun-08 Elapse: 40:39 1677
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1597 > 1757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2339

2338

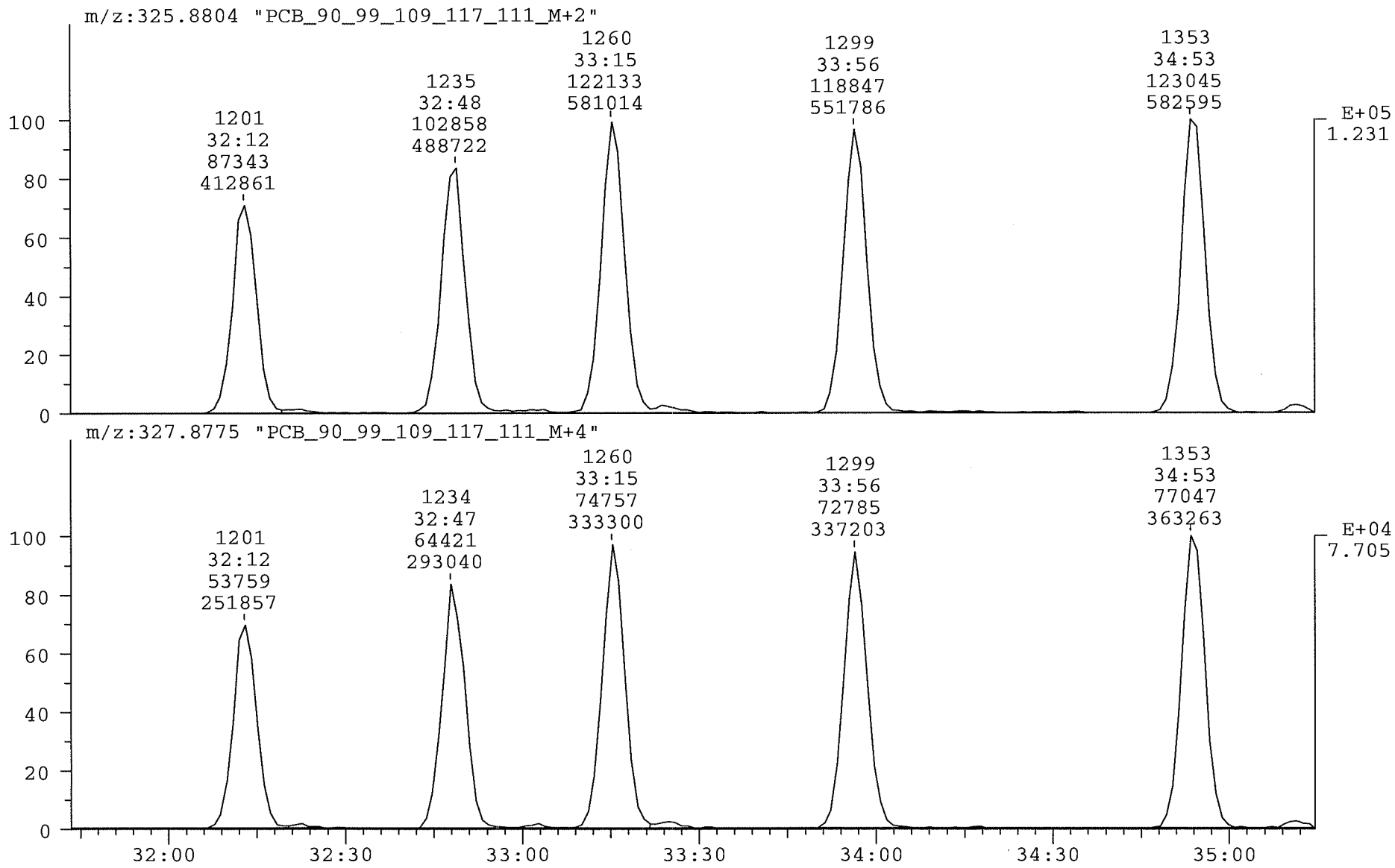
CHRO: a0806m2r1 10-Jun-08 Elapse: 30:05 1080
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 985 > 1175 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2340

2339

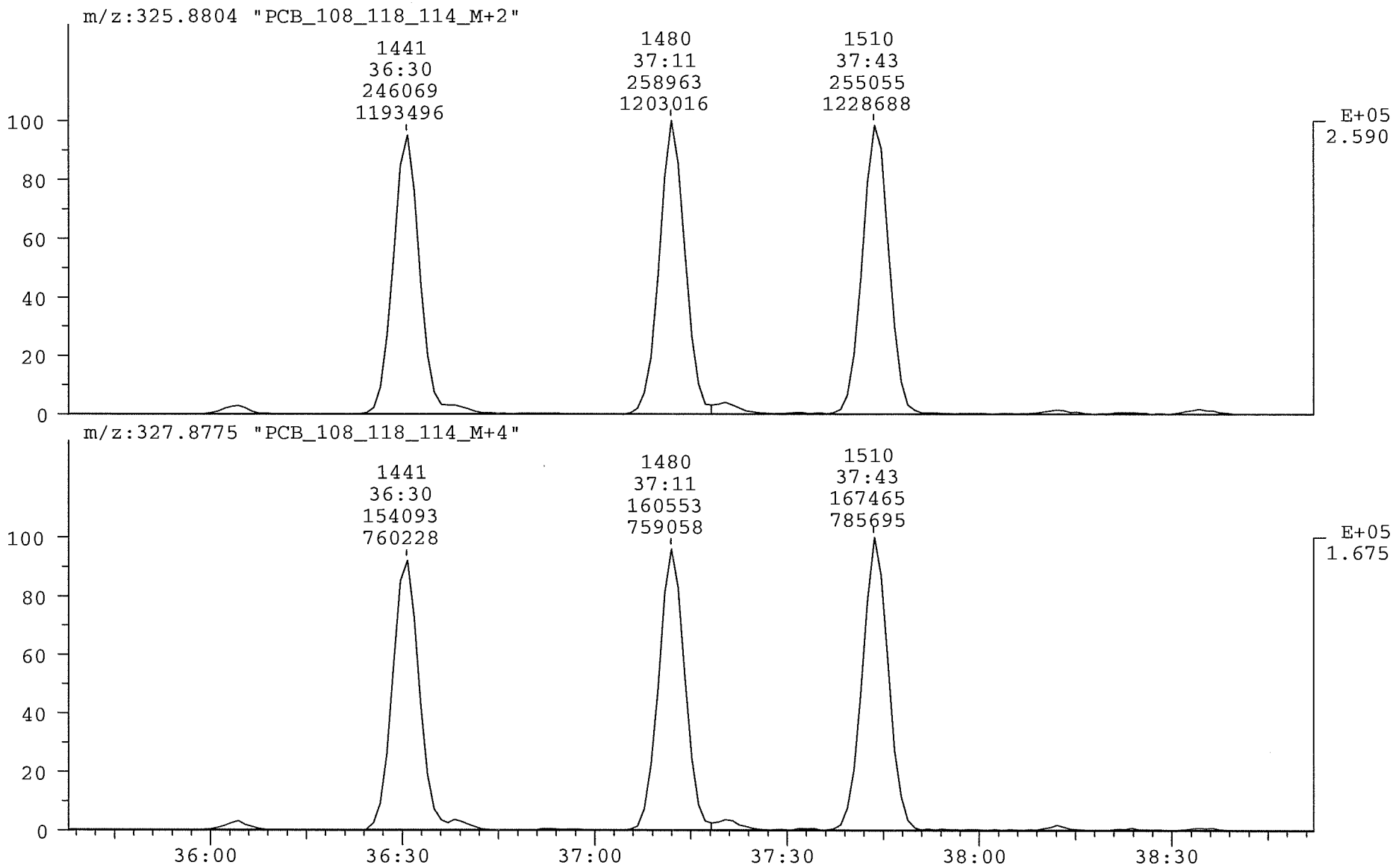
CHRO: a0806m2r1 10-Jun-08 Elapse: 33:28 1273
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1173 > 1373 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2341

2340

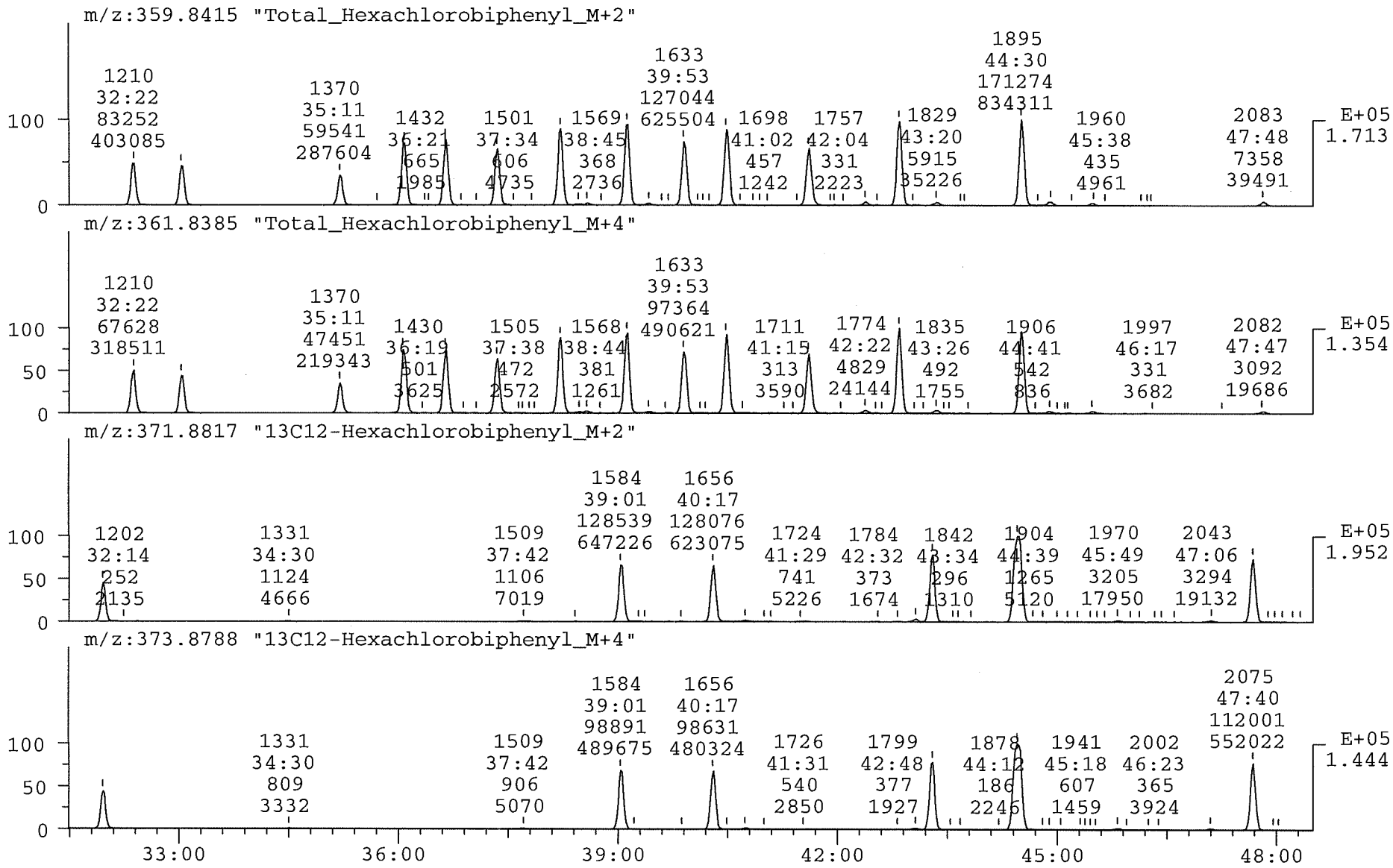
CHRO: a0806m2r1 10-Jun-08 Elapse: 37:17 1485
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1395 > 1575 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2342

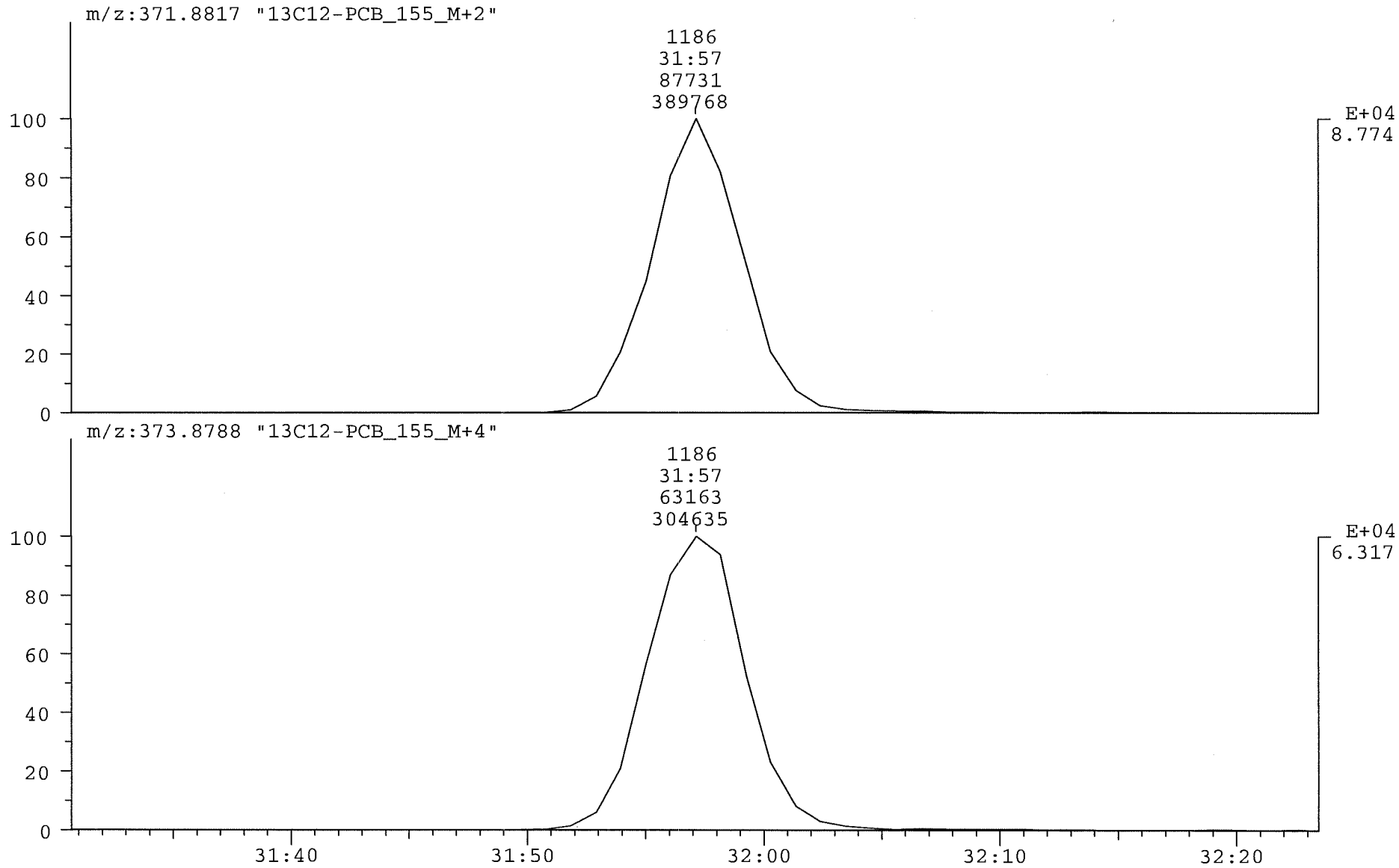
2341

CHRO: a0806m2r1 10-Jun-08 Elapse: 39:58 1638
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1159 > 2122 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2343

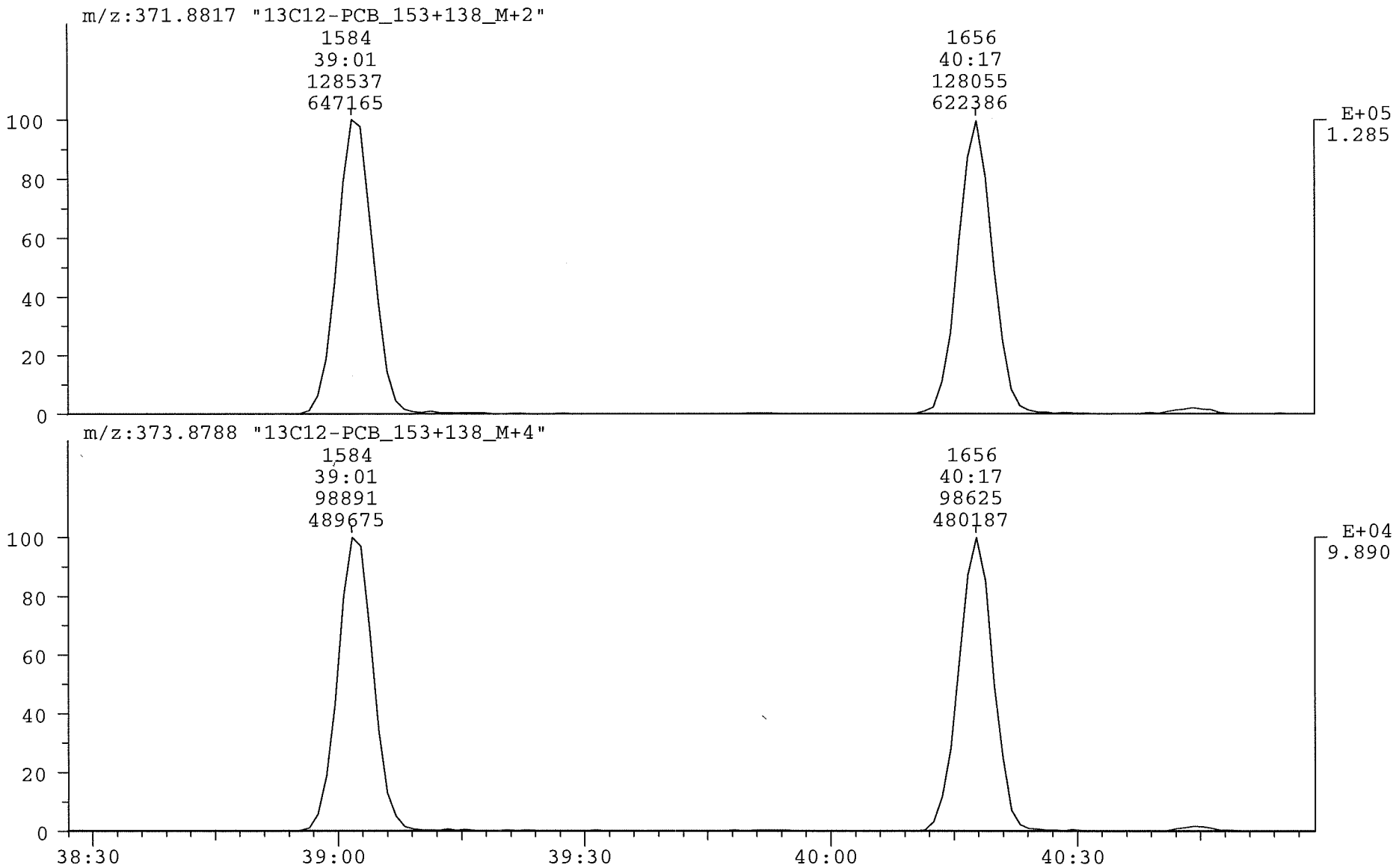
CHRO: a0806m2r1 10-Jun-08 Elapse: 31:57 1186
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1161 > 1211 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2344

2343

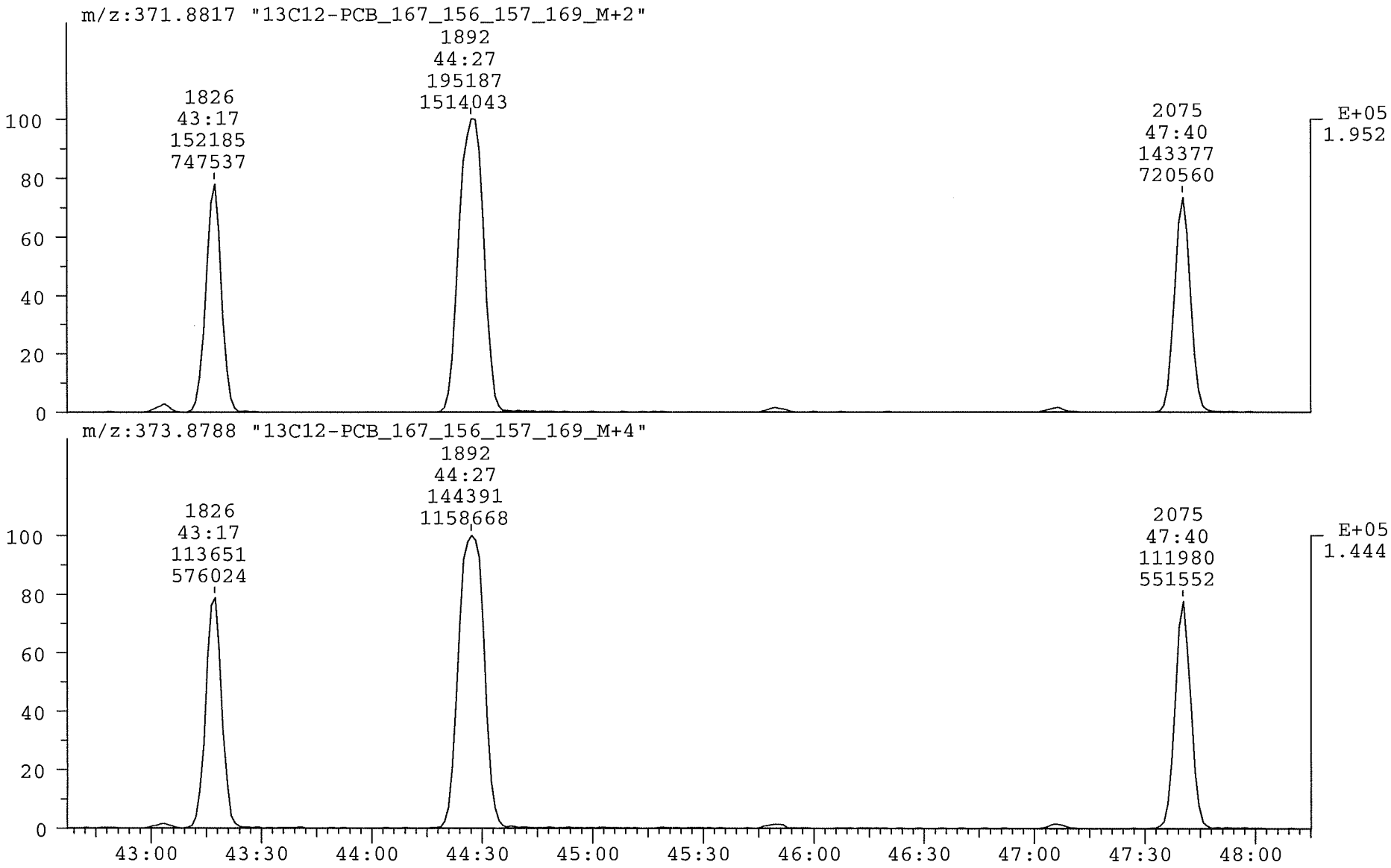
CHRO: a0806m2r1 10-Jun-08 Elapse: 39:42 1623
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1551 > 1695 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2345

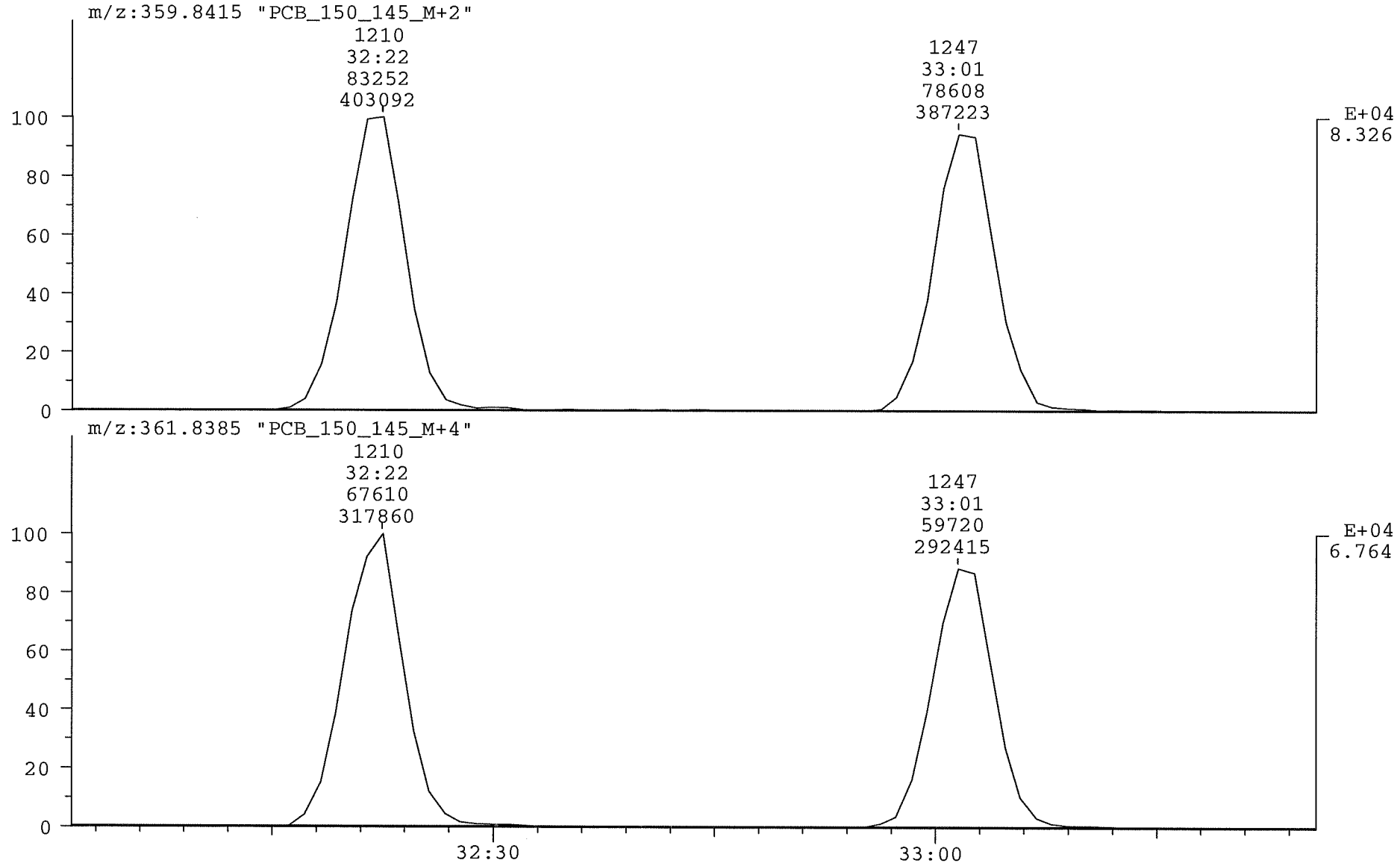
2344

CHRO: a0806m2r1 10-Jun-08 Elapse: 45:31 1953
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1788 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2346

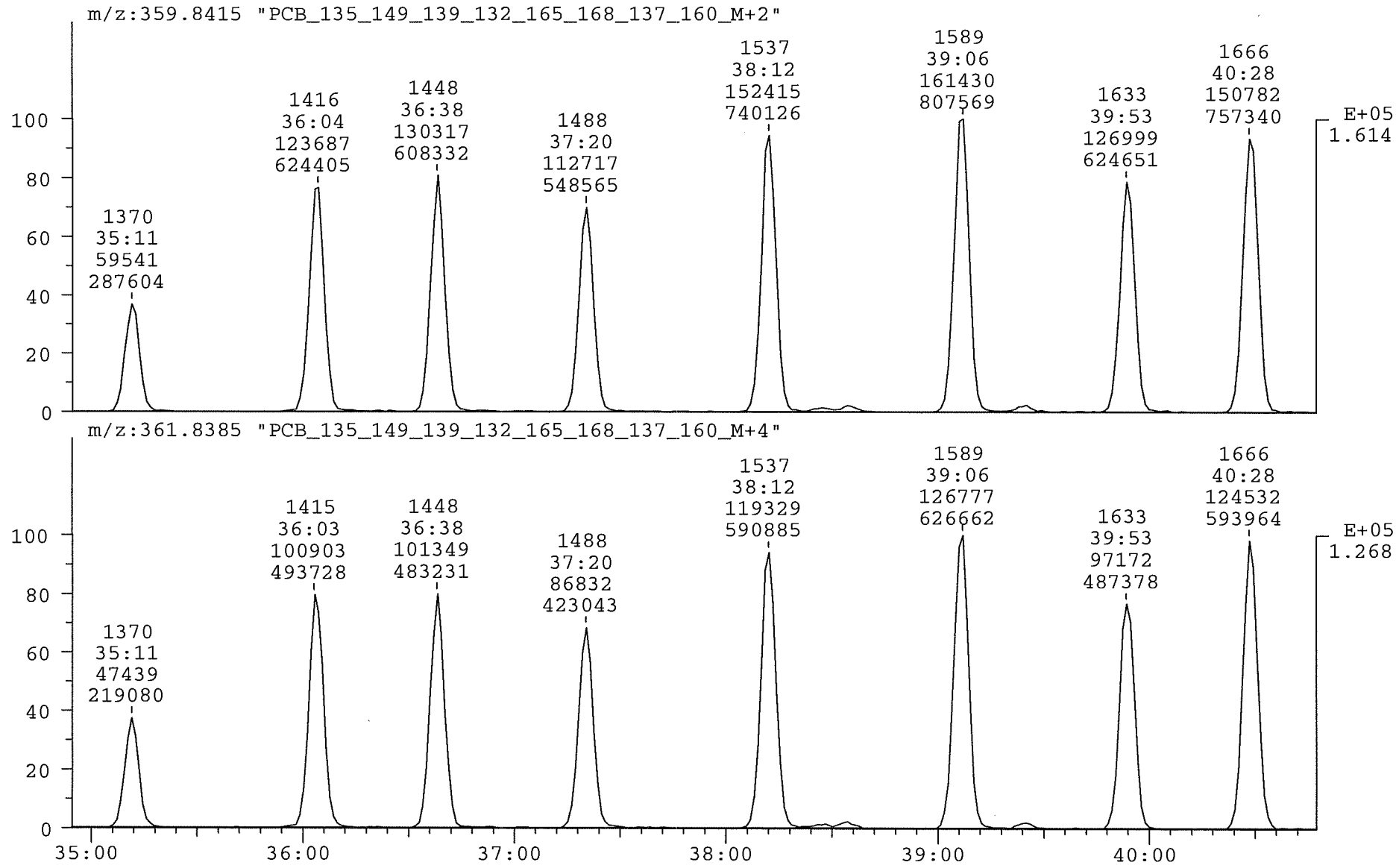
CHRO: a0806m2r1 10-Jun-08 Elapse: 32:43 1230
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1190 > 1270 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2347

2346

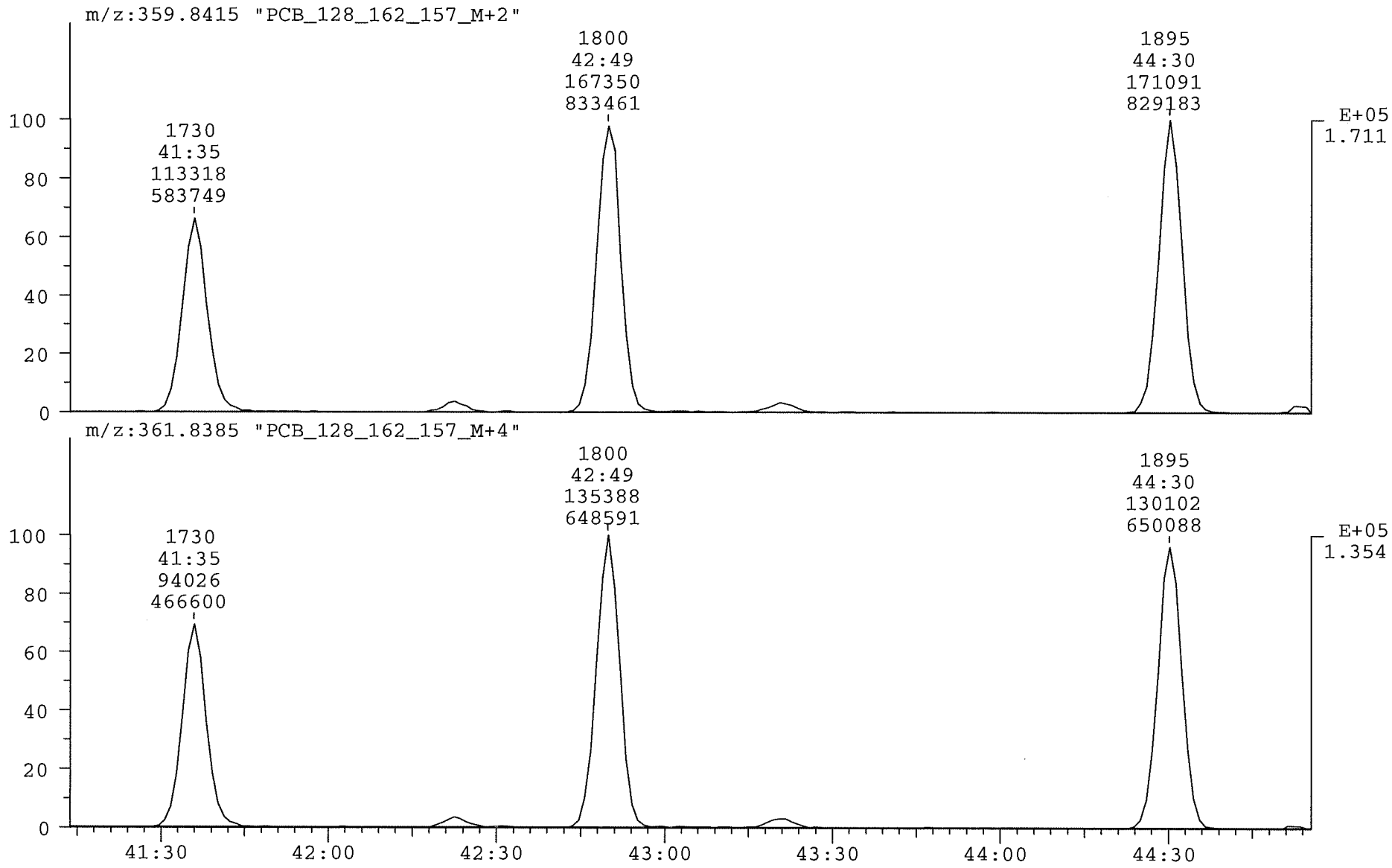
CHRO: a0806m2r1 10-Jun-08 Elapse: 37:53 1519
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1354 > 1684 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2348

2347

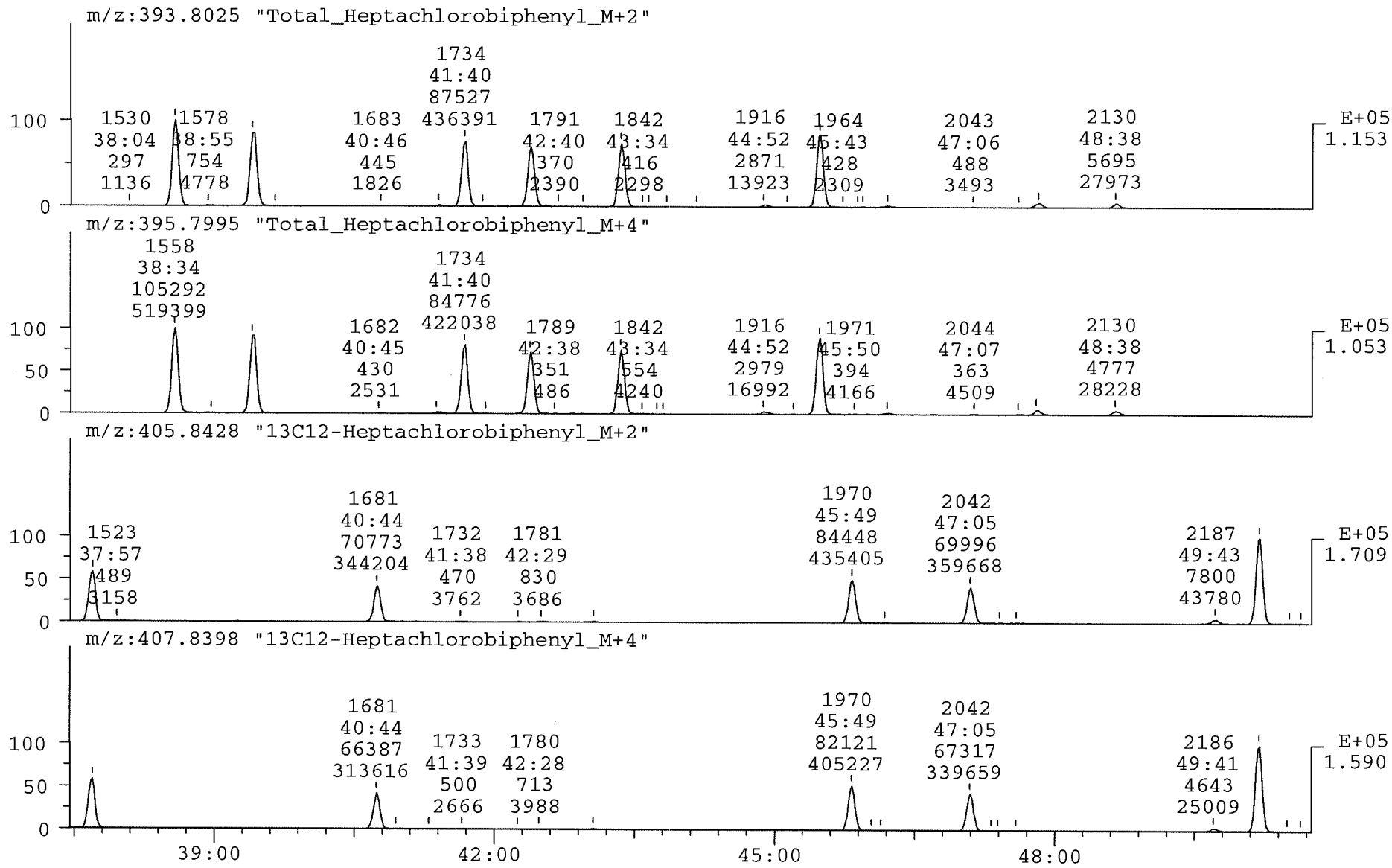
CHRO: a0806m2r1 10-Jun-08 Elapse: 43:04 1814
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1709 > 1919 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2349

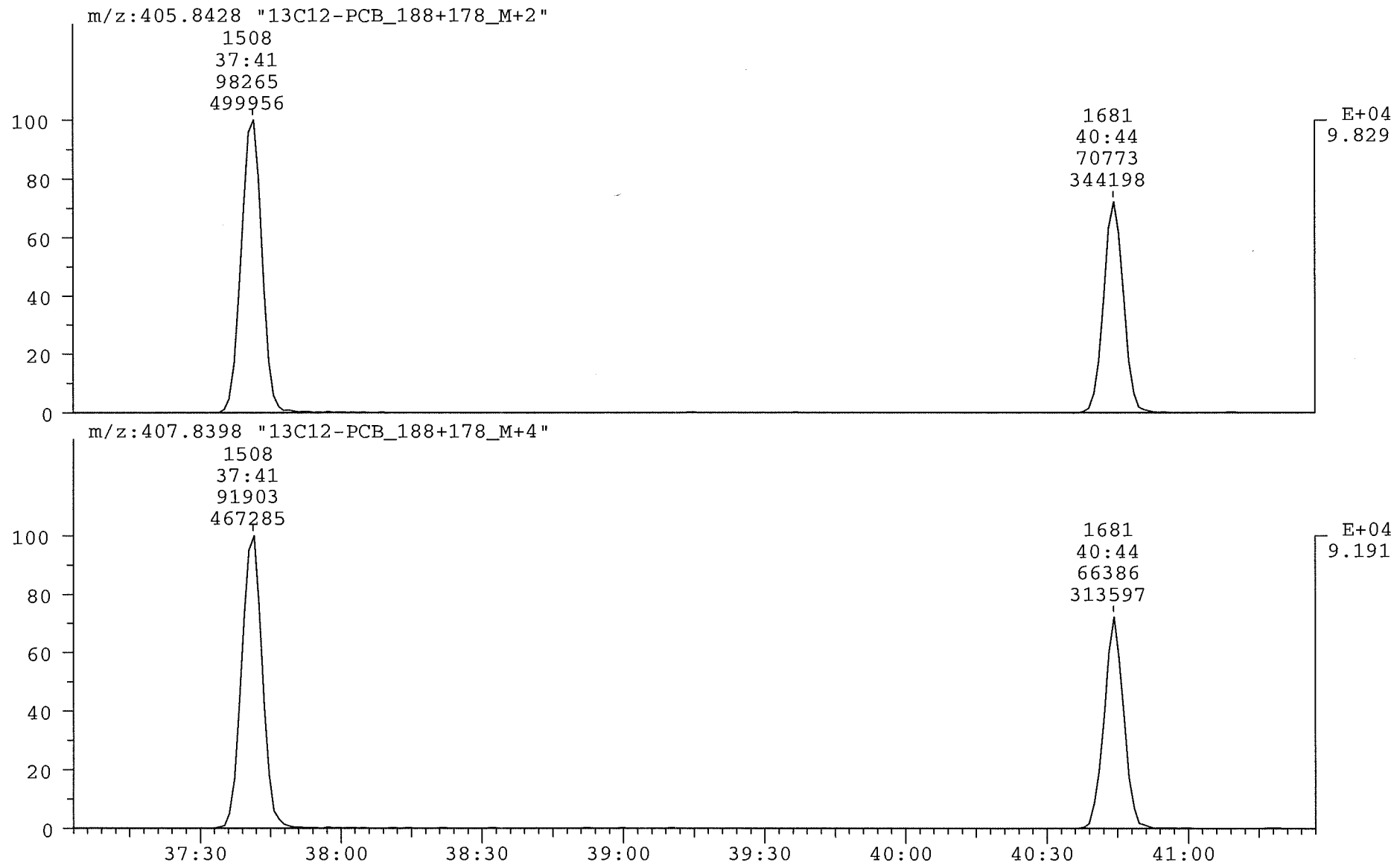
2348

CHRO: a0806m2r1 10-Jun-08 Elapse: 44:05 1872
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1494 > 2246 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2350

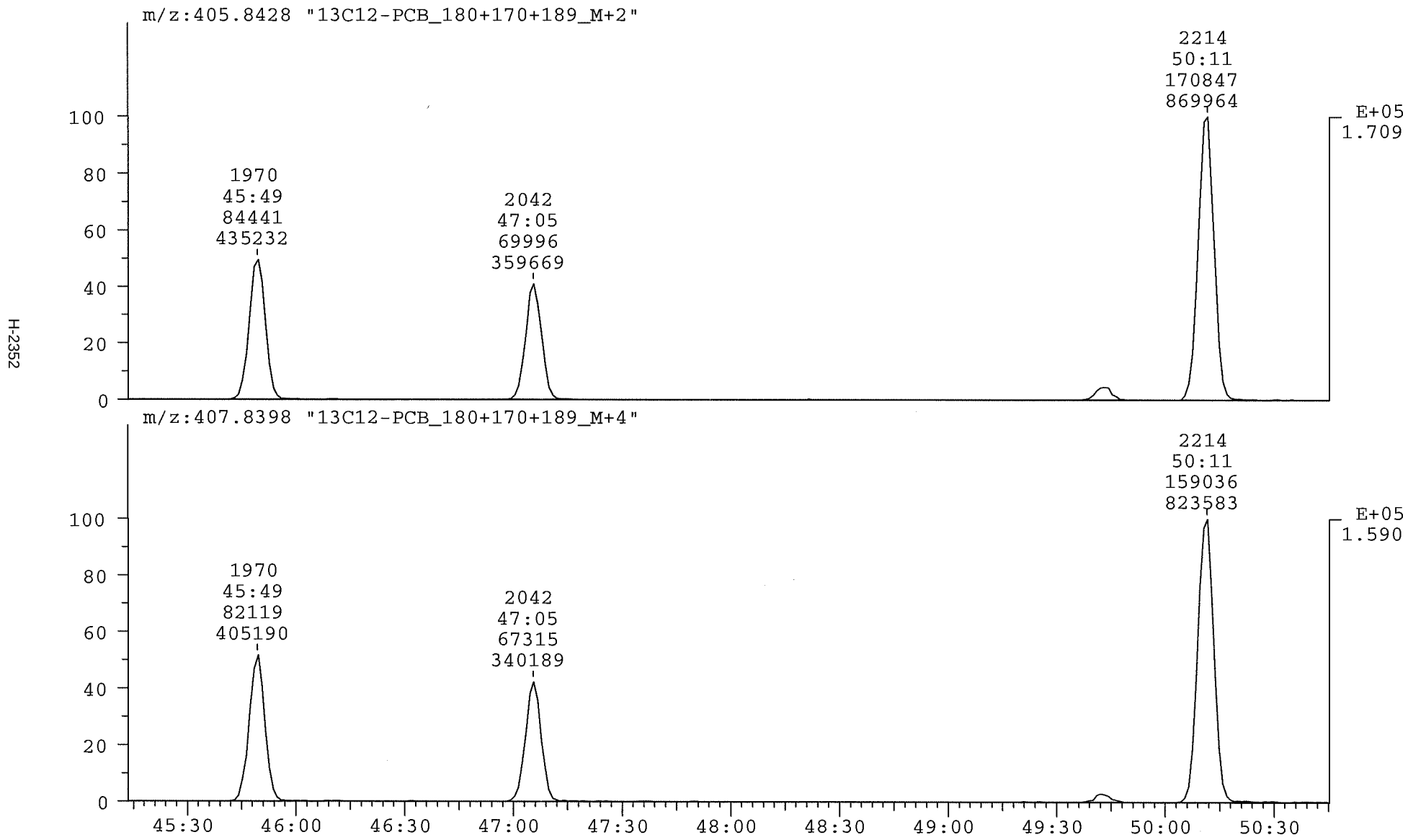
CHRO: a0806m2r1 10-Jun-08 Elapse: 39:15 1597
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1472 > 1722 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2351

2350

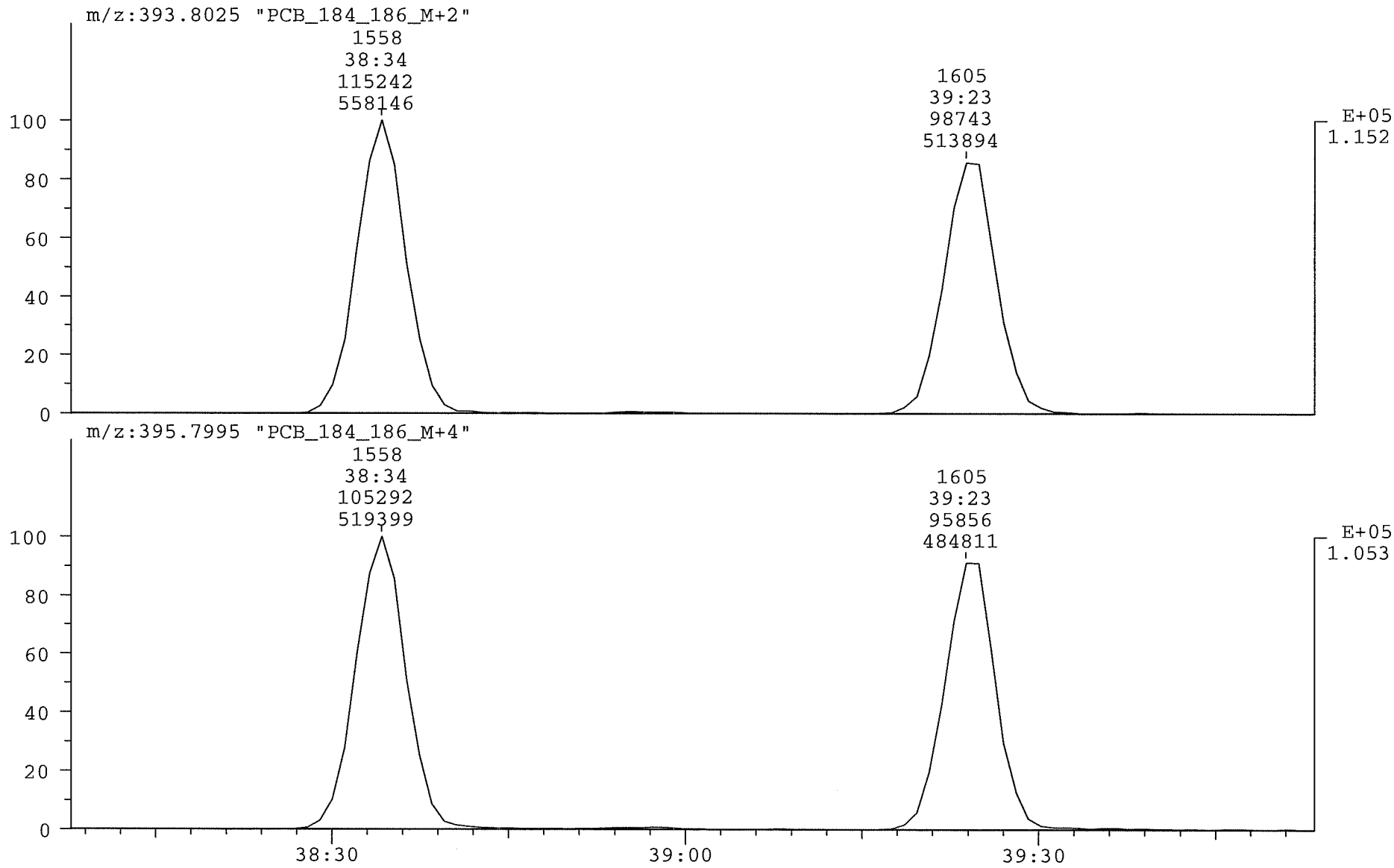
CHRO: a0806m2r1 10-Jun-08 Elapse: 48:02 2096
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1936 > 2246 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2352

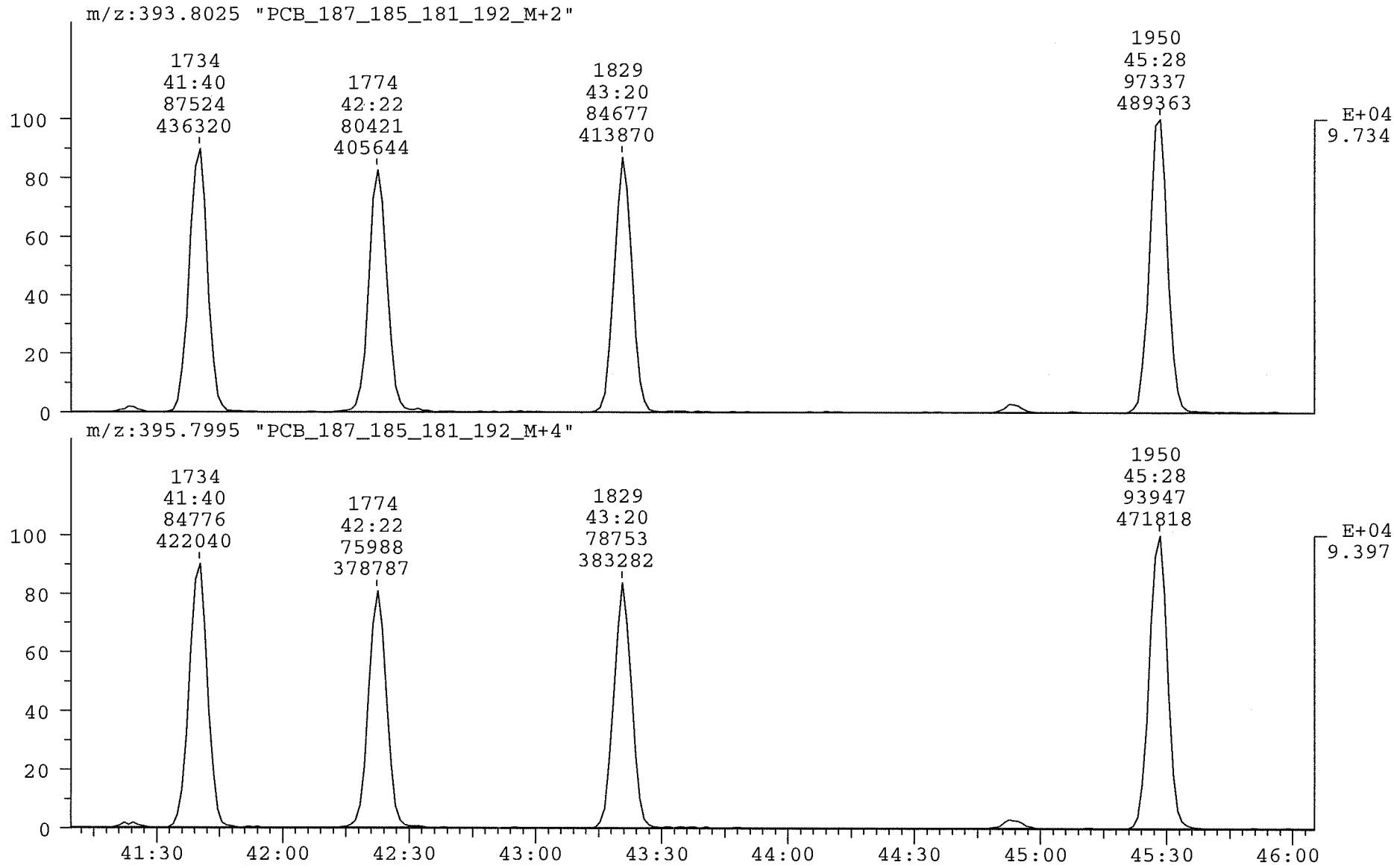
2351

CHRO: a0806m2r1 10-Jun-08 Elapse: 39:00 1583
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1533 > 1633 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2353

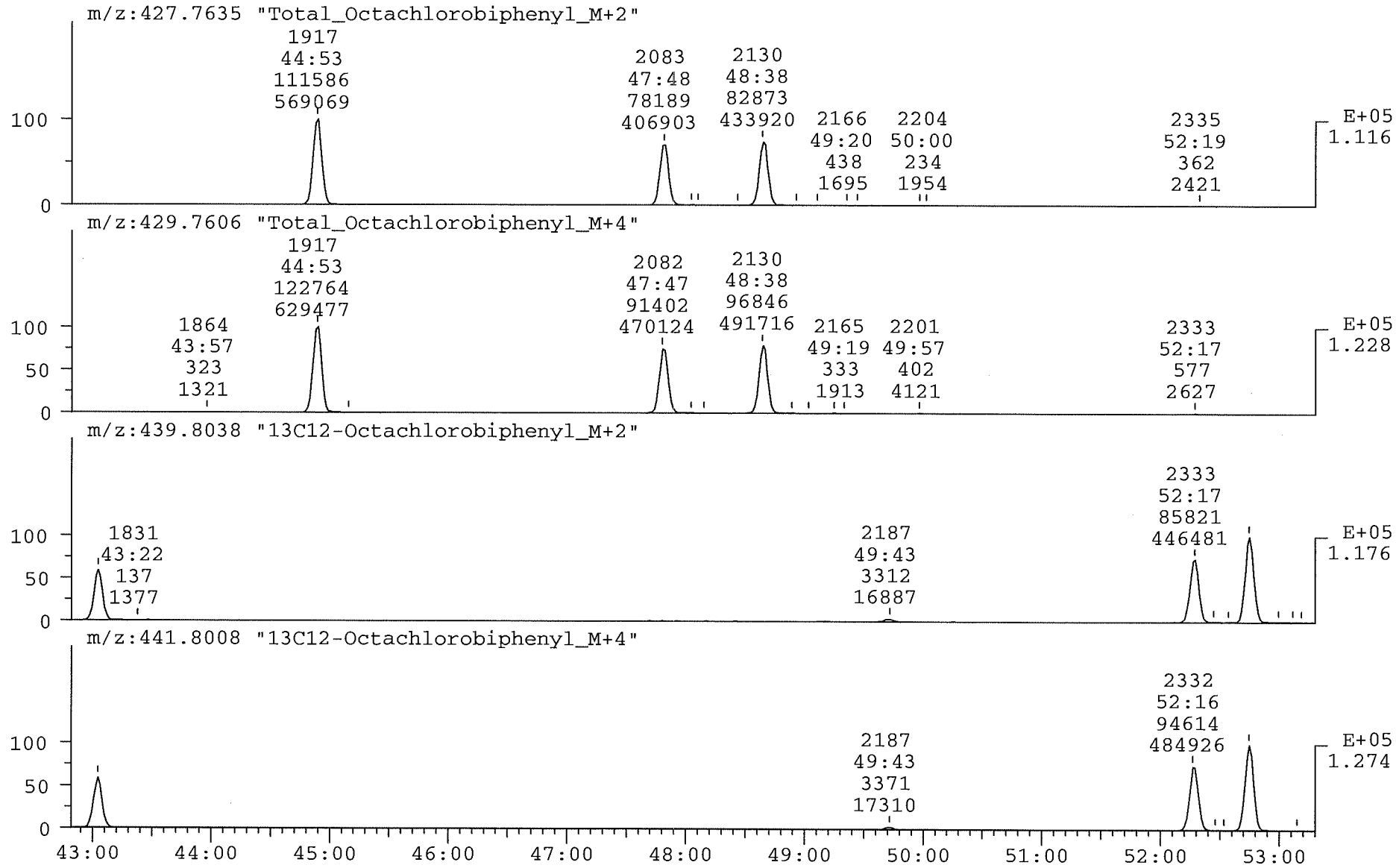
CHRO: a0806m2r1 10-Jun-08 Elapse: 43:37 1845
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1705 > 1985 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2354

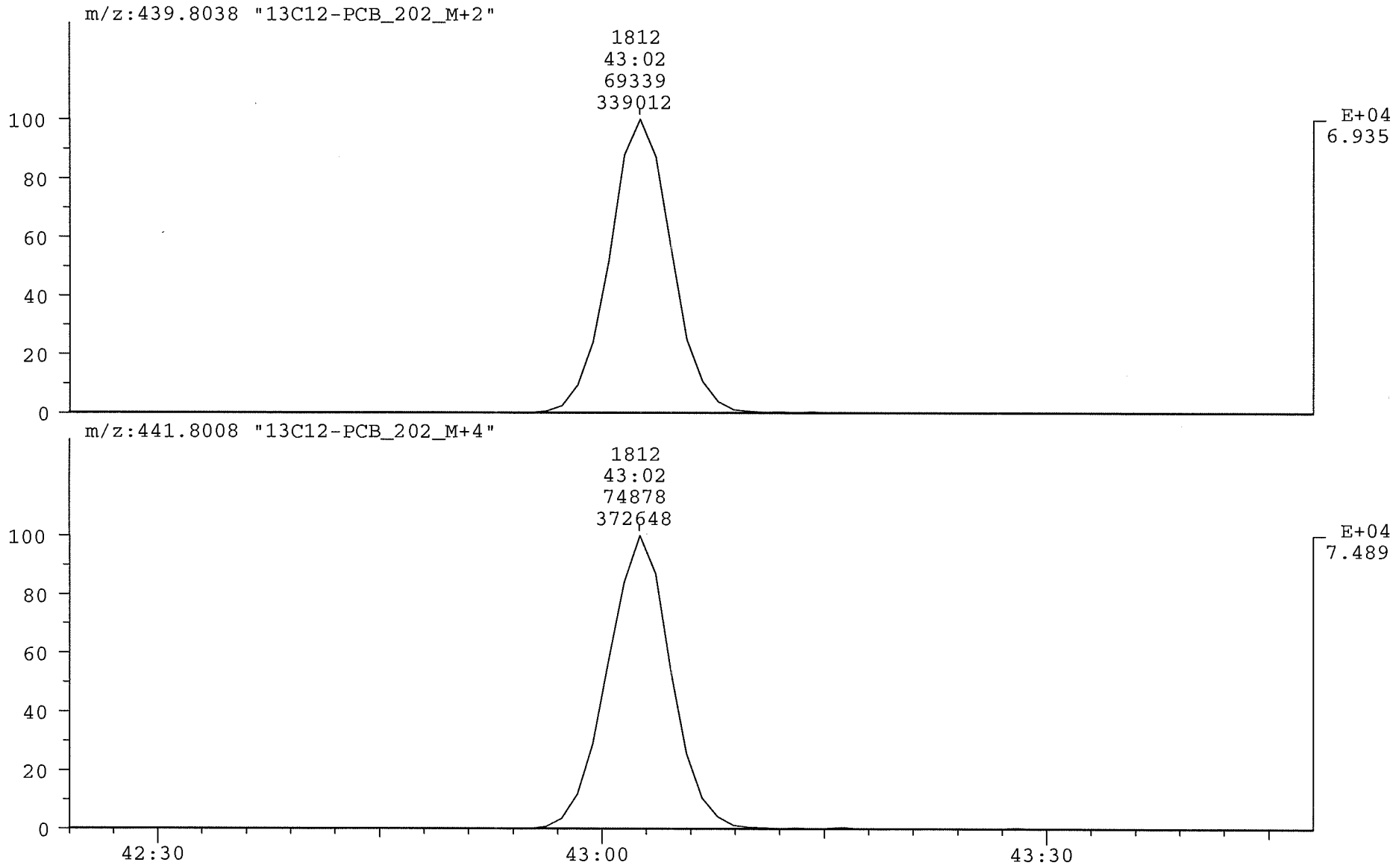
2353

CHRO: a0806m2r1 10-Jun-08 Elapse: 48:03 2097
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1799 > 2391 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2355

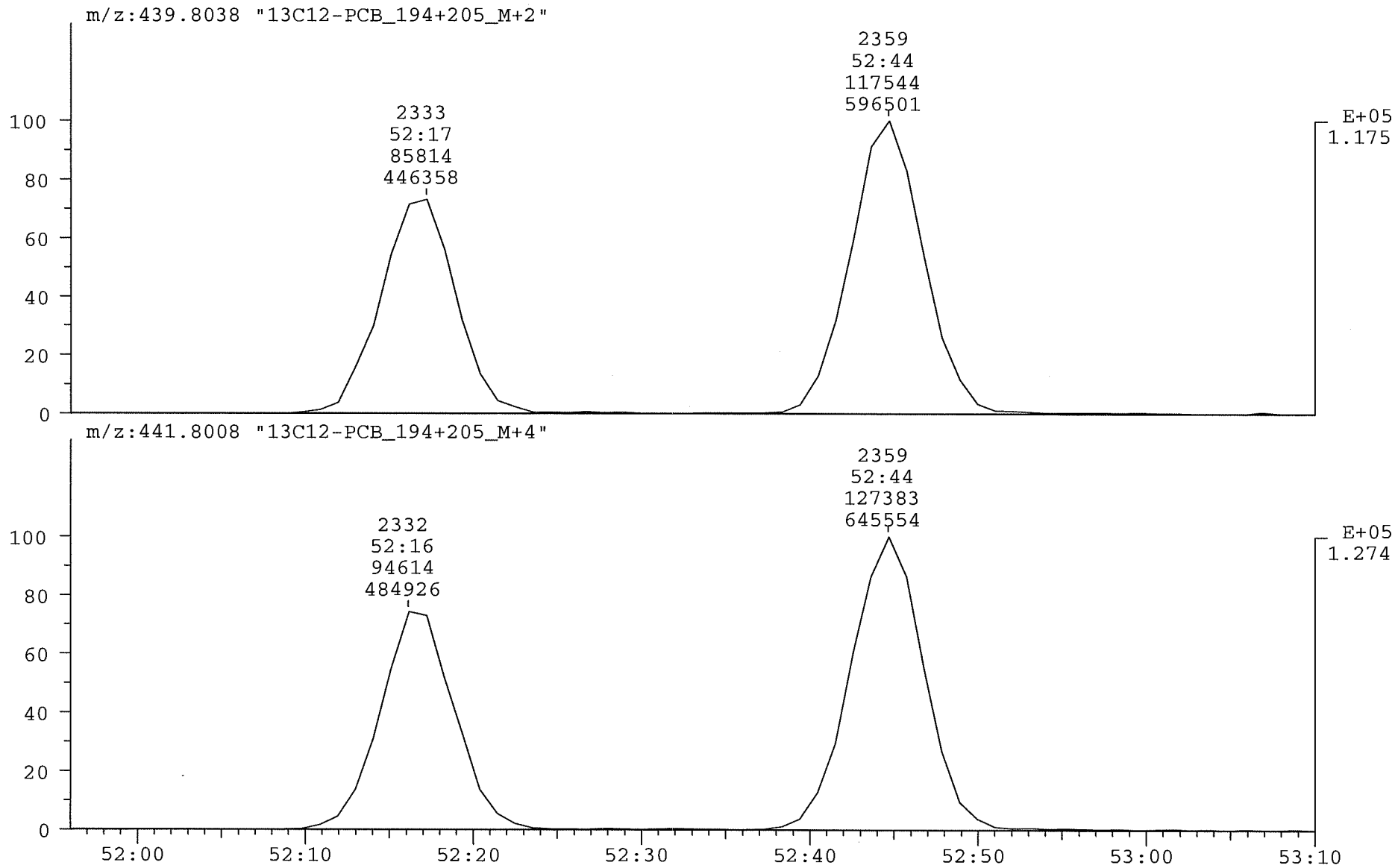
CHRO: a0806m2r1 10-Jun-08 Elapse: 43:02 1812
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1776 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2356

2355

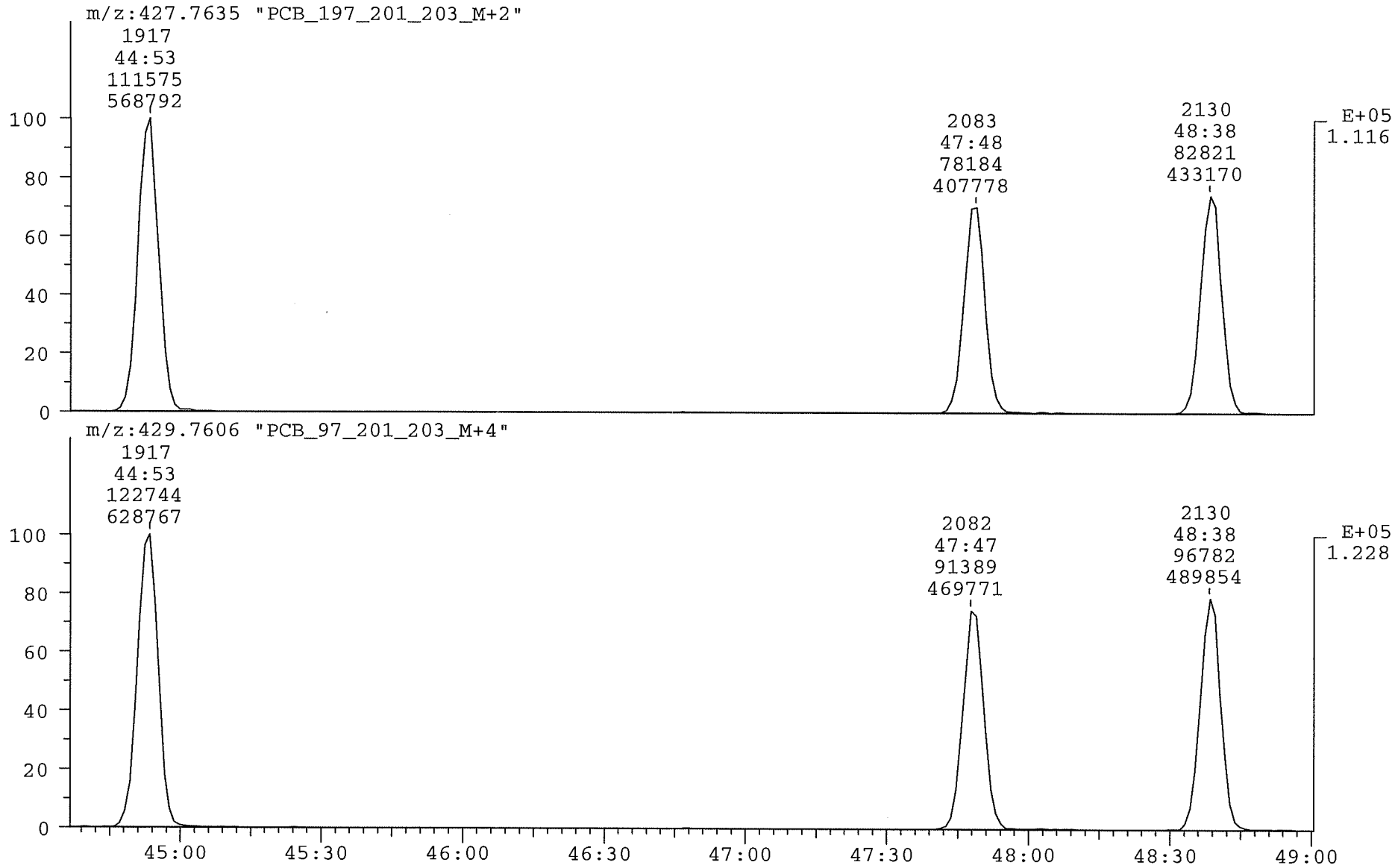
CHRO: a0806m2r1 10-Jun-08 Elapse: 52:33 2348
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2313 > 2383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2357

2356

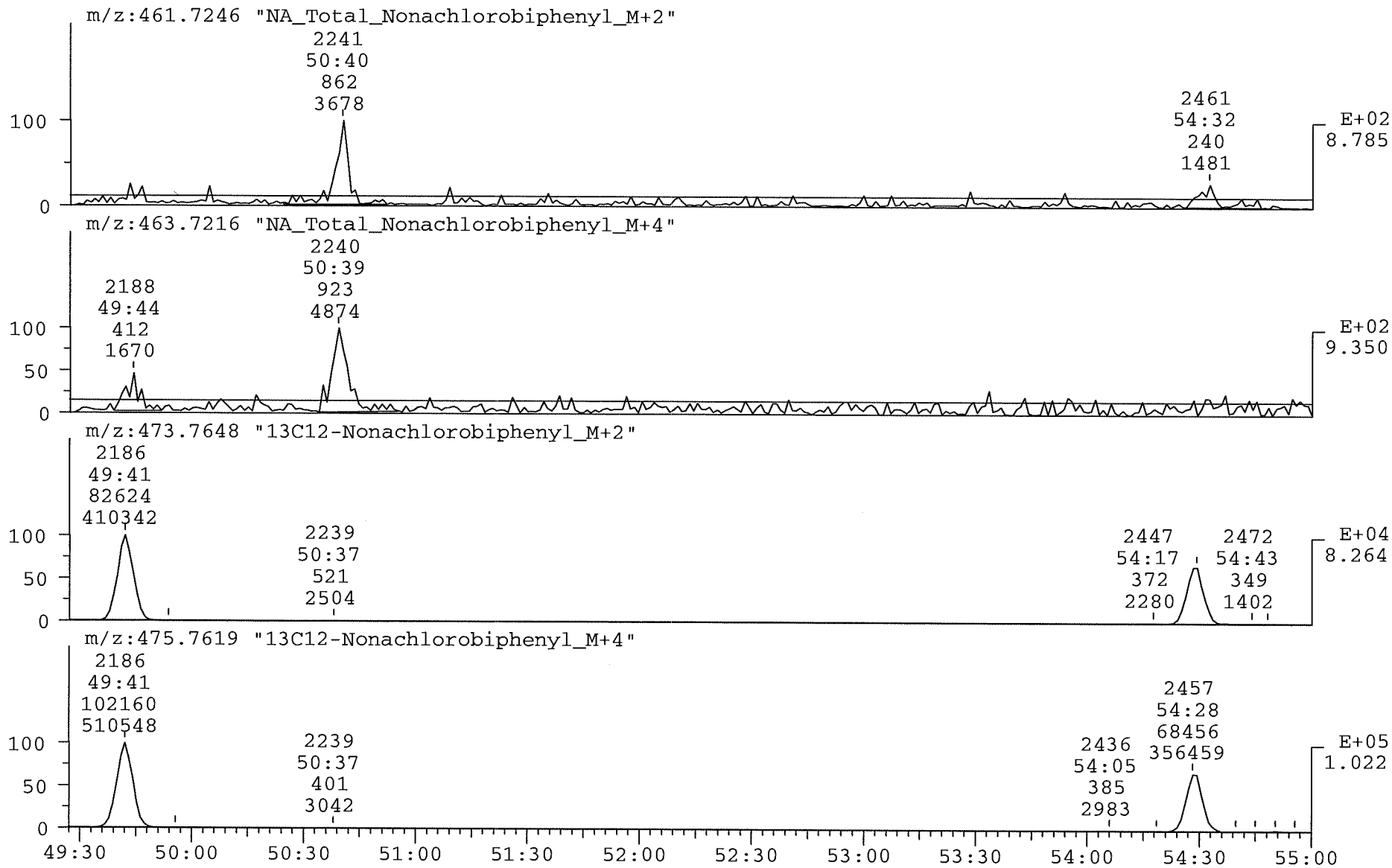
CHRO: a0806m2r1 10-Jun-08 Elapse: 46:48 2026
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1901 > 2151 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2358

2357

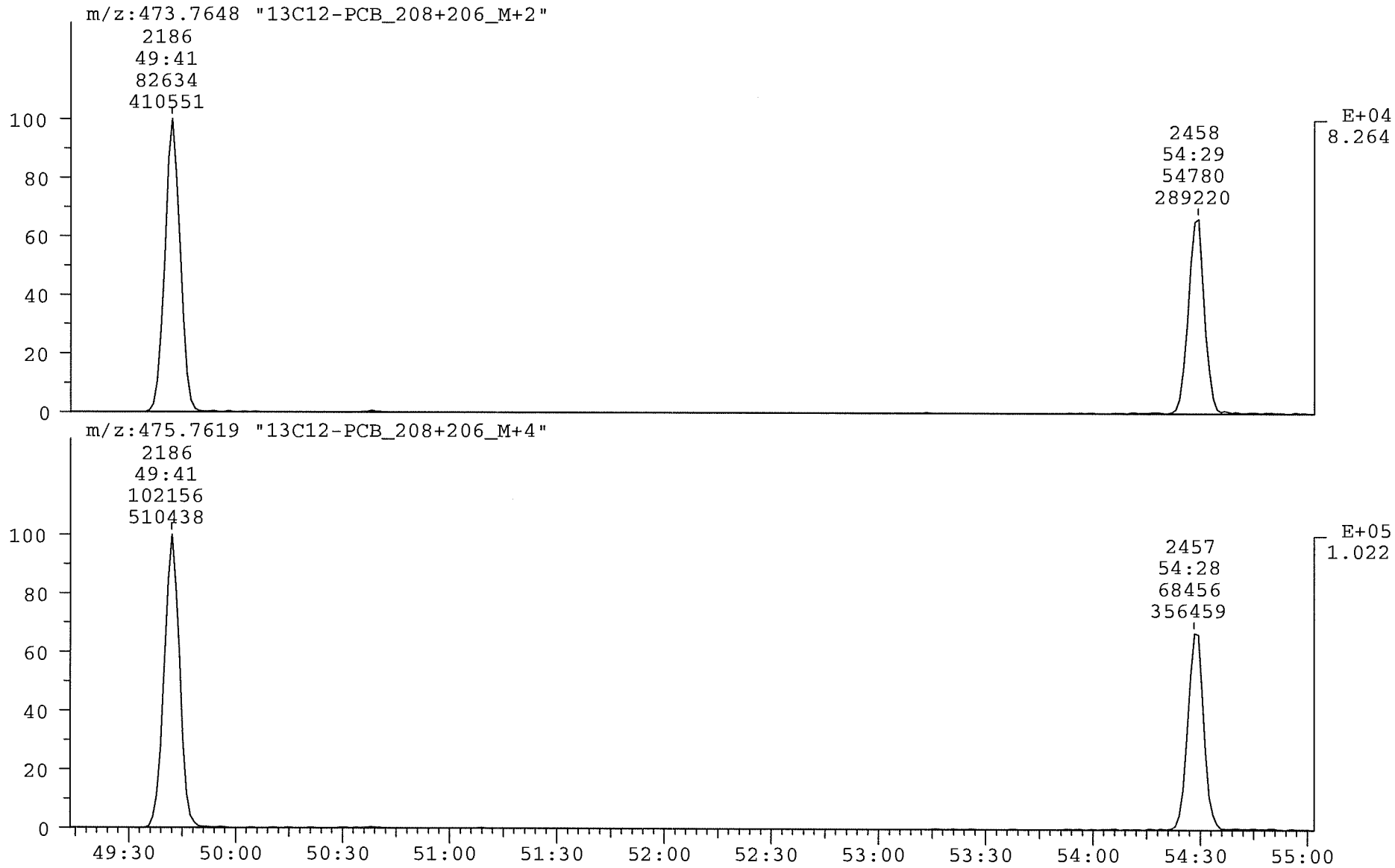
CHRO: a0806m2r1 10-Jun-08 Elapse: 52:12 2329
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2172 > 2487 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2359

2358

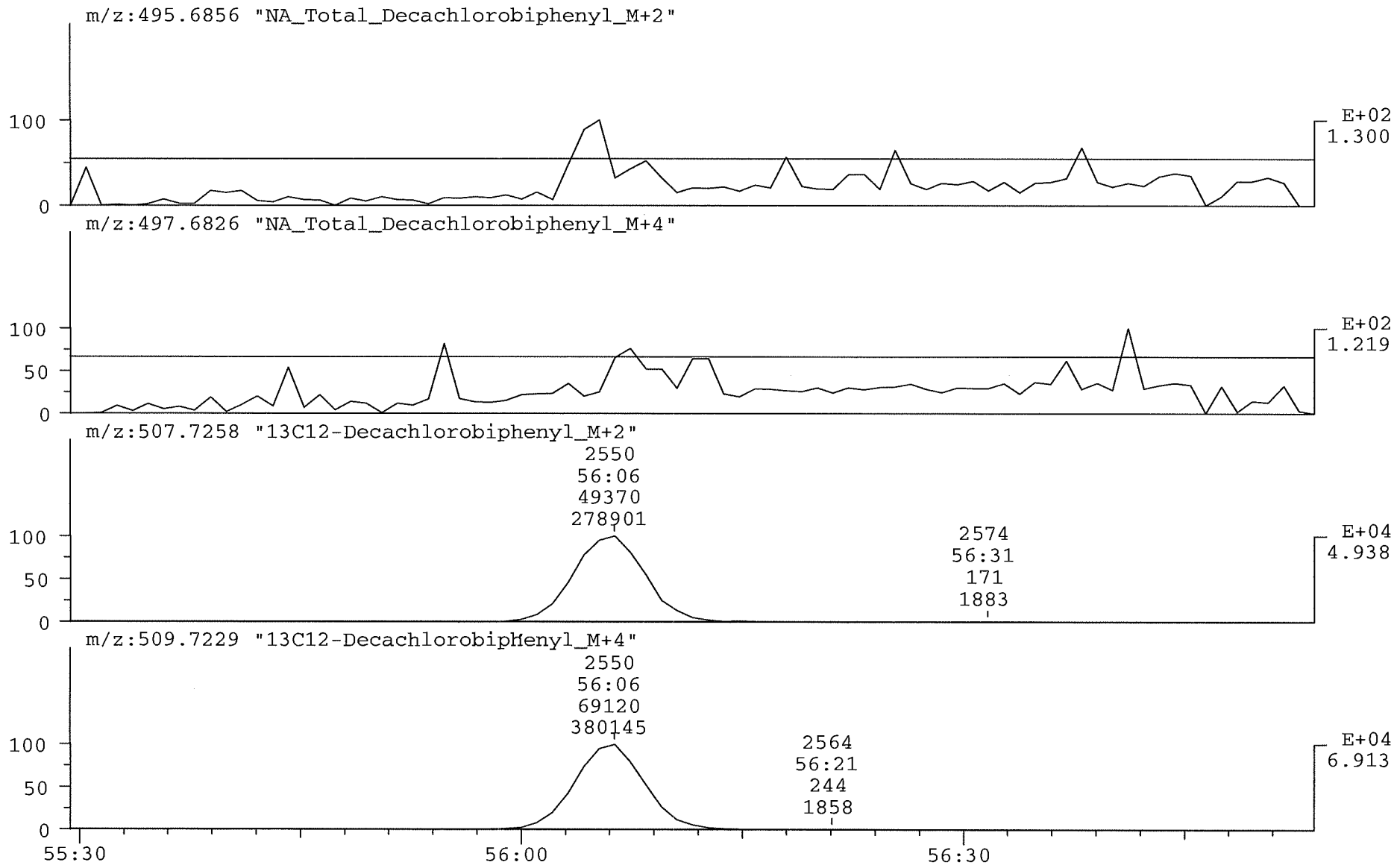
CHRO: a0806m2r1 10-Jun-08 Elapse: 52:07 2324
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2159 > 2489 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2360

2359

CHRO: a0806m2r1 10-Jun-08 Elapse: 56:11 2555
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 15:38:48 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2515 > 2595 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2361

2360

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m2r1
Study: 2990:75 Mix 2
Sample: WO=2990:75Mix2 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume: 2.00
Sample from Vial 12
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 2 of list 080609
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:12 min	35:52 min	1.00 sec
# 3	35:52 min	13:13 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	1	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass F	int	gr	time (ms)
255.9613	1	1	47.79
257.9584	1	1	47.79
268.0016	1	1	47.79
268.9824 l	10	1	4.10
269.9986	1	1	47.79
289.9224	1	1	47.79
291.9194	1	1	47.79
301.9626	1	1	47.79
303.9597	1	1	47.79
325.8804	1	1	47.79
327.8775	1	1	47.79
337.9207	1	1	47.79
339.9178	1	1	47.79
359.8415	1	1	47.79
361.8385	1	1	47.79
371.8817	1	1	47.79
373.8788	1	1	47.79
380.9760 c	10	1	4.10

Window # 3

mass F	int	gr	time (ms)
325.8804	1	1	47.79
327.8775	1	1	47.79
337.9207	1	1	47.79
339.9178	1	1	47.79
342.9792 l	10	1	4.10
359.8415	1	1	47.79
361.8385	1	1	47.79
371.8817	1	1	47.79
373.8788	1	1	47.79
393.8025	1	1	47.79
395.7995	1	1	47.79
405.8428	1	1	47.79
407.8398	1	1	47.79
427.7635	1	1	47.79
429.7606	1	1	47.79
430.9728 c	10	1	4.10
439.8038	1	1	47.79
441.8008	1	1	47.79

Window # 4

mass F	int	gr	time (ms)
393.8025	1	1	47.79
395.7995	1	1	47.79
404.9760 l	10	1	4.10
405.8428	1	1	47.79
407.8398	1	1	47.79
427.7635	1	1	47.79
429.7606	1	1	47.79
439.8038	1	1	47.79
441.8008	1	1	47.79
461.7246	1	1	47.79
463.7216	1	1	47.79
473.7648	1	1	47.79
475.7619	1	1	47.79
495.6856	1	1	47.79
497.6826	1	1	47.79
504.9697 c	10	1	4.10
507.7258	1	1	47.79
509.7229	1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg	at 0.0	minutes	280 deg max
	75 deg	at 2.0	minutes	
	150 deg	at 7.0	minutes	
	270 deg	at 55.0	minutes	
	270 deg	at 57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5529
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0012
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	354.0000
FVINLET	253.0000	FVSRC	975.0000	FWIN	0.7000
GCTC	202.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.3431	HVANAL	1256.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2610.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.8700	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 15:38:48.7

Autosampler has injected sample from vial 12
MID Time Window 1: Resolution is 8225
MID Time Window 2: Resolution is 9606
MID Time Window 3: Resolution is 9525
MID Time Window 4: Resolution is 12655
Analysis stopped at: 10-Jun-08 16:35:52.1 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r2.	Prep Date		SDG No	
Analysis ID	104458	Prep Exp Date		Date Received	
Analysis Date	06/10/08 20:44	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	160	205	64	82	0.78 *	/	
	13C12-PCB 1	12:02	00:00	0	1431929	429286	611258	184144	3.34	AVV/AVV	
	13C12-PCB 3	14:14	00:00	0	1400296	420855	496571	147738	3.33	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	150	273	60	109	0.55 *	/	
	PCB 7 (BZ)	16:39	00:00	0	373774	244961	118415	70233	1.53	ABV/AVV	D
	PCB 5 (BZ)	17:13	00:00	0	343491	233033	102466	64815	1.47	AVV/AVV	
	PCB 12 (BZ)	20:10	00:00	0	378991	240643	95381	60849	1.57	ABV/ABV	DM
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	193	155	77	62	1.24 *	/	
	13C12-PCB 4	14:29	00:00	0	385028	251867	129733	83167	1.53	AVV/ABV	
	13C12-PCB 9	16:29	00:00	0	622538	403776	181609	116305	1.54	ABV/ABV	
	13C12-PCB 8	17:20	00:00	0	632628	421711	187509	123663	1.50	AVV/AVV	D
	13C12-PCB 15	20:27	00:00	0	620438	400189	164031	105483	1.55	AVV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	135	128	54	51	1.06	/	
	PCB 18 (BZ)	19:33	00:00	0	119253	119505	32207	32151	1.00	ABB/ABV	DM
	PCB 24 (BZ)	20:18	00:00	0	171696	165878	45008	44392	1.04	ABV/ABV	D
	PCB 23 (BZ)	22:21	00:00	0	560085	510210	142387	125421	1.10	AVV/AVV	M
	PCB 28 (BZ)	23:30	00:00	0	605510	560316	149372	142695	1.08	ABV/ABV	M
	PCB 22 (BZ)	24:09	00:00	0	564718	539606	138195	127733	1.05	AVV/AVV	
	PCB 39 (BZ)	26:05	00:00	0	612567	570485	134480	126030	1.07	ABV/ABV	D
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	250	178	100	71	1.41 *	/	
	13C12-PCB 19	17:39	00:00	0	212618	203206	61308	60076	1.05	AVV/ABV	
	13C12-PCB 32	20:55	00:00	0	362910	356480	95558	88909	1.02	AVV/AVV	
	13C12-PCB 31	23:11	00:00	0	1039893	945635	254890	239334	1.10	ABV/ABV	
	13C12-PCB 28	23:29	00:00	0	986466	909380	243174	221193	1.08	AVV/AVV	
	13C12-PCB 37	27:31	00:00	0	924949	838719	213190	191864	1.10	ABB/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	168	230	67	92	0.73	/	
	PCB 53 (BZ)	22:58	00:00	0	410301	516724	96290	120282	0.79	ABV/ABV	
	PCB 51 (BZ)	23:42	00:00	0	418073	528249	102046	128564	0.79	ABB/ABB	DM
	PCB 73 (BZ)	25:30	00:00	0	526384	649641	120068	150930	0.81	ABV/ABV	D
	PCB 48 (BZ)	26:08	00:00	0	419384	523977	97852	124404	0.80	AVV/AVV	D
	PCB 62 (BZ)	26:38	00:00	0	518675	645971	121184	147617	0.80	AVV/AVV	M
	PCB 71 (BZ)	27:24	00:00	0	575460	709119	129798	156562	0.81	AVV/ABV	M
	PCB 68 (BZ)	28:42	00:00	0	598372	713829	128008	159066	0.84	ABV/ABV	
	PCB 58 (BZ)	29:23	00:00	0	569903	717484	122351	154223	0.79	ABV/ABV	
	PCB 61 (BZ)	30:02	00:00	0	559505	698431	120743	154742	0.80	AVV/AVV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r2.	Prep Date		SDG No	
Analysis ID	104458	Prep Exp Date		Date Received	
Analysis Date	06/10/08 20:44	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	PCB 55 (BZ)	30:39	00:00	0	548219	683251	117968	147385	0.80	AVV/AVV	
	PCB 60 (BZ)	31:22	00:00	0	568178	725612	117066	148227	0.78	AVV/AVV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	115	125	46	50	0.92 *	/	
	13C12-PCB 54	20:46	00:00	0	219900	267882	57371	70850	0.82	ABV/ABV	
	13C12-PCB 52	25:20	00:00	0	342940	442448	82737	105723	0.78	ABV/ABV	
	13C12-PCB 79	33:15	00:00	0	487433	611476	101994	125529	0.80	ABV/ABV	
	13C12-PCB 81	34:17	00:00	0	432724	555259	93382	115437	0.78	AVV/ABV	
	13C12-PCB 77	34:50	00:00	0	463732	573417	92705	121597	0.81	ABB/ABV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	203	165	81	66	1.23 *	/	
	PCB 94 (BZ)	28:50	00:00	0	311189	188169	68573	41579	1.65	ABV/ABV	
	PCB 100 (BZ)	29:28	00:00	0	377738	231588	79239	54118	1.63	ABV/ABV	
	PCB 91 (BZ)	30:08	00:00	0	360572	212894	77988	45529	1.69	AVV/AVV	DM
	PCB 121 (BZ)	31:14	00:00	0	468648	290178	99231	64222	1.62	ABV/ABV	D
	PCB 90 (BZ)	32:12	00:00	0	350603	214487	78157	46448	1.63	ABV/ABV	DM
	PCB 99 (BZ)	32:47	00:00	0	391217	234523	80534	49977	1.67	ABV/ABV	
	PCB 109 (BZ)/108 (IUPAC	33:14	00:00	0	450665	269456	92099	57072	1.67	AVV/AVV	
	PCB 117 (BZ)	33:55	00:00	0	448604	270858	95510	56667	1.66	AVV/ABV	
	PCB 111 (BZ)	34:53	00:00	0	484633	288416	103392	60703	1.68	ABB/ABB	D
	PCB 108 (BZ)/107 (IUPAC	36:29	00:00	0	982872	622818	196538	126090	1.58	ABV/ABV	M
	PCB 118 (BZ)	37:11	00:00	0	1014396	610122	201196	127237	1.66	AVV/AVV	
	PCB 114 (BZ)	37:43	00:00	0	997292	633603	204902	127394	1.57	AVV/AVV	
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	133	118	53	47	1.13 *	/	
	13C12-PCB 104	26:17	00:00	0	419304	250422	93042	55357	1.67	ABV/ABV	
	13C12-PCB 95	29:16	00:00	0	326915	202895	70898	43477	1.61	ABV/ABV	
	13C12-PCB 101	32:11	00:00	0	348788	205044	75611	45840	1.70	AVV/ABV	
	13C12-PCB 111	34:51	00:00	0	416161	268877	90634	55696	1.55	ABV/ABV	
	13C12-PCB 123	36:50	00:00	0	875635	546532	178264	114317	1.60	ABV/ABV	
	13C12-PCB 118	37:10	00:00	0	918140	563583	185121	116245	1.63	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	896532	540259	183242	110154	1.66	AVV/ABV	
	13C12-PCB 105	38:21	00:00	0	887033	533095	181882	110187	1.66	AVV/ABB	
	13C12-PCB 127	39:48	00:00	0	977227	586188	194673	118013	1.67	ABV/AVV	
	13C12-PCB 126	41:26	00:00	0	919069	562029	181654	109975	1.64	AVV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	135	203	54	81	0.67 *	/	
	PCB 150 (BZ)	32:20	00:00	0	322668	253480	66035	52909	1.27	ABV/ABV	D
	PCB 145 (BZ)	33:01	00:00	0	304257	236434	63470	48704	1.29	AVV/ABB	D
	PCB 135 (BZ)	35:11	00:00	0	227258	170725	47089	35267	1.33	ABV/ABV	
	PCB 149 (BZ)	36:03	00:00	0	511222	395711	104197	78146	1.29	ABV/ABV	M
	PCB 139 (BZ)	36:37	00:00	0	500405	390543	100167	79865	1.28	AVV/ABV	
	PCB 132 (BZ)	37:20	00:00	0	442595	345097	87840	68378	1.28	AVV/AVV	M

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match.

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r2.	Prep Date		SDG No	
Analysis ID	104458	Prep Exp Date		Date Received	
Analysis Date	06/10/08 20:44	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	PCB 165 (BZ)	38:10	00:00	0	605461	473028	124041	96100	1.28	ABV/ABV	
	PCB 168 (BZ)	39:05	00:00	0	633298	503706	130575	106775	1.26	ABV/ABV	M
	PCB 137 (BZ)	39:53	00:00	0	487114	376370	102883	78040	1.29	AVV/ABV	
	PCB 160 (BZ)	40:28	00:00	0	599000	468310	124335	92491	1.28	ABV/ABV	
	PCB 128 (BZ)	41:35	00:00	0	466948	364887	88682	70452	1.28	ABV/ABV	D
	PCB 162 (BZ)	42:49	00:00	0	655830	512838	135301	103620	1.28	ABV/AVV	
	PCB 157 (BZ)	44:29	00:00	0	644850	500868	129230	101245	1.29	ABB/ABB	M
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	150	90	60	36	1.67 *	/	
	13C12-PCB 155	31:56	00:00	0	319655	259146	69731	57585	1.23	ABV/ABV	
	13C12-PCB 153	39:01	00:00	0	512868	387432	104900	80312	1.32	ABV/ABV	
	13C12-PCB 138	40:17	00:00	0	491358	375978	100021	78437	1.31	ABV/ABV	M
	13C12-PCB 167	43:16	00:00	0	581762	452998	121060	91008	1.28	AVV/AVV	
	13C12-PCB 156	44:26	00:00	0	1156807	888361	146601	113462	1.30	AVV/ABV	
	13C12-PCB 169	47:40	00:00	0	569287	435737	109943	84638	1.31	ABV/ABB	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	145	108	58	43	1.35 *	/	
	PCB 184 (BZ)	38:33	00:00	0	434915	415020	87254	81064	1.05	ABV/ABV	
	PCB 186 (BZ)	39:23	00:00	0	406907	388151	83944	78373	1.05	ABV/ABV	D
	PCB 187 (BZ)	41:38	00:00	0	336954	326788	67696	65704	1.03	ABV/ABV	
	PCB 185 (BZ)	42:21	00:00	0	327593	302821	65167	59937	1.08	AVV/AVV	
	PCB 181 (BZ)	43:20	00:00	0	327384	298990	67594	57636	1.09	ABV/ABV	
	PCB 192 (BZ)	45:26	00:00	0	409458	379276	80277	75288	1.08	ABV/ABV	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	130	120	52	48	1.08	/	
	13C12-PCB 188	37:40	00:00	0	400040	375037	81605	80884	1.07	ABV/ABV	
	13C12-PCB 178	40:44	00:00	0	275110	255411	54854	49062	1.08	ABV/ABV	
	13C12-PCB 180	45:49	00:00	0	347548	324730	66265	63022	1.07	ABV/ABV	
	13C12-PCB 170	47:05	00:00	0	284109	262923	58948	52224	1.08	ABV/ABV	
	13C12-PCB 189	50:10	00:00	0	700315	645291	136660	129595	1.09	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	133	168	53	67	0.79	/	
	PCB 197 (BZ)	44:52	00:00	0	455162	501698	87740	97914	0.91	ABV/ABV	
	PCB 201 (BZ)/199 (IUPAC	47:47	00:00	0	324762	368543	60232	72143	0.88	ABV/ABV	
	PCB 203 (BZ)	48:38	00:00	0	354702	391136	68335	77998	0.91	ABB/AVV	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	115	108	46	43	1.07 *	/	
	13C12-PCB 202	43:02	00:00	0	268870	307749	51501	60908	0.87	ABV/ABV	
	13C12-PCB 194	52:15	00:00	0	368174	391880	70549	80075	0.94	ABV/ABV	
	13C12-PCB 205	52:44	00:00	0	467137	523683	89963	102715	0.89	AVV/ABV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r2.	Prep Date		SDG No	
Analysis ID	104458	Prep Exp Date		Date Received	
Analysis Date	06/10/08 20:44	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

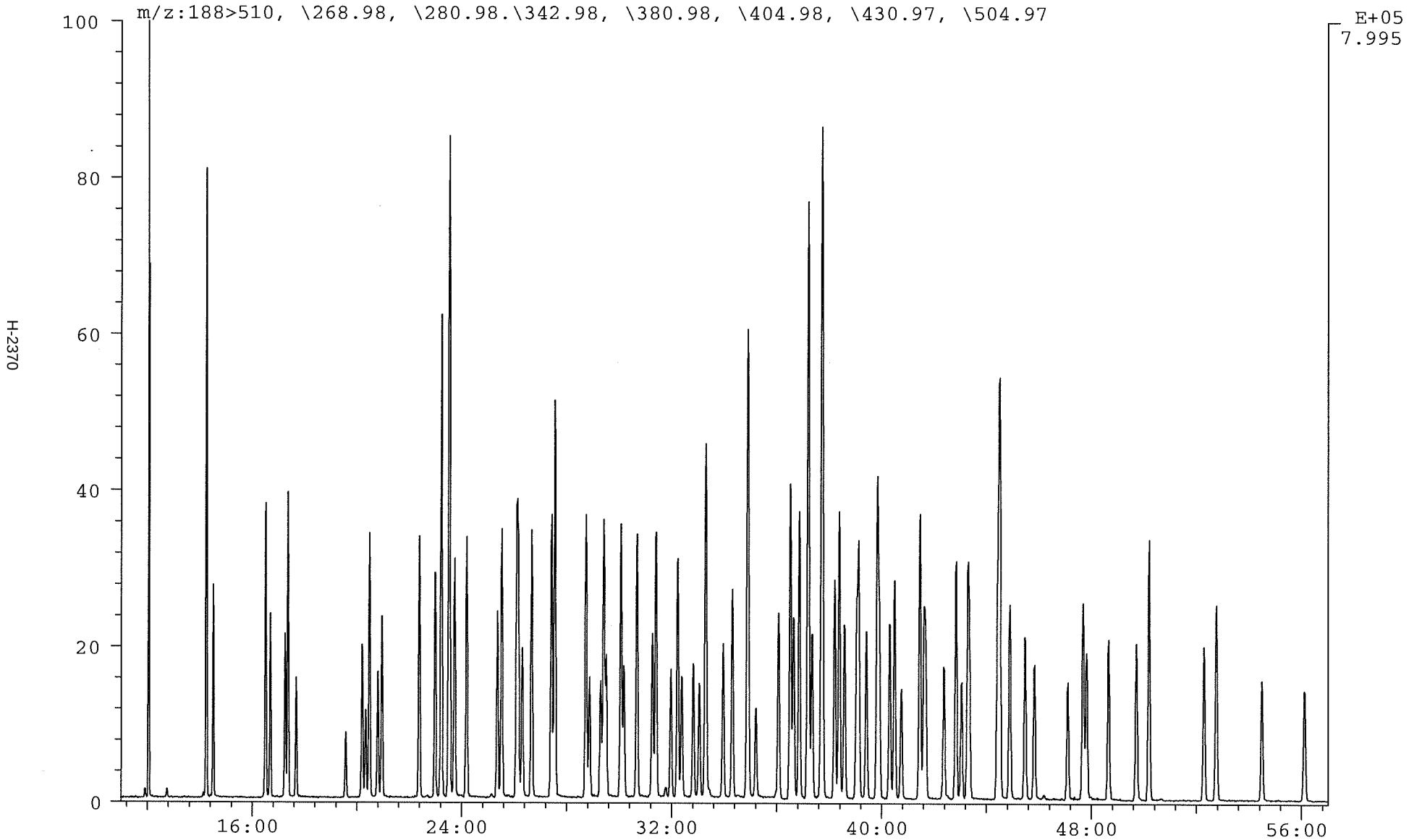
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	145	135	58	54	1.07 *	/
	13C12-PCB 208	49:41	00:00	0	334674	406443	65960	79583	0.82	ABV/ABV
	13C12-PCB 206	54:27	00:00	0	239832	307361	48866	58388	0.78	ABV/AVV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79	
	Noise	00:00	00:00	0	133	133	53	53	1.00 *	/
	13C12-PCB 209	56:04	00:00	0	226583	320106	39419	57678	0.71	ABV/ABB

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

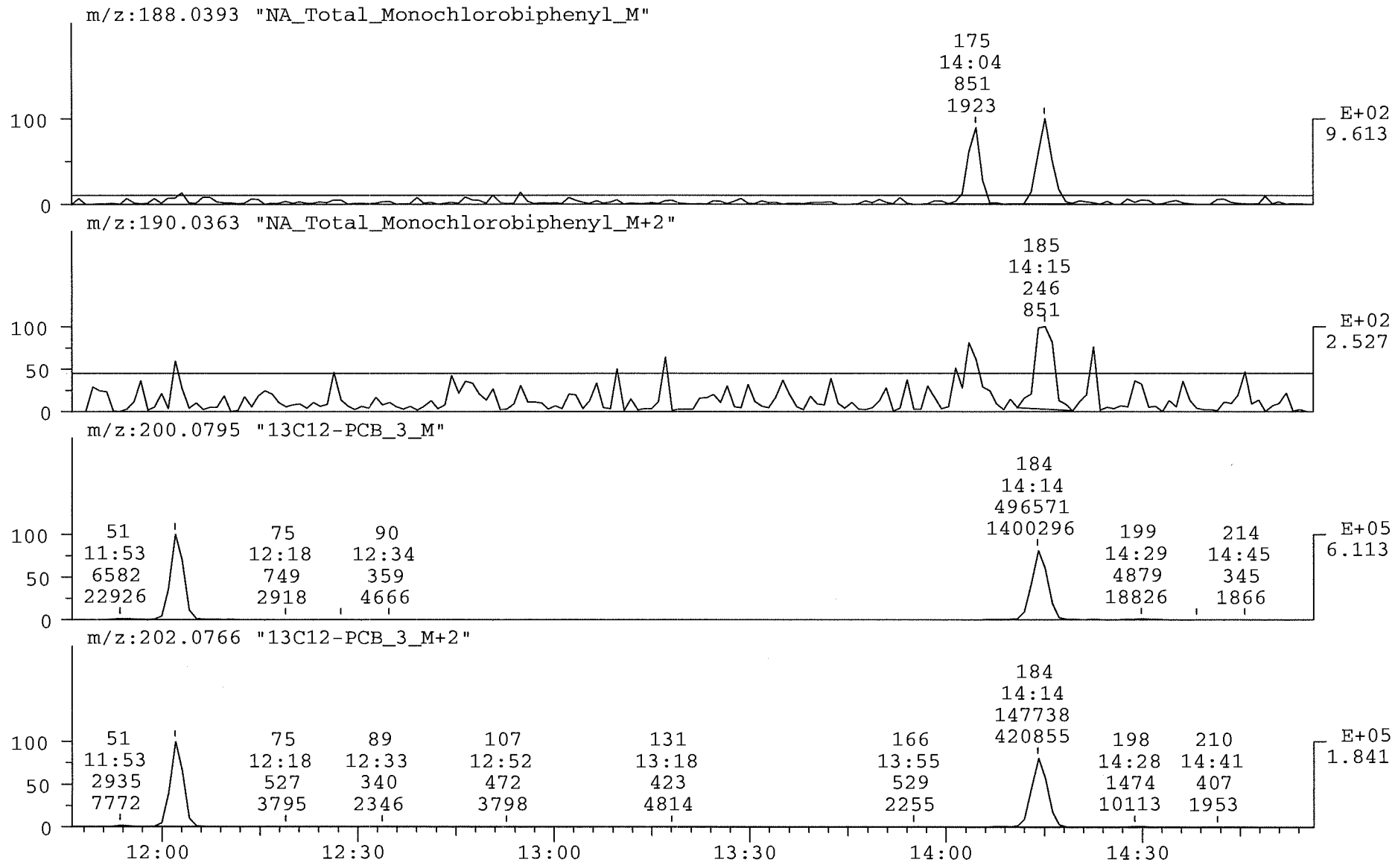
Int DCG 6-11-08
Calr DCG 6-25-08

CHRO: a0806m2r2 10-Jun-08 Elapse: 56:09 2553
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2370

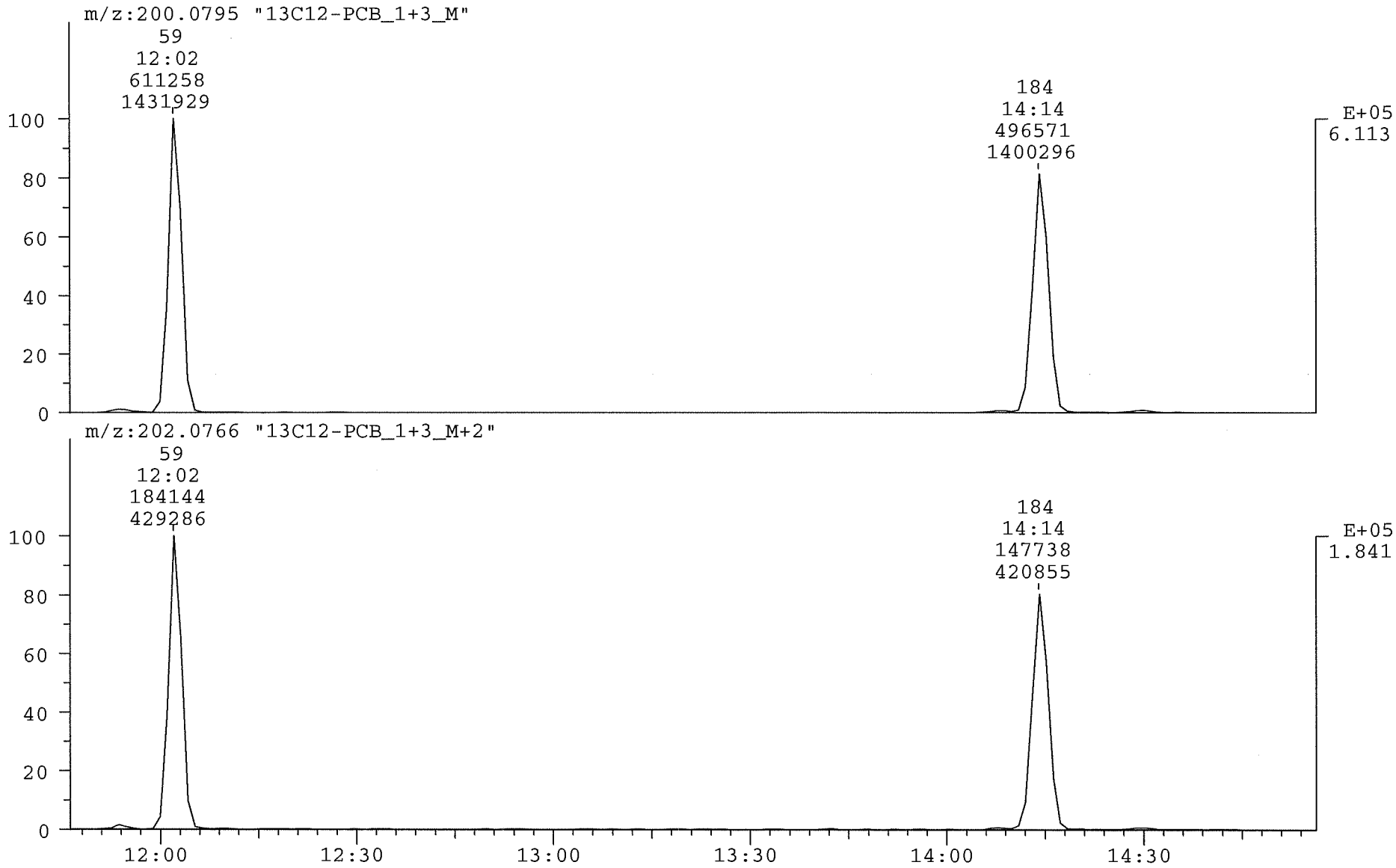
CHRO: a0806m2r2 10-Jun-08 Elapse: 13:21.2 134
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2371

2370

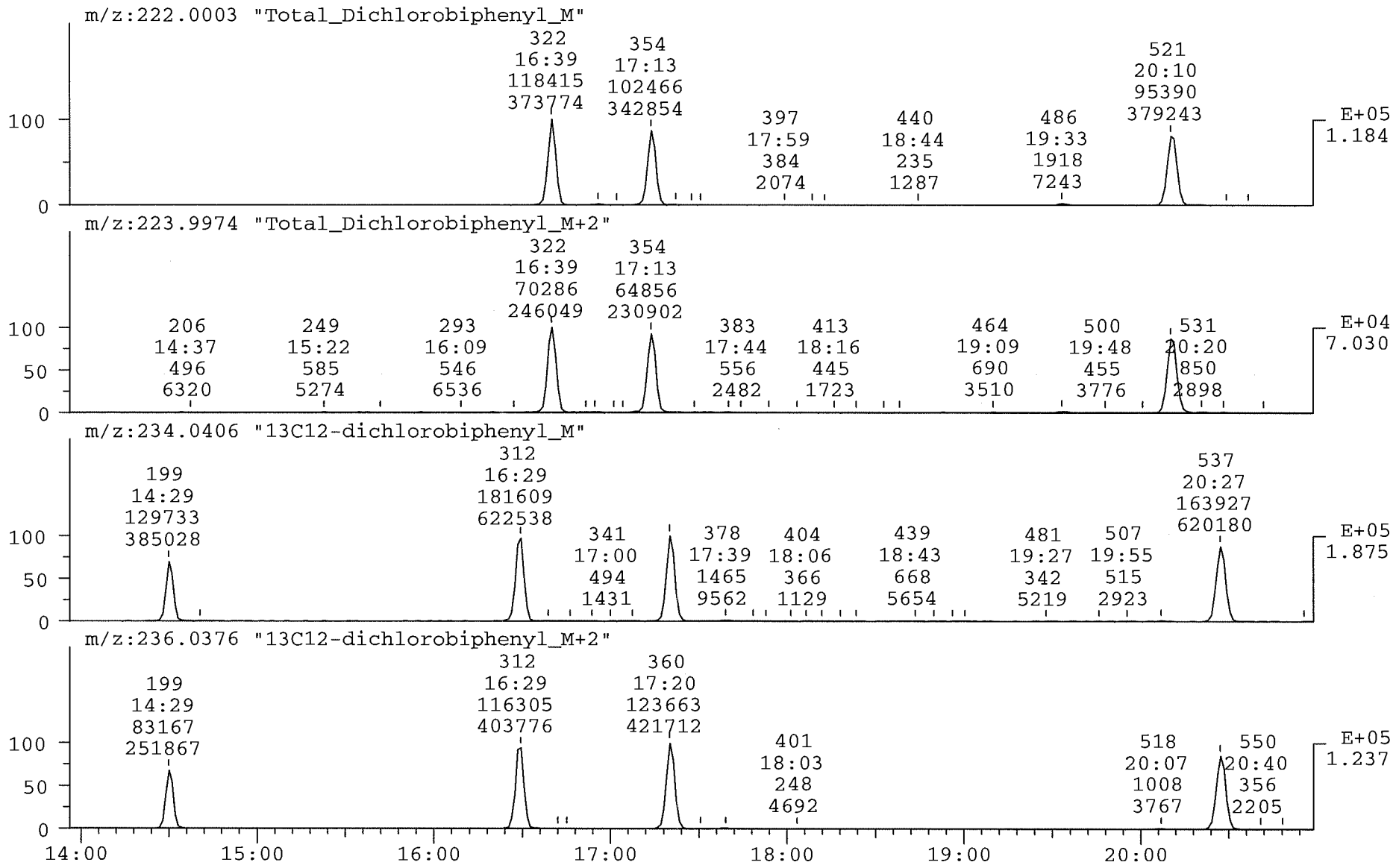
CHRO: a0806m2r2 10-Jun-08 Elapse: 13:21.2 134
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2372

2371

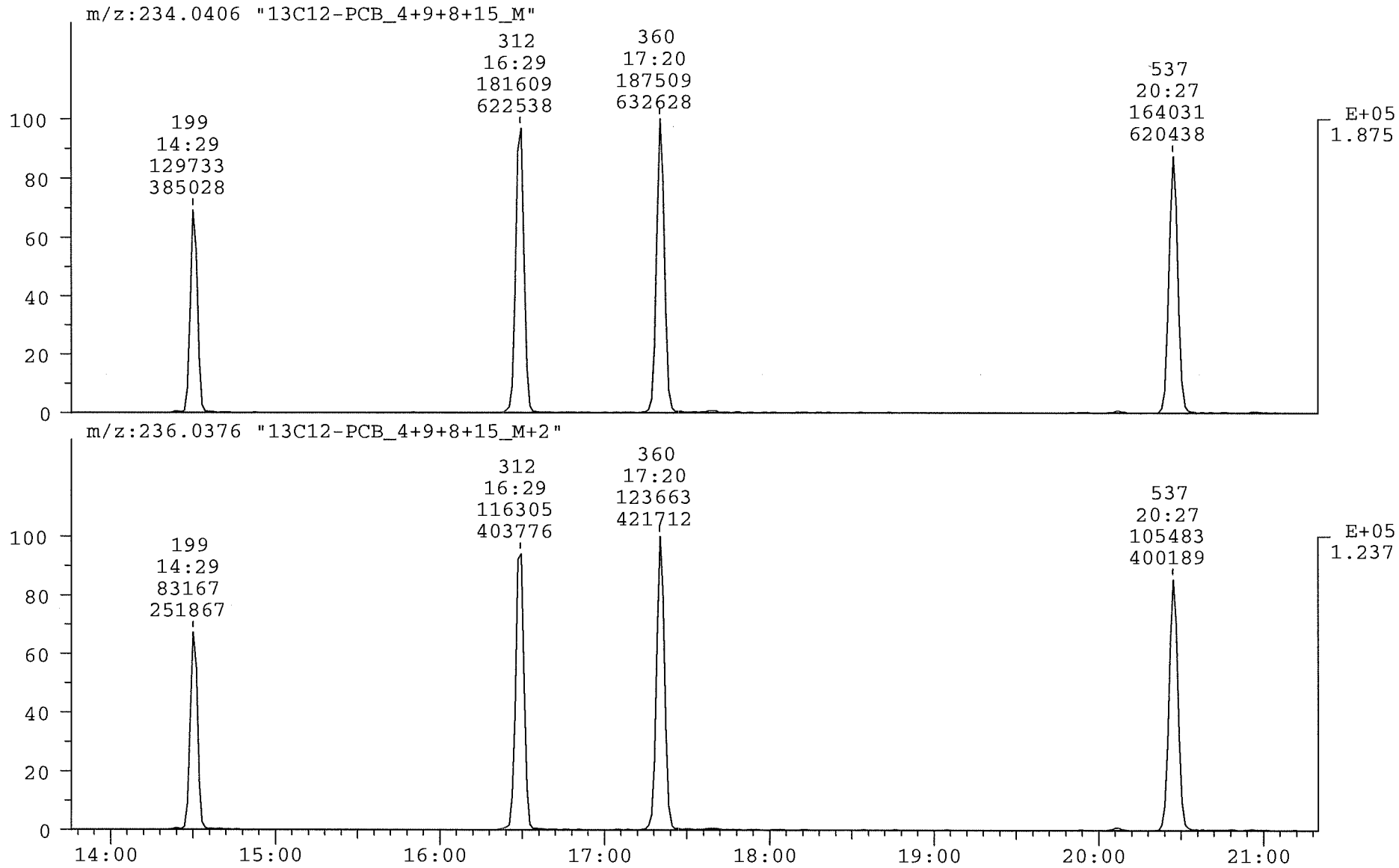
CHRO: a0806m2r2 10-Jun-08 Elapse: 17:27.4 367
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 167 > 567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2373

2372

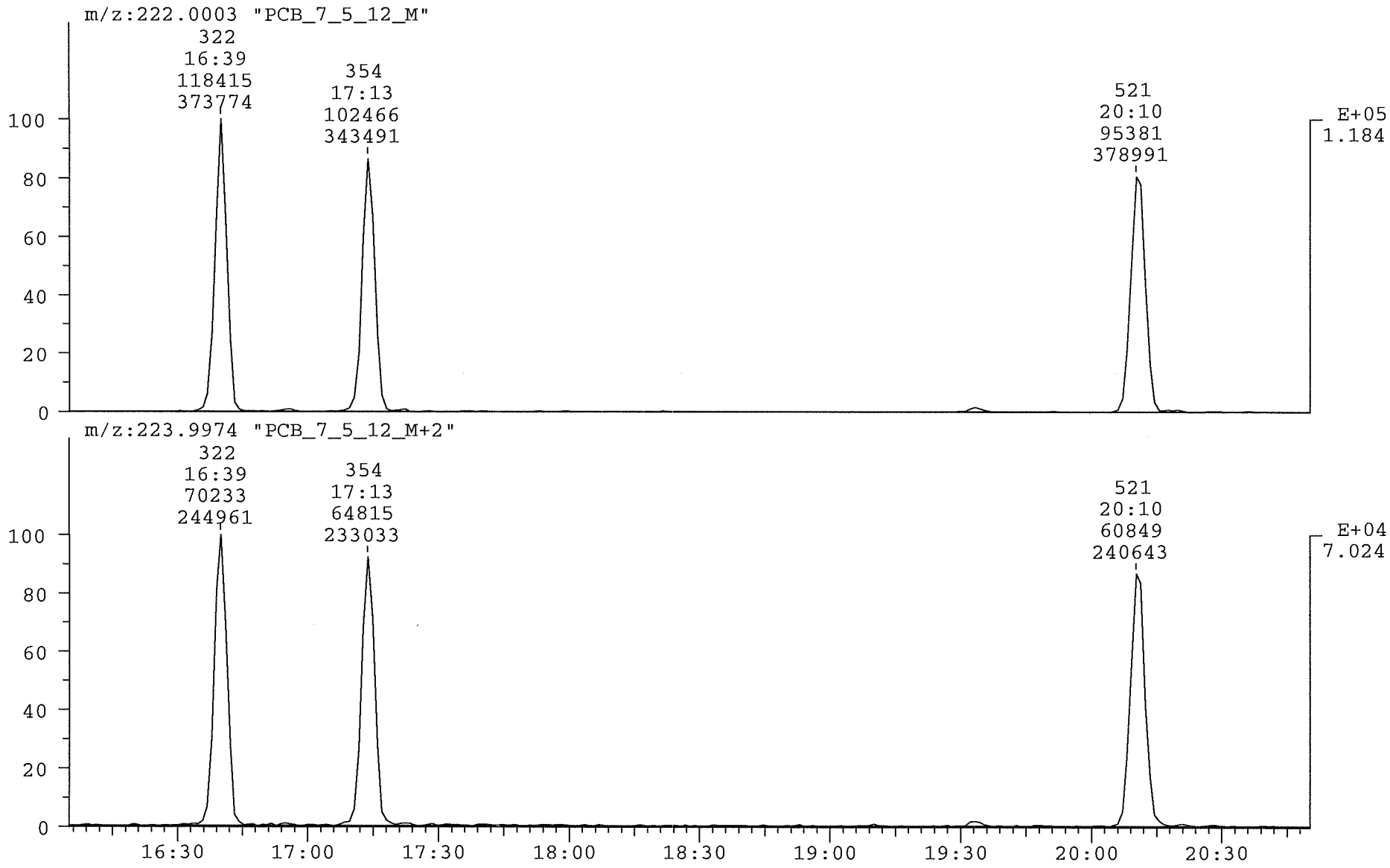
CHRO: a0806m2r2 10-Jun-08 Elapse: 17:27.4 367
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 157 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2374

2373

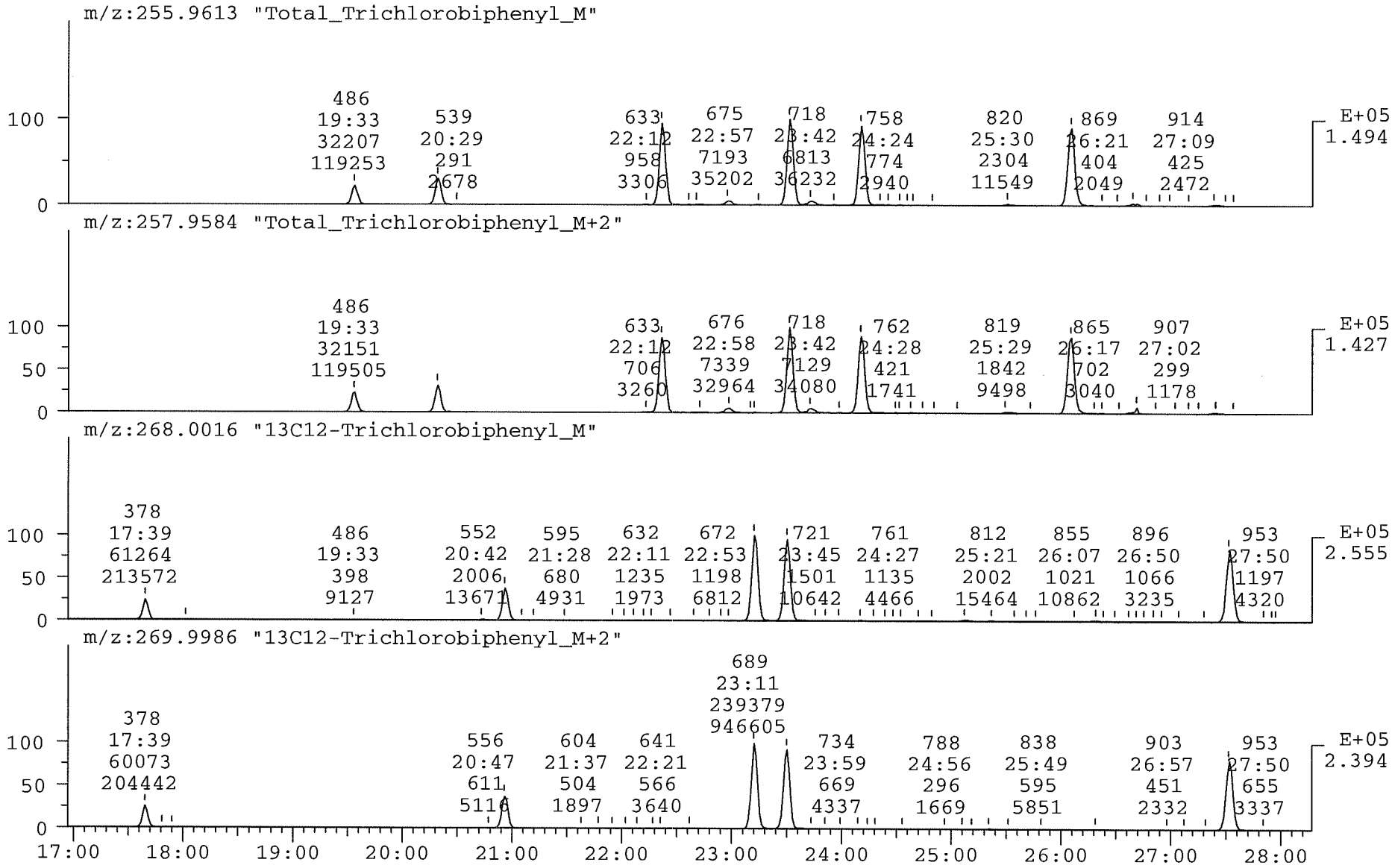
CHRO: a0806m2r2 10-Jun-08 Elapse: 18:27.6 424
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 289 > 559 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2375

2374

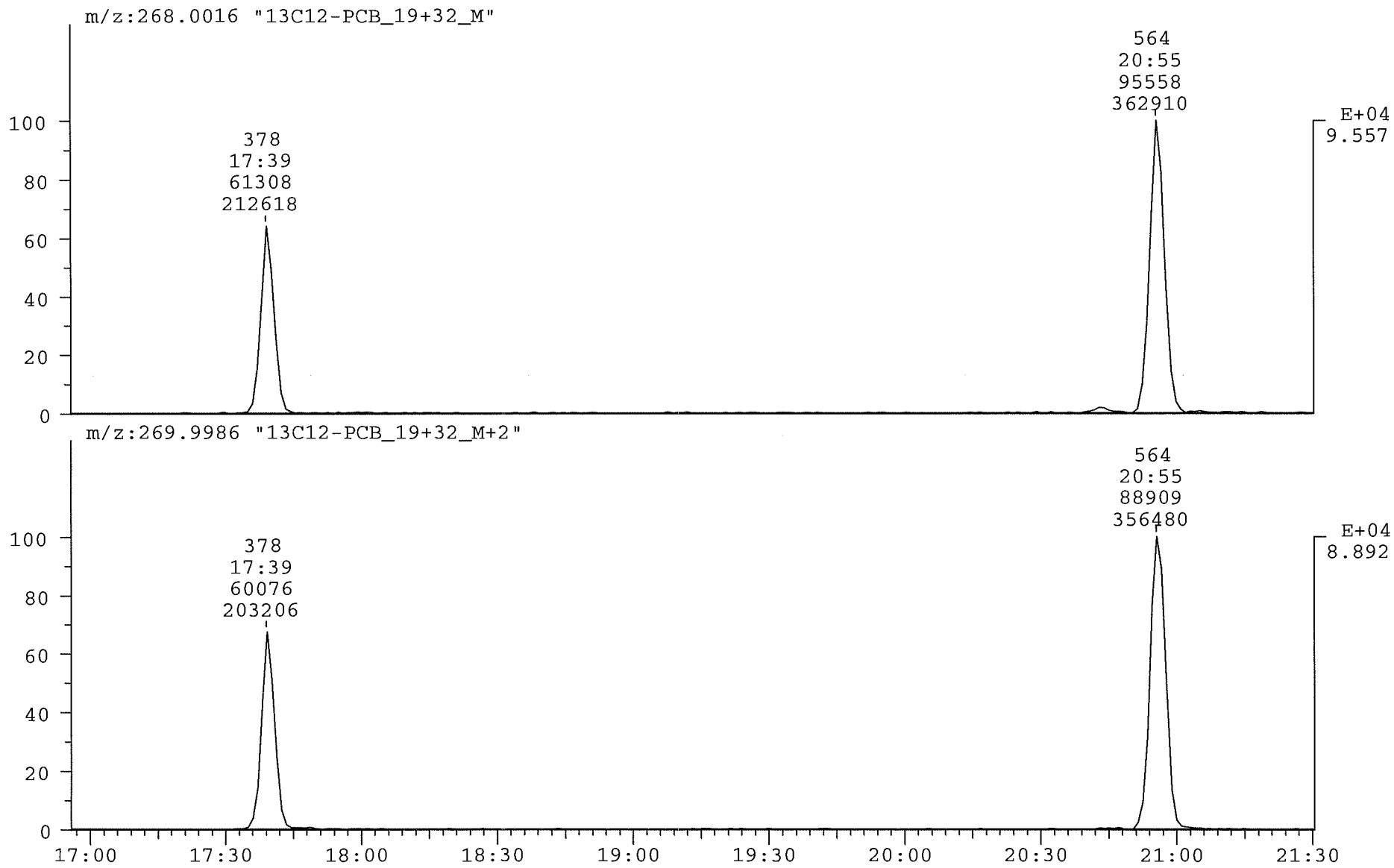
CHRO: a0806m2r2 10-Jun-08 Elapse: 22:39.1 658
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 338 > 978 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2376

2375

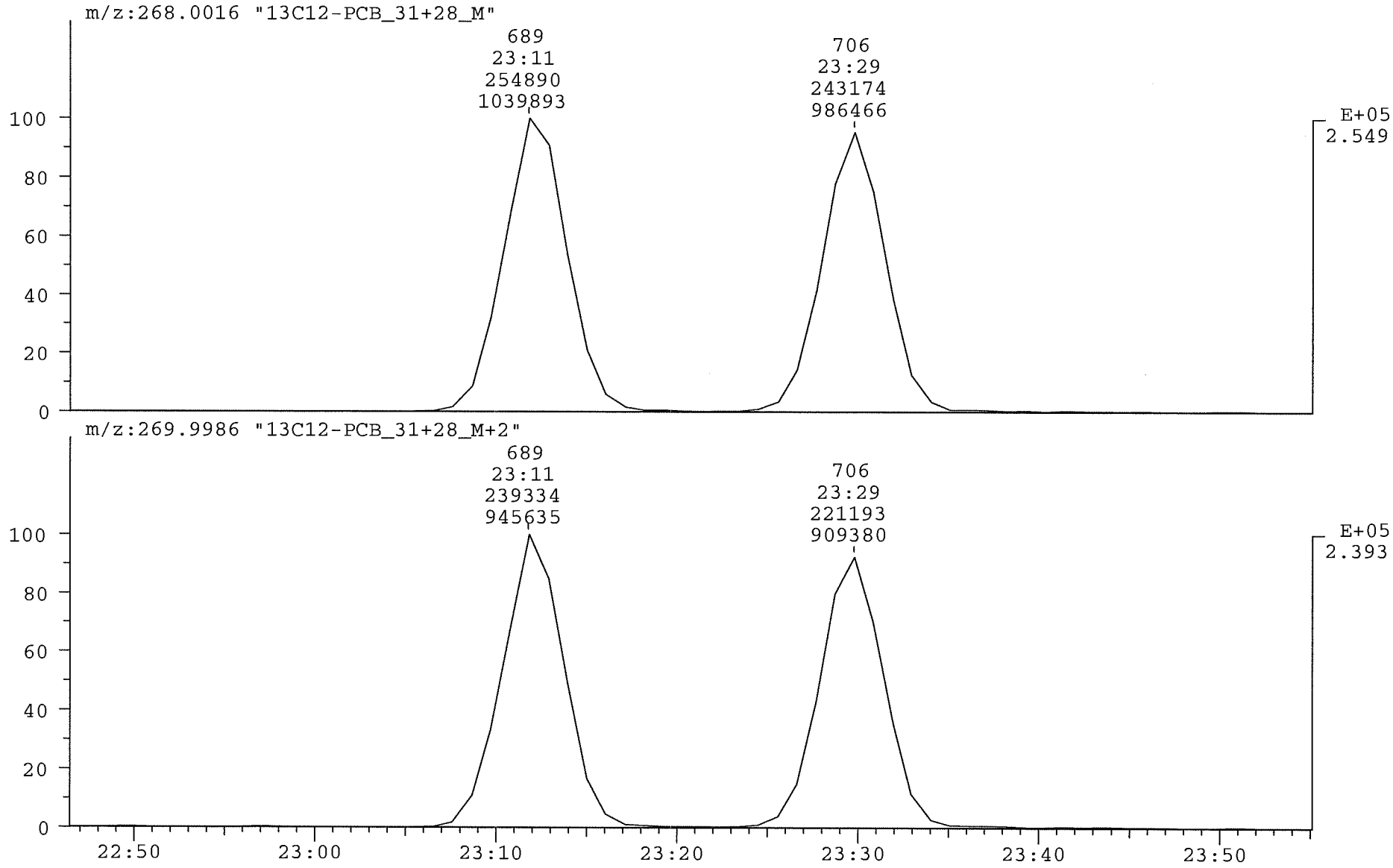
CHRO: a0806m2r2 10-Jun-08 Elapse: 19:02.5 457
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 337 > 597 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2377

2376

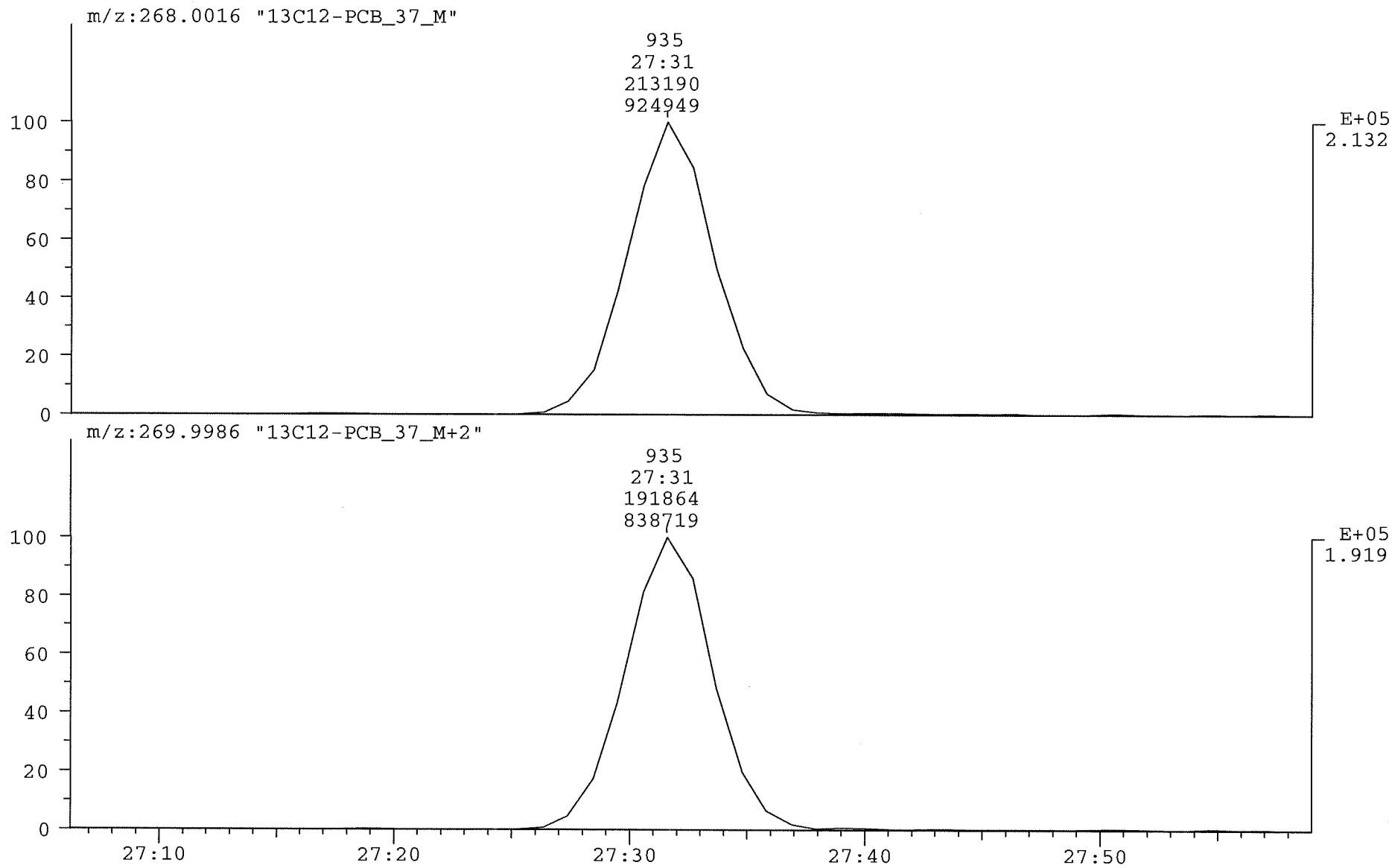
CHRO: a0806m2r2 10-Jun-08 Elapse: 23:12.9 690
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2378

2377

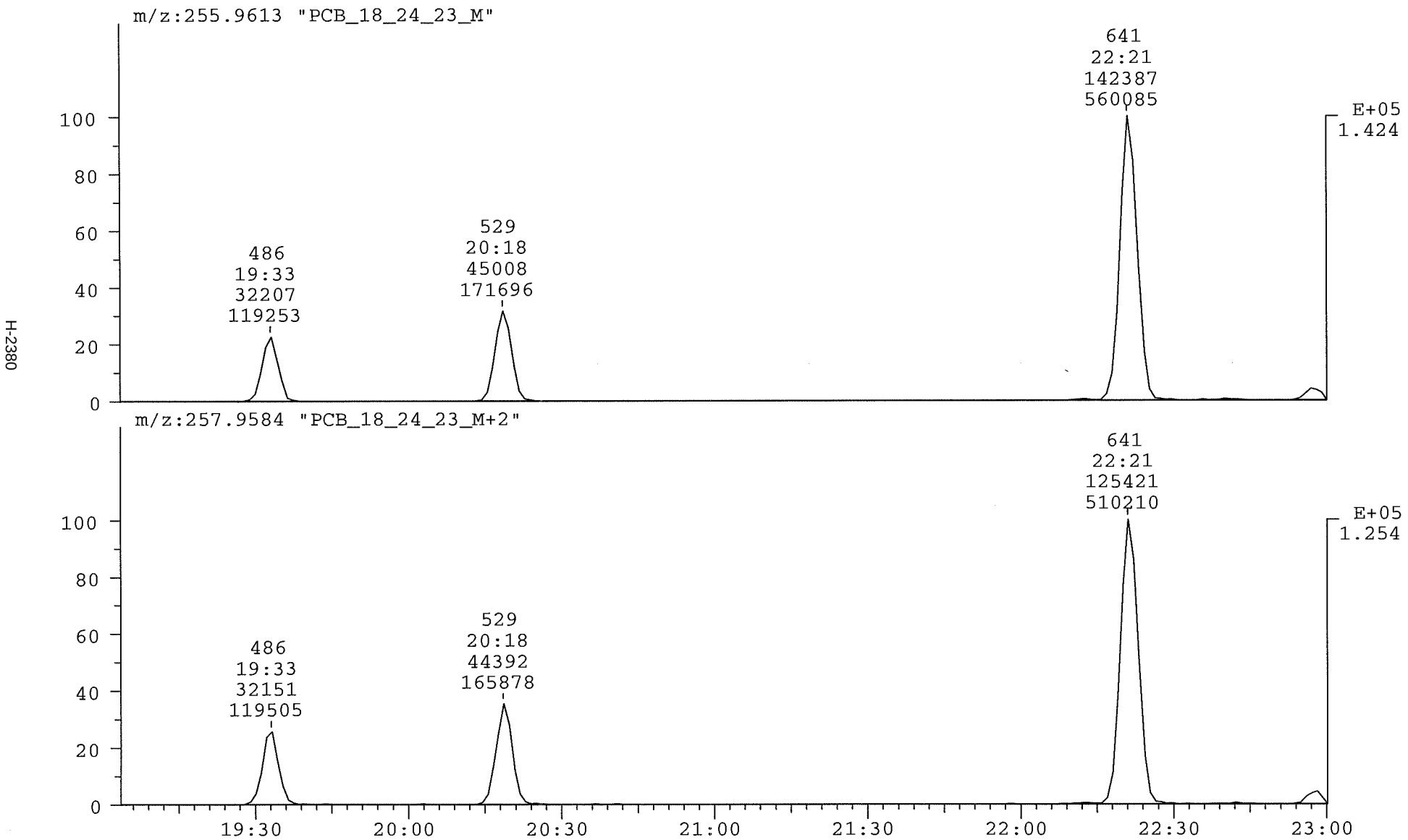
CHRO: a0806m2r2 10-Jun-08 Elapse: 27:32.7 936
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2379

2378

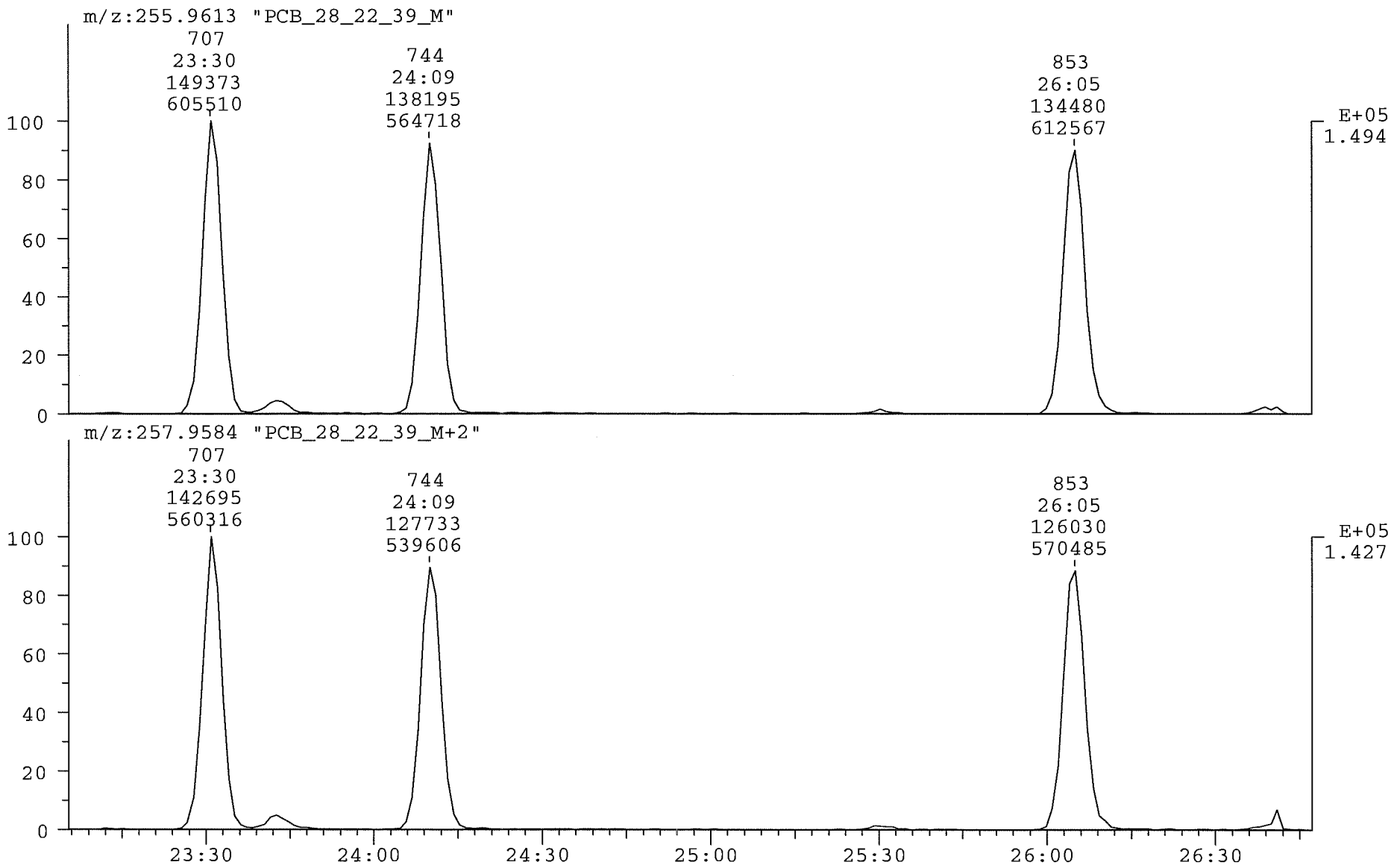
CHRO: a0806m2r2 10-Jun-08 Elapse: 20:59.8 568
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 458 > 678 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2380

2379

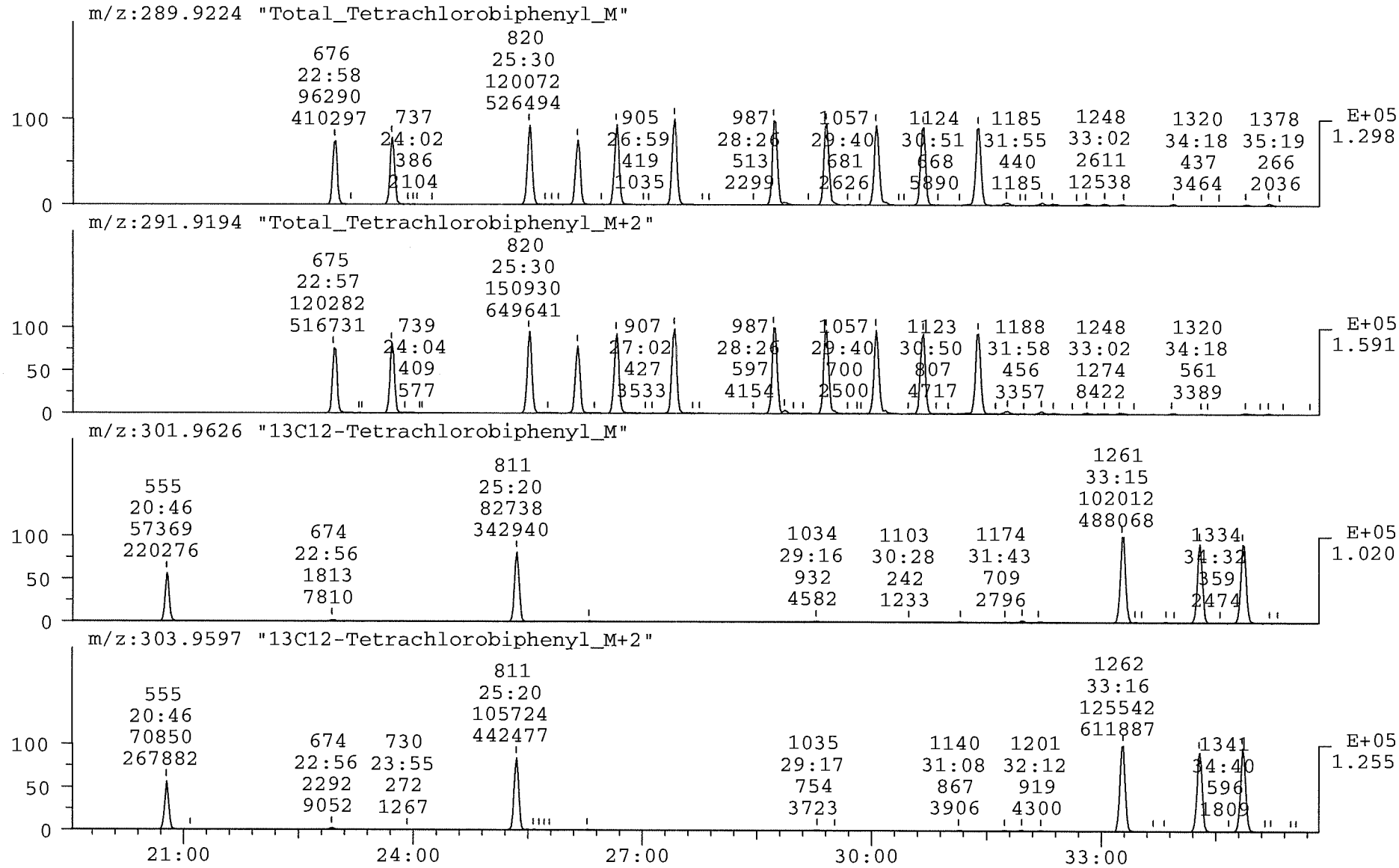
CHRO: a0806m2r2 10-Jun-08 Elapse: 24:51.0 783
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 683 > 893 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2381

2380

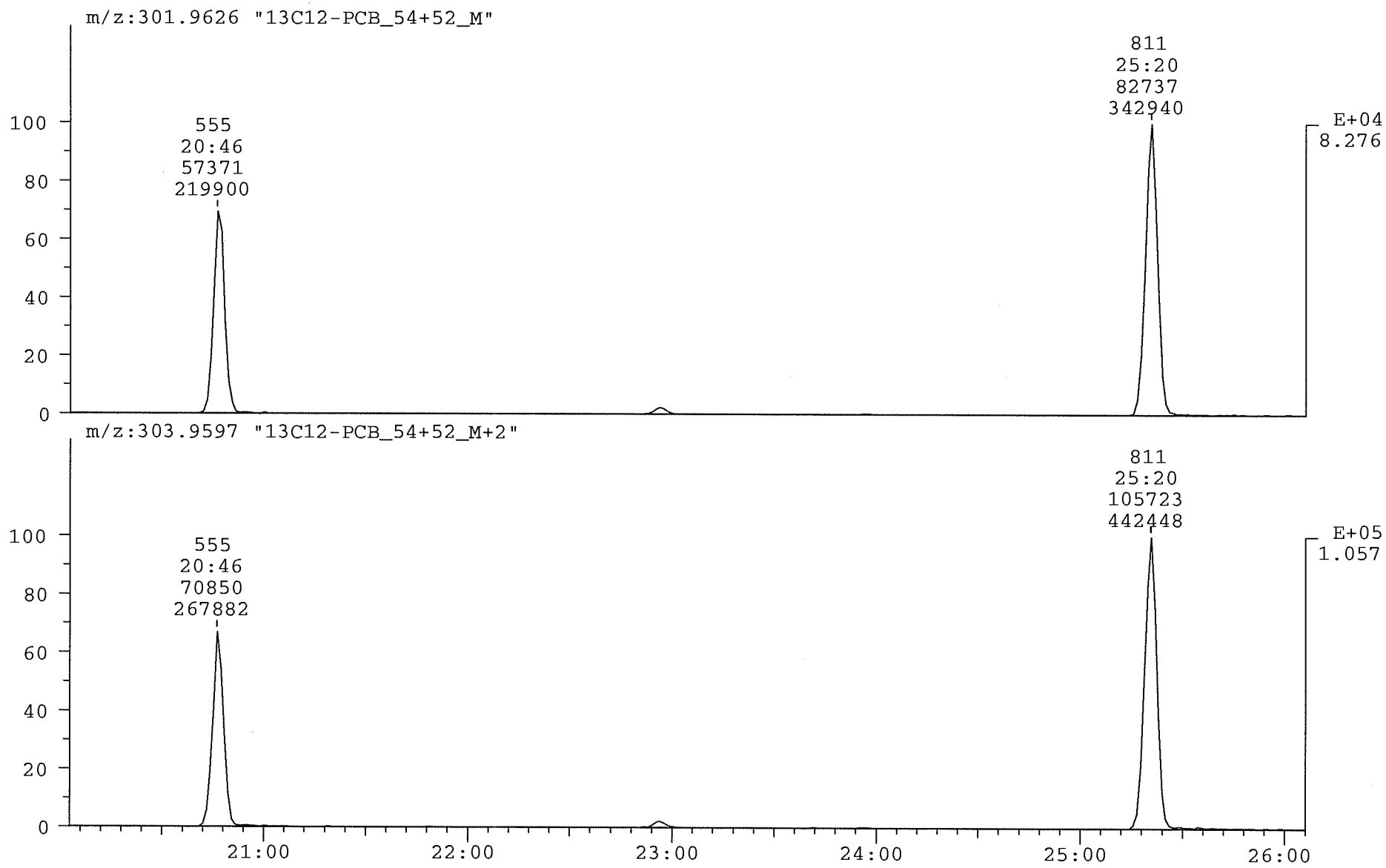
CHRO: a0806m2r2 10-Jun-08 Elapse: 27:41.1 944
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 485 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2382

2381

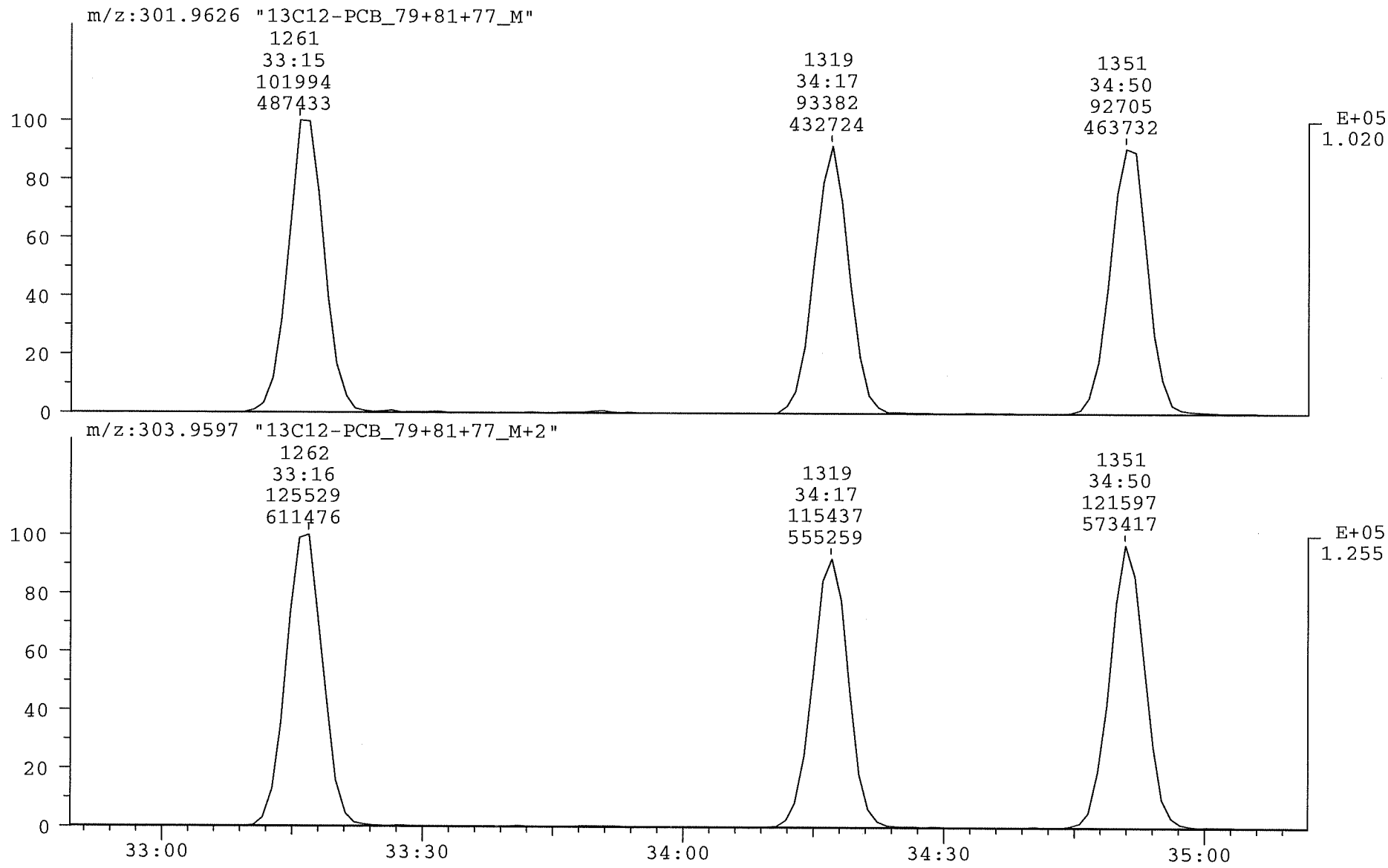
CHRO: a0806m2r2 10-Jun-08 Elapse: 23:06.5 684
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2383

2382

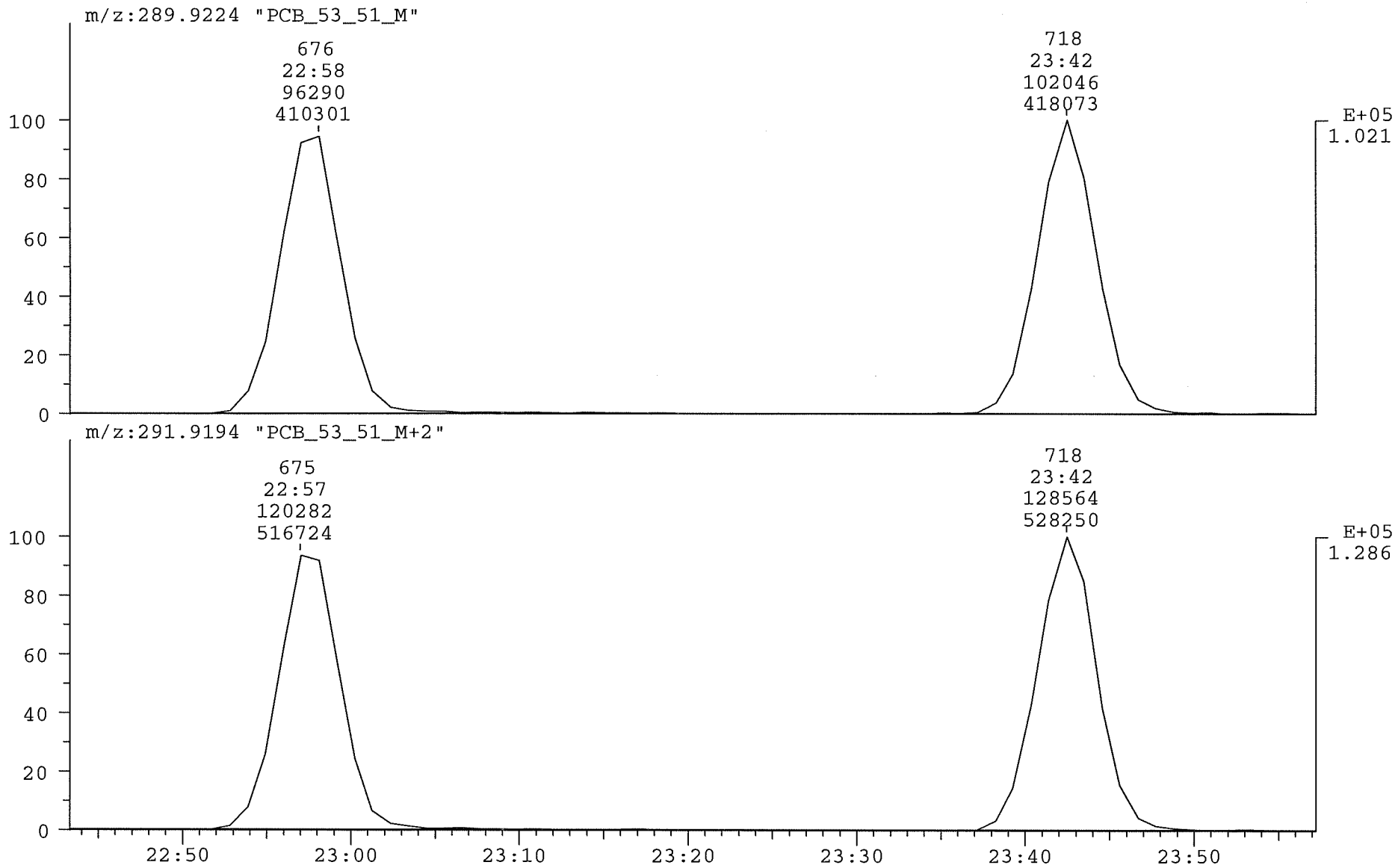
CHRO: a0806m2r2 10-Jun-08 Elapse: 34:03 1306
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1236 > 1371 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2384

2383

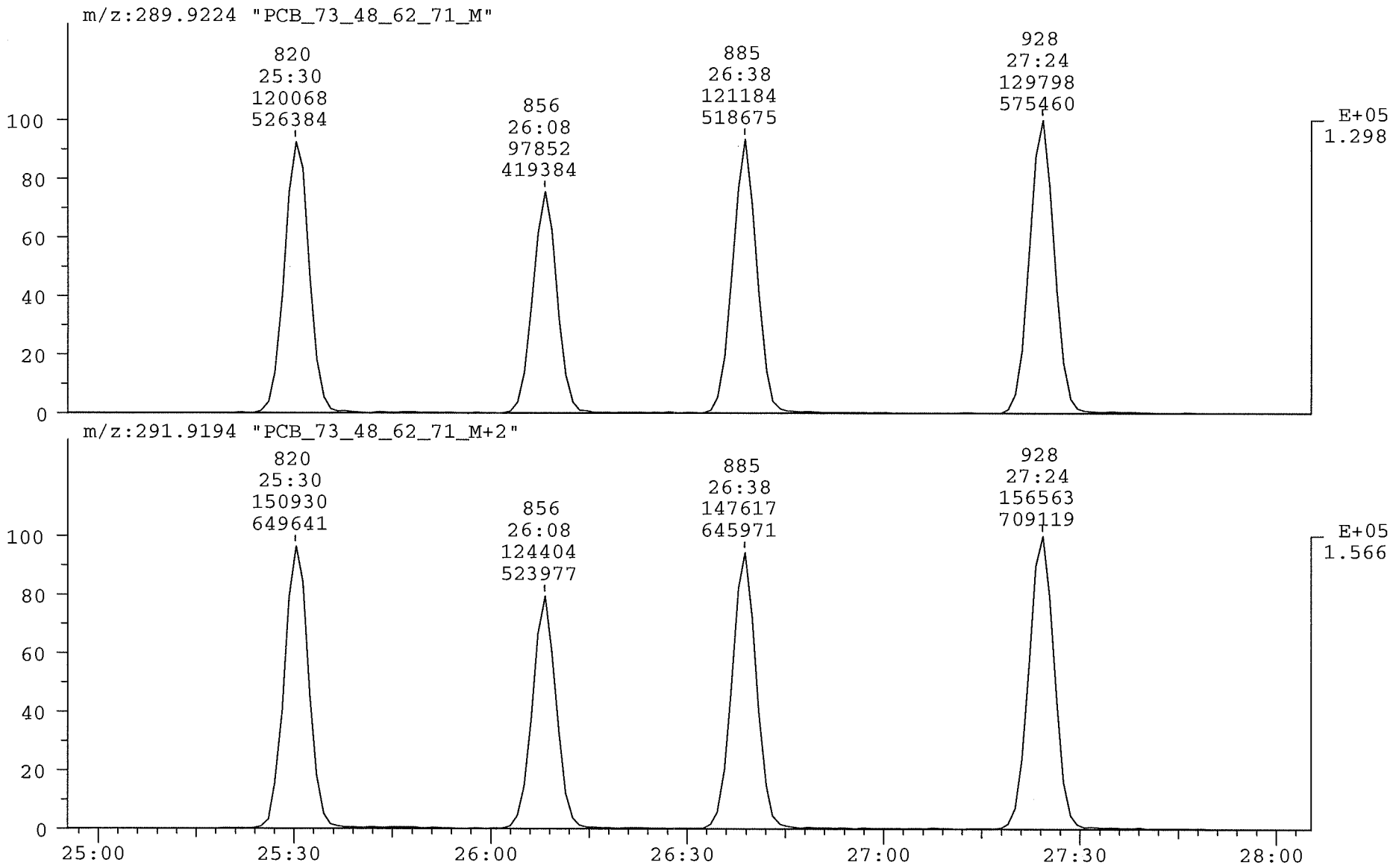
CHRO: a0806m2r2 10-Jun-08 Elapse: 23:25.5 702
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 662 > 732 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2385

2384

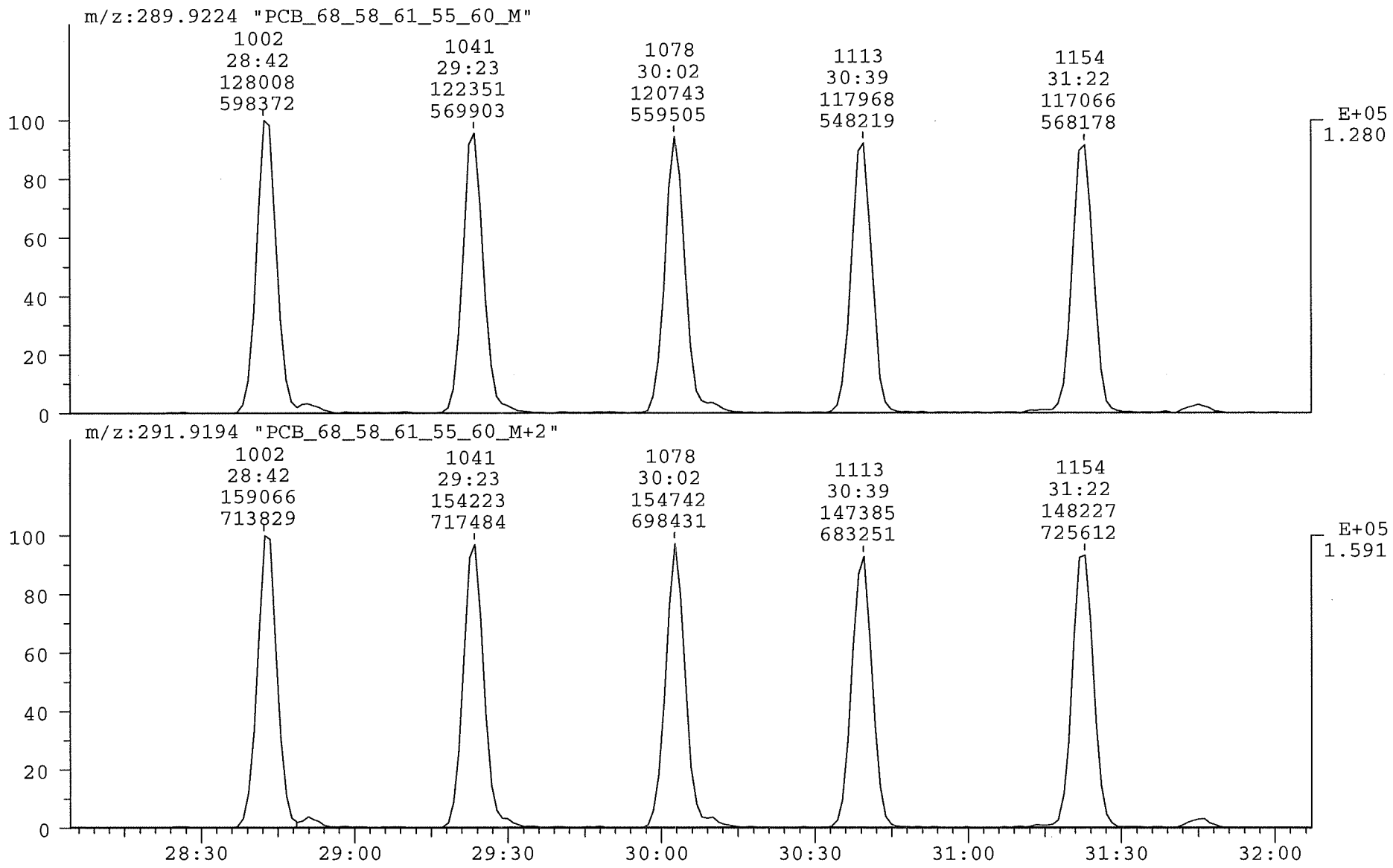
CHRO: a0806m2r2 10-Jun-08 Elapse: 26:30.3 877
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 787 > 967 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2386

2385

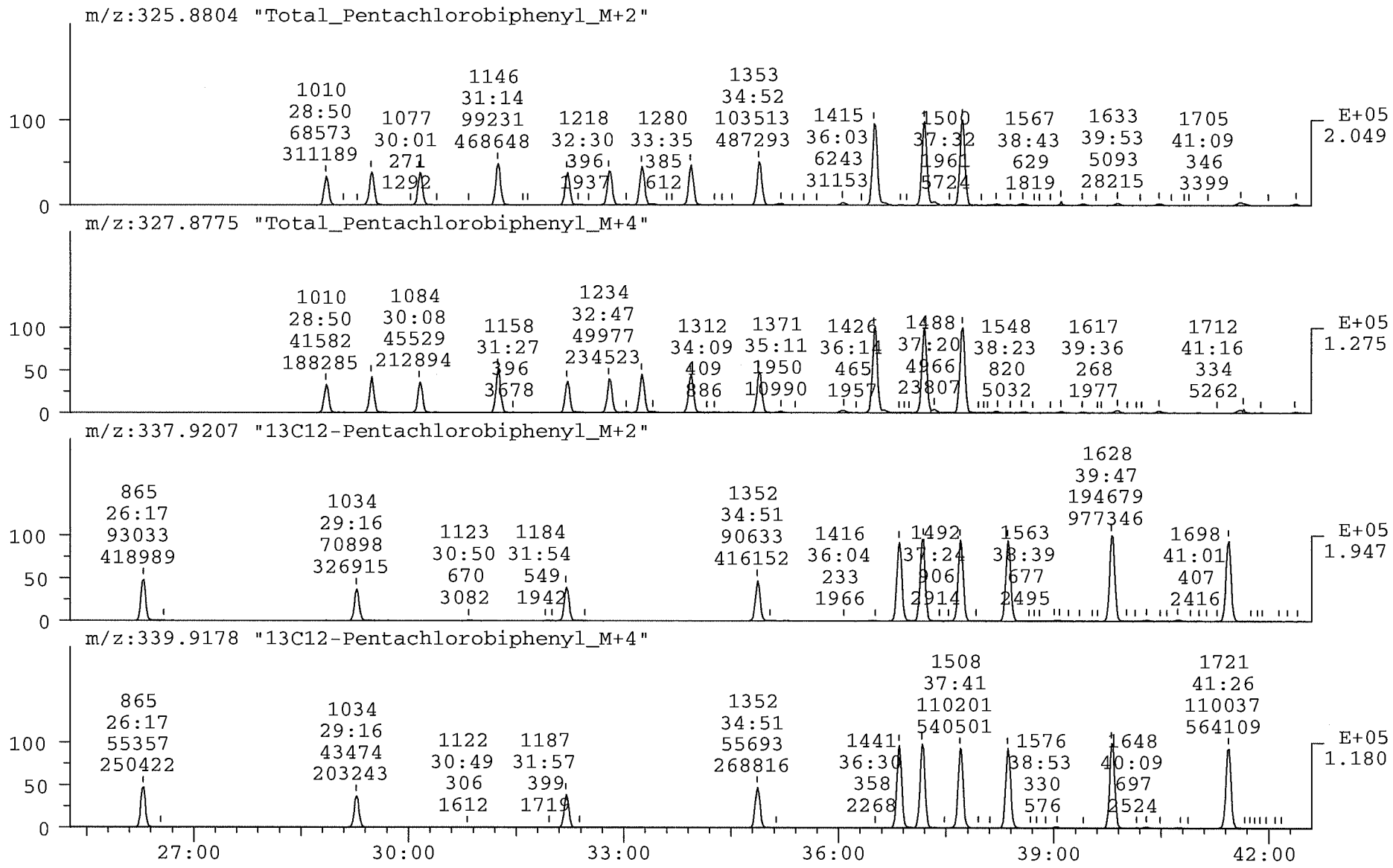
CHRO: a0806m2r2 10-Jun-08 Elapse: 30:05 1081
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 966 > 1196 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2387

2386

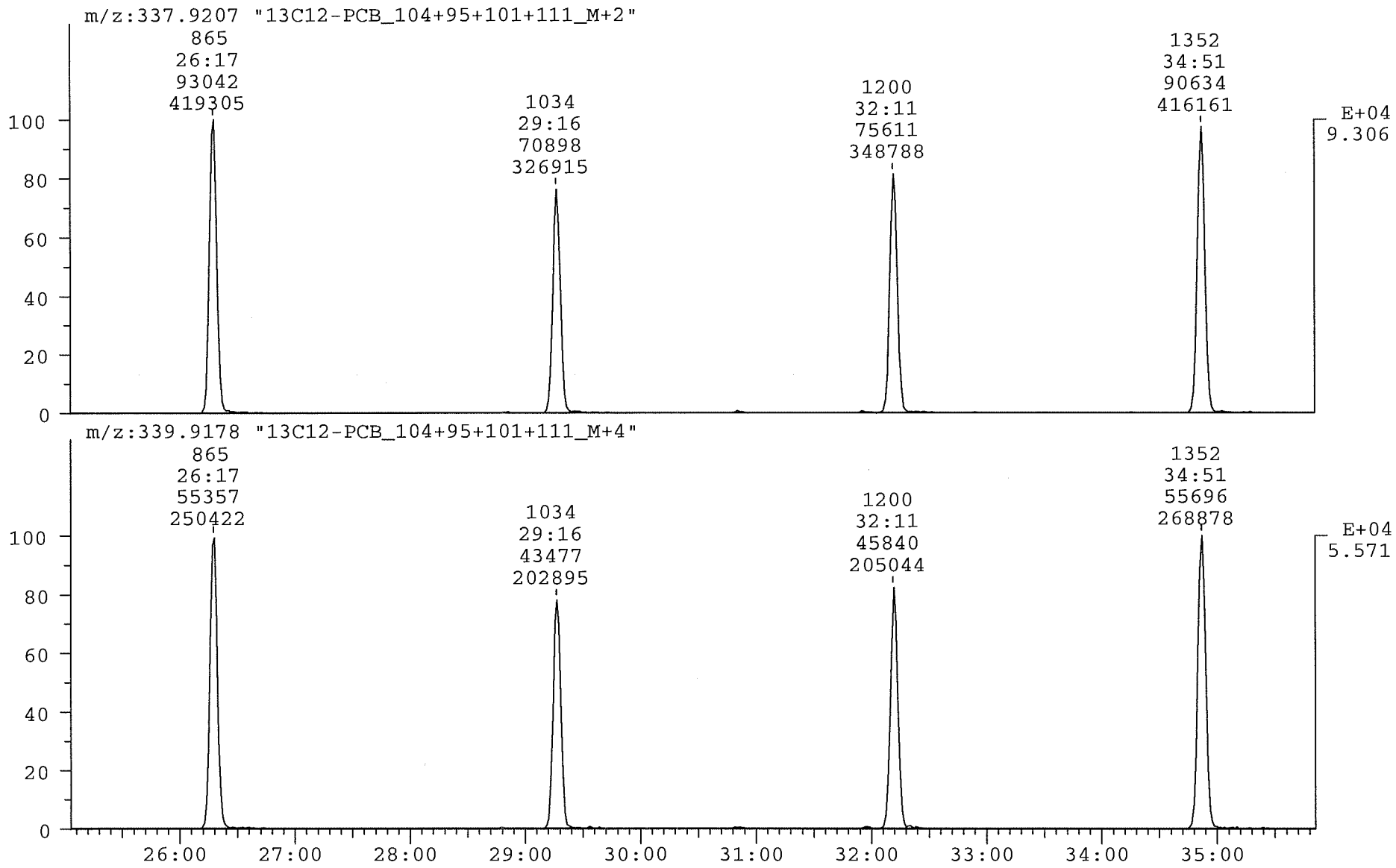
CHRO: a0806m2r2 10-Jun-08 Elapse: 33:55 1299
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 807 > 1787 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2388

2387

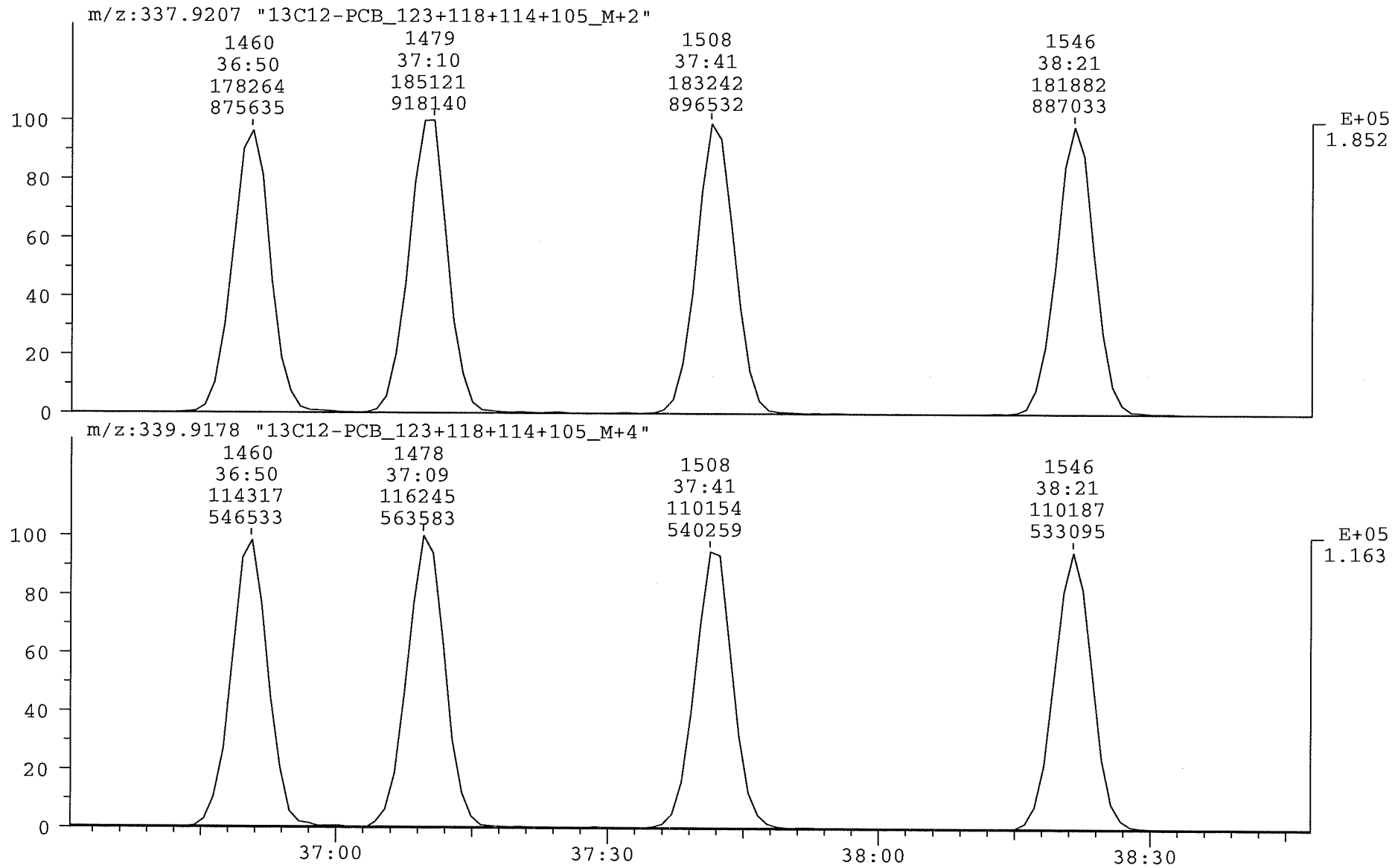
CHRO: a0806m2r2 10-Jun-08 Elapse: 30:26 1101
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 794 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2389

2388

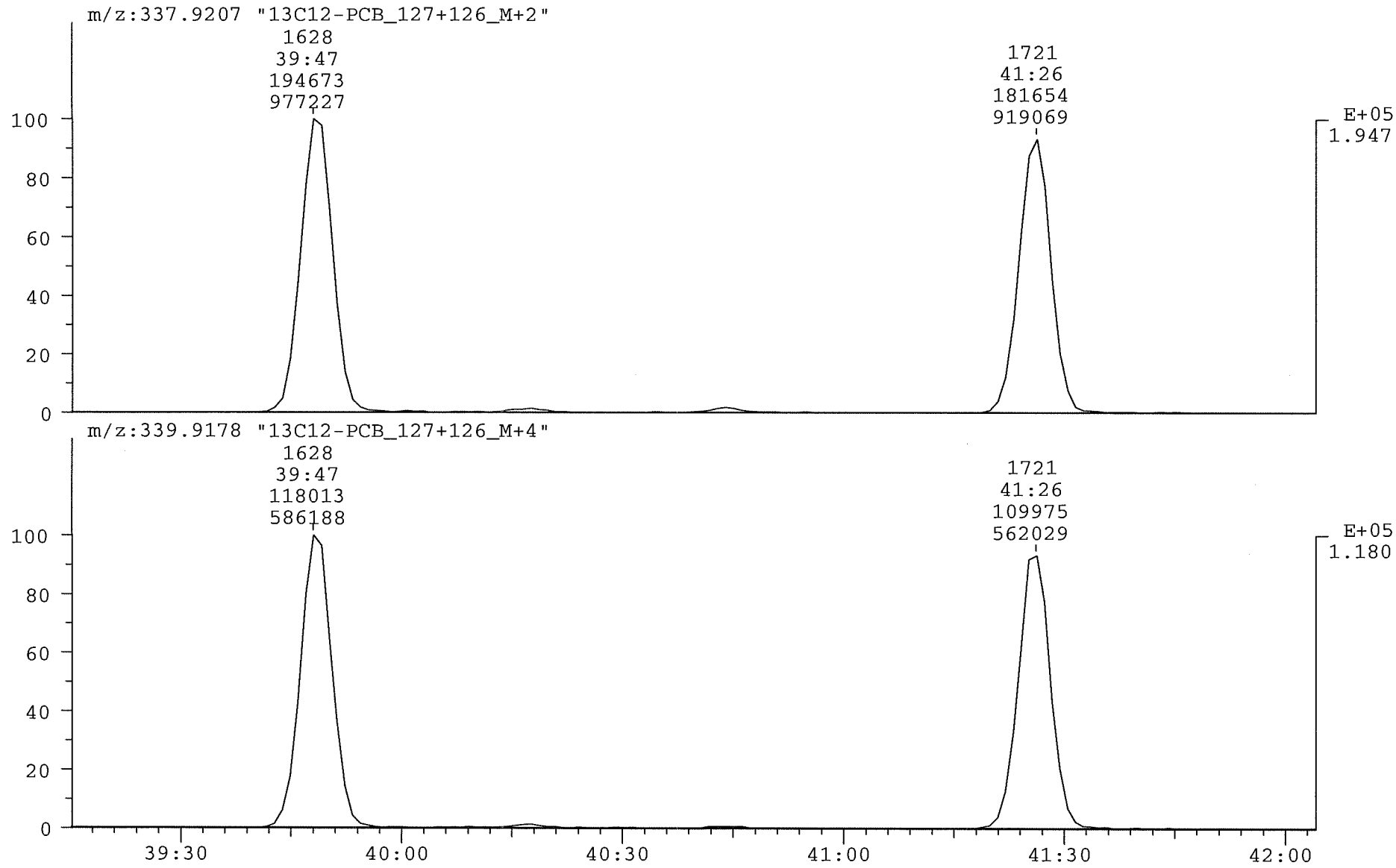
CHRO: a0806m2r2 10-Jun-08 Elapse: 37:39 1506
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1441 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2390

2389

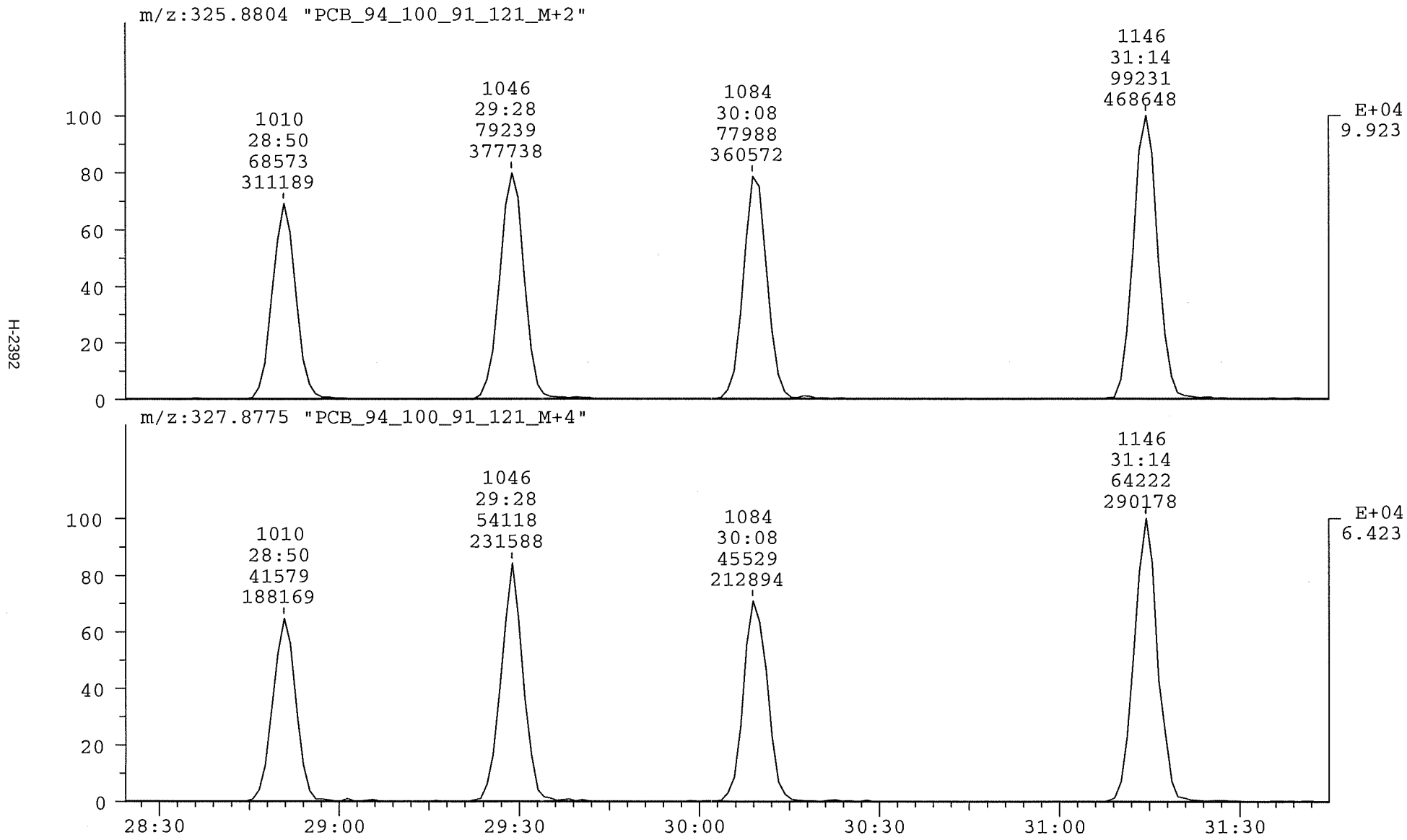
CHRO: a0806m2r2 10-Jun-08 Elapse: 40:39 1677
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1597 > 1757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2391

2390

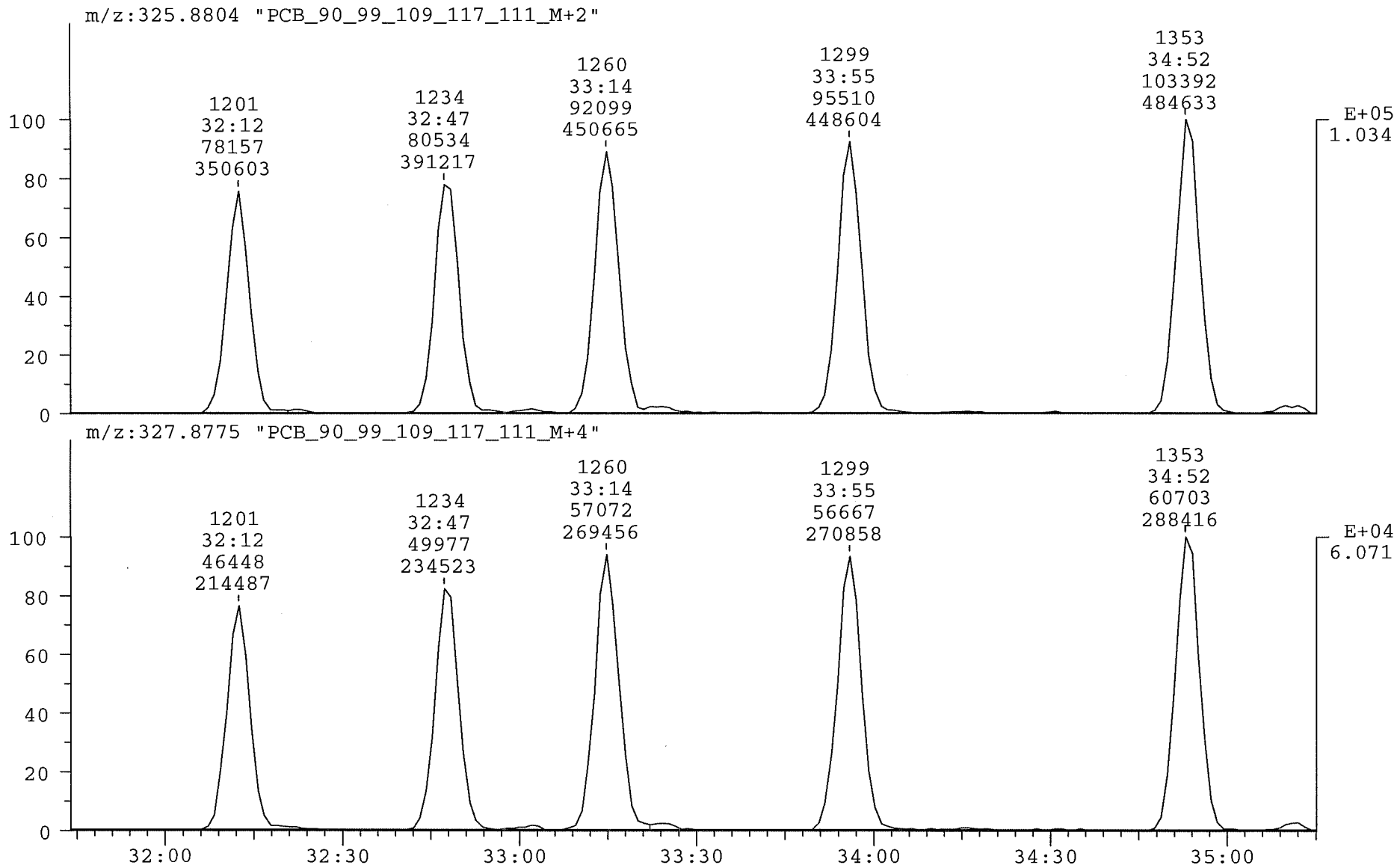
CHRO: a0806m2r2 10-Jun-08 Elapse: 30:04 1080
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 985 > 1175 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2392

2391

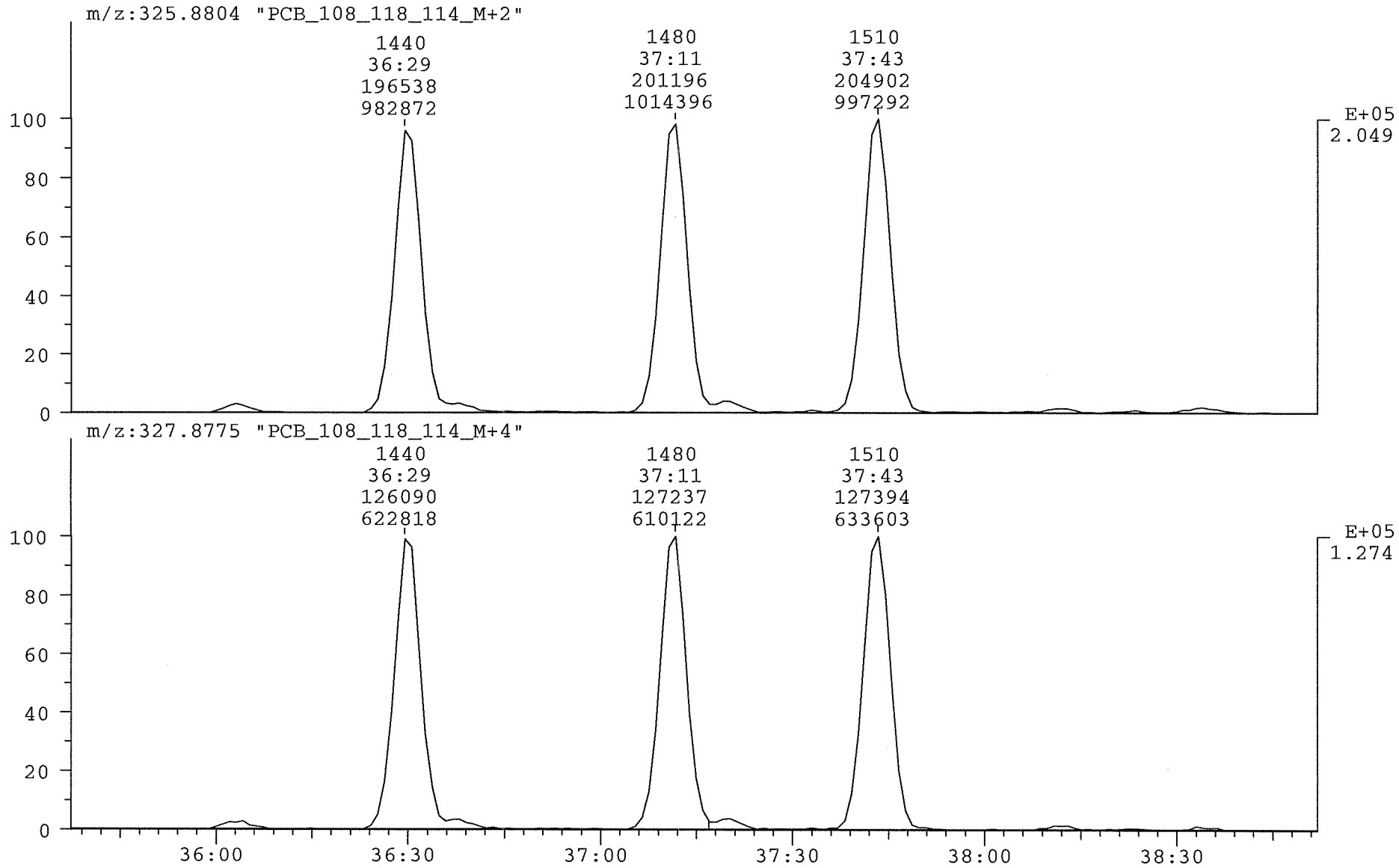
CHRO: a0806m2r2 10-Jun-08 Elapse: 33:29 1274
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1174 > 1374 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2393

2392

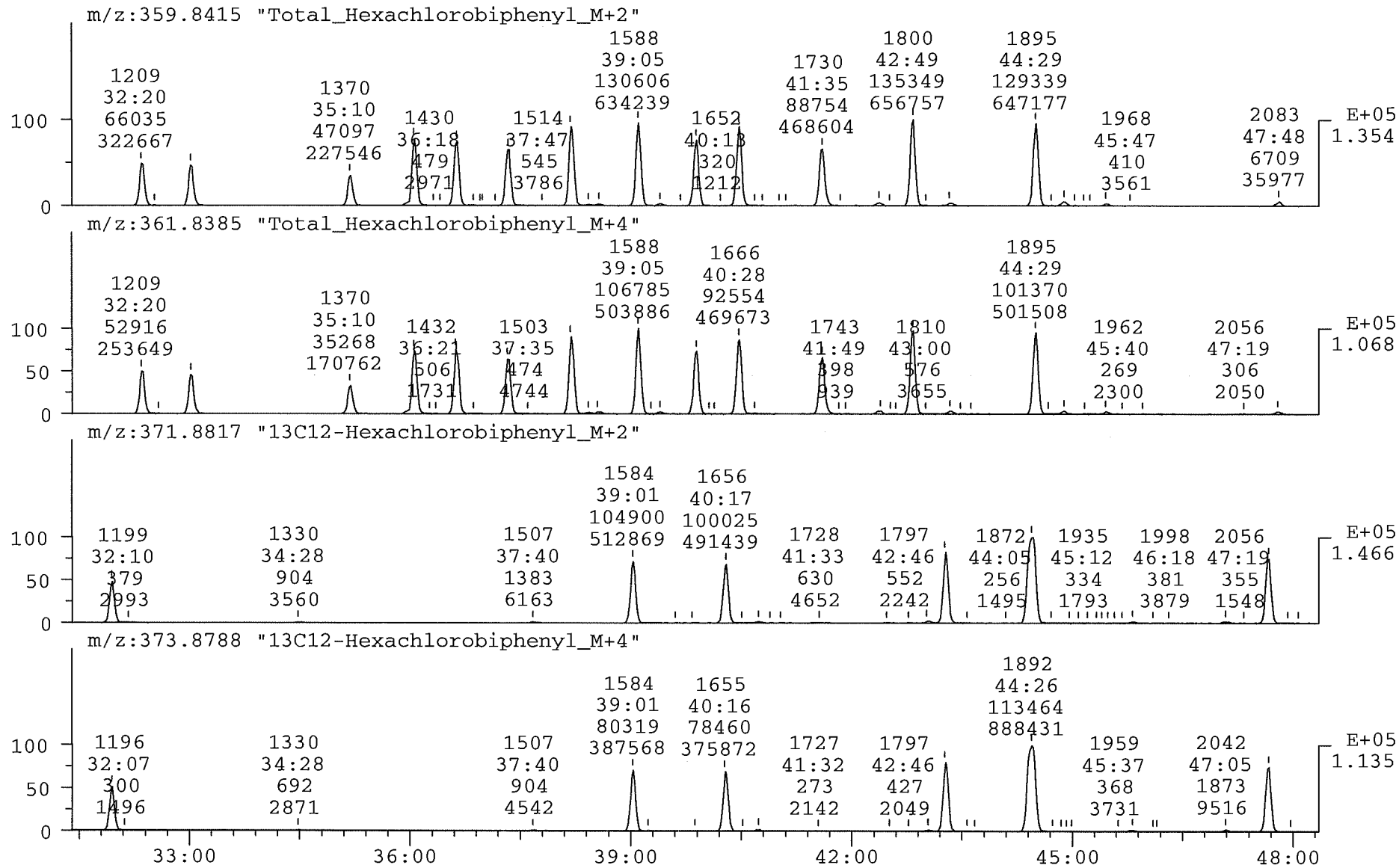
CHRO: a0806m2r2 10-Jun-08 Elapse: 37:16 1485
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1395 > 1575 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2394

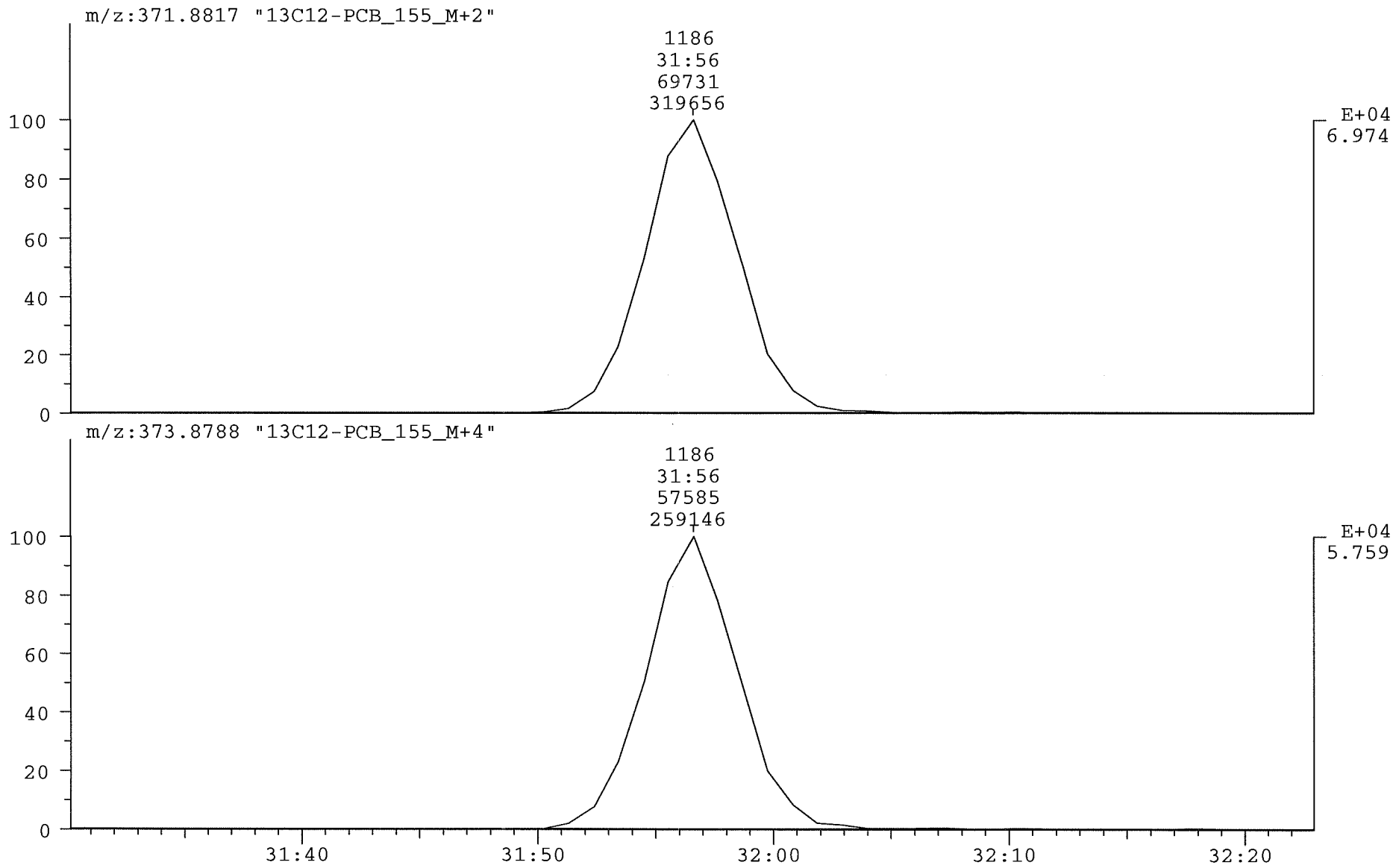
2393

CHRO: a0806m2r2 10-Jun-08 Elapse: 39:52 1632
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1155 > 2114 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2395

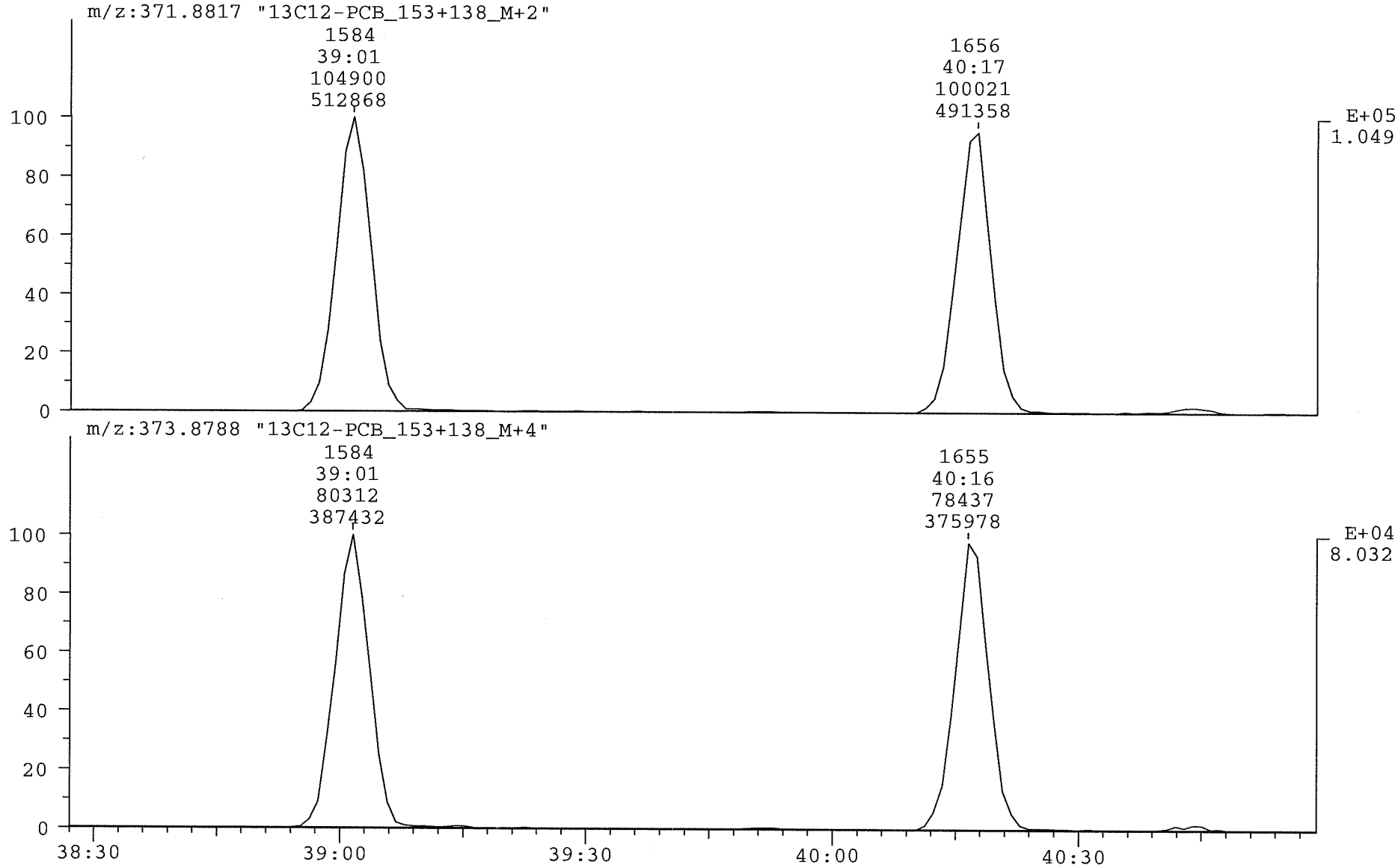
CHRO: a0806m2r2 10-Jun-08 Elapse: 31:56 1186
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1161 > 1211 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2396

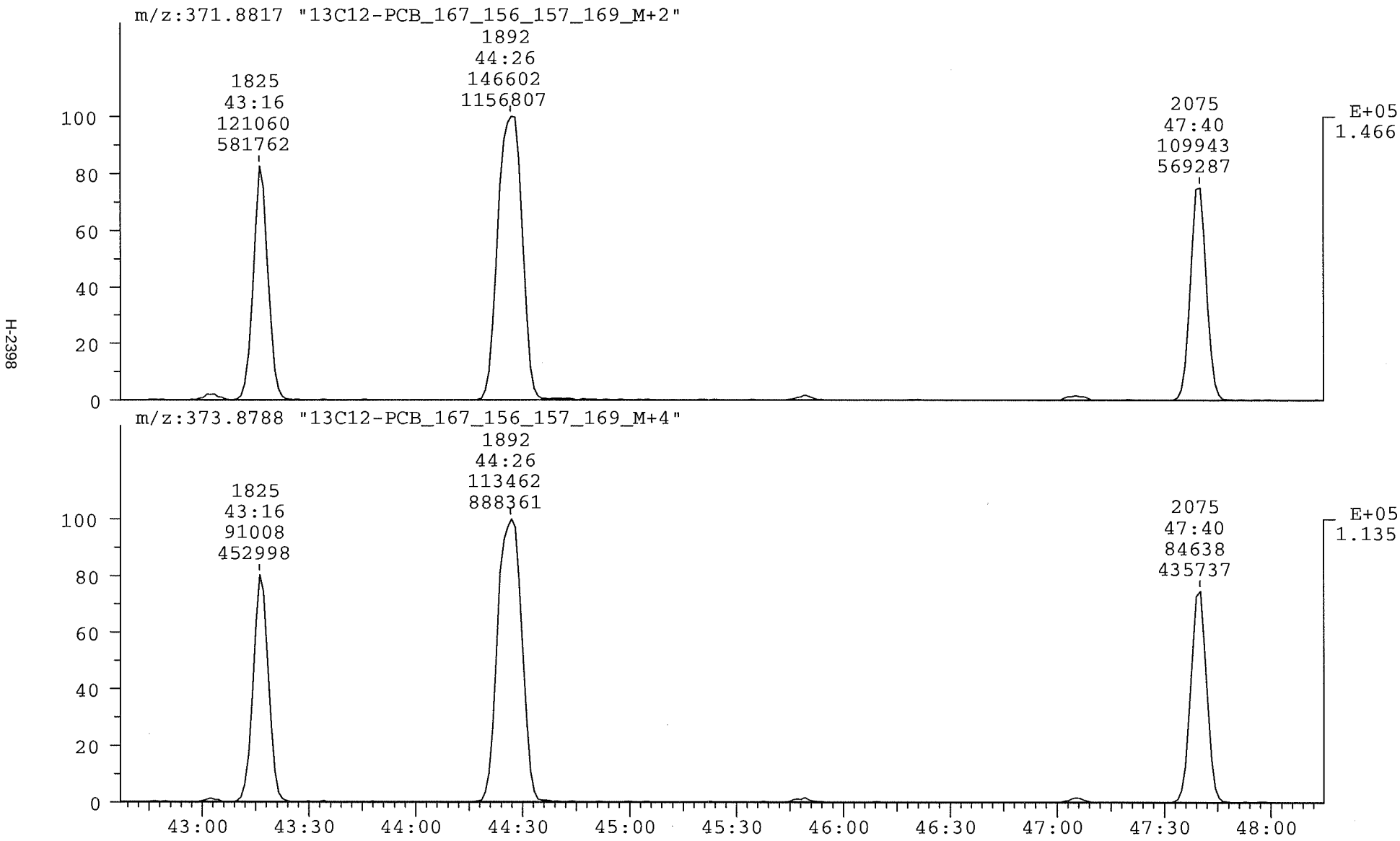
2395

CHRO: a0806m2r2 10-Jun-08 Elapse: 39:42 1623
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1551 > 1695 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2397

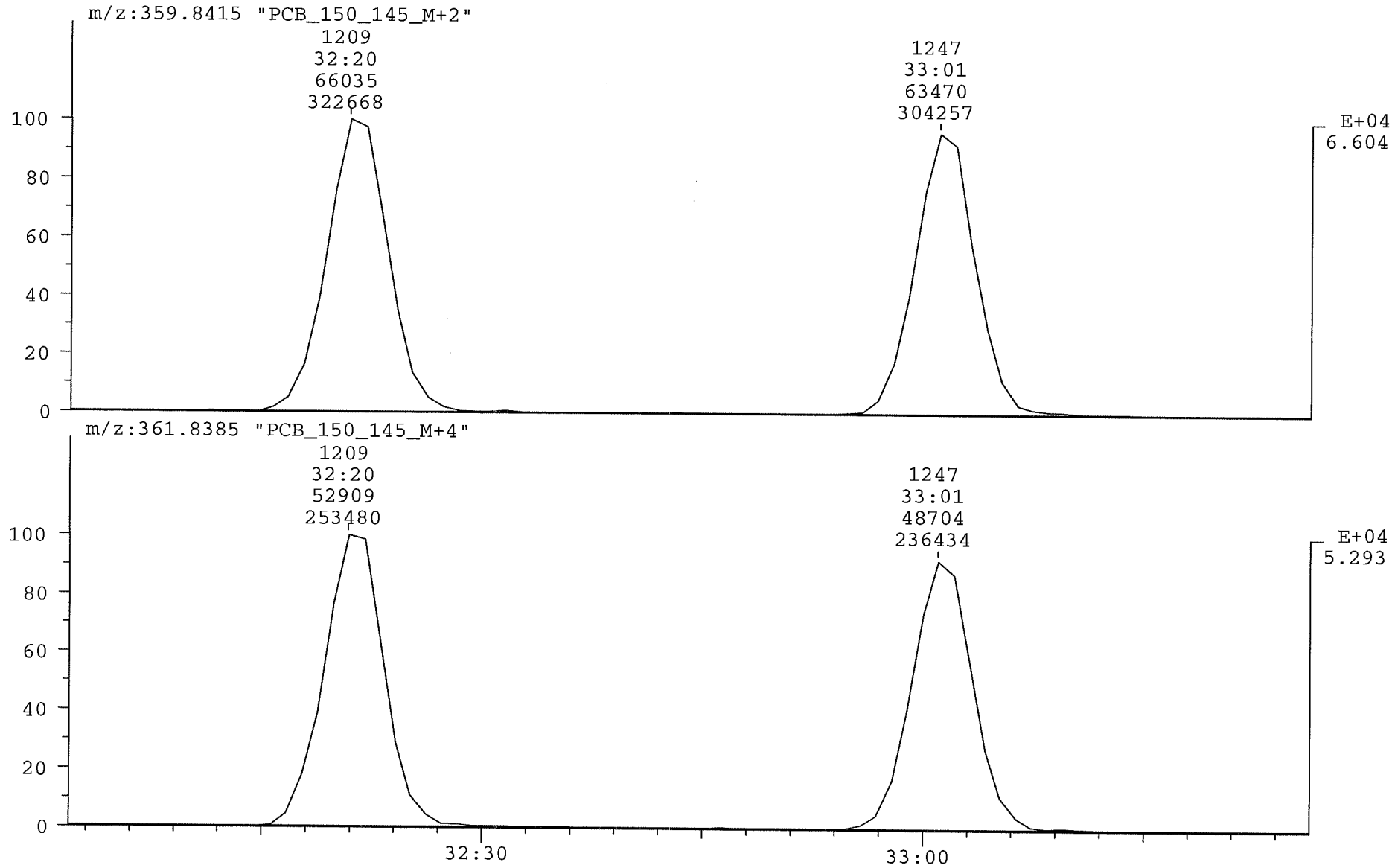
CHRO: a0806m2r2 10-Jun-08 Elapse: 45:31 1953
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1788 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2398

2397

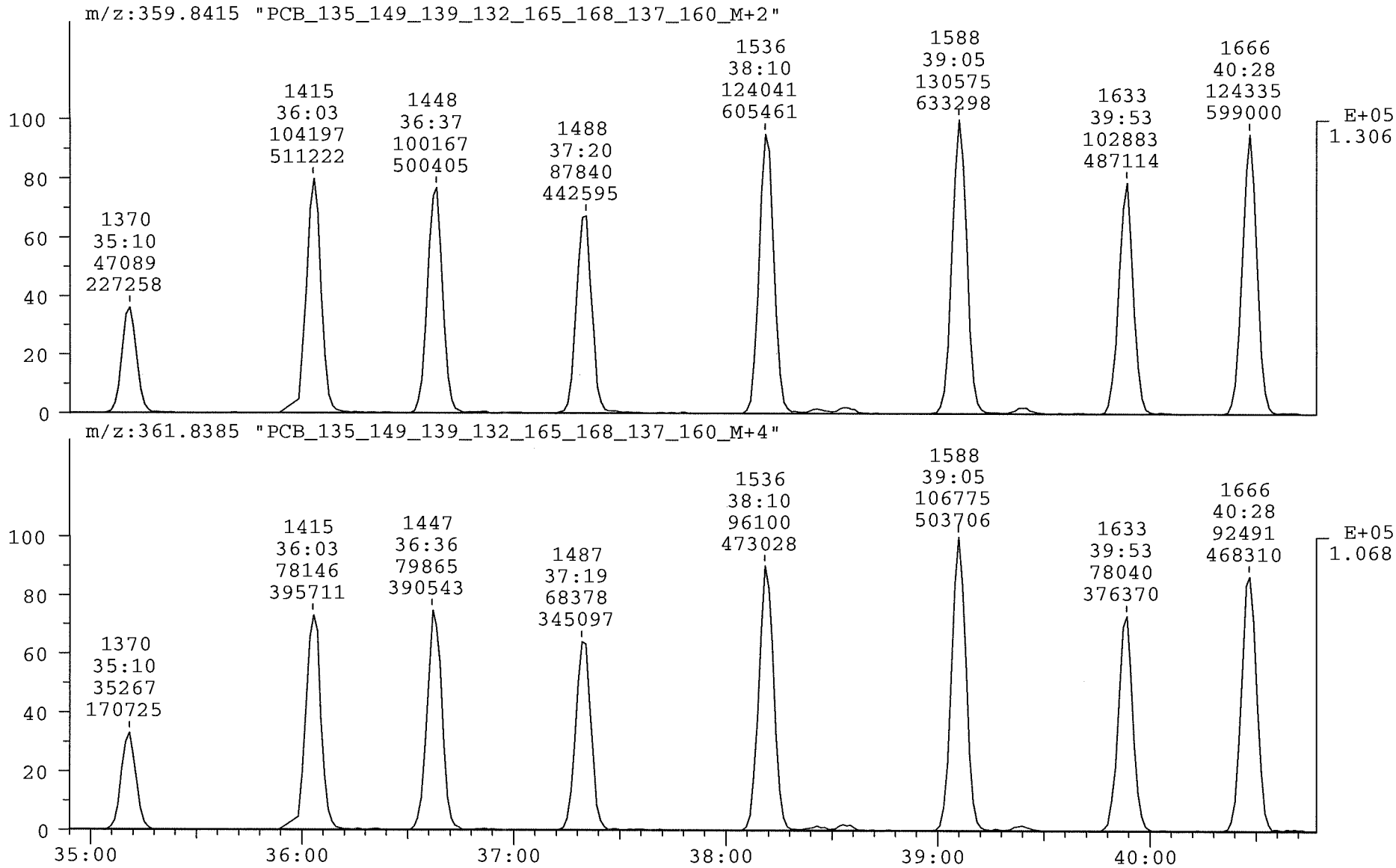
CHRO: a0806m2r2 10-Jun-08 Elapse: 32:44 1231
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1191 > 1271 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2369

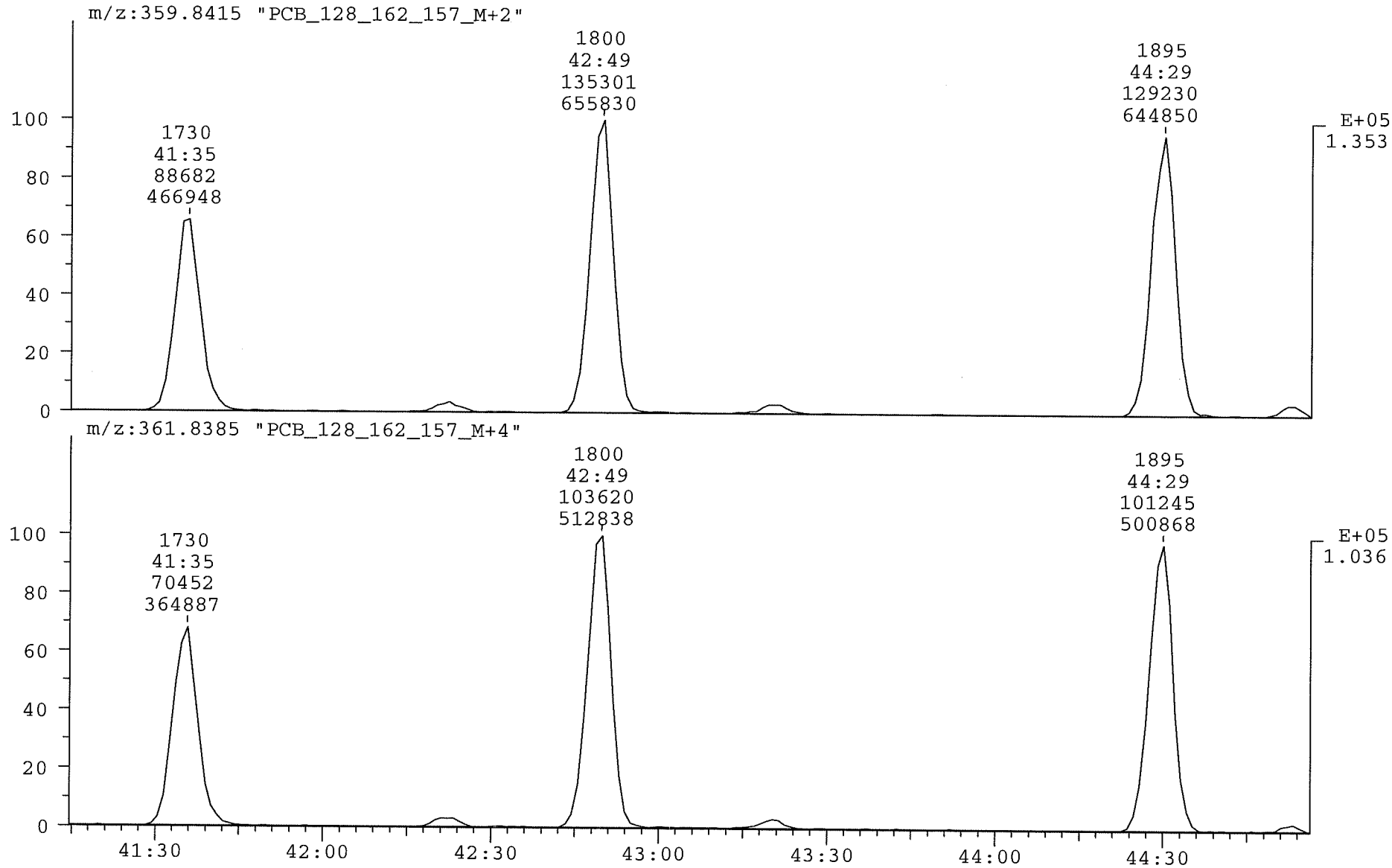
2398

CHRO: a0806m2r2 10-Jun-08 Elapse: 37:52 1519
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1354 > 1684 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2400

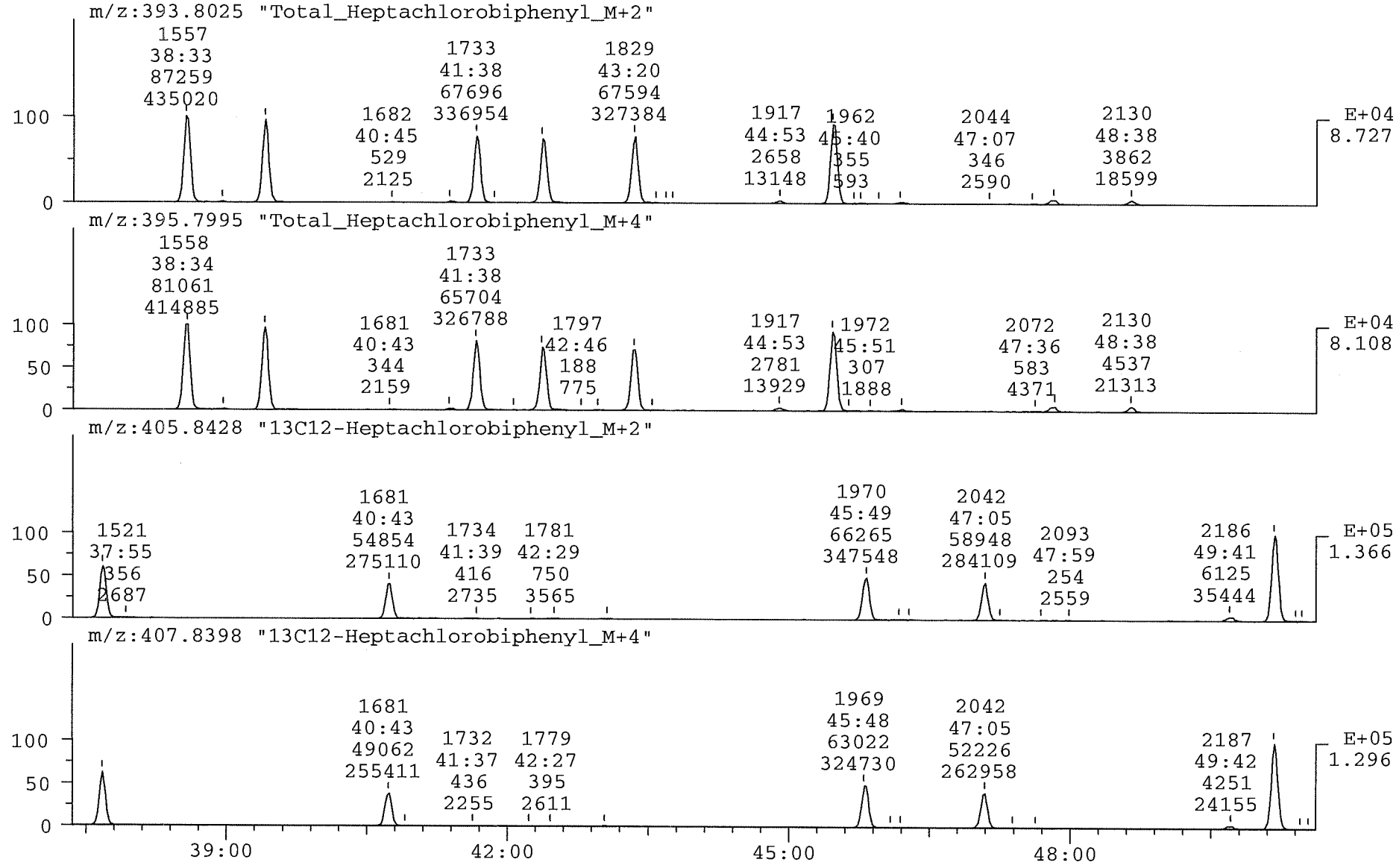
CHRO: a0806m2r2 10-Jun-08 Elapse: 43:05 1815
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1710 > 1920 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2401

2400

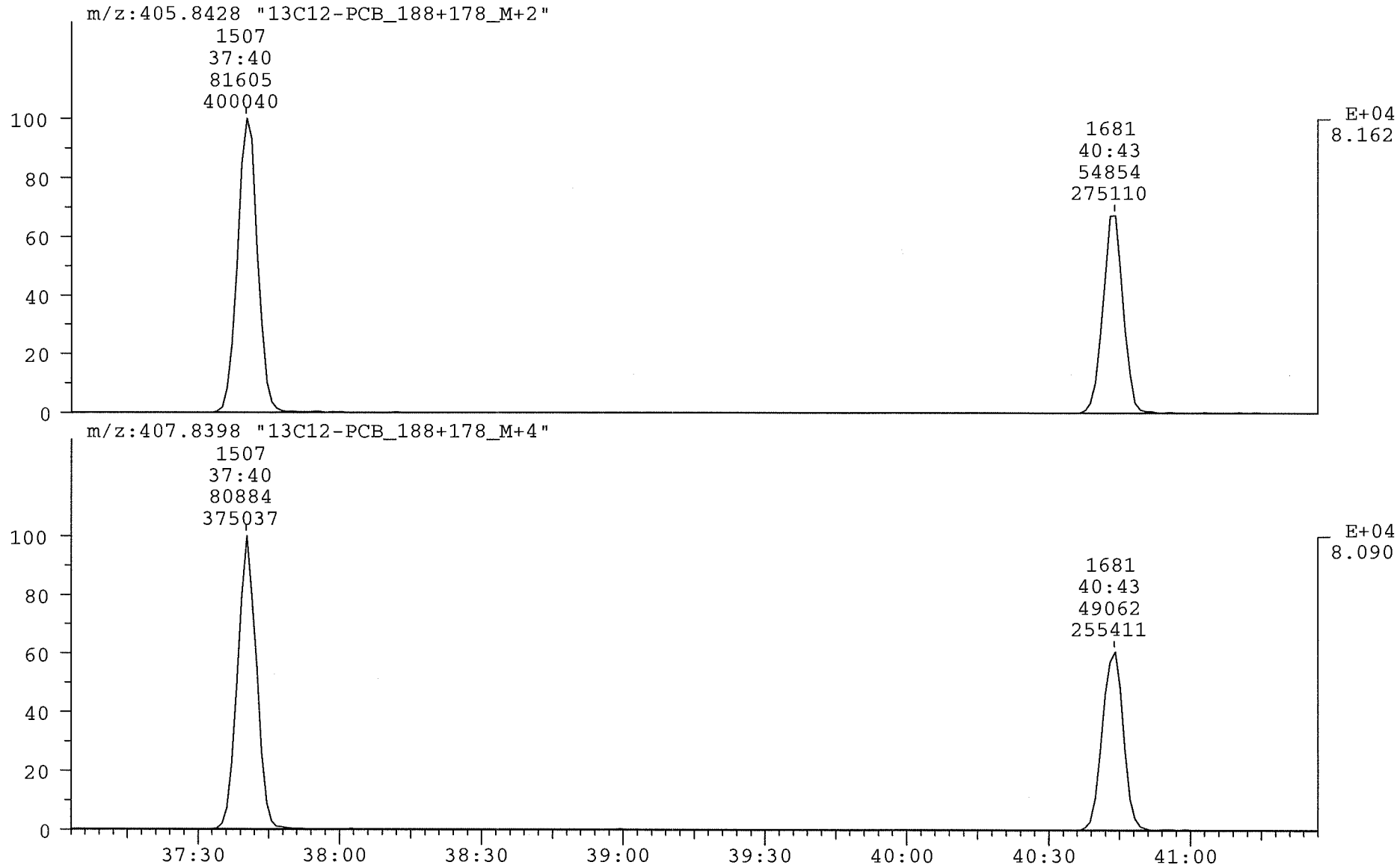
CHRO: a0806m2r2 10-Jun-08 Elapse: 43:59 1866
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1489 > 2239 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2402

2401

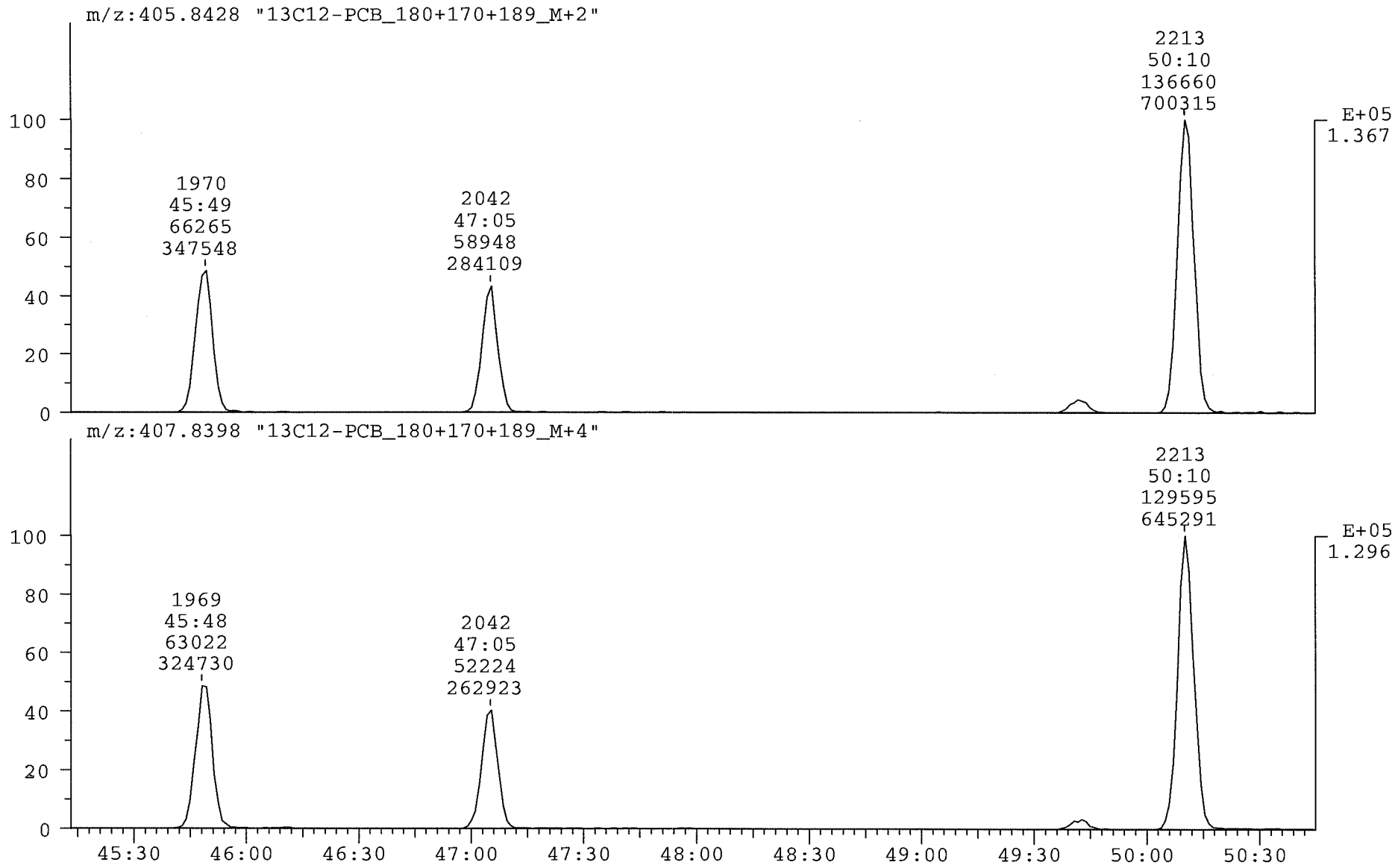
CHRO: a0806m2r2 10-Jun-08 Elapse: 39:15 1597
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1472 > 1722 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2403

2402

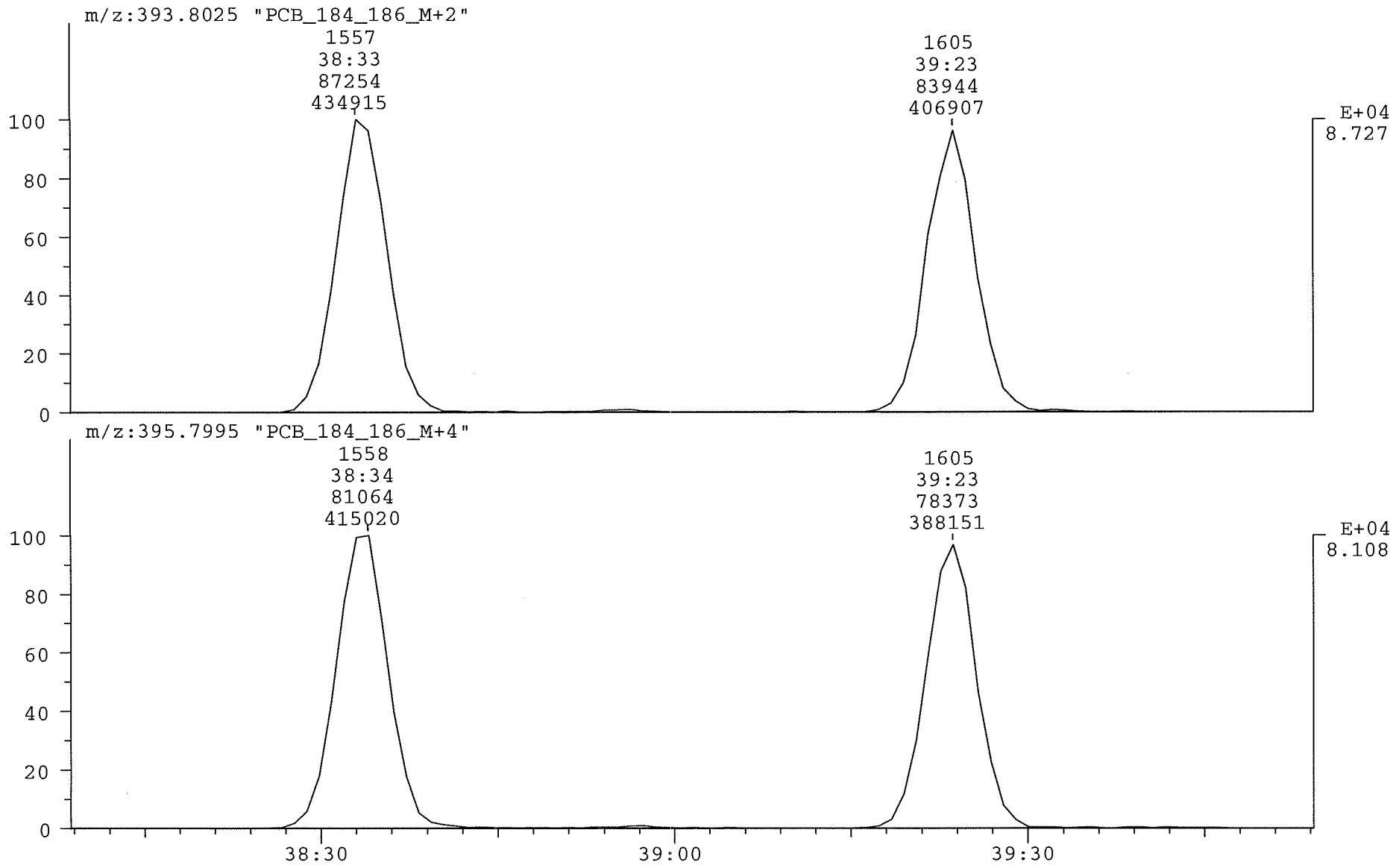
CHRO: a0806m2r2 10-Jun-08 Elapse: 48:02 2096
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1936 > 2246 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2404

2403

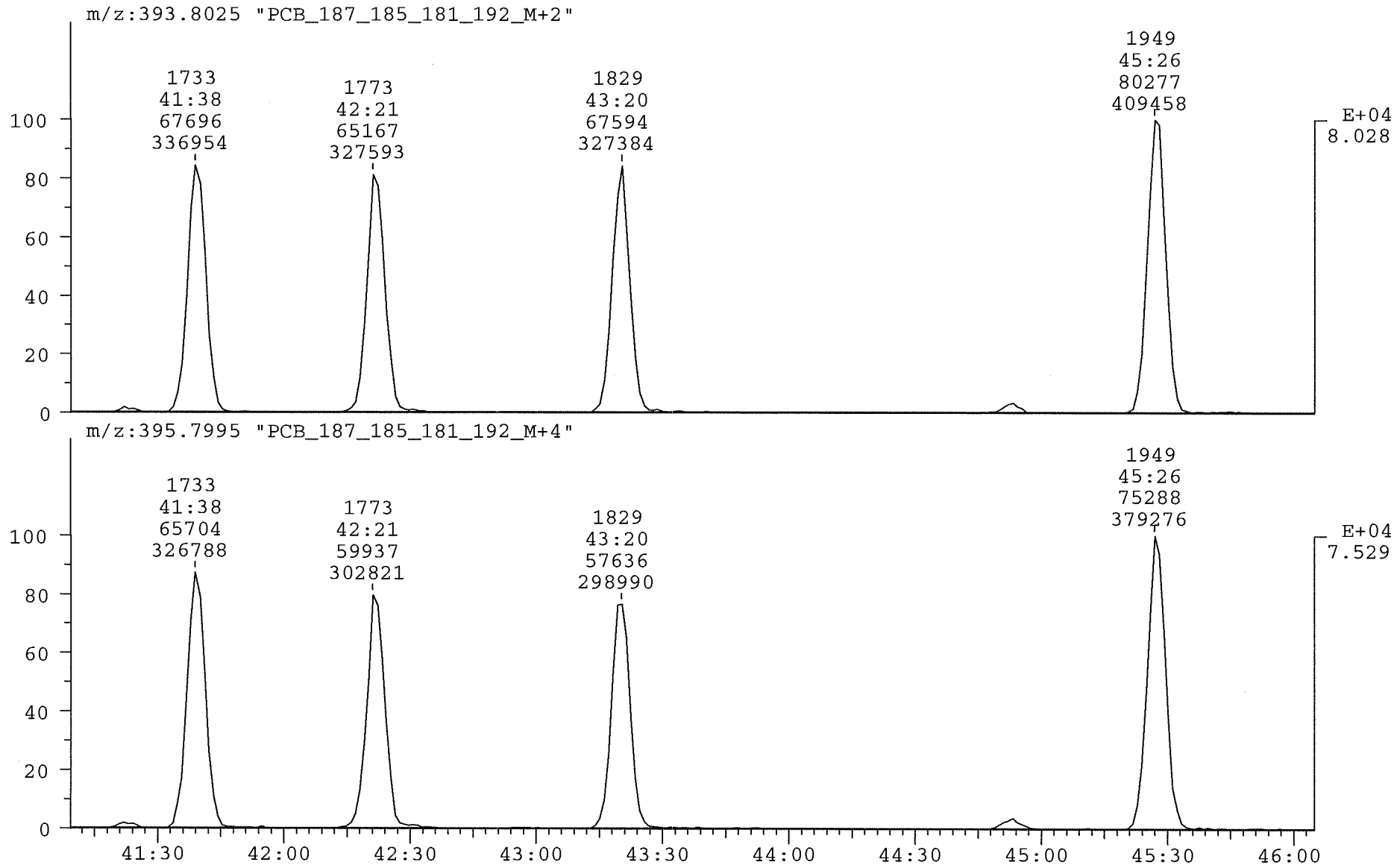
CHRO: a0806m2r2 10-Jun-08 Elapse: 39:01 1584
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1534 > 1634 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2405

2404

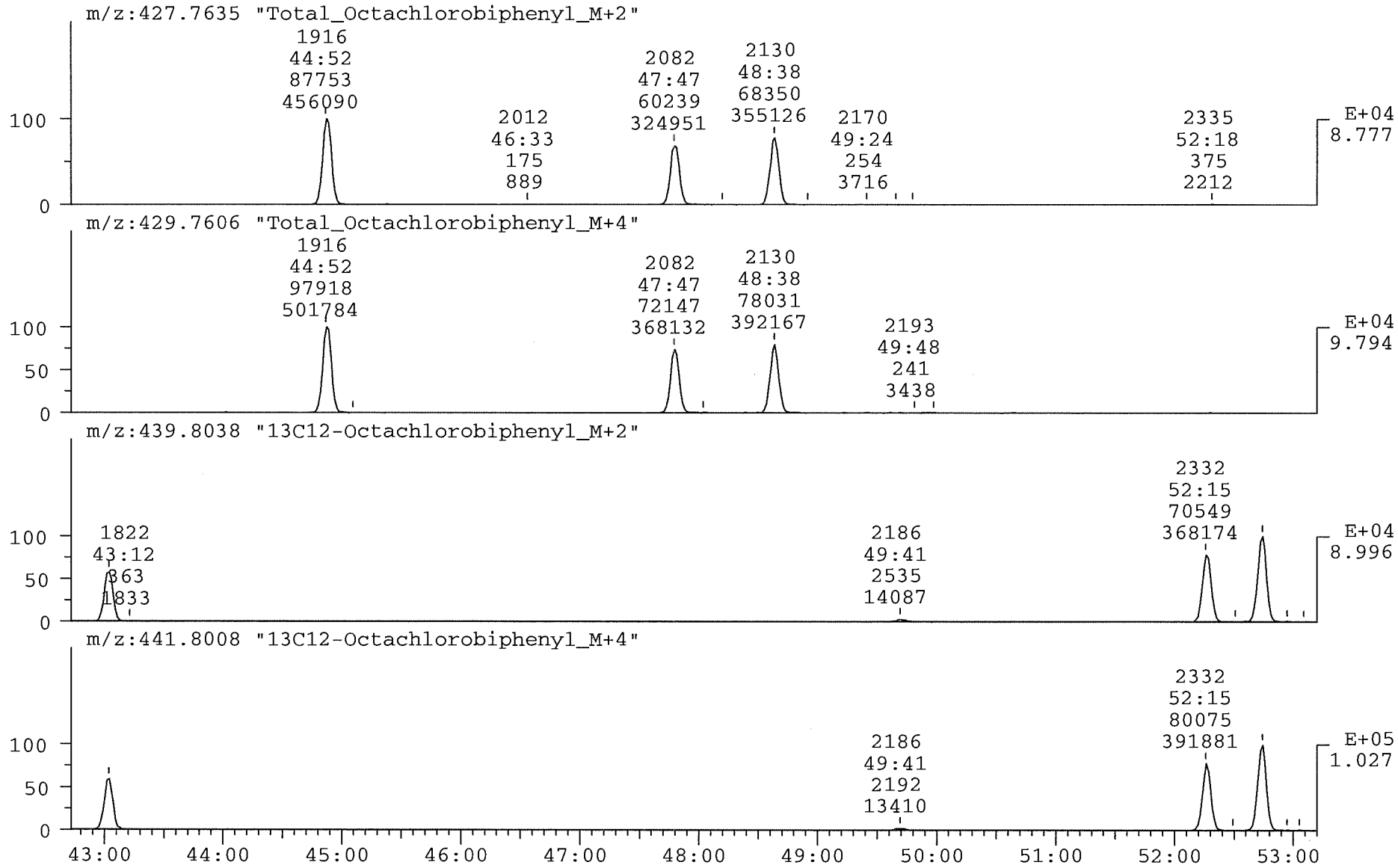
CHRO: a0806m2r2 10-Jun-08 Elapse: 43:37 1845
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1705 > 1985 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2406

2405

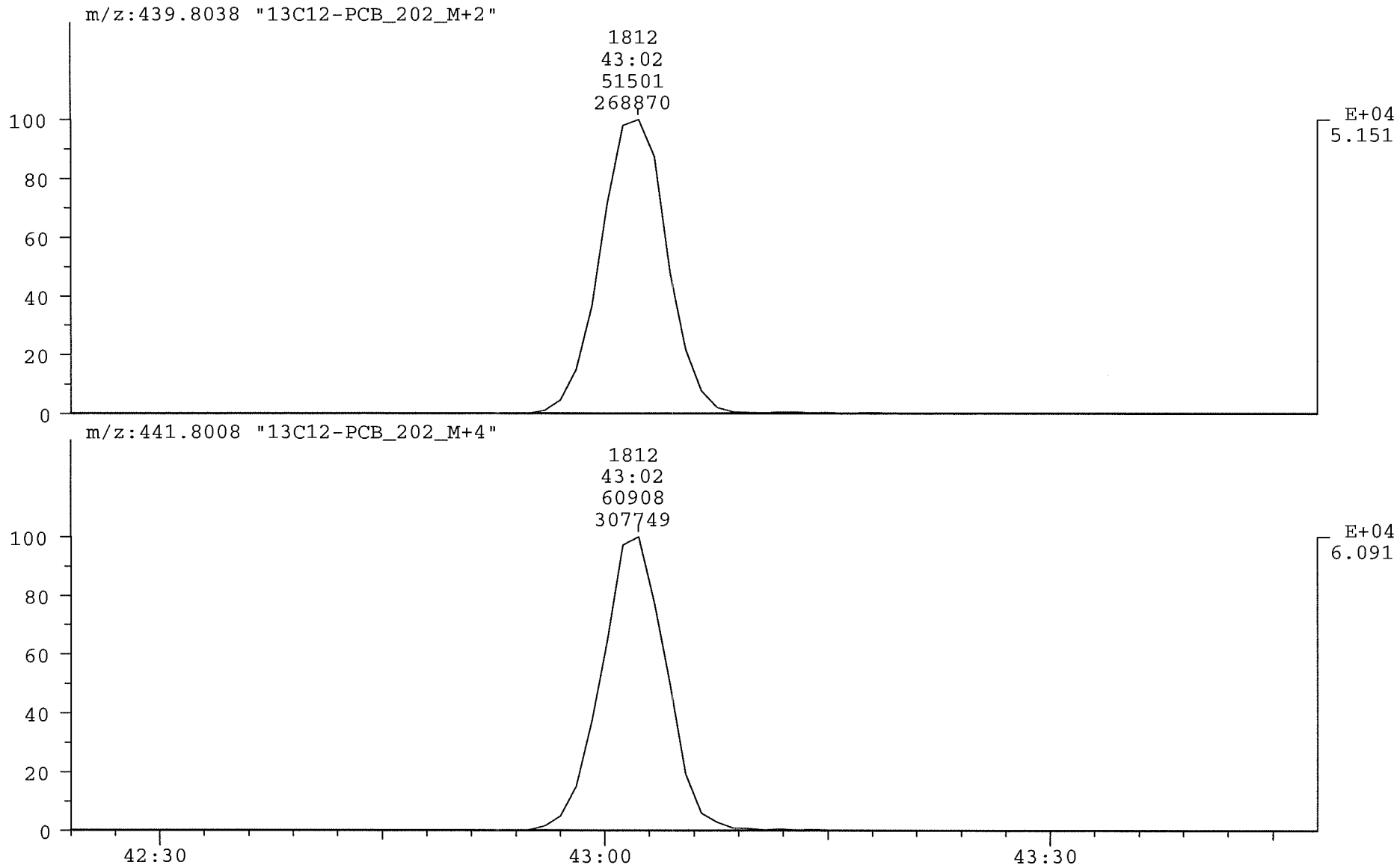
CHRO: a0806m2r2 10-Jun-08 Elapse: 47:56 2091
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1794 > 2385 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2407

2406

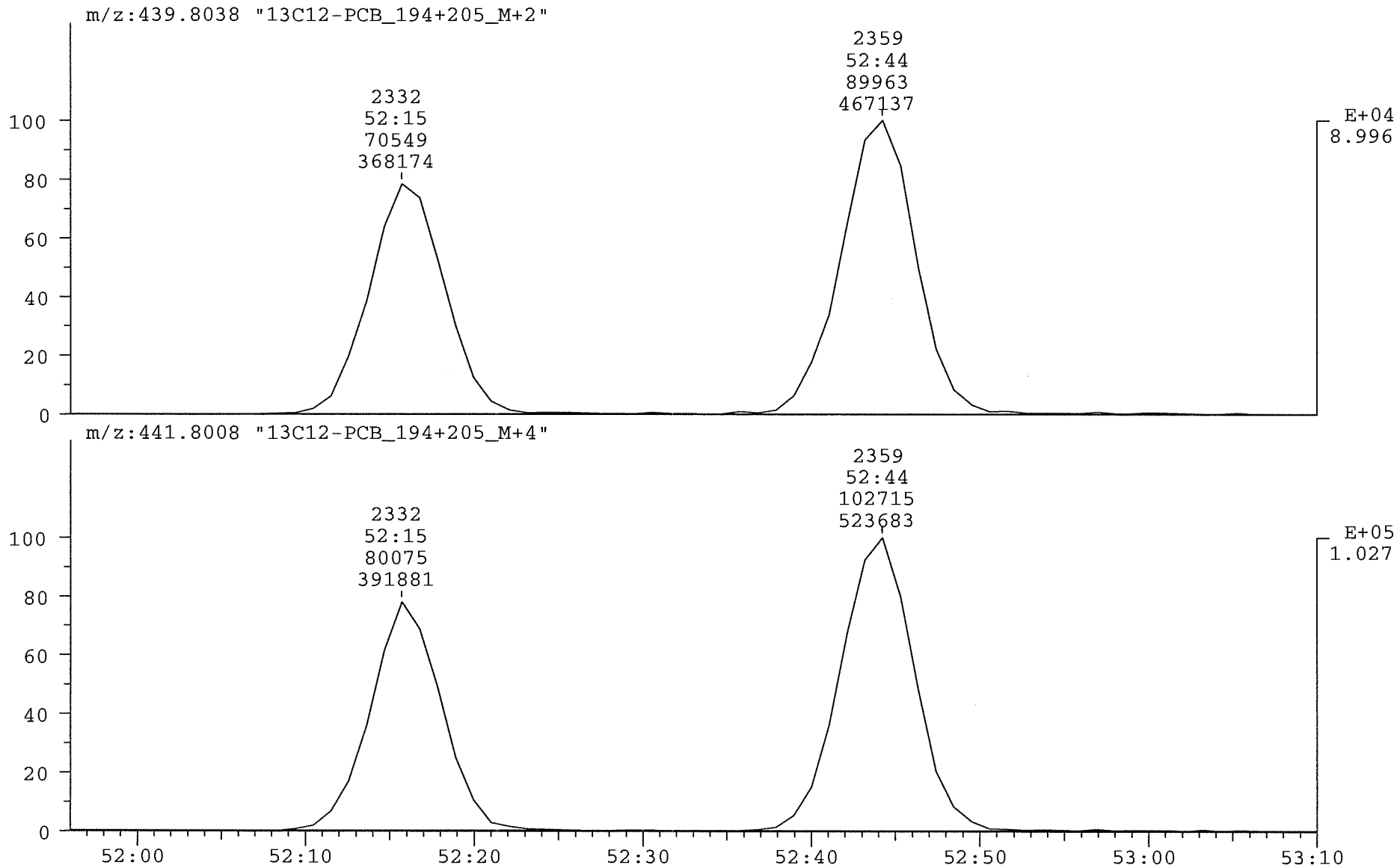
CHRO: a0806m2r2 10-Jun-08 Elapse: 43:03 1813
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1776 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2408

2407

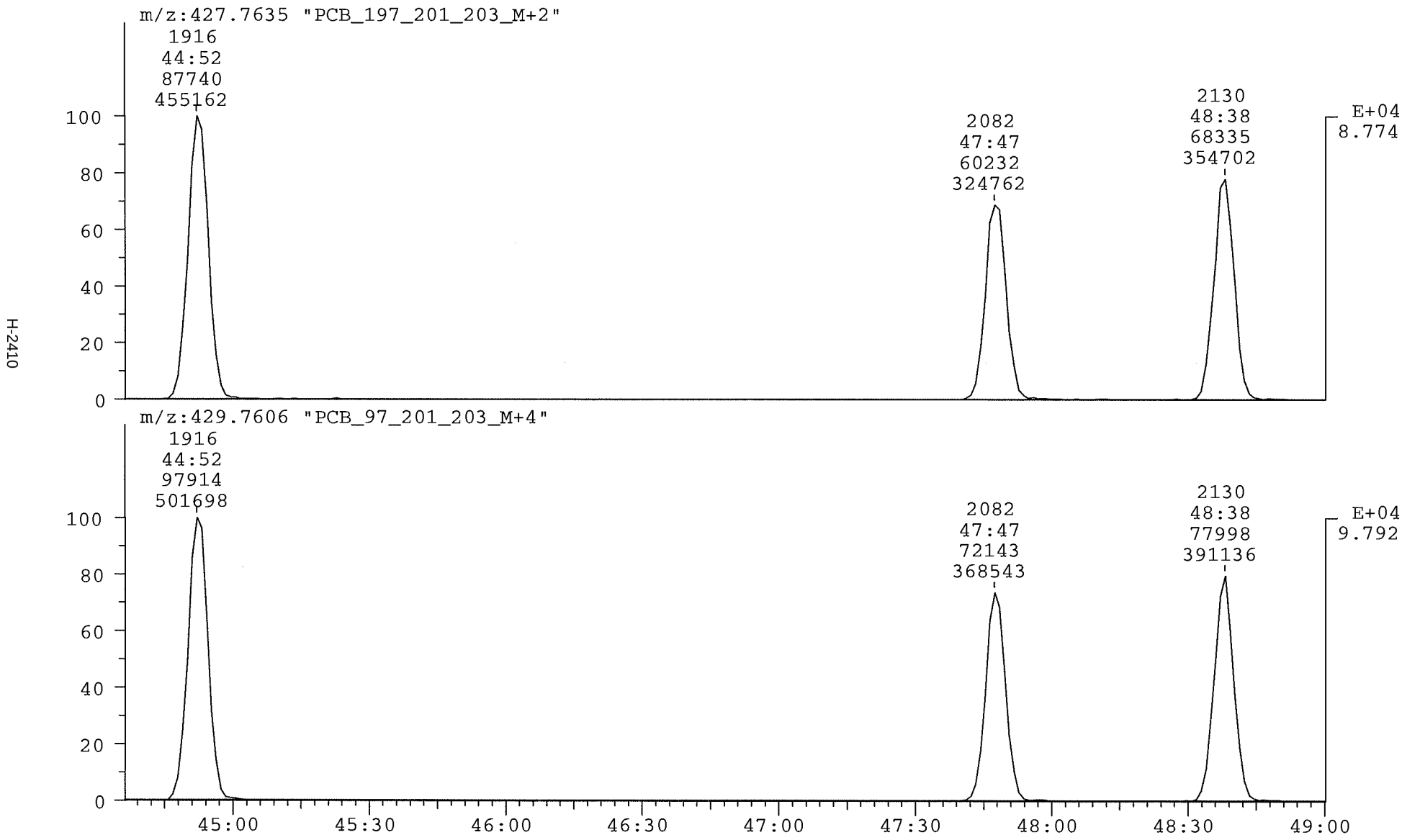
CHRO: a0806m2r2 10-Jun-08 Elapse: 52:32 2348
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2313 > 2383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2409

2408

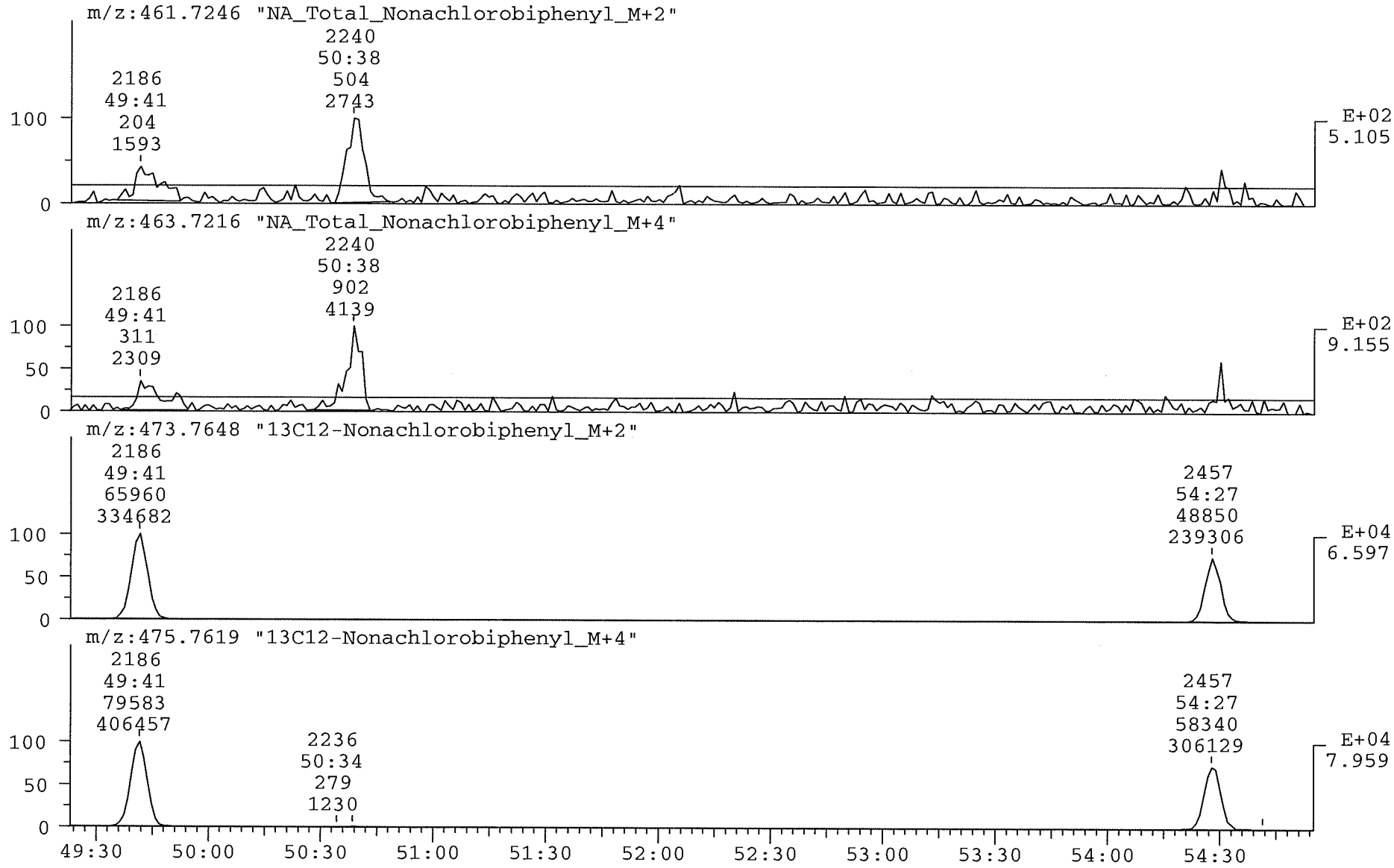
CHRO: a0806m2r2 10-Jun-08 Elapse: 46:48 2026
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1901 > 2151 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2410

2409

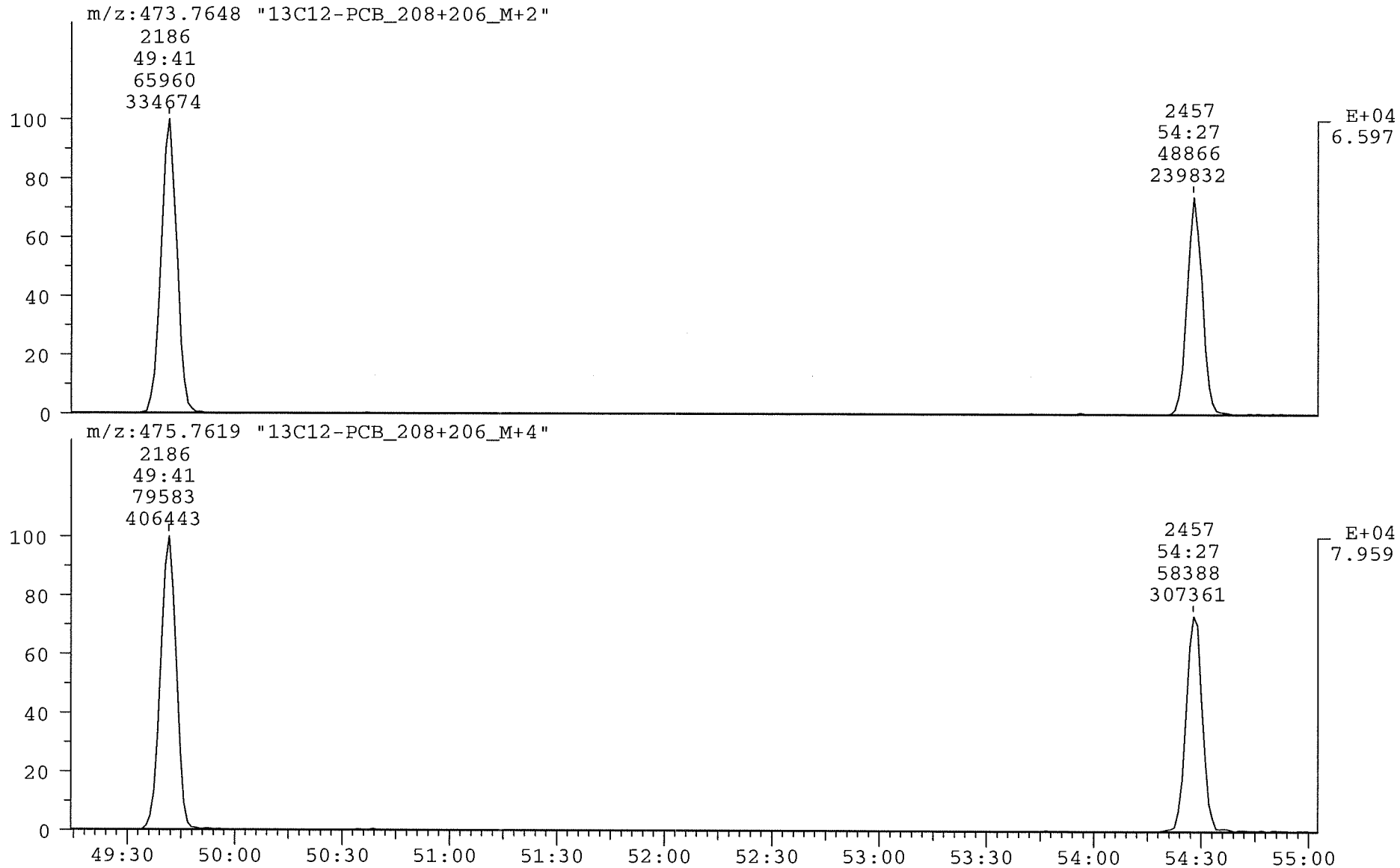
CHRO: a0806m2r2 10-Jun-08 Elapse: 52:09 2326
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2168 > 2483 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2411

2410

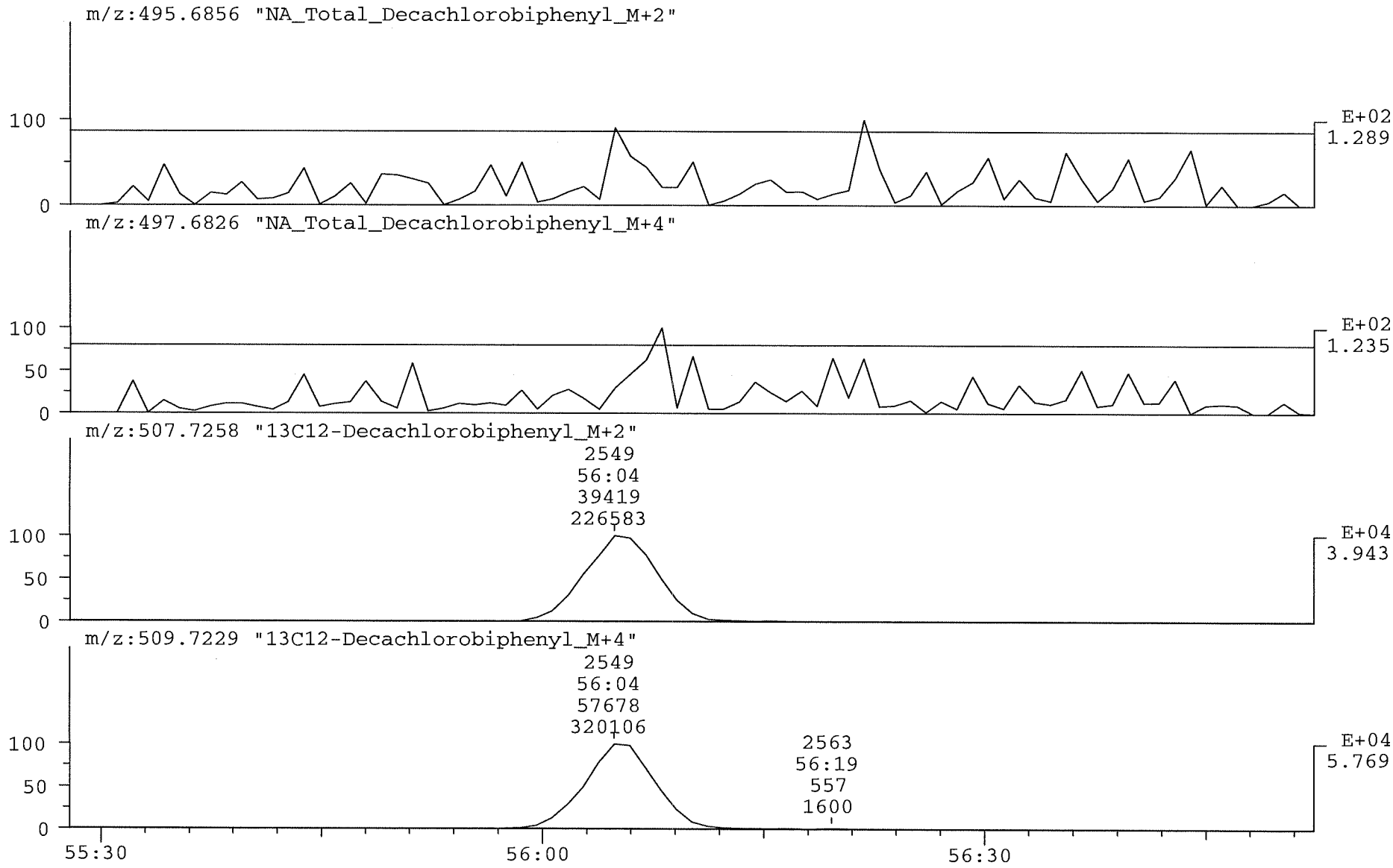
CHRO: a0806m2r2 10-Jun-08 Elapse: 52:08 2325
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2160 > 2490 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2412

2411

CHRO: a0806m2r2 10-Jun-08 Elapse: 56:10 2554
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 20:44:22 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2514 > 2594 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2413

2412

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m2r2
Study: 2990:75 Mix 2
Sample: WO=2990:75Mix2 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume: 2.00
Sample from Vial 12
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 7 of list 080609
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:12 min	35:52 min	1.00 sec
# 3	35:52 min	13:13 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	l	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times

```
 Sample rinse cycles      (R):      0 times
 Syringe filling volume   (F):    1.0 ul
 Pullup delay time        (D):      4 sec
 Sample pullup count      (P):      2 times
 Sample pullup speed      (E):    5.0 ul/sec
 Slvnt aftr pre inj cln   (U):    0.0 ul
 Air after pre inj cln    (G):    2.0 ul
 Sample volume            (V):    2.0 ul
 Sample air volume        (A):    2.0 ul
 Injection speed          (S):   10.0 ul/sec
 Pre Inj. wait time       (W):     10 sec
 Post Inj. hold time      (H):      3 sec
 Solvent A clean cycles   (C):     15 times
 Solvent B clean cycles   (B):      0 times
 Loop clean w slvnt A    (LC):      0 times
 Loop clean w slvnt B    (LB):      0 times
 Standard sample volume   (X):    0.0 ul
 Standard air volume      (Y):    0.0 ul
 2nd Injection volume     (I):    0.0 ul
 Air volume of 2nd inj    (J):    0.0 ul
 Time btwn 2 injections   (T):      0 sec

GC descriptor :  epa1668
  Injector:         270 deg                        270 deg max
  Transfer Line:    280 deg                        280 deg max
  Column:            75 deg at    0.0 minutes     280 deg max
                     75 deg at    2.0 minutes
                    150 deg at    7.0 minutes
                    270 deg at   55.0 minutes
                    270 deg at   57.0 minutes
  Inlet    :     Splitless mode
   Purge time             1.5 min
   Purge flow            40.0 ml/min
   Gas saver is on
   Saver time             3.0 min
   Saver flow            15.0 ml/min
  Column   :  Constant Flow     1.0 ml
  Stabilize time   0.0 minutes


ICL Parameters

 BCORRL          0.0150    BCORRS          0.0110    BCURR       16383.0000
 BDEV        16383.0000    BFM             2.0000    BLM          1032.0953
 BMASS         180.4888    BQUAD           0.0000    CAPIL           0.0000
 CAPTEMP       359.9988    CAPTSET       200.0000    CCURR           3.5529
 CORONA          0.0000    CYCLE           0.0000    DELAY           0.0000
 DITEMP          0.1954    DITSET          0.0000    DRAW          -19.0500
 DRAWC           1.0000    DRAWS           0.0100    ECORR           1.0010
 ECURR           1.0000    EDAC      7969177.0000    EDACG           1.0000
 EDACR          23.0000    EDACZ         394.0000    ELEN           56.5000
 EMULT           1.5200    ENS           460.0000    ERATIO          1.0000
 ESA           763.8000    ESICUR         10.0011    ESIPAR          0.0000
 EXS           146.0000    FDMA     18000000.0000    FLENS           1.0000
 FM             20.0000    FMII           50.0000    FQUAD           0.0000
 FREQ          300.4808    FSLOPE   54000000.0000    FVANAL        351.0000
 FVINLET       261.0000    FVSRC         978.0000    FWIN            0.7000
 GCTC          210.0000    GCTI          270.0000    GCTL          280.0000
 HACCU         208.0000    HCURR           1.3823    HVANAL       1264.0000
 HVSRC           0.0000    ICAL0           0.0011    ICAL1           0.4030
 ICAL2           0.5865    IONEN        4776.5520    IST           271.3713
 ISTC            0.0000    ISTCKP          5.0000    ISTCTD          1.0000
 ISTCTN          2.0000    ISTCTS         60.0000    ISTCTV          3.0000
 ISTS          270.0000    LENS         1333.0000    LENSS         106.4000
 LKM           404.9760    LM            800.0000    LMASS         180.4888
 LMII          500.0000    MASS          180.4888    MDAC       2347820.5477
```

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2606.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.8800	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 20:44:22.2

Autosampler has injected sample from vial 12
MID Time Window 1: Resolution is 8227
MID Time Window 2: Resolution is 7911
MID Time Window 3: Resolution is 9525
MID Time Window 4: Resolution is 10124
Analysis stopped at: 10-Jun-08 21:41:25.1 (run time 57.03 minutes)
Analysis stopped because MID run finished

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r3.	Prep Date		SDG No	
Analysis ID	104459	Prep Exp Date		Date Received	
Analysis Date	06/11/08 01:49	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	168	198	67	79	0.85 *	/	
	13C12-PCB 1	12:02	00:00	0	1408364	411687	554654	159488	3.42	AVV/ABB	
	13C12-PCB 3	14:13	00:00	0	1400686	400851	458925	132353	3.49	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	163	248	65	99	0.66 *	/	
	PCB 7 (BZ)	16:38	00:00	0	382258	243615	119336	72409	1.57	ABV/AVV	
	PCB 5 (BZ)	17:12	00:00	0	368831	236920	107115	68528	1.56	AVV/AVV	
	PCB 12 (BZ)	20:09	00:00	0	351340	229303	90350	61518	1.53	ABV/AVV	DM
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	188	133	75	53	1.42	/	
	13C12-PCB 4	14:29	00:00	0	370068	239294	115837	74055	1.55	AVV/ABV	
	13C12-PCB 9	16:28	00:00	0	602157	380699	189464	118420	1.58	ABV/ABV	
	13C12-PCB 8	17:18	00:00	0	665605	418645	187303	118971	1.59	AVV/AVV	
	13C12-PCB 15	20:25	00:00	0	597916	398331	150736	105036	1.50	AVV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	110	115	44	46	0.96	/	
	PCB 18 (BZ)	19:31	00:00	0	125505	119451	32965	33442	1.05	ABV/ABB	DM
	PCB 24 (BZ)	20:17	00:00	0	164219	165866	43820	42515	0.99	AVV/ABV	D
	PCB 23 (BZ)	22:19	00:00	0	550003	520226	131610	125776	1.06	AVV/AVV	DM
	PCB 28 (BZ)	23:29	00:00	0	614341	562098	143768	134523	1.09	ABV/ABV	M
	PCB 22 (BZ)	24:09	00:00	0	565086	535658	132625	125547	1.05	AVV/AVV	
	PCB 39 (BZ)	26:03	00:00	0	614768	570568	140528	125213	1.08	ABV/ABV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	250	175	100	70	1.43 *	/	
	13C12-PCB 19	17:37	00:00	0	218783	206579	57804	57363	1.06	AVV/ABV	
	13C12-PCB 32	20:55	00:00	0	369940	353188	91393	87395	1.05	AVV/AVV	
	13C12-PCB 31	23:11	00:00	0	1068067	988852	258673	235865	1.08	ABV/ABV	
	13C12-PCB 28	23:28	00:00	0	1008838	935627	242132	224810	1.08	AVV/AVV	
	13C12-PCB 37	27:30	00:00	0	905671	819203	197699	185020	1.11	ABV/AVV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	195	163	78	65	1.20 *	/	
	PCB 53 (BZ)	22:56	00:00	0	411708	515965	101489	127146	0.80	ABV/ABV	
	PCB 51 (BZ)	23:41	00:00	0	431382	535654	100096	126641	0.81	ABB/ABB	DM
	PCB 73 (BZ)	25:28	00:00	0	530467	659699	124999	150147	0.80	ABV/AVV	M
	PCB 48 (BZ)	26:06	00:00	0	419553	526926	98377	122640	0.80	AVV/AVV	D
	PCB 62 (BZ)	26:37	00:00	0	516423	642272	117900	148954	0.80	AVV/AVV	M
	PCB 71 (BZ)	27:22	00:00	0	556851	701502	125340	159518	0.79	AVV/ABV	M
	PCB 68 (BZ)	28:42	00:00	0	577259	727341	131026	160401	0.79	ABV/AVV	
	PCB 58 (BZ)	29:22	00:00	0	549174	689154	117212	150451	0.80	ABV/AVV	
	PCB 61 (BZ)	30:01	00:00	0	527379	669040	112128	141042	0.79	AVV/AVV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r3.	Prep Date		SDG No	
Analysis ID	104459	Prep Exp Date		Date Received	
Analysis Date	06/11/08 01:49	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	PCB 55 (BZ)	30:38	00:00	0	534334	681459	113519	147414	0.78	AVV/AVV	
	PCB 60 (BZ)	31:21	00:00	0	560267	700550	122680	152085	0.80	AVV/AVV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	110	110	44	44	1.00 *	/	
	13C12-PCB 54	20:45	00:00	0	206946	257388	51702	61989	0.80	ABV/ABV	
	13C12-PCB 52	25:19	00:00	0	352472	440661	82069	102436	0.80	ABV/ABV	
	13C12-PCB 79	33:15	00:00	0	500800	628306	107759	135416	0.80	ABV/ABV	
	13C12-PCB 81	34:15	00:00	0	409081	535019	85149	112700	0.76	ABV/ABV	
	13C12-PCB 77	34:50	00:00	0	424057	551284	86133	113144	0.77	ABV/ABV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	183	153	73	61	1.20 *	/	
	PCB 94 (BZ)	28:49	00:00	0	310266	187614	68754	40436	1.65	ABV/ABV	
	PCB 100 (BZ)	29:27	00:00	0	370810	221787	80302	49355	1.67	ABV/ABV	
	PCB 91 (BZ)	30:08	00:00	0	335075	203276	71325	43168	1.65	ABV/ABV	
	PCB 121 (BZ)	31:12	00:00	0	467582	280268	99929	61041	1.67	ABV/ABV	D
	PCB 90 (BZ)	32:11	00:00	0	337725	211054	72440	44656	1.60	ABV/ABV	DM
	PCB 99 (BZ)	32:47	00:00	0	395605	246775	82599	52594	1.60	AVV/ABV	D
	PCB 109 (BZ)/108 (IUPAC	33:13	00:00	0	443842	282019	92972	58949	1.57	AVV/AVV	
	PCB 117 (BZ)	33:54	00:00	0	446490	272832	97513	55831	1.64	ABV/ABV	
	PCB 111 (BZ)	34:52	00:00	0	463982	282643	96922	59888	1.64	ABV/ABB	D
	PCB 108 (BZ)/107 (IUPAC	36:29	00:00	0	930484	591775	184166	121107	1.57	ABV/AVV	M
	PCB 118 (BZ)	37:10	00:00	0	962443	613258	195601	126833	1.57	AVV/ABV	
	PCB 114 (BZ)	37:41	00:00	0	963865	597601	197474	123219	1.61	AVV/AVV	
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	135	110	54	44	1.23 *	/	
	13C12-PCB 104	26:16	00:00	0	410808	250088	94043	55079	1.64	AVV/AVV	
	13C12-PCB 95	29:14	00:00	0	313776	190152	67313	38969	1.65	ABV/AVV	
	13C12-PCB 101	32:09	00:00	0	348834	207119	73837	43024	1.68	ABV/AVV	
	13C12-PCB 111	34:50	00:00	0	409168	249840	86587	50698	1.64	ABV/ABV	
	13C12-PCB 123	36:49	00:00	0	838023	514681	173967	108720	1.63	ABV/ABV	
	13C12-PCB 118	37:09	00:00	0	875517	540911	178158	111632	1.62	AVV/AVV	
	13C12-PCB 114	37:40	00:00	0	853914	525810	172199	107325	1.62	AVV/AVV	
	13C12-PCB 105	38:20	00:00	0	834789	524305	175789	110051	1.59	ABV/ABV	
	13C12-PCB 127	39:46	00:00	0	962269	584129	193143	116125	1.65	ABV/ABV	
	13C12-PCB 126	41:25	00:00	0	931497	571411	192242	115562	1.63	ABV/AVV	M
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	180	120	72	48	1.50 *	/	
	PCB 150 (BZ)	32:20	00:00	0	323349	243796	68038	53520	1.33	ABV/ABV	D
	PCB 145 (BZ)	32:59	00:00	0	302250	232784	61138	48082	1.30	ABV/ABV	D
	PCB 135 (BZ)	35:09	00:00	0	215583	164100	43932	35399	1.31	ABV/ABV	D
	PCB 149 (BZ)	36:01	00:00	0	496573	381187	101315	78757	1.30	ABV/ABV	M
	PCB 139 (BZ)	36:36	00:00	0	484271	379110	94776	76623	1.28	AVV/AVV	
	PCB 132 (BZ)	37:18	00:00	0	417550	327115	82568	64191	1.28	ABV/ABV	M

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r3.	Prep Date		SDG No	
Analysis ID	104459	Prep Exp Date		Date Received	
Analysis Date	06/11/08 01:49	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	PCB 165 (BZ)	38:10	00:00	0	575730	444652	119325	92240	1.29	ABV/ABV	
	PCB 168 (BZ)	39:04	00:00	0	620862	473260	126308	94586	1.31	ABV/AVV	
	PCB 137 (BZ)	39:51	00:00	0	485653	375374	99468	77378	1.29	ABV/ABB	
	PCB 160 (BZ)	40:26	00:00	0	586511	467101	121162	94269	1.26	ABV/ABV	
	PCB 128 (BZ)	41:34	00:00	0	457561	359436	85472	68045	1.27	ABV/AVV	M
	PCB 162 (BZ)	42:47	00:00	0	644539	506508	128031	107231	1.27	ABV/AVV	
	PCB 157 (BZ)	44:28	00:00	0	627031	493178	122545	96899	1.27	ABB/ABB	M
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	110	95	44	38	1.16	/	
	13C12-PCB 155	31:55	00:00	0	320992	259502	69442	55481	1.24	ABV/ABV	
	13C12-PCB 153	39:00	00:00	0	481627	363210	99785	74844	1.33	ABV/ABV	
	13C12-PCB 138	40:15	00:00	0	485024	373610	96878	75413	1.30	ABV/ABB	
	13C12-PCB 167	43:15	00:00	0	582626	451649	121141	94926	1.29	AVV/AVV	
	13C12-PCB 156	44:25	00:00	0	1165217	900151	152972	114573	1.29	ABV/AVV	D
	13C12-PCB 169	47:38	00:00	0	557611	425327	112905	84790	1.31	AVV/ABV	D
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	138	155	55	62	0.89	/	
	PCB 184 (BZ)	38:32	00:00	0	418313	399849	84753	82274	1.05	ABV/ABV	
	PCB 186 (BZ)	39:22	00:00	0	393307	377183	78780	75373	1.04	ABV/ABV	D
	PCB 187 (BZ)	41:37	00:00	0	349362	323283	71589	65464	1.08	ABV/AVV	
	PCB 185 (BZ)	42:21	00:00	0	326507	303698	63245	58881	1.08	ABV/ABV	
	PCB 181 (BZ)	43:19	00:00	0	324929	301776	63953	60552	1.08	ABV/ABV	
	PCB 192 (BZ)	45:26	00:00	0	383888	357714	76101	71650	1.07	ABV/ABV	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	125	125	50	50	1.00	/	
	13C12-PCB 188	37:38	00:00	0	385610	364430	77500	72534	1.06	ABV/ABV	
	13C12-PCB 178	40:41	00:00	0	270459	250073	54461	50693	1.08	AVV/AVV	
	13C12-PCB 180	45:47	00:00	0	346015	322311	70119	61035	1.07	ABV/ABV	
	13C12-PCB 170	47:03	00:00	0	282797	264232	56719	52344	1.07	ABV/ABV	
	13C12-PCB 189	50:09	00:00	0	679537	641092	131371	124997	1.06	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	140	120	56	48	1.17 *	/	
	PCB 197 (BZ)	44:51	00:00	0	444566	489271	91392	97637	0.91	ABV/ABV	
	PCB 201 (BZ)/199 (IUPAC	47:46	00:00	0	320280	370221	61058	71182	0.87	ABV/AVV	
	PCB 203 (BZ)	48:36	00:00	0	352166	386798	70286	78206	0.91	AVV/AVV	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	113	98	45	39	1.15 *	/	
	13C12-PCB 202	43:01	00:00	0	271894	290224	53590	58425	0.94	ABB/ABV	
	13C12-PCB 194	52:15	00:00	0	346215	383105	66233	72597	0.90	ABV/ABV	
	13C12-PCB 205	52:42	00:00	0	451864	509244	90506	99473	0.89	AVB/AVV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX2	Prep Batch		Lot No	
Data File	/20080610rt/a0806m2r3.	Prep Date		SDG No	
Analysis ID	104459	Prep Exp Date		Date Received	
Analysis Date	06/11/08 01:49	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

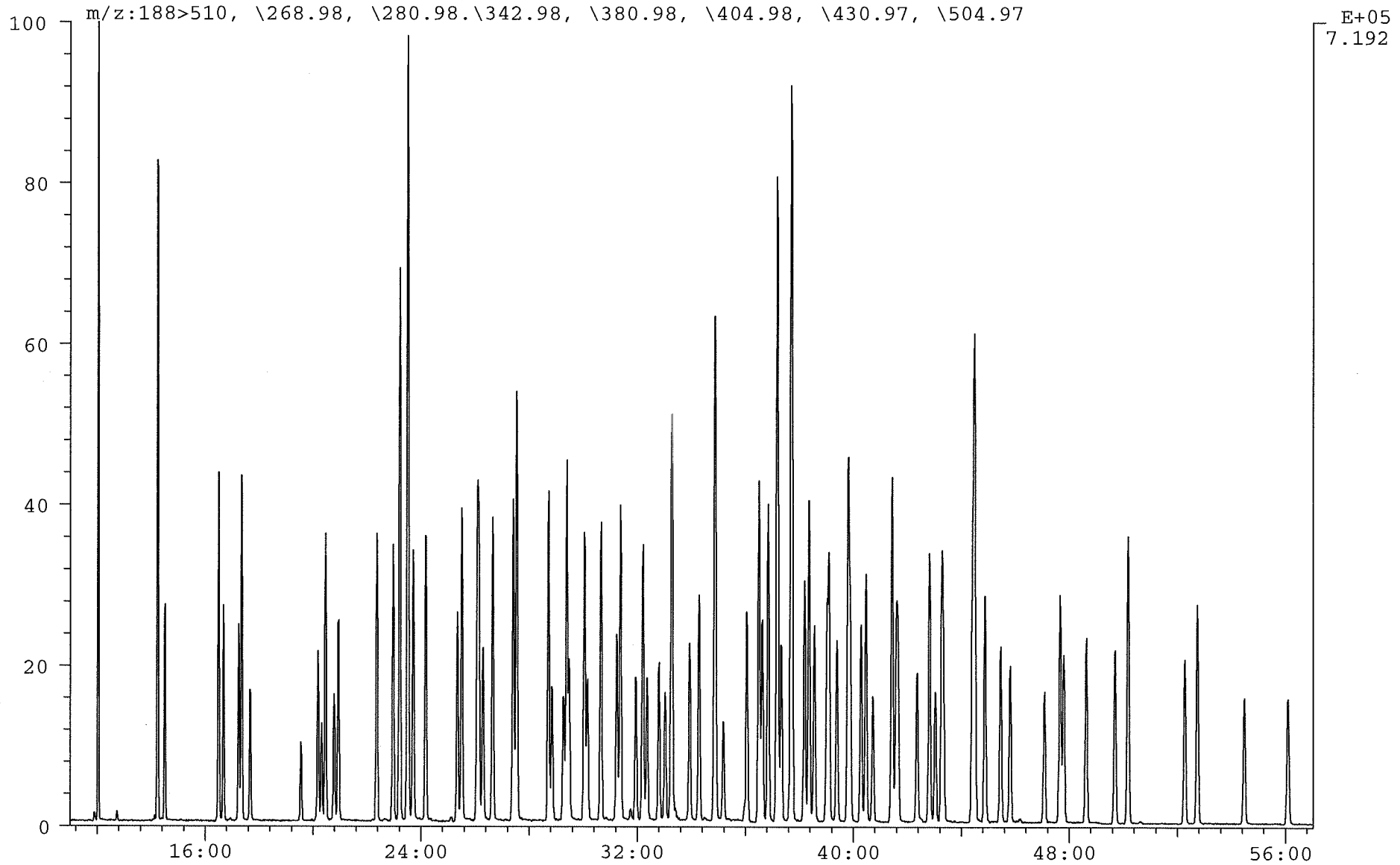
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	108	115	43	46	0.93 *	/
	13C12-PCB 208	49:40	00:00	0	320045	413354	63005	79079	0.77	ABV/ABV
	13C12-PCB 206	54:27	00:00	0	227597	290411	42629	54523	0.78	AVV/AVV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79	
	Noise	00:00	00:00	0	125	105	50	42	1.19 *	/
	13C12-PCB 209	56:04	00:00	0	229844	317541	41203	56090	0.72	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

Int DCG 6-11-08
Calc DCG 6-25-08

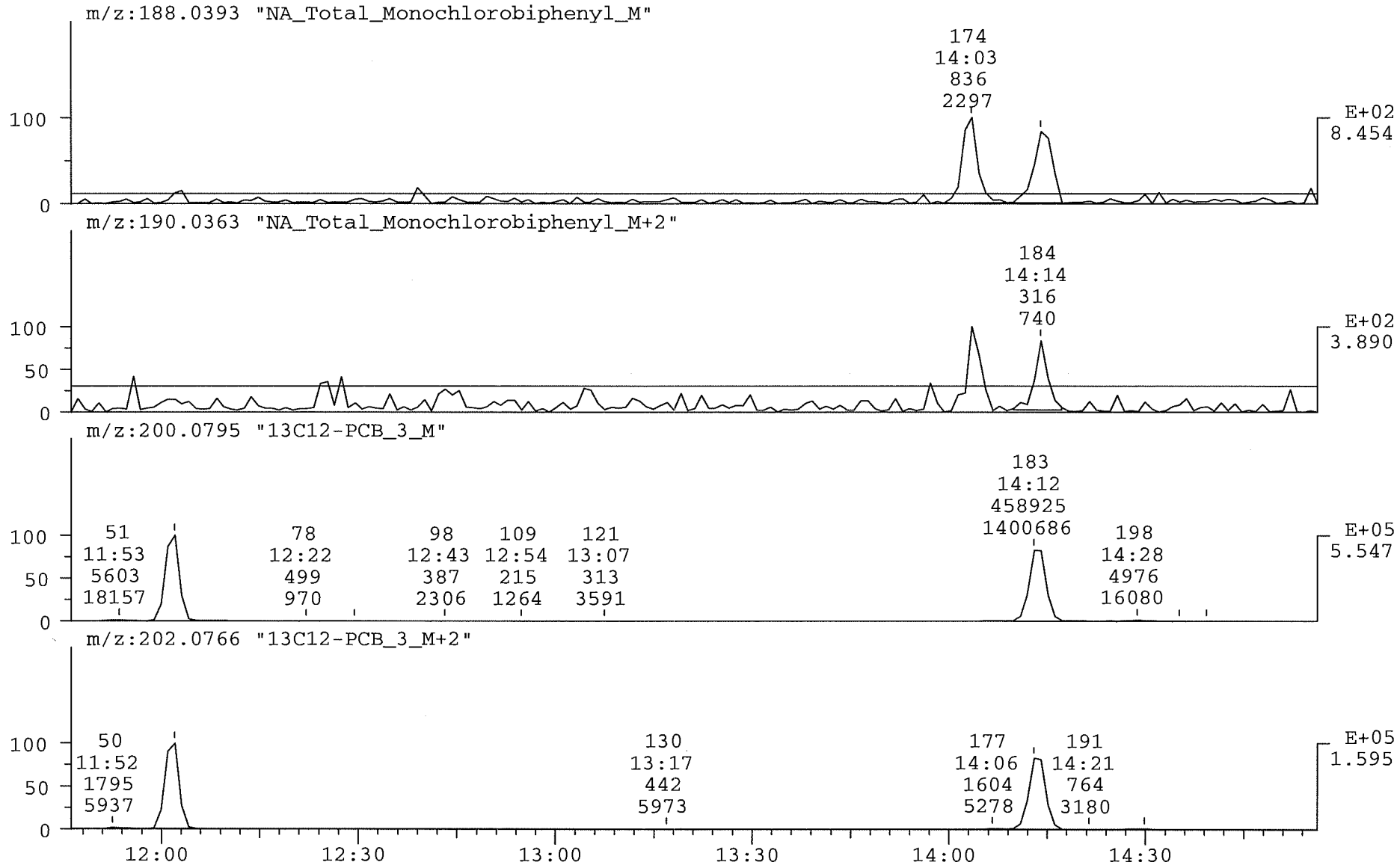
CHRO: a0806m2r3 11-Jun-08 Elapse: 56:09 2552
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2422

2421

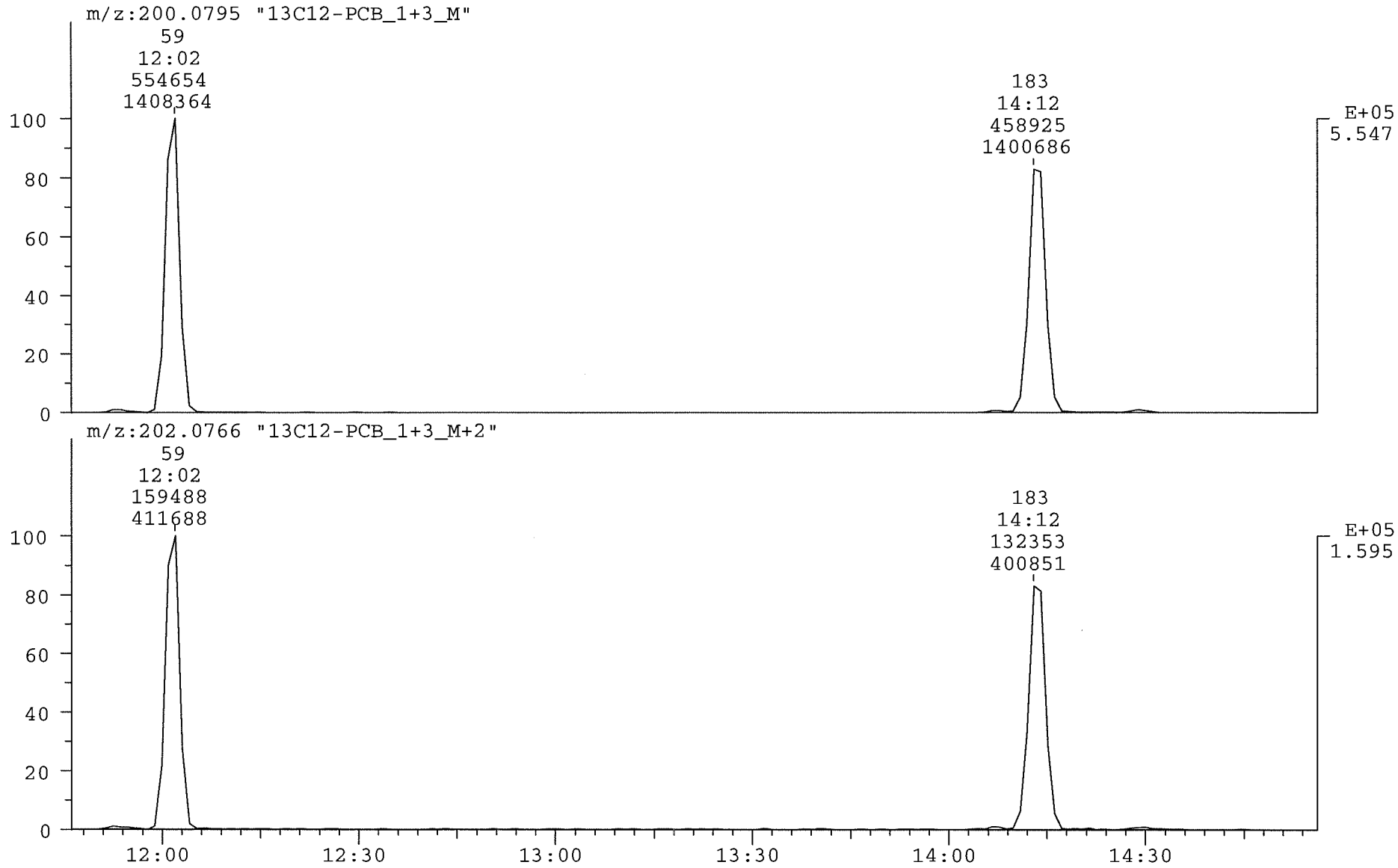
CHRO: a0806m2r3 11-Jun-08 Elapse: 13:21.2 134
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2423

2422

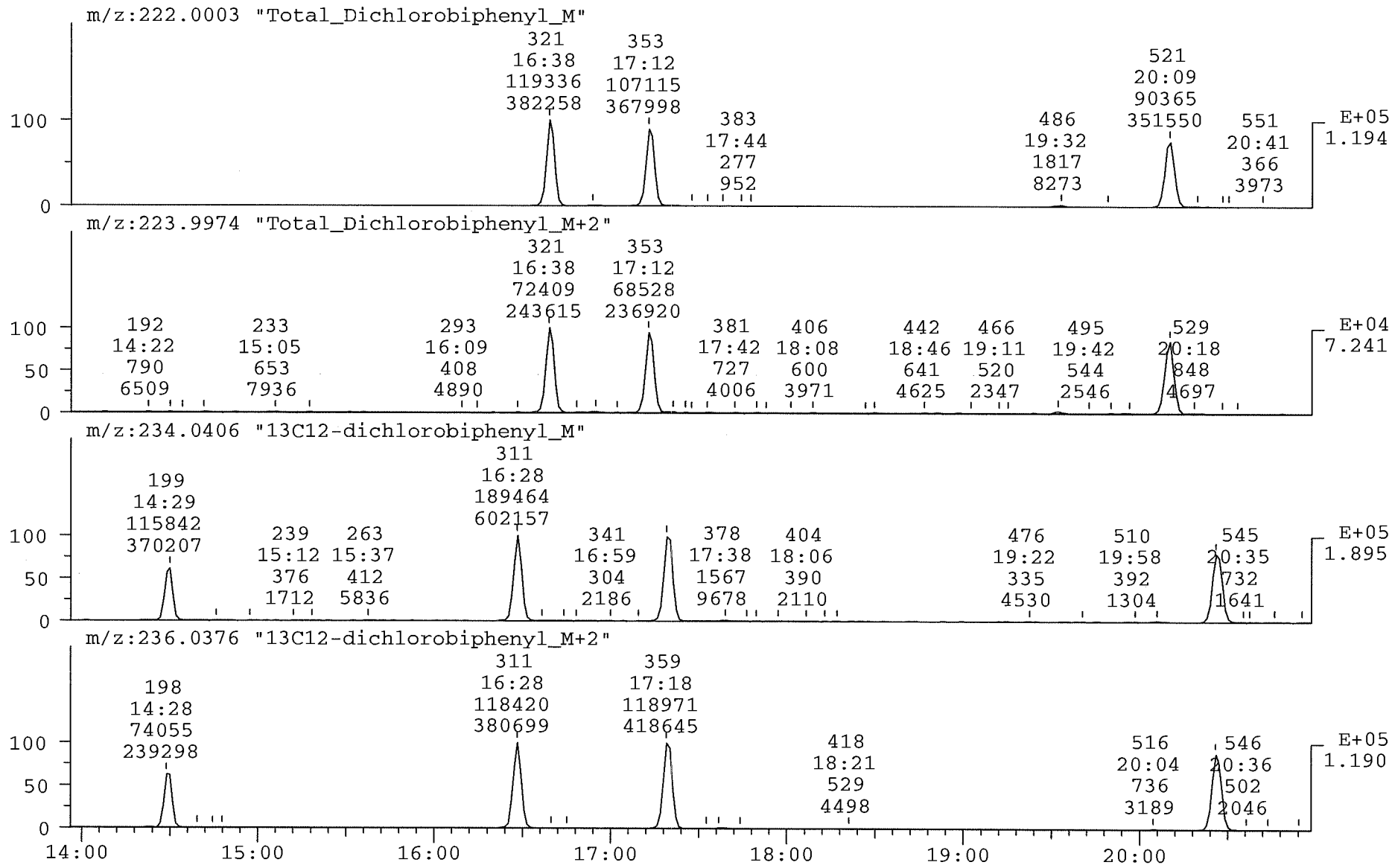
CHRO: a0806m2r3 11-Jun-08 Elapse: 13:21.2 134
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2424

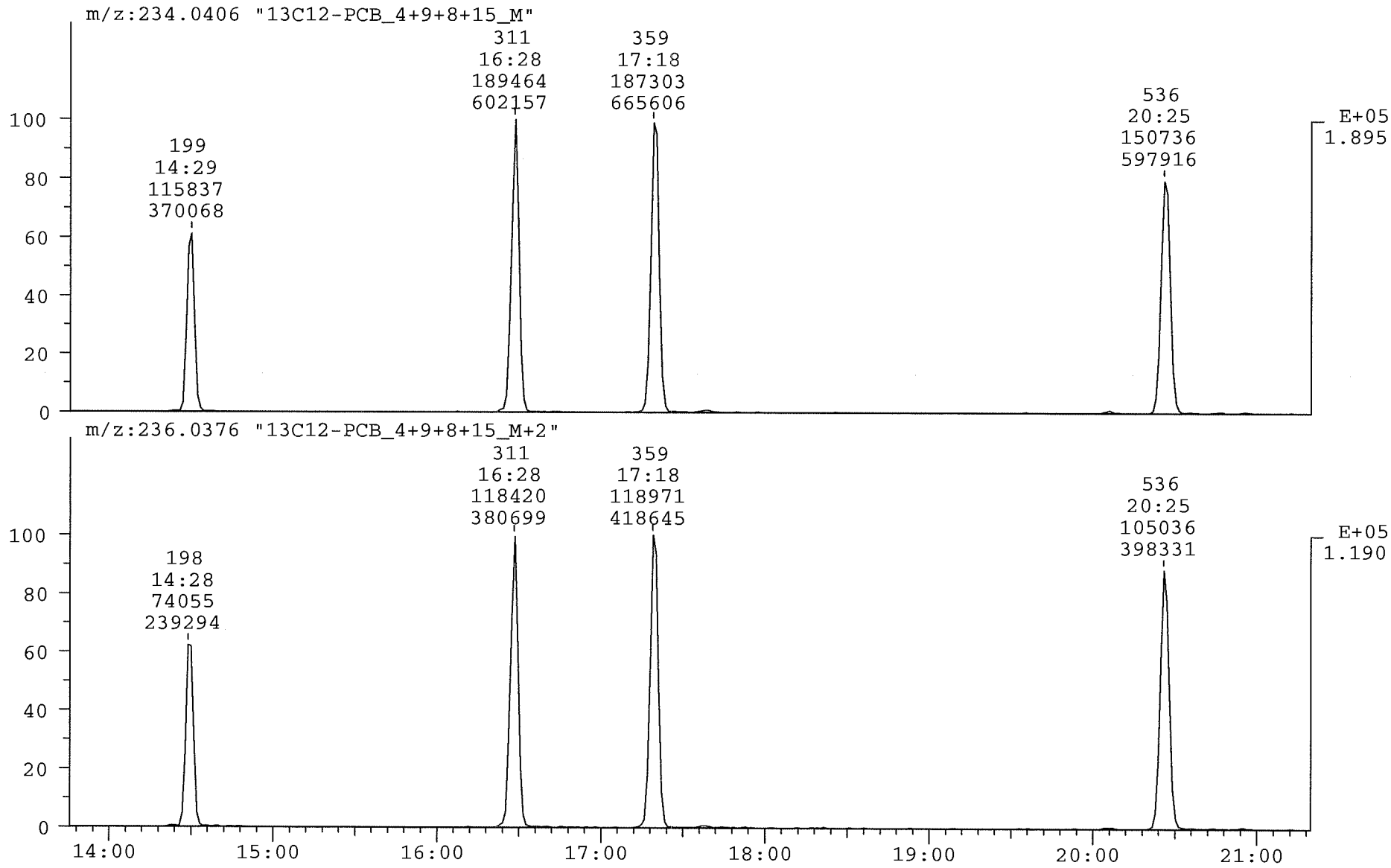
2423

CHRO: a0806m2r3 11-Jun-08 Elapse: 17:27.2 367
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 167 > 567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2425

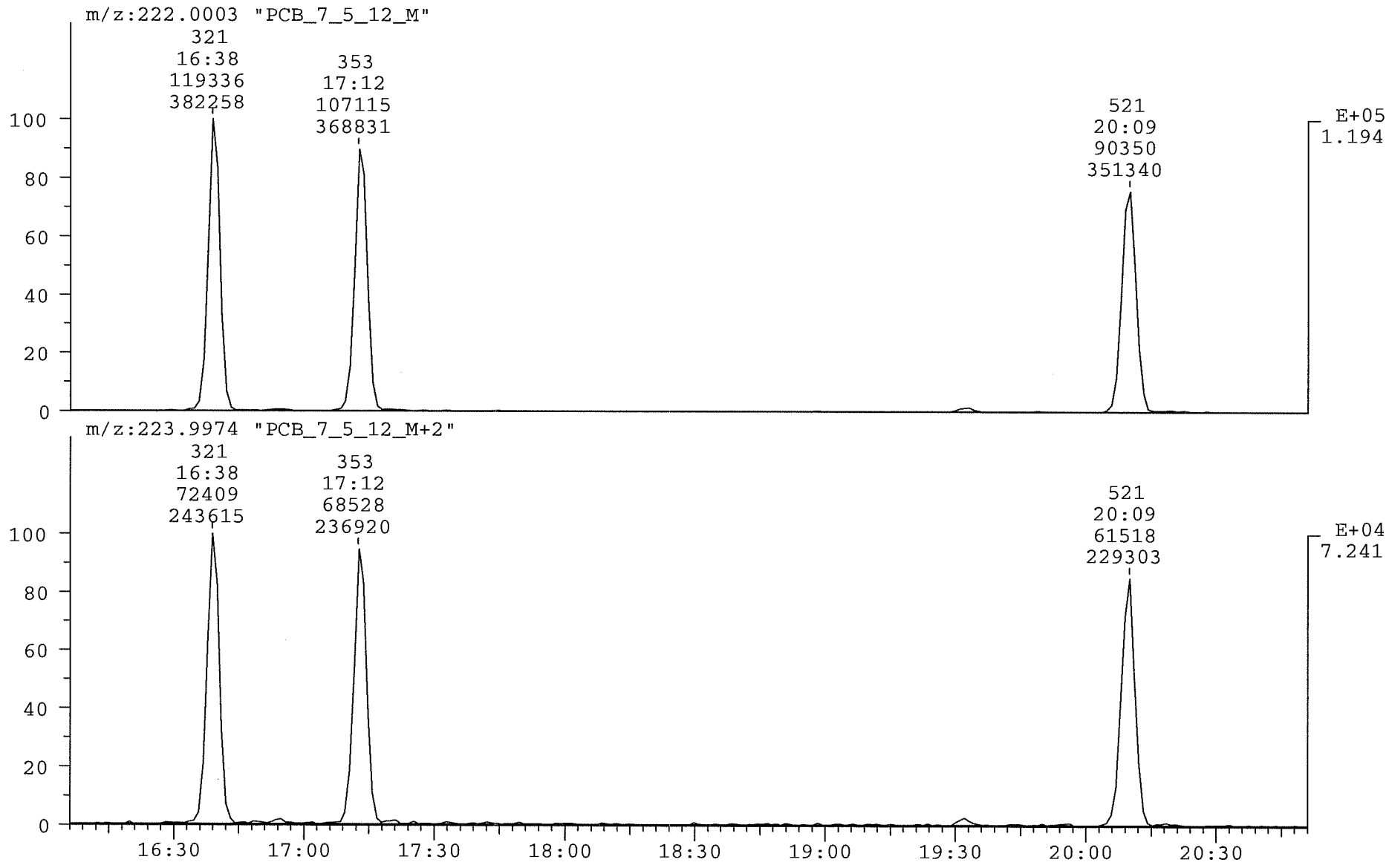
CHRO: a0806m2r3 11-Jun-08 Elapse: 17:27.2 367
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 157 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2426

2425

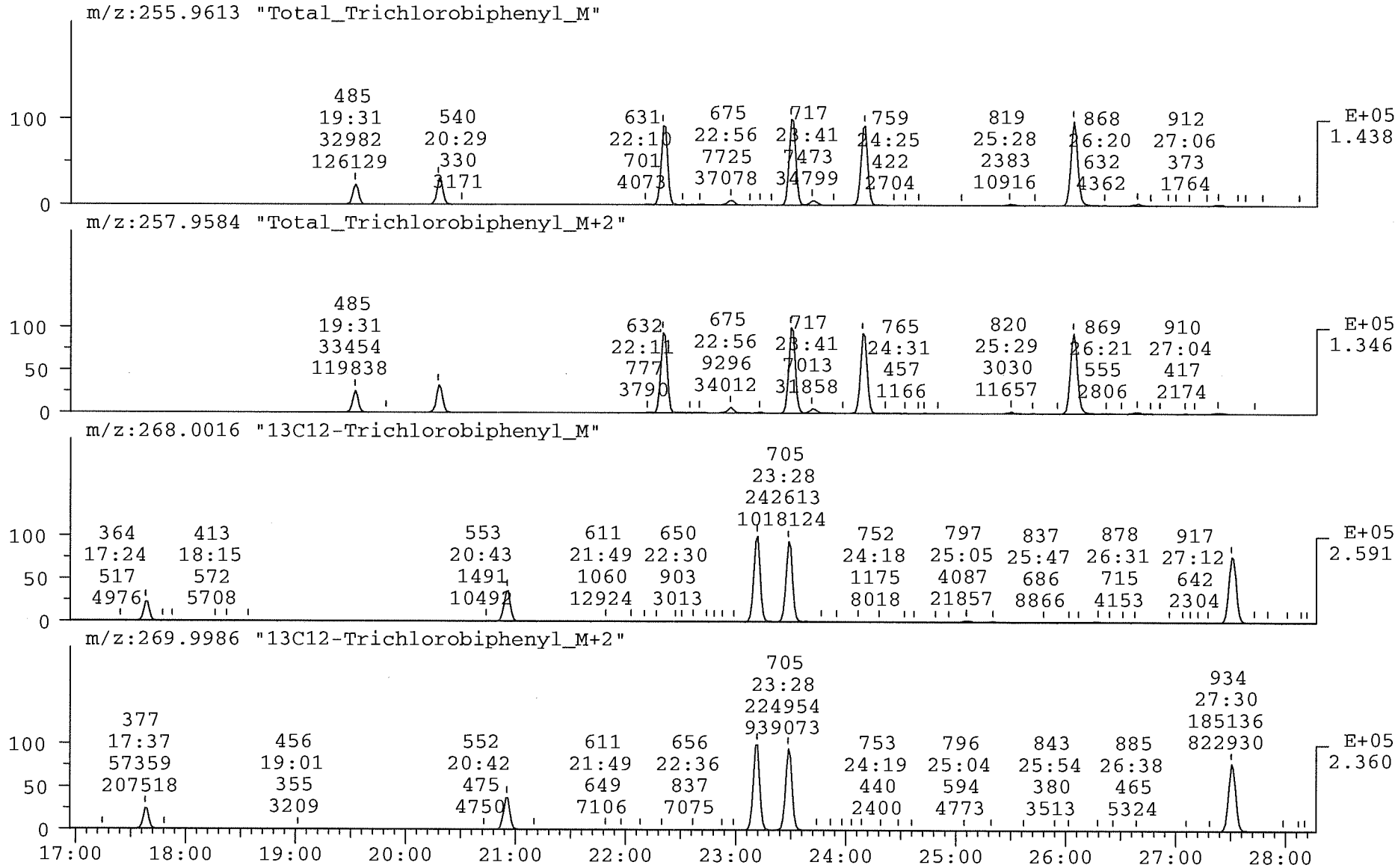
CHRO: a0806m2r3 11-Jun-08 Elapse: 18:28.5 425
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 290 > 560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2427

2426

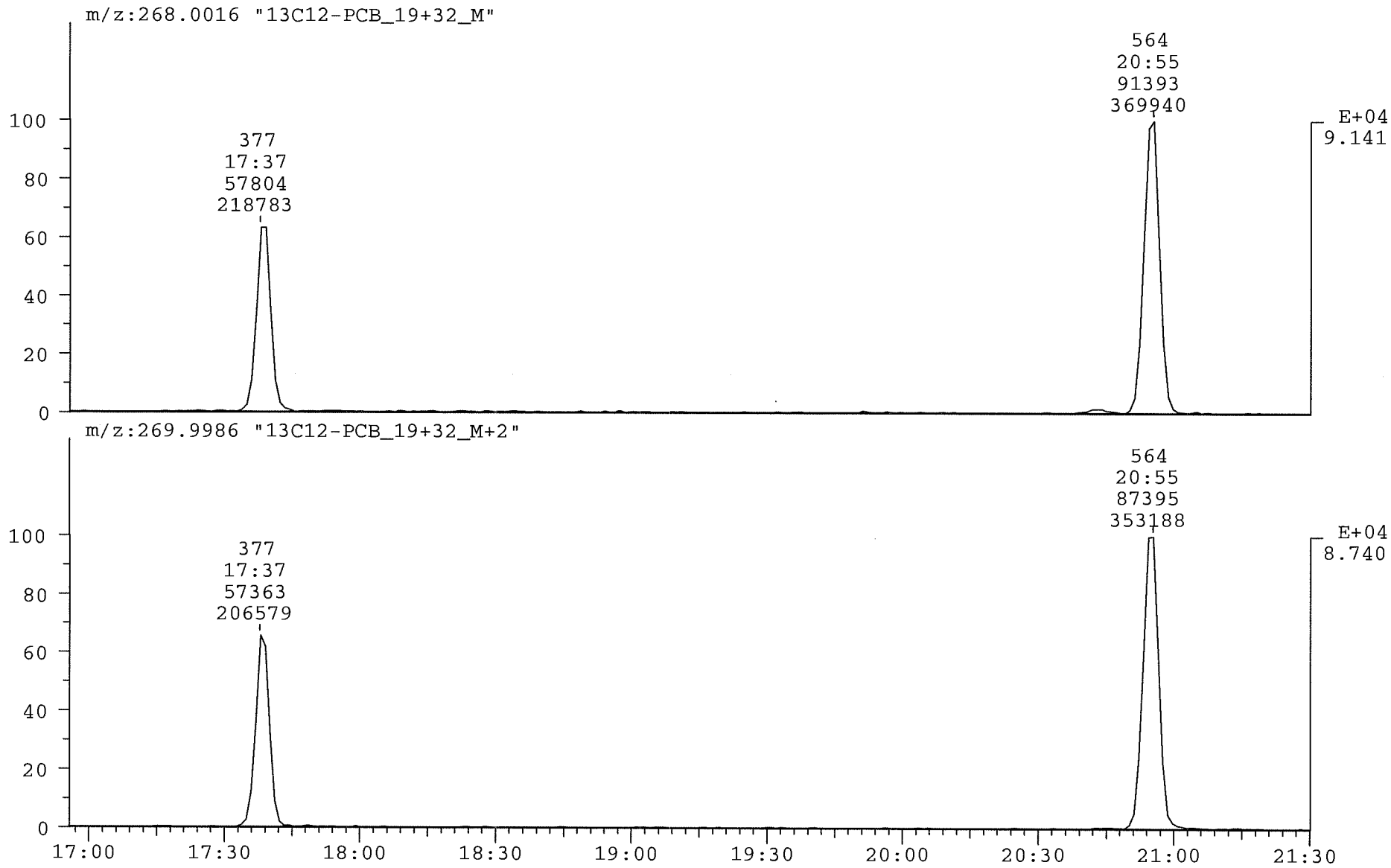
CHRO: a0806m2r3 11-Jun-08 Elapse: 22:38.8 658
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 338 > 978 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2428

2427

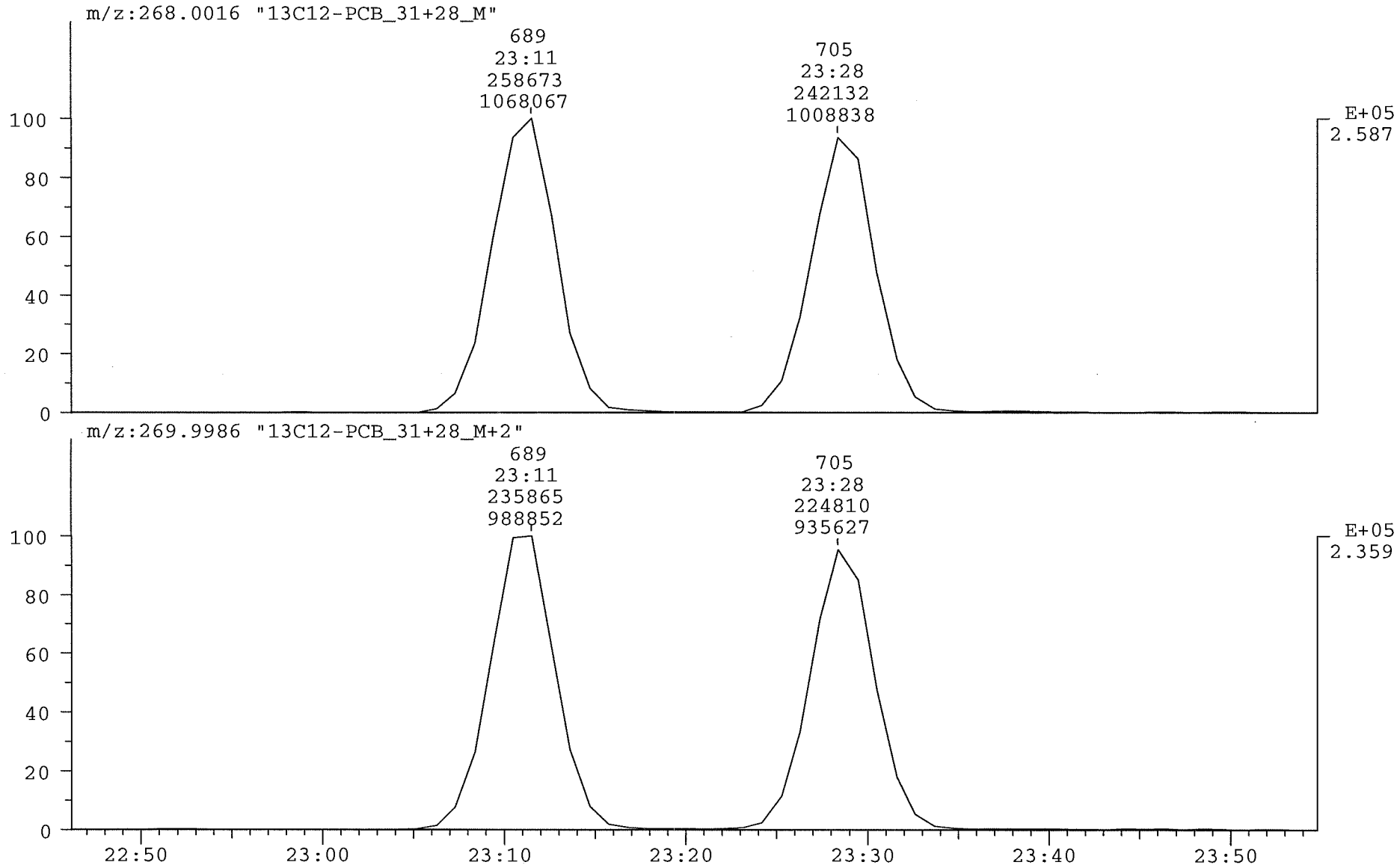
CHRO: a0806m2r3 11-Jun-08 Elapse: 19:02.3 457
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 337 > 597 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2429

2428

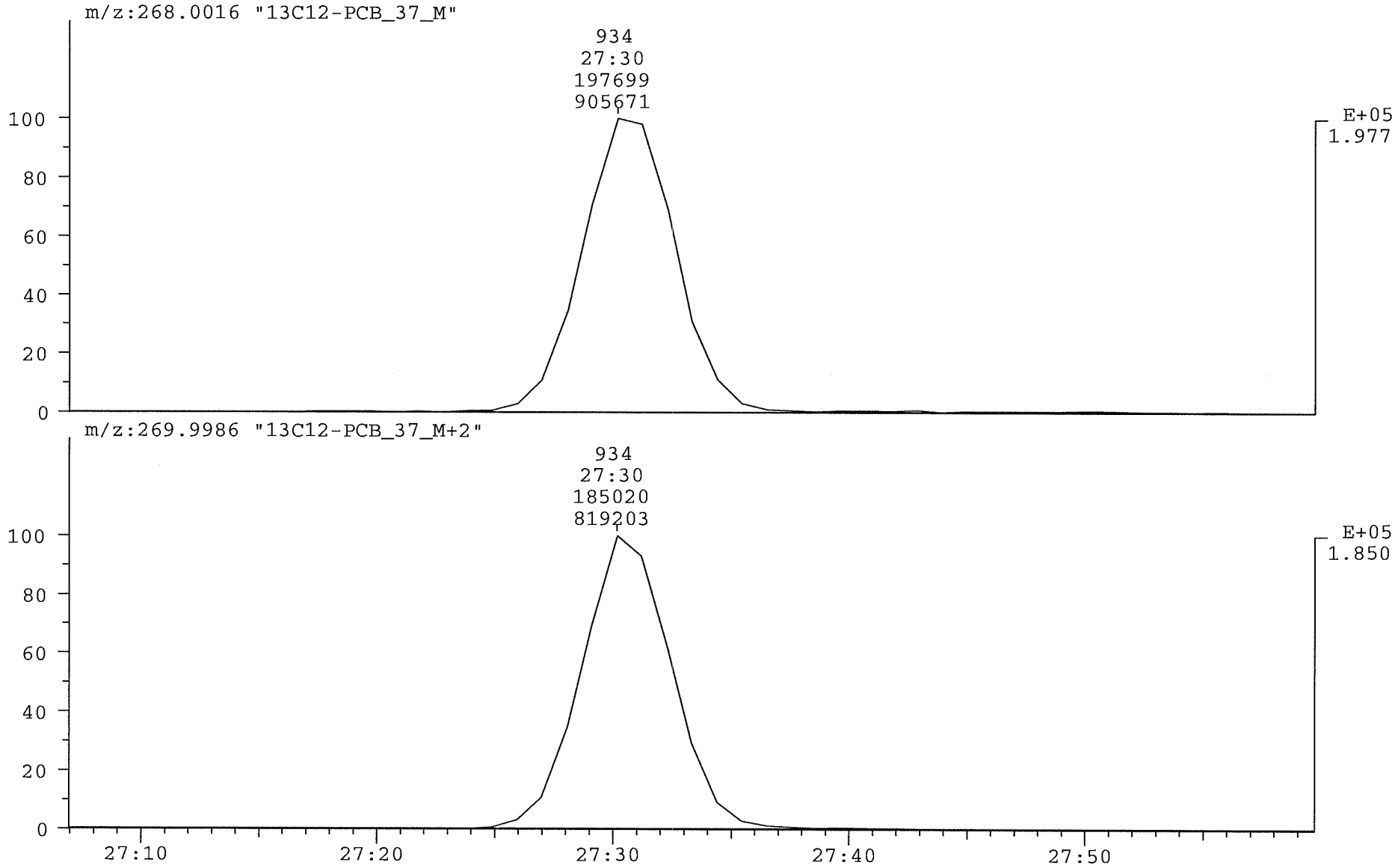
CHRO: a0806m2r3 11-Jun-08 Elapse: 23:12.6 690
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2430

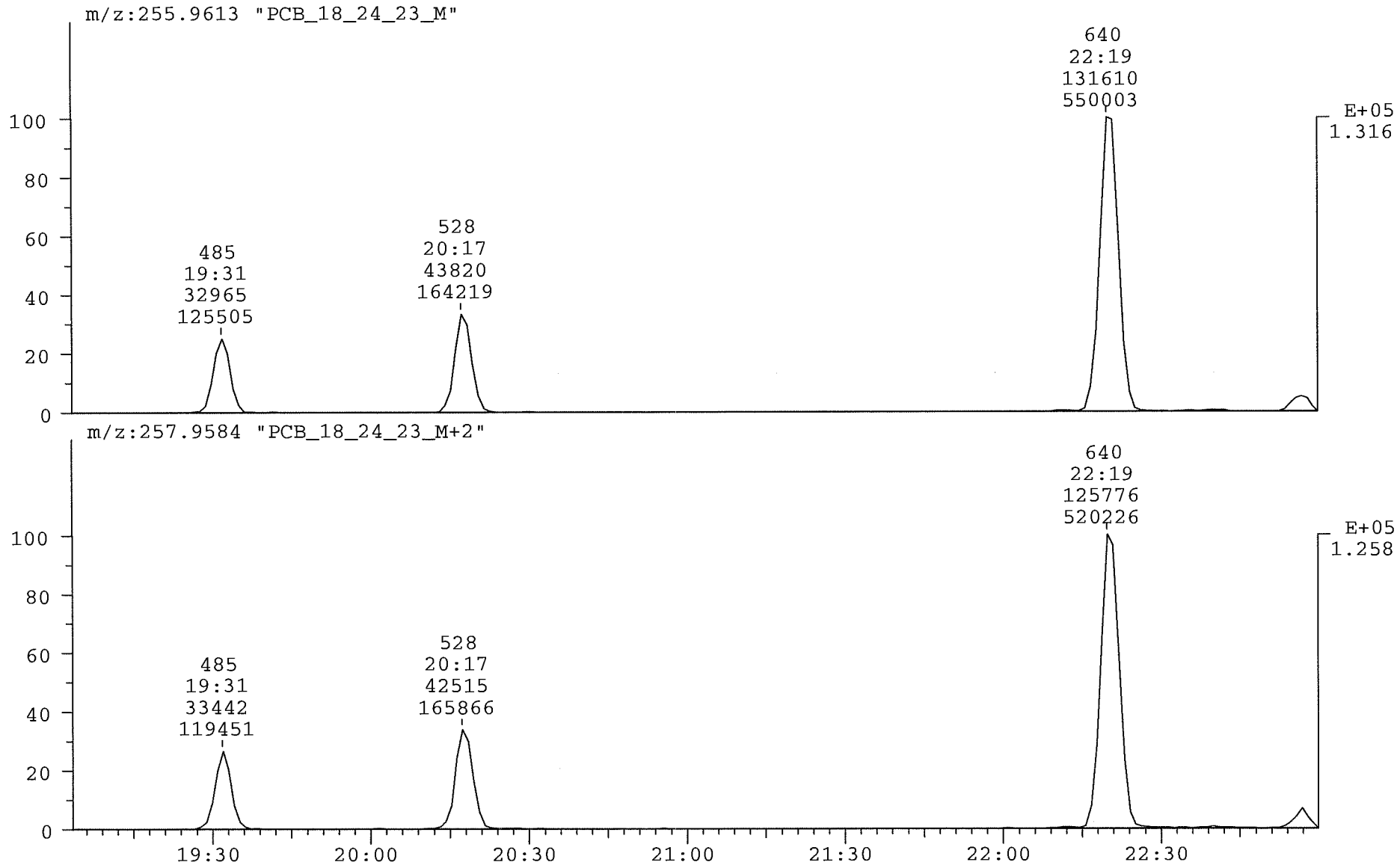
2429

CHRO: a0806m2r3 11-Jun-08 Elapse: 27:33.3 937
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 912 > 962 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2431

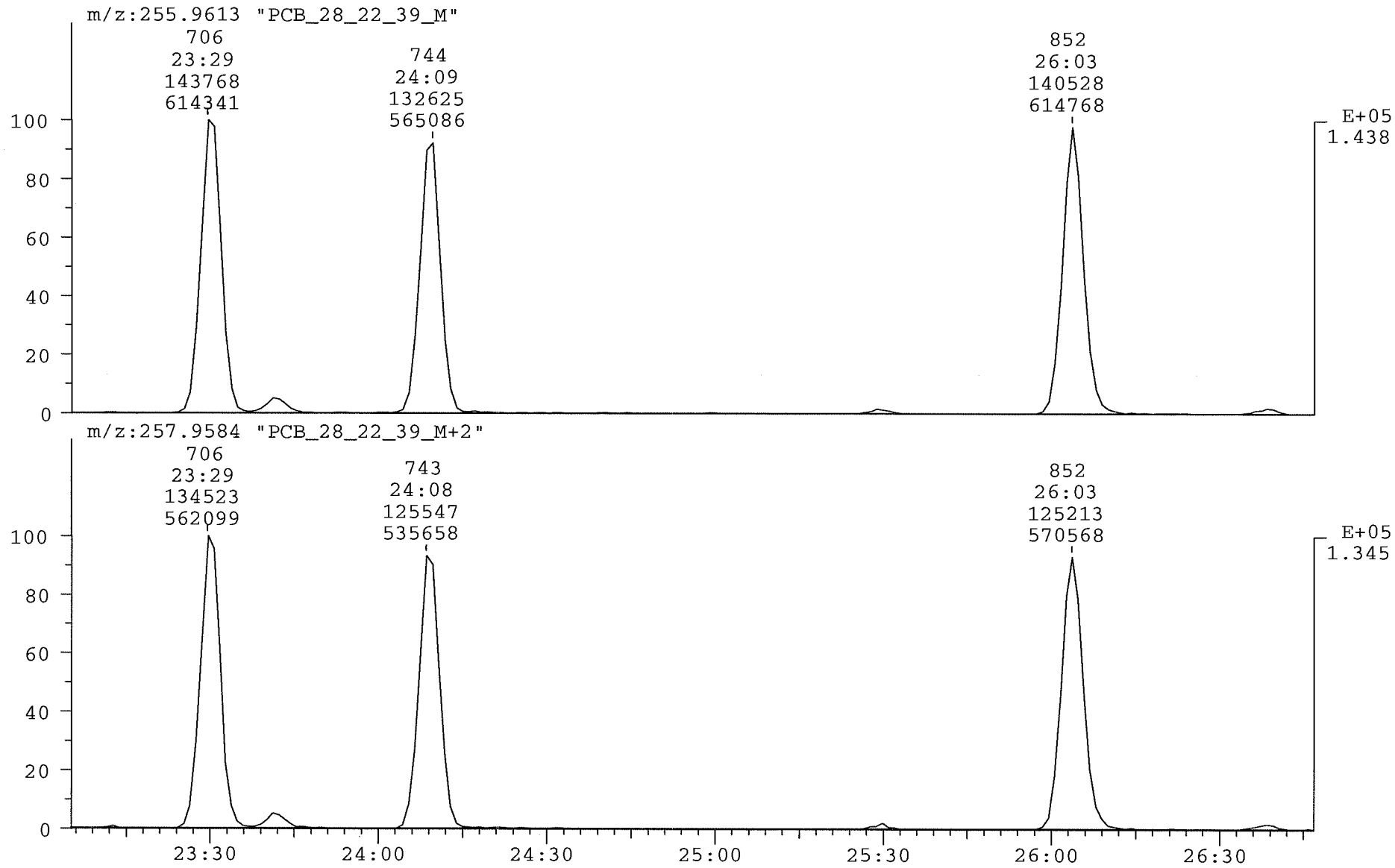
CHRO: a0806m2r3 11-Jun-08 Elapse: 20:59.5 568
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 458 > 678 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2432

2431

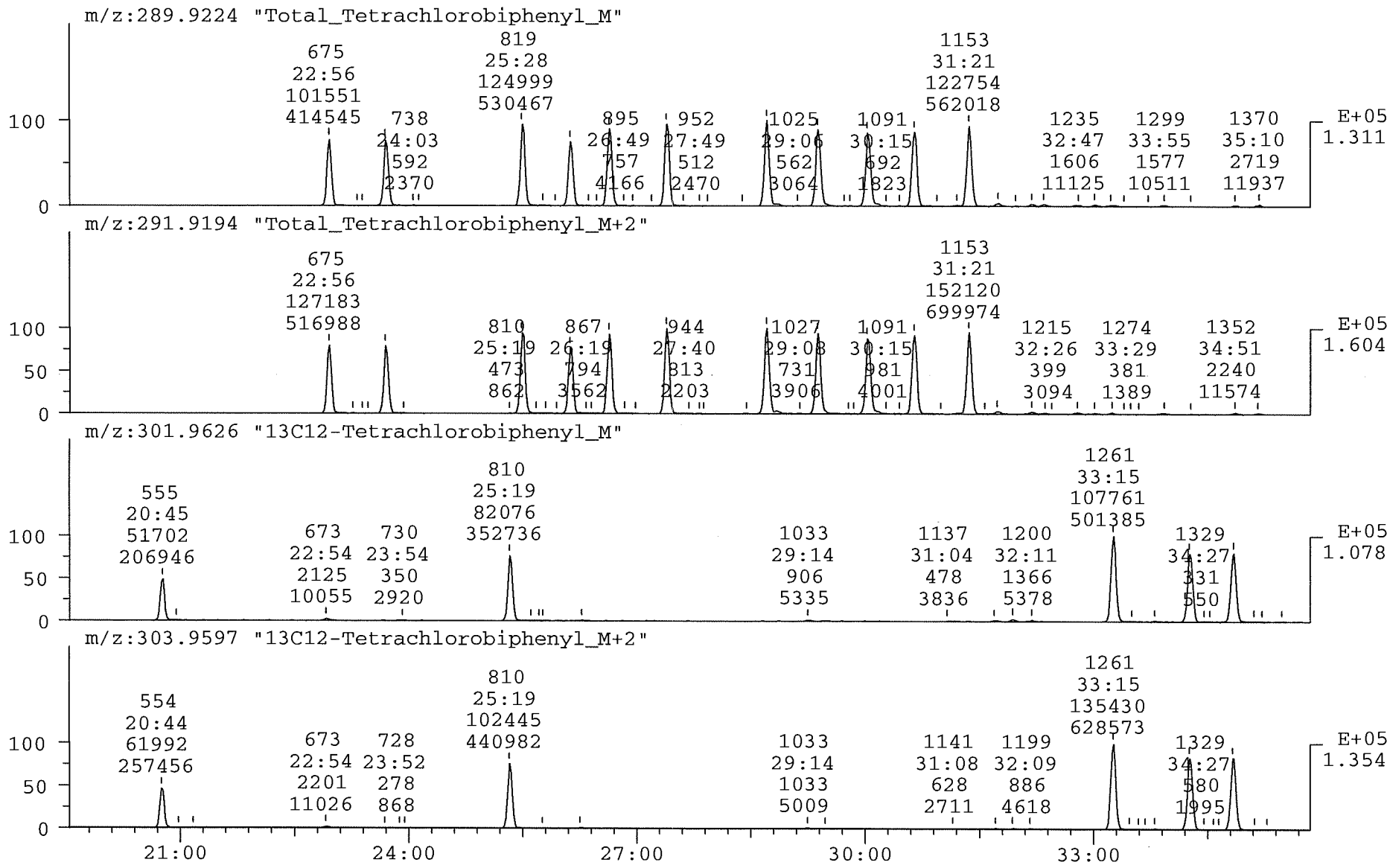
CHRO: a0806m2r3 11-Jun-08 Elapse: 24:50.7 783
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 683 > 893 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2433

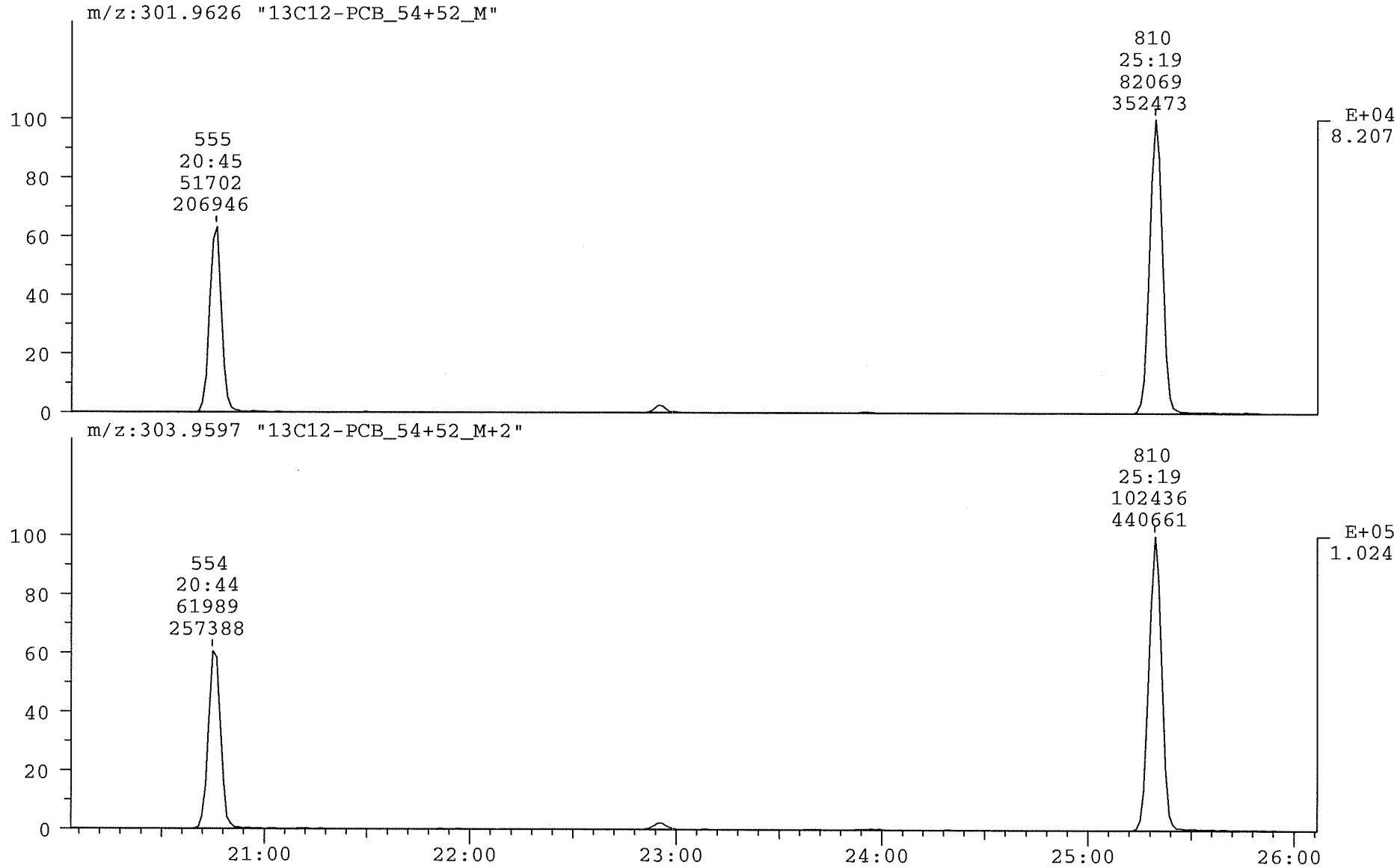
2432

CHRO: a0806m2r3 11-Jun-08 Elapse: 27:40.7 944
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 485 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2434

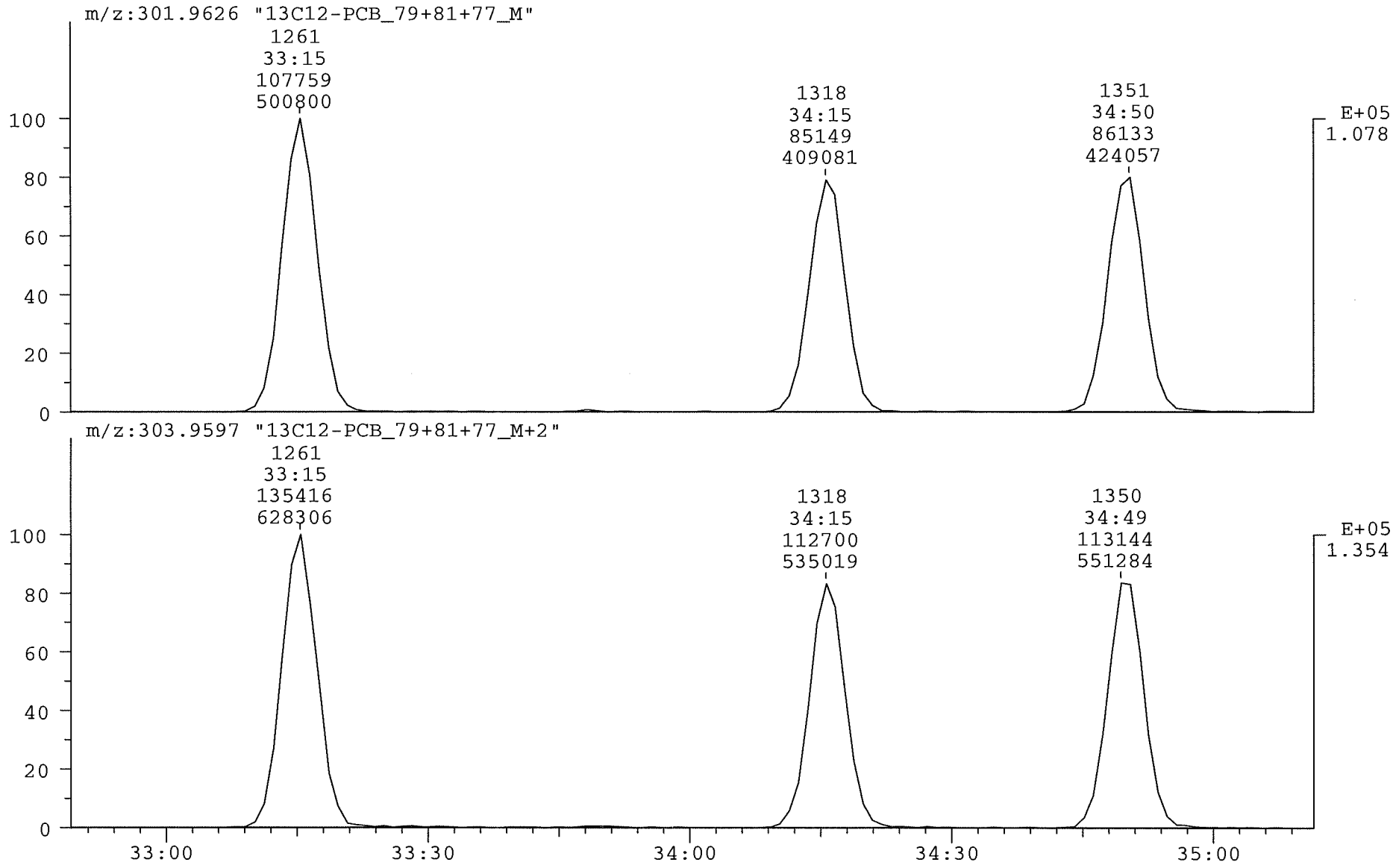
CHRO: a0806m2r3 11-Jun-08 Elapse: 23:07.2 685
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 515 > 855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2435

2434

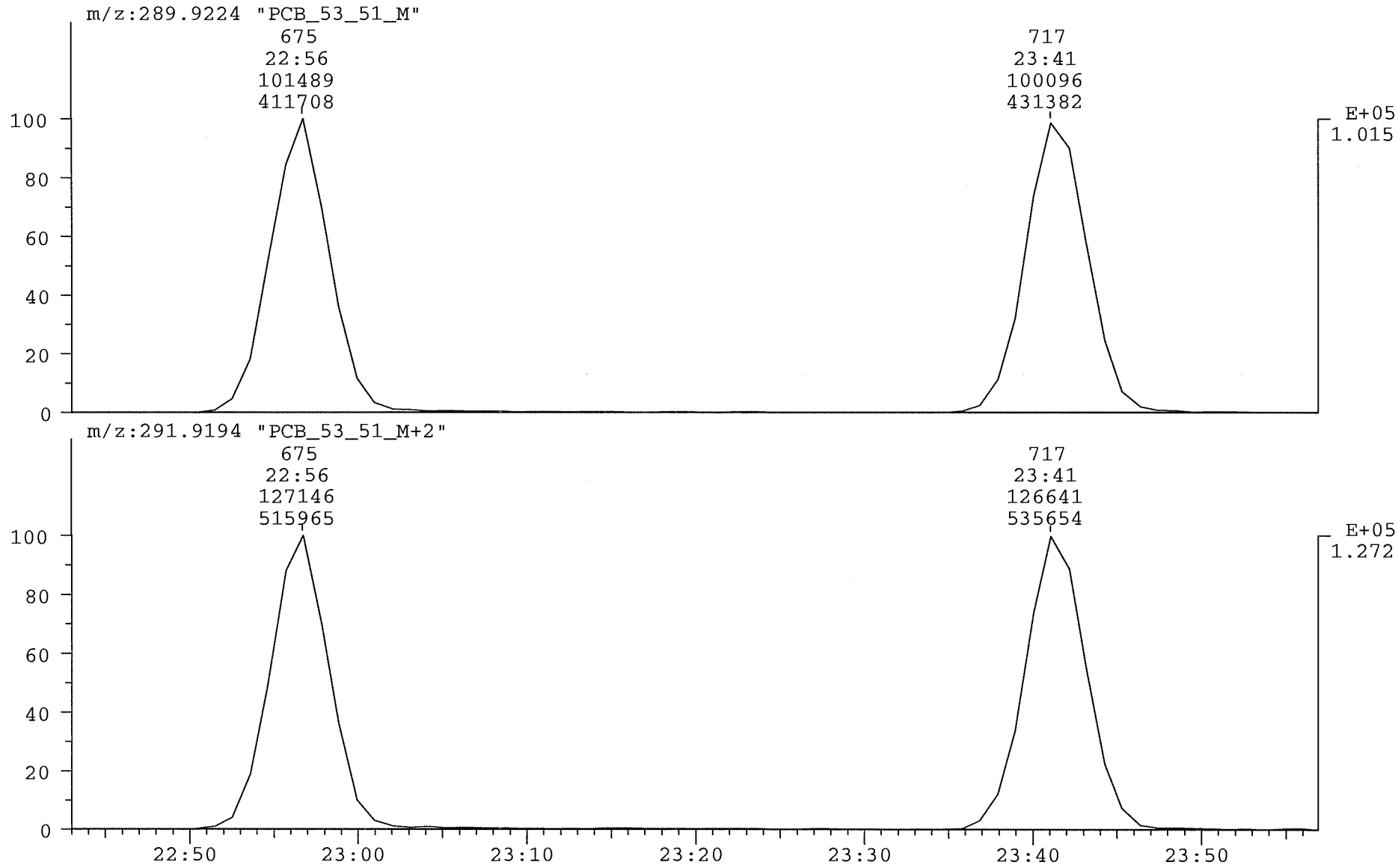
CHRO: a0806m2r3 11-Jun-08 Elapse: 34:02 1306
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1236 > 1371 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2436

2435

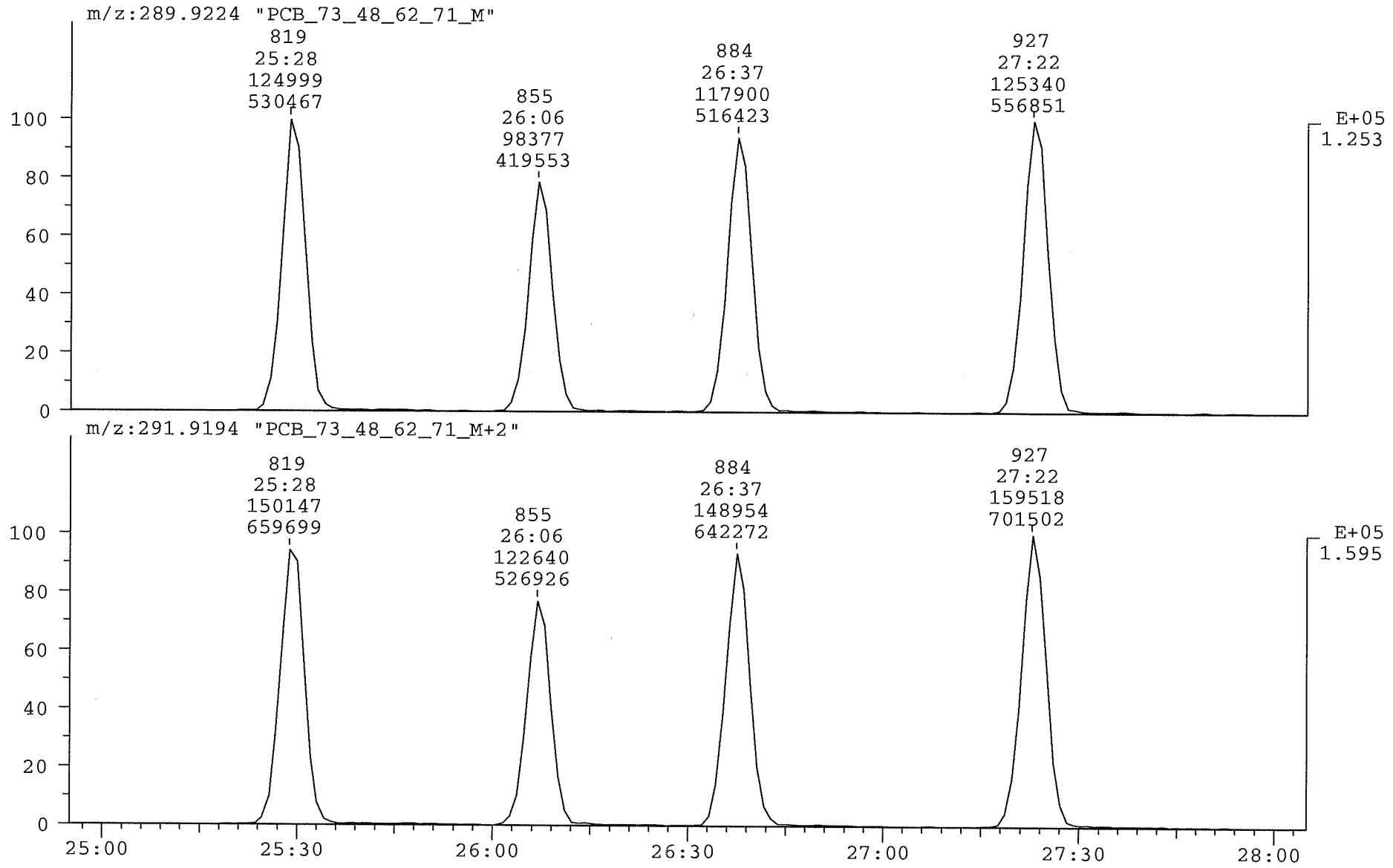
CHRO: a0806m2r3 11-Jun-08 Elapse: 23:25.2 702
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 662 > 732 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2437

2436

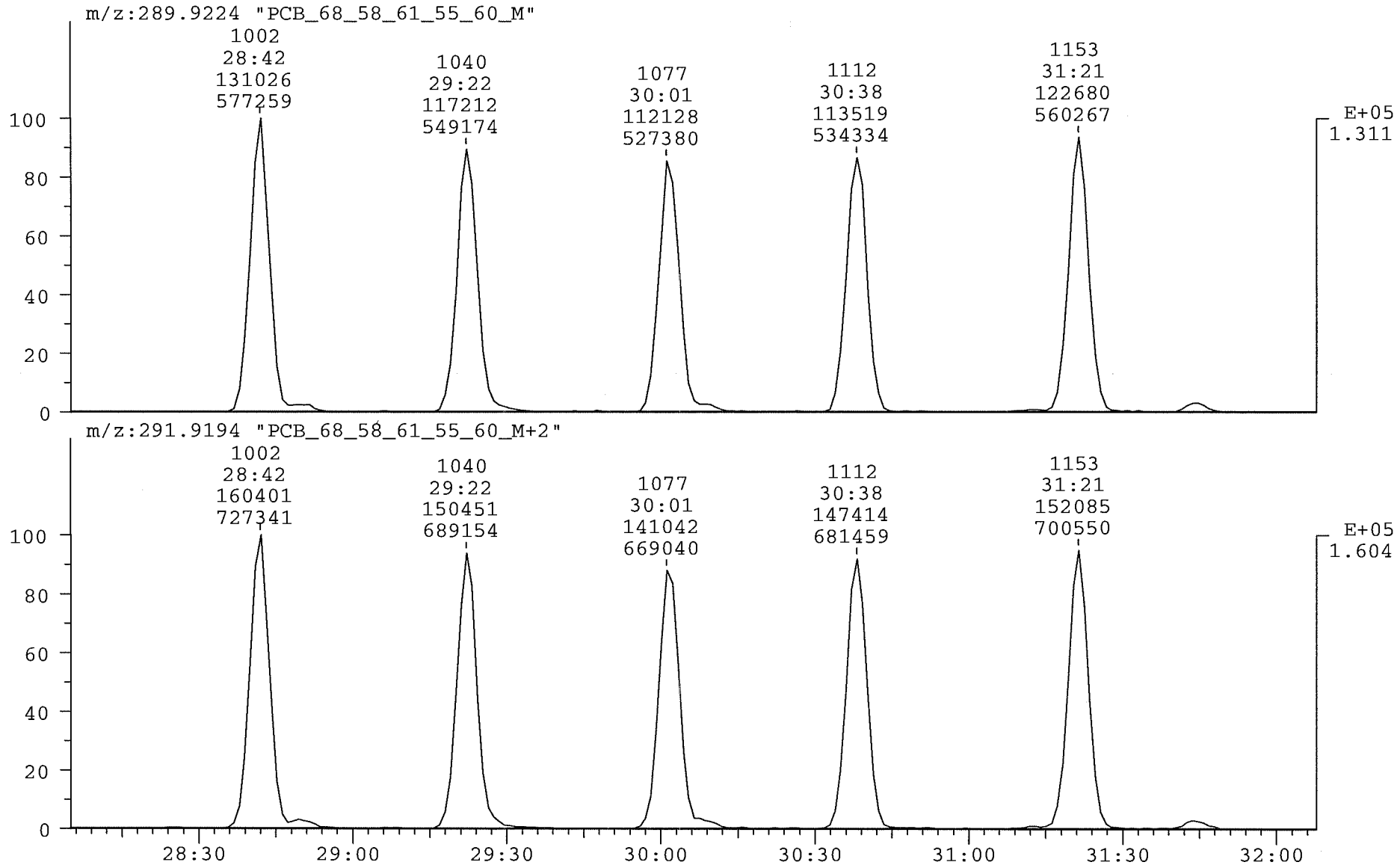
CHRO: a0806m2r3 11-Jun-08 Elapse: 26:30.9 877
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 787 > 967 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2438

2437

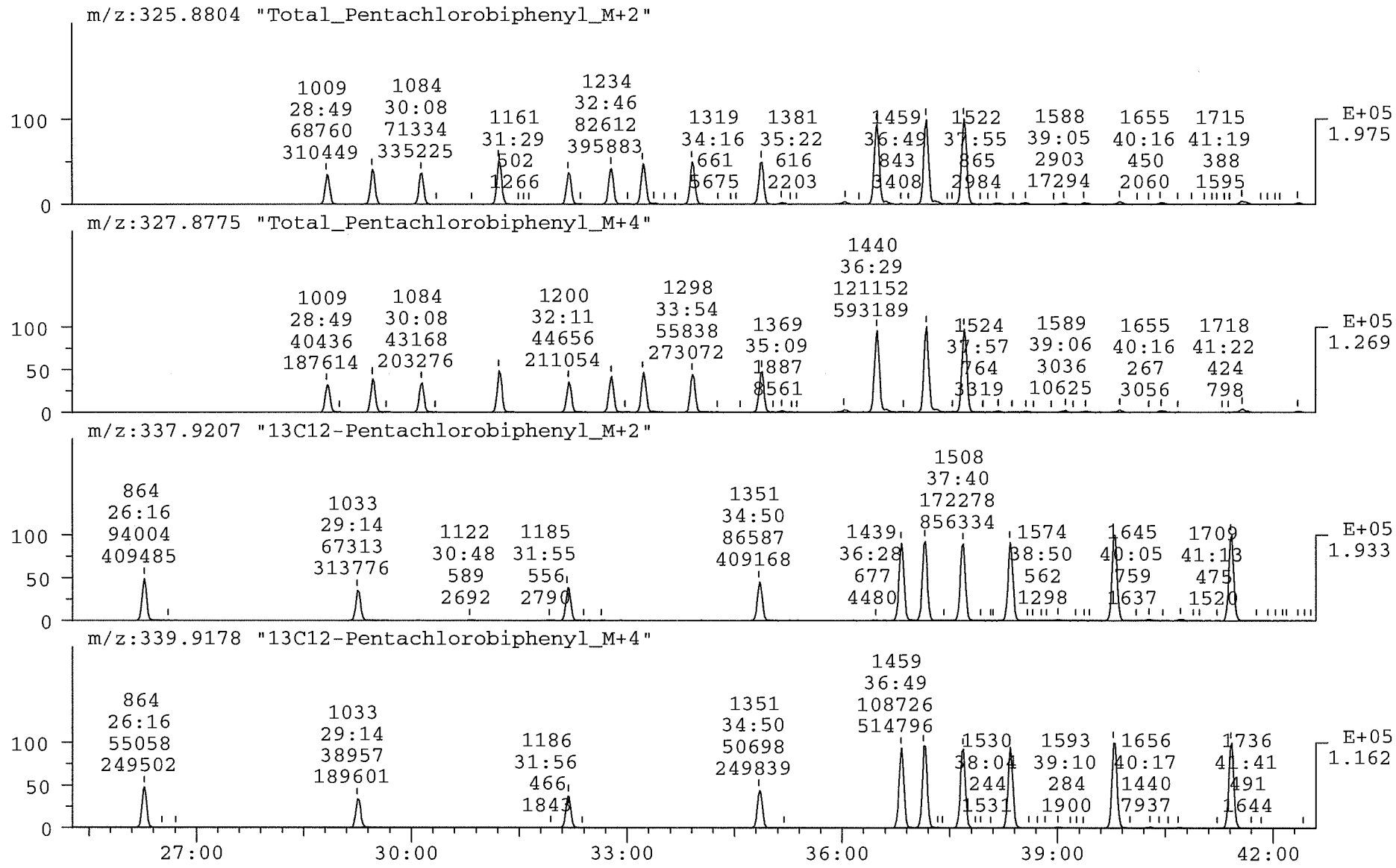
CHRO: a0806m2r3 11-Jun-08 Elapse: 30:06 1082
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 967 > 1197 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2439

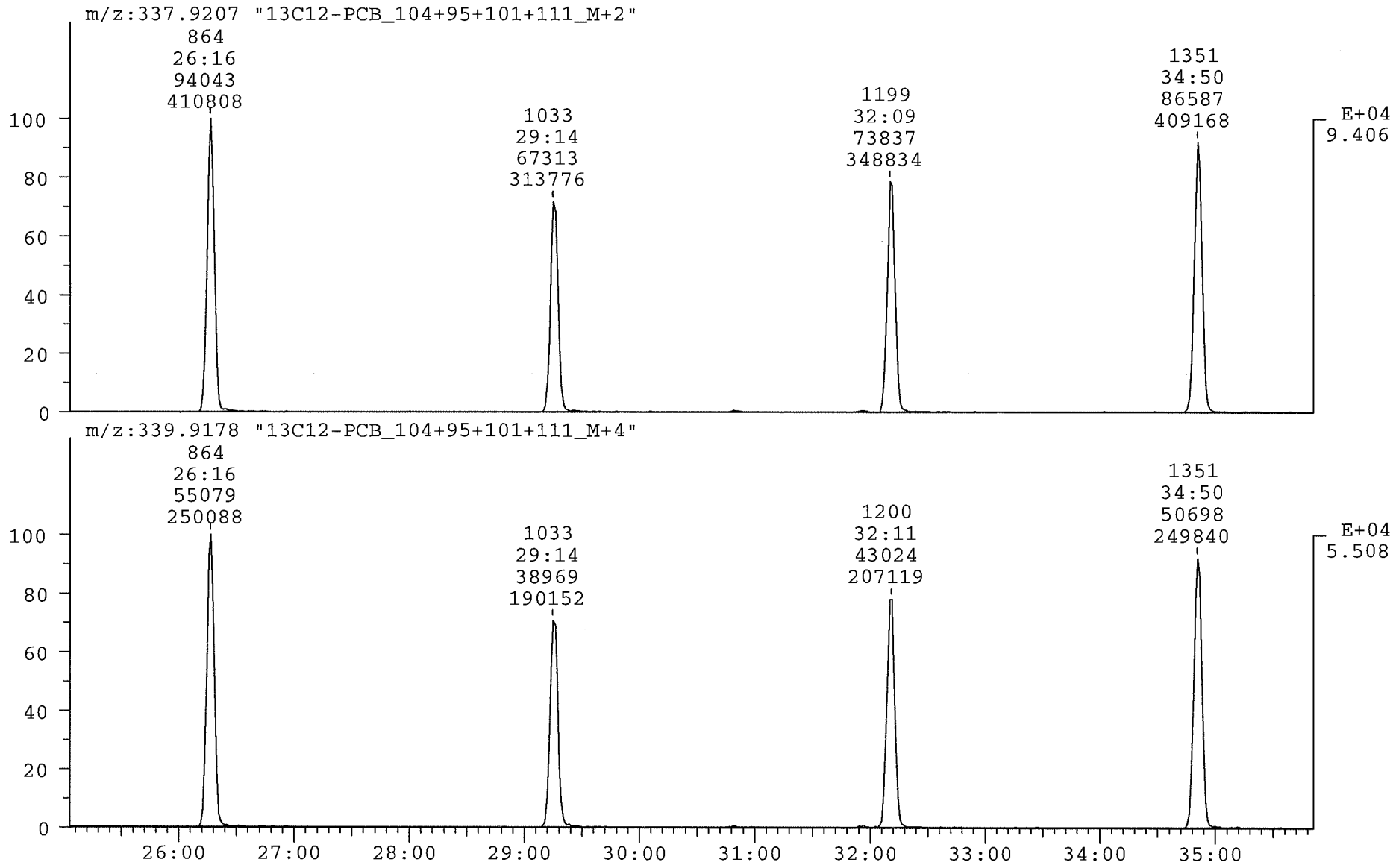
2438

CHRO: a0806m2r3 11-Jun-08 Elapse: 33:55 1299
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 807 > 1787 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



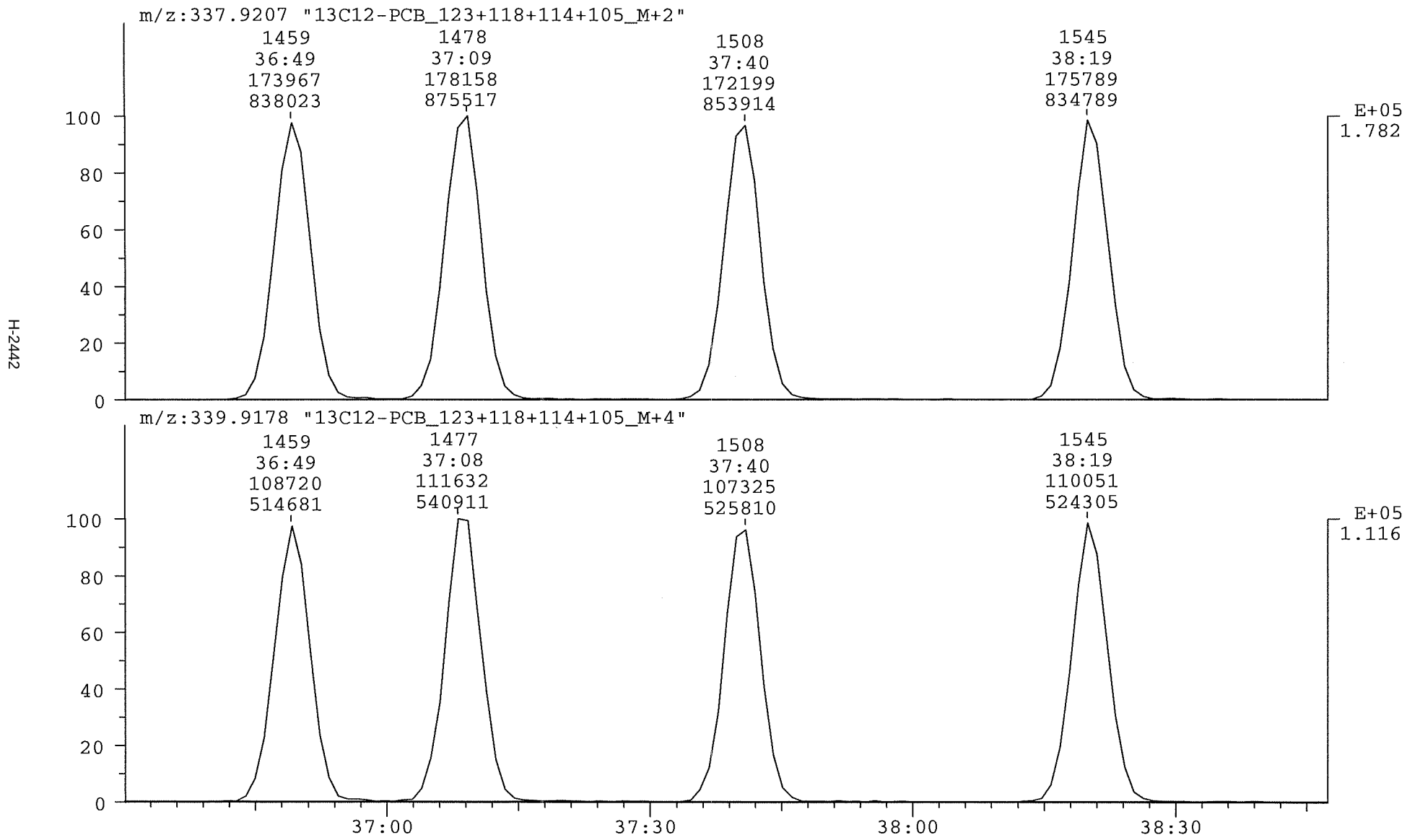
H-2440

CHRO: a0806m2r3 11-Jun-08 Elapse: 30:27 1102
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 795 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



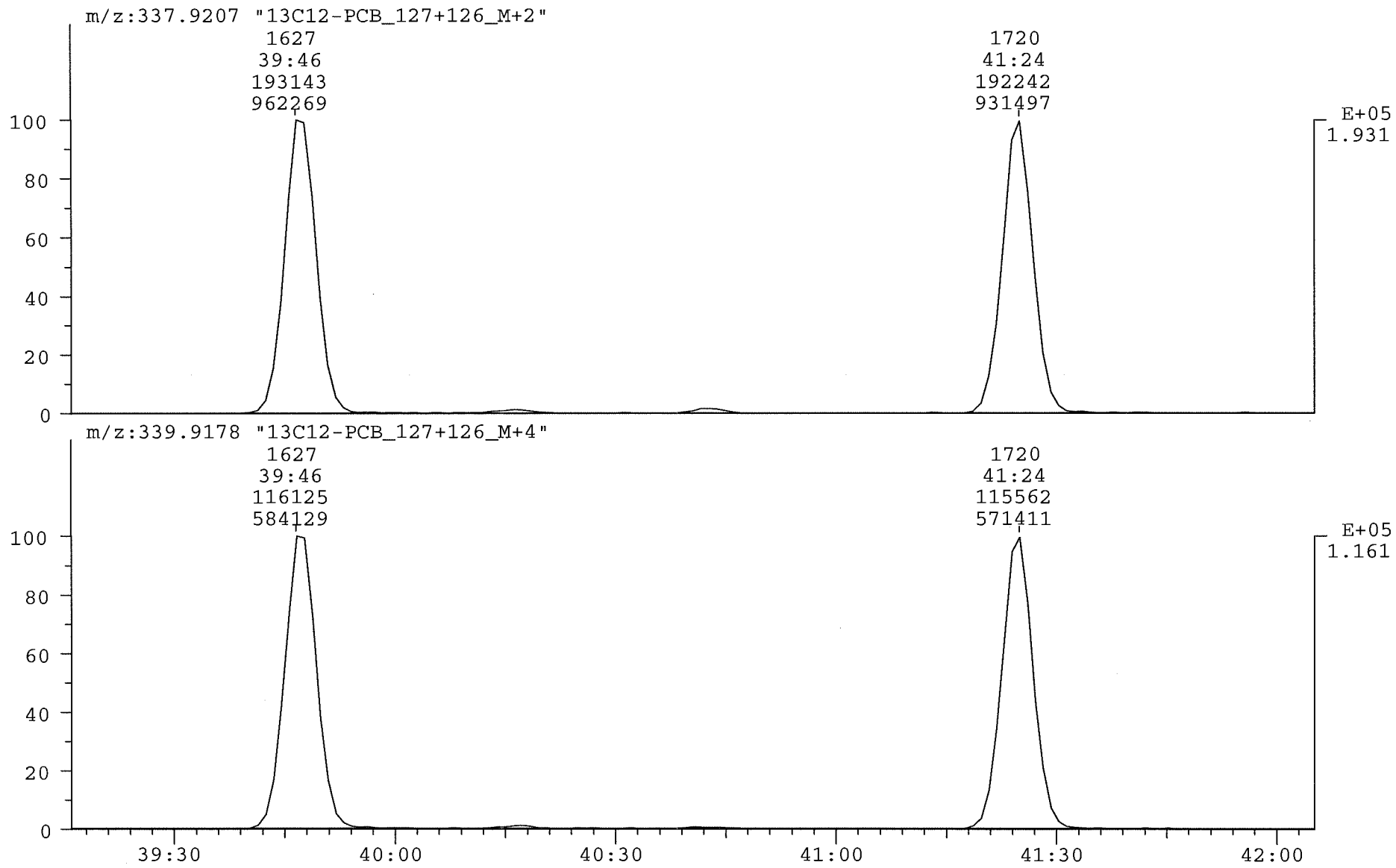
H-2441

CHRO: a0806m2r3 11-Jun-08 Elapse: 37:38 1506
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1441 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2442

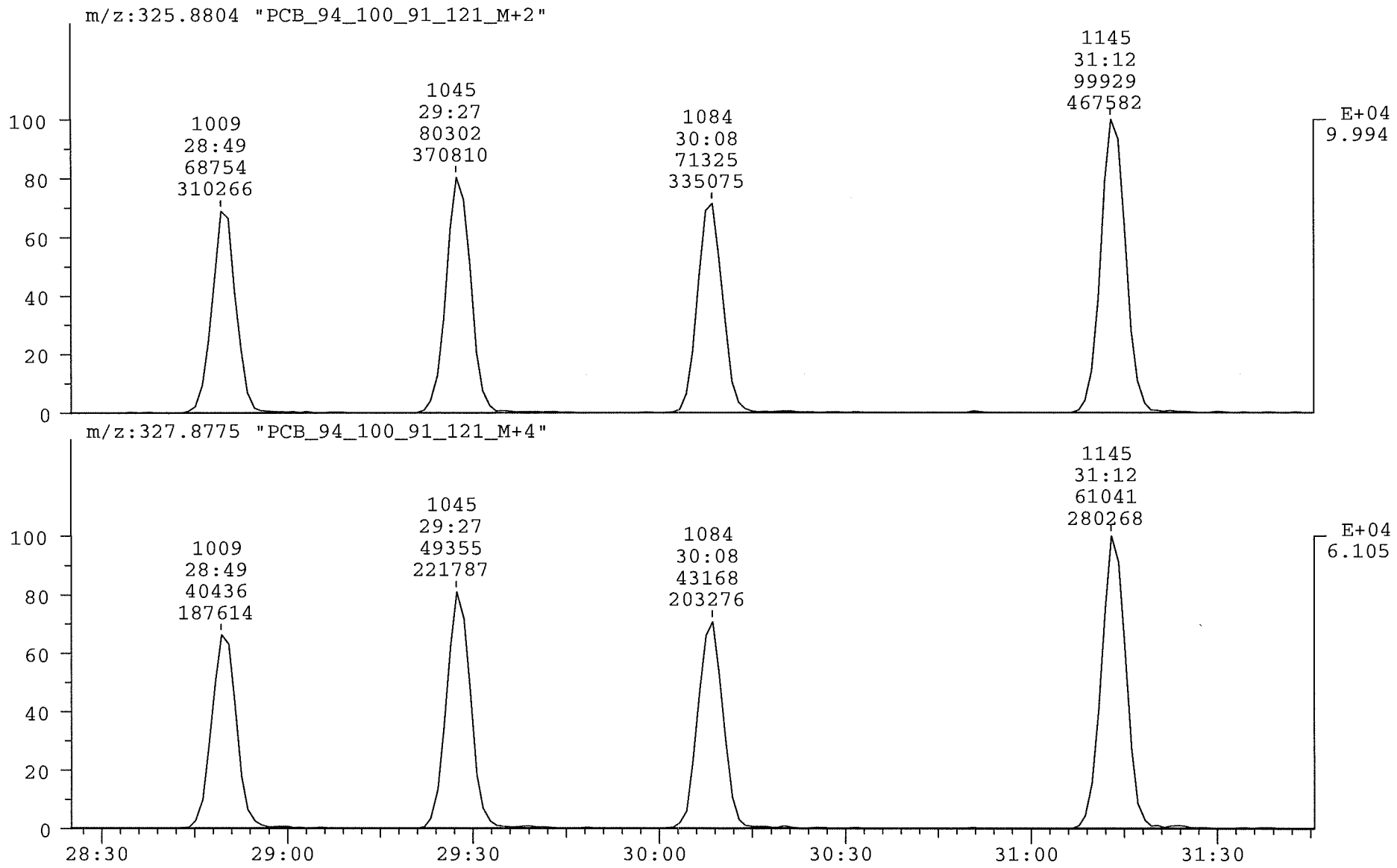
CHRO: a0806m2r3 11-Jun-08 Elapse: 40:40 1678
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1598 > 1758 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2443

2442

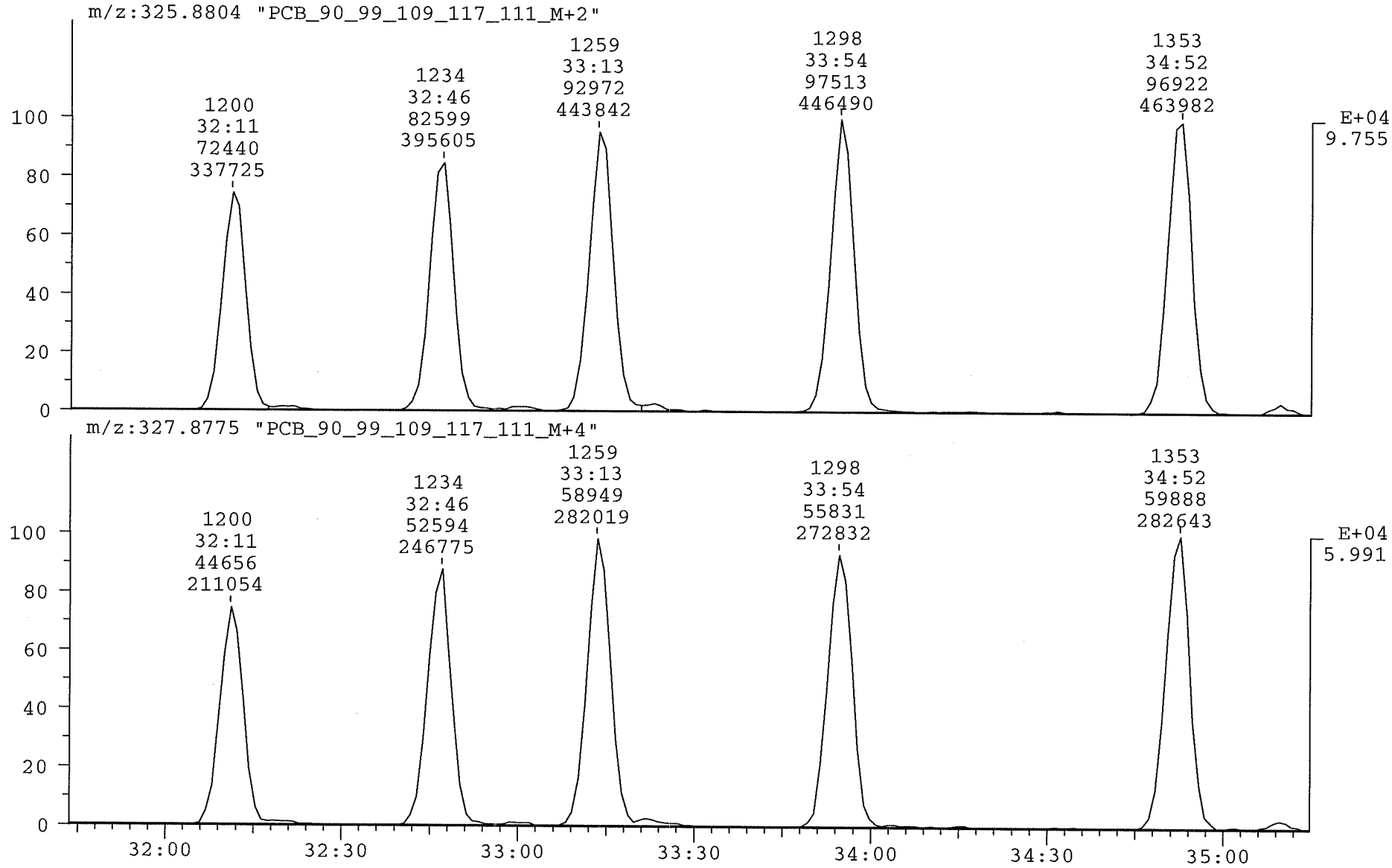
CHRO: a0806m2r3 11-Jun-08 Elapse: 30:05 1081
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 986 > 1176 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2444

2443

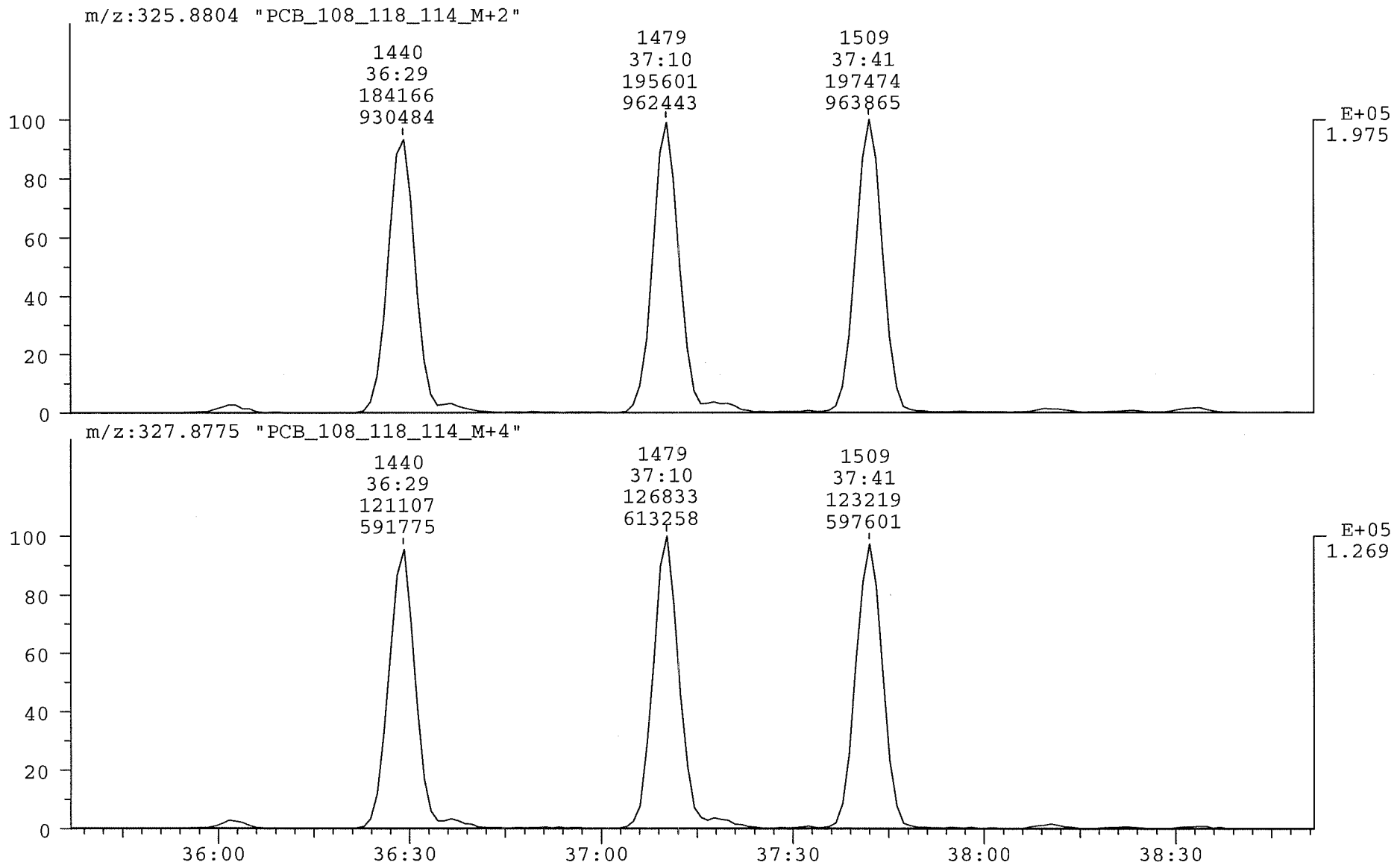
CHRO: a0806m2r3 11-Jun-08 Elapse: 33:29 1274
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1174 > 1374 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2445

2444

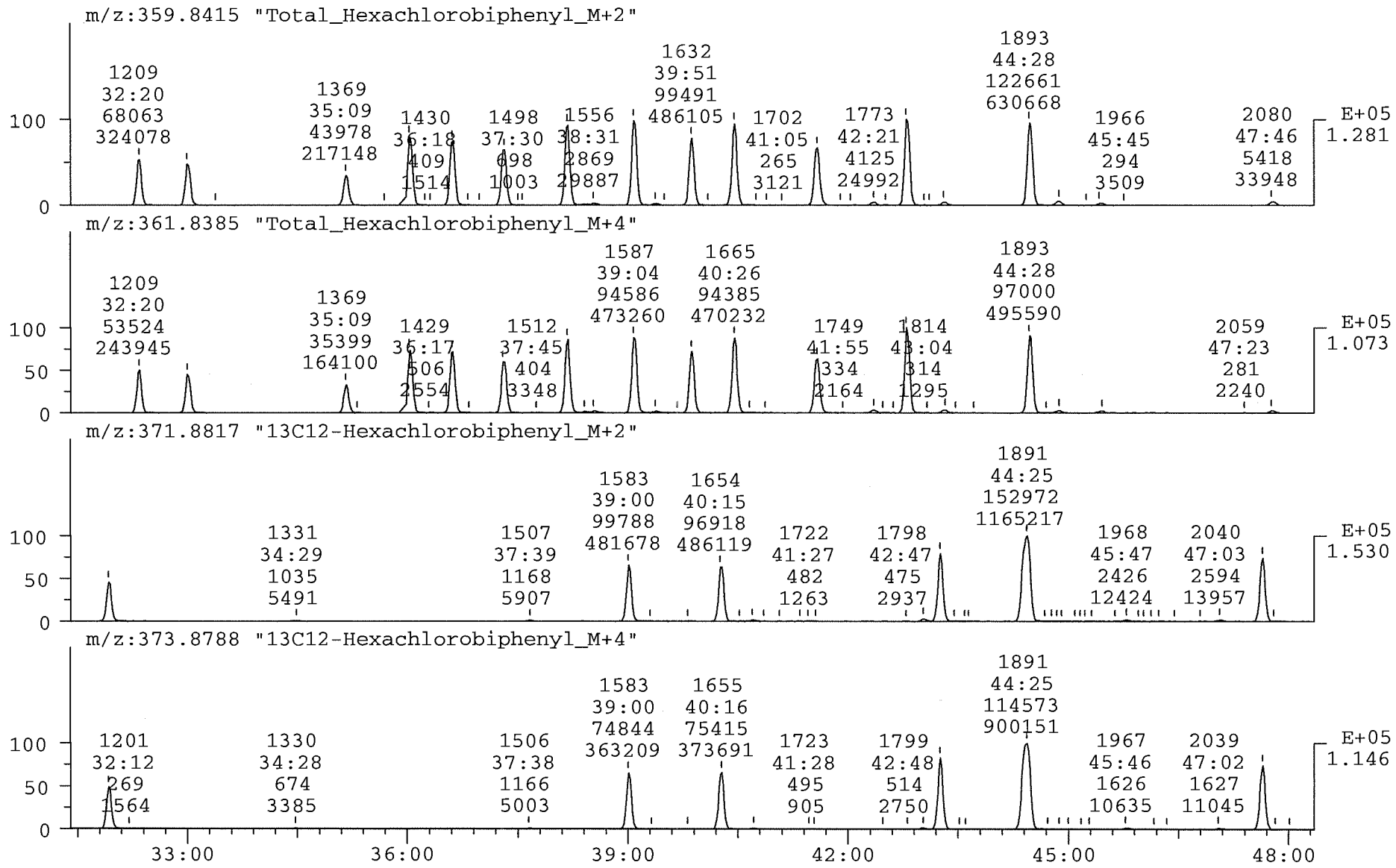
CHRO: a0806m2r3 11-Jun-08 Elapse: 37:16 1485
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1395 > 1575 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2446

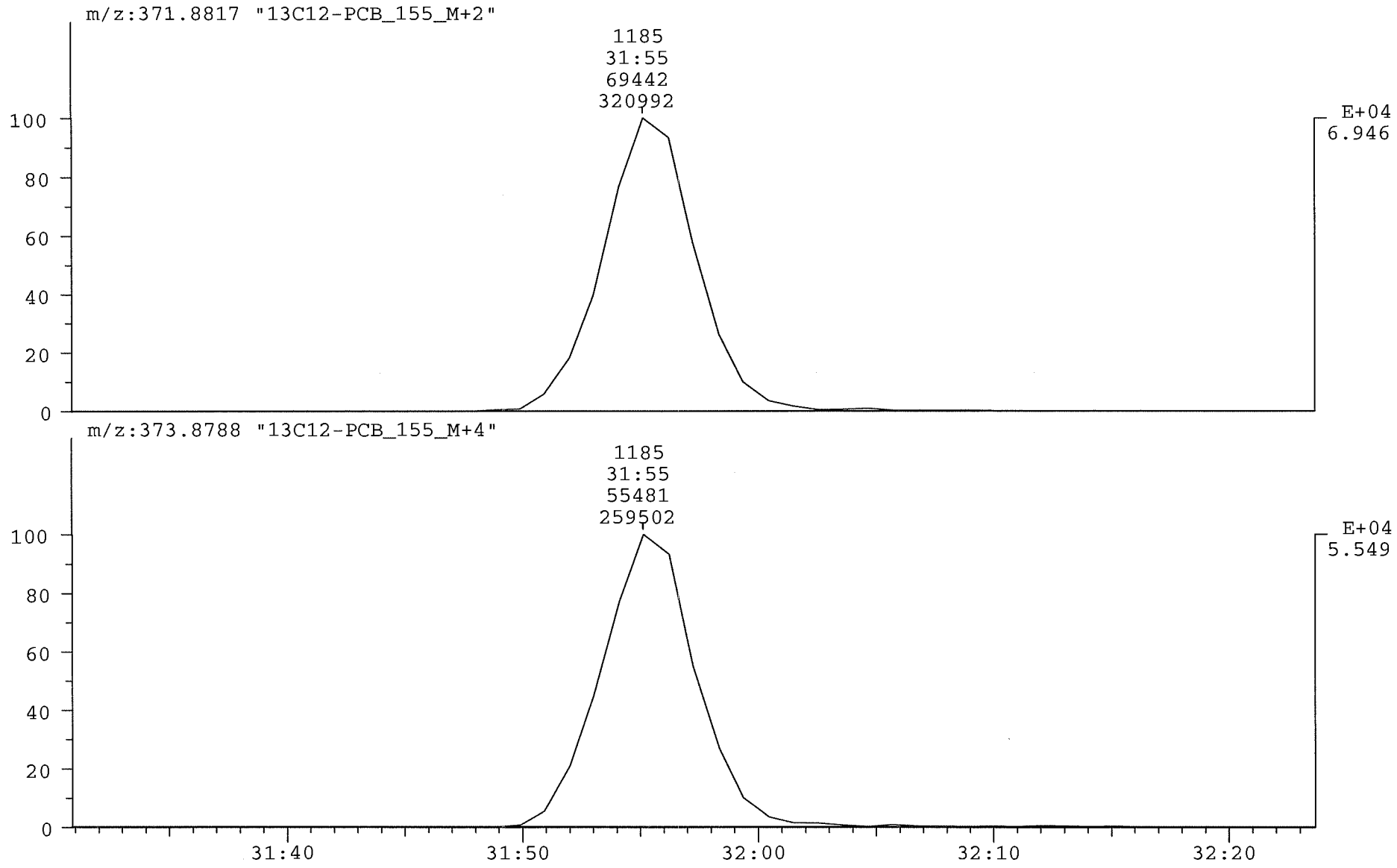
2445

CHRO: a0806m2r3 11-Jun-08 Elapse: 39:51 1632
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1156 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2447

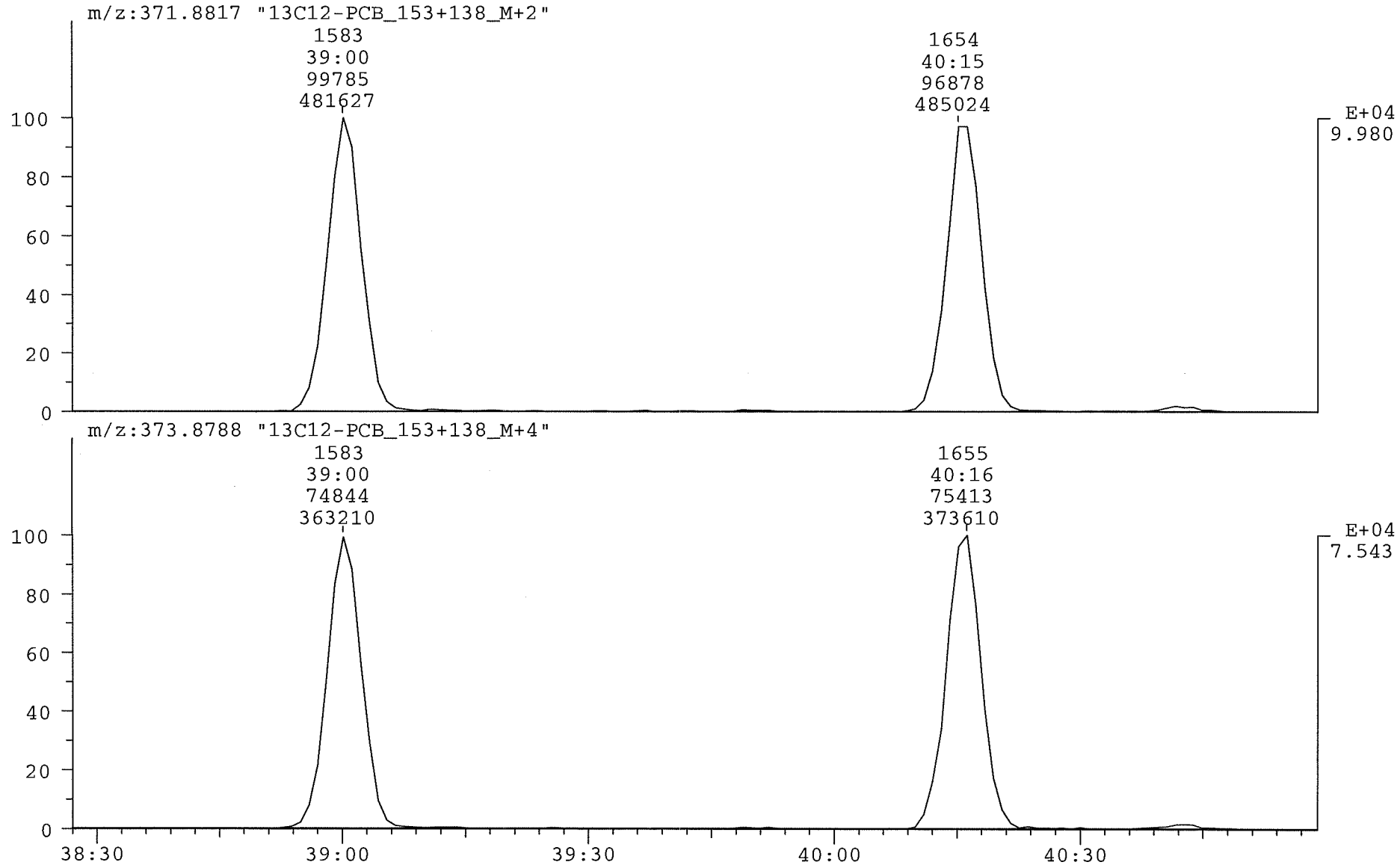
CHRO: a0806m2r3 11-Jun-08 Elapse: 31:57 1187
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1162 > 1212 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2448

2447

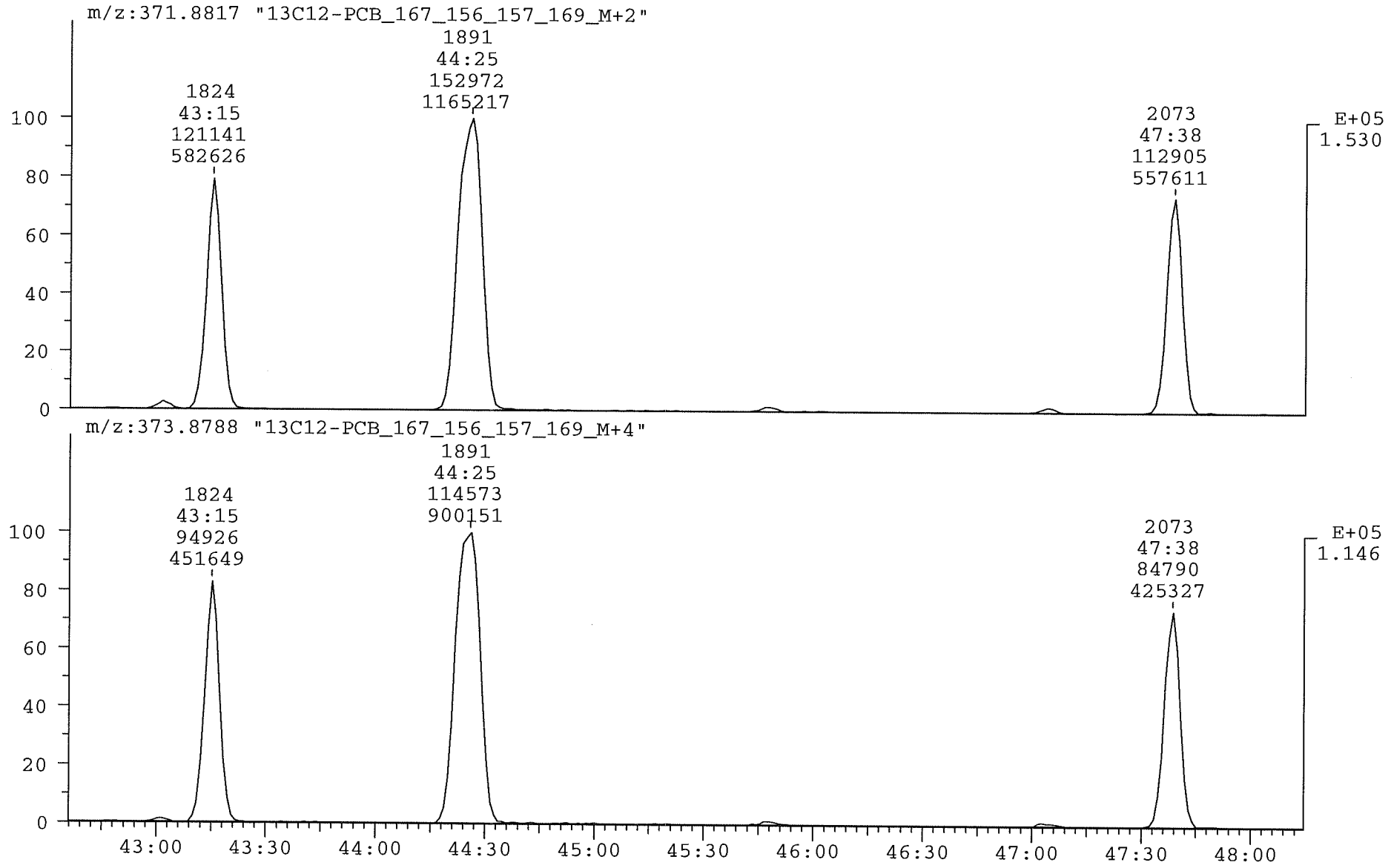
CHRO: a0806m2r3 11-Jun-08 Elapse: 39:43 1624
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1552 > 1695 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2449

2448

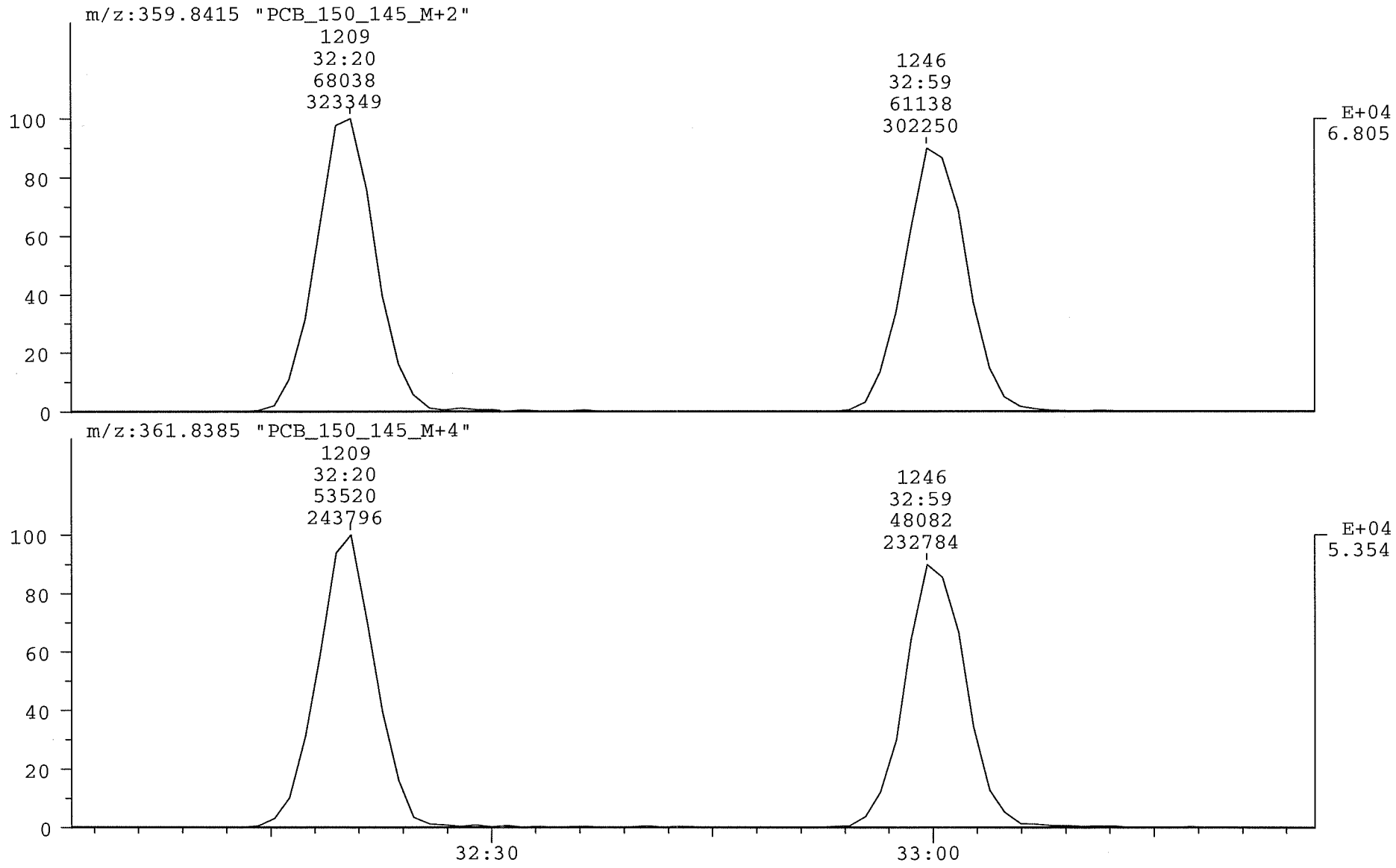
CHRO: a0806m2r3 11-Jun-08 Elapse: 45:30 1952
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1787 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2450

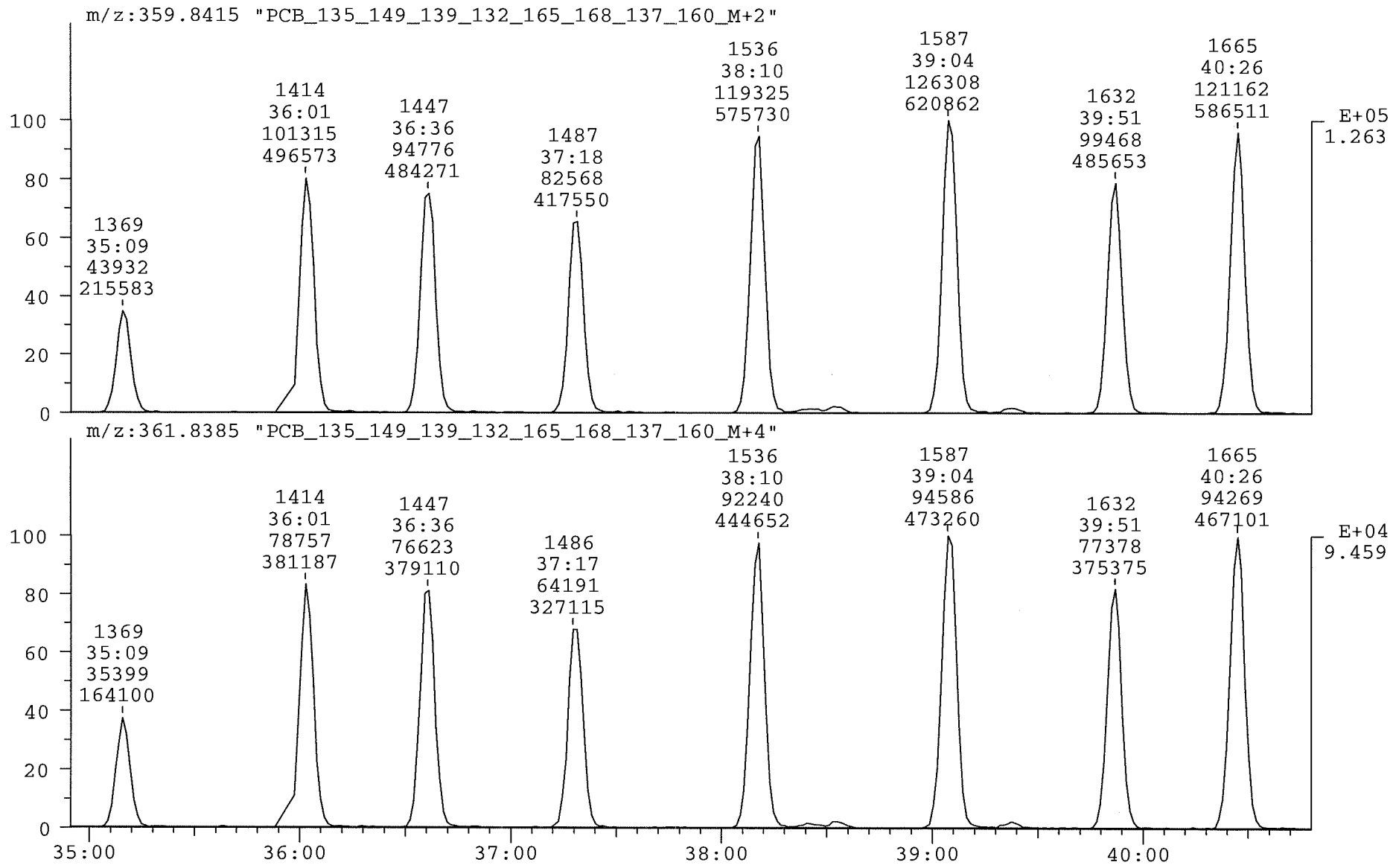
2449

CHRO: a0806m2r3 11-Jun-08 Elapse: 32:43 1231
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1191 > 1271 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2451

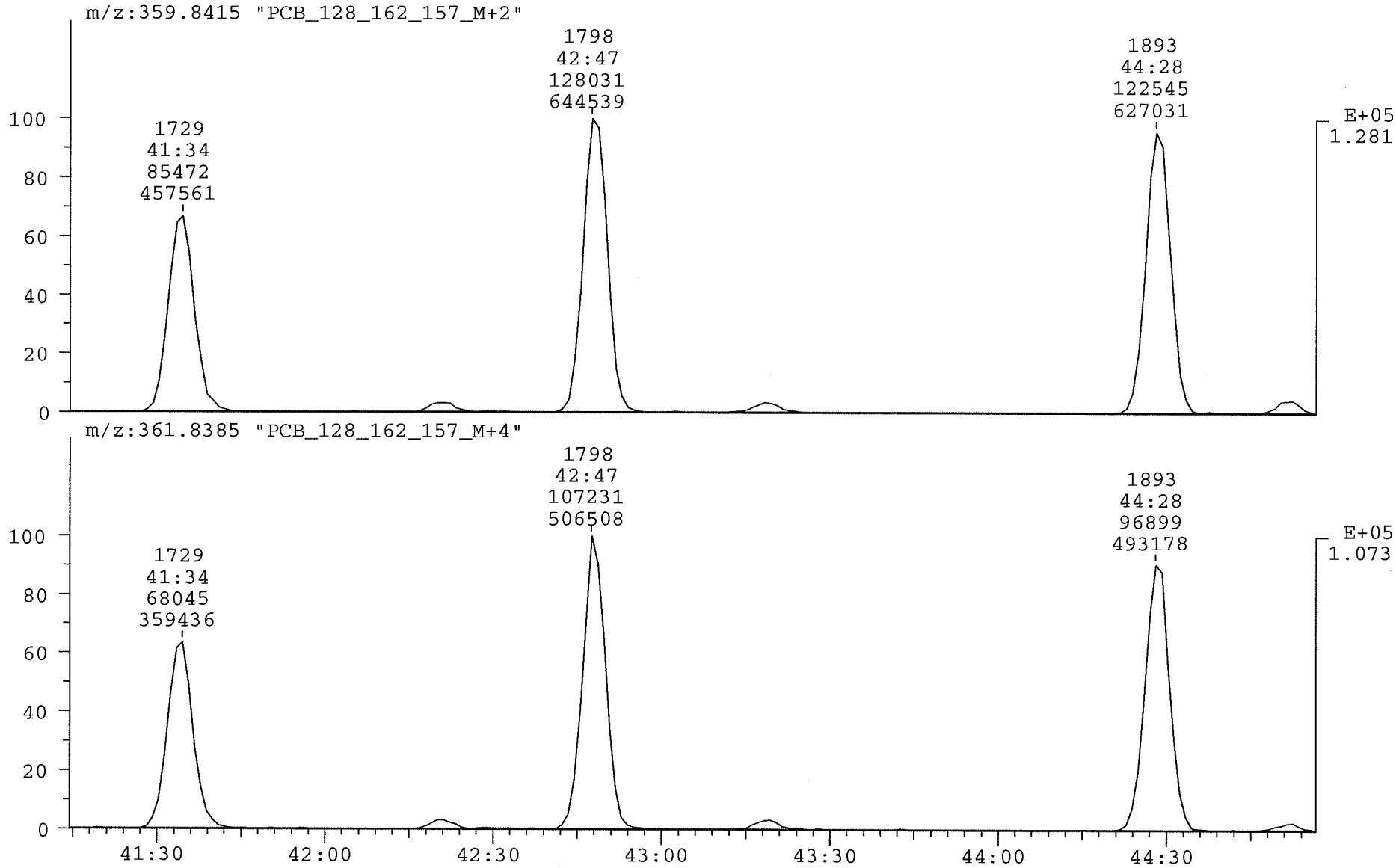
CHRO: a0806m2r3 11-Jun-08 Elapse: 37:53 1520
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1355 > 1685 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2452

2451

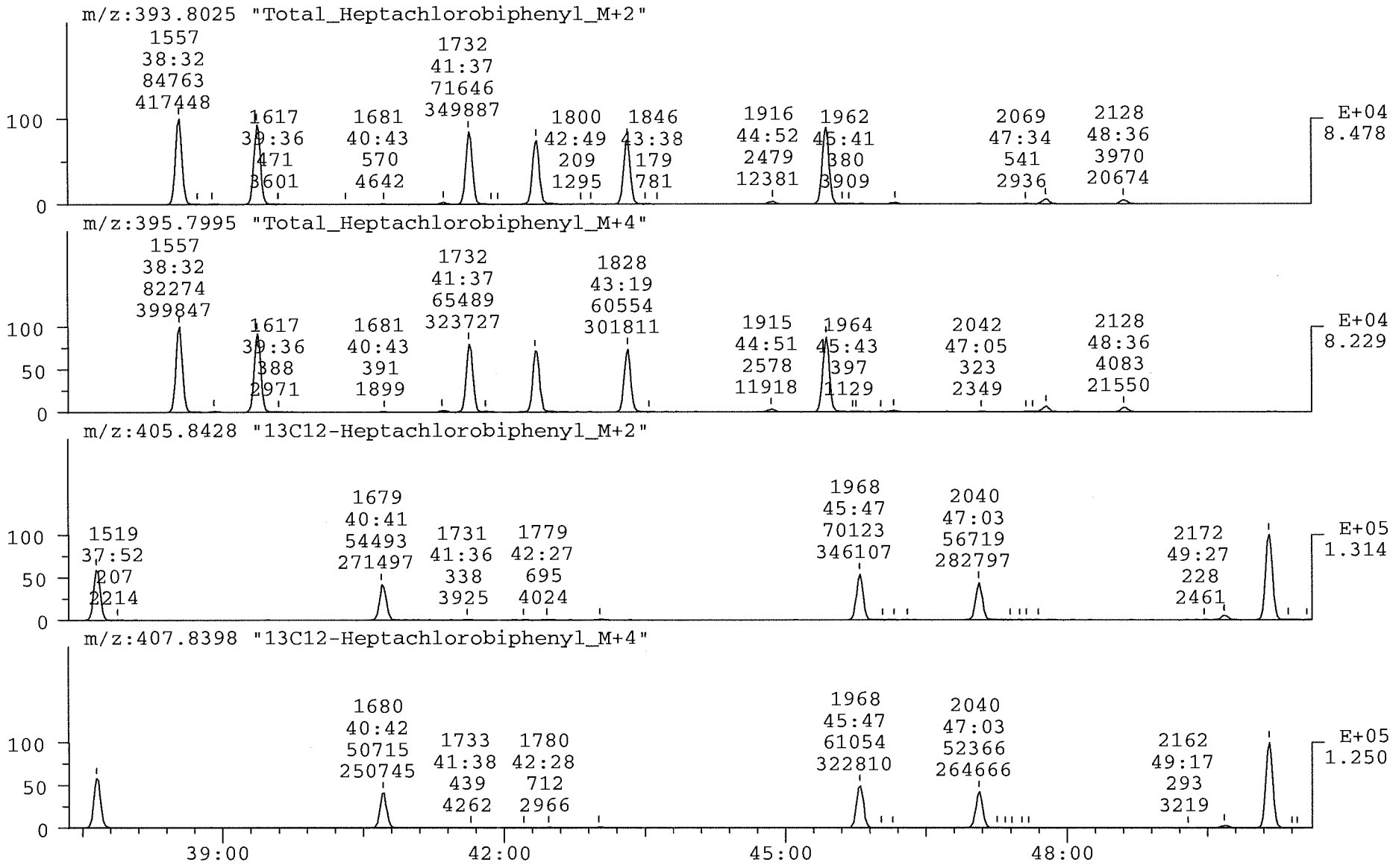
CHRO: a0806m2r3 11-Jun-08 Elapse: 43:05 1815
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1710 > 1920 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2453

2452

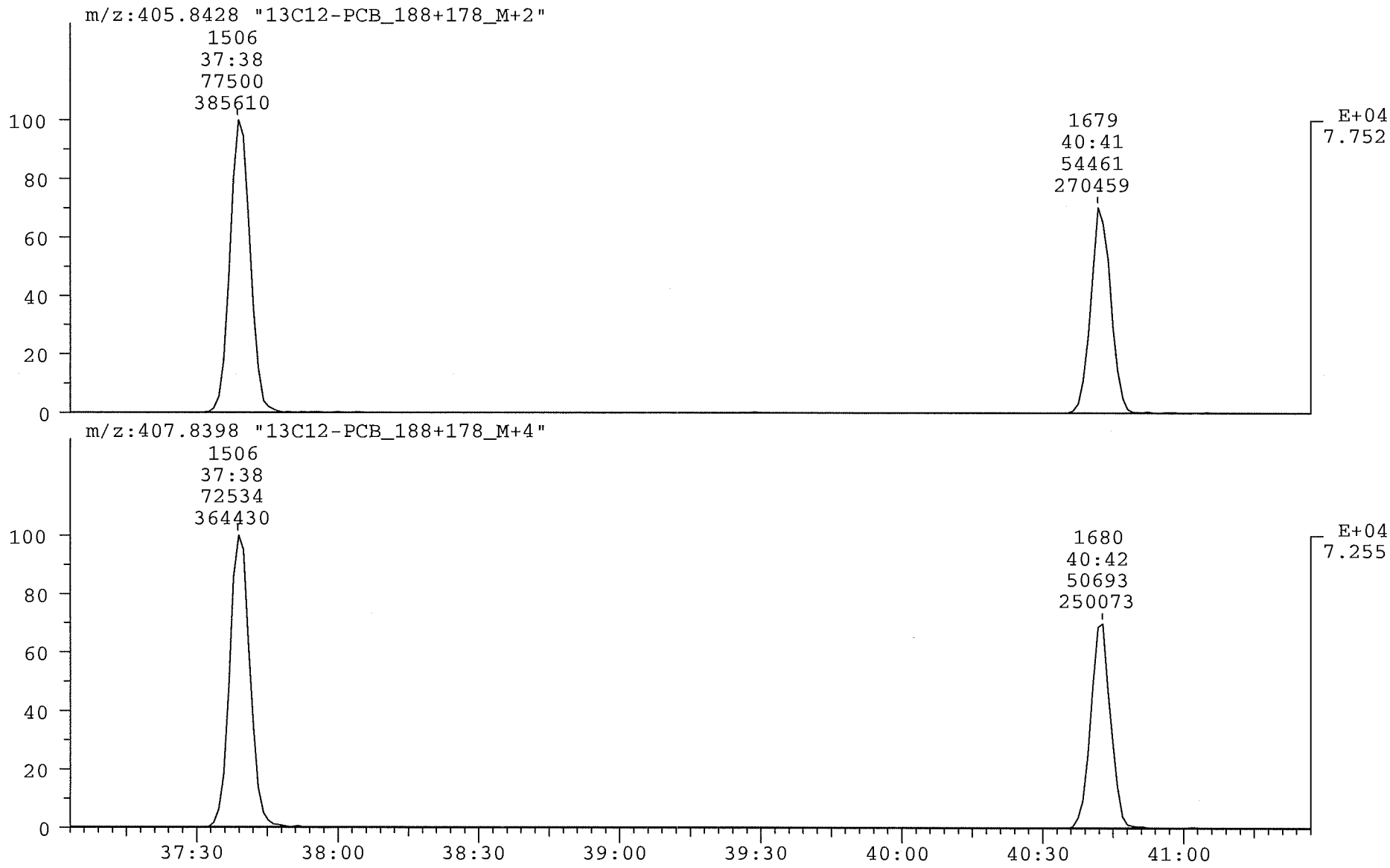
CHRO: a0806m2r3 11-Jun-08 Elapse: 43:59 1866
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1489 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2454

2453

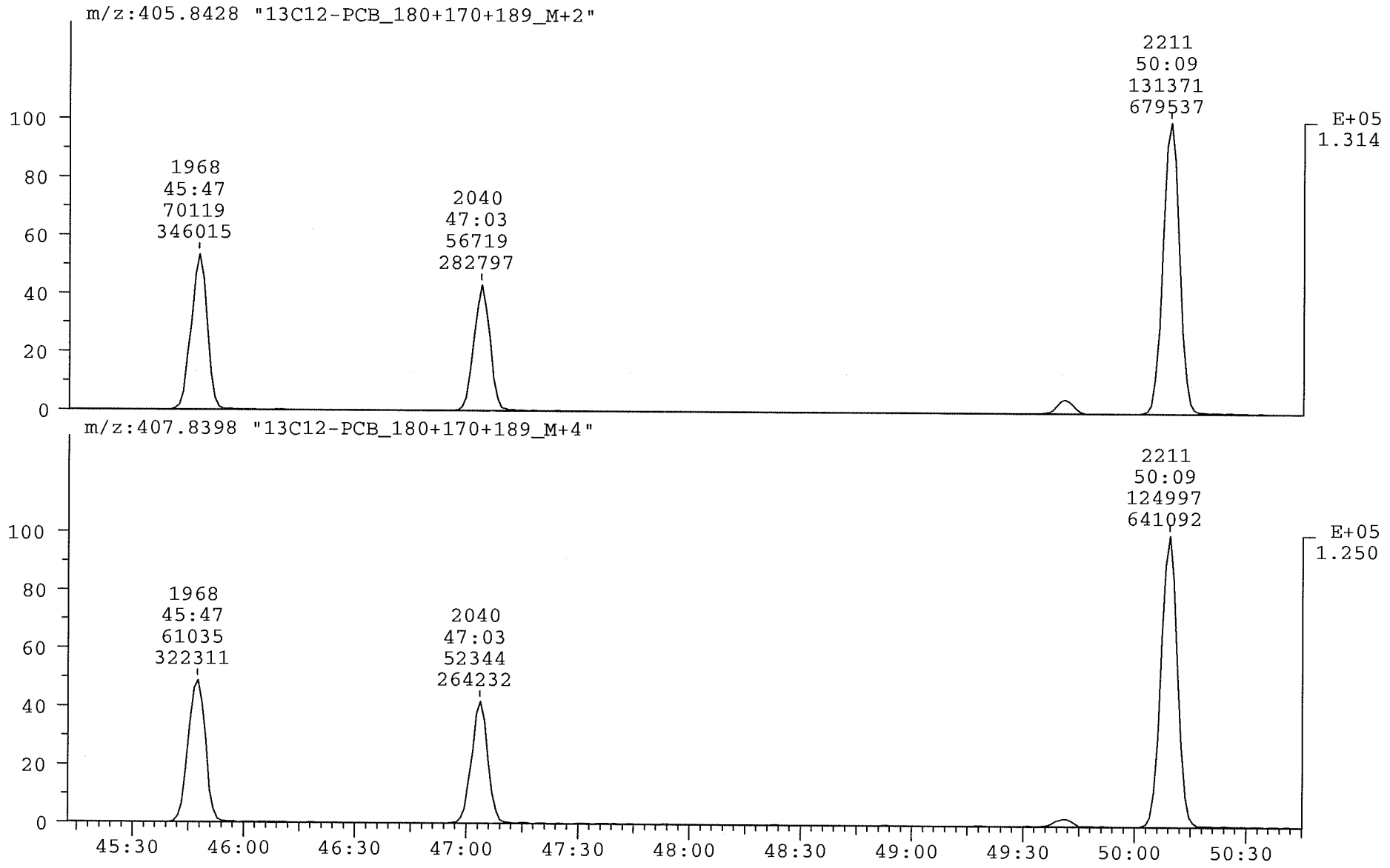
CHRO: a0806m2r3 11-Jun-08 Elapse: 39:14 1597
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1472 > 1722 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2455

2454

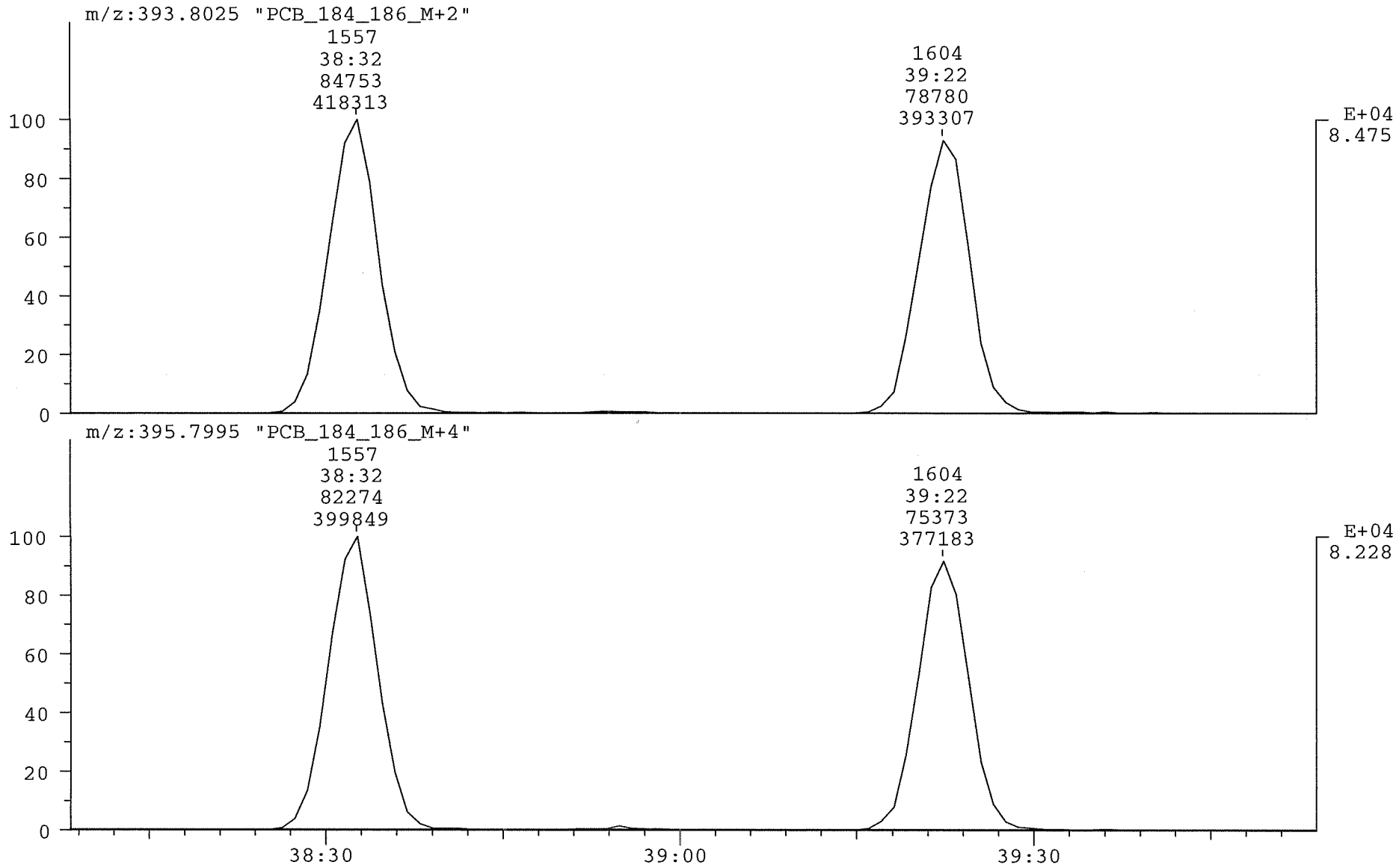
CHRO: a0806m2r3 11-Jun-08 Elapse: 48:01 2095
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1935 > 2245 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2456

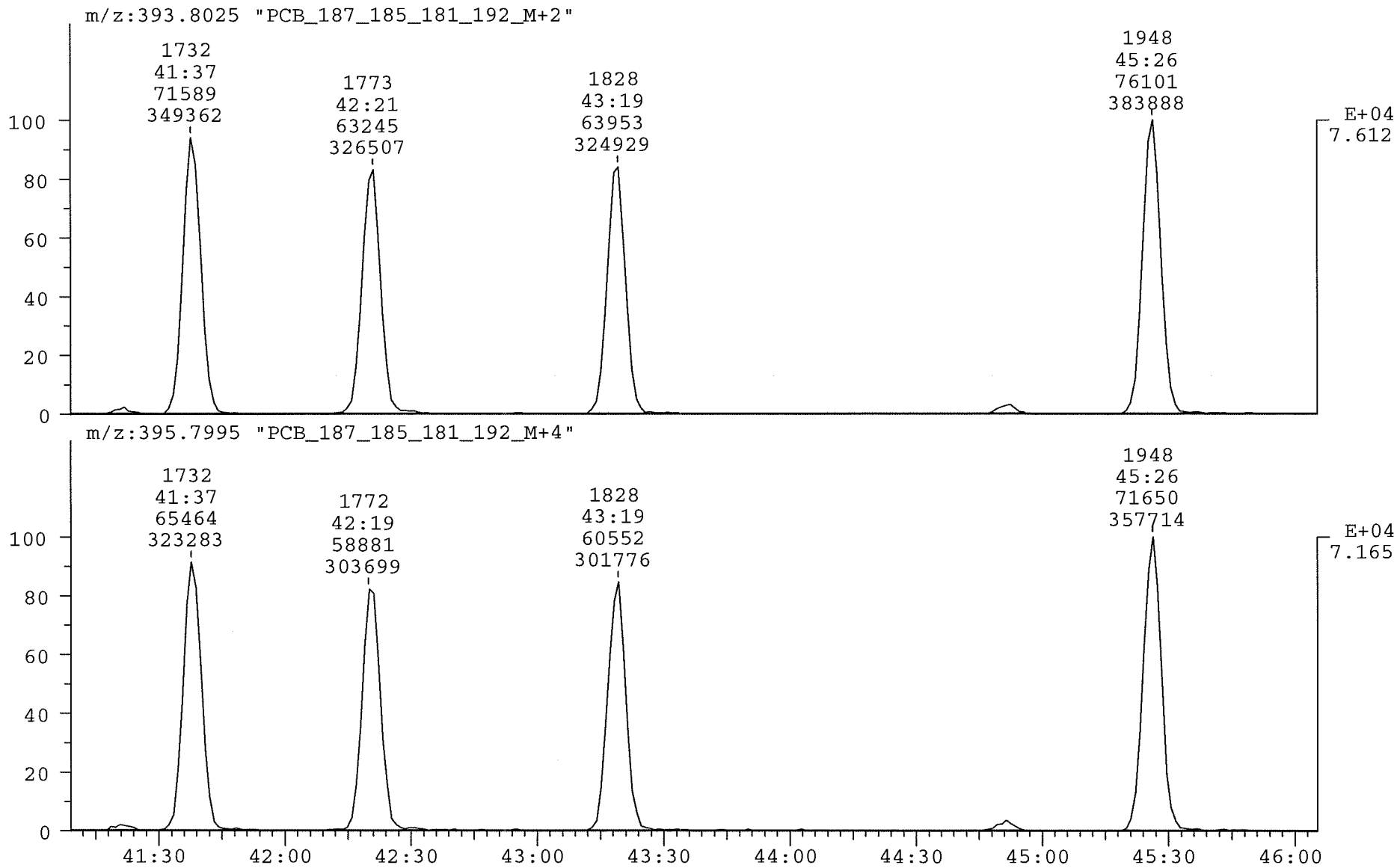
2455

CHRO: a0806m2r3 11-Jun-08 Elapse: 39:01 1584
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1534 > 1634 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2457

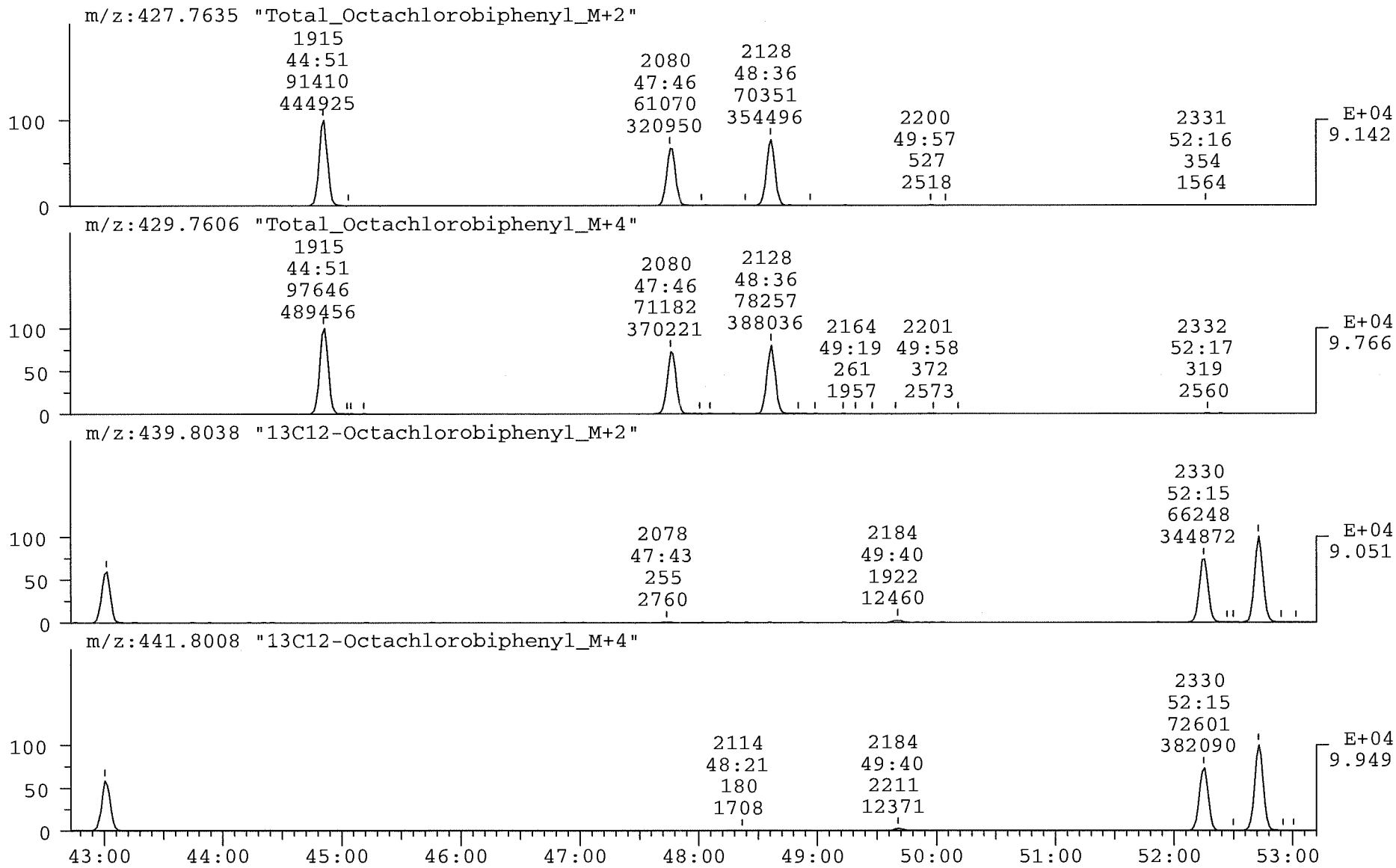
CHRO: a0806m2r3 11-Jun-08 Elapse: 43:37 1845
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1705 > 1985 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2458

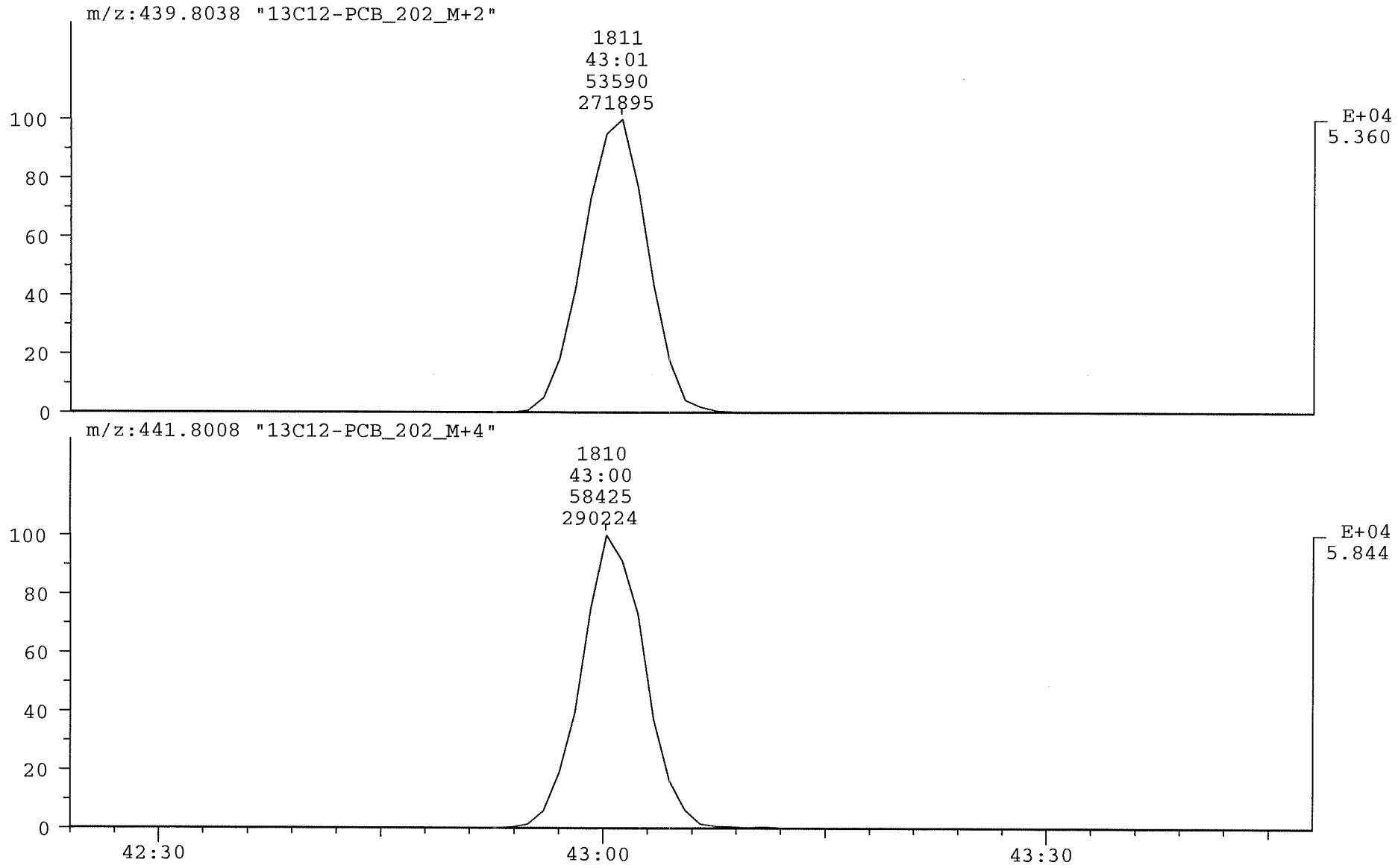
2457

CHRO: a0806m2r3 11-Jun-08 Elapse: 47:56 2090
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1794 > 2384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2459

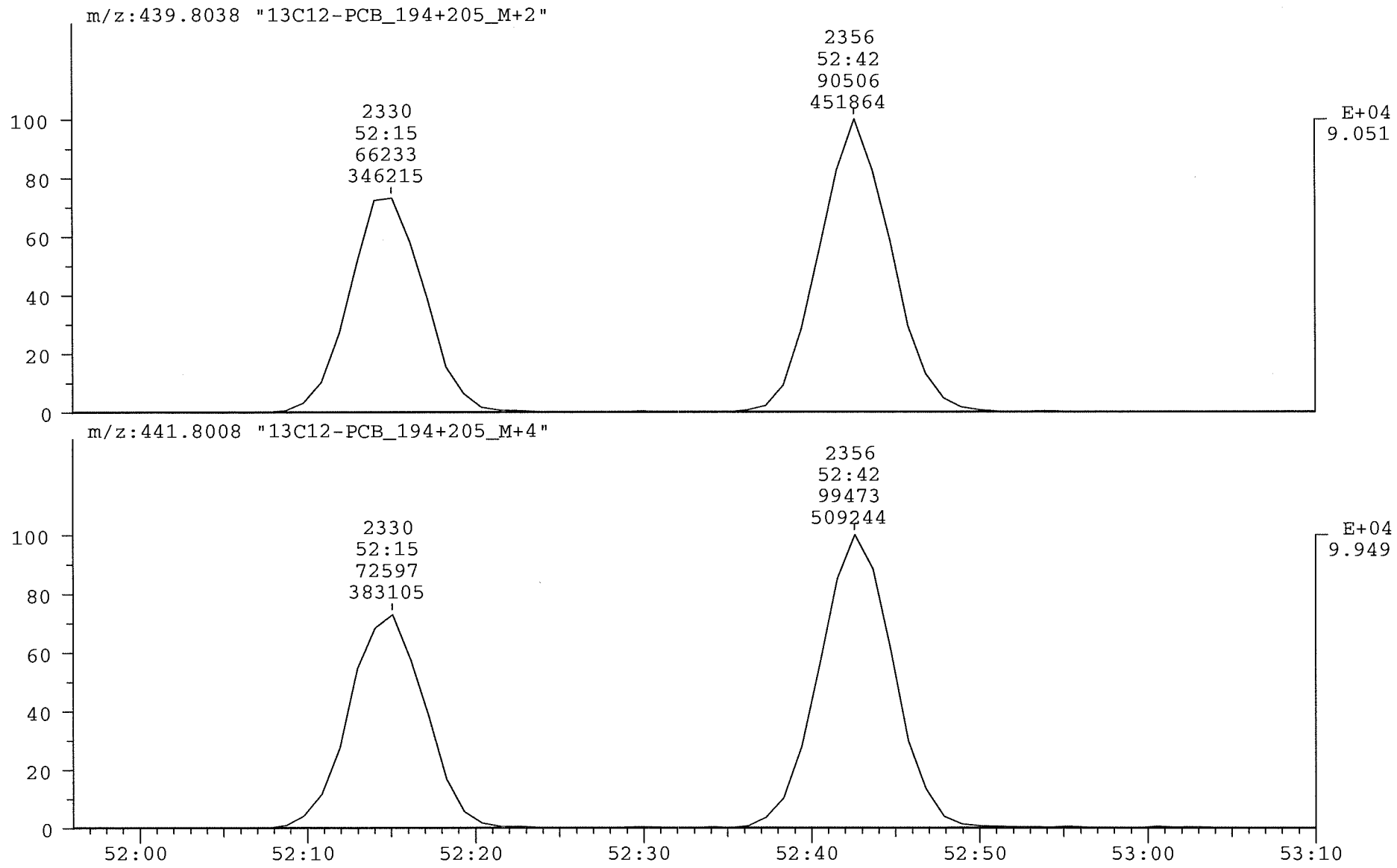
CHRO: a0806m2r3 11-Jun-08 Elapse: 43:03 1813
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1776 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2460

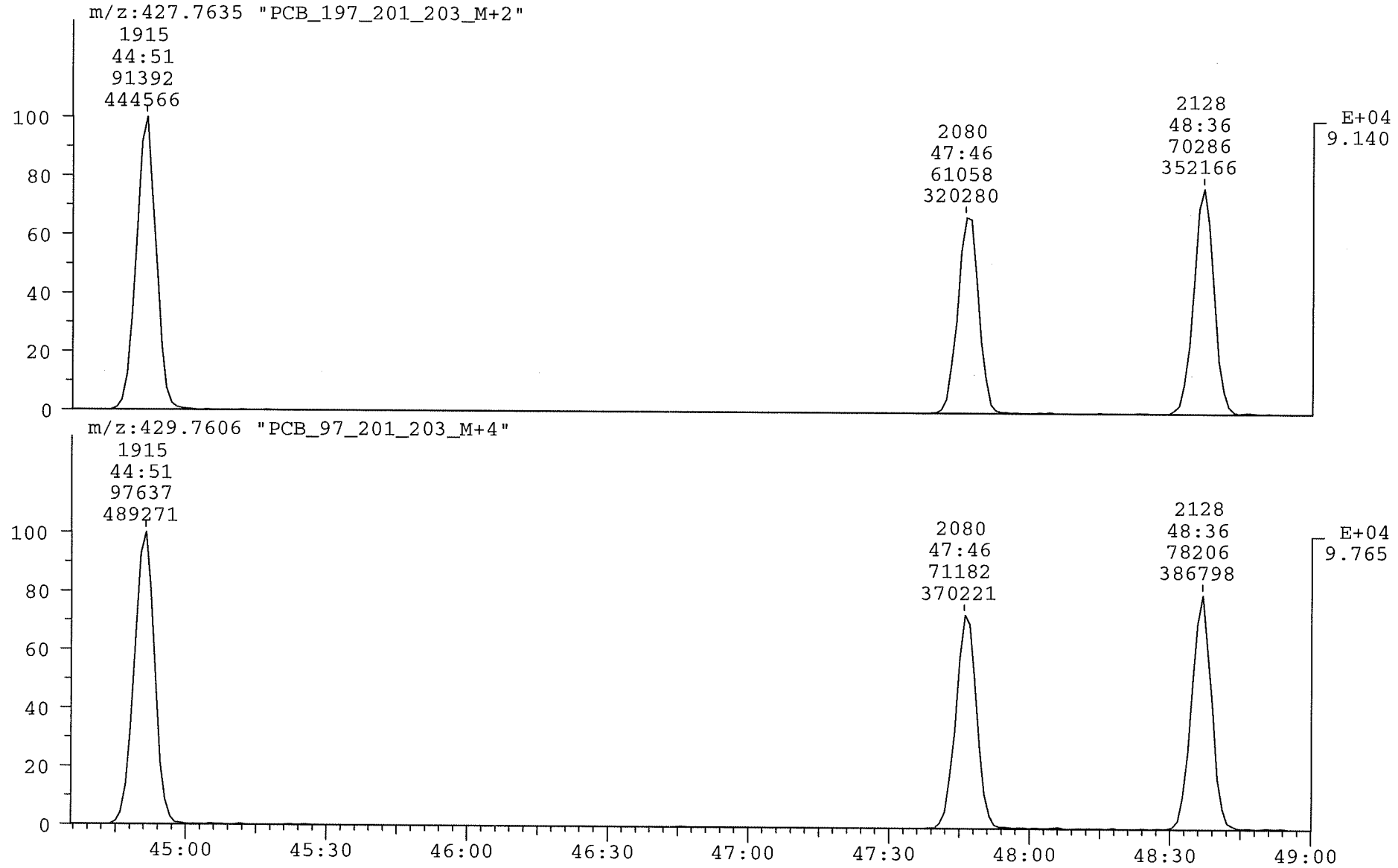
2459

CHRO: a0806m2r3 11-Jun-08 Elapse: 52:33 2347
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2312 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2461

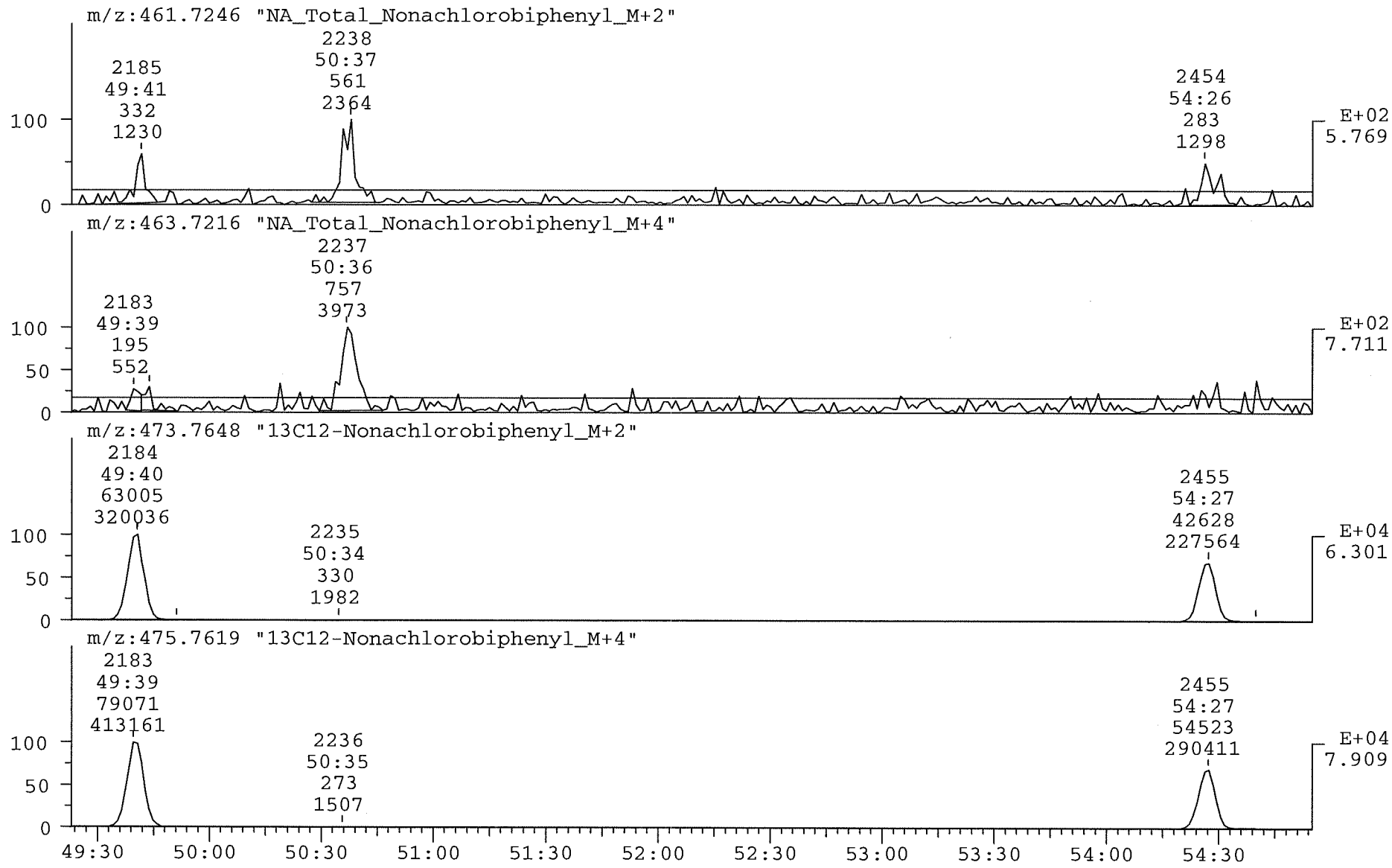
CHRO: a0806m2r3 11-Jun-08 Elapse: 46:47 2025
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 1900 > 2150 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2462

2461

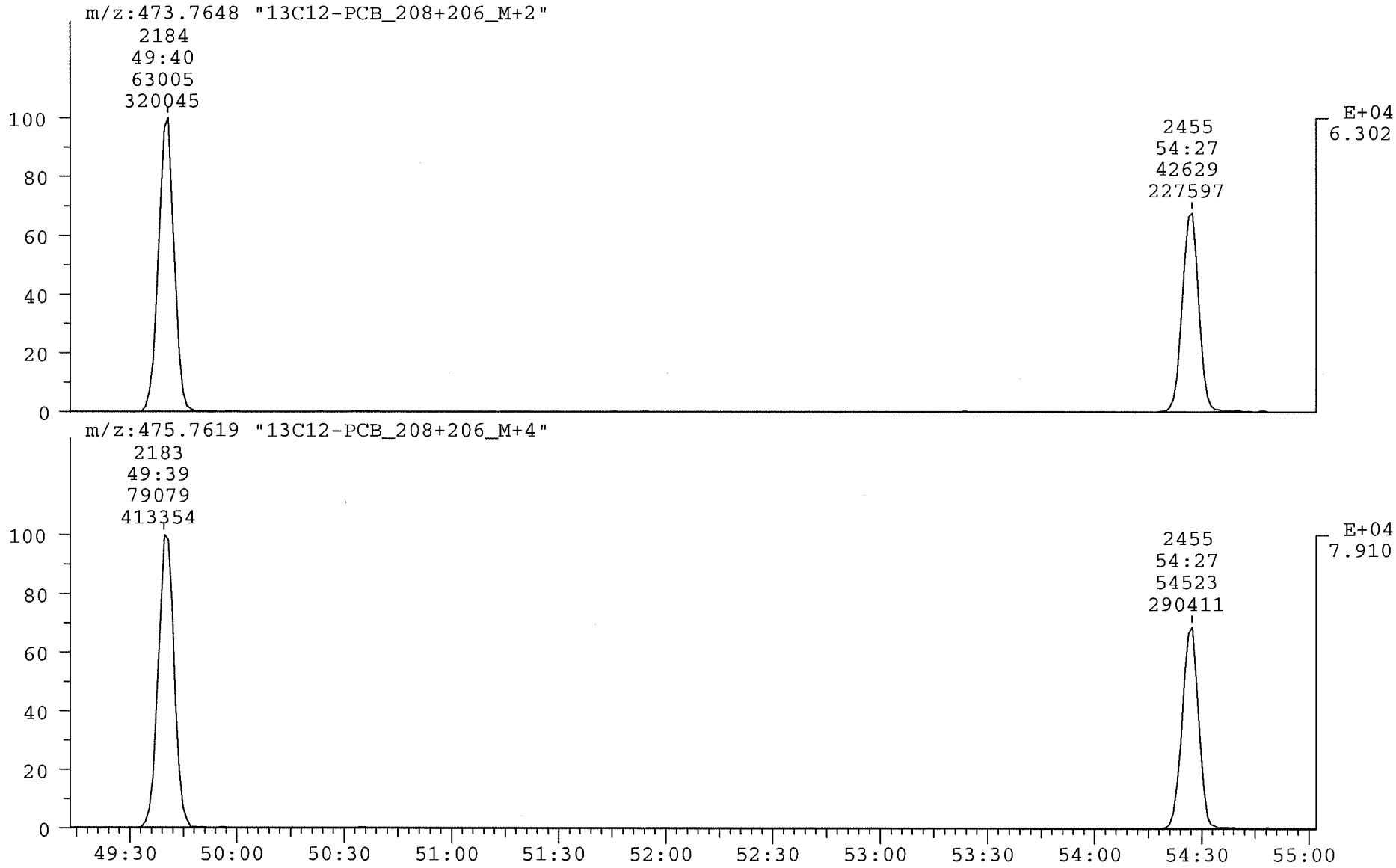
CHRO: a0806m2r3 11-Jun-08 Elapse: 52:08 2324
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2463

2462

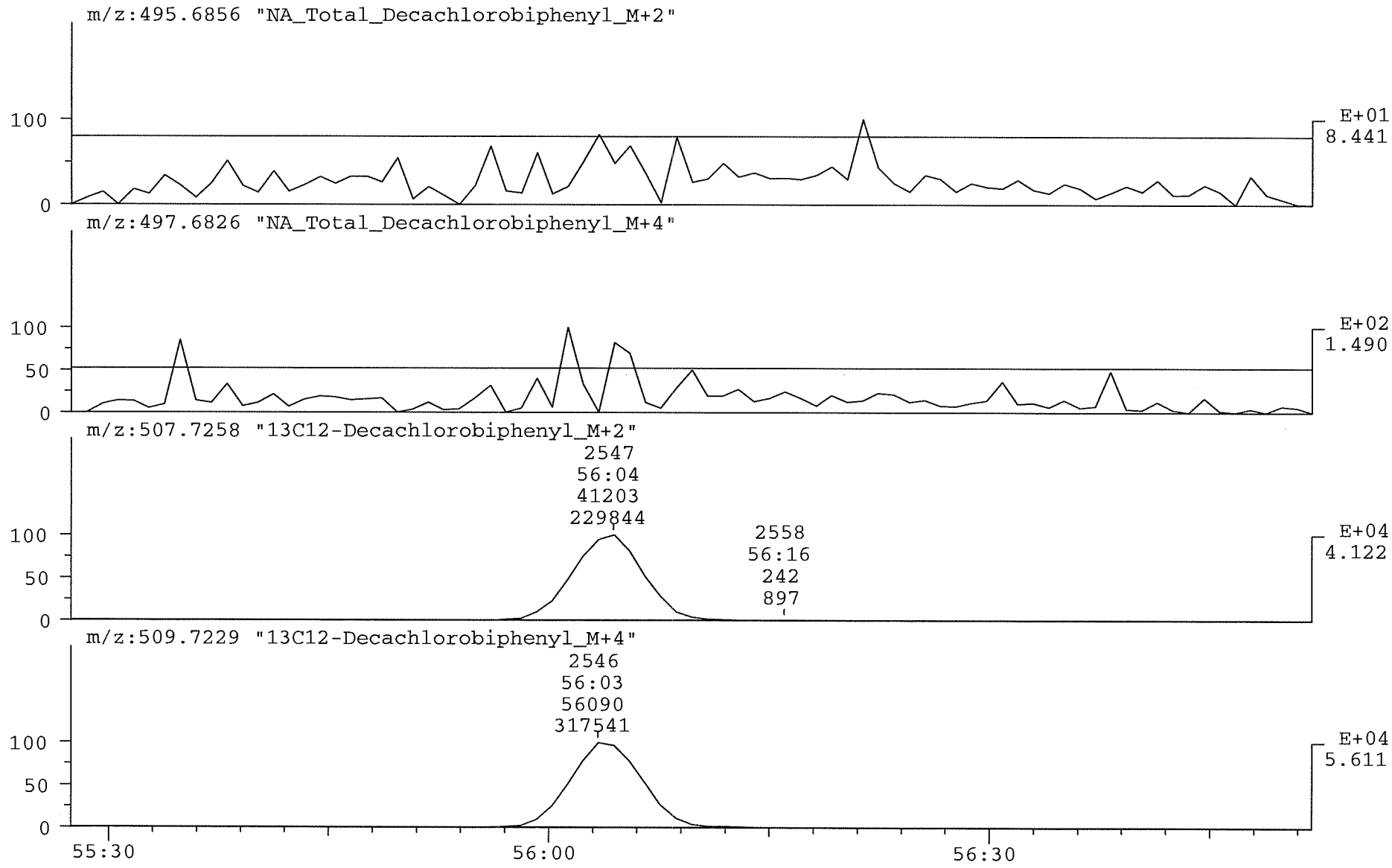
CHRO: a0806m2r3 11-Jun-08 Elapse: 52:07 2323
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2158 > 2488 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2464

2463

CHRO: a0806m2r3 11-Jun-08 Elapse: 56:09 2552
Samp: Vial 12 WO=2990:75Mix2 Meth=IE3 Dil=1 Start : 01:49:47 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 2
Oper: DCG Client: TA Knoxville Inlet : GC Vial 12
Peak: 100.00 ppm Label wndw: 2512 > 2592 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2495

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m2r3
Study: 2990:75 Mix 2
Sample: WO=2990:75Mix2 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume: 2.00
Sample from Vial 12
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 12 of list 080609
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:12 min	35:52 min	1.00 sec
# 3	35:52 min	13:13 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	1	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

```
 Sample rinse cycles      (R):      0 times
 Syringe filling volume   (F):    1.0 ul
 Pullup delay time        (D):      4 sec
 Sample pullup count      (P):      2 times
 Sample pullup speed      (E):    5.0 ul/sec
 Slvnt aftr pre inj cln   (U):    0.0 ul
 Air after pre inj cln    (G):    2.0 ul
 Sample volume            (V):    2.0 ul
 Sample air volume        (A):    2.0 ul
 Injection speed          (S):   10.0 ul/sec
 Pre Inj. wait time       (W):     10 sec
 Post Inj. hold time      (H):      3 sec
 Solvent A clean cycles   (C):     15 times
 Solvent B clean cycles   (B):      0 times
 Loop clean w slvnt A    (LC):      0 times
 Loop clean w slvnt B    (LB):      0 times
 Standard sample volume   (X):    0.0 ul
 Standard air volume      (Y):    0.0 ul
 2nd Injection volume     (I):    0.0 ul
 Air volume of 2nd inj    (J):    0.0 ul
 Time btwn 2 injections   (T):      0 sec

GC descriptor :  epa1668
  Injector:        270 deg                        270 deg max
  Transfer Line:   280 deg                        280 deg max
  Column:           75 deg at   0.0 minutes       280 deg max
                    75 deg at   2.0 minutes
                   150 deg at   7.0 minutes
                   270 deg at  55.0 minutes
                   270 deg at  57.0 minutes
  Inlet   :     Splitless mode
   Purge time            1.5 min
   Purge flow           40.0 ml/min
   Gas saver is on
   Saver time            3.0 min
   Saver flow           15.0 ml/min
  Column  :  Constant Flow     1.0 ml
  Stabilize time   0.0 minutes


ICL Parameters

 BCORRL          0.0150    BCORRS          0.0110    BCURR       16383.0000
 BDEV        16383.0000    BFM             2.0000    BLM          1032.0953
 BMASS         180.4888    BQUAD           0.0000    CAPIL           0.0000
 CAPTEMP       359.9988    CAPTSET       200.0000    CCURR           3.5765
 CORONA          0.0000    CYCLE           0.0000    DELAY           0.0000
 DITEMP          0.1954    DITSET          0.0000    DRAW          -19.0500
 DRAWC           1.0000    DRAWS           0.0100    ECORR           1.0010
 ECURR           1.0000    EDAC      7969177.0000    EDACG           1.0000
 EDACR          23.0000    EDACZ         394.0000    ELEN           56.5000
 EMULT           1.5200    ENS           460.0000    ERATIO          1.0000
 ESA           763.8000    ESICUR         10.0011    ESIPAR          0.0000
 EXS           146.0000    FDMA     18000000.0000    FLENS           1.0000
 FM             20.0000    FMII           50.0000    FQUAD           0.0000
 FREQ          300.4808    FSLOPE   54000000.0000    FVANAL        337.0000
 FVINLET       266.0000    FVSRC       1005.0000    FWIN            0.7000
 GCTC          202.0000    GCTI         270.0000    GCTL          280.0000
 HACCU         208.0000    HCURR          1.3333    HVANAL       1270.0000
 HVSRC           0.0000    ICAL0          0.0011    ICAL1           0.4030
 ICAL2           0.5865    IONEN       4776.5520    IST           271.3713
 ISTC            0.0000    ISTCKP         5.0000    ISTCTD          1.0000
 ISTCTN          2.0000    ISTCTS        60.0000    ISTCTV          3.0000
 ISTS          270.0000    LENS        1333.0000    LENSS         106.4000
 LKM           404.9760    LM           800.0000    LMASS         180.4888
 LMII          500.0000    MASS         180.4888    MDAC      2347820.5477
```

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2606.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.8500	TCURR	0.8984
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 11-Jun-08 01:49:47.3

Autosampler has injected sample from vial 12
MID Time Window 1: Resolution is 7541
MID Time Window 2: Resolution is 10345
MID Time Window 3: Resolution is 9525
MID Time Window 4: Resolution is 9642
Analysis stopped at: 11-Jun-08 02:46:50.8 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX3	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m3r1.	**Prep Date**		**SDG No**	
Analysis ID	104460	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 16:39	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					**188.0393**	**190.0363**	**188.0393**	**190.0363**	**2.66-3.60**		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
200					**200.0795**	**202.0766**	**200.0795**	**202.0766**	**2.66-3.60**		
	Noise	00:00	00:00	0	188	223	75	89	0.84 *	/	
	13C12-PCB 1	12:02	00:00	0	1679879	498926	663064	200207	3.37	AVV/AVV	
	13C12-PCB 3	14:14	00:00	0	1635070	487599	543056	167046	3.35	AVV/AVV	
222					**222.0003**	**223.9974**	**222.0003**	**223.9974**	**1.33-1.79**		
	Noise	00:00	00:00	0	158	225	63	90	0.70 *	/	
	PCB 13 (BZ)	20:08	00:00	0	449123	291144	120098	73797	1.54	AVV/AVV	
234					**234.0406**	**236.0376**	**234.0406**	**236.0376**	**1.33-1.79**		
	Noise	00:00	00:00	0	203	133	81	53	1.53	/	
	13C12-PCB 4	14:30	00:00	0	450245	295465	143940	100367	1.52	AVV/ABV	
	13C12-PCB 9	16:29	00:00	0	725009	469295	231796	148755	1.54	ABV/ABV	
	13C12-PCB 8	17:20	00:00	0	777164	493651	212983	137318	1.57	AVV/AVV	
	13C12-PCB 15	20:28	00:00	0	757816	490953	197944	125562	1.54	ABV/ABV	
256					**255.9613**	**257.9584**	**255.9613**	**257.9584**	**0.88-1.20**		
	Noise	00:00	00:00	0	133	110	53	44	1.20	/	
	PCB 17 (BZ)	19:58	00:00	0	154229	146359	40228	37248	1.05	ABV/ABV	D
	PCB 29 (BZ)	22:42	00:00	0	680082	647151	167374	157330	1.05	ABV/ABV	DM
	PCB 20 (BZ)	23:34	00:00	0	622488	591205	155516	145916	1.05	ABV/ABV	M
268					**268.0016**	**269.9986**	**268.0016**	**269.9986**	**0.88-1.20**		
	Noise	00:00	00:00	0	198	195	79	78	1.01	/	
	13C12-PCB 19	17:40	00:00	0	245342	239773	67186	63874	1.02	AVV/AVV	
	13C12-PCB 32	20:56	00:00	0	414731	385173	102305	98987	1.08	AVV/AVV	
	13C12-PCB 31	23:13	00:00	0	1229178	1137136	298705	267102	1.08	ABV/ABV	
	13C12-PCB 28	23:29	00:00	0	1153041	1062062	278026	260148	1.09	AVV/AVV	
	13C12-PCB 37	27:32	00:00	0	1106271	1023817	244815	229164	1.08	AVV/ABV	
290					**289.9224**	**291.9194**	**289.9224**	**291.9194**	**0.65-0.89**		
	Noise	00:00	00:00	0	150	140	60	56	1.07 *	/	
	PCB 46 (BZ)	23:58	00:00	0	424274	525977	102175	130854	0.81	ABV/ABV	
	PCB 65 (BZ)	26:23	00:00	0	672792	844188	155209	192332	0.80	ABV/ABV	DM
	PCB 59 (BZ)	26:42	00:00	0	665282	844235	155629	191526	0.79	AVV/AVV	D
	PCB 40 (BZ)	27:24	00:00	0	376894	483641	84222	110318	0.78	ABV/ABV	
	PCB 67 (BZ)	29:33	00:00	0	733524	918198	160731	205418	0.80	ABV/ABV	
	PCB 76 (BZ)	30:10	00:00	0	673356	846947	148434	186389	0.80	AVV/AVV	M
	PCB 80 (BZ)	31:46	00:00	0	753721	948253	163775	201769	0.79	ABV/ABV	D
302					**301.9626**	**303.9597**	**301.9626**	**303.9597**	**0.65-0.89**		
	Noise	00:00	00:00	0	108	103	43	41	1.05 *	/	
	13C12-PCB 54	20:47	00:00	0	232153	286151	59203	75604	0.81	ABV/ABV	
	13C12-PCB 52	25:20	00:00	0	416196	539476	93834	129730	0.77	ABV/ABV	
	13C12-PCB 79	33:17	00:00	0	588590	748487	129072	161776	0.79	ABV/ABV	
	13C12-PCB 81	34:17	00:00	0	522306	648143	111710	137854	0.81	ABV/ABV	
	13C12-PCB 77	34:51	00:00	0	534858	662266	109471	137079	0.81	ABV/ABB	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX3	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m3r1.	**Prep Date**		**SDG No**	
Analysis ID	104460	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 16:39	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**		
	Noise	00:00	00:00	0	128	100	51	40	1.28 *	/	
	PCB 93 (BZ)	29:32	00:00	0	375052	225875	80789	49245	1.66	ABV/ABV	DM
	PCB 84 (BZ)	30:23	00:00	0	366230	221589	79358	48992	1.65	ABV/ABV	
	PCB 101 (BZ)	32:13	00:00	0	466824	287775	101115	64015	1.62	ABV/ABV	DM
	PCB 112 (BZ)	32:56	00:00	0	560276	343208	115305	71332	1.63	ABV/ABV	D
	PCB 86 (BZ)	33:18	00:00	0	393625	239281	80206	49798	1.65	AVV/AVV	M
	PCB 116 (BZ)	34:01	00:00	0	542993	335910	115756	65662	1.62	ABV/AVV	D
	PCB 107 (BZ)/109 (IUPAC	36:45	00:00	0	1287210	815528	262387	162042	1.58	AVV/AVV	D
338					**337.9207**	**339.9178**	**337.9207**	**339.9178**	**1.32-1.78**		
	Noise	00:00	00:00	0	135	110	54	44	1.23 *	/	
	13C12-PCB 104	26:17	00:00	0	496741	311226	112113	72563	1.60	AVV/ABV	
	13C12-PCB 95	29:16	00:00	0	391592	244540	83893	52915	1.60	ABV/ABV	
	13C12-PCB 101	32:11	00:00	0	410061	242327	86890	51559	1.69	AVV/AVV	
	13C12-PCB 111	34:52	00:00	0	481697	306261	104626	66290	1.57	ABV/AVV	
	13C12-PCB 123	36:51	00:00	0	1068654	651433	227457	139678	1.64	ABV/ABV	
	13C12-PCB 118	37:10	00:00	0	1113098	675444	227938	141575	1.65	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	1065061	659146	217371	134403	1.62	AVV/AVV	
	13C12-PCB 105	38:22	00:00	0	1051164	642627	213085	135173	1.64	AVV/ABV	
	13C12-PCB 127	39:48	00:00	0	1165410	711313	235632	145825	1.64	ABV/ABV	
	13C12-PCB 126	41:26	00:00	0	1143836	702101	229021	143227	1.63	ABV/AVV	
360					**359.8415**	**361.8385**	**359.8415**	**361.8385**	**1.05-1.43**		
	Noise	00:00	00:00	0	178	198	71	79	0.90 *	/	
	PCB 154 (BZ)	35:21	00:00	0	341247	260468	74641	54654	1.31	AVV/ABB	
	PCB 147 (BZ)	36:03	00:00	0	613538	476058	130806	96038	1.29	ABV/ABV	
	PCB 140 (BZ)	36:40	00:00	0	610246	468846	124861	96093	1.30	AVV/ABV	M
	PCB 146 (BZ)	38:26	00:00	0	617868	490196	126816	101349	1.26	AVV/ABV	
	PCB 141 (BZ)	39:15	00:00	0	602003	460486	122659	93431	1.31	AVV/AVV	D
	PCB 164 (BZ)	40:01	00:00	0	802475	616561	161666	123922	1.30	AVV/ABV	M
	PCB 158 (BZ)	40:41	00:00	0	847996	650323	171252	133362	1.30	AVV/ABV	
372					**371.8817**	**373.8788**	**371.8817**	**373.8788**	**1.05-1.43**		
	Noise	00:00	00:00	0	100	113	40	45	0.89 *	/	
	13C12-PCB 155	31:56	00:00	0	388761	302602	80988	65673	1.28	ABV/ABV	
	13C12-PCB 153	39:02	00:00	0	593541	455516	119656	94263	1.30	ABV/ABV	
	13C12-PCB 138	40:17	00:00	0	601291	462493	120505	95647	1.30	ABV/ABV	
	13C12-PCB 167	43:17	00:00	0	722495	558981	147785	118374	1.29	AVV/AVV	
	13C12-PCB 156	44:27	00:00	0	1432785	1119094	188397	144709	1.28	ABV/ABV	D
	13C12-PCB 169	47:40	00:00	0	671659	520747	133061	100380	1.29	ABV/ABV	
394					**393.8025**	**395.7995**	**393.8025**	**395.7995**	**0.89-1.21**		
	Noise	00:00	00:00	0	183	163	73	65	1.12	/	
	PCB 182 (BZ)	41:51	00:00	0	417657	388218	83890	74754	1.08	AVV/ABV	
	PCB 174 (BZ)	42:31	00:00	0	384572	366215	80723	74110	1.05	AVV/AVV	M
	PCB 173 (BZ)	43:34	00:00	0	354356	336040	70465	66194	1.05	AVV/AVV	M
	PCB 193 (BZ)	45:47	00:00	0	534677	503718	109667	97682	1.06	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX3	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m3r1.	**Prep Date**		**SDG No**	
Analysis ID	104460	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 16:39	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

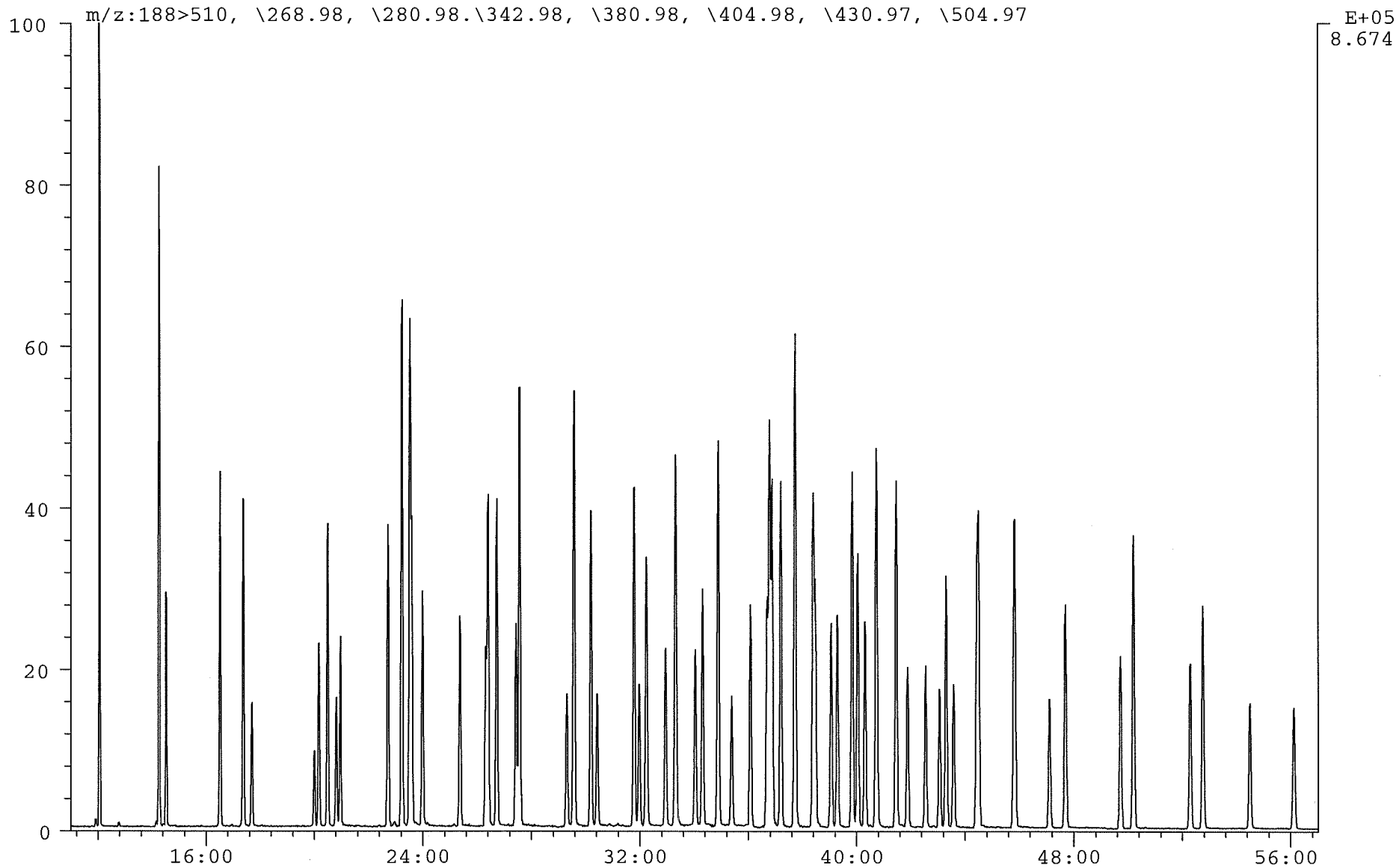
View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
406					**405.8428**	**407.8398**	**405.8428**	**407.8398**	**0.89-1.21**	
	Noise	00:00	00:00	0	103	113	41	45	0.91	/
	13C12-PCB 188	37:40	00:00	0	488922	448674	93867	93313	1.09	ABV/ABV
	13C12-PCB 178	40:43	00:00	0	321726	299985	63192	61270	1.07	AVV/ABV
	13C12-PCB 180	45:49	00:00	0	425153	388291	84219	79339	1.09	ABV/ABV
	13C12-PCB 170	47:05	00:00	0	329709	313740	66196	61720	1.05	ABV/ABV
	13C12-PCB 189	50:11	00:00	0	827013	779272	164937	150007	1.06	ABV/ABV
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	113	118	45	47	0.96	/
	13C12-PCB 202	43:02	00:00	0	342726	356211	68570	72548	0.96	ABB/ABV
	13C12-PCB 194	52:17	00:00	0	418859	464131	80483	89525	0.90	ABB/ABV
	13C12-PCB 205	52:44	00:00	0	567961	614770	112613	118059	0.92	ABV/AVV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	105	120	42	48	0.88	/
	13C12-PCB 208	49:41	00:00	0	382823	483892	72869	93018	0.79	ABV/ABV
	13C12-PCB 206	54:29	00:00	0	281508	344855	52782	63496	0.82	AVV/ABV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	153	118	61	47	1.30 *	/
	13C12-PCB 209	56:05	00:00	0	266024	365682	46586	64413	0.73	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

Int DCG 6-11-08
CCV DCG 6-26-08

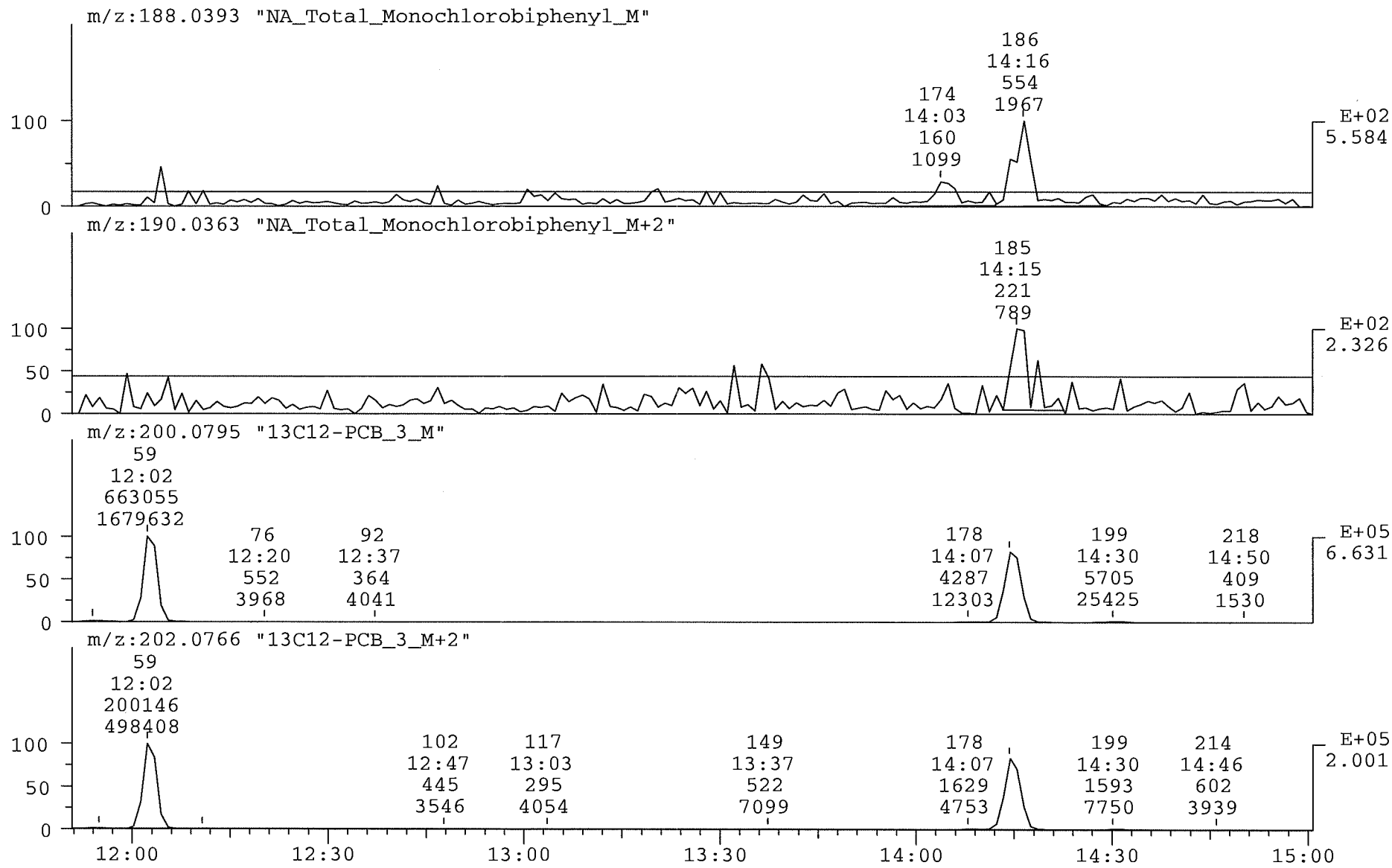
CHRO: a0806m3r1 10-Jun-08 Elapse: 56:12 2555
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2473

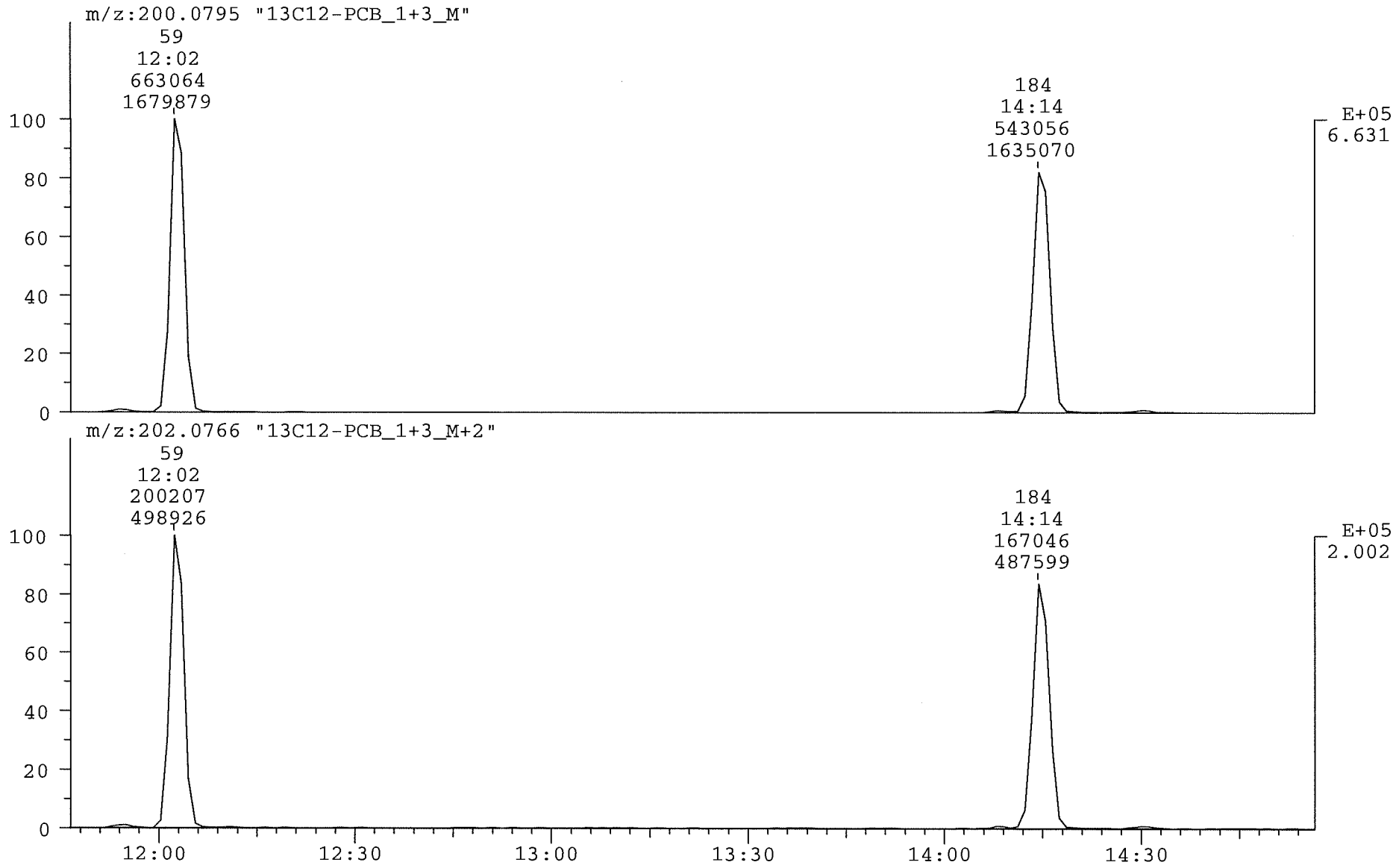
2472

CHRO: a0806m3r1 10-Jun-08 Elapse: 13:25.7 138
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 48 > 228 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2474

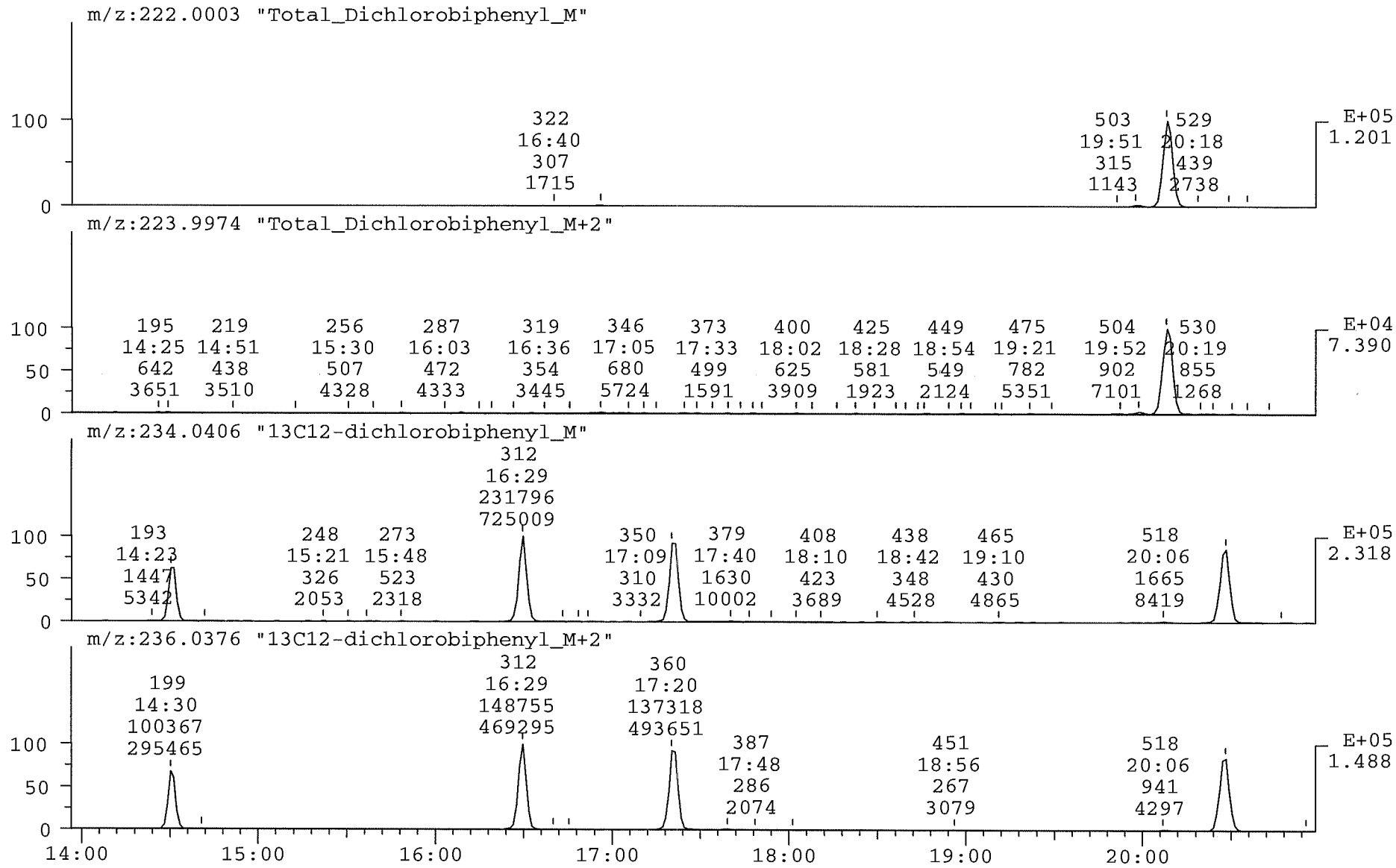
CHRO: a0806m3r1 10-Jun-08 Elapse: 13:21.5 134
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2475

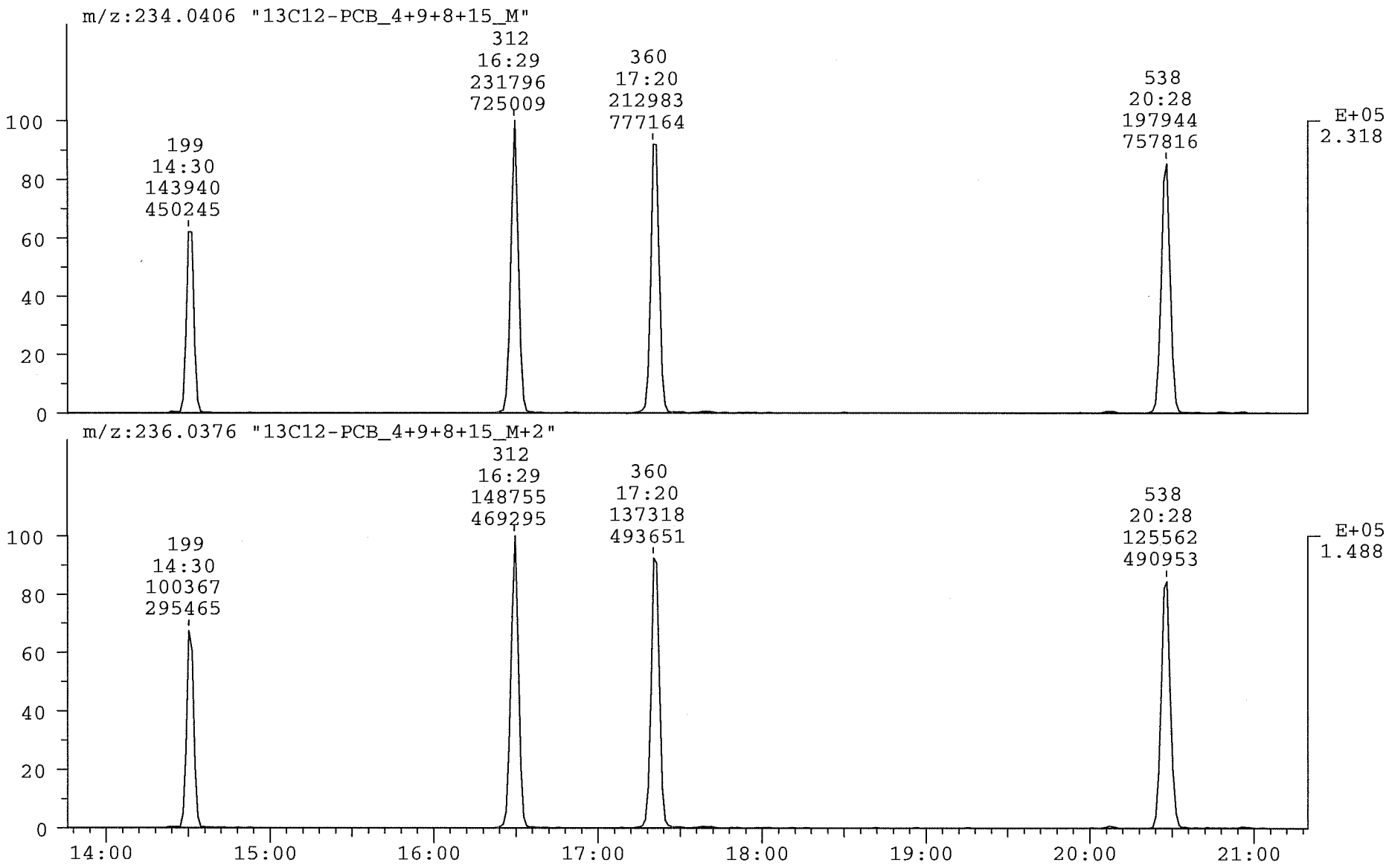
2474

CHRO: a0806m3r1 10-Jun-08 Elapse: 17:27.5 367
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 167 > 567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2476

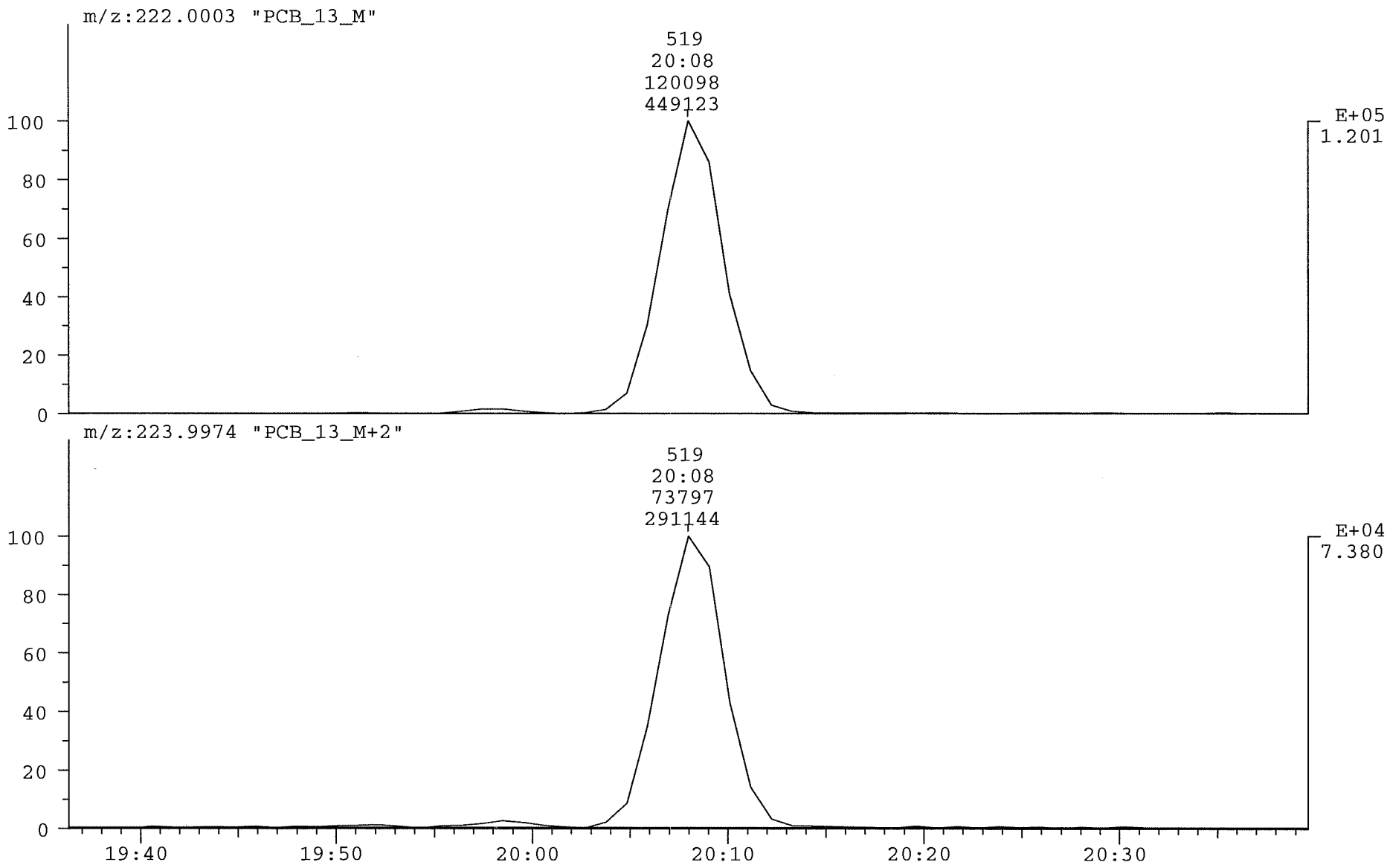
CHRO: a0806m3r1 10-Jun-08 Elapse: 17:27.5 367
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 157 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2477

2476

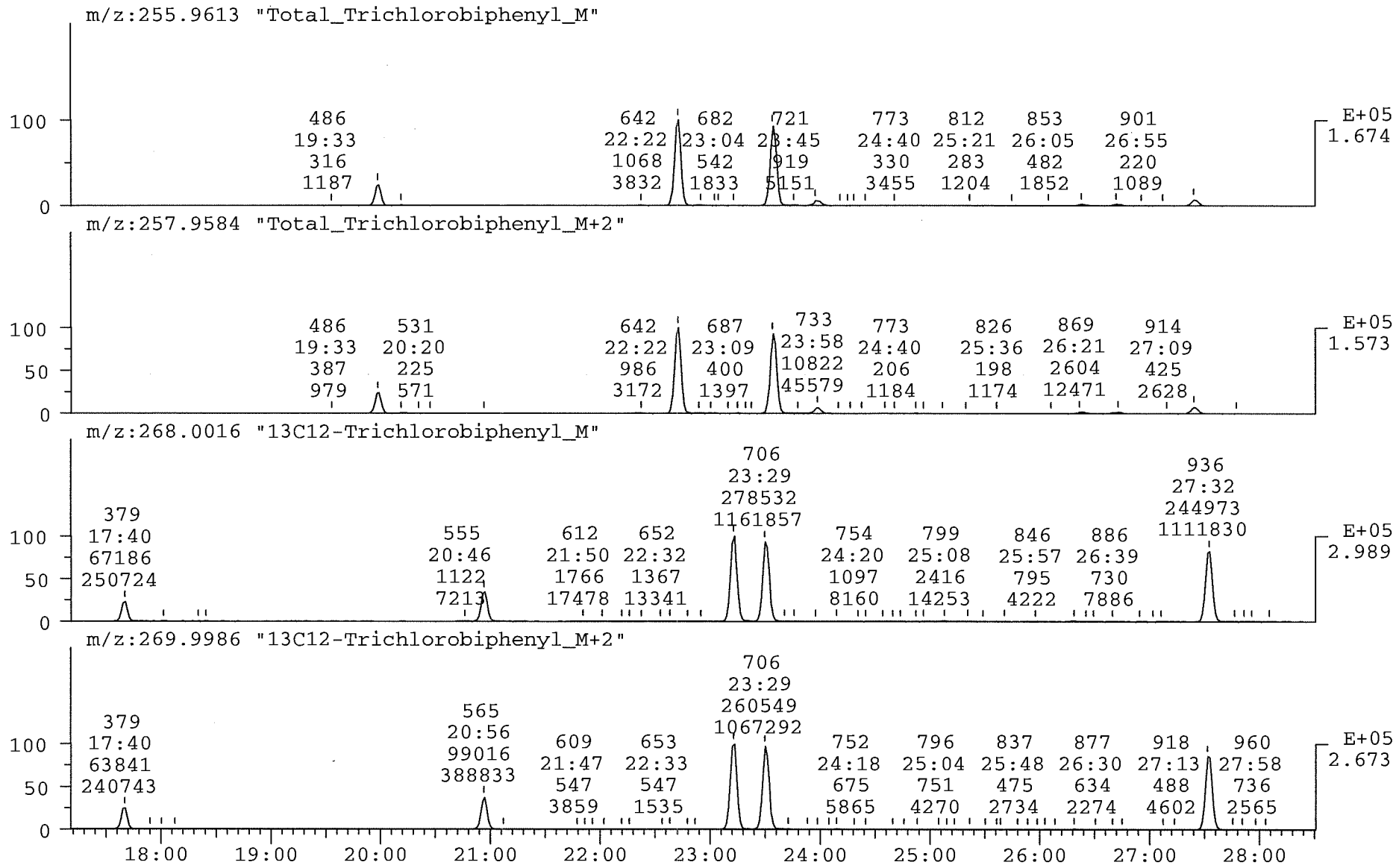
CHRO: a0806m3r1 10-Jun-08 Elapse: 20:08.9 519
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 489 > 549 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2478

2477

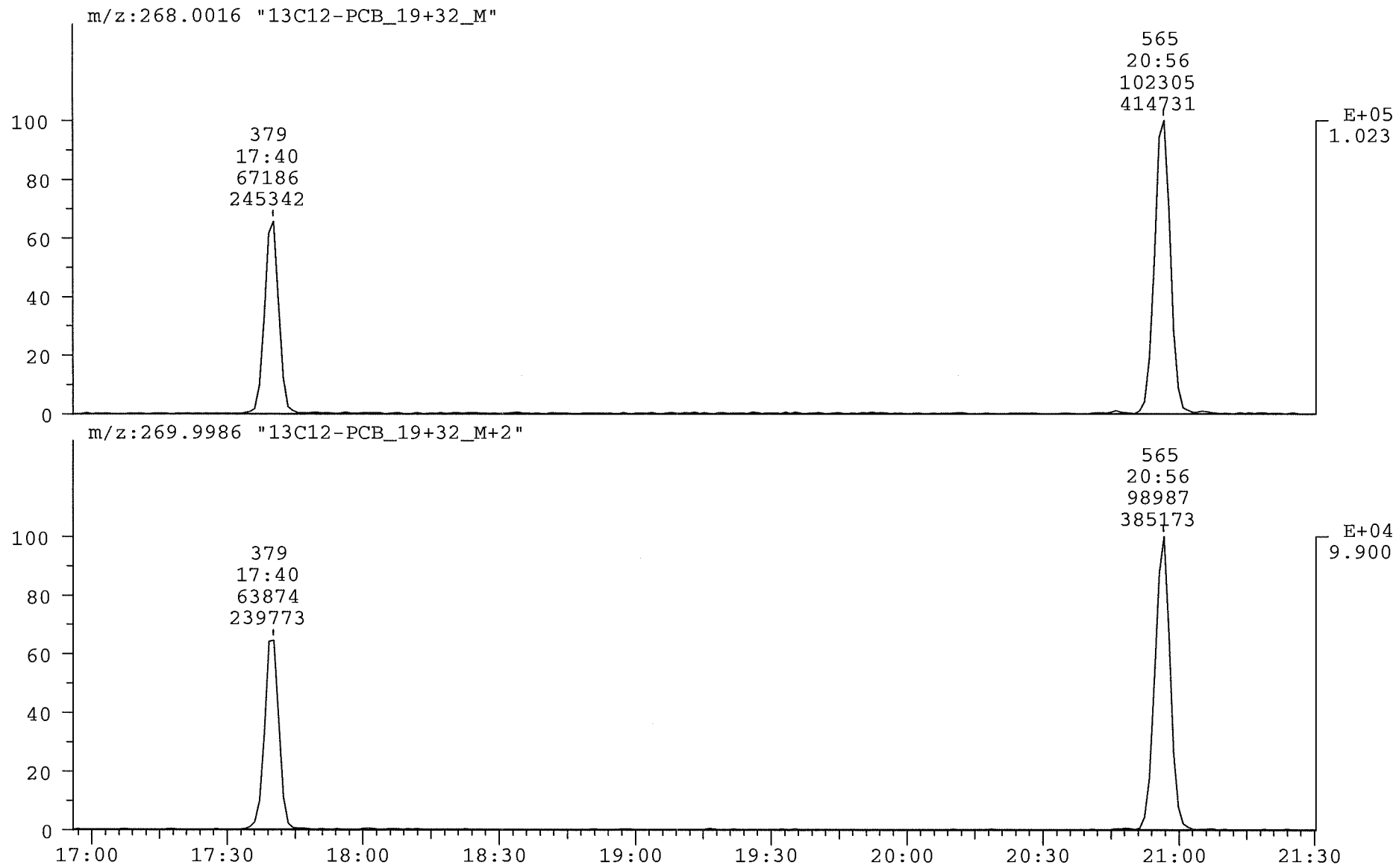
CHRO: a0806m3r1 10-Jun-08 Elapse: 22:52.8 671
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 351 > 991 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2479

2478

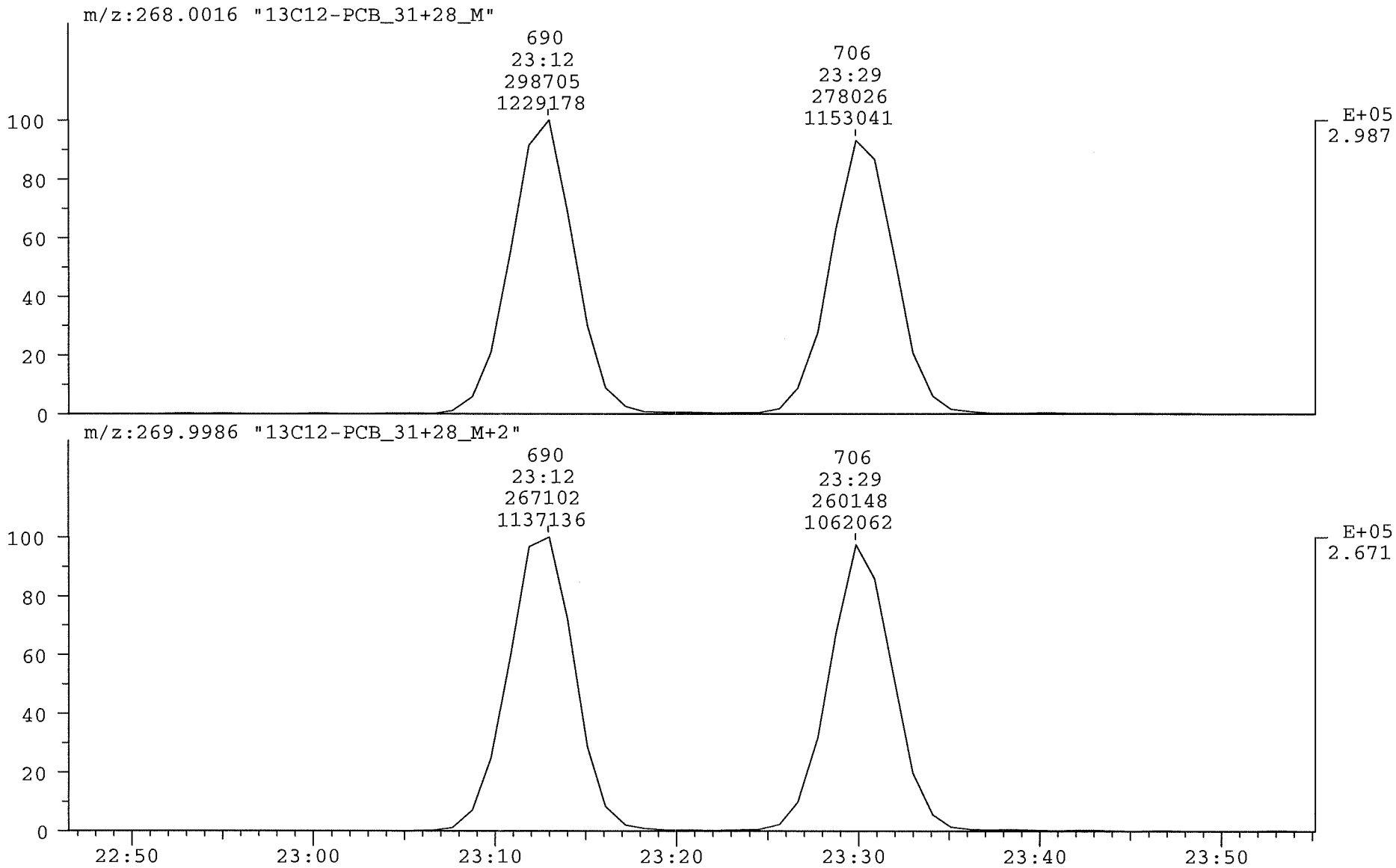
CHRO: a0806m3r1 10-Jun-08 Elapse: 19:02.5 457
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 337 > 597 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2480

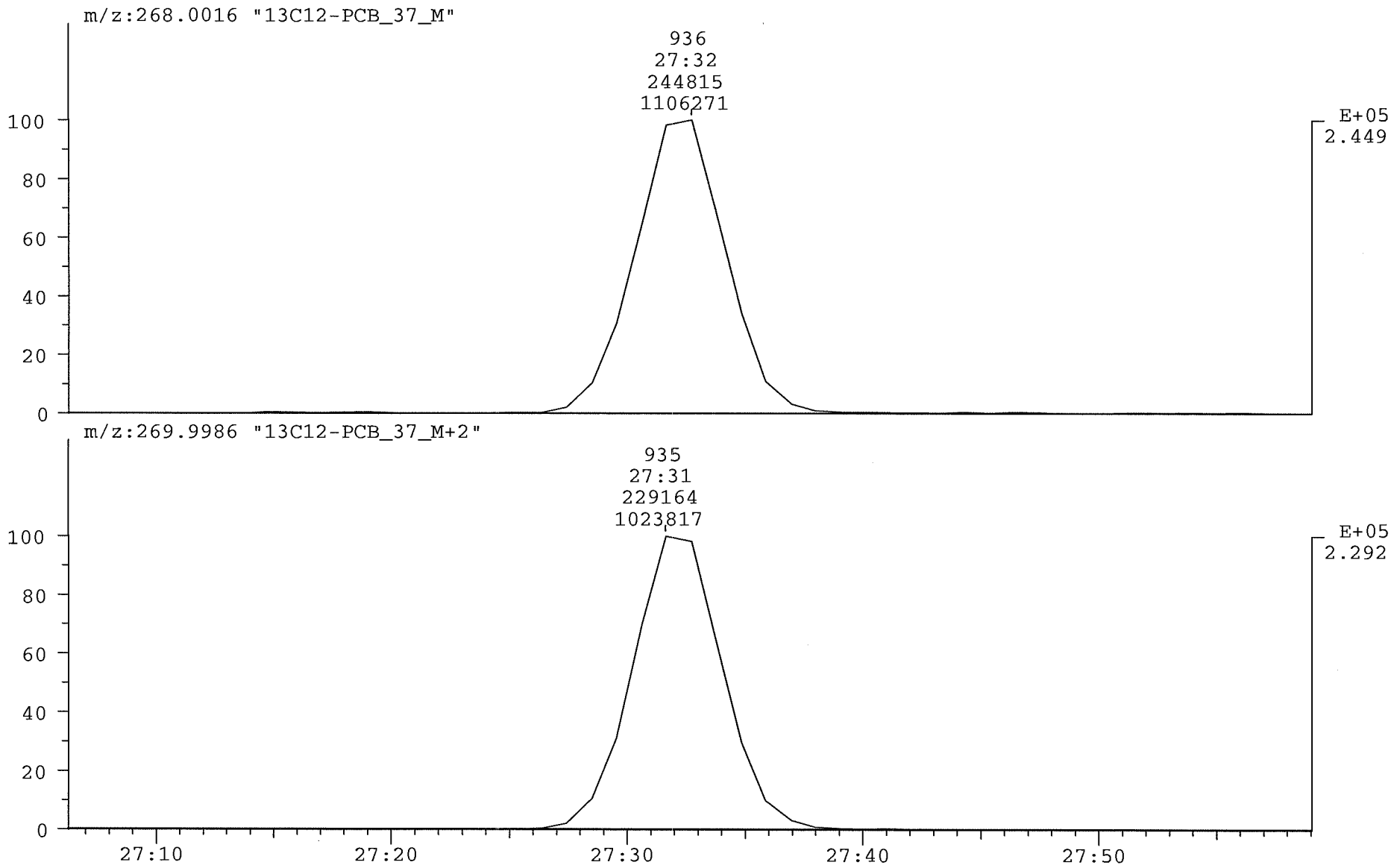
2479

CHRO: a0806m3r1 10-Jun-08 Elapse: 23:12.9 690
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2481

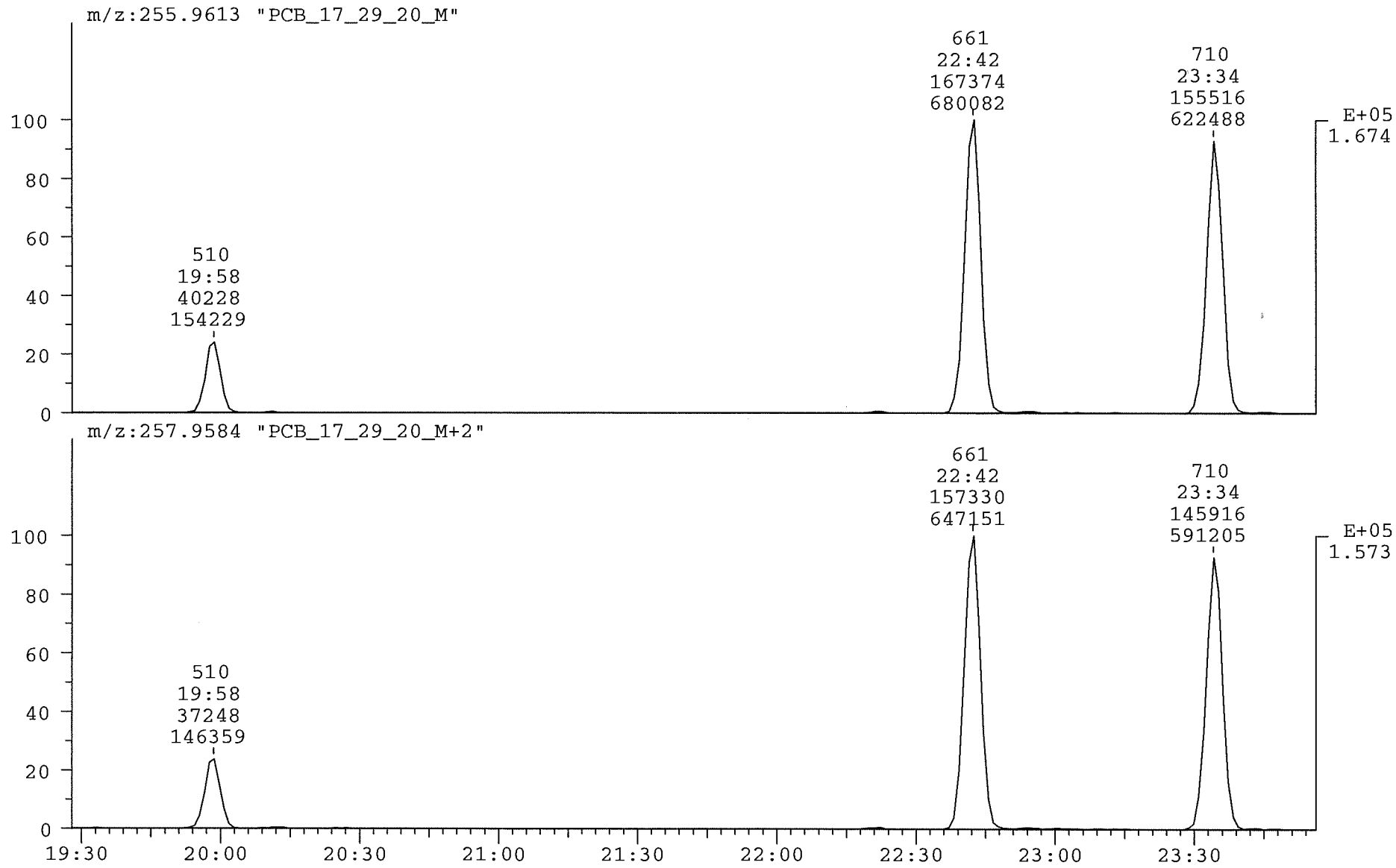
CHRO: a0806m3r1 10-Jun-08 Elapse: 27:32.7 936
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2482

2481

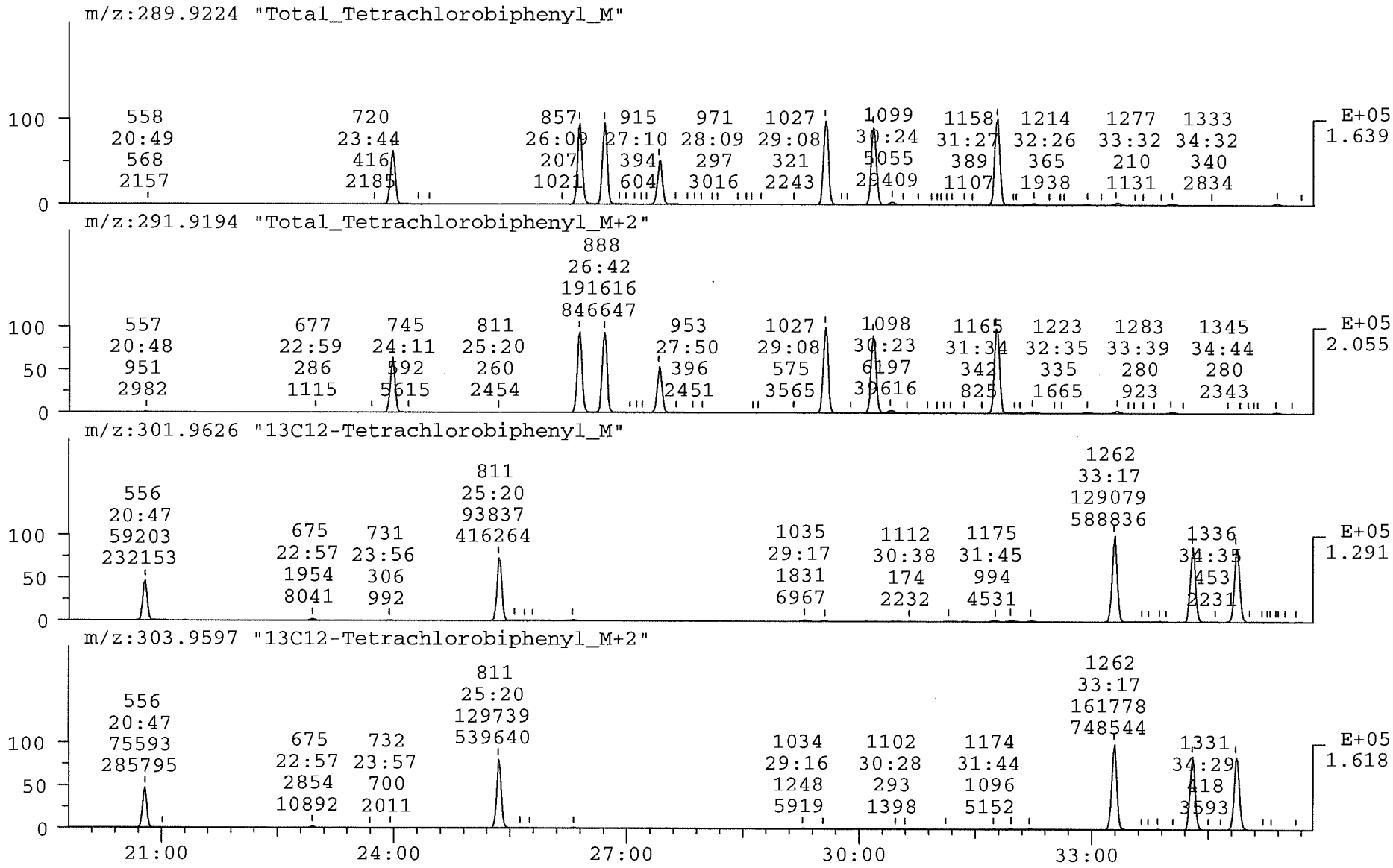
CHRO: a0806m3r1 10-Jun-08 Elapse: 21:49.4 611
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 481 > 731 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2483

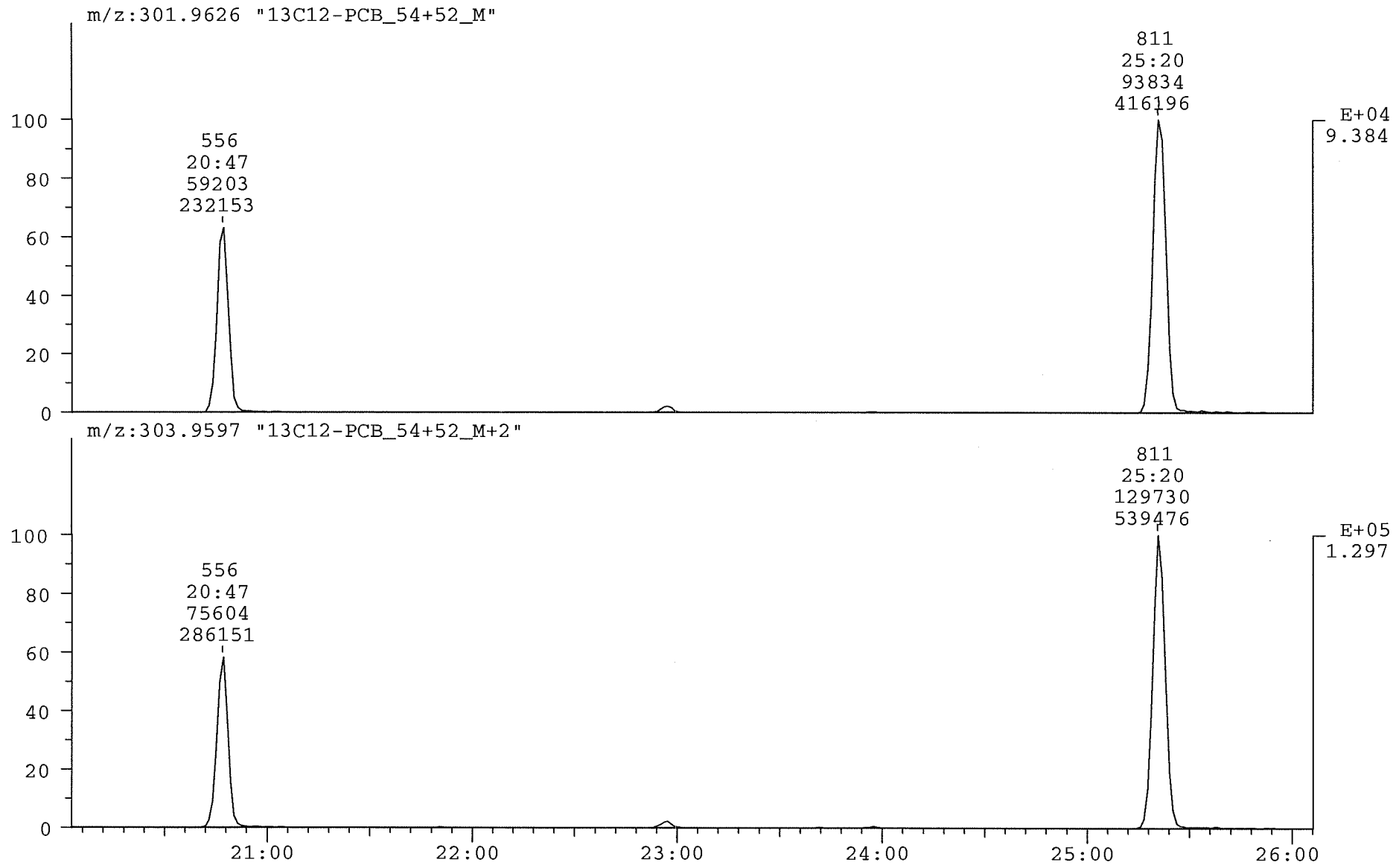
2482

CHRO: a0806m3r1 10-Jun-08 Elapse: 27:48.5 951
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 500 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2484

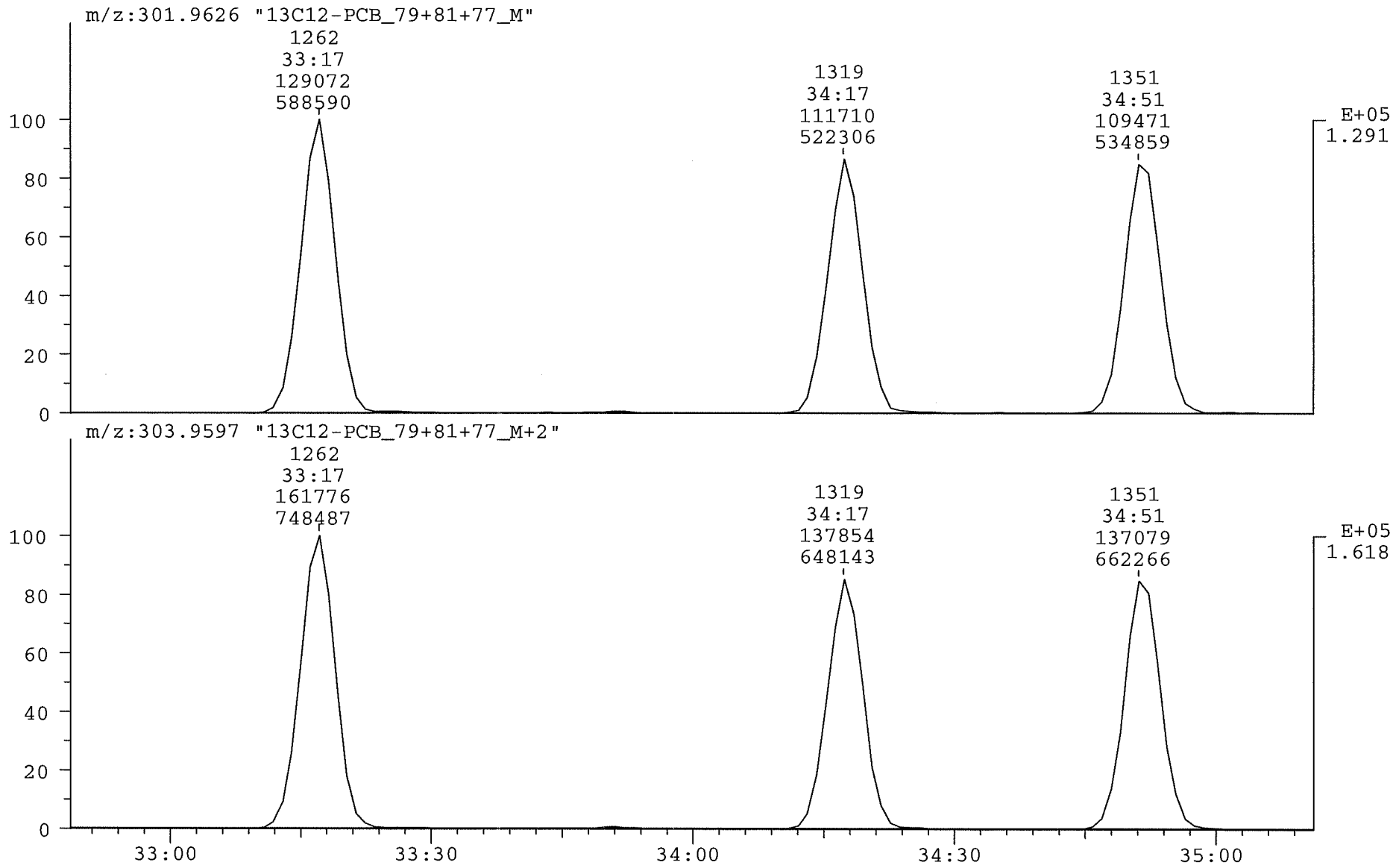
CHRO: a0806m3r1 10-Jun-08 Elapse: 23:06.6 684
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2485

2484

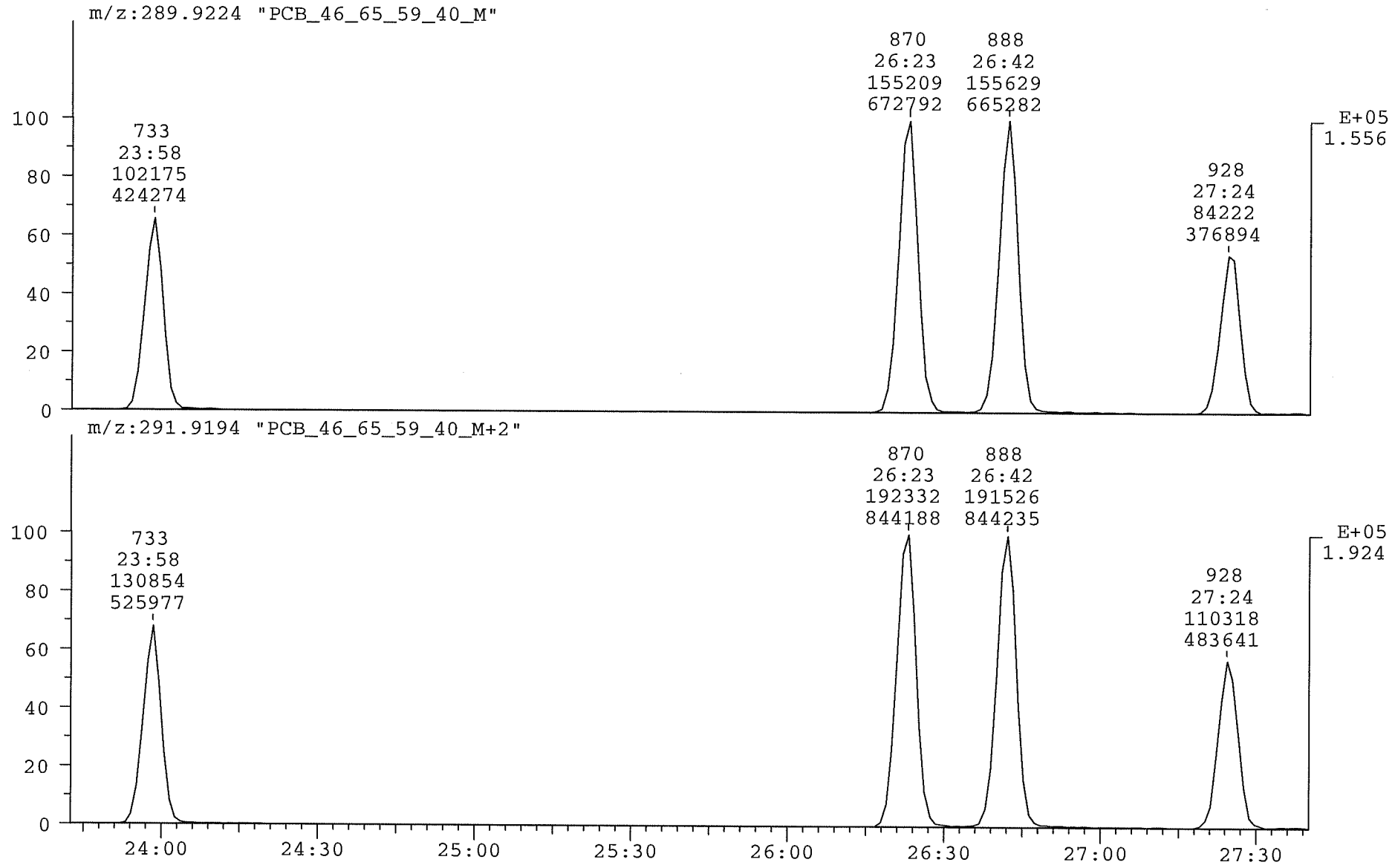
CHRO: a0806m3r1 10-Jun-08 Elapse: 34:02 1305
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1235 > 1370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2486

2485

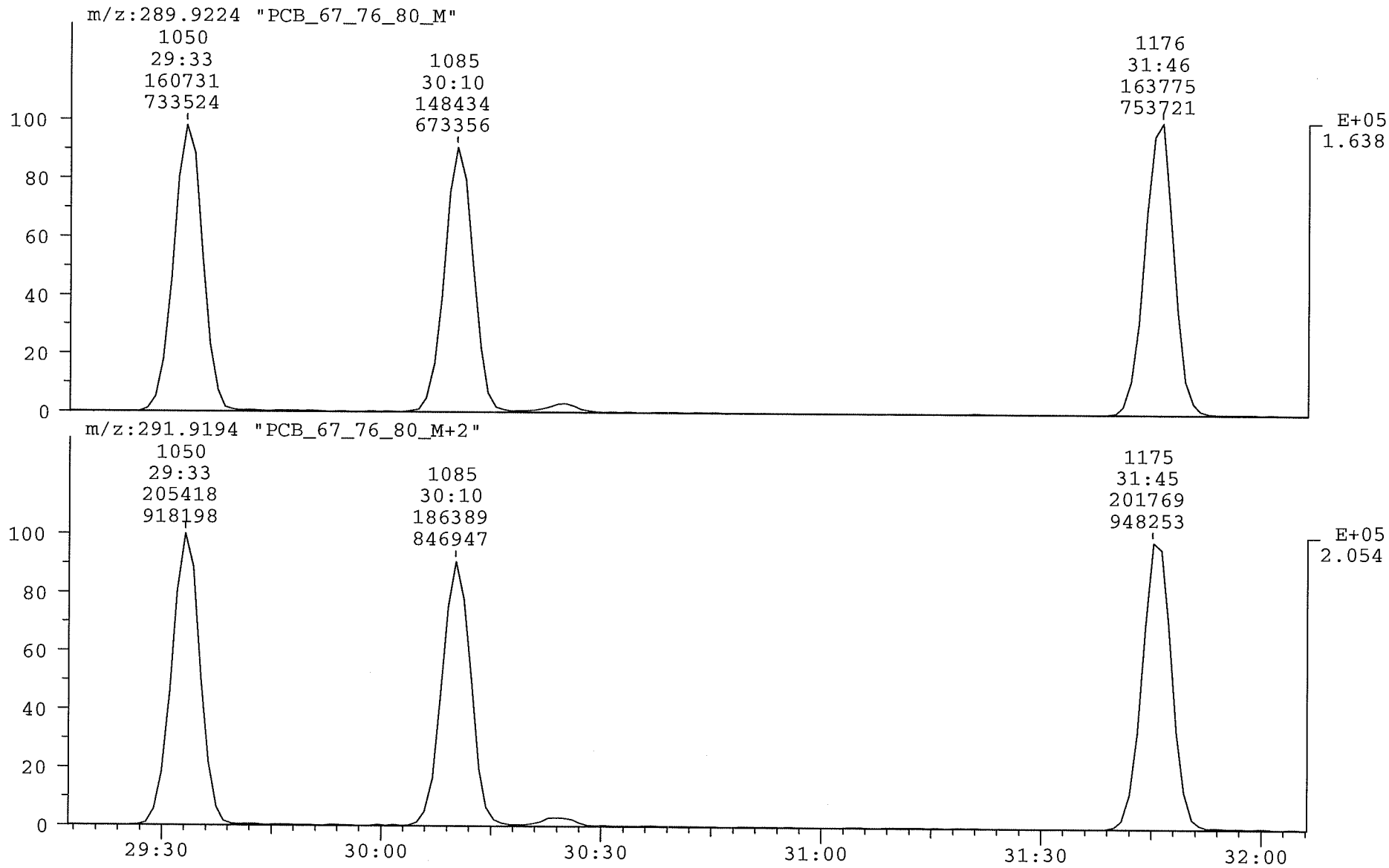
CHRO: a0806m3r1 10-Jun-08 Elapse: 25:43.9 833
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 718 > 943 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2487

2486

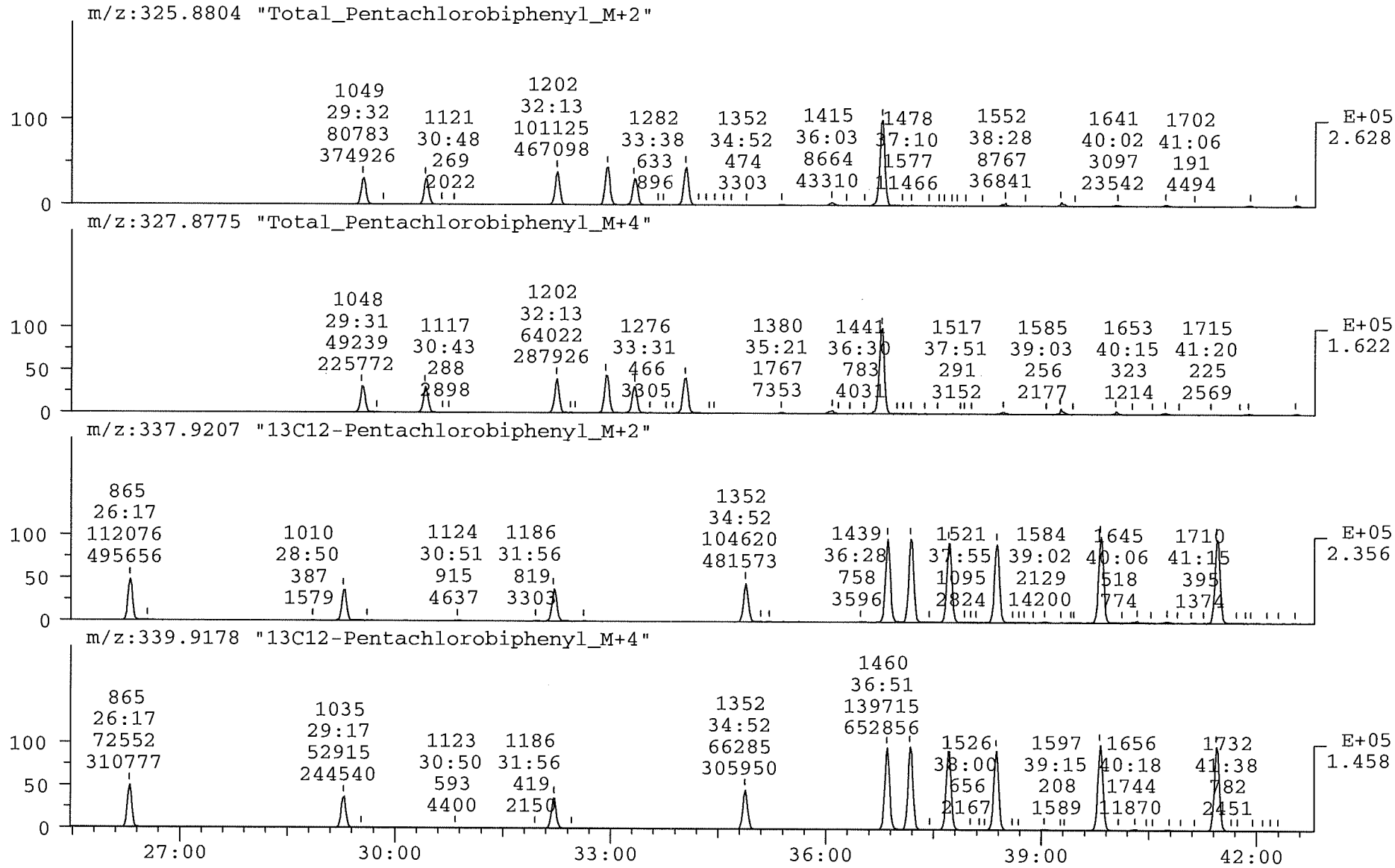
CHRO: a0806m3r1 10-Jun-08 Elapse: 30:41 1115
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1035 > 1195 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2488

2487

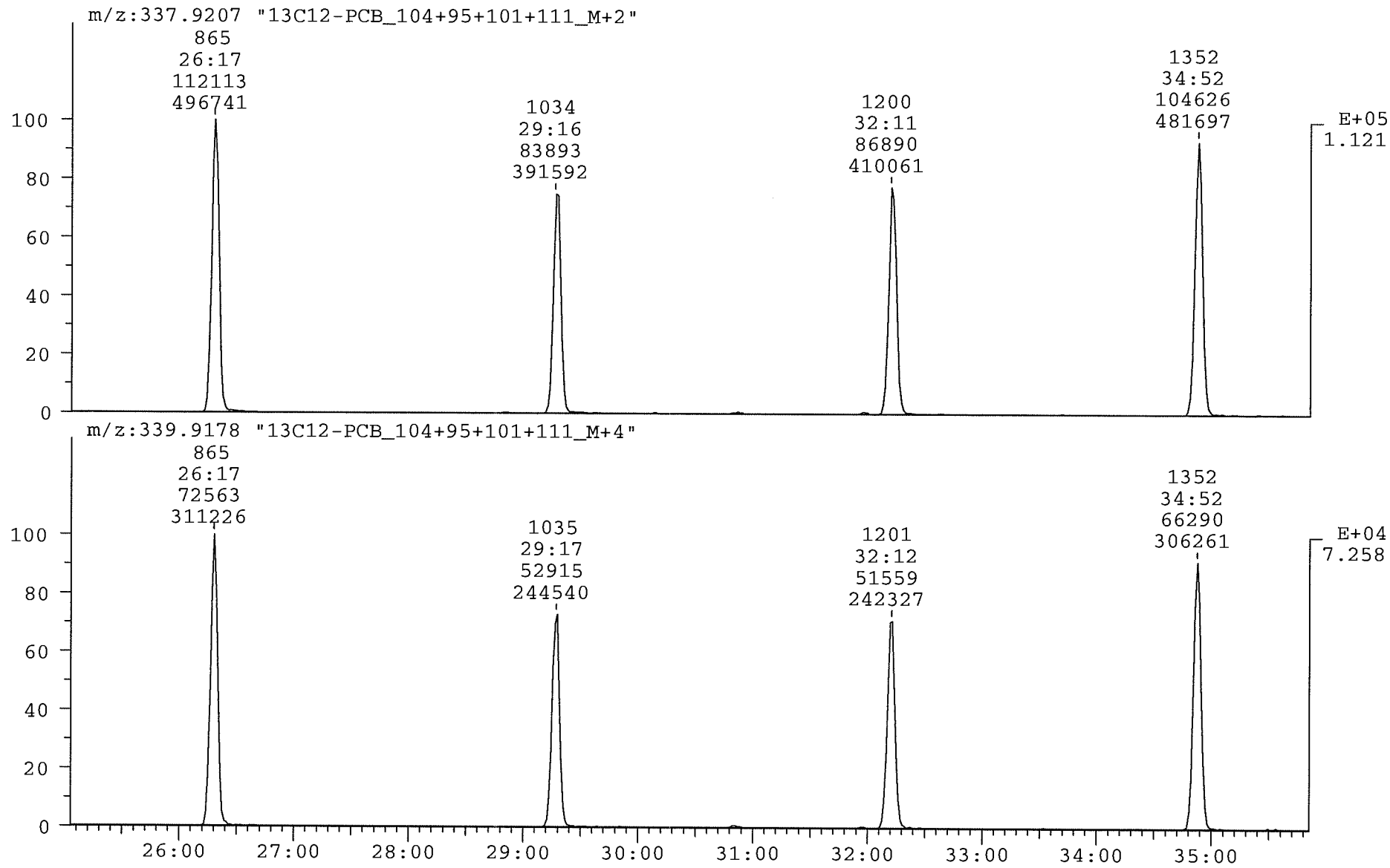
CHRO: a0806m3r1 10-Jun-08 Elapse: 34:07 1310
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 818 > 1798 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2489

2488

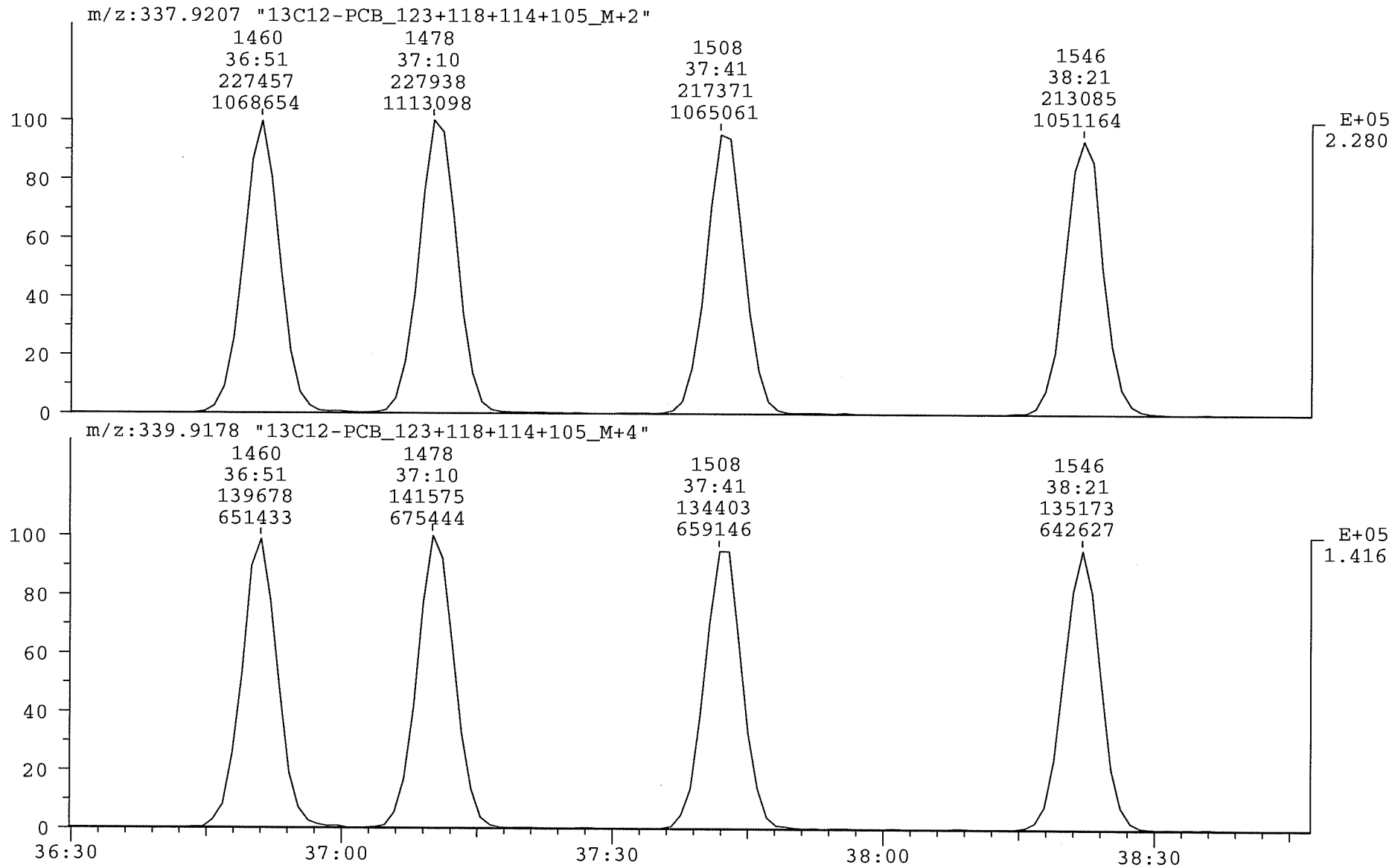
CHRO: a0806m3r1 10-Jun-08 Elapse: 30:26 1101
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 794 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2490

2489

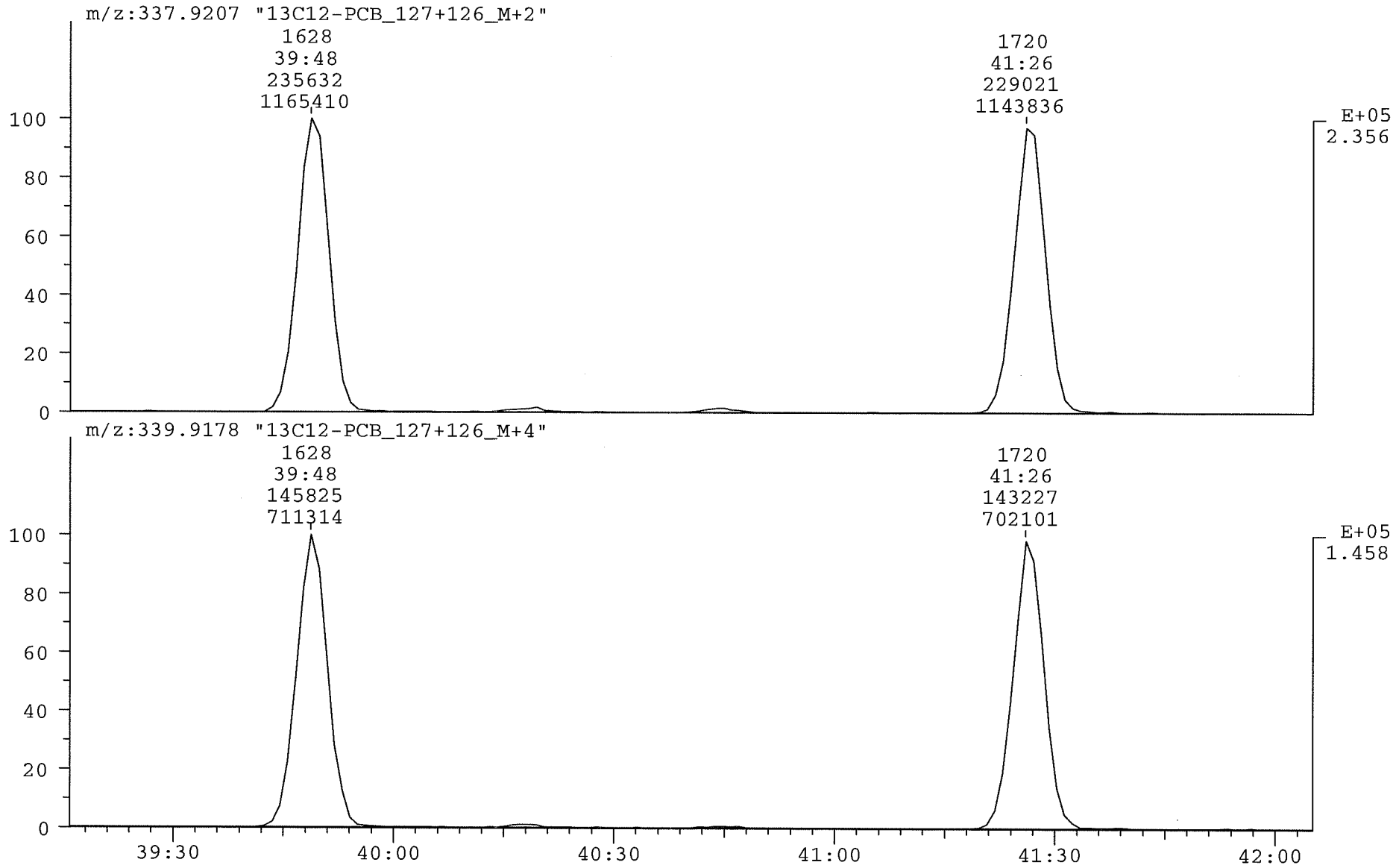
CHRO: a0806m3r1 10-Jun-08 Elapse: 37:38 1505
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1440 > 1570 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2491

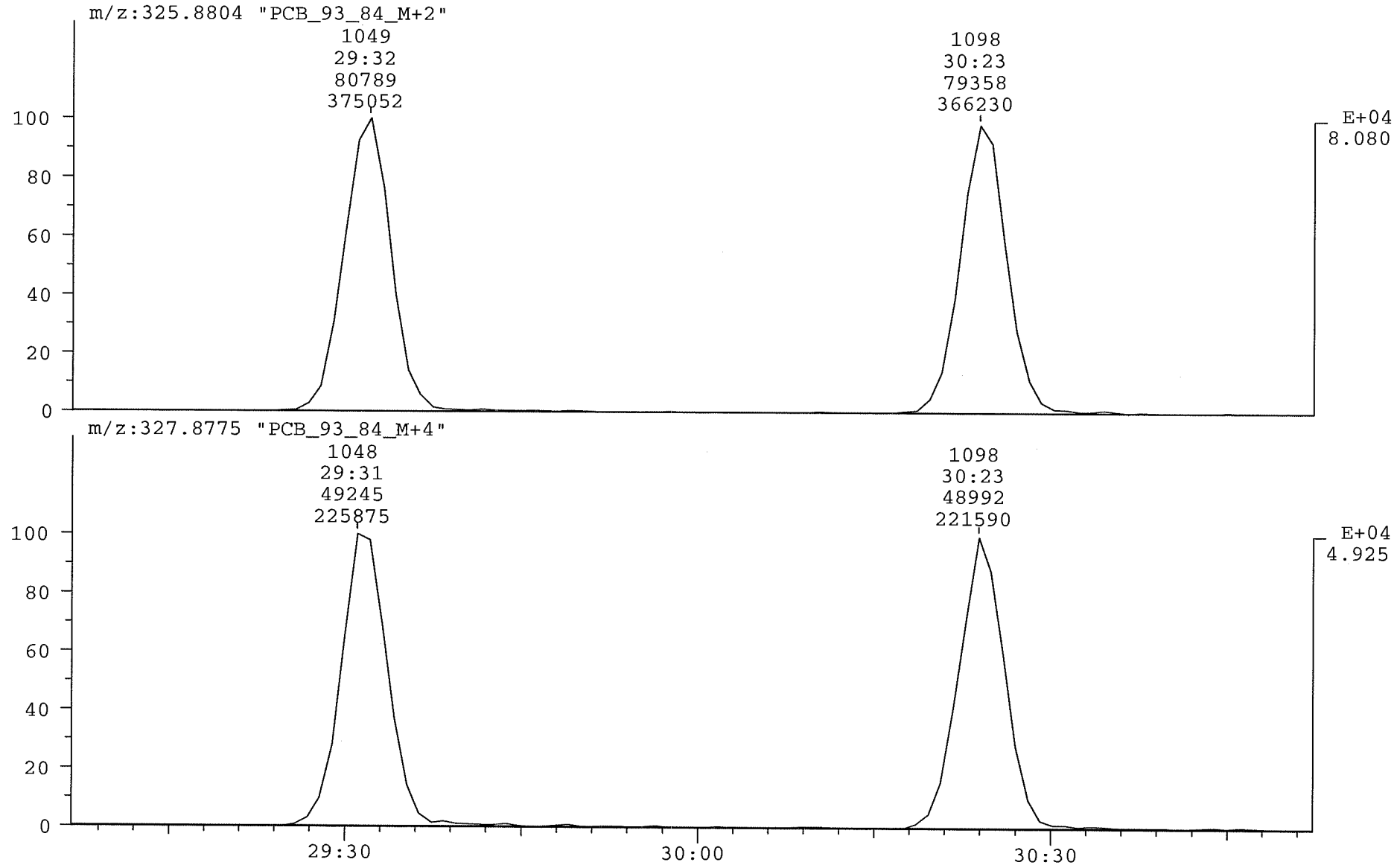
2490

CHRO: a0806m3r1 10-Jun-08 Elapse: 40:40 1677
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1597 > 1757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2462

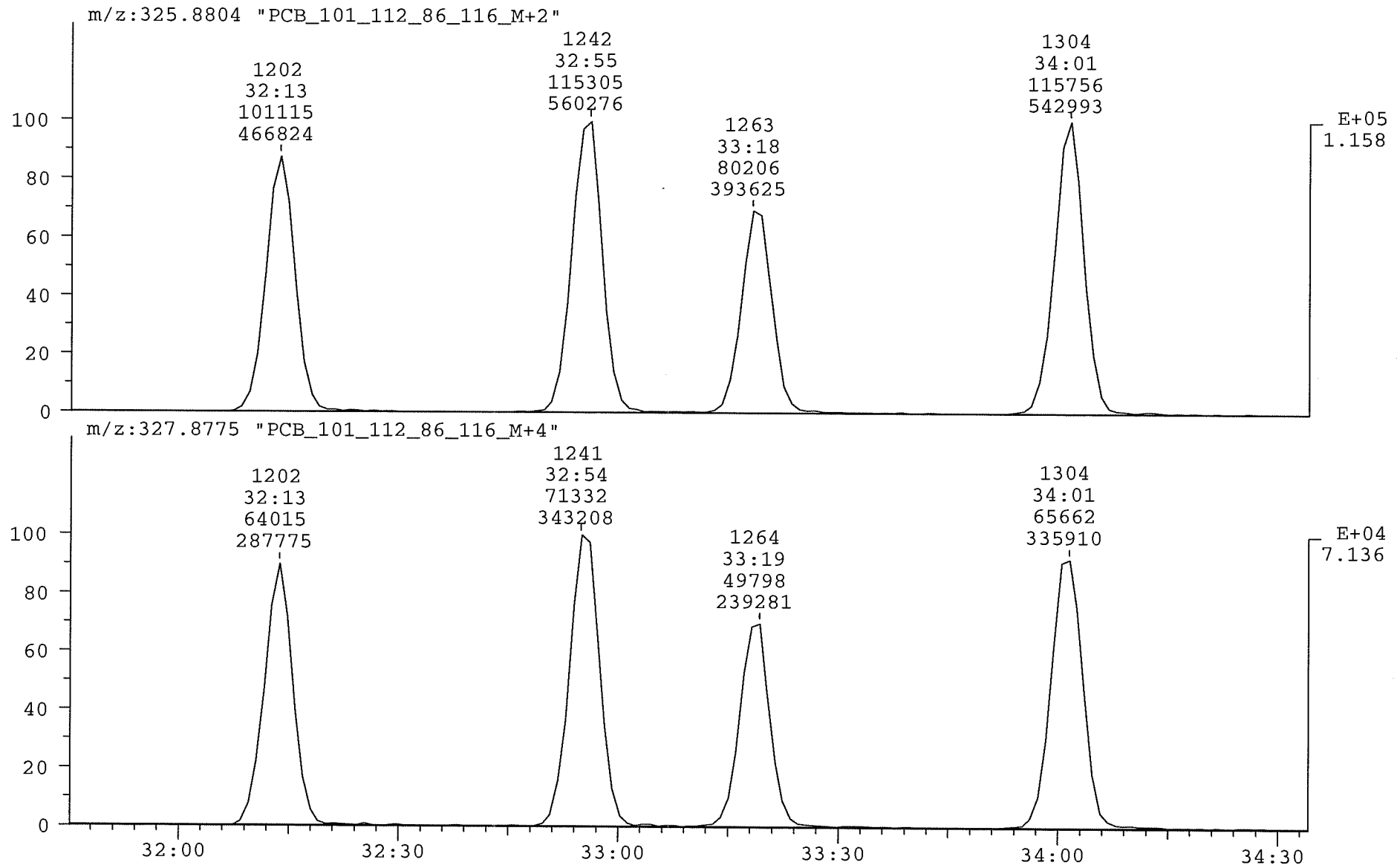
CHRO: a0806m3r1 10-Jun-08 Elapse: 29:59 1075
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1025 > 1125 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2493

2492

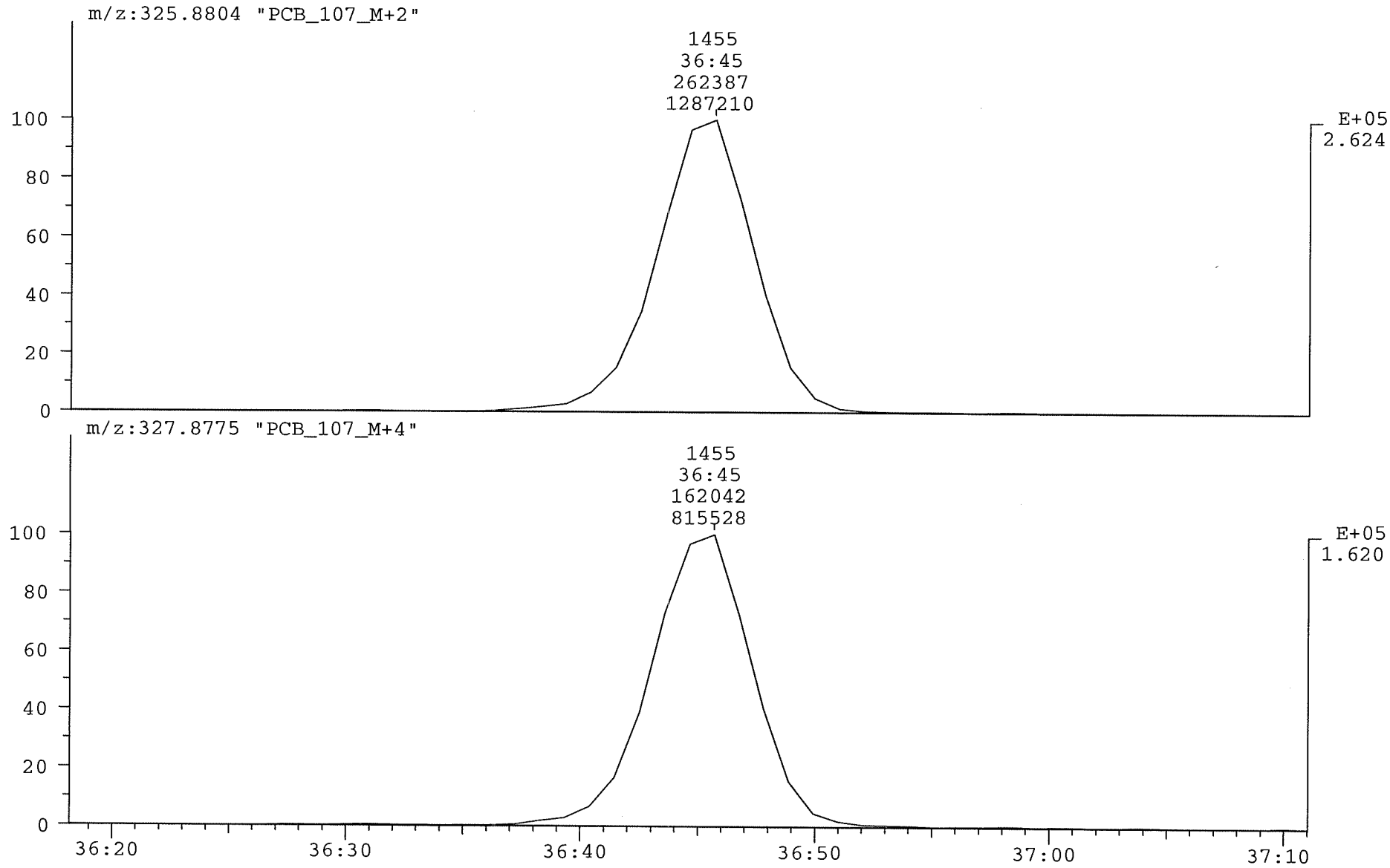
CHRO: a0806m3r1 10-Jun-08 Elapse: 33:09 1255
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1175 > 1335 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2494

2493

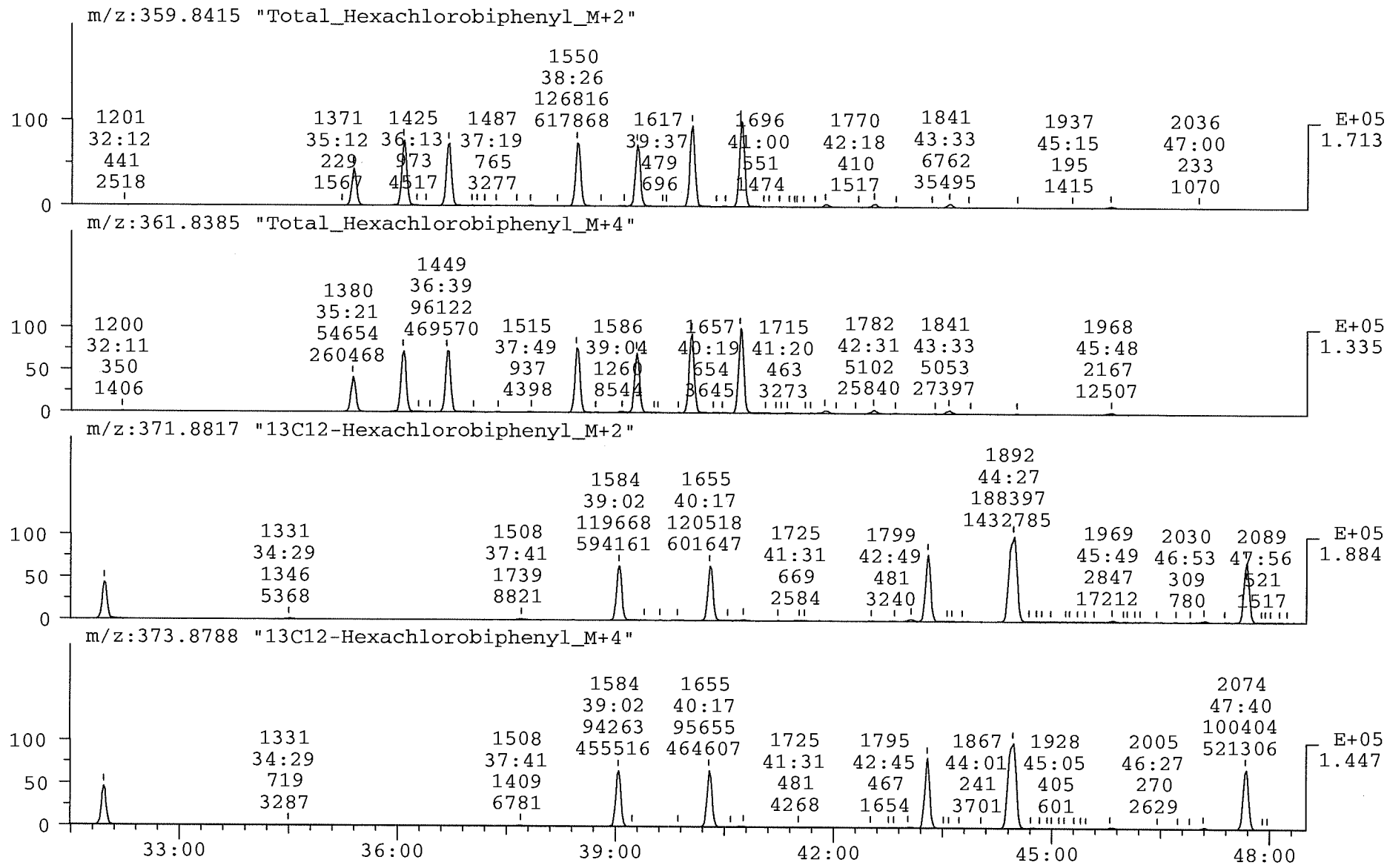
CHRO: a0806m3r1 10-Jun-08 Elapse: 36:44 1454
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1429 > 1479 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2495

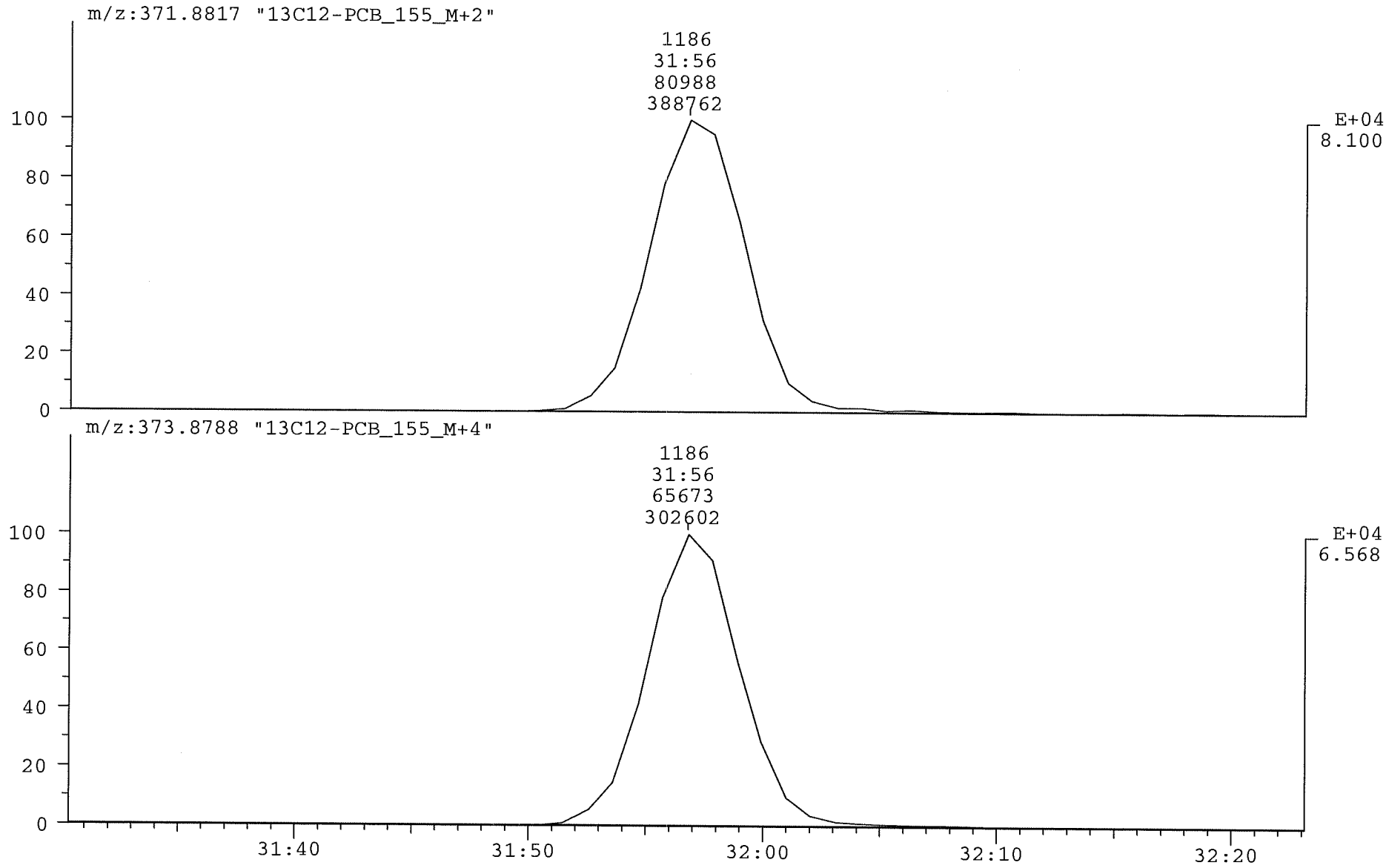
2494

CHRO: a0806m3r1 10-Jun-08 Elapse: 39:59 1638
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1160 > 2121 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2496

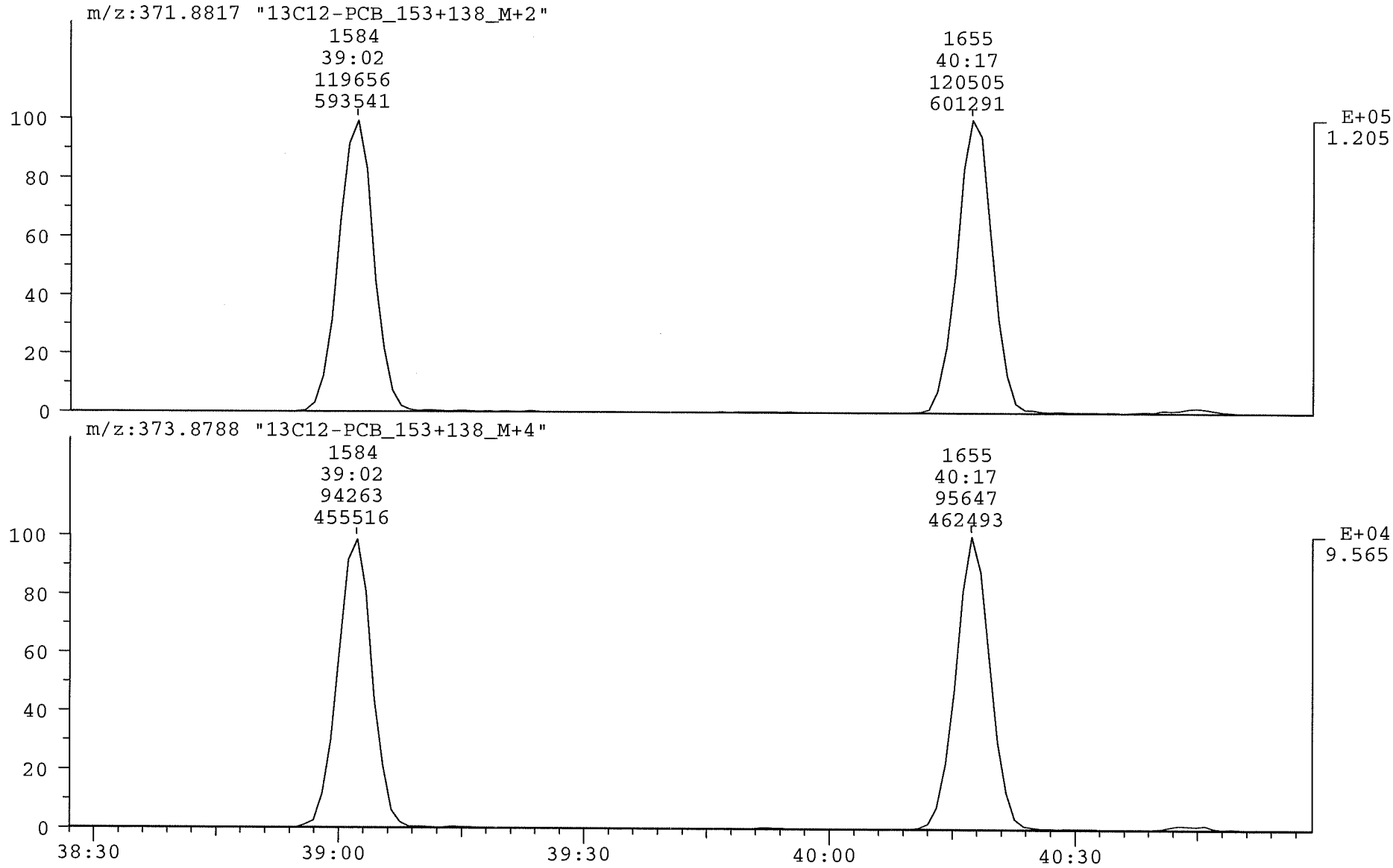
CHRO: a0806m3r1 10-Jun-08 Elapse: 31:56 1186
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1161 > 1211 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2497

2496

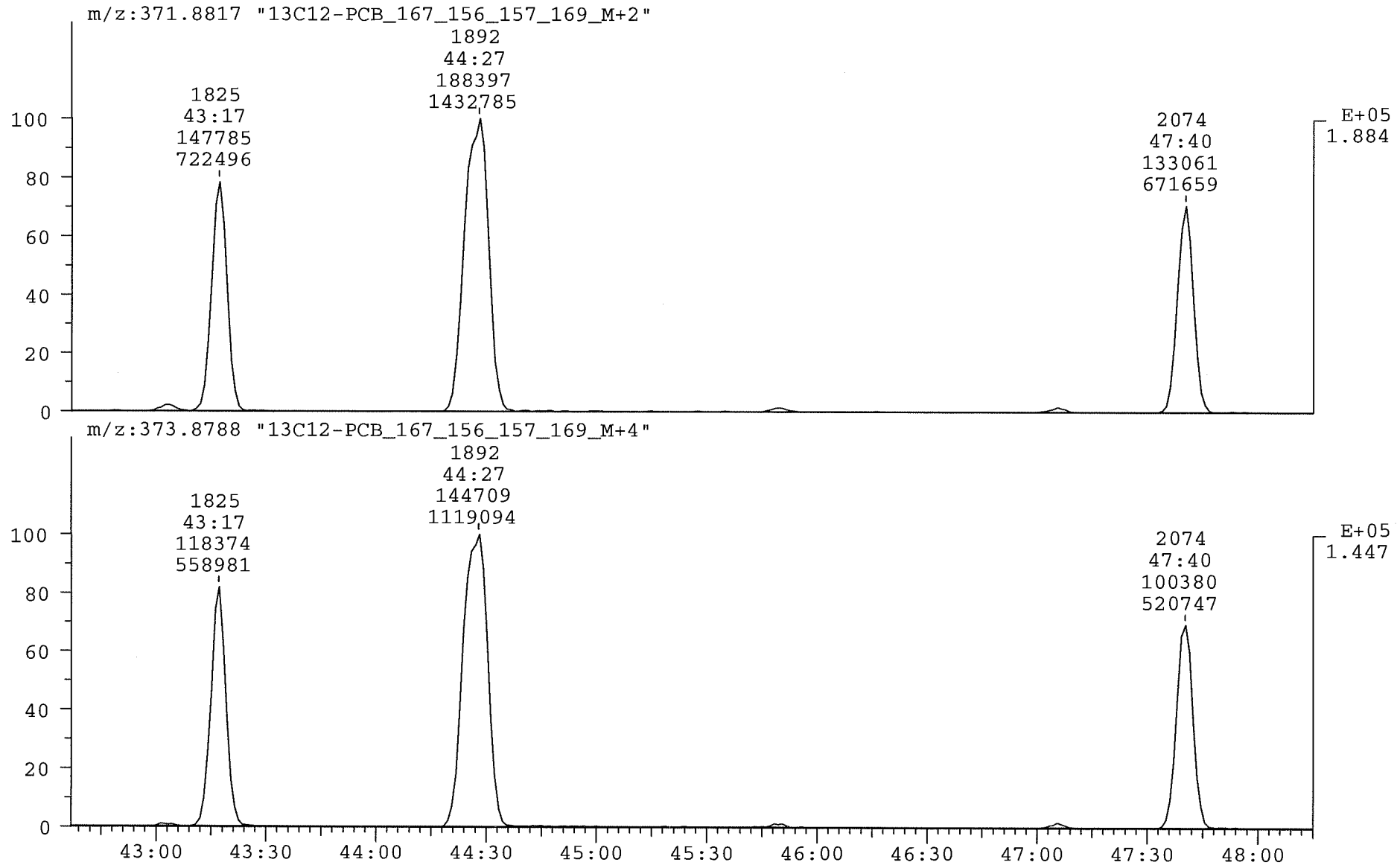
CHRO: a0806m3r1 10-Jun-08 Elapse: 39:43 1623
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1551 > 1694 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2468

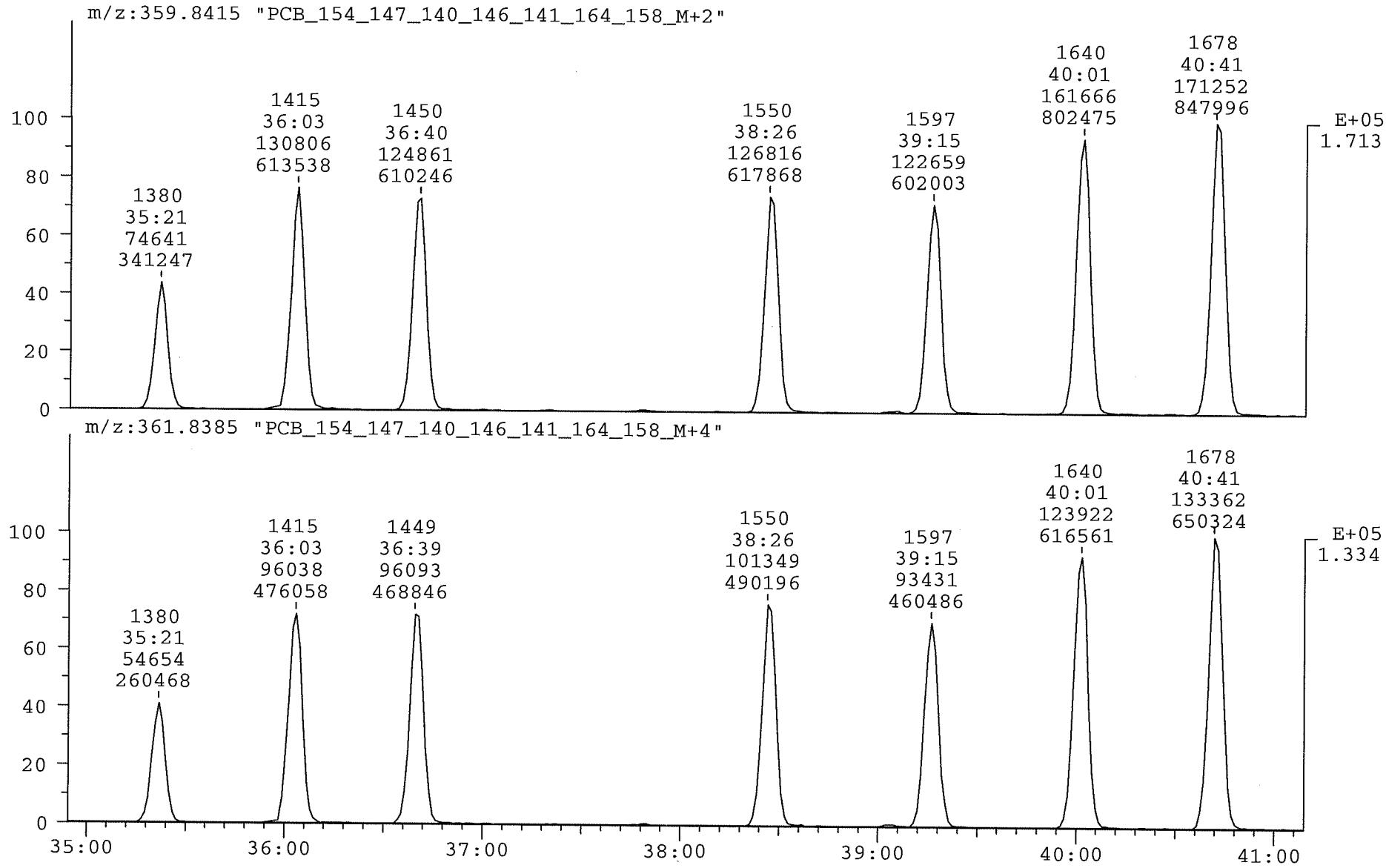
2497

CHRO: a0806m3r1 10-Jun-08 Elapse: 45:31 1952
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1787 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2499

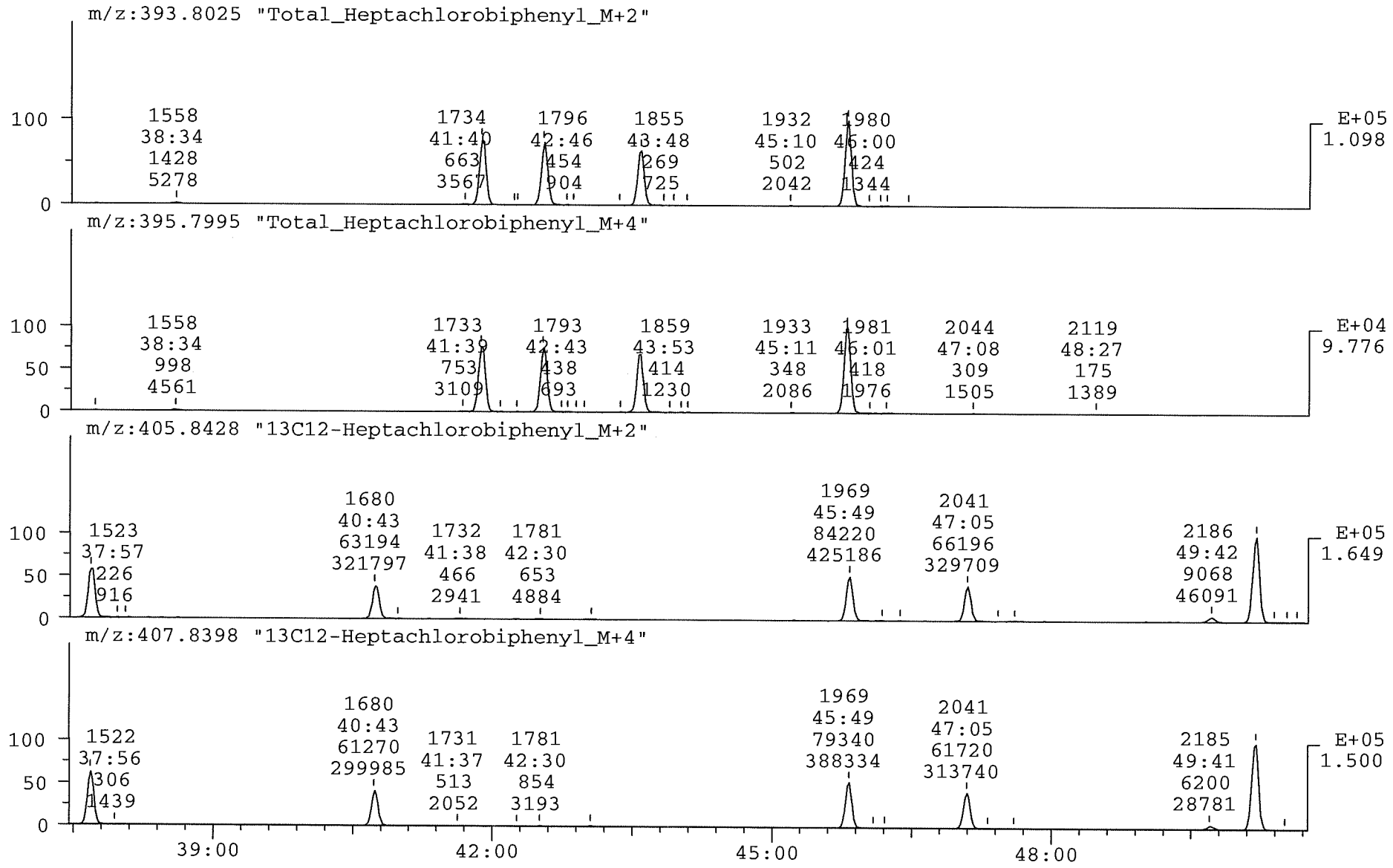
CHRO: a0806m3r1 10-Jun-08 Elapse: 38:03 1529
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1354 > 1704 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2500

2499

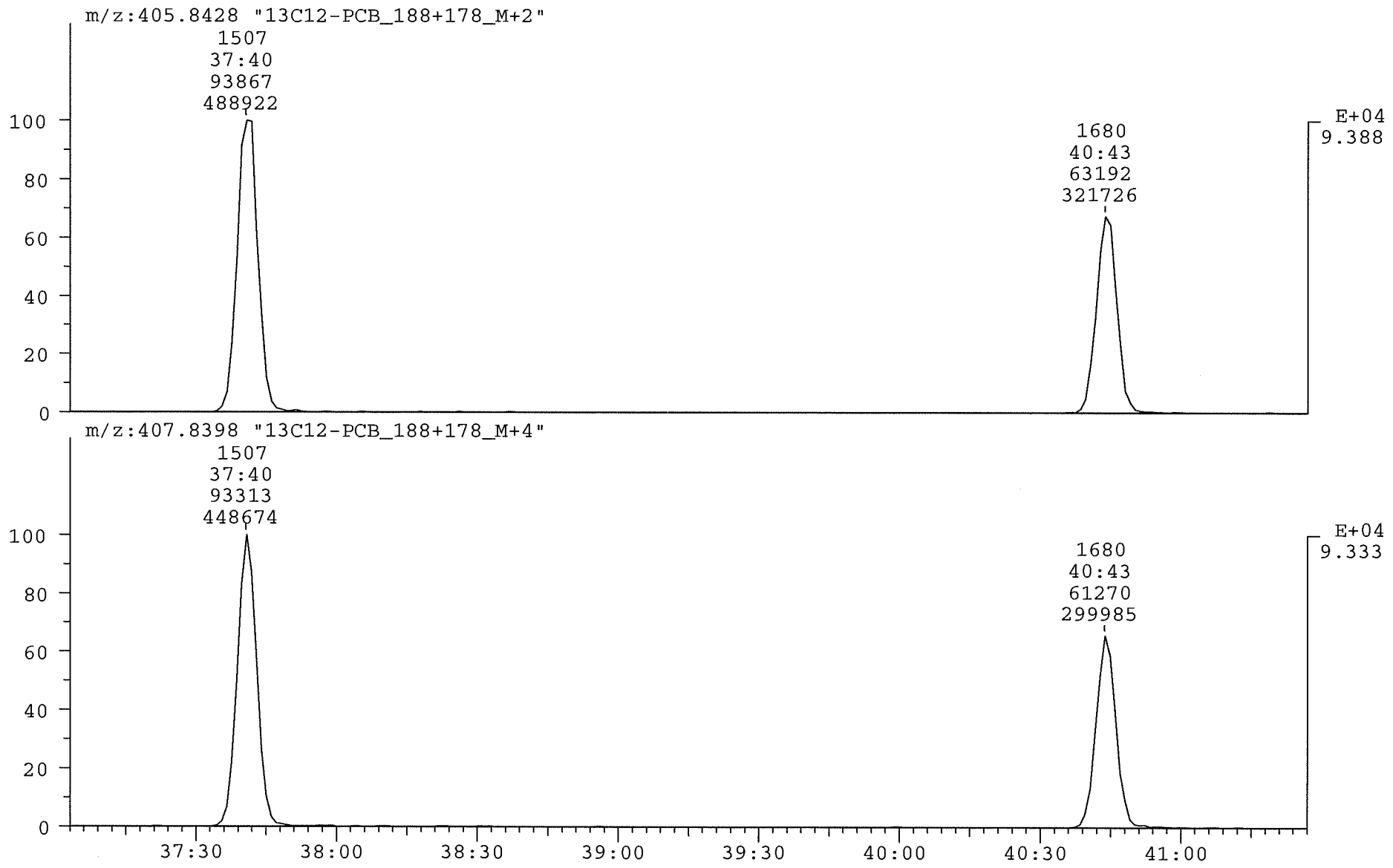
CHRO: a0806m3r1 10-Jun-08 Elapse: 44:05 1871
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1494 > 2245 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2501

2500

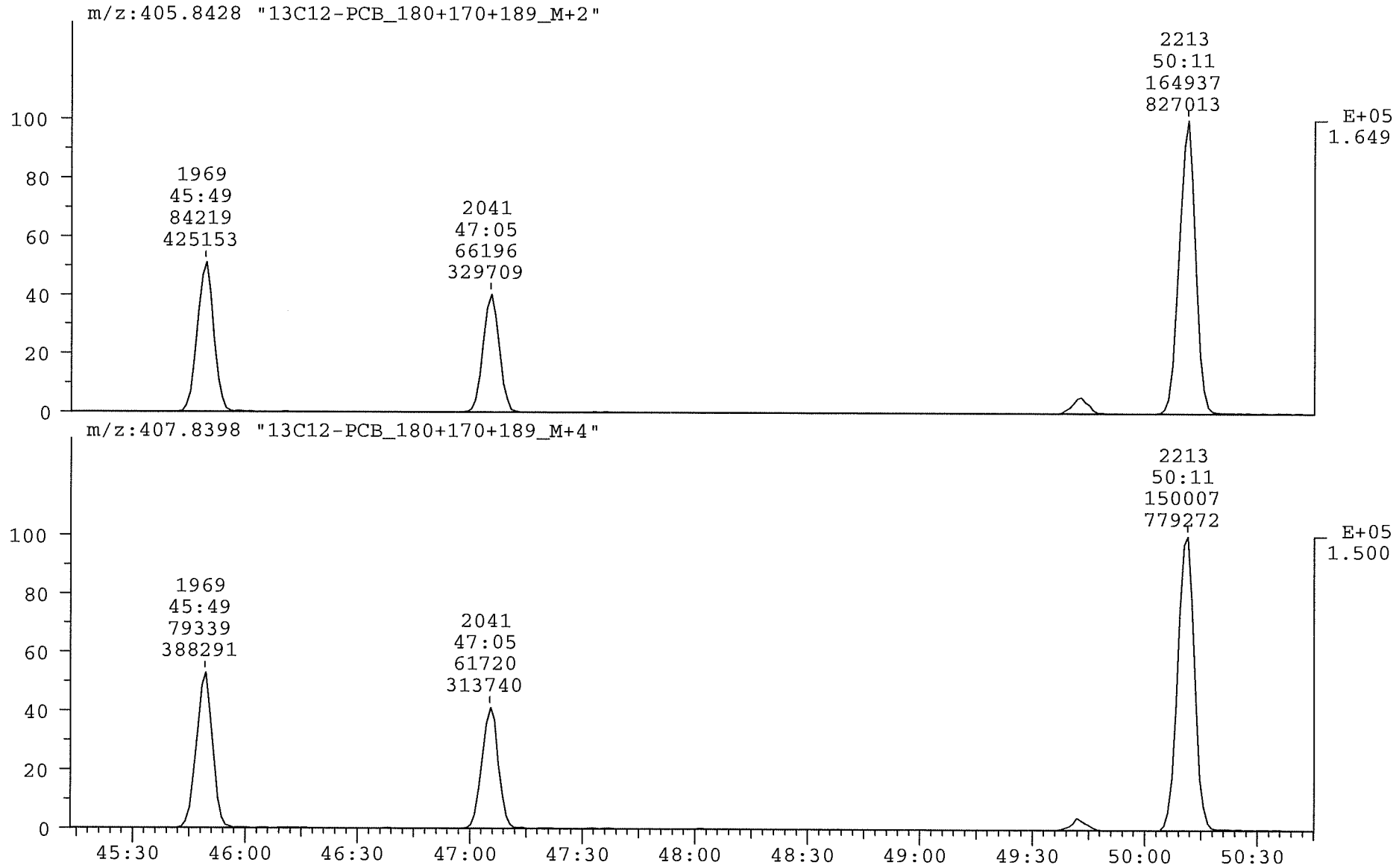
CHRO: a0806m3r1 10-Jun-08 Elapse: 39:14 1596
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1471 > 1721 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2502

2501

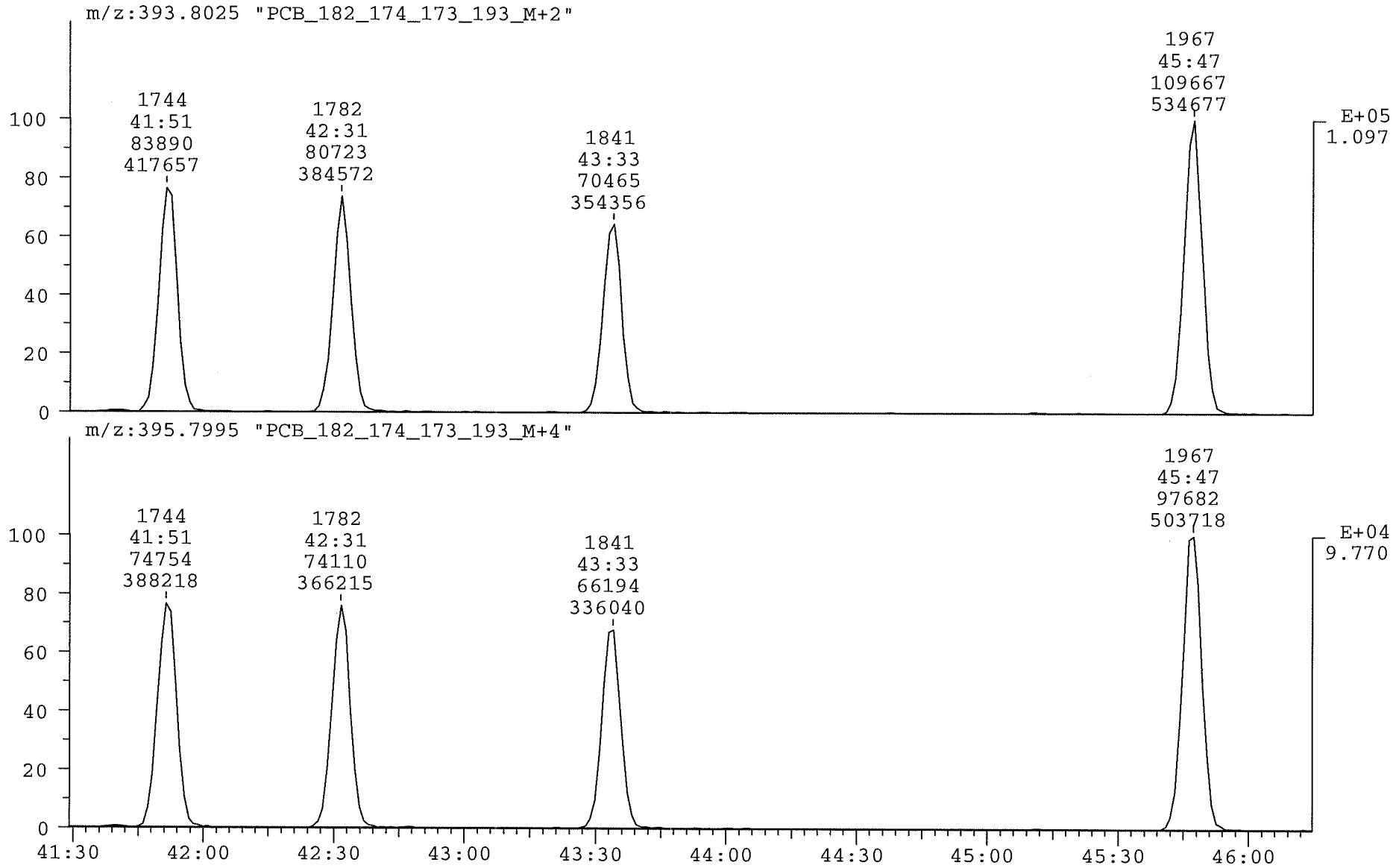
CHRO: a0806m3r1 10-Jun-08 Elapse: 48:02 2095
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1935 > 2245 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2503

2502

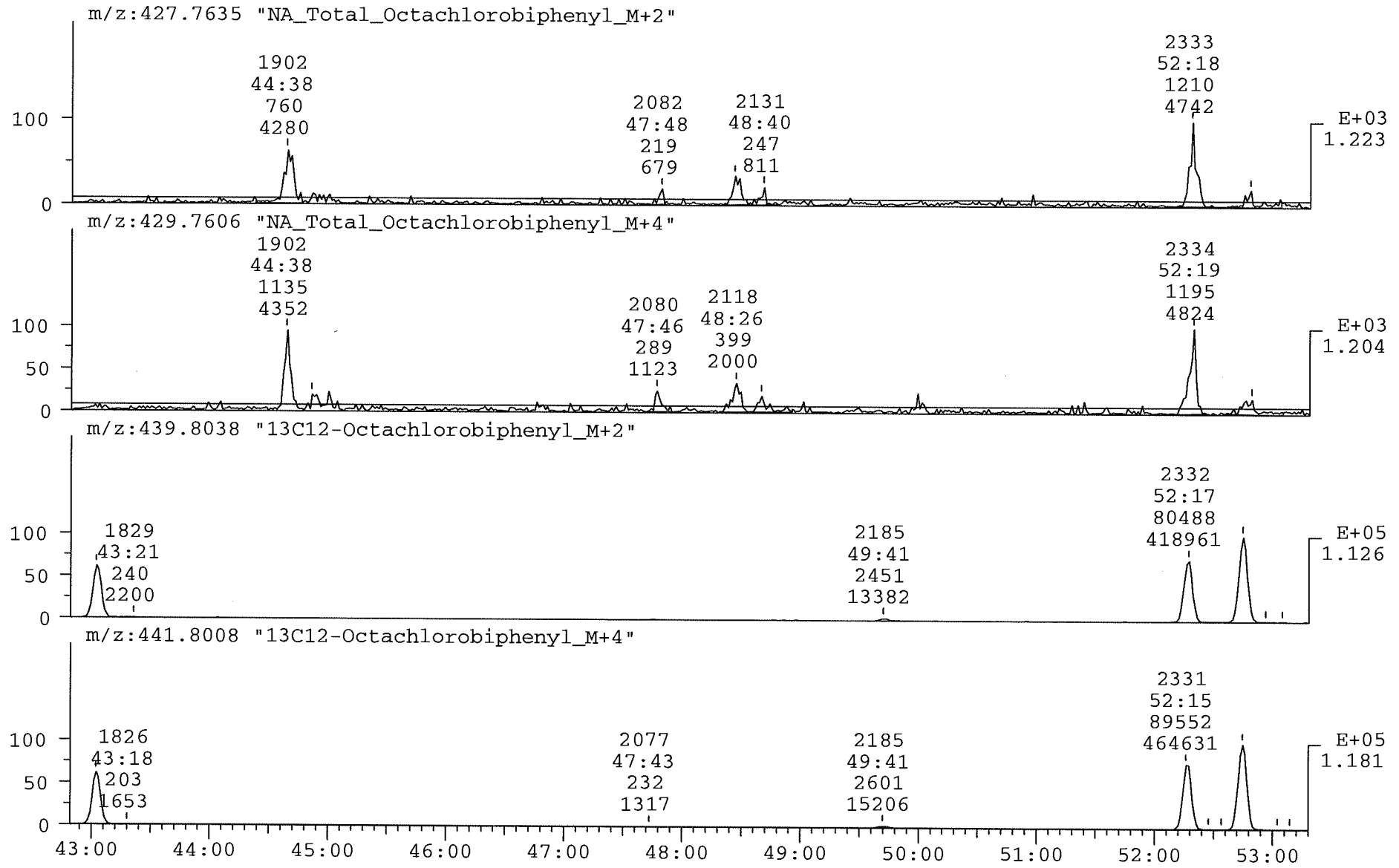
CHRO: a0806m3r1 10-Jun-08 Elapse: 43:51 1858
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1723 > 1993 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2504

2503

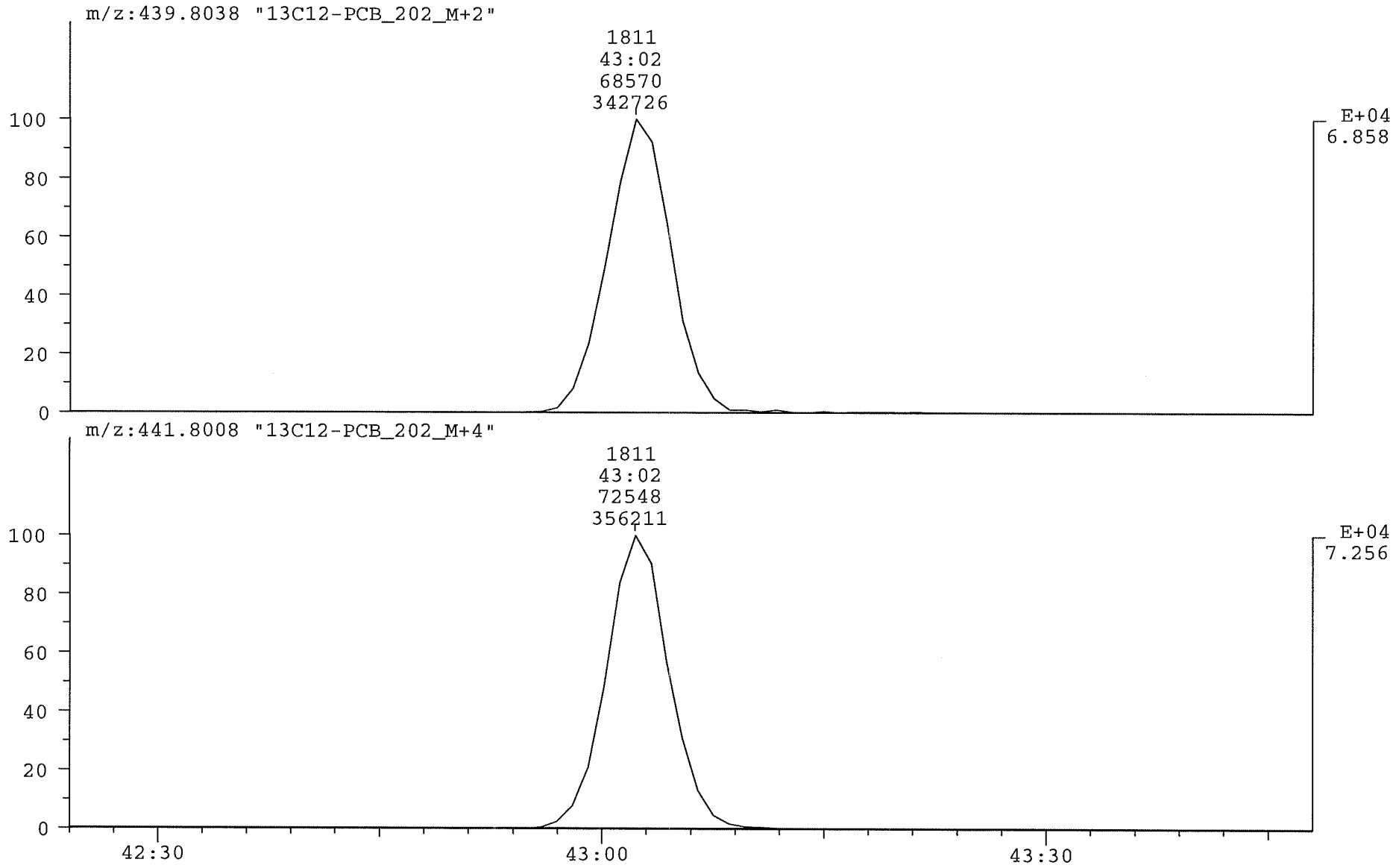
CHRO: a0806m3r1 10-Jun-08 Elapse: 48:03 2096
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1799 > 2390 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2505

2504

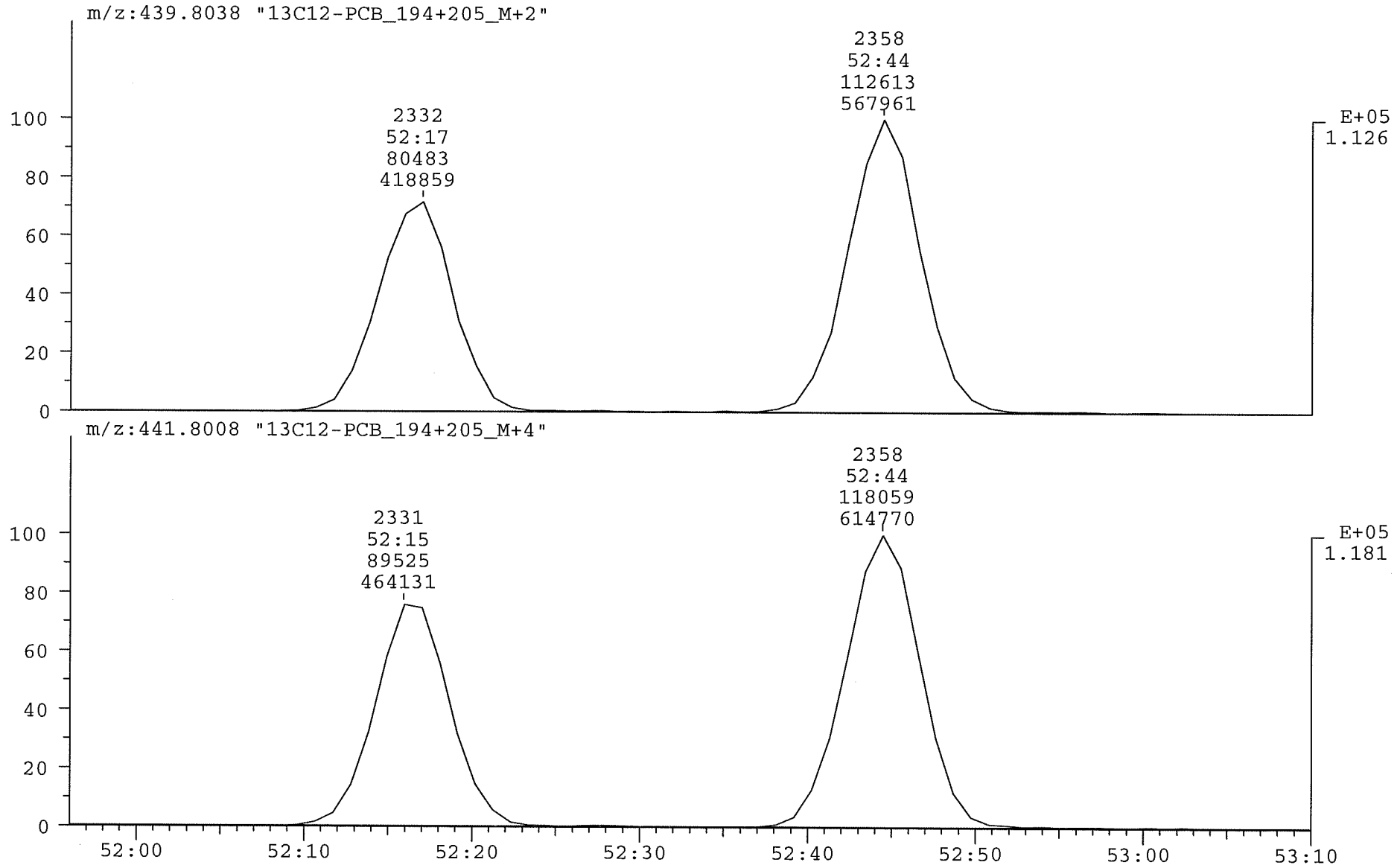
CHRO: a0806m3r1 10-Jun-08 Elapse: 43:03 1812
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1775 > 1854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2506

2505

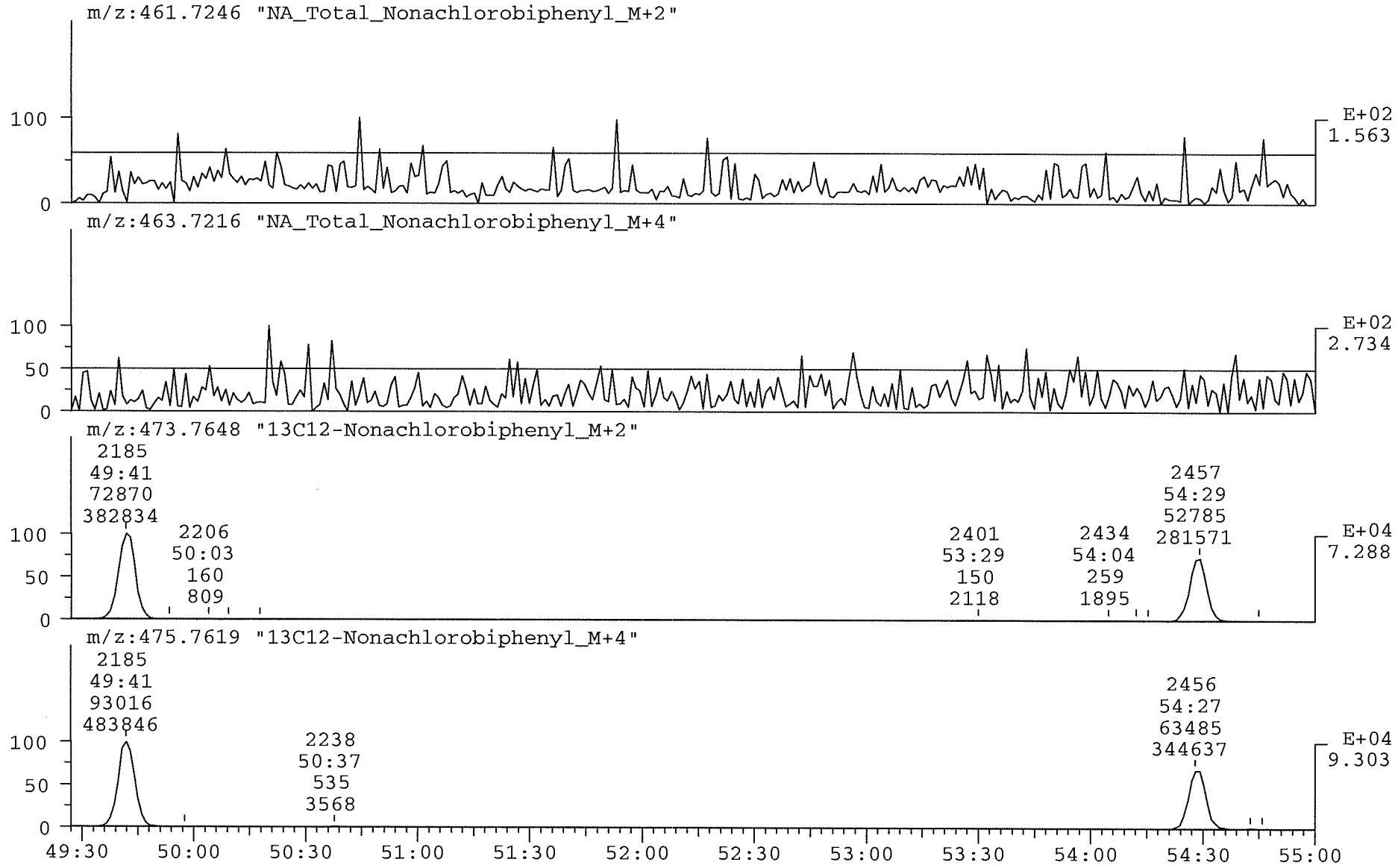
CHRO: a0806m3r1 10-Jun-08 Elapse: 52:32 2347
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2312 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2507

2506

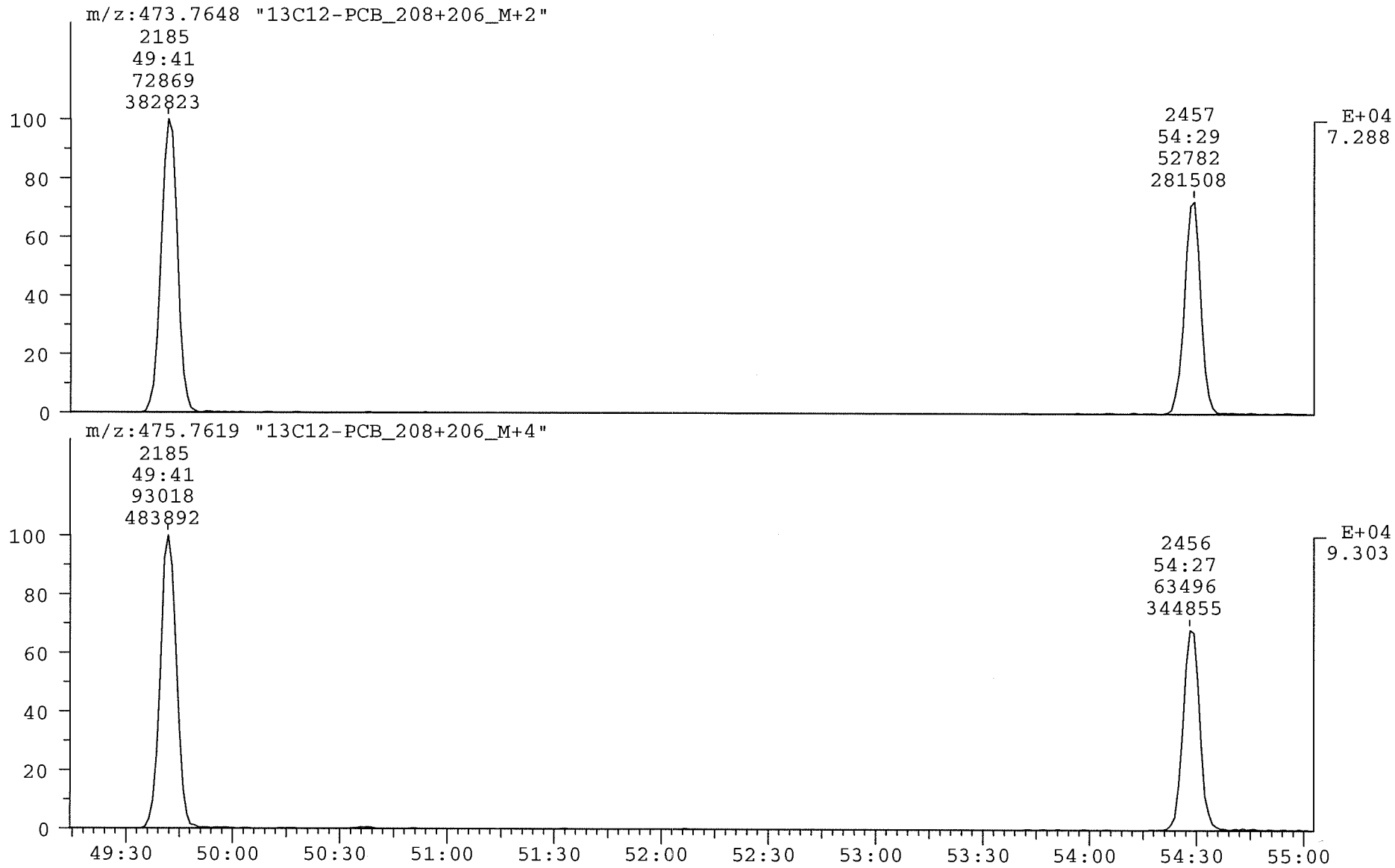
CHRO: a0806m3r1 10-Jun-08 Elapse: 52:12 2328
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2171 > 2486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2508

2507

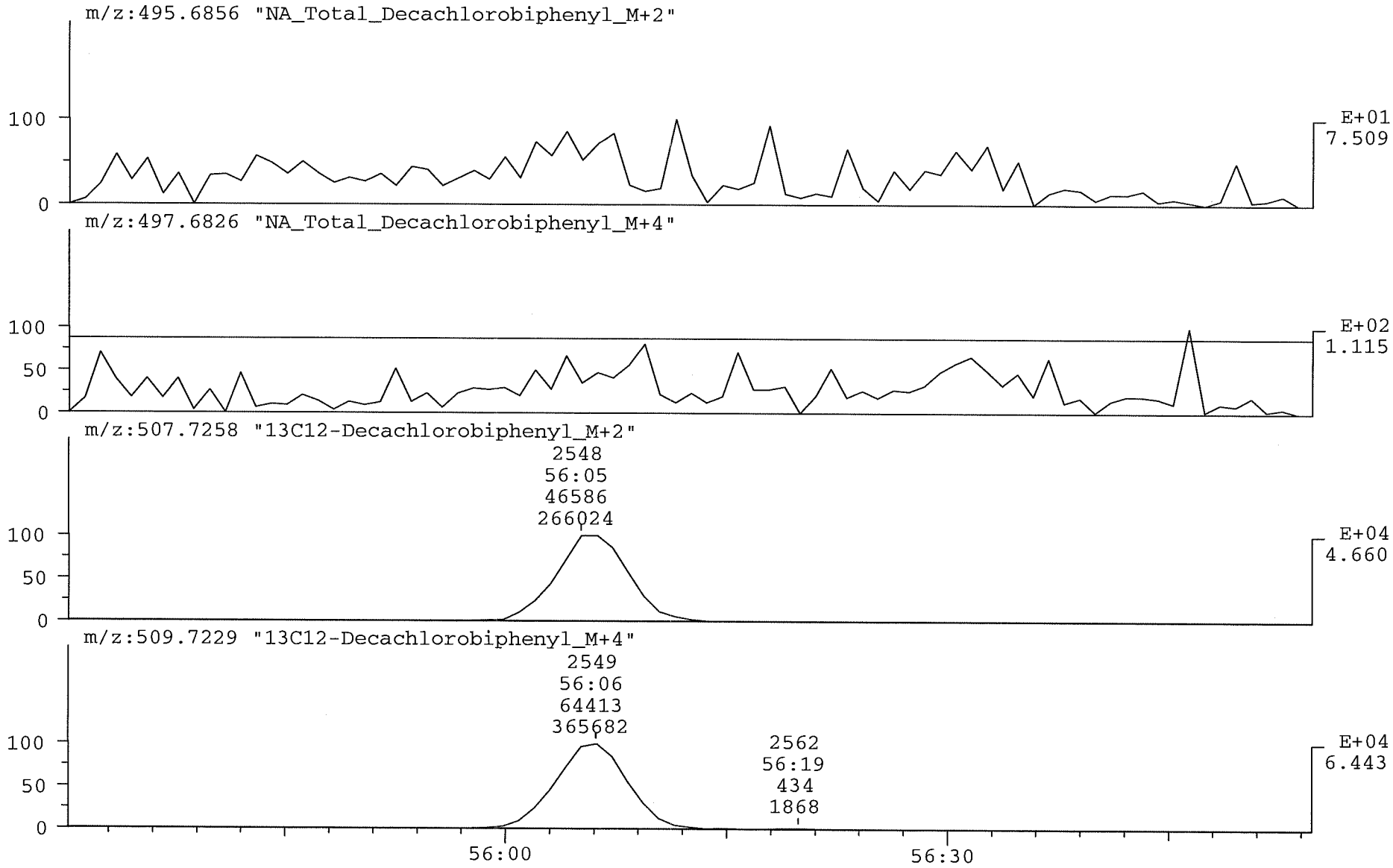
CHRO: a0806m3r1 10-Jun-08 Elapse: 52:08 2324
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2159 > 2489 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2509

2508

CHRO: a0806m3r1 10-Jun-08 Elapse: 56:12 2555
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 16:39:56 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2515 > 2595 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2510

2509

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m3r1
Study: 2990:75 Mix 3
Sample: WO=2990:75Mix3 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume: 2.00
Sample from Vial 13
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 3 of list 080609
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:12 min	35:52 min	1.00 sec
# 3	35:52 min	13:13 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	l	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass F	int	gr	time (ms)
255.9613	1	1	47.79
257.9584	1	1	47.79
268.0016	1	1	47.79
268.9824 l	10	1	4.10
269.9986	1	1	47.79
289.9224	1	1	47.79
291.9194	1	1	47.79
301.9626	1	1	47.79
303.9597	1	1	47.79
325.8804	1	1	47.79
327.8775	1	1	47.79
337.9207	1	1	47.79
339.9178	1	1	47.79
359.8415	1	1	47.79
361.8385	1	1	47.79
371.8817	1	1	47.79
373.8788	1	1	47.79
380.9760 c	10	1	4.10

Window # 3

mass F	int	gr	time (ms)
325.8804	1	1	47.79
327.8775	1	1	47.79
337.9207	1	1	47.79
339.9178	1	1	47.79
342.9792 l	10	1	4.10
359.8415	1	1	47.79
361.8385	1	1	47.79
371.8817	1	1	47.79
373.8788	1	1	47.79
393.8025	1	1	47.79
395.7995	1	1	47.79
405.8428	1	1	47.79
407.8398	1	1	47.79
427.7635	1	1	47.79
429.7606	1	1	47.79
430.9728 c	10	1	4.10
439.8038	1	1	47.79
441.8008	1	1	47.79

Window # 4

mass F	int	gr	time (ms)
393.8025	1	1	47.79
395.7995	1	1	47.79
404.9760 l	10	1	4.10
405.8428	1	1	47.79
407.8398	1	1	47.79
427.7635	1	1	47.79
429.7606	1	1	47.79
439.8038	1	1	47.79
441.8008	1	1	47.79
461.7246	1	1	47.79
463.7216	1	1	47.79
473.7648	1	1	47.79
475.7619	1	1	47.79
495.6856	1	1	47.79
497.6826	1	1	47.79
504.9697 c	10	1	4.10
507.7258	1	1	47.79
509.7229	1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5529
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0012
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	359.0000
FVINLET	256.0000	FVSRC	994.0000	FWIN	0.7000
GCTC	202.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.3235	HVANAL	1251.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2607.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.7500	TCURR	0.7813
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 16:39:56.4

Autosampler has injected sample from vial 13
MID Time Window 1: Resolution is 9047
MID Time Window 2: Resolution is 8405
MID Time Window 3: Resolution is 9525
MID Time Window 4: Resolution is 10657
Analysis stopped at: 10-Jun-08 17:36:59.7 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX3	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m3r2.	**Prep Date**		**SDG No**	
Analysis ID	104461	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 21:45	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					**188.0393**	**190.0363**	**188.0393**	**190.0363**	**2.66-3.60**		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
200					**200.0795**	**202.0766**	**200.0795**	**202.0766**	**2.66-3.60**		
	Noise	00:00	00:00	0	170	198	68	79	0.86 *	/	
	13C12-PCB 1	12:02	00:00	0	1407109	425073	563313	173698	3.31	AVV/AVV	
	13C12-PCB 3	14:14	00:00	0	1407741	404525	482607	136049	3.48	ABV/ABV	
222					**222.0003**	**223.9974**	**222.0003**	**223.9974**	**1.33-1.79**		
	Noise	00:00	00:00	0	145	270	58	108	0.54 *	/	
	PCB 13 (BZ)	20:08	00:00	0	366511	237397	93723	60961	1.54	AVV/AVV	
234					**234.0406**	**236.0376**	**234.0406**	**236.0376**	**1.33-1.79**		
	Noise	00:00	00:00	0	210	140	84	56	1.50	/	
	13C12-PCB 4	14:29	00:00	0	372176	238893	120658	80287	1.56	AVV/ABV	
	13C12-PCB 9	16:29	00:00	0	590266	376158	180128	111253	1.57	AVV/ABV	
	13C12-PCB 8	17:20	00:00	0	617815	407167	181542	118941	1.52	AVV/AVV	D
	13C12-PCB 15	20:27	00:00	0	598540	400559	162010	108060	1.49	AVV/ABV	
256					**255.9613**	**257.9584**	**255.9613**	**257.9584**	**0.88-1.20**		
	Noise	00:00	00:00	0	138	115	55	46	1.20	/	
	PCB 17 (BZ)	19:57	00:00	0	124898	123872	31389	31846	1.01	ABV/ABB	D
	PCB 29 (BZ)	22:41	00:00	0	588097	555017	150336	136645	1.06	ABV/ABV	DM
	PCB 20 (BZ)	23:33	00:00	0	551244	515307	133874	123314	1.07	ABV/ABV	M
268					**268.0016**	**269.9986**	**268.0016**	**269.9986**	**0.88-1.20**		
	Noise	00:00	00:00	0	250	173	100	69	1.45 *	/	
	13C12-PCB 19	17:39	00:00	0	202832	199387	56303	56674	1.02	ABV/AVV	
	13C12-PCB 32	20:55	00:00	0	350624	337547	91890	89328	1.04	ABV/AVV	
	13C12-PCB 31	23:12	00:00	0	1067990	968733	263709	242167	1.10	ABV/AVV	
	13C12-PCB 28	23:29	00:00	0	980607	894209	226219	212037	1.10	AVV/AVV	
	13C12-PCB 37	27:31	00:00	0	925493	841400	216158	192914	1.10	AVV/ABV	
290					**289.9224**	**291.9194**	**289.9224**	**291.9194**	**0.65-0.89**		
	Noise	00:00	00:00	0	153	165	61	66	0.92 *	/	
	PCB 46 (BZ)	23:57	00:00	0	356364	447481	89082	104517	0.80	ABV/ABV	
	PCB 65 (BZ)	26:21	00:00	0	546295	687218	124183	155921	0.79	ABV/ABV	DM
	PCB 59 (BZ)	26:42	00:00	0	547972	678702	120329	150921	0.81	AVV/AVV	D
	PCB 40 (BZ)	27:24	00:00	0	310298	383555	72535	86706	0.81	ABB/ABV	
	PCB 67 (BZ)	29:32	00:00	0	607906	744008	132500	163255	0.82	ABV/ABV	
	PCB 76 (BZ)	30:09	00:00	0	555616	697484	117544	145611	0.80	AVV/AVV	DM
	PCB 80 (BZ)	31:45	00:00	0	619603	774222	137219	170099	0.80	ABV/ABB	D
302					**301.9626**	**303.9597**	**301.9626**	**303.9597**	**0.65-0.89**		
	Noise	00:00	00:00	0	110	113	44	45	0.98 *	/	
	13C12-PCB 54	20:46	00:00	0	213034	259640	53350	67100	0.82	AVV/ABV	
	13C12-PCB 52	25:20	00:00	0	356521	439460	83870	104079	0.81	ABV/ABV	
	13C12-PCB 79	33:16	00:00	0	488686	619503	103810	134661	0.79	ABV/ABV	
	13C12-PCB 81	34:17	00:00	0	440231	539668	93484	118085	0.82	ABV/ABV	
	13C12-PCB 77	34:51	00:00	0	462018	557505	99286	123561	0.83	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX3	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m3r2.	**Prep Date**		**SDG No**	
Analysis ID	104461	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 21:45	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**		
	Noise	00:00	00:00	0	148	138	59	55	1.07 *	/	
	PCB 93 (BZ)	29:31	00:00	0	312705	184650	71063	41145	1.69	ABV/ABV	DM
	PCB 84 (BZ)	30:23	00:00	0	313214	187947	67162	42143	1.67	ABV/ABV	
	PCB 101 (BZ)	32:12	00:00	0	388903	241875	83467	51888	1.61	ABV/ABV	DM
	PCB 112 (BZ)	32:55	00:00	0	464246	280577	102613	57286	1.65	ABV/ABV	D
	PCB 86 (BZ)	33:18	00:00	0	329426	201095	69547	41618	1.64	AVV/AVV	M
	PCB 116 (BZ)	34:00	00:00	0	454141	270326	93710	53720	1.68	AVV/ABV	
	PCB 107 (BZ)/109 (IUPAC	36:45	00:00	0	1058065	665483	209791	135643	1.59	ABV/AVV	D
338					**337.9207**	**339.9178**	**337.9207**	**339.9178**	**1.32-1.78**		
	Noise	00:00	00:00	0	115	110	46	44	1.05 *	/	
	13C12-PCB 104	26:17	00:00	0	430244	269267	97715	58539	1.60	AVV/AVV	
	13C12-PCB 95	29:16	00:00	0	317865	197869	70104	43750	1.61	AVV/AVV	
	13C12-PCB 101	32:11	00:00	0	336550	202241	73268	43097	1.66	ABV/ABV	
	13C12-PCB 111	34:52	00:00	0	422037	257908	87504	53639	1.64	AVV/AVV	
	13C12-PCB 123	36:50	00:00	0	874660	551251	183614	114545	1.59	ABV/ABV	
	13C12-PCB 118	37:10	00:00	0	918955	553238	185303	113350	1.66	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	880356	532173	178847	109342	1.65	AVV/AVV	
	13C12-PCB 105	38:21	00:00	0	877723	531045	185663	111505	1.65	AVV/ABV	
	13C12-PCB 127	39:47	00:00	0	965595	603924	194624	122582	1.60	ABV/AVV	
	13C12-PCB 126	41:26	00:00	0	941362	582854	192731	119993	1.62	AVV/ABV	
360					**359.8415**	**361.8385**	**359.8415**	**361.8385**	**1.05-1.43**		
	Noise	00:00	00:00	0	215	220	86	88	0.98 *	/	
	PCB 154 (BZ)	35:21	00:00	0	281614	217191	58900	45101	1.30	ABV/ABV	
	PCB 147 (BZ)	36:02	00:00	0	518676	408459	102300	80039	1.27	AVV/AVV	
	PCB 140 (BZ)	36:38	00:00	0	499667	394757	98907	77813	1.27	AVV/AVV	M
	PCB 146 (BZ)	38:26	00:00	0	533454	421516	108438	83364	1.27	ABV/ABV	
	PCB 141 (BZ)	39:15	00:00	0	491674	388488	98681	77736	1.27	AVV/AVV	
	PCB 164 (BZ)	40:00	00:00	0	659441	501732	135937	102340	1.31	ABV/ABV	M
	PCB 158 (BZ)	40:41	00:00	0	687258	551271	141421	111791	1.25	AVV/AVV	
372					**371.8817**	**373.8788**	**371.8817**	**373.8788**	**1.05-1.43**		
	Noise	00:00	00:00	0	165	78	66	31	2.13 *	/	
	13C12-PCB 155	31:56	00:00	0	325973	255954	72878	55783	1.27	ABV/ABV	
	13C12-PCB 153	39:01	00:00	0	486370	386555	101018	81738	1.26	ABV/ABV	
	13C12-PCB 138	40:17	00:00	0	509310	380034	100827	78429	1.34	ABV/ABV	M
	13C12-PCB 167	43:15	00:00	0	601928	472379	119714	96248	1.27	AVV/AVV	
	13C12-PCB 156	44:26	00:00	0	1190275	925077	157530	119810	1.29	ABV/AVV	
	13C12-PCB 169	47:39	00:00	0	590663	451605	117033	86761	1.31	ABV/ABV	
394					**393.8025**	**395.7995**	**393.8025**	**395.7995**	**0.89-1.21**		
	Noise	00:00	00:00	0	143	160	57	64	0.89	/	
	PCB 182 (BZ)	41:51	00:00	0	347603	325423	73296	64173	1.07	AVV/AVB	M
	PCB 174 (BZ)	42:30	00:00	0	321122	311127	63687	59362	1.03	AVV/AVV	M
	PCB 173 (BZ)	43:32	00:00	0	294758	281979	55071	57885	1.05	ABV/AVV	D
	PCB 193 (BZ)	45:46	00:00	0	448301	425828	89721	84683	1.05	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX3	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m3r2.	**Prep Date**		**SDG No**	
Analysis ID	104461	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 21:45	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

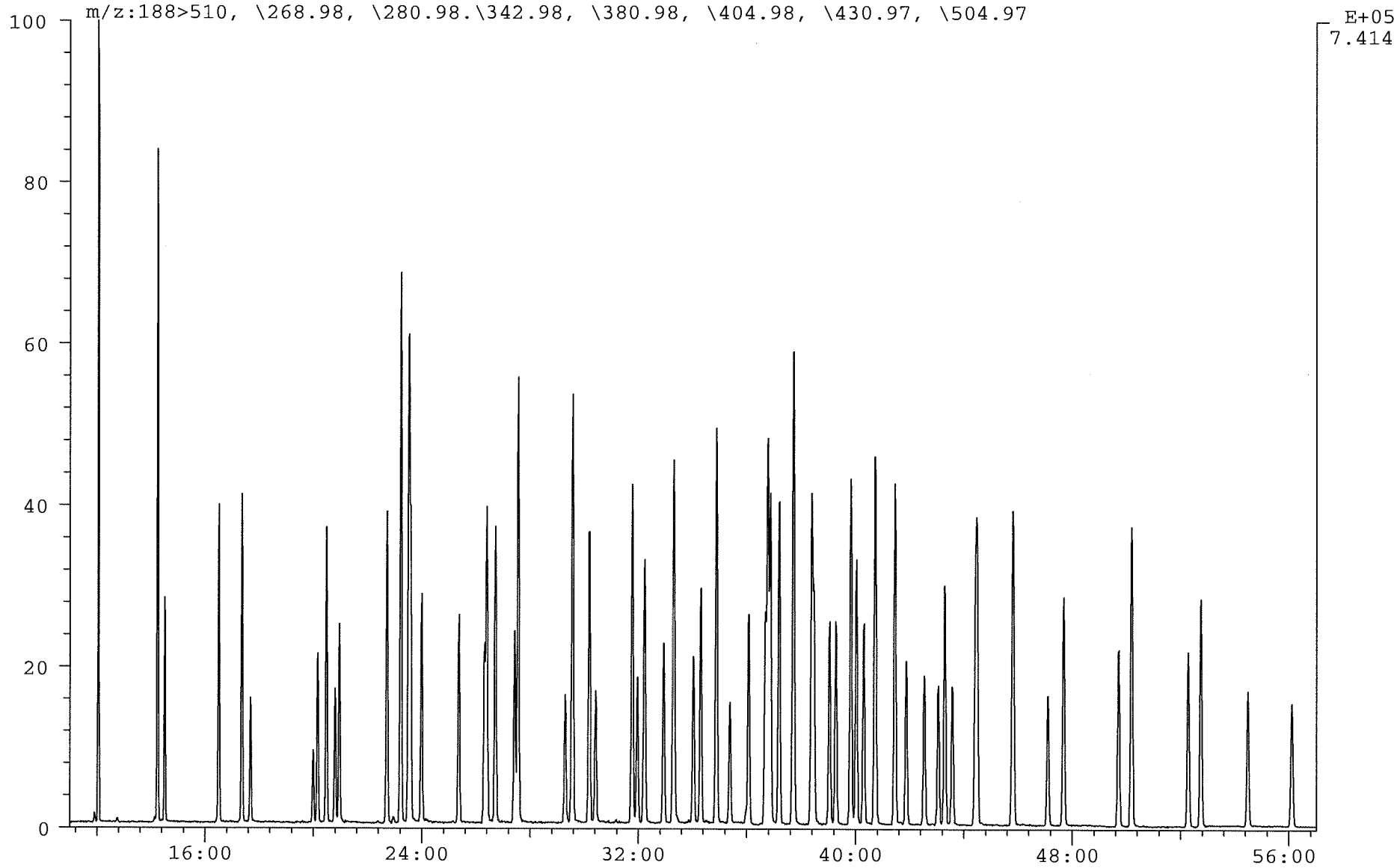
View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
406					**405.8428**	**407.8398**	**405.8428**	**407.8398**	**0.89-1.21**	
	Noise	00:00	00:00	0	130	110	52	44	1.18	/
	13C12-PCB 188	37:40	00:00	0	409356	376965	84922	81408	1.09	ABV/ABV
	13C12-PCB 178	40:43	00:00	0	269220	255640	54781	50713	1.05	ABV/ABB
	13C12-PCB 180	45:47	00:00	0	355082	329813	71620	65330	1.08	ABV/ABV
	13C12-PCB 170	47:05	00:00	0	294743	273988	57030	53687	1.08	ABV/AVV
	13C12-PCB 189	50:10	00:00	0	742712	684663	144356	130278	1.08	ABV/ABV
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	125	140	50	56	0.89	/
	13C12-PCB 202	43:02	00:00	0	281744	325603	54782	64572	0.87	ABV/ABV
	13C12-PCB 194	52:16	00:00	0	369491	404593	72598	78859	0.91	ABB/ABV
	13C12-PCB 205	52:44	00:00	0	481321	537205	95223	103716	0.90	ABV/ABV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	113	113	45	45	1.00 *	/
	13C12-PCB 208	49:40	00:00	0	345128	435060	65268	82165	0.79	ABV/ABV
	13C12-PCB 206	54:28	00:00	0	242808	304504	47158	60831	0.80	AVV/AVV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	130	148	52	59	0.88 *	/
	13C12-PCB 209	56:05	00:00	0	221526	315513	38273	57899	0.70	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: a0806m3r2 10-Jun-08 Elapse: 56:11 2554
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

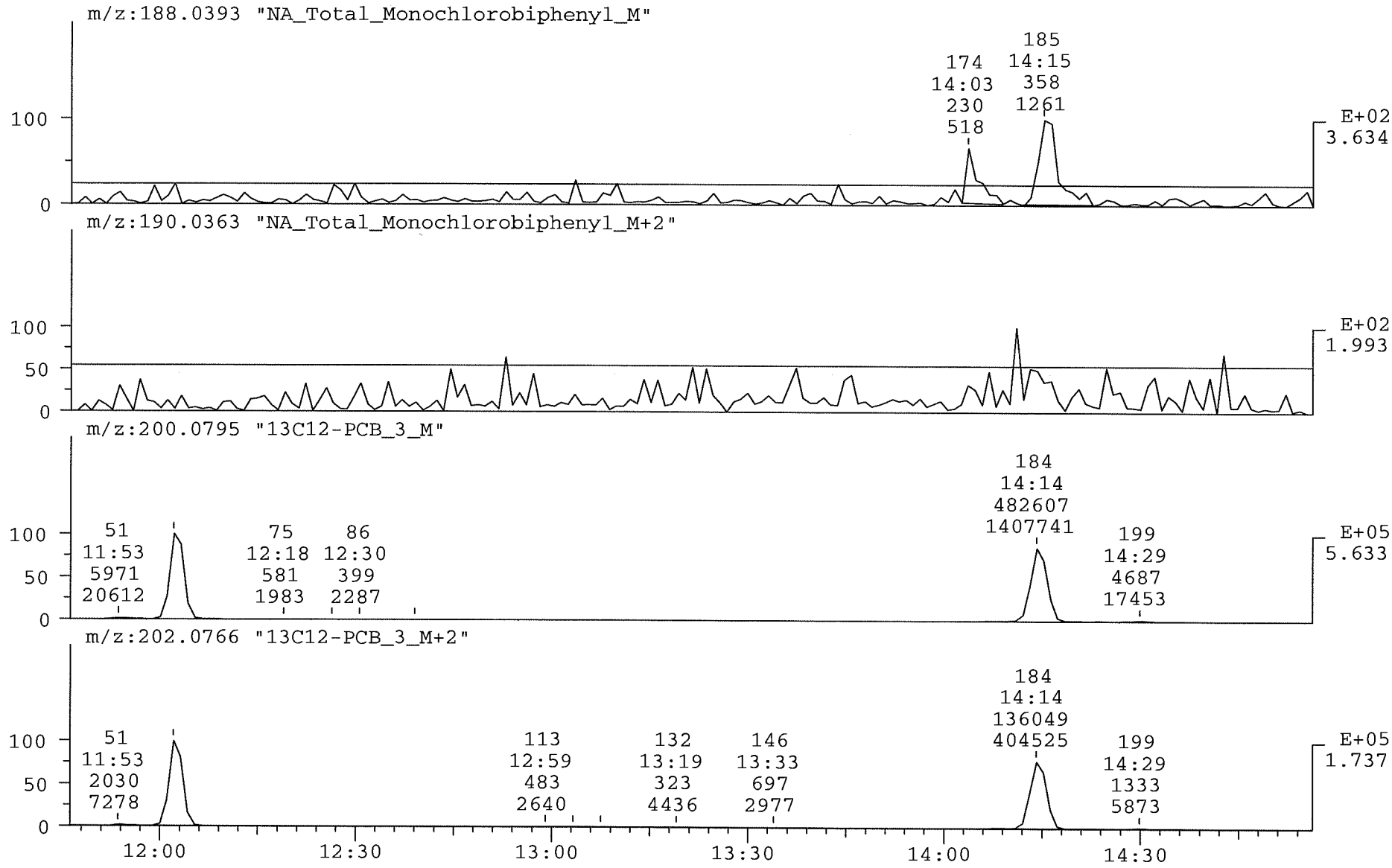
INTCS 6-11-08
Calcs 6-26-08



H-2518

2517

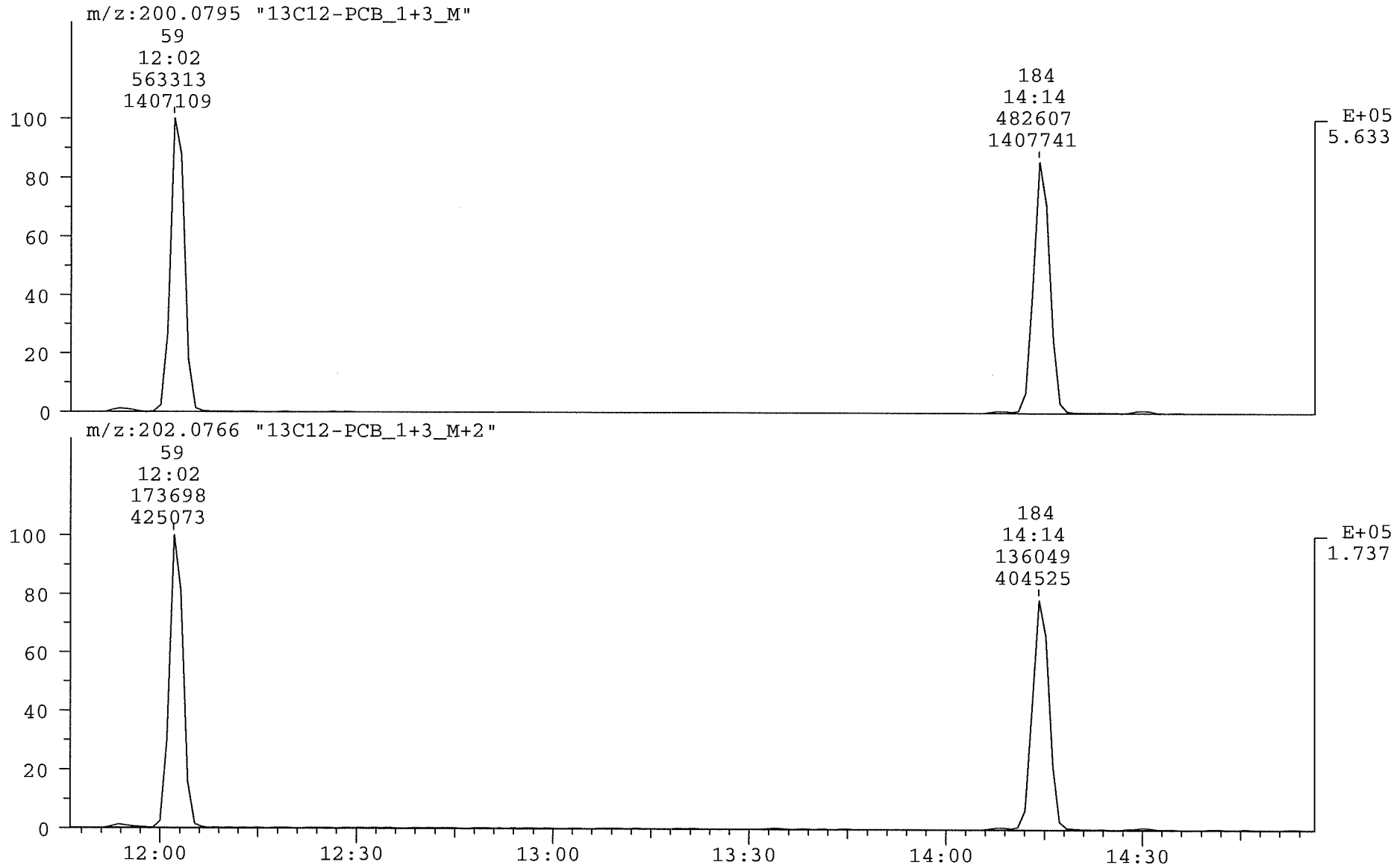
CHRO: a0806m3r2 10-Jun-08 Elapse: 13:21.2 134
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2519

2518

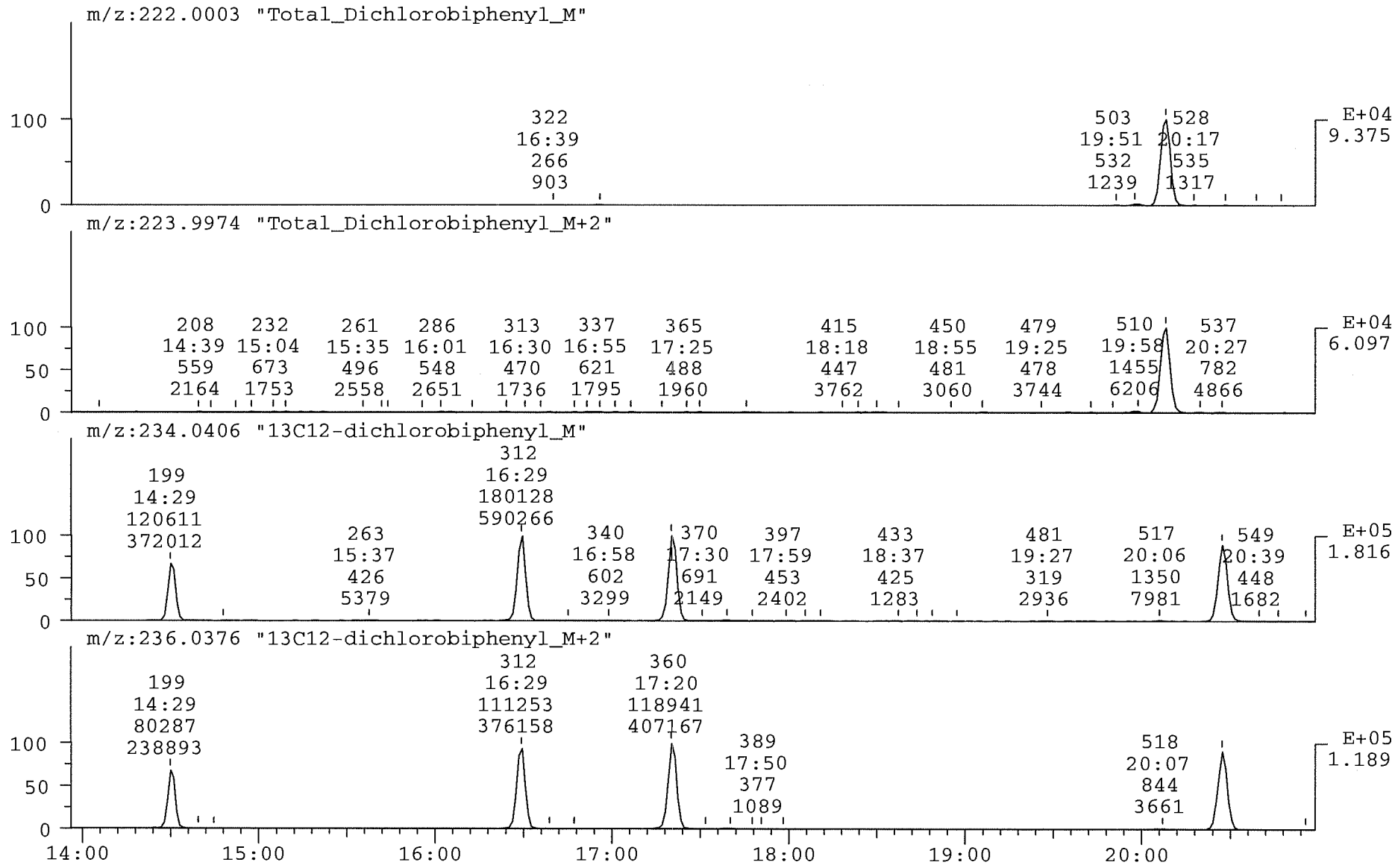
CHRO: a0806m3r2 10-Jun-08 Elapse: 13:21.2 134
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



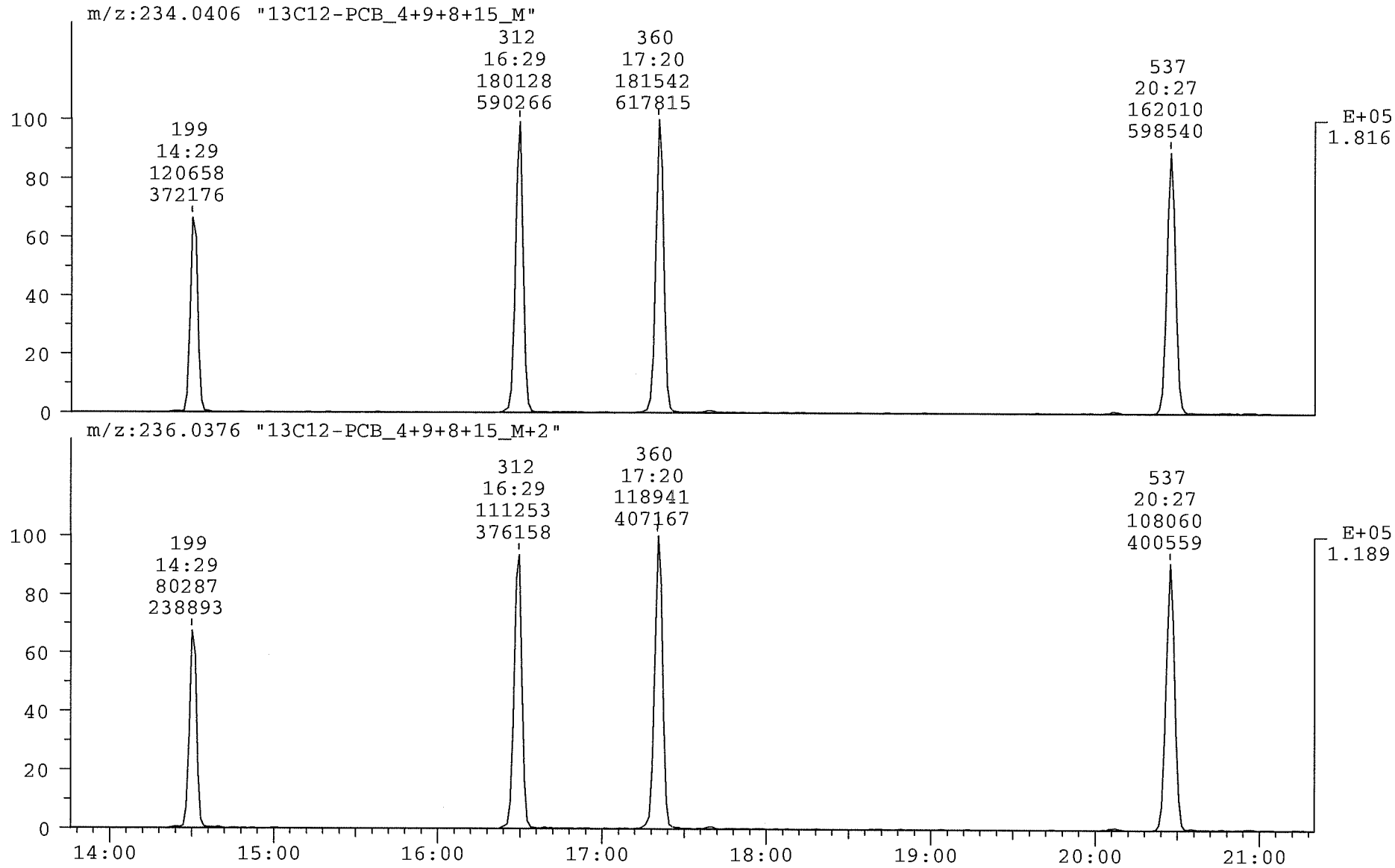
H-2520

2519

CHRO: a0806m3r2 10-Jun-08 Elapse: 17:27.4 367
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 167 > 567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



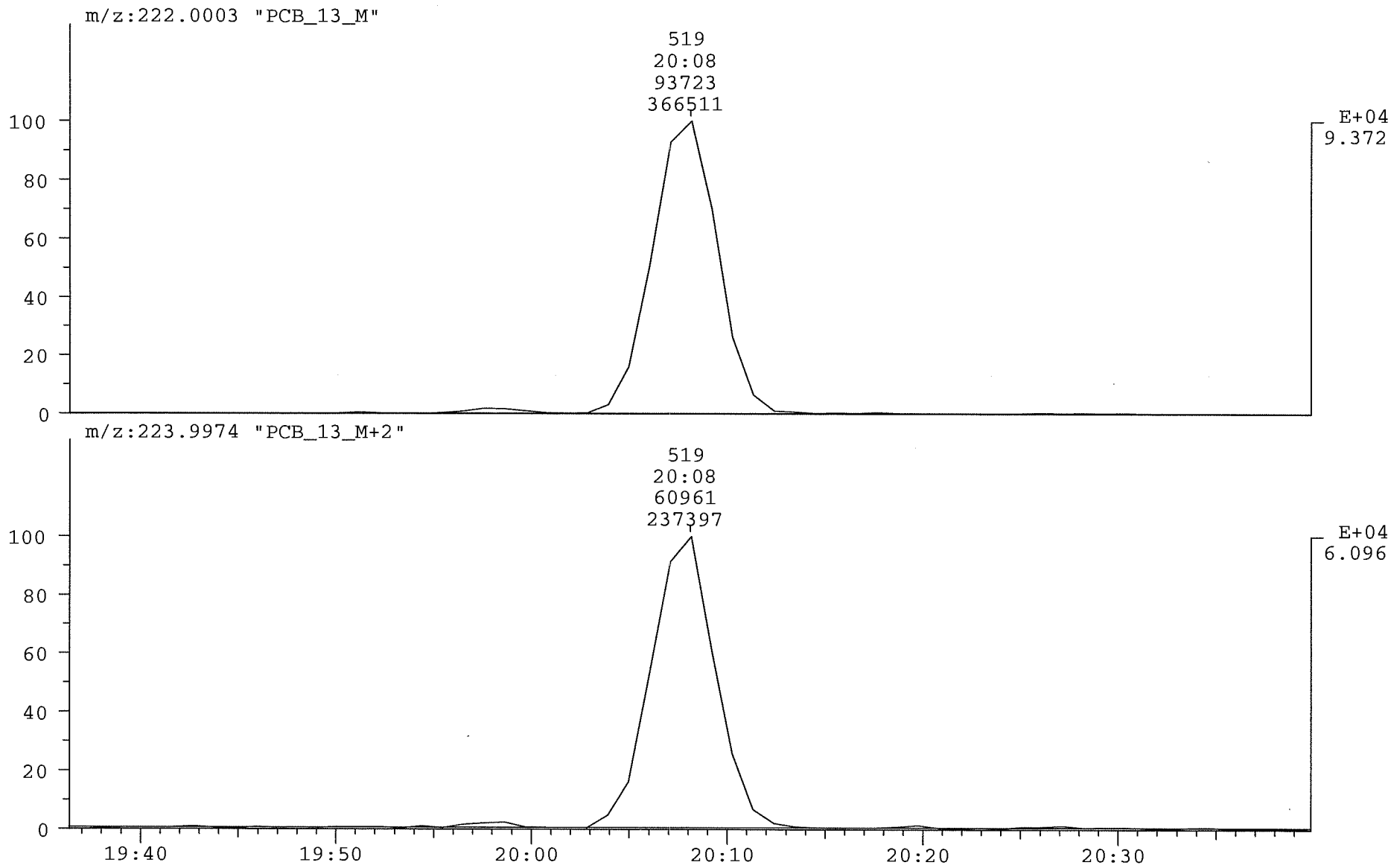
CHRO: a0806m3r2 10-Jun-08 Elapse: 17:27.4 367
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 157 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2522

2521

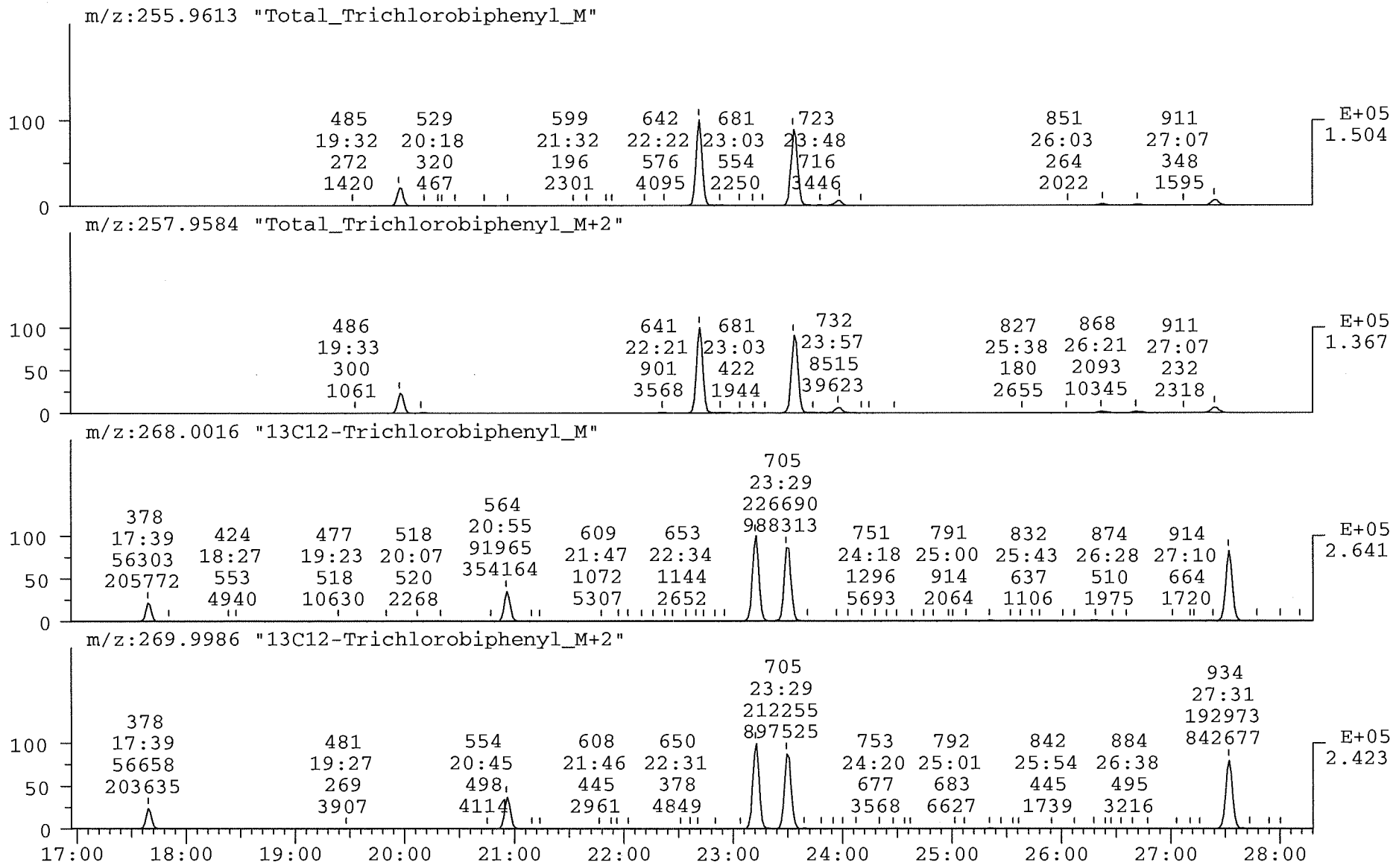
CHRO: a0806m3r2 10-Jun-08 Elapse: 20:08.1 519
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 489 > 549 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2523

2522

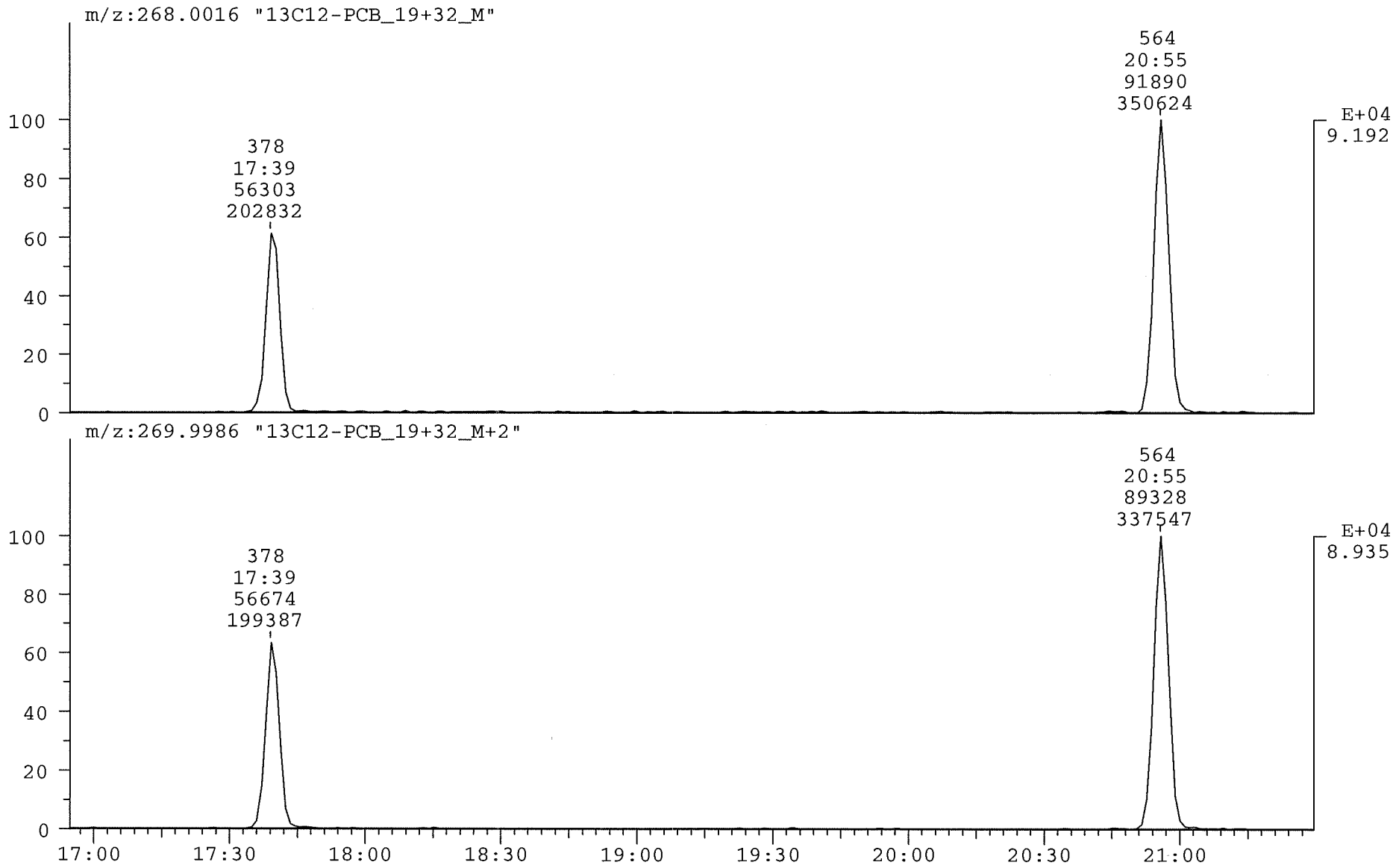
CHRO: a0806m3r2 10-Jun-08 Elapse: 22:39.5 658
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 338 > 978 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2524

2523

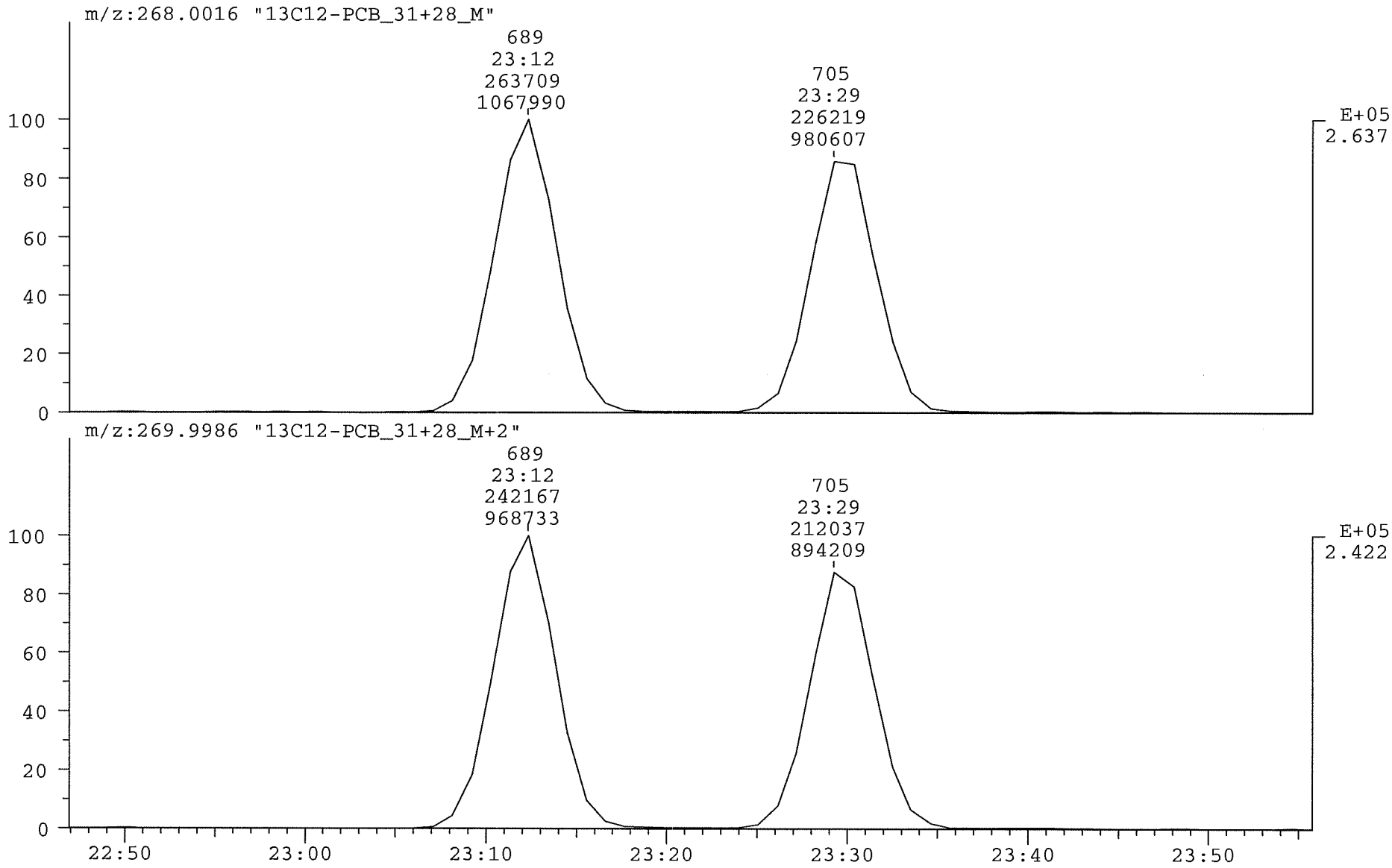
CHRO: a0806m3r2 10-Jun-08 Elapse: 19:01.5 456
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 336 > 596 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2525

2524

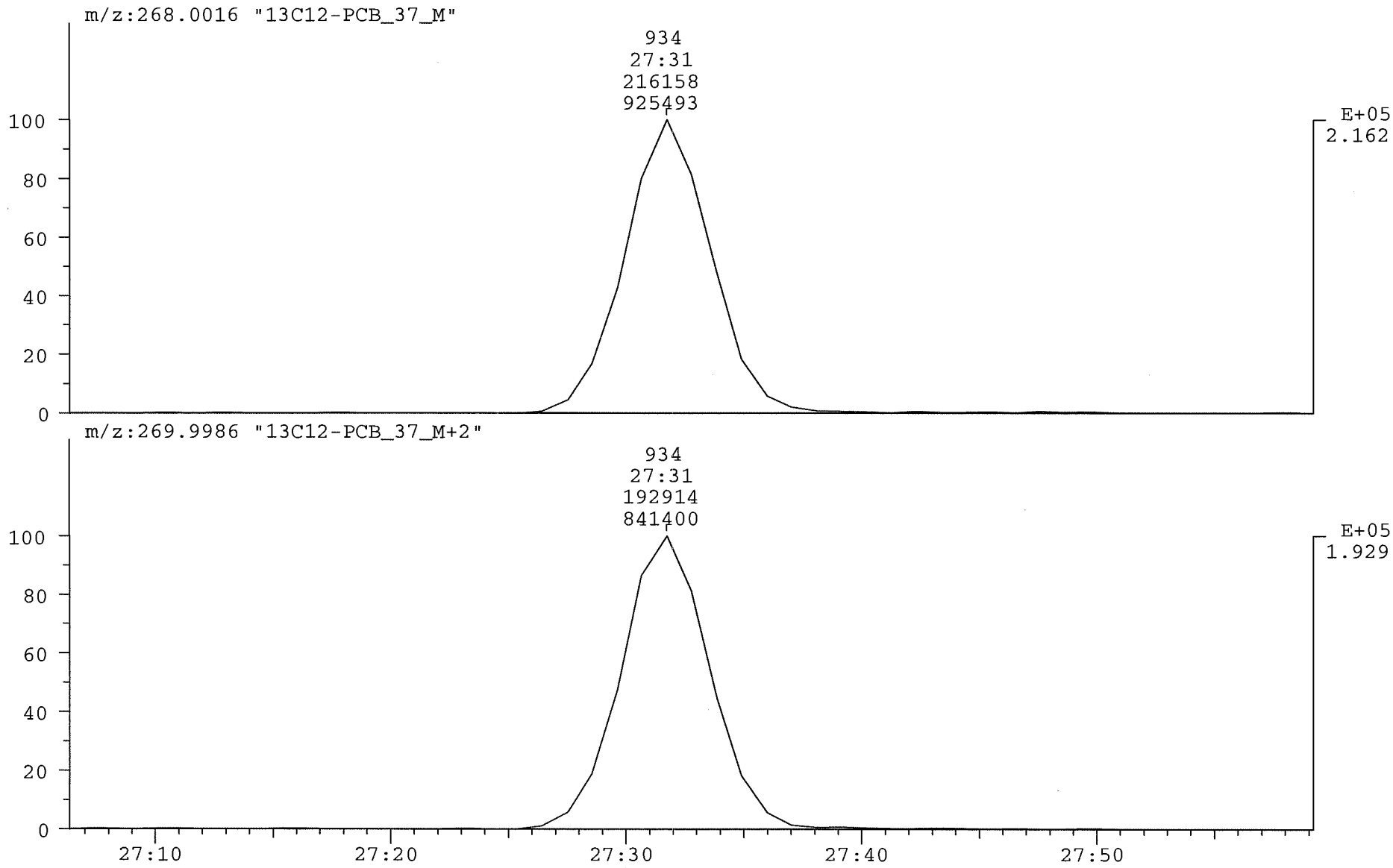
CHRO: a0806m3r2 10-Jun-08 Elapse: 23:13.4 690
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2526

2525

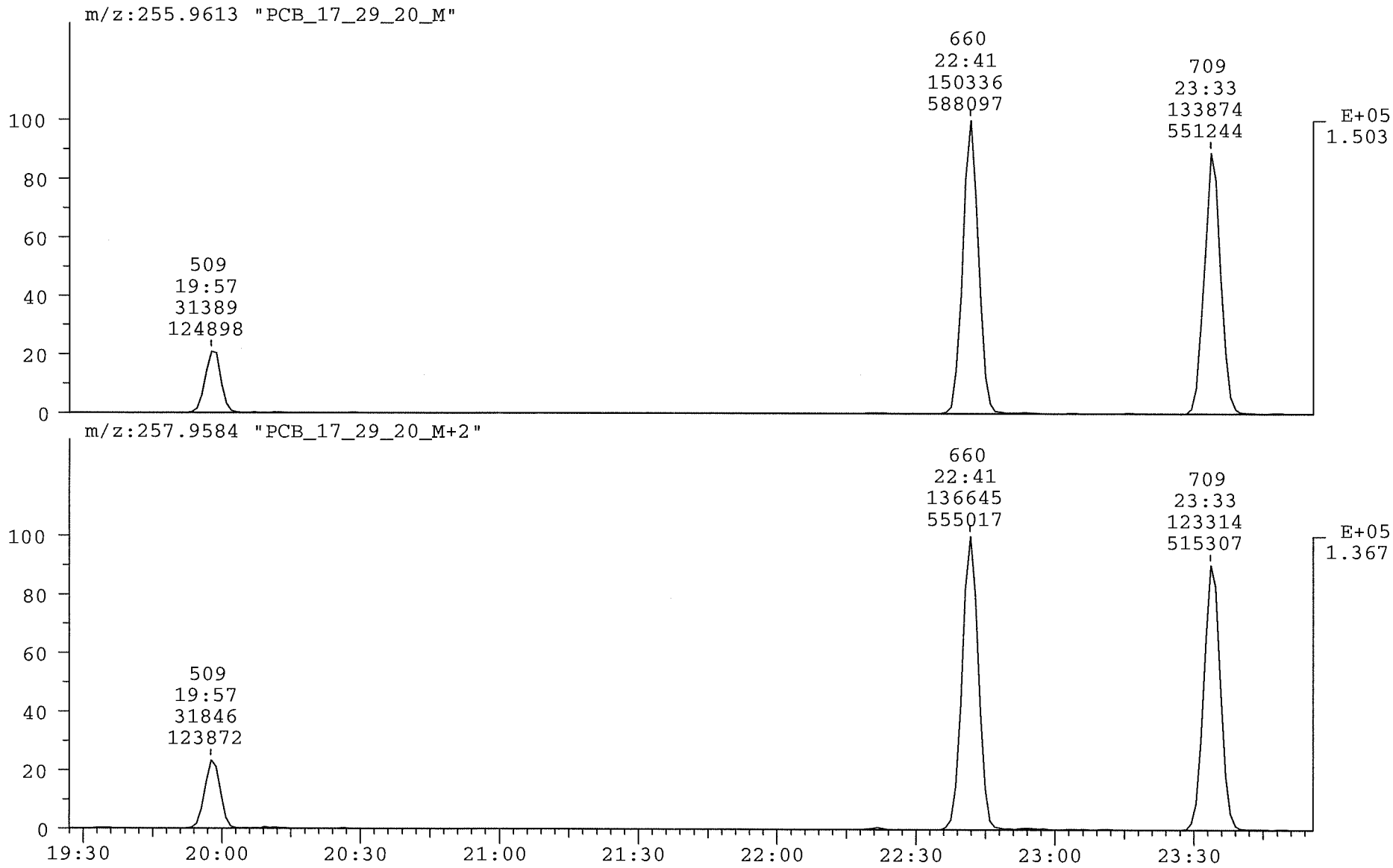
CHRO: a0806m3r2 10-Jun-08 Elapse: 27:32.7 935
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 910 > 960 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2527

2526

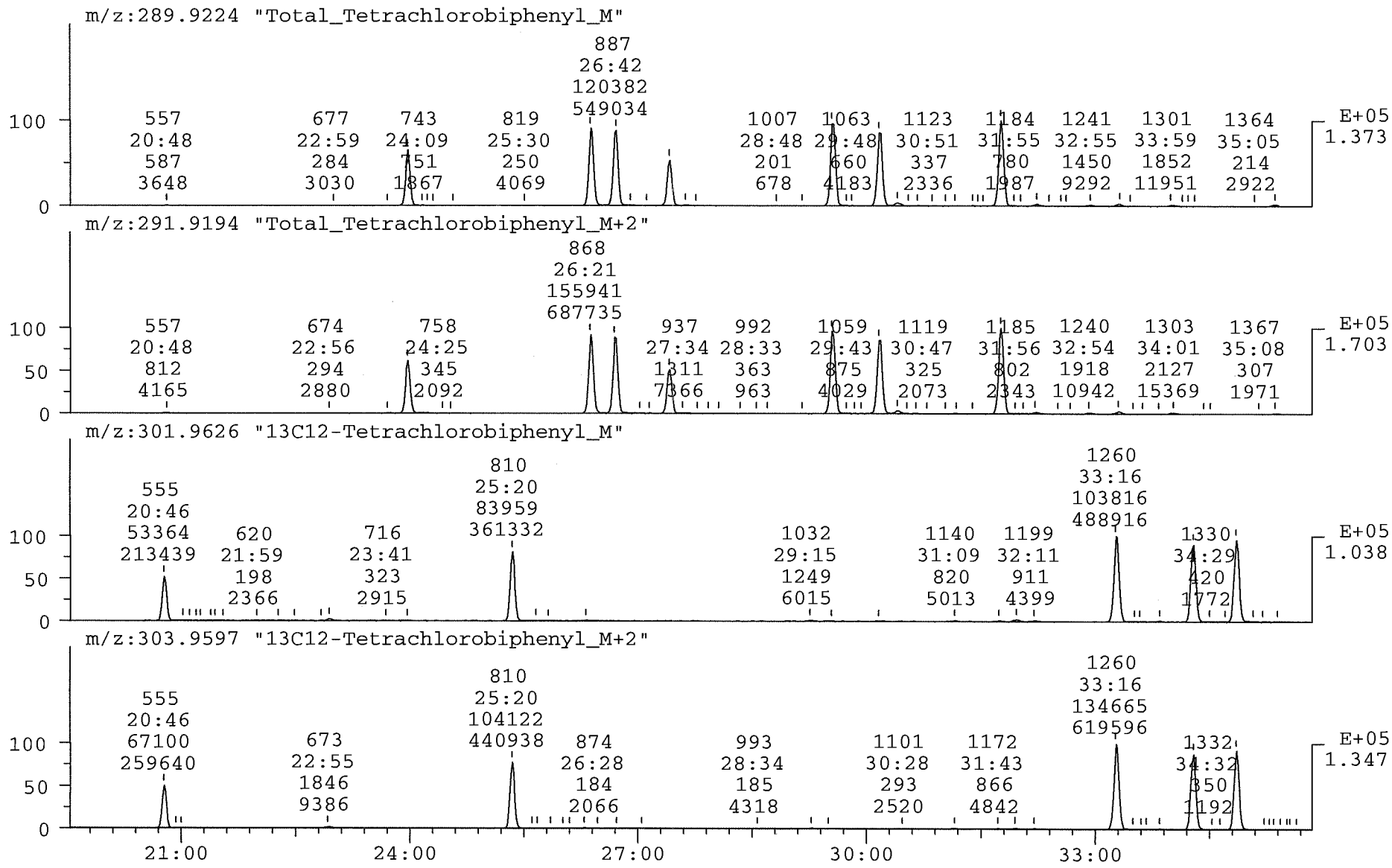
CHRO: a0806m3r2 10-Jun-08 Elapse: 21:48.7 610
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 480 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2528

2527

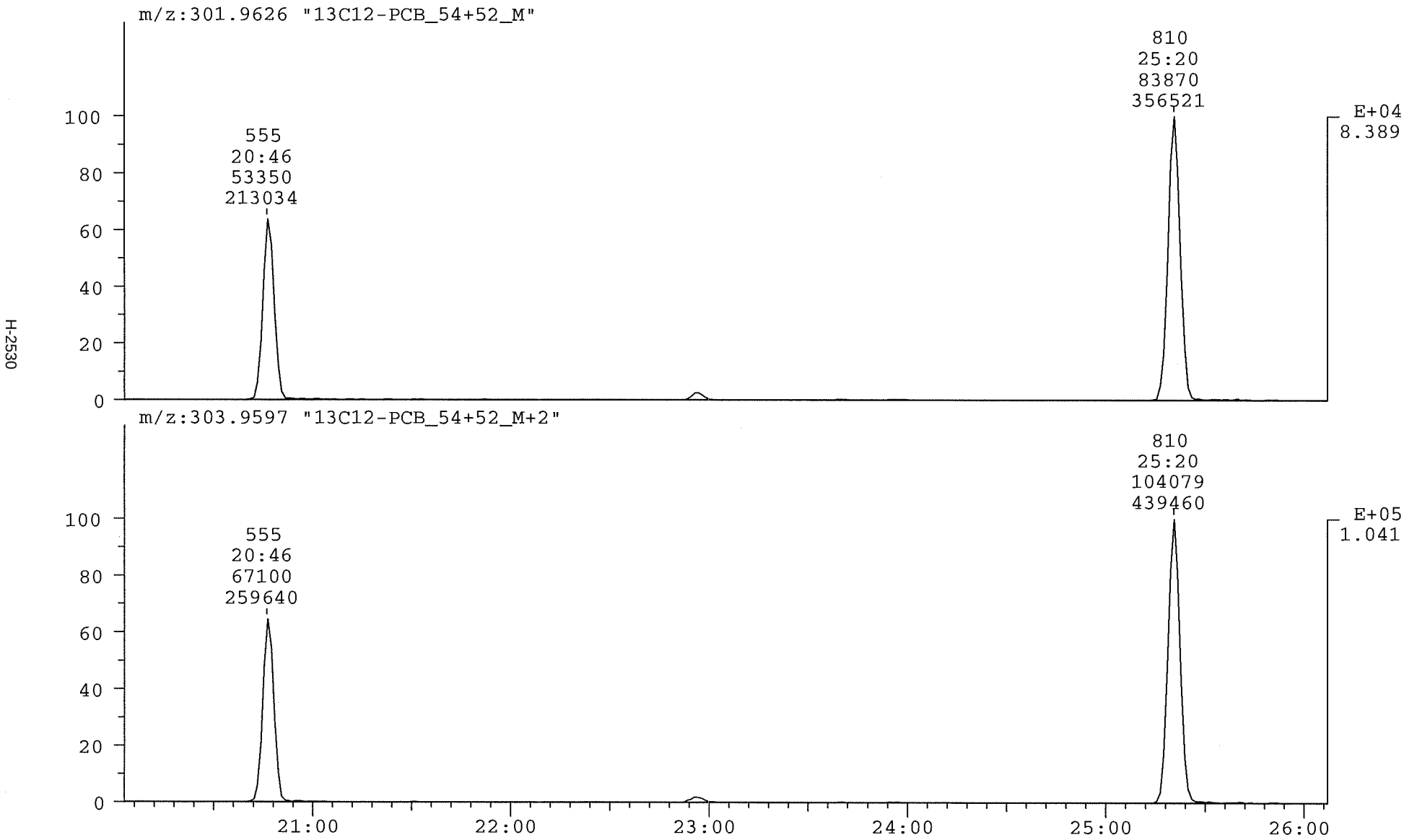
CHRO: a0806m3r2 10-Jun-08 Elapse: 27:41.2 943
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 485 > 1407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2529

2528

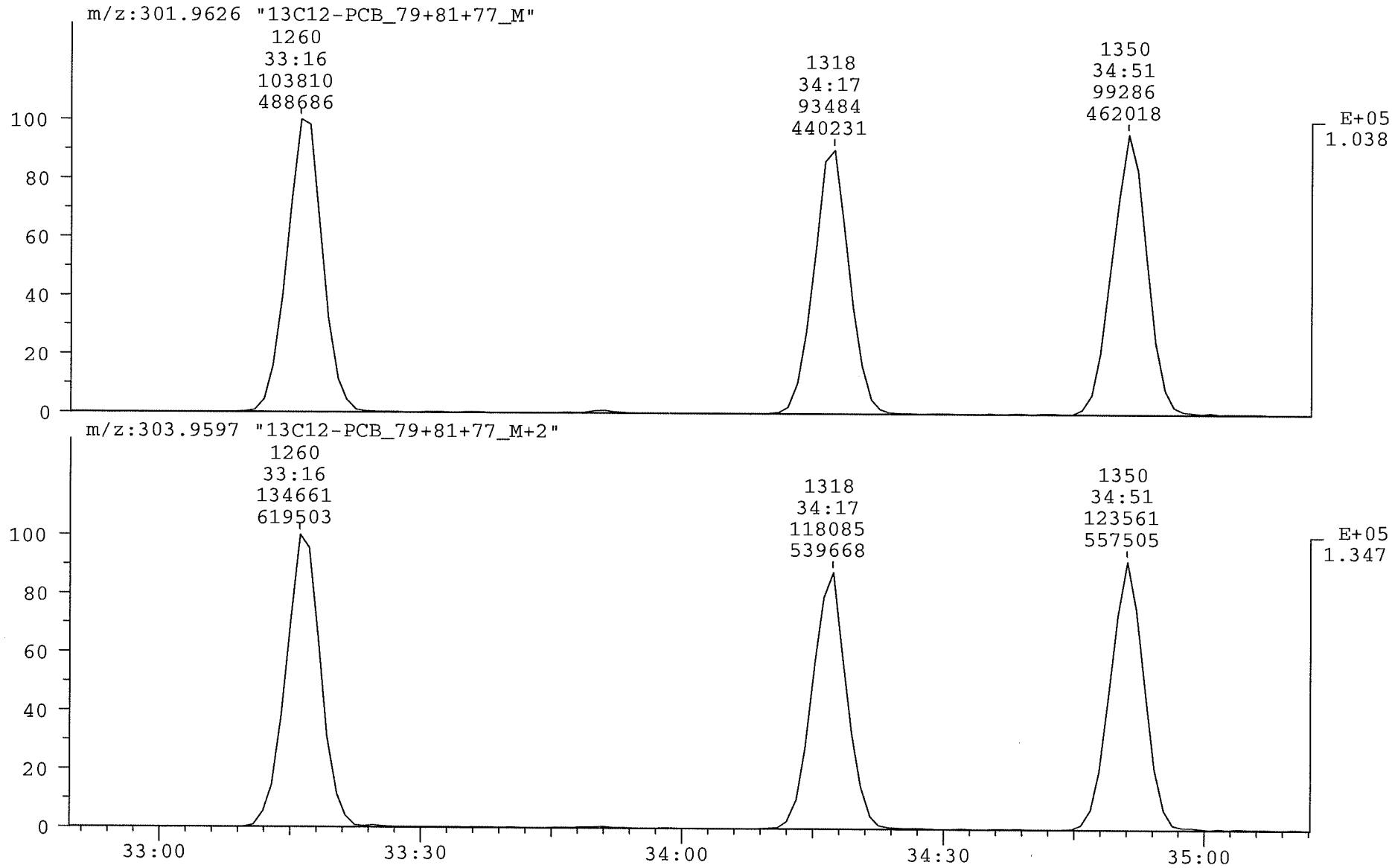
CHRO: a0806m3r2 10-Jun-08 Elapse: 23:07.1 684
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2530

2529

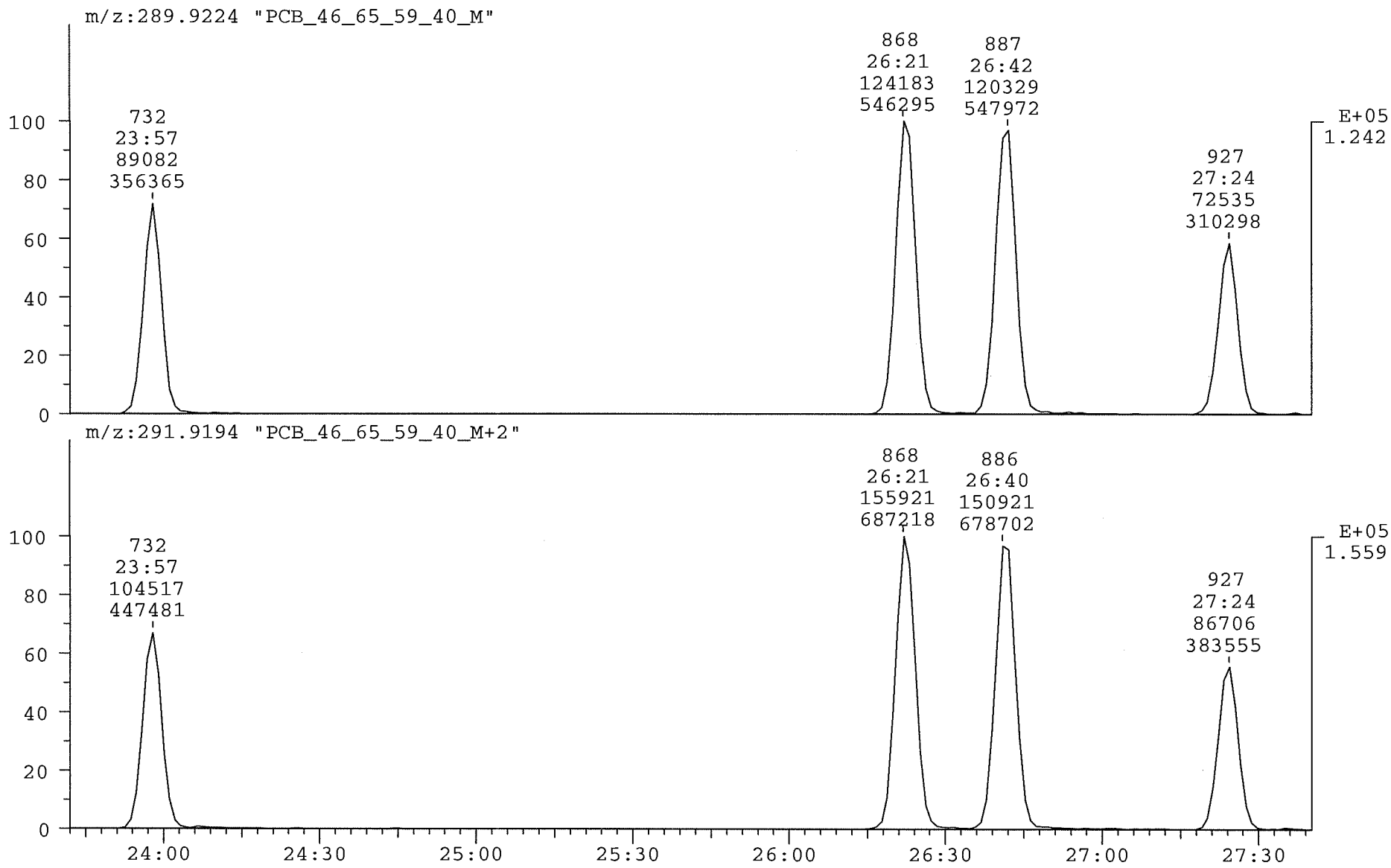
CHRO: a0806m3r2 10-Jun-08 Elapse: 34:03 1305
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1235 > 1370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2531

2530

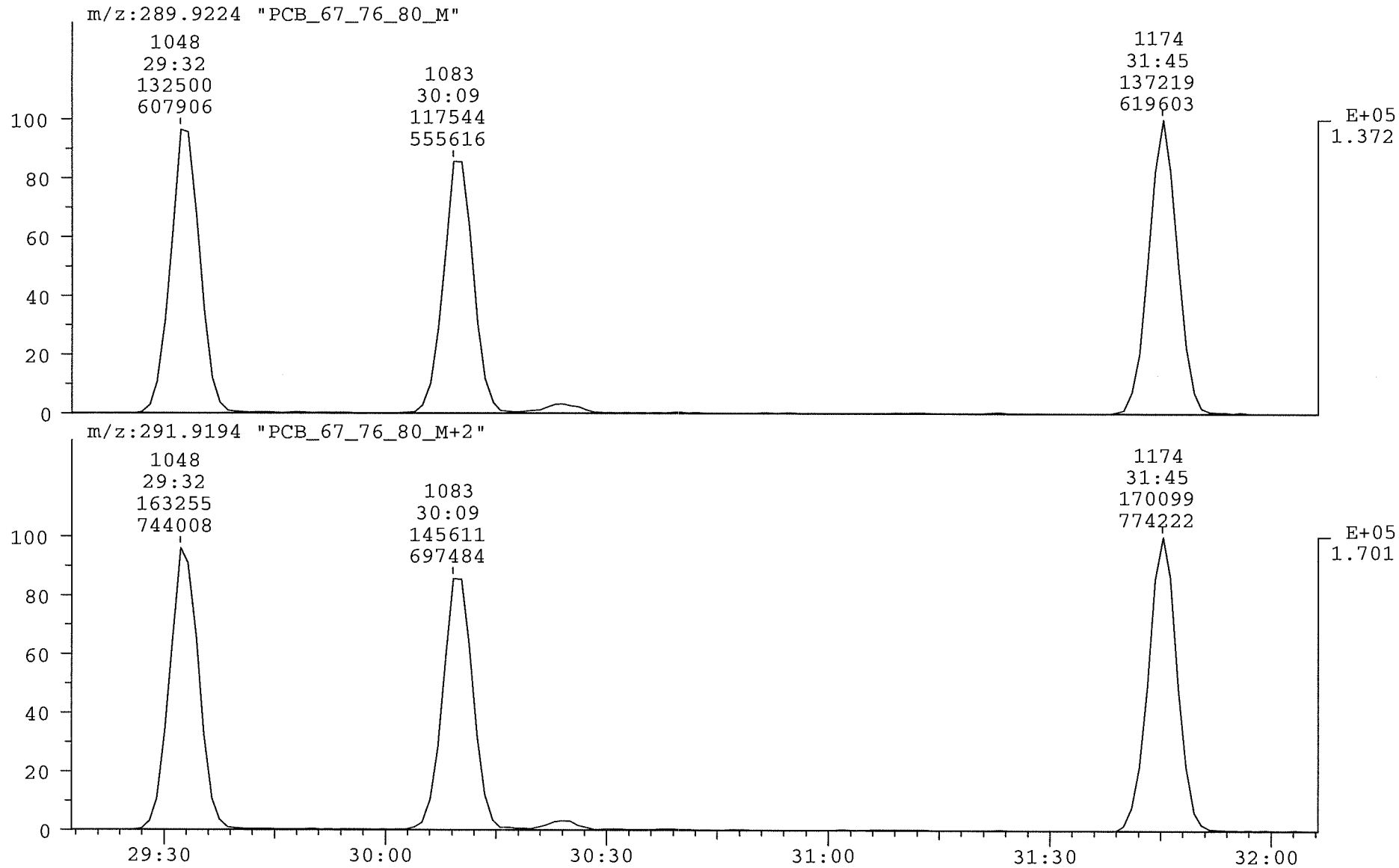
CHRO: a0806m3r2 10-Jun-08 Elapse: 25:43.8 832
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 717 > 942 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2532

2531

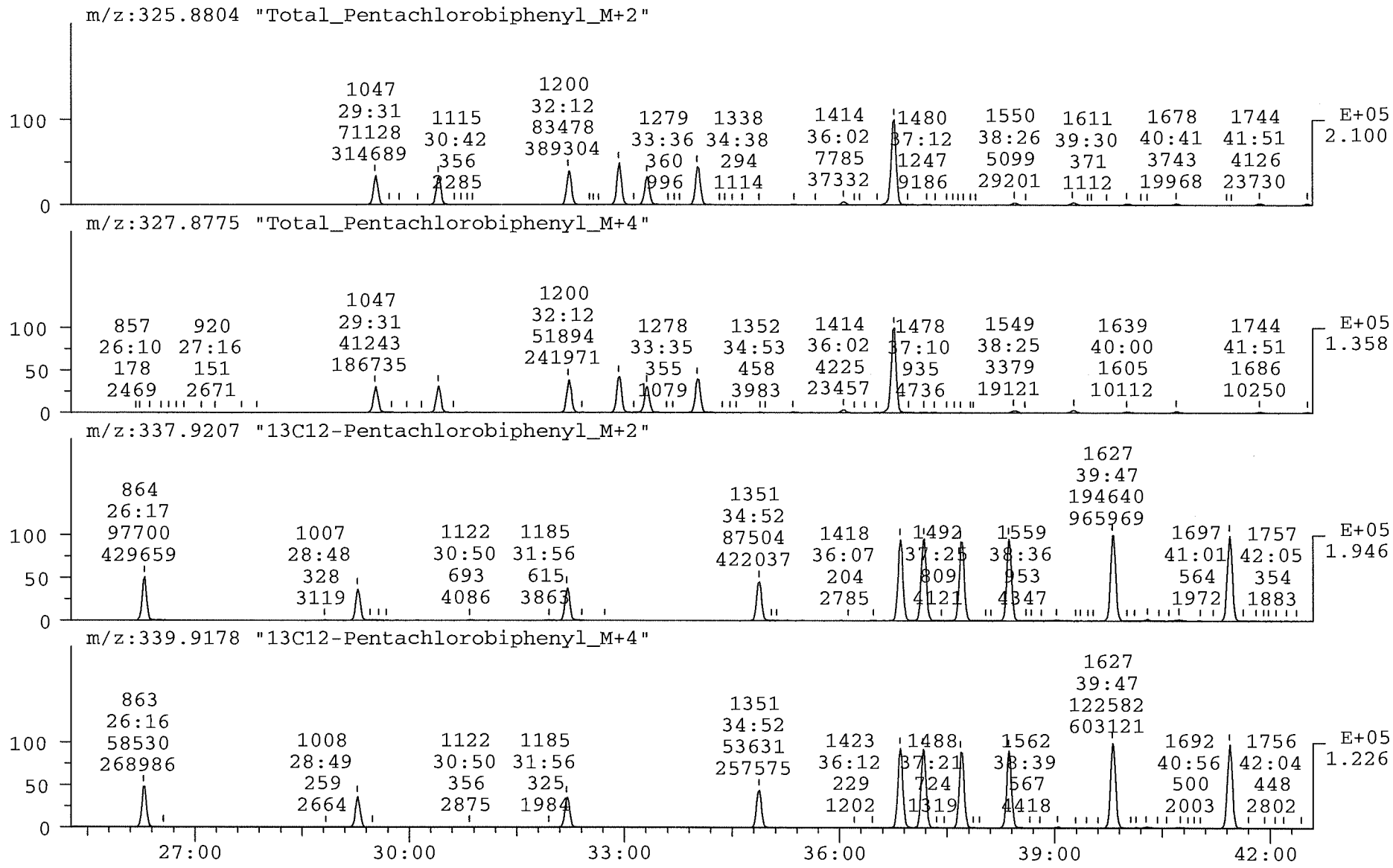
CHRO: a0806m3r2 10-Jun-08 Elapse: 30:41 1114
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1034 > 1194 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2533

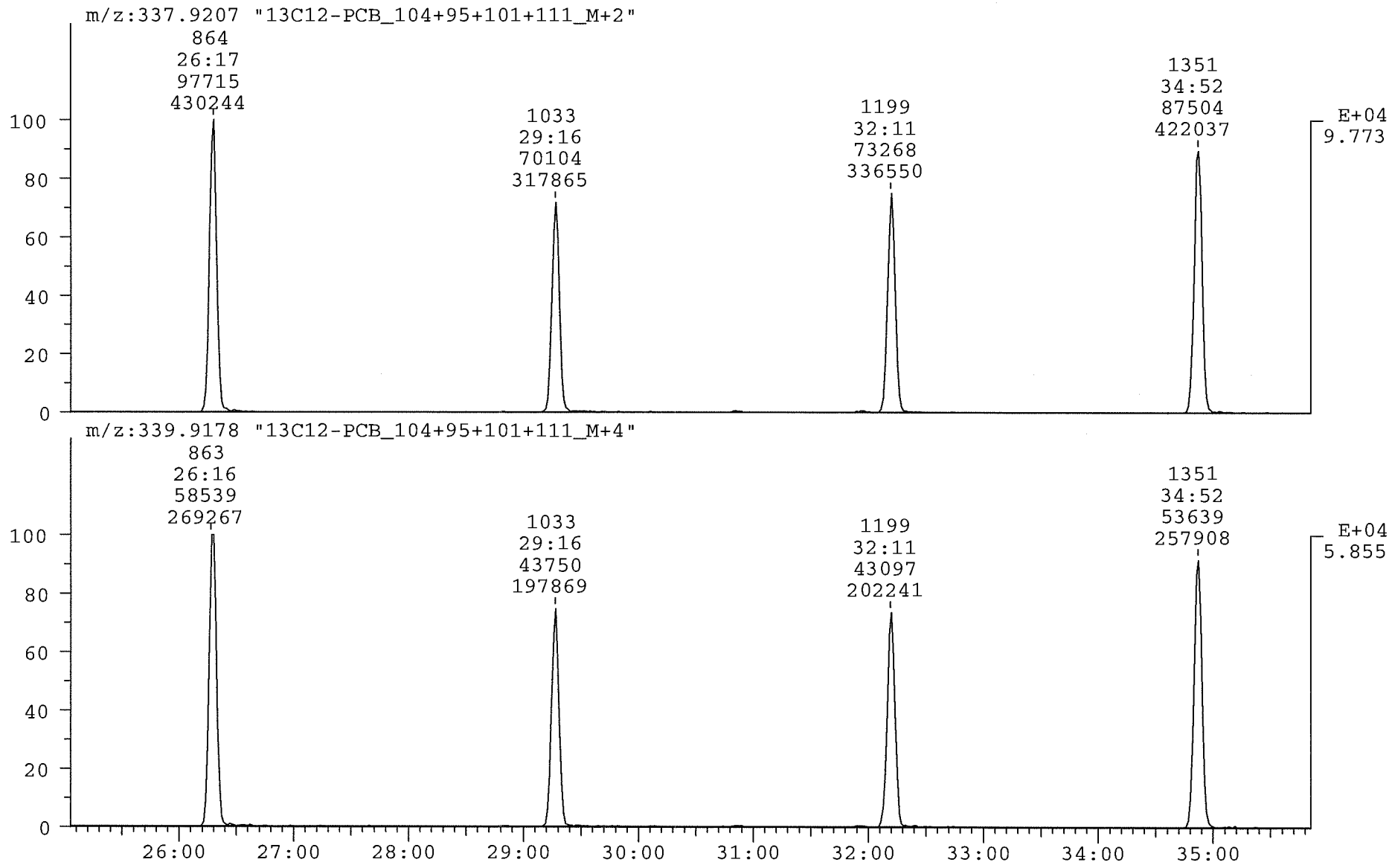
2532

CHRO: a0806m3r2 10-Jun-08 Elapse: 33:56 1298
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 806 > 1786 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2534

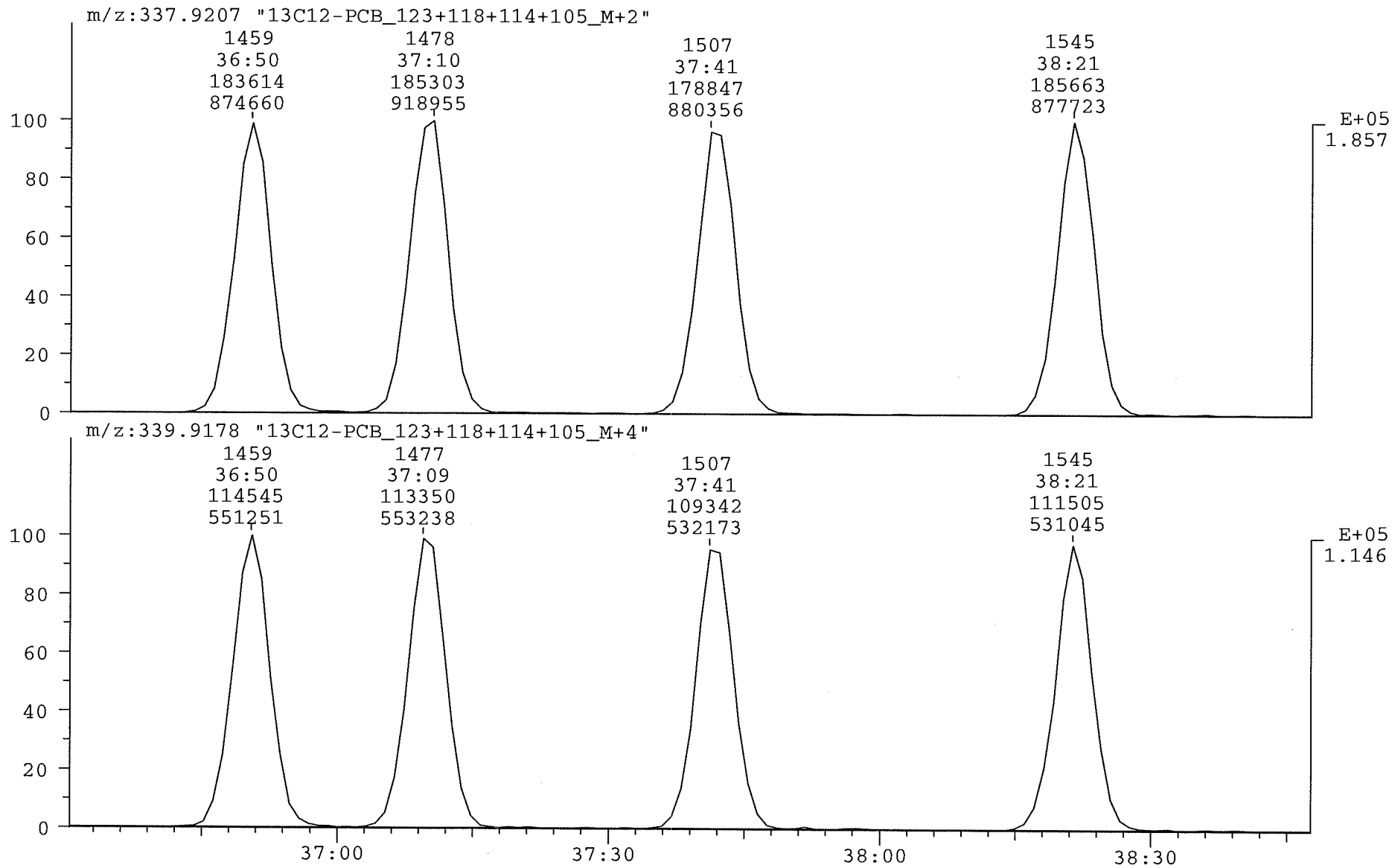
CHRO: a0806m3r2 10-Jun-08 Elapse: 30:27 1100
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 793 > 1407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2535

2534

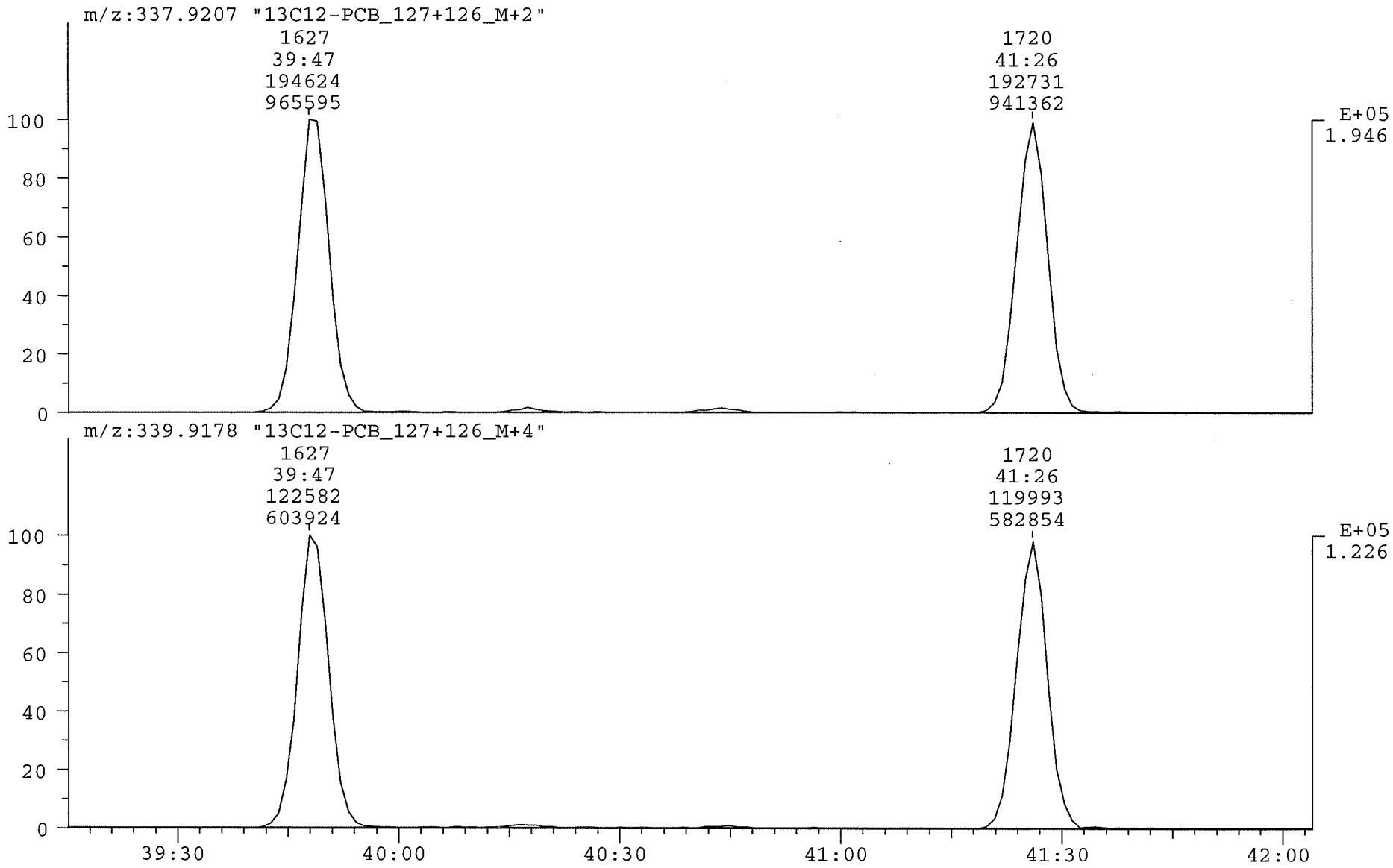
CHRO: a0806m3r2 10-Jun-08 Elapse: 37:39 1505
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1440 > 1570 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2536

2535

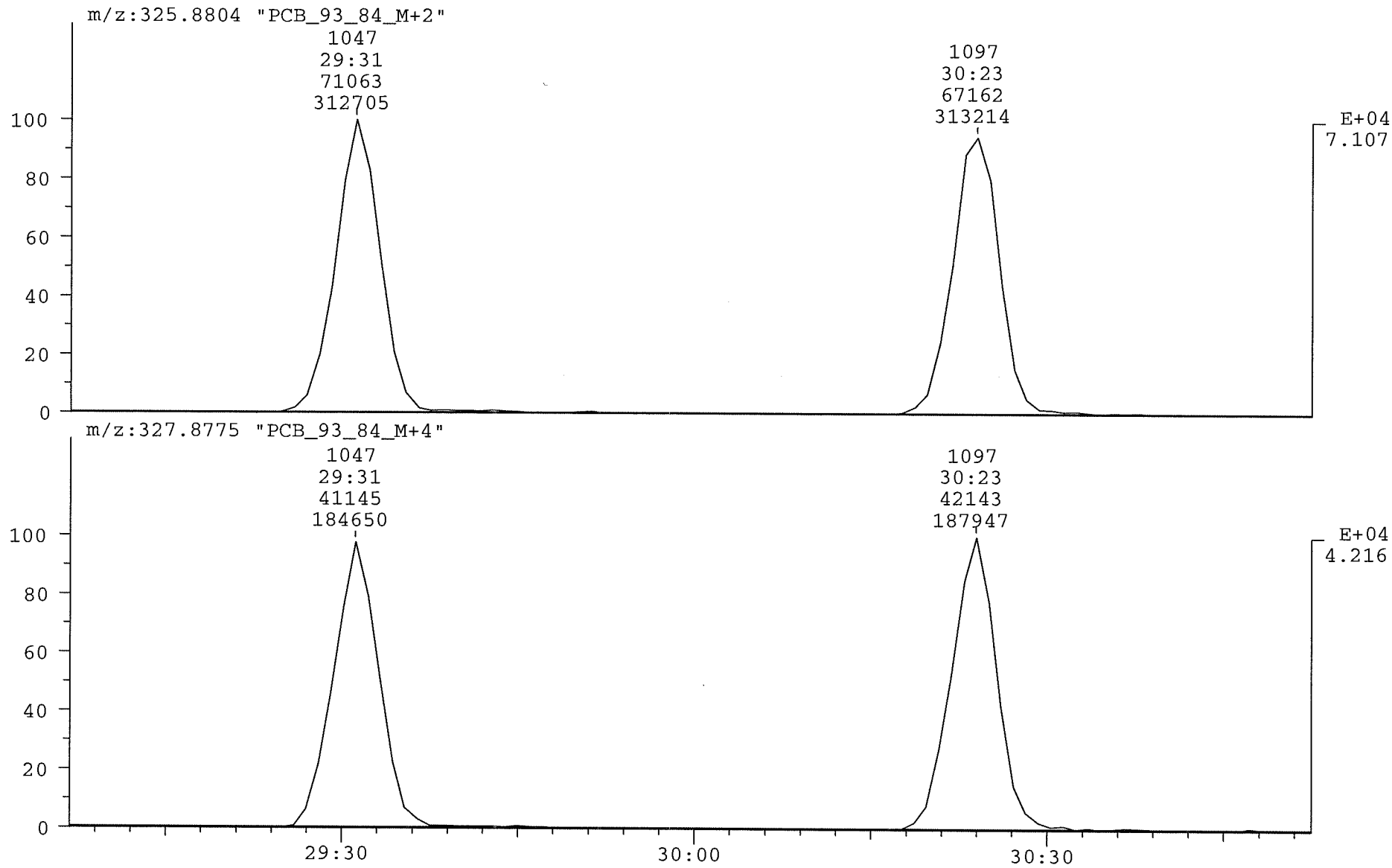
CHRO: a0806m3r2 10-Jun-08 Elapse: 40:39 1676
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1596 > 1756 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2537

2536

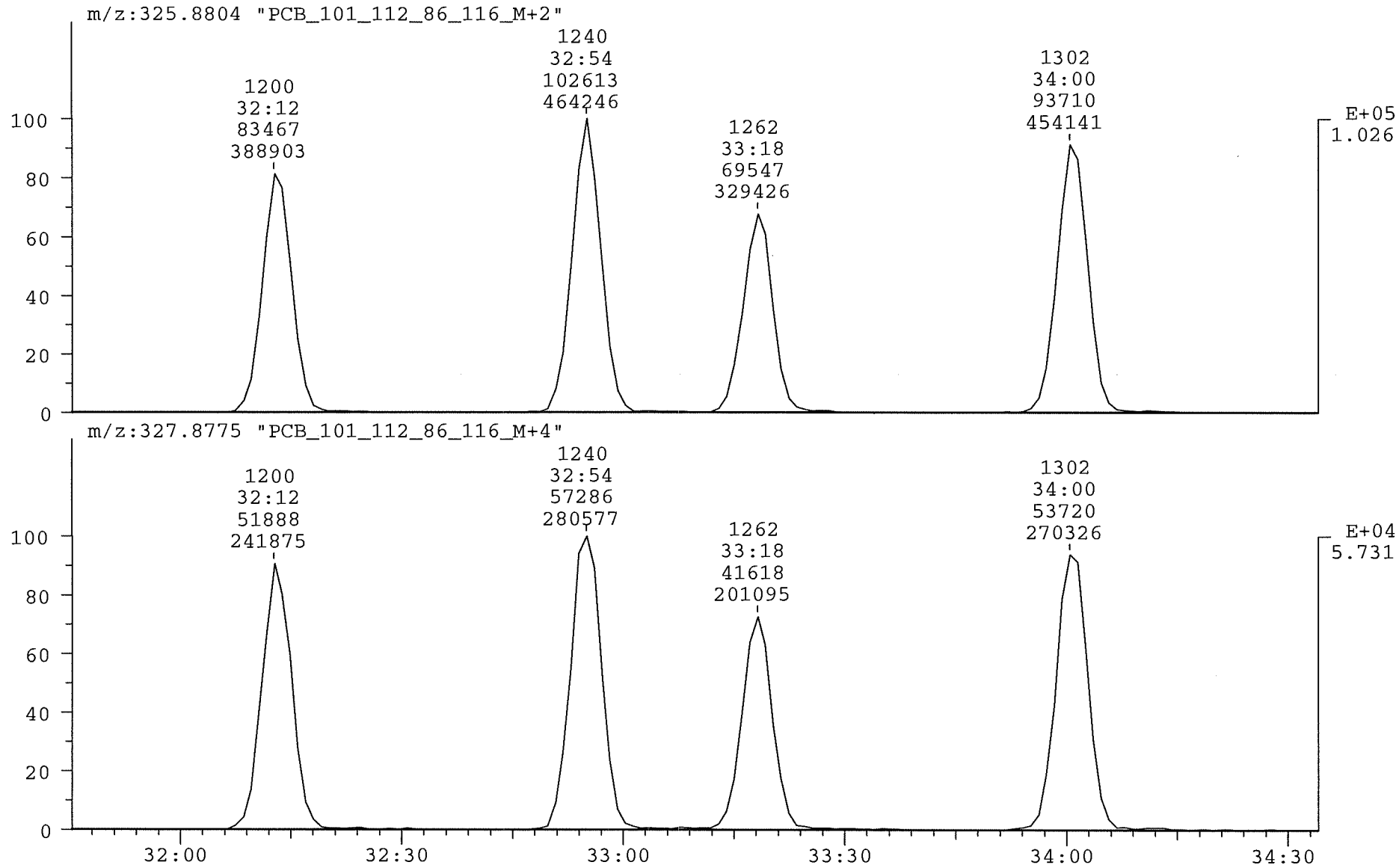
CHRO: a0806m3r2 10-Jun-08 Elapse: 29:59 1074
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1024 > 1124 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2538

2537

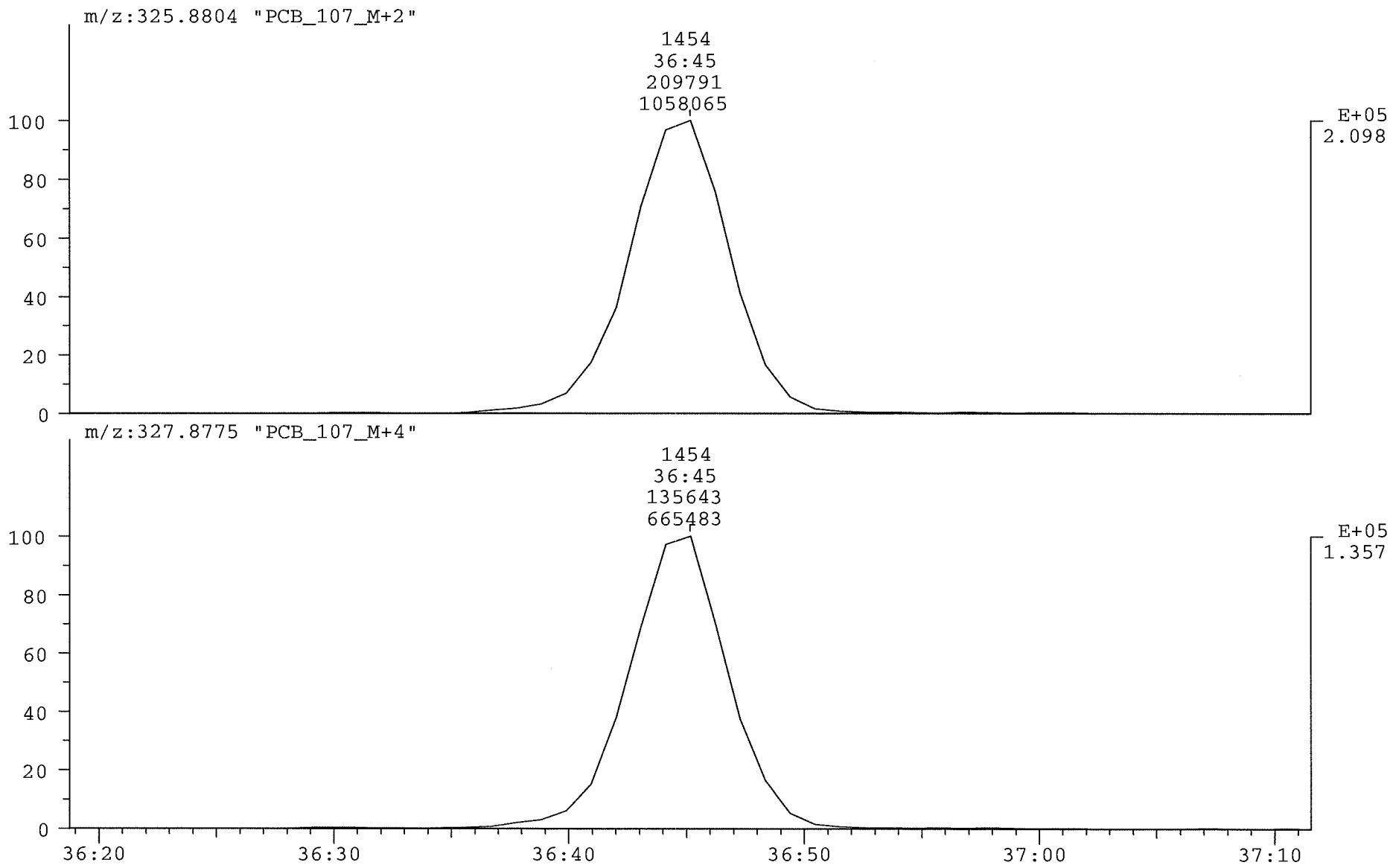
CHRO: a0806m3r2 10-Jun-08 Elapse: 33:09 1254
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1174 > 1334 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2539

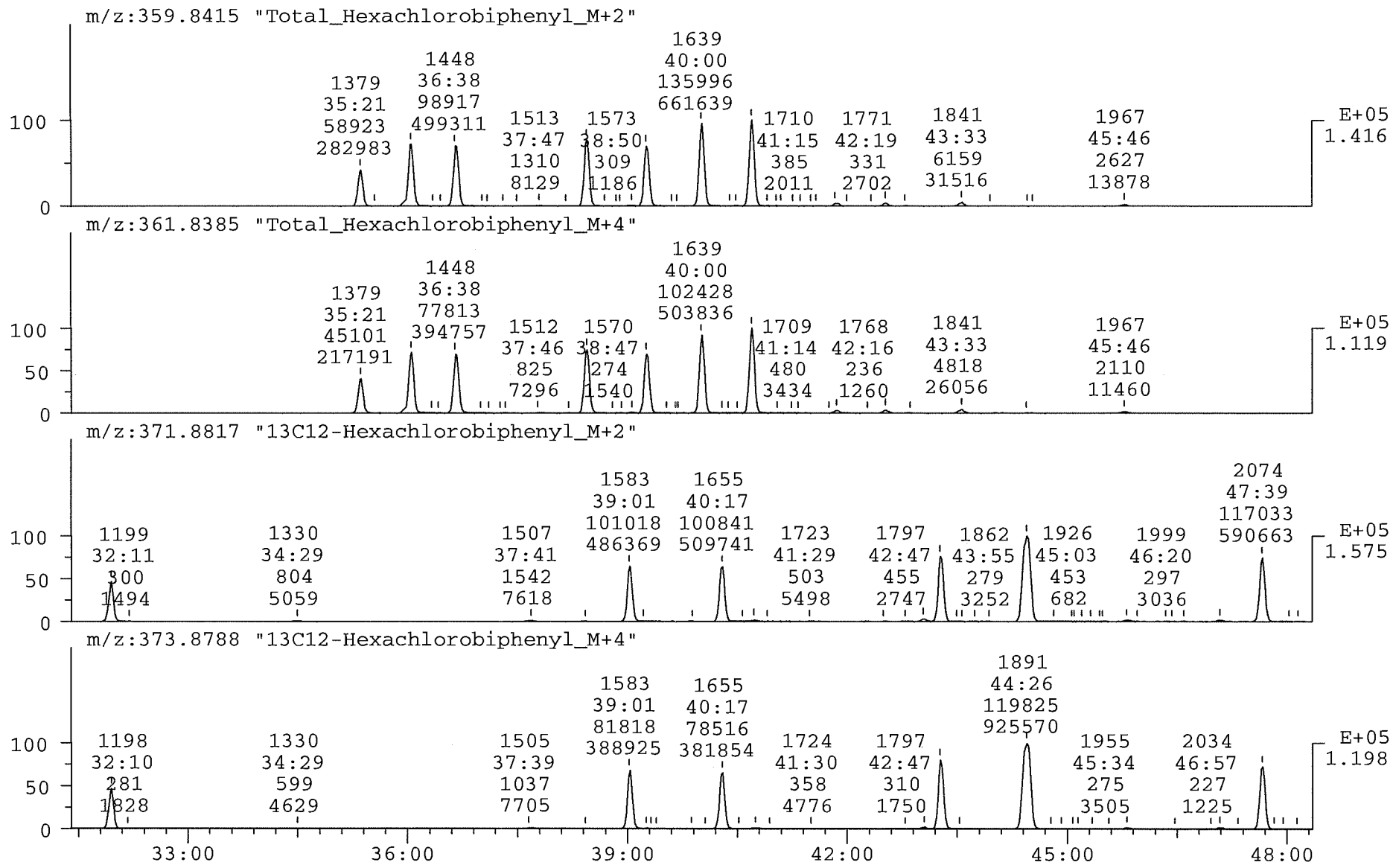
2538

CHRO: a0806m3r2 10-Jun-08 Elapse: 36:45 1454
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1429 > 1479 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



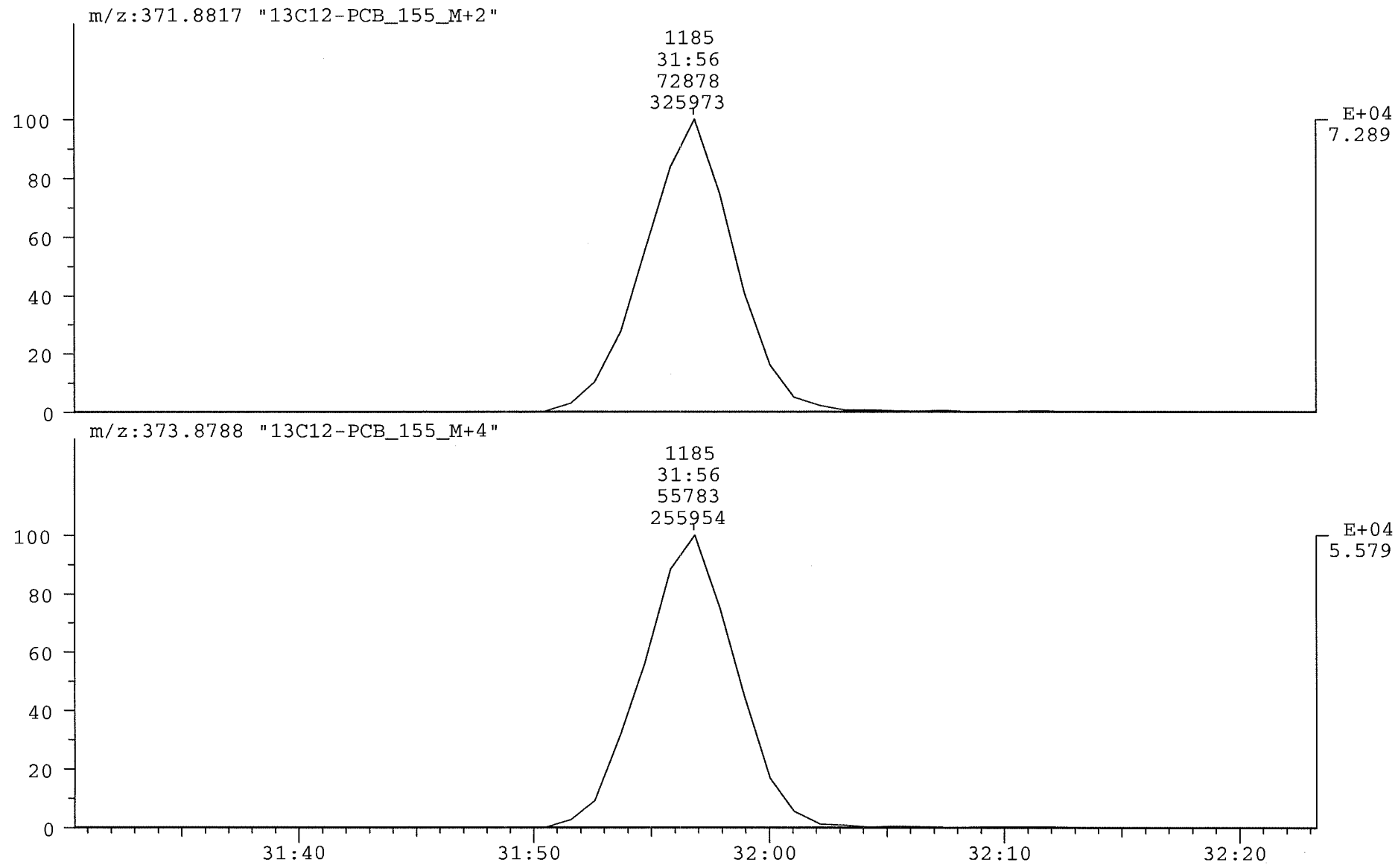
H-2540

CHRO: a0806m3r2 10-Jun-08 Elapse: 39:52 1631
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1154 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2541

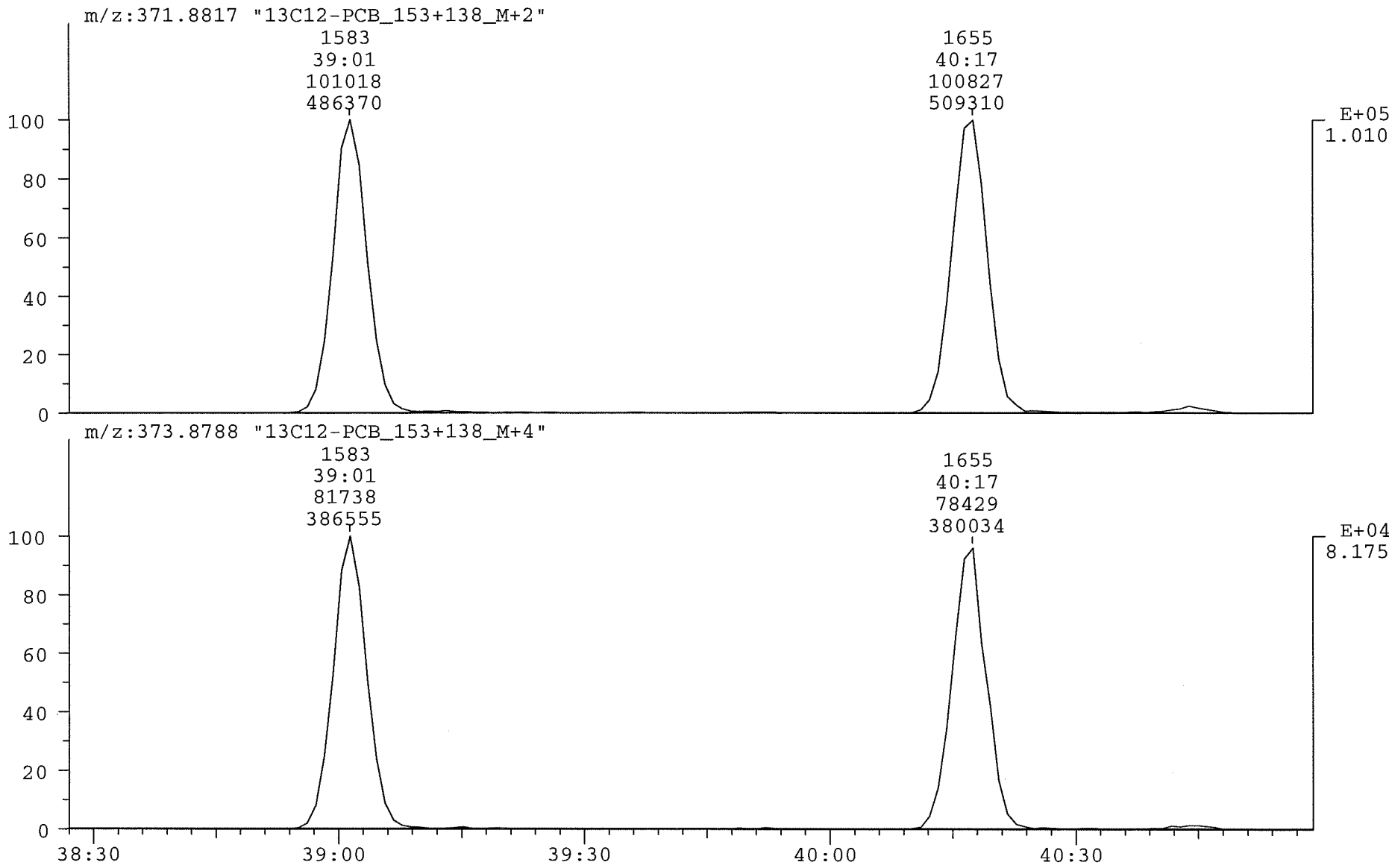
CHRO: a0806m3r2 10-Jun-08 Elapse: 31:56 1185
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1160 > 1210 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2542

2541

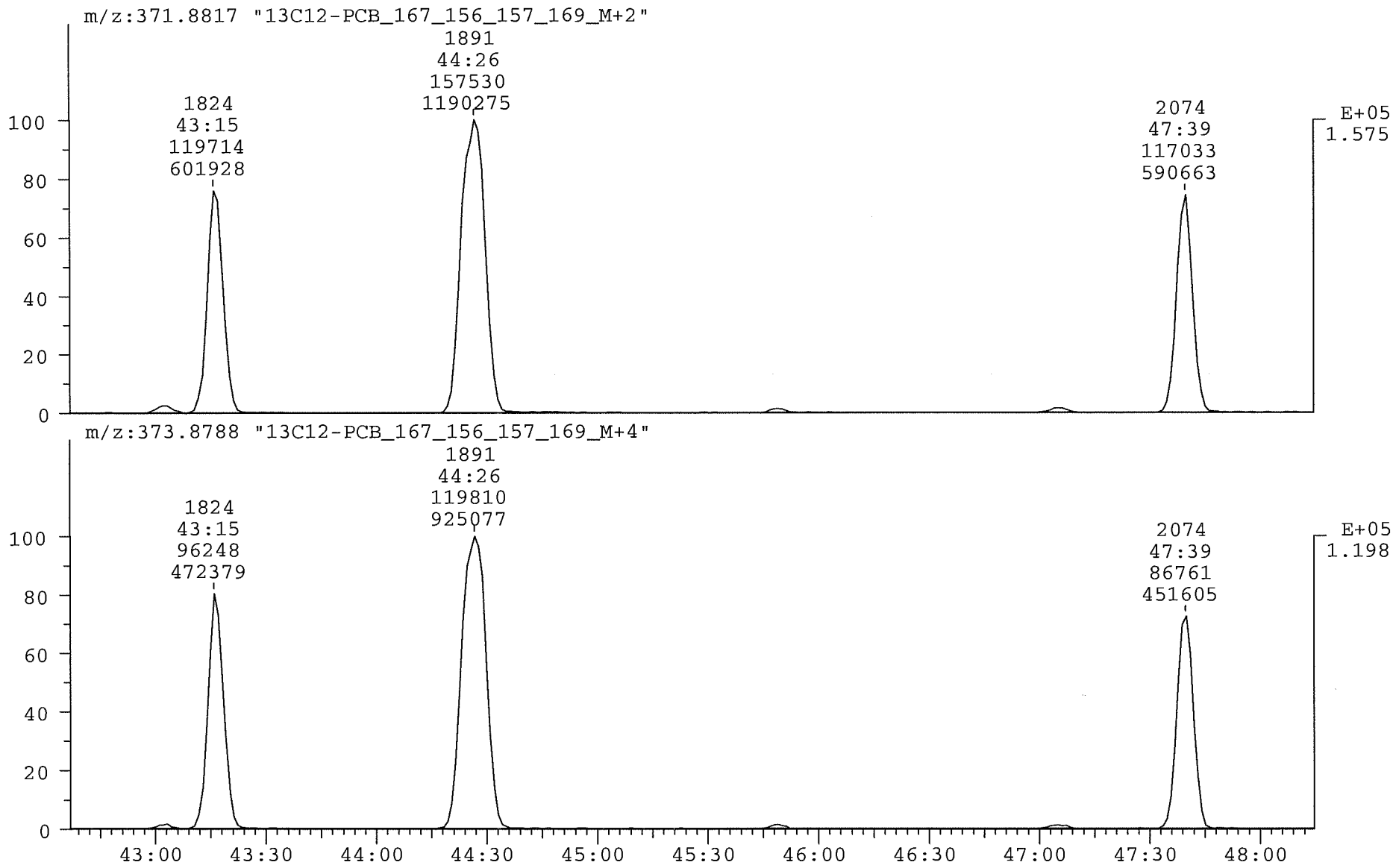
CHRO: a0806m3r2 10-Jun-08 Elapse: 39:42 1622
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1550 > 1694 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2543

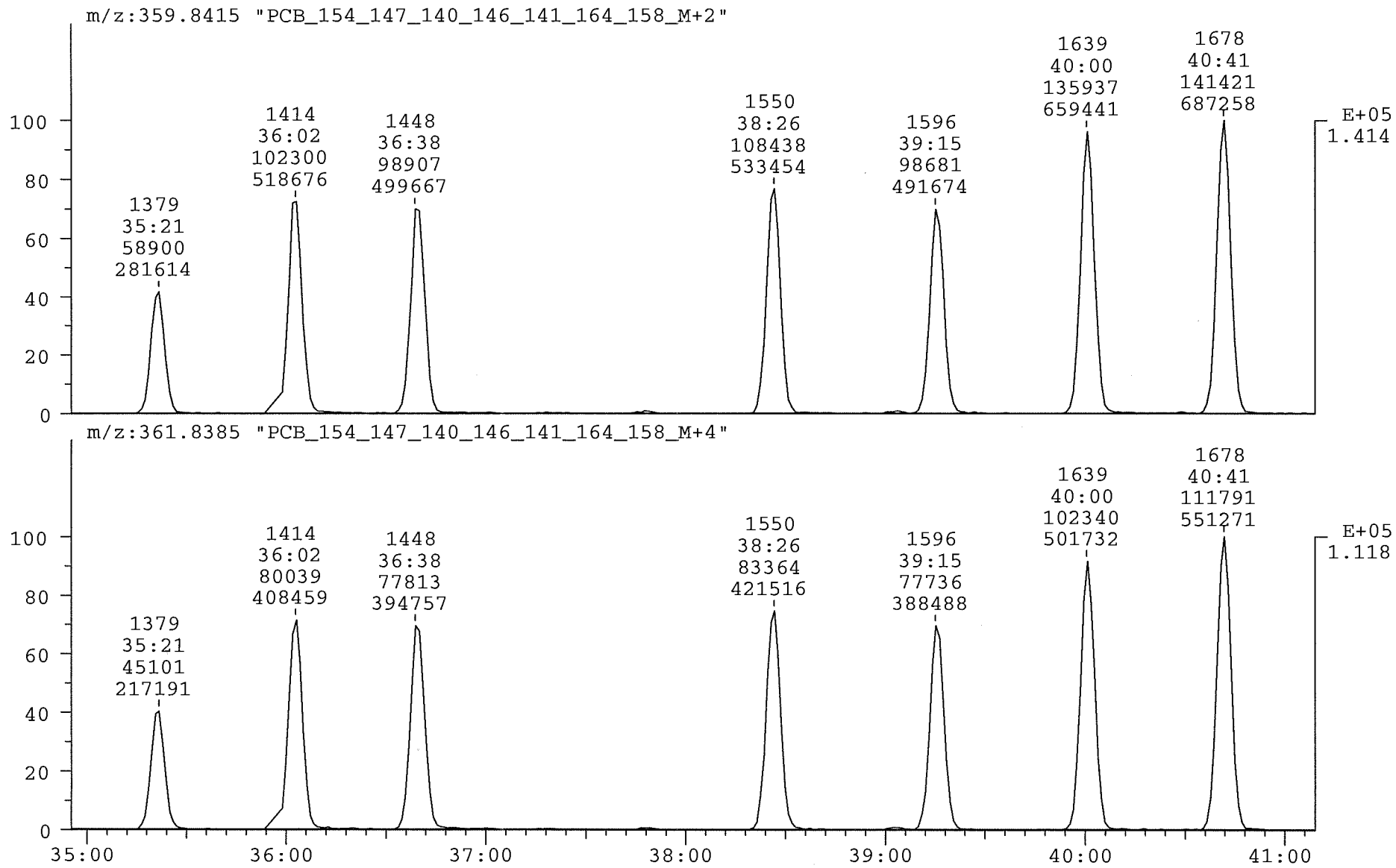
2542

CHRO: a0806m3r2 10-Jun-08 Elapse: 45:31 1952
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1787 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2544

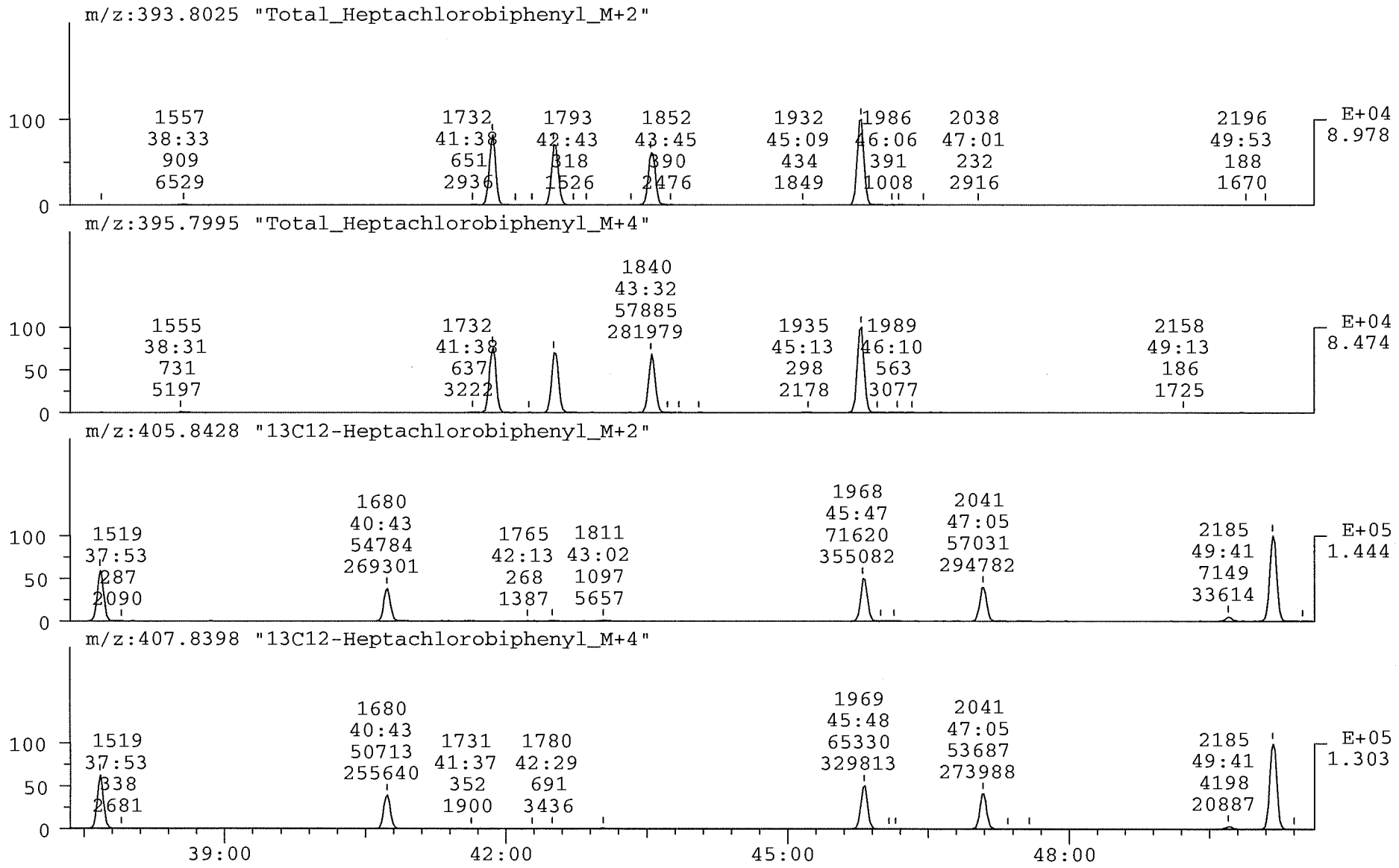
CHRO: a0806m3r2 10-Jun-08 Elapse: 38:04 1529
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1354 > 1704 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2545

2544

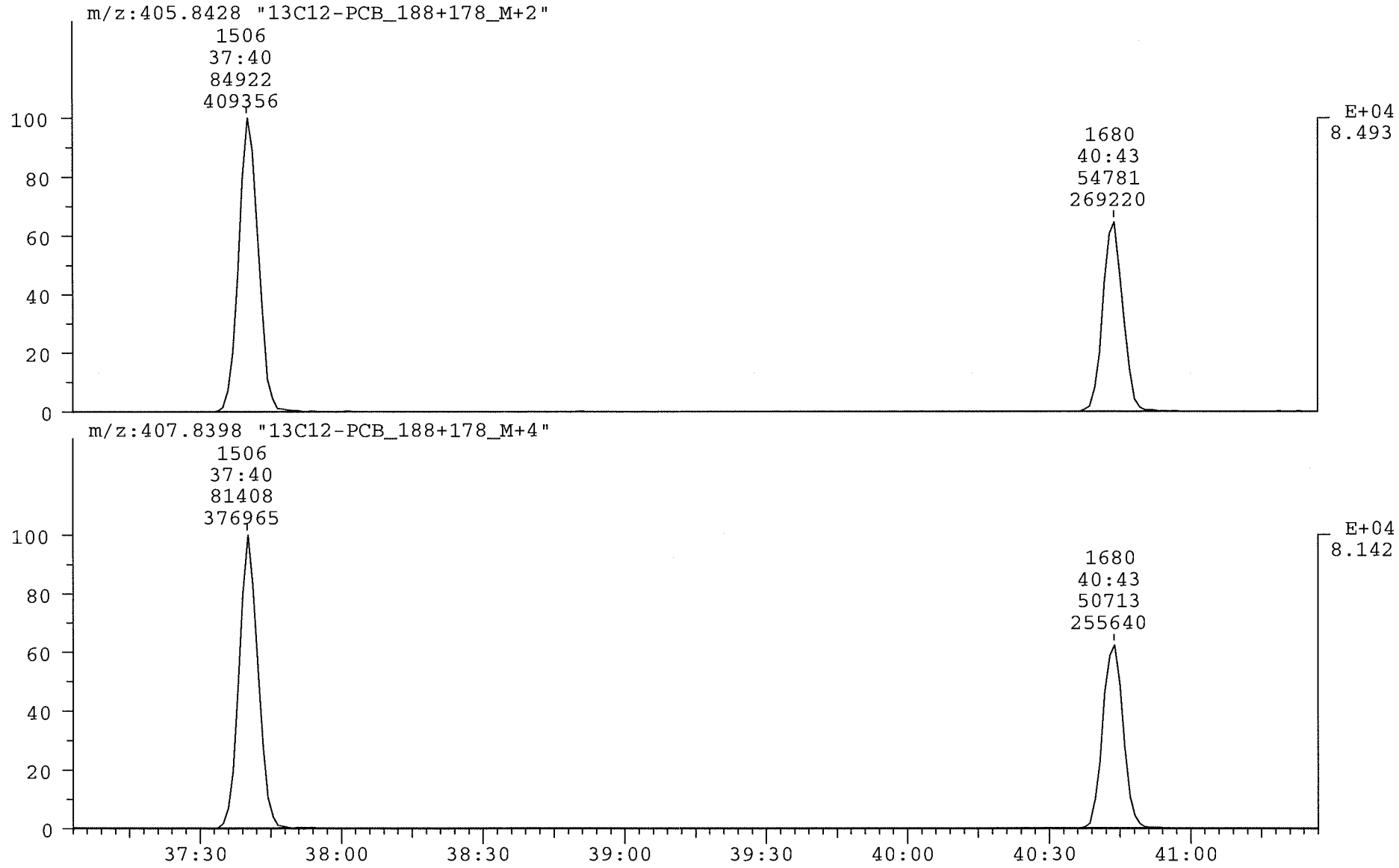
CHRO: a0806m3r2 10-Jun-08 Elapse: 43:59 1865
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1488 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2546

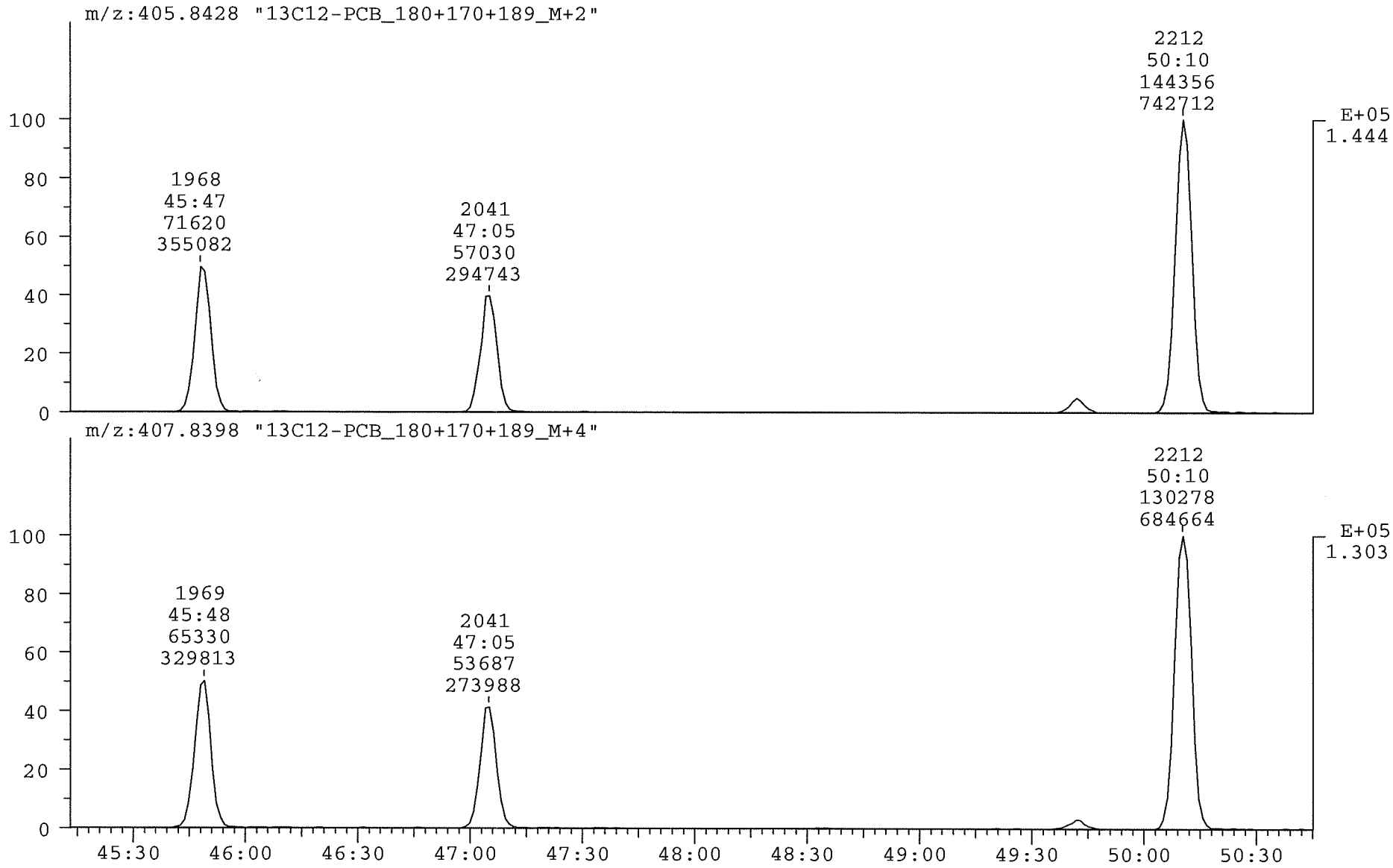
2545

CHRO: a0806m3r2 10-Jun-08 Elapse: 39:15 1596
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1471 > 1721 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2547

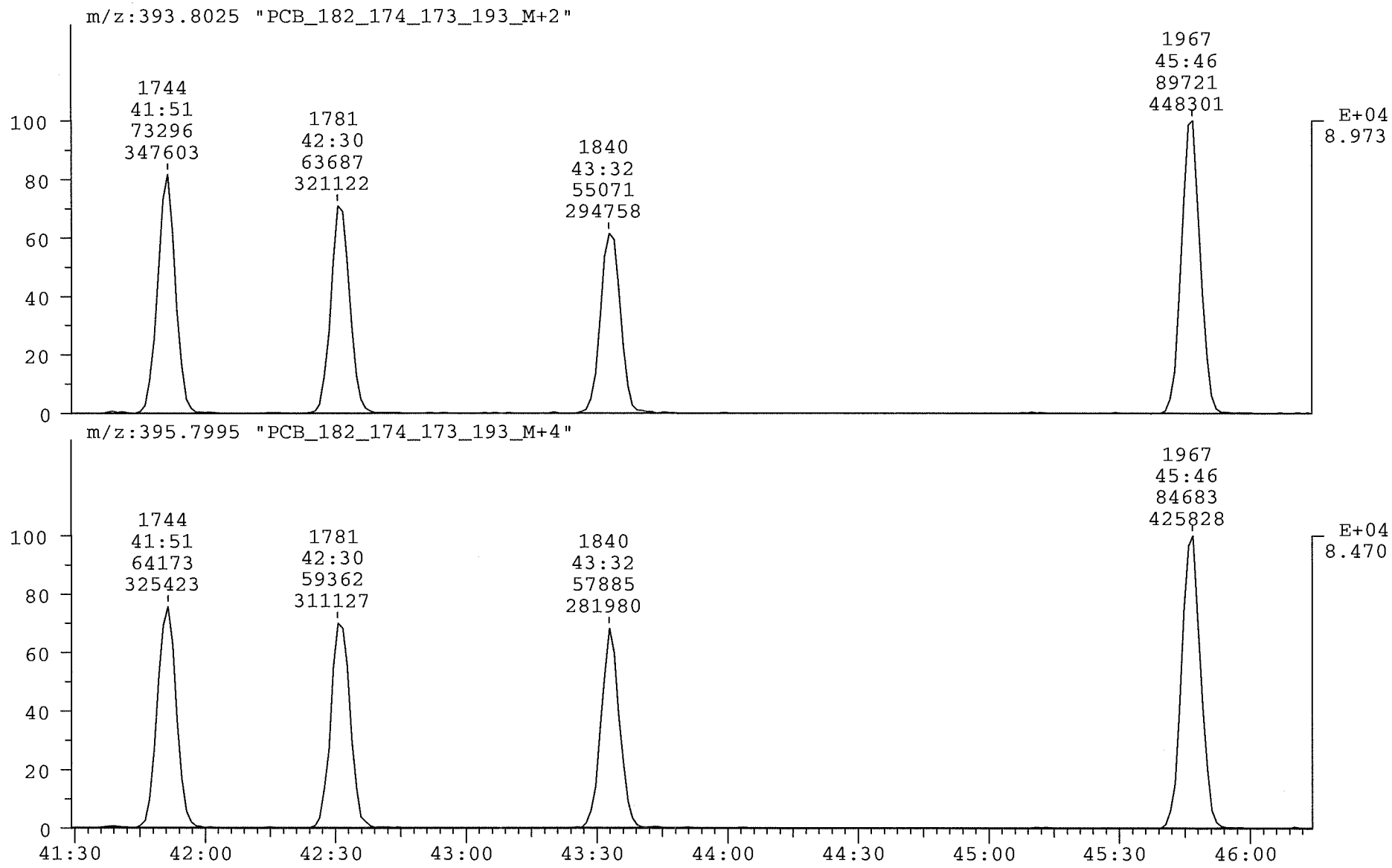
CHRO: a0806m3r2 10-Jun-08 Elapse: 48:02 2095
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1935 > 2245 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2548

2547

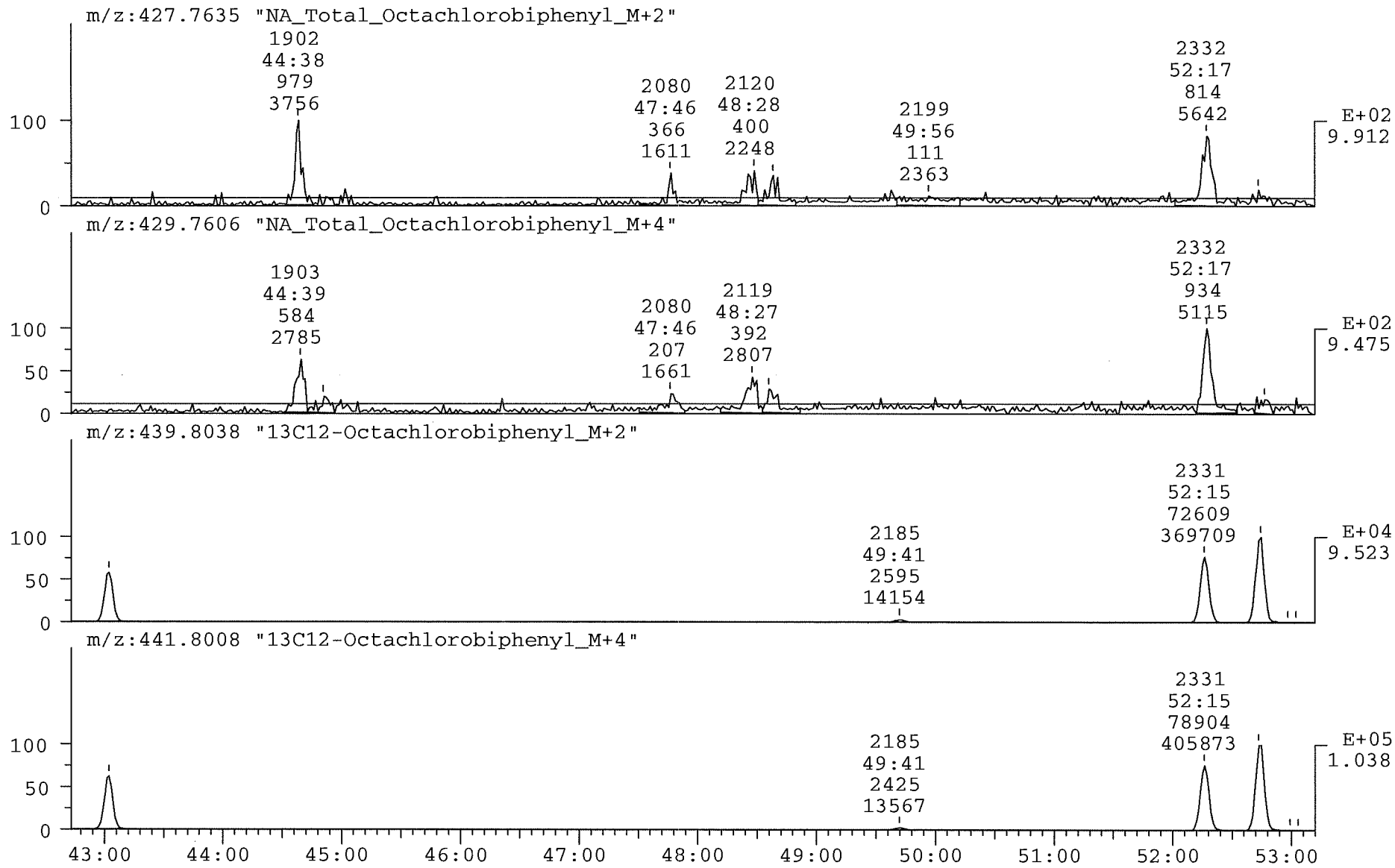
CHRO: a0806m3r2 10-Jun-08 Elapse: 43:51 1858
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1723 > 1993 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2549

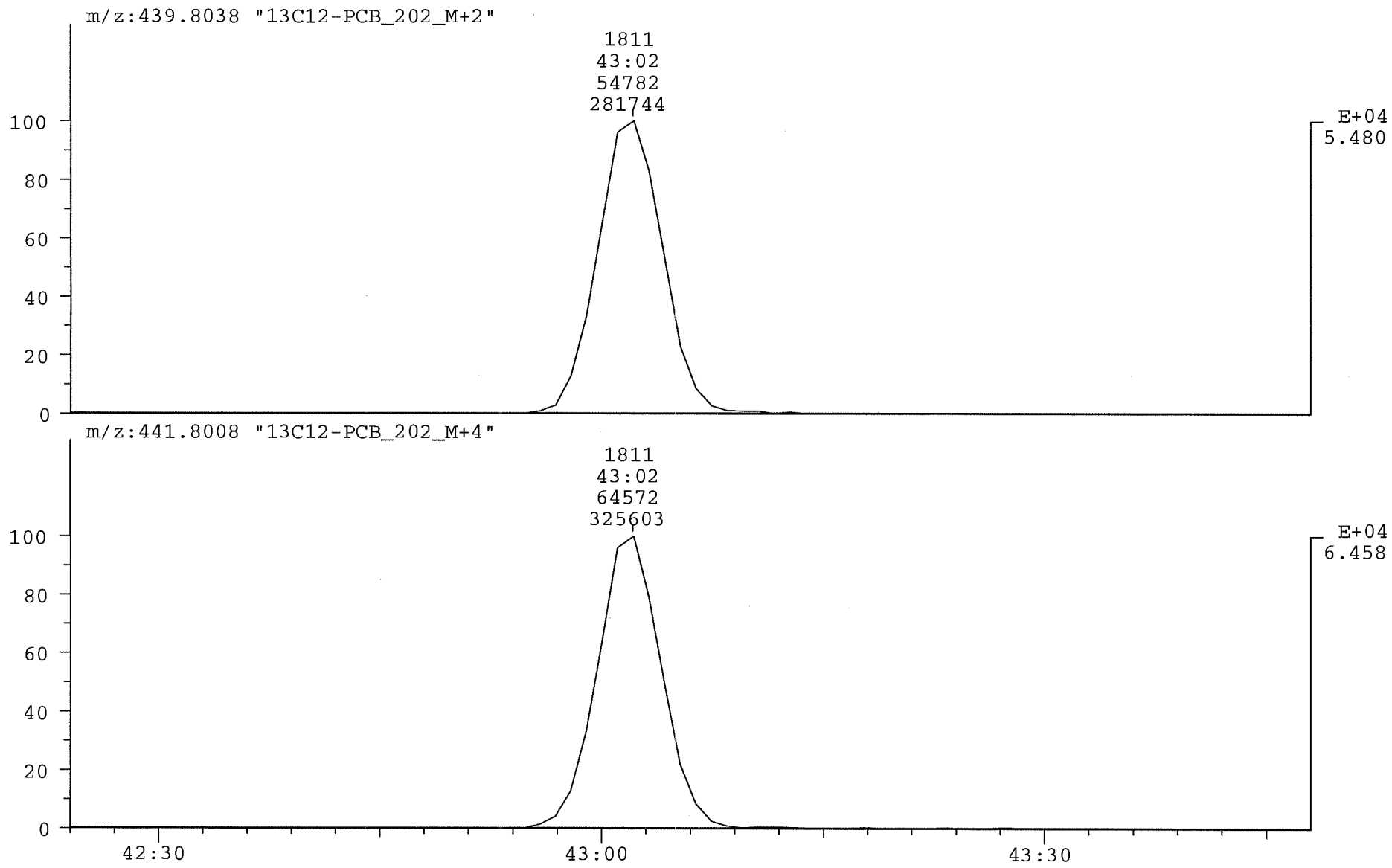
2548

CHRO: a0806m3r2 10-Jun-08 Elapse: 47:56 2090
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1793 > 2384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



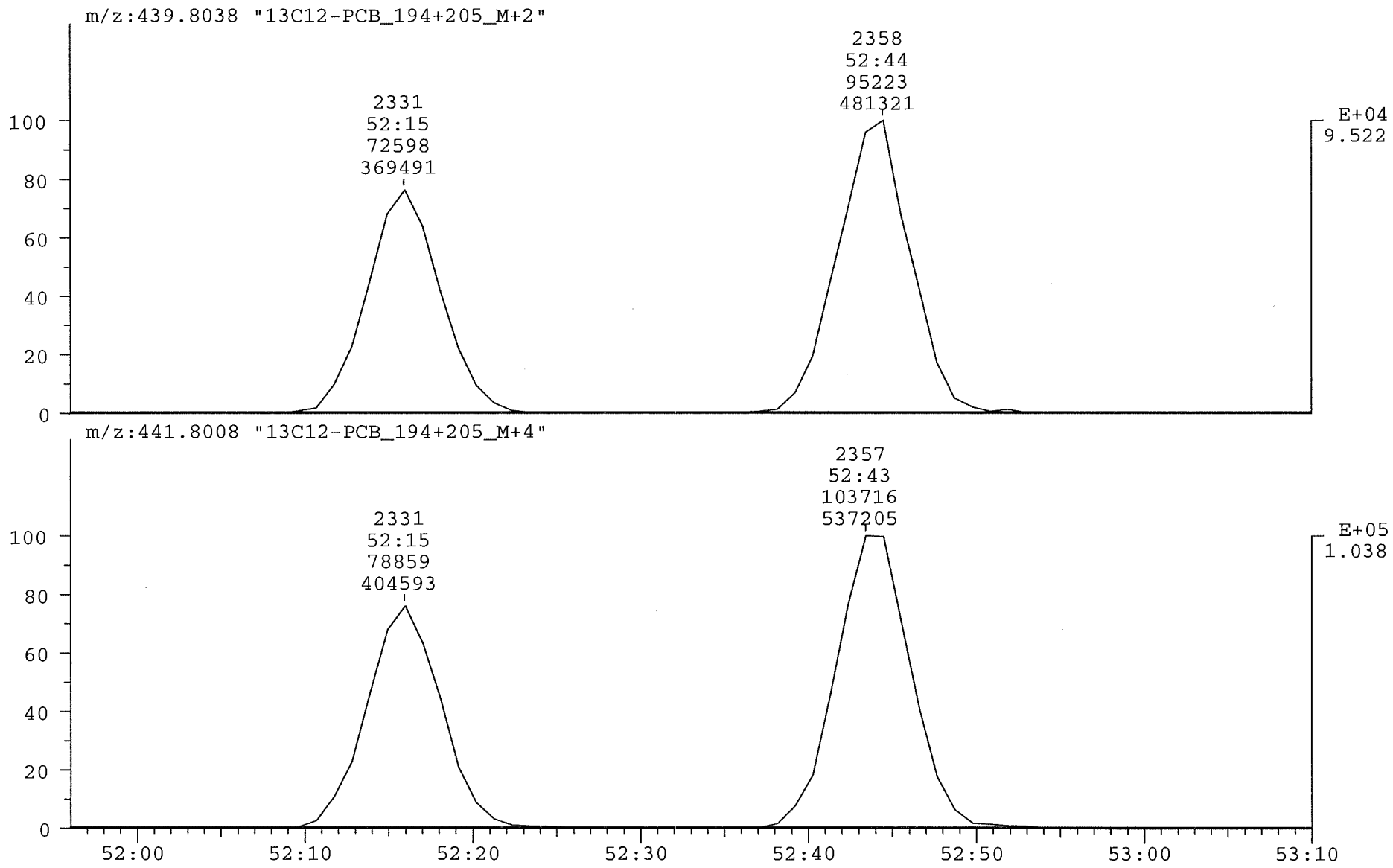
H-2550

CHRO: a0806m3r2 10-Jun-08 Elapse: 43:03 1812
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1775 > 1854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2551

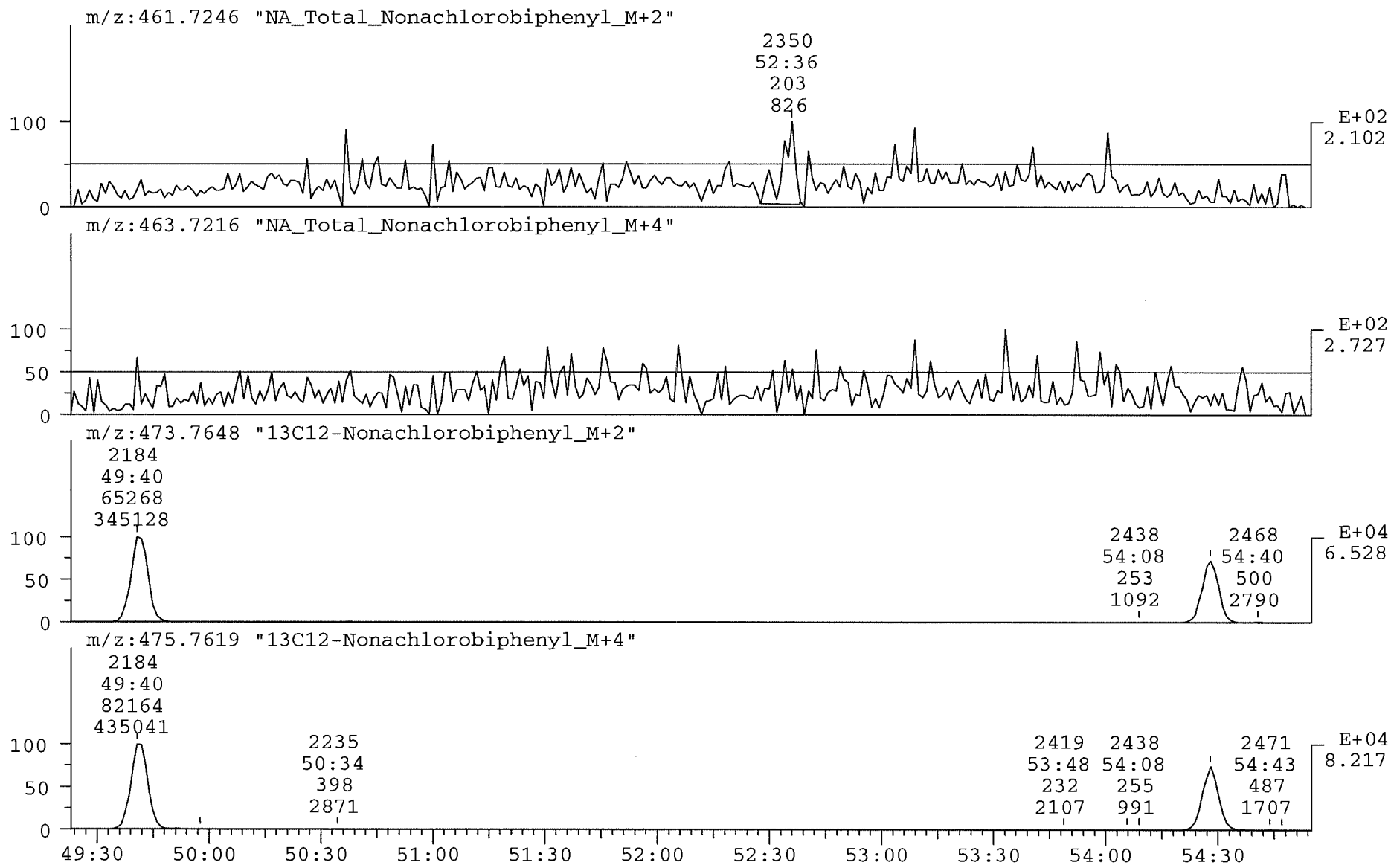
CHRO: a0806m3r2 10-Jun-08 Elapse: 52:32 2347
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2312 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2552

2551

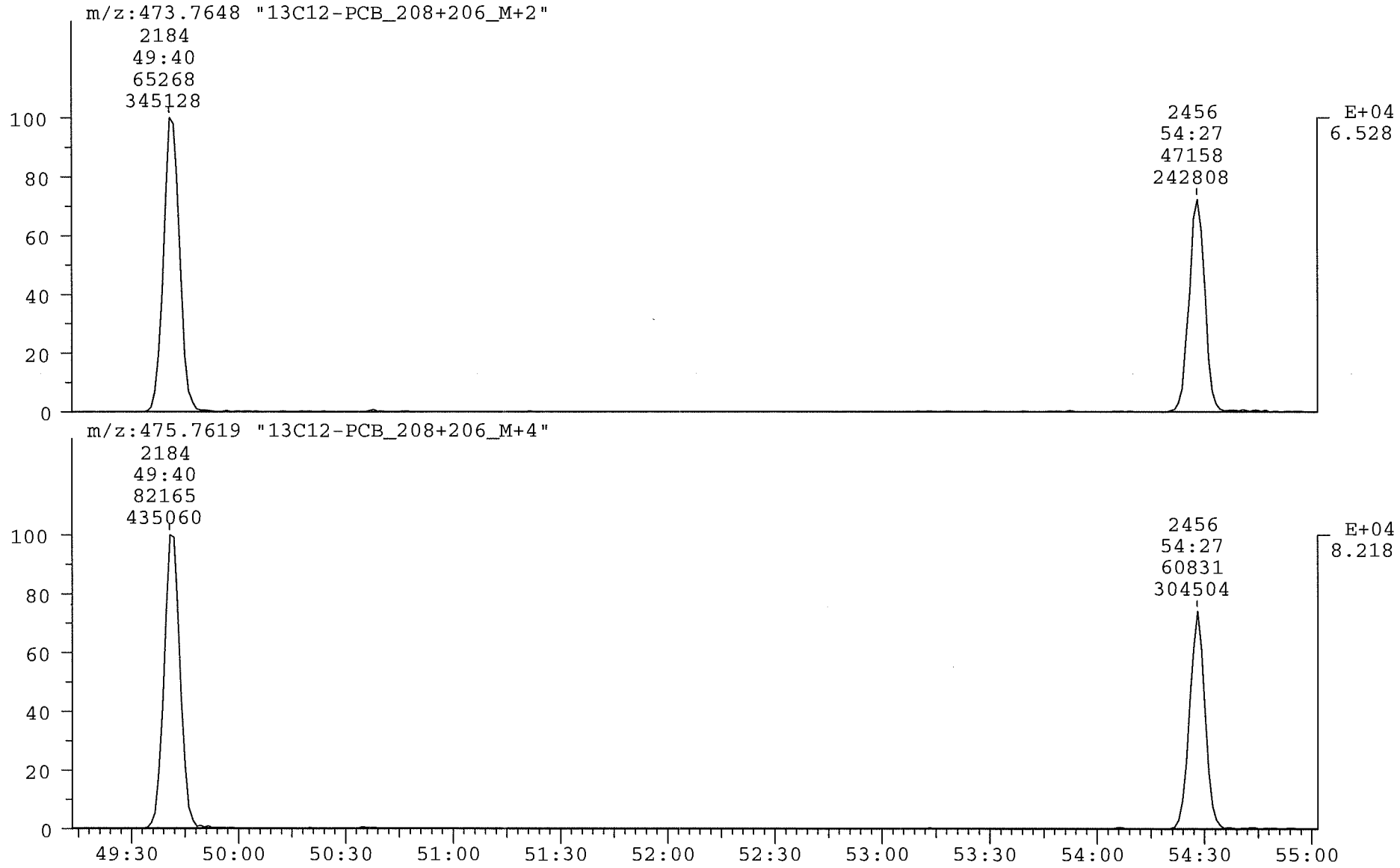
CHRO: a0806m3r2 10-Jun-08 Elapse: 52:08 2324
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2167 > 2482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2553

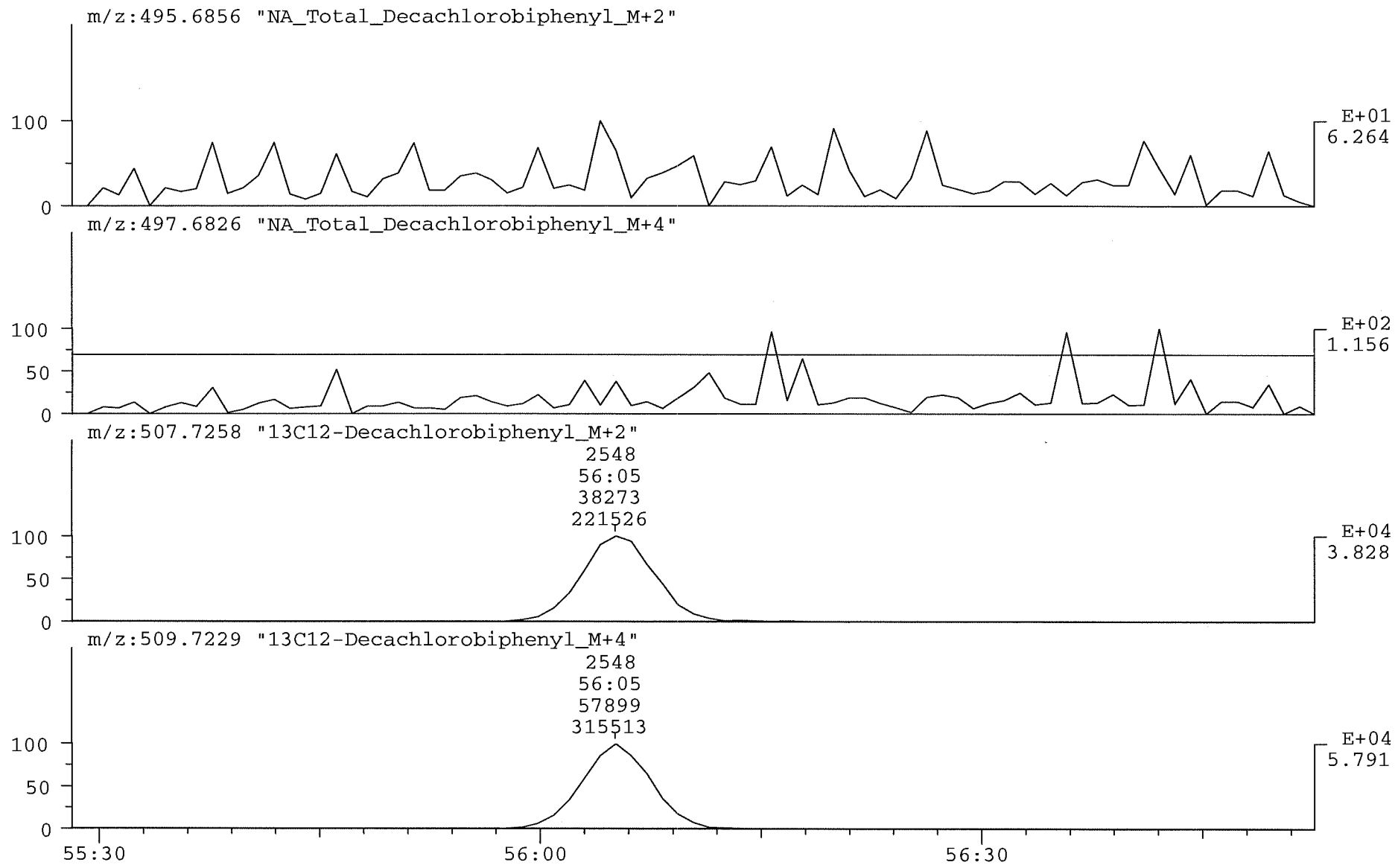
2552

CHRO: a0806m3r2 10-Jun-08 Elapse: 52:07 2323
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2158 > 2488 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2554

CHRO: a0806m3r2 10-Jun-08 Elapse: 56:10 2553
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 21:45:27 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2513 > 2593 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2555

2554

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m3r2
Study: 2990:75 Mix 3
Sample: WO=2990:75Mix3 Meth=IE3 Dil=1
Amount:  0.00
Volume:  0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume:  2.00
Sample from Vial 13
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 8 of list 080609
  ICL procedure: sleep7x
  MID procedure: epa1668n

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.10 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start          Measure       End         Cycletime
  # 1   11:00 min    10:40 min    21:40 min     1.00 sec
  # 2   21:40 min    14:12 min    35:52 min     1.00 sec
  # 3   35:52 min    13:13 min    49:05 min     1.00 sec
  # 4   49:05 min     7:55 min    57:00 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 1   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
```

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg at	0.0	minutes	280 deg max
	75 deg at	2.0	minutes	
	150 deg at	7.0	minutes	
	270 deg at	55.0	minutes	
	270 deg at	57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5765
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0010
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	346.0000
FVINLET	259.0000	FVSRC	1002.0000	FWIN	0.7000
GCTC	201.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.4510	HVANAL	1265.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2607.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.0000	TCURR	0.8203
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 21:45:27.9

Autosampler has injected sample from vial 13
MID Time Window 1: Resolution is 8227
MID Time Window 2: Resolution is 9606
MID Time Window 3: Resolution is 10085
MID Time Window 4: Resolution is 11249
Analysis stopped at: 10-Jun-08 22:42:31.2 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX3	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m3r3.	**Prep Date**		**SDG No**	
Analysis ID	104462	**Prep Exp Date**		**Date Received**	
Analysis Date	06/11/08 02:50	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	150	200	60	80	0.75 *	/	
	13C12-PCB 1	12:01	00:00	0	1190566	361805	457490	140692	3.29	AVV/AVV	
	13C12-PCB 3	14:14	00:00	0	1238085	360064	409552	116455	3.44	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	125	230	50	92	0.54 *	/	
	PCB 13 (BZ)	20:06	00:00	0	325795	205784	81445	52399	1.58	AVV/AVB	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	215	138	86	55	1.56	/	
	13C12-PCB 4	14:30	00:00	0	314575	211678	101250	68262	1.49	ABV/ABV	
	13C12-PCB 9	16:28	00:00	0	514644	335709	156638	104282	1.53	ABV/ABV	
	13C12-PCB 8	17:20	00:00	0	535492	349998	159454	101639	1.53	AVV/ABV	
	13C12-PCB 15	20:26	00:00	0	531123	337531	137116	88330	1.57	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	128	120	51	48	1.06	/	
	PCB 17 (BZ)	19:57	00:00	0	112588	113153	30024	29362	1.00	ABB/ABV	D
	PCB 29 (BZ)	22:41	00:00	0	523597	487682	132349	120418	1.07	ABV/ABV	DM
	PCB 20 (BZ)	23:32	00:00	0	478625	452029	111520	106832	1.06	ABV/ABV	M
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	228	175	91	70	1.30 *	/	
	13C12-PCB 19	17:39	00:00	0	188747	186740	52144	53083	1.01	AVV/ABV	
	13C12-PCB 32	20:55	00:00	0	314765	312242	80624	80487	1.01	ABV/AVV	
	13C12-PCB 31	23:11	00:00	0	908499	827871	221959	208741	1.10	ABV/ABV	
	13C12-PCB 28	23:28	00:00	0	856593	776583	198738	179964	1.10	AVV/AVV	
	13C12-PCB 37	27:31	00:00	0	832166	745471	185965	166640	1.12	ABV/ABB	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	145	138	58	55	1.05 *	/	
	PCB 46 (BZ)	23:57	00:00	0	309572	386579	76395	93811	0.80	ABV/ABV	
	PCB 65 (BZ)	26:21	00:00	0	488718	603249	112152	140559	0.81	ABV/ABV	DM
	PCB 59 (BZ)	26:40	00:00	0	485469	602108	112302	133858	0.81	AVV/AVV	D
	PCB 40 (BZ)	27:23	00:00	0	281711	340568	62755	75429	0.83	ABV/ABV	D
	PCB 67 (BZ)	29:31	00:00	0	553507	682630	121567	153403	0.81	ABV/ABV	M
	PCB 76 (BZ)	30:08	00:00	0	502264	617006	108477	131164	0.81	AVV/AVV	DM
	PCB 80 (BZ)	31:45	00:00	0	576121	699611	127966	150026	0.82	ABV/ABV	D
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	115	115	46	46	1.00 *	/	
	13C12-PCB 54	20:45	00:00	0	180057	232434	45591	57767	0.77	ABV/ABV	
	13C12-PCB 52	25:19	00:00	0	303364	379066	69440	89221	0.80	ABV/ABV	
	13C12-PCB 79	33:15	00:00	0	444374	553428	95316	124153	0.80	ABV/ABV	
	13C12-PCB 81	34:16	00:00	0	390462	484506	83389	101640	0.81	AVV/ABV	
	13C12-PCB 77	34:50	00:00	0	408948	511674	85532	103044	0.80	AVV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX3	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m3r3.	**Prep Date**		**SDG No**	
Analysis ID	104462	**Prep Exp Date**		**Date Received**	
Analysis Date	06/11/08 02:50	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**		
	Noise	00:00	00:00	0	178	108	71	43	1.65	/	
	PCB 93 (BZ)	29:30	00:00	0	282757	169890	61844	36569	1.66	ABV/ABB	DM
	PCB 84 (BZ)	30:23	00:00	0	277686	168178	63524	36069	1.65	ABV/ABV	
	PCB 101 (BZ)	32:12	00:00	0	364953	219539	79113	47815	1.66	ABV/ABV	DM
	PCB 112 (BZ)	32:54	00:00	0	426582	259272	89167	54554	1.65	AVV/ABV	D
	PCB 86 (BZ)	33:17	00:00	0	303060	179024	61437	36674	1.69	AVV/AVV	DM
	PCB 116 (BZ)	34:00	00:00	0	400983	246364	84382	54374	1.63	ABV/ABV	D
	PCB 107 (BZ)/109 (IUPAC	36:44	00:00	0	978888	616773	201749	126324	1.59	AVV/AVV	D
338					**337.9207**	**339.9178**	**337.9207**	**339.9178**	**1.32-1.78**		
	Noise	00:00	00:00	0	120	128	48	51	0.94 *	/	
	13C12-PCB 104	26:16	00:00	0	378449	227623	84273	52786	1.66	ABV/ABV	
	13C12-PCB 95	29:16	00:00	0	296301	172082	68328	38363	1.72	ABV/ABV	
	13C12-PCB 101	32:11	00:00	0	312030	192023	67200	40983	1.62	ABV/AVV	
	13C12-PCB 111	34:50	00:00	0	378193	234523	77860	50711	1.61	ABV/ABB	
	13C12-PCB 123	36:50	00:00	0	784145	483464	155140	98314	1.62	ABV/ABV	
	13C12-PCB 118	37:09	00:00	0	821061	510158	174190	106941	1.61	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	776356	486351	163348	101701	1.60	AVV/ABV	
	13C12-PCB 105	38:21	00:00	0	778856	476854	153829	95650	1.63	AVV/ABV	
	13C12-PCB 127	39:47	00:00	0	870325	537402	184747	111436	1.62	ABV/ABV	
	13C12-PCB 126	41:24	00:00	0	839342	517286	168490	106406	1.62	AVV/AVV	
360					**359.8415**	**361.8385**	**359.8415**	**361.8385**	**1.05-1.43**		
	Noise	00:00	00:00	0	190	175	76	70	1.09	/	
	PCB 154 (BZ)	35:20	00:00	0	261520	196841	54608	40654	1.33	AVB/ABV	
	PCB 147 (BZ)	36:01	00:00	0	468905	365296	90255	70707	1.28	ABV/ABV	
	PCB 140 (BZ)	36:38	00:00	0	457689	347017	95265	70626	1.32	AVV/AVV	M
	PCB 146 (BZ)	38:25	00:00	0	473621	366415	97814	75517	1.29	ABV/AVV	
	PCB 141 (BZ)	39:15	00:00	0	434598	337084	91597	70029	1.29	AVV/AVB	M
	PCB 164 (BZ)	40:00	00:00	0	580507	449362	115723	90247	1.29	ABV/ABV	M
	PCB 158 (BZ)	40:40	00:00	0	615435	475490	125186	96498	1.29	AVV/ABV	
372					**371.8817**	**373.8788**	**371.8817**	**373.8788**	**1.05-1.43**		
	Noise	00:00	00:00	0	103	128	41	51	0.80 *	/	
	13C12-PCB 155	31:55	00:00	0	295793	236631	60670	49289	1.25	ABV/ABV	
	13C12-PCB 153	39:01	00:00	0	448449	333501	92820	67127	1.34	ABV/ABV	
	13C12-PCB 138	40:16	00:00	0	444288	346730	94498	71083	1.28	ABV/ABV	M
	13C12-PCB 167	43:15	00:00	0	542505	411214	111109	81203	1.32	AVV/AVV	
	13C12-PCB 156	44:24	00:00	0	1065001	835755	138135	108157	1.27	ABV/ABV	
	13C12-PCB 169	47:38	00:00	0	524263	402702	102172	77707	1.30	ABV/ABV	
394					**393.8025**	**395.7995**	**393.8025**	**395.7995**	**0.89-1.21**		
	Noise	00:00	00:00	0	160	158	64	63	1.02	/	
	PCB 182 (BZ)	41:50	00:00	0	311290	293440	62645	59197	1.06	AVV/AVV	
	PCB 174 (BZ)	42:30	00:00	0	291408	267142	61236	54296	1.09	AVV/ABV	M
	PCB 173 (BZ)	43:31	00:00	0	266456	246585	50456	46567	1.08	AVV/ABV	D
	PCB 193 (BZ)	45:45	00:00	0	403992	375179	82068	74245	1.08	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX3	Prep Batch		Lot No	
Data File	/20080610rt/a0806m3r3.	Prep Date		SDG No	
Analysis ID	104462	Prep Exp Date		Date Received	
Analysis Date	06/11/08 02:50	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

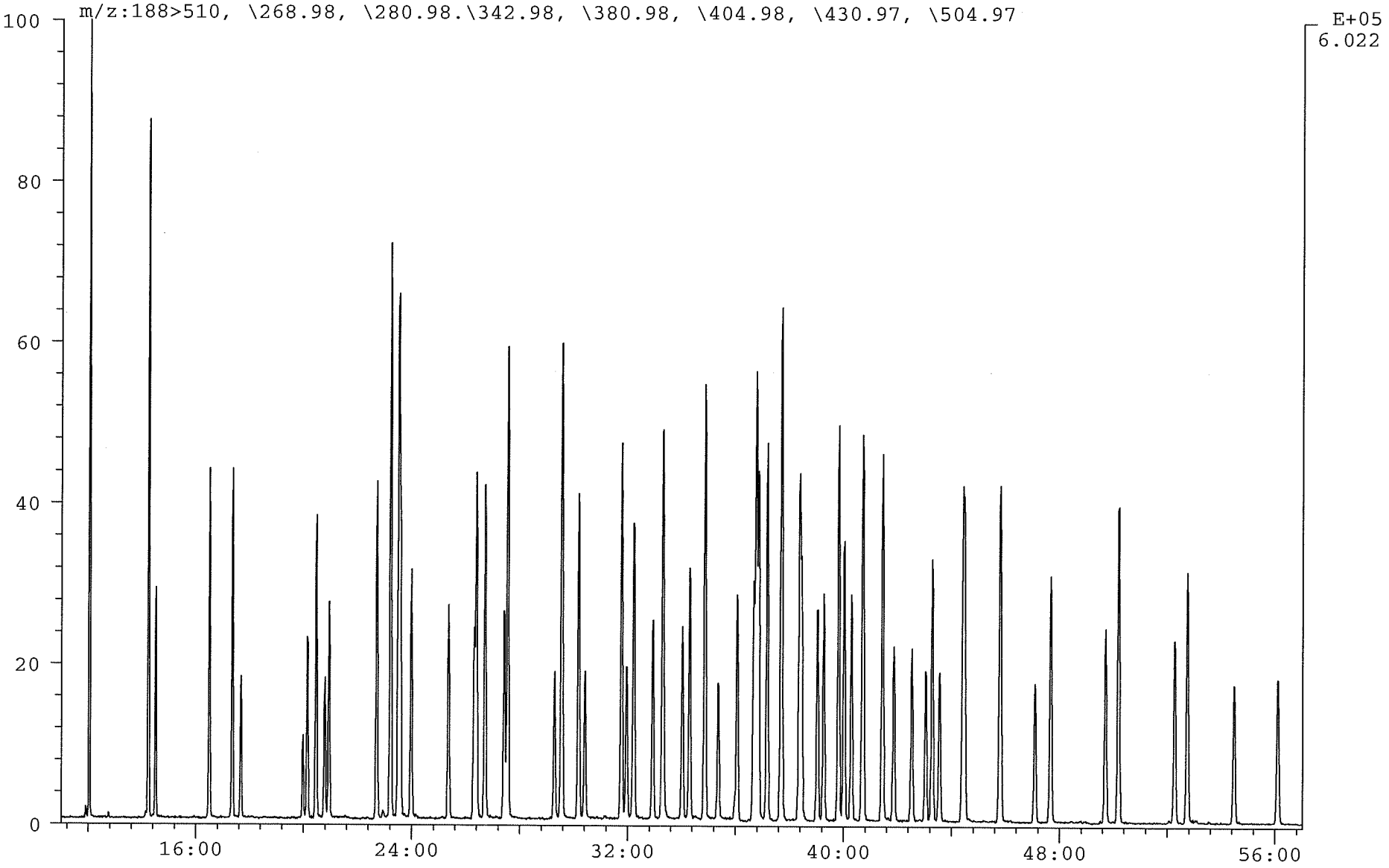
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	118	130	47	52	0.90	/
	13C12-PCB 188	37:39	00:00	0	375596	344545	75612	68573	1.09	ABV/ABV
	13C12-PCB 178	40:42	00:00	0	246364	226539	48204	43668	1.09	ABV/ABV
	13C12-PCB 180	45:47	00:00	0	309096	291730	61388	57487	1.06	ABV/ABV
	13C12-PCB 170	47:04	00:00	0	258302	241046	49310	46642	1.07	ABV/ABV
	13C12-PCB 189	50:10	00:00	0	636334	597054	123770	115276	1.07	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02	
	Noise	00:00	00:00	0	98	135	39	54	0.72 *	/
	13C12-PCB 202	43:01	00:00	0	254653	279920	50724	54411	0.91	ABV/ABV
	13C12-PCB 194	52:14	00:00	0	321816	353030	62336	66886	0.91	ABB/ABV
	13C12-PCB 205	52:43	00:00	0	428952	478351	83061	96990	0.90	ABV/ABV
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	130	125	52	50	1.04 *	/
	13C12-PCB 208	49:40	00:00	0	302501	372717	59875	72191	0.81	ABV/AVV
	13C12-PCB 206	54:26	00:00	0	210198	272733	39610	50357	0.77	ABV/ABV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79	
	Noise	00:00	00:00	0	98	168	39	67	0.58 *	/
	13C12-PCB 209	56:05	00:00	0	219059	302854	37715	55994	0.72	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: a0806m3r3 11-Jun-08 Elapse: 56:08 2552
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

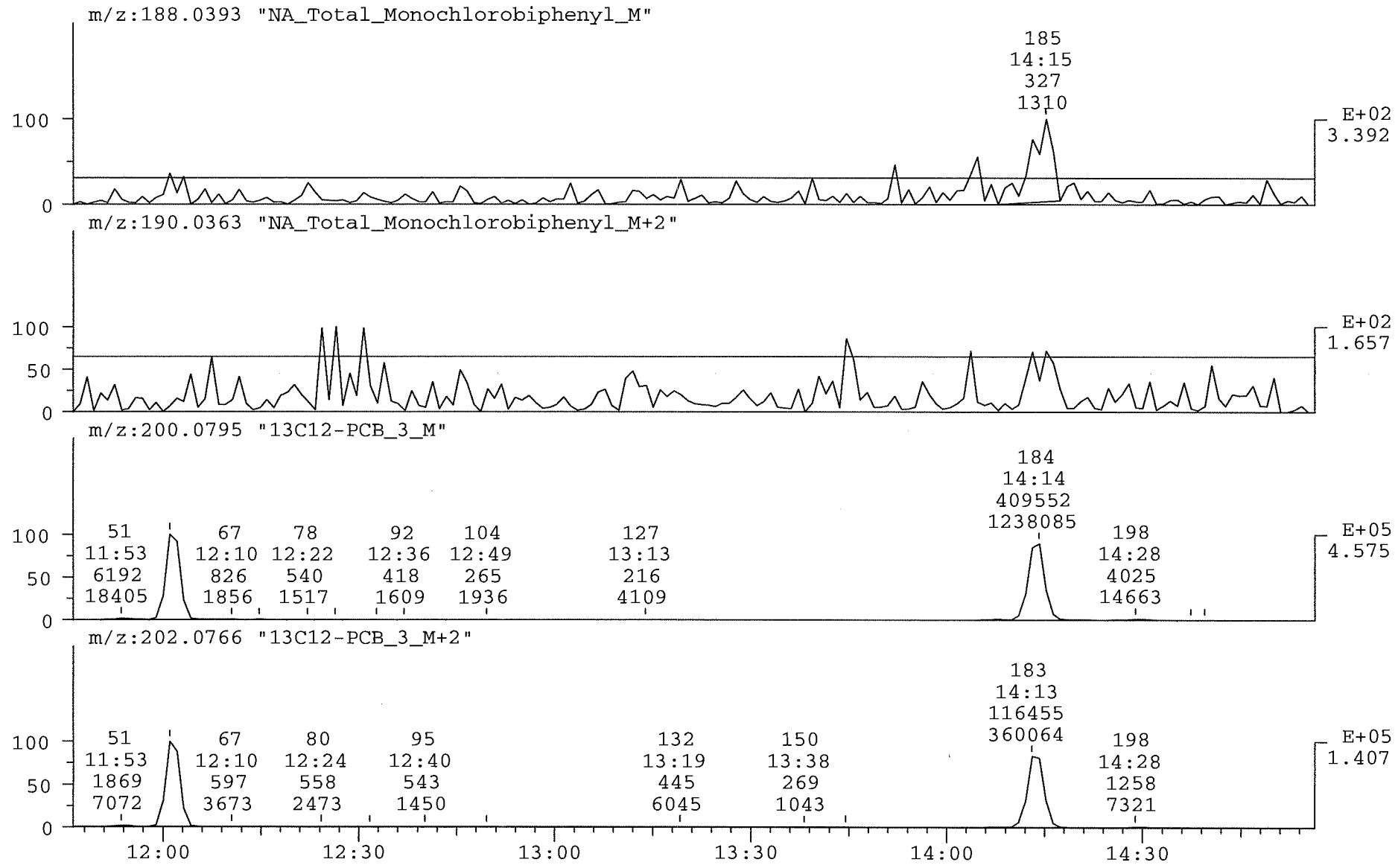
Int DCS 6-11-08
Cal DCS 6-2-08



H-2563

2562

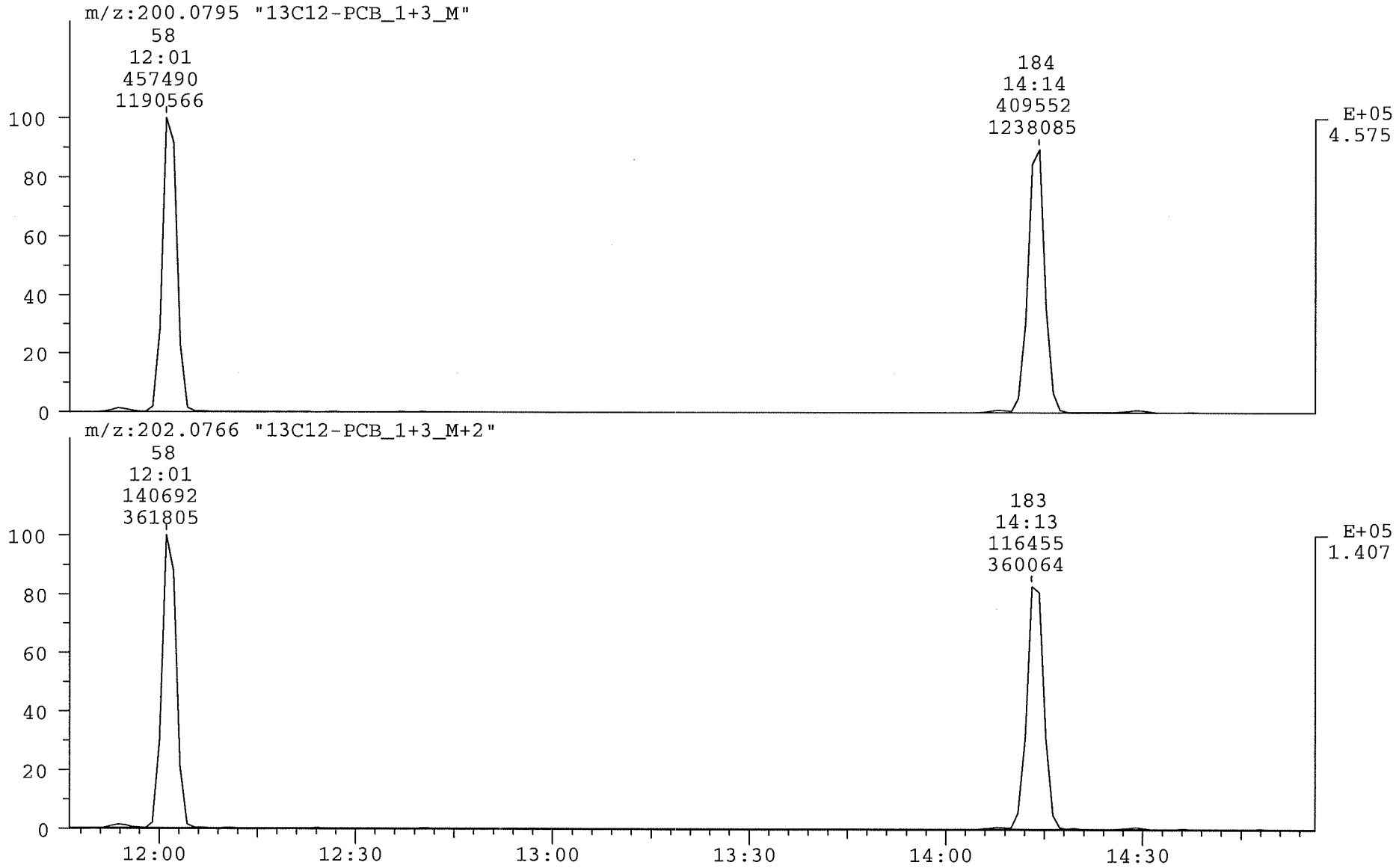
CHRO: a0806m3r3 11-Jun-08 Elapse: 13:21.3 134
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2564

2563

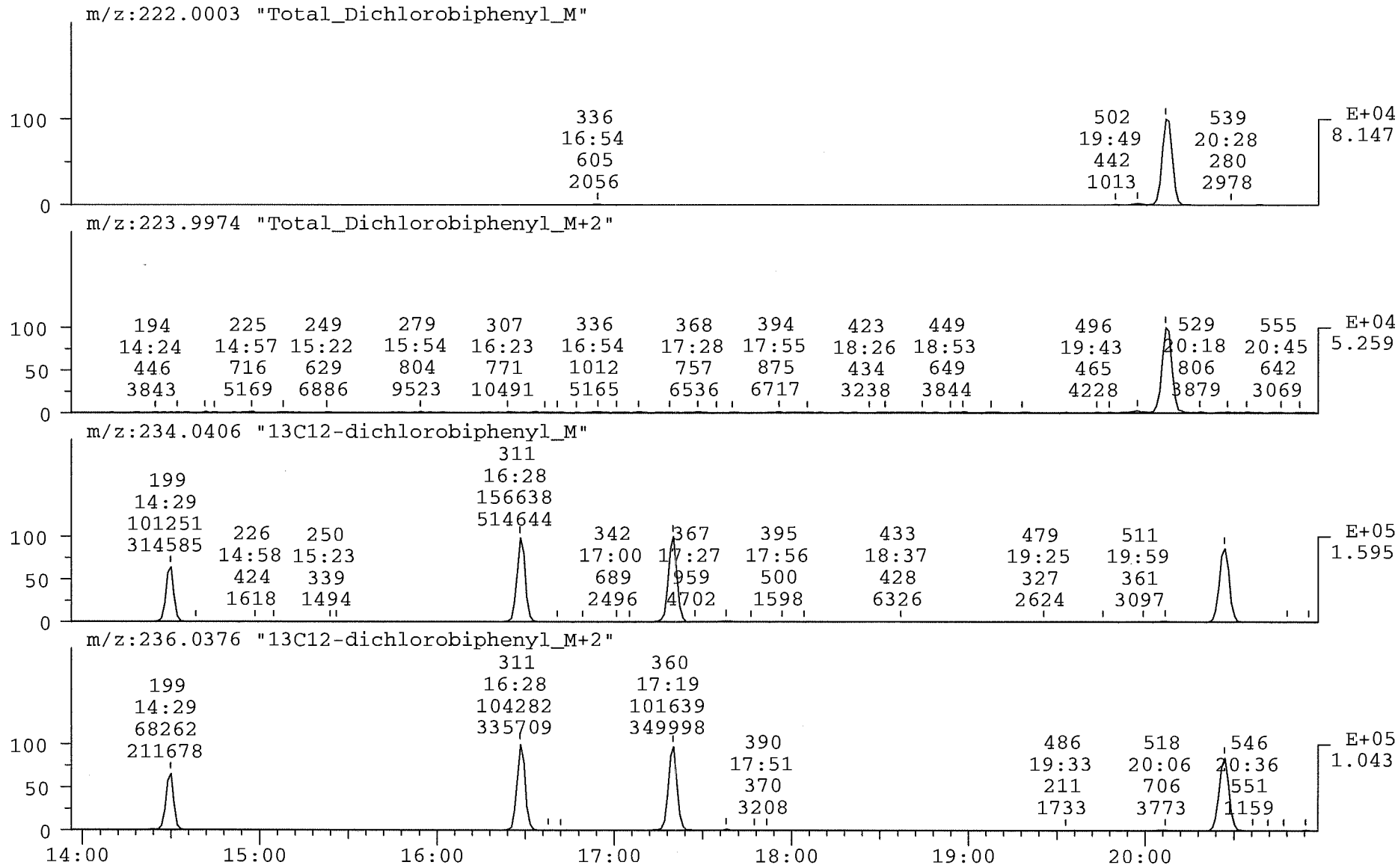
CHRO: a0806m3r3 11-Jun-08 Elapse: 13:21.3 134
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2565

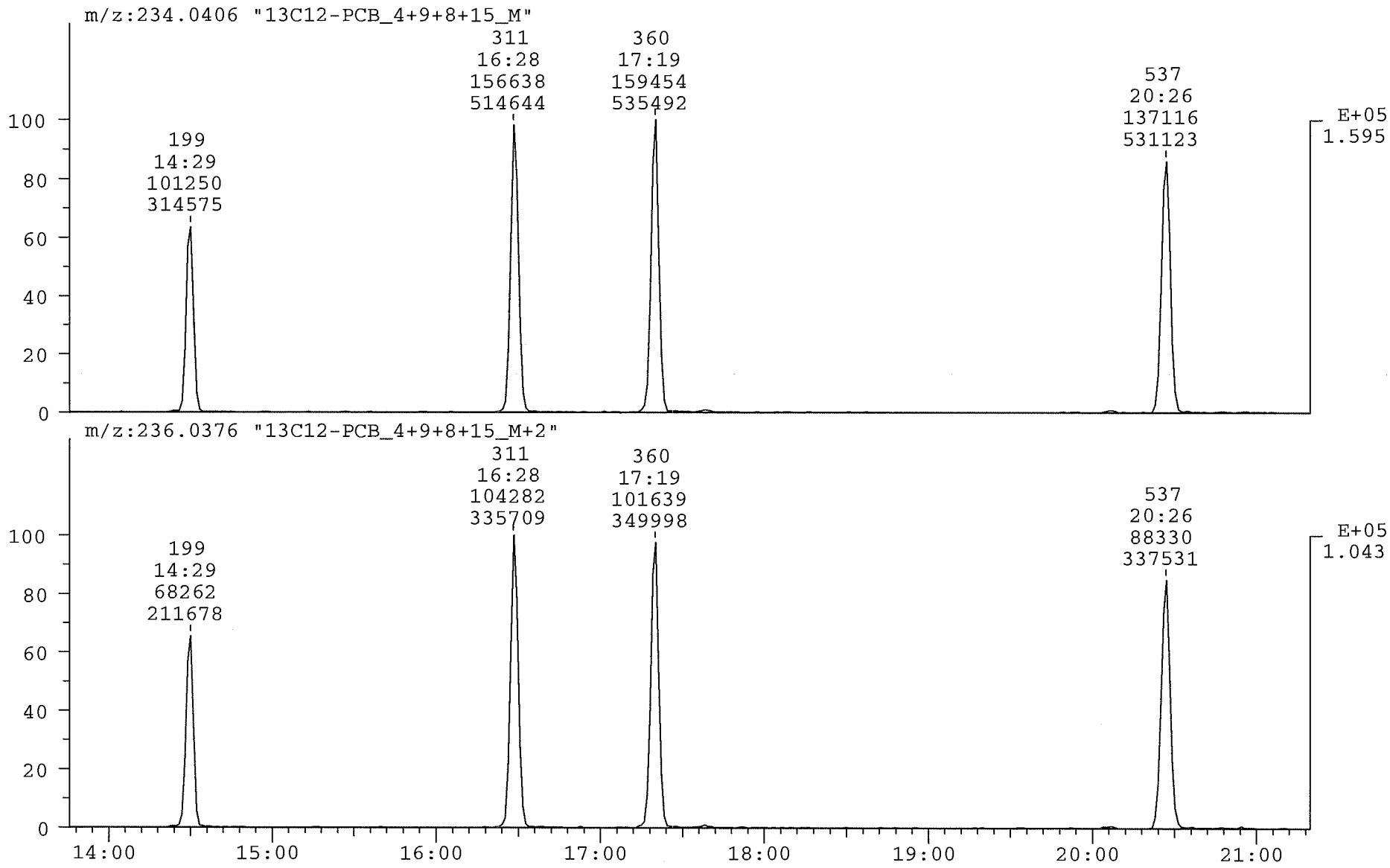
2564

CHRO: a0806m3r3 11-Jun-08 Elapse: 17:27.3 367
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 167 > 567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2566

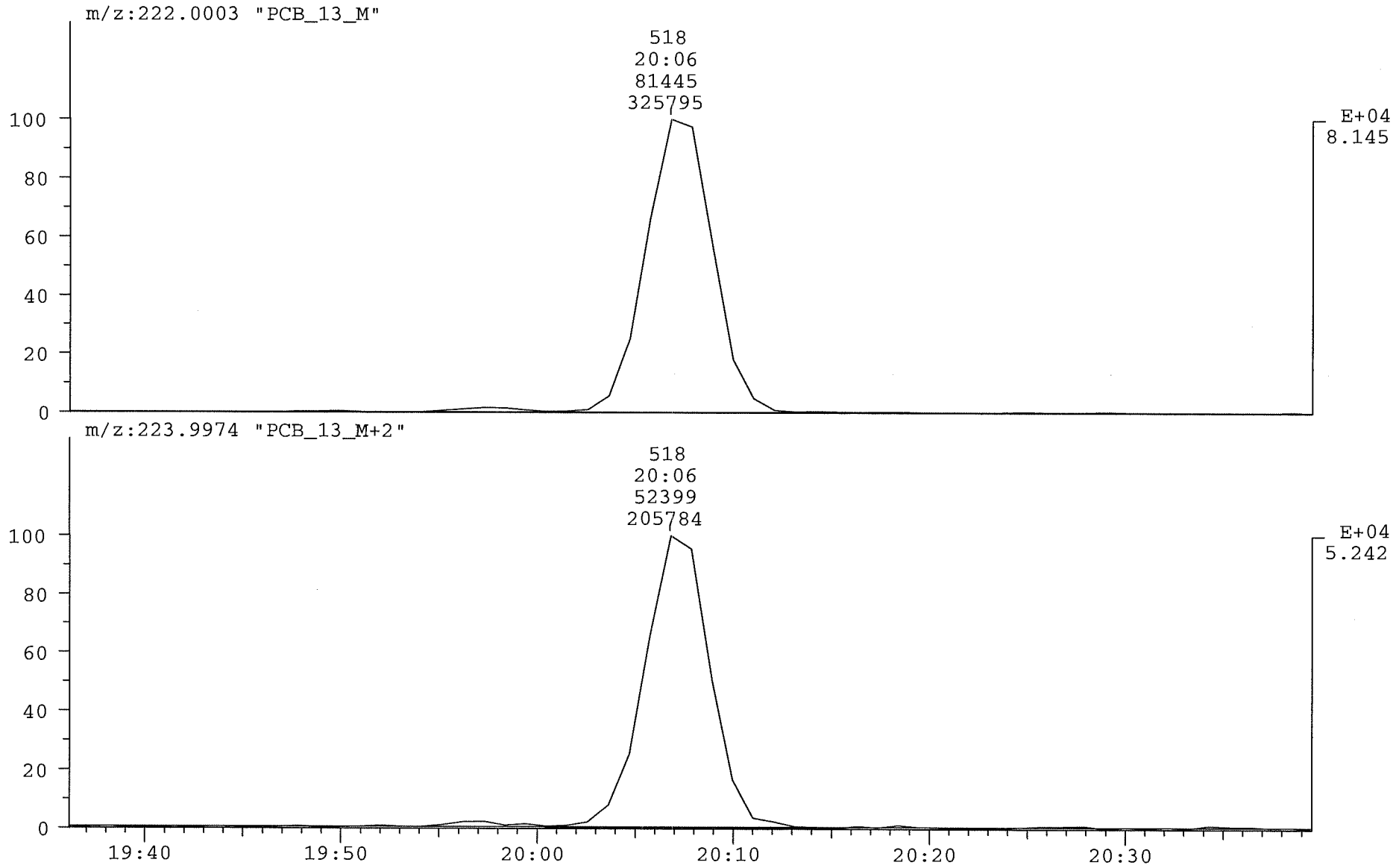
CHRO: a0806m3r3 11-Jun-08 Elapse: 17:27.3 367
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 157 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2567

2566

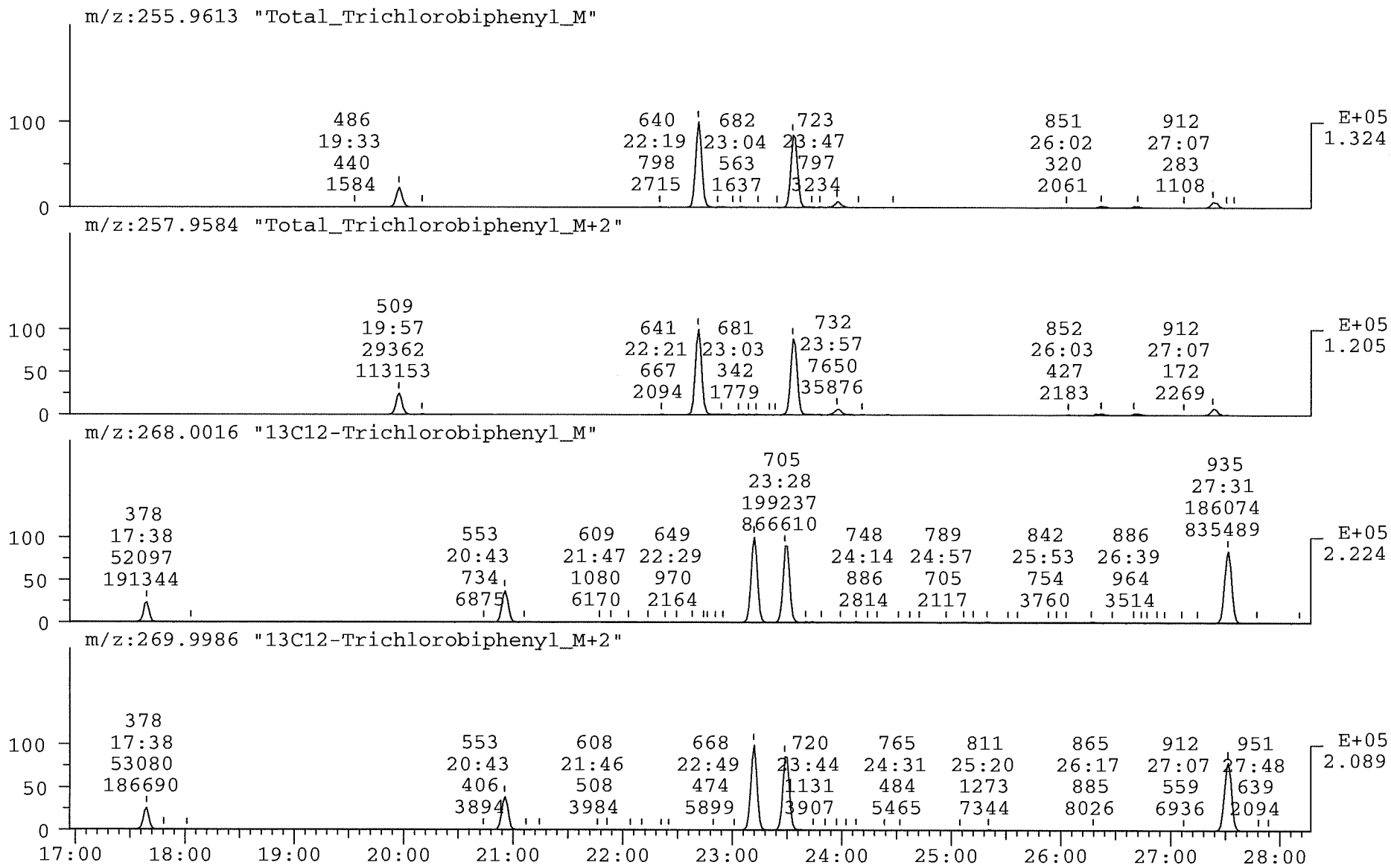
CHRO: a0806m3r3 11-Jun-08 Elapse: 20:07.8 519
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 489 > 549 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2568

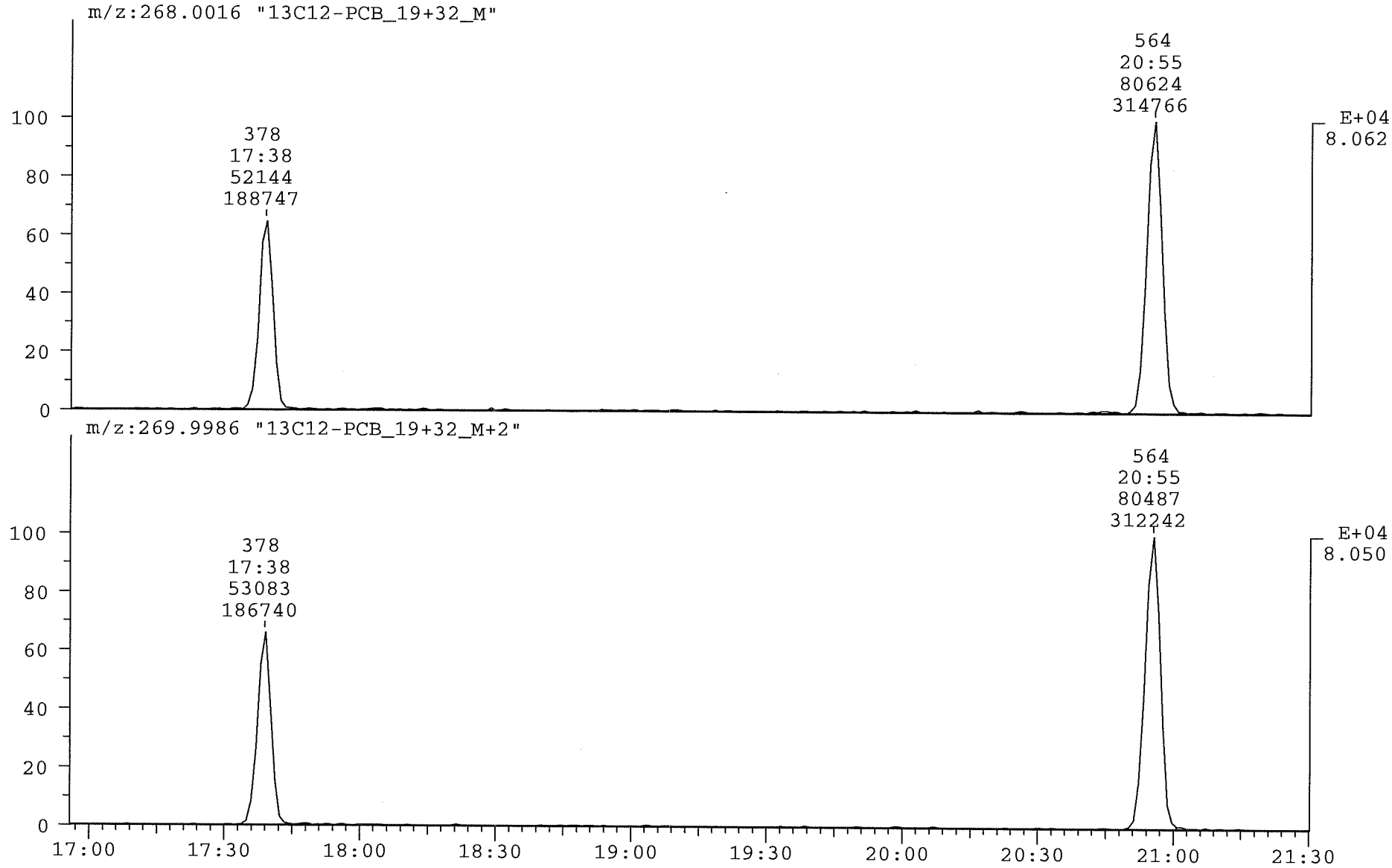
2567

CHRO: a0806m3r3 11-Jun-08 Elapse: 22:38.9 658
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 338 > 978 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2569

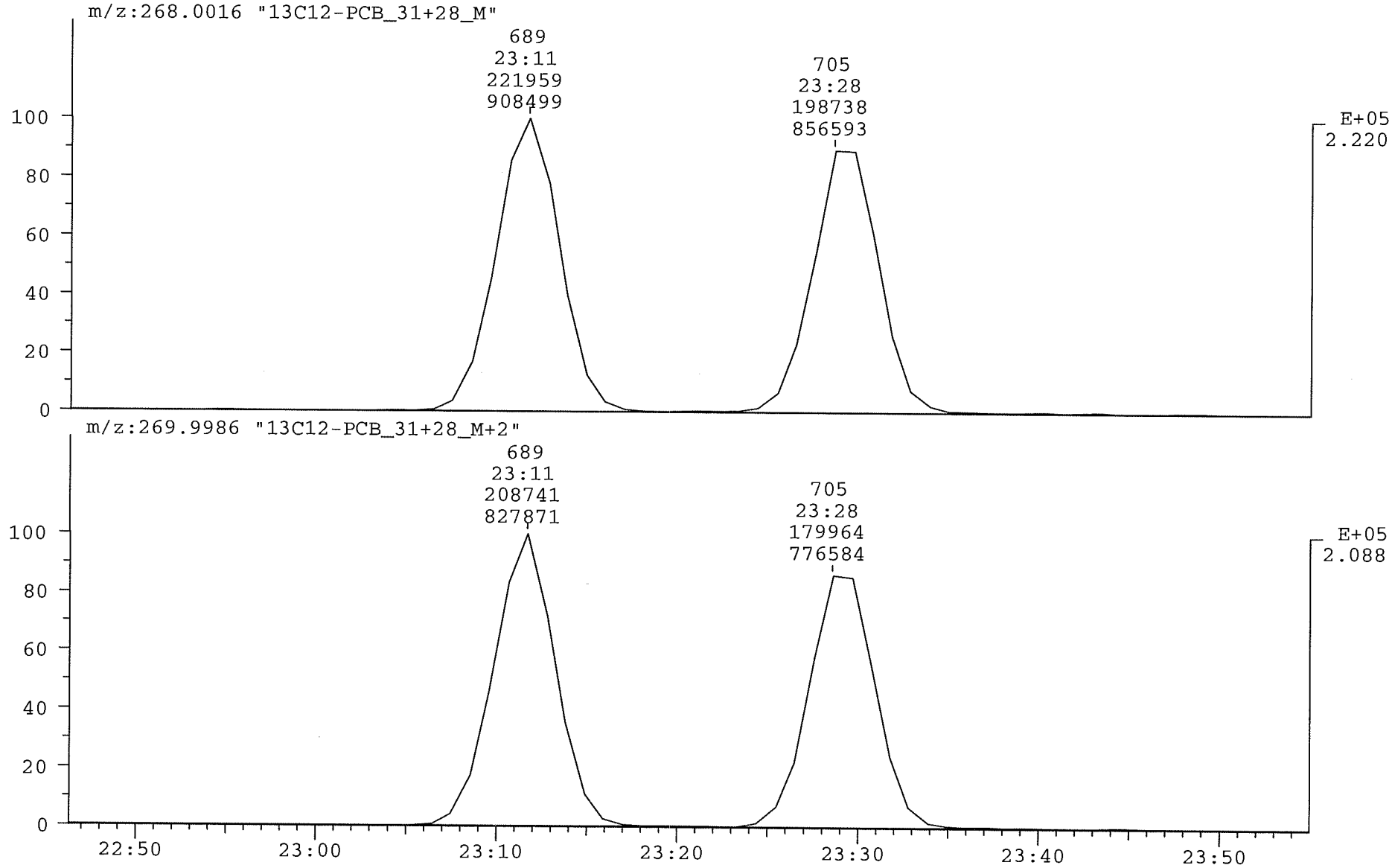
CHRO: a0806m3r3 11-Jun-08 Elapse: 19:02.3 457
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 337 > 597 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2570

2569

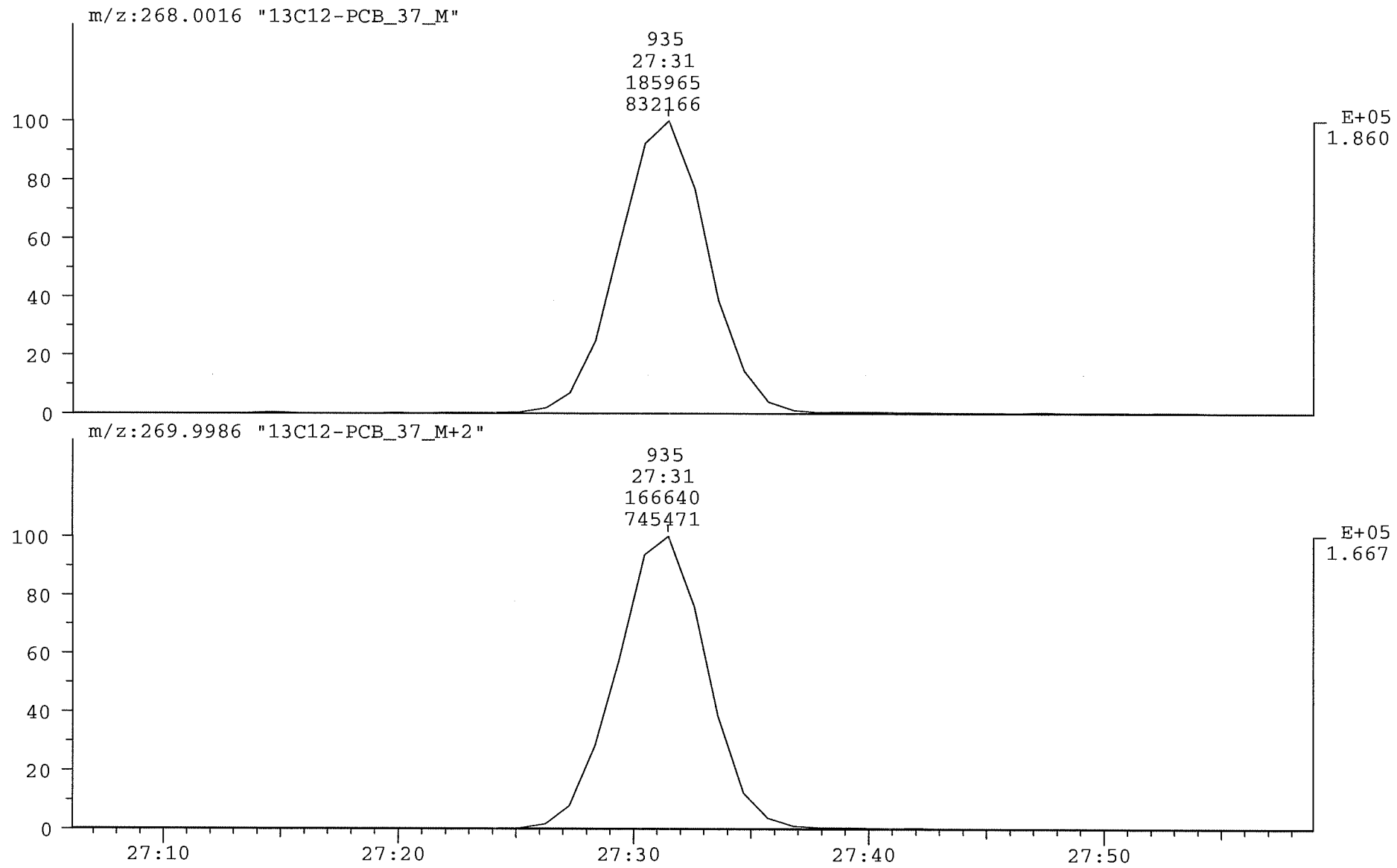
CHRO: a0806m3r3 11-Jun-08 Elapse: 23:12.7 690
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2571

2570

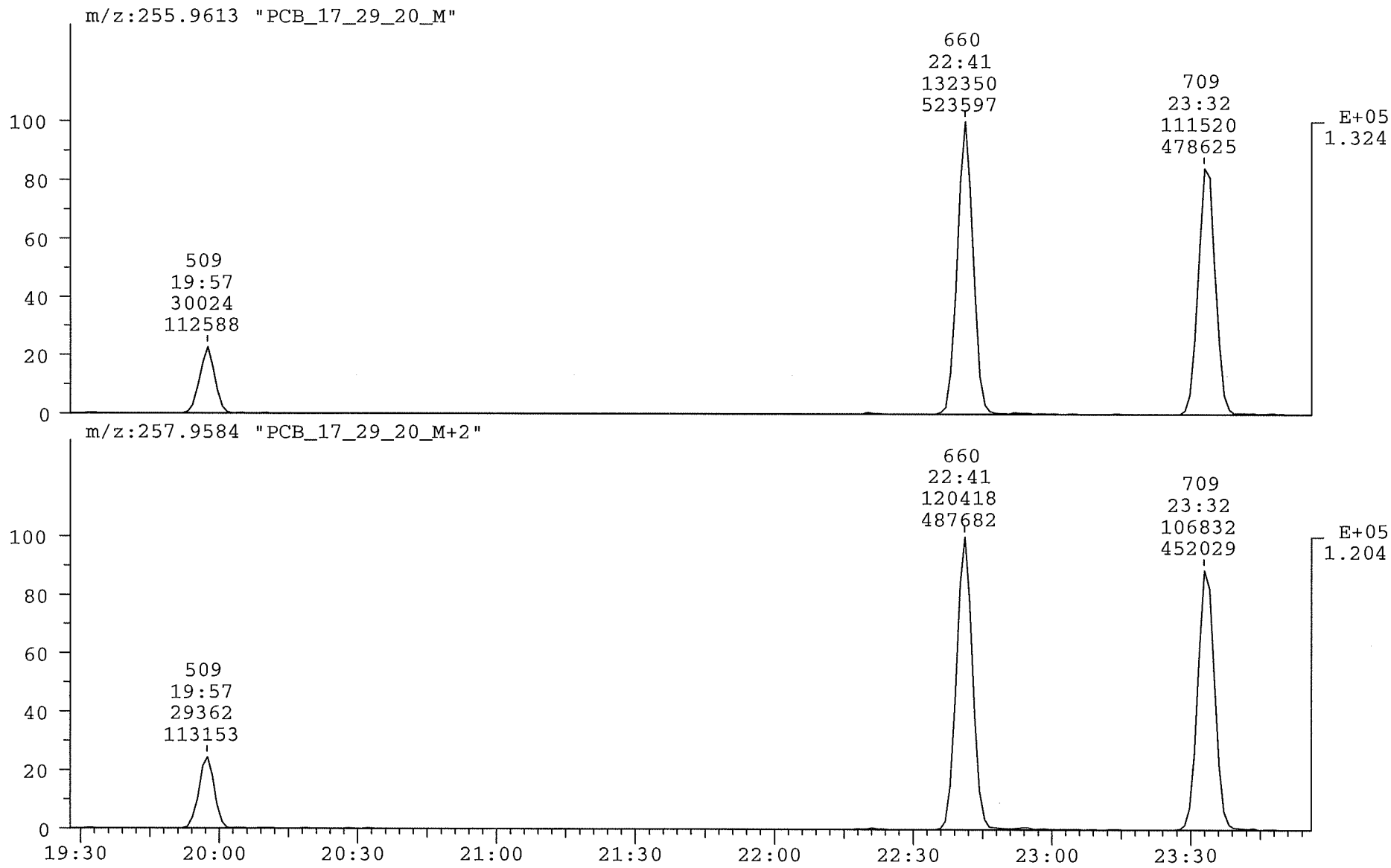
CHRO: a0806m3r3 11-Jun-08 Elapse: 27:32.5 936
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2572

2571

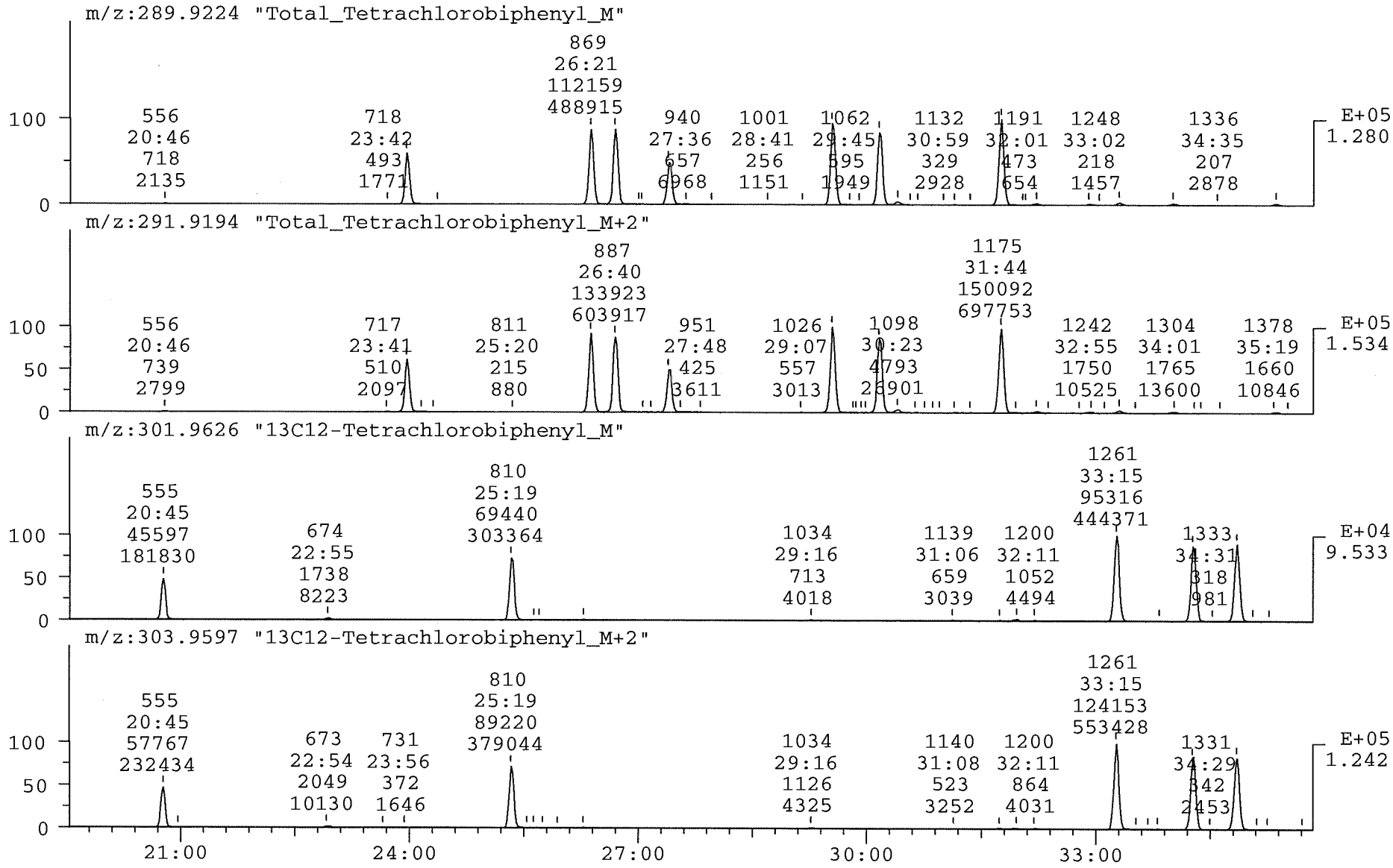
CHRO: a0806m3r3 11-Jun-08 Elapse: 21:49.3 611
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 481 > 731 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2573

2572

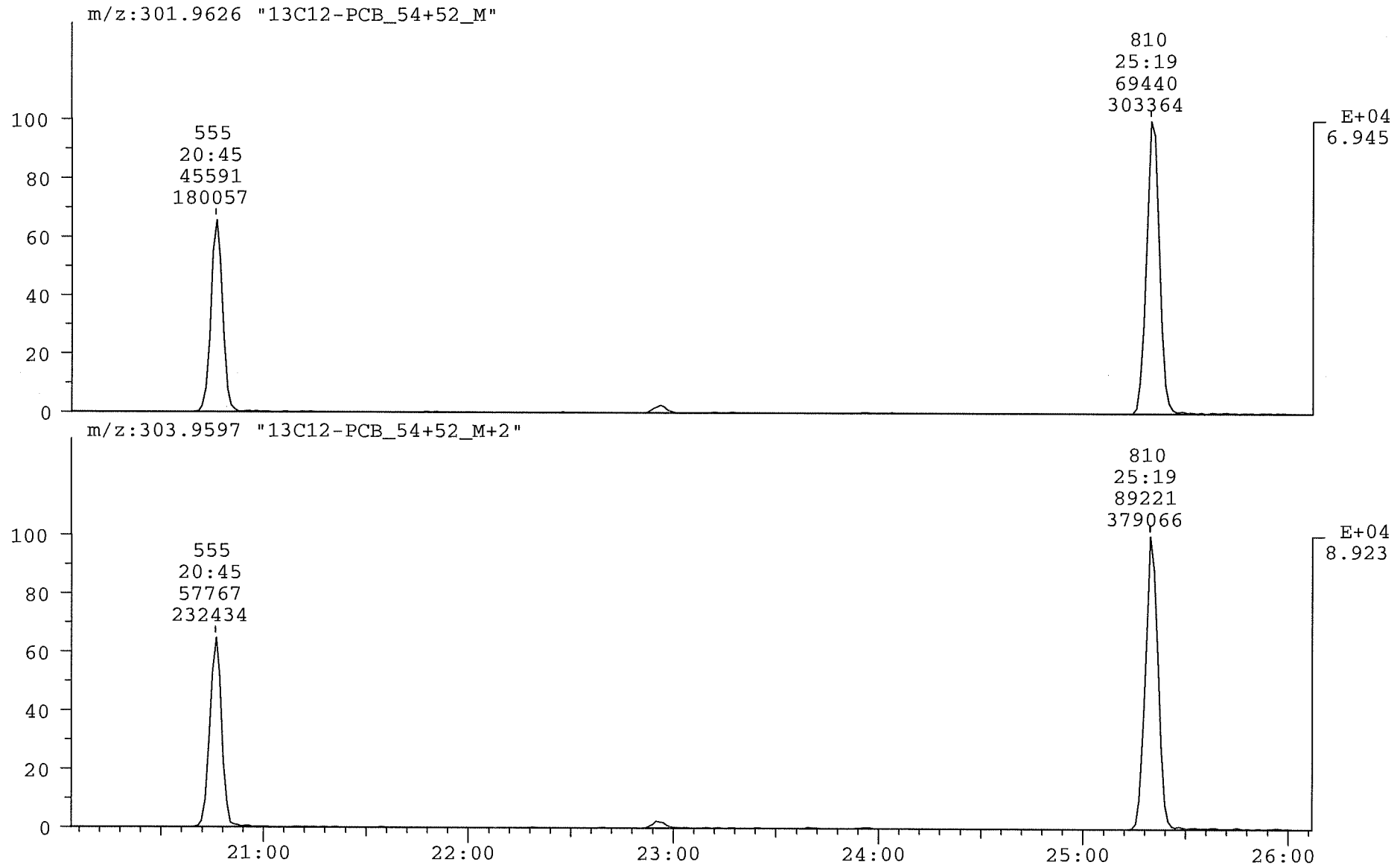
CHRO: a0806m3r3 11-Jun-08 Elapse: 27:41.9 944
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 485 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2574

2573

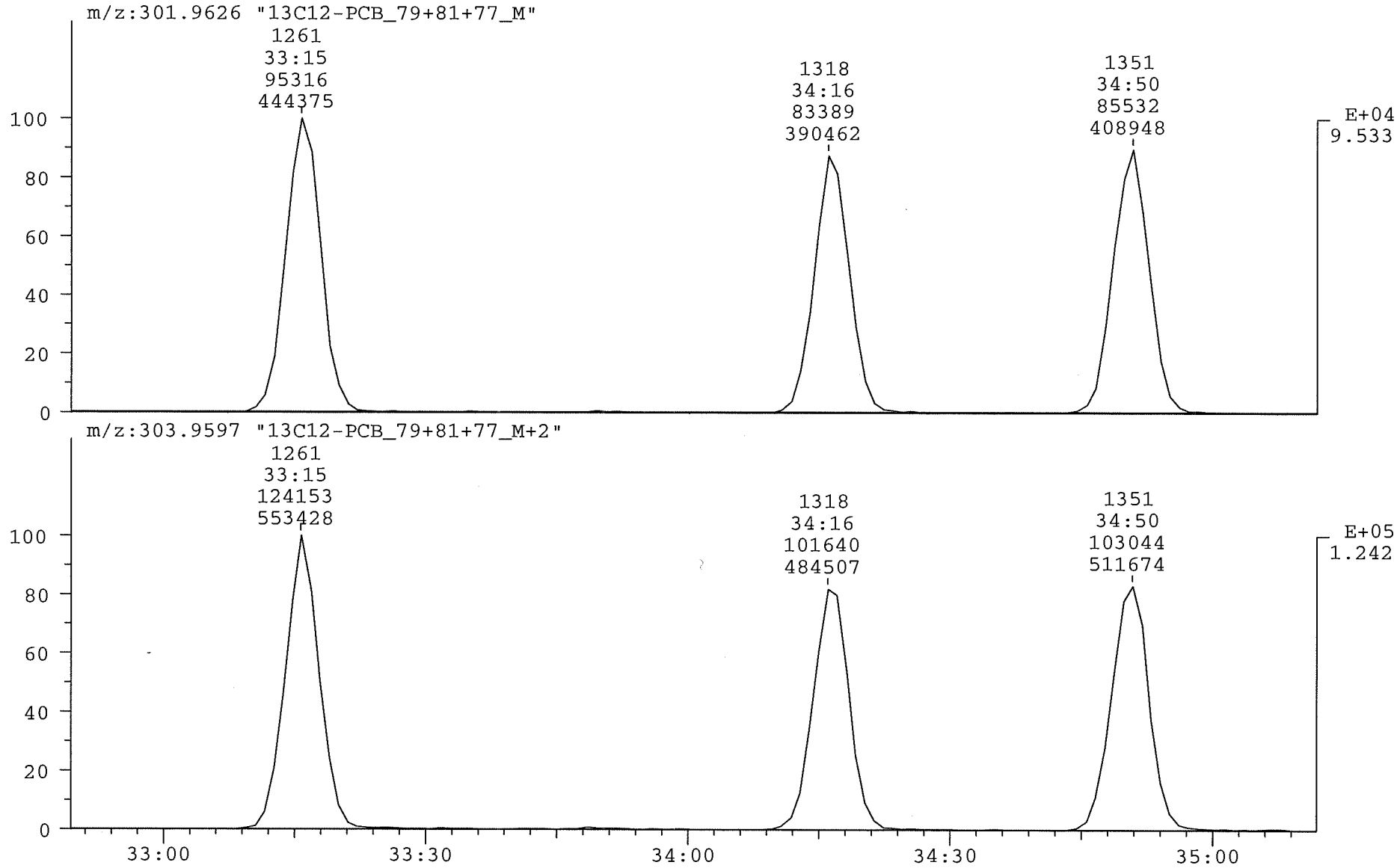
CHRO: a0806m3r3 11-Jun-08 Elapse: 23:07.4 685
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 515 > 855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2575

2574

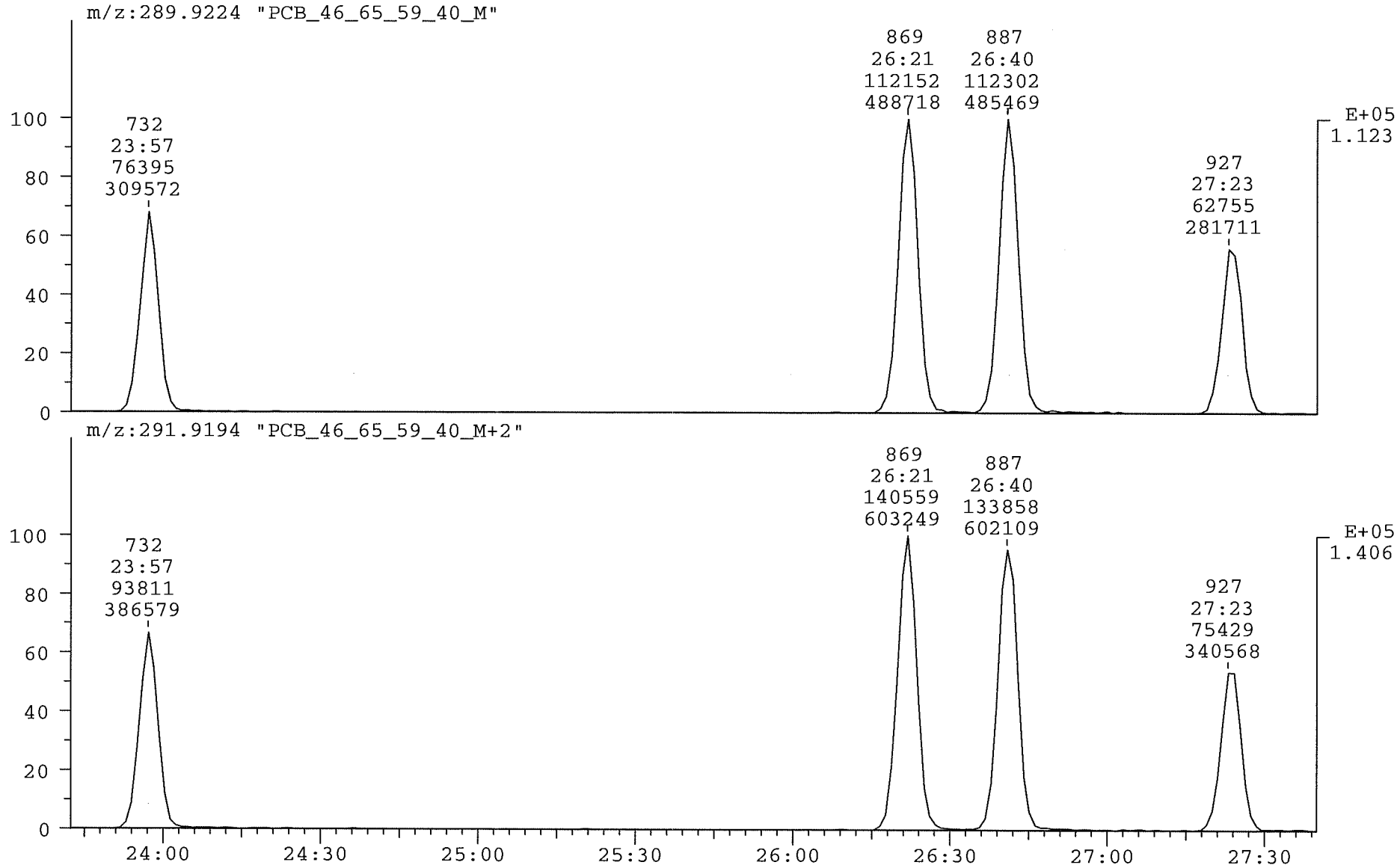
CHRO: a0806m3r3 11-Jun-08 Elapse: 34:03 1306
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1236 > 1371 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2576

2575

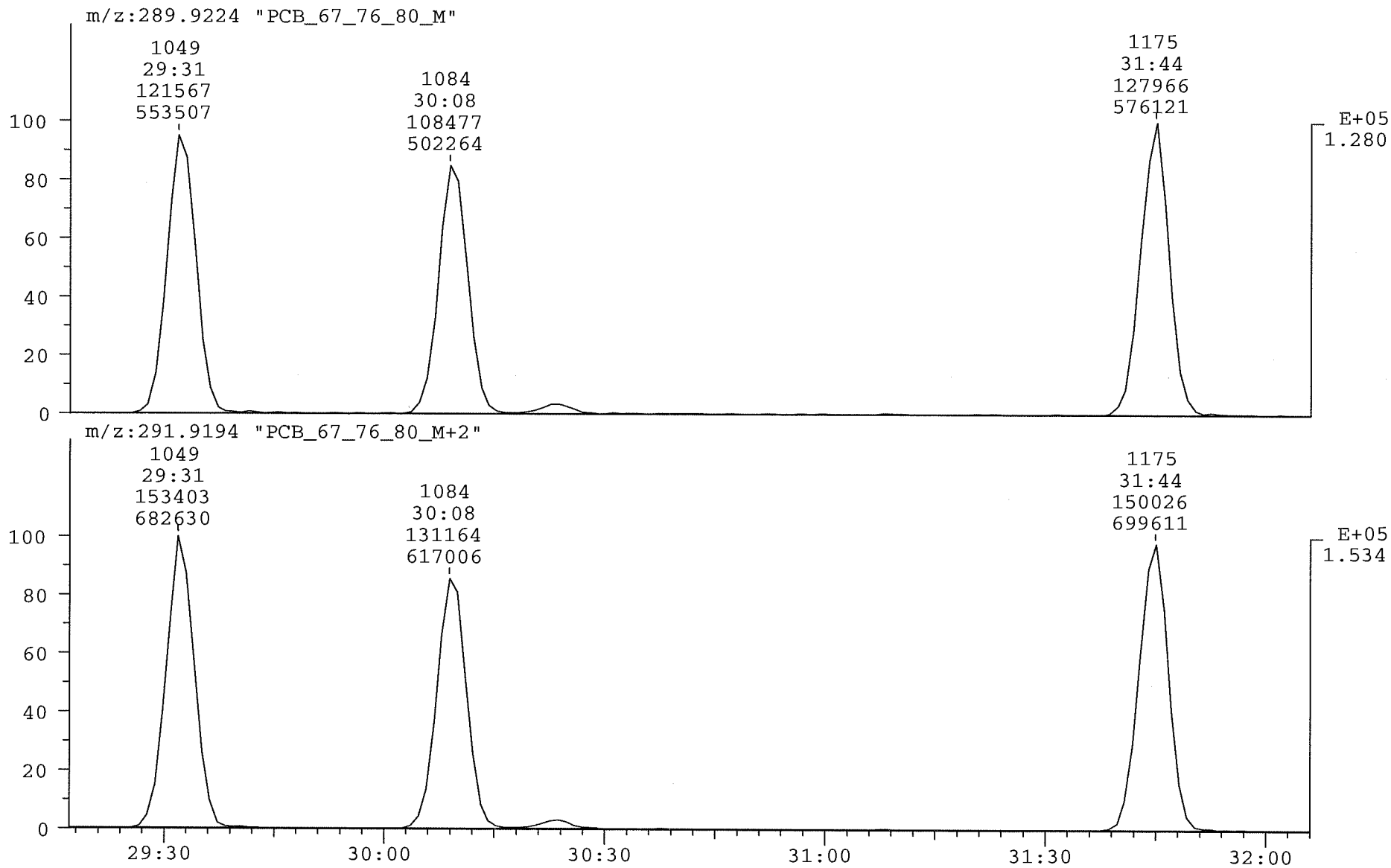
CHRO: a0806m3r3 11-Jun-08 Elapse: 25:43.7 833
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 718 > 943 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2577

2576

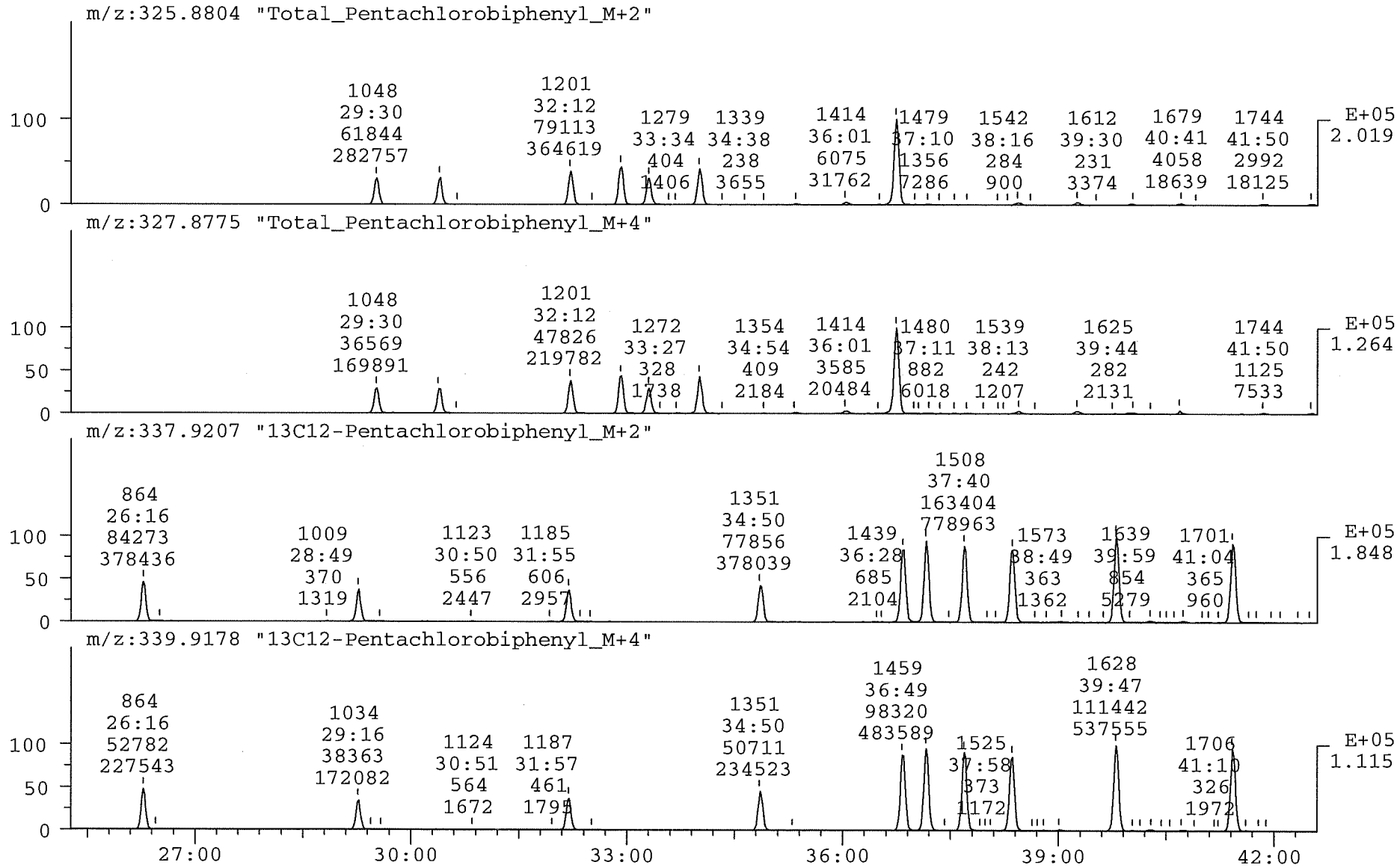
CHRO: a0806m3r3 11-Jun-08 Elapse: 30:41 1115
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1035 > 1195 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2578

2577

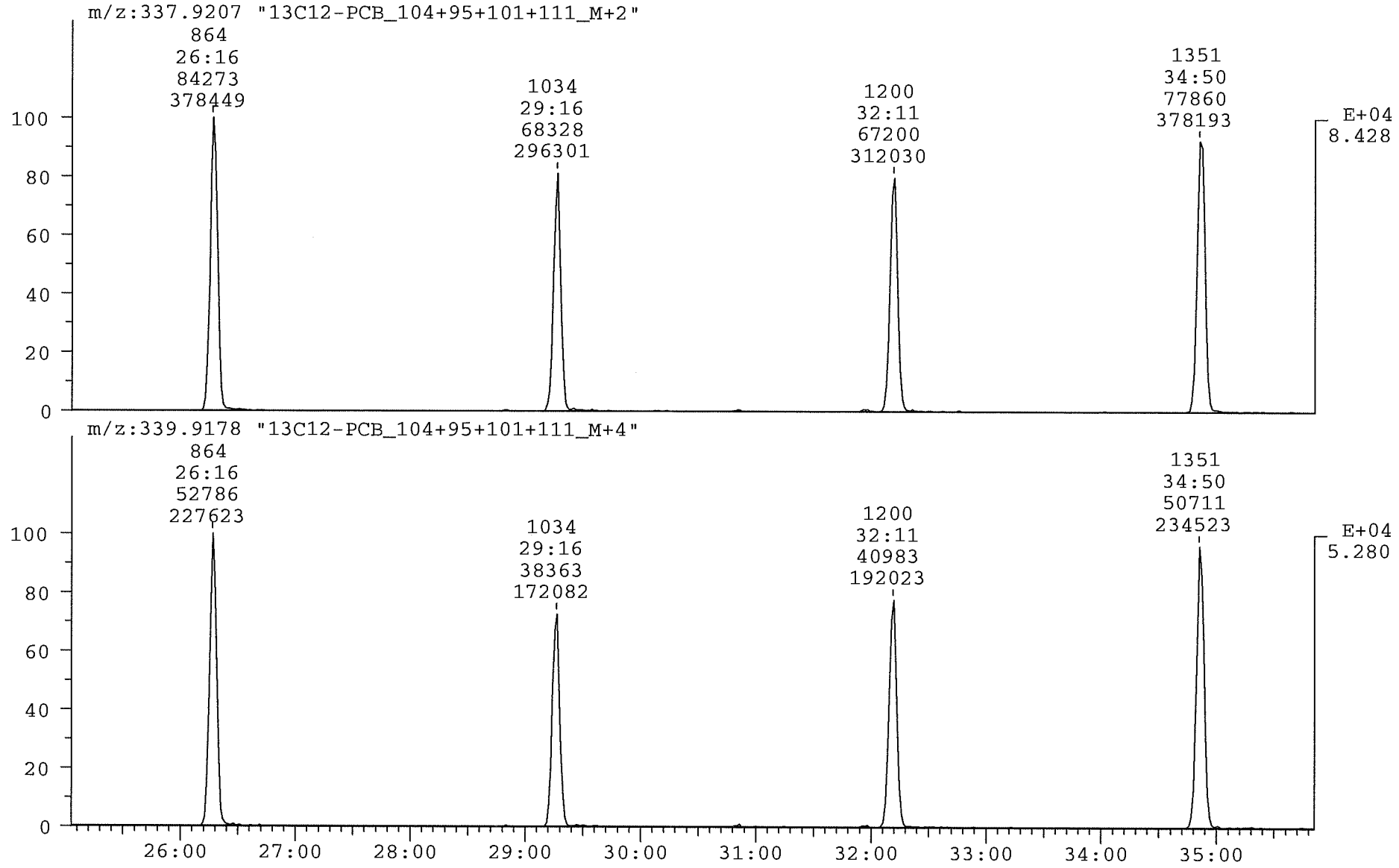
CHRO: a0806m3r3 11-Jun-08 Elapse: 33:55 1299
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 807 > 1787 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2579

2578

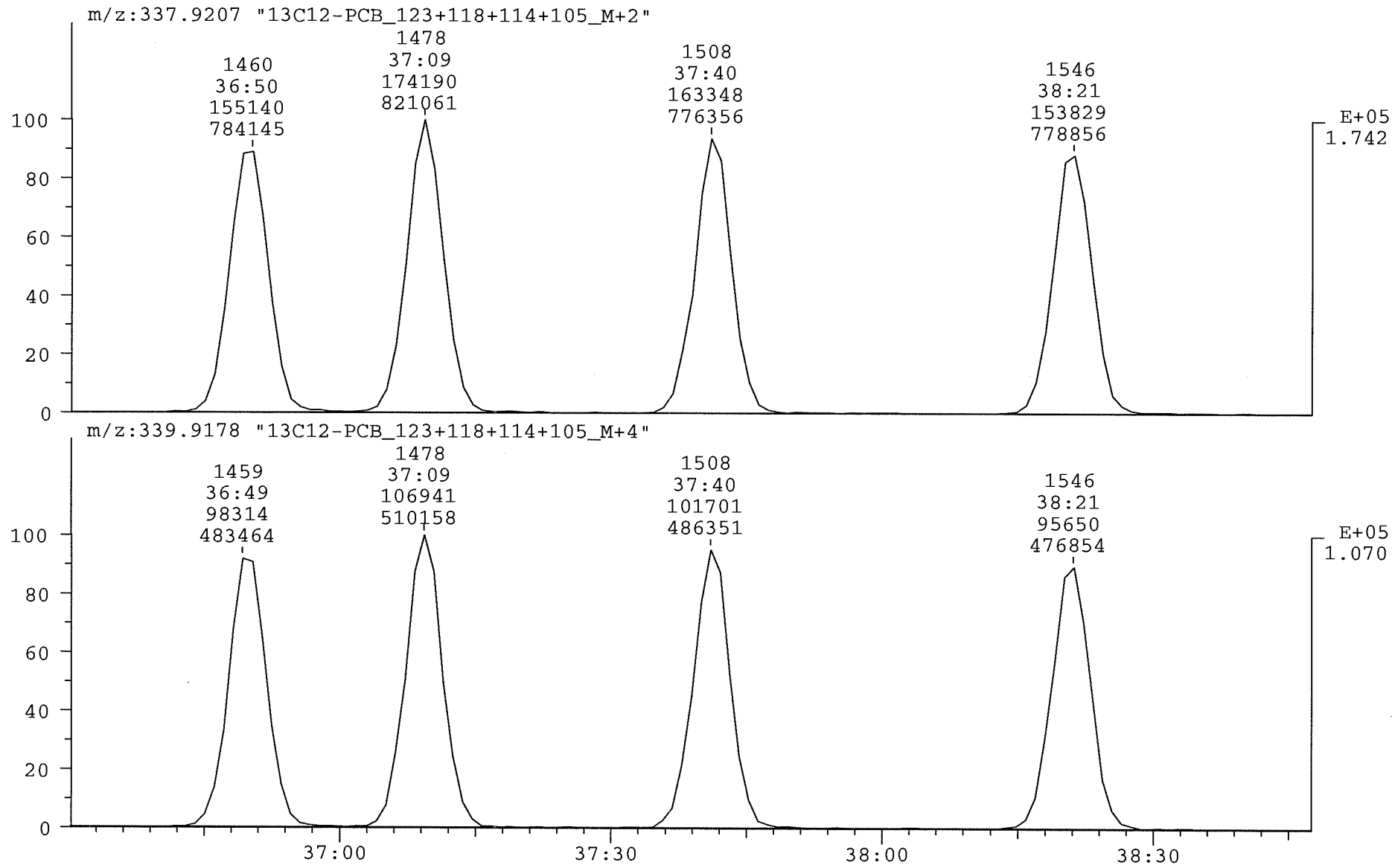
CHRO: a0806m3r3 11-Jun-08 Elapse: 30:26 1101
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 794 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2580

2579

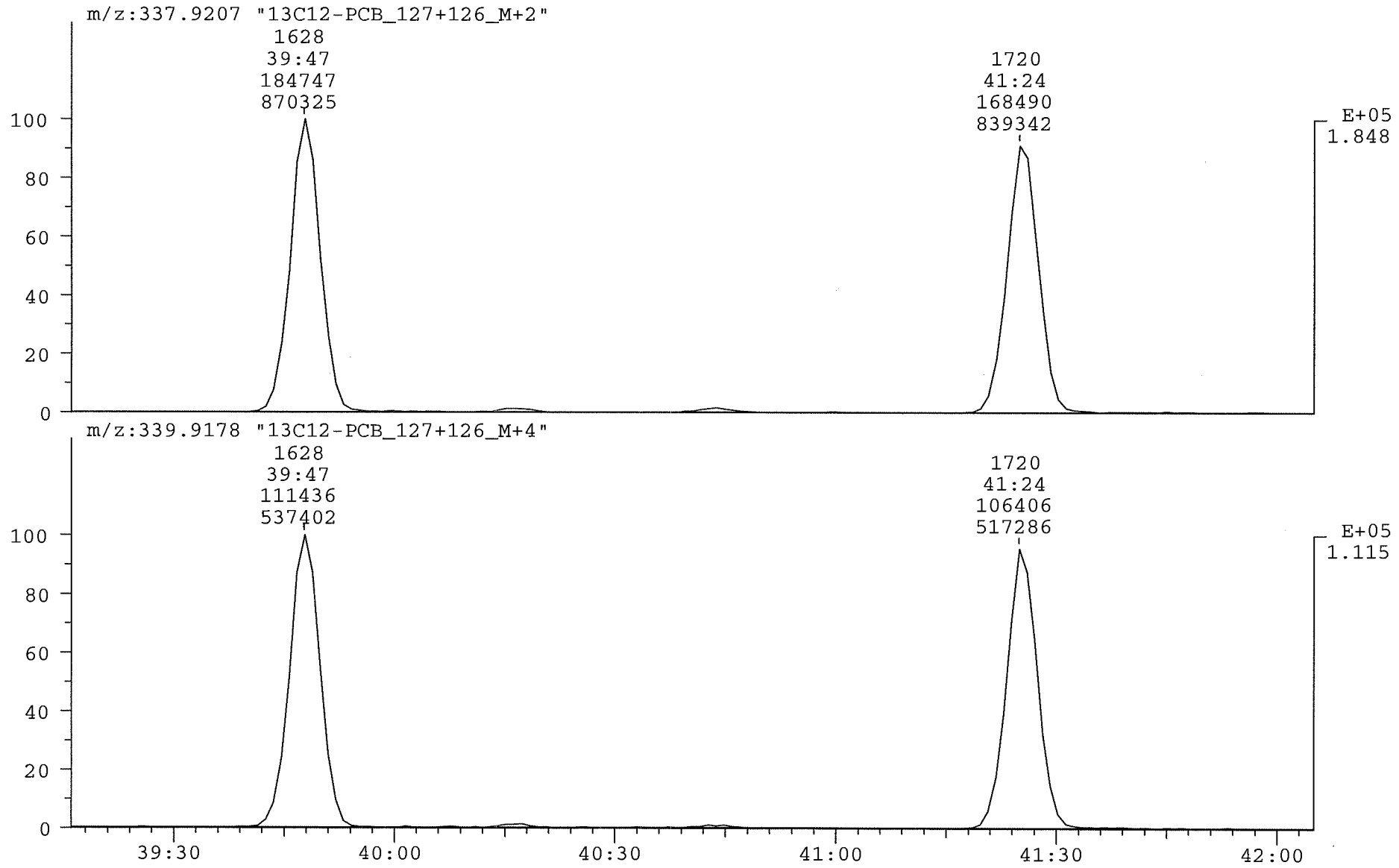
CHRO: a0806m3r3 11-Jun-08 Elapse: 37:38 1506
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1441 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2581

2580

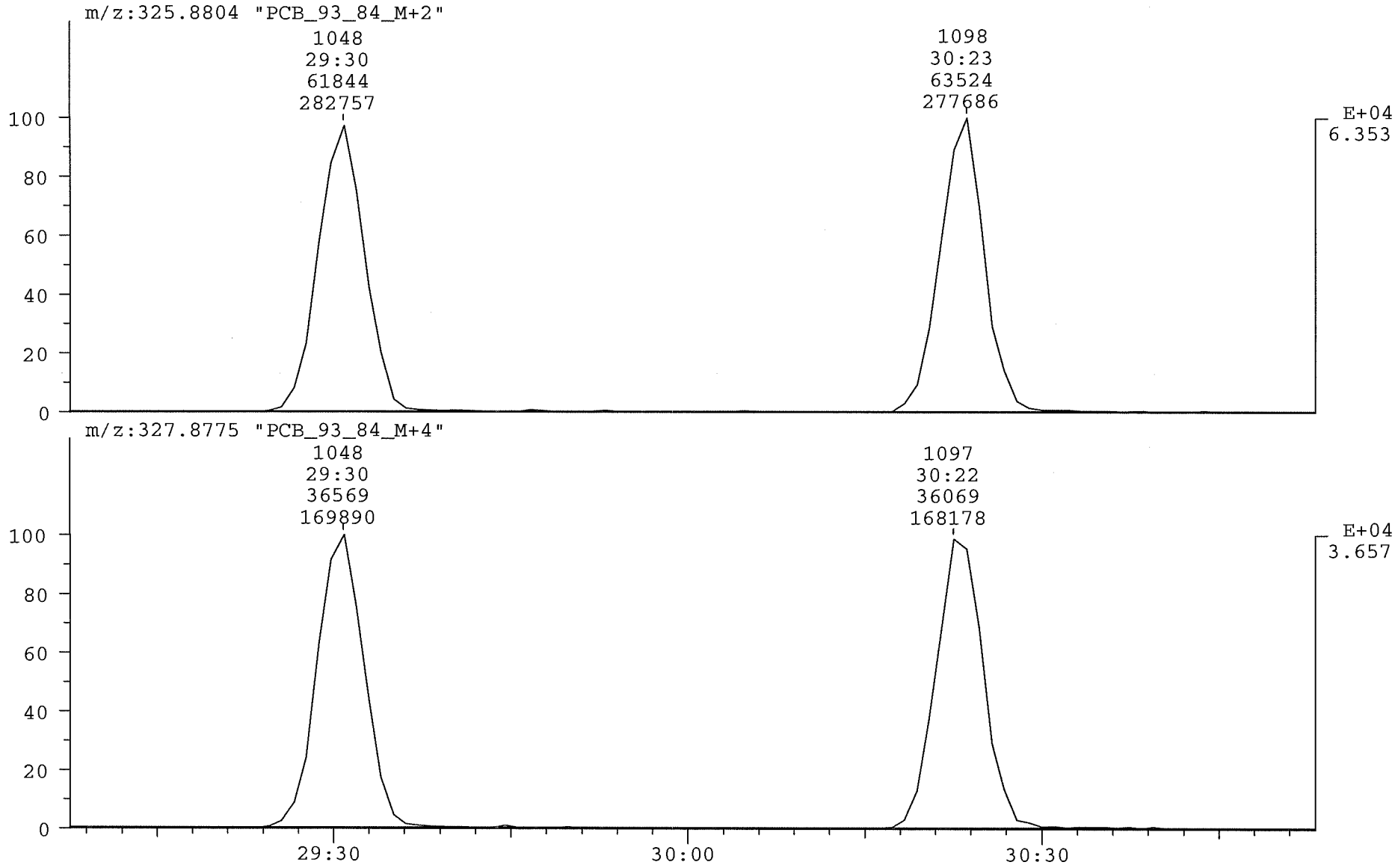
CHRO: a0806m3r3 11-Jun-08 Elapse: 40:40 1678
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1598 > 1758 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2582

2581

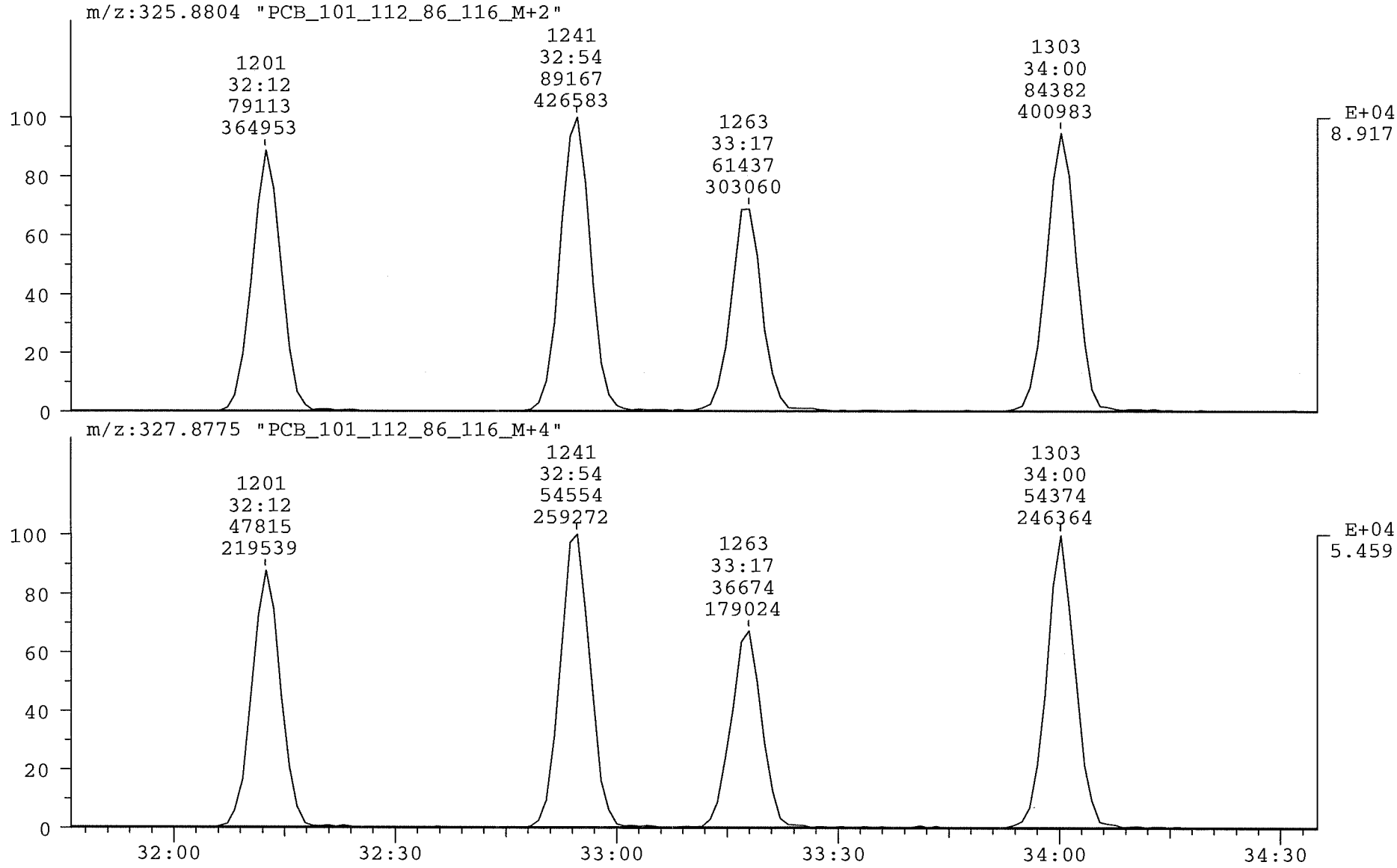
CHRO: a0806m3r3 11-Jun-08 Elapse: 30:00 1076
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1026 > 1126 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2583

2582

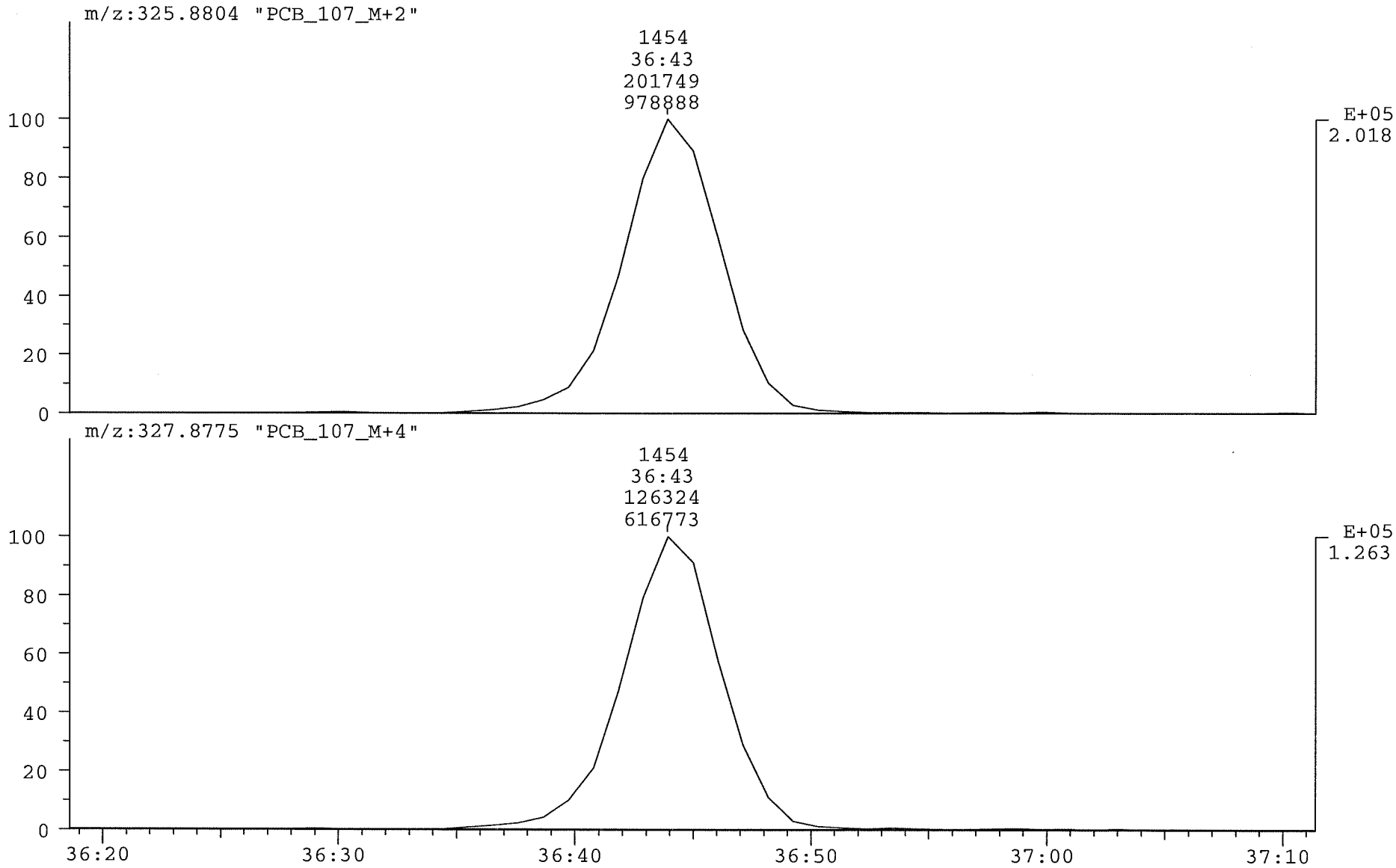
CHRO: a0806m3r3 11-Jun-08 Elapse: 33:10 1256
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1176 > 1336 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2584

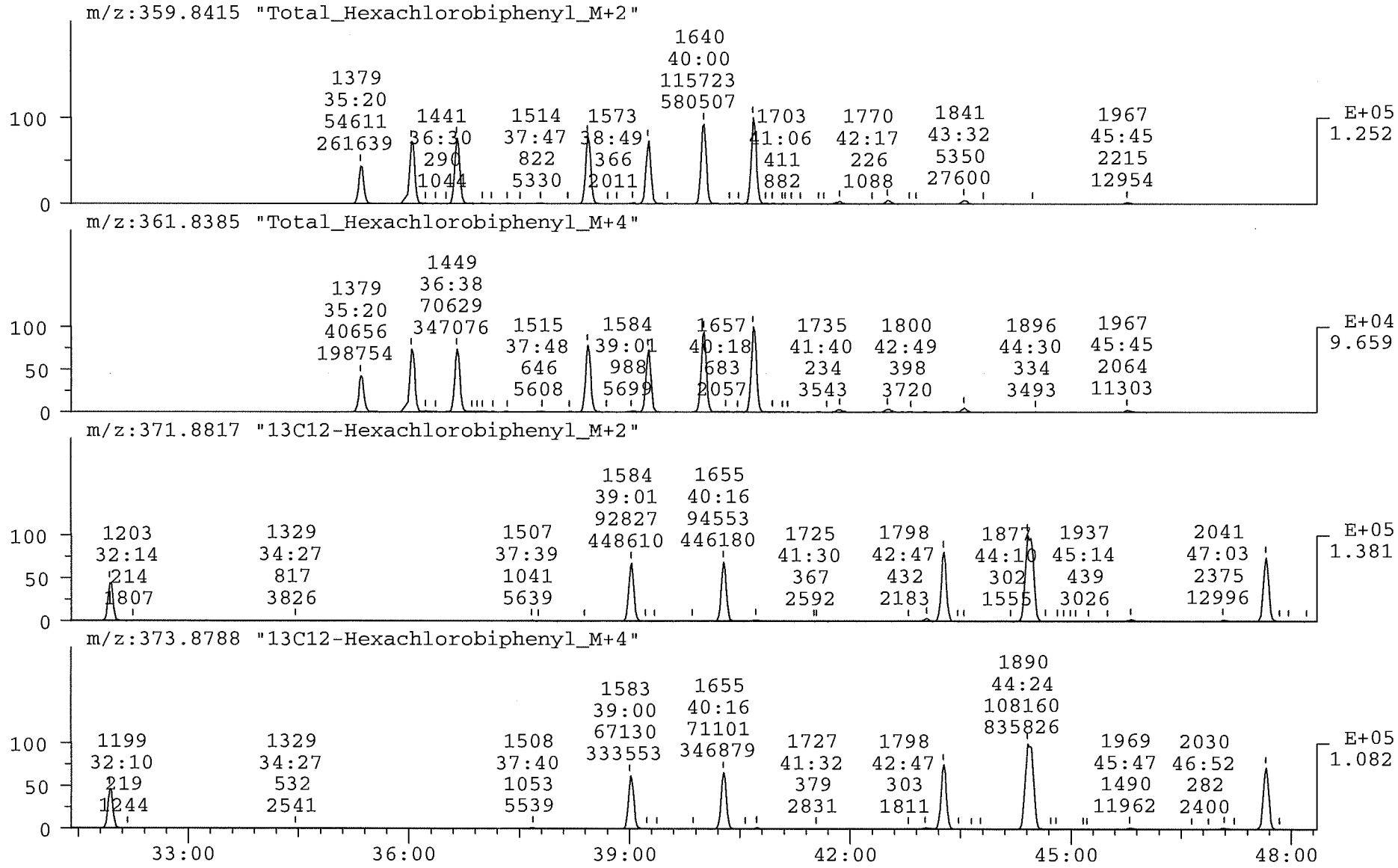
2583

CHRO: a0806m3r3 11-Jun-08 Elapse: 36:45 1455
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1430 > 1480 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



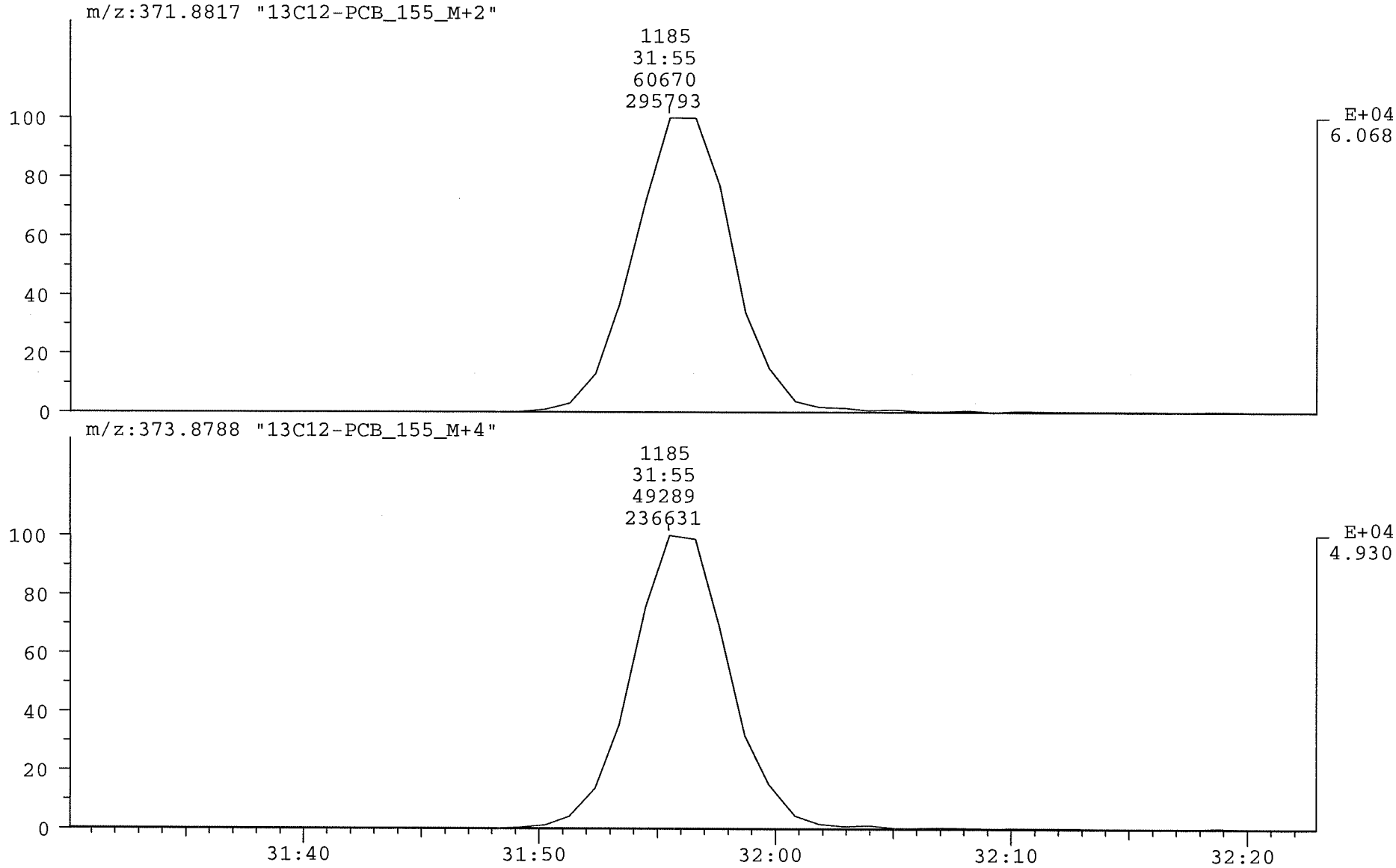
H-2585

CHRO: a0806m3r3 11-Jun-08 Elapse: 39:51 1632
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1155 > 2114 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2586

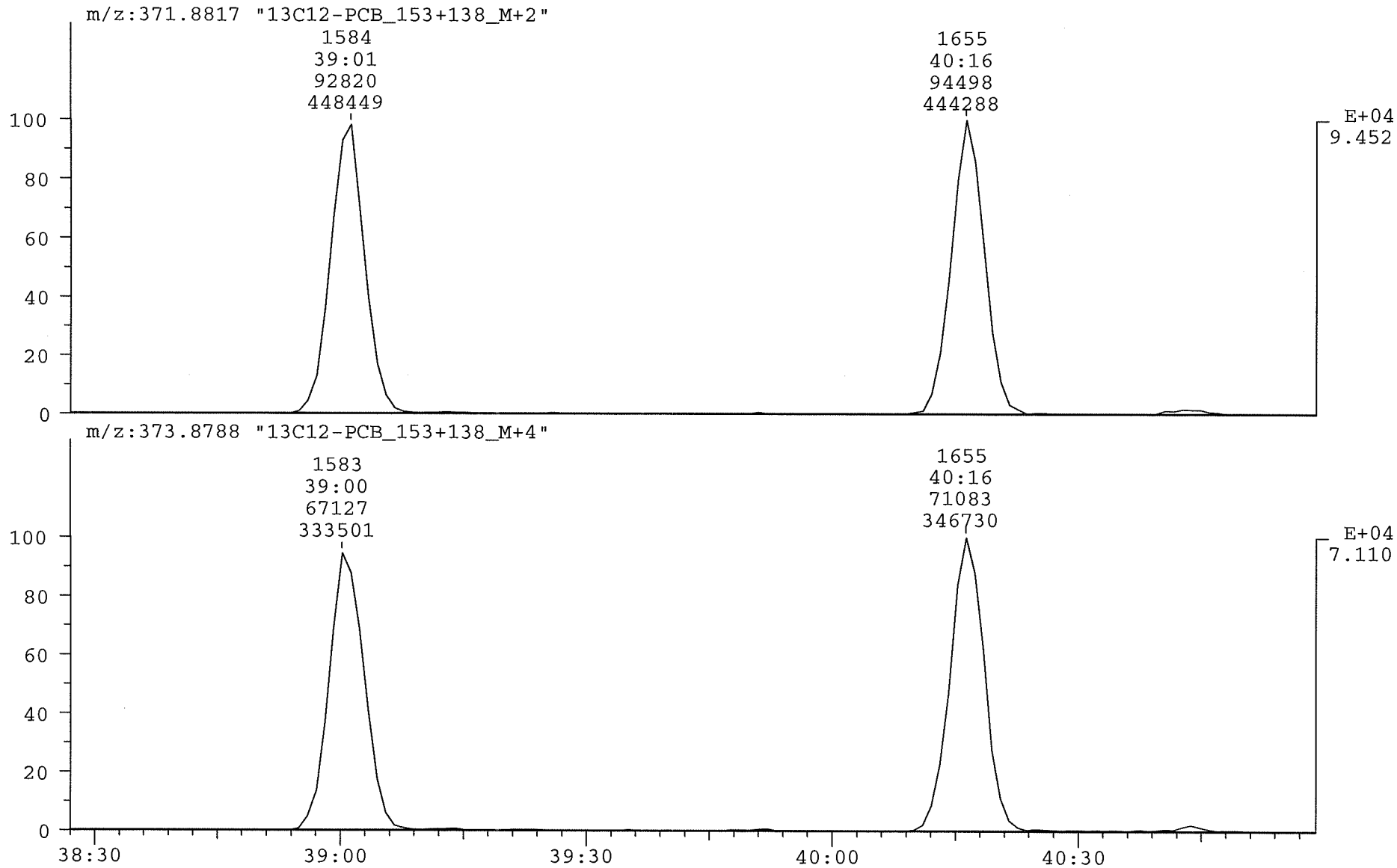
CHRO: a0806m3r3 11-Jun-08 Elapse: 31:56 1186
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1161 > 1211 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2587

2586

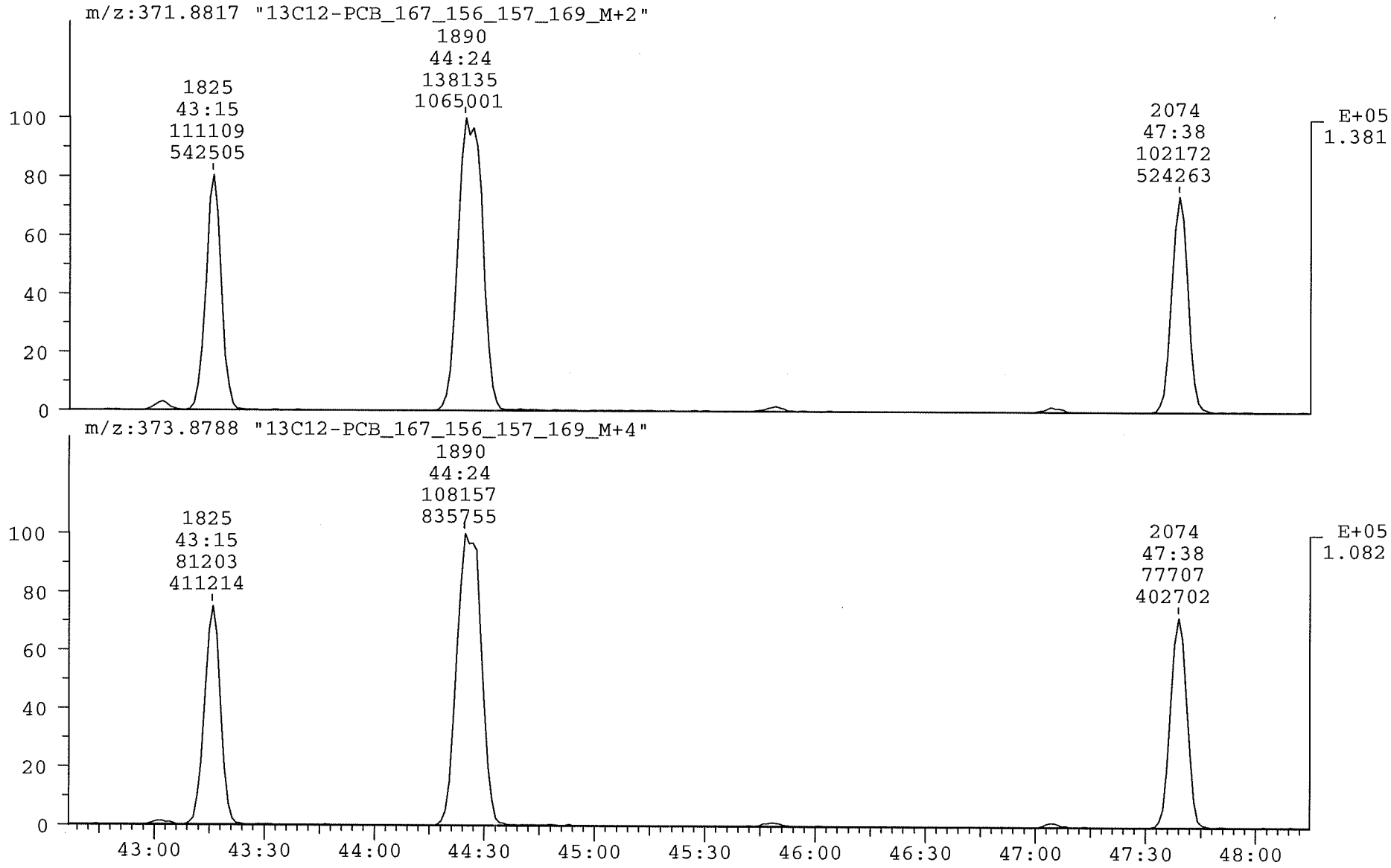
CHRO: a0806m3r3 11-Jun-08 Elapse: 39:43 1624
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1552 > 1696 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2588

2587

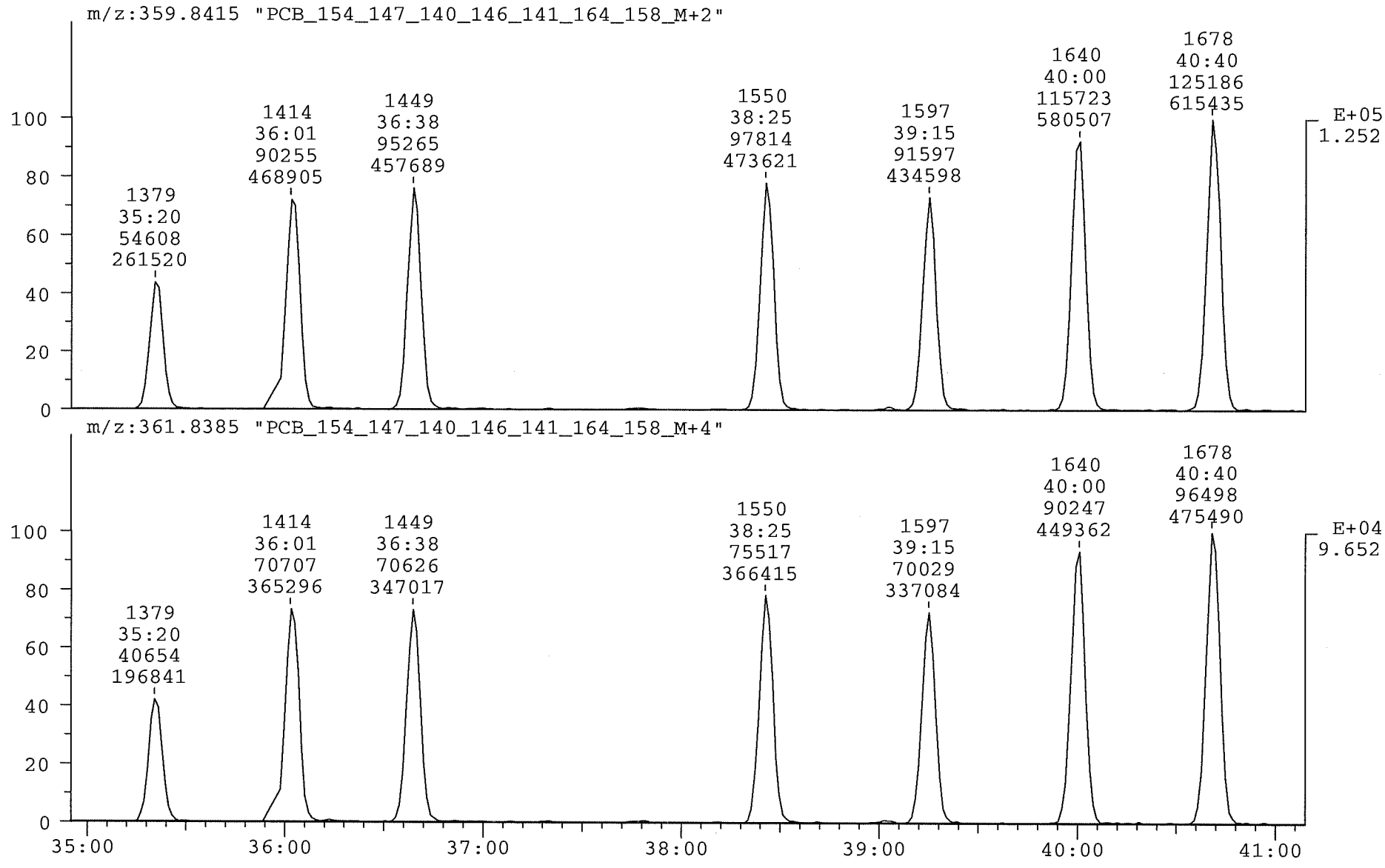
CHRO: a0806m3r3 11-Jun-08 Elapse: 45:31 1953
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1788 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2589

2588

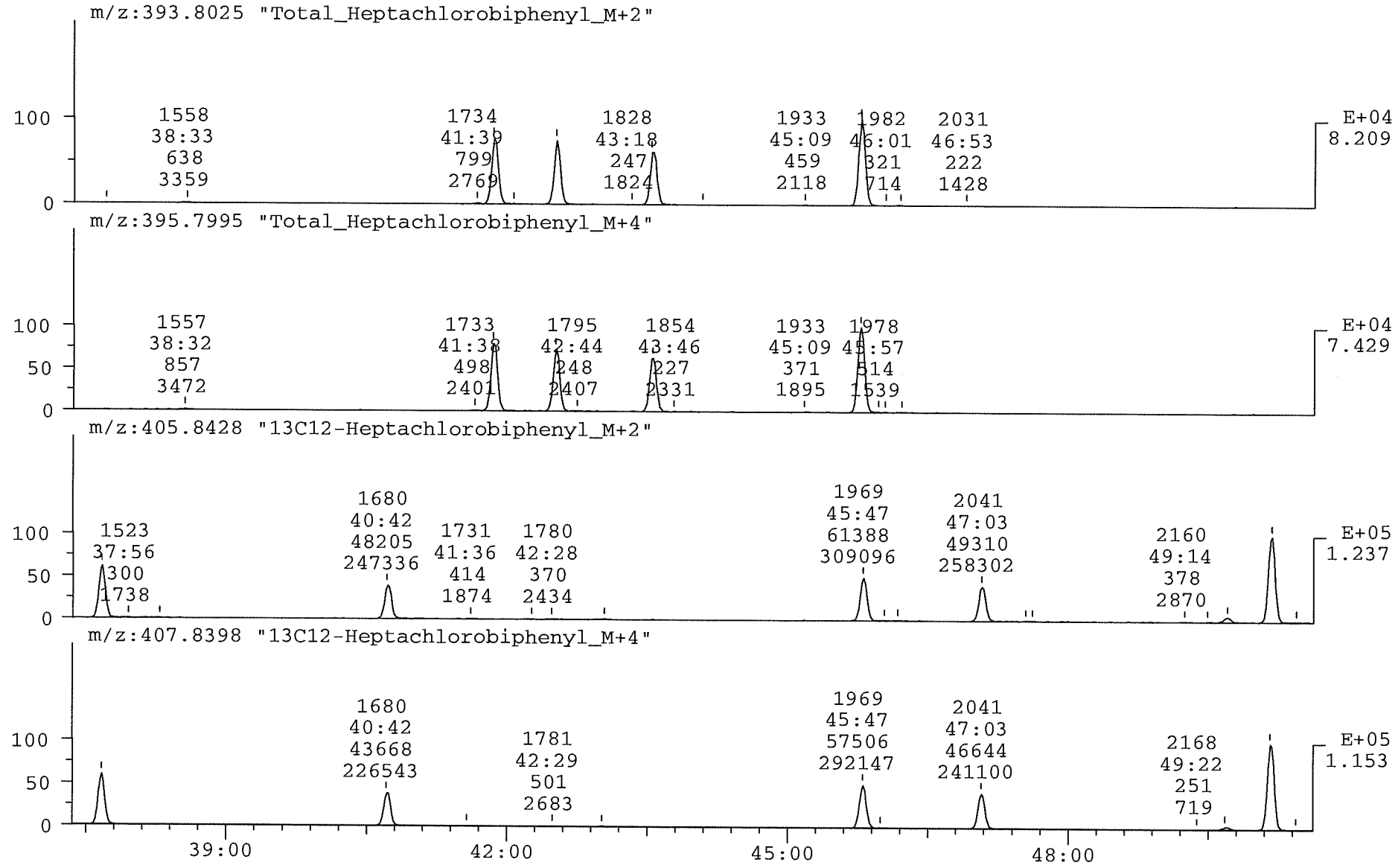
CHRO: a0806m3r3 11-Jun-08 Elapse: 38:04 1530
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1355 > 1705 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2590

2589

CHRO: a0806m3r3 11-Jun-08 Elapse: 43:59 1866
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1489 > 2238 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2591

2590

```
CHRO:  a0806m3r3                              11-Jun-08   Elapse:   39:15      1597
Samp:  Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1              Start :   02:50:51   2602
Comm:  Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :   2990:75 Mix 3
Oper:  DCG           Client:  TA Knoxville                Inlet :   GC     Vial  13
Peak:  100.00  ppm     Label wndw:   1472 > 1722          Masses:   181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3               Label :   -3, 3.0
Disp:  Height  Area
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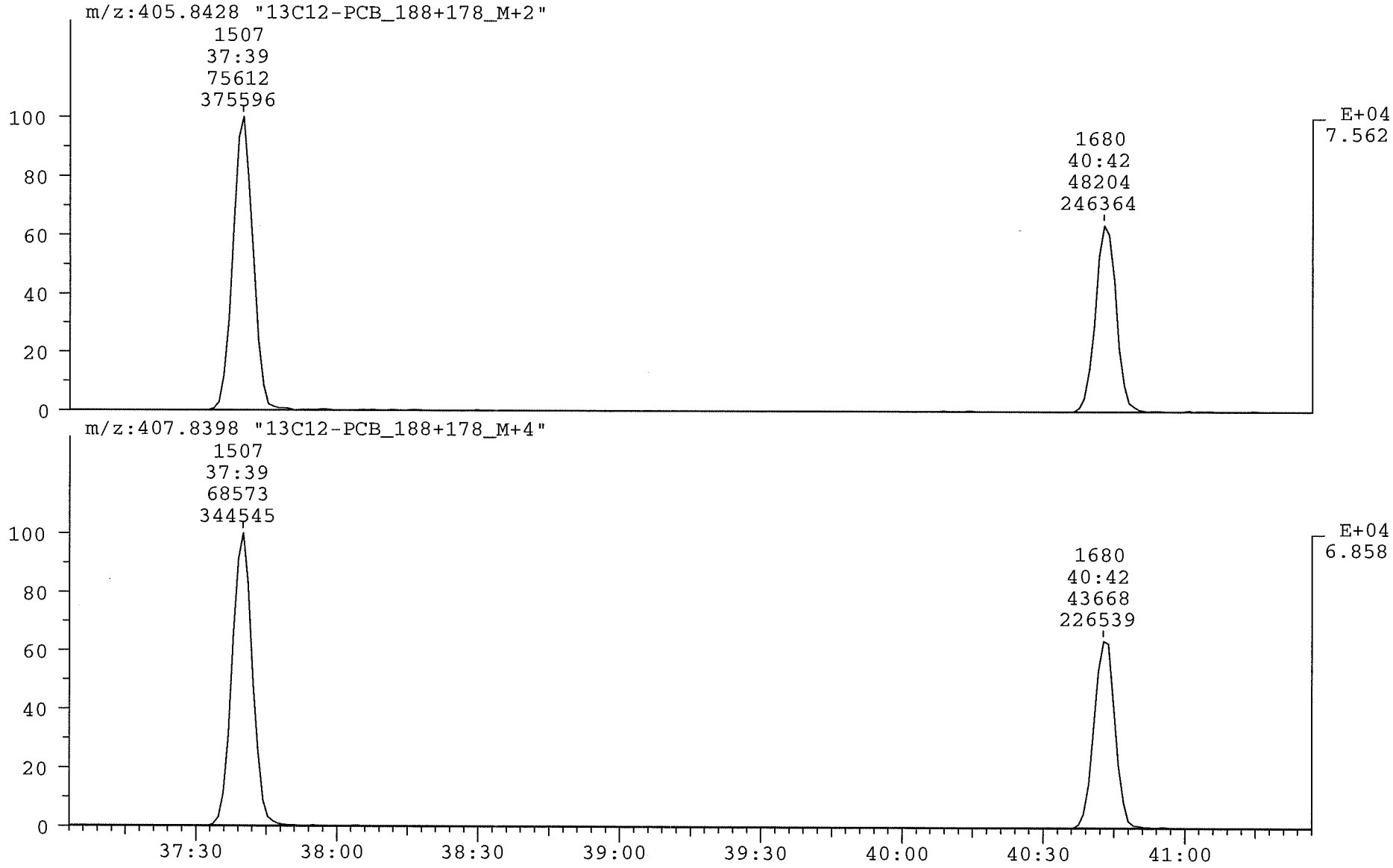
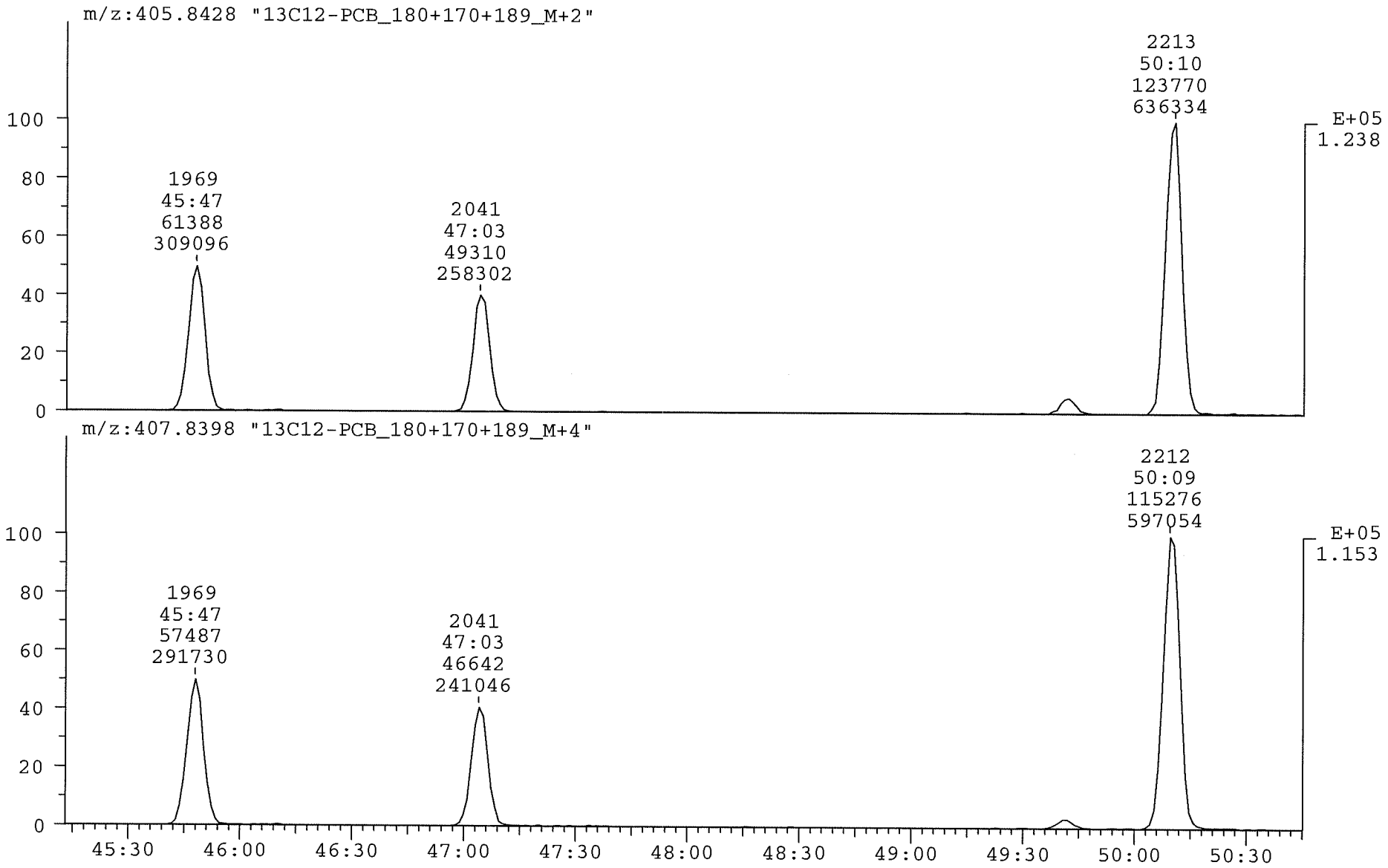


H-2592

2591

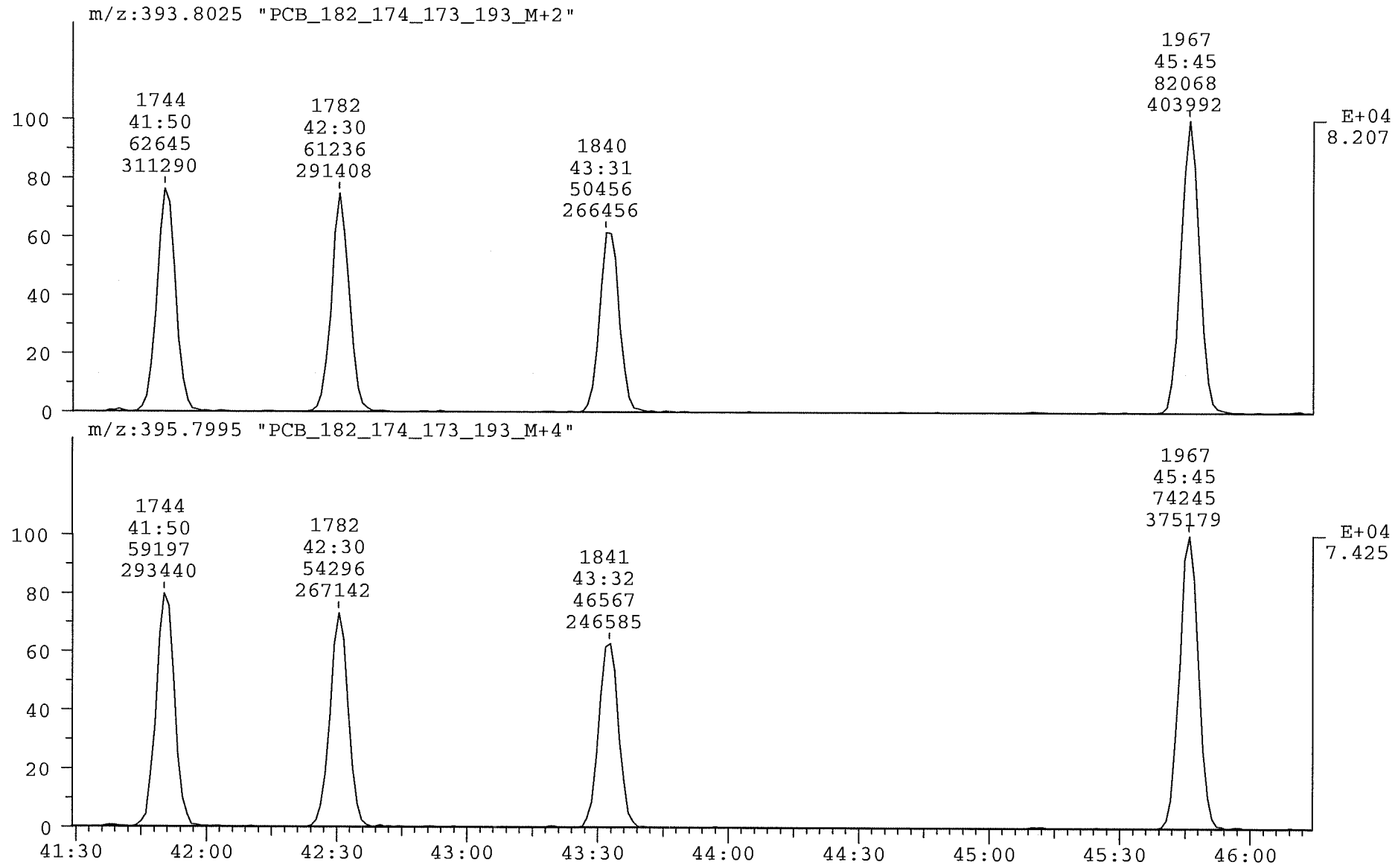
CHRO: a0806m3r3 11-Jun-08 Elapse: 48:02 2096
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1936 > 2246 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2593

2592

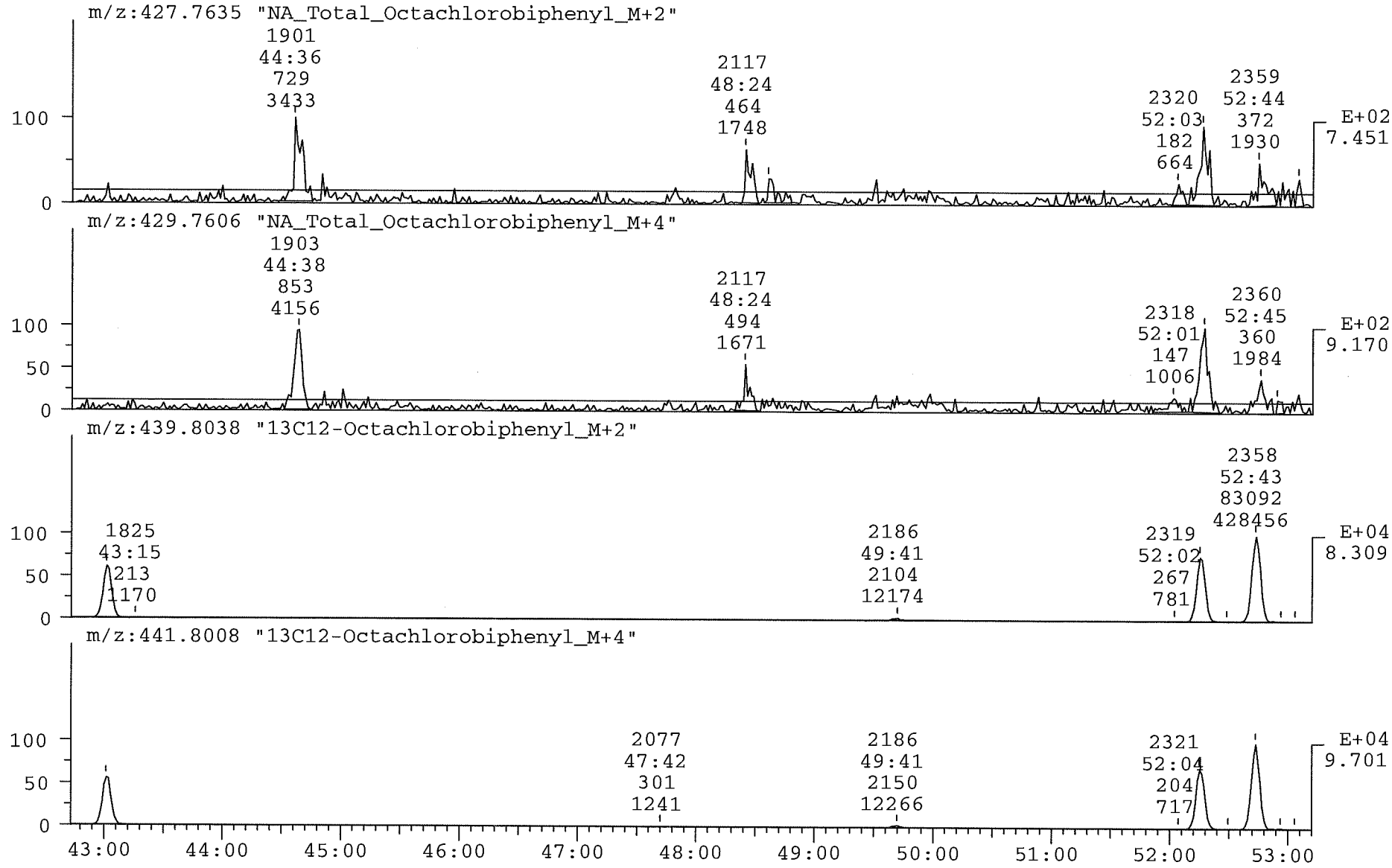
CHRO: a0806m3r3 11-Jun-08 Elapse: 43:51 1859
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1724 > 1994 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2594

2593

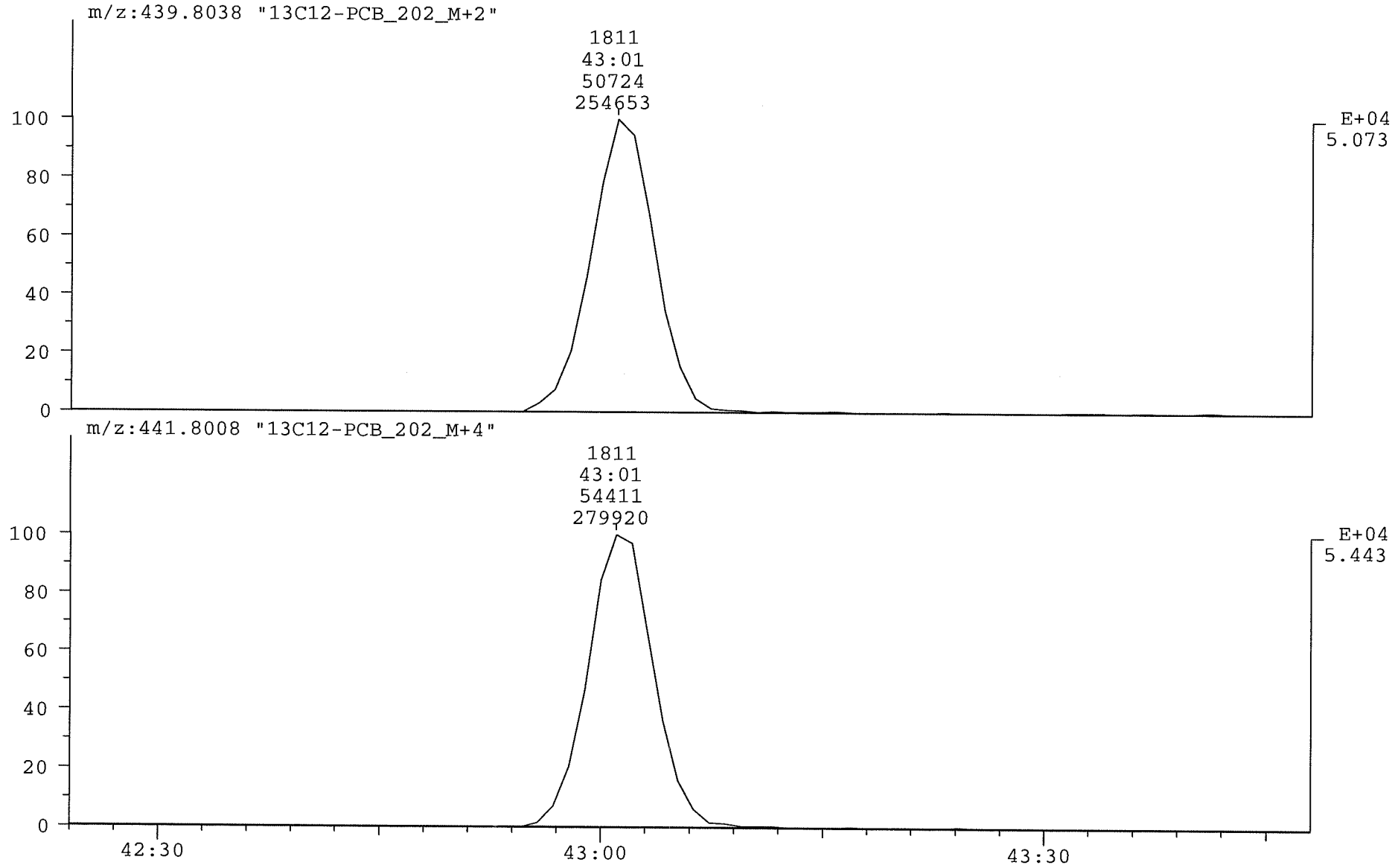
CHRO: a0806m3r3 11-Jun-08 Elapse: 47:56 2091
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1794 > 2385 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2595

2594

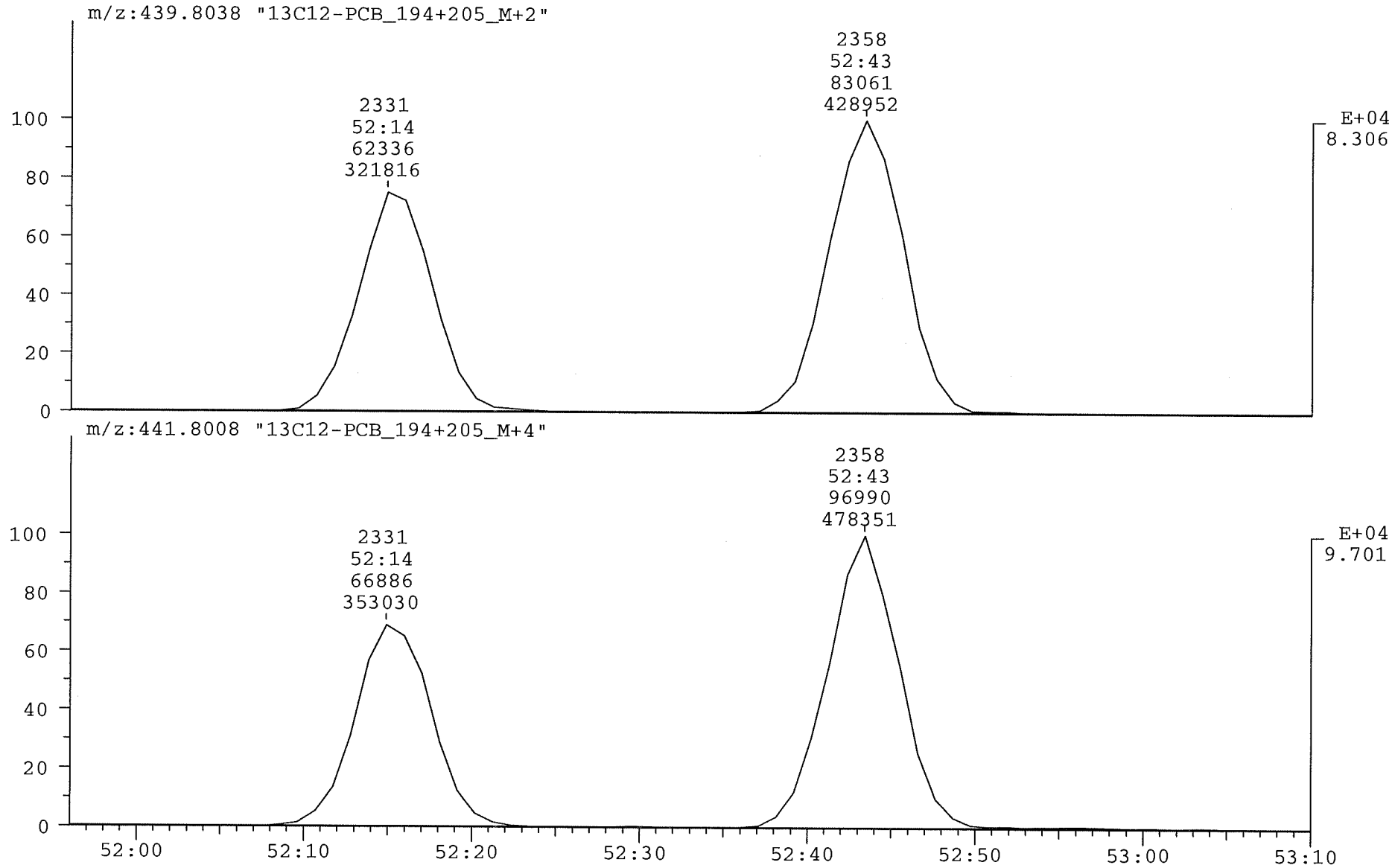
CHRO: a0806m3r3 11-Jun-08 Elapse: 43:03 1813
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 1776 > 1856 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2596

2595

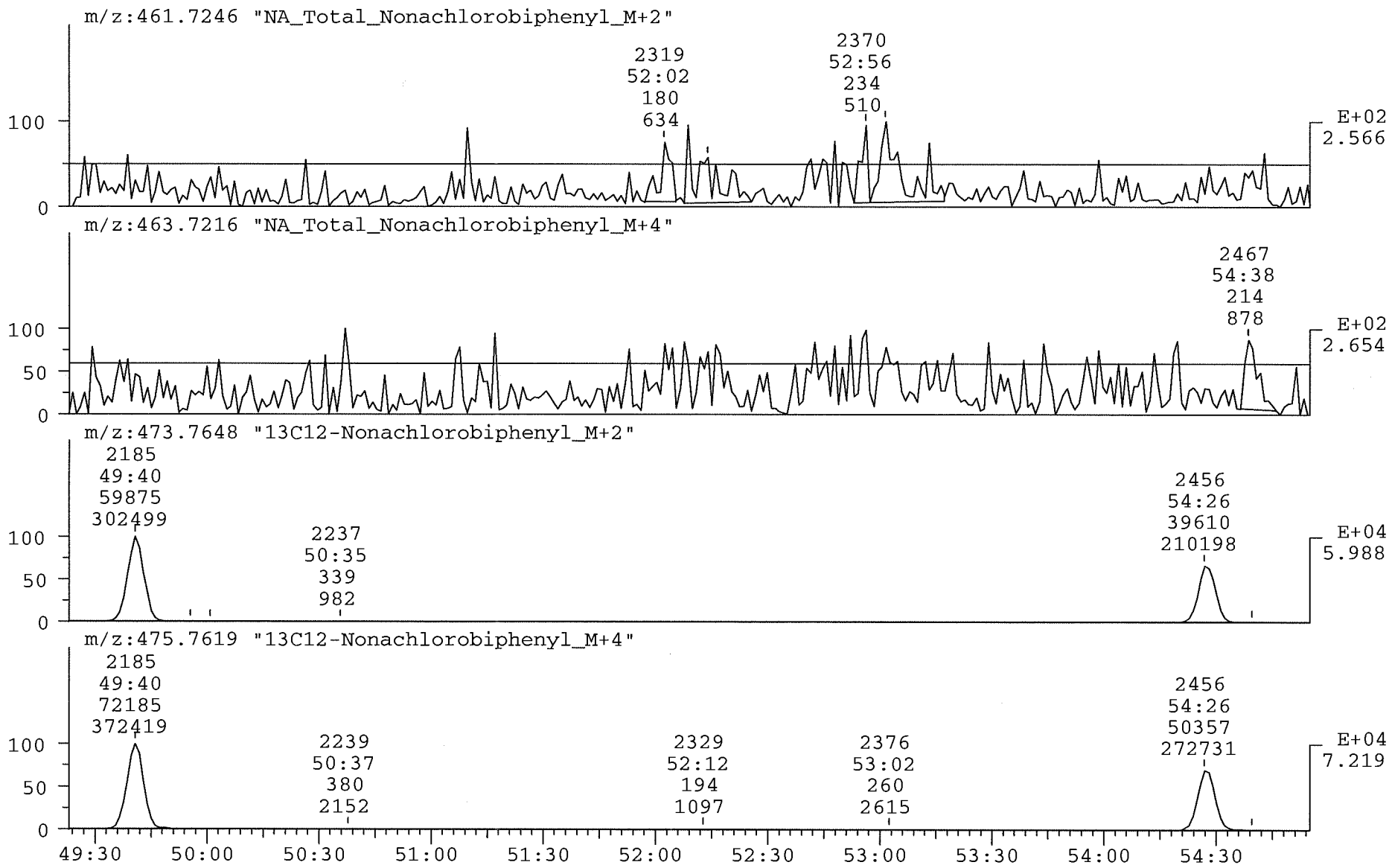
CHRO: a0806m3r3 11-Jun-08 Elapse: 52:32 2348
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2313 > 2383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2567

2596

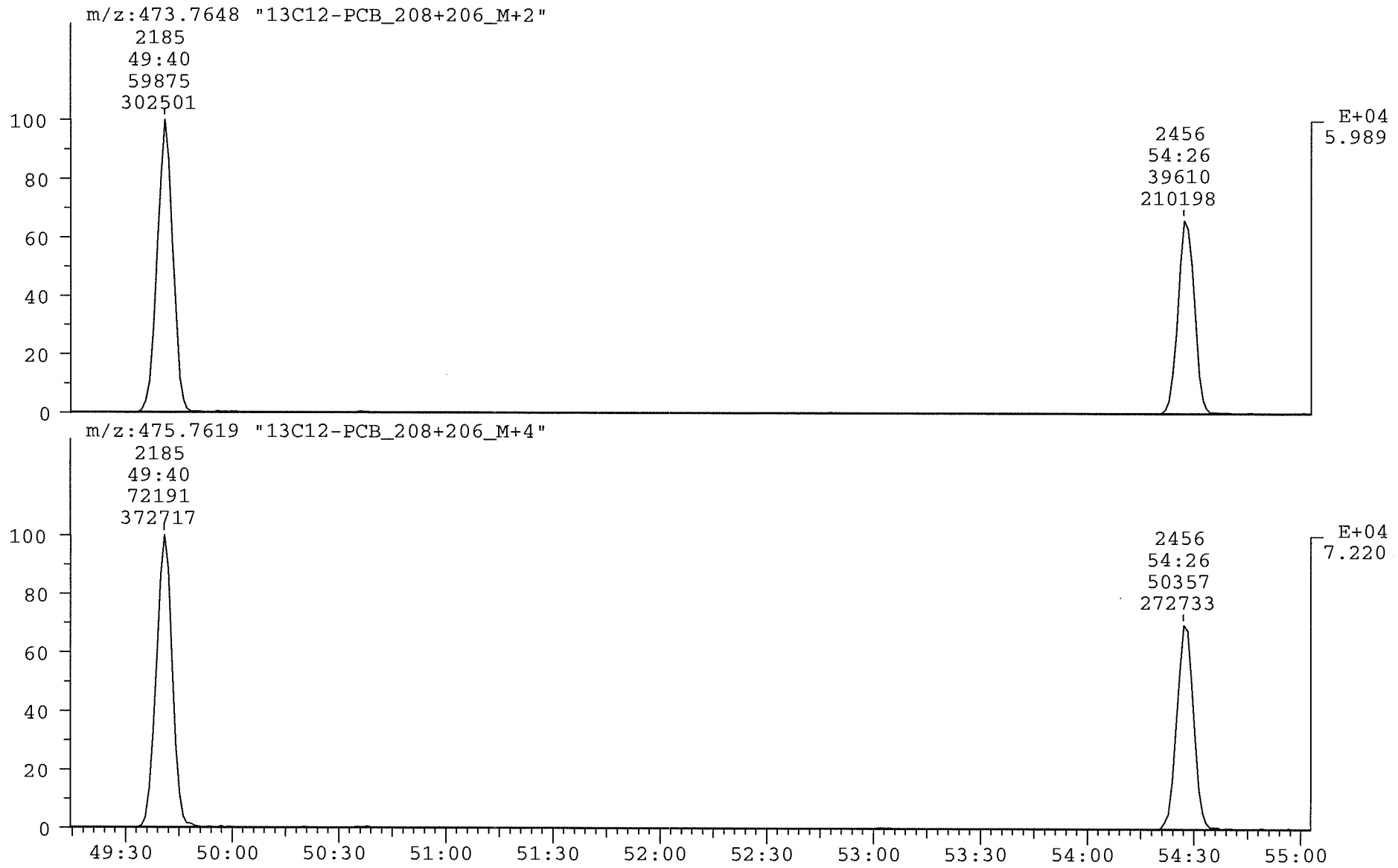
CHRO: a0806m3r3 11-Jun-08 Elapse: 52:08 2325
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2168 > 2483 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2598

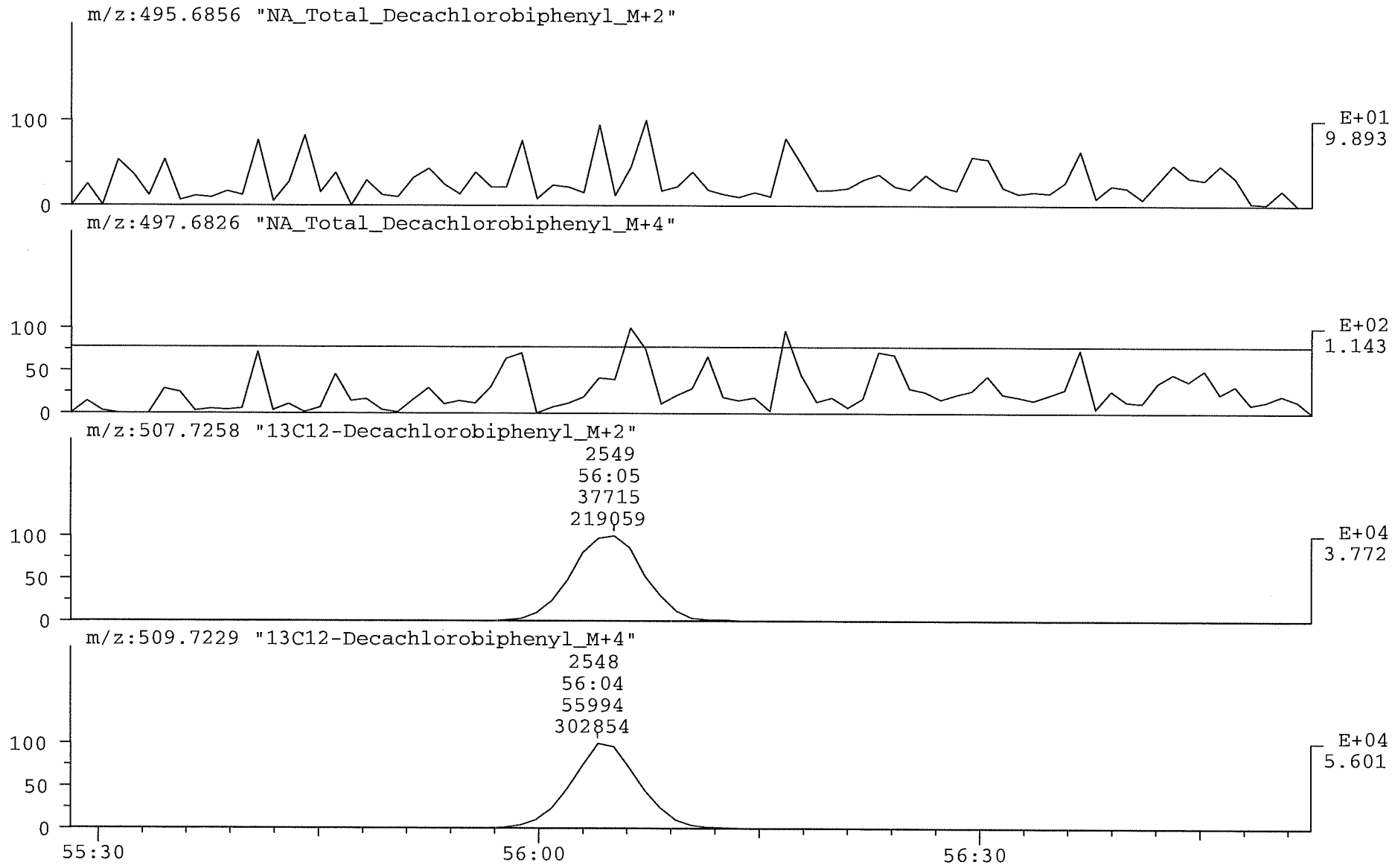
2597

CHRO: a0806m3r3 11-Jun-08 Elapse: 52:08 2325
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2160 > 2490 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2599

CHRO: a0806m3r3 11-Jun-08 Elapse: 56:10 2554
Samp: Vial 13 WO=2990:75Mix3 Meth=IE3 Dil=1 Start : 02:50:51 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 3
Oper: DCG Client: TA Knoxville Inlet : GC Vial 13
Peak: 100.00 ppm Label wndw: 2514 > 2594 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2600

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m3r3
Study: 2990:75 Mix 3
Sample: WO=2990:75Mix3 Meth=IE3 Dil=1
Amount:  0.00
Volume:  0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume:  2.00
Sample from Vial 13
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 13 of list 080609
  ICL procedure: sleep7x
  MID procedure: epa1668n

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio         1
   Damping Relay          FALSE
   Width first lock        0.10 amu
   Electric jump time        10 ms
   Magnetic jump time        60 ms
   Offset                    75 cts
   Electric range           300 %
   Sweep peak width        3.00
   MID mode               Lock mode
   Acq mode               Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:12 min   35:52 min    1.00 sec
  # 3   35:52 min   13:13 min   49:05 min    1.00 sec
  # 4   49:05 min    7:55 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 l   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
```

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times

```
 Sample rinse cycles      (R):      0 times
 Syringe filling volume   (F):    1.0 ul
 Pullup delay time        (D):      4 sec
 Sample pullup count      (P):      2 times
 Sample pullup speed      (E):    5.0 ul/sec
 Slvnt aftr pre inj cln   (U):    0.0 ul
 Air after pre inj cln    (G):    2.0 ul
 Sample volume            (V):    2.0 ul
 Sample air volume        (A):    2.0 ul
 Injection speed          (S):   10.0 ul/sec
 Pre Inj. wait time       (W):     10 sec
 Post Inj. hold time      (H):      3 sec
 Solvent A clean cycles   (C):     15 times
 Solvent B clean cycles   (B):      0 times
 Loop clean w slvnt A    (LC):      0 times
 Loop clean w slvnt B    (LB):      0 times
 Standard sample volume   (X):    0.0 ul
 Standard air volume      (Y):    0.0 ul
 2nd Injection volume     (I):    0.0 ul
 Air volume of 2nd inj    (J):    0.0 ul
 Time btwn 2 injections   (T):      0 sec

GC descriptor :  epa1668
   Injector:        270 deg                        270 deg max
   Transfer Line:   280 deg                        280 deg max
   Column:           75 deg at    0.0 minutes     280 deg max
                     75 deg at    2.0 minutes
                    150 deg at    7.0 minutes
                    270 deg at   55.0 minutes
                    270 deg at   57.0 minutes
   Inlet   :     Splitless mode
    Purge time            1.5 min
    Purge flow           40.0 ml/min
    Gas saver is on
    Saver time            3.0 min
    Saver flow           15.0 ml/min
   Column  :  Constant Flow     1.0 ml
   Stabilize time   0.0 minutes


ICL Parameters

 BCORRL          0.0150    BCORRS          0.0110    BCURR       16383.0000
 BDEV        16383.0000    BFM             2.0000    BLM          1032.0953
 BMASS         180.4888    BQUAD           0.0000    CAPIL           0.0000
 CAPTEMP       359.9988    CAPTSET       200.0000    CCURR           3.5529
 CORONA          0.0000    CYCLE           0.0000    DELAY           0.0000
 DITEMP          0.1954    DITSET          0.0000    DRAW          -19.0500
 DRAWC           1.0000    DRAWS           0.0100    ECORR           1.0010
 ECURR           1.0000    EDAC      7969177.0000    EDACG           1.0000
 EDACR          23.0000    EDACZ         394.0000    ELEN           56.5000
 EMULT           1.5200    ENS           460.0000    ERATIO          1.0000
 ESA           763.8000    ESICUR         10.0011    ESIPAR          0.0000
 EXS           146.0000    FDMA     18000000.0000    FLENS           1.0000
 FM             20.0000    FMII           50.0000    FQUAD           0.0000
 FREQ          300.4808    FSLOPE   54000000.0000    FVANAL        345.0000
 FVINLET       264.0000    FVSRC         998.0000    FWIN            0.7000
 GCTC          198.0000    GCTI          270.0000    GCTL          280.0000
 HACCU         208.0000    HCURR           1.3137    HVANAL       1269.0000
 HVSRC           0.0000    ICAL0           0.0011    ICAL1           0.4030
 ICAL2           0.5865    IONEN        4776.5520    IST           271.3713
 ISTC            0.0000    ISTCKP          5.0000    ISTCTD          1.0000
 ISTCTN          2.0000    ISTCTS         60.0000    ISTCTV          3.0000
 ISTS          270.0000    LENS         1333.0000    LENSS         106.4000
 LKM           404.9760    LM            800.0000    LMASS         180.4888
 LMII          500.0000    MASS          180.4888    MDAC      2347820.5477
```

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2606.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.8400	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 11-Jun-08 02:50:51.3

Autosampler has injected sample from vial 13
MID Time Window 1: Resolution is 8226
MID Time Window 2: Resolution is 10345
MID Time Window 3: Resolution is 8573
MID Time Window 4: Resolution is 10124
Analysis stopped at: 11-Jun-08 03:47:54.3 (run time 57.03 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX4	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m4r1.	**Prep Date**		**SDG No**	
Analysis ID	104463	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 17:41	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	198	228	79	91	0.87 *	/	
	13C12-PCB 1	12:02	00:00	0	1516542	447283	635539	186374	3.39	AVV/AVV	
	13C12-PCB 3	14:14	00:00	0	1576579	462736	549372	159136	3.41	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	203	143	81	57	1.42	/	
	13C12-PCB 4	14:30	00:00	0	406360	264075	138079	89508	1.54	AVV/ABV	
	13C12-PCB 9	16:28	00:00	0	699145	455706	217759	143180	1.53	AVV/ABV	
	13C12-PCB 8	17:20	00:00	0	702189	442573	200626	125683	1.59	AVV/ABV	
	13C12-PCB 15	20:26	00:00	0	694353	440275	172732	112888	1.58	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	313	168	125	67	1.87 *	/	
	PCB 25 (BZ)	22:54	00:00	0	682443	626211	172485	152718	1.09	ABV/ABV	
	PCB 21 (BZ)	23:41	00:00	0	617216	589644	152023	144125	1.05	AVB/AVV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	208	173	83	69	1.20	/	
	13C12-PCB 19	17:39	00:00	0	228040	224634	64247	62814	1.02	AVV/AVV	
	13C12-PCB 32	20:56	00:00	0	404471	386141	103646	96257	1.05	AVV/AVV	
	13C12-PCB 31	23:12	00:00	0	1180454	1081154	285634	256802	1.09	AVV/ABV	
	13C12-PCB 28	23:29	00:00	0	1083986	990529	261385	242073	1.09	AVV/AVV	
	13C12-PCB 37	27:31	00:00	0	1023076	938434	222812	209155	1.09	AVV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	235	200	94	80	1.18 *	/	
	PCB 69 (BZ)	25:46	00:00	0	615778	782765	142631	182903	0.79	ABV/ABV	D
	PCB 47 (BZ)	26:23	00:00	0	545460	681018	123788	153653	0.80	ABV/AVV	DM
	PCB 42 (BZ)	26:54	00:00	0	455815	585910	102185	131253	0.78	AVV/AVV	D
	PCB 64 (BZ)	27:36	00:00	0	686194	848087	151567	194049	0.81	AVV/AVV	D
	PCB 70 (BZ)	30:08	00:00	0	701623	886146	157059	193691	0.79	ABV/ABV	DM
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	105	118	42	47	0.89 *	/	
	13C12-PCB 54	20:46	00:00	0	227410	282289	54189	70235	0.81	ABV/ABV	
	13C12-PCB 52	25:20	00:00	0	392604	499318	95290	119416	0.79	ABV/ABV	
	13C12-PCB 79	33:16	00:00	0	537437	677750	115469	149019	0.79	ABV/ABV	
	13C12-PCB 81	34:16	00:00	0	490547	622053	104661	134614	0.79	ABV/ABV	
	13C12-PCB 77	34:51	00:00	0	504982	637138	104059	132026	0.79	ABV/ABV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	150	125	60	50	1.20 *	/	
	PCB 102 (BZ)	29:38	00:00	0	431500	265061	92273	58371	1.63	ABV/ABV	
	PCB 97 (BZ)	33:18	00:00	0	389648	235074	84336	49845	1.66	ABV/ABV	M

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX4	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m4r1.	**Prep Date**		**SDG No**	
Analysis ID	104463	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 17:41	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**		
	PCB 115 (BZ)	34:15	00:00	0	536791	328307	112779	69435	1.64	ABV/ABV	D
	PCB 123 (BZ)	36:51	00:00	0	1202066	743887	243091	151219	1.62	ABV/ABV	
338					**337.9207**	**339.9178**	**337.9207**	**339.9178**	**1.32-1.78**		
	Noise	00:00	00:00	0	120	108	48	43	1.12 *	/	
	13C12-PCB 104	26:17	00:00	0	464968	282588	109073	65445	1.65	ABV/ABV	
	13C12-PCB 95	29:16	00:00	0	358764	216251	78419	48094	1.66	ABV/ABV	
	13C12-PCB 101	32:11	00:00	0	376048	227822	78256	46982	1.65	AVV/AVV	
	13C12-PCB 111	34:51	00:00	0	461923	274041	97438	56776	1.69	ABV/ABV	
	13C12-PCB 123	36:49	00:00	0	1011594	618915	212013	126234	1.63	ABV/ABV	
	13C12-PCB 118	37:09	00:00	0	1053373	642219	225396	135646	1.64	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	1002359	604667	204095	127197	1.66	AVV/AVV	
	13C12-PCB 105	38:21	00:00	0	1014072	598961	203720	118754	1.69	ABV/AVV	
	13C12-PCB 127	39:48	00:00	0	1115998	678720	234885	145383	1.64	AVV/ABV	
	13C12-PCB 126	41:25	00:00	0	1051904	654829	224127	139434	1.61	ABV/AVV	
360					**359.8415**	**361.8385**	**359.8415**	**361.8385**	**1.05-1.43**		
	Noise	00:00	00:00	0	145	235	58	94	0.62 *	/	
	PCB 134 (BZ)	36:15	00:00	0	477983	367545	100192	75429	1.30	AVV/AVV	D
	PCB 131 (BZ)	36:50	00:00	0	516963	406512	106254	84481	1.27	AVV/ABV	D
	PCB 163 (BZ)	40:18	00:00	0	775212	601472	161691	127033	1.29	ABV/ABB	
372					**371.8817**	**373.8788**	**371.8817**	**373.8788**	**1.05-1.43**		
	Noise	00:00	00:00	0	153	90	61	36	1.69 *	/	
	13C12-PCB 155	31:57	00:00	0	360683	289753	74563	62875	1.24	ABV/ABV	
	13C12-PCB 153	39:00	00:00	0	549867	424084	111162	88033	1.30	ABV/ABV	
	13C12-PCB 138	40:16	00:00	0	562428	438807	116805	92885	1.28	ABV/ABV	
	13C12-PCB 167	43:16	00:00	0	671413	518914	137128	102861	1.29	AVV/AVV	
	13C12-PCB 156	44:27	00:00	0	1316050	1002927	167604	128168	1.31	AVV/ABV	M
	13C12-PCB 169	47:39	00:00	0	616499	479015	127094	91672	1.29	ABV/ABV	
394					**393.8025**	**395.7995**	**393.8025**	**395.7995**	**0.89-1.21**		
	Noise	00:00	00:00	0	123	108	49	43	1.14	/	
	PCB 180 (BZ)	45:49	00:00	0	398579	376842	80080	73806	1.06	ABV/ABV	
406					**405.8428**	**407.8398**	**405.8428**	**407.8398**	**0.89-1.21**		
	Noise	00:00	00:00	0	123	123	49	49	1.00	/	
	13C12-PCB 188	37:40	00:00	0	458336	424043	93934	85455	1.08	ABV/ABV	
	13C12-PCB 178	40:43	00:00	0	295431	280801	62227	58438	1.05	ABV/ABV	
	13C12-PCB 180	45:48	00:00	0	383781	353801	78414	74023	1.08	ABV/ABV	
	13C12-PCB 170	47:04	00:00	0	314222	298488	61013	60218	1.05	ABV/ABV	
	13C12-PCB 189	50:10	00:00	0	809717	743697	161946	145301	1.09	ABV/ABV	
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**		
	Noise	00:00	00:00	0	85	103	34	41	0.83	/	
	13C12-PCB 202	43:02	00:00	0	309601	341944	57787	65309	0.91	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX4	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m4r1.	**Prep Date**		**SDG No**	
Analysis ID	104463	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 17:41	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

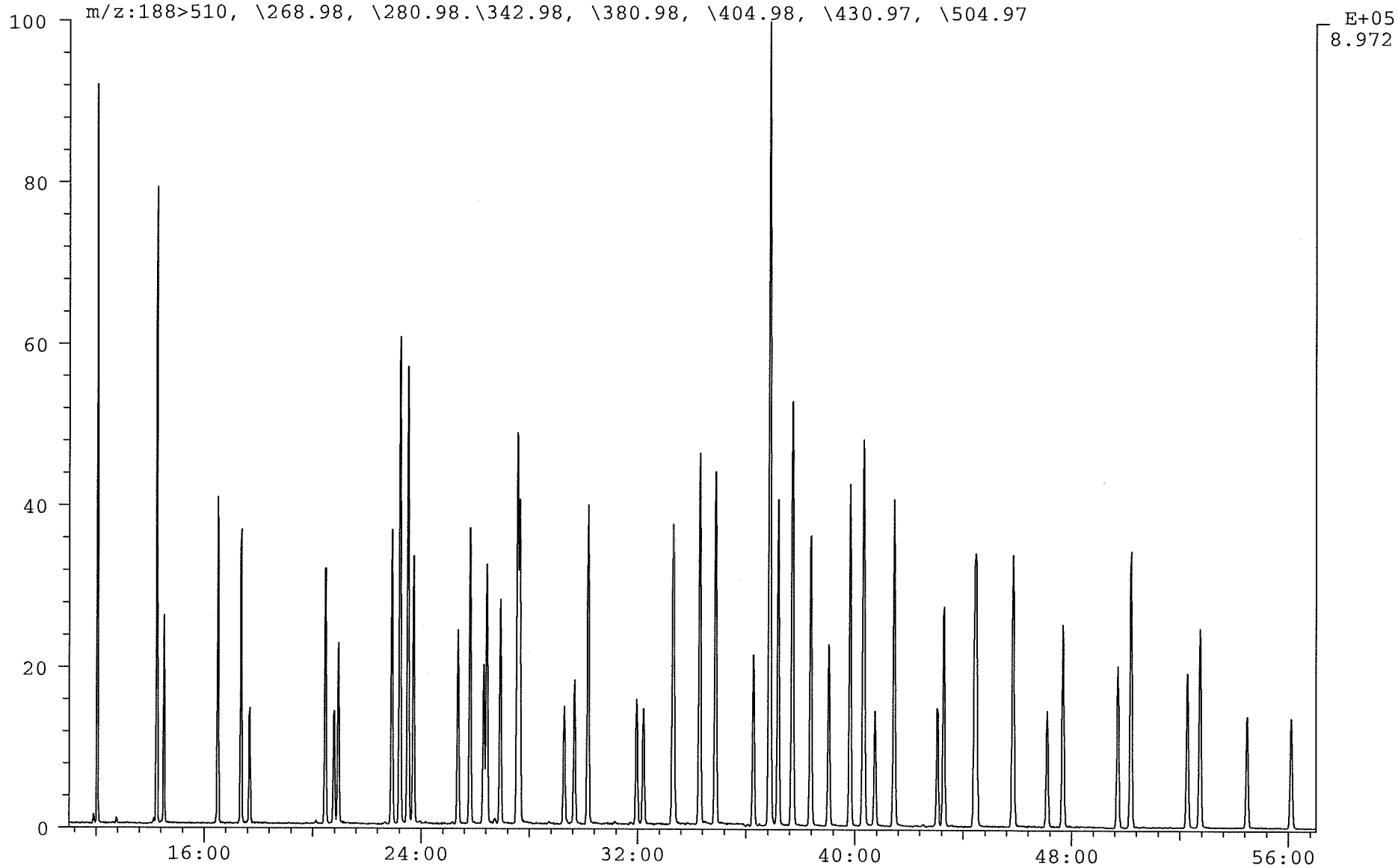
View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	13C12-PCB 194	52:16	00:00	0	404805	439612	78894	85269	0.92	ABV/ABV
	13C12-PCB 205	52:43	00:00	0	533209	583722	103779	109486	0.91	AVV/AVV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	120	128	48	51	0.94 *	/
	13C12-PCB 208	49:40	00:00	0	370327	463808	73073	91365	0.80	ABV/ABV
	13C12-PCB 206	54:28	00:00	0	260080	320641	48960	60023	0.81	ABV/AVV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	108	143	43	57	0.75	/
	13C12-PCB 209	56:05	00:00	0	237780	343891	42579	62772	0.69	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

Int DCG 6-10-08
Calcs 6-26-08

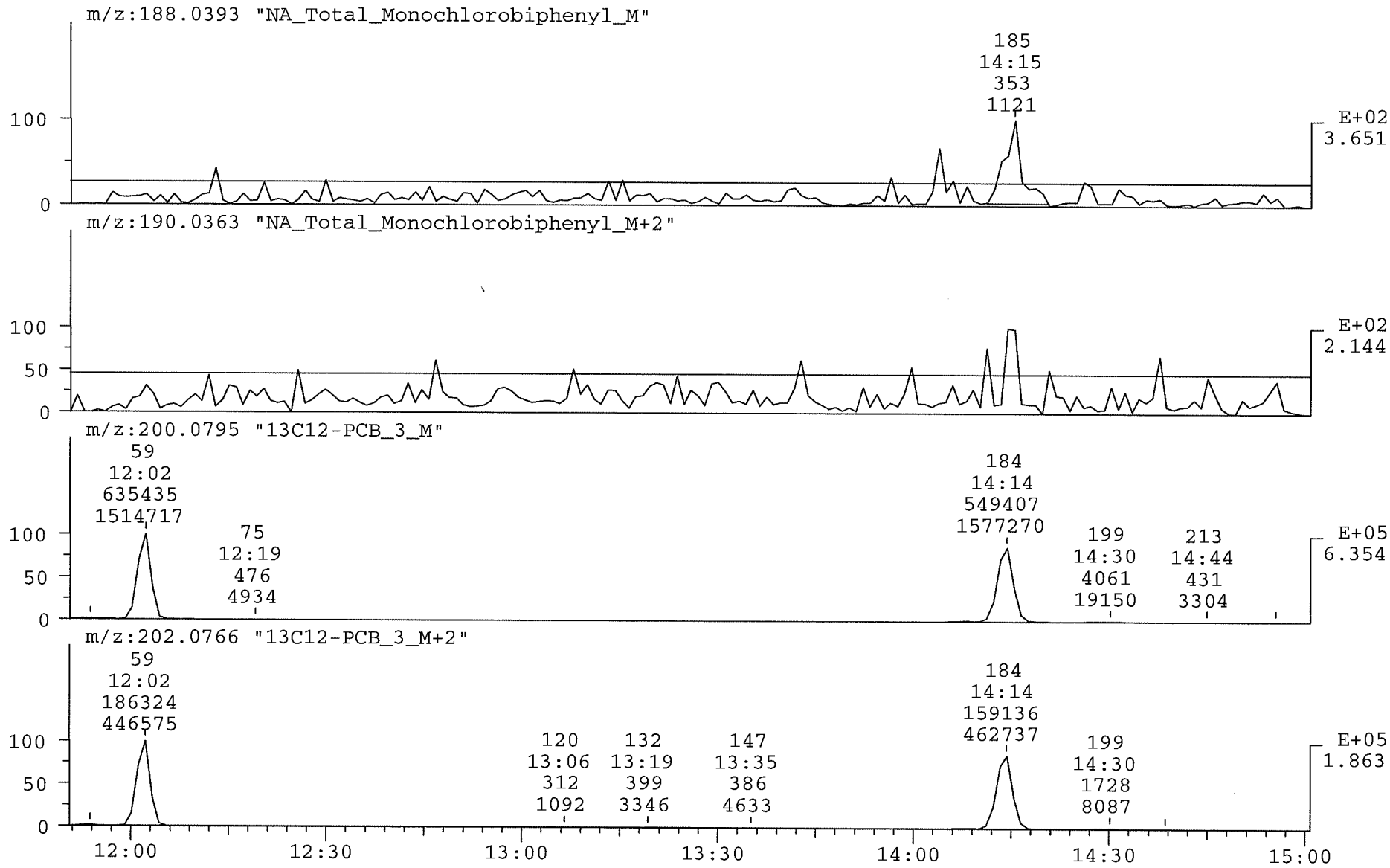
CHRO: a0806m4r1 10-Jun-08 Elapse: 56:11 2555
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-2608

2607

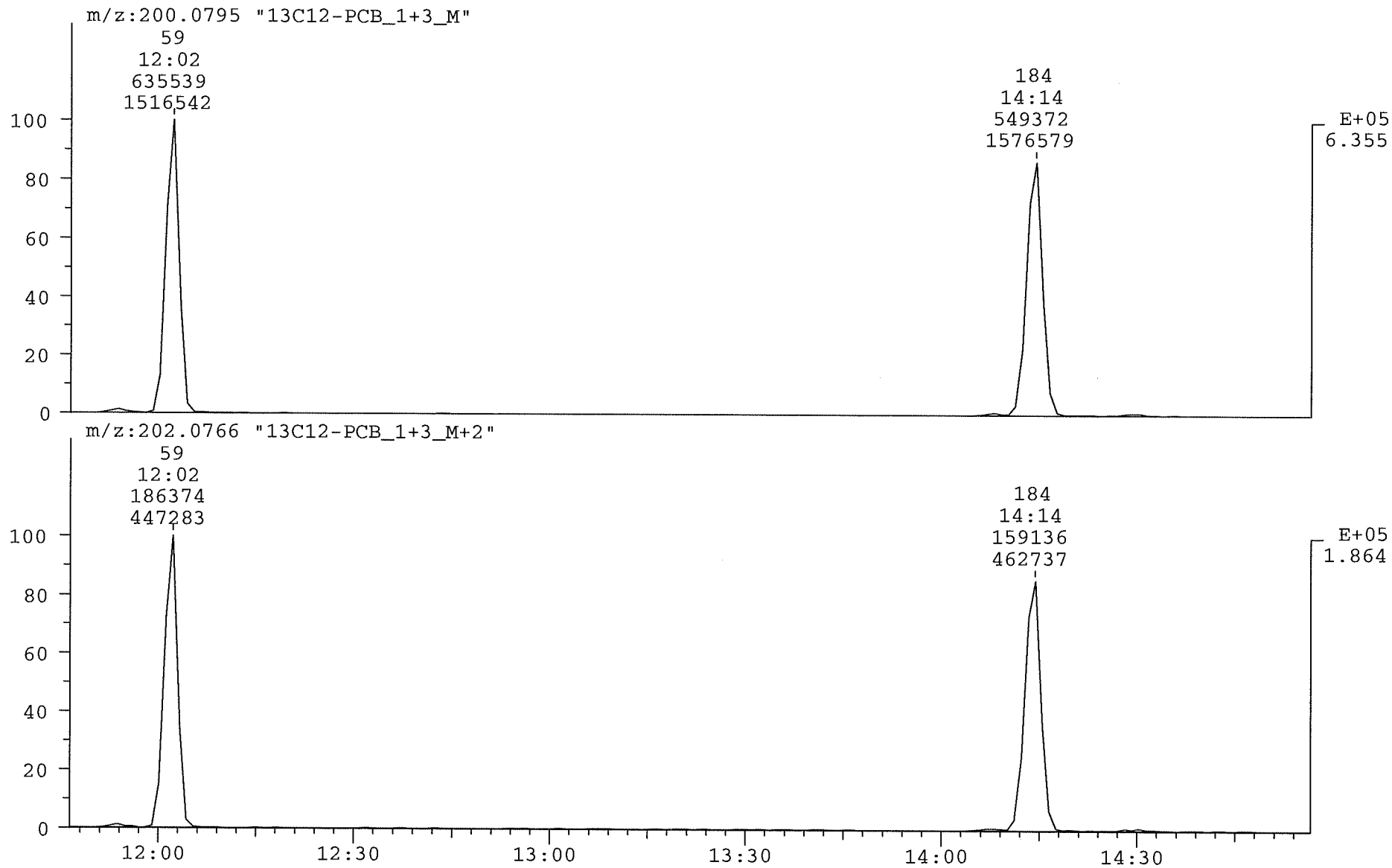
CHRO: a0806m4r1 10-Jun-08 Elapse: 13:25.6 138
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 48 > 228 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2609

2608

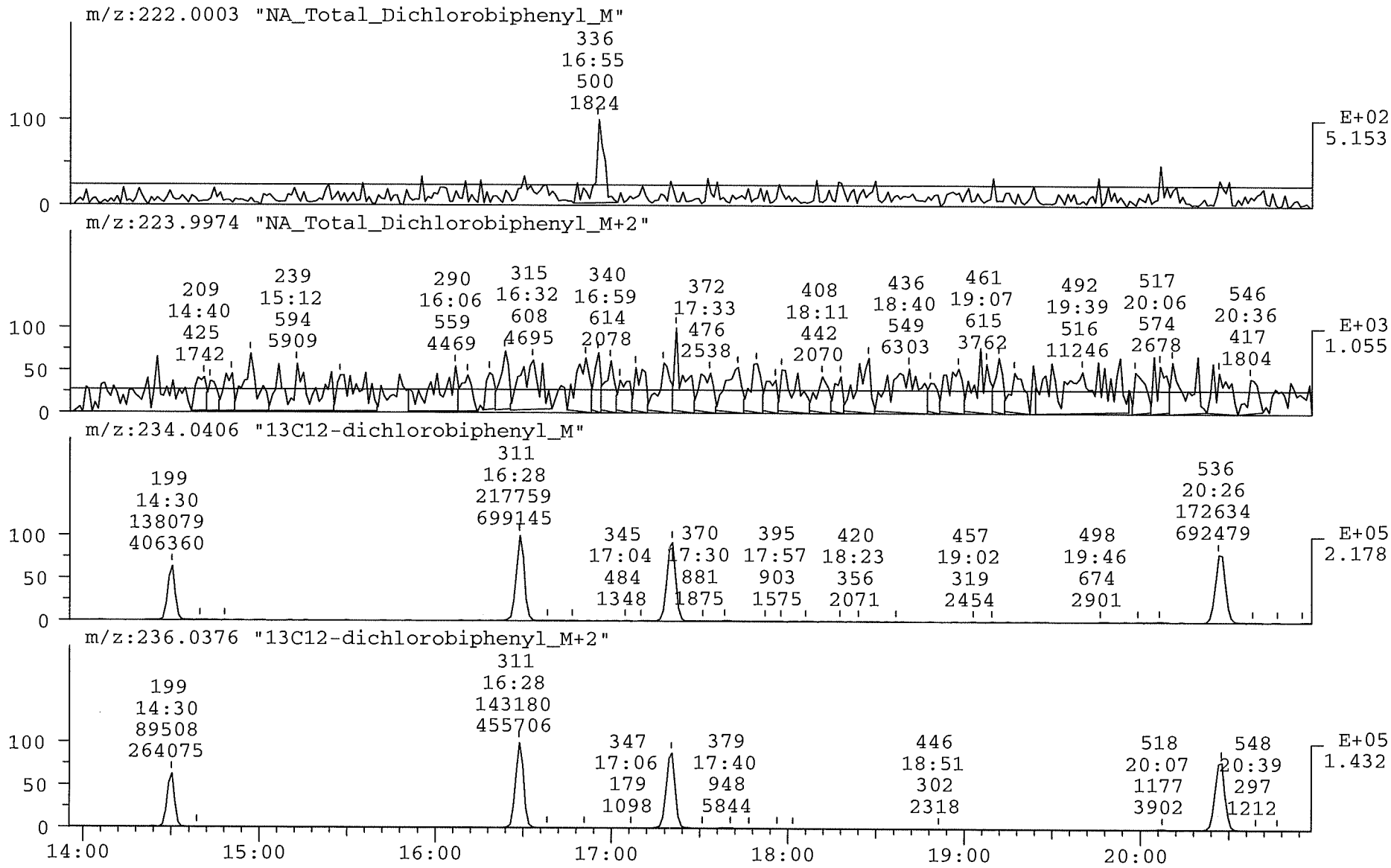
CHRO: a0806m4r1 10-Jun-08 Elapse: 13:21.4 134
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2610

2609

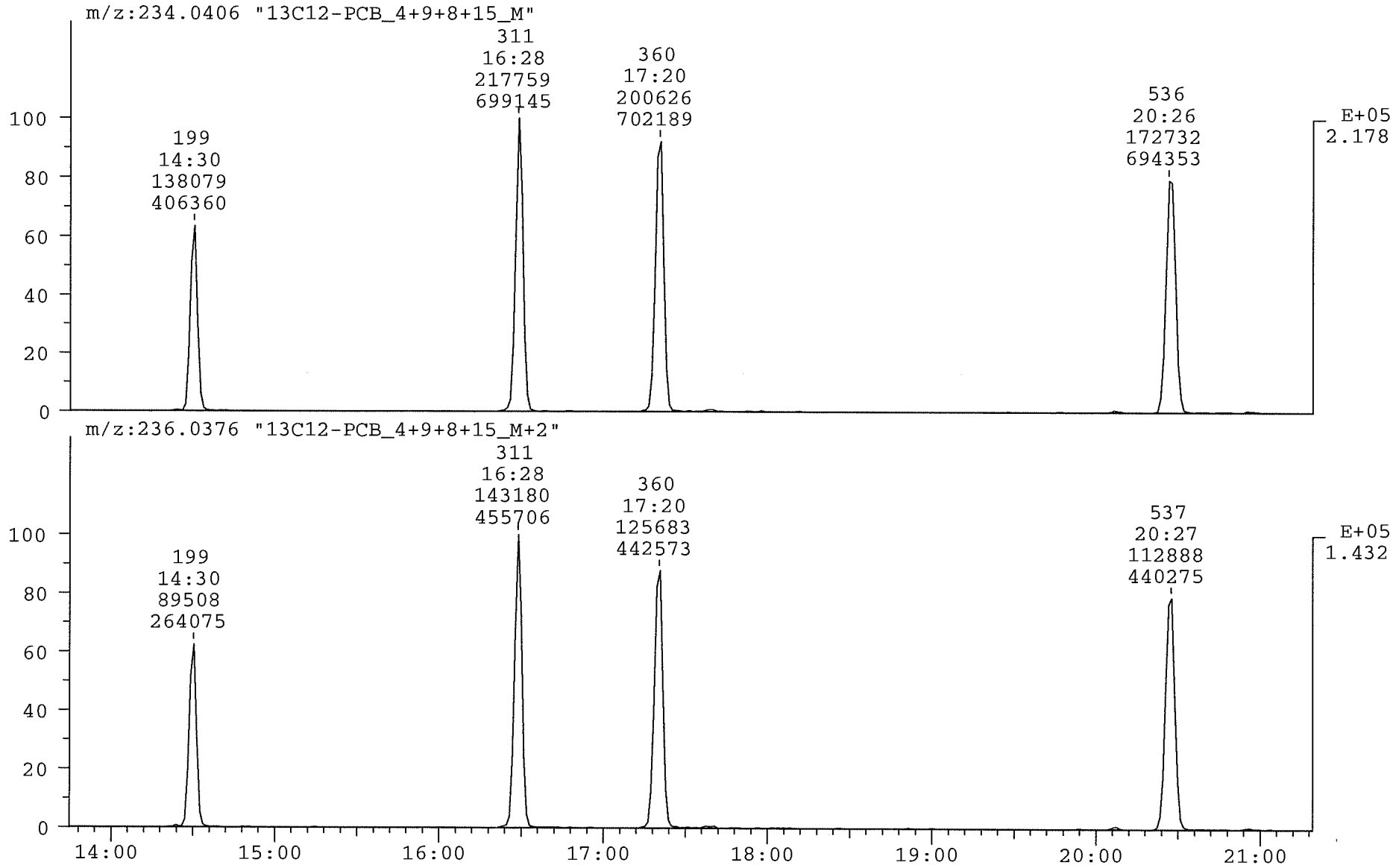
CHRO: a0806m4r1 10-Jun-08 Elapse: 17:26.7 366
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2611

2610

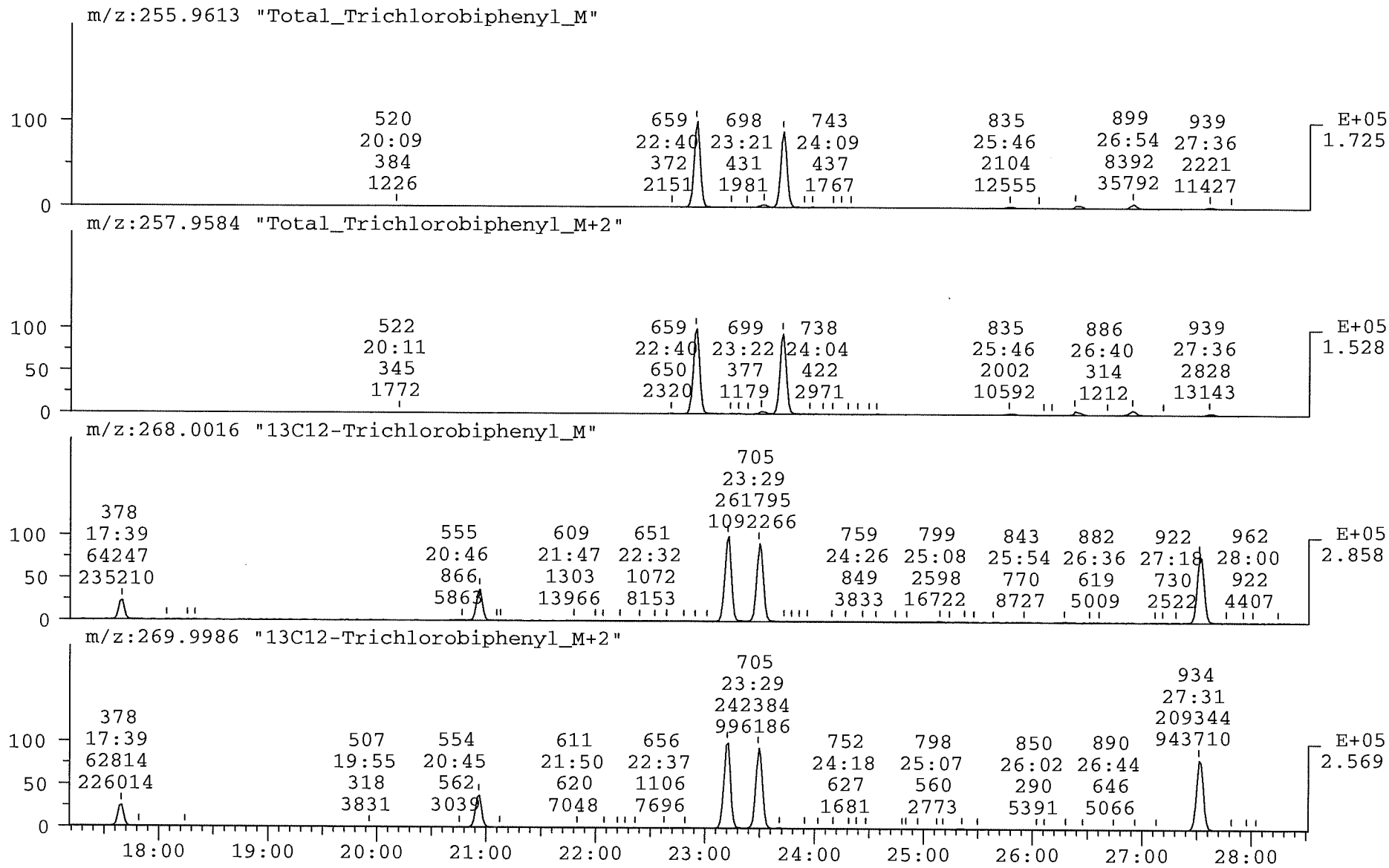
CHRO: a0806m4r1 10-Jun-08 Elapse: 17:26.7 366
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2612

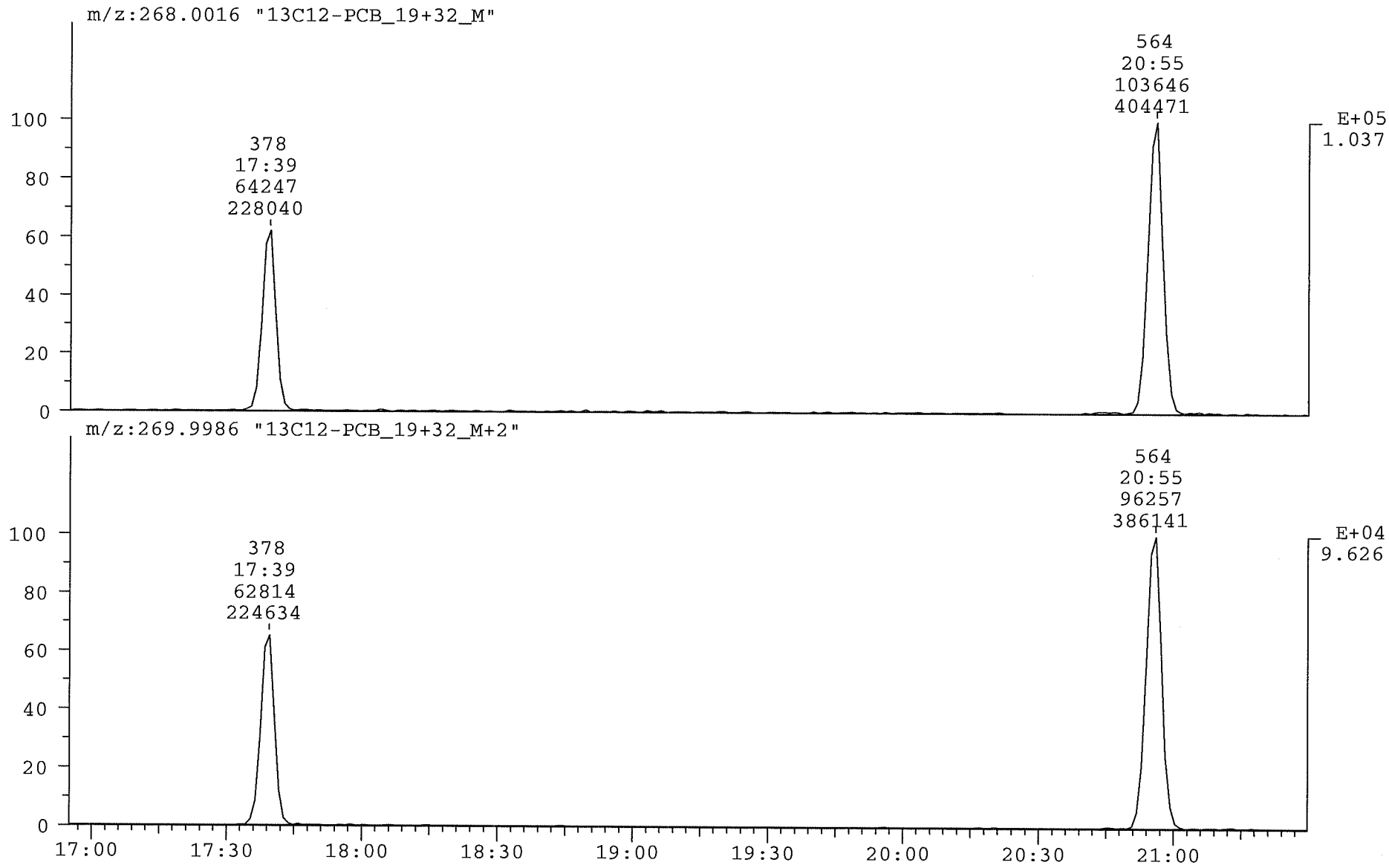
2611

CHRO: a0806m4r1 10-Jun-08 Elapse: 22:53.3 671
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 351 > 991 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2613

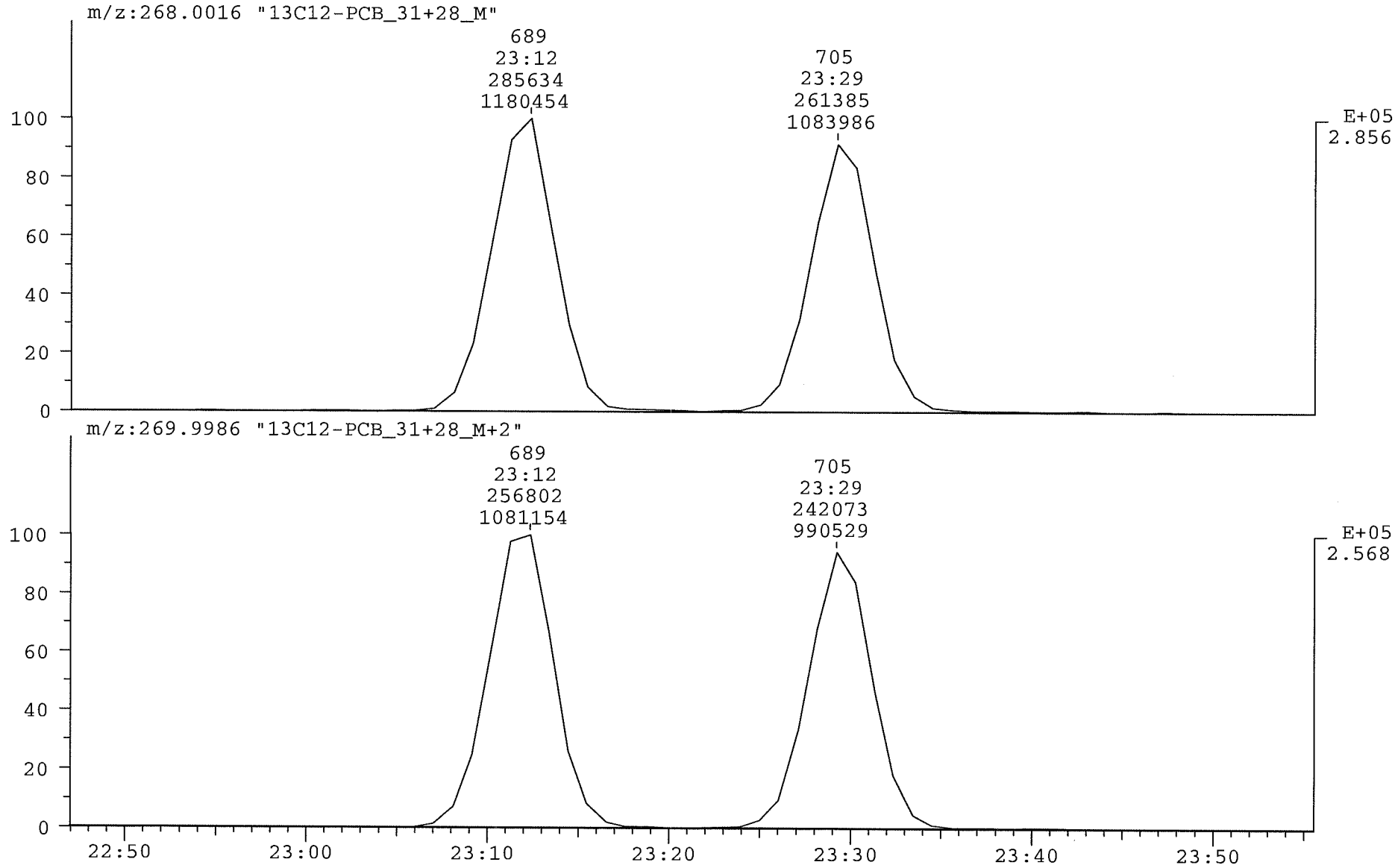
CHRO: a0806m4r1 10-Jun-08 Elapse: 19:01.8 456
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 336 > 596 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2614

2613

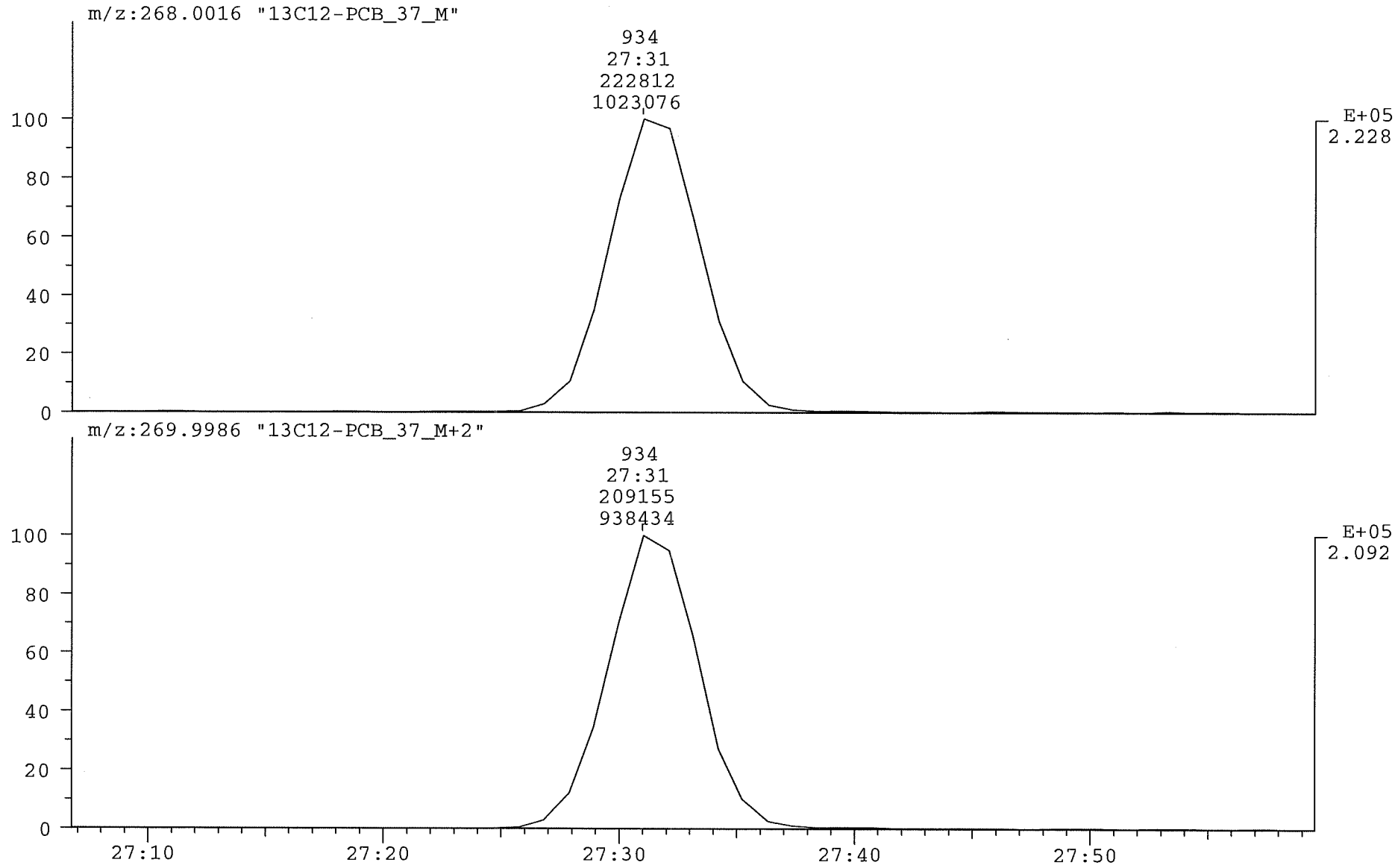
CHRO: a0806m4r1 10-Jun-08 Elapse: 23:13.3 690
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2615

2614

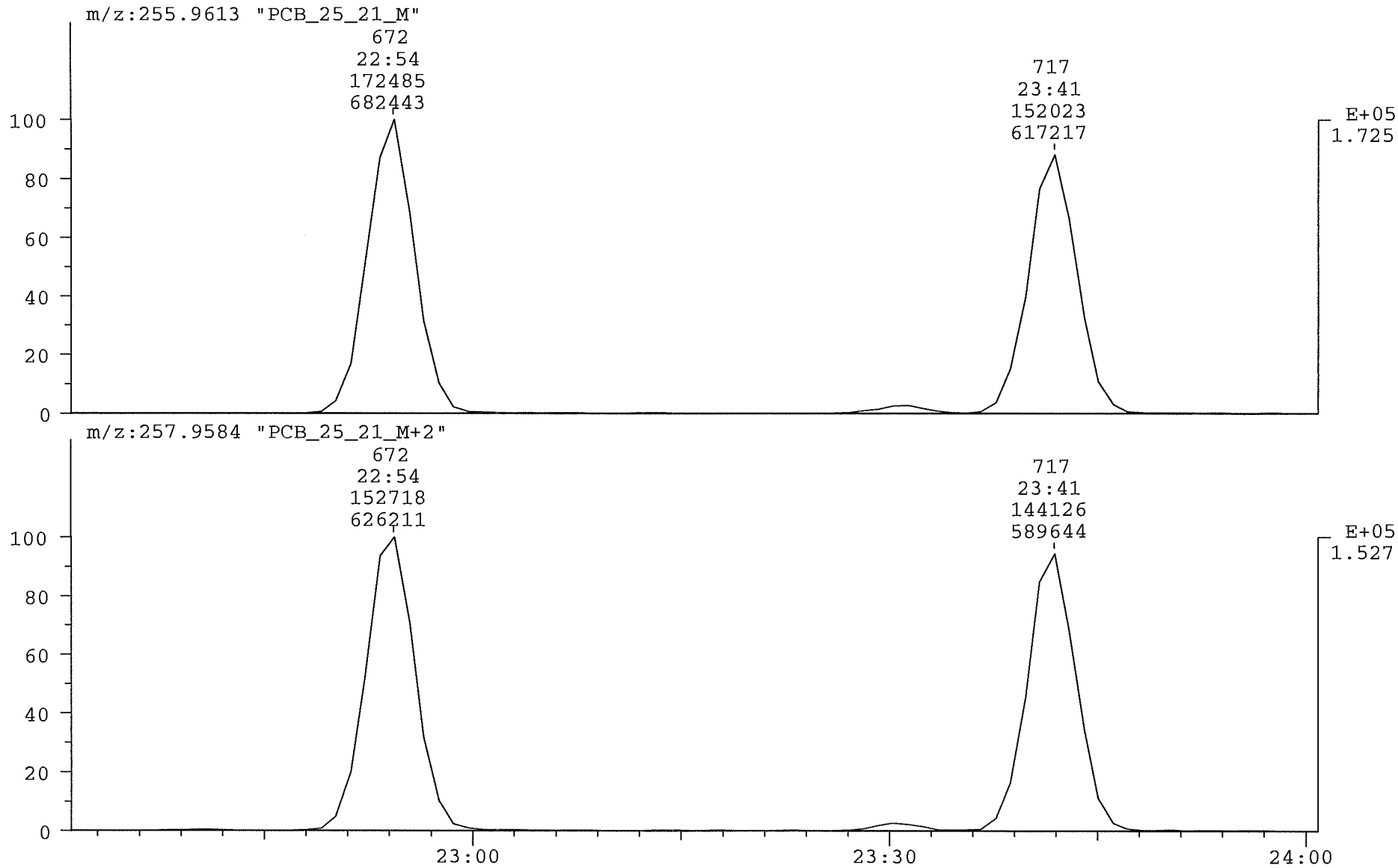
CHRO: a0806m4r1 10-Jun-08 Elapse: 27:33.1 936
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2616

2615

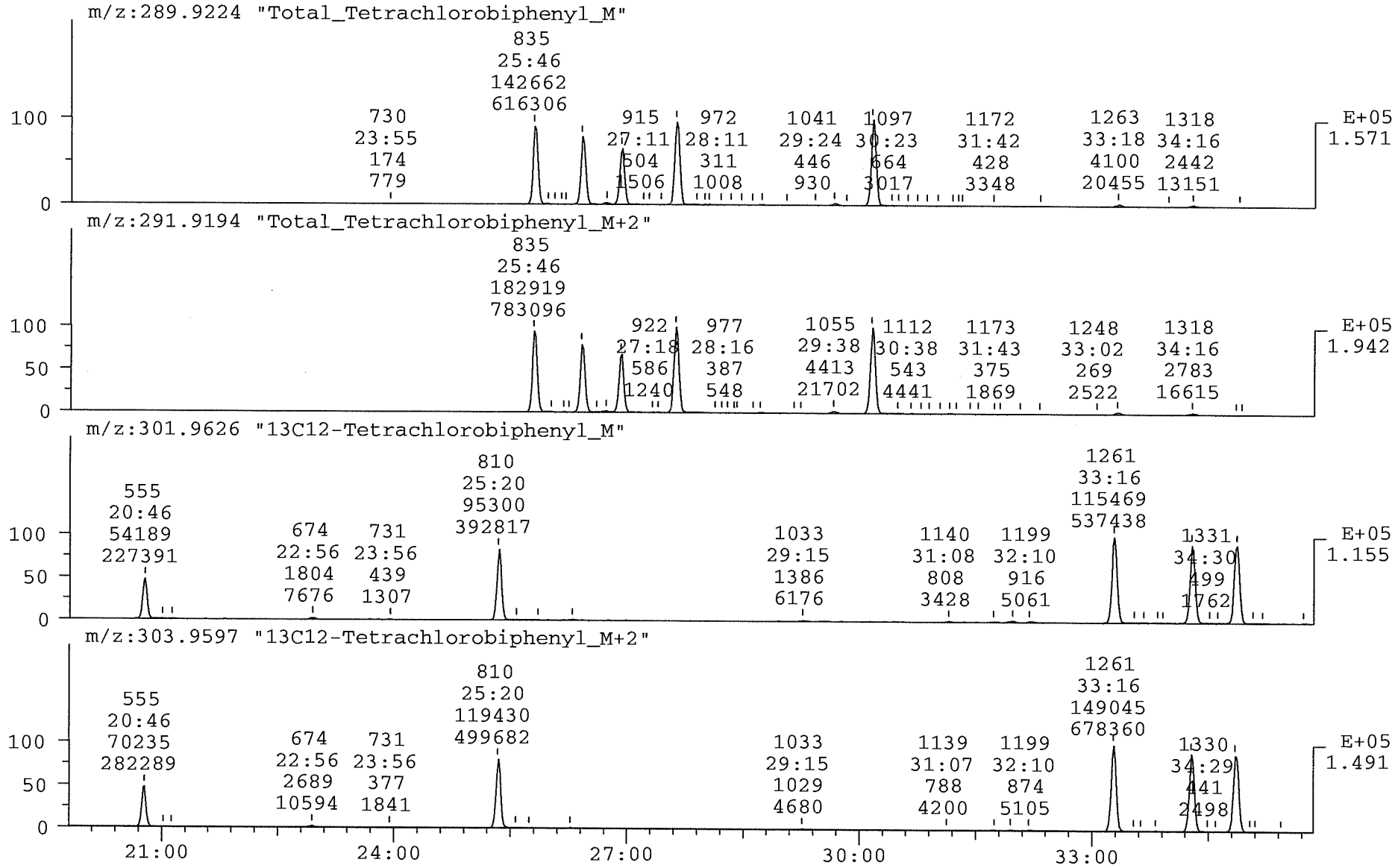
CHRO: a0806m4r1 10-Jun-08 Elapse: 23:23.9 700
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 650 > 735 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2617

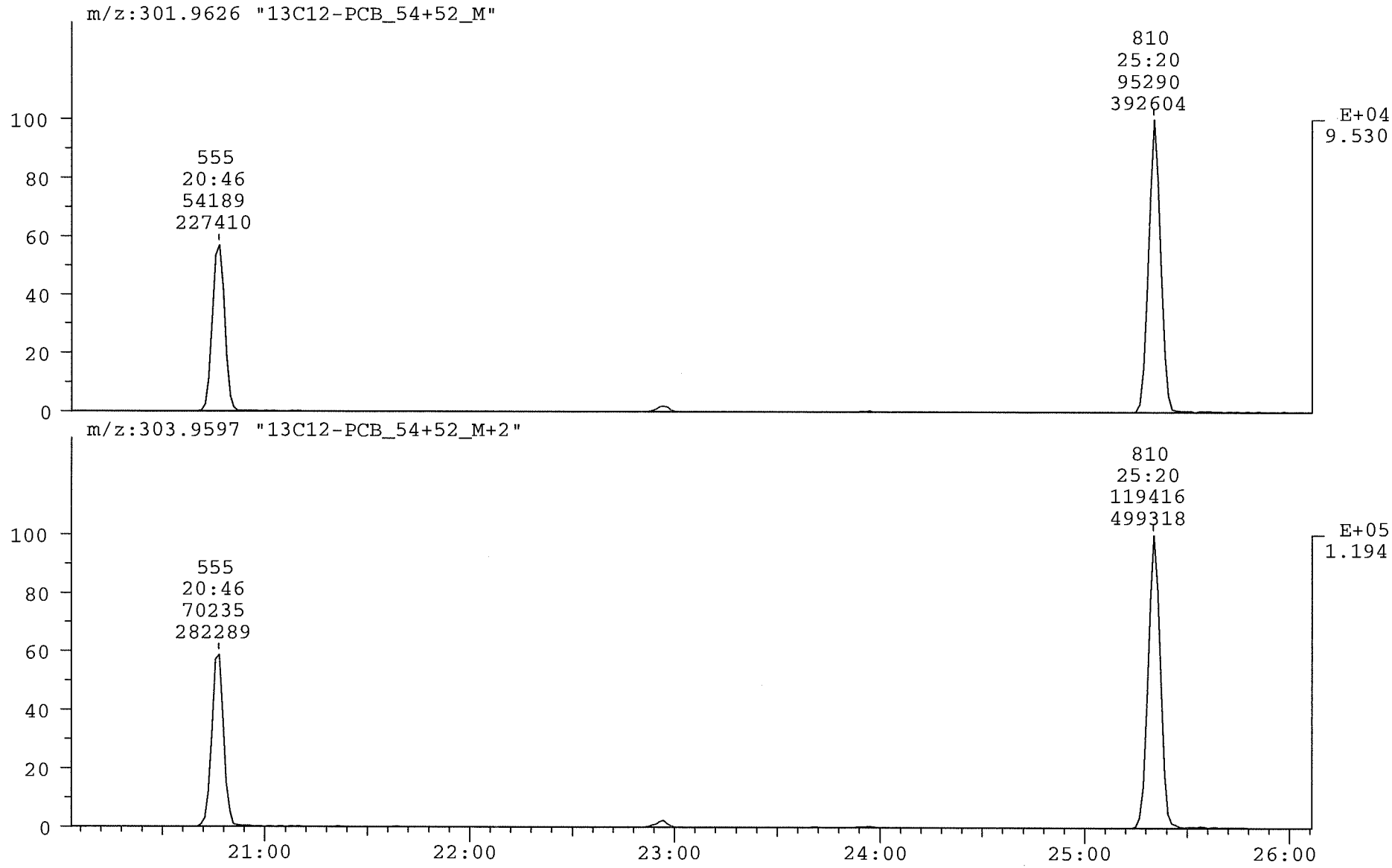
2616

CHRO: a0806m4r1 10-Jun-08 Elapse: 27:49.9 951
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 500 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2618

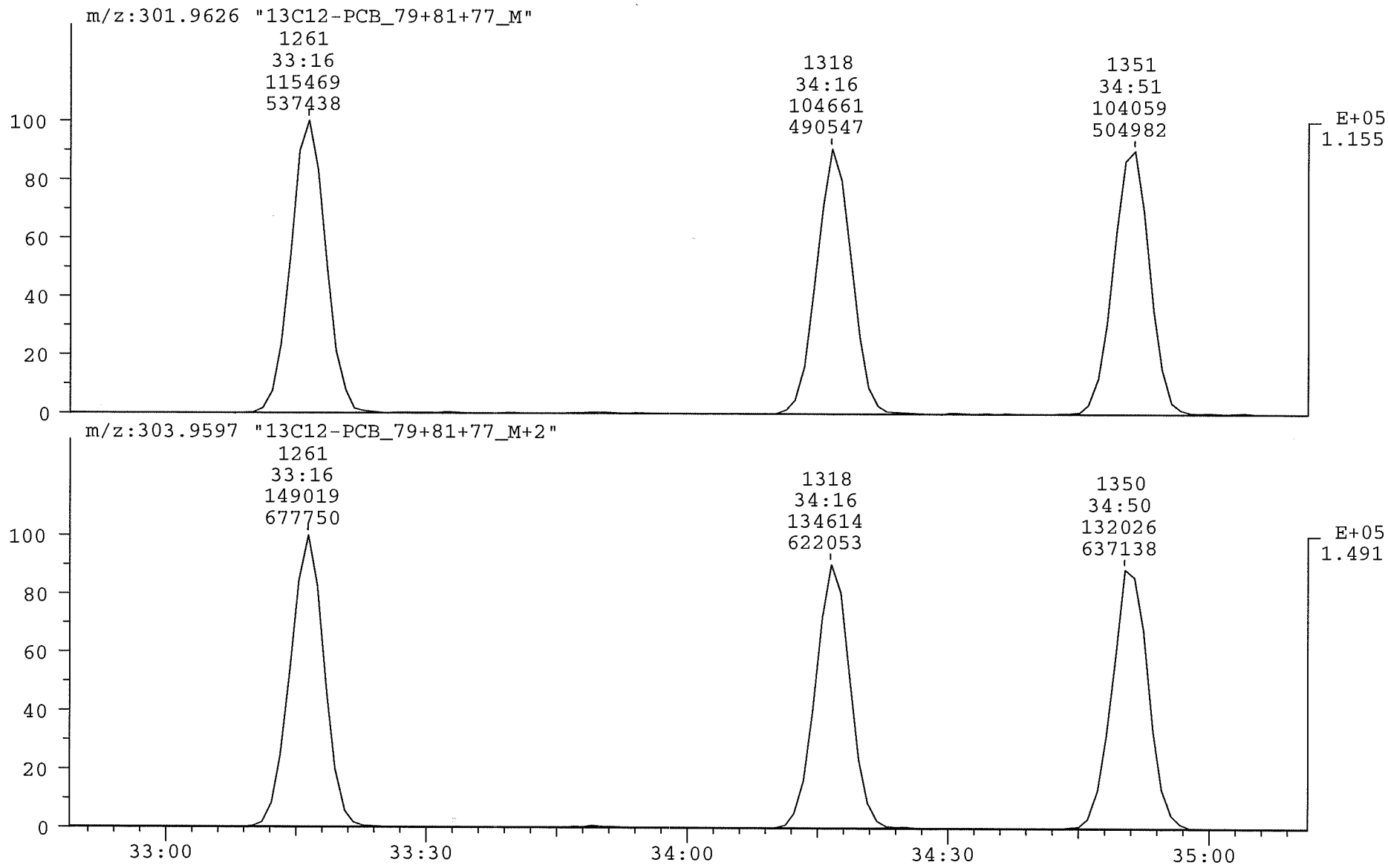
CHRO: a0806m4r1 10-Jun-08 Elapse: 23:07.9 684
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2619

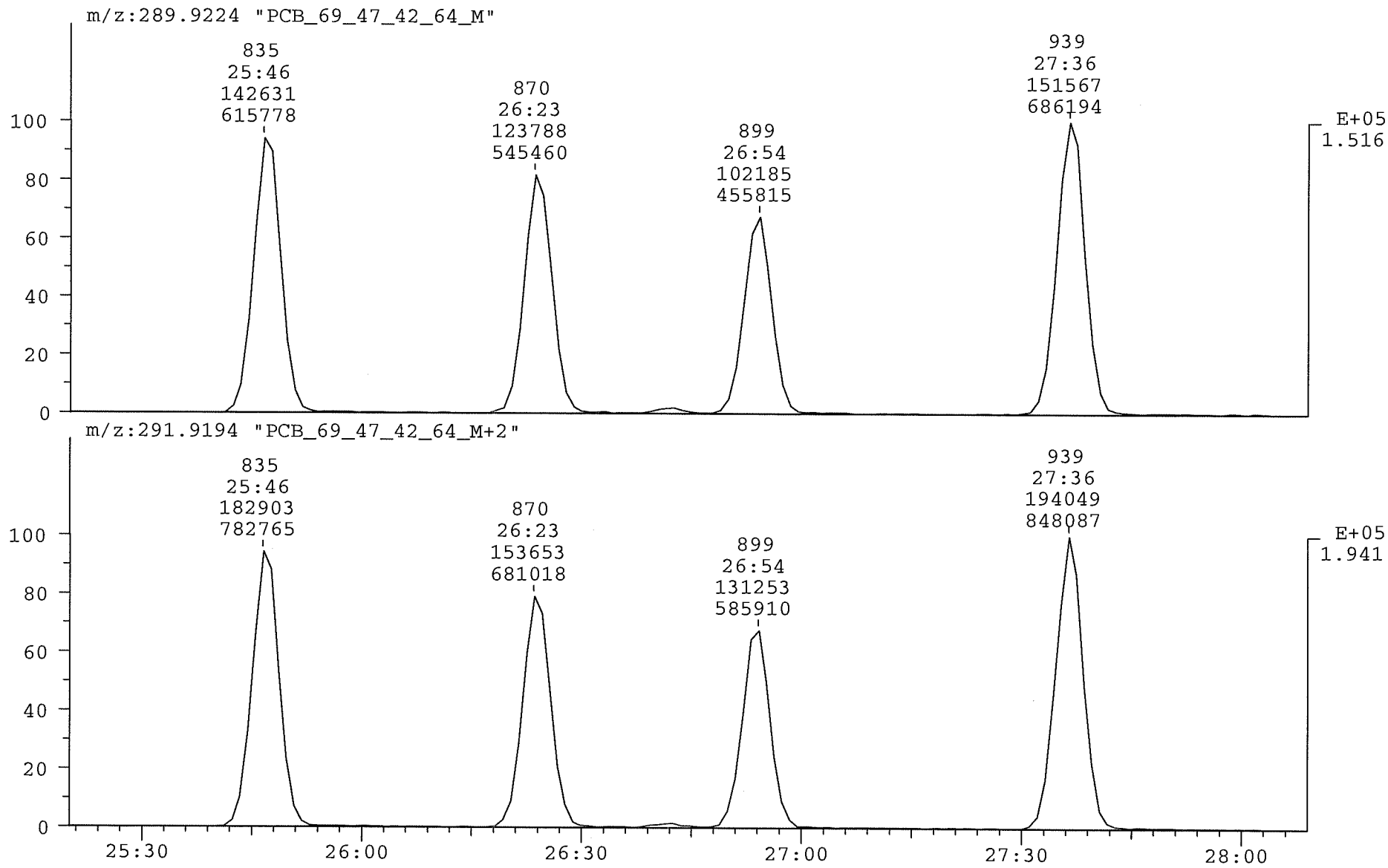
2618

CHRO: a0806m4r1 10-Jun-08 Elapse: 34:02 1305
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1235 > 1370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2620

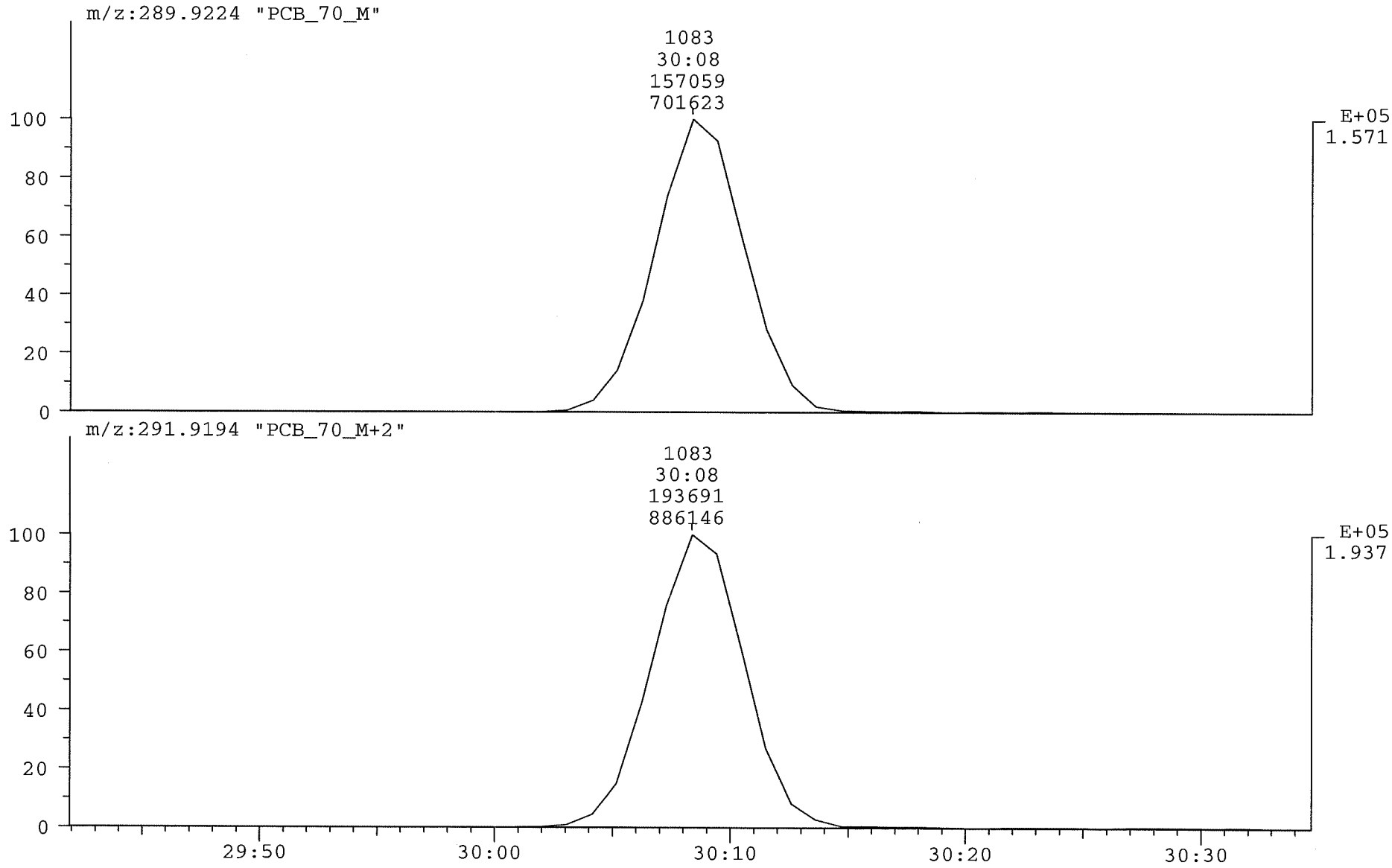
CHRO: a0806m4r1 10-Jun-08 Elapse: 26:44.5 890
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 810 > 970 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2621

2620

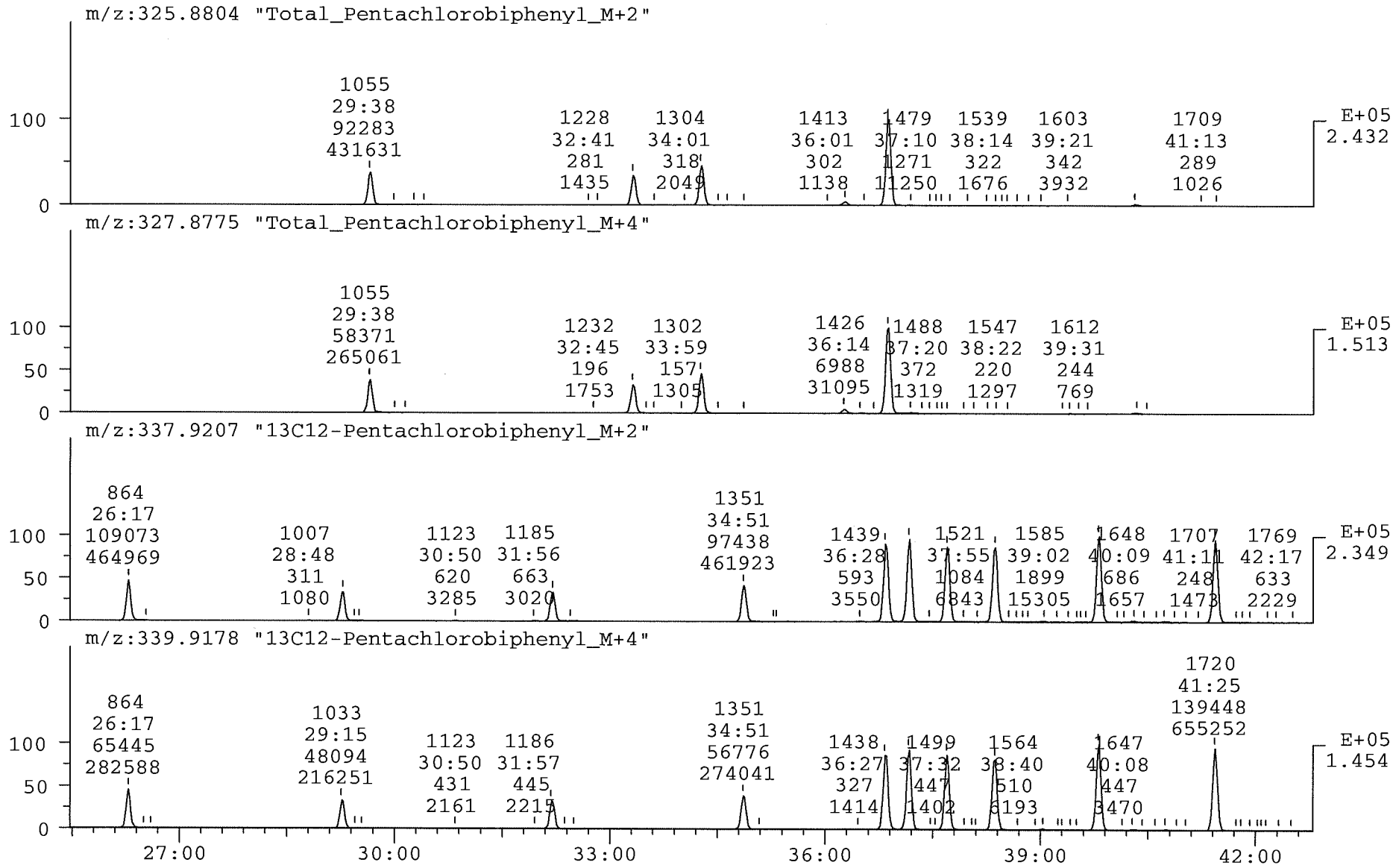
CHRO: a0806m4r1 10-Jun-08 Elapse: 30:08 1083
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1058 > 1108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2622

2621

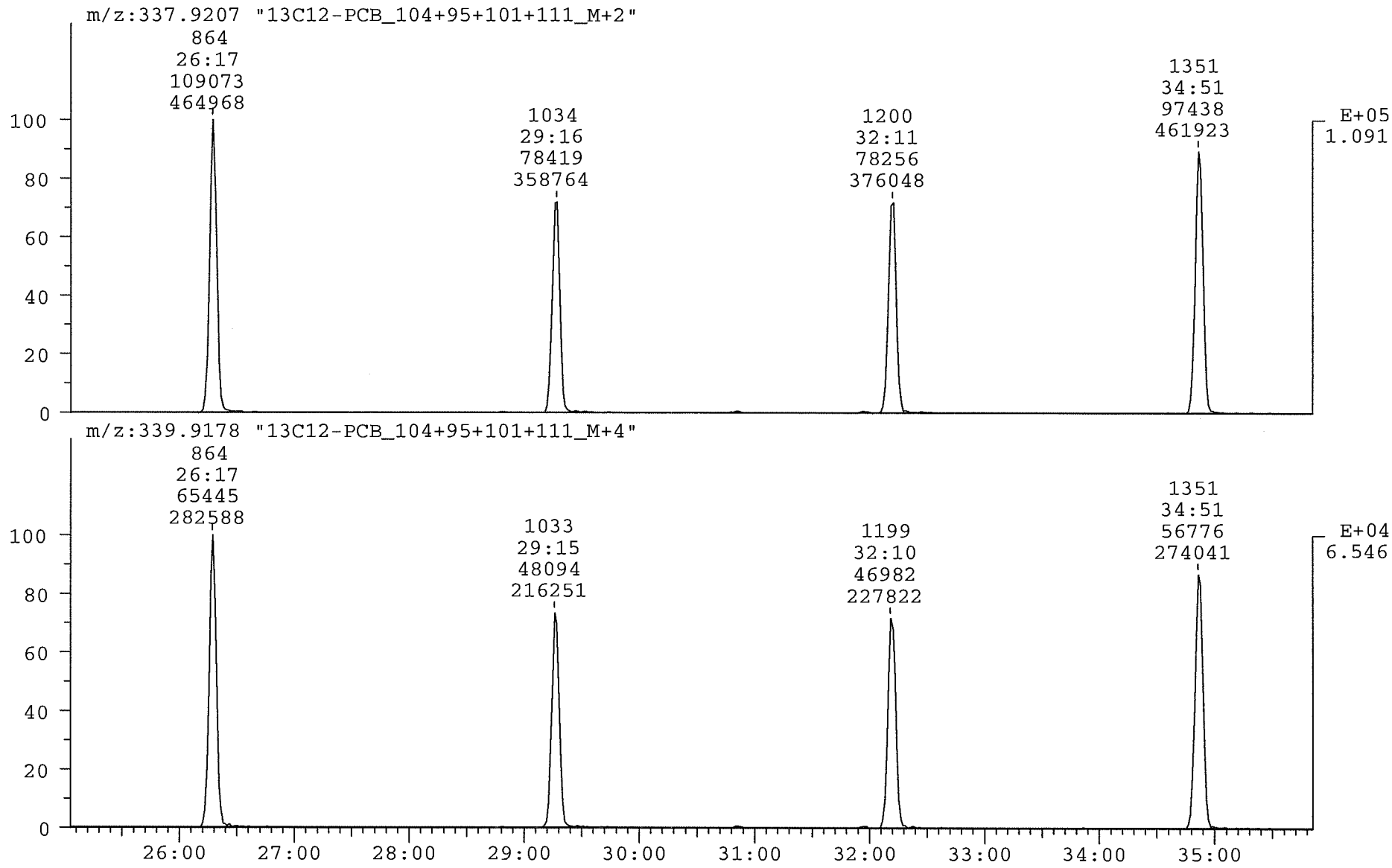
CHRO: a0806m4r1 10-Jun-08 Elapse: 34:08 1310
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 818 > 1798 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2623

2622

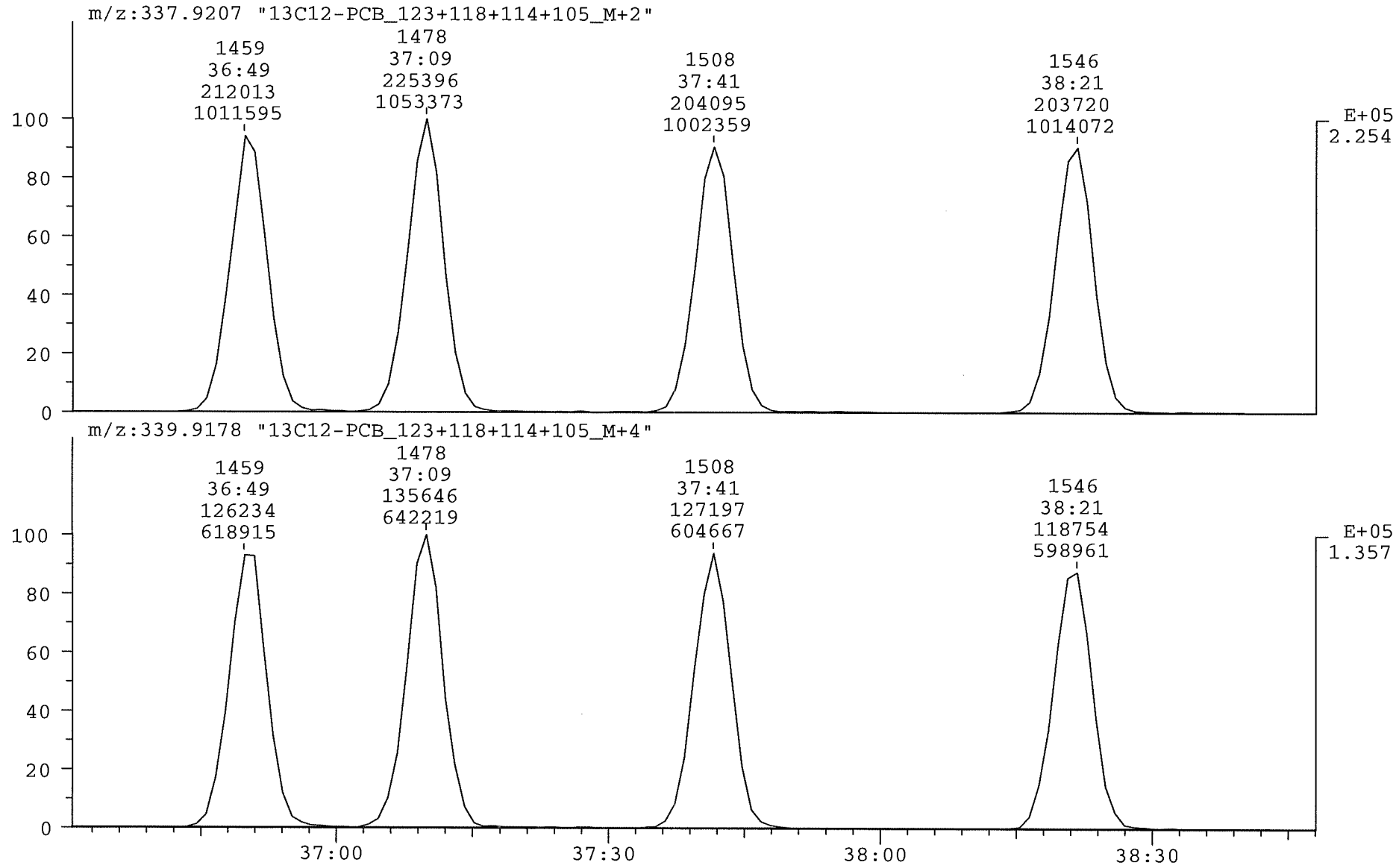
CHRO: a0806m4r1 10-Jun-08 Elapse: 30:27 1101
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 794 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2624

2623

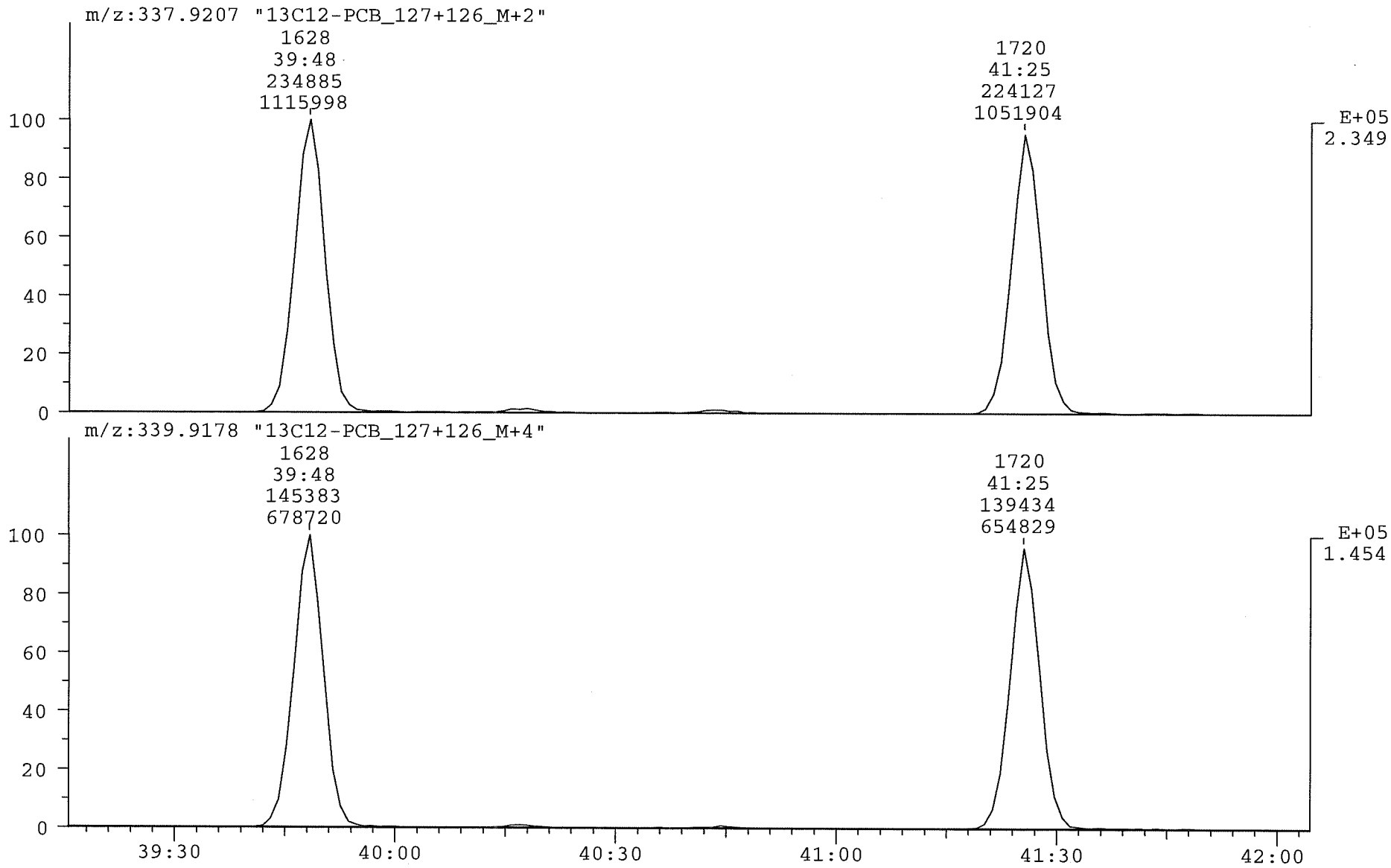
CHRO: a0806m4r1 10-Jun-08 Elapse: 37:39 1506
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1441 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2625

2624

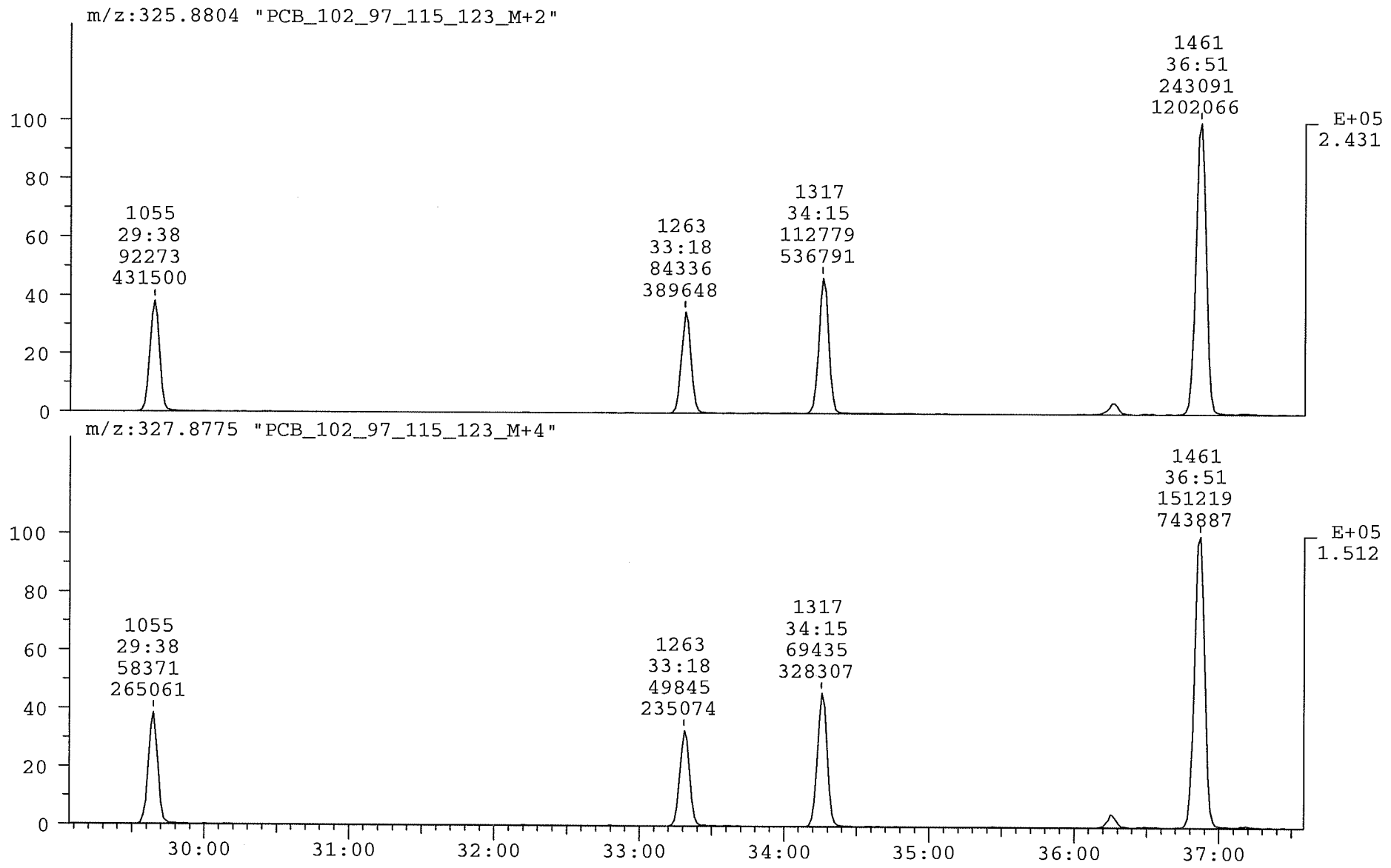
CHRO: a0806m4r1 10-Jun-08 Elapse: 40:40 1677
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1597 > 1757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2626

2625

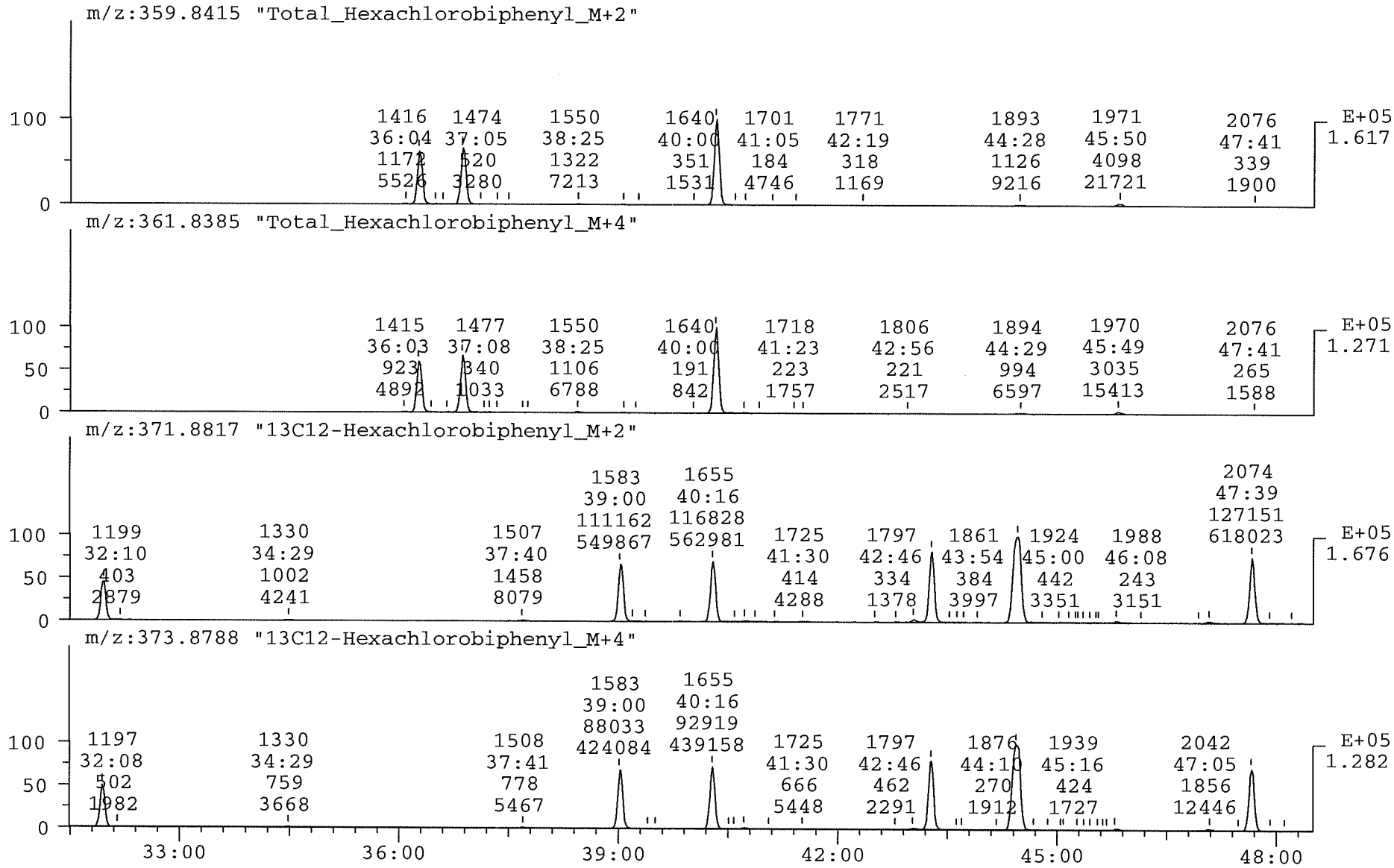
CHRO: a0806m4r1 10-Jun-08 Elapse: 33:17 1262
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1022 > 1502 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2927

2626

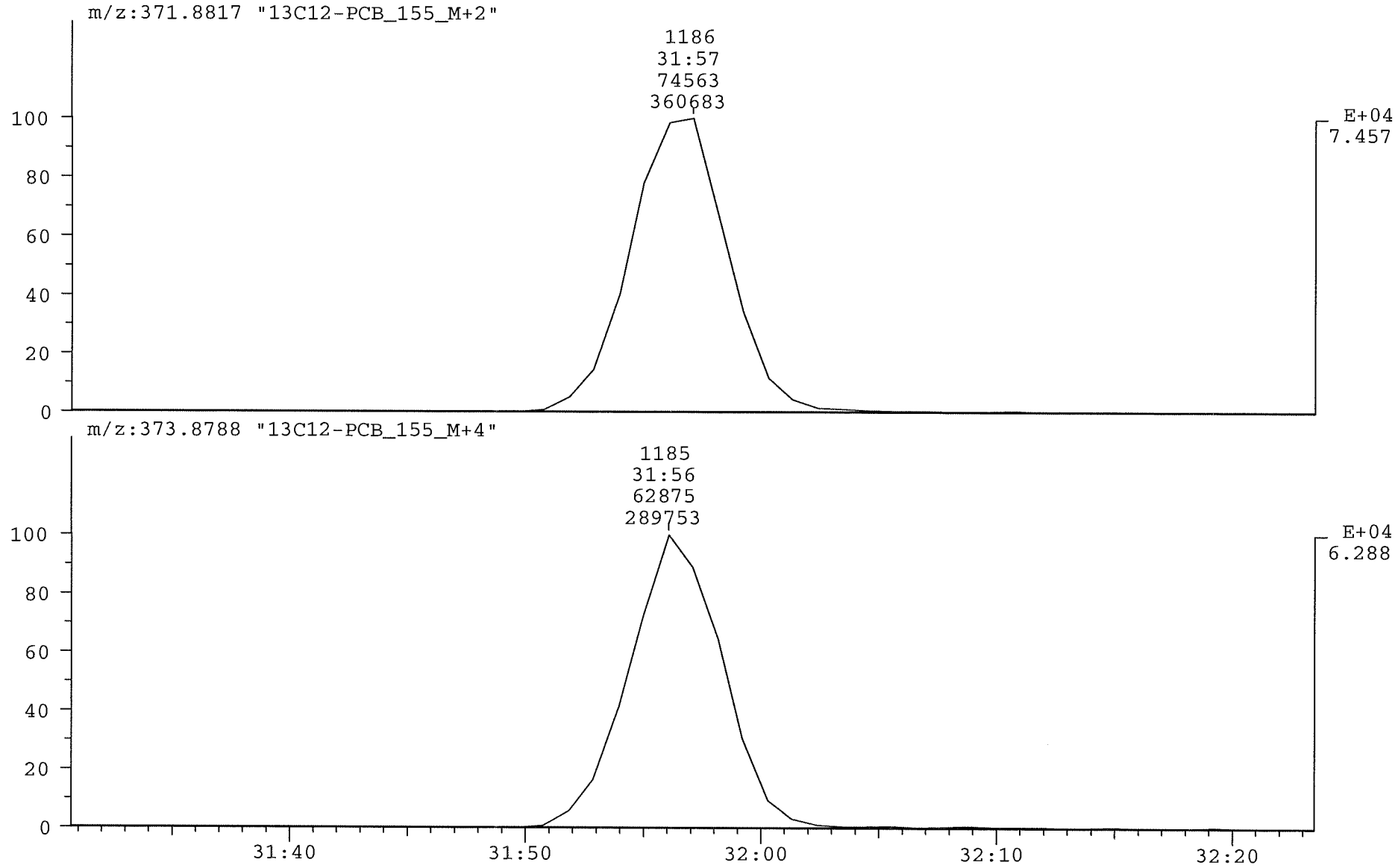
CHRO: a0806m4r1 10-Jun-08 Elapse: 39:58 1638
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1159 > 2122 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2628

2627

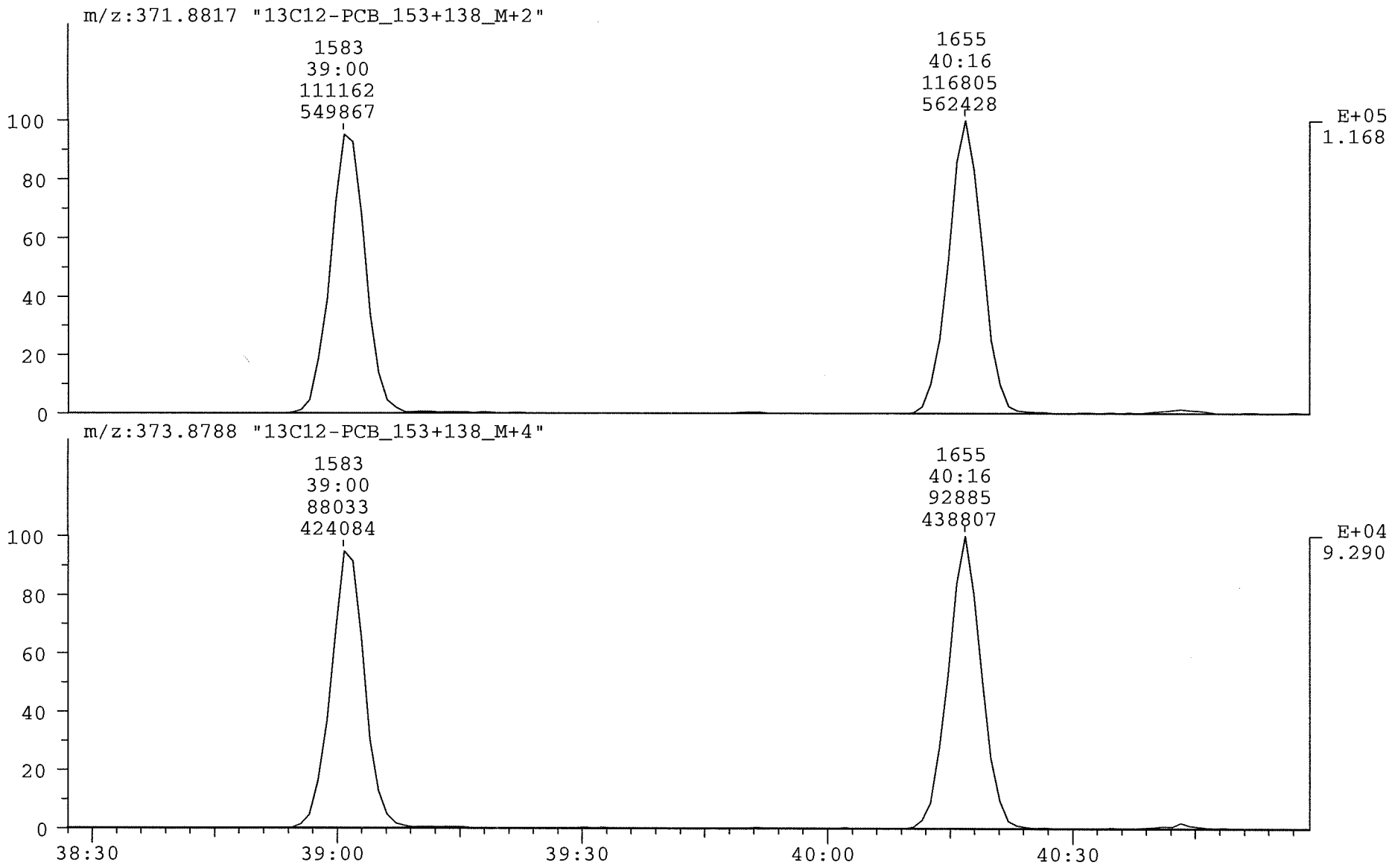
CHRO: a0806m4r1 10-Jun-08 Elapse: 31:57 1186
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1161 > 1211 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2629

2628

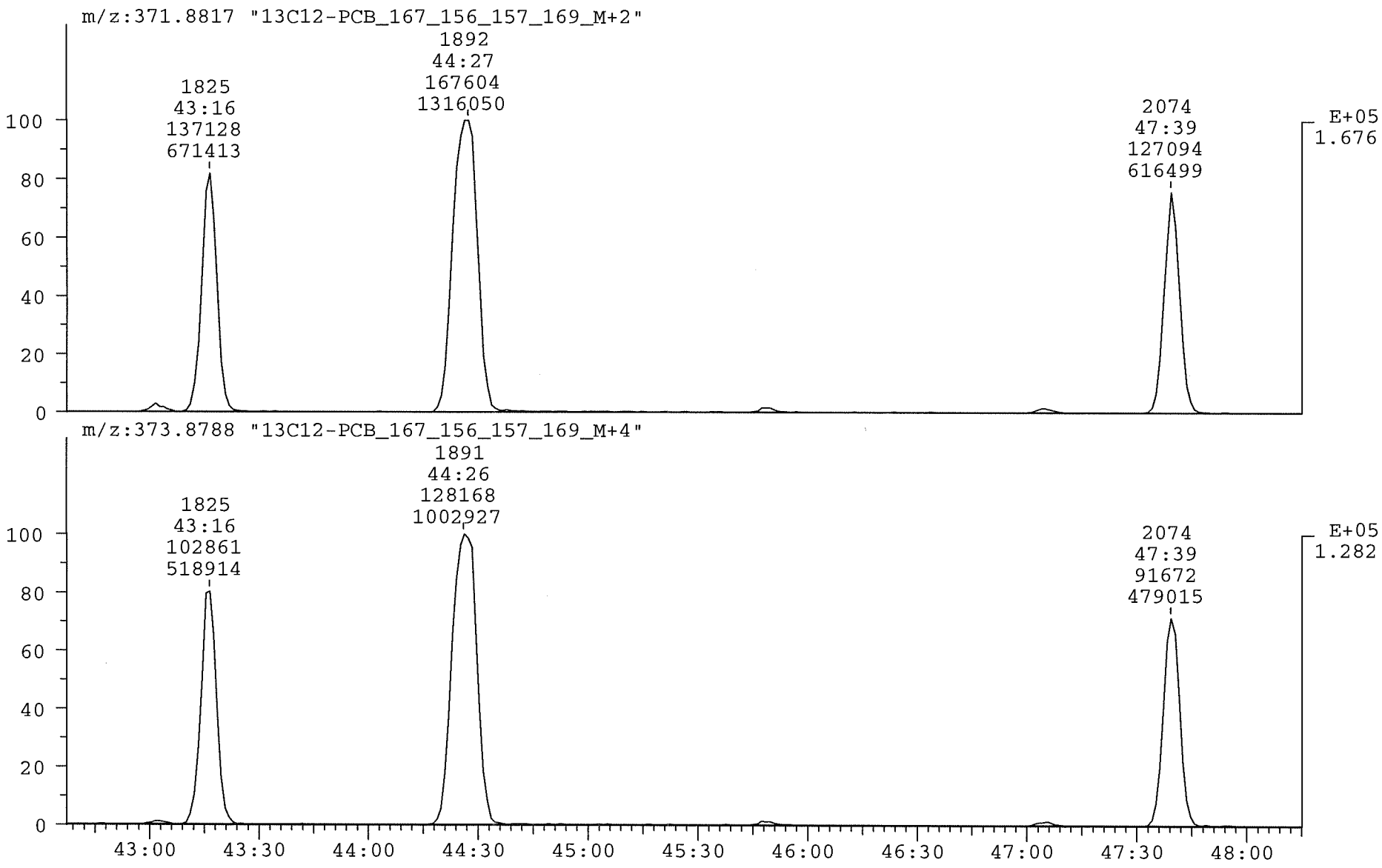
CHRO: a0806m4r1 10-Jun-08 Elapse: 39:43 1623
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1551 > 1695 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2630

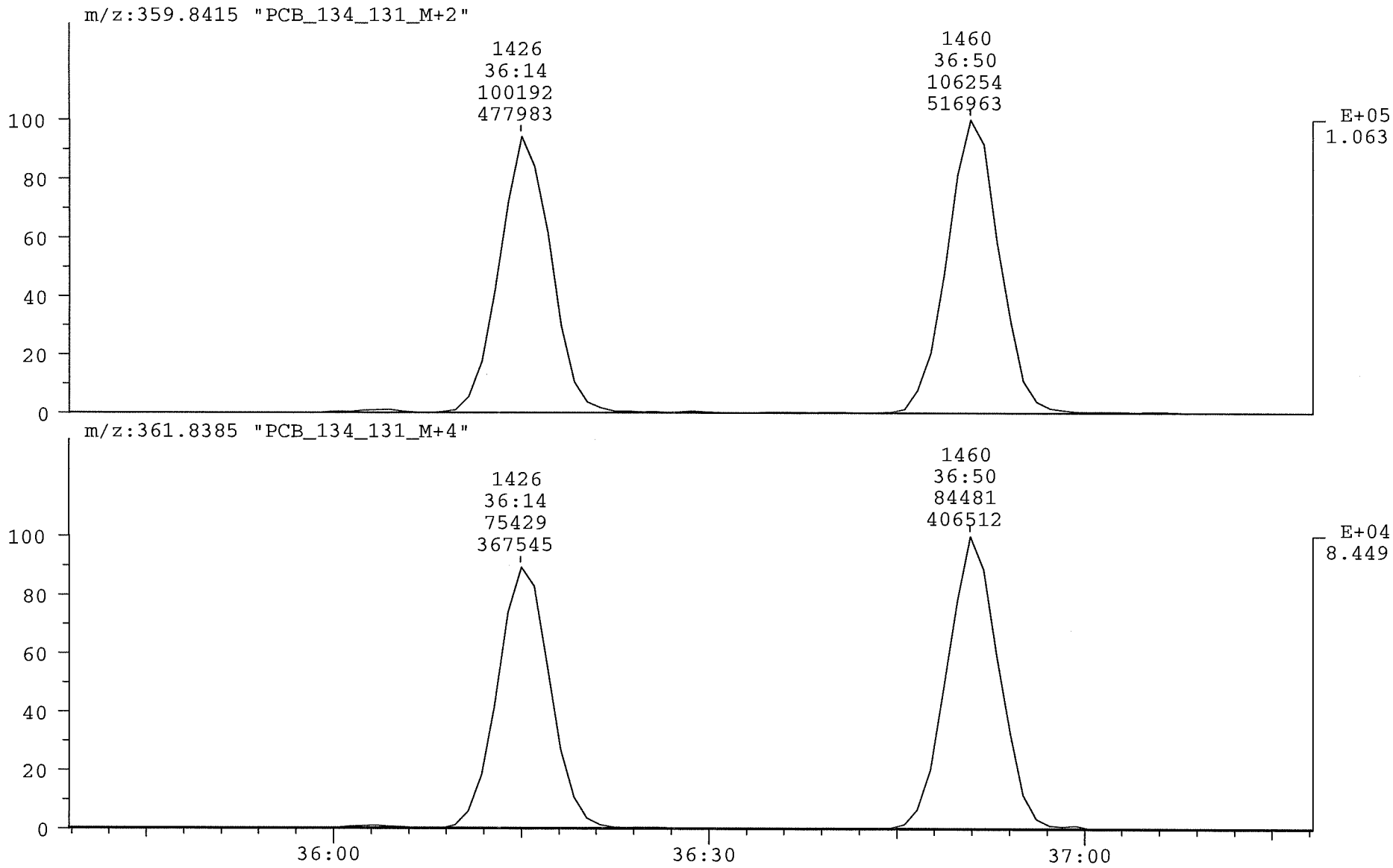
2629

CHRO: a0806m4r1 10-Jun-08 Elapse: 45:31 1953
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1788 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2631

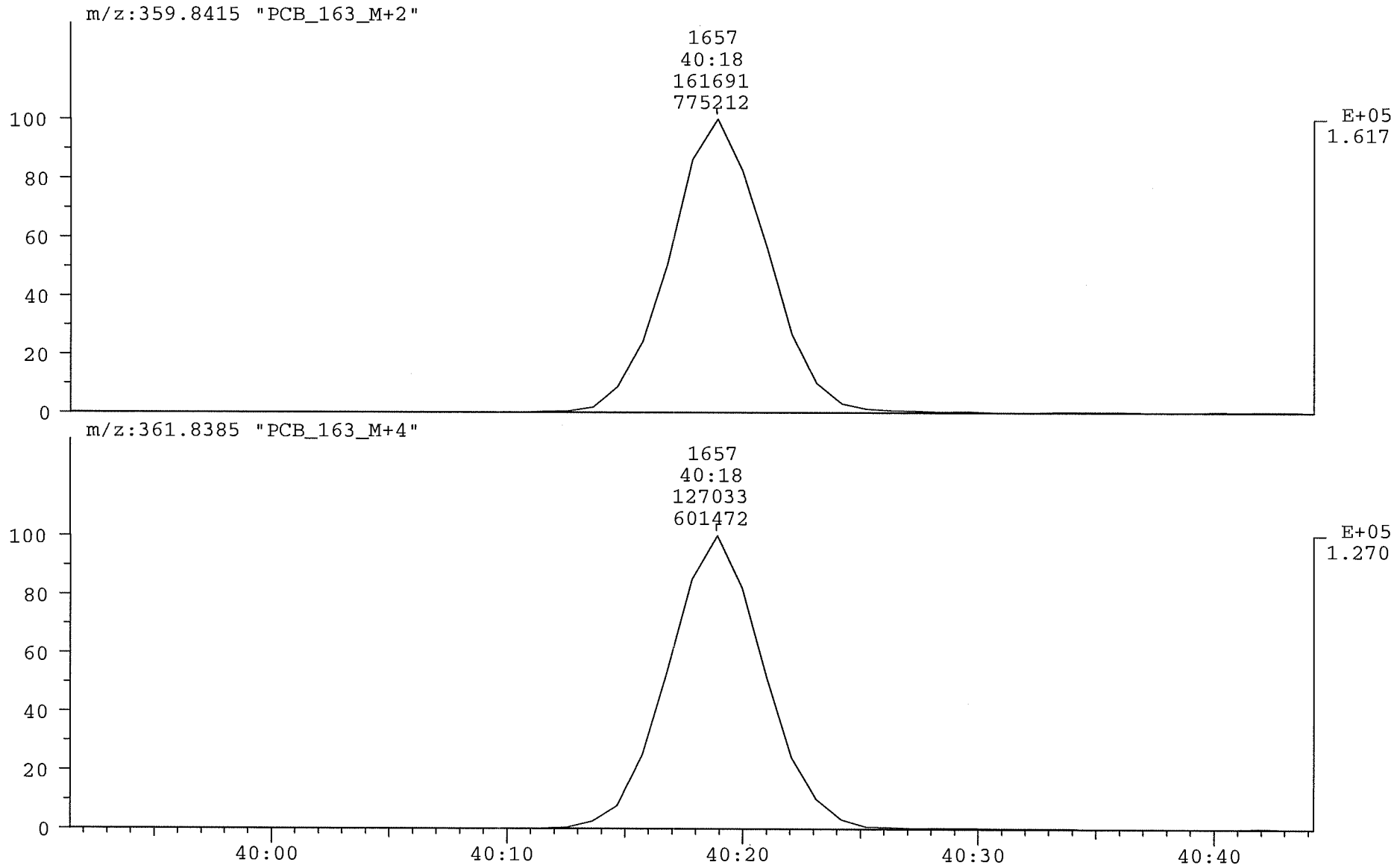
CHRO: a0806m4r1 10-Jun-08 Elapse: 36:51 1461
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1396 > 1486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2632

2631

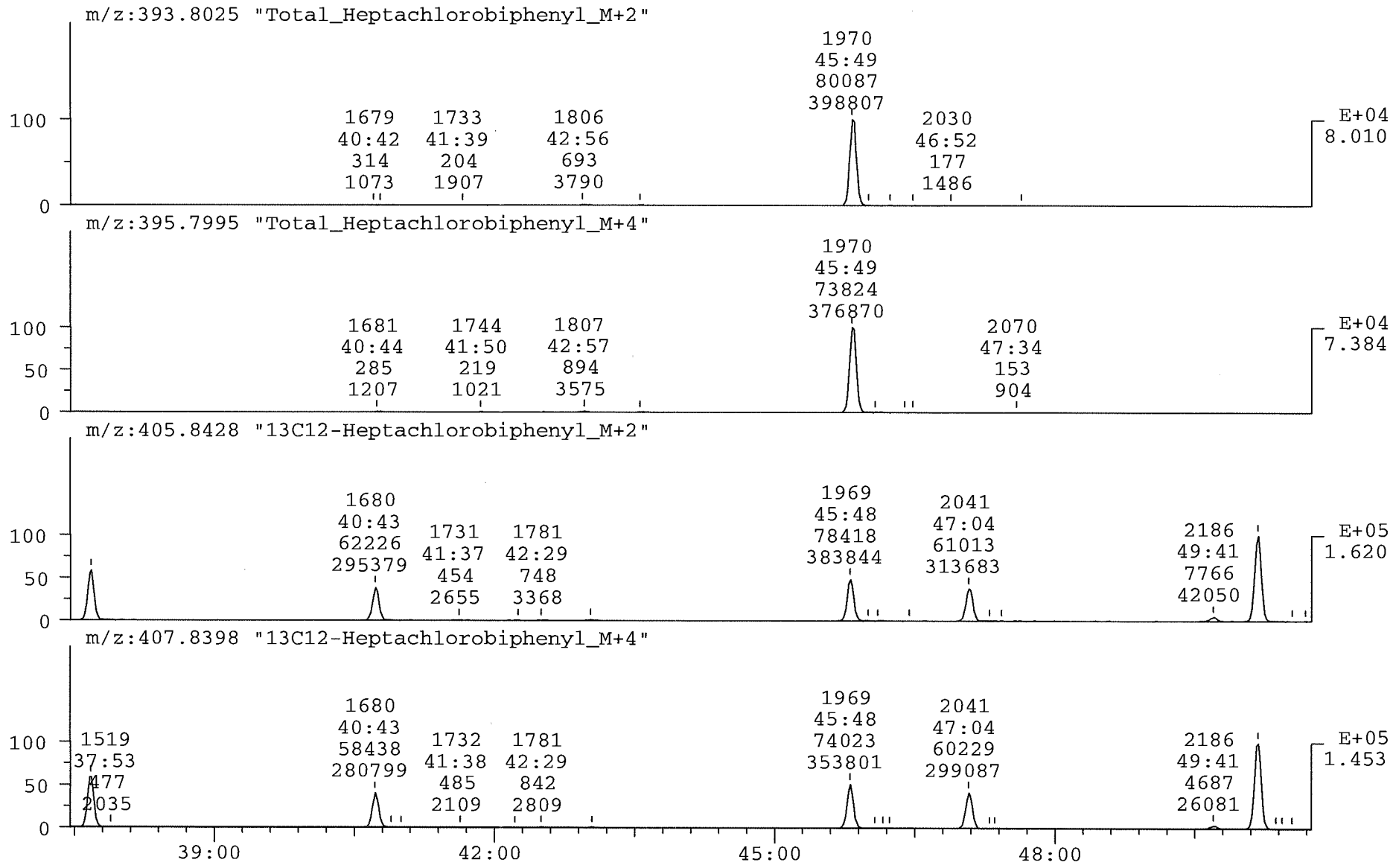
CHRO: a0806m4r1 10-Jun-08 Elapse: 40:17 1656
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1631 > 1681 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2633

2632

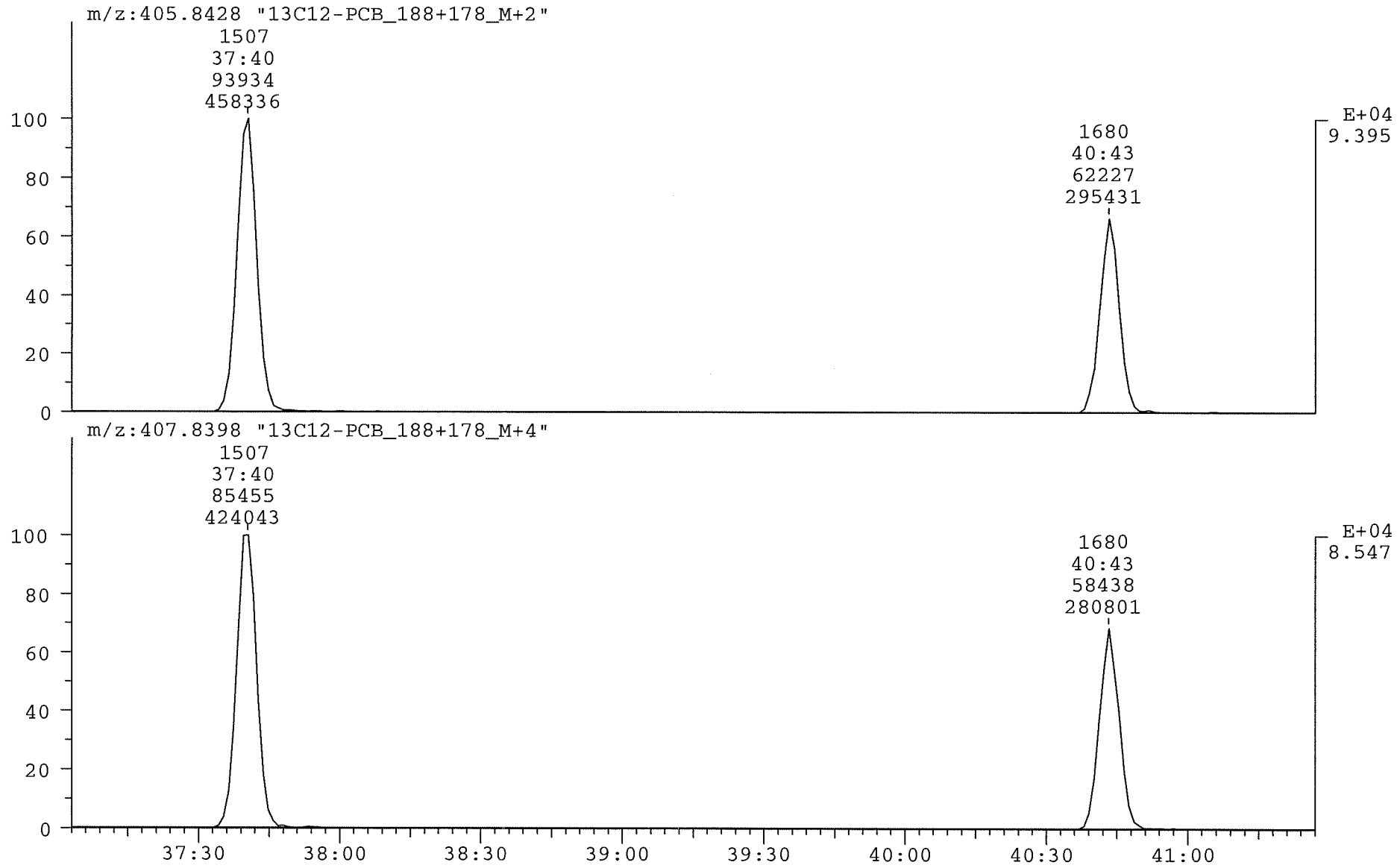
CHRO: a0806m4r1 10-Jun-08 Elapse: 44:05 1872
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1494 > 2246 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2634

2633

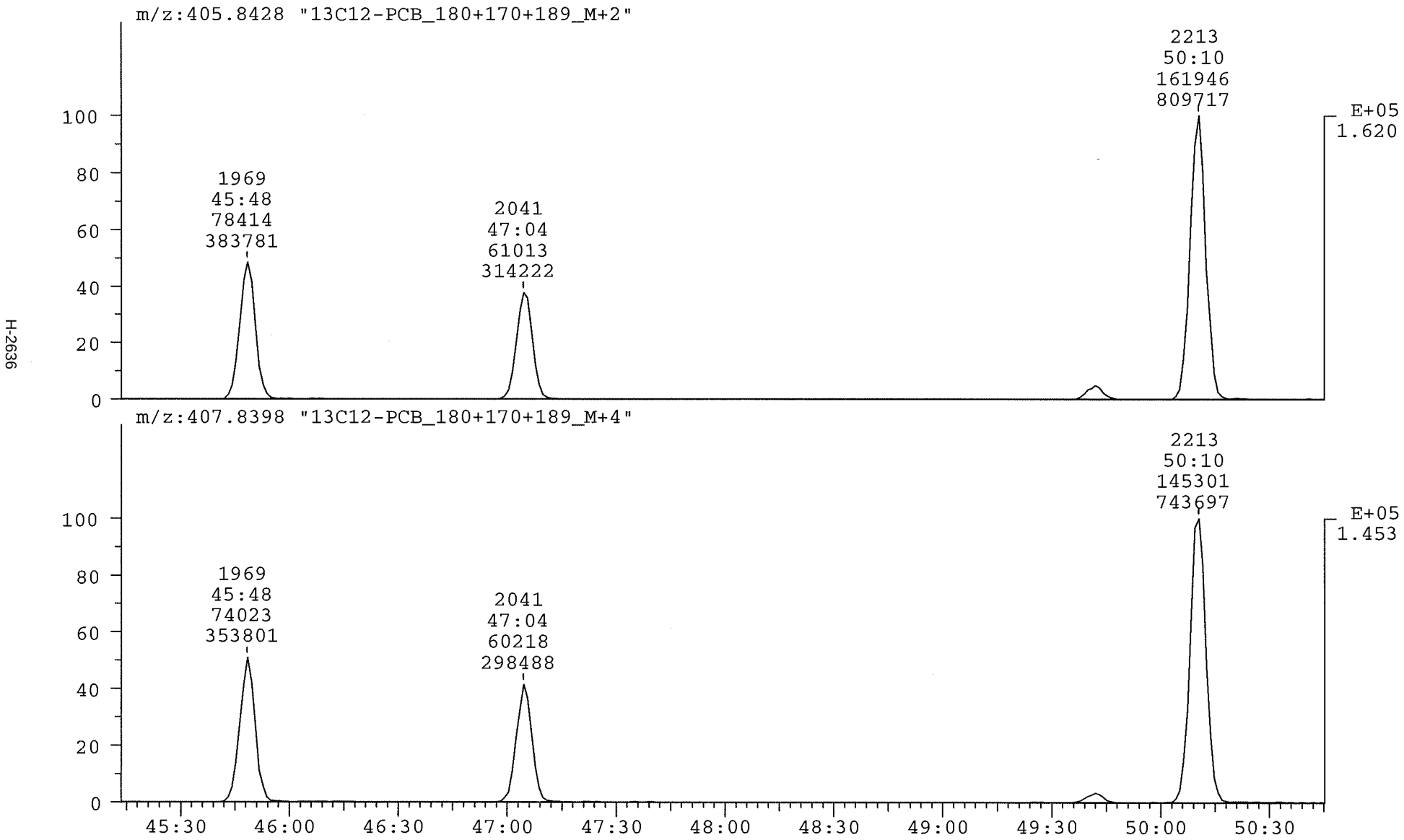
CHRO: a0806m4r1 10-Jun-08 Elapse: 39:15 1597
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1472 > 1722 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2635

2634

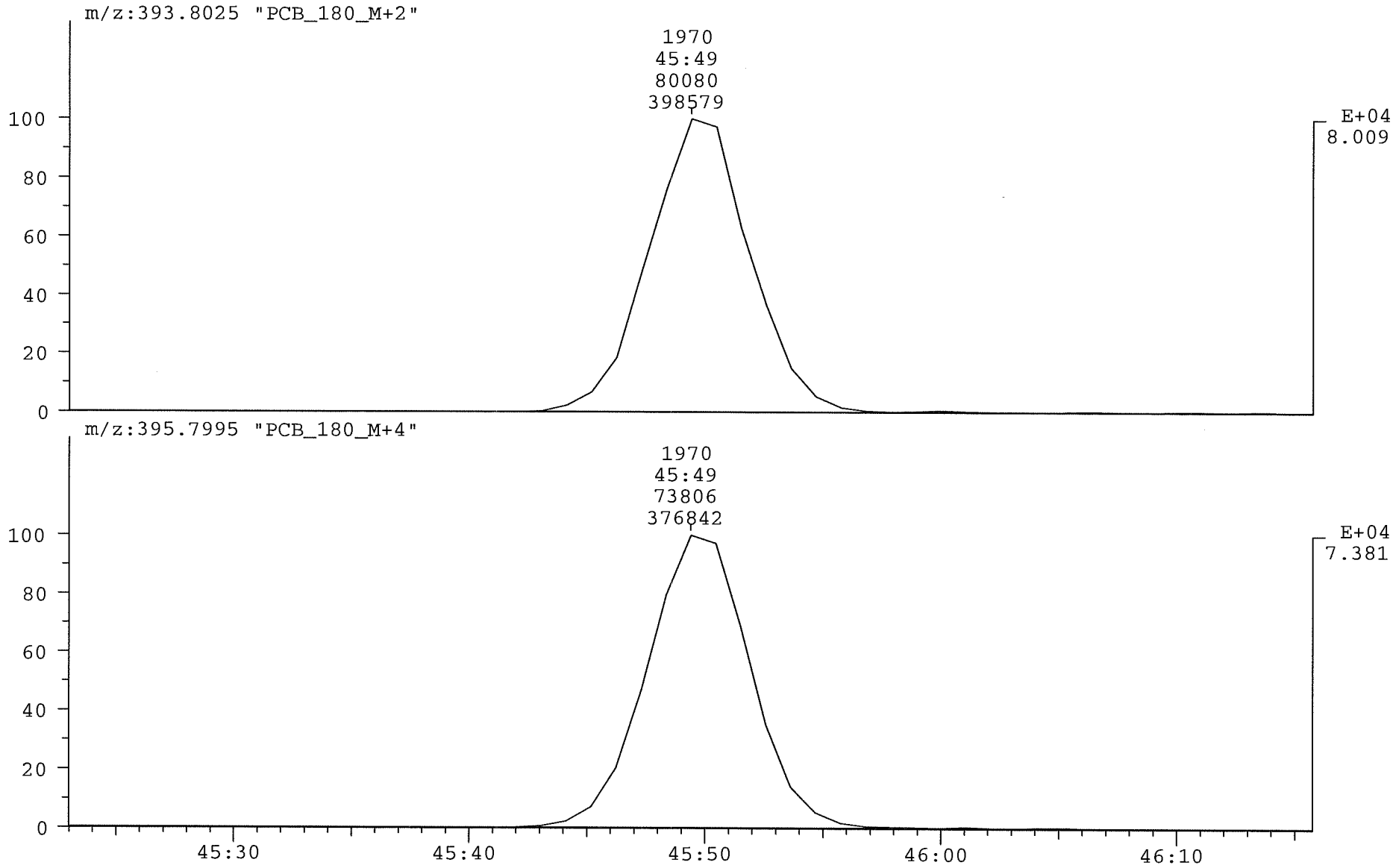
CHRO: a0806m4r1 10-Jun-08 Elapse: 48:02 2096
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1936 > 2246 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2636

2635

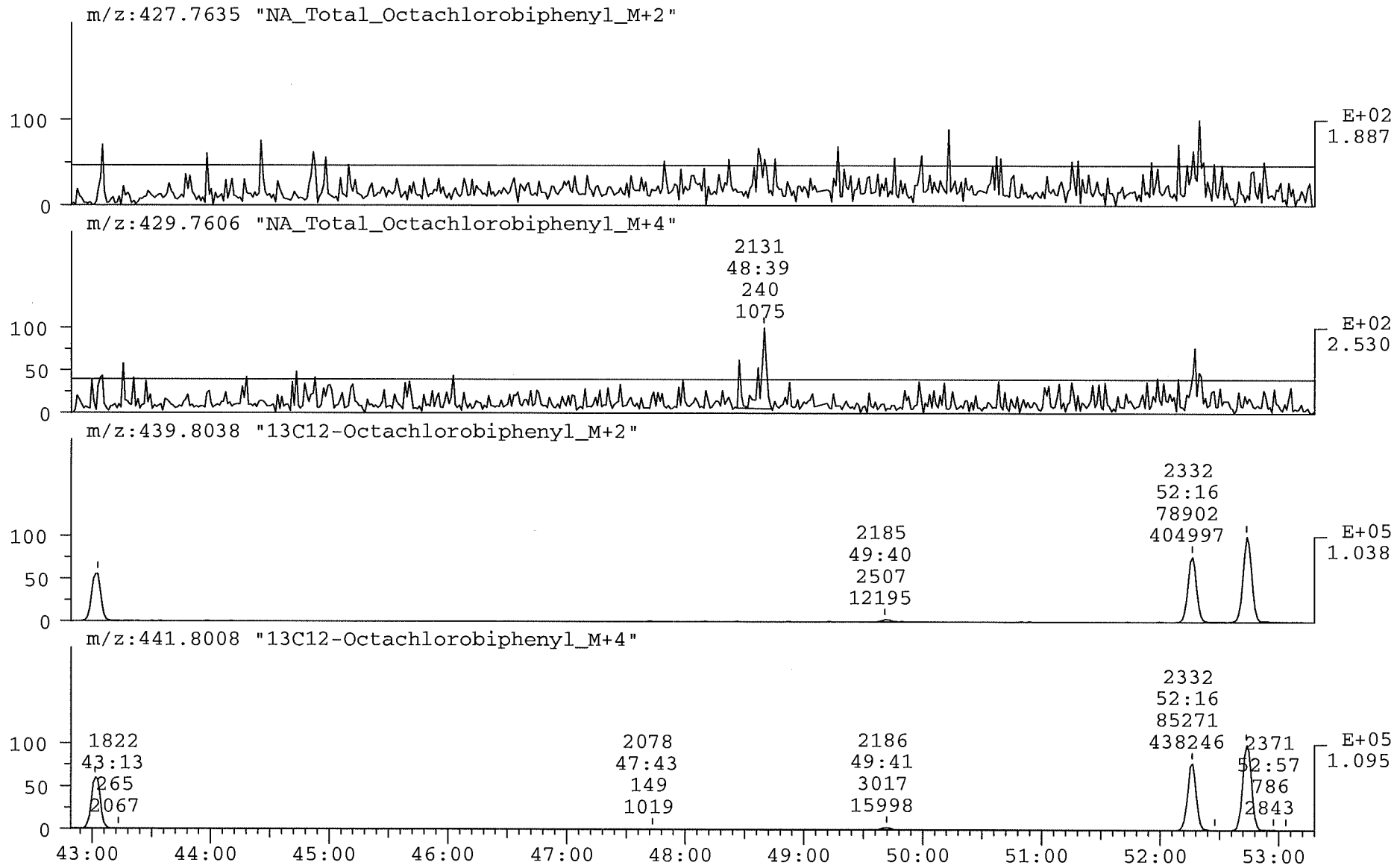
CHRO: a0806m4r1 10-Jun-08 Elapse: 45:49 1970
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1945 > 1995 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2637

2636

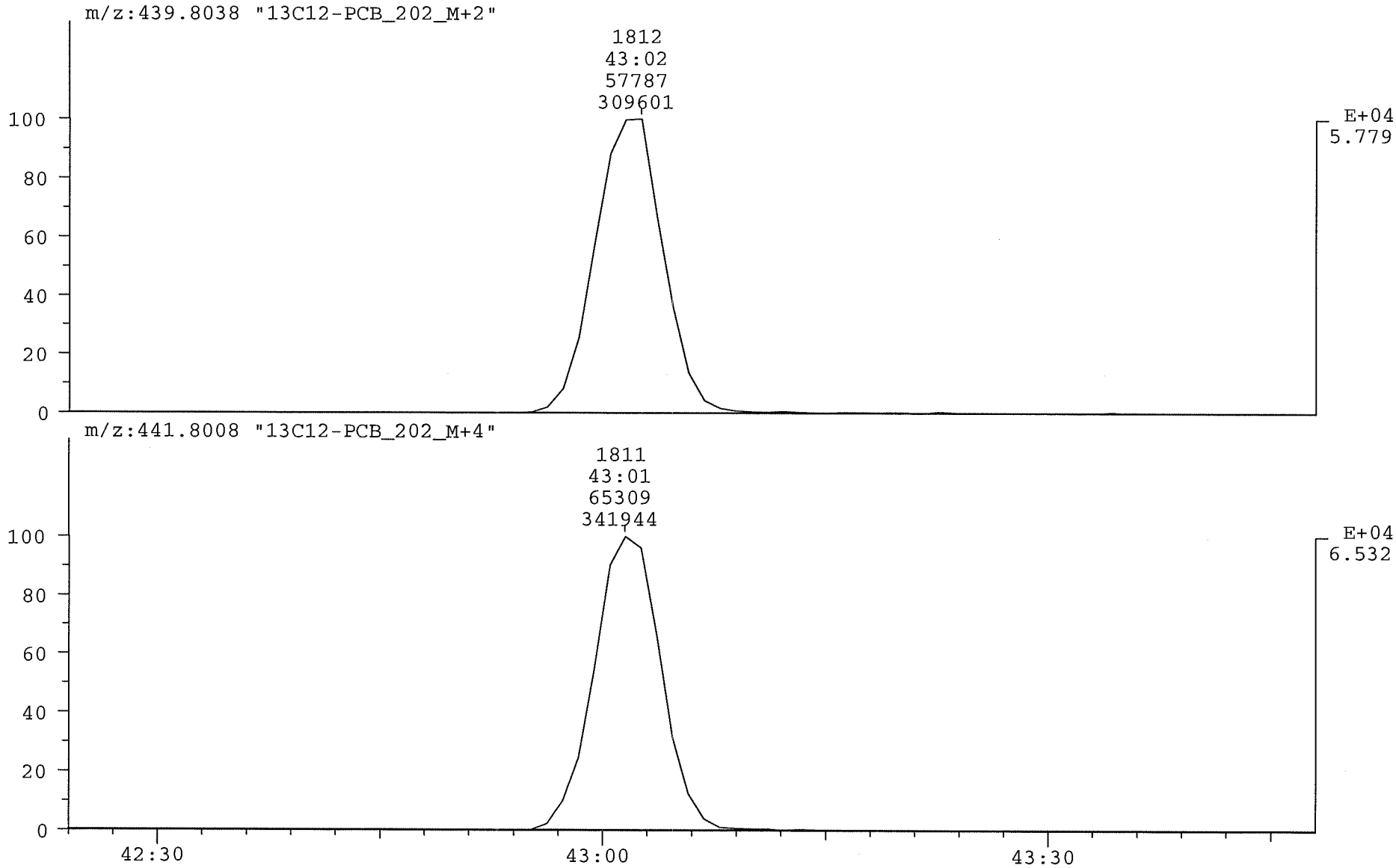
CHRO: a0806m4r1 10-Jun-08 Elapse: 48:03 2097
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1799 > 2391 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2638

2637

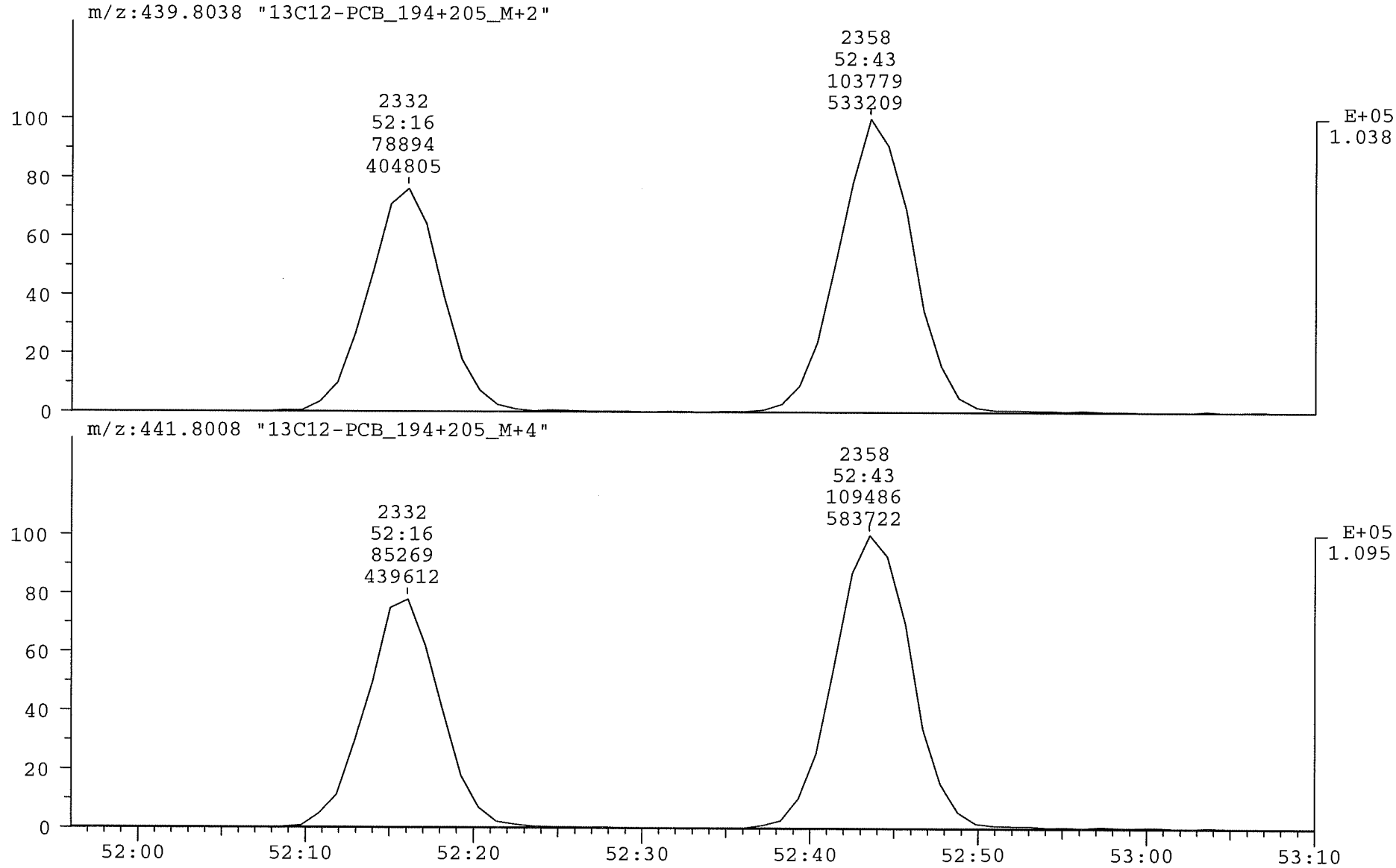
CHRO: a0806m4r1 10-Jun-08 Elapse: 43:02 1812
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1775 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2639

2638

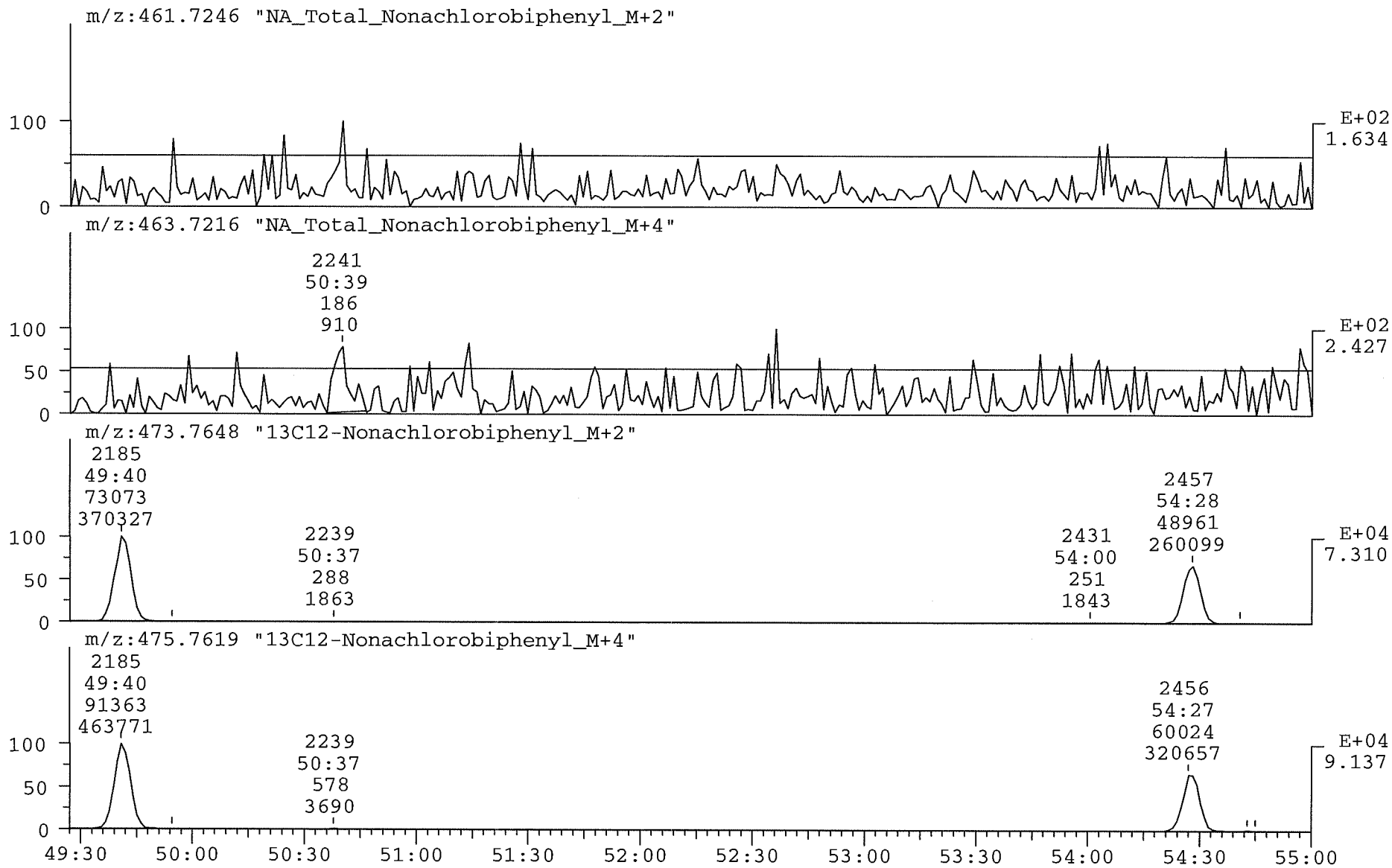
CHRO: a0806m4r1 10-Jun-08 Elapse: 52:32 2348
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2313 > 2383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2640

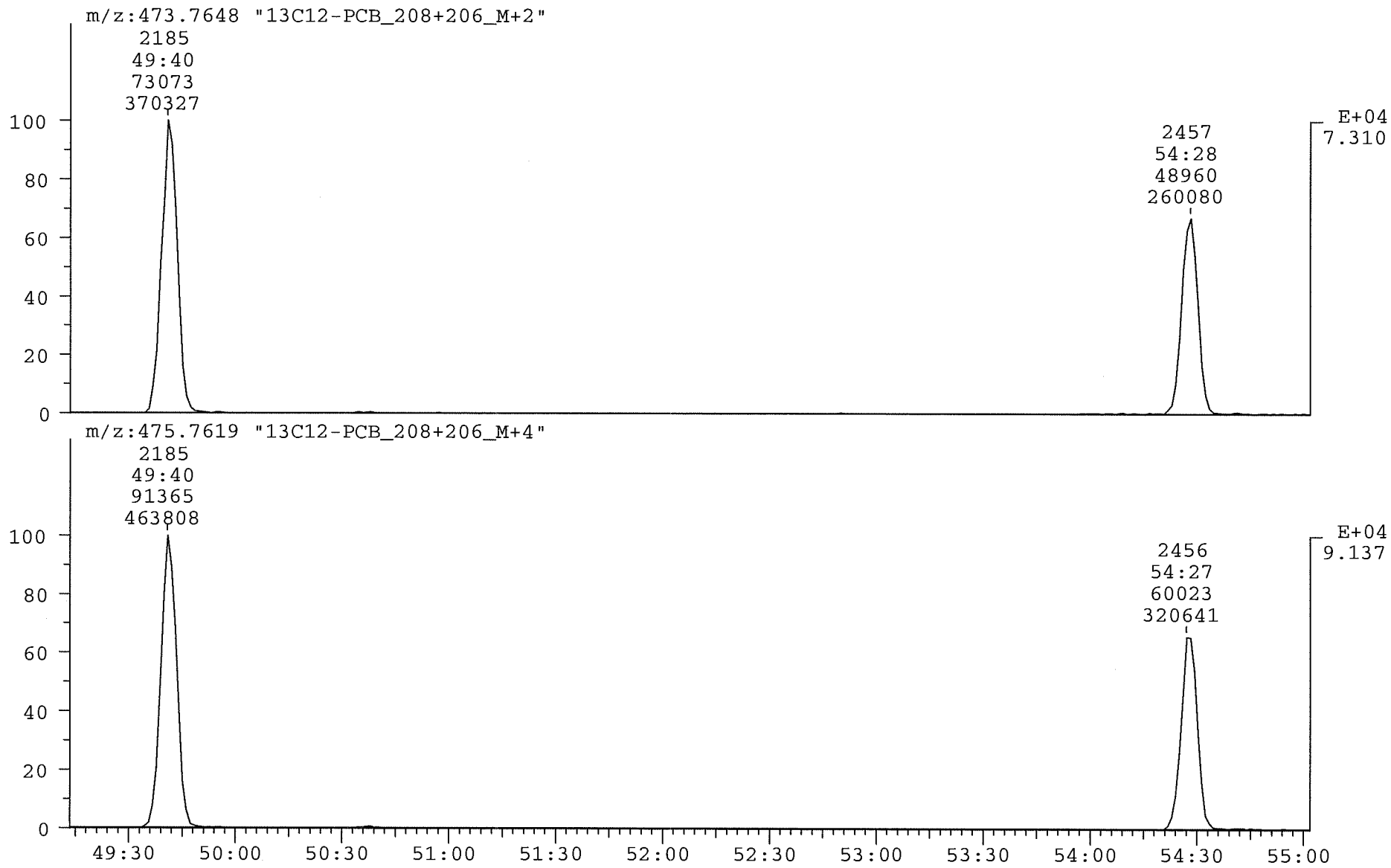
2639

CHRO: a0806m4r1 10-Jun-08 Elapse: 52:12 2329
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2172 > 2487 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



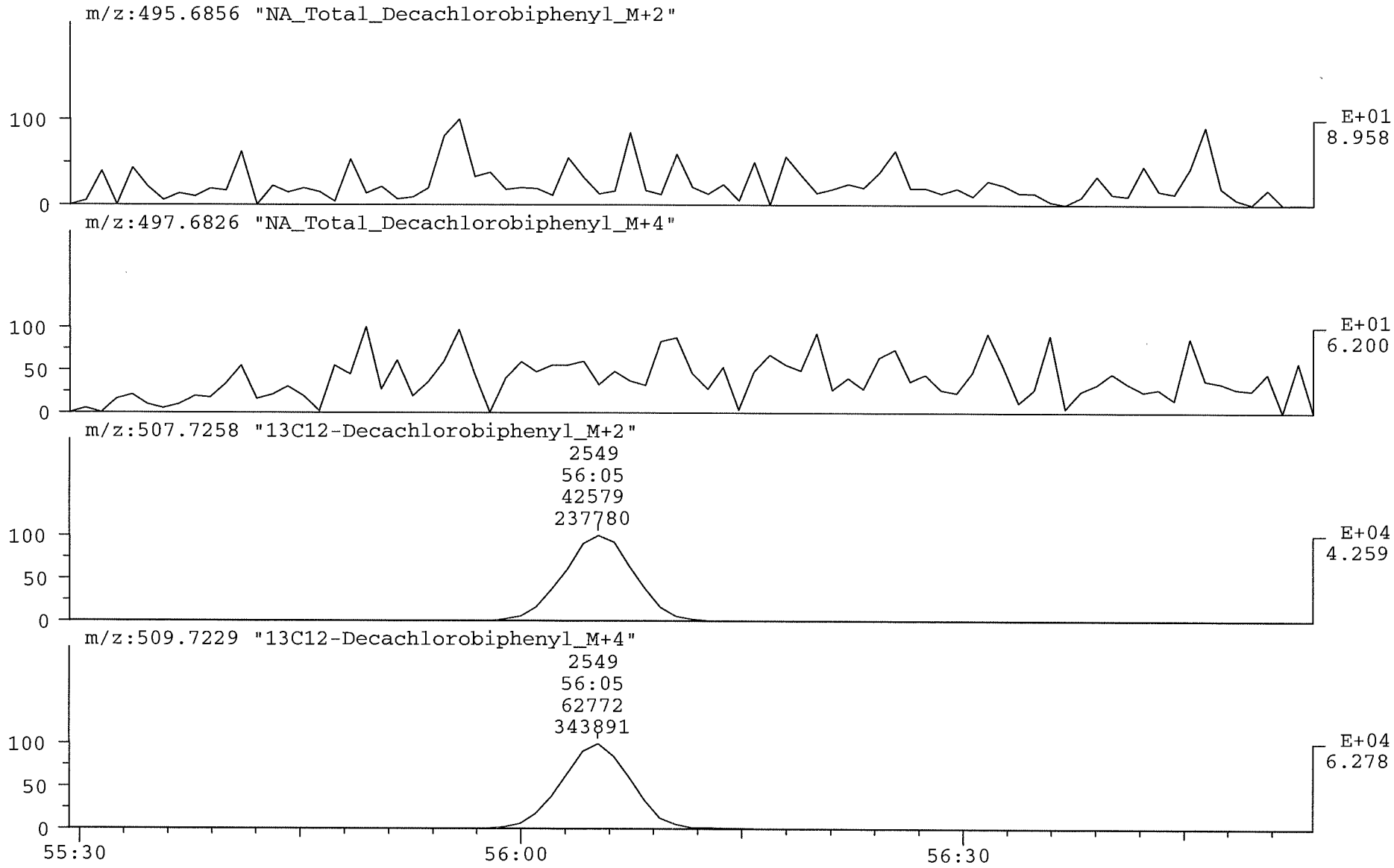
H-2641

CHRO: a0806m4r1 10-Jun-08 Elapse: 52:07 2324
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2159 > 2489 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2642

CHRO: a0806m4r1 10-Jun-08 Elapse: 56:11 2555
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 17:41:05 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2515 > 2595 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2643

2642

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m4r1
Study: 2990:75 Mix 4
Sample: WO=2990:75Mix4 Meth=IE3 Dil=1
Amount:  0.00
Volume:  0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume:  2.00
Sample from Vial 14
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 4 of list 080609
  ICL procedure: sleep7x
  MID procedure: epa1668n

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.10 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start        Measure      End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:12 min   35:52 min    1.00 sec
  # 3   35:52 min   13:13 min   49:05 min    1.00 sec
  # 4   49:05 min    7:55 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 1   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
```

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg at	0.0	minutes	280 deg max
	75 deg at	2.0	minutes	
	150 deg at	7.0	minutes	
	270 deg at	55.0	minutes	
	270 deg at	57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5529
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0012
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	360.0000
FVINLET	257.0000	FVSRC	973.0000	FWIN	0.7000
GCTC	200.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.5098	HVANAL	1254.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2606.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.9600	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 17:41:05.8

Autosampler has injected sample from vial 14
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 9606
MID Time Window 3: Resolution is 10716
MID Time Window 4: Resolution is 10657
Analysis stopped at: 10-Jun-08 18:38:09.2 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX4	Prep Batch		Lot No	
Data File	/20080610rt/a0806m4r2.	Prep Date		SDG No	
Analysis ID	104464	Prep Exp Date		Date Received	
Analysis Date	06/10/08 22:46	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	158	210	63	84	0.75 *	/	
	13C12-PCB 1	12:02	00:00	0	1356739	407154	573620	176373	3.33	AVV/AVB	
	13C12-PCB 3	14:14	00:00	0	1386793	402580	483963	143061	3.44	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	213	148	85	59	1.44	/	
	13C12-PCB 4	14:30	00:00	0	374592	242654	127889	81739	1.54	ABV/ABV	
	13C12-PCB 9	16:29	00:00	0	602028	398051	183986	121033	1.51	ABV/ABV	
	13C12-PCB 8	17:20	00:00	0	592461	389398	169882	110473	1.52	ABV/AVV	
	13C12-PCB 15	20:27	00:00	0	605003	393223	154883	101849	1.54	ABV/AVV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	208	230	83	92	0.90	/	
	PCB 25 (BZ)	22:54	00:00	0	598205	552413	142570	134427	1.08	ABV/ABV	
	PCB 21 (BZ)	23:41	00:00	0	540336	514756	127393	119689	1.05	AVV/AVV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	225	160	90	64	1.41 *	/	
	13C12-PCB 19	17:39	00:00	0	195813	192620	52834	52243	1.02	AVV/ABV	
	13C12-PCB 32	20:55	00:00	0	361087	350628	89697	86050	1.03	AVV/AVV	
	13C12-PCB 31	23:12	00:00	0	1042978	942454	257491	235657	1.11	ABV/ABV	
	13C12-PCB 28	23:30	00:00	0	940972	873623	232088	210014	1.08	AVV/AVV	
	13C12-PCB 37	27:31	00:00	0	945606	852804	219979	192257	1.11	ABV/AVV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	210	200	84	80	1.05 *	/	
	PCB 69 (BZ)	25:47	00:00	0	556974	698130	129293	162188	0.80	ABV/ABV	D
	PCB 47 (BZ)	26:24	00:00	0	491120	603071	114596	142218	0.81	AVV/AVV	DM
	PCB 42 (BZ)	26:53	00:00	0	411771	507403	92038	109378	0.81	AVV/AVV	D
	PCB 64 (BZ)	27:37	00:00	0	616132	776491	134962	172071	0.79	AVV/ABV	D
	PCB 70 (BZ)	30:09	00:00	0	607957	762349	135919	171467	0.80	ABV/ABV	DM
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	123	120	49	48	1.02 *	/	
	13C12-PCB 54	20:46	00:00	0	208752	262760	50716	66293	0.79	ABV/ABV	
	13C12-PCB 52	25:20	00:00	0	370506	460686	85796	107582	0.80	AVV/ABV	
	13C12-PCB 79	33:17	00:00	0	478056	605921	101268	126888	0.79	ABV/ABV	
	13C12-PCB 81	34:17	00:00	0	449953	557919	95872	116687	0.81	ABV/ABV	
	13C12-PCB 77	34:50	00:00	0	450791	571644	98180	120024	0.79	ABV/ABV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	120	145	48	58	0.83 *	/	
	PCB 102 (BZ)	29:39	00:00	0	376105	229363	81520	49567	1.64	ABV/ABV	
	PCB 97 (BZ)	33:19	00:00	0	347269	210481	75493	47427	1.65	ABV/AVV	DM

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX4	Prep Batch		Lot No	
Data File	/20080610rt/a0806m4r2.	Prep Date		SDG No	
Analysis ID	104464	Prep Exp Date		Date Received	
Analysis Date	06/10/08 22:46	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	PCB 115 (BZ)	34:16	00:00	0	503544	310521	102580	64742	1.62	ABV/ABV	D
	PCB 123 (BZ)	36:51	00:00	0	1056722	670475	218441	140308	1.58	AVV/AVV	
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	125	115	50	46	1.09 *	/	
	13C12-PCB 104	26:17	00:00	0	430561	268668	94555	59856	1.60	AVV/AVV	
	13C12-PCB 95	29:16	00:00	0	322407	193567	70895	43083	1.67	ABV/AVV	
	13C12-PCB 101	32:11	00:00	0	336838	205424	72551	42894	1.64	AVV/AVV	
	13C12-PCB 111	34:52	00:00	0	418015	260545	88081	54043	1.60	AVV/AVV	
	13C12-PCB 123	36:50	00:00	0	902001	551773	188872	117148	1.63	ABV/ABV	
	13C12-PCB 118	37:10	00:00	0	937746	575806	189737	116933	1.63	AVV/AVV	
	13C12-PCB 114	37:42	00:00	0	902978	538258	180164	109571	1.68	AVV/AVV	
	13C12-PCB 105	38:21	00:00	0	887911	543228	189745	110976	1.63	ABV/ABV	
	13C12-PCB 127	39:47	00:00	0	996548	601123	201837	125894	1.66	AVV/AVV	
	13C12-PCB 126	41:26	00:00	0	983552	591476	199724	120179	1.66	AVV/AVV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	225	130	90	52	1.73 *	/	
	PCB 134 (BZ)	36:15	00:00	0	428073	335199	91675	72123	1.28	AVV/ABV	D
	PCB 131 (BZ)	36:51	00:00	0	457734	355740	97546	73131	1.29	AVV/ABV	D
	PCB 163 (BZ)	40:19	00:00	0	712484	553413	147997	115442	1.29	ABB/ABV	DM
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	193	183	77	73	1.05	/	
	13C12-PCB 155	31:56	00:00	0	329343	257086	70545	53960	1.28	ABV/ABB	
	13C12-PCB 153	39:01	00:00	0	506877	390880	103775	78271	1.30	AVV/ABV	
	13C12-PCB 138	40:17	00:00	0	522207	396616	103346	79818	1.32	AVV/AVB	M
	13C12-PCB 167	43:16	00:00	0	618698	474250	124111	95227	1.30	AVV/AVB	
	13C12-PCB 156	44:26	00:00	0	1220440	947937	154151	122756	1.29	AVV/ABV	
	13C12-PCB 169	47:39	00:00	0	606254	467853	118862	93168	1.30	ABV/ABV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	85	223	34	89	0.38 *	/	
	PCB 180 (BZ)	45:50	00:00	0	384739	370432	75803	75927	1.04	ABV/ABV	M
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	115	113	46	45	1.02	/	
	13C12-PCB 188	37:40	00:00	0	420138	394176	83815	81521	1.07	ABV/ABV	
	13C12-PCB 178	40:43	00:00	0	281200	265780	55736	53385	1.06	ABV/ABV	
	13C12-PCB 180	45:48	00:00	0	362813	342552	72589	67246	1.06	ABV/ABV	
	13C12-PCB 170	47:04	00:00	0	304175	277054	58154	54362	1.10	ABV/ABV	
	13C12-PCB 189	50:10	00:00	0	700858	669683	137755	129086	1.05	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	123	110	49	44	1.11 *	/	
	13C12-PCB 202	43:02	00:00	0	288798	317188	56363	63315	0.91	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX4	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m4r2.	**Prep Date**		**SDG No**	
Analysis ID	104464	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 22:46	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

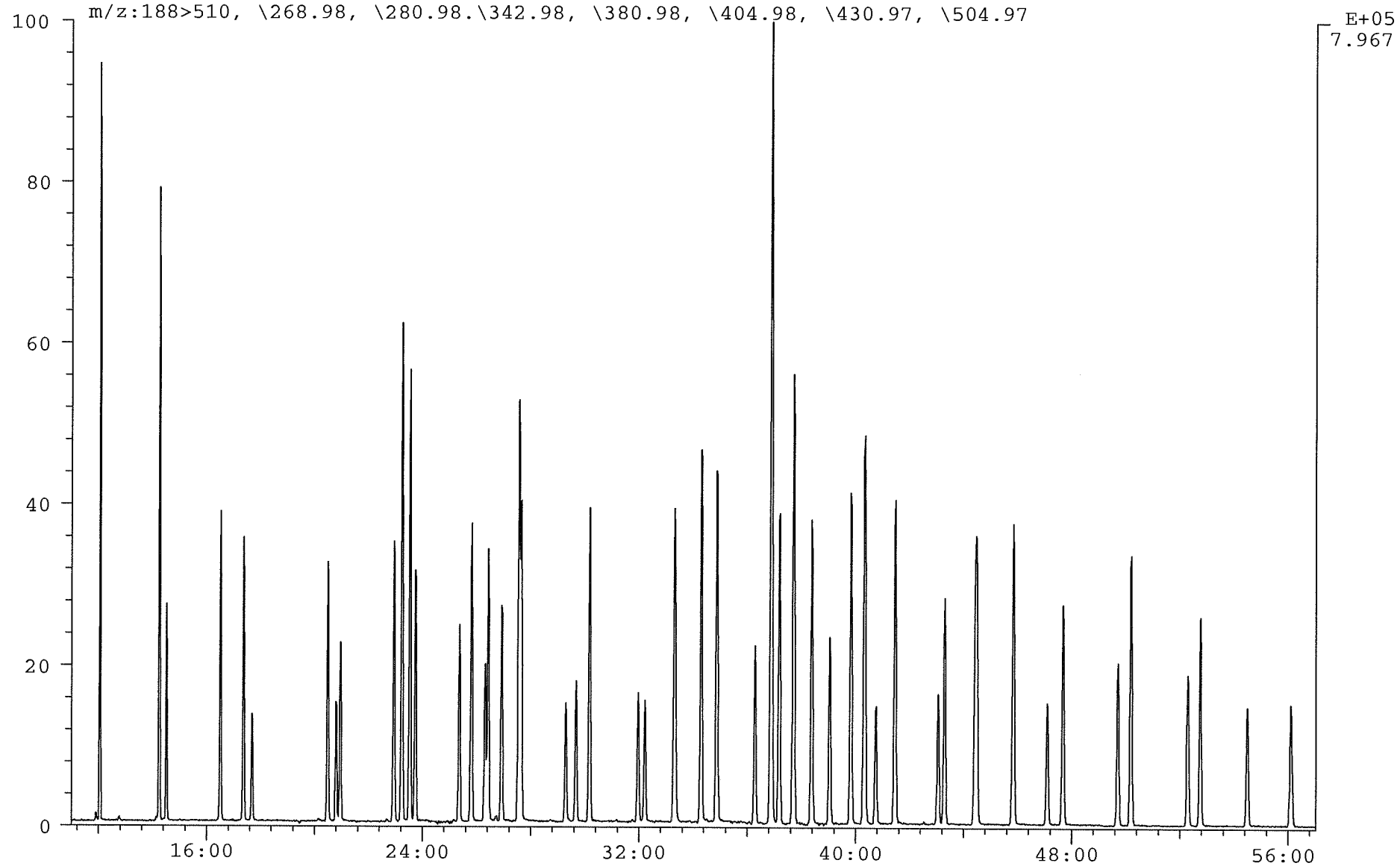
View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	13C12-PCB 194	52:15	00:00	0	363048	382859	70465	71694	0.95	ABV/ABV	
	13C12-PCB 205	52:44	00:00	0	481298	538657	94013	104161	0.89	AVV/ABV	
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89		
	Noise	00:00	00:00	0	108	133	43	53	0.81	/	
	13C12-PCB 208	49:41	00:00	0	341443	426277	64031	81297	0.80	ABV/ABV	
	13C12-PCB 206	54:28	00:00	0	243209	306867	45259	57829	0.79	ABV/ABV	
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79		
	Noise	00:00	00:00	0	113	98	45	39	1.15 *	/	
	13C12-PCB 209	56:05	00:00	0	235785	334259	42833	60304	0.71	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: a0806m4r2 10-Jun-08 Elapse: 19:02.4 457
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

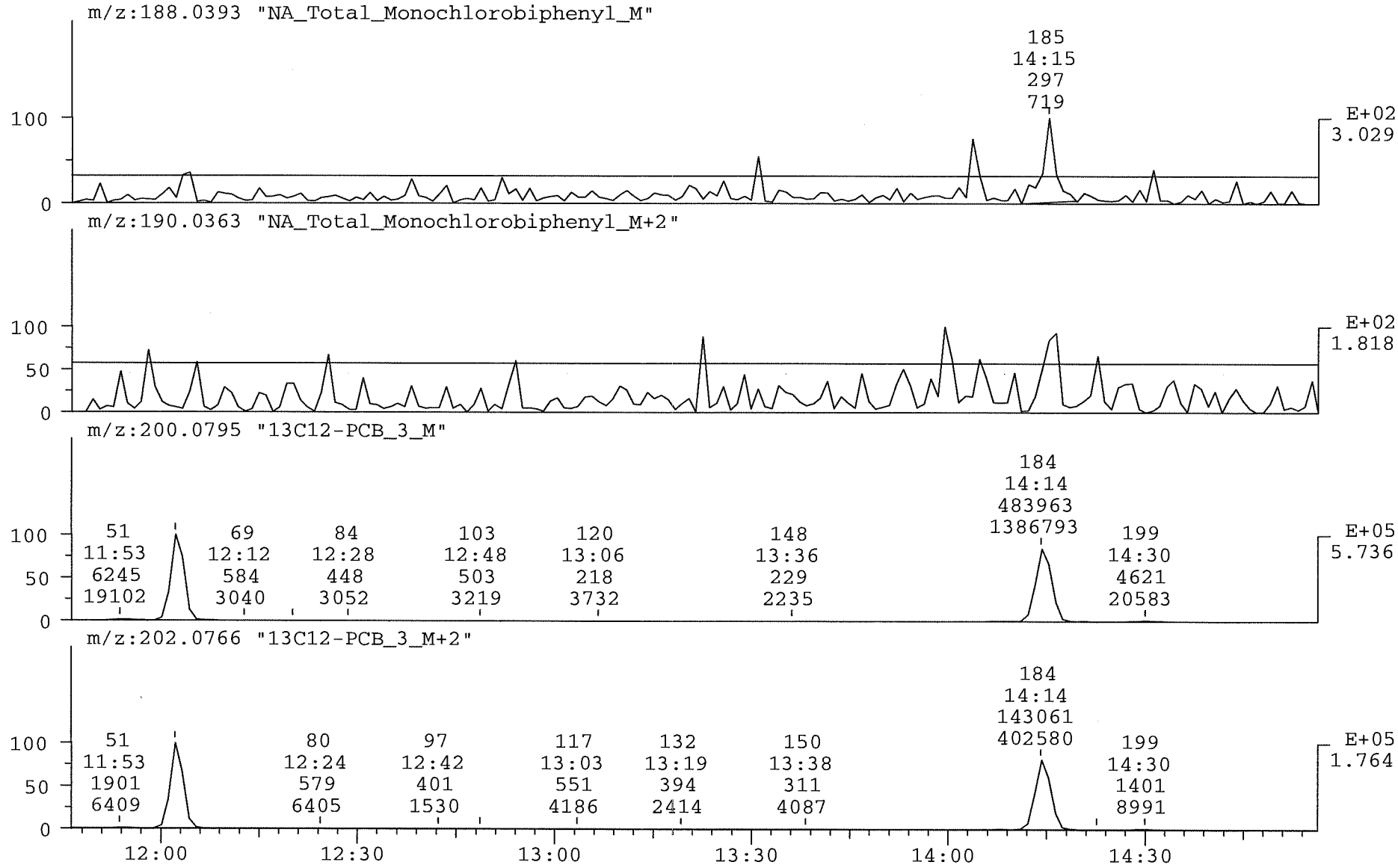
Int DCS 6-11-08
Cal DCS 6.26.08



H-2651

2650

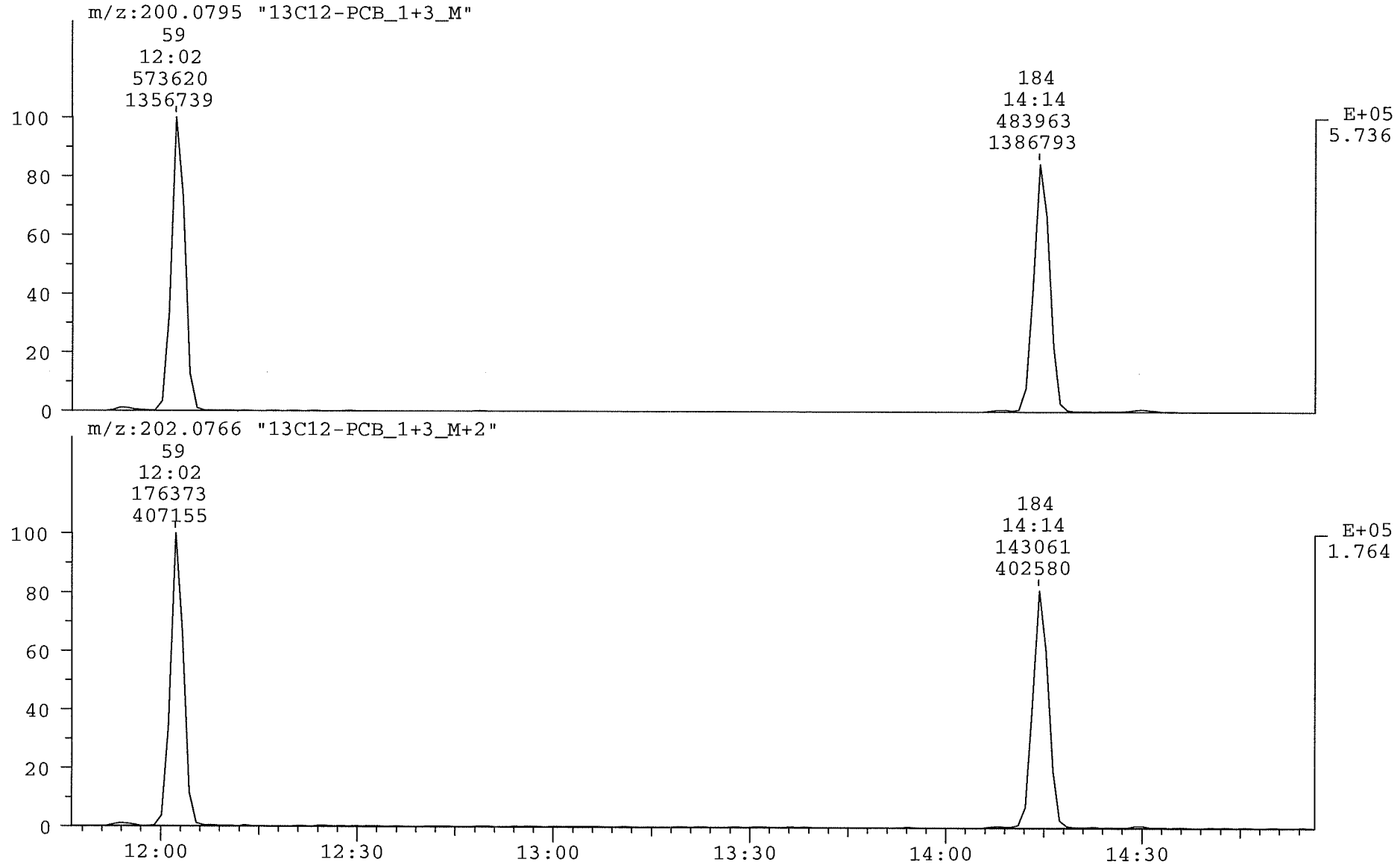
CHRO: a0806m4r2 10-Jun-08 Elapse: 13:21.3 134
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2652

2651

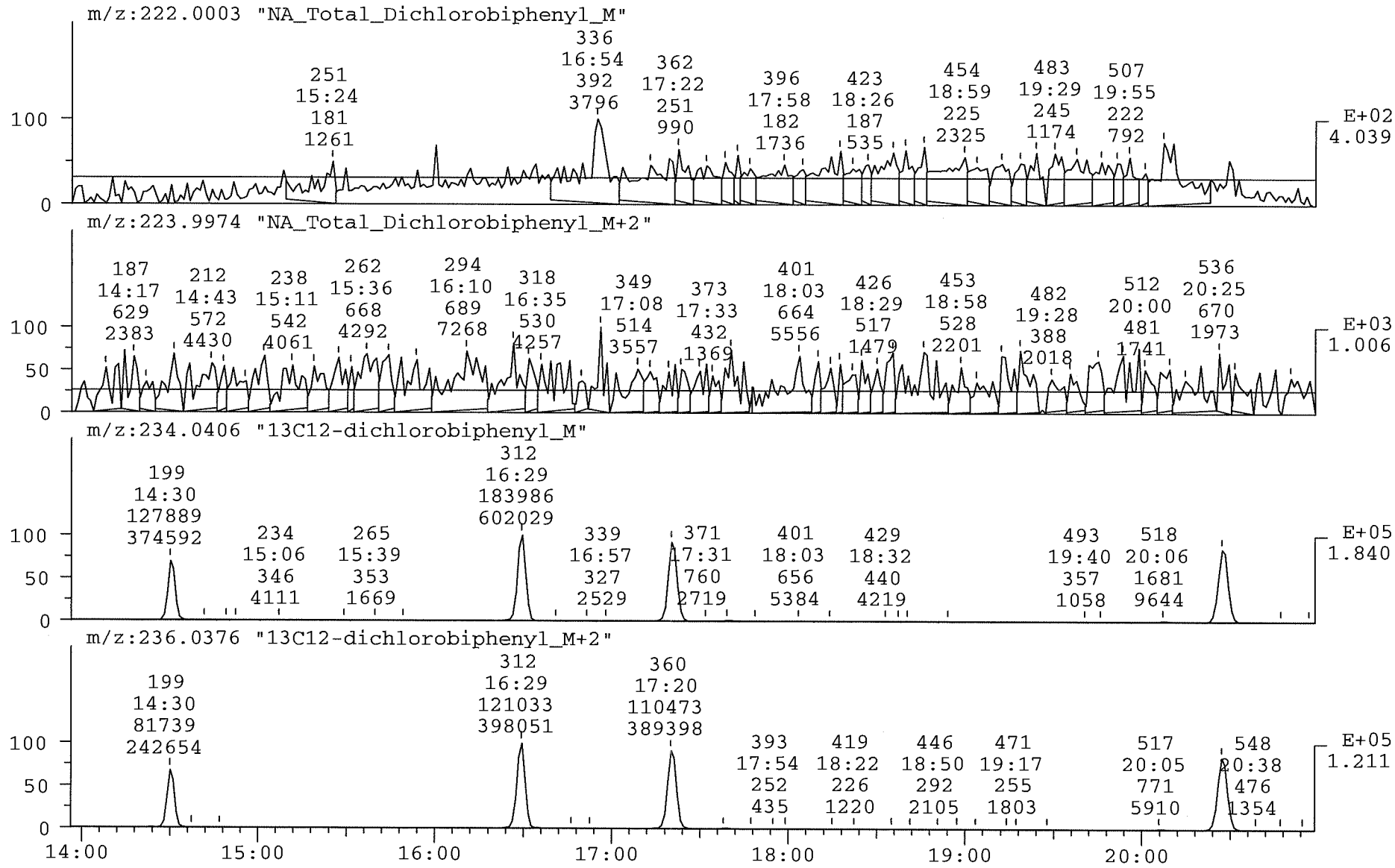
CHRO: a0806m4r2 10-Jun-08 Elapse: 13:21.3 134
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2653

2652

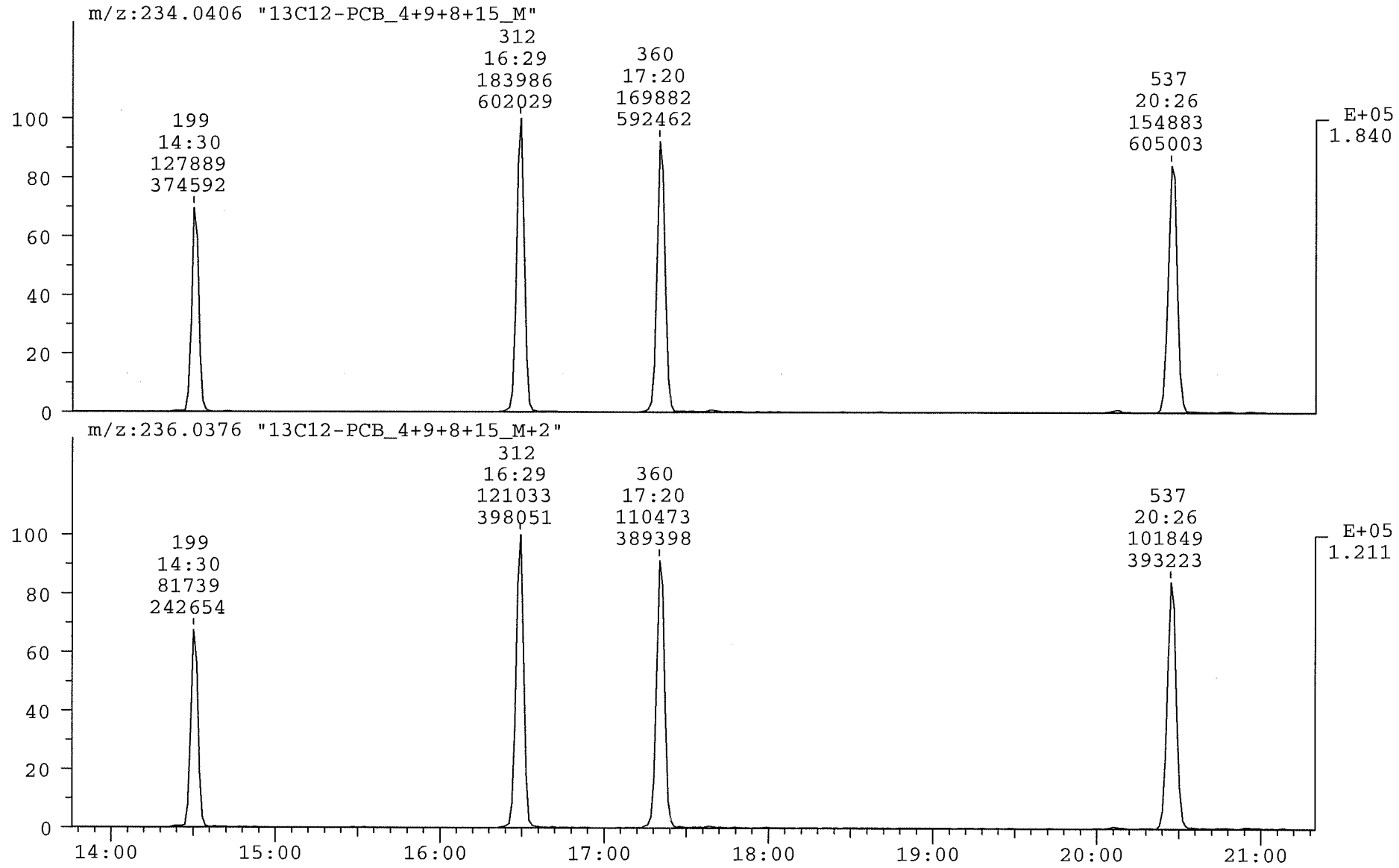
CHRO: a0806m4r2 10-Jun-08 Elapse: 17:27.3 367
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 167 > 567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2654

2653

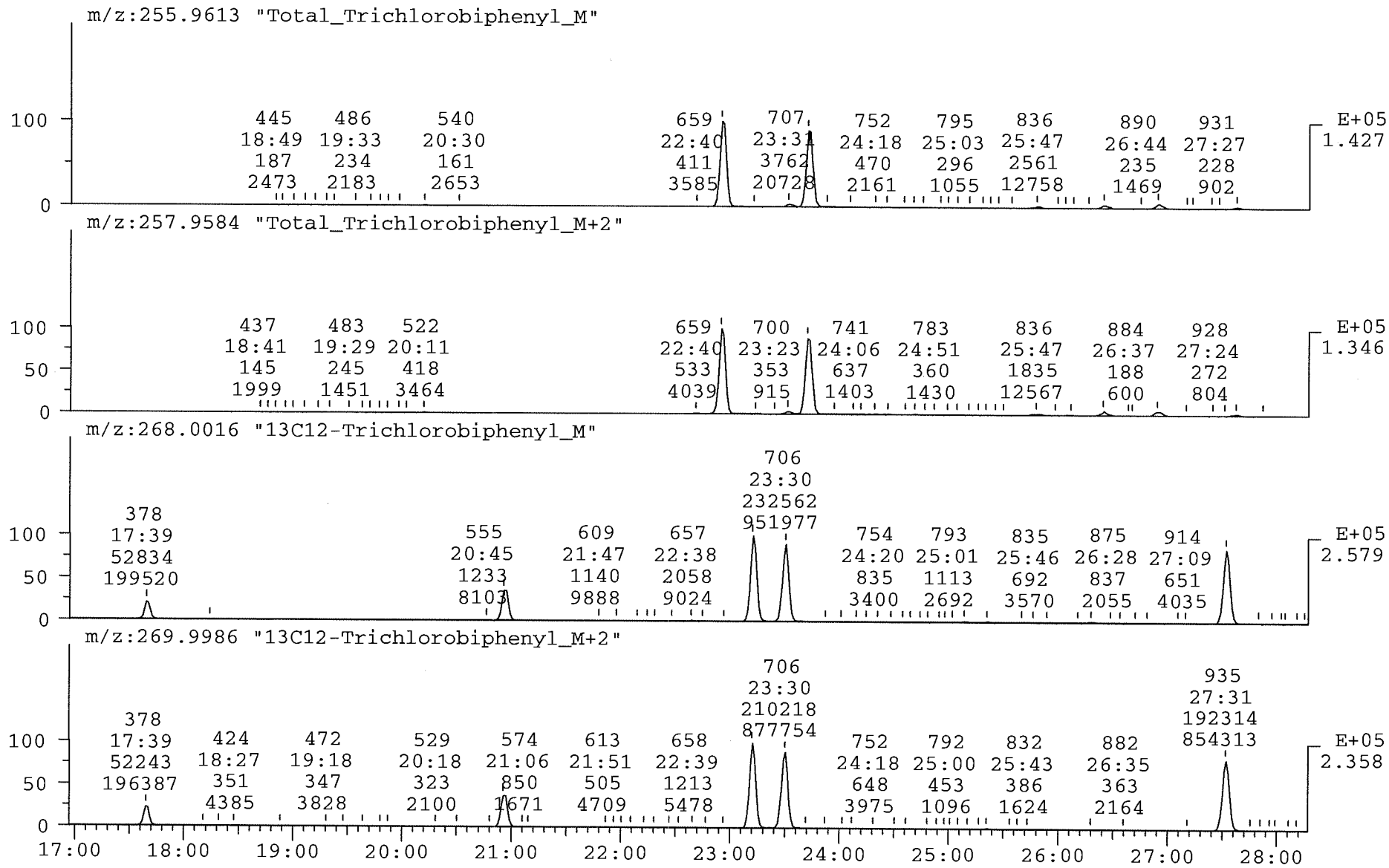
```
CHRO:  a0806m4r2                              10-Jun-08   Elapse:   17:27.3      367
Samp:  Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1              Start :   22:46:32    2601
Comm:  Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :   2990:75 Mix 4
Oper:  DCG           Client:  TA Knoxville                Inlet :   GC     Vial  14
Peak:  100.00  ppm     Label wndw:   157 > 587            Masses:   181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3              Label :   -3, 3.0
Disp:  Height  Area
```



H-2655

2654

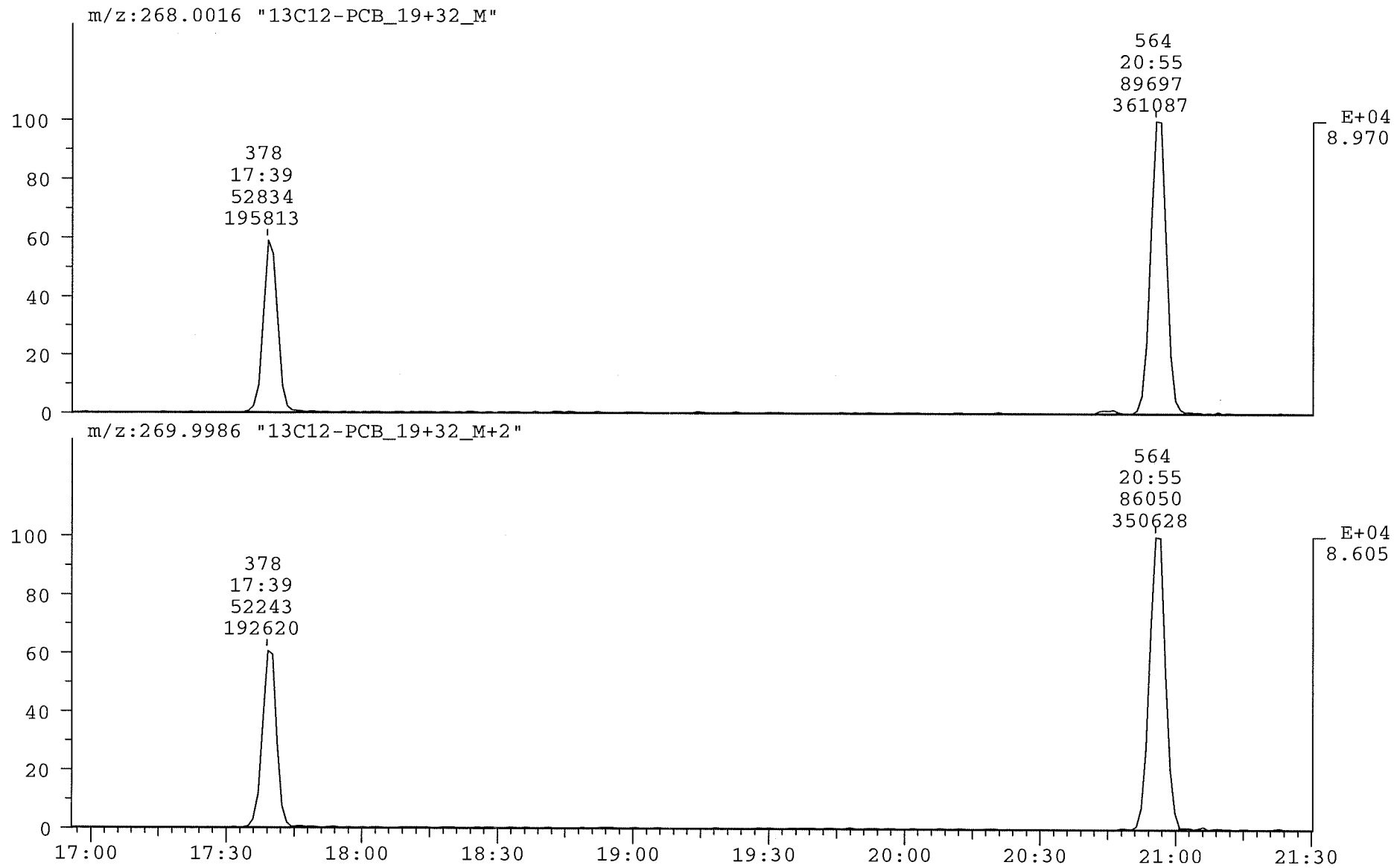
CHRO: a0806m4r2 10-Jun-08 Elapse: 22:39.3 658
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 338 > 978 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2656

2655

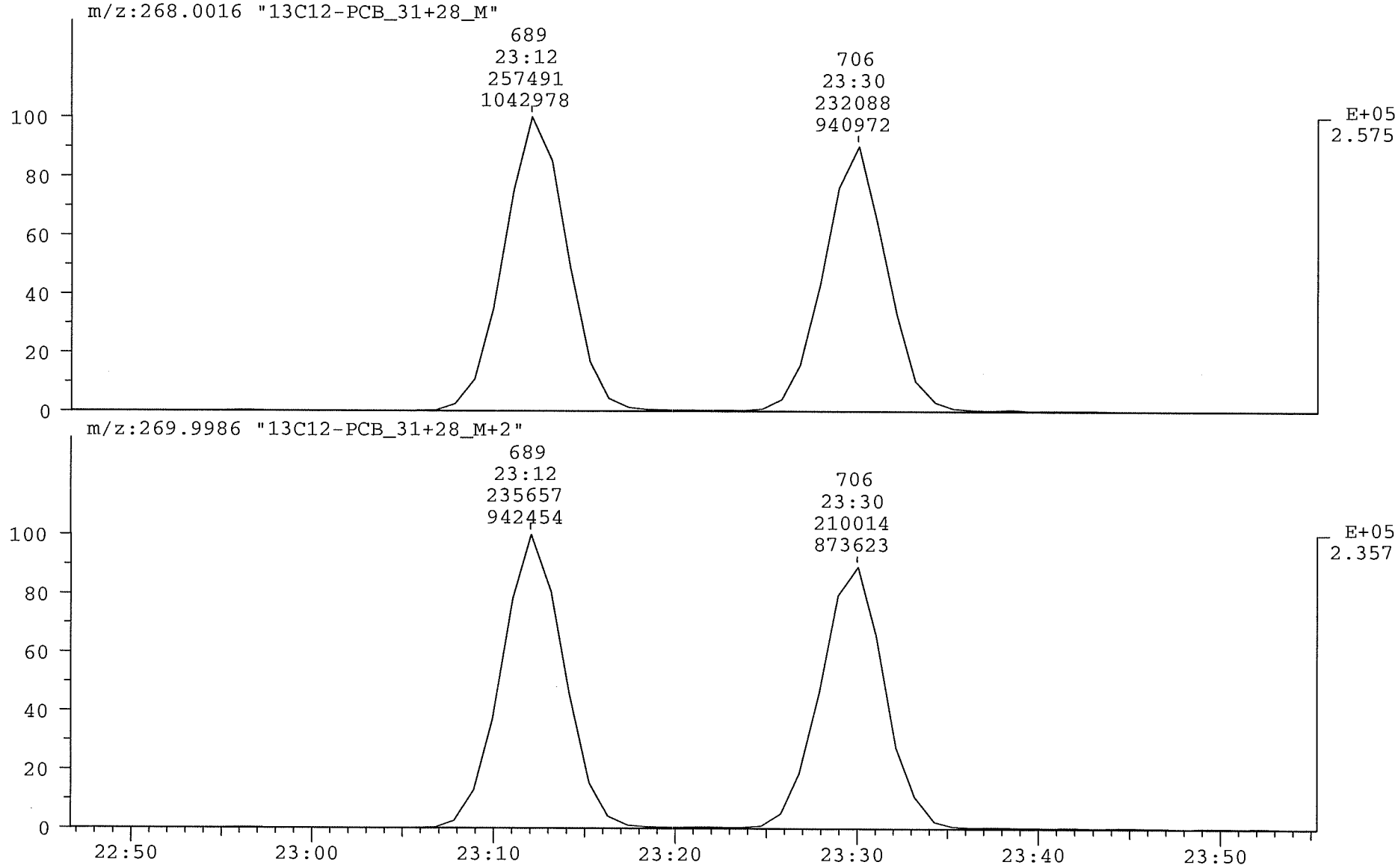
CHRO: a0806m4r2 10-Jun-08 Elapse: 19:02.4 457
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 337 > 597 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2657

2656

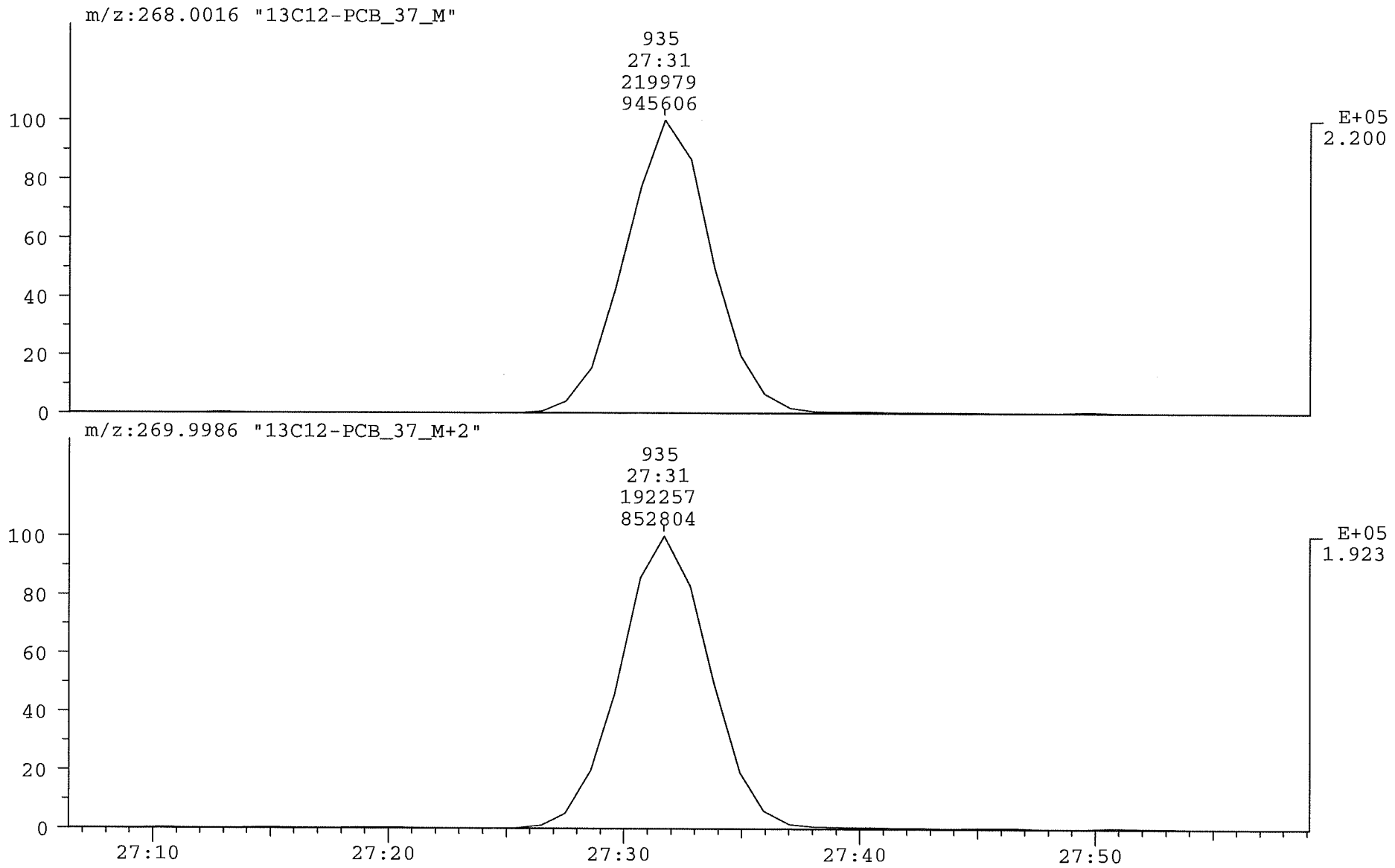
CHRO: a0806m4r2 10-Jun-08 Elapse: 23:13.1 690
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2658

2657

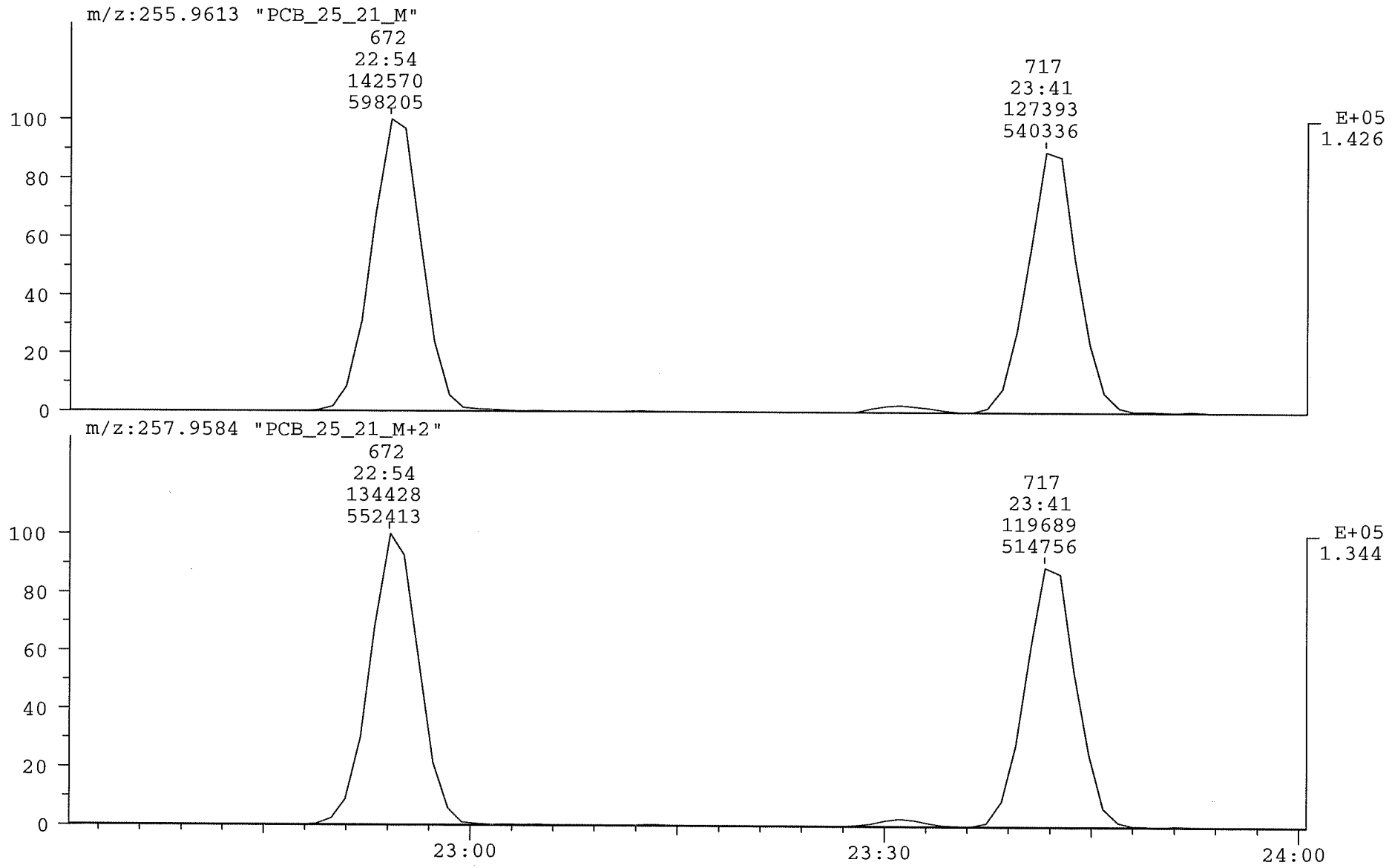
CHRO: a0806m4r2 10-Jun-08 Elapse: 27:32.8 936
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2959

2658

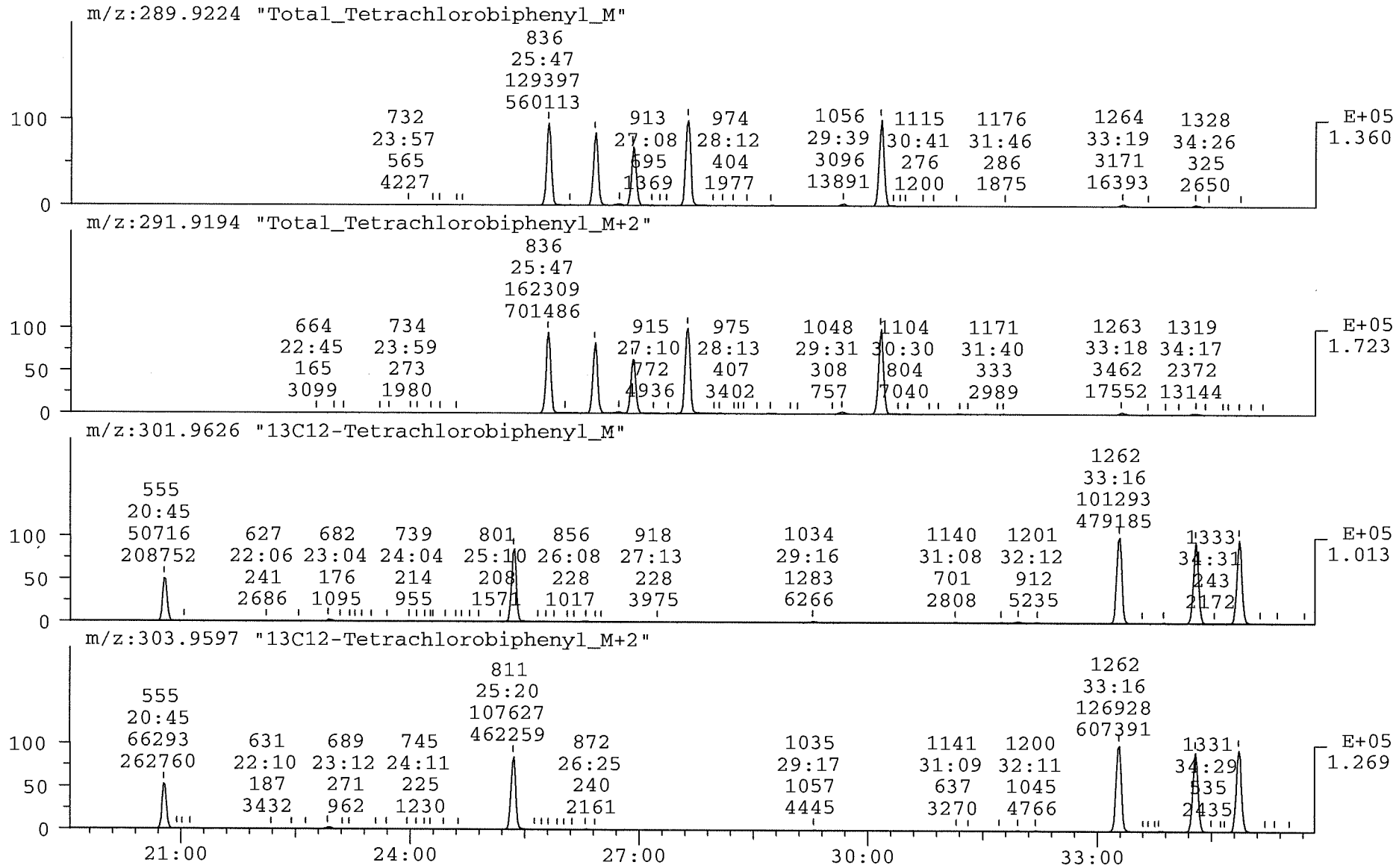
CHRO: a0806m4r2 10-Jun-08 Elapse: 23:23.7 700
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 650 > 735 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2660

2659

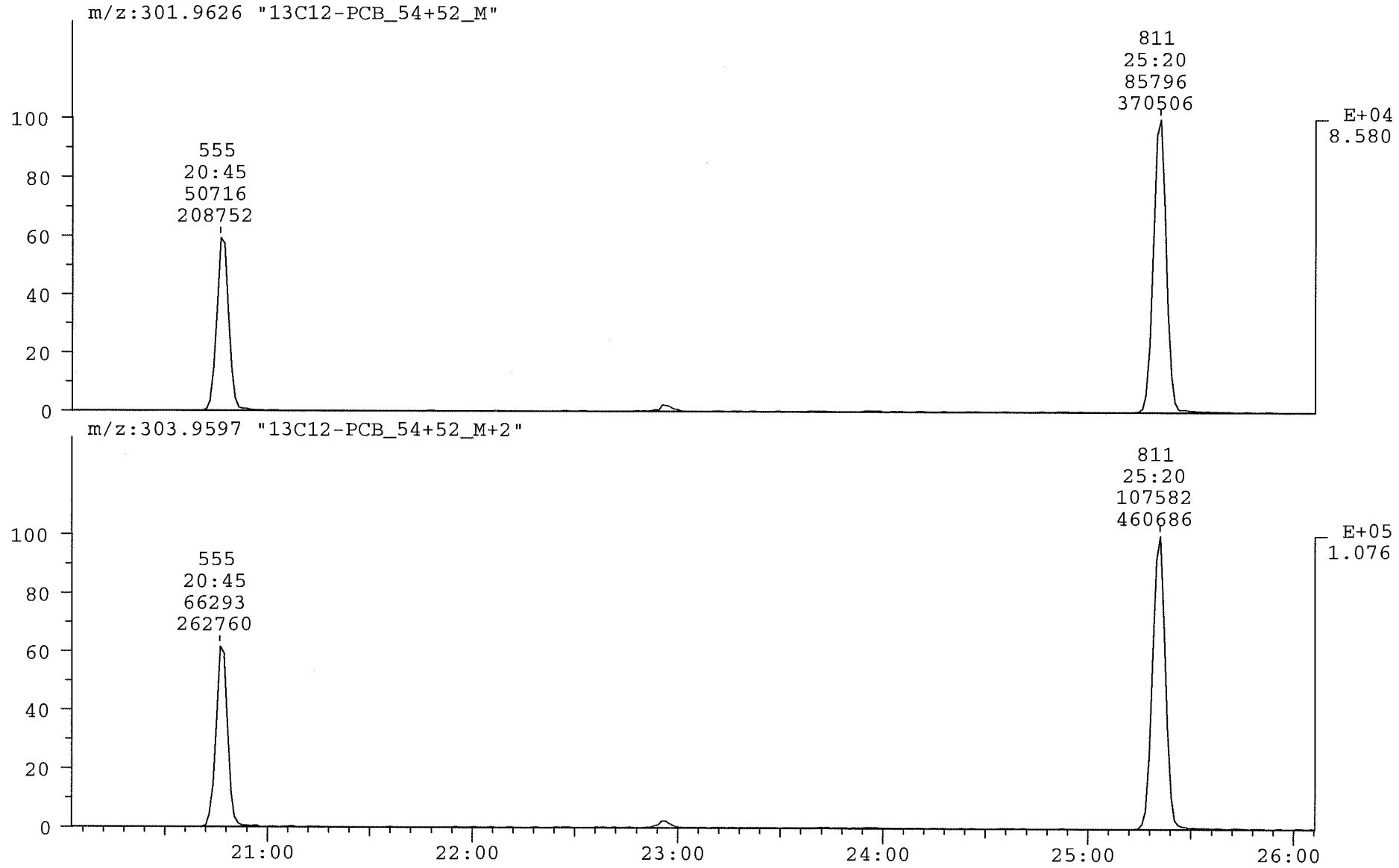
CHRO: a0806m4r2 10-Jun-08 Elapse: 27:41.2 944
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 485 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2661

2660

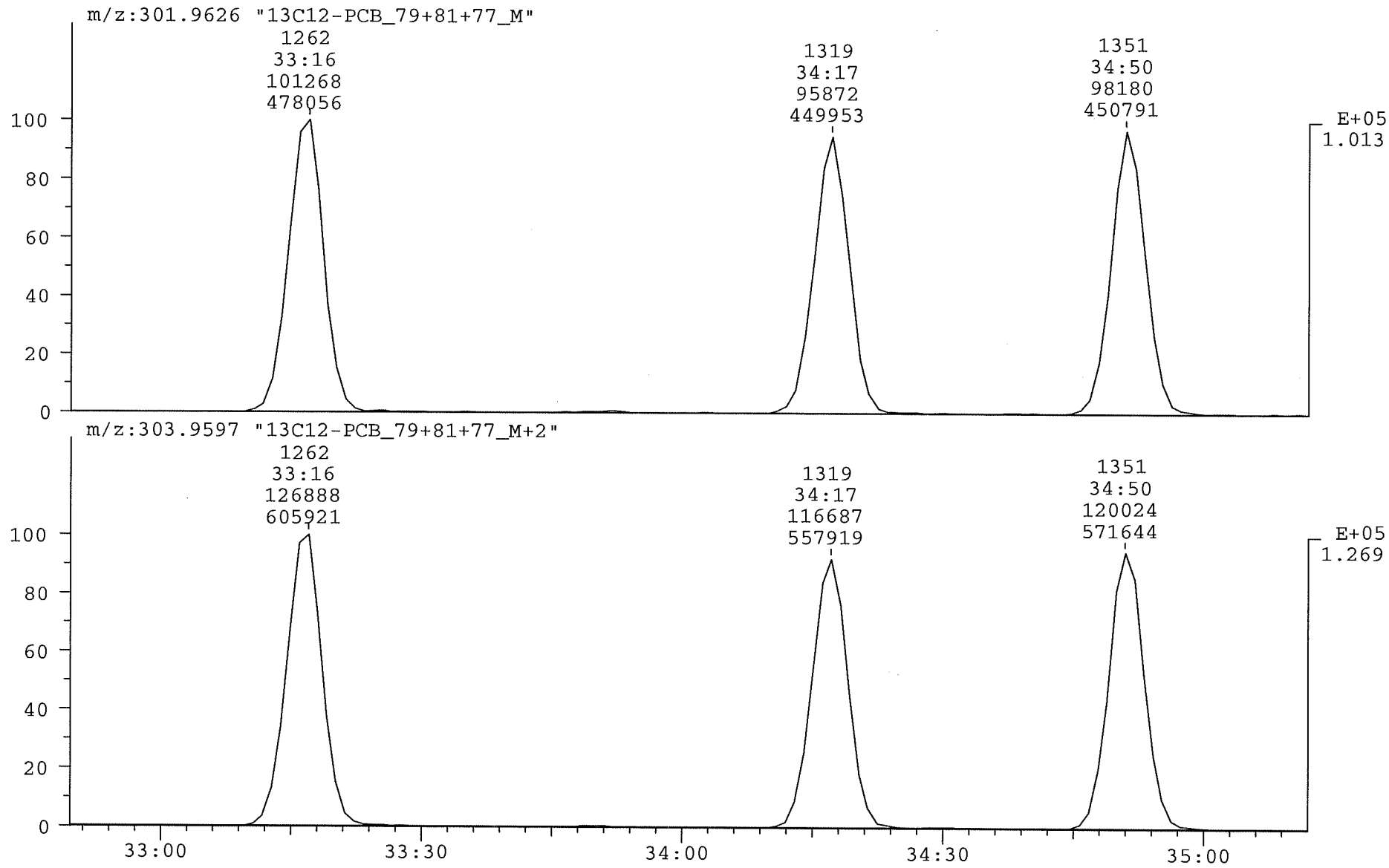
CHRO: a0806m4r2 10-Jun-08 Elapse: 23:06.8 684
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2662

2661

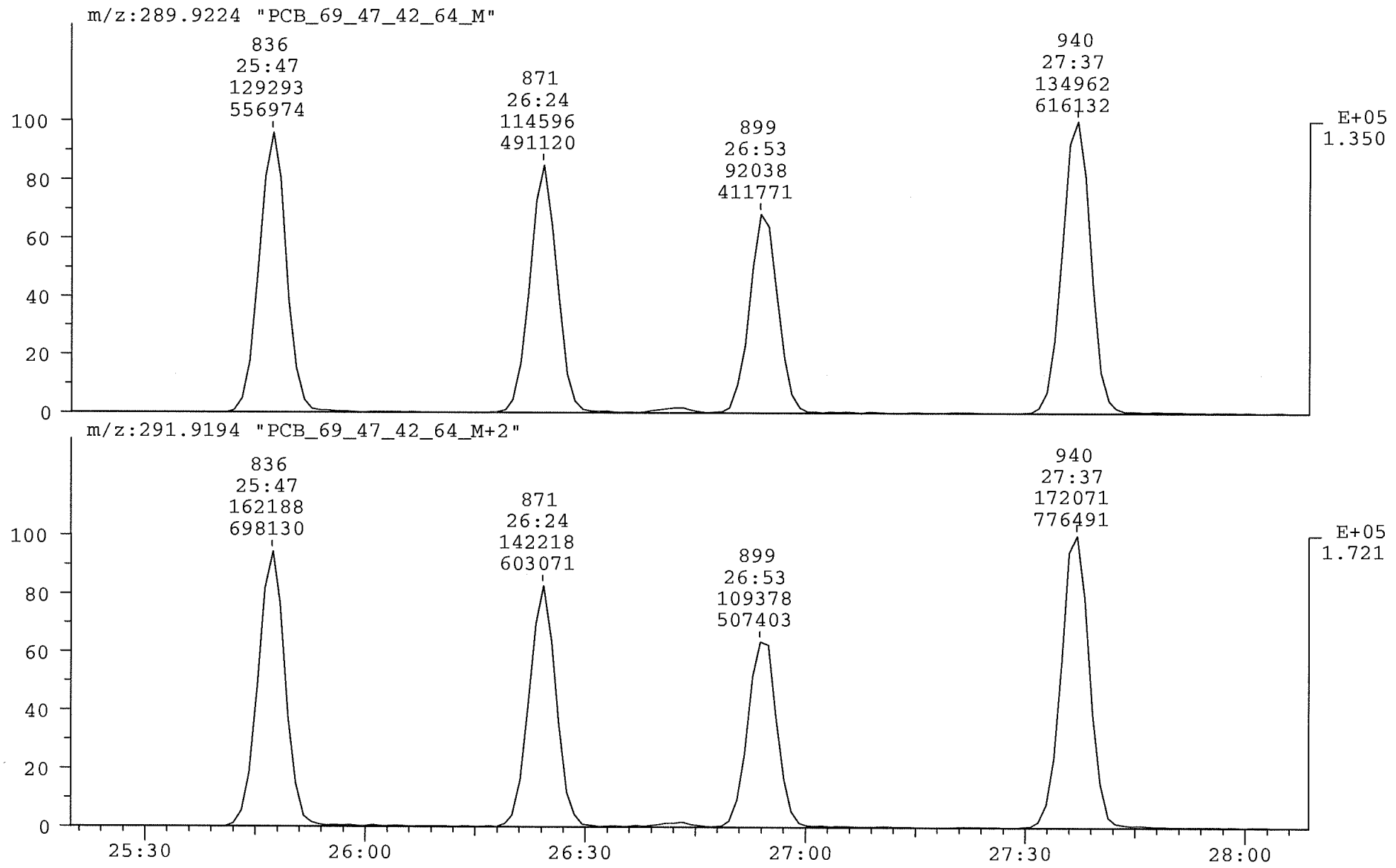
CHRO: a0806m4r2 10-Jun-08 Elapse: 34:03 1306
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1236 > 1371 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2663

2662

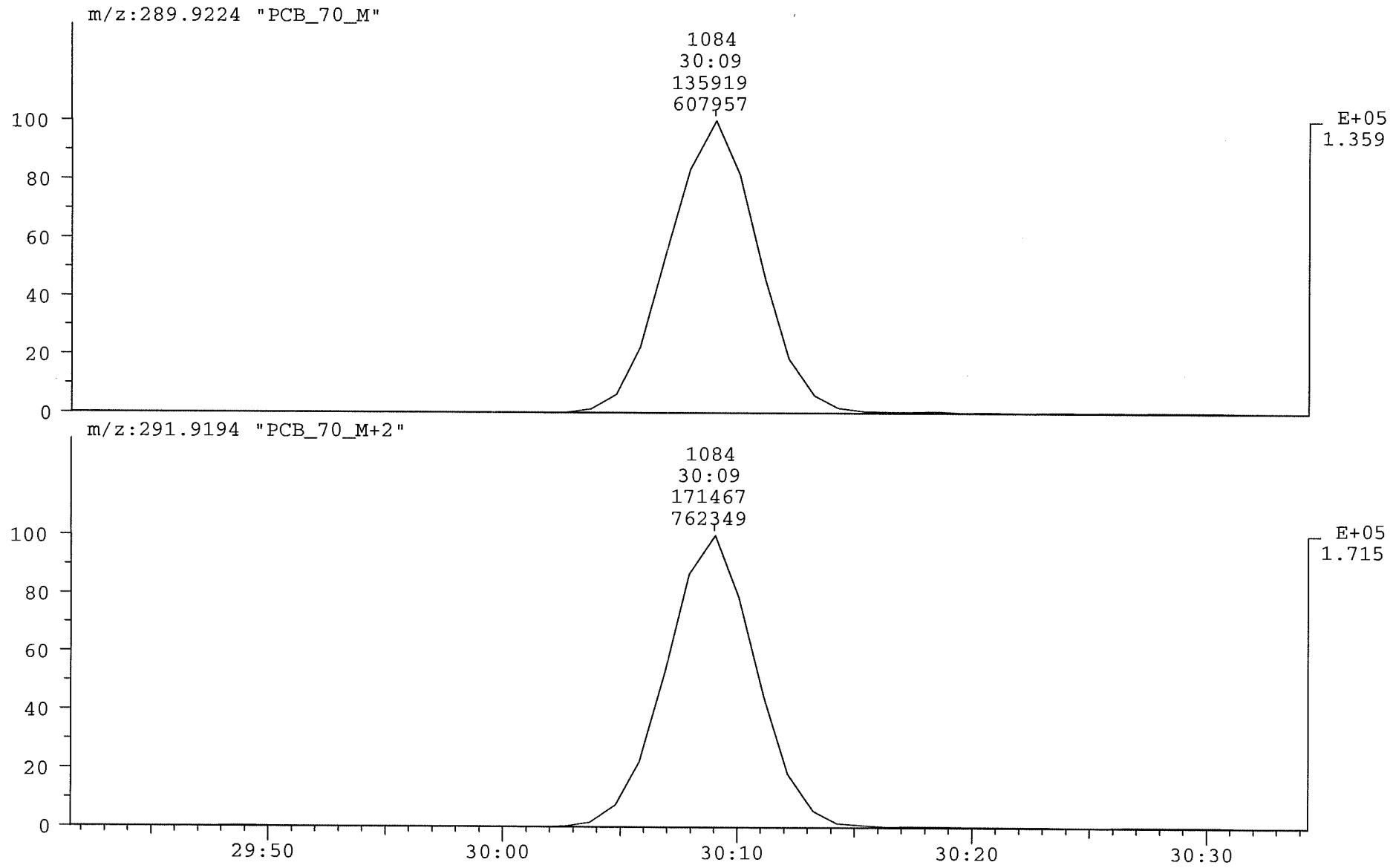
CHRO: a0806m4r2 10-Jun-08 Elapse: 26:44.3 890
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 810 > 970 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2964

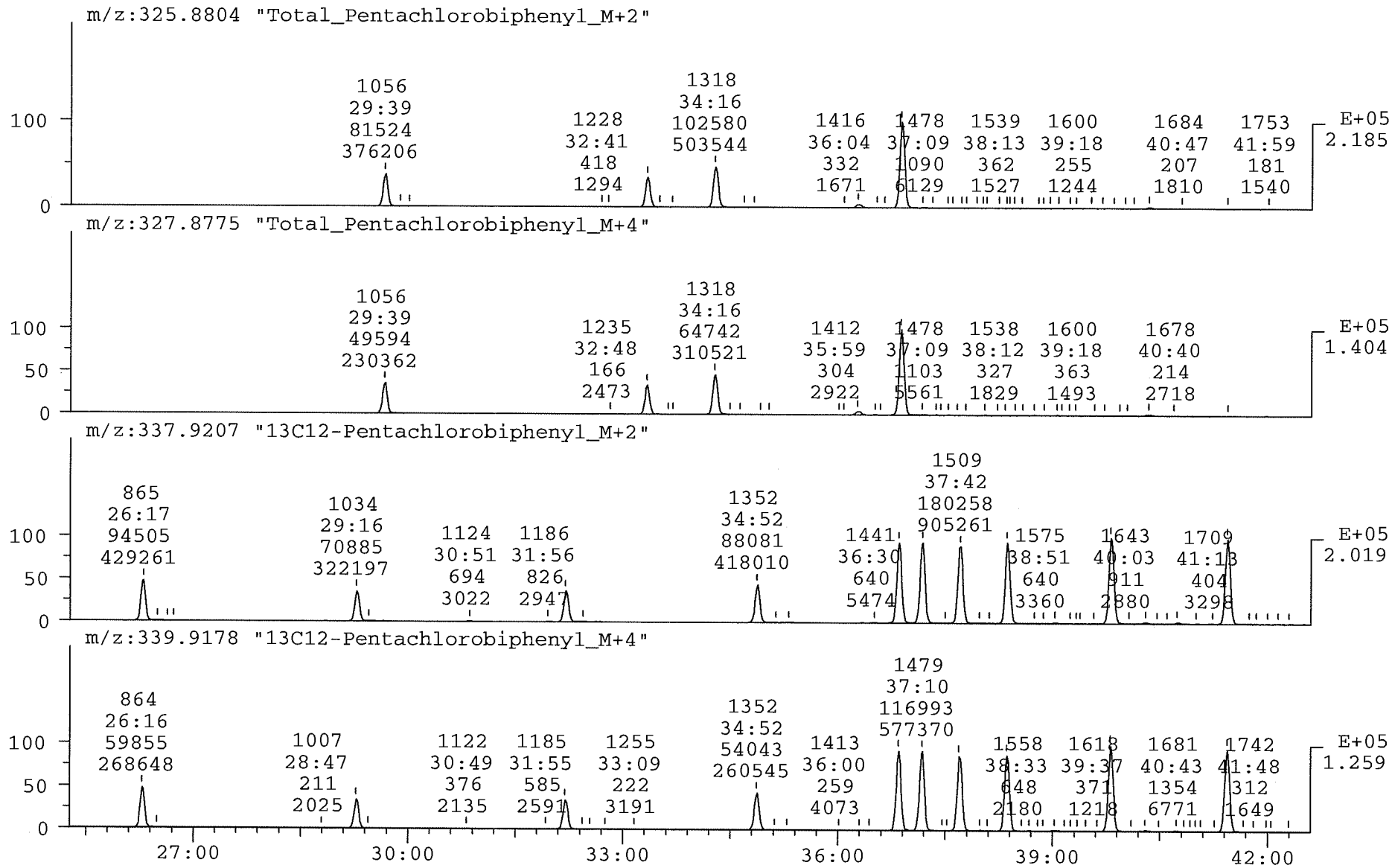
2663

CHRO: a0806m4r2 10-Jun-08 Elapse: 30:07 1083
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1058 > 1108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2665

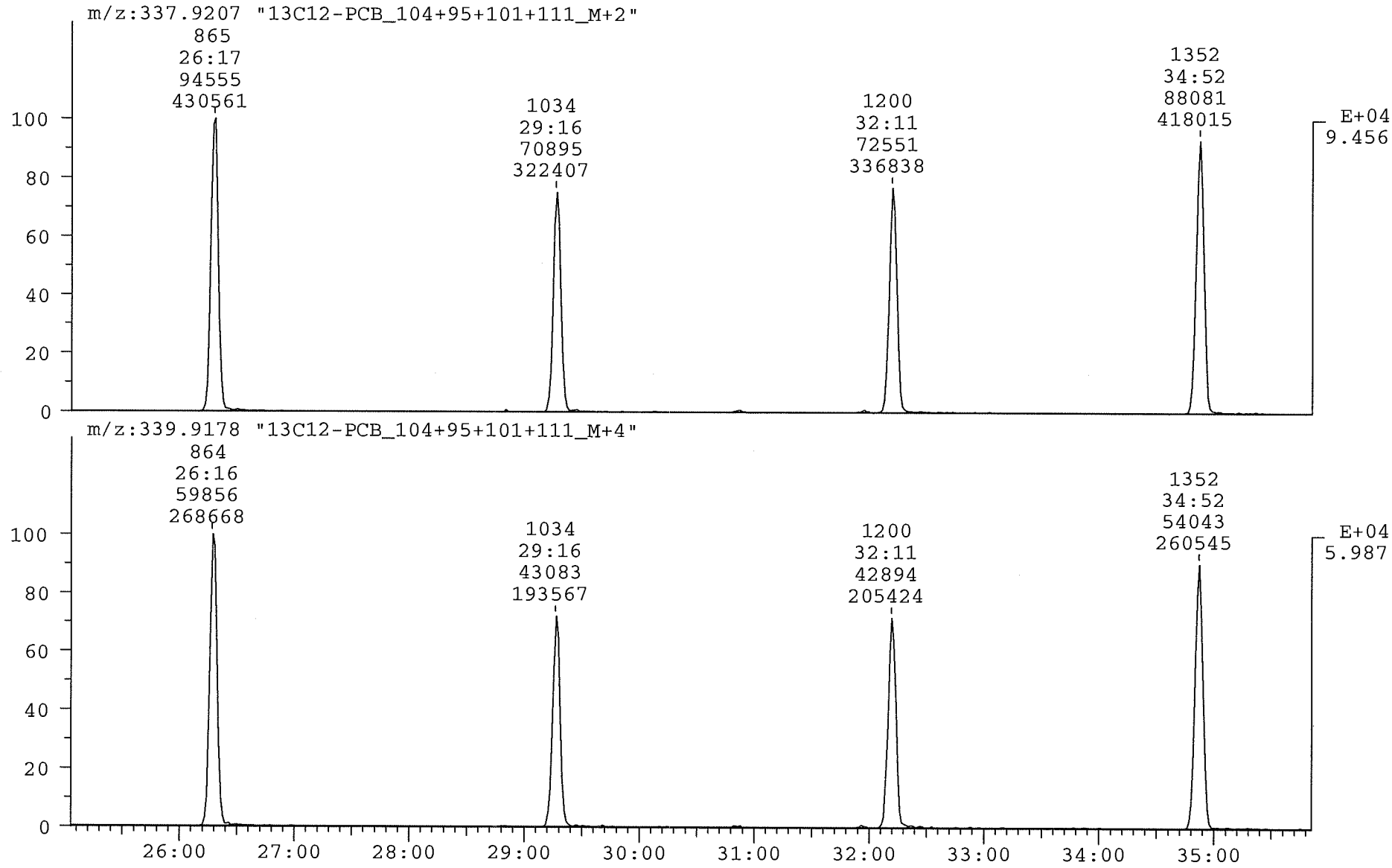
CHRO: a0806m4r2 10-Jun-08 Elapse: 33:56 1299
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 806 > 1787 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2666

2665

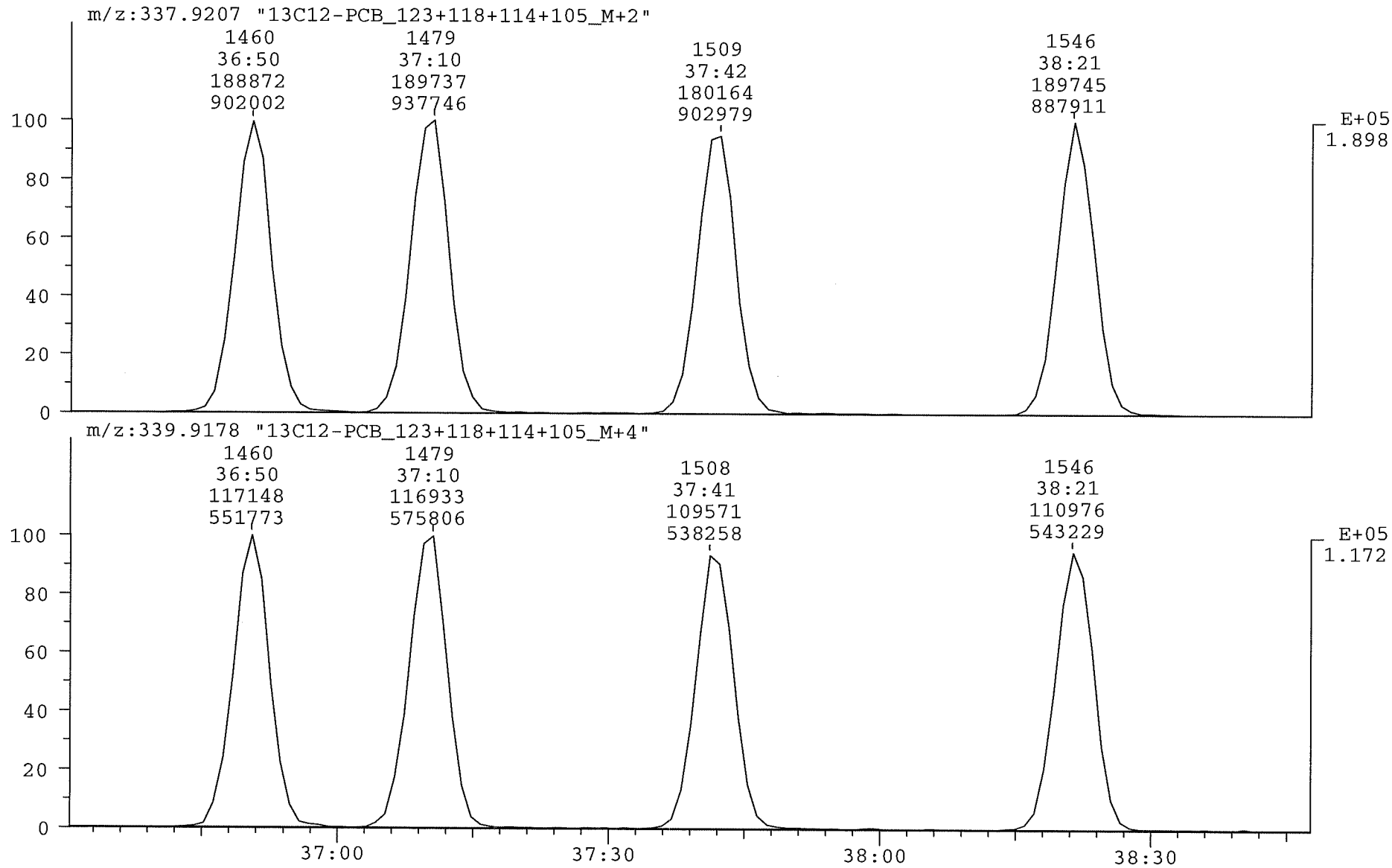
CHRO: a0806m4r2 10-Jun-08 Elapse: 30:26 1101
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 794 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2667

2666

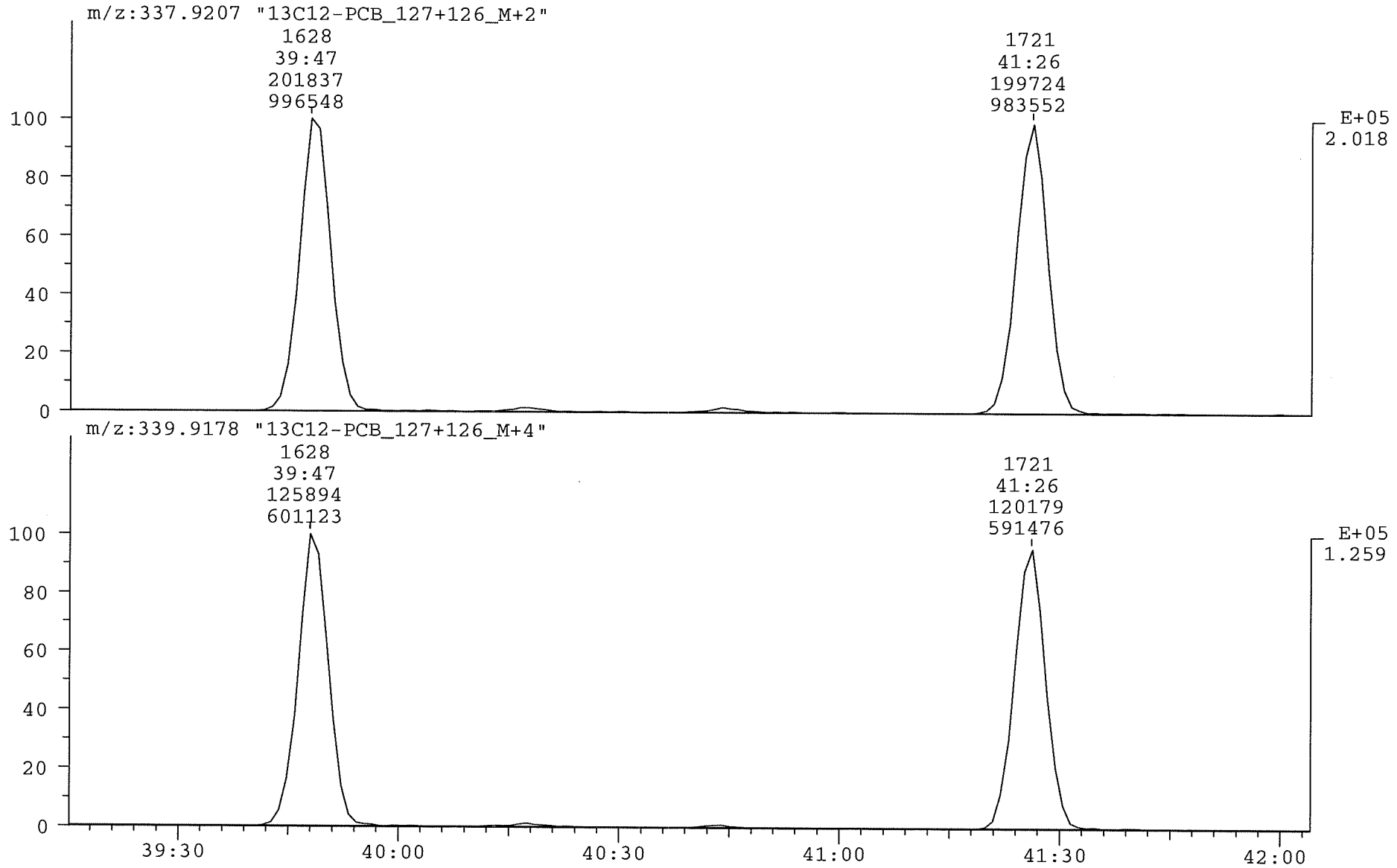
CHRO: a0806m4r2 10-Jun-08 Elapse: 37:39 1506
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1441 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2668

2667

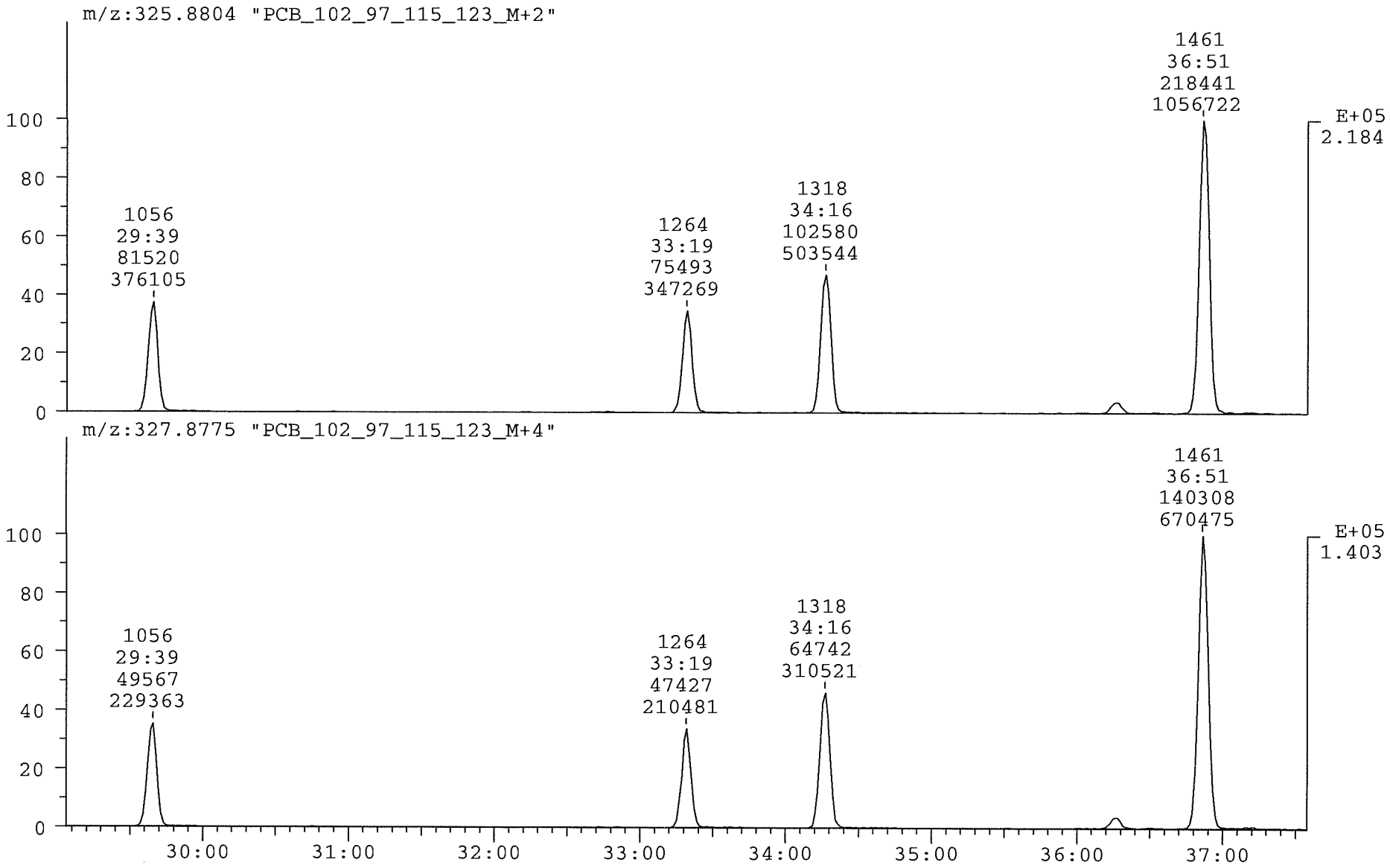
CHRO: a0806m4r2 10-Jun-08 Elapse: 40:39 1677
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1597 > 1757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2669

2668

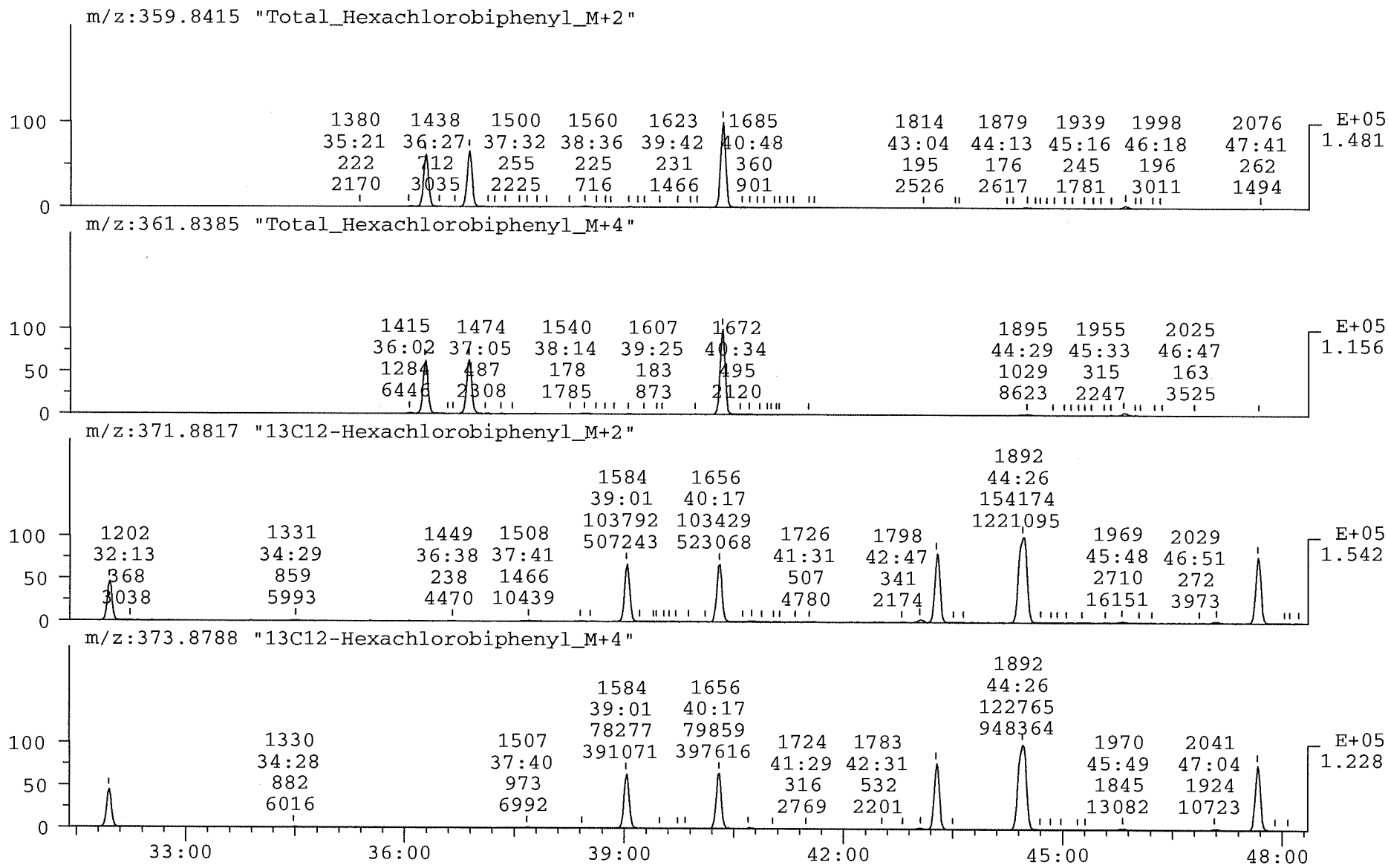
CHRO: a0806m4r2 10-Jun-08 Elapse: 33:16 1262
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1022 > 1502 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2670

2669

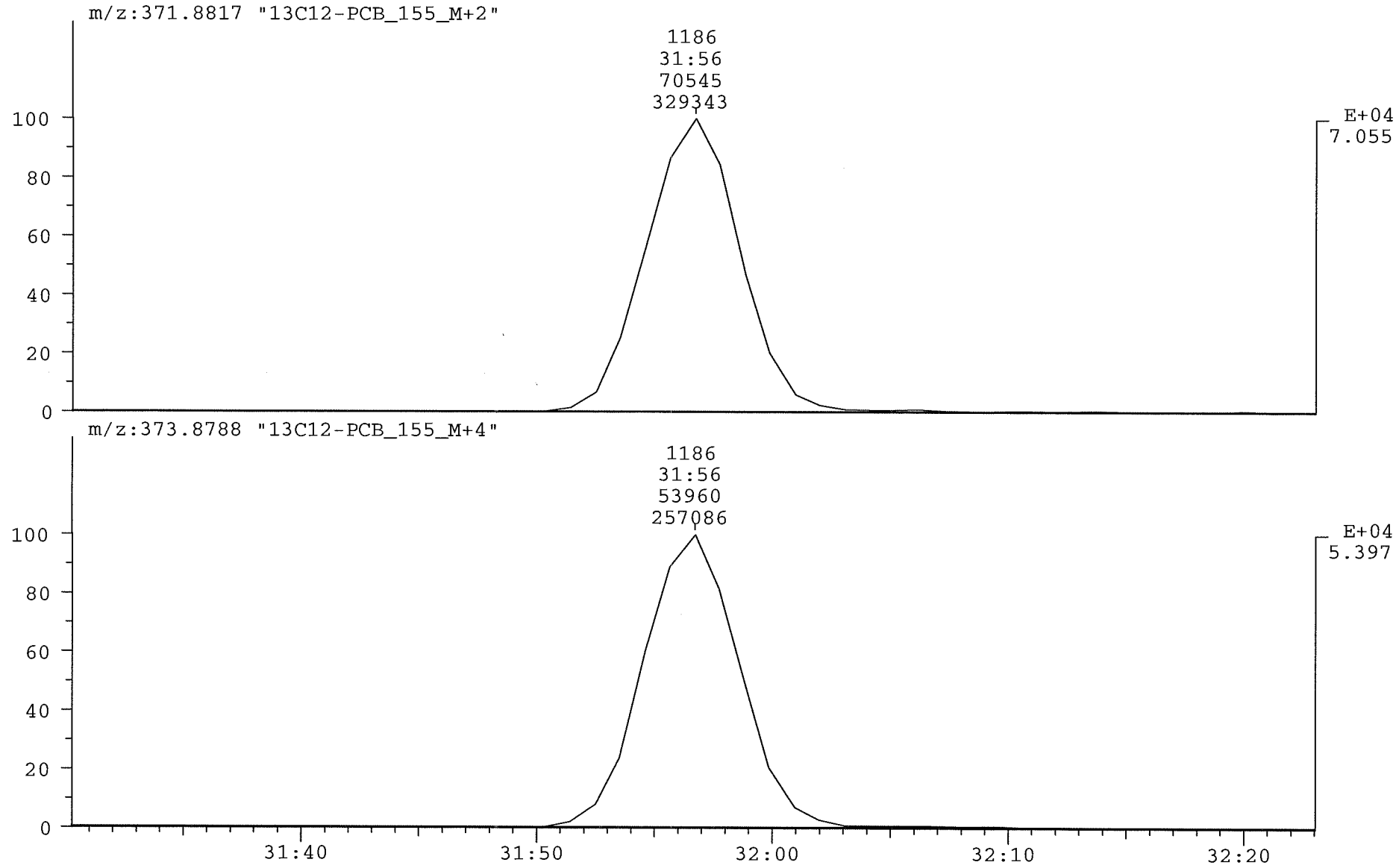
CHRO: a0806m4r2 10-Jun-08 Elapse: 39:52 1632
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1155 > 2114 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2671

2670

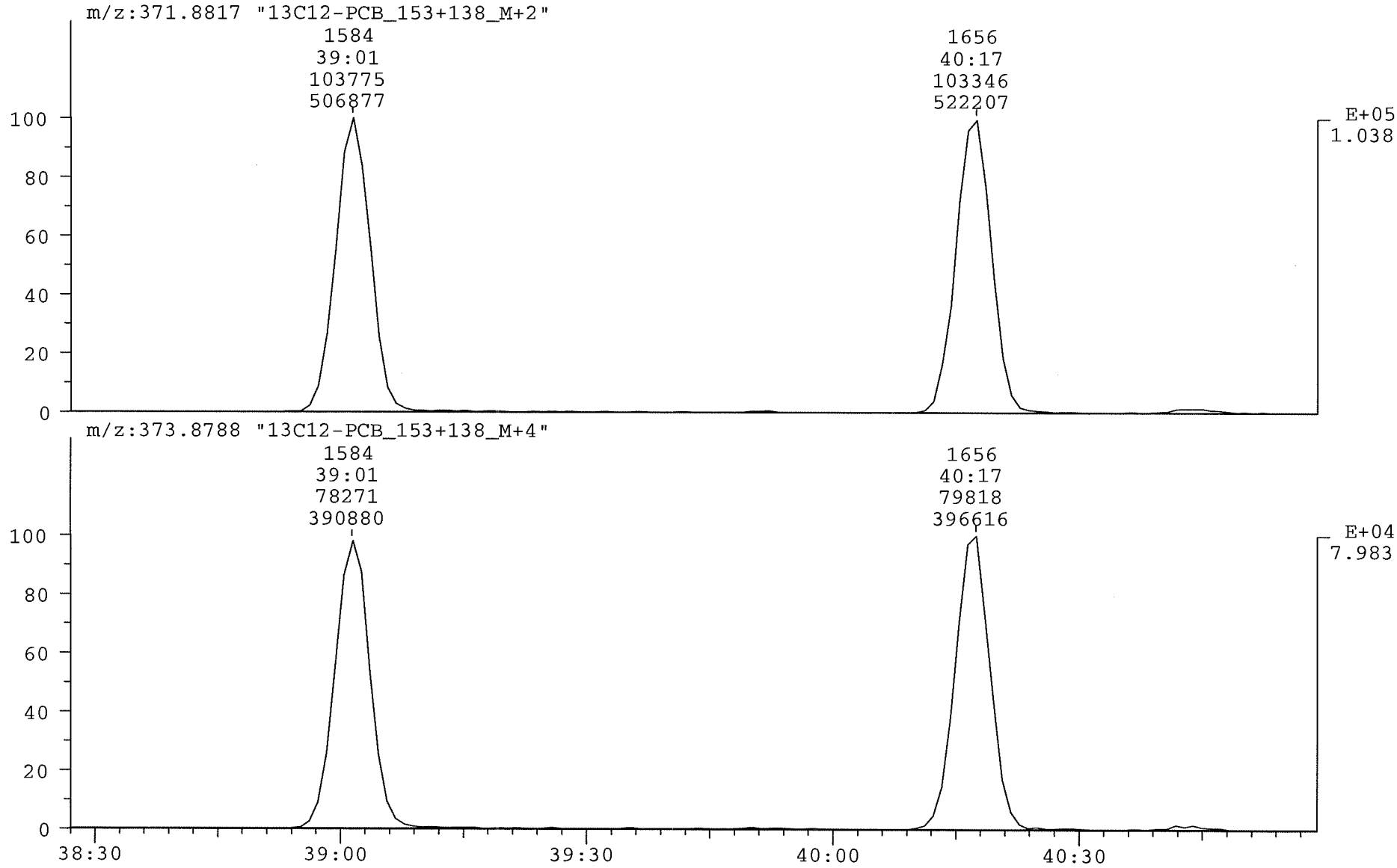
CHRO: a0806m4r2 10-Jun-08 Elapse: 31:56 1186
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1161 > 1211 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2672

2671

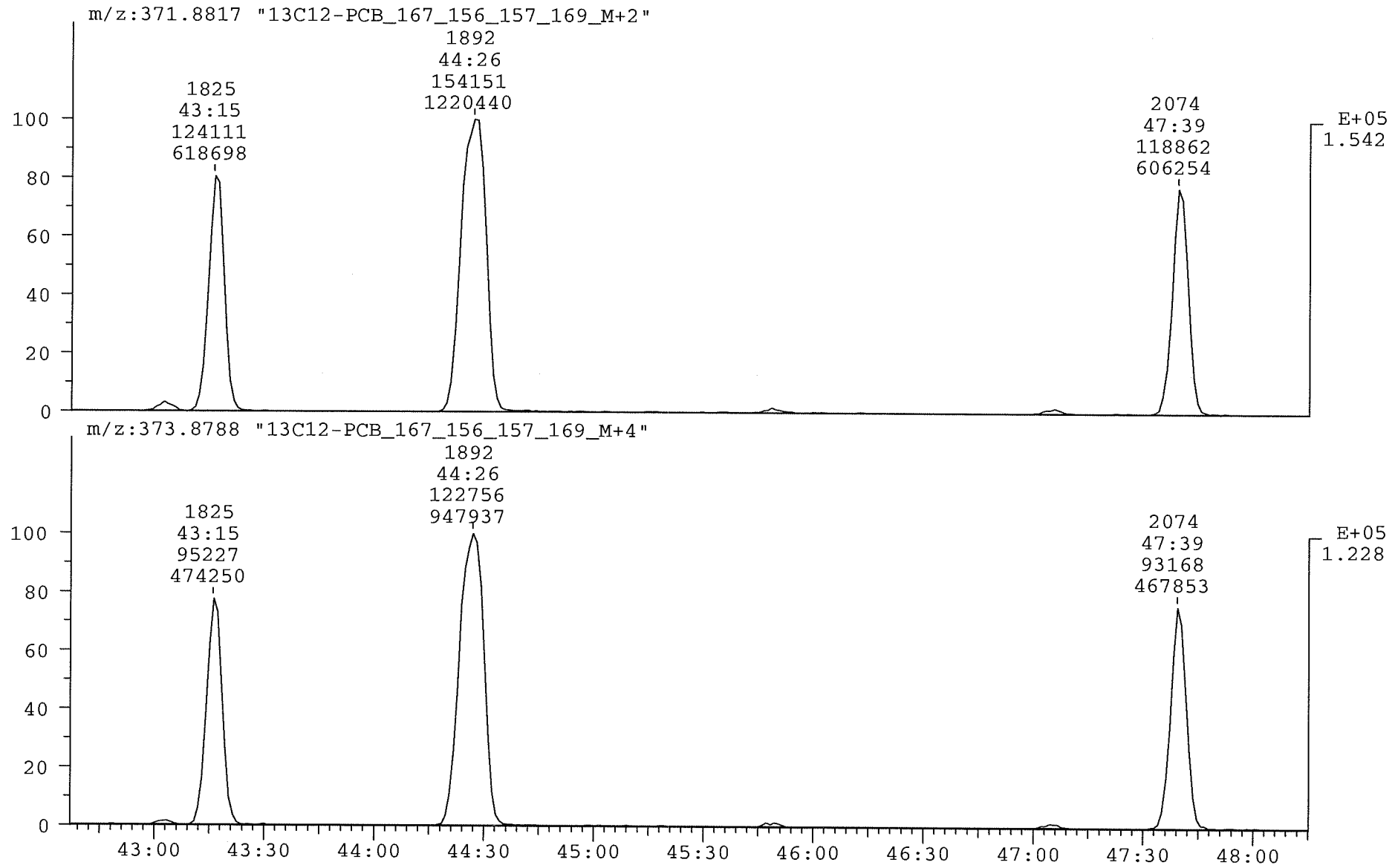
CHRO: a0806m4r2 10-Jun-08 Elapse: 39:42 1623
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1551 > 1695 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2673

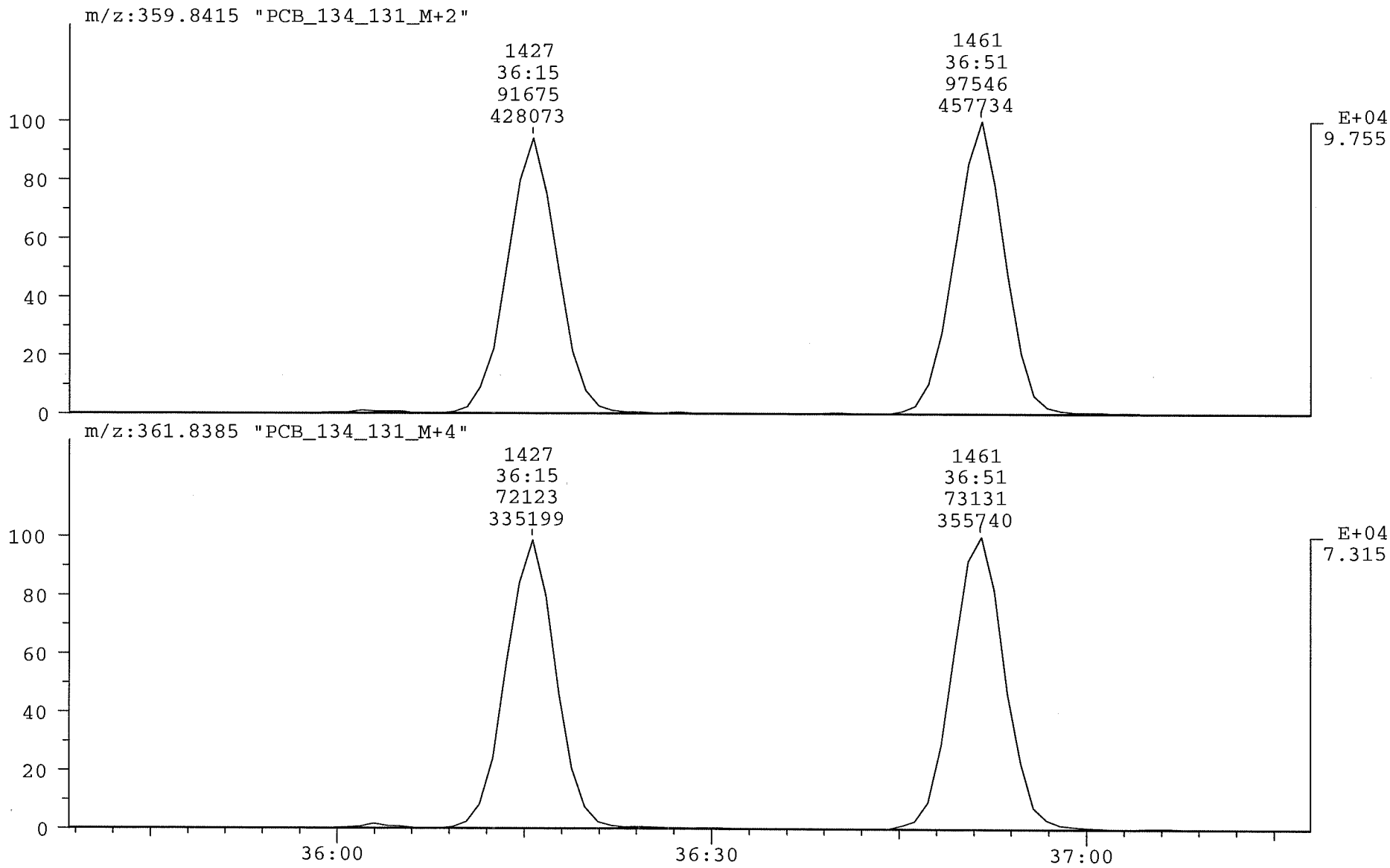
2672

CHRO: a0806m4r2 10-Jun-08 Elapse: 45:31 1953
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1788 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2674

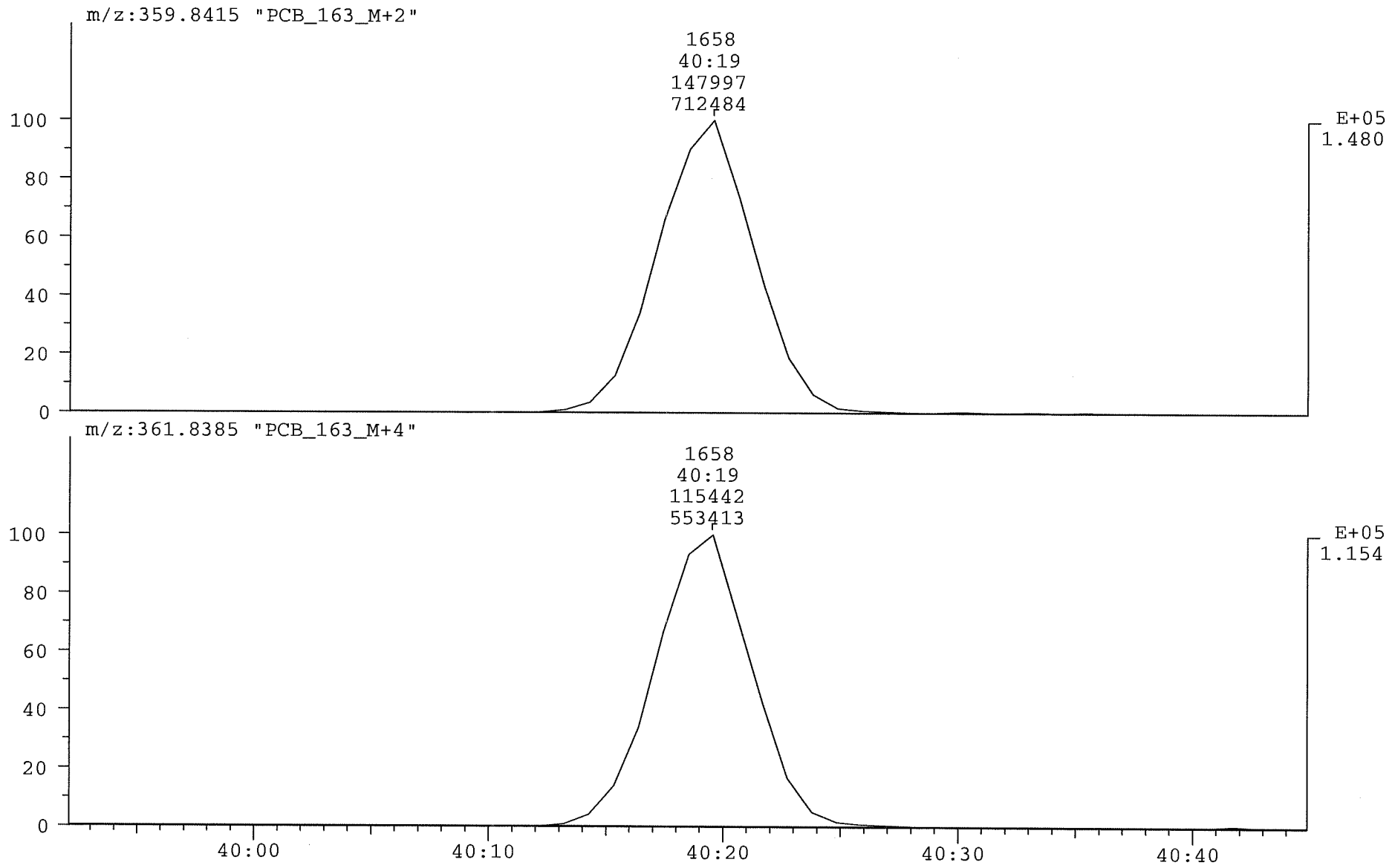
CHRO: a0806m4r2 10-Jun-08 Elapse: 36:51 1461
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1396 > 1486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2675

2674

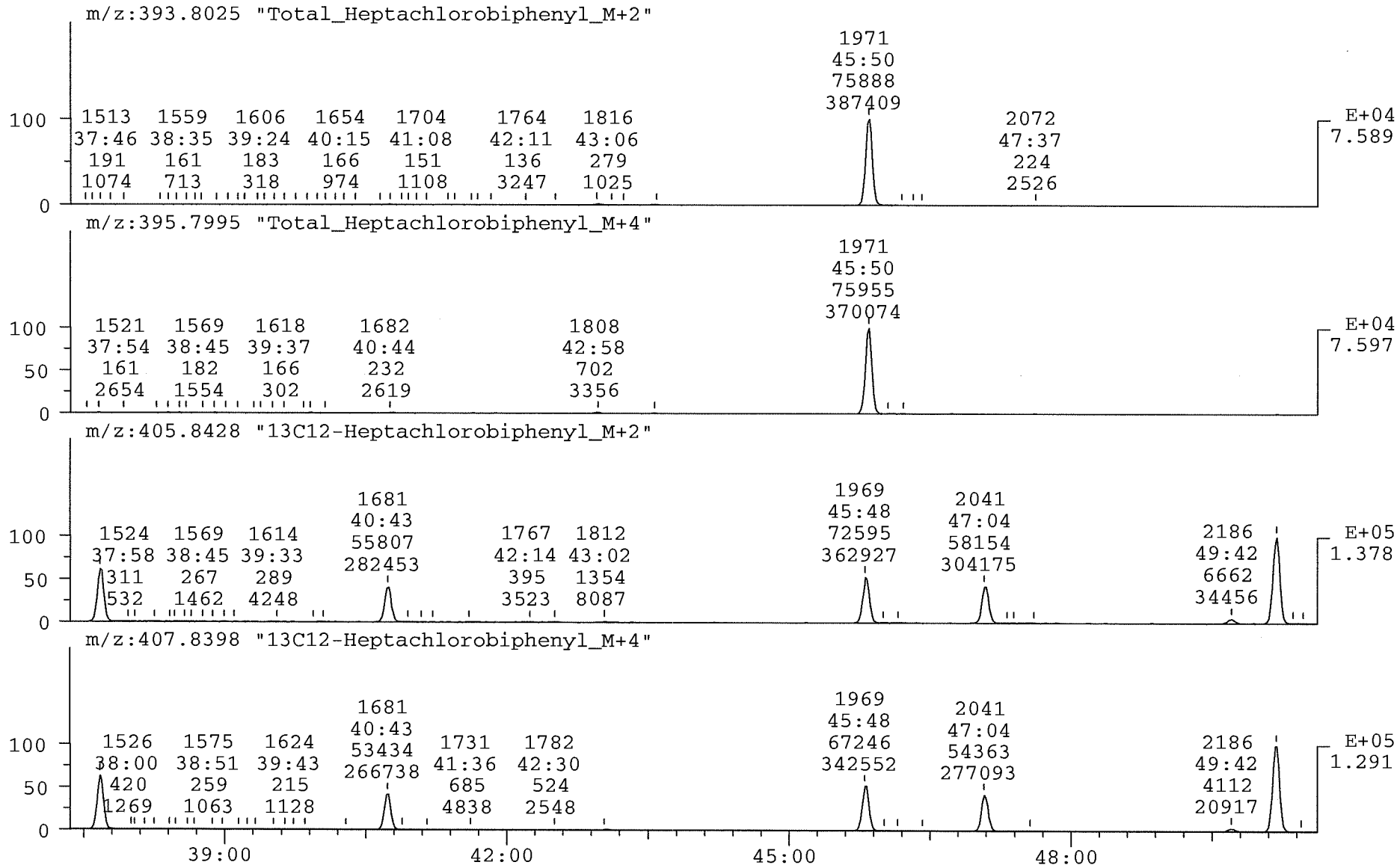
CHRO: a0806m4r2 10-Jun-08 Elapse: 40:18 1657
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1632 > 1682 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2676

2675

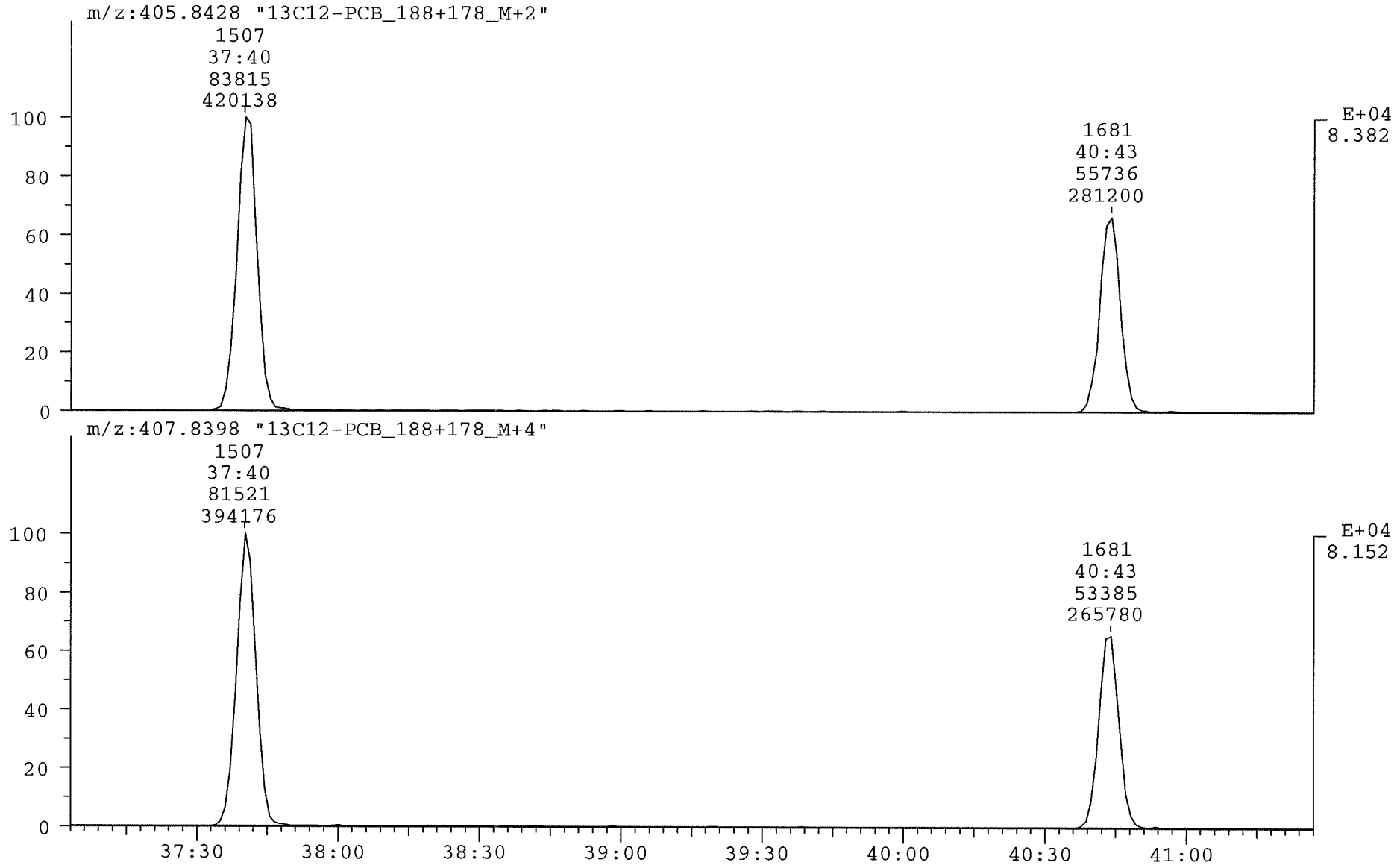
CHRO: a0806m4r2 10-Jun-08 Elapse: 43:59 1866
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1489 > 2238 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2677

2676

CHRO: a0806m4r2 10-Jun-08 Elapse: 39:15 1597
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1472 > 1722 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2678

2677

```
CHRO:  a0806m4r2                              10-Jun-08   Elapse:   48:02      2096
Samp:  Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1              Start :   22:46:32   2601
Comm:  Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :   2990:75 Mix 4
Oper:  DCG           Client:  TA Knoxville                Inlet :   GC     Vial  14
Peak:  100.00  ppm     Label wndw:   1936 > 2246          Masses:   181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3               Label :   -3, 3.0
Disp:  Height  Area
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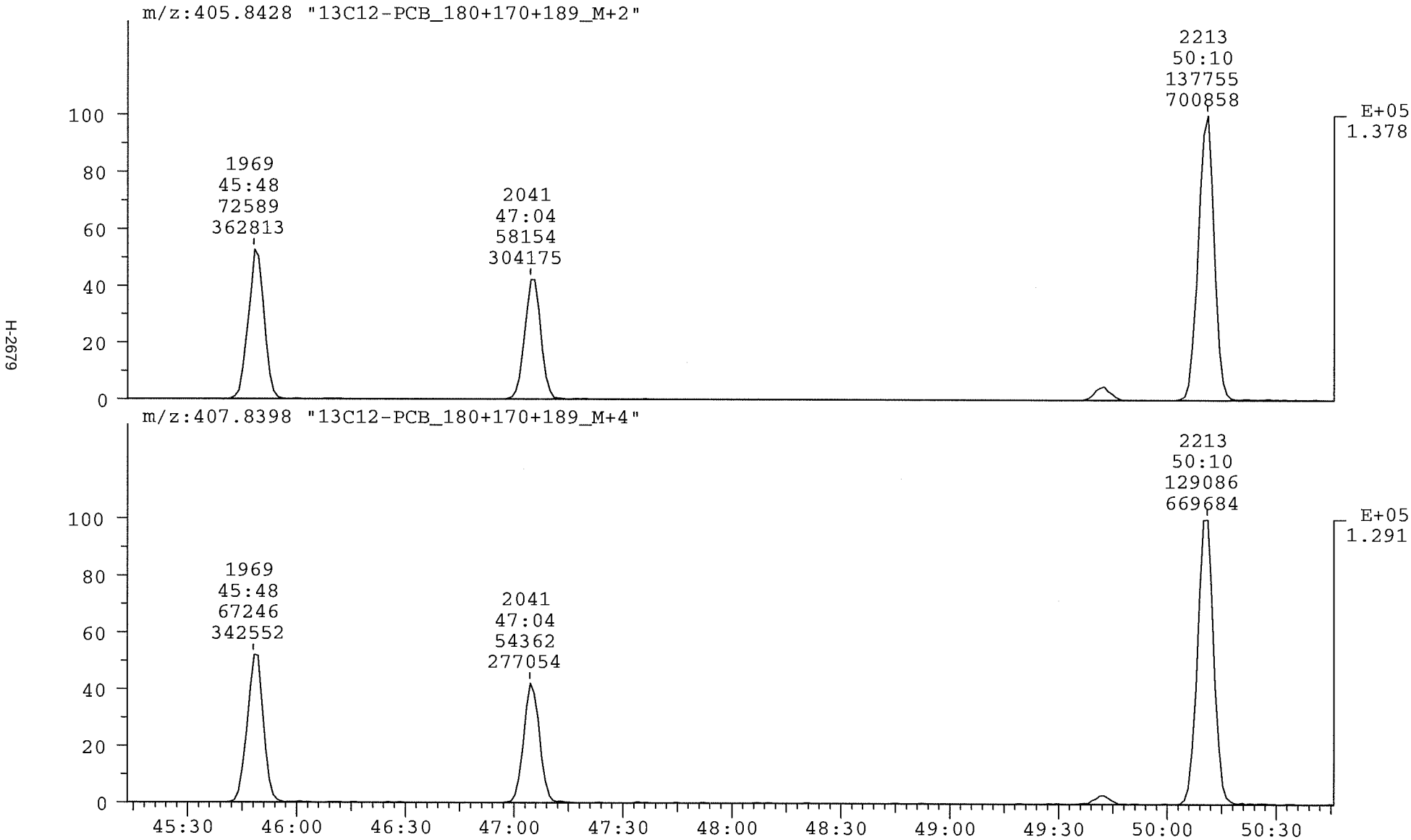
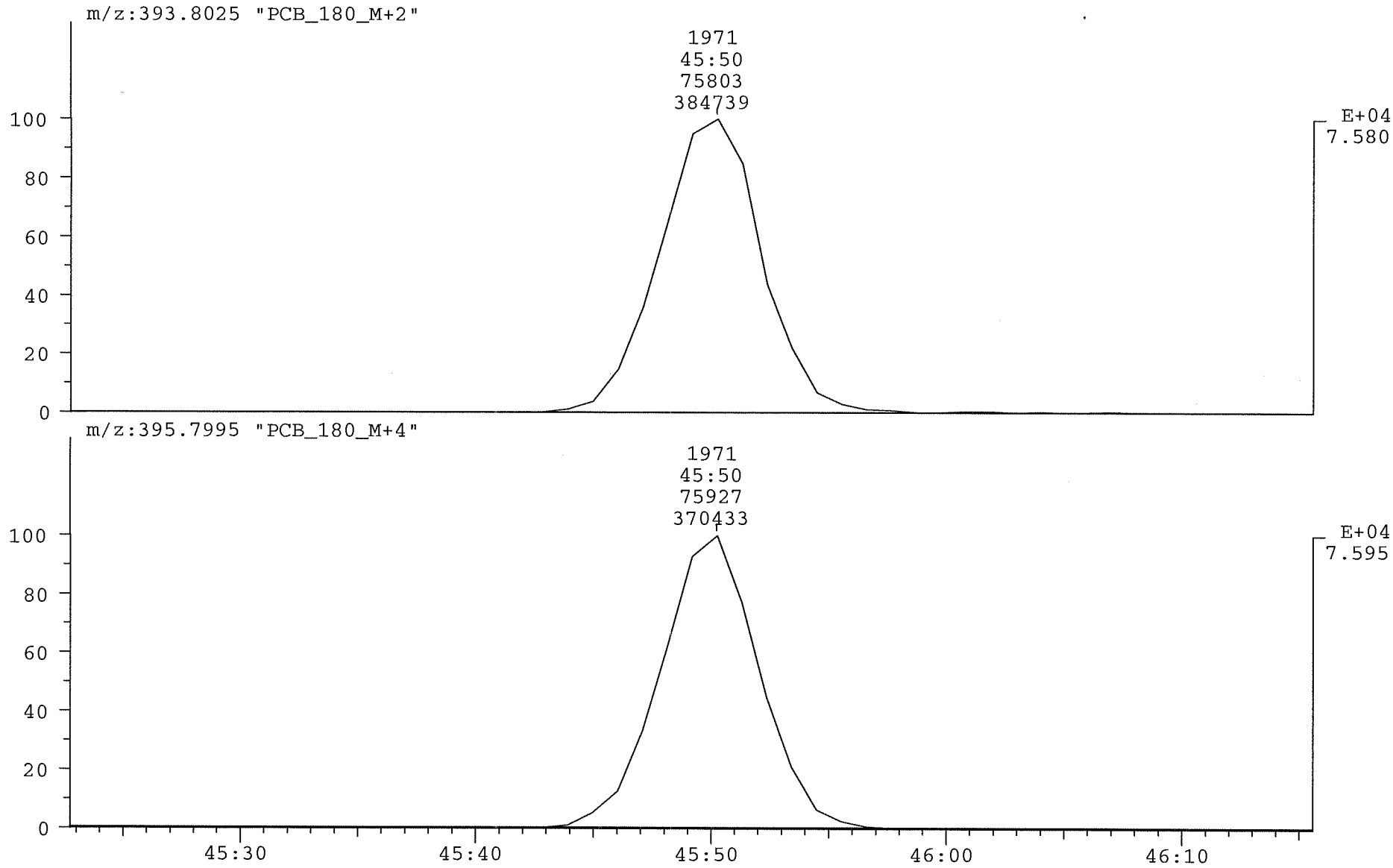


H-2679

2678

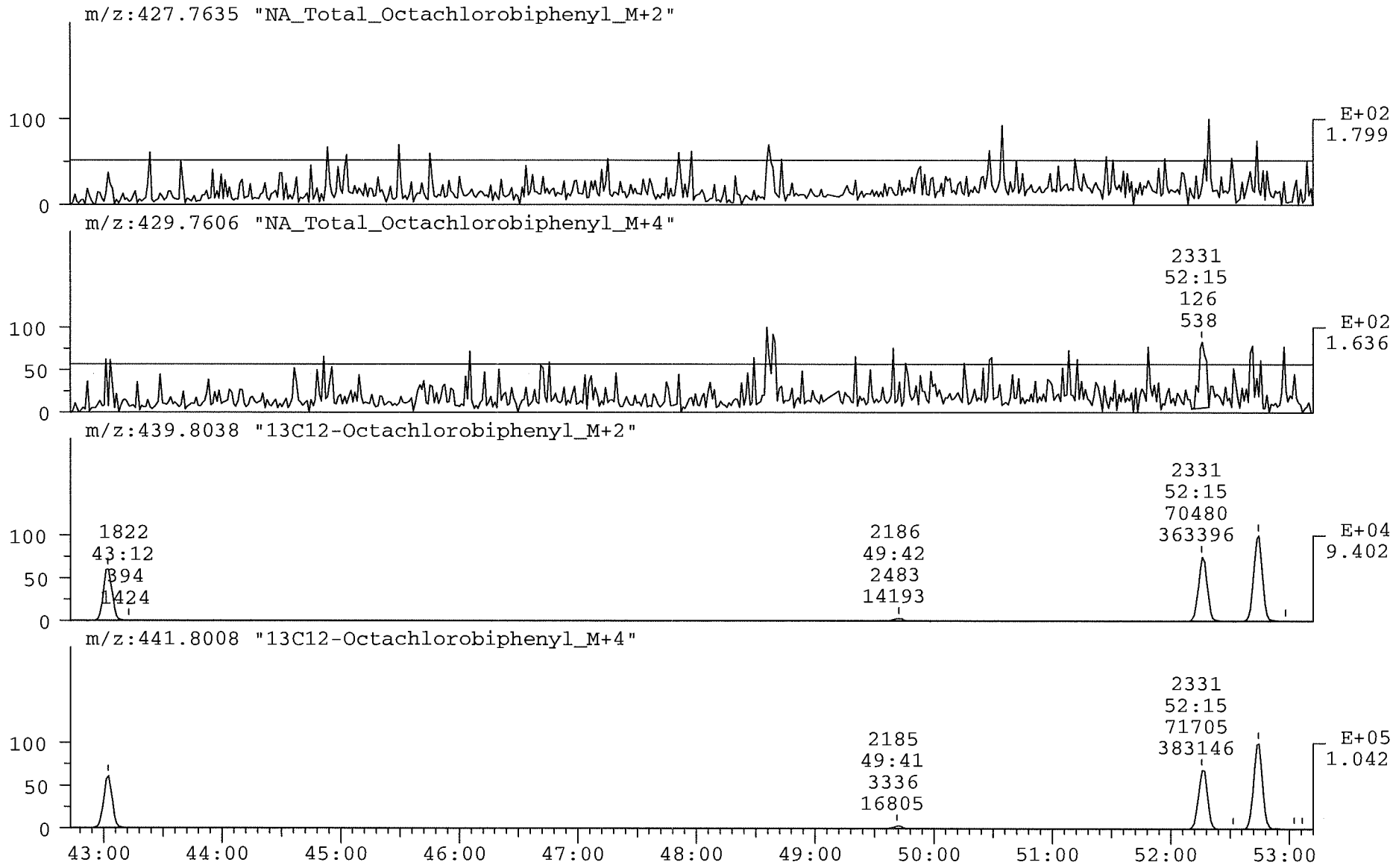
CHRO: a0806m4r2 10-Jun-08 Elapse: 45:49 1970
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1945 > 1995 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2980

2679

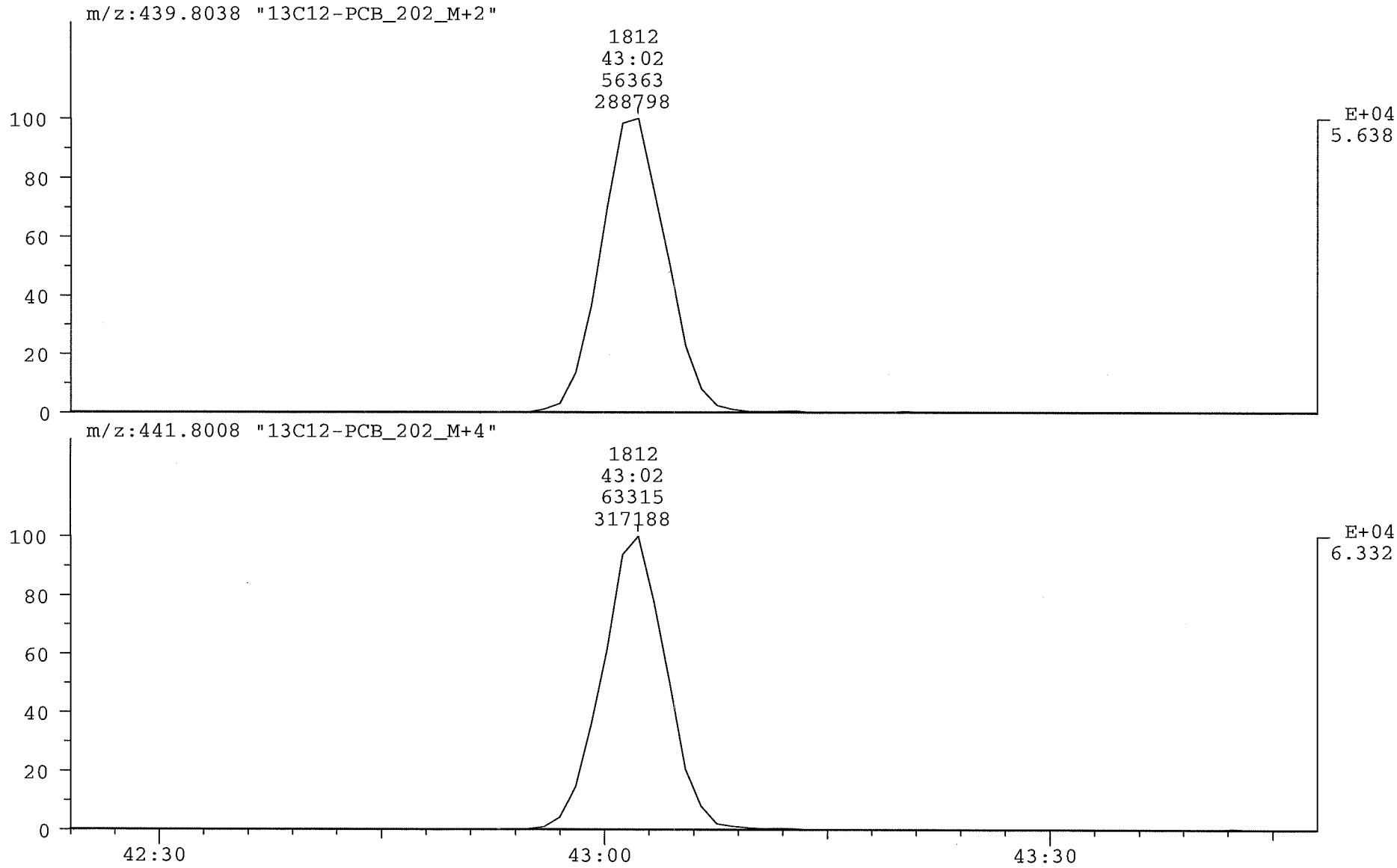
CHRO: a0806m4r2 10-Jun-08 Elapse: 47:57 2091
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1794 > 2384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2681

2680

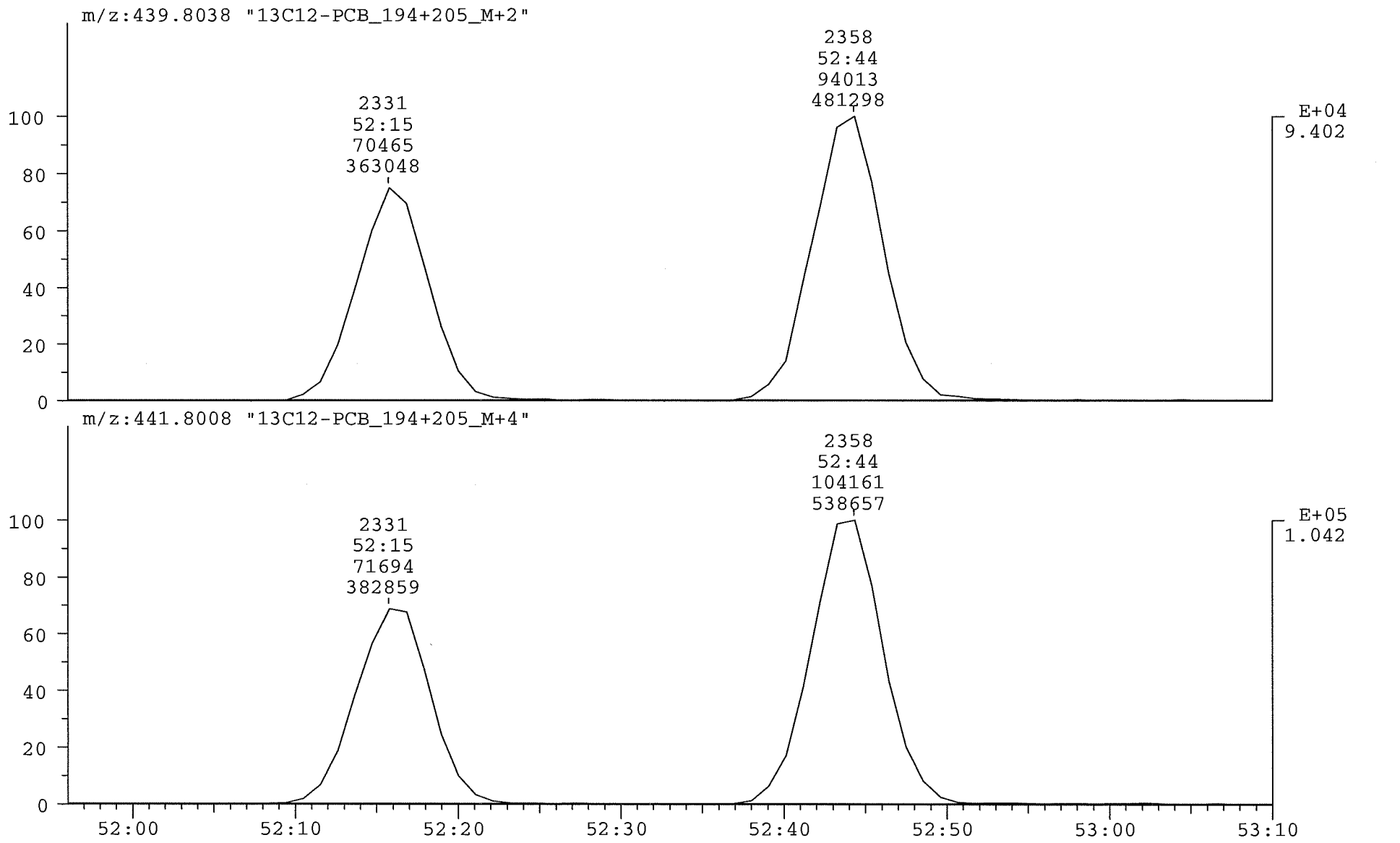
CHRO: a0806m4r2 10-Jun-08 Elapse: 43:03 1813
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1776 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2682

2681

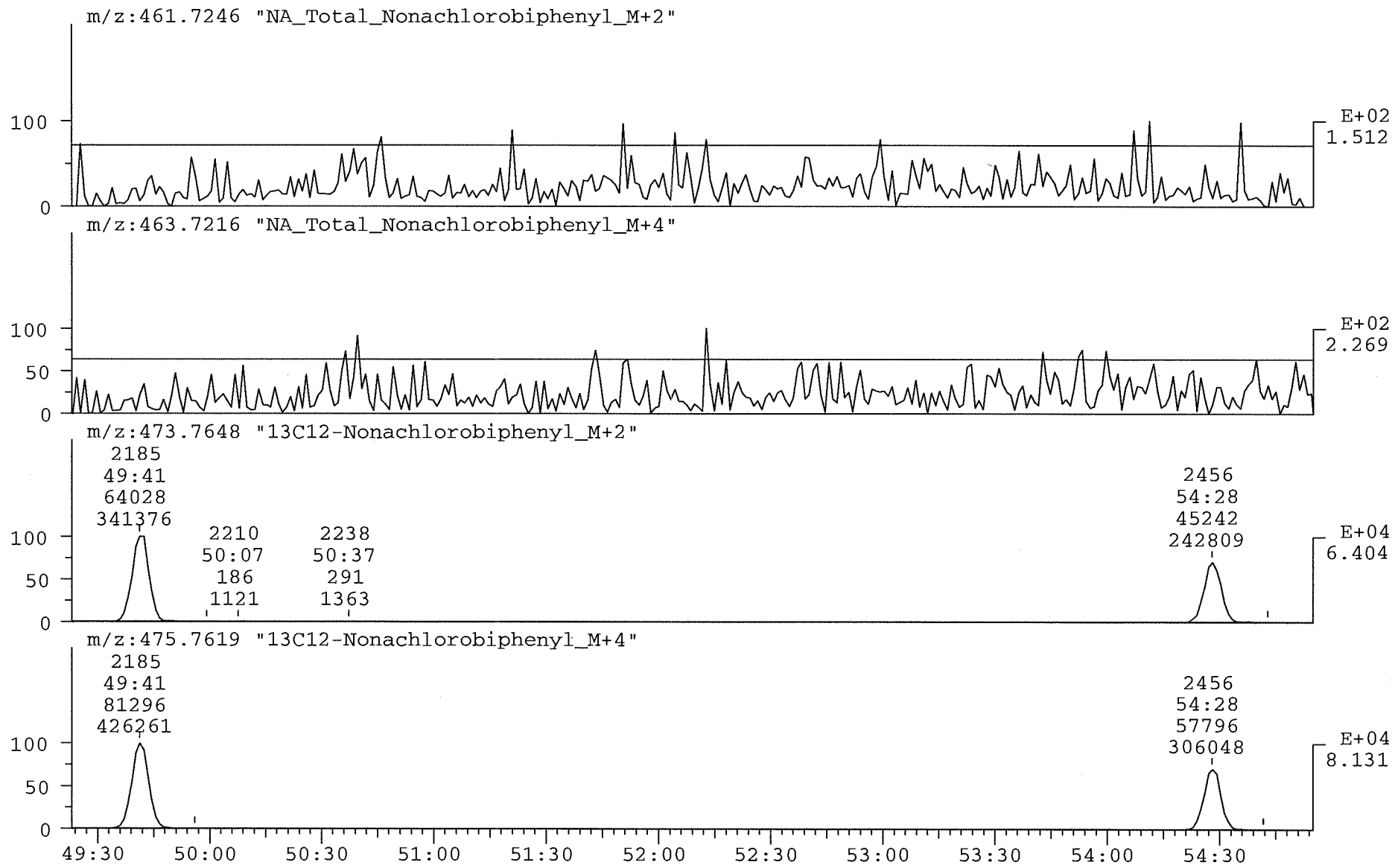
CHRO: a0806m4r2 10-Jun-08 Elapse: 52:32 2347
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2312 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2683

2682

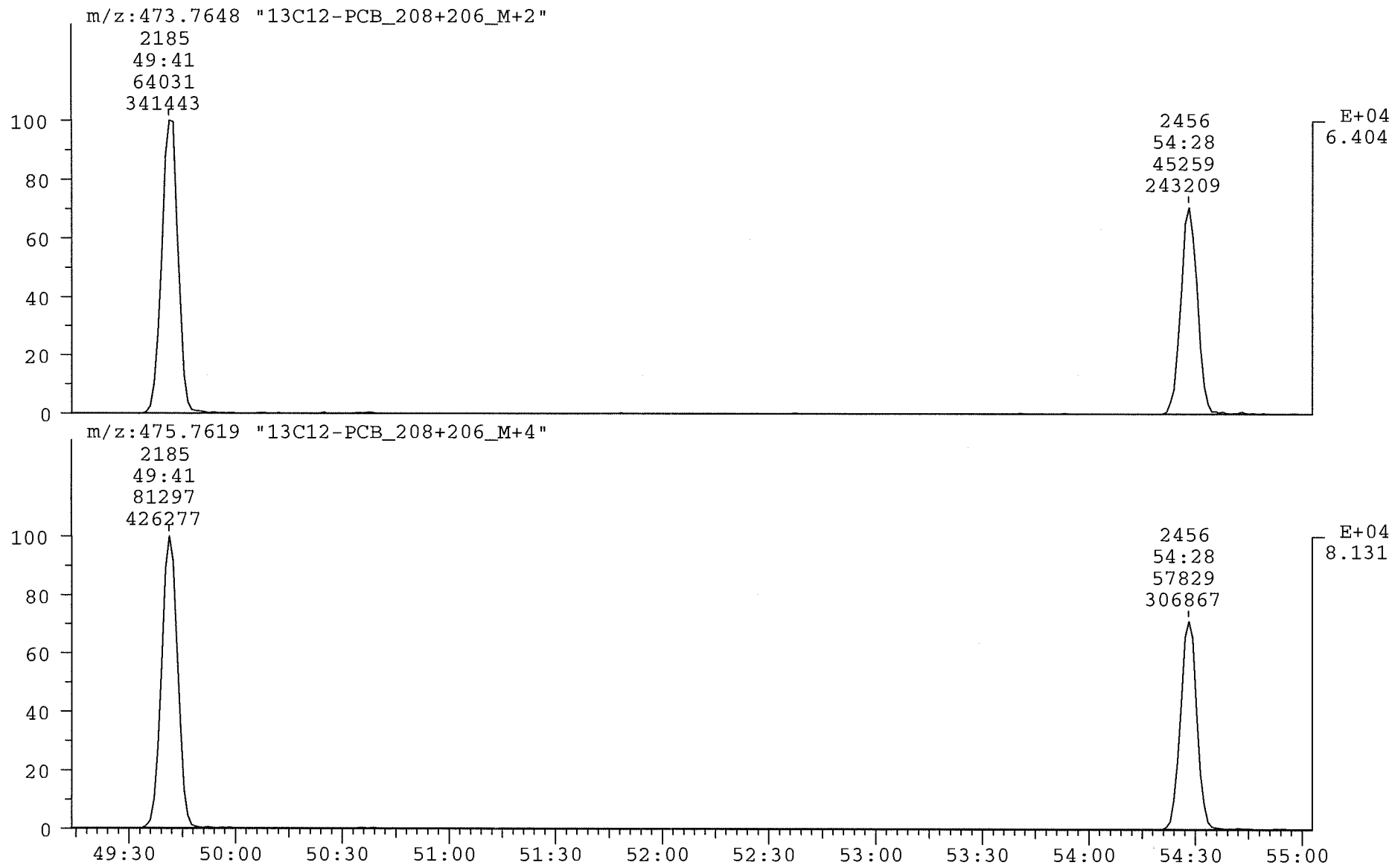
CHRO: a0806m4r2 10-Jun-08 Elapse: 52:09 2325
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2168 > 2482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2684

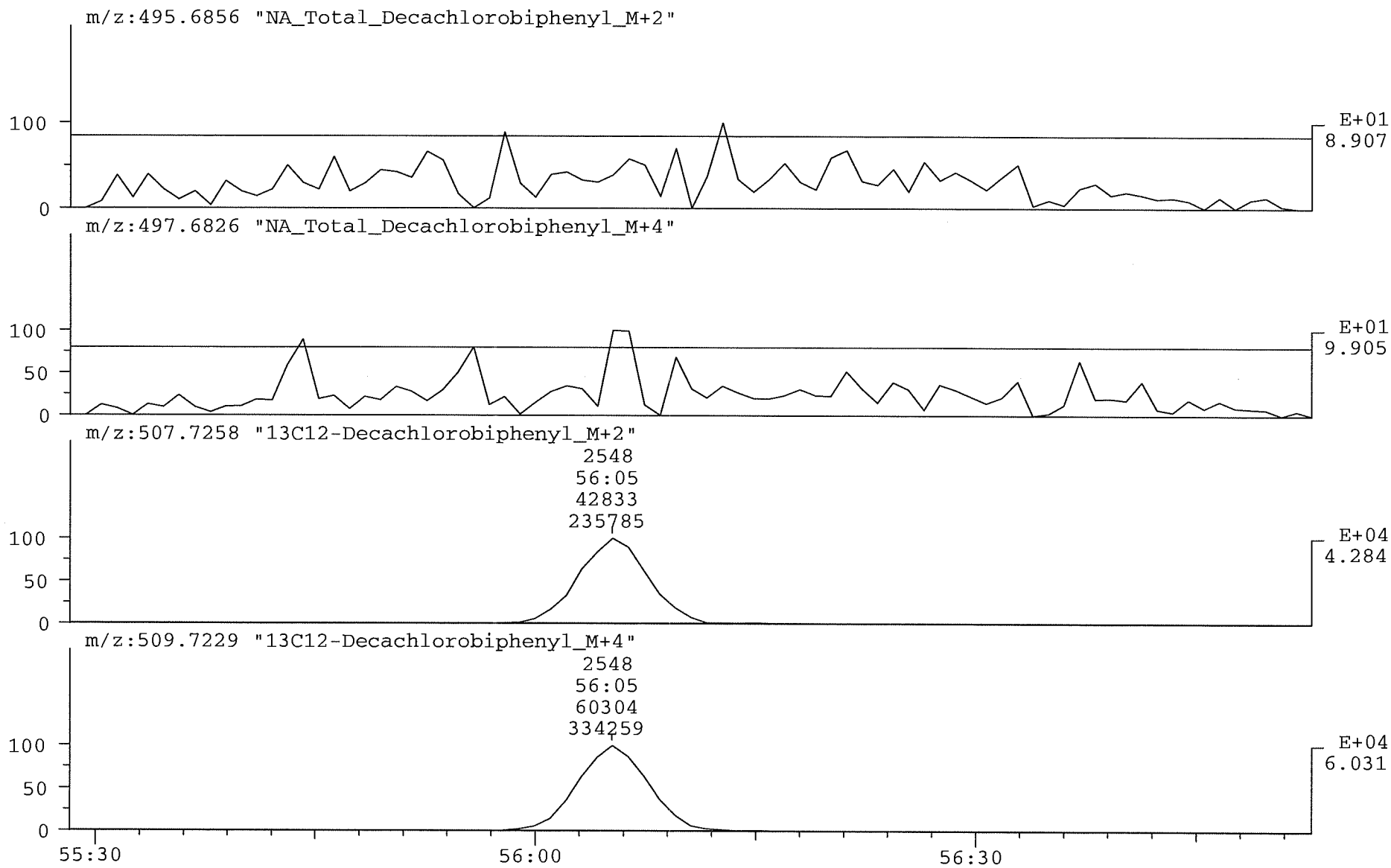
2683

CHRO: a0806m4r2 10-Jun-08 Elapse: 52:08 2324
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2159 > 2489 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2685

CHRO: a0806m4r2 10-Jun-08 Elapse: 56:10 2553
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 22:46:32 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2513 > 2593 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2686

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m4r2
Study: 2990:75 Mix 4
Sample: WO=2990:75Mix4 Meth=IE3 Dil=1
Amount:  0.00
Volume:  0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume:  2.00
Sample from Vial 14
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 9 of list 080609
  ICL procedure: sleep7x
  MID procedure: epa1668n

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.10 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End         Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:12 min   35:52 min    1.00 sec
  # 3   35:52 min   13:13 min   49:05 min    1.00 sec
  # 4   49:05 min    7:55 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 l   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
```

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	1	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	1	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	1	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg at	0.0	minutes	280 deg max
	75 deg at	2.0	minutes	
	150 deg at	7.0	minutes	
	270 deg at	55.0	minutes	
	270 deg at	57.0	minutes	

Inlet : Splitless mode
Purge time 1.5 min
Purge flow 40.0 ml/min
Gas saver is on
Saver time 3.0 min
Saver flow 15.0 ml/min
Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5529
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0010
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	345.0000
FVINLET	262.0000	FVSRC	974.0000	FWIN	0.7000
GCTC	211.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.3431	HVANAL	1266.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2606.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.7800	TCURR	0.8203
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 22:46:32.4

Autosampler has injected sample from vial 14
MID Time Window 1: Resolution is 8226
MID Time Window 2: Resolution is 8405
MID Time Window 3: Resolution is 9525
MID Time Window 4: Resolution is 10124
Analysis stopped at: 10-Jun-08 23:43:35.6 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX4	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m4r3.	**Prep Date**		**SDG No**	
Analysis ID	104465	**Prep Exp Date**		**Date Received**	
Analysis Date	06/11/08 03:51	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					**188.0393**	**190.0363**	**188.0393**	**190.0363**	**2.66-3.60**		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
200					**200.0795**	**202.0766**	**200.0795**	**202.0766**	**2.66-3.60**		
	Noise	00:00	00:00	0	178	210	71	84	0.85 *	/	
	13C12-PCB 1	12:01	00:00	0	1397691	421170	517202	159622	3.32	AVV/AVV	
	13C12-PCB 3	14:13	00:00	0	1364446	404949	481491	142076	3.37	ABV/ABV	
222					**222.0003**	**223.9974**	**222.0003**	**223.9974**	**1.33-1.79**		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
234					**234.0406**	**236.0376**	**234.0406**	**236.0376**	**1.33-1.79**		
	Noise	00:00	00:00	0	208	165	83	66	1.26 *	/	
	13C12-PCB 4	14:29	00:00	0	345905	226803	118484	76462	1.53	ABV/AVV	
	13C12-PCB 9	16:27	00:00	0	571004	368975	162166	108599	1.55	AVV/ABV	
	13C12-PCB 8	17:19	00:00	0	598346	384365	180205	114484	1.56	AVV/ABV	
	13C12-PCB 15	20:25	00:00	0	623264	401034	159662	104570	1.55	AVV/ABV	
256					**255.9613**	**257.9584**	**255.9613**	**257.9584**	**0.88-1.20**		
	Noise	00:00	00:00	0	305	213	122	85	1.44 *	/	
	PCB 25 (BZ)	22:53	00:00	0	624495	567968	158501	139833	1.10	ABV/ABV	
	PCB 21 (BZ)	23:41	00:00	0	583031	543584	134814	128265	1.07	AVV/AVV	
268					**268.0016**	**269.9986**	**268.0016**	**269.9986**	**0.88-1.20**		
	Noise	00:00	00:00	0	220	175	88	70	1.26 *	/	
	13C12-PCB 19	17:38	00:00	0	210385	211556	60258	61048	0.99	AVV/AVV	
	13C12-PCB 32	20:54	00:00	0	366159	356739	86532	88198	1.03	AVV/AVV	
	13C12-PCB 31	23:10	00:00	0	1061884	977721	250123	234049	1.09	AVV/ABV	
	13C12-PCB 28	23:28	00:00	0	994178	911715	248339	229420	1.09	AVV/AVV	
	13C12-PCB 37	27:30	00:00	0	924007	853606	211772	193971	1.08	ABV/ABV	
290					**289.9224**	**291.9194**	**289.9224**	**291.9194**	**0.65-0.89**		
	Noise	00:00	00:00	0	200	170	80	68	1.18 *	/	
	PCB 69 (BZ)	25:46	00:00	0	561060	686946	127995	162910	0.82	ABV/ABV	D
	PCB 47 (BZ)	26:23	00:00	0	491277	624944	113422	144842	0.79	AVV/AVV	DM
	PCB 42 (BZ)	26:53	00:00	0	425609	519882	100483	112823	0.82	ABV/AVV	D
	PCB 64 (BZ)	27:35	00:00	0	609640	757367	136967	171787	0.80	ABV/AVV	D
	PCB 70 (BZ)	30:07	00:00	0	632788	781200	143200	174665	0.81	ABV/ABV	DM
302					**301.9626**	**303.9597**	**301.9626**	**303.9597**	**0.65-0.89**		
	Noise	00:00	00:00	0	105	120	42	48	0.88	/	
	13C12-PCB 54	20:45	00:00	0	216880	264284	53346	65093	0.82	ABV/ABV	
	13C12-PCB 52	25:19	00:00	0	357736	464418	83987	111030	0.77	ABV/ABV	
	13C12-PCB 79	33:15	00:00	0	493448	618780	105266	133234	0.80	ABV/ABV	
	13C12-PCB 81	34:16	00:00	0	451642	550971	99069	119268	0.82	ABV/ABV	
	13C12-PCB 77	34:49	00:00	0	456707	575175	98538	121536	0.79	ABV/ABB	
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**		
	Noise	00:00	00:00	0	150	140	60	56	1.07 *	/	
	PCB 102 (BZ)	29:38	00:00	0	399760	239205	87416	50847	1.67	ABV/ABV	
	PCB 97 (BZ)	33:18	00:00	0	360257	222623	79264	48431	1.62	ABV/ABV	DM

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX4	Prep Batch		Lot No	
Data File	/20080610rt/a0806m4r3.	Prep Date		SDG No	
Analysis ID	104465	Prep Exp Date		Date Received	
Analysis Date	06/11/08 03:51	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	PCB 115 (BZ)	34:15	00:00	0	500457	305883	106089	64794	1.64	AVV/ABV	D
	PCB 123 (BZ)	36:50	00:00	0	1092397	691641	228008	142026	1.58	ABV/ABV	
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	123	115	49	46	1.07 *	/	
	13C12-PCB 104	26:16	00:00	0	430498	255482	97502	57330	1.69	ABV/ABV	
	13C12-PCB 95	29:15	00:00	0	333230	199308	73055	44298	1.67	ABV/ABV	
	13C12-PCB 101	32:10	00:00	0	338474	209006	72880	48152	1.62	ABV/AVV	
	13C12-PCB 111	34:50	00:00	0	427252	262951	91602	53076	1.62	ABV/ABV	
	13C12-PCB 123	36:49	00:00	0	916398	572799	194692	122879	1.60	ABV/ABV	
	13C12-PCB 118	37:09	00:00	0	951090	593231	192916	118687	1.60	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	915117	568129	191687	116247	1.61	AVV/AVV	
	13C12-PCB 105	38:20	00:00	0	894878	550345	186537	113833	1.63	AVV/ABV	
	13C12-PCB 127	39:46	00:00	0	1014748	618838	203964	126929	1.64	ABV/ABV	
	13C12-PCB 126	41:25	00:00	0	954606	581613	191306	116953	1.64	AVV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	158	115	63	46	1.37	/	
	PCB 134 (BZ)	36:14	00:00	0	434918	337623	93375	71602	1.29	ABV/ABV	D
	PCB 131 (BZ)	36:50	00:00	0	462217	362522	97335	75372	1.28	AVV/AVV	D
	PCB 163 (BZ)	40:18	00:00	0	688205	542933	140178	107298	1.27	ABV/ABV	DM
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	125	93	50	37	1.35	/	
	13C12-PCB 155	31:55	00:00	0	333889	262918	74207	58609	1.27	ABV/ABV	
	13C12-PCB 153	39:00	00:00	0	497497	377542	104351	77824	1.32	ABV/ABV	
	13C12-PCB 138	40:15	00:00	0	509786	391720	103026	79181	1.30	ABV/ABV	
	13C12-PCB 167	43:15	00:00	0	616093	463302	123721	95066	1.33	AVV/AVV	
	13C12-PCB 156	44:25	00:00	0	1197181	929135	153205	119267	1.29	AVV/AVV	D
	13C12-PCB 169	47:39	00:00	0	584833	446841	113277	89224	1.31	ABV/ABV	D
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	140	108	56	43	1.30 *	/	
	PCB 180 (BZ)	45:49	00:00	0	380067	346687	73337	69939	1.10	ABB/ABV	M
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	133	118	53	47	1.13	/	
	13C12-PCB 188	37:39	00:00	0	422895	409777	85489	81589	1.03	ABV/ABV	
	13C12-PCB 178	40:42	00:00	0	264013	259809	53708	50572	1.02	ABV/ABV	
	13C12-PCB 180	45:48	00:00	0	366275	335640	71829	65728	1.09	ABV/ABV	
	13C12-PCB 170	47:03	00:00	0	289925	276603	55249	55077	1.05	ABV/ABV	
	13C12-PCB 189	50:09	00:00	0	709318	683400	139127	137724	1.04	ABV/ABV	
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02		
	Noise	00:00	00:00	0	0	0	0	0	0.00 *		
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02		
	Noise	00:00	00:00	0	120	100	48	40	1.20 *	/	
	13C12-PCB 202	43:01	00:00	0	283635	318251	57770	63843	0.89	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX4	Prep Batch		Lot No	
Data File	/20080610rt/a0806m4r3.	Prep Date		SDG No	
Analysis ID	104465	Prep Exp Date		Date Received	
Analysis Date	06/11/08 03:51	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

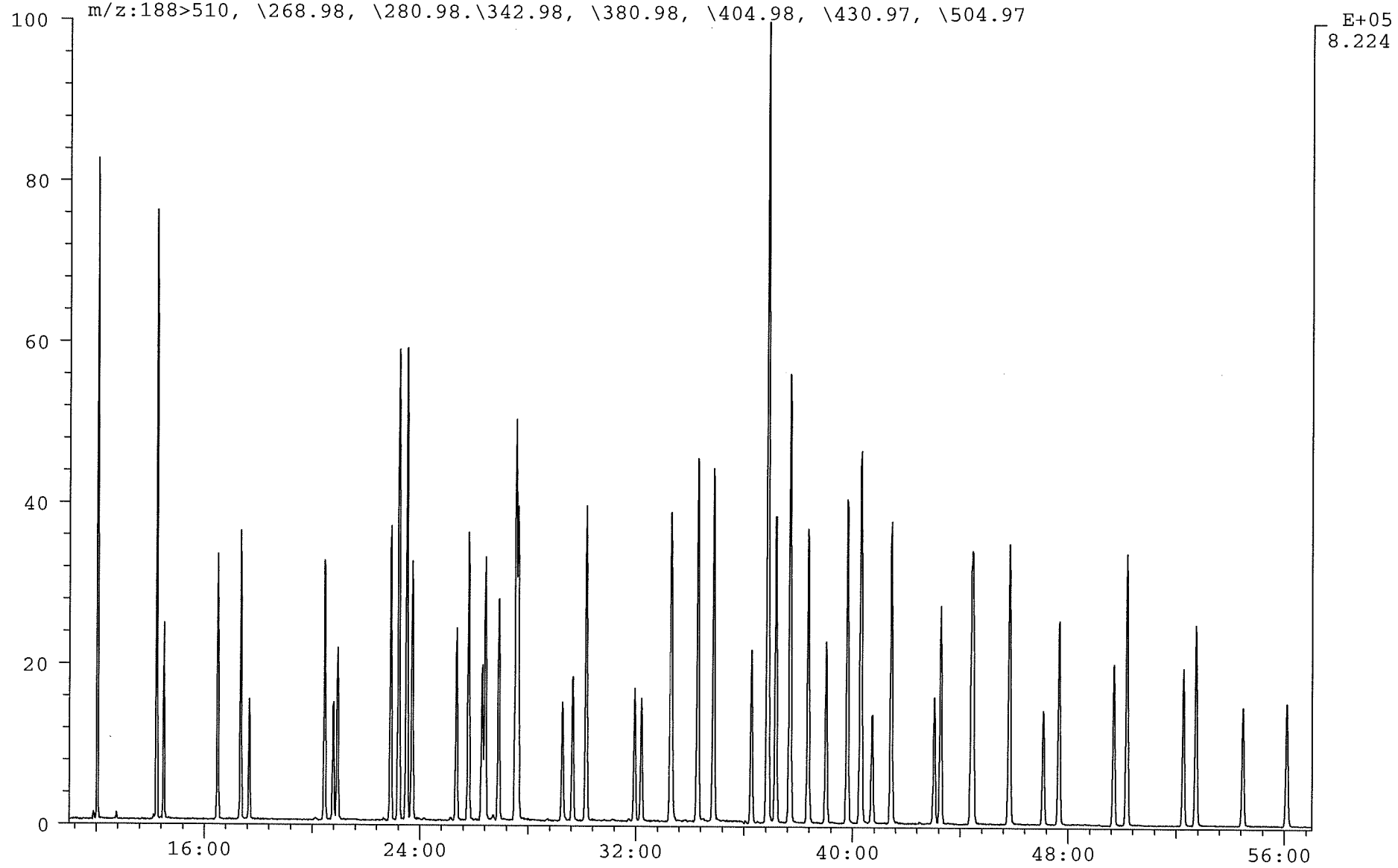
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02	
	13C12-PCB 194	52:15	00:00	0	371361	395597	75763	77576	0.94	ABV/ABV
	13C12-PCB 205	52:42	00:00	0	483993	528838	94146	103105	0.92	ABV/ABV
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	115	110	46	44	1.05 *	/
	13C12-PCB 208	49:40	00:00	0	348888	430149	66965	83428	0.81	ABV/ABV
	13C12-PCB 206	54:27	00:00	0	245471	301284	47230	58874	0.81	ABV/ABV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	
	Noise	00:00	00:00	0	0	0	0	0	0.00 *	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79	
	Noise	00:00	00:00	0	88	93	35	37	0.95 *	/
	13C12-PCB 209	56:04	00:00	0	247912	350583	43590	63006	0.71	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: a0806m4r3 11-Jun-08 Elapse: 56:11 2554
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

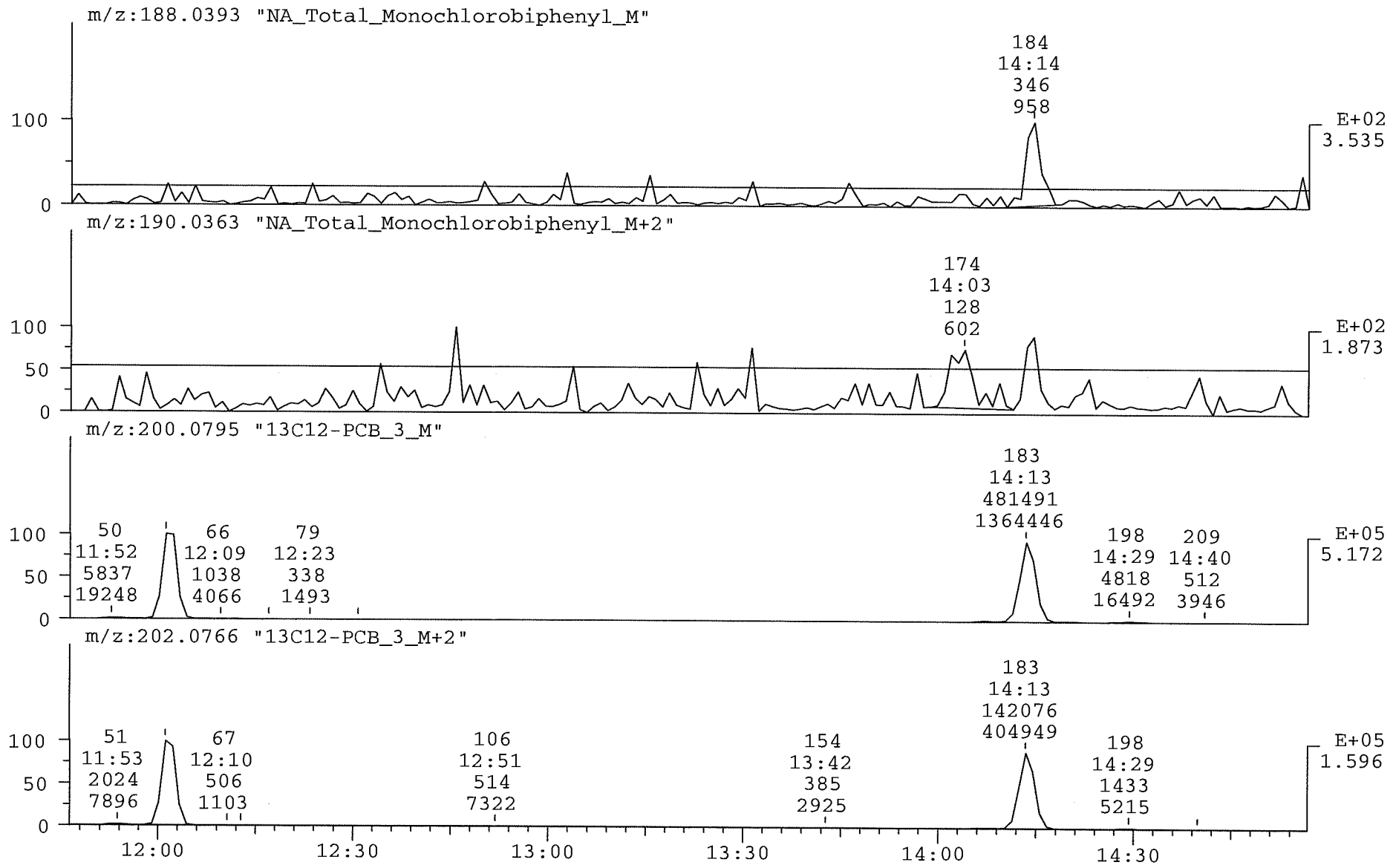
Int DCG 6-11-08
Cal'd 6-26-08



H-2694

2693

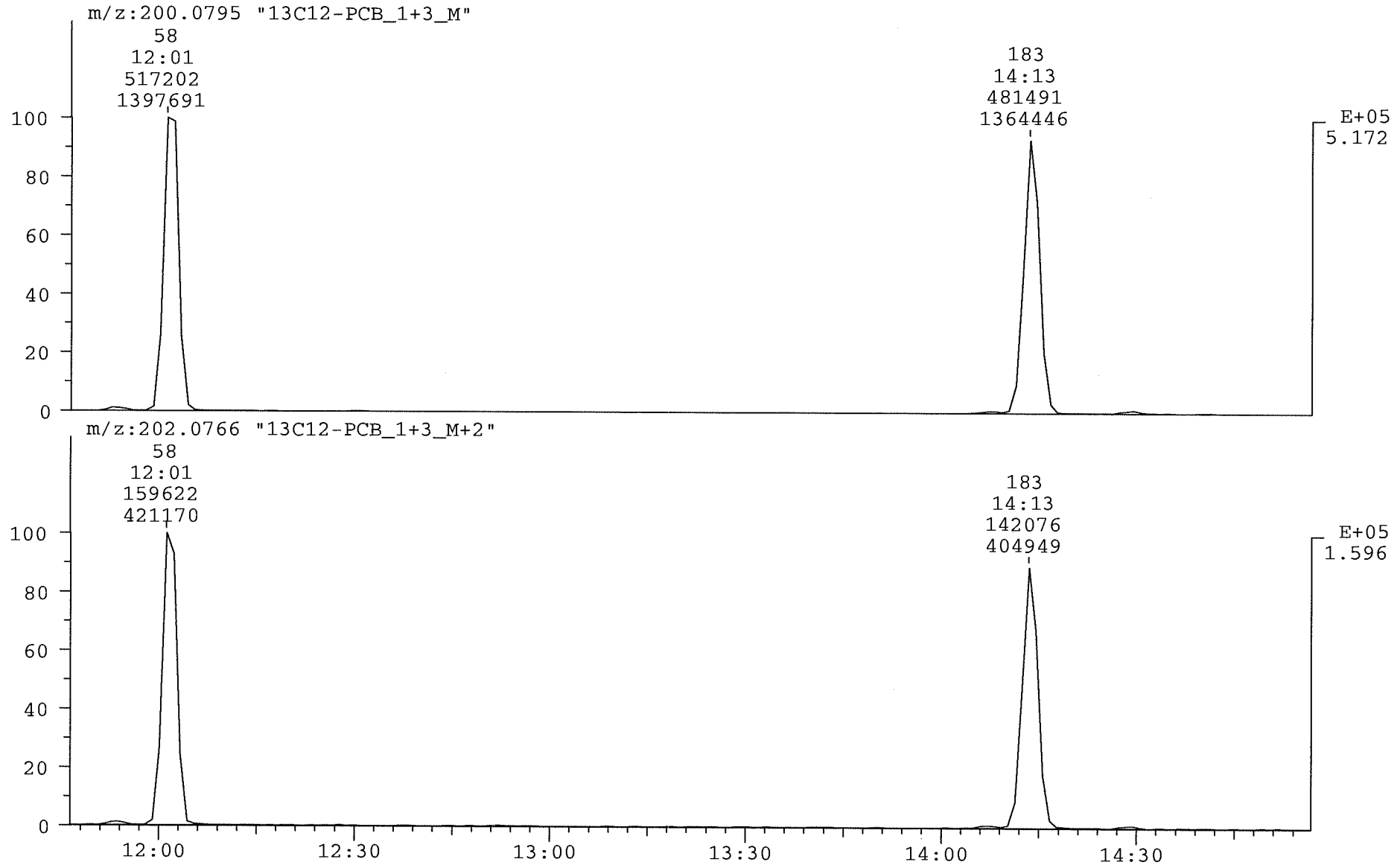
CHRO: a0806m4r3 11-Jun-08 Elapse: 13:21.5 134
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2665

2694

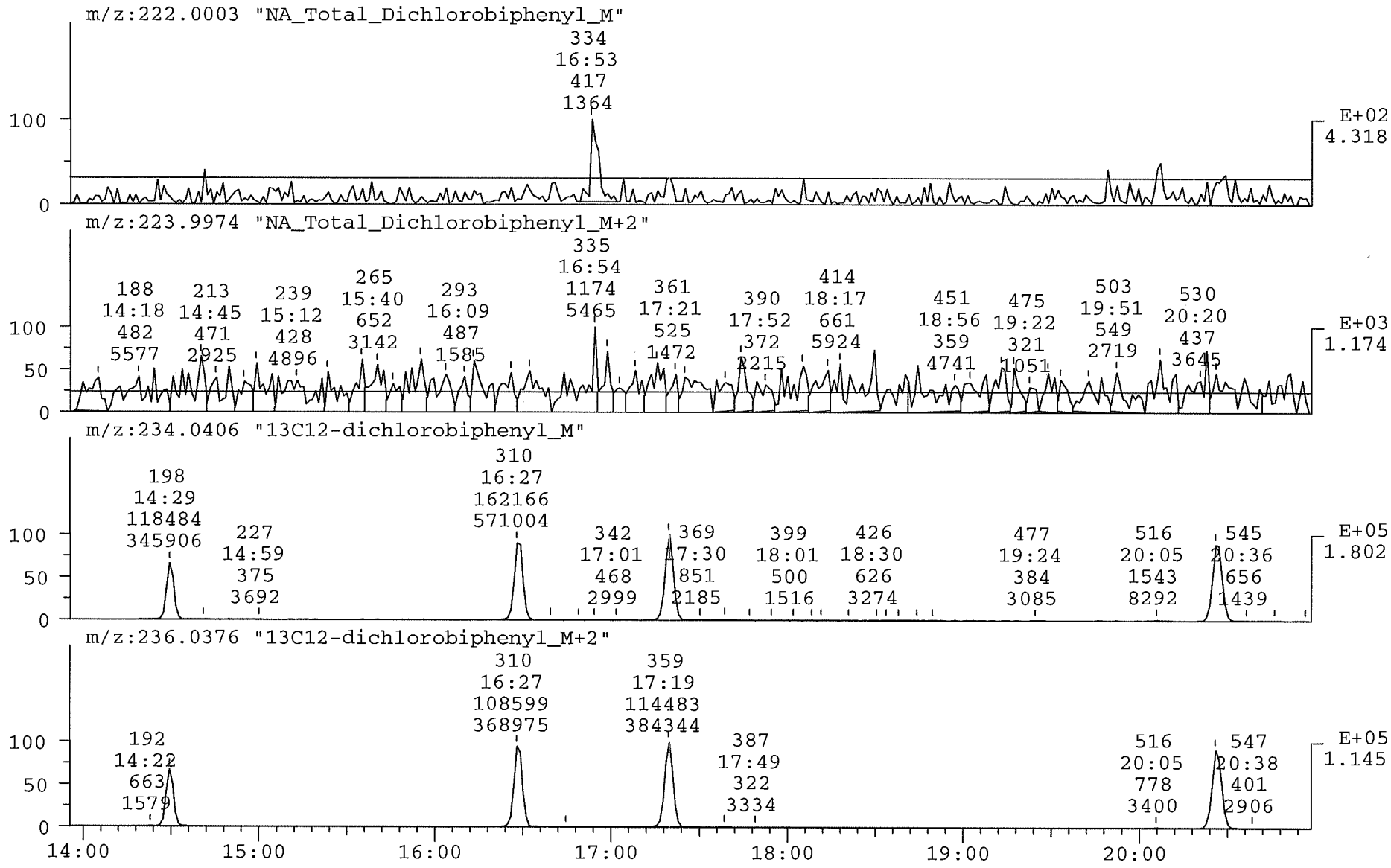
CHRO: a0806m4r3 11-Jun-08 Elapse: 13:21.5 134
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2696

2695

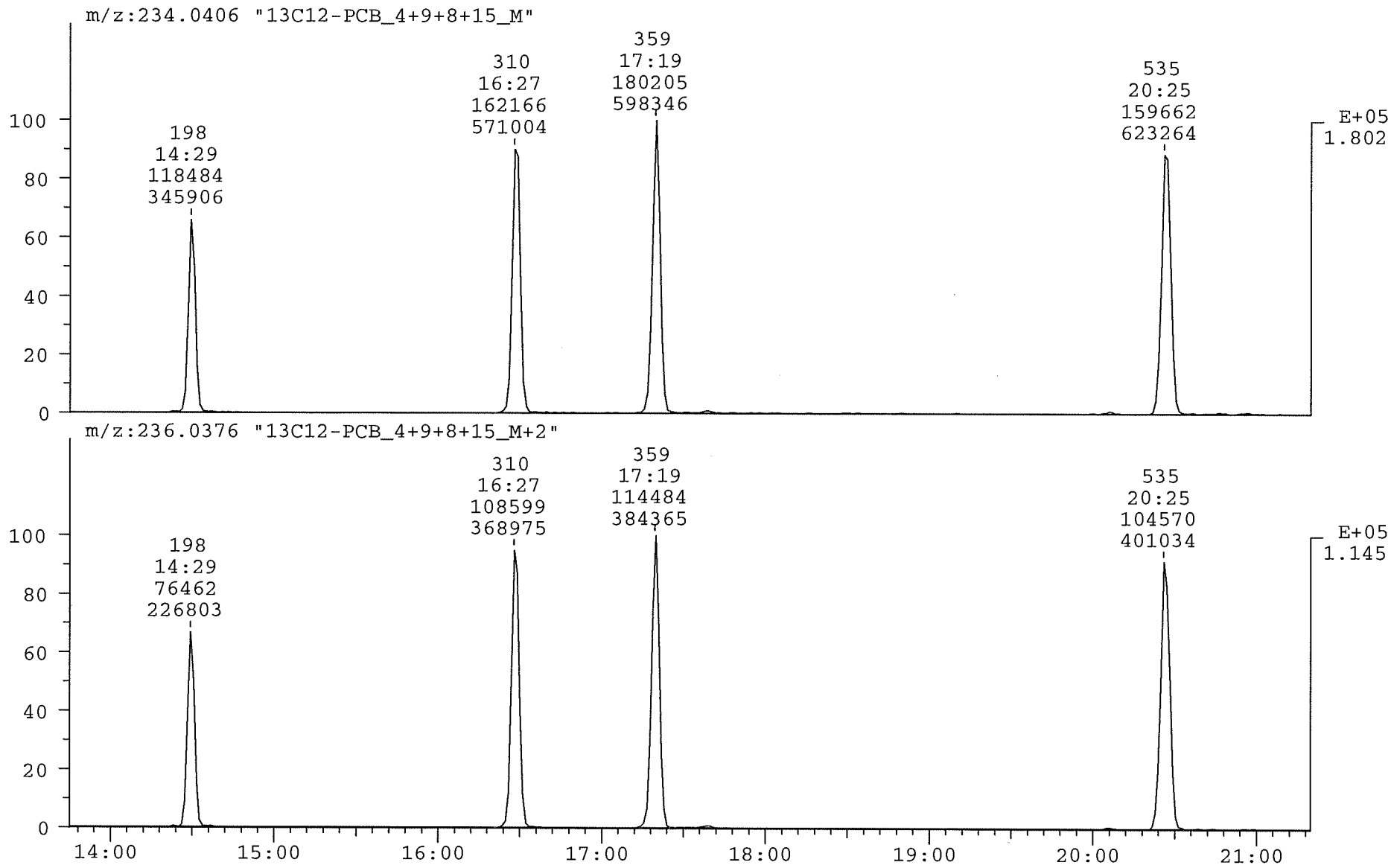
CHRO: a0806m4r3 11-Jun-08 Elapse: 17:26.9 366
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2697

2696

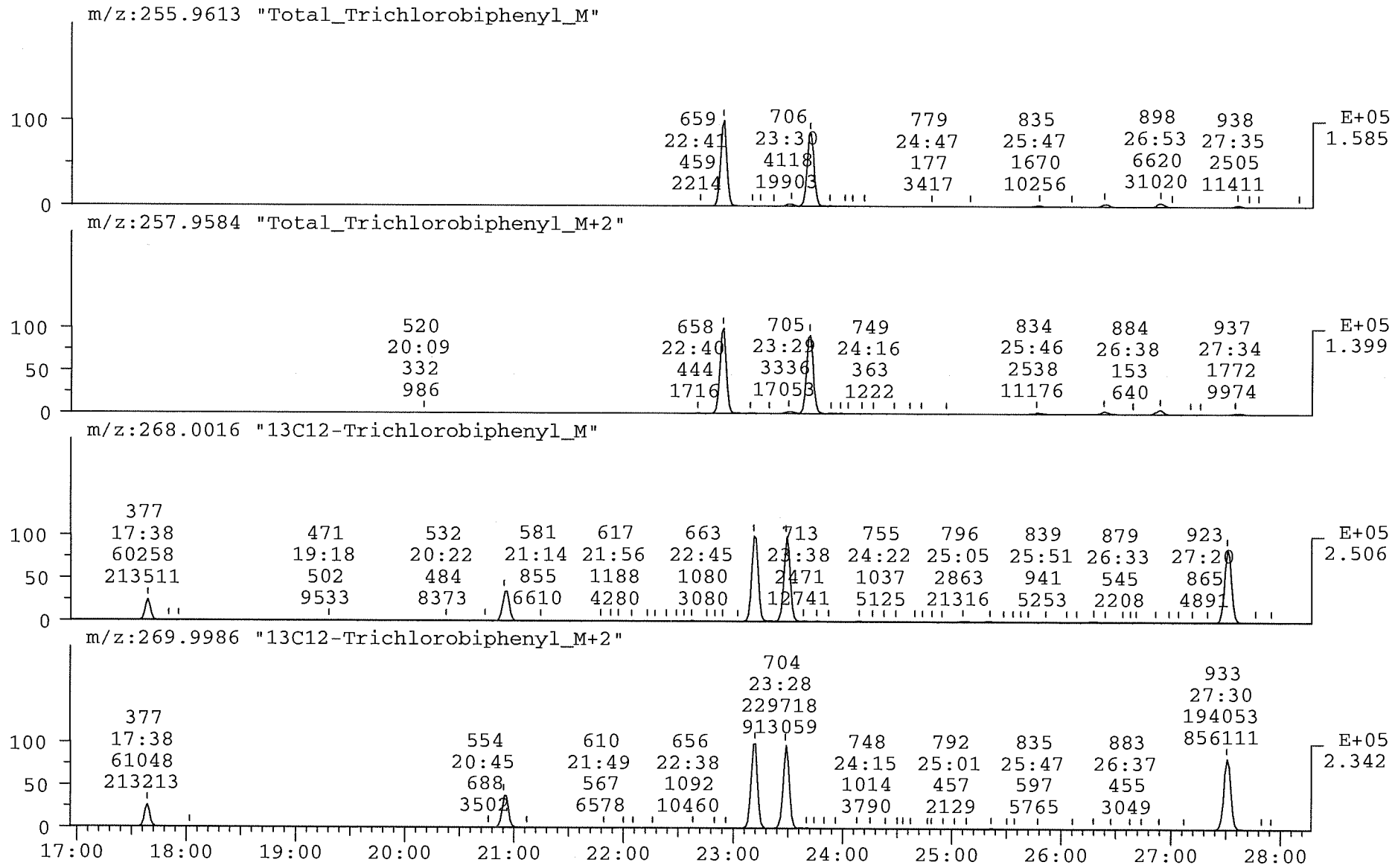
CHRO: a0806m4r3 11-Jun-08 Elapse: 17:26.9 366
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2698

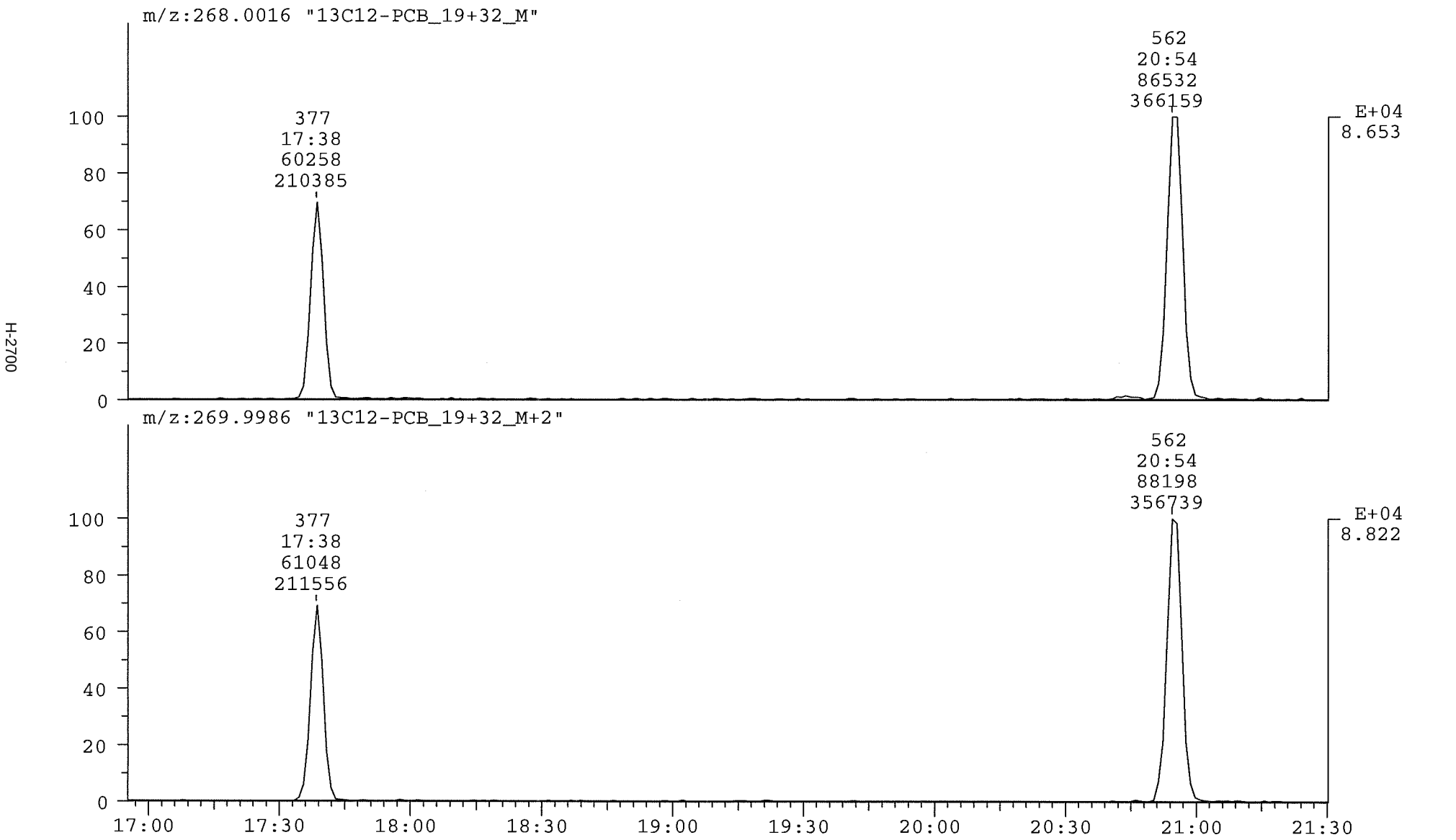
2697

CHRO: a0806m4r3 11-Jun-08 Elapse: 22:39.1 657
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 337 > 977 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2699

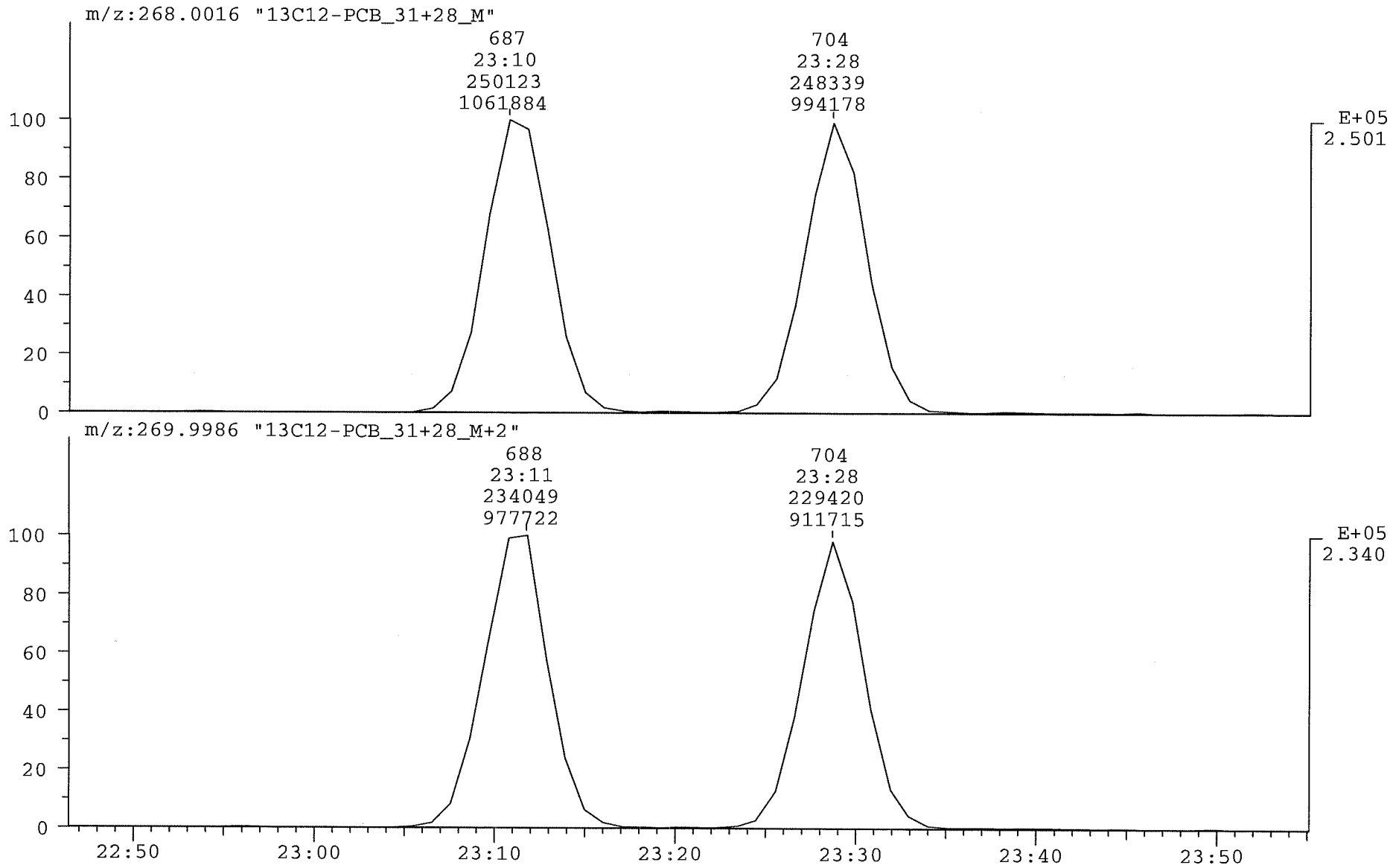
CHRO: a0806m4r3 11-Jun-08 Elapse: 19:02.1 456
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 336 > 596 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2700

2699

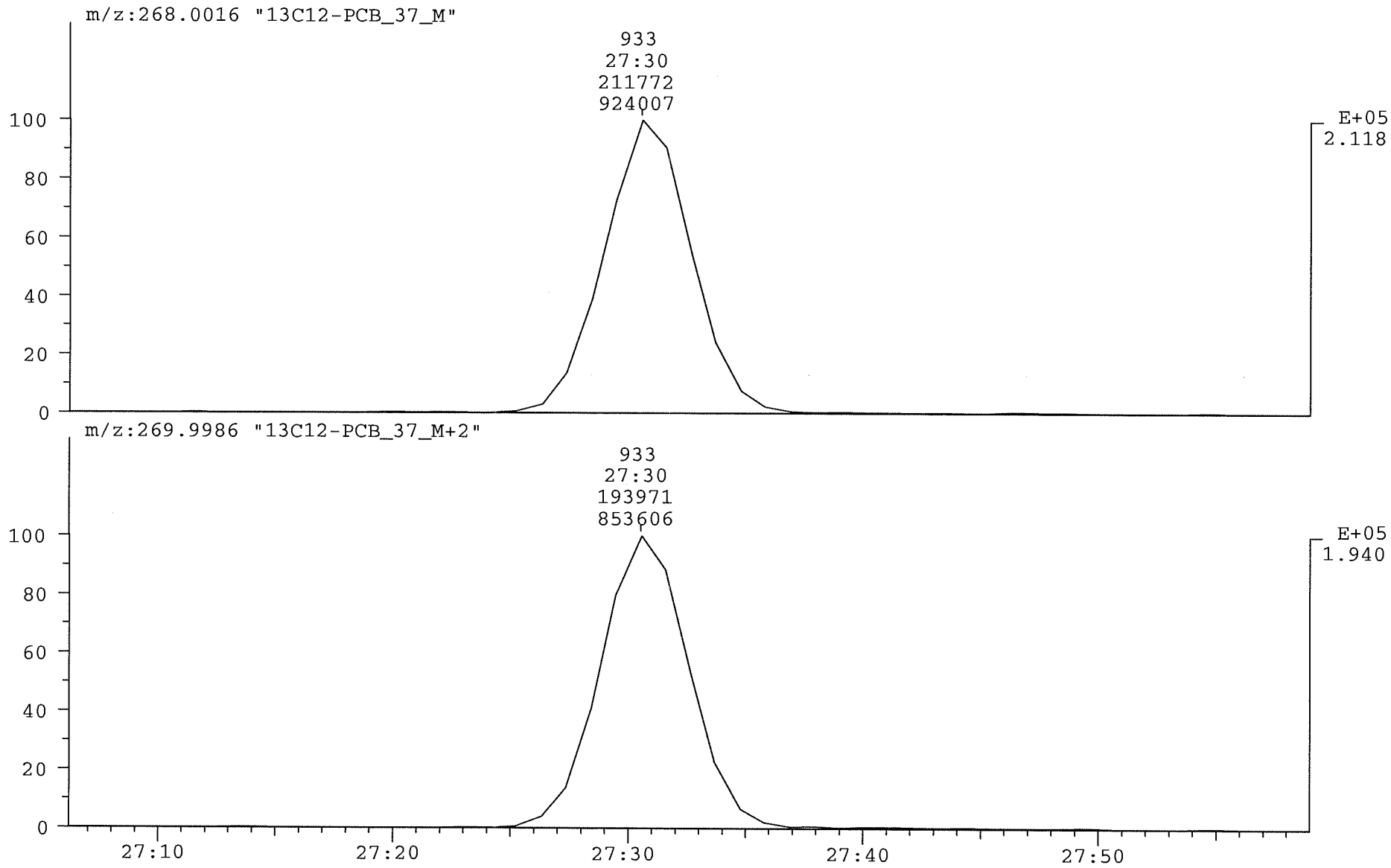
CHRO: a0806m4r3 11-Jun-08 Elapse: 23:12.8 689
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 664 > 729 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2701

2700

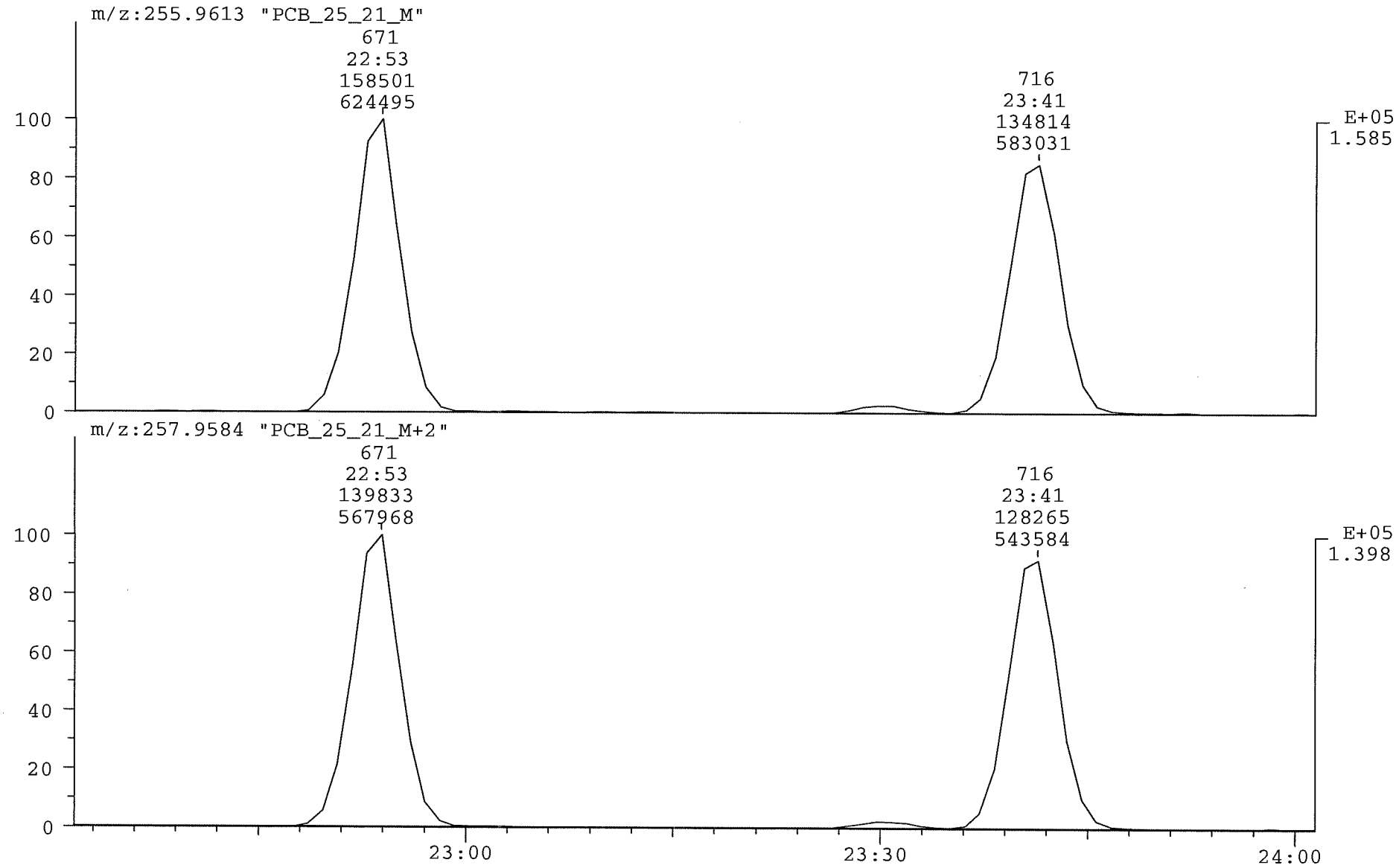
CHRO: a0806m4r3 11-Jun-08 Elapse: 27:32.6 935
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 910 > 960 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2702

2701

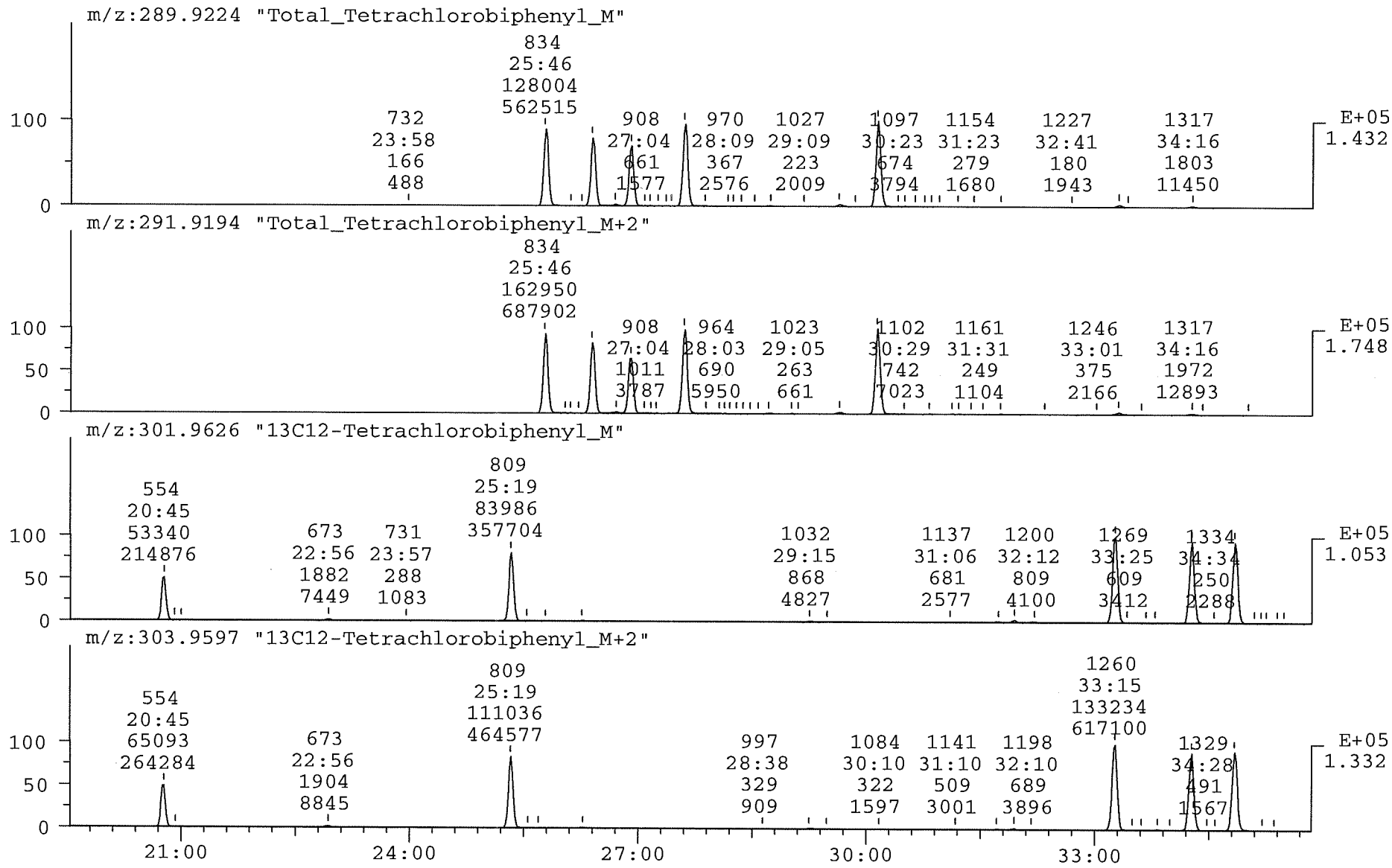
CHRO: a0806m4r3 11-Jun-08 Elapse: 23:24.4 700
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 650 > 735 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2703

2702

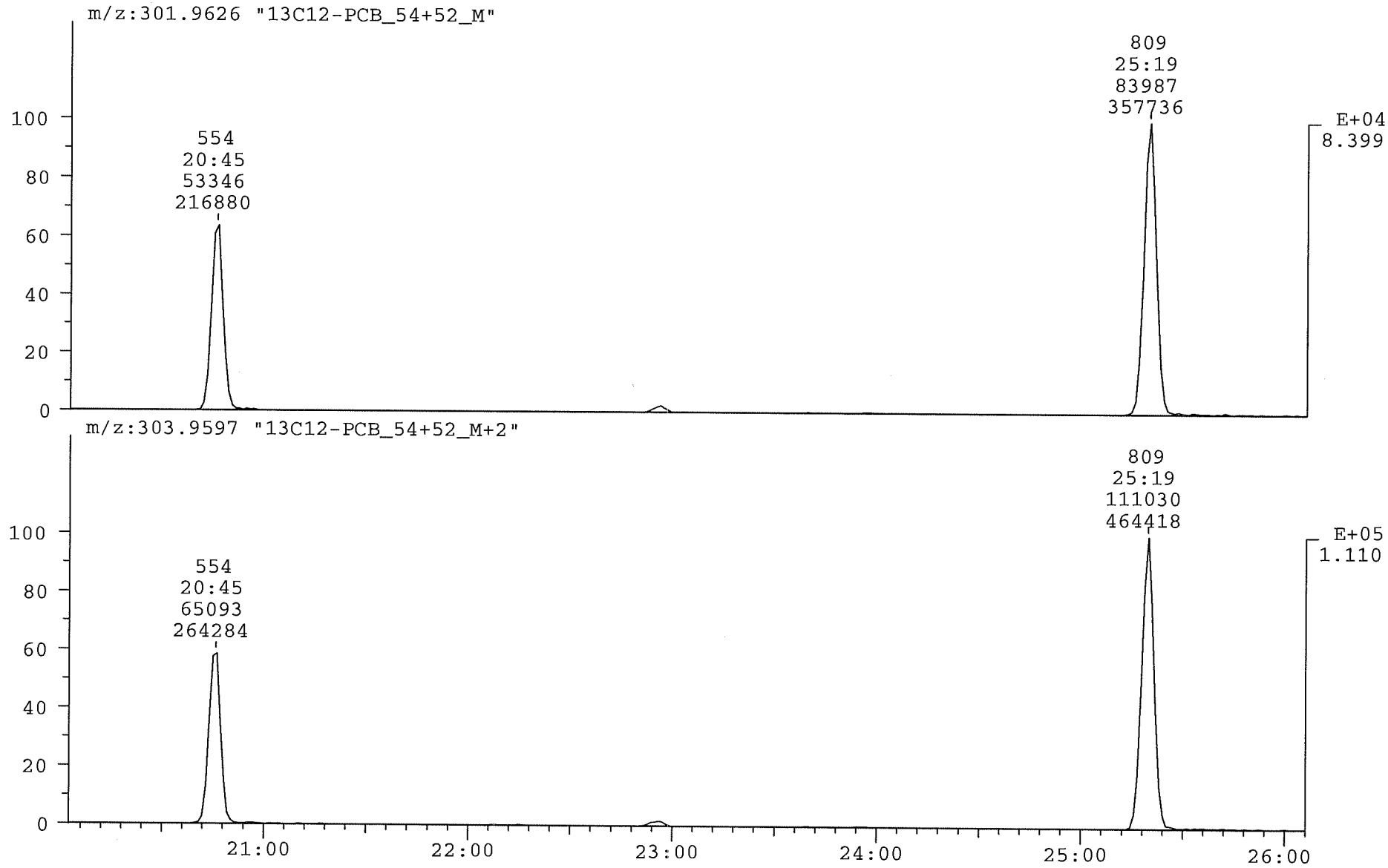
CHRO: a0806m4r3 11-Jun-08 Elapse: 27:41.1 943
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 484 > 1407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2704

2703

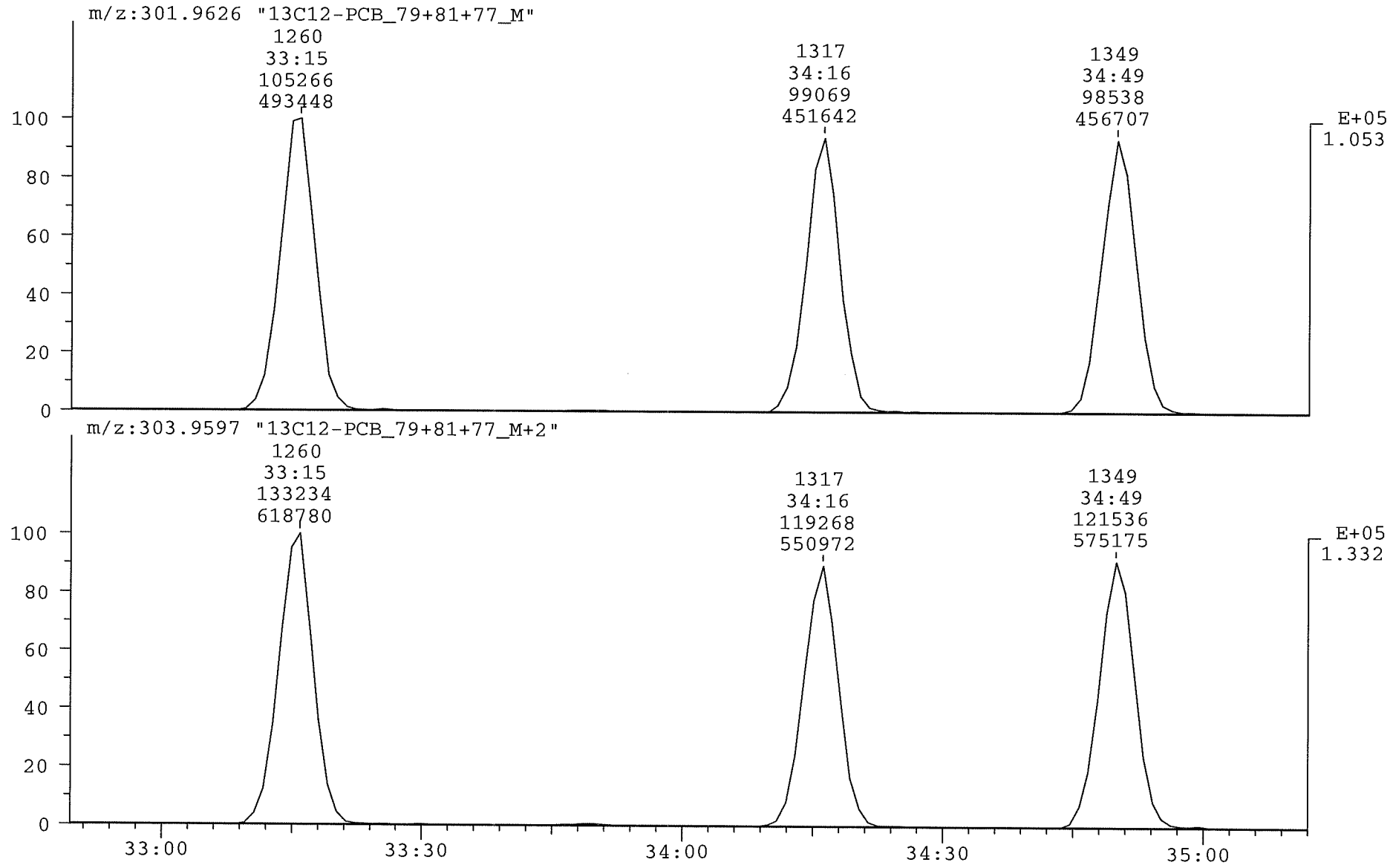
CHRO: a0806m4r3 11-Jun-08 Elapse: 23:06.5 683
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 513 > 853 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2705

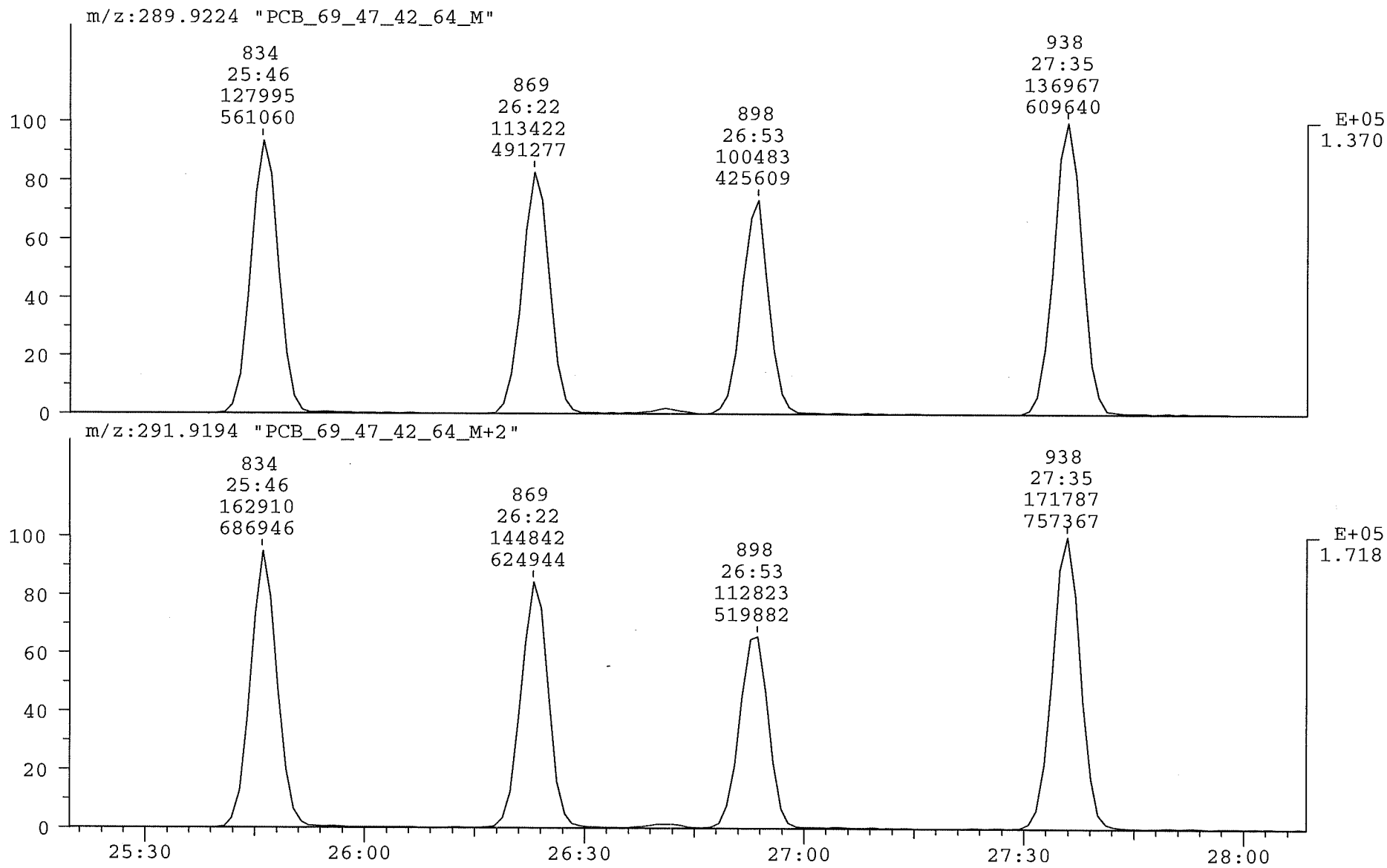
2704

CHRO: a0806m4r3 11-Jun-08 Elapse: 34:03 1305
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1235 > 1370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2706

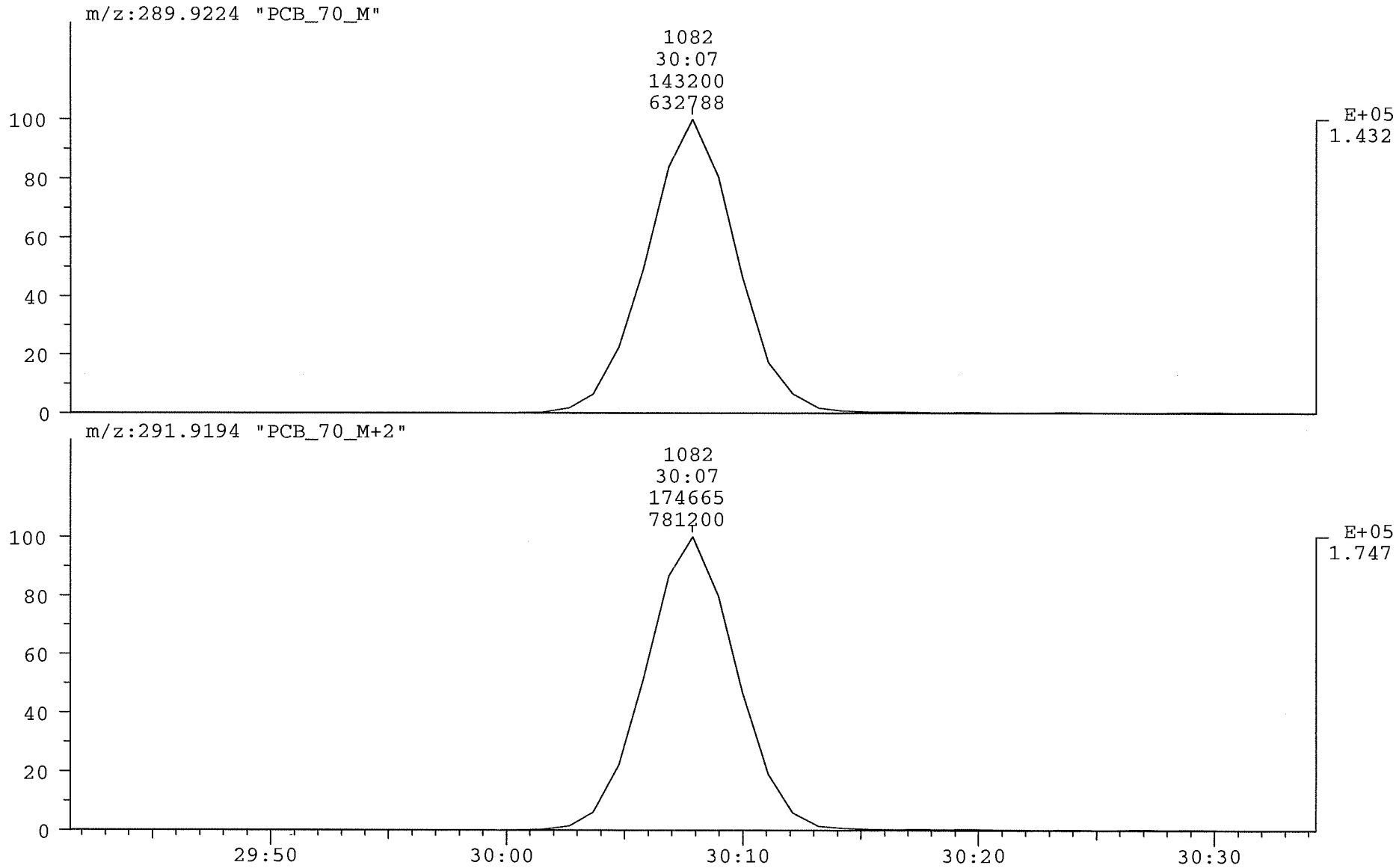
CHRO: a0806m4r3 11-Jun-08 Elapse: 26:44.1 889
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 809 > 969 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2707

2706

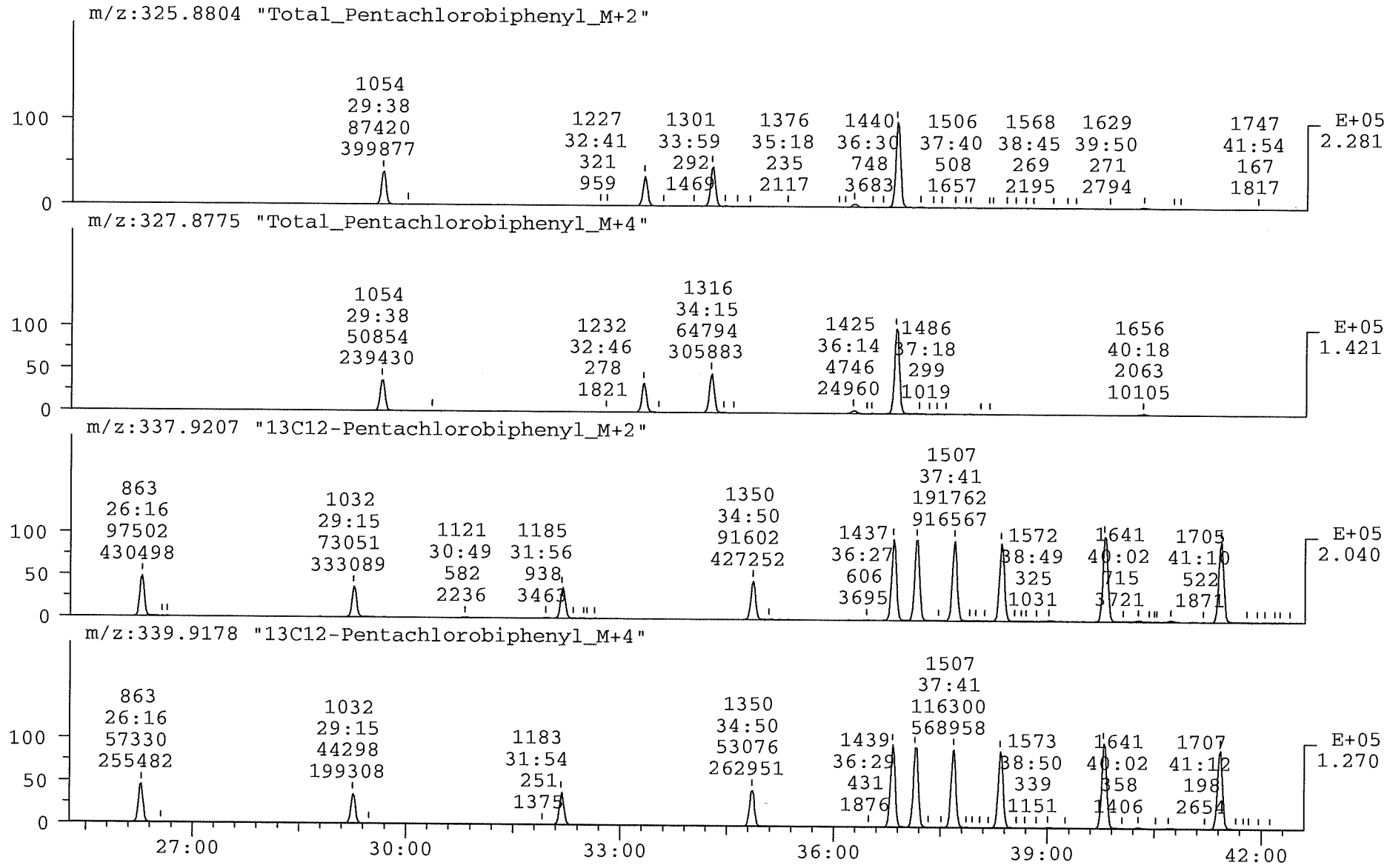
CHRO: a0806m4r3 11-Jun-08 Elapse: 30:07 1082
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1057 > 1107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2708

2707

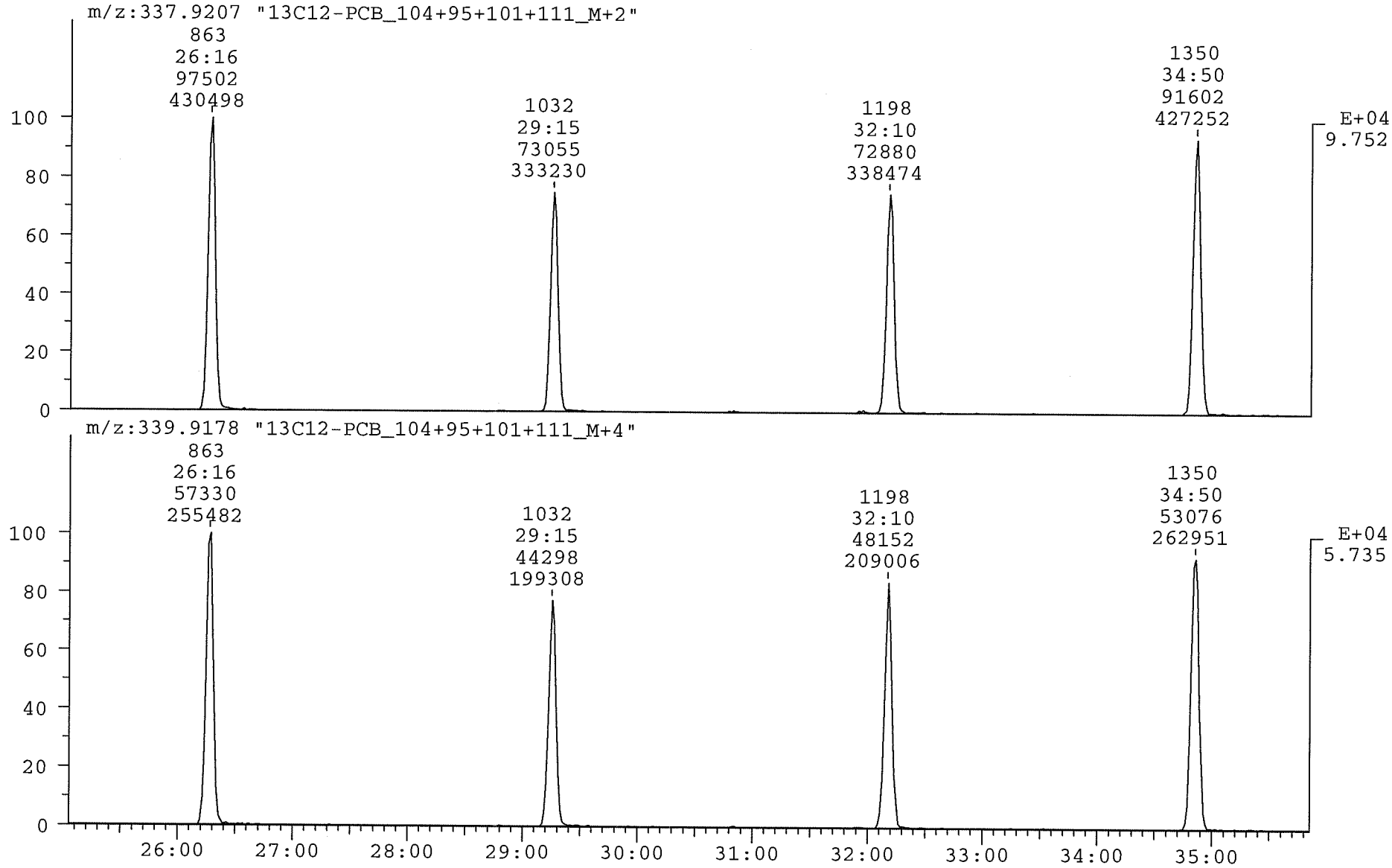
CHRO: a0806m4r3 11-Jun-08 Elapse: 33:56 1298
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 806 > 1786 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2709

2708

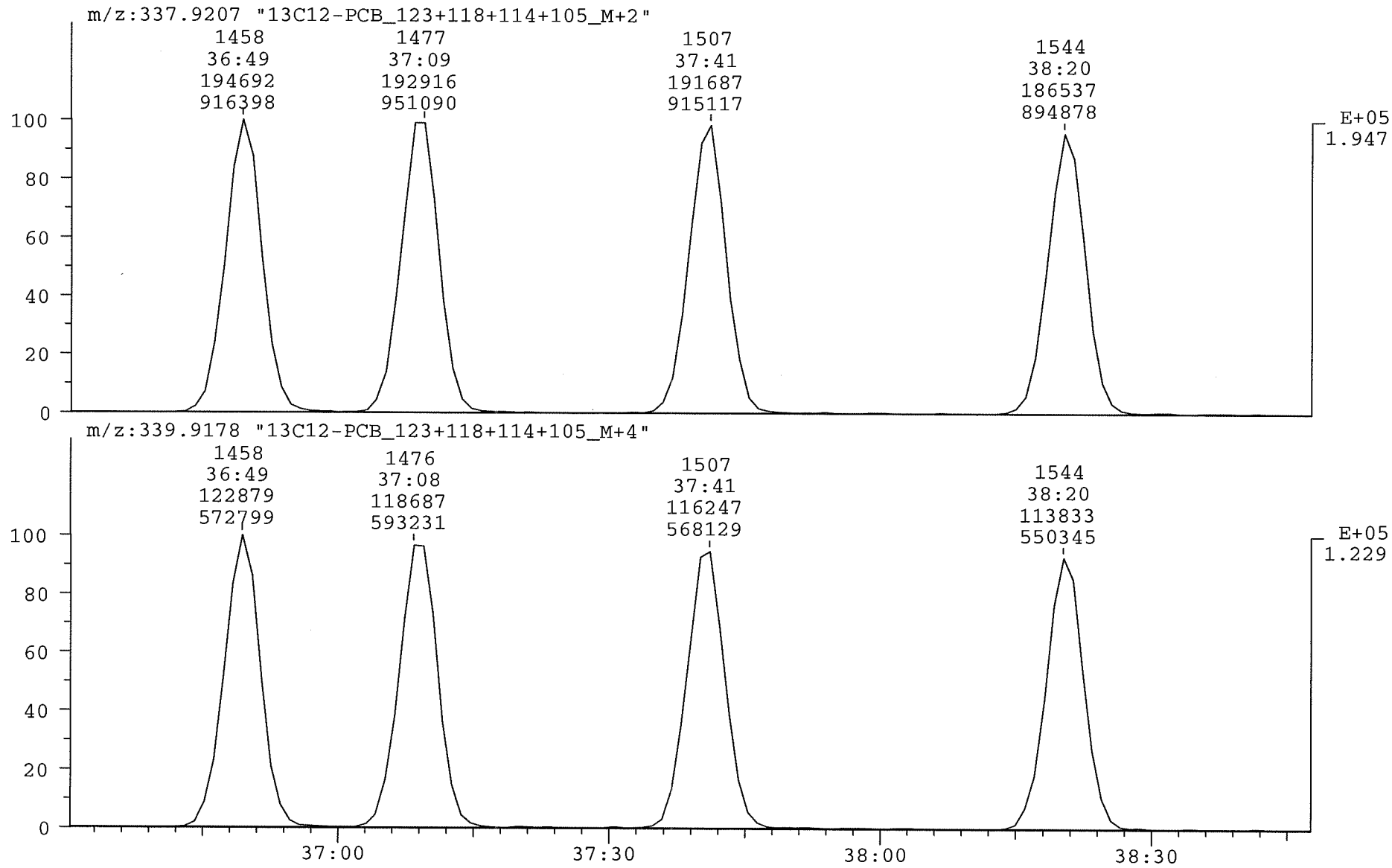
CHRO: a0806m4r3 11-Jun-08 Elapse: 30:26 1100
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 793 > 1407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2710

2709

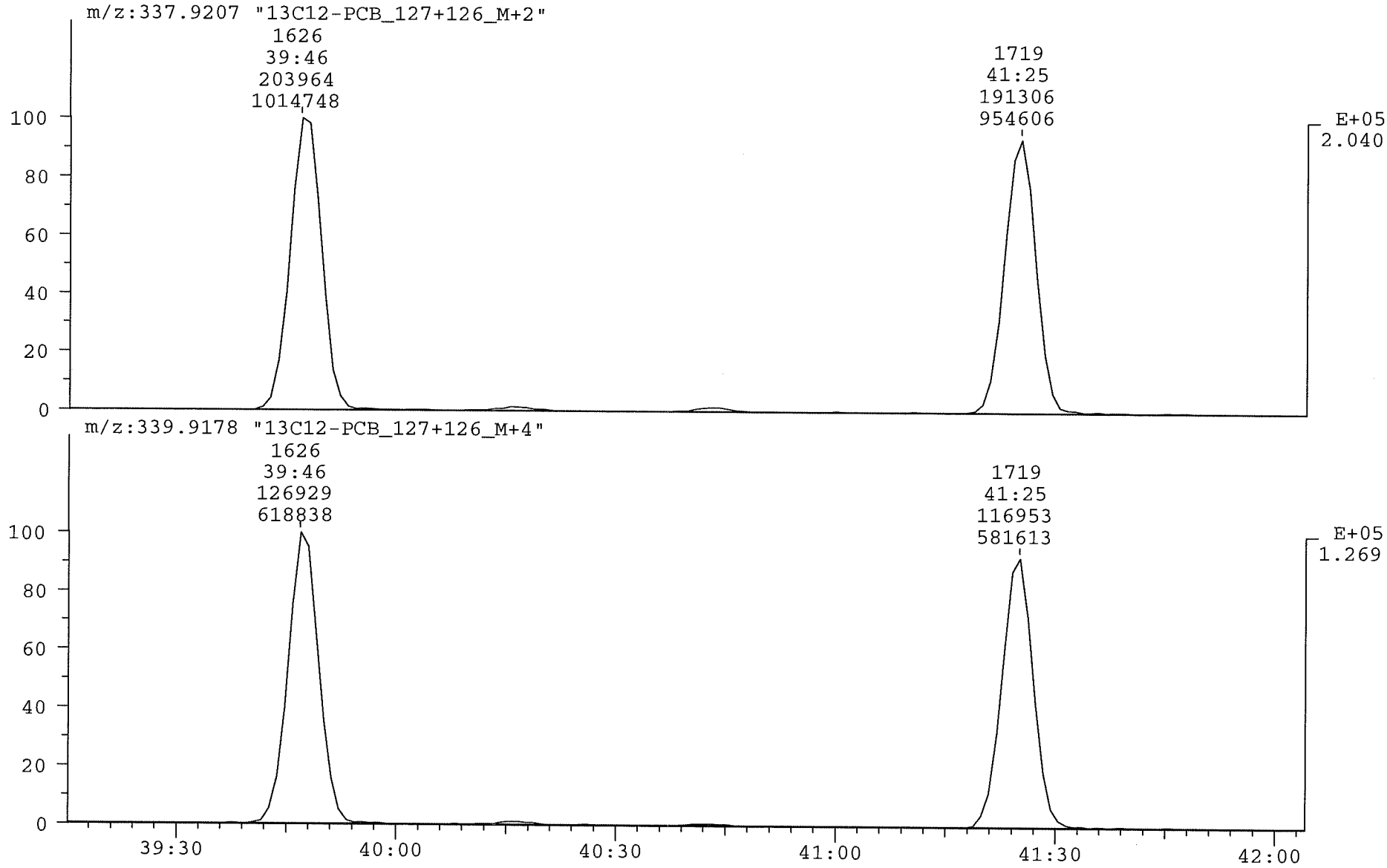
CHRO: a0806m4r3 11-Jun-08 Elapse: 37:38 1505
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1440 > 1570 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2711

2710

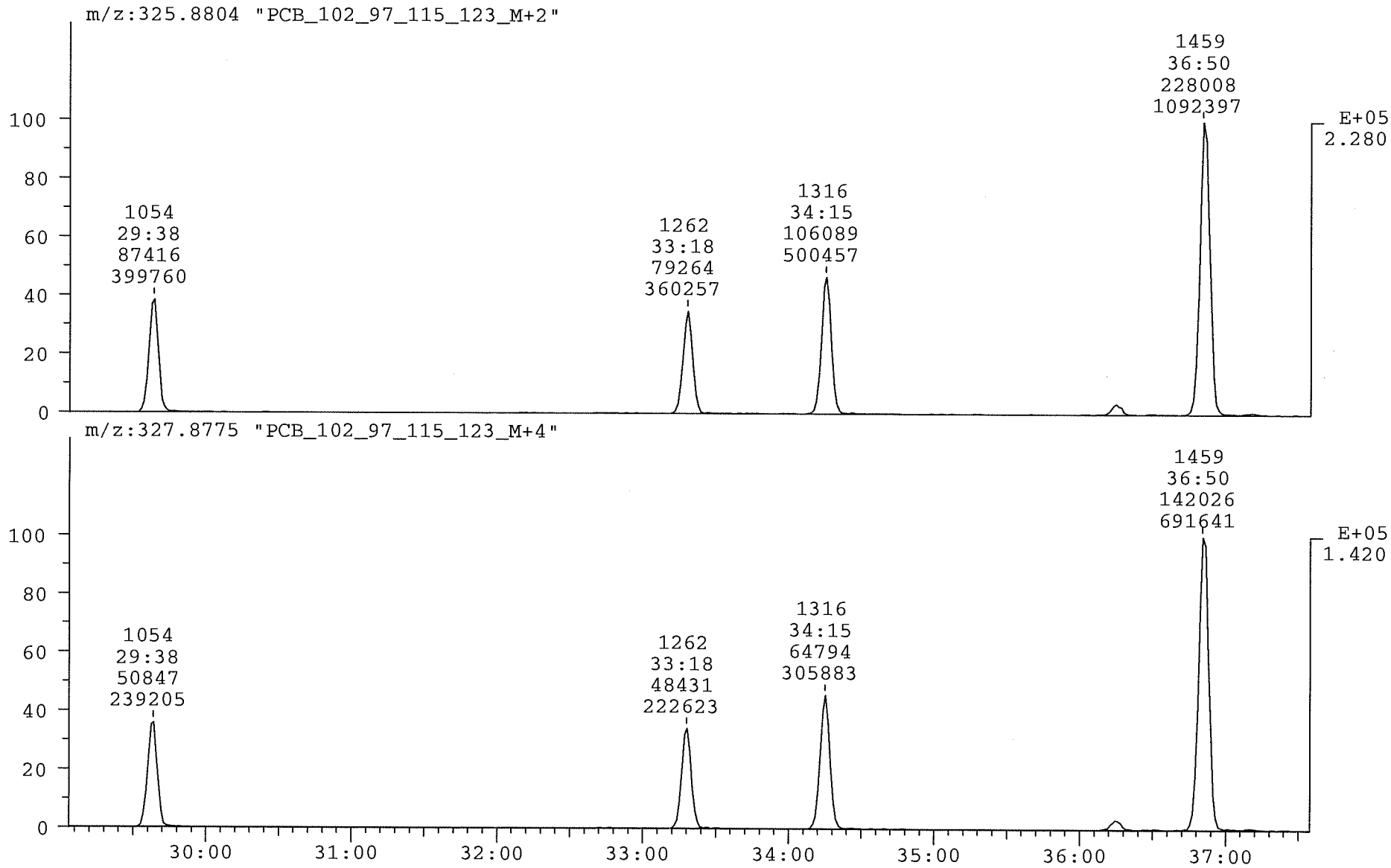
CHRO: a0806m4r3 11-Jun-08 Elapse: 40:39 1676
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1596 > 1756 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2712

2711

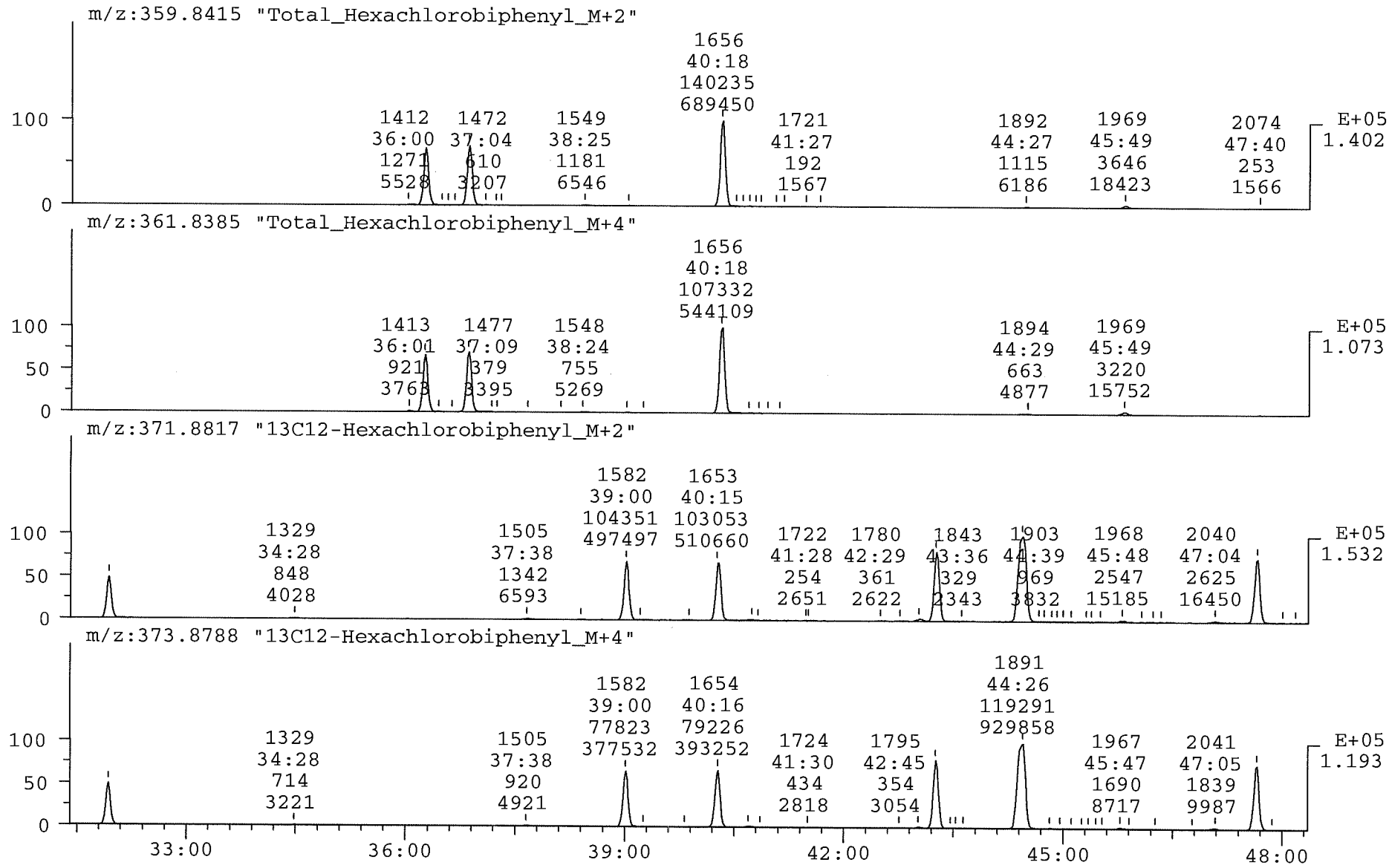
CHRO: a0806m4r3 11-Jun-08 Elapse: 33:16 1261
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1021 > 1501 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2713

2712

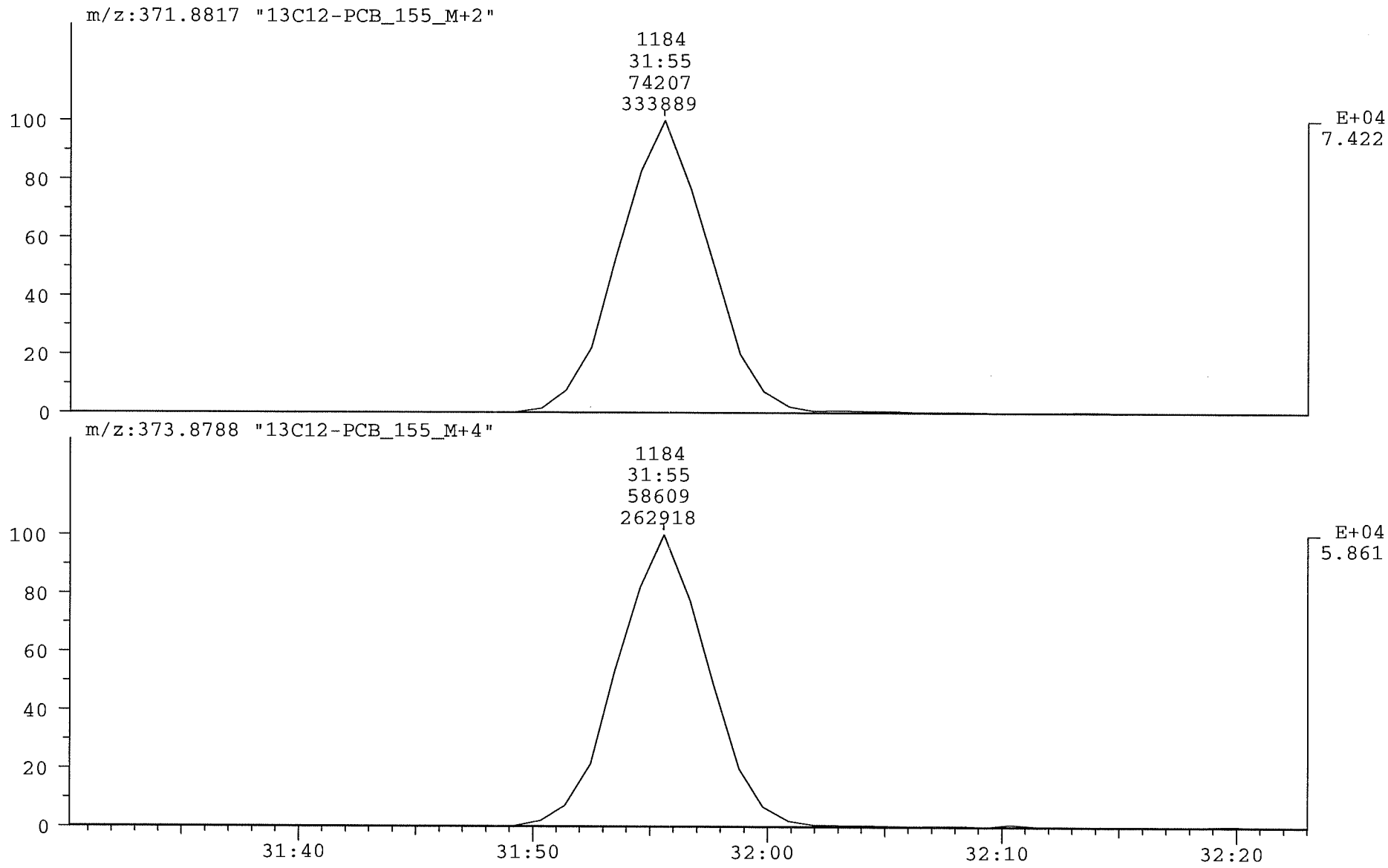
CHRO: a0806m4r3 11-Jun-08 Elapse: 39:52 1631
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1154 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2714

2713

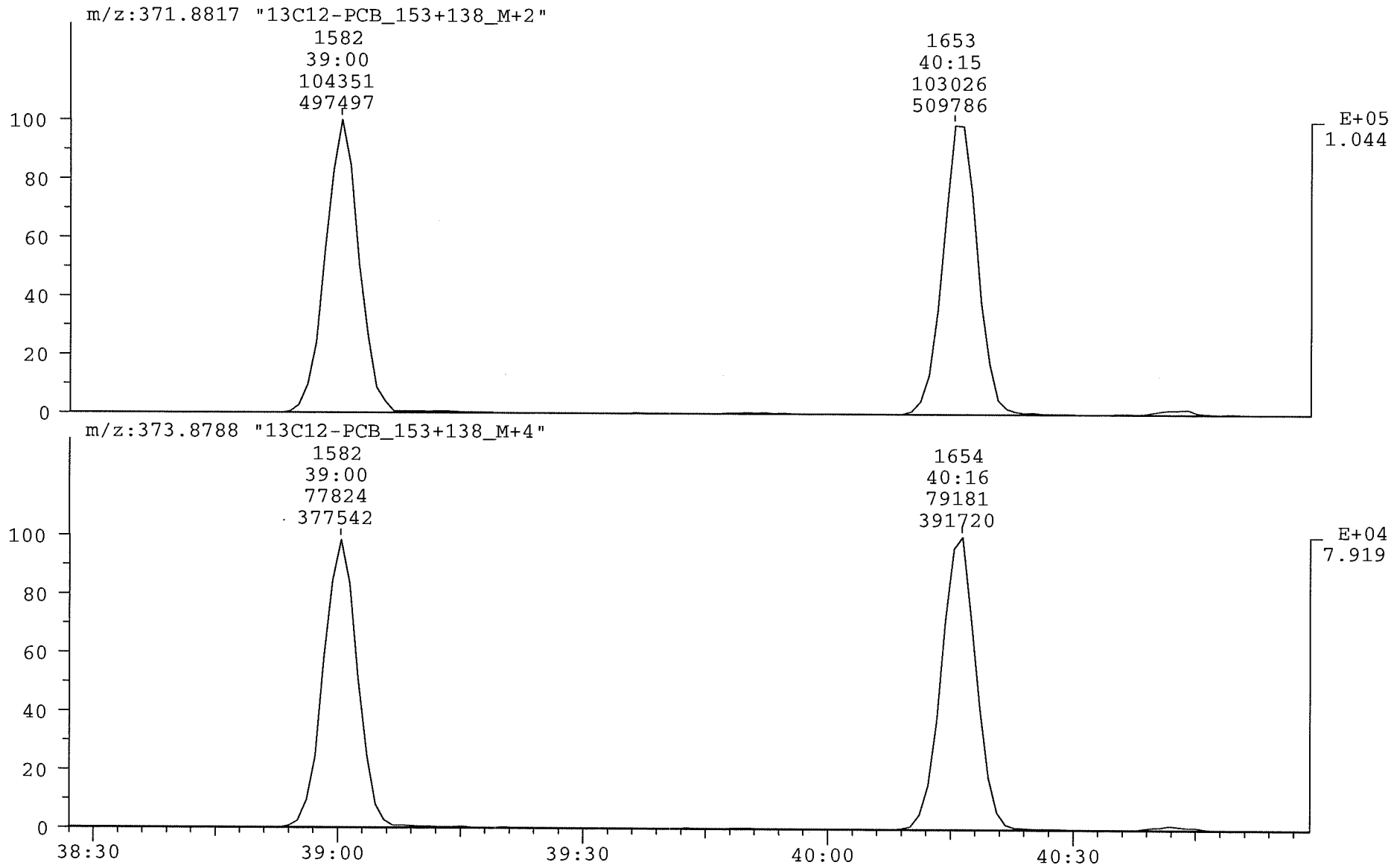
CHRO: a0806m4r3 11-Jun-08 Elapse: 31:56 1185
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1160 > 1210 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2715

2714

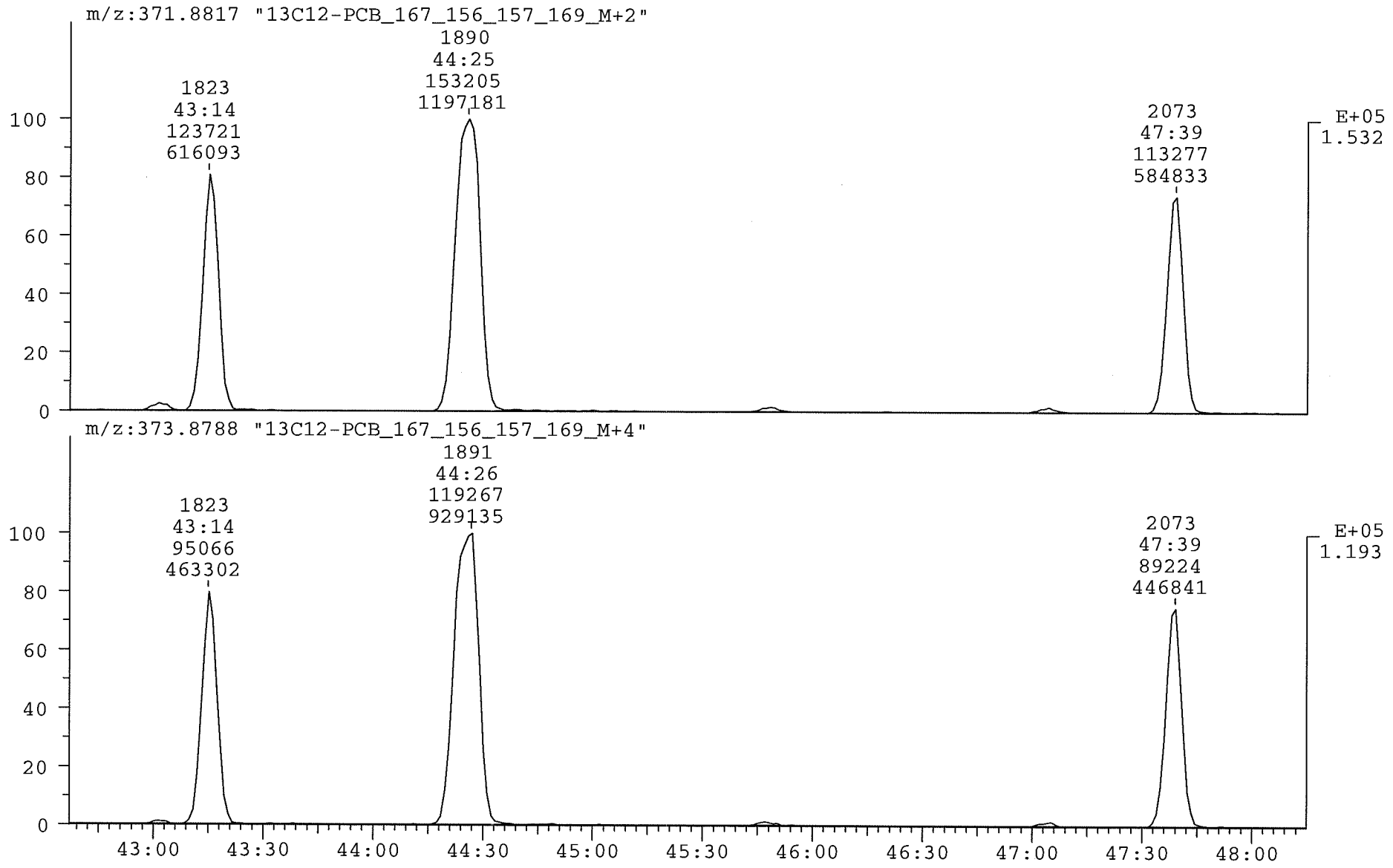
CHRO: a0806m4r3 11-Jun-08 Elapse: 39:42 1622
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1550 > 1694 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2716

2715

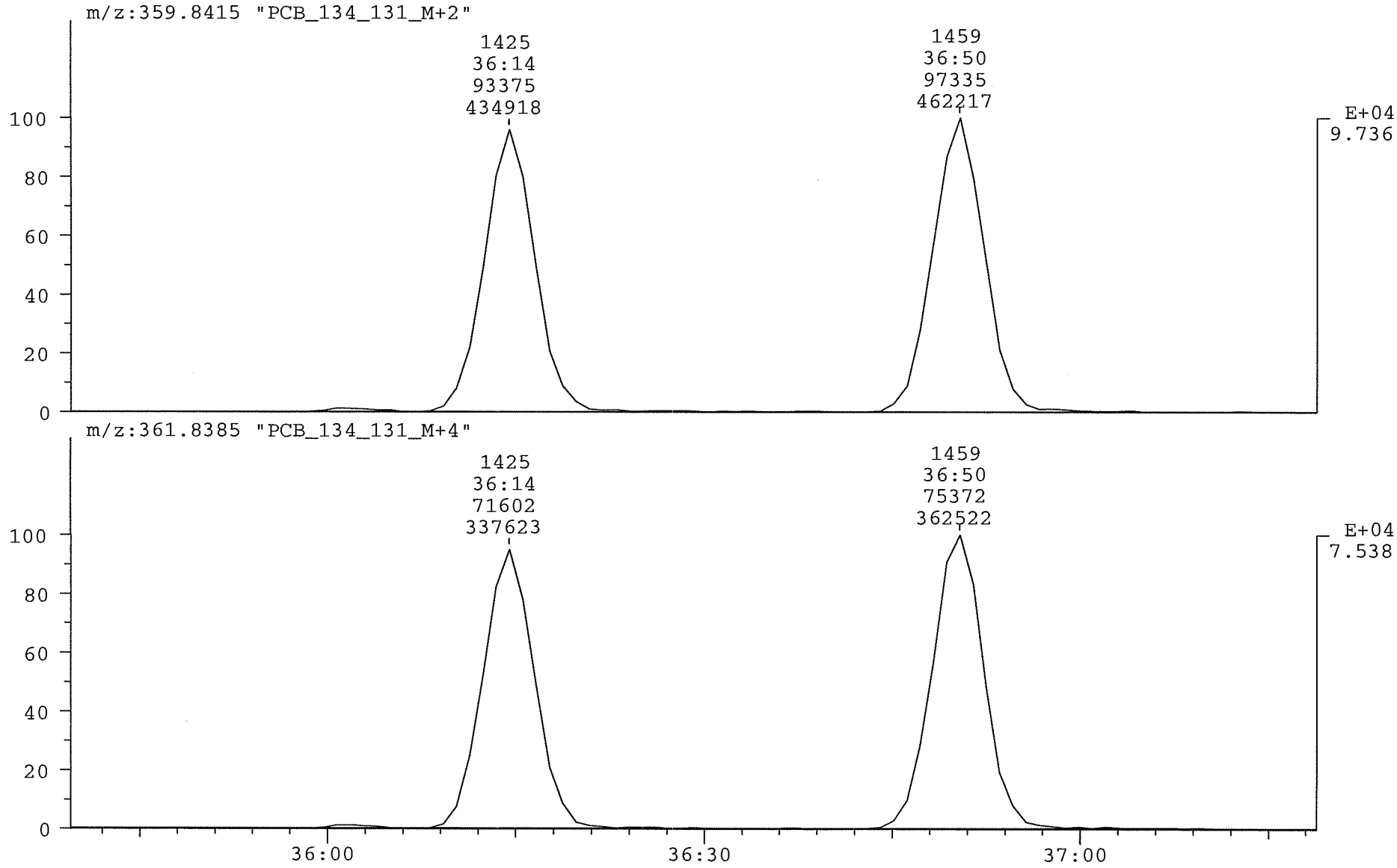
CHRO: a0806m4r3 11-Jun-08 Elapse: 45:31 1952
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1787 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2717

2716

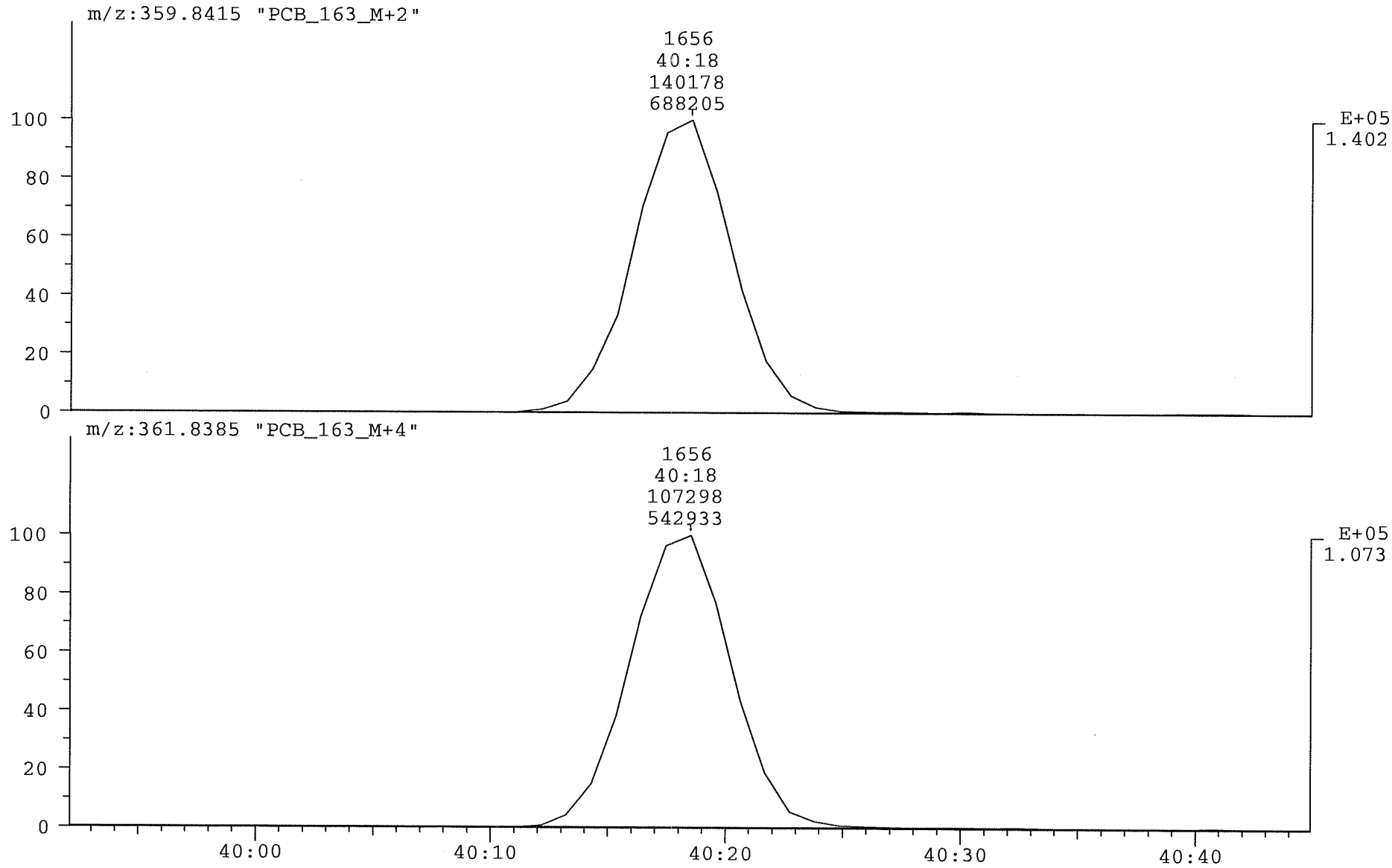
CHRO: a0806m4r3 11-Jun-08 Elapse: 36:52 1461
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1396 > 1486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2718

2717

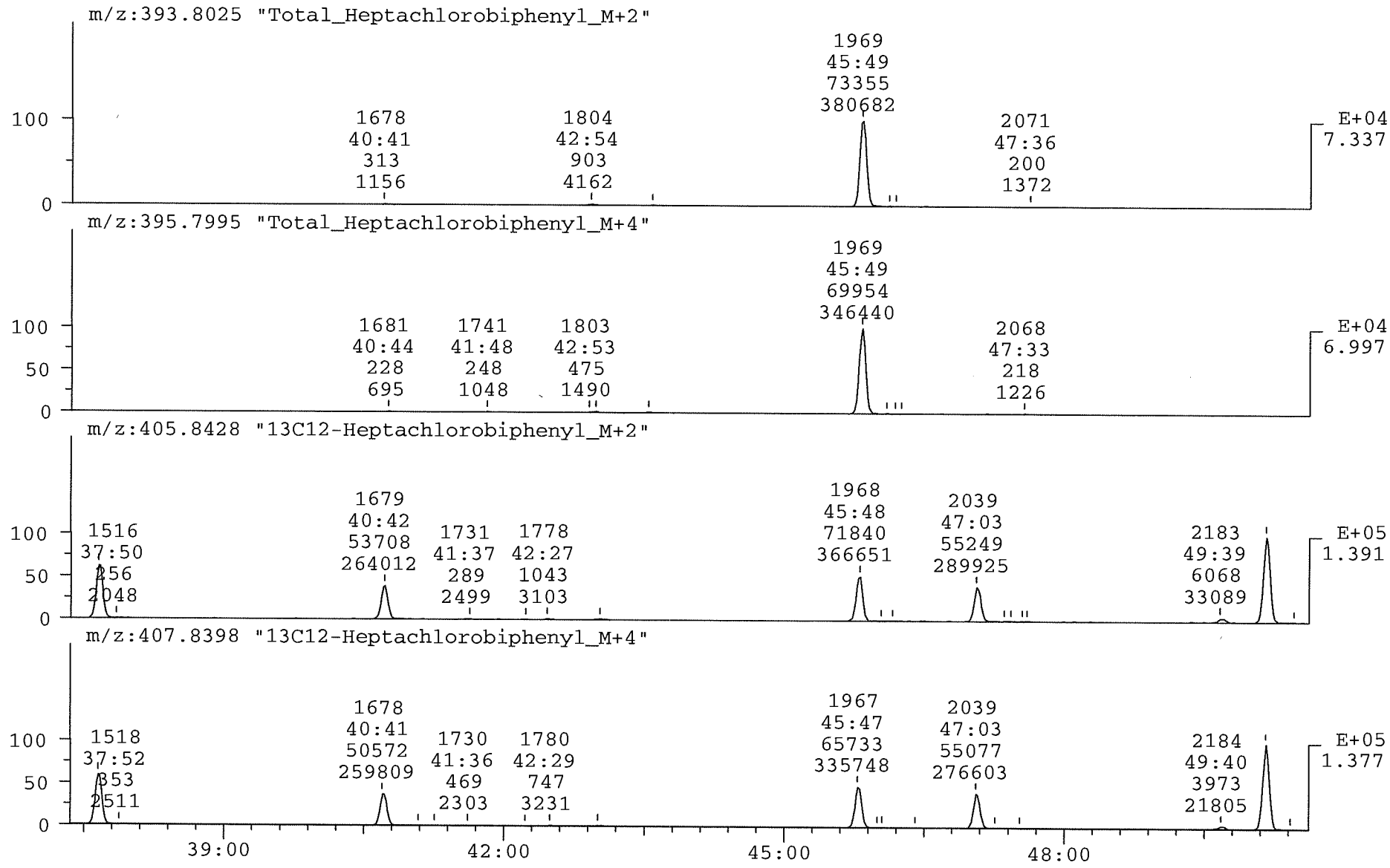
CHRO: a0806m4r3 11-Jun-08 Elapse: 40:18 1656
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1631 > 1681 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2719

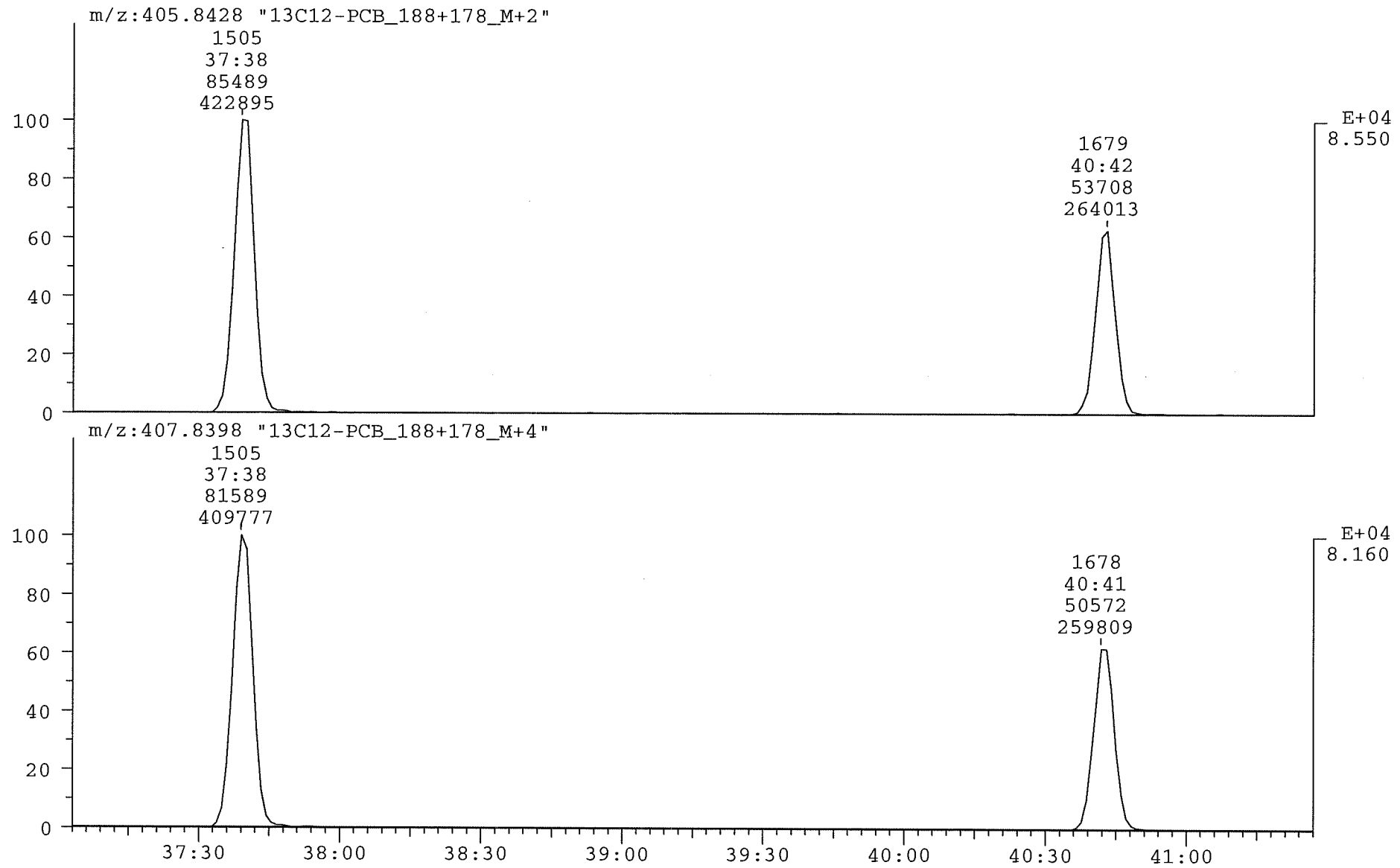
2718

CHRO: a0806m4r3 11-Jun-08 Elapse: 43:59 1865
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1488 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2720

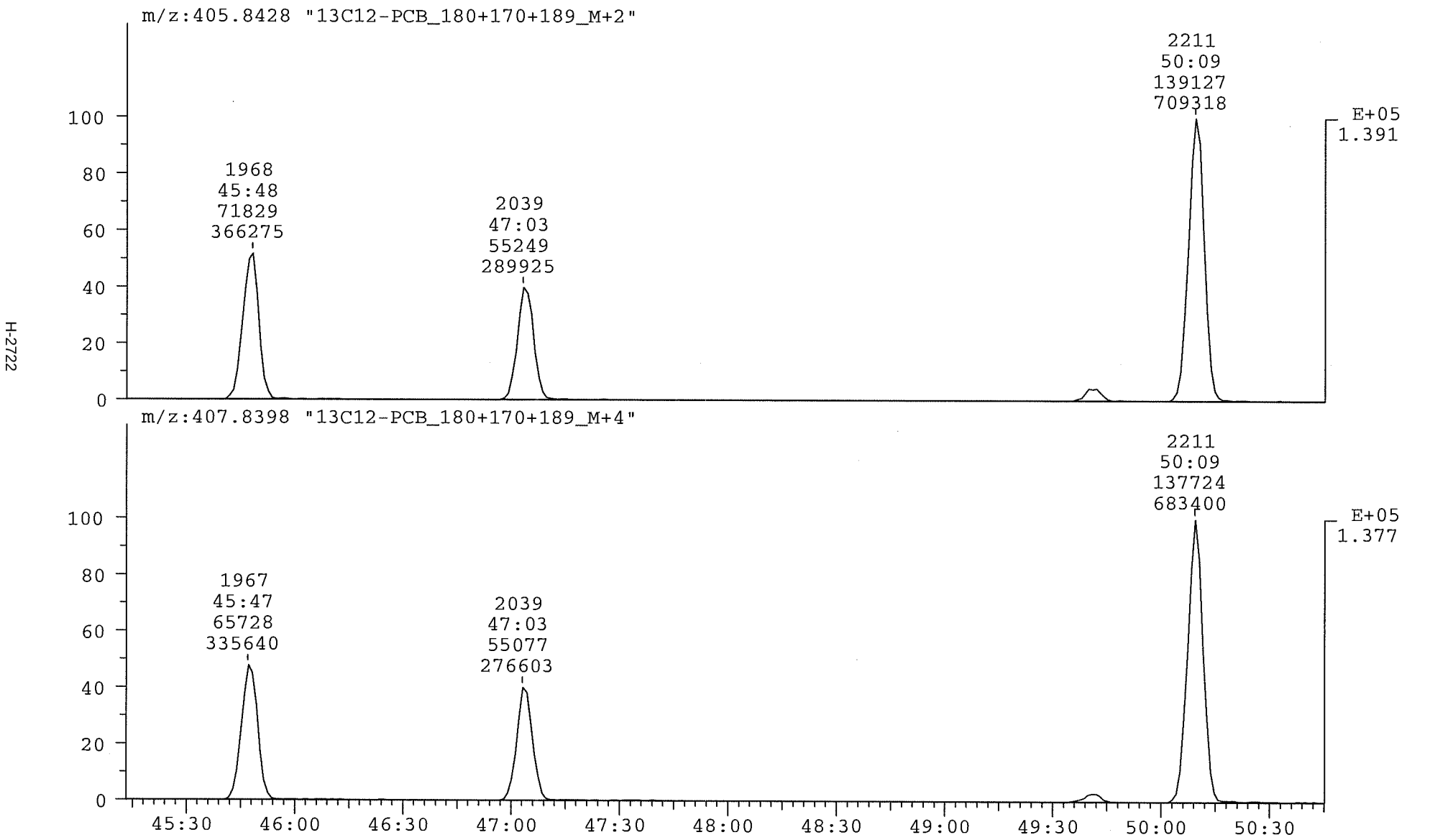
CHRO: a0806m4r3 11-Jun-08 Elapse: 39:15 1596
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1471 > 1721 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2721

2720

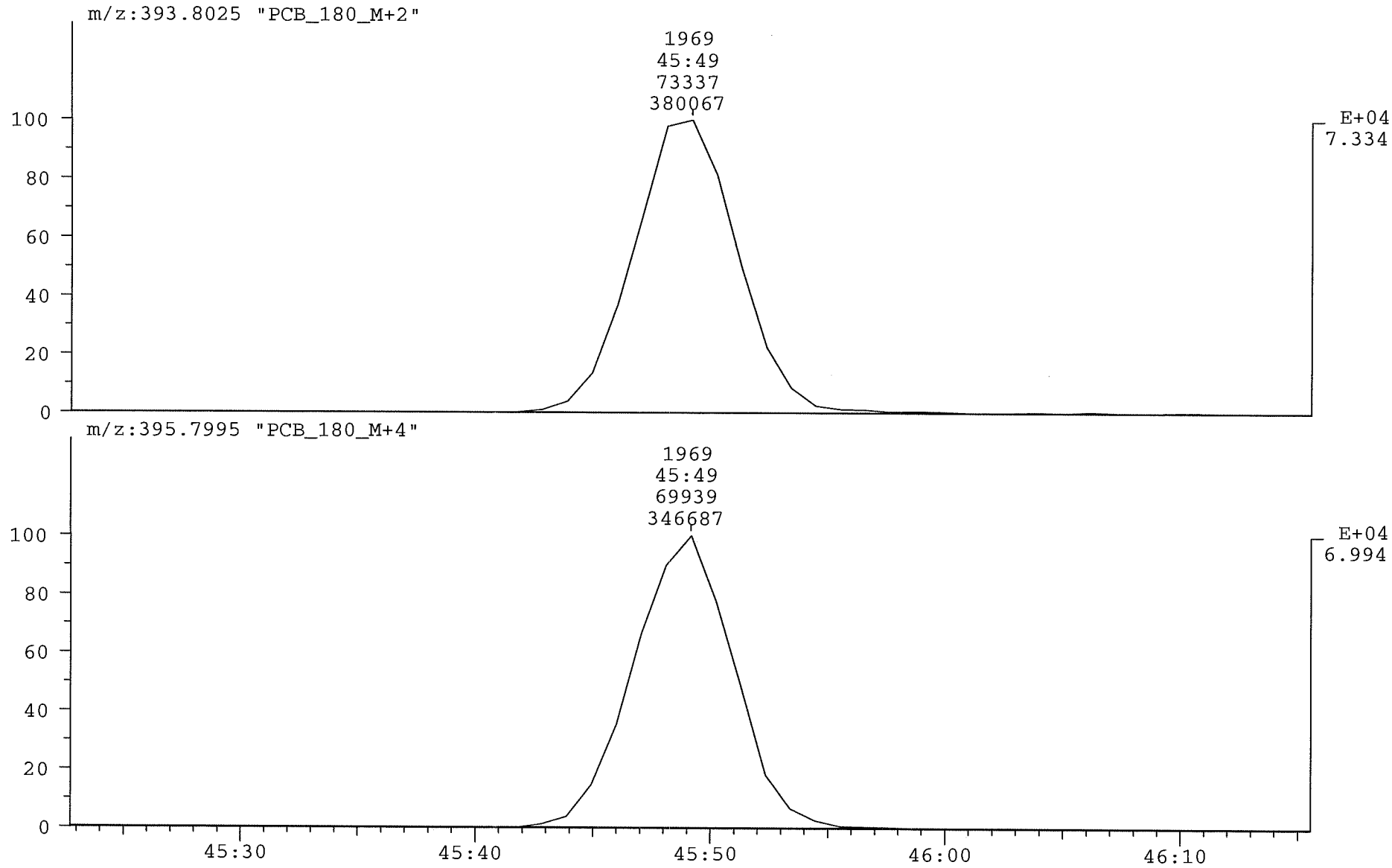
CHRO: a0806m4r3 11-Jun-08 Elapse: 48:02 2095
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1935 > 2245 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2722

2721

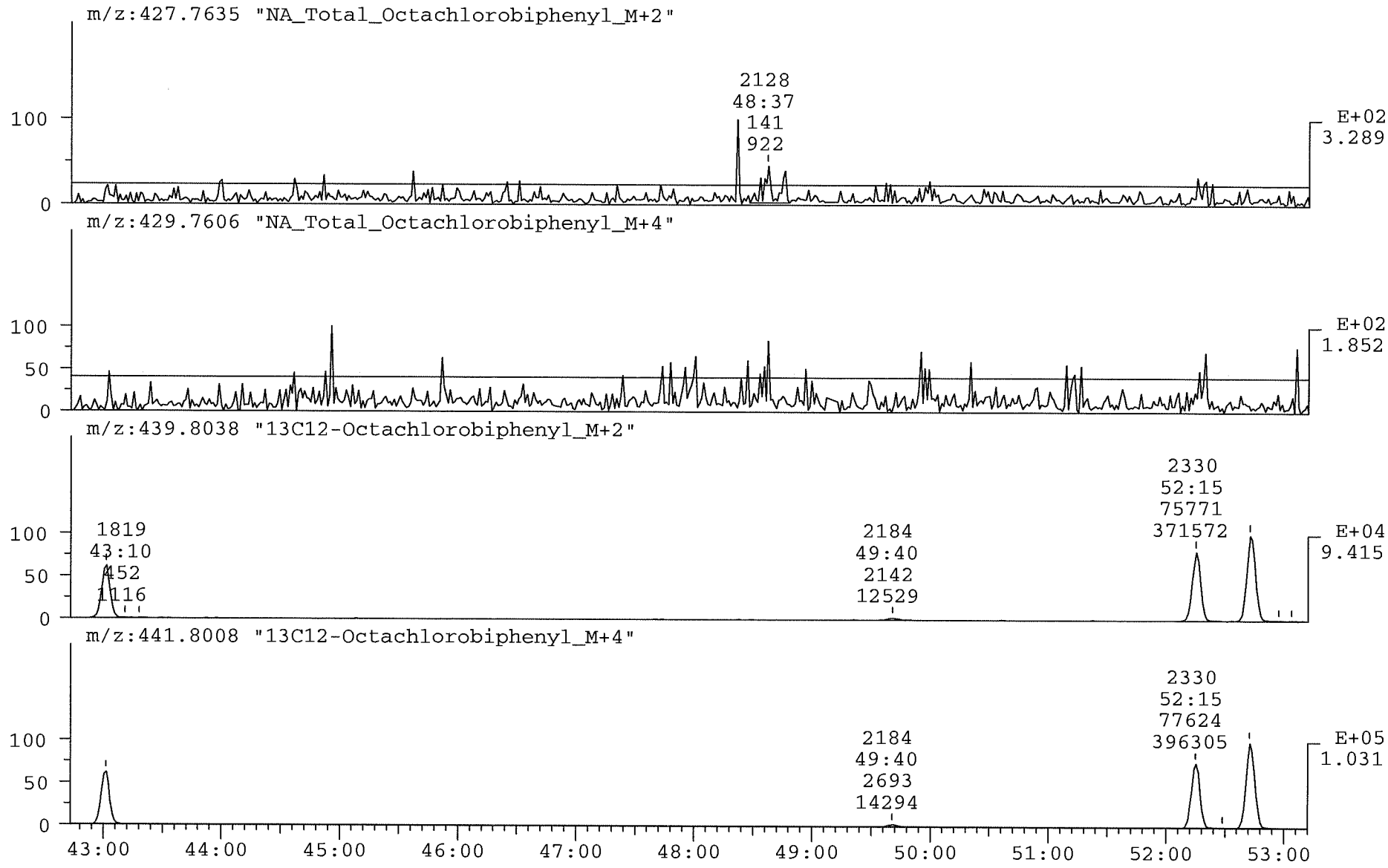
CHRO: a0806m4r3 11-Jun-08 Elapse: 45:49 1969
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1944 > 1994 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



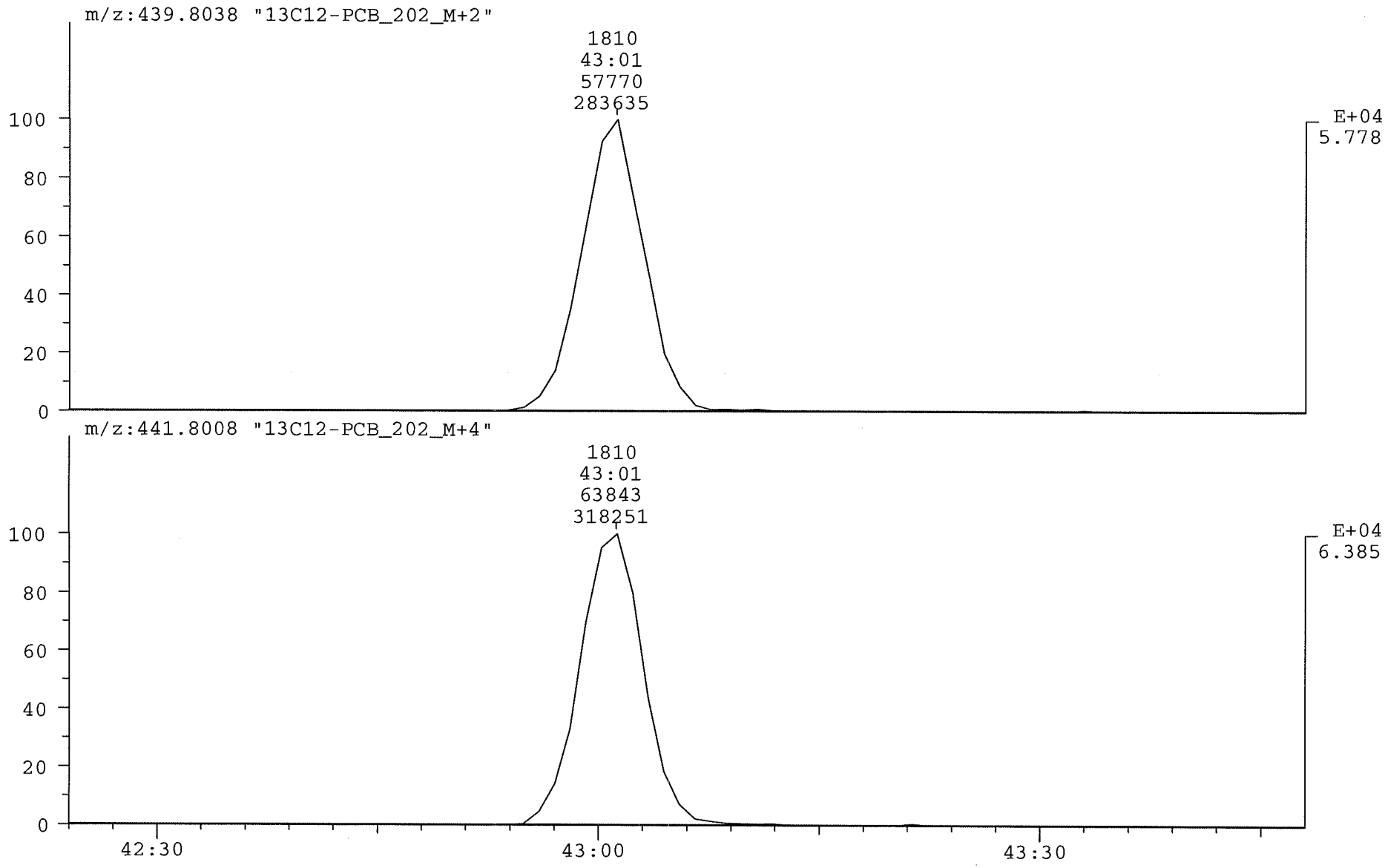
H-2723

2722

CHRO: a0806m4r3 11-Jun-08 Elapse: 47:56 2090
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1793 > 2384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



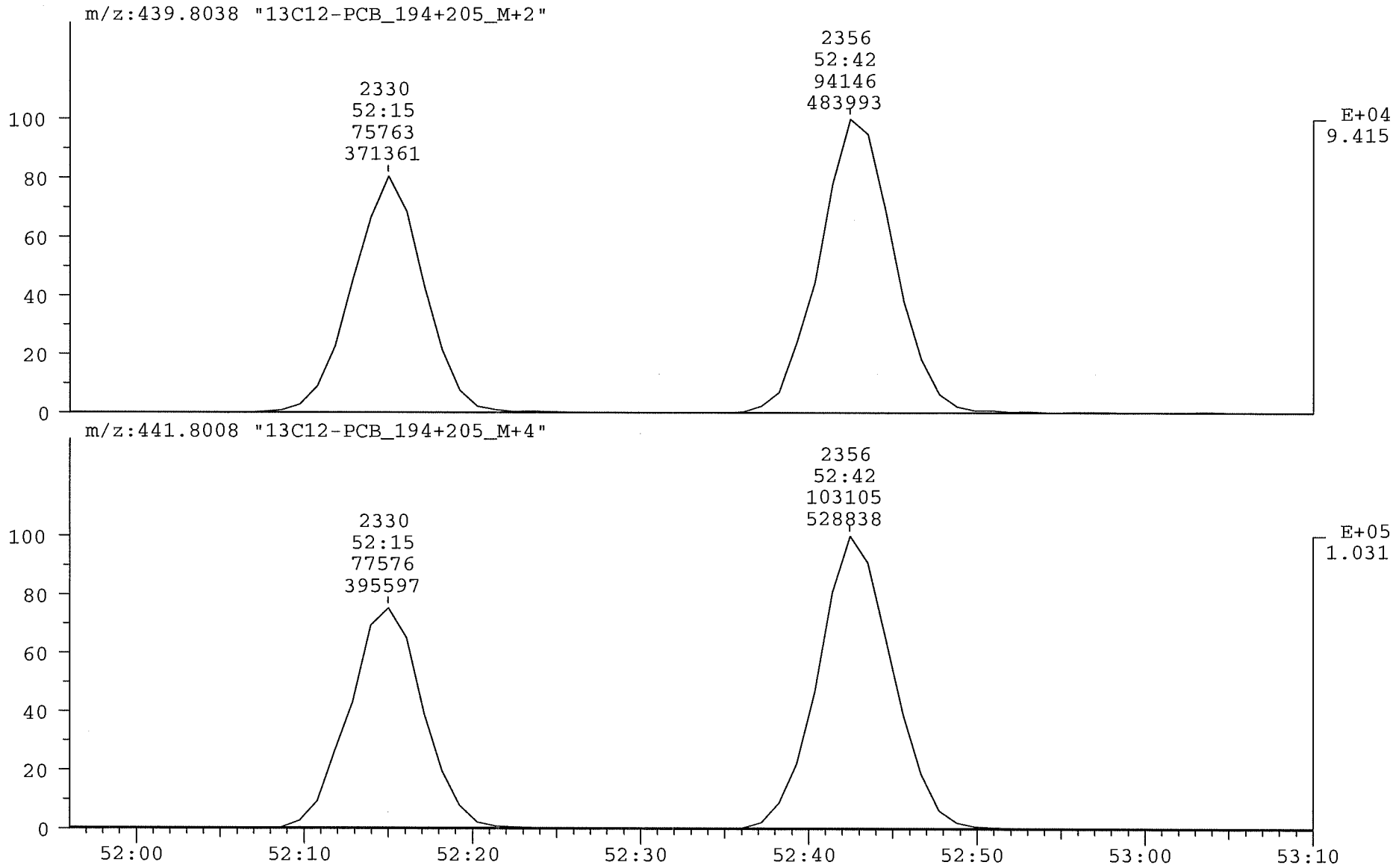
CHRO: a0806m4r3 11-Jun-08 Elapse: 43:03 1812
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 1775 > 1854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2725

2724

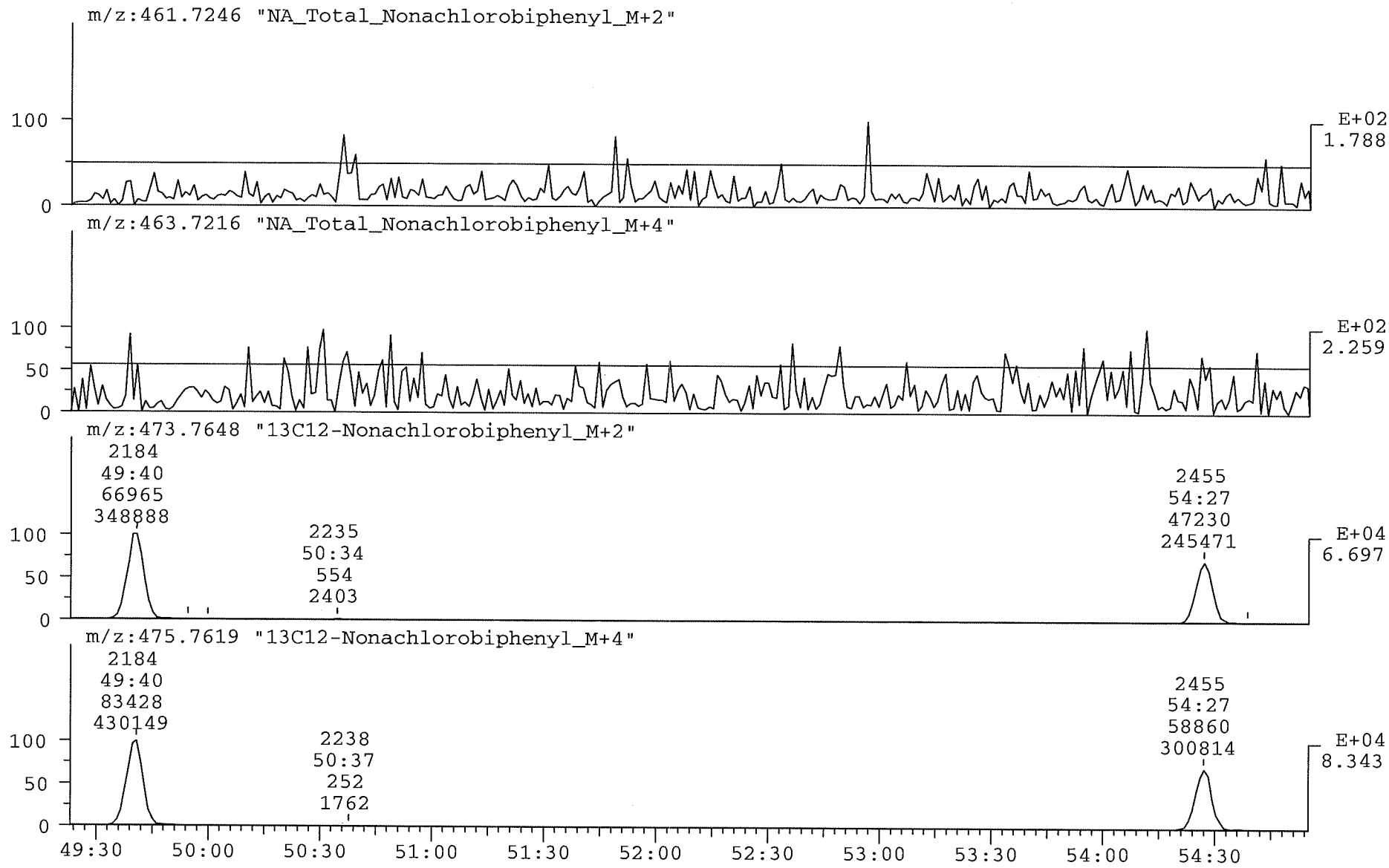
CHRO: a0806m4r3 11-Jun-08 Elapse: 52:32 2347
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2312 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2726

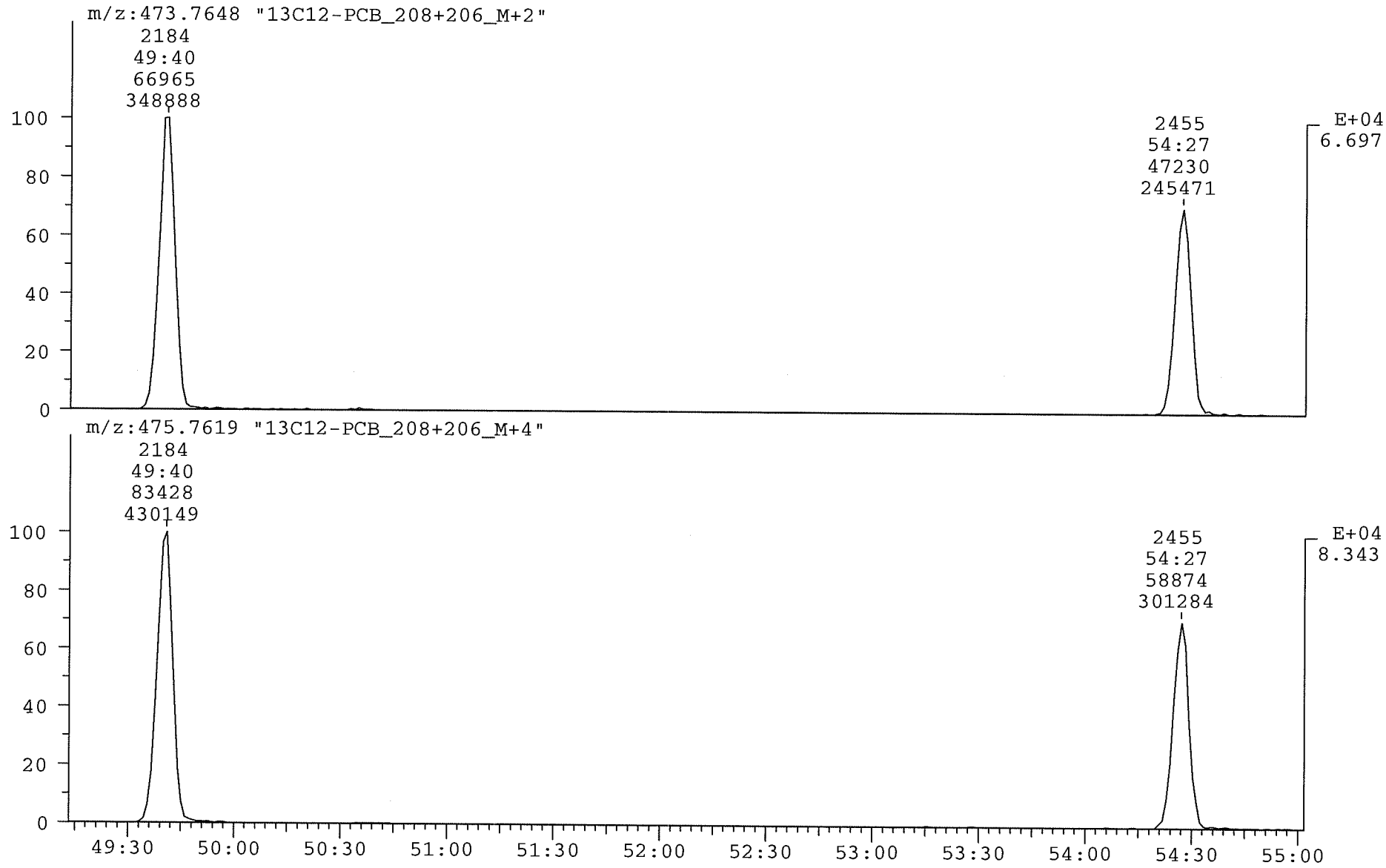
2725

CHRO: a0806m4r3 11-Jun-08 Elapse: 52:08 2324
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2167 > 2482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2727

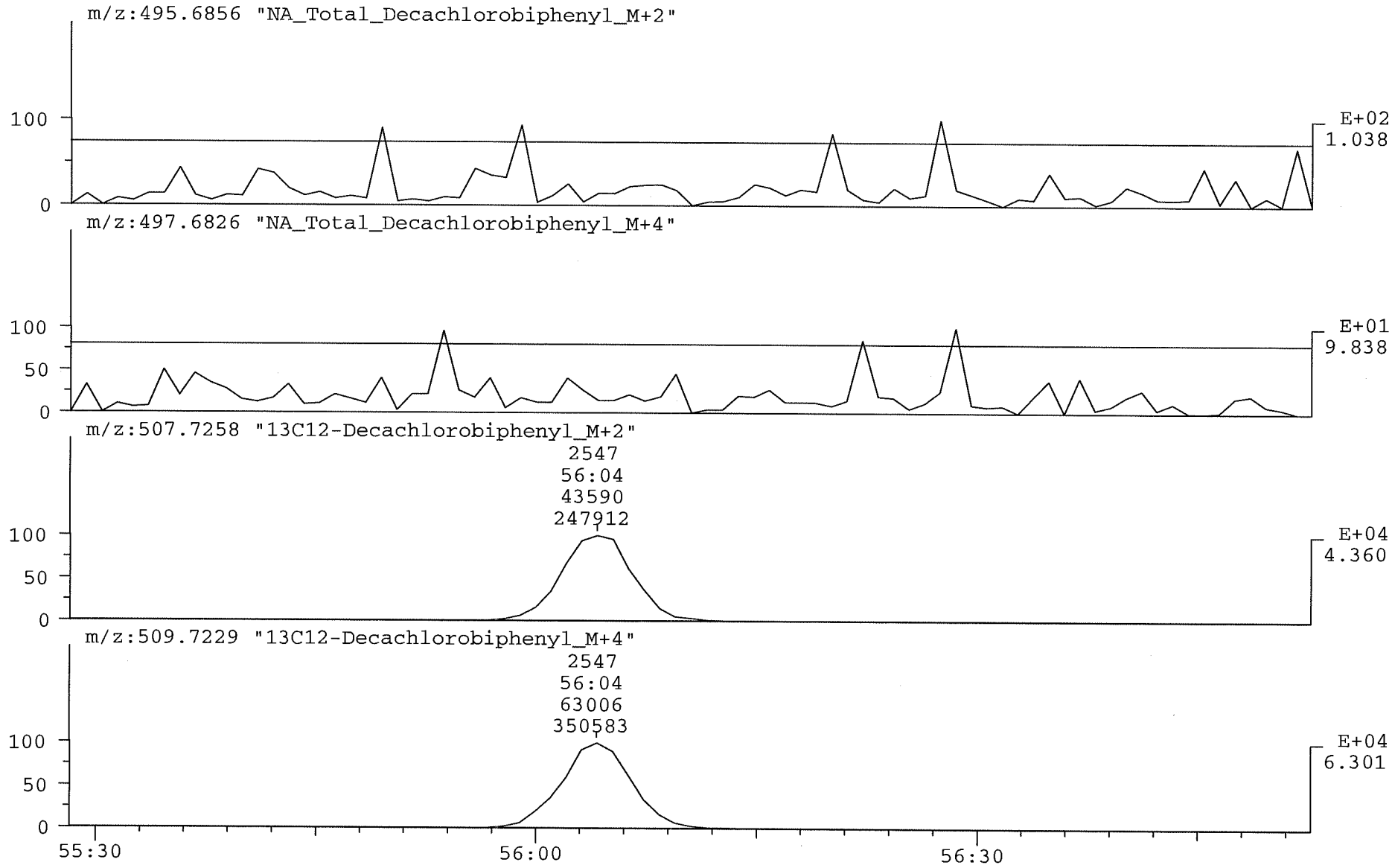
CHRO: a0806m4r3 11-Jun-08 Elapse: 52:07 2323
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2158 > 2488 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2728

2727

CHRO: a0806m4r3 11-Jun-08 Elapse: 56:10 2553
Samp: Vial 14 WO=2990:75Mix4 Meth=IE3 Dil=1 Start : 03:51:58 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 4
Oper: DCG Client: TA Knoxville Inlet : GC Vial 14
Peak: 100.00 ppm Label wndw: 2513 > 2593 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2729

2728

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m4r3
Study: 2990:75 Mix 4
Sample: WO=2990:75Mix4 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume: 2.00
Sample from Vial 14
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 14 of list 080609
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:12 min	35:52 min	1.00 sec
# 3	35:52 min	13:13 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	l	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg at	0.0	minutes	280 deg max
	75 deg at	2.0	minutes	
	150 deg at	7.0	minutes	
	270 deg at	55.0	minutes	
	270 deg at	57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5529
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0010
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	342.0000
FVINLET	275.0000	FVSRC	1003.0000	FWIN	0.7000
GCTC	214.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.3922	HVANAL	1280.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4778.9940	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2607.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.7600	TCURR	0.7813
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 11-Jun-08 03:51:58.7

Autosampler has injected sample from vial 14
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 10345
MID Time Window 3: Resolution is 10085
MID Time Window 4: Resolution is 10124
Analysis stopped at: 11-Jun-08 04:49:02.1 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX5	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m5r1.	**Prep Date**		**SDG No**	
Analysis ID	104466	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 18:42	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	153	118	61	47	1.30 *	/	
	PCB 1 (BZ)	12:03	00:00	0	1011766	311141	444072	138202	3.25	AVV/AVV	M
	PCB 3 (BZ)	14:15	00:00	0	982898	296253	355429	110133	3.32	ABV/ABV	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	165	213	66	85	0.78 *	/	
	13C12-PCB 1	12:02	00:00	0	1501174	453748	595335	178044	3.31	AVV/AVV	
	13C12-PCB 3	14:14	00:00	0	1530241	445433	544071	161738	3.44	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	120	248	48	99	0.48 *	/	
	PCB 4 (BZ)	14:31	00:00	0	252651	162199	86683	56873	1.56	ABV/ABV	
	PCB 15 (BZ)	20:28	00:00	0	432055	280163	108682	70914	1.54	ABV/AVV	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	223	133	89	53	1.68	/	
	13C12-PCB 4	14:30	00:00	0	389809	258880	137921	90941	1.51	ABV/ABV	
	13C12-PCB 9	16:28	00:00	0	643480	408258	192345	123220	1.58	ABV/ABV	
	13C12-PCB 8	17:20	00:00	0	650126	423343	191389	125984	1.54	AVV/AVV	
	13C12-PCB 15	20:27	00:00	0	680172	443402	174621	117784	1.53	AVV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	120	108	48	43	1.12	/	
	PCB 19 (BZ)	17:41	00:00	0	128707	128273	37171	36302	1.00	ABV/ABV	
	PCB 16 (BZ)	20:27	00:00	0	111455	112074	27716	27475	0.99	ABV/ABV	
	PCB 37 (BZ)	27:33	00:00	0	616351	593834	139425	133591	1.04	ABV/ABV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	240	165	96	66	1.45 *	/	
	13C12-PCB 19	17:39	00:00	0	229483	217105	66085	59144	1.06	AVV/ABV	
	13C12-PCB 32	20:55	00:00	0	367458	361606	91433	91560	1.02	AVV/AVV	
	13C12-PCB 31	23:12	00:00	0	1133833	1021454	279489	254749	1.11	ABV/ABV	
	13C12-PCB 28	23:30	00:00	0	1070230	974741	267502	238109	1.10	AVV/AVV	
	13C12-PCB 37	27:32	00:00	0	1037405	921902	235967	208333	1.13	AVV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	110	123	44	49	0.90 *	/	
	PCB 54 (BZ)	20:47	00:00	0	255894	340683	62875	88102	0.75	ABV/ABV	
	PCB 43 (BZ)	25:35	00:00	0	406815	491707	89981	109377	0.83	ABV/ABV	DM
	PCB 44 (BZ)	26:22	00:00	0	412869	523329	92350	116904	0.79	ABV/ABV	
	PCB 74 (BZ)	30:13	00:00	0	657339	811251	142877	178451	0.81	ABV/ABV	M
	PCB 56 (BZ)	31:10	00:00	0	609752	770927	129392	167043	0.79	AVV/AVV	
	PCB 77 (BZ)	34:52	00:00	0	628888	787277	133167	170017	0.80	ABV/ABV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	115	103	46	41	1.12 *	/	
	13C12-PCB 54	20:47	00:00	0	223998	289303	55024	70625	0.77	AVV/AVV	
	13C12-PCB 52	25:21	00:00	0	376858	487883	86224	111218	0.77	ABV/ABV	
	13C12-PCB 79	33:16	00:00	0	521088	665338	108042	142739	0.78	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX5	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m5r1.	**Prep Date**		**SDG No**	
Analysis ID	104466	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 18:42	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
302					**301.9626**	**303.9597**	**301.9626**	**303.9597**	**0.65-0.89**		
	13C12-PCB 81	34:16	00:00	0	495944	611513	100471	130274	0.81	ABV/ABV	
	13C12-PCB 77	34:51	00:00	0	502316	641285	107775	139411	0.78	AVV/AVB	
326					**325.8804**	**327.8775**	**325.8804**	**327.8775**	**1.32-1.78**		
	Noise	00:00	00:00	0	125	113	50	45	1.11 *	/	
	PCB 104 (BZ)	26:19	00:00	0	534246	319856	120820	73735	1.67	ABV/ABV	
	PCB 98 (BZ)	29:43	00:00	0	358613	216048	77492	44336	1.66	ABV/ABV	DM
	PCB 125 (BZ)	33:23	00:00	0	509503	306151	106230	62825	1.66	AVV/AVV	
	PCB 110 (BZ)	34:12	00:00	0	534869	320503	110242	66629	1.67	ABV/ABV	
	PCB 126 (BZ)	41:27	00:00	0	1139909	719254	237913	146966	1.58	ABV/ABV	M
338					**337.9207**	**339.9178**	**337.9207**	**339.9178**	**1.32-1.78**		
	Noise	00:00	00:00	0	135	118	54	47	1.15 *	/	
	13C12-PCB 104	26:17	00:00	0	460893	280422	104578	62788	1.64	ABV/ABV	
	13C12-PCB 95	29:16	00:00	0	348273	212656	80896	47460	1.64	ABV/ABV	
	13C12-PCB 101	32:12	00:00	0	365348	221461	78083	47759	1.65	ABV/AVV	
	13C12-PCB 111	34:52	00:00	0	457490	282026	98435	60472	1.62	ABV/AVV	
	13C12-PCB 123	36:51	00:00	0	998486	618824	209374	130941	1.61	ABV/ABV	
	13C12-PCB 118	37:10	00:00	0	1026259	628563	209050	124896	1.63	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	985085	591688	203734	123068	1.66	AVV/AVV	
	13C12-PCB 105	38:21	00:00	0	982375	602107	201579	124182	1.63	AVV/AVB	
	13C12-PCB 127	39:48	00:00	0	1056779	633208	221327	131610	1.67	ABV/ABV	
	13C12-PCB 126	41:26	00:00	0	1056634	648253	210338	129562	1.63	AVV/AVV	
360					**359.8415**	**361.8385**	**359.8415**	**361.8385**	**1.05-1.43**		
	Noise	00:00	00:00	0	123	105	49	42	1.17	/	
	PCB 155 (BZ)	31:58	00:00	0	390922	293587	84170	59981	1.33	AVV/AVV	
	PCB 138 (BZ)	40:19	00:00	0	570997	444588	117935	92667	1.28	ABV/ABV	DM
	PCB 169 (BZ)	47:41	00:00	0	752861	569609	141938	110384	1.32	AVV/AVV	M
372					**371.8817**	**373.8788**	**371.8817**	**373.8788**	**1.05-1.43**		
	Noise	00:00	00:00	0	148	103	59	41	1.44 *	/	
	13C12-PCB 155	31:57	00:00	0	375661	287450	78320	61900	1.31	ABV/ABV	
	13C12-PCB 153	39:02	00:00	0	536498	418940	107858	86546	1.28	ABV/ABV	
	13C12-PCB 138	40:17	00:00	0	528848	403067	106800	83240	1.31	ABV/ABV	M
	13C12-PCB 167	43:16	00:00	0	664042	509231	135533	104773	1.30	AVV/ABV	
	13C12-PCB 156	44:27	00:00	0	1290073	1002333	166561	133107	1.29	AVV/AVV	M
	13C12-PCB 169	47:39	00:00	0	638686	492485	128622	96848	1.30	ABV/ABV	
394					**393.8025**	**395.7995**	**393.8025**	**395.7995**	**0.89-1.21**		
	Noise	00:00	00:00	0	110	100	44	40	1.10	/	
	PCB 188 (BZ)	37:41	00:00	0	484367	457043	98589	92245	1.06	ABV/ABV	
	PCB 189 (BZ)	50:12	00:00	0	872591	831394	168899	167905	1.05	ABV/ABV	
406					**405.8428**	**407.8398**	**405.8428**	**407.8398**	**0.89-1.21**		
	Noise	00:00	00:00	0	135	118	54	47	1.15	/	
	13C12-PCB 188	37:40	00:00	0	447347	421215	93690	86618	1.06	ABV/ABV	
	13C12-PCB 178	40:43	00:00	0	289727	262626	57856	54802	1.10	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX5	Prep Batch		Lot No	
Data File	/20080610rt/a0806m5r1.	Prep Date		SDG No	
Analysis ID	104466	Prep Exp Date		Date Received	
Analysis Date	06/10/08 18:42	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

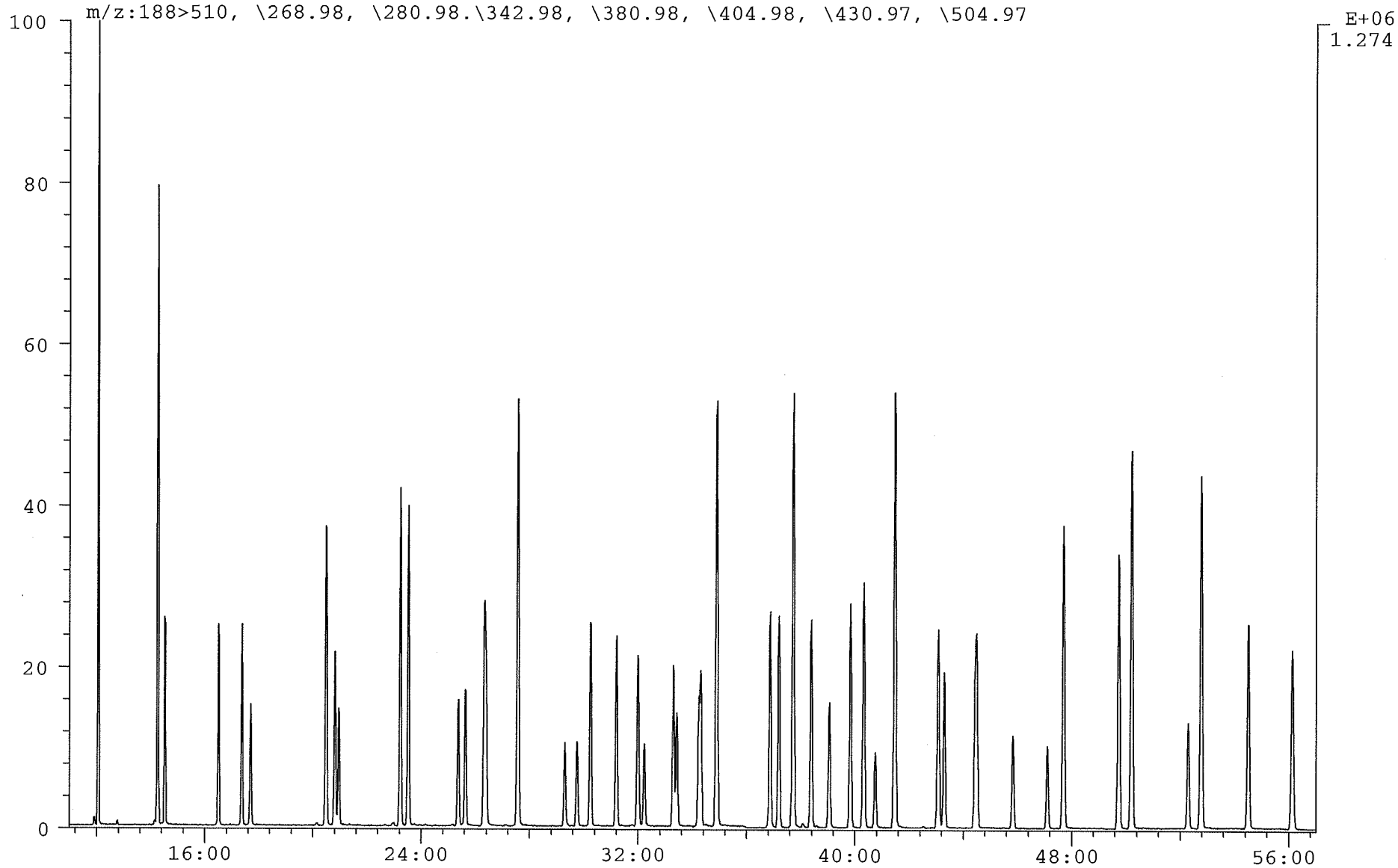
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
406					**405.8428**	**407.8398**	**405.8428**	**407.8398**	**0.89-1.21**		
	13C12-PCB 180	45:48	00:00	0	365082	334498	71102	66247	1.09	ABV/ABV	
	13C12-PCB 170	47:04	00:00	0	313308	293452	63947	58168	1.07	ABV/AVV	
	13C12-PCB 189	50:10	00:00	0	794872	742125	157505	145451	1.07	ABV/ABV	
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**		
	Noise	00:00	00:00	0	105	125	42	50	0.84	/	
	PCB 202 (BZ)	43:04	00:00	0	456642	501066	90577	100514	0.91	ABV/ABV	M
	PCB 205 (BZ)	52:46	00:00	0	835674	922508	157117	174599	0.91	AVV/ABV	
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**		
	Noise	00:00	00:00	0	133	120	53	48	1.10 *	/	
	13C12-PCB 202	43:01	00:00	0	297130	331255	58324	65669	0.90	ABB/ABV	
	13C12-PCB 194	52:16	00:00	0	389082	419021	76059	82071	0.93	AVV/ABV	
	13C12-PCB 205	52:44	00:00	0	543638	595943	104109	115037	0.91	AVV/ABV	
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**		
	Noise	00:00	00:00	0	125	145	50	58	0.86	/	
	PCB 208 (BZ)	49:43	00:00	0	565522	711336	110999	136684	0.80	ABV/ABV	
	PCB 206 (BZ)	54:29	00:00	0	400950	517963	80228	100097	0.77	ABV/AVV	
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**		
	Noise	00:00	00:00	0	133	128	53	51	1.04 *	/	
	13C12-PCB 208	49:41	00:00	0	369897	471232	71895	89644	0.78	ABV/ABV	
	13C12-PCB 206	54:28	00:00	0	251248	324014	49398	62958	0.78	ABV/AVB	
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**		
	Noise	00:00	00:00	0	83	100	33	40	0.83 *	/	
	PCB 209 (BZ)	56:07	00:00	0	364773	489647	65287	86226	0.74	ABV/ABV	
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**		
	Noise	00:00	00:00	0	95	80	38	32	1.19 *	/	
	13C12-PCB 209	56:05	00:00	0	241980	351353	44224	60309	0.69	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

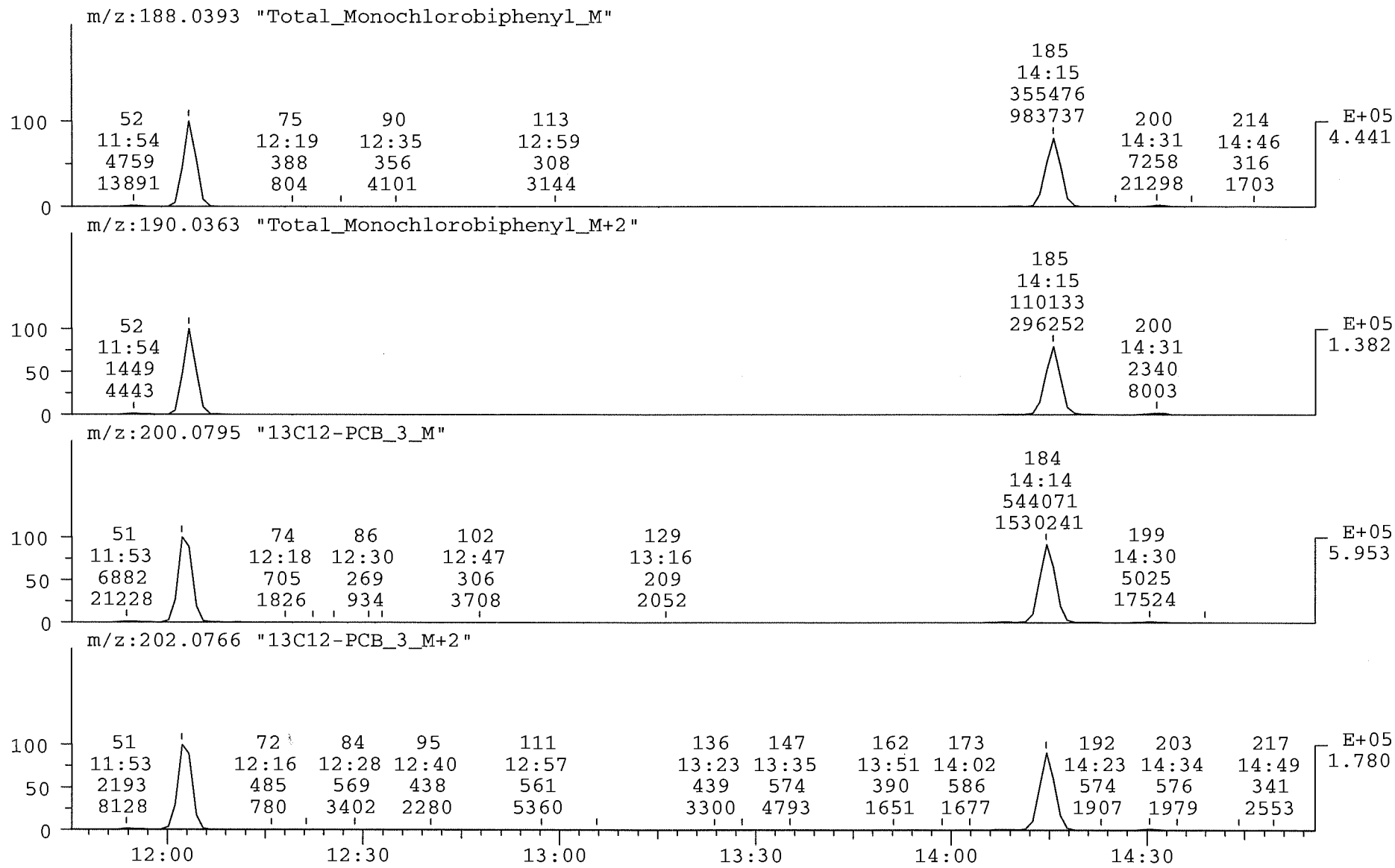
CHRO: a0806m5r1 10-Jun-08 Elapse: 56:11 2554
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2 > 2600 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

IntDCG 6-11-08
Ccal DCG 2-08



H-2737

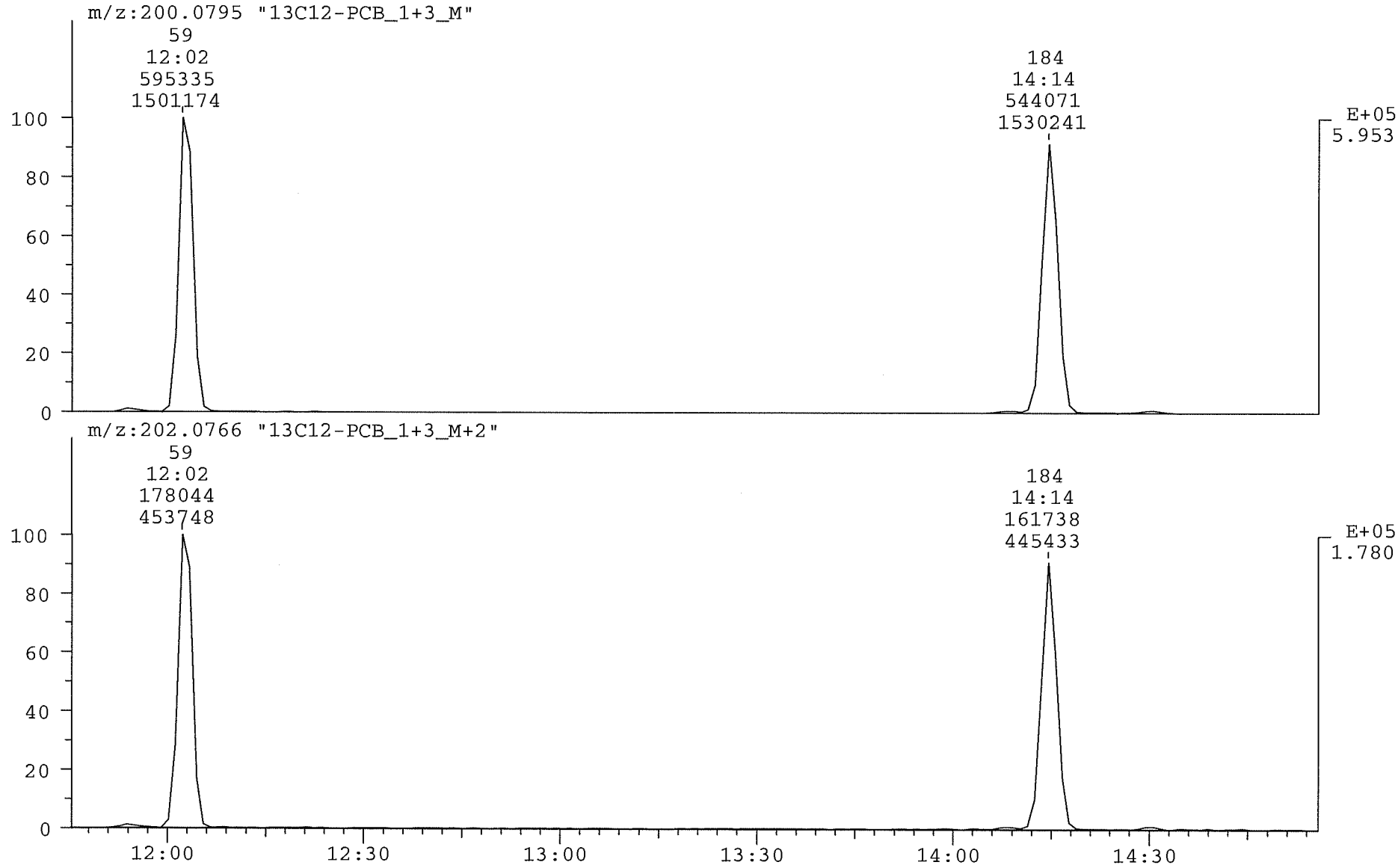
CHRO: a0806m5r1 10-Jun-08 Elapse: 13:20.5 133
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 43 > 223 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2738

2737

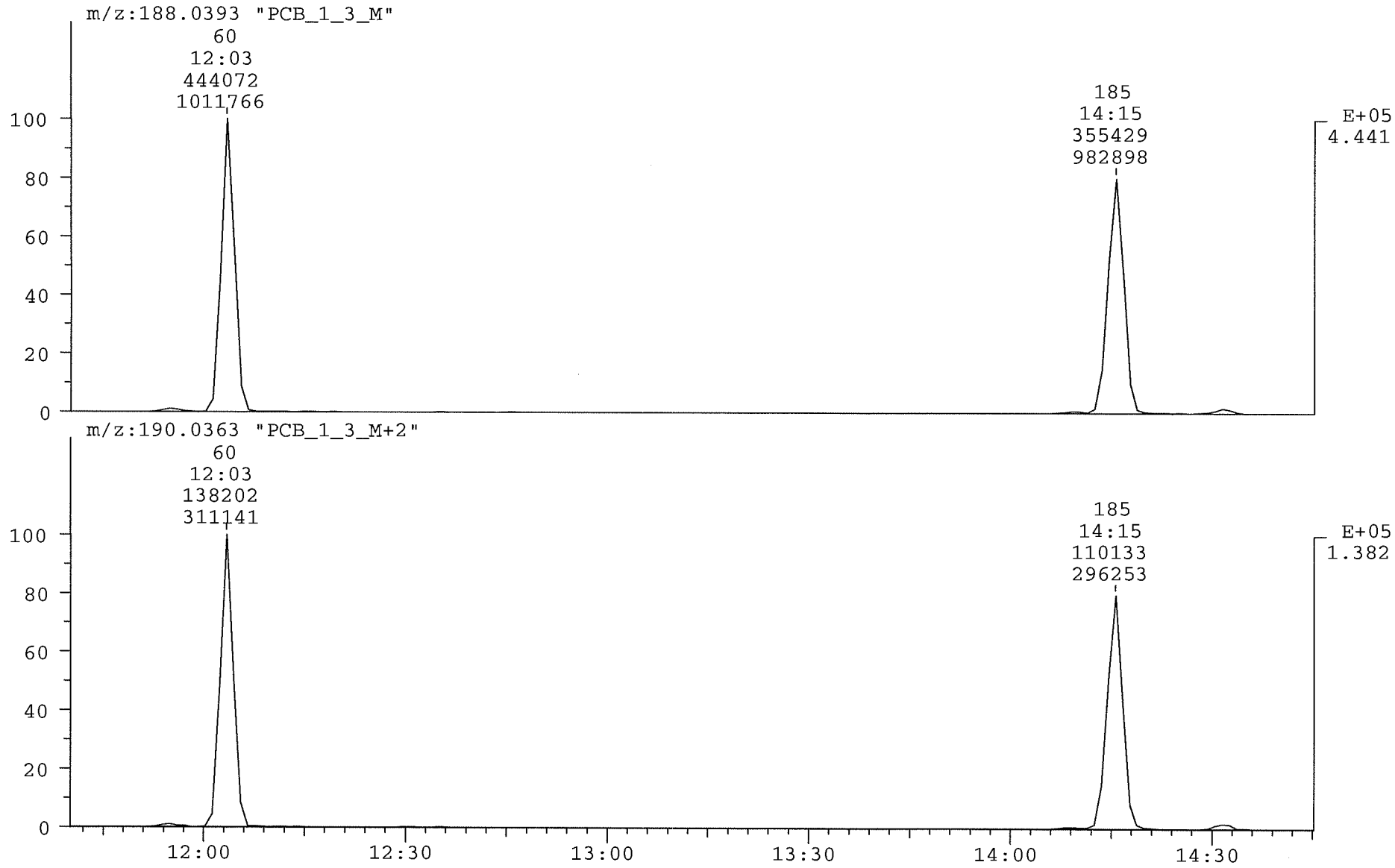
CHRO: a0806m5r1 10-Jun-08 Elapse: 13:20.5 133
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 43 > 223 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2739

2738

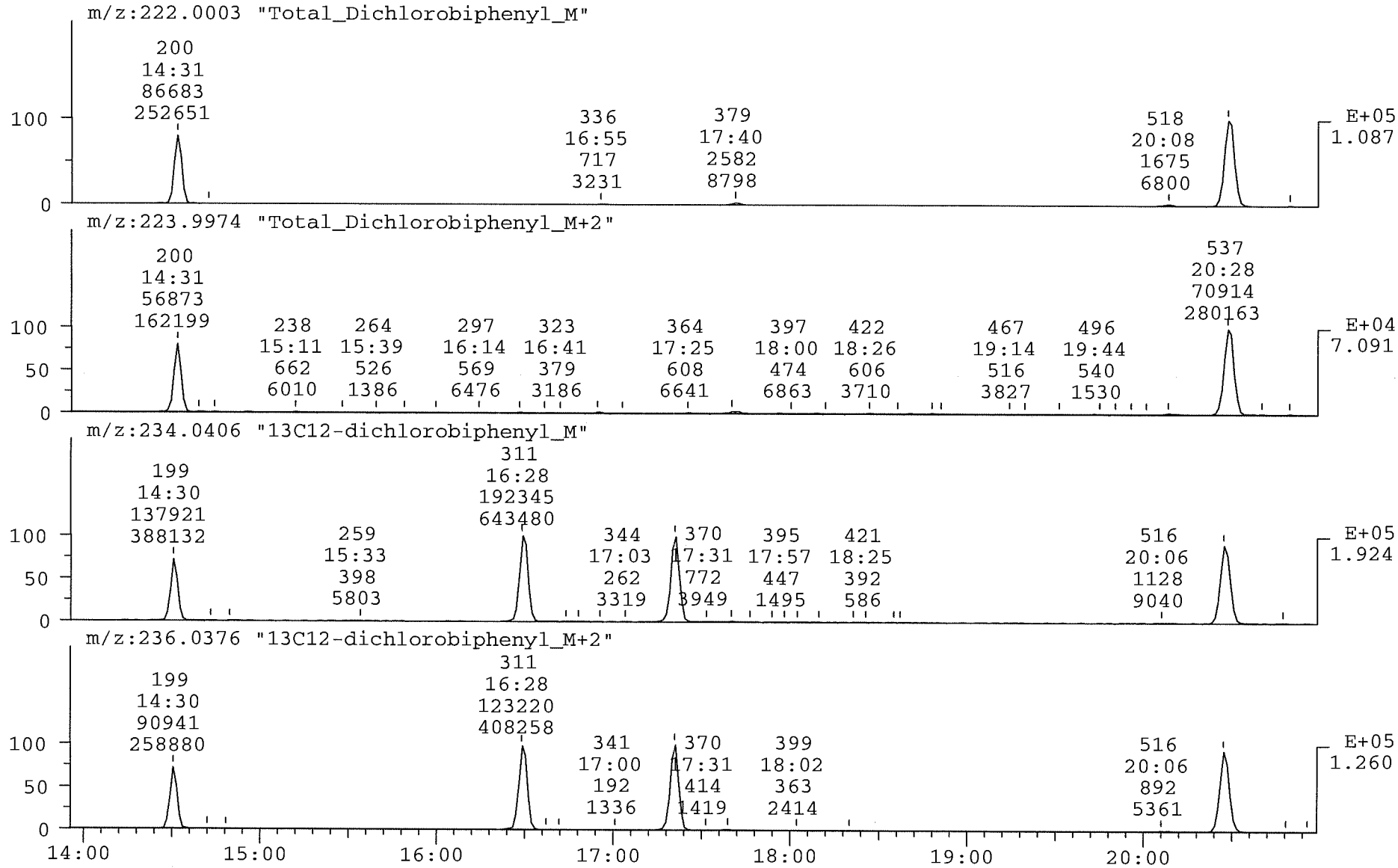
CHRO: a0806m5r1 10-Jun-08 Elapse: 13:20.5 133
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 38 > 213 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2740

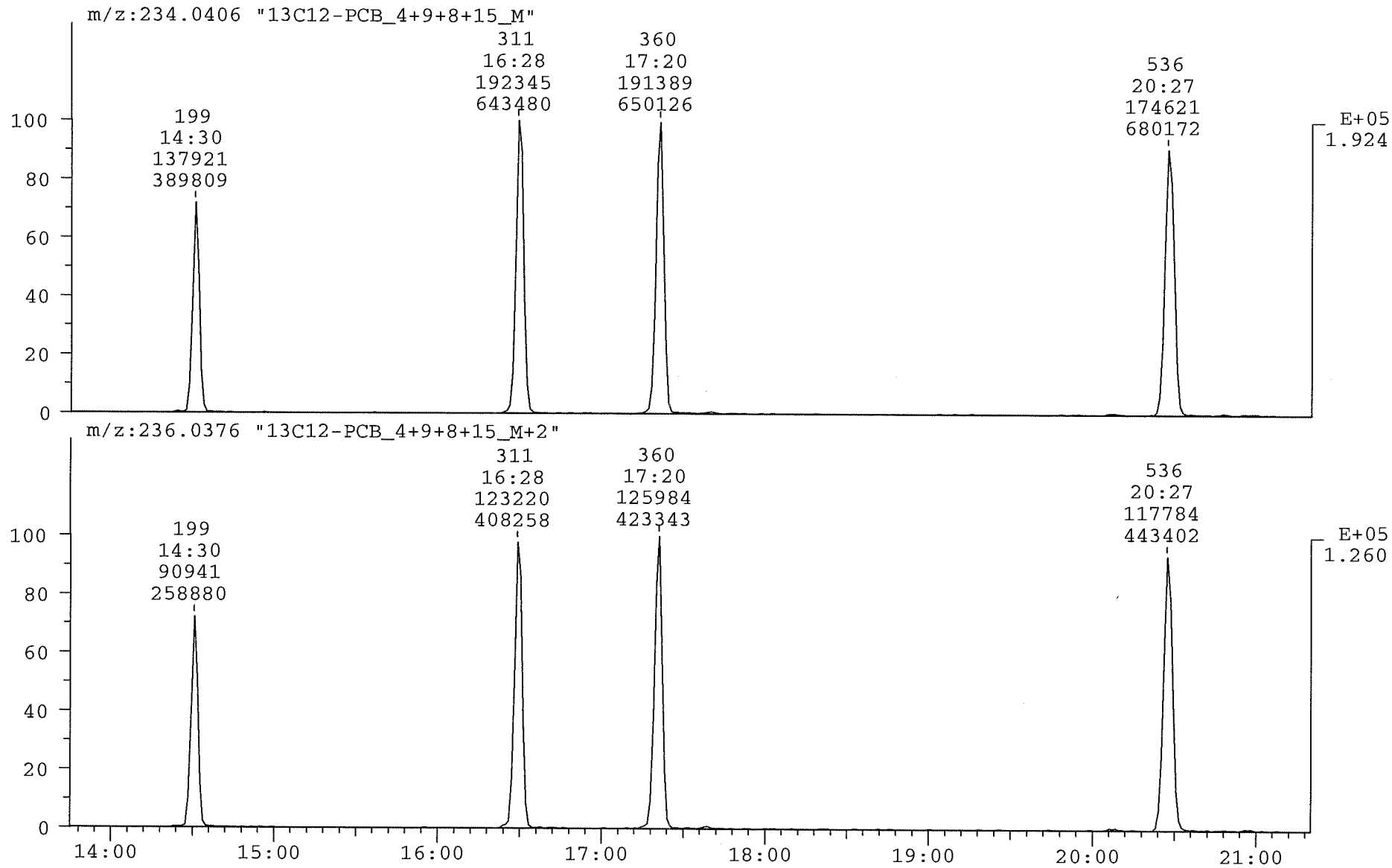
2739

CHRO: a0806m5r1 10-Jun-08 Elapse: 17:27.1 366
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2741

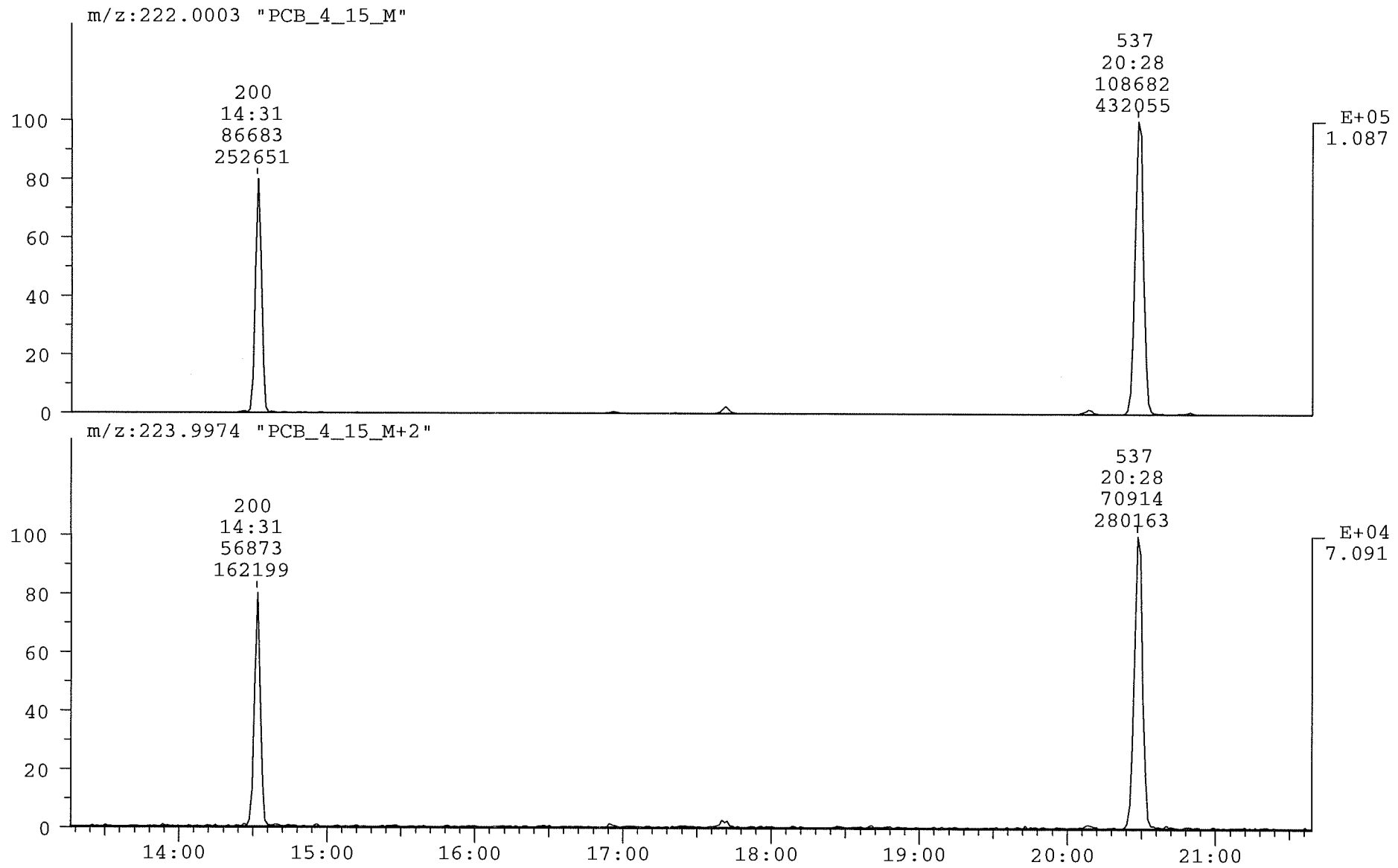
CHRO: a0806m5r1 10-Jun-08 Elapse: 17:27.1 366
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2742

2741

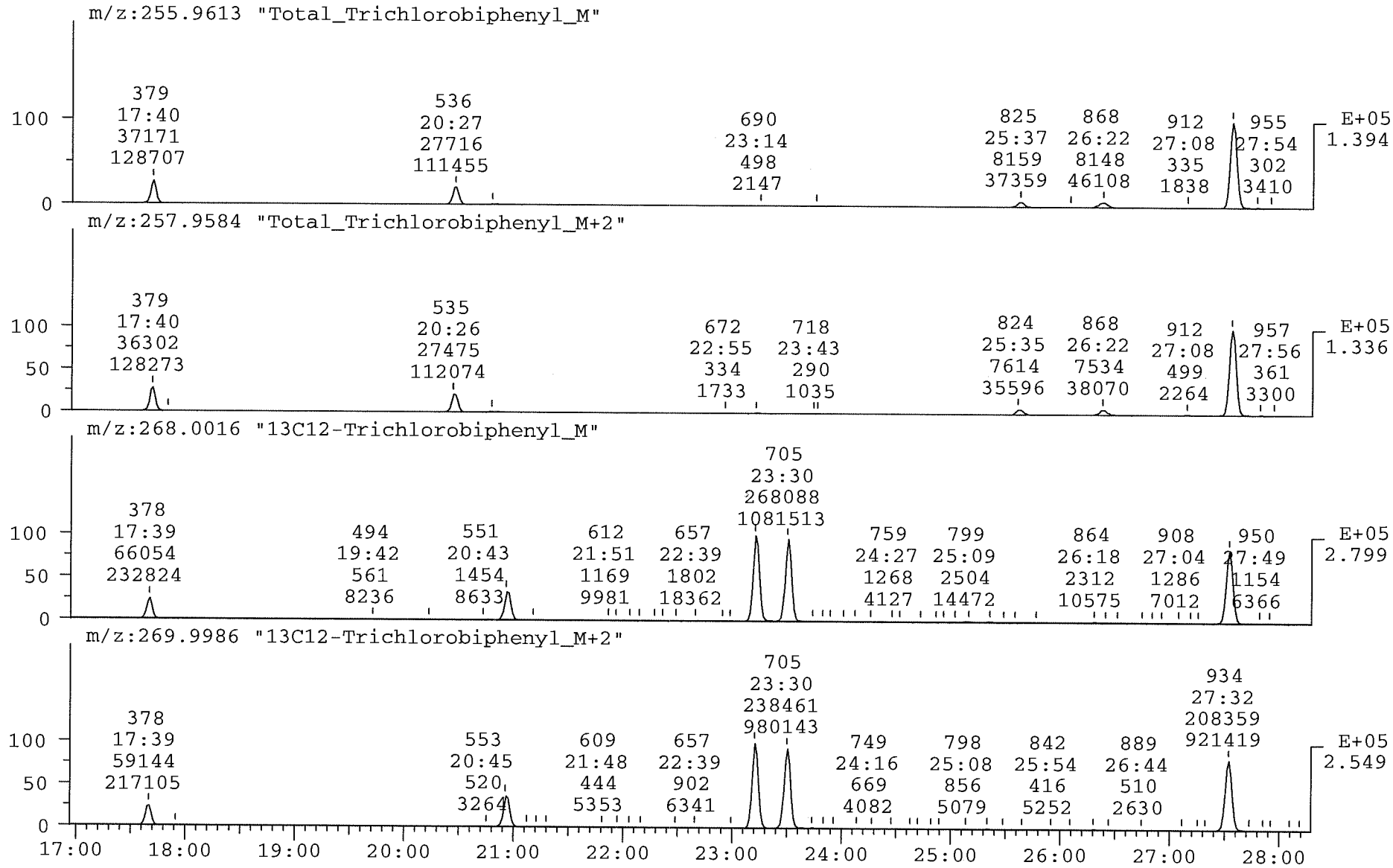
CHRO: a0806m5r1 10-Jun-08 Elapse: 17:27.1 366
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 129 > 604 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2743

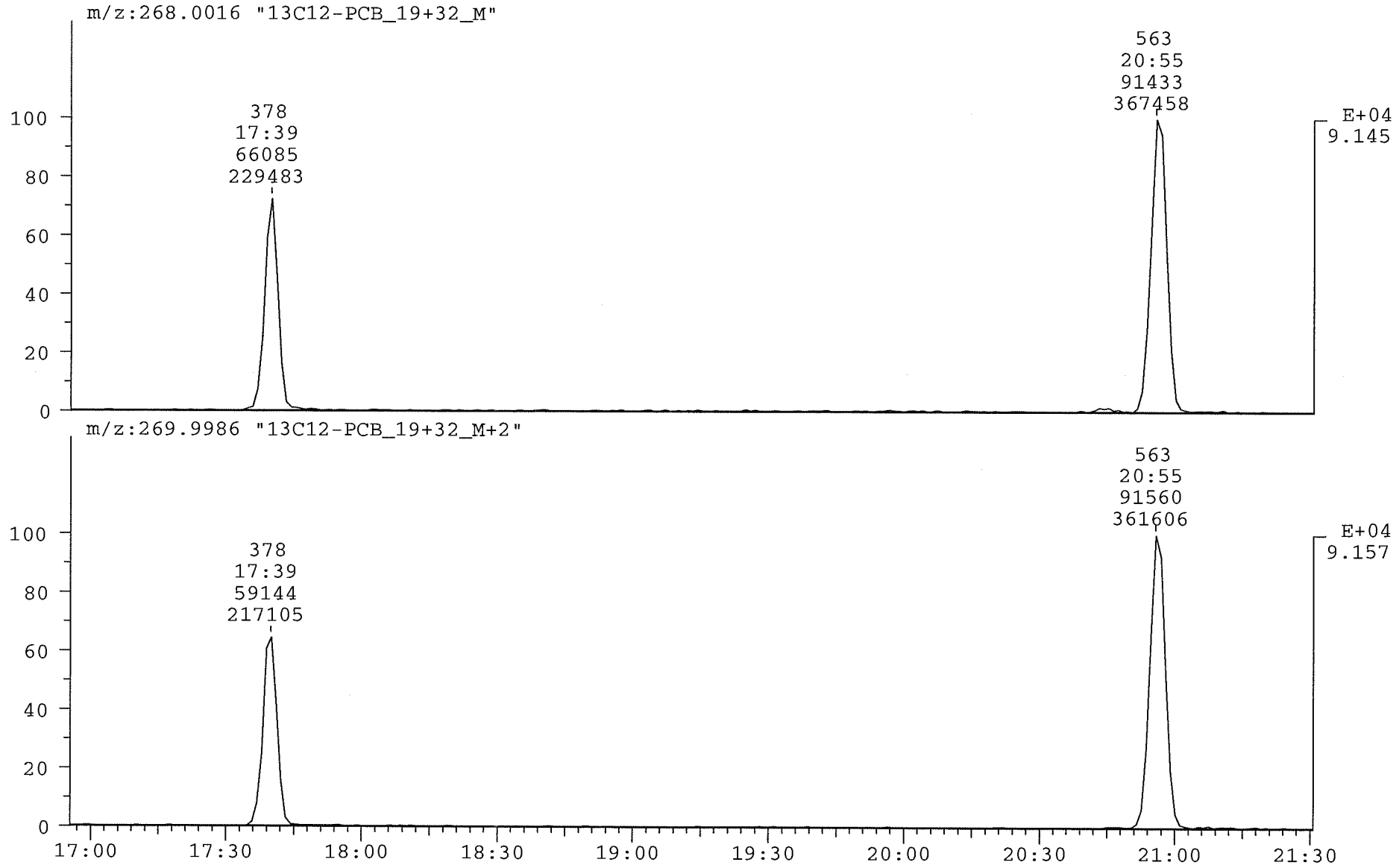
2742

CHRO: a0806m5r1 10-Jun-08 Elapse: 22:39.4 657
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 337 > 977 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2744

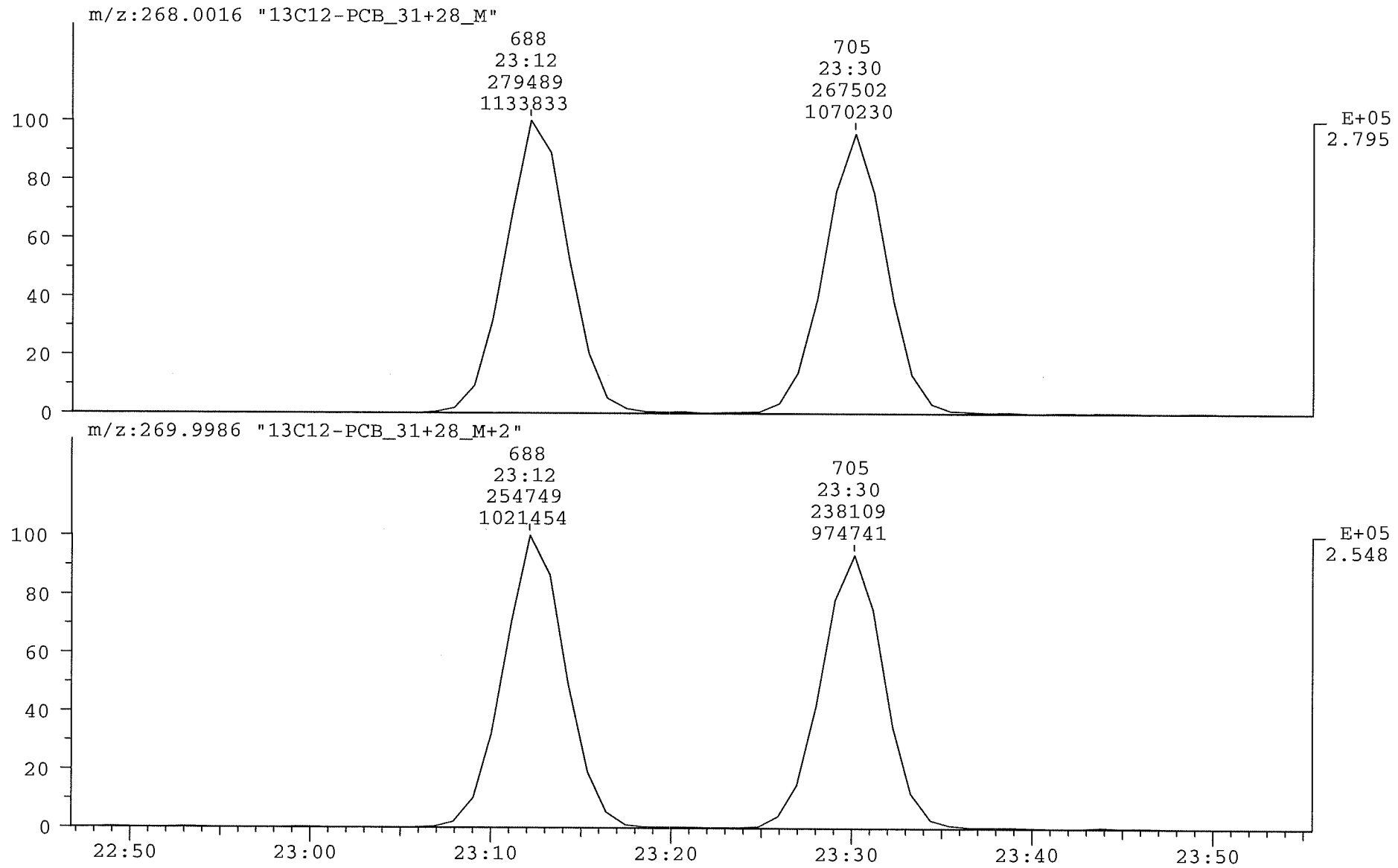
CHRO: a0806m5r1 10-Jun-08 Elapse: 19:02.5 456
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 336 > 596 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2745

2744

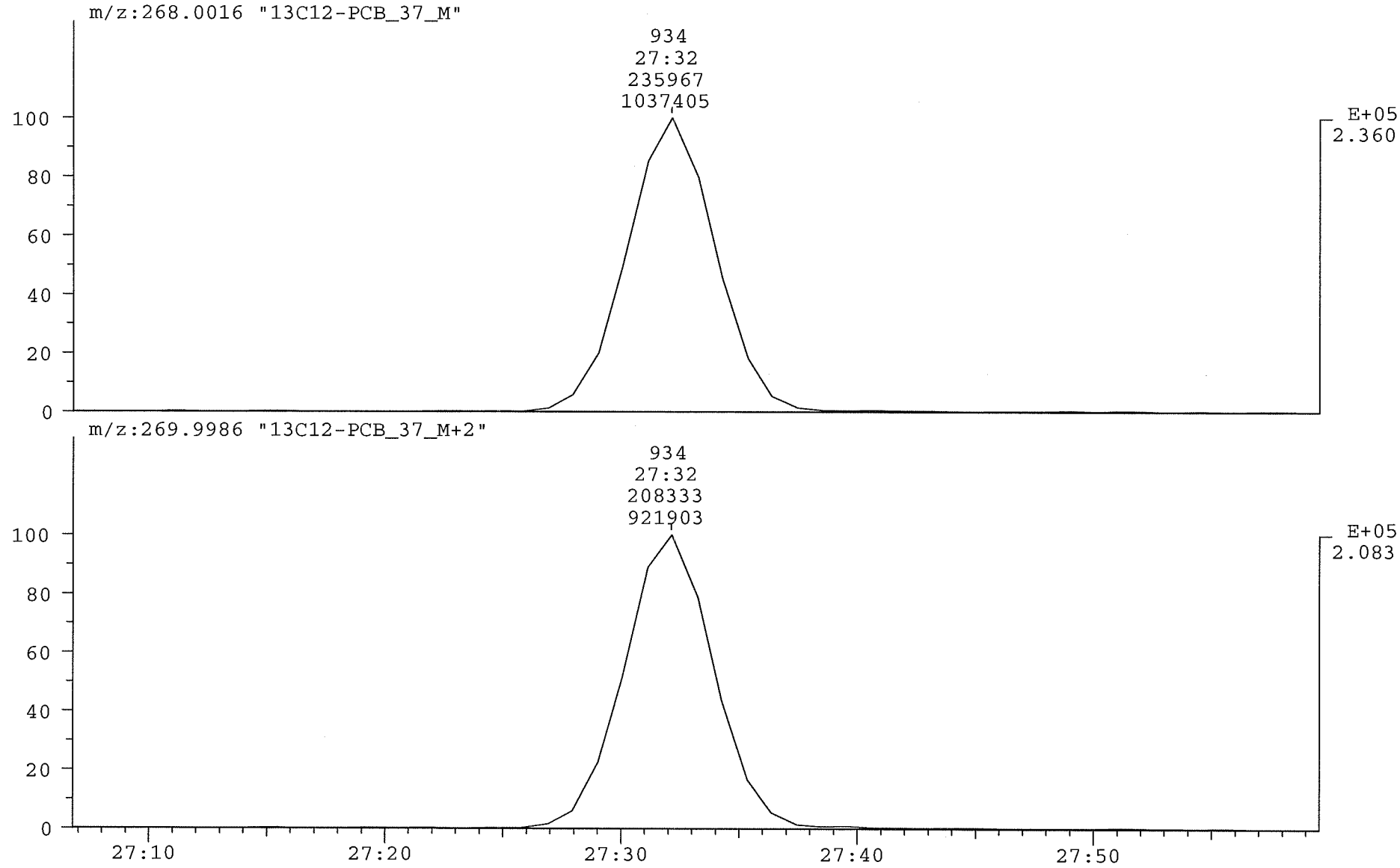
CHRO: a0806m5r1 10-Jun-08 Elapse: 23:13.2 689
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 664 > 729 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2746

2745

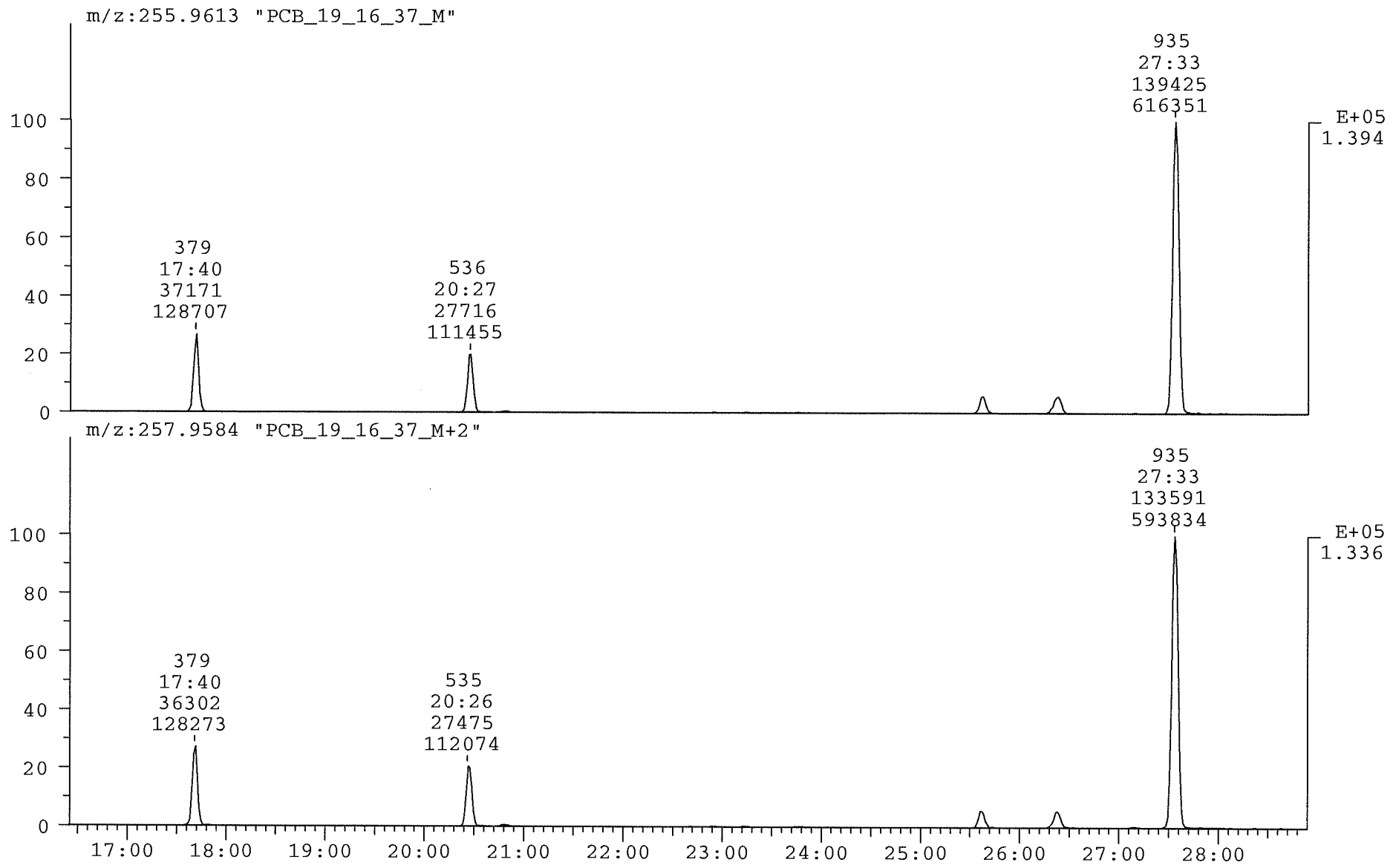
CHRO: a0806m5r1 10-Jun-08 Elapse: 27:33.2 935
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 910 > 960 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2747

2746

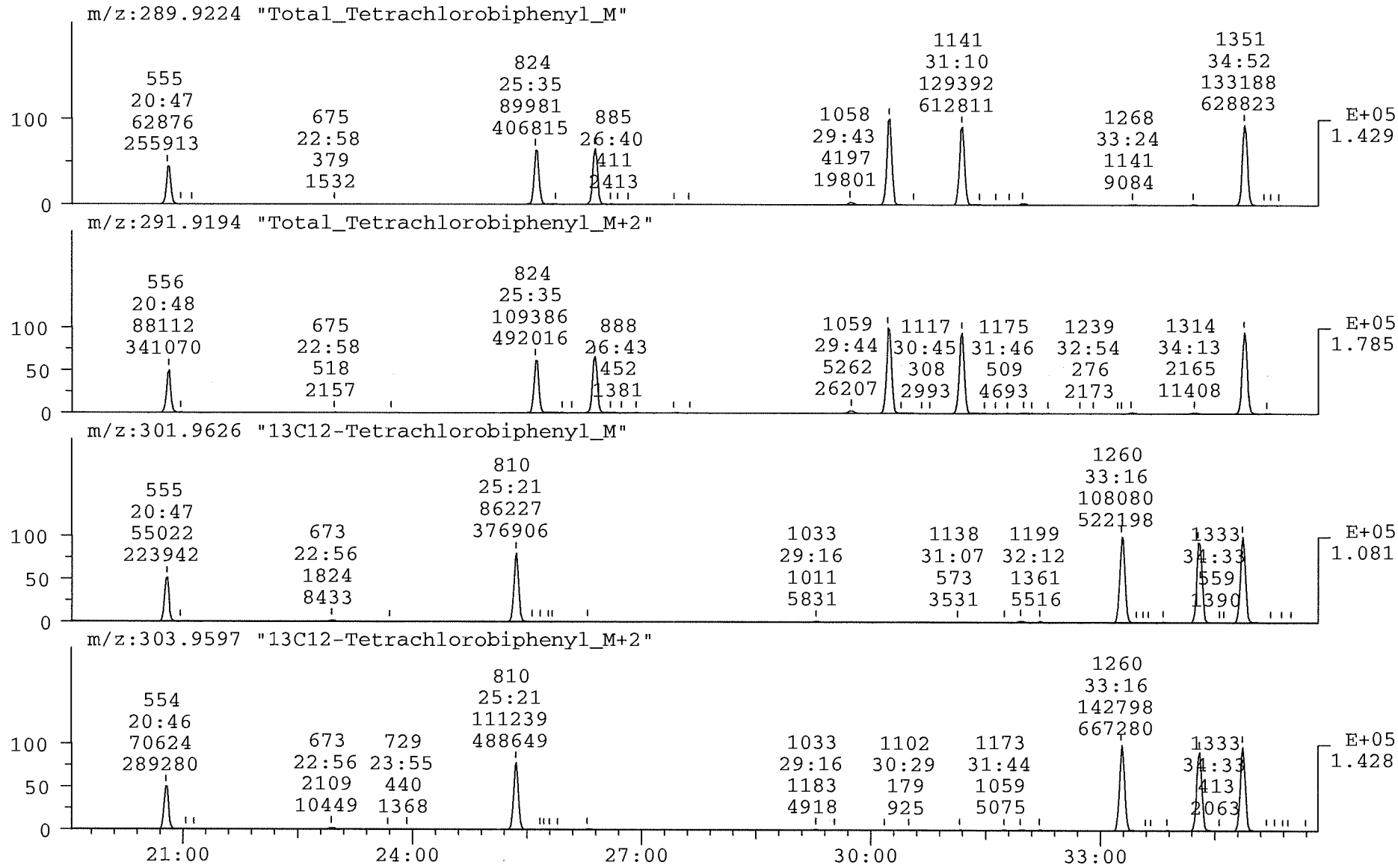
CHRO: a0806m5r1 10-Jun-08 Elapse: 22:39.4 657
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 307 > 1012 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2748

2747

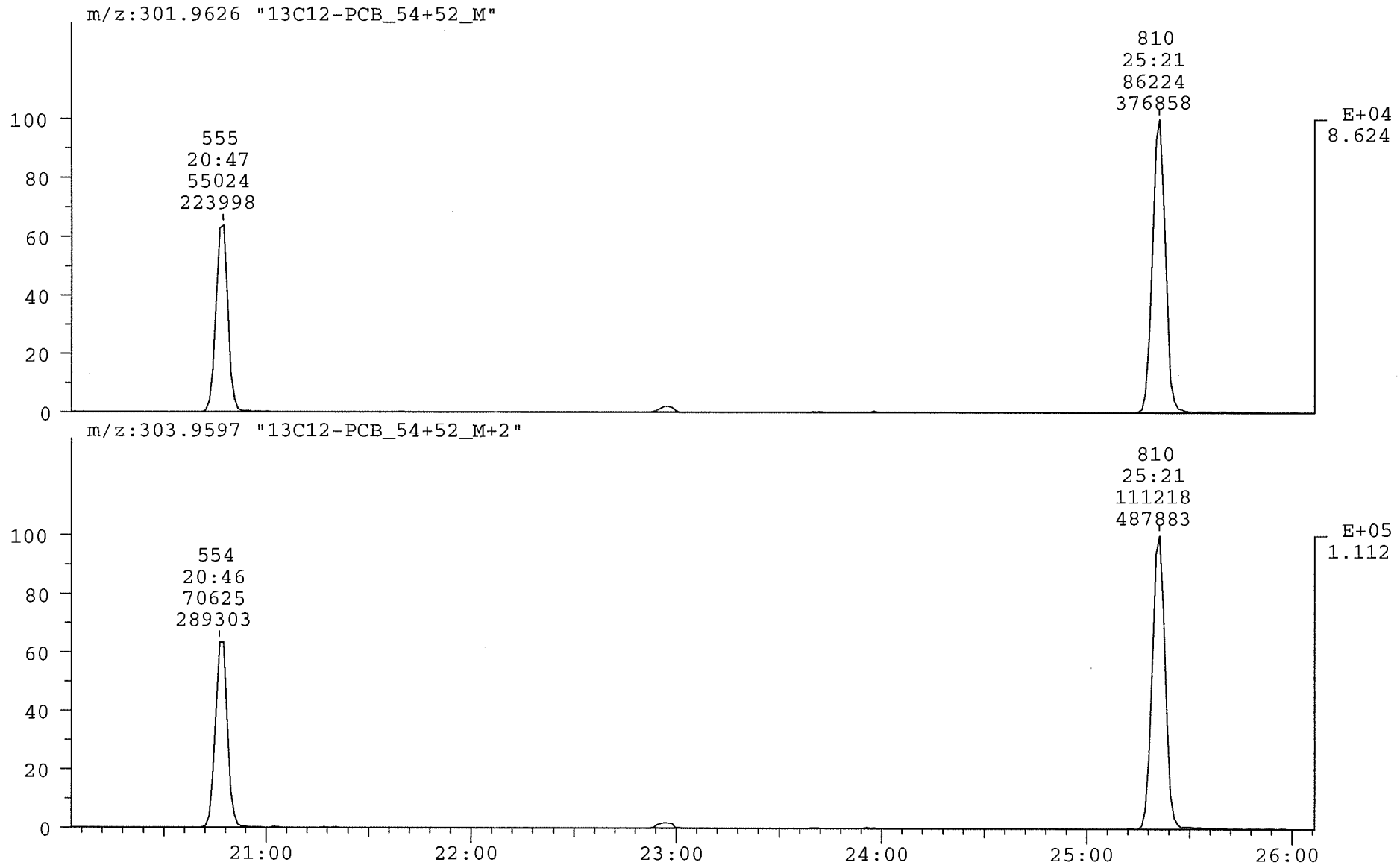
CHRO: a0806m5r1 10-Jun-08 Elapse: 27:40.6 942
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 484 > 1406 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2749

2748

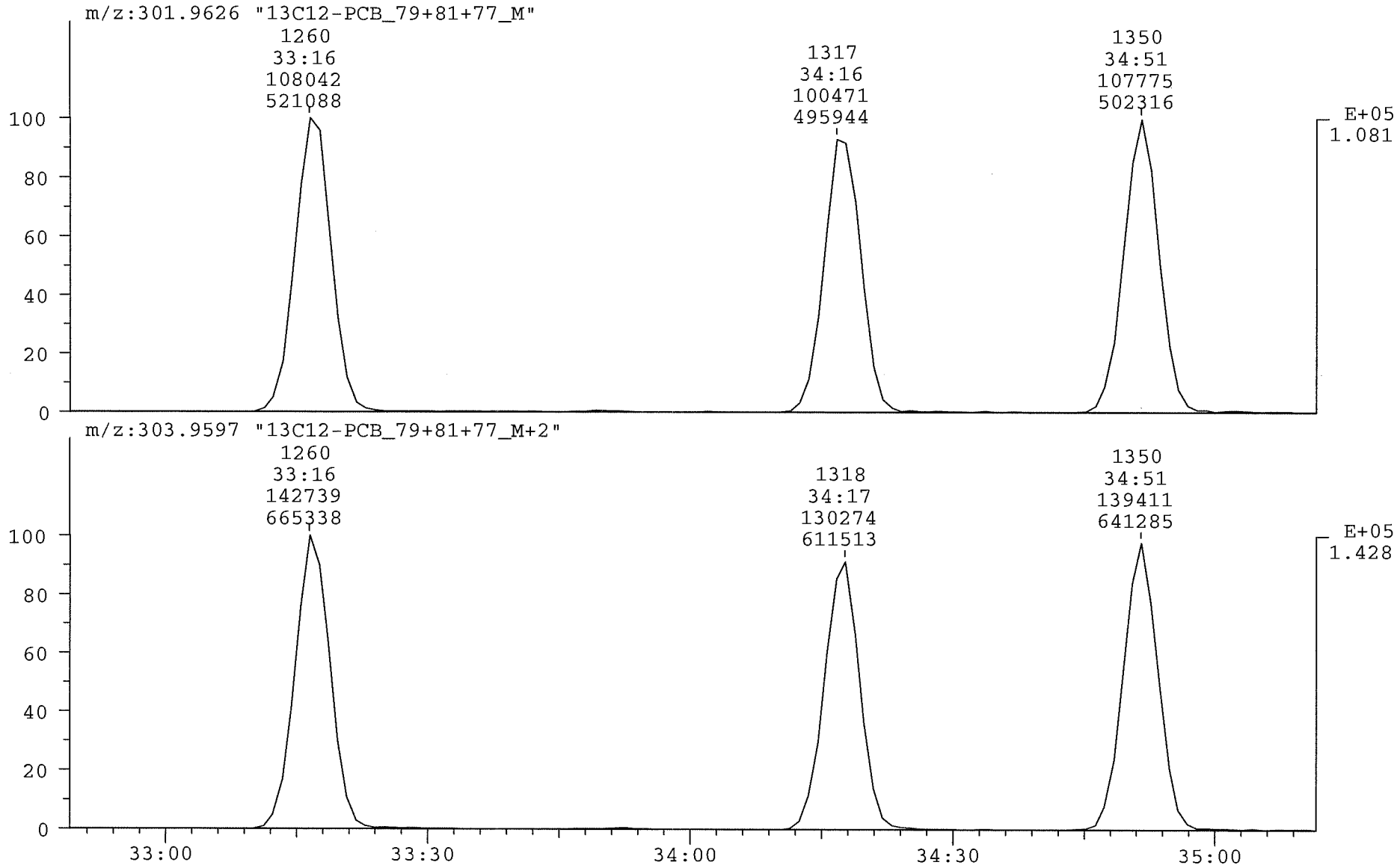
```
CHRO:  a0806m5r1                              10-Jun-08   Elapse:  23:06.9      683
Samp:  Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1              Start :  18:42:10    2600
Comm:  Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  2990:75 Mix 5
Oper:  DCG           Client:  TA Knoxville                Inlet :  GC     Vial  15
Peak:  100.00  ppm     Label wndw:   513 > 853            Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3              Label :  -3, 3.0
Disp:  Height  Area
```



H-2750

2749

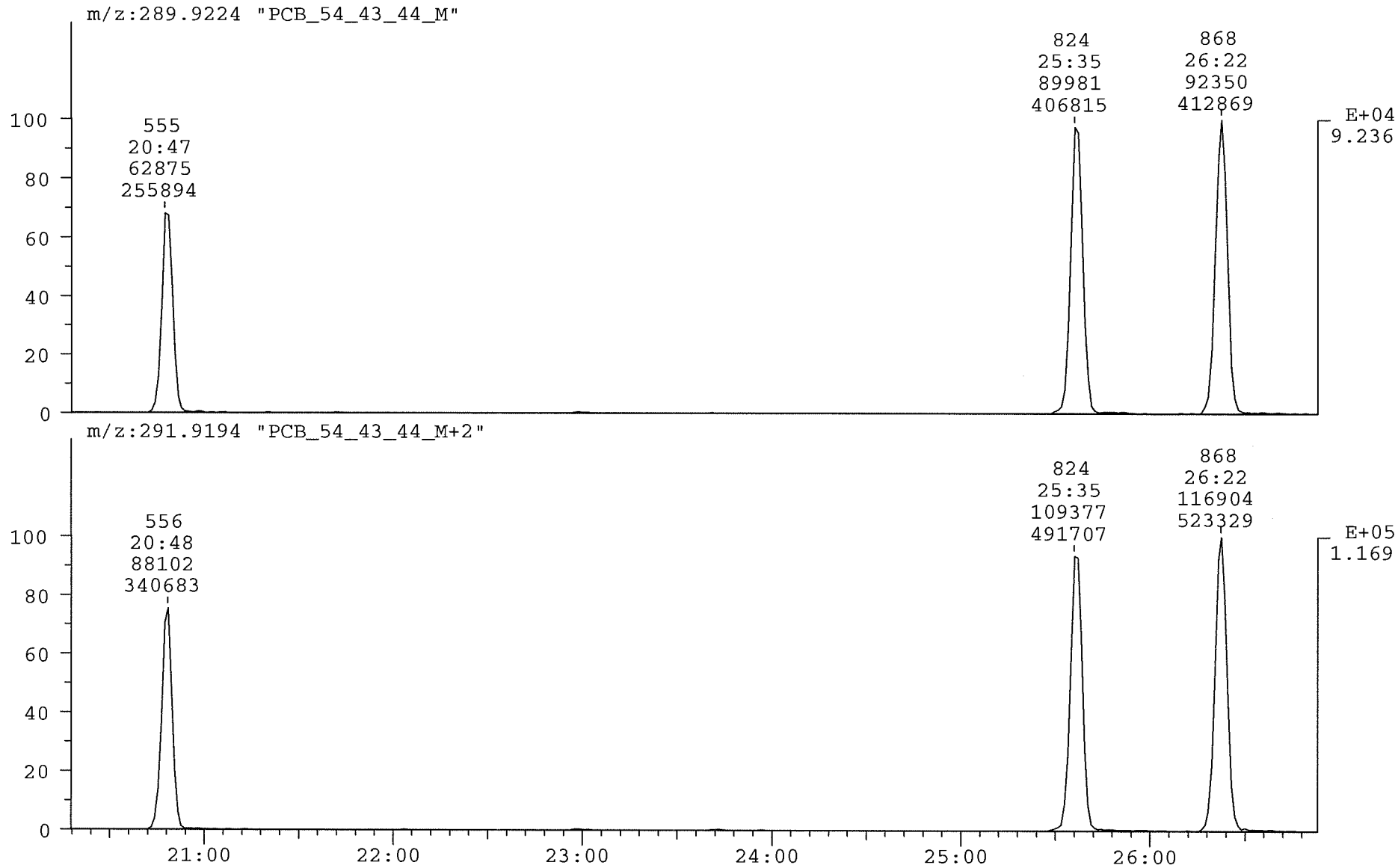
CHRO: a0806m5r1 10-Jun-08 Elapse: 34:02 1304
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1234 > 1369 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2751

2750

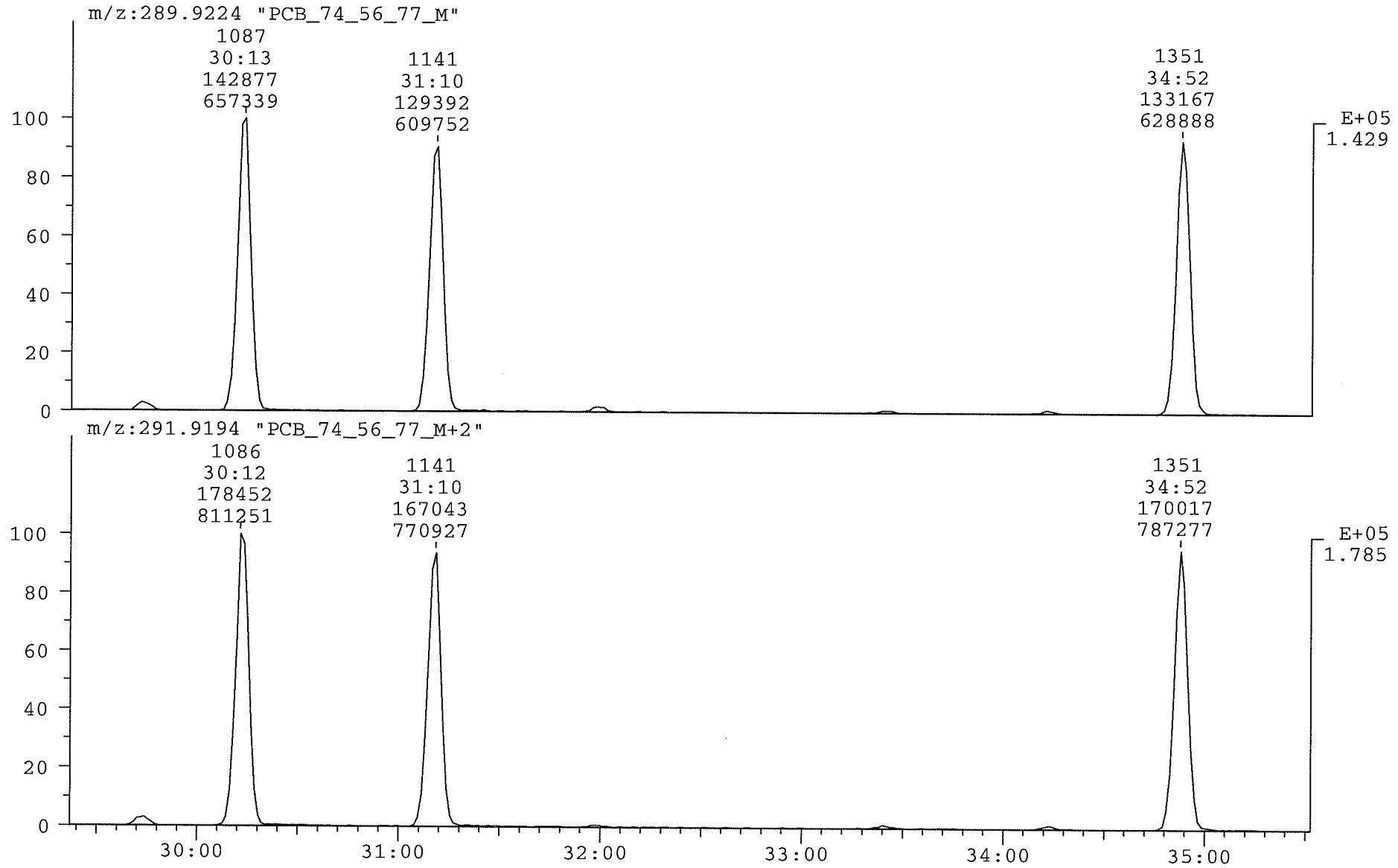
CHRO: a0806m5r1 10-Jun-08 Elapse: 23:37.5 712
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 527 > 897 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2752

2751

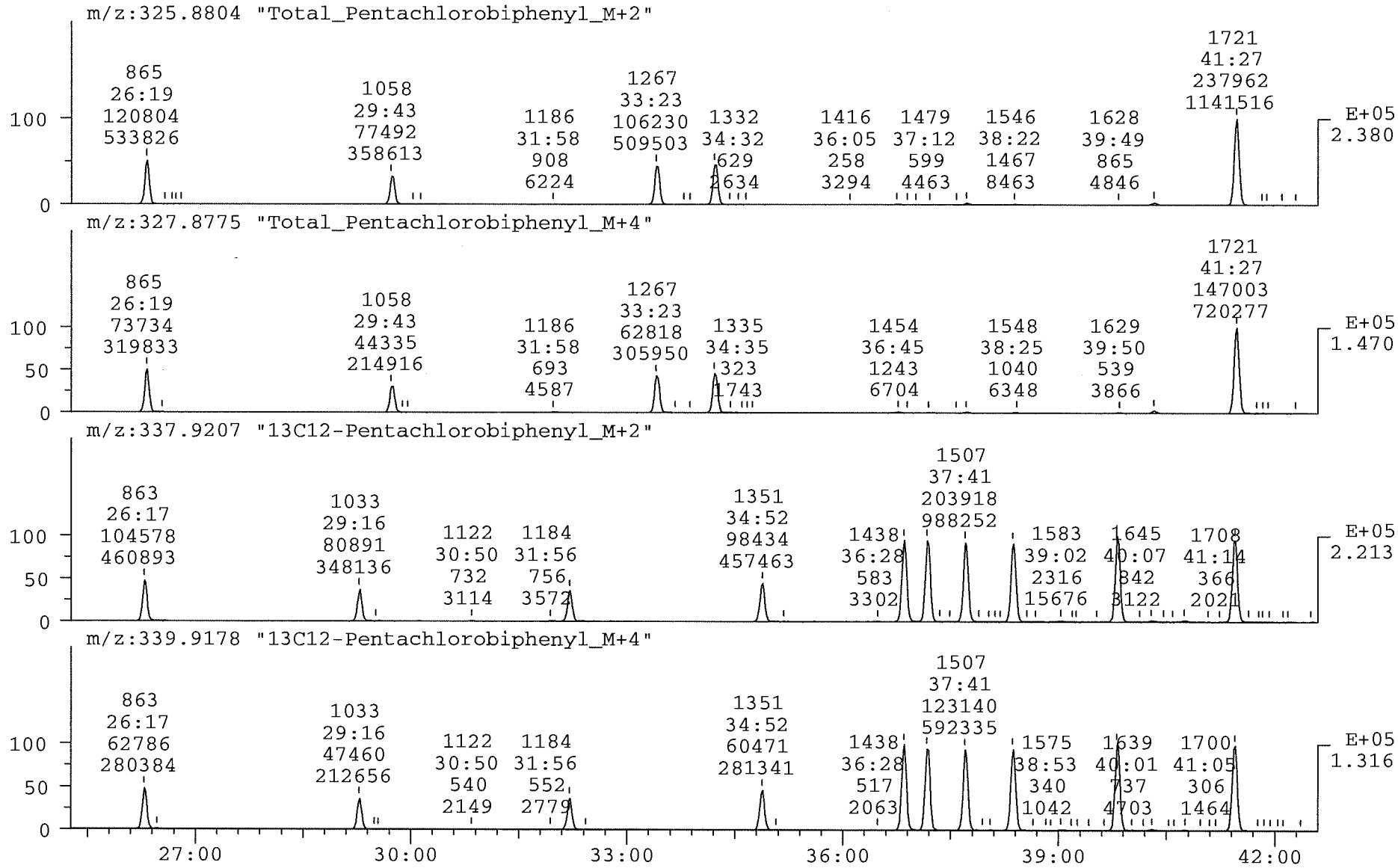
CHRO: a0806m5r1 10-Jun-08 Elapse: 32:26 1213
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1038 > 1388 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2753

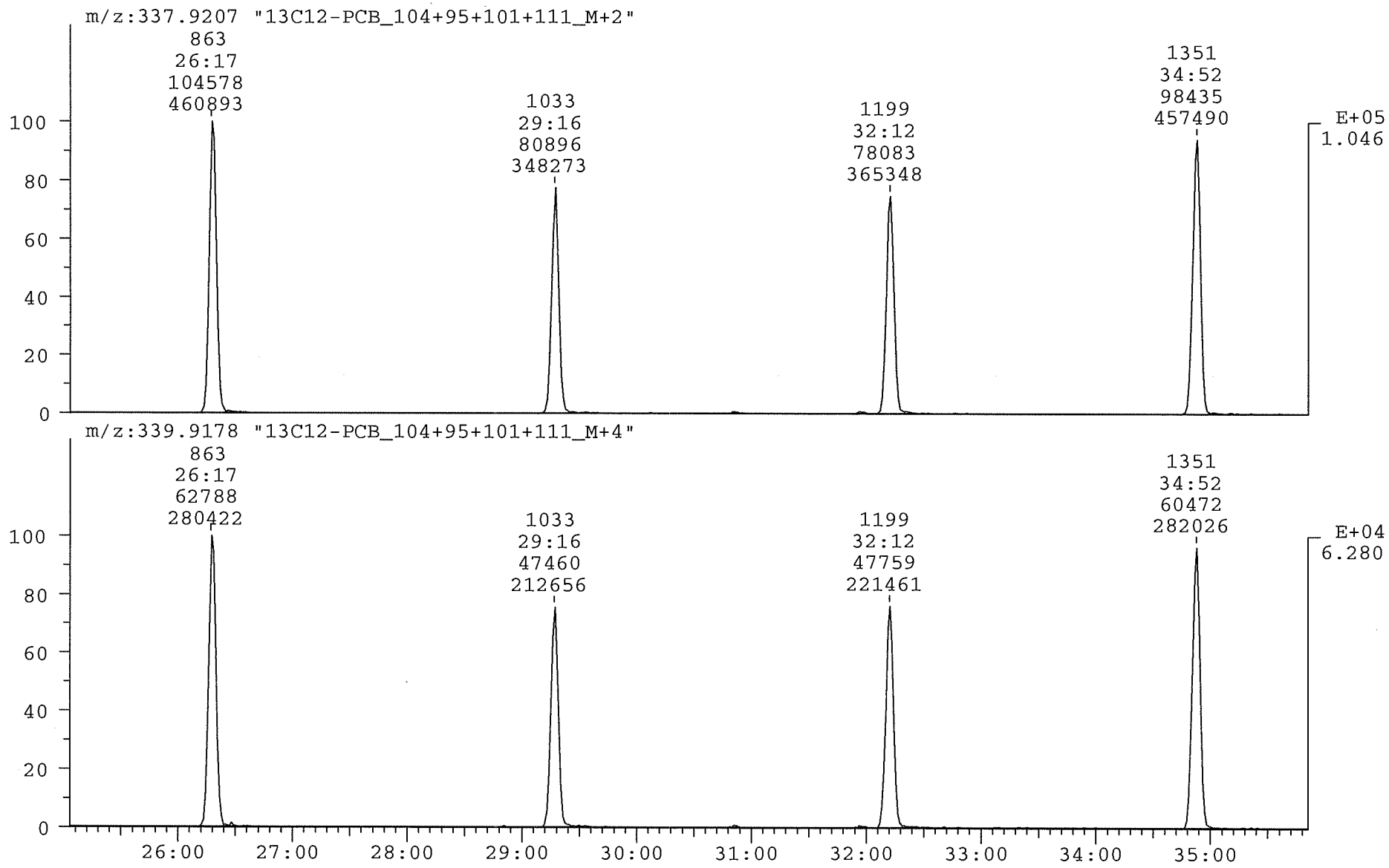
2752

CHRO: a0806m5r1 10-Jun-08 Elapse: 33:55 1297
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 805 > 1786 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2754

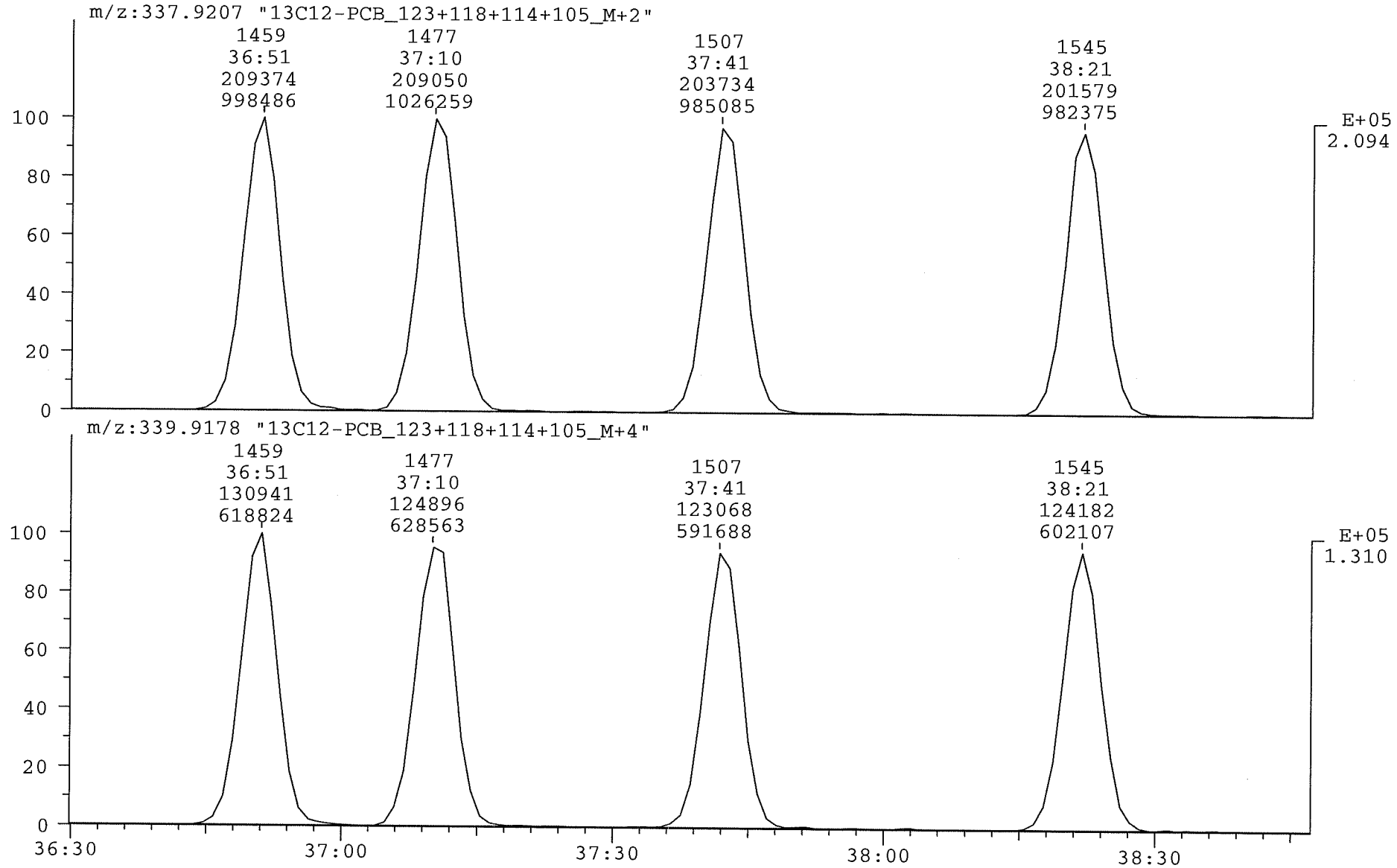
CHRO: a0806m5r1 10-Jun-08 Elapse: 30:27 1100
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 793 > 1406 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2755

2754

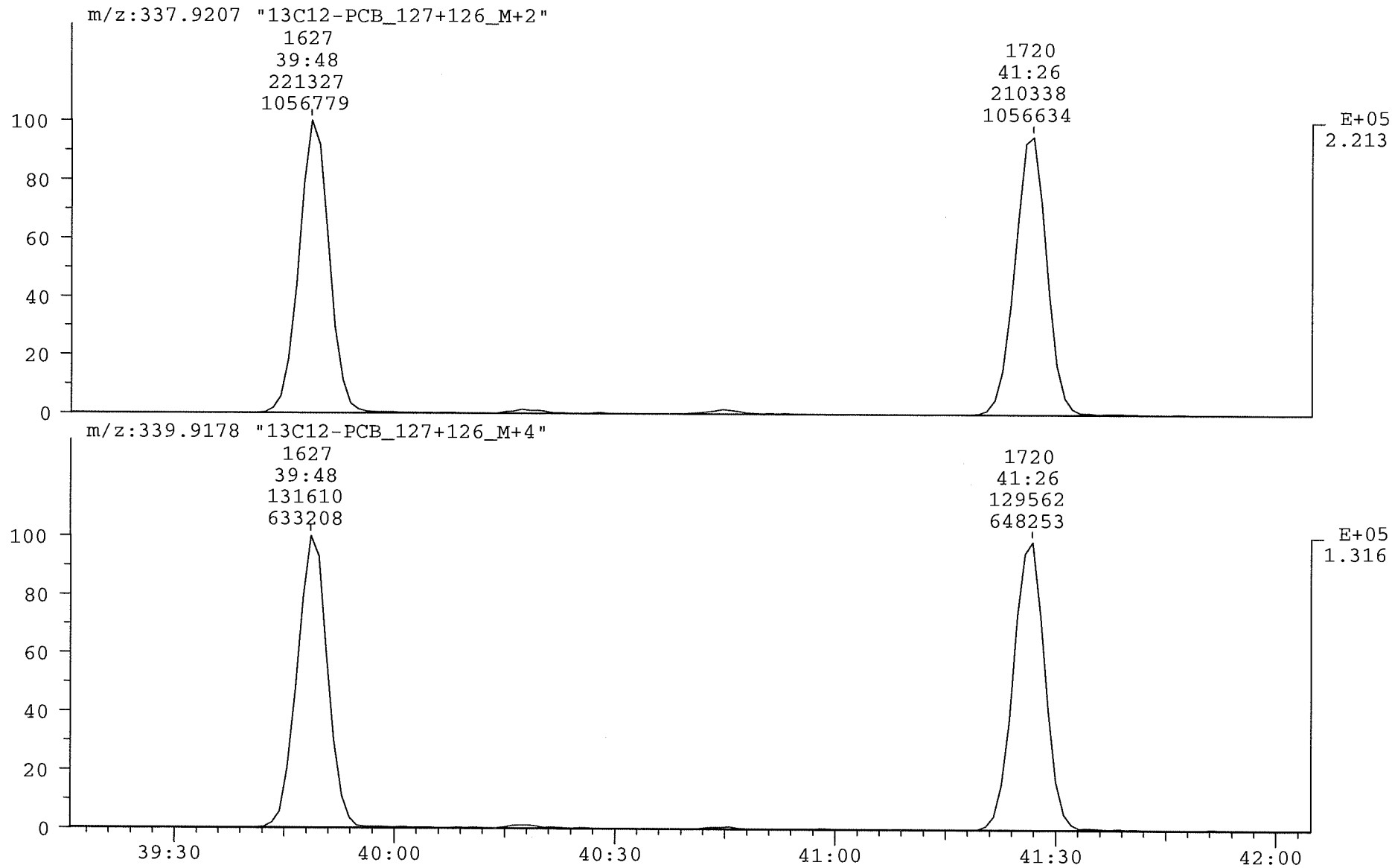
CHRO: a0806m5r1 10-Jun-08 Elapse: 37:38 1504
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1439 > 1569 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2756

2755

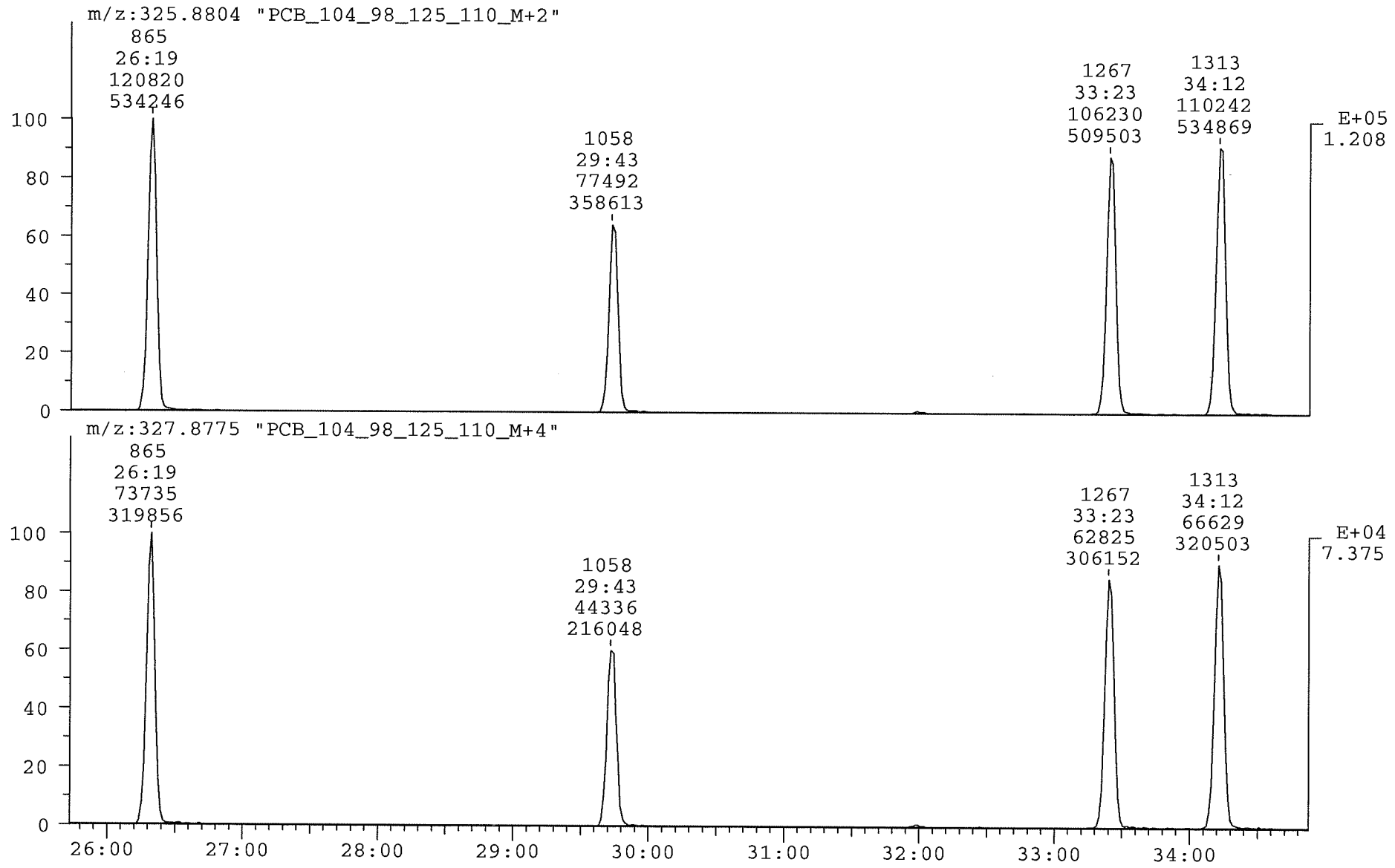
CHRO: a0806m5r1 10-Jun-08 Elapse: 40:40 1676
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1596 > 1756 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2757

2756

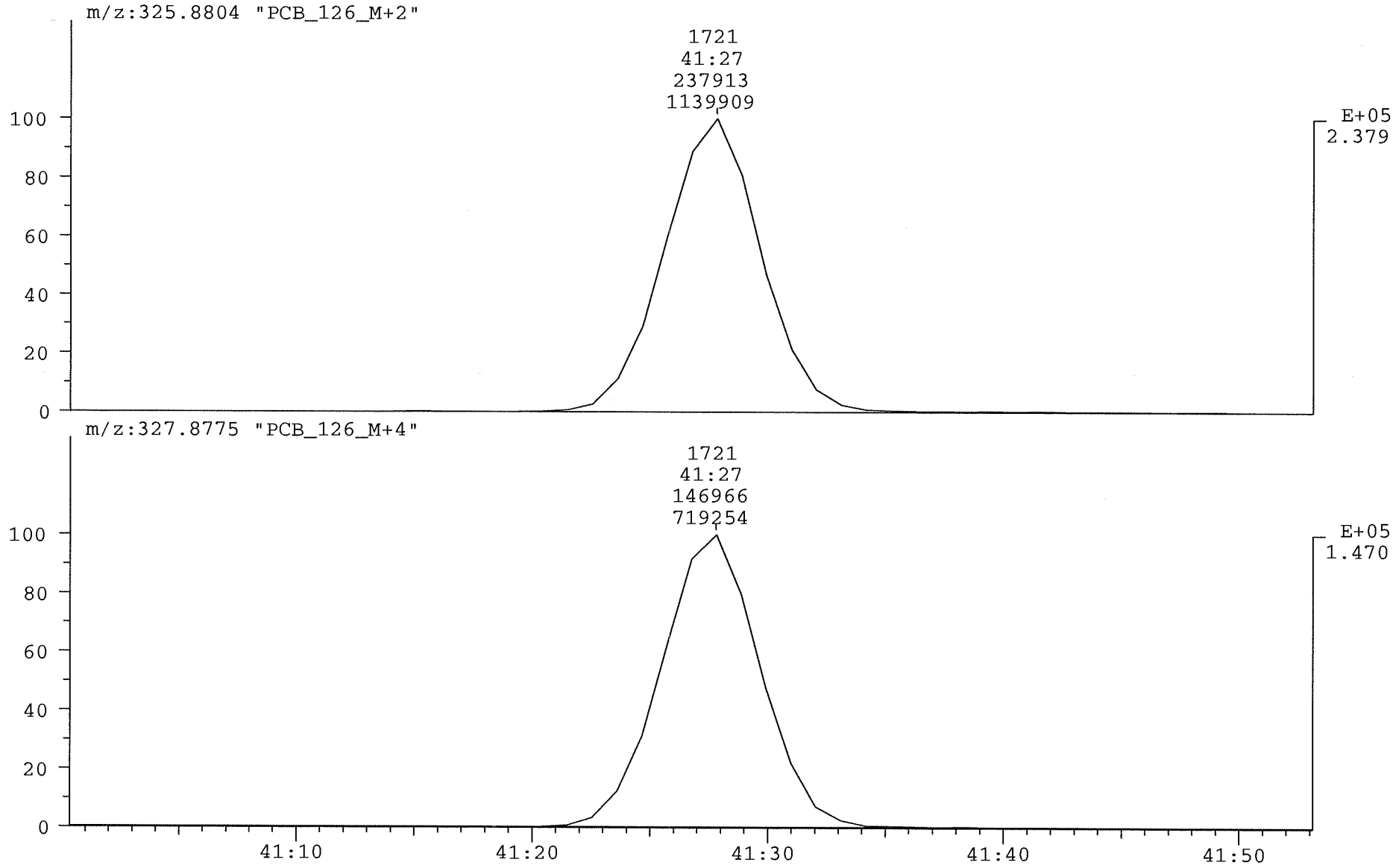
CHRO: a0806m5r1 10-Jun-08 Elapse: 30:18 1091
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 831 > 1351 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2758

2757

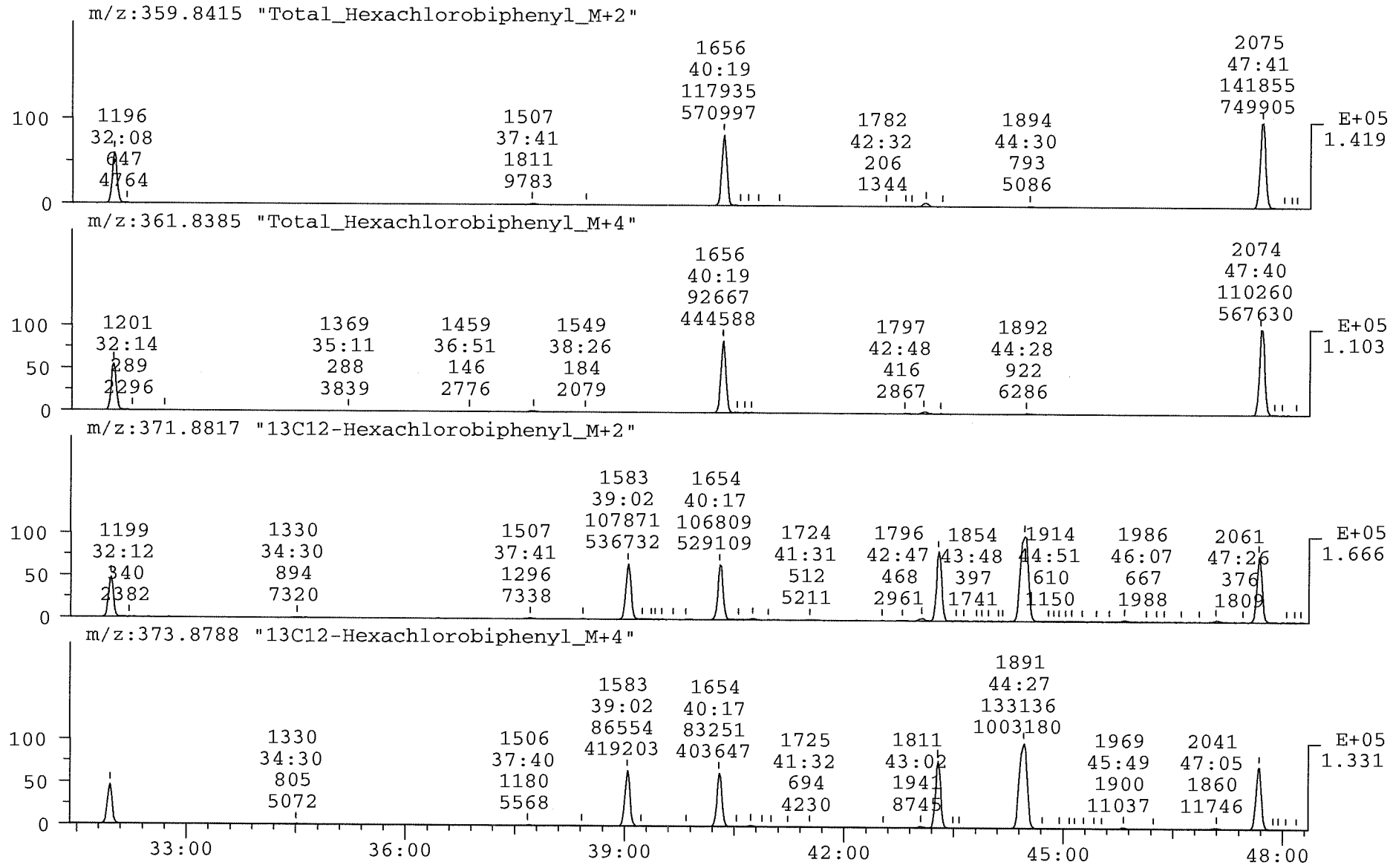
CHRO: a0806m5r1 10-Jun-08 Elapse: 41:26 1720
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1695 > 1745 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2759

2758

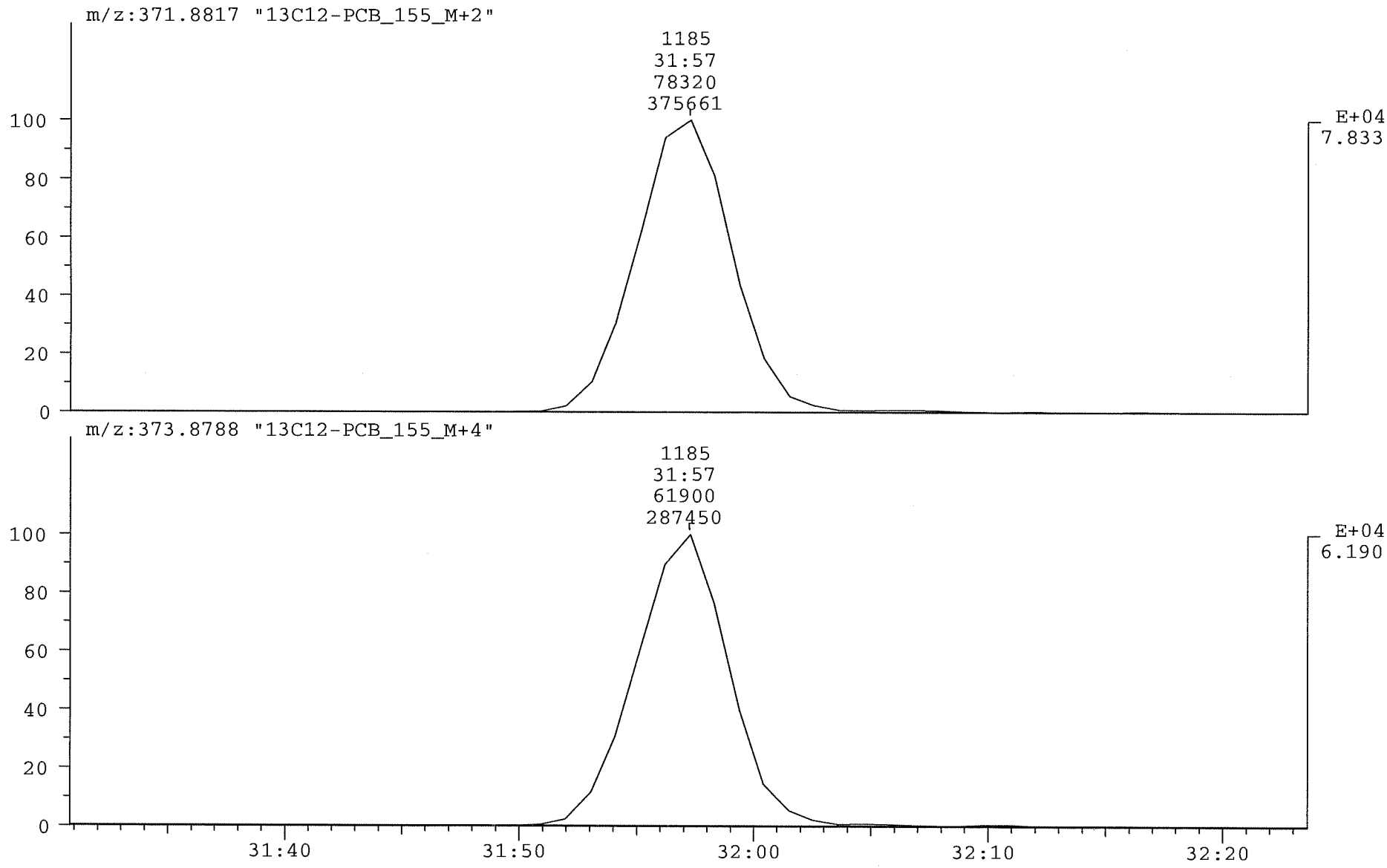
CHRO: a0806m5r1 10-Jun-08 Elapse: 39:51 1630
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1154 > 2112 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2760

2759

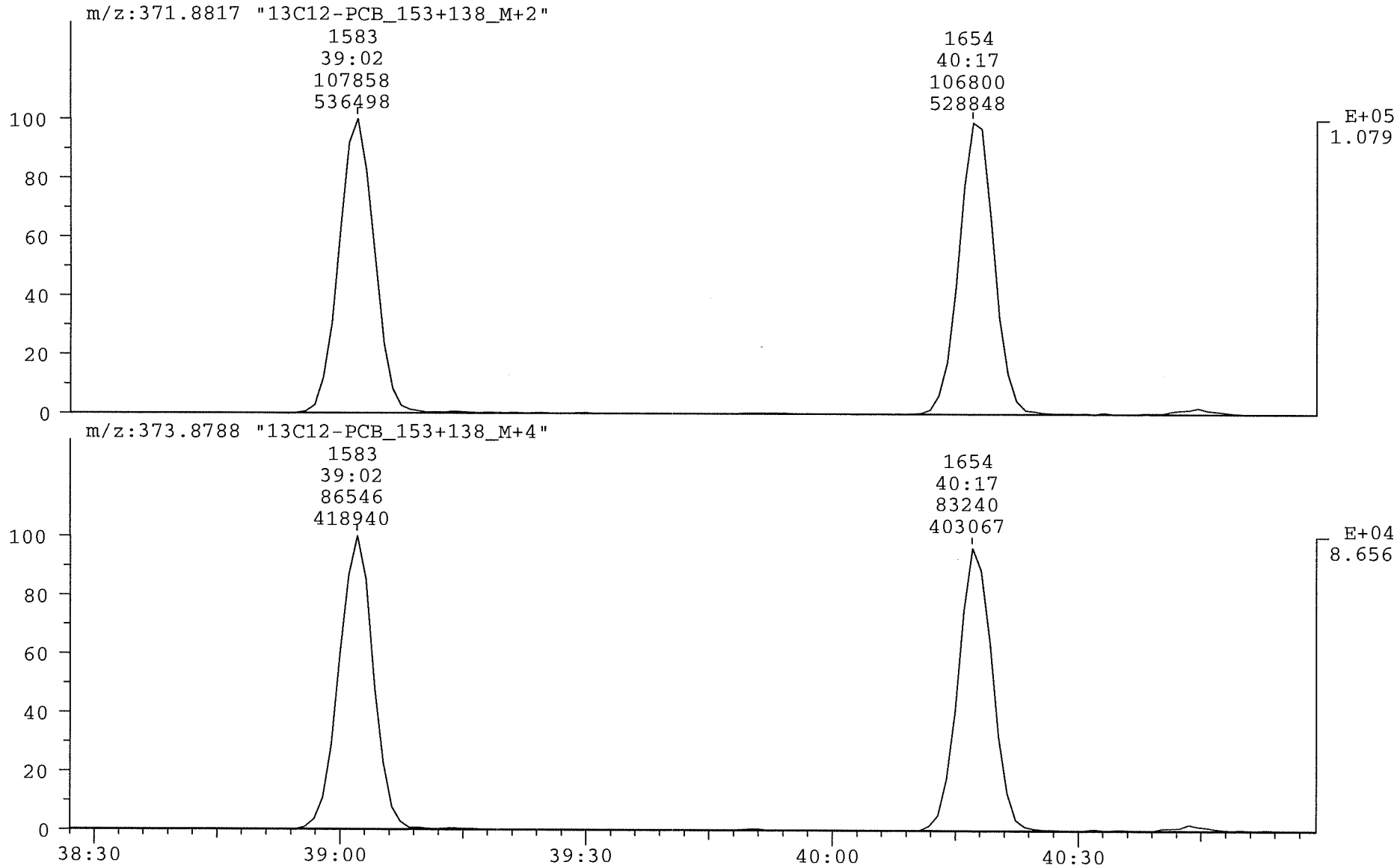
CHRO: a0806m5r1 10-Jun-08 Elapse: 31:57 1185
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1160 > 1210 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2761

2760

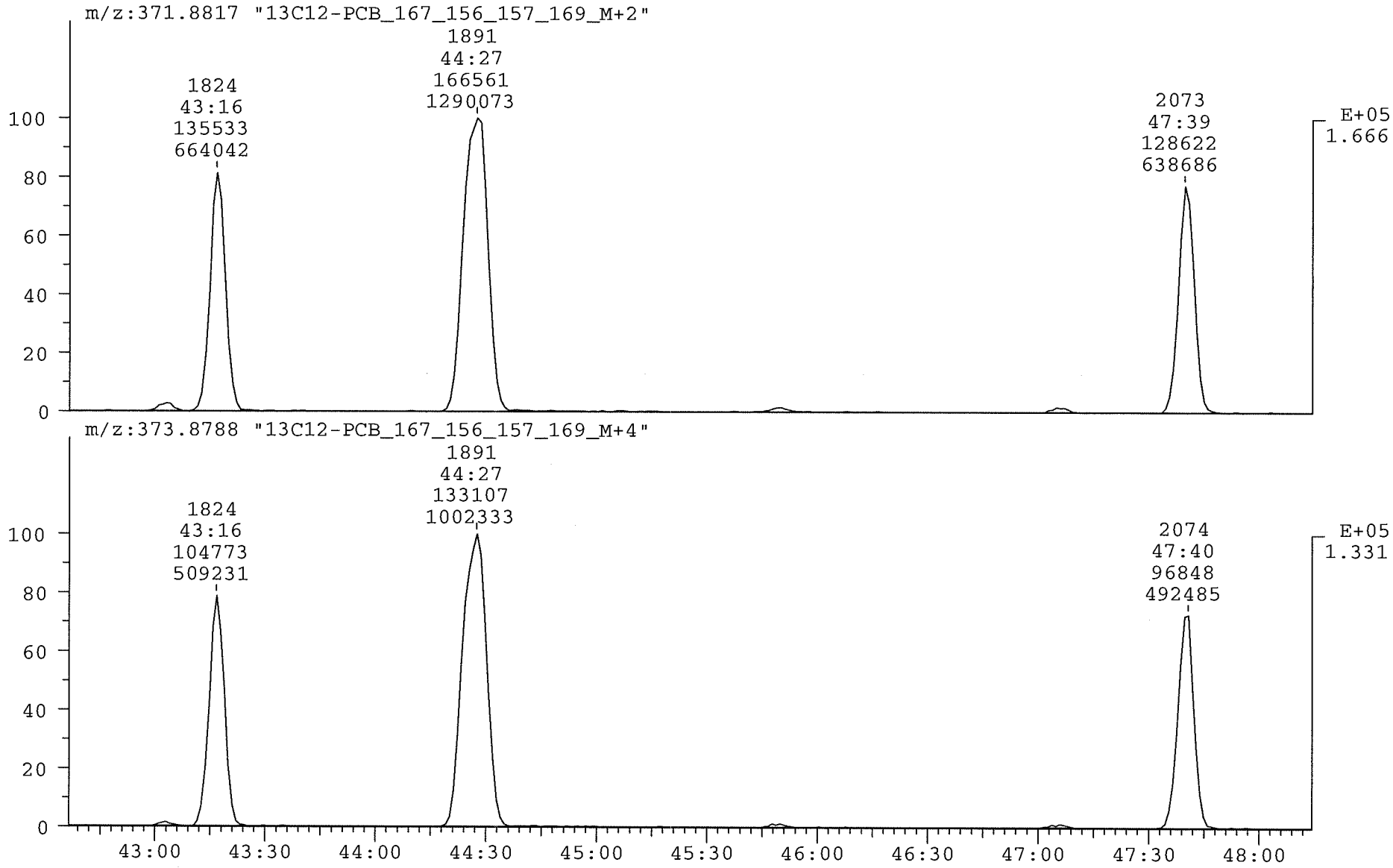
CHRO: a0806m5r1 10-Jun-08 Elapse: 39:43 1622
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1550 > 1694 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2762

2761

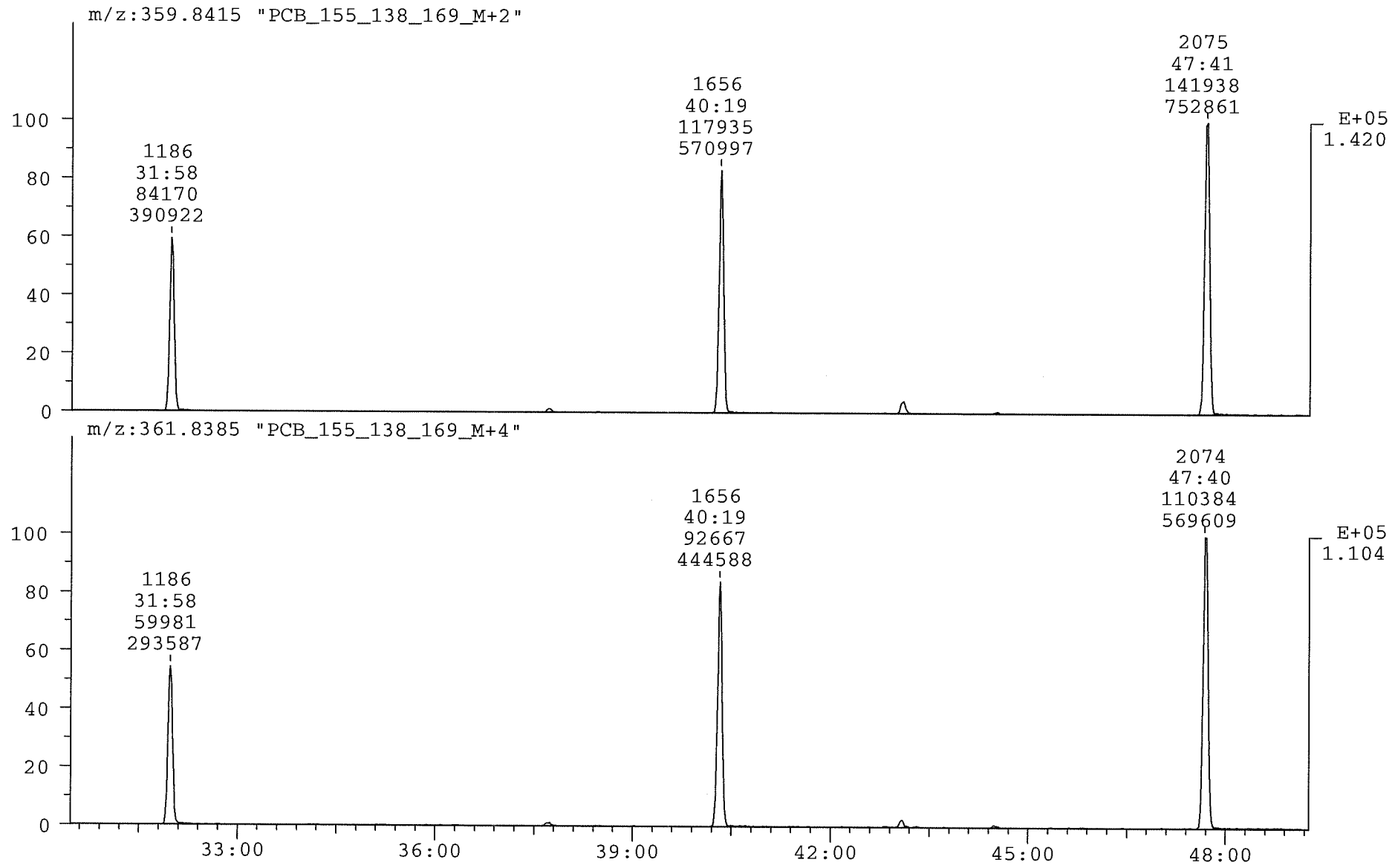
CHRO: a0806m5r1 10-Jun-08 Elapse: 45:30 1951
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1786 > 2106 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2763

2762

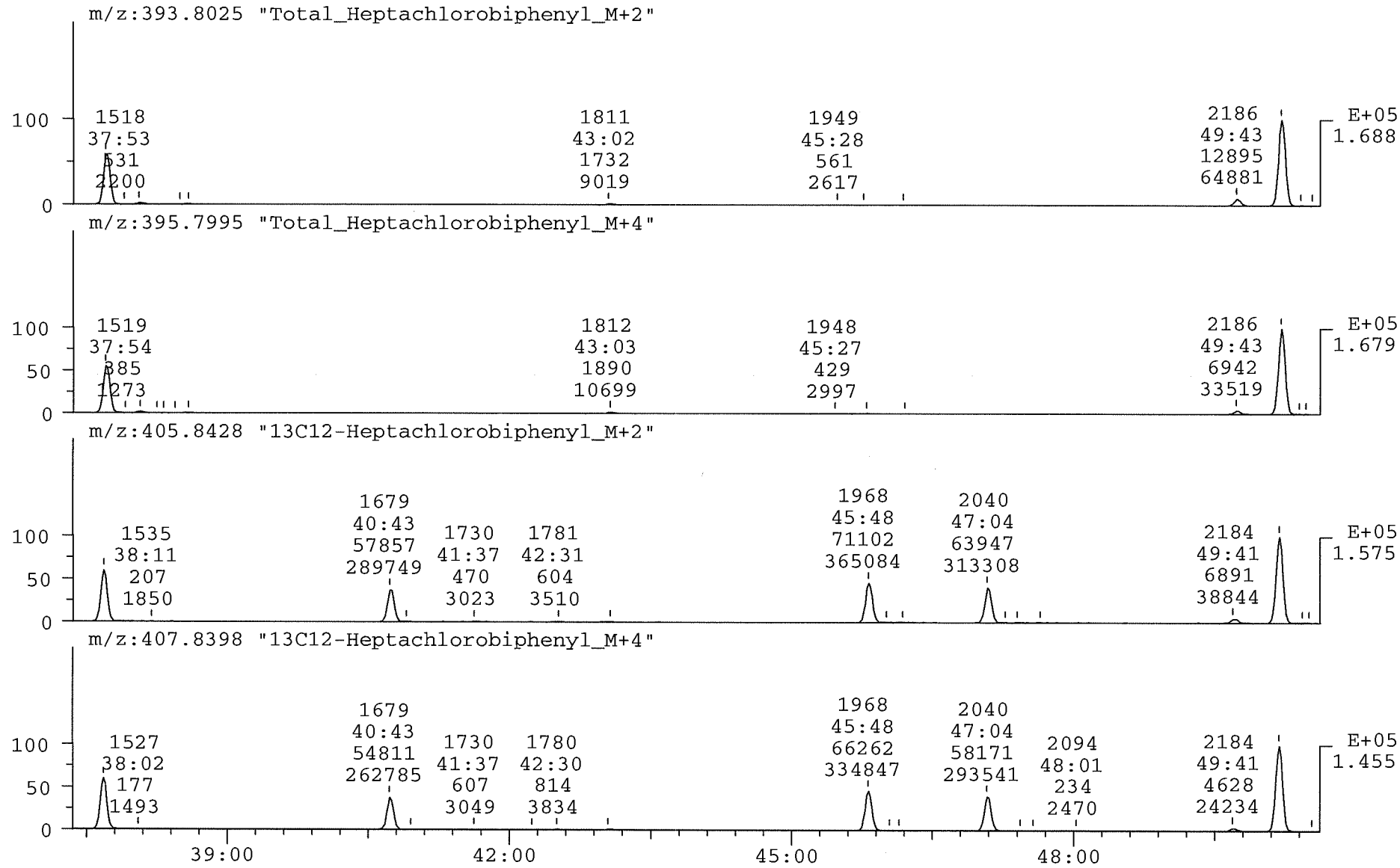
CHRO: a0806m5r1 10-Jun-08 Elapse: 39:51 1630
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1100 > 2160 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2764

2763

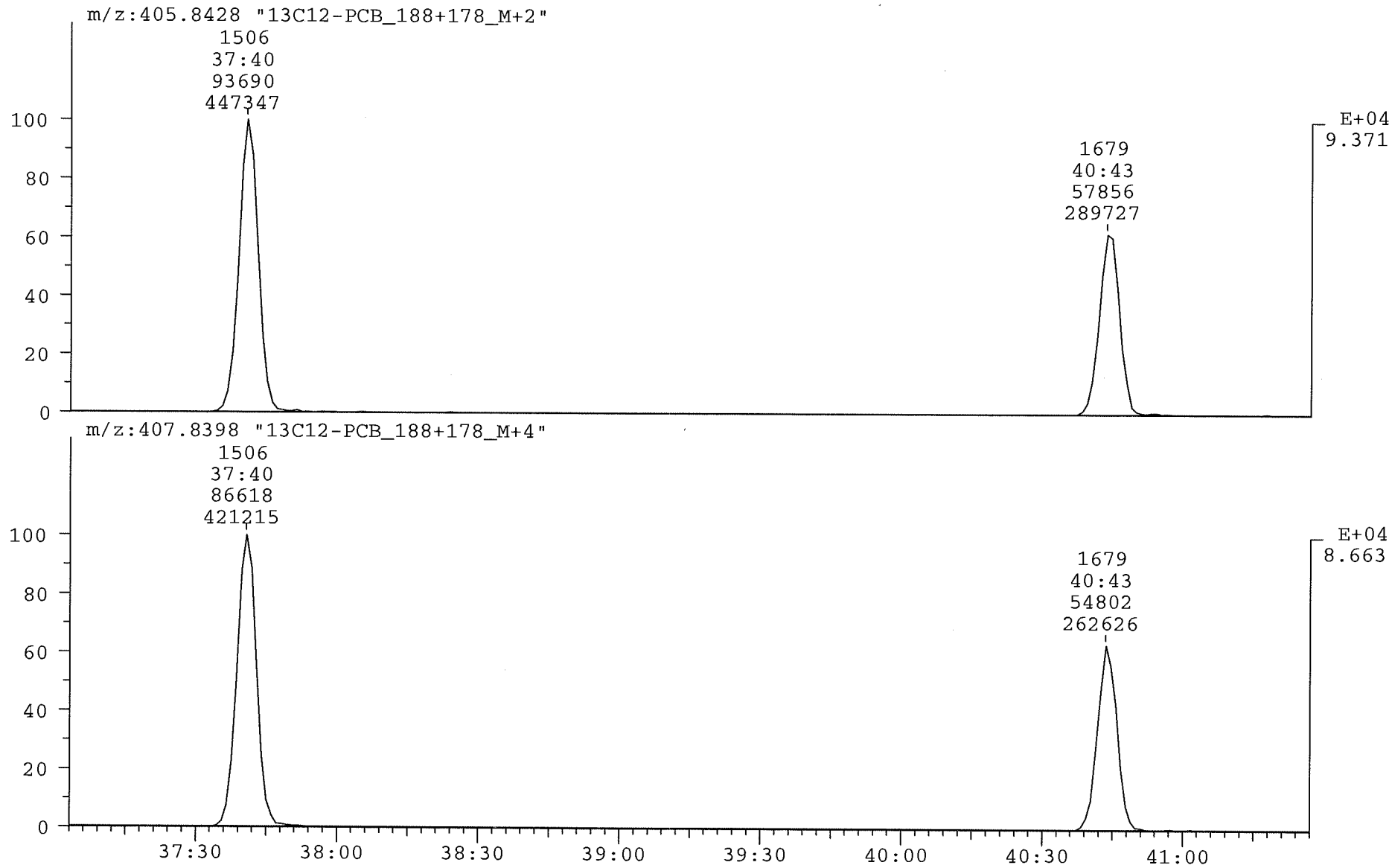
CHRO: a0806m5r1 10-Jun-08 Elapse: 43:58 1864
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1487 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2765

2764

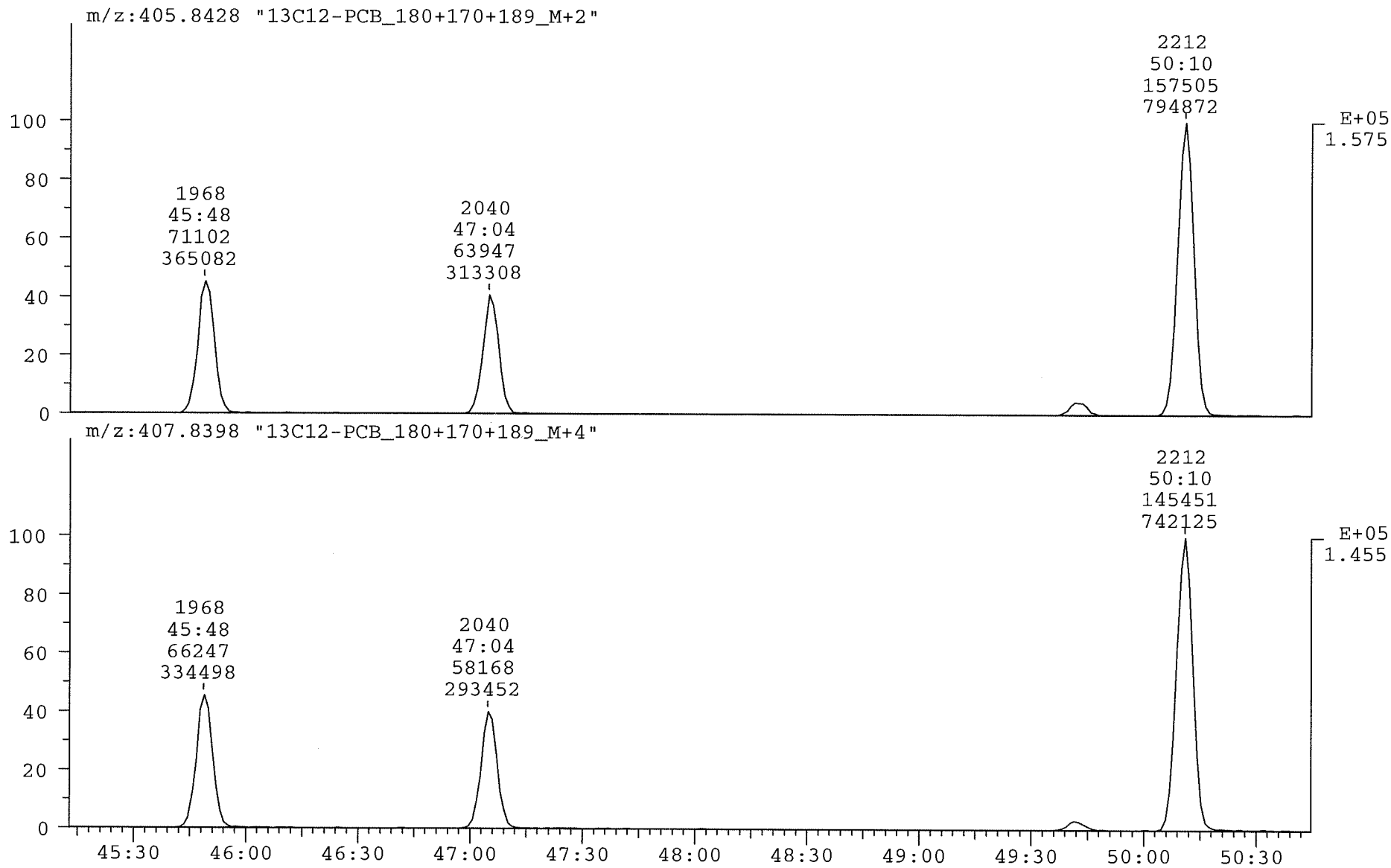
CHRO: a0806m5r1 10-Jun-08 Elapse: 39:14 1595
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1470 > 1720 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2796

2765

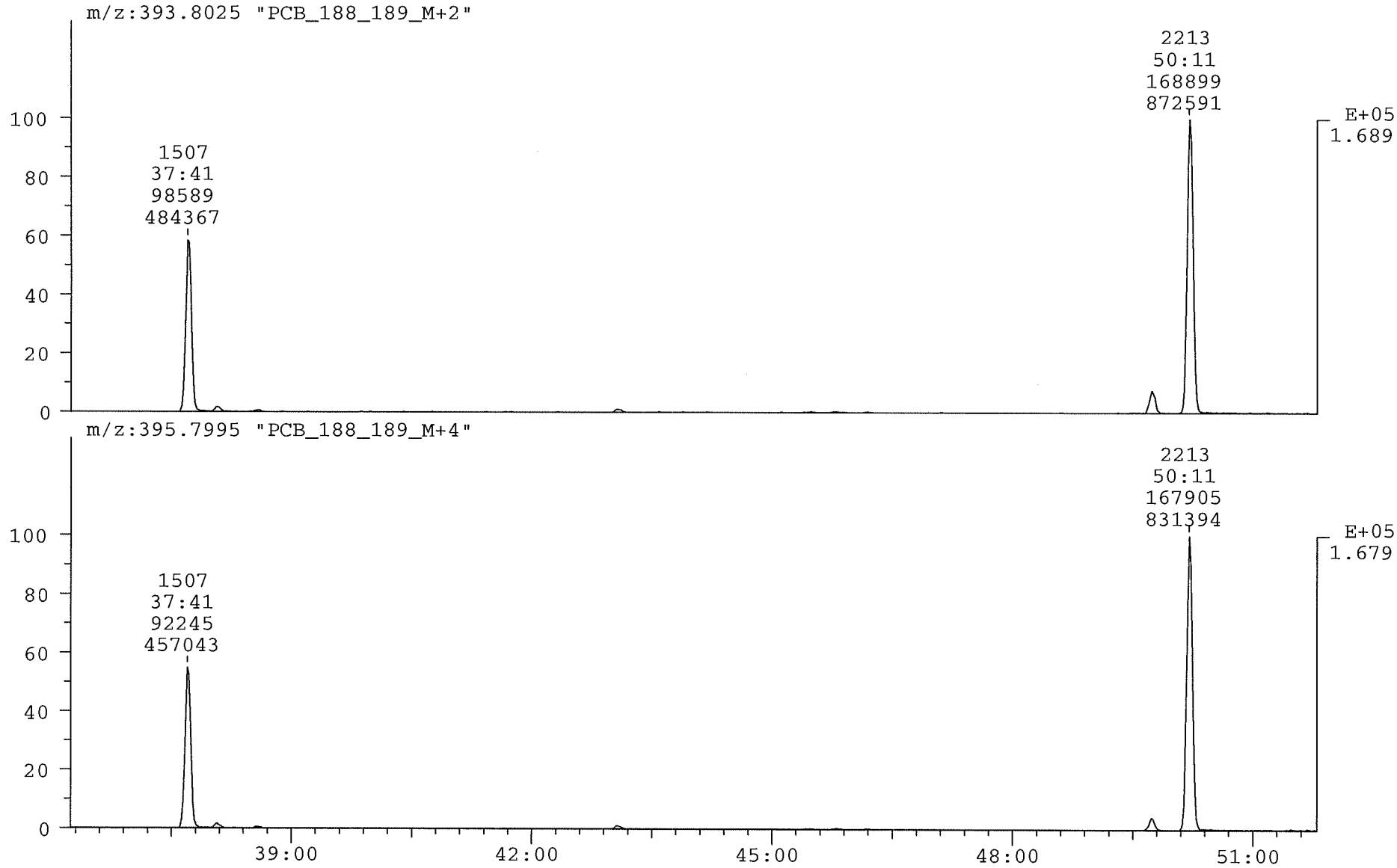
CHRO: a0806m5r1 10-Jun-08 Elapse: 48:01 2094
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1934 > 2244 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2767

2766

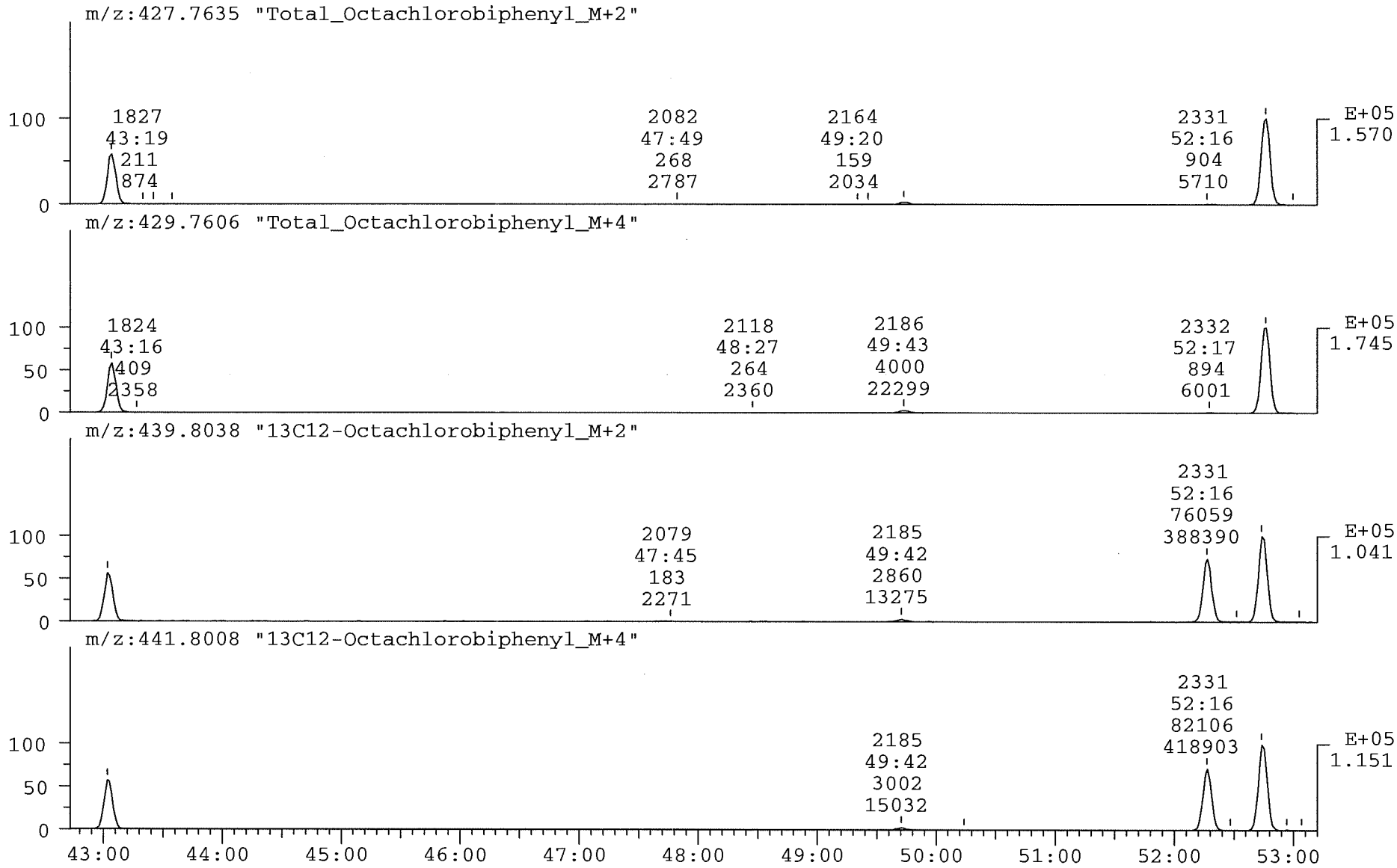
CHRO: a0806m5r1 10-Jun-08 Elapse: 43:58 1864
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1424 > 2304 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2768

2767

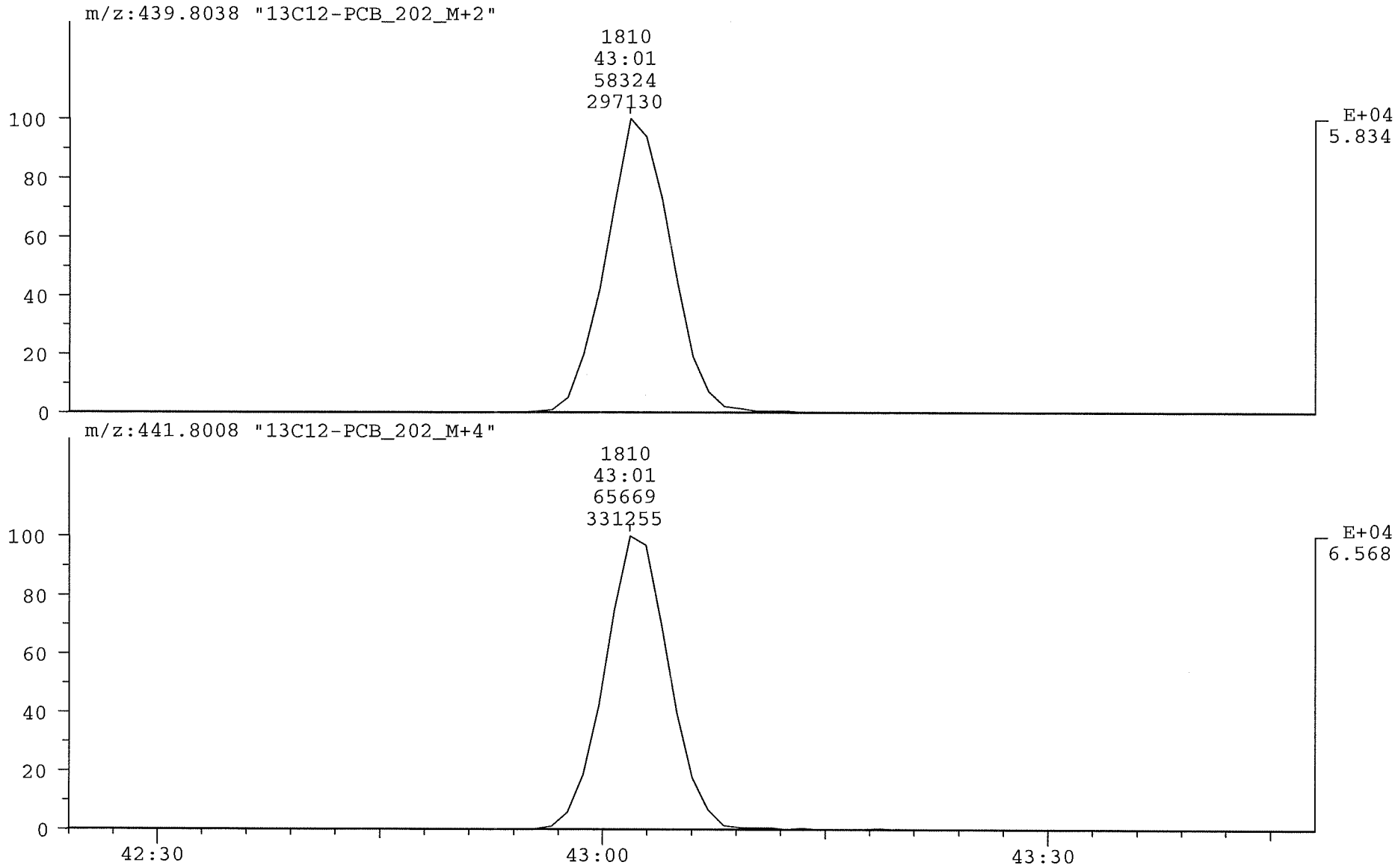
CHRO: a0806m5r1 10-Jun-08 Elapse: 47:57 2090
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1792 > 2384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2769

2768

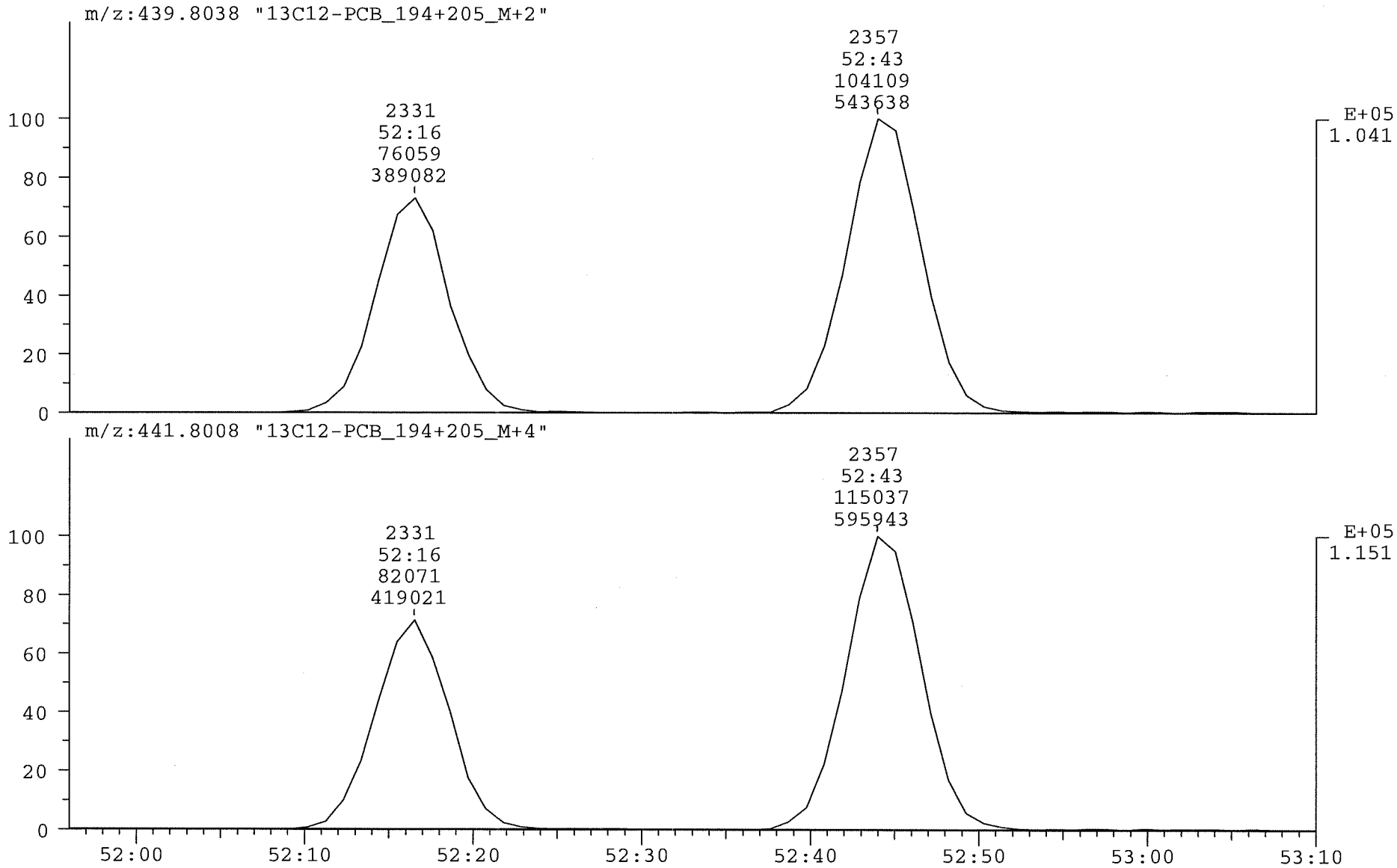
CHRO: a0806m5r1 10-Jun-08 Elapse: 43:02 1811
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1774 > 1854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2770

2769

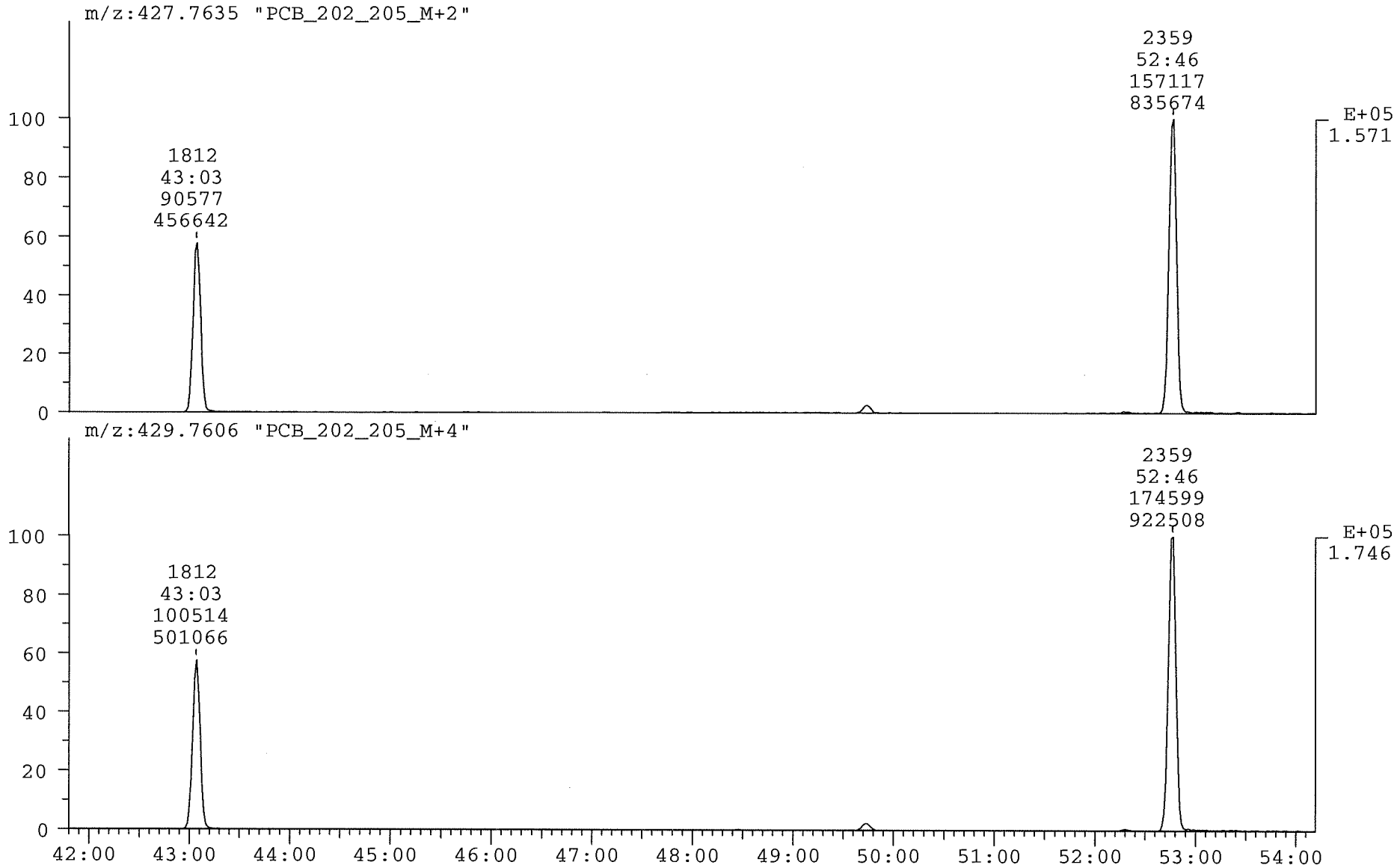
CHRO: a0806m5r1 10-Jun-08 Elapse: 52:33 2347
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2312 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2771

2770

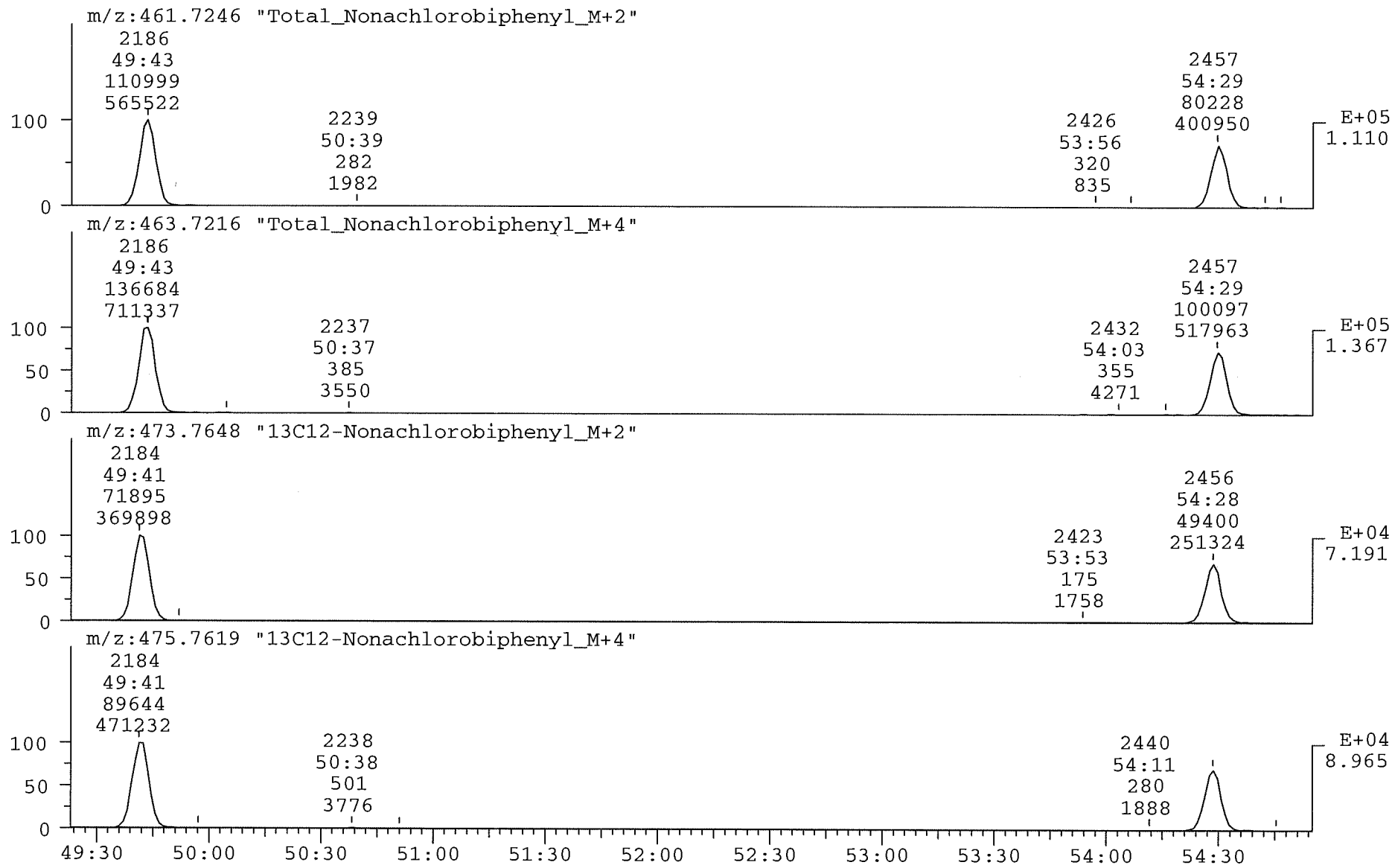
CHRO: a0806m5r1 10-Jun-08 Elapse: 47:57 2090
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1740 > 2440 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2772

2771

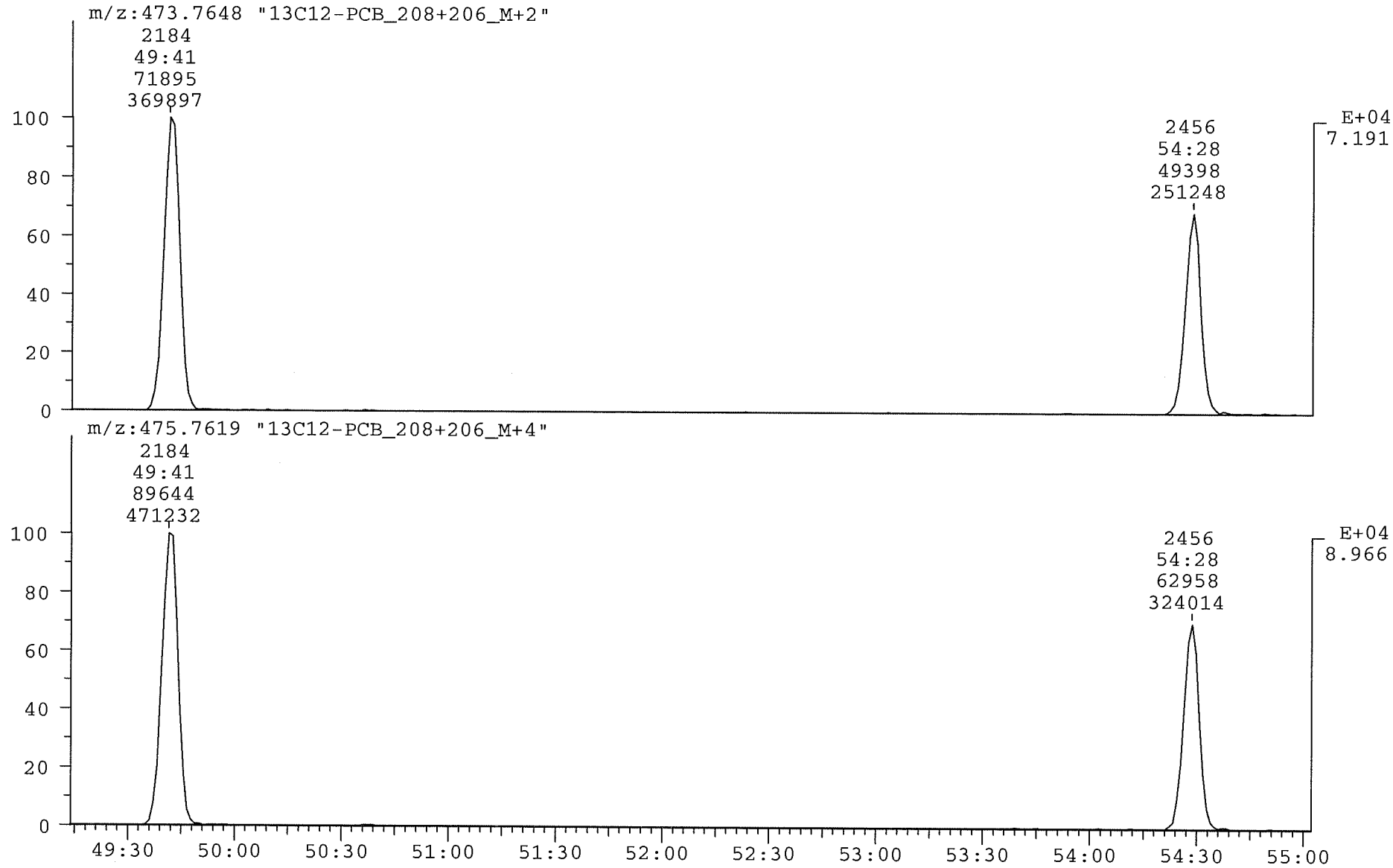
CHRO: a0806m5r1 10-Jun-08 Elapse: 52:09 2324
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2773

2772

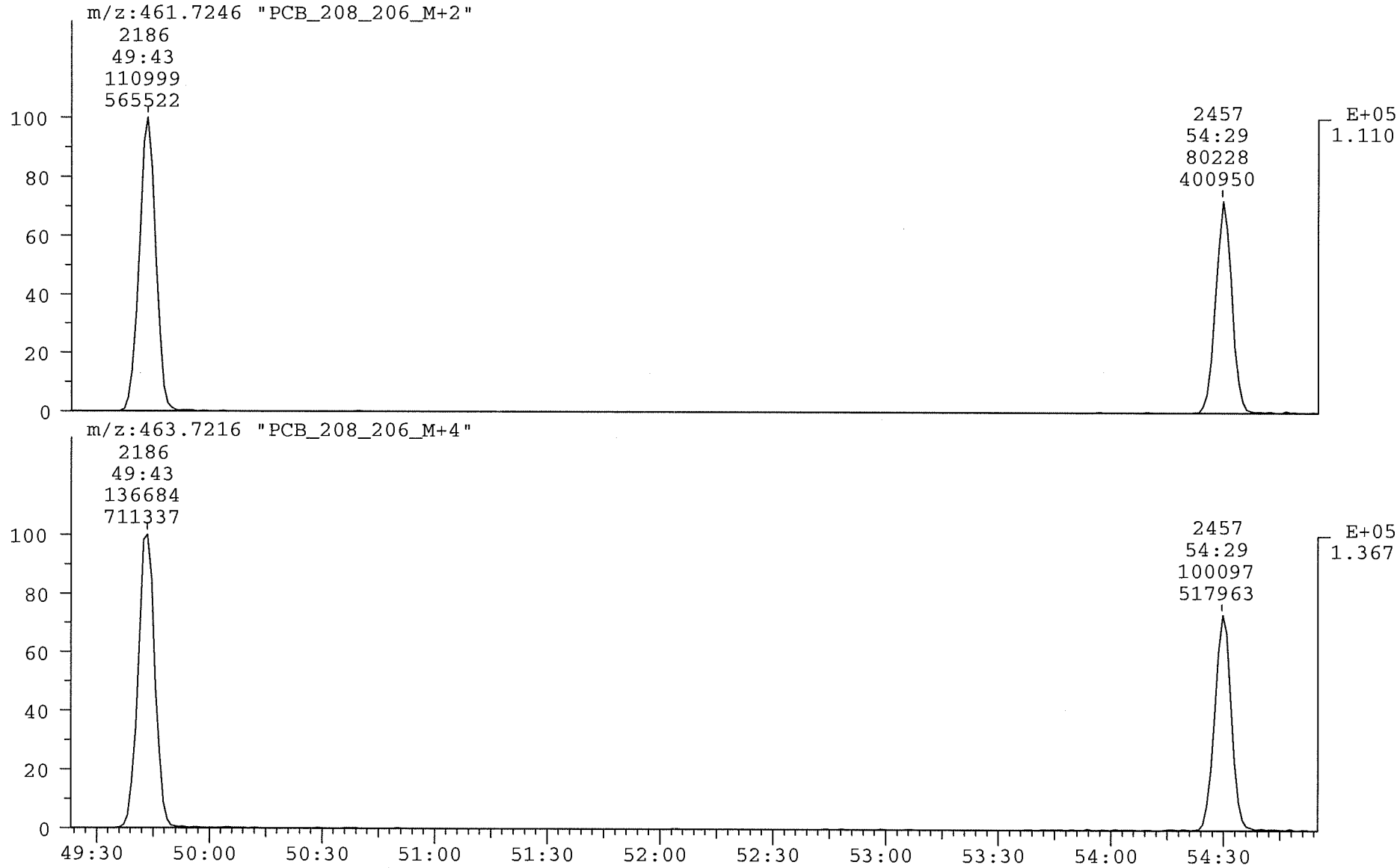
CHRO: a0806m5r1 10-Jun-08 Elapse: 52:08 2323
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2158 > 2488 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2774

2773

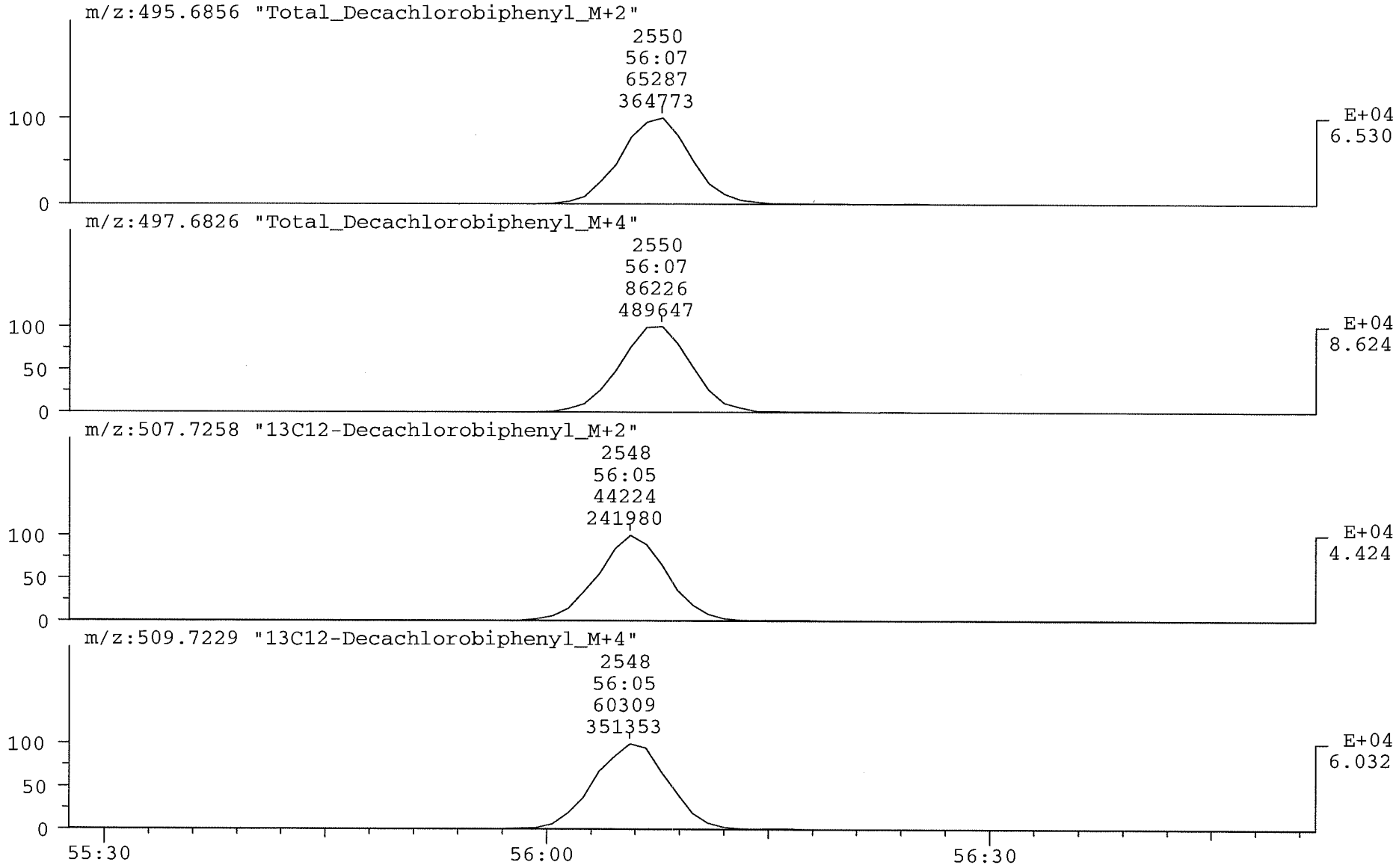
CHRO: a0806m5r1 10-Jun-08 Elapse: 52:09 2324
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2775

2774

CHRO: a0806m5r1 10-Jun-08 Elapse: 56:09 2552
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 18:42:10 2600
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2512 > 2592 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2776

2775

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m5r1
Study: 2990:75 Mix 5
Sample: WO=2990:75Mix5 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume: 2.00
Sample from Vial 15
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 5 of list 080609
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:12 min	35:52 min	1.00 sec
# 3	35:52 min	13:13 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	1	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

```
 Sample rinse cycles      (R):      0 times
 Syringe filling volume   (F):    1.0 ul
 Pullup delay time        (D):      4 sec
 Sample pullup count      (P):      2 times
 Sample pullup speed      (E):    5.0 ul/sec
 Slvnt aftr pre inj cln   (U):    0.0 ul
 Air after pre inj cln    (G):    2.0 ul
 Sample volume            (V):    2.0 ul
 Sample air volume        (A):    2.0 ul
 Injection speed          (S):   10.0 ul/sec
 Pre Inj. wait time       (W):     10 sec
 Post Inj. hold time      (H):      3 sec
 Solvent A clean cycles   (C):     15 times
 Solvent B clean cycles   (B):      0 times
 Loop clean w slvnt A    (LC):      0 times
 Loop clean w slvnt B    (LB):      0 times
 Standard sample volume   (X):    0.0 ul
 Standard air volume      (Y):    0.0 ul
 2nd Injection volume     (I):    0.0 ul
 Air volume of 2nd inj    (J):    0.0 ul
 Time btwn 2 injections   (T):      0 sec

GC descriptor :  epa1668
  Injector:         270 deg                      270 deg max
  Transfer Line:    280 deg                      280 deg max
  Column:            75 deg at    0.0 minutes   280 deg max
                     75 deg at    2.0 minutes
                    150 deg at    7.0 minutes
                    270 deg at   55.0 minutes
                    270 deg at   57.0 minutes
  Inlet   :      Splitless mode
   Purge time             1.5 min
   Purge flow            40.0 ml/min
   Gas saver is on
   Saver time             3.0 min
   Saver flow            15.0 ml/min
  Column  :  Constant Flow      1.0 ml
  Stabilize time   0.0 minutes


ICL Parameters

 BCORRL          0.0150    BCORRS          0.0110    BCURR       16383.0000
 BDEV        16383.0000    BFM             2.0000    BLM          1032.0953
 BMASS         180.4888    BQUAD           0.0000    CAPIL           0.0000
 CAPTEMP       359.9988    CAPTSET       200.0000    CCURR           3.5765
 CORONA          0.0000    CYCLE           0.0000    DELAY           0.0000
 DITEMP          0.1954    DITSET          0.0000    DRAW          -19.0500
 DRAWC           1.0000    DRAWS           0.0100    ECORR           1.0010
 ECURR           1.0000    EDAC      7969177.0000    EDACG           1.0000
 EDACR          23.0000    EDACZ         394.0000    ELEN           56.5000
 EMULT           1.5200    ENS           460.0000    ERATIO          1.0000
 ESA           763.8000    ESICUR         10.0011    ESIPAR          0.0000
 EXS           146.0000    FDMA     18000000.0000    FLENS           1.0000
 FM             20.0000    FMII           50.0000    FQUAD           0.0000
 FREQ          300.4808    FSLOPE   54000000.0000    FVANAL        351.0000
 FVINLET       277.0000    FVSRC         973.0000    FWIN            0.7000
 GCTC          201.0000    GCTI          270.0000    GCTL          280.0000
 HACCU         208.0000    HCURR           1.2353    HVANAL       1261.0000
 HVSRC           0.0000    ICAL0           0.0011    ICAL1           0.4030
 ICAL2           0.5865    IONEN        4776.5520    IST           271.3713
 ISTC            0.0000    ISTCKP          5.0000    ISTCTD          1.0000
 ISTCTN          2.0000    ISTCTS         60.0000    ISTCTV          3.0000
 ISTS          270.0000    LENS         1333.0000    LENSS         106.4000
 LKM           404.9760    LM            800.0000    LMASS         180.4888
 LMII          500.0000    MASS          180.4888    MDAC       2347820.5477
```

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2611.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.2100	TCURR	0.8203
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 18:42:10.8

Autosampler has injected sample from vial 15
MID Time Window 1: Resolution is 8226
MID Time Window 2: Resolution is 9606
MID Time Window 3: Resolution is 9024
MID Time Window 4: Resolution is 10657
Analysis stopped at: 10-Jun-08 19:39:13.4 (run time 57.02 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX5	Prep Batch		Lot No	
Data File	/20080610rt/a0806m5r2.	Prep Date		SDG No	
Analysis ID	104467	Prep Exp Date		Date Received	
Analysis Date	06/10/08 23:47	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	138	128	55	51	1.08 *	/	
	PCB 1 (BZ)	12:02	00:00	0	930806	284280	357727	112677	3.27	AVV/AVV	M
	PCB 3 (BZ)	14:14	00:00	0	906164	275360	298065	88376	3.29	AVV/AVV	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	178	213	71	85	0.84 *	/	
	13C12-PCB 1	12:02	00:00	0	1358835	407930	561616	164964	3.33	AVV/AVV	
	13C12-PCB 3	14:14	00:00	0	1402948	415844	496704	141856	3.37	ABV/AVV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	108	245	43	98	0.44 *	/	
	PCB 4 (BZ)	14:31	00:00	0	233759	158234	78530	50338	1.48	AVB/AVV	
	PCB 15 (BZ)	20:28	00:00	0	387807	263843	104607	69642	1.47	ABV/AVV	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	203	128	81	51	1.59	/	
	13C12-PCB 4	14:30	00:00	0	377188	238177	128893	78499	1.58	ABV/ABV	
	13C12-PCB 9	16:28	00:00	0	581603	374397	176164	116880	1.55	ABV/ABV	
	13C12-PCB 8	17:20	00:00	0	608509	392196	175957	115130	1.55	ABV/AVV	
	13C12-PCB 15	20:27	00:00	0	616468	401000	164405	108033	1.54	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	120	108	48	43	1.12	/	
	PCB 19 (BZ)	17:40	00:00	0	114646	113490	35687	33120	1.01	ABV/ABV	
	PCB 16 (BZ)	20:26	00:00	0	104398	101232	25971	27047	1.03	ABV/ABV	
	PCB 37 (BZ)	27:33	00:00	0	550686	518500	125476	117948	1.06	ABV/ABV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	220	165	88	66	1.33 *	/	
	13C12-PCB 19	17:39	00:00	0	197314	205862	57207	56748	0.96	AVV/AVV	
	13C12-PCB 32	20:55	00:00	0	342589	338279	88648	89837	1.01	AVV/AVV	
	13C12-PCB 31	23:12	00:00	0	978228	889158	239249	223321	1.10	AVV/ABV	
	13C12-PCB 28	23:29	00:00	0	941638	854614	219527	203926	1.10	AVV/AVV	
	13C12-PCB 37	27:31	00:00	0	907167	808104	201382	180364	1.12	ABV/AVV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	108	118	43	47	0.91 *	/	
	PCB 54 (BZ)	20:47	00:00	0	238285	314725	62173	79789	0.76	ABV/ABV	
	PCB 43 (BZ)	25:35	00:00	0	355388	438880	86057	100193	0.81	ABV/ABV	DM
	PCB 44 (BZ)	26:21	00:00	0	368873	466140	81824	103066	0.79	ABV/AVV	D
	PCB 74 (BZ)	30:12	00:00	0	596176	739593	129594	160619	0.81	ABV/ABV	M
	PCB 56 (BZ)	31:09	00:00	0	551243	694471	120626	150798	0.79	AVV/AVV	
	PCB 77 (BZ)	34:52	00:00	0	567726	727465	118411	147839	0.78	ABV/ABV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	105	93	42	37	1.14 *	/	
	13C12-PCB 54	20:46	00:00	0	207275	264805	56855	66580	0.78	ABV/ABV	
	13C12-PCB 52	25:19	00:00	0	325527	421506	73797	99944	0.77	ABV/ABV	
	13C12-PCB 79	33:16	00:00	0	489299	613828	105876	128194	0.80	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX5	Prep Batch		Lot No	
Data File	/20080610rt/a0806m5r2.	Prep Date		SDG No	
Analysis ID	104467	Prep Exp Date		Date Received	
Analysis Date	06/10/08 23:47	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	13C12-PCB 81	34:16	00:00	0	444877	559930	93015	117375	0.79	ABV/ABV	
	13C12-PCB 77	34:50	00:00	0	468807	578537	98276	119610	0.81	ABV/ABB	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	125	105	50	42	1.19 *	/	
	PCB 104 (BZ)	26:18	00:00	0	468055	279087	106442	66509	1.68	ABV/ABV	
	PCB 98 (BZ)	29:42	00:00	0	327114	199225	71225	41990	1.64	AVV/AVV	DM
	PCB 125 (BZ)	33:23	00:00	0	469489	274863	100999	57422	1.71	ABV/ABV	
	PCB 110 (BZ)	34:12	00:00	0	477766	287024	101519	59301	1.66	AVV/AVV	
	PCB 126 (BZ)	41:26	00:00	0	1032426	630059	215983	126087	1.64	ABV/ABV	M
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	133	110	53	44	1.20 *	/	
	13C12-PCB 104	26:17	00:00	0	409703	249333	93063	57618	1.64	ABV/ABV	
	13C12-PCB 95	29:15	00:00	0	324423	200203	70955	47126	1.62	AVV/AVV	
	13C12-PCB 101	32:10	00:00	0	335119	200667	69014	41981	1.67	ABV/ABV	
	13C12-PCB 111	34:51	00:00	0	409205	257964	87312	53261	1.59	ABV/AVV	
	13C12-PCB 123	36:49	00:00	0	870039	548476	182331	115393	1.59	ABV/ABV	
	13C12-PCB 118	37:09	00:00	0	943094	569286	194545	118517	1.66	AVV/AVV	
	13C12-PCB 114	37:41	00:00	0	883063	545984	181093	113416	1.62	ABV/AVV	
	13C12-PCB 105	38:20	00:00	0	865869	536656	173212	107596	1.61	AVV/ABV	
	13C12-PCB 127	39:48	00:00	0	918958	566155	192791	120464	1.62	ABV/ABV	
	13C12-PCB 126	41:25	00:00	0	948596	577197	193585	113581	1.64	AVV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	110	103	44	41	1.07	/	
	PCB 155 (BZ)	31:58	00:00	0	364575	269413	77642	55526	1.35	ABV/ABV	
	PCB 138 (BZ)	40:17	00:00	0	512717	404416	106523	83027	1.27	AVV/AVV	
	PCB 169 (BZ)	47:40	00:00	0	669805	519799	134084	101854	1.29	AVV/AVV	
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	105	100	42	40	1.05	/	
	13C12-PCB 155	31:55	00:00	0	332056	263434	70339	56907	1.26	ABV/ABV	
	13C12-PCB 153	39:00	00:00	0	475199	374063	96895	76118	1.27	ABV/AVV	
	13C12-PCB 138	40:16	00:00	0	476599	363150	97576	72982	1.31	ABV/AVV	
	13C12-PCB 167	43:15	00:00	0	592083	466921	115724	92040	1.27	AVV/AVV	
	13C12-PCB 156	44:26	00:00	0	1193381	909287	151015	115144	1.31	AVV/AVV	D
	13C12-PCB 169	47:39	00:00	0	583514	445289	115531	84629	1.31	ABV/AVV	
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	110	95	44	38	1.16	/	
	PCB 188 (BZ)	37:41	00:00	0	445655	418898	89593	85199	1.06	ABV/ABV	
	PCB 189 (BZ)	50:11	00:00	0	789725	747381	150004	146813	1.06	AVV/ABV	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	98	110	39	44	0.89	/	
	13C12-PCB 188	37:39	00:00	0	408759	383912	80268	79375	1.06	ABV/ABV	
	13C12-PCB 178	40:43	00:00	0	262969	245988	53188	48306	1.07	AVV/AVV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX5	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m5r2.	**Prep Date**		**SDG No**	
Analysis ID	104467	**Prep Exp Date**		**Date Received**	
Analysis Date	06/10/08 23:47	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

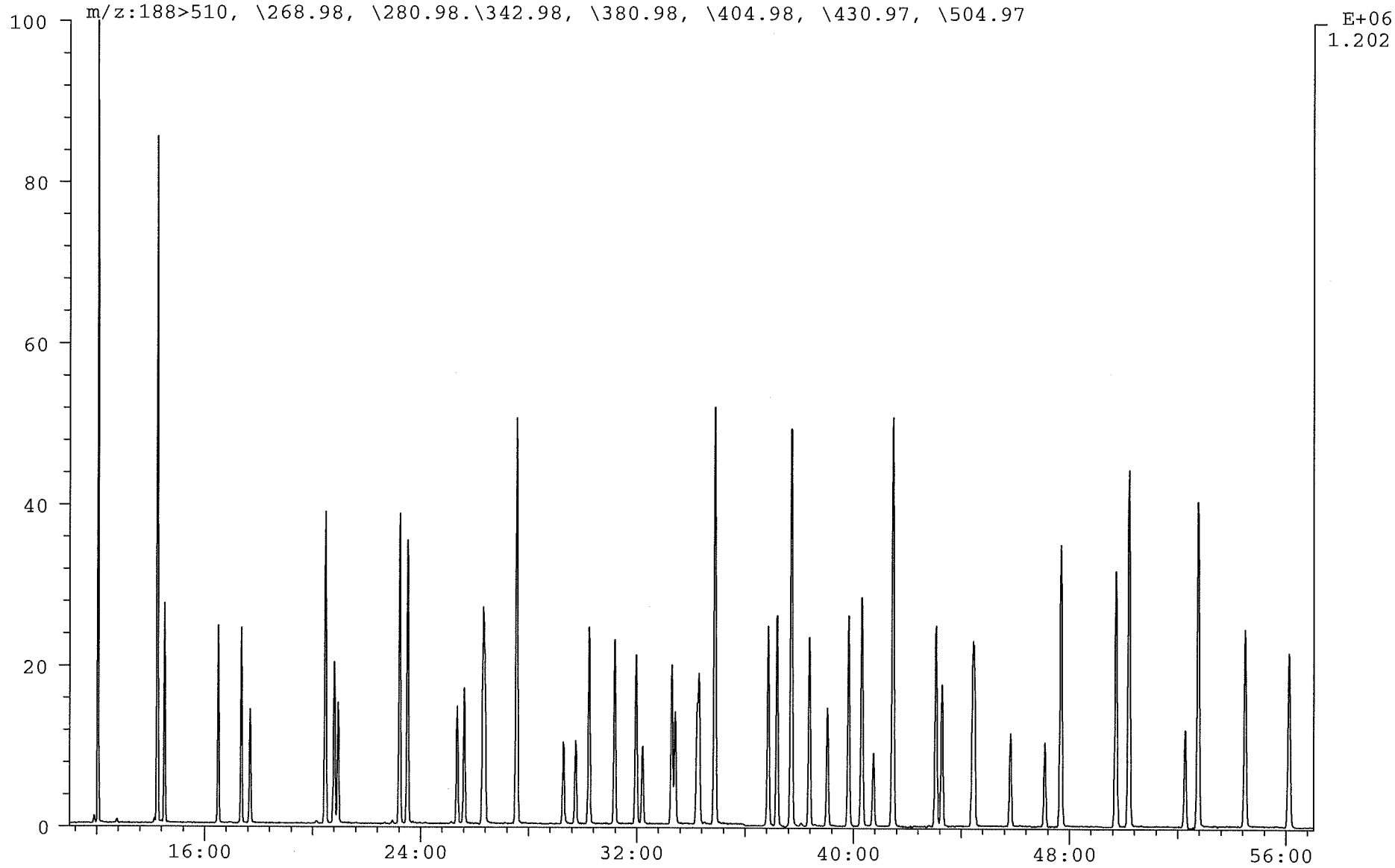
View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
406					**405.8428**	**407.8398**	**405.8428**	**407.8398**	**0.89-1.21**	
	13C12-PCB 180	45:48	00:00	0	338743	315361	66532	62950	1.07	ABV/ABV
	13C12-PCB 170	47:04	00:00	0	279463	277639	57807	58840	1.01	AVV/AVV
	13C12-PCB 189	50:09	00:00	0	707074	667247	140566	126788	1.06	ABV/ABV
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	Noise	00:00	00:00	0	103	120	41	48	0.85	/
	PCB 202 (BZ)	43:02	00:00	0	437805	474271	88164	93906	0.92	AVV/ABV
	PCB 205 (BZ)	52:44	00:00	0	742660	836833	135488	159751	0.89	ABV/ABV
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	118	113	47	45	1.04 *	/
	13C12-PCB 202	43:01	00:00	0	287239	314297	58377	63776	0.91	AVV/ABV
	13C12-PCB 194	52:15	00:00	0	345354	375990	66493	71353	0.92	ABB/ABB
	13C12-PCB 205	52:43	00:00	0	488572	528365	97253	105868	0.92	ABV/ABV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	135	170	54	68	0.79	/
	PCB 208 (BZ)	49:42	00:00	0	503731	640224	95826	125649	0.79	ABV/ABV
	PCB 206 (BZ)	54:29	00:00	0	370265	490059	69883	92639	0.76	ABV/ABB
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	130	130	52	52	1.00 *	/
	13C12-PCB 208	49:41	00:00	0	332088	426242	66259	85214	0.78	ABV/ABV
	13C12-PCB 206	54:27	00:00	0	241110	300246	44500	58073	0.80	AVV/AVV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	78	88	31	35	0.89 *	/
	PCB 209 (BZ)	56:06	00:00	0	333826	466463	58618	85124	0.72	ABV/ABV
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	90	85	36	34	1.06 *	/
	13C12-PCB 209	56:04	00:00	0	230507	317072	41113	56201	0.73	ABB/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: a0806m5r2 10-Jun-08 Elapse: 56:09 2553
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

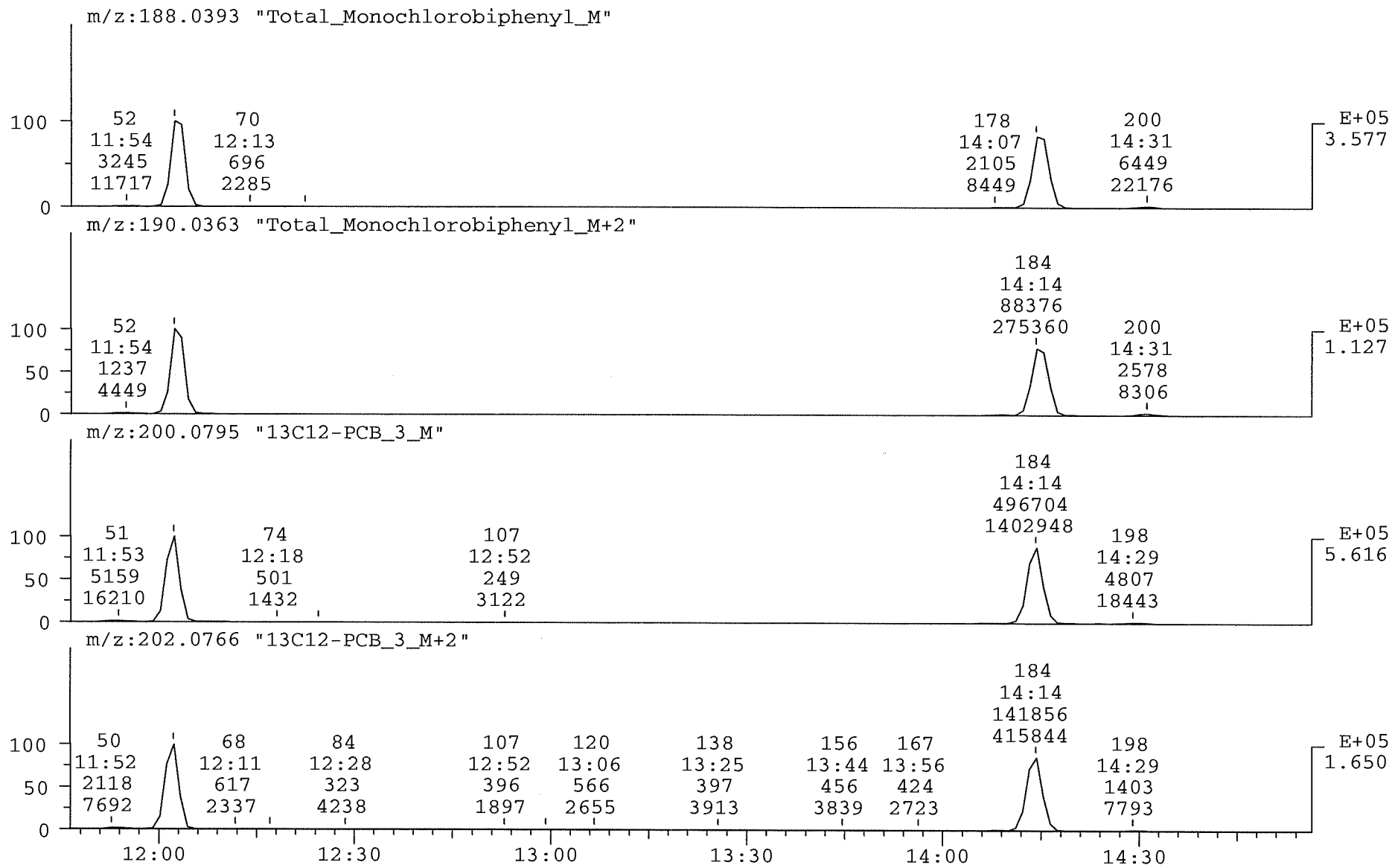
Int OS 6-11-08
Calc'd 6/2008



H-2784

2783

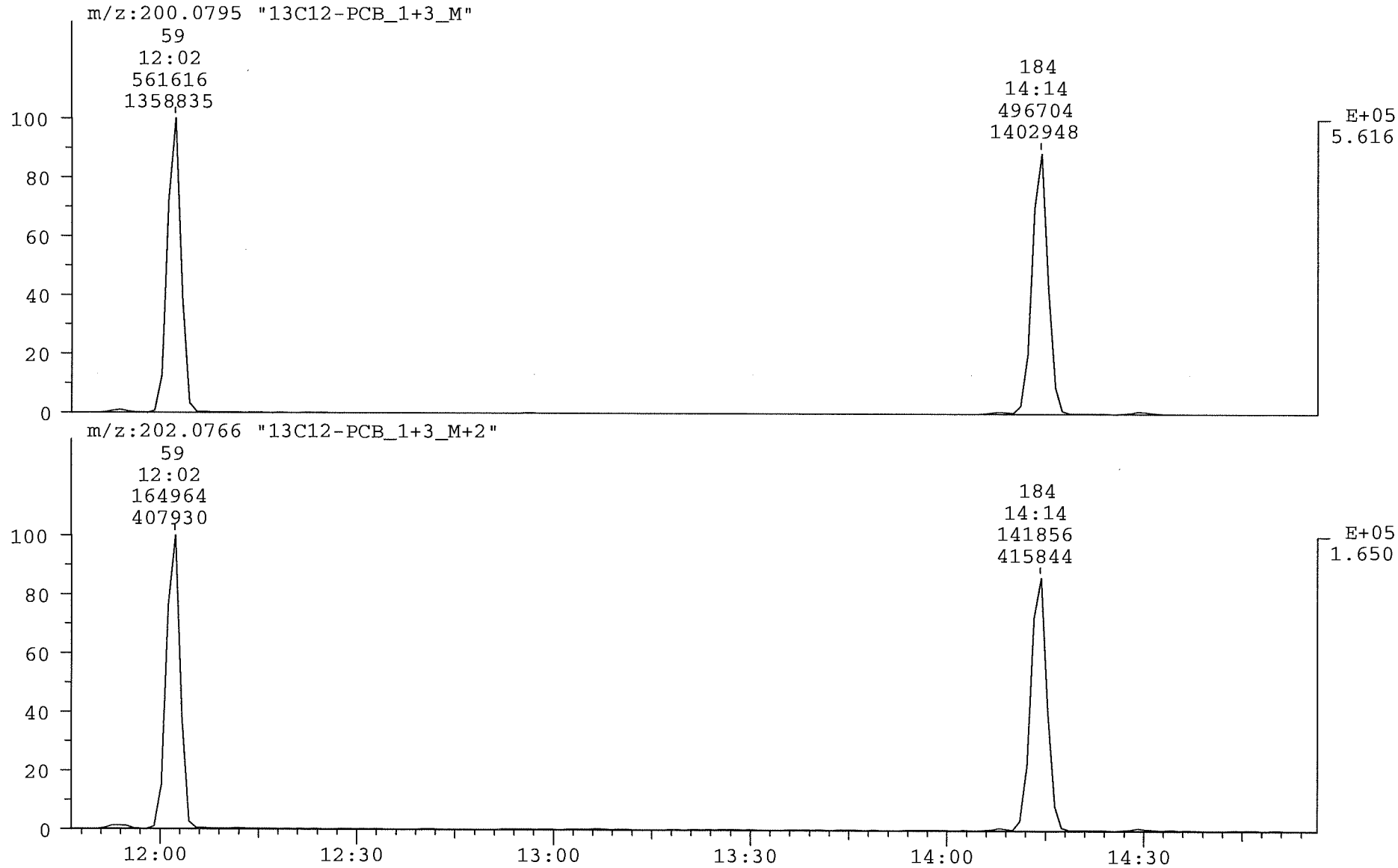
CHRO: a0806m5r2 10-Jun-08 Elapse: 13:21.4 134
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2785

2784

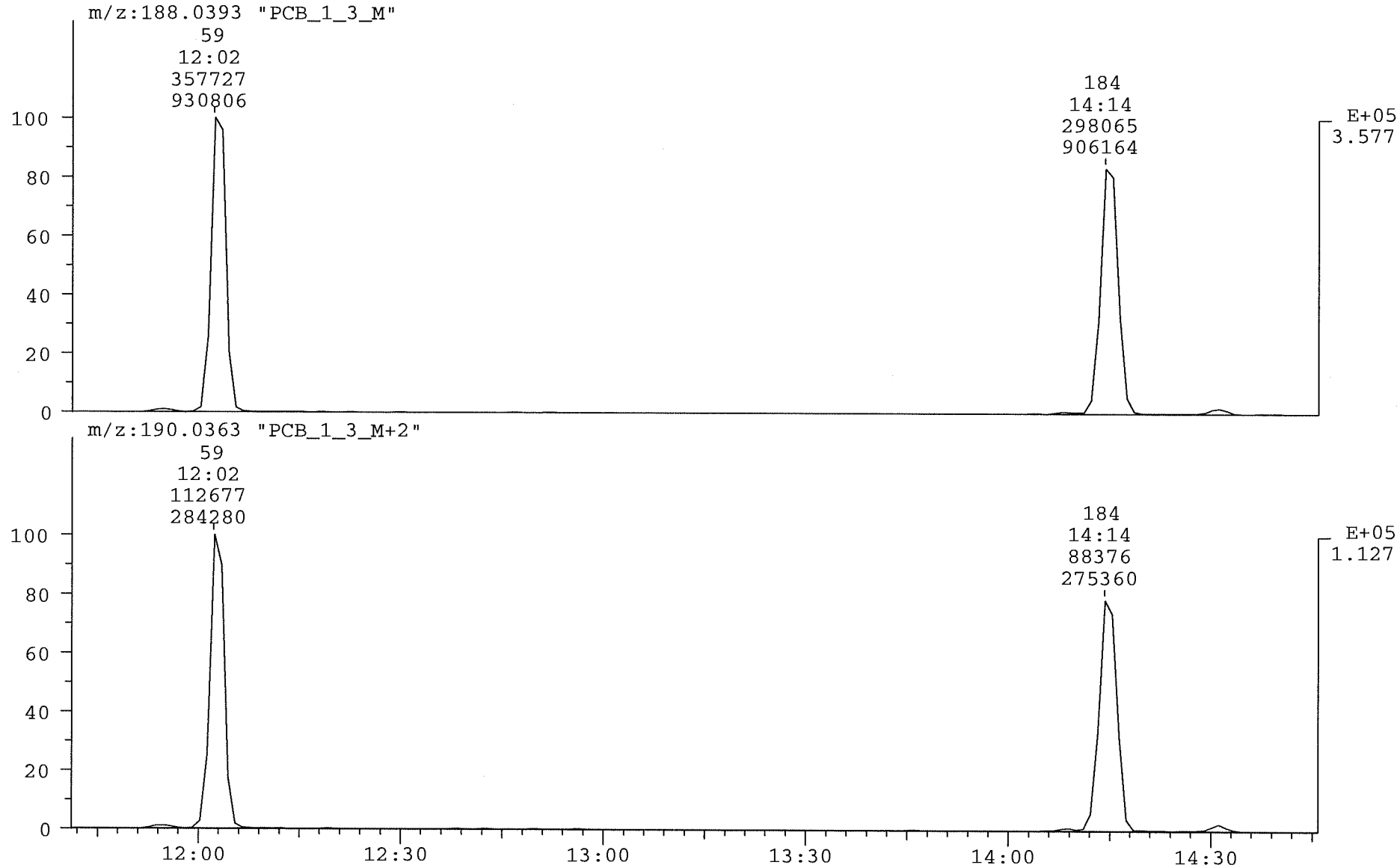
CHRO: a0806m5r2 10-Jun-08 Elapse: 13:21.4 134
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2786

2785

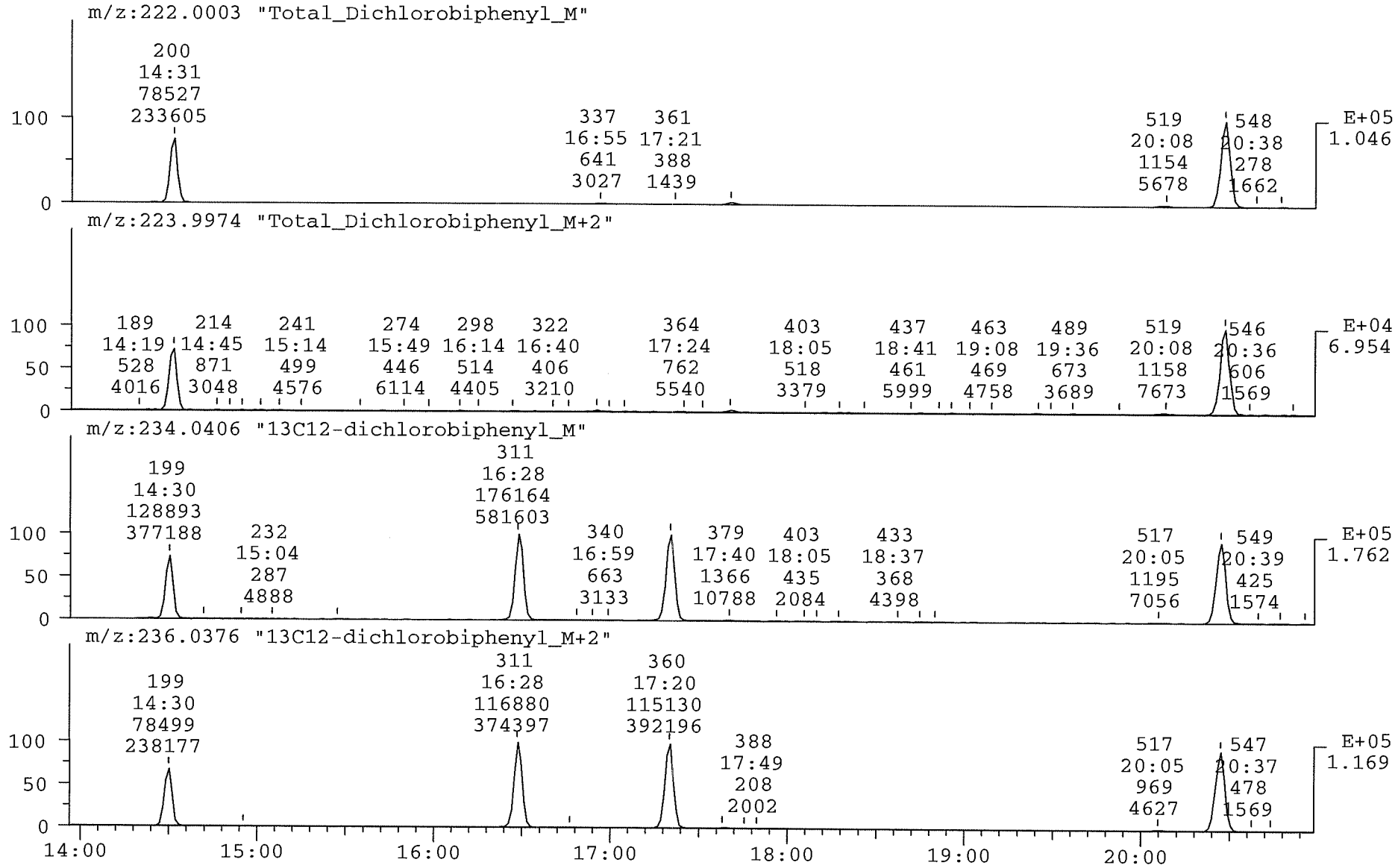
CHRO: a0806m5r2 10-Jun-08 Elapse: 13:21.4 134
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 39 > 214 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2787

2786

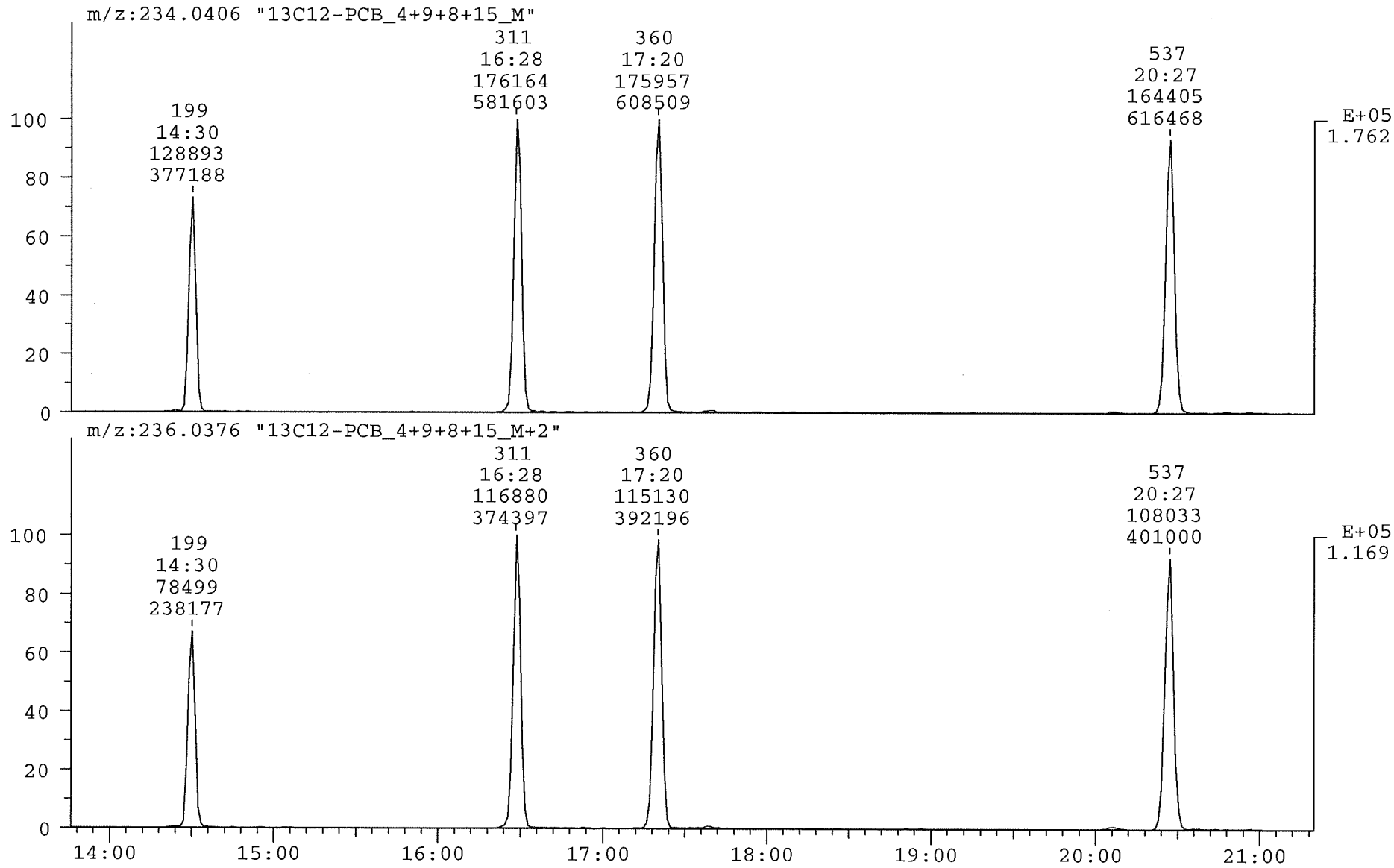
CHRO: a0806m5r2 10-Jun-08 Elapse: 17:27.5 367
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 167 > 567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2788

2787

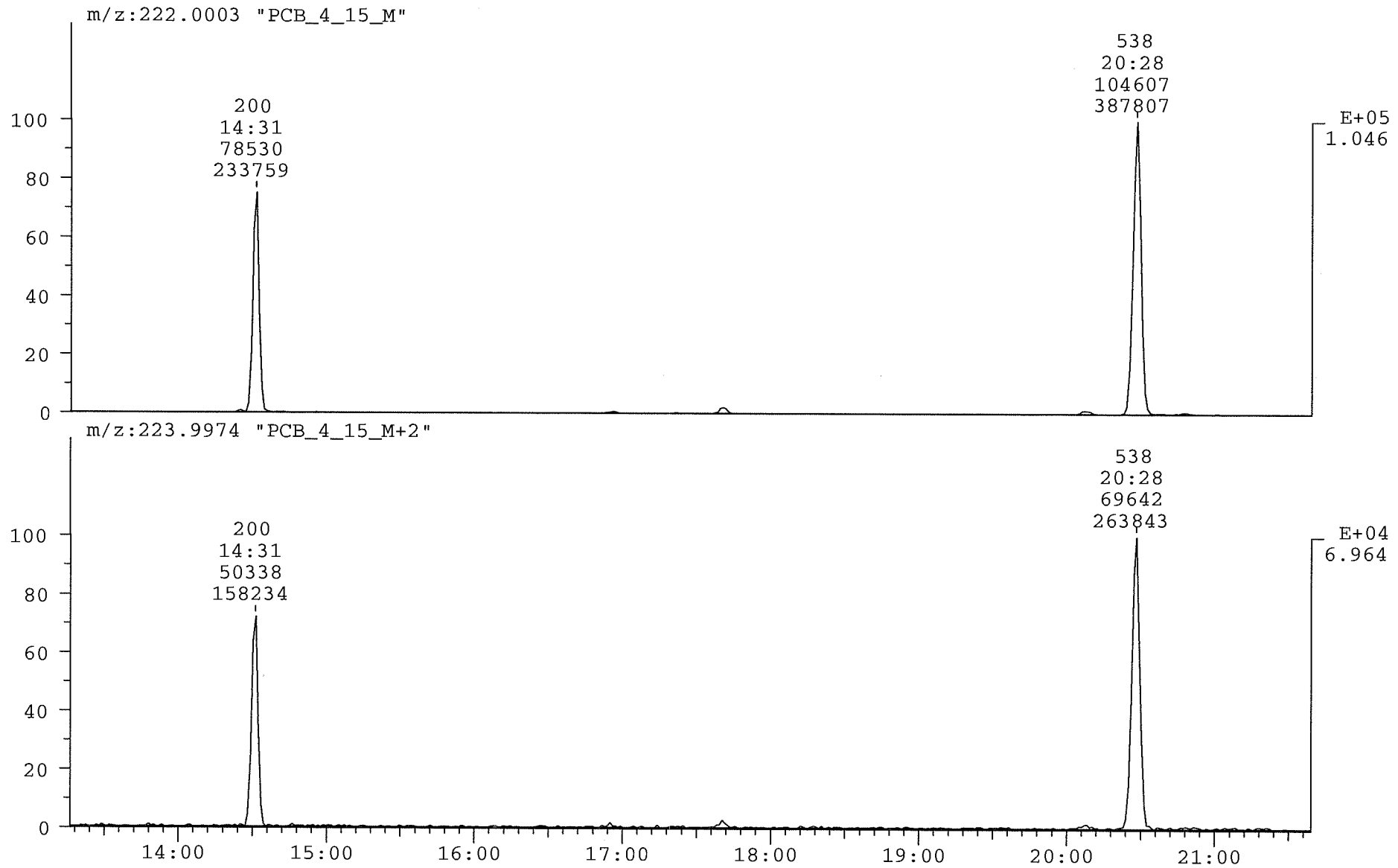
CHRO: a0806m5r2 10-Jun-08 Elapse: 17:27.5 367
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 157 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2789

2788

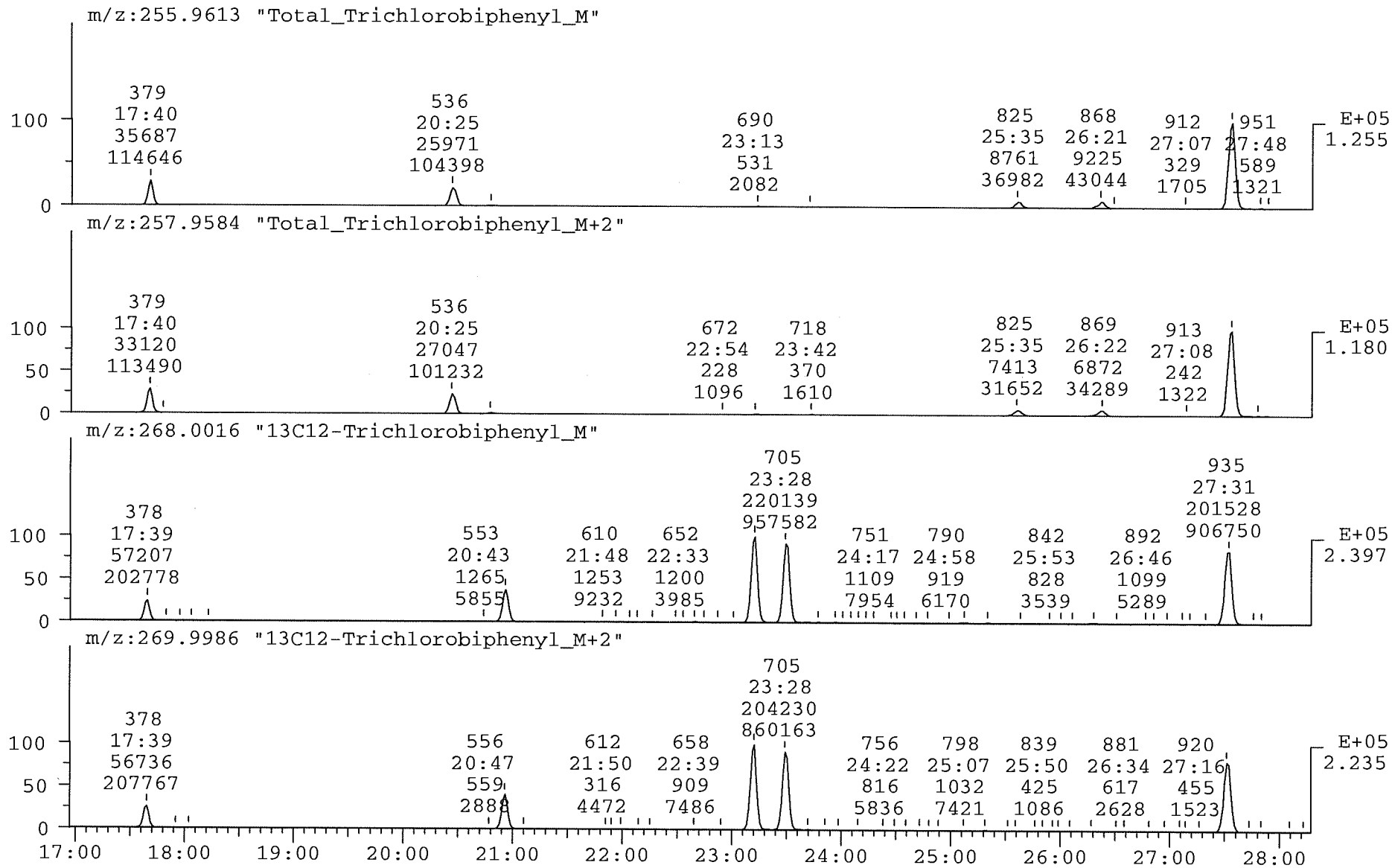
CHRO: a0806m5r2 10-Jun-08 Elapse: 17:27.5 367
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 129 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2790

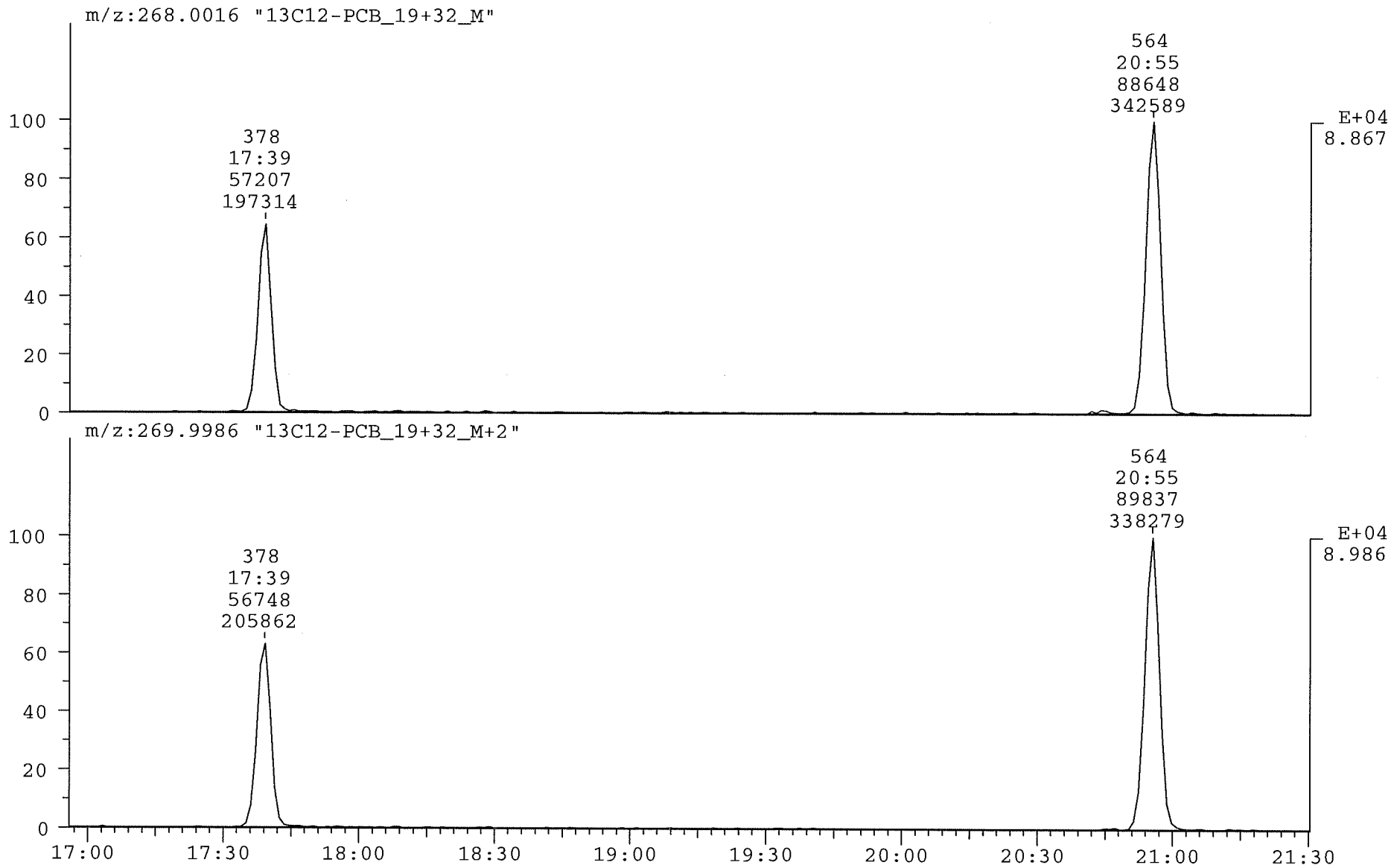
2789

CHRO: a0806m5r2 10-Jun-08 Elapse: 22:39.3 658
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 338 > 978 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2791

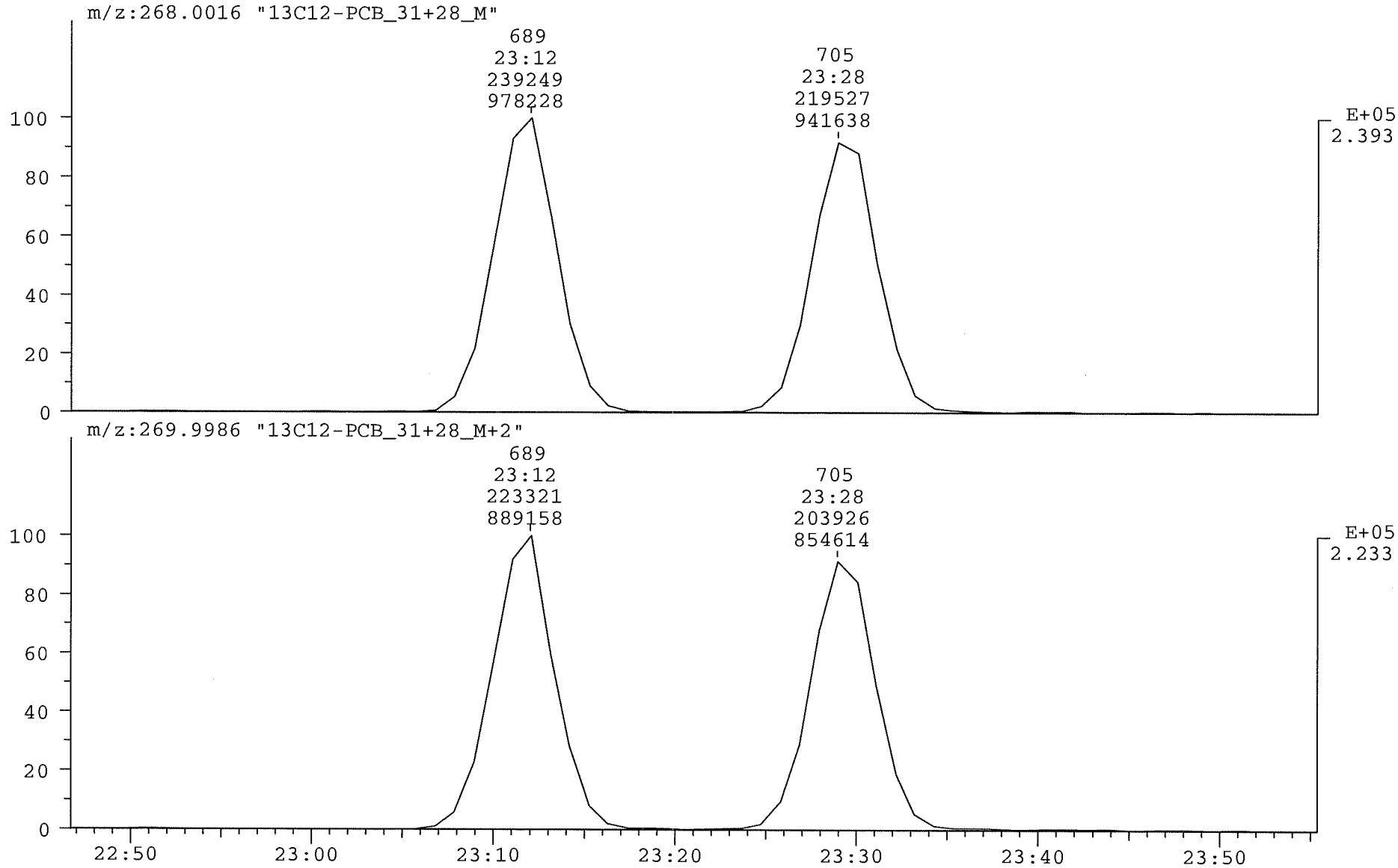
CHRO: a0806m5r2 10-Jun-08 Elapse: 19:02.5 457
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 337 > 597 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2792

2791

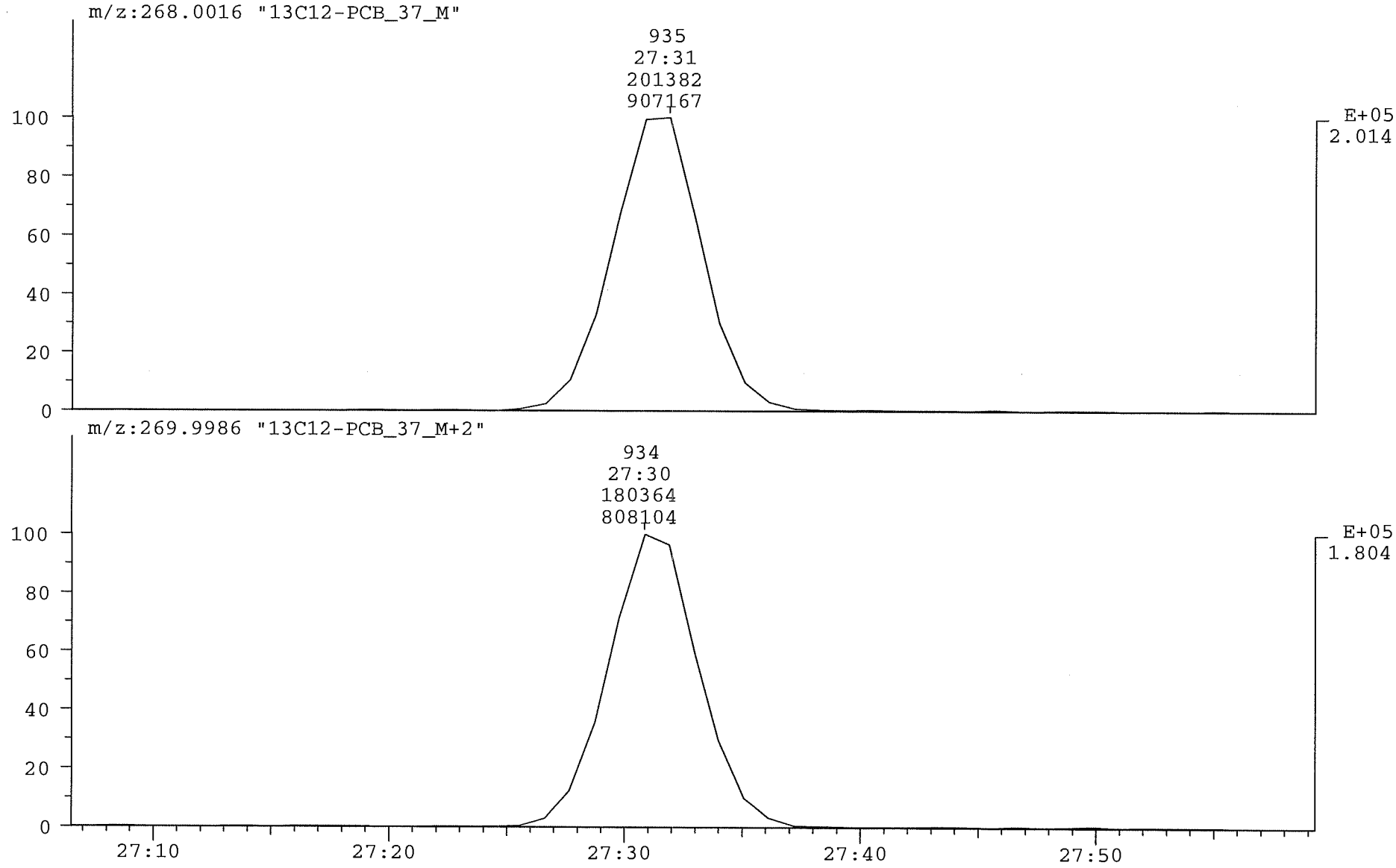
CHRO: a0806m5r2 10-Jun-08 Elapse: 23:13.1 690
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2793

2792

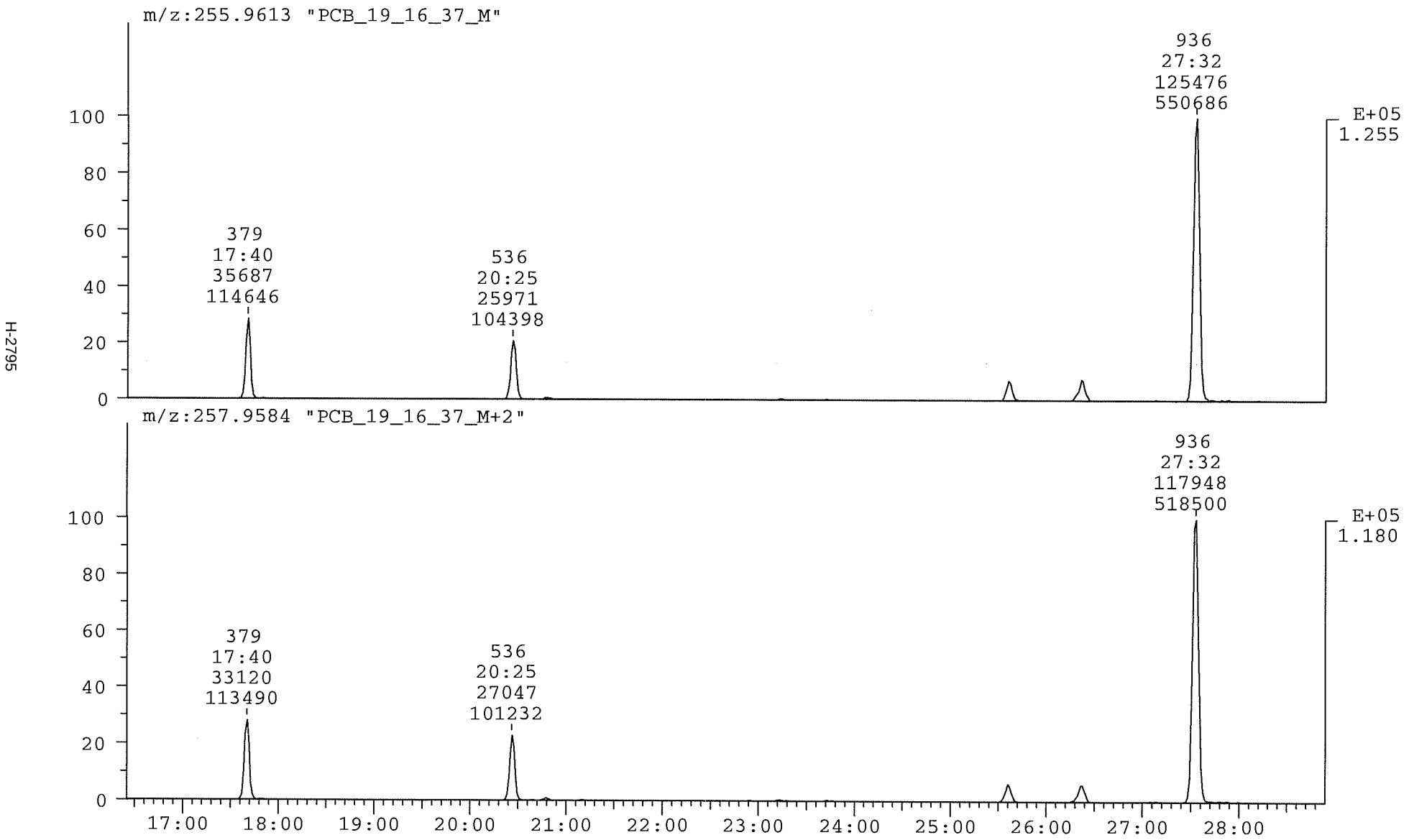
CHRO: a0806m5r2 10-Jun-08 Elapse: 27:32.9 936
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 911 > 961 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2794

2793

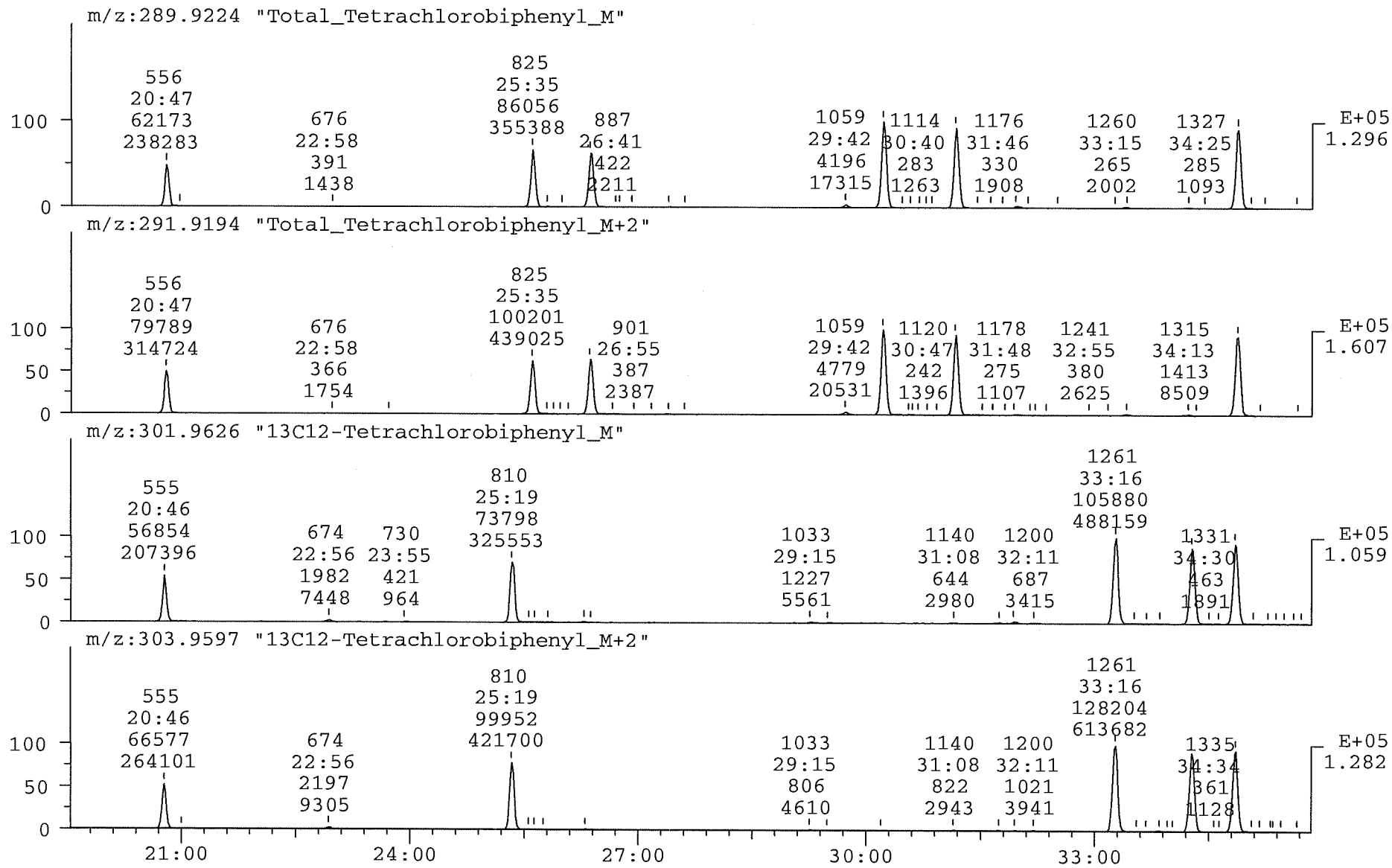
CHRO: a0806m5r2 10-Jun-08 Elapse: 22:39.3 658
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 308 > 1013 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2795

2794

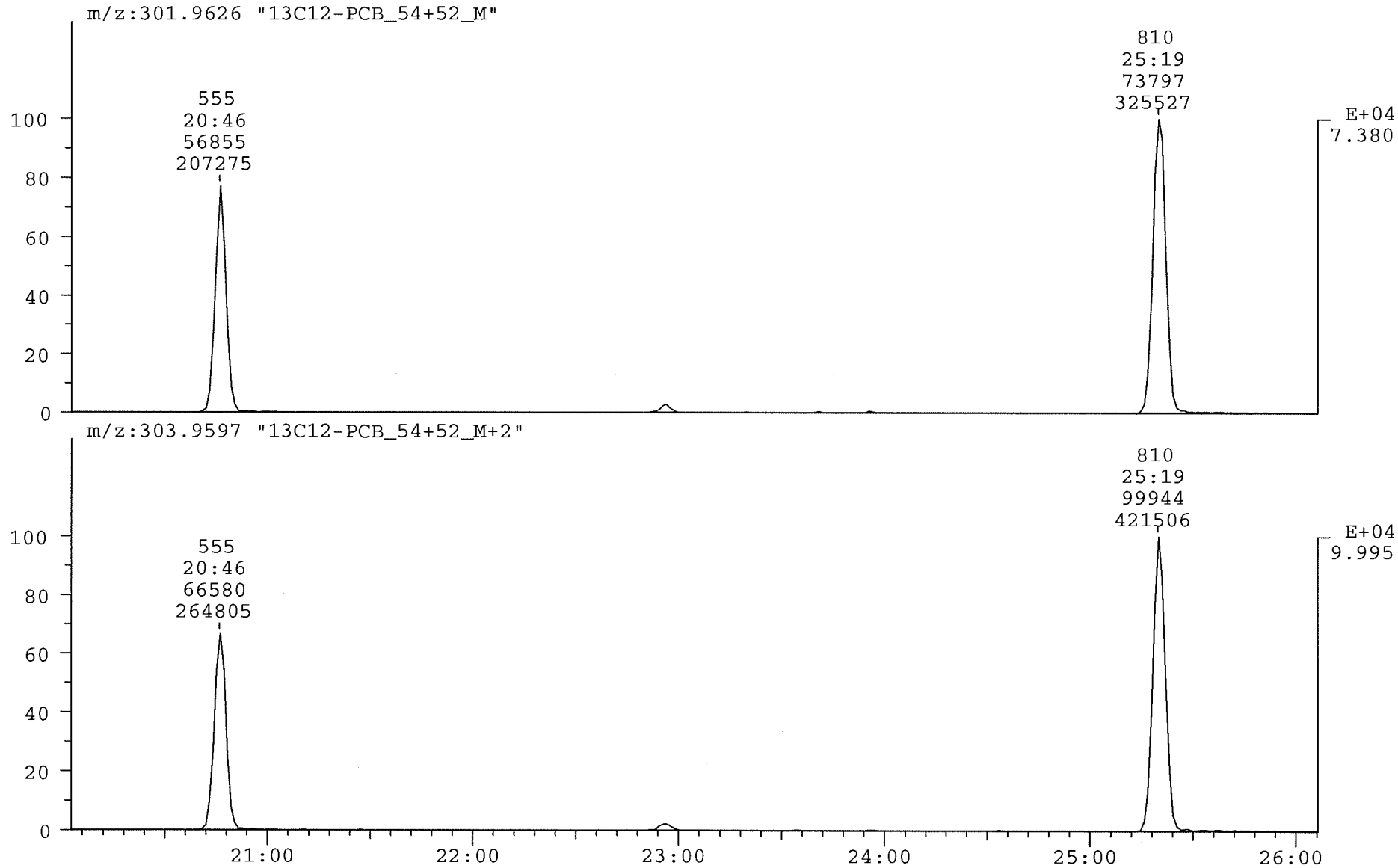
CHRO: a0806m5r2 10-Jun-08 Elapse: 27:41.4 944
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 485 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2796

2795

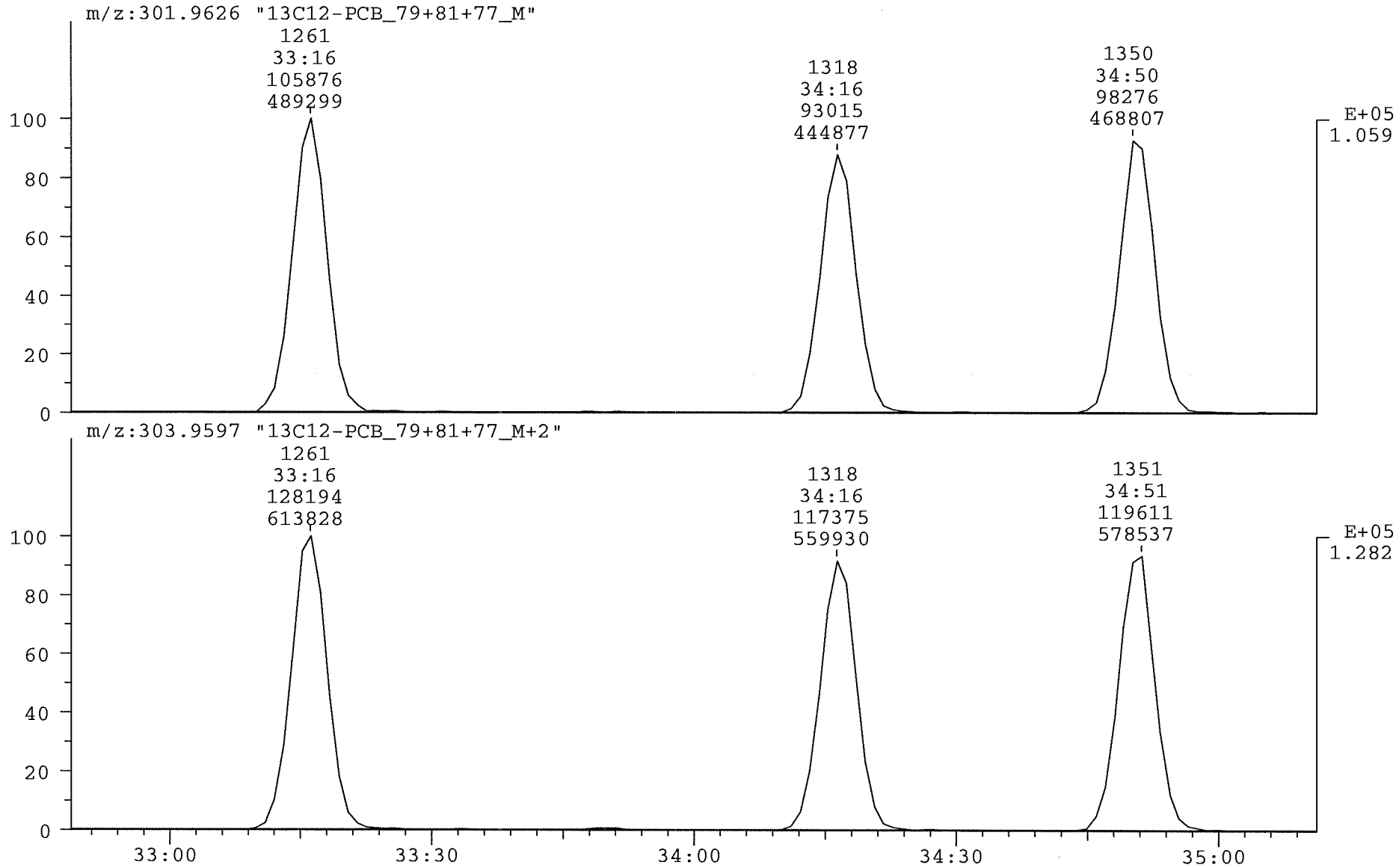
CHRO: a0806m5r2 10-Jun-08 Elapse: 23:06.8 684
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2797

2796

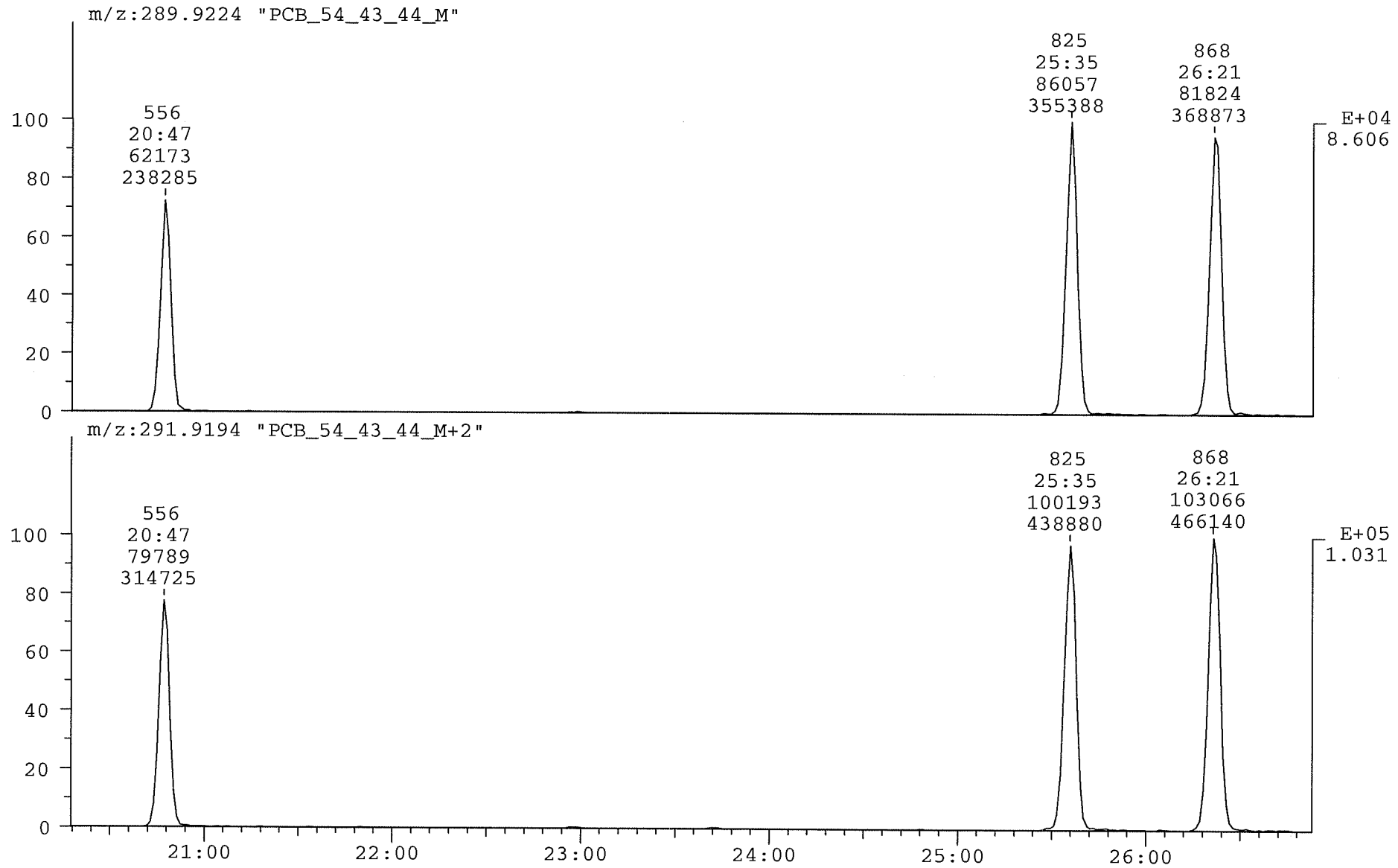
CHRO: a0806m5r2 10-Jun-08 Elapse: 34:02 1305
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1235 > 1370 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2798

2797

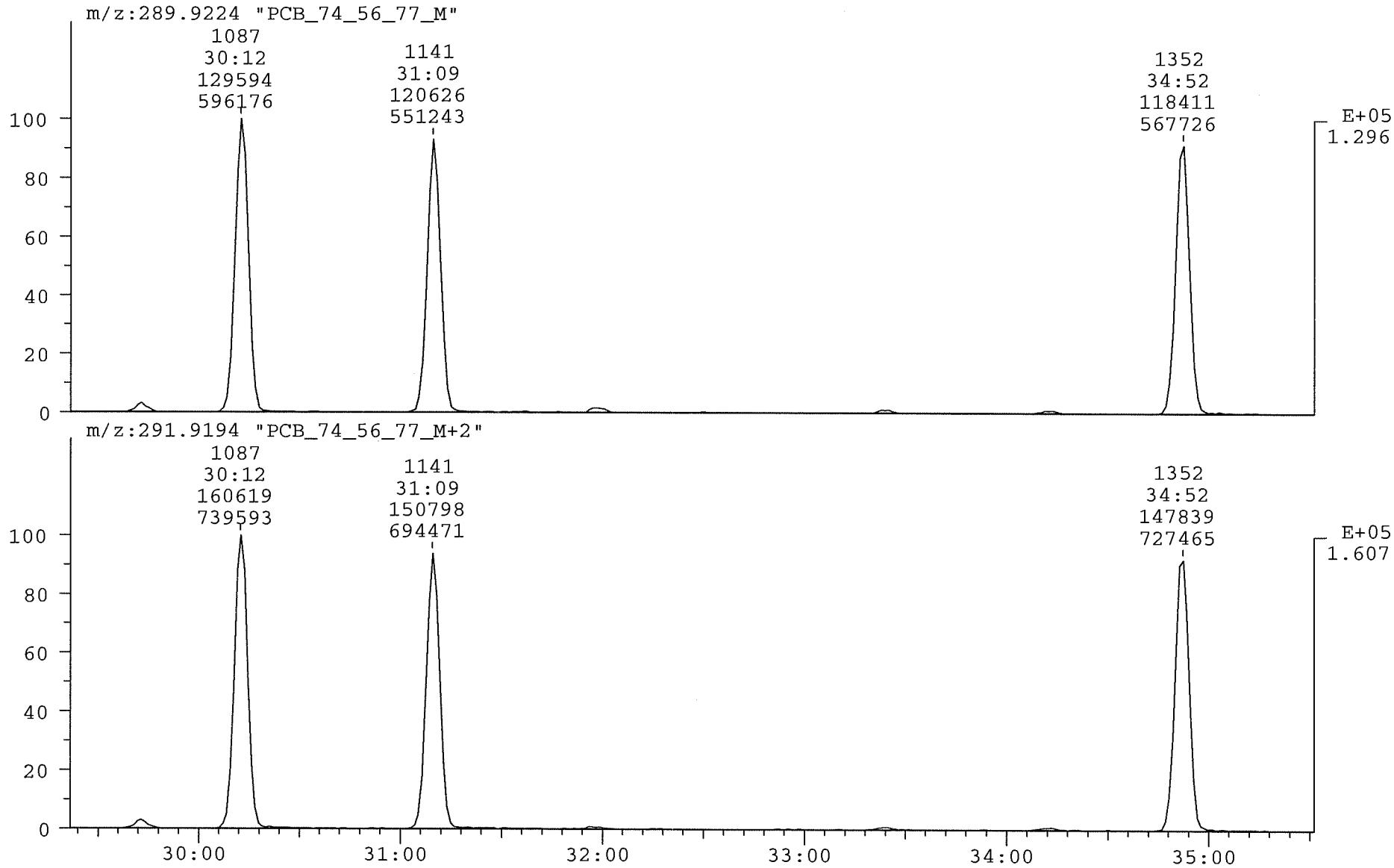
CHRO: a0806m5r2 10-Jun-08 Elapse: 23:37.4 713
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 528 > 898 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2799

2798

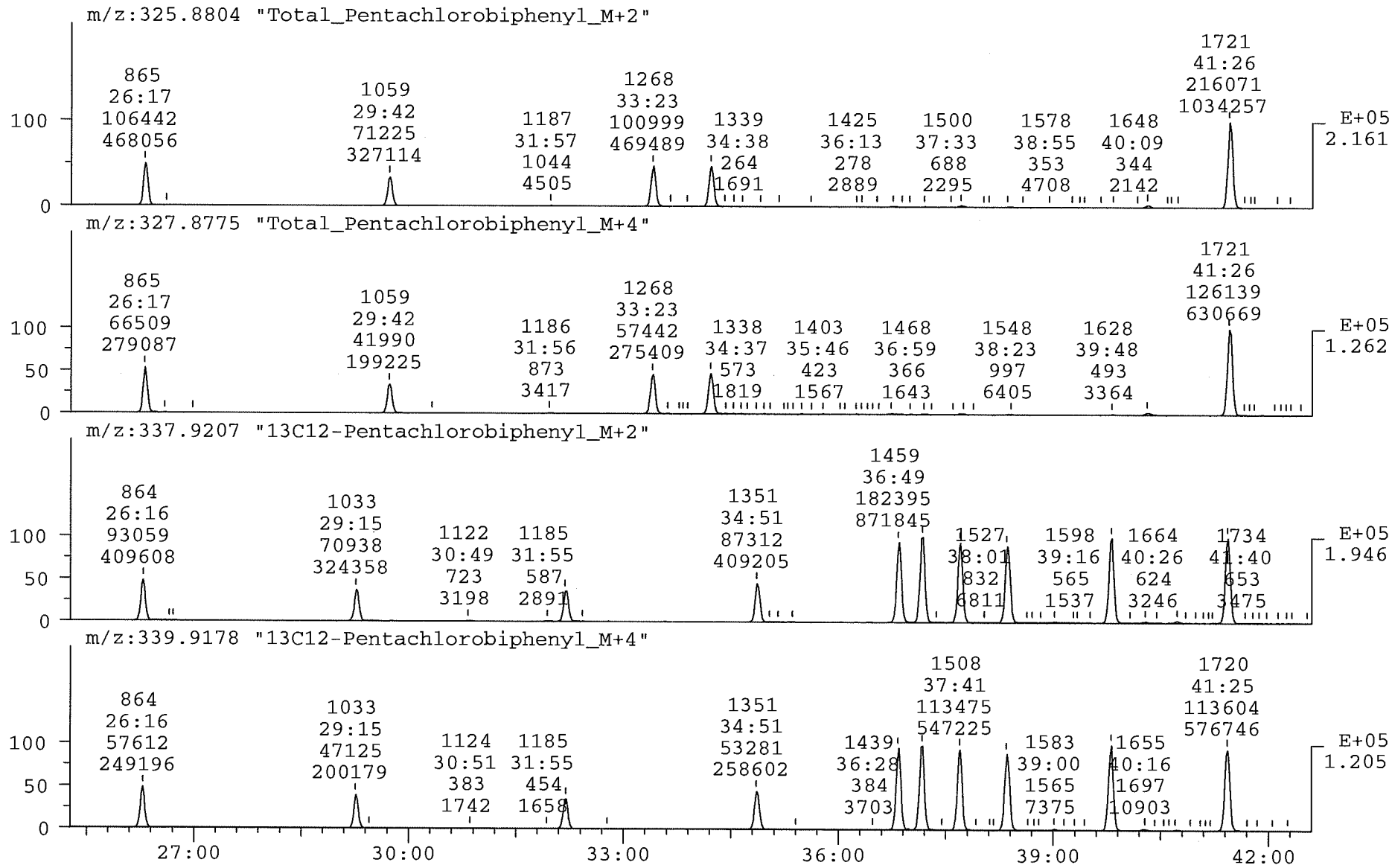
CHRO: a0806m5r2 10-Jun-08 Elapse: 32:26 1214
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1039 > 1389 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2800

2799

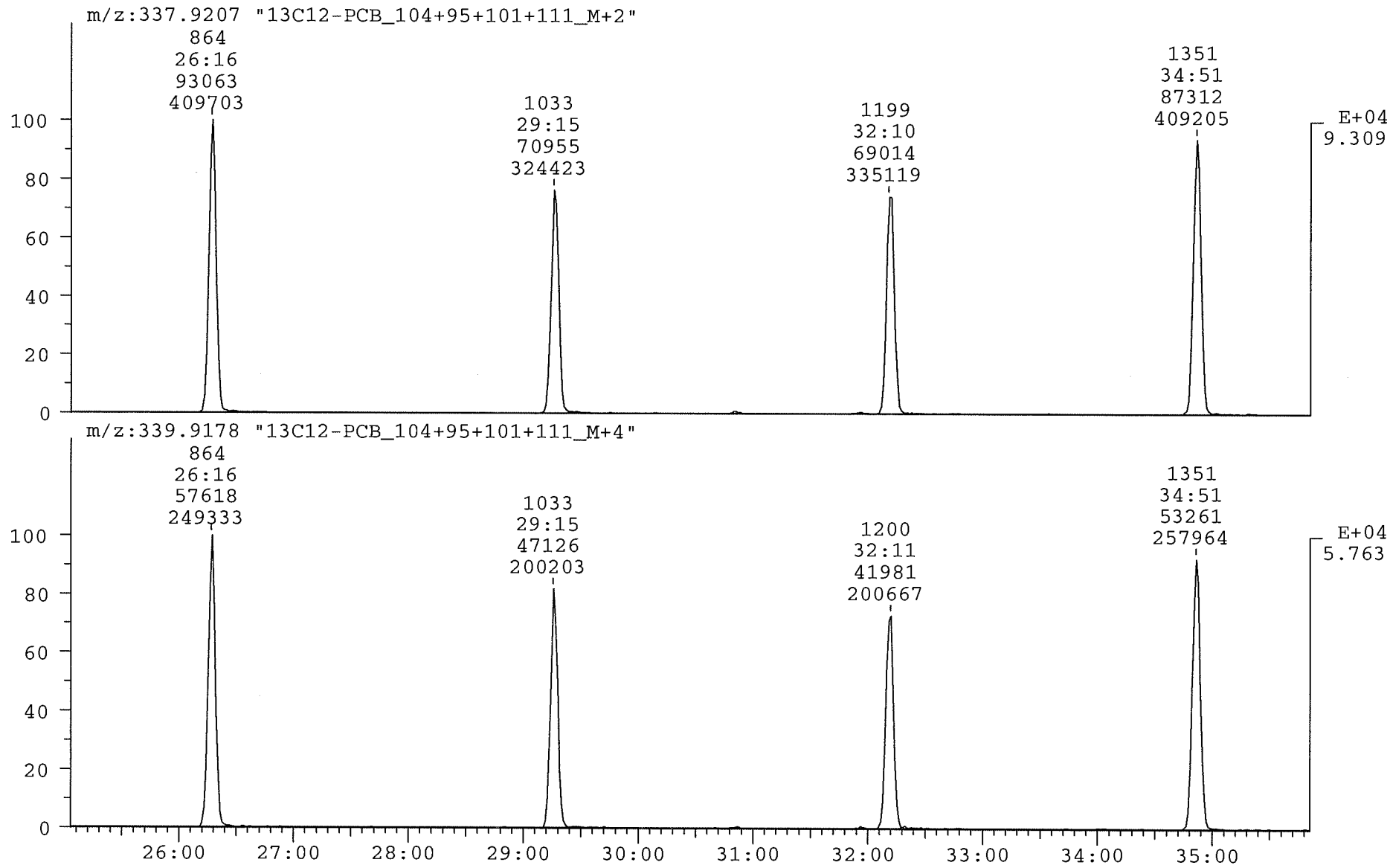
CHRO: a0806m5r2 10-Jun-08 Elapse: 33:56 1299
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 806 > 1787 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2801

2800

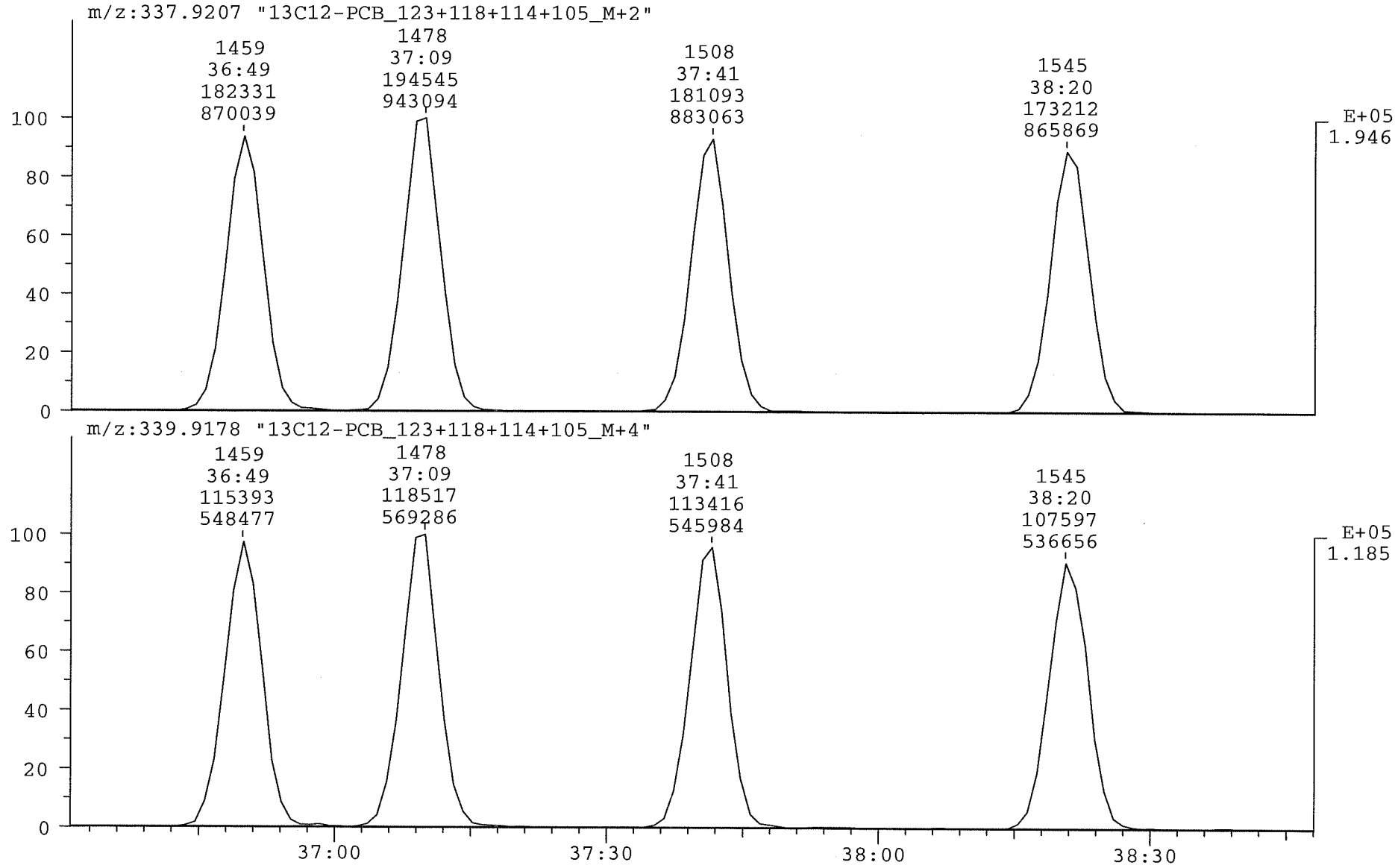
CHRO: a0806m5r2 10-Jun-08 Elapse: 30:27 1101
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 794 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2802

2801

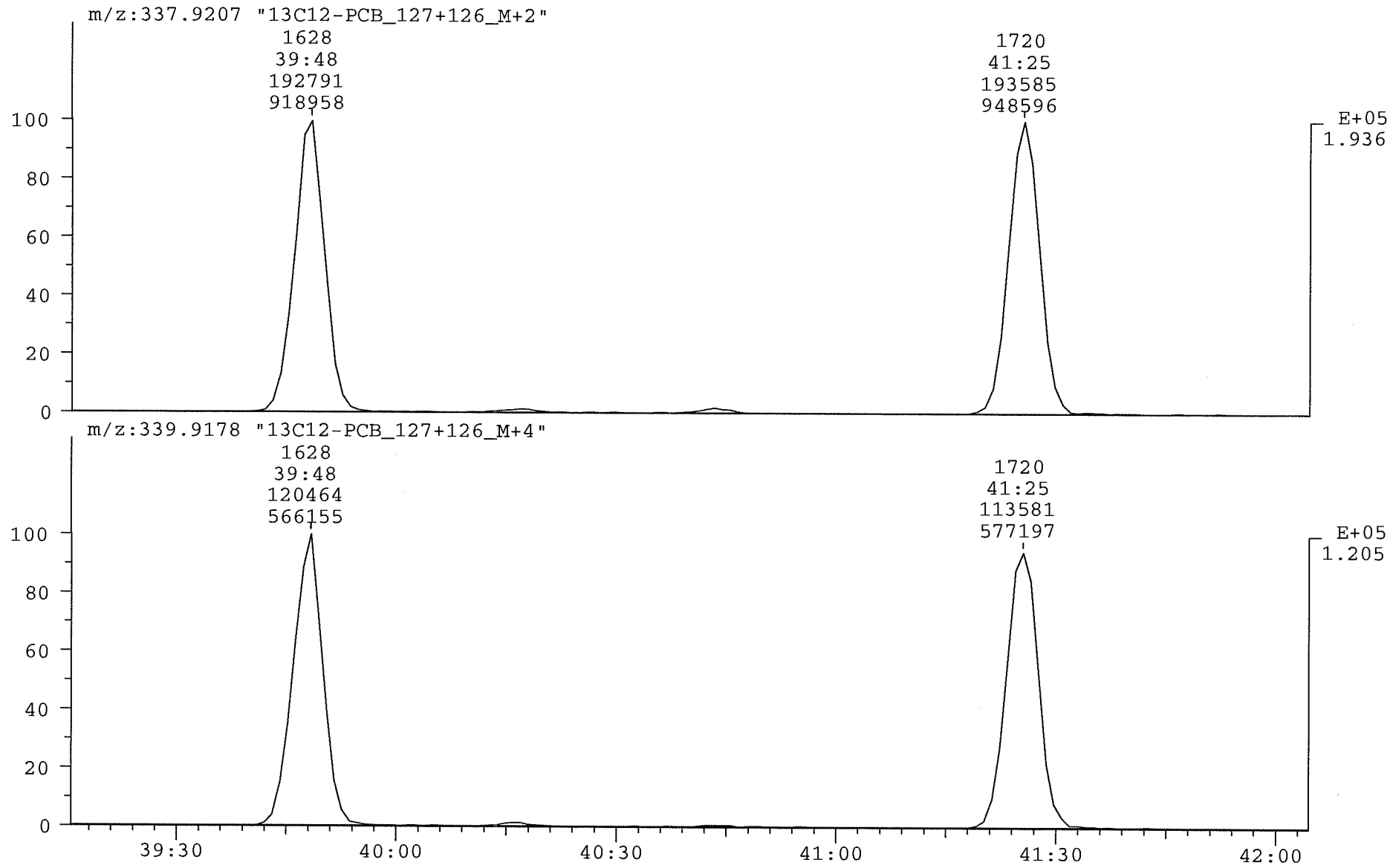
CHRO: a0806m5r2 10-Jun-08 Elapse: 37:39 1506
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1441 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2803

2802

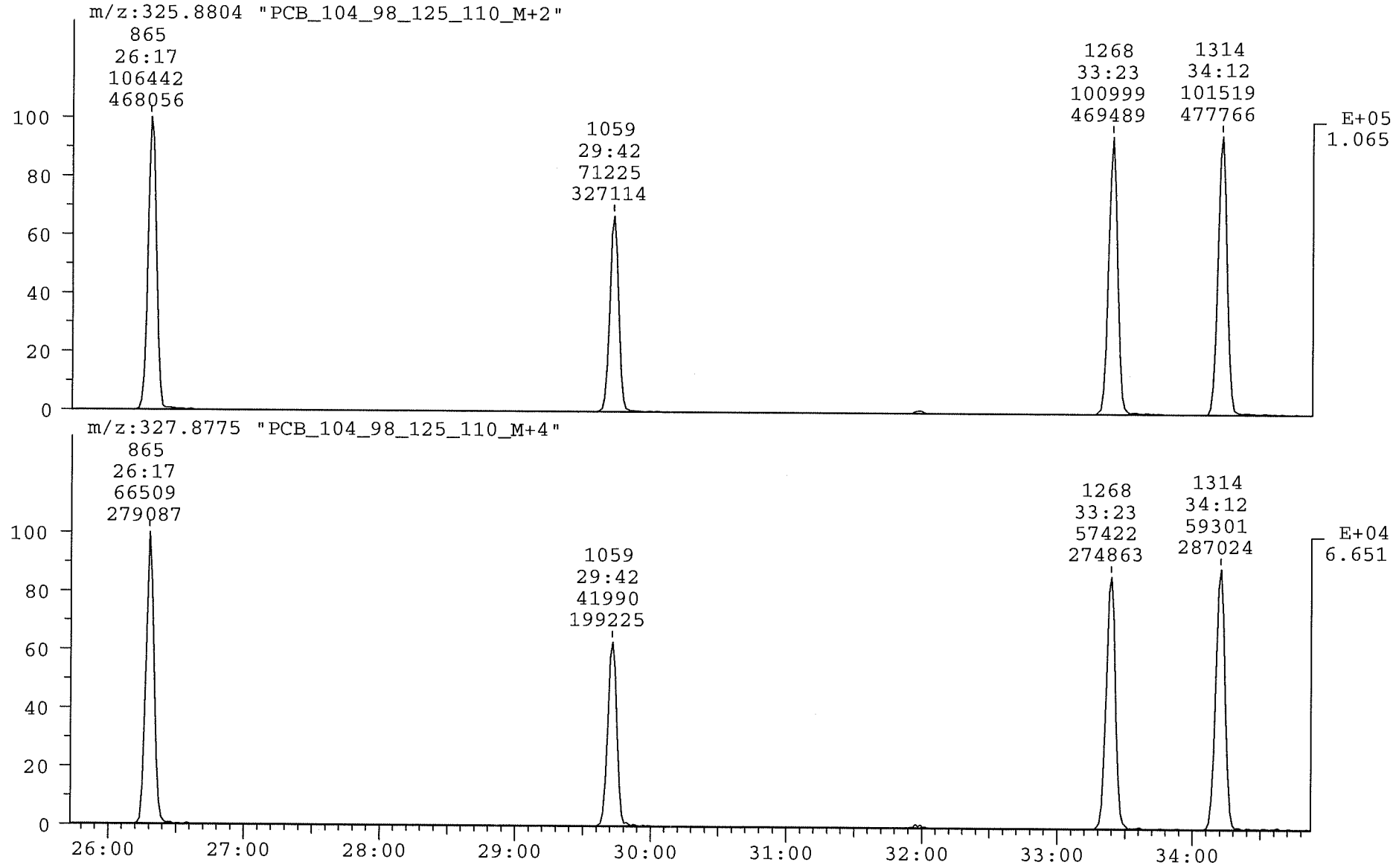
CHRO: a0806m5r2 10-Jun-08 Elapse: 40:40 1677
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1597 > 1757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2804

2803

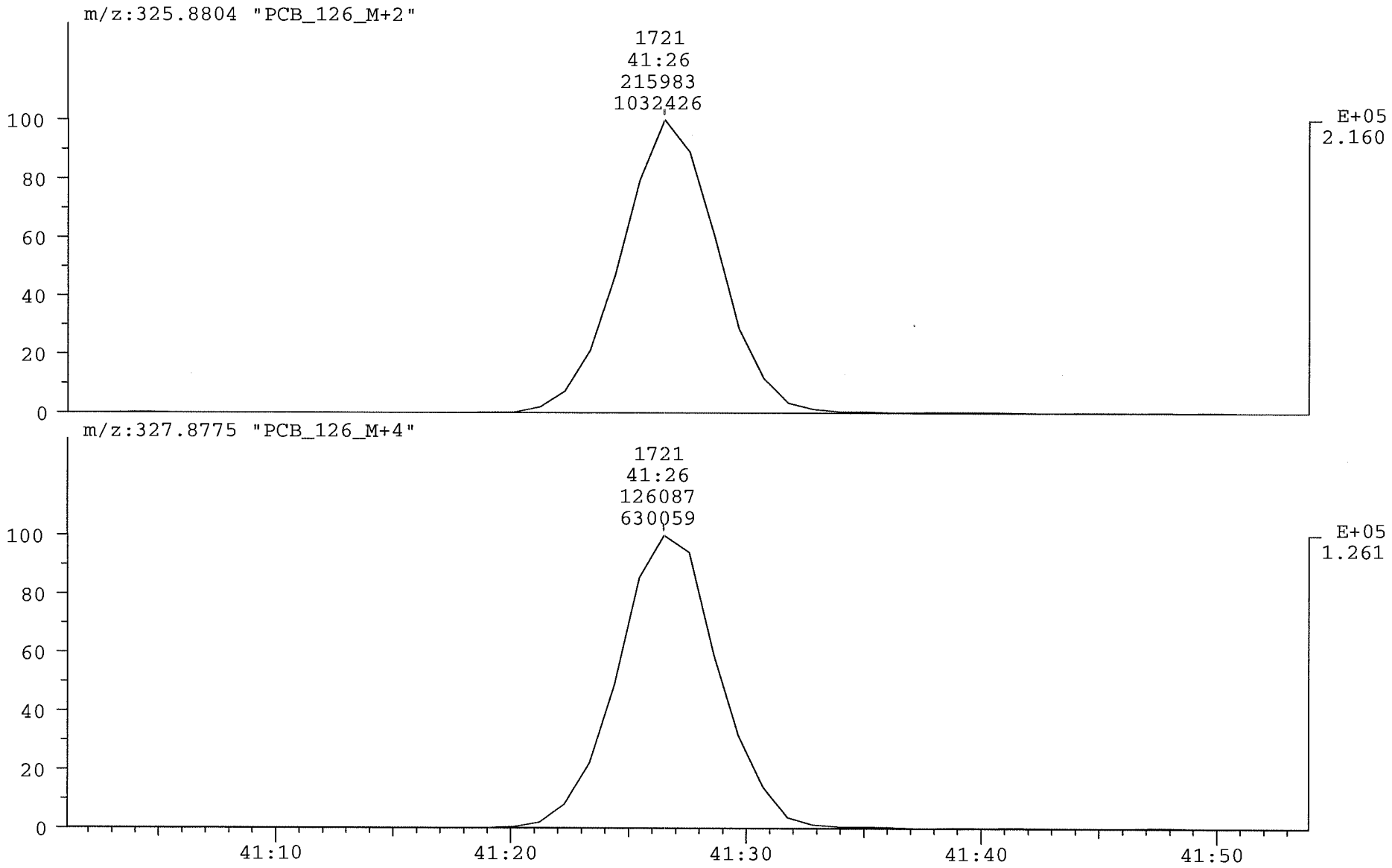
CHRO: a0806m5r2 10-Jun-08 Elapse: 30:17 1092
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 832 > 1352 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2805

2804

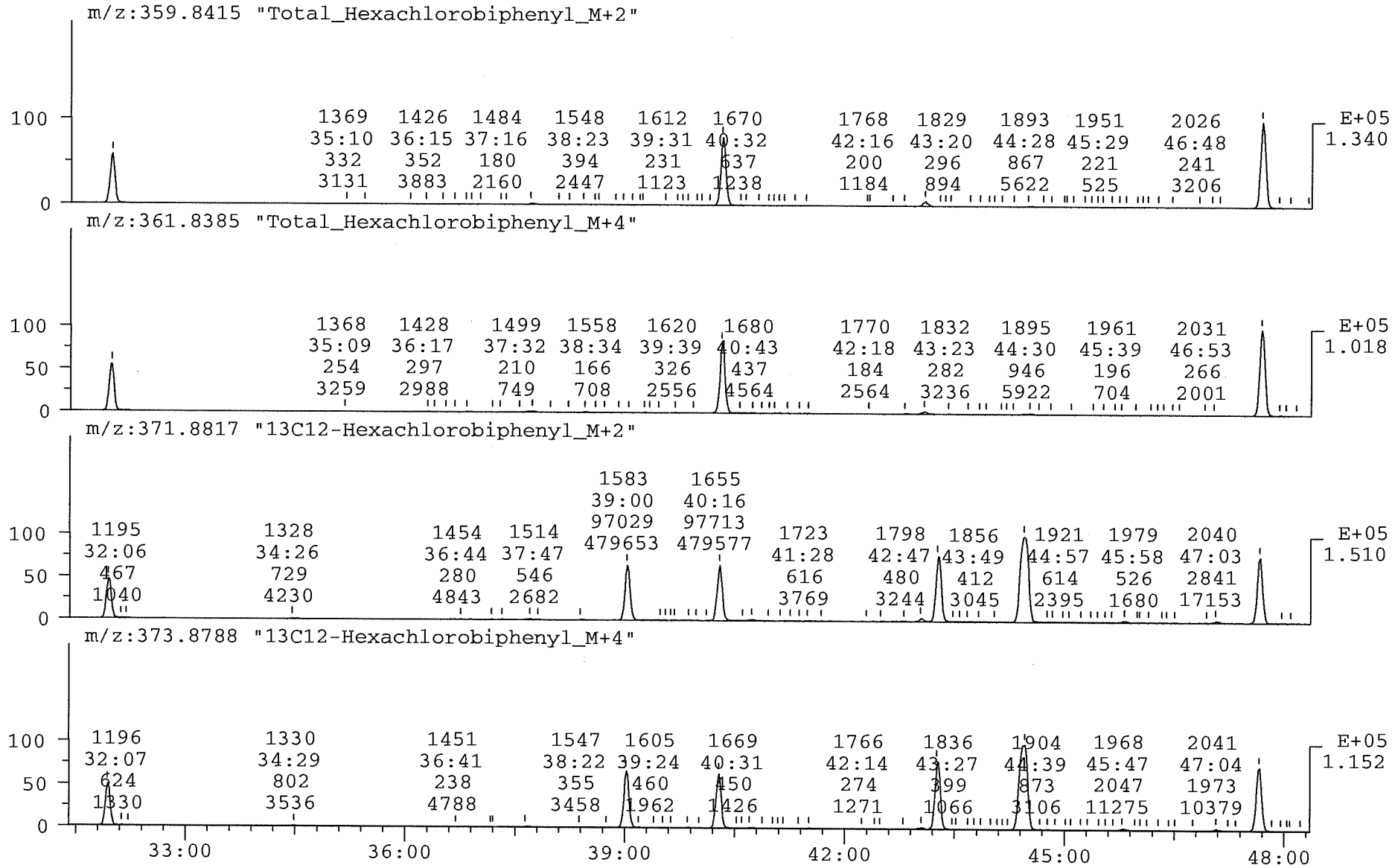
CHRO: a0806m5r2 10-Jun-08 Elapse: 41:27 1722
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1697 > 1747 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2806

2805

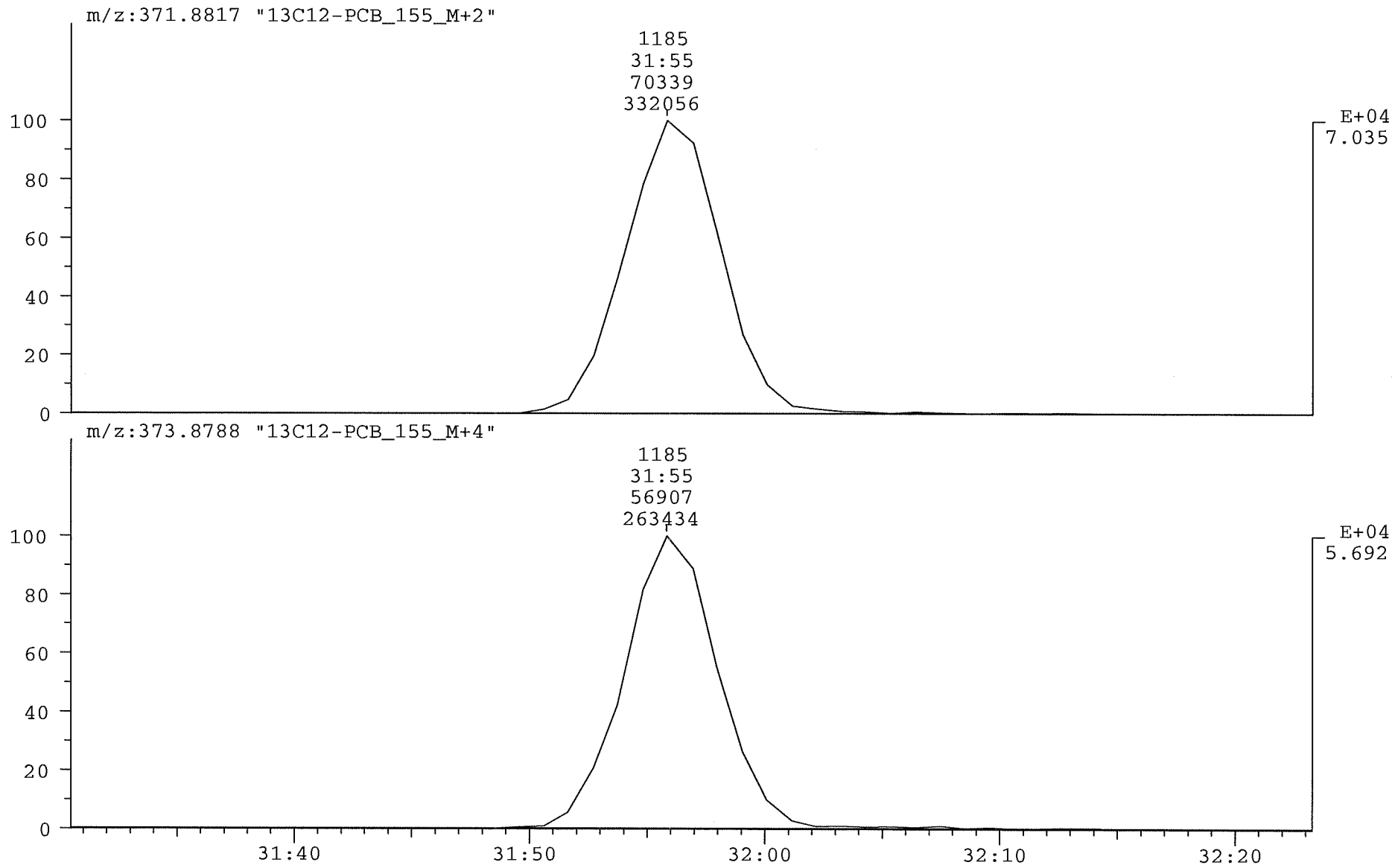
CHRO: a0806m5r2 10-Jun-08 Elapse: 39:52 1632
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1155 > 2114 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2807

2806

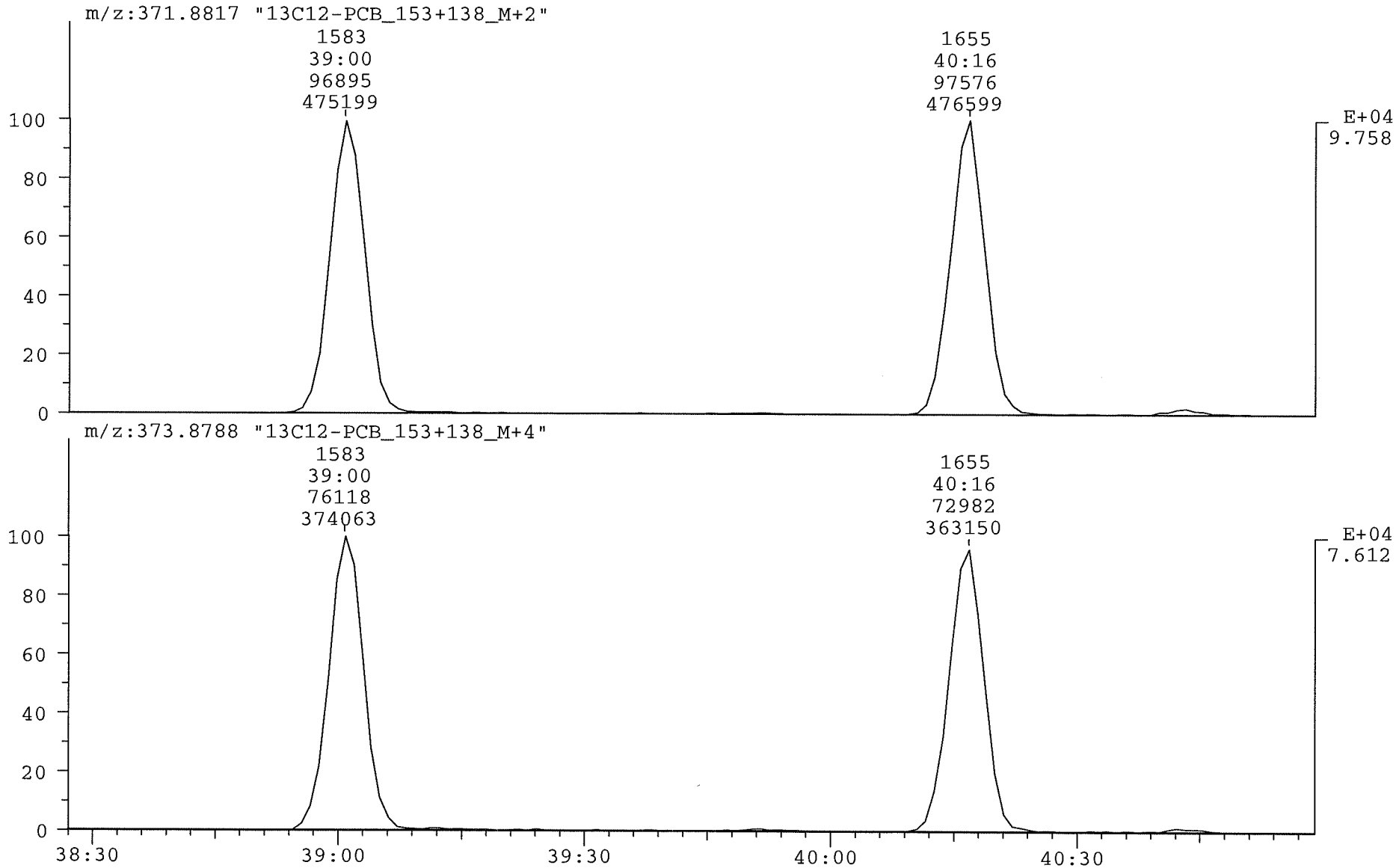
CHRO: a0806m5r2 10-Jun-08 Elapse: 31:56 1186
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1161 > 1211 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2808

2807

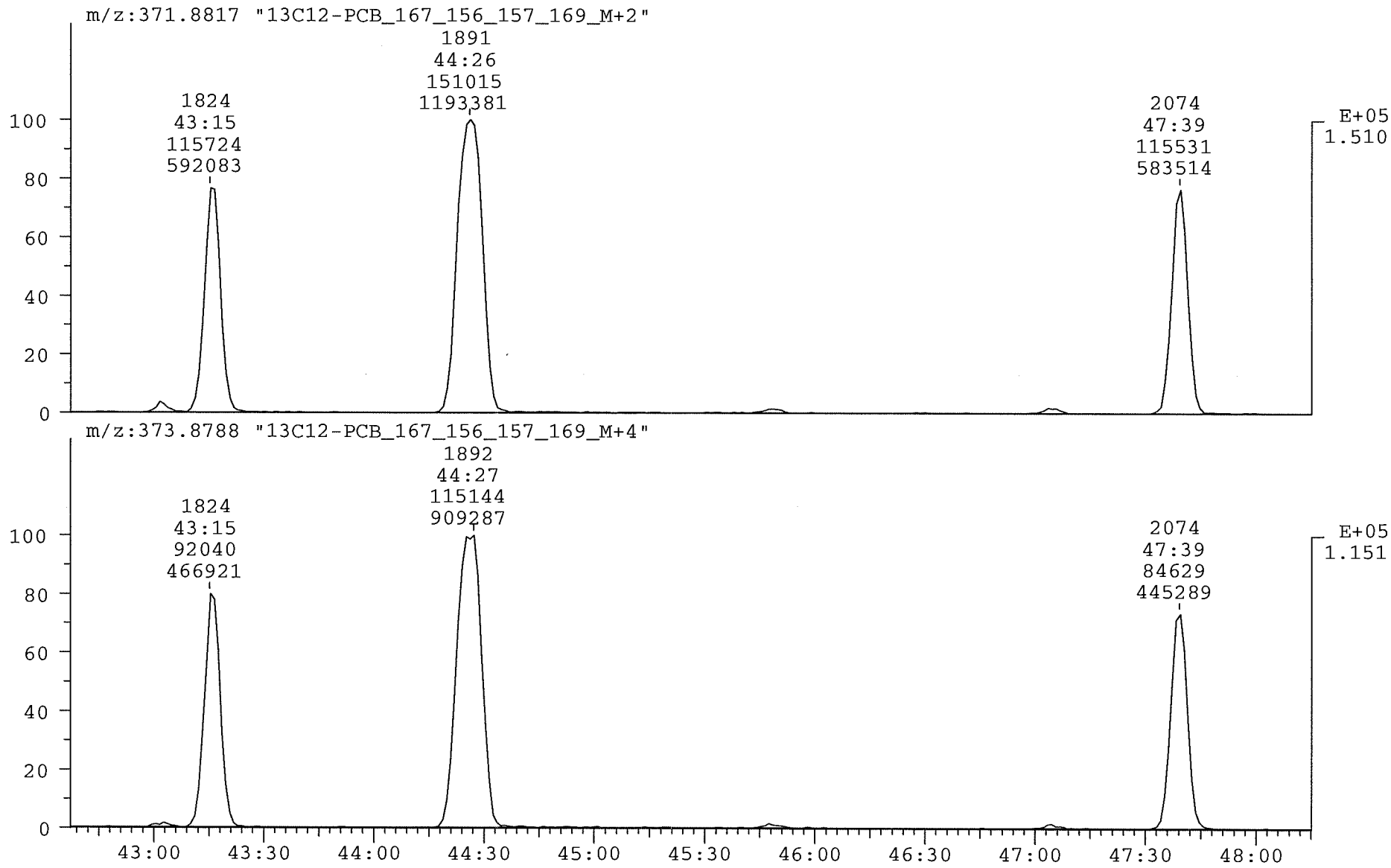
CHRO: a0806m5r2 10-Jun-08 Elapse: 39:43 1623
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1551 > 1695 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2809

2808

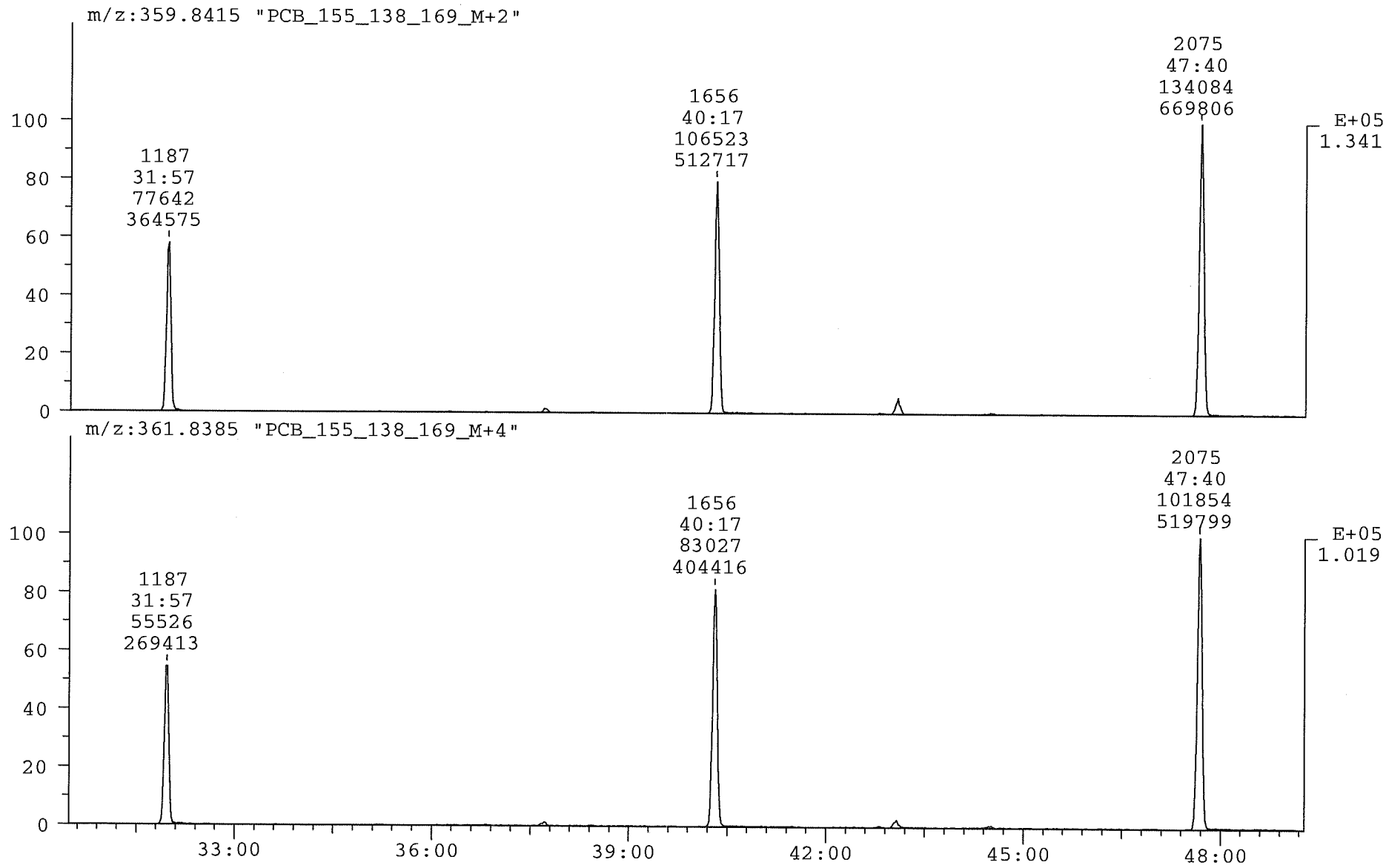
CHRO: a0806m5r2 10-Jun-08 Elapse: 45:31 1953
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1788 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2810

2809

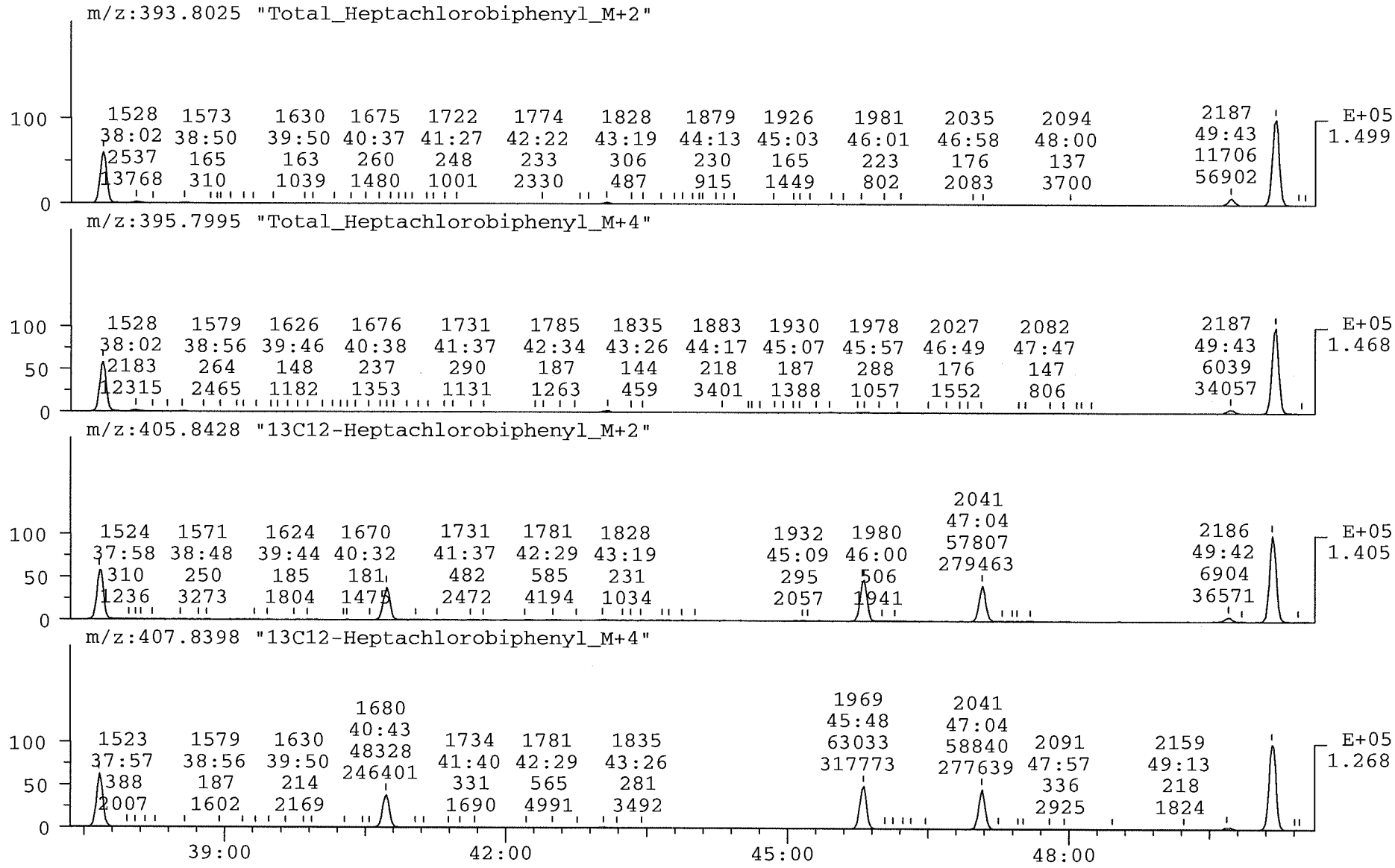
CHRO: a0806m5r2 10-Jun-08 Elapse: 39:52 1632
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1102 > 2162 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2811

2810

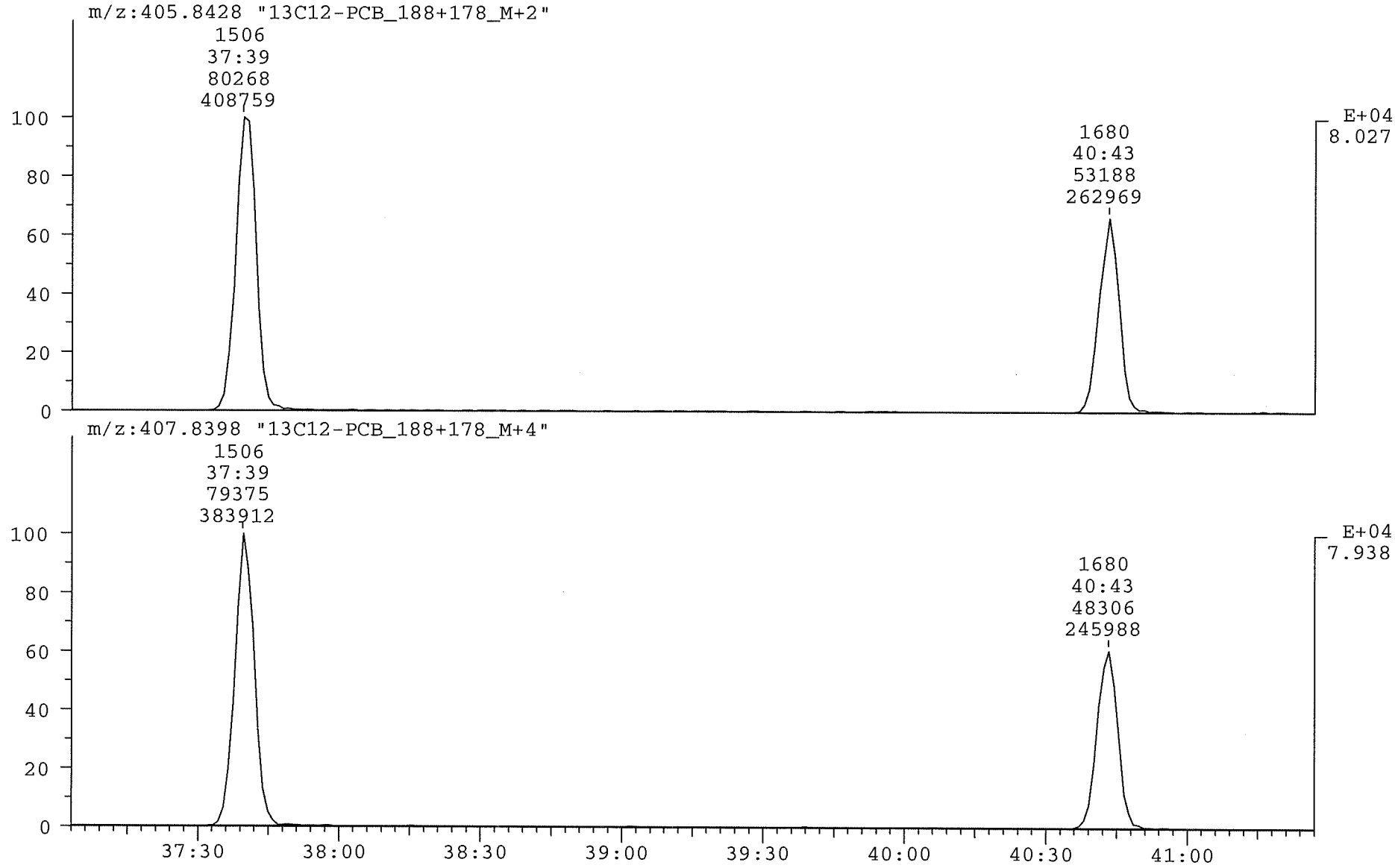
CHRO: a0806m5r2 10-Jun-08 Elapse: 43:58 1865
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1489 > 2238 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2812

2811

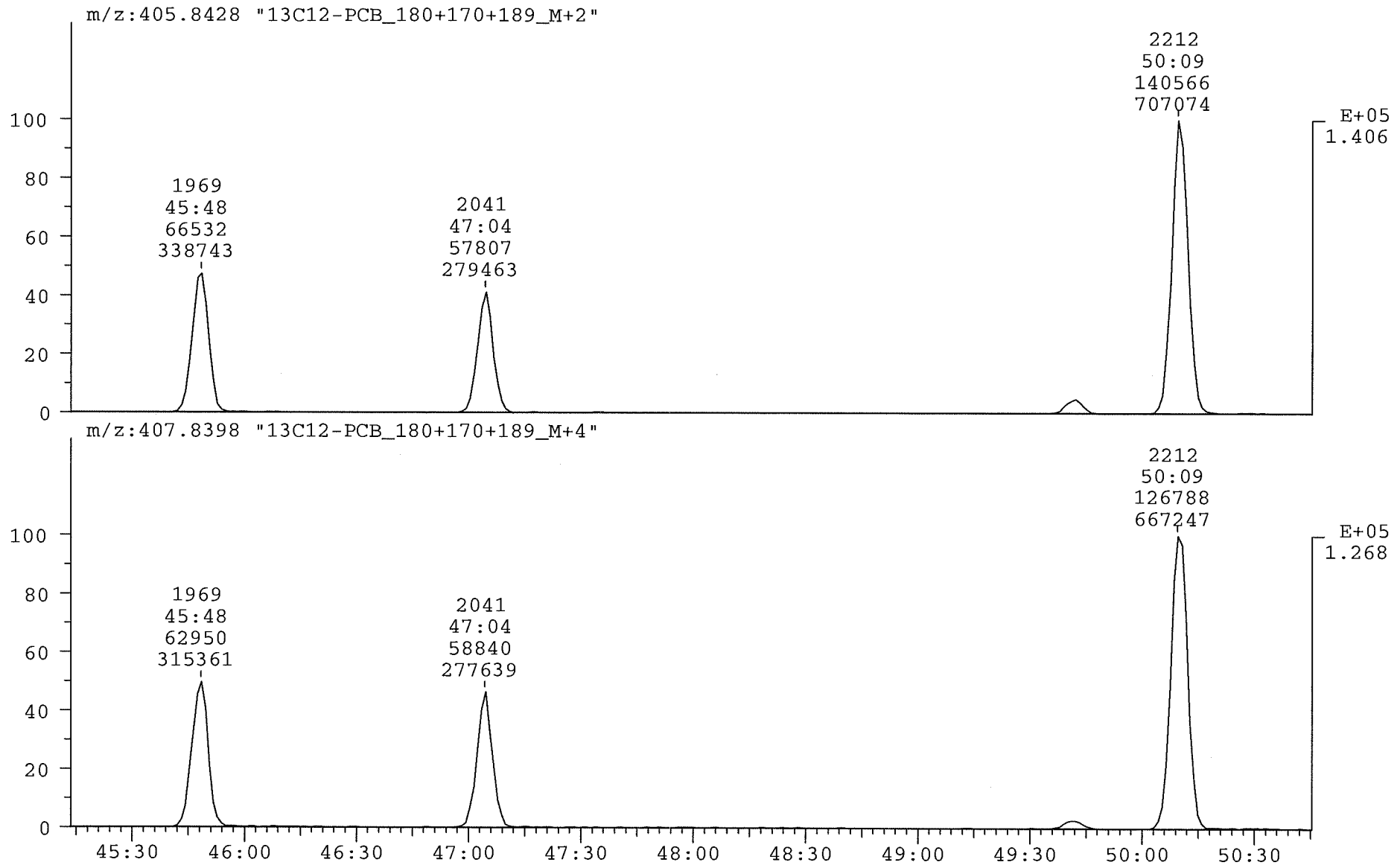
CHRO: a0806m5r2 10-Jun-08 Elapse: 39:15 1597
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1471 > 1722 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2813

2812

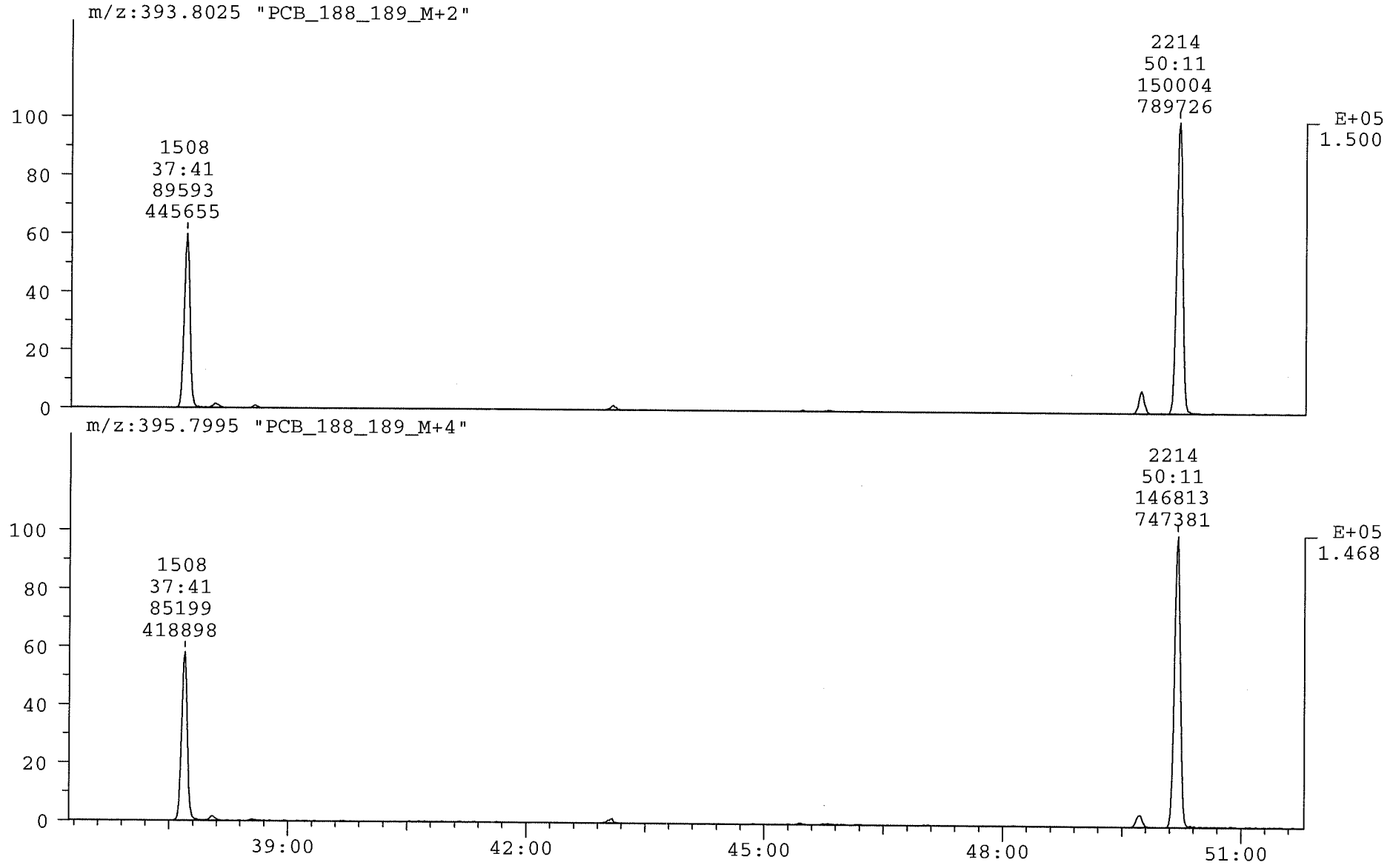
CHRO: a0806m5r2 10-Jun-08 Elapse: 48:02 2096
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1936 > 2246 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2814

2813

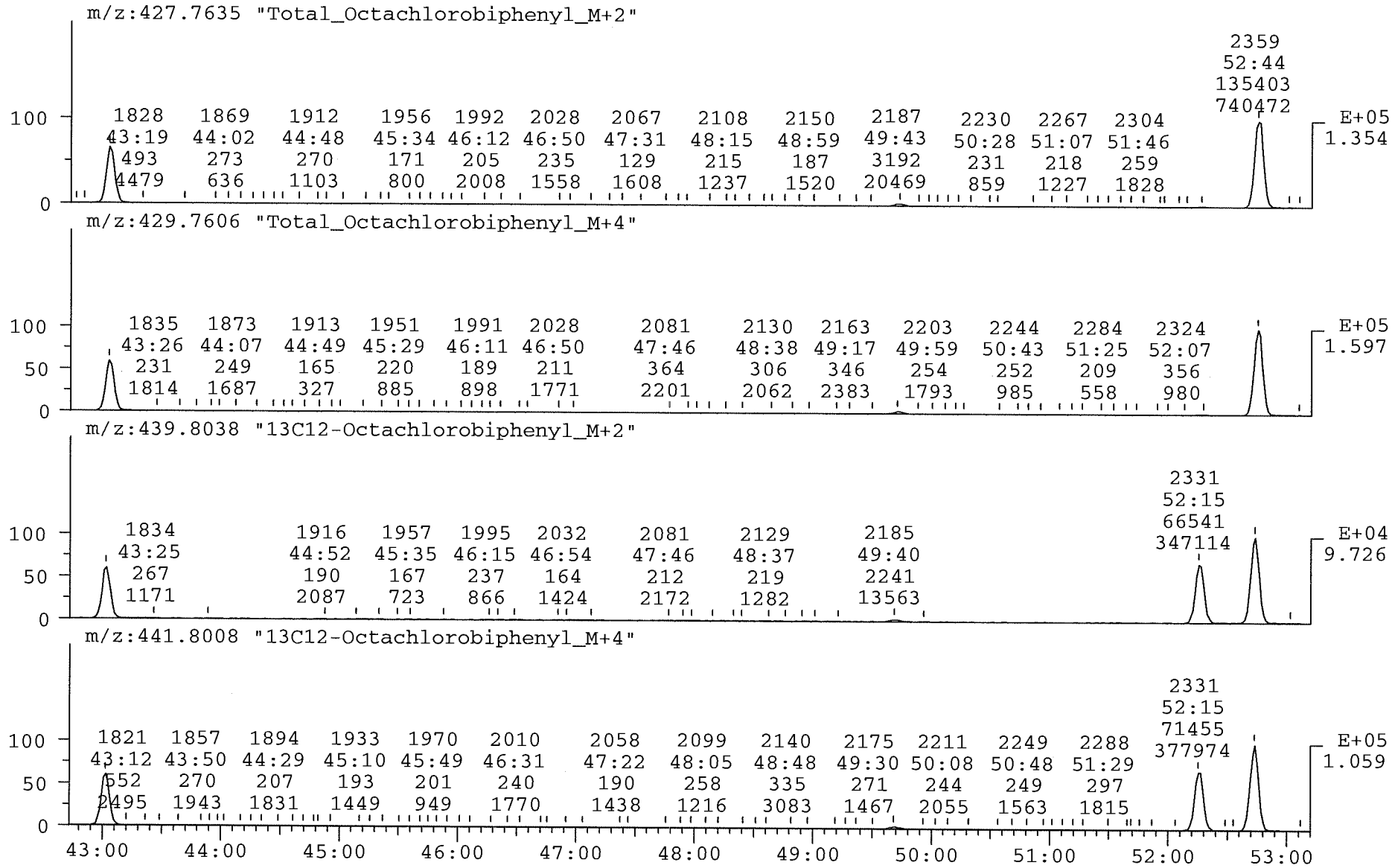
CHRO: a0806m5r2 10-Jun-08 Elapse: 43:58 1865
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1425 > 2305 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2815

2814

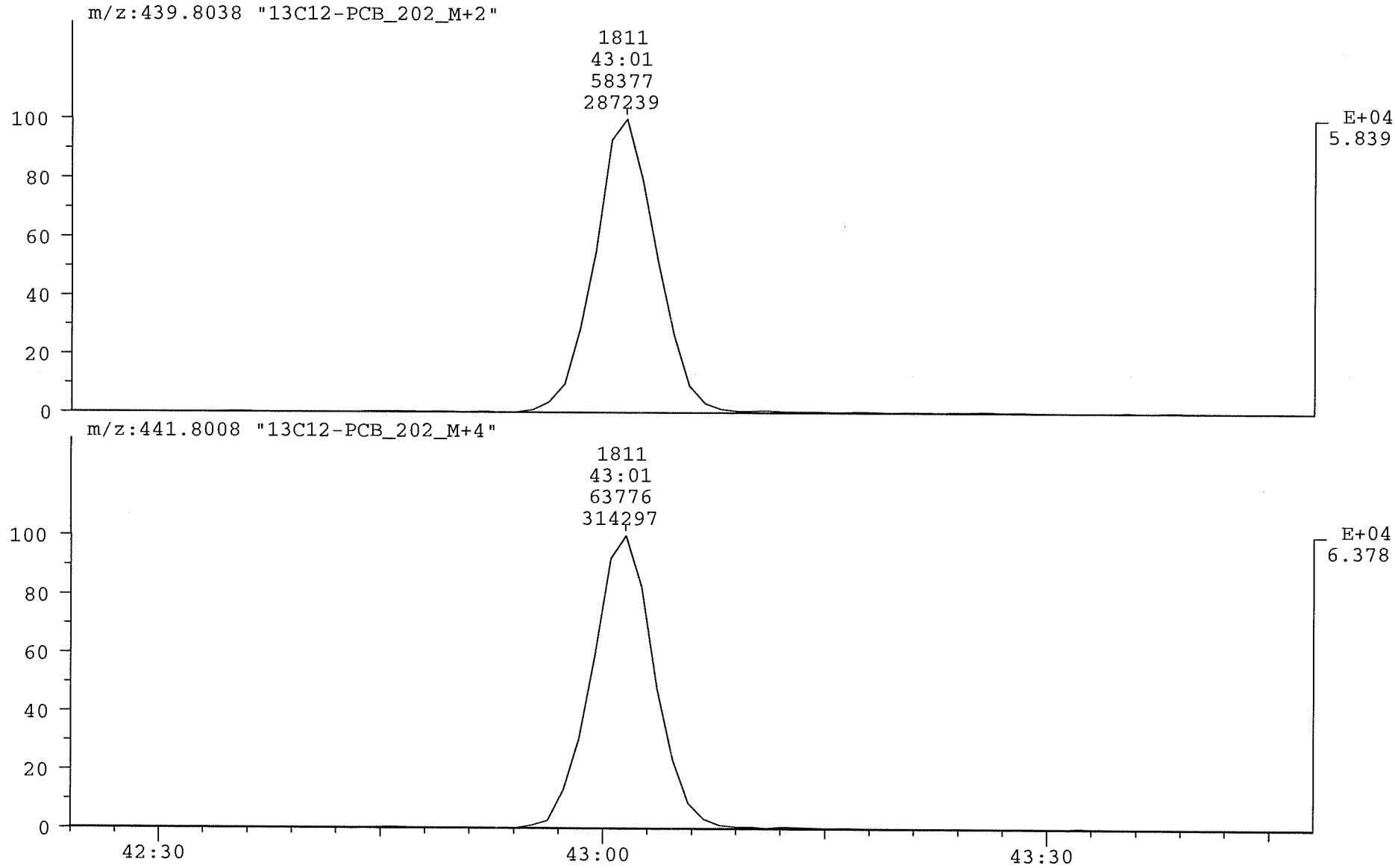
CHRO: a0806m5r2 10-Jun-08 Elapse: 47:57 2091
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1793 > 2385 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2816

2815

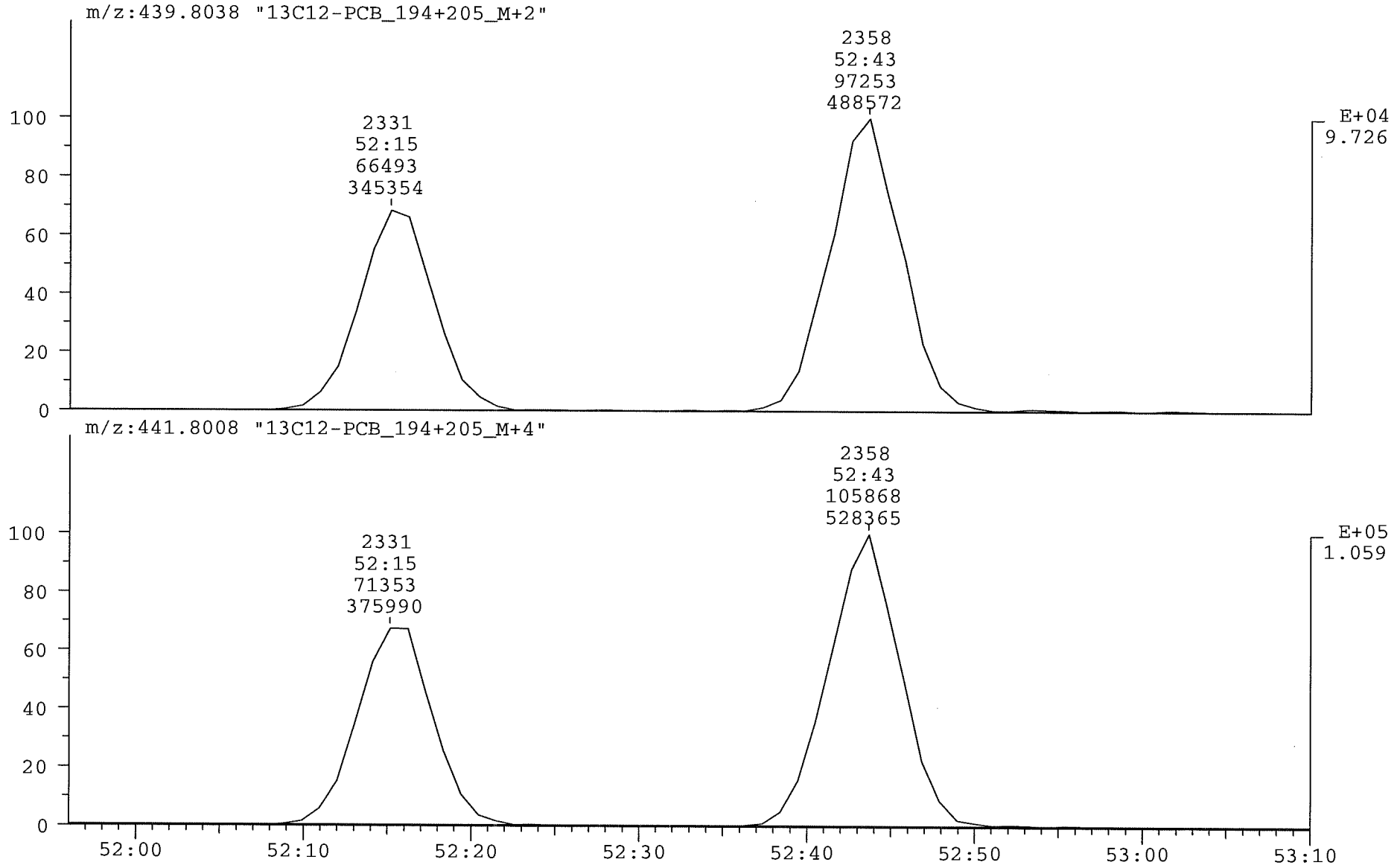
CHRO: a0806m5r2 10-Jun-08 Elapse: 43:02 1812
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1775 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2817

2816

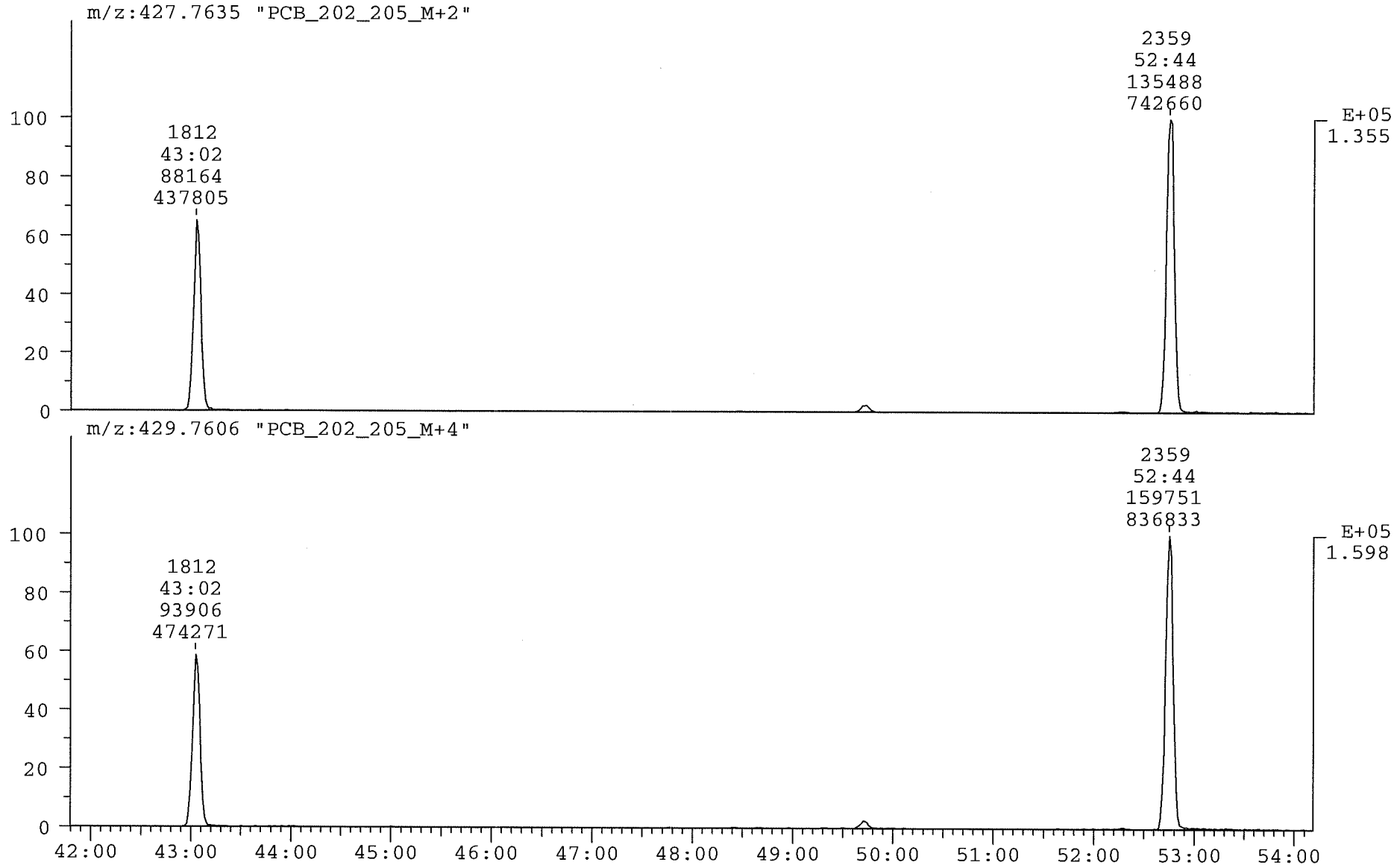
CHRO: a0806m5r2 10-Jun-08 Elapse: 52:33 2348
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2313 > 2383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2818

2817

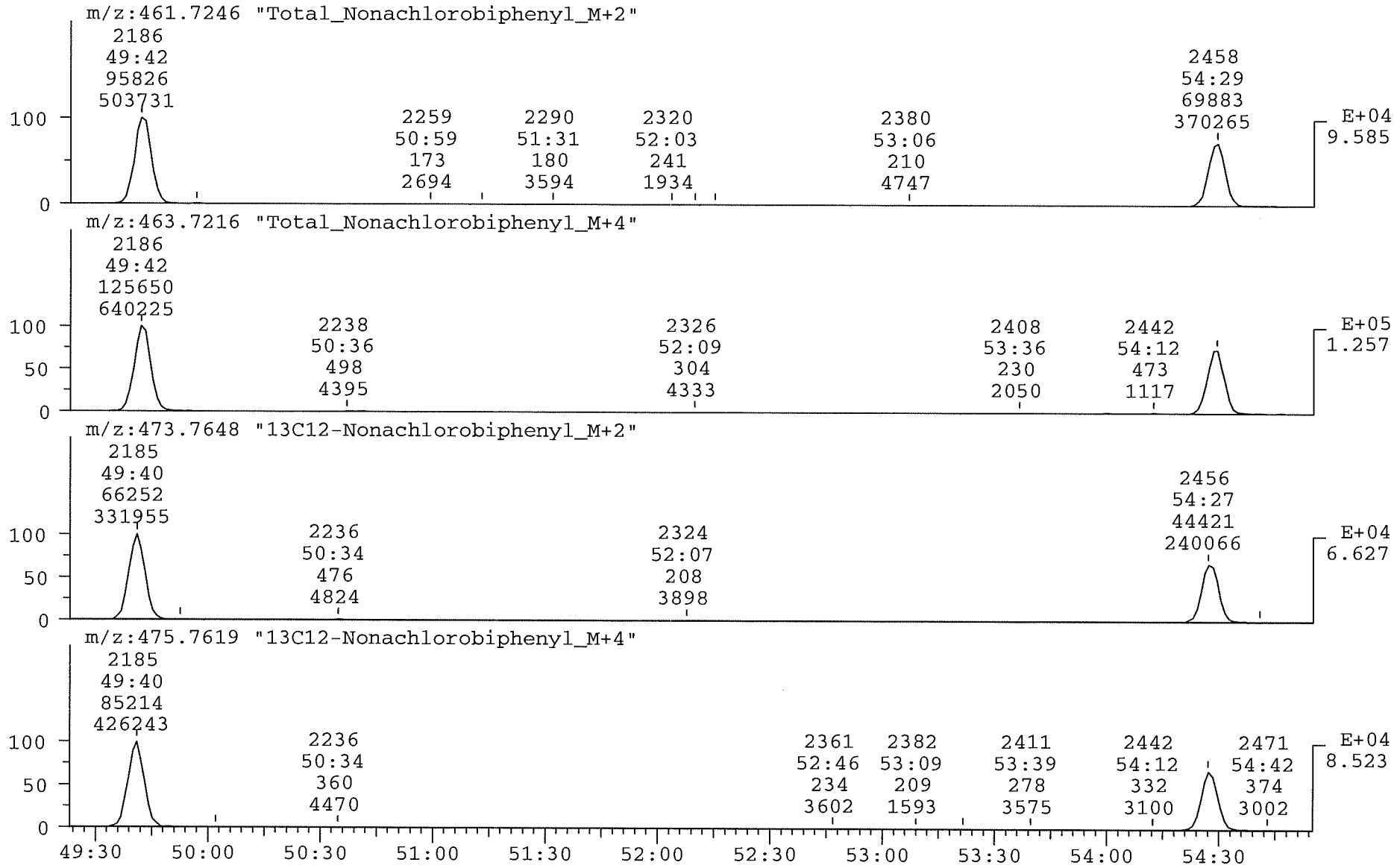
CHRO: a0806m5r2 10-Jun-08 Elapse: 47:57 2091
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1741 > 2441 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2819

2818

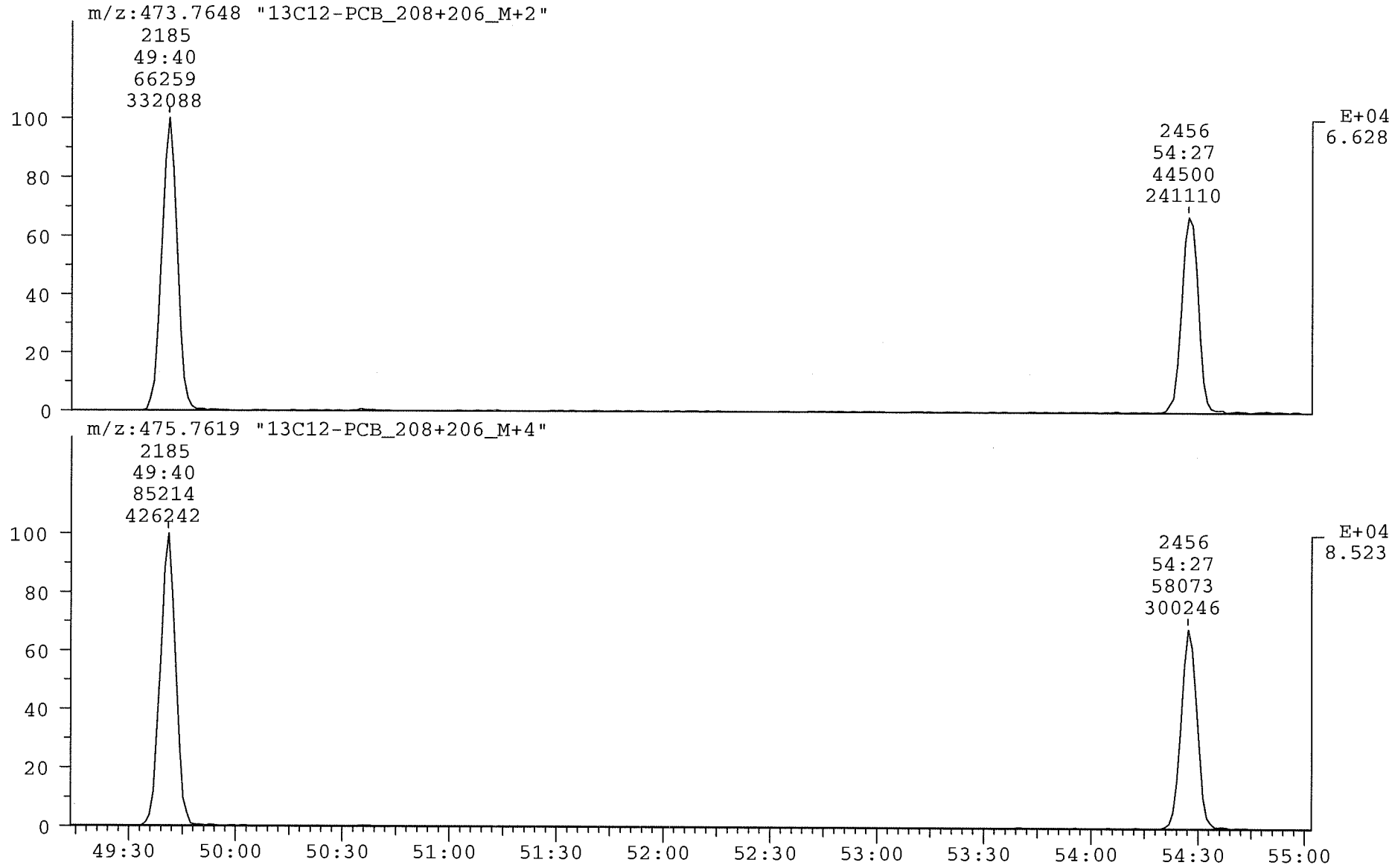
CHRO: a0806m5r2 10-Jun-08 Elapse: 52:08 2325
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2168 > 2482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2820

2819

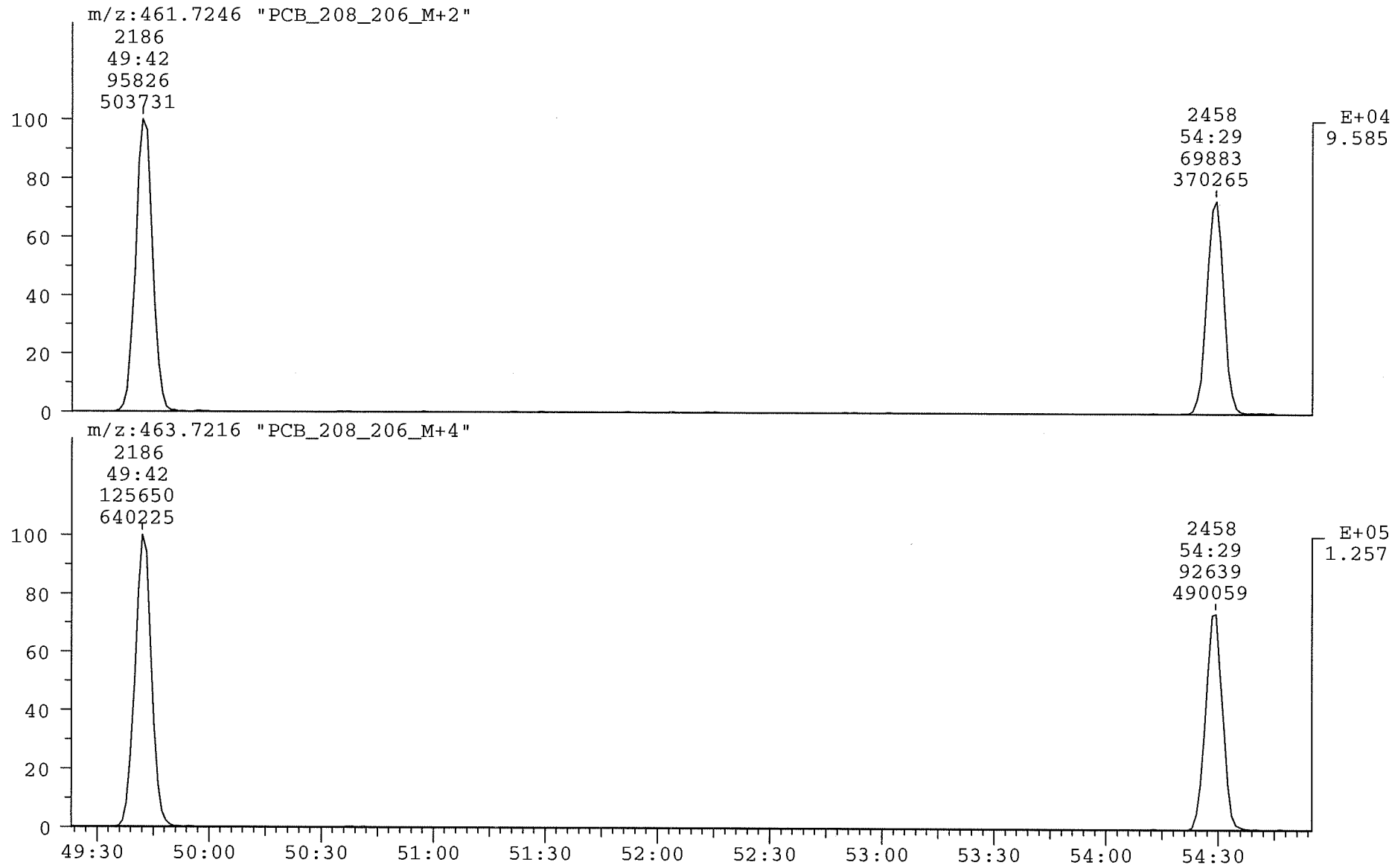
CHRO: a0806m5r2 10-Jun-08 Elapse: 52:07 2324
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2159 > 2489 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2821

2820

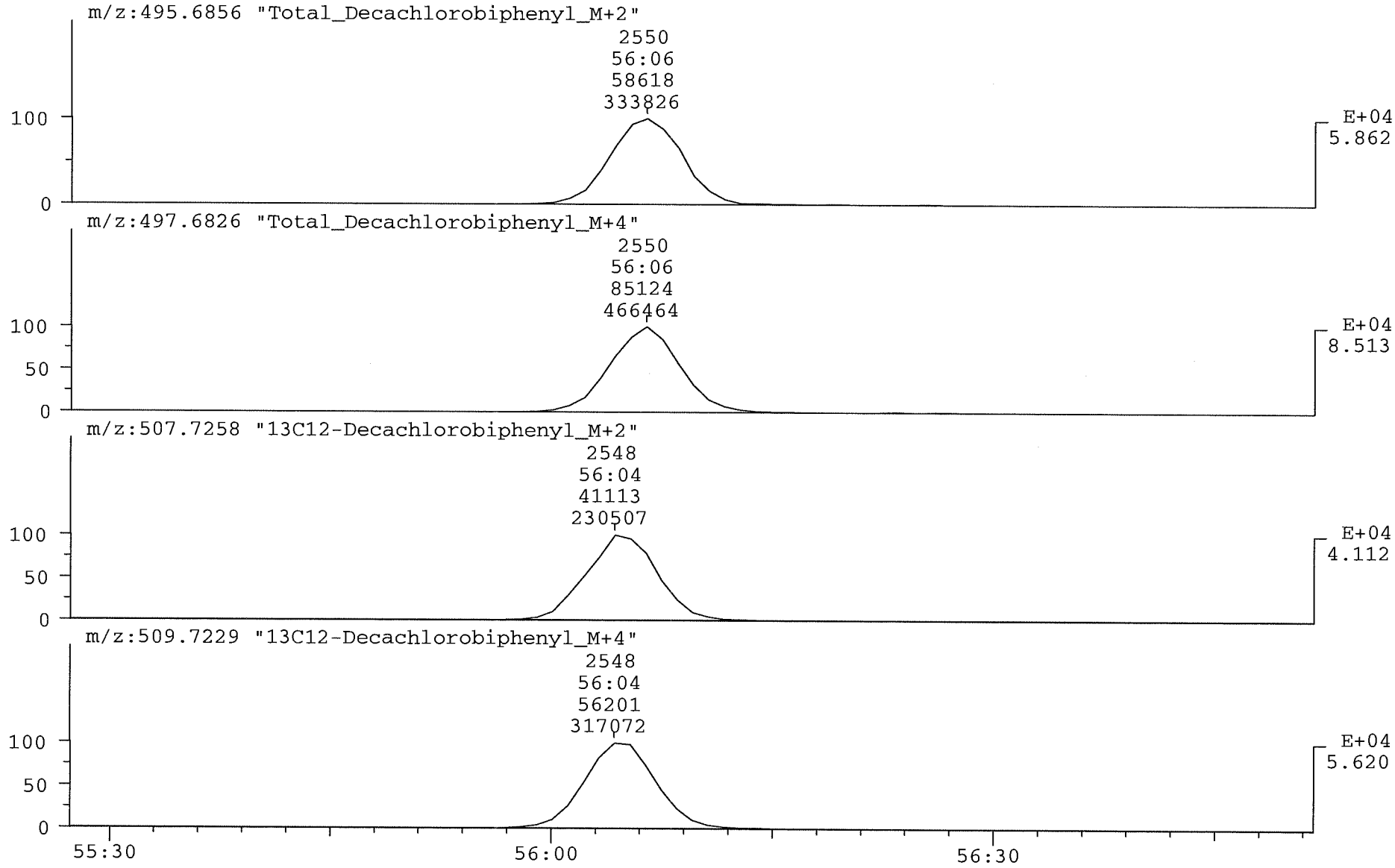
CHRO: a0806m5r2 10-Jun-08 Elapse: 52:08 2325
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2168 > 2482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2822

2821

CHRO: a0806m5r2 10-Jun-08 Elapse: 56:09 2553
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 23:47:36 2602
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2513 > 2593 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2823

2822

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m5r2
Study: 2990:75 Mix 5
Sample: WO=2990:75Mix5 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume: 2.00
Sample from Vial 15
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 10 of list 080609
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:12 min	35:52 min	1.00 sec
# 3	35:52 min	13:13 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	1	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg	at 0.0	minutes	280 deg max
	75 deg	at 2.0	minutes	
	150 deg	at 7.0	minutes	
	270 deg	at 55.0	minutes	
	270 deg	at 57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5765
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0010
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	352.0000
FVINLET	264.0000	FVSRC	992.0000	FWIN	0.7000
GCTC	203.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.3529	HVANAL	1267.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2606.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.8800	TCURR	0.7422
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 10-Jun-08 23:47:36.5

Autosampler has injected sample from vial 15
MID Time Window 1: Resolution is 8226
MID Time Window 2: Resolution is 8405
MID Time Window 3: Resolution is 10085
MID Time Window 4: Resolution is 10124
Analysis stopped at: 11-Jun-08 00:44:39.8 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX5	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m5r3.	**Prep Date**		**SDG No**	
Analysis ID	104468	**Prep Exp Date**		**Date Received**	
Analysis Date	06/11/08 04:53	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
	Noise	00:00	00:00	0	168	130	67	52	1.29 *	/	
	PCB 1 (BZ)	12:02	00:00	0	947551	285023	420413	123667	3.32	AVV/AVB	M
	PCB 3 (BZ)	14:14	00:00	0	939881	284751	332664	103972	3.30	ABV/AVV	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
	Noise	00:00	00:00	0	185	205	74	82	0.90 *	/	
	13C12-PCB 1	12:01	00:00	0	1392542	424544	563480	174902	3.28	AVV/AVB	
	13C12-PCB 3	14:13	00:00	0	1451662	425434	528180	153886	3.41	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
	Noise	00:00	00:00	0	120	255	48	102	0.47 *	/	
	PCB 4 (BZ)	14:30	00:00	0	238923	157252	81752	55819	1.52	ABV/AVV	
	PCB 15 (BZ)	20:26	00:00	0	385628	247563	101112	65503	1.56	ABV/AVV	
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
	Noise	00:00	00:00	0	208	145	83	58	1.43	/	
	13C12-PCB 4	14:29	00:00	0	374343	244333	128497	84045	1.53	AVV/ABB	
	13C12-PCB 9	16:27	00:00	0	581330	373220	168962	108399	1.56	ABV/ABV	
	13C12-PCB 8	17:19	00:00	0	597583	382170	174779	116550	1.56	AVV/ABV	
	13C12-PCB 15	20:25	00:00	0	616590	394368	162438	103767	1.56	ABV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	Noise	00:00	00:00	0	113	95	45	38	1.18	/	
	PCB 19 (BZ)	17:39	00:00	0	110682	114750	31143	33709	0.96	ABB/ABB	
	PCB 16 (BZ)	20:24	00:00	0	102636	101967	26661	26295	1.01	ABV/ABV	DM
	PCB 37 (BZ)	27:31	00:00	0	601547	557249	143838	127004	1.08	ABV/ABV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	233	183	93	73	1.27 *	/	
	13C12-PCB 19	17:38	00:00	0	206700	196037	59431	57565	1.05	AVV/ABV	
	13C12-PCB 32	20:54	00:00	0	363667	355247	94933	94114	1.02	AVV/AVV	
	13C12-PCB 31	23:10	00:00	0	1040972	947243	264759	242080	1.10	ABV/ABV	
	13C12-PCB 28	23:28	00:00	0	990363	895065	231538	208414	1.11	AVV/AVV	
	13C12-PCB 37	27:30	00:00	0	970185	872377	223772	196886	1.11	AVV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	118	145	47	58	0.81	/	
	PCB 54 (BZ)	20:45	00:00	0	241507	330089	61084	81308	0.73	ABV/ABV	
	PCB 43 (BZ)	25:34	00:00	0	375976	468409	85424	108662	0.80	ABV/ABV	DM
	PCB 44 (BZ)	26:20	00:00	0	396087	491414	92448	112684	0.81	ABV/ABV	D
	PCB 74 (BZ)	30:11	00:00	0	607413	743021	135109	159646	0.82	ABV/ABV	M
	PCB 56 (BZ)	31:08	00:00	0	558799	701567	124279	155454	0.80	AVV/AVV	
	PCB 77 (BZ)	34:50	00:00	0	566927	704958	121873	150395	0.80	ABV/ABV	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	108	105	43	42	1.02 *	/	
	13C12-PCB 54	20:44	00:00	0	220612	266176	55621	71086	0.83	ABV/ABV	
	13C12-PCB 52	25:19	00:00	0	353521	457274	81152	107241	0.77	ABV/ABV	
	13C12-PCB 79	33:14	00:00	0	479976	608038	101072	135211	0.79	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX5	Prep Batch		Lot No	
Data File	/20080610rt/a0806m5r3.	Prep Date		SDG No	
Analysis ID	104468	Prep Exp Date		Date Received	
Analysis Date	06/11/08 04:53	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	DCG	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	13C12-PCB 81	34:15	00:00	0	421729	541250	90027	111439	0.78	ABV/ABV	
	13C12-PCB 77	34:49	00:00	0	461108	572441	96317	121674	0.81	ABB/AVB	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	143	93	57	37	1.54	/	
	PCB 104 (BZ)	26:17	00:00	0	487142	289674	112863	64053	1.68	ABV/ABV	
	PCB 98 (BZ)	29:42	00:00	0	327519	200408	68650	43593	1.63	ABV/ABV	
	PCB 125 (BZ)	33:21	00:00	0	448919	276614	91129	59316	1.62	ABV/ABV	
	PCB 110 (BZ)	34:11	00:00	0	471594	281653	96684	58186	1.67	AVV/ABV	
	PCB 126 (BZ)	41:26	00:00	0	1038190	642180	211071	130581	1.62	ABV/ABV	M
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	118	110	47	44	1.07 *	/	
	13C12-PCB 104	26:15	00:00	0	430276	261239	97895	57035	1.65	ABV/ABV	
	13C12-PCB 95	29:14	00:00	0	328428	197199	74434	43658	1.67	AVV/AVV	
	13C12-PCB 101	32:10	00:00	0	315355	198090	67935	42999	1.59	ABV/ABV	
	13C12-PCB 111	34:50	00:00	0	417100	248721	88492	52362	1.68	ABV/ABV	
	13C12-PCB 123	36:49	00:00	0	897313	545877	184608	115142	1.64	ABV/ABV	
	13C12-PCB 118	37:08	00:00	0	945586	572433	201688	115986	1.65	AVV/AVV	
	13C12-PCB 114	37:39	00:00	0	912244	557069	187585	116112	1.64	AVV/AVV	
	13C12-PCB 105	38:20	00:00	0	890435	546435	182582	109766	1.63	AVV/AVV	
	13C12-PCB 127	39:46	00:00	0	959310	579019	199376	121908	1.66	ABV/ABB	
	13C12-PCB 126	41:23	00:00	0	962530	590669	190829	116971	1.63	AVV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	110	110	44	44	1.00 *	/	
	PCB 155 (BZ)	31:56	00:00	0	338927	261696	72131	57459	1.30	ABV/ABV	
	PCB 138 (BZ)	40:17	00:00	0	522513	409977	102912	84028	1.27	ABV/ABV	M
	PCB 169 (BZ)	47:39	00:00	0	699147	531699	144664	106523	1.31	AVV/AVV	
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	195	95	78	38	2.05 *	/	
	13C12-PCB 155	31:55	00:00	0	317229	260540	68250	54771	1.22	ABV/ABV	
	13C12-PCB 153	39:00	00:00	0	496048	379278	101844	80781	1.31	AVV/ABV	
	13C12-PCB 138	40:15	00:00	0	485682	376612	98866	75755	1.29	ABV/ABV	
	13C12-PCB 167	43:14	00:00	0	600801	464616	127537	94864	1.29	AVV/AVV	
	13C12-PCB 156	44:25	00:00	0	1204555	931515	159414	121359	1.29	ABV/AVV	D
	13C12-PCB 169	47:38	00:00	0	596885	457581	120215	91490	1.30	ABV/ABV	D
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21		
	Noise	00:00	00:00	0	105	93	42	37	1.14	/	
	PCB 188 (BZ)	37:39	00:00	0	443765	422439	90519	85123	1.05	ABV/ABV	
	PCB 189 (BZ)	50:10	00:00	0	788079	754580	154649	148827	1.04	ABV/ABV	
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21		
	Noise	00:00	00:00	0	123	113	49	45	1.09	/	
	13C12-PCB 188	37:38	00:00	0	422676	396399	87491	85621	1.07	ABV/ABV	
	13C12-PCB 178	40:42	00:00	0	273564	250557	54394	52390	1.09	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	2990:75MIX5	**Prep Batch**		**Lot No**	
Data File	/20080610rt/a0806m5r3.	**Prep Date**		**SDG No**	
Analysis ID	104468	**Prep Exp Date**		**Date Received**	
Analysis Date	06/11/08 04:53	**Matrix**	UNKNOWN	**Date Sampled**	
Anal Exp Date		**Initial Wt/Vol**		**Lims Test Code**	
Instrument	M1D	**Extract Vol**		**Method**	IE3
Analyst	DCG	**Diluton Factor**	1.00	**Code**	IE3

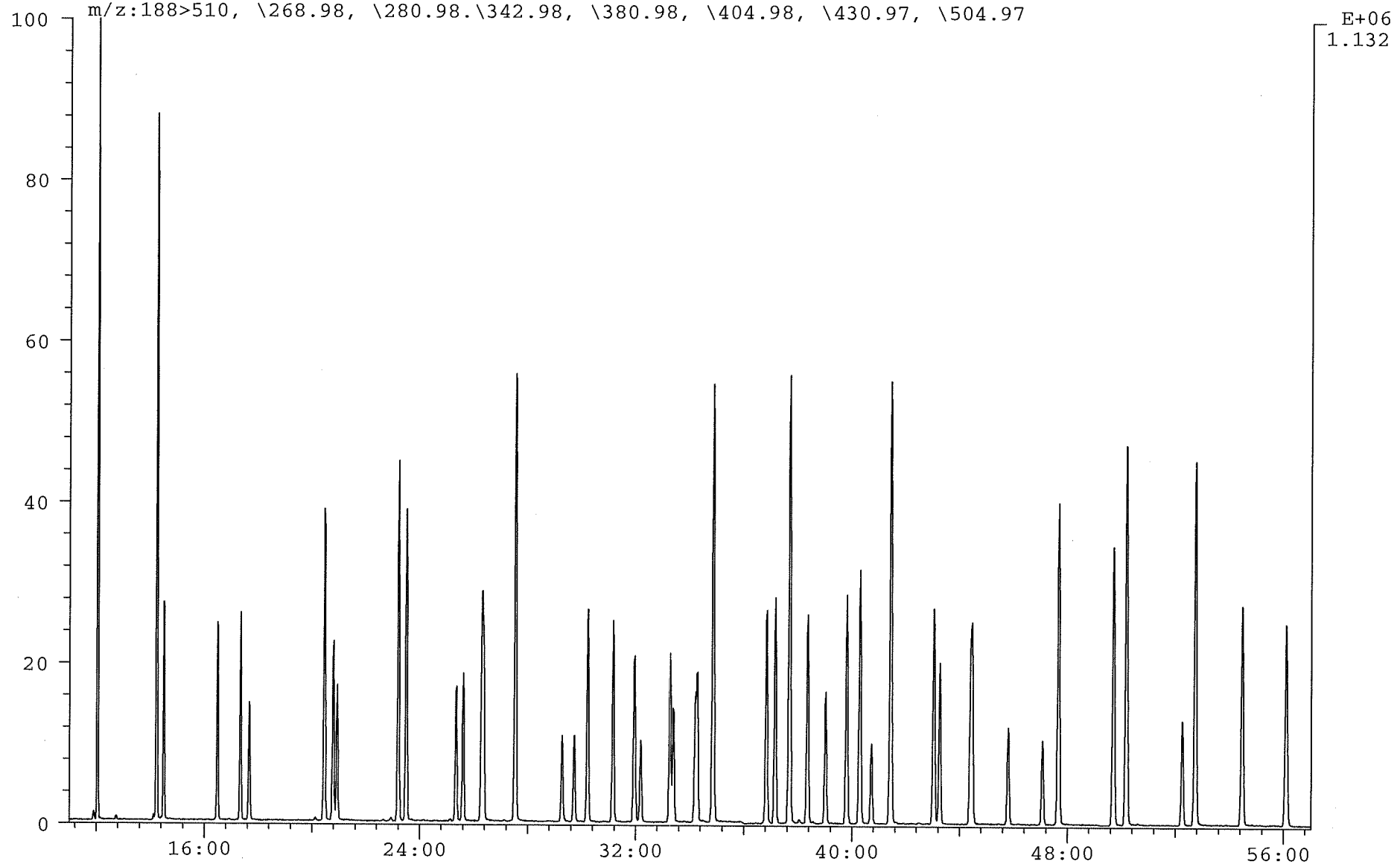
View Small Peaks? False **View deleted peaks?** False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
406					**405.8428**	**407.8398**	**405.8428**	**407.8398**	**0.89-1.21**	
	13C12-PCB 180	45:47	00:00	0	332975	321078	64092	63083	1.04	ABV/ABV
	13C12-PCB 170	47:03	00:00	0	284821	277264	55462	54449	1.03	ABV/ABB
	13C12-PCB 189	50:09	00:00	0	717135	670667	140204	129408	1.07	ABV/ABV
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	Noise	00:00	00:00	0	103	110	41	44	0.93	/
	PCB 202 (BZ)	43:02	00:00	0	437351	479525	89841	94694	0.91	ABV/ABV
	PCB 205 (BZ)	52:43	00:00	0	766691	840876	151578	169161	0.91	ABV/ABV
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	133	83	53	33	1.61 *	/
	13C12-PCB 202	43:00	00:00	0	283341	309949	57354	61572	0.91	ABV/ABV
	13C12-PCB 194	52:14	00:00	0	343198	377667	66049	73256	0.91	ABB/ABV
	13C12-PCB 205	52:42	00:00	0	488996	542173	95020	106760	0.90	ABV/ABV
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	133	145	53	58	0.91 *	/
	PCB 208 (BZ)	49:41	00:00	0	514738	649850	100499	129438	0.79	ABV/ABV
	PCB 206 (BZ)	54:27	00:00	0	386601	510445	74699	97191	0.76	ABV/ABV
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	103	113	41	45	0.91 *	/
	13C12-PCB 208	49:39	00:00	0	347811	433120	67152	81829	0.80	ABV/ABV
	13C12-PCB 206	54:26	00:00	0	244690	311955	47095	60565	0.78	ABV/ABV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	78	125	31	50	0.62	/
	PCB 209 (BZ)	56:05	00:00	0	347811	498935	63081	89946	0.70	AVB/ABV
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	80	133	32	53	0.60	/
	13C12-PCB 209	56:03	00:00	0	233222	325599	41186	57284	0.72	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO: a0806m5r3 11-Jun-08 Elapse: 56:10 2553
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2 > 2601 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

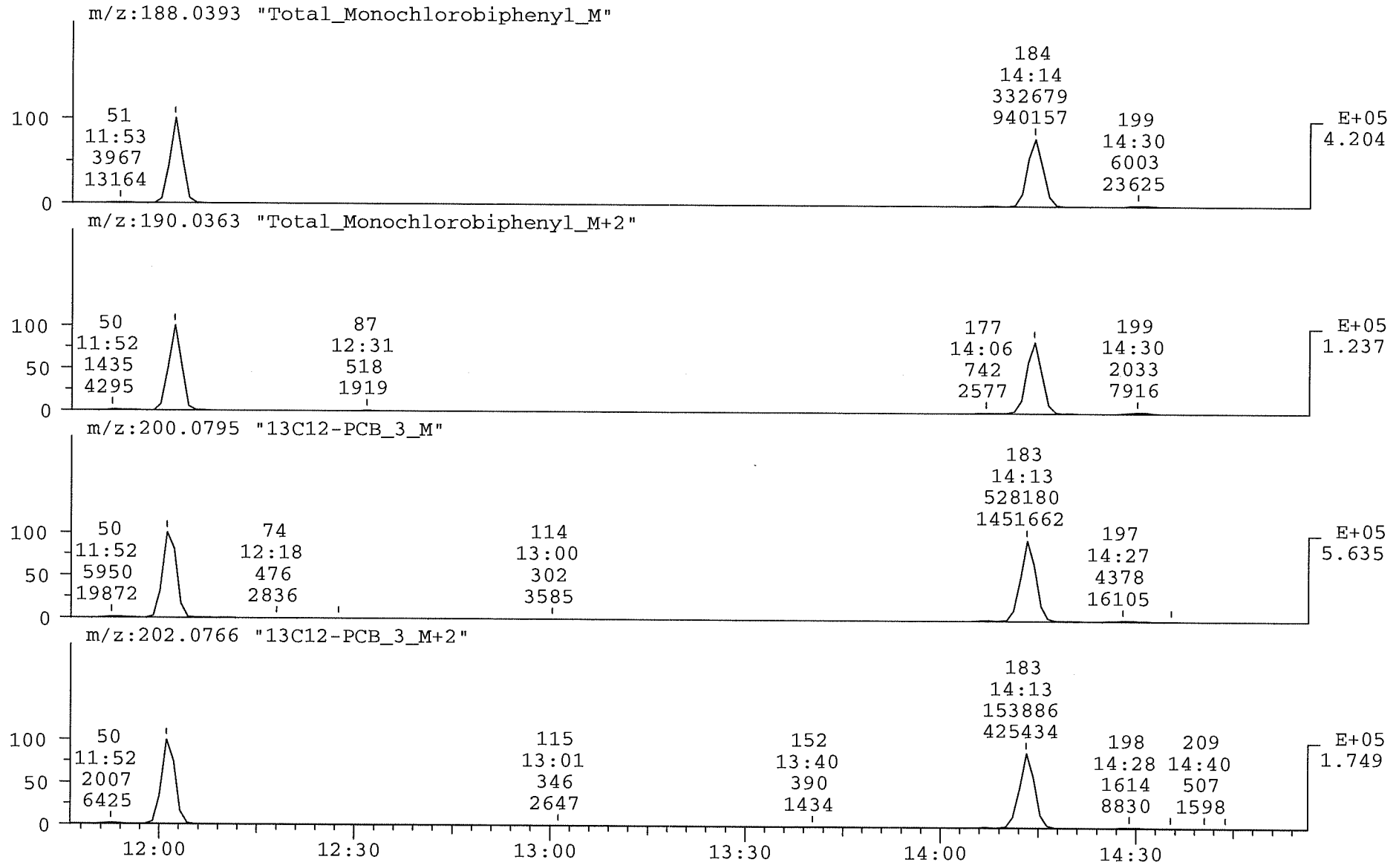
Int DCS 6.11.08
Calc DCS 6.26.08



H-2831

2830

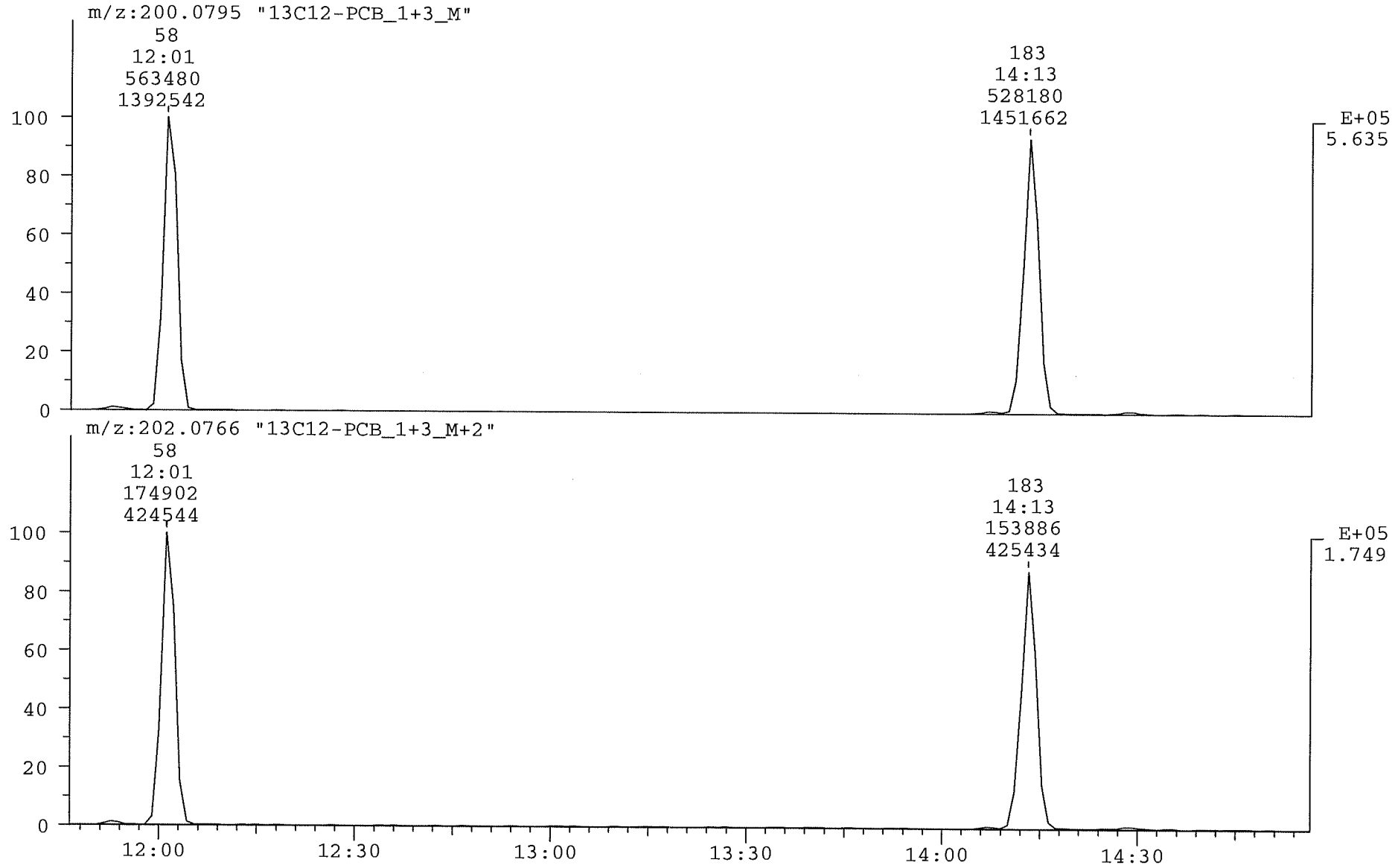
CHRO: a0806m5r3 11-Jun-08 Elapse: 13:21.4 134
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2832

2831

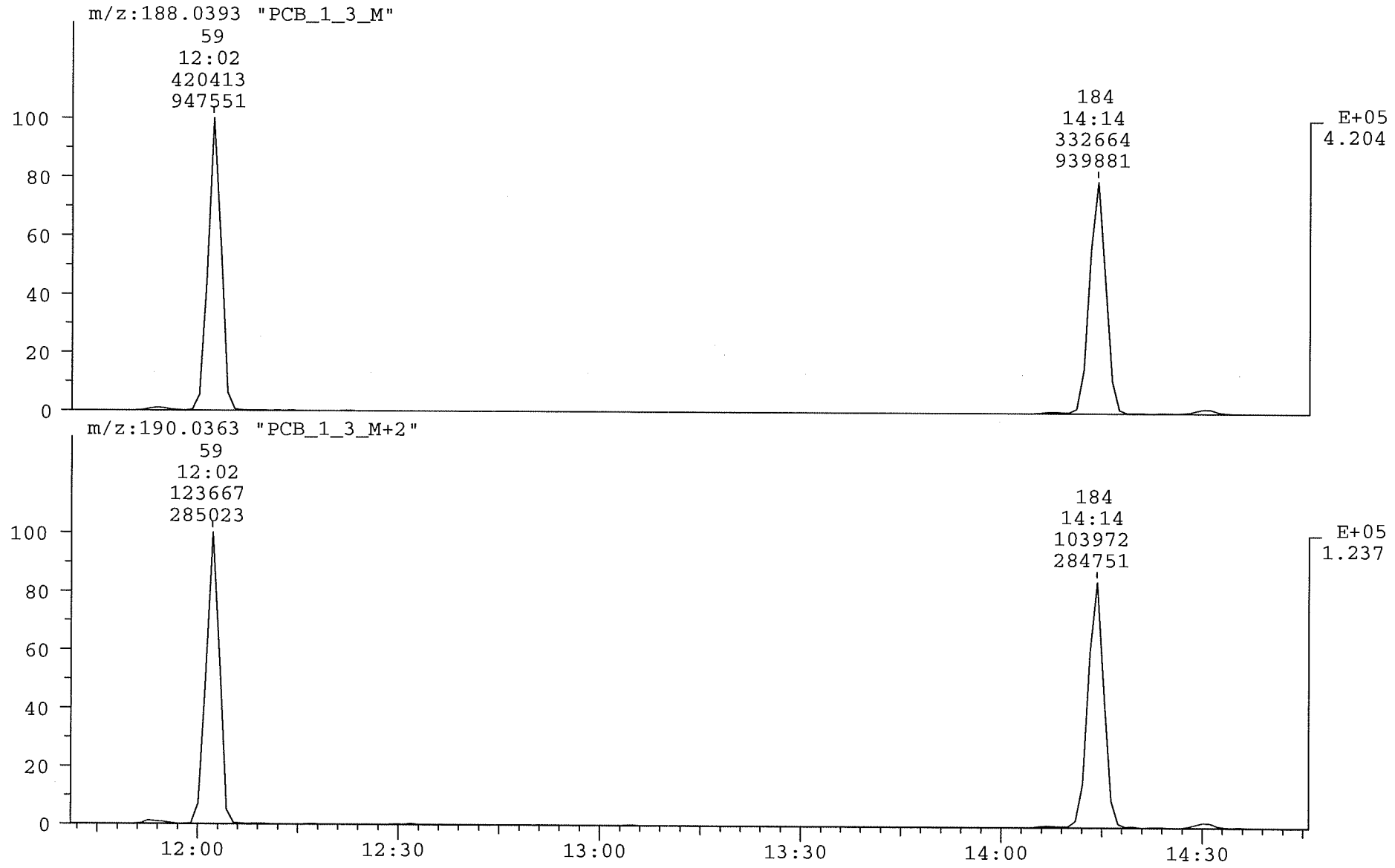
CHRO: a0806m5r3 11-Jun-08 Elapse: 13:21.4 134
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 44 > 224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2833

2832

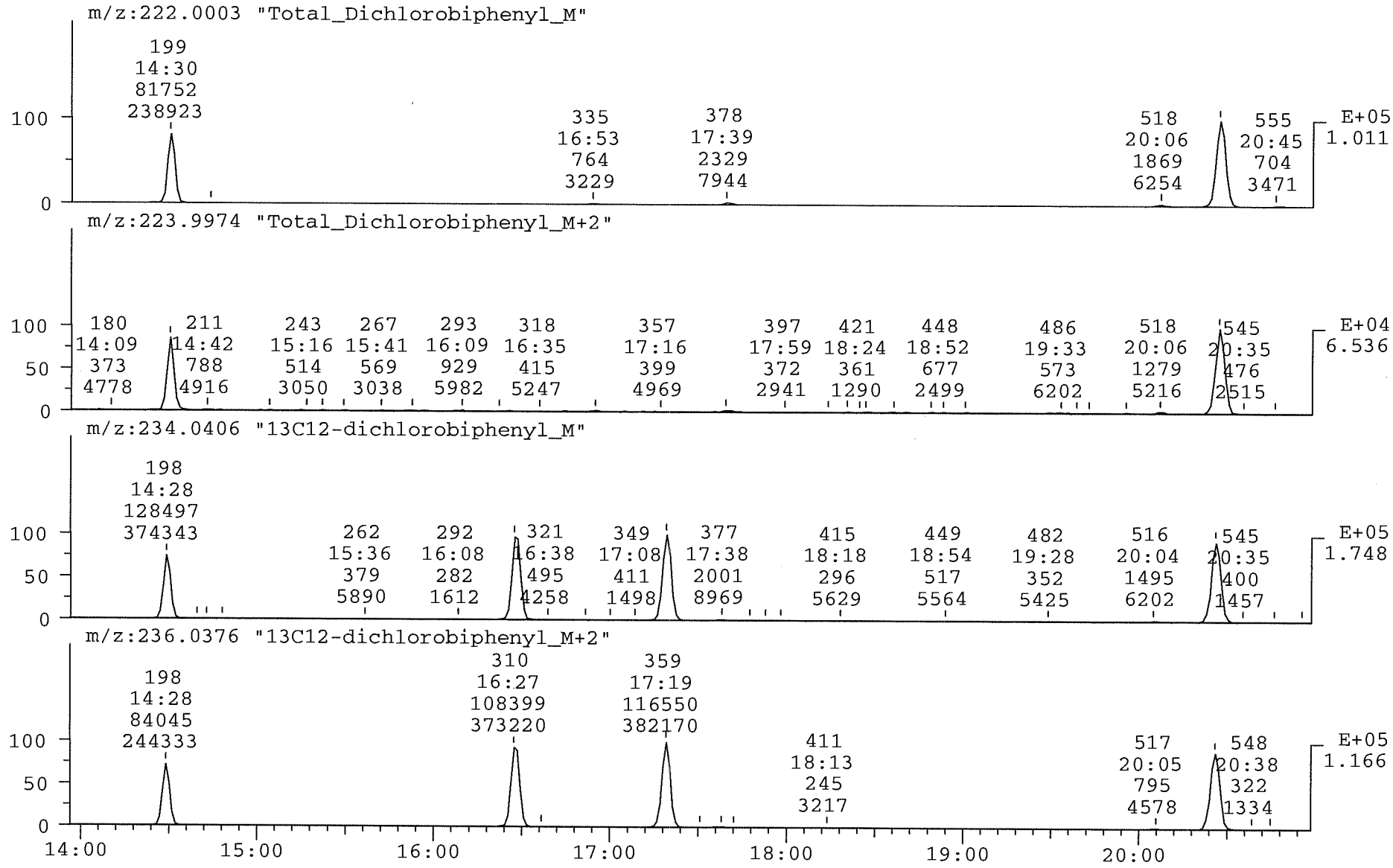
CHRO: a0806m5r3 11-Jun-08 Elapse: 13:21.4 134
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 39 > 214 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2834

2833

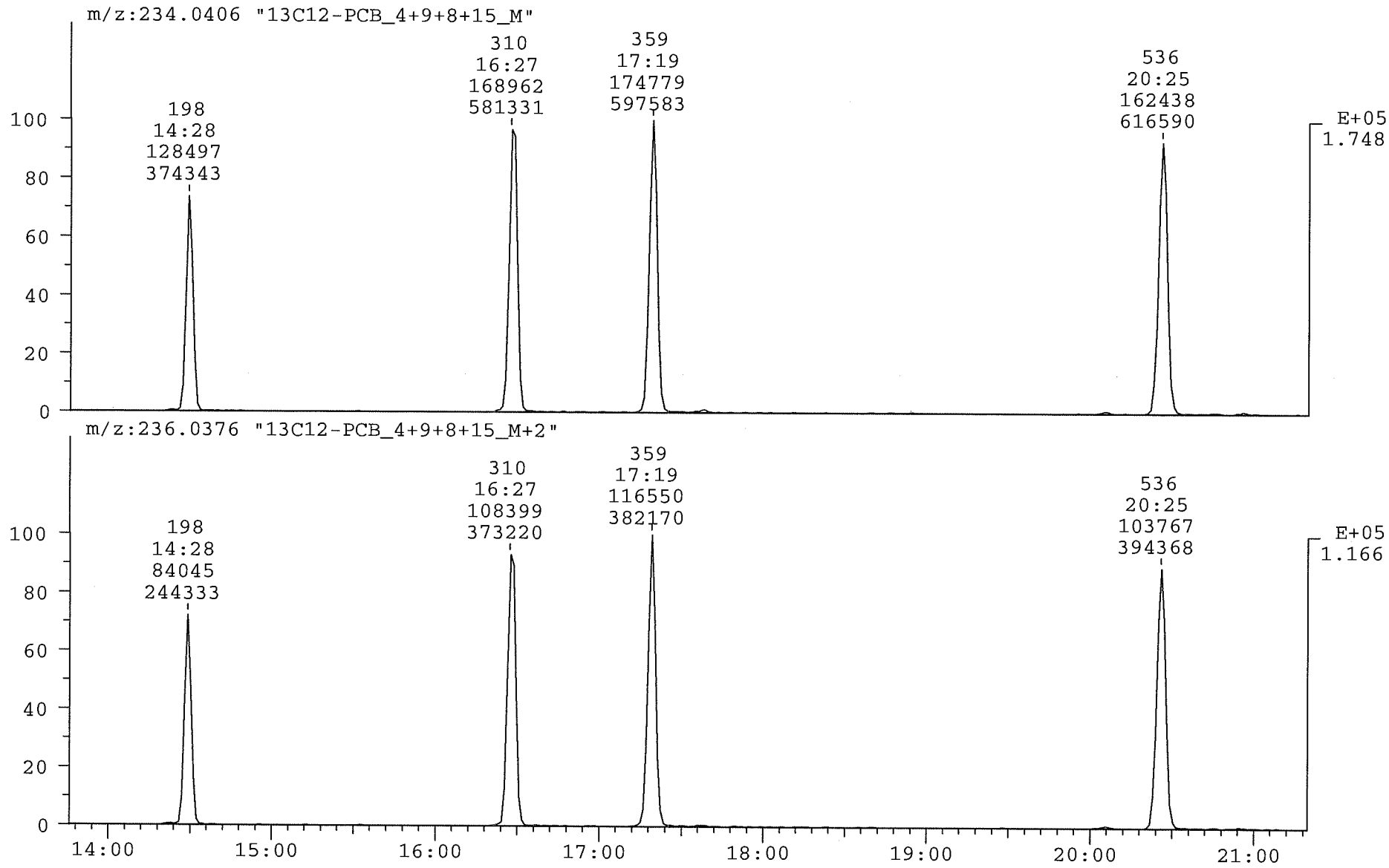
CHRO: a0806m5r3 11-Jun-08 Elapse: 17:27.4 367
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 167 > 567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2835

2834

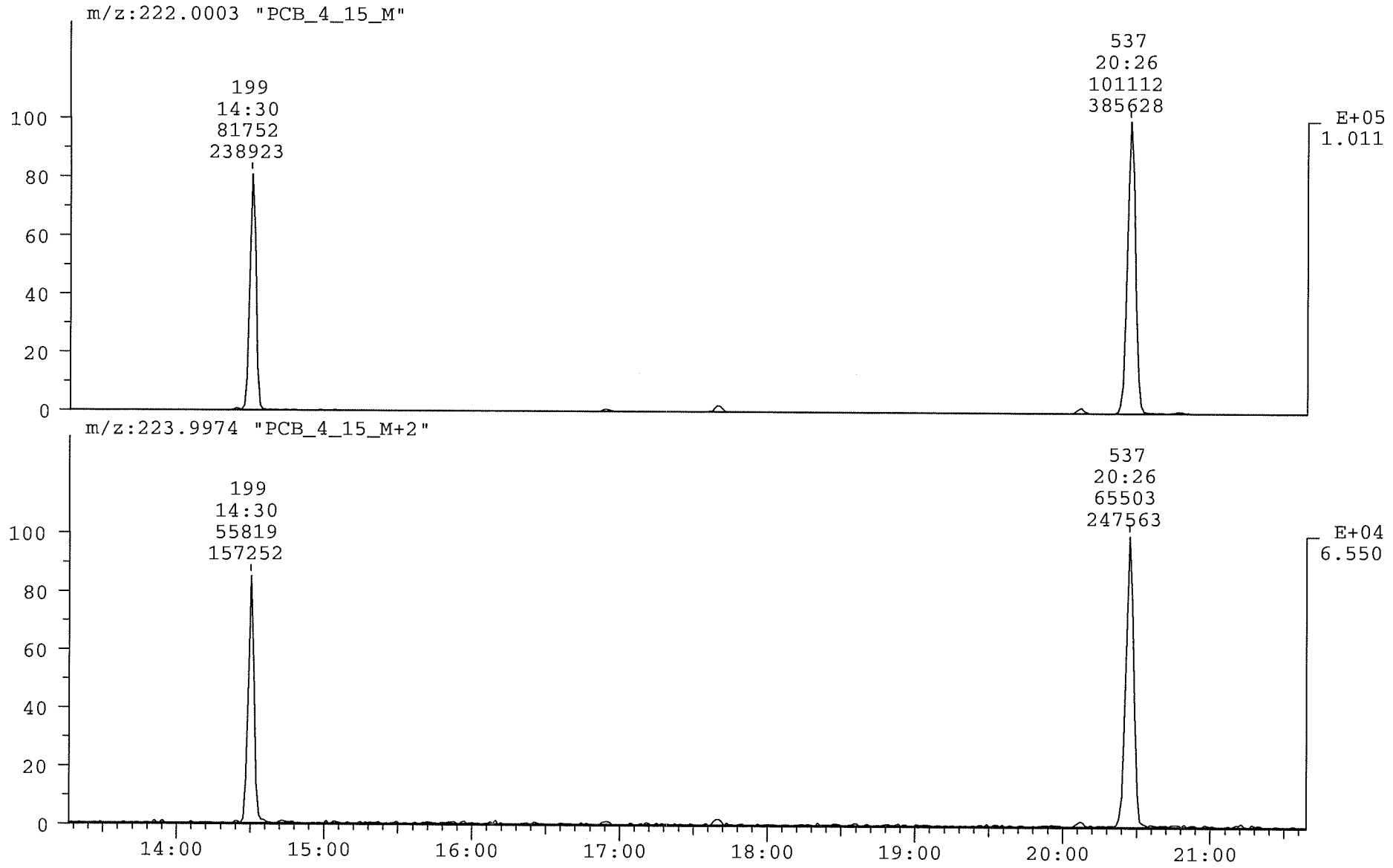
CHRO: a0806m5r3 11-Jun-08 Elapse: 17:27.4 367
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 157 > 587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2836

2835

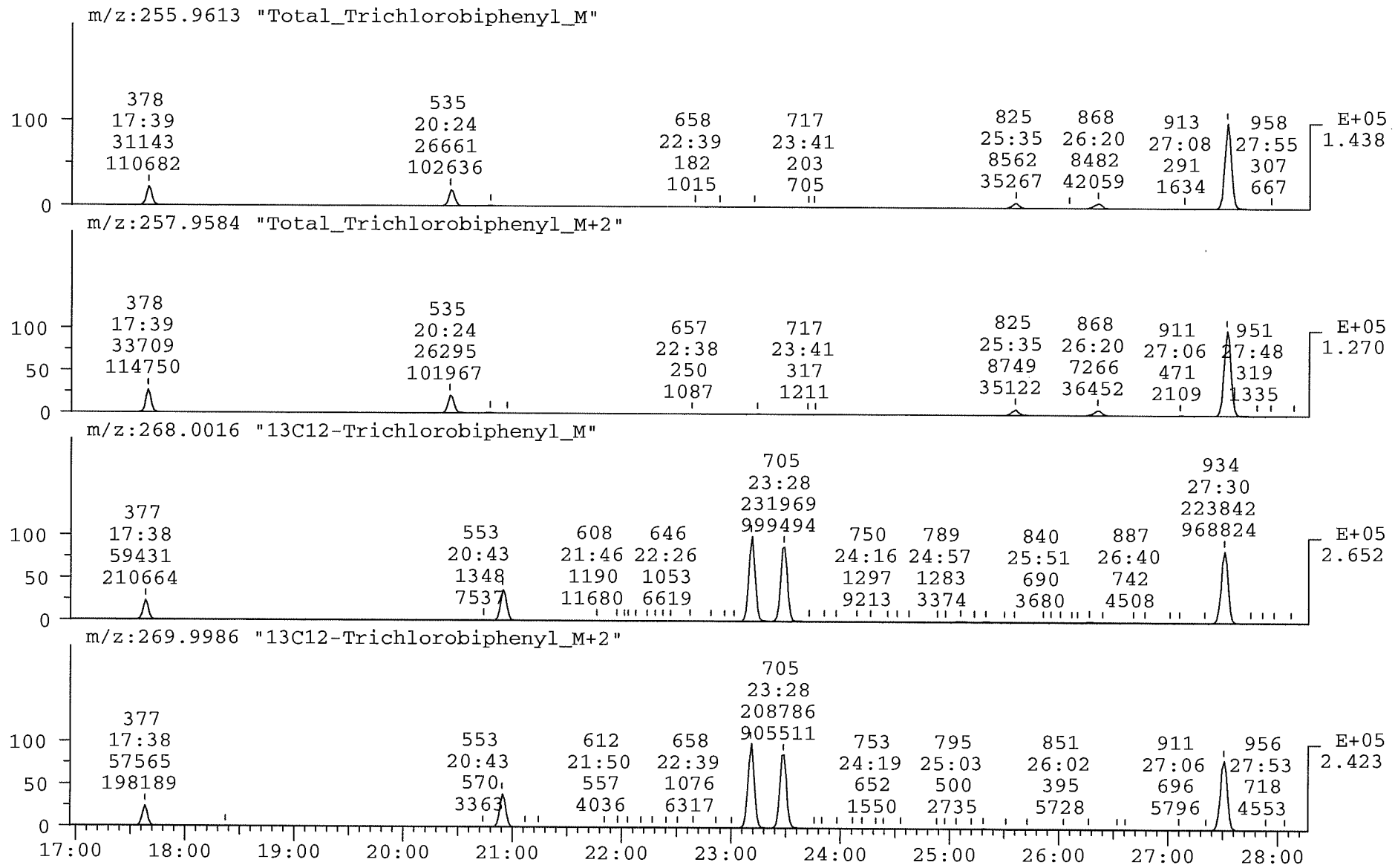
CHRO: a0806m5r3 11-Jun-08 Elapse: 17:27.4 367
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 129 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2837

2836

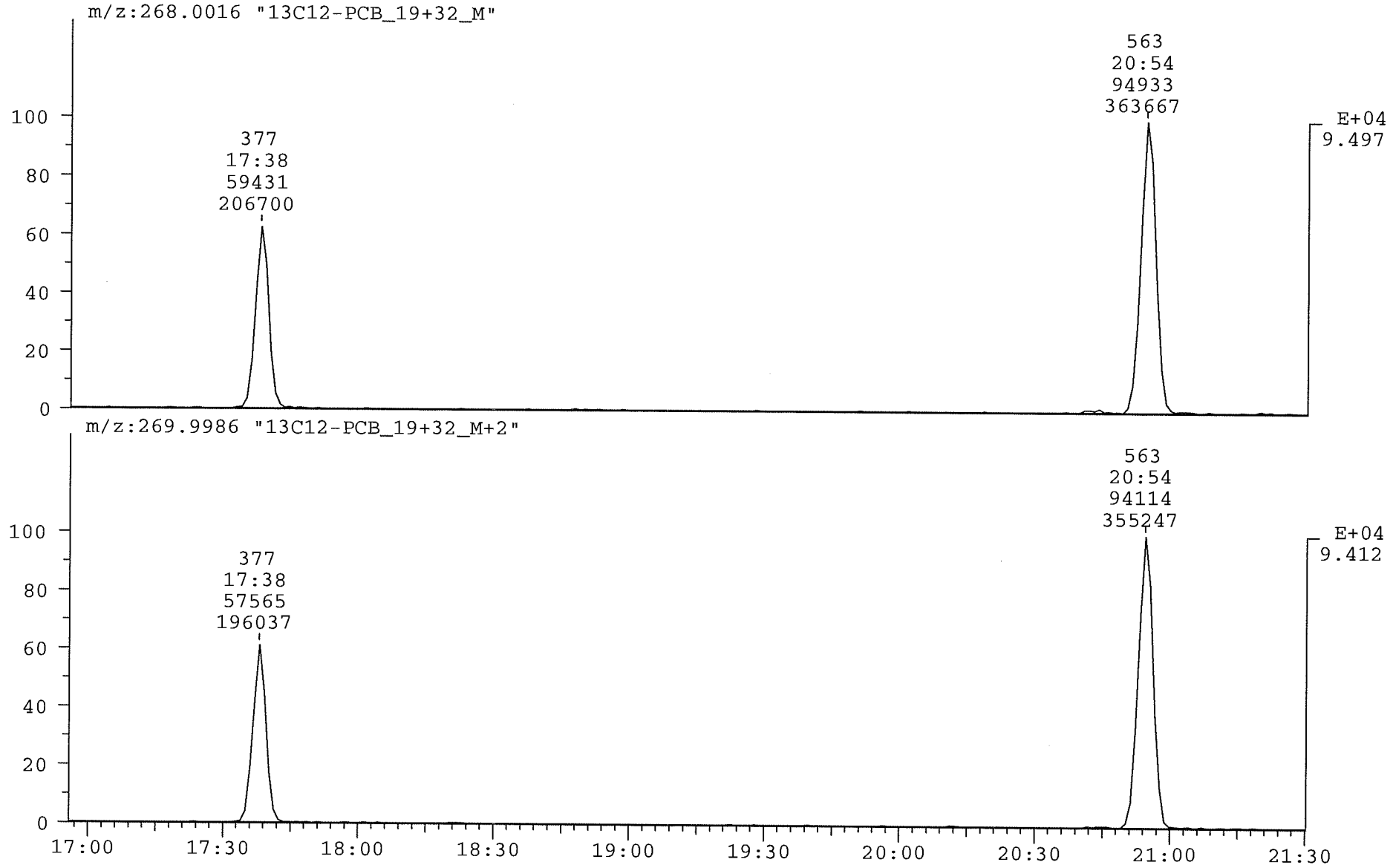
CHRO: a0806m5r3 11-Jun-08 Elapse: 22:39.1 658
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 338 > 978 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2838

2837

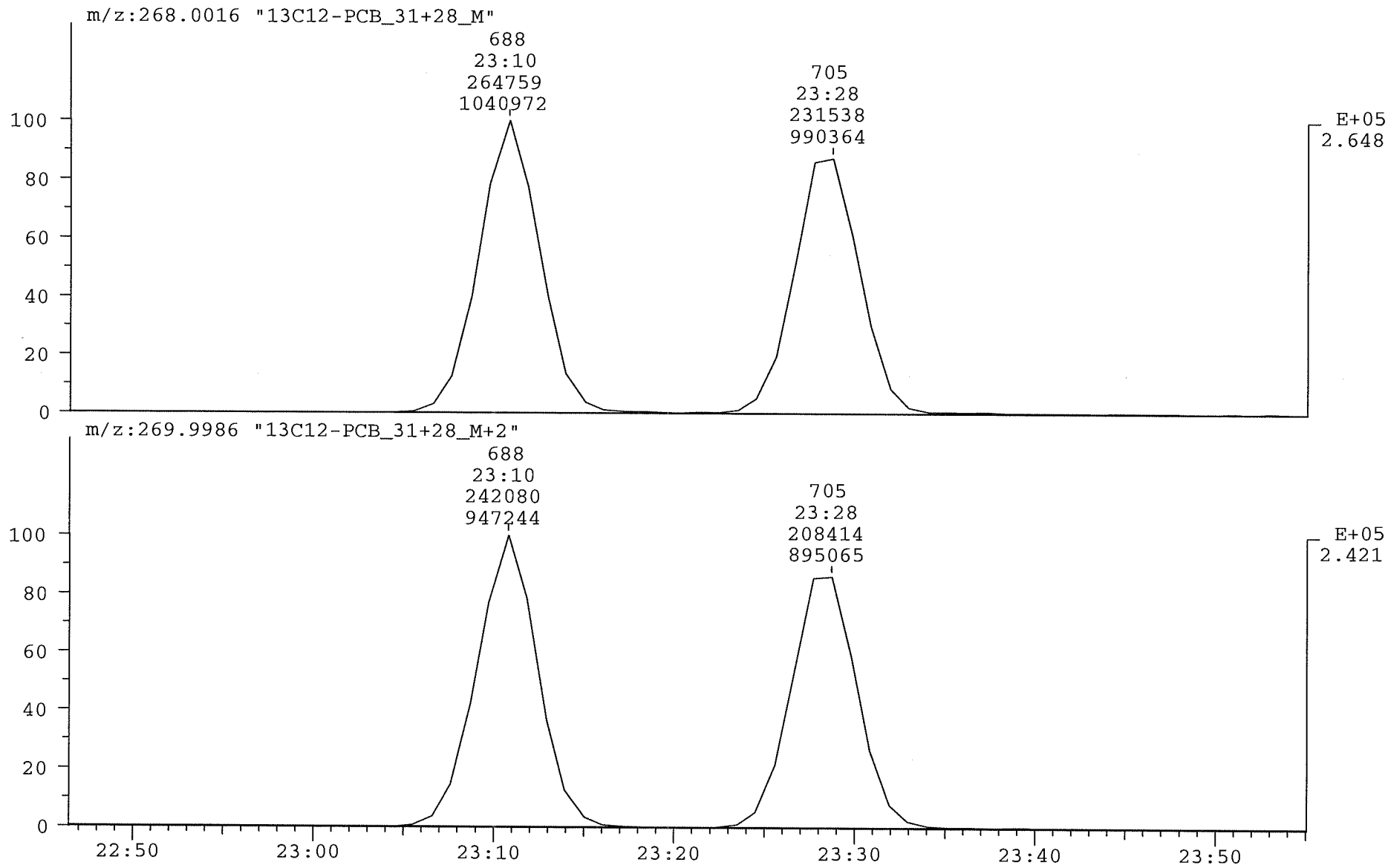
CHRO: a0806m5r3 11-Jun-08 Elapse: 19:02.4 457
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 337 > 597 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2839

2838

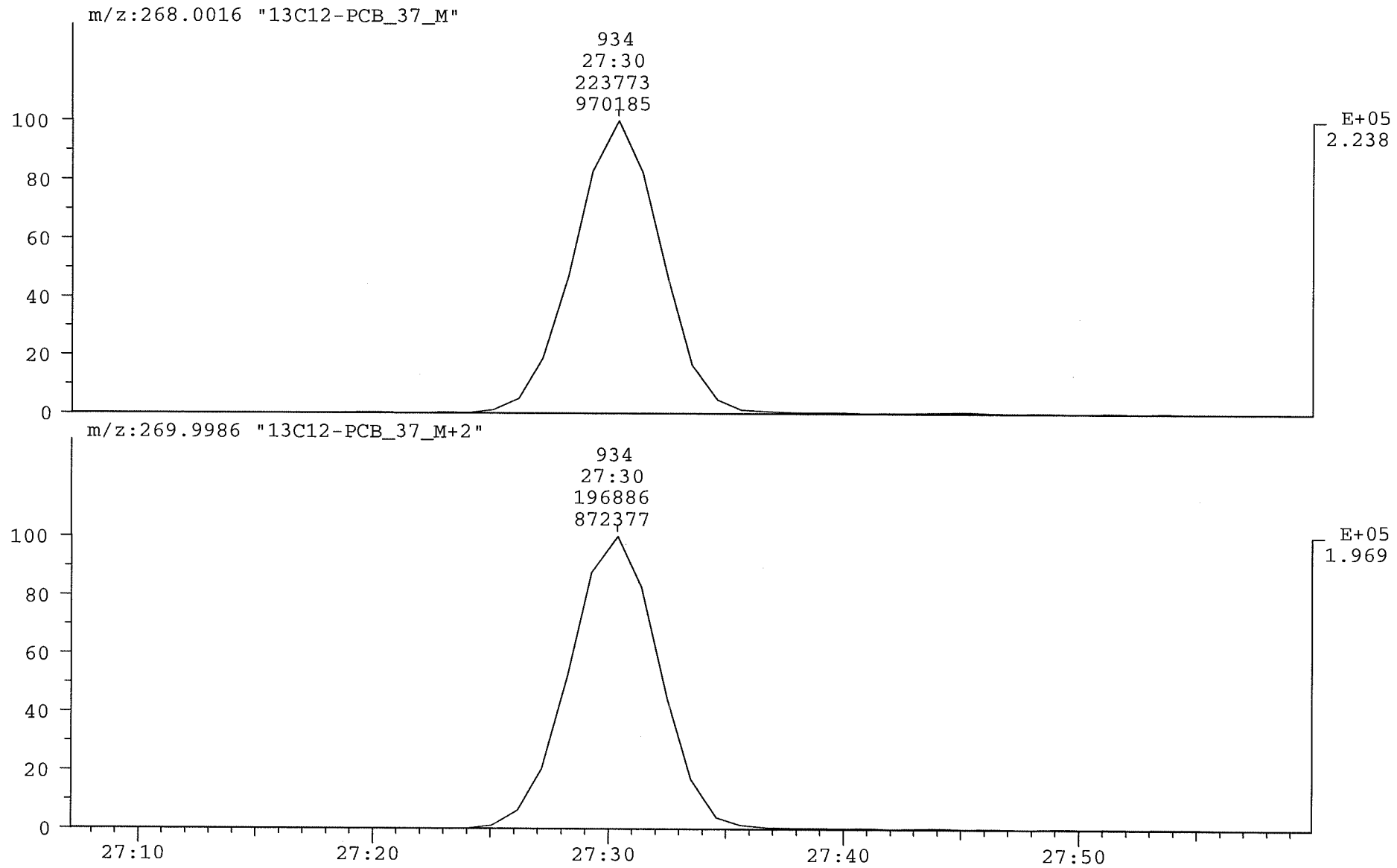
CHRO: a0806m5r3 11-Jun-08 Elapse: 23:12.9 690
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 665 > 730 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2840

2839

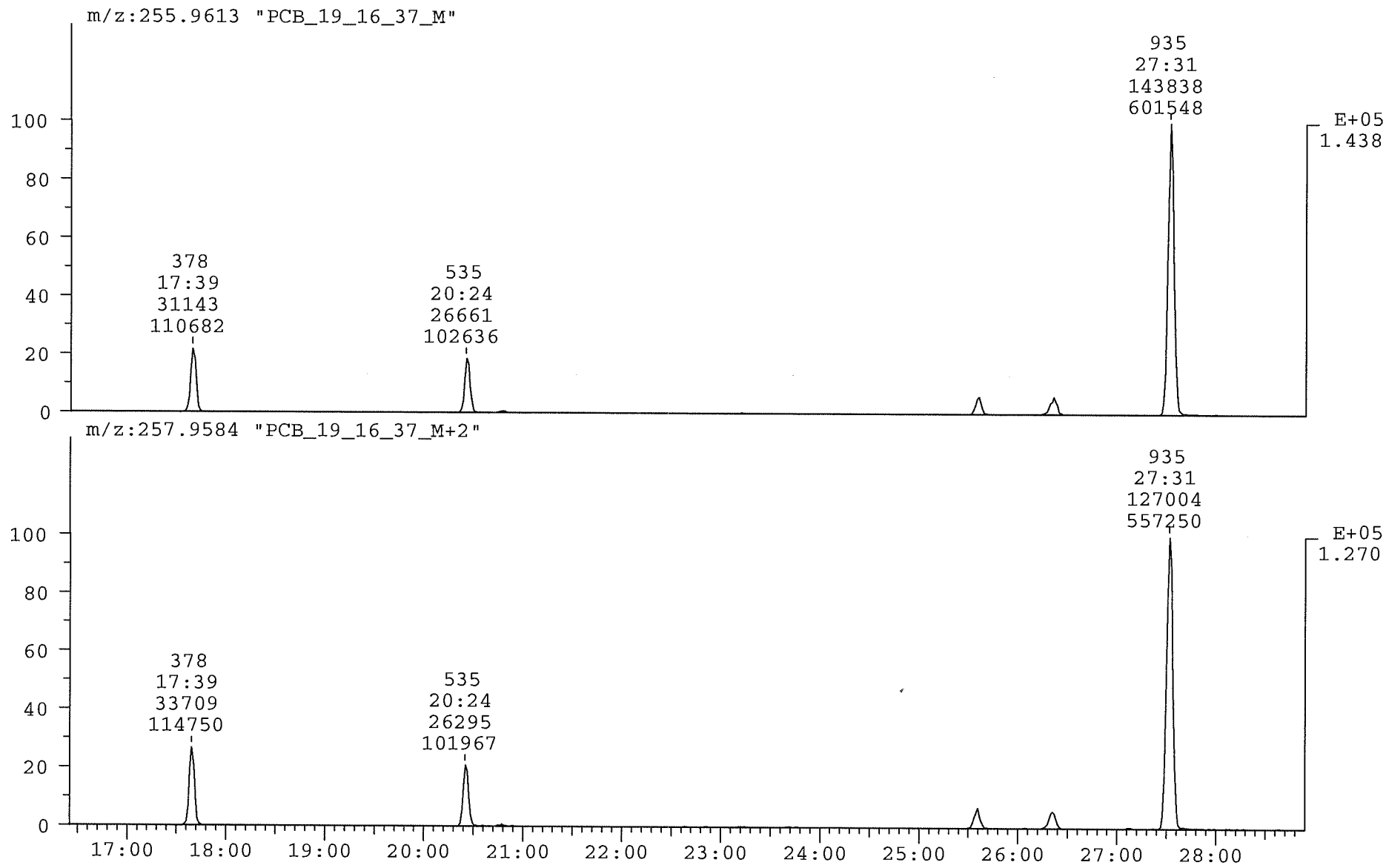
CHRO: a0806m5r3 11-Jun-08 Elapse: 27:33.5 937
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 912 > 962 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2841

2840

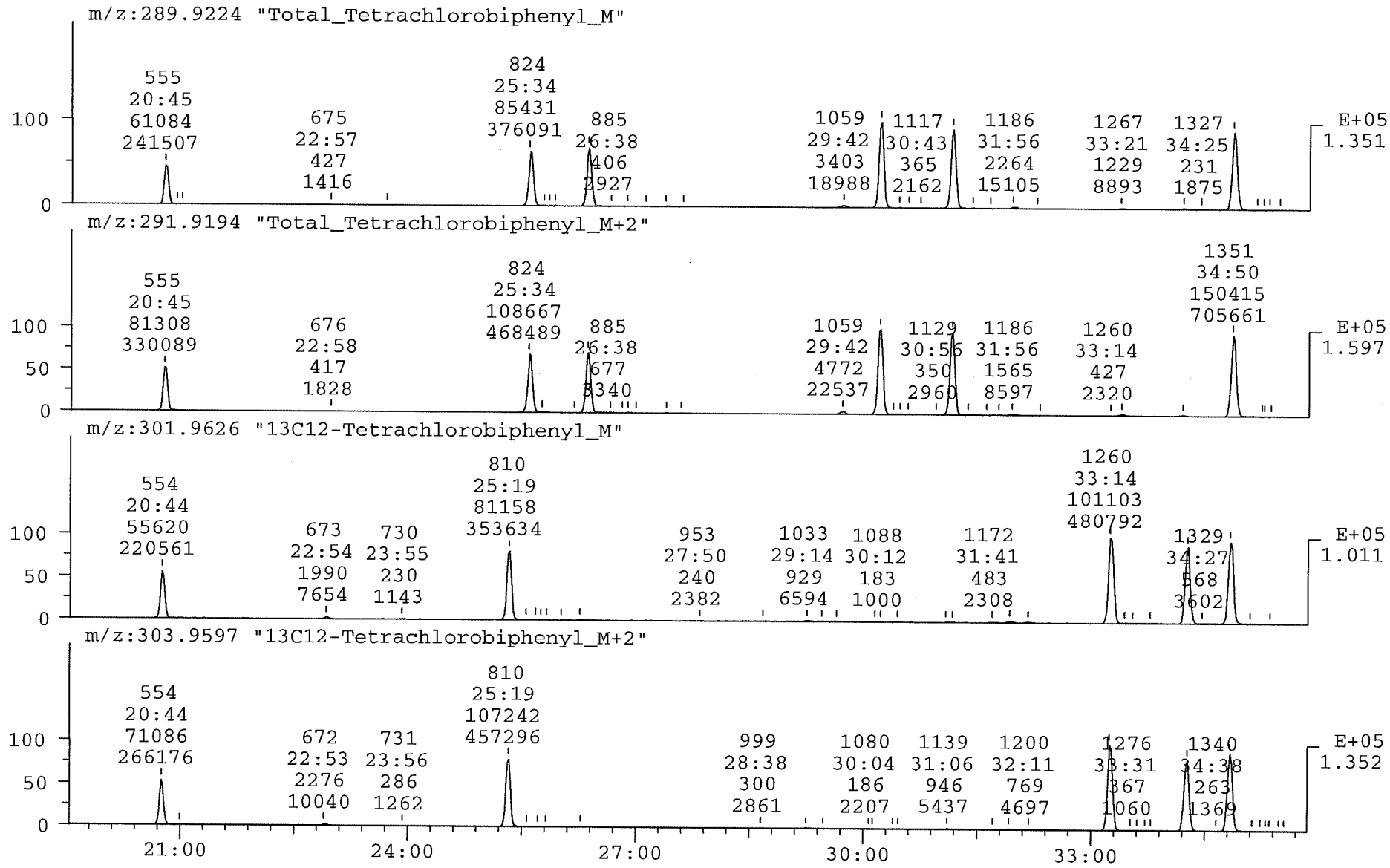
CHRO: a0806m5r3 11-Jun-08 Elapse: 22:39.1 658
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 308 > 1013 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2842

2841

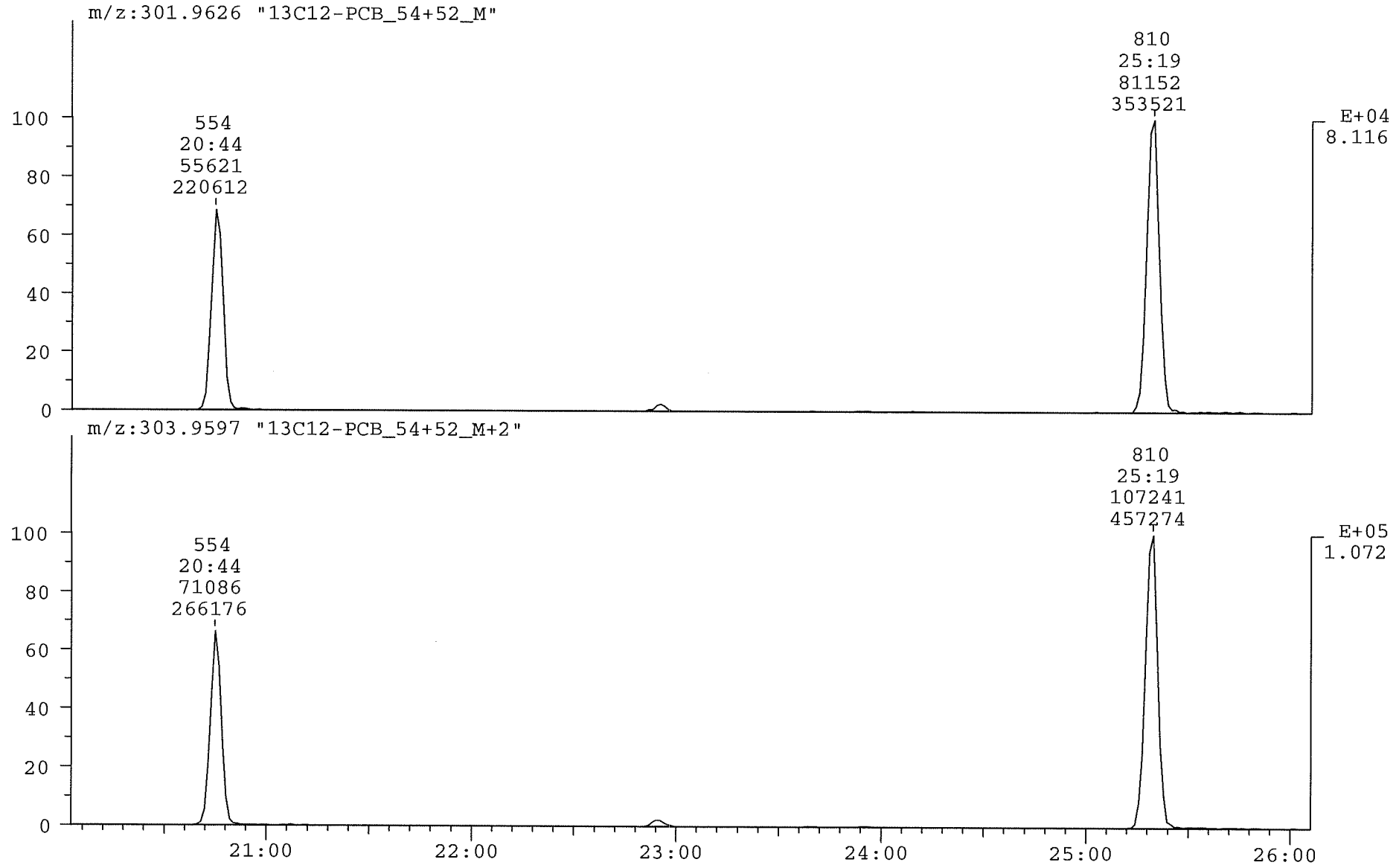
CHRO: a0806m5r3 11-Jun-08 Elapse: 27:40.9 944
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 485 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2843

2842

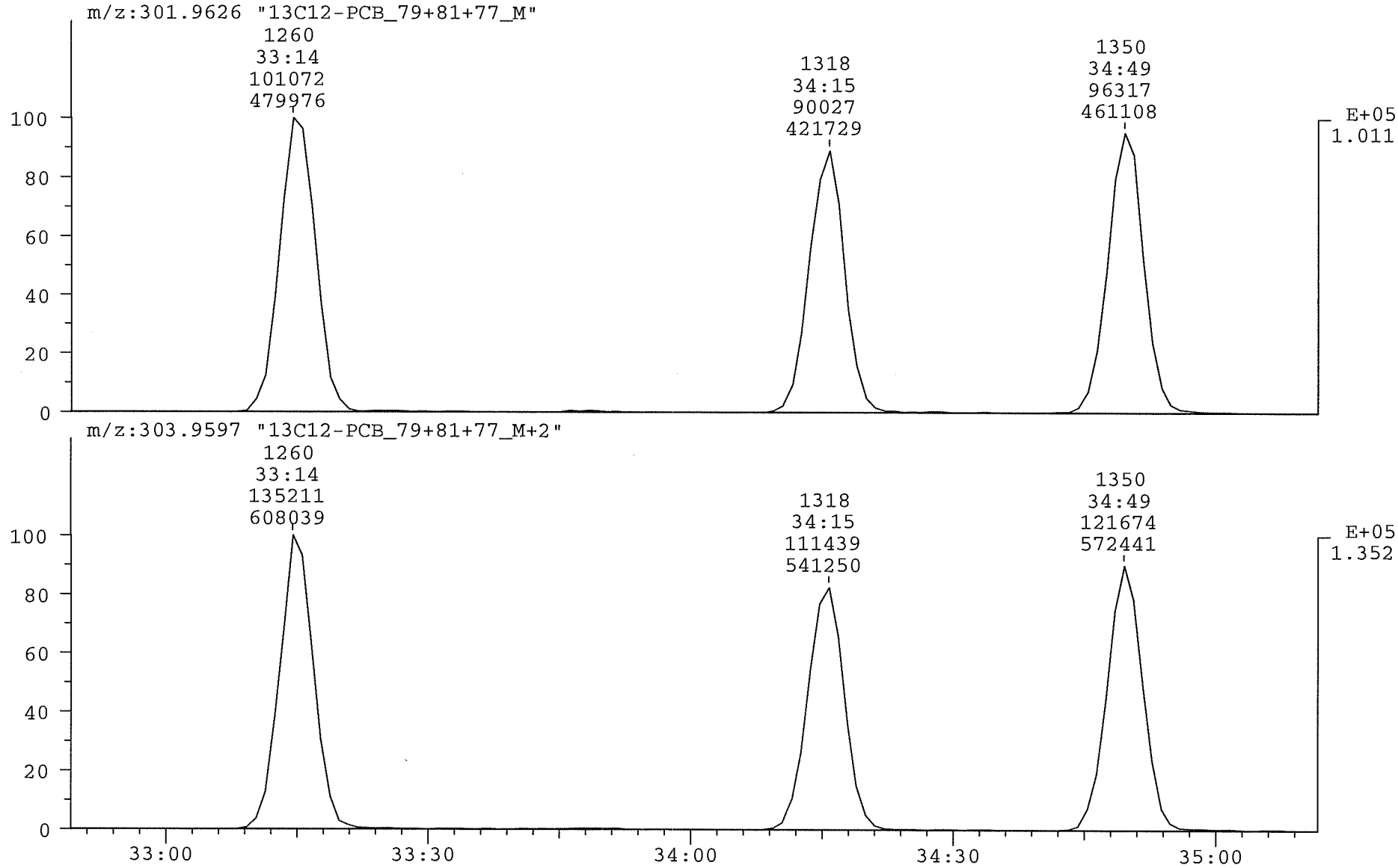
CHRO: a0806m5r3 11-Jun-08 Elapse: 23:06.6 684
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 514 > 854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2844

2843

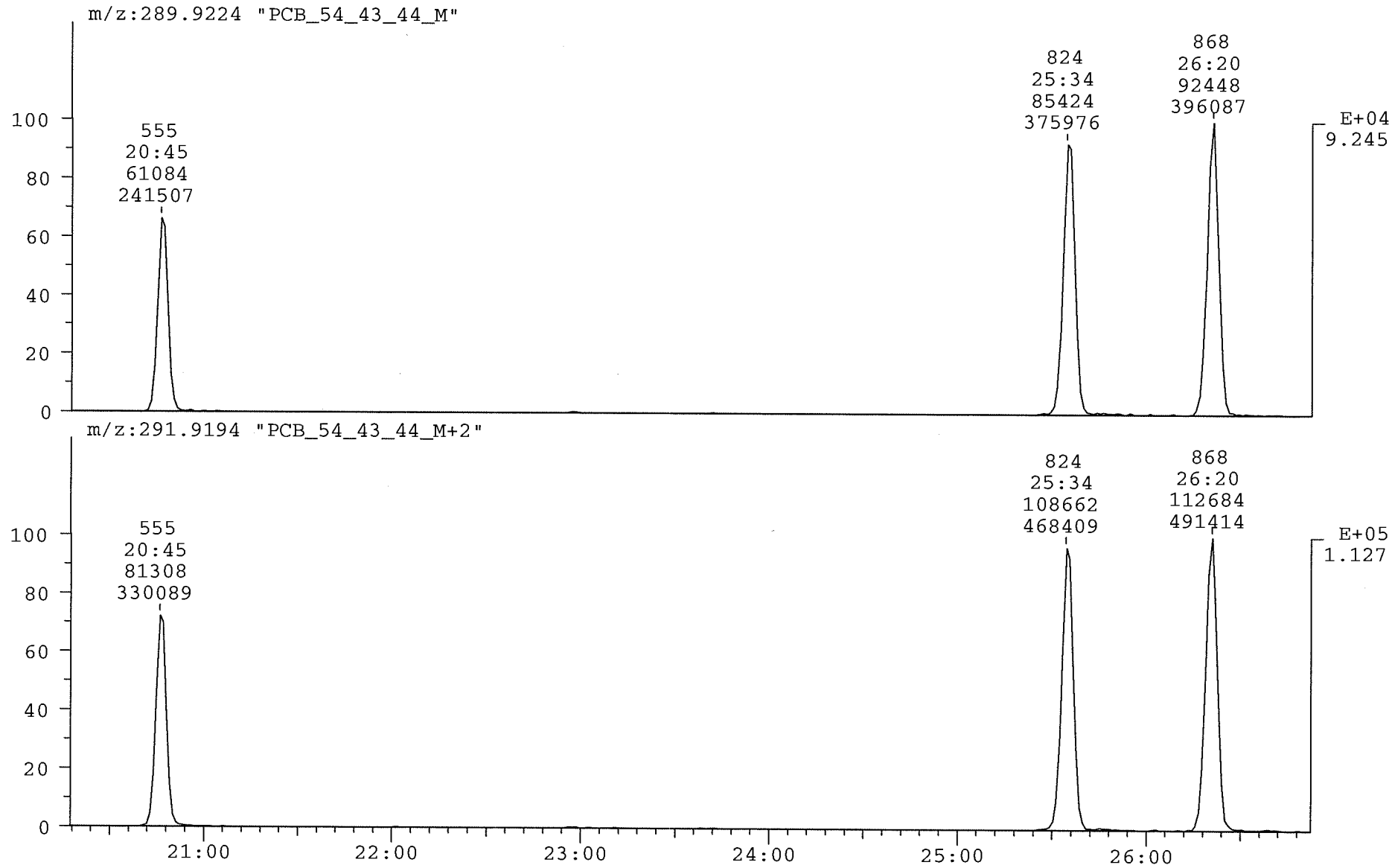
CHRO: a0806m5r3 11-Jun-08 Elapse: 34:03 1306
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1236 > 1371 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2845

2844

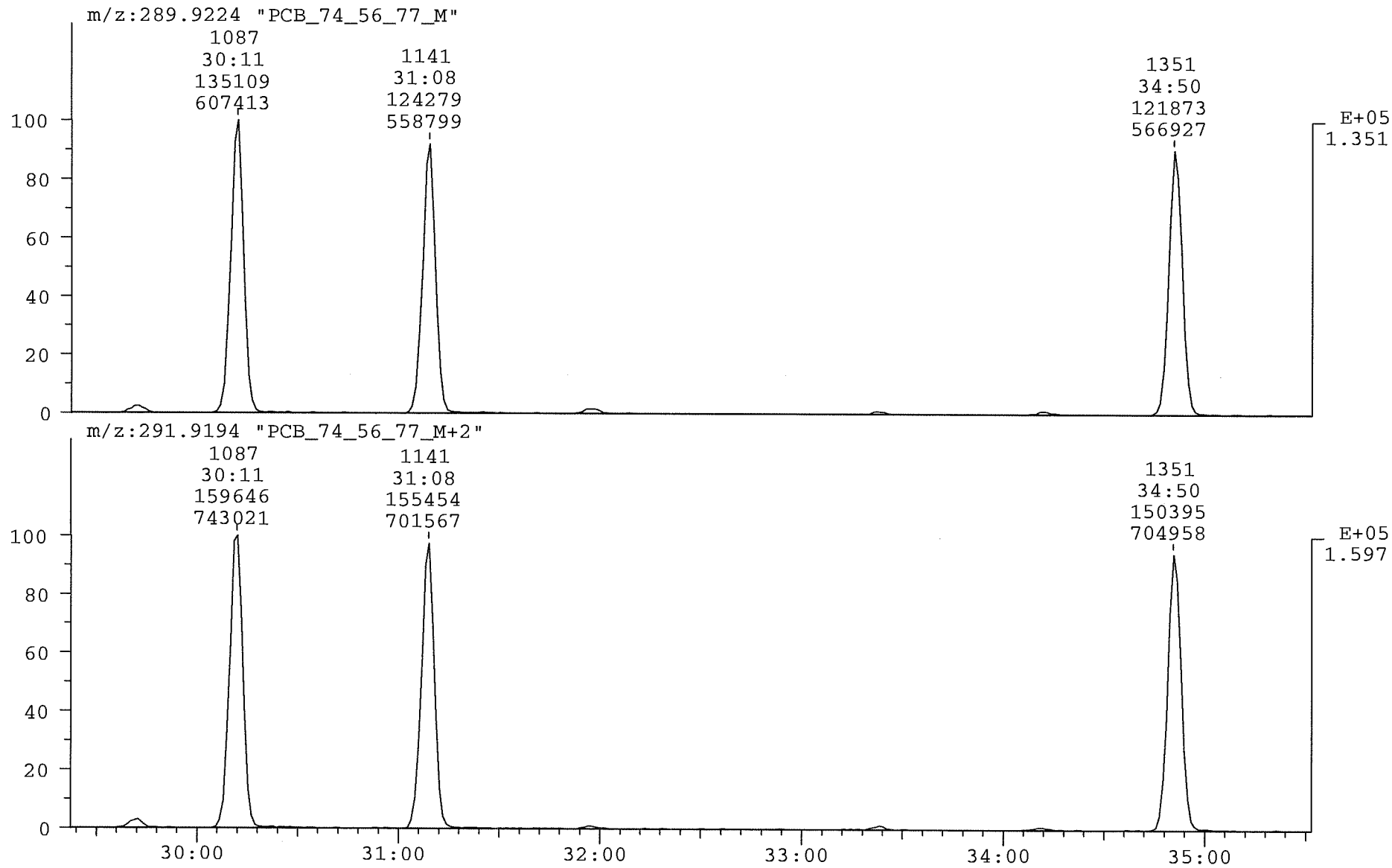
CHRO: a0806m5r3 11-Jun-08 Elapse: 23:37.1 713
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 528 > 898 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2846

2845

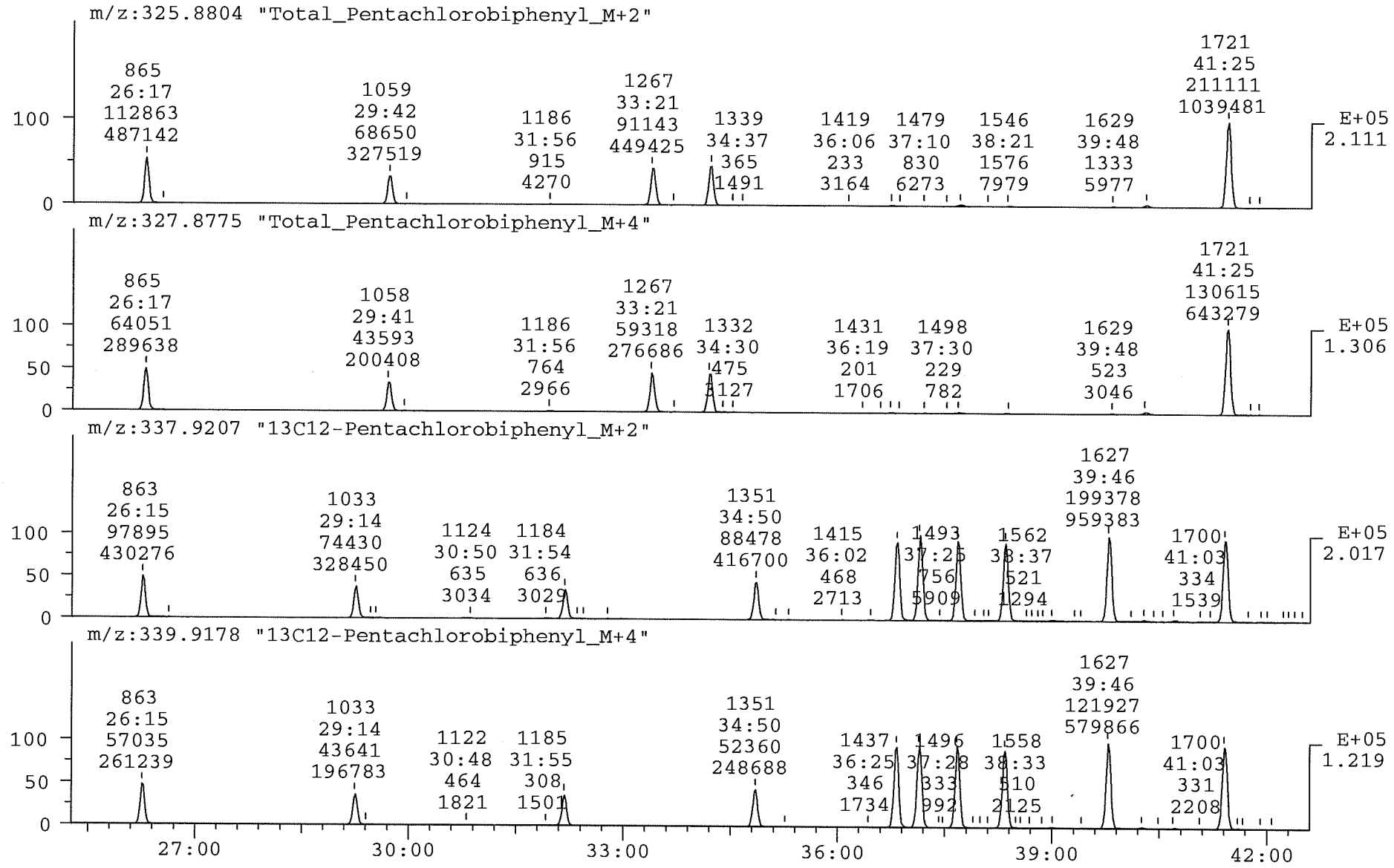
CHRO: a0806m5r3 11-Jun-08 Elapse: 32:26 1215
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1040 > 1390 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2847

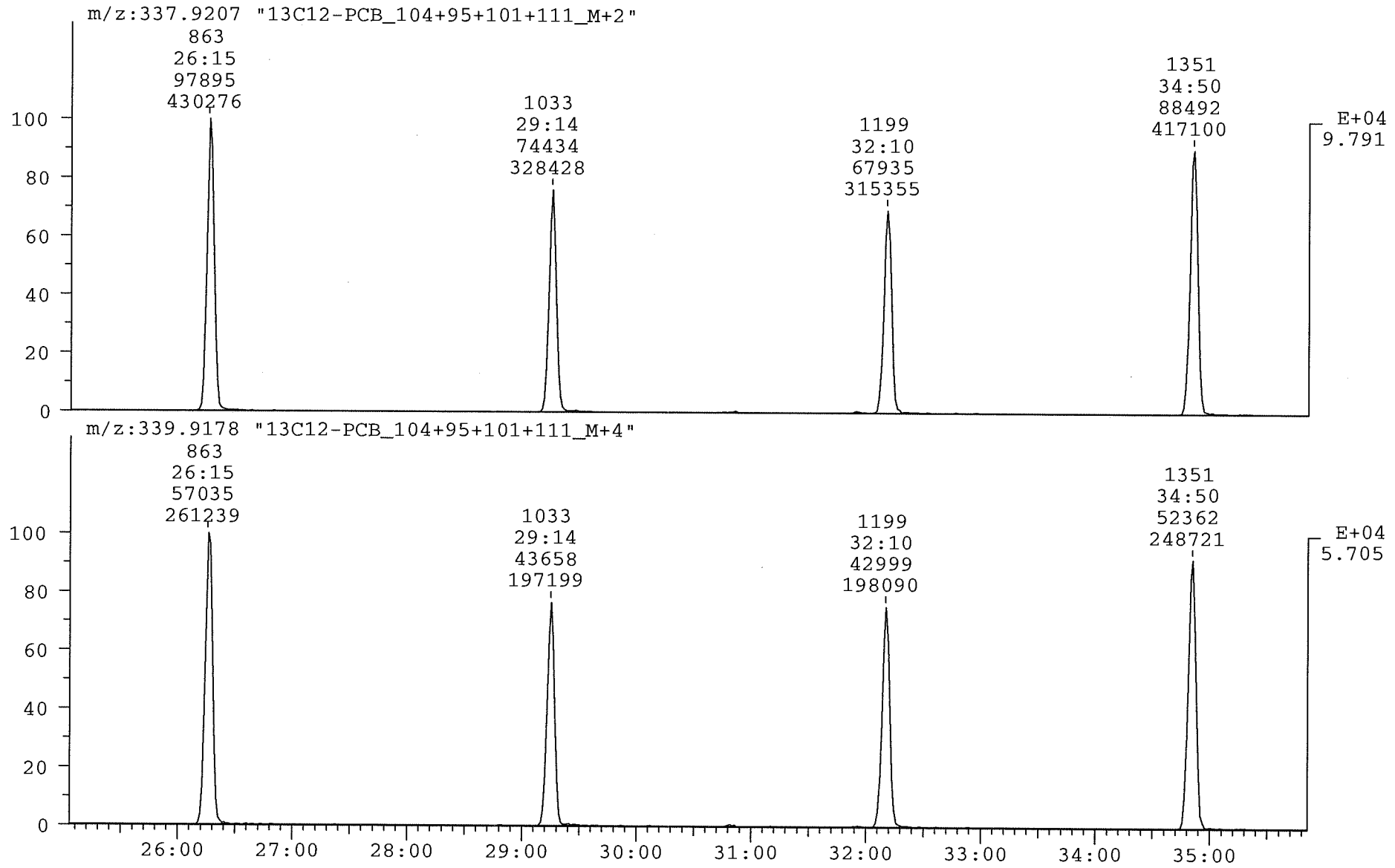
2846

CHRO: a0806m5r3 11-Jun-08 Elapse: 33:55 1299
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 807 > 1787 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2848

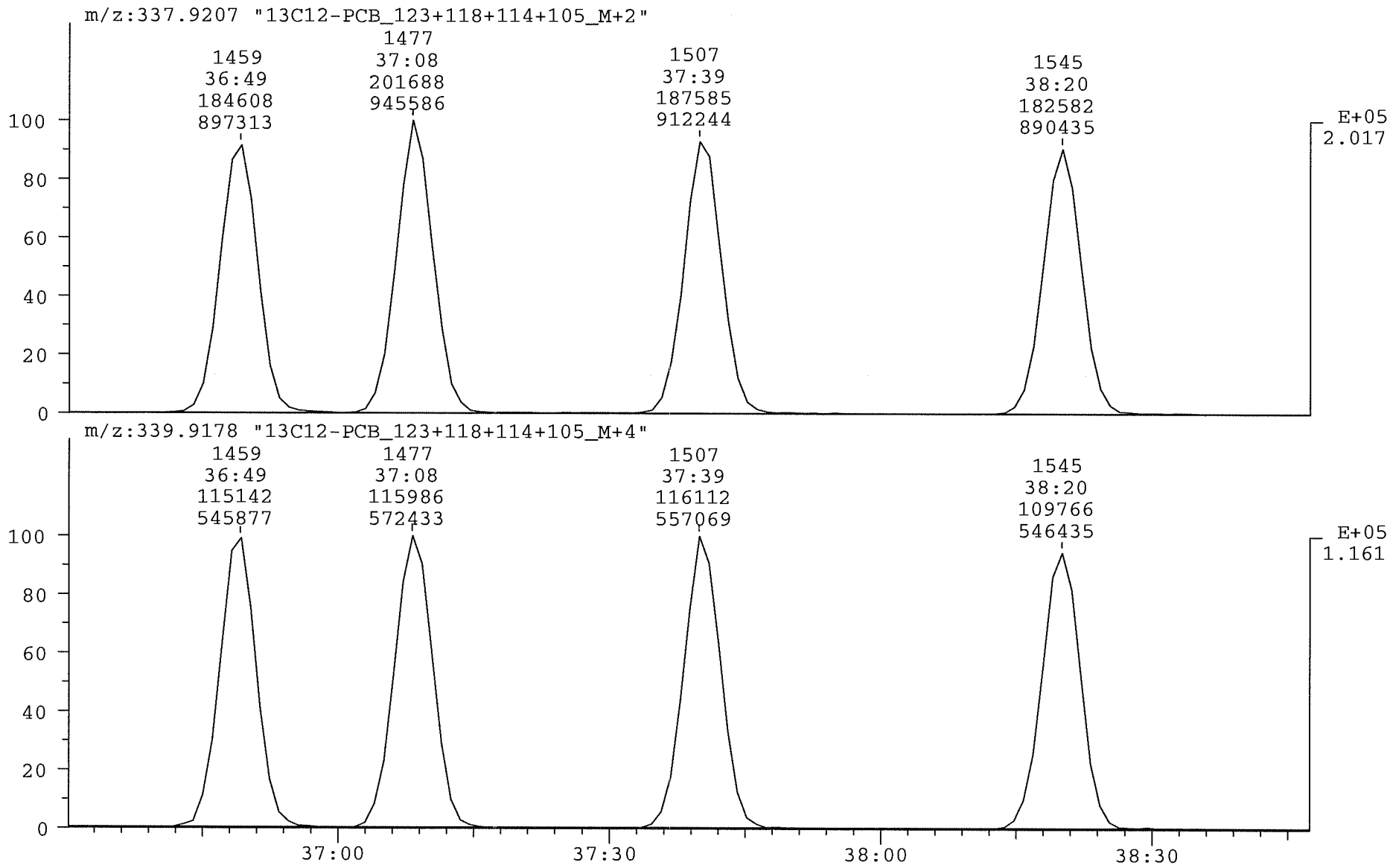
CHRO: a0806m5r3 11-Jun-08 Elapse: 30:26 1101
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 794 > 1408 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2849

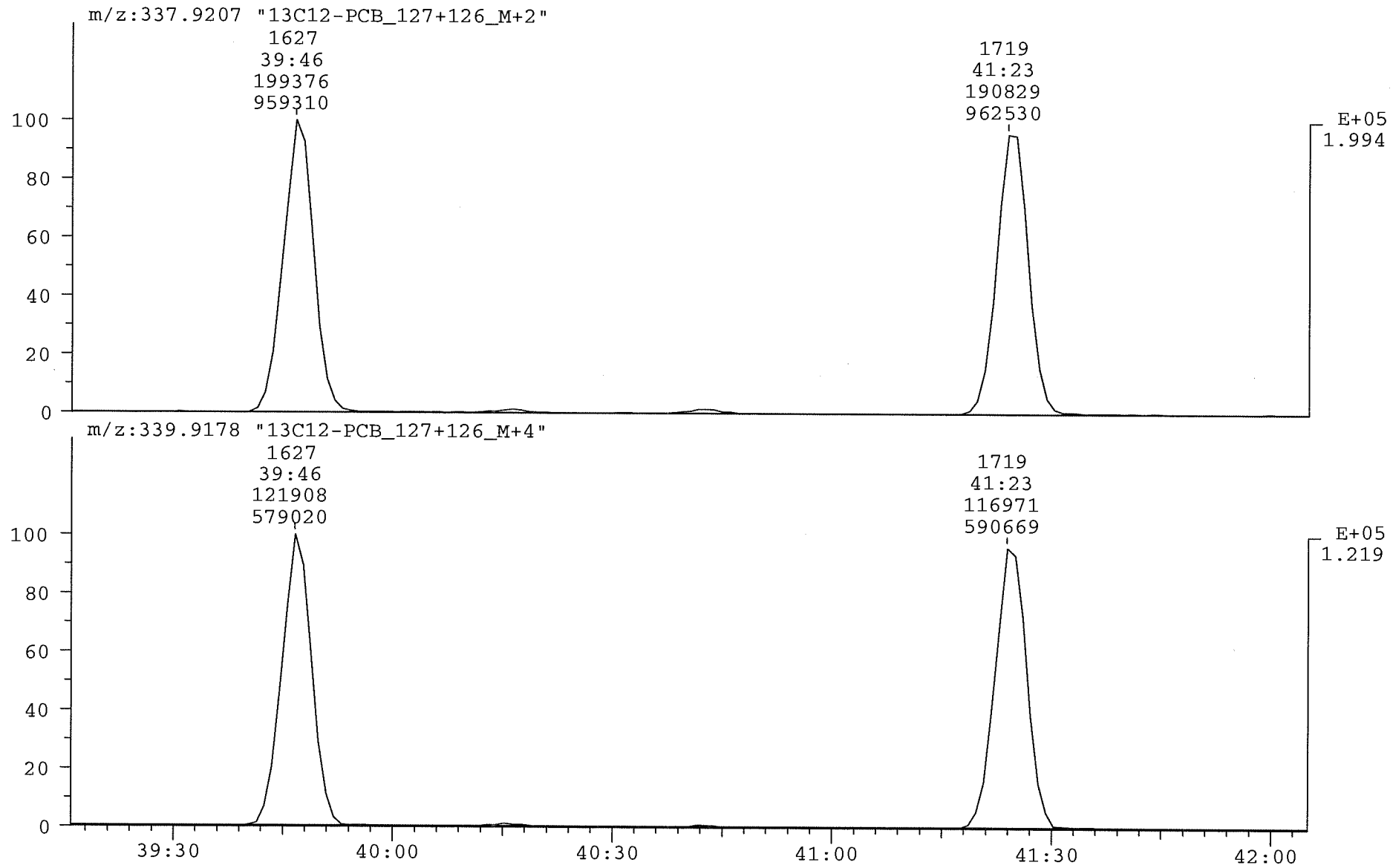
2848

CHRO: a0806m5r3 11-Jun-08 Elapse: 37:38 1506
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1441 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2850

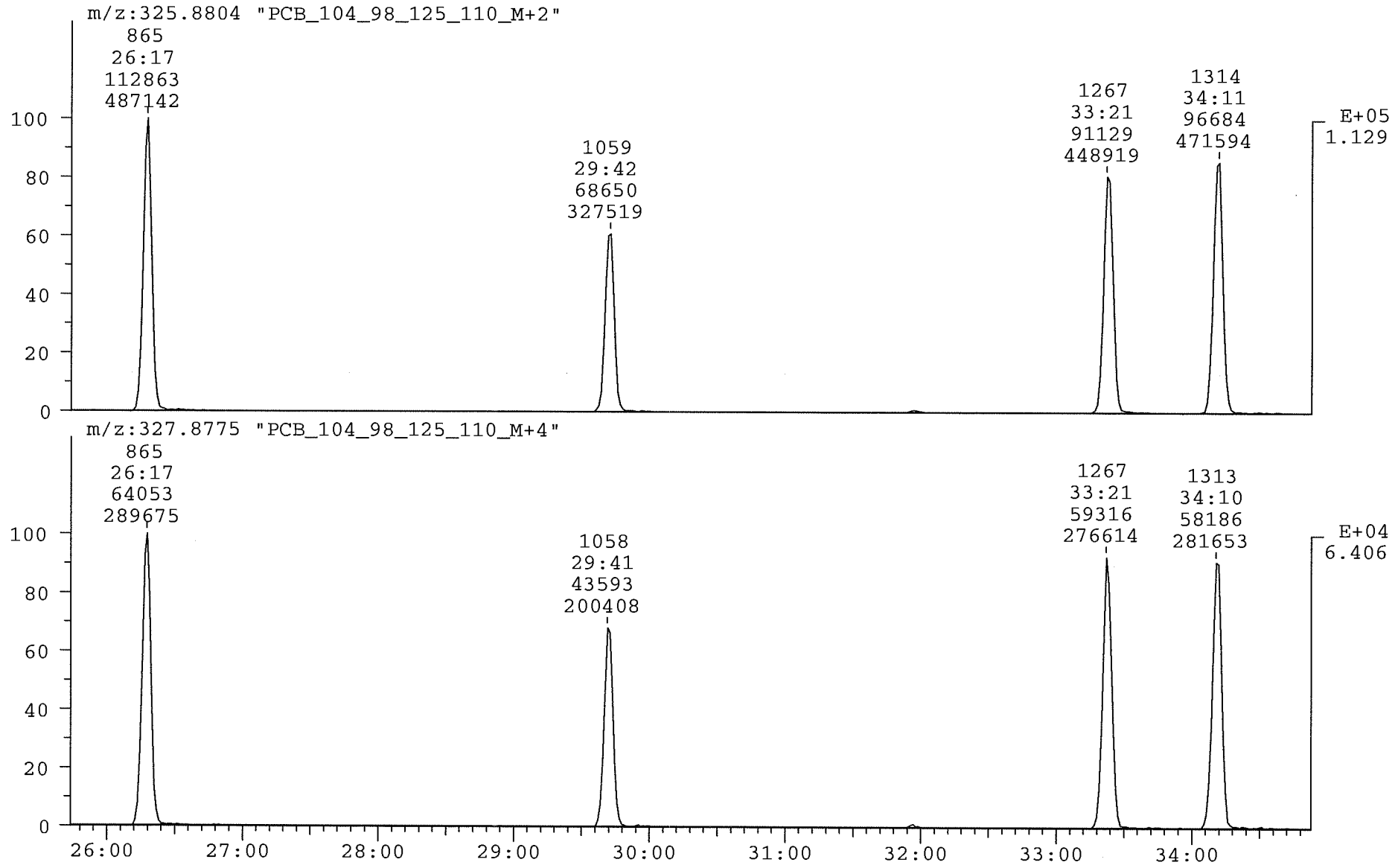
CHRO: a0806m5r3 11-Jun-08 Elapse: 40:40 1678
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1598 > 1758 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2851

2850

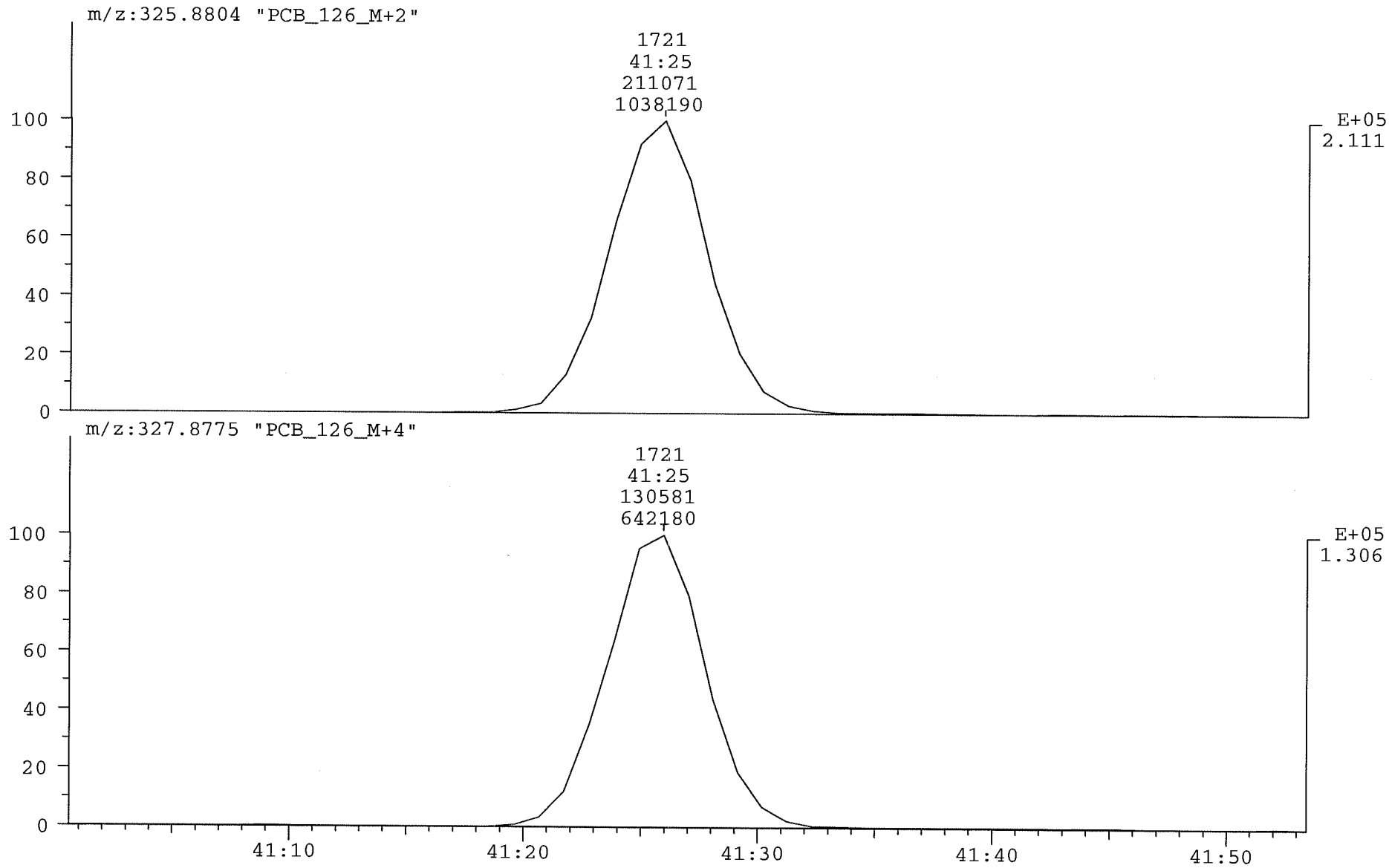
CHRO: a0806m5r3 11-Jun-08 Elapse: 30:18 1093
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 833 > 1353 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2852

2851

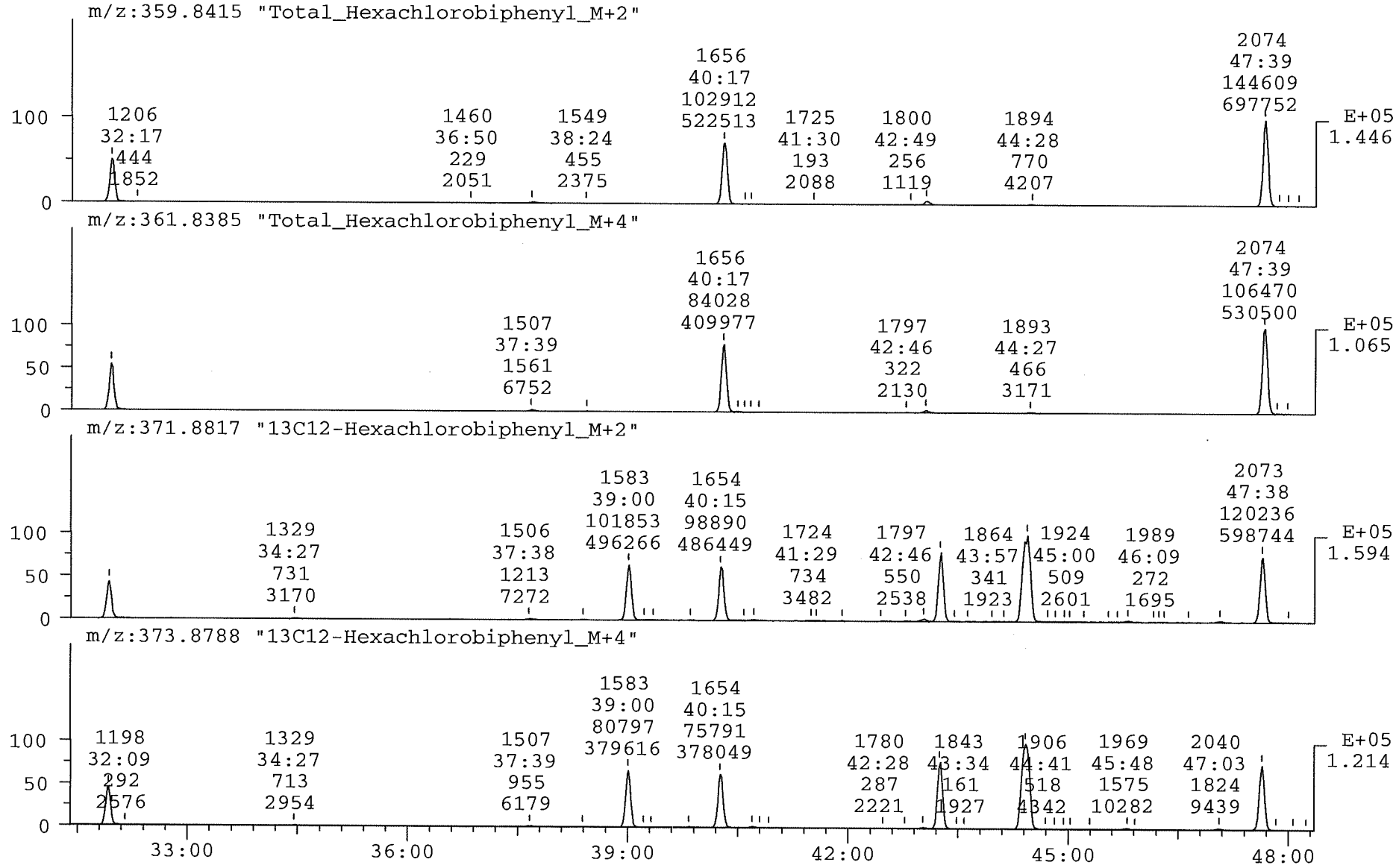
CHRO: a0806m5r3 11-Jun-08 Elapse: 41:27 1722
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1697 > 1747 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2853

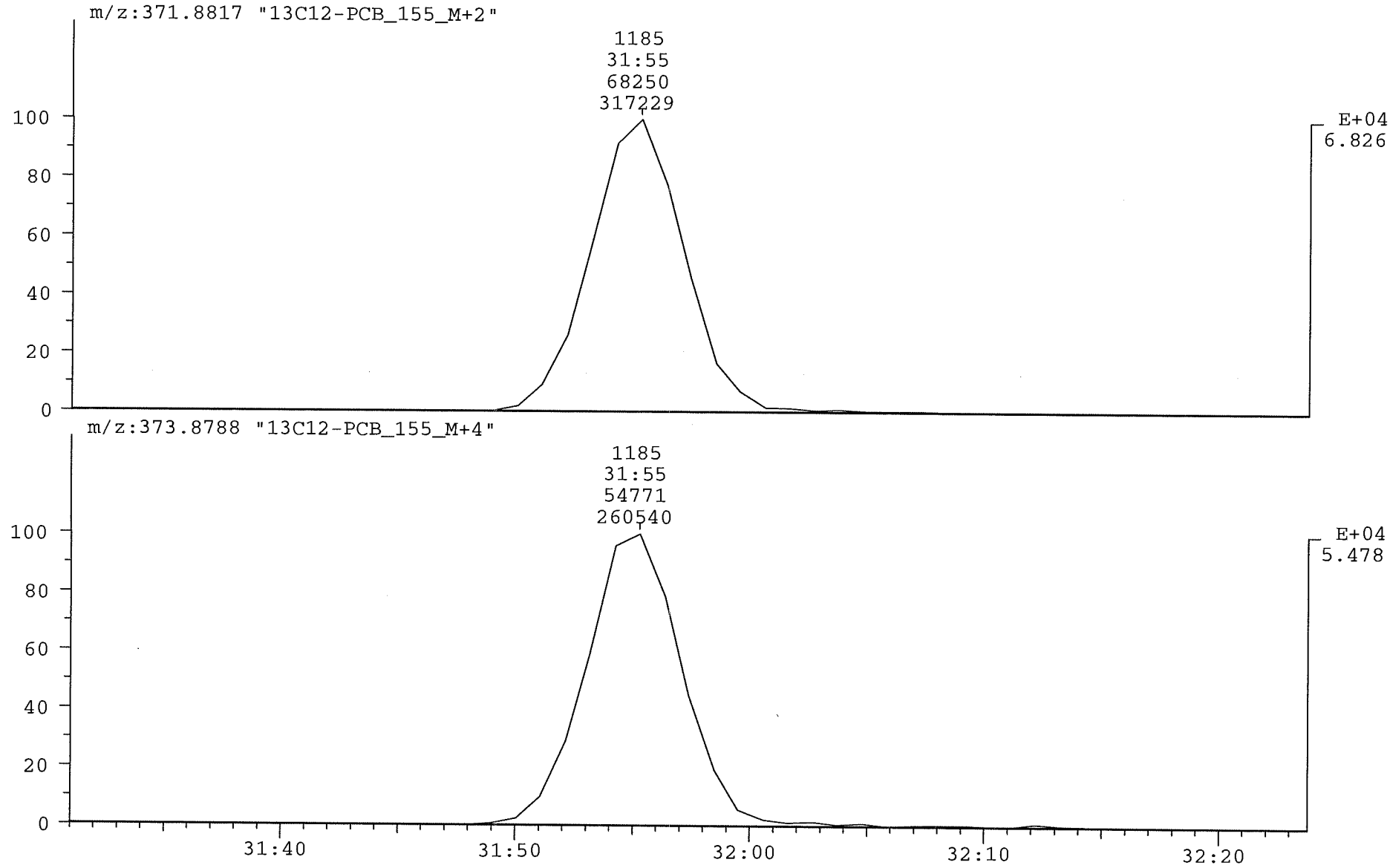
2852

CHRO: a0806m5r3 11-Jun-08 Elapse: 39:51 1632
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1155 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2854

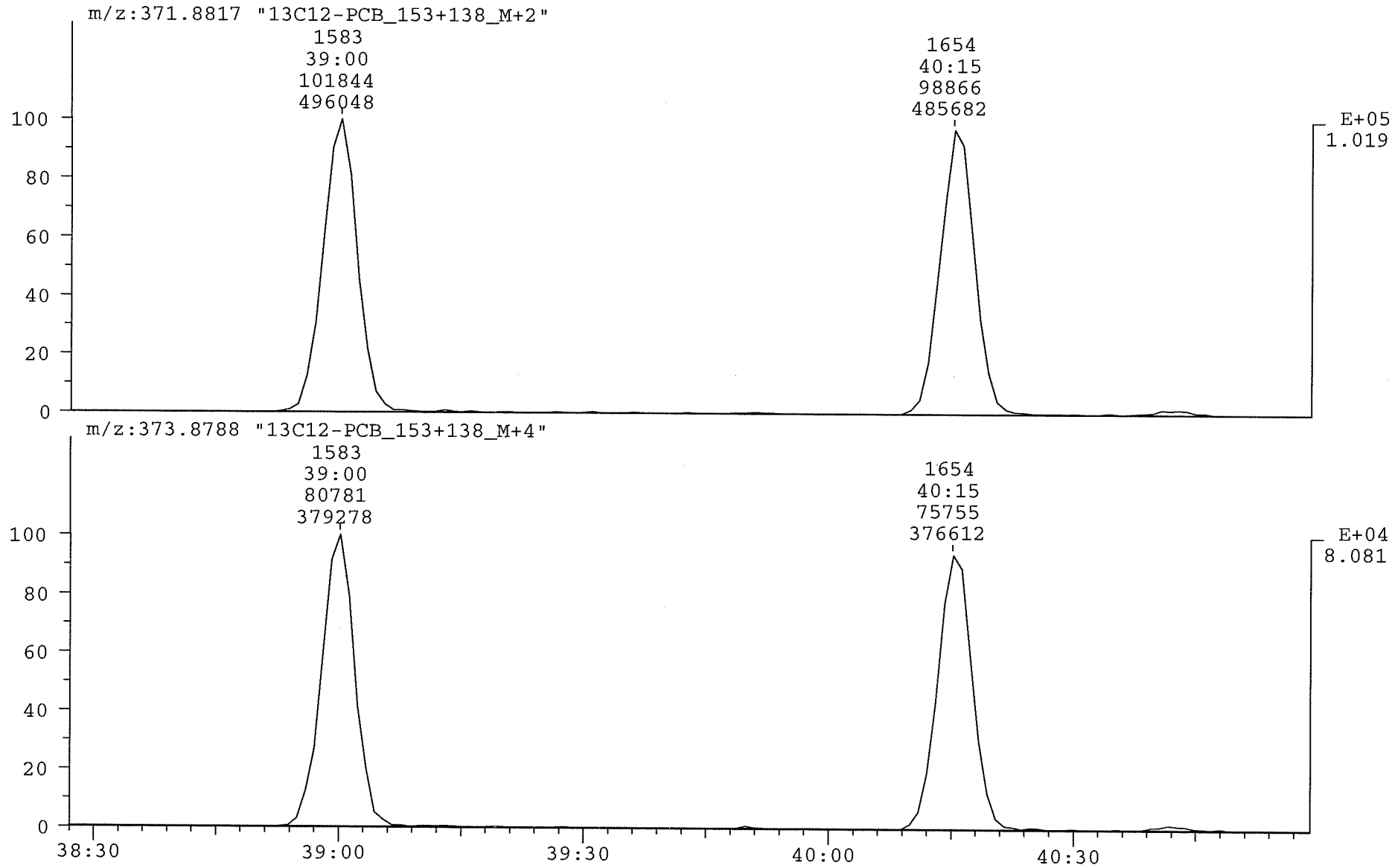
CHRO: a0806m5r3 11-Jun-08 Elapse: 31:57 1187
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1162 > 1212 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2855

2854

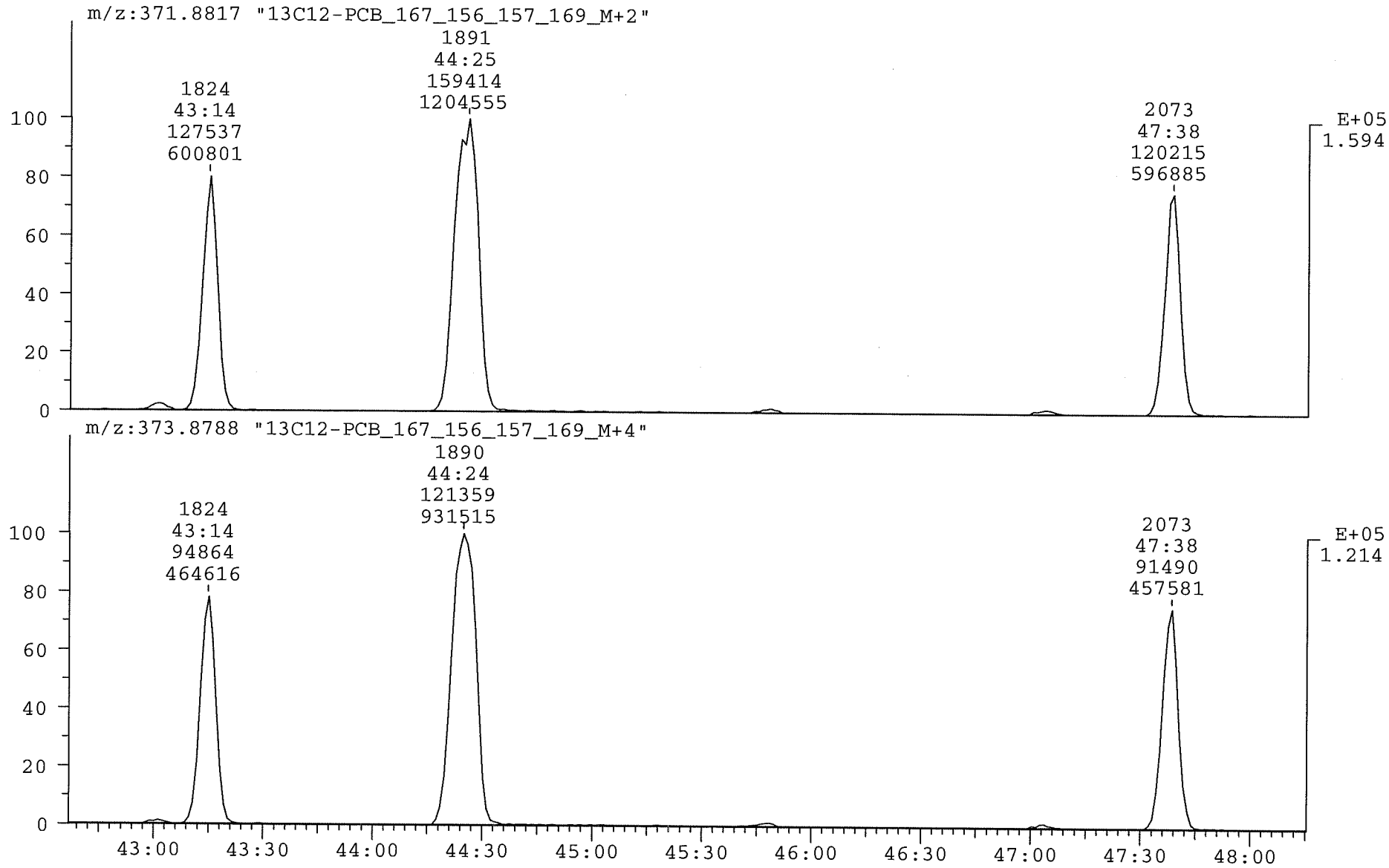
CHRO: a0806m5r3 11-Jun-08 Elapse: 39:43 1624
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1552 > 1696 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2856

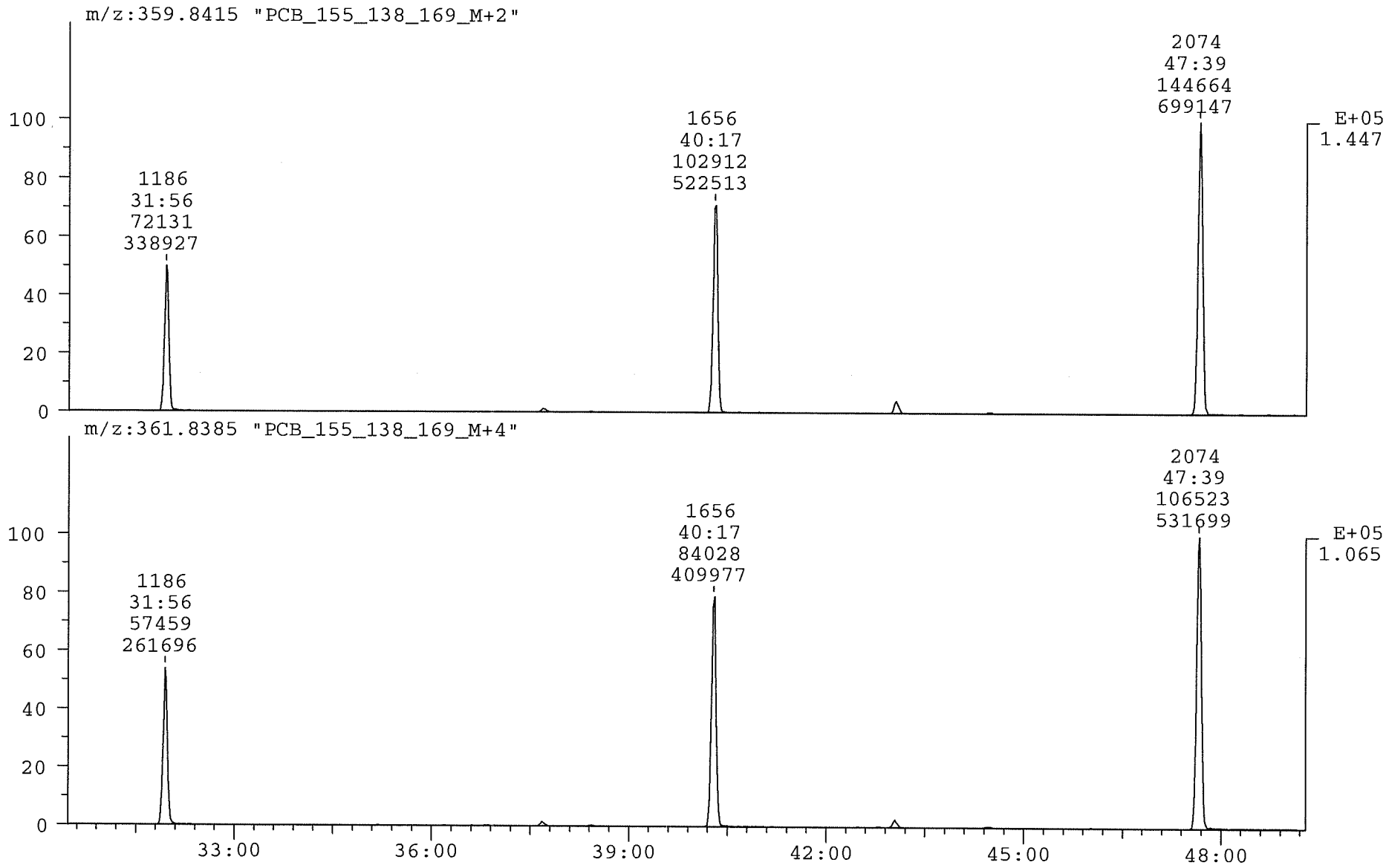
2855

CHRO: a0806m5r3 11-Jun-08 Elapse: 45:31 1953
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1788 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2857

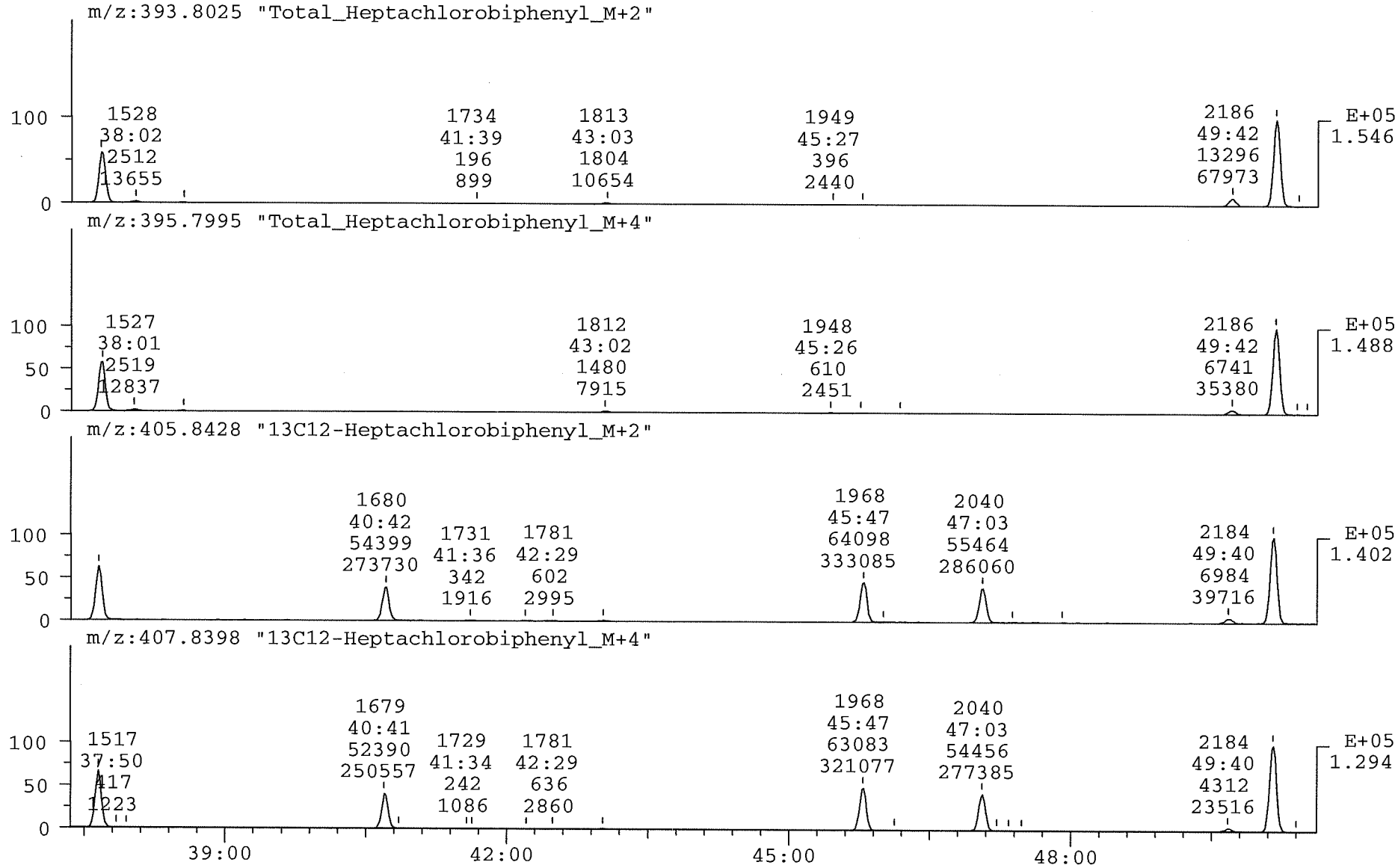
CHRO: a0806m5r3 11-Jun-08 Elapse: 39:51 1632
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1102 > 2162 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2858

2857

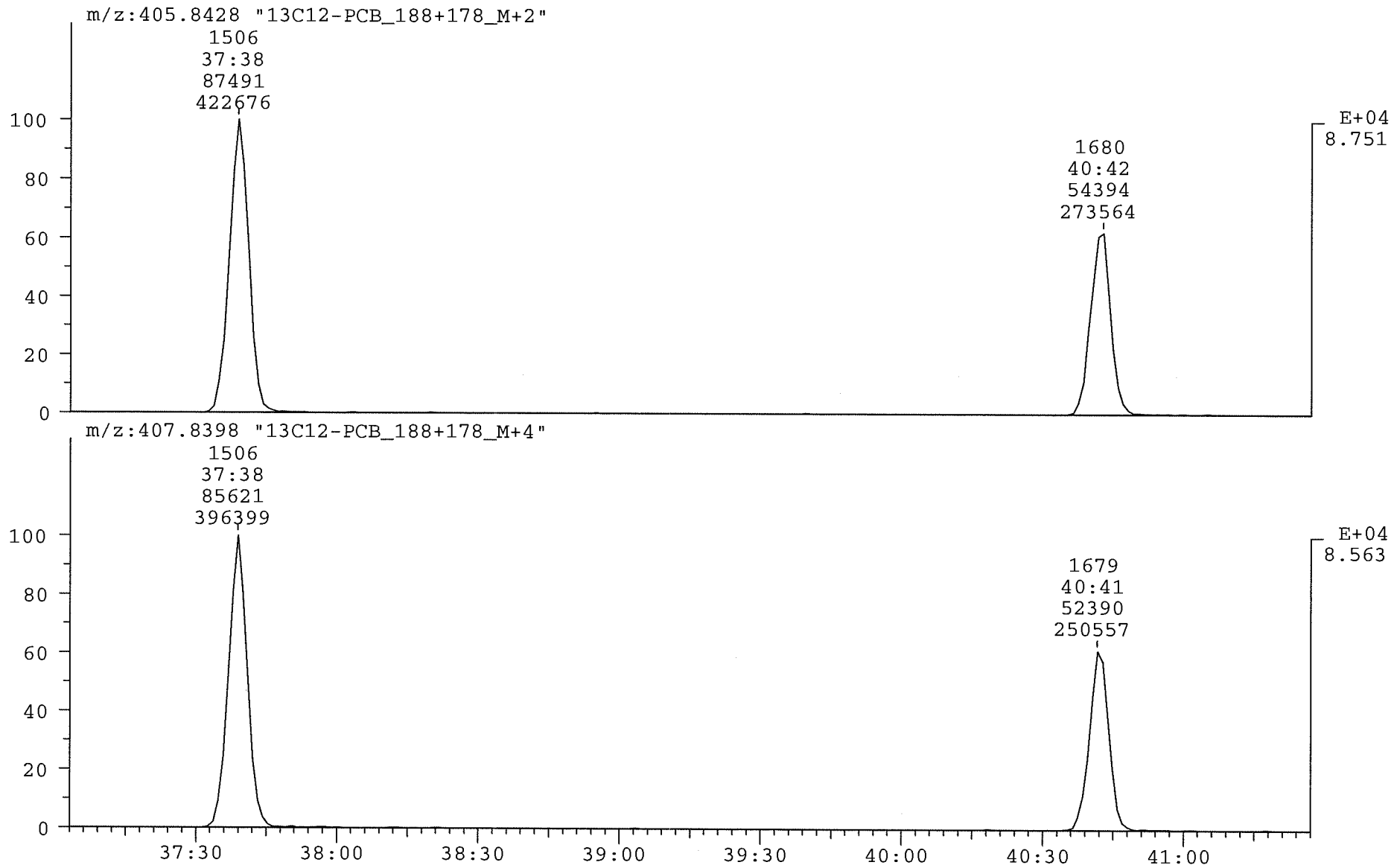
CHRO: a0806m5r3 11-Jun-08 Elapse: 43:59 1866
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1489 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2859

2858

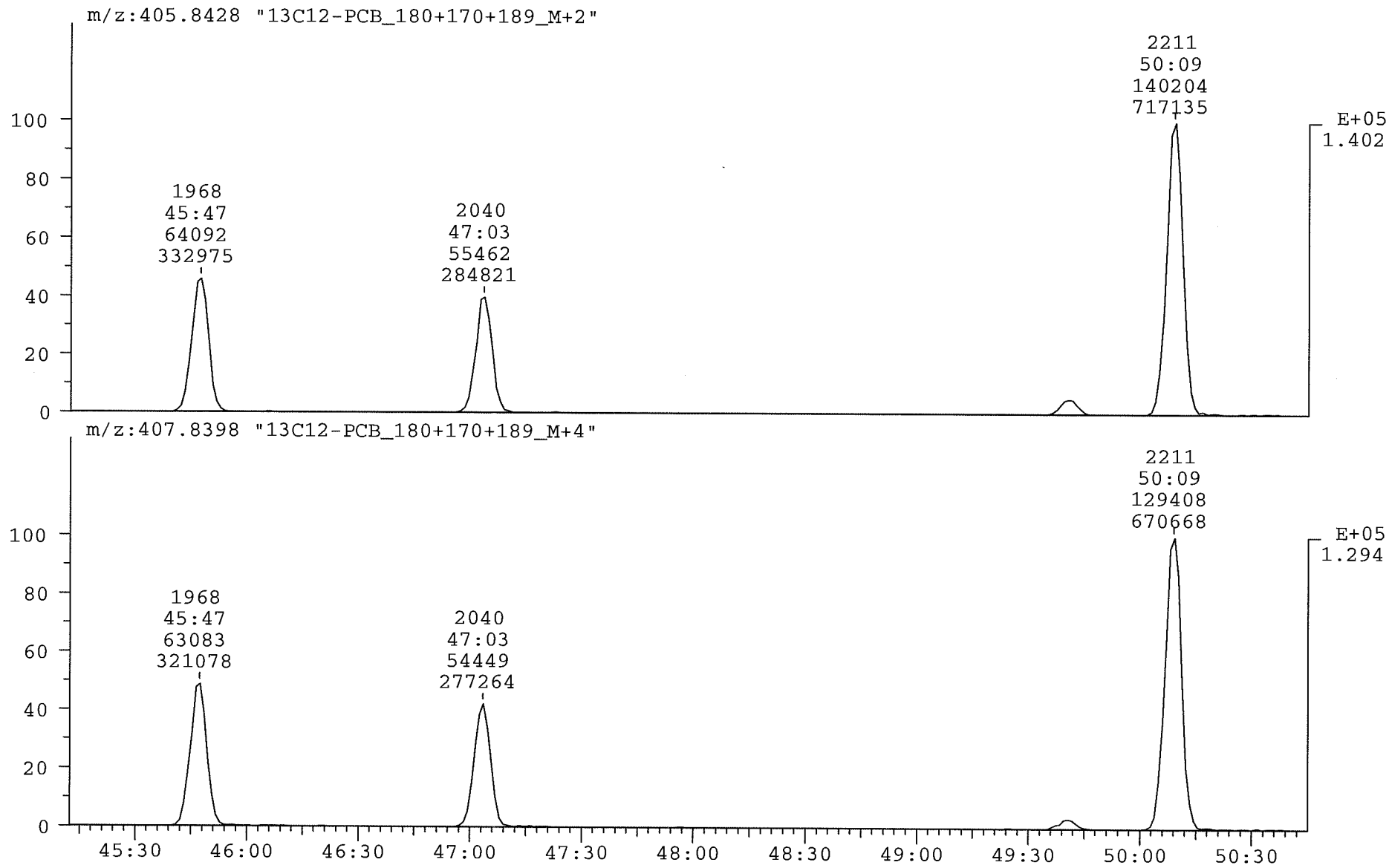
CHRO: a0806m5r3 11-Jun-08 Elapse: 39:14 1597
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1472 > 1722 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2860

2859

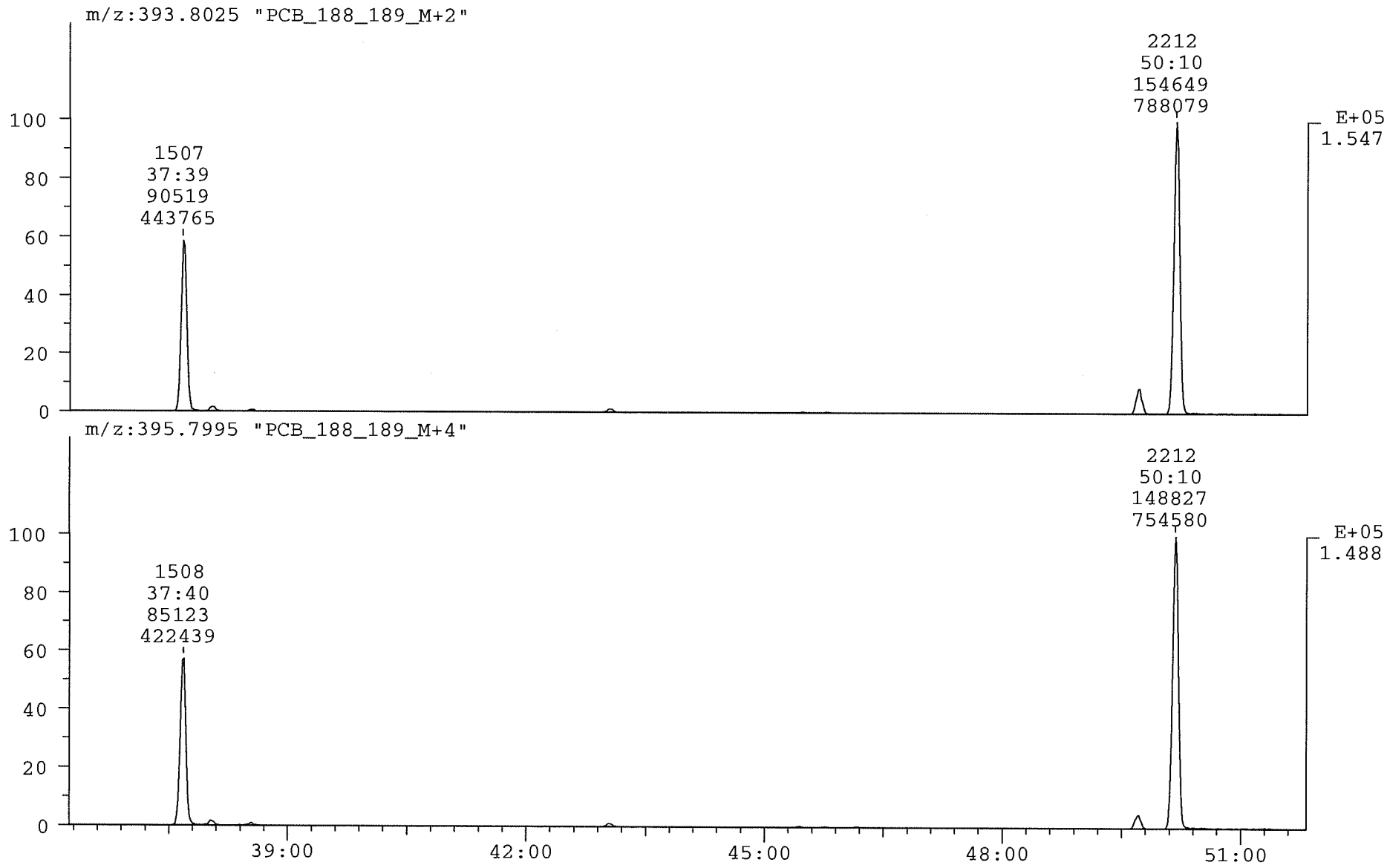
CHRO: a0806m5r3 11-Jun-08 Elapse: 48:01 2095
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1935 > 2245 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2861

2860

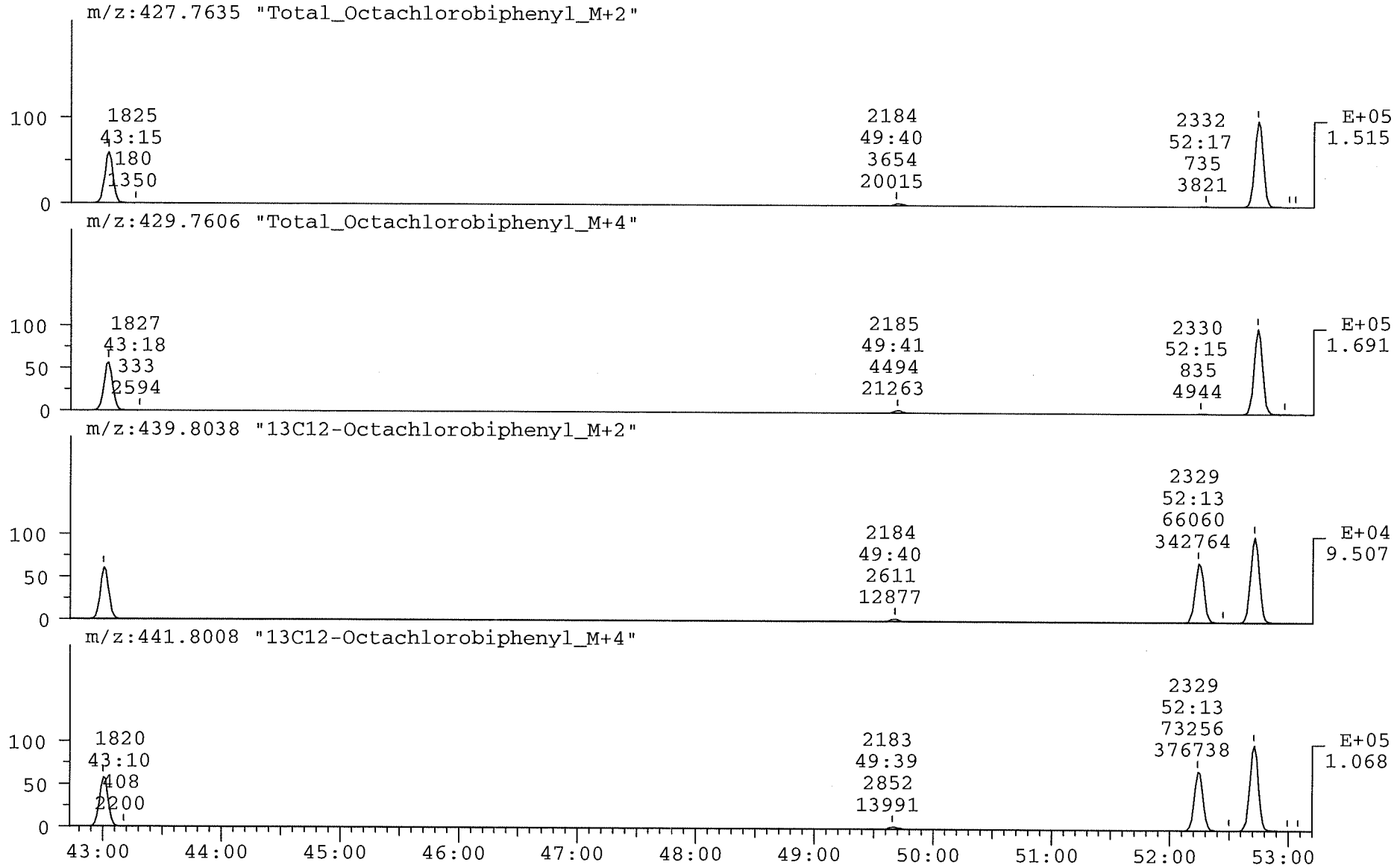
CHRO: a0806m5r3 11-Jun-08 Elapse: 43:59 1866
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1426 > 2306 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2862

2861

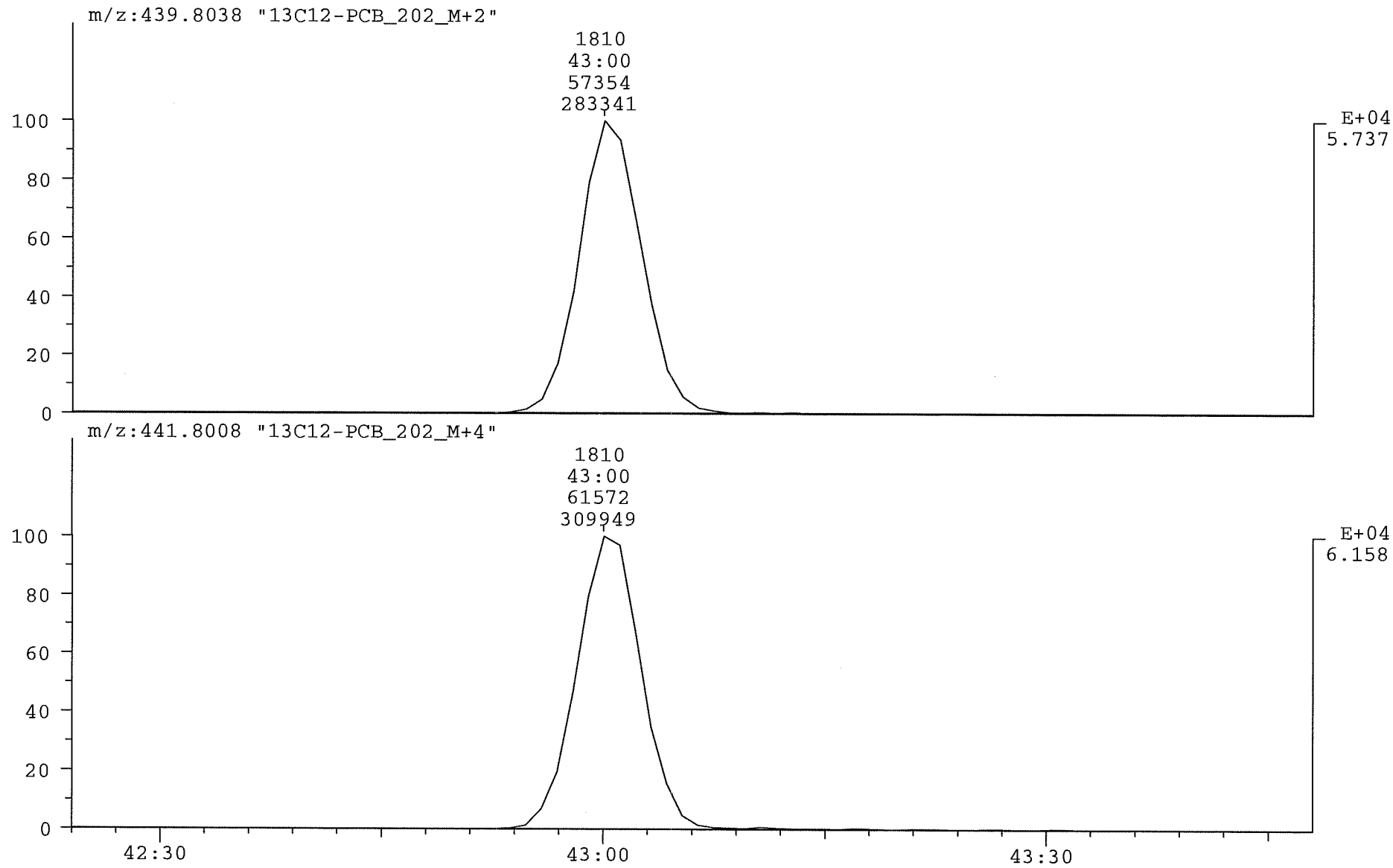
CHRO: a0806m5r3 11-Jun-08 Elapse: 47:57 2091
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1794 > 2384 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2863

2862

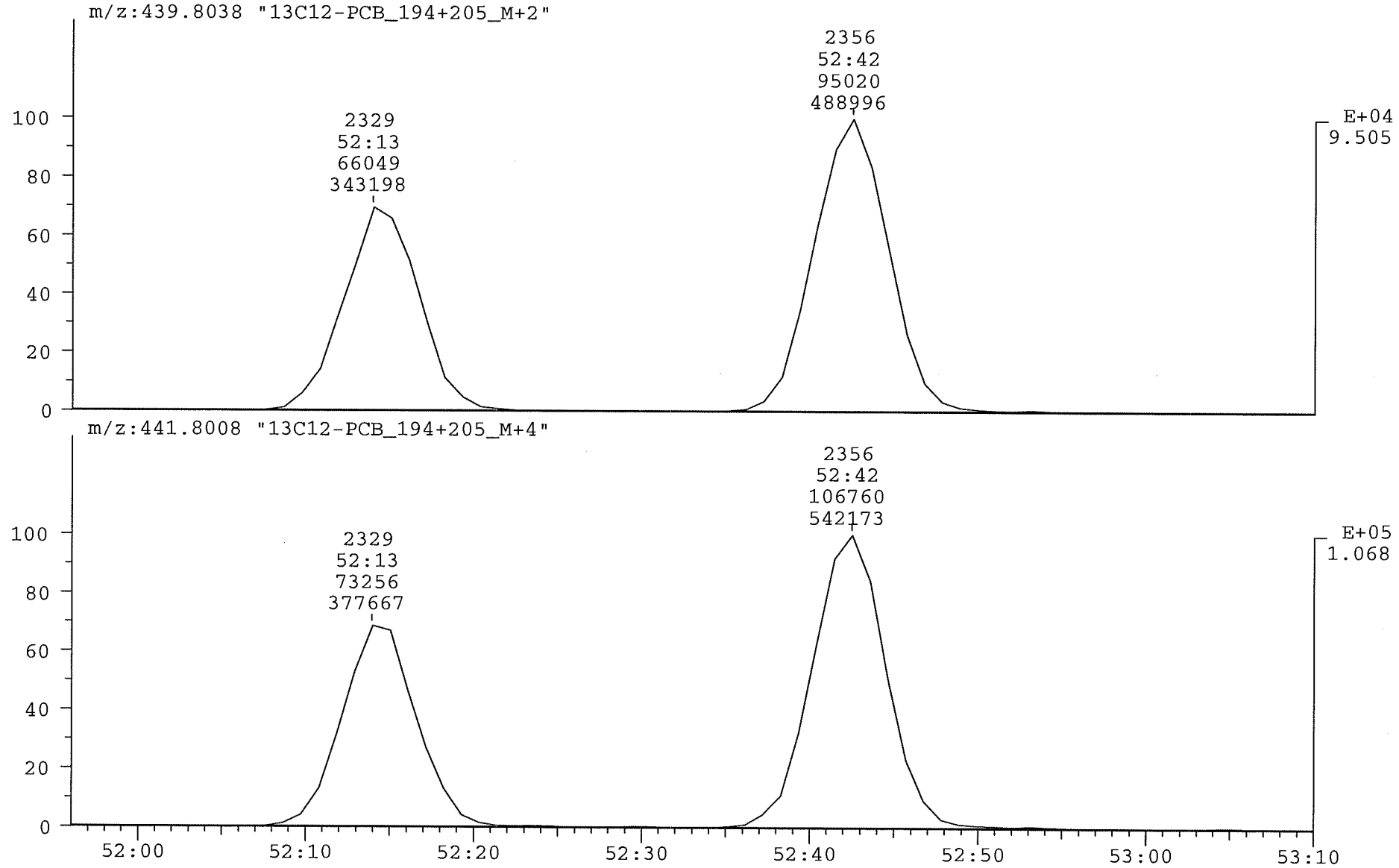
CHRO: a0806m5r3 11-Jun-08 Elapse: 43:03 1813
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1776 > 1855 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2864

2863

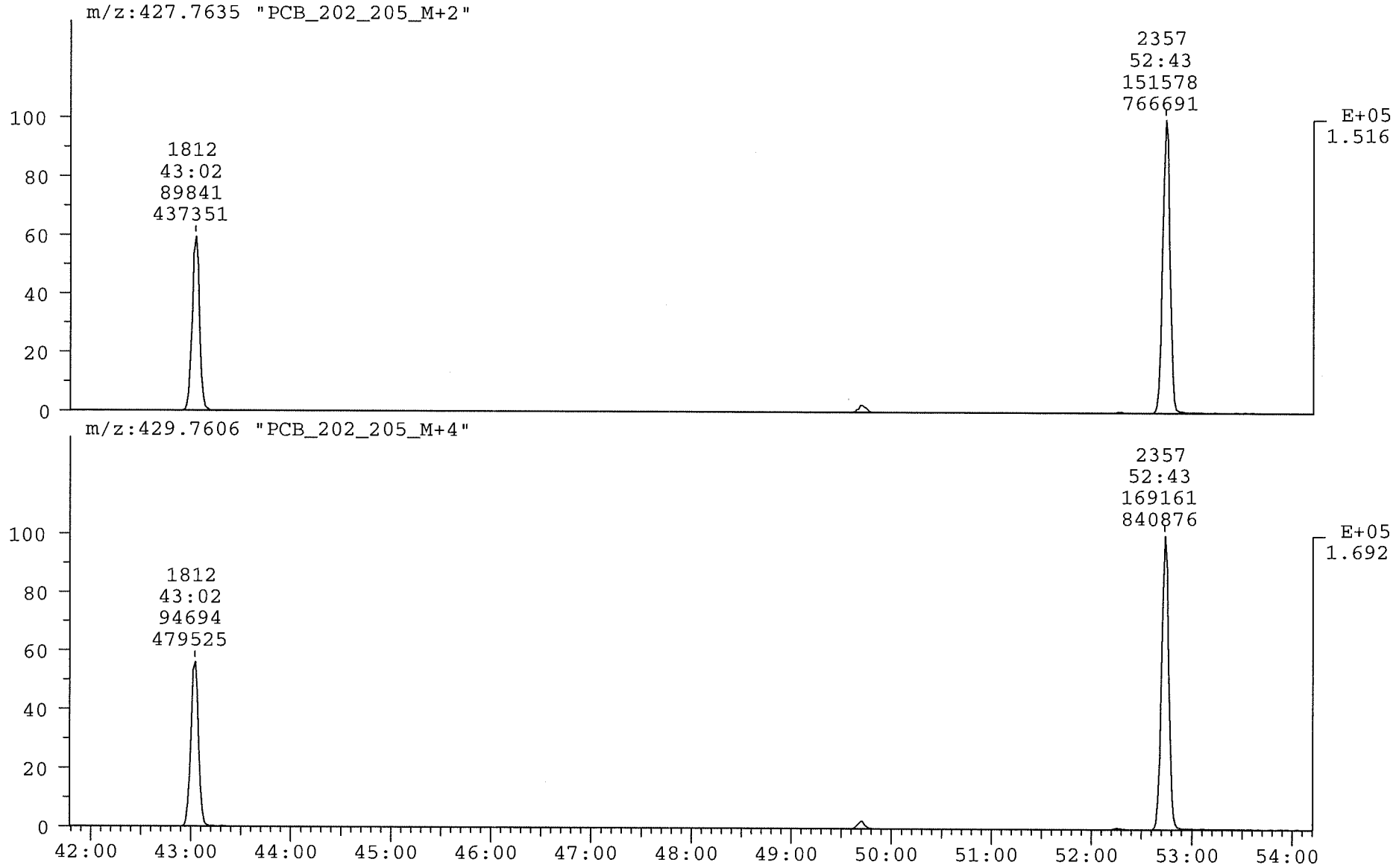
CHRO: a0806m5r3 11-Jun-08 Elapse: 52:33 2347
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2312 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2865

2864

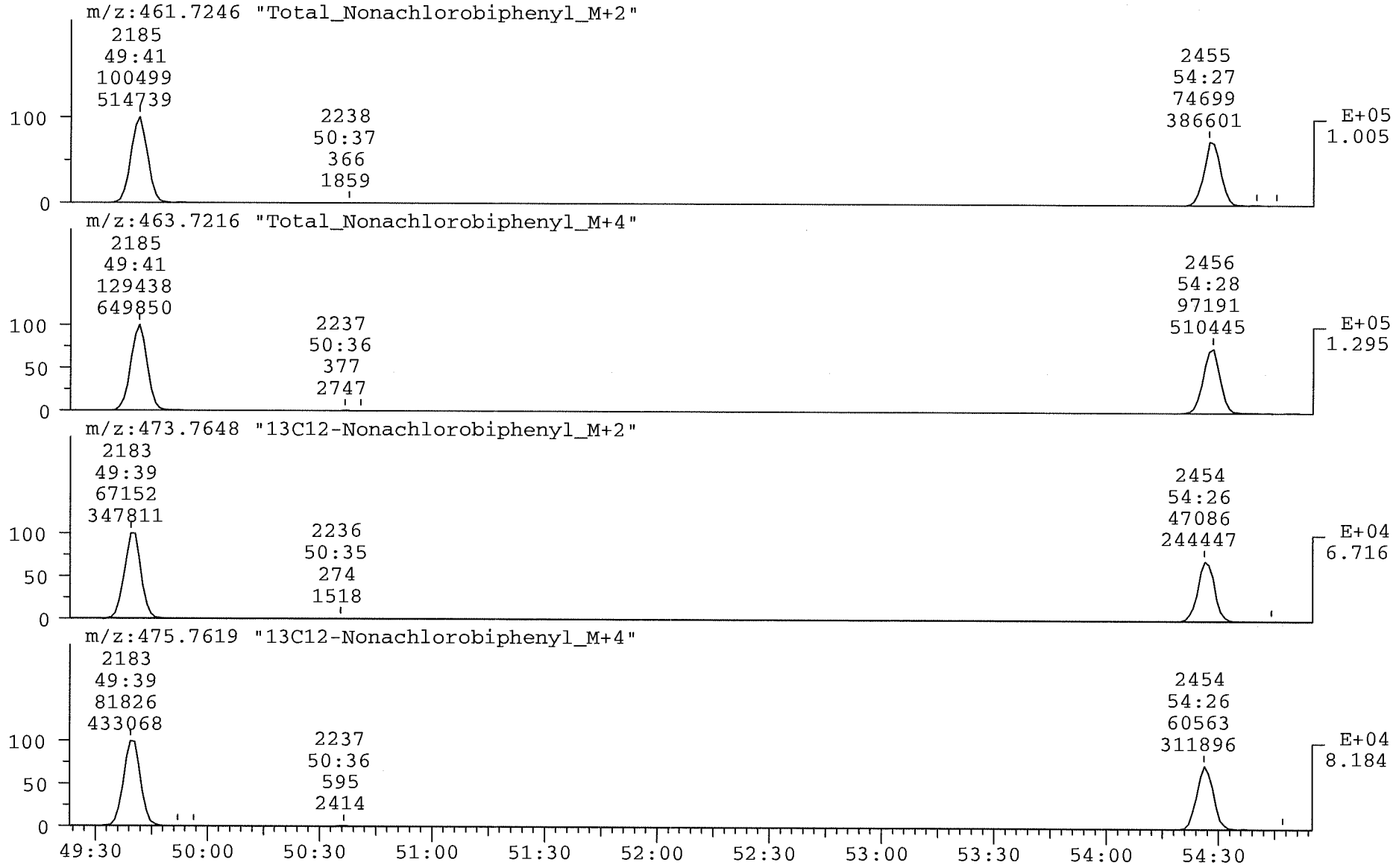
CHRO: a0806m5r3 11-Jun-08 Elapse: 47:57 2091
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 1741 > 2441 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2866

2865

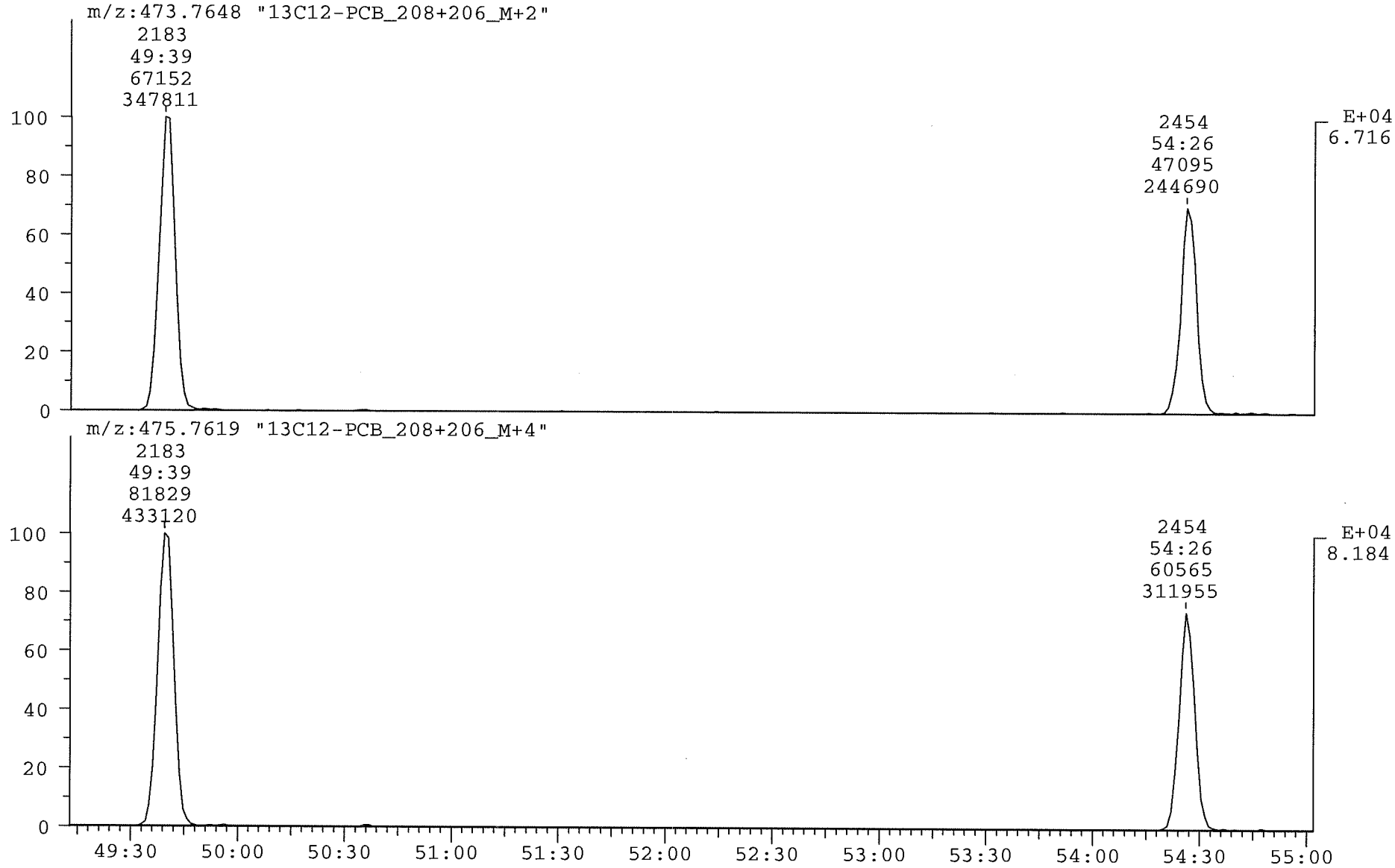
CHRO: a0806m5r3 11-Jun-08 Elapse: 52:08 2324
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2168 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2867

2866

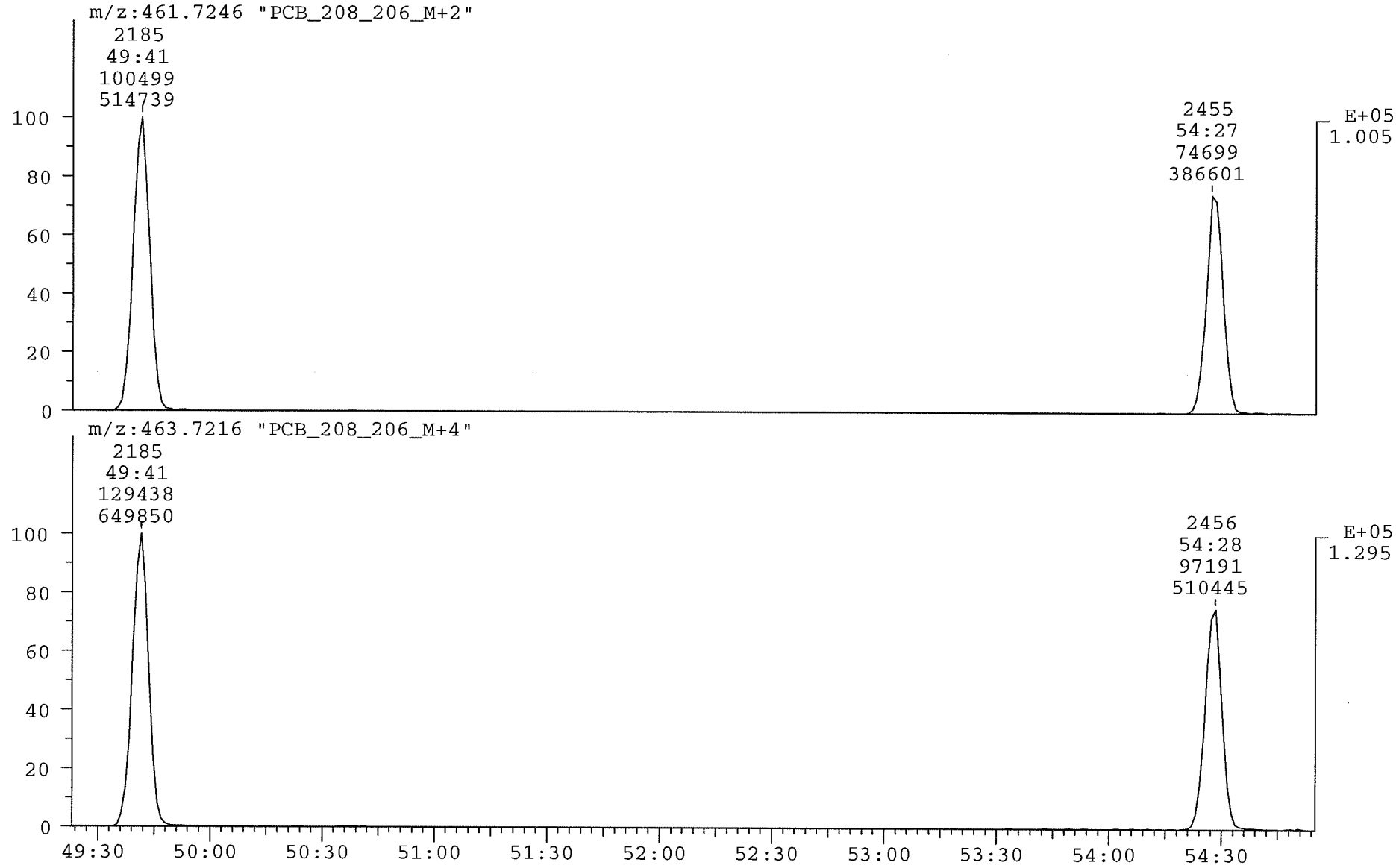
CHRO: a0806m5r3 11-Jun-08 Elapse: 52:07 2323
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2158 > 2488 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2868

2867

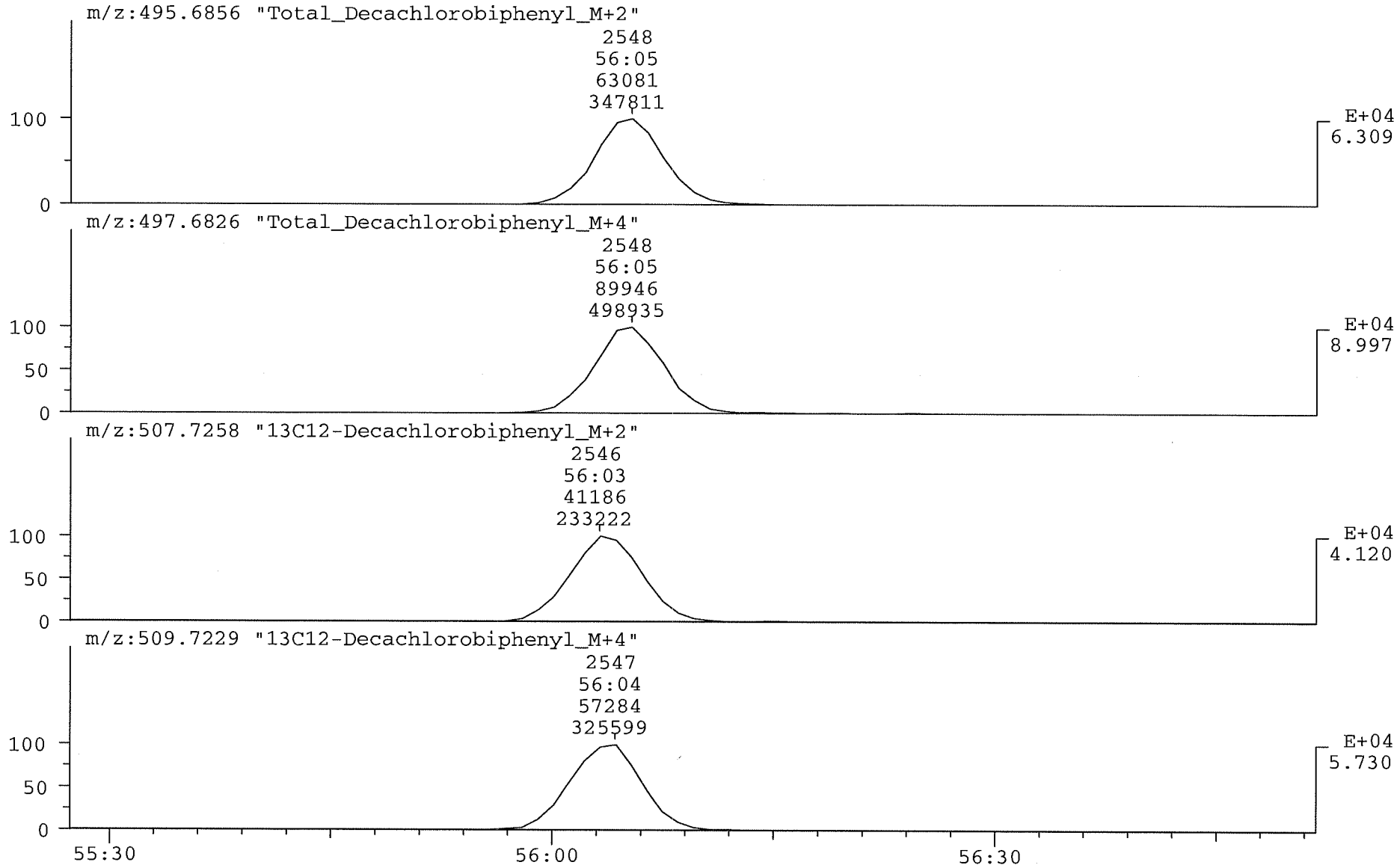
CHRO: a0806m5r3 11-Jun-08 Elapse: 52:08 2324
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2168 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2869

2868

CHRO: a0806m5r3 11-Jun-08 Elapse: 56:09 2552
Samp: Vial 15 WO=2990:75Mix5 Meth=IE3 Dil=1 Start : 04:53:04 2601
Comm: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Mode: EI +VE +LMR ESCAN LR NRM Study : 2990:75 Mix 5
Oper: DCG Client: TA Knoxville Inlet : GC Vial 15
Peak: 100.00 ppm Label wndw: 2512 > 2592 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2870

Instrument internet name - mat95
Instrument model - MAT 95
Instrument serial number - 000000
Workstation internet name - icis1ms
ICIS Version 8.2.1

ICL Version: 10.710
File name: a0806m5r3
Study: 2990:75 Mix 5
Sample: WO=2990:75Mix5 Meth=IE3 Dil=1
Amount: 0.00
Volume: 0.00
Operator: DCG
Client: TA Knoxville
Comments: Inst=m1d/35055-03b Batch=20080610rt Ccal=20070313i
Injected volume: 2.00
Sample from Vial 15
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 15 of list 080609
ICL procedure: sleep7x
MID procedure: epa1668n

MID Remarks: EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

Mid Set Up Parameter:

Measure/lock ratio	1
Damping Relay	FALSE
Width first lock	0.10 amu
Electric jump time	10 ms
Magnetic jump time	60 ms
Offset	75 cts
Electric range	300 %
Sweep peak width	3.00
MID mode	Lock mode
Acq mode	Cent mode

Mid Time Windows:

	Start	Measure	End	Cycletime
# 1	11:00 min	10:40 min	21:40 min	1.00 sec
# 2	21:40 min	14:12 min	35:52 min	1.00 sec
# 3	35:52 min	13:13 min	49:05 min	1.00 sec
# 4	49:05 min	7:55 min	57:00 min	1.00 sec

Mid Masses:
Window # 1

mass	F	int	gr	time (ms)
180.9888	1	10	1	4.10
188.0393		1	1	47.79
190.0363		1	1	47.79
200.0795		1	1	47.79
202.0766		1	1	47.79
222.0003		1	1	47.79
223.9974		1	1	47.79
234.0406		1	1	47.79
236.0376		1	1	47.79
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
269.9986		1	1	47.79
280.9824	c	10	1	4.10
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79

Window # 2

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times

Sample rinse cycles	(R):	0	times
Syringe filling volume	(F):	1.0	ul
Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg	at 0.0	minutes	280 deg max
	75 deg	at 2.0	minutes	
	150 deg	at 7.0	minutes	
	270 deg	at 55.0	minutes	
	270 deg	at 57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1032.0953
BMASS	180.4888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.5765
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-19.0500
DRAWC	1.0000	DRAWS	0.0100	ECORR	1.0010
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0000
EDACR	23.0000	EDACZ	394.0000	ELEN	56.5000
EMULT	1.5200	ENS	460.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	146.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	300.4808	FSLOPE	54000000.0000	FVANAL	341.0000
FVINLET	276.0000	FVSRC	1006.0000	FWIN	0.7000
GCTC	209.0000	GCTI	270.0000	GCTL	280.0000
HACCU	208.0000	HCURR	1.3333	HVANAL	1288.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4776.5520	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1333.0000	LENSS	106.4000
LKM	404.9760	LM	800.0000	LMASS	180.4888
LMII	500.0000	MASS	180.4888	MDAC	2347820.5477

MDACR	23.0000	MRANGE	1032.0953	MSFM	2.0000
MSLM	3790.0000	NPEAK	1.0000	NSAM	100.0000
NSCAN	2606.0000	NSMAX	8.0000	NSMIN	2.0000
OCT	-2.0000	PSAM	10.0000	PUSHER	-4.3000
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10106.3166	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	3.0000	SCIDLE	1.0000	SHIELD	2717.0000
SHIELDS	0.0000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.8000	TCURR	0.8594
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	2.2200	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.4888	XLENS	2000.0000
XLENSS	1.2000	YLENS	3276.0000	YLENSS	-27.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 11-Jun-08 04:53:04.6

Autosampler has injected sample from vial 15
MID Time Window 1: Resolution is 8226
MID Time Window 2: Resolution is 11207
MID Time Window 3: Resolution is 9024
MID Time Window 4: Resolution is 10657
Analysis stopped at: 11-Jun-08 05:50:07.9 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville Specialty Organics Group GC/MS Continuing Calibration Data Review Checklist 2874
Method or SOP Number: KNOX-ID-0013 Revision 9

Start PFK:	2138	End PFK:	8:46	CS3 Filename:	411071 3s1	Inst:	HRID	ICAL Date:	6.24.08

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?		✓			✓
2. Was the instrument resolution ≥8,000 throughout (≥ 10,000 for m/z 342.9792) and ≥10,000 in the center of each m/z range. PFK m/z 192.9888, *230.9856, and *280.9824? PFK m/z 268.9824, *292.9824, and *380.9760? PFK m/z 342.9792, *380.9760, and *430.9728? PFK m/z 404.9760, *442.9728, and *530.9665?		✓			✓
3. Were the measured exact masses listed above within 5 ppm at reduced accelerating voltage?		✓			✓
4. Was date/time of analysis verified between analysis header and logbook as correct?		✓			✓
5. Were the MID switch points set to encompass the retention time windows of each congener group?		✓			✓
6. Was the valley height less than 40% of the height of the shorter of the two peaks for the pair PCB 23 and PCB 34, and the pair PCB 182 and PCB 187		✓			✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution and GC resolution performance check?		✓			✓
8. Were the %D for all toxic analytes within ± 30% (PCB 81, 77, 123, 118, 114, 105, 126, 167, 156, 157, 169, 189) Were the %D for all LOC analytes within ± 30% (PCB 1, 3, 4, 15, 19, 37, 54, 104, 155, 188, 202, 205, 206, 208, 209)		✓			✓
9. Were the %D for all non-toxic/non-LOC analytes within ± 30%?		✓			✓
10. If the %D for any non-toxic/non-LOC was not within ± 30, were response factors calculated from the continuing calibration for all non-toxic/non-LOC analytes with a %D greater than ± 30% but within ± 60%.	✓				✓
11. Were the response factors calculated for each labeled standard and unlabeled native analyte using the SOP specified reference compound, quantitation ions, and formula.		✓			✓
12. Were the absolute retention times of all labeled internal standards within ± 15 seconds of the retention times obtained during initial calibration?		✓			✓
13. Are %D within ± 50% for all labeled internal standards in the calibration?		✓			✓
14. Are the %D within ± 30% for all labeled surrogate standards in the calibration.		✓			✓
15. Are the %D within -40/+30% for all labeled cleanup standards in the calibration?		✓			✓
16. Are all S/N ratios ≥10 for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		✓			✓
17. Are RRTs of all unlabled toxic/LOC analytes within their respective RRT limits?		✓			✓
18. If PCB 156 and 157 were classified as uniquely resolved in the most recent initial calibration, was the valley between the two less than or equal to the 50% of the height of the shorter of the two peaks?	✓				✓
19. Are the ion abundance ratios for all labeled and unlabeled analytes within the specified control limits?		✓			✓
20. If manual integrations were performed, are they clearly identified, initialed and dated?	✓				✓
21. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				✓
22. Does the CCAL folder contain **complete** data in the following order? Data review checklist, a **complete** run log, CCAL summary, Ratio summary, Calculation summary, PFK resolution/peak match documentation (HRMS only), and Total RIC, EICP's and manual integration - for window and both standards.		✓			✓

Analyst:	Date: 7/13/11	2nd Level Reviewer :	Date: 7-14-11
Comments:		Comments:	

*At reduced accelerating voltag

TESTAMERICA KNOXVILLE
SPECIALTY ORGANICS INSTRUMENT RUN LOG
Inst: MAT95S

Date	Time	Opr	Sample ID	Filename	Code	Matrix	Type	Tape	Lot#/Comments
7/13/11	2138	JM	PFK	—	OK	—	clr		Mass no chk
7/13/11	2145	JM	PCB0100	a110713s1	OK	—	mix		Mix8 Ver
7/13/11	2312	JM	MKNTMIAC	apmkntmc	OK	Air-2	QC		H1L060000-028C
7/13/11	0013	JM	MKNTMIAD	apmkntmd	OK	Air-2	QC		↓ -028D
7/13/11	0114	JM	MBLANK	spbr	OK	—	QC		flush
7/14/11	NA	JM	MBLANK	spbr	DR	—	QC		↓
7/14/11	0131	JM	MKNTMIAA	apmkntmb	OK	Air-2	QC		H1L060000-028B
7/14/11	~~0232~~ 7-14-11	JM	MKN9LIAA	apmkn9lb	DR	H2O	QC		system blank
7/14/11	232	JM	MKMLCDIAC	apmkmlcD	OK	Air-2	SAM		H1L050439-015
7/14/11	3:33	JM	MKMLEMIAC	apmkmlem	OK	Air-2	SAM		↓ -007
7/14/11	4:34	JM	MKK74IAA	apmkk74a	OK	H2O	SAM		H1E300420-002
7/14/11	5:35	JM	MKM55IAC	apmkm5T	OK	Air-2	SAM		H1L050439-001
7/14/11	6:36	JM	MKMLOAIAC	apmkmloa	OK	Air-2	SAM		↓ -003
7-14-11	7:37	JM	MKM6FIAC	apmkm6f	OK	Air-2	SAM		H1L050439-005
7-14-11	8:46	JM	PFK	—	OK	—	Res		Mass Res Check

Read and Understood by:

_____ Date: _____

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
CCAL Filename: a110713s1
CCAL Sample ID: PCB0100
CCAL Result Dir: /20110713s1/a110713s1.d
CCAL Date/Time: 07/13/11 21:45

ICAL Date: 06/24/08
Method: IE5 - IE5
Instrument: M1D
Column SN: 44968-01A
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 196 False: 0

	Analytes	T/L	C	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	ICAL RF	CCAL RF	%D	Std Conc (ng/mL)	Calc Conc (ng/mL)	QC Limit	Valid?
I	13C12-PCB 1			M/M+2	3.16	2.66-3.60	1.502	1.516	0.9	100	101	50-150	True
I	13C12-PCB 3			M/M+2	3.27	2.66-3.60	1.545	1.431	-7.4	100	93	50-150	True
	PCB 1 (BZ)	L		M/M+2	3.19	2.66-3.60	1.383	1.209	-12.6	50	44	35-65	True
	PCB 2 (BZ)			M/M+2	3.22	2.66-3.60	1.338	1.213	-9.3	50	45	35-65	True
	PCB 3 (BZ)	L		M/M+2	3.22	2.66-3.60	1.296	1.232	-4.9	50	48	35-65	True
I	13C12-PCB 4			M/M+2	1.64	1.33-1.79	0.619	0.598	-3.4	100	97	50-150	True
R	13C12-PCB 9			M/M+2	1.65	1.33-1.79	1.000	1.000	0.0	100	100	-	
S	13C12-PCB 8			M/M+2	1.64	1.33-1.79	1.342	1.188	-11.5	50	44	35-65	True
I	13C12-PCB 15			M/M+2	1.67	1.33-1.79	1.090	1.052	-3.5	100	97	50-150	True
	PCB 4 (BZ)	L		M/M+2	1.61	1.33-1.79	1.273	1.227	-3.6	50	48	35-65	True
	PCB 10 (BZ)			M/M+2	1.62	1.33-1.79	1.357	1.502	10.6	50	55	35-65	True
	PCB 9 (BZ)			M/M+2	1.62	1.33-1.79	1.459	1.403	-3.8	50	48	35-65	True
	PCB 7 (BZ)			M/M+2	1.64	1.33-1.79	1.466	1.652	12.7	50	56	35-65	True
	PCB 6 (BZ)			M/M+2	1.65	1.33-1.79	1.507	1.512	0.3	50	50	35-65	True
	PCB 5 (BZ)			M/M+2	1.64	1.33-1.79	1.417	1.507	6.4	50	53	35-65	True
	PCB 8 (BZ)			M/M+2	1.61	1.33-1.79	1.540	1.573	2.2	50	51	35-65	True
	PCB 14 (BZ)			M/M+2	1.60	1.33-1.79	1.732	1.881	8.6	50	54	35-65	True
	PCB 11 (BZ)			M/M+2	1.64	1.33-1.79	1.532	1.647	7.5	50	54	35-65	True
	PCB 13 (BZ)		C12	M/M+2	1.60	1.33-1.79	1.494	1.631	9.2	100 a	109	70-130	True
	PCB 12 (BZ)		C12	M/M+2		1.33-1.79	1.494		0.0	100 a	109	70-130	C12
	PCB 15 (BZ)	L		M/M+2	1.62	1.33-1.79	1.278	1.311	2.6	50	51	35-65	True
I	13C12-PCB 19			M/M+2	1.07	0.88-1.20	0.572	0.545	-4.6	100	95	50-150	True
R	13C12-PCB 32			M/M+2	1.07	0.88-1.20	1.000	1.000	0.0	100	100	-	
R	13C12-PCB 31			M/M+2	1.06	0.88-1.20	1.000	1.000	0.0	100	100	-	
C	13C12-PCB 28			M/M+2	1.05	0.88-1.20	1.003	0.888	-11.5	50	44	35-65 b	True
I	13C12-PCB 37			M/M+2	1.06	0.88-1.20	0.908	0.899	-1.0	100	99	50-150	True
	PCB 19 (BZ)	L		M/M+2	1.04	0.88-1.20	1.167	1.143	-2.1	50	49	35-65	True
	PCB 30 (BZ)		C18	M/M+2	1.04	0.88-1.20	1.615	1.646	2.0	100 a	102	70-130	True
	PCB 18 (BZ)		C18	M/M+2		0.88-1.20	1.615		0.0	100 a	102	70-130	C18
	PCB 17 (BZ)			M/M+2	1.05	0.88-1.20	1.430	1.400	-2.1	50	49	35-65	True
	PCB 27 (BZ)			M/M+2	1.05	0.88-1.20	1.978	1.927	-2.6	50	49	35-65	True
	PCB 24 (BZ)			M/M+2	1.02	0.88-1.20	1.707	1.848	8.3	50	54	35-65	True
	PCB 16 (BZ)			M/M+2	1.01	0.88-1.20	1.193	1.090	-8.6	50	46	35-65	True
	PCB 32 (BZ)			M/M+2	1.04	0.88-1.20	2.018	2.031	0.7	50	50	35-65	True
	PCB 34 (BZ)			M/M+2	1.01	0.88-1.20	1.195	1.123	-6.1	50	47	35-65	True
	PCB 23 (BZ)			M/M+2	1.01	0.88-1.20	1.177	1.228	4.3	50	52	35-65	True
	PCB 29 (BZ)		C26	M/M+2		0.88-1.20	1.244		0.0	100 a	99	70-130	C26
	PCB 26 (BZ)		C26	M/M+2	1.03	0.88-1.20	1.244	1.234	-0.8	100 a	99	70-130	True
	PCB 25 (BZ)			M/M+2	1.00	0.88-1.20	1.320	1.268	-3.9	50	48	35-65	True
	PCB 31 (BZ)			M/M+2	1.02	0.88-1.20	1.252	1.273	1.7	50	51	35-65	True
	PCB 28 (BZ)		C20	M/M+2	1.03	0.88-1.20	1.223	1.177	-3.8	100 a	96	70-130	True
	PCB 20 (BZ)		C20	M/M+2		0.88-1.20	1.223		0.0	100 a	96	70-130	C20
	PCB 21 (BZ)		C21	M/M+2	1.03	0.88-1.20	1.219	1.362	11.7	100 a	112	70-130	True

Notes:
a - Concentration value is the sum of all coeluting congeners concentrations.
b - Cleanup standard QC Limits are actually 60% to 130% of the standard concetration.

Printed: 07/14/11 02:23

CCAL_IE2_1.rpt Ver 5.2 10/07/2009

PMP 7/14/11

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
CCAL Filename: a110713s1
CCAL Sample ID: PCB0100
CCAL Result Dir: /20110713s1/a110713s1.d
CCAL Date/Time: 07/13/11 21:45

ICAL Date: 06/24/08
Method: IE5 - IE5
Instrument: M1D
Column SN: 44968-01A
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 196 False: 0

	Analytes	T/L	C	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	ICAL RF	CCAL RF	%D	Std Conc (ng/mL)	Calc Conc (ng/mL)	QC Limit	Valid?
	PCB 33 (BZ)		C21	M/M+2		0.88-1.20	1.219		0.0	100 a	112	70-130	C21
	PCB 22 (BZ)			M/M+2	1.01	0.88-1.20	1.200	1.174	-2.2	50	49	35-65	True
	PCB 36 (BZ)			M/M+2	1.02	0.88-1.20	1.204	1.337	11.1	50	56	35-65	True
	PCB 39 (BZ)			M/M+2	1.04	0.88-1.20	1.284	1.356	5.6	50	53	35-65	True
	PCB 38 (BZ)			M/M+2	1.04	0.88-1.20	1.141	1.219	6.9	50	53	35-65	True
	PCB 35 (BZ)			M/M+2	1.02	0.88-1.20	1.163	1.223	5.1	50	53	35-65	True
	PCB 37 (BZ)	L		M/M+2	1.03	0.88-1.20	1.173	1.263	7.6	50	54	35-65	True
I	13C12-PCB 54			M/M+2	0.80	0.65-0.89	0.600	0.766	27.6	100	128	50-150	True
R	13C12-PCB 52			M/M+2	0.80	0.65-0.89	1.000	1.000	0.0	100	100	-	
S	13C12-PCB 79			M/M+2	0.78	0.65-0.89	1.070	1.059	-1.1	50	49	35-65	True
I	13C12-PCB 81			M/M+2	0.79	0.65-0.89	1.312	1.370	4.4	100	104	50-150	True
I	13C12-PCB 77			M/M+2	0.78	0.65-0.89	1.357	1.406	3.6	100	104	50-150	True
	PCB 54 (BZ)	L		M/M+2	0.75	0.65-0.89	1.233	1.116	-9.5	50	45	35-65	True
	PCB 50 (BZ)		C50	M/M+2		0.65-0.89	0.921		0.0	100 a	91	70-130	C50
	PCB 53 (BZ)		C50	M/M+2	0.78	0.65-0.89	0.921	0.838	-9.1	100 a	91	70-130	True
	PCB 45 (BZ)		C45	M/M+2	0.79	0.65-0.89	0.856	0.787	-8.0	100 a	92	70-130	True
	PCB 51 (BZ)		C45	M/M+2		0.65-0.89	0.856		0.0	100 a	92	70-130	C45
	PCB 46 (BZ)			M/M+2	0.77	0.65-0.89	0.724	0.678	-6.4	50	47	35-65	True
	PCB 52 (BZ)			M/M+2	0.77	0.65-0.89	0.920	0.782	-15.0	50	43	35-65	True
	PCB 73 (BZ)		C43	M/M+2	0.78	0.65-0.89	0.949	0.914	-3.7	100 a	96	70-130	True
	PCB 43 (BZ)		C43	M/M+2		0.65-0.89	0.949		0.0	100 a	96	70-130	C43
	PCB 69 (BZ)		C49	M/M+2	0.78	0.65-0.89	1.077	1.024	-4.9	100 a	95	70-130	True
	PCB 49 (BZ)		C49	M/M+2		0.65-0.89	1.077		0.0	100 a	95	70-130	C49
	PCB 48 (BZ)			M/M+2	0.78	0.65-0.89	0.894	0.821	-8.2	50	46	35-65	True
	PCB 65 (BZ)		C44	M/M+2		0.65-0.89	0.992		0.0	150 a	140	105-195	C44
	PCB 47 (BZ)		C44	M/M+2		0.65-0.89	0.992		0.0	150 a	140	105-195	C44
	PCB 44 (BZ)		C44	M/M+2	0.78	0.65-0.89	0.992	0.924	-6.8	150 a	140	105-195	True
	PCB 62 (BZ)		C59	M/M+2	0.78	0.65-0.89	1.246	1.219	-2.2	150 a	147	105-195	True
	PCB 75 (BZ)		C59	M/M+2		0.65-0.89	1.246		0.0	150 a	147	105-195	C59
	PCB 59 (BZ)		C59	M/M+2		0.65-0.89	1.246		0.0	150 a	147	105-195	C59
	PCB 42 (BZ)			M/M+2	0.77	0.65-0.89	0.872	0.796	-8.6	50	46	35-65	True
	PCB 41 (BZ)		C40	M/M+2		0.65-0.89	0.887		0.0	150 a	140	105-195	C40
	PCB 71 (BZ)		C40	M/M+2	0.77	0.65-0.89	0.887	0.830	-6.4	150 a	140	105-195	True
	PCB 40 (BZ)		C40	M/M+2		0.65-0.89	0.887		0.0	150 a	140	105-195	C40
	PCB 64 (BZ)			M/M+2	0.77	0.65-0.89	1.316	1.317	0.1	50	50	35-65	True
	PCB 72 (BZ)			M/M+2	0.77	0.65-0.89	1.236	1.227	-0.7	50	50	35-65	True
	PCB 68 (BZ)			M/M+2	0.77	0.65-0.89	1.327	1.335	0.6	50	50	35-65	True
	PCB 57 (BZ)			M/M+2	0.78	0.65-0.89	1.203	1.180	-1.9	50	49	35-65	True
	PCB 58 (BZ)			M/M+2	0.78	0.65-0.89	1.208	1.238	2.5	50	51	35-65	True
	PCB 67 (BZ)			M/M+2	0.78	0.65-0.89	1.337	1.270	-5.0	50	47	35-65	True
	PCB 63 (BZ)			M/M+2	0.78	0.65-0.89	1.297	1.285	-0.9	50	50	35-65	True
	PCB 61 (BZ)		C61	M/M+2		0.65-0.89	1.247		0.0	200 a	196	140-260	C61
	PCB 70 (BZ)		C61	M/M+2		0.65-0.89	1.247		0.0	200 a	196	140-260	C61

Notes:
a - Concentration value is the sum of all coeluting congeners concentrations.
b - Cleanup standard QC Limits are actually 60% to 130% of the standard concetration.

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
CCAL Filename: a110713s1
CCAL Sample ID: PCB0100
CCAL Result Dir: /20110713s1/a110713s1.d
CCAL Date/Time: 07/13/11 21:45

ICAL Date: 06/24/08
Method: IE5 - IE5
Instrument: M1D
Column SN: 44968-01A
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 196 False: 0

	Analytes	T/L	C	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	ICAL RF	CCAL RF	%D	Std Conc (ng/mL)	Calc Conc (ng/mL)	QC Limit	Valid?
	PCB 76 (BZ)		C61	M/M+2	0.78	0.65-0.89	1.247	1.222	-2.0	200 a	196	140-260	True
	PCB 74 (BZ)		C61	M/M+2		0.65-0.89	1.247		0.0	200 a	196	140-260	C61
	PCB 66 (BZ)			M/M+2	0.78	0.65-0.89	1.255	1.100	-12.3	50	44	35-65	True
	PCB 55 (BZ)			M/M+2	0.79	0.65-0.89	1.145	1.151	0.5	50	50	35-65	True
	PCB 56 (BZ)			M/M+2	0.78	0.65-0.89	1.217	1.167	-4.1	50	48	35-65	True
	PCB 60 (BZ)			M/M+2	0.76	0.65-0.89	1.181	1.230	4.1	50	52	35-65	True
	PCB 80 (BZ)			M/M+2	0.77	0.65-0.89	1.358	1.381	1.7	50	51	35-65	True
	PCB 79 (BZ)			M/M+2	0.78	0.65-0.89	1.326	1.462	10.3	50	55	35-65	True
	PCB 78 (BZ)			M/M+2	0.79	0.65-0.89	1.164	1.276	9.7	50	55	35-65	True
	PCB 81 (BZ)	T		M/M+2	0.78	0.65-0.89	1.298	1.272	-2.1	50	49	35-65	True
	PCB 77 (BZ)	T		M/M+2	0.77	0.65-0.89	1.269	1.278	0.7	50	50	35-65	True
I	13C12-PCB 104			M+2/M+4	1.65	1.32-1.78	1.246	1.197	-3.9	100	96	50-150	True
S	13C12-PCB 95			M+2/M+4	1.69	1.32-1.78	0.754	0.682	-9.5	50	45	35-65	True
R	13C12-PCB 101			M+2/M+4	1.64	1.32-1.78	1.000	1.000	0.0	100	100	-	
C	13C12-PCB 111			M+2/M+4	1.63	1.32-1.78	1.266	1.203	-5.0	50	47	35-65 b	True
I	13C12-PCB 123			M+2/M+4	1.61	1.32-1.78	0.954	0.856	-10.4	100	90	50-150	True
I	13C12-PCB 118			M+2/M+4	1.64	1.32-1.78	0.995	0.908	-8.7	100	91	50-150	True
I	13C12-PCB 114			M+2/M+4	1.62	1.32-1.78	0.952	0.904	-5.1	100	95	50-150	True
I	13C12-PCB 105			M+2/M+4	1.61	1.32-1.78	0.942	0.885	-6.0	100	94	50-150	True
R	13C12-PCB 127			M+2/M+4	1.63	1.32-1.78	1.000	1.000	0.0	100	100	-	
I	13C12-PCB 126			M+2/M+4	1.60	1.32-1.78	0.991	0.991	0.0	100	100	50-150	True
	PCB 104 (BZ)	L		M+2/M+4	1.62	1.32-1.78	1.184	1.270	7.3	50	54	35-65	True
	PCB 96 (BZ)			M+2/M+4	1.67	1.32-1.78	1.055	1.087	3.1	50	52	35-65	True
	PCB 103 (BZ)			M+2/M+4	1.63	1.32-1.78	0.900	0.948	5.3	50	53	35-65	True
	PCB 94 (BZ)			M+2/M+4	1.62	1.32-1.78	0.789	0.821	4.0	50	52	35-65	True
	PCB 95 (BZ)			M+2/M+4	1.66	1.32-1.78	0.838	0.881	5.1	50	53	35-65	True
	PCB 100 (BZ)		C93	M+2/M+4	1.61	1.32-1.78	0.888	0.904	1.7	100 a	102	70-130	True
	PCB 93 (BZ)		C93	M+2/M+4		1.32-1.78	0.888		0.0	100 a	102	70-130	C93
	PCB 102 (BZ)		C98	M+2/M+4		1.32-1.78	0.917		0.0	100 a	105	70-130	C98
	PCB 98 (BZ)		C98	M+2/M+4	1.63	1.32-1.78	0.917	0.960	4.7	100 a	105	70-130	True
	PCB 88 (BZ)		C88	M+2/M+4		1.32-1.78	0.857		0.0	100 a	105	70-130	C88
	PCB 91 (BZ)		C88	M+2/M+4	1.63	1.32-1.78	0.857	0.899	4.9	100 a	105	70-130	True
	PCB 84 (BZ)			M+2/M+4	1.65	1.32-1.78	0.764	0.772	1.1	50	51	35-65	True
	PCB 89 (BZ)			M+2/M+4	1.59	1.32-1.78	0.789	0.813	3.1	50	52	35-65	True
	PCB 121 (BZ)			M+2/M+4	1.65	1.32-1.78	1.215	1.306	7.5	50	54	35-65	True
	PCB 92 (BZ)			M+2/M+4	1.67	1.32-1.78	0.892	0.877	-1.7	50	49	35-65	True
	PCB 113 (BZ)		C90	M+2/M+4	1.64	1.32-1.78	1.013	1.040	2.7	150 a	154	105-195	True
	PCB 90 (BZ)		C90	M+2/M+4		1.32-1.78	1.013		0.0	150 a	154	105-195	C90
	PCB 101 (BZ)		C90	M+2/M+4		1.32-1.78	1.013		0.0	150 a	154	105-195	C90
	PCB 83 (BZ)		C83	M+2/M+4	1.60	1.32-1.78	0.868	0.869	0.1	100 a	100	70-130	True
	PCB 99 (BZ)		C83	M+2/M+4		1.32-1.78	0.868		0.0	100 a	100	70-130	C83
	PCB 112 (BZ)			M+2/M+4	1.67	1.32-1.78	1.160	1.355	16.8	50	58	35-65	True
	PCB 109 (BZ)/108 (IUPAC)		C86	M+2/M+4	1.63	1.32-1.78	1.030	1.124	9.1	300 a	327	210-390	True

Notes:
a - Concentration value is the sum of all coeluting congeners concentrations.
b - Cleanup standard QC Limits are actually 60% to 130% of the standard concetration.

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1 **ICAL Date:** 06/24/08

CCAL Filename: a110713s1 **Method:** IE5 - IE5

CCAL Sample ID: PCB0100 **Instrument:** M1D

CCAL Result Dir: /20110713s1/a110713s1.d **Column SN:** 44968-01A

CCAL Date/Time: 07/13/11 21:45 **Column Desc:** SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 196 False: 0

	Analytes	T/L	C	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	ICAL RF	CCAL RF	%D	Std Conc (ng/mL)		Calc Conc (ng/mL)	QC Limit	Valid?
	PCB 86 (BZ)		C86	M+2/M+4		1.32-1.78	1.030		0.0	300	a	327	210-390	C86
	PCB 119 (BZ)		C86	M+2/M+4		1.32-1.78	1.030		0.0	300	a	327	210-390	C86
	PCB 97 (BZ)		C86	M+2/M+4		1.32-1.78	1.030		0.0	300	a	327	210-390	C86
	PCB 125 (BZ)		C86	M+2/M+4		1.32-1.78	1.030		0.0	300	a	327	210-390	C86
	PCB 87 (BZ)		C86	M+2/M+4		1.32-1.78	1.030		0.0	300	a	327	210-390	C86
	PCB 117 (BZ)		C85	M+2/M+4		1.32-1.78	1.054		0.0	150	a	164	105-195	C85
	PCB 116 (BZ)		C85	M+2/M+4	1.67	1.32-1.78	1.054	1.153	9.3	150	a	164	105-195	True
	PCB 85 (BZ)		C85	M+2/M+4		1.32-1.78	1.054		0.0	150	a	164	105-195	C85
	PCB 110 (BZ)		C110	M+2/M+4	1.62	1.32-1.78	1.194	1.295	8.5	100	a	108	70-130	True
	PCB 115 (BZ)		C110	M+2/M+4		1.32-1.78	1.194		0.0	100	a	108	70-130	C110
	PCB 82 (BZ)			M+2/M+4	1.69	1.32-1.78	0.730	0.746	2.3	50		51	35-65	True
	PCB 111 (BZ)			M+2/M+4	1.63	1.32-1.78	1.260	1.341	6.4	50		53	35-65	True
	PCB 120 (BZ)			M+2/M+4	1.60	1.32-1.78	1.225	1.380	12.7	50		56	35-65	True
	PCB 124 (BZ)		C108	M+2/M+4		1.32-1.78	1.029		0.0	100	a	110	70-130	C108
	PCB 108 (BZ)/107 (IUPAC)		C108	M+2/M+4	1.57	1.32-1.78	1.029	1.136	10.4	100	a	110	70-130	True
	PCB 107 (BZ)/109 (IUPAC)			M+2/M+4	1.60	1.32-1.78	1.082	1.124	3.9	50		52	35-65	True
	PCB 123 (BZ)	T		M+2/M+4	1.58	1.32-1.78	1.053	1.332	26.5	50		63	35-65	True
	PCB 106 (BZ)			M+2/M+4	1.59	1.32-1.78	1.050	1.140	8.6	50		54	35-65	True
	PCB 118 (BZ)	T		M+2/M+4	1.55	1.32-1.78	1.087	1.233	13.4	50		57	35-65	True
	PCB 122 (BZ)			M+2/M+4	1.55	1.32-1.78	0.964	1.064	10.4	50		55	35-65	True
	PCB 114 (BZ)	T		M+2/M+4	1.55	1.32-1.78	1.161	1.327	14.3	50		57	35-65	True
	PCB 105 (BZ)	T		M+2/M+4	1.57	1.32-1.78	1.125	1.236	9.9	50		55	35-65	True
	PCB 127 (BZ)			M+2/M+4	1.60	1.32-1.78	1.062	1.242	16.9	50		58	35-65	True
	PCB 126 (BZ)	T		M+2/M+4	1.58	1.32-1.78	1.051	1.132	7.7	50		54	35-65	True
I	13C12-PCB 155			M+2/M+4	1.30	1.05-1.43	1.068	1.145	7.3	100		107	50-150	True
S	13C12-PCB 153			M+2/M+4	1.31	1.05-1.43	0.828	0.777	-6.2	50		47	35-65	True
R	13C12-PCB 138			M+2/M+4	1.28	1.05-1.43	1.000	1.000	0.0	100		100	-	
I	13C12-PCB 167			M+2/M+4	1.31	1.05-1.43	1.247	1.345	7.9	100		108	50-150	True
I	13C12-PCB 156			M+2/M+4	1.29	1.05-1.43	1.233	1.339	8.6	200		217	100-300	True
I	13C12-PCB 157			M+2/M+4		1.05-1.43	0.000		0.0	0		0	0-0	C156L
I	13C12-PCB 169			M+2/M+4	1.28	1.05-1.43	1.173	1.341	14.4	100		114	50-150	True
	PCB 155 (BZ)	L		M+2/M+4	1.29	1.05-1.43	1.128	1.188	5.4	50		53	35-65	True
	PCB 152 (BZ)			M+2/M+4	1.31	1.05-1.43	1.075	1.117	3.9	50		52	35-65	True
	PCB 150 (BZ)			M+2/M+4	1.31	1.05-1.43	1.096	1.146	4.5	50		52	35-65	True
	PCB 136 (BZ)			M+2/M+4	1.33	1.05-1.43	1.022	1.030	0.8	50		50	35-65	True
	PCB 145 (BZ)			M+2/M+4	1.33	1.05-1.43	1.069	1.062	-0.7	50		50	35-65	True
	PCB 148 (BZ)			M+2/M+4	1.30	1.05-1.43	0.764	0.805	5.3	50		53	35-65	True
	PCB 151 (BZ)		C135	M+2/M+4	1.31	1.05-1.43	0.750	0.772	2.9	100	a	103	70-130	True
	PCB 135 (BZ)		C135	M+2/M+4		1.05-1.43	0.750		0.0	100	a	103	70-130	C135
	PCB 154 (BZ)			M+2/M+4	1.31	1.05-1.43	0.922	0.925	0.3	50		50	35-65	True
	PCB 144 (BZ)			M+2/M+4	1.29	1.05-1.43	0.808	1.038	28.5	50		64	35-65	True
	PCB 147 (BZ)		C147	M+2/M+4	1.26	1.05-1.43	0.861	0.818	-5.0	100	a	95	70-130	True
	PCB 149 (BZ)		C147	M+2/M+4		1.05-1.43	0.861		0.0	100	a	95	70-130	C147

Notes:

a - Concentration value is the sum of all coeluting congeners concentrations.

b - Cleanup standard QC Limits are actually 60% to 130% of the standard concetration.

IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
CCAL Filename: a110713s1
CCAL Sample ID: PCB0100
CCAL Result Dir: /20110713s1/a110713s1.d
CCAL Date/Time: 07/13/11 21:45

ICAL Date: 06/24/08
Method: IE5 - IE5
Instrument: M1D
Column SN: 44968-01A
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 196 False: 0

	Analytes	T/L	C	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	ICAL RF	CCAL RF	%D	Std Conc (ng/mL)		Calc Conc (ng/mL)	QC Limit	Valid?
	PCB 134 (BZ)		C134	M+2/M+4		1.05-1.43	0.717		0.0	100	a	98	70-130	C134
	PCB 143 (BZ)		C134	M+2/M+4	1.28	1.05-1.43	0.717	0.704	-1.7	100	a	98	70-130	True
	PCB 139 (BZ)		C139	M+2/M+4	1.26	1.05-1.43	0.836	0.831	-0.6	100	a	99	70-130	True
	PCB 140 (BZ)		C139	M+2/M+4		1.05-1.43	0.836		0.0	100	a	99	70-130	C139
	PCB 131 (BZ)			M+2/M+4	1.26	1.05-1.43	0.700	0.698	-0.3	50		50	35-65	True
	PCB 142 (BZ)			M+2/M+4	1.25	1.05-1.43	0.728	0.721	-1.0	50		50	35-65	True
	PCB 132 (BZ)			M+2/M+4	1.29	1.05-1.43	0.736	0.735	-0.1	50		50	35-65	True
	PCB 133 (BZ)			M+2/M+4	1.25	1.05-1.43	0.763	0.761	-0.3	50		50	35-65	True
	PCB 165 (BZ)			M+2/M+4	1.26	1.05-1.43	1.001	1.002	0.1	50		50	35-65	True
	PCB 146 (BZ)			M+2/M+4	1.24	1.05-1.43	0.881	0.853	-3.1	50		48	35-65	True
	PCB 161 (BZ)			M+2/M+4	1.25	1.05-1.43	1.100	1.168	6.1	50		53	35-65	True
	PCB 153 (BZ)		C153	M+2/M+4	1.26	1.05-1.43	1.071	1.104	3.0	100	a	103	70-130	True
	PCB 168 (BZ)		C153	M+2/M+4		1.05-1.43	1.071		0.0	100	a	103	70-130	C153
	PCB 141 (BZ)			M+2/M+4	1.27	1.05-1.43	0.803	0.827	2.9	50		51	35-65	True
	PCB 130 (BZ)			M+2/M+4	1.28	1.05-1.43	0.717	0.727	1.3	50		51	35-65	True
	PCB 137 (BZ)			M+2/M+4	1.26	1.05-1.43	0.832	0.893	7.3	50		54	35-65	True
	PCB 164 (BZ)			M+2/M+4	1.29	1.05-1.43	1.052	1.135	7.9	50		54	35-65	True
	PCB 138 (BZ)		C129	M+2/M+4		1.05-1.43	0.926		0.0	200	a	216	140-260	C129
	PCB 163 (BZ)		C129	M+2/M+4	1.26	1.05-1.43	0.926	0.999	7.9	200	a	216	140-260	True
	PCB 129 (BZ)		C129	M+2/M+4		1.05-1.43	0.926		0.0	200	a	216	140-260	C129
	PCB 160 (BZ)		C129	M+2/M+4		1.05-1.43	0.926		0.0	200	a	216	140-260	C129
	PCB 158 (BZ)			M+2/M+4	1.26	1.05-1.43	1.174	1.233	5.1	50		53	35-65	True
	PCB 166 (BZ)		C128	M+2/M+4	1.25	1.05-1.43	0.958	1.007	5.2	100	a	105	70-130	True
	PCB 128 (BZ)		C128	M+2/M+4		1.05-1.43	0.958		0.0	100	a	105	70-130	C128
	PCB 159 (BZ)			M+2/M+4	1.26	1.05-1.43	1.095	1.232	12.5	50		56	35-65	True
	PCB 162 (BZ)			M+2/M+4	1.28	1.05-1.43	1.108	1.297	17.0	50		58	35-65	True
	PCB 167 (BZ)	T		M+2/M+4	1.24	1.05-1.43	1.126	1.298	15.3	50		58	35-65	True
	PCB 156 (BZ)	T	C156	M+2/M+4	1.27	1.05-1.43	1.130	1.286	13.8	100	a	114	70-130	True
	PCB 157 (BZ)	T	C156	M+2/M+4		1.05-1.43	1.130		0.0	0	a	**114**	0-0	C156
	PCB 169 (BZ)	T		M+2/M+4	1.26	1.05-1.43	1.243	1.293	4.0	50		52	35-65	True
I	13C12-PCB 188			M+2/M+4	1.07	0.89-1.21	1.217	1.259	3.5	100		103	50-150	True
C	13C12-PCB 178			M+2/M+4	1.06	0.89-1.21	0.881	0.751	-14.7	50		43	35-65	b True
R	13C12-PCB 180			M+2/M+4	1.07	0.89-1.21	1.000	1.000	0.0	100		100	-	
I	13C12-PCB 170			M+2/M+4	1.08	0.89-1.21	0.828	0.829	0.2	100		100	50-150	True
I	13C12-PCB 189			M+2/M+4	1.03	0.89-1.21	1.588	1.773	11.6	100		112	50-150	True
	PCB 188 (BZ)	L		M+2/M+4	1.08	0.89-1.21	1.111	1.143	2.9	50		51	35-65	True
	PCB 179 (BZ)			M+2/M+4	1.07	0.89-1.21	1.220	1.270	4.1	50		52	35-65	True
	PCB 184 (BZ)			M+2/M+4	1.09	0.89-1.21	1.188	1.274	7.3	50		54	35-65	True
	PCB 176 (BZ)			M+2/M+4	1.05	0.89-1.21	1.286	1.422	10.6	50		55	35-65	True
	PCB 186 (BZ)			M+2/M+4	1.06	0.89-1.21	1.223	1.369	12.0	50		56	35-65	True
	PCB 178 (BZ)			M+2/M+4	1.05	0.89-1.21	0.906	0.958	5.7	50		53	35-65	True
	PCB 175 (BZ)			M+2/M+4	1.06	0.89-1.21	0.980	0.996	1.7	50		51	35-65	True
	PCB 187 (BZ)			M+2/M+4	1.07	0.89-1.21	1.054	1.070	1.5	50		51	35-65	True

Notes:
a - Concentration value is the sum of all coeluting congeners concentrations.
b - Cleanup standard QC Limits are actually 60% to 130% of the standard concetration.

IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
ICAL Date: 06/24/08
CCAL Filename: a110713s1
Method: IE5 - IE5
CCAL Sample ID: PCB0100
Instrument: M1D
CCAL Result Dir: /20110713s1/a110713s1.d
Column SN: 44968-01A
CCAL Date/Time: 07/13/11 21:45
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 196 False: 0

	Analytes	T/L	C	m/z's Forming Ratio	Ion Abund Ratio	QC Limits	ICAL RF	CCAL RF	%D	Std Conc (ng/mL)		Calc Conc (ng/mL)	QC Limit	Valid?
	PCB 182 (BZ)			M+2/M+4	1.06	0.89-1.21	1.009	1.136	12.7	50		56	35-65	True
	PCB 183 (BZ)		C183	M+2/M+4	1.07	0.89-1.21	0.987	1.100	11.4	100	a	111	70-130	True
	PCB 185 (BZ)		C183	M+2/M+4		0.89-1.21	0.987		0.0	100	a	111	70-130	C183
	PCB 174 (BZ)			M+2/M+4	1.05	0.89-1.21	0.941	0.939	-0.2	50		50	35-65	True
	PCB 177 (BZ)			M+2/M+4	1.07	0.89-1.21	0.918	0.917	-0.1	50		50	35-65	True
	PCB 181 (BZ)			M+2/M+4	1.05	0.89-1.21	0.980	1.087	10.8	50		55	35-65	True
	PCB 171 (BZ)		C171	M+2/M+4		0.89-1.21	0.872		0.0	100	a	112	70-130	C171
	PCB 173 (BZ)		C171	M+2/M+4	1.04	0.89-1.21	0.872	0.973	11.6	100	a	112	70-130	True
	PCB 172 (BZ)			M+2/M+4	1.11	0.89-1.21	0.881	0.987	12.1	50		56	35-65	True
	PCB 192 (BZ)			M+2/M+4	1.02	0.89-1.21	1.152	1.360	18.1	50		59	35-65	True
	PCB 193 (BZ)		C180	M+2/M+4	1.05	0.89-1.21	1.154	1.280	11.0	100	a	111	70-130	True
	PCB 180 (BZ)		C180	M+2/M+4		0.89-1.21	1.154		0.0	100	a	111	70-130	C180
	PCB 191 (BZ)			M+2/M+4	1.07	0.89-1.21	1.287	1.428	11.0	50		55	35-65	True
	PCB 170 (BZ)			M+2/M+4	1.08	0.89-1.21	1.102	1.240	12.5	50		56	35-65	True
	PCB 190 (BZ)			M+2/M+4	1.07	0.89-1.21	1.265	1.511	19.4	50		60	35-65	True
	PCB 189 (BZ)	T		M+2/M+4	1.01	0.89-1.21	1.073	1.210	12.8	50		56	35-65	True
I	13C12-PCB 202			M+2/M+4	0.91	0.76-1.02	0.907	1.022	12.6	100		113	50-150	True
R	13C12-PCB 194			M+2/M+4	0.92	0.76-1.02	1.000	1.000	0.0	100		100	-	
I	13C12-PCB 205			M+2/M+4	0.92	0.76-1.02	1.395	1.514	8.6	100		109	50-150	True
	PCB 202 (BZ)	L		M+2/M+4	0.93	0.76-1.02	1.007	1.019	1.3	50		51	35-65	True
	PCB 200 (BZ)/201 (IUPAC)			M+2/M+4	0.90	0.76-1.02	1.134	1.129	-0.5	50		50	35-65	True
	PCB 204 (BZ)			M+2/M+4	0.92	0.76-1.02	1.034	1.112	7.5	50		54	35-65	True
	PCB 197 (BZ)			M+2/M+4	0.91	0.76-1.02	1.075	1.165	8.4	50		54	35-65	True
	PCB 199 (BZ)/200 (IUPAC)			M+2/M+4	0.93	0.76-1.02	1.095	1.097	0.2	50		50	35-65	True
	PCB 198 (BZ)		C198	M+2/M+4	0.93	0.76-1.02	0.775	0.806	4.0	100	a	104	70-130	True
	PCB 201 (BZ)/199 (IUPAC)		C198	M+2/M+4		0.76-1.02	0.775		0.0	100	a	104	70-130	C198
	PCB 196 (BZ)			M+2/M+4	0.91	0.76-1.02	0.800	0.810	1.3	50		51	35-65	True
	PCB 203 (BZ)			M+2/M+4	0.93	0.76-1.02	0.868	0.873	0.6	50		50	35-65	True
	PCB 195 (BZ)			M+2/M+4	0.87	0.76-1.02	0.765	0.752	-1.7	50		49	35-65	True
	PCB 194 (BZ)			M+2/M+4	0.91	0.76-1.02	0.830	0.800	-3.7	50		48	35-65	True
	PCB 205 (BZ)	L		M+2/M+4	0.89	0.76-1.02	0.986	1.076	9.2	50		55	35-65	True
I	13C12-PCB 208			M+2/M+4	0.79	0.65-0.89	1.155	1.228	6.4	100		106	50-150	True
I	13C12-PCB 206			M+2/M+4	0.79	0.65-0.89	0.808	0.870	7.7	100		108	50-150	True
	PCB 208 (BZ)	L		M+2/M+4	0.80	0.65-0.89	1.035	1.099	6.2	50		53	35-65	True
	PCB 207 (BZ)			M+2/M+4	0.79	0.65-0.89	1.276	1.322	3.6	50		52	35-65	True
	PCB 206 (BZ)	L		M+2/M+4	0.79	0.65-0.89	1.113	1.111	-0.2	50		50	35-65	True
I	13C12-PCB 209			M+2/M+4	0.71	0.59-0.79	0.857	0.804	-6.2	100		94	50-150	True
	PCB 209 (BZ)	L		M+2/M+4	0.69	0.59-0.79	1.052	1.288	22.4	50		61	35-65	True

Notes:
a - Concentration value is the sum of all coeluting congeners concentrations.
b - Cleanup standard QC Limits are actually 60% to 130% of the standard concetration.

IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
CCAL Filename: a110713s1
CCAL Sample ID: PCB0100
CCAL Result Dir: /20110713s1/a110713s1.d
CCAL Date/Time: 07/13/11 21:45

ICAL Date: 06/24/08
Method: IE5 - IE5
Instrument: M1D
Column SN: 44968-01A
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 202 False: 0 Warning: 3

Analytes	T/L	C	ICAL RT	CCAL RT	RT Diff	RT Limit	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
I 13C12-PCB 1			12:02	12:11	9	15	0.7303	0.7325	0.7152-0.7455	True
I 13C12-PCB 3			14:14	14:24	10	15	0.8639	0.8657	0.8487-0.8791	True
PCB 1 (BZ)	L		12:02	12:11	9		1.0007	1.0000	0.9938-1.0076	True
PCB 2 (BZ)			14:04	14:14	10		0.9882	0.9884	0.9847-0.9917	True
PCB 3 (BZ)	L		14:14	14:25	11		1.0006	1.0012	0.9971-1.0041	True
I 13C12-PCB 4			14:30	14:39	9	15	0.8800	0.8808	0.8648-0.8952	True
R 13C12-PCB 9			16:28	16:38	10		1.0000	1.0000	0.9874-1.0126	True
S 13C12-PCB 8			17:20	17:30	10		1.1955	1.1945	1.1920-1.1989	True
I 13C12-PCB 15			20:26	20:39	13	15	1.2410	1.2415	1.2309-1.2511	True
PCB 4 (BZ)	L		14:31	14:40	9		1.0011	1.0011	0.9954-1.0069	True
PCB 10 (BZ)			14:41	14:51	10		1.0126	1.0137	1.0092-1.0161	True
PCB 9 (BZ)			16:30	16:39	9		1.1380	1.1365	1.1345-1.1414	True
PCB 7 (BZ)			16:39	16:50	11		1.1487	1.1490	1.1452-1.1521	True
PCB 6 (BZ)			16:55	17:05	10		1.1667	1.1661	1.1633-1.1702	True
PCB 5 (BZ)			17:13	17:24	11		1.1878	1.1877	1.1843-1.1912	True
PCB 8 (BZ)			17:21	17:31	10		1.1970	1.1957	1.1935-1.2004	True
PCB 14 (BZ)			18:59	19:09	10		0.9284	0.9274	0.9260-0.9309	True
PCB 11 (BZ)			19:50	20:01	11		0.9702	0.9693	0.9678-0.9727	True
PCB 13 (BZ)		C12	20:07	20:21	14		0.9843	0.9855	0.9819-0.9868	True
PCB 12 (BZ)		C12	20:10				0.9865		0.9841-0.9890	C12
PCB 15 (BZ)	L		20:27	20:40	13		1.0007	1.0008	0.9966-1.0047	True
I 13C12-PCB 19			17:39	17:49	10	15	0.8436	0.8444	0.8316-0.8555	True
R 13C12-PCB 32			20:55	21:06	11		1.0000	1.0000	0.9976-1.0024	True
R 13C12-PCB 31			23:12	23:23	11		1.0000	1.0000	0.9978-1.0022	True
C 13C12-PCB 28			23:29	23:41	12		1.0126	1.0128	1.0054-1.0198	True
I 13C12-PCB 37			27:31	27:43	12	15	1.1865	1.1853	1.1757-1.1973	True
PCB 19 (BZ)	L		17:40	17:50	10		1.0011	1.0009	0.9964-1.0059	True
PCB 30 (BZ)		C18	19:29	19:39	10		1.1041	1.1029	1.1012-1.1069	True
PCB 18 (BZ)		C18	19:32				1.1072		1.1044-1.1100	C18
PCB 17 (BZ)			19:57	20:07	10		1.1308	1.1291	1.1280-1.1336	True
PCB 27 (BZ)			20:11	20:21	10		1.1437	1.1422	1.1409-1.1466	True
PCB 24 (BZ)			20:18	20:29	11		1.1501	1.1497	1.1472-1.1529	True
PCB 16 (BZ)			20:26	20:36	10		1.1576	1.1562	1.1548-1.1605	True
PCB 32 (BZ)			20:56	21:08	12		1.1865	1.1862	1.1837-1.1894	True
PCB 34 (BZ)			22:12	22:22	10		1.2583	**1.2554**	1.2555-1.2611	**Warning**
PCB 23 (BZ)			22:20	22:31	11		1.2659	1.2638	1.2630-1.2687	True
PCB 29 (BZ)		C26	22:41				1.2857		1.2810-1.2904	C26
PCB 26 (BZ)		C26	22:40	22:51	11		1.2848	1.2825	1.2800-1.2895	True
PCB 25 (BZ)			22:54	23:05	11		0.8320	0.8328	0.8302-0.8338	True
PCB 31 (BZ)			23:13	23:24	11		0.8437	0.8443	0.8419-0.8455	True
PCB 28 (BZ)		C20	23:30	23:43	13		0.8540	0.8557	0.8509-0.8570	True
PCB 20 (BZ)		C20	23:33				0.8558		0.8528-0.8588	C20
PCB 21 (BZ)		C21	23:41	23:56	15		0.8606	0.8635	0.8576-0.8637	True
PCB 33 (BZ)		C21	23:46				0.8635		0.8605-0.8665	C21
PCB 22 (BZ)			24:09	24:21	12		0.8778	0.8785	0.8760-0.8796	True
PCB 36 (BZ)			25:43	25:54	11		0.9343	0.9345	0.9325-0.9362	True
PCB 39 (BZ)			26:04	26:16	12		0.9474	0.9477	0.9456-0.9492	True
PCB 38 (BZ)			26:39	26:51	12		0.9686	0.9687	0.9668-0.9704	True

CCAL ID: 44383 - A110713S1 **ICAL Date:** 06/24/08

CCAL Filename: a110713s1 **Method:** IE5 - IE5

CCAL Sample ID: PCB0100 **Instrument:** M1D

CCAL Result Dir: /20110713s1/a110713s1.d **Column SN:** 44968-01A

CCAL Date/Time: 07/13/11 21:45 **Column Desc:** SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 202 False: 0 Warning: 3

	Analytes	T/L	C	ICAL RT	CCAL RT	RT Diff	RT Limit	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
	PCB 35 (BZ)			27:08	27:20	12		0.9860	0.9862	0.9842-0.9878	True
	PCB 37 (BZ)	L		27:32	27:46	14		1.0007	1.0018	0.9989-1.0025	True
I	13C12-PCB 54			20:46	20:56	10	15	0.8198	0.8209	0.8132-0.8264	True
R	13C12-PCB 52			25:20	25:30	10		1.0000	1.0000	0.9918-1.0082	True
S	13C12-PCB 79			33:16	33:28	12		0.9705	0.9705	0.9691-0.9720	True
I	13C12-PCB 81			34:16	34:29	13	15	1.3530	1.3523	1.3464-1.3596	True
I	13C12-PCB 77			34:50	35:03	13	15	1.3754	1.3745	1.3689-1.3820	True
	PCB 54 (BZ)	L		20:46	20:57	11		1.0003	1.0008	0.9963-1.0043	True
	PCB 50 (BZ)		C50	22:58				1.1063		1.1023-1.1103	C50
	PCB 53 (BZ)		C50	22:57	23:08	11		1.1055	1.1051	1.1015-1.1095	True
	PCB 45 (BZ)		C45	23:37	23:52	15		1.1376	1.1401	1.1336-1.1416	True
	PCB 51 (BZ)		C45	23:42				1.1413		1.1373-1.1454	C45
	PCB 46 (BZ)			23:57	24:08	11		1.1536	1.1529	1.1512-1.1560	True
	PCB 52 (BZ)			25:22	25:32	10		1.2216	1.2197	1.2192-1.2240	True
	PCB 73 (BZ)		C43	25:29	25:40	11		1.2275	1.2261	1.2251-1.2299	True
	PCB 43 (BZ)		C43	25:35				1.2318		1.2294-1.2342	C43
	PCB 69 (BZ)		C49	25:46	26:00	14		1.2411	1.2420	1.2371-1.2451	True
	PCB 49 (BZ)		C49	25:51				1.2449		1.2409-1.2489	C49
	PCB 48 (BZ)			26:07	26:17	10		1.2580	1.2556	1.2556-1.2604	True
	PCB 65 (BZ)		C44	26:22				1.2695		1.2655-1.2735	C44
	PCB 47 (BZ)		C44	26:23				1.2708		1.2668-1.2748	C44
	PCB 44 (BZ)		C44	26:21	26:33	12		1.2690	1.2683	1.2649-1.2730	True
	PCB 62 (BZ)		C59	26:38	26:52	14		1.2826	1.2834	1.2786-1.2866	True
	PCB 75 (BZ)		C59	26:42				1.2861		1.2820-1.2901	C59
	PCB 59 (BZ)		C59	26:41				1.2853		1.2812-1.2893	C59
	PCB 42 (BZ)			26:53	27:04	11		1.2949	1.2930	1.2925-1.2973	True
	PCB 41 (BZ)		C40	27:16				1.3133		1.3093-1.3174	C40
	PCB 71 (BZ)		C40	27:23	27:34	11		1.3190	1.3169	1.3150-1.3230	True
	PCB 40 (BZ)		C40	27:24				1.3193		1.3153-1.3233	C40
	PCB 64 (BZ)			27:36	27:47	11		1.3292	1.3272	1.3268-1.3316	True
	PCB 72 (BZ)			28:25	28:35	10		0.8293	0.8289	0.8278-0.8308	True
	PCB 68 (BZ)			28:42	28:53	11		0.8376	0.8376	0.8361-0.8390	True
	PCB 57 (BZ)			29:08	29:19	11		0.8501	0.8502	0.8486-0.8515	True
	PCB 58 (BZ)			29:23	29:33	10		0.8574	0.8569	0.8559-0.8588	True
	PCB 67 (BZ)			29:32	29:43	11		0.8617	0.8618	0.8603-0.8632	True
	PCB 63 (BZ)			29:49	29:59	10		0.8699	0.8695	0.8684-0.8713	True
	PCB 61 (BZ)		C61	30:02				0.8763		0.8734-0.8792	C61
	PCB 70 (BZ)		C61	30:08				0.8792		0.8763-0.8822	C61
	PCB 76 (BZ)		C61	30:09	30:20	11		0.8797	0.8797	0.8768-0.8827	True
	PCB 74 (BZ)		C61	30:12				0.8812		0.8788-0.8836	C61
	PCB 66 (BZ)			30:29	30:40	11		0.8893	0.8893	0.8879-0.8908	True
	PCB 55 (BZ)			30:39	30:50	11		0.8943	0.8942	0.8929-0.8958	True
	PCB 56 (BZ)			31:09	31:21	12		0.9089	0.9091	0.9075-0.9104	True
	PCB 60 (BZ)			31:22	31:34	12		0.9152	0.9154	0.9138-0.9167	True
	PCB 80 (BZ)			31:45	31:56	11		0.9266	0.9261	0.9251-0.9280	True
	PCB 79 (BZ)			33:18	33:29	11		0.9715	0.9710	0.9700-0.9730	True
	PCB 78 (BZ)			33:51	34:03	12		0.9877	0.9874	0.9862-0.9892	True
	PCB 81 (BZ)	T		34:18	34:30	12		1.0008	1.0005	0.9994-1.0023	True

TestAmerica Knoxville

IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
CCAL Filename: a110713s1
CCAL Sample ID: PCB0100
CCAL Result Dir: /20110713s1/a110713s1.d
CCAL Date/Time: 07/13/11 21:45

ICAL Date: 06/24/08
Method: IE5 - IE5
Instrument: M1D
Column SN: 44968-01A
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 202 False: 0 Warning: 3

	Analytes	T/L	C	ICAL RT	CCAL RT	RT Diff	RT Limit	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
	PCB 77 (BZ)	T		34:51	35:05	14		1.0004	1.0010	0.9990-1.0019	True
I	13C12-PCB 104			26:17	26:26	9	15	0.8166	0.8171	0.8114-0.8218	True
S	13C12-PCB 95			29:15	29:26	11		1.1134	1.1135	1.1102-1.1166	True
R	13C12-PCB 101			32:11	32:21	10		1.0000	1.0000	0.9935-1.0065	True
C	13C12-PCB 111			34:51	35:01	10		1.0831	1.0824	1.0779-1.0883	True
I	13C12-PCB 123			36:50	37:00	10	15	1.1445	1.1437	1.1393-1.1497	True
I	13C12-PCB 118			37:09	37:20	11	15	1.1547	1.1540	1.1495-1.1598	True
I	13C12-PCB 114			37:41	37:52	11	15	1.1711	1.1705	1.1659-1.1762	True
I	13C12-PCB 105			38:21	38:32	11	15	1.1916	1.1911	1.1865-1.1968	True
R	13C12-PCB 127			39:47	39:59	12		1.0000	1.0000	0.9948-1.0052	True
I	13C12-PCB 126			41:25	41:37	12	15	1.2872	1.2865	1.2820-1.2924	True
	PCB 104 (BZ)	L		26:18	26:27	9		1.0008	1.0006	0.9977-1.0040	True
	PCB 96 (BZ)			26:42	26:52	10		1.0162	1.0164	1.0131-1.0194	True
	PCB 103 (BZ)			28:36	28:46	10		1.0885	1.0883	1.0866-1.0904	True
	PCB 94 (BZ)			28:50	29:00	10		1.0972	1.0971	1.0953-1.0991	True
	PCB 95 (BZ)			29:17	29:27	10		1.1145	1.1141	1.1114-1.1177	True
	PCB 100 (BZ)		C93	29:28	29:39	11		1.1213	1.1217	1.1182-1.1245	True
	PCB 93 (BZ)		C93	29:31				1.1232		1.1201-1.1264	C93
	PCB 102 (BZ)		C98	29:38				1.1279		1.1247-1.1310	C98
	PCB 98 (BZ)		C98	29:42	29:48	6		1.1304	1.1274	1.1272-1.1336	True
	PCB 88 (BZ)		C88	30:03				1.1433		1.1395-1.1471	C88
	PCB 91 (BZ)		C88	30:09	30:19	10		1.1471	1.1469	1.1440-1.1503	True
	PCB 84 (BZ)			30:23	30:34	11		1.1562	1.1564	1.1543-1.1581	True
	PCB 89 (BZ)			30:52	31:02	10		1.1744	1.1740	1.1725-1.1763	True
	PCB 121 (BZ)			31:13	31:23	10		1.1881	1.1873	1.1862-1.1900	True
	PCB 92 (BZ)			31:38	31:48	10		0.8588	0.8595	0.8574-0.8601	True
	PCB 113 (BZ)		C90	32:09	32:21	12		1.2234	1.2238	1.2203-1.2266	True
	PCB 90 (BZ)		C90	32:12				1.2253		1.2222-1.2285	C90
	PCB 101 (BZ)		C90	32:12				1.2255		1.2224-1.2287	C90
	PCB 83 (BZ)		C83	32:42	32:56	14		1.2442	1.2459	1.2404-1.2480	True
	PCB 99 (BZ)		C83	32:47				1.2477		1.2446-1.2509	C83
	PCB 112 (BZ)			32:55	33:05	10		1.2526	1.2516	1.2507-1.2545	True
	PCB 109 (BZ)/108 (IUPAC)		C86	33:14	33:27	13		1.2647	1.2654	1.2596-1.2697	True
	PCB 86 (BZ)		C86	33:18				1.2670		1.2619-1.2721	C86
	PCB 119 (BZ)		C86	33:17				1.2668		1.2617-1.2718	C86
	PCB 97 (BZ)		C86	33:18				1.2674		1.2623-1.2725	C86
	PCB 125 (BZ)		C86	33:22				1.2699		1.2649-1.2750	C86
	PCB 87 (BZ)		C86	33:25				1.2715		1.2683-1.2746	C86
	PCB 117 (BZ)		C85	33:55				1.2907		1.2869-1.2945	C85
	PCB 116 (BZ)		C85	34:00	34:11	11		1.2940	1.2932	1.2902-1.2978	True
	PCB 85 (BZ)		C85	34:02				1.2951		1.2919-1.2983	C85
	PCB 110 (BZ)		C110	34:12	34:24	12		1.3013	1.3014	1.2981-1.3044	True
	PCB 115 (BZ)		C110	34:15				1.3035		1.3004-1.3067	C110
	PCB 82 (BZ)			34:32	34:42	10		1.3139	1.3127	1.3120-1.3158	True
	PCB 111 (BZ)			34:53	35:03	10		1.3273	1.3260	1.3254-1.3292	True
	PCB 120 (BZ)			35:21	35:30	9		1.3450	**1.3430**	1.3431-1.3469	**Warning**
	PCB 124 (BZ)		C108	36:30				1.3892		1.3860-1.3923	C108
	PCB 108 (BZ)/107 (IUPAC)		C108	36:29	36:40	11		1.3885	1.3871	1.3854-1.3917	True

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IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
CCAL Filename: a110713s1
CCAL Sample ID: PCB0100
CCAL Result Dir: /20110713s1/a110713s1.d
CCAL Date/Time: 07/13/11 21:45

ICAL Date: 06/24/08
Method: IE5 - IE5
Instrument: M1D
Column SN: 44968-01A
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 202 False: 0 Warning: 3

	Analytes	T/L	C	ICAL RT	CCAL RT	RT Diff	RT Limit	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
	PCB 107 (BZ)/109 (IUPAC)			36:45	36:55	10		1.3983	1.3966	1.3964-1.4002	True
	PCB 123 (BZ)	T		36:51	37:01	10		1.0004	1.0005	0.9990-1.0018	True
	PCB 106 (BZ)			36:58	37:09	11		1.0037	1.0041	1.0024-1.0051	True
	PCB 118 (BZ)	T		37:11	37:21	10		1.0006	1.0004	0.9992-1.0019	True
	PCB 122 (BZ)			37:32	37:42	10		1.0103	1.0098	1.0089-1.0116	True
	PCB 114 (BZ)	T		37:42	37:53	11		1.0005	1.0004	0.9992-1.0019	True
	PCB 105 (BZ)	T		38:23	38:33	10		1.0008	1.0004	0.9995-1.0021	True
	PCB 127 (BZ)			39:49	40:01	12		1.0385	1.0385	1.0372-1.0398	True
	PCB 126 (BZ)	T		41:26	41:38	12		1.0004	1.0004	0.9992-1.0016	True
I	13C12-PCB 155			31:56	32:03	7	15	0.7929	0.7930	0.7888-0.7970	True
S	13C12-PCB 153			39:01	39:10	9		0.9018	0.9021	0.8999-0.9038	True
R	13C12-PCB 138			40:16	40:25	9		1.0000	1.0000	0.9793-1.0207	True
I	13C12-PCB 167			43:16	43:25	9	15	1.0742	1.0742	1.0701-1.0783	True
I	13C12-PCB 156			44:26	44:35	9	15	1.1033	1.1031	1.1021-1.1046	True
I	13C12-PCB 157			44:26			15	1.1033		1.0992-1.1075	
I	13C12-PCB 169			47:39	47:49	10	15	1.1833	1.1831	1.1820-1.1845	True
	PCB 155 (BZ)	L		31:57	32:05	8		1.0007	1.0010	0.9981-1.0033	True
	PCB 152 (BZ)			32:12	32:20	8		1.0082	1.0088	1.0067-1.0098	True
	PCB 150 (BZ)			32:21	32:30	9		1.0129	1.0140	1.0114-1.0145	True
	PCB 136 (BZ)			32:44	32:54	10		1.0249	1.0265	1.0234-1.0265	True
	PCB 145 (BZ)			33:00	33:10	10		1.0336	1.0348	1.0320-1.0352	True
	PCB 148 (BZ)			34:30	34:39	9		1.0804	1.0811	1.0789-1.0820	True
	PCB 151 (BZ)		C135	35:06	35:19	13		1.0992	**1.1019**	1.0966-1.1018	**Warning**
	PCB 135 (BZ)		C135	35:10				1.1015		1.0989-1.1041	C135
	PCB 154 (BZ)			35:21	35:29	8		1.1069	1.1071	1.1043-1.1095	True
	PCB 144 (BZ)			35:40	35:50	10		1.1171	1.1180	1.1156-1.1187	True
	PCB 147 (BZ)		C147	36:02	36:12	10		1.1285	1.1295	1.1258-1.1311	True
	PCB 149 (BZ)		C147	36:03				1.1288		1.1262-1.1314	C147
	PCB 134 (BZ)		C134	36:15				1.1351		1.1325-1.1377	C134
	PCB 143 (BZ)		C134	36:21	36:30	9		1.1385	1.1388	1.1359-1.1411	True
	PCB 139 (BZ)		C139	36:37	36:46	9		1.1467	1.1472	1.1441-1.1493	True
	PCB 140 (BZ)		C139	36:39				1.1476		1.1450-1.1502	C139
	PCB 131 (BZ)			36:50	37:00	10		1.1537	1.1544	1.1521-1.1552	True
	PCB 142 (BZ)			36:59	37:09	10		1.1584	1.1591	1.1568-1.1599	True
	PCB 132 (BZ)			37:19	37:29	10		1.1688	1.1695	1.1662-1.1714	True
	PCB 133 (BZ)			37:47	37:56	9		1.1834	1.1836	1.1818-1.1850	True
	PCB 165 (BZ)			38:11	38:20	9		0.8825	0.8829	0.8814-0.8837	True
	PCB 146 (BZ)			38:26	38:34	8		0.8883	0.8883	0.8872-0.8895	True
	PCB 161 (BZ)			38:34	38:43	9		0.8914	0.8917	0.8902-0.8925	True
	PCB 153 (BZ)		C153	39:02	39:12	10		0.9024	0.9029	0.9005-0.9043	True
	PCB 168 (BZ)		C153	39:05				0.9036		0.9016-0.9055	C153
	PCB 141 (BZ)			39:15	39:24	9		0.9073	0.9075	0.9061-0.9085	True
	PCB 130 (BZ)			39:40	39:49	9		0.9168	0.9171	0.9157-0.9180	True
	PCB 137 (BZ)			39:52	40:01	9		0.9217	0.9217	0.9205-0.9228	True
	PCB 164 (BZ)			40:00	40:09	9		0.9248	0.9248	0.9236-0.9259	True
	PCB 138 (BZ)		C129	40:18				0.9315		0.9288-0.9342	C129
	PCB 163 (BZ)		C129	40:18	40:28	10		0.9317	0.9321	0.9290-0.9344	True
	PCB 129 (BZ)		C129	40:22				0.9332		0.9305-0.9359	C129

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IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
CCAL Filename: a110713s1
CCAL Sample ID: PCB0100
CCAL Result Dir: /20110713s1/a110713s1.d
CCAL Date/Time: 07/13/11 21:45

ICAL Date: 06/24/08
Method: IE5 - IE5
Instrument: M1D
Column SN: 44968-01A
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 202 False: 0 Warning: 3

	Analytes	T/L	C	ICAL RT	CCAL RT	RT Diff	RT Limit	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
	PCB 160 (BZ)		C129	40:27				0.9352		0.9332-0.9371	C129
	PCB 158 (BZ)			40:41	40:50	9		0.9403	0.9405	0.9392-0.9415	True
	PCB 166 (BZ)		C128	41:31	41:41	10		0.9597	0.9601	0.9578-0.9616	True
	PCB 128 (BZ)		C128	41:35				0.9611		0.9592-0.9631	C128
	PCB 159 (BZ)			42:31	42:40	9		0.9829	0.9827	0.9818-0.9841	True
	PCB 162 (BZ)			42:48	42:58	10		0.9895	0.9896	0.9883-0.9906	True
	PCB 167 (BZ)	T		43:17	43:26	9		1.0007	1.0004	0.9995-1.0018	True
	PCB 156 (BZ)	T	C156	44:25	44:36	11		0.9997	1.0004	0.9986-1.0009	True
	PCB 157 (BZ)	T	C156	44:29				1.0011		0.9992-1.0030	C156
	PCB 169 (BZ)	T		47:40	47:51	11		1.0003	1.0007	0.9993-1.0014	True
I	13C12-PCB 188			37:40	37:47	7	15	0.8223	0.8229	0.8187-0.8259	True
C	13C12-PCB 178			40:43	40:50	7		0.8890	0.8893	0.8853-0.8926	True
R	13C12-PCB 180			45:48	45:55	7		1.0000	1.0000	0.9964-1.0036	True
I	13C12-PCB 170			47:04	47:12	8	15	1.0277	1.0279	1.0241-1.0314	True
I	13C12-PCB 189			50:10	50:18	8	15	1.0953	1.0955	1.0917-1.0989	True
	PCB 188 (BZ)	L		37:40	37:49	9		1.0003	1.0009	0.9990-1.0016	True
	PCB 179 (BZ)			38:03	38:11	8		1.0104	1.0106	1.0090-1.0117	True
	PCB 184 (BZ)			38:33	38:39	6		1.0236	1.0229	1.0223-1.0250	True
	PCB 176 (BZ)			38:56	39:04	8		1.0337	1.0340	1.0324-1.0350	True
	PCB 186 (BZ)			39:23	39:31	8		1.0456	1.0459	1.0443-1.0470	True
	PCB 178 (BZ)			40:45	40:52	7		1.0819	1.0816	1.0806-1.0832	True
	PCB 175 (BZ)			41:22	41:29	7		1.0986	1.0979	1.0972-1.0999	True
	PCB 187 (BZ)			41:38	41:45	7		1.1056	1.1050	1.1043-1.1070	True
	PCB 182 (BZ)			41:51	41:57	6		1.1111	1.1103	1.1098-1.1125	True
	PCB 183 (BZ)		C183	42:15	42:22	7		1.1219	1.1213	1.1206-1.1232	True
	PCB 185 (BZ)		C183	42:21				1.1247		1.1233-1.1260	C183
	PCB 174 (BZ)			42:30	42:38	8		1.1287	1.1284	1.1273-1.1300	True
	PCB 177 (BZ)			42:57	43:05	8		1.1403	1.1403	1.1390-1.1417	True
	PCB 181 (BZ)			43:20	43:27	7		1.1505	1.1500	1.1492-1.1518	True
	PCB 171 (BZ)		C171	43:34				1.1570		1.1548-1.1592	C171
	PCB 173 (BZ)		C171	43:32	43:40	8		1.1561	1.1557	1.1548-1.1574	True
	PCB 172 (BZ)			45:10	45:18	8		0.9005	0.9006	0.8995-0.9015	True
	PCB 192 (BZ)			45:27	45:34	7		0.9059	0.9059	0.9049-0.9069	True
	PCB 193 (BZ)		C180	45:46	45:55	9		0.9124	0.9129	0.9114-0.9133	True
	PCB 180 (BZ)		C180	45:49				0.9134		0.9125-0.9144	C180
	PCB 191 (BZ)			46:11	46:18	7		0.9206	0.9205	0.9196-0.9216	True
	PCB 170 (BZ)			47:05	47:13	8		0.9387	0.9387	0.9377-0.9397	True
	PCB 190 (BZ)			47:36	47:43	7		0.9490	0.9486	0.9480-0.9500	True
	PCB 189 (BZ)	T		50:11	50:19	8		1.0004	1.0003	0.9994-1.0014	True
I	13C12-PCB 202			43:01	43:08	7	15	0.8233	0.8239	0.8201-0.8265	True
R	13C12-PCB 194			52:16	52:21	5		1.0000	1.0000	0.9960-1.0040	True
I	13C12-PCB 205			52:43	52:50	7	15	1.0089	1.0092	1.0041-1.0137	True
	PCB 202 (BZ)	L		43:03	43:09	6		1.0005	1.0004	0.9985-1.0024	True
	PCB 200 (BZ)/201 (IUPAC)			43:59	44:04	5		1.0222	1.0216	1.0202-1.0241	True
	PCB 204 (BZ)			44:38	44:43	5		1.0374	1.0367	1.0362-1.0385	True
	PCB 197 (BZ)			44:52	44:58	6		1.0428	1.0425	1.0416-1.0440	True
	PCB 199 (BZ)/200 (IUPAC)			44:59	45:06	7		1.0456	1.0456	1.0445-1.0468	True
	PCB 198 (BZ)		C198	47:43	47:52	9		1.1092	1.1097	1.1072-1.1111	True

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IsoCalc Continuing Calibration Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

CCAL ID: 44383 - A110713S1
CCAL Filename: a110713s1
CCAL Sample ID: PCB0100
CCAL Result Dir: /20110713s1/a110713s1.d
CCAL Date/Time: 07/13/11 21:45

ICAL Date: 06/24/08
Method: IE5 - IE5
Instrument: M1D
Column SN: 44968-01A
Column Desc: SPB-Octyl 30m x 0.25mm ID x 0.25um

Report Summary Totals: Valid? = True: 202 False: 0 Warning: 3

	Analytes	T/L	C	ICAL RT	CCAL RT	RT Diff	RT Limit	ICAL RRT	CCAL RRT	RRT QC Limit	Valid?
	PCB 201 (BZ)/199 (IUPAC)		C198	47:47				1.1106		1.1094-1.1118	C198
	PCB 196 (BZ)			48:26	48:31	5		0.9187	0.9183	0.9177-0.9196	True
	PCB 203 (BZ)			48:37	48:42	5		0.9222	0.9218	0.9213-0.9232	True
	PCB 195 (BZ)			49:58	50:03	5		0.9476	0.9473	0.9467-0.9486	True
	PCB 194 (BZ)			52:17	52:23	6		0.9916	0.9915	0.9906-0.9925	True
	PCB 205 (BZ)	L		52:44	52:51	7		1.0003	1.0003	0.9994-1.0013	True
I	13C12-PCB 208			49:41	49:45	4	15	0.9506	0.9503	0.9474-0.9538	True
I	13C12-PCB 206			54:28	54:32	4	15	1.0421	1.0417	1.0373-1.0469	True
	PCB 208 (BZ)	L		49:42	49:47	5		1.0005	1.0007	0.9995-1.0015	True
	PCB 207 (BZ)			50:38	50:42	4		1.0193	1.0191	1.0183-1.0203	True
	PCB 206 (BZ)	L		54:28	54:33	5		1.0002	1.0003	0.9993-1.0012	True
I	13C12-PCB 209			56:05	56:07	2	15	1.0731	1.0720	1.0683-1.0779	True
	PCB 209 (BZ)	L		56:06	56:09	3		1.0004	1.0006	0.9995-1.0013	True

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.d	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	7/13/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	21:45	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.00	Code	IE3
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
Total Monochlorobiphenyl		9779831	3049998			136.554926		136.554926	E	0.0488
13C12-PCB 1	12:11	5510295	1977722	1.502	100.0	100.920560	100.92	100.920560		0.0588
13C12-PCB 3	14:24	5199357	1577055	1.545	100.0	92.625381	92.63	92.625381		0.0572
PCB 1 (BZ)	12:11	3329796	1103149	1.383	50.00	43.689644	87.38	43.689644		0.0140
PCB 2 (BZ)	14:14	3247267	992826	1.338	50.00	45.338341	90.68	45.338341		0.0161
PCB 3 (BZ)	14:25	3202768	954023	1.296	50.00	47.526941	95.05	47.526941	E	0.0187
Total Dichlorobiphenyl		27733473	5833624			630.869728		630.869728		0.725
13C12-PCB 4	14:39	2173771	609039	0.619	100.0	96.573316	96.57	96.573316		0.0781
13C12-PCB 9	16:38	3634188	956527	1.000	100.0	100.000000	100.00	100.000000		0.0484
13C12-PCB 8	17:30	1781341	456429	1.342	50.00	44.258854	88.52	44.258854	E	0.0471
13C12-PCB 15	20:39	3822732	854617	1.090	100.0	96.525584	96.53	96.525584		0.0444
PCB 4 (BZ)	14:40	1333290	397237	1.273	50.00	48.191716	96.38	48.191716		0.0897
PCB 10 (BZ)	14:51	2251133	672495	1.357	50.00	55.320548	110.64	55.320548		0.0700
PCB 9 (BZ)	16:39	2103901	572970	1.459	50.00	48.094783	96.19	48.094783		0.0651
PCB 7 (BZ)	16:50	2476477	620375	1.466	50.00	56.342845	112.69	56.342845		0.0648
PCB 6 (BZ)	17:05	2266176	588406	1.507	50.00	50.162568	100.33	50.162568		0.0630
PCB 5 (BZ)	17:24	2259324	590377	1.417	50.00	53.181391	106.36	53.181391		0.0670
PCB 8 (BZ)	17:31	2358224	596729	1.540	50.00	51.079005	102.16	51.079005		0.0617
PCB 14 (BZ)	19:09	2819148	683269	1.732	50.00	54.275631	108.55	54.275631		0.0548
PCB 11 (BZ)	20:01	2468765	553424	1.532	50.00	53.758618	107.52	53.758618		0.0620
PCB 13 (BZ)	20:21	4890907	831572	1.494	100.0	109.166455	109.17	109.166455	C12	0.0636
PCB 12 (BZ)		4890907		1.494	100.0	109.166455	109.17	109.166455	C	0.0636
PCB 15 (BZ)	20:40	2506128	558342	1.278	50.00	51.296170	102.59	51.296170		0.0636
Total Trichlorobiphenyl		56033557	9778380			1221.02367		1221.02367		1.25
13C12-PCB 19	17:49	1741669	448901	0.572	100.0	95.413085	95.41	95.413085		0.240
13C12-PCB 32	21:06	3194035	711518	1.000	100.0	100.000000	100.00	100.000000		0.137
13C12-PCB 31	23:23	4994553	1097464	1.000	100.0	100.000000	100.00	100.000000		0.0891
13C12-PCB 28	23:41	2216336	464013	1.003	50.00	44.231521	88.46	44.231521	E	0.0888
13C12-PCB 37	27:43	4492396	878585	0.908	100.0	99.007271	99.01	99.007271		0.0980
PCB 19 (BZ)	17:50	995036	257454	1.167	50.00	48.962713	97.93	48.962713		0.106
PCB 30 (BZ)	19:39	2867468	433315	1.615	100.0	101.954787	101.95	101.954787	C18	0.0769
PCB 18 (BZ)		2867468		1.615	100.0	101.954787	101.95	101.954787	C	0.0769
PCB 17 (BZ)	20:07	1219414	294657	1.430	50.00	48.960033	97.92	48.960033		0.0868
PCB 27 (BZ)	20:21	1677930	397645	1.978	50.00	48.700182	97.40	48.700182		0.0628
PCB 24 (BZ)	20:29	1609643	394841	1.707	50.00	54.147223	108.29	54.147223		0.0728
PCB 16 (BZ)	20:36	949401	207008	1.193	50.00	45.702304	91.40	45.702304		0.104
PCB 32 (BZ)	21:08	1768961	403566	2.018	50.00	50.332503	100.67	50.332503		0.0615
PCB 34 (BZ)	22:22	2522433	589808	1.195	50.00	46.971563	93.94	46.971563		0.0531
PCB 23 (BZ)	22:31	2758422	600055	1.177	50.00	52.170084	104.34	52.170084		0.0539
PCB 29 (BZ)		5544238		1.244	100.0	99.245257	99.25	99.245257	C26	0.0510
PCB 26 (BZ)	22:51	5544238	1197276	1.244	100.0	99.245257	99.25	99.245257	C	0.0510
PCB 25 (BZ)	23:05	2848297	583916	1.320	50.00	48.048840	96.10	48.048840		0.0481
PCB 31 (BZ)	23:24	2859178	620861	1.252	50.00	50.834531	101.67	50.834531		0.0507
PCB 28 (BZ)	23:43	5285396	863475	1.223	100.0	96.224989	96.22	96.224989	C20	0.0519
PCB 20 (BZ)		5285396		1.223	100.0	96.224989	96.22	96.224989	C	0.0519
PCB 21 (BZ)	23:56	6119264	714091	1.219	100.0	111.699539	111.70	111.699539	C	0.0520
PCB 33 (BZ)		6119264		1.219	100.0	111.699539	111.70	111.699539	C21	0.0520
PCB 22 (BZ)	24:21	2637612	563719	1.200	50.00	48.914784	97.83	48.914784		0.0529
PCB 36 (BZ)	25:54	3003455	577318	1.204	50.00	55.531971	111.06	55.531971		0.0527

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PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.d	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	7/13/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	21:45	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.00	Code	IE3
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 39 (BZ)	26:16	3044854	603606	1.284	50.00	52.804250	105.61	52.804250		0.0494
PCB 38 (BZ)	26:51	2739176	564118	1.141	50.00	53.434713	106.87	53.434713		0.0556
PCB 35 (BZ)	27:20	2747478	525242	1.163	50.00	52.574097	105.15	52.574097		0.0545
PCB 37 (BZ)	27:46	2835901	533815	1.173	50.00	53.809310	107.62	53.809310		0.0541
Total Tetrachlorobipheny1		85750037	10893912			2024.88120		2024.88120		2.48
13C12-PCB 54	20:56	2446496	575315	0.600	100.0	127.645085	127.65	127.645085		0.0586
13C12-PCB 52	25:30	2752386	573921	1.000	100.0	100.000000	100.00	100.000000		0.0436
13C12-PCB 79	33:28	2021847	377726	1.070	50.00	49.447277	98.89	49.447277	E	0.0332
13C12-PCB 81	34:29	3769634	699961	1.312	100.0	104.408171	104.41	104.408171		0.0332
13C12-PCB 77	35:03	3870677	706781	1.357	100.0	103.623835	103.62	103.623835		0.0321
PCB 54 (BZ)	20:57	1364876	311395	1.233	50.00	45.242601	90.49	45.242601		0.0930
PCB 50 (BZ)		3200381		0.921	100.0	90.916686	90.92	90.916686	C	0.102
PCB 53 (BZ)	23:08	3200381	692881	0.921	100.0	90.916686	90.92	90.916686	C50	0.102
PCB 45 (BZ)	23:52	3005701	388053	0.856	100.0	91.962552	91.96	91.962552	C	0.110
PCB 51 (BZ)		3005701		0.856	100.0	91.962552	91.96	91.962552	C45	0.110
PCB 46 (BZ)	24:08	1294405	279643	0.724	50.00	46.807523	93.62	46.807523		0.130
PCB 52 (BZ)	25:32	1494362	319633	0.920	50.00	42.517721	85.04	42.517721		0.102
PCB 73 (BZ)	25:40	3492676	450470	0.949	100.0	96.319551	96.32	96.319551	C43	0.0989
PCB 43 (BZ)		3492676		0.949	100.0	96.319551	96.32	96.319551	C	0.0989
PCB 69 (BZ)	26:00	3911106	458222	1.077	100.0	95.086141	95.09	95.086141	C49	0.0871
PCB 49 (BZ)		3911106		1.077	100.0	95.086141	95.09	95.086141	C	0.0871
PCB 48 (BZ)	26:17	1567946	318922	0.894	50.00	45.909816	91.82	45.909816		0.105
PCB 65 (BZ)		5294237		0.992	150.0	139.745204	93.16	139.745204	C44	0.0946
PCB 47 (BZ)		5294237		0.992	150.0	139.745204	93.16	139.745204	C44	0.0946
PCB 44 (BZ)	26:33	5294237	984685	0.992	150.0	139.745204	93.16	139.745204	C	0.0946
PCB 62 (BZ)	26:52	6984166	1102156	1.246	150.0	146.763041	97.84	146.763041	C59	0.0753
PCB 75 (BZ)		6984166		1.246	150.0	146.763041	97.84	146.763041	C59	0.0753
PCB 59 (BZ)		6984166		1.246	150.0	146.763041	97.84	146.763041	C	0.0753
PCB 42 (BZ)	27:04	1521098	299600	0.872	50.00	45.681796	91.36	45.681796		0.108
PCB 41 (BZ)		4754738		0.887	150.0	140.327003	93.55	140.327003	C40	0.106
PCB 71 (BZ)	27:34	4754738	715196	0.887	150.0	140.327003	93.55	140.327003	C40	0.106
PCB 40 (BZ)		4754738		0.887	150.0	140.327003	93.55	140.327003	C	0.106
PCB 64 (BZ)	27:47	2516472	506433	1.316	50.00	50.066929	100.13	50.066929		0.0713
PCB 72 (BZ)	28:35	2343872	457714	1.236	50.00	49.631018	99.26	49.631018		0.0759
PCB 68 (BZ)	28:53	2550712	488327	1.327	50.00	50.316932	100.63	50.316932		0.0707
PCB 57 (BZ)	29:19	2254465	455579	1.203	50.00	49.074924	98.15	49.074924		0.0780
PCB 58 (BZ)	29:33	2365259	456205	1.208	50.00	51.235734	102.47	51.235734		0.0776
PCB 67 (BZ)	29:43	2426198	456759	1.337	50.00	47.484822	94.97	47.484822		0.0702
PCB 63 (BZ)	29:59	2454576	484942	1.297	50.00	49.537486	99.07	49.537486		0.0723
PCB 61 (BZ)		9336922		1.247	200.0	196.037621	98.02	196.037621	C	0.0753
PCB 70 (BZ)		9336922		1.247	200.0	196.037621	98.02	196.037621	C61	0.0753
PCB 76 (BZ)	30:20	9336922	1020233	1.247	200.0	196.037621	98.02	196.037621	C61	0.0753
PCB 74 (BZ)		9336922		1.247	200.0	196.037621	98.02	196.037621	C61	0.0753
PCB 66 (BZ)	30:40	2101238	411100	1.255	50.00	43.828429	87.66	43.828429		0.0748
PCB 55 (BZ)	30:50	2198903	427348	1.145	50.00	50.269949	100.54	50.269949		0.0819
PCB 56 (BZ)	31:21	2229176	431392	1.217	50.00	47.950339	95.90	47.950339		0.0771
PCB 60 (BZ)	31:34	2348464	431813	1.181	50.00	52.032663	104.07	52.032663		0.0794
PCB 80 (BZ)	31:56	2637876	477345	1.358	50.00	50.841545	101.68	50.841545		0.0691
PCB 79 (BZ)	33:29	2793269	479505	1.326	50.00	55.149985	110.30	55.149985		0.0708

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Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.d	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	7/13/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	21:45	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.00	Code	IE3
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 78 (BZ)	34:03	2437150	426289	1.164	50.00	54.826762	109.65	54.826762		0.0806
PCB 81 (BZ)	34:30	2396959	450175	1.298	50.00	48.974759	97.95	48.974759		0.0726
PCB 77 (BZ)	35:05	2472834	458174	1.269	50.00	50.341672	100.68	50.341672		0.0736
Total Pentachlorobiphenyl		78826541	9138161			2467.97612		2467.97612		3.85
13C12-PCB 104	26:26	2812806	577771	1.246	100.0	96.108015	96.11	96.108015		0.0576
13C12-PCB 95	29:26	959720	190830	0.754	50.00	45.274654	90.55	45.274654	E	0.0746
13C12-PCB 101	32:21	2349514	453158	1.000	100.0	100.000000	100.00	100.000000		0.0717
13C12-PCB 111	35:01	1412828	262947	1.266	50.00	47.479952	94.96	47.479952	E	0.0566
13C12-PCB 123	37:00	3901254	747301	0.954	100.0	89.636232	89.64	89.636232		0.0402
13C12-PCB 118	37:20	4141101	767171	0.995	100.0	91.264126	91.26	91.264126		0.0386
13C12-PCB 114	37:52	4121271	769605	0.952	100.0	94.933286	94.93	94.933286		0.0403
13C12-PCB 105	38:32	4035570	751326	0.942	100.0	93.970180	93.97	93.970180		0.0408
13C12-PCB 127	39:59	4559959	846101	1.000	100.0	100.000000	100.00	100.000000		0.0384
13C12-PCB 126	41:37	4518150	856656	0.991	100.0	99.965767	99.97	99.965767		0.0388
PCB 104 (BZ)	26:27	1786457	376274	1.184	50.00	53.636170	107.27	53.636170		0.112
PCB 96 (BZ)	26:52	1529204	311522	1.055	50.00	51.526952	103.05	51.526952		0.126
PCB 103 (BZ)	28:46	1333536	265966	0.900	50.00	52.673247	105.35	52.673247		0.148
PCB 94 (BZ)	29:00	1154527	226831	0.789	50.00	52.000571	104.00	52.000571		0.168
PCB 95 (BZ)	29:27	1239255	251823	0.838	50.00	52.558305	105.12	52.558305		0.158
PCB 100 (BZ)	29:39	2542190	373353	0.888	100.0	101.739293	101.74	101.739293	C93	0.150
PCB 93 (BZ)		2542190		0.888	100.0	101.739293	101.74	101.739293	C	0.150
PCB 102 (BZ)		2700304		0.917	100.0	104.742455	104.74	104.742455	C98	0.145
PCB 98 (BZ)	29:48	2700304	306285	0.917	100.0	104.742455	104.74	104.742455	C	0.145
PCB 88 (BZ)		2529082		0.857	100.0	104.948018	104.95	104.948018	C	0.155
PCB 91 (BZ)	30:19	2529082	275368	0.857	100.0	104.948018	104.95	104.948018	C88	0.155
PCB 84 (BZ)	30:34	1085606	213379	0.764	50.00	50.546036	101.09	50.546036		0.174
PCB 89 (BZ)	31:02	1143841	223359	0.789	50.00	51.538837	103.08	51.538837		0.168
PCB 121 (BZ)	31:23	1836242	362167	1.215	50.00	53.727434	107.45	53.727434		0.109
PCB 92 (BZ)	31:48	1233415	240525	0.892	50.00	49.157533	98.32	49.157533		0.149
PCB 113 (BZ)	32:21	4387702	683475	1.013	150.0	154.058449	102.71	154.058449	C90	0.131
PCB 90 (BZ)		4387702		1.013	150.0	154.058449	102.71	154.058449	C	0.131
PCB 101 (BZ)		4387702		1.013	150.0	154.058449	102.71	154.058449	C90	0.131
PCB 83 (BZ)	32:56	2444728	294327	0.868	100.0	100.103750	100.10	100.103750	C	0.153
PCB 99 (BZ)		2444728		0.868	100.0	100.103750	100.10	100.103750	C83	0.153
PCB 112 (BZ)	33:05	1905449	359701	1.160	50.00	58.395045	116.79	58.395045		0.115
PCB 109 (BZ)/108 (IUPAC)	33:27	9483298	969044	1.030	300.0	327.221676	109.07	327.221676	C86	0.129
PCB 86 (BZ)		9483298		1.030	300.0	327.221676	109.07	327.221676	C	0.129
PCB 119 (BZ)		9483298		1.030	300.0	327.221676	109.07	327.221676	C86	0.129
PCB 97 (BZ)		9483298		1.030	300.0	327.221676	109.07	327.221676	C86	0.129
PCB 125 (BZ)		9483298		1.030	300.0	327.221676	109.07	327.221676	C86	0.129
PCB 87 (BZ)		9483298		1.030	300.0	327.221676	109.07	327.221676	C86	0.129
PCB 117 (BZ)		4862661		1.054	150.0	163.999120	109.33	163.999120	C85	0.126
PCB 116 (BZ)	34:11	4862661	548365	1.054	150.0	163.999120	109.33	163.999120	C85	0.126
PCB 85 (BZ)		4862661		1.054	150.0	163.999120	109.33	163.999120	C	0.126
PCB 110 (BZ)	34:24	3641773	526448	1.194	100.0	108.473535	108.47	108.473535	C	0.111
PCB 115 (BZ)		3641773		1.194	100.0	108.473535	108.47	108.473535	C110	0.111
PCB 82 (BZ)	34:42	1049491	191927	0.730	50.00	51.141646	102.28	51.141646		0.182
PCB 111 (BZ)	35:03	1885430	352887	1.260	50.00	53.199765	106.40	53.199765		0.105
PCB 120 (BZ)	35:30	1940527	371314	1.225	50.00	56.340073	112.68	56.340073		0.108

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Data File	/20110713s1/a110713s1.d	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	7/13/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	21:45	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.00	Code	IE3
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 124 (BZ)		4708301		1.029	100.0	110.429867	110.43	110.429867	C108	0.0958
PCB 108 (BZ)/107 (IUPAC)	36:40	4708301	869400	1.029	100.0	110.429867	110.43	110.429867	C	0.0958
PCB 107 (BZ)/109 (IUPAC)	36:55	2327996	461728	1.082	50.00	51.931880	103.86	51.931880		0.0911
PCB 123 (BZ)	37:01	2598360	475740	1.053	50.00	63.265707	126.53	63.265707		0.0976
PCB 106 (BZ)	37:09	2361591	455857	1.050	50.00	54.294092	108.59	54.294092		0.0939
PCB 118 (BZ)	37:21	2552638	468865	1.087	50.00	56.705989	113.41	56.705989		0.0920
PCB 122 (BZ)	37:42	2204497	426644	0.964	50.00	55.194322	110.39	55.194322		0.102
PCB 114 (BZ)	37:53	2735165	486942	1.161	50.00	57.170273	114.34	57.170273		0.0859
PCB 105 (BZ)	38:33	2494145	469234	1.125	50.00	54.936270	109.87	54.936270		0.0908
PCB 127 (BZ)	40:01	2572616	474798	1.062	50.00	58.464172	116.93	58.464172		0.0928
PCB 126 (BZ)	41:38	2556514	464592	1.051	50.00	53.855637	107.71	53.855637		0.0853
Total Hexachlorobiphenyl		71306885	9475980			2194.75233		2194.75233		5.41
13C12-PCB 155	32:03	2690739	507275	1.068	100.0	107.259337	107.26	107.259337		0.0672
13C12-PCB 153	39:10	1436953	277691	0.828	50.00	46.908127	93.82	46.908127	E	0.0690
13C12-PCB 138	40:25	2759148	522282	1.000	100.0	100.000000	100.00	100.000000		0.0622
13C12-PCB 167	43:25	3712092	708894	1.247	100.0	107.886873	107.89	107.886873		0.0499
13C12-PCB 156	44:35	7389390	913882	1.233	200.0	217.187316	108.59	217.187316		0.0505
13C12-PCB 157								ND		0.000000
13C12-PCB 169	47:49	3701371	652334	1.173	100.0	114.354002	114.35	114.354002		0.0530
PCB 155 (BZ)	32:05	1598642	320858	1.128	50.00	52.683033	105.37	52.683033		0.149
PCB 152 (BZ)	32:20	1502584	295770	1.075	50.00	51.935439	103.87	51.935439		0.156
PCB 150 (BZ)	32:30	1542187	300019	1.096	50.00	52.270557	104.54	52.270557		0.153
PCB 136 (BZ)	32:54	1385866	267537	1.022	50.00	50.393706	100.79	50.393706		0.164
PCB 145 (BZ)	33:10	1428478	282692	1.069	50.00	49.671409	99.34	49.671409		0.157
PCB 148 (BZ)	34:39	1082541	206729	0.764	50.00	52.643013	105.29	52.643013		0.220
PCB 151 (BZ)	35:19	2078151	236998	0.750	100.0	102.945237	102.95	102.945237	C135	0.224
PCB 135 (BZ)		2078151		0.750	100.0	102.945237	102.95	102.945237	C	0.224
PCB 154 (BZ)	35:29	1244119	231367	0.922	50.00	50.133322	100.27	50.133322		0.182
PCB 144 (BZ)	35:50	1396986	271043	0.808	50.00	64.227297	128.45	64.227297		0.208
PCB 147 (BZ)	36:12	3028618	579145	0.861	100.0	95.006637	95.01	95.006637	C	0.174
PCB 149 (BZ)		3028618		0.861	100.0	95.006637	95.01	95.006637	C147	0.174
PCB 134 (BZ)		2605537		0.717	100.0	98.256671	98.26	98.256671	C	0.209
PCB 143 (BZ)	36:30	2605537	276134	0.717	100.0	98.256671	98.26	98.256671	C134	0.209
PCB 139 (BZ)	36:46	3076139	533656	0.836	100.0	99.390817	99.39	99.390817	C	0.179
PCB 140 (BZ)		3076139		0.836	100.0	99.390817	99.39	99.390817	C139	0.179
PCB 131 (BZ)	37:00	1292233	245009	0.700	50.00	49.860010	99.72	49.860010		0.214
PCB 142 (BZ)	37:09	1334122	251341	0.728	50.00	49.501133	99.00	49.501133		0.206
PCB 132 (BZ)	37:29	1360017	262796	0.736	50.00	49.944441	99.89	49.944441		0.204
PCB 133 (BZ)	37:56	1407504	270290	0.763	50.00	49.827264	99.65	49.827264		0.196
PCB 165 (BZ)	38:20	1853823	343754	1.001	50.00	50.057854	100.12	50.057854		0.150
PCB 146 (BZ)	38:34	1578076	306508	0.881	50.00	48.425197	96.85	48.425197		0.170
PCB 161 (BZ)	38:43	2160897	414582	1.100	50.00	53.072699	106.15	53.072699		0.136
PCB 153 (BZ)	39:12	4085373	638690	1.071	100.0	103.032463	103.03	103.032463	C	0.140
PCB 168 (BZ)		4085373		1.071	100.0	103.032463	103.03	103.032463	C153	0.140
PCB 141 (BZ)	39:24	1529439	291404	0.803	50.00	51.443559	102.89	51.443559		0.187
PCB 130 (BZ)	39:49	1344780	259094	0.717	50.00	50.656858	101.31	50.656858		0.209
PCB 137 (BZ)	40:01	1651553	322680	0.832	50.00	53.663724	107.33	53.663724		0.180
PCB 164 (BZ)	40:09	2099984	404885	1.052	50.00	53.963338	107.93	53.963338		0.143
PCB 138 (BZ)		7396176		0.926	200.0	215.769624	107.88	215.769624	C129	0.162

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PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.d	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	7/13/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	21:45	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.00	Code	IE3
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 163 (BZ)	40:28	7396176	769702	0.926	200.0	215.769624	107.88	215.769624	C129	0.162
PCB 129 (BZ)		7396176		0.926	200.0	215.769624	107.88	215.769624	C	0.162
PCB 160 (BZ)		7396176		0.926	200.0	215.769624	107.88	215.769624	C129	0.162
PCB 158 (BZ)	40:50	2281641	422237	1.174	50.00	52.525151	105.05	52.525151		0.128
PCB 166 (BZ)	41:41	3728172	487714	0.958	100.0	105.201829	105.20	105.201829	C128	0.157
PCB 128 (BZ)		3728172		0.958	100.0	105.201829	105.20	105.201829	C	0.157
PCB 159 (BZ)	42:40	2279761	425263	1.095	50.00	56.271233	112.54	56.271233		0.137
PCB 162 (BZ)	42:58	2399403	437066	1.108	50.00	58.495432	116.99	58.495432		0.135
PCB 167 (BZ)	43:26	2409861	466569	1.126	50.00	57.674677	115.35	57.674677		0.107
PCB 156 (BZ)	44:36	4751938	585174	1.130	100.0	113.825015	113.83	113.825015	C	0.165
PCB 157 (BZ)		4751938		1.130		113.825015		113.825015	C156	0.165
PCB 169 (BZ)	47:51	2392284	418967	1.243	50.00	51.983694	103.97	51.983694		0.105
Total Heptachlorobiphenyl		36117407	5581360			1311.39135		1311.39135		2.66
13C12-PCB 188	37:47	3034698	572871	1.217	100.0	103.469864	103.47	103.469864		0.0515
13C12-PCB 178	40:50	905296	179931	0.881	50.00	42.646343	85.29	42.646343	E	0.0711
13C12-PCB 180	45:55	2409702	446770	1.000	100.0	100.000000	100.00	100.000000		0.0627
13C12-PCB 170	47:12	1998683	381994	0.828	100.0	100.151333	100.15	100.151333		0.0757
13C12-PCB 189	50:18	3968820	719156	1.588	100.0	111.609238	111.61	111.609238		0.0428
PCB 188 (BZ)	37:49	1734522	333083	1.111	50.00	51.461684	102.92	51.461684		0.102
PCB 179 (BZ)	38:11	1597761	297429	1.220	50.00	52.056815	104.11	52.056815		0.111
PCB 184 (BZ)	38:39	1603091	310365	1.188	50.00	53.634163	107.27	53.634163		0.114
PCB 176 (BZ)	39:04	1789872	349557	1.286	50.00	55.311782	110.62	55.311782		0.105
PCB 186 (BZ)	39:31	1723185	339393	1.223	50.00	55.980889	111.96	55.980889		0.111
PCB 178 (BZ)	40:52	1205171	236521	0.906	50.00	52.851271	105.70	52.851271		0.150
PCB 175 (BZ)	41:29	1253880	248652	0.980	50.00	50.861915	101.72	50.861915		0.138
PCB 187 (BZ)	41:45	1346014	257143	1.054	50.00	50.733044	101.47	50.733044		0.129
PCB 182 (BZ)	41:57	1429794	275206	1.009	50.00	56.332409	112.66	56.332409		0.134
PCB 183 (BZ)	42:22	2767663	282033	0.987	100.0	111.430887	111.43	111.430887	C	0.137
PCB 185 (BZ)		2767663		0.987	100.0	111.430887	111.43	111.430887	C183	0.137
PCB 174 (BZ)	42:38	1181640	241159	0.941	50.00	49.917502	99.84	49.917502		0.144
PCB 177 (BZ)	43:05	1153988	216985	0.918	50.00	49.937844	99.88	49.937844		0.148
PCB 181 (BZ)	43:27	1367284	264398	0.980	50.00	55.423013	110.85	55.423013		0.138
PCB 171 (BZ)		2449238		0.872	100.0	111.609865	111.61	111.609865	C	0.156
PCB 173 (BZ)	43:40	2449238	447714	0.872	100.0	111.609865	111.61	111.609865	C171	0.156
PCB 172 (BZ)	45:18	1241669	247382	0.881	50.00	56.026935	112.05	56.026935		0.154
PCB 192 (BZ)	45:34	1711884	334156	1.152	50.00	59.030727	118.06	59.030727		0.118
PCB 193 (BZ)	45:55	3221571	451384	1.154	100.0	110.952919	110.95	110.952919	C180	0.118
PCB 180 (BZ)		3221571		1.154	100.0	110.952919	110.95	110.952919	C	0.118
PCB 191 (BZ)	46:18	1796981	338306	1.287	50.00	55.480180	110.96	55.480180		0.105
PCB 170 (BZ)	47:13	1239178	236539	1.102	50.00	56.257761	112.52	56.257761		0.154
PCB 190 (BZ)	47:43	1900961	328962	1.265	50.00	59.713260	119.43	59.713260		0.107
PCB 189 (BZ)	50:19	2402060	444091	1.073	50.00	56.386481	112.77	56.386481		0.0839
Total Octachlorobiphenyl		15308269	2788134			615.335412		615.335412		0.932
13C12-PCB 202	43:08	2461687	492361	0.907	100.0	112.595788	112.60	112.595788		0.0734
13C12-PCB 194	52:21	2238999	412144	1.000	100.0	100.000000	100.00	100.000000		0.0722
13C12-PCB 205	52:50	3390160	616016	1.395	100.0	108.567999	108.57	108.567999		0.0518
PCB 202 (BZ)	43:09	1254727	242205	1.007	50.00	50.628418	101.26	50.628418		0.0827
PCB 200 (BZ)/201 (IUPAC)	44:04	1389261	276096	1.134	50.00	49.761071	99.52	49.761071		0.0734
PCB 204 (BZ)	44:43	1368575	261760	1.034	50.00	53.759774	107.52	53.759774		0.0805

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PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.d	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	7/13/2011	Matrix	UNKNOWN	Date Sampled	
Analysis Time	21:45	Initial Wt/Vol		Lims Test Code	
Anal Exp Date		Extract Vol		Method	IE3
Instrument	M1D	Dil Factor	1.00	Code	IE3
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/mL)		DL (ng/mL)
PCB 197 (BZ)	44:58	1434262	277779	1.075	50.00	54.204468	108.41	54.204468		0.0775
PCB 199 (BZ)/200 (IUPAC)	45:06	1350148	263418	1.095	50.00	50.090406	100.18	50.090406		0.0761
PCB 198 (BZ)	47:52	1985199	264420	0.775	100.0	104.048896	104.05	104.048896	C	0.107
PCB 201 (BZ)/199 (IUPAC)		1985199		0.775	100.0	104.048896	104.05	104.048896	C198	0.107
PCB 196 (BZ)	48:31	997269	187453	0.800	50.00	50.648584	101.30	50.648584		0.104
PCB 203 (BZ)	48:42	1074748	196751	0.868	50.00	50.322141	100.64	50.322141		0.0960
PCB 195 (BZ)	50:03	1274097	232733	0.765	50.00	49.128211	98.26	49.128211		0.0870
PCB 194 (BZ)	52:23	1355269	246446	0.830	50.00	48.150981	96.30	48.150981		0.0802
PCB 205 (BZ)	52:51	1824714	339073	0.986	50.00	54.592463	109.18	54.592463		0.0675
Total Nonachlorobiphenyl		4145718	774779			154.813564		154.813564		0.234
13C12-PCB 208	49:45	2750587	514597	1.155	100.0	106.354530	106.35	106.354530		0.0672
13C12-PCB 206	54:32	1947338	371010	0.808	100.0	107.678223	107.68	107.678223		0.0961
PCB 208 (BZ)	49:47	1511360	282484	1.035	50.00	53.090147	106.18	53.090147		0.0723
PCB 207 (BZ)	50:42	1552140	292739	1.276	50.00	51.799036	103.60	51.799036		0.0682
PCB 206 (BZ)	54:33	1082218	199556	1.113	50.00	49.924381	99.85	49.924381		0.0932
13C12-PCB 209	56:07	1800757	312391	0.857	100.0	93.806839	93.81	93.806839		0.0814
PCB 209 (BZ)	56:09	1159432	201961	1.052	50.00	61.192927	122.39	61.192927		0.134

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PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	07/13/11 21:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	JMN	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags	
188					**188.0393**	**190.0363**	**188.0393**	**190.0363**	**2.66-3.60**		
	Noise	00:00	00:00	0	178	205	71	82	0.87 *	/	
	PCB 1 (BZ)	12:11	12:12	-1	2534620	795176	831074	272075	3.19	ABB/ABB	
	PCB 2 (BZ)	14:14	14:14	0	2477650	769617	753798	239028	3.22	ABV/ABV	
	PCB 3 (BZ)	14:25	14:24	1	2442964	759804	729878	224145	3.22	AVB/AVB	
200					**200.0795**	**202.0766**	**200.0795**	**202.0766**	**2.66-3.60**		
	Noise	00:00	00:00	0	185	660	74	264	0.28 *	/	
	13C12-PCB 1	12:11	12:12	-1	4187052	1323243	1510147	467575	3.16	ABV/AVV	
	13C12-PCB 3	14:24	14:24	0	3980657	1218700	1206582	370473	3.27	ABB/ABB	
222					**222.0003**	**223.9974**	**222.0003**	**223.9974**	**1.33-1.79**		
	Noise	00:00	00:00	0	283	413	113	165	0.68 *	/	
	PCB 4 (BZ)	14:40	14:41	-1	821837	511453	246201	151036	1.61	ABV/ABV	
	PCB 10 (BZ)	14:51	14:51	0	1390575	860558	413817	258678	1.62	AVB/AVB	
	PCB 9 (BZ)	16:39	16:40	-1	1301782	802119	356011	216959	1.62	ABV/ABV	
	PCB 7 (BZ)	16:50	16:49	1	1537297	939180	381989	238386	1.64	AVV/AVV	
	PCB 6 (BZ)	17:05	17:05	0	1410126	856050	364571	223835	1.65	AVB/AVV	
	PCB 5 (BZ)	17:24	17:23	1	1402742	856582	368837	221540	1.64	ABV/AVV	
	PCB 8 (BZ)	17:31	17:31	0	1453186	905038	365386	231343	1.61	AVB/AVB	
	PCB 14 (BZ)	19:09	19:10	-1	1736662	1082486	426045	257224	1.60	ABV/ABV	
	PCB 11 (BZ)	20:01	20:01	0	1533603	935162	340664	212760	1.64	ABV/ABV	
	PCB 13 (BZ)	20:21	20:18	3	3012899	1878008	510117	321455	1.60	AVV/AVV	
	PCB 15 (BZ)	20:40	20:38	2	1550851	955277	342367	215975	1.62	AVB/AVB	
234					**234.0406**	**236.0376**	**234.0406**	**236.0376**	**1.33-1.79**		
	Noise	00:00	00:00	0	288	175	115	70	1.64	/	
	13C12-PCB 4	14:39	14:40	-1	1351062	822709	378619	230420	1.64	ABV/ABV	
	13C12-PCB 9	16:38	16:38	0	2263066	1371122	593051	363476	1.65	ABV/ABV	
	13C12-PCB 8	17:30	17:30	0	1107542	673799	280673	175756	1.64	AVV/AVV	
	13C12-PCB 15	20:39	20:37	2	2388786	1433946	529555	325062	1.67	ABV/ABV	
256					**255.9613**	**257.9584**	**255.9613**	**257.9584**	**0.88-1.20**		
	Noise	00:00	00:00	0	325	233	130	93	1.40 *	/	
	PCB 19 (BZ)	17:50	17:50	0	507342	487694	128855	128599	1.04	ABV/ABB	
	PCB 30 (BZ)	19:39	19:40	-1	1461075	1406393	224164	209151	1.04	ABB/ABB	
	PCB 17 (BZ)	20:07	20:08	-1	624599	594815	148938	145719	1.05	ABV/ABV	
	PCB 27 (BZ)	20:21	20:22	-1	860968	816962	206489	191156	1.05	AVV/AVV	
	PCB 24 (BZ)	20:29	20:29	0	812719	796924	201347	193494	1.02	AVV/AVV	
	PCB 16 (BZ)	20:36	20:37	-1	478074	471327	103274	103734	1.01	AVB/AVB	
	PCB 32 (BZ)	21:08	21:07	1	903724	865237	204197	199369	1.04	AVB/AVB	
	PCB 34 (BZ)	22:22	22:23	-1	1270341	1252092	297613	292195	1.01	ABV/ABV	D
	PCB 23 (BZ)	22:31	22:31	0	1389243	1369179	299703	300352	1.01	AVB/AVB	
	PCB 26 (BZ)	22:51	22:51	0	2807828	2736410	600189	597087	1.03	ABV/ABV	
	PCB 25 (BZ)	23:05	23:05	0	1424703	1423594	296492	287424	1.00	AVV/AVV	
	PCB 31 (BZ)	23:24	23:24	0	1443547	1415631	315706	305155	1.02	AVV/AVV	
	PCB 28 (BZ)	23:43	23:41	2	2680757	2604639	439828	423647	1.03	AVV/AVV	
	PCB 21 (BZ)	23:56	23:52	4	3099068	3020196	359075	355016	1.03	AVV/AVV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	07/13/11 21:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	JMN	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	PCB 22 (BZ)	24:21	24:20	1	1326228	1311384	281057	282662	1.01	AVB/AVB
	PCB 36 (BZ)	25:54	25:54	0	1517169	1486286	291423	285895	1.02	AVV/AVV
	PCB 39 (BZ)	26:16	26:15	1	1549365	1495489	306882	296724	1.04	AVV/AVV
	PCB 38 (BZ)	26:51	26:50	1	1396248	1342928	285590	278528	1.04	ABV/ABV
	PCB 35 (BZ)	27:20	27:18	2	1385542	1361936	264802	260440	1.02	ABV/AVV
	PCB 37 (BZ)	27:46	27:42	4	1439201	1396700	269635	264180	1.03	AVV/AVV
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20	
	Noise	00:00	00:00	0	643	335	257	134	1.92 *	/
	13C12-PCB 19	17:49	17:49	0	900599	841070	231995	216906	1.07	ABV/AVV
	13C12-PCB 32	21:06	21:06	0	1653988	1540047	370913	340605	1.07	AVV/AVV
	13C12-PCB 31	23:23	23:23	0	2570019	2424534	565574	531890	1.06	ABV/ABV
	13C12-PCB 28	23:41	23:40	1	1135847	1080489	239405	224608	1.05	AVB/AVB
	13C12-PCB 37	27:43	27:41	2	2306362	2186034	445373	433212	1.06	ABB/ABV
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89	
	Noise	00:00	00:00	0	358	303	143	121	1.18 *	/
	PCB 54 (BZ)	20:57	20:57	0	582823	782053	131568	179827	0.75	ABB/ABB
	PCB 53 (BZ)	23:08	23:08	0	1400813	1799568	302420	390461	0.78	ABV/ABV
	PCB 45 (BZ)	23:52	23:48	4	1327022	1678679	167864	220189	0.79	ABV/ABV
	PCB 46 (BZ)	24:08	24:08	0	561921	732484	122026	157617	0.77	AVB/AVB
	PCB 52 (BZ)	25:32	25:33	-1	651427	842935	141400	178233	0.77	ABV/ABV
	PCB 73 (BZ)	25:40	25:40	0	1529595	1963081	198041	252429	0.78	AVV/AVV
	PCB 69 (BZ)	26:00	25:57	3	1711057	2200049	198313	259909	0.78	AVB/AVB
	PCB 48 (BZ)	26:17	26:18	-1	685031	882915	139733	179189	0.78	ABV/ABV
	PCB 44 (BZ)	26:33	26:32	1	2316205	2978032	428575	556110	0.78	AVV/AVV
	PCB 62 (BZ)	26:52	26:49	3	3060459	3923707	485120	617036	0.78	AVV/AVV
	PCB 42 (BZ)	27:04	27:03	1	661703	859395	131710	167890	0.77	AVB/AVB
	PCB 71 (BZ)	27:34	27:33	1	2073314	2681424	315773	399423	0.77	ABV/ABV
	PCB 64 (BZ)	27:47	27:46	1	1091650	1424822	223392	283041	0.77	AVB/AVV
	PCB 72 (BZ)	28:35	28:35	0	1021267	1322605	198068	259646	0.77	ABV/ABV
	PCB 68 (BZ)	28:53	28:52	1	1112732	1437980	213159	275168	0.77	AVB/AVB
	PCB 57 (BZ)	29:19	29:18	1	985567	1268898	196534	259045	0.78	ABV/ABV
	PCB 58 (BZ)	29:33	29:33	0	1039795	1325464	202379	253826	0.78	AVV/AVV
	PCB 67 (BZ)	29:43	29:42	1	1062523	1363675	203553	253206	0.78	AVV/AVV
	PCB 63 (BZ)	29:59	29:59	0	1074473	1380103	215126	269816	0.78	AVB/AVB
	PCB 76 (BZ)	30:20	30:19	1	4078911	5258011	440668	579565	0.78	ABB/ABB
	PCB 66 (BZ)	30:40	30:39	1	921955	1179283	182382	228718	0.78	ABV/ABV
	PCB 55 (BZ)	30:50	30:49	1	967122	1231781	185735	241613	0.79	AVV/AVV
	PCB 56 (BZ)	31:21	31:19	2	978270	1250906	187819	243573	0.78	ABV/ABV
	PCB 60 (BZ)	31:34	31:32	2	1013524	1334940	188824	242989	0.76	AVV/AVV
	PCB 80 (BZ)	31:56	31:55	1	1149201	1488675	211015	266330	0.77	AVV/AVV
	PCB 79 (BZ)	33:29	33:28	1	1224202	1569067	209999	269506	0.78	ABV/ABV
	PCB 78 (BZ)	34:03	34:01	2	1074877	1362273	185816	240473	0.79	ABV/ABV
	PCB 81 (BZ)	34:30	34:28	2	1050870	1346089	196744	253431	0.78	AVV/AVV

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	07/13/11 21:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	JMN	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	PCB 77 (BZ)	35:05	35:01	4	1079047	1393787	200306	257868	0.77	ABB/ABB	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise	00:00	00:00	0	130	120	52	48	1.08 *	/	
	13C12-PCB 54	20:56	20:57	-1	1084452	1362044	255520	319795	0.80	ABV/ABV	
	13C12-PCB 52	25:30	25:31	-1	1219439	1532947	257302	316619	0.80	ABV/ABV	
	13C12-PCB 79	33:28	33:26	2	883869	1137978	167328	210398	0.78	ABV/ABV	
	13C12-PCB 81	34:29	34:26	3	1663099	2106535	314714	385247	0.79	ABV/ABV	
	13C12-PCB 77	35:03	35:00	3	1696635	2174042	304862	401919	0.78	AVV/AVV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise	00:00	00:00	0	420	348	168	139	1.21 *	/	
	PCB 104 (BZ)	26:27	26:29	-2	1104421	682036	227228	149046	1.62	ABV/ABV	
	PCB 96 (BZ)	26:52	26:53	-1	955433	573771	193302	118220	1.67	AVV/AVV	
	PCB 103 (BZ)	28:46	28:46	0	826928	506608	165291	100675	1.63	ABV/ABV	
	PCB 94 (BZ)	29:00	29:00	0	713270	441257	140075	86756	1.62	AVB/AVB	
	PCB 95 (BZ)	29:27	29:27	0	772873	466382	158310	93513	1.66	ABV/ABV	
	PCB 100 (BZ)	29:39	29:38	1	1570005	972185	231957	141396	1.61	AVV/AVV	
	PCB 98 (BZ)	29:48	29:52	-4	1671907	1028397	191225	115060	1.63	AVB/AVB	
	PCB 91 (BZ)	30:19	30:19	0	1568830	960252	169236	106132	1.63	ABV/ABV	
	PCB 84 (BZ)	30:34	30:33	1	675189	410417	134854	78525	1.65	AVB/AVB	
	PCB 89 (BZ)	31:02	31:02	0	702576	441265	138043	85316	1.59	ABV/ABV	
	PCB 121 (BZ)	31:23	31:23	0	1142233	694009	227638	134529	1.65	AVV/AVB	
	PCB 92 (BZ)	31:48	31:48	0	771499	461916	151971	88554	1.67	AVB/ABB	
	PCB 113 (BZ)	32:21	32:19	2	2722847	1664855	420874	262601	1.64	ABB/ABB	
	PCB 83 (BZ)	32:56	32:52	4	1505397	939331	178093	116234	1.60	ABV/ABV	
	PCB 112 (BZ)	33:05	33:05	0	1192384	713065	224830	134871	1.67	AVB/AVB	
	PCB 109 (BZ)/108 (IUPAC	33:27	33:24	3	5873777	3609521	600111	368933	1.63	ABB/ABB	
	PCB 116 (BZ)	34:11	34:10	1	3040964	1821697	343610	204755	1.67	ABV/ABV	
	PCB 110 (BZ)	34:24	34:22	2	2254171	1387602	331612	194836	1.62	AVB/AVB	
	PCB 82 (BZ)	34:42	34:42	0	659902	389589	121983	69944	1.69	ABB/ABB	
	PCB 111 (BZ)	35:03	35:03	0	1167593	717837	221115	131772	1.63	ABV/ABV	
	PCB 120 (BZ)	35:30	35:31	-1	1194097	746430	231663	139651	1.60	AVB/AVB	D
	PCB 108 (BZ)/107 (IUPAC	36:40	36:38	2	2875632	1832669	528506	340894	1.57	ABV/ABV	
	PCB 107 (BZ)/109 (IUPAC	36:55	36:54	1	1433843	894153	286862	174866	1.60	AVV/AVV	
	PCB 123 (BZ)	37:01	37:00	1	1590325	1008035	291482	184258	1.58	AVV/AVV	
	PCB 106 (BZ)	37:09	37:07	2	1450089	911502	280749	175108	1.59	AVV/AVV	
	PCB 118 (BZ)	37:21	37:20	1	1552376	1000262	281780	187085	1.55	AVB/AVB	
	PCB 122 (BZ)	37:42	37:41	1	1341451	863046	256385	170259	1.55	ABV/ABV	
	PCB 114 (BZ)	37:53	37:51	2	1660804	1074361	294801	192141	1.55	AVV/AVV	
	PCB 105 (BZ)	38:33	38:32	1	1523777	970368	287804	181430	1.57	ABB/ABB	
	PCB 127 (BZ)	40:01	39:58	3	1584028	988588	291244	183554	1.60	AVV/AVV	
	PCB 126 (BZ)	41:38	41:34	4	1565855	990659	285152	179440	1.58	AVB/AVB	
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	Noise	00:00	00:00	0	180	145	72	58	1.24 *	/	

Notes:
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TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	07/13/11 21:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	JMN	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	13C12-PCB 104	26:26	26:28	-2	1750365	1062441	360522	217249	1.65	ABV/ABV	
	13C12-PCB 95	29:26	29:25	1	602693	357027	120382	70448	1.69	ABV/ABV	
	13C12-PCB 101	32:21	32:21	0	1459247	890267	281006	172152	1.64	ABV/ABV	
	13C12-PCB 111	35:01	35:01	0	875518	537310	165531	97416	1.63	ABV/ABV	
	13C12-PCB 123	37:00	36:59	1	2408485	1492769	453756	293545	1.61	ABV/ABV	
	13C12-PCB 118	37:20	37:18	2	2573278	1567823	478871	288300	1.64	AVV/AVV	
	13C12-PCB 114	37:52	37:50	2	2545546	1575725	466867	302738	1.62	AVV/AVV	
	13C12-PCB 105	38:32	38:30	2	2488465	1547105	467158	284168	1.61	ABB/ABB	
	13C12-PCB 127	39:59	39:56	3	2827709	1732250	527594	318507	1.63	ABV/AVV	
	13C12-PCB 126	41:37	41:33	4	2779629	1738521	527738	328918	1.60	ABV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	465	388	186	155	1.20	/	
	PCB 155 (BZ)	32:05	32:07	-2	901415	697227	180627	140231	1.29	ABV/ABV	
	PCB 152 (BZ)	32:20	32:22	-2	851317	651267	169672	126098	1.31	AVV/AVV	
	PCB 150 (BZ)	32:30	32:31	-1	875338	666849	172823	127196	1.31	AVB/AVB	
	PCB 136 (BZ)	32:54	32:54	0	790543	595323	155177	112360	1.33	ABB/ABB	D
	PCB 145 (BZ)	33:10	33:10	0	814929	613549	163946	118746	1.33	ABB/ABB	
	PCB 148 (BZ)	34:39	34:40	-1	612234	470307	119802	86927	1.30	ABV/ABB	
	PCB 151 (BZ)	35:19	35:16	3	1179235	898916	133783	103215	1.31	ABV/ABV	D
	PCB 154 (BZ)	35:29	35:31	-2	704812	539307	129498	101869	1.31	AVB/AVV	
	PCB 144 (BZ)	35:50	35:50	0	786843	610143	151658	119385	1.29	ABB/AVB	
	PCB 147 (BZ)	36:12	36:11	1	1686812	1341806	322046	257099	1.26	ABV/ABV	
	PCB 143 (BZ)	36:30	36:30	0	1464209	1141328	154443	121691	1.28	AVV/AVV	
	PCB 139 (BZ)	36:46	36:46	0	1717805	1358334	299097	234559	1.26	AVV/AVV	
	PCB 131 (BZ)	37:00	36:59	1	720387	571846	138062	106947	1.26	AVV/AVV	
	PCB 142 (BZ)	37:09	37:08	1	741371	592751	139554	111787	1.25	AVB/AVB	
	PCB 132 (BZ)	37:29	37:28	1	764902	595115	148463	114333	1.29	ABB/ABV	
	PCB 133 (BZ)	37:56	37:56	0	783273	624231	153762	116528	1.25	ABV/ABB	
	PCB 165 (BZ)	38:20	38:20	0	1032687	821136	189642	154112	1.26	AVV/ABV	
	PCB 146 (BZ)	38:34	38:35	-1	873139	704937	165709	140799	1.24	AVV/AVV	
	PCB 161 (BZ)	38:43	38:43	0	1202618	958279	228608	185974	1.25	AVB/AVB	
	PCB 153 (BZ)	39:12	39:11	1	2275056	1810317	354786	283904	1.26	ABV/ABV	
	PCB 141 (BZ)	39:24	39:24	0	857003	672436	166145	125259	1.27	ABB/ABB	M
	PCB 130 (BZ)	39:49	39:49	0	754651	590129	146598	112496	1.28	ABV/ABV	
	PCB 137 (BZ)	40:01	40:01	0	920320	731233	180768	141912	1.26	AVV/AVV	
	PCB 164 (BZ)	40:09	40:09	0	1184536	915448	225346	179539	1.29	AVB/AVB	
	PCB 163 (BZ)	40:28	40:27	1	4118688	3277488	424091	345611	1.26	ABV/ABV	
	PCB 158 (BZ)	40:50	40:50	0	1273349	1008292	236346	185891	1.26	AVB/AVB	
	PCB 166 (BZ)	41:41	41:39	2	2074443	1653729	269011	218703	1.25	AVB/ABB	
	PCB 159 (BZ)	42:40	42:39	1	1271973	1007788	238971	186292	1.26	AVV/AVV	
	PCB 162 (BZ)	42:58	42:56	2	1348809	1050594	248264	188802	1.28	AVV/AVV	
	PCB 167 (BZ)	43:26	43:25	1	1334935	1074926	257188	209381	1.24	ABB/ABB	
	PCB 156 (BZ)	44:36	44:33	3	2660804	2091134	329126	256048	1.27	ABV/ABV	

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PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	07/13/11 21:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	JMN	Diluton Factor	1.00	Code	IE3

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	PCB 169 (BZ)	47:51	47:47	4	1333483	1058801	232797	186170	1.26	ABV/ABV
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	168	158	67	63	1.06	/
	13C12-PCB 155	32:03	32:06	-3	1519391	1171348	284059	223216	1.30	ABB/ABB
	13C12-PCB 153	39:10	39:10	0	815155	621798	156045	121646	1.31	ABV/ABV
	13C12-PCB 138	40:25	40:25	0	1548282	1210866	293102	229180	1.28	ABV/ABV
	13C12-PCB 167	43:25	43:24	1	2102772	1609320	397549	311345	1.31	AVV/AVV
	13C12-PCB 156	44:35	44:34	1	4163124	3226266	514945	398937	1.29	ABV/AVV
	13C12-PCB 169	47:49	47:46	3	2076864	1624507	365159	287175	1.28	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	328	320	131	128	1.02	/
	PCB 188 (BZ)	37:49	37:49	0	899237	835285	175455	157628	1.08	ABV/ABV
	PCB 179 (BZ)	38:11	38:12	-1	825357	772404	153322	144107	1.07	AVB/AVV
	PCB 184 (BZ)	38:39	38:42	-3	835668	767423	157543	152822	1.09	ABV/ABV
	PCB 176 (BZ)	39:04	39:05	-1	918112	871760	180249	169308	1.05	AVB/AVB
	PCB 186 (BZ)	39:31	39:32	-1	884909	838276	178326	161067	1.06	ABB/ABB
	PCB 178 (BZ)	40:52	40:54	-2	618655	586516	118874	117647	1.05	ABV/ABV
	PCB 175 (BZ)	41:29	41:30	-1	643868	610012	125400	123252	1.06	ABV/ABV
	PCB 187 (BZ)	41:45	41:46	-1	696184	649830	133892	123251	1.07	AVV/AVV
	PCB 182 (BZ)	41:57	41:59	-2	735913	693881	140189	135017	1.06	AVB/AVB
	PCB 183 (BZ)	42:22	42:23	-1	1432656	1335007	145145	136888	1.07	ABV/ABV
	PCB 174 (BZ)	42:38	42:38	0	605799	575841	121925	119234	1.05	AVB/AVB
	PCB 177 (BZ)	43:05	43:05	0	595543	558445	114861	102124	1.07	ABB/ABV
	PCB 181 (BZ)	43:27	43:28	-1	698842	668442	132575	131823	1.05	ABV/AVV
	PCB 173 (BZ)	43:40	43:40	0	1250585	1198653	226248	221466	1.04	AVB/AVB
	PCB 172 (BZ)	45:18	45:17	1	653798	587871	130241	117141	1.11	ABV/ABV
	PCB 192 (BZ)	45:34	45:34	0	865726	846158	164657	169499	1.02	AVV/AVV
	PCB 193 (BZ)	45:55	45:53	2	1650916	1570655	228281	223103	1.05	AVV/AVV
	PCB 191 (BZ)	46:18	46:18	0	927323	869658	172444	165862	1.07	AVB/AVB
	PCB 170 (BZ)	47:13	47:12	1	642197	596981	124613	111926	1.08	ABV/ABV
	PCB 190 (BZ)	47:43	47:43	0	982440	918521	170447	158515	1.07	AVV/ABB
	PCB 189 (BZ)	50:19	50:17	2	1205611	1196449	218623	225468	1.01	ABB/ABV
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	143	138	57	55	1.04	/
	13C12-PCB 188	37:47	37:49	-2	1565178	1469520	293463	279408	1.07	ABV/ABV
	13C12-PCB 178	40:50	40:52	-2	465442	439854	95252	84679	1.06	ABV/ABV
	13C12-PCB 180	45:55	45:55	0	1247673	1162029	231923	214847	1.07	ABV/ABV
	13C12-PCB 170	47:12	47:11	1	1037812	960871	196478	185516	1.08	ABV/ABV
	13C12-PCB 189	50:18	50:16	2	2015819	1953001	363826	355330	1.03	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	173	238	69	95	0.73 *	/
	PCB 202 (BZ)	43:09	43:11	-2	606108	648619	118112	124093	0.93	ABV/ABV
	PCB 200 (BZ)/201 (IUPAC	44:04	44:07	-3	659256	730005	131094	145002	0.90	ABB/ABB

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TestAmerica Knoxville

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PCB's by EPA Method 1668A

Workorder	PCB0100	Prep Batch		Lot No	
Data File	/20110713s1/a110713s1.	Prep Date		SDG No	
Analysis ID	133593	Prep Exp Date		Date Received	
Analysis Date	07/13/11 21:45	Matrix	UNKNOWN	Date Sampled	
Anal Exp Date		Initial Wt/Vol		Lims Test Code	
Instrument	M1D	Extract Vol		Method	IE3
Analyst	JMN	Diluton Factor	1.00	Code	IE3

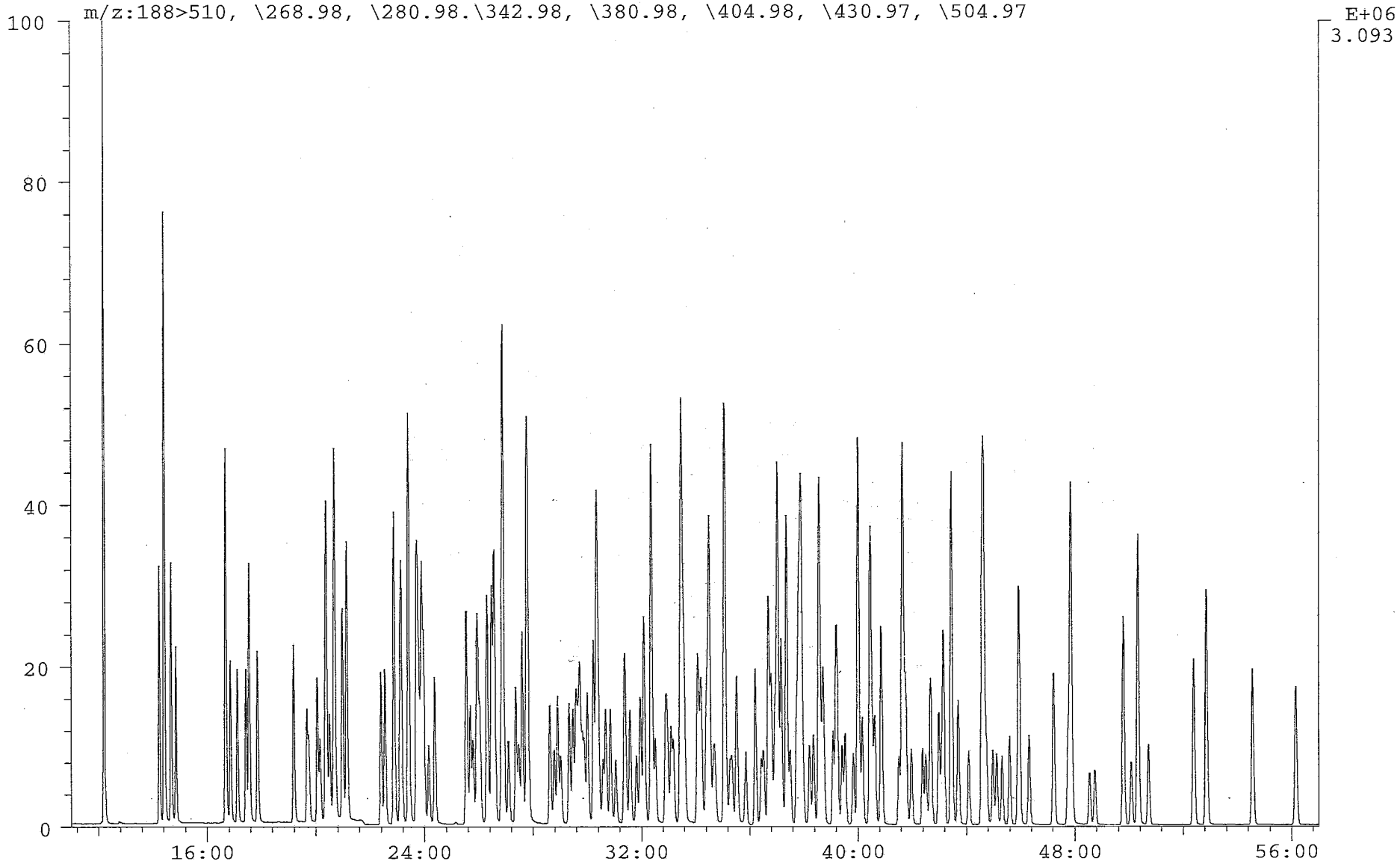
View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
428					**427.7635**	**429.7606**	**427.7635**	**429.7606**	**0.76-1.02**	
	PCB 204 (BZ)	44:43	44:45	-2	655603	712972	124193	137567	0.92	ABV/ABV
	PCB 197 (BZ)	44:58	44:59	-1	684775	749487	132959	144820	0.91	AVV/AVV
	PCB 199 (BZ)/200 (IUPAC	45:06	45:06	0	652011	698137	128509	134909	0.93	AVB/AVB
	PCB 198 (BZ)	47:52	47:50	2	955179	1030020	128580	135840	0.93	ABV/ABV
	PCB 196 (BZ)	48:31	48:32	-1	475004	522265	88940	98513	0.91	AVV/ABV
	PCB 203 (BZ)	48:42	48:43	-1	517355	557393	95853	100898	0.93	AVV/AVV
	PCB 195 (BZ)	50:03	50:04	-1	592239	681858	108818	123915	0.87	ABV/AVV
	PCB 194 (BZ)	52:23	52:22	1	646483	708786	117667	128779	0.91	ABB/ABV
	PCB 205 (BZ)	52:51	52:49	2	857284	967430	157013	182060	0.89	ABB/AVB
440					**439.8038**	**441.8008**	**439.8038**	**441.8008**	**0.76-1.02**	
	Noise	00:00	00:00	0	145	153	58	61	0.95	/
	13C12-PCB 202	43:08	43:09	-1	1175323	1286364	239588	252773	0.91	ABV/ABV
	13C12-PCB 194	52:21	52:21	0	1075244	1163755	195468	216676	0.92	ABV/ABV
	13C12-PCB 205	52:50	52:48	2	1627602	1762558	295515	320501	0.92	ABB/ABB
462					**461.7246**	**463.7216**	**461.7246**	**463.7216**	**0.65-0.89**	
	Noise	00:00	00:00	0	180	205	72	82	0.88	/
	PCB 208 (BZ)	49:47	49:48	-1	669907	841453	127606	154878	0.80	ABV/ABV
	PCB 207 (BZ)	50:42	50:44	-2	686672	865468	129177	163562	0.79	AVV/ABV
	PCB 206 (BZ)	54:33	54:32	1	476648	605570	87506	112050	0.79	ABB/ABB
474					**473.7648**	**475.7619**	**473.7648**	**475.7619**	**0.65-0.89**	
	Noise	00:00	00:00	0	163	158	65	63	1.03 *	/
	13C12-PCB 208	49:45	49:47	-2	1216685	1533902	226142	288455	0.79	ABV/ABV
	13C12-PCB 206	54:32	54:32	0	862383	1084955	165439	205571	0.79	ABV/ABV
496					**495.6856**	**497.6826**	**495.6856**	**497.6826**	**0.59-0.79**	
	Noise	00:00	00:00	0	258	183	103	73	1.41 *	/
	PCB 209 (BZ)	56:09	56:09	0	473116	686316	81655	120306	0.69	ABV/AVV
508					**507.7258**	**509.7229**	**507.7258**	**509.7229**	**0.59-0.79**	
	Noise	00:00	00:00	0	145	143	58	57	1.02 *	/
	13C12-PCB 209	56:07	56:08	-1	749832	1050925	134696	177695	0.71	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

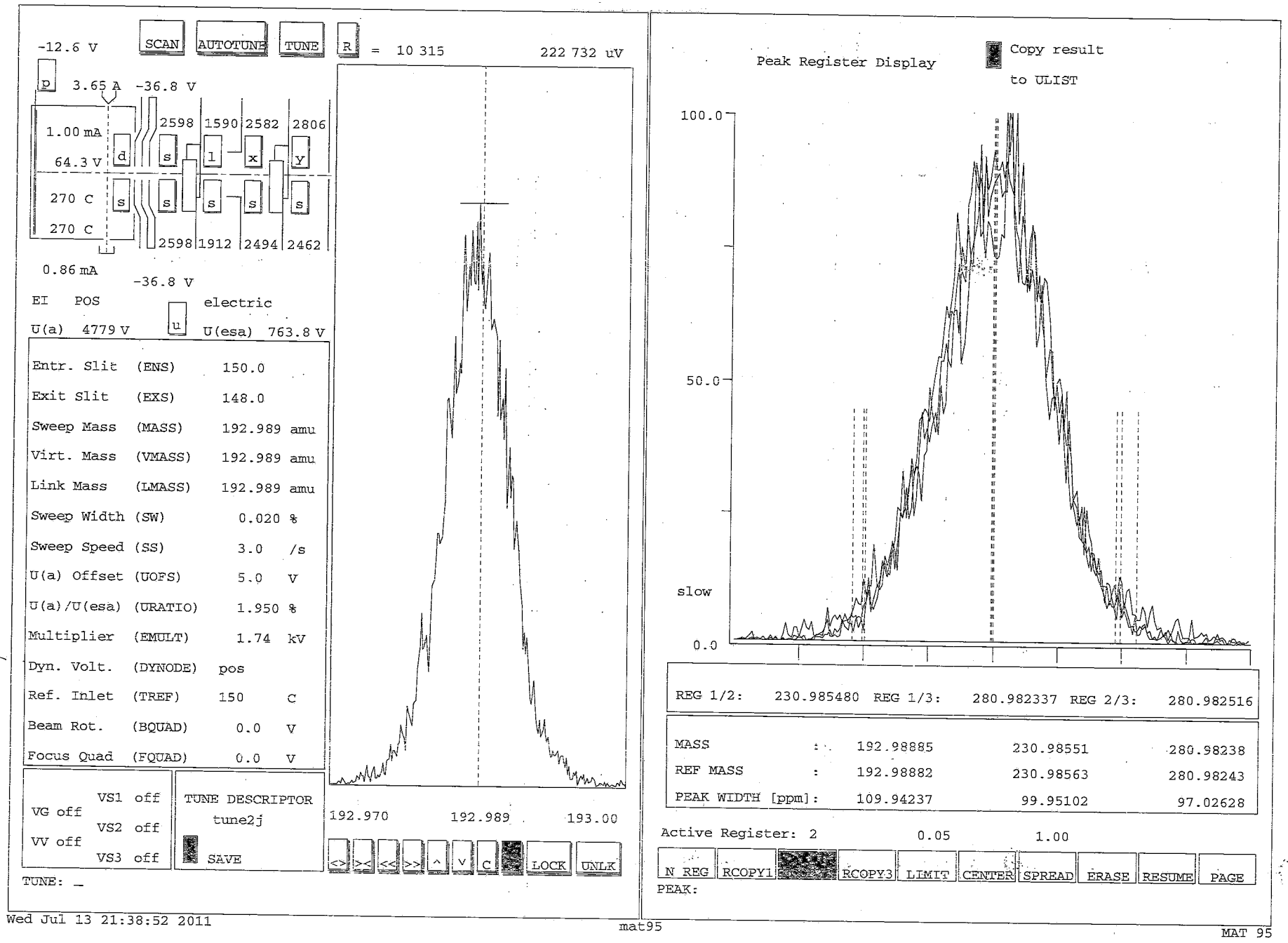
CHRO: a110713s1 13-Jul-11 Elapse: 35:40 1398
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2 > 2602 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area

Int/Calc: J 7/13/11
QC pmp 7-14-11



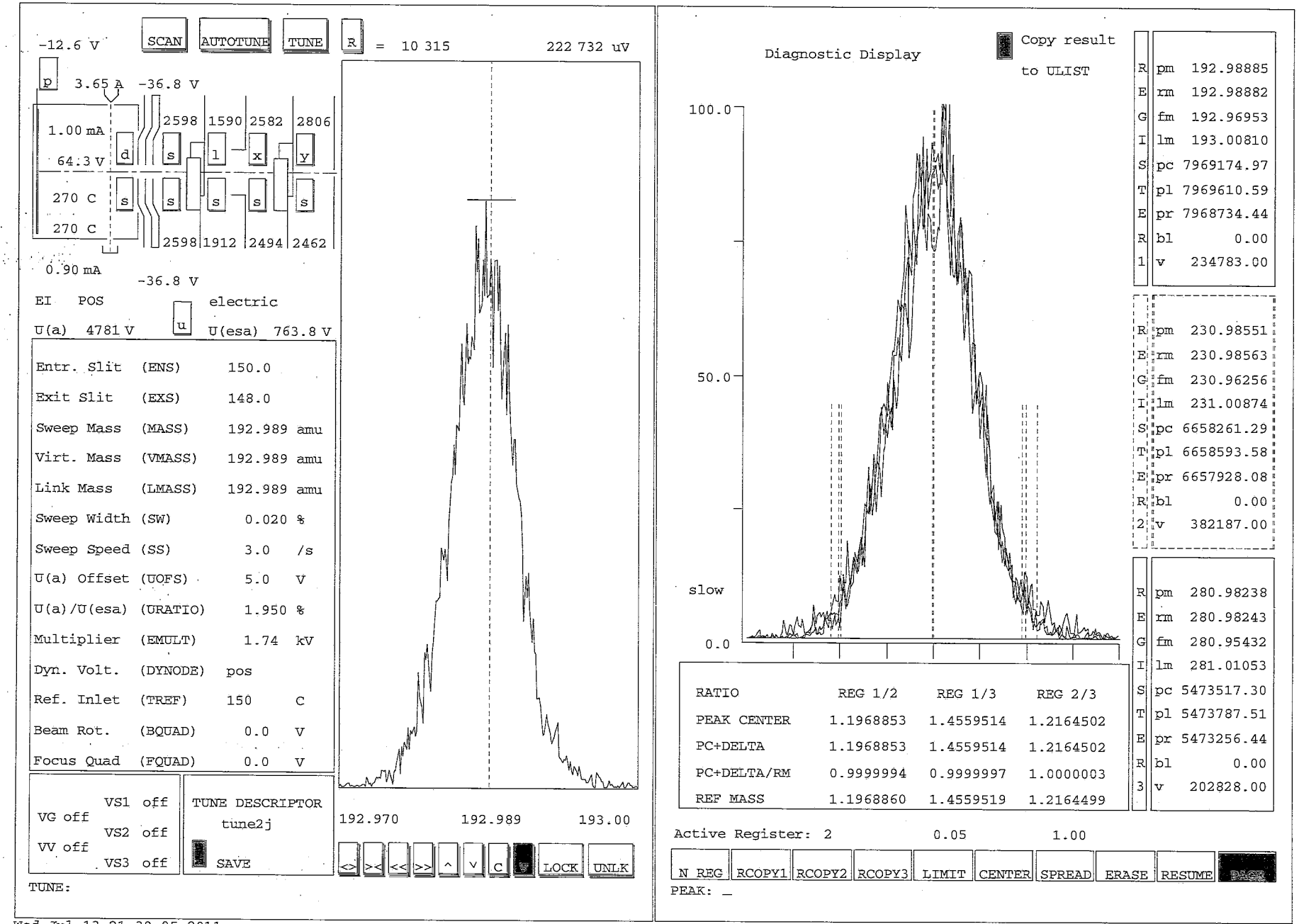
H-2901

2900


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 315
222 732 uV
P
3.65 A
-36.8 V
1.00 mA
64.3 V
2598
1590
2582
2806
d
s
l
x
y
270 C
270 C
2598
1912
2494
2462
0.86 mA
-36.8 V
EI POS
electric
U(a) 4779 V
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2j
SAVE
192.970
192.989
193.00
<>
>>
<<
>>
^
v
C
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 230.985480 REG 1/3: 280.982337 REG 2/3: 280.982516
MASS : 192.98885 230.98551 280.98238
REF MASS : 192.98882 230.98563 280.98243
PEAK WIDTH [ppm]: 109.94237 99.95102 97.02628
Active Register: 2
0.05
1.00
N REG
RCOPY1
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Wed Jul 13 21:38:52 2011
mat95
MAT 95

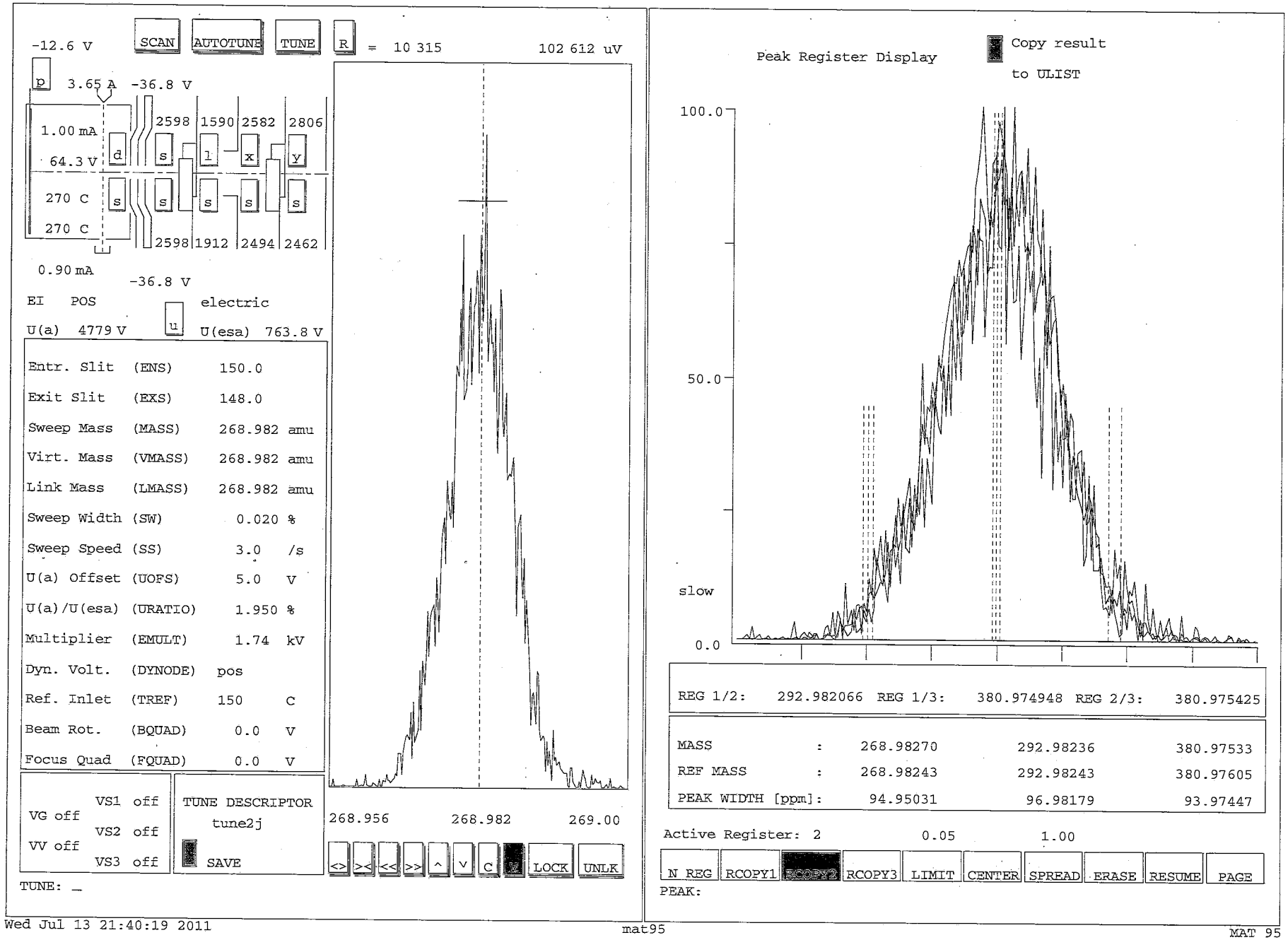
H-2902

2901


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 315
222 732 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
270 C
0.90 mA
-36.8 V
2598 1590 2582 2806
2598 1912 2494 2462
d
s
l
x
y
EI POS
electric
U(a) 4781 V
U(esa) 763.8 V
u
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2j
SAVE
192.970
192.989
193.00
<>
><
<<
>>
^
v
C
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
0.0
slow
R pm 192.98885
E rm 192.98882
G fm 192.96953
I lm 193.00810
S pc 7969174.97
T pl 7969610.59
E pr 7968734.44
R bl 0.00
1 v 234783.00
R pm 230.98551
E rm 230.98563
G fm 230.96256
I lm 231.00874
S pc 6658261.29
T pl 6658593.58
E pr 6657928.08
R bl 0.00
2 v 382187.00
R pm 280.98238
E rm 280.98243
G fm 280.95432
I lm 281.01053
S pc 5473517.30
T pl 5473787.51
E pr 5473256.44
R bl 0.00
3 v 202828.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.1968853 1.4559514 1.2164502
PC+DELTA 1.1968853 1.4559514 1.2164502
PC+DELTA/RM 0.9999994 0.9999997 1.0000003
REF MASS 1.1968860 1.4559519 1.2164499
Active Register: 2
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Wed Jul 13 21:39:05 2011
mat95
MAT 95

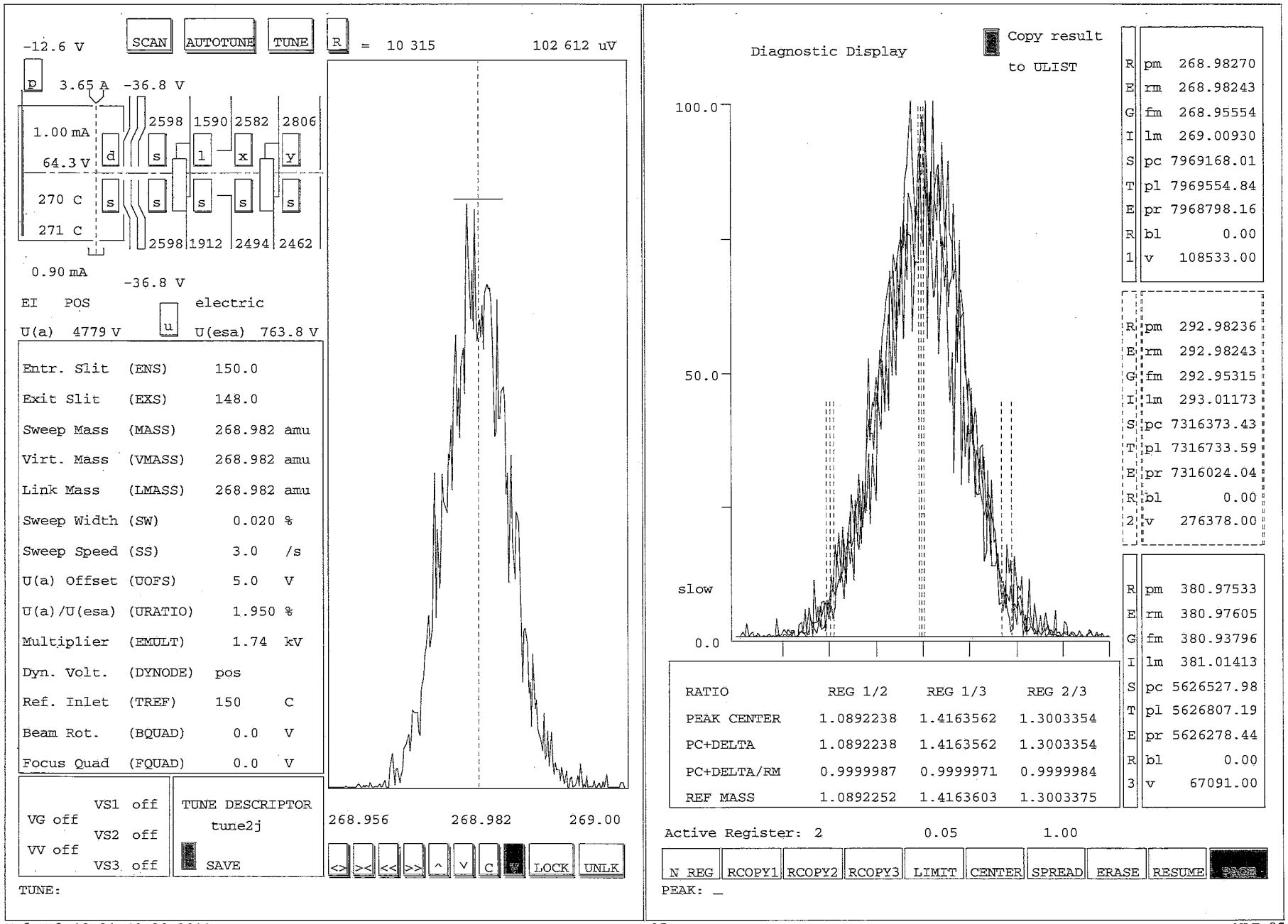
H-2903

2902


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 315
102 612 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
270 C
2598
1590
2582
2806
d
s
l
x
y
2598
1912
2494
2462
0.90 mA
-36.8 V
EI POS
electric
U(a) 4779 V
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 268.982 amu
Virt. Mass (VMASS) 268.982 amu
Link Mass (LMASS) 268.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2j
SAVE
268.956
268.982
269.00
<>
>
<
>
^
v
C
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 292.982066 REG 1/3: 380.974948 REG 2/3: 380.975425
MASS : 268.98270 292.98236 380.97533
REF MASS : 268.98243 292.98243 380.97605
PEAK WIDTH [ppm]: 94.95031 96.98179 93.97447
Active Register: 2
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Wed Jul 13 21:40:19 2011
mat95
MAT 95

H-2904

2903

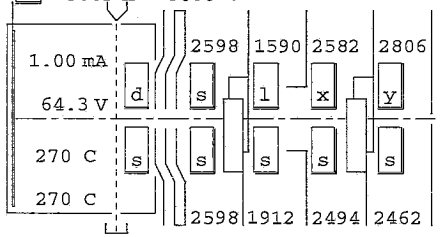

-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 315
102 612 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
271 C
2598 1590 2582 2806
d s l x y
s s s s s
2598 1912 2494 2462
0.90 mA
-36.8 V
EI POS
electric
U(a) 4779 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 268.982 amu
Virt. Mass (VMASS) 268.982 amu
Link Mass (LMASS) 268.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VS1 off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2j
SAVE
268.956 268.982 269.00
<> >< << >> ^ v C LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 268.98270
E rm 268.98243
G fm 268.95554
I lm 269.00930
S pc 7969168.01
T pl 7969554.84
E pr 7968798.16
R bl 0.00
1 v 108533.00
R pm 292.98236
E rm 292.98243
G fm 292.95315
I lm 293.01173
S pc 7316373.43
T pl 7316733.59
E pr 7316024.04
R bl 0.00
2 v 276378.00
R pm 380.97533
E rm 380.97605
G fm 380.93796
I lm 381.01413
S pc 5626527.98
T pl 5626807.19
E pr 5626278.44
R bl 0.00
3 v 67091.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.0892238 1.4163562 1.3003354
PC+DELTA 1.0892238 1.4163562 1.3003354
PC+DELTA/RM 0.9999987 0.9999971 0.9999984
REF MASS 1.0892252 1.4163603 1.3003375
Active Register: 2
0.05
1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
Wed Jul 13 21:40:28 2011
mat95
MAT 95

H-2905

2904

-12.6 V | SCAN | AUTOTUNE | TUNE | R = 10 315 | 149 880 uV

p 3.65 A -36.8 V



0.98 mA -36.8 V

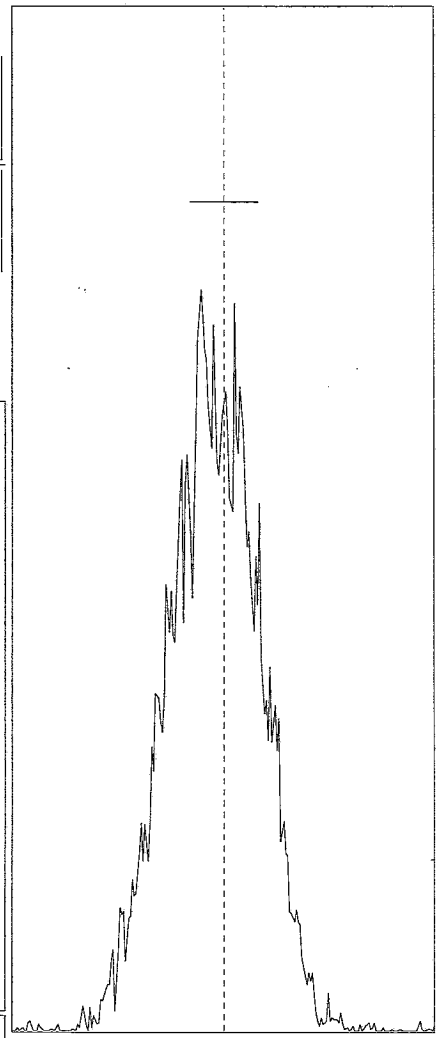
EI POS electric

U(a) 4779 V | u | U(esa) 763.8 V

Entr. Slit	(ENS)	150.0	
Exit Slit	(EXS)	148.0	
Sweep Mass	(MASS)	342.979	amu
Virt. Mass	(VMASS)	342.979	amu
Link Mass	(LMASS)	342.979	amu
Sweep Width	(SW)	0.020	%
Sweep Speed	(SS)	3.0	/s
U(a) Offset	(UOFS)	5.0	V
U(a)/U(esa)	(URATIO)	1.950	%
Multiplier	(EMULT)	1.74	kV
Dyn. Volt.	(DYNODE)	pos	
Ref. Inlet	(TREF)	150	C
Beam Rot.	(BQUAD)	0.0	V
Focus Quad	(FQUAD)	0.0	V

VG off | VV off | VS1 off | VS2 off | VS3 off

TUNE DESCRIPTOR
tune2j
SAVE



342.945 342.979 343.01

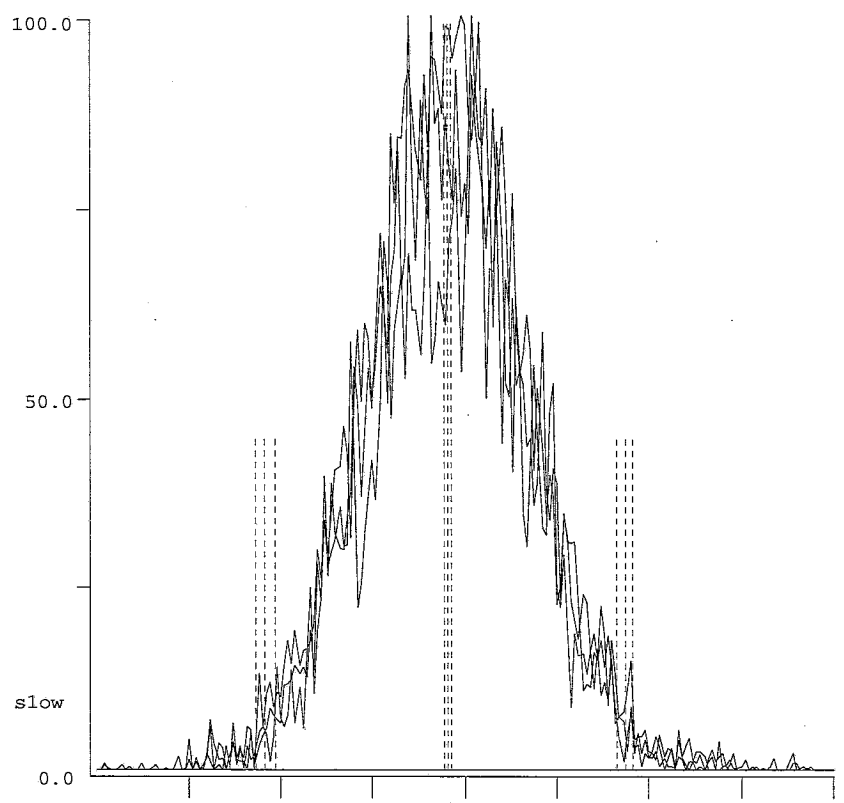
<> >< << >> ^ v C V LOCK UNLK

TUNE: _

Wed Jul 13 21:41:00 2011 mat95

Peak Register Display

Copy result to ULIST



REG 1/2: 380.976367 REG 1/3: 430.973573 REG 2/3: 430.973209

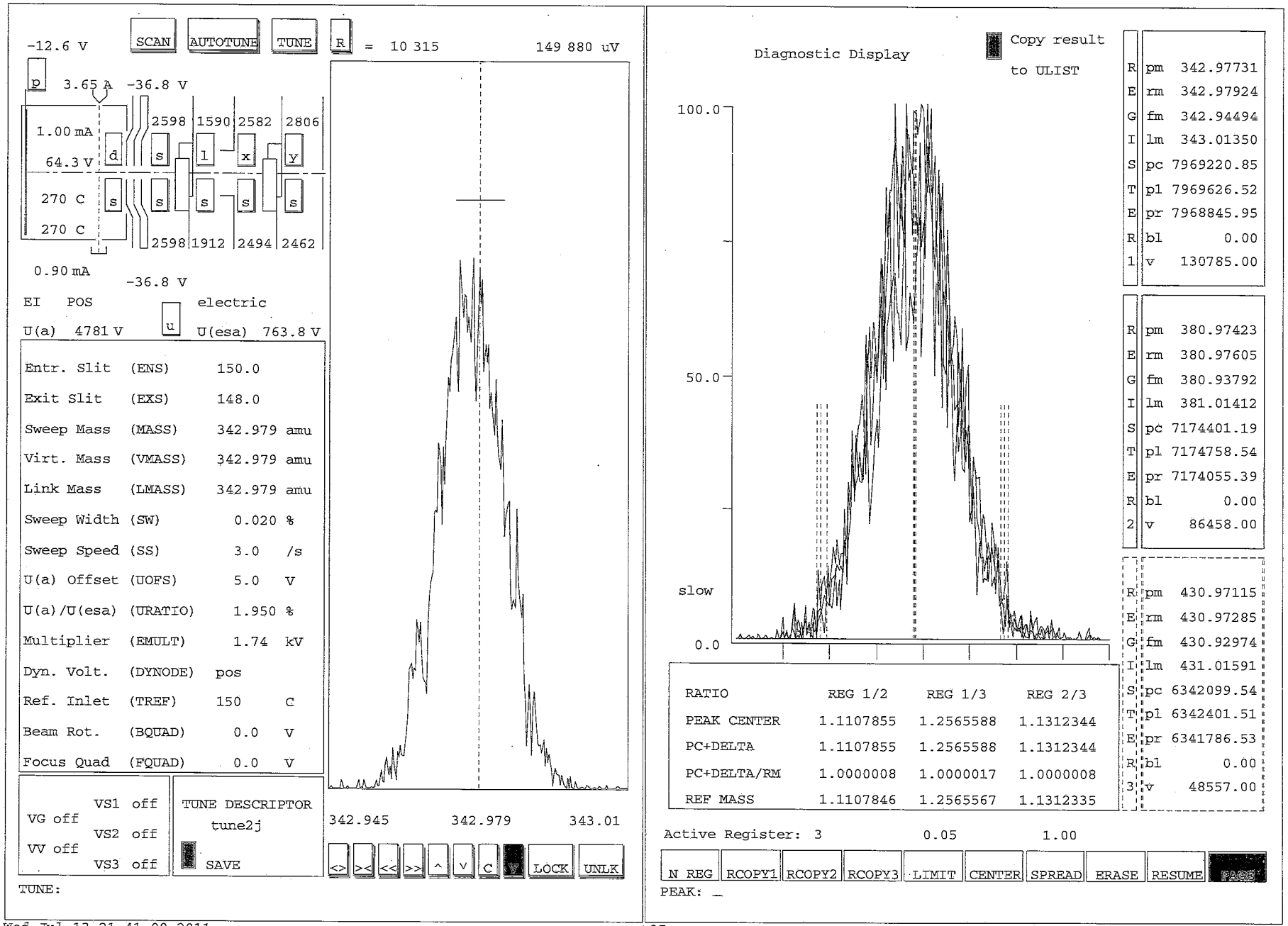
MASS	:	342.97731	380.97423	430.97115
REF MASS	:	342.97924	380.97605	430.97285
PEAK WIDTH [ppm]:		97.94809	98.00818	96.96789

Active Register: 3 0.05 1.00

N REG | RCOPY1 | RCOPY2 | RCOPY3 | LIMIT | CENTER | SPREAD | ERASE | RESUME | PAGE

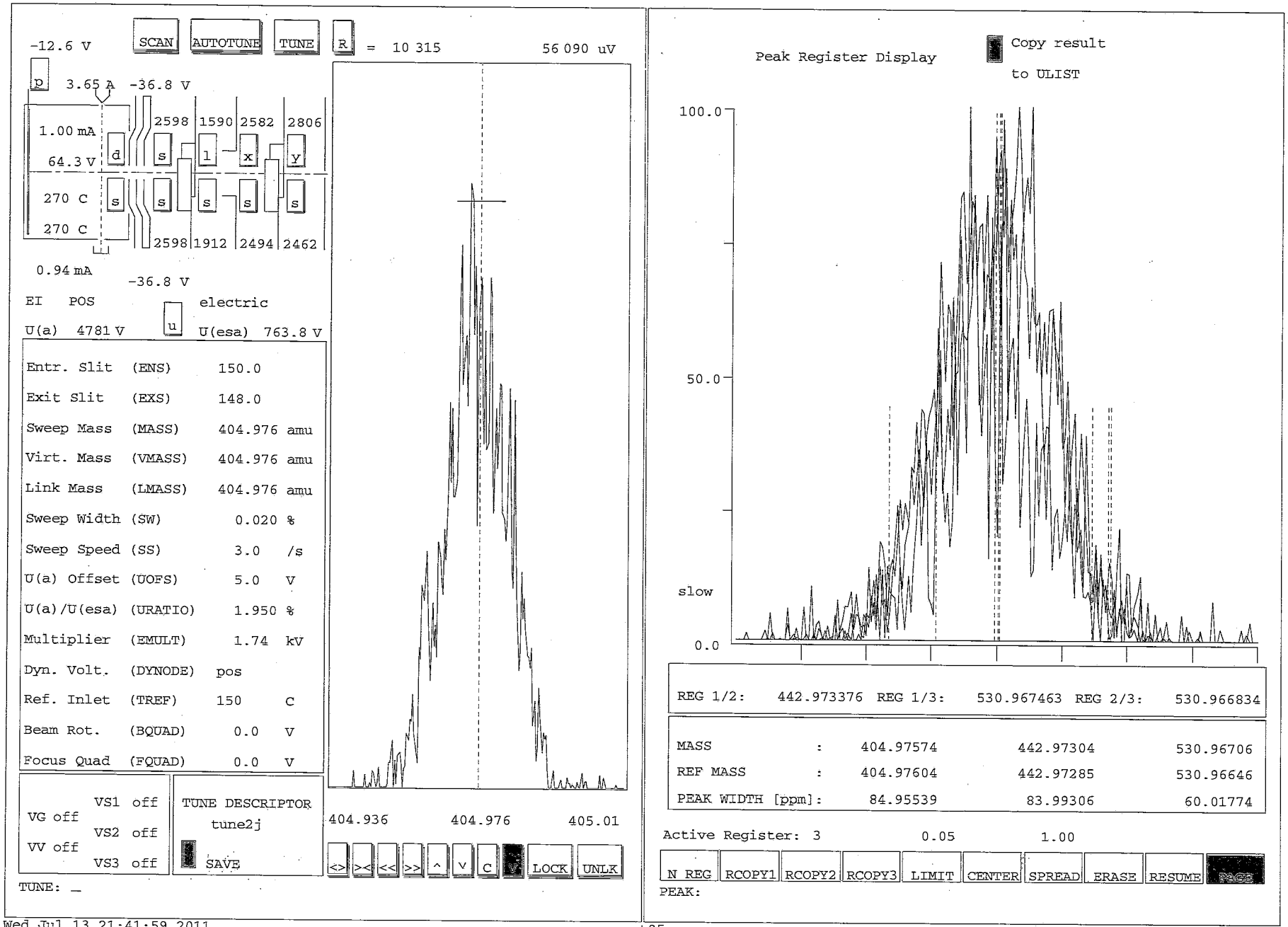
PEAK:

MAT 95


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 315
149 880 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
270 C
2598 1590 2582 2806
2598 1912 2494 2462
d
s
l
x
y
0.90 mA
-36.8 V
EI POS
electric
U(a) 4781 V
U(esa) 763.8 V
u
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 342.979 amu
Virt. Mass (VMASS) 342.979 amu
Link Mass (LMASS) 342.979 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2j
SAVE
342.945
342.979
343.01
<>
>|<
<<
>>
^
v
C
V
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 342.97731
E rm 342.97924
G fm 342.94494
I lm 343.01350
S pc 7969220.85
T pl 7969626.52
E pr 7968845.95
R bl 0.00
1 v 130785.00
R pm 380.97423
E rm 380.97605
G fm 380.93792
I lm 381.01412
S pc 7174401.19
T pl 7174758.54
E pr 7174055.39
R bl 0.00
2 v 86458.00
R pm 430.97115
E rm 430.97285
G fm 430.92974
I lm 431.01591
S pc 6342099.54
T pl 6342401.51
E pr 6341786.53
R bl 0.00
3 v 48557.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.1107855 1.2565588 1.1312344
PC+DELTA 1.1107855 1.2565588 1.1312344
PC+DELTA/RM 1.0000008 1.0000017 1.0000008
REF MASS 1.1107846 1.2565567 1.1312335
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Wed Jul 13 21:41:09 2011
mat95
MAT 95

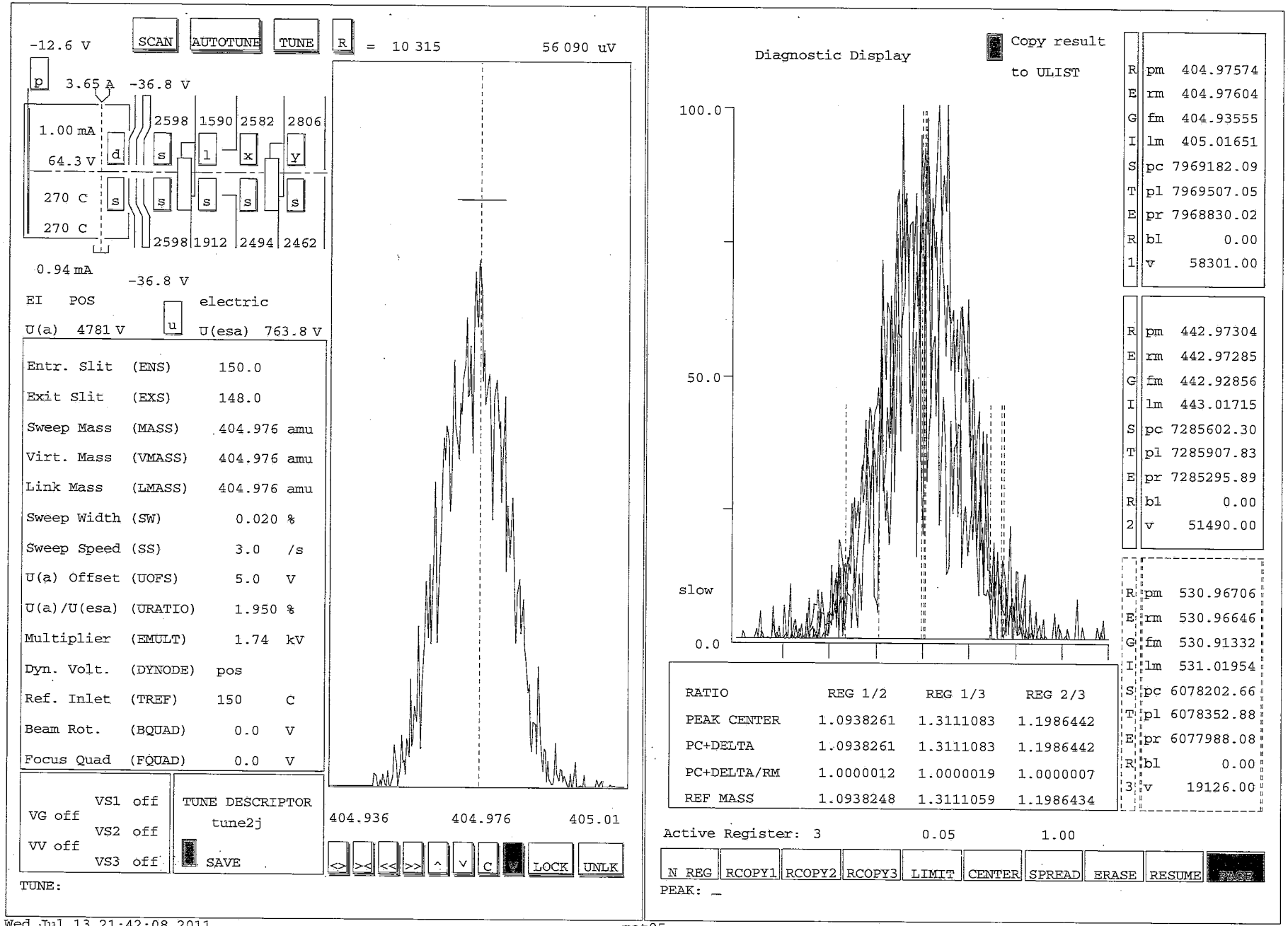
H-2907

2906


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 315
56 090 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
270 C
d
s
l
x
y
2598 1590 2582 2806
2598 1912 2494 2462
0.94 mA
-36.8 V
EI POS
electric
U(a) 4781 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 404.976 amu
Virt. Mass (VMASS) 404.976 amu
Link Mass (LMASS) 404.976 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2j
SAVE
404.936
404.976
405.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 442.973376 REG 1/3: 530.967463 REG 2/3: 530.966834
MASS : 404.97574 442.97304 530.96706
REF MASS : 404.97604 442.97285 530.96646
PEAK WIDTH [ppm]: 84.95539 83.99306 60.01774
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Wed Jul 13 21:41:59 2011
mat95
MAT 95

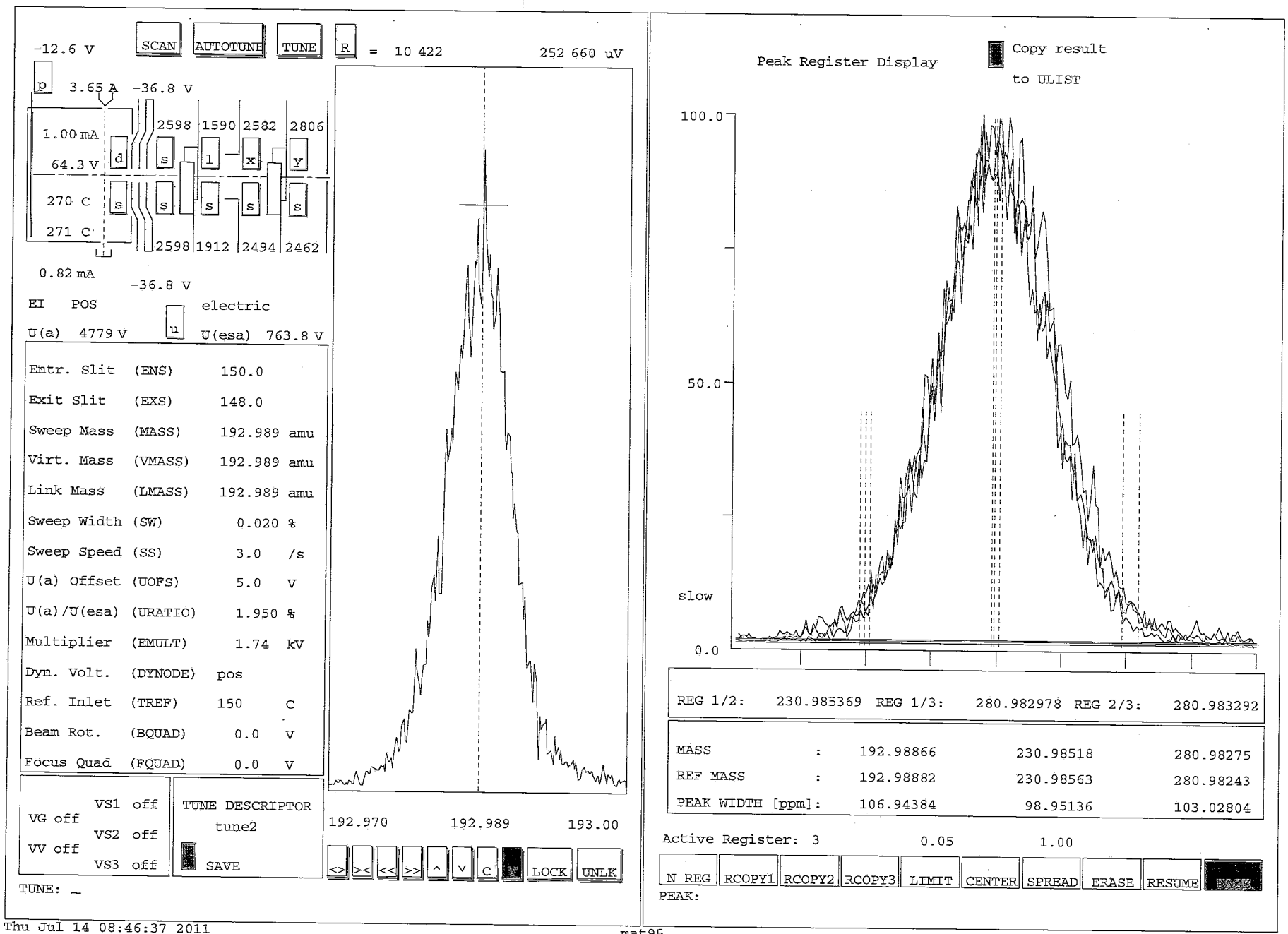
H-2908

2907


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 315
56 090 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
270 C
2598 1590 2582 2806
2598 1912 2494 2462
0.94 mA
-36.8 V
EI POS
electric
U(a) 4781 V
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 404.976 amu
Virt. Mass (VMASS) 404.976 amu
Link Mass (LMASS) 404.976 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VS1 off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2j
SAVE
404.936
404.976
405.01
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 404.97574
E rm 404.97604
G fm 404.93555
I lm 405.01651
S pc 7969182.09
T pl 7969507.05
E pr 7968830.02
R bl 0.00
1 v 58301.00
R pm 442.97304
E rm 442.97285
G fm 442.92856
I lm 443.01715
S pc 7285602.30
T pl 7285907.83
E pr 7285295.89
R bl 0.00
2 v 51490.00
R pm 530.96706
E rm 530.96646
G fm 530.91332
I lm 531.01954
S pc 6078202.66
T pl 6078352.88
E pr 6077988.08
R bl 0.00
3 v 19126.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.0938261 1.3111083 1.1986442
PC+DELTA 1.0938261 1.3111083 1.1986442
PC+DELTA/RM 1.0000012 1.0000019 1.0000007
REF MASS 1.0938248 1.3111059 1.1986434
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PEAK: _
Wed Jul 13 21:42:08 2011
mat95
MAT 95

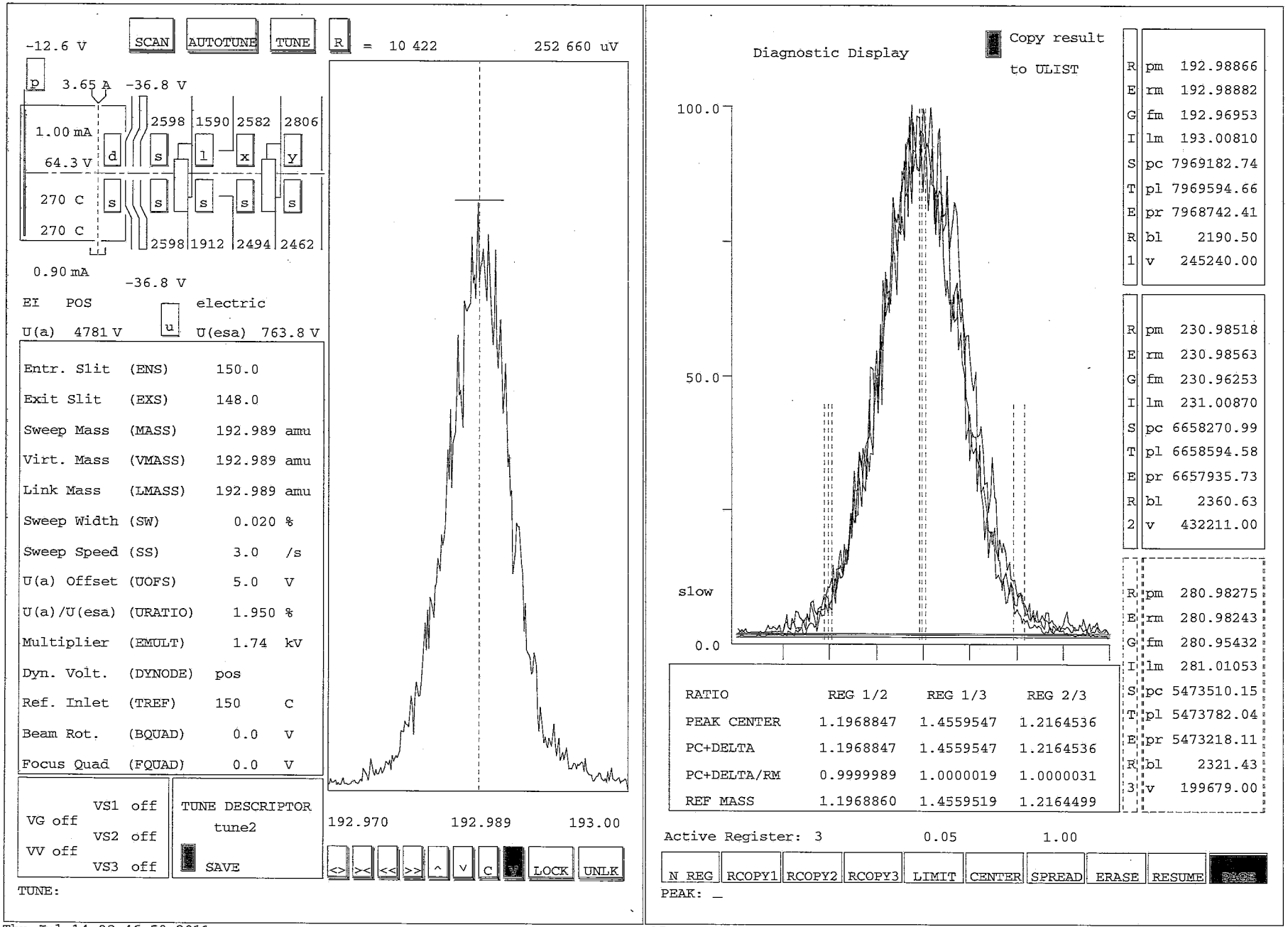
H-2909

2908


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 422
252 660 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
271 C
0.82 mA
-36.8 V
2598 1590 2582 2806
2598 1912 2494 2462
d
s
l
x
y
EI POS
electric
U(a) 4779 V
U(esa) 763.8 V
u
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
192.970
192.989
193.00
<>
><
<<
>>
^
v
C
LOCK
UNLK
TUNE: _
Thu Jul 14 08:46:37 2011
mat95
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 230.985369 REG 1/3: 280.982978 REG 2/3: 280.983292
MASS : 192.98866 230.98518 280.98275
REF MASS : 192.98882 230.98563 280.98243
PEAK WIDTH [ppm]: 106.94384 98.95136 103.02804
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
MAT 95

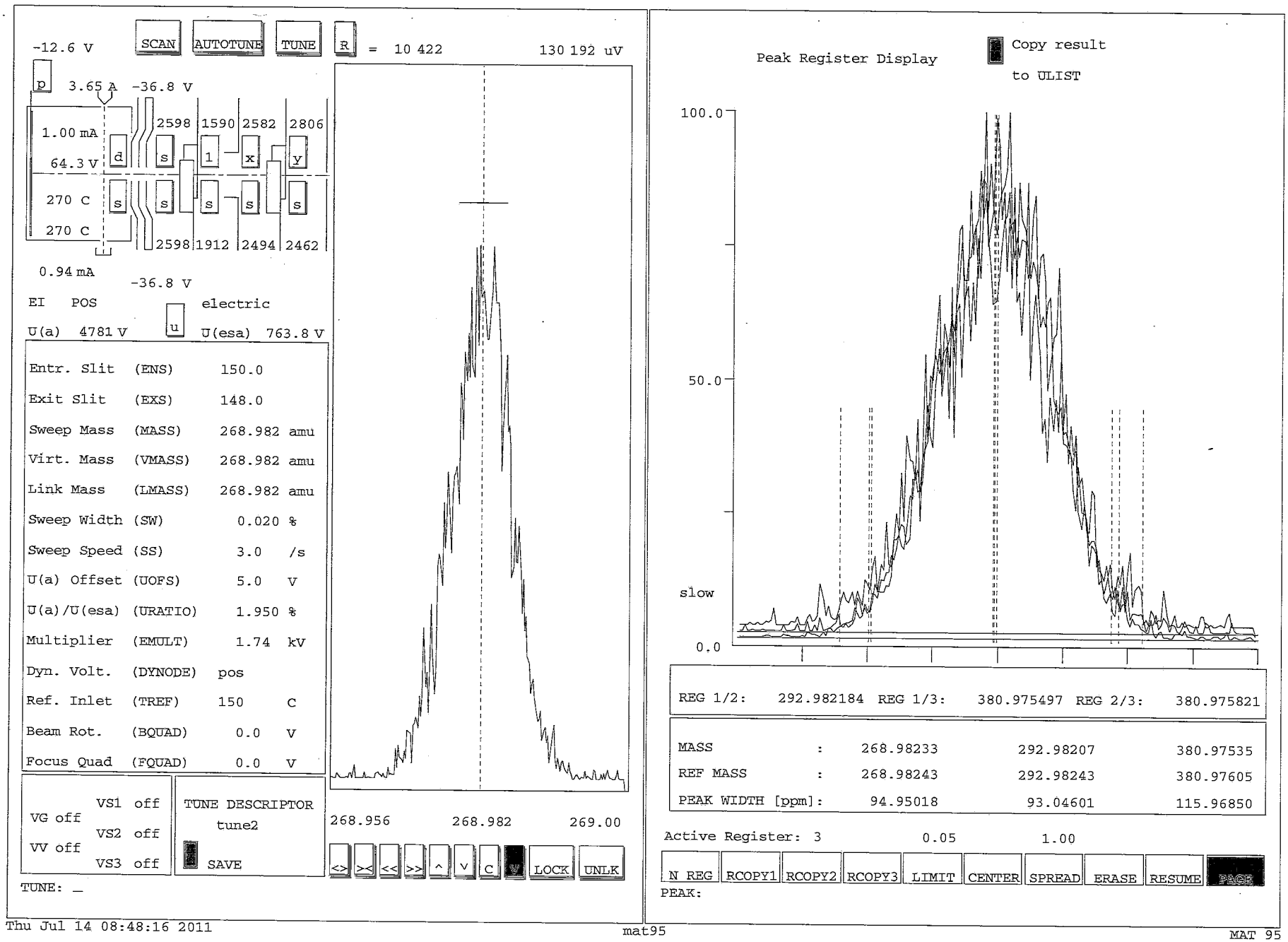
H-2910

2909


-12.6 V
SCAN
AUTOTUNE
TUNE
R = 10 422
252 660 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
2598 1590 2582 2806
d s l x y
270 C
270 C
s s s s s
2598 1912 2494 2462
0.90 mA
-36.8 V
EI POS
electric
U(a) 4781 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 192.989 amu
Virt. Mass (VMASS) 192.989 amu
Link Mass (LMASS) 192.989 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VS1 off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
192.970 192.989 193.00
<> >< << >> ^ v C V LOCK UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 192.98866
E rm 192.98882
G fm 192.96953
I lm 193.00810
S pc 7969182.74
T pl 7969594.66
E pr 7968742.41
R bl 2190.50
1 v 245240.00
R pm 230.98518
E rm 230.98563
G fm 230.96253
I lm 231.00870
S pc 6658270.99
T pl 6658594.58
E pr 6657935.73
R bl 2360.63
2 v 432211.00
R pm 280.98275
E rm 280.98243
G fm 280.95432
I lm 281.01053
S pc 5473510.15
T pl 5473782.04
E pr 5473218.11
R bl 2321.43
3 v 199679.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.1968847 1.4559547 1.2164536
PC+DELTA 1.1968847 1.4559547 1.2164536
PC+DELTA/RM 0.9999989 1.0000019 1.0000031
REF MASS 1.1968860 1.4559519 1.2164499
Active Register: 3
0.05
1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK: _
Thu Jul 14 08:46:50 2011
mat95
MAT 95

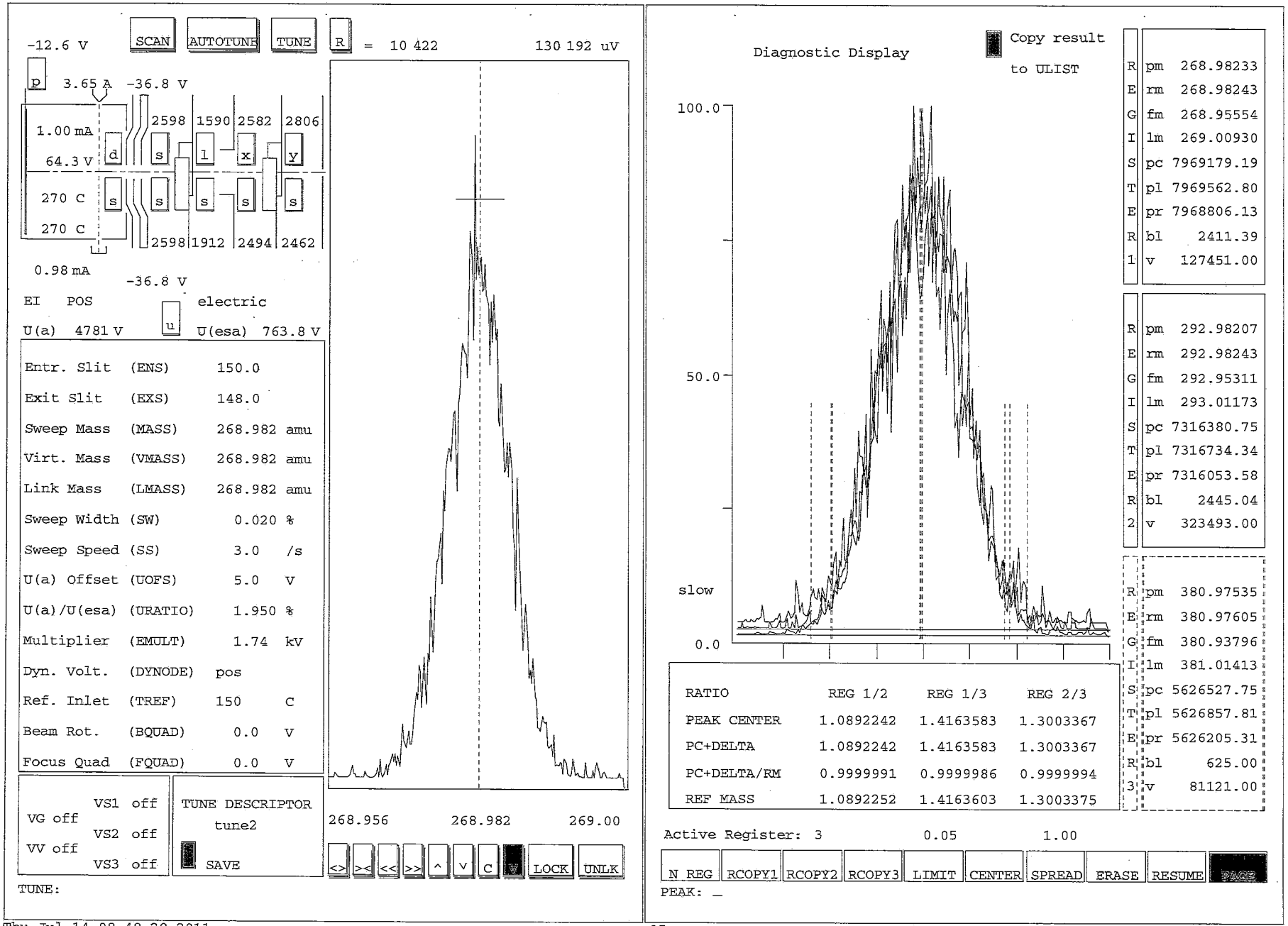
H-2911

2910


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 422
130 192 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
270 C
0.94 mA
-36.8 V
2598 1590 2582 2806
2598 1912 2494 2462
d
s
1
x
y
u
EI POS
electric
U(a) 4781 V
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 268.982 amu
Virt. Mass (VMASS) 268.982 amu
Link Mass (LMASS) 268.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
268.956
268.982
269.00
<>
><
<<
>>
^
v
C
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 292.982184 REG 1/3: 380.975497 REG 2/3: 380.975821
MASS : 268.98233 292.98207 380.97535
REF MASS : 268.98243 292.98243 380.97605
PEAK WIDTH [ppm]: 94.95018 93.04601 115.96850
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Thu Jul 14 08:48:16 2011
mat95
MAT 95

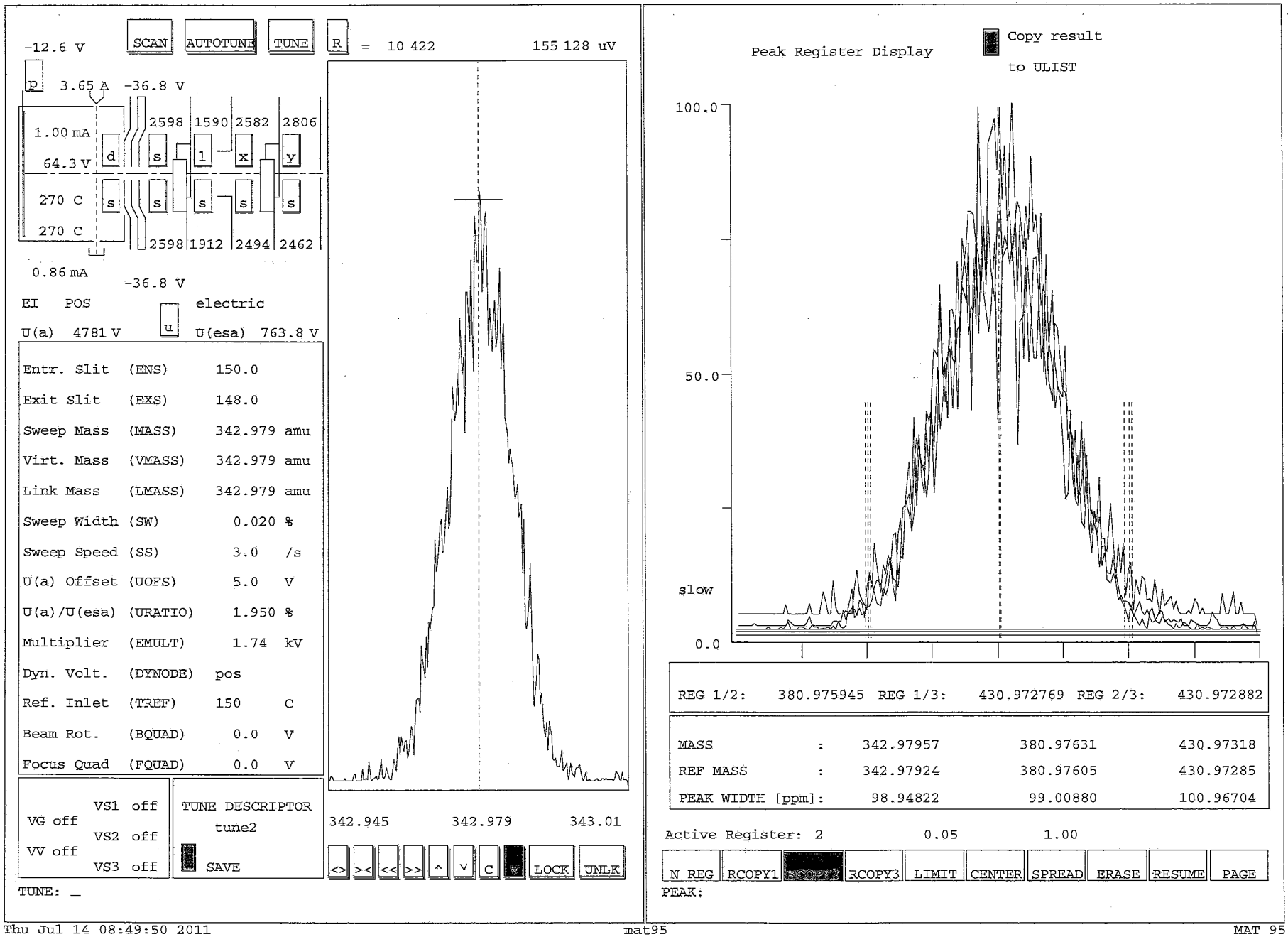
H-2912

2911


-12.6 V
SCAN
AUTOTUNE
TUNE
R = 10 422
130 192 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
270 C
2598 1590 2582 2806
2598 1912 2494 2462
0.98 mA
-36.8 V
EI POS
electric
U(a) 4781 V
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 268.982 amu
Virt. Mass (VMASS) 268.982 amu
Link Mass (LMASS) 268.982 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
268.956 268.982 269.00
<> >< << >> ^ v C LOCK UNLK
TUNE:
Diagnostic Display
Copy result to ULIST
100.0
50.0
slow
0.0
R pm 268.98233
E rm 268.98243
G fm 268.95554
I lm 269.00930
S pc 7969179.19
T pl 7969562.80
E pr 7968806.13
R bl 2411.39
1 v 127451.00
R pm 292.98207
E rm 292.98243
G fm 292.95311
I lm 293.01173
S pc 7316380.75
T pl 7316734.34
E pr 7316053.58
R bl 2445.04
2 v 323493.00
R pm 380.97535
E rm 380.97605
G fm 380.93796
I lm 381.01413
S pc 5626527.75
T pl 5626857.81
E pr 5626205.31
R bl 625.00
3 v 81121.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.0892242 1.4163583 1.3003367
PC+DELTA 1.0892242 1.4163583 1.3003367
PC+DELTA/RM 0.9999991 0.9999986 0.9999994
REF MASS 1.0892252 1.4163603 1.3003375
Active Register: 3
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Thu Jul 14 08:48:28 2011
mat95
MAT 95

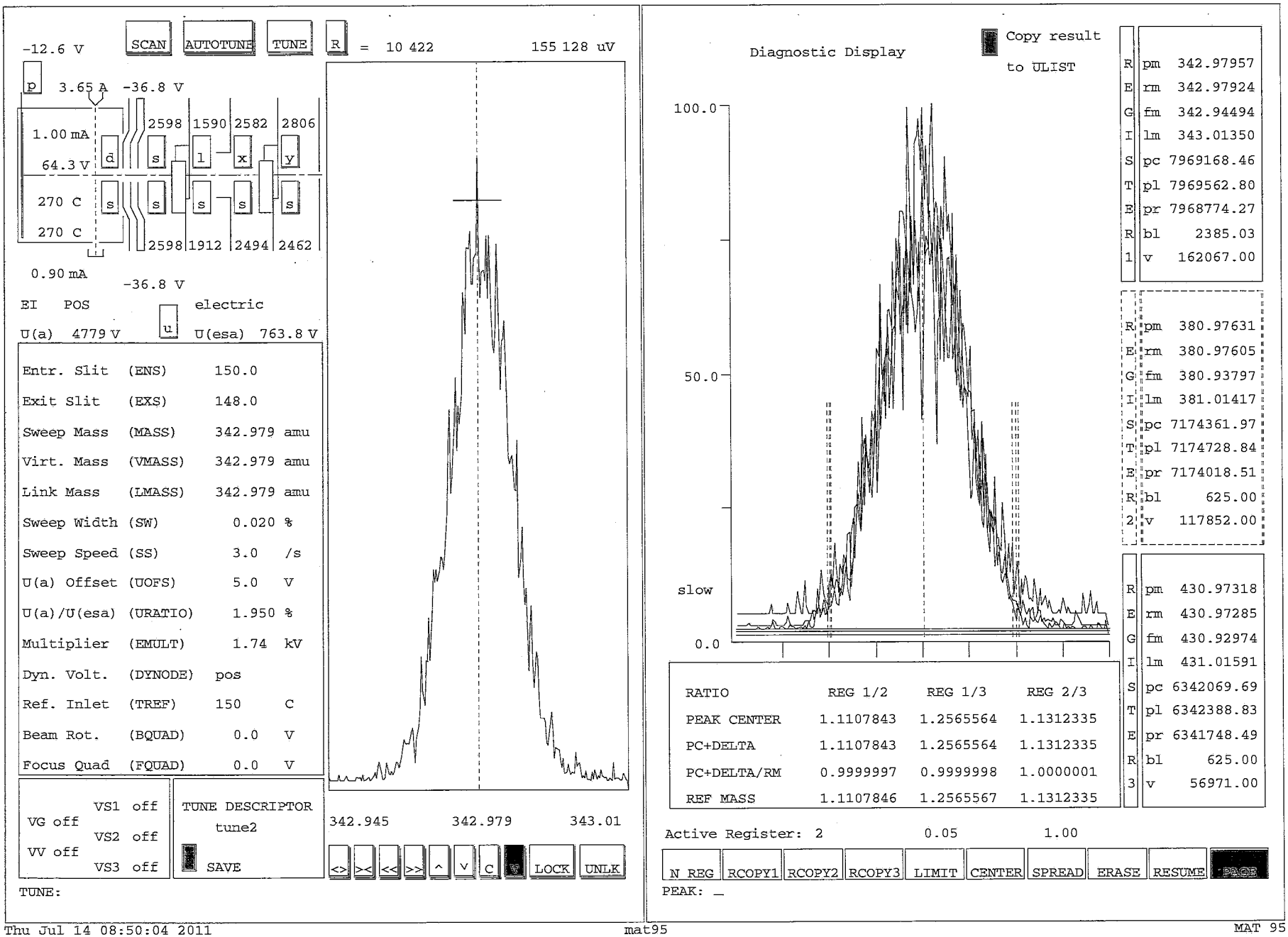
H-2913

2912


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 422
155 128 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
270 C
0.86 mA
-36.8 V
2598 1590 2582 2806
2598 1912 2494 2462
d
s
l
x
y
EI POS
electric
u
U(a) 4781 V
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 342.979 amu
Virt. Mass (VMASS) 342.979 amu
Link Mass (LMASS) 342.979 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
342.945 342.979 343.01
<> >< << >> ^ v C V LOCK UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 380.975945 REG 1/3: 430.972769 REG 2/3: 430.972882
MASS : 342.97957 380.97631 430.97318
REF MASS : 342.97924 380.97605 430.97285
PEAK WIDTH [ppm]: 98.94822 99.00880 100.96704
Active Register: 2 0.05 1.00
N REG RCOPY1 RCOPY2 RCOPY3 LIMIT CENTER SPREAD ERASE RESUME PAGE
PEAK:
Thu Jul 14 08:49:50 2011
mat95
MAT 95

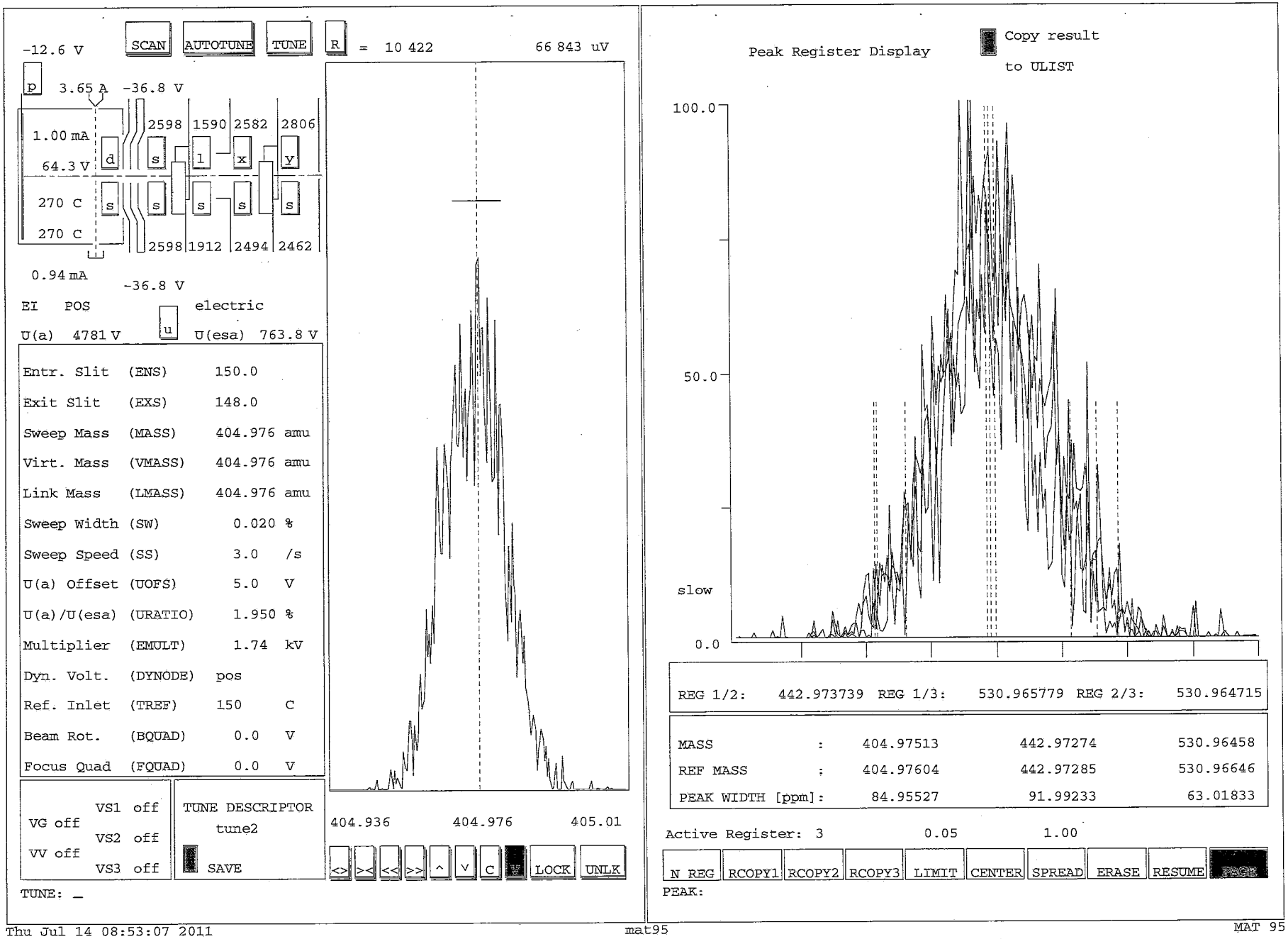
H-2914

2913


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 422
155 128 uV
p
3.65 A
-36.8 V
1.00 mA
64.3 V
270 C
270 C
0.90 mA
-36.8 V
2598 1590 2582 2806
2598 1912 2494 2462
d
s
l
x
y
EI POS
electric
U(a) 4779 V
U(esa) 763.8 V
u
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 342.979 amu
Virt. Mass (VMASS) 342.979 amu
Link Mass (LMASS) 342.979 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VG off
VV off
VS1 off
VS2 off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
342.945
342.979
343.01
<>
><
<<
>>
^
v
C
LOCK
UNLK
TUNE:
Diagnostic Display
Copy result
to ULIST
100.0
50.0
slow
0.0
R pm 342.97957
E rm 342.97924
G fm 342.94494
I lm 343.01350
S pc 7969168.46
T pl 7969562.80
E pr 7968774.27
R bl 2385.03
1 v 162067.00
R pm 380.97631
E rm 380.97605
G fm 380.93797
I lm 381.01417
S pc 7174361.97
T pl 7174728.84
E pr 7174018.51
R bl 625.00
2 v 117852.00
R pm 430.97318
E rm 430.97285
G fm 430.92974
I lm 431.01591
S pc 6342069.69
T pl 6342388.83
E pr 6341748.49
R bl 625.00
3 v 56971.00
RATIO REG 1/2 REG 1/3 REG 2/3
PEAK CENTER 1.1107843 1.2565564 1.1312335
PC+DELTA 1.1107843 1.2565564 1.1312335
PC+DELTA/RM 0.9999997 0.9999998 1.0000001
REF MASS 1.1107846 1.2565567 1.1312335
Active Register: 2
0.05
1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK: _
Thu Jul 14 08:50:04 2011
mat95
MAT 95

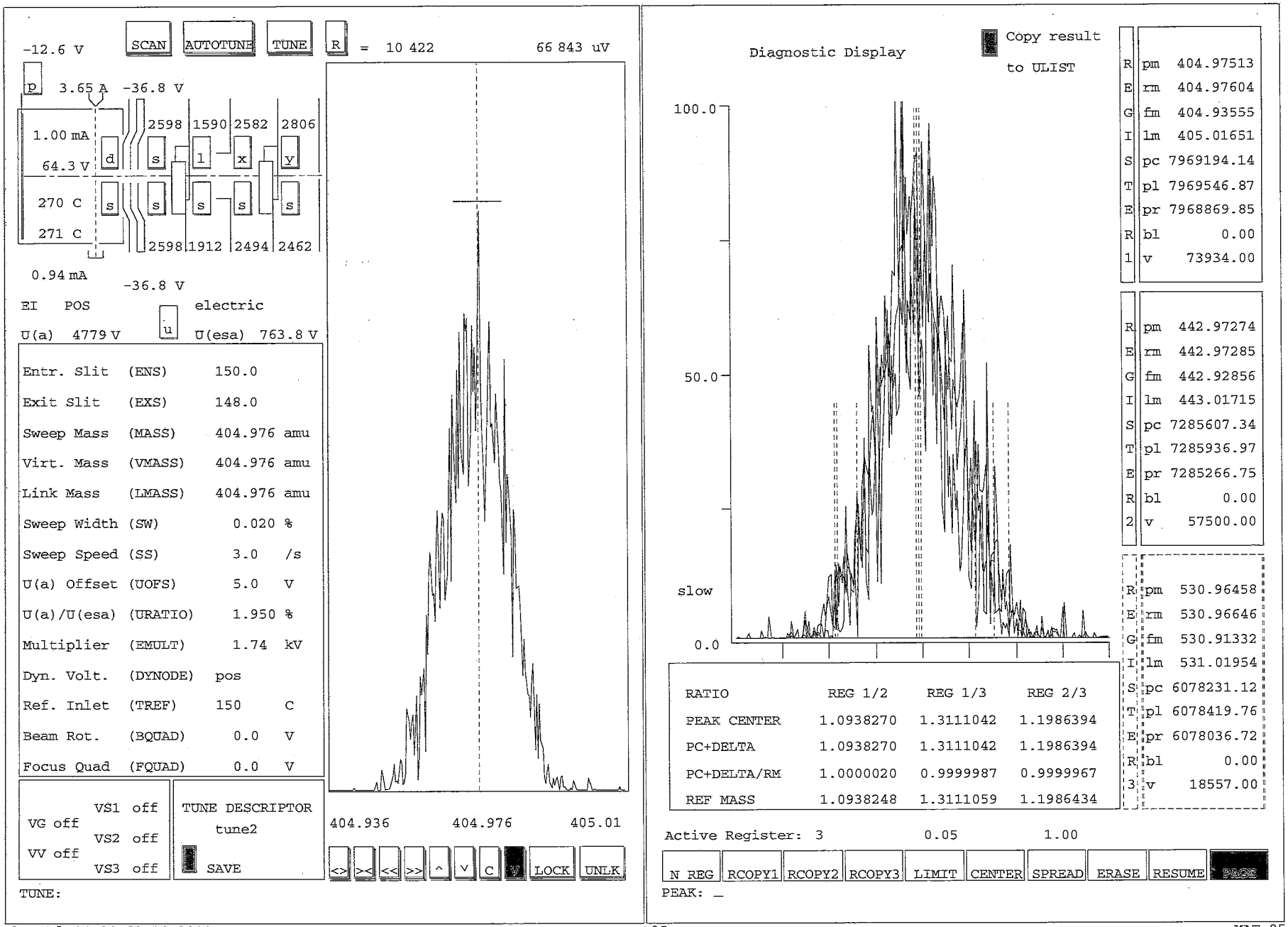
H-2915

2914


-12.6 V
SCAN
AUTOTUNE
TUNE
R
= 10 422
66 843 uV
p
3.65 A
-36.8 V
2598 1590 2582 2806
1.00 mA
64.3 V
d
s
l
x
y
270 C
270 C
2598 1912 2494 2462
0.94 mA
-36.8 V
EI POS
electric
U(a) 4781 V
u
U(esa) 763.8 V
Entr. Slit (ENS) 150.0
Exit Slit (EXS) 148.0
Sweep Mass (MASS) 404.976 amu
Virt. Mass (VMASS) 404.976 amu
Link Mass (LMASS) 404.976 amu
Sweep Width (SW) 0.020 %
Sweep Speed (SS) 3.0 /s
U(a) Offset (UOFS) 5.0 V
U(a)/U(esa) (URATIO) 1.950 %
Multiplier (EMULT) 1.74 kV
Dyn. Volt. (DYNODE) pos
Ref. Inlet (TREF) 150 C
Beam Rot. (BQUAD) 0.0 V
Focus Quad (FQUAD) 0.0 V
VS1 off
VG off
VS2 off
VV off
VS3 off
TUNE DESCRIPTOR
tune2
SAVE
404.936
404.976
405.01
<>
><
<<
>>
^
v
C
V
LOCK
UNLK
TUNE: _
Peak Register Display
Copy result
to ULIST
100.0
50.0
slow
0.0
REG 1/2: 442.973739 REG 1/3: 530.965779 REG 2/3: 530.964715
MASS : 404.97513 442.97274 530.96458
REF MASS : 404.97604 442.97285 530.96646
PEAK WIDTH [ppm]: 84.95527 91.99233 63.01833
Active Register: 3 0.05 1.00
N REG
RCOPY1
RCOPY2
RCOPY3
LIMIT
CENTER
SPREAD
ERASE
RESUME
PAGE
PEAK:
Thu Jul 14 08:53:07 2011
mat95
MAT 95

H-2916

2915

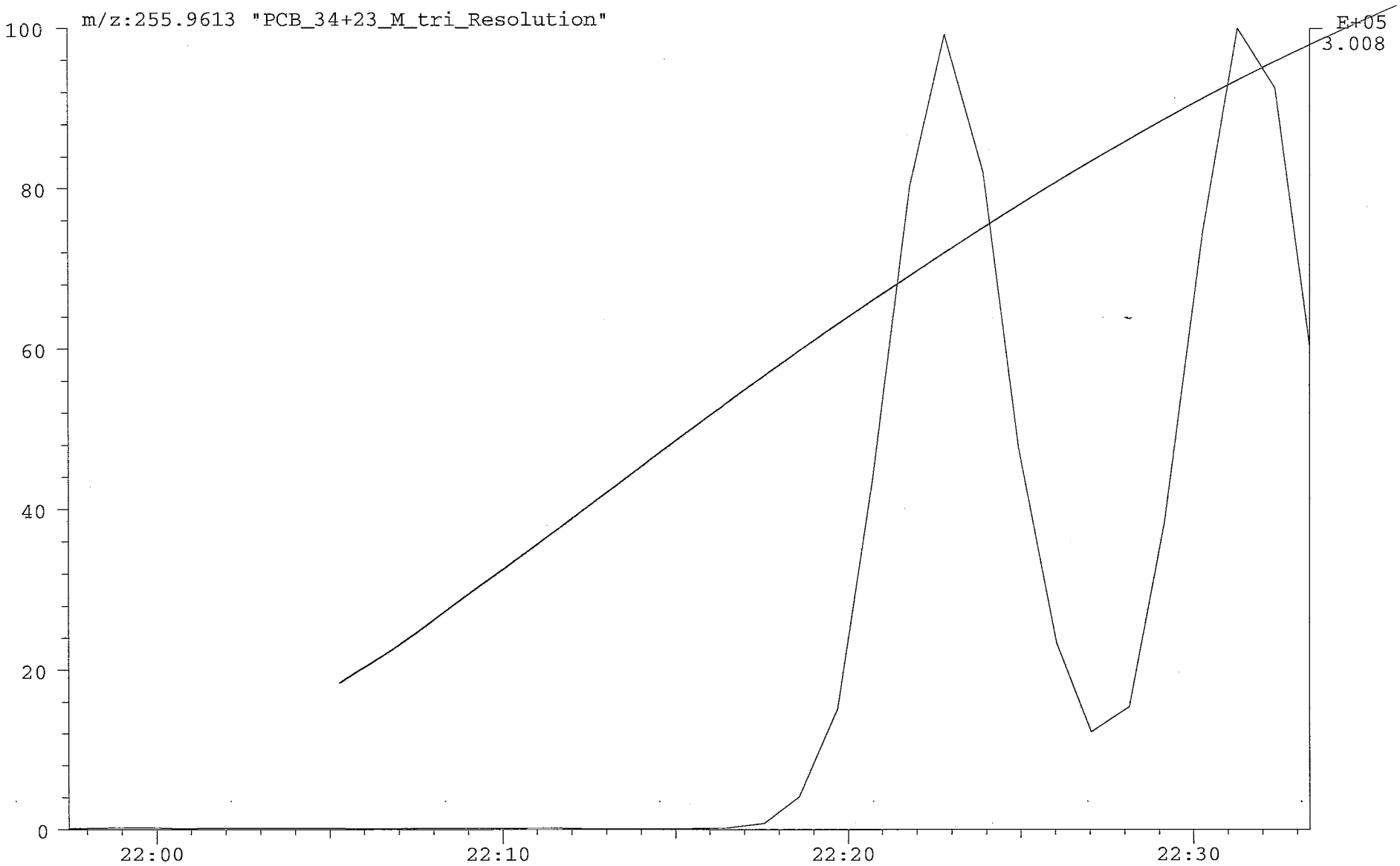


Thu Jul 14 08:53:18 2011 mat95 MAT 95

H-2917

2916

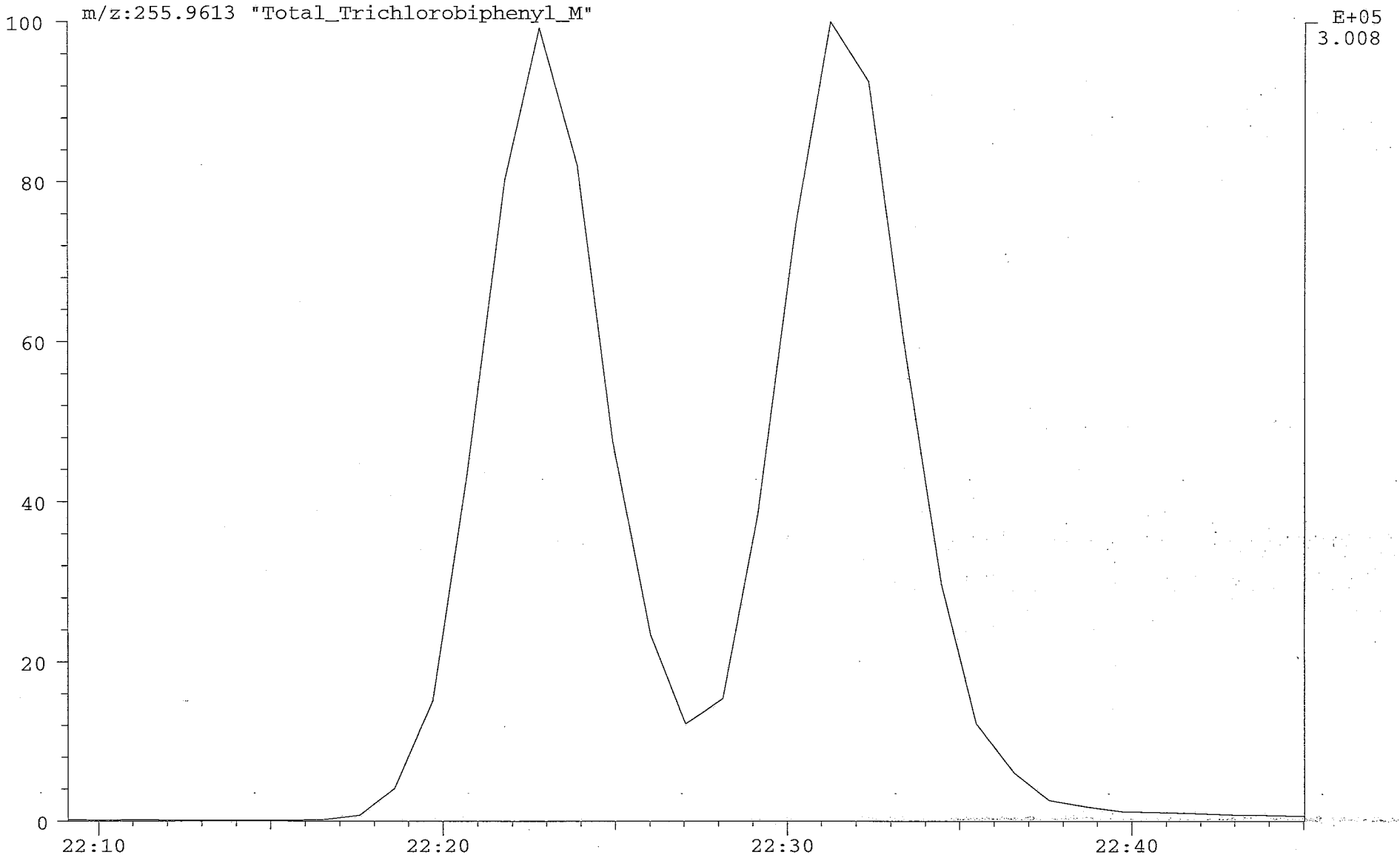
CHRO: a110713s1 13-Jul-11 Elapse: 22:10.1 631
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 619 > 653 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 3.0
Disp: Height Area



H-2918

2917

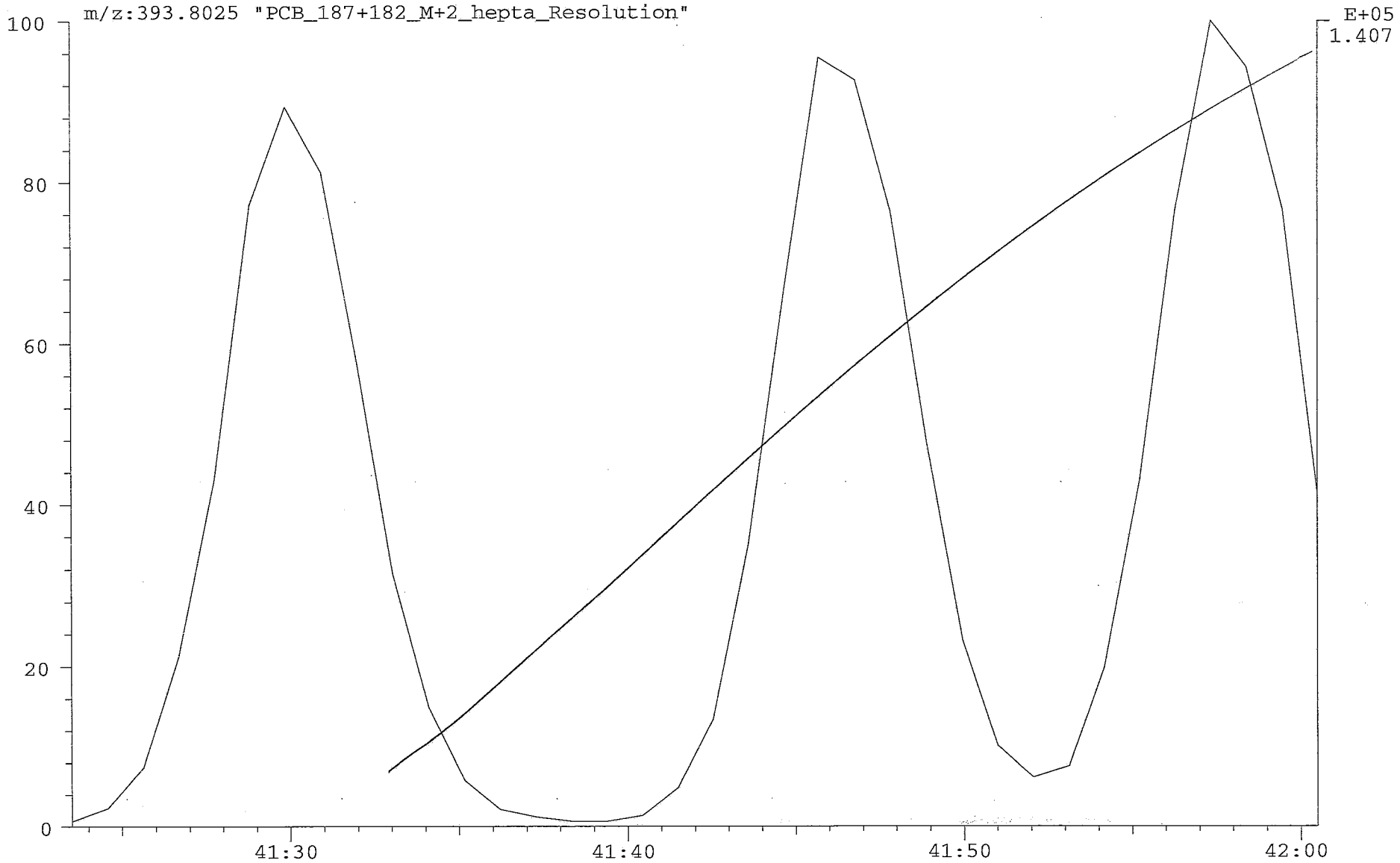
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 630 > 664 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 3.0
Disp: Height Area



H-2919

2918

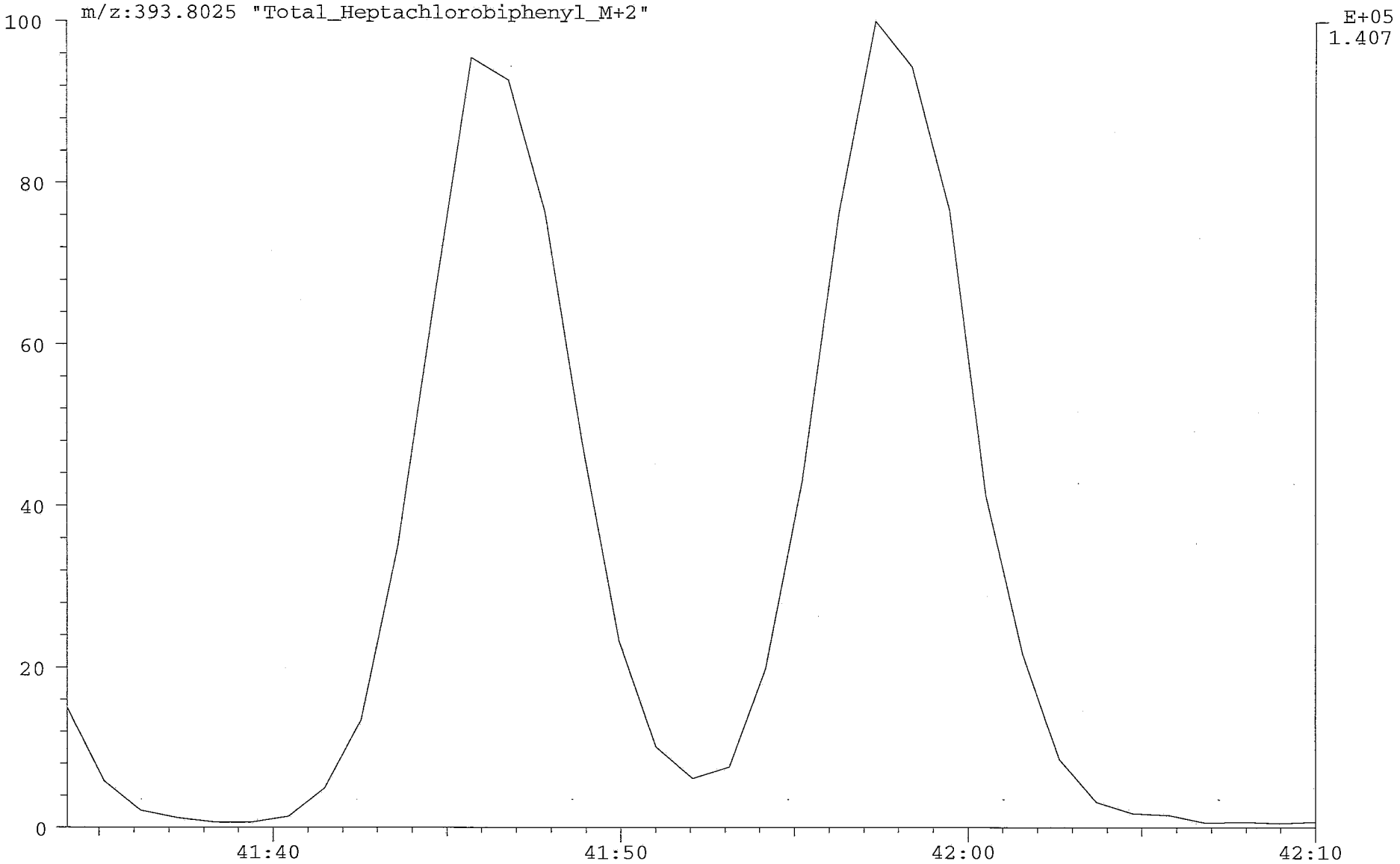
CHRO: a110713s1 13-Jul-11 Elapse: 41:44 1739
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1719 > 1754 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 3.0
Disp: Height Area



H-2920

2919

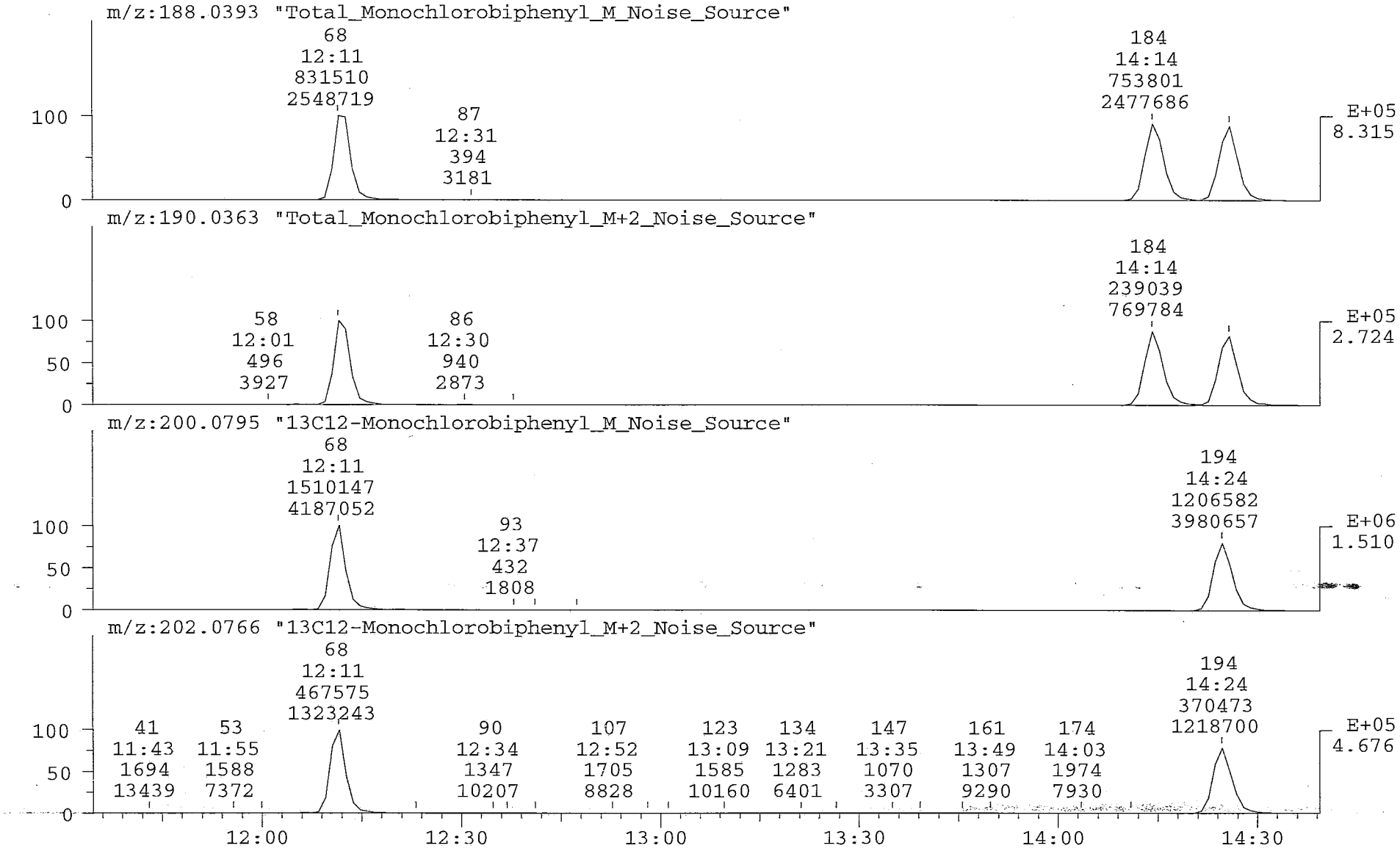
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1729 > 1763 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 3.0
Disp: Height Area



H-2921

2920

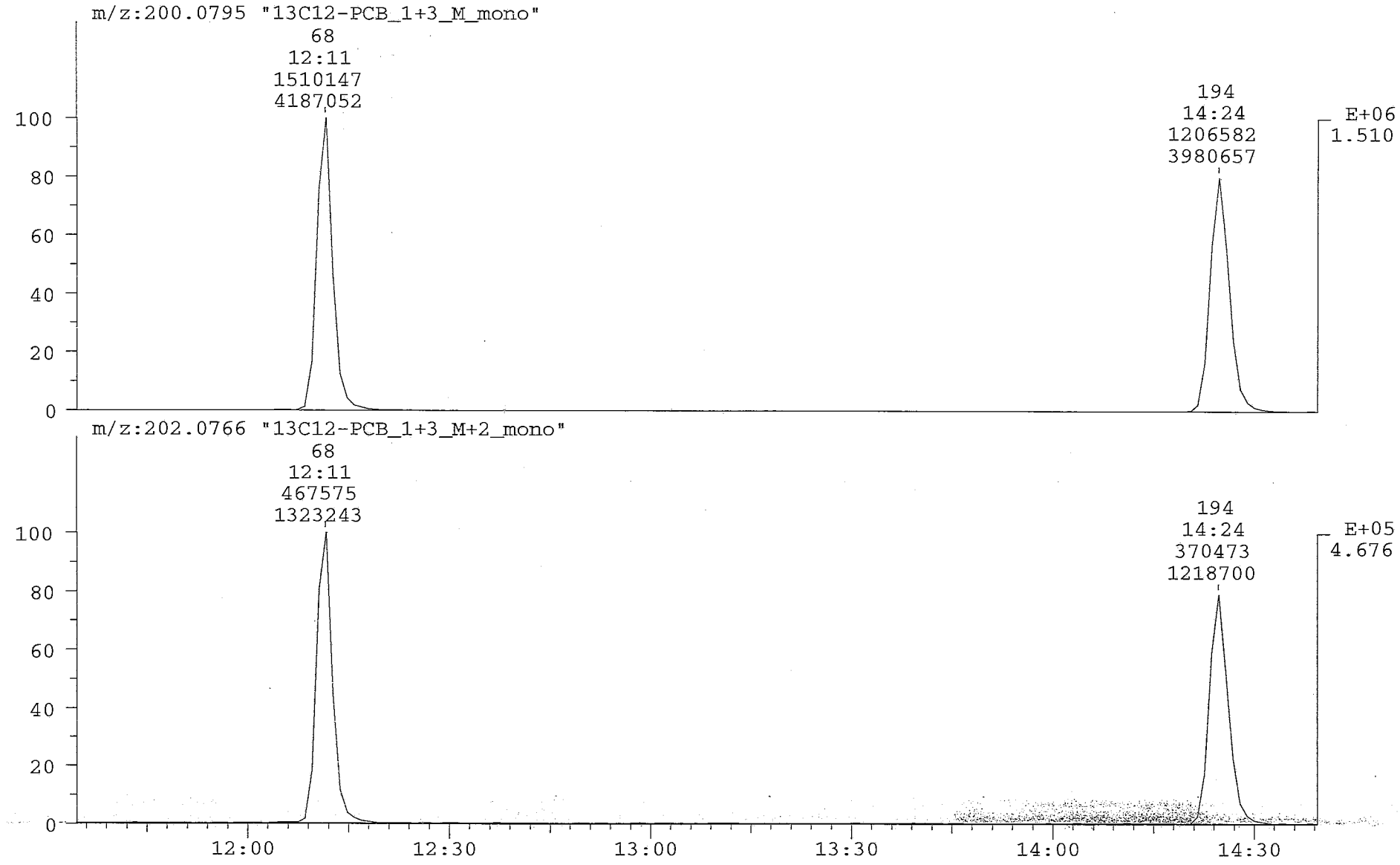
CHRO: a110713s1 13-Jul-11 Elapse: 13:20.2 133
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2922

2921

CHRO: a110713s1 13-Jul-11 Elapse: 13:20.2 133
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2923

2922

```
CHRO:  a110713s1                              13-Jul-11   Elapse:  12:02.0      59
Samp:  Vial 1 WO=PCB0100 Meth=IE3 Dil=1                   Start :  21:45:15   2602
Comm:  Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 Ver
Oper:  JMN          Client:  TA Knoxville                 Inlet :  GC     Vial   1
Peak:  100.00  ppm     Label wndw:   44 > 79              Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3               Label :  -3, 3.0
Disp:  Height  Area
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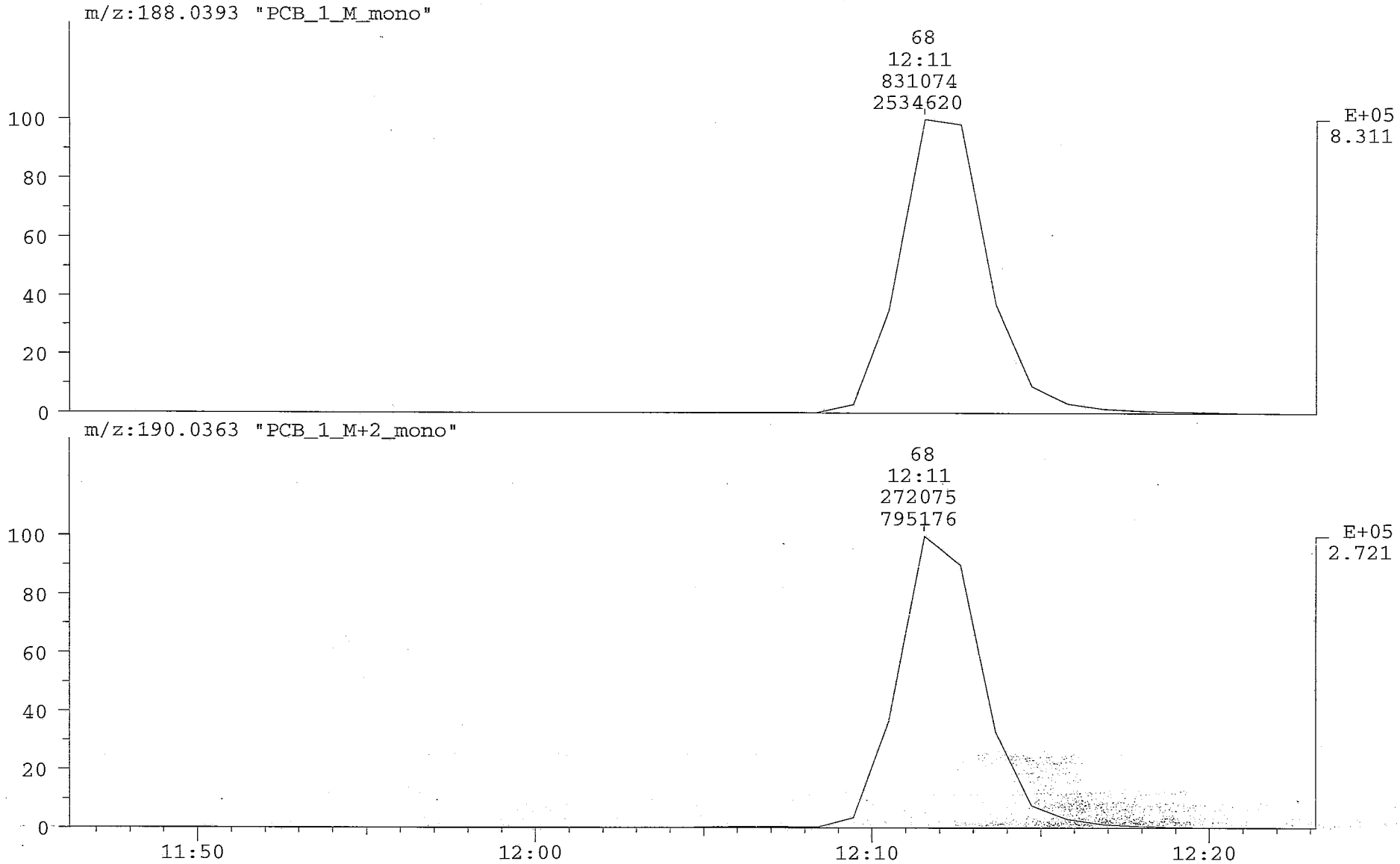
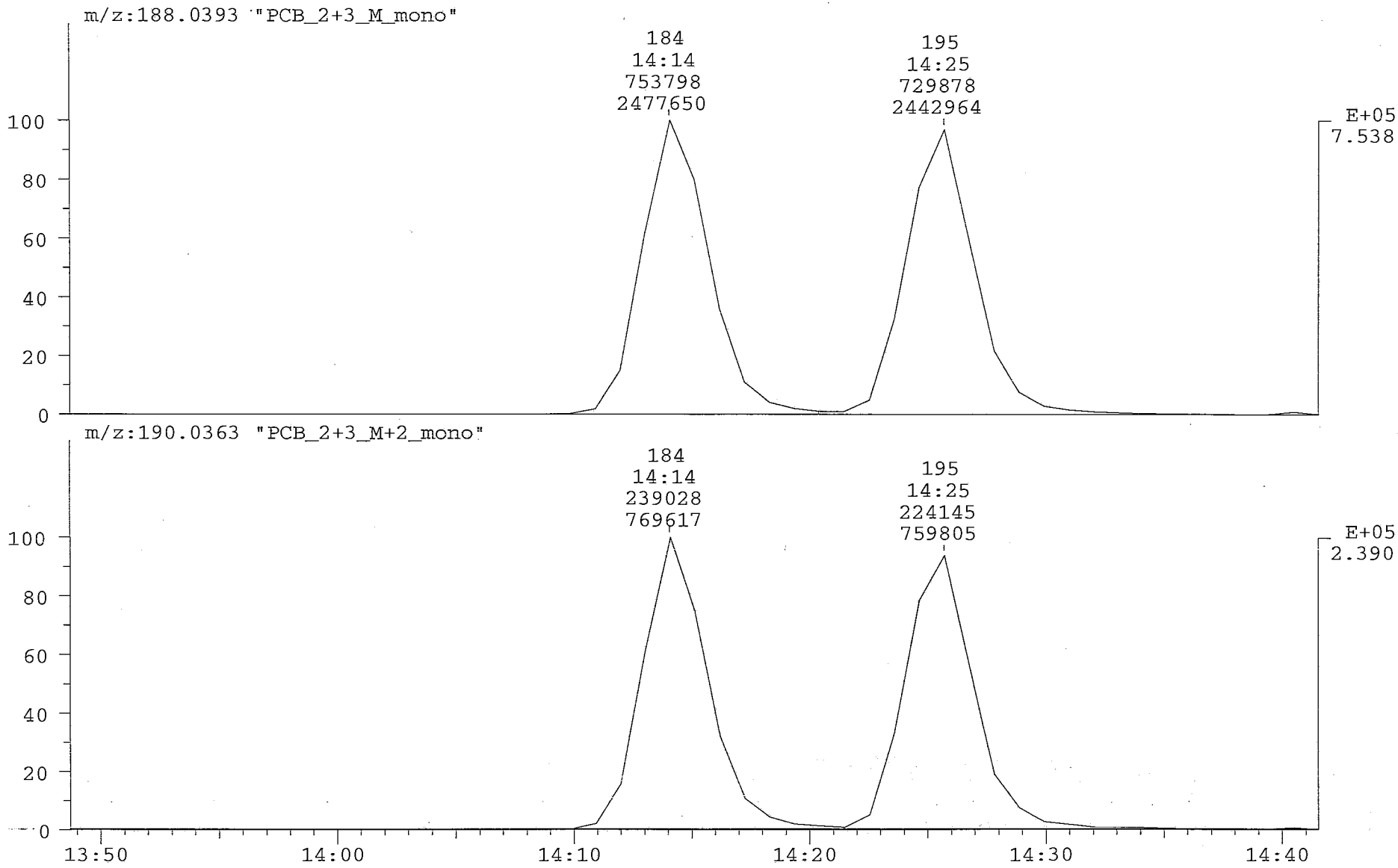


H-2924

2923

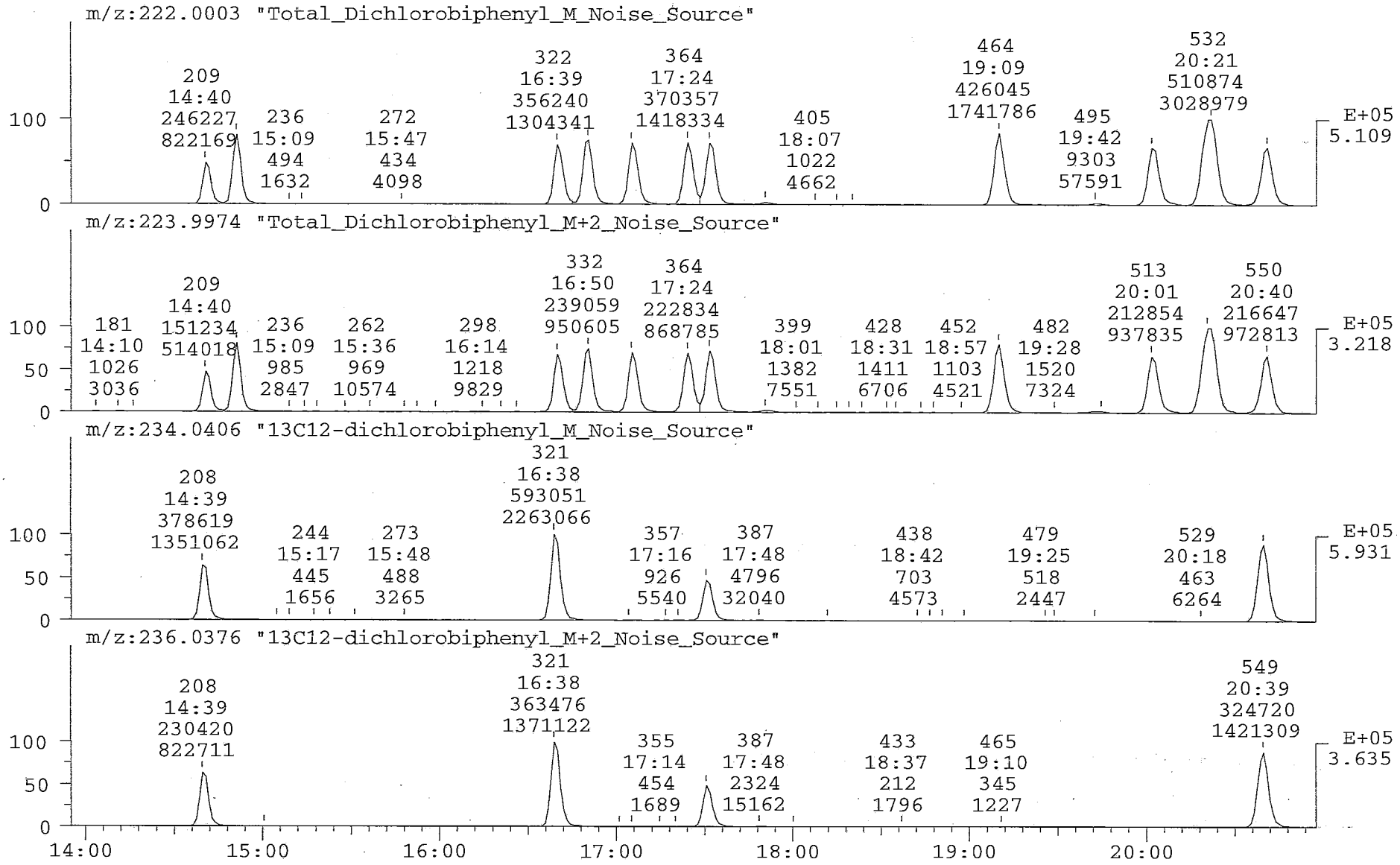
CHRO: a110713s1 13-Jul-11 Elapse: 14:09.8 180
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 160 > 210 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2925

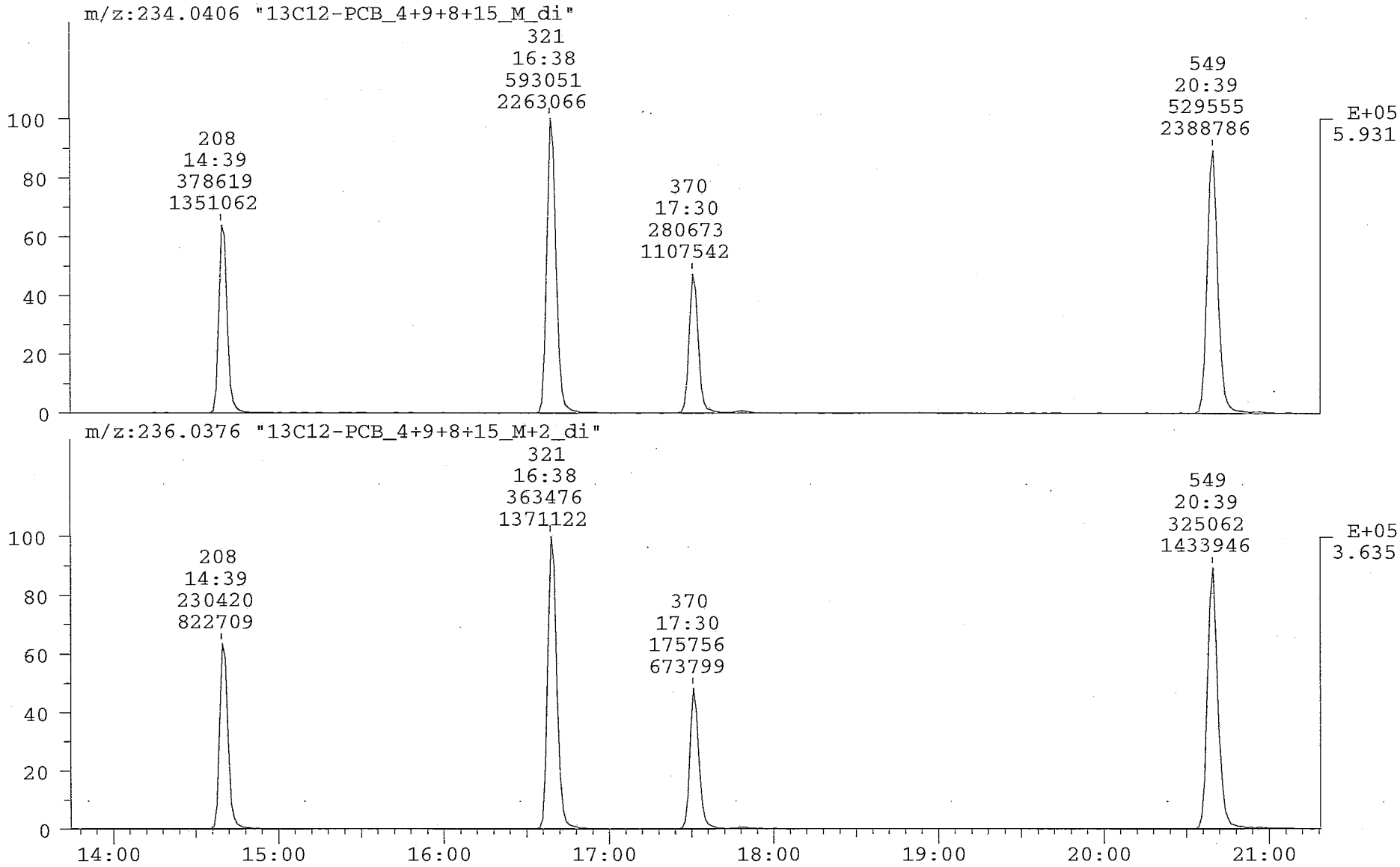
2924

CHRO: a110713s1 13-Jul-11 Elapse: 17:26.3 366
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2926

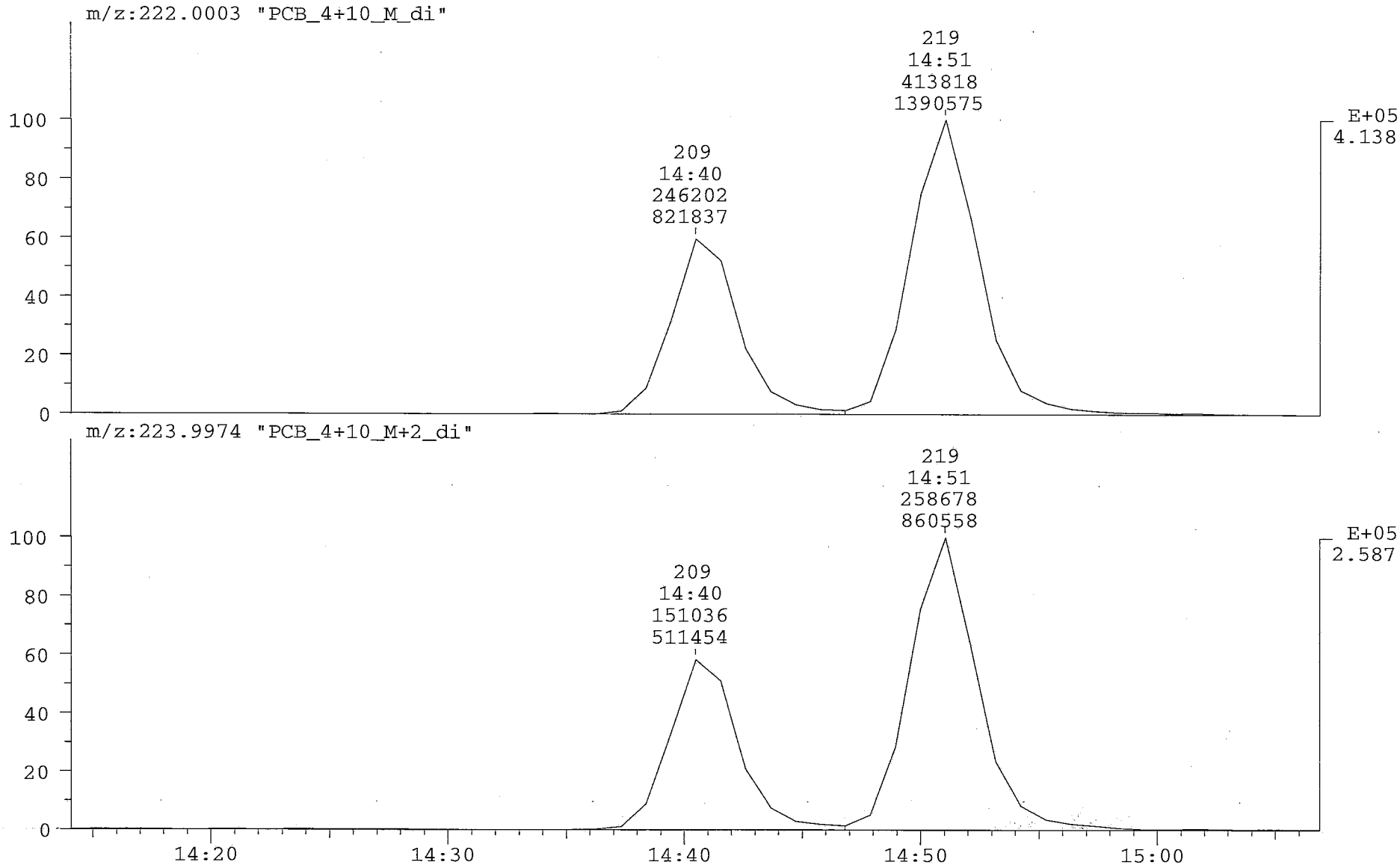
CHRO: a110713s1 13-Jul-11 Elapse: 17:26.3 366
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2927

2926

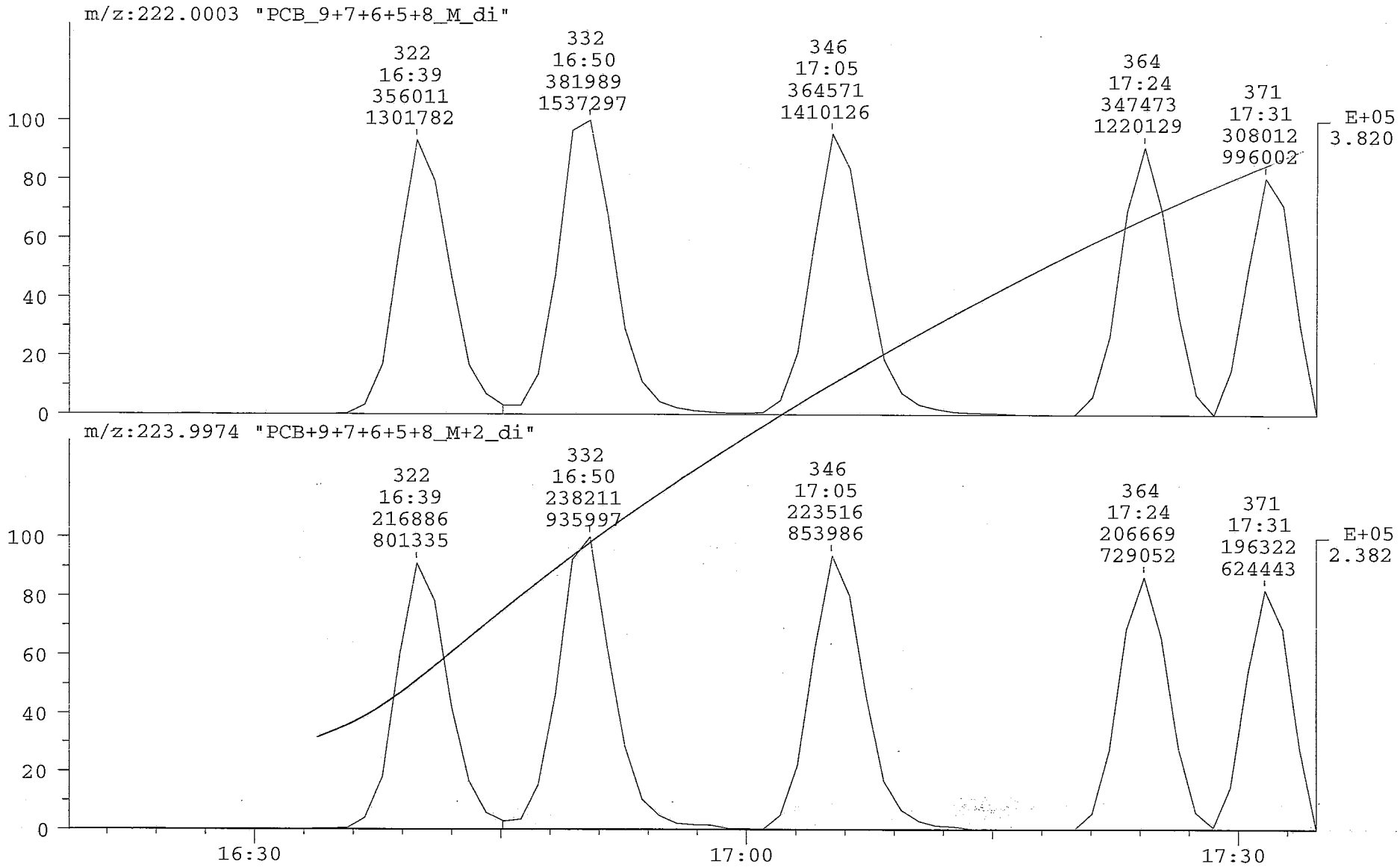
CHRO: a110713s1 13-Jul-11 Elapse: 14:37.3 206
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 184 > 234 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2928

2927

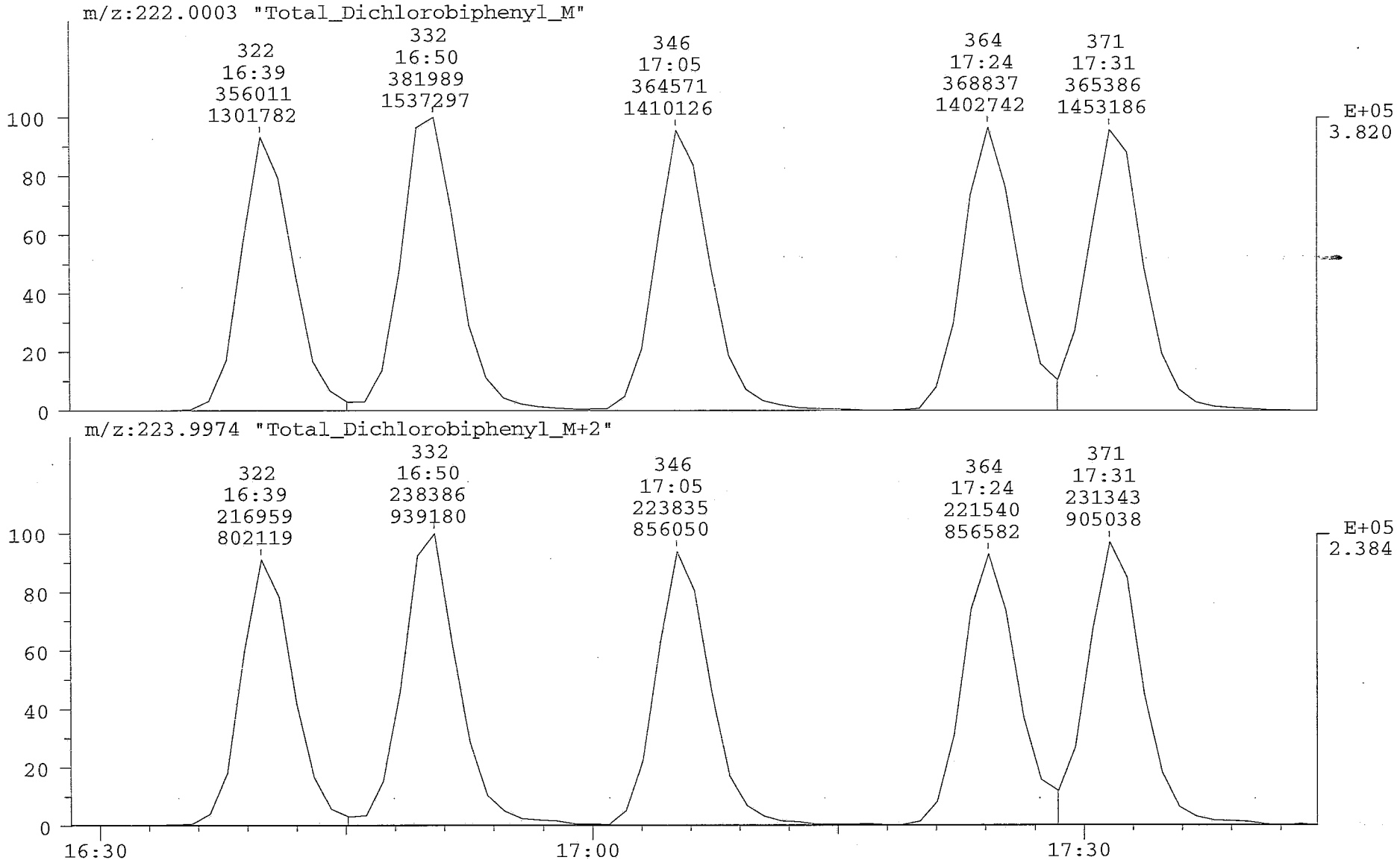
CHRO: a110713s1 13-Jul-11 Elapse: 16:55.7 337
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 302 > 374 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2929

2928

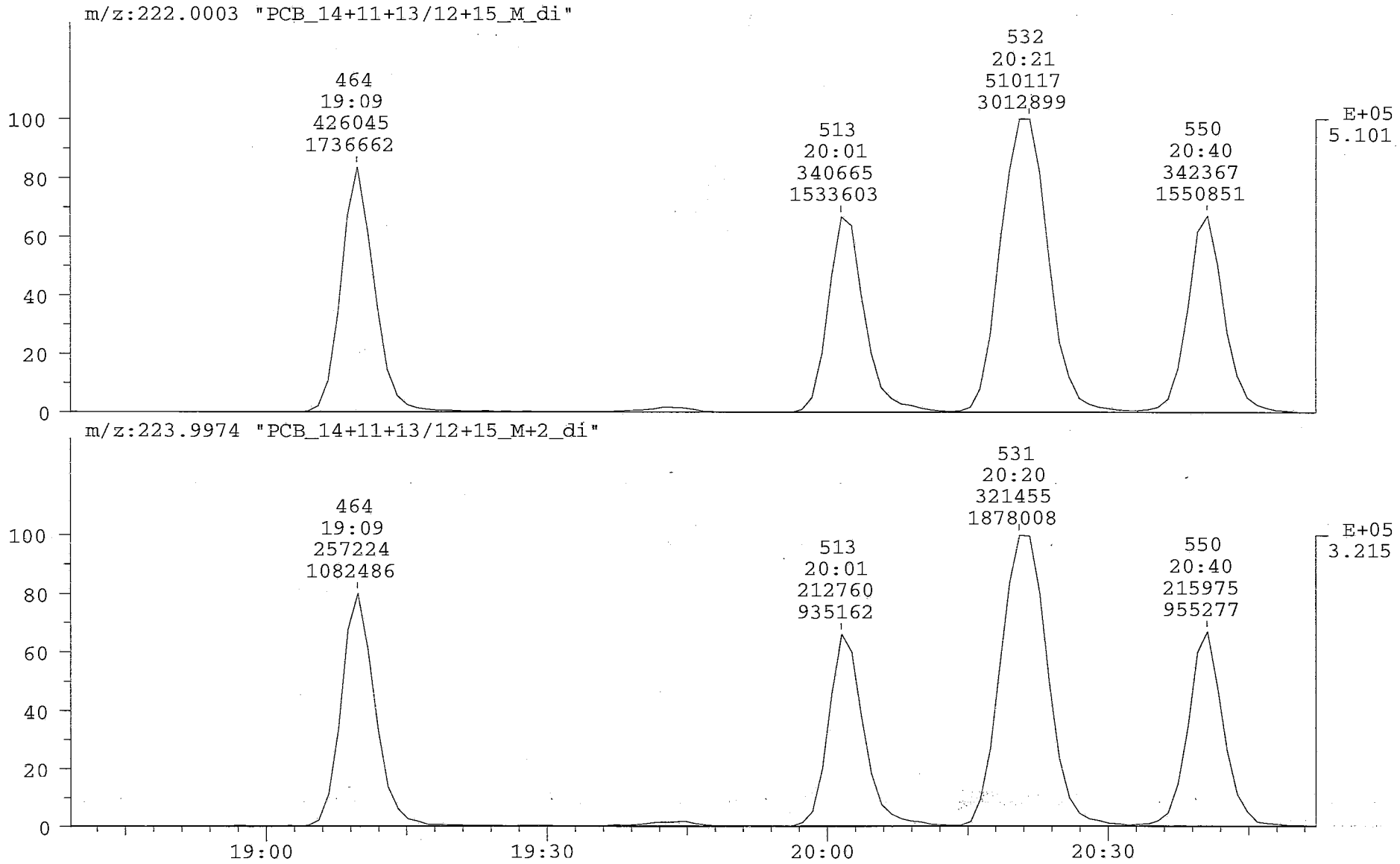
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 311 > 383 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2930

2929

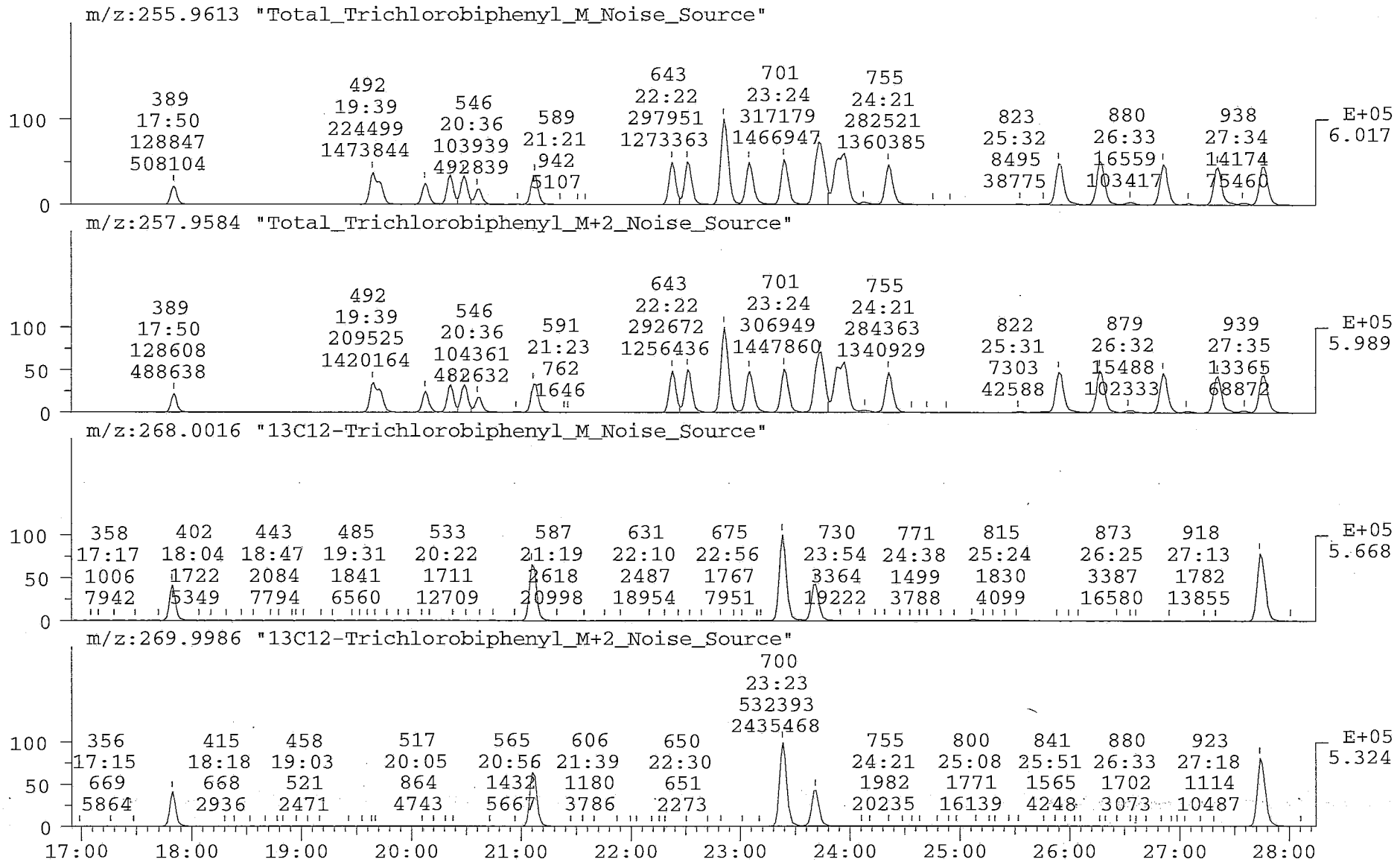
CHRO: a110713s1 13-Jul-11 Elapse: 19:40.4 493
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 435 > 561 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-2931

2930

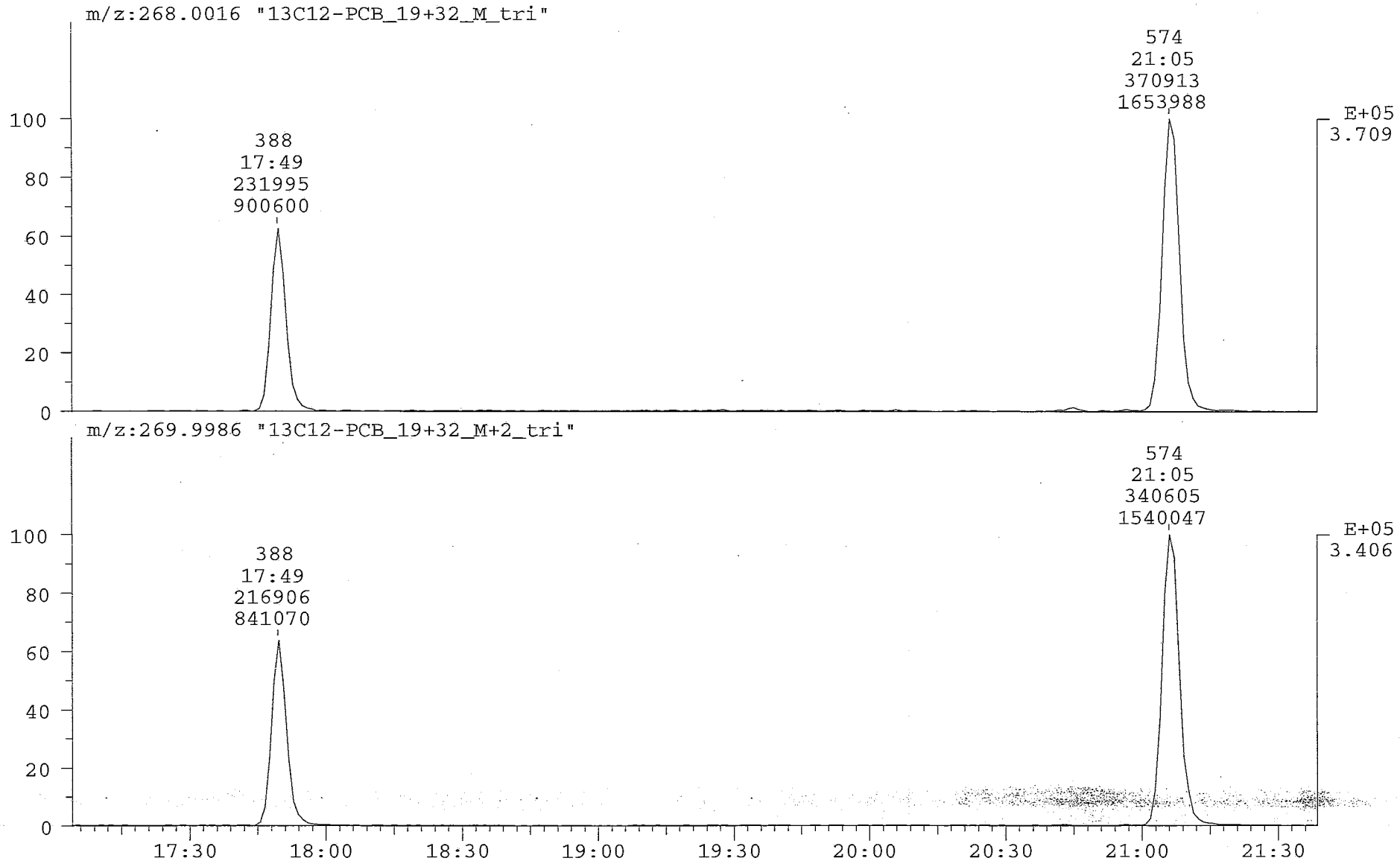
CHRO: a110713s1 13-Jul-11 Elapse: 22:36.6 656
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2932

2931

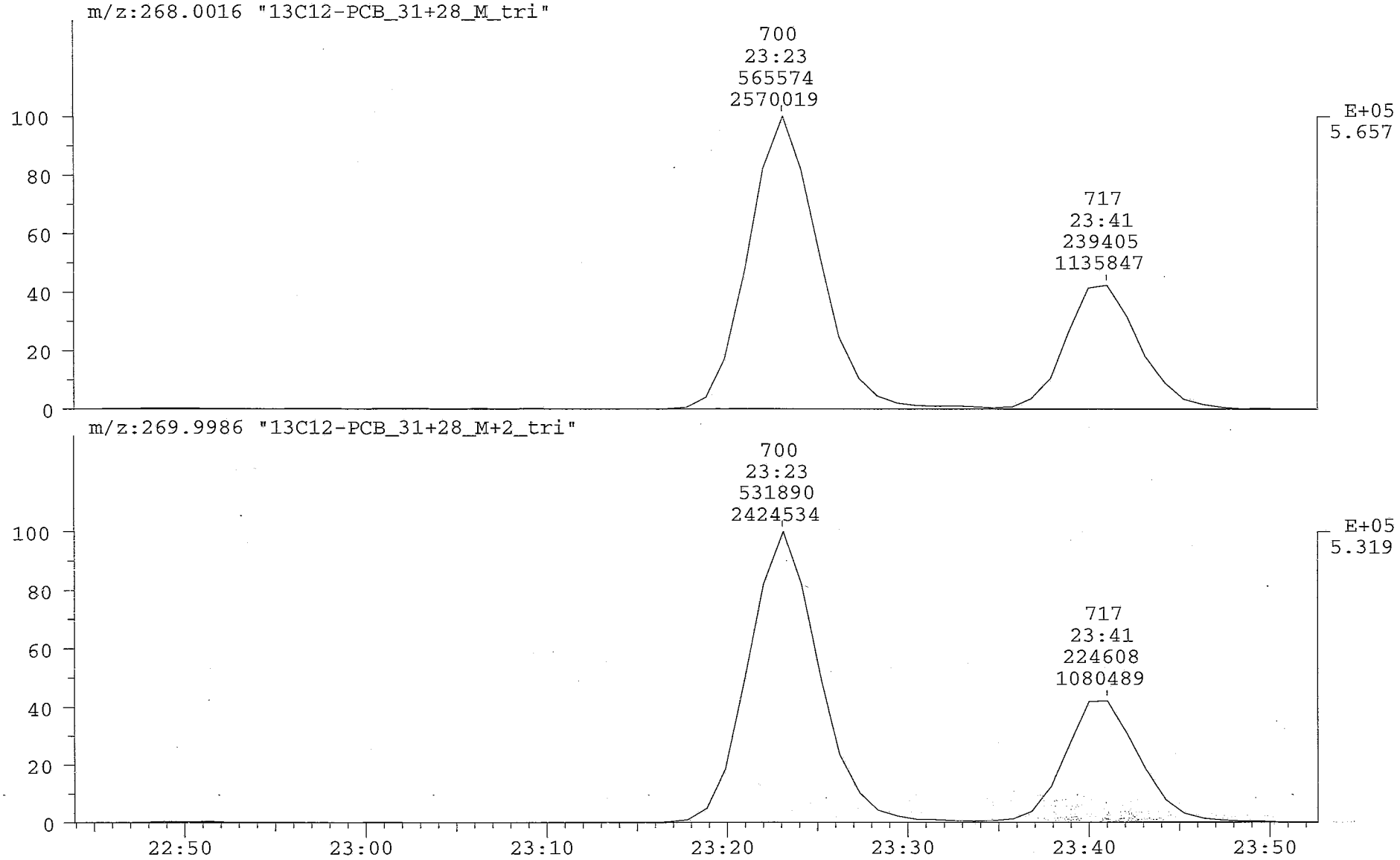
CHRO: a110713s1 13-Jul-11 Elapse: 19:00.3 455
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 345 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2933

2932

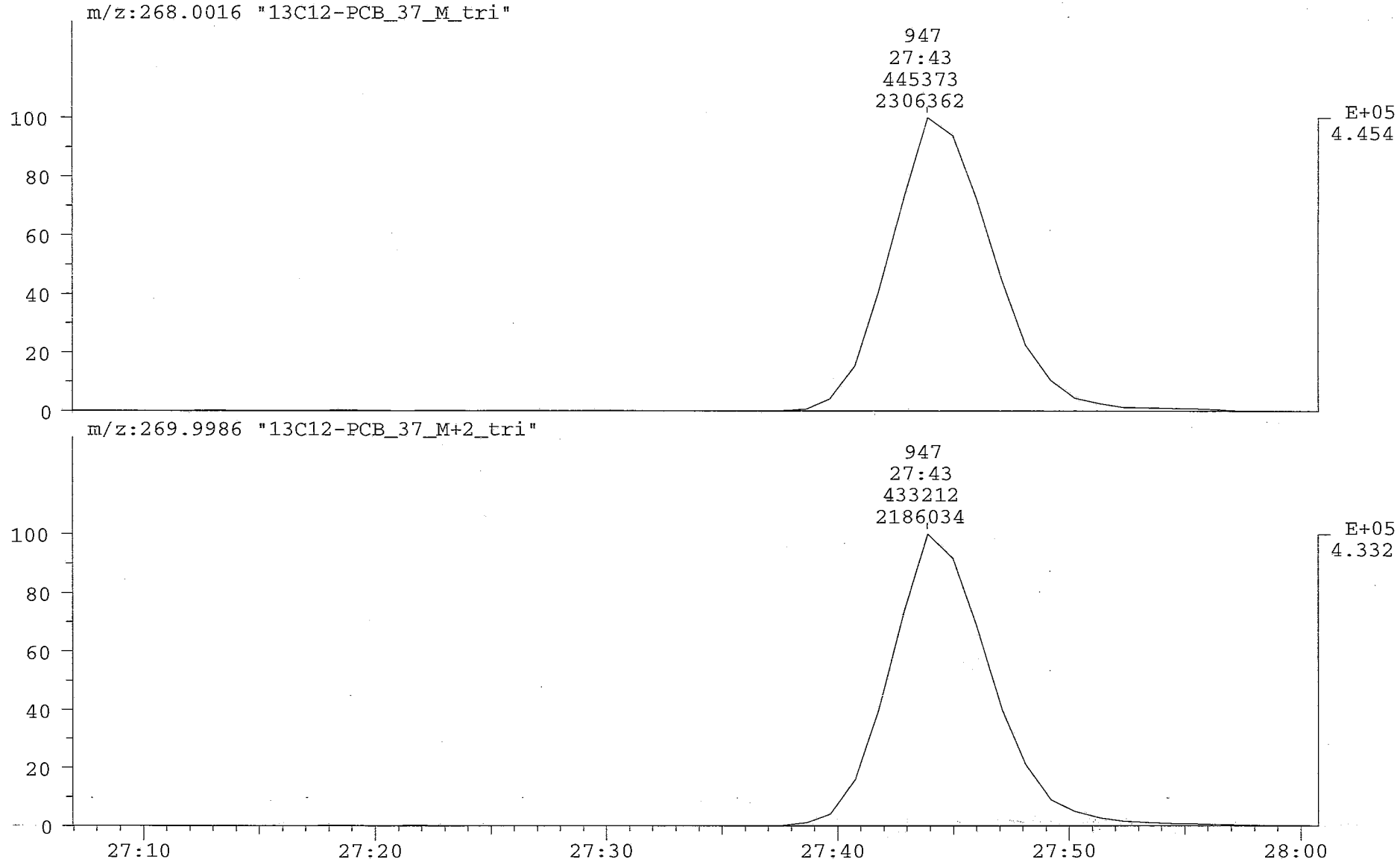
CHRO: a110713s1 13-Jul-11 Elapse: 23:10.4 688
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 663 > 728 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2934

2933

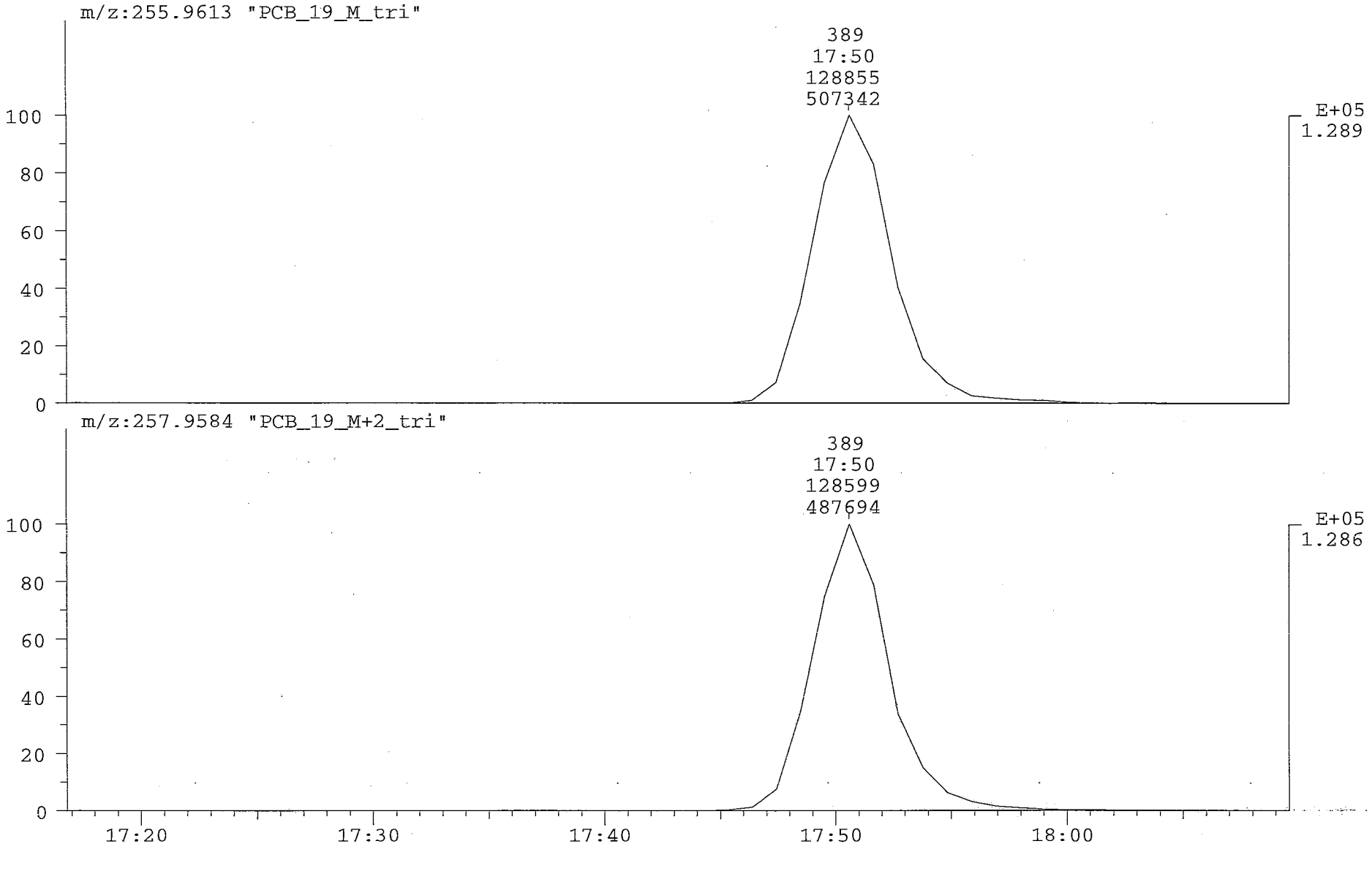
CHRO: a110713s1 13-Jul-11 Elapse: 27:28.1 932
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 912 > 963 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2935

2934

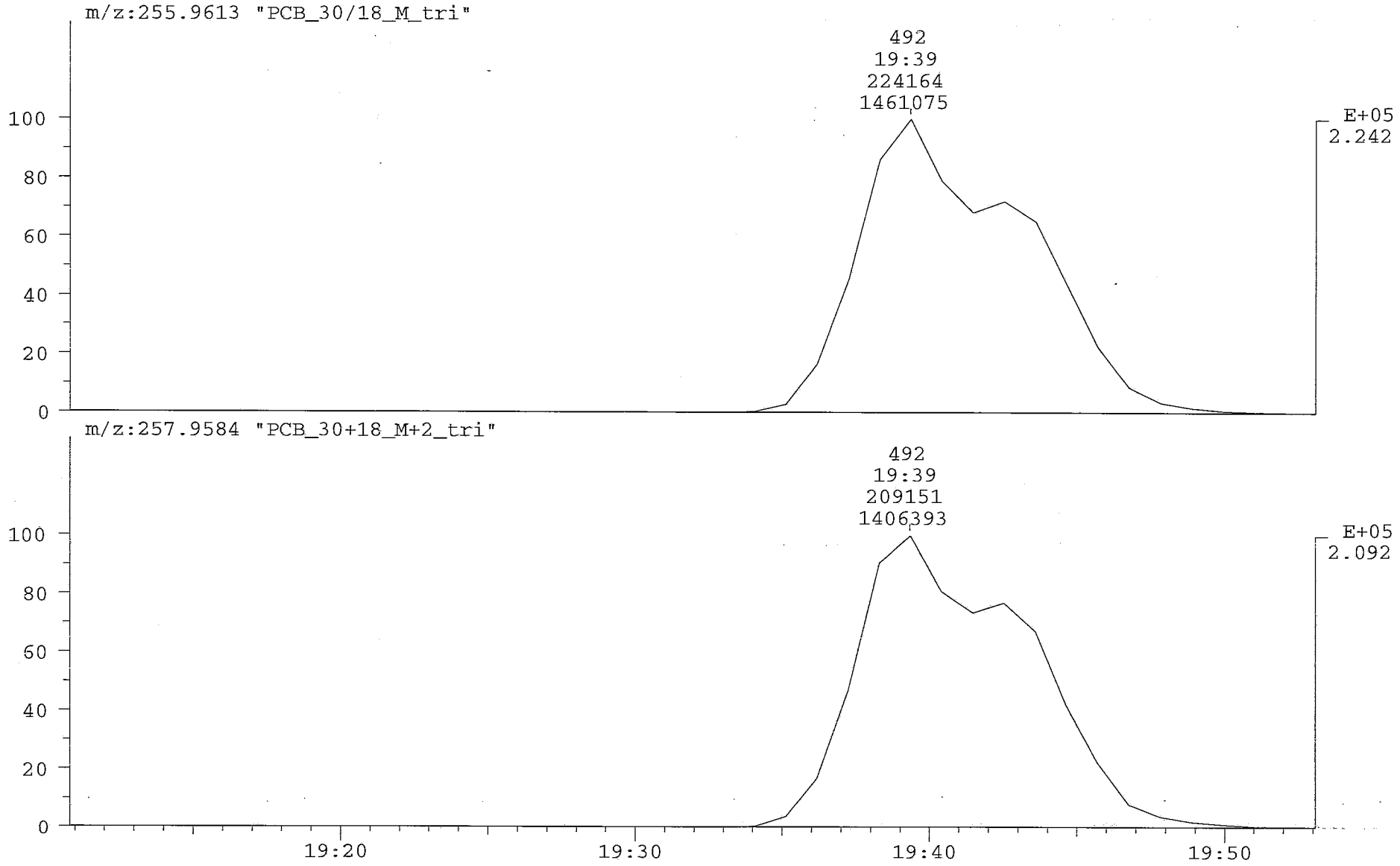
CHRO: a110713s1 13-Jul-11 Elapse: 17:37.9 377
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 357 > 407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2936

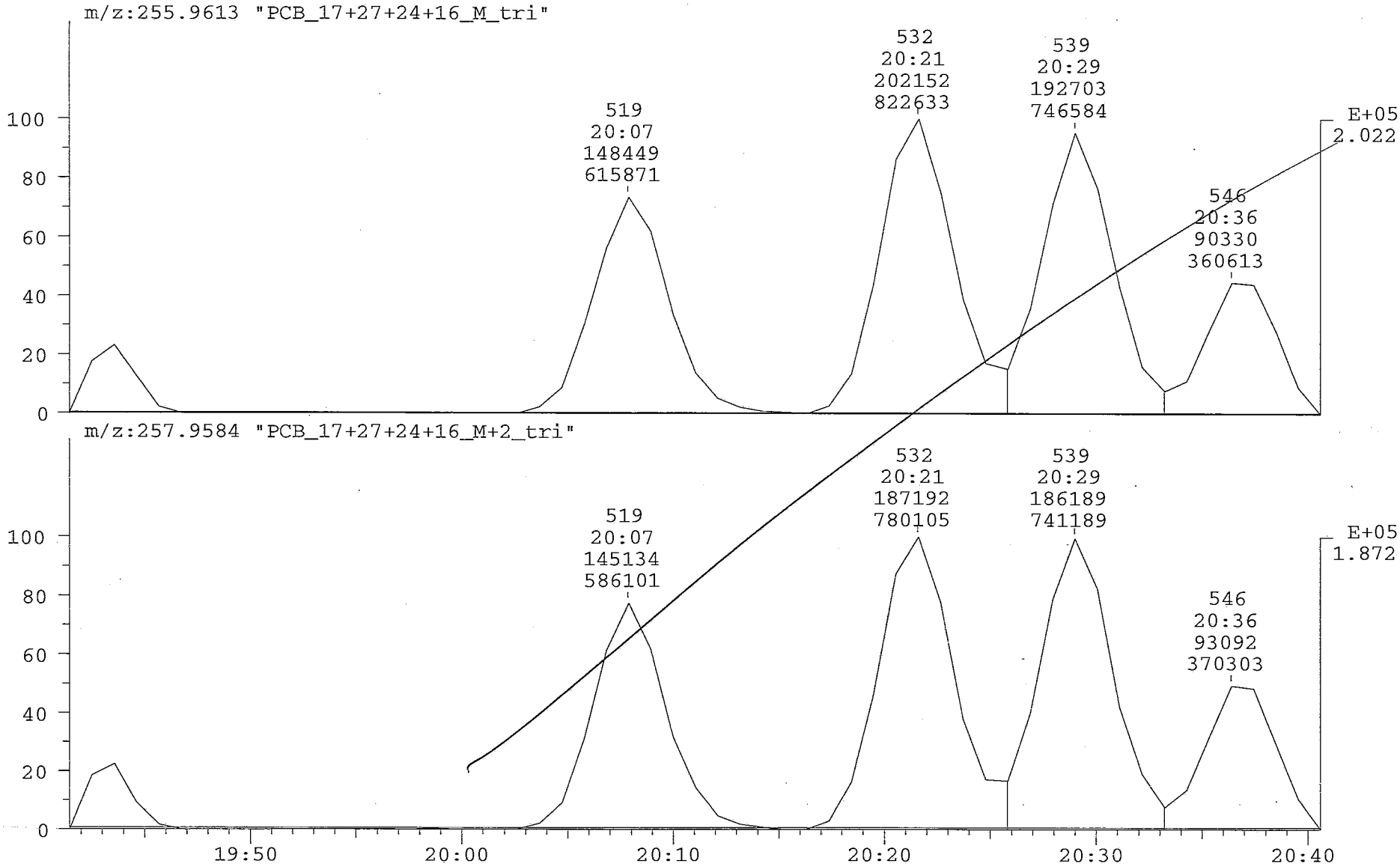
2935

CHRO: a110713s1 13-Jul-11 Elapse: 19:29.8 483
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 465 > 505 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-2937

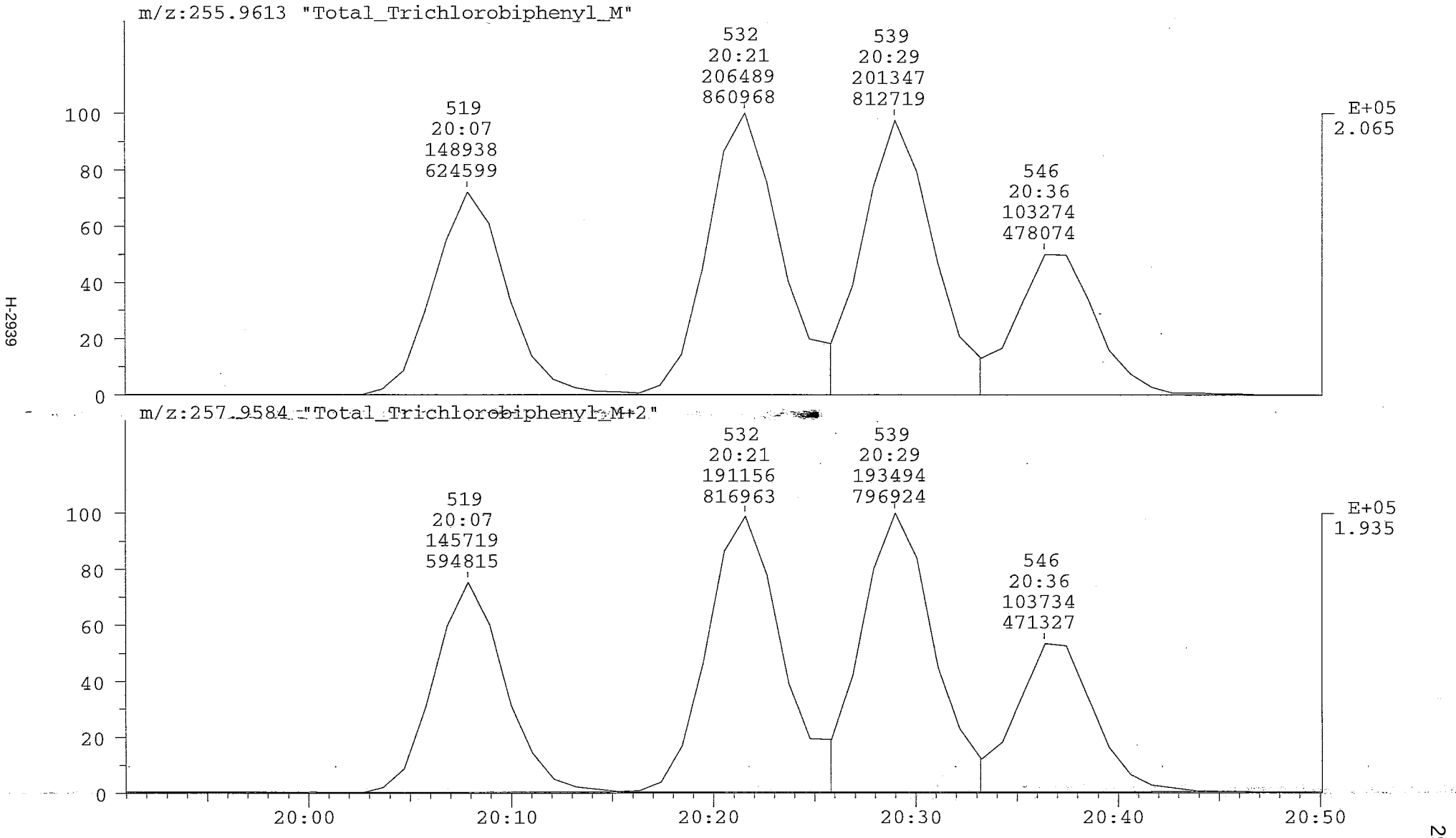
CHRO: a110713s1 13-Jul-11 Elapse: 20:08.9 520
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 494 > 550 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2938

2937

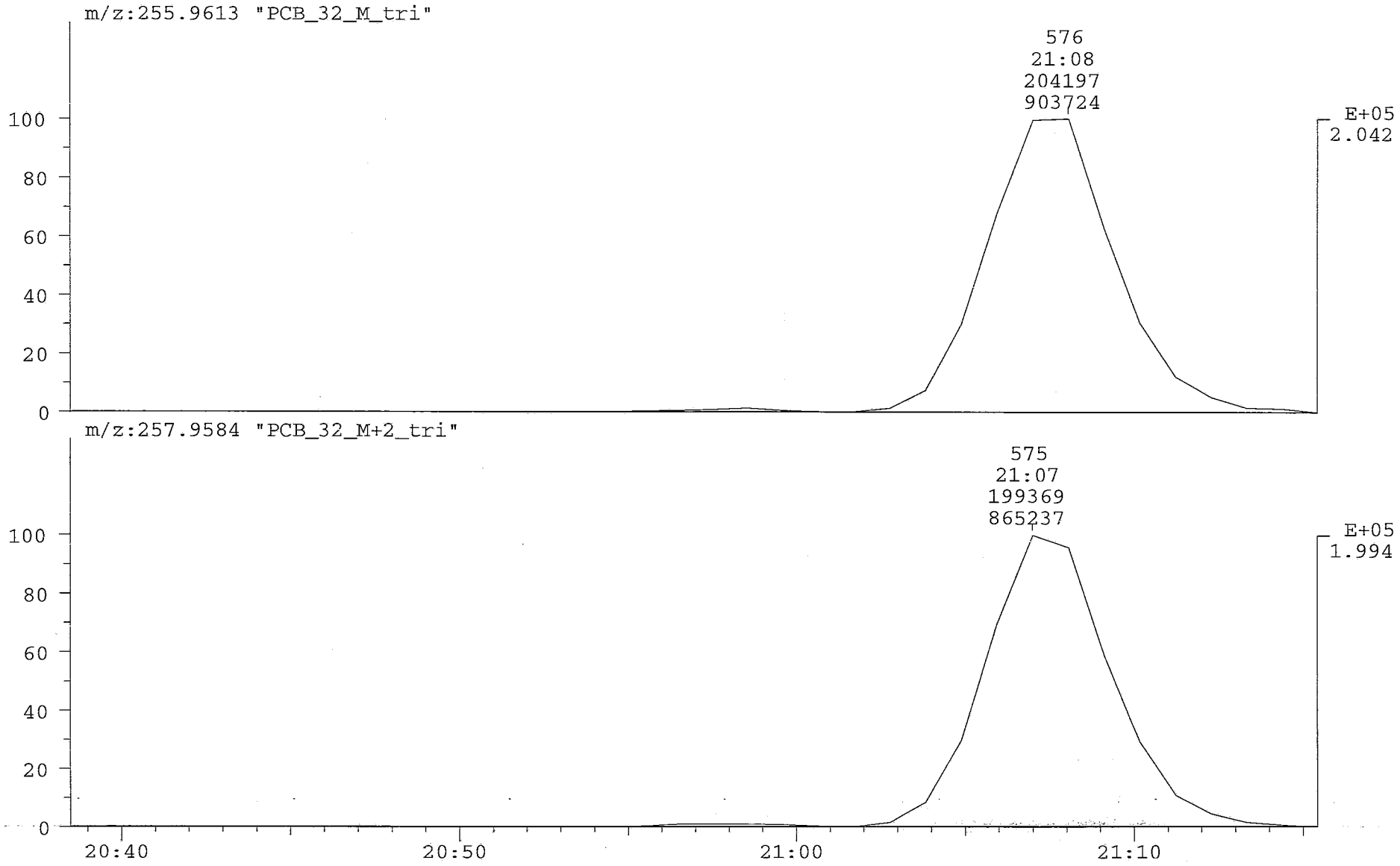
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 503 > 559 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2939

2938

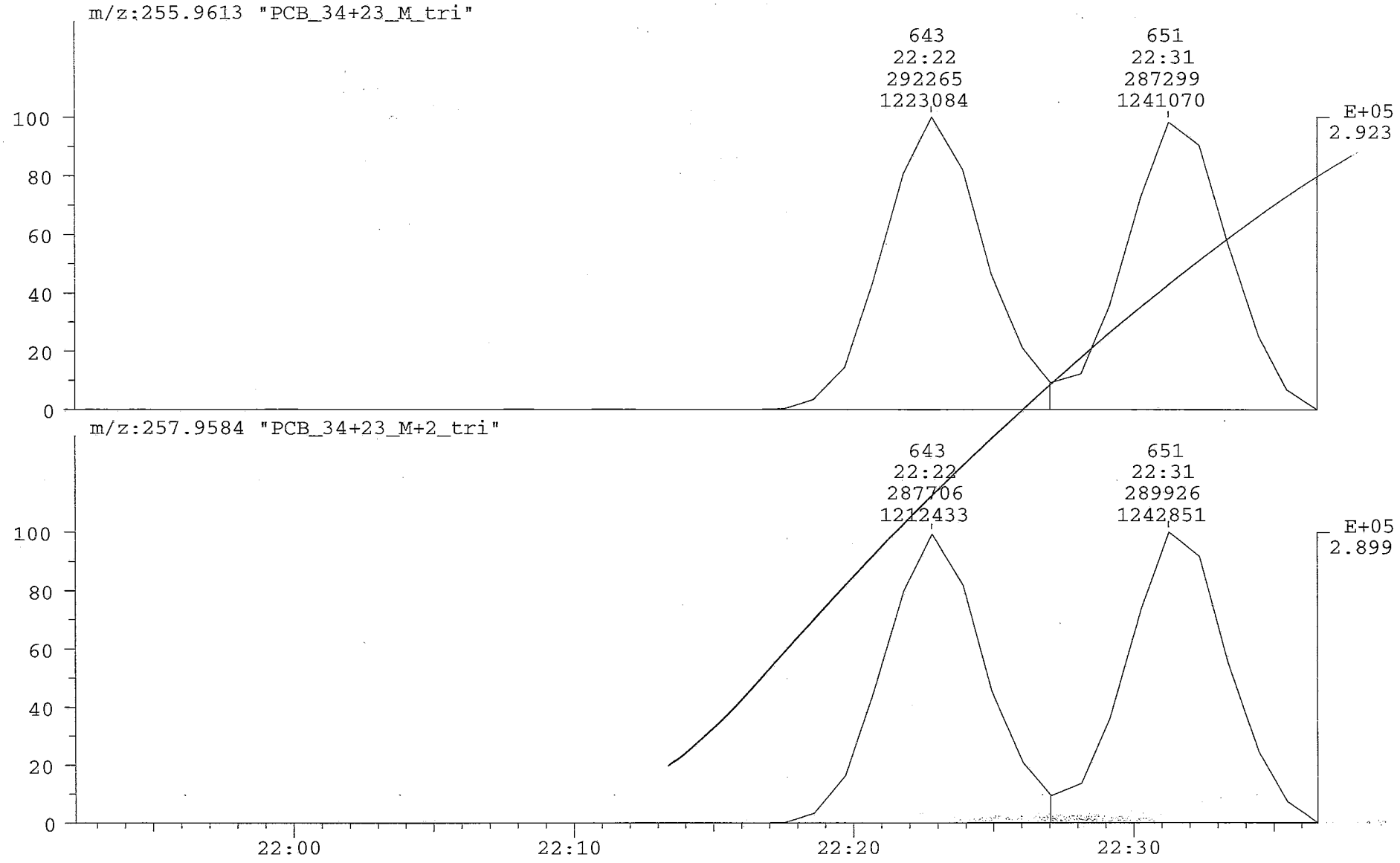
CHRO: a110713s1 13-Jul-11 Elapse: 20:54.3 563
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 548 > 583 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2940

2939

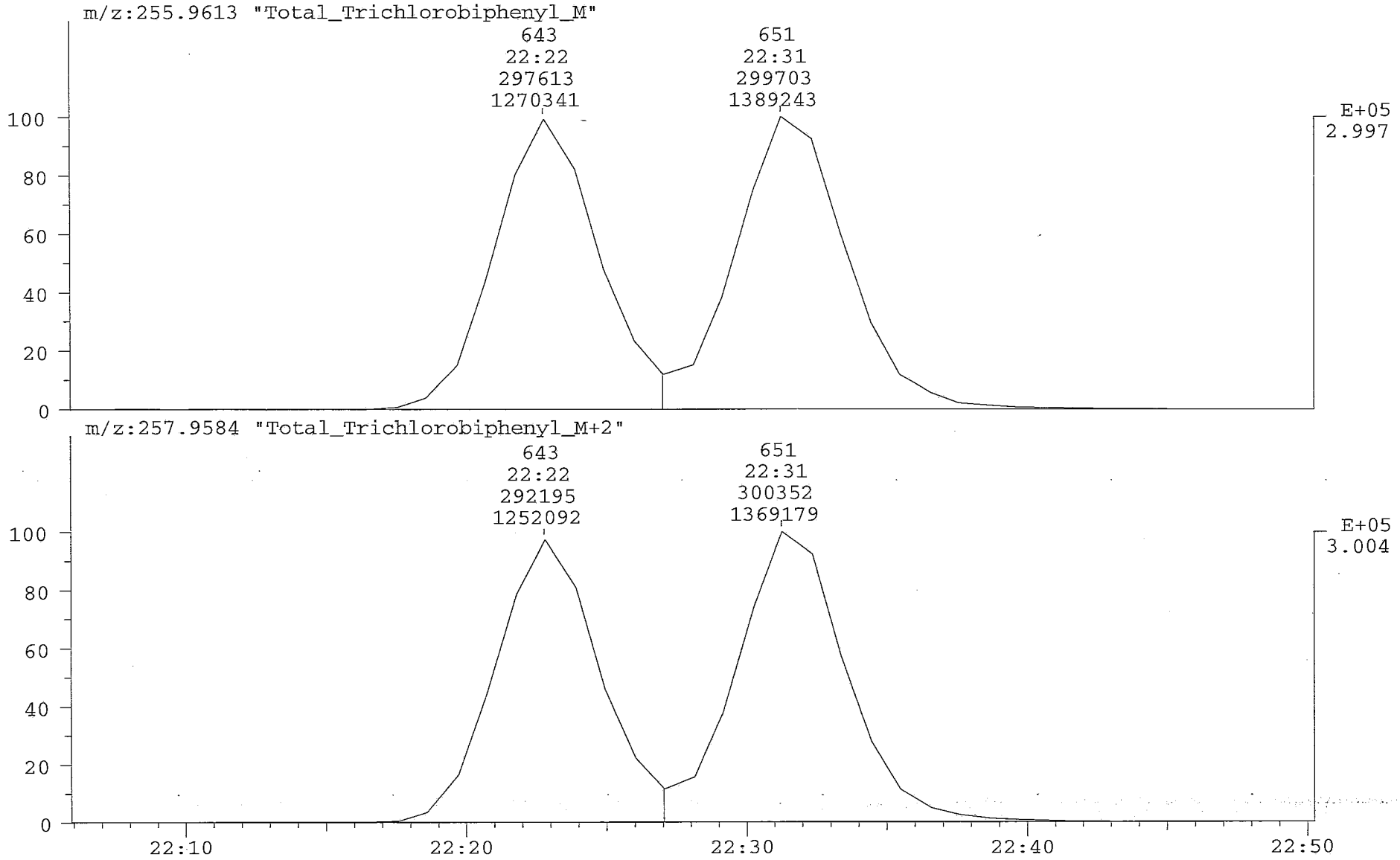
CHRO: a110713s1 13-Jul-11 Elapse: 22:10.1 631
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 614 > 656 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2941

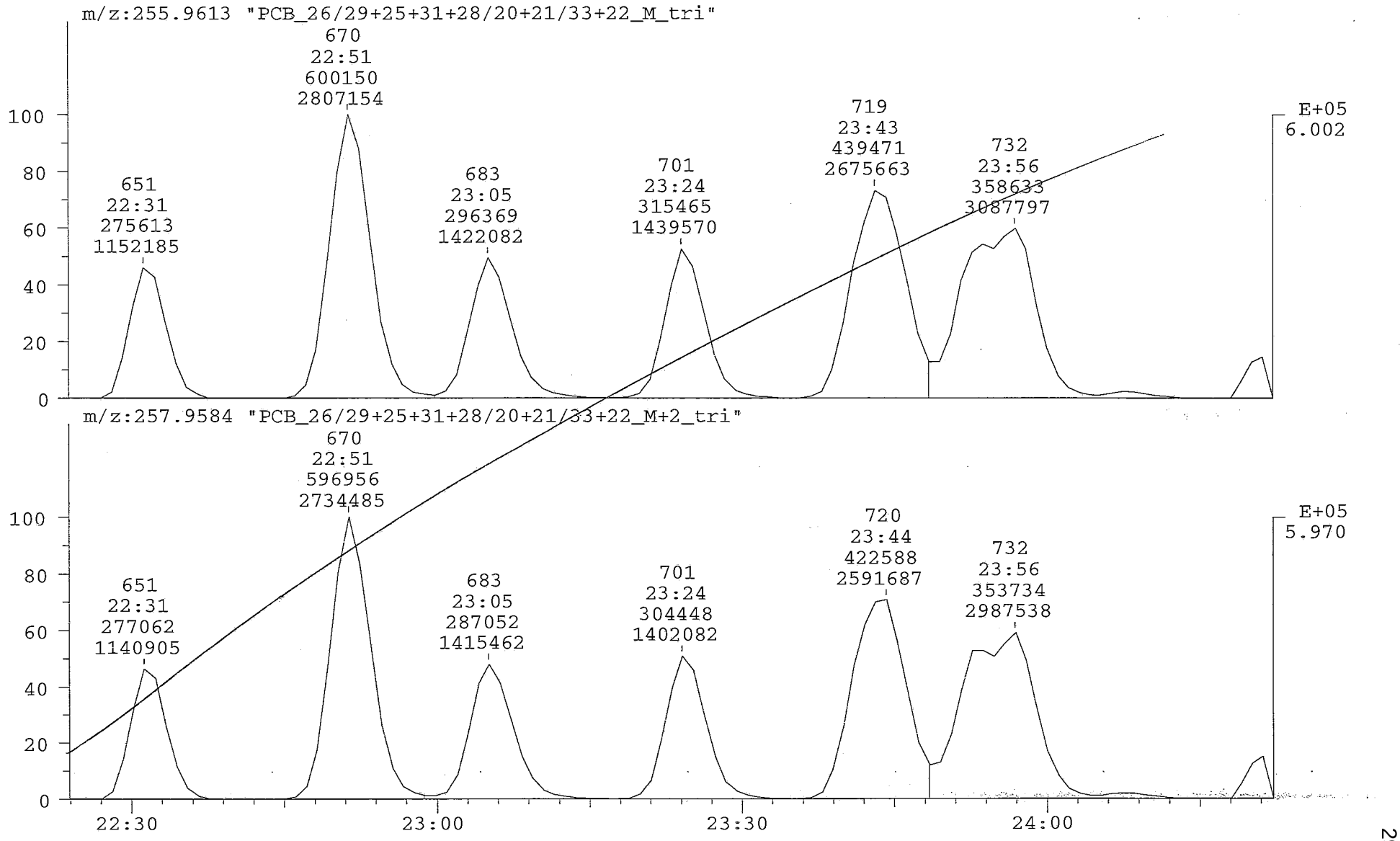
2940

CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 627 > 669 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2942

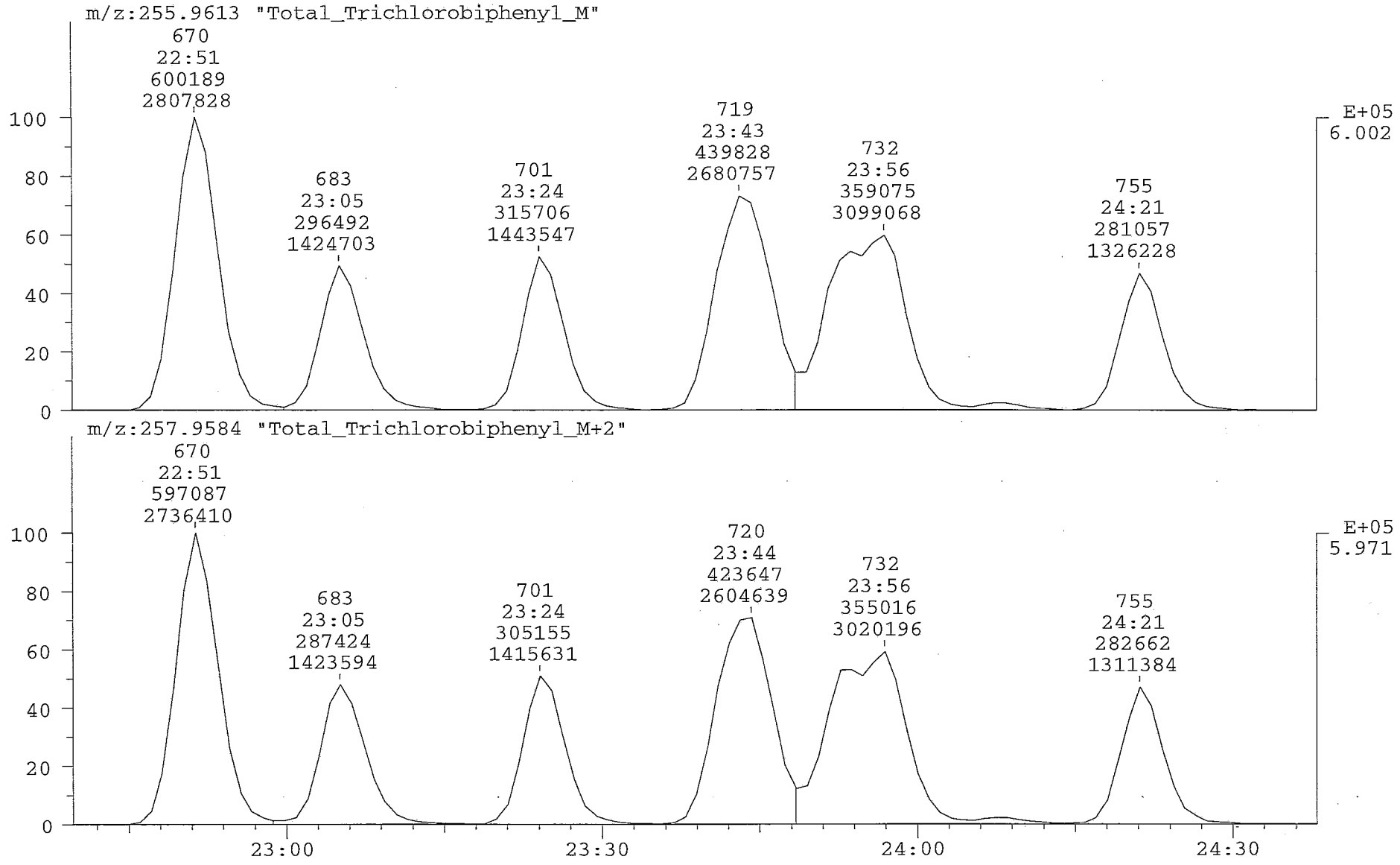
CHRO: a110713s1 13-Jul-11 Elapse: 23:36.8 713
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 644 > 756 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2943

2942

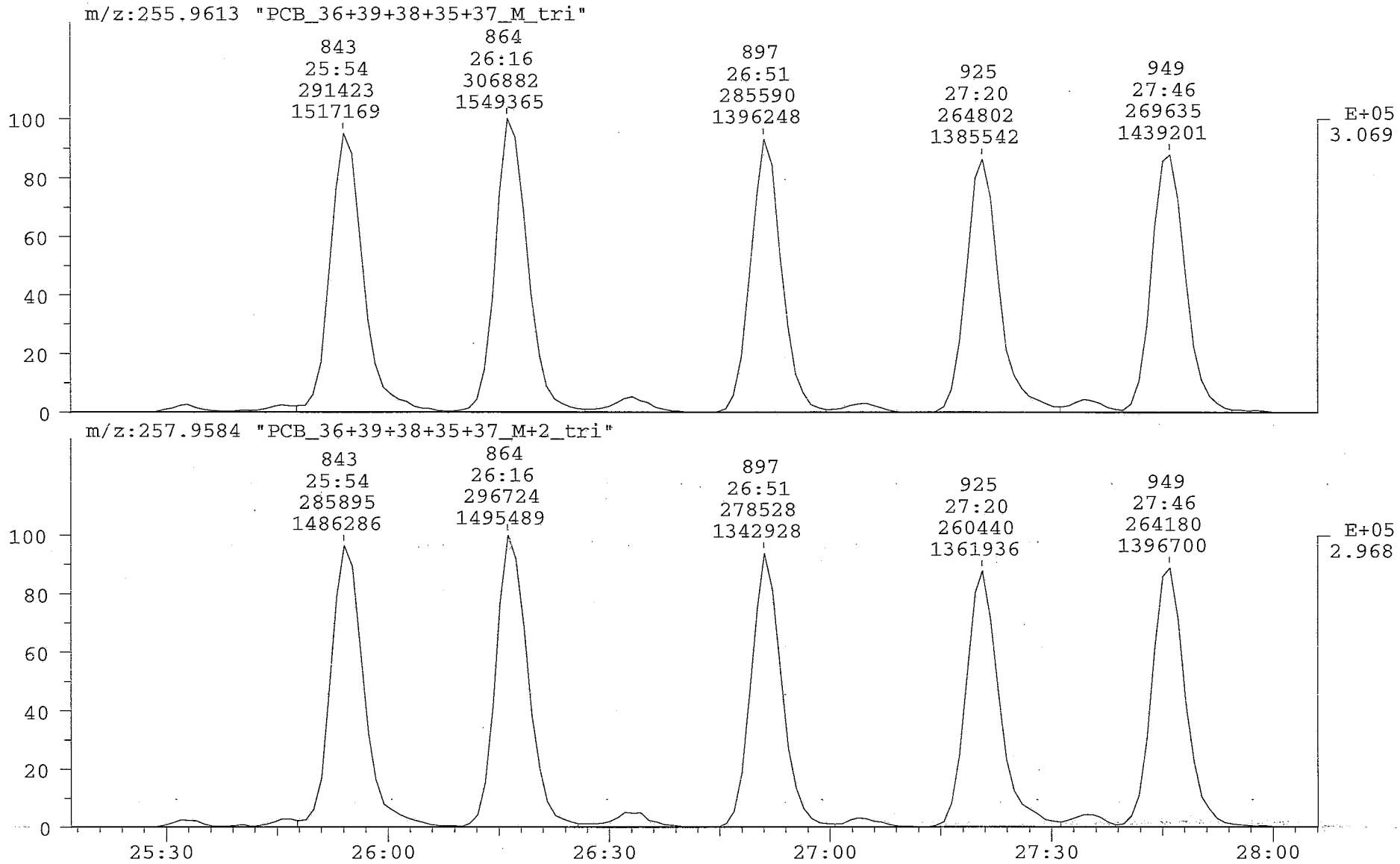
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 659 > 771 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2944

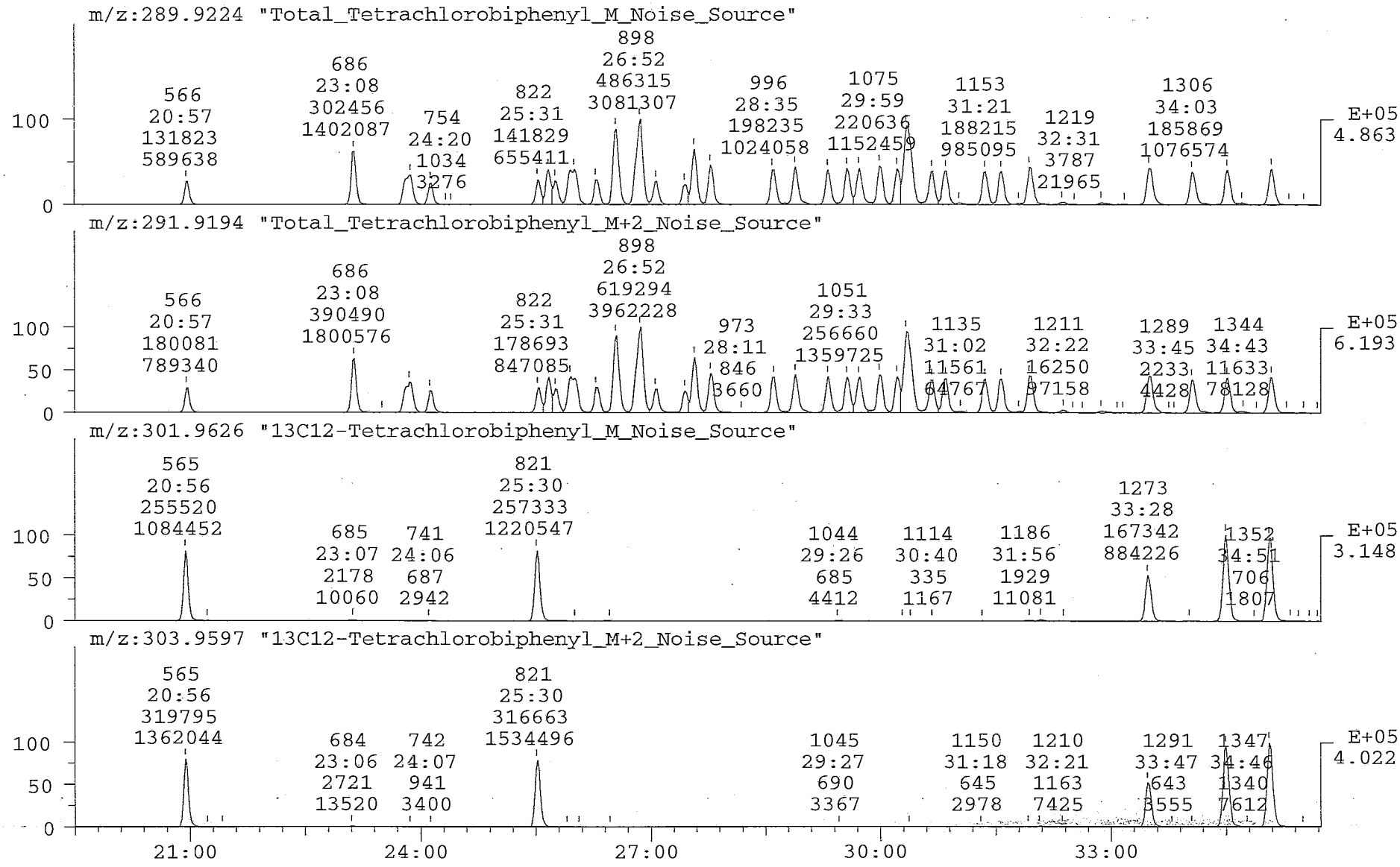
2943

CHRO: a110713s1 13-Jul-11 Elapse: 26:38.4 885
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 808 > 968 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



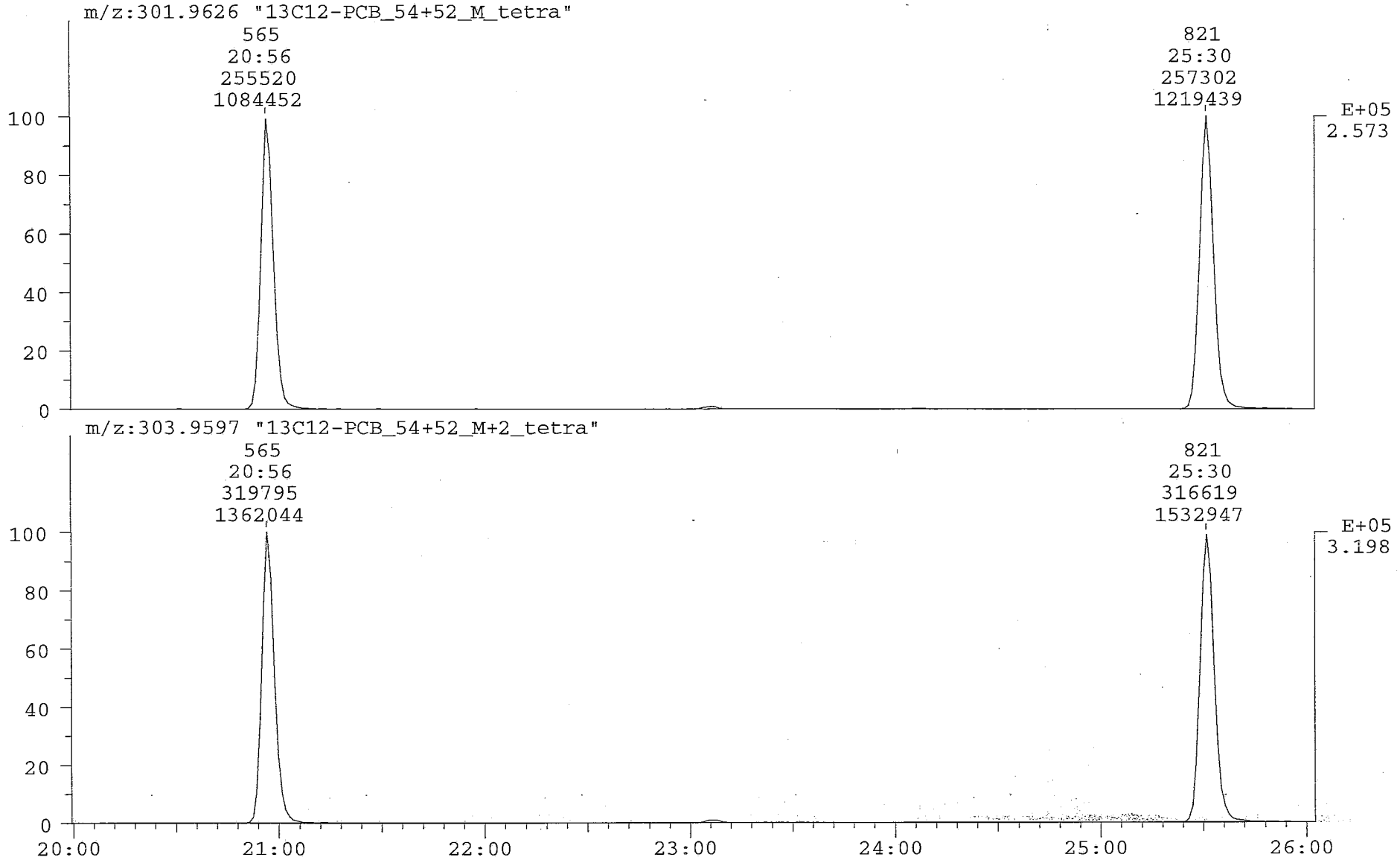
H-2945

CHRO: a110713s1 13-Jul-11 Elapse: 27:36.5 940
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 483 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



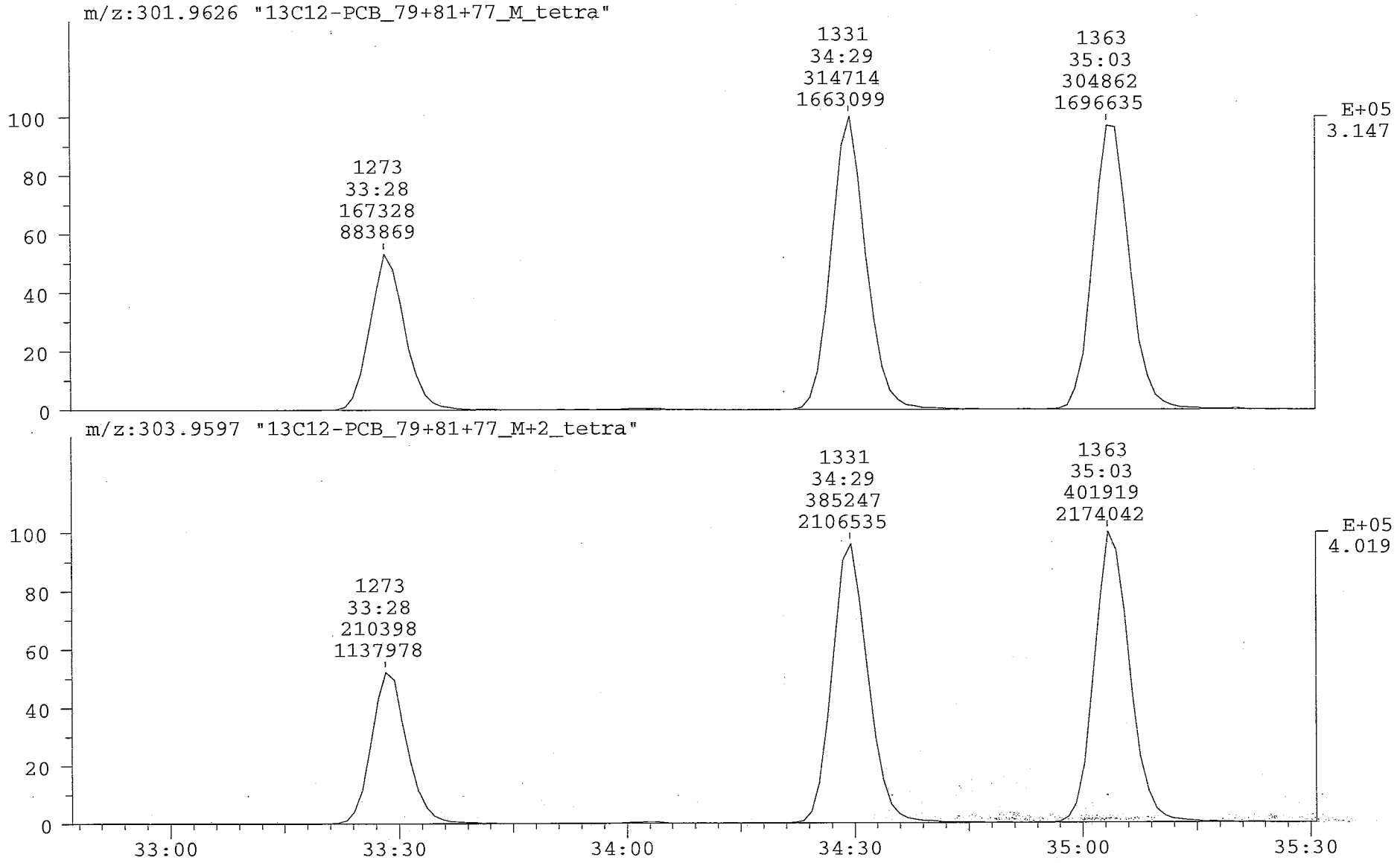
H-2946

CHRO: a110713s1 13-Jul-11 Elapse: 23:03.9 681
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 511 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2947

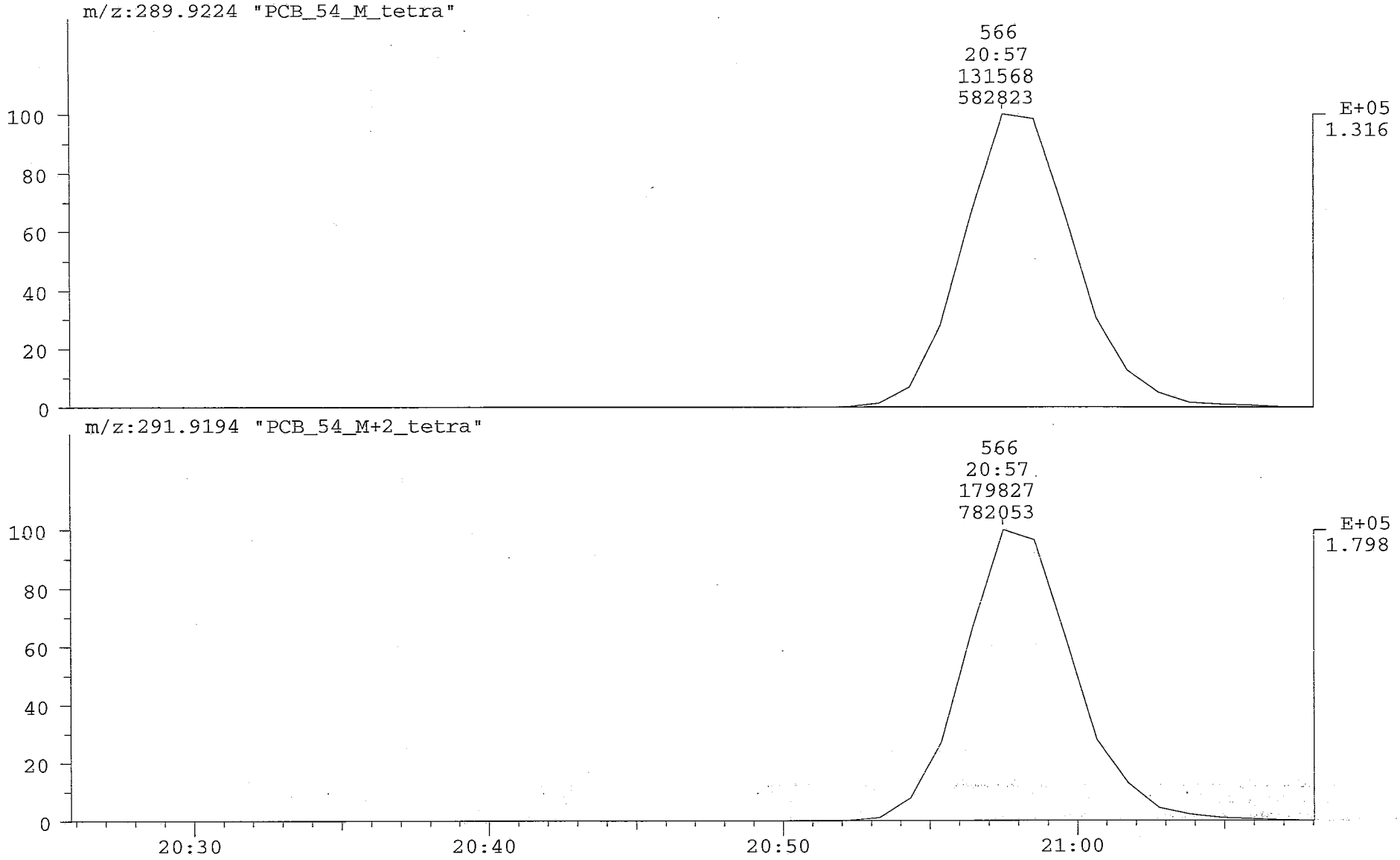
CHRO: a110713s1 13-Jul-11 Elapse: 33:58 1302
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1234 > 1389 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2948

2947

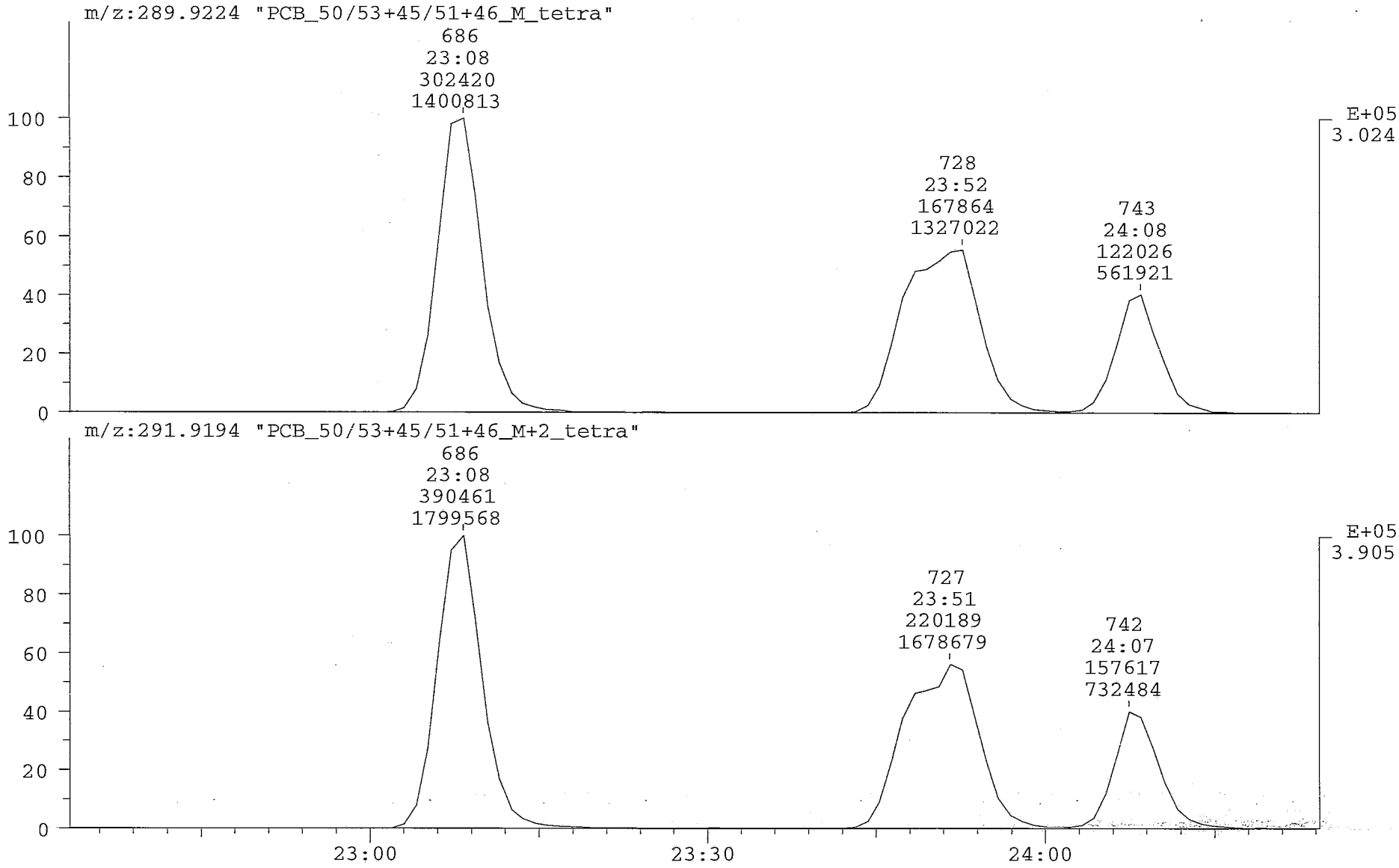
CHRO: a110713s1 13-Jul-11 Elapse: 20:44.8 554
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 536 > 576 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2946

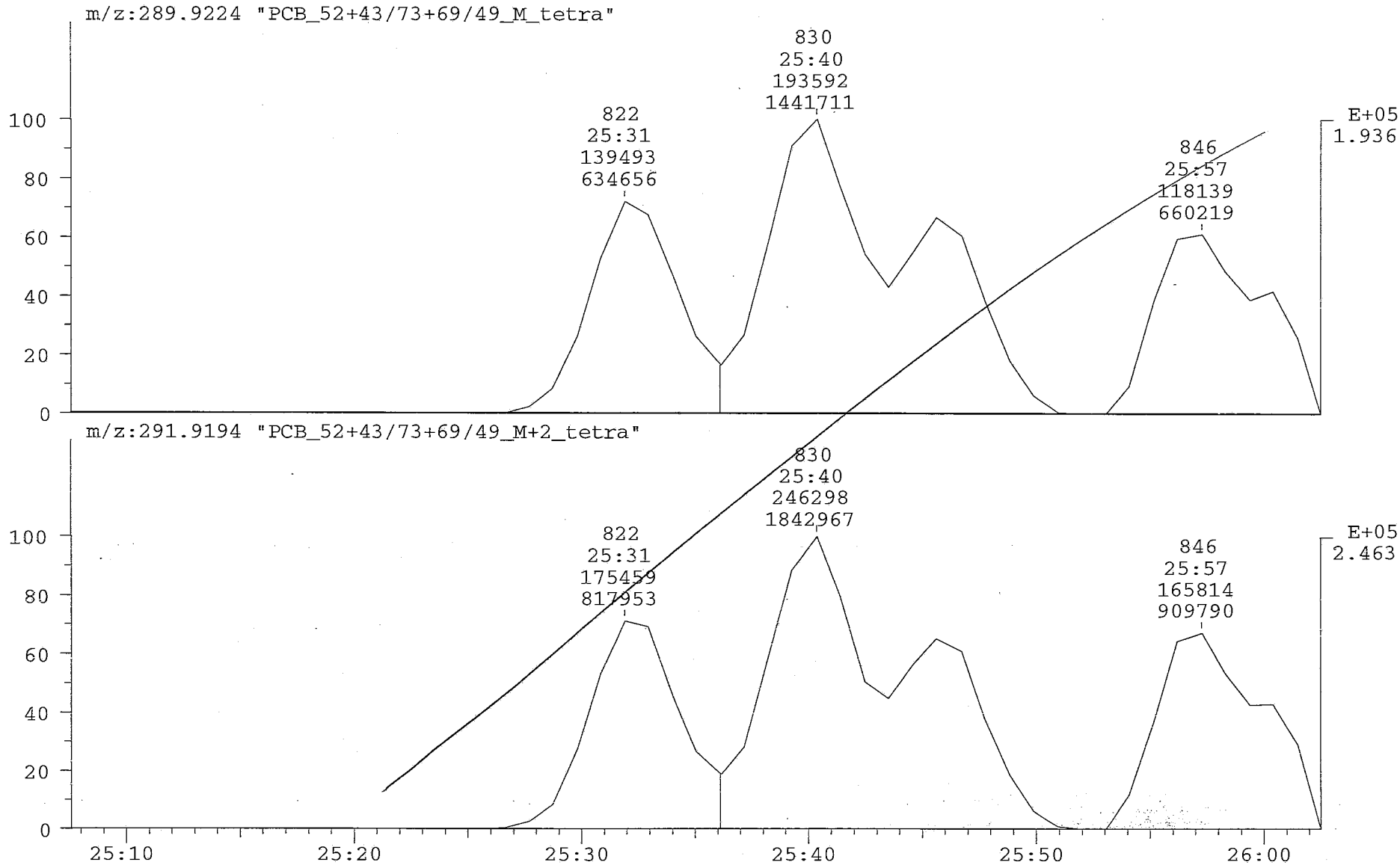
2948

CHRO: a110713s1 13-Jul-11 Elapse: 23:31.5 708
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 653 > 758 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-2950

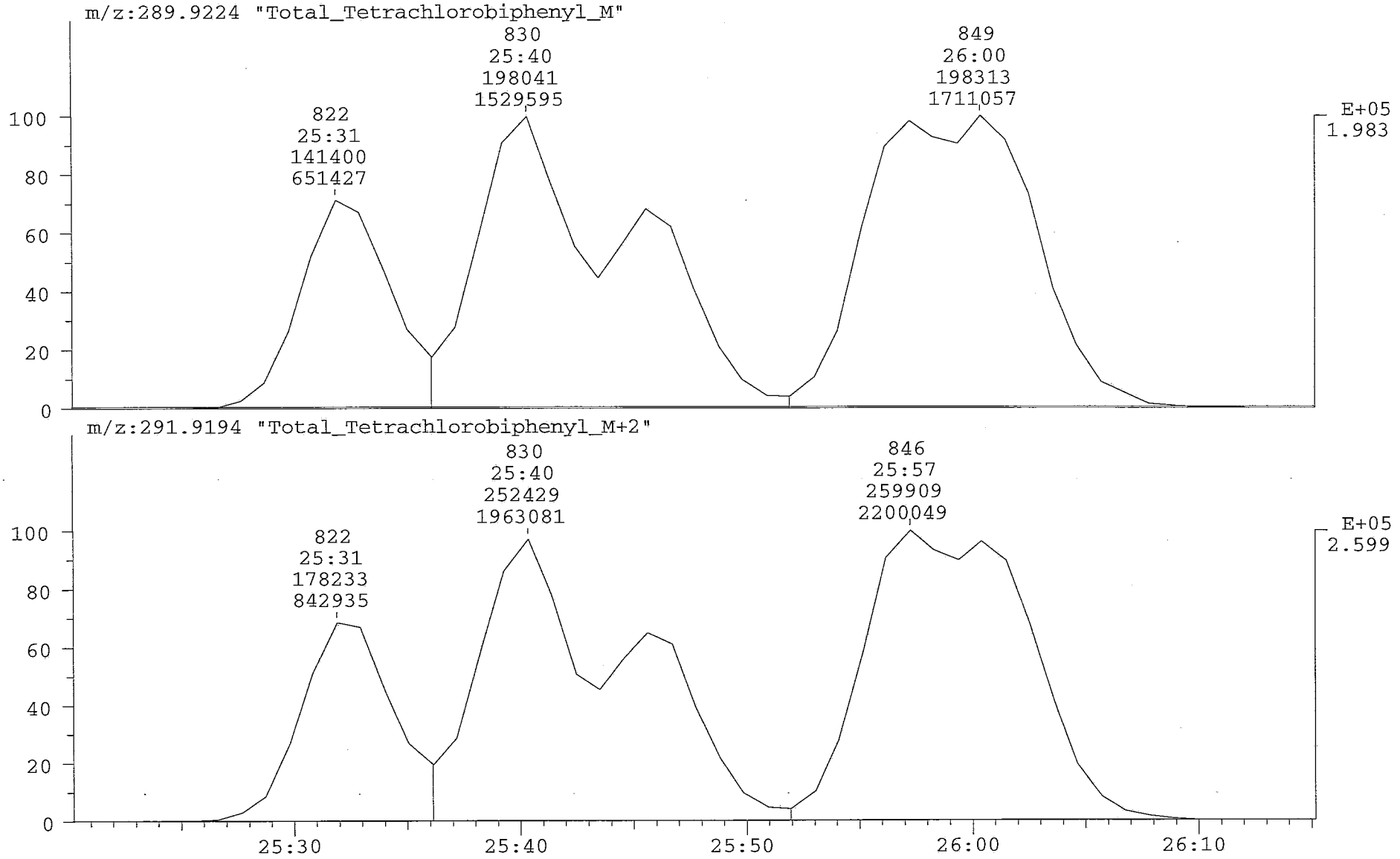
CHRO: a110713s1 13-Jul-11 Elapse: 25:37.1 827
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 799 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-2951

2950

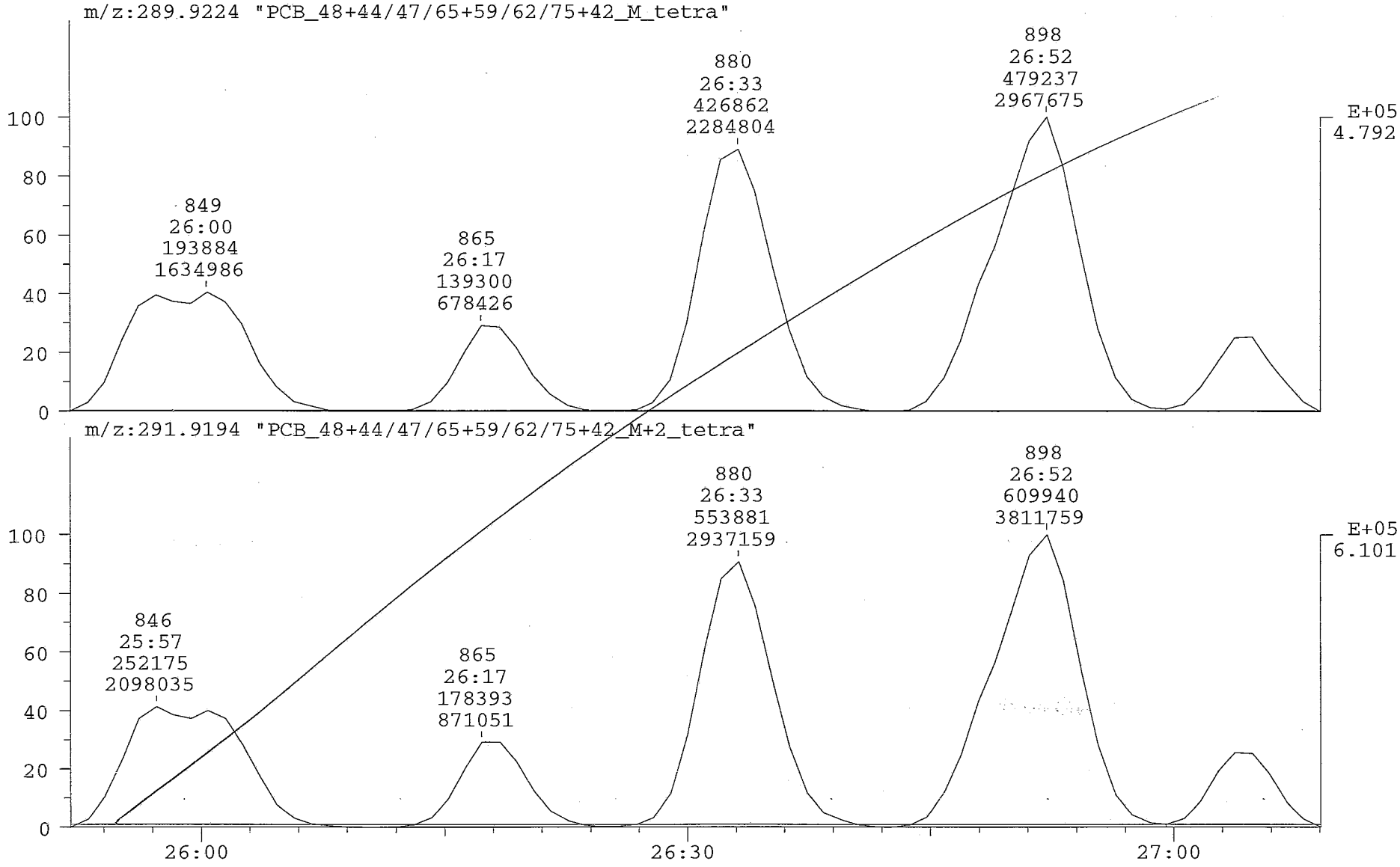
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 811 > 863 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-2952

2951

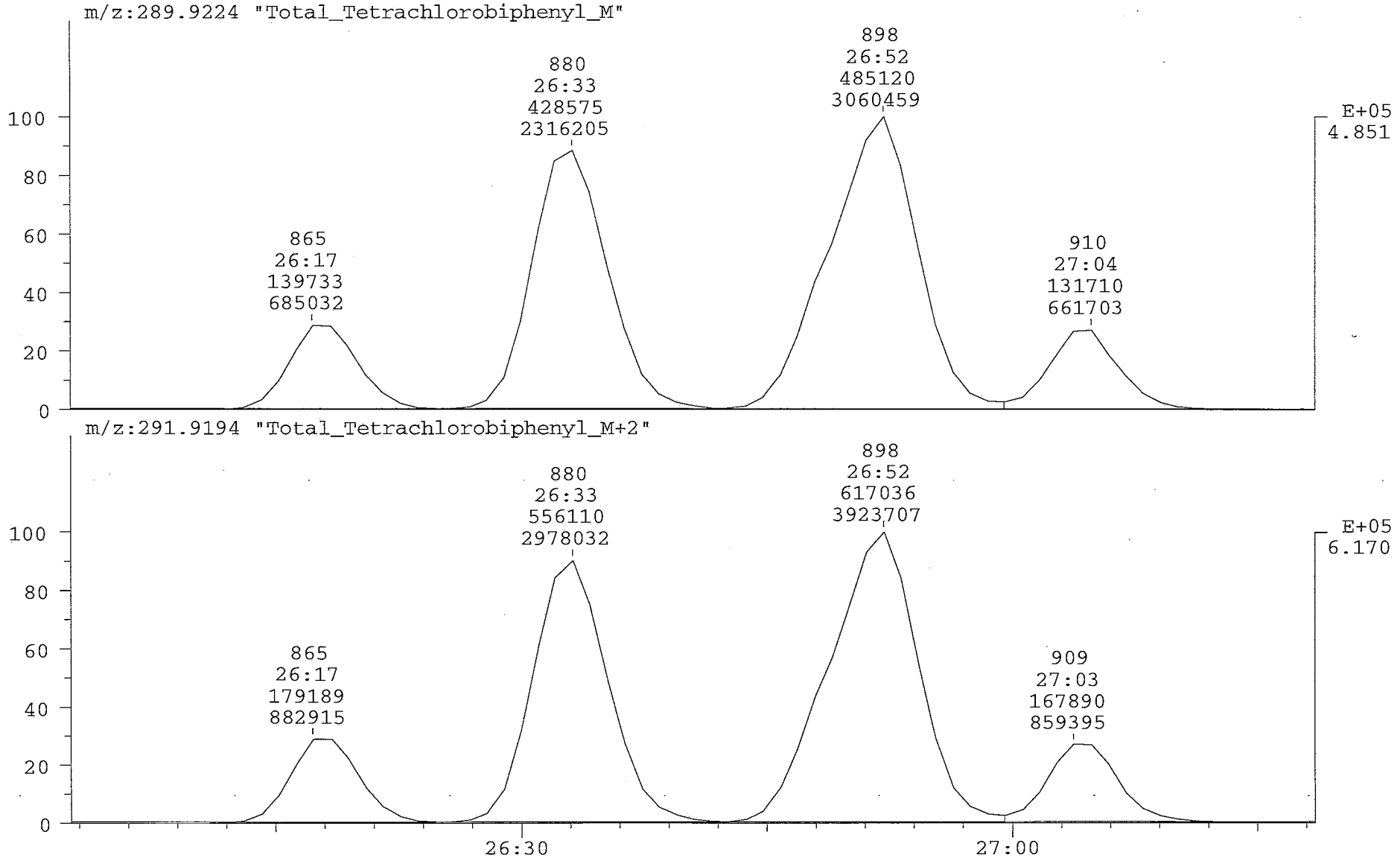
CHRO: a110713s1 13-Jul-11 Elapse: 26:30.9 877
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 841 > 914 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-2953

2952

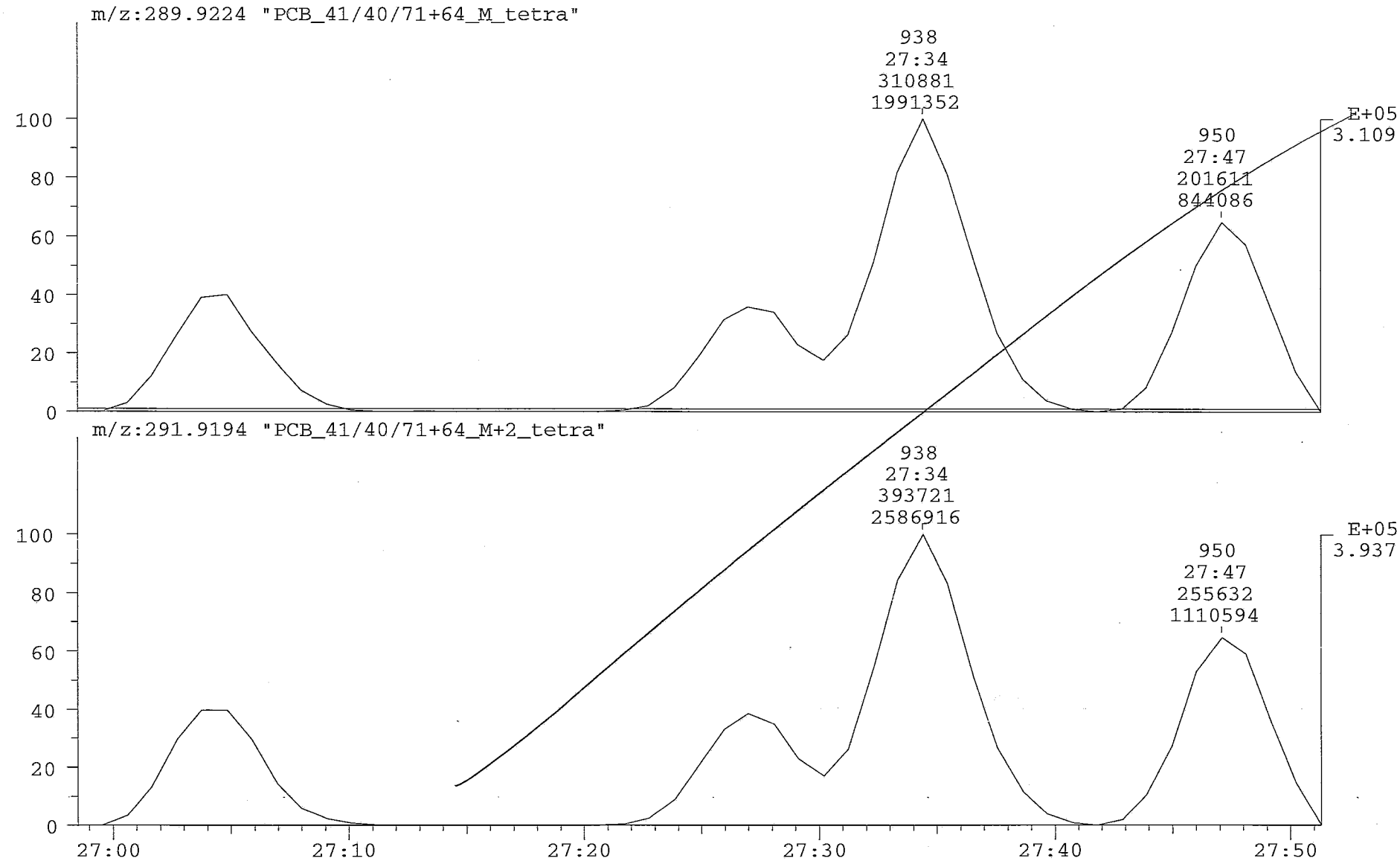
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 851 > 923 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-2954

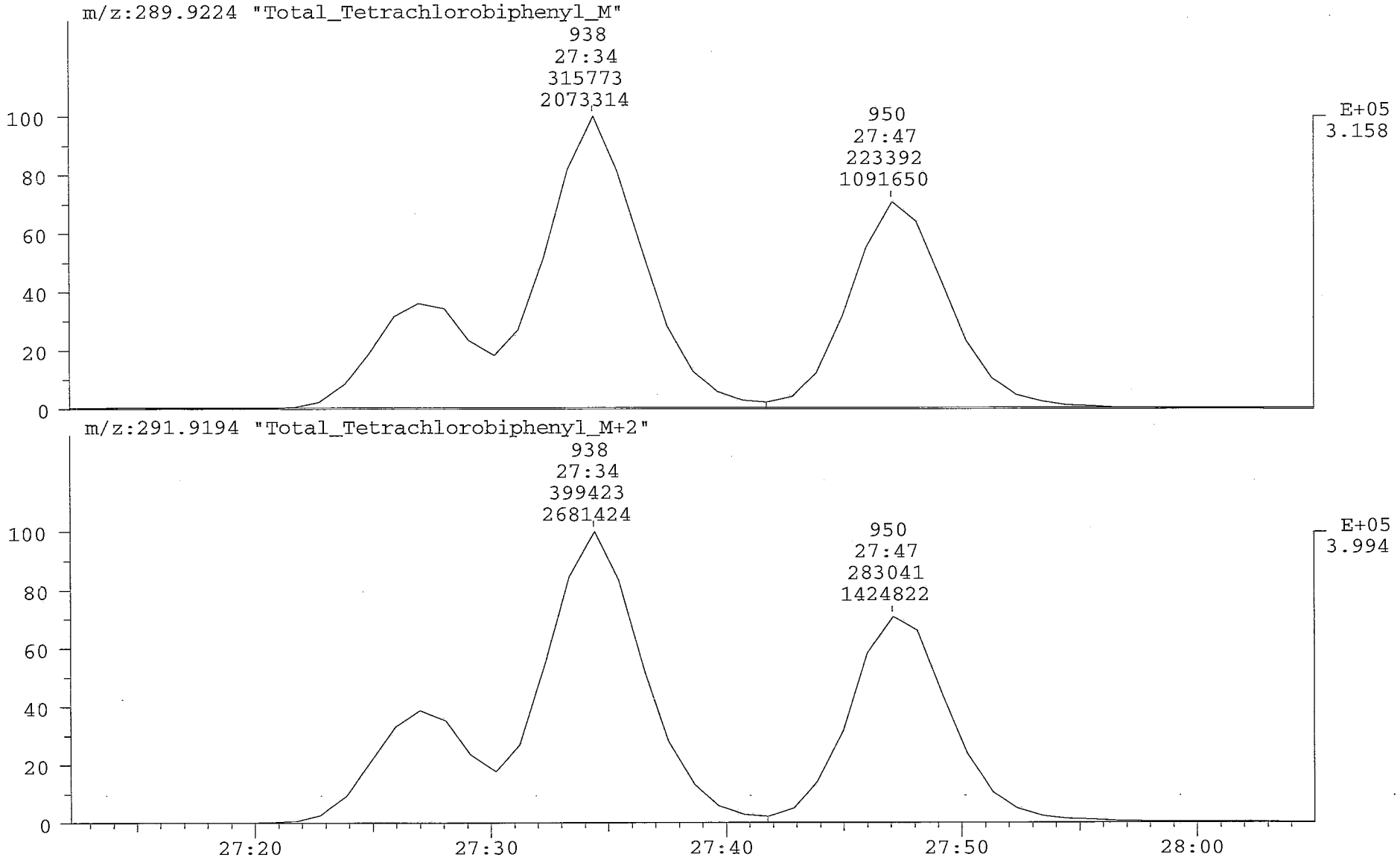
2953

CHRO: a110713s1 13-Jul-11 Elapse: 27:30.2 934
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 904 > 954 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



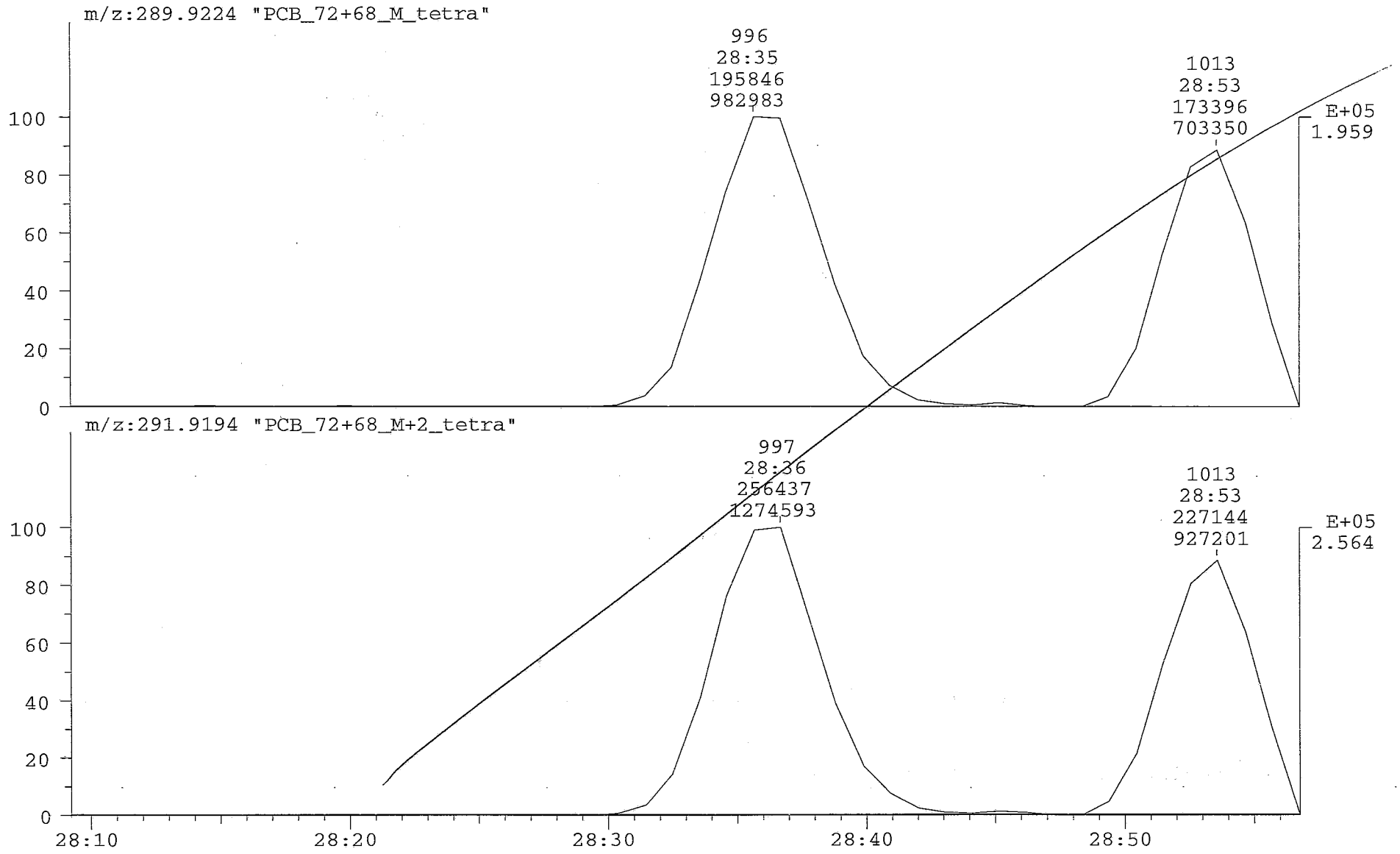
H-2955

CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 917 > 967 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-2956

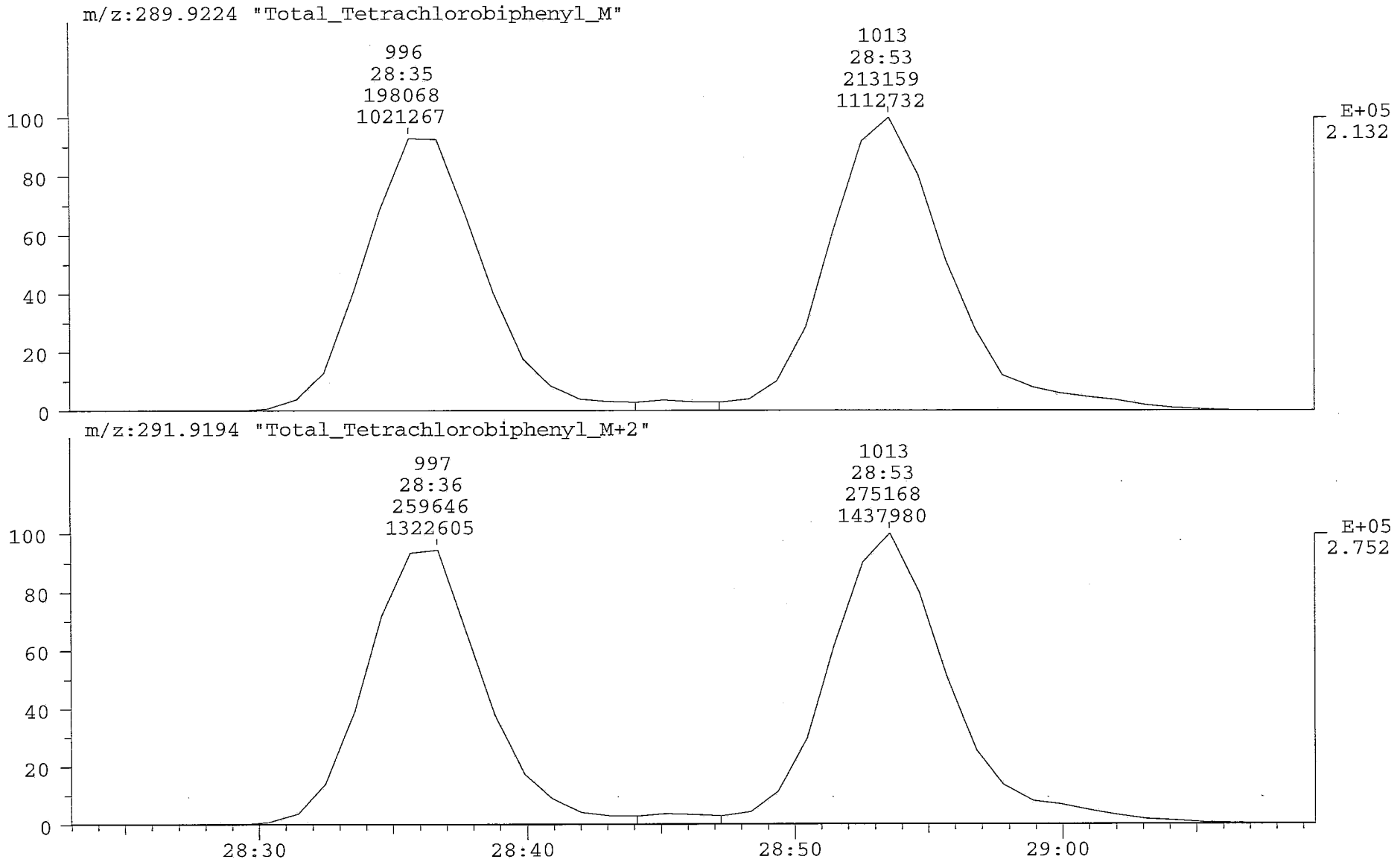
CHRO: a110713s1 13-Jul-11 Elapse: 28:33.6 994
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 971 > 1016 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2957

2956

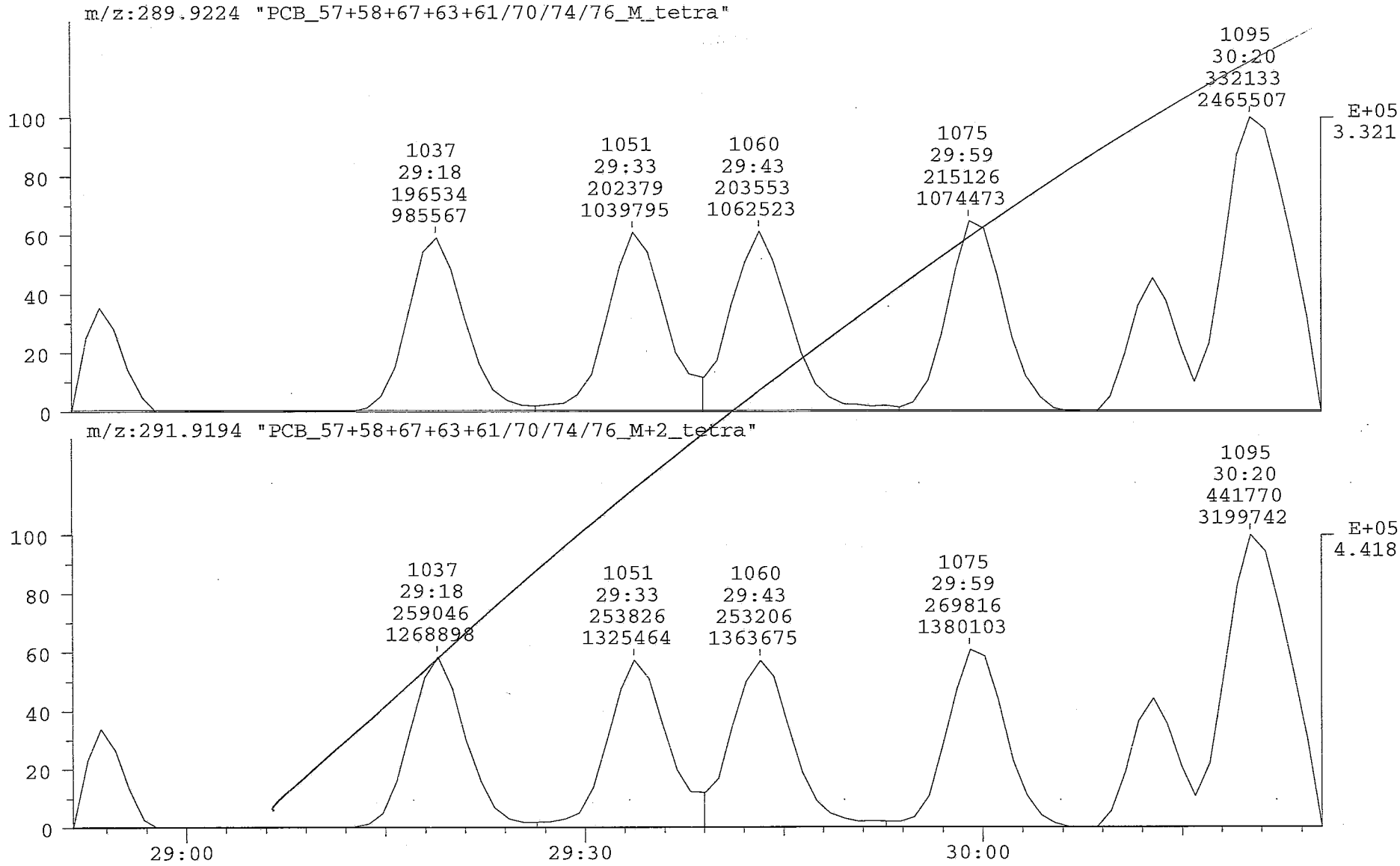
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 984 > 1028 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2958

2957

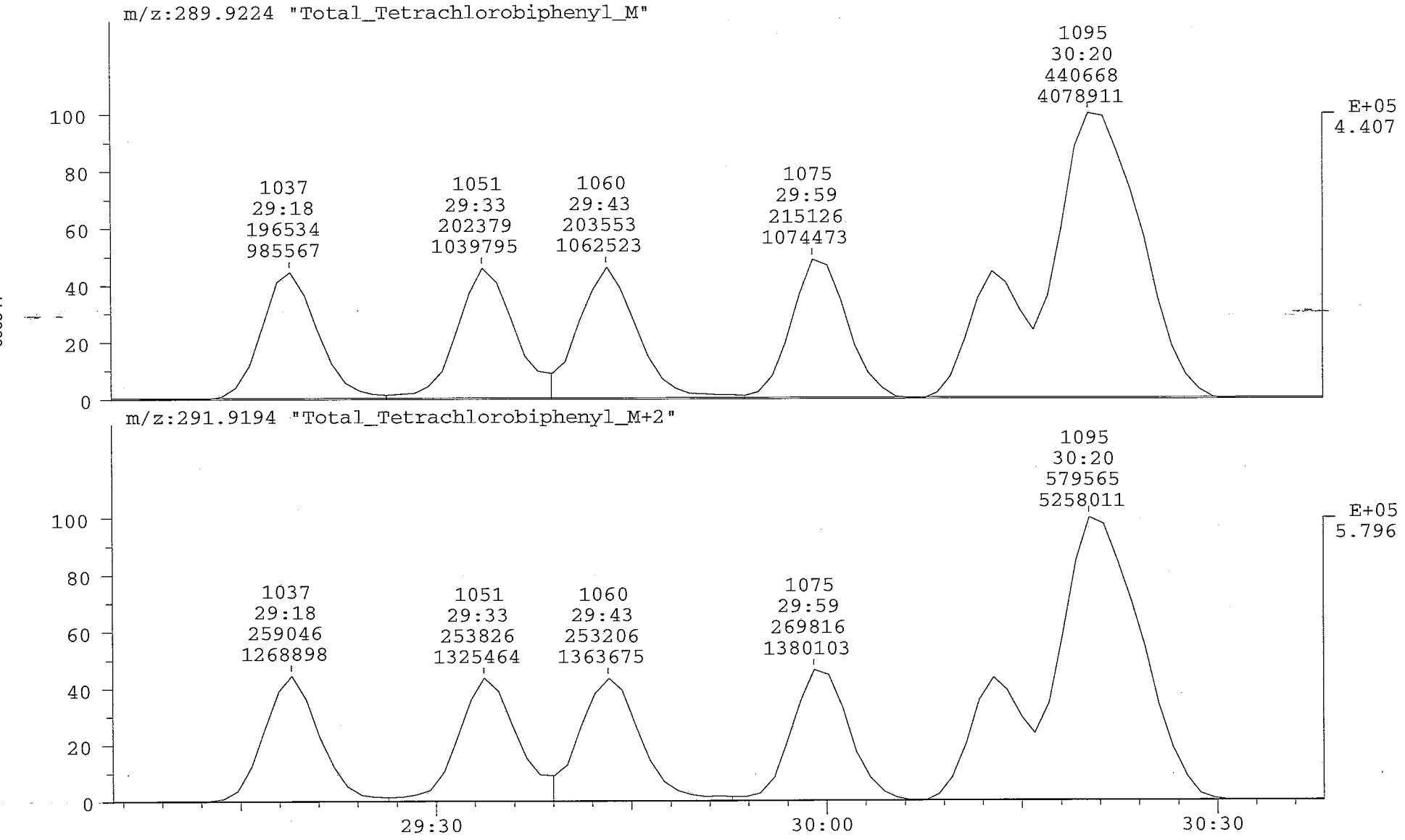
CHRO: a110713s1 13-Jul-11 Elapse: 29:39 1056
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1011 > 1100 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2956

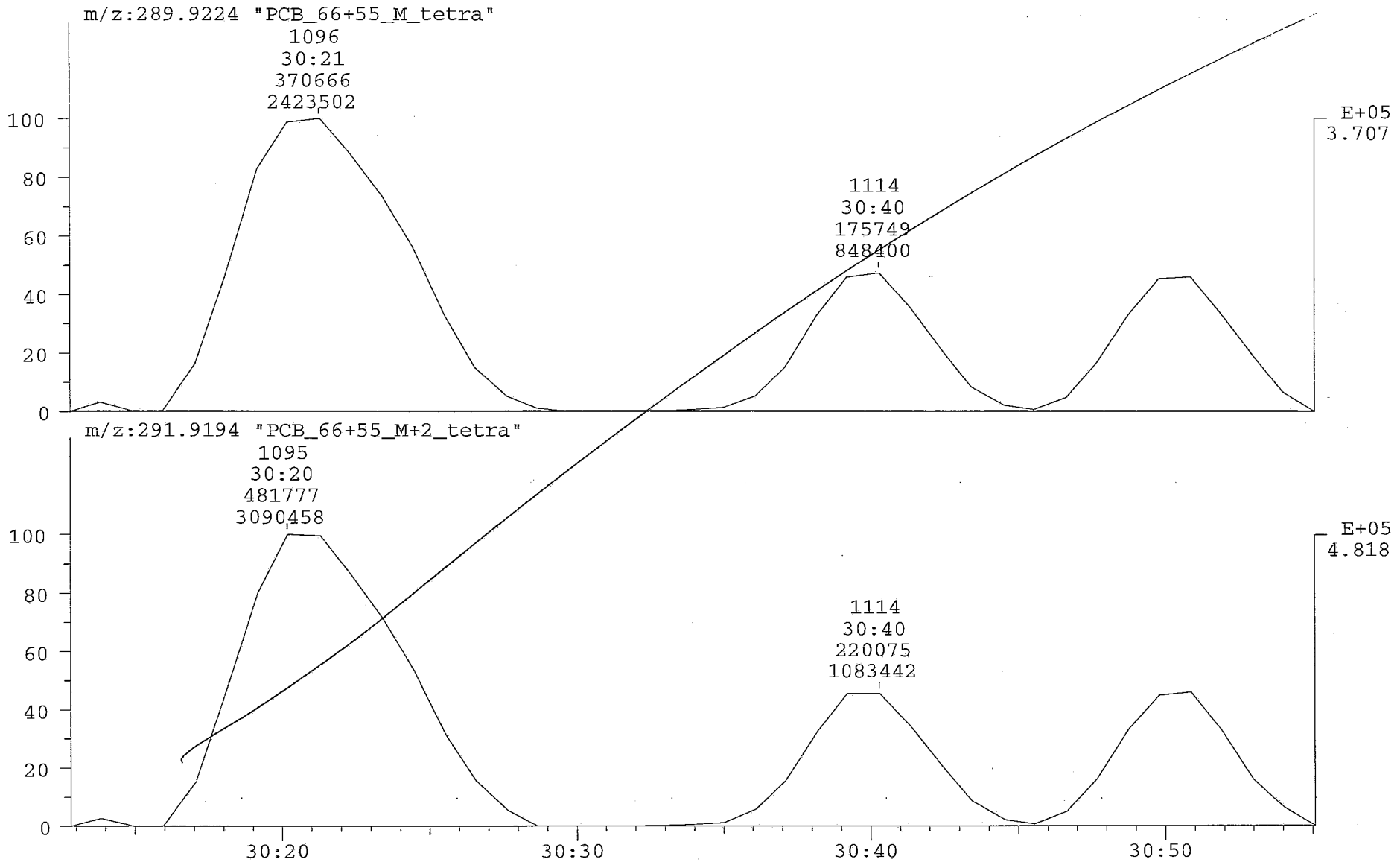
2958

CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1024 > 1112 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2960

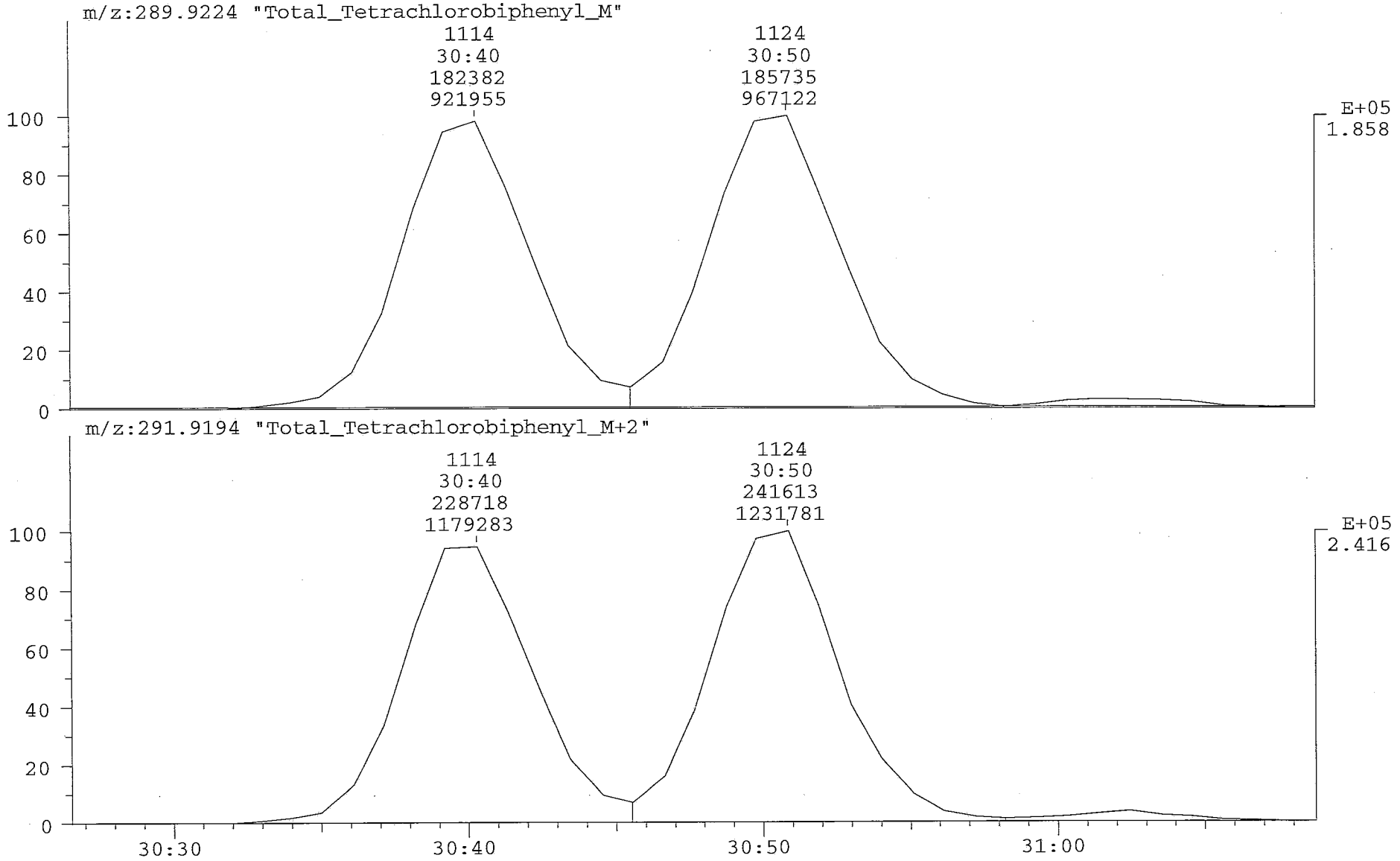
CHRO: a110713s1 13-Jul-11 Elapse: 30:34 1108
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1088 > 1128 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2961

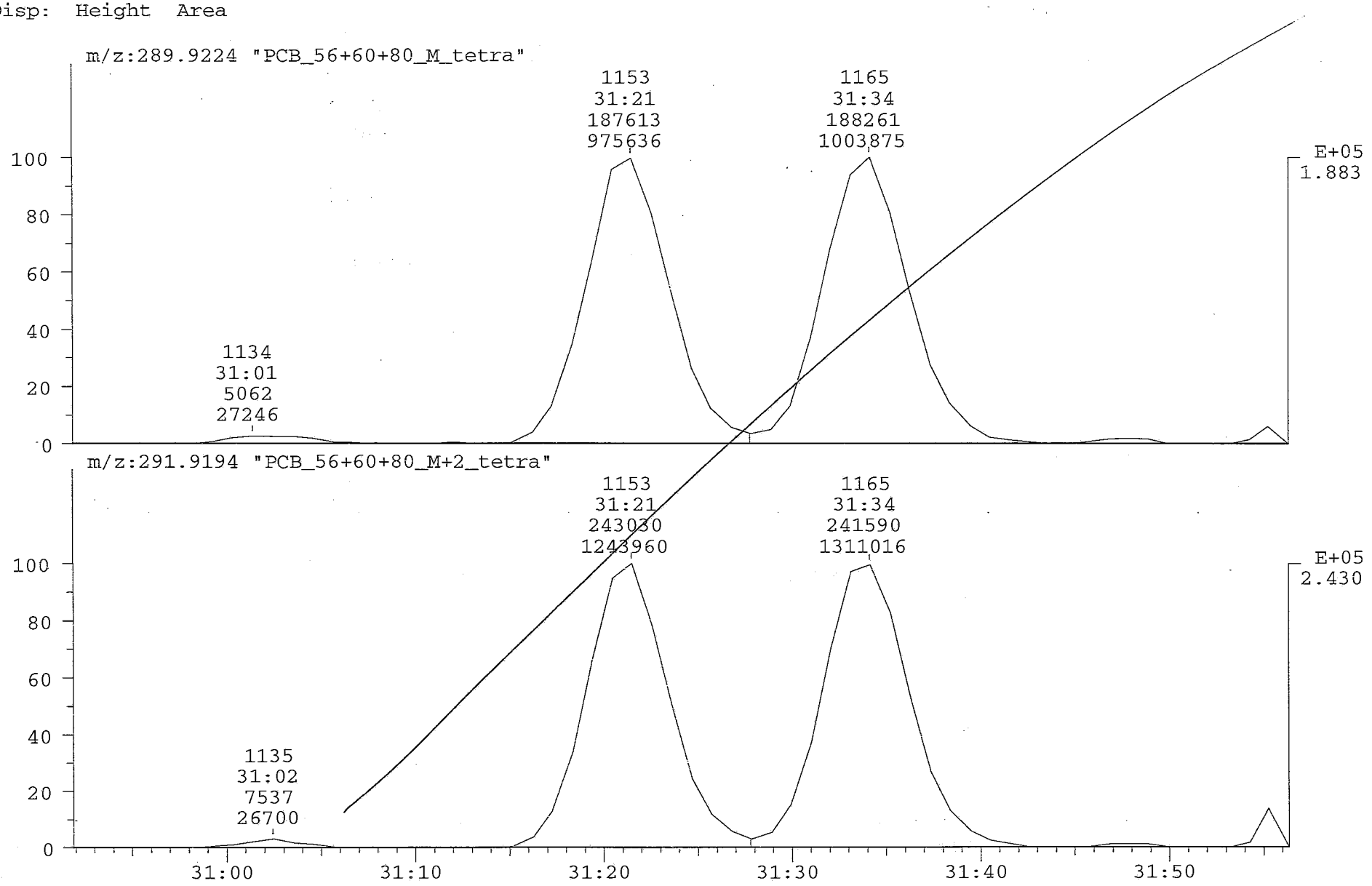
2960

CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1101 > 1141 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2962

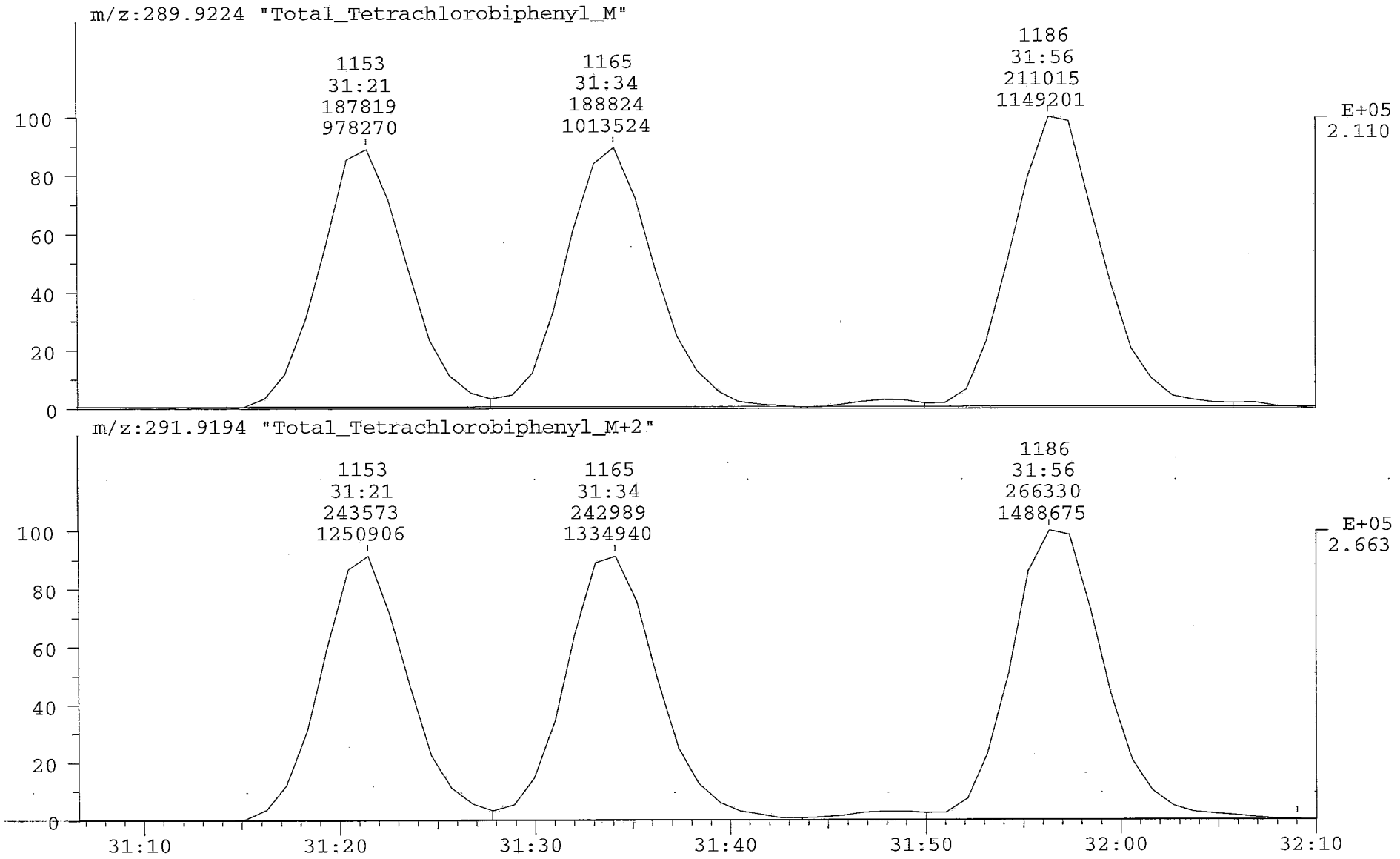
CHRO: a110713s1 13-Jul-11 Elapse: 31:26 1158
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1125 > 1186 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2963

2962

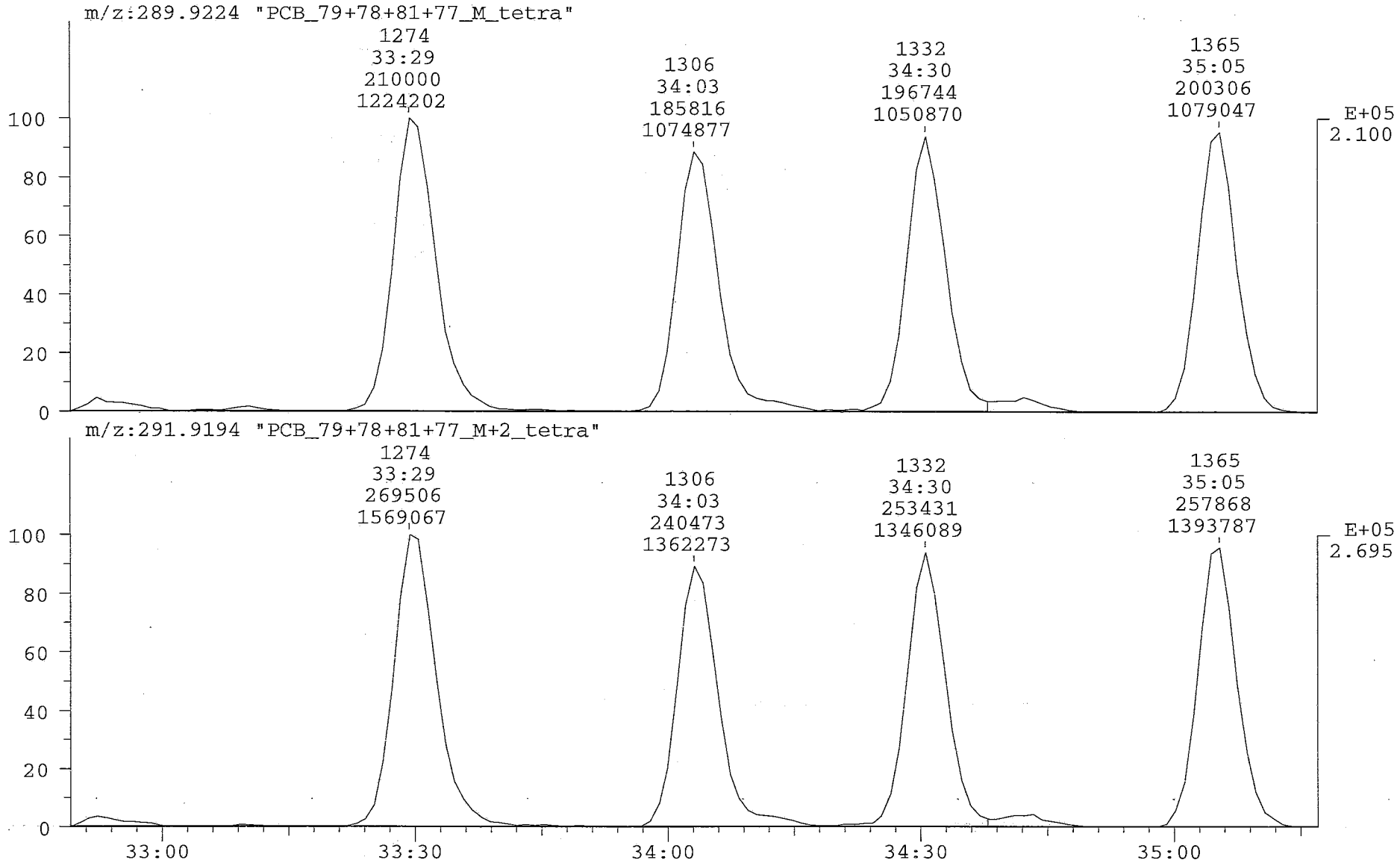
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1139 > 1199 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2964

2963

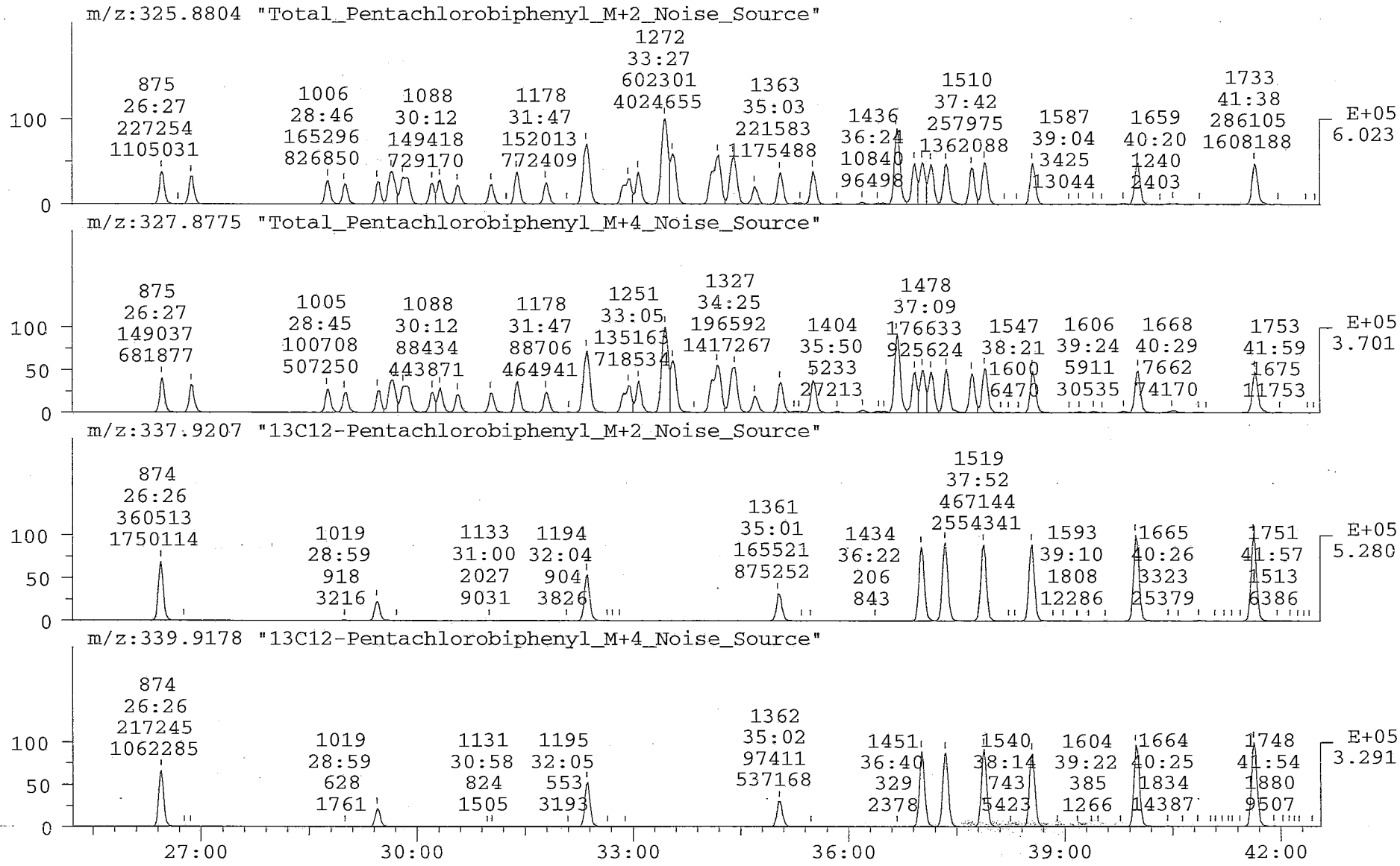
CHRO: a110713s1 13-Jul-11 Elapse: 33:57 1301
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1236 > 1376 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2965

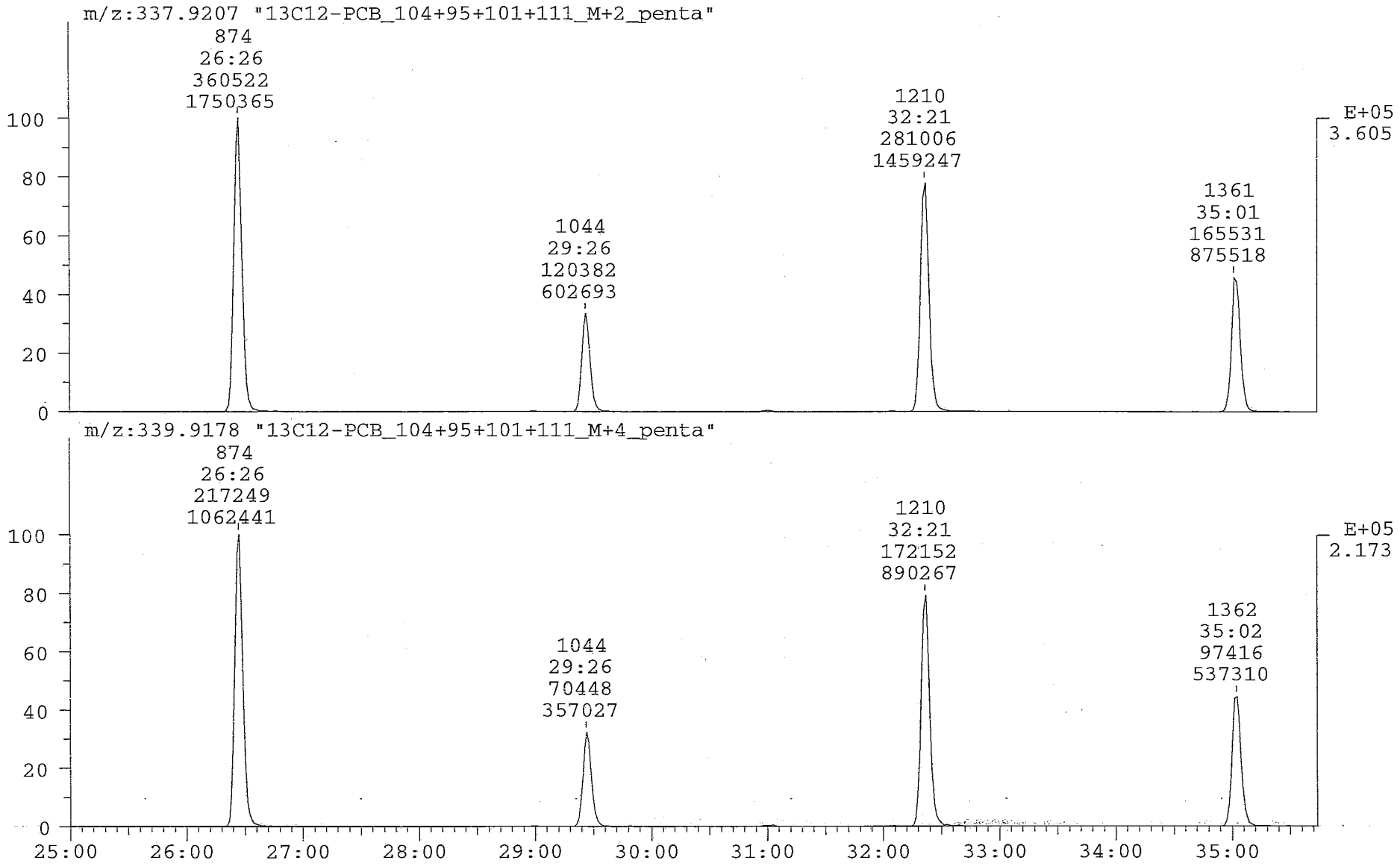
2964

CHRO: a110713s1 13-Jul-11 Elapse: 33:52 1296
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 804 > 1785 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2966

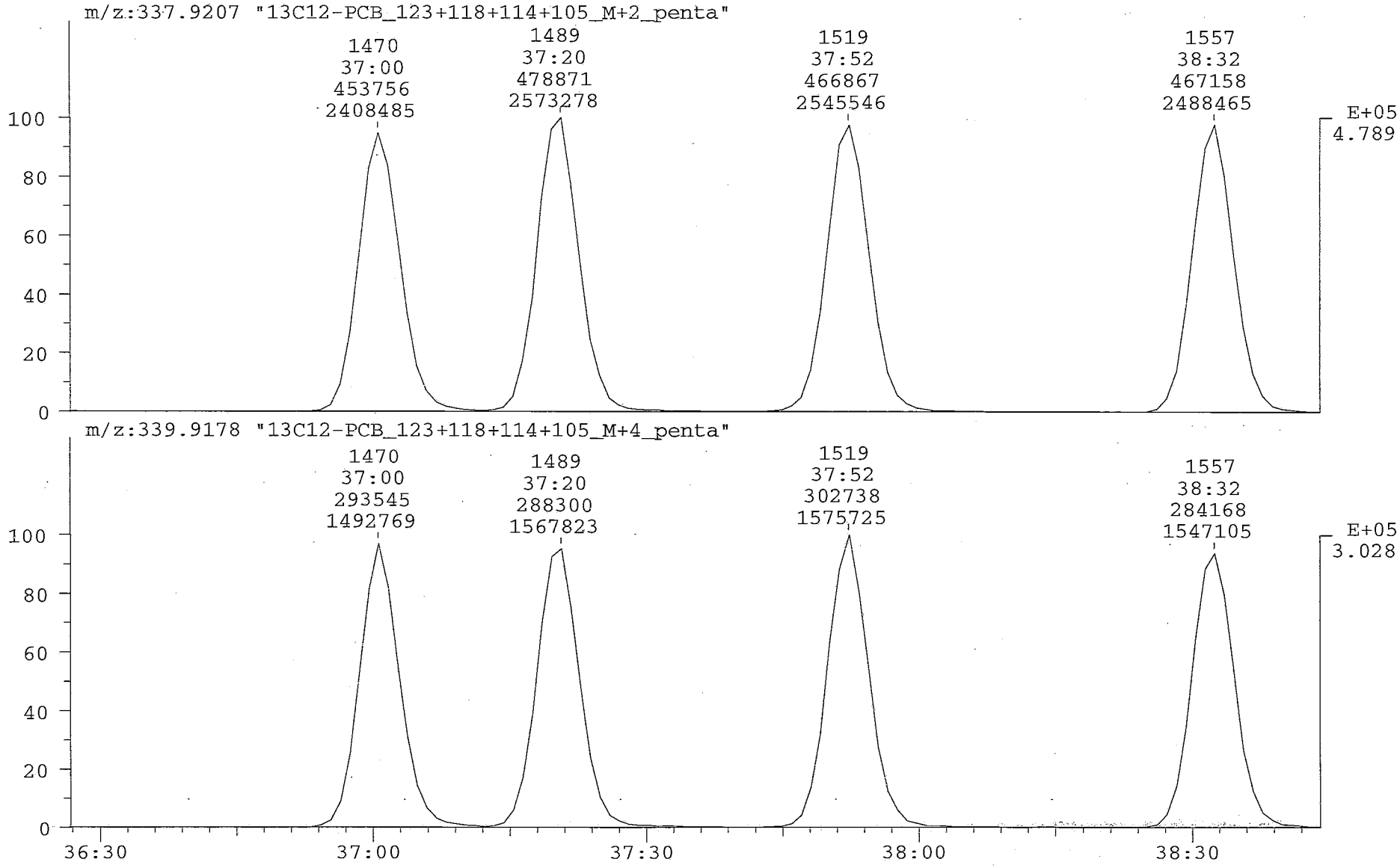
CHRO: a110713s1 13-Jul-11 Elapse: 30:22 1097
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 792 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2967

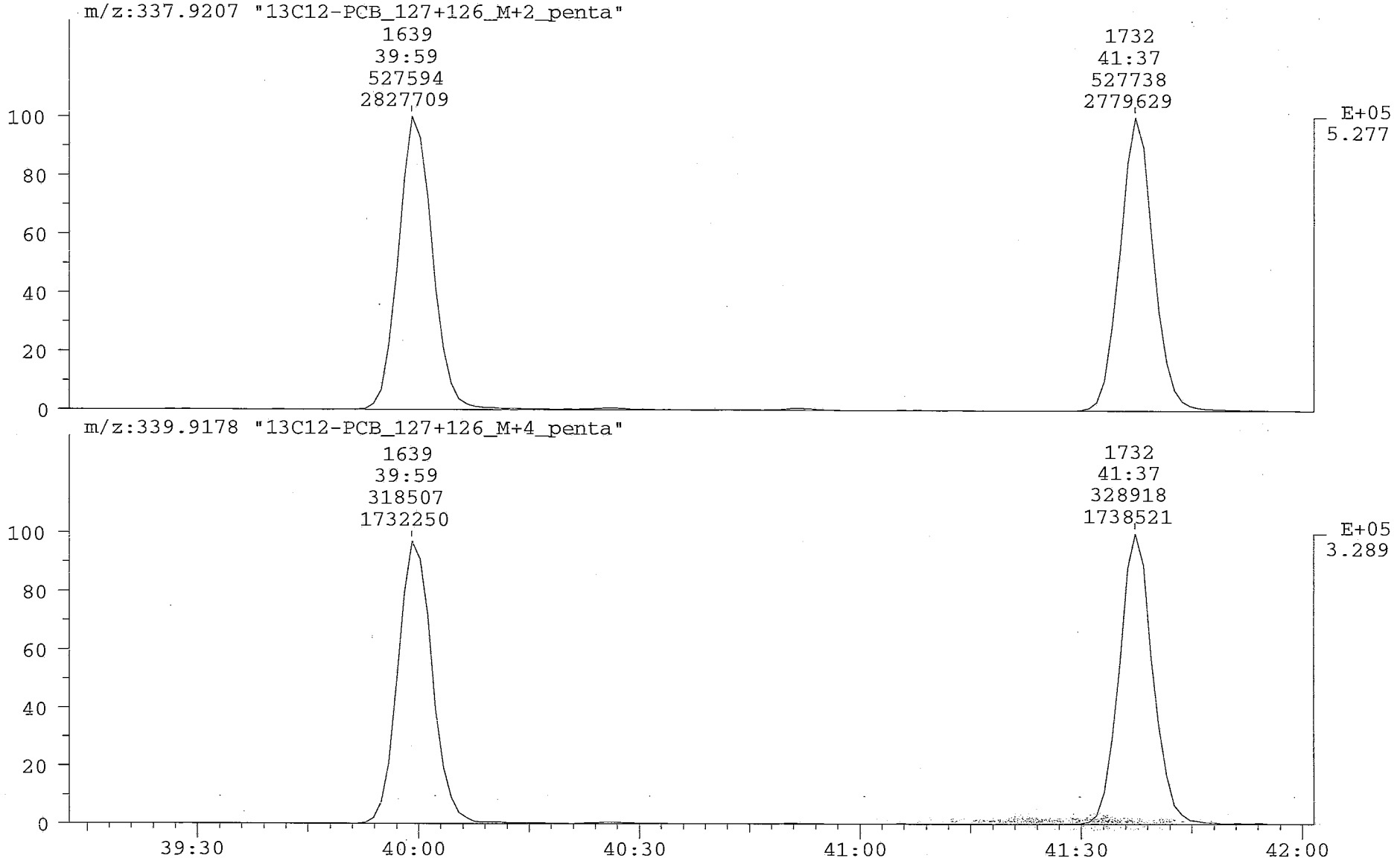
2966

CHRO: a110713s1 13-Jul-11 Elapse: 37:35 1503
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1438 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2968

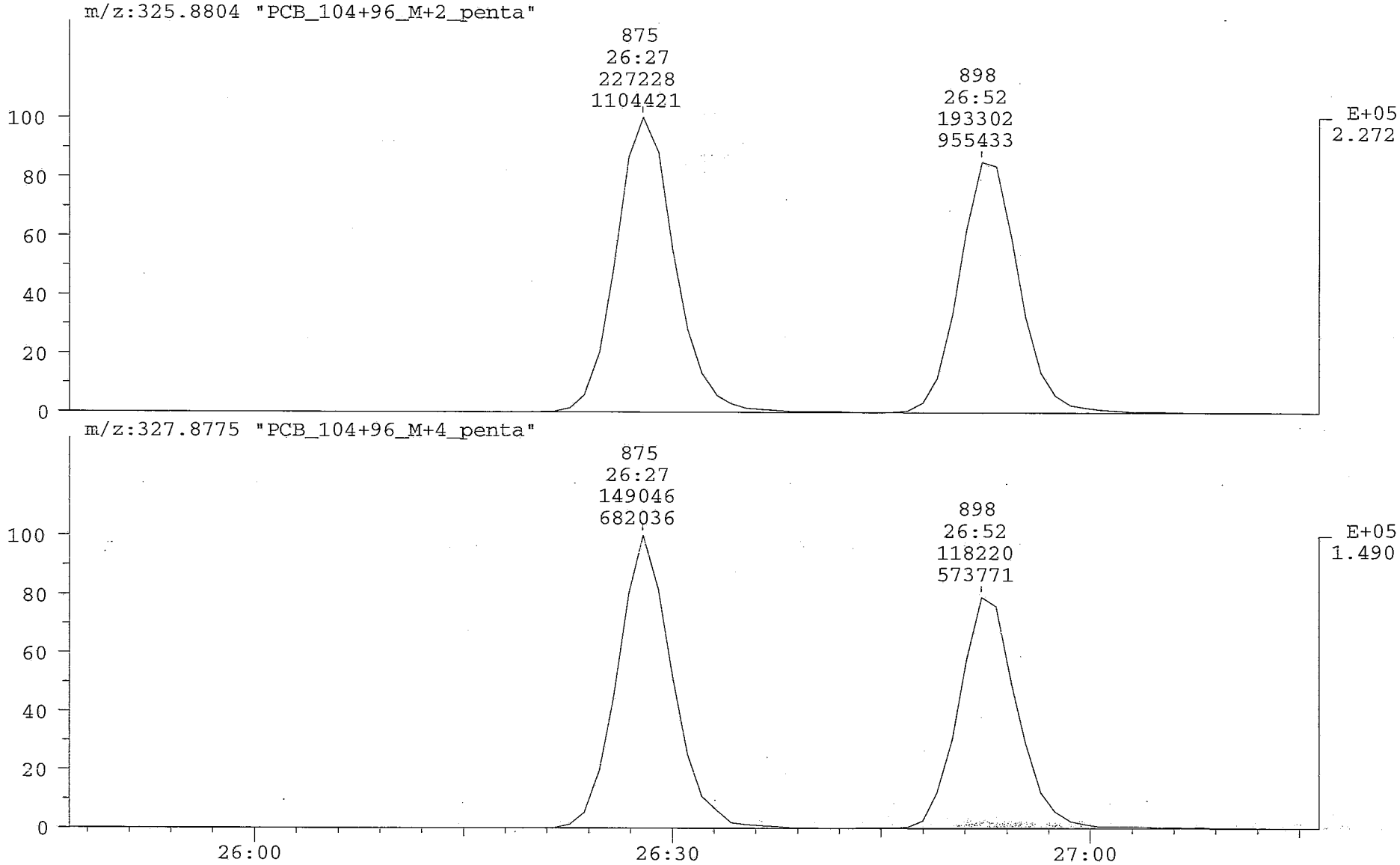
CHRO: a110713s1 13-Jul-11 Elapse: 40:37 1675
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1595 > 1755 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2969

2968

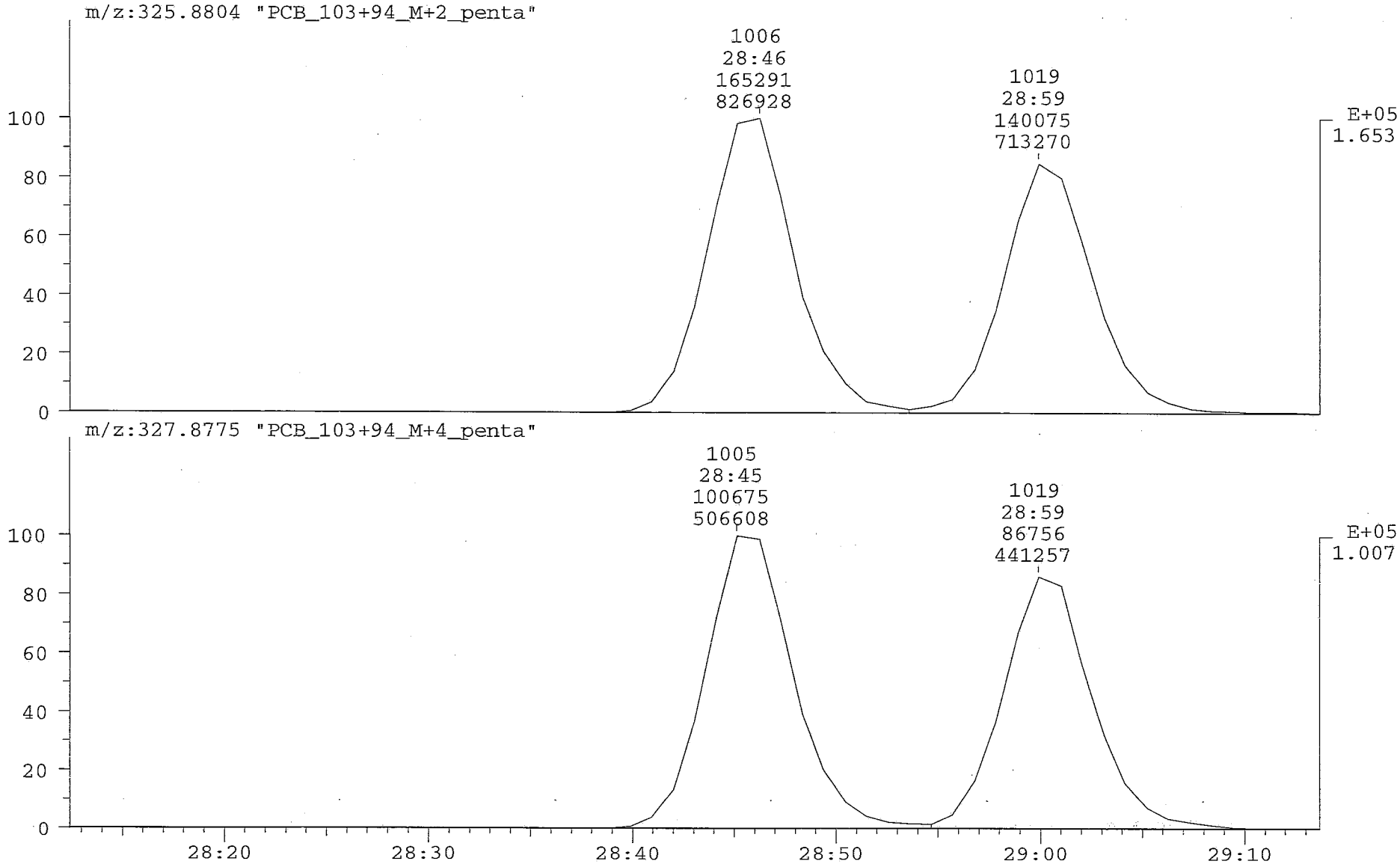
CHRO: a110713s1 13-Jul-11 Elapse: 26:28.9 876
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 836 > 921 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2970

2969

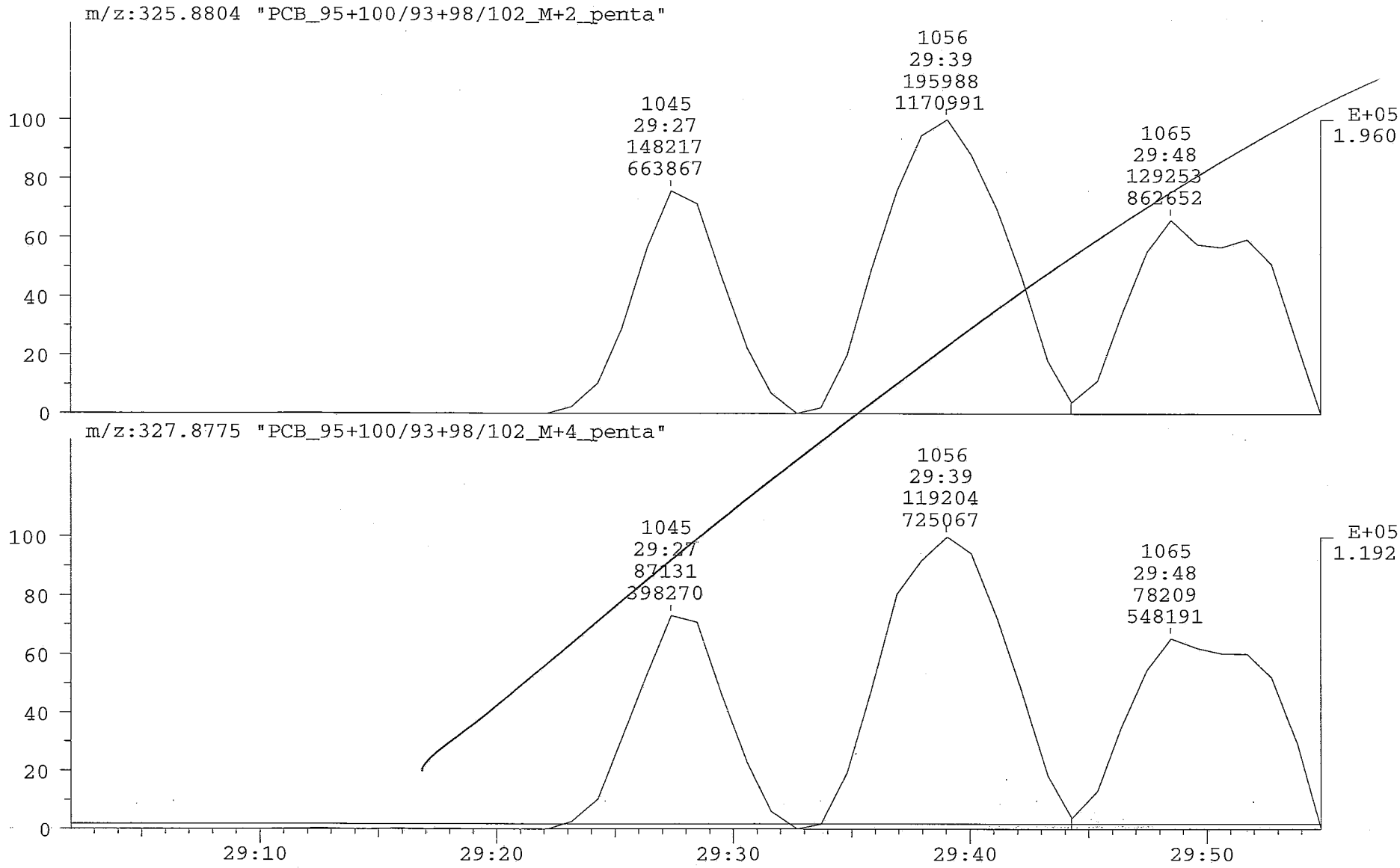
CHRO: a110713s1 13-Jul-11 Elapse: 28:43 1003
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 974 > 1032 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2971

2970

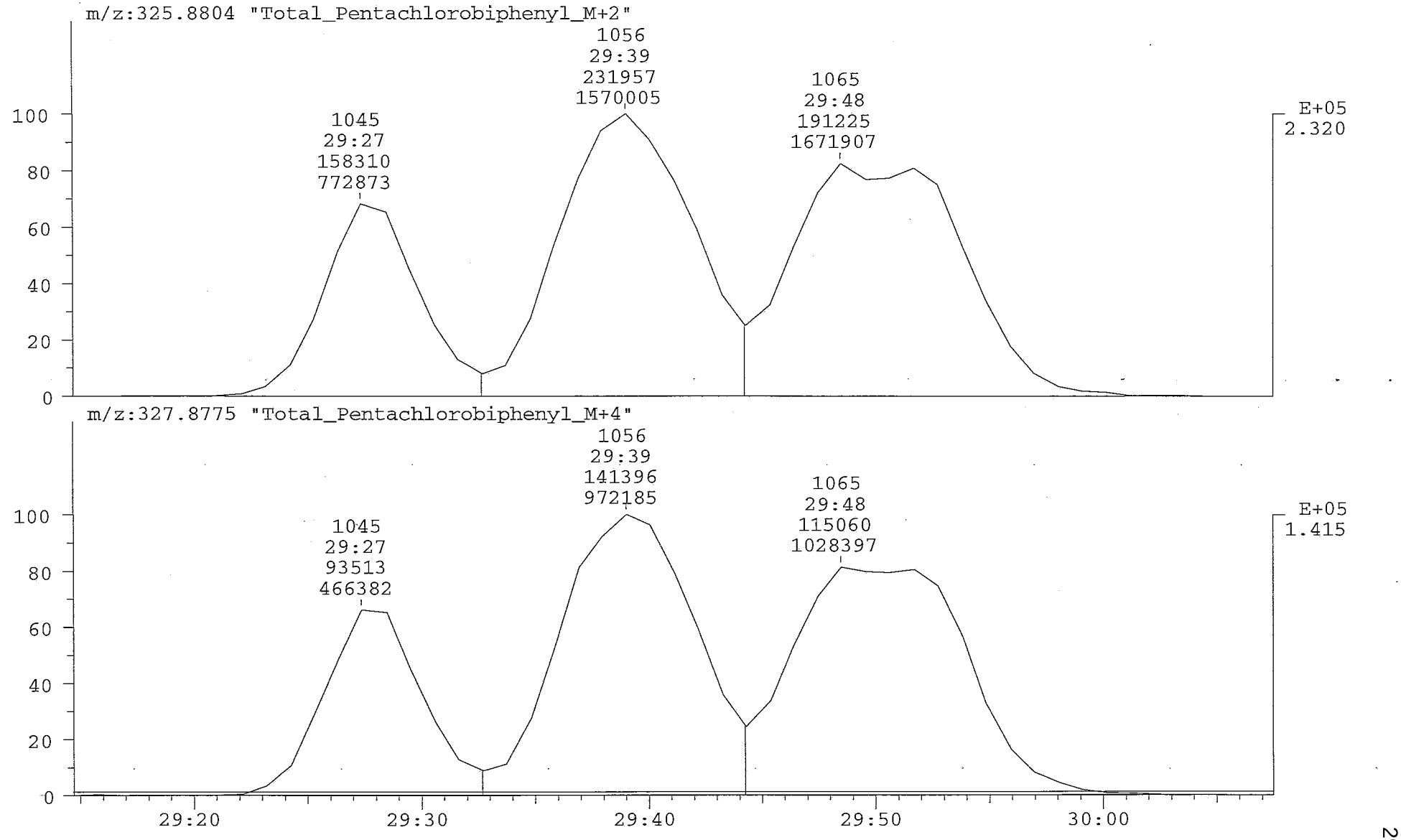
CHRO: a110713s1 13-Jul-11 Elapse: 29:28 1046
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1021 > 1071 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-2972

2971

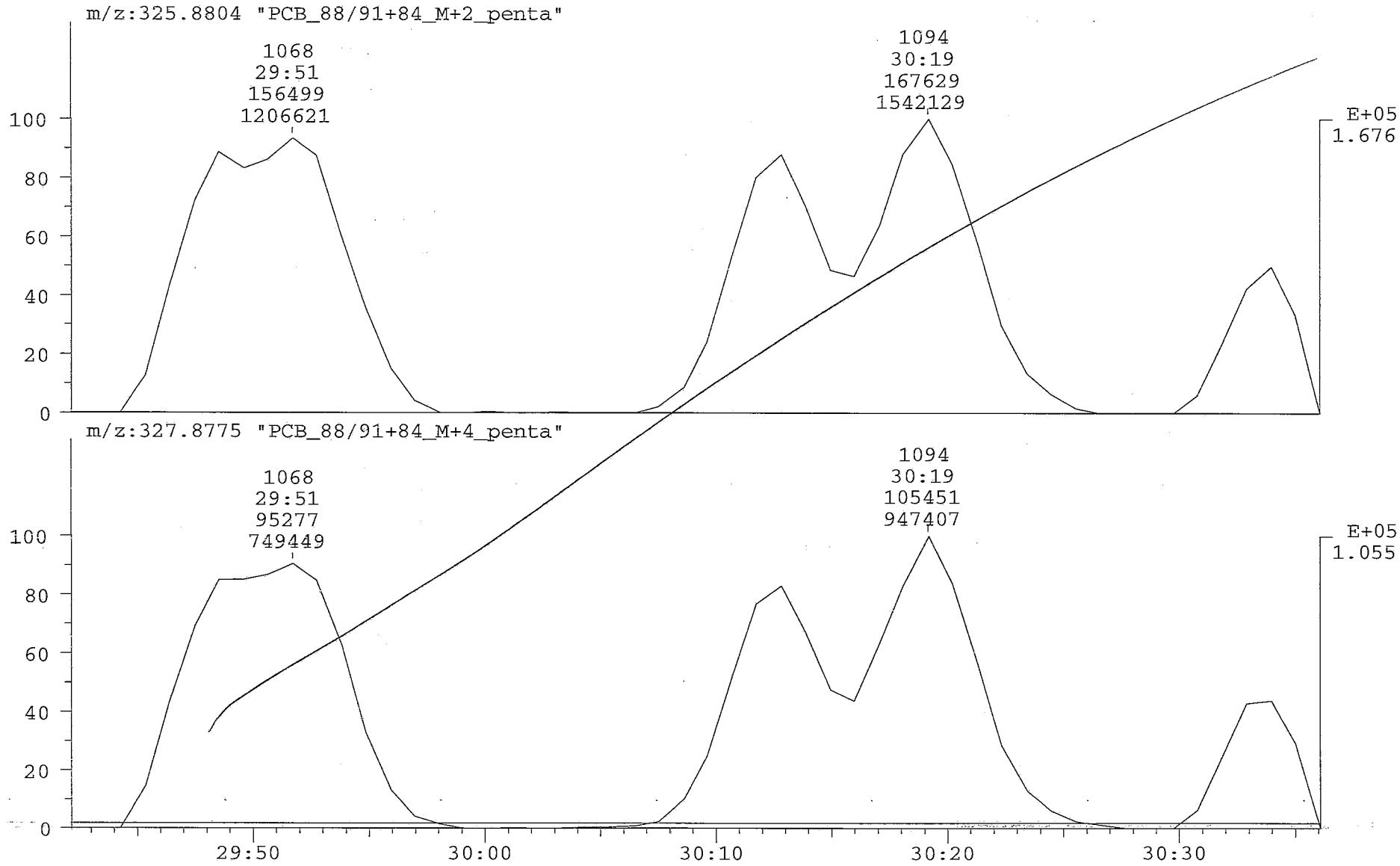
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1033 > 1083 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-2973

2972

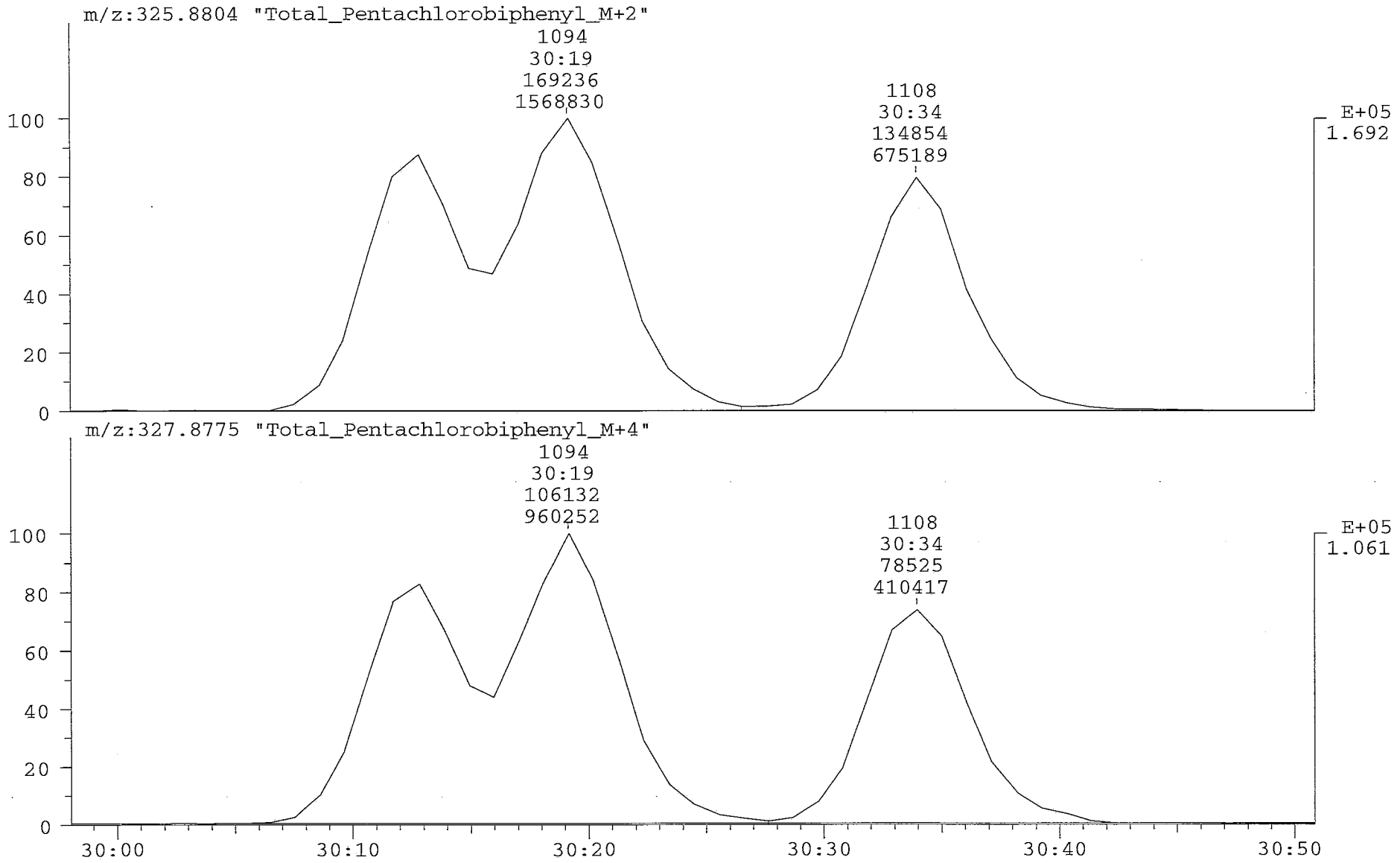
CHRO: a110713s1 13-Jul-11 Elapse: 30:12 1088
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1059 > 1110 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-2974

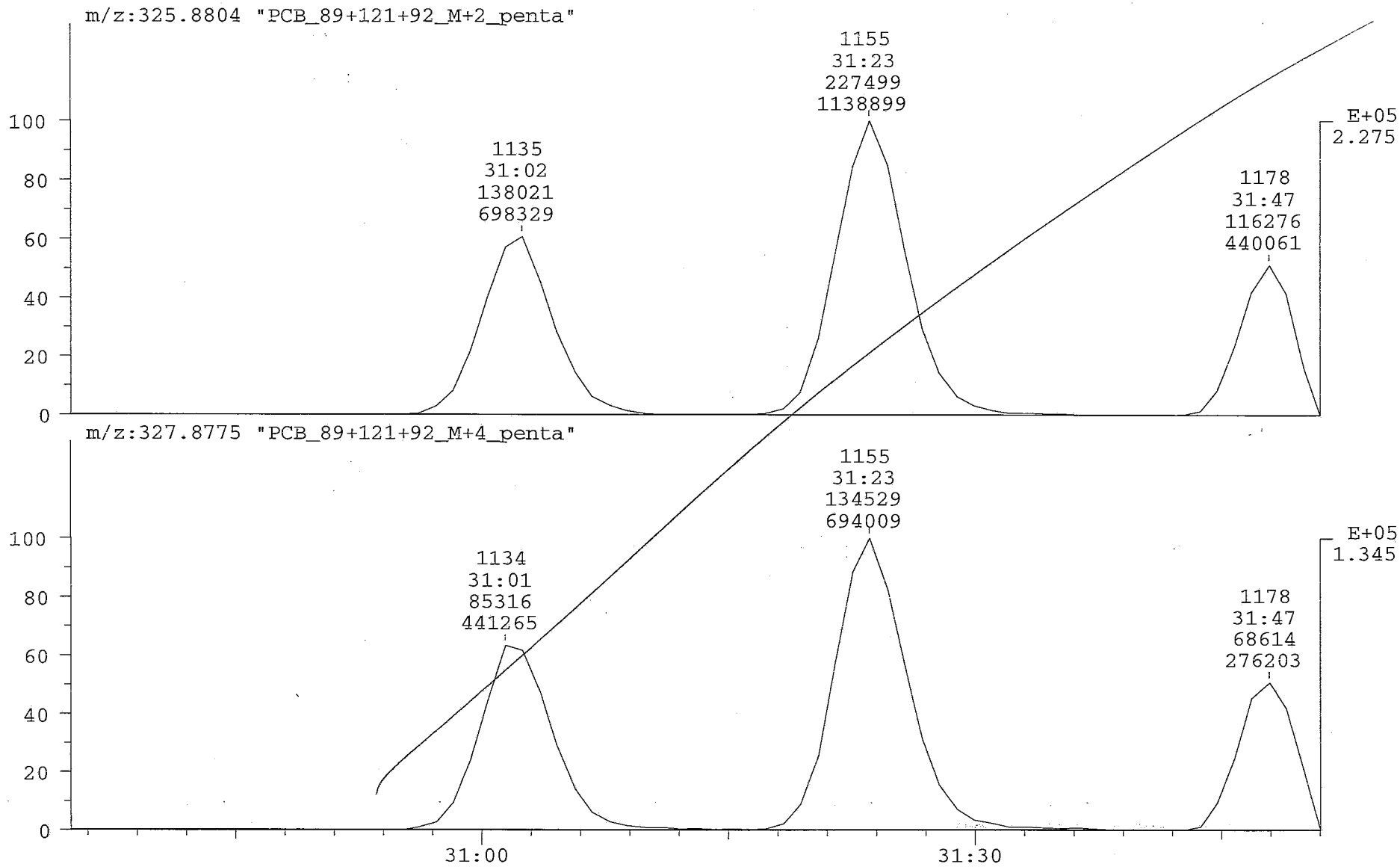
2973

CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1074 > 1124 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-2975

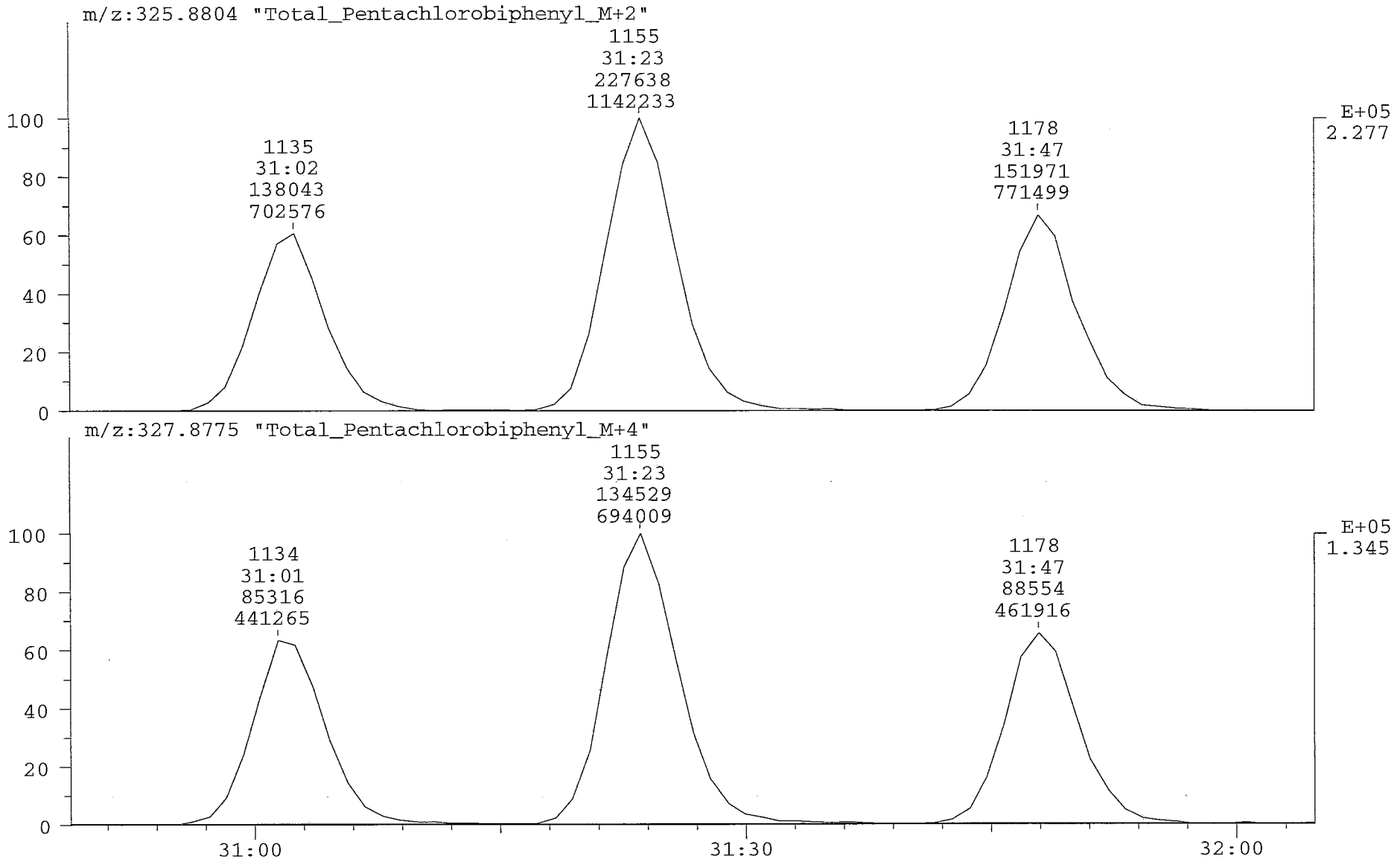
CHRO: a110713s1 13-Jul-11 Elapse: 31:15 1147
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1109 > 1181 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2976

2975

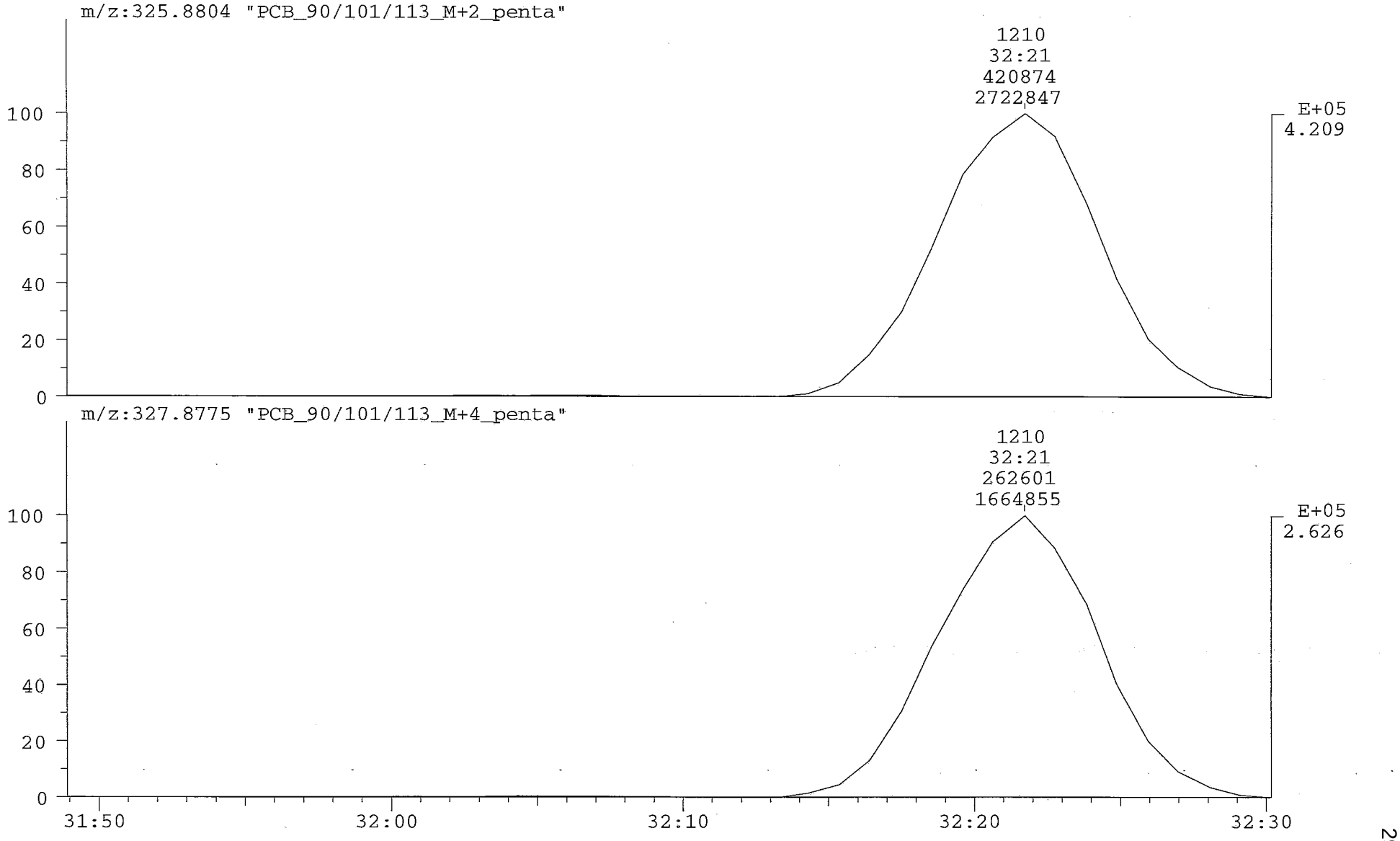
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1122 > 1194 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2977

2976

CHRO: a110713s1 13-Jul-11 Elapse: 32:09 1198
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1179 > 1218 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2978

2977

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CHRO:  a110713s1                              13-Jul-11   Elapse:  32:52      1239
Samp:  Vial 1 WO=PCB0100 Meth=IE3 Dil=1                   Start :  21:45:15   2602
Comm:  Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                          Study :  1668 Ver
Oper:  JMN           Client:  TA Knoxville                Inlet :  GC     Vial  1
Peak:  100.00  ppm     Label wndw:   1211 > 1254          Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 5               Label :  -3, 3.0
Disp:  Height  Area
```
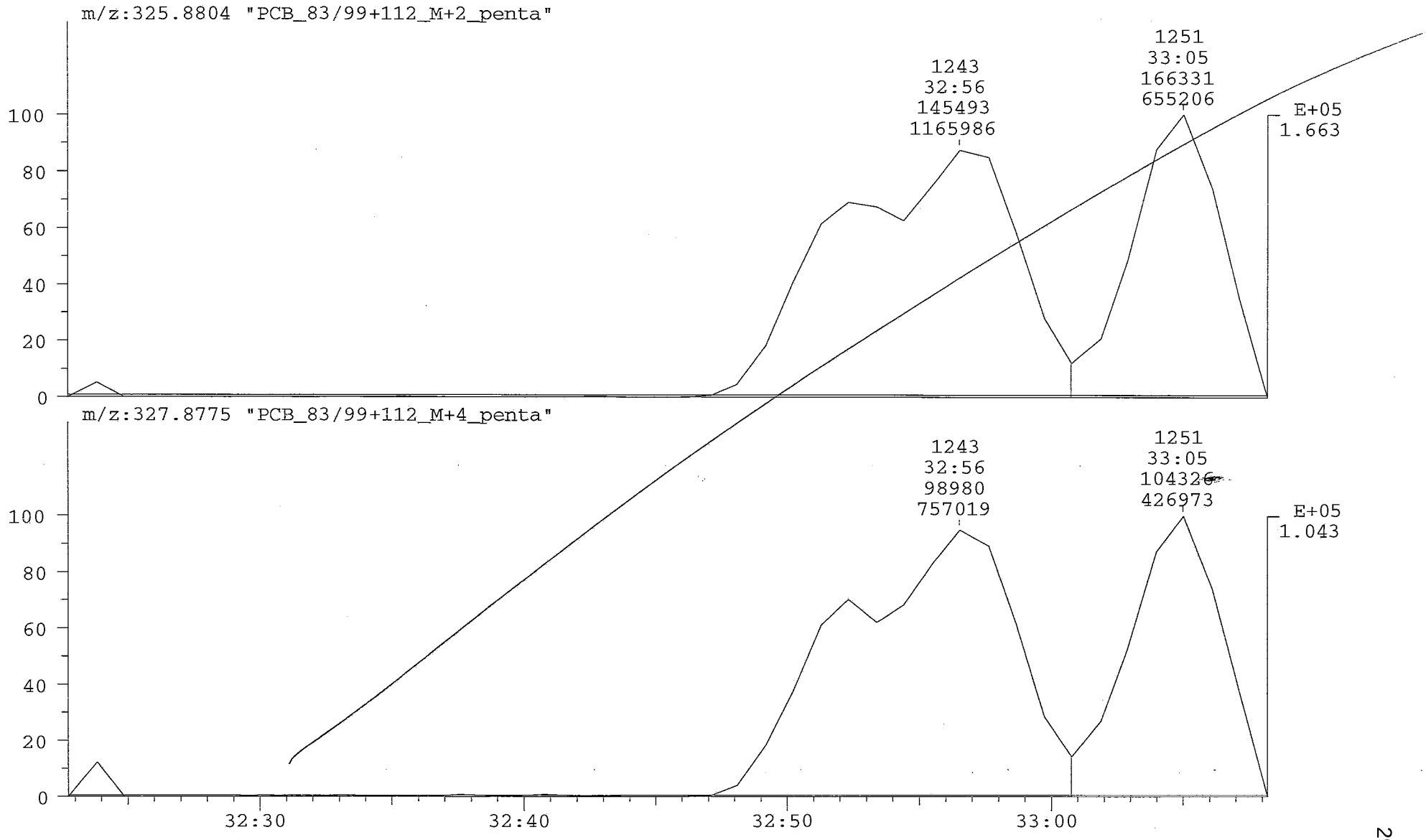
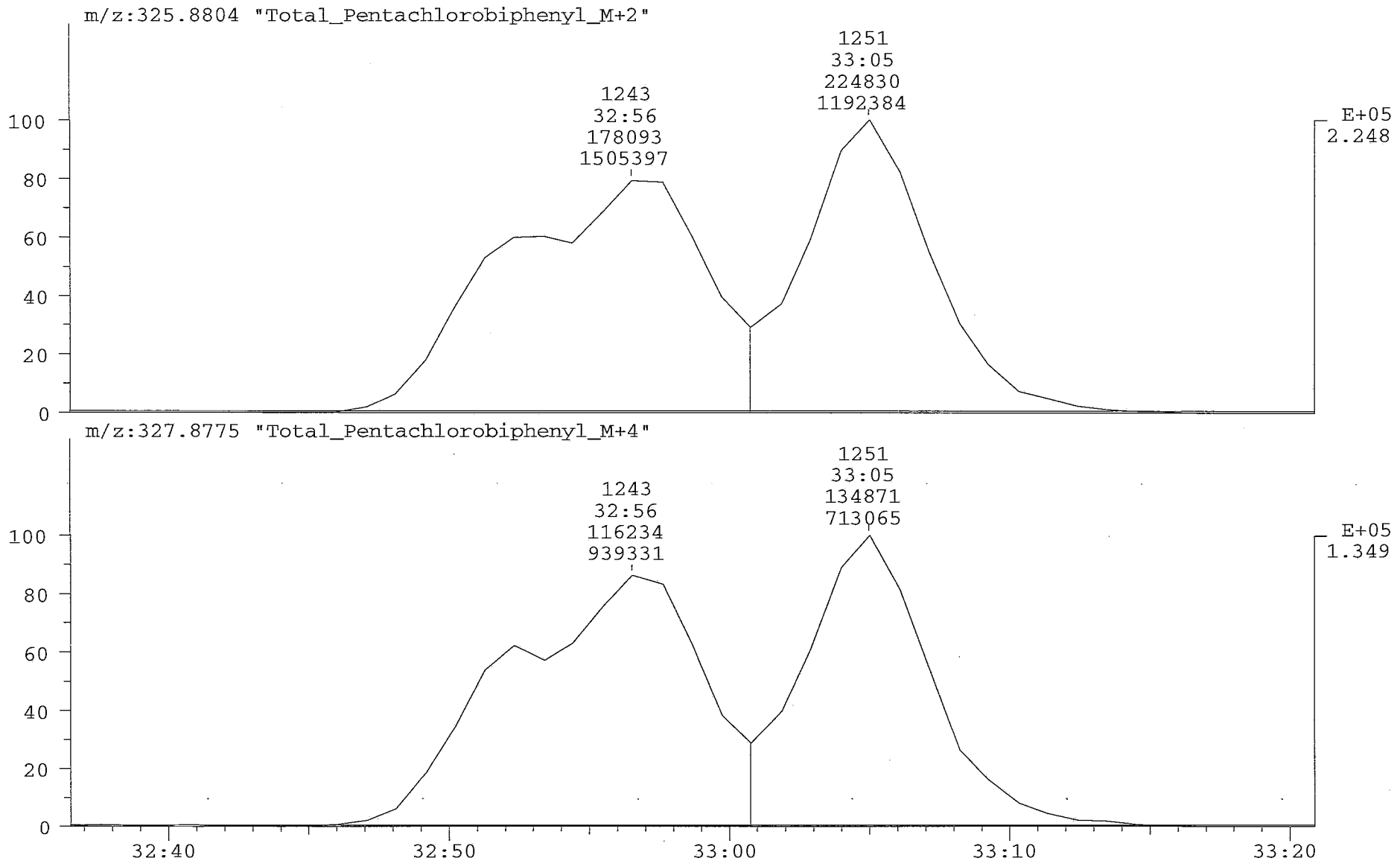



H-2979

2978

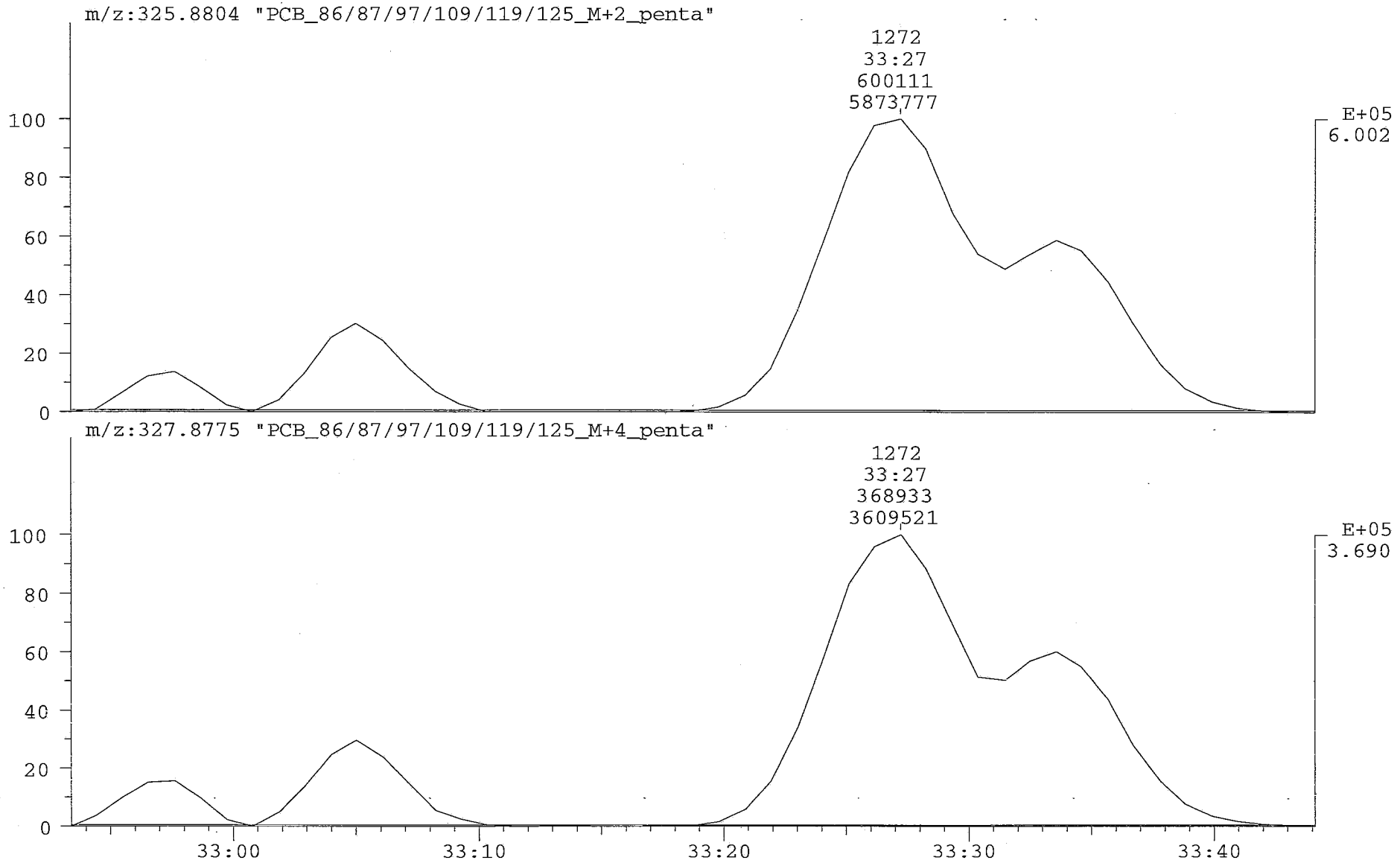
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1224 > 1266 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-2980

2979

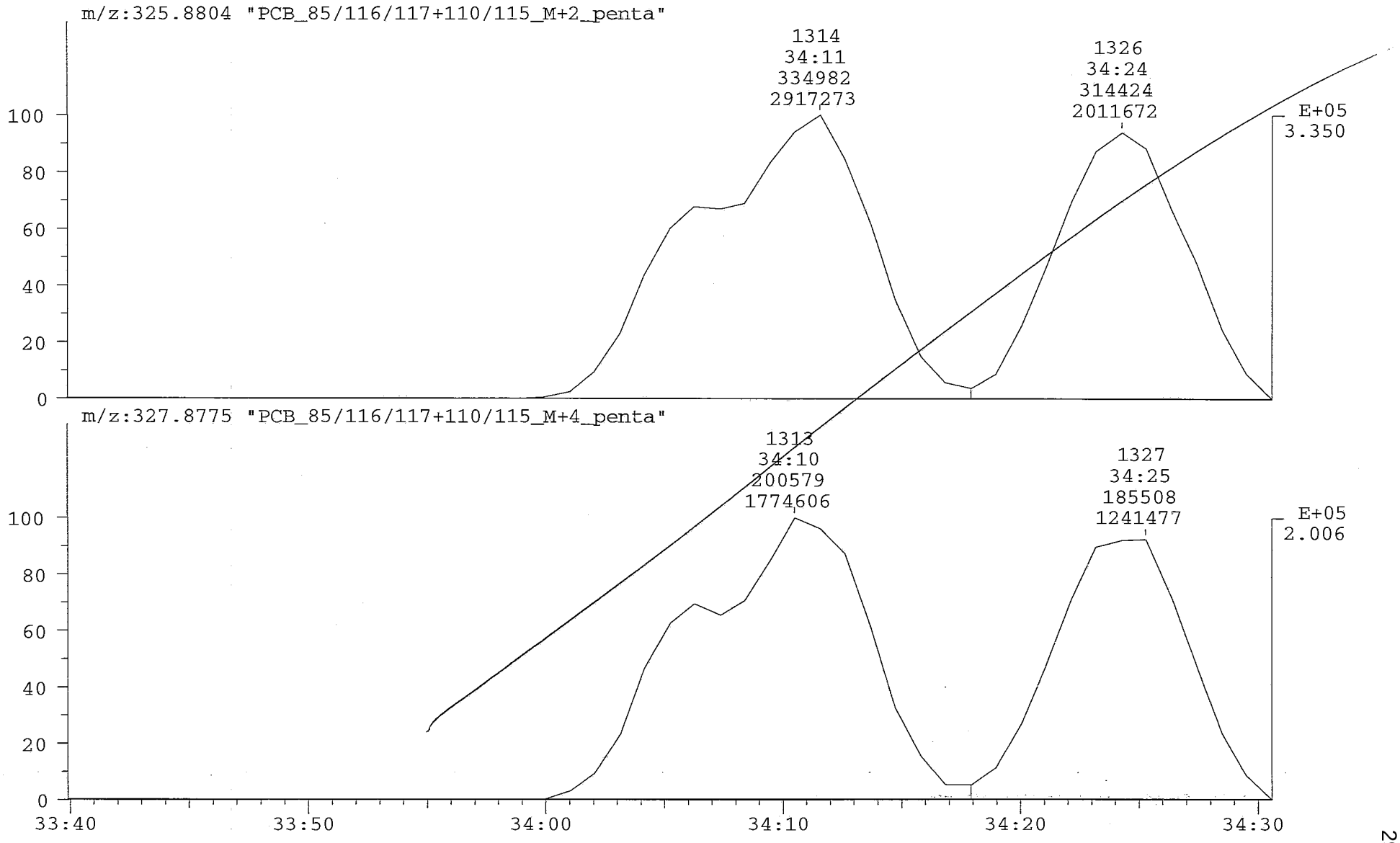
CHRO: a110713s1 13-Jul-11 Elapse: 33:19 1265
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1240 > 1288 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-2981

2980

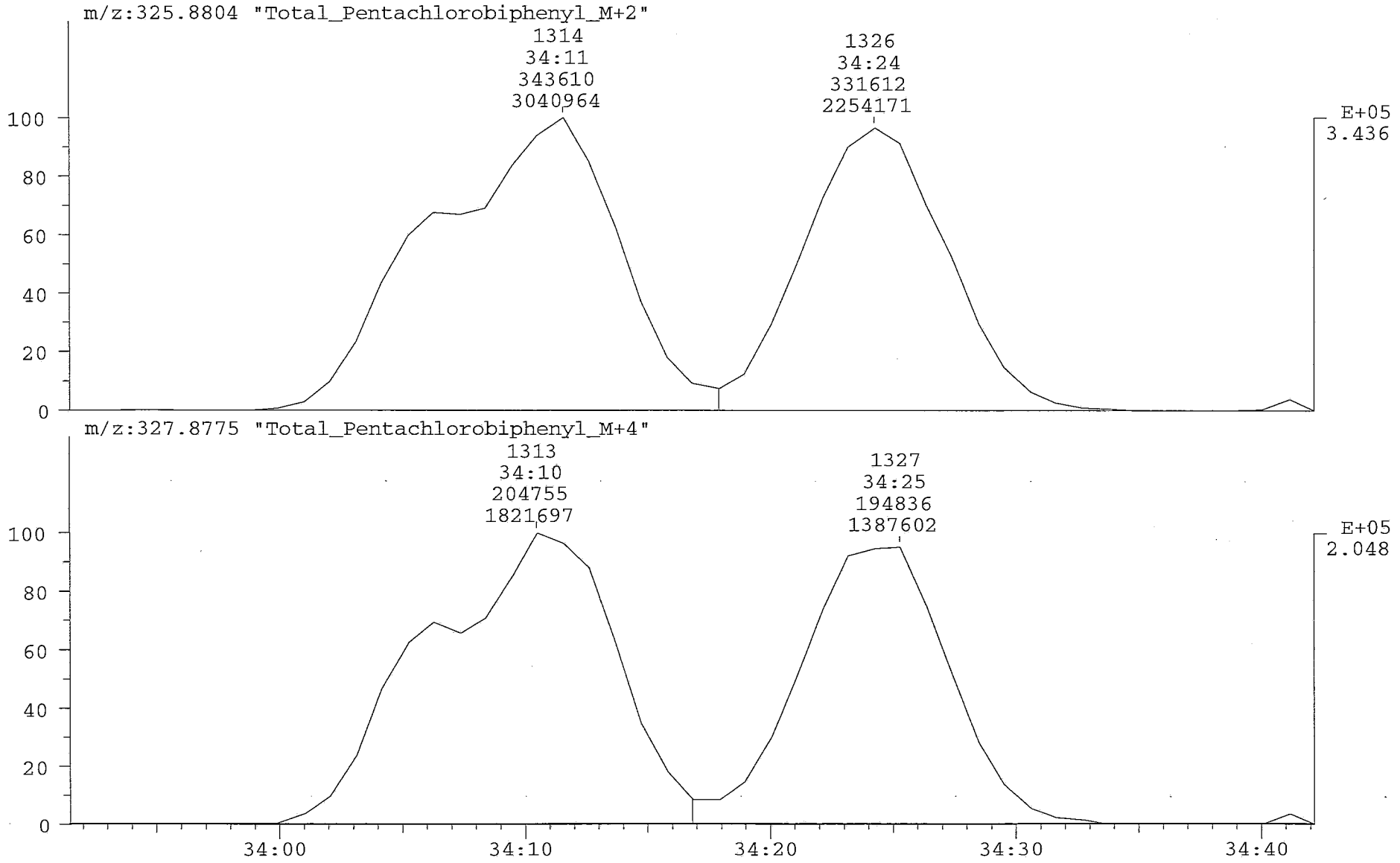
CHRO: a110713s1 13-Jul-11 Elapse: 34:07 1310
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1284 > 1332 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2982

2981

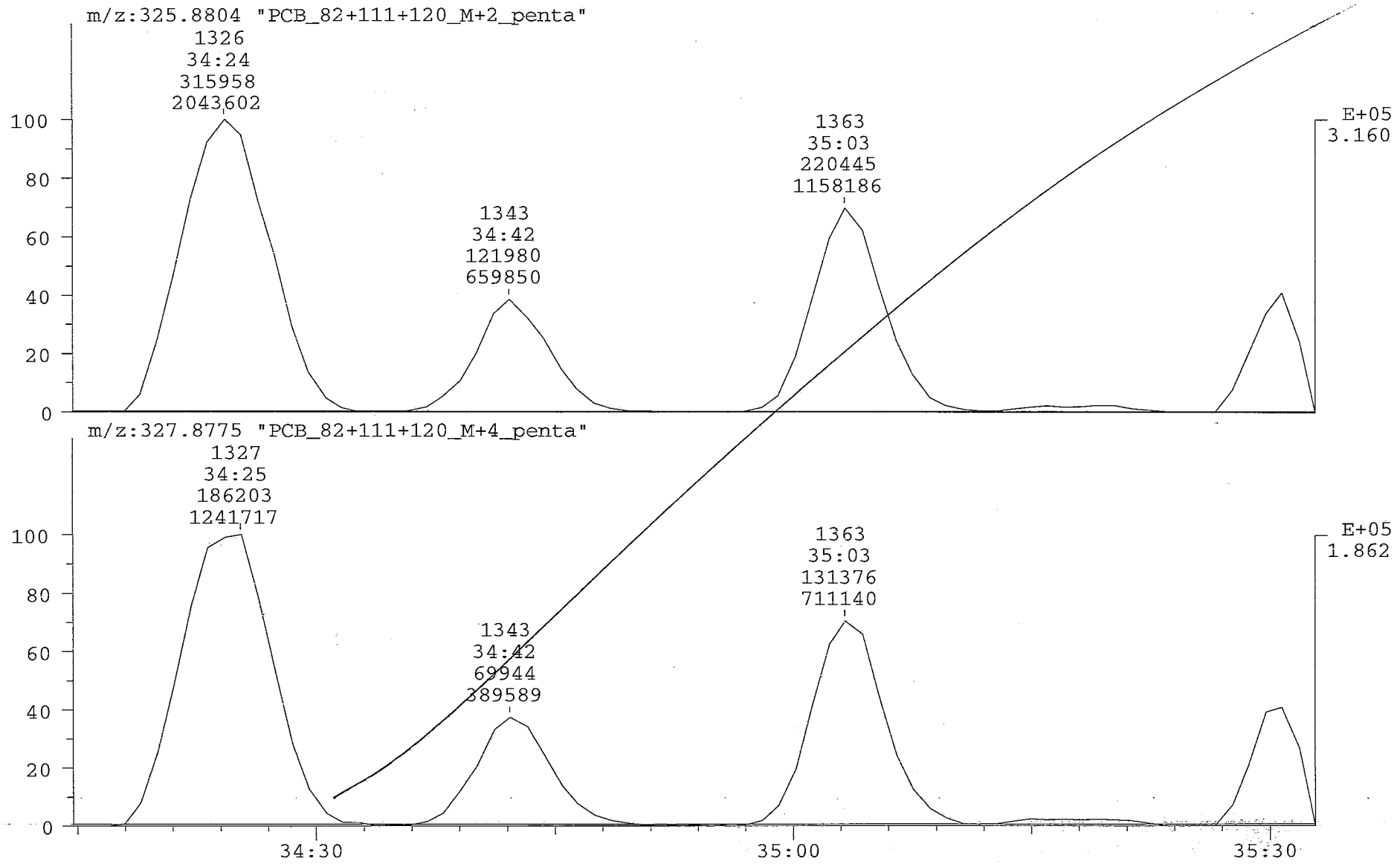
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1295 > 1343 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2983

2982

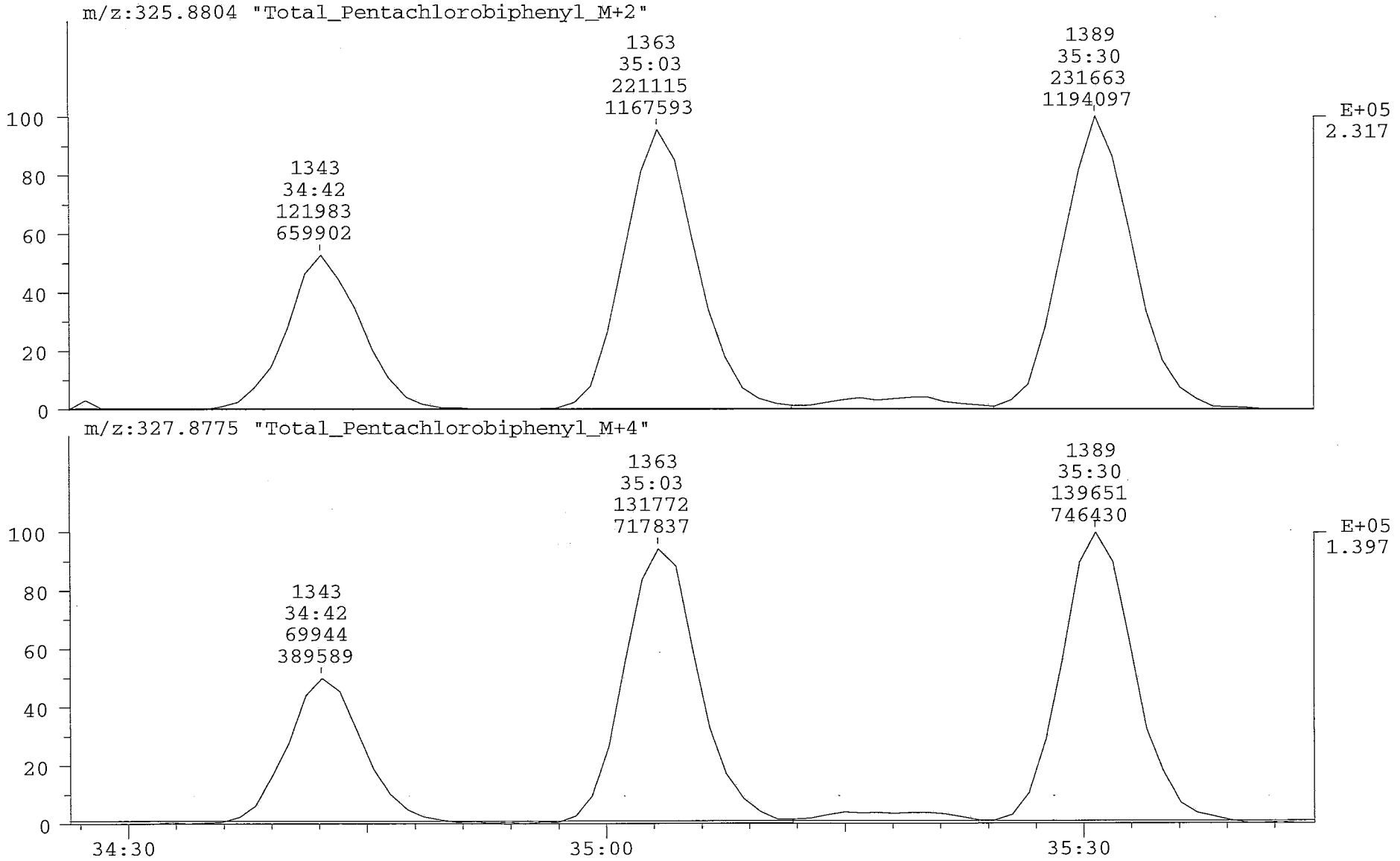
CHRO: a110713s1 13-Jul-11 Elapse: 34:36 1338
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1317 > 1391 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2984

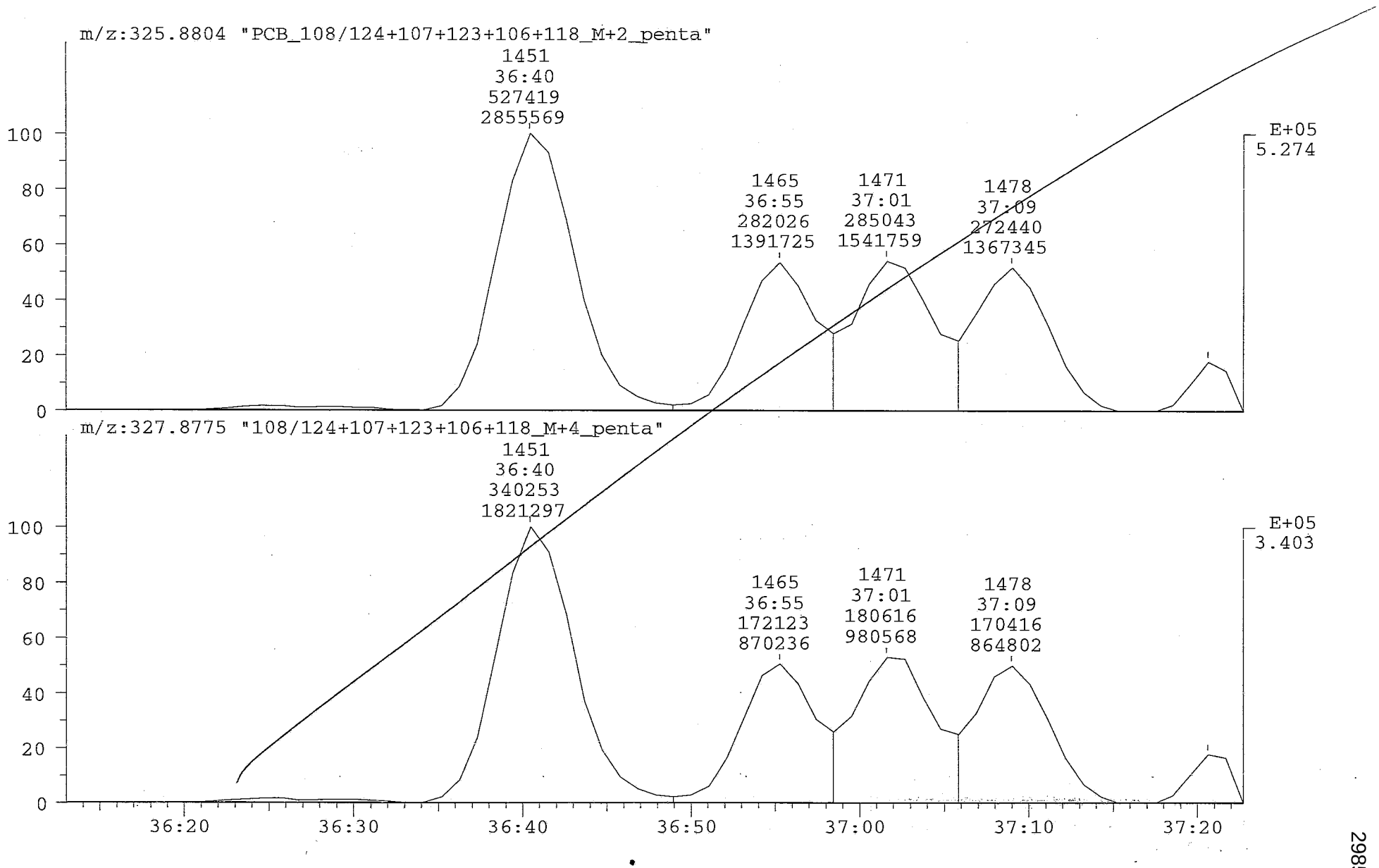
2983

CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1328 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



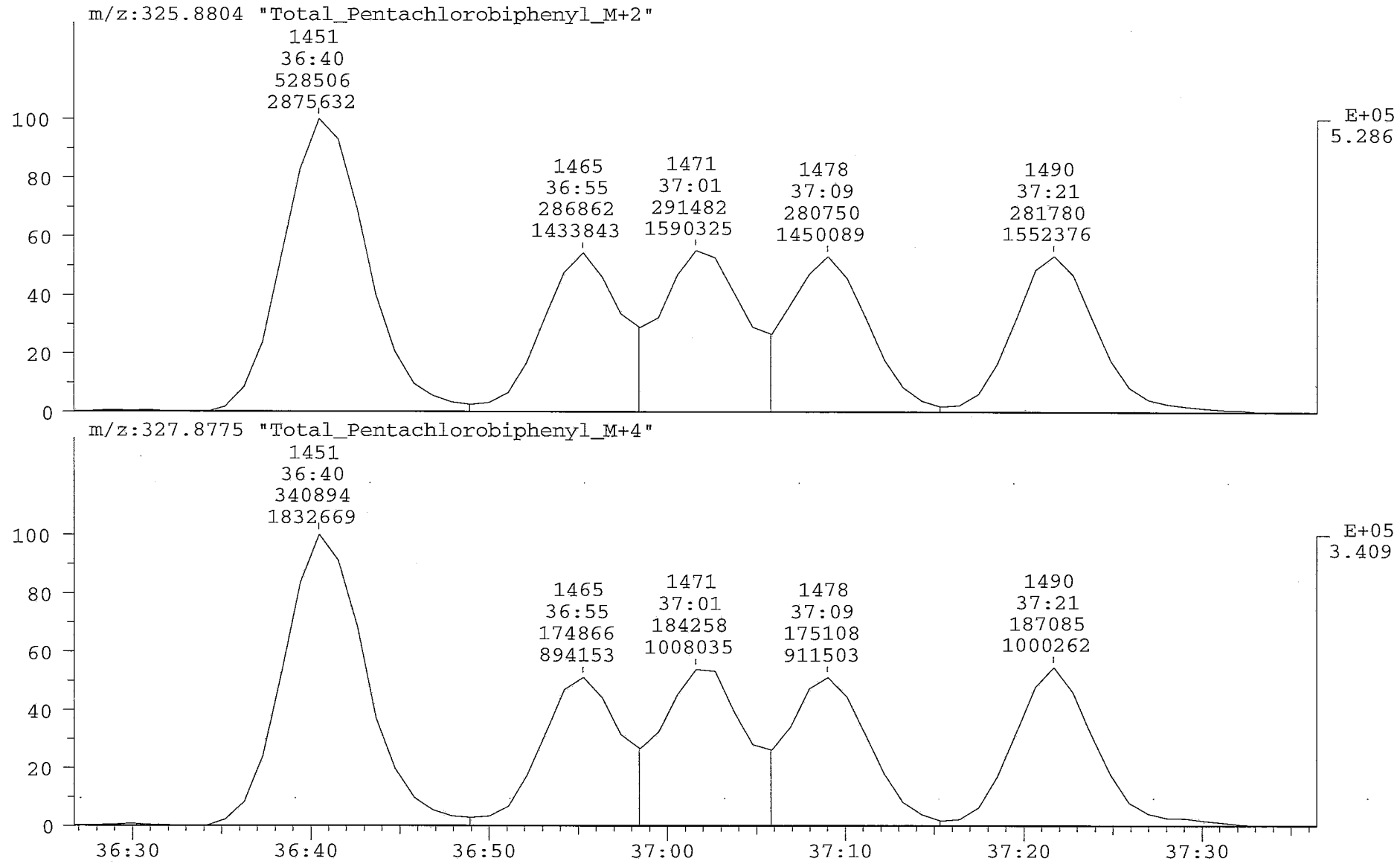
H-2985

CHRO: a110713s1 13-Jul-11 Elapse: 36:57 1467
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1425 > 1491 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2986

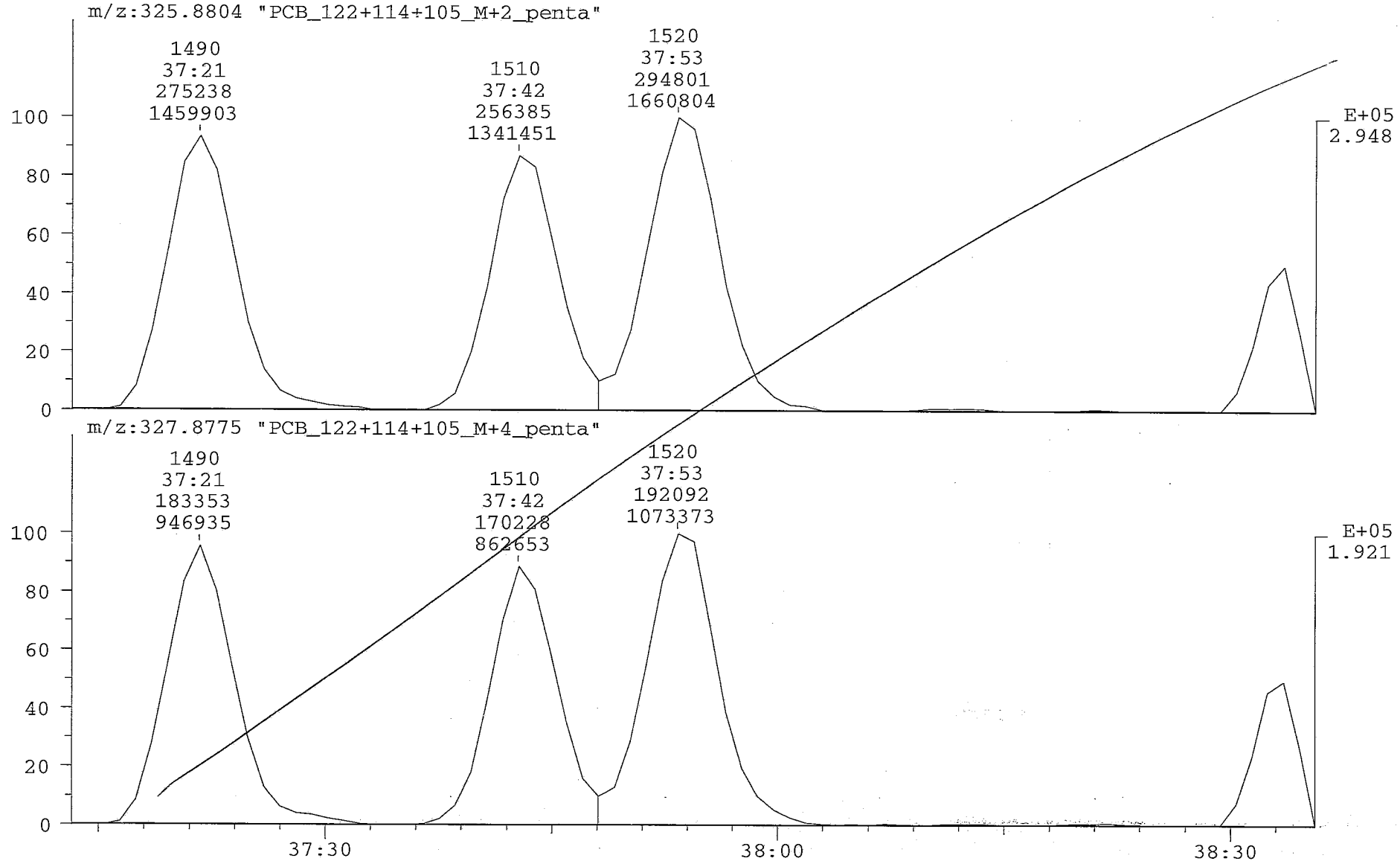
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1438 > 1504 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2987

2986

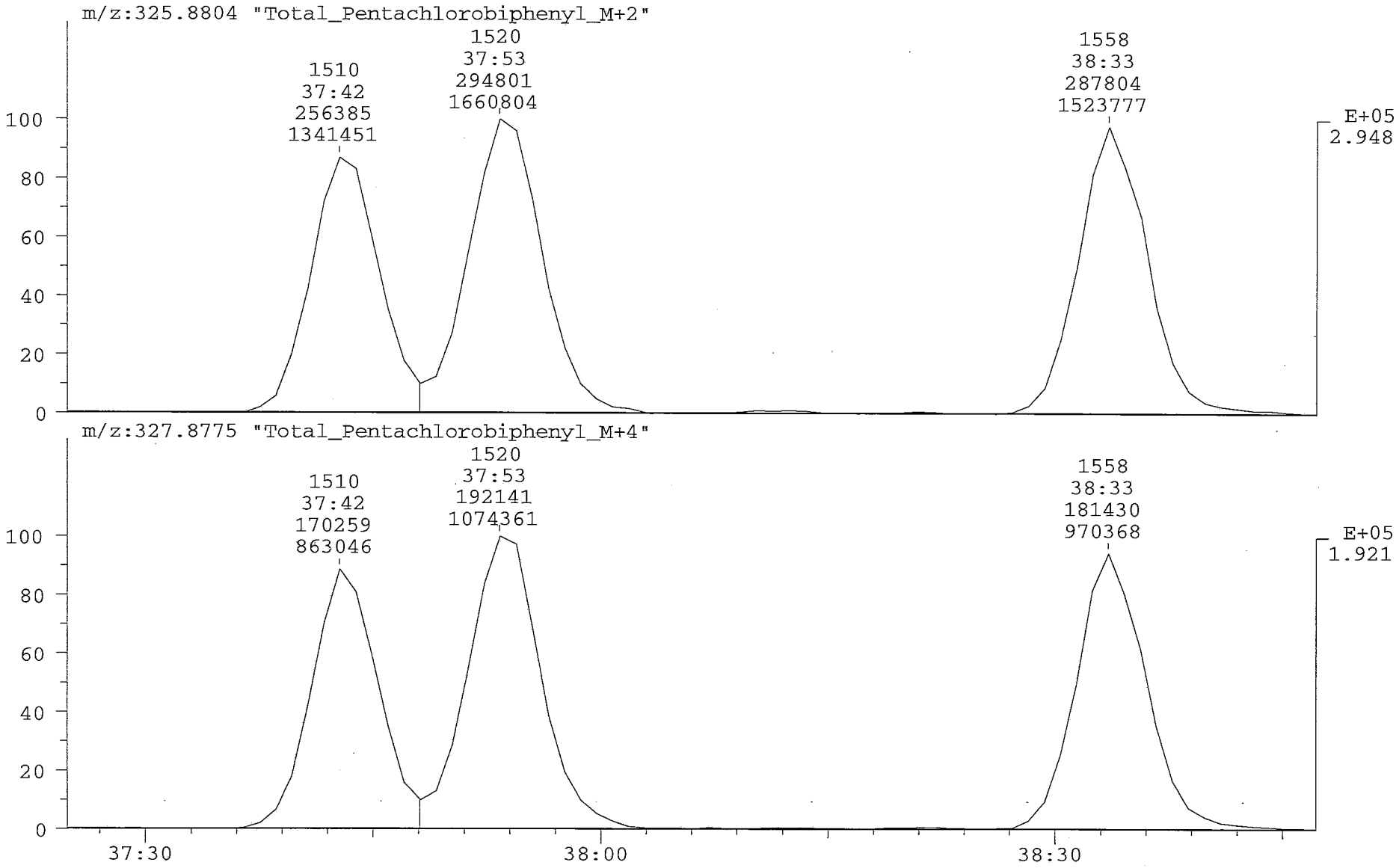
CHRO: a110713s1 13-Jul-11 Elapse: 37:56 1523
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1482 > 1560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2988

2987

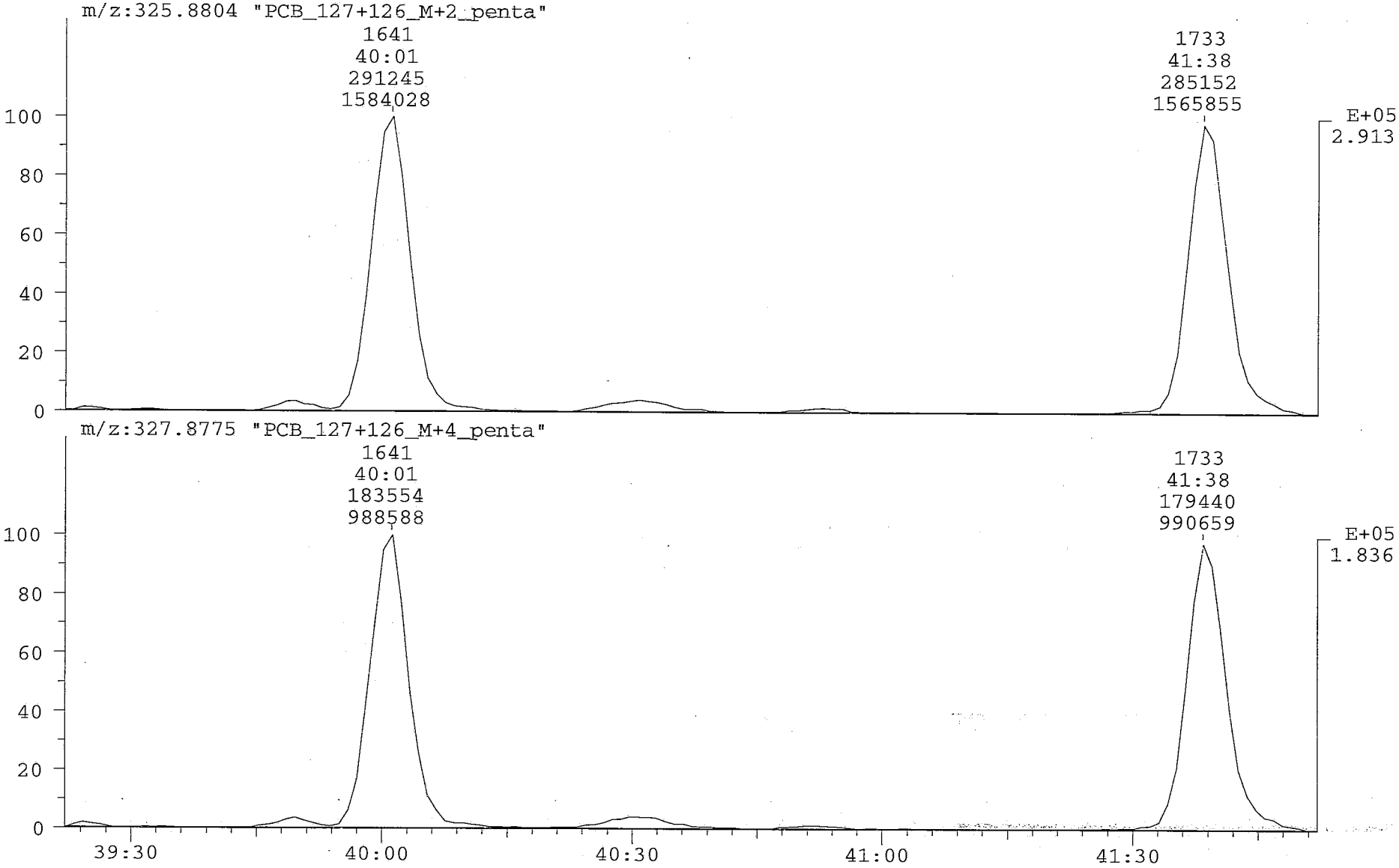
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1493 > 1571 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2989

2988

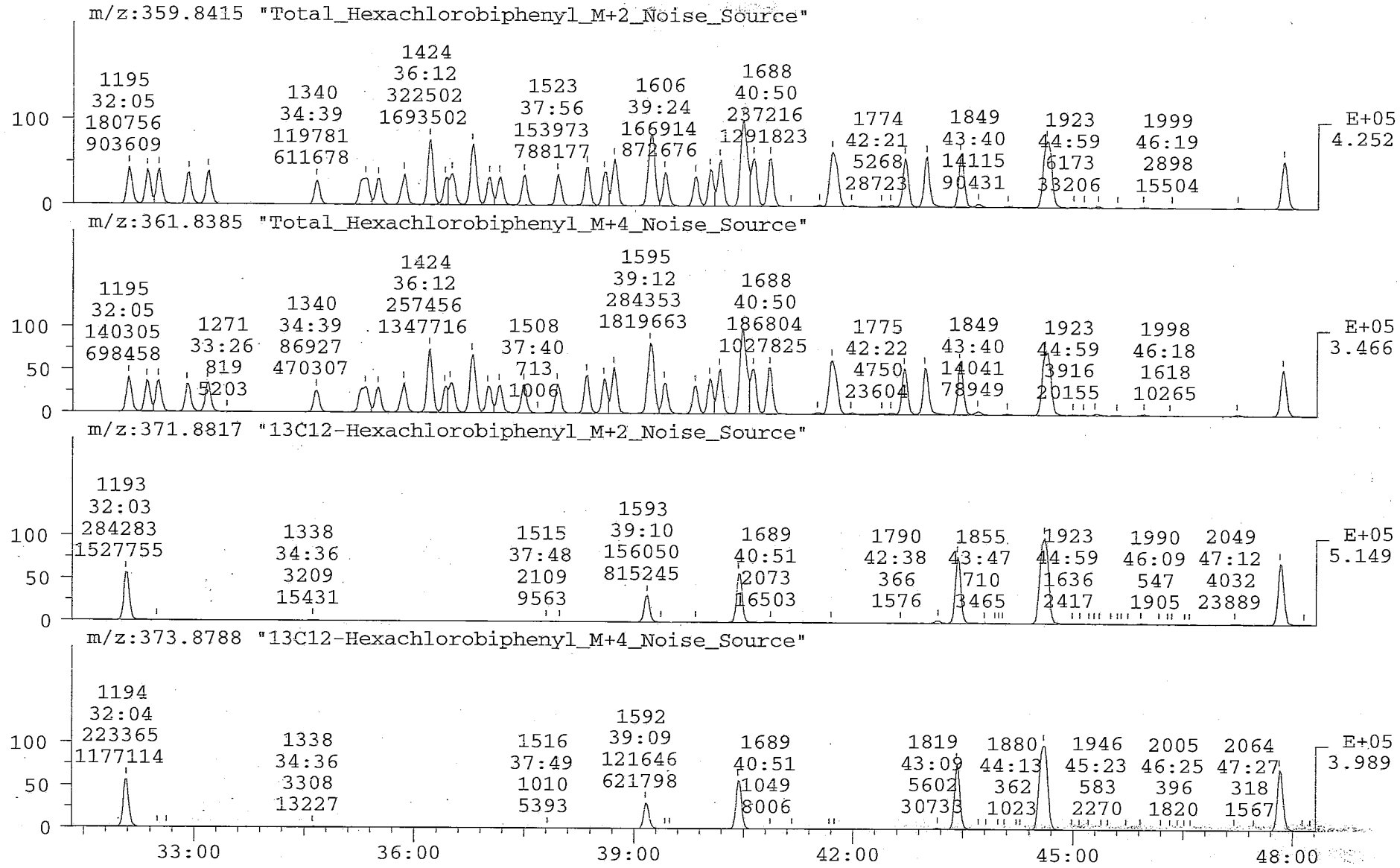
CHRO: a110713s1 13-Jul-11 Elapse: 40:38 1676
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1604 > 1746 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-2990

2989

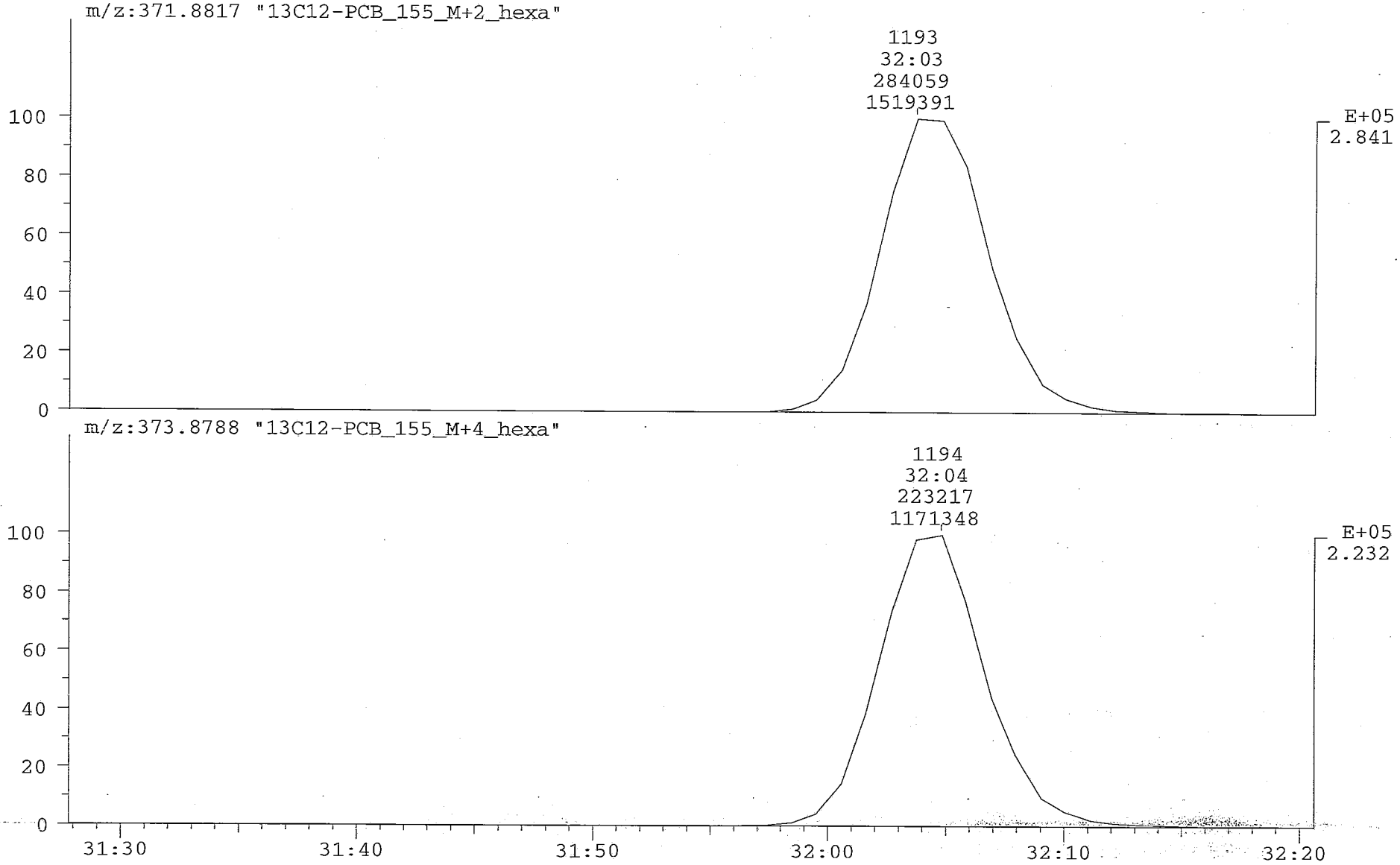
CHRO: a110713s1 13-Jul-11 Elapse: 39:49 1630
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1152 > 2112 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2991

2990

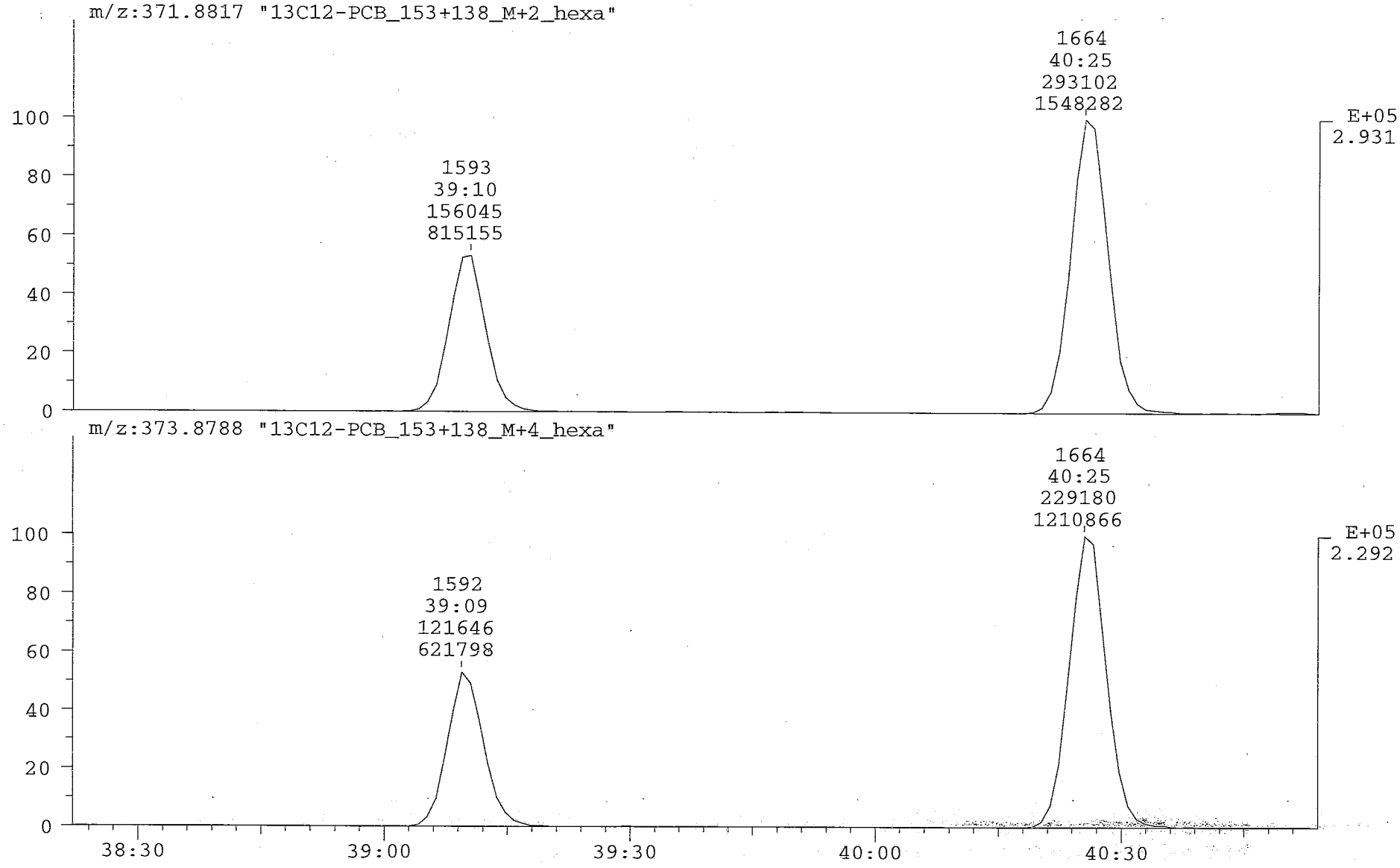
CHRO: a110713s1 13-Jul-11 Elapse: 31:54 1184
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1159 > 1209 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2962

2991

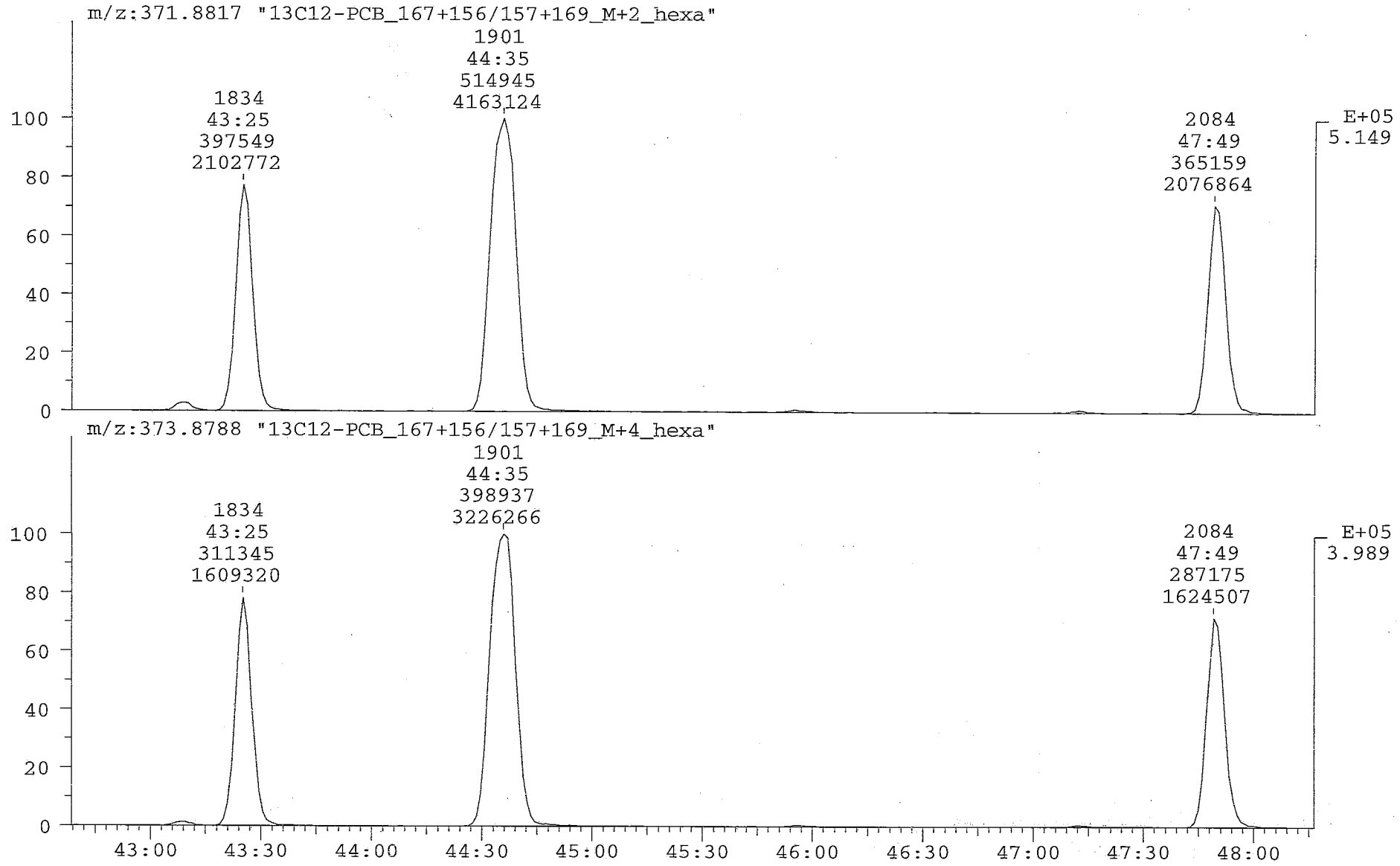
CHRO: a110713s1 13-Jul-11 Elapse: 39:37 1619
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1547 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2993

2992

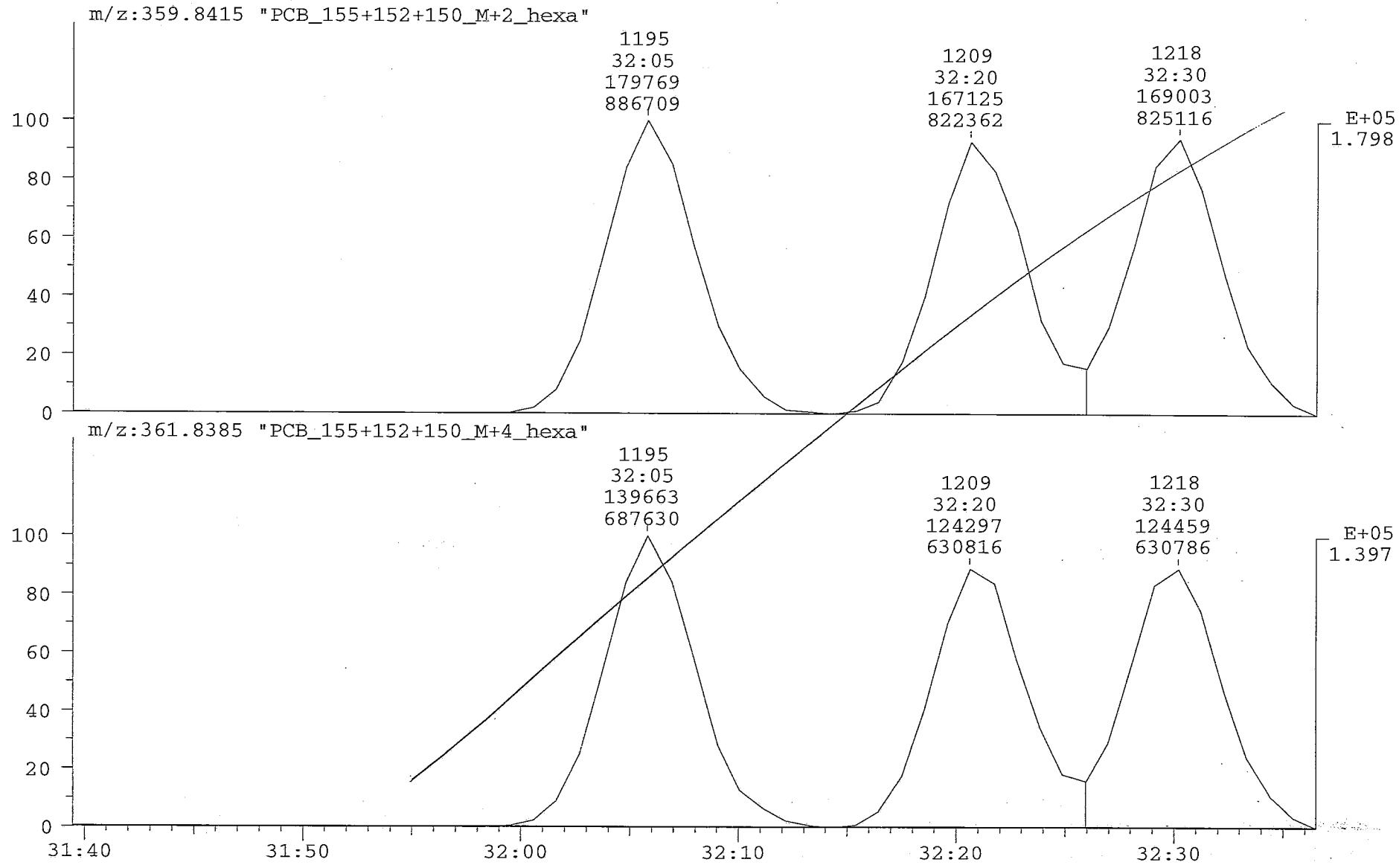
CHRO: a110713s1 13-Jul-11 Elapse: 45:27 1950
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1790 > 2110 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-2964

2993

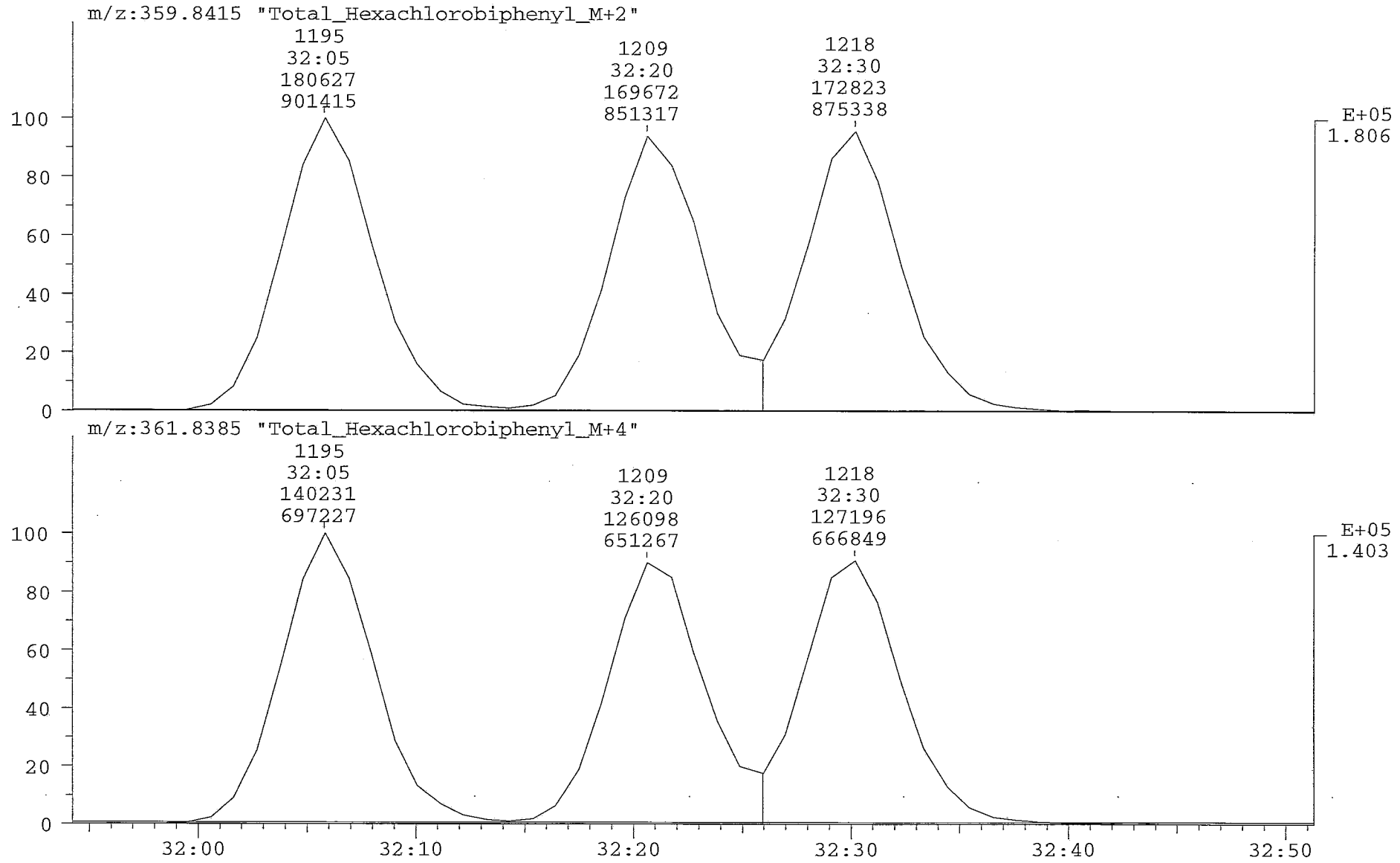
CHRO: a110713s1 13-Jul-11 Elapse: 32:09 1198
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1170 > 1224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2965

2994

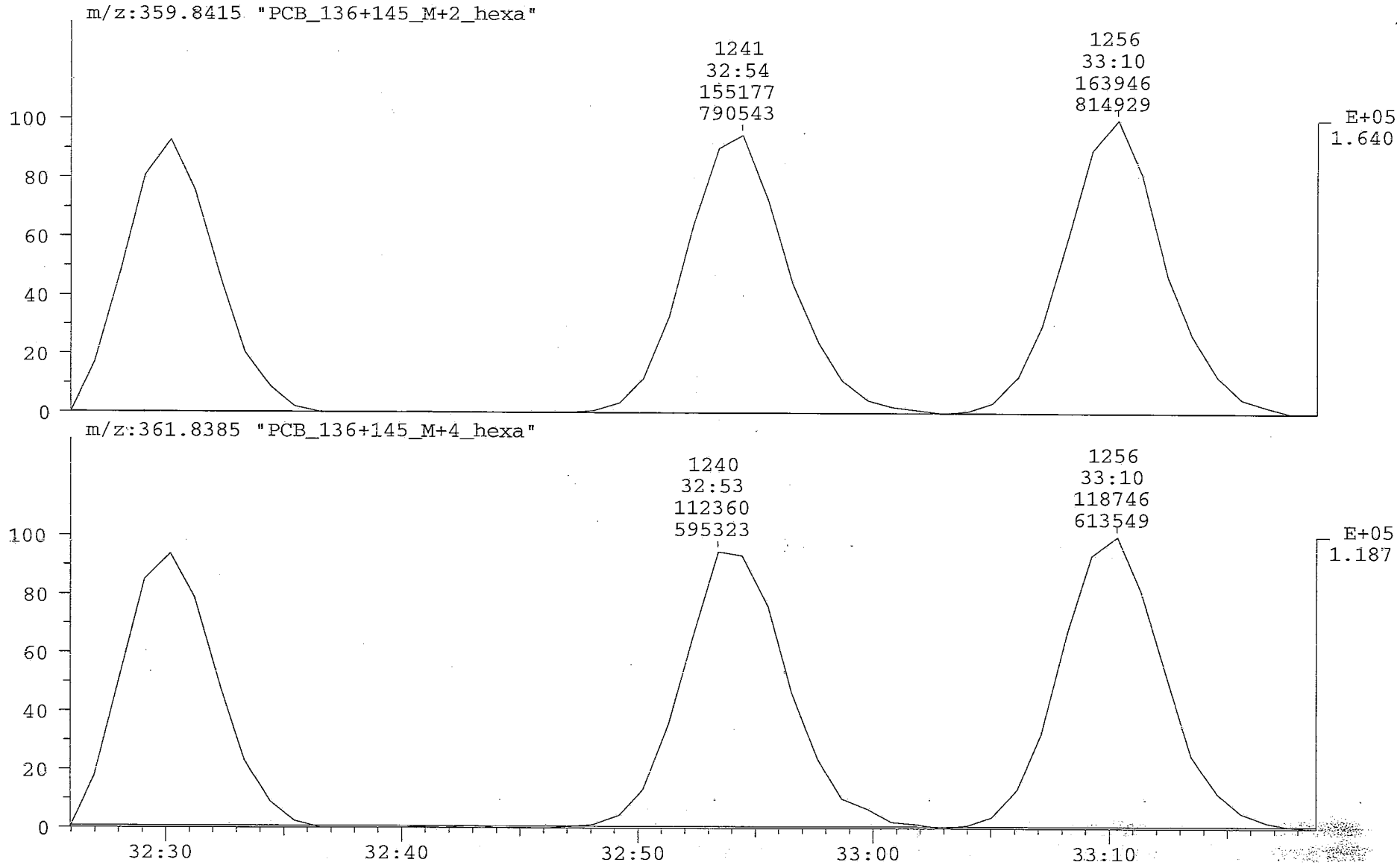
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1184 > 1238 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2996

2995

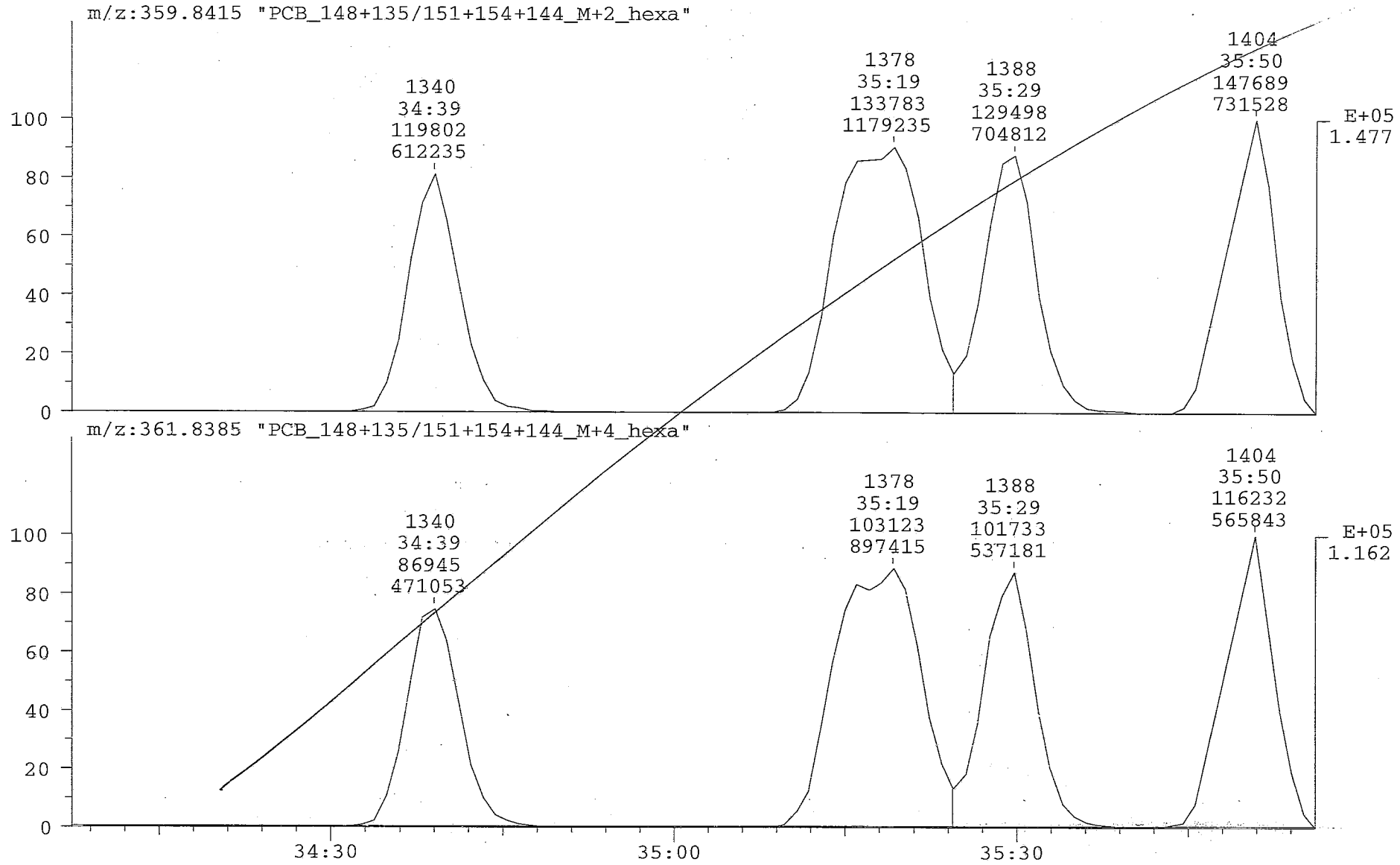
CHRO: a110713s1 13-Jul-11 Elapse: 32:52 1239
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1214 > 1264 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-2997

2996

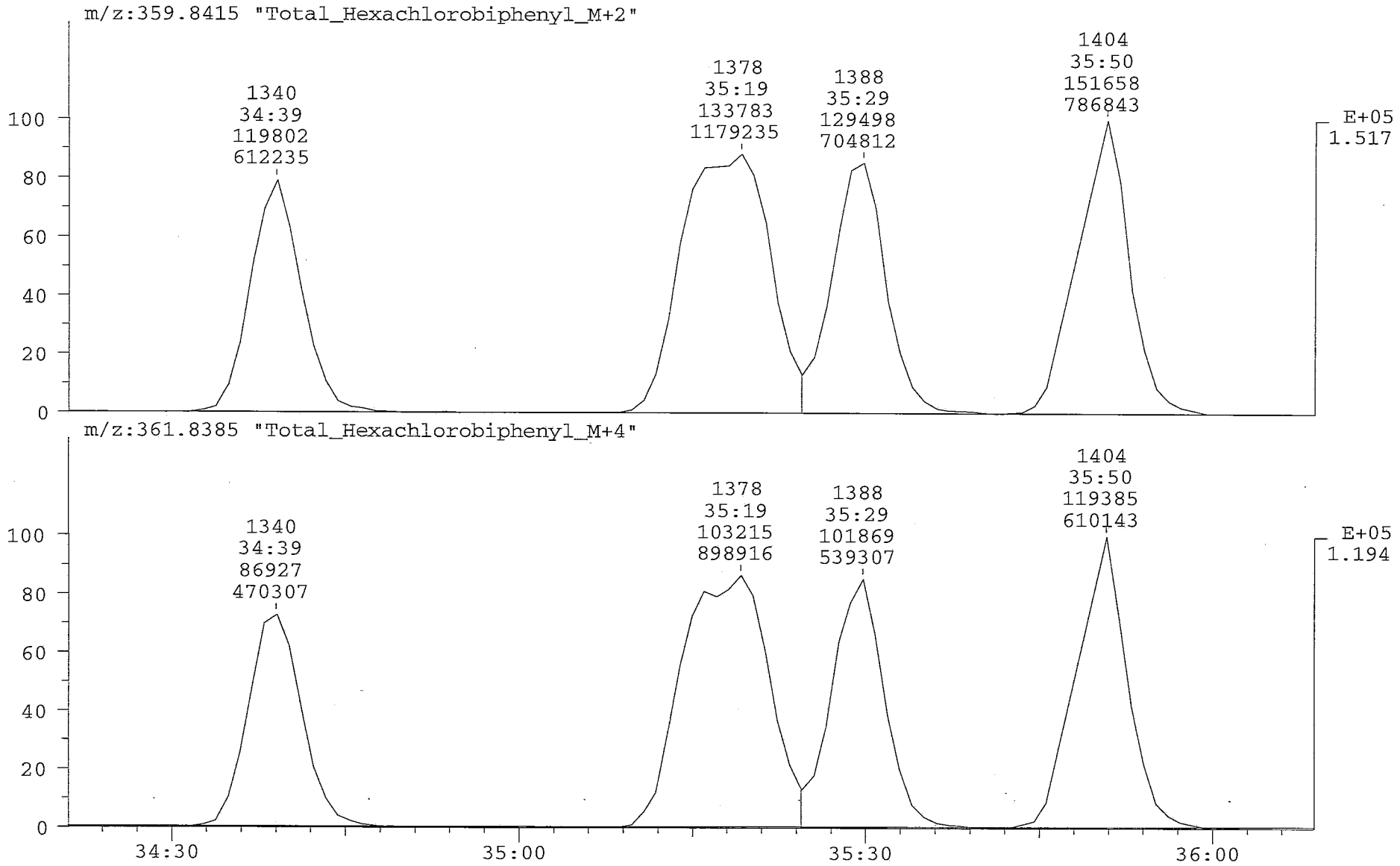
CHRO: a110713s1 13-Jul-11 Elapse: 35:06 1366
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1310 > 1409 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2998

2997

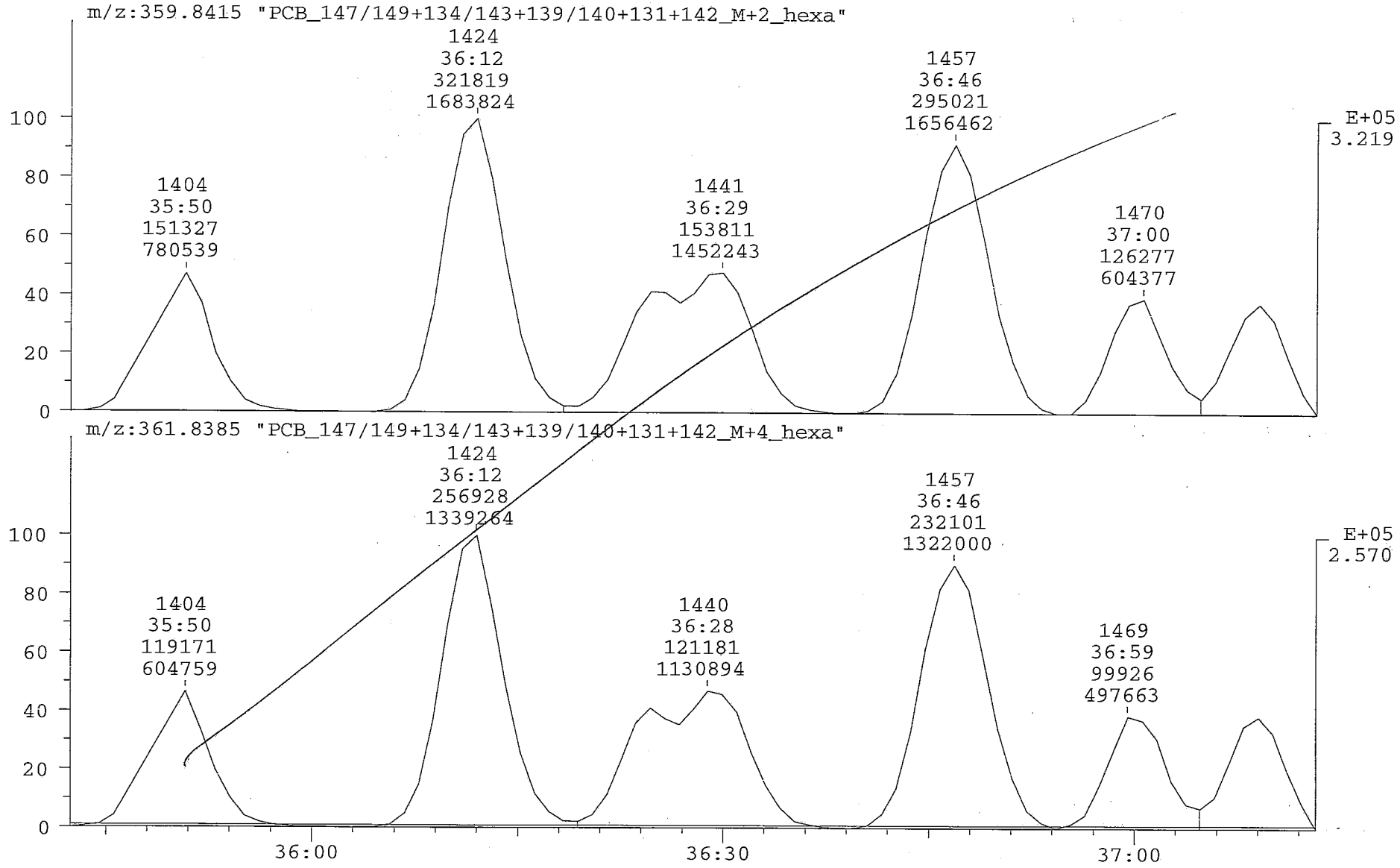
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1323 > 1421 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-2999

2998

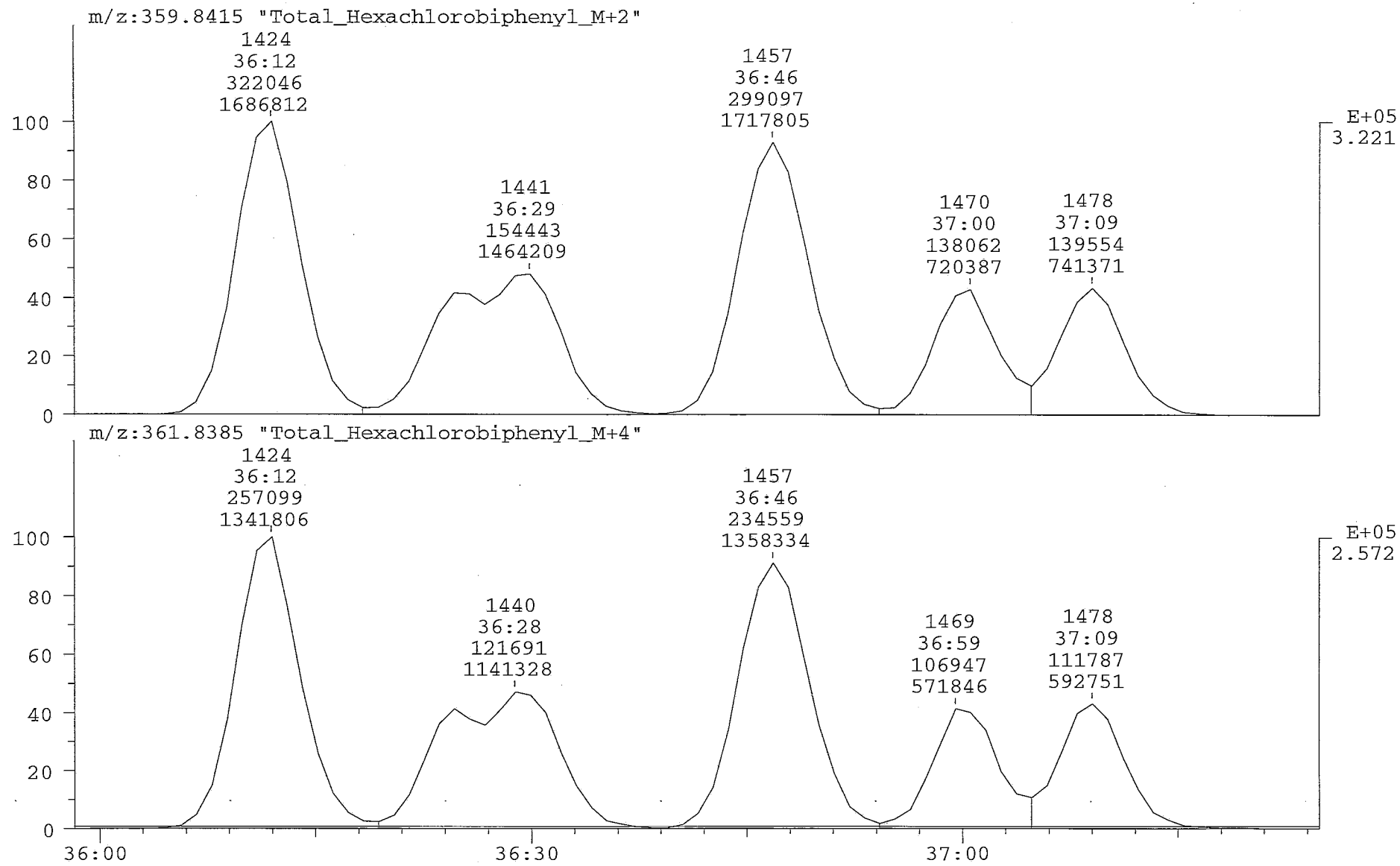
CHRO: a110713s1 13-Jul-11 Elapse: 36:35 1446
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1400 > 1482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3000

2999

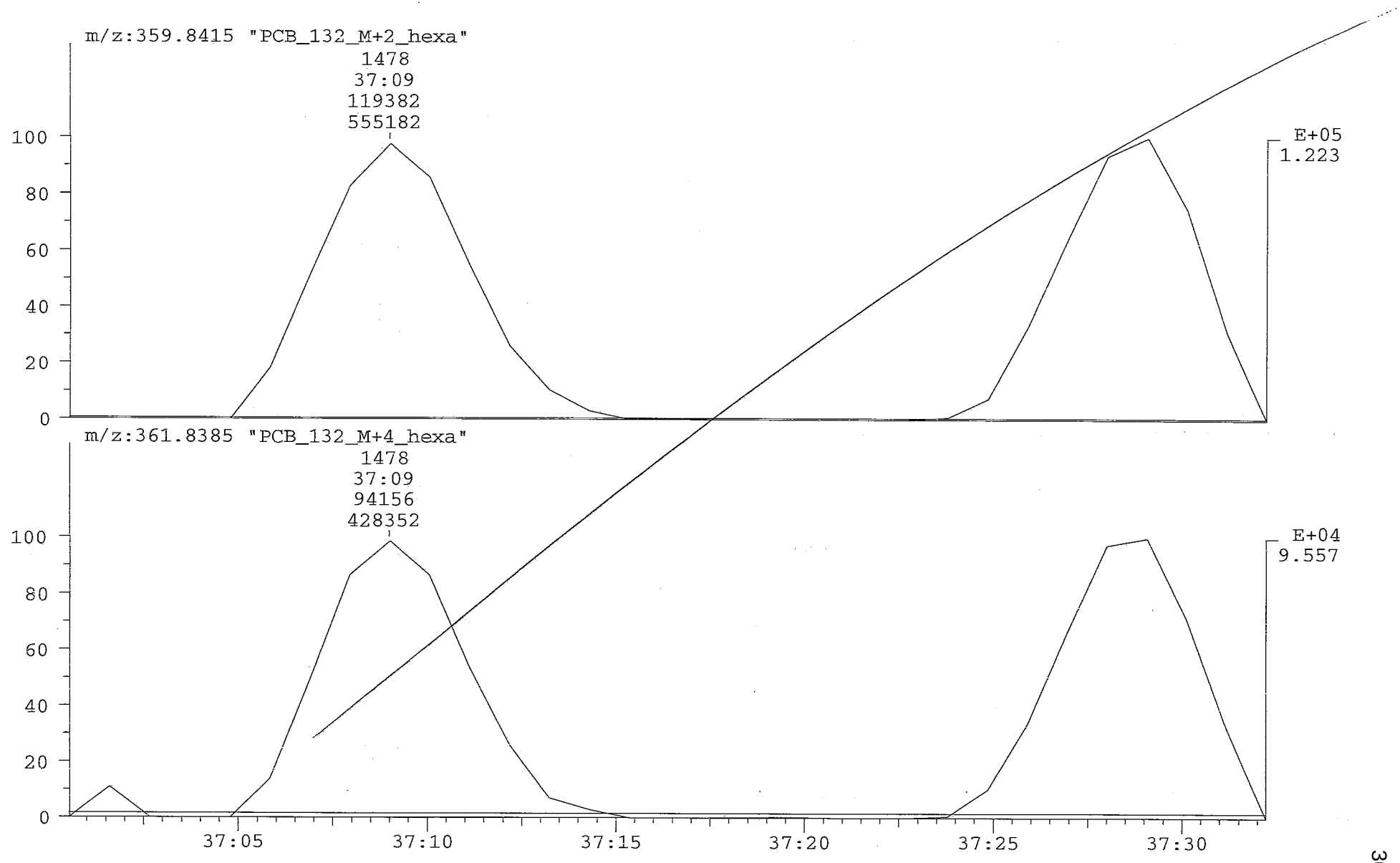
```
CHRO:  a110713s1                                13-Jul-11   Elapse:  56:06      2551
Samp:  Vial 1 WO=PCB0100 Meth=IE3 Dil=1                     Start :  21:45:15   2602
Comm:  Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :  1668 Ver
Oper:  JMN           Client:  TA Knoxville                  Inlet :  GC     Vial  1
Peak:  100.00  ppm     Label wndw:   1411 > 1493            Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 6                 Label :  -3, 3.0
Disp:  Height  Area
```



H-3001

3000

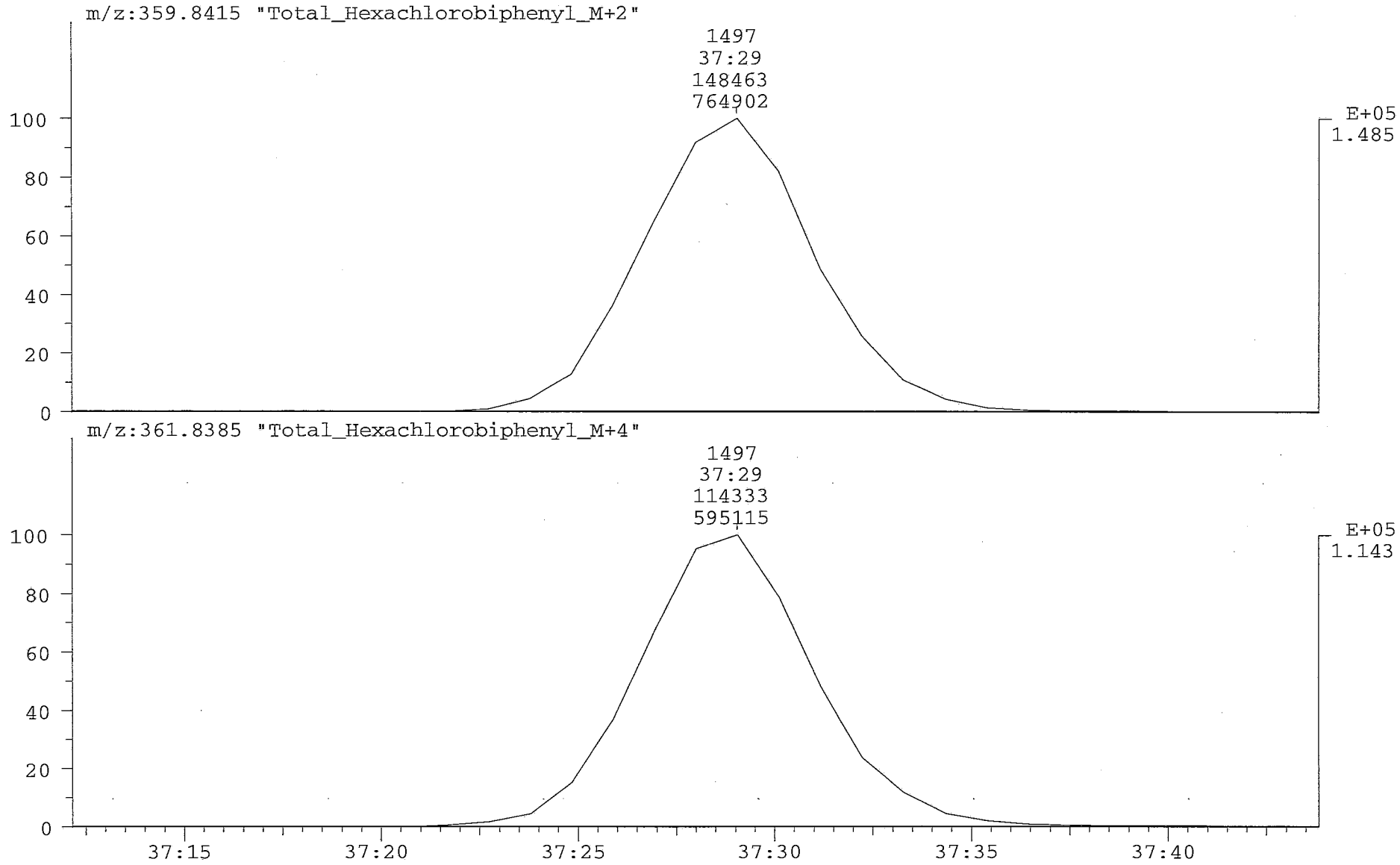
```
CHRO:  a110713s1                                13-Jul-11   Elapse:  37:16      1485
Samp:  Vial 1 WO=PCB0100 Meth=IE3 Dil=1                     Start :  21:45:15   2602
Comm:  Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :  1668 Ver
Oper:  JMN          Client:  TA Knoxville                   Inlet :  GC     Vial   1
Peak:  100.00  ppm     Label wndw:   1470 > 1500            Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3                 Label :  -3, 3.0
Disp:  Height  Area
```



H-3002

3001

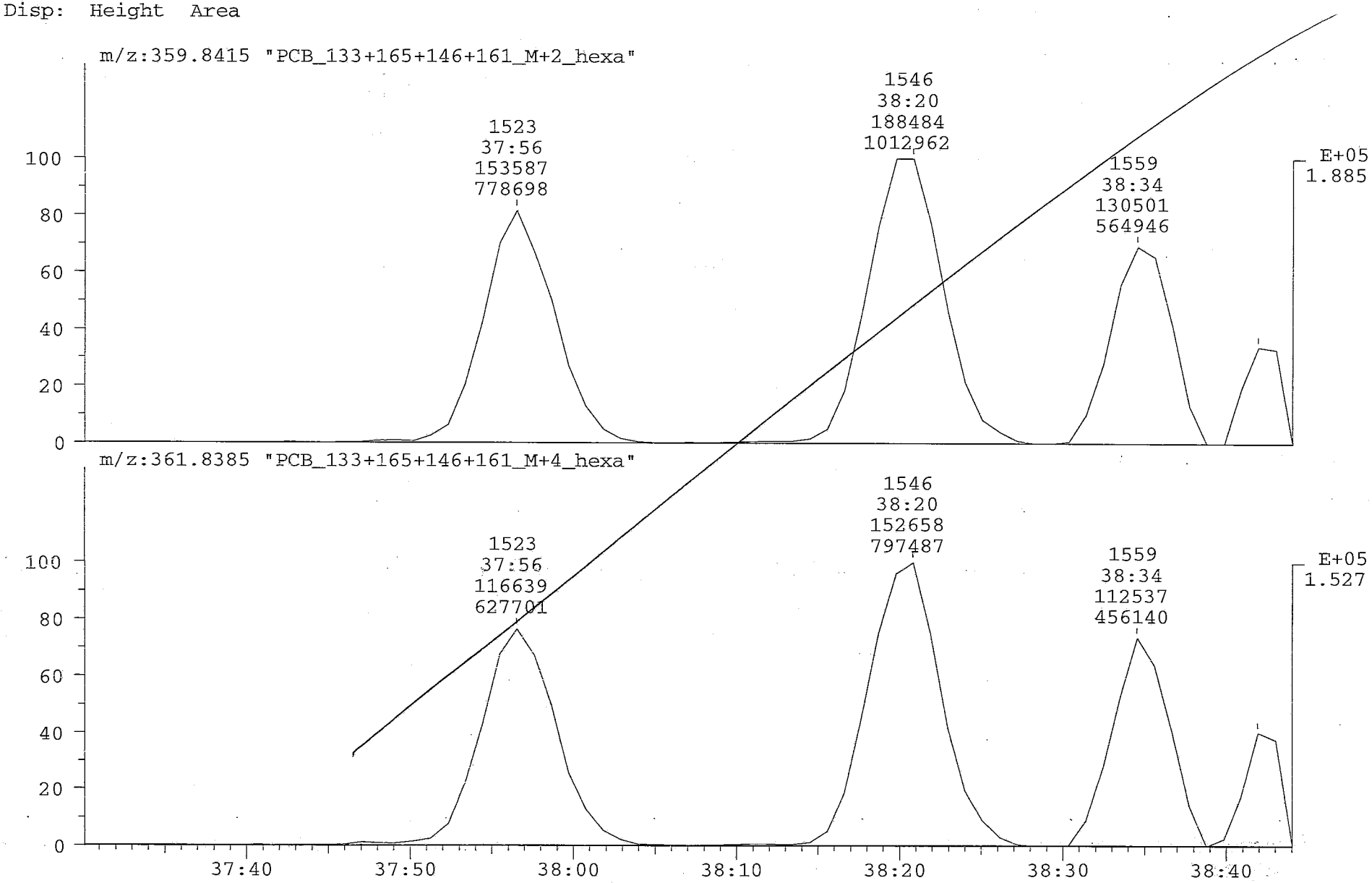
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1481 > 1511 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3003

3002

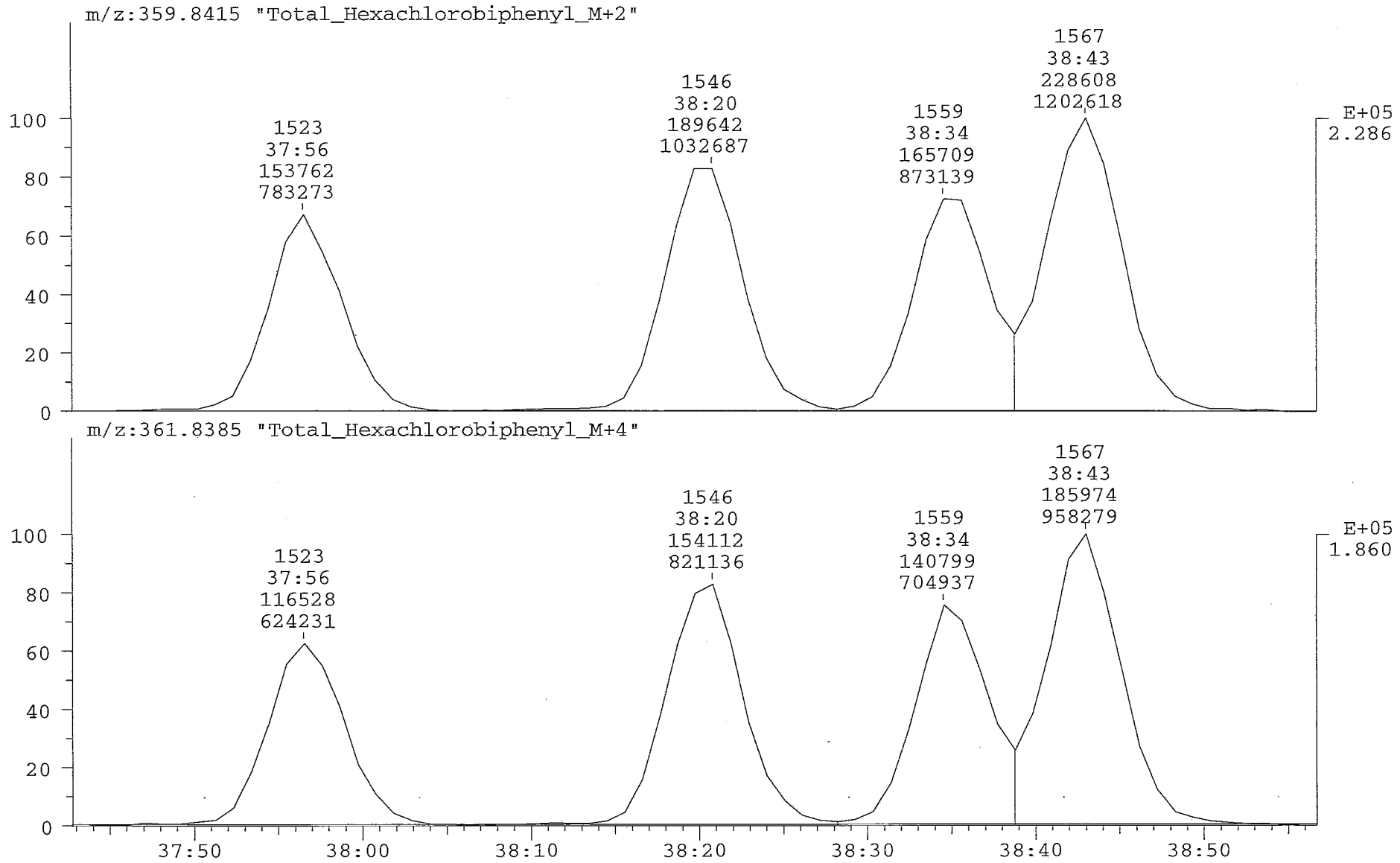
CHRO: a110713s1 13-Jul-11 Elapse: 38:10 1536
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1498 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3004

3003

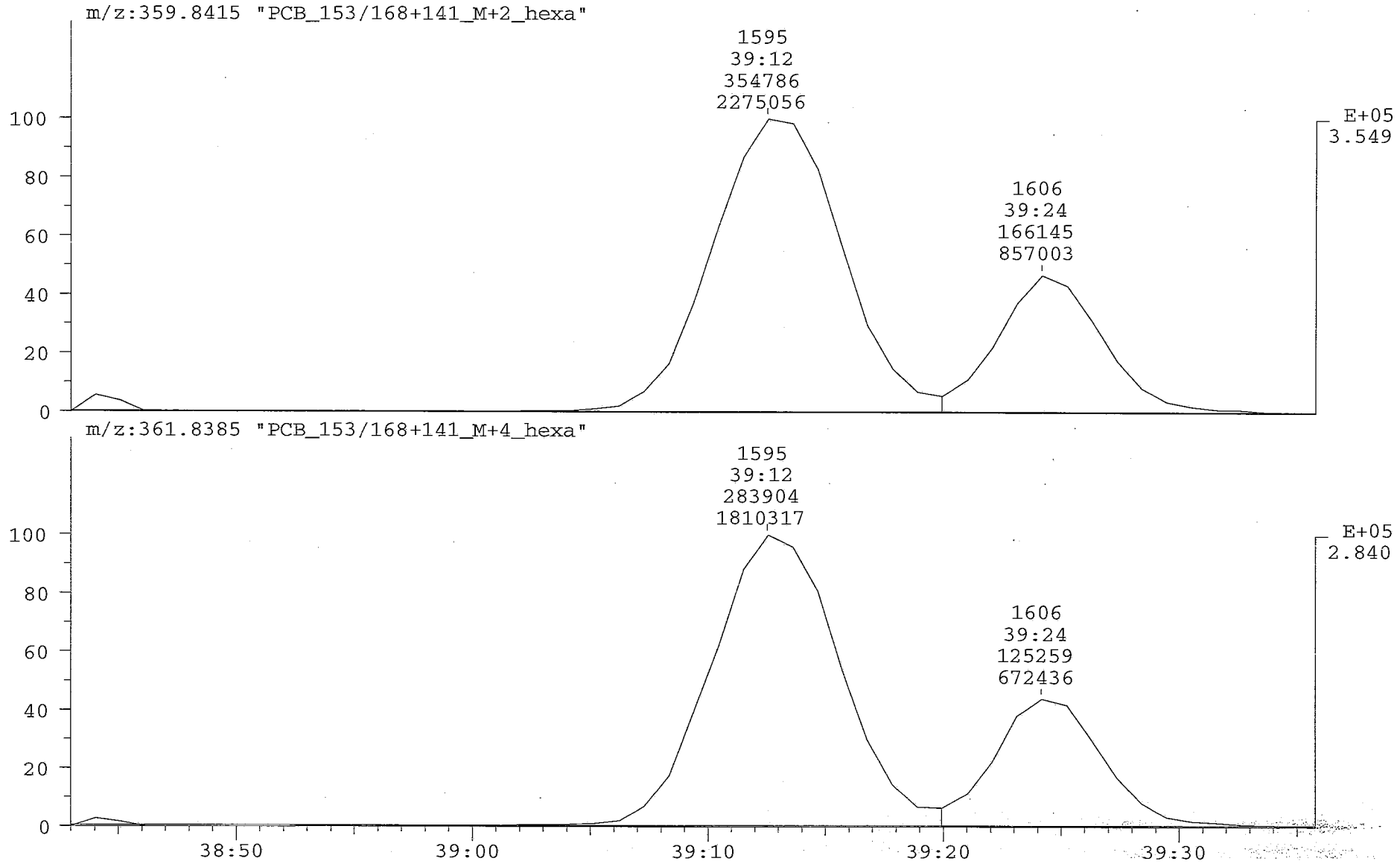
```
CHRO:  a110713s1                                13-Jul-11   Elapse:  56:06      2551
Samp:  Vial 1 WO=PCB0100 Meth=IE3 Dil=1                     Start :  21:45:15   2602
Comm:  Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :  1668 Ver
Oper:  JMN           Client:  TA Knoxville                  Inlet :  GC     Vial  1
Peak:  100.00  ppm     Label wndw:   1510 > 1580            Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3                 Label :  -3, 3.0
Disp:  Height  Area
```



H-3005

3004

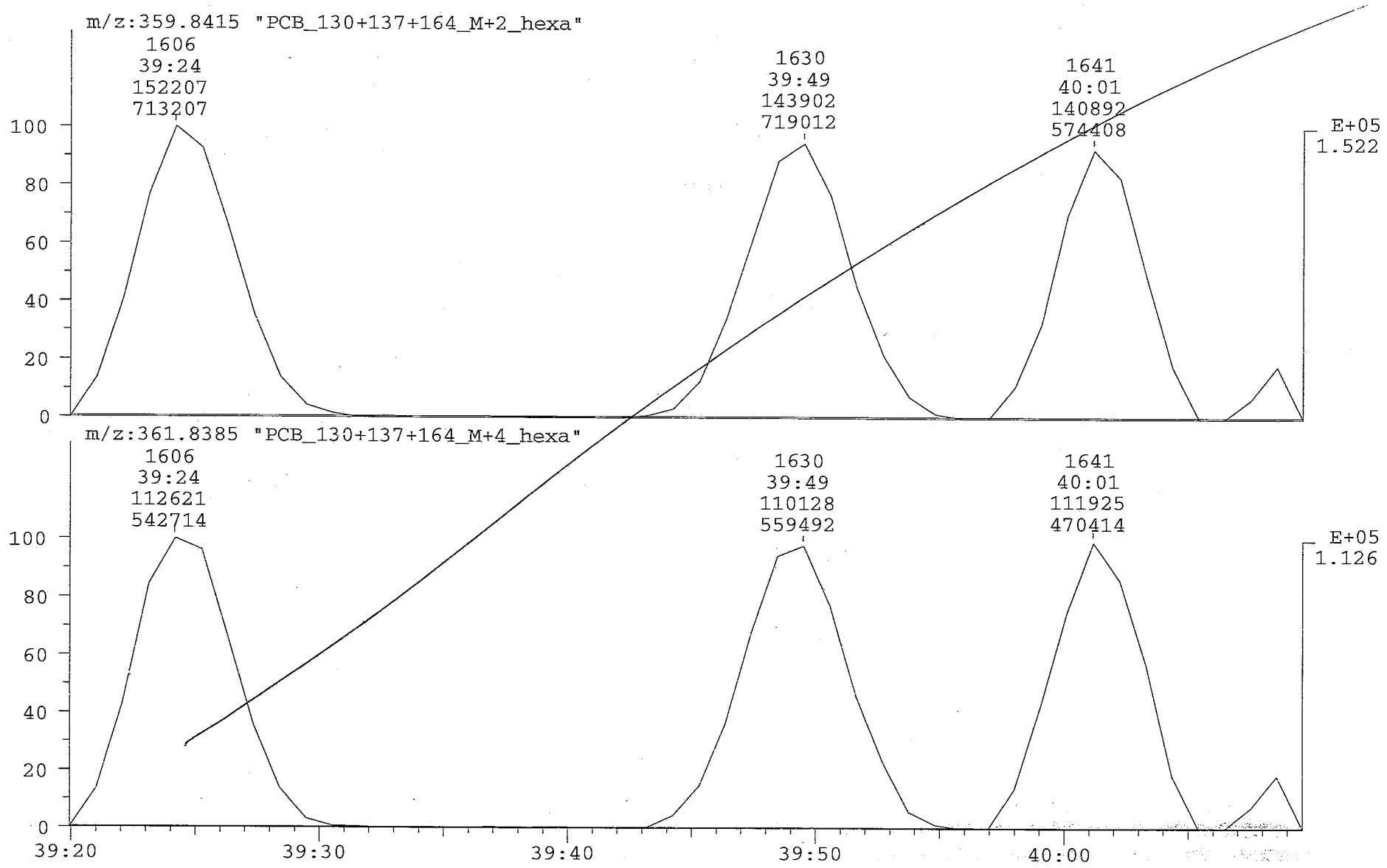
CHRO: a110713s1 13-Jul-11 Elapse: 39:09 1592
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1567 > 1617 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-3006

3005

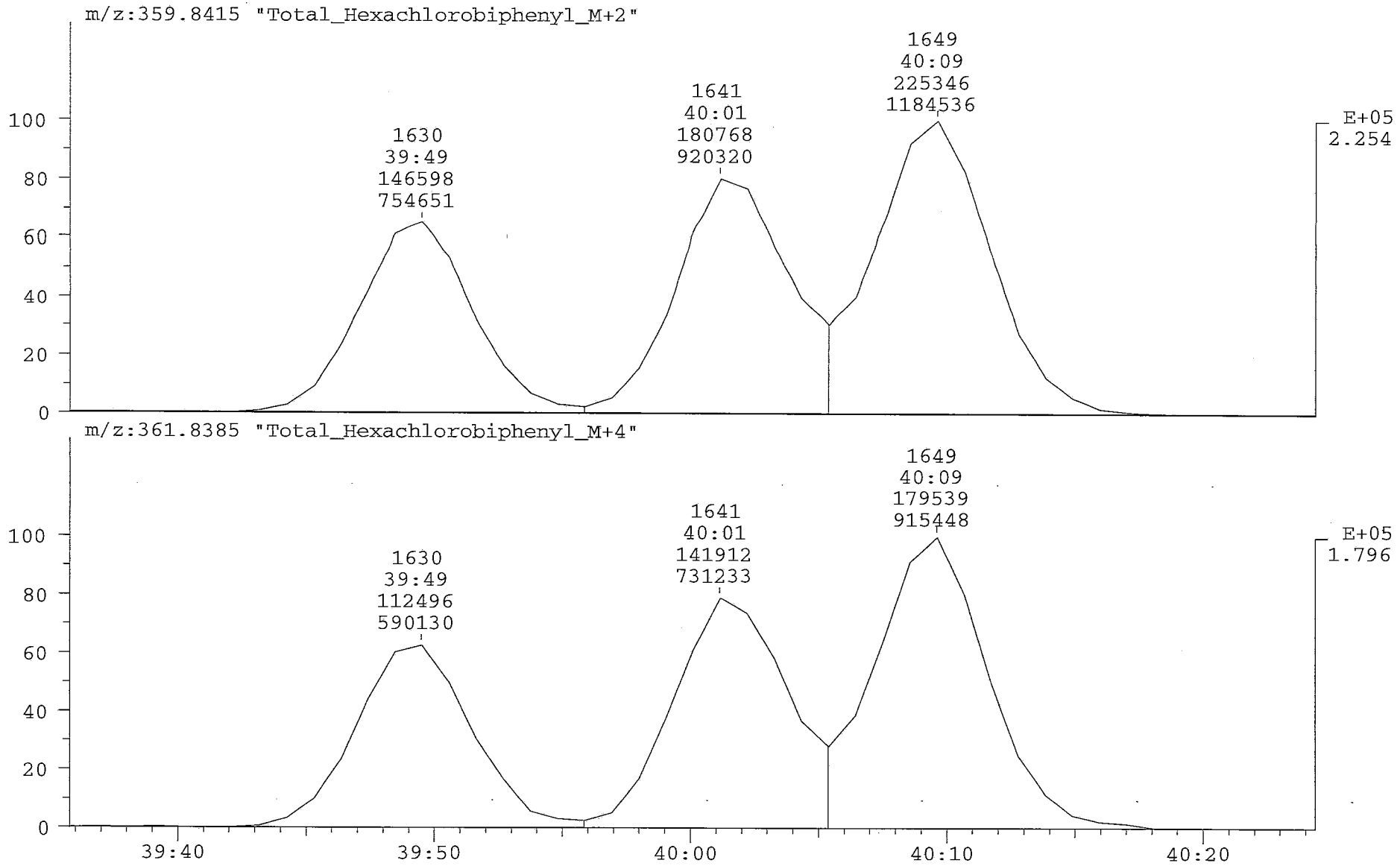
CHRO: a110713s1 13-Jul-11 Elapse: 39:49 1630
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1602 > 1649 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3007

3006

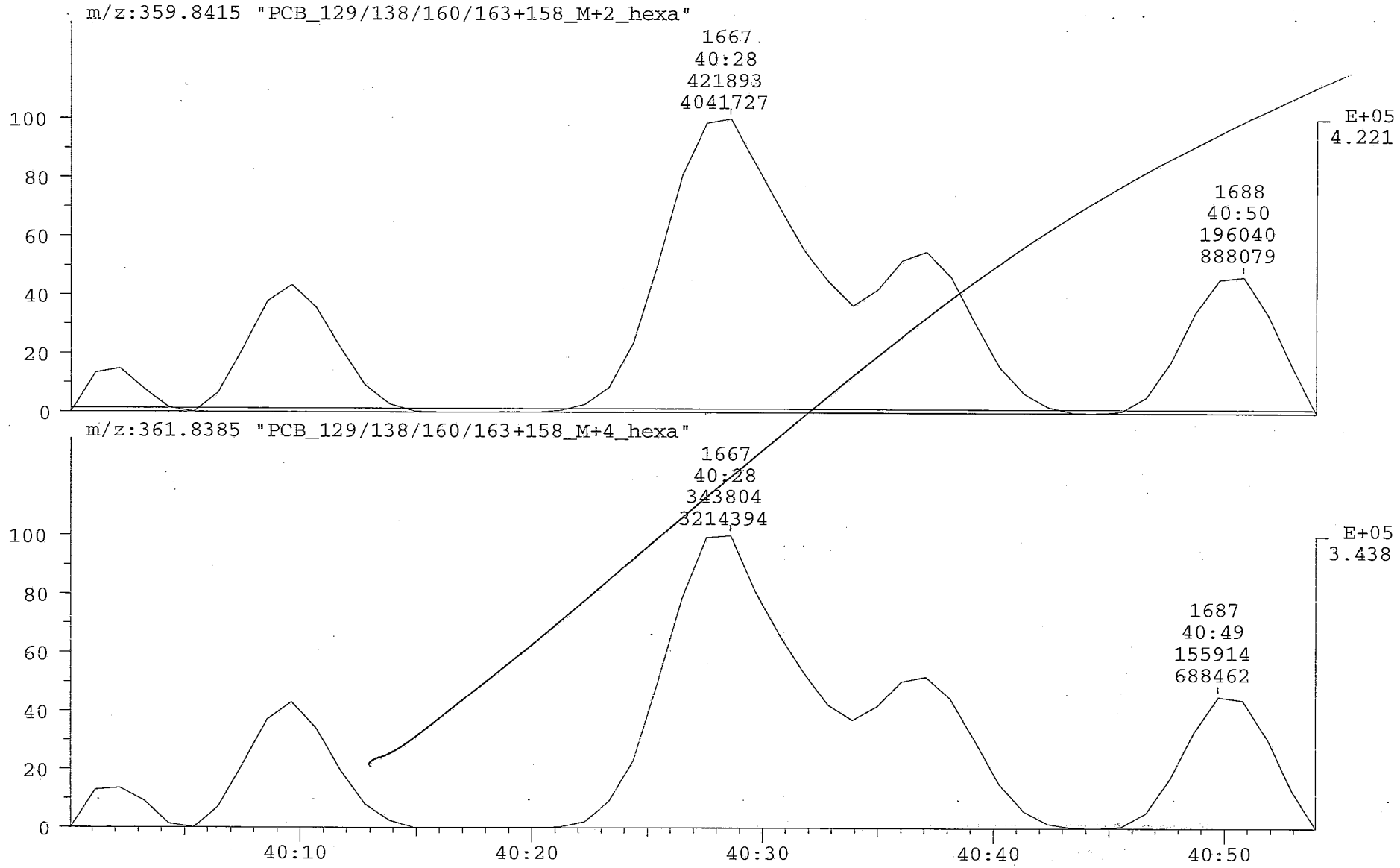
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1617 > 1663 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3008

3007

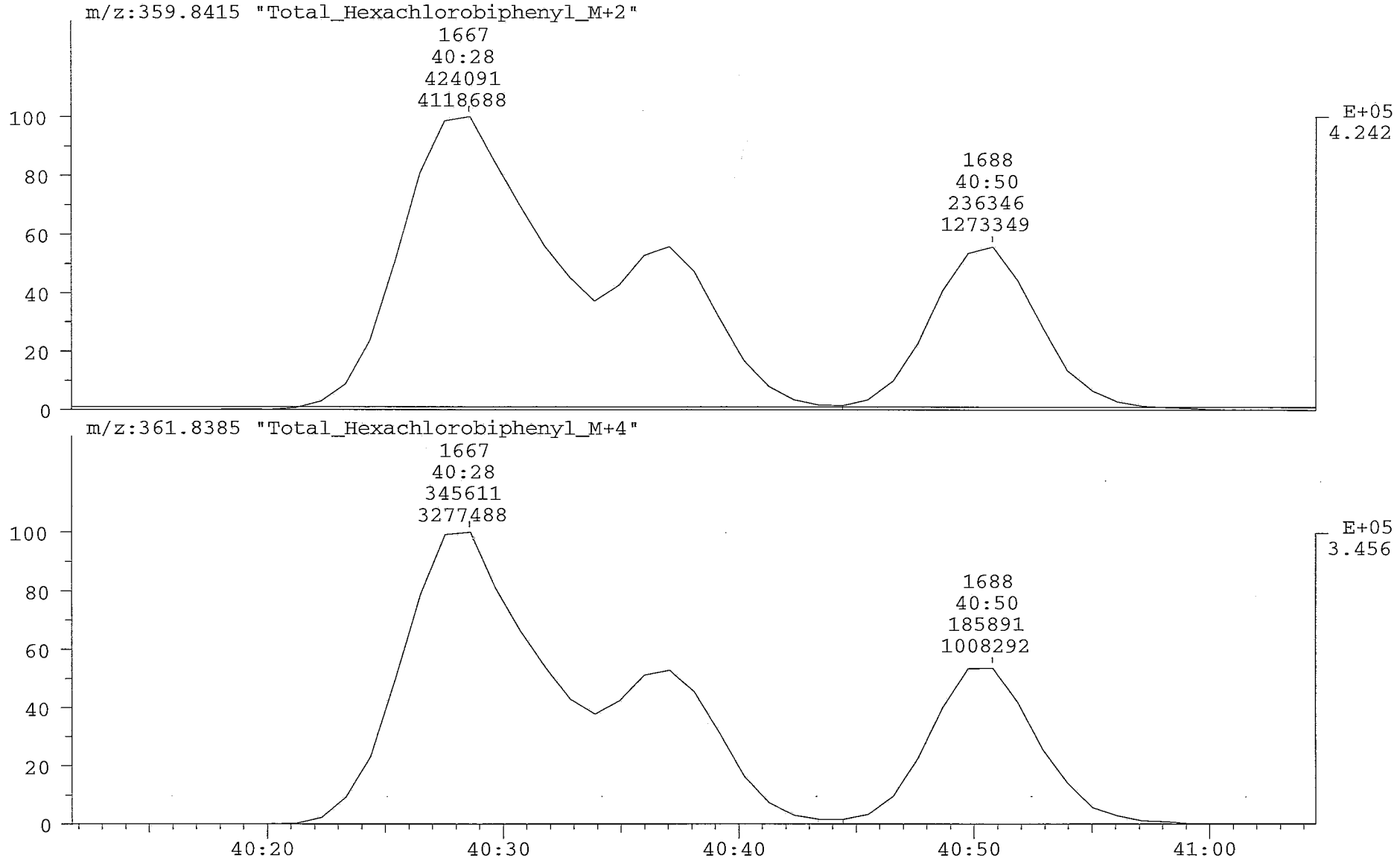
CHRO: a110713s1 13-Jul-11 Elapse: 40:30 1669
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1640 > 1691 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-3009

3008

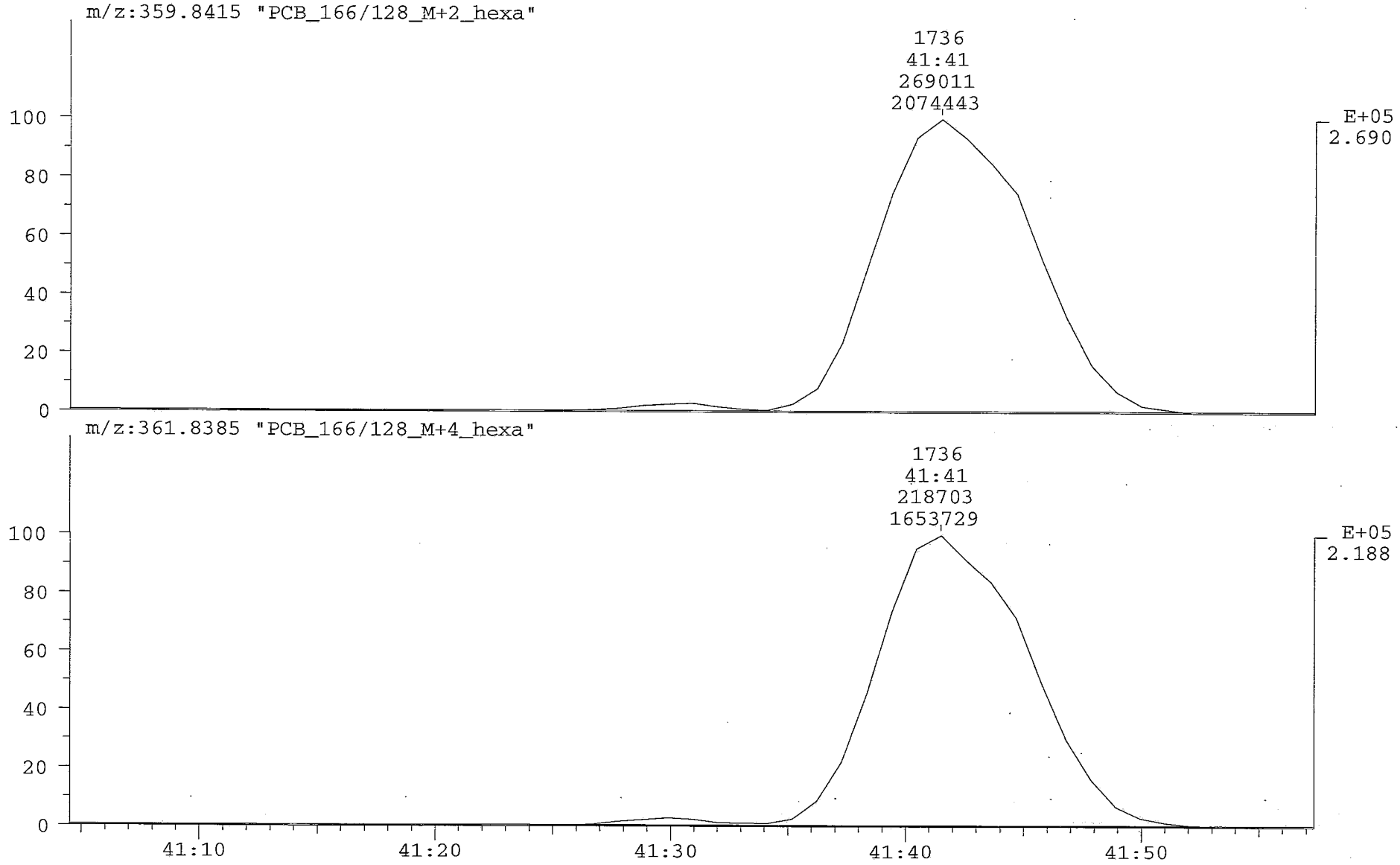
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1651 > 1701 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-3010

3009

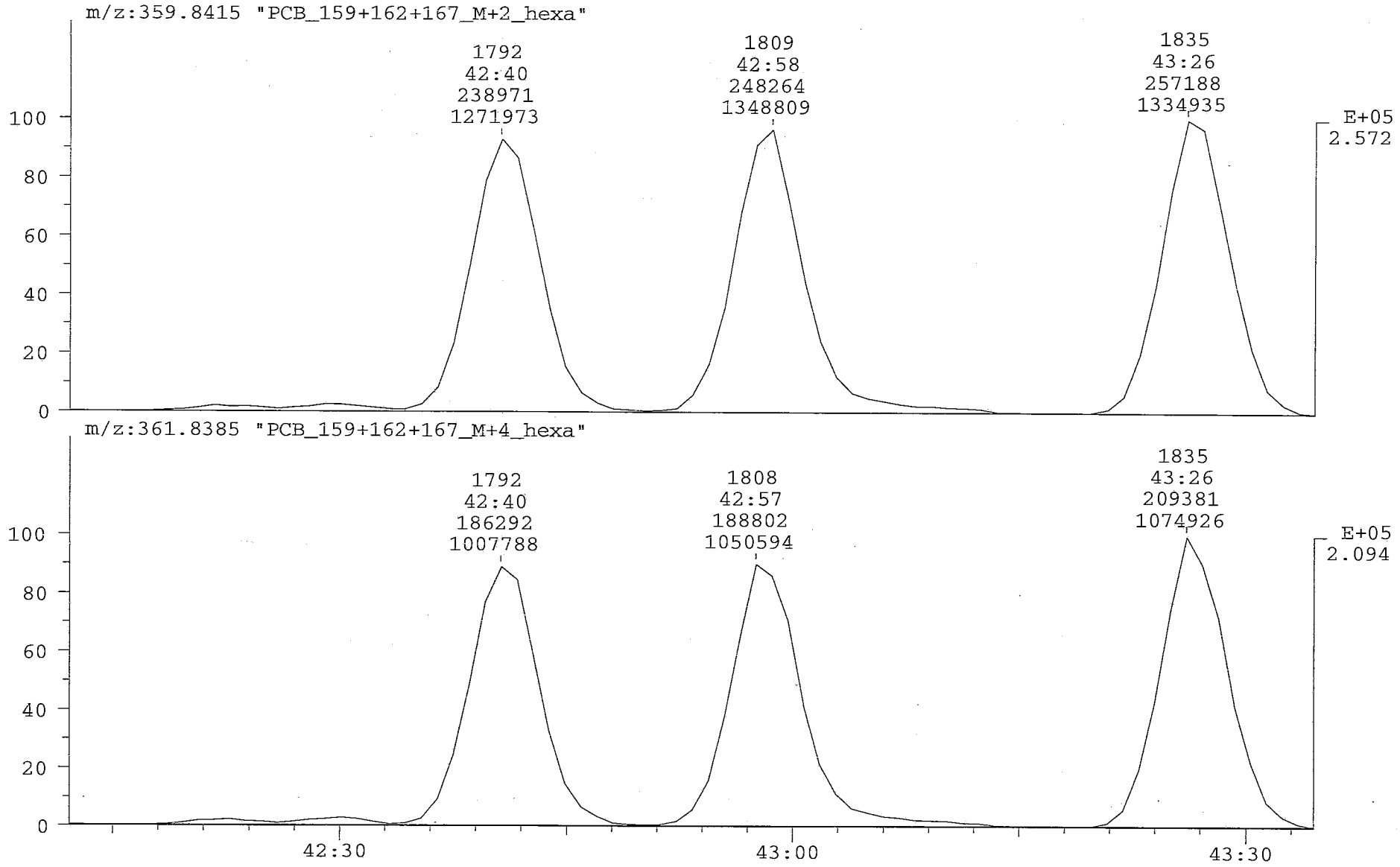
CHRO: a110713s1 13-Jul-11 Elapse: 41:33 1728
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1701 > 1751 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 8 Label : -3, 3.0
Disp: Height Area



H-3011

3010

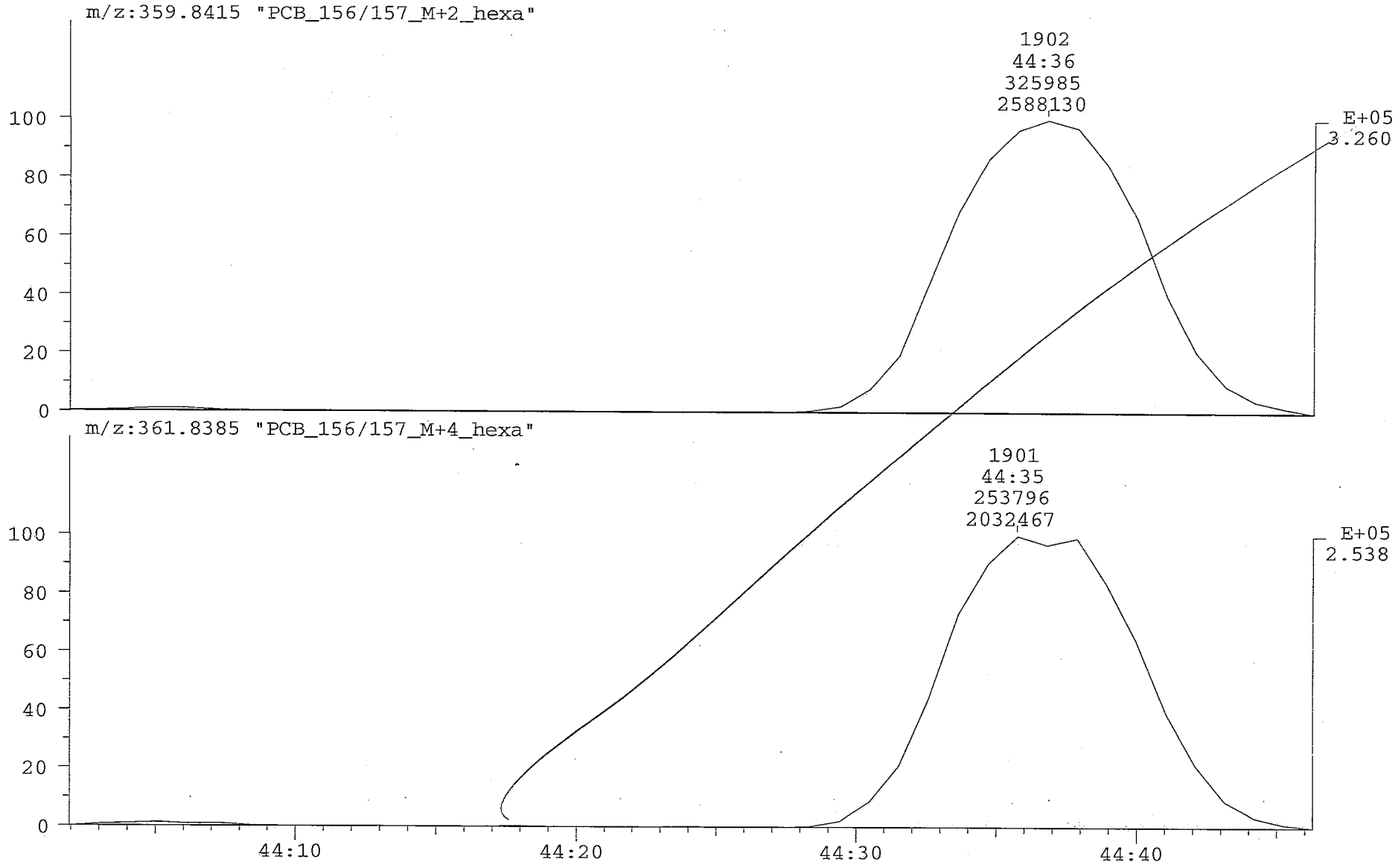
CHRO: a110713s1 13-Jul-11 Elapse: 42:54 1805
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1765 > 1843 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3012

3011

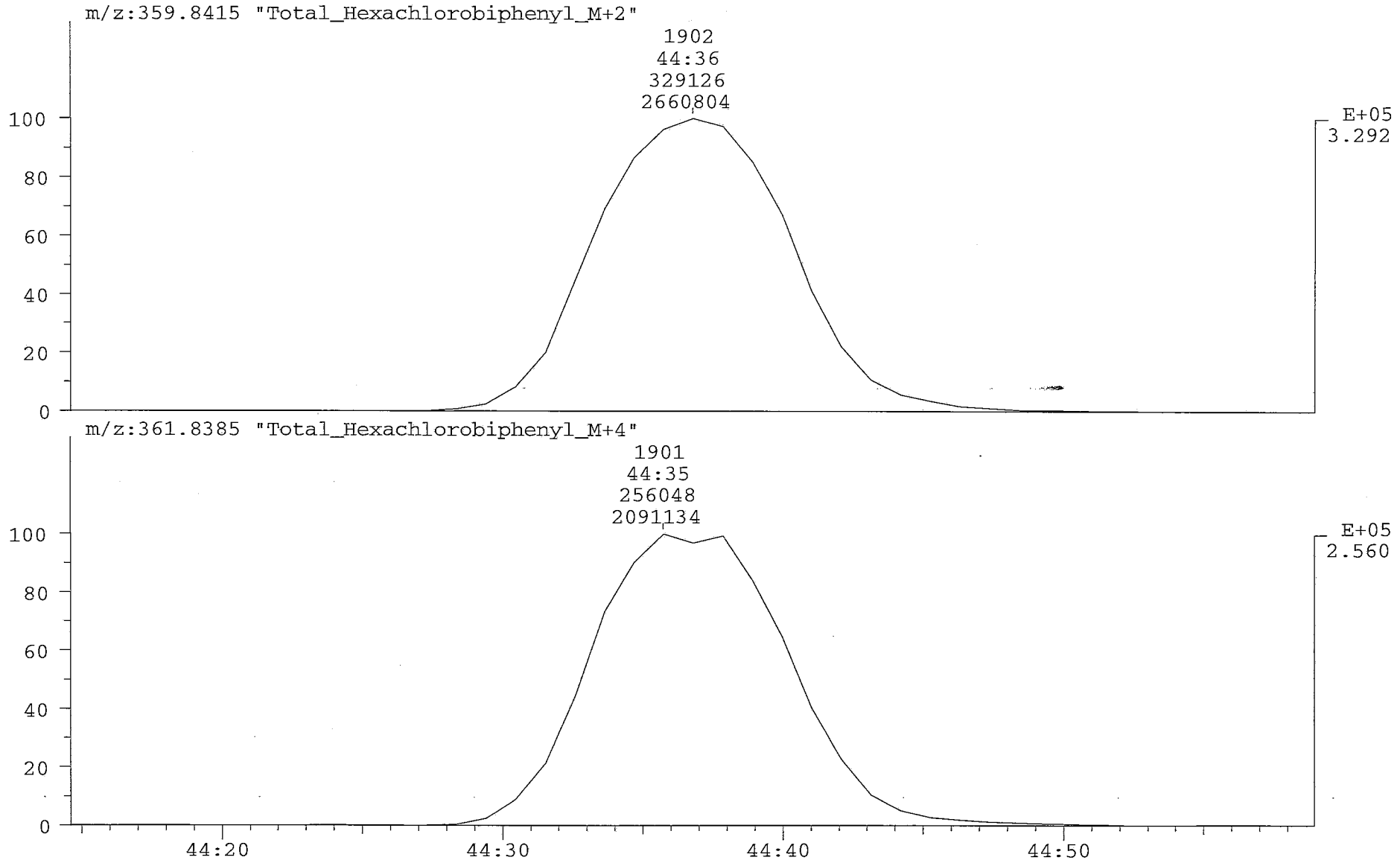
CHRO: a110713s1 13-Jul-11 Elapse: 44:23 1889
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1869 > 1911 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3013

3012

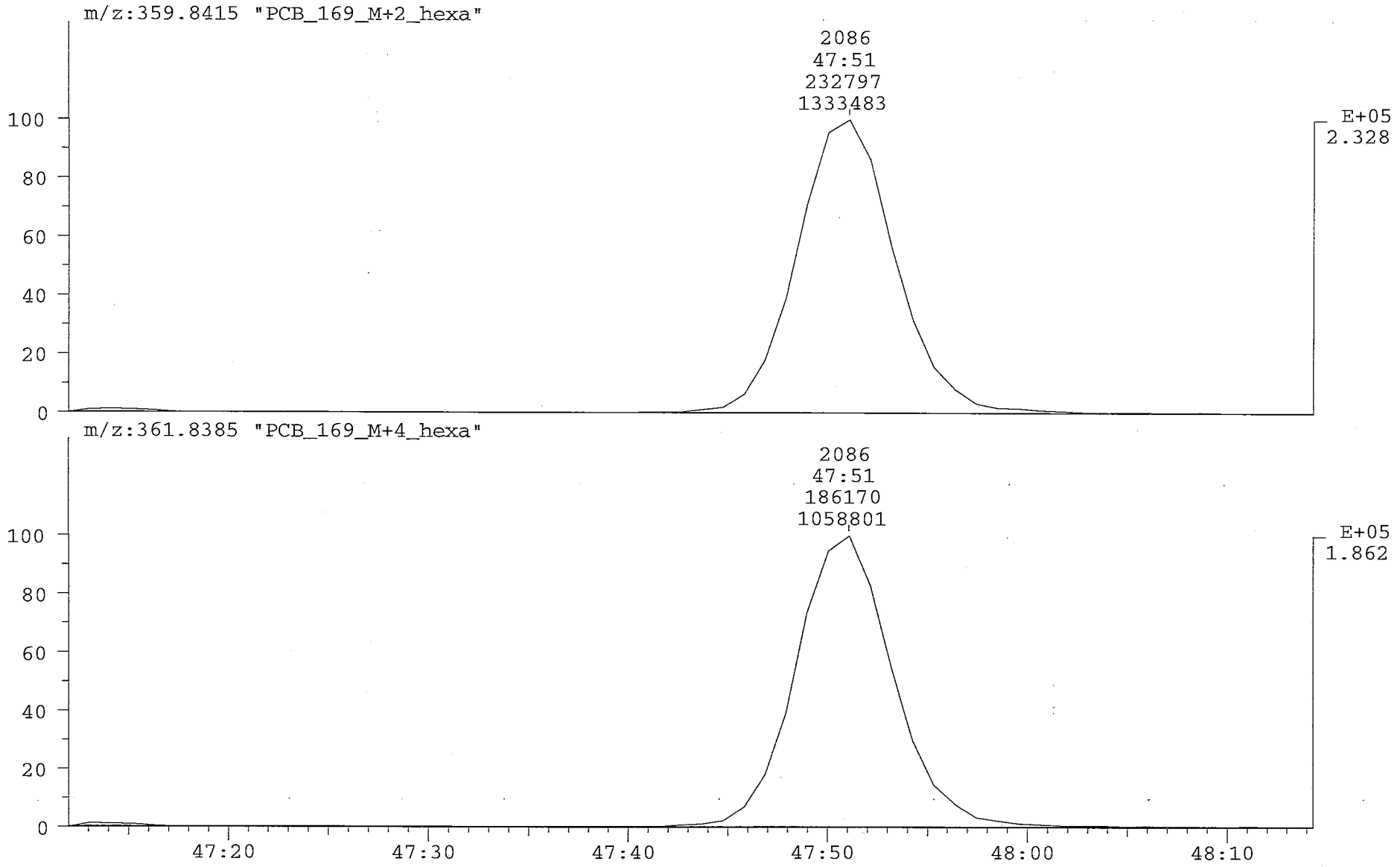
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1881 > 1923 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3014

3013

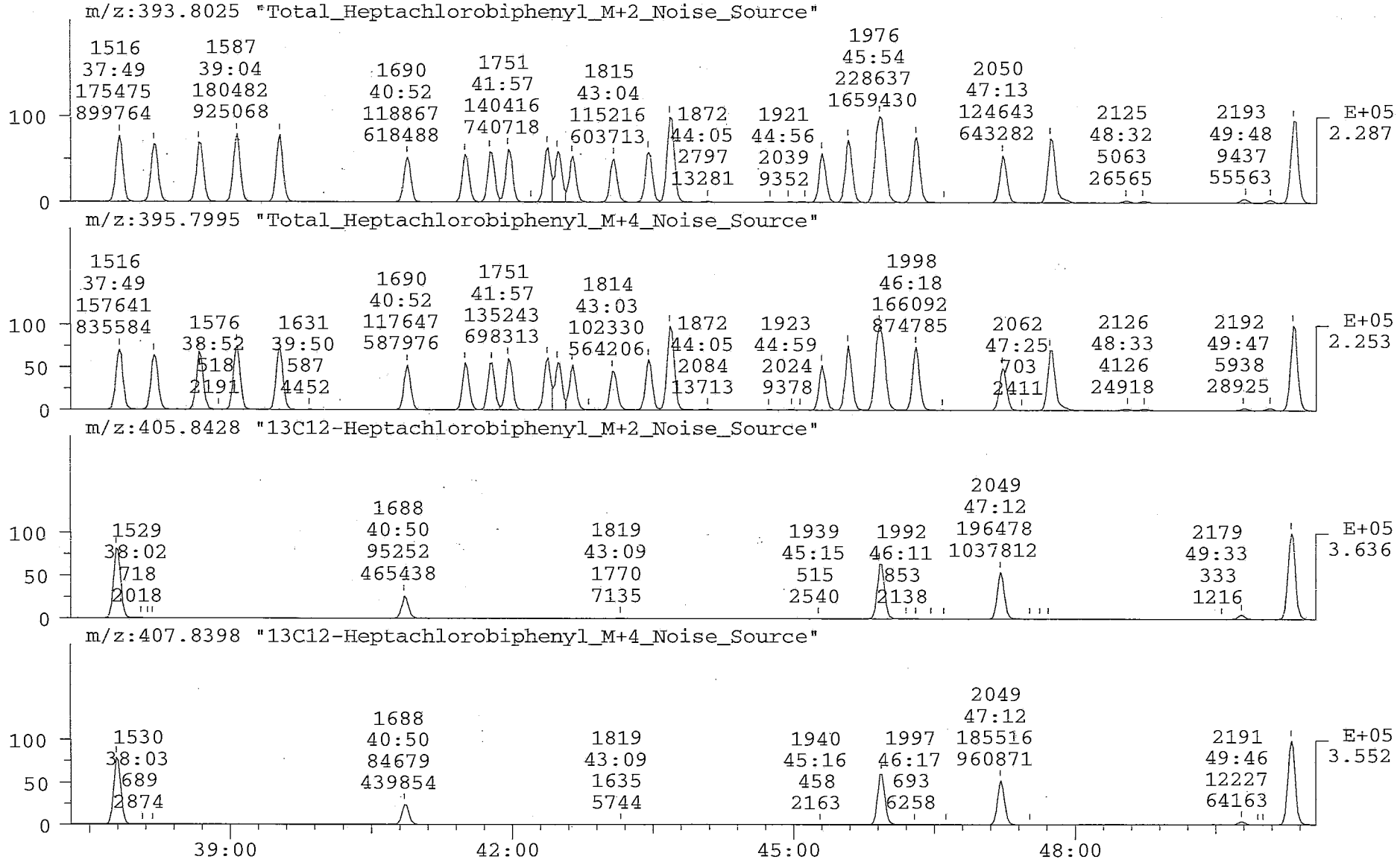
CHRO: a110713s1 13-Jul-11 Elapse: 47:38 2074
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2049 > 2108 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3015

3014

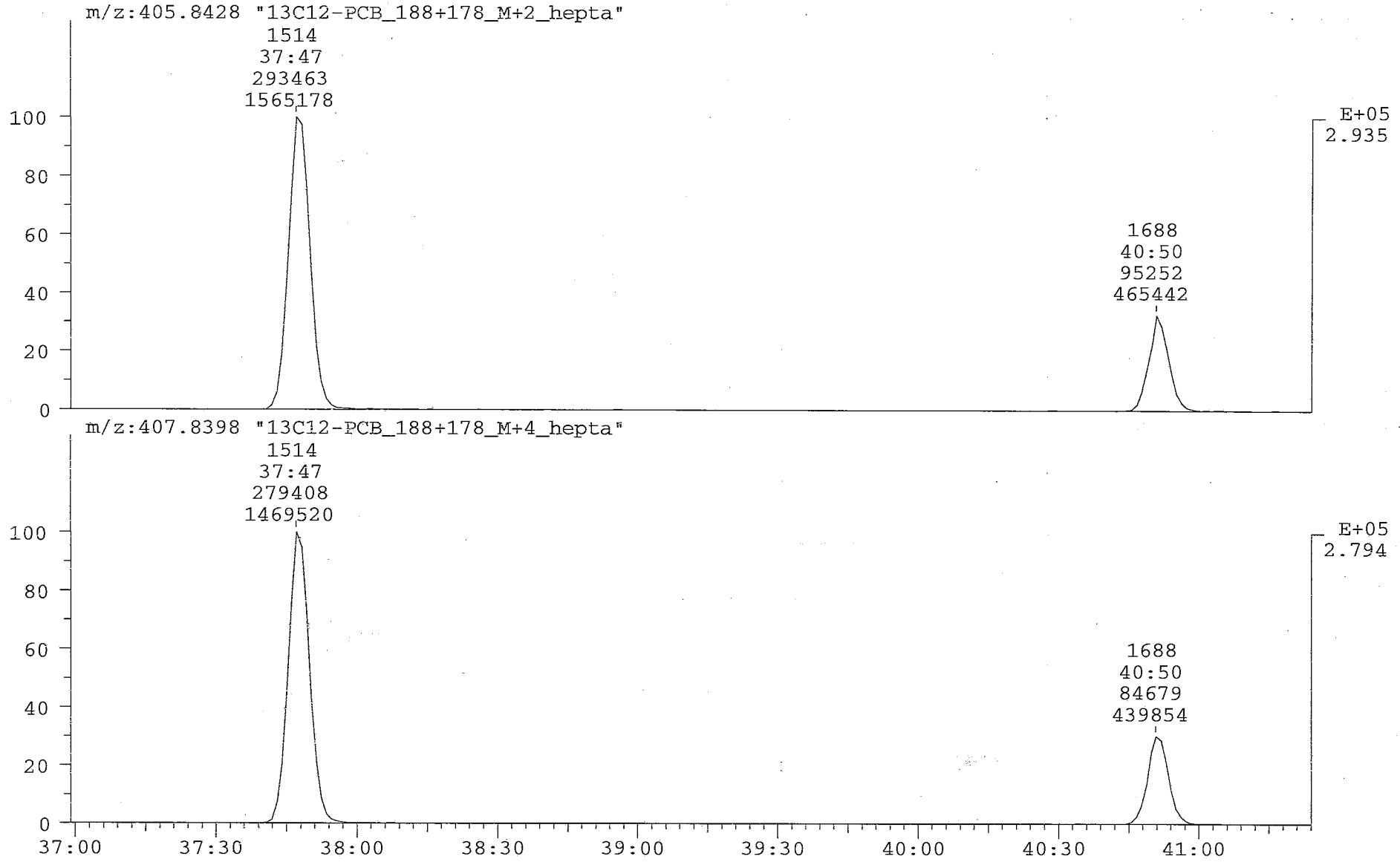
CHRO: a110713s1 13-Jul-11 Elapse: 43:55 1863
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1487 > 2236 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3016

3015

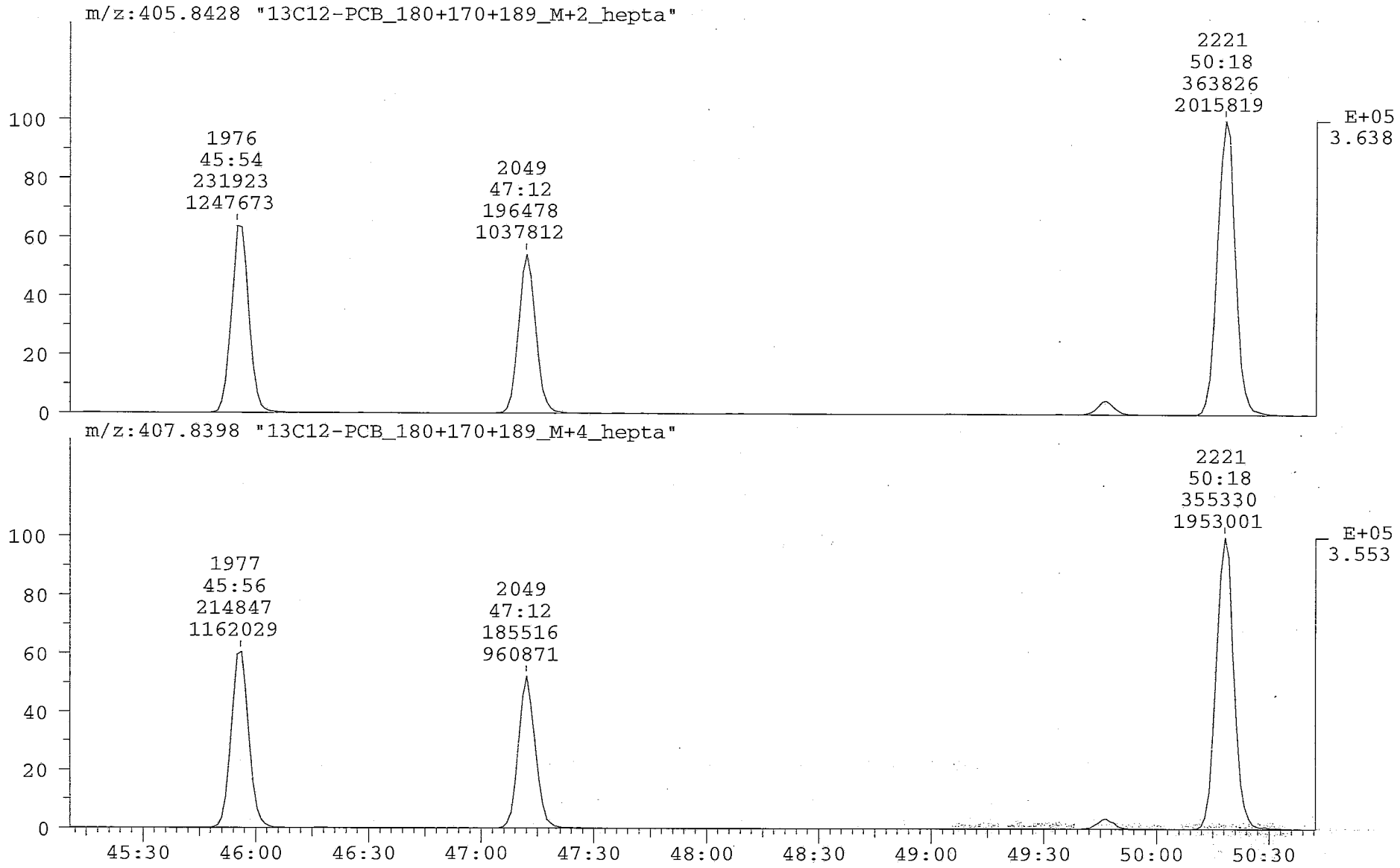
CHRO: a110713s1 13-Jul-11 Elapse: 39:11 1594
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1469 > 1719 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3017

3016

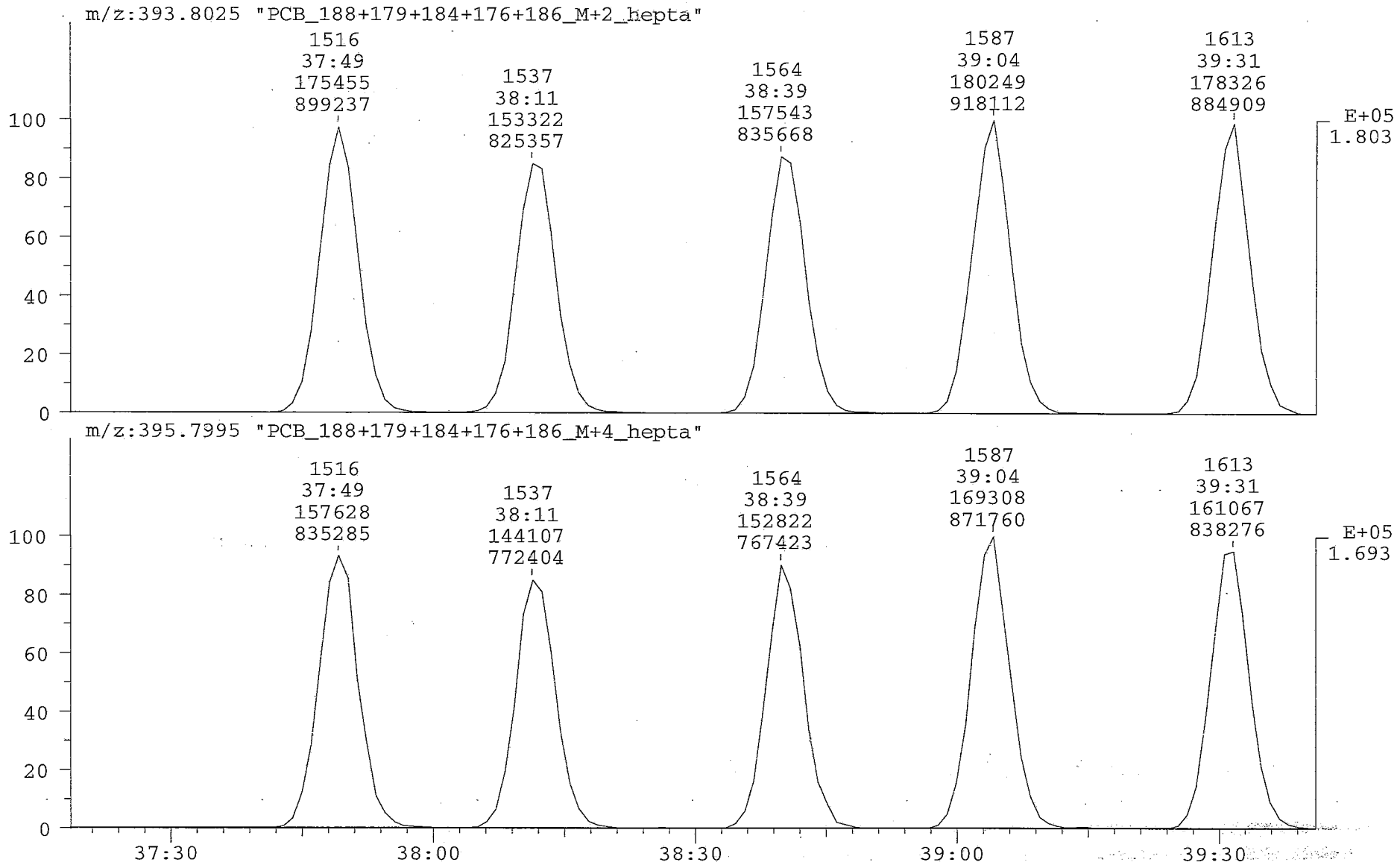
CHRO: a110713s1 13-Jul-11 Elapse: 47:59 2094
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1934 > 2244 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3018

3017

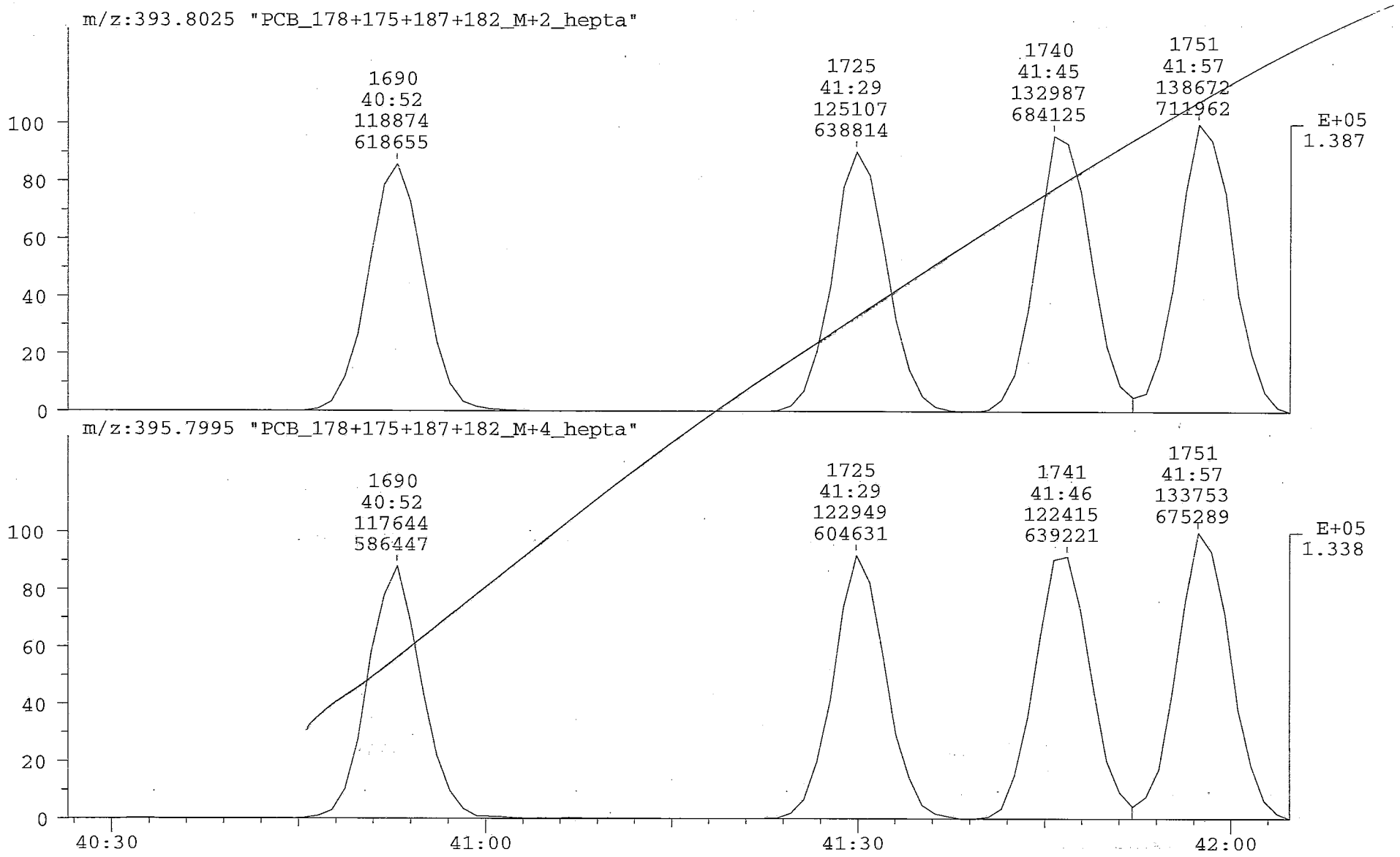
CHRO: a110713s1 13-Jul-11 Elapse: 38:32 1557
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1487 > 1622 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3019

3018

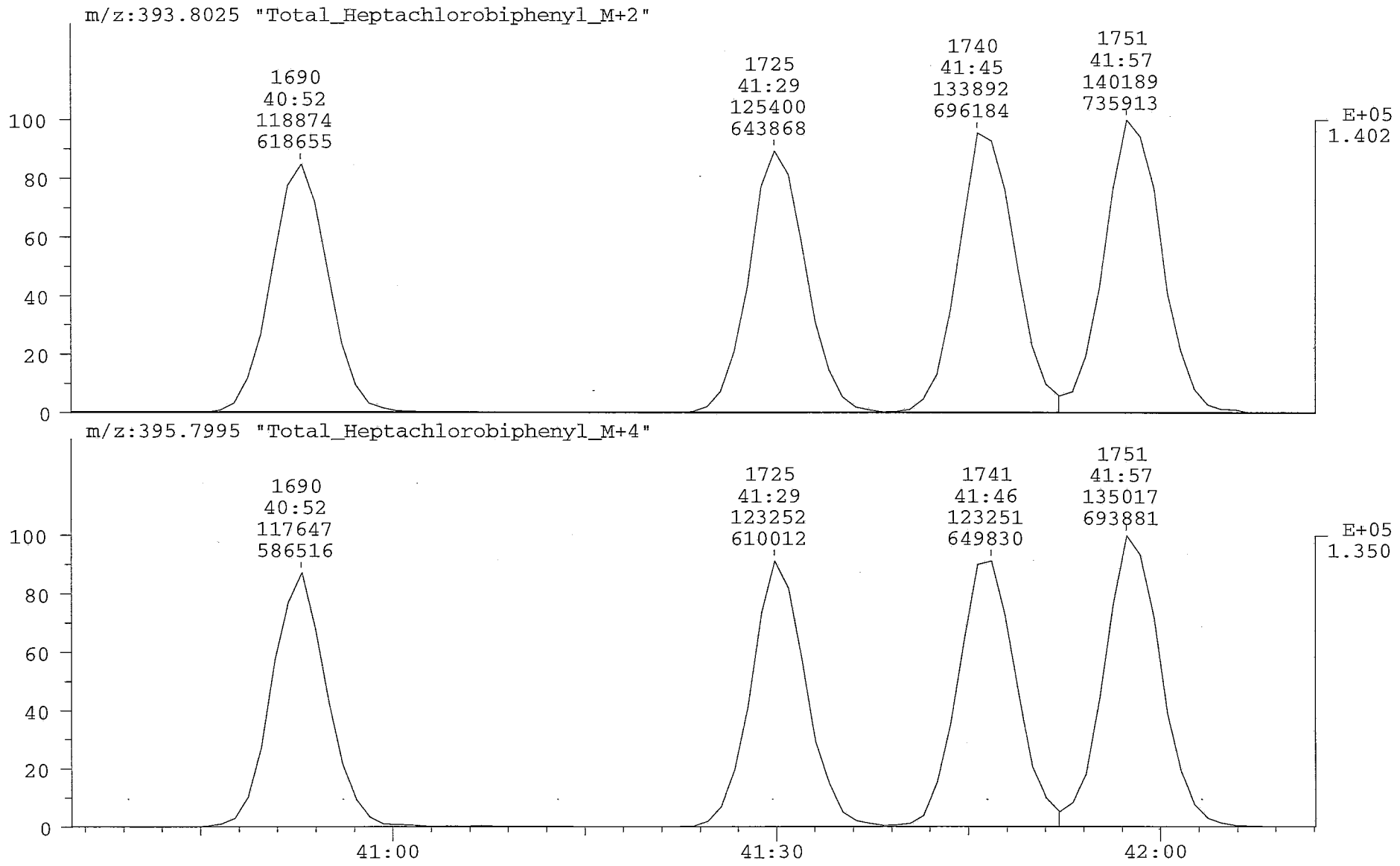
CHRO: a110713s1 13-Jul-11 Elapse: 41:19 1715
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1665 > 1758 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3020

3019

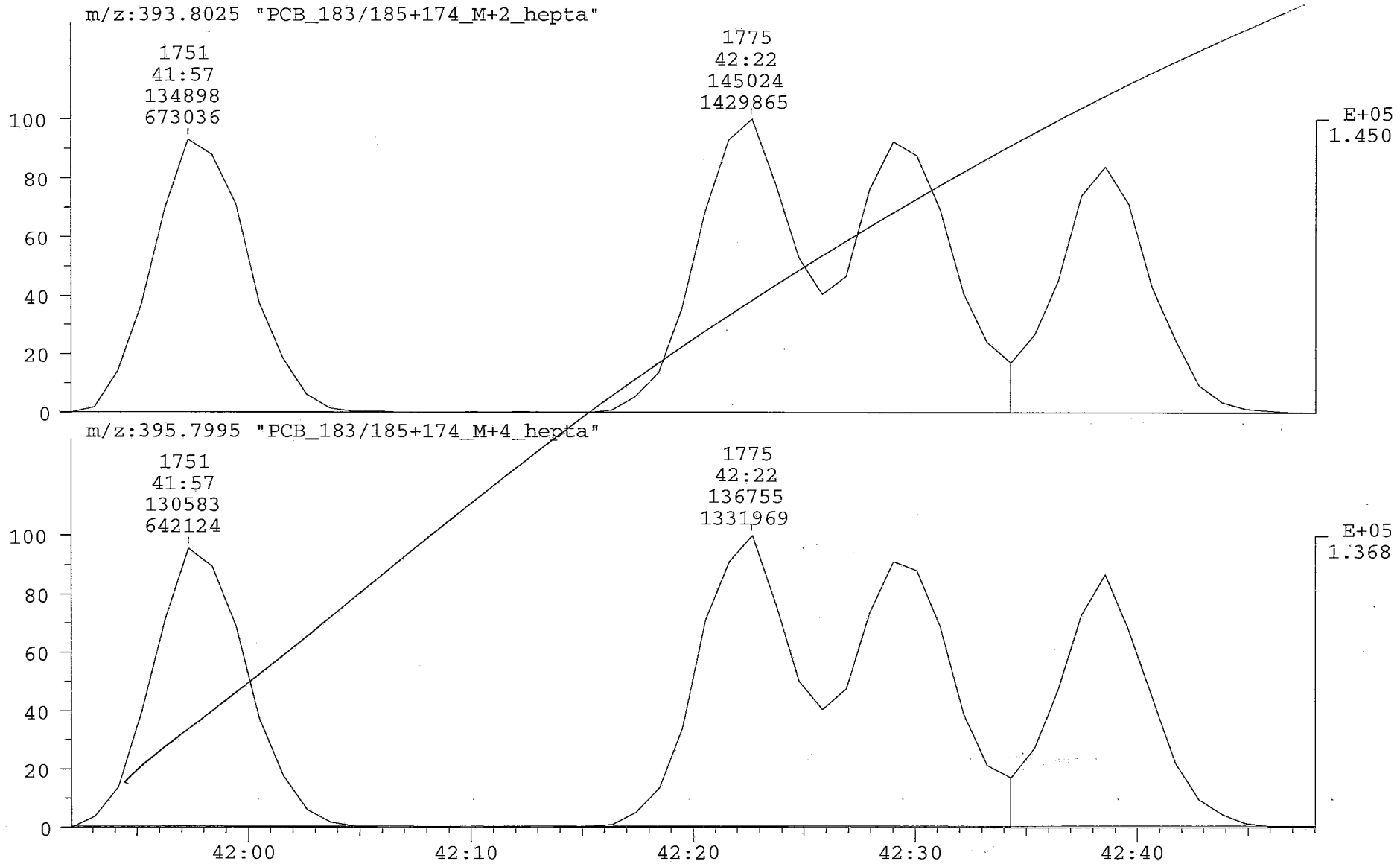
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1673 > 1765 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3021

3020

CHRO: a110713s1 13-Jul-11 Elapse: 42:26 1779
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1746 > 1799 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-3022

3021

```
CHRO:  a110713s1                                13-Jul-11   Elapse:  56:06      2551
Samp:  Vial 1 WO=PCB0100 Meth=IE3 Dil=1                     Start :  21:45:15   2602
Comm:  Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                            Study :  1668 Ver
Oper:  JMN           Client:  TA Knoxville                  Inlet :  GC     Vial  1
Peak:  100.00  ppm     Label wndw:   1758 > 1808            Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 6                 Label :  -3, 3.0
Disp:  Height  Area
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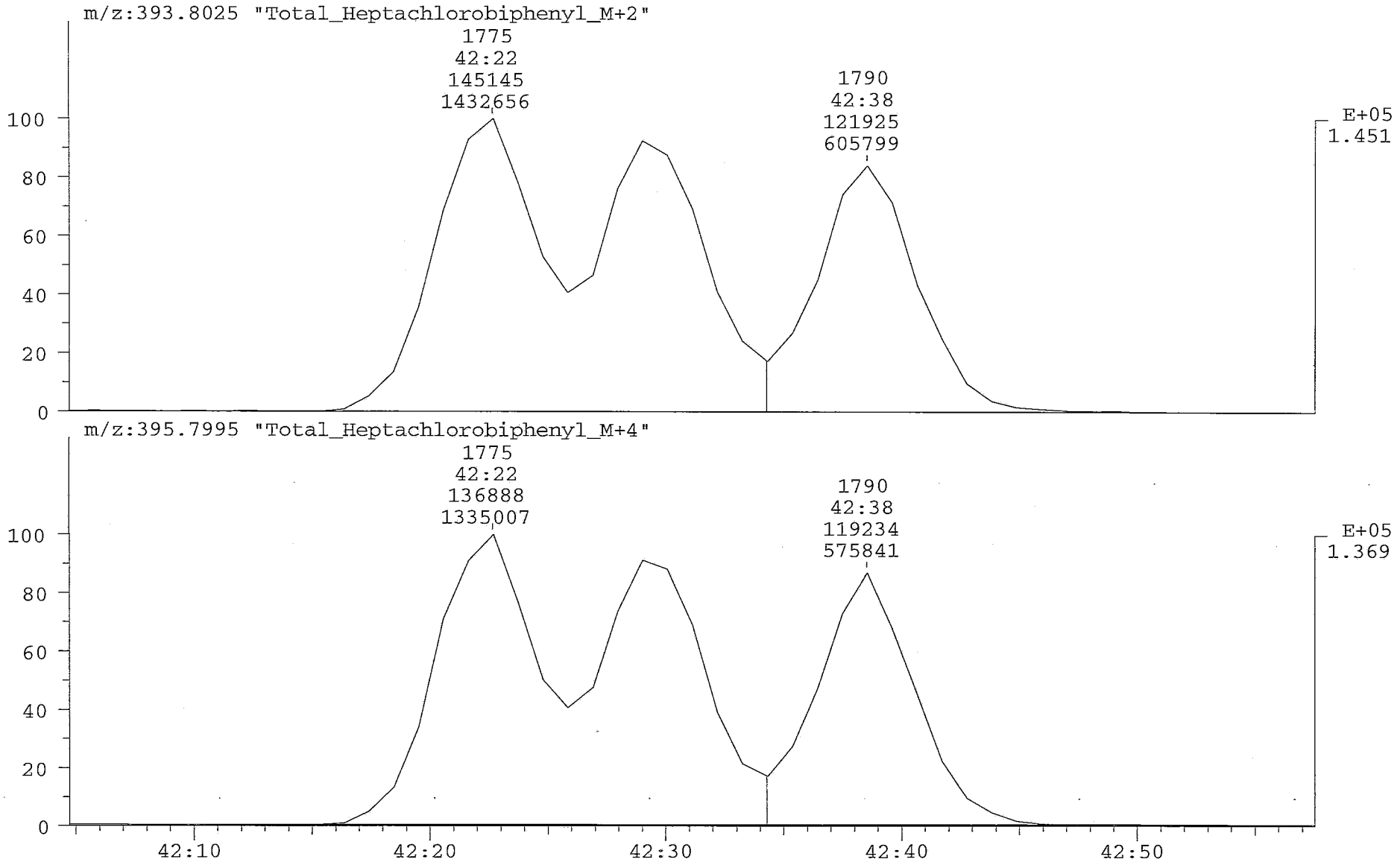
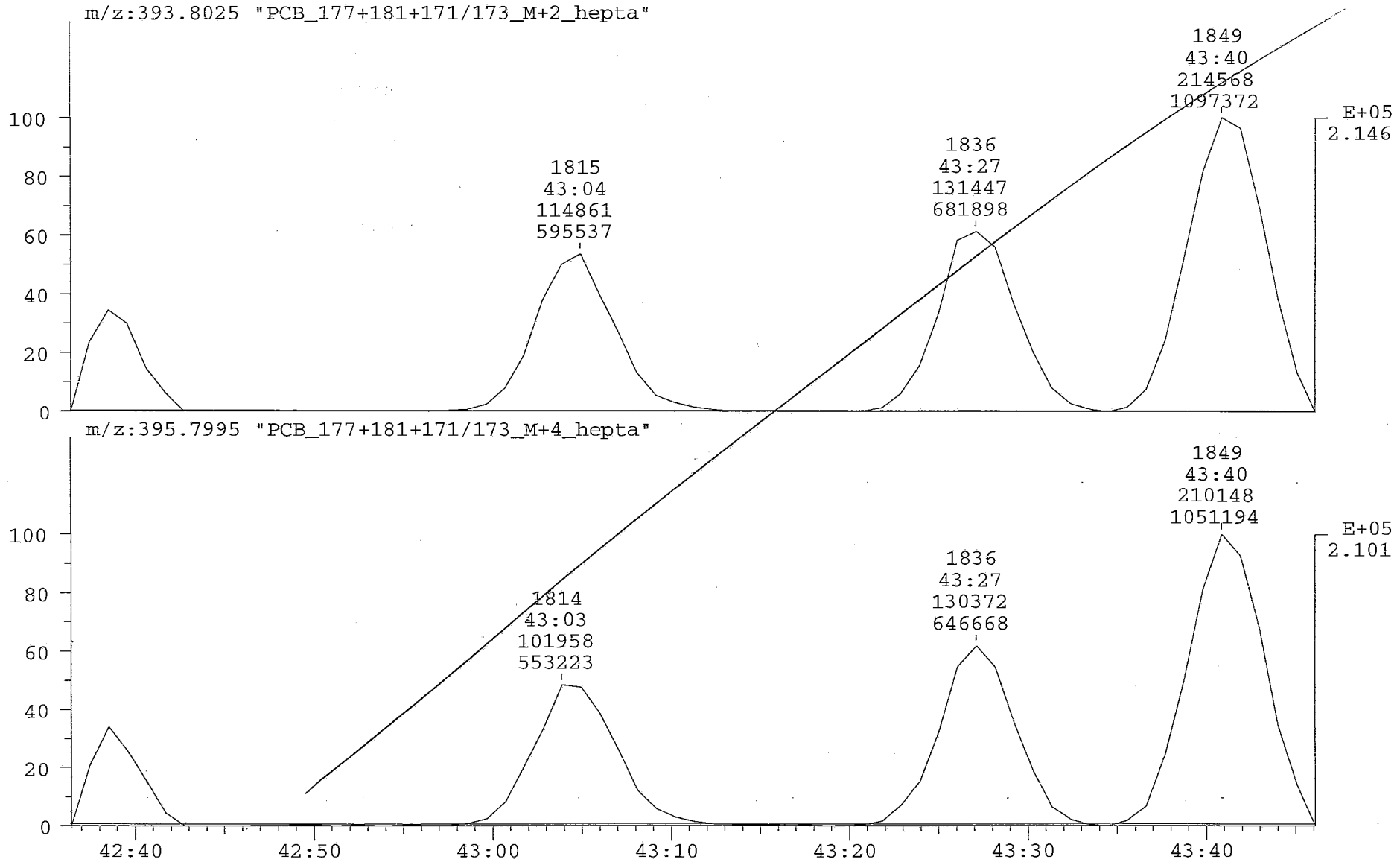


H-3023

3022

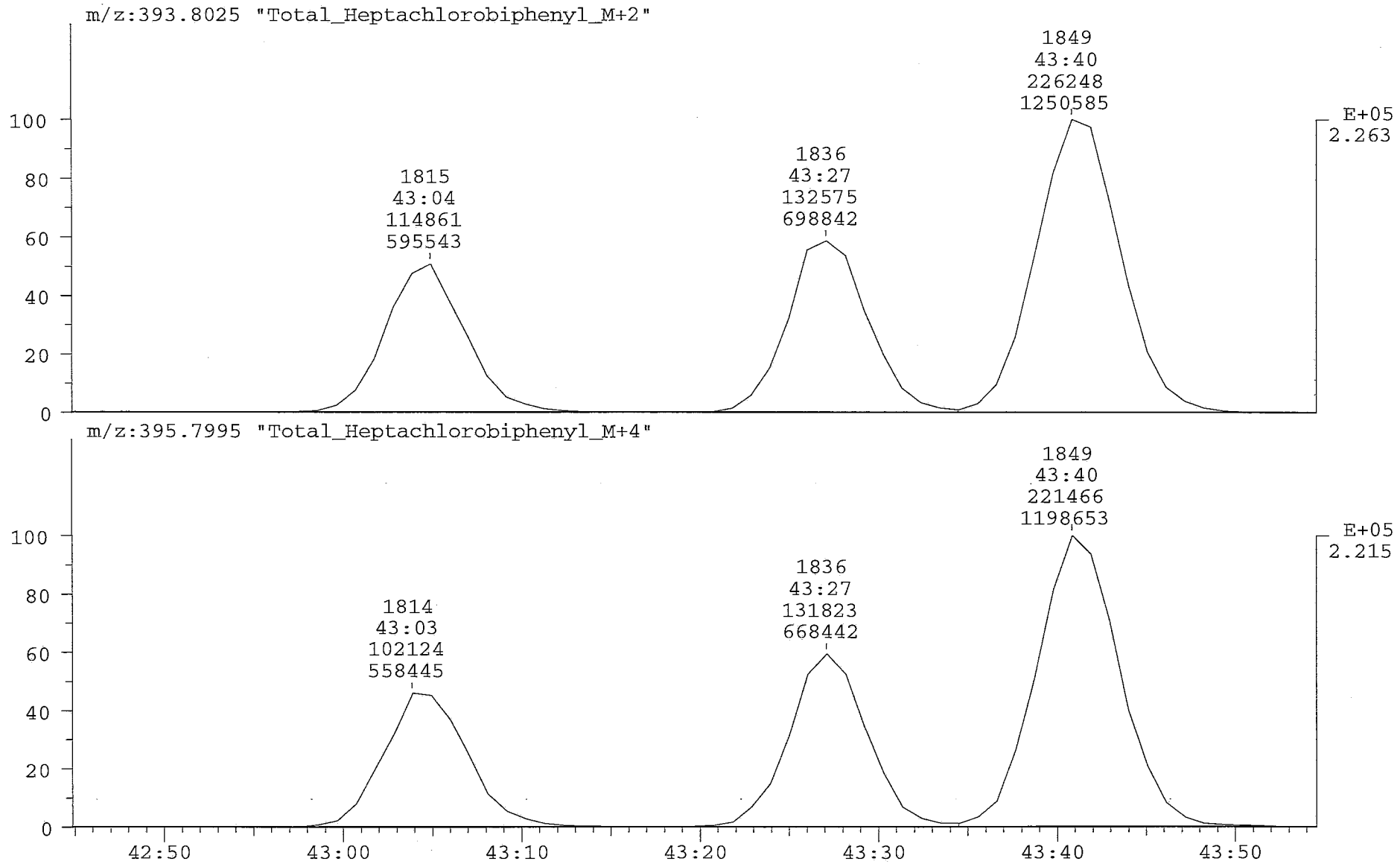
CHRO: a110713s1 13-Jul-11 Elapse: 43:15 1825
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1788 > 1854 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3024

3023

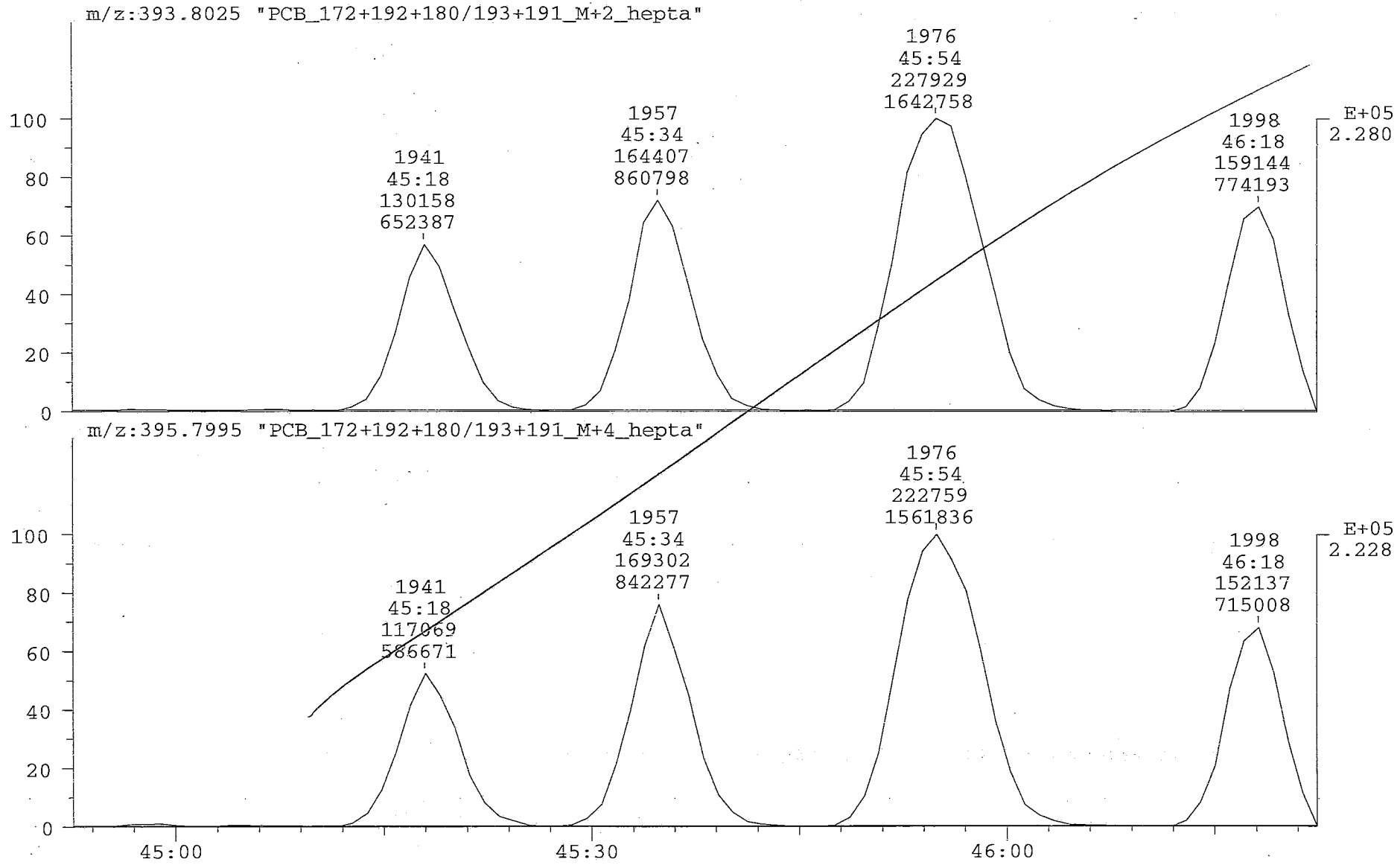
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1796 > 1862 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3025

3024

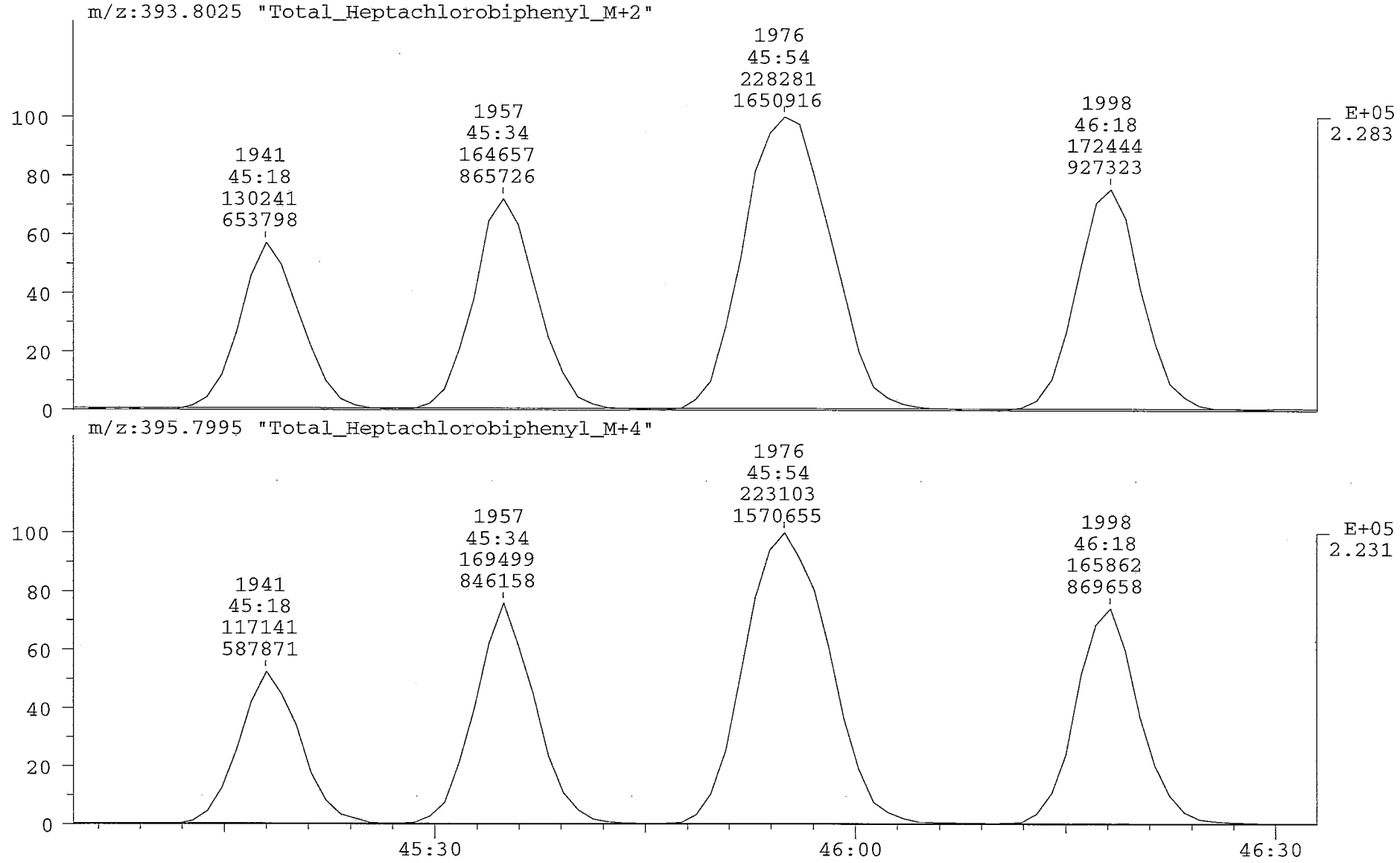
CHRO: a110713s1 13-Jul-11 Elapse: 45:44 1966
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1917 > 2002 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3026

3025

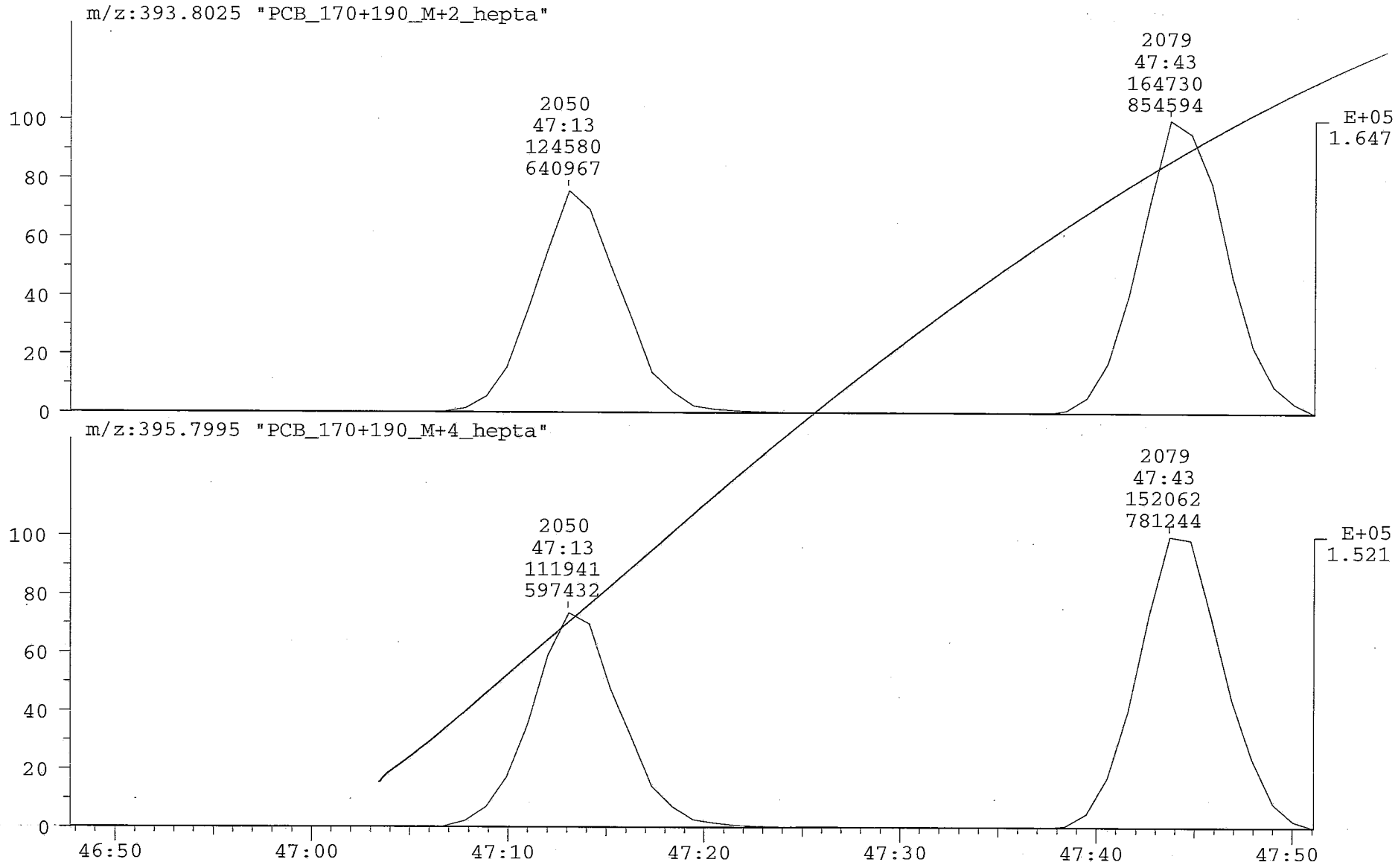
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1928 > 2012 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3027

3026

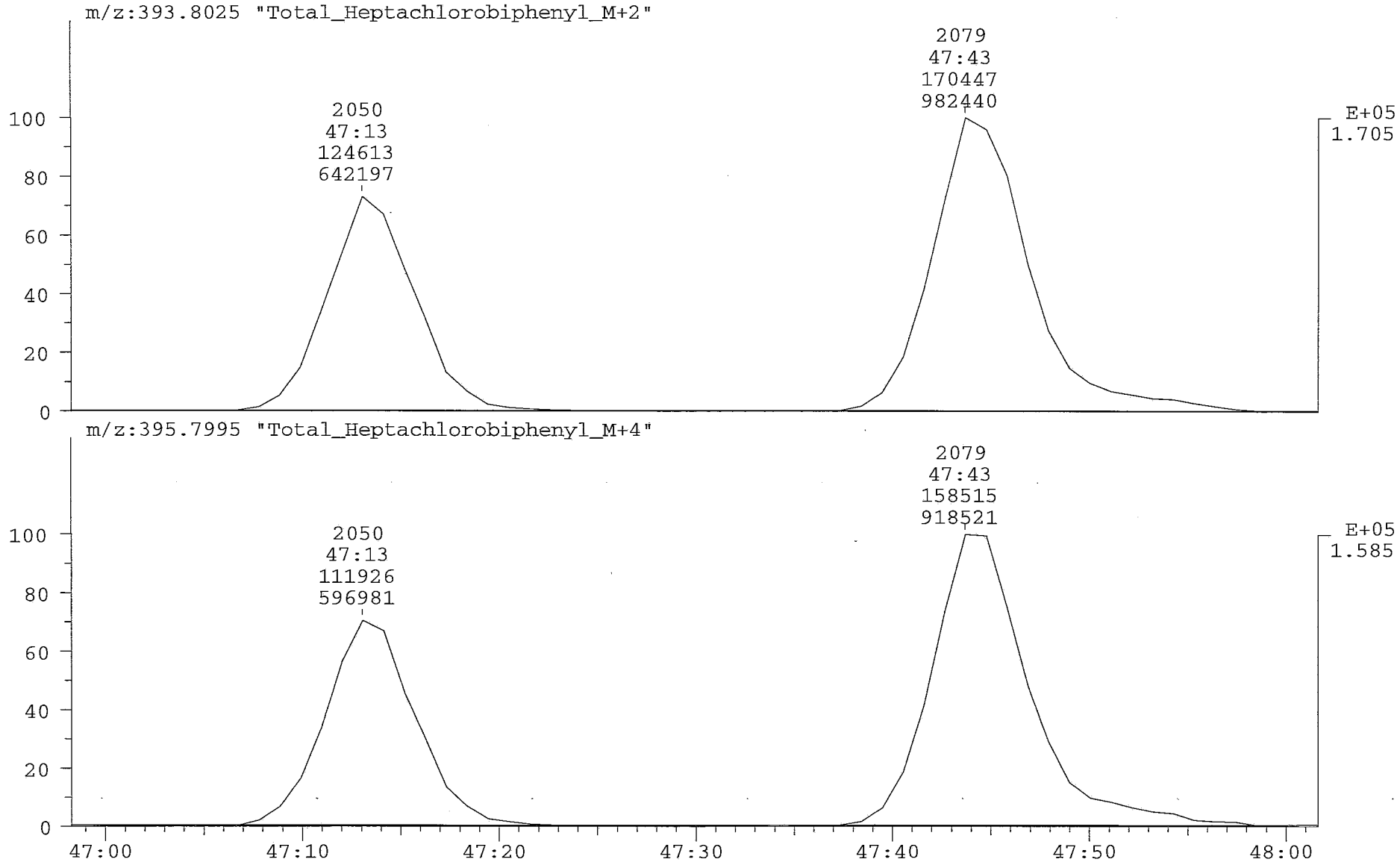
CHRO: a110713s1 13-Jul-11 Elapse: 47:21 2058
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2026 > 2086 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3028

3027

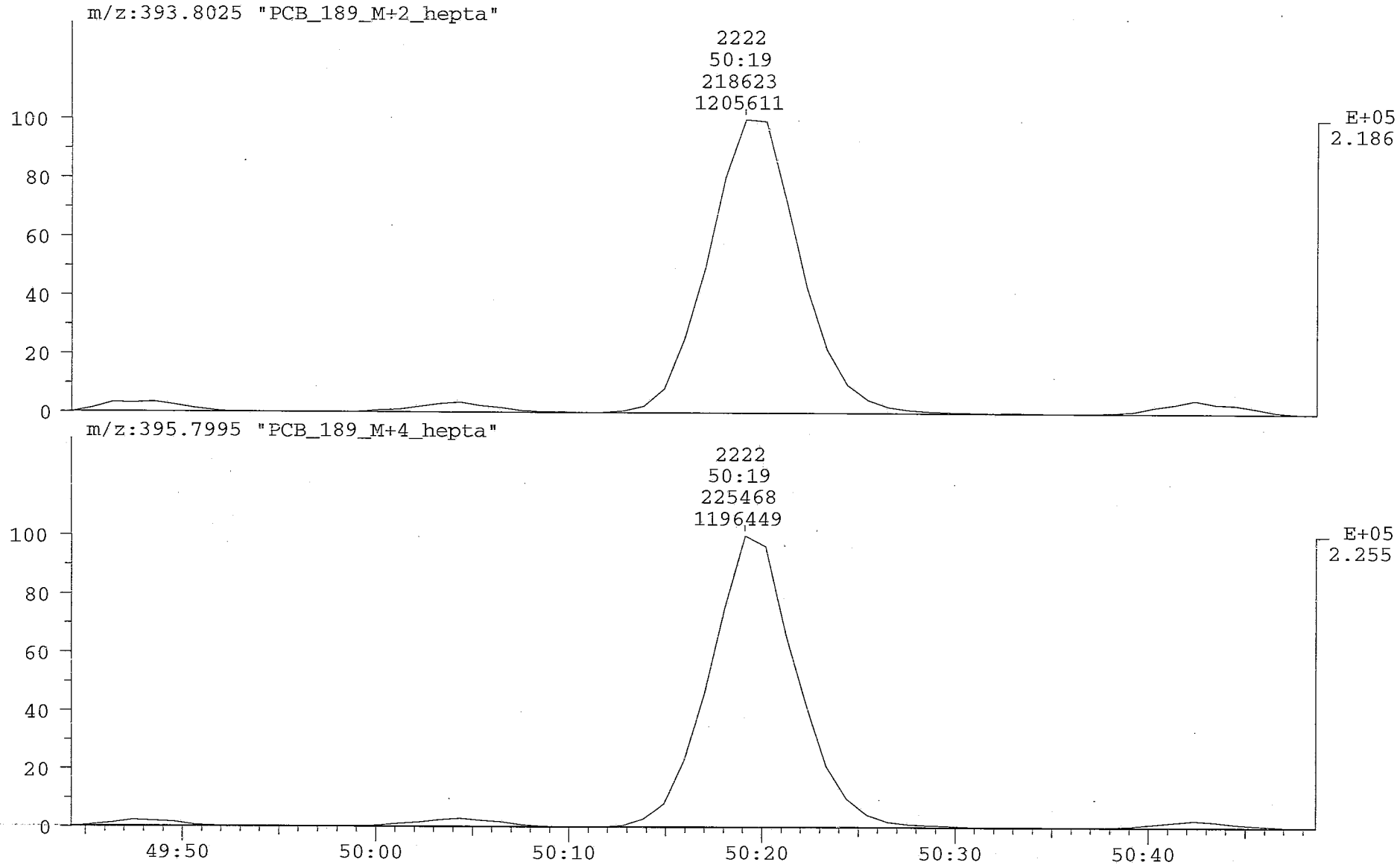
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2036 > 2096 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3029

3028

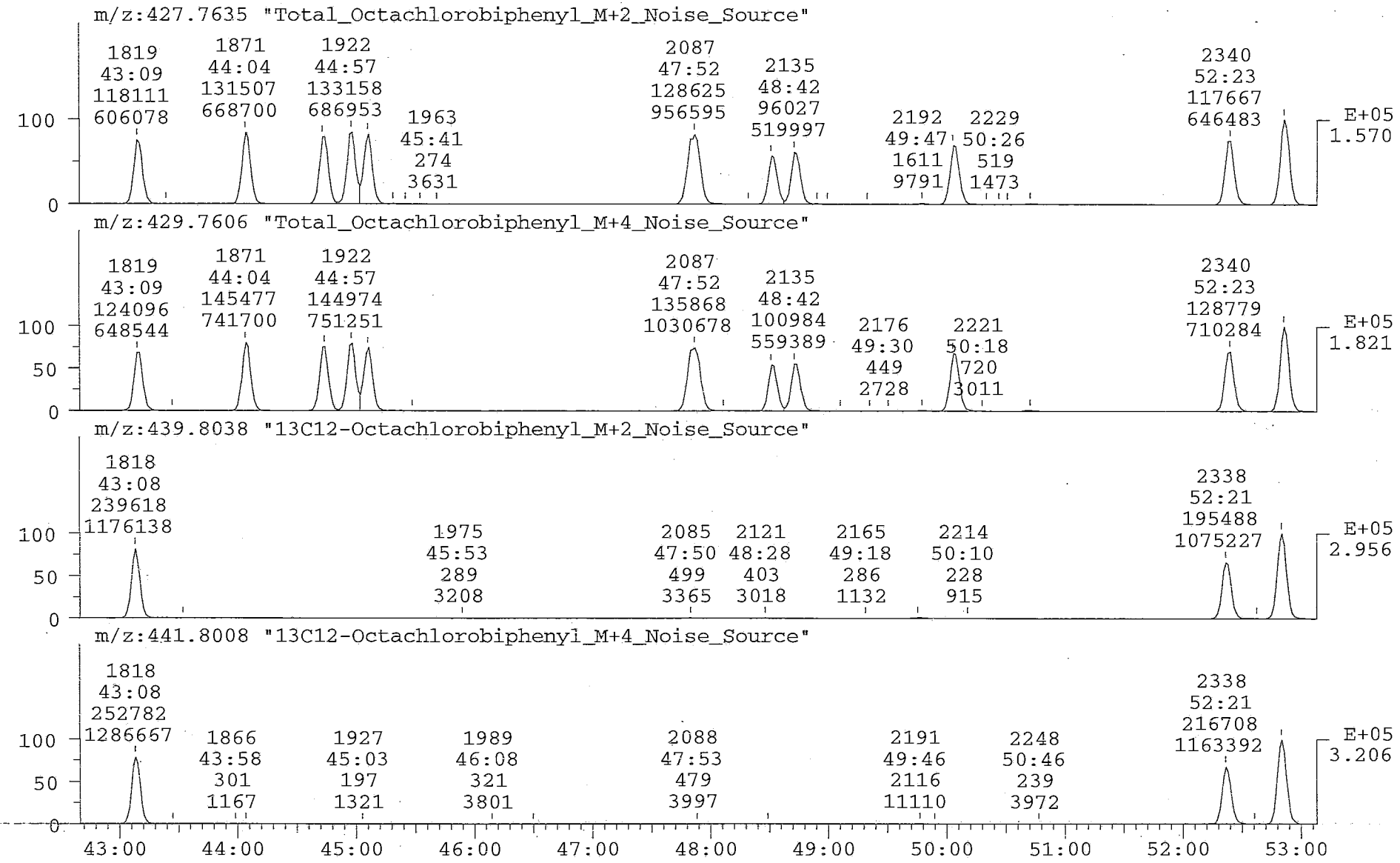
CHRO: a110713s1 13-Jul-11 Elapse: 50:08 2212
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2189 > 2250 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3030

3029

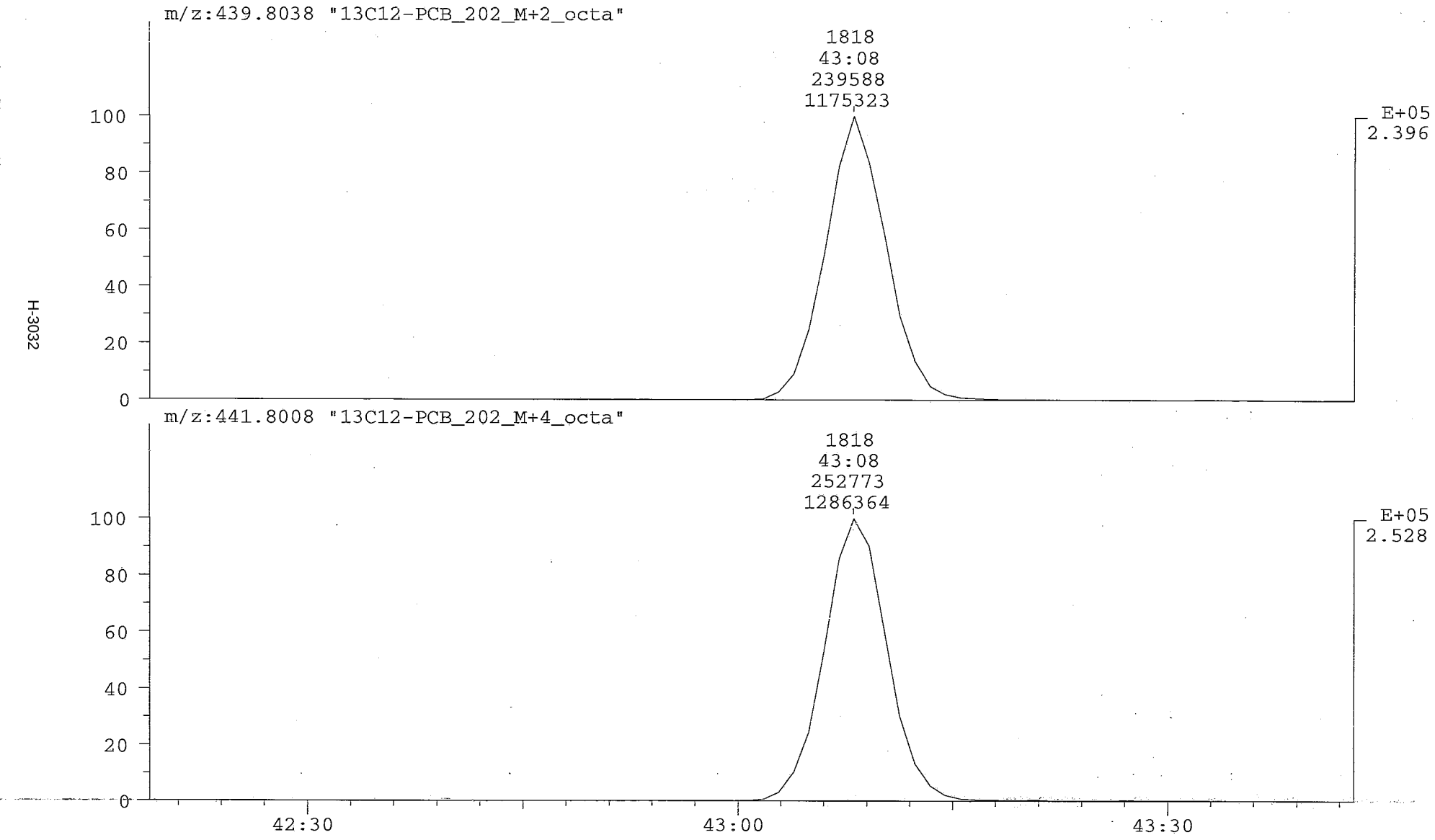
CHRO: a110713s1 13-Jul-11 Elapse: 47:54 2089
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1791 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3031

3030

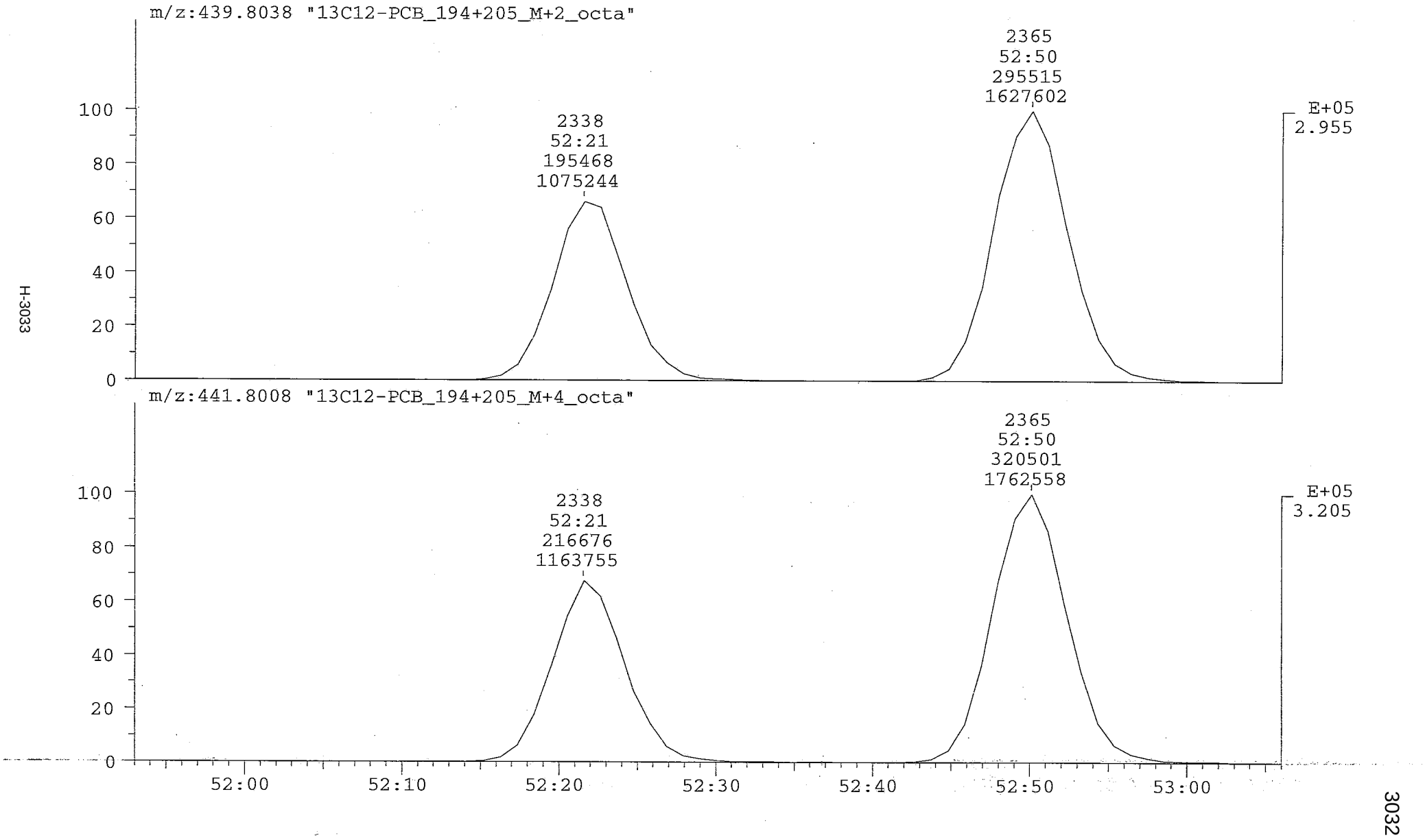
CHRO: a110713s1 13-Jul-11 Elapse: 42:57 1808
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1772 > 1851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3032

3031

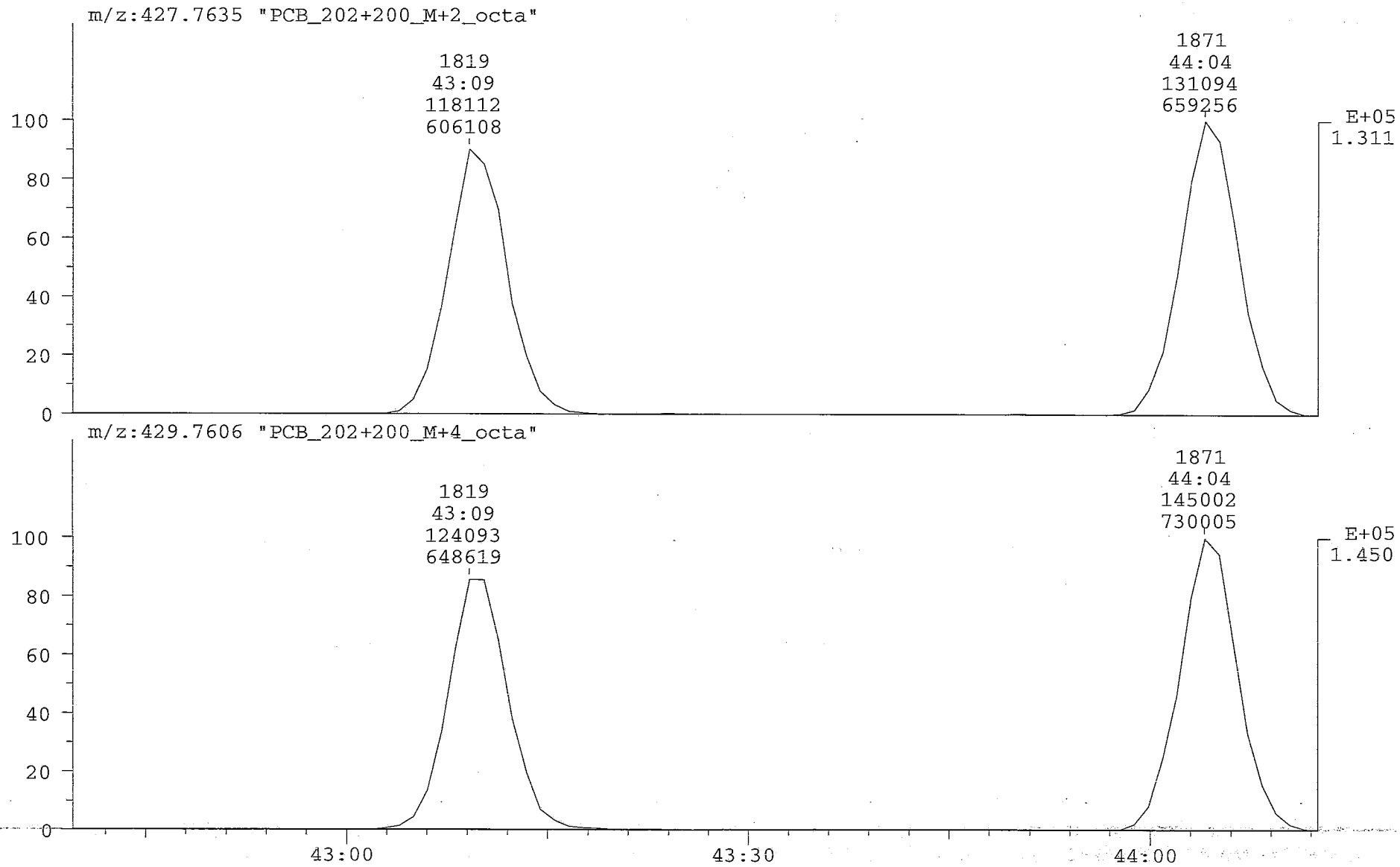
CHRO: a110713s1 13-Jul-11 Elapse: 52:28 2345
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2311 > 2380 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3033

3032

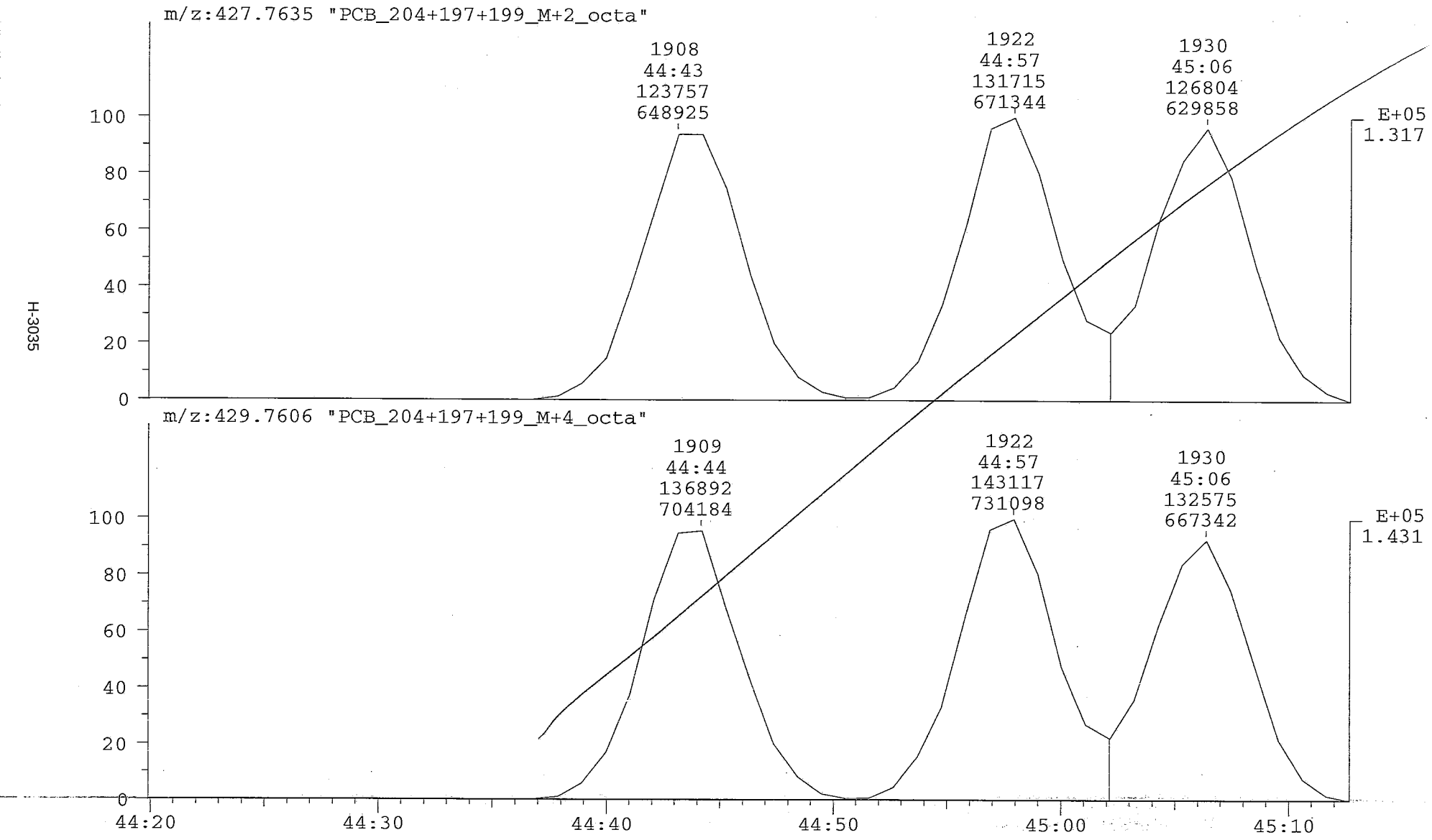
CHRO: a110713s1 13-Jul-11 Elapse: 43:30 1839
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1791 > 1879 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3034

3033

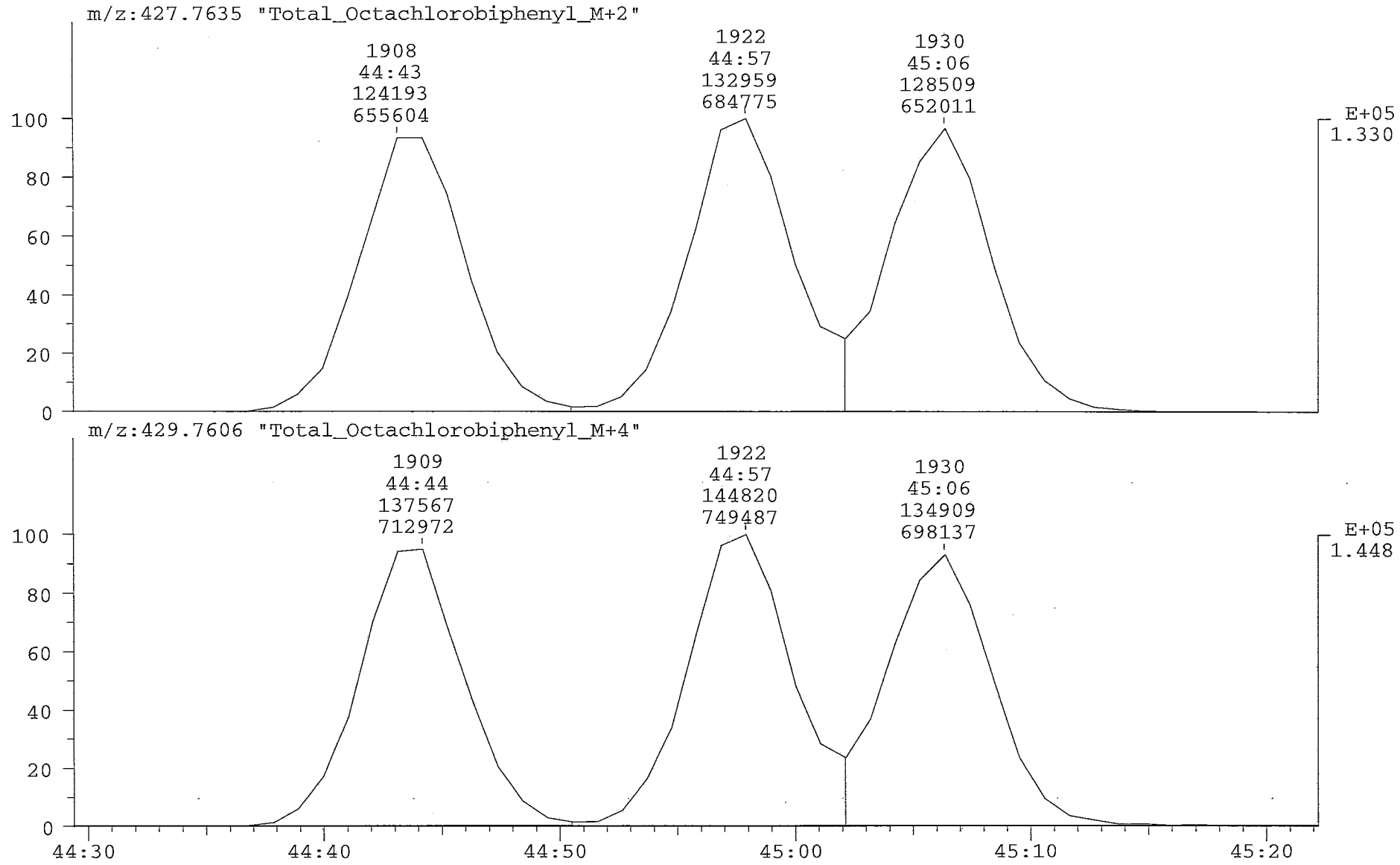
CHRO: a110713s1 13-Jul-11 Elapse: 44:34 1900
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1886 > 1936 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-3035

3034

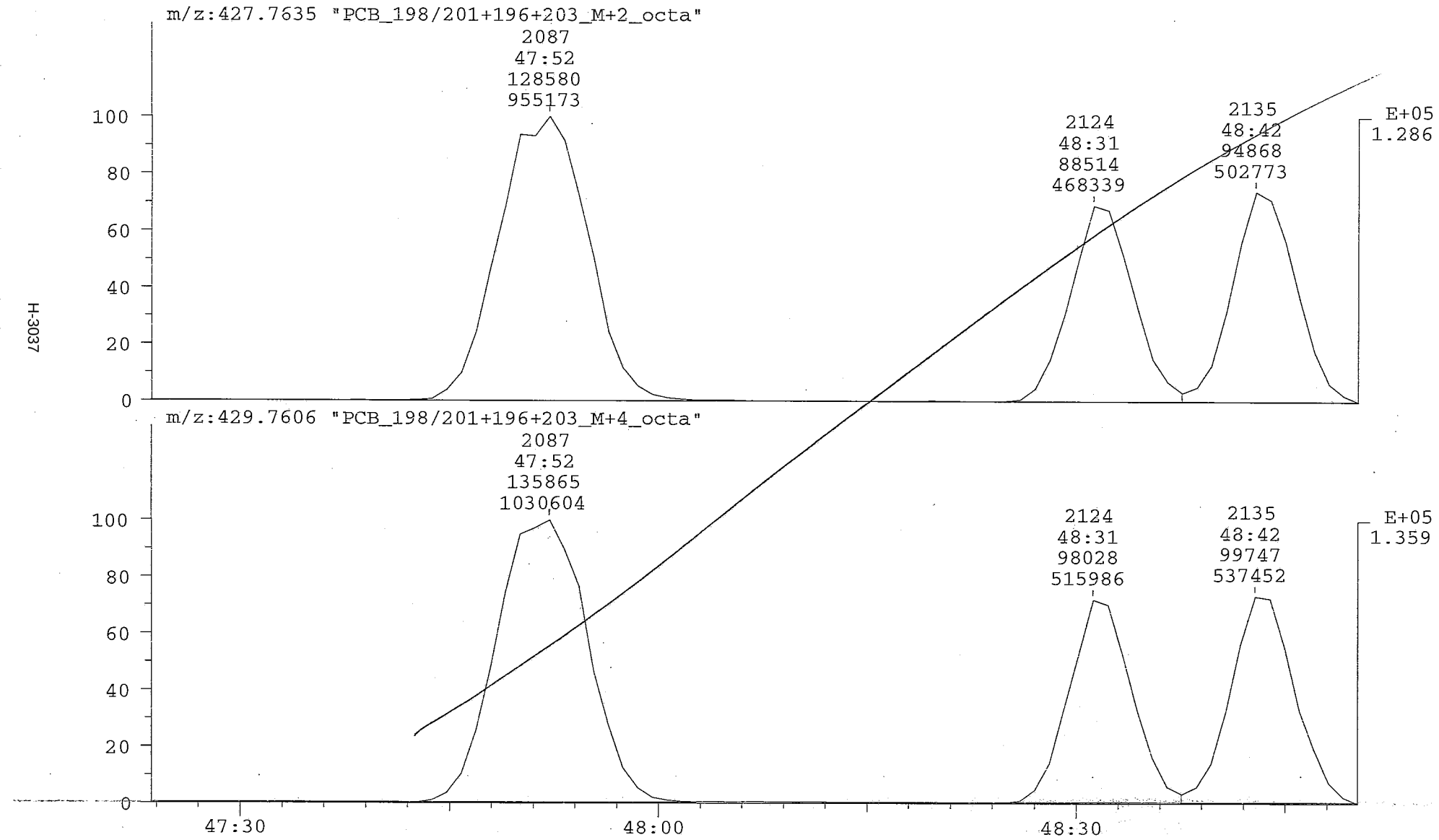
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1895 > 1945 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3036

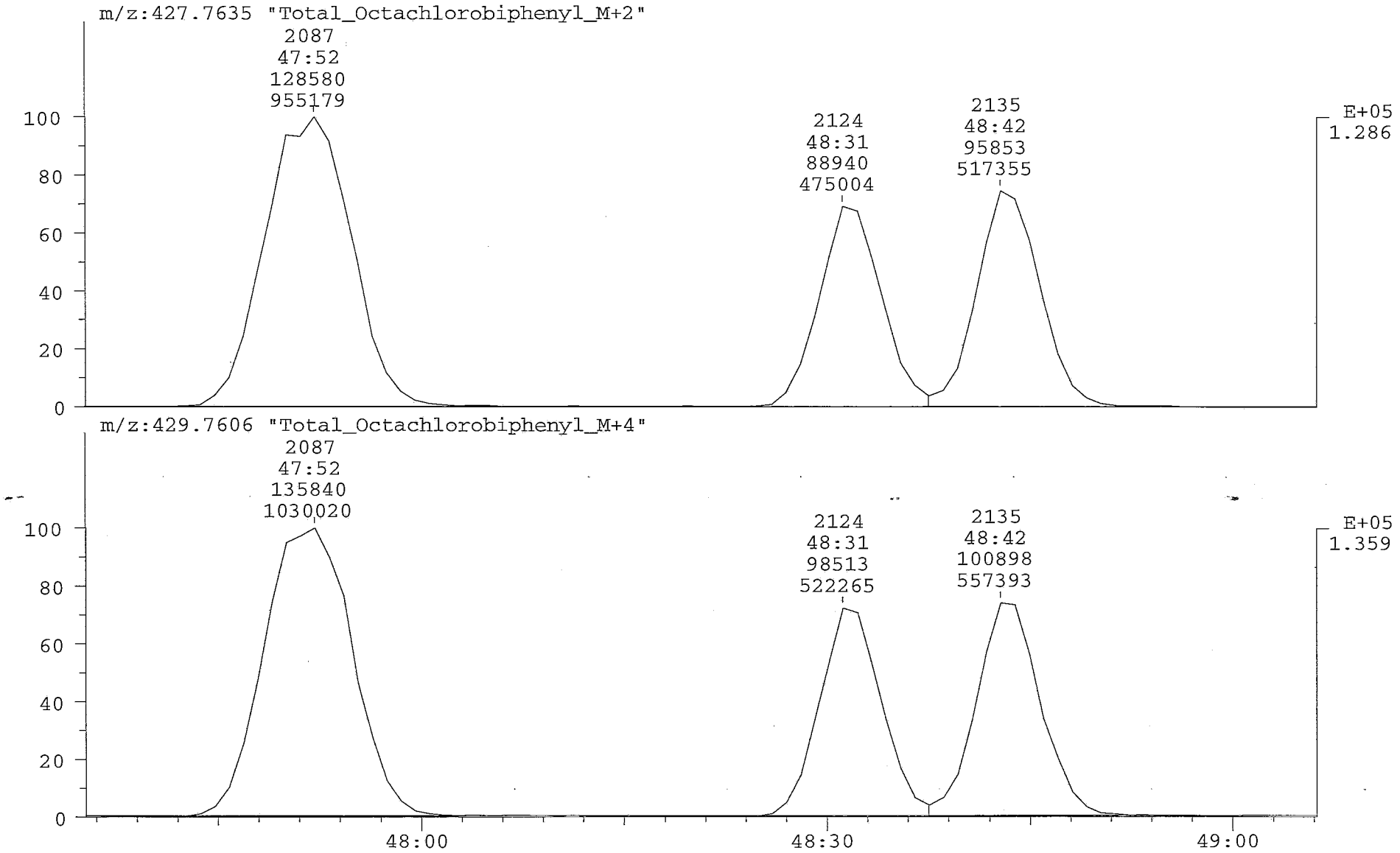
3035

CHRO: a110713s1 13-Jul-11 Elapse: 48:21 2115
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2060 > 2142 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3037

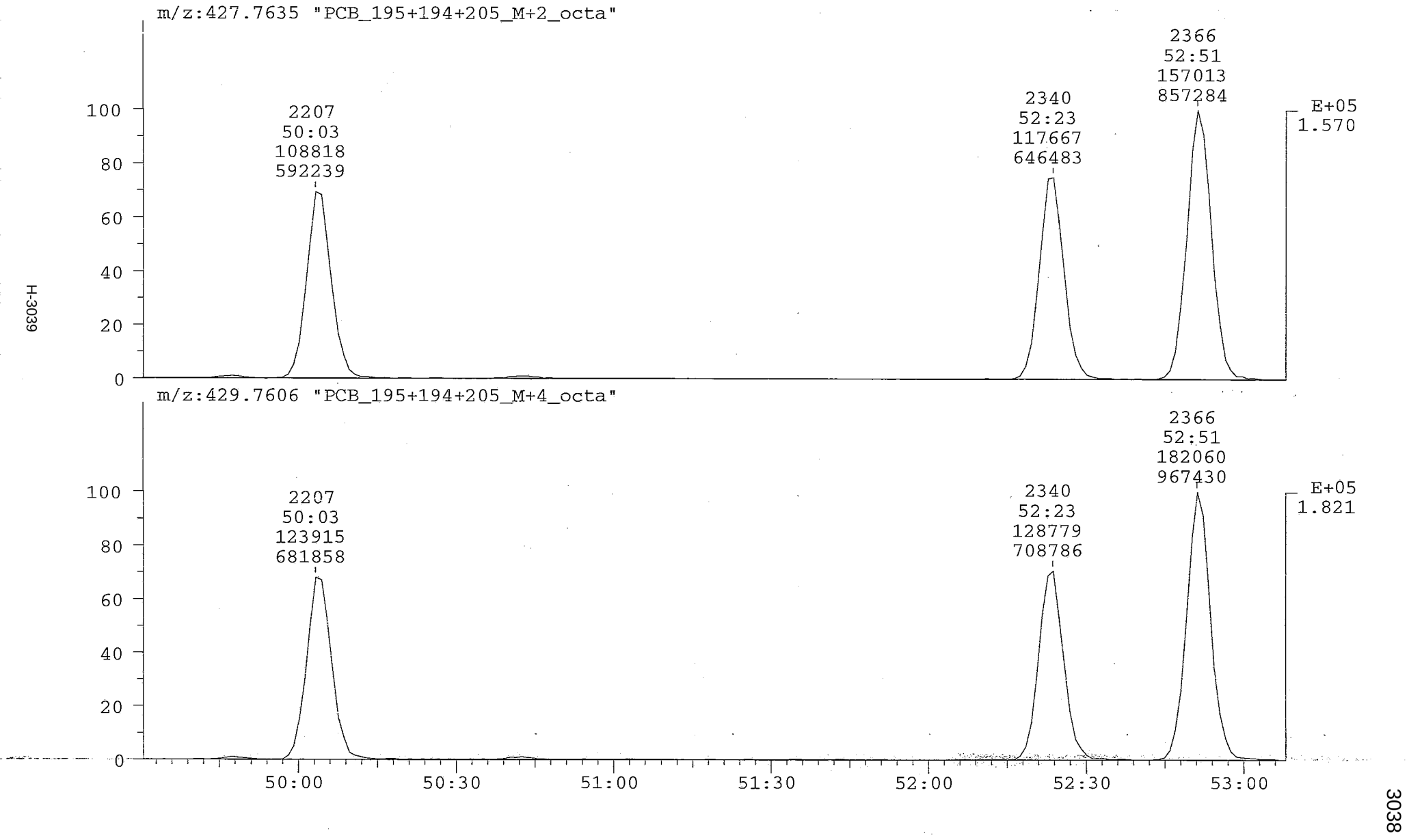
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2071 > 2153 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3038

3037

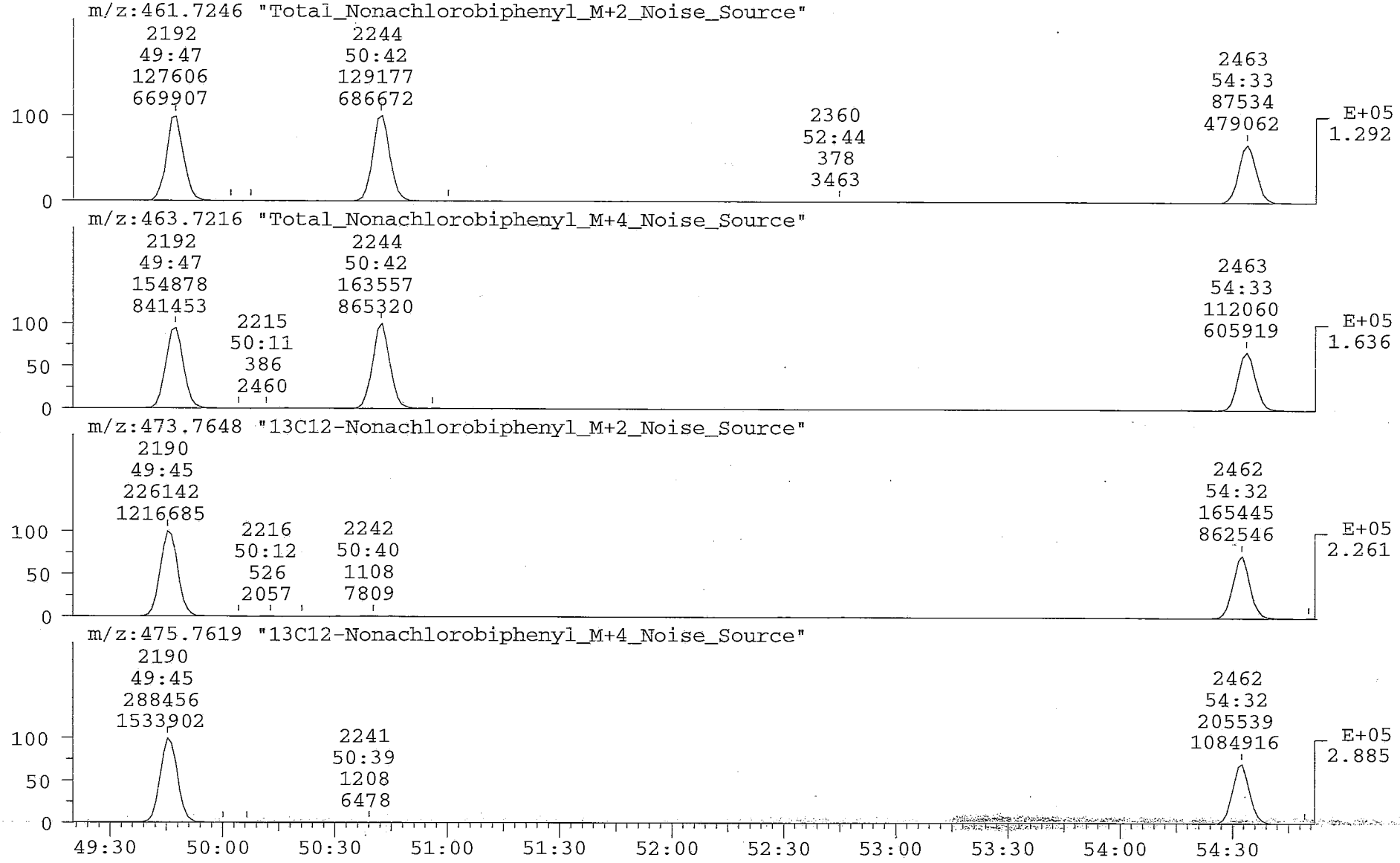
CHRO: a110713s1 13-Jul-11 Elapse: 52:14 2331
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2176 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3039

3038

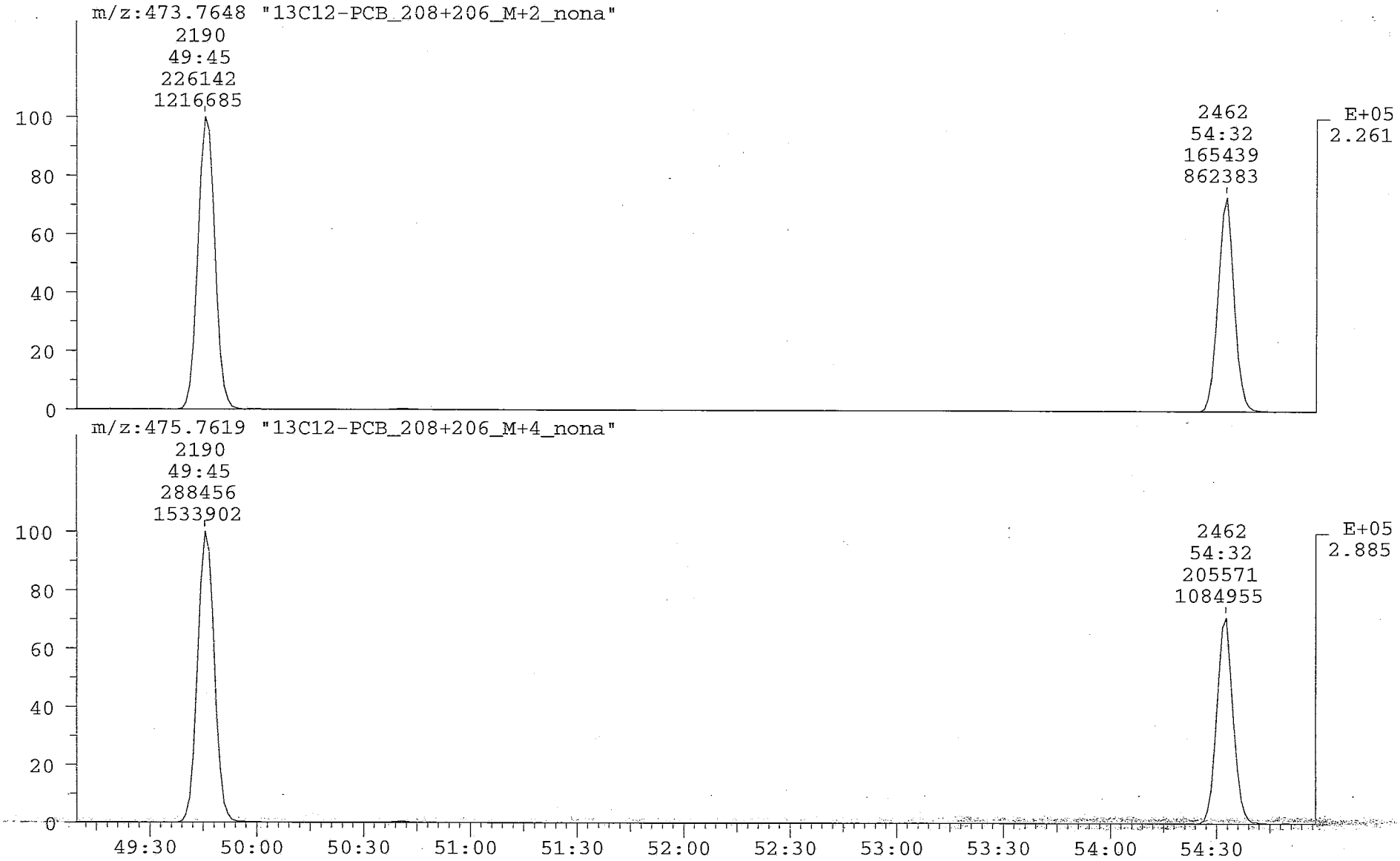
CHRO: a110713s1 13-Jul-11 Elapse: 52:05 2323
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2166 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3040

3039

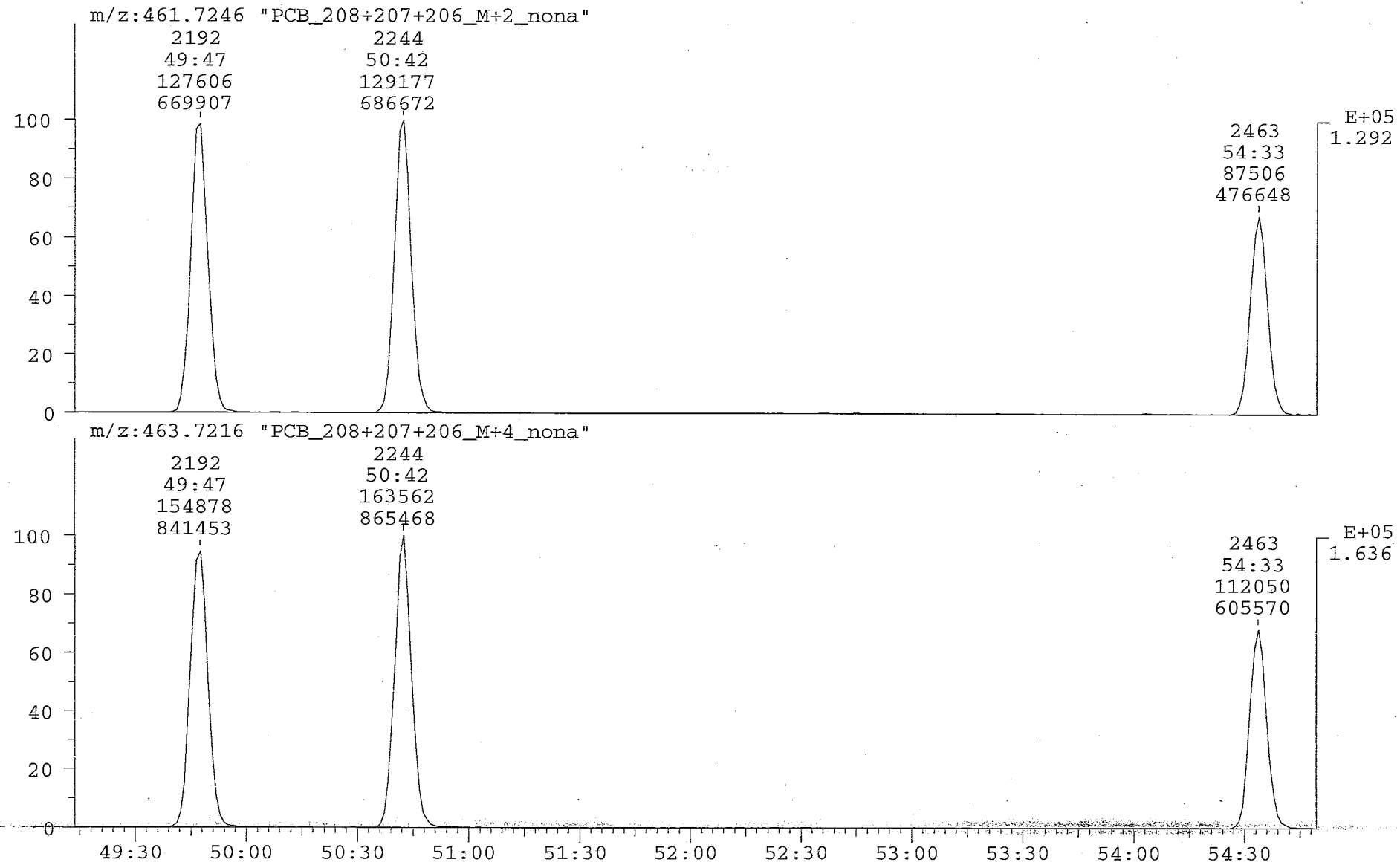
CHRO: a110713s1 13-Jul-11 Elapse: 52:03 2321
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2156 > 2486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3041

3040

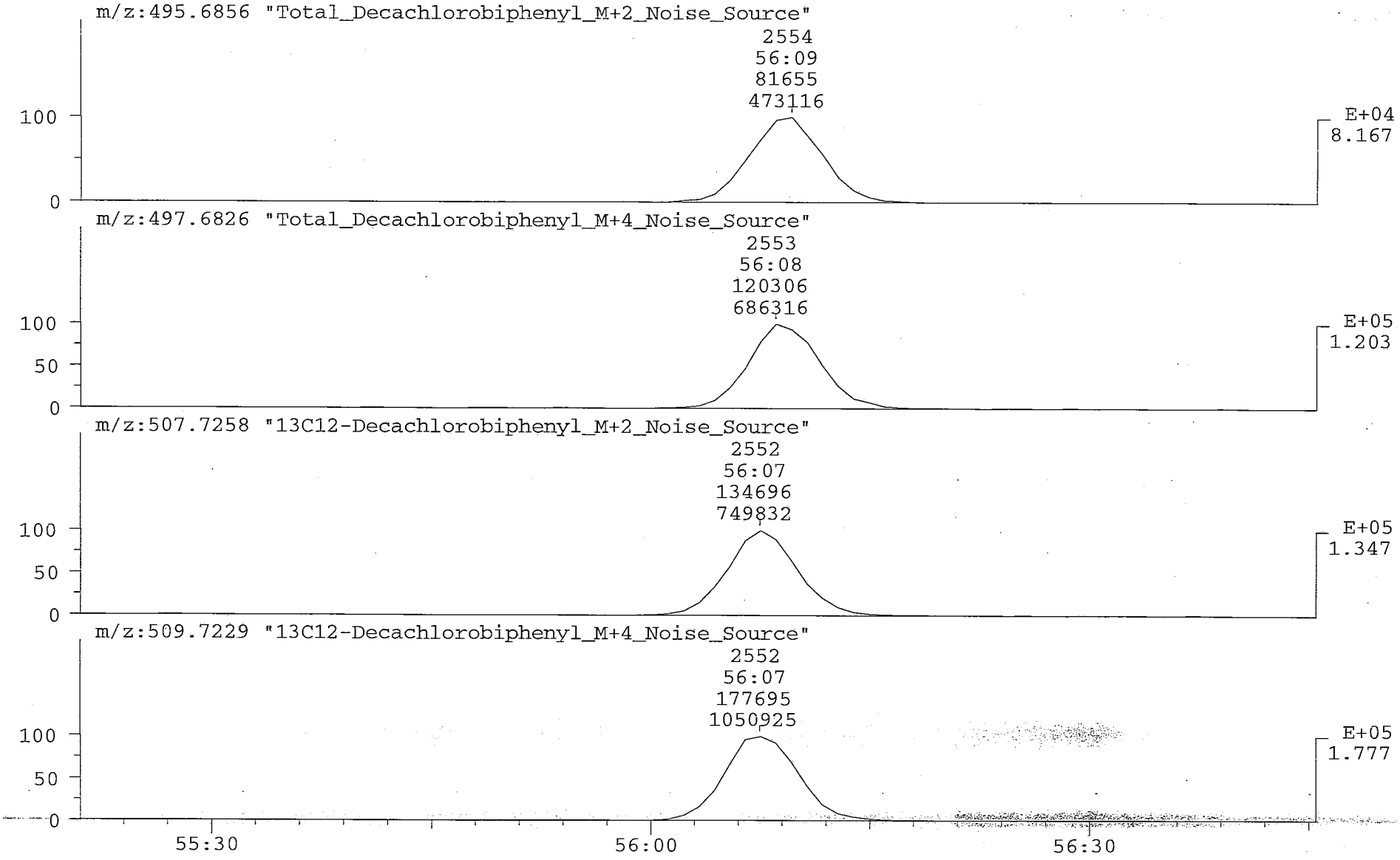
CHRO: a110713s1 13-Jul-11 Elapse: 52:05 2323
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2160 > 2478 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3042

3041

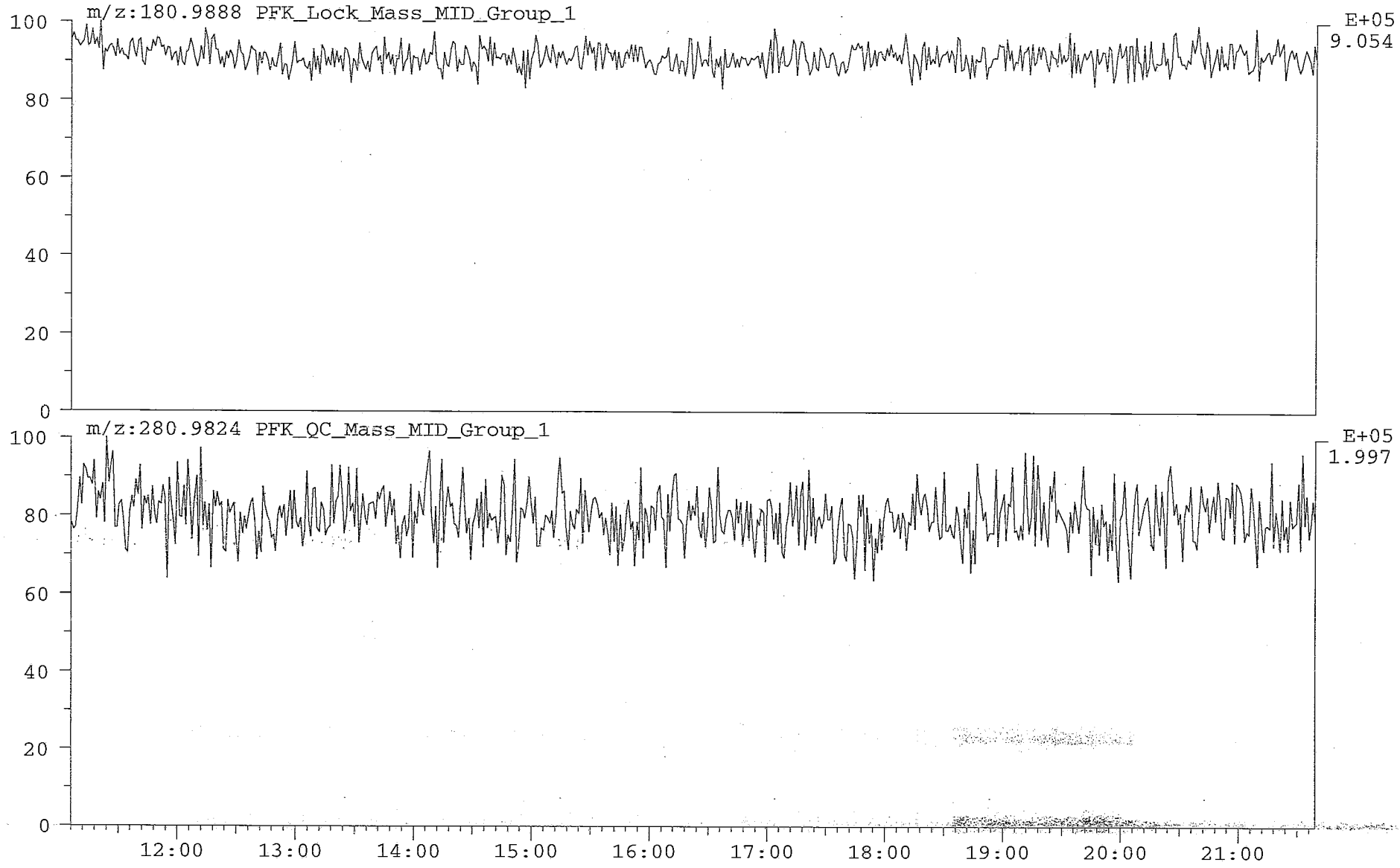
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2508 > 2588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3043

3042

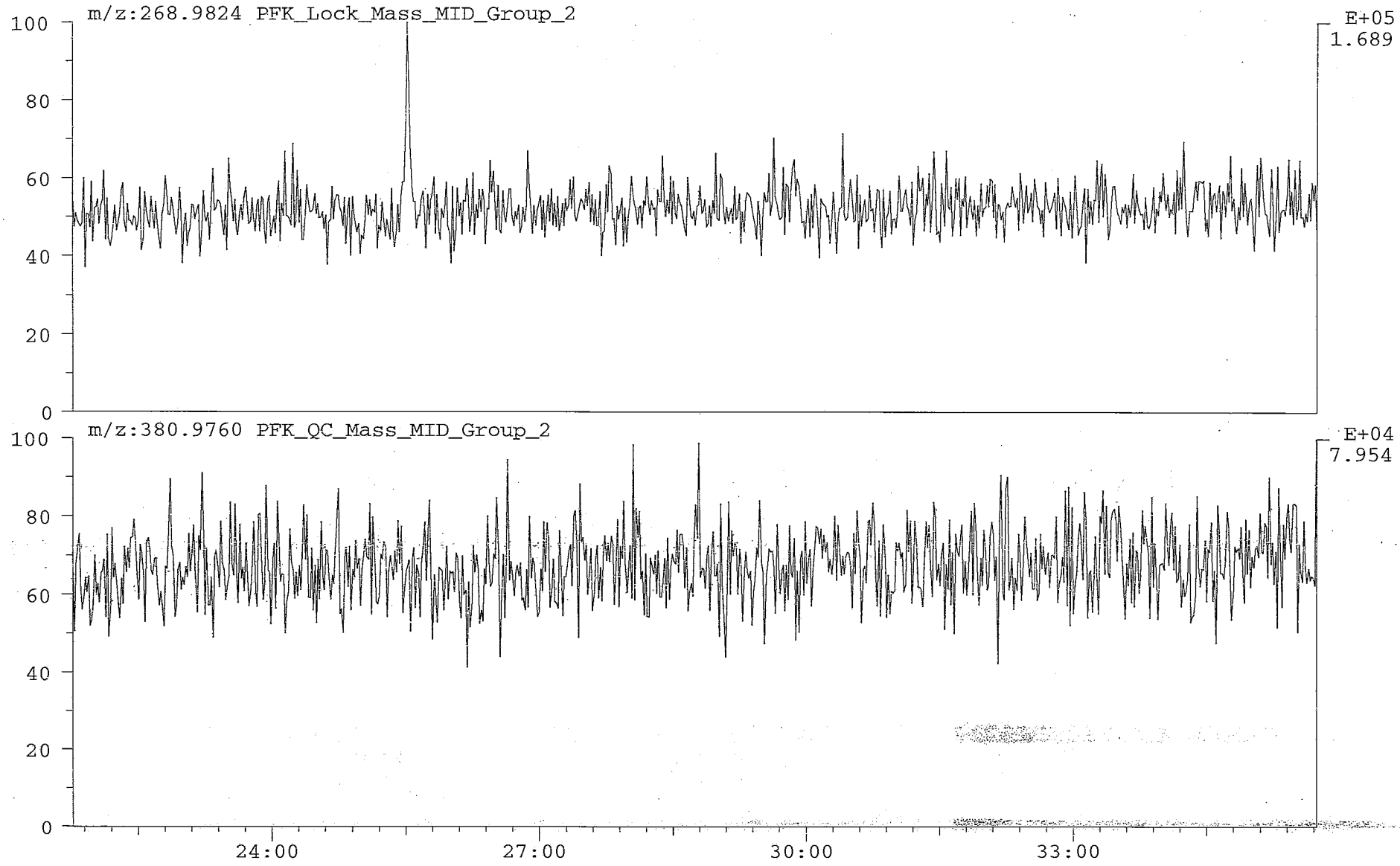
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3044

3043

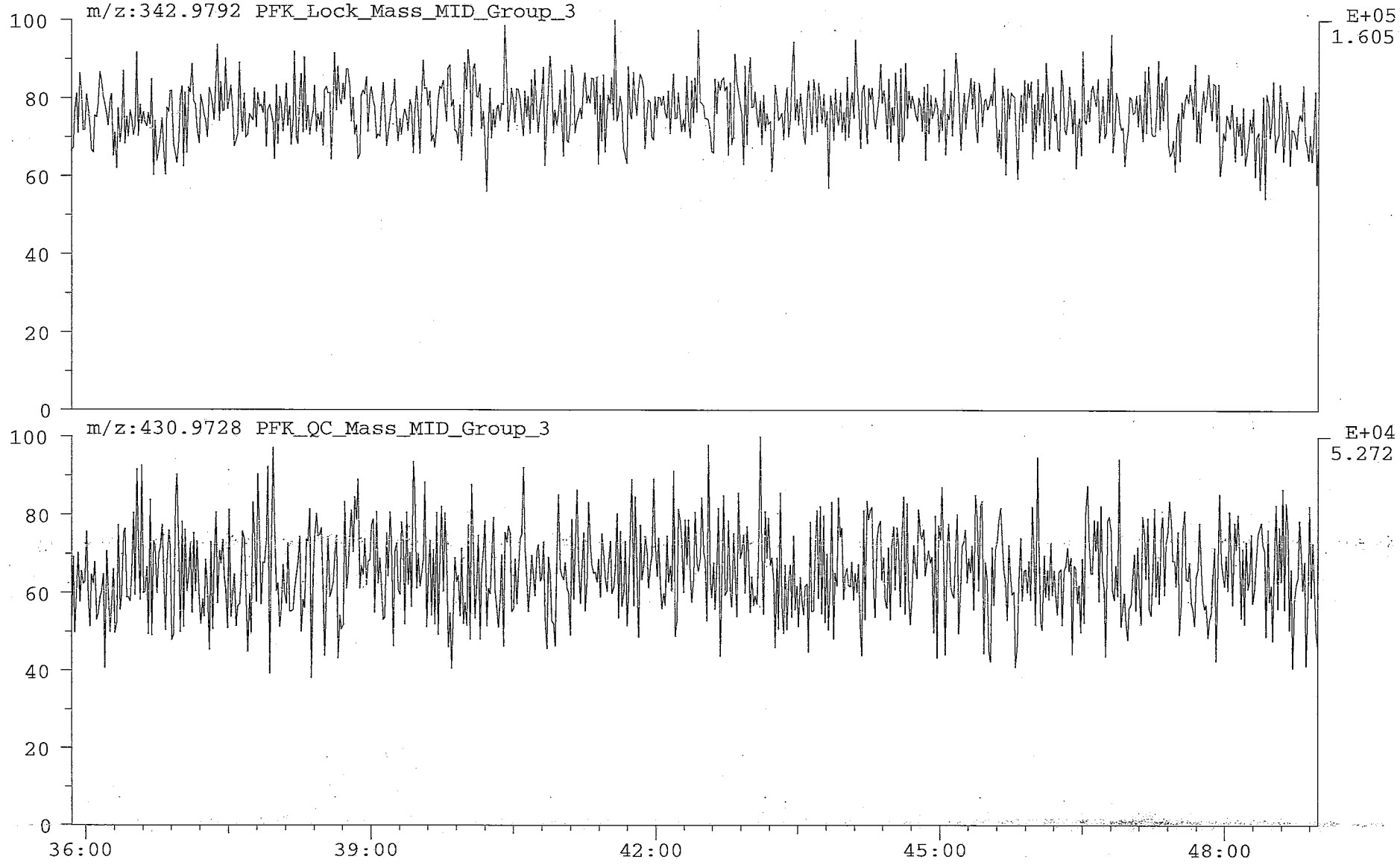
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 608 > 1402 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3045

3044

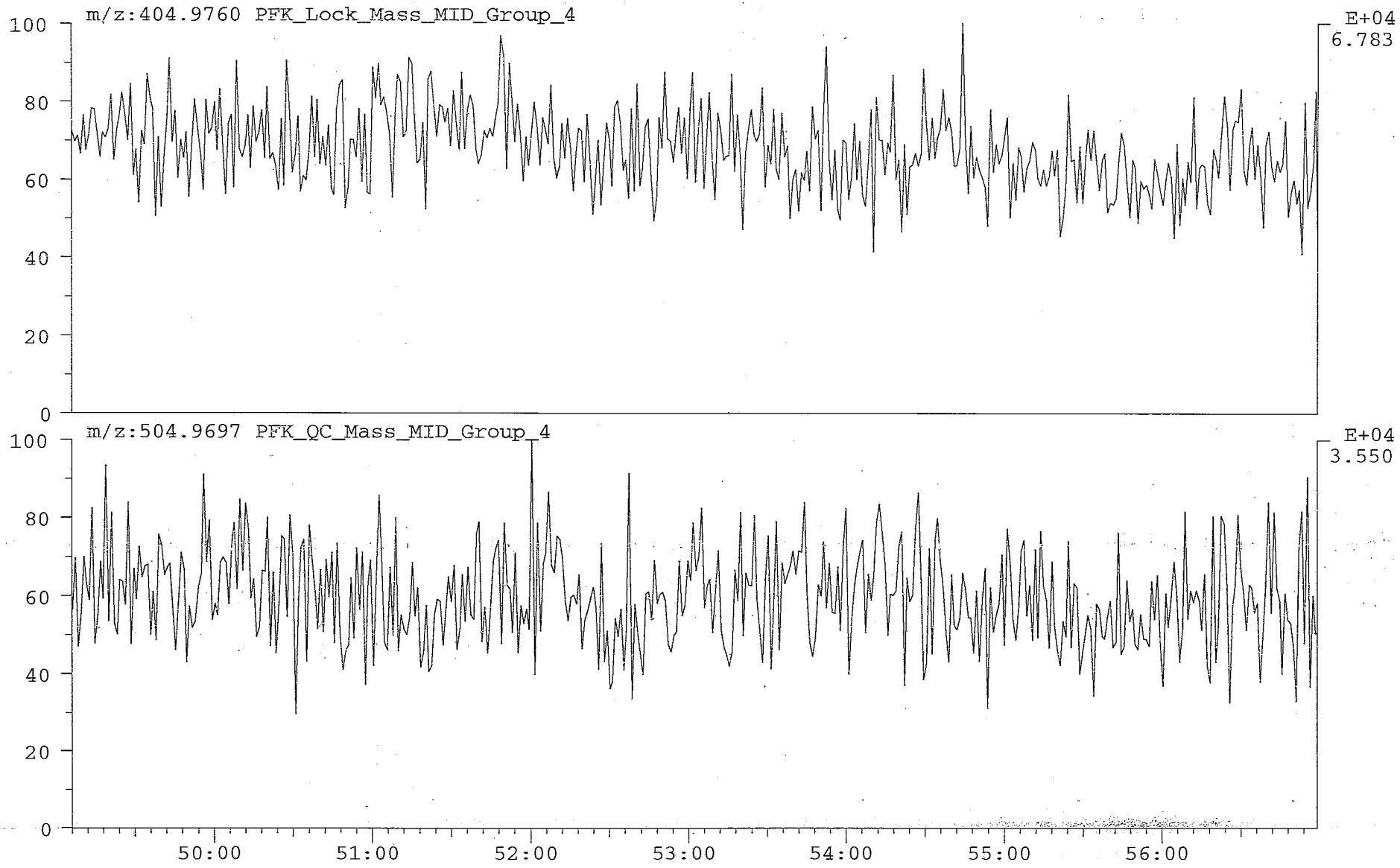
CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 1404 > 2150 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3046

3045

CHRO: a110713s1 13-Jul-11 Elapse: 56:06 2551
Samp: Vial 1 WO=PCB0100 Meth=IE3 Dil=1 Start : 21:45:15 2602
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1668 Ver
Oper: JMN Client: TA Knoxville Inlet : GC Vial 1
Peak: 100.00 ppm Label wndw: 2153 > 2601 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3047

3046

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

\000\000\000\000\000\000\000ICL Version: 10.710
File name: a110713s1
Study: 1668 Ver
Sample: WO=PCB0100 Meth=IE3 Dil=1
Amount:  0.00
Volume:  0.00
Operator: JMN
Client: TA Knoxville
Comments: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Injected volume:  2.00
Sample from Vial 1
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
Single File
  ICL procedure: sleep7x
  MID procedure: epa1668

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:05 min   35:45 min    1.00 sec
  # 3   35:45 min   13:15 min   49:00 min    1.00 sec
  # 4   49:00 min    8:00 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 1   10   1      4.10
    188.0393     1   1     47.79
    190.0363     1   1     47.79
    200.0795     1   1     47.79
    202.0766     1   1     47.79
    222.0003     1   1     47.79
    223.9974     1   1     47.79
    234.0406     1   1     47.79
    236.0376     1   1     47.79
    255.9613     1   1     47.79
    257.9584     1   1     47.79
    268.0016     1   1     47.79
    269.9986     1   1     47.79
    280.9824 c   10  1      4.10
    289.9224     1   1     47.79
    291.9194     1   1     47.79
    301.9626     1   1     47.79
    303.9597     1   1     47.79
   Window # 2
```

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times
 Sample rinse cycles (R): 0 times
 Syringe filling volume (F): 1.0 ul

Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode

Purge time	1.5 min
Purge flow	40.0 ml/min
Gas saver is on	
Saver time	3.0 min
Saver flow	15.0 ml/min

Column : Constant Flow 1.0 ml

Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.5098
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-36.8250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9997
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	23.0000	EDACZ	-548.0000	ELEN	64.2750
EMULT	1.7400	ENS	150.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	148.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	470.0000
FVINLET	509.0000	FVSRC	938.0000	FWIN	0.7000
GCTC	75.0000	GCTI	272.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.4706	HVANAL	1445.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4781.4360	IST	271.3713
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1751.0000	LENSS	161.2000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2350075.0781
MDACR	23.0000	MRANGE	1031.5098	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	4384.0000	NSMAX	8.0000	NSMIN	2.0000

OCT	-2.0000	PSAM	10.0000	PUSHER	-12.5500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10314.6801	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	2598.0000
SHIELDS	0.2000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.9500	TCURR	0.8984
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	1.9500	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	2538.0000
XLENSS	-43.8000	YLENS	2634.0000	YLENSS	-171.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 13-Jul-11 21:45:15.8

Autosampler has injected sample from vial 1
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 8404
MID Time Window 3: Resolution is 9527
MID Time Window 4: Resolution is 8436
Analysis stopped at: 13-Jul-11 22:42:18.3 (run time 57.02 minutes)
Analysis stopped because MID run finished

Raw QC Data

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H1G060000 - 028B	**Work Order #....:**	MKNTM1AA	**Matrix....:**	AIR
Dilution Factor:	1				
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
PCB 77 (BZ)	**0.0062**	**Q J**	**0.20**	**0.0049**	**ng/sample**
PCB 81 (BZ)	ND		0.20	0.0052	ng/sample
PCB 105 (BZ)	ND		0.20	0.0049	ng/sample
PCB 114 (BZ)	ND		0.20	0.0048	ng/sample
PCB 118 (BZ)	ND		0.20	0.0050	ng/sample
PCB 123 (BZ)	ND		0.20	0.0056	ng/sample
PCB 126 (BZ)	ND		0.20	0.0046	ng/sample
PCB 156 (BZ)	ND		0.20	0.0086	ng/sample
PCB 157 (BZ)	ND		0.20	0.0086	ng/sample
PCB 167 (BZ)	ND		0.20	0.0060	ng/sample
PCB 169 (BZ)	ND		0.20	0.0057	ng/sample
PCB 189 (BZ)	ND		0.20	0.0050	ng/sample

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H1G060000 - 028B	**Work Order #....:**	MKNTM1AA	**Matrix....:**	AIR
Dilution Factor:	1				
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

INTERNAL STANDARDS	PERCENT RECOVERY		RECOVERY LIMITS
13C12-PCB 1	91		30 - 140
13C12-PCB 3	83		30 - 140
13C12-PCB 4	86		30 - 140
13C12-PCB 15	79		30 - 140
13C12-PCB 19	85		30 - 140
13C12-PCB 37	87		30 - 140
13C12-PCB 54	115		30 - 140
13C12-PCB 77	96		30 - 140
13C12-PCB 81	92		30 - 140
13C12-PCB 104	90		30 - 140
13C12-PCB 105	93		30 - 140
13C12-PCB 114	91		30 - 140
13C12-PCB 118	89		30 - 140
13C12-PCB 123	86		30 - 140
13C12-PCB 126	98		30 - 140
13C12-PCB 155	100		30 - 140
13C12-PCB 156	108	C	30 - 140
13C12-PCB 157	108	C	30 - 140
13C12-PCB 167	105		30 - 140
13C12-PCB 169	109		30 - 140
13C12-PCB 170	102		30 - 140
13C12-PCB 188	99		30 - 140
13C12-PCB 189	106		30 - 140
13C12-PCB 202	109		30 - 140
13C12-PCB 205	109		30 - 140
13C12-PCB 206	109		30 - 140
13C12-PCB 208	104		30 - 140
13C12-PCB 209	99		30 - 140

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 28	83	40 - 125
13C12-PCB 111	98	40 - 125
13C12-PCB 178	84	40 - 125

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H1G060000 - 028B	**Work Order #....:**	MKNTM1AA	**Matrix....:**	AIR
Dilution Factor:	1				
Prep Date....:	07/06/11	**Analysis Date....:**	07/14/11		
Prep Batch # ....:	1187028				
Initial Wgt/Vol :	1 Sample	**Instrument ID....:**	M1D	**Method:**	EPA-22 1668A
Analyst ID....:	Jon M. Nordquist				

QUALIFIERS

C Co-eluting isomer.

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H1G050439	**Work Order # ...:**	MKNTM1AC-LCS MKNTM1AD-LCSD	**Matrix .....:**	AIR
LCS Lot-Sample# :	H1G060000 - 028				
Prep Date .....:	07/06/11	**Analysis Date ..:**	07/13/11		
Prep Batch # ...:	1187028				
Dilution Factor :	1				
Analyst ID.....:	Jon M. Nordquist	**Instrument ID..:**	M1D	**Method.....:**	EPA-22 1668A
Initial Wgt/Vol:	1 Sample				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS	RPD	RPD LIMITS
PCB 77 (BZ)	**10.0**	**9.77**	**ng/sample**	**98**	**B**	**(50 - 150)**		
	10.0	**9.91**	**ng/sample**	**99**	**B**	**(50 - 150)**	**1.4**	**(0 - 50)**
PCB 81 (BZ)	**10.0**	**9.94**	**ng/sample**	**99**		**(50 - 150)**		
	10.0	**9.71**	**ng/sample**	**97**		**(50 - 150)**	**2.3**	**(0 - 50)**
PCB 105 (BZ)	**10.0**	**11.2**	**ng/sample**	**112**		**(50 - 150)**		
	10.0	**11.0**	**ng/sample**	**110**		**(50 - 150)**	**1.7**	**(0 - 50)**
PCB 114 (BZ)	**10.0**	**11.4**	**ng/sample**	**114**		**(50 - 150)**		
	10.0	**11.4**	**ng/sample**	**114**		**(50 - 150)**	**0.060**	**(0 - 50)**
PCB 118 (BZ)	**10.0**	**11.2**	**ng/sample**	**112**		**(50 - 150)**		
	10.0	**11.4**	**ng/sample**	**114**		**(50 - 150)**	**1.8**	**(0 - 50)**
PCB 123 (BZ)	**10.0**	**12.8**	**ng/sample**	**128**		**(50 - 150)**		
	10.0	**12.3**	**ng/sample**	**123**		**(50 - 150)**	**4.0**	**(0 - 50)**
PCB 126 (BZ)	**10.0**	**10.6**	**ng/sample**	**106**		**(50 - 150)**		
	10.0	**10.7**	**ng/sample**	**107**		**(50 - 150)**	**1.5**	**(0 - 50)**
PCB 156 (BZ)	**20.0**	**22.5**	**ng/sample**	**113**	**C**	**(50 - 150)**		
	20.0	**22.5**	**ng/sample**	**113**	**C**	**(50 - 150)**	**0.0**	**(0 - 50)**
PCB 157 (BZ)	**20.0**	**22.5**	**ng/sample**	**113**	**C C156**	**(50 - 150)**		
	20.0	**22.5**	**ng/sample**	**113**	**C C156**	**(50 - 150)**	**0.0**	**(0 - 50)**
PCB 167 (BZ)	**10.0**	**11.6**	**ng/sample**	**116**		**(50 - 150)**		
	10.0	**11.6**	**ng/sample**	**116**		**(50 - 150)**	**0.37**	**(0 - 50)**
PCB 169 (BZ)	**10.0**	**10.4**	**ng/sample**	**104**		**(50 - 150)**		
	10.0	**10.5**	**ng/sample**	**105**		**(50 - 150)**	**0.76**	**(0 - 50)**
PCB 189 (BZ)	**10.0**	**11.4**	**ng/sample**	**114**		**(50 - 150)**		
	10.0	**11.3**	**ng/sample**	**113**		**(50 - 150)**	**0.93**	**(0 - 50)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 1	84	(30 - 140)
	90	(30 - 140)
13C12-PCB 3	78	(30 - 140)
	82	(30 - 140)
13C12-PCB 4	81	(30 - 140)
	86	(30 - 140)
13C12-PCB 15	80	(30 - 140)
	80	(30 - 140)
13C12-PCB 19	84	(30 - 140)
	86	(30 - 140)
13C12-PCB 37	92	(30 - 140)
	91	(30 - 140)
13C12-PCB 54	112	(30 - 140)
	115	(30 - 140)
13C12-PCB 77	102	(30 - 140)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...: H1G050439 **Work Order # ...:** MKNTM1AC-LCS **Matrix .....:** AIR
LCS Lot-Sample# : H1G060000 - 028 MKNTM1AD-LCSD

INTERNAL STANDARD	PERCENT RECOVERY		RECOVERY LIMITS
	99		(30 - 140)
13C12-PCB 81	98		(30 - 140)
	97		(30 - 140)
13C12-PCB 104	84		(30 - 140)
	88		(30 - 140)
13C12-PCB 105	92		(30 - 140)
	93		(30 - 140)
13C12-PCB 114	91		(30 - 140)
	93		(30 - 140)
13C12-PCB 118	88		(30 - 140)
	90		(30 - 140)
13C12-PCB 123	87		(30 - 140)
	88		(30 - 140)
13C12-PCB 126	96		(30 - 140)
	98		(30 - 140)
13C12-PCB 155	99		(30 - 140)
	101		(30 - 140)
13C12-PCB 156	110	C	(30 - 140)
	117	C	(30 - 140)
13C12-PCB 157	110	C	(30 - 140)
	117	C	(30 - 140)
13C12-PCB 167	107		(30 - 140)
	109		(30 - 140)
13C12-PCB 169	104		(30 - 140)
	106		(30 - 140)
13C12-PCB 170	101		(30 - 140)
	103		(30 - 140)
13C12-PCB 188	95		(30 - 140)
	99		(30 - 140)
13C12-PCB 189	108		(30 - 140)
	109		(30 - 140)
13C12-PCB 202	109		(30 - 140)
	112		(30 - 140)
13C12-PCB 205	108		(30 - 140)
	110		(30 - 140)
13C12-PCB 206	110		(30 - 140)
	110		(30 - 140)
13C12-PCB 208	101		(30 - 140)
	104		(30 - 140)
13C12-PCB 209	97		(30 - 140)
	99		(30 - 140)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 28	84	(40 - 125)
	85	(40 - 125)
13C12-PCB 111	97	(40 - 125)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...: H1G050439 **Work Order # ...:** MKNTM1AC-LCS **Matrix .....:** AIR
LCS Lot-Sample# : H1G060000 - 028 MKNTM1AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
	97	(40 - 125)
13C12-PCB 178	86	(40 - 125)
	89	(40 - 125)

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AA	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntmb.d	Prep Date	07/06/11	SDG No	
Analysis ID	133597	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	01:31	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	200 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
Total Monochlorobiphenyl								ND		0.00643
13C12-PCB 1	12:07	4844777	1643471	1.502	20.00	18.269706	91.35	18.269706		0.0115
13C12-PCB 3	14:19	4535804	1344963	1.545	20.00	16.637482	83.19	16.637482		0.0112
PCB 1 (BZ)				1.383				ND		0.00187
PCB 2 (BZ)				1.338				ND		0.00213
PCB 3 (BZ)				1.296				ND		0.00244
Total Dichlorobiphenyl		40218	8515			0.210322		0.210322	QJ	0.148
13C12-PCB 4	14:34	1871454	562023	0.619	20.00	17.118885	85.59	17.118885		0.0147
13C12-PCB 9	16:34	3530079	899536	1.000	20.00	20.000000	100.00	20.000000		0.00912
13C12-PCB 8				1.342	10.00			ND		0.00996
13C12-PCB 15	20:33	3045197	665026	1.090	20.00	15.832042	79.16	15.832042		0.00837
PCB 4 (BZ)				1.273				ND		0.0167
PCB 10 (BZ)				1.357				ND		0.0144
PCB 9 (BZ)				1.459				ND		0.0133
PCB 7 (BZ)	16:43	3417	947	1.466		0.018961		0.018961	QJ	0.0133
PCB 6 (BZ)				1.507				ND		0.0129
PCB 5 (BZ)				1.417				ND		0.0137
PCB 8 (BZ)	17:27	5338	1232	1.540		0.028204		0.028204	QJ	0.0126
PCB 14 (BZ)	19:03	5086	627	1.732		0.023883		0.023883	QJ	0.0112
PCB 11 (BZ)	19:56	17953	4314	1.532		0.095359		0.095359	QJ	0.0127
PCB 13 (BZ)		2028		1.494		0.011043		0.011043	QC12J	0.0130
PCB 12 (BZ)	20:15	2028	394	1.494		0.011043		0.011043	QCJ	0.0130
PCB 15 (BZ)	20:37	6397	1001	1.278		0.032872		0.032872	QJ	0.0141
Total Trichlorobiphenyl		5387	1629			0.023885		0.023885	QJ	0.110
13C12-PCB 19	17:43	1460429	374718	0.572	20.00	17.015086	85.08	17.015086		0.0466
13C12-PCB 32	20:59	3003712	681289	1.000	20.00	20.000000	100.00	20.000000		0.0266
13C12-PCB 31	23:16	4646514	1014155	1.000	20.00	20.000000	100.00	20.000000		0.0179
13C12-PCB 28	23:34	3871840	812073	1.003	20.00	16.611661	83.06	16.611661		0.0178
13C12-PCB 37	27:37	3651650	654160	0.908	20.00	17.301254	86.51	17.301254		0.0197
PCB 19 (BZ)				1.167				ND		0.00881
PCB 30 (BZ)				1.615				ND	C18	0.00636
PCB 18 (BZ)				1.615				ND	C	0.00636
PCB 17 (BZ)				1.430				ND		0.00718
PCB 27 (BZ)				1.978				ND		0.00519
PCB 24 (BZ)				1.707				ND		0.00602
PCB 16 (BZ)				1.193				ND		0.00861
PCB 32 (BZ)				2.018				ND		0.00509
PCB 34 (BZ)				1.195				ND		0.00492
PCB 23 (BZ)				1.177				ND		0.00500
PCB 29 (BZ)				1.244				ND	C26	0.00473
PCB 26 (BZ)				1.244				ND	C	0.00473
PCB 25 (BZ)				1.320				ND		0.00446
PCB 31 (BZ)	23:18	2352	741	1.252		0.010290		0.010290	QJ	0.00470
PCB 28 (BZ)	23:36	3035	888	1.223		0.013595		0.013595	C20J	0.00481
PCB 20 (BZ)		3035		1.223		0.013595		0.013595	CJ	0.00481
PCB 21 (BZ)				1.219				ND	C	0.00483
PCB 33 (BZ)				1.219				ND	C21	0.00483
PCB 22 (BZ)				1.200				ND		0.00490
PCB 36 (BZ)				1.204				ND		0.00489

USD 7-14-11
CWK 7-14-11

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AA	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntmb.d	Prep Date	07/06/11	SDG No	
Analysis ID	133597	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	01:31	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	200 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 39 (BZ)				1.284				ND		0.00459
PCB 38 (BZ)				1.141				ND		0.00516
PCB 35 (BZ)				1.163				ND		0.00506
PCB 37 (BZ)				1.173				ND		0.00502
Total Tetrachlorobiphenyl		8569	1382			0.049156		0.049156	QJ	0.171
13C12-PCB 54	20:50	2068389	500828	0.600	20.00	22.951083	114.76	22.951083		0.0132
13C12-PCB 52	25:24	2513384	511743	1.000	20.00	20.000000	100.00	20.000000		0.0106
13C12-PCB 79				1.070	10.00			ND		0.00920
13C12-PCB 81	34:21	3029237	529371	1.312	20.00	18.375918	91.88	18.375918		0.00804
13C12-PCB 77	34:55	3265647	567274	1.357	20.00	19.147958	95.74	19.147958		0.00778
PCB 54 (BZ)				1.233				ND		0.00575
PCB 50 (BZ)				0.921				ND	C	0.00703
PCB 53 (BZ)				0.921				ND	C50	0.00703
PCB 45 (BZ)				0.856				ND	C	0.00757
PCB 51 (BZ)				0.856				ND	C45	0.00757
PCB 46 (BZ)				0.724				ND		0.00894
PCB 52 (BZ)				0.920				ND		0.00704
PCB 73 (BZ)				0.949				ND	C43	0.00682
PCB 43 (BZ)				0.949				ND	C	0.00682
PCB 69 (BZ)				1.077				ND	C49	0.00601
PCB 49 (BZ)				1.077				ND	C	0.00601
PCB 48 (BZ)				0.894				ND		0.00724
PCB 65 (BZ)		4448		0.992		0.028501		0.028501	QC44J	0.00653
PCB 47 (BZ)		4448		0.992		0.028501		0.028501	QC44J	0.00653
PCB 44 (BZ)	26:26	4448	1028	0.992		0.028501		0.028501	QCJ	0.00653
PCB 62 (BZ)				1.246				ND	C59	0.00520
PCB 75 (BZ)				1.246				ND	C59	0.00520
PCB 59 (BZ)				1.246				ND	C	0.00520
PCB 42 (BZ)				0.872				ND		0.00743
PCB 41 (BZ)				0.887				ND	C40	0.00730
PCB 71 (BZ)				0.887				ND	C40	0.00730
PCB 40 (BZ)				0.887				ND	C	0.00730
PCB 64 (BZ)				1.316				ND		0.00492
PCB 72 (BZ)				1.236				ND		0.00524
PCB 68 (BZ)				1.327				ND		0.00488
PCB 57 (BZ)				1.203				ND		0.00538
PCB 58 (BZ)				1.208				ND		0.00536
PCB 67 (BZ)				1.337				ND		0.00484
PCB 63 (BZ)				1.297				ND		0.00499
PCB 61 (BZ)		2836		1.247		0.014454		0.014454	QCJ	0.00519
PCB 70 (BZ)		2836		1.247		0.014454		0.014454	QC61J	0.00519
PCB 76 (BZ)		2836		1.247		0.014454		0.014454	QC61J	0.00519
PCB 74 (BZ)	30:15	2836	566	1.247		0.014454		0.014454	QC61J	0.00519
PCB 66 (BZ)				1.255				ND		0.00516
PCB 55 (BZ)				1.145				ND		0.00565
PCB 56 (BZ)				1.217				ND		0.00532
PCB 60 (BZ)				1.181				ND		0.00548
PCB 80 (BZ)				1.358				ND		0.00477
PCB 79 (BZ)				1.326				ND		0.00488

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AA	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntmb.d	Prep Date	07/06/11	SDG No	
Analysis ID	133597	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	01:31	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	200 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 78 (BZ)				1.164				ND		0.00556
PCB 81 (BZ)				1.298				ND		0.00517
PCB 77 (BZ)	34:53	1285	354	1.269		0.006201		0.006201	QJ	0.00493
Total Pentachlorobiphenyl								ND		0.219
13C12-PCB 104	26:19	2300609	484990	1.246	20.00	18.092161	90.46	18.092161		0.0137
13C12-PCB 95				0.754	10.00			ND		0.0187
13C12-PCB 101	32:13	2041645	400221	1.000	20.00	20.000000	100.00	20.000000		0.0171
13C12-PCB 111	34:53	2545607	472047	1.266	20.00	19.689747	98.45	19.689747		0.0135
13C12-PCB 123	36:52	3387627	622703	0.954	20.00	17.248142	86.24	17.248142		0.00963
13C12-PCB 118	37:12	3648932	687521	0.995	20.00	17.820399	89.10	17.820399		0.00924
13C12-PCB 114	37:44	3549868	663826	0.952	20.00	18.120364	90.60	18.120364		0.00966
13C12-PCB 105	38:24	3586079	666571	0.942	20.00	18.504289	92.52	18.504289		0.00976
13C12-PCB 127	39:51	4115509	744993	1.000	20.00	20.000000	100.00	20.000000		0.00919
13C12-PCB 126	41:29	3997540	768981	0.991	20.00	19.599765	98.00	19.599765		0.00928
PCB 104 (BZ)				1.184				ND		0.00644
PCB 96 (BZ)				1.055				ND		0.00723
PCB 103 (BZ)				0.900				ND		0.00848
PCB 94 (BZ)				0.789				ND		0.00967
PCB 95 (BZ)				0.838				ND		0.00910
PCB 100 (BZ)				0.888				ND	C93	0.00859
PCB 93 (BZ)				0.888				ND	C	0.00859
PCB 102 (BZ)				0.917				ND	C98	0.00832
PCB 98 (BZ)				0.917				ND	C	0.00832
PCB 88 (BZ)				0.857				ND	C	0.00890
PCB 91 (BZ)				0.857				ND	C88	0.00890
PCB 84 (BZ)				0.764				ND		0.00999
PCB 89 (BZ)				0.789				ND		0.00967
PCB 121 (BZ)				1.215				ND		0.00628
PCB 92 (BZ)				0.892				ND		0.00855
PCB 113 (BZ)				1.013				ND	C90	0.00753
PCB 90 (BZ)				1.013				ND	C	0.00753
PCB 101 (BZ)				1.013				ND	C90	0.00753
PCB 83 (BZ)				0.868				ND	C	0.00879
PCB 99 (BZ)				0.868				ND	C83	0.00879
PCB 112 (BZ)				1.160				ND		0.00658
PCB 109 (BZ)/108 (IUPAC)				1.030				ND	C86	0.00740
PCB 86 (BZ)				1.030				ND	C	0.00740
PCB 119 (BZ)				1.030				ND	C86	0.00740
PCB 97 (BZ)				1.030				ND	C86	0.00740
PCB 125 (BZ)				1.030				ND	C86	0.00740
PCB 87 (BZ)				1.030				ND	C86	0.00740
PCB 117 (BZ)				1.054				ND	C85	0.00724
PCB 116 (BZ)				1.054				ND	C85	0.00724
PCB 85 (BZ)				1.054				ND	C	0.00724
PCB 110 (BZ)				1.194				ND	C	0.00639
PCB 115 (BZ)				1.194				ND	C110	0.00639
PCB 82 (BZ)				0.730				ND		0.0105
PCB 111 (BZ)				1.260				ND		0.00605
PCB 120 (BZ)				1.225				ND		0.00623

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AA	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntmb.d	Prep Date	07/06/11	SDG No	
Analysis ID	133597	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	01:31	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	200 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 124 (BZ)				1.029				ND	C108	0.00527
PCB 108 (BZ)/107 (IUPAC)				1.029				ND	C	0.00527
PCB 107 (BZ)/109 (IUPAC)				1.082				ND		0.00502
PCB 123 (BZ)				1.053				ND		0.00564
PCB 106 (BZ)				1.050				ND		0.00517
PCB 118 (BZ)				1.087				ND		0.00495
PCB 122 (BZ)				0.964				ND		0.00563
PCB 114 (BZ)				1.161				ND		0.00480
PCB 105 (BZ)				1.125				ND		0.00493
PCB 127 (BZ)				1.062				ND		0.00511
PCB 126 (BZ)				1.051				ND		0.00458
Total Hexachlorobiphenyl								ND		0.291
13C12-PCB 155	31:56	2183044	436296	1.068	20.00	20.028749	100.14	20.028749		0.0139
13C12-PCB 153				0.828	10.00			ND		0.0147
13C12-PCB 138	40:18	2446946	463903	1.000	20.00	20.000000	100.00	20.000000		0.0128
13C12-PCB 167	43:17	3195029	586930	1.247	20.00	20.941379	104.71	20.941379		0.0103
13C12-PCB 156	44:27	6539882	810787	1.233	40.00	43.348731	108.37	43.348731		0.0104
13C12-PCB 157								ND		0.000000
13C12-PCB 169	47:41	3142518	560989	1.173	20.00	21.895110	109.48	21.895110		0.0109
PCB 155 (BZ)				1.128				ND		0.00803
PCB 152 (BZ)				1.075				ND		0.00842
PCB 150 (BZ)				1.096				ND		0.00826
PCB 136 (BZ)				1.022				ND		0.00886
PCB 145 (BZ)				1.069				ND		0.00847
PCB 148 (BZ)				0.764				ND		0.0118
PCB 151 (BZ)				0.750				ND	C135	0.0121
PCB 135 (BZ)				0.750				ND	C	0.0121
PCB 154 (BZ)				0.922				ND		0.00982
PCB 144 (BZ)				0.808				ND		0.0112
PCB 147 (BZ)				0.861				ND	C	0.00936
PCB 149 (BZ)				0.861				ND	C147	0.00936
PCB 134 (BZ)				0.717				ND	C	0.0113
PCB 143 (BZ)				0.717				ND	C134	0.0113
PCB 139 (BZ)				0.836				ND	C	0.00965
PCB 140 (BZ)				0.836				ND	C139	0.00965
PCB 131 (BZ)				0.700				ND		0.0115
PCB 142 (BZ)				0.728				ND		0.0111
PCB 132 (BZ)				0.736				ND		0.0110
PCB 133 (BZ)				0.763				ND		0.0106
PCB 165 (BZ)				1.001				ND		0.00806
PCB 146 (BZ)				0.881				ND		0.00916
PCB 161 (BZ)				1.100				ND		0.00733
PCB 153 (BZ)				1.071				ND	C	0.00753
PCB 168 (BZ)				1.071				ND	C153	0.00753
PCB 141 (BZ)				0.803				ND		0.0100
PCB 130 (BZ)				0.717				ND		0.0112
PCB 137 (BZ)				0.832				ND		0.00970
PCB 164 (BZ)				1.052				ND		0.00767
PCB 138 (BZ)				0.926				ND	C129	0.00871

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AA	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntmb.d	Prep Date	07/06/11	SDG No	
Analysis ID	133597	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	01:31	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	200 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 163 (BZ)				0.926				ND	C129	0.00871
PCB 129 (BZ)				0.926				ND	C	0.00871
PCB 160 (BZ)				0.926				ND	C129	0.00871
PCB 158 (BZ)				1.174				ND		0.00687
PCB 166 (BZ)				0.958				ND	C128	0.00842
PCB 128 (BZ)				0.958				ND	C	0.00842
PCB 159 (BZ)				1.095				ND		0.00737
PCB 162 (BZ)				1.108				ND		0.00728
PCB 167 (BZ)				1.126				ND		0.00598
PCB 156 (BZ)				1.130				ND	C	0.00862
PCB 157 (BZ)				1.130				ND	C156	0.00862
PCB 169 (BZ)				1.243				ND		0.00566
Total Heptachlorobiphenyl								ND		0.171
13C12-PCB 188	37:39	2611325	498780	1.217	20.00	19.701097	98.51	19.701097		0.0111
13C12-PCB 178	40:43	1606838	309992	0.881	20.00	16.749211	83.75	16.749211		0.0154
13C12-PCB 180	45:48	2178022	420689	1.000	20.00	20.000000	100.00	20.000000		0.0135
13C12-PCB 170	47:04	1838390	335524	0.828	20.00	20.383630	101.92	20.383630		0.0164
13C12-PCB 189	50:10	3736987	684230	1.588	20.00	21.250911	106.25	21.250911		0.00884
PCB 188 (BZ)				1.111				ND		0.00659
PCB 179 (BZ)				1.220				ND		0.00717
PCB 184 (BZ)				1.188				ND		0.00737
PCB 176 (BZ)				1.286				ND		0.00680
PCB 186 (BZ)				1.223				ND		0.00715
PCB 178 (BZ)				0.906				ND		0.00966
PCB 175 (BZ)				0.980				ND		0.00893
PCB 187 (BZ)				1.054				ND		0.00830
PCB 182 (BZ)				1.009				ND		0.00868
PCB 183 (BZ)				0.987				ND	C	0.00887
PCB 185 (BZ)				0.987				ND	C183	0.00887
PCB 174 (BZ)				0.941				ND		0.00930
PCB 177 (BZ)				0.918				ND		0.00953
PCB 181 (BZ)				0.980				ND		0.00893
PCB 171 (BZ)				0.872				ND	C	0.0100
PCB 173 (BZ)				0.872				ND	C171	0.0100
PCB 172 (BZ)				0.881				ND		0.00994
PCB 192 (BZ)				1.152				ND		0.00759
PCB 193 (BZ)				1.154				ND	C180	0.00758
PCB 180 (BZ)				1.154				ND	C	0.00758
PCB 191 (BZ)				1.287				ND		0.00680
PCB 170 (BZ)				1.102				ND		0.00987
PCB 190 (BZ)				1.265				ND		0.00692
PCB 189 (BZ)				1.073				ND		0.00497
Total Octachlorobiphenyl								ND		0.0987
13C12-PCB 202	43:00	2146191	434731	0.907	20.00	21.721447	108.61	21.721447		0.0128
13C12-PCB 194	52:15	2214454	406112	1.000	20.00	20.000000	100.00	20.000000		0.0121
13C12-PCB 205	52:42	3377851	653821	1.395	20.00	21.874562	109.37	21.874562		0.00865
PCB 202 (BZ)				1.007				ND		0.00914
PCB 200 (BZ)/201 (IUPAC)				1.134				ND		0.00811
PCB 204 (BZ)				1.034				ND		0.00890

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AA	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntmb.d	Prep Date	07/06/11	SDG No	
Analysis ID	133597	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	01:31	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	200 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 197 (BZ)				1.075				ND		0.00856
PCB 199 (BZ)/200 (IUPAC)				1.095				ND		0.00840
PCB 198 (BZ)				0.775				ND	C	0.0119
PCB 201 (BZ)/199 (IUPAC)				0.775				ND	C198	0.0119
PCB 196 (BZ)				0.800				ND		0.0115
PCB 203 (BZ)				0.868				ND		0.0106
PCB 195 (BZ)				0.765				ND		0.00800
PCB 194 (BZ)				0.830				ND		0.00737
PCB 205 (BZ)				0.986				ND		0.00621
Total Nonachlorobiphenyl								ND		0.0278
13C12-PCB 208	49:38	2647876	504467	1.155	20.00	20.703582	103.52	20.703582		0.0129
13C12-PCB 206	54:24	1945508	364398	0.808	20.00	21.753883	108.77	21.753883		0.0184
PCB 208 (BZ)				1.035				ND		0.00862
PCB 207 (BZ)				1.276				ND		0.00812
PCB 206 (BZ)				1.113				ND		0.0111
13C12-PCB 209	55:59	1877856	339992	0.857	20.00	19.781486	98.91	19.781486		0.0240
PCB 209 (BZ)				1.052				ND		0.0148

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AA	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntmb.d	Prep Date	07/06/11	SDG No	
Analysis ID	133597	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/14/11 01:31	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	200 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60		
Noise		00:00	00:00	0	105	108	42	43	0.98 *	/	
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60		
Noise		00:00	00:00	0	173	603	69	241	0.29 *	/	
13C12-PCB 1		12:07	12:08	-1	3683347	1161430	1250594	392877	3.17	ABV/AVV	
13C12-PCB 3		14:19	14:20	-1	3483682	1052122	1034834	310129	3.31	ABV/ABV	
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79		
Noise		00:00	00:00	0	190	408	76	163	0.47 *	/	
PCB 7 (BZ)		16:43	16:44	-1	2082	3510	577	931	0.59 *		RM
PCB 8 (BZ)		17:27	17:26	1	3253	4530	751	714	0.72 *	ABB/ABB	RT
PCB 14 (BZ)		19:03	19:04	-1	3099	8359	382	676	0.37 *	ABB/ABB	RT
PCB 11 (BZ)		19:56	19:54	2	10940	11103	2629	2181	0.99 *	MBB/ABB	R
PCB 12 (BZ)		20:15	20:14	1	1236	4562	240	1292	0.27 *	ABB/MVV	RTM
PCB 15 (BZ)		20:37	20:31	6	3898	9014	610	1217	0.43 *		RM
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79		
Noise		00:00	00:00	0	248	163	99	65	1.52	/	
13C12-PCB 4		14:34	14:36	-2	1171586	699868	348743	213280	1.67	AVV/ABV	
13C12-PCB 9		16:34	16:33	1	2196708	1333371	559596	339940	1.65	ABV/ABV	
13C12-PCB 15		20:33	20:30	3	1908533	1136664	415862	249164	1.68	AVV/ABV	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
Noise		00:00	00:00	0	113	80	45	32	1.41 *	/	
PCB 31 (BZ)		23:18	23:17	1	1547	1153	399	363	1.34 *	ABB/ABB	R
PCB 28 (BZ)		23:36	23:34	2	1620	1415	392	496	1.14	ABB/ABB	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
Noise		00:00	00:00	0	540	368	216	147	1.47 *	/	
13C12-PCB 19		17:43	17:44	-1	758959	701470	194270	180448	1.08	AVV/AVV	
13C12-PCB 32		20:59	20:59	0	1536059	1467653	344396	336893	1.05	AVV/AVV	
13C12-PCB 31		23:16	23:16	0	2369839	2276675	515707	498448	1.04	ABV/ABV	
13C12-PCB 28		23:34	23:33	1	1983776	1888064	419262	392811	1.05	AVV/AVV	
13C12-PCB 37		27:37	27:34	3	1889291	1762359	337002	317158	1.07	ABV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
Noise		00:00	00:00	0	85	93	34	37	0.92 *	/	
PCB 44 (BZ)		26:26	26:24	2	2412	2513	536	581	0.96 *	AVB/ABB	R
PCB 74 (BZ)		30:15	30:14	1	1122	1714	230	336	0.65	ABB/ABB	TM
PCB 77 (BZ)		34:53	34:52	1	1473	726	172	200	2.03 *	MVV/MVV	R
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
Noise		00:00	00:00	0	145	125	58	50	1.16 *	/	
13C12-PCB 54		20:50	20:50	0	903412	1164977	219546	281282	0.78	ABV/ABV	
13C12-PCB 52		25:24	25:23	1	1105816	1407568	228059	283684	0.79	ABV/ABV	
13C12-PCB 81		34:21	34:17	4	1332052	1697185	232622	296749	0.78	ABV/ABV	
13C12-PCB 77		34:55	34:51	4	1426905	1838742	246752	320522	0.78	AVV/AVV	
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78		
Noise		00:00	00:00	0	93	93	37	37	1.00 *	/	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AA	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntmb.d	Prep Date	07/06/11	SDG No	
Analysis ID	133597	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/14/11 01:31	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	200 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78	
	Noise	00:00	00:00	0	185	158	74	63	1.17 *	/
	13C12-PCB 104	26:19	26:20	-1	1427007	873602	298528	186462	1.63	ABV/ABV
	13C12-PCB 101	32:13	32:13	0	1263205	778440	247413	152808	1.62	AVV/ABV
	13C12-PCB 111	34:53	34:52	1	1568623	976984	290658	181389	1.61	ABV/ABV
	13C12-PCB 123	36:52	36:51	1	2087765	1299862	384775	237928	1.61	ABV/ABV
	13C12-PCB 118	37:12	37:10	2	2259278	1389654	423306	264215	1.63	AVV/AVV
	13C12-PCB 114	37:44	37:42	2	2200354	1349514	411376	252450	1.63	AVV/AVV
	13C12-PCB 105	38:24	38:22	2	2215057	1371022	408866	257705	1.62	ABV/ABV
	13C12-PCB 127	39:51	39:47	4	2553857	1561652	459651	285342	1.64	ABV/ABV
	13C12-PCB 126	41:29	41:25	4	2466775	1530765	476225	292756	1.61	ABV/ABV
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	Noise	00:00	00:00	0	103	95	41	38	1.08	/
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	155	143	62	57	1.09	/
	13C12-PCB 155	31:56	31:58	-2	1233268	949776	248779	187517	1.30	ABB/ABV
	13C12-PCB 138	40:18	40:16	2	1387876	1059070	263727	200176	1.31	ABV/ABV
	13C12-PCB 167	43:17	43:16	1	1811471	1383558	332665	254265	1.31	AVV/ABV
	13C12-PCB 156	44:27	44:25	2	3717611	2822271	464964	345823	1.32	AVV/ABV
	13C12-PCB 169	47:41	47:38	3	1768757	1373761	312806	248183	1.29	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	100	83	40	33	1.21	/
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	155	130	62	52	1.19	/
	13C12-PCB 188	37:39	37:41	-2	1347840	1263485	253547	245233	1.07	ABV/ABV
	13C12-PCB 178	40:43	40:43	0	824042	782796	159540	150452	1.05	ABV/ABV
	13C12-PCB 180	45:48	45:47	1	1124233	1053789	217230	203459	1.07	ABV/ABV
	13C12-PCB 170	47:04	47:03	1	960470	877920	173518	162006	1.09	ABV/ABV
	13C12-PCB 189	50:10	50:08	2	1908656	1828331	346345	337885	1.04	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	93	108	37	43	0.86	/
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02	
	Noise	00:00	00:00	0	120	125	48	50	0.96	/
	13C12-PCB 202	43:00	43:01	-1	1018999	1127192	202914	231817	0.90	ABV/ABV
	13C12-PCB 194	52:15	52:14	1	1061792	1152662	196481	209631	0.92	ABV/ABV
	13C12-PCB 205	52:42	52:41	1	1603646	1774205	312433	341388	0.90	ABV/AVV
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89	
	Noise	00:00	00:00	0	105	120	42	48	0.88	/
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	168	135	67	54	1.24 *	/
	13C12-PCB 208	49:38	49:39	-1	1165834	1482042	219184	285283	0.79	ABV/ABV
	13C12-PCB 206	54:24	54:25	-1	863625	1081883	163864	200534	0.80	ABV/ABV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

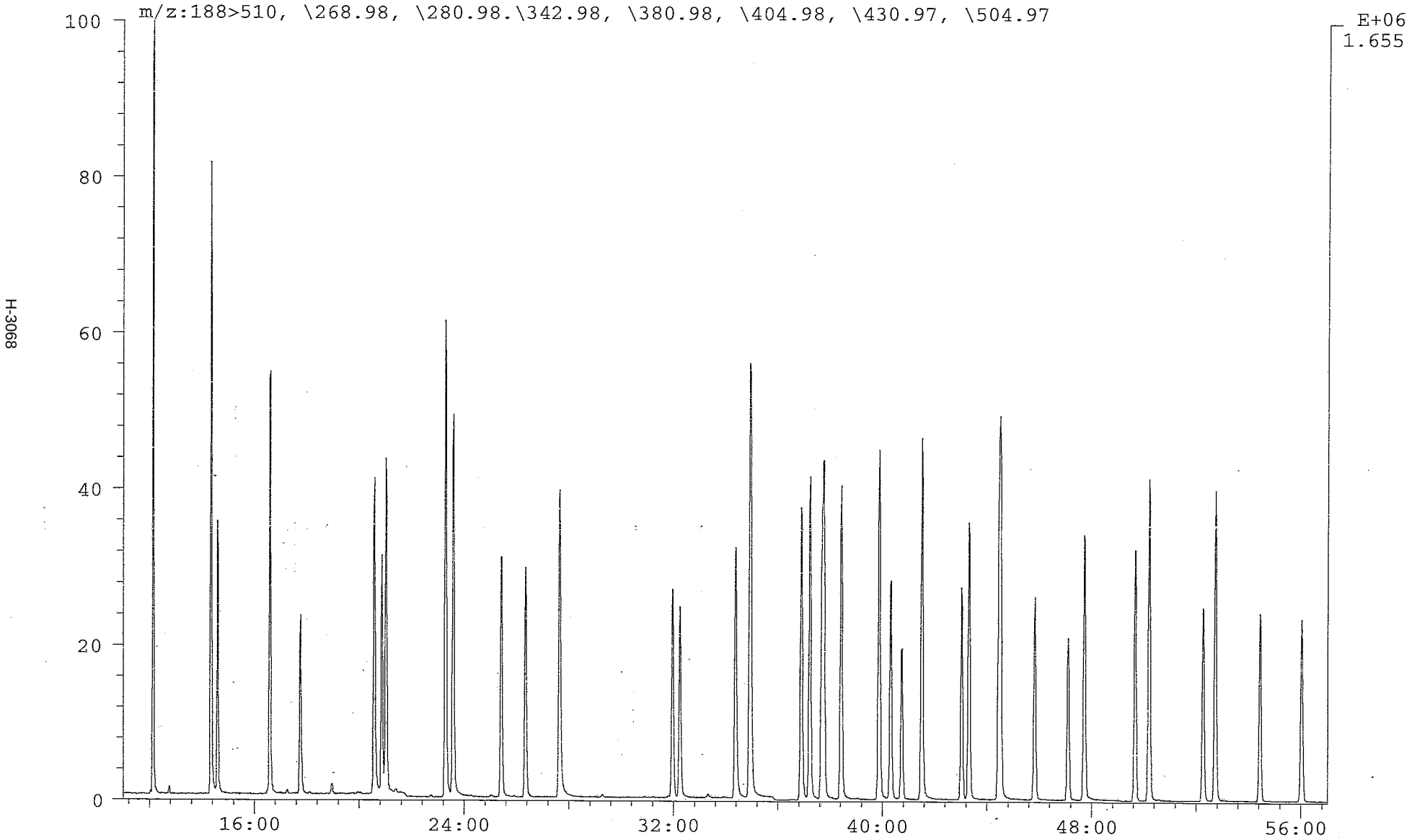
Workorder	MKNTM1AA	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntmb.d	Prep Date	07/06/11	SDG No	
Analysis ID	133597	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/14/11 01:31	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	200 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5
		View Small Peaks?	False	View deleted peaks?	False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79		
	Noise	00:00	00:00	0	135	130	54	52	1.04 *	/	
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79		
	Noise	00:00	00:00	0	130	288	52	115	0.45 *	/	
	13C12-PCB 209	55:59	56:02	-3	770027	1107829	140408	199584	0.70	ABV/ABV	

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

CHRO:	apmkntmb	14-Jul-11	Elapse:	11:00.8	1
Samp:	Vial 3 WO=mkntm1aa Meth=IE5 Dil=1		Start :	01:31:15	2599
Comm:	Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i				
Mode:	EI +VE +LMR ESCAN LR NRM		Study :	1187028 (Air-2)	
Oper:	JMN	Client: H1G060000-028B	Inlet :	GC Vial 3	
Peak:	100.00 ppm	Label wndw: 2 > 2599	Masses:	181 > 510	
Area:	5, 0.50, 0	Baseline : 100, 3	Label :	0, 0.0	
Disp:	Height Area				

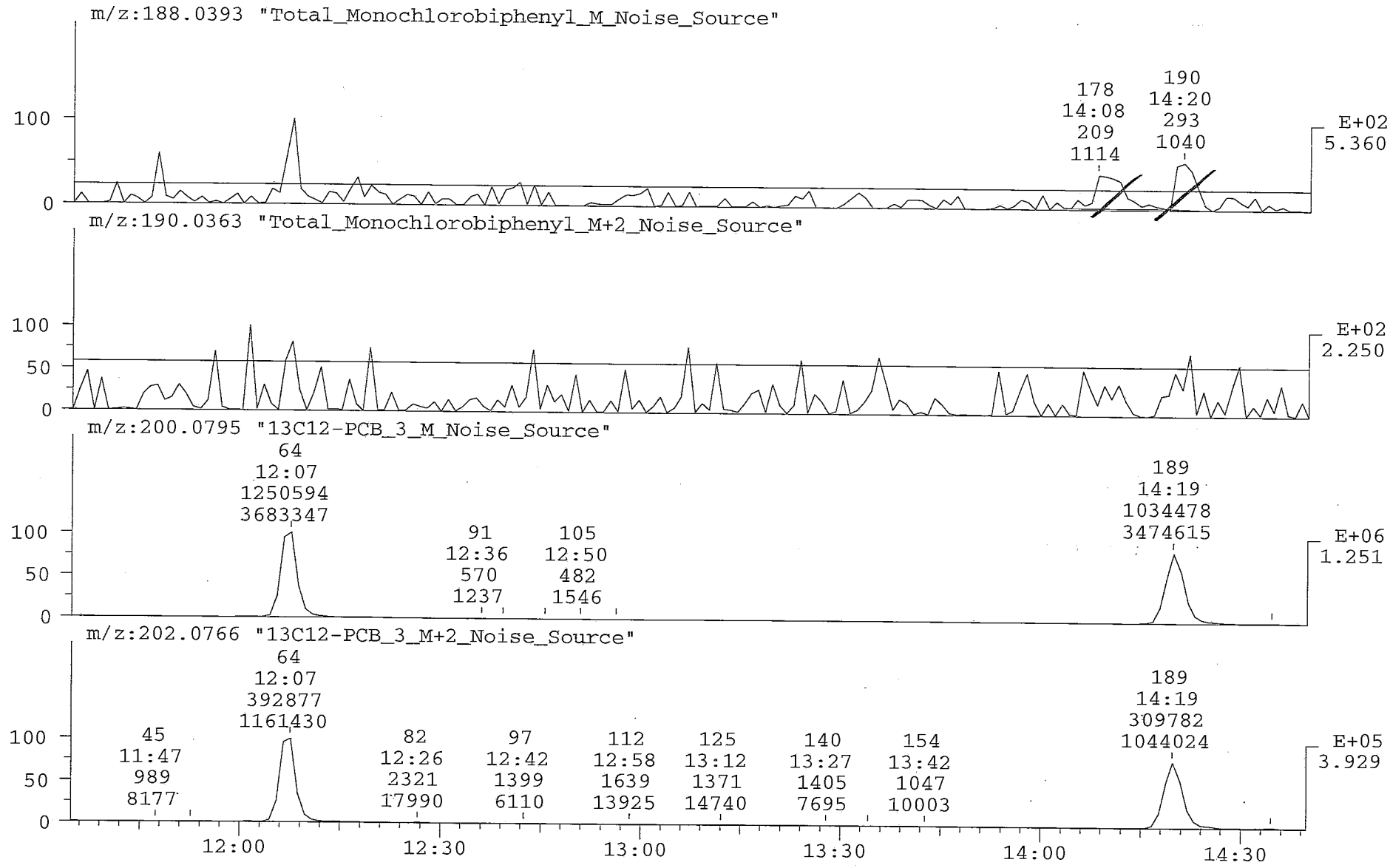
lht L 7-14-11
Calc: CWK 7-14-11
QC Rev MSD 7-14-11



H-3068

3067

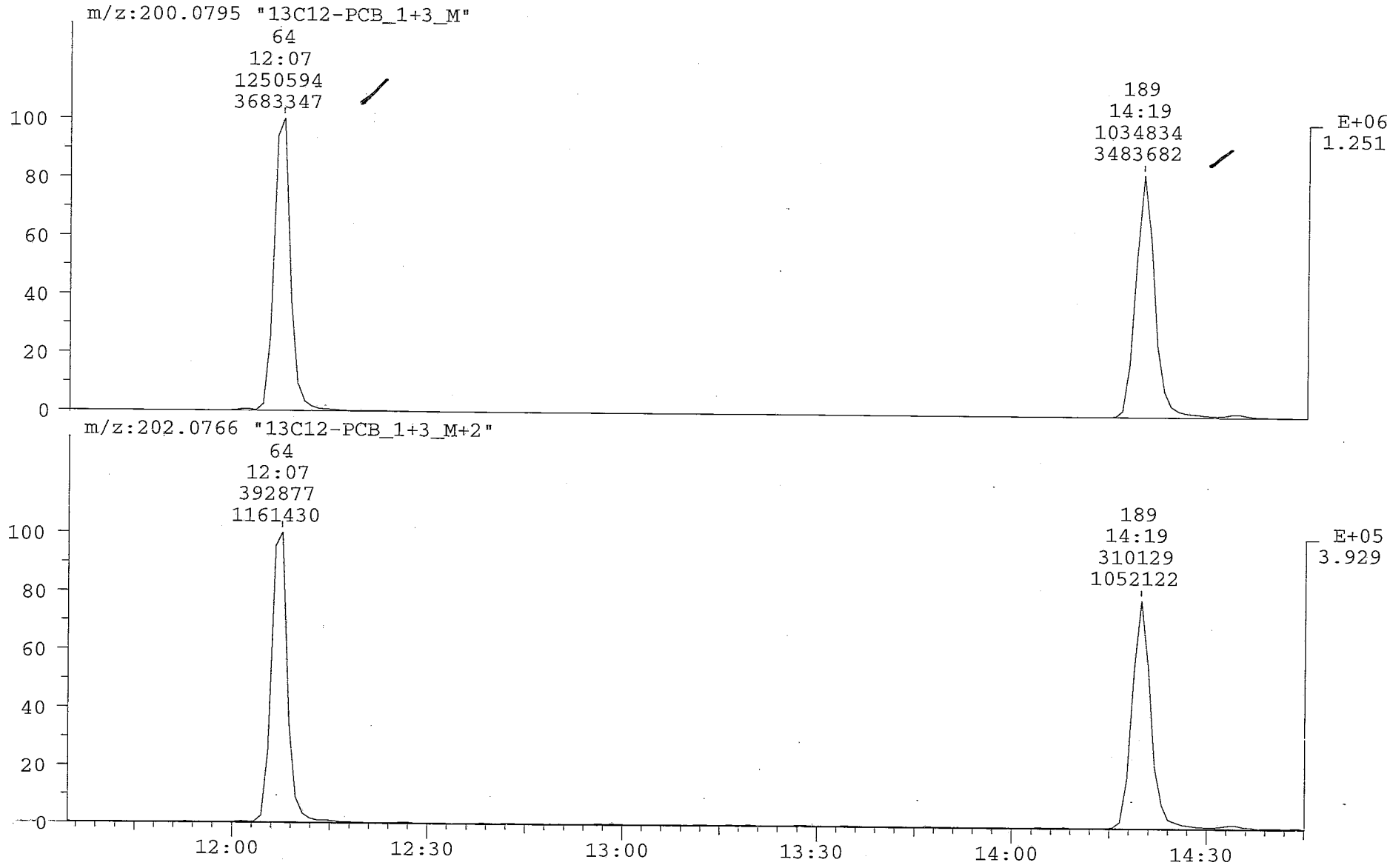
CHRO: apmkntmb 14-Jul-11 Elapse: 13:20.5 133
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3069

3068

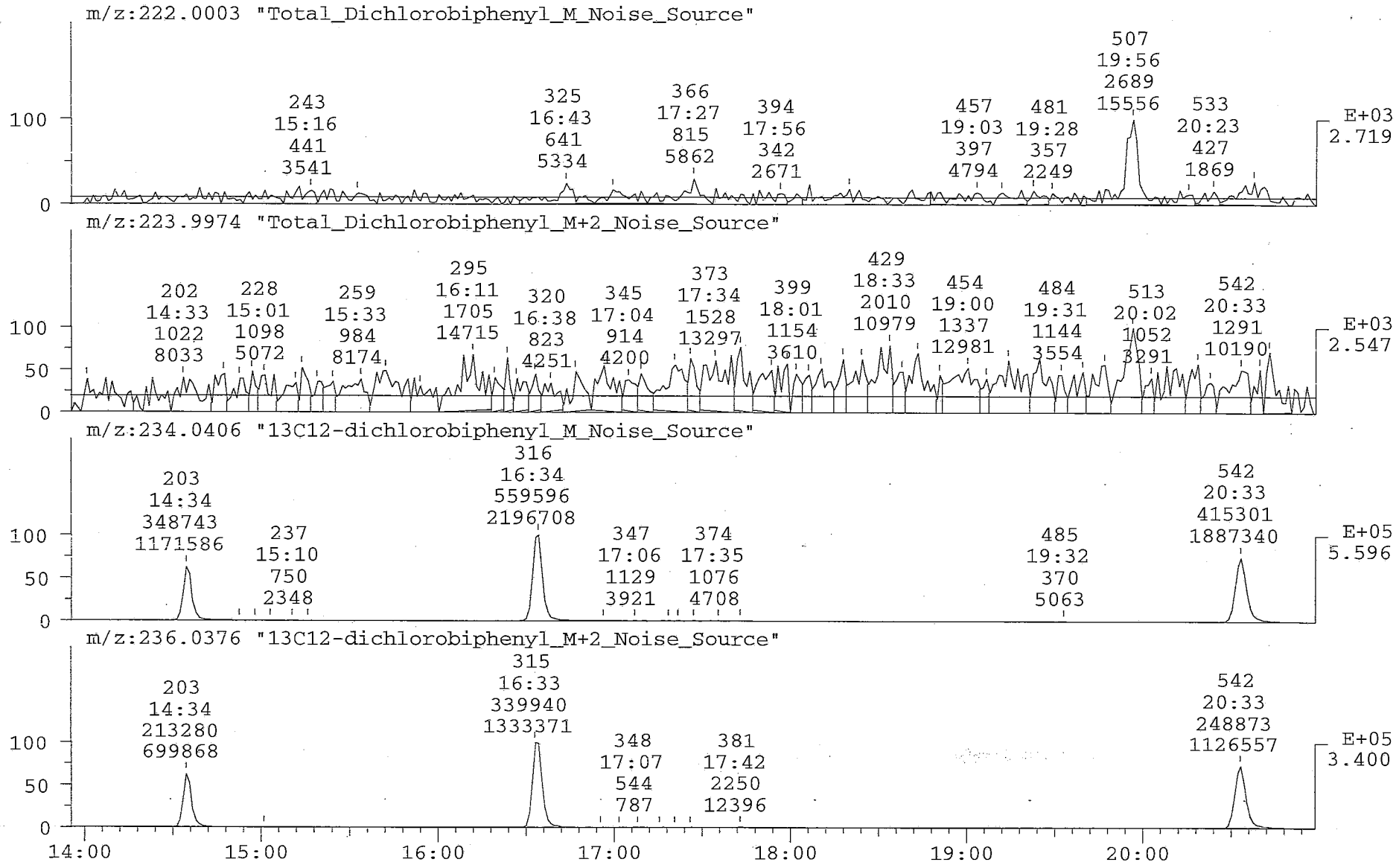
CHRO: apmkntmb 14-Jul-11 Elapse: 13:20.5 133
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 33 > 213 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3070

3069

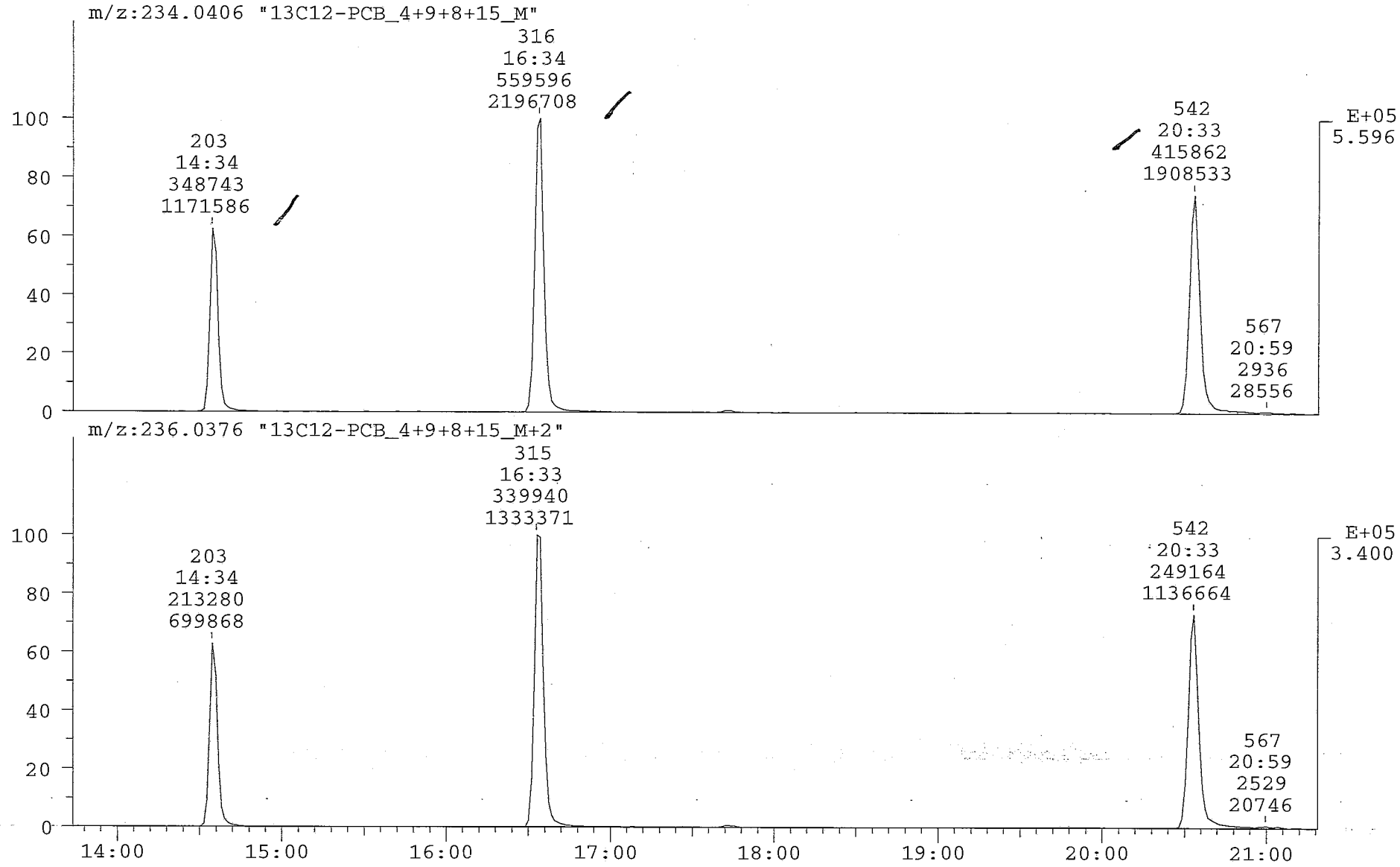
CHRO: apmkntmb 14-Jul-11 Elapse: 17:25.9 365
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H3071

3070

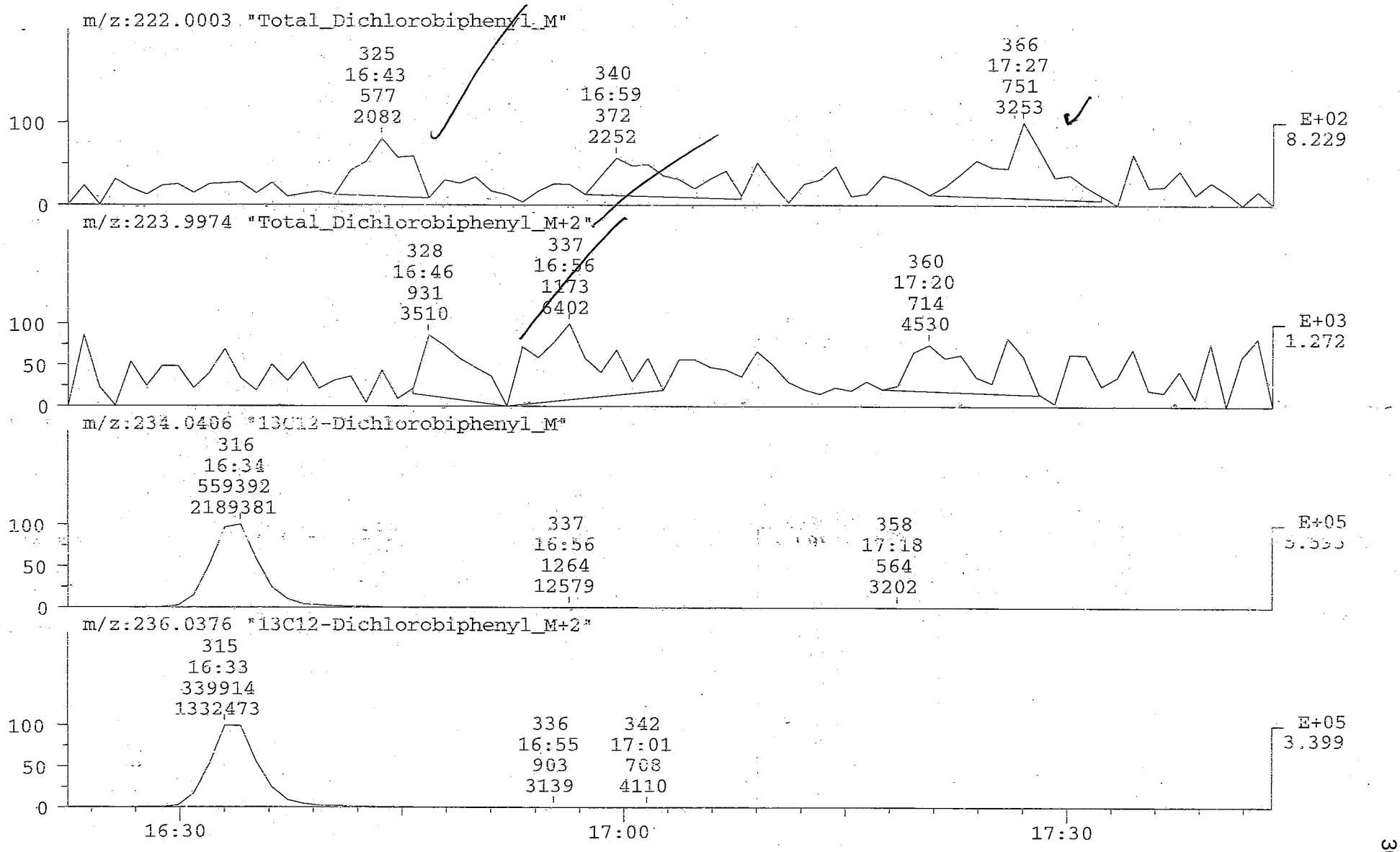
CHRO: apmkntmb 14-Jul-11 Elapse: 17:25.9 365
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 155 > 585 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-3072

3071

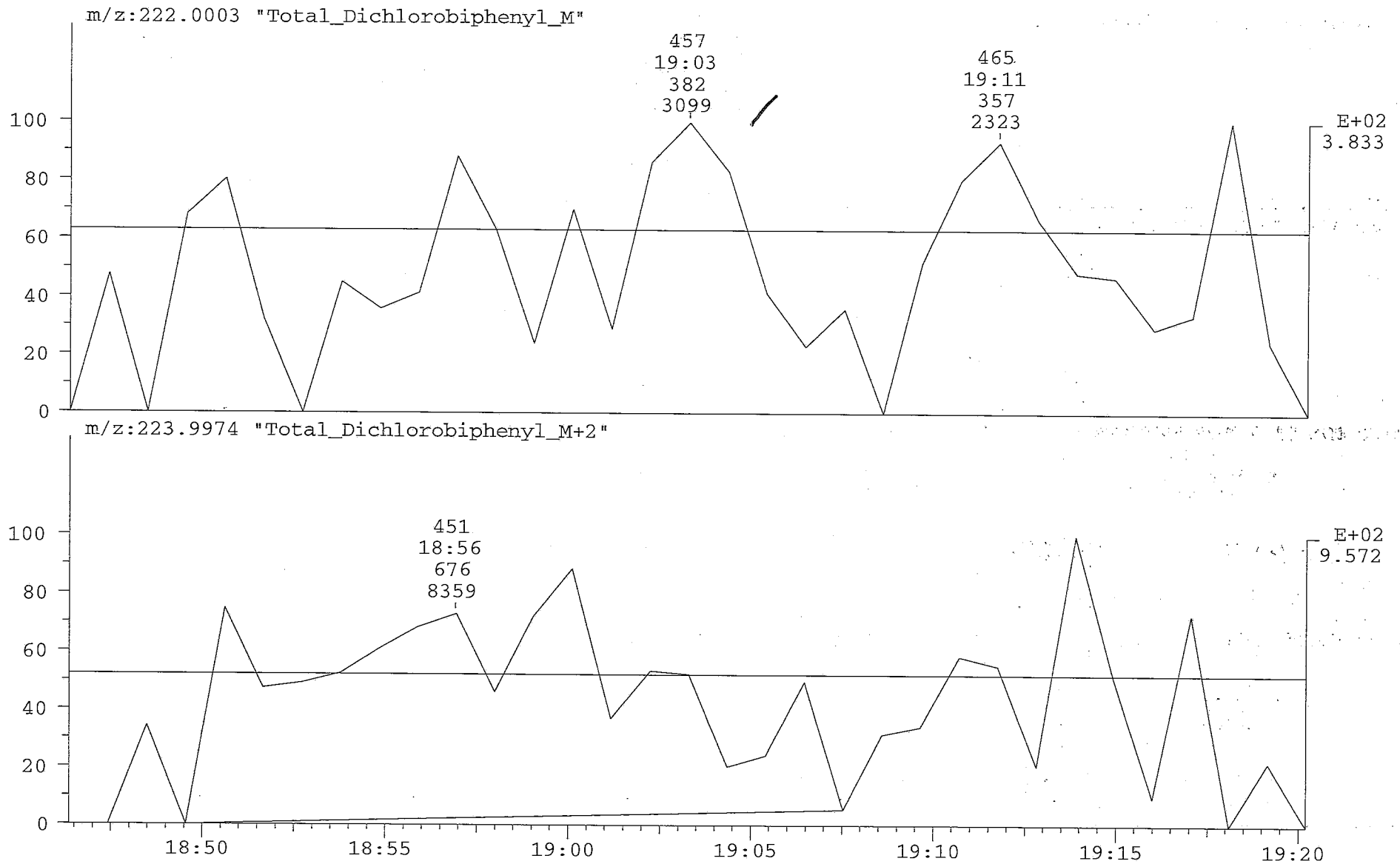
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 305 > 382 Masses: 181 > 510
Area: 5, 2.00, 15 Baseline : 100, 3 Label : 3, 3.0
Disp: Height Area



H-3073

3072

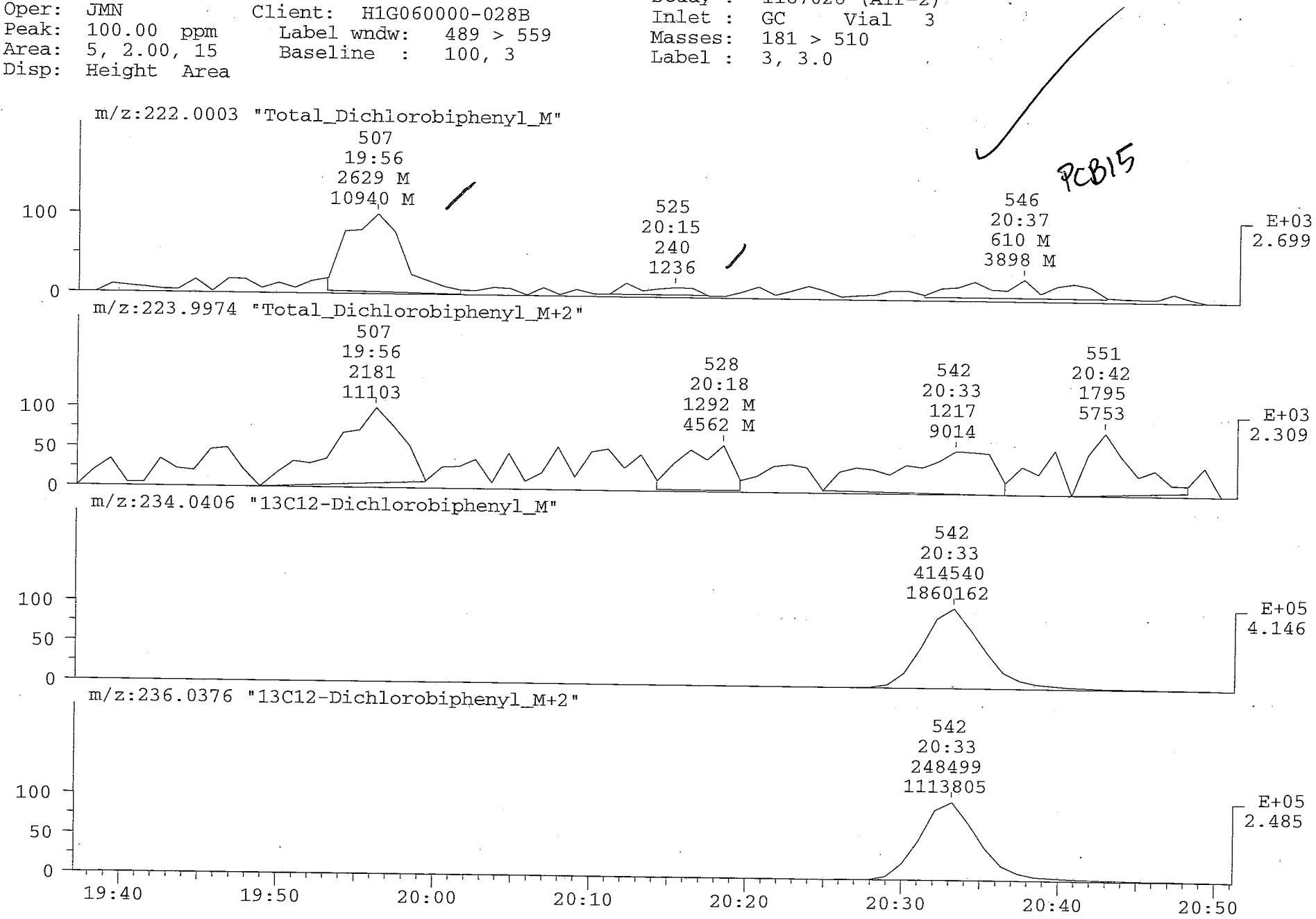
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 441 > 473 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3074

3073

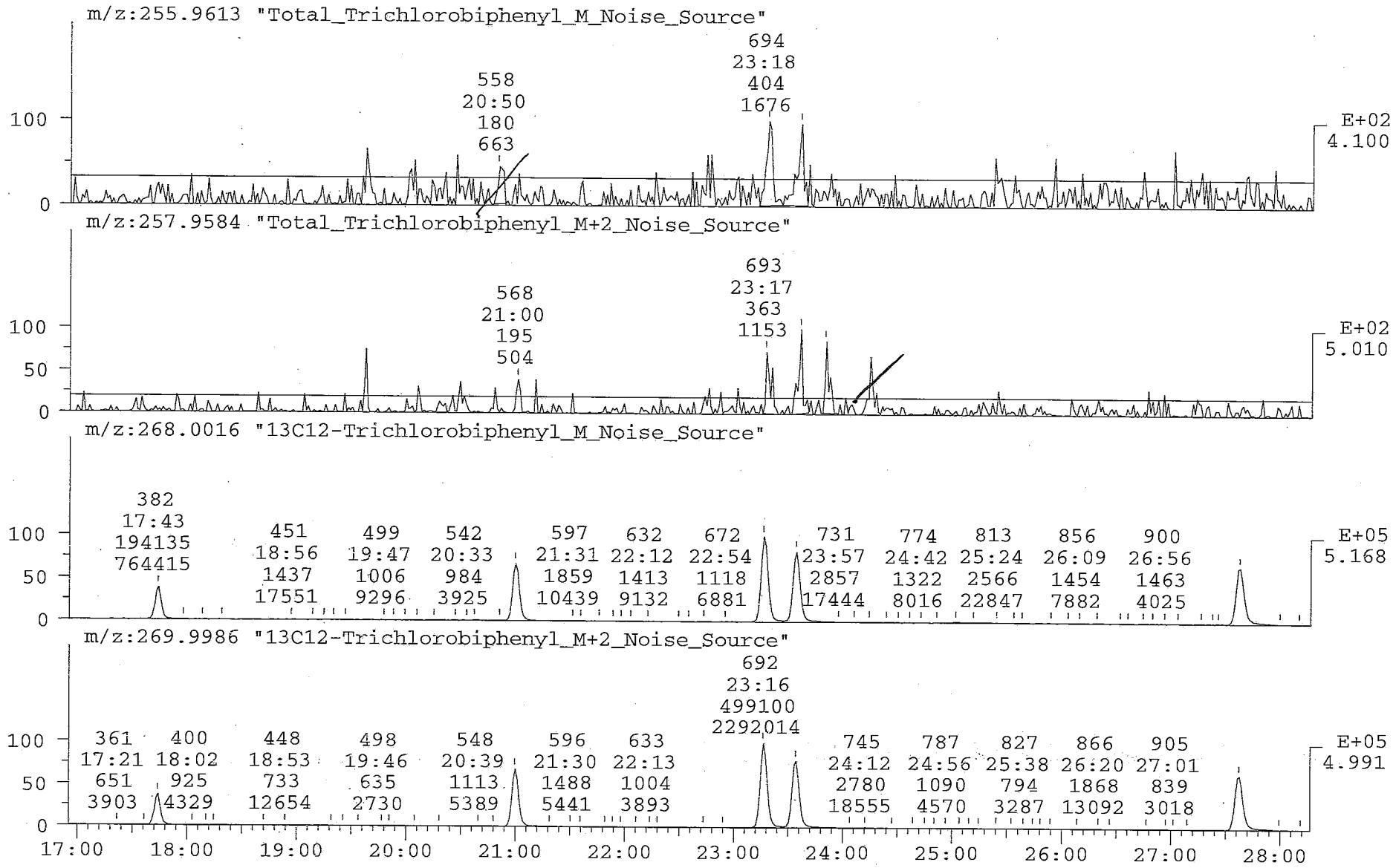
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 489 > 559 Masses: 181 > 510
Area: 5, 2.00, 15 Baseline : 100, 3 Label : 3, 3.0
Disp: Height Area



H3075

3074

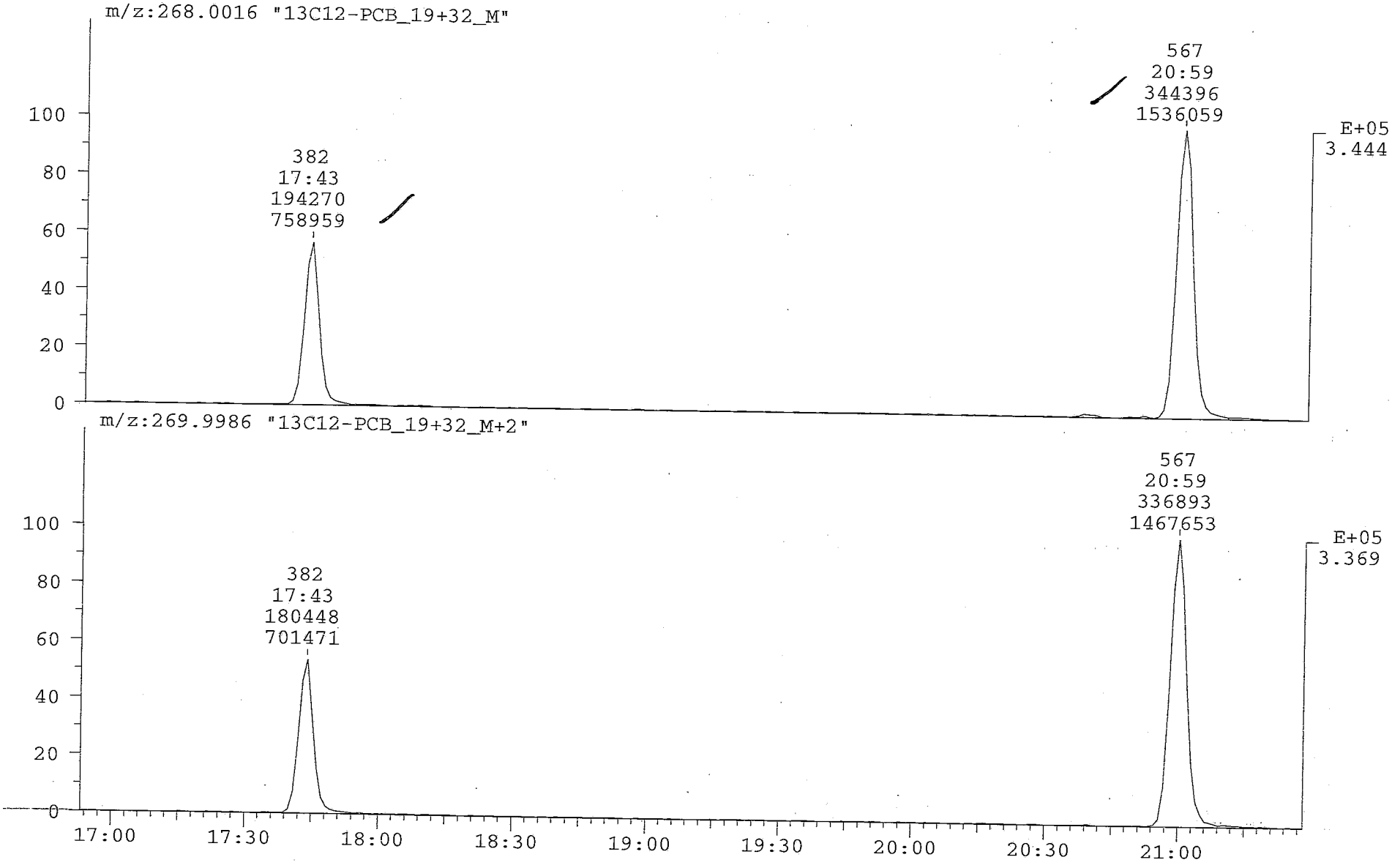
CHRO: apmkntmb 14-Jul-11 Elapse: 22:36.9 655
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3076

3075

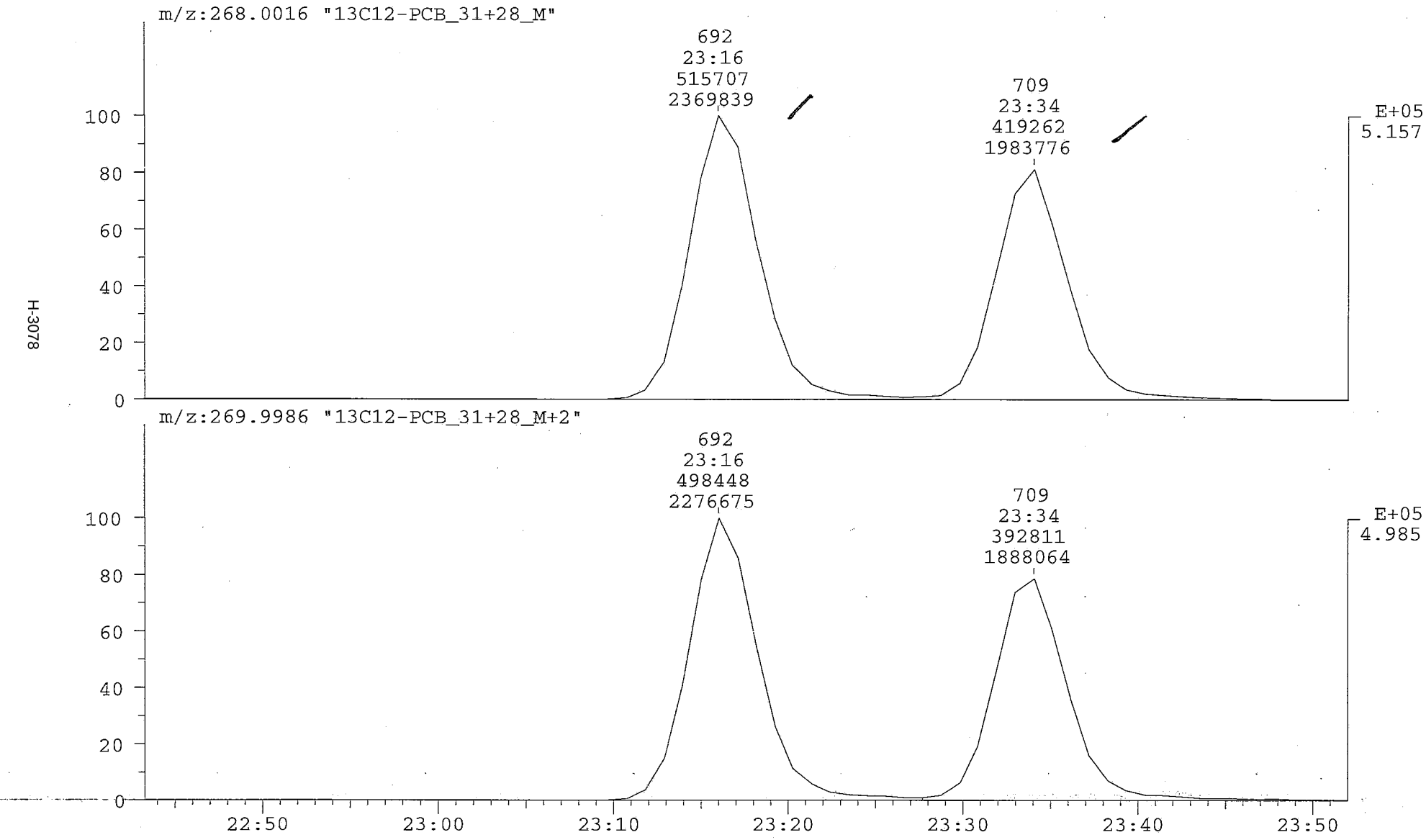
CHRO: apmkntmb 14-Jul-11 Elapse: 19:00.1 454
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 334 > 594 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3077

3076

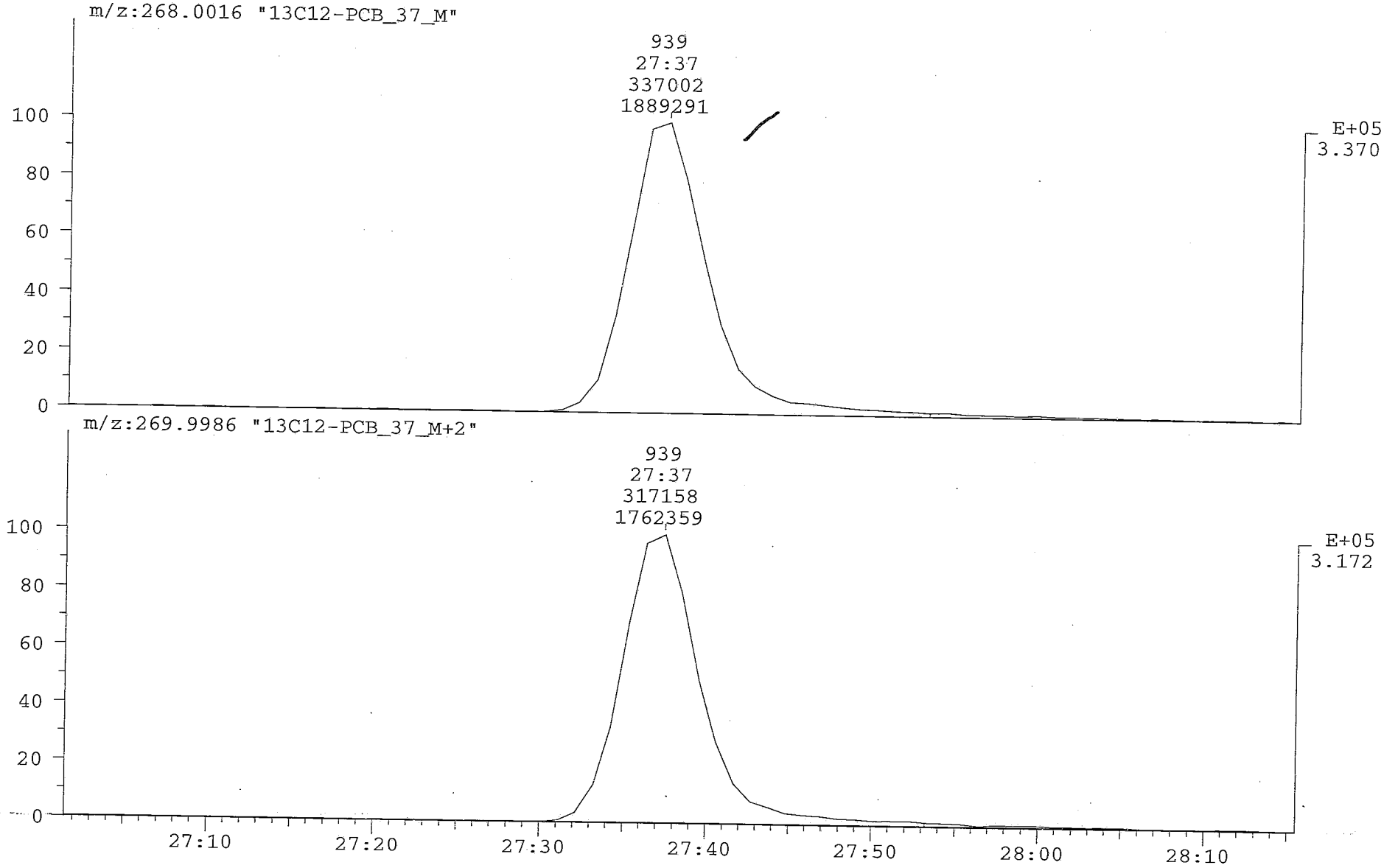
CHRO: apmkntmb 14-Jul-11 Elapse: 23:09.7 686
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 661 > 726 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3078

3077

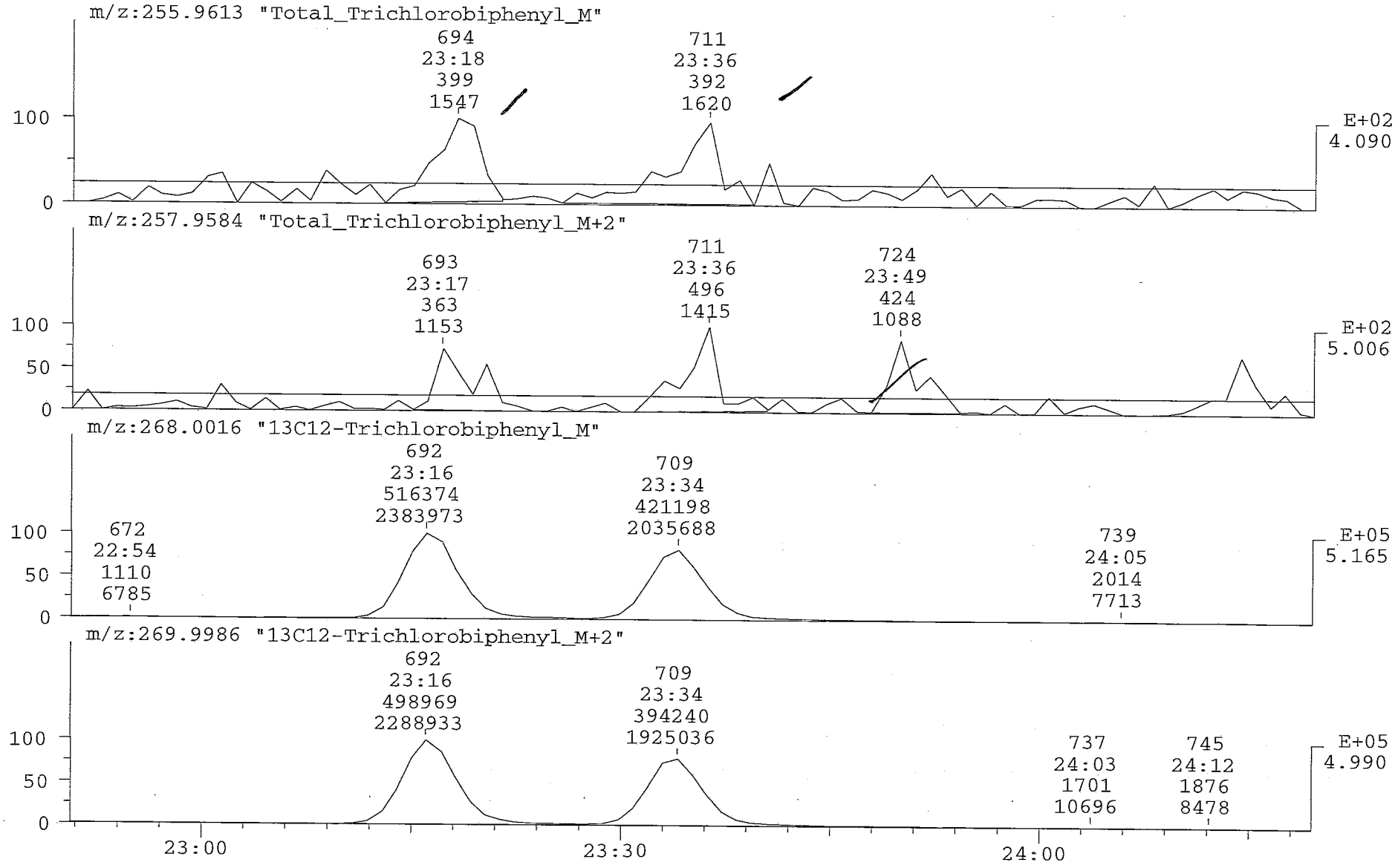
CHRO: apmkntmb 14-Jul-11 Elapse: 27:27.9 930
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 905 > 975 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3079

3078

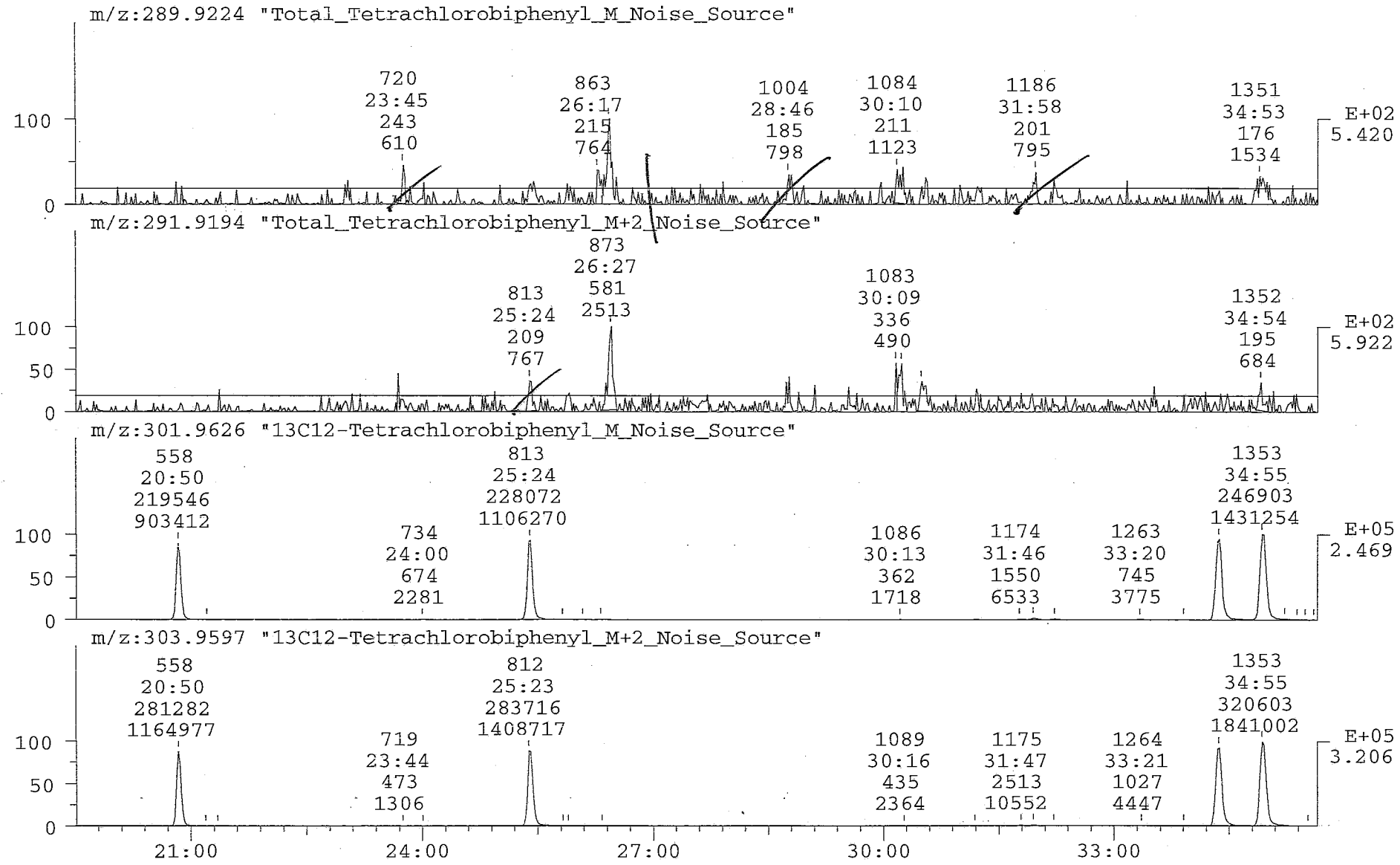
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 668 > 752 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 2.0
Disp: Height Area



H-3080

3079

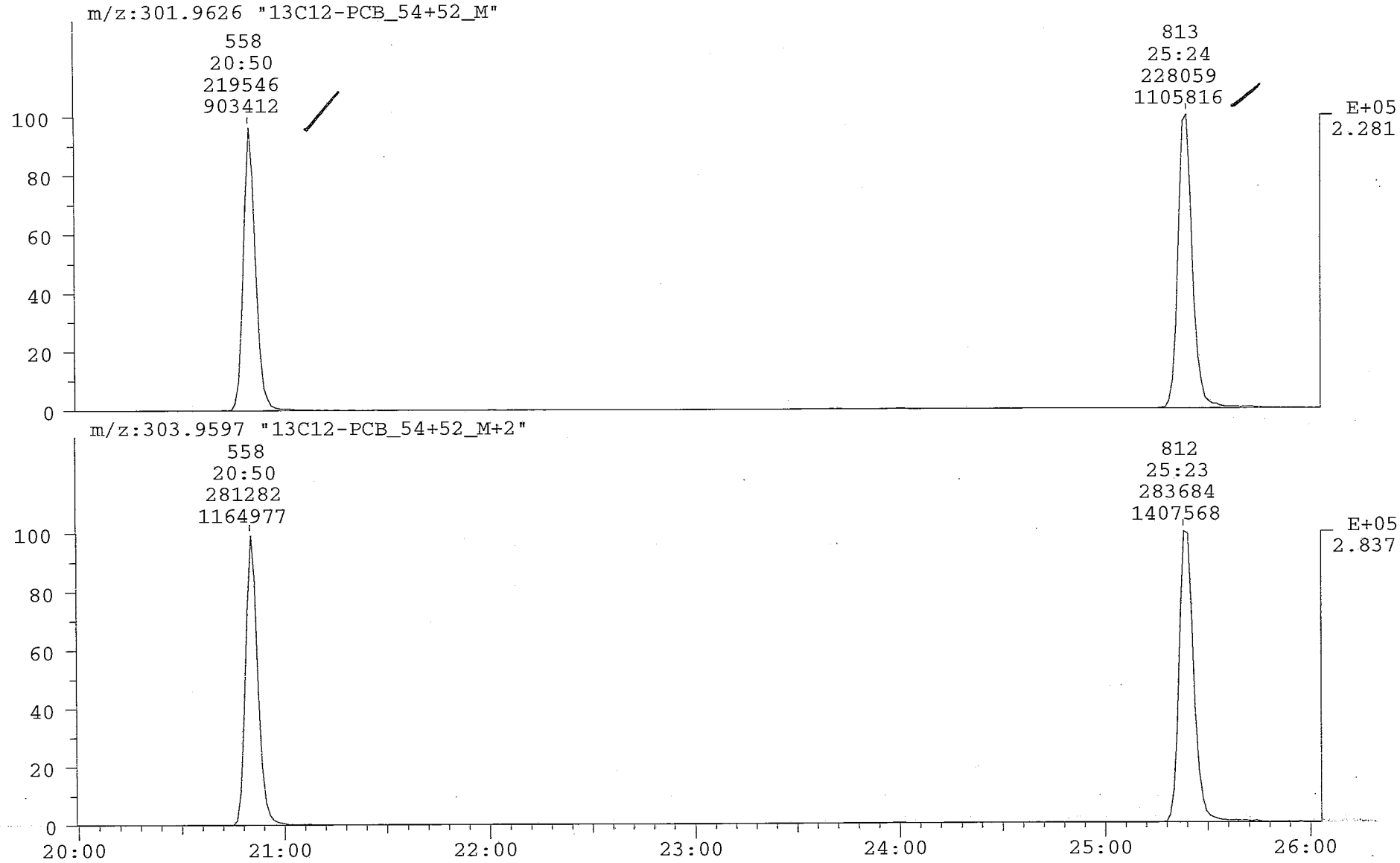
CHRO: apmkntmb 14-Jul-11 Elapse: 27:37.4 939
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 483 > 1394 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3081

3080

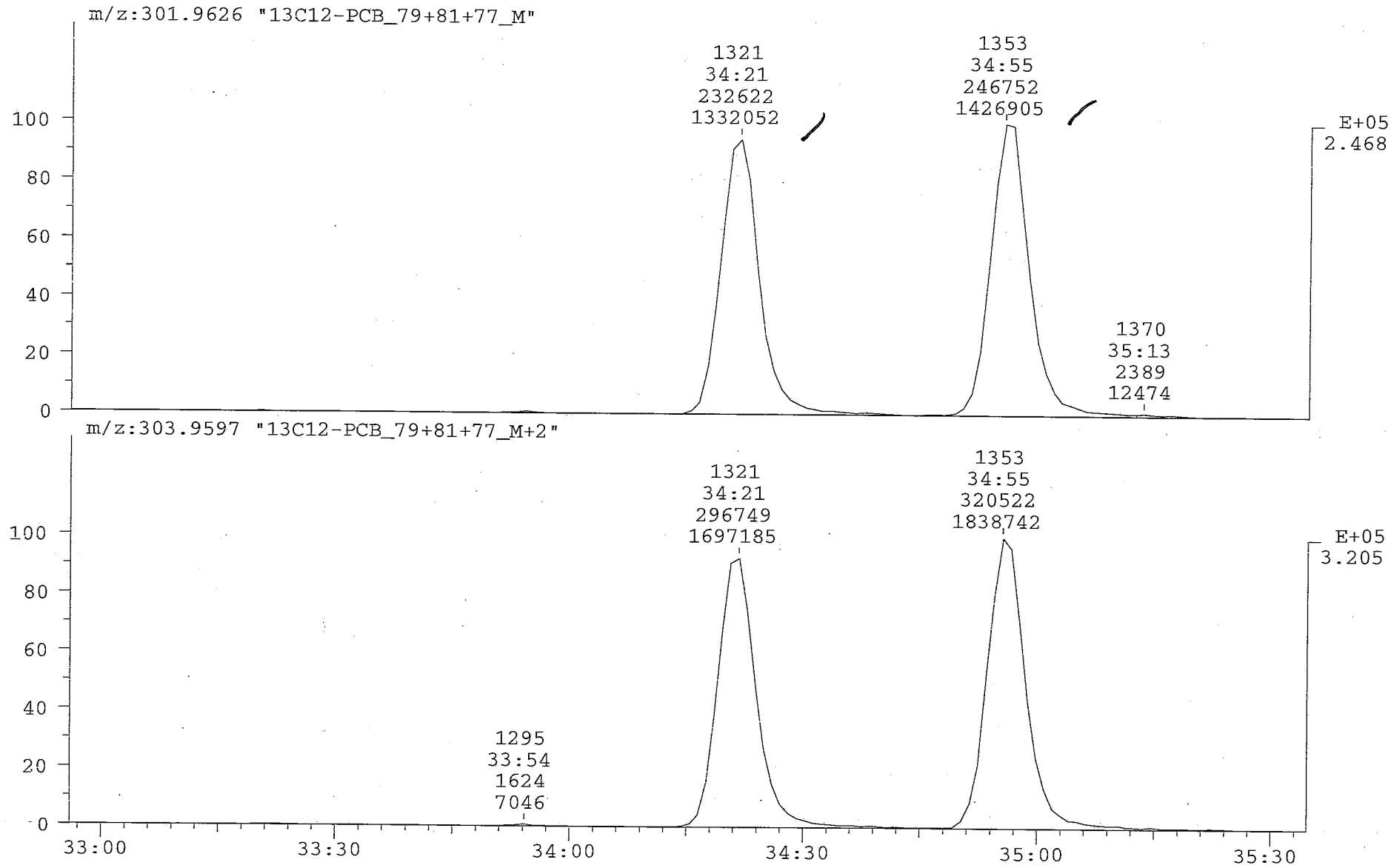
CHRO: apmkntmb 14-Jul-11 Elapse: 23:03.3 680
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 510 > 850 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3082

3081

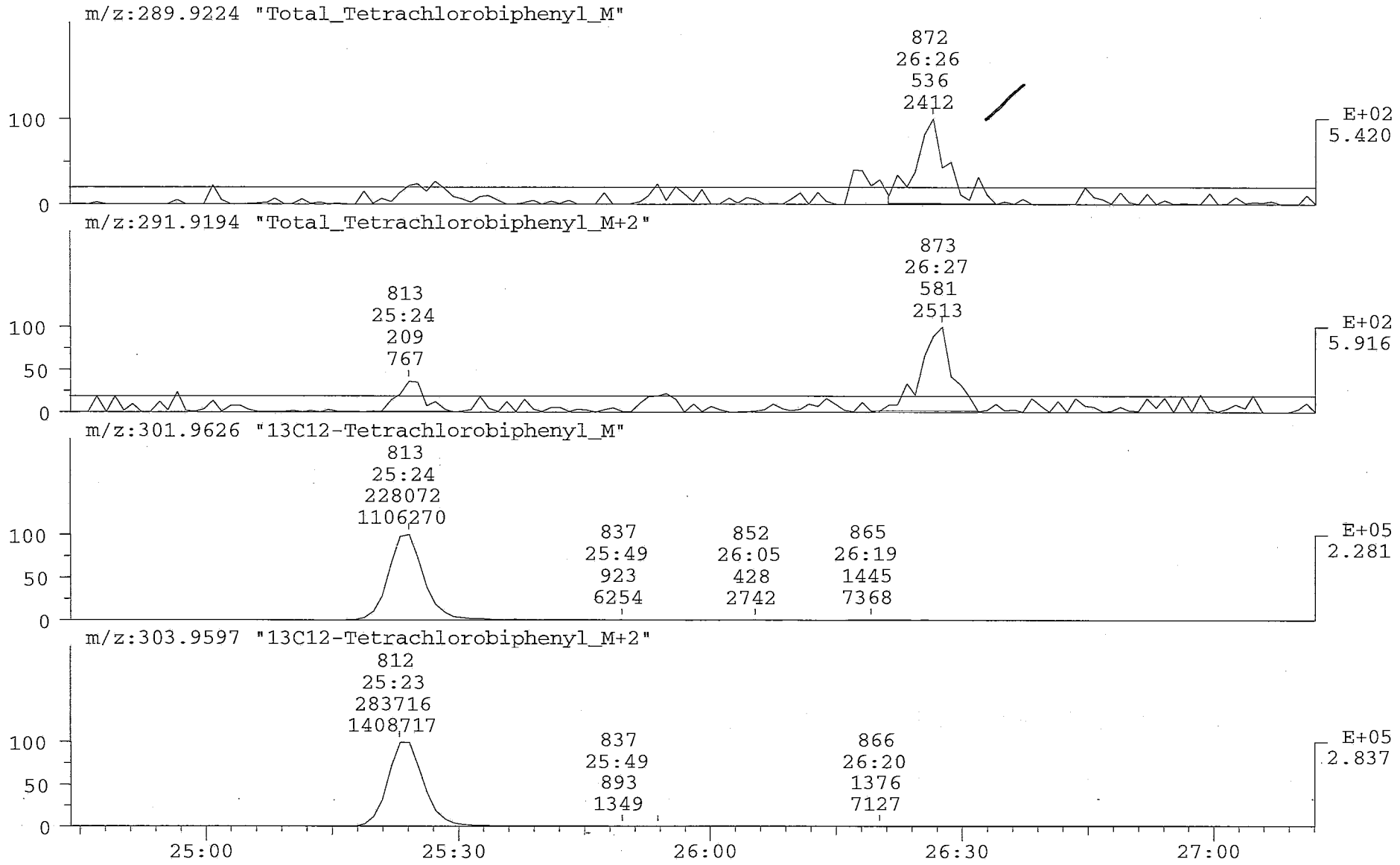
CHRO: apmkntmb 14-Jul-11 Elapse: 33:59 1300
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1240 > 1390 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3083

3082

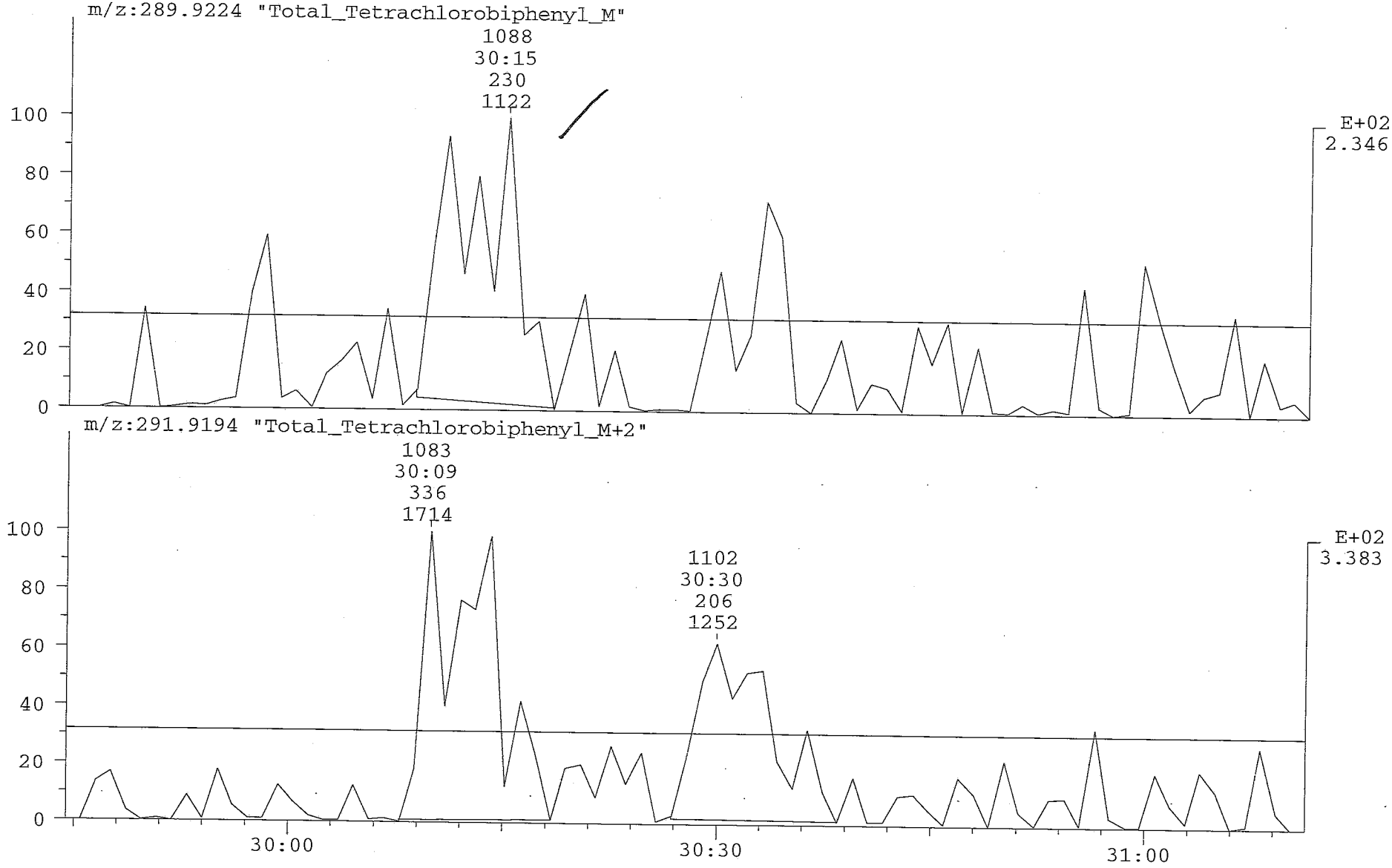
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 775 > 915 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3084

3083

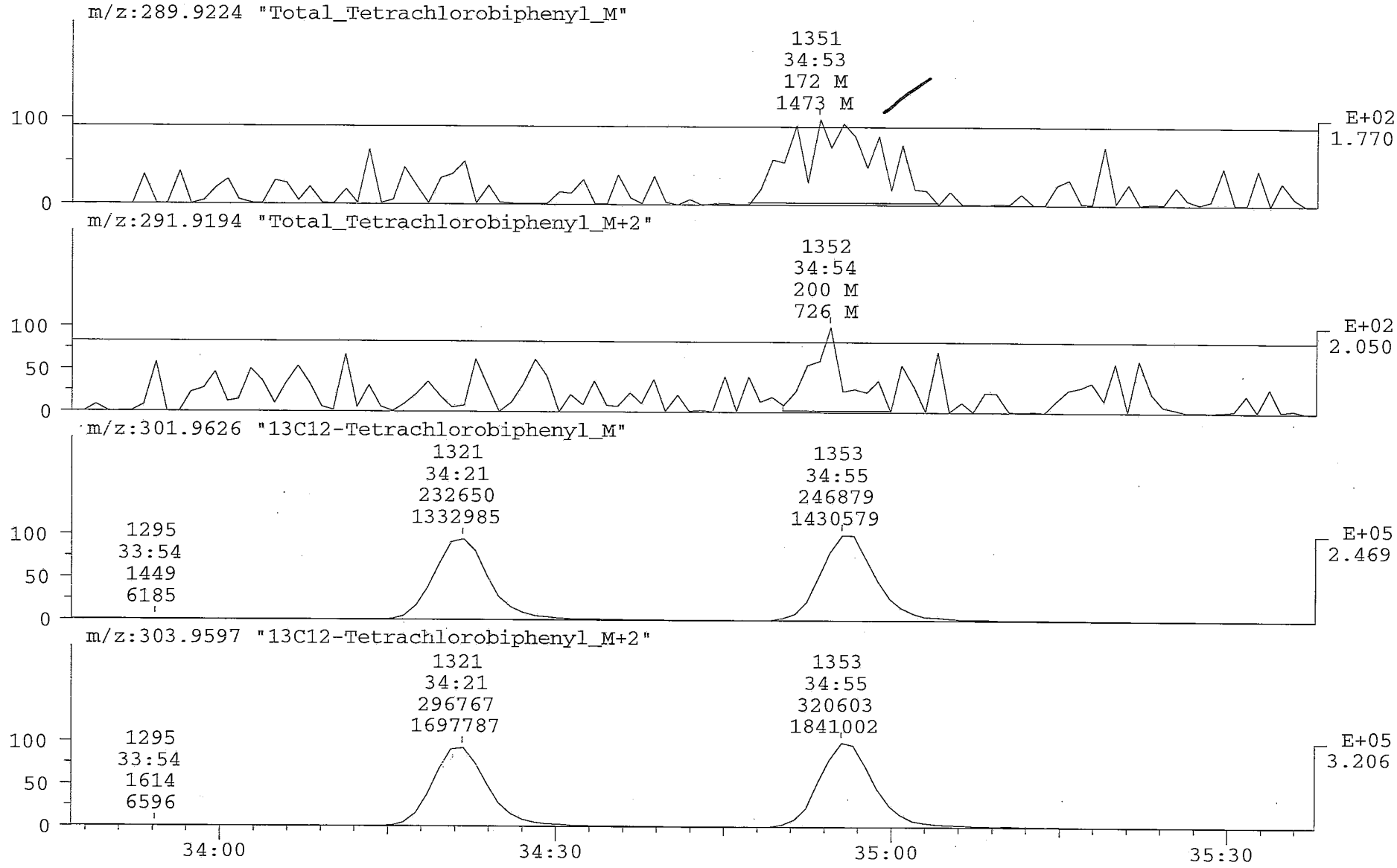
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1059 > 1141 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 2.0
Disp: Height Area



H-3085

3084

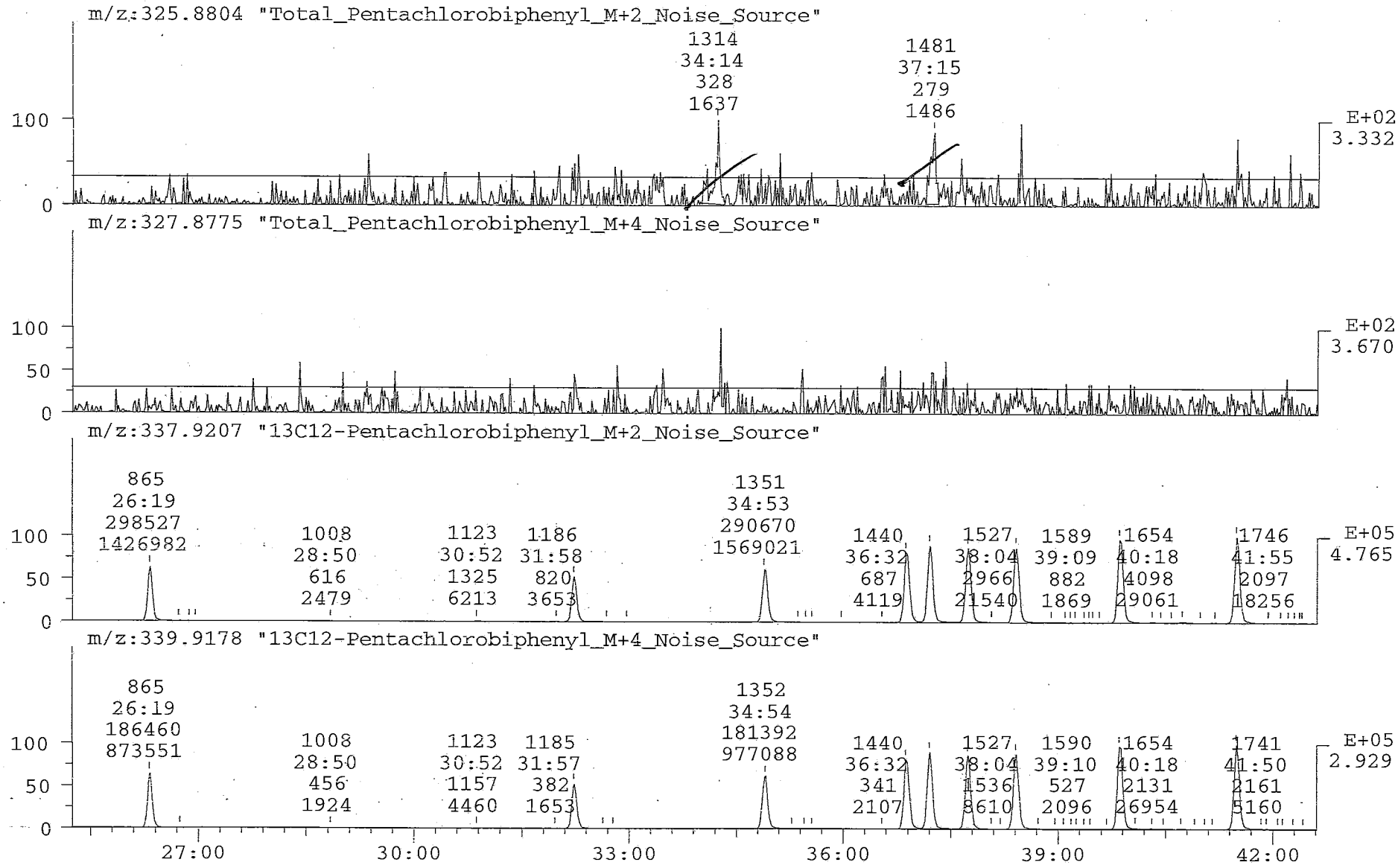
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1288 > 1393 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 8 Label : -3, 4.0
Disp: Height Area



H-3086

3085

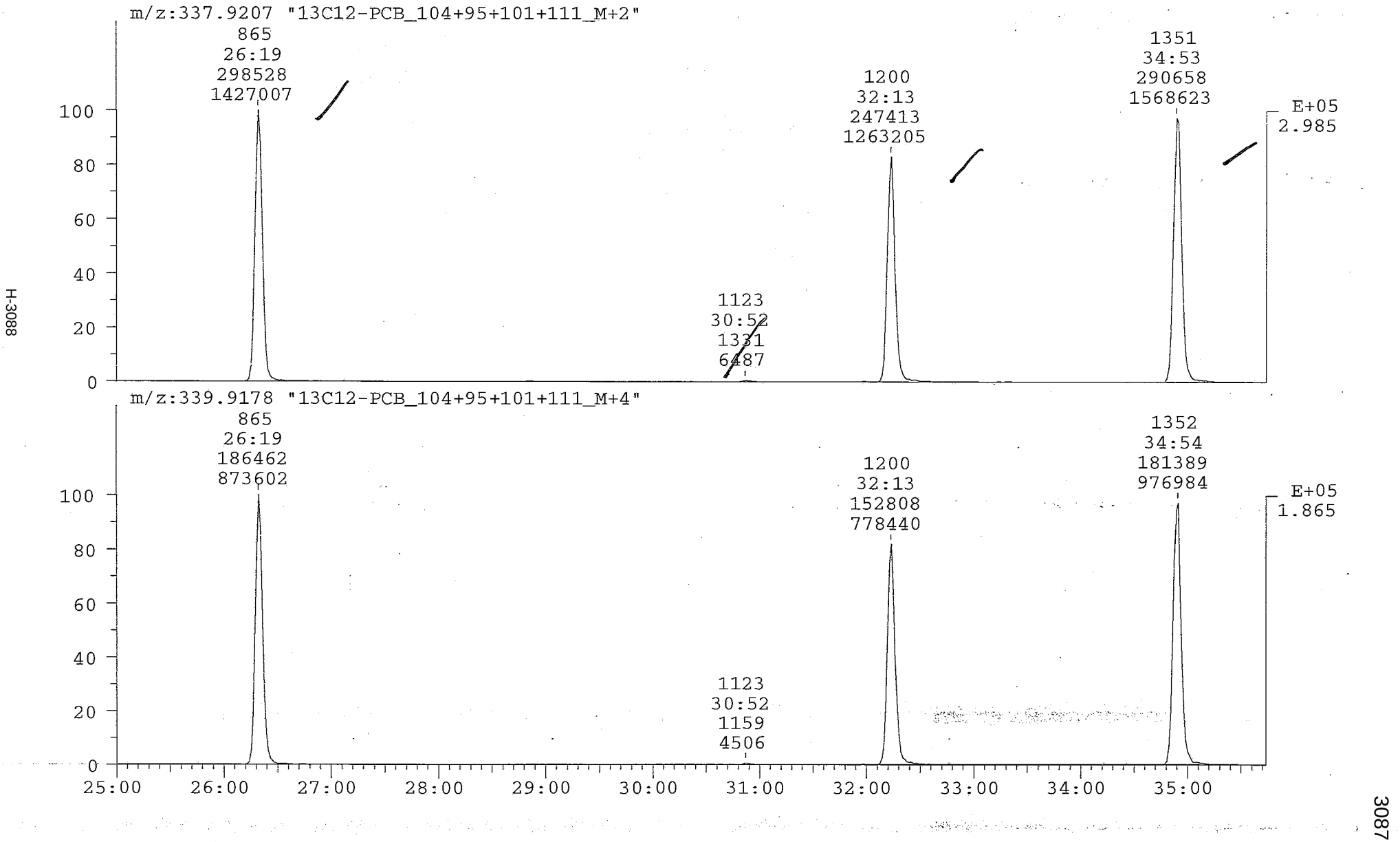
CHRO: apmkntmb 14-Jul-11 Elapse: 33:53 1294
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 804 > 1785 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3087

3086

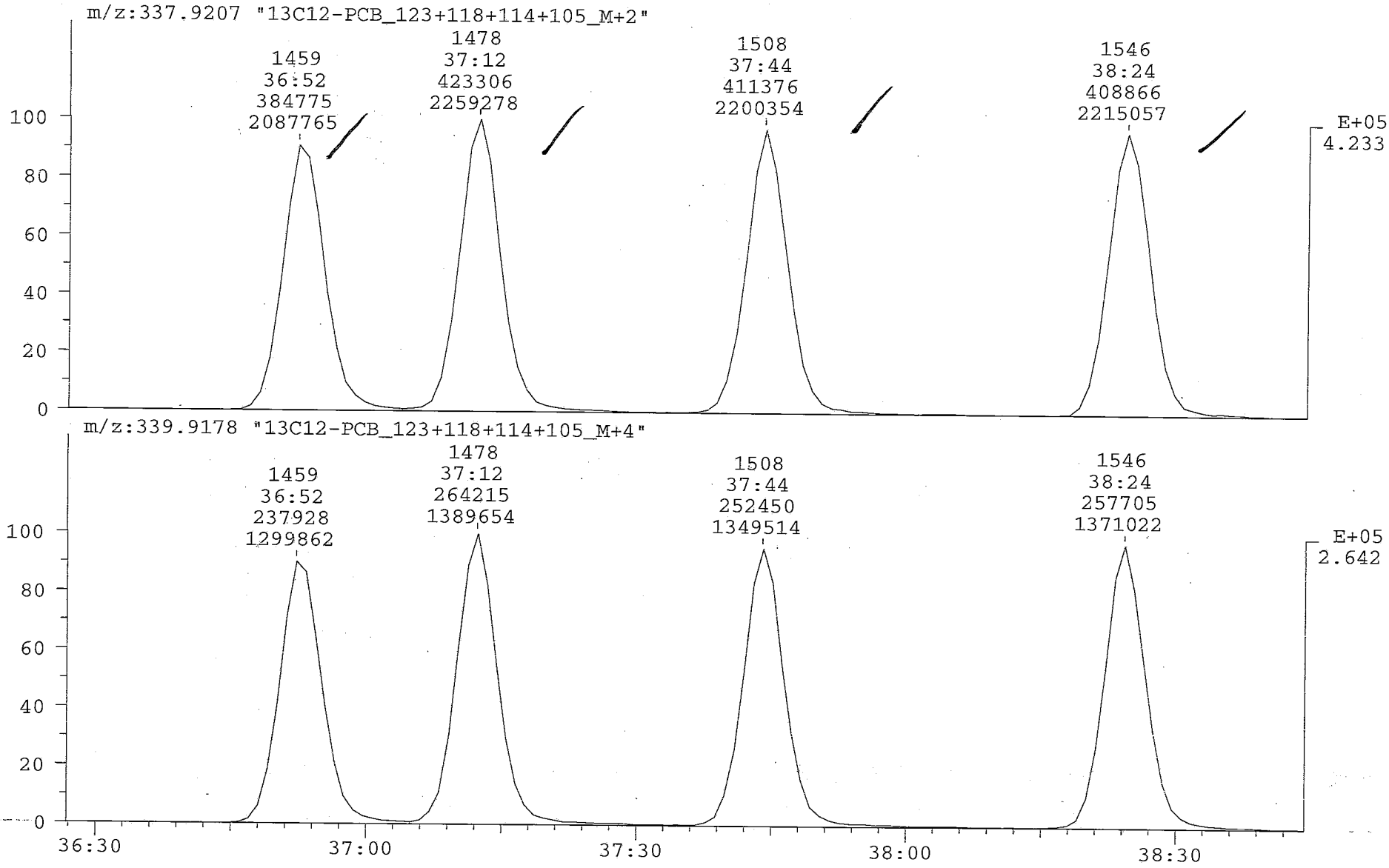
CHRO: apmkntmb 14-Jul-11 Elapse: 30:21 1094
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 790 > 1399 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3088

3087

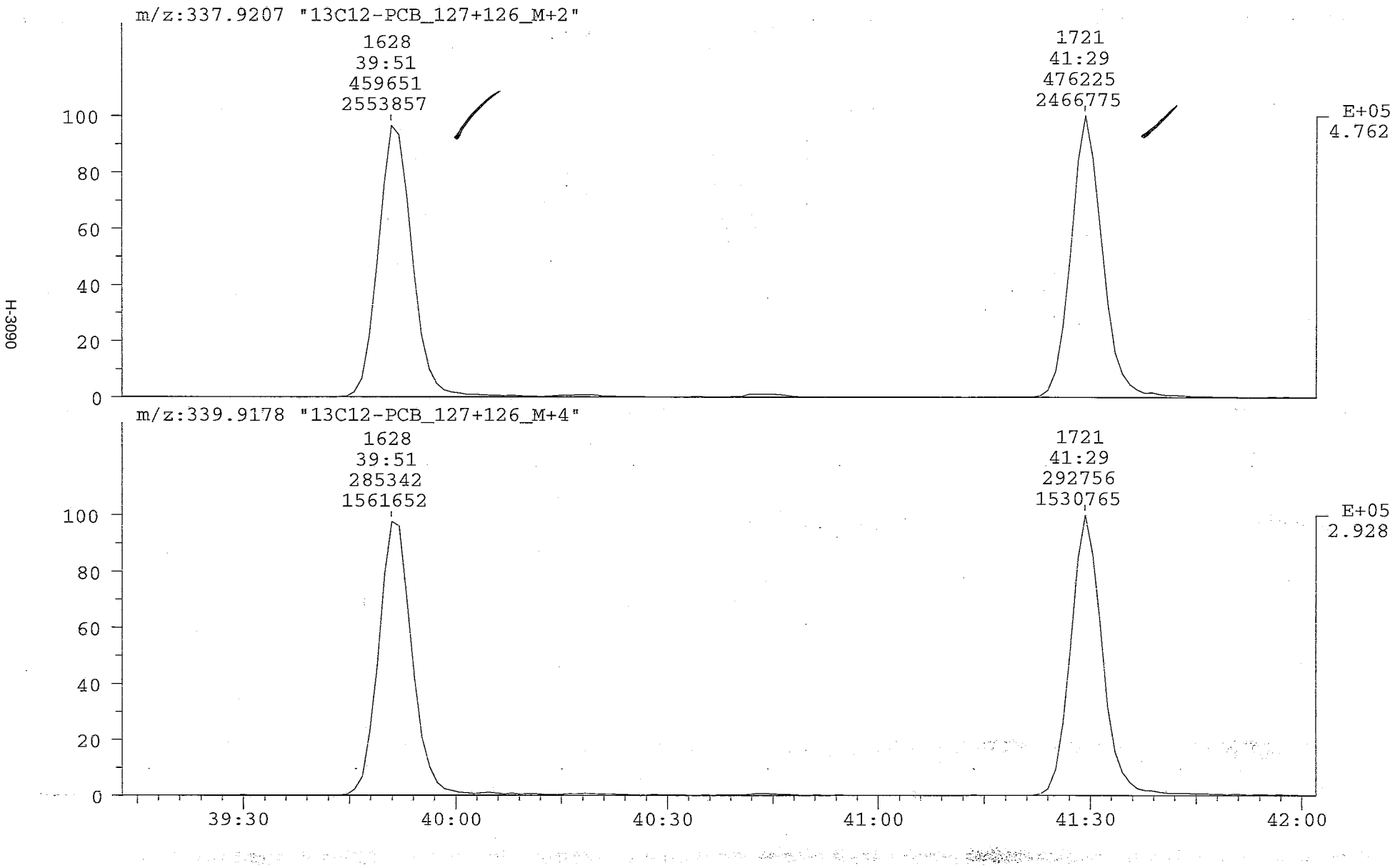
CHRO: apmkntmb 14-Jul-11 Elapse: 37:35 1500
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1435 > 1565 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3089

3088

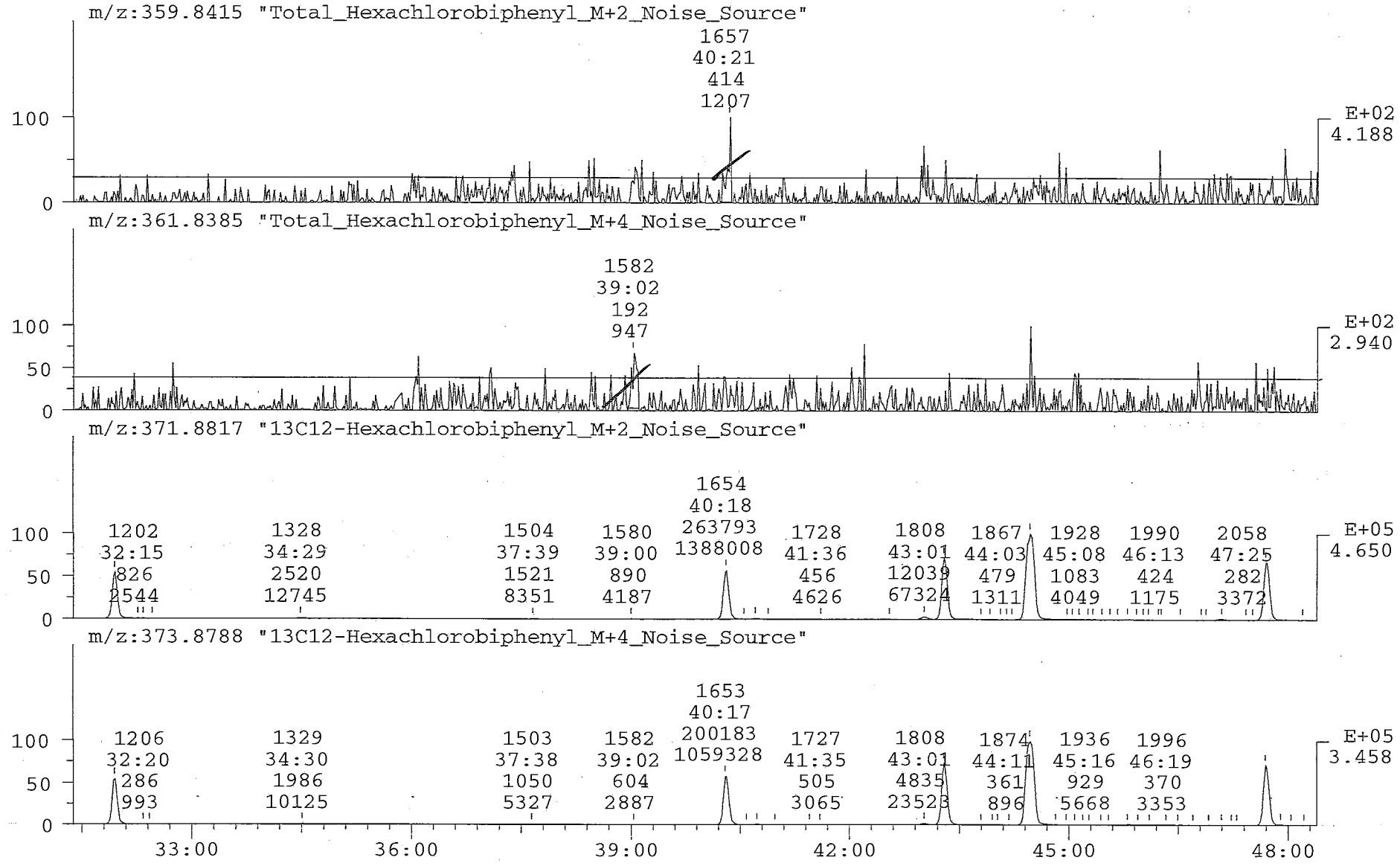
CHRO: apmkntmb 14-Jul-11 Elapse: 40:37 1672
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1592 > 1752 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3090

3089

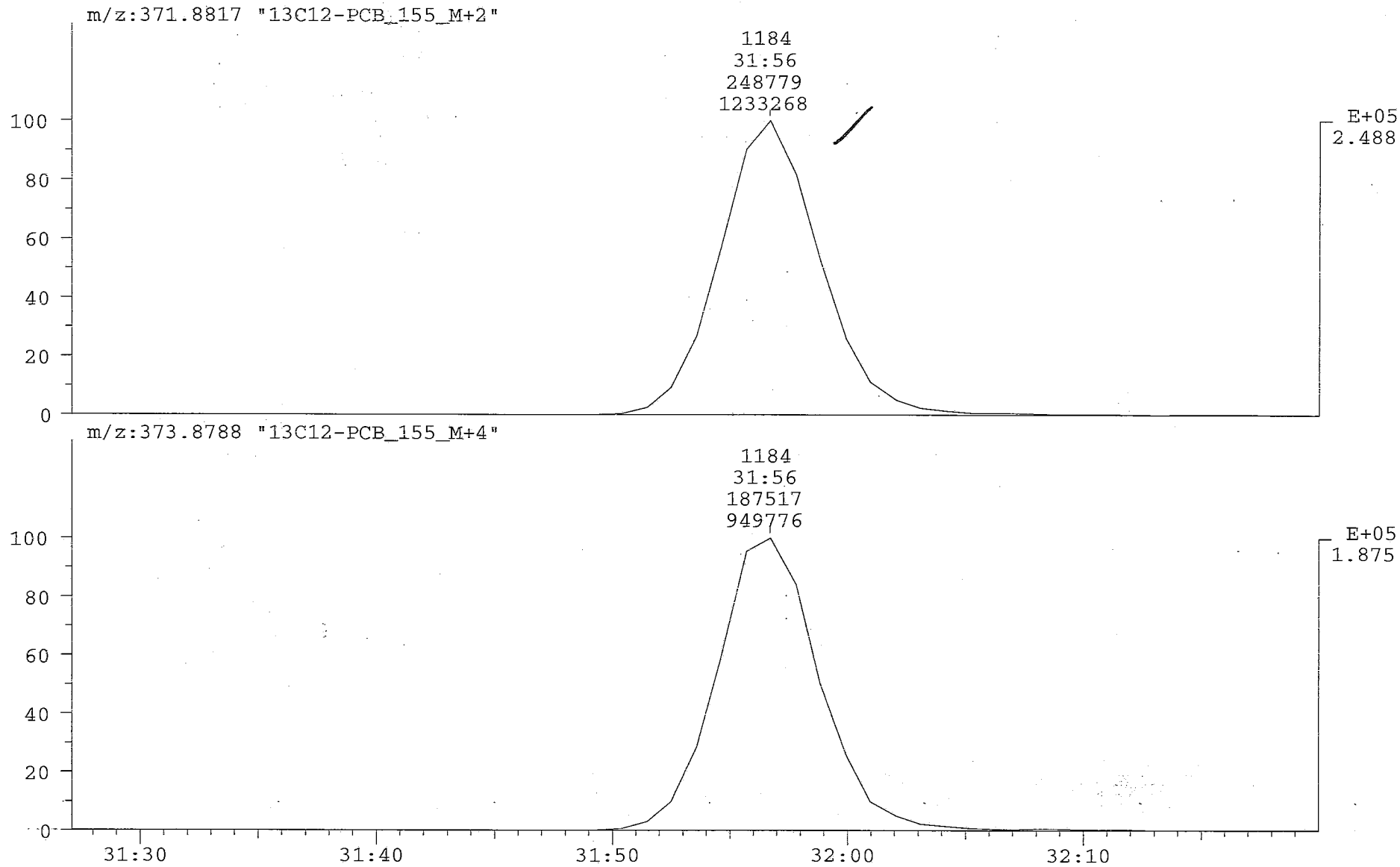
CHRO: apmkntmb 14-Jul-11 Elapse: 39:48 1626
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1152 > 2113 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3091

3090

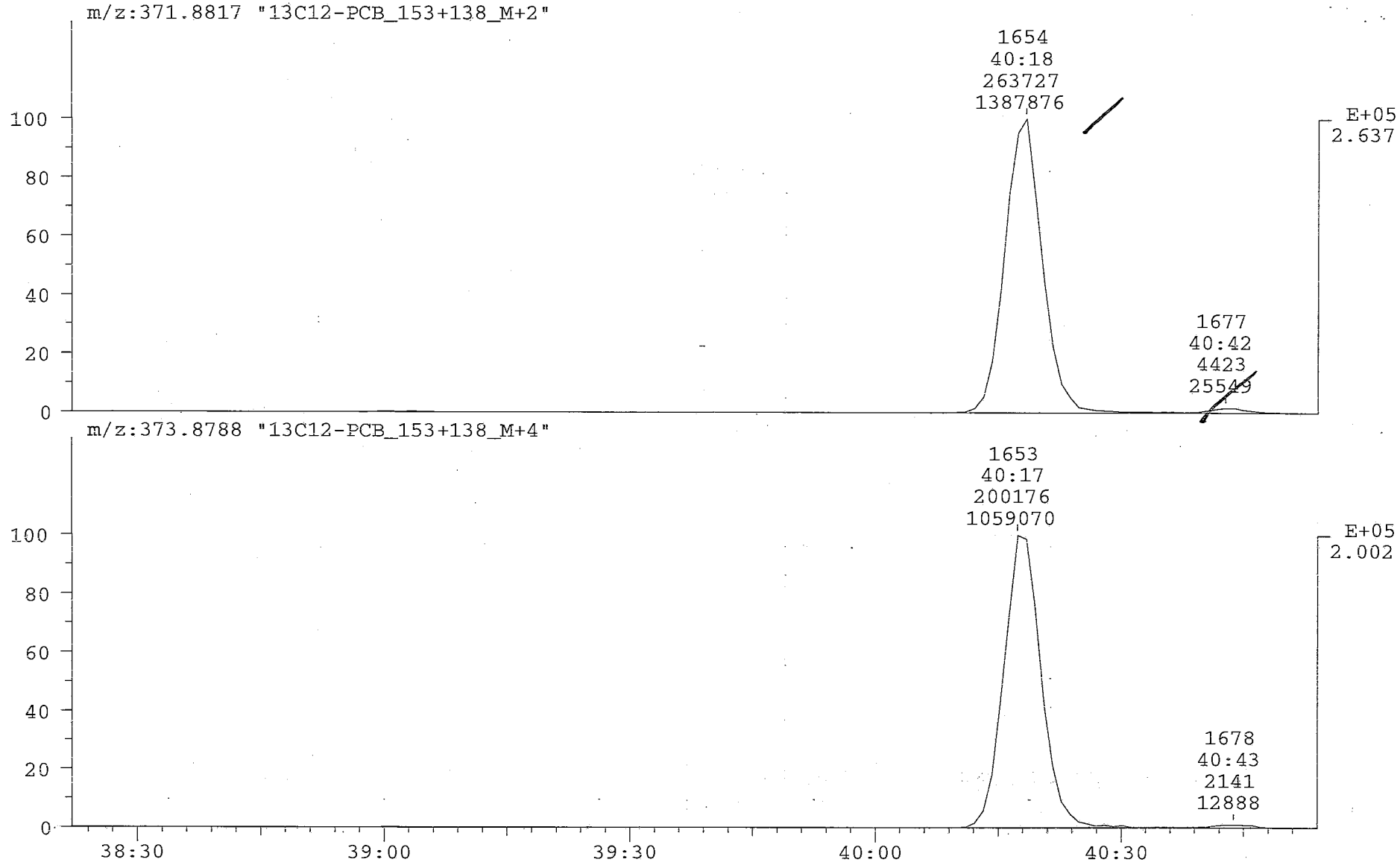
CHRO: apmkntmb 14-Jul-11 Elapse: 31:53 1181
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1156 > 1206 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3092

3091

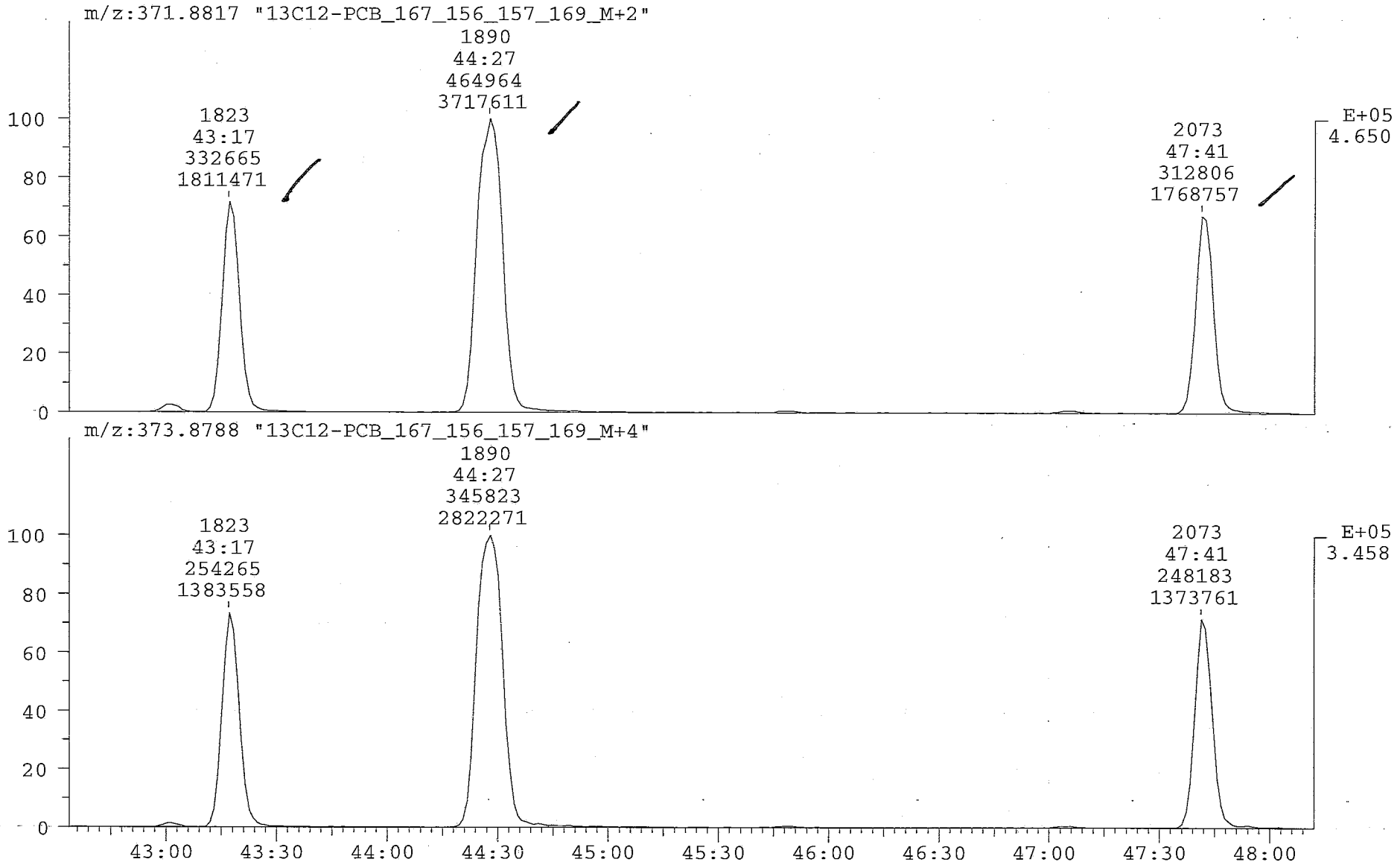
CHRO: apmkntmb 14-Jul-11 Elapse: 39:38 1616
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1544 > 1688 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3093

3092

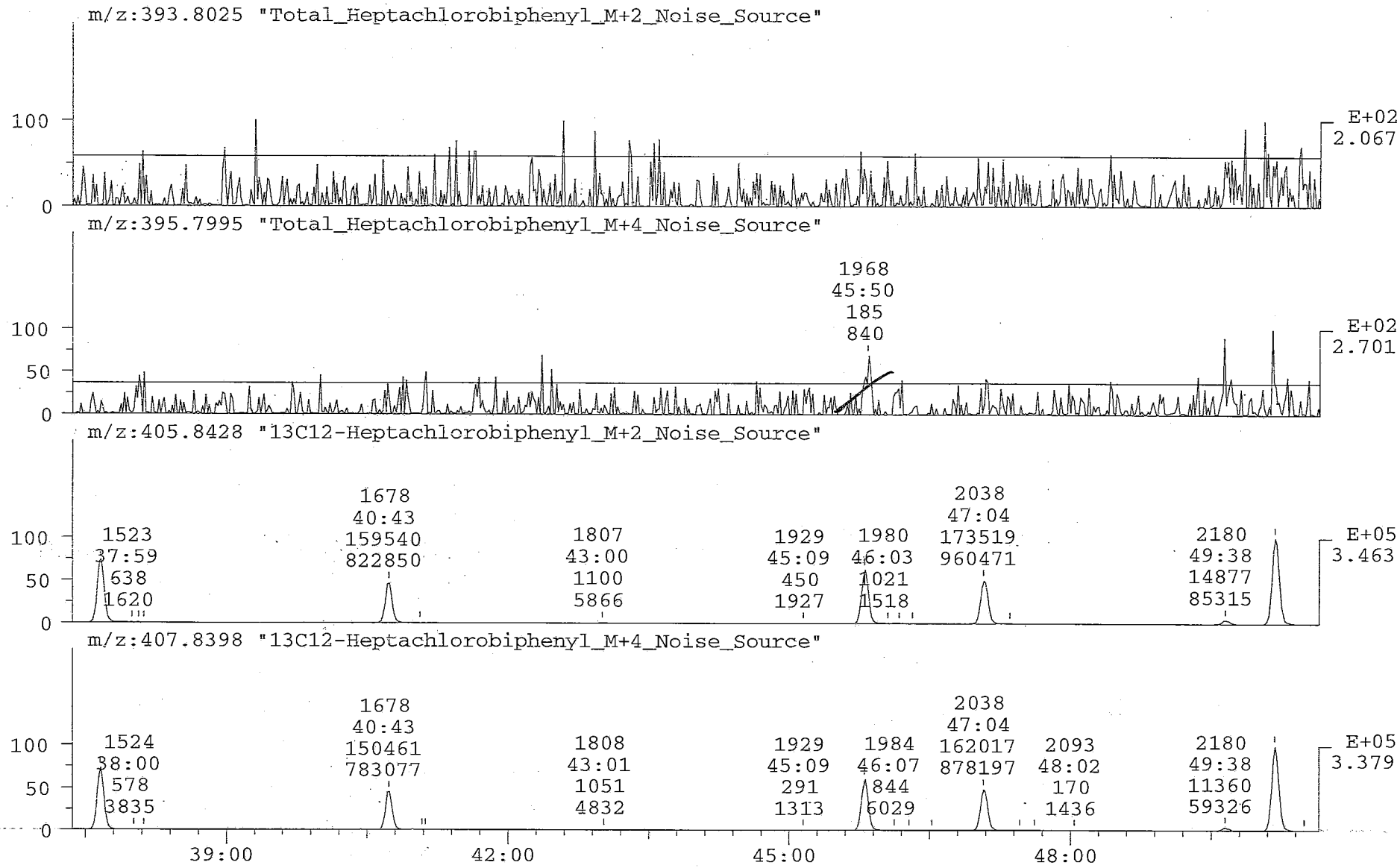
CHRO: apmkntmb 14-Jul-11 Elapse: 45:28 1947
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1782 > 2102 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 8 Label : -3, 3.0
Disp: Height Area



H-3094

3093

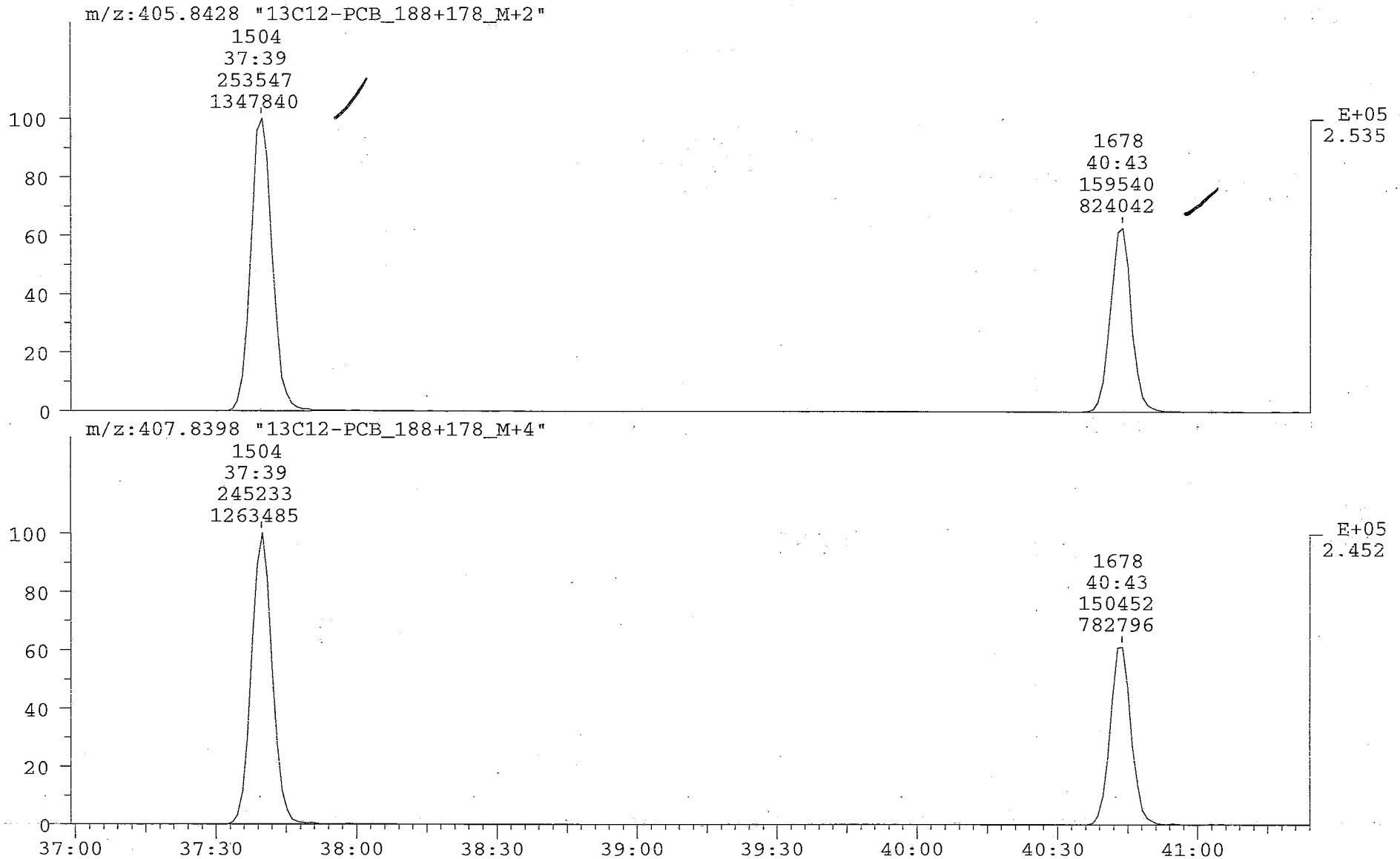
CHRO: apmkntmb 14-Jul-11 Elapse: 43:56 1860
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1487 > 2237 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3095

3094

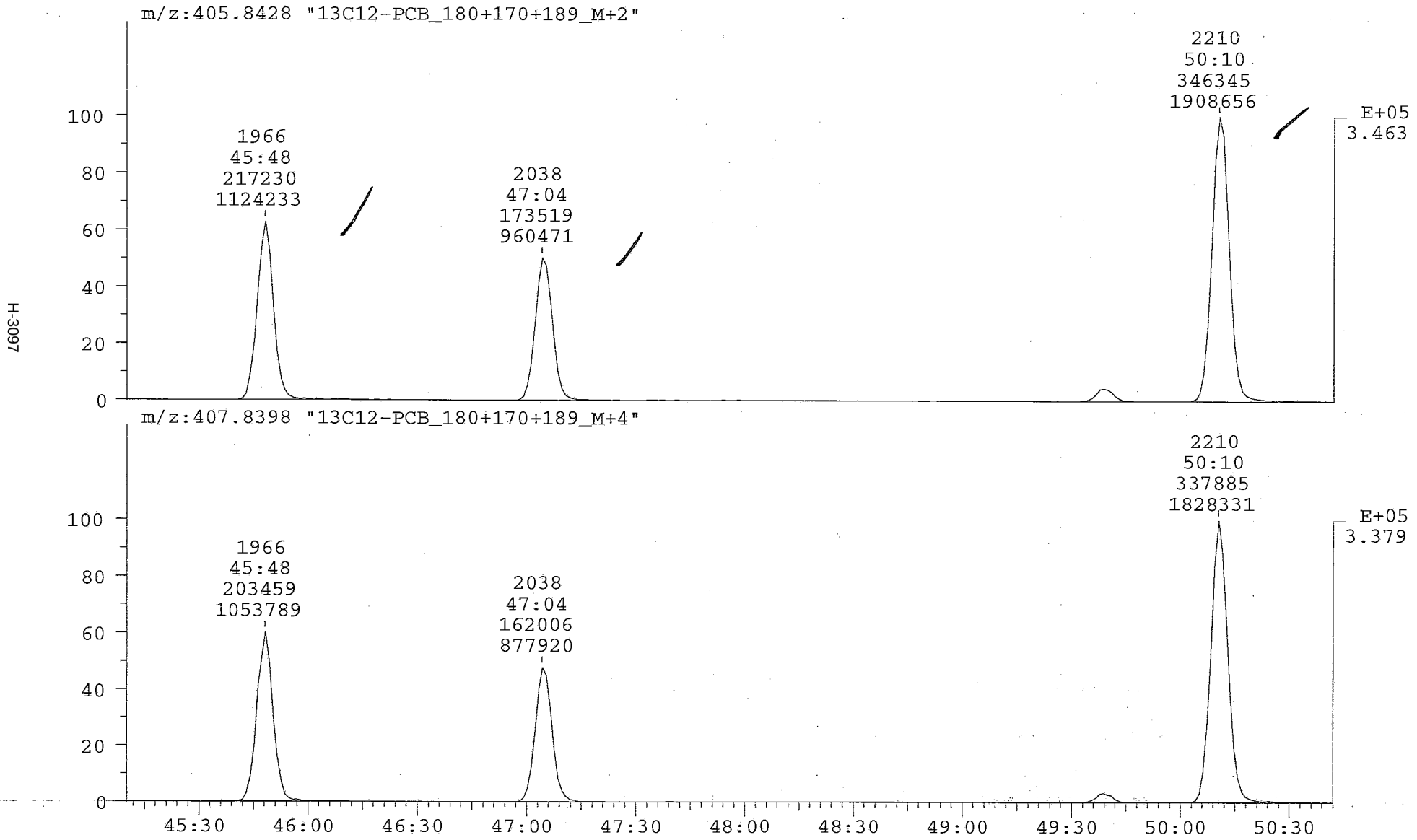
CHRO: apmkntmb 14-Jul-11 Elapse: 39:10 1590
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1466 > 1716 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3096

3095

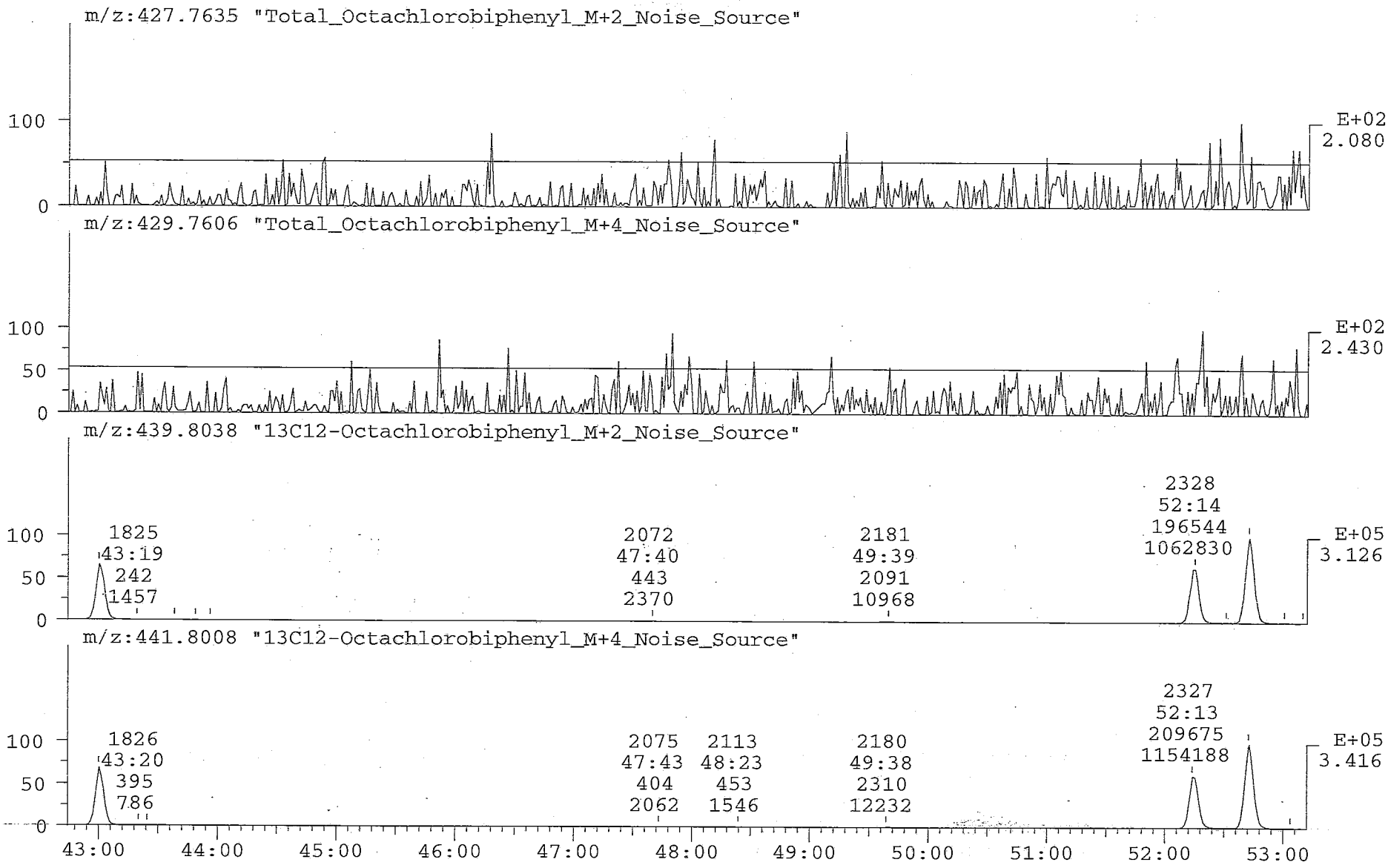
CHRO: apmkntmb 14-Jul-11 Elapse: 47:59 2090
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1930 > 2240 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3097

3096

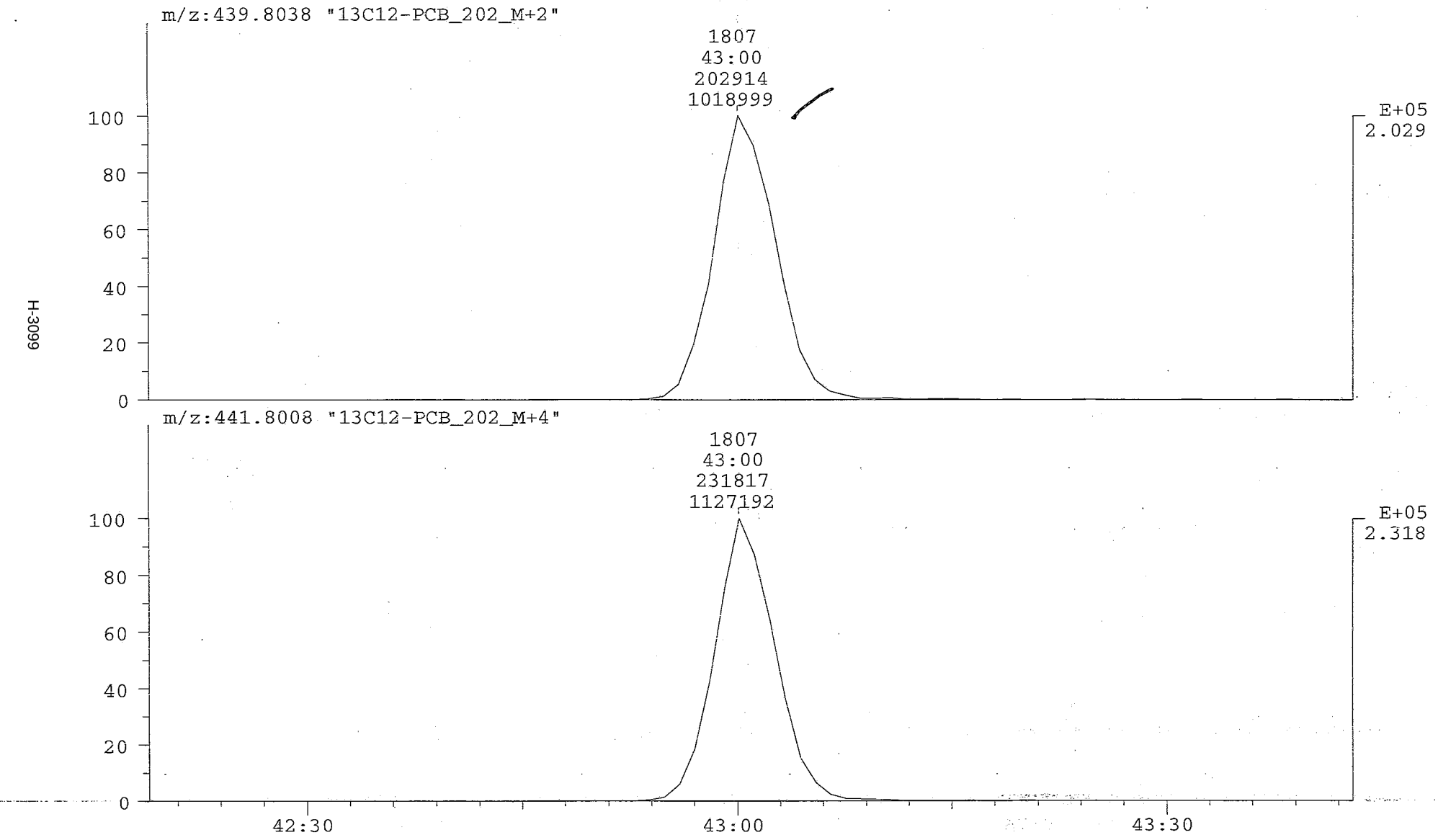
CHRO: apmkntmb 14-Jul-11 Elapse: 47:53 2085
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1792 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3098

3097

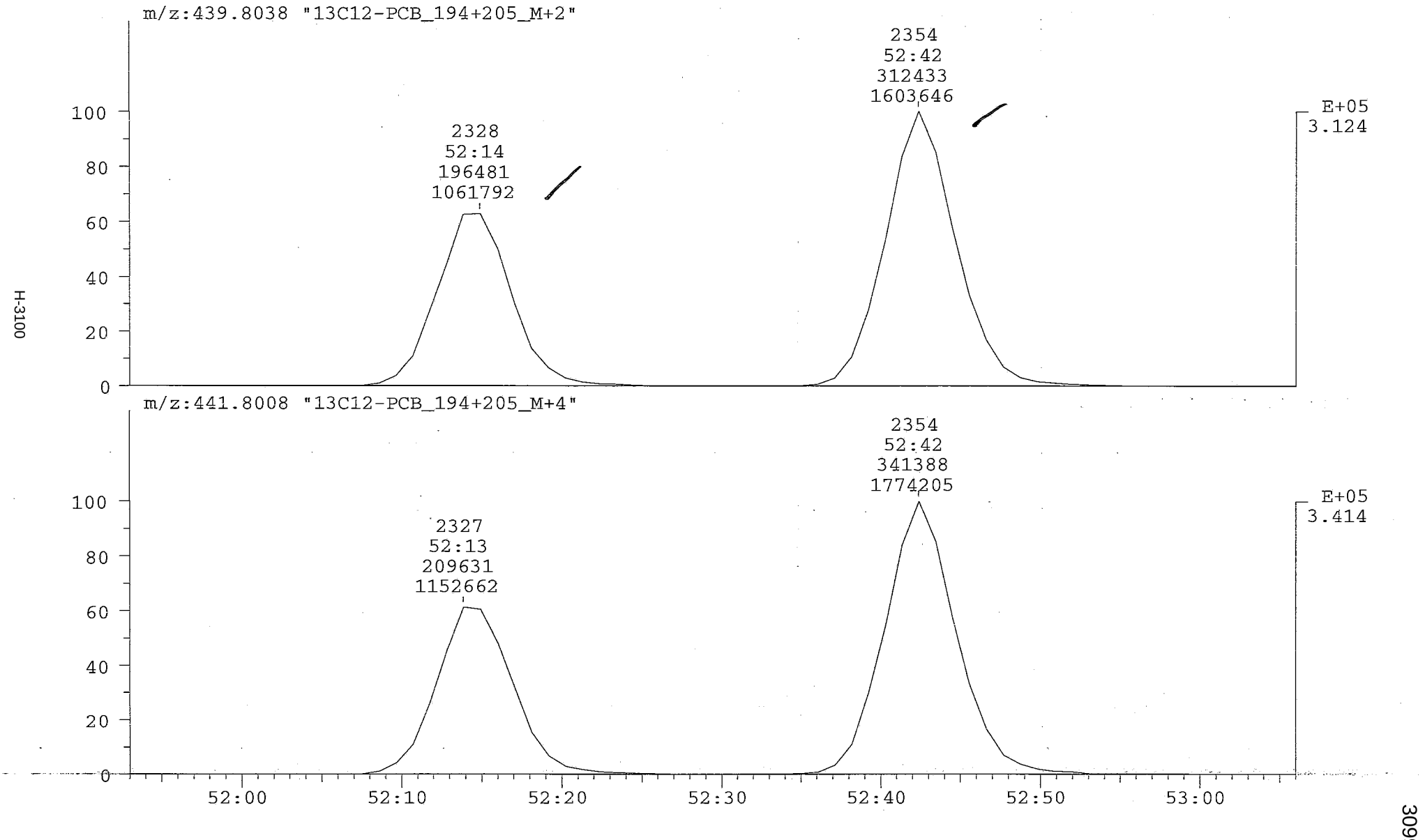
CHRO: apmkntmb 14-Jul-11 Elapse: 42:58 1805
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1768 > 1848 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3099

3098

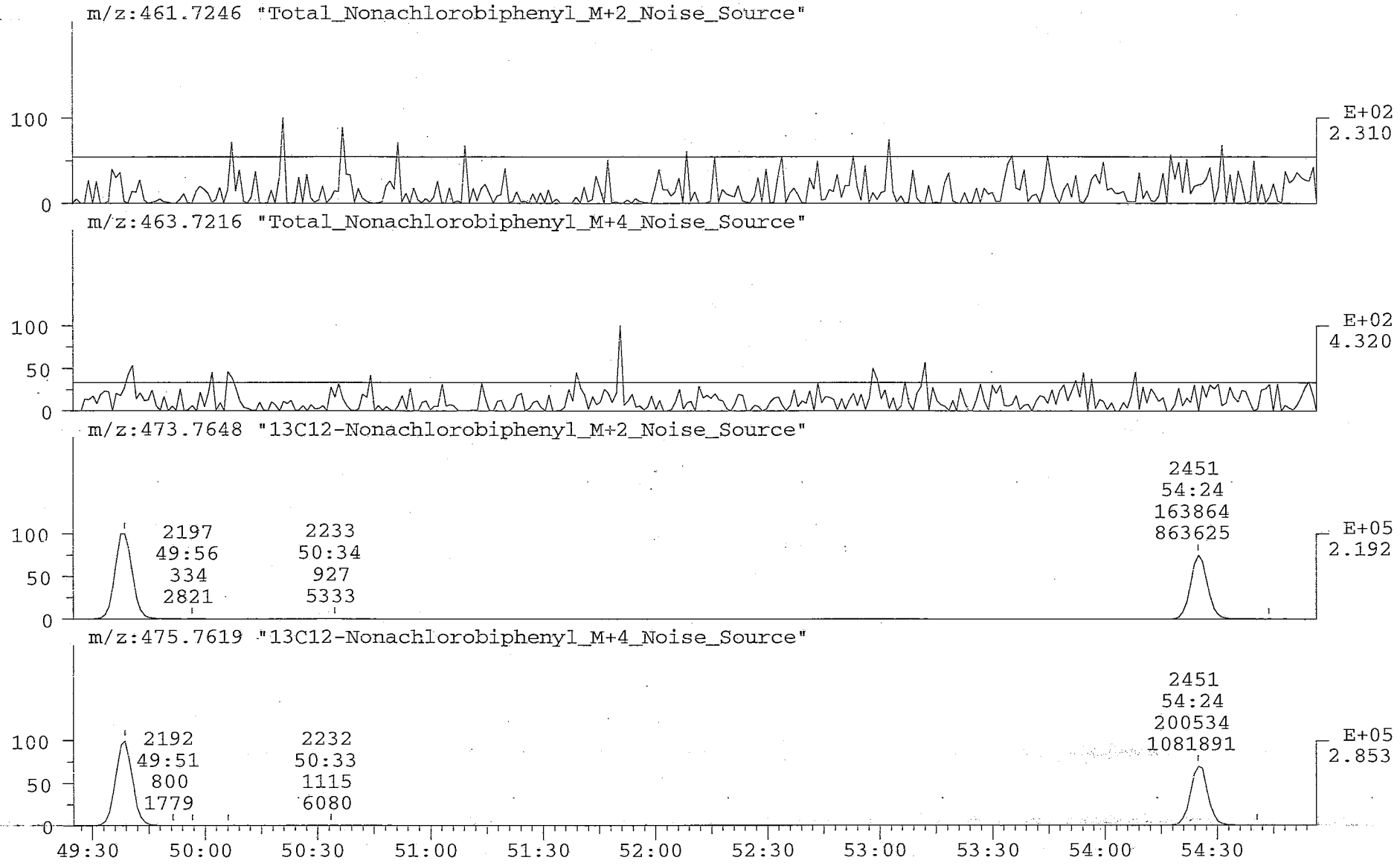
CHRO: apmkntmb 14-Jul-11 Elapse: 52:28 2341
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2307 > 2376 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3100

3099

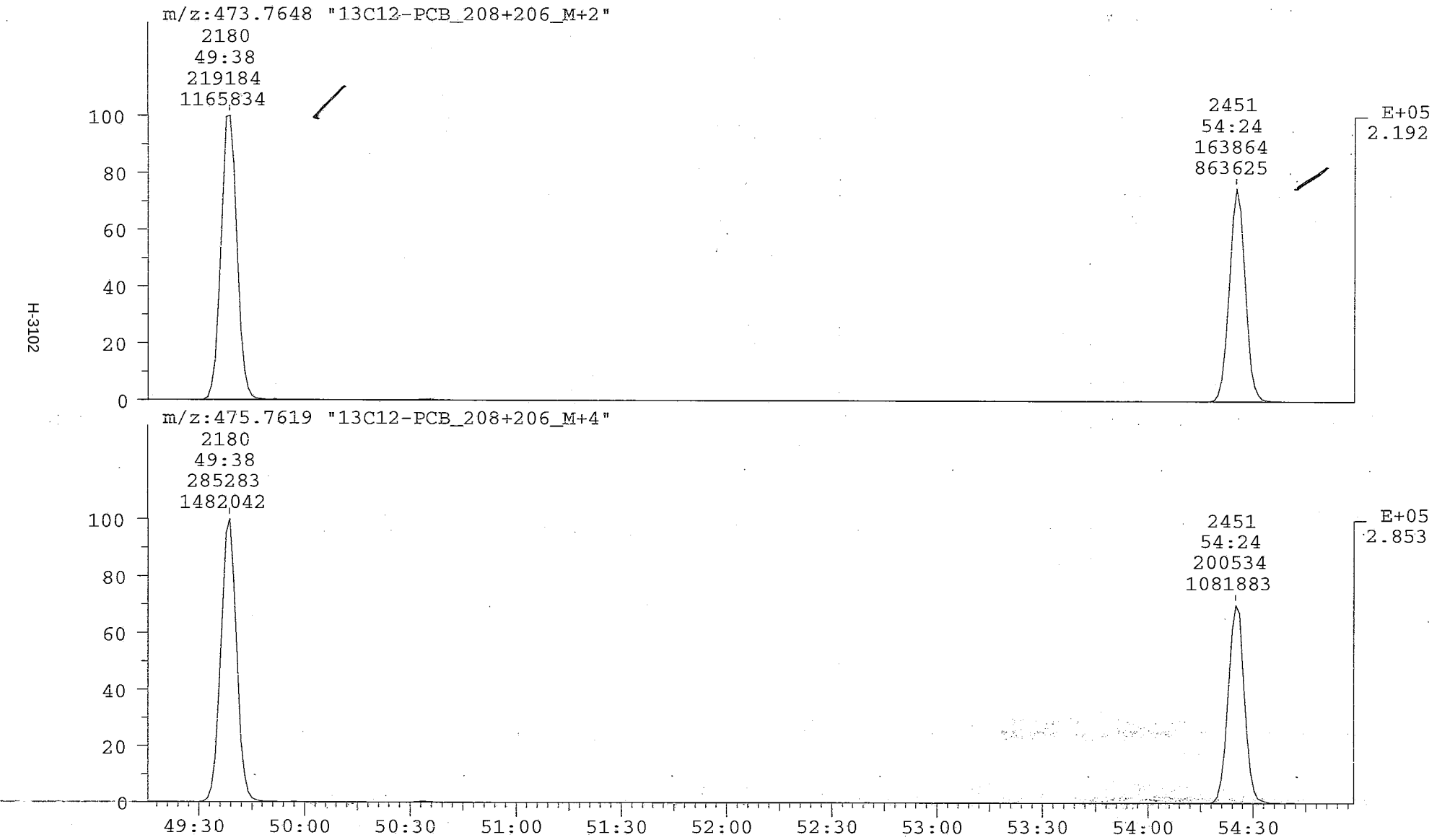
CHRO: apmkntmb 14-Jul-11 Elapse: 52:06 2320
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2167 > 2481 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3101

3100

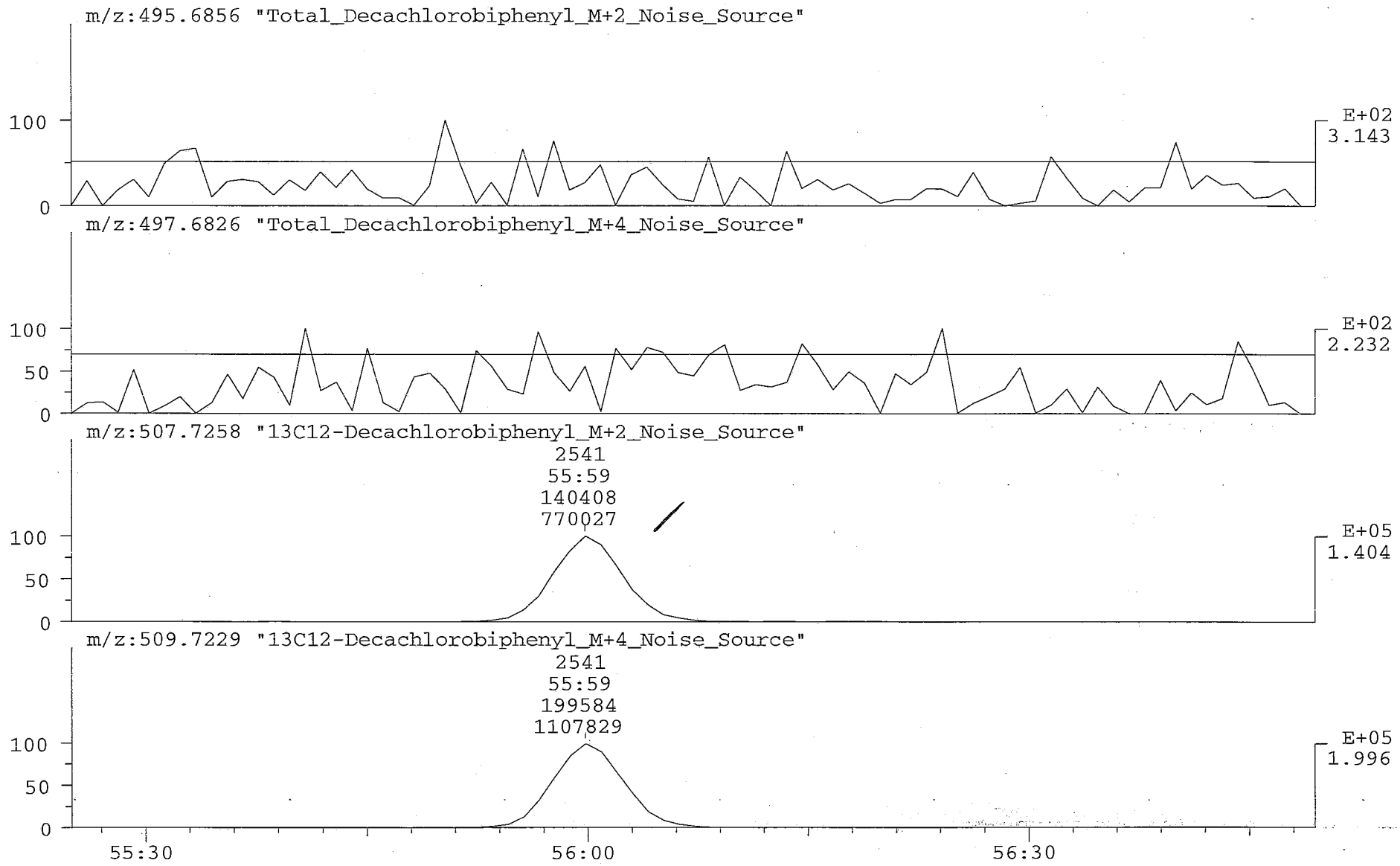
CHRO: apmkntmb 14-Jul-11 Elapse: 52:04 2318
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2158 > 2483 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3102

3101

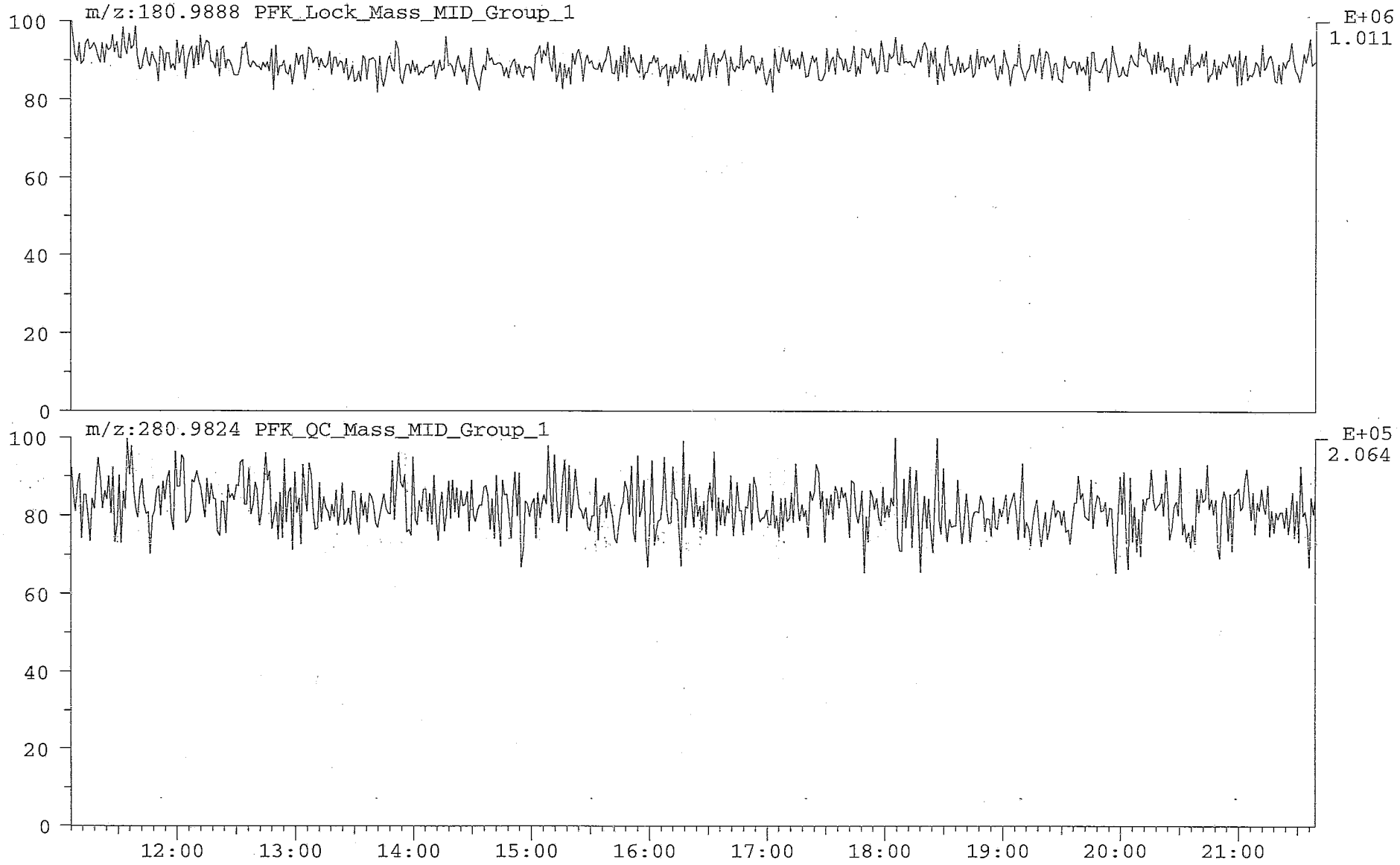
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2508 > 2588 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3103

3102

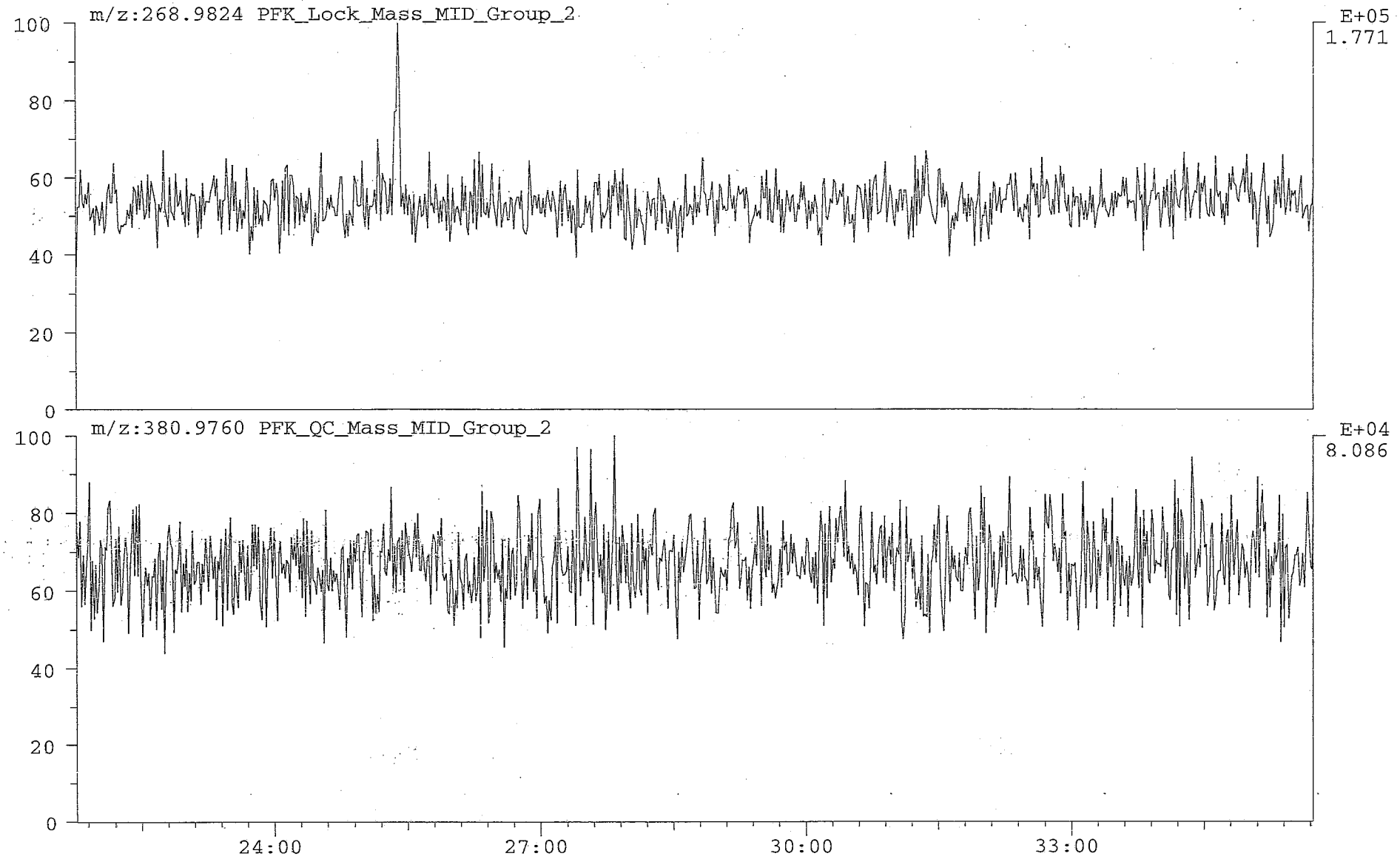
CHRO: apmknтmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 6 > 604 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3104

3103

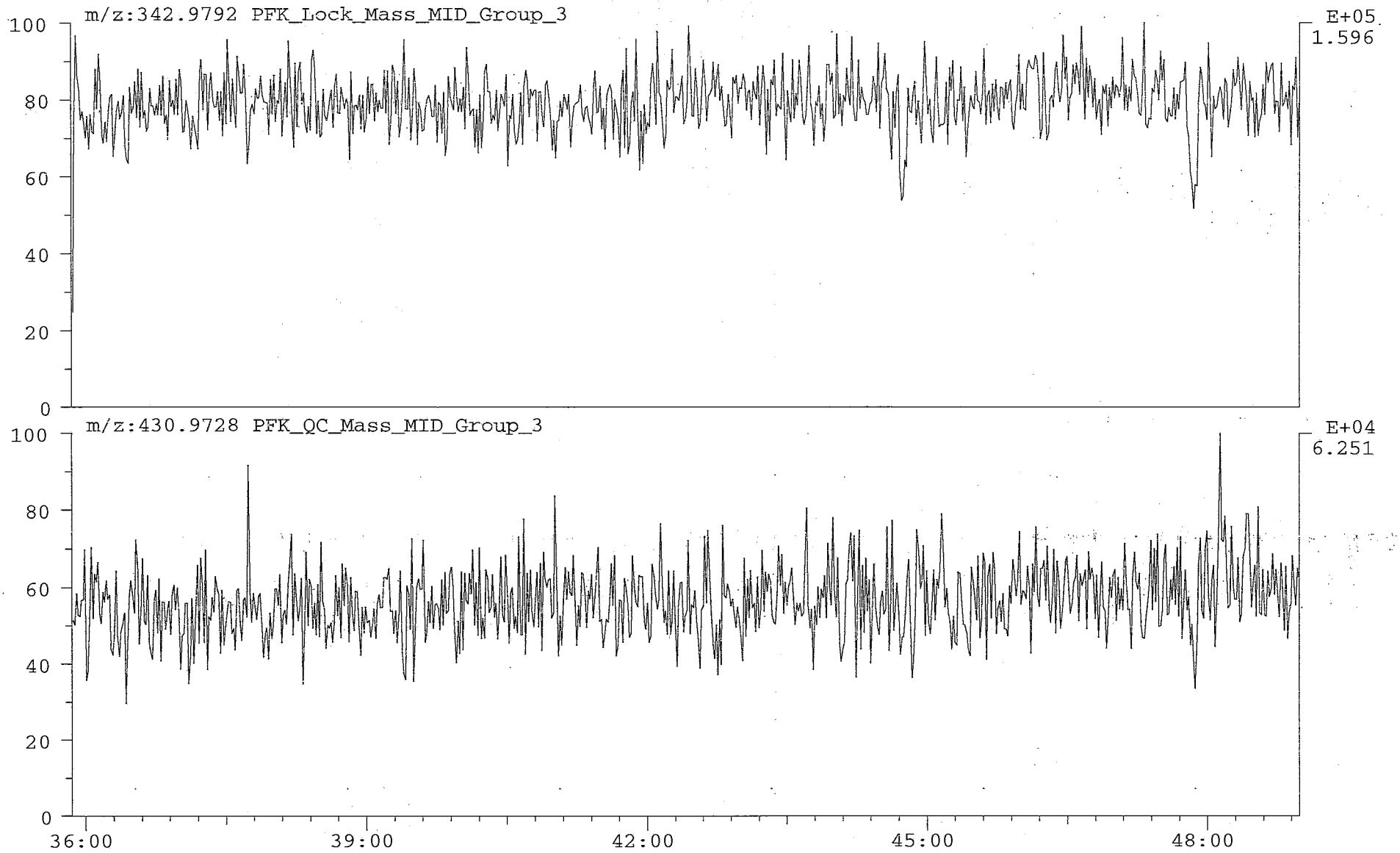
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 607 > 1399 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3105

3104

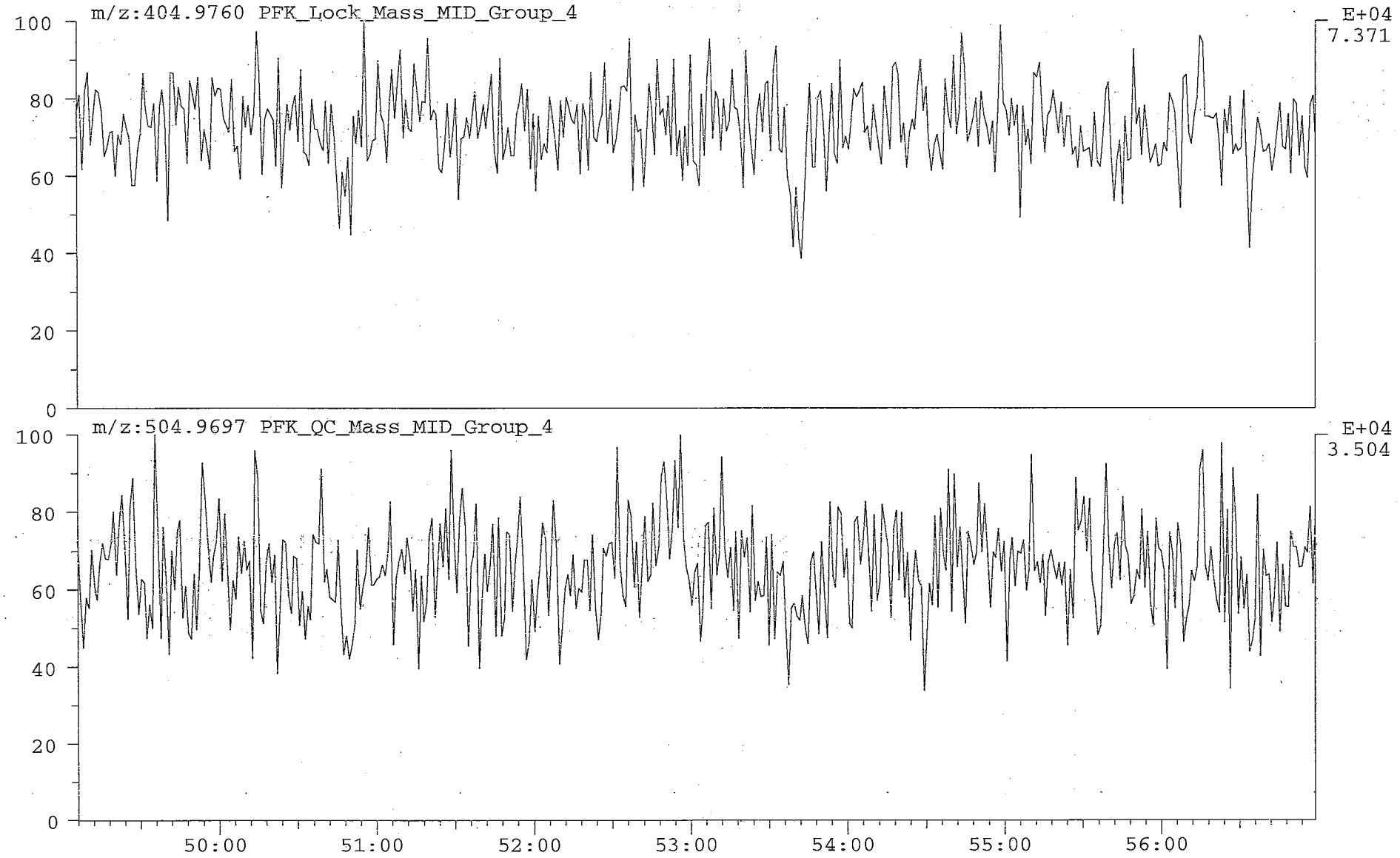
CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 1402 > 2147 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3106

3105

CHRO: apmkntmb 14-Jul-11 Elapse: 56:06 2547
Samp: Vial 3 WO=mkntm1aa Meth=IE5 Dil=1 Start : 01:31:15 2599
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028B Inlet : GC Vial 3
Peak: 100.00 ppm Label wndw: 2149 > 2597 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3107

3106

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

\000\000\000\000\000\000\000ICL Version: 10.710
File name: apmkntmb
Study: 1187028 (Air-2)
Sample: WO=mkntm1aa Meth=IE5 Dil=1
Amount:  0.00
Volume:  0.00
Operator: JMN
Client: H1G060000-028B
Comments: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Injected volume:  2.00
Sample from Vial 3
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 1 of list 110713a
  ICL procedure: sleep7x
  MID procedure: epa1668

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:05 min   35:45 min    1.00 sec
  # 3   35:45 min   13:15 min   49:00 min    1.00 sec
  # 4   49:00 min    8:00 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 1   10   1      4.10
    188.0393     1   1     47.79
    190.0363     1   1     47.79
    200.0795     1   1     47.79
    202.0766     1   1     47.79
    222.0003     1   1     47.79
    223.9974     1   1     47.79
    234.0406     1   1     47.79
    236.0376     1   1     47.79
    255.9613     1   1     47.79
    257.9584     1   1     47.79
    268.0016     1   1     47.79
    269.9986     1   1     47.79
    280.9824 c   10  1      4.10
    289.9224     1   1     47.79
    291.9194     1   1     47.79
    301.9626     1   1     47.79
    303.9597     1   1     47.79
   Window # 2
```

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
 Normal Injection
 Injector A
 Slvnt A cln before inj (K): 3 times
 Slvnt B cln before inj (L): 0 times
 Sample rinse cycles (R): 0 times
 Syringe filling volume (F): 1.0 ul

Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg	at	0.0 minutes	280 deg max
	75 deg	at	2.0 minutes	
	150 deg	at	7.0 minutes	
	270 deg	at	55.0 minutes	
	270 deg	at	57.0 minutes	

Inlet : Splitless mode
Purge time 1.5 min
Purge flow 40.0 ml/min
Gas saver is on
Saver time 3.0 min
Saver flow 15.0 ml/min
Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.5098
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-36.8250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	23.0000	EDACZ	-548.0000	ELEN	64.2750
EMULT	1.7400	ENS	150.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	148.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	479.0000
FVINLET	508.0000	FVSRC	1285.0000	FWIN	0.7000
GCTC	179.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.4020	HVANAL	1427.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4781.4360	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1751.0000	LENSS	161.2000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2350075.0781
MDACR	23.0000	MRANGE	1031.5098	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	66.0000	NSMAX	8.0000	NSMIN	2.0000

OCT	-2.0000	PSAM	10.0000	PUSHER	-12.5500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10314.6801	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	2598.0000
SHIELDS	0.2000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	421.0400	TCURR	0.9375
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	1.9500	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	2538.0000
XLENSS	-43.8000	YLENS	2634.0000	YLENSS	-171.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 01:31:15.6

Autosampler has injected sample from vial 3
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 7470
MID Time Window 3: Resolution is 8574
MID Time Window 4: Resolution is 9202
Analysis stopped at: 14-Jul-11 02:28:18.9 (run time 57.04 minutes)
Analysis stopped because MID run finished

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder MKNTM1AC
Data File /20110713s1/apmkntmc.d
Analysis ID 133595
Analysis Date 7/13/2011
Analysis Time 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Dil Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample	DL (ng/samp
Total Monochlorobiphenyl		8510187	2740698			27.083867		27.083867	
13C12-PCB 1	12:09	4830386	1655952	1.502	20.00	16.899627	84.50	16.899627	0.0116
13C12-PCB 3	14:22	4566569	1309169	1.545	20.00	15.540353	77.70	15.540353	0.00889
PCB 1 (BZ)	12:10	2889446	1081456	1.383	10.00	8.649649	86.50	8.649649	0.00865
PCB 2 (BZ)	14:13	2842511	816010	1.338	10.00	9.046238	90.46	9.046238	0.00330
PCB 3 (BZ)	14:23	2778230	843232	1.296	10.00	9.387981	93.88	9.387981	0.00381
Total Dichlorobiphenyl		24162601	5050529			126.465226		126.465226 B	0.00445
13C12-PCB 4	14:38	1911181	564701	0.619	20.00	16.219433	81.10	16.219433	0.210
13C12-PCB 9	16:36	3804932	1003506	1.000	20.00	20.000000	100.00	20.000000	0.0125
13C12-PCB 8				1.342	10.00			ND	0.00772
13C12-PCB 15	20:37	3300657	708769	1.090	20.00	15.920601	79.60	15.920601	0.00907
PCB 4 (BZ)	14:39	1167123	335103	1.273	10.00	9.596356	95.96	9.596356	0.00709
PCB 10 (BZ)	14:49	1962176	577472	1.357	10.00	11.095846	110.96	11.095846	0.0244
PCB 9 (BZ)	16:38	1867920	491088	1.459	10.00	9.825804	98.26	9.825804	0.0203
PCB 7 (BZ)	16:48	2124881	546440	1.466	10.00	11.124391	111.24	11.124391 B	0.0189
PCB 6 (BZ)	17:03	2015819	510033	1.507	10.00	10.267739	102.68	10.267739	0.0188
PCB 5 (BZ)	17:22	1973000	520692	1.417	10.00	10.686744	106.87	10.686744	0.0183
PCB 8 (BZ)	17:29	2029948	527478	1.540	10.00	10.117645	101.18	10.117645 B	0.0195
PCB 14 (BZ)	19:08	2462898	589544	1.732	10.00	10.911151	109.11	10.911151 B	0.0179
PCB 11 (BZ)	19:59	2155923	496411	1.532	10.00	10.802860	108.03	10.802860 B	0.0159
PCB 13 (BZ)	20:18	4251960	712413	1.494	20.00	21.838666	109.19	21.838666 BC12	0.0180
PCB 12 (BZ)		4251960		1.494	20.00	21.838666	109.19	21.838666 BC	0.0184
PCB 15 (BZ)	20:37	2150953	456268	1.278	10.00	10.198025	101.98	10.198025 B	0.0184
Total Trichlorobiphenyl		49638887	9219777			237.671402		237.671402 B	0.0194
13C12-PCB 19	17:47	1569219	403320	0.572	20.00	16.826960	84.13	16.826960	0.228
13C12-PCB 32	21:04	3263547	742847	1.000	20.00	20.000000	100.00	20.000000	0.0416
13C12-PCB 31	23:21	4933015	1039917	1.000	20.00	20.000000	100.00	20.000000	0.0238
13C12-PCB 28	23:38	4174532	883097	1.003	20.00	16.870123	84.35	16.870123	0.0170
13C12-PCB 37	27:42	4108725	798175	0.908	20.00	18.336241	91.68	18.336241	0.0169
PCB 19 (BZ)	17:48	885672	226531	1.167	10.00	9.674124	96.74	9.674124	0.0187
PCB 30 (BZ)	19:37	2543051	369201	1.615	20.00	20.071331	100.36	20.071331 C18	0.0195
PCB 18 (BZ)		2543051		1.615	20.00	20.071331	100.36	20.071331 C	0.0141
PCB 17 (BZ)	20:06	1057723	254899	1.430	10.00	9.427022	94.27	9.427022	0.0141
PCB 27 (BZ)	20:19	1421149	347036	1.978	10.00	9.156056	91.56	9.156056	0.0160
PCB 24 (BZ)	20:27	1480468	350202	1.707	10.00	11.054974	110.55	11.054974	0.0115
PCB 16 (BZ)	20:34	830440	186378	1.193	10.00	8.873781	88.74	8.873781	0.0134
PCB 32 (BZ)	21:05	1577970	359530	2.018	10.00	9.966463	99.66	9.966463	0.0191
PCB 34 (BZ)	22:21	2258854	501878	1.195	10.00	9.198235	91.98	9.198235	0.0113
PCB 23 (BZ)	22:29	2368079	524241	1.177	10.00	9.793952	97.94	9.793952	0.00964
PCB 29 (BZ)		4863820		1.244	20.00	19.039097	95.20	19.039097 C26	0.00979
PCB 26 (BZ)	22:49	4863820	1009185	1.244	20.00	19.039097	95.20	19.039097 C	0.00927
PCB 25 (BZ)	23:03	2480931	492099	1.320	10.00	9.151942	91.52	9.151942	0.00927
PCB 31 (BZ)	23:22	2488185	532716	1.252	10.00	9.673892	96.74	9.673892 B	0.00874
PCB 28 (BZ)	23:41	4774511	791073	1.223	20.00	19.008165	95.04	19.008165 BC20	0.00921
PCB 20 (BZ)		4774511		1.223	20.00	19.008165	95.04	19.008165 BC	0.00943
PCB 21 (BZ)		5263801		1.219	20.00	21.011285	105.06	21.011285 C	0.00943
PCB 33 (BZ)	23:54	5263801	612711	1.219	20.00	21.011285	105.06	21.011285 C21	0.00945
PCB 22 (BZ)	24:19	2331627	487516	1.200	10.00	9.455604	94.56	9.455604	0.00945
PCB 36 (BZ)	25:52	2684773	520532	1.204	10.00	10.855016	108.55	10.855016	0.00960
									0.00957

Printed: 07/14/11 11:41

ResultList.rpt v10.11.03.1527

CWK for JN 7-14-11

CWK 7-14-11

TestAmerica
Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder MKNTM1AC
Data File /20110713s1/apmkntmc.d
Analysis ID 133595
Analysis Date 7/13/2011
Analysis Time 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Dil Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample	DL (ng/samp
PCB 39 (BZ)	26:14	2720492	531562	1.284	10.00	10.316938	103.17	10.316938	0.00898
PCB 38 (BZ)	26:49	2477997	483341	1.141	10.00	10.570737	105.71	10.570737	0.0101
PCB 35 (BZ)	27:18	2554253	498965	1.163	10.00	10.688148	106.88	10.688148	0.00991
PCB 37 (BZ)	27:43	2575091	509382	1.173	10.00	10.684640	106.85	10.684640	0.00983
Total Tetrachlorobiphenyl		76787310	11147468			387.632073		387.632073 B	0.593
13C12-PCB 54					20.00	22.421370	112.11	22.421370	0.0117
13C12-PCB 52	20:54	2195446	512577	0.600	20.00	20.000000	100.00	20.000000	0.00961
13C12-PCB 79	25:28	2681242	540864	1.000	10.00			ND	0.00744
13C12-PCB 81				1.070	20.00	19.575976	97.88	19.575976	0.00733
13C12-PCB 77	34:26	3442586	652120	1.312	20.00	20.346983	101.73	20.346983	0.00708
PCB 54 (BZ)	35:00	3701894	653029	1.357	10.00	8.980305	89.80	8.980305	0.0231
PCB 50 (BZ)	20:55	1215584	285555	1.233	20.00	16.708675	83.54	16.708675 C	0.0243
PCB 53 (BZ)		2749981		0.921	20.00	16.708675	83.54	16.708675 C50	0.0243
PCB 45 (BZ)	23:05	2749981	607616	0.921	20.00	17.098039	85.49	17.098039 C	0.0261
PCB 51 (BZ)	23:49	2612827	343354	0.856	20.00	17.098039	85.49	17.098039 C45	0.0261
PCB 46 (BZ)		2612827		0.856	10.00	8.799310	87.99	8.799310	0.0309
PCB 52 (BZ)	24:05	1137713	245457	0.724	10.00	7.885628	78.86	7.885628	0.0243
PCB 73 (BZ)	25:30	1295841	290061	0.920	20.00	18.472448	92.36	18.472448 C43	0.0236
PCB 43 (BZ)	25:37	3131828	391916	0.949	20.00	18.472448	92.36	18.472448 C	0.0236
PCB 69 (BZ)		3131828		0.949	20.00	18.118866	90.59	18.118866 C49	0.0208
PCB 49 (BZ)		3484520		1.077	20.00	18.118866	90.59	18.118866 C	0.0250
PCB 48 (BZ)	25:54	3484520	408849	1.077	10.00	8.706283	87.06	8.706283	0.0226
PCB 65 (BZ)	26:15	1390234	286489	0.894	30.00	26.435847	88.12	26.435847 BC44	0.0226
PCB 47 (BZ)		4682624		0.992	30.00	26.435847	88.12	26.435847 BC44	0.0226
PCB 44 (BZ)		4682624		0.992	30.00	27.730955	92.44	26.435847 BC	0.0180
PCB 62 (BZ)	26:30	4682624	882712	0.992	30.00	27.730955	92.44	27.730955 C59	0.0180
PCB 75 (BZ)	26:49	6170101	975513	1.246	30.00	27.730955	92.44	27.730955 C59	0.0180
PCB 59 (BZ)		6170101		1.246	10.00	8.919177	89.19	27.730955 C	0.0257
PCB 42 (BZ)		6170101		1.246	30.00	26.820621	89.40	8.919177	0.0252
PCB 41 (BZ)	27:02	1388572	283281	0.872	30.00	26.820621	89.40	26.820621 C40	0.0252
PCB 71 (BZ)		4248971		0.887	30.00	26.820621	89.40	26.820621 C40	0.0252
PCB 40 (BZ)	27:31	4248971	614696	0.887	10.00	9.715161	97.15	26.820621 C	0.0252
PCB 64 (BZ)		4248971		0.887	10.00	9.384735	93.85	9.715161	0.0170
PCB 72 (BZ)	27:44	2283078	452482	1.316	10.00	9.671475	96.71	9.384735	0.0181
PCB 68 (BZ)	28:34	2072203	407765	1.236	10.00	9.330340	93.30	9.671475	0.0169
PCB 57 (BZ)	28:50	2292290	441651	1.327	10.00	9.692956	96.93	9.330340	0.0186
PCB 58 (BZ)	29:16	2004061	391343	1.203	10.00	8.958135	89.58	9.692956	0.0185
PCB 67 (BZ)	29:31	2092144	407150	1.208	10.00	9.411842	94.12	8.958135	0.0167
PCB 63 (BZ)	29:40	2140024	397688	1.337	40.00	37.774983	94.44	9.411842	0.0172
PCB 61 (BZ)	29:56	2180453	426962	1.297	40.00	37.774983	94.44	37.774983 BC	0.0179
PCB 70 (BZ)		8411979		1.247	40.00	37.774983	94.44	37.774983 BC61	0.0179
PCB 76 (BZ)	30:18	8411979	923037	1.247	40.00	37.774983	94.44	37.774983 BC61	0.0179
PCB 74 (BZ)		8411979		1.247	10.00	8.573299	85.73	37.774983 BC61	0.0179
PCB 66 (BZ)		8411979		1.247	10.00	9.778850	97.79	8.573299	0.0178
PCB 55 (BZ)	30:37	1921750	384737	1.255	10.00	9.456333	94.56	9.778850	0.0195
PCB 56 (BZ)	30:48	1999931	400194	1.145	10.00	10.215616	102.16	9.456333	0.0184
PCB 60 (BZ)	31:18	2055441	405546	1.217	10.00	9.940202	99.40	10.215616	0.0189
PCB 80 (BZ)	31:31	2155768	396840	1.181	10.00	10.564185	105.64	9.940202	0.0165
PCB 79 (BZ)	31:53	2411351	440159	1.358				10.564185	0.0169
	33:26	2501687	433787	1.326					

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ResultList.rpt v10.11.03.1527

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder MKNTM1AC
Data File /20110713s1/apmkntmc.d
Analysis ID 133595
Analysis Date 7/13/2011
Analysis Time 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Dil Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 78 (BZ)	34:00	2240379	393599	1.164	10.00	10.779590	107.80	10.779590		0.0192
PCB 81 (BZ)	34:27	2220473	401972	1.298	10.00	9.935771	99.36	9.935771		0.0172
PCB 77 (BZ)	35:02	2295502	409182	1.269	10.00	9.772446	97.72	9.772446	B	0.0176
Total Pentachlorobiphenyl		73842233	8488525			505.630722		505.630722		1.02
13C12-PCB 104	26:24	2472040	518303	1.246	20.00	16.832477	84.16	16.832477		0.0115
13C12-PCB 95				0.754	10.00			ND		0.0172
13C12-PCB 101	32:18	2357954	467454	1.000	20.00	20.000000	100.00	20.000000		0.0143
13C12-PCB 111	34:59	2888921	533049	1.266	20.00	19.347700	96.74	19.347700		0.0113
13C12-PCB 123	36:57	3883953	724169	0.954	20.00	17.355046	86.78	17.355046		0.00840
13C12-PCB 118	37:17	4119966	768704	0.995	20.00	17.658360	88.29	17.658360		0.00806
13C12-PCB 114	37:49	4052694	729920	0.952	20.00	18.155307	90.78	18.155307		0.00842
13C12-PCB 105	38:29	4044826	753300	0.942	20.00	18.317132	91.59	18.317132		0.00851
13C12-PCB 127	39:56	4689413	835805	1.000	20.00	20.000000	100.00	20.000000		0.00802
13C12-PCB 126	41:34	4441568	845518	0.991	20.00	19.111705	95.56	19.111705		0.00809
PCB 104 (BZ)	26:25	1530089	316161	1.184	10.00	10.454329	104.54	10.454329		0.0305
PCB 96 (BZ)	26:49	1343844	272989	1.055	10.00	10.304624	103.05	10.304624		0.0342
PCB 103 (BZ)	28:43	1184497	236767	0.900	10.00	10.647155	106.47	10.647155		0.0401
PCB 94 (BZ)	28:58	1023709	202510	0.789	10.00	10.492883	104.93	10.492883		0.0457
PCB 95 (BZ)	29:25	1084853	223305	0.838	10.00	10.470462	104.70	10.470462		0.0430
PCB 100 (BZ)	29:36	2192240	329754	0.888	20.00	19.965633	99.83	19.965633	C93	0.0406
PCB 93 (BZ)		2192240		0.888	20.00	19.965633	99.83	19.965633	C	0.0406
PCB 102 (BZ)		2352166		0.917	20.00	20.763107	103.82	20.763107	C98	0.0394
PCB 98 (BZ)	29:46	2352166	262036	0.917	20.00	20.763107	103.82	20.763107	C	0.0394
PCB 88 (BZ)		2261061		0.857	20.00	21.351967	106.76	21.351967	C	0.0421
PCB 91 (BZ)	30:16	2261061	250514	0.857	20.00	21.351967	106.76	21.351967	C88	0.0421
PCB 84 (BZ)	30:31	965058	186416	0.764	10.00	10.225453	102.25	10.225453		0.0473
PCB 89 (BZ)	30:59	1031768	199230	0.789	10.00	10.579504	105.80	10.579504		0.0457
PCB 121 (BZ)	31:20	1626910	318422	1.215	10.00	10.832881	108.33	10.832881		0.0297
PCB 92 (BZ)	31:45	1103230	214778	0.892	10.00	10.006016	100.06	10.006016		0.0404
PCB 113 (BZ)	32:18	4151671	631244	1.013	30.00	33.173066	110.58	33.173066	C90	0.0356
PCB 90 (BZ)		4151671		1.013	30.00	33.173066	110.58	33.173066	C	0.0356
PCB 101 (BZ)		4151671		1.013	30.00	33.173066	110.58	33.173066	C90	0.0356
PCB 83 (BZ)	32:53	2149844	260933	0.868	20.00	20.032771	100.16	20.032771	C	0.0356
PCB 99 (BZ)		2149844		0.868	20.00	20.032771	100.16	20.032771	C83	0.0416
PCB 112 (BZ)	33:02	1709169	315290	1.160	10.00	11.920047	119.20	11.920047		0.0416
PCB 109 (BZ)/108 (IUPAC)	33:24	8760971	875079	1.030	60.00	68.793783	114.66	68.793783	C86	0.0311
PCB 86 (BZ)		8760971		1.030	60.00	68.793783	114.66	68.793783	C	0.0350
PCB 119 (BZ)		8760971		1.030	60.00	68.793783	114.66	68.793783	C86	0.0350
PCB 97 (BZ)		8760971		1.030	60.00	68.793783	114.66	68.793783	C86	0.0350
PCB 125 (BZ)		8760971		1.030	60.00	68.793783	114.66	68.793783	C86	0.0350
PCB 87 (BZ)		8760971		1.030	60.00	68.793783	114.66	68.793783	C86	0.0350
PCB 117 (BZ)		8760971		1.030	60.00	68.793783	114.66	68.793783	C86	0.0350
PCB 116 (BZ)		4562545		1.054	30.00	35.017809	116.73	35.017809	C85	0.0350
PCB 85 (BZ)	34:08	4562545	535493	1.054	30.00	35.017809	116.73	35.017809	C85	0.0342
PCB 110 (BZ)		4562545		1.054	30.00	35.017809	116.73	35.017809	C	0.0342
PCB 115 (BZ)	34:22	3407000	478634	1.194	20.00	23.093903	115.47	23.093903	C	0.0342
PCB 82 (BZ)		3407000		1.194	20.00	23.093903	115.47	23.093903	C110	0.0302
PCB 111 (BZ)	34:39	990979	185494	0.730	10.00	10.989419	109.89	10.989419		0.0302
PCB 120 (BZ)	35:00	1813907	342724	1.260	10.00	11.647390	116.47	11.647390		0.0495
	35:27	1854200	358581	1.225	10.00	12.250916	122.51	12.250916		0.0286
										0.0295

TestAmerica
Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder MKNTM1AC
Data File /20110713s1/apmkntmc.d
Analysis ID 133595
Analysis Date 7/13/2011
Analysis Time 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Dil Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample	DL (ng/samp
PCB 124 (BZ)		4657455		1.029	20.00	22.032871	110.16	22.032871 C108	0.0238
PCB 108 (BZ)/107 (IUPAC)	36:37	4657455	850130	1.029	20.00	22.032871	110.16	22.032871 C	0.0238
PCB 107 (BZ)/109 (IUPAC)	36:52	2319064	447774	1.082	10.00	10.434332	104.34	10.434332	0.0226
PCB 123 (BZ)	36:58	2611510	469087	1.053	10.00	12.773826	127.74	12.773826	0.0245
PCB 106 (BZ)	37:06	2366699	453164	1.050	10.00	10.974659	109.75	10.974659	0.0233
PCB 118 (BZ)	37:18	2508304	454009	1.087	10.00	11.201394	112.01	11.201394	0.0224
PCB 122 (BZ)	37:39	2192458	416900	0.964	10.00	11.071750	110.72	11.071750	0.0254
PCB 114 (BZ)	37:50	2687085	476967	1.161	10.00	11.423140	114.23	11.423140	0.0221
PCB 105 (BZ)	38:30	2543047	463687	1.125	10.00	11.177042	111.77	11.177042	0.0221
PCB 127 (BZ)	39:58	2392709	436573	1.062	10.00	10.967429	109.67	10.967429	0.0230
PCB 126 (BZ)	41:35	2464191	427273	1.051	10.00	10.561161	105.61	10.561161	0.0211
Total Hexachlorobiphenyl		69827075	8553425			437.277562		437.277562	1.07
13C12-PCB 155	32:02	2483238	492531	1.068	20.00	19.726707	98.63	19.726707	0.0137
13C12-PCB 153				0.828	10.00			ND	0.0150
13C12-PCB 138	40:22	2799270	523088	1.000	20.00	20.000000	100.00	20.000000	0.0131
13C12-PCB 167	43:22	3738618	675339	1.247	20.00	21.420084	107.10	21.420084	0.0105
13C12-PCB 156	44:33	7561719	916513	1.233	40.00	43.813365	109.53	43.813365	0.0106
13C12-PCB 157								ND	0.000000
13C12-PCB 169	47:47	3429182	613976	1.173	20.00	20.885241	104.43	20.885241	0.0112
PCB 155 (BZ)	32:03	1433901	280763	1.128	10.00	10.240518	102.41	10.240518	0.0295
PCB 152 (BZ)	32:17	1401060	272303	1.075	10.00	10.494579	104.95	10.494579	0.0310
PCB 150 (BZ)	32:27	1416685	272055	1.096	10.00	10.405827	104.06	10.405827	0.0304
PCB 136 (BZ)	32:51	1299077	250336	1.022	10.00	10.237011	102.37	10.237011	0.0326
PCB 145 (BZ)	33:07	1312730	267018	1.069	10.00	9.892170	98.92	9.892170	0.0312
PCB 148 (BZ)	34:36	1017959	200082	0.764	10.00	10.727781	107.28	10.727781	0.0436
PCB 151 (BZ)	35:15	2006013	222168	0.750	20.00	21.535062	107.68	21.535062 C135	0.0444
PCB 135 (BZ)		2006013		0.750	20.00	21.535062	107.68	21.535062 C	0.0444
PCB 154 (BZ)	35:26	1213647	230063	0.922	10.00	10.598397	105.98	10.598397	0.0361
PCB 144 (BZ)	35:45	1015676	173547	0.808	10.00	10.119662	101.20	10.119662	0.0412
PCB 147 (BZ)	36:09	2979875	562295	0.861	20.00	18.788597	93.94	18.788597 C	0.0345
PCB 149 (BZ)		2979875		0.861	20.00	18.788597	93.94	18.788597 C147	0.0345
PCB 134 (BZ)		2555397		0.717	20.00	19.369127	96.85	19.369127 C	0.0415
PCB 143 (BZ)	36:27	2555397	281809	0.717	20.00	19.369127	96.85	19.369127 C134	0.0415
PCB 139 (BZ)	36:44	3032494	532822	0.836	20.00	19.693691	98.47	19.693691 C	0.0356
PCB 140 (BZ)		3032494		0.836	20.00	19.693691	98.47	19.693691 C139	0.0356
PCB 131 (BZ)	36:57	1290683	245701	0.700	10.00	10.009629	100.10	10.009629	0.0425
PCB 142 (BZ)	37:05	1305934	239844	0.728	10.00	9.739299	97.39	9.739299	0.0408
PCB 132 (BZ)	37:25	1355845	254716	0.736	10.00	10.007825	100.08	10.007825	0.0404
PCB 133 (BZ)	37:53	1370362	259462	0.763	10.00	9.750785	97.51	9.750785	0.0390
PCB 165 (BZ)	38:18	1950835	378926	1.001	10.00	10.587937	105.88	10.587937	0.0297
PCB 146 (BZ)	38:31	1564902	303065	0.881	10.00	9.652004	96.52	9.652004	0.0338
PCB 161 (BZ)	38:40	2125748	401600	1.100	10.00	10.493872	104.94	10.493872	0.0270
PCB 153 (BZ)	39:09	4027288	629722	1.071	20.00	20.414649	102.07	20.414649 C	0.0278
PCB 168 (BZ)		4027288		1.071	20.00	20.414649	102.07	20.414649 C153	0.0278
PCB 141 (BZ)	39:21	1512793	281646	0.803	10.00	10.227399	102.27	10.227399	0.0370
PCB 130 (BZ)	39:46	1304140	248439	0.717	10.00	9.874113	98.74	9.874113	0.0415
PCB 137 (BZ)	39:59	1628091	308055	0.832	10.00	10.632951	106.33	10.632951	0.0358
PCB 164 (BZ)	40:06	2109050	397932	1.052	10.00	10.893227	108.93	10.893227	0.0283
PCB 138 (BZ)		7313430		0.926	40.00	42.883580	107.21	42.883580 C129	0.0321

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder MKNTM1AC
Data File /20110713s1/apmkntmc.d
Analysis ID 133595
Analysis Date 7/13/2011
Analysis Time 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Dil Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 163 (BZ)	40:25	7313430	755812	0.926	40.00	42.883580	107.21	42.883580	C129	0.0321
PCB 129 (BZ)		7313430		0.926	40.00	42.883580	107.21	42.883580	C	0.0321
PCB 160 (BZ)		7313430		0.926	40.00	42.883580	107.21	42.883580	C129	0.0321
PCB 158 (BZ)	40:47	2315900	433773	1.174	10.00	10.715851	107.16	10.715851		0.0321
PCB 166 (BZ)	41:38	3868648	491514	0.958	20.00	21.941859	109.71	21.941859	C128	0.0253
PCB 128 (BZ)		3868648		0.958	20.00	21.941859	109.71	21.941859	C	0.0311
PCB 159 (BZ)	42:37	2271570	419884	1.095	10.00	11.269641	112.70	11.269641		0.0311
PCB 162 (BZ)	42:55	2362492	417346	1.108	10.00	11.576465	115.76	11.576465		0.0272
PCB 167 (BZ)	43:24	2440458	453182	1.126	10.00	11.598509	115.99	11.598509		0.0268
PCB 156 (BZ)		4806279		1.130	20.00	22.500594	112.50	22.500594	C	0.0216
PCB 157 (BZ)	44:35	4806279	598161	1.130	20.00	22.500594	112.50	22.500594	C156	0.0317
PCB 169 (BZ)	47:48	2218113	401143	1.243	10.00	10.404954	104.05	10.404954		0.0317
Total Heptachlorobiphenyl		36792918	5640156			263.828804		263.828804		0.0215
13C12-PCB 188	37:44	2938437	558008	1.217	20.00	19.038963	95.19	19.038963		0.511
13C12-PCB 178	40:47	1910877	358748	0.881	20.00	17.106156	85.53	17.106156		0.0103
13C12-PCB 180	45:53	2536091	481349	1.000	20.00	20.000000	100.00	20.000000		0.0143
13C12-PCB 170	47:09	2131713	394086	0.828	20.00	20.298785	101.49	20.298785		0.0126
13C12-PCB 189	50:15	4285099	751751	1.588	20.00	21.531125	107.66	21.531125		0.0152
PCB 188 (BZ)	37:46	1693298	337590	1.111	10.00	10.376877	103.77	10.376877		0.00824
PCB 179 (BZ)	38:08	1592954	302426	1.220	10.00	10.304763	103.05	10.304763		0.0201
PCB 184 (BZ)	38:38	1570789	302748	1.188	10.00	10.434465	104.34	10.434465		0.0214
PCB 176 (BZ)	39:01	1797251	351928	1.286	10.00	11.027407	110.27	11.027407		0.0220
PCB 186 (BZ)	39:28	1656614	323235	1.223	10.00	10.685583	106.86	10.685583		0.0203
PCB 178 (BZ)	40:50	1214685	233654	0.906	10.00	10.576438	105.76	10.576438		0.0214
PCB 175 (BZ)	41:27	1316670	260112	0.980	10.00	10.604316	106.04	10.604316		0.0289
PCB 187 (BZ)	41:43	1353817	262426	1.054	10.00	10.131419	101.31	10.131419		0.0267
PCB 182 (BZ)	41:55	1404016	269706	1.009	10.00	10.983124	109.83	10.983124		0.0248
PCB 183 (BZ)	42:19	2776796	273434	0.987	20.00	22.197566	110.99	22.197566	C	0.0259
PCB 185 (BZ)		2776796		0.987	20.00	22.197566	110.99	22.197566	C183	0.0265
PCB 174 (BZ)	42:35	1192280	227679	0.941	10.00	10.000343	100.00	10.000343		0.0265
PCB 177 (BZ)	43:02	1161597	228086	0.918	10.00	9.980515	99.81	9.980515		0.0278
PCB 181 (BZ)	43:24	1371756	263896	0.980	10.00	11.040208	110.40	11.040208		0.0285
PCB 171 (BZ)		2478755		0.872	20.00	22.427155	112.14	22.427155	C	0.0267
PCB 173 (BZ)	43:39	2478755	440443	0.872	20.00	22.427155	112.14	22.427155	C171	0.0300
PCB 172 (BZ)	45:16	1279002	242043	0.881	10.00	11.458592	114.59	11.458592		0.0300
PCB 192 (BZ)	45:33	1783423	339557	1.152	10.00	12.210323	122.10	12.210323		0.0297
PCB 193 (BZ)	45:53	3342381	463540	1.154	20.00	22.855776	114.28	22.855776	C180	0.0227
PCB 180 (BZ)		3342381		1.154	20.00	22.855776	114.28	22.855776	C	0.0227
PCB 191 (BZ)	46:15	1883718	357229	1.287	10.00	11.547268	115.47	11.547268		0.0227
PCB 170 (BZ)	47:11	1315006	241370	1.102	10.00	11.194937	111.95	11.194937		0.0203
PCB 190 (BZ)	47:41	1987869	359832	1.265	10.00	12.398077	123.98	12.398077		0.0287
PCB 189 (BZ)	50:17	2620241	463205	1.073	10.00	11.393651	113.94	11.393651		0.0207
Total Octachlorobiphenyl		16063554	2954472			123.392785		123.392785		0.0154
13C12-PCB 202	43:05	2514934	468522	0.907	20.00	21.859711	109.30	21.859711		0.198
13C12-PCB 194	52:19	2506206	462319	1.000	20.00	20.000000	100.00	20.000000		0.0124
13C12-PCB 205	52:47	3775748	673330	1.395	20.00	21.604876	108.02	21.604876		0.0117
PCB 202 (BZ)	43:07	1254602	245504	1.007	10.00	9.910312	99.10	9.910312		0.00838
PCB 200 (BZ)/201 (IUPAC)	44:02	1432016	276977	1.134	10.00	10.041301	100.41	10.041301		0.0181
PCB 204 (BZ)	44:41	1381815	271143	1.034	10.00	10.626126	106.26	10.626126		0.0161
										0.0176

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder MKNTM1AC
Data File /20110713s1/apmkntmc.d
Analysis ID 133595
Analysis Date 7/13/2011
Analysis Time 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Dil Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 197 (BZ)	44:55	1456271	288519	1.075	10.00	10.774200	107.74	10.774200		0.0170
PCB 199 (BZ)/200 (IUPAC)	45:03	1423676	282234	1.095	10.00	10.340001	103.40	10.340001		0.0167
PCB 198 (BZ)	47:49	2016751	273842	0.775	20.00	20.692928	103.46	20.692928	C	0.0235
PCB 201 (BZ)/199 (IUPAC)		2016751		0.775	20.00	20.692928	103.46	20.692928	C198	0.0235
PCB 196 (BZ)	48:29	1066782	204366	0.800	10.00	10.606373	106.06	10.606373		0.0228
PCB 203 (BZ)	48:41	1156148	222476	0.868	10.00	10.597468	105.97	10.597468		0.0210
PCB 195 (BZ)	50:01	1354819	253140	0.765	10.00	9.381168	93.81	9.381168		0.0166
PCB 194 (BZ)	52:20	1496511	274903	0.830	10.00	9.547875	95.48	9.547875		0.0153
PCB 205 (BZ)	52:48	2024163	361368	0.986	10.00	10.875032	108.75	10.875032		0.0129
Total Nonachlorobiphenyl		4511166	856800			30.702119		30.702119		0.0416
13C12-PCB 208	49:43	2927252	550597	1.155	20.00	20.223571	101.12	20.223571		0.0117
13C12-PCB 206	54:29	2217222	414284	0.808	20.00	21.905988	109.53	21.905988		0.0167
PCB 208 (BZ)	49:44	1601774	316224	1.035	10.00	10.574078	105.74	10.574078		0.0132
PCB 207 (BZ)	50:39	1716819	325093	1.276	10.00	10.464305	104.64	10.464305		0.0122
PCB 206 (BZ)	54:30	1192573	215483	1.113	10.00	9.663736	96.64	9.663736		0.0163
13C12-PCB 209	56:04	2083150	356854	0.857	20.00	19.389520	96.95	19.389520		0.0134
PCB 209 (BZ)	56:05	1311087	221882	1.052	10.00	11.963328	119.63	11.963328		0.0197

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

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Analysis ID 133595
Analysis Date 07/13/11 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
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Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Diluton Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

View Small Peaks? False

View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60	
	Noise				200	178	80	71	1.13 *	/
	PCB 1 (BZ)	00:00	00:00	0	2196491	692955	818650	262806	3.17	ABB/ABB
	PCB 2 (BZ)	12:10	12:12	-2	2172800	669711	624342	191668	3.24	ABV/ABV
	PCB 3 (BZ)	14:13	14:13	0	2114911	663319	641587	201645	3.19	AVB/AVB
200		14:23	14:23	0	200.0795	202.0766	200.0795	202.0766	2.66-3.60	
	Noise				163	508	65	203	0.32 *	/
	13C12-PCB 1	00:00	00:00	0	3685712	1144674	1256920	399032	3.22	ABV/ABV
	13C12-PCB 3	12:09	12:12	-3	3497523	1069046	995089	314080	3.27	ABV/ABB
222		14:22	14:23	-1	222.0003	223.9974	222.0003	223.9974	1.33-1.79	
	Noise				318	560	127	224	0.57 *	/
	PCB 4 (BZ)	00:00	00:00	0	724912	442211	207144	127959	1.64	ABV/ABV
	PCB 10 (BZ)	14:39	14:40	-1	1209927	752249	356828	220644	1.61	AVV/AVB
	PCB 9 (BZ)	14:49	14:50	-1	1153414	714506	301269	189819	1.61	ABV/ABV
	PCB 7 (BZ)	16:38	16:39	-1	1316096	808785	343288	203152	1.63	AVV/AVV
	PCB 6 (BZ)	16:48	16:48	0	1248114	767705	316592	193441	1.63	AVV/AVB
	PCB 5 (BZ)	17:03	17:04	-1	1225129	747871	323818	196874	1.64	AVV/ABV
	PCB 8 (BZ)	17:22	17:22	0	1259802	770146	325402	202076	1.64	AVB/AVB
	PCB 14 (BZ)	17:29	17:30	-1	1521426	941472	368718	220826	1.62	ABV/AVV
	PCB 11 (BZ)	19:08	19:08	0	1349753	806170	308568	187843	1.67	ABV/ABV
	PCB 13 (BZ)	19:59	19:58	1	2642913	1609047	440660	271753	1.64	AVV/AVV
	PCB 15 (BZ)	20:18	20:15	3	1337041	813912	281708	174560	1.64	AVB/AVB
234		20:37	20:35	2	234.0406	236.0376	234.0406	236.0376	1.33-1.79	
	Noise				235	153	94	61	1.54	/
	13C12-PCB 4	00:00	00:00	0	1188563	722618	354929	209772	1.64	ABV/ABV
	13C12-PCB 9	14:38	14:39	-1	2368621	1436311	616980	386526	1.65	AVV/ABV
	13C12-PCB 15	16:36	16:37	-1	2058654	1242003	439694	269075	1.66	AVV/ABV
256		20:37	20:34	3	255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	Noise				248	213	99	85	1.16	/
	PCB 19 (BZ)	00:00	00:00	0	455409	430263	119343	107188	1.06	ABV/ABV
	PCB 30 (BZ)	17:48	17:49	-1	1290374	1252677	188793	180408	1.03	ABB/ABB
	PCB 17 (BZ)	19:37	19:37	0	539568	518155	129508	125391	1.04	ABV/ABV
	PCB 27 (BZ)	20:06	20:05	1	723647	697502	178106	168930	1.04	AVV/AVV
	PCB 24 (BZ)	20:19	20:19	0	752078	728390	177348	172854	1.03	AVV/AVV
	PCB 16 (BZ)	20:27	20:26	1	427833	402607	96395	89983	1.06	AVB/AVB
	PCB 32 (BZ)	20:34	20:34	0	798694	779276	181560	177970	1.02	AVB/AVB
	PCB 34 (BZ)	21:05	21:04	1	1152440	1106414	259171	242707	1.04	ABV/ABV
	PCB 23 (BZ)	22:21	22:20	1	1202061	1166018	266914	257327	1.03	AVB/AVB
	PCB 26 (BZ)	22:29	22:28	1	2473258	2390562	512318	496867	1.03	ABV/ABV
	PCB 25 (BZ)	22:49	22:48	1	1262681	1218250	249952	242147	1.04	AVV/AVV
	PCB 31 (BZ)	23:03	23:02	1	1258758	1229427	268475	264241	1.02	AVV/AVV
	PCB 28 (BZ)	23:22	23:21	1	2418071	2356440	399215	391858	1.03	AVV/AVV
	PCB 33 (BZ)	23:41	23:38	3	2682516	2581285	309730	302981	1.04	AVV/AVV
	PCB 22 (BZ)	23:54	23:54	0	1177923	1153704	245876	241640	1.02	AVB/AVB
		24:19	24:17	2						

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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peak list.rpt v11.7.14.1141

TestAmerica
Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder MKNTM1AC
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SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

View Small Peaks? False

View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags	
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	PCB 36 (BZ)	25:52	25:50	2	1363431	1321342	266558	253974	1.03	AVV/AVV	
	PCB 39 (BZ)	26:14	26:11	3	1374939	1345553	269790	261772	1.02	AVV/AVV	
	PCB 38 (BZ)	26:49	26:46	3	1264226	1213771	244574	238767	1.04	AVV/AVV	
	PCB 35 (BZ)	27:18	27:15	3	1302172	1252081	253873	245092	1.04	AVV/AVV	
	PCB 37 (BZ)	27:43	27:39	4	1309402	1265689	261556	247826	1.03	AVV/AVV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise				568	315	227	126	1.80 *	/	
	13C12-PCB 19	00:00	00:00	0	808783	760436	205485	197835	1.06	ABV/AVV	
	13C12-PCB 32	17:47	17:48	-1	1672520	1591027	375266	367581	1.05	AVV/AVV	
	13C12-PCB 31	21:04	21:03	1	2532348	2400667	527825	512092	1.05	ABV/ABV	
	13C12-PCB 28	23:21	23:20	1	2127604	2046928	452603	430494	1.04	AVB/AVB	
	13C12-PCB 37	23:38	23:37	1	2129414	1979311	414769	383406	1.08	ABV/ABV	
290		27:42	27:38	4	289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise				320	410	128	164	0.78	/	
	PCB 54 (BZ)	00:00	00:00	0	525570	690014	120437	165118	0.76	ABB/ABB	
	PCB 53 (BZ)	20:55	20:54	1	1204862	1545119	265862	341754	0.78	ABV/ABV	
	PCB 45 (BZ)	23:05	23:05	0	1152987	1459840	151421	191933	0.79	ABV/ABV	
	PCB 46 (BZ)	23:49	23:45	4	499465	638248	107711	137746	0.78	AVV/AVV	
	PCB 52 (BZ)	24:05	24:05	0	566930	728911	125984	164077	0.78	ABV/ABV	
	PCB 73 (BZ)	25:30	25:29	1	1372692	1759136	177342	214574	0.78	AVV/AVV	
	PCB 49 (BZ)	25:37	25:36	1	1533548	1950972	180018	228831	0.79	AVB/AVB	D
	PCB 48 (BZ)	25:54	25:58	-4	610854	779380	123408	163081	0.78	ABV/ABV	
	PCB 44 (BZ)	26:15	26:14	1	2056994	2625630	386939	495773	0.78	AVV/AVV	
	PCB 62 (BZ)	26:30	26:28	2	2704084	3466017	425065	550448	0.78	AVV/AVV	
	PCB 42 (BZ)	26:49	26:45	4	602330	786242	122617	160664	0.77	AVB/AVB	
	PCB 71 (BZ)	27:02	27:00	2	1861624	2387347	270906	343790	0.78	ABV/ABV	
	PCB 64 (BZ)	27:31	27:30	1	995044	1288034	196218	256264	0.77	AVV/AVB	
	PCB 72 (BZ)	27:44	27:43	1	909510	1162693	177671	230094	0.78	ABV/ABV	
	PCB 68 (BZ)	28:34	28:32	2	1003843	1288447	190364	251287	0.78	AVV/AVV	
	PCB 57 (BZ)	28:50	28:49	1	878843	1125218	174141	217202	0.78	ABV/ABV	
	PCB 58 (BZ)	29:16	29:15	1	913166	1178978	176462	230688	0.77	AVV/AVV	
	PCB 67 (BZ)	29:31	29:30	1	936095	1203929	176192	221496	0.78	AVV/AVV	
	PCB 63 (BZ)	29:40	29:39	1	964632	1215821	186423	240539	0.79	AVB/AVB	
	PCB 70 (BZ)	29:56	29:56	0	3684650	4727329	403913	519124	0.78	ABB/ABB	
	PCB 66 (BZ)	30:18	30:15	3	834624	1087126	165435	219302	0.77	ABV/ABV	
	PCB 55 (BZ)	30:37	30:36	1	881841	1118090	173911	226283	0.79	AVV/AVV	
	PCB 56 (BZ)	30:48	30:46	2	906787	1148654	183205	222341	0.79	ABV/ABV	
	PCB 60 (BZ)	31:18	31:15	3	945403	1210365	172169	224671	0.78	AVV/AVV	
	PCB 80 (BZ)	31:31	31:28	3	1070368	1340983	188884	251275	0.80	AVB/AVB	
	PCB 79 (BZ)	31:53	31:51	2	1118747	1382940	188922	244865	0.81	ABV/ABV	
	PCB 78 (BZ)	33:26	33:24	2	970938	1269441	171136	222463	0.76	AVV/ABV	
	PCB 81 (BZ)	34:00	33:57	3	975398	1245075	173233	228739	0.78	AVV/AVV	
	PCB 77 (BZ)	34:27	34:24	3	1000849	1294653	180162	229020	0.77	ABV/ABV	M
		35:02	34:57	5							

Notes:
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T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder MKNTM1AC
Data File /20110713s1/apmkntmc.d
Analysis ID 133595
Analysis Date 07/13/11 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Diluton Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

View Small Peaks? False

View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags	
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89		
	Noise				140	120	56	48	1.17 *	/	
	13C12-PCB 54	00:00	00:00	0	955312	1240134	223684	288893	0.77	ABV/ABV	
	13C12-PCB 52	20:54	20:54	0	1168291	1512951	234539	306325	0.77	ABV/ABV	
	13C12-PCB 81	25:28	25:27	1	1521626	1920960	288927	363193	0.79	ABV/ABV	
	13C12-PCB 77	34:26	34:22	4	1646079	2055815	290378	362651	0.80	AVV/AVV	
326		35:00	34:56	4	325.8804	327.8775	325.8804	327.8775	1.32-1.78		
	Noise				470	465	188	186	1.01 *	/	
	PCB 104 (BZ)	00:00	00:00	0	948998	581091	194348	121813	1.63	ABV/ABV	
	PCB 96 (BZ)	26:25	26:25	0	834455	509389	168695	104294	1.64	AVV/AVV	
	PCB 103 (BZ)	26:49	26:49	0	739521	444976	148983	87784	1.66	ABV/ABV	
	PCB 94 (BZ)	28:43	28:43	0	635110	388599	127001	75509	1.63	AVB/AVB	
	PCB 95 (BZ)	28:58	28:57	1	674529	410324	141362	81943	1.64	ABV/ABV	
	PCB 100 (BZ)	29:25	29:24	1	1363208	829032	204425	125329	1.64	AVV/AVV	
	PCB 98 (BZ)	29:36	29:35	1	1460085	892081	163470	98566	1.64	AVB/AVB	
	PCB 91 (BZ)	29:46	29:49	-3	1397565	863496	151058	99456	1.62	ABV/ABV	
	PCB 84 (BZ)	30:16	30:16	0	594595	370463	114609	71807	1.61	AVB/AVB	
	PCB 89 (BZ)	30:31	30:30	1	639129	392639	122871	76359	1.63	ABB/ABV	
	PCB 121 (BZ)	30:59	30:58	1	1014733	612177	196958	121464	1.66	ABB/AVV	
	PCB 92 (BZ)	31:20	31:19	1	680481	422749	132116	82662	1.61	ABB/AVB	
	PCB 113 (BZ)	31:45	31:44	1	2570285	1581386	389338	241906	1.63	ABB/ABB	
	PCB 83 (BZ)	32:18	32:15	3	1303360	846484	158577	102356	1.54	ABV/ABV	
	PCB 112 (BZ)	32:53	32:48	5	1065415	643754	199382	115908	1.66	AVB/AVB	
	PCB 109 (BZ)/108 (IUPAC	33:02	33:01	1	5424538	3336433	535547	339532	1.63	ABB/ABB	
	PCB 116 (BZ)	33:24	33:20	4	2818760	1743785	332039	203454	1.62	ABV/ABV	
	PCB 110 (BZ)	34:08	34:06	2	2102360	1304640	292791	185843	1.61	AVB/AVB	
	PCB 82 (BZ)	34:22	34:18	4	622480	368499	112929	72565	1.69	ABB/ABB	
	PCB 111 (BZ)	34:39	34:38	1	1122237	691670	211807	130917	1.62	ABV/ABV	
	PCB 120 (BZ)	35:00	34:59	1	1141683	712517	219564	139017	1.60	AVB/AVB	D
	PCB 108 (BZ)/107 (IUPAC	35:27	35:27	0	2849171	1808284	519816	330314	1.58	ABV/ABV	
	PCB 107 (BZ)/109 (IUPAC	36:37	36:35	2	1419657	899407	279079	168695	1.58	AVV/AVV	
	PCB 123 (BZ)	36:52	36:50	2	1598700	1012810	286482	182605	1.58	AVV/AVV	
	PCB 106 (BZ)	36:58	36:56	2	1446079	920620	277680	175484	1.57	AVV/AVV	
	PCB 118 (BZ)	37:06	37:03	3	1532212	976092	276312	177697	1.57	AVV/AVV	
	PCB 122 (BZ)	37:18	37:16	2	1341443	851015	253652	163248	1.58	AVB/AVB	
	PCB 114 (BZ)	37:39	37:37	2	1633561	1053524	285930	191037	1.55	ABV/ABV	
	PCB 105 (BZ)	37:50	37:47	3	1553087	989960	286734	176953	1.57	AVV/AVV	
	PCB 127 (BZ)	38:30	38:28	2	1475203	917506	262238	174335	1.61	ABV/ABV	
	PCB 126 (BZ)	39:58	39:54	4	1501119	963072	256545	170728	1.56	AVV/AVV	
338		41:35	41:31	4	337.9207	339.9178	337.9207	339.9178	1.32-1.78	ABV/AVB	
	Noise				155	180	62	72	0.86 *	/	
	13C12-PCB 104	00:00	00:00	0	1521669	950371	324650	193653	1.60	ABV/ABV	
	13C12-PCB 101	26:24	26:24	0	1457857	900097	288345	179109	1.62	ABV/ABV	
	13C12-PCB 111	32:18	32:17	1	1783221	1105700	327328	205721	1.61	ABV/ABV	
		34:59	34:57	2							

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Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder MKNTM1AC
Data File /20110713s1/apmkntmc.d
Analysis ID 133595
Analysis Date 07/13/11 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Diluton Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

View Small Peaks? False

View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags	
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78		
	13C12-PCB 123	36:57	36:55	2	2400926	1483027	447623	276546	1.62	AVV/ABV	
	13C12-PCB 118	37:17	37:14	3	2563496	1556470	481033	287671	1.65	AVV/AVV	
	13C12-PCB 114	37:49	37:46	3	2510235	1542459	449303	280617	1.63	AVV/AVV	
	13C12-PCB 105	38:29	38:26	3	2494494	1550332	464878	288422	1.61	ABB/ABB	
	13C12-PCB 127	39:56	39:52	4	2889189	1800224	511119	324686	1.60	ABV/AVV	
	13C12-PCB 126	41:34	41:30	4	2723076	1718492	512558	332960	1.58	ABV/ABV	
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43		
	Noise	00:00	00:00	0	443	378	177	151	1.17	/	
	PCB 155 (BZ)	32:03	32:03	0	803361	630540	159100	121663	1.27	ABV/ABV	
	PCB 152 (BZ)	32:17	32:18	-1	795911	605149	156730	115573	1.32	AVV/AVV	
	PCB 150 (BZ)	32:27	32:27	0	811054	605631	156317	115738	1.34	AVB/AVB	
	PCB 136 (BZ)	32:51	32:50	1	729393	569684	139826	110510	1.28	ABV/ABV	
	PCB 145 (BZ)	33:07	33:06	1	740313	572417	149091	117927	1.29	AVB/AVB	
	PCB 148 (BZ)	34:36	34:36	0	572040	445919	109006	91076	1.28	ABV/ABV	
	PCB 151 (BZ)	35:15	35:12	3	1126905	879108	123470	98698	1.28	ABV/ABV	
	PCB 154 (BZ)	35:26	35:27	-1	691646	522001	132822	97241	1.32	AVV/AVV	
	PCB 144 (BZ)	35:45	35:46	-1	552656	463020	94861	78686	1.19	AVB/AVB	
	PCB 147 (BZ)	36:09	36:08	1	1661745	1318130	317145	245150	1.26	ABV/ABV	
	PCB 143 (BZ)	36:27	36:27	0	1426738	1128659	159635	122174	1.26	AVV/AVV	
	PCB 139 (BZ)	36:44	36:42	2	1690924	1341570	297815	235007	1.26	AVV/AVV	
	PCB 131 (BZ)	36:57	36:55	2	709487	581196	135420	110281	1.22	AVV/AVV	
	PCB 142 (BZ)	37:05	37:04	1	733117	572817	131127	108717	1.28	AVB/AVB	
	PCB 132 (BZ)	37:25	37:24	1	761343	594502	142715	112001	1.28	ABB/ABB	
	PCB 133 (BZ)	37:53	37:52	1	764140	606222	143646	115816	1.26	ABB/ABB	
	PCB 165 (BZ)	38:18	38:16	2	1093736	857099	210214	168712	1.28	ABV/ABV	
	PCB 146 (BZ)	38:31	38:31	0	872846	692056	169346	133719	1.26	AVV/AVV	
	PCB 161 (BZ)	38:40	38:39	1	1186927	938821	228881	172719	1.26	AVB/AVB	
	PCB 153 (BZ)	39:09	39:07	2	2245008	1782280	355189	274533	1.26	ABV/ABV	
	PCB 141 (BZ)	39:21	39:20	1	847559	665234	157961	123685	1.27	AVB/AVB	
	PCB 130 (BZ)	39:46	39:45	1	723613	580527	138977	109462	1.25	ABV/ABV	
	PCB 137 (BZ)	39:59	39:57	2	903365	724726	173039	135016	1.25	AVV/AVV	XM
	PCB 164 (BZ)	40:06	40:05	1	1171419	937631	218915	179017	1.25	AVB/AVB	
	PCB 163 (BZ)	40:25	40:23	2	4080361	3233069	422478	333334	1.26	ABV/ABV	
	PCB 158 (BZ)	40:47	40:46	1	1287393	1028507	239929	193844	1.25	AVB/AVB	
	PCB 166 (BZ)	41:38	41:36	2	2146370	1722278	270641	220873	1.25	AVB/AVB	
	PCB 159 (BZ)	42:37	42:35	2	1261128	1010442	228615	191269	1.25	AVV/AVV	
	PCB 162 (BZ)	42:55	42:52	3	1319541	1042951	234610	182736	1.27	AVV/AVV	
	PCB 167 (BZ)	43:24	43:21	3	1362651	1077807	254968	198214	1.26	ABB/ABB	
	PCB 157 (BZ)	44:35	44:33	2	2686193	2120086	332853	265308	1.27	ABB/ABB	
	PCB 169 (BZ)	47:48	47:44	4	1248549	969564	228011	173132	1.29	ABV/ABV	
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43		
	Noise	00:00	00:00	0	178	165	71	66	1.08	/	
	13C12-PCB 155	32:02	32:02	0	1397370	1085868	272656	219875	1.29	ABV/ABB	

Notes:
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Workorder MKNTM1AC
Data File /20110713s1/apmkntmc.d
Analysis ID 133595
Analysis Date 07/13/11 23:12
Anal Exp Date 08/20/11
Instrument M1D
Analyst JMN

Prep Batch 1187028
Prep Date 07/06/11
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Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
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Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

View Small Peaks? False

View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	13C12-PCB 138	40:22	40:21	1	1575092	1224178	294288	228800	1.29	ABV/ABV
	13C12-PCB 167	43:22	43:20	2	2109746	1628872	377375	297964	1.30	AVV/AVV
	13C12-PCB 156	44:33	44:30	3	4257484	3304235	515094	401419	1.29	ABV/ABV
	13C12-PCB 169	47:47	47:43	4	1943134	1486048	345286	268690	1.31	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	310	313	124	125	0.99	/
	PCB 188 (BZ)	37:46	37:45	1	857396	835902	171083	166507	1.03	ABV/ABV
	PCB 179 (BZ)	38:08	38:08	0	815299	777655	153512	148914	1.05	AVV/AVV
	PCB 184 (BZ)	38:38	38:38	0	805284	765505	154676	148072	1.05	ABB/AVV
	PCB 176 (BZ)	39:01	39:01	0	923082	874169	183242	168686	1.06	ABB/ABB
	PCB 186 (BZ)	39:28	39:28	0	851358	805256	164436	158799	1.06	ABB/ABB
	PCB 178 (BZ)	40:50	40:50	0	621016	593669	119857	113797	1.05	ABV/ABV
	PCB 175 (BZ)	41:27	41:27	0	673918	642752	133227	126885	1.05	ABV/ABV
	PCB 187 (BZ)	41:43	41:43	0	693301	660516	132841	129585	1.05	AVV/AVV
	PCB 182 (BZ)	41:55	41:56	-1	715097	688919	140783	128923	1.04	AVB/AVB
	PCB 183 (BZ)	42:19	42:20	-1	1427672	1349124	138768	134666	1.06	ABV/ABV
	PCB 174 (BZ)	42:35	42:34	1	615567	576713	118624	109055	1.07	AVB/AVB
	PCB 177 (BZ)	43:02	43:01	1	603693	557904	119523	108563	1.08	ABV/ABB
	PCB 181 (BZ)	43:24	43:24	0	702017	669739	135286	128610	1.05	AVV/ABV
	PCB 173 (BZ)	43:39	43:36	3	1277673	1201082	228332	212111	1.06	AVV/AVB
	PCB 172 (BZ)	45:16	45:14	2	664772	614230	123679	118364	1.08	ABV/ABB
	PCB 192 (BZ)	45:33	45:31	2	918616	864807	174391	165166	1.06	AVV/ABV
	PCB 193 (BZ)	45:53	45:50	3	1732606	1609775	238948	224592	1.08	AVV/AVB
	PCB 191 (BZ)	46:15	46:15	0	971491	912227	179661	177568	1.06	AVV/ABB
	PCB 170 (BZ)	47:11	47:09	2	677032	637974	121158	120212	1.06	ABV/ABV
	PCB 190 (BZ)	47:41	47:40	1	1021877	965992	186108	173724	1.06	ABB/ABB
	PCB 189 (BZ)	50:17	50:14	3	1329167	1291074	233462	229743	1.03	AVV/AVV
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	150	153	60	61	0.98	/
	13C12-PCB 188	37:44	37:45	-1	1509272	1429165	284977	273031	1.06	ABV/ABV
	13C12-PCB 178	40:47	40:48	-1	979217	931660	184311	174437	1.05	ABV/ABV
	13C12-PCB 180	45:53	45:52	1	1306240	1229851	243022	238327	1.06	ABV/ABV
	13C12-PCB 170	47:09	47:08	1	1101411	1030302	206416	187670	1.07	ABV/ABV
	13C12-PCB 189	50:15	50:13	2	2191914	2093185	384877	366874	1.05	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	213	215	85	86	0.99	/
	PCB 202 (BZ)	43:07	43:07	0	606568	648034	120942	124562	0.94	ABV/ABB
	PCB 200 (BZ)/201 (IUPAC	44:02	44:03	-1	674157	757859	131616	145361	0.89	ABB/ABB
	PCB 204 (BZ)	44:41	44:42	-1	664363	717452	131900	139243	0.93	ABV/ABV
	PCB 197 (BZ)	44:55	44:56	-1	699872	756399	137952	150567	0.93	AVV/AVV
	PCB 199 (BZ)/200 (IUPAC	45:03	45:03	0	670646	753030	133224	149010	0.89	AVB/AVB
	PCB 198 (BZ)	47:49	47:47	2	972291	1044460	129211	144631	0.93	ABV/ABV
	PCB 196 (BZ)	48:29	48:29	0	511142	555640	98288	106078	0.92	ABV/ABV

Notes:
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Prep Batch 1187028
Prep Date 07/06/11
Prep Exp Date 07/22/11
Matrix AIR
Initial Wt/Vol 1 Sample
Extract Vol 200 uL
Diluton Factor 1.00

Lot No H1G060000-028
SDG No
Date Received 07/06/11
Date Sampled 06/22/11
Lims Test Code XXSIPIE01
Method IE5
Code IE5

View Small Peaks? False

View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	PCB 203 (BZ)	48:41	48:40	1	550474	605674	103987	118489	0.91	AVB/AVB
	PCB 195 (BZ)	50:01	50:01	0	634080	720739	120111	133029	0.88	ABV/AVV
	PCB 194 (BZ)	52:20	52:20	0	699247	797264	126907	147996	0.88	ABV/ABB
	PCB 205 (BZ)	52:48	52:47	1	946390	1077773	169556	191812	0.88	ABV/ABV
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02	
	Noise	00:00	00:00	0	120	150	48	60	0.80	/
	13C12-PCB 202	43:05	43:05	0	1205416	1309518	224271	244251	0.92	ABV/ABV
	13C12-PCB 194	52:19	52:19	0	1191999	1314207	219095	243224	0.91	ABV/ABB
	13C12-PCB 205	52:47	52:46	1	1797124	1978624	315211	358119	0.91	ABV/ABV
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89	
	Noise	00:00	00:00	0	160	215	64	86	0.74	/
	PCB 208 (BZ)	49:44	49:45	-1	717387	884387	141687	174537	0.81	ABV/ABV
	PCB 207 (BZ)	50:39	50:41	-2	762134	954685	144730	180363	0.80	ABV/ABV
	PCB 206 (BZ)	54:30	54:30	0	529717	662856	94397	121086	0.80	ABB/ABV
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	165	148	66	59	1.12 *	/
	13C12-PCB 208	49:43	49:44	-1	1304078	1623174	250839	299758	0.80	ABV/ABV
	13C12-PCB 206	54:29	54:30	-1	961693	1255529	177611	236673	0.77	ABV/ABV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	
	Noise	00:00	00:00	0	165	205	66	82	0.80 *	/
	PCB 209 (BZ)	56:05	56:08	-3	551183	759904	92883	128999	0.73	ABV/AVV
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79	
	Noise	00:00	00:00	0	125	140	50	56	0.89 *	/
	13C12-PCB 209	56:04	56:07	-3	860079	1223071	147609	209245	0.70	ABV/ABV

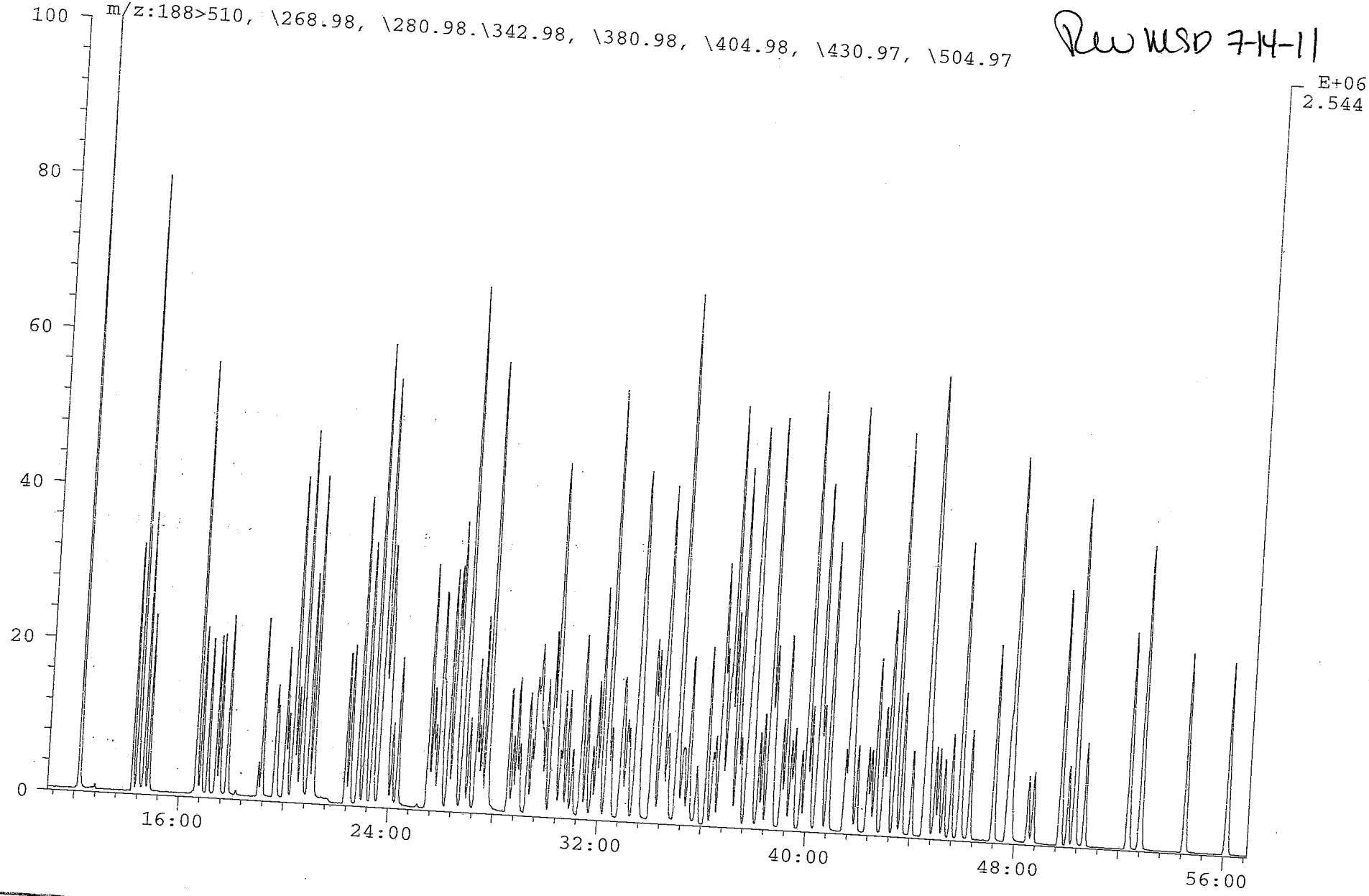
Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

Printed: 07/14/11 11:41

peak list.rpt v11.7.14.1141

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 35:57 1410
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 2 > 2597 Inlet : GC Vial 4
Area: 5, 0.50, 0 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : 0, 0.0

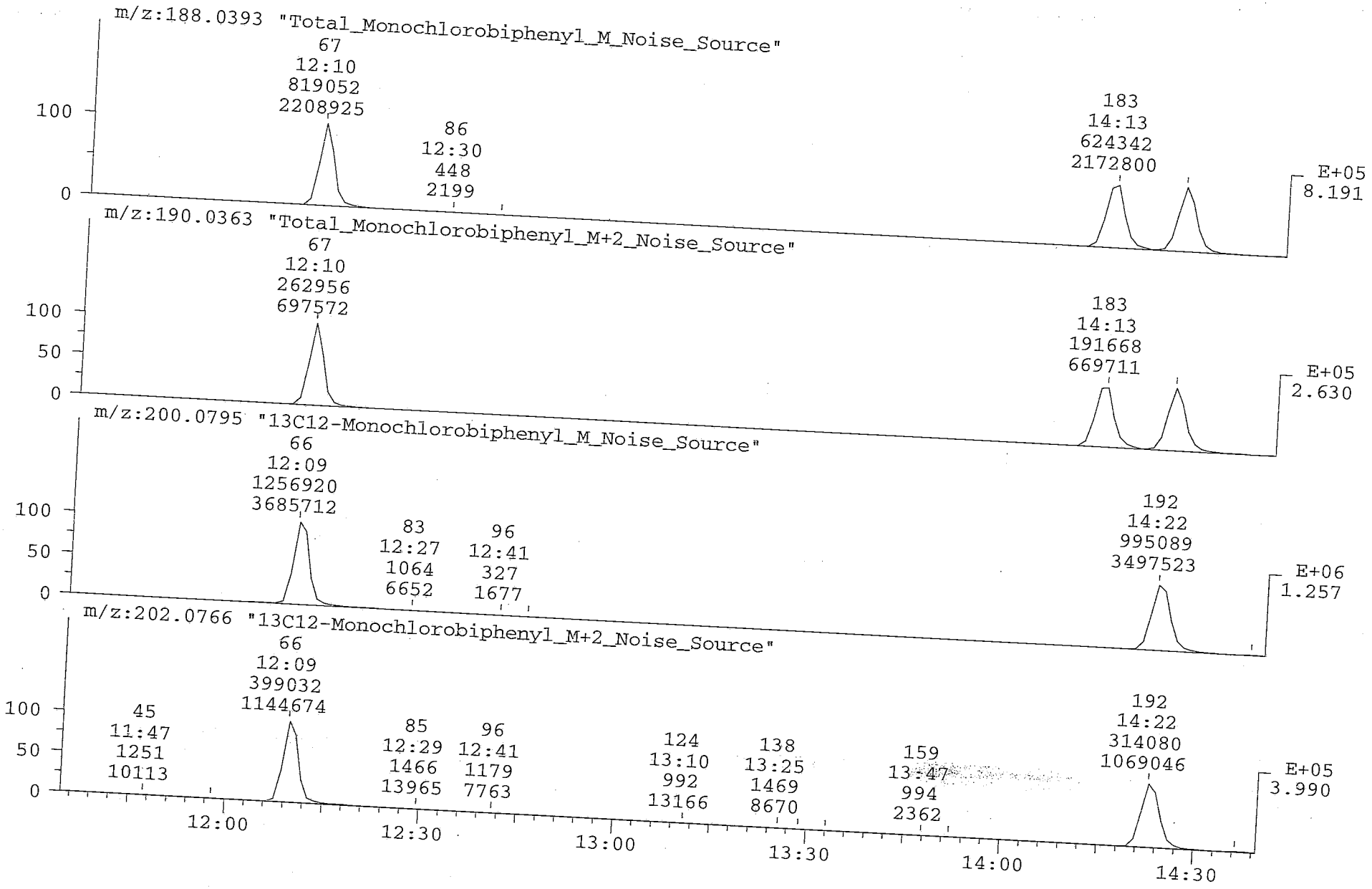
Int: G 7/13/11
Calc
QC: CWK 7/14/11
Rev MSD 7-14-11



H-3124

3123

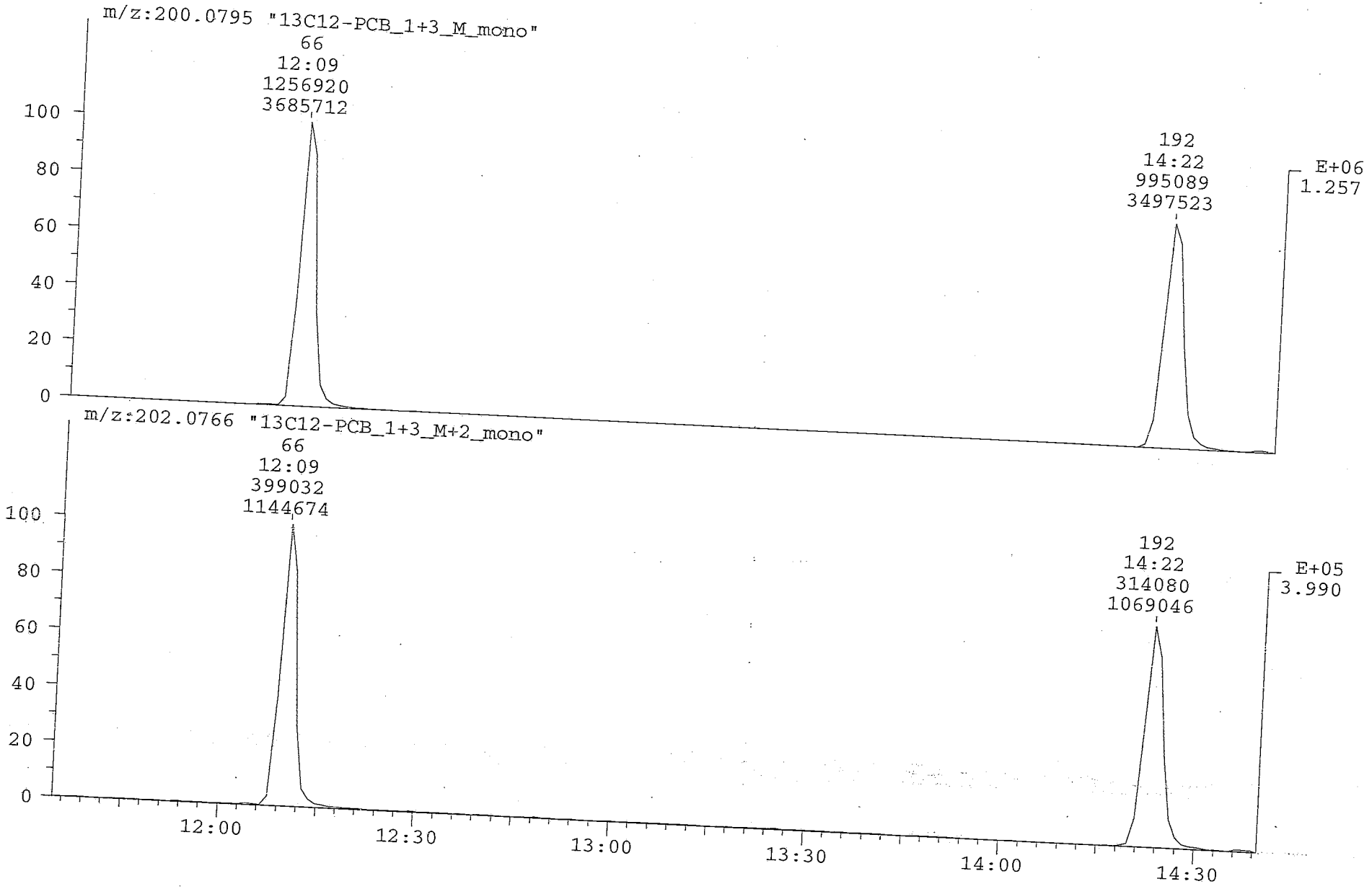
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 13:20.4 133
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 33 > 208 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



H-3125

3124

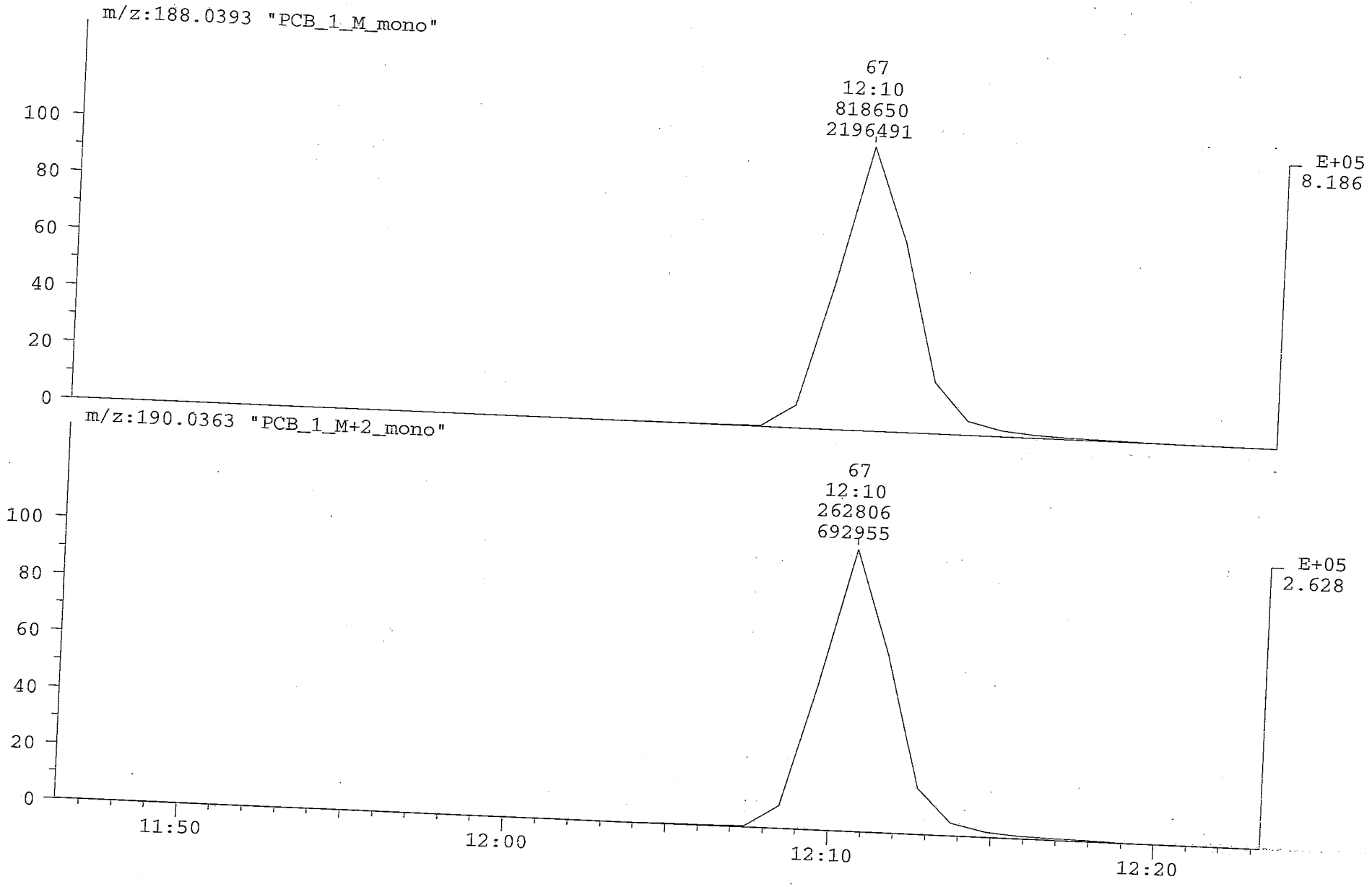
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 13:20.4 133
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3126

3125

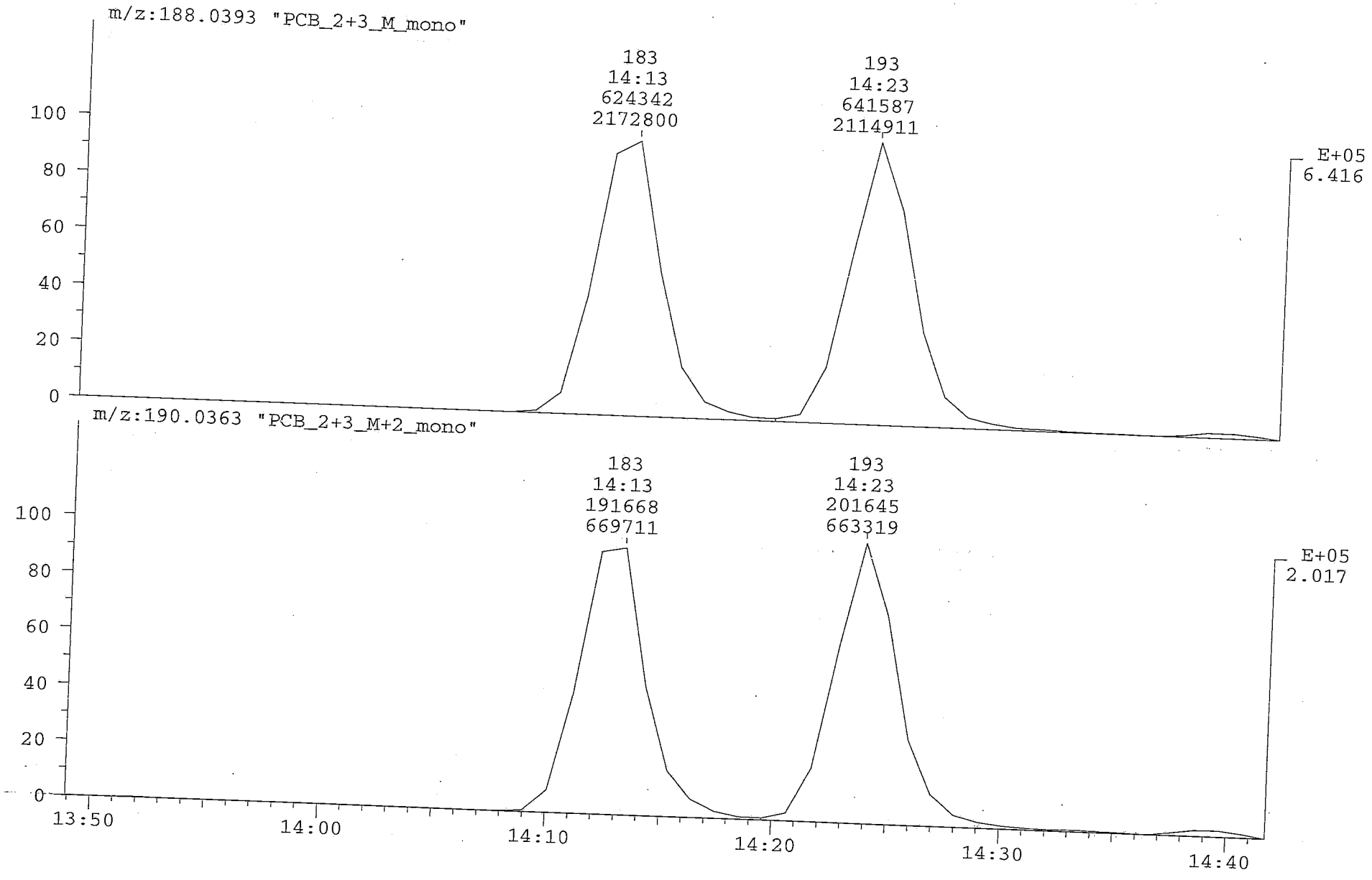
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 12:02.1 59
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 44 > 79 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



H-3127

3126

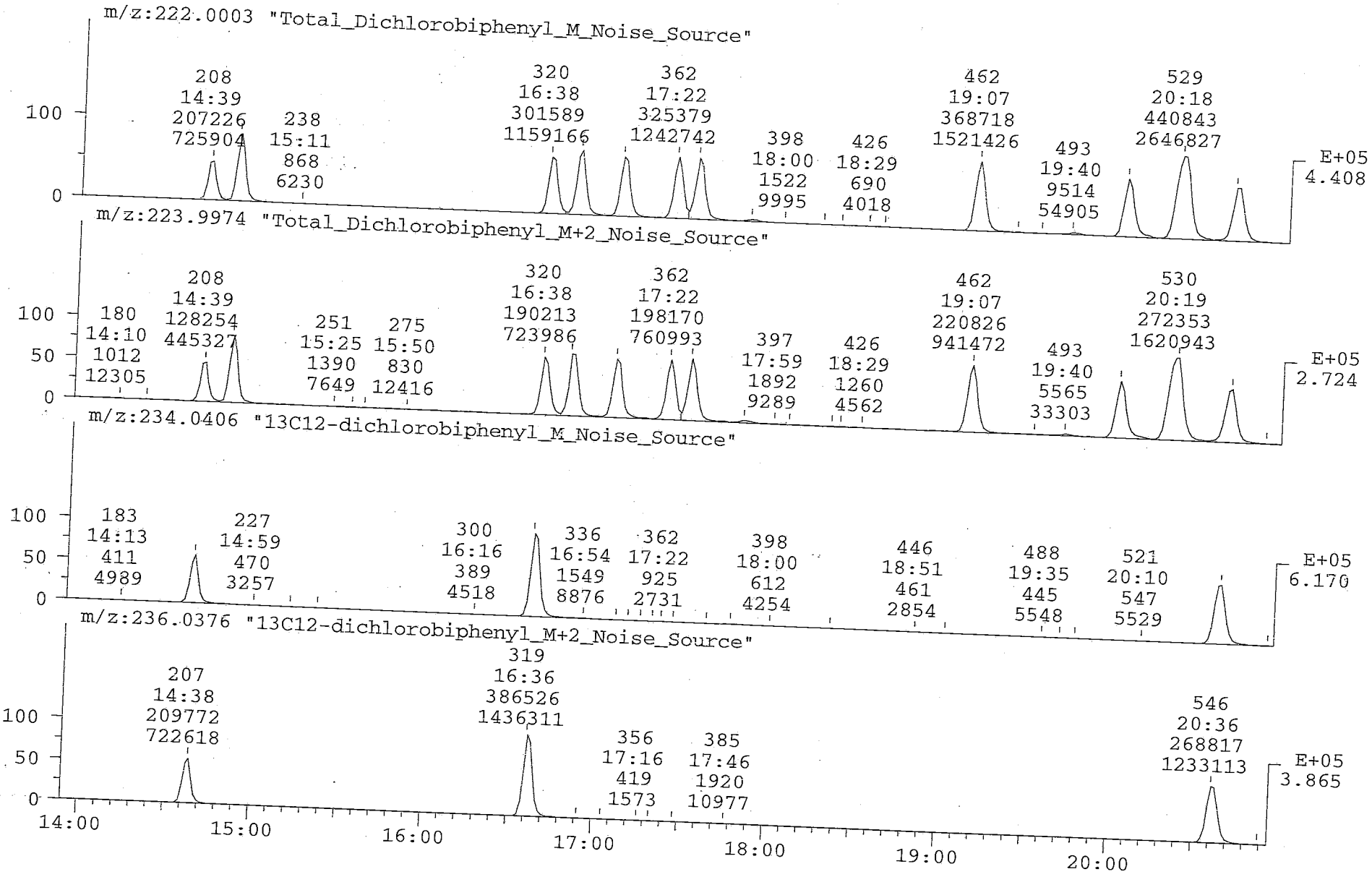
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 14:10.0 180
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 160 > 210 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



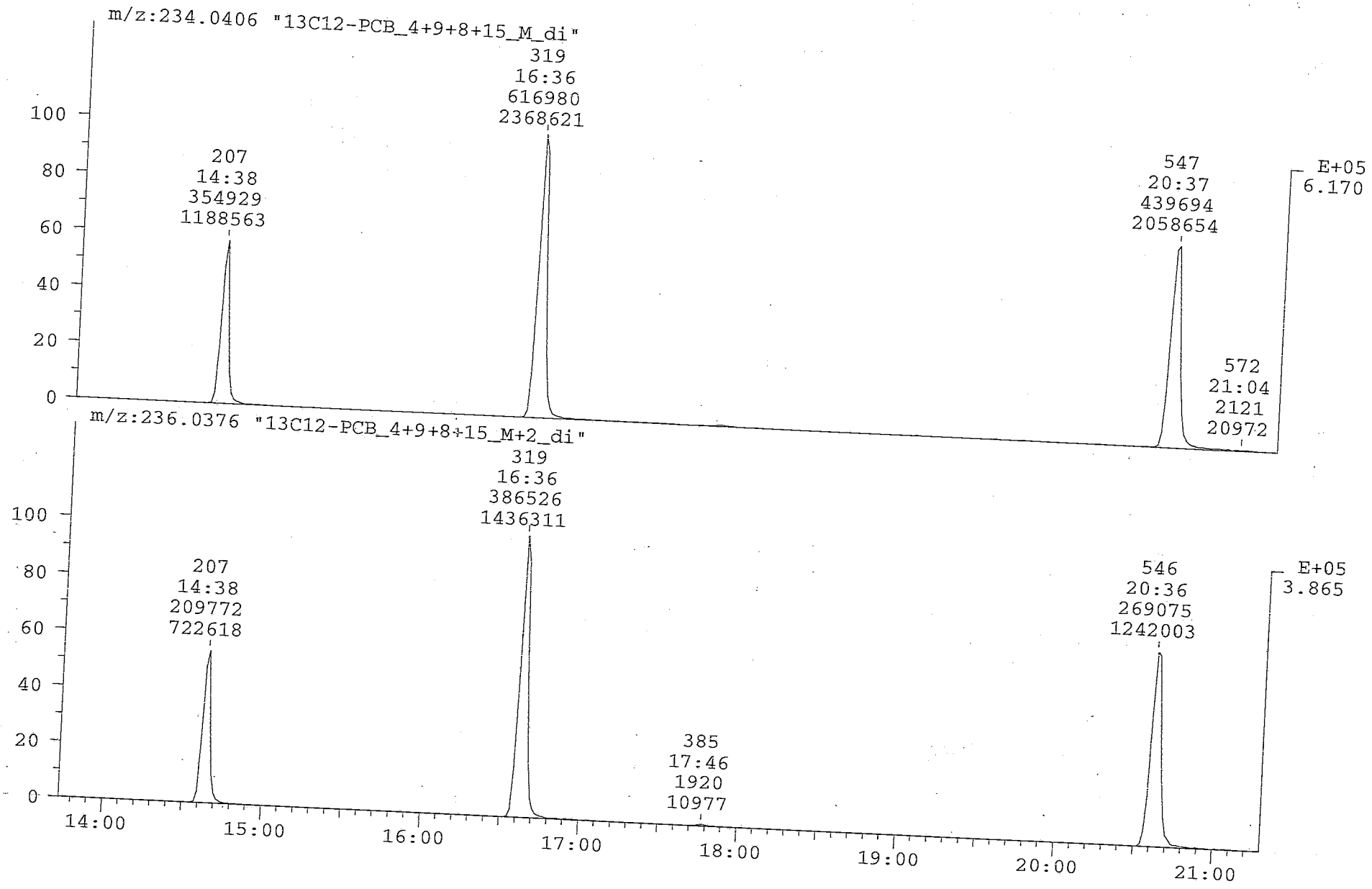
H-3128

3127

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 17:25.5 365
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 165 > 565 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



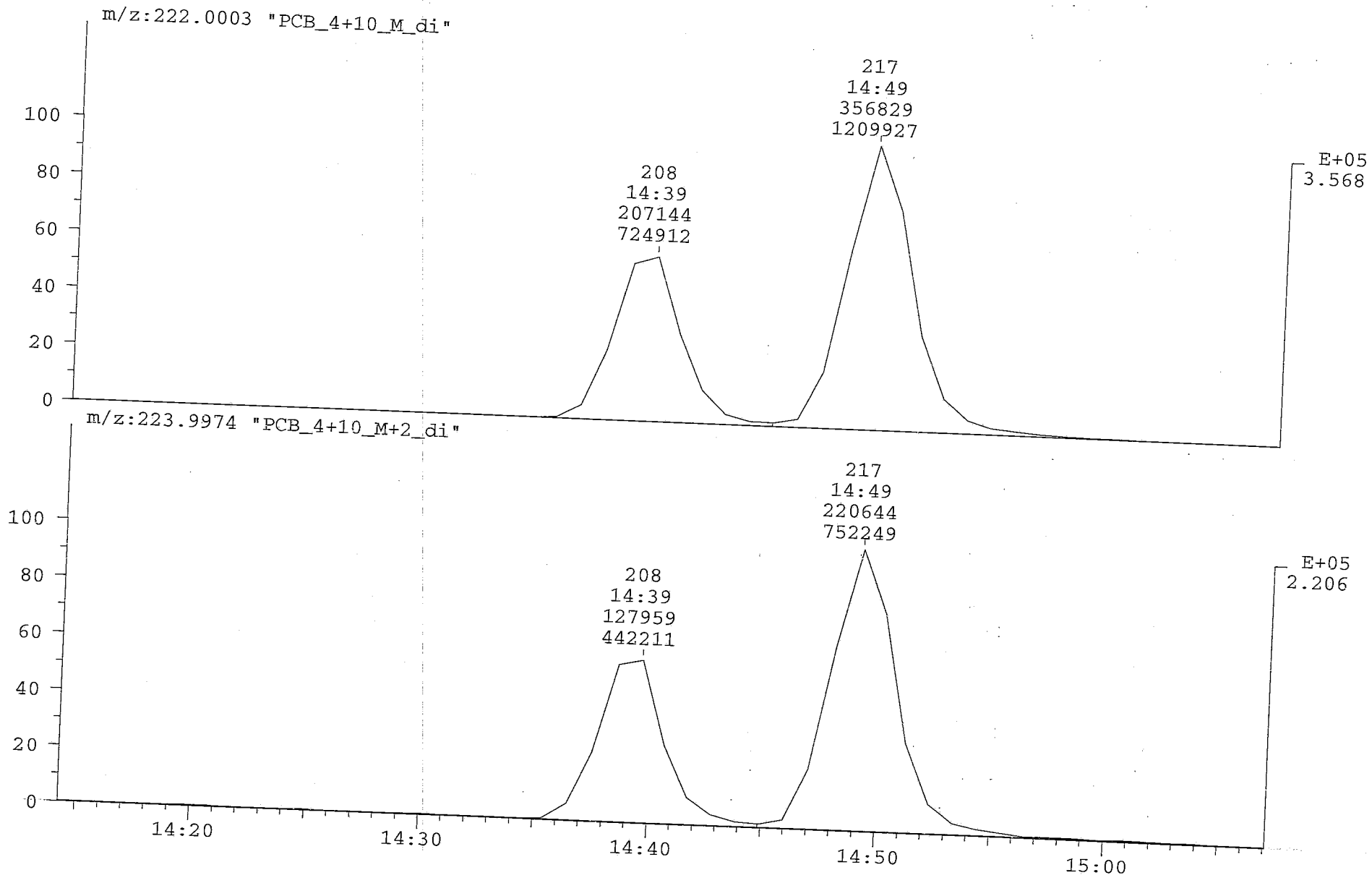
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 17:25.5 365
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 155 > 585 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



H-3130

3129

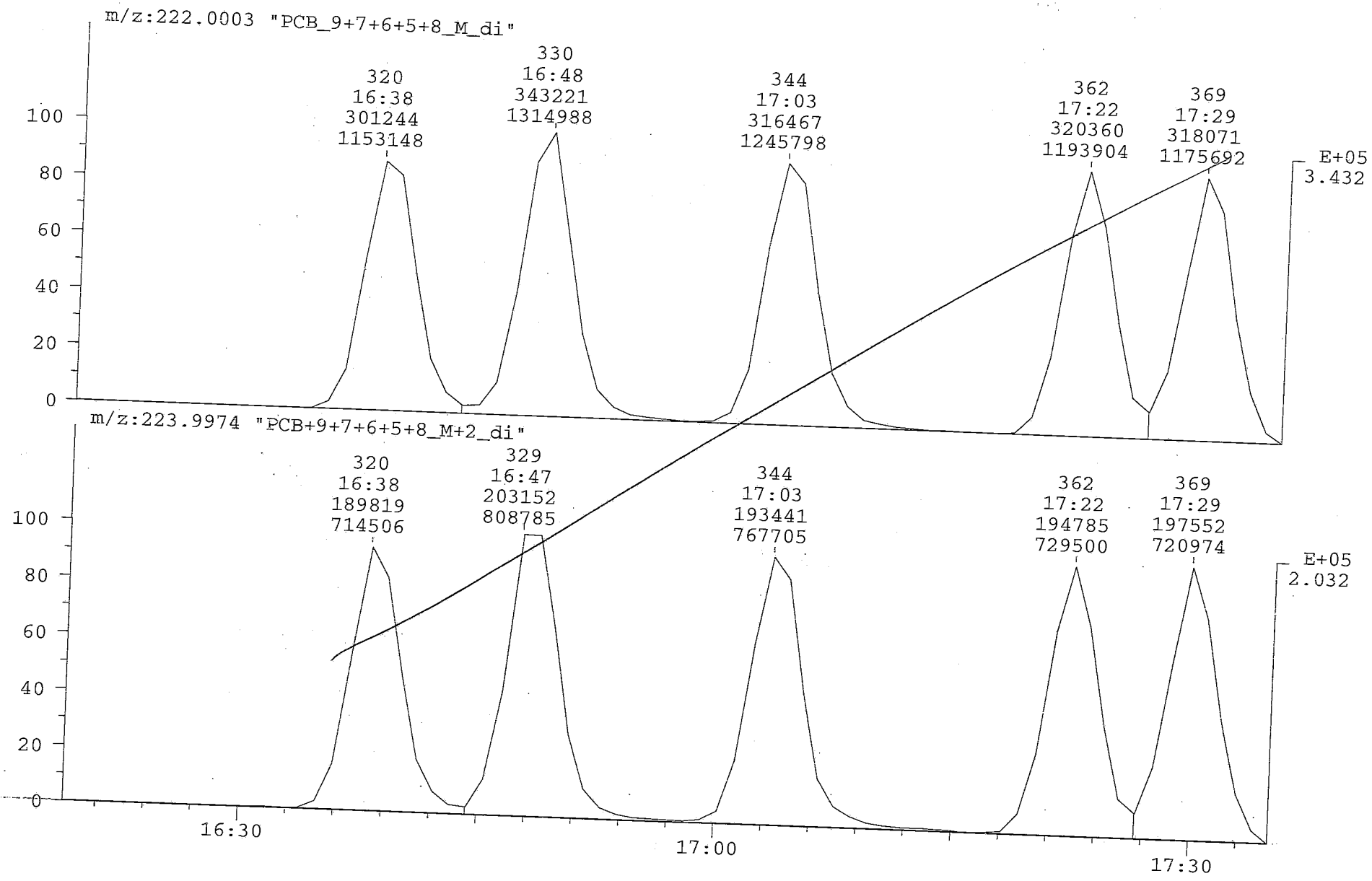
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 14:37.5 206
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 184 > 234 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



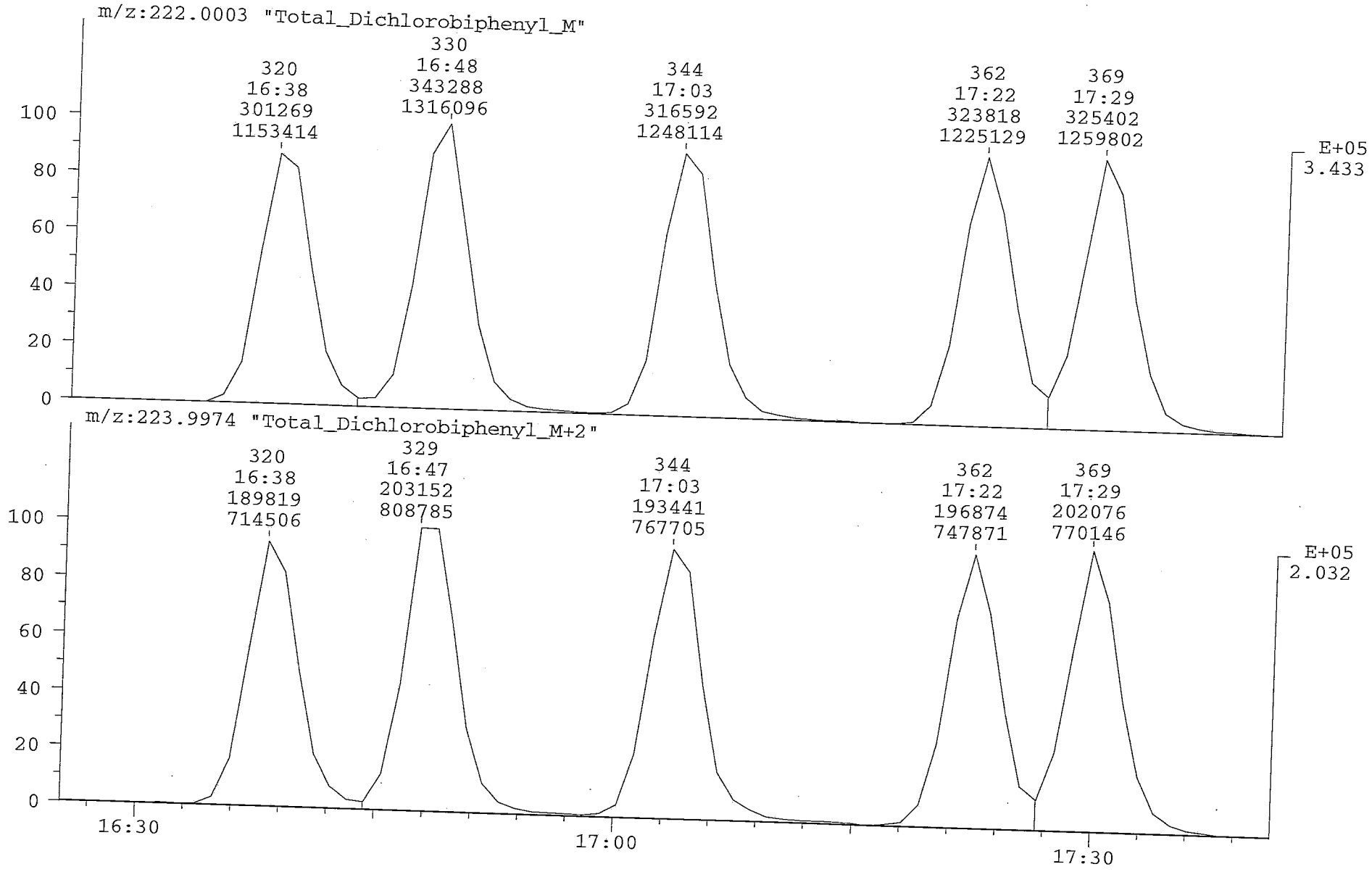
H-3131

3130

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 16:55.9 337
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 302 > 374 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



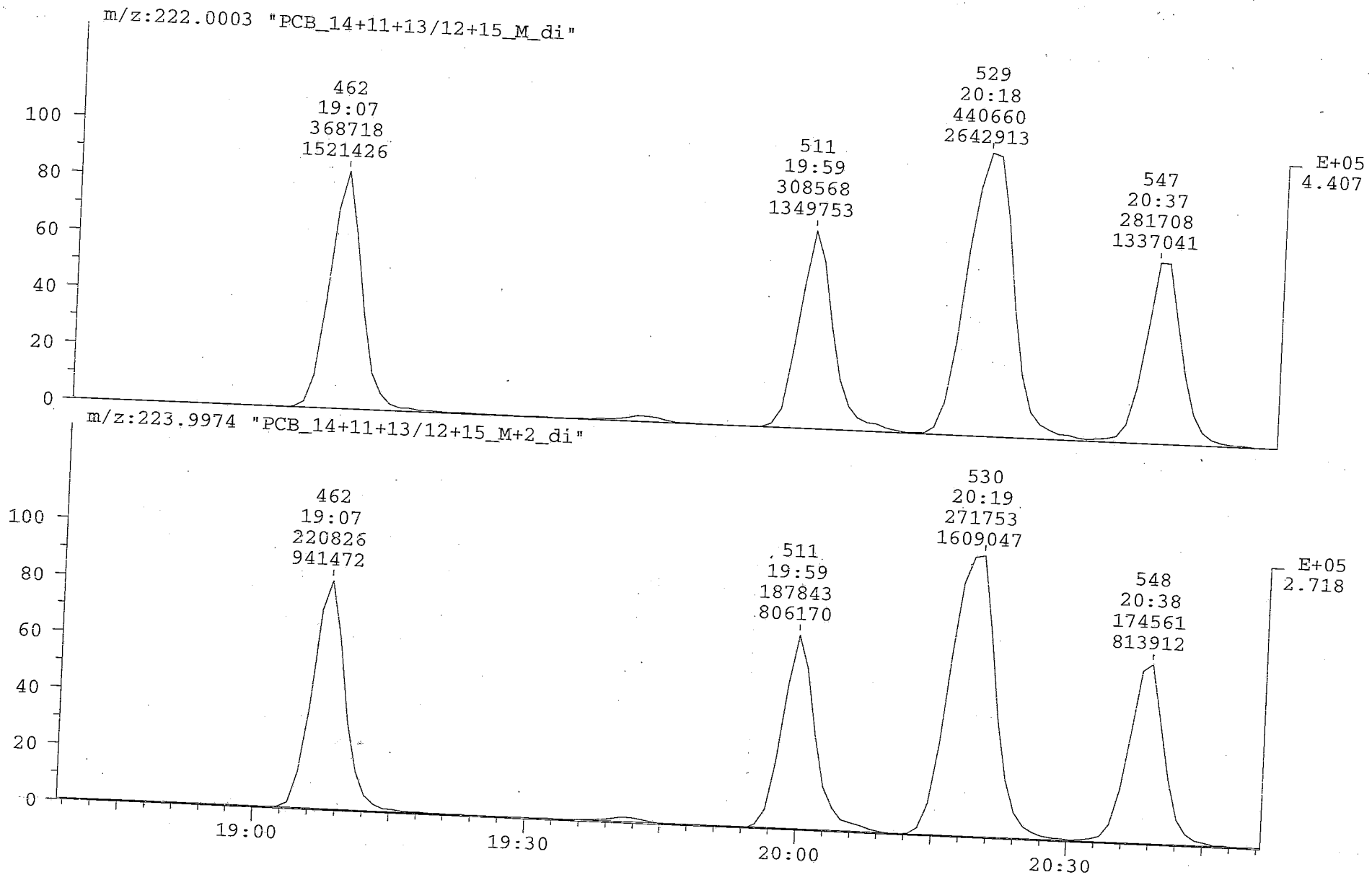
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 17:04.4 345
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 308 > 380 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3133

3132

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 19:39.6 492
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 434 > 560 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 2 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



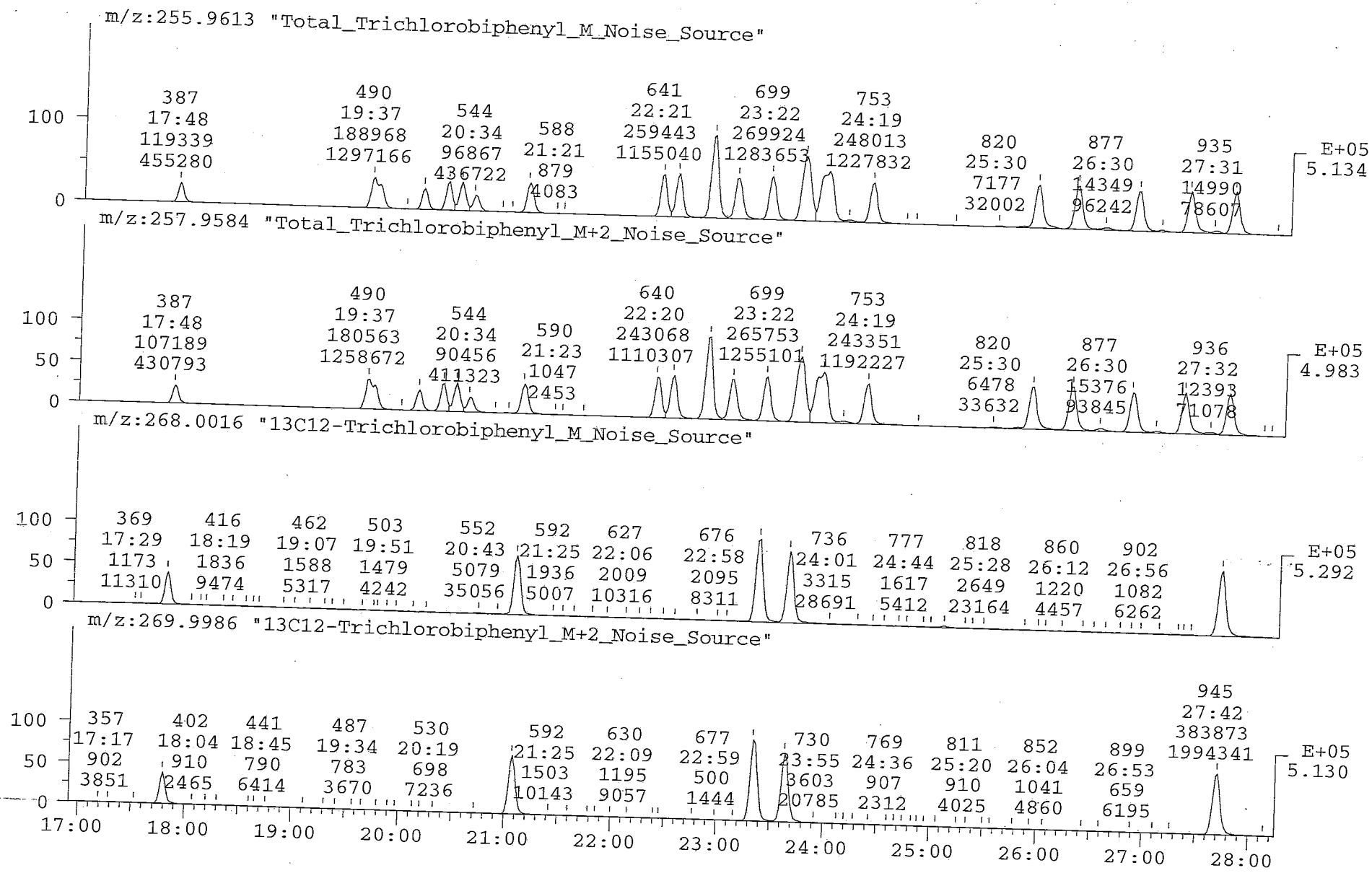
H-3134

3133

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 336 > 976
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

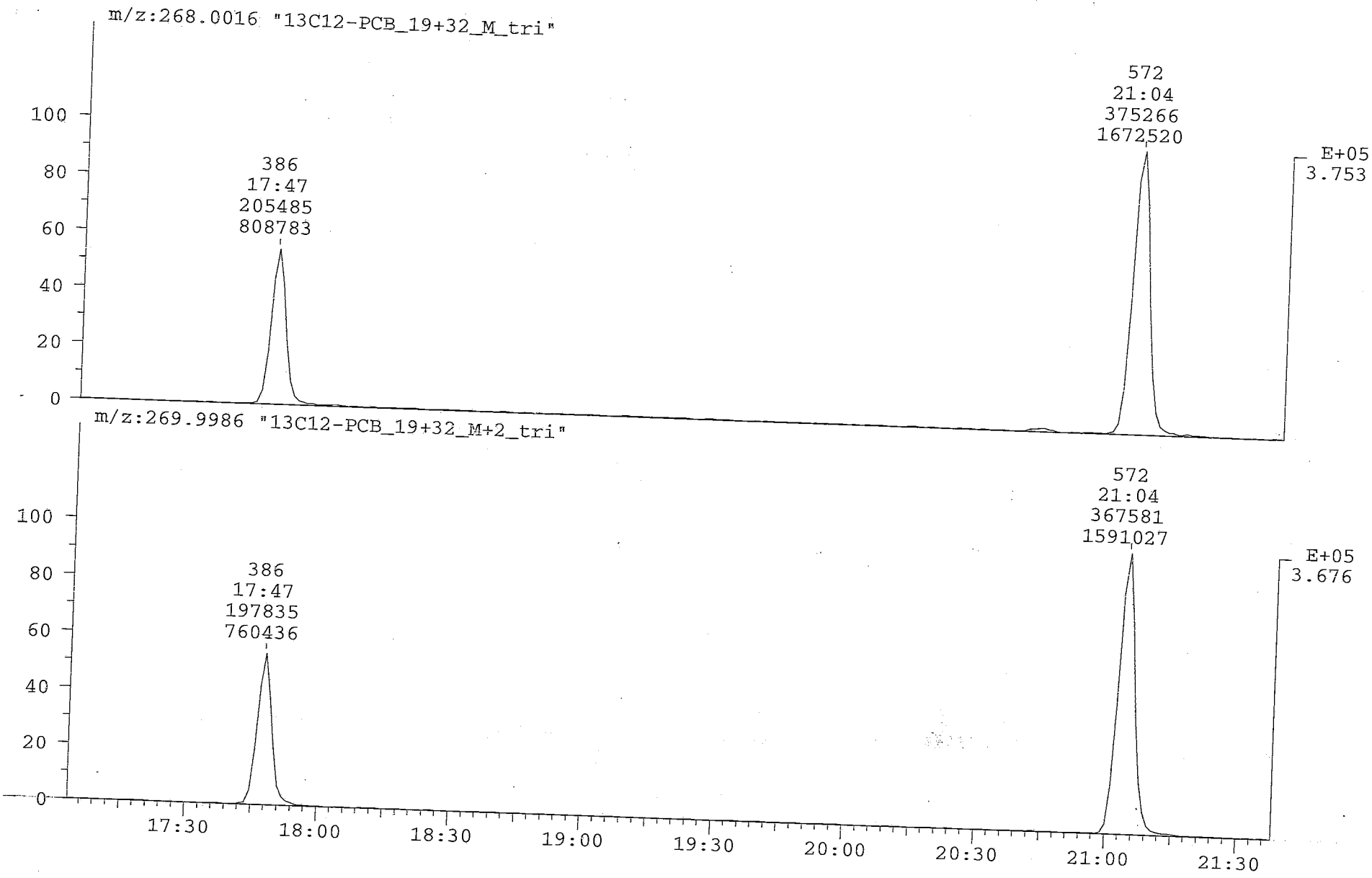
Elapse: 22:37.0 656
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3135

3134

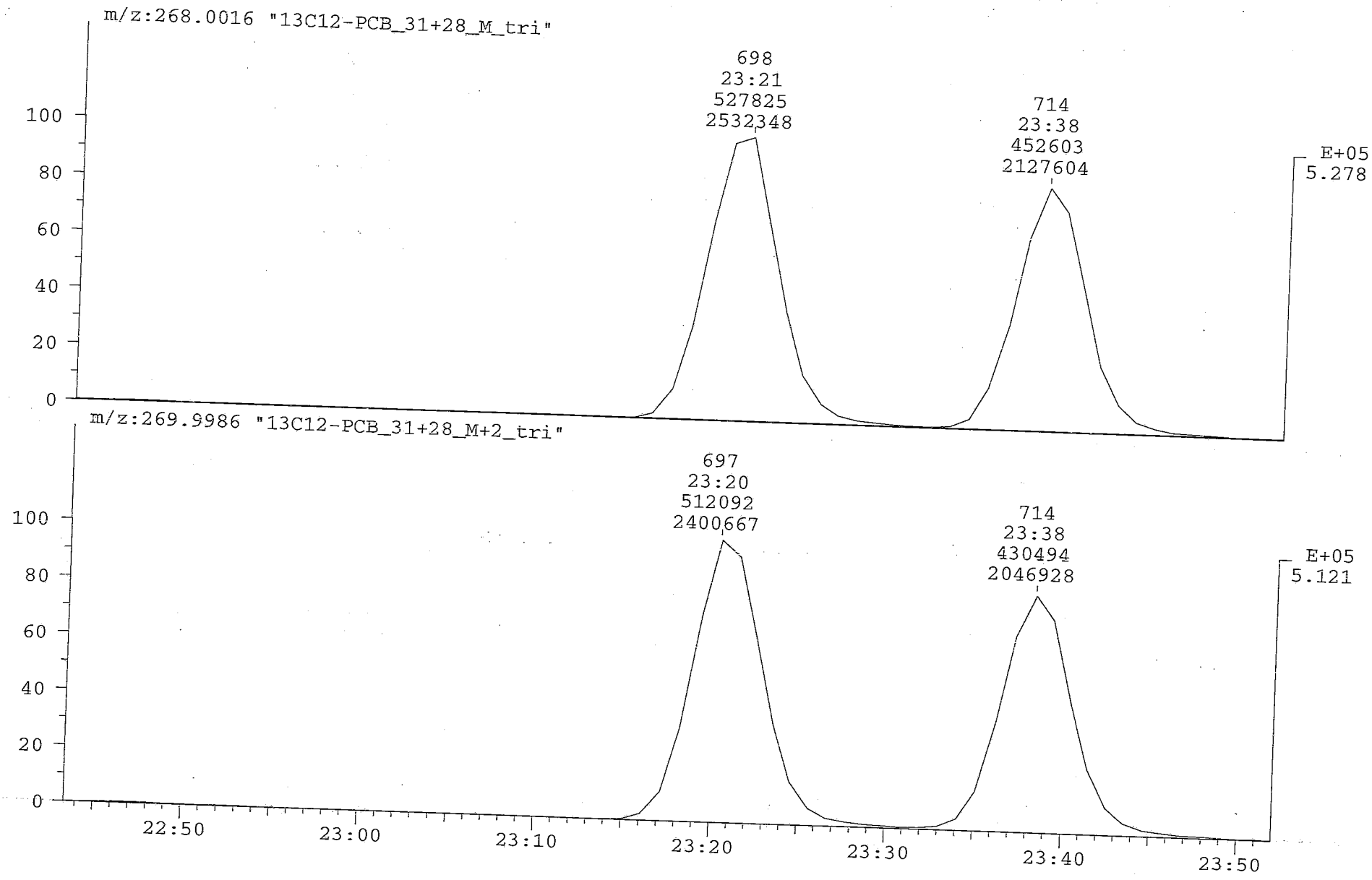
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 18:59.5 454
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 344 > 604 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 1 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



H-3136

3135

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 23:09.7 687
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 662 > 727 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



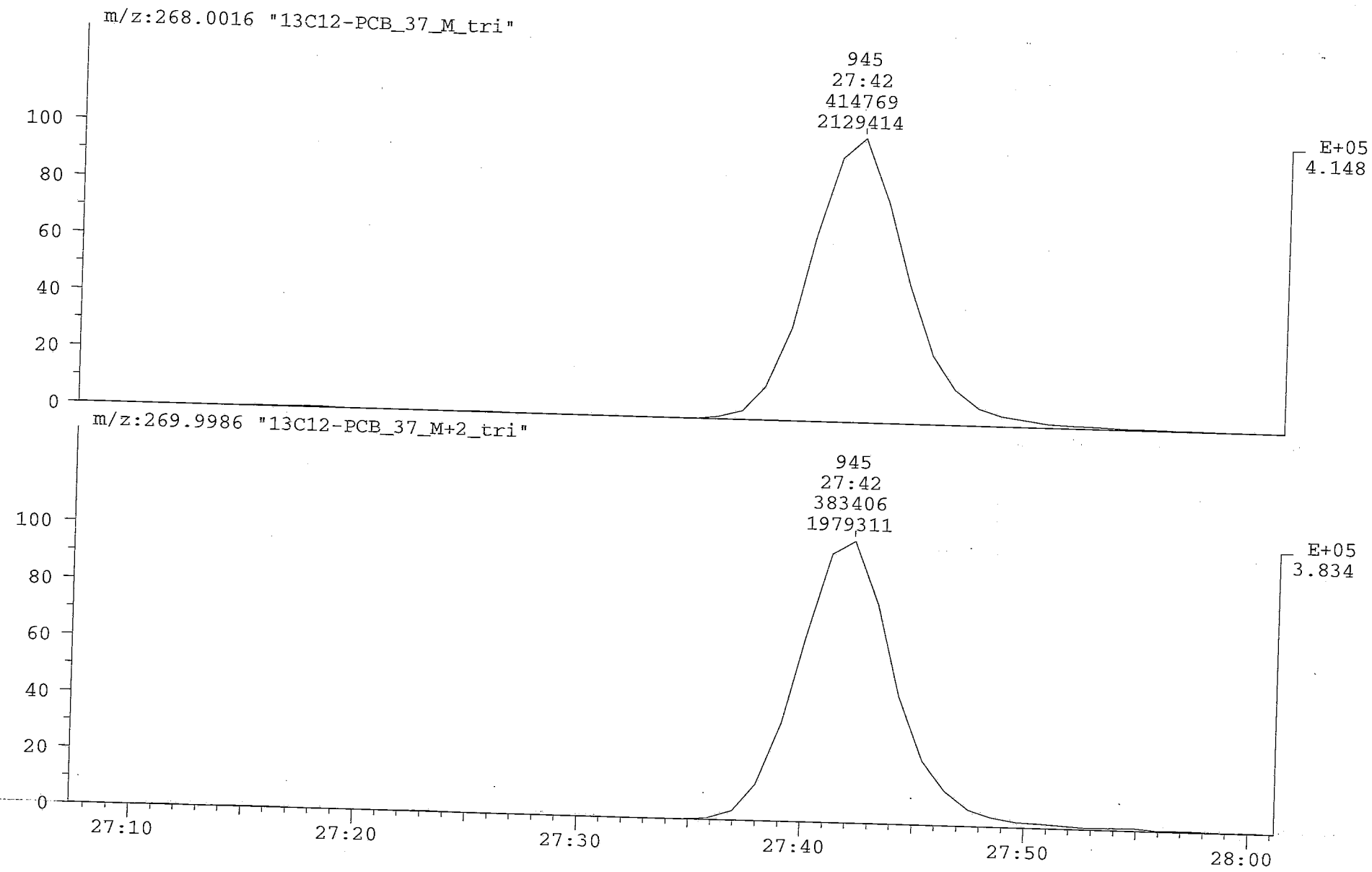
H-3137

3136

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 912 > 963
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 27:28.5 932
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



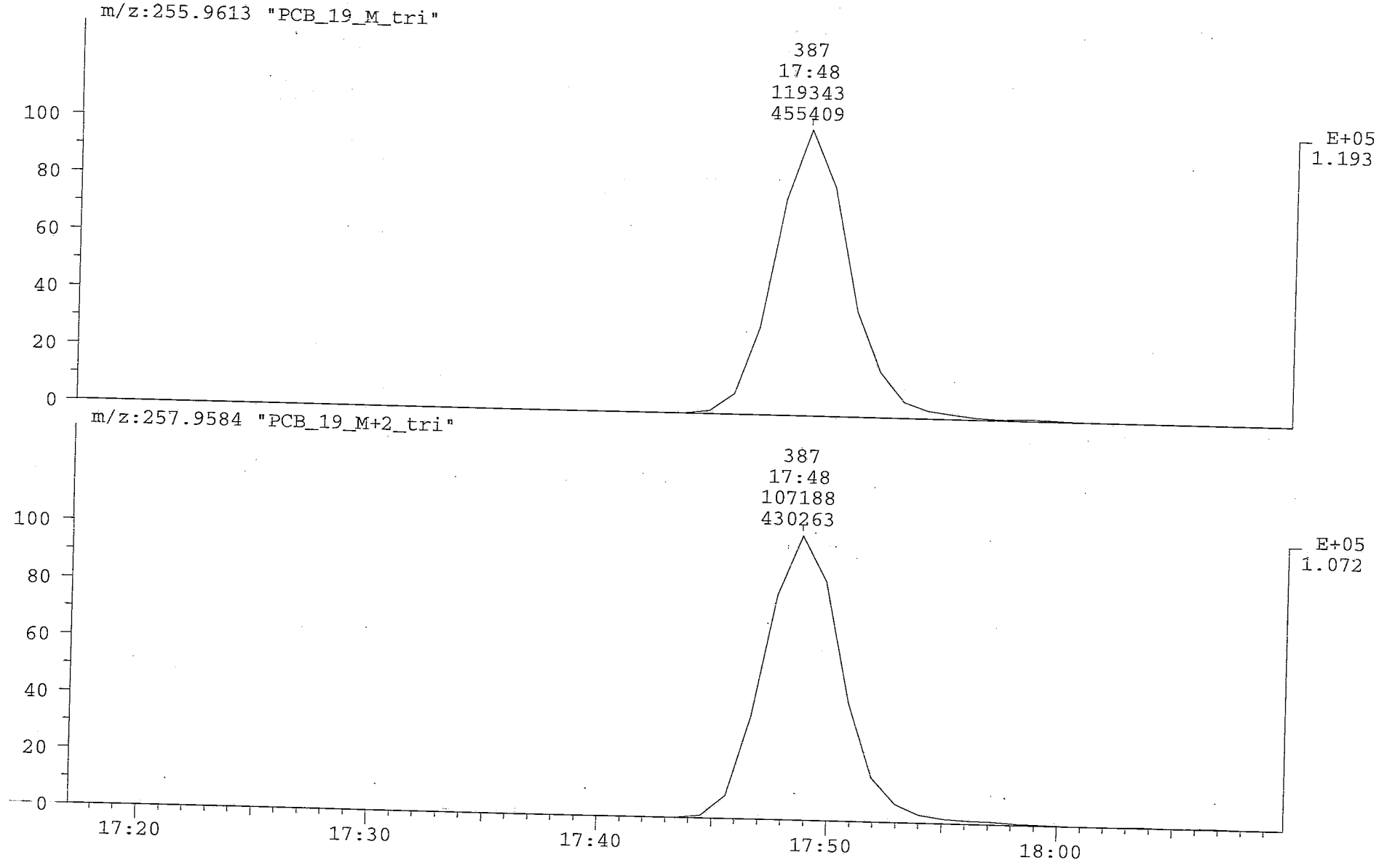
H-3138

3137

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 357 > 407
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

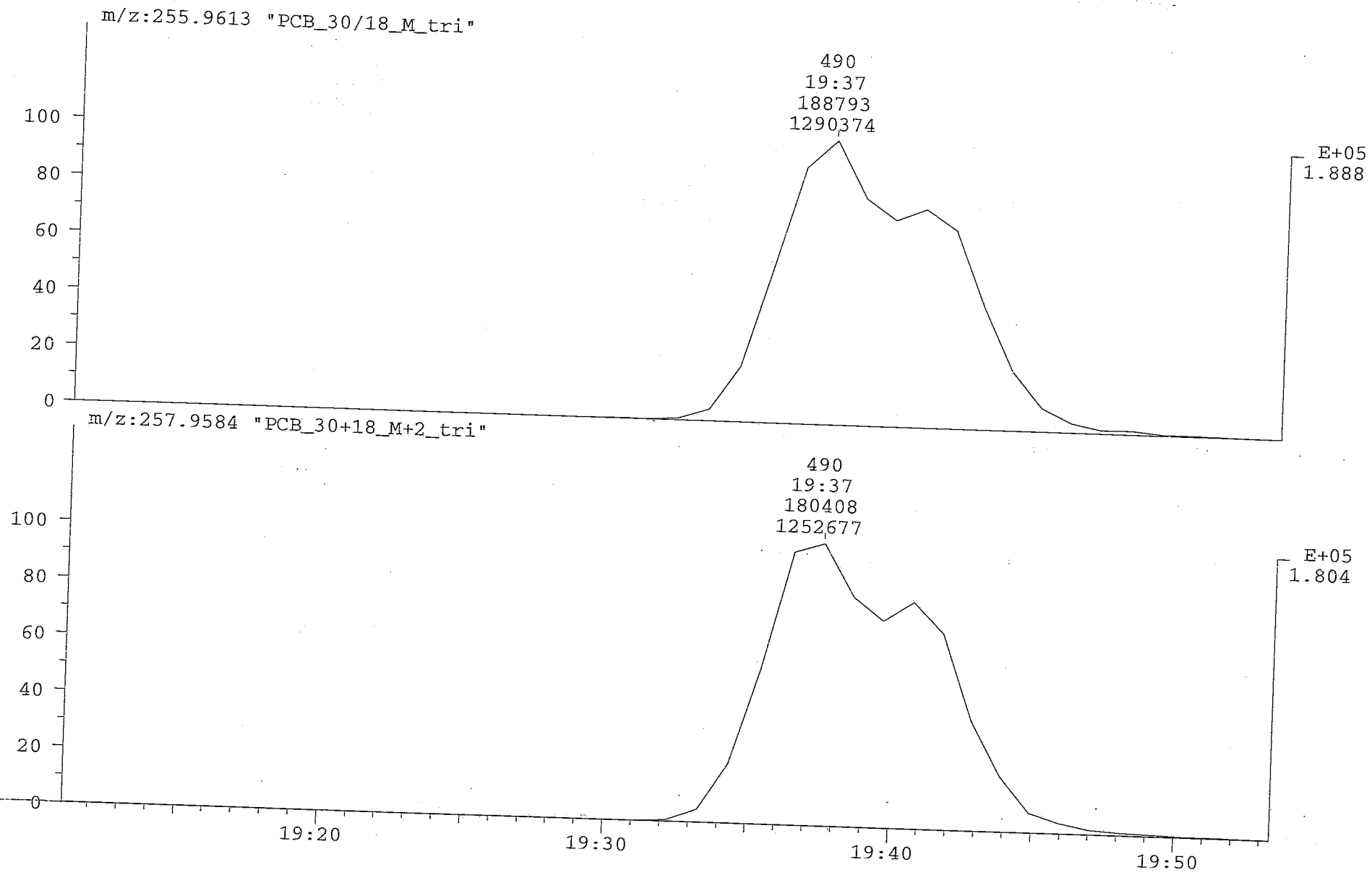
Elapse: 17:38.2 377
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3139

3138

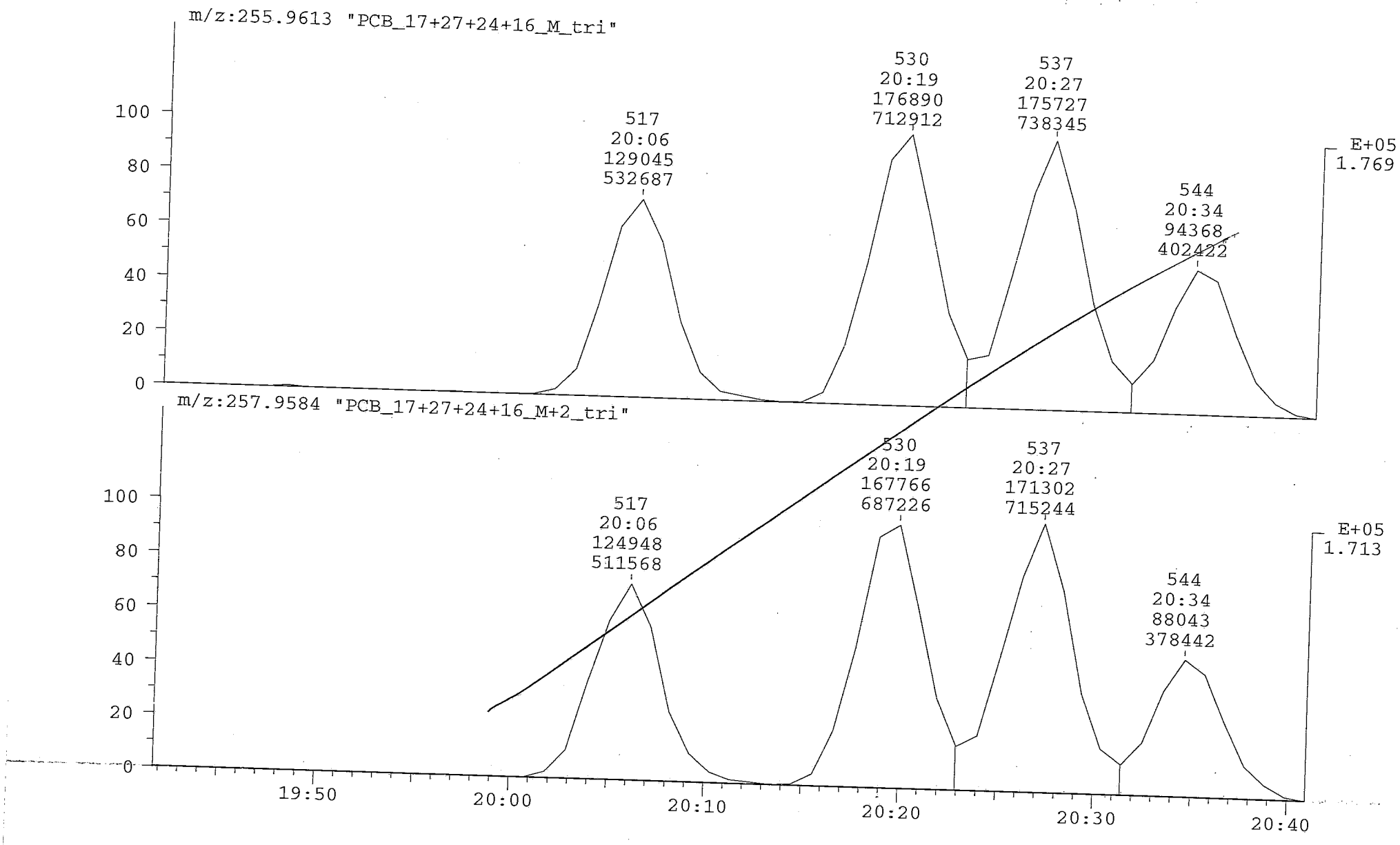
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 19:30.1 483
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 465 > 505 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 12 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



H-3140

3139

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 20:09.2 520
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 494 > 550 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



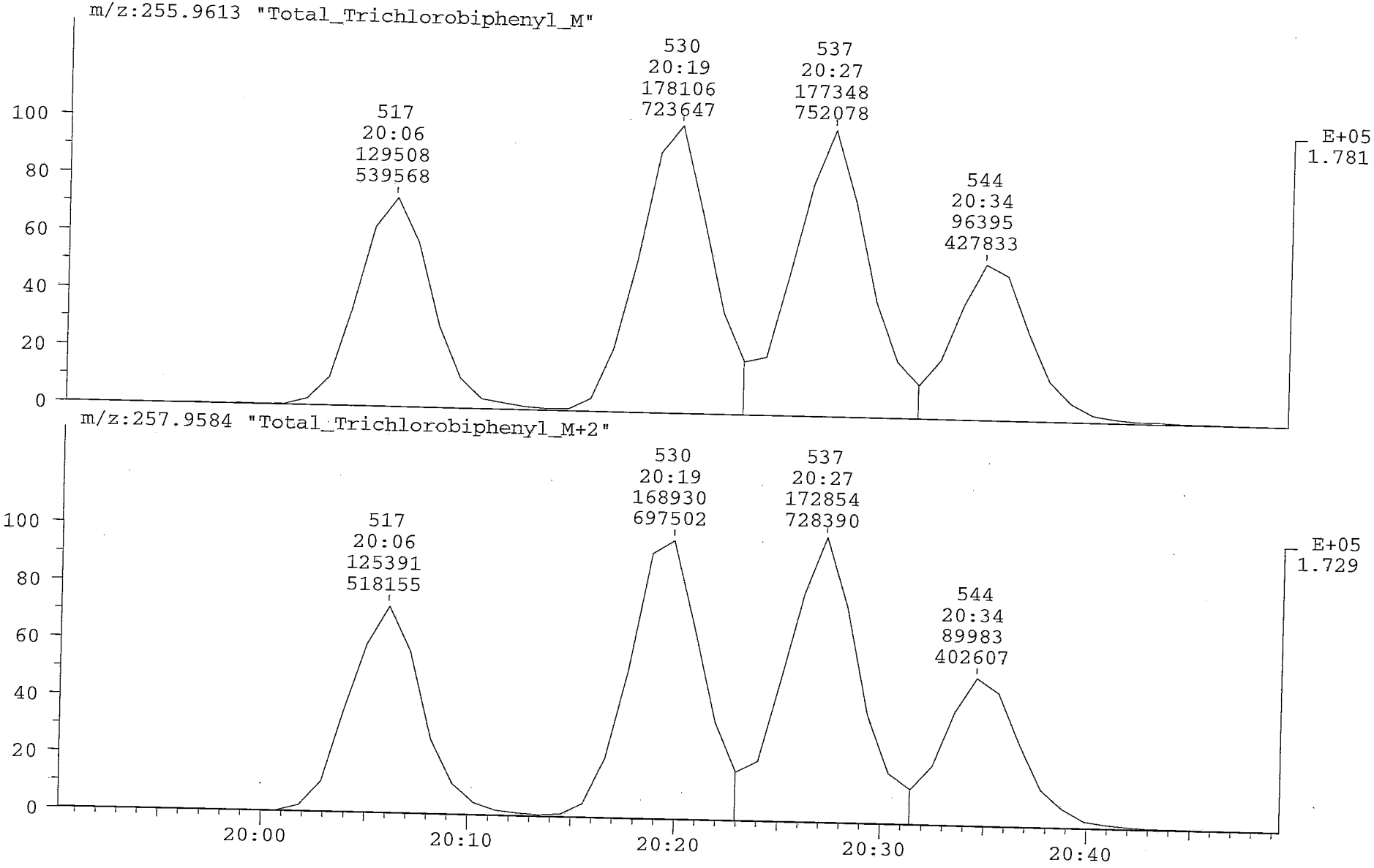
H-3141

3140

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 502 > 558
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



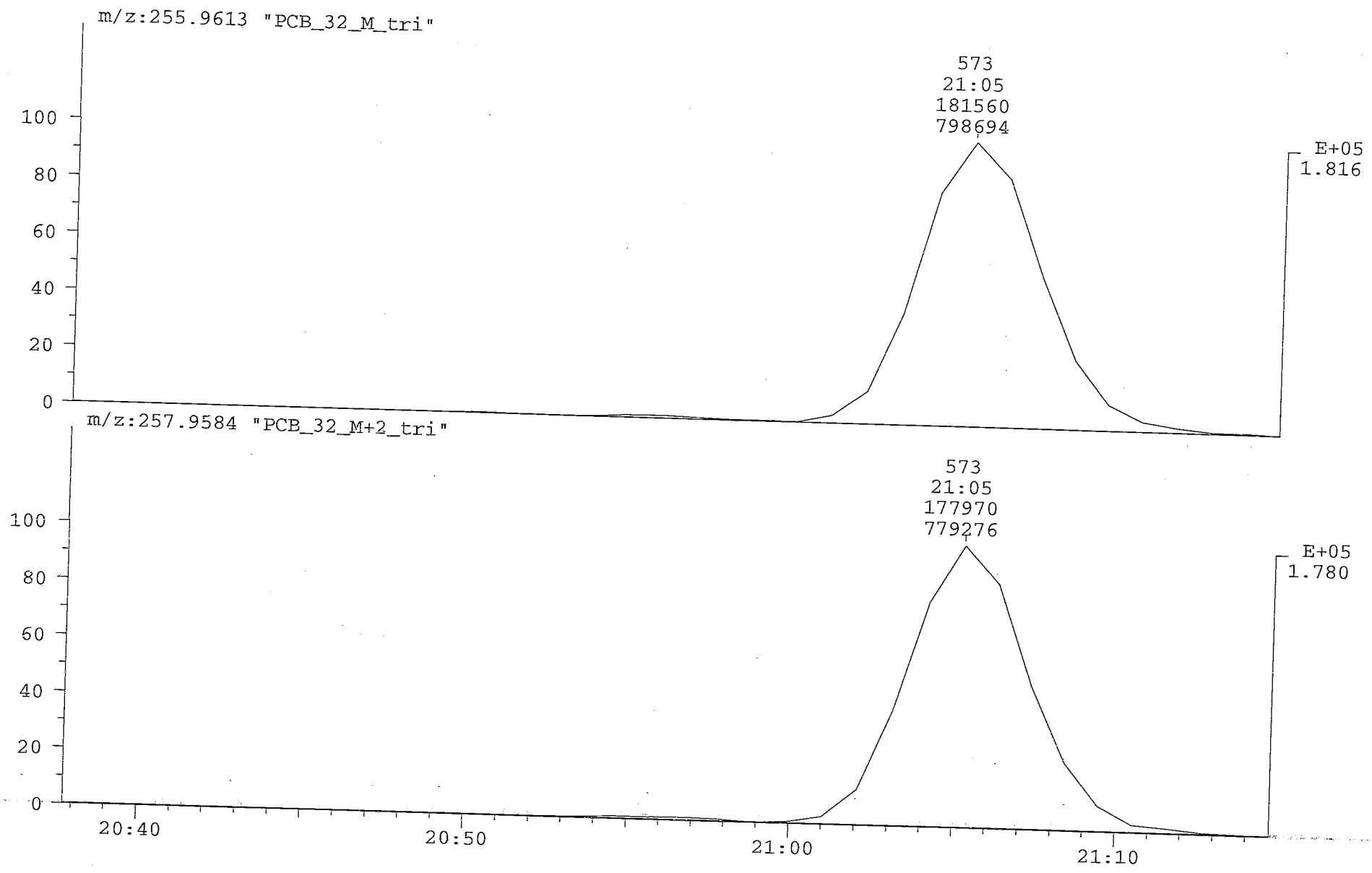
H-3142

3141

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 547 > 582
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 20:53.6 562
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



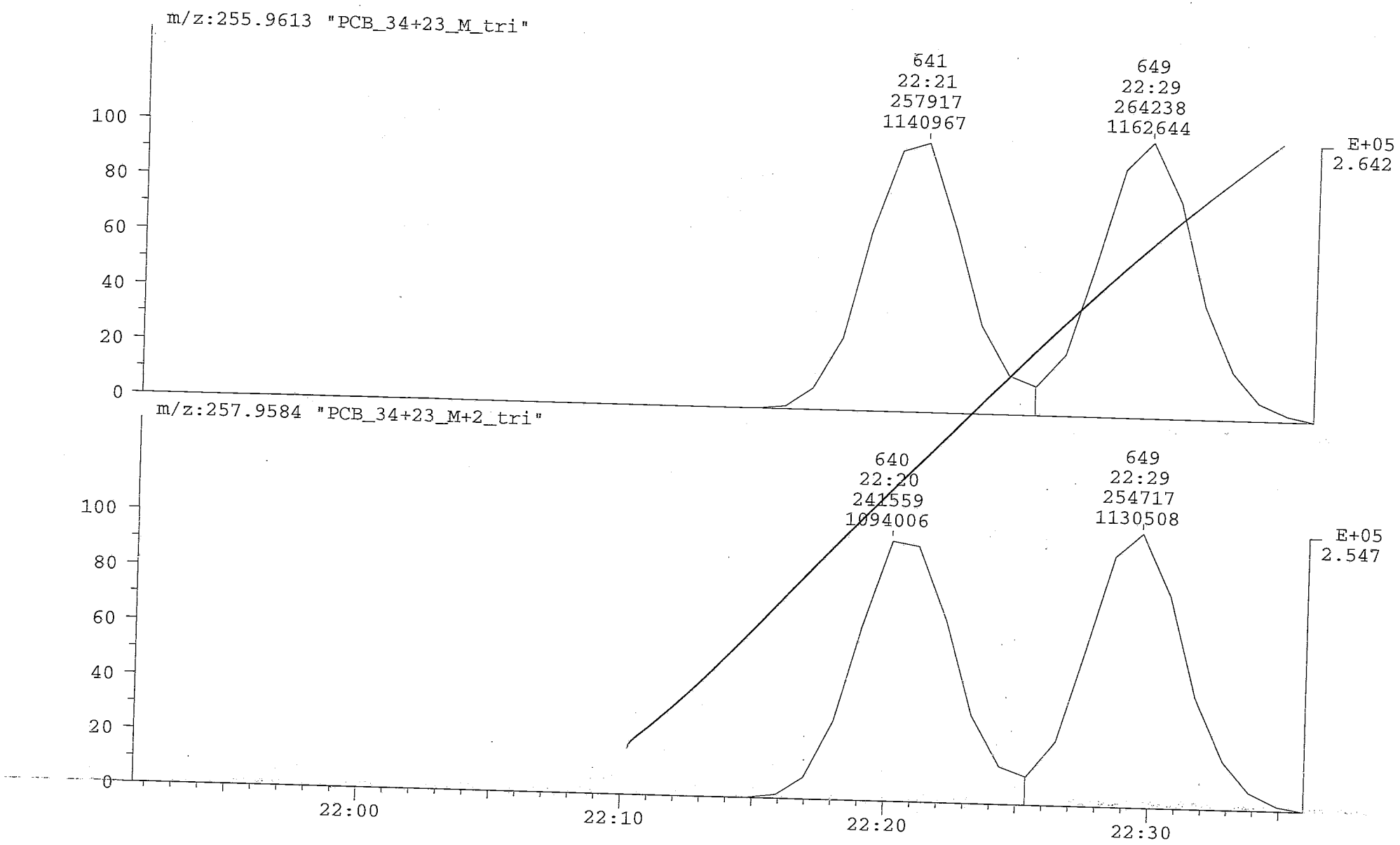
H-3143

3142

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 613 > 655
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

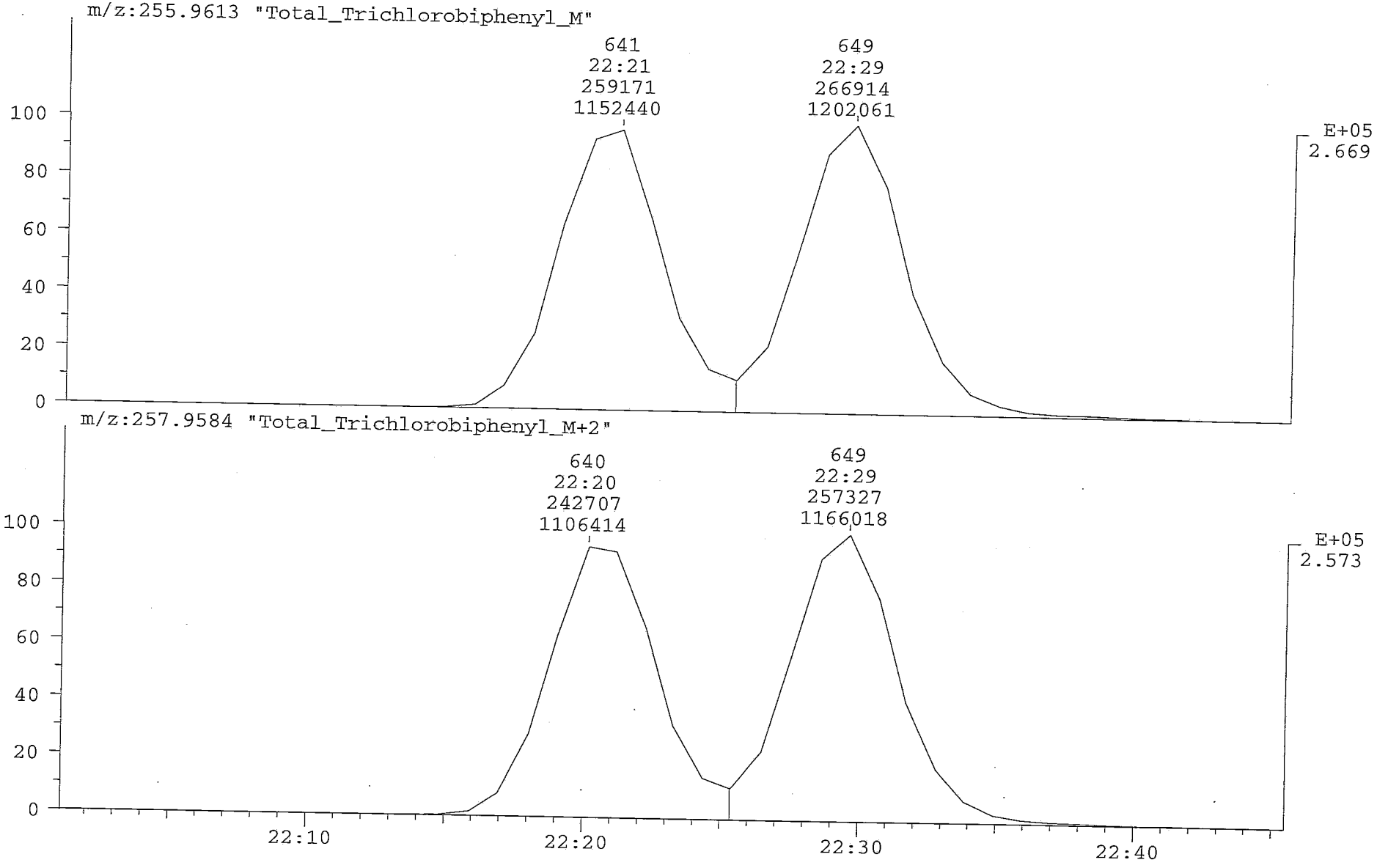
Elapse: 22:09.6 630
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3144

3143

CHRO: apmkntmc 13-Jul-11 Elapse: 17:04.4 345
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 622 > 664 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



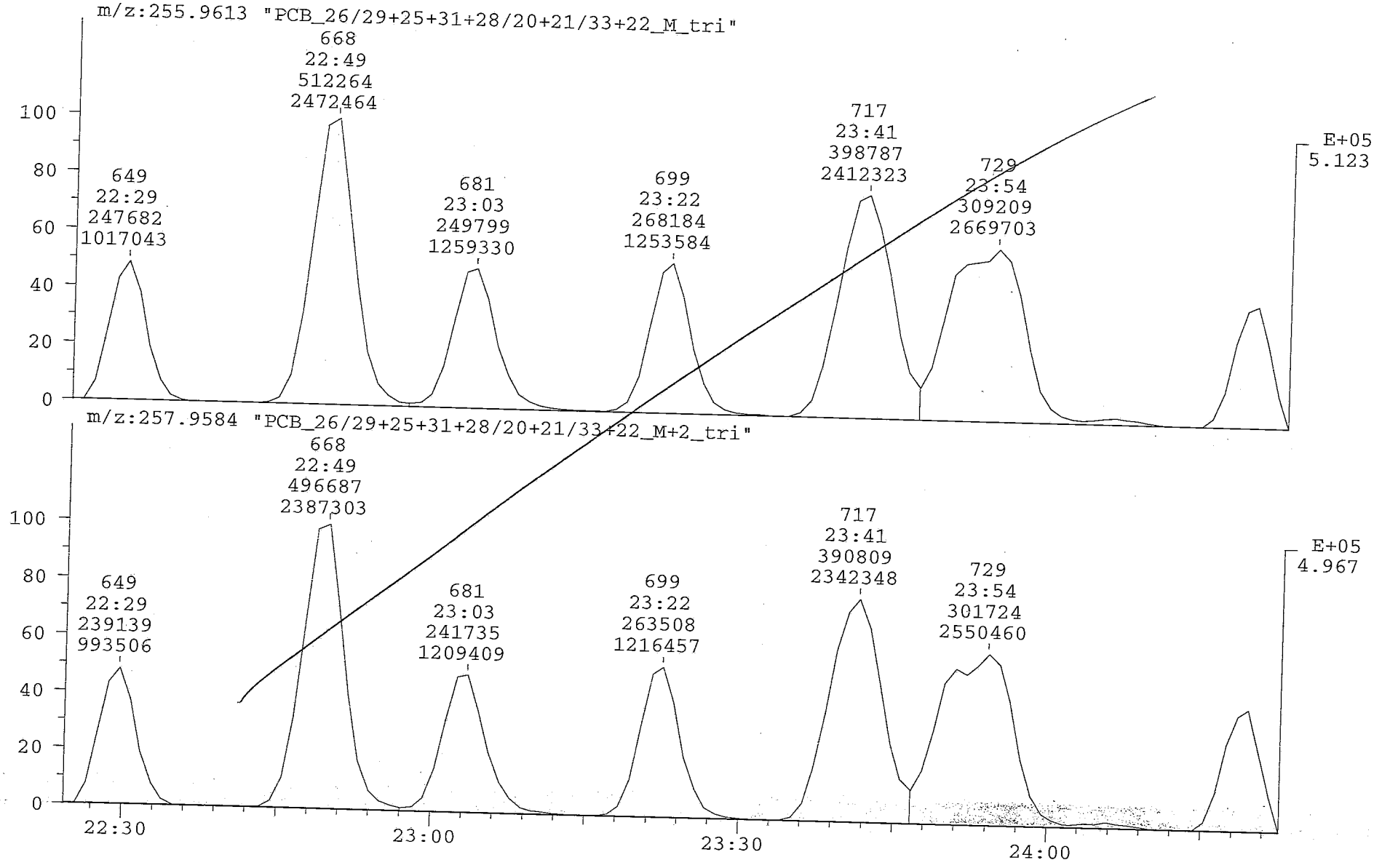
H-3145

3144

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 644 > 756
Area: 5, 0.50, 15 Baseline : 100, 6
Disp: Height Area

13-Jul-11

Elapse: 23:37.2 713
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



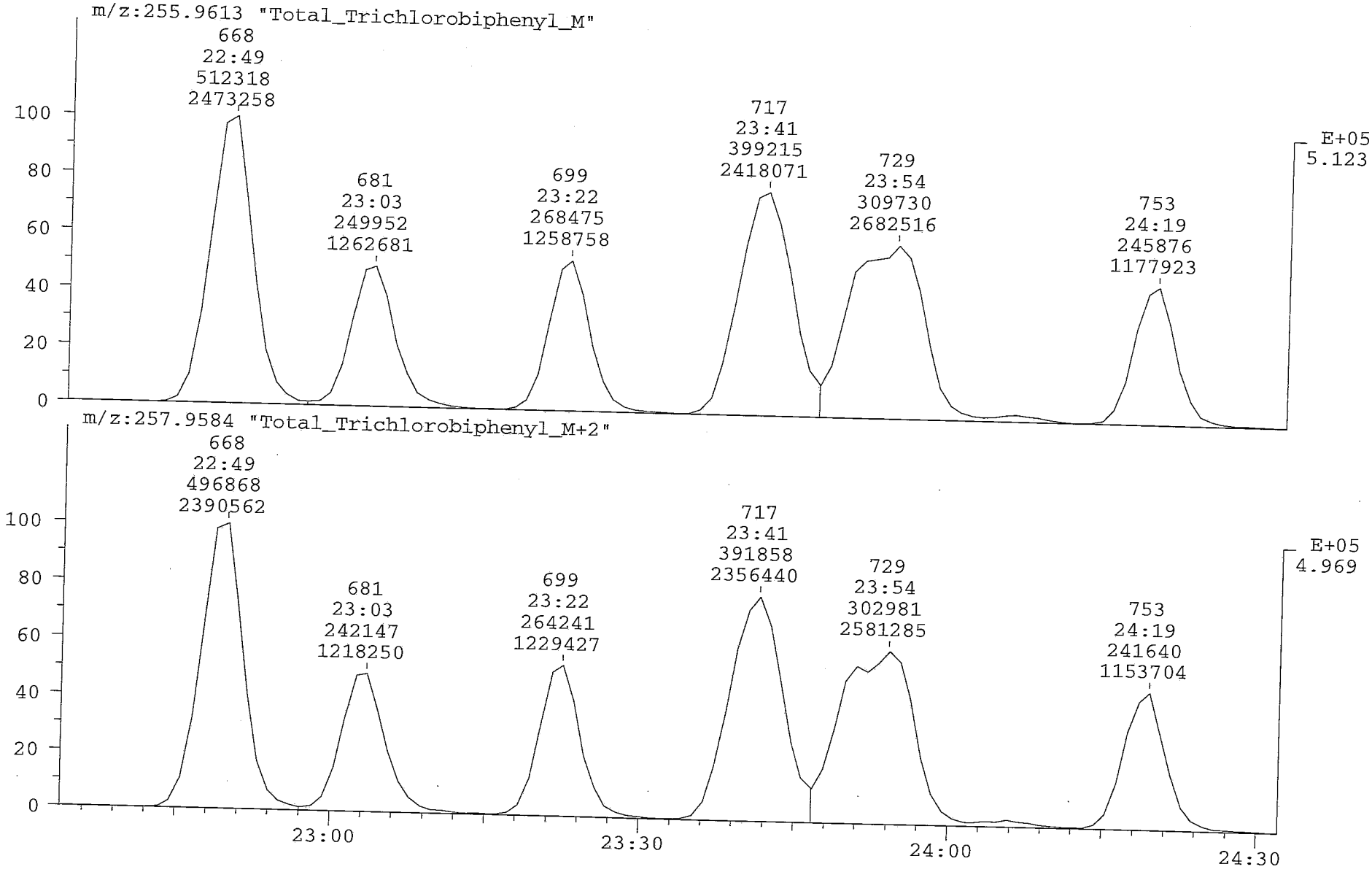
H-3146

3145

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 653 > 765
Area: 5, 0.50, 15 Baseline : 100, 6
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



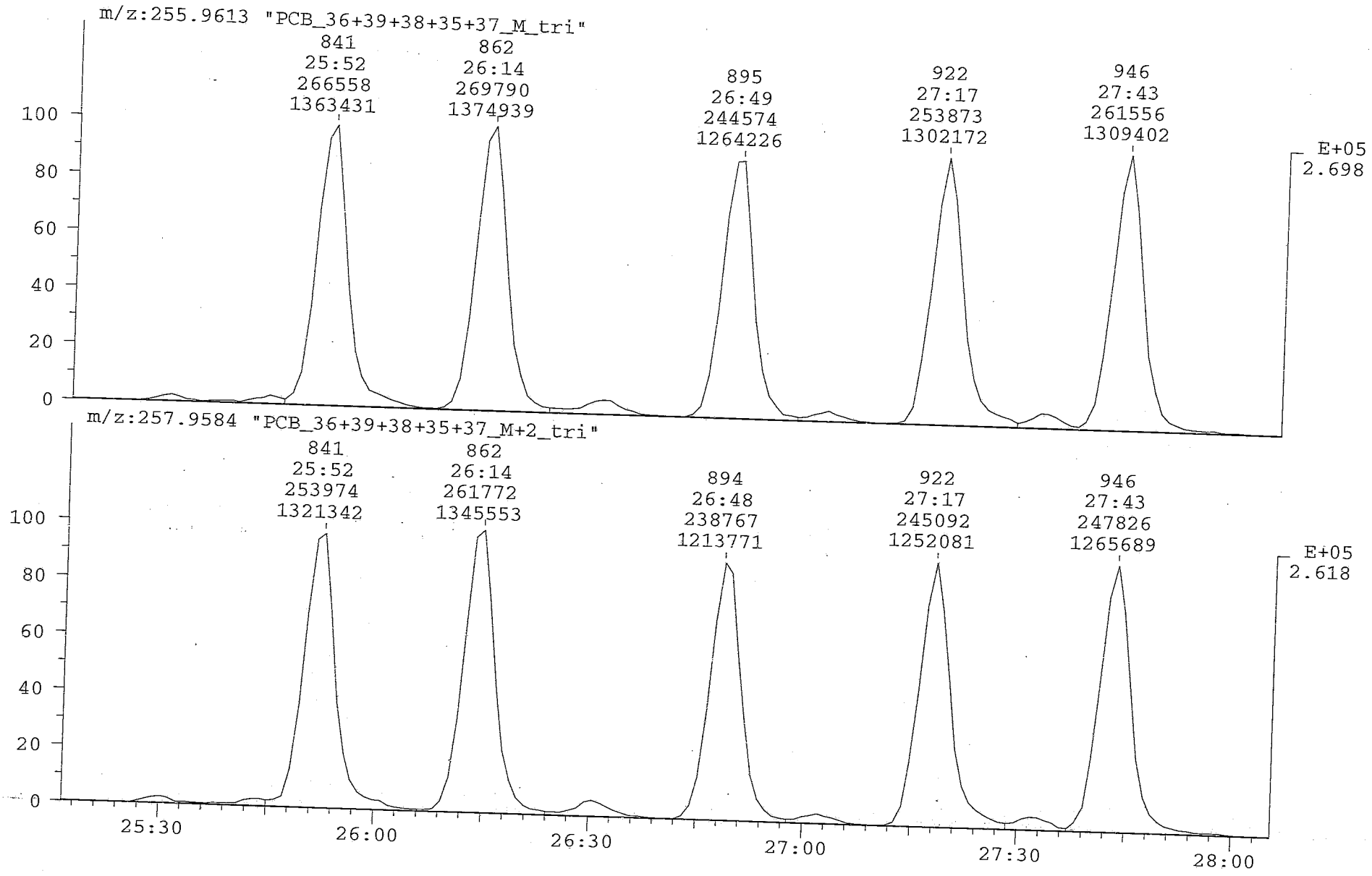
H-3147

3146

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 807 > 967
Area: 5, 0.50, 15 Baseline : 100, 1
Disp: Height Area

13-Jul-11

Elapse: 26:37.8 884
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



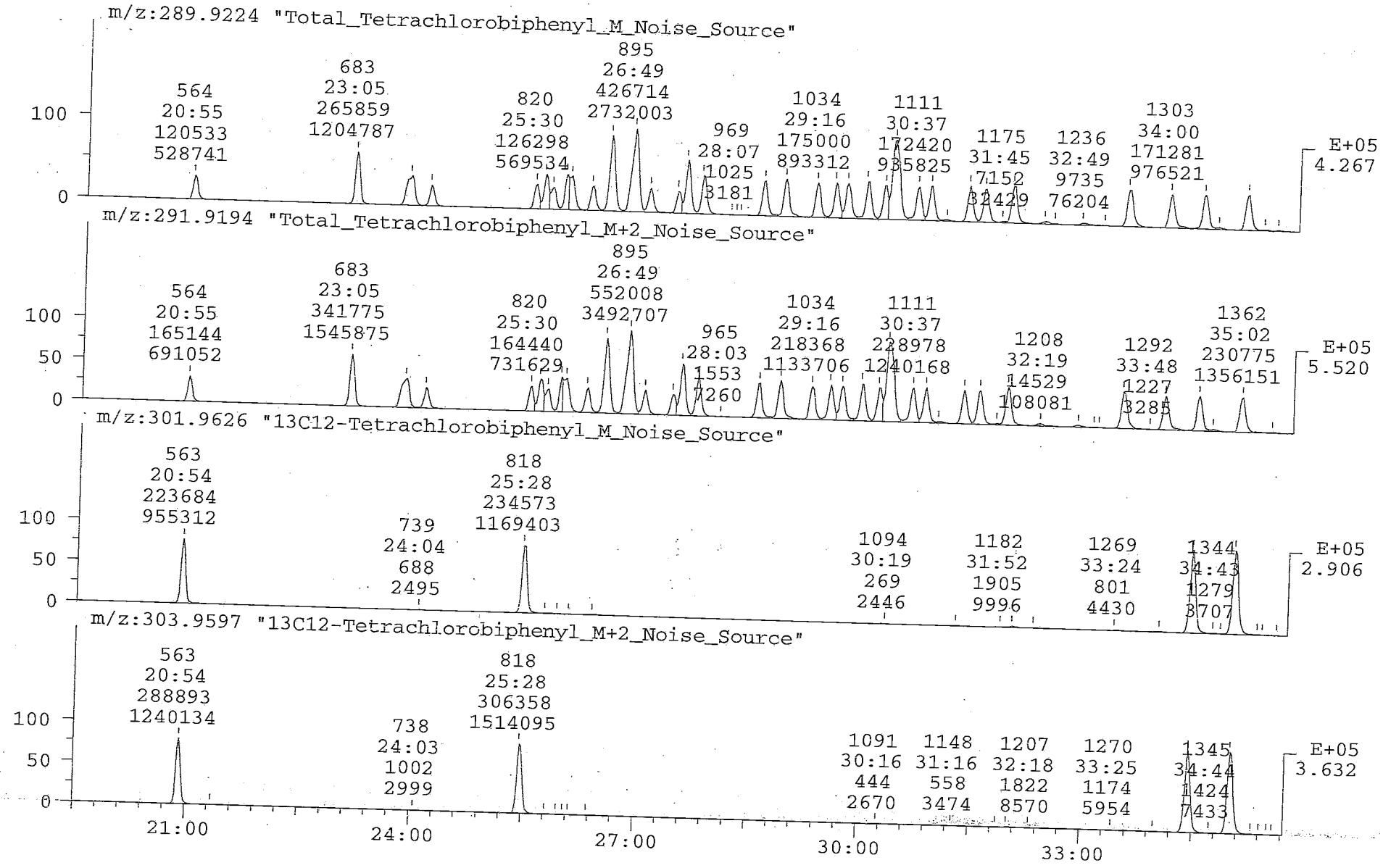
H-3148

3147

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 483 > 1401
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 27:36.9 940
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



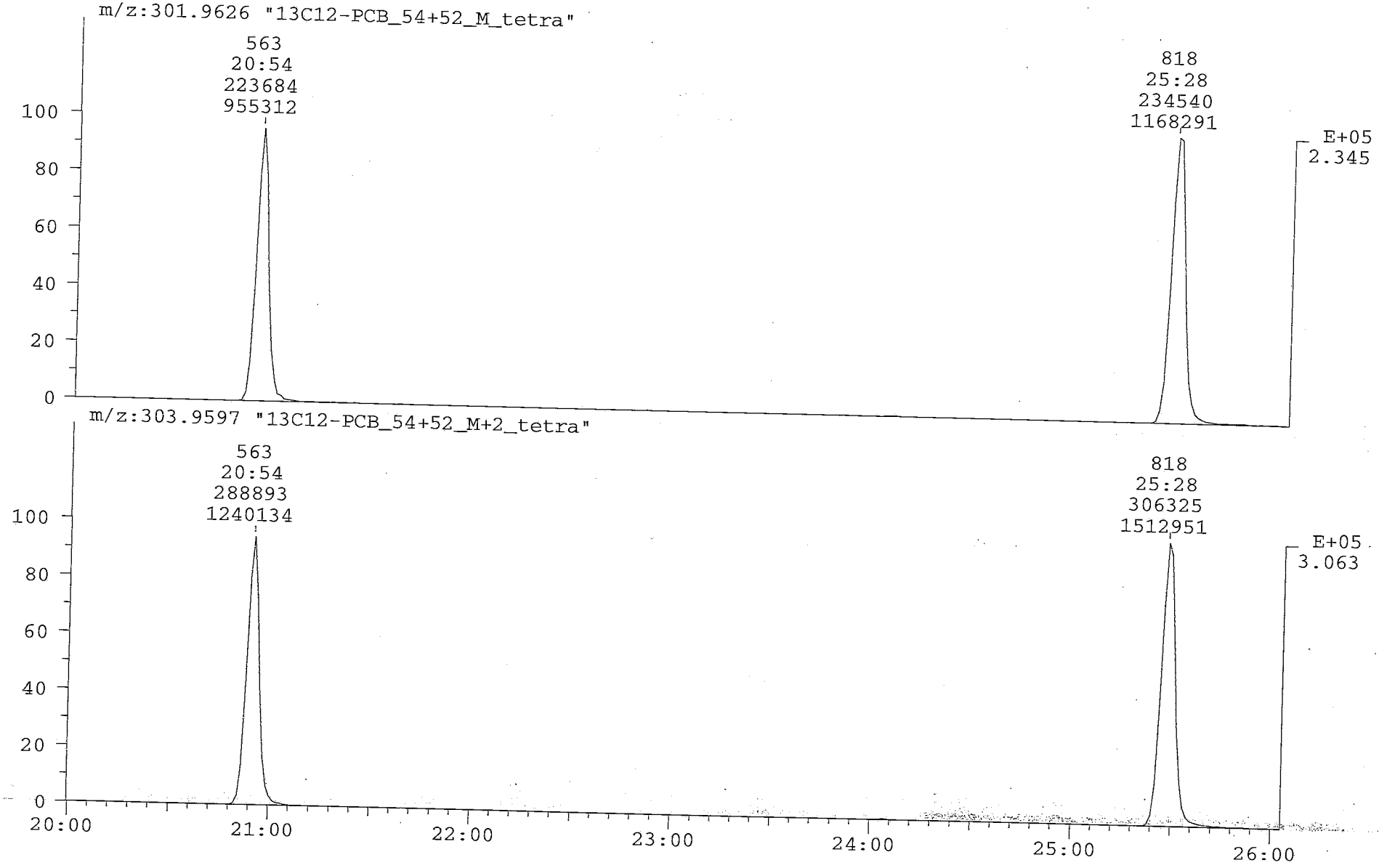
H-3149

3148

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 511 > 851
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 23:03.4 681
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



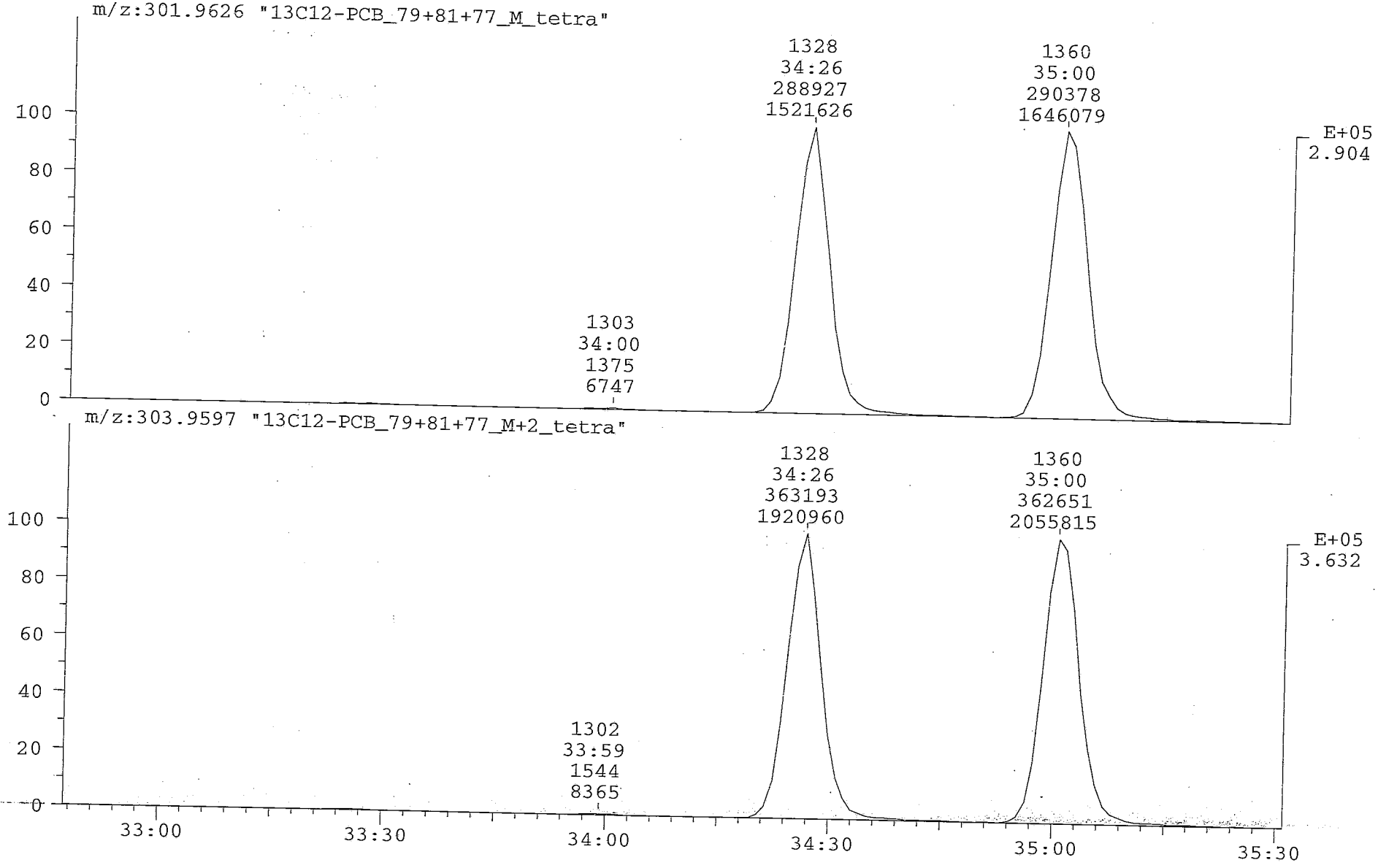
H-3150

3149

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1234 > 1389
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 33:59 1302
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



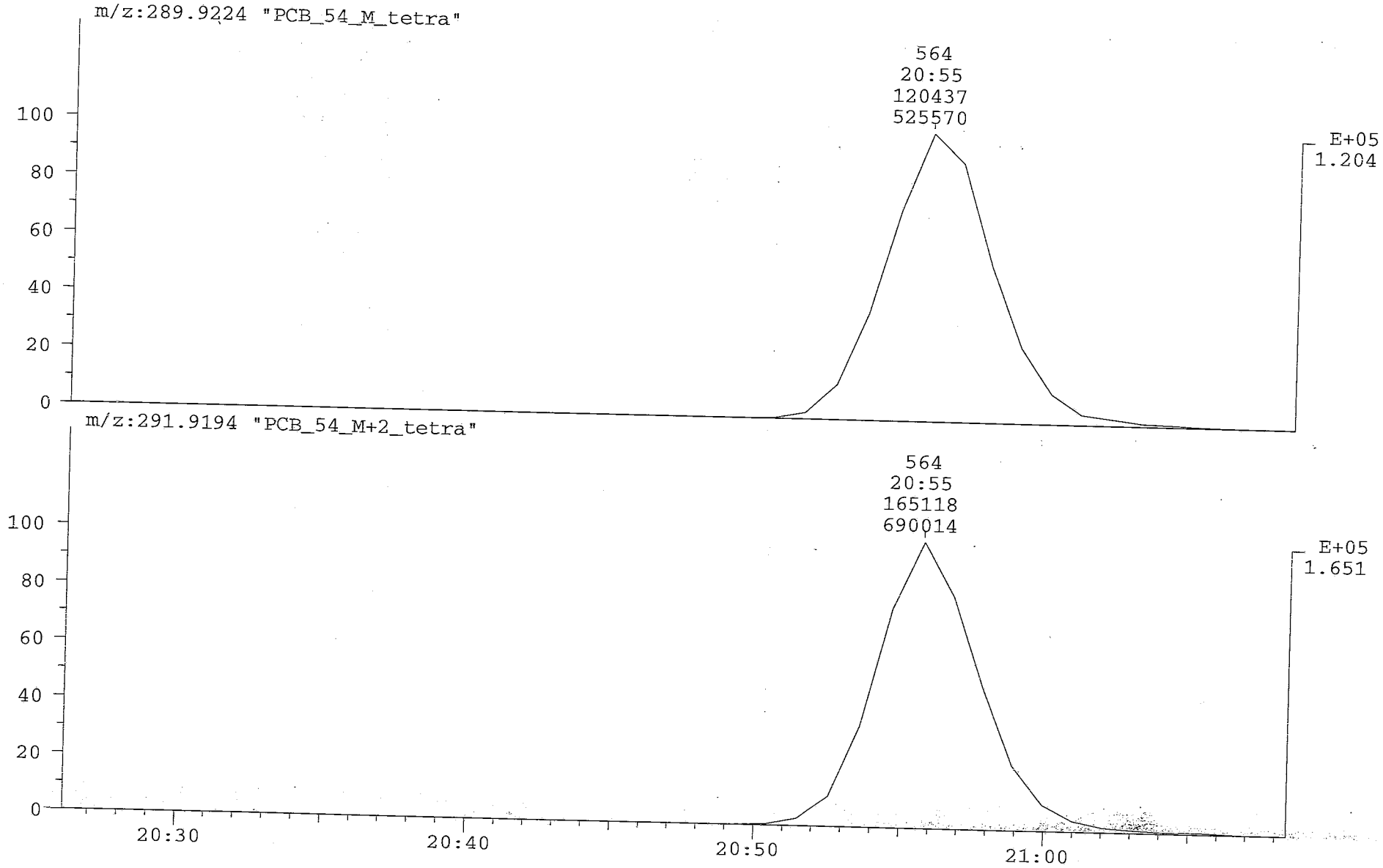
H-3151

3150

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 536 > 576
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 20:45.2 554
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



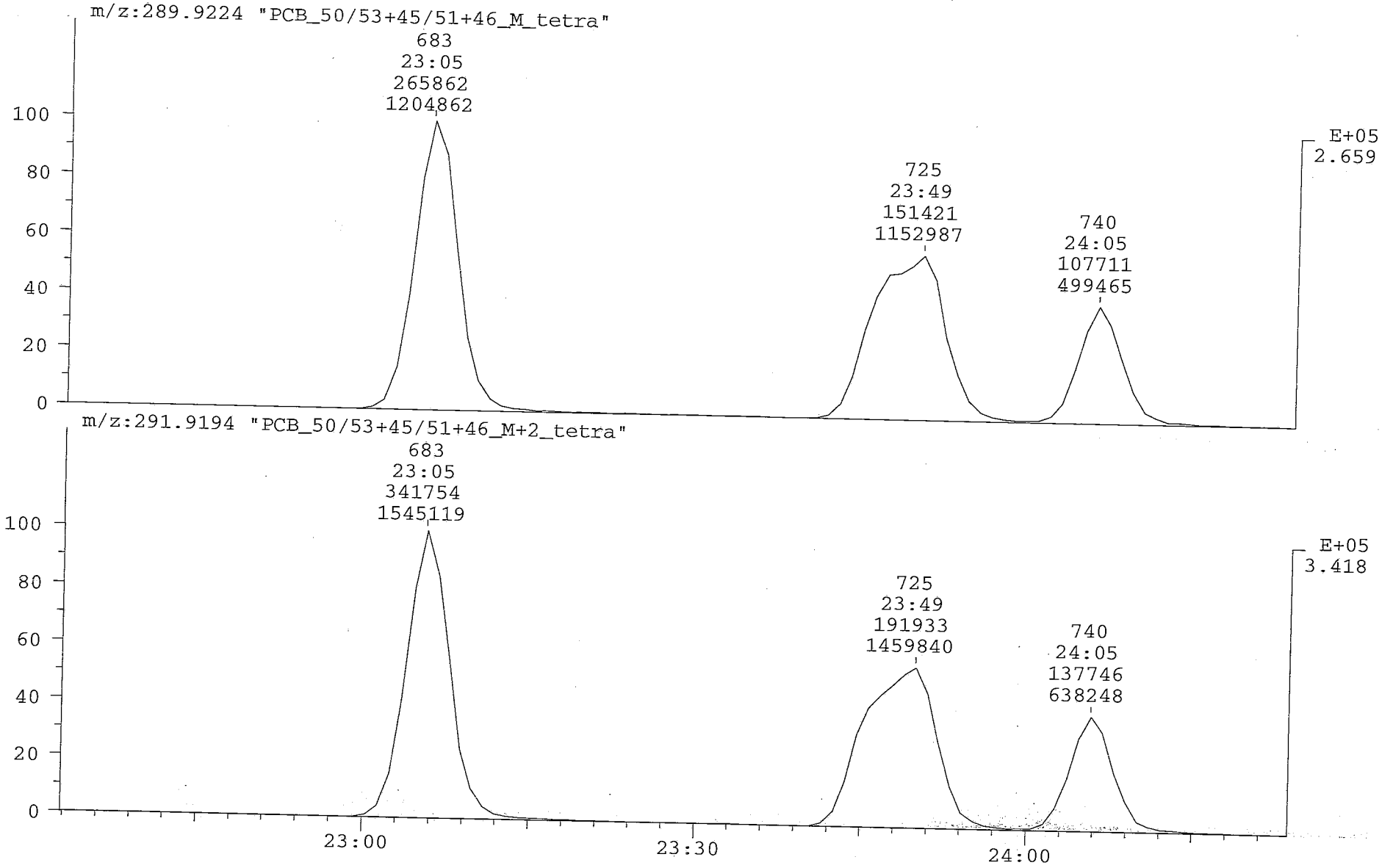
H-3152

3151

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 652 > 757
Area: 5, 0.50, 15 Baseline : 100, 9
Disp: Height Area

13-Jul-11

Elapse: 23:30.8 707
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



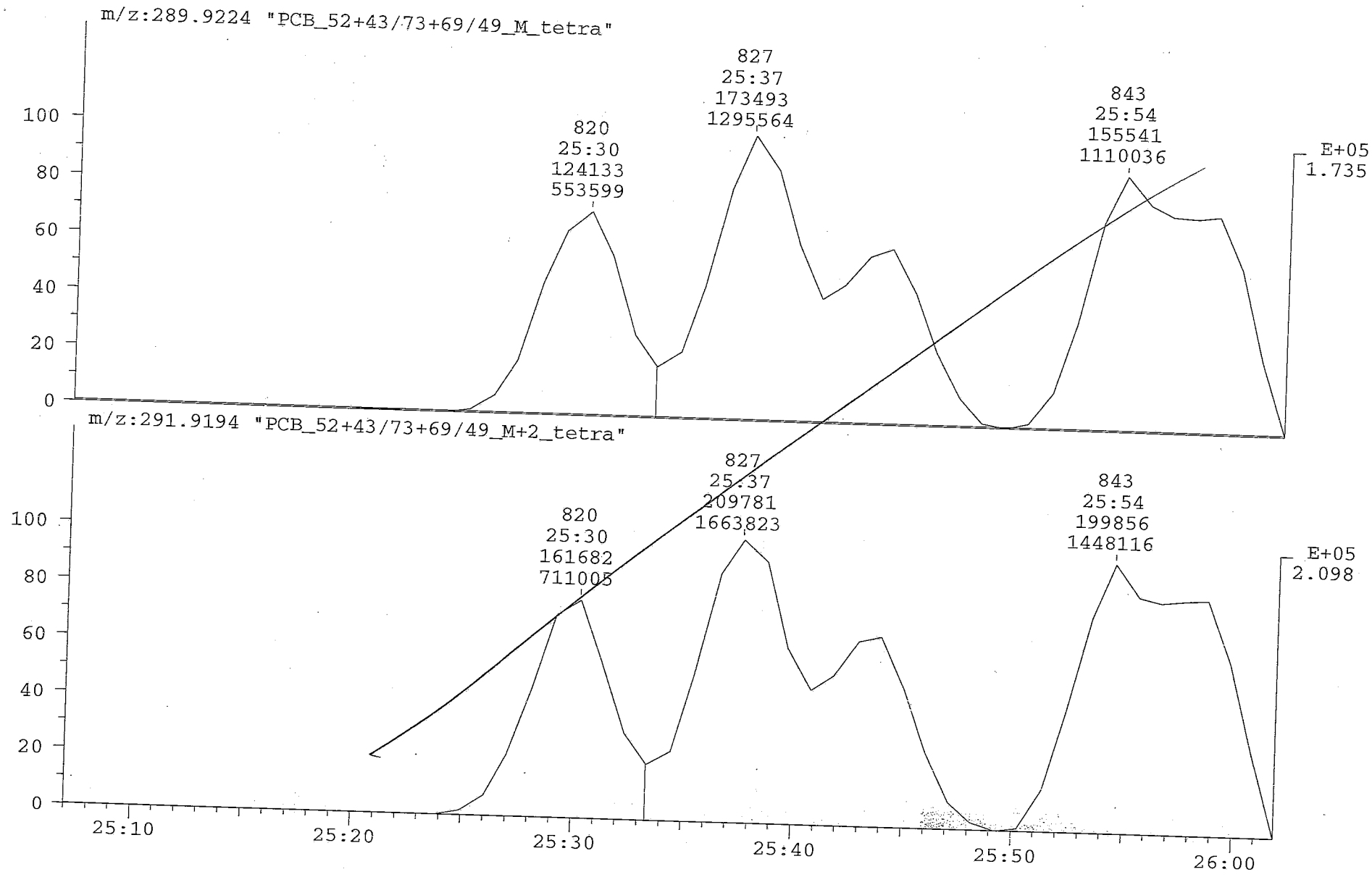
H-3153

3152

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 798 > 850
Area: 5, 0.50, 15 Baseline : 100, 5
Disp: Height Area

13-Jul-11

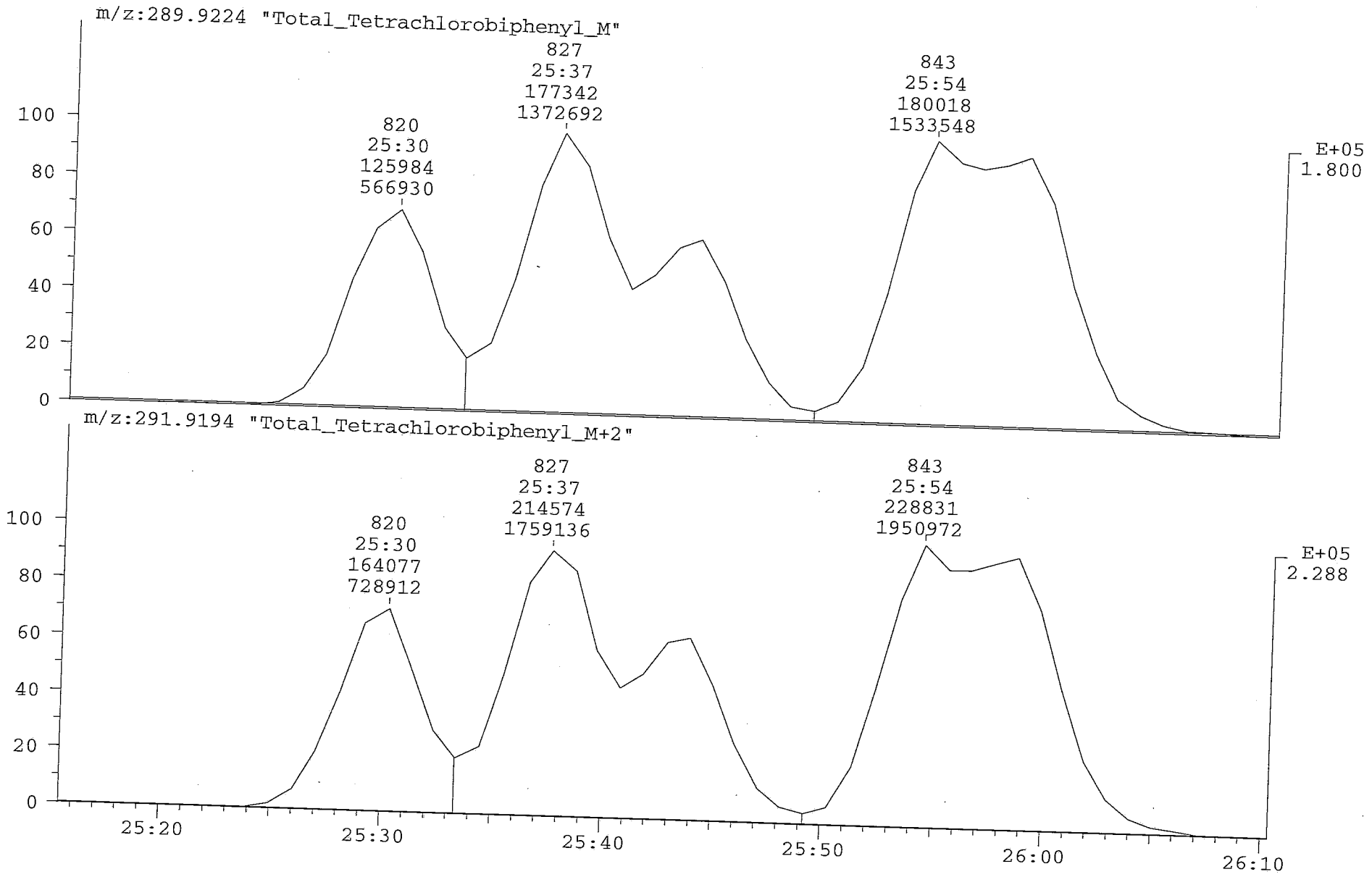
Elapse: 25:36.6 826
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3154

3153

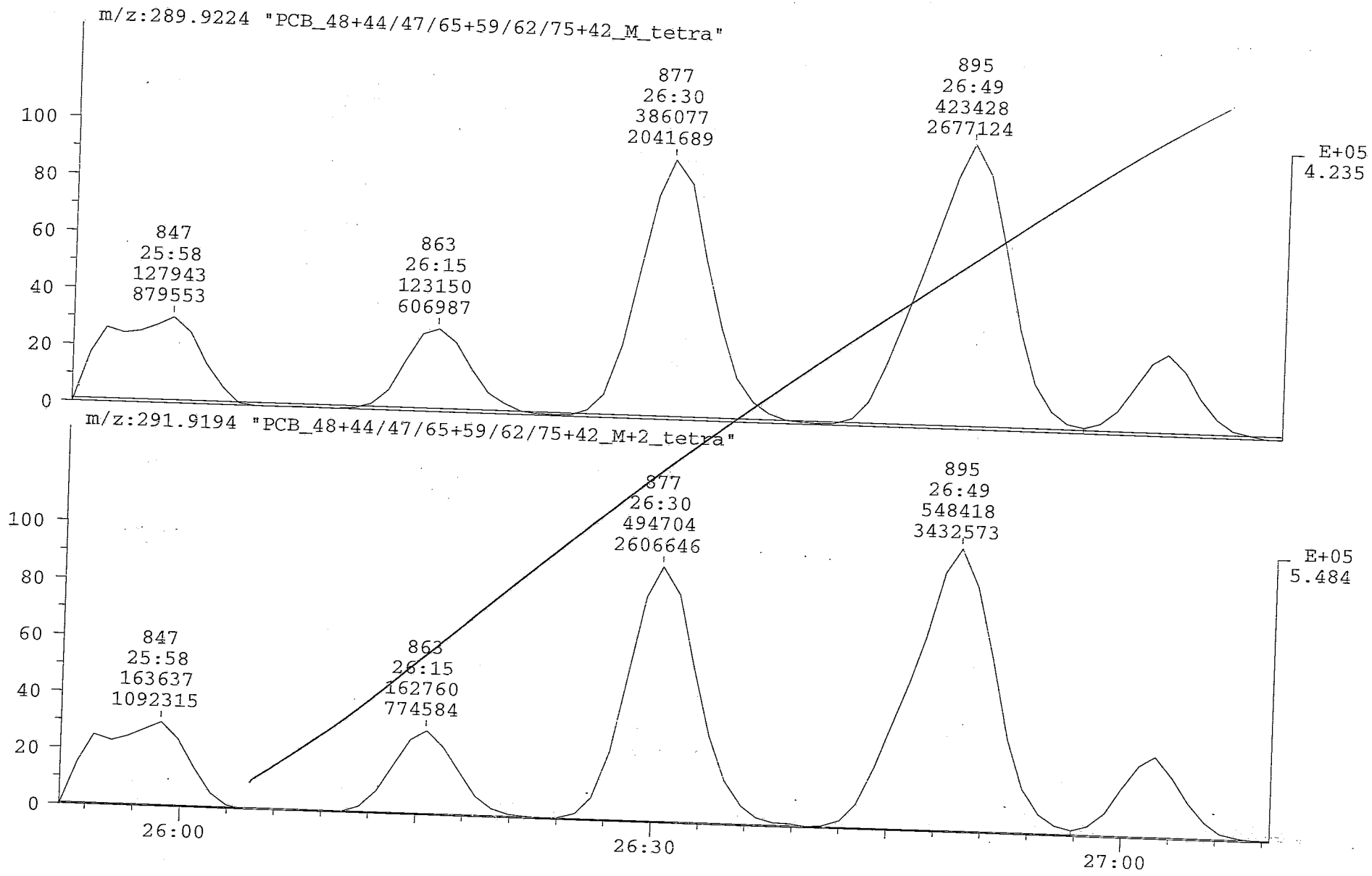
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 17:04.4 345
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 806 > 858 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 5 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



H-3155

3154

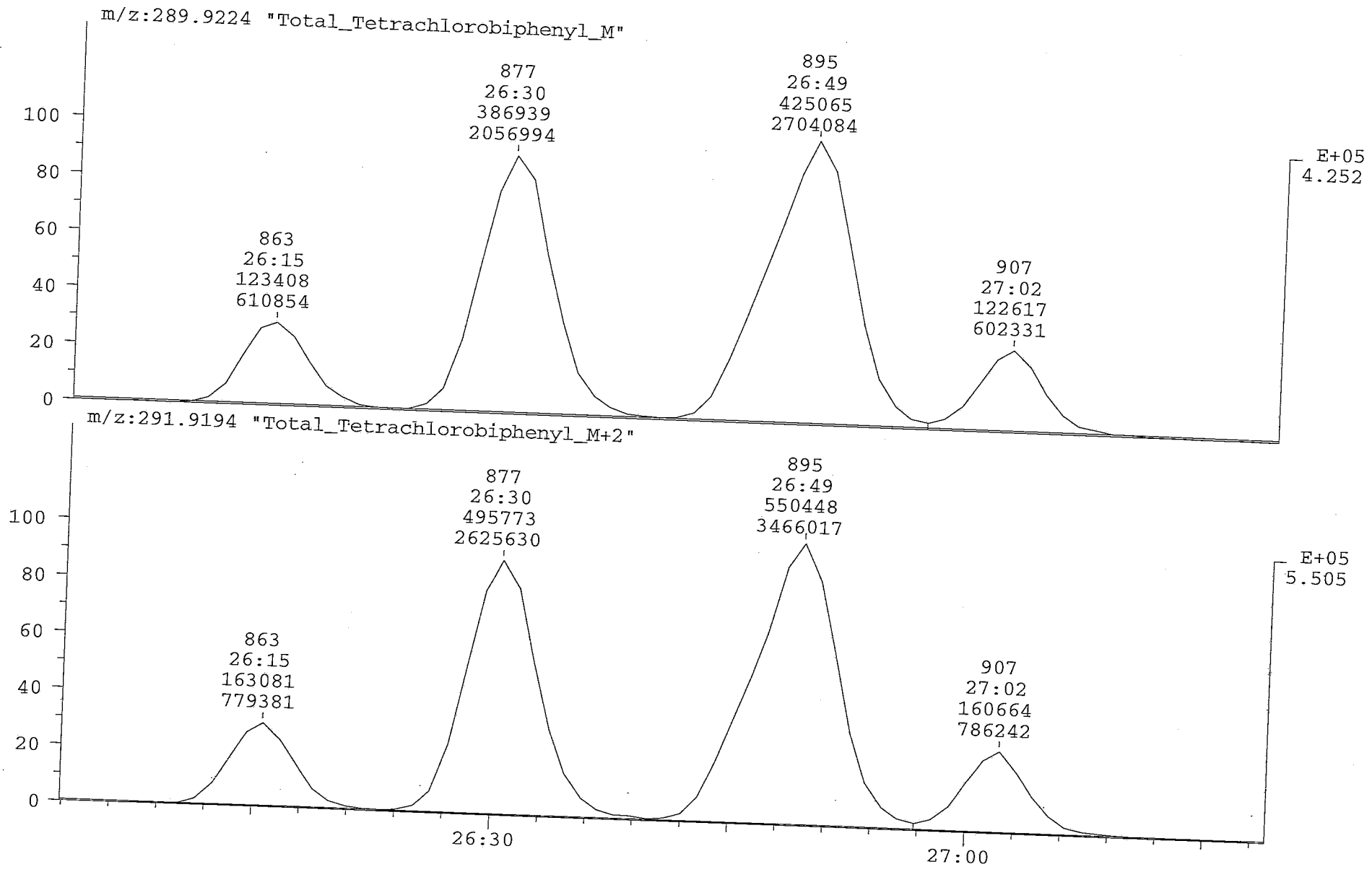
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 26:30.4 877
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 841 > 914 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-3156

3155

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 17:04.4 345
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 851 > 923 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 5 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



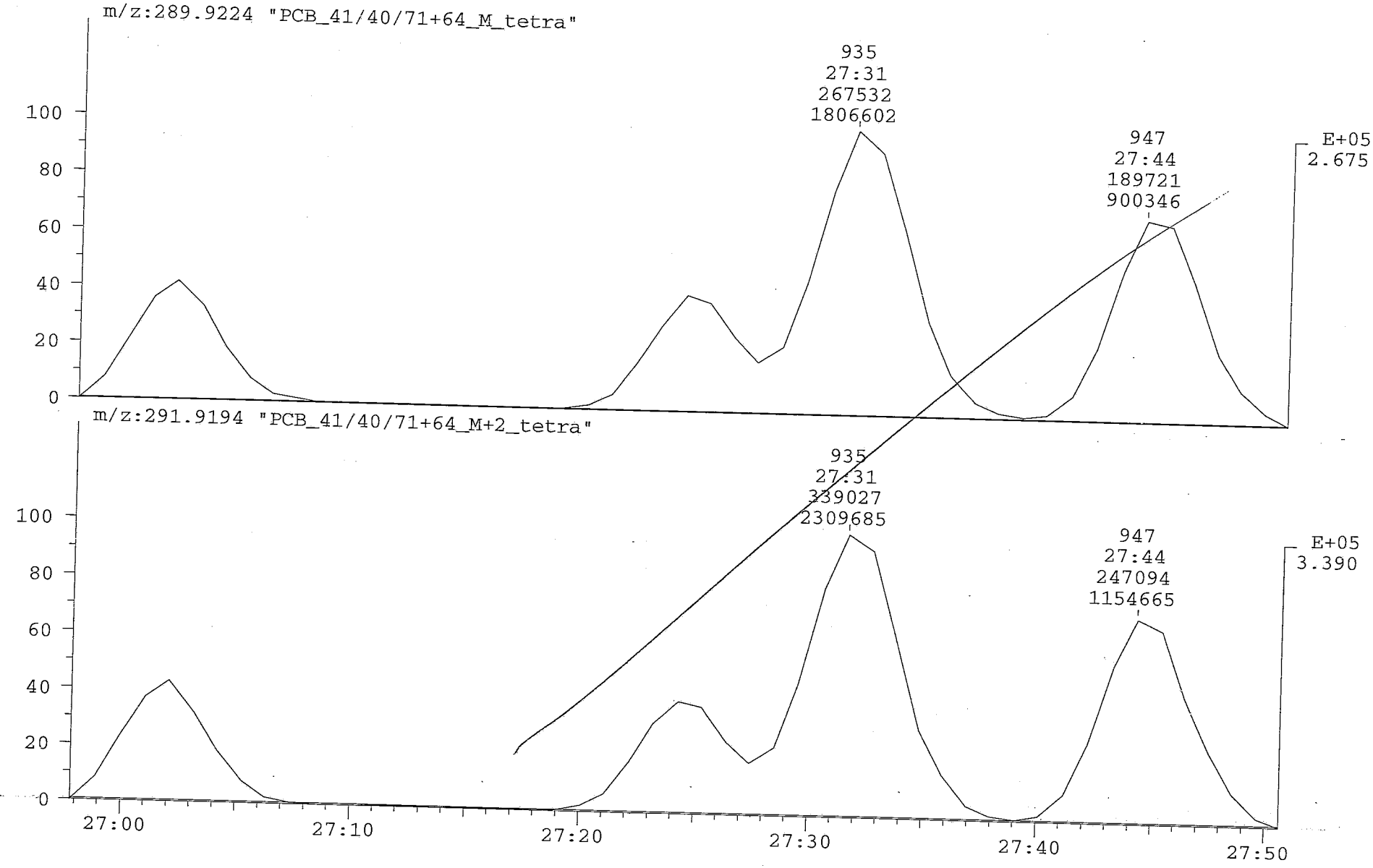
H-3157

3156

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 903 > 953
Area: 5, 0.50, 15 Baseline : 100, 7
Disp: Height Area

13-Jul-11

Elapse: 27:29.5 933
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



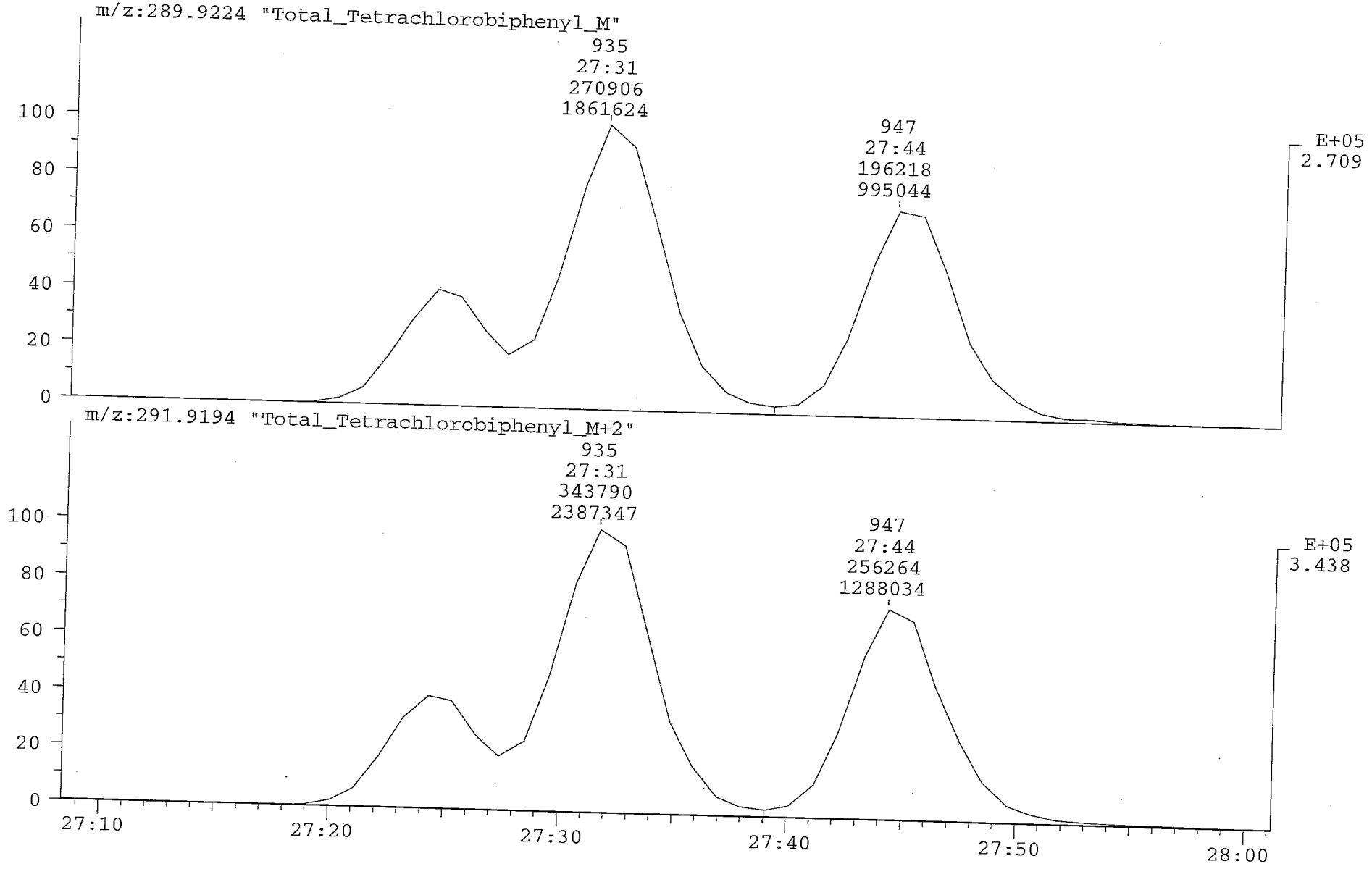
H-3158

3157

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 913 > 963
Area: 5, 0.50, 15 Baseline : 100, 7
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



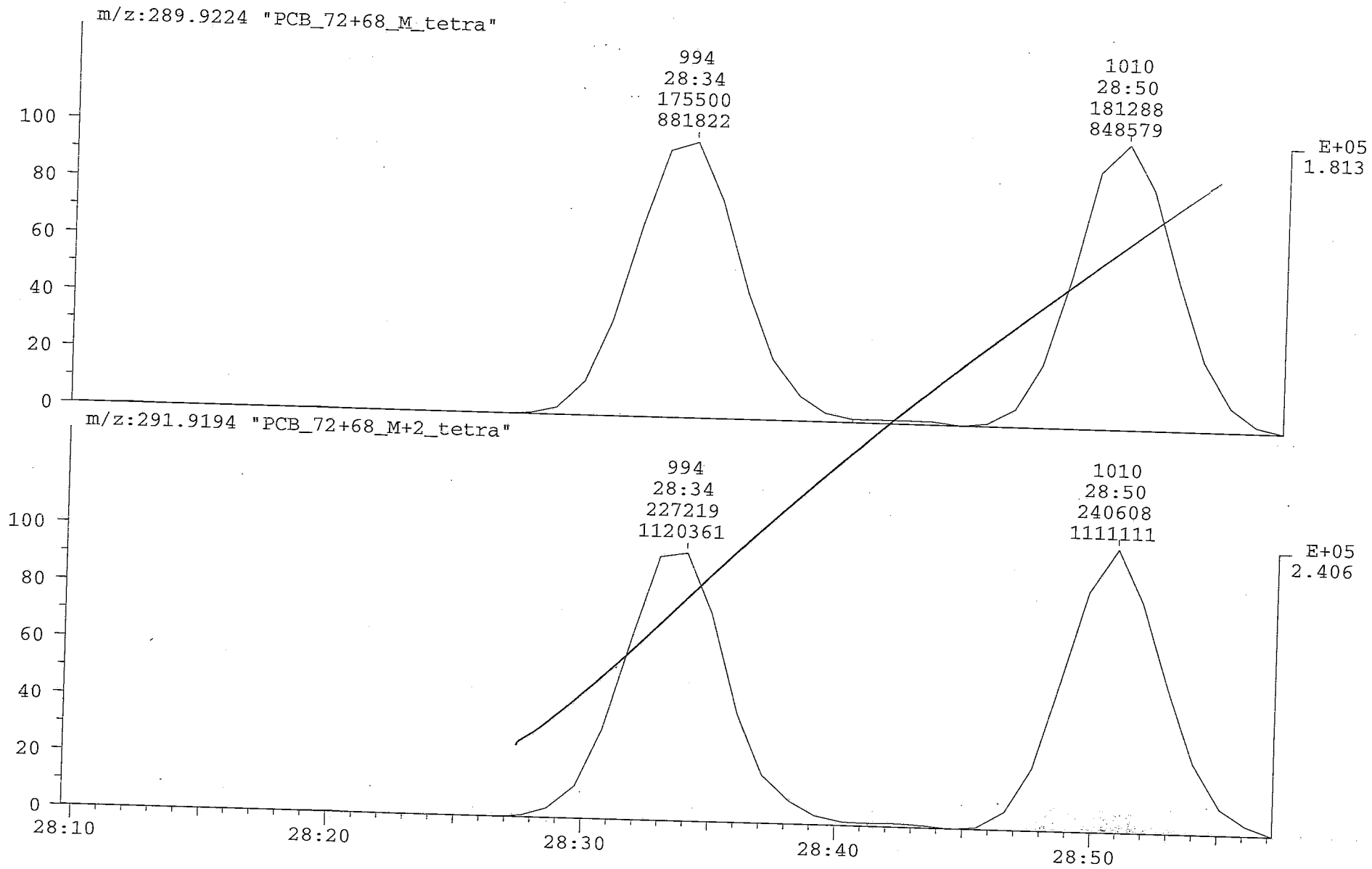
H-3159

3158

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 971 > 1016
Area: 5, 0.50, 15 Baseline : 100, 1
Disp: Height Area

13-Jul-11

Elapse: 28:34.9 994
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



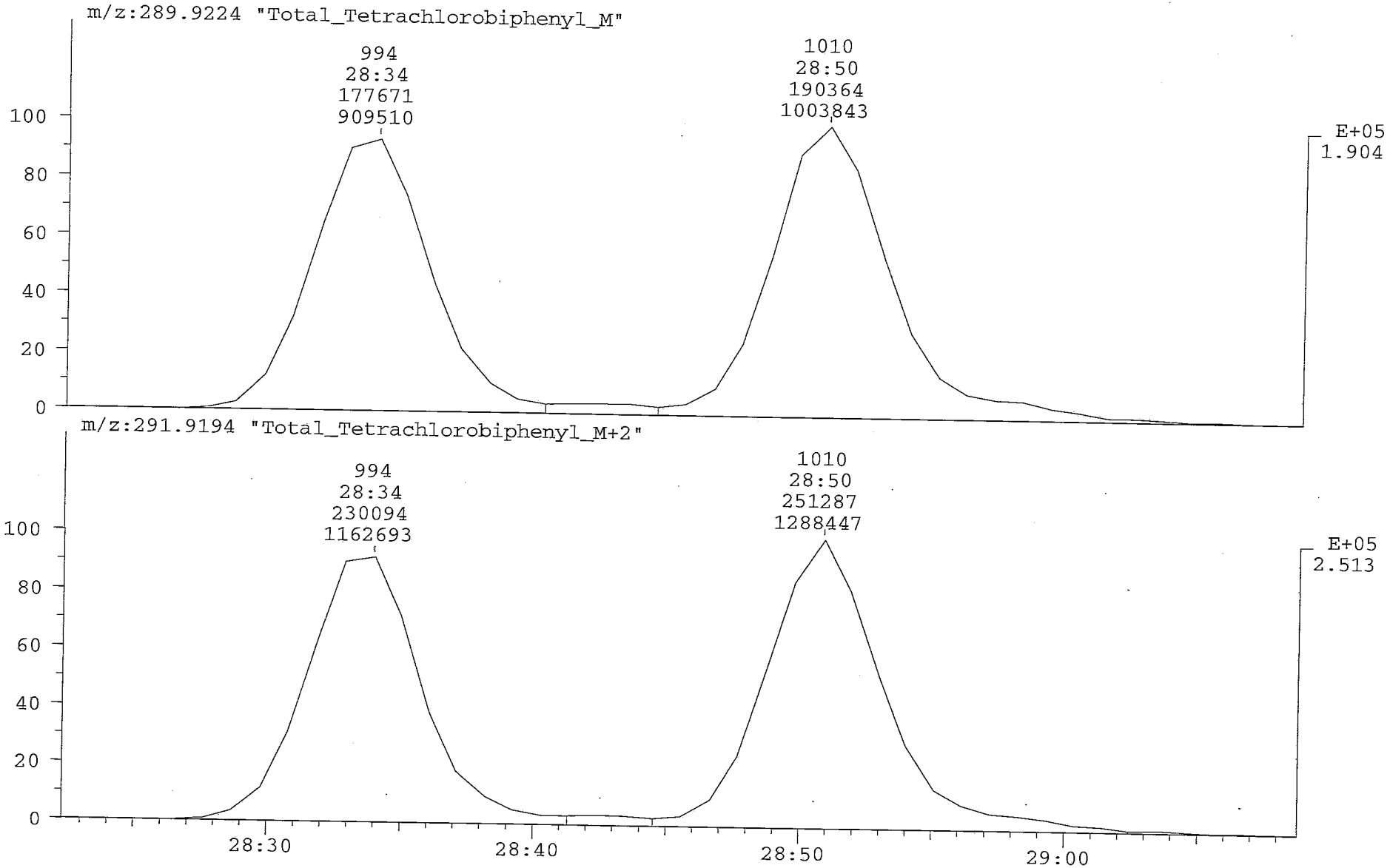
H-3160

3159

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 983 > 1027
Area: 5, 0.50, 15 Baseline : 100, 1
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0

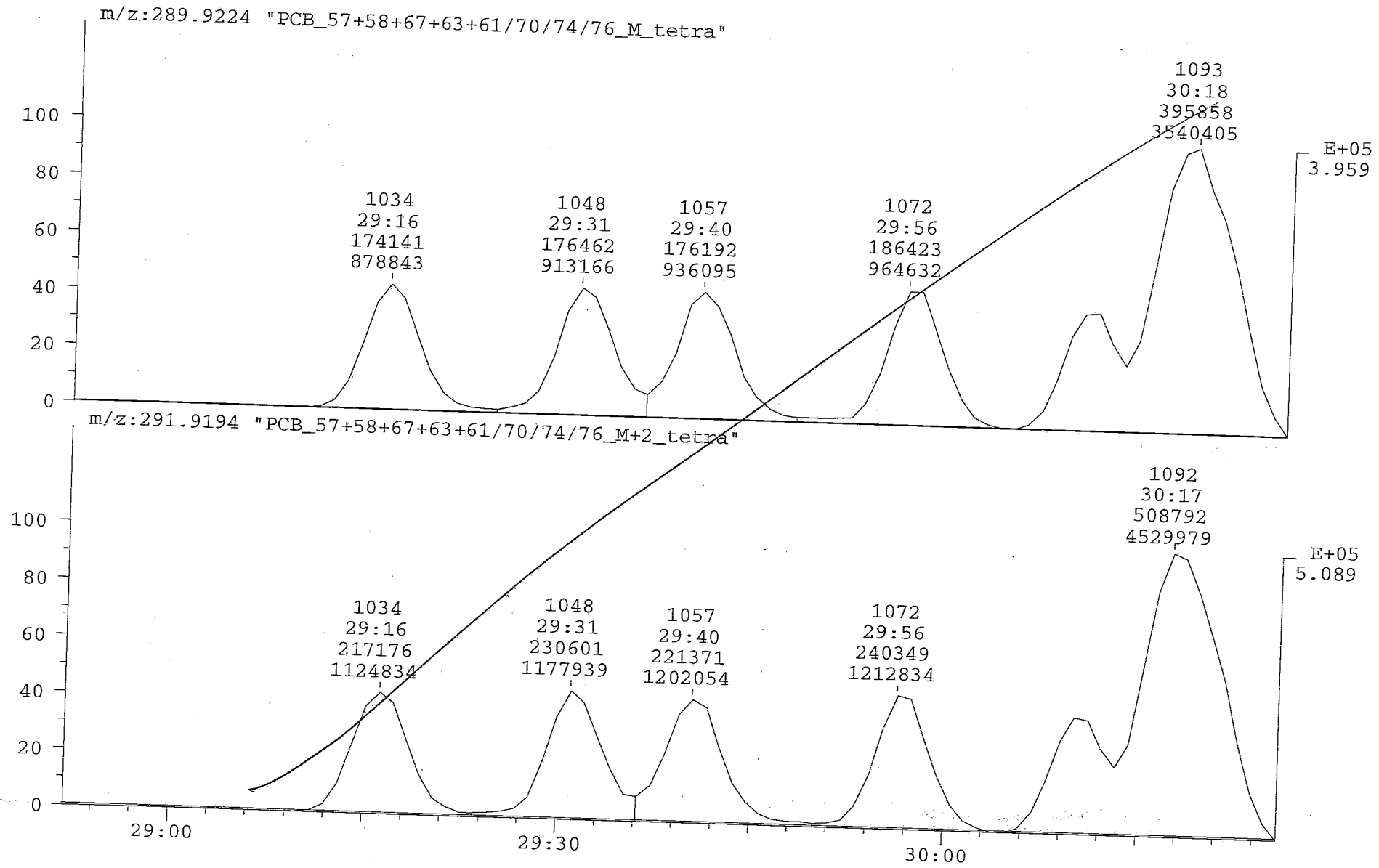


H-3161

3160

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1011 > 1100
Area: 5, 0.50, 15 Baseline : 100, 6
Disp: Height Area

13-Jul-11 Elapse: 29:39 1056
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



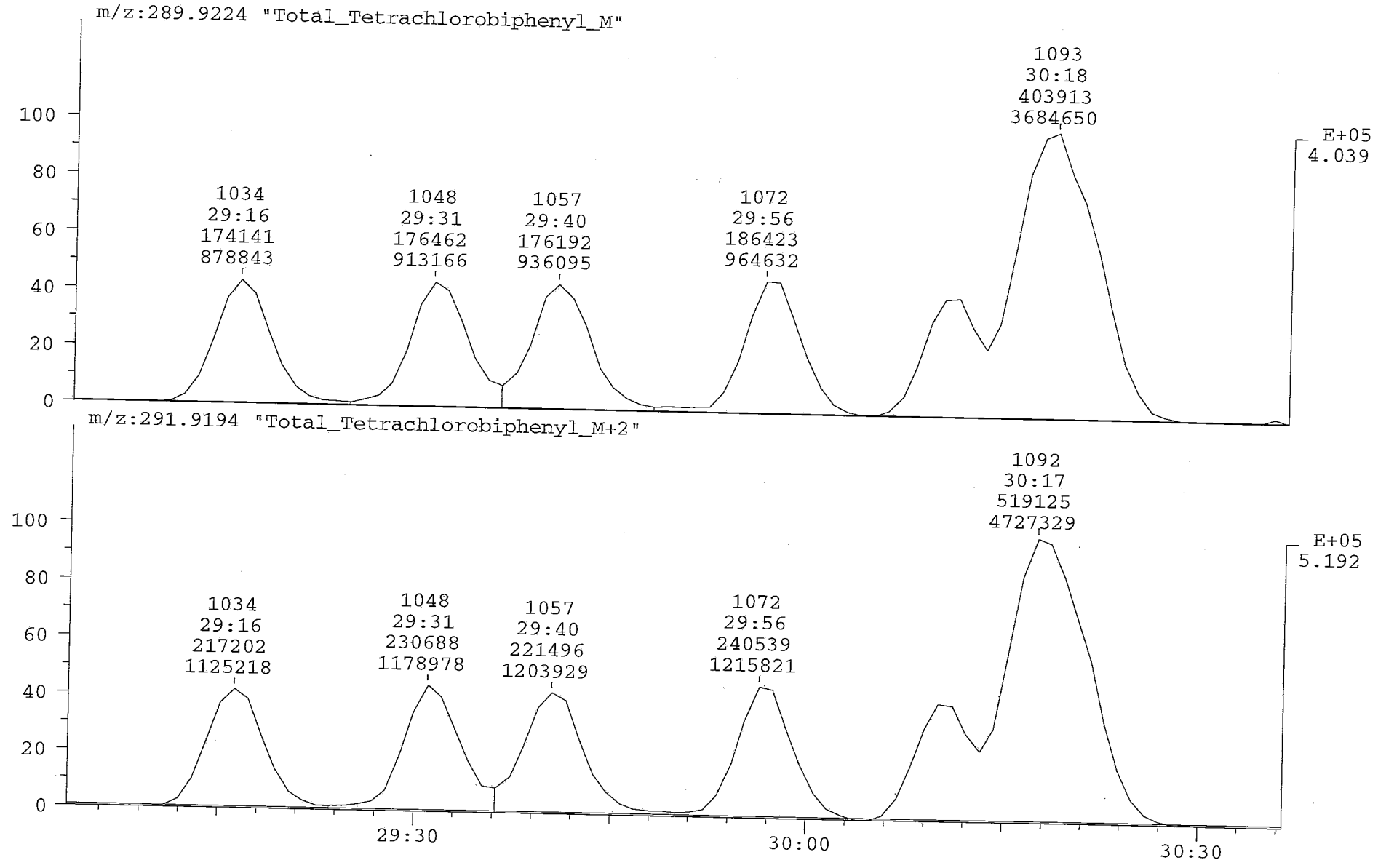
H-3162

3161

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1022 > 1110
Area: 5, 0.50, 15 Baseline : 100, 6
Disp: Height Area

13-Jul-11

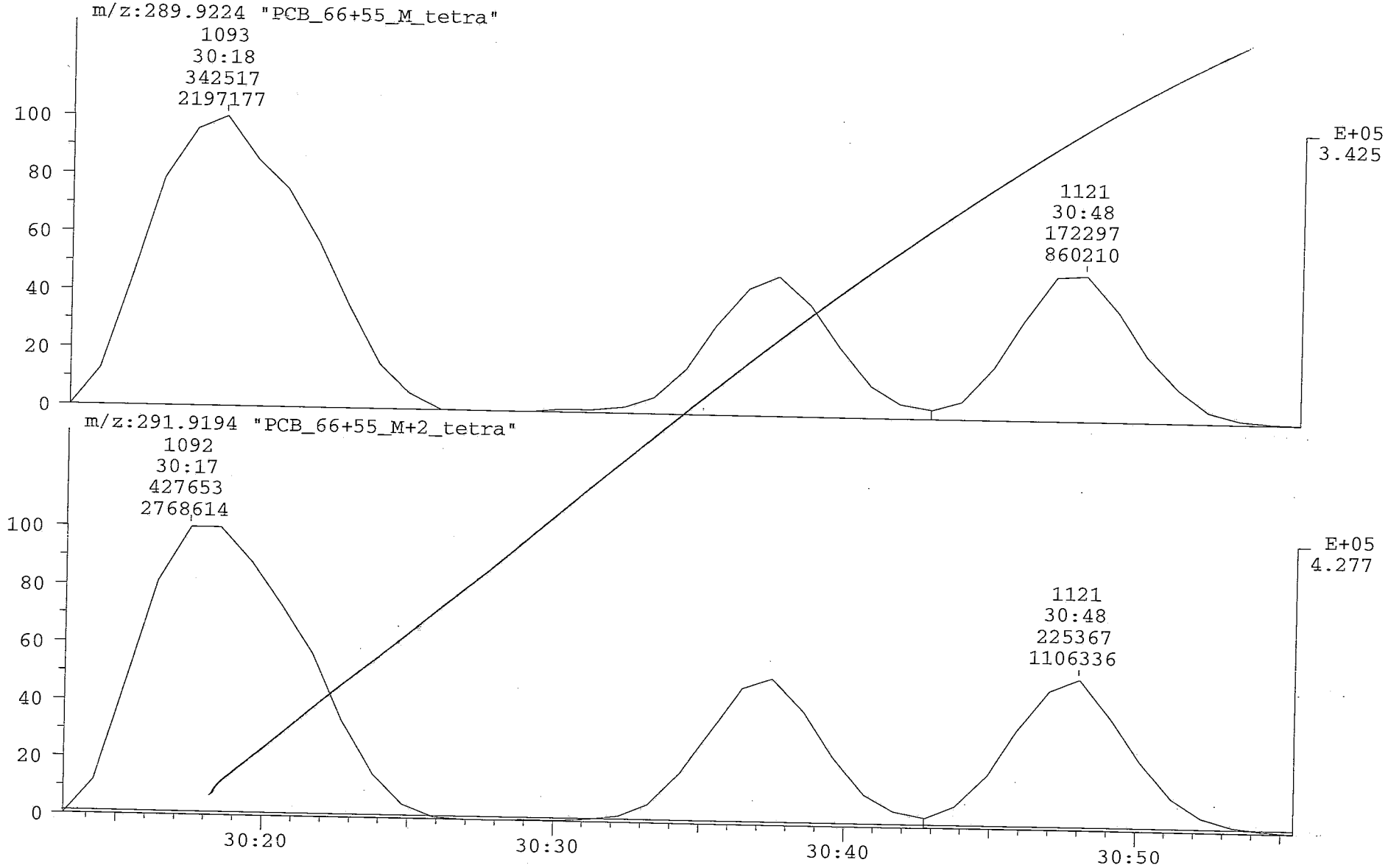
Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3163

3162

CHRO: apmkntmc 13-Jul-11 Elapse: 30:34 1108
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1088 > 1128 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



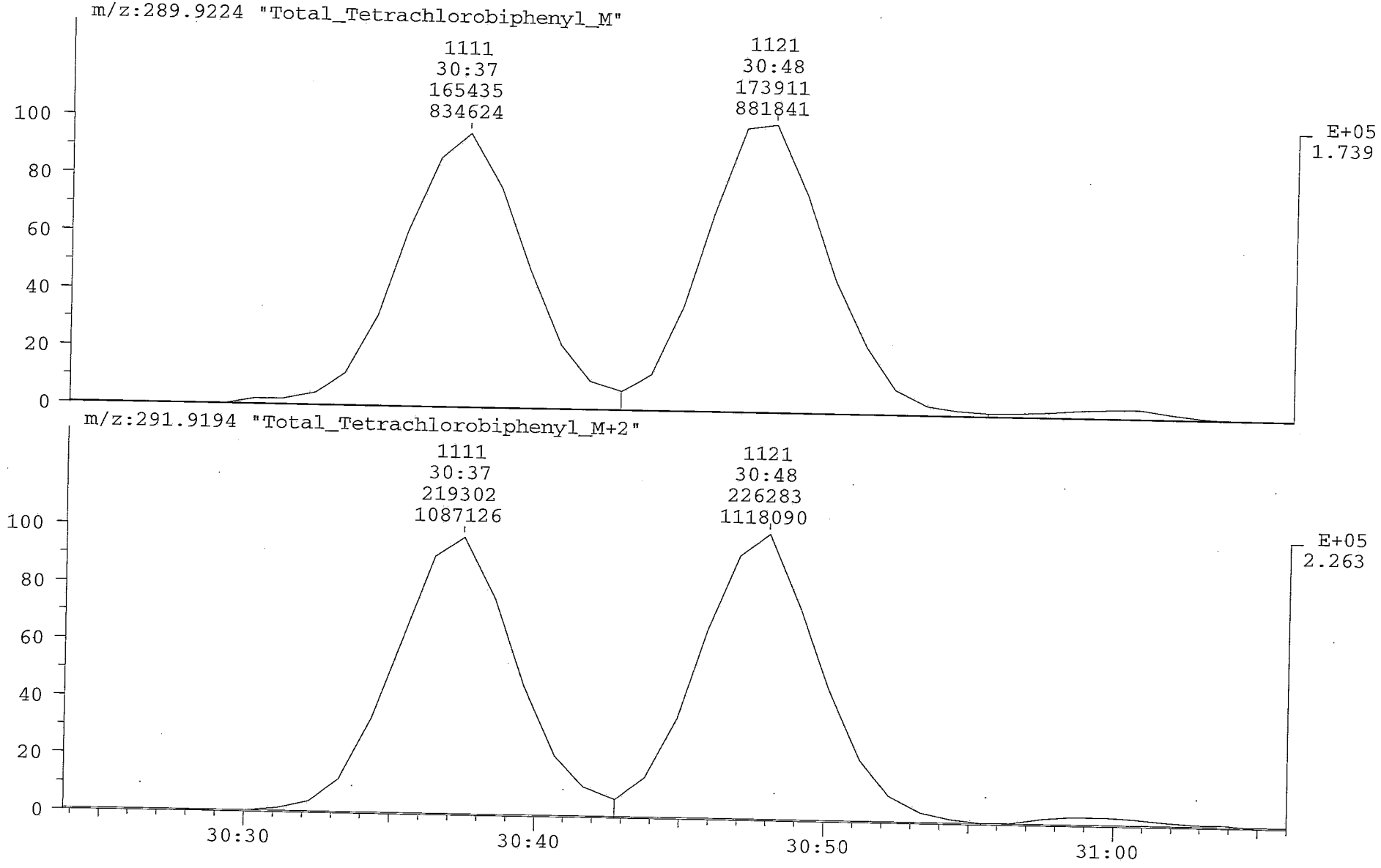
H-3164

3163

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1098 > 1138
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



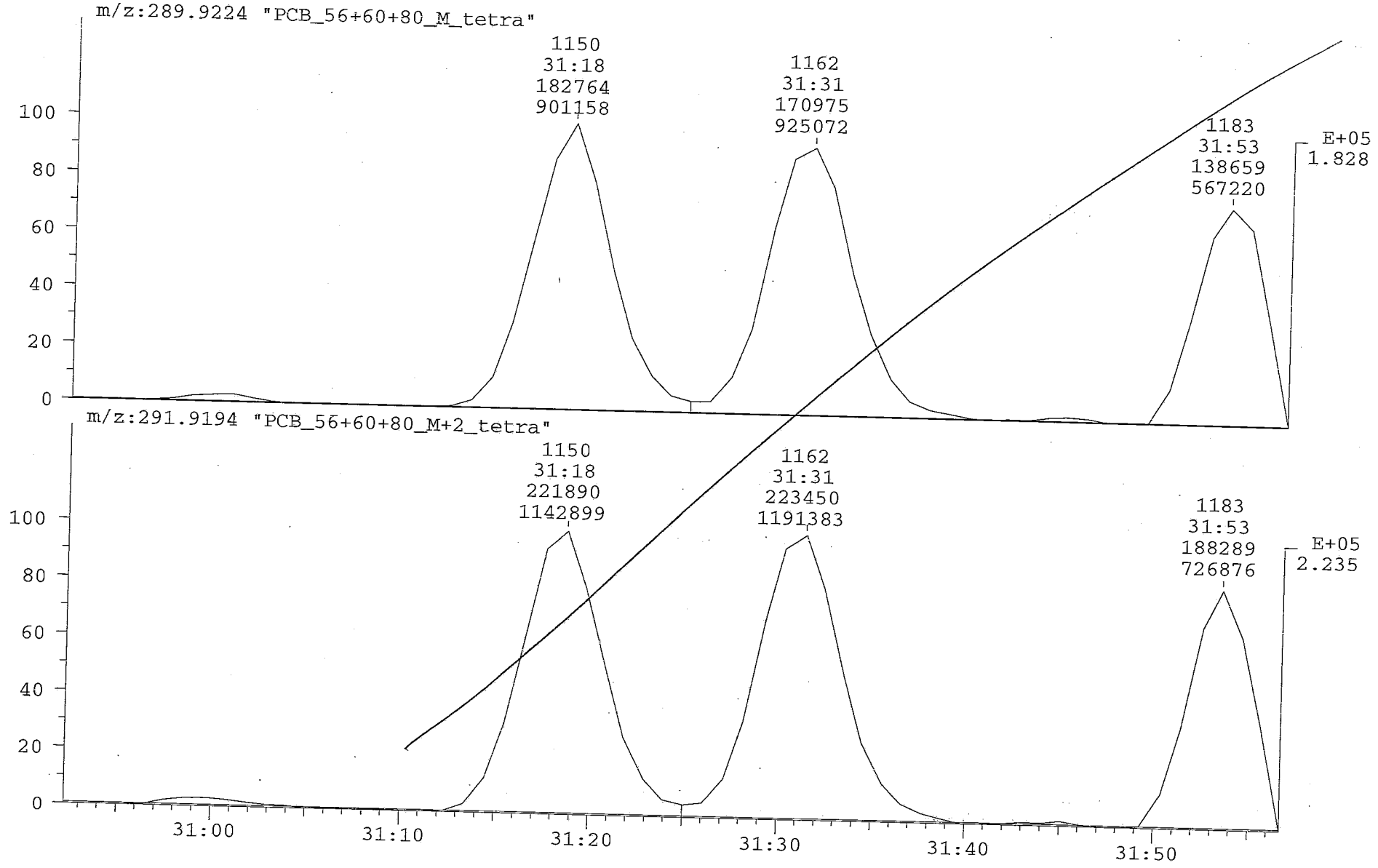
H-3165

3164

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1125 > 1186
Area: 5, 0.50, 15 Baseline : 100, 1
Disp: Height Area

13-Jul-11

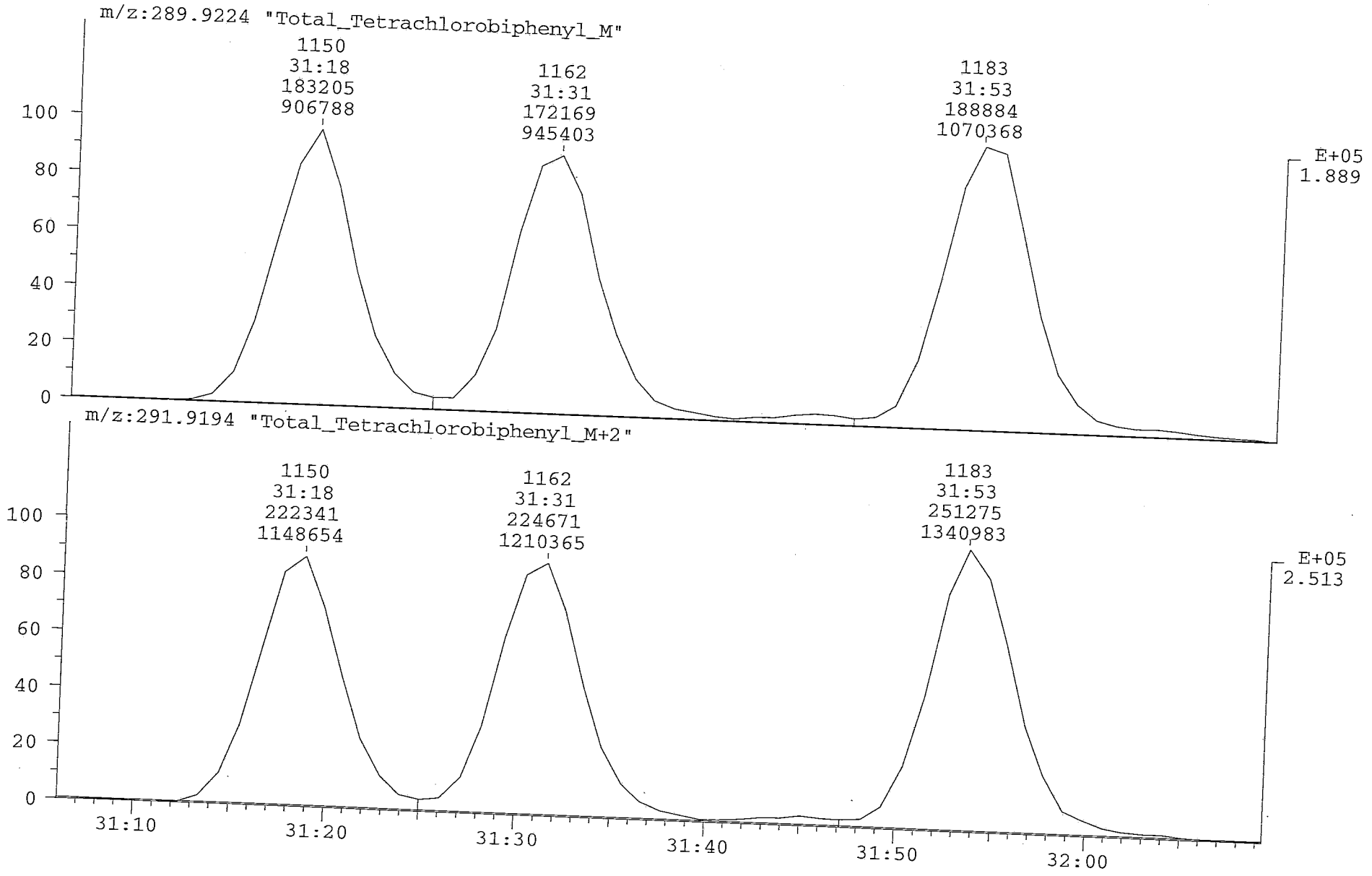
Elapse: 31:27 1158
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3166

3165

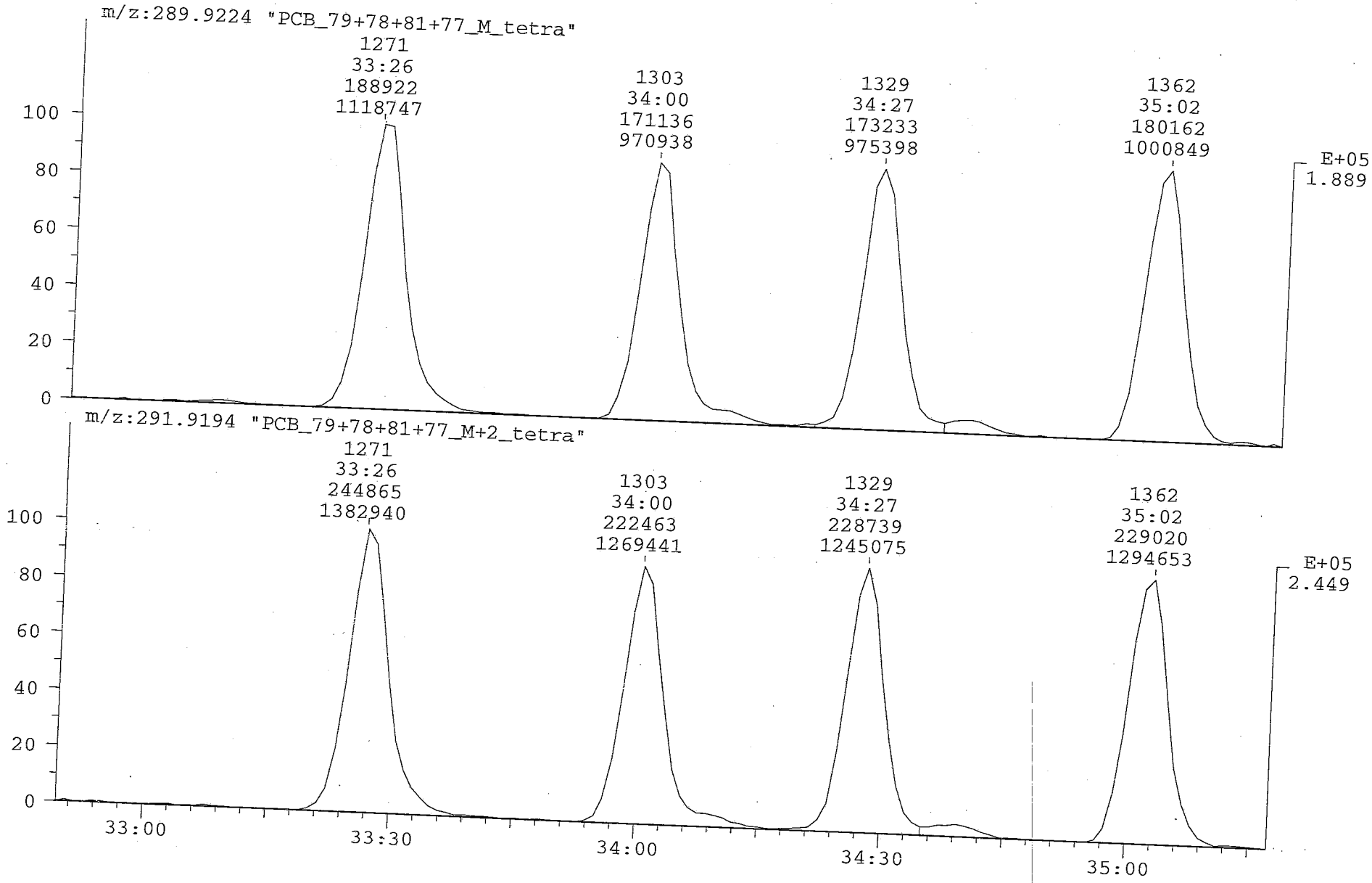
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 17:04.4 345
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 1138 > 1198 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



H-3167

3166

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 33:58 1301
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 1236 > 1376 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 1 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



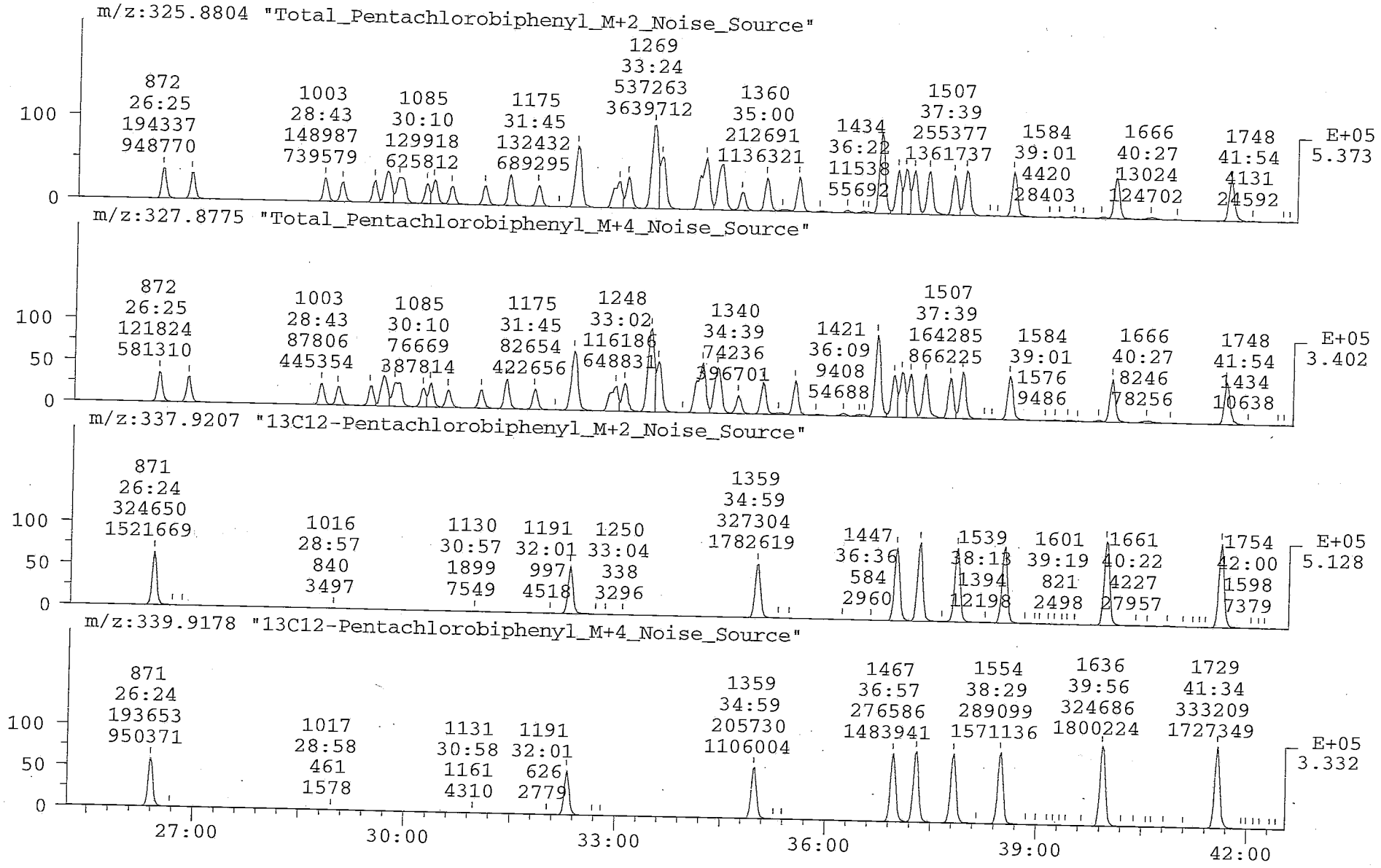
H-3168

3167

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 804 > 1785
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 33:52 1296
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



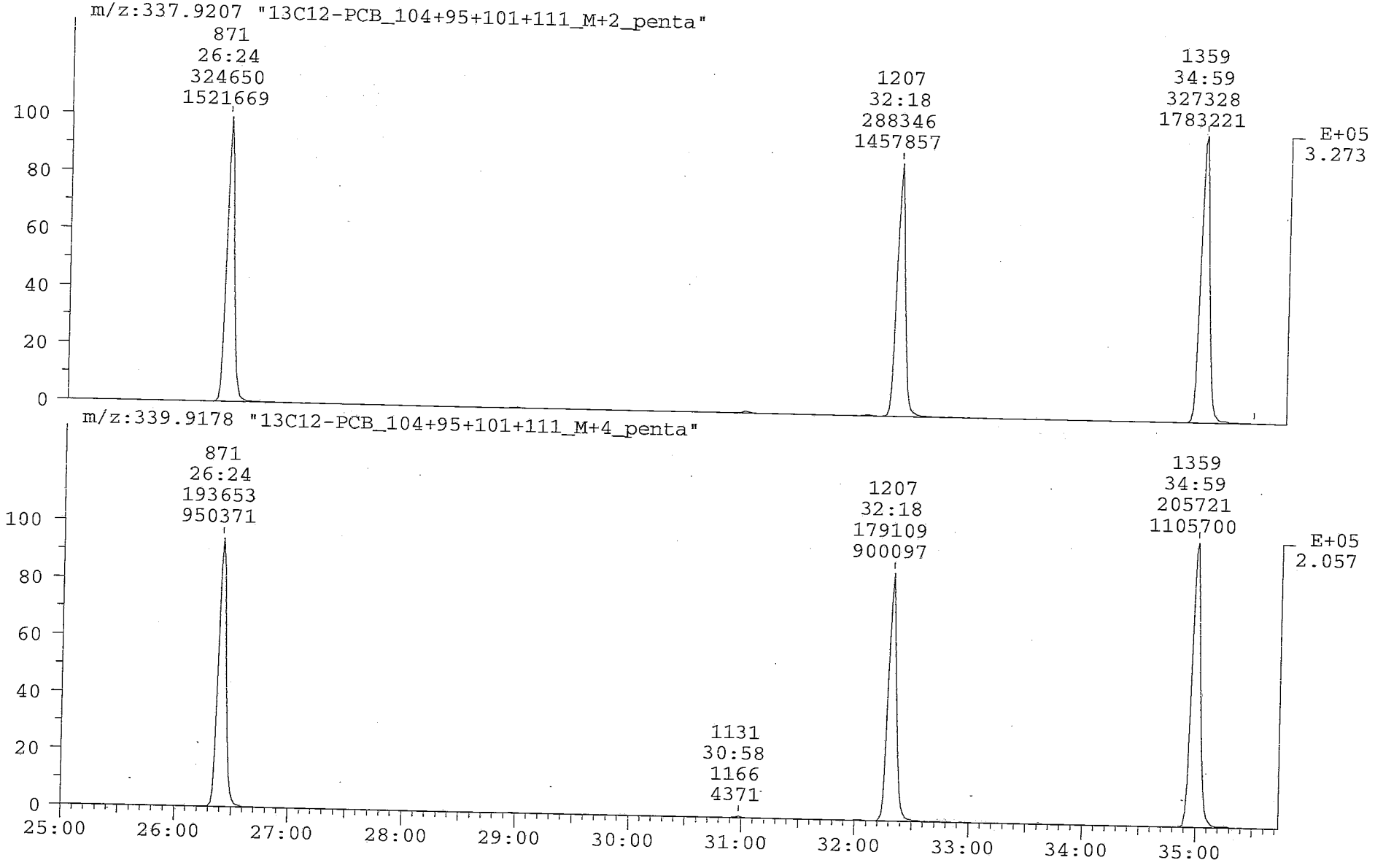
H-3169

3168

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 791 > 1401
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 30:21 1096
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



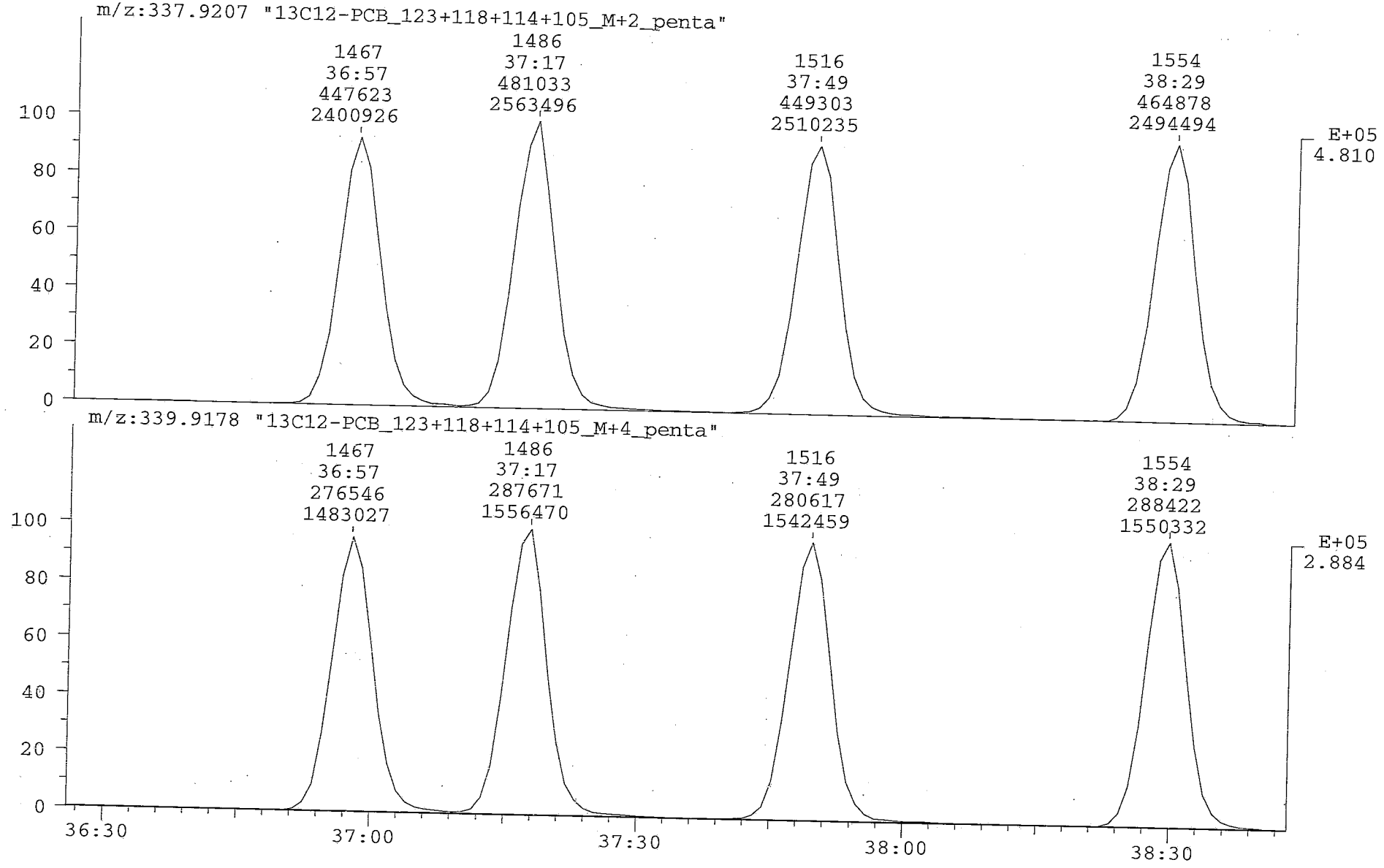
H-3170

3169

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1437 > 1567
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 37:34 1502
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



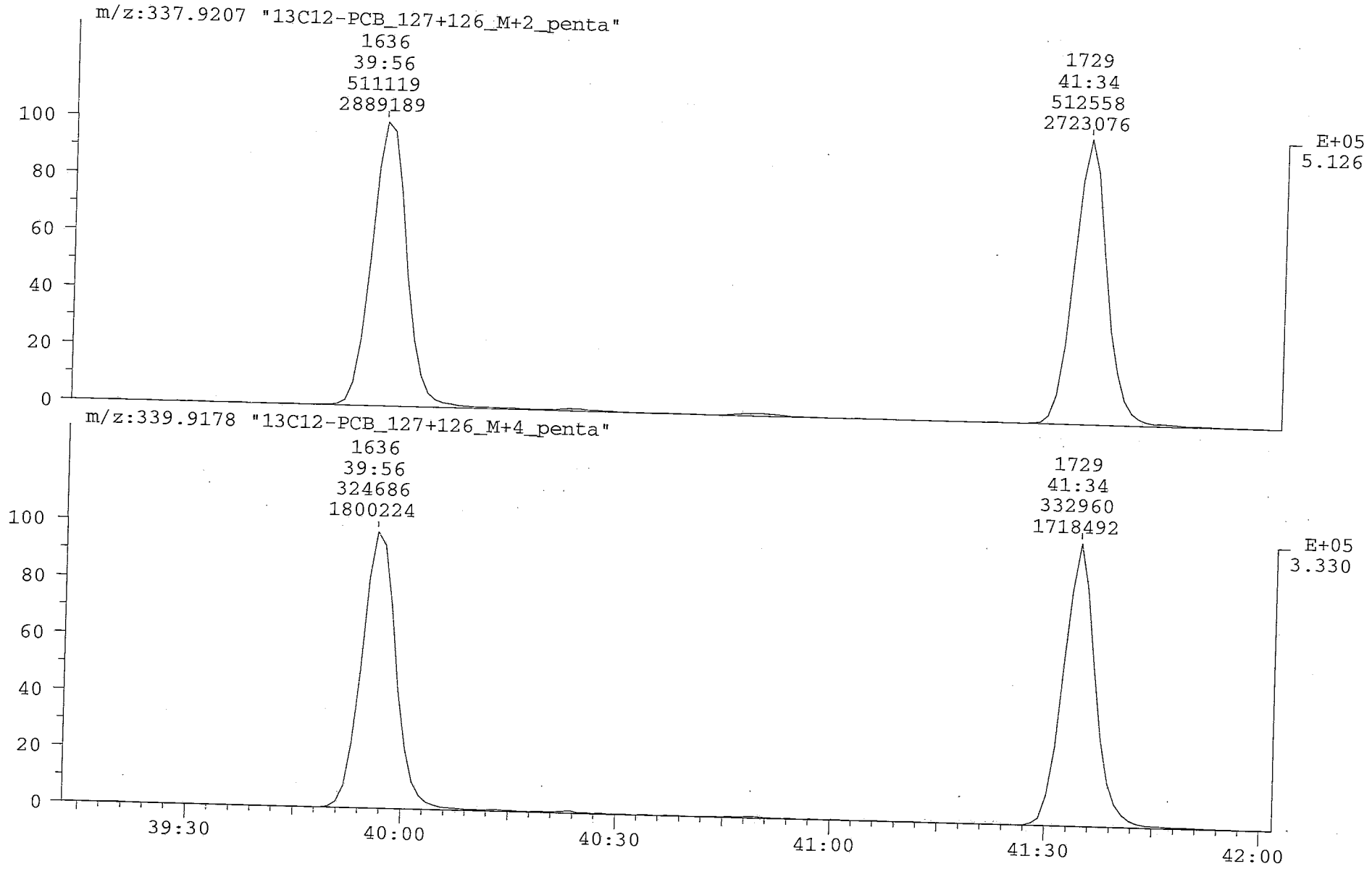
H-3171

3170

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1595 > 1755
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

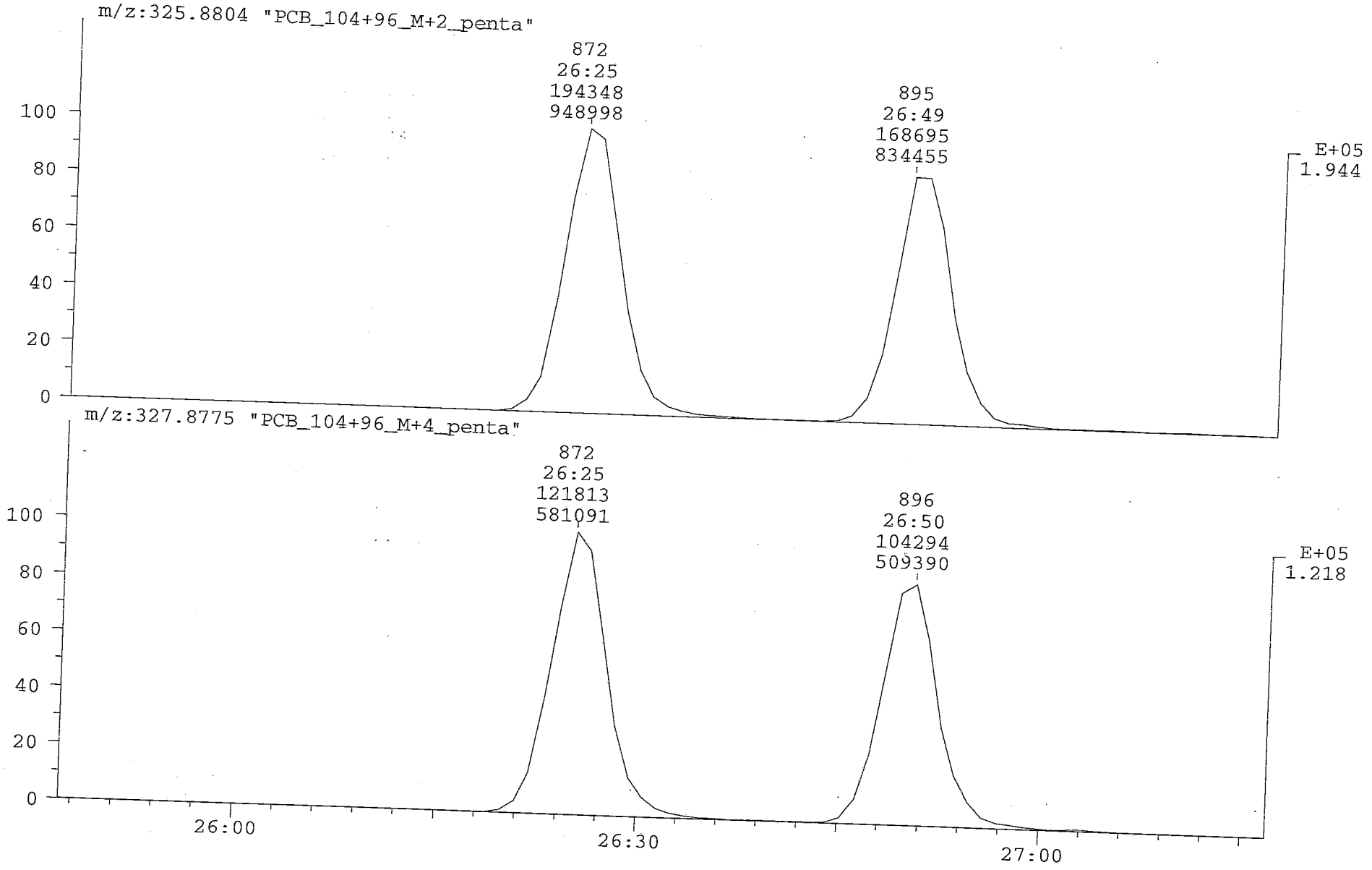
Elapse: 40:37 1675
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3172

3171

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 26:29.3 876
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 836 > 921 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



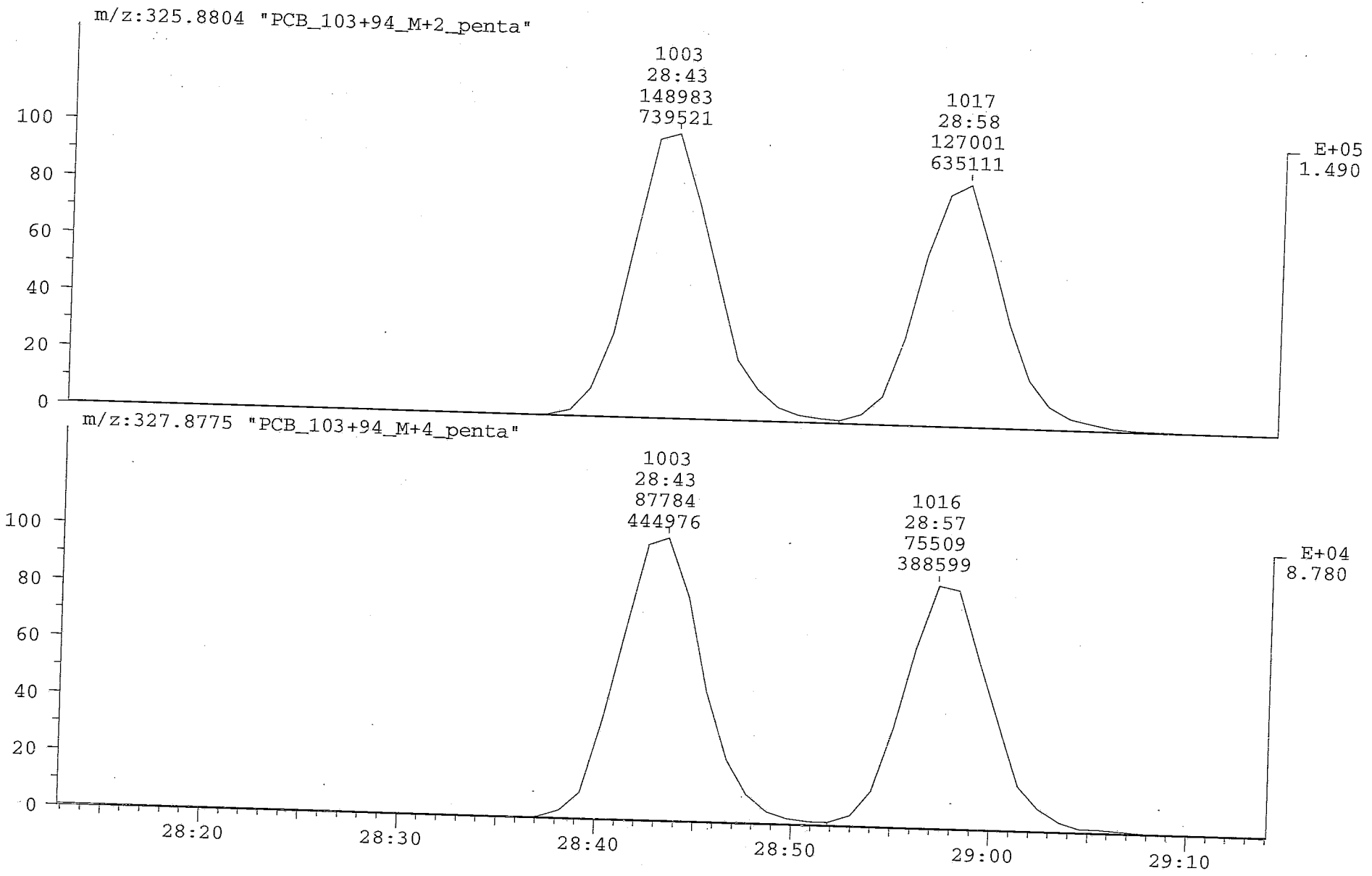
H-3173

3172

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 974 > 1032
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

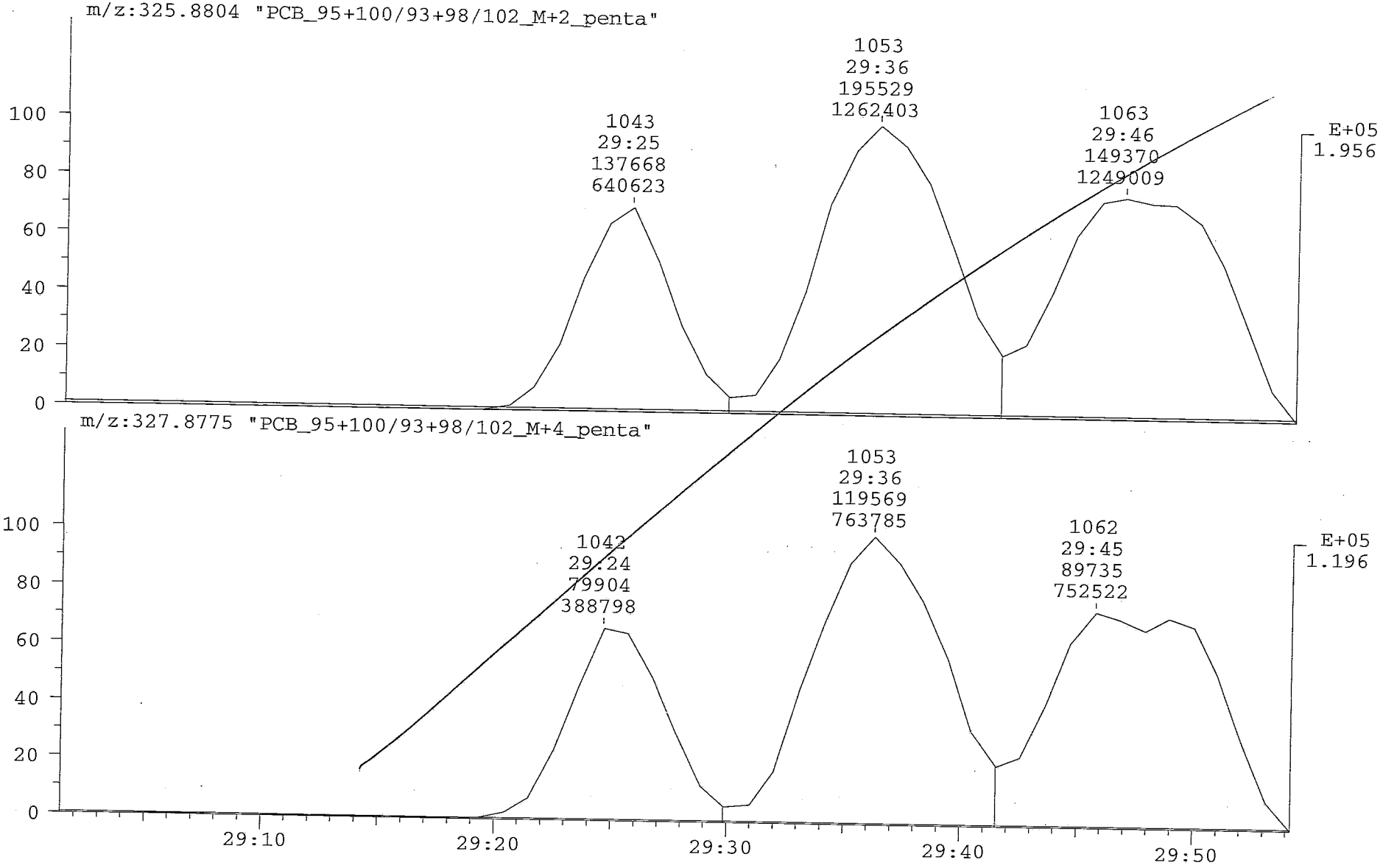
Elapse: 28:43 1003
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3174

3173

CHRO: apmkntmc 13-Jul-11 Elapse: 29:27 1045
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1020 > 1070 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



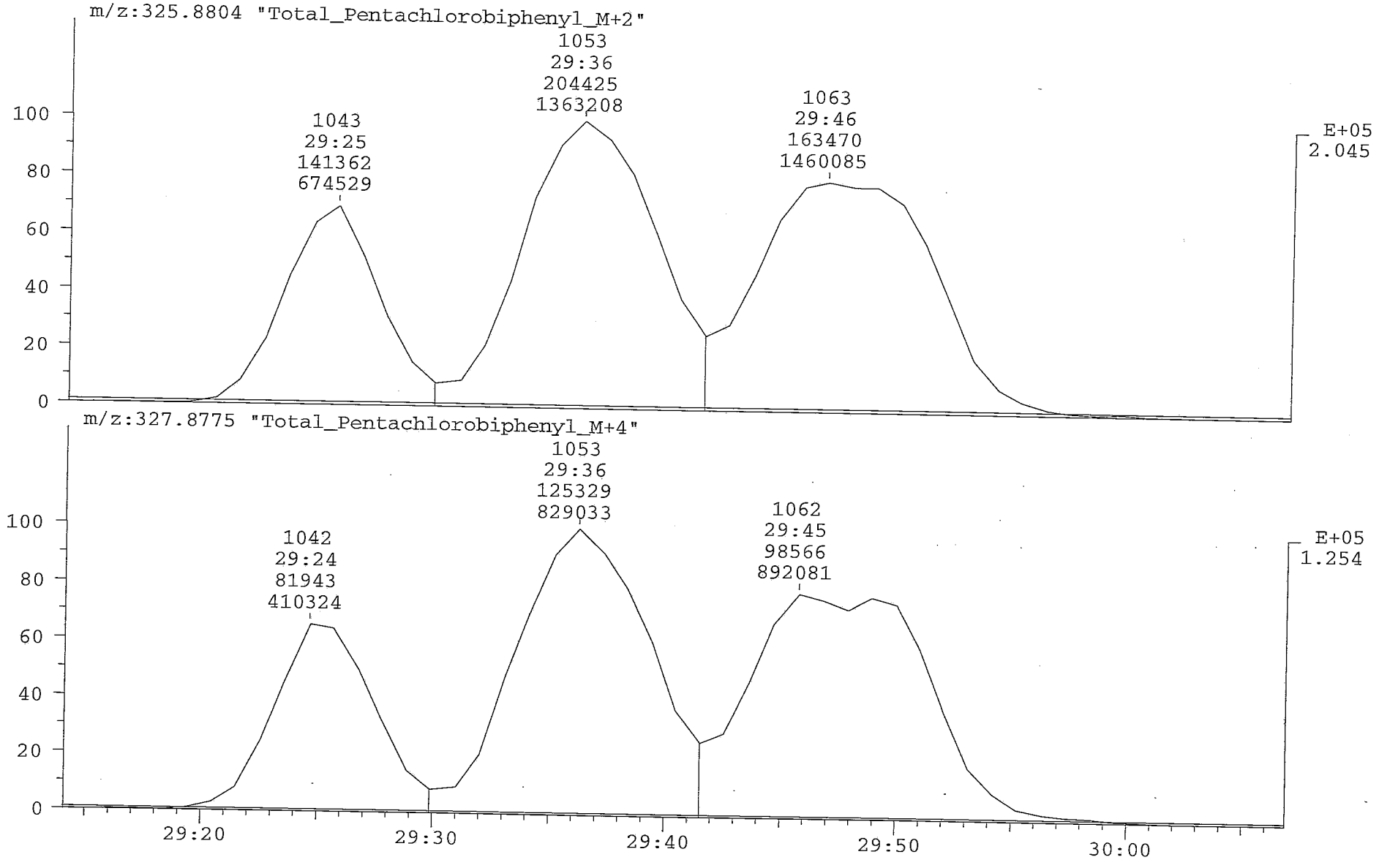
H-3175

3174

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1032 > 1082
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



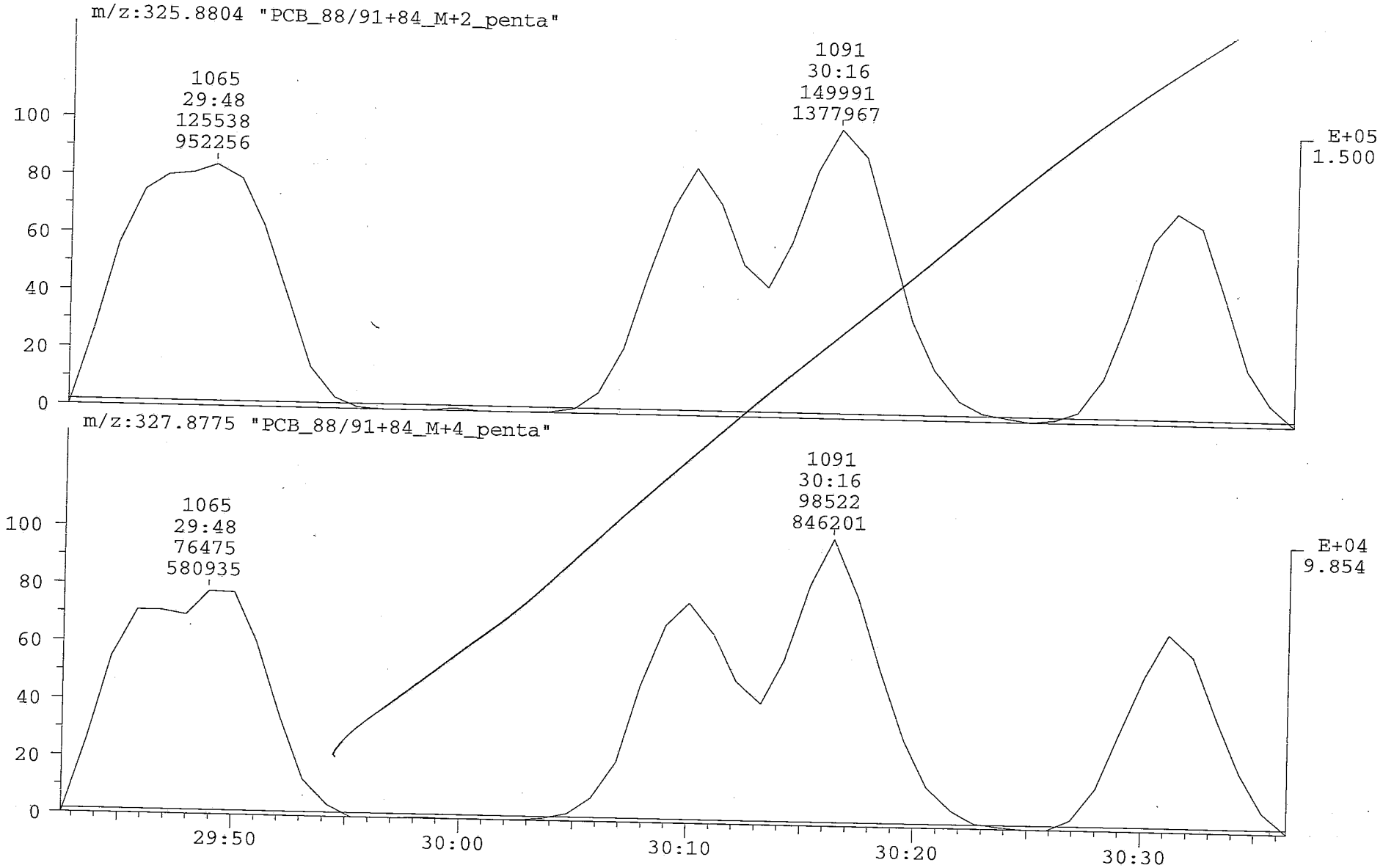
H-3176

3175

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1059 > 1110
Area: 5, 0.50, 15 Baseline : 100, 9
Disp: Height Area

13-Jul-11

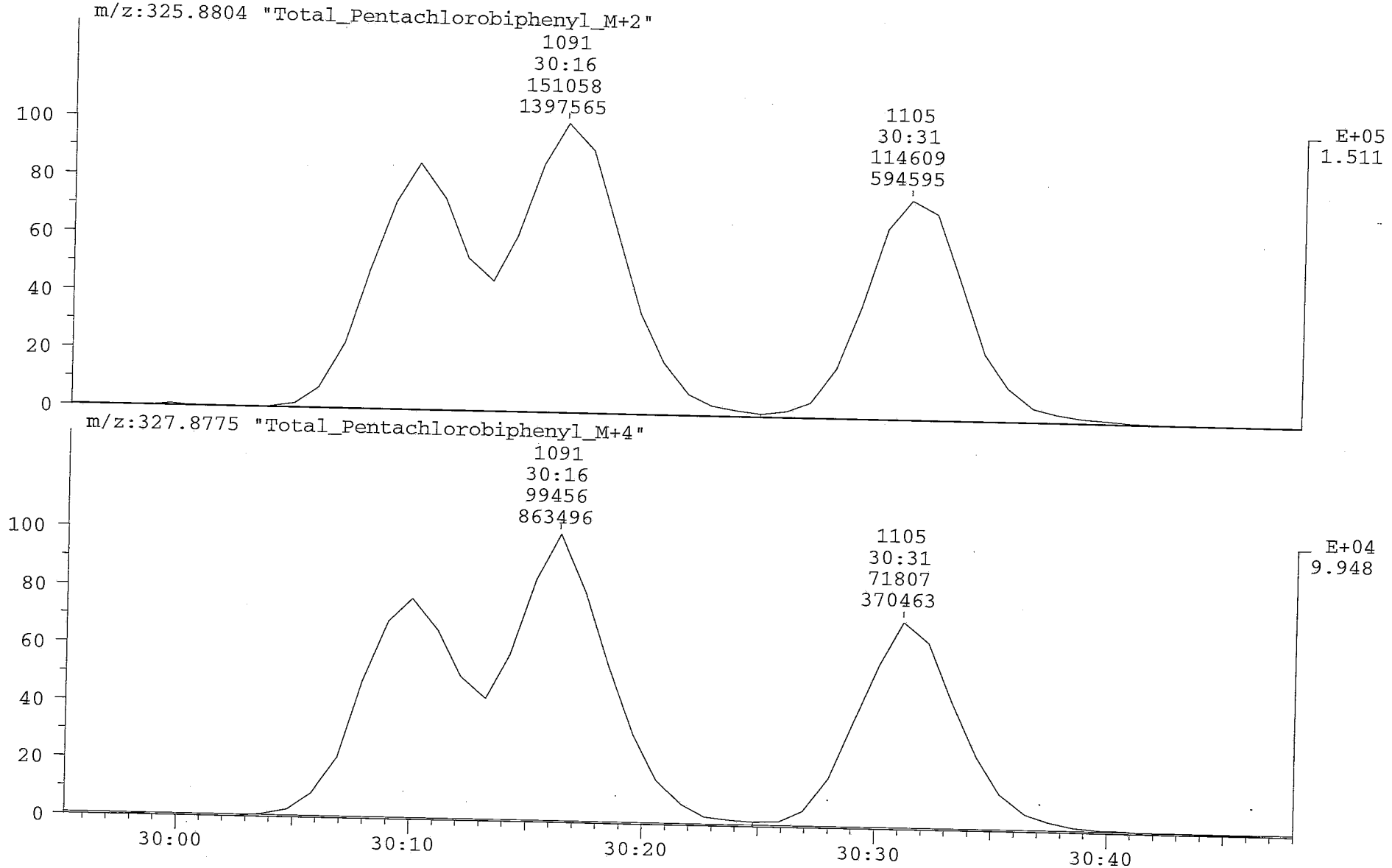
Elapse: 30:13 1088
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3177

3176

CHRO: apmkntmc 13-Jul-11 Elapse: 17:04.4 345
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1071 > 1121 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



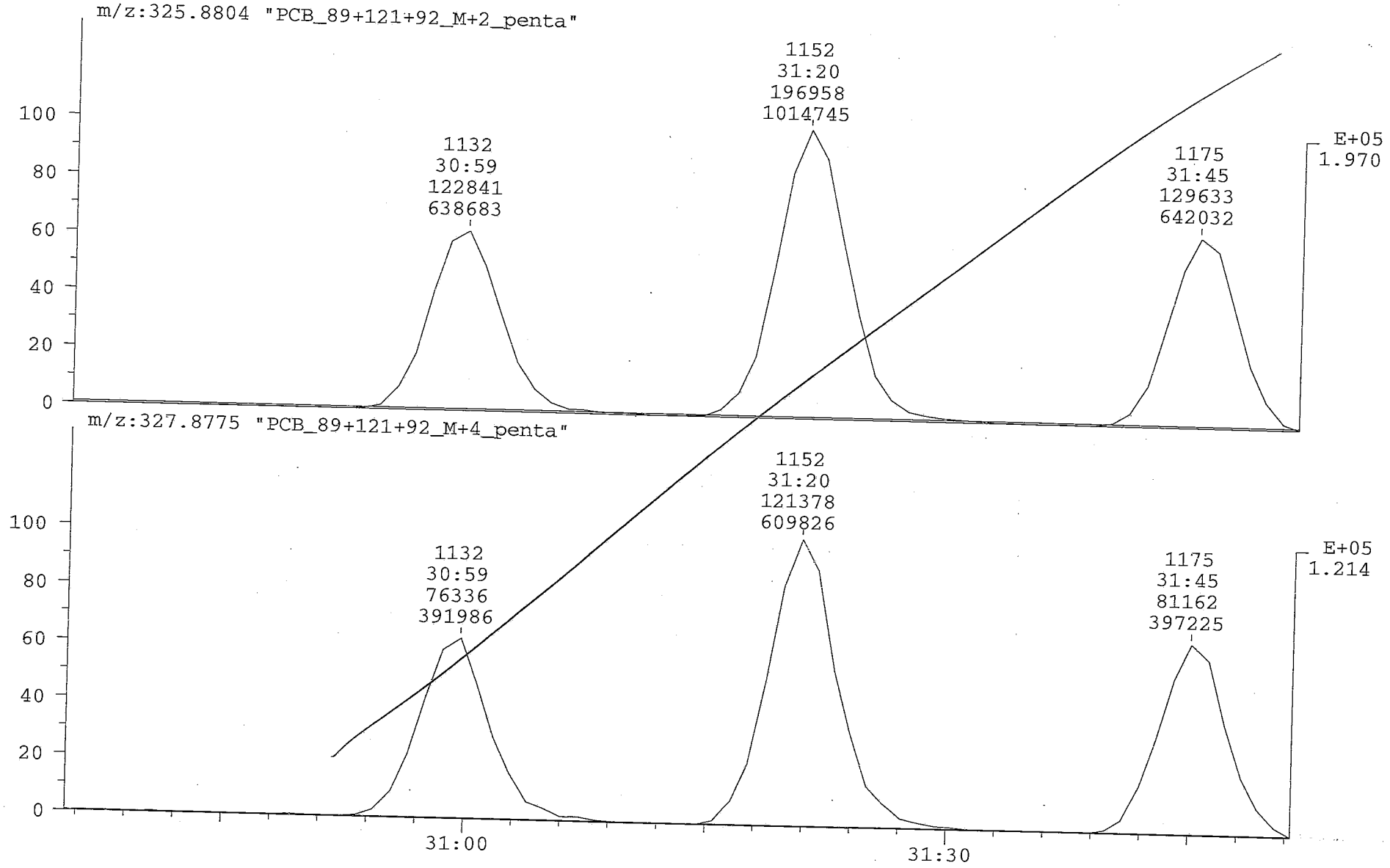
H-3178

3177

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1109 > 1181
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 31:15 1147
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



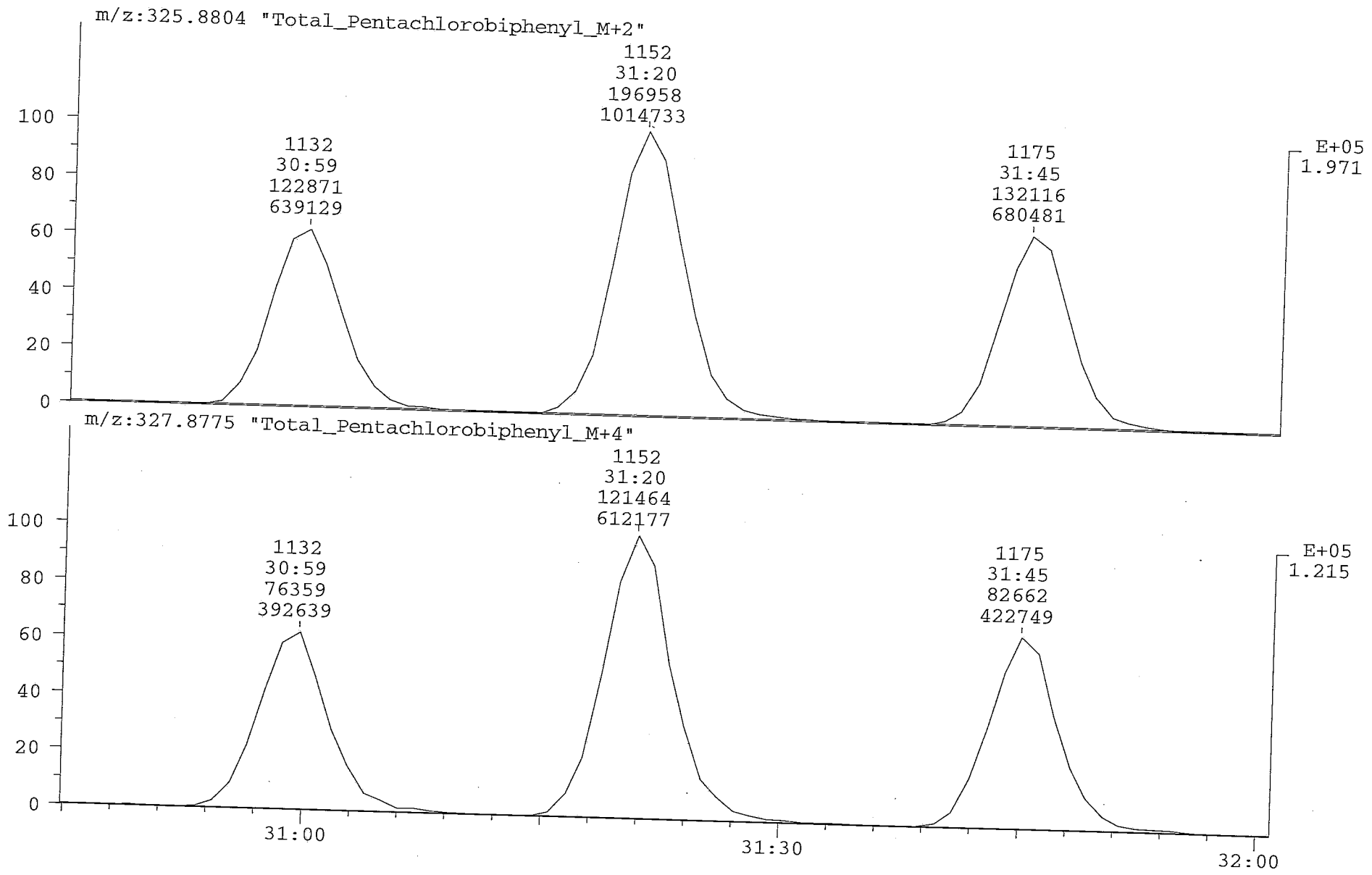
H-3179

3178

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1118 > 1190
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



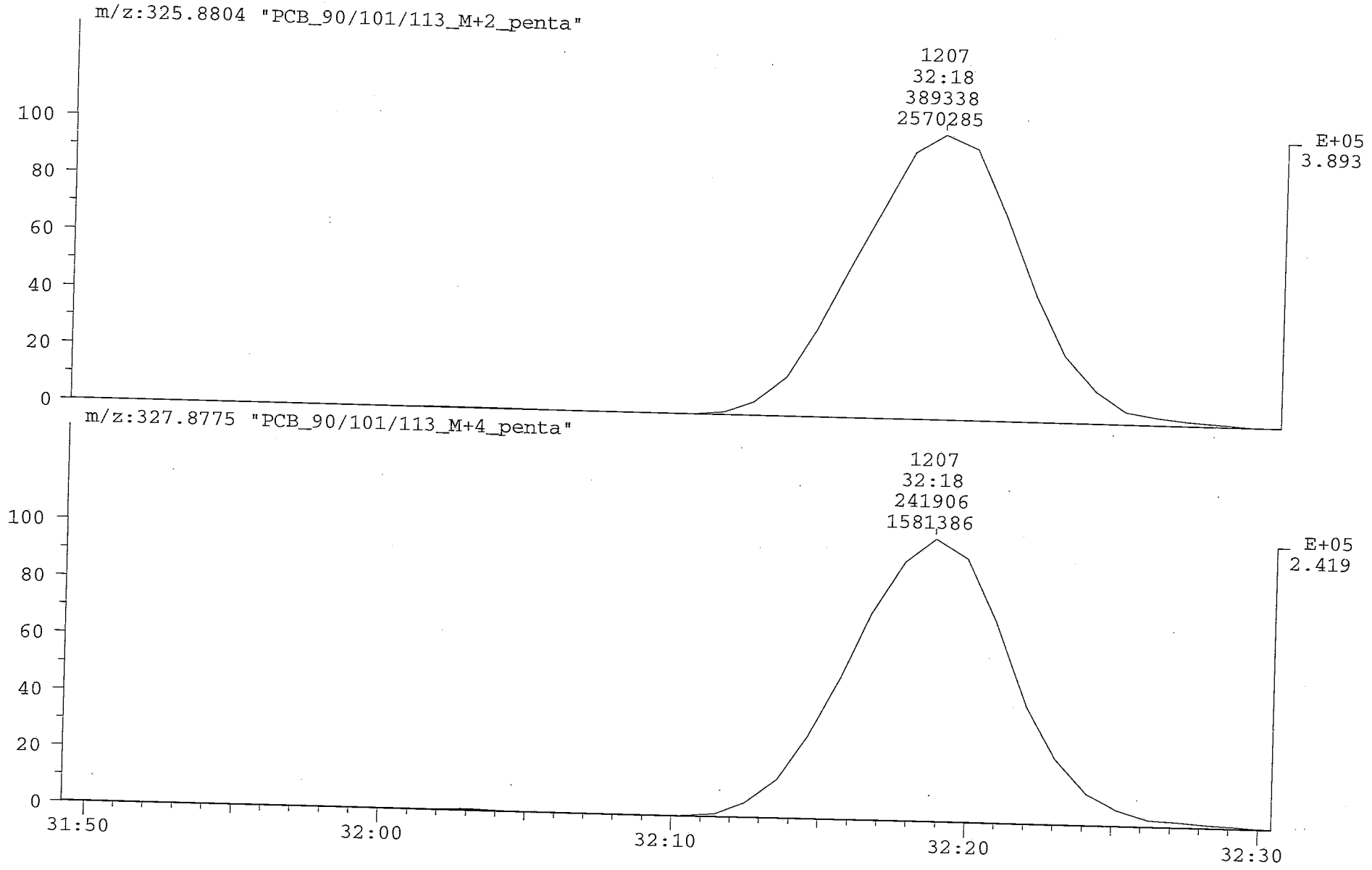
H-3180

3179

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1179 > 1218
Area: 5, 0.50, 15 Baseline : 100, 1
Disp: Height Area

13-Jul-11

Elapse: 32:09 1198
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



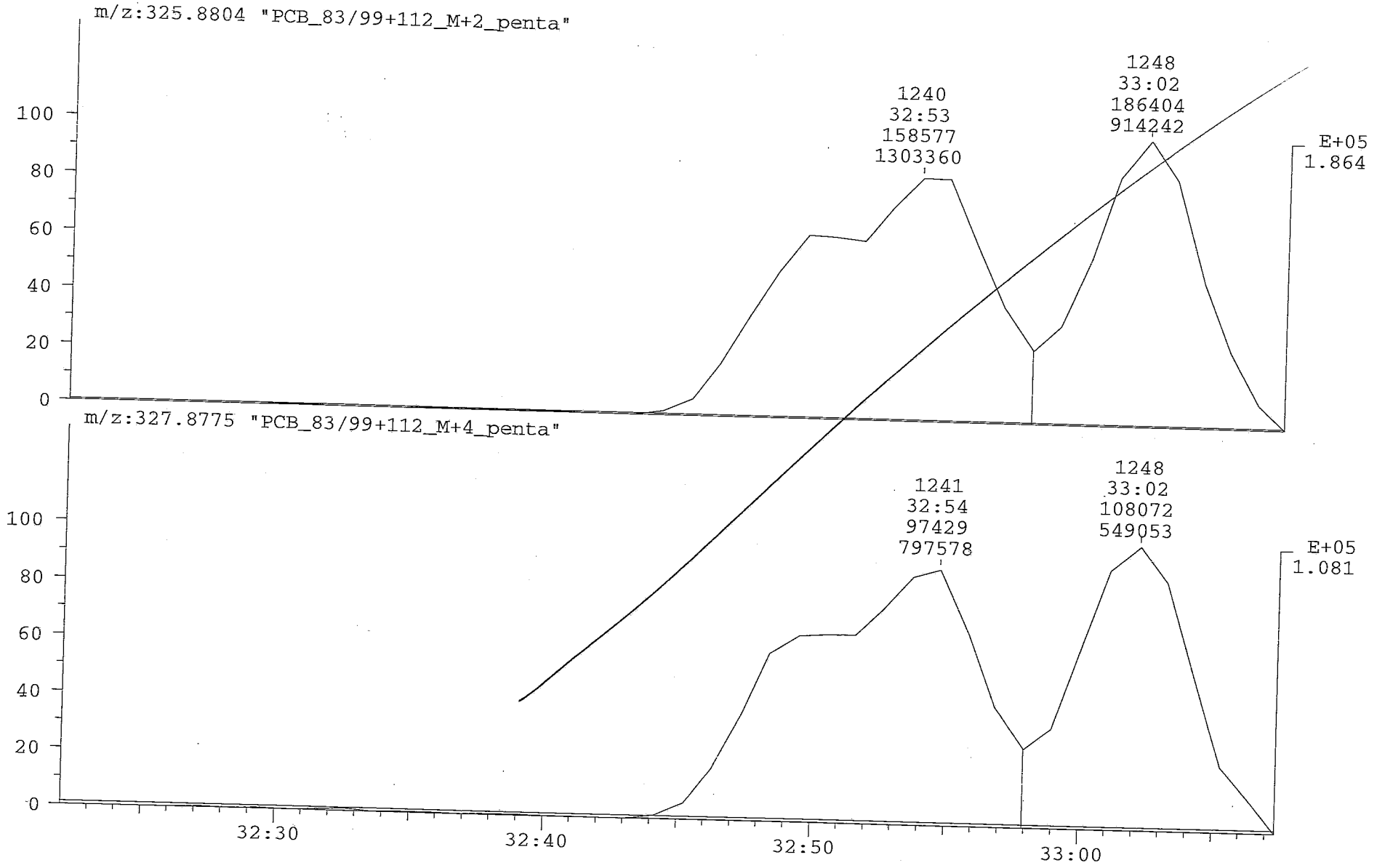
H-3181

3180

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1210 > 1253
Area: 5, 0.50, 15 Baseline : 100, 5
Disp: Height Area

13-Jul-11

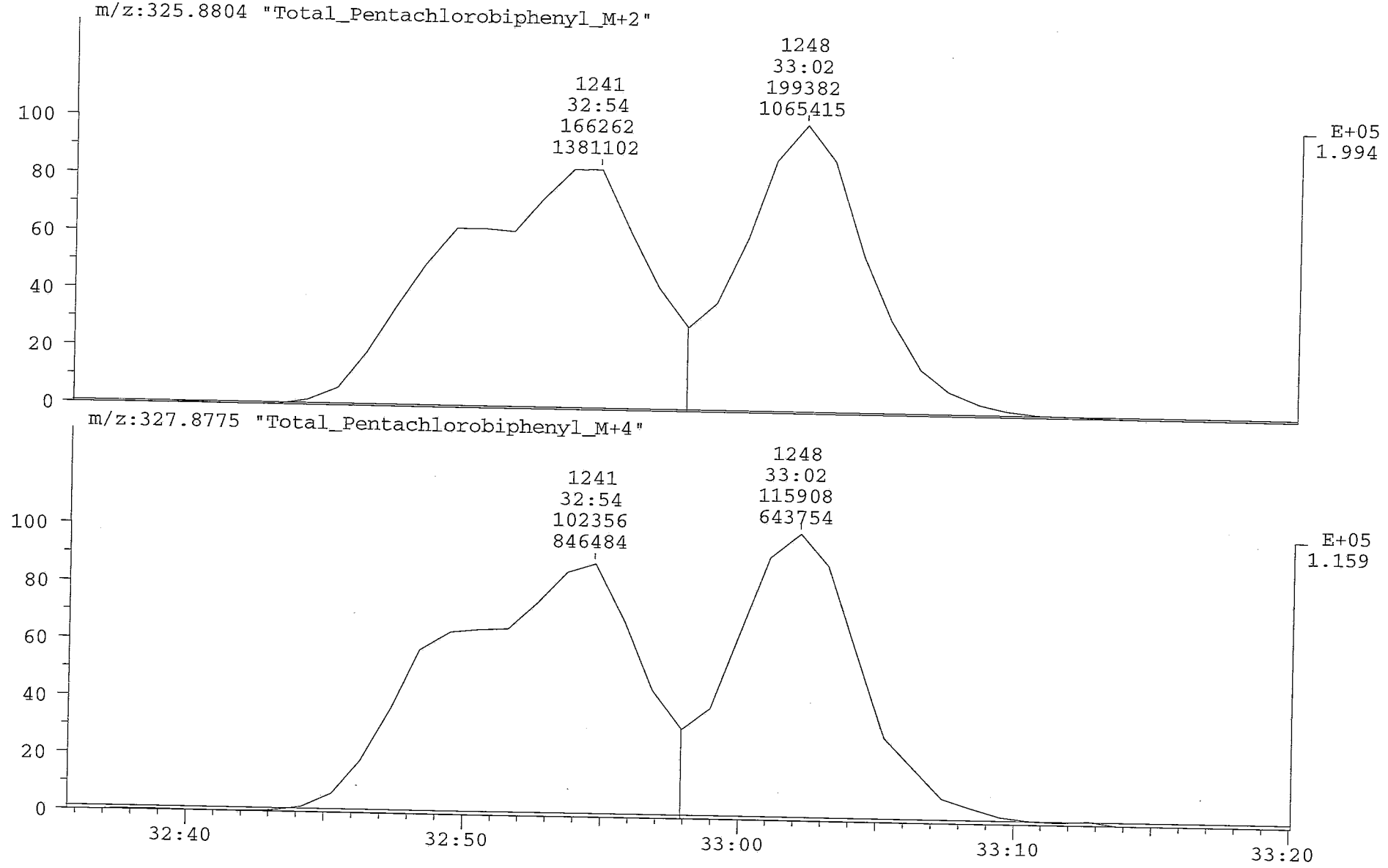
Elapse: 32:51 1238
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3182

3181

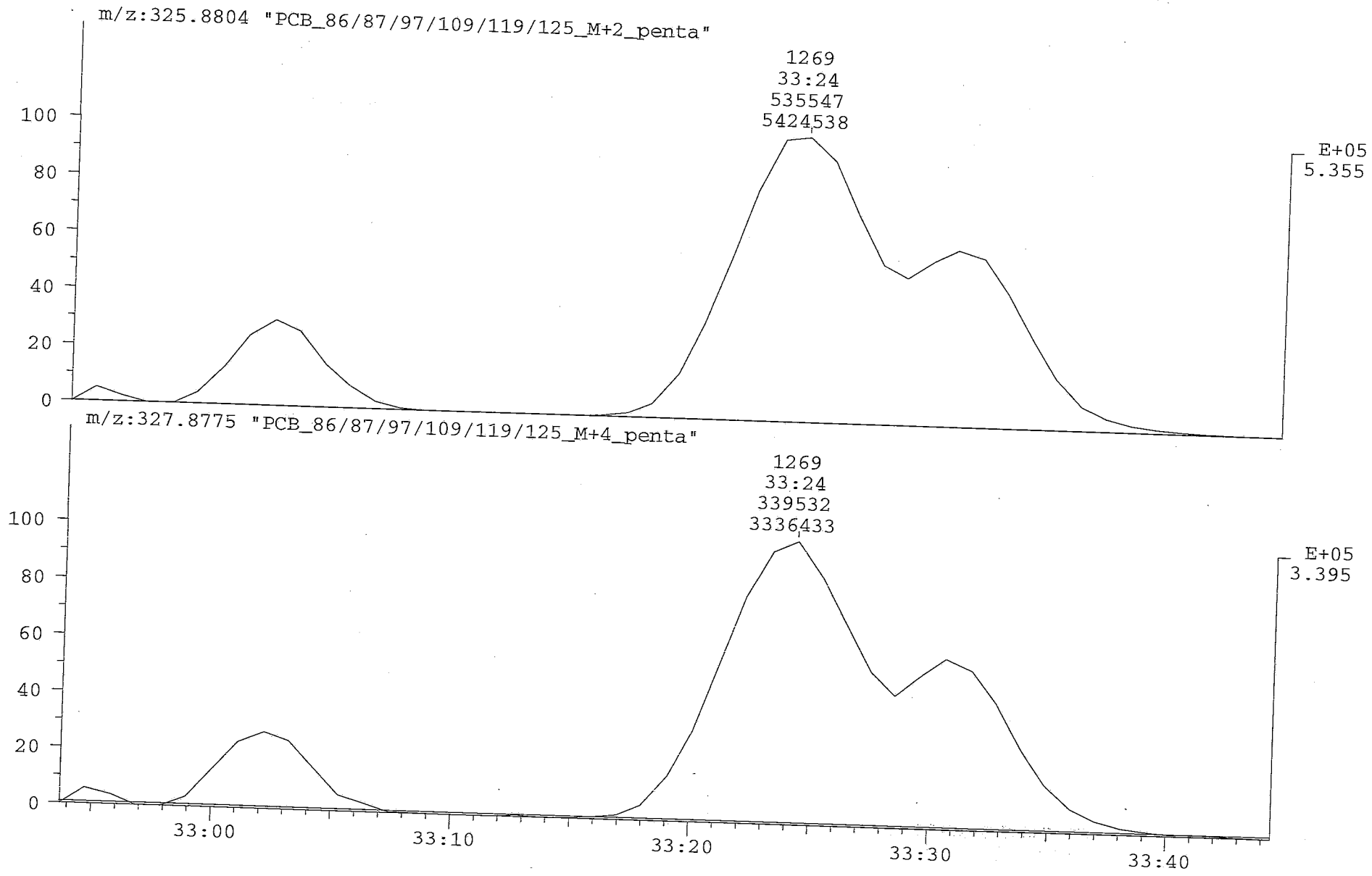
CHRO: apmkntmc 13-Jul-11 Elapse: 17:04.4 345
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1223 > 1265 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3183

3182

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 33:20 1265
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1240 > 1288 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



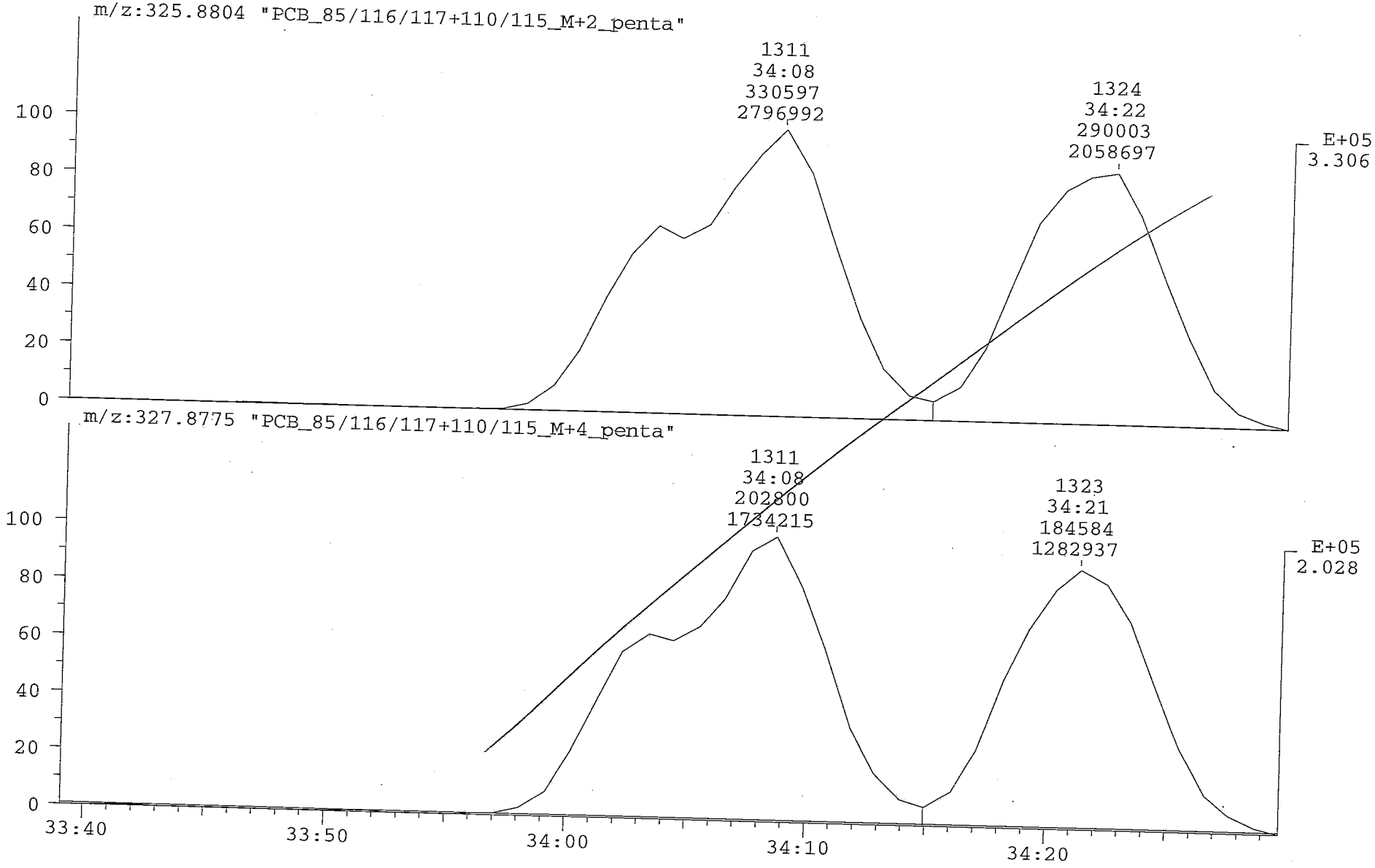
H-3184

3183

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1283 > 1331
Area: 5, 0.50, 15 Baseline : 100, 6
Disp: Height Area

13-Jul-11

Elapse: 34:06 1309
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



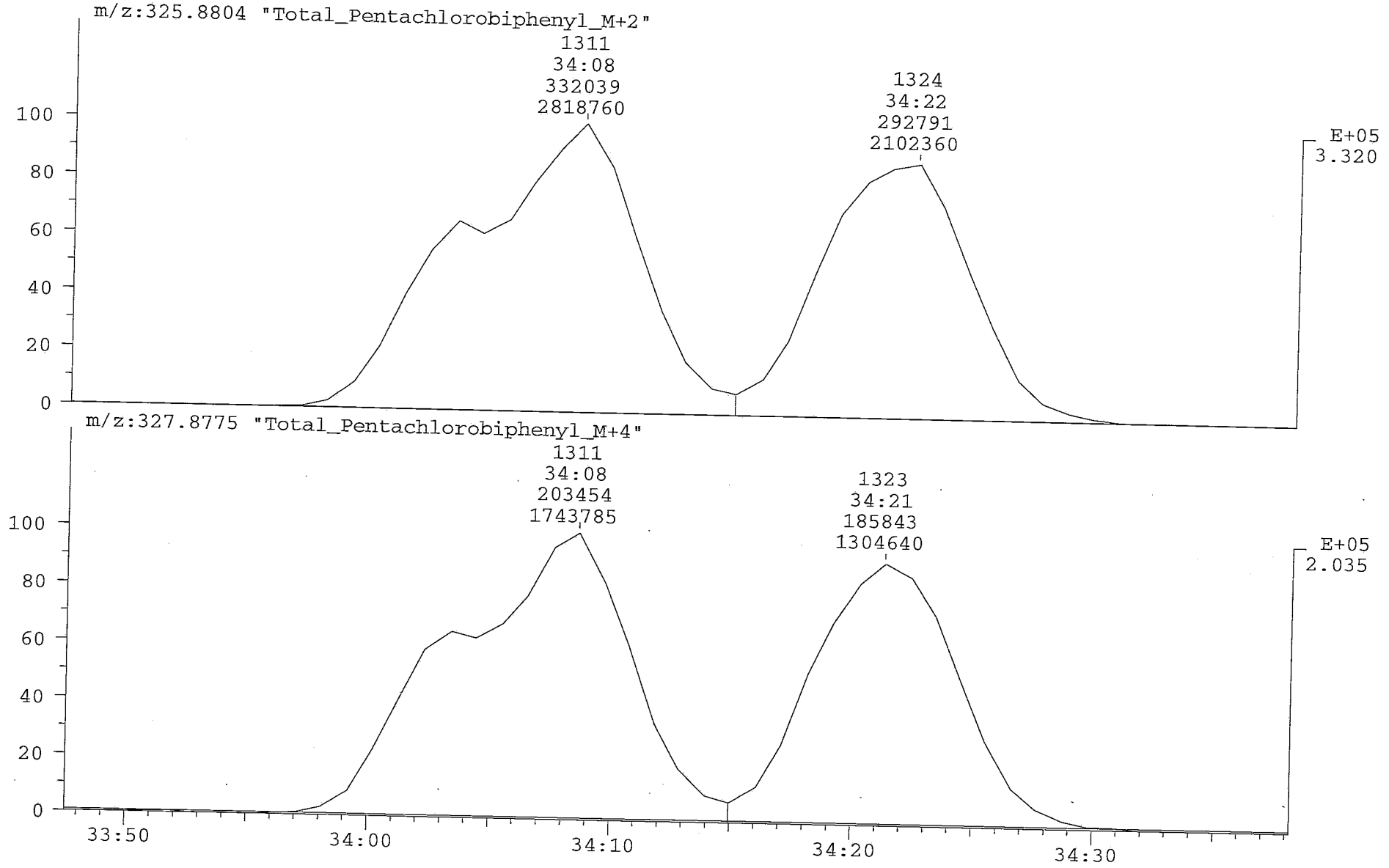
H-3185

3184

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1291 > 1339
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

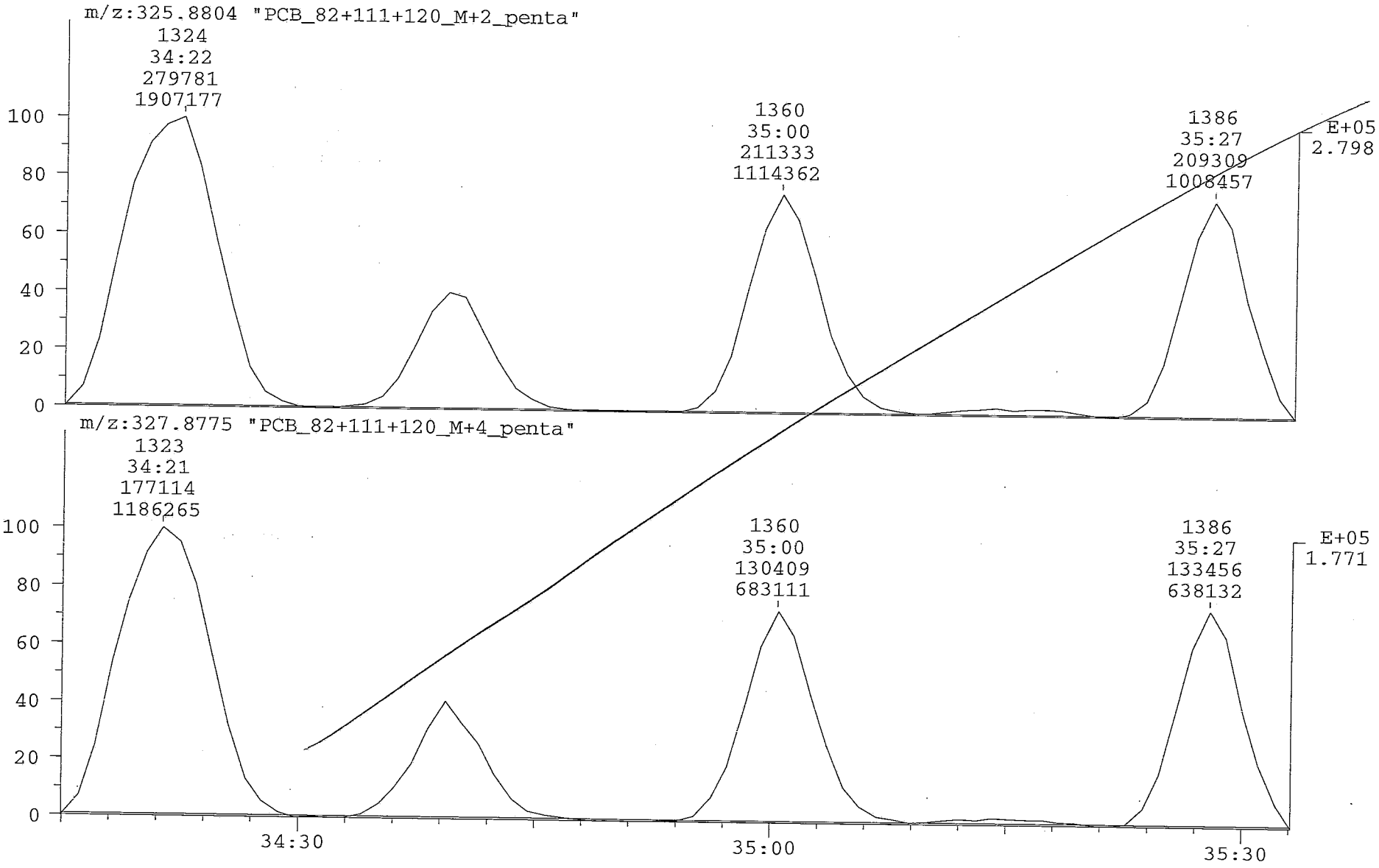
Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3186

3185

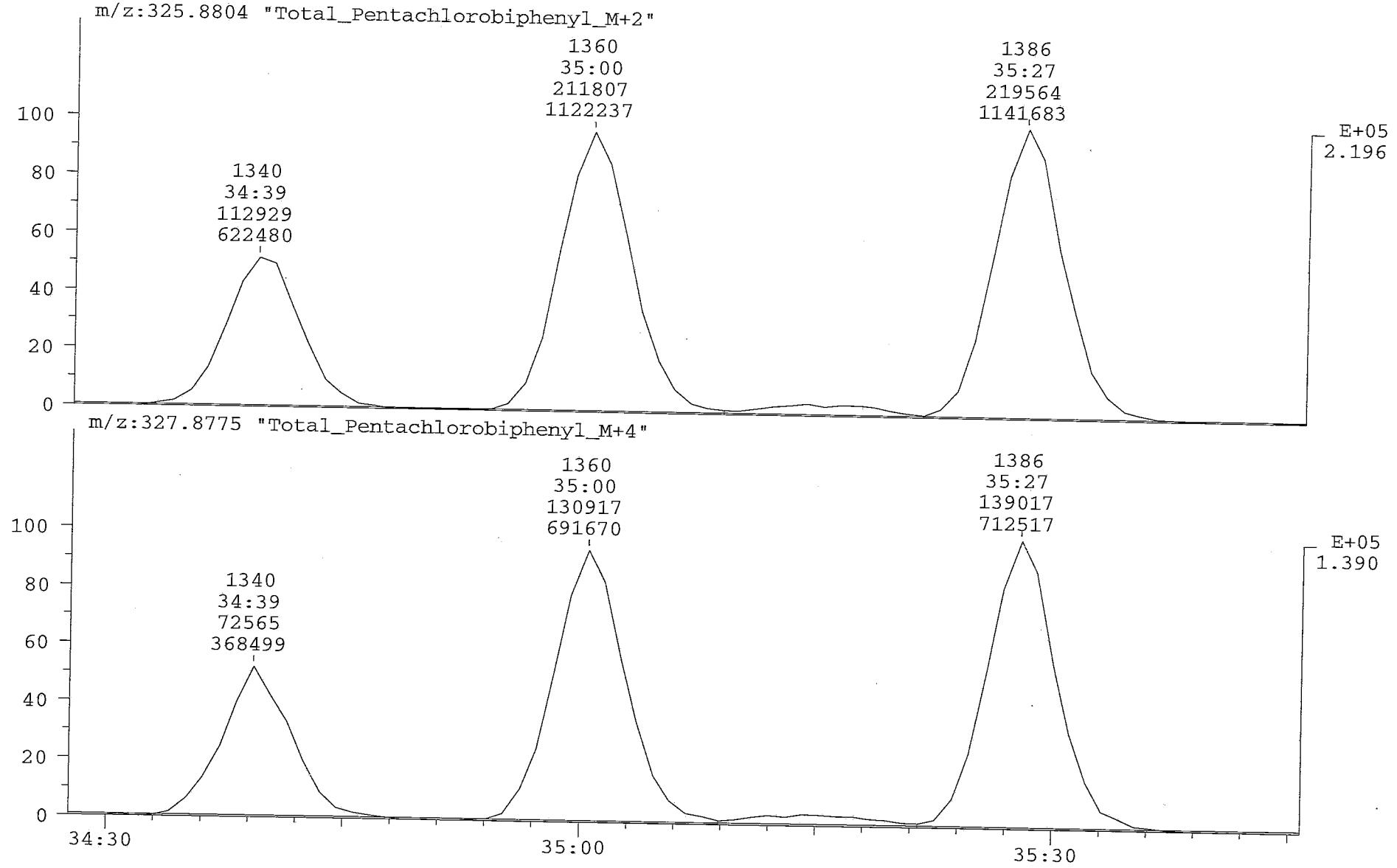
CHRO: apmkntmc 13-Jul-11 Elapse: 34:37 1338
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1317 > 1391 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3187

3186

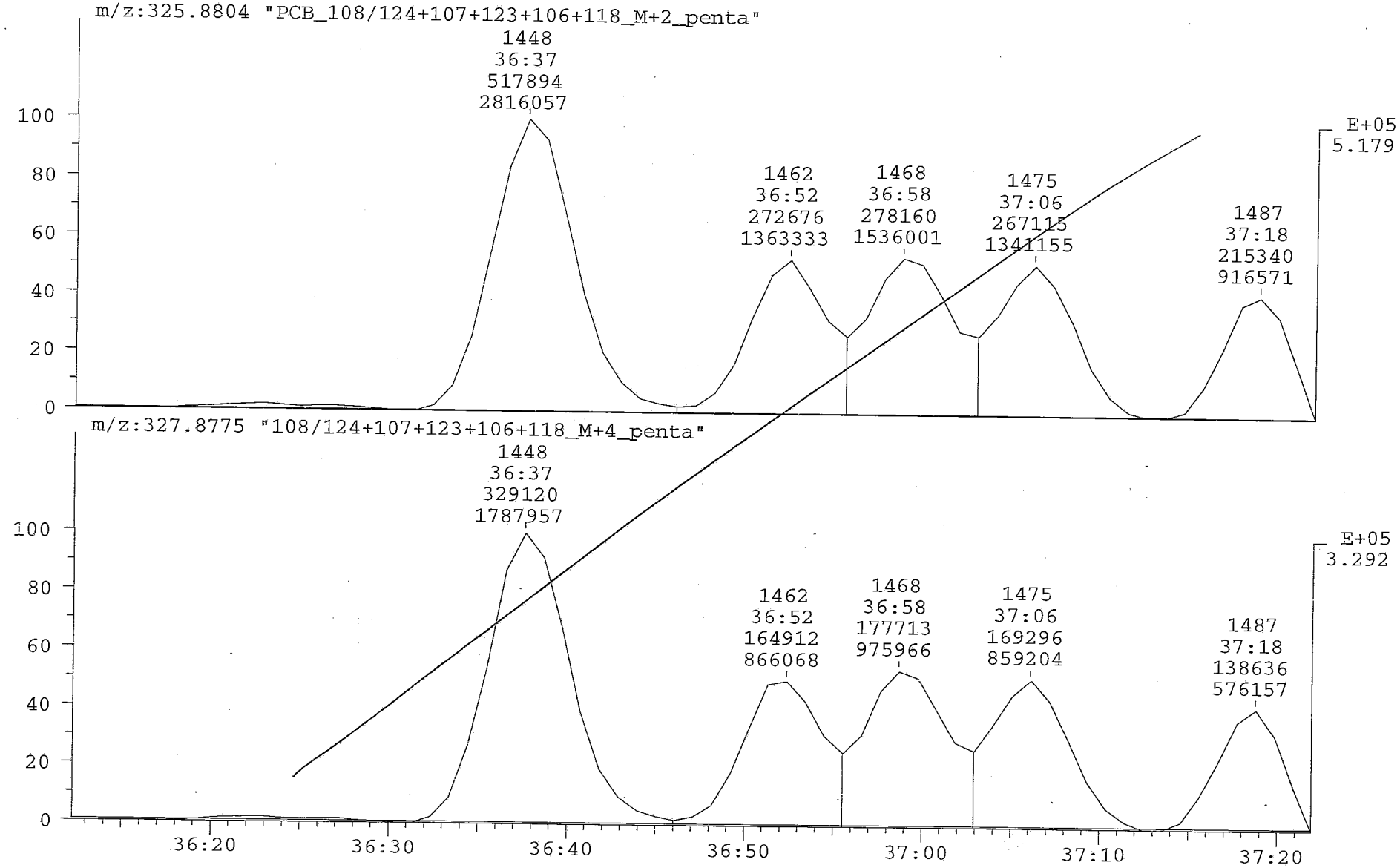
CHRO: apmkntmc 13-Jul-11 Elapse: 17:04.4 345
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1329 > 1403 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3188

3187

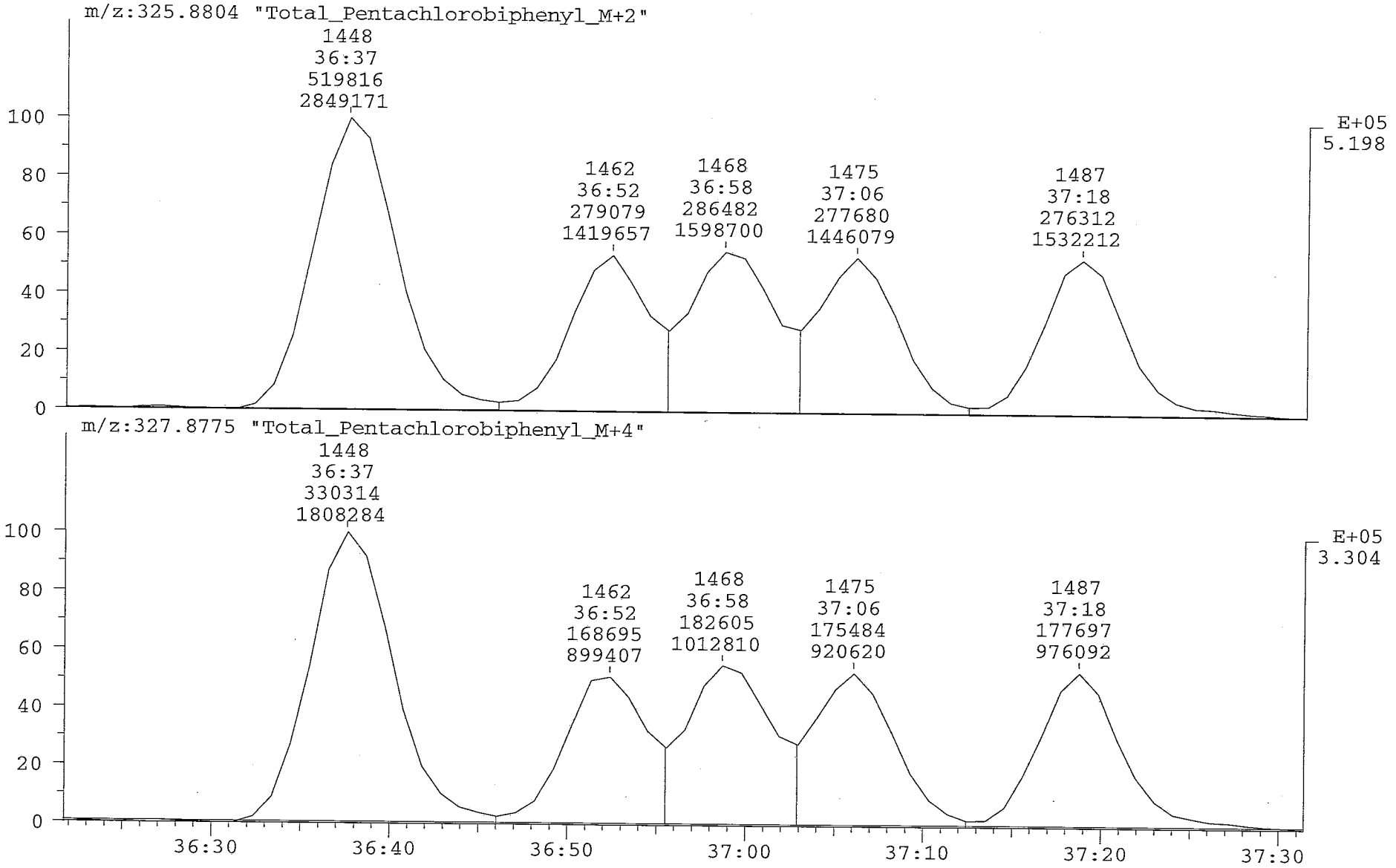
CHRO: apmkntmc 13-Jul-11 Elapse: 36:56 1466
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1424 > 1490 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3189

3188

CHRO: apmkntmc 13-Jul-11 Elapse: 17:04.4 345
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1433 > 1499 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



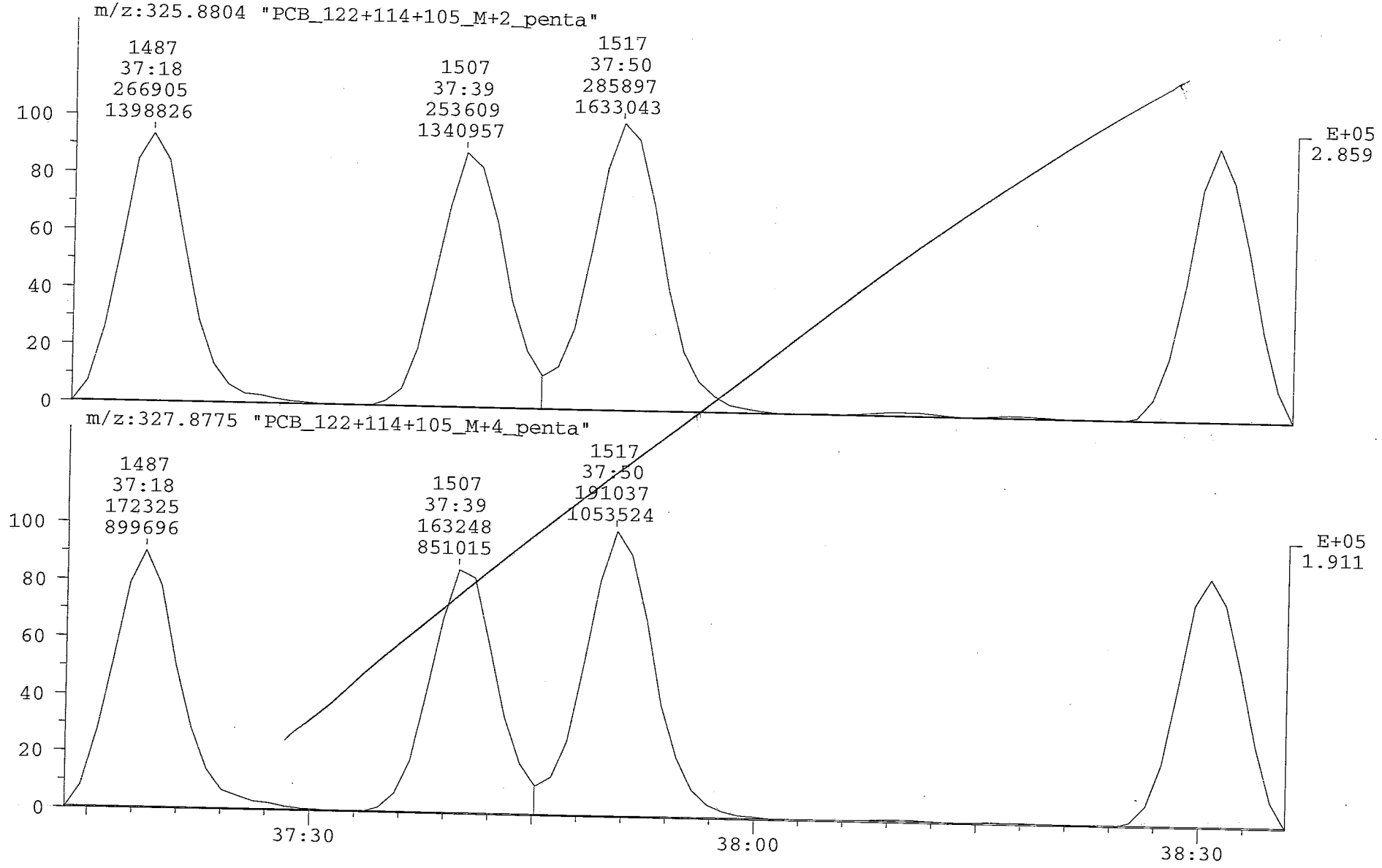
H-3190

3189

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1482 > 1560
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 37:56 1523
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0

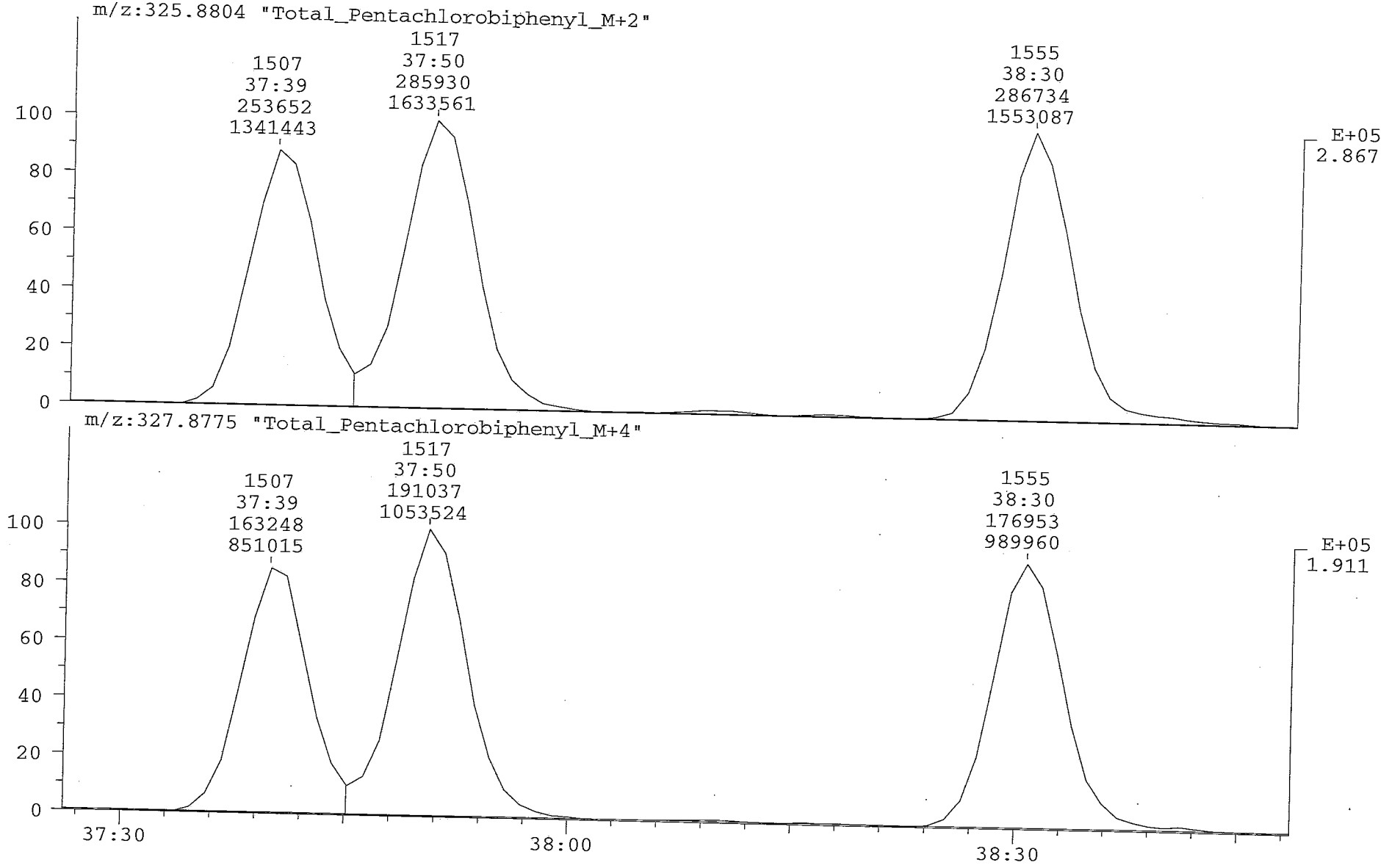


H-3191

3190

CHRO: apmkntmc 13-Jul-11
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1494 > 1572
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

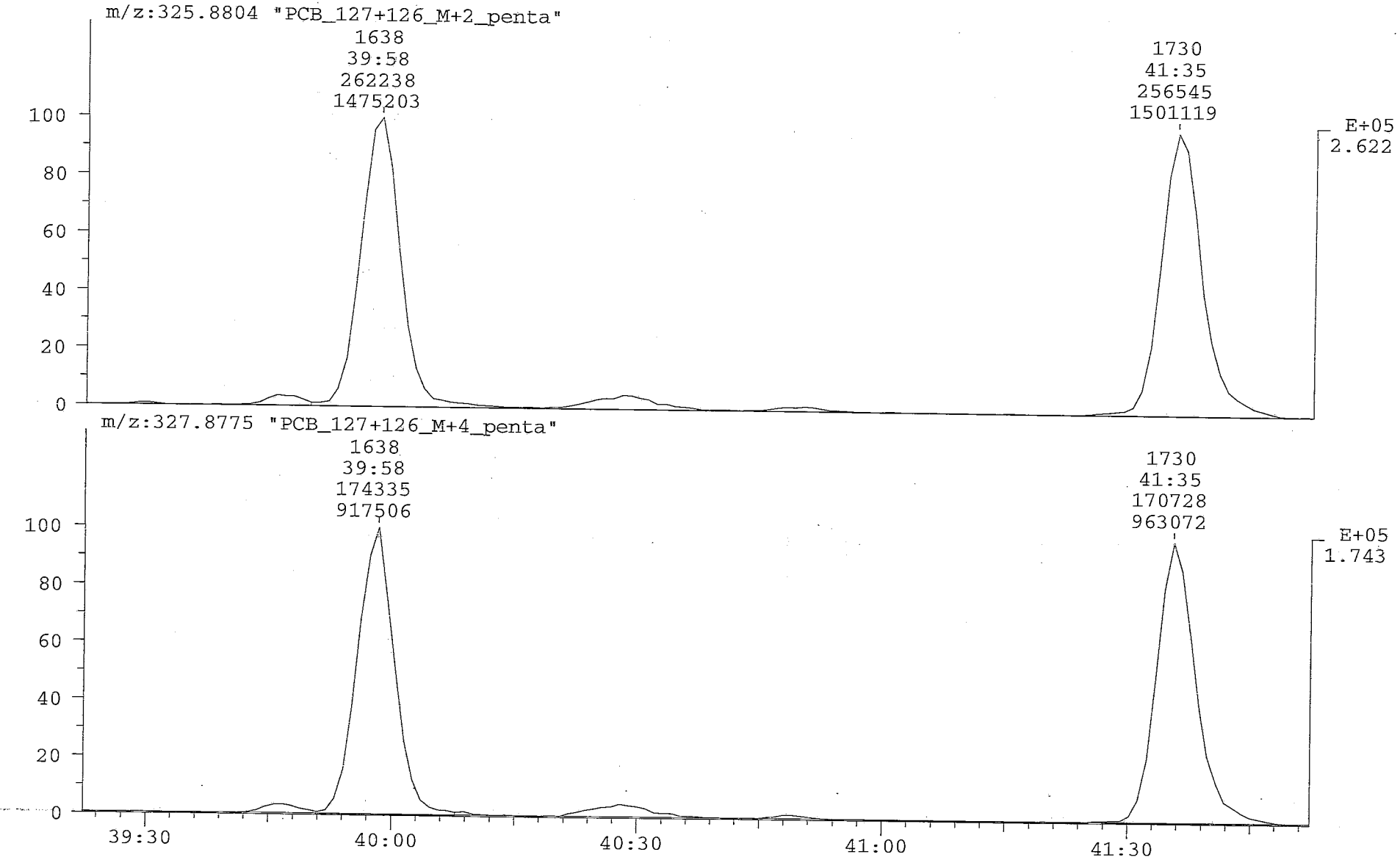
Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3192

3191

CHRO: apmkntmc 13-Jul-11 Elapse: 40:38 1676
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1604 > 1746 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



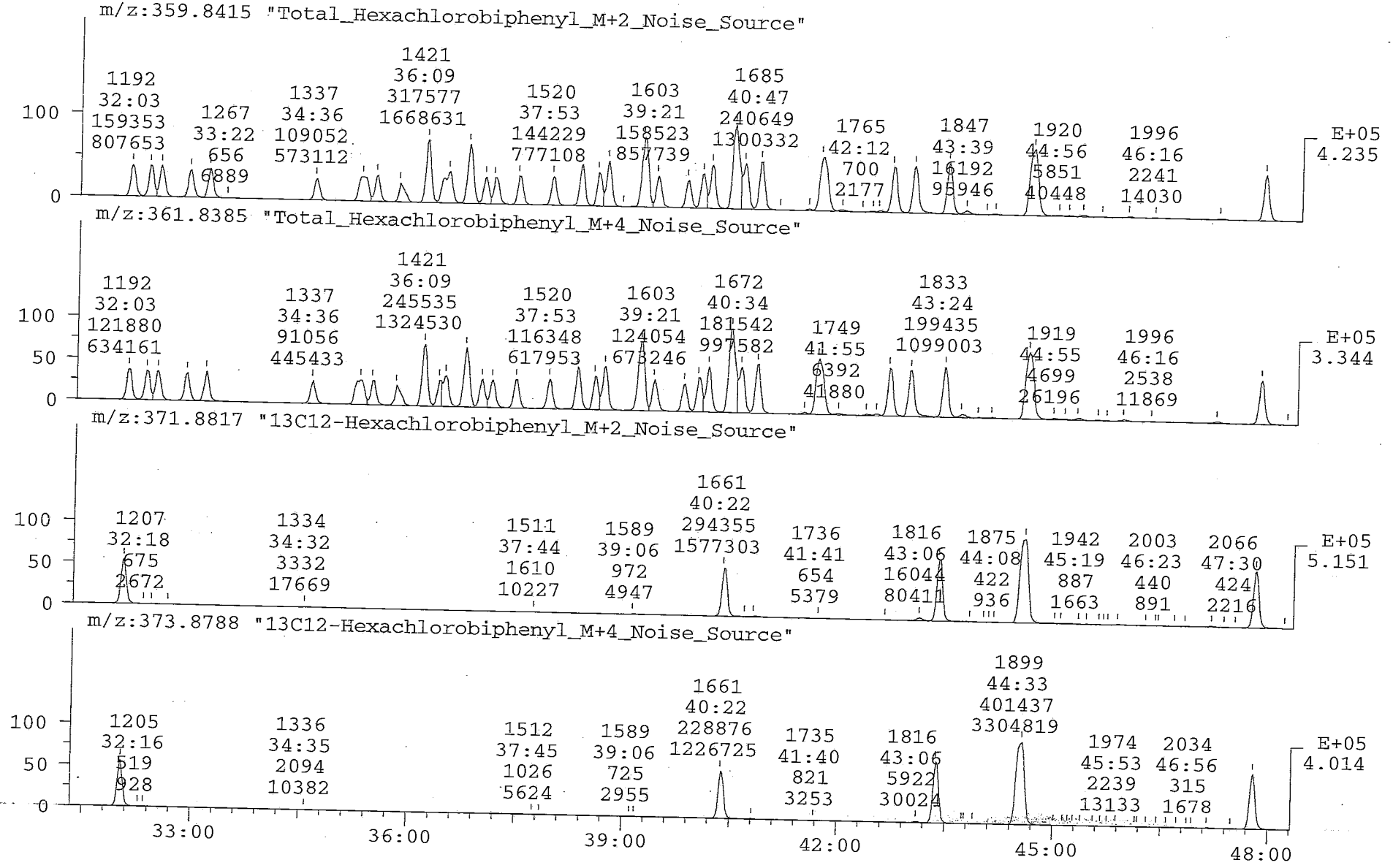
H-3193

3192

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1151 > 2112
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 39:48 1629
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



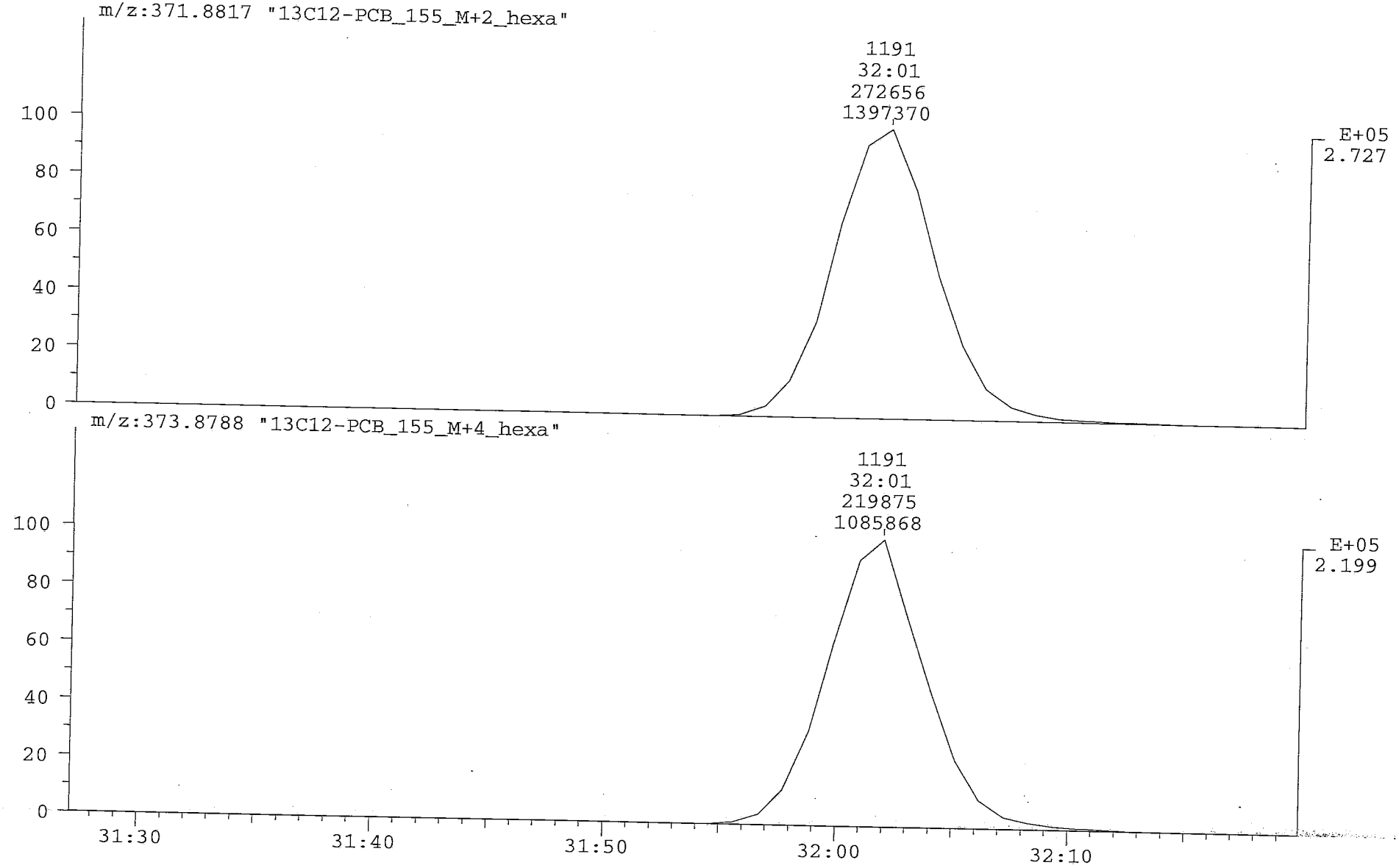
H-3194

3193

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1158 > 1208
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

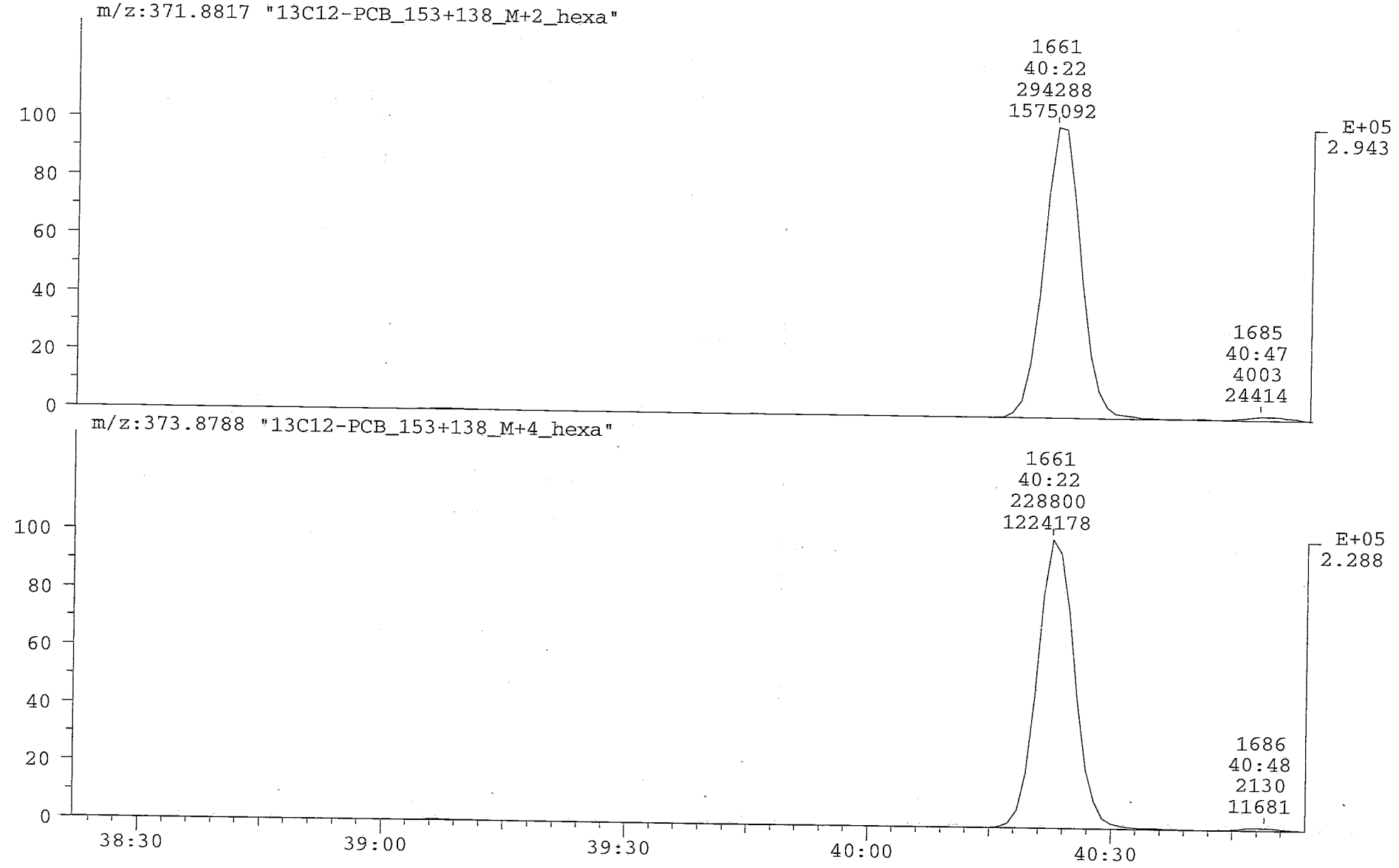
Elapse: 31:53 1183
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3195

3194

CHRO: apmkntmc 13-Jul-11 Elapse: 39:38 1619
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1547 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



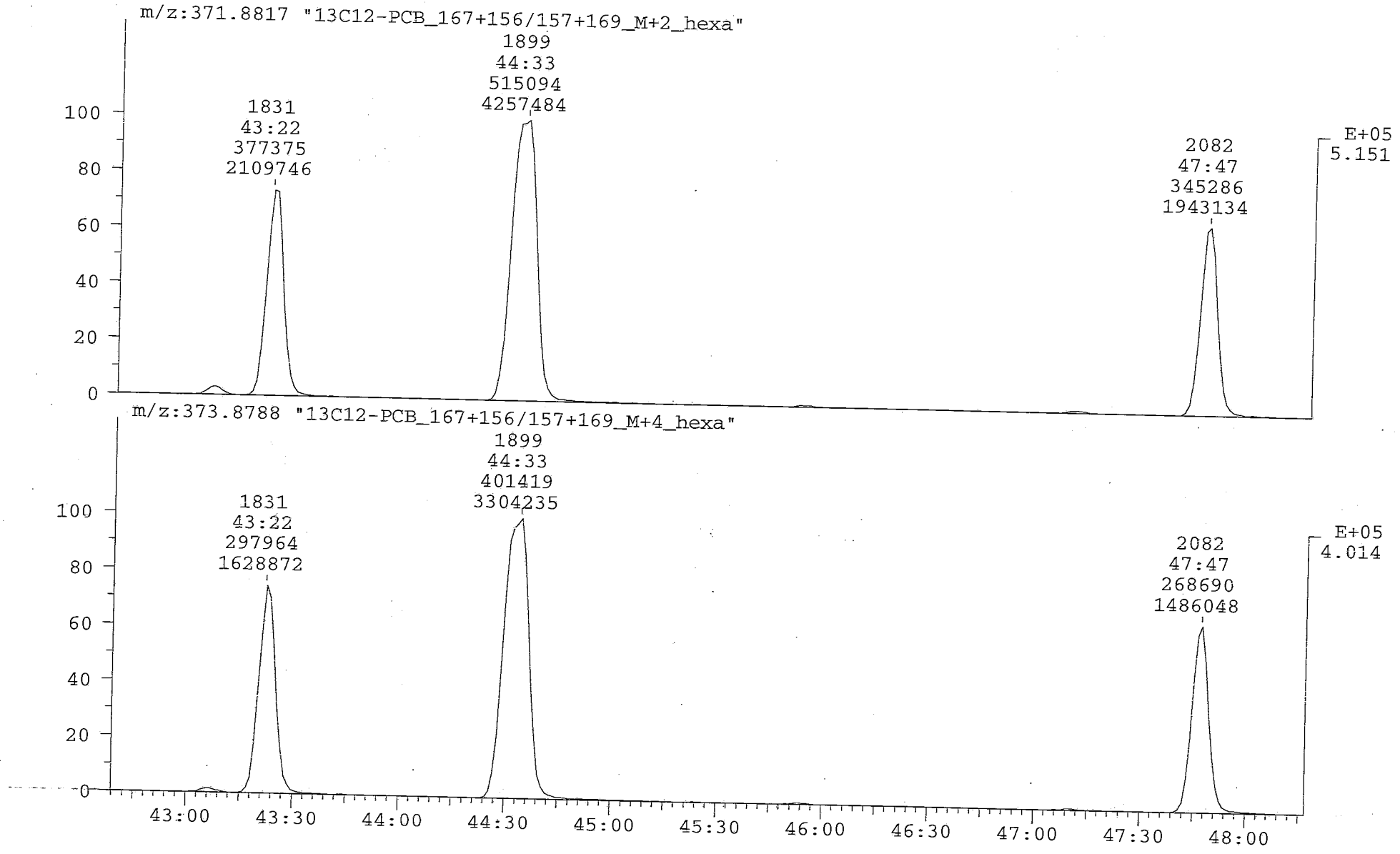
H-3196

3195

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1790 > 2110
Area: 5, 0.50, 15 Baseline : 100, 4
Disp: Height Area

13-Jul-11

Elapse: 45:27 1950
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



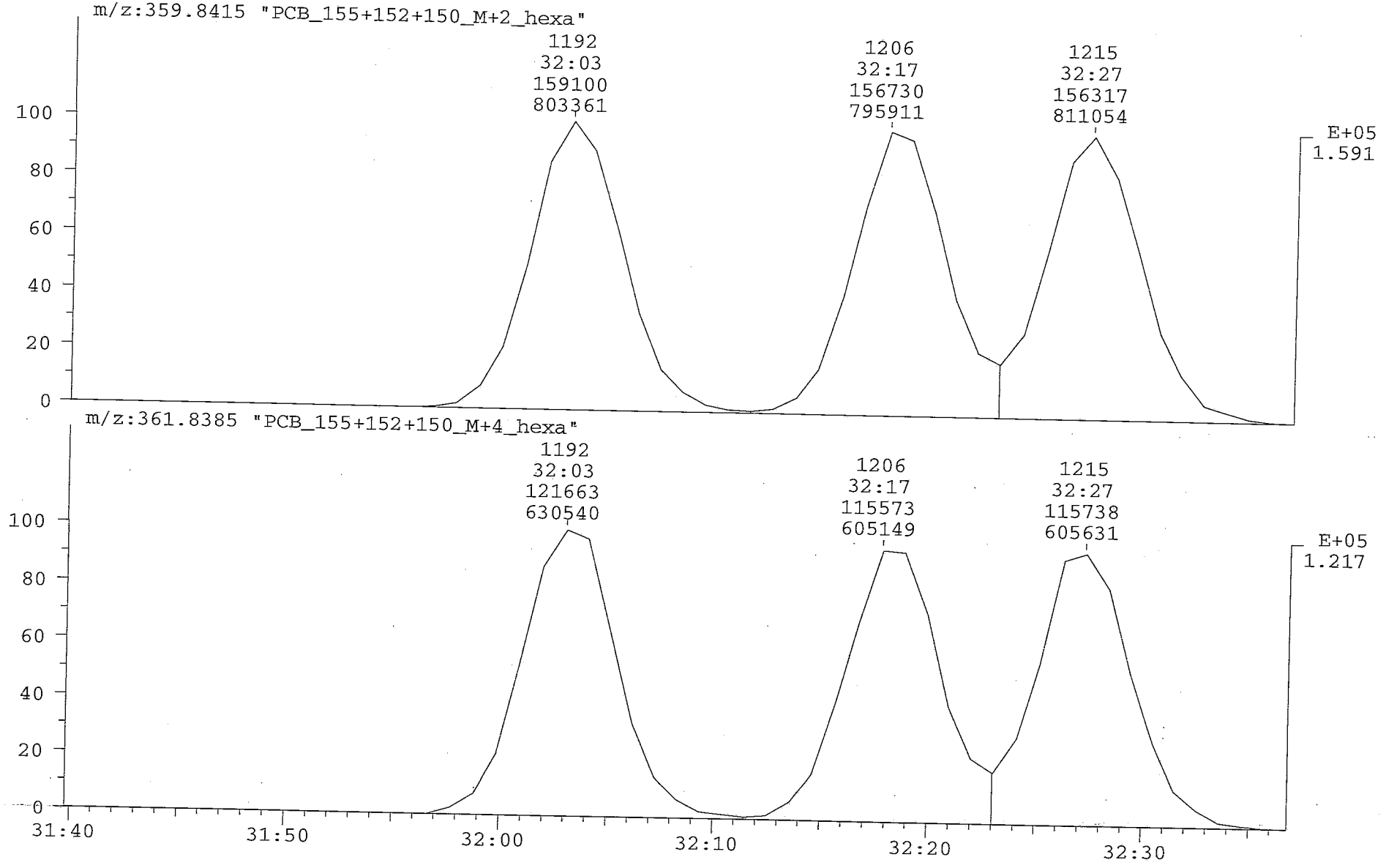
H-3197

3196

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1170 > 1224
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

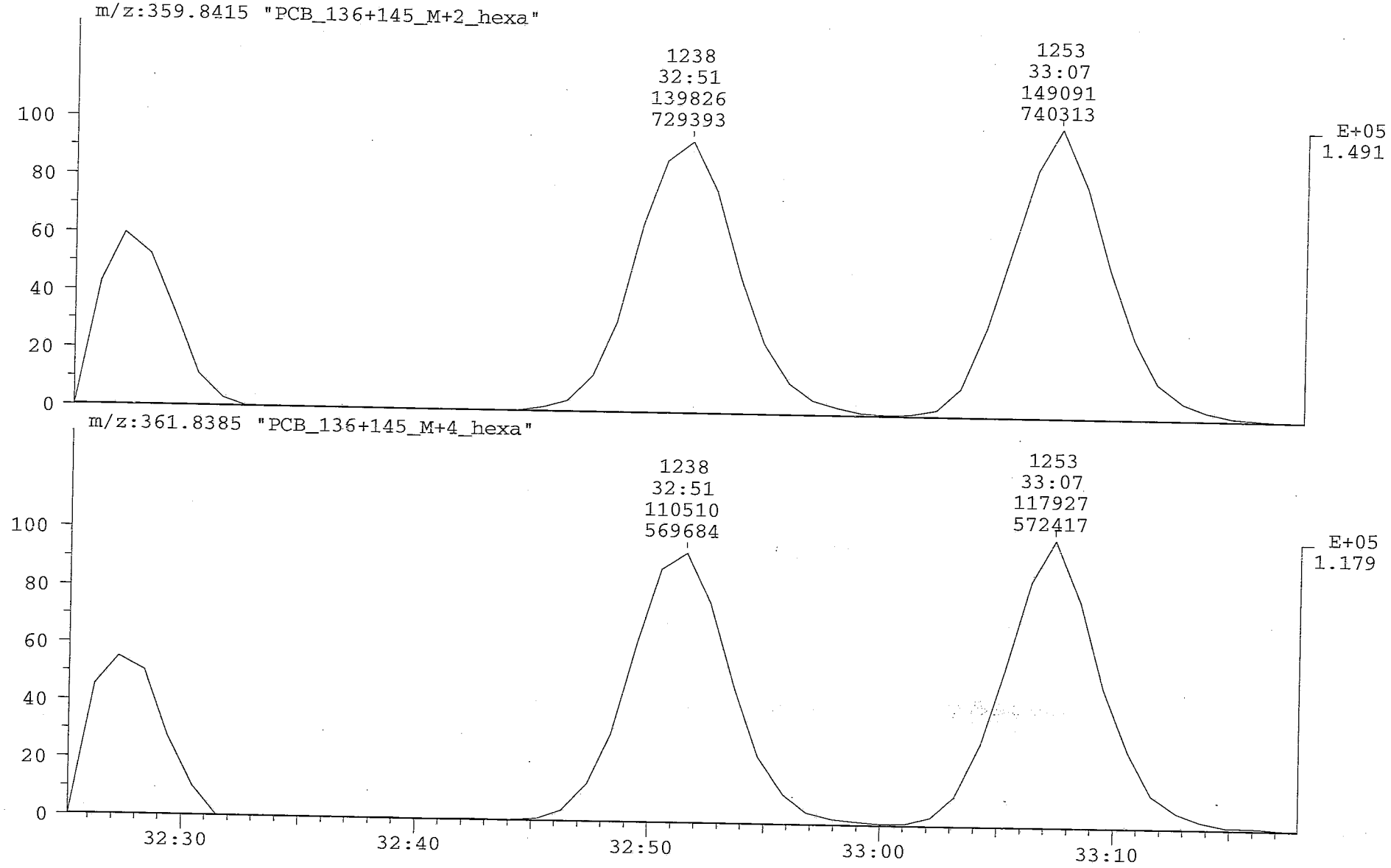
Elapse: 32:09 1198
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3198

3197

CHRO: apmkntmc 13-Jul-11 Elapse: 32:51 1238
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1213 > 1263 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



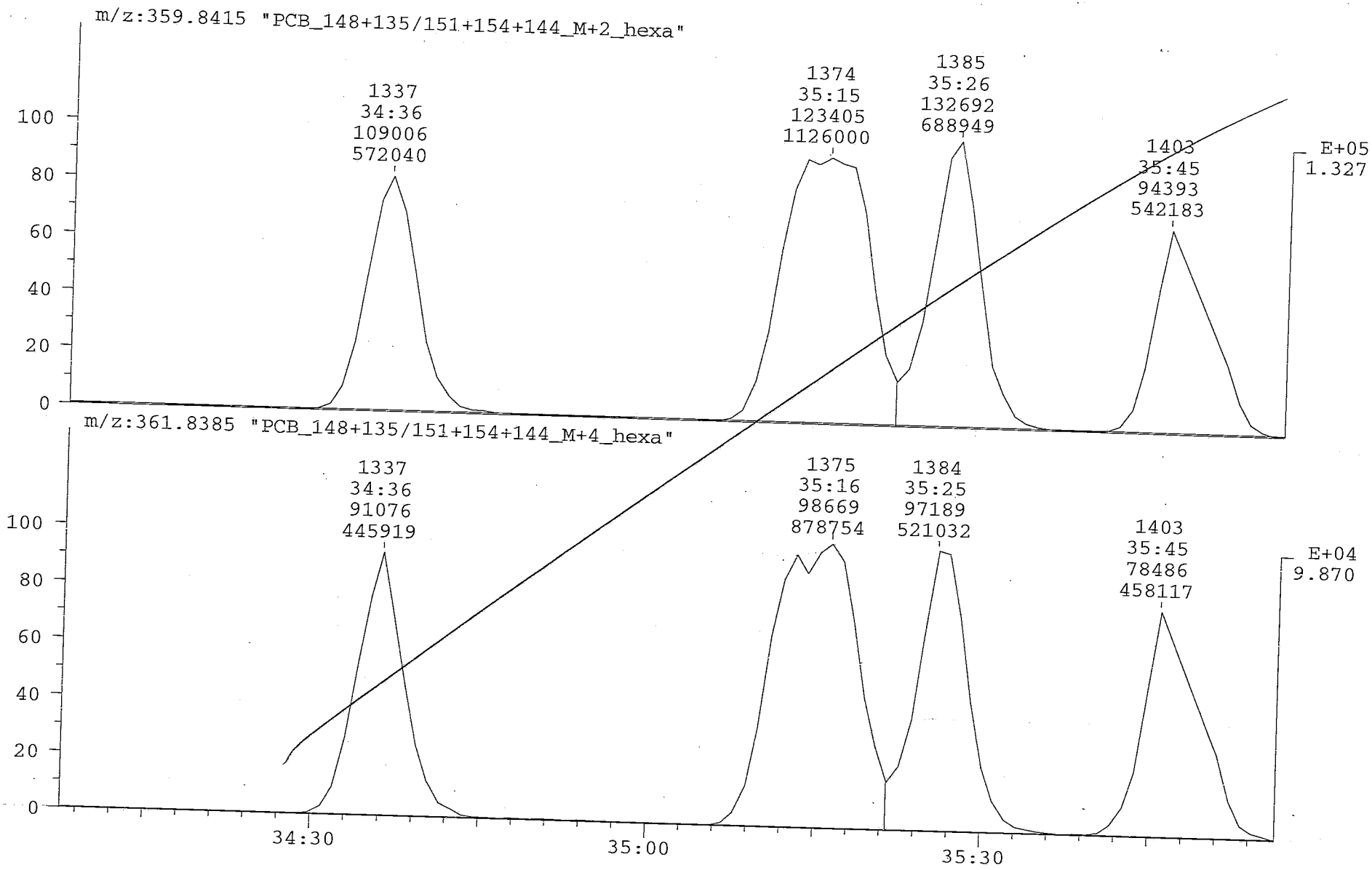
H-3199

3198

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1310 > 1409
Area: 5, 0.50, 15 Baseline : 100, 6
Disp: Height Area

13-Jul-11

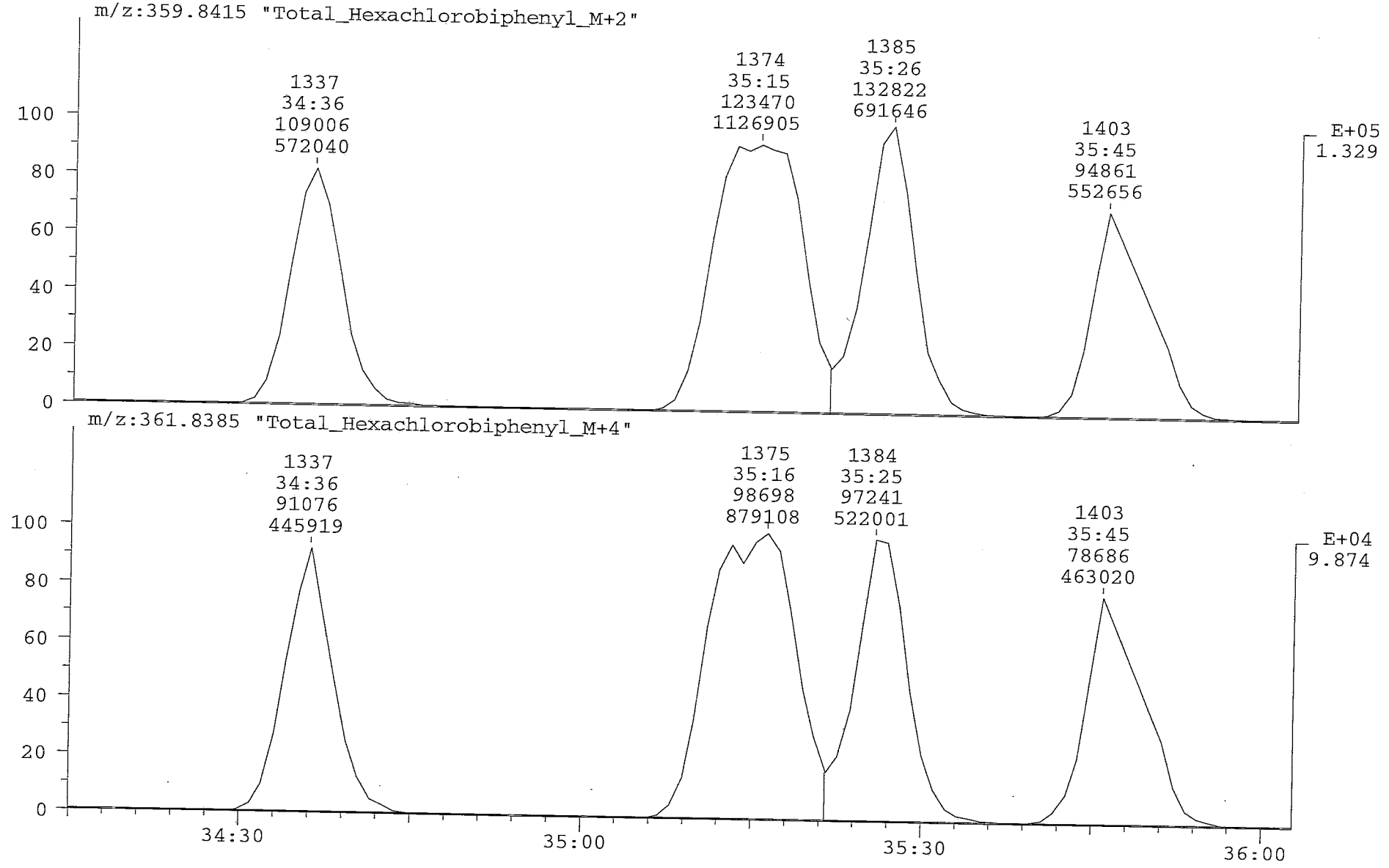
Elapse: 35:06 1366
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3200

3199

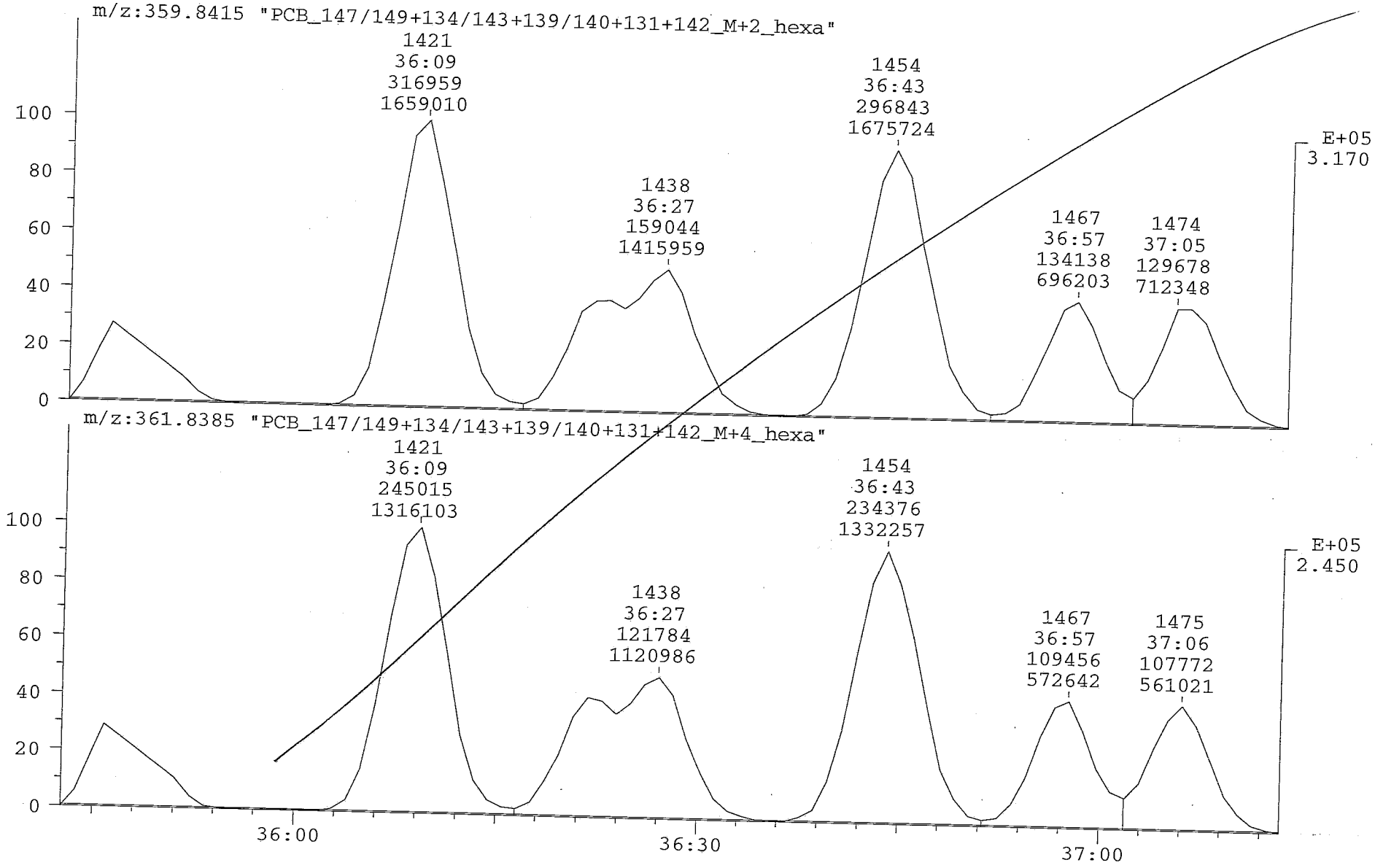
CHRO: apmkntmc 13-Jul-11 Elapse: 17:04.4 345
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1317 > 1415 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1400 > 1482
Area: 5, 0.50, 15 Baseline : 100, 6
Disp: Height Area

13-Jul-11

Elapse: 36:35 1446
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



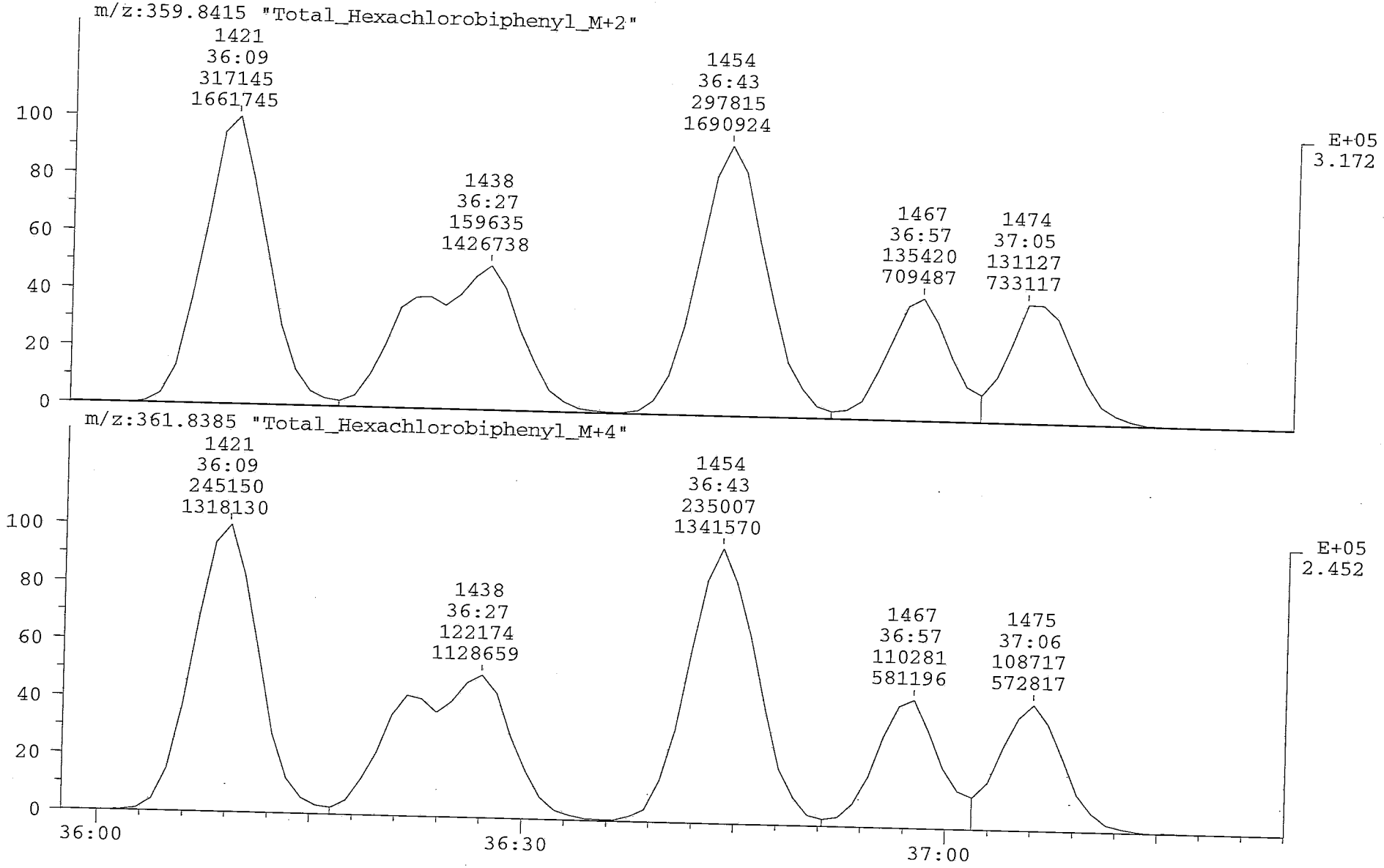
H-3202

3201

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1410 > 1492
Area: 5, 0.50, 15 Baseline : 100, 6
Disp: Height Area

13-Jul-11

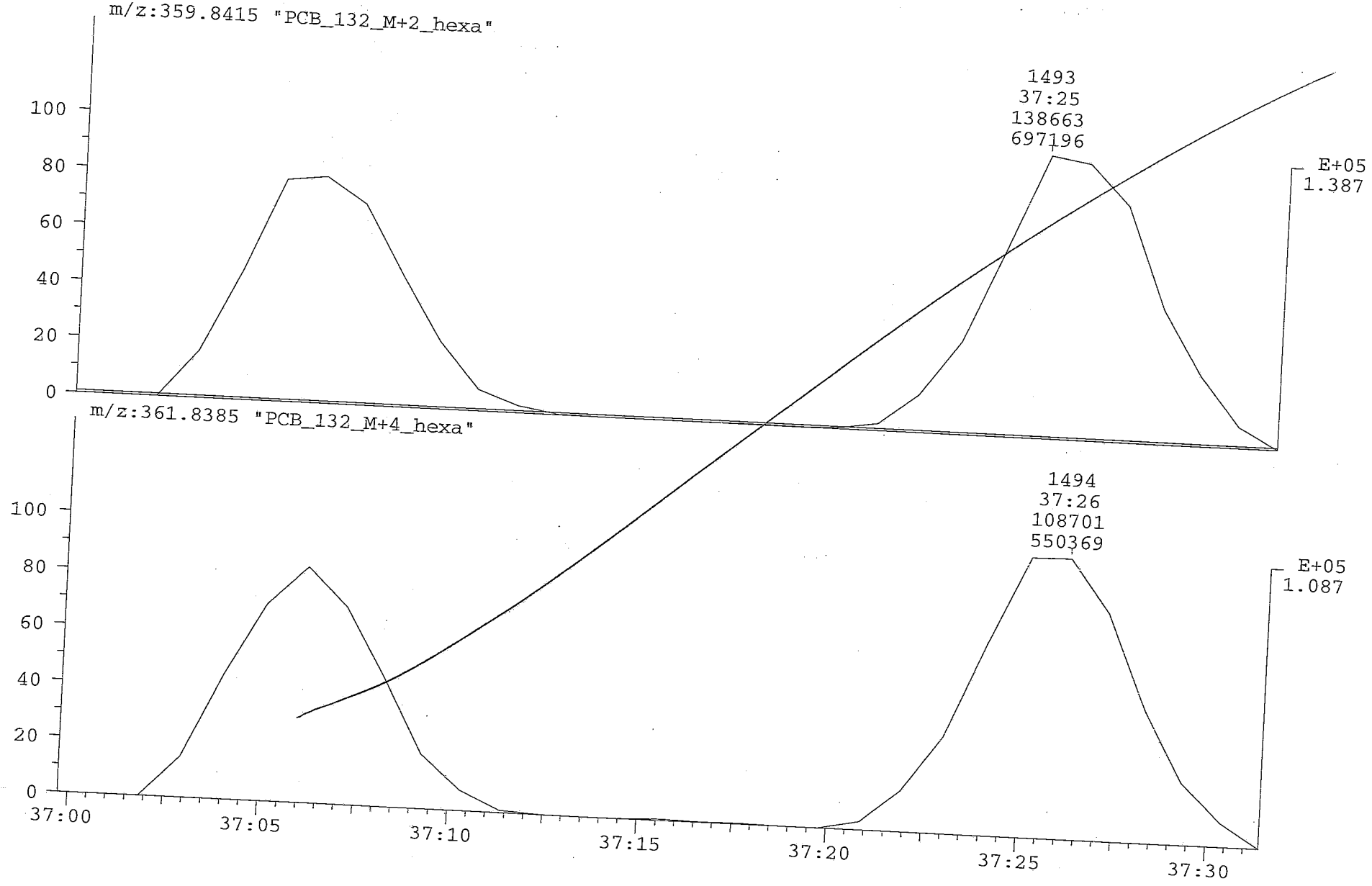
Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3203

3202

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 37:15 1484
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 1469 > 1499 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



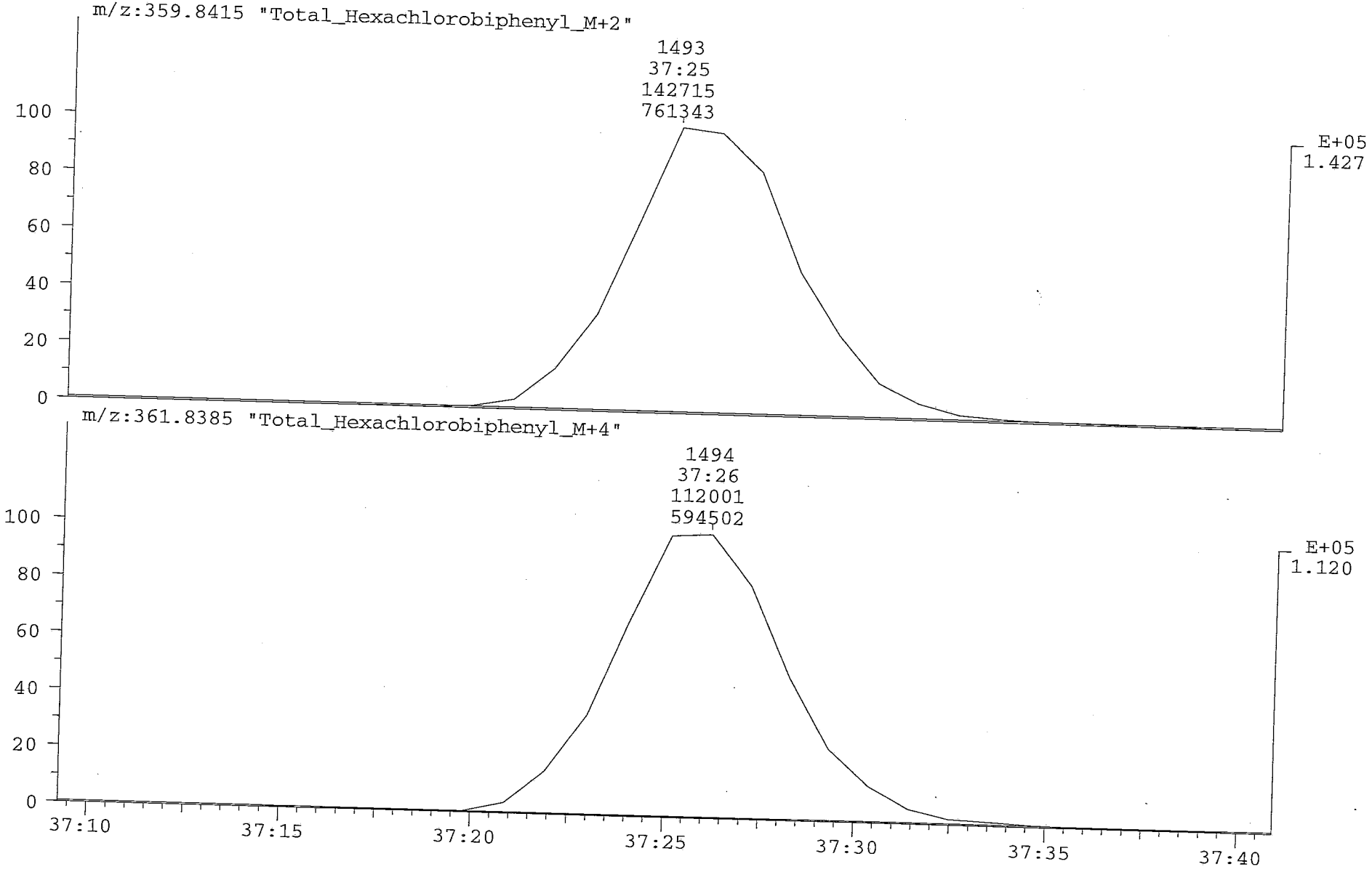
H-3204

3203

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1478 > 1508
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



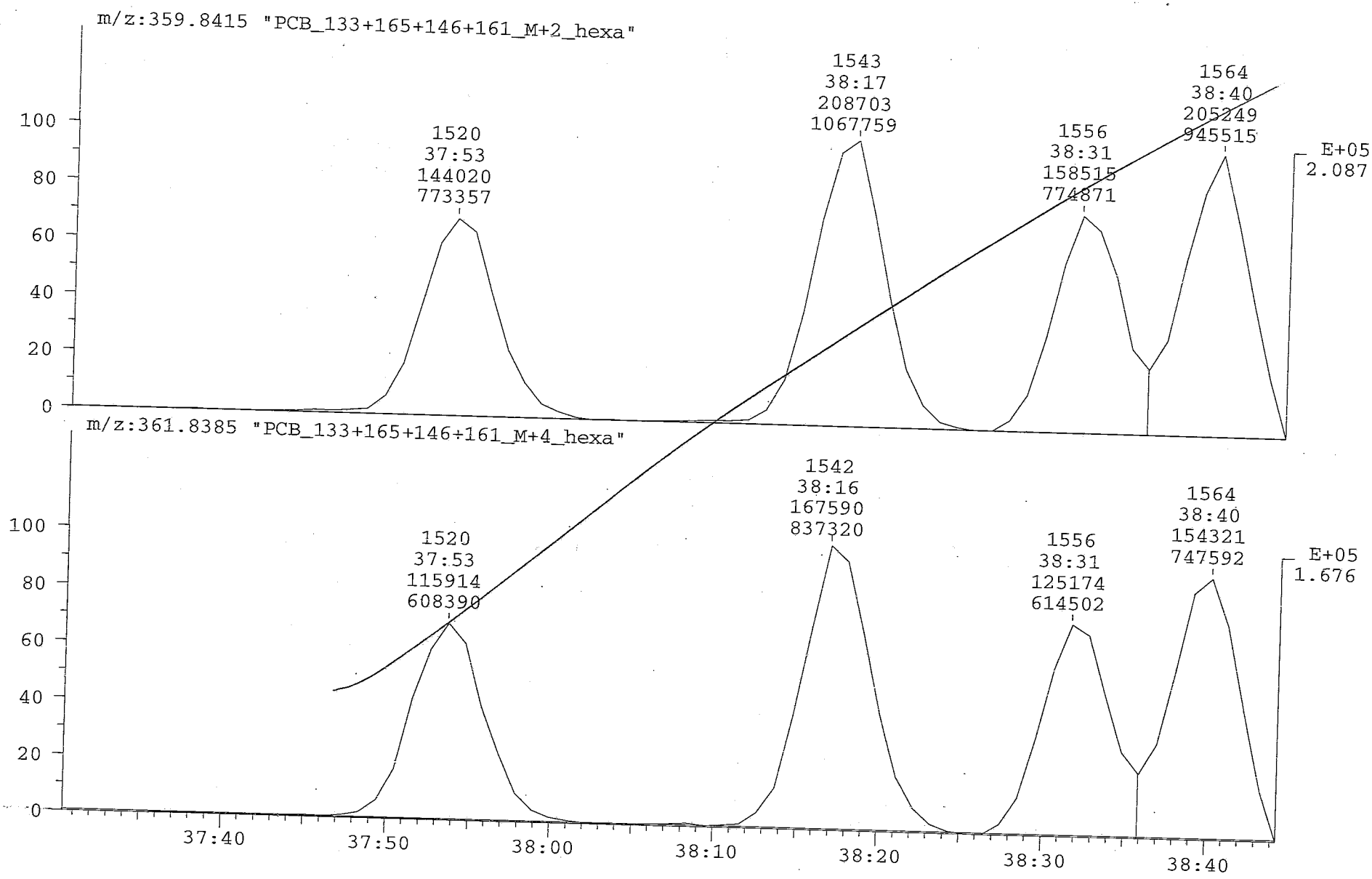
H-3205

3204

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1498 > 1568
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 38:10 1536
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



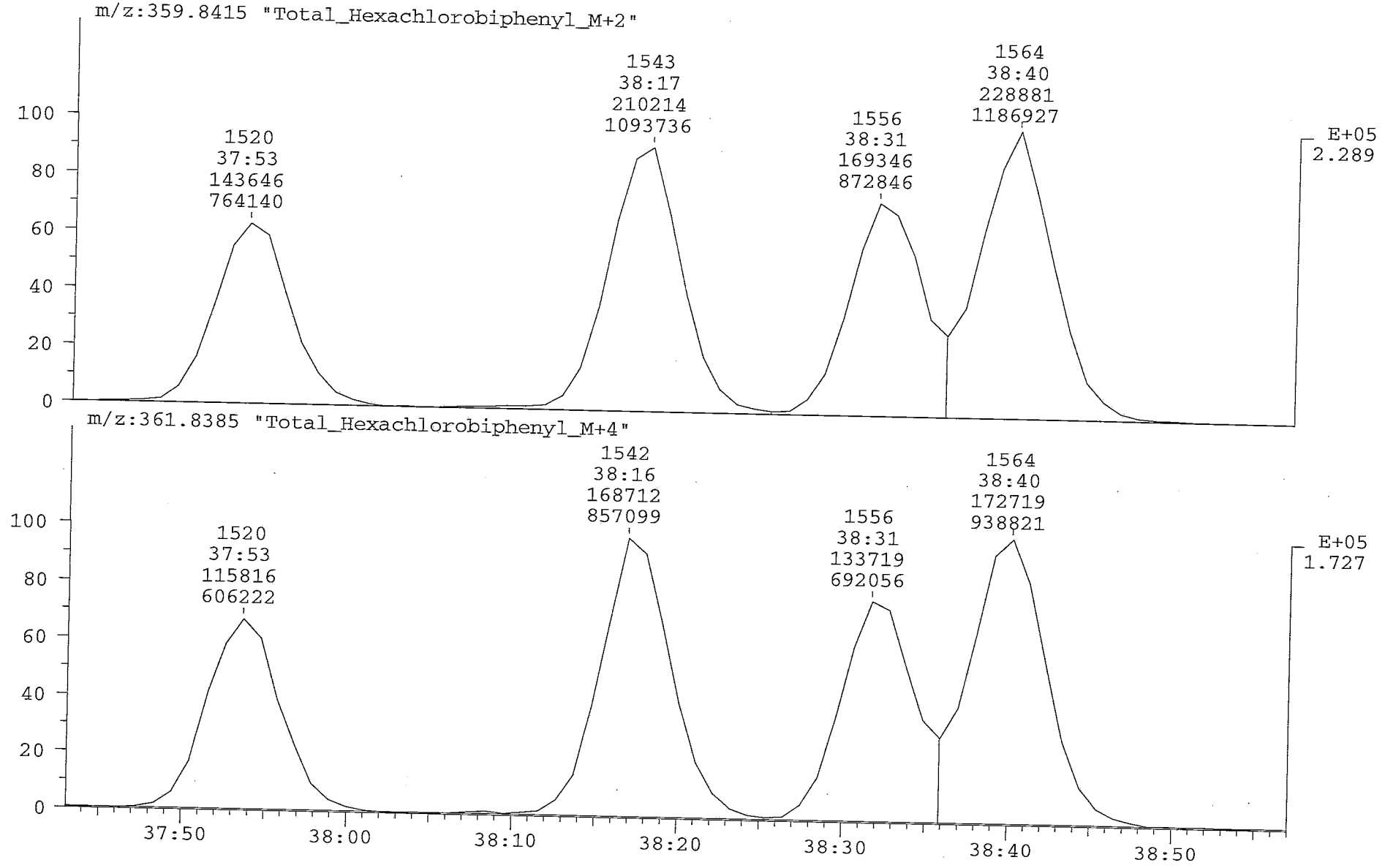
H-3206

3205

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1510 > 1580
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

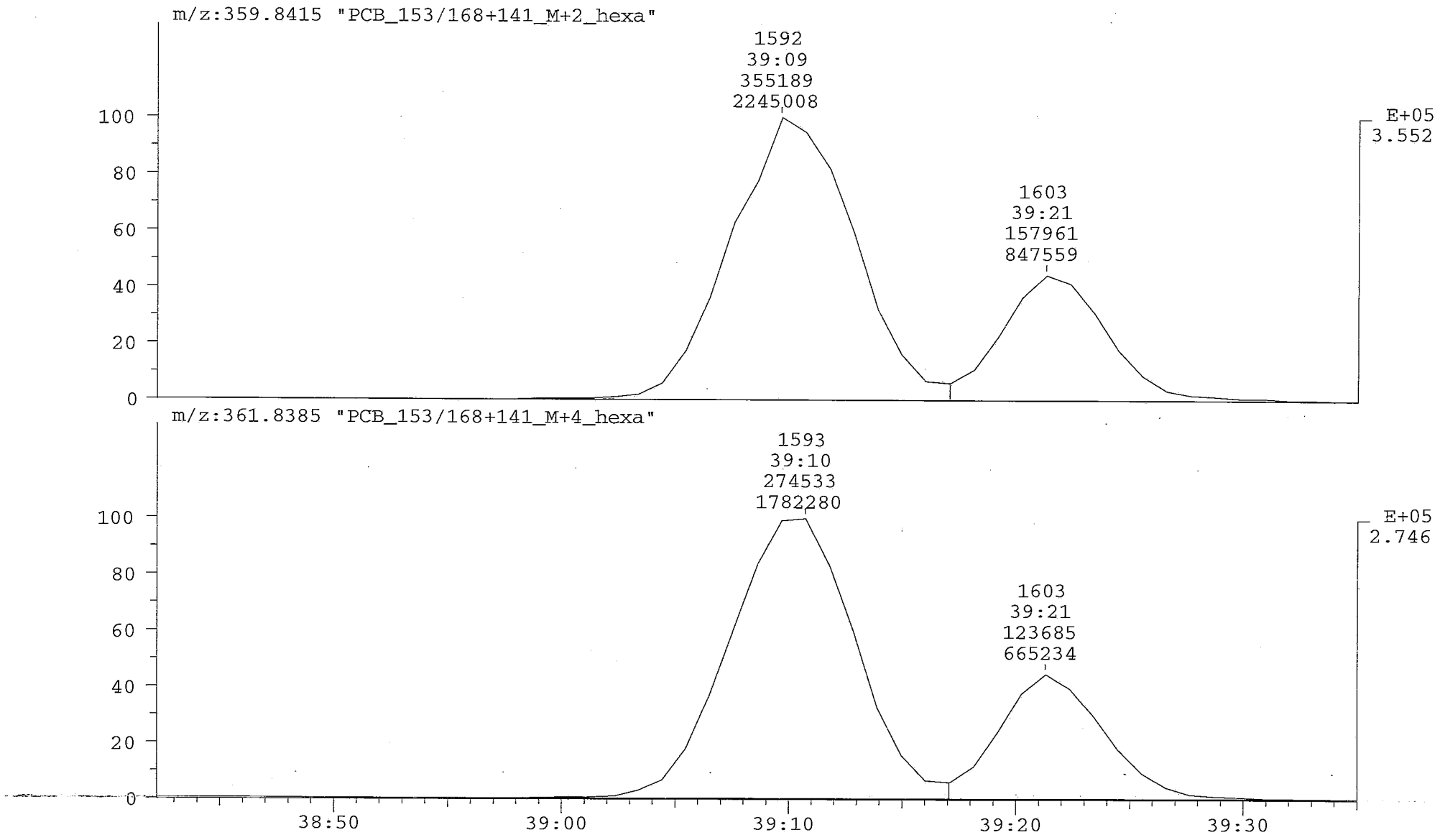
Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3207

3206

CHRO: apmkntmc 13-Jul-11 Elapse: 39:08 1591
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1566 > 1616 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



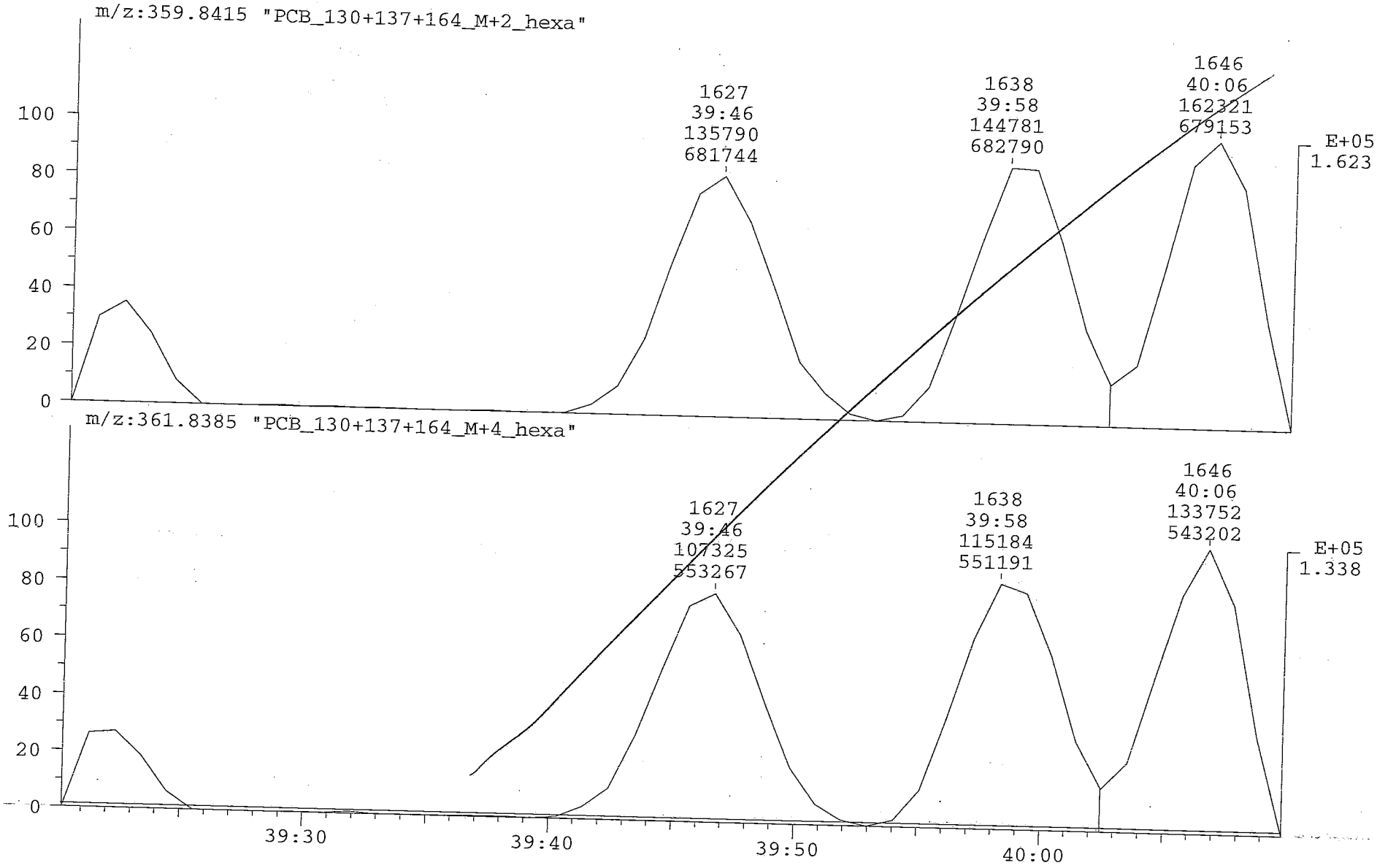
H-3208

3207

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1602 > 1649
Area: 5, 0.50, 0 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 39:49 1630
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



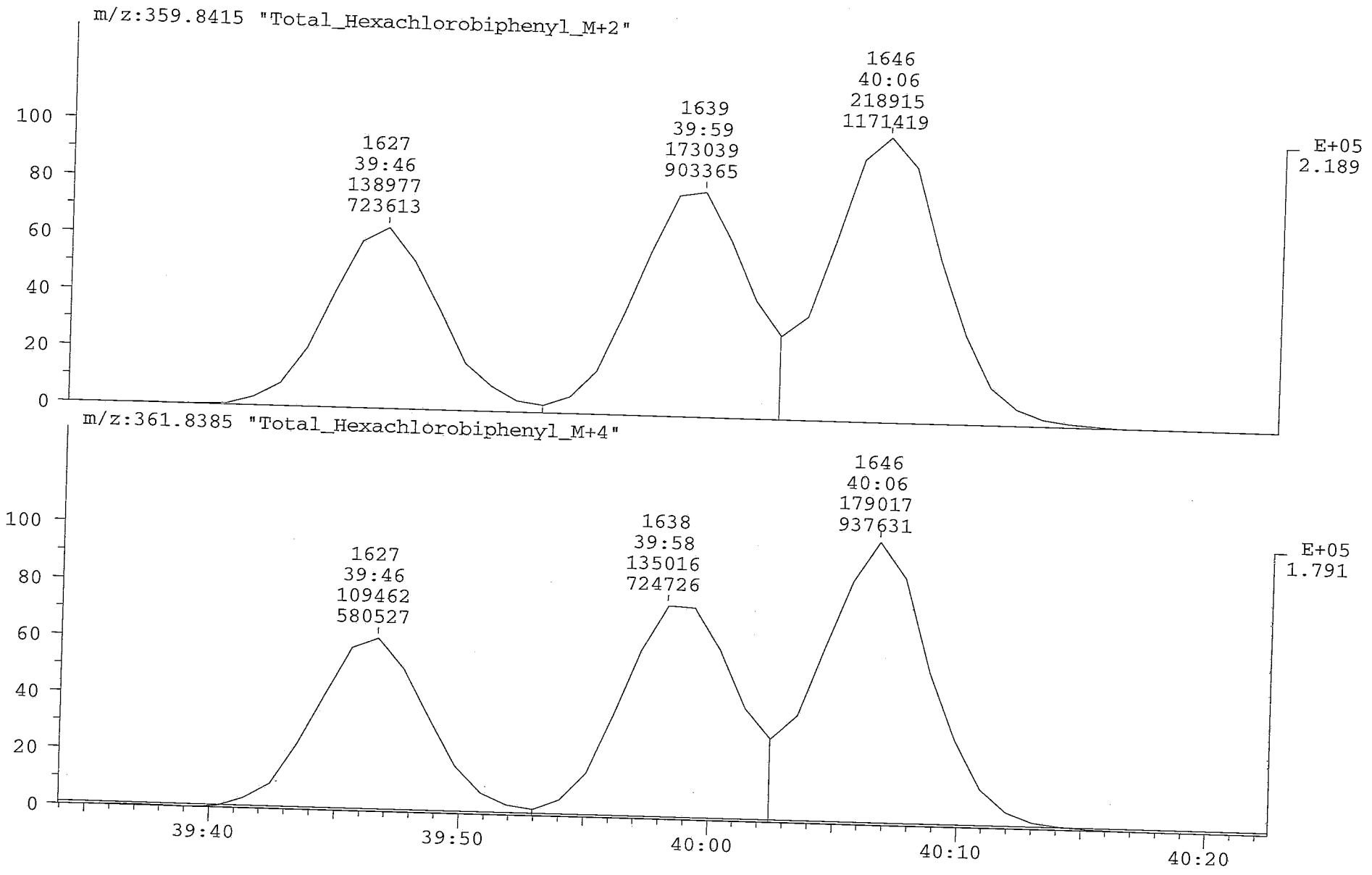
H-3209

3208

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1615 > 1661
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



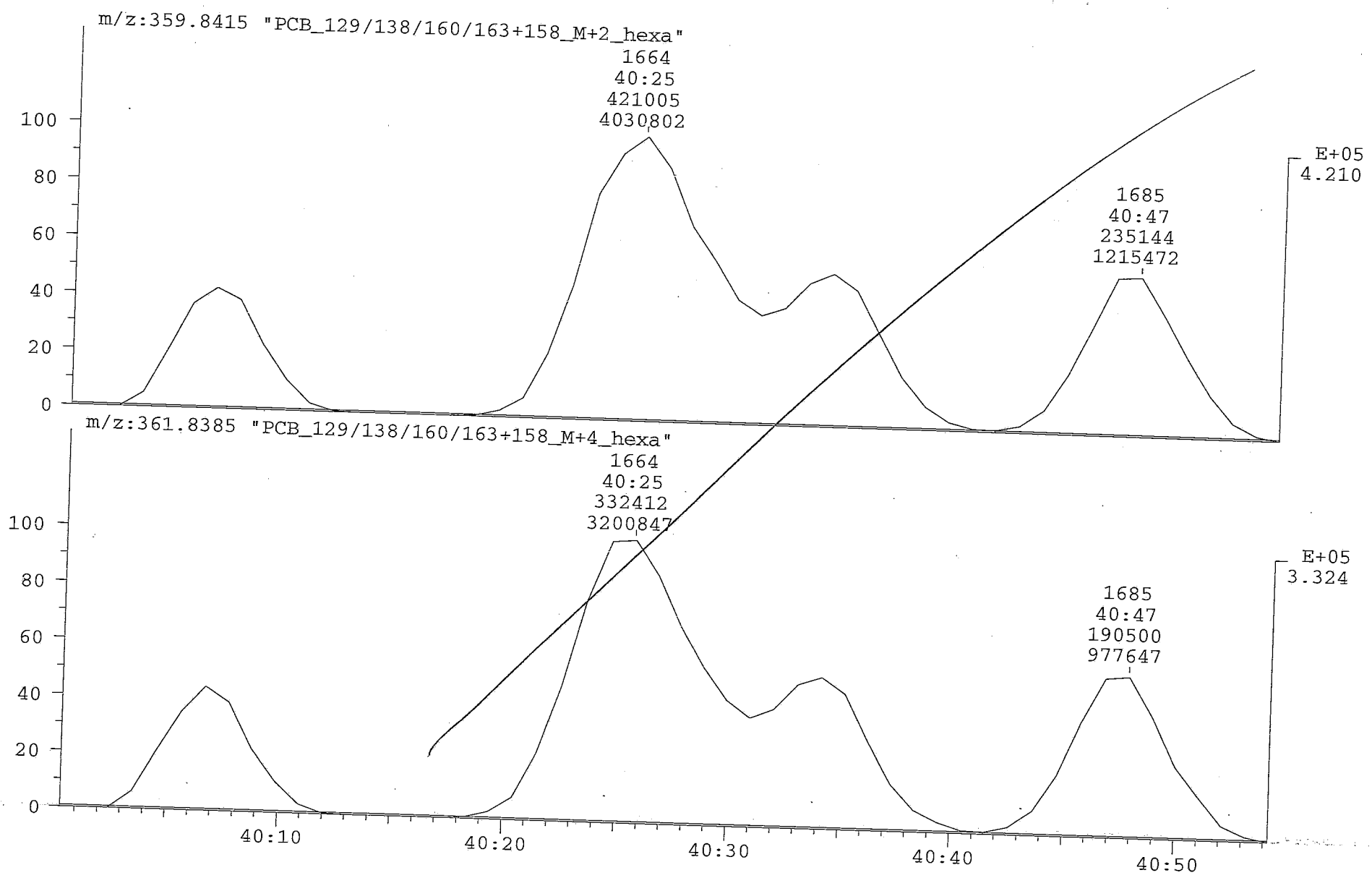
H-3210

3209

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1640 > 1691
Area: 5, 0.50, 0 Baseline : 100, 7
Disp: Height Area

13-Jul-11

Elapse: 40:31 1669
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



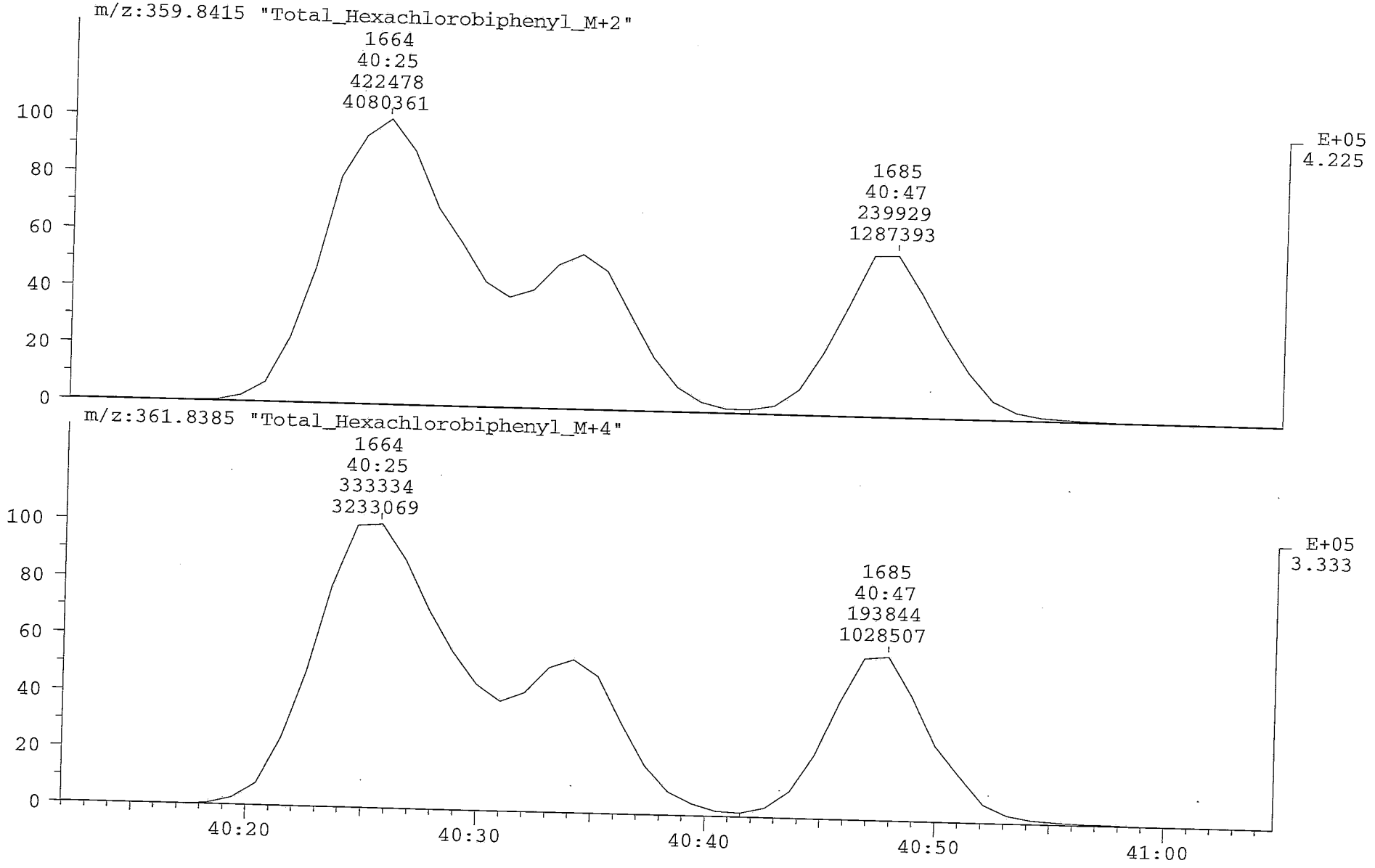
H-3211

3210

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1651 > 1701
Area: 5, 0.50, 15 Baseline : 100, 7
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



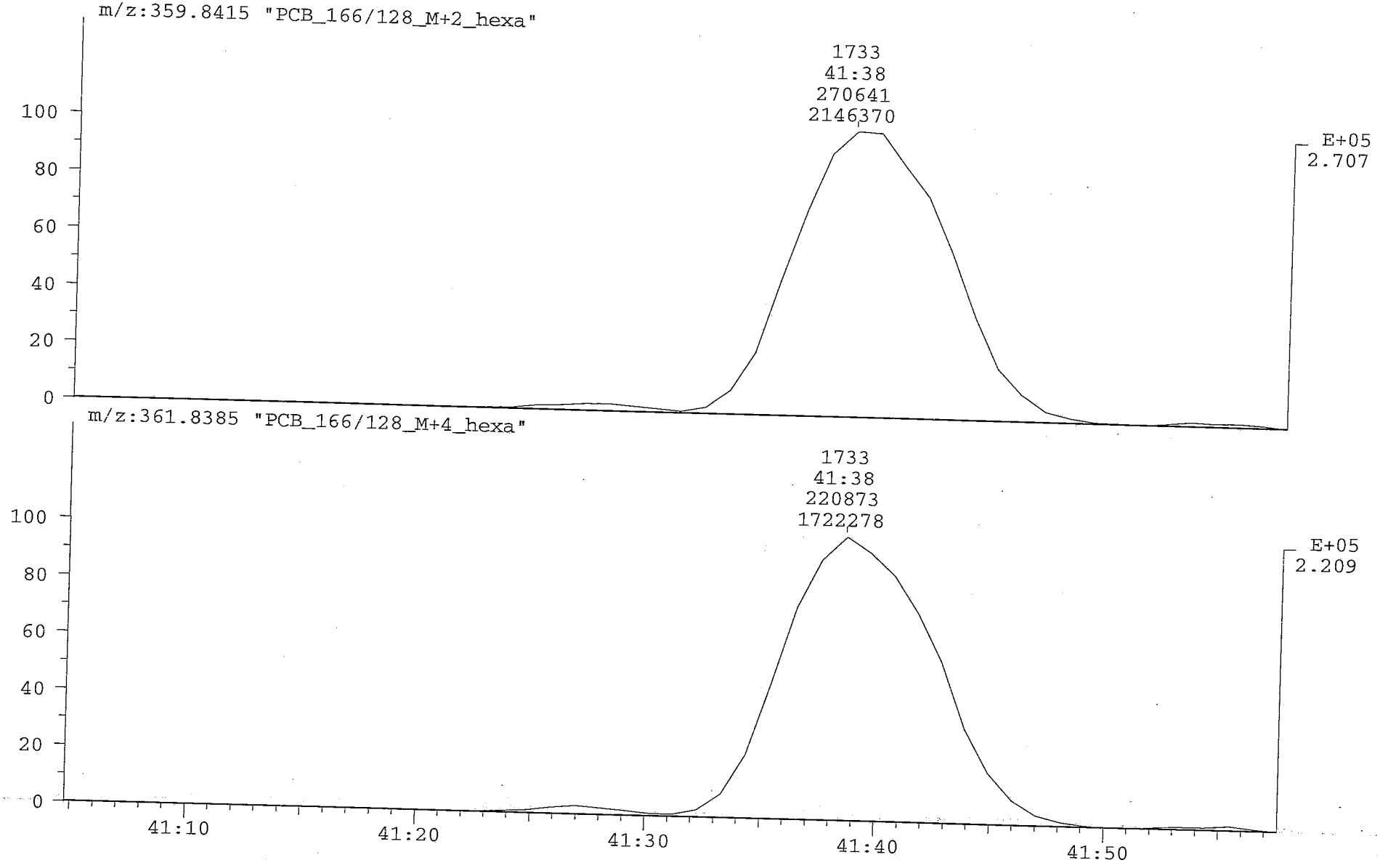
H-3212

3211

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1701 > 1751
Area: 5, 0.50, 15 Baseline : 100, 8
Disp: Height Area

13-Jul-11

Elapse: 41:33 1728
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



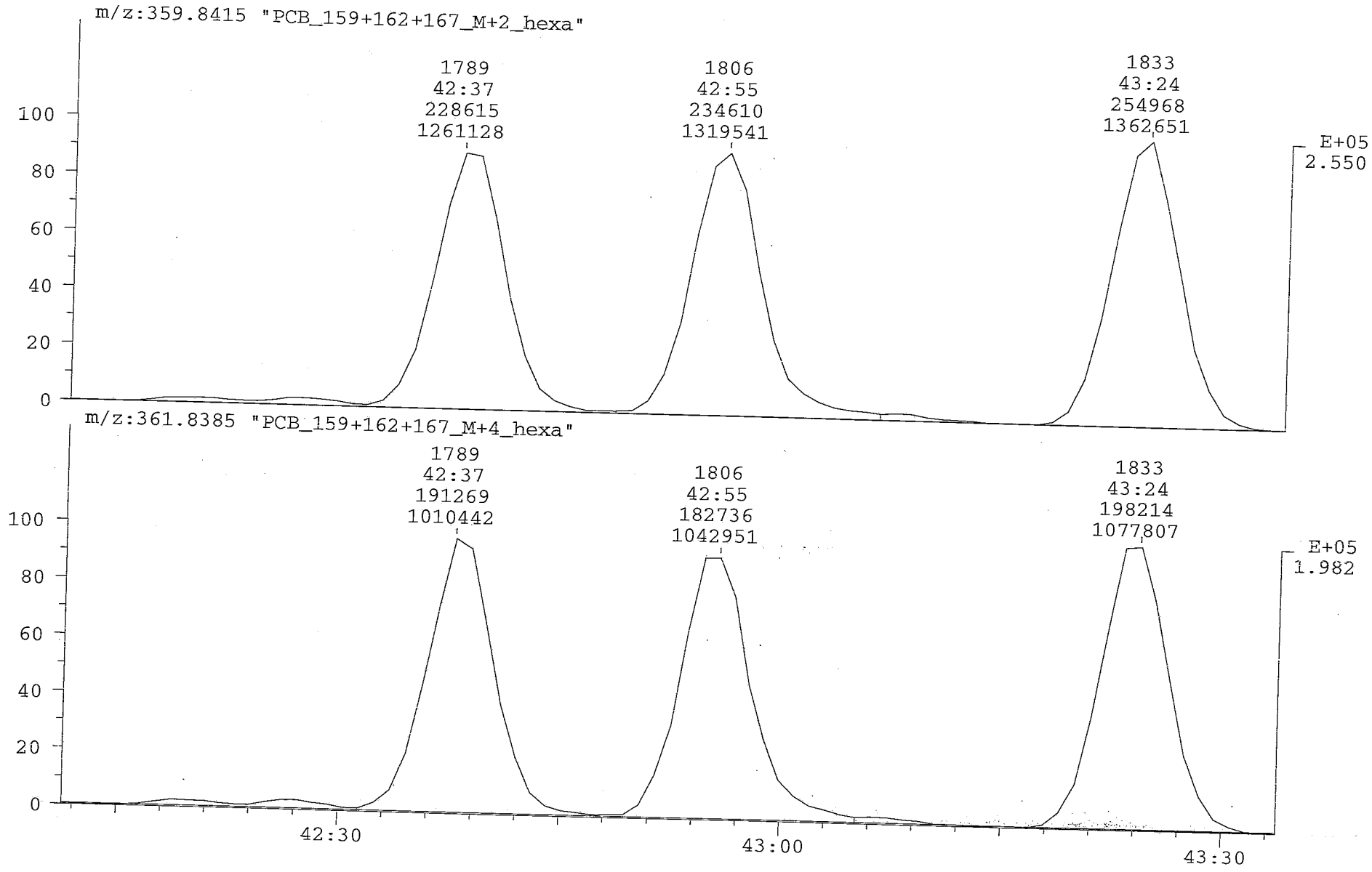
H-3213

3212

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1764 > 1842
Area: 5, 0.50, 15 Baseline : 100, 1
Disp: Height Area

13-Jul-11

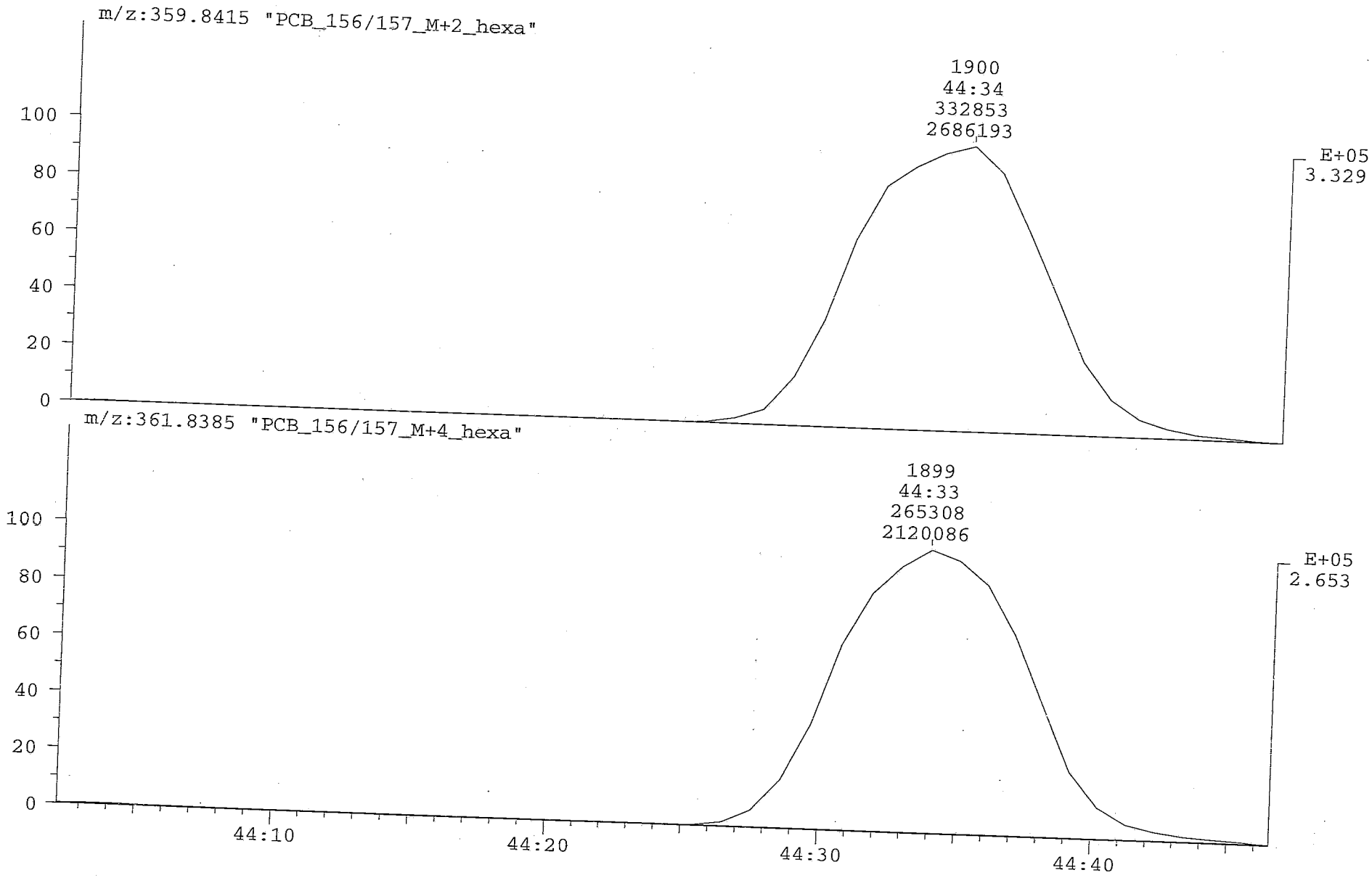
Elapse: 42:53 1804
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3214

3213

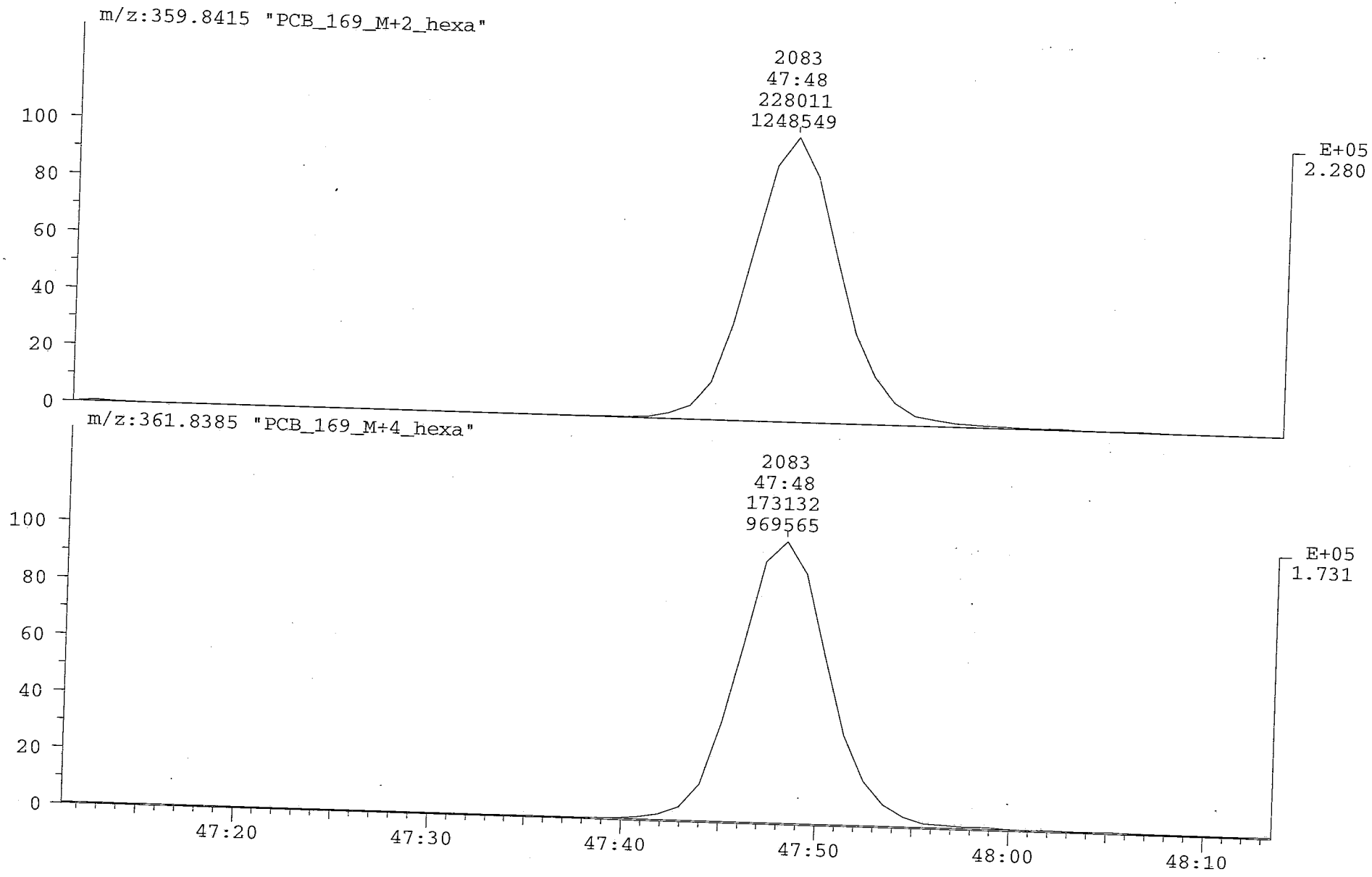
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 44:23 1889
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1869 > 1911 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3215

3214

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 47:37 2073
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 2048 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



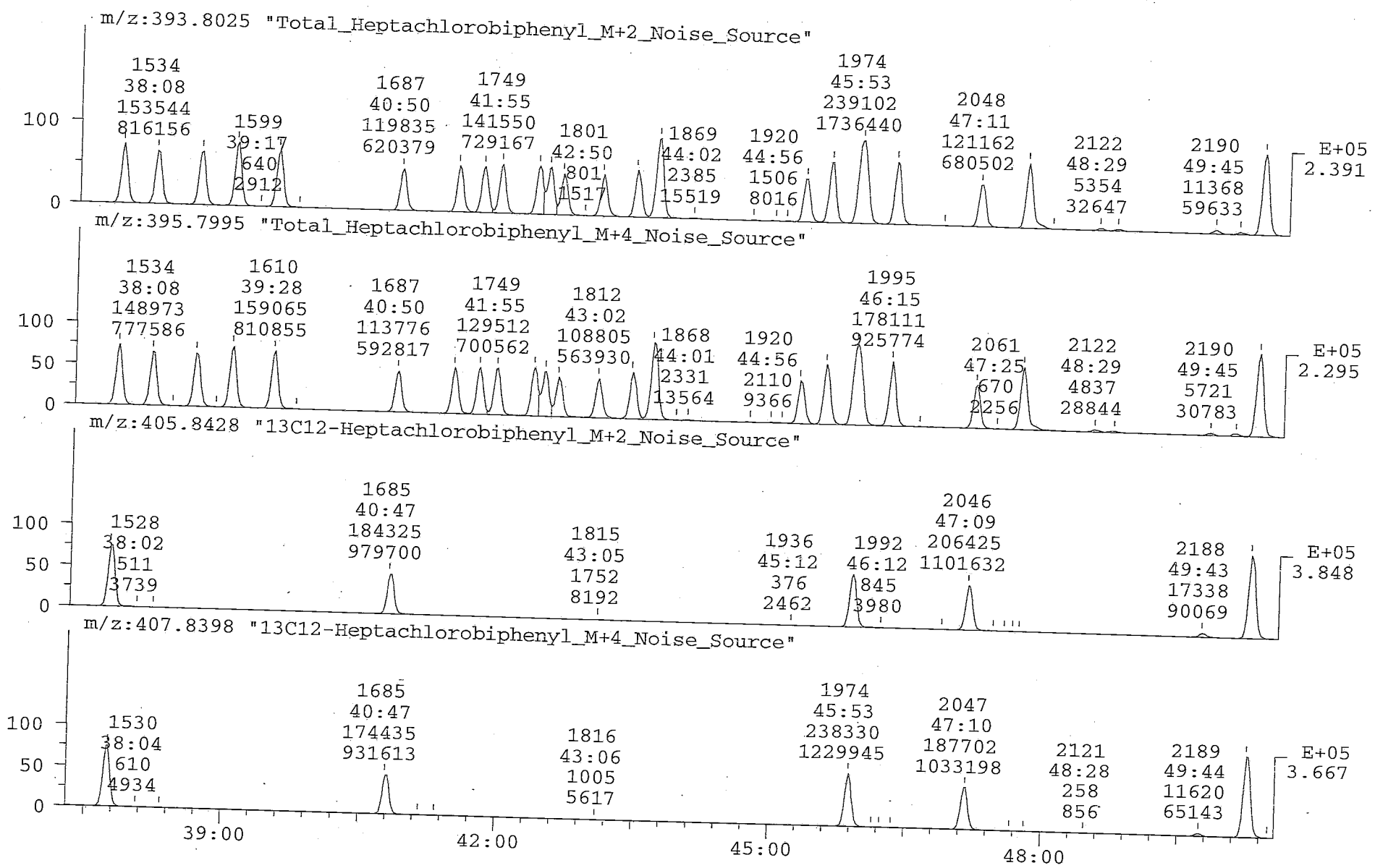
H-3216

3215

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1486 > 2236
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

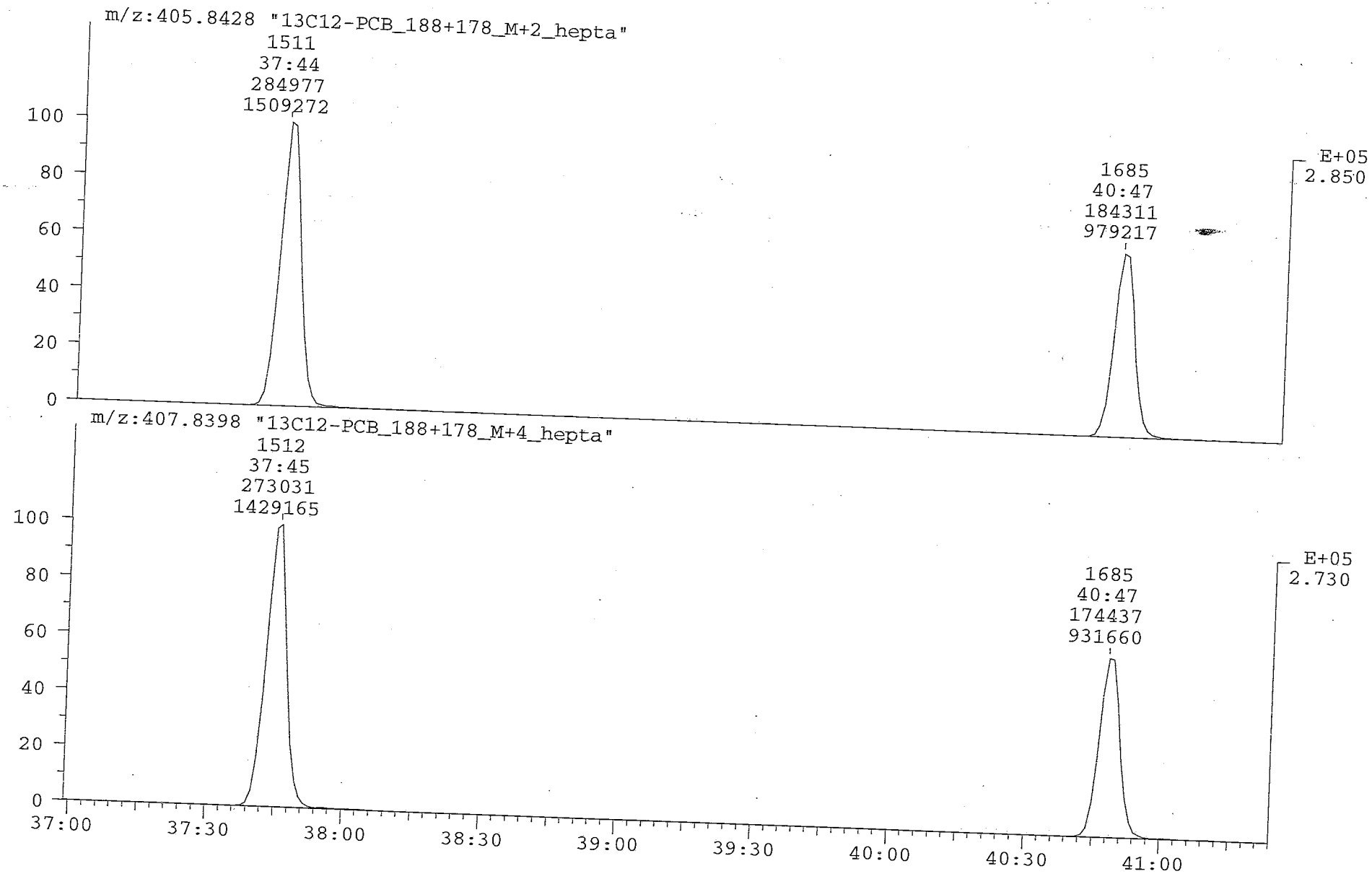
Elapse: 43:55 1863
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3217

3216

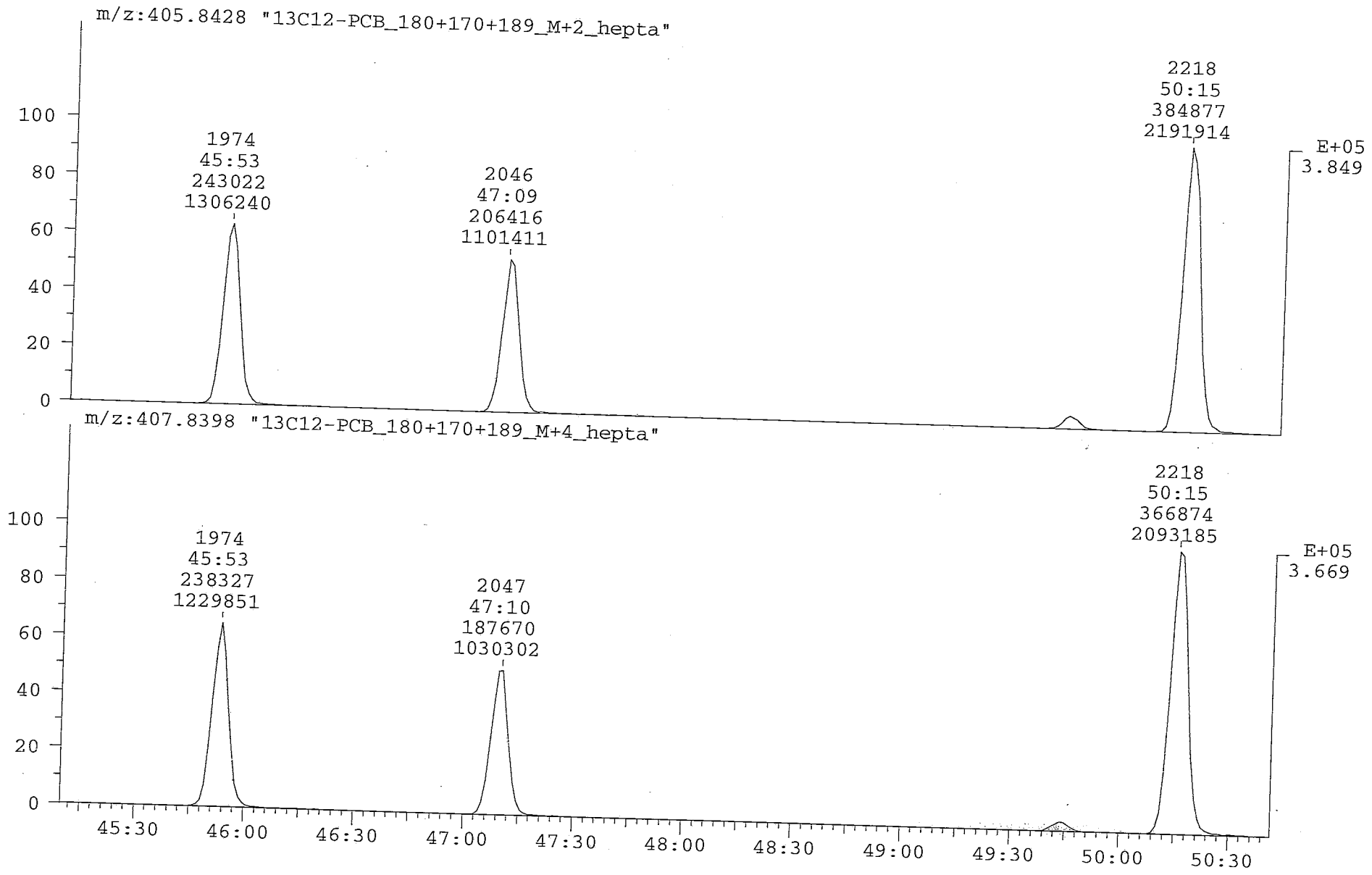
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 39:10 1593
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 1468 > 1719 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



H-3218

3217

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 47:58 2093
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1933 > 2243 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



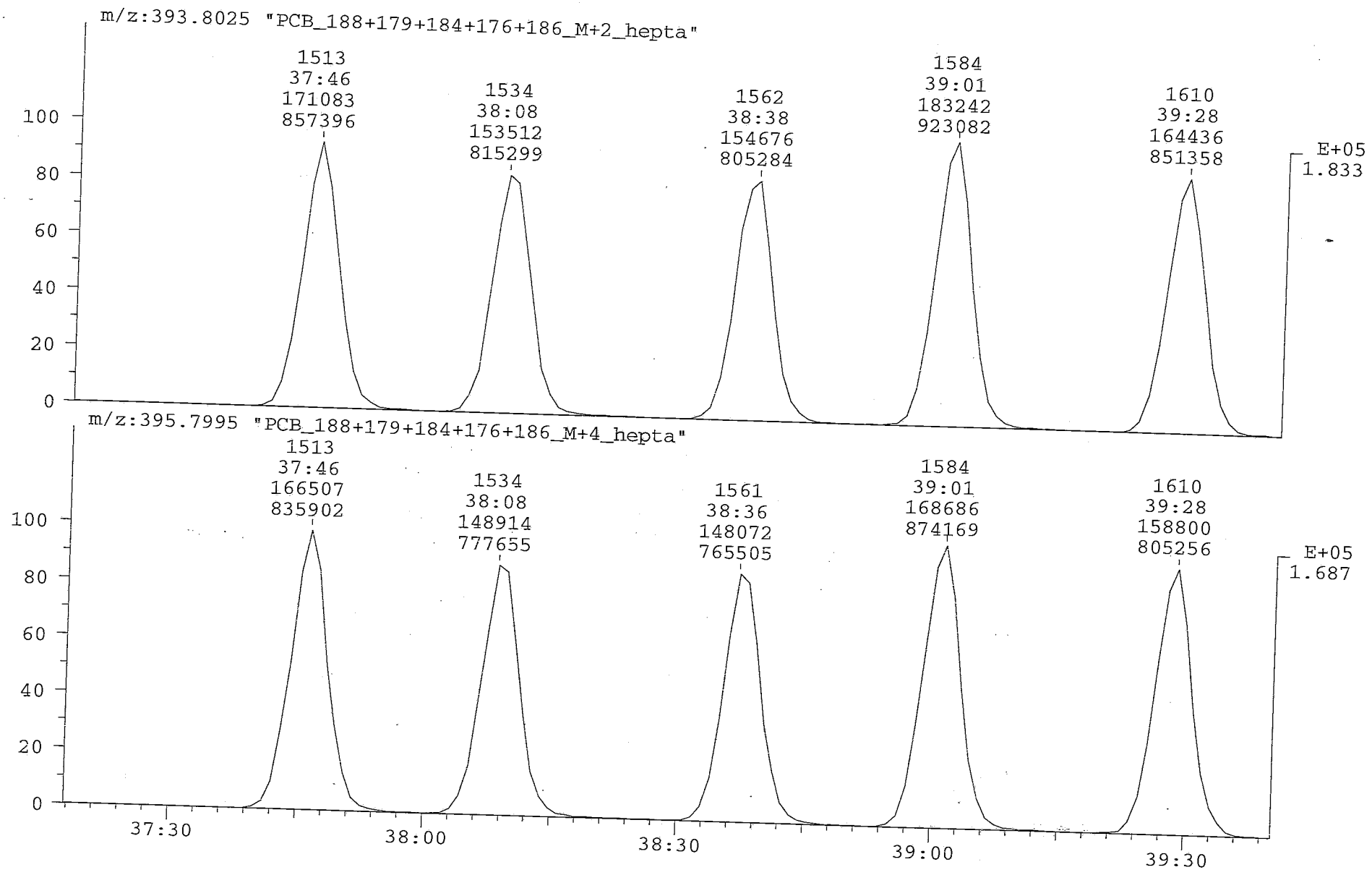
H-3219

3218

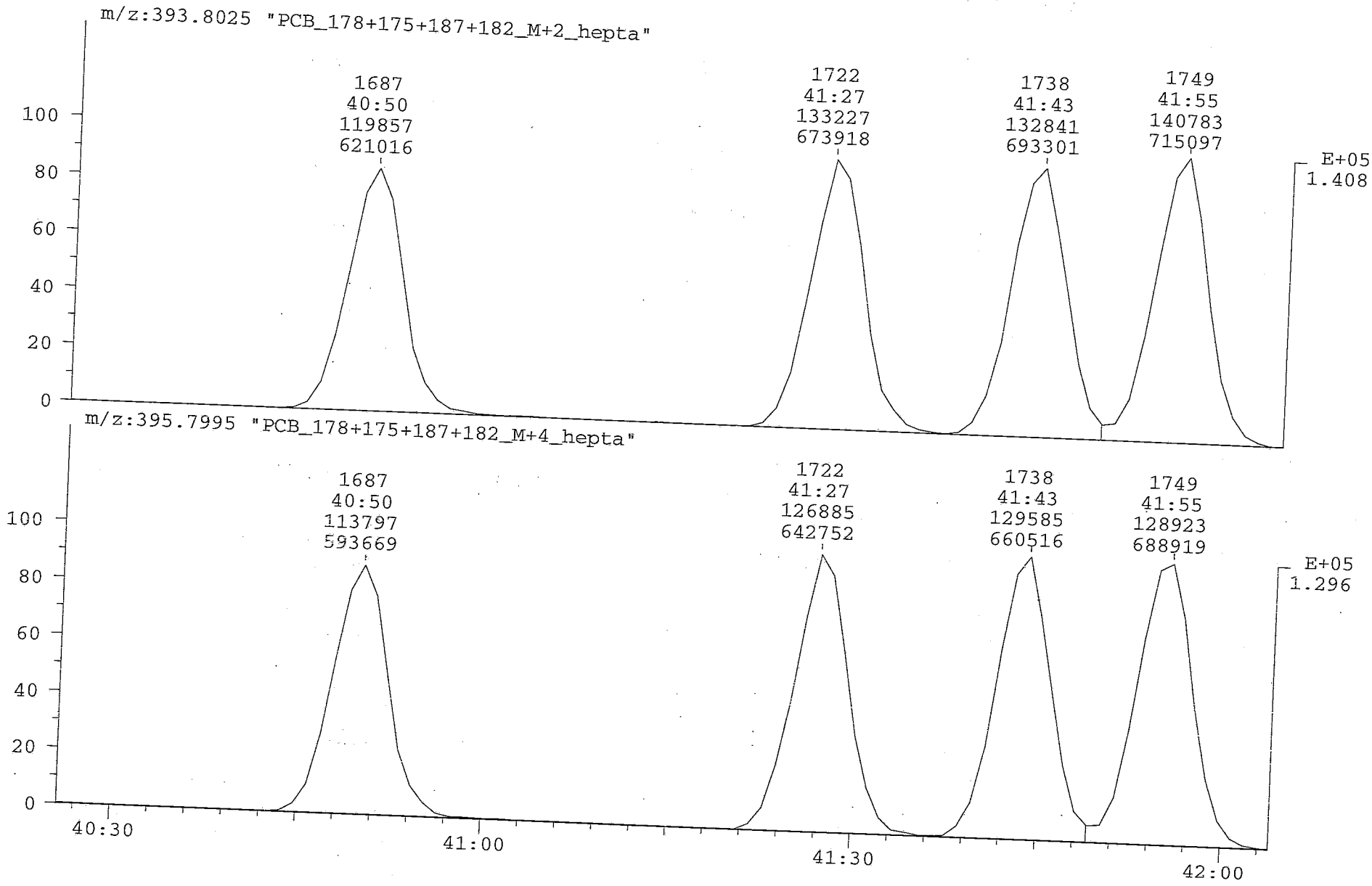
CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1486 > 1621
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 38:31 1556
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 41:18 1714
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C Study : 1187028 (Air-2)
Peak: 100.00 ppm Label wndw: 1664 > 1757 Inlet : GC Vial 4
Area: 5, 0.50, 15 Baseline : 100, 3 Masses: 181 > 510
Disp: Height Area Label : -3, 3.0



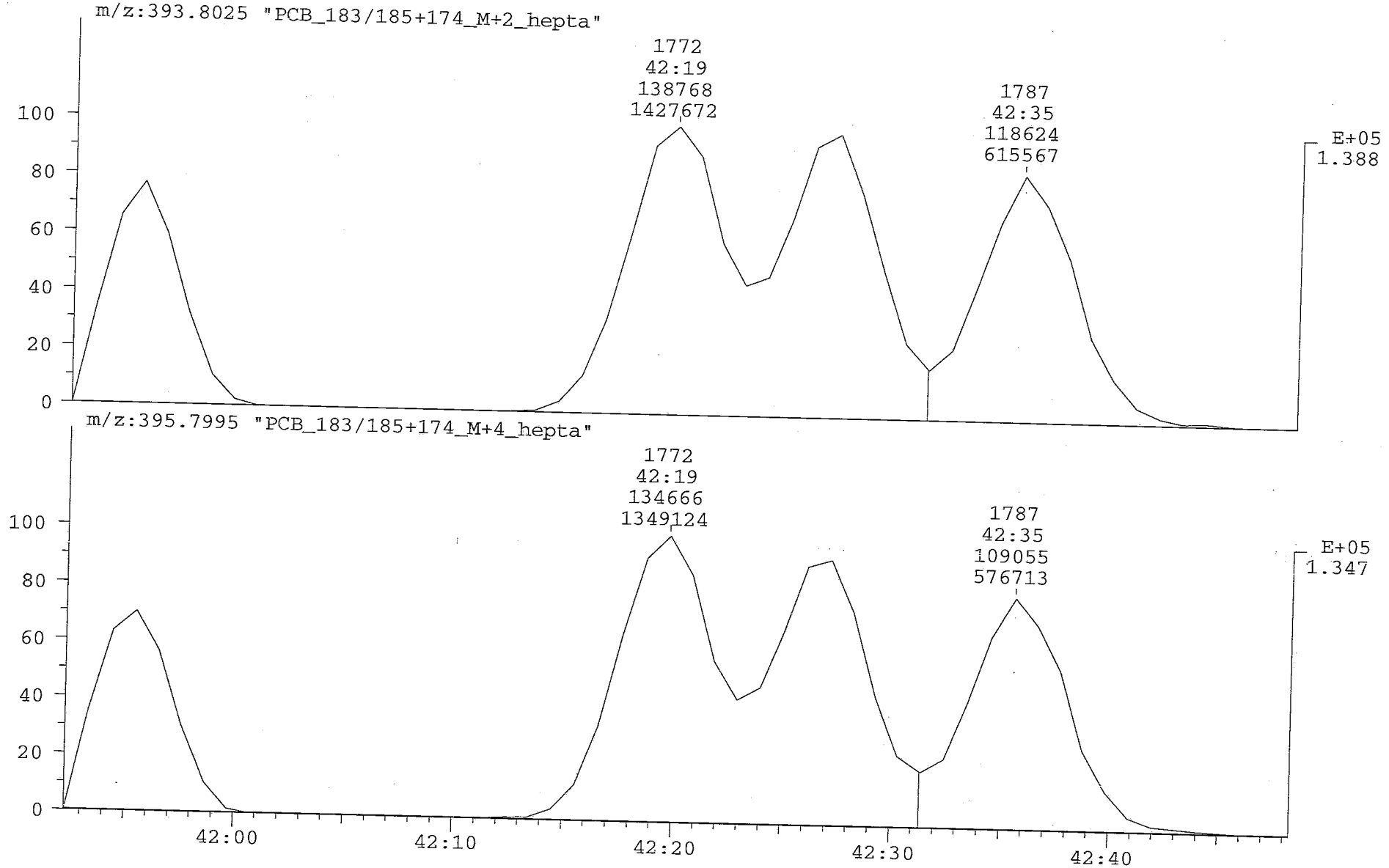
H-3221

3220

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1746 > 1799
Area: 5, 0.50, 15 Baseline : 100, 7
Disp: Height Area

13-Jul-11

Elapse: 42:27 1779
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



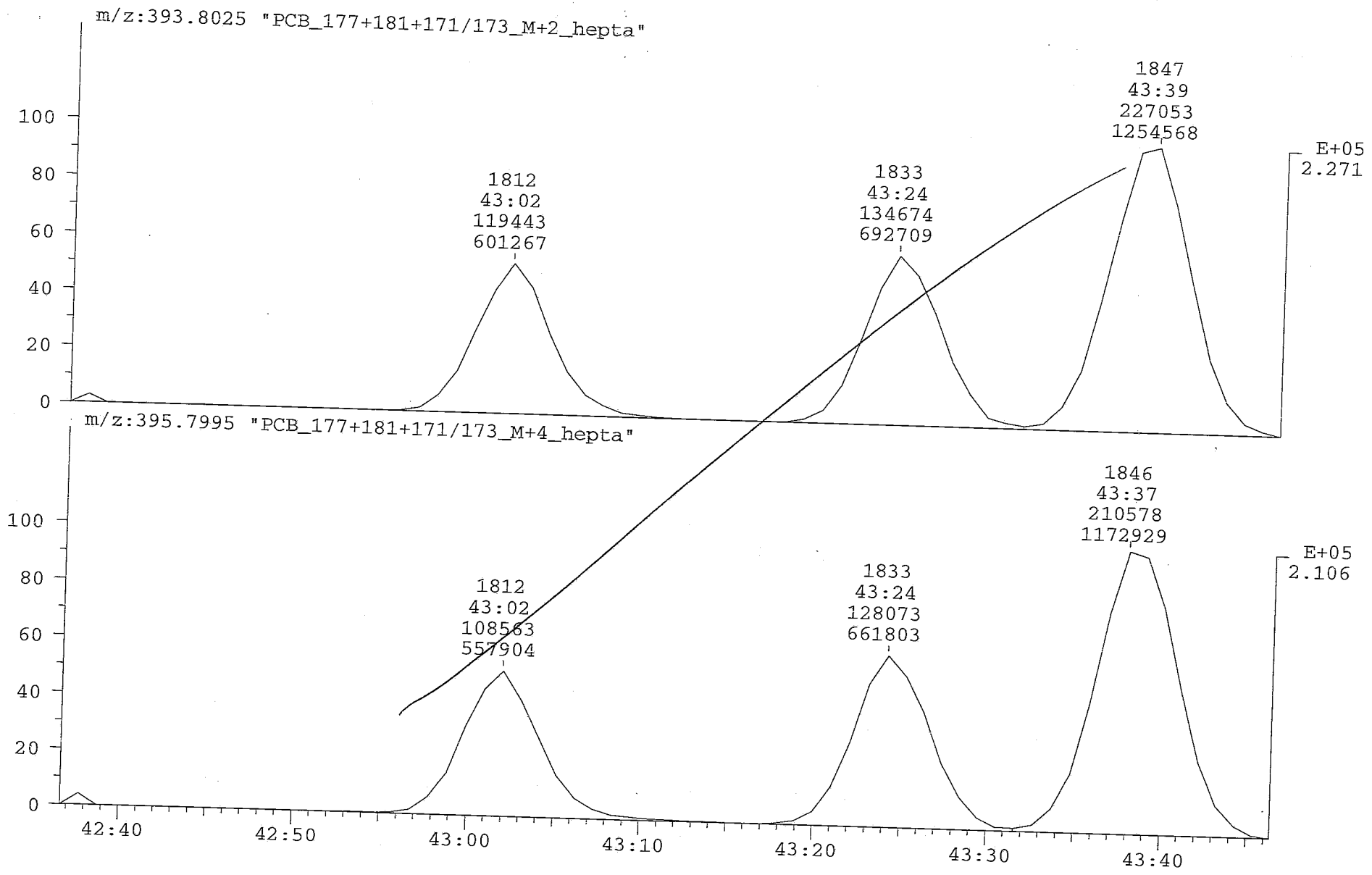
H-3222

3221

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1788 > 1854
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

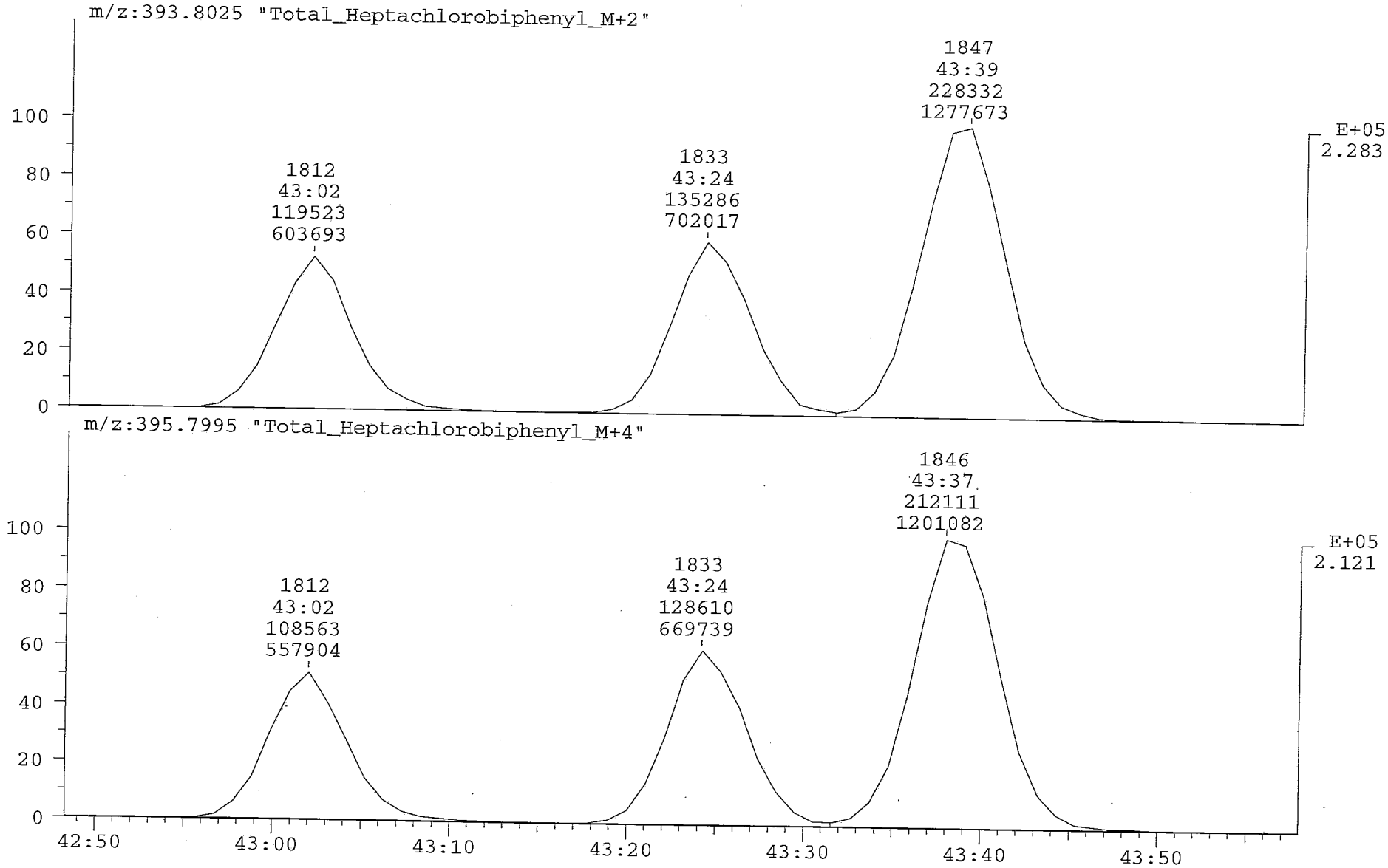
Elapse: 43:15 1825
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3223

3222

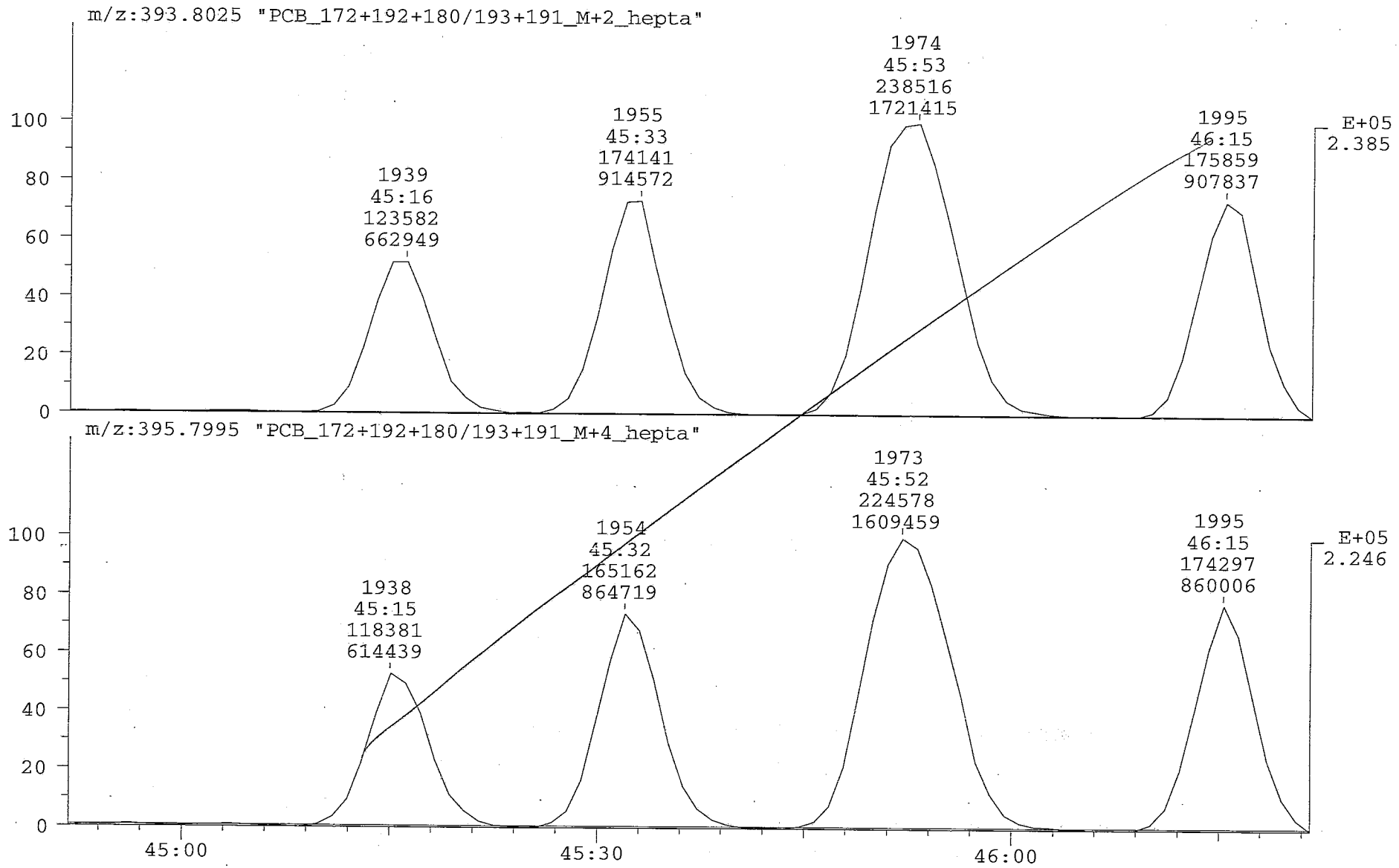
CHRO: apmkntmc 13-Jul-11 Elapse: 17:04.4 345
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1799 > 1865 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3224

3223

CHRO: apmkntmc 13-Jul-11 Elapse: 45:43 1965
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1916 > 2001 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



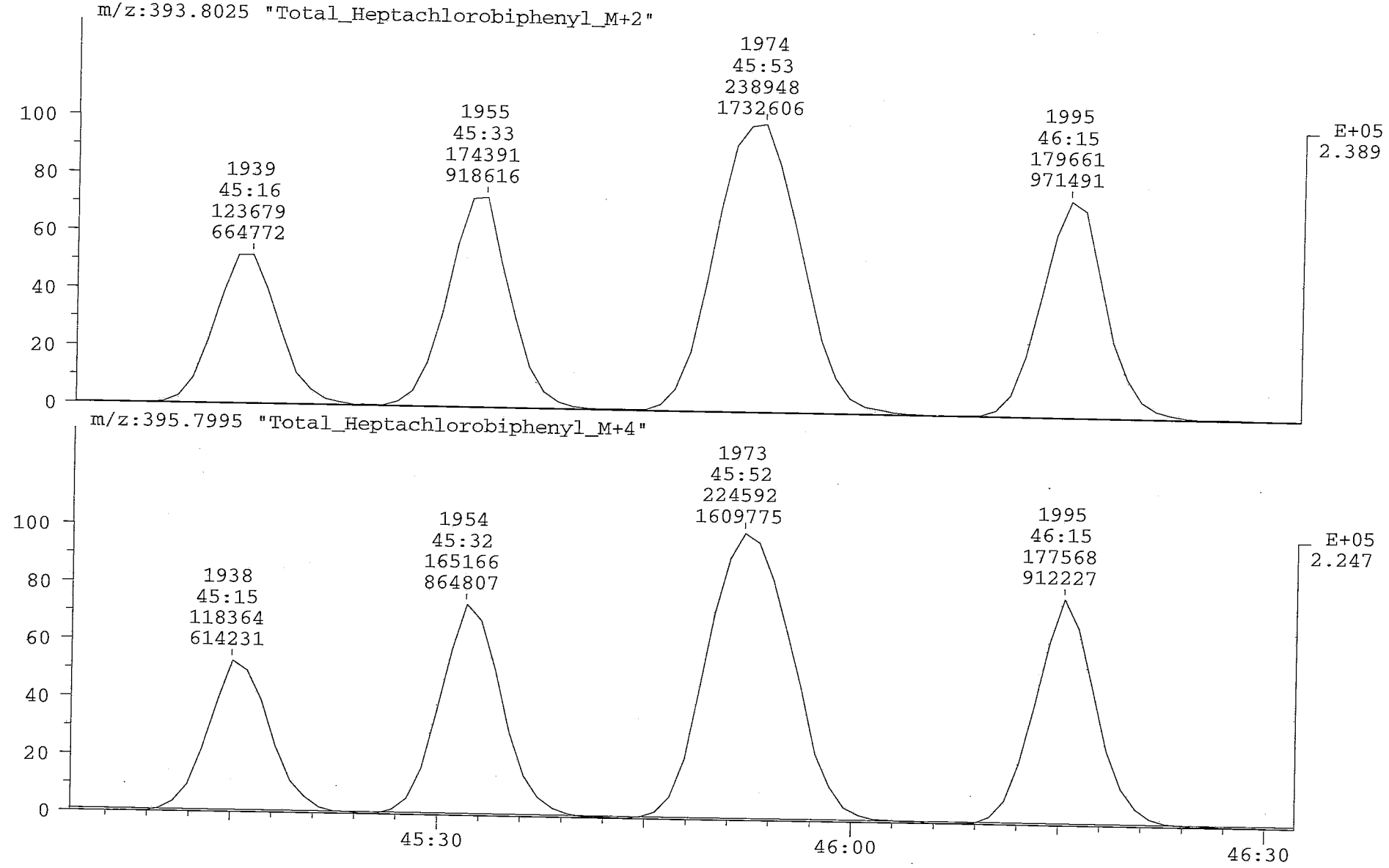
H-3225

3224

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1927 > 2011
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

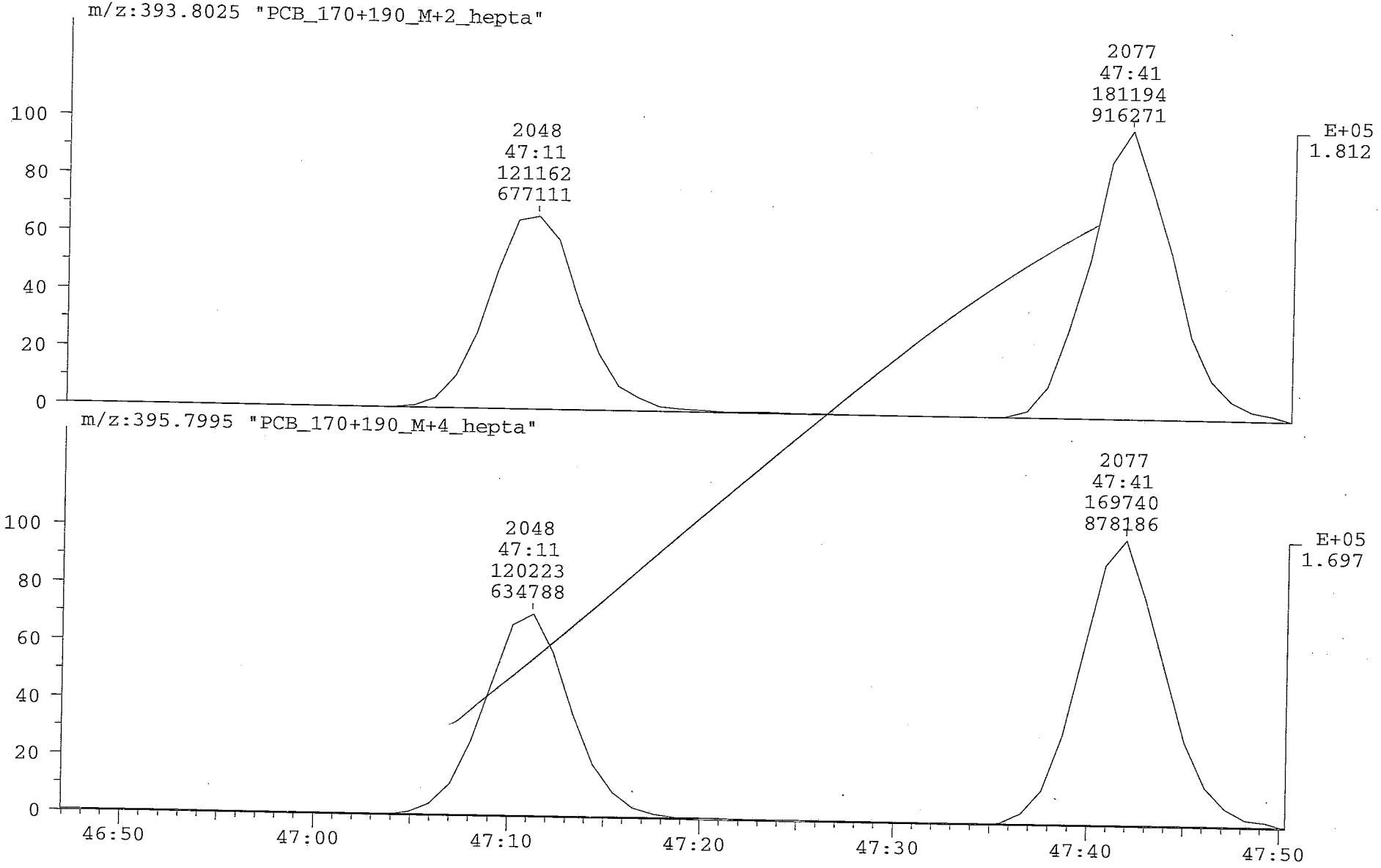
Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2025 > 2085
Area: 5, 0.50, 15 Baseline : 100, 1
Disp: Height Area

13-Jul-11

Elapse: 47:20 2057
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



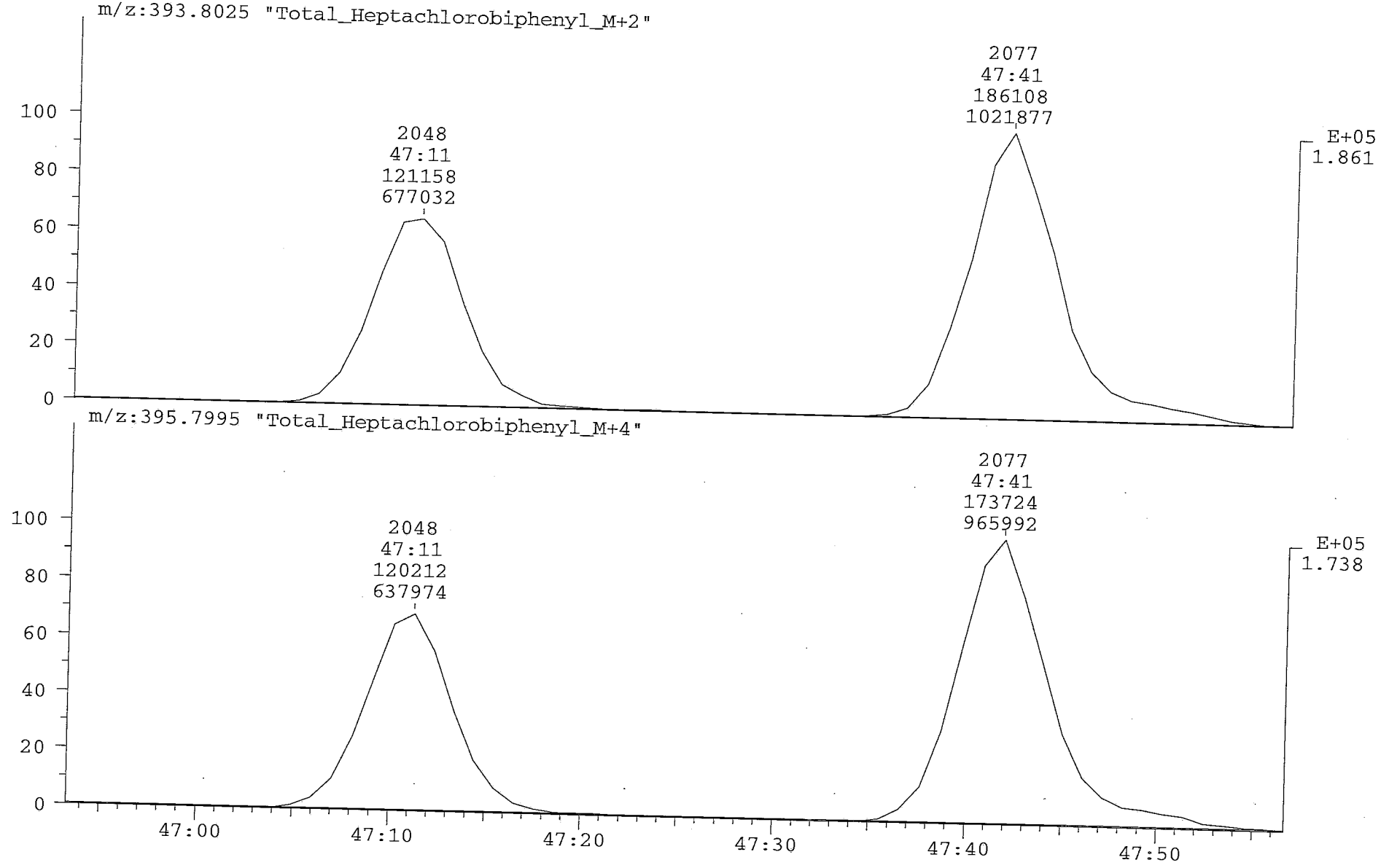
H-3227

3226

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2031 > 2091
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 17:04.4 345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



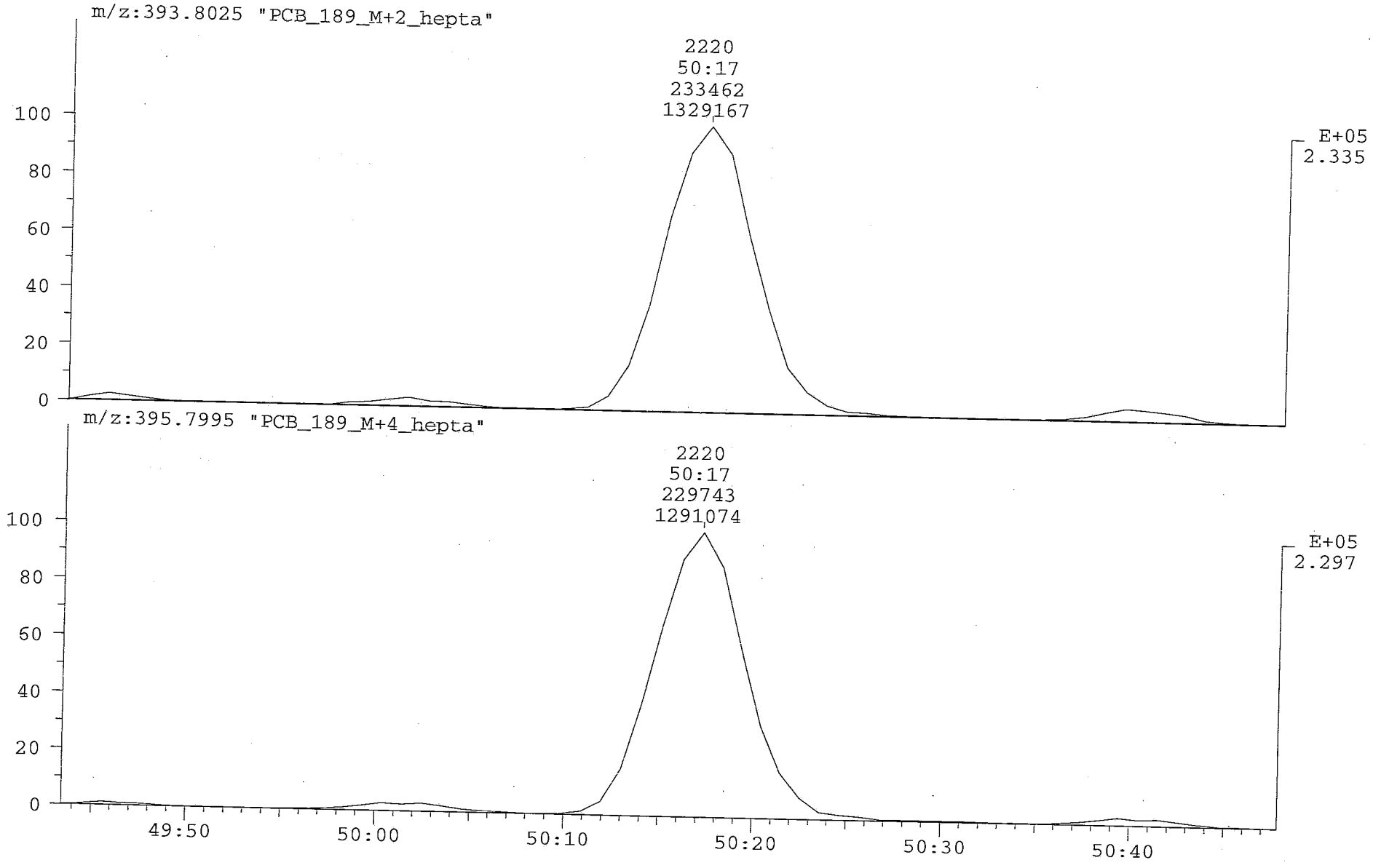
H-3228

3227

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2188 > 2249
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

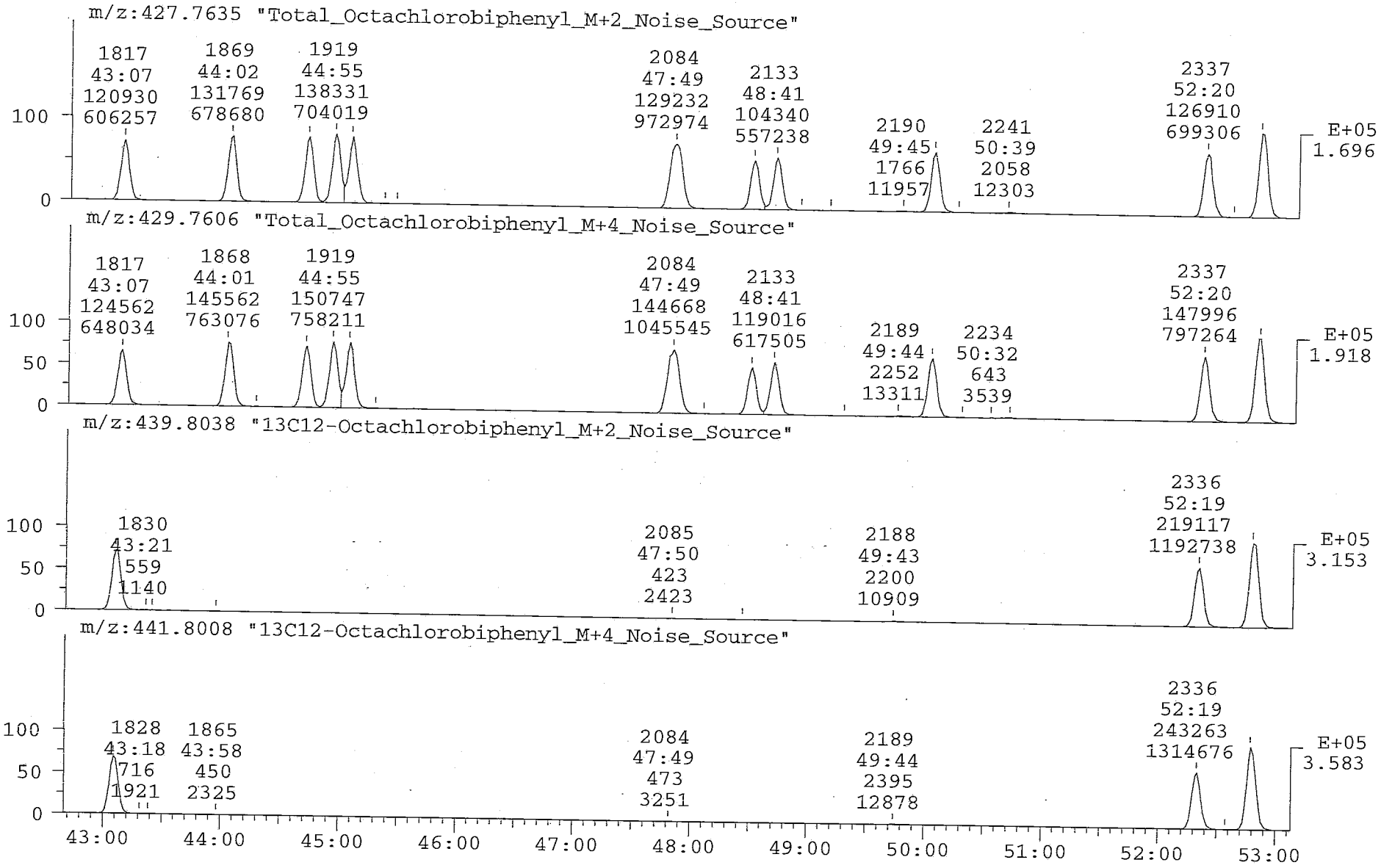
Elapse: 50:07 2211
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3229

3228

CHRO: apmkntmc 13-Jul-11 Elapse: 47:53 2088
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 Start : 23:12:23 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 1791 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



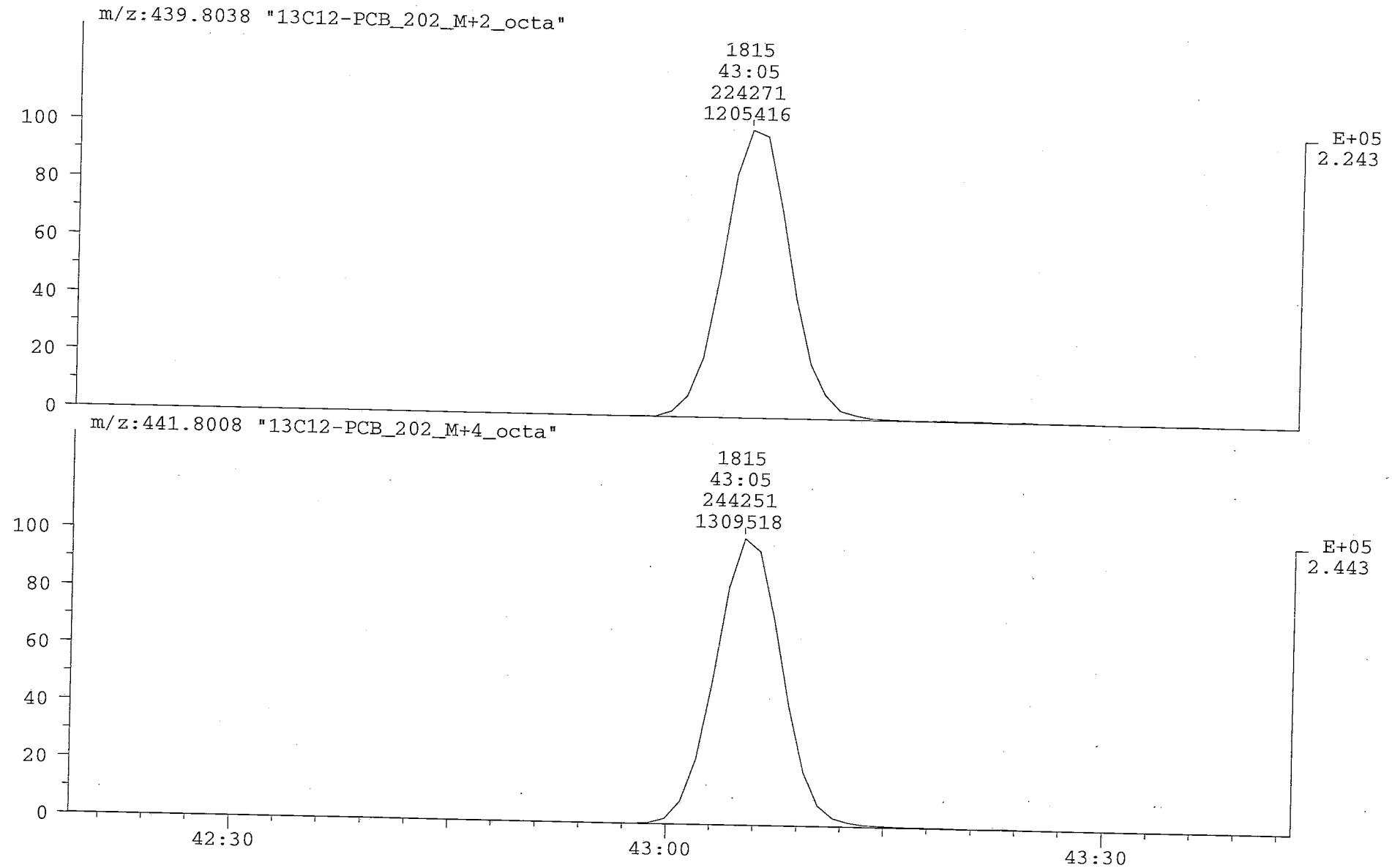
H-3230

3229

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1771 > 1851
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 42:57 1808
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



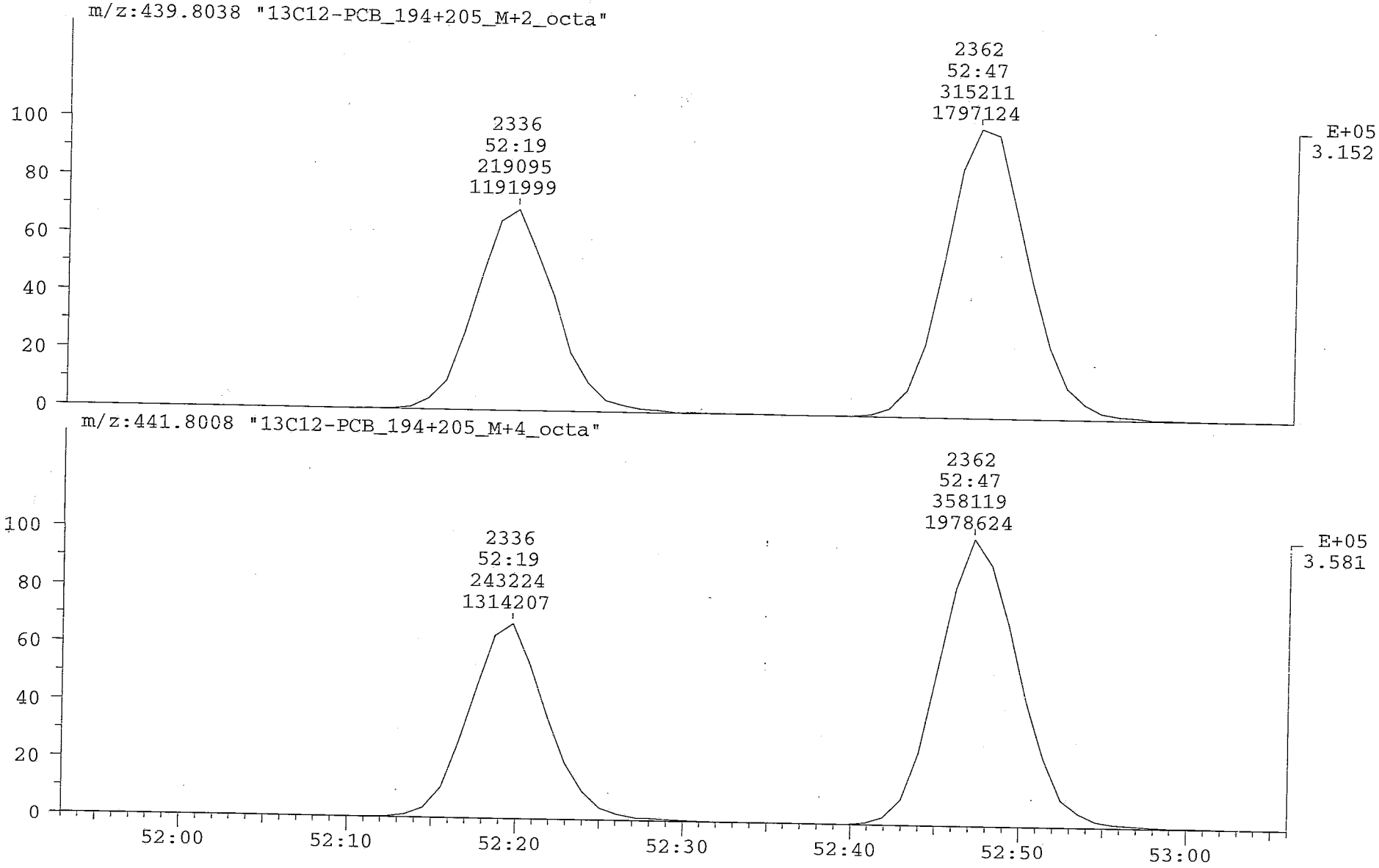
H-3231

3230

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2311 > 2380
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 52:29 2345
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



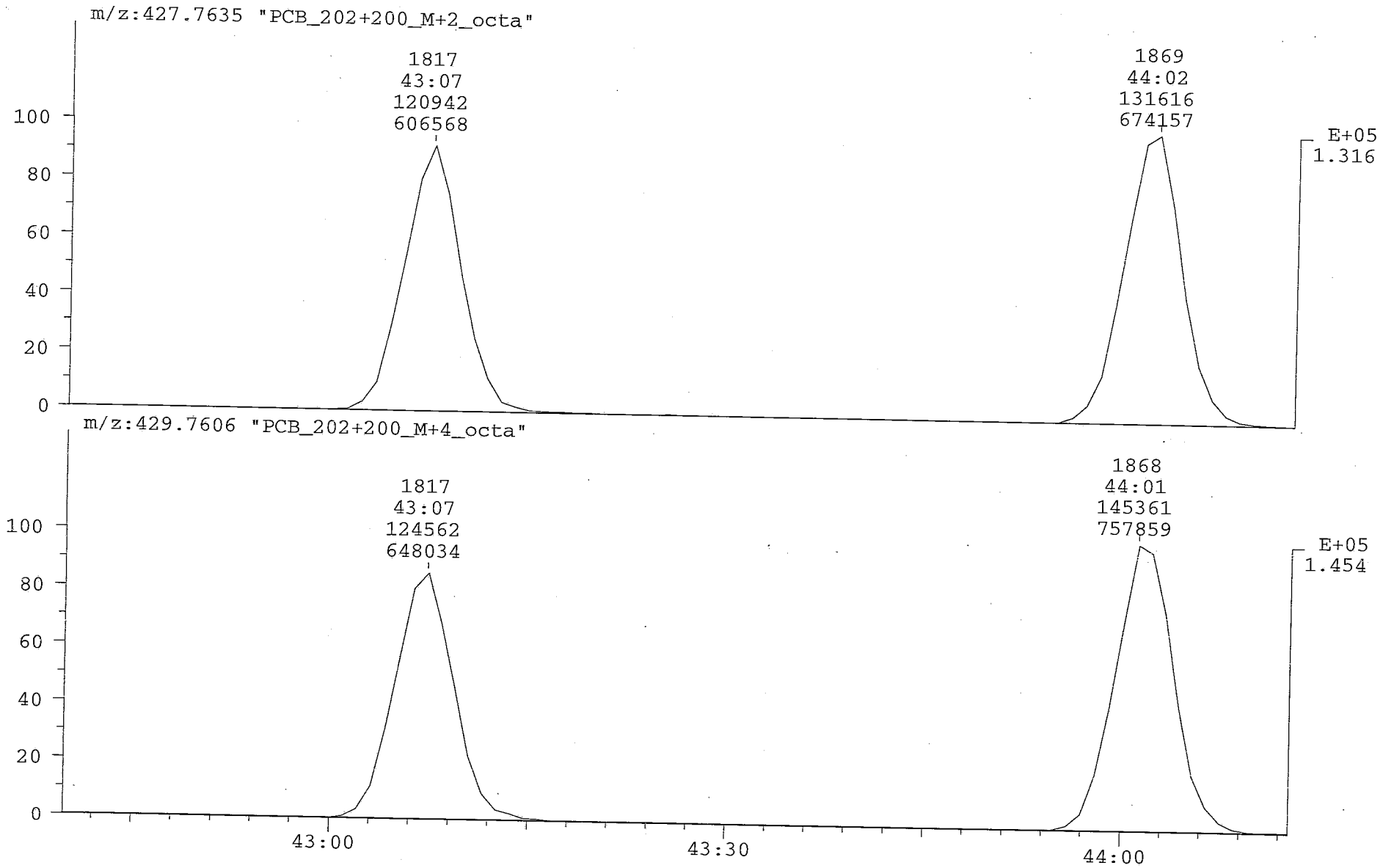
H-3232

3231

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1791 > 1879
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 43:30 1839
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



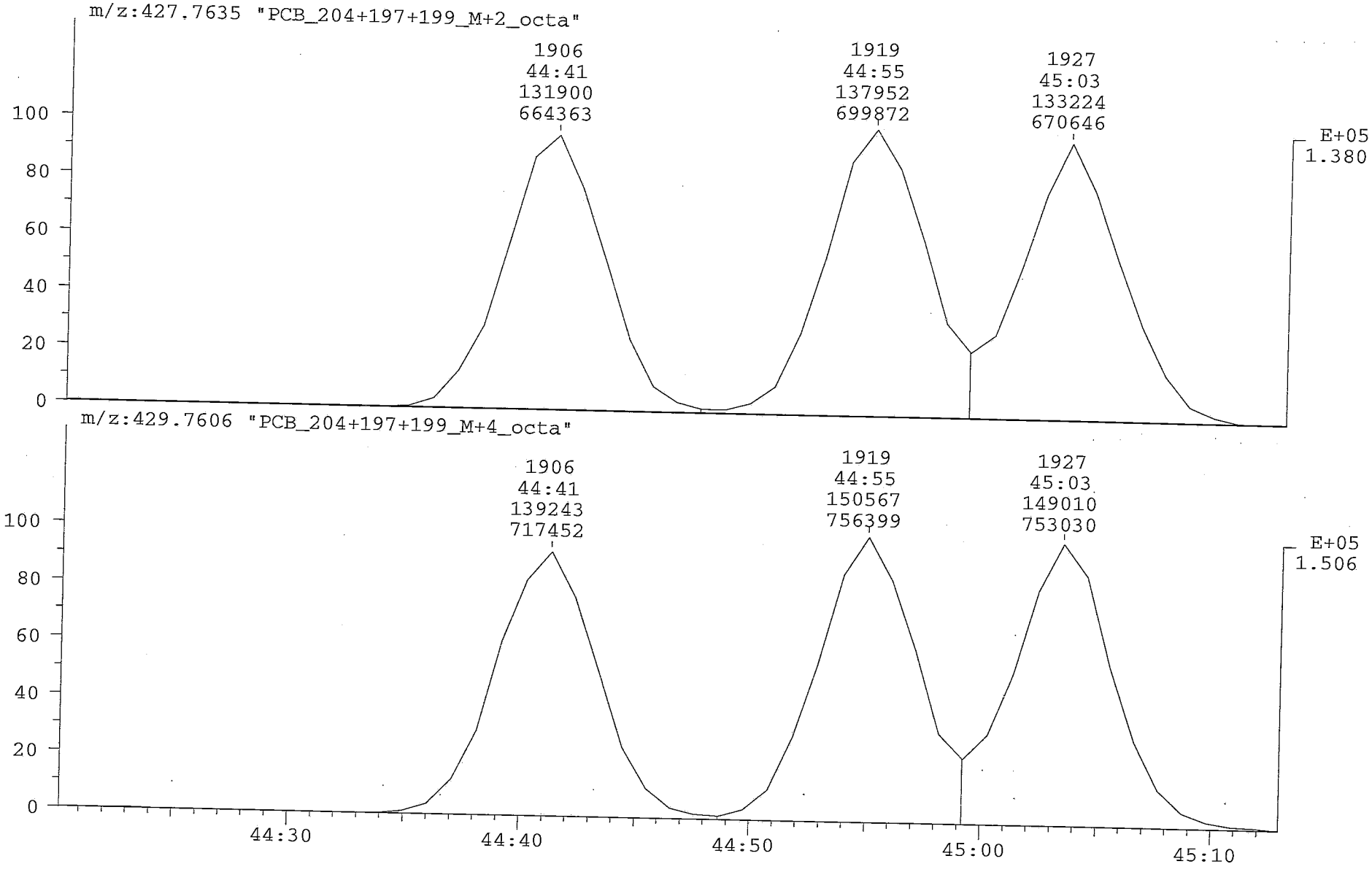
H-3233

3232

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1886 > 1936
Area: 5, 0.50, 15 Baseline : 100, 2
Disp: Height Area

13-Jul-11

Elapse: 44:34 1900
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



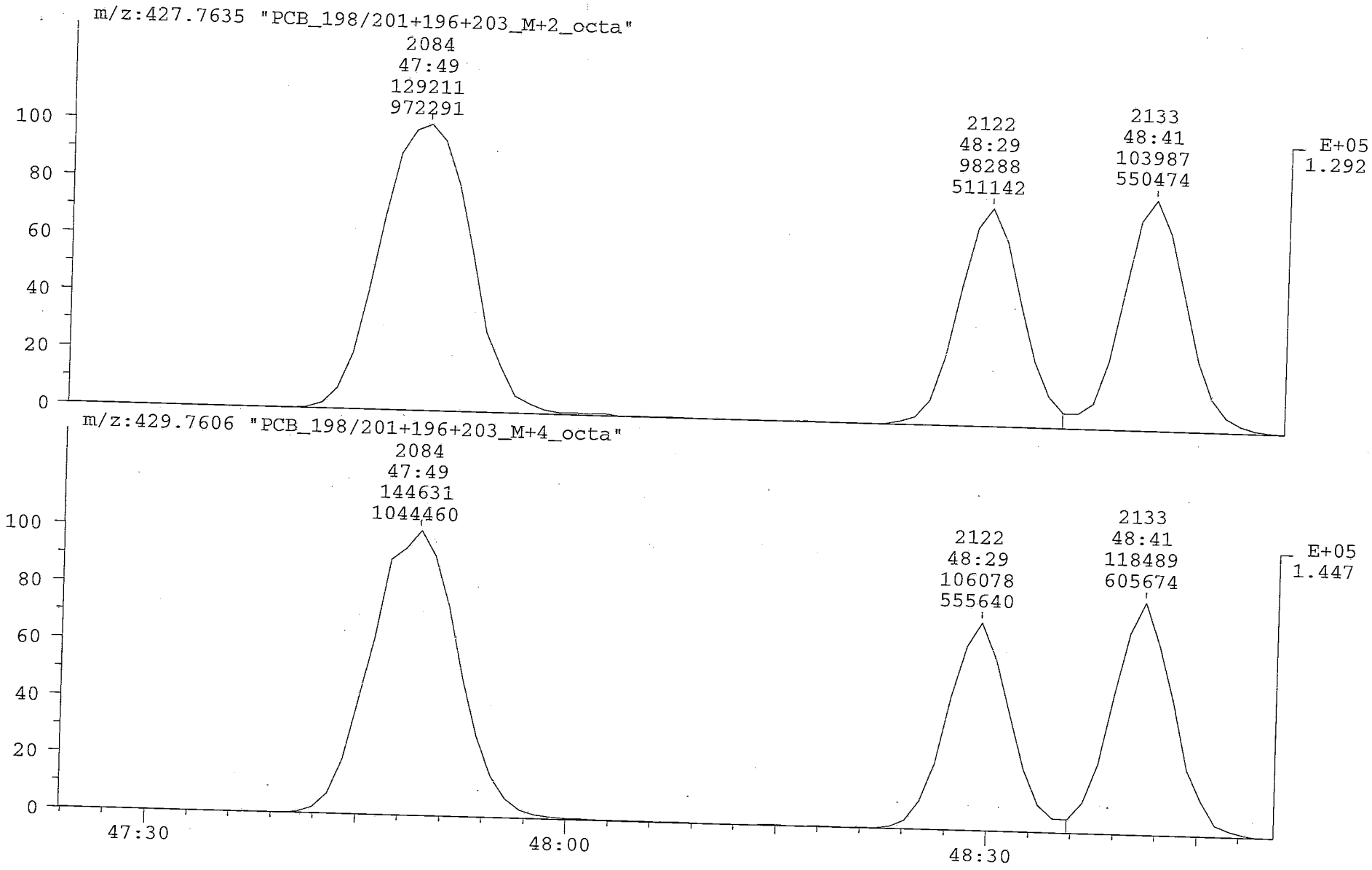
H-3234

3233

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2060 > 2142
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 48:22 2115
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



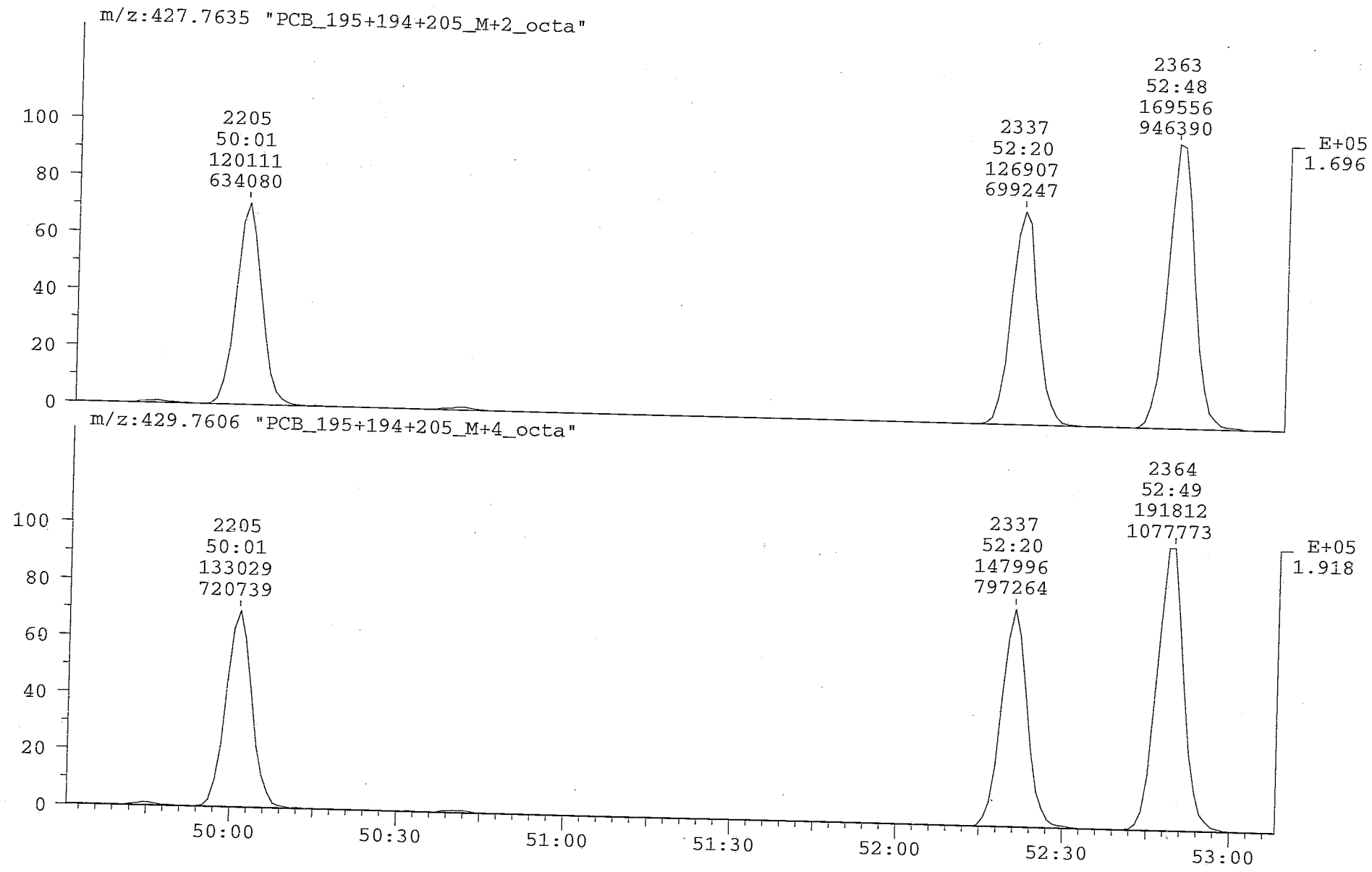
H-3235

3234

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2176 > 2382
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 52:14 2331
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



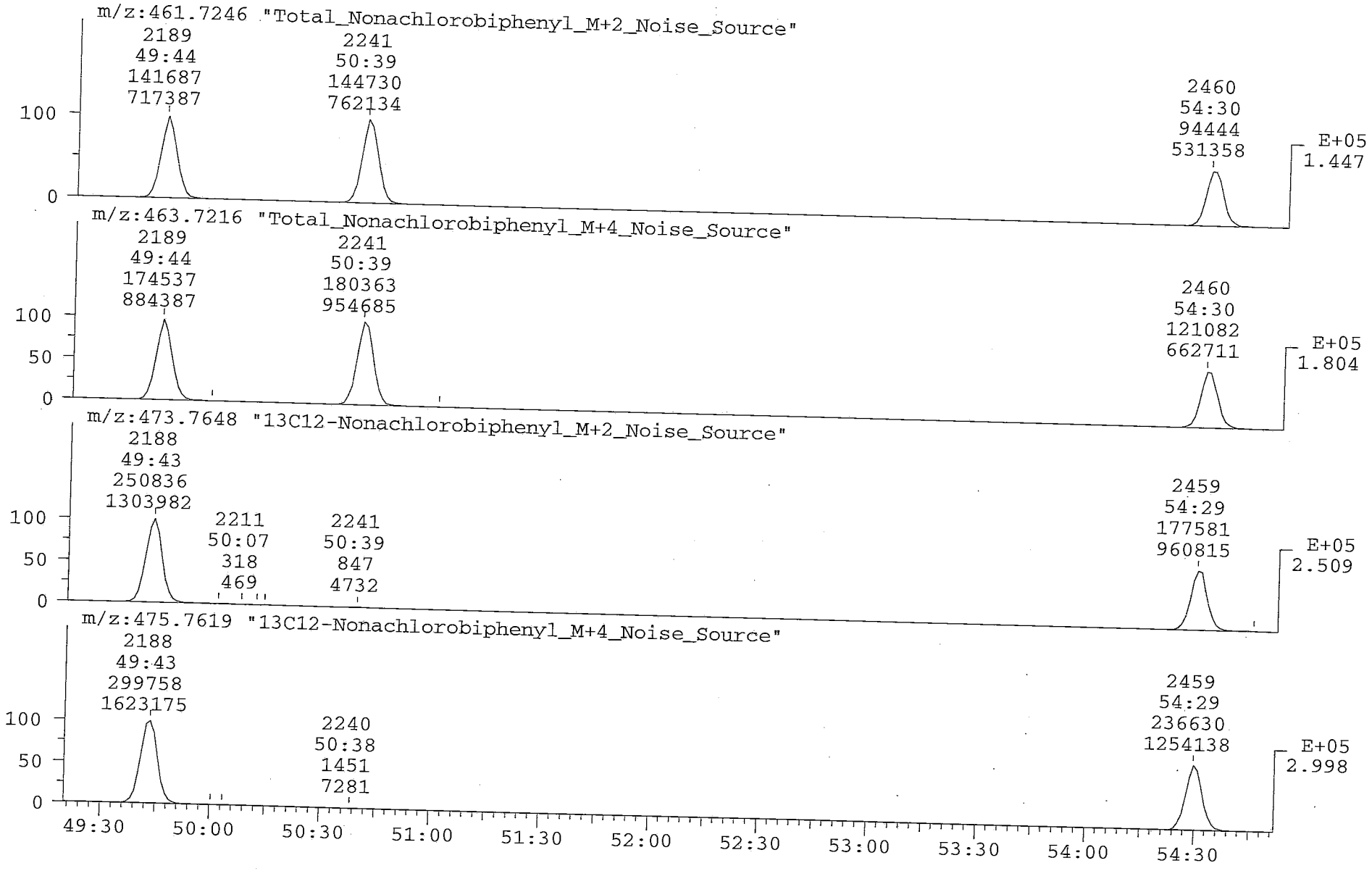
H-3236

3235

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2166 > 2480
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

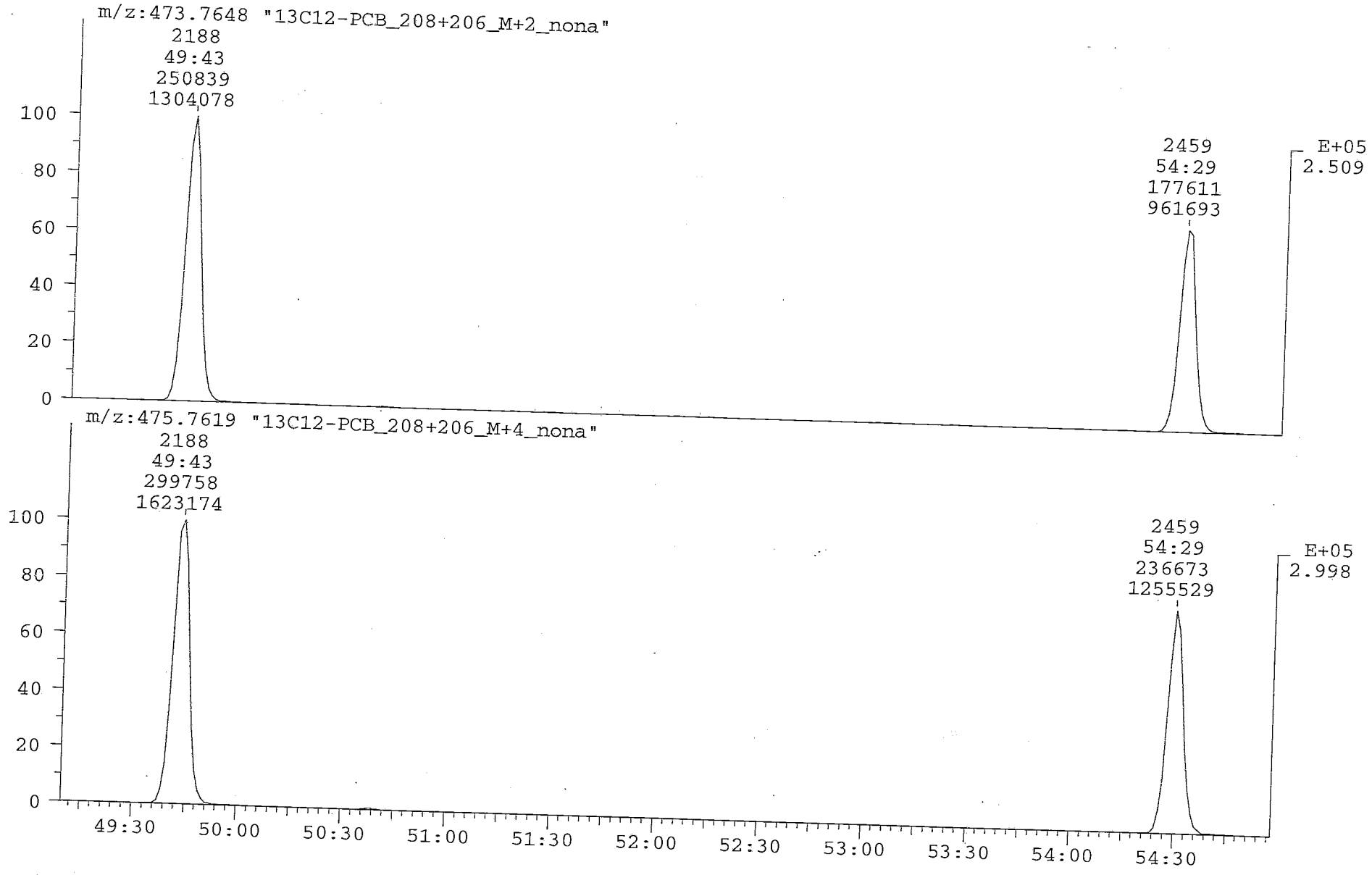
Elapse: 52:06 2323
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



H-3237

3236

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1 13-Jul-11 Elapse: 52:03 2321
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i Start : 23:12:23 2597
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028C Inlet : GC Vial 4
Peak: 100.00 ppm Label wndw: 2156 > 2486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



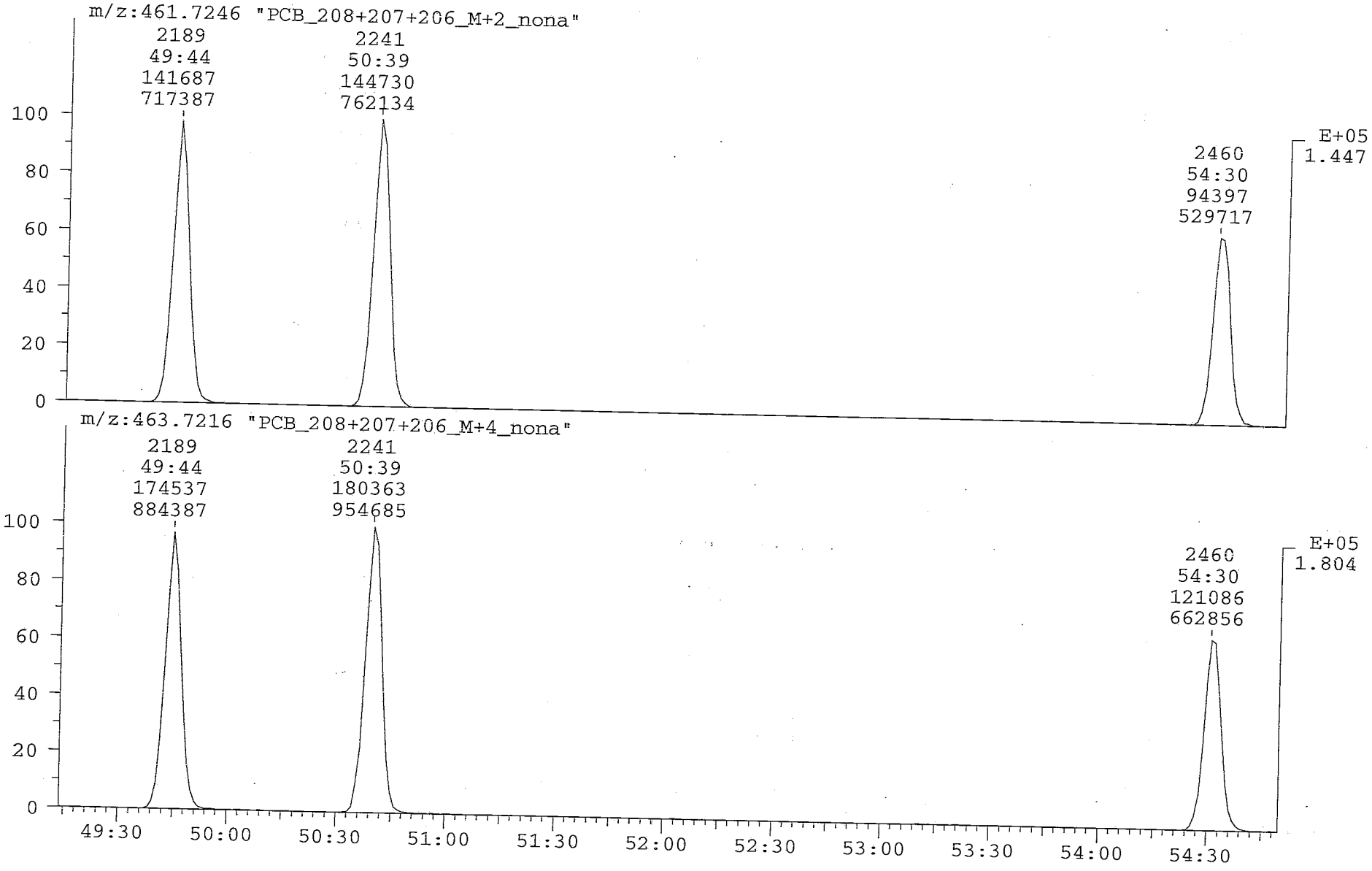
H-3238

3237

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2160 > 2478
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 52:06 2323
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



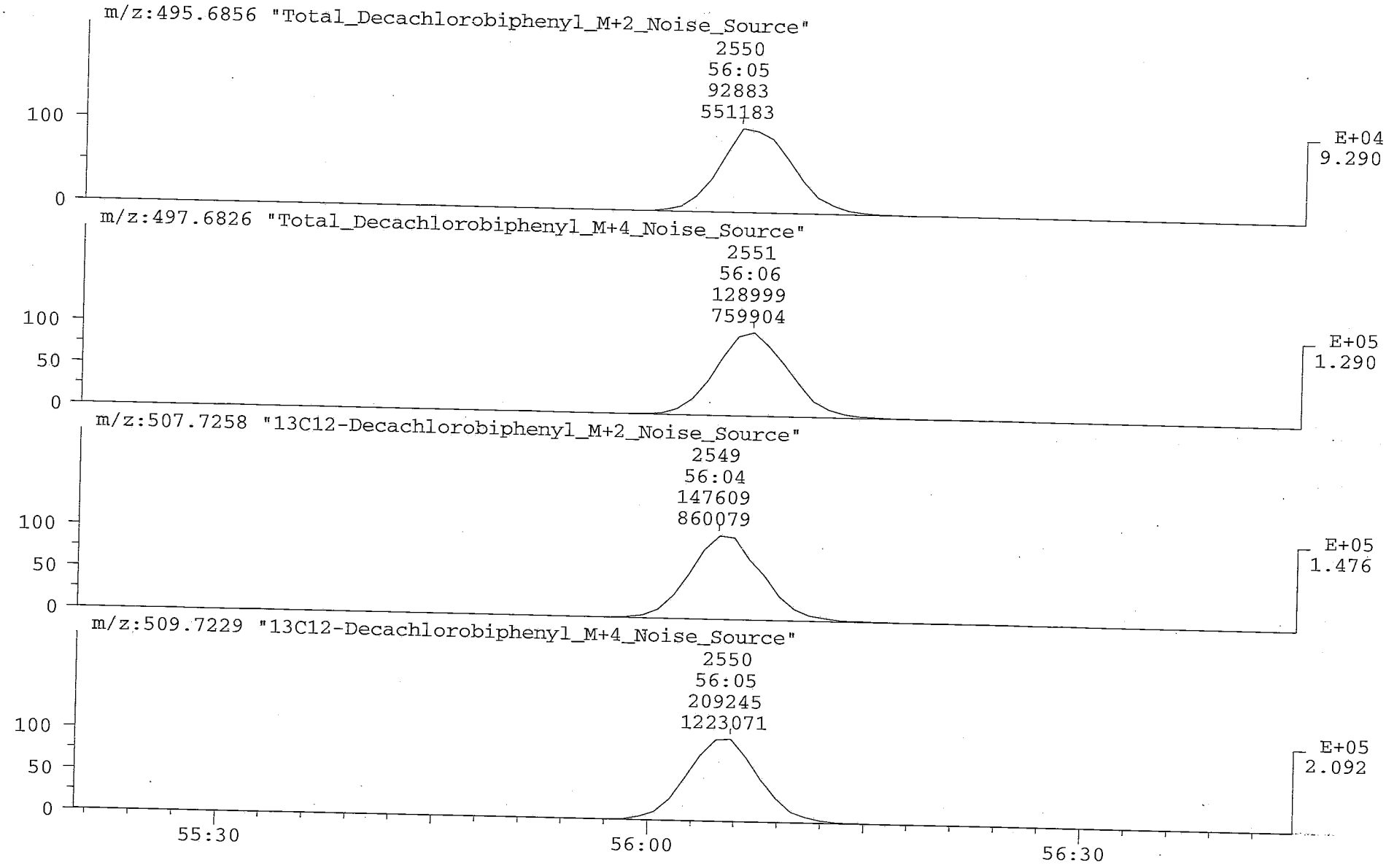
H-3239

3238

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2507 > 2587
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 56:05 2550
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : -3, 3.0



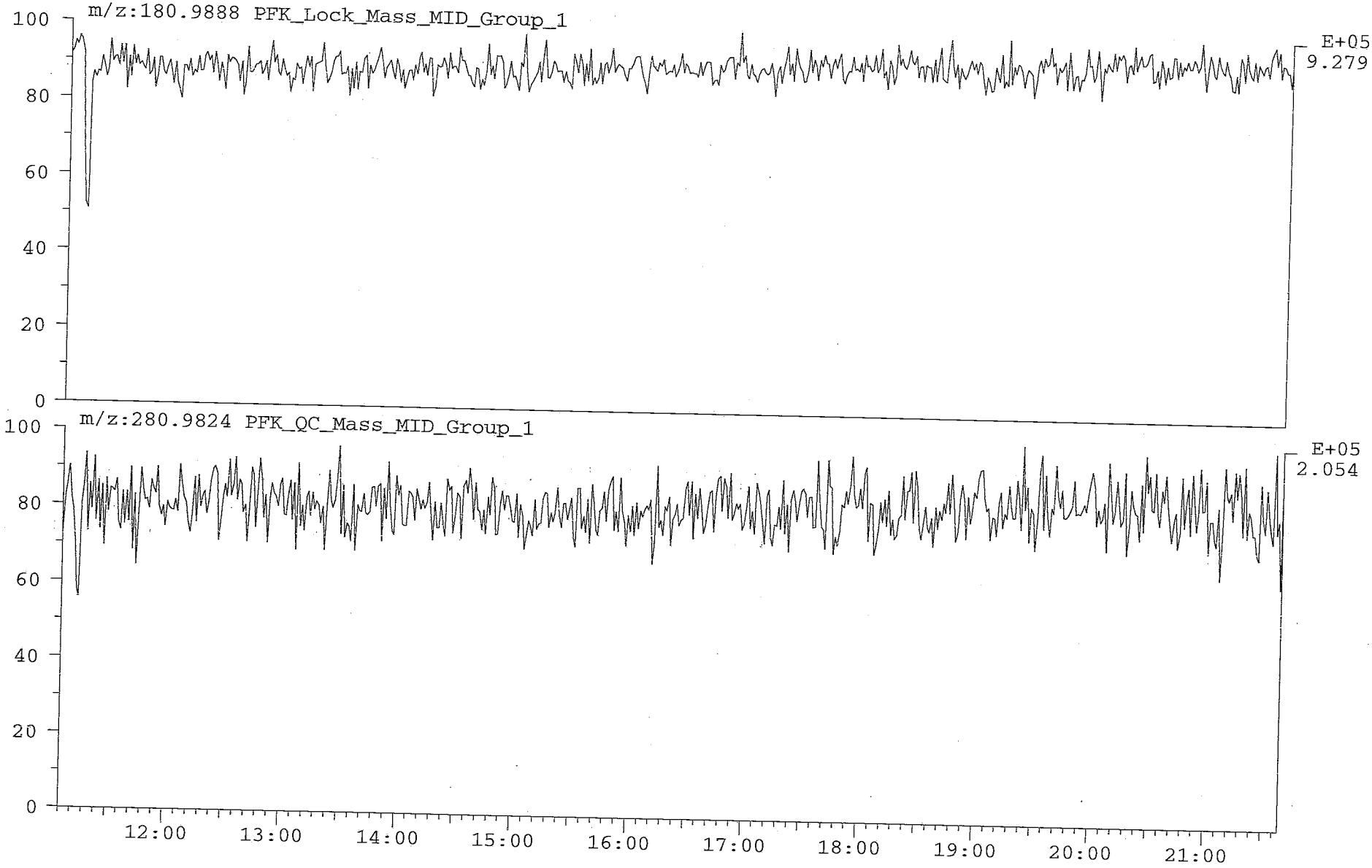
H-3240

3239

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 6 > 605
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 56:05 2550
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : 0, 0.0



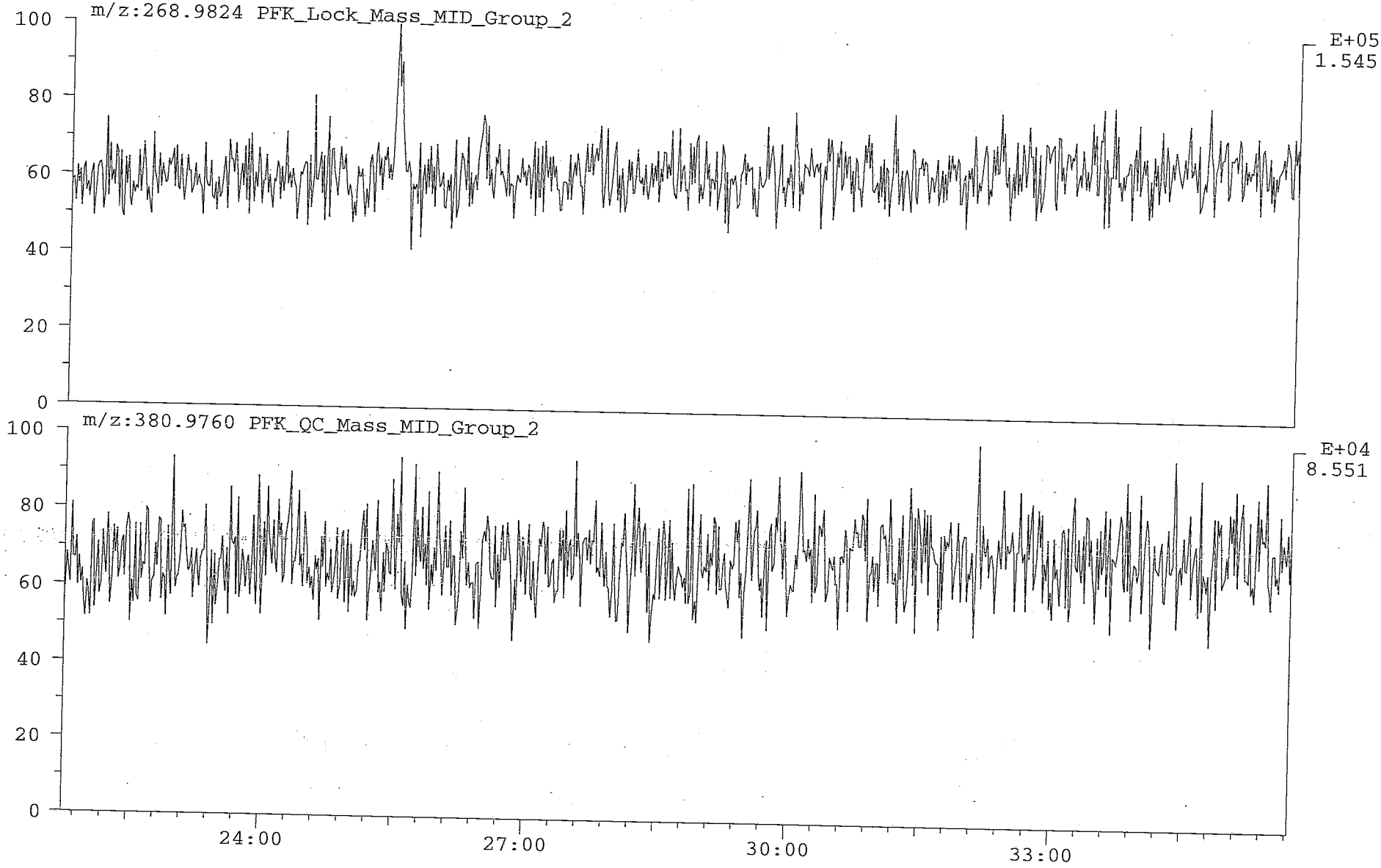
H-3241

3240

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 608 > 1401
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 56:05 2550
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : 0, 0.0



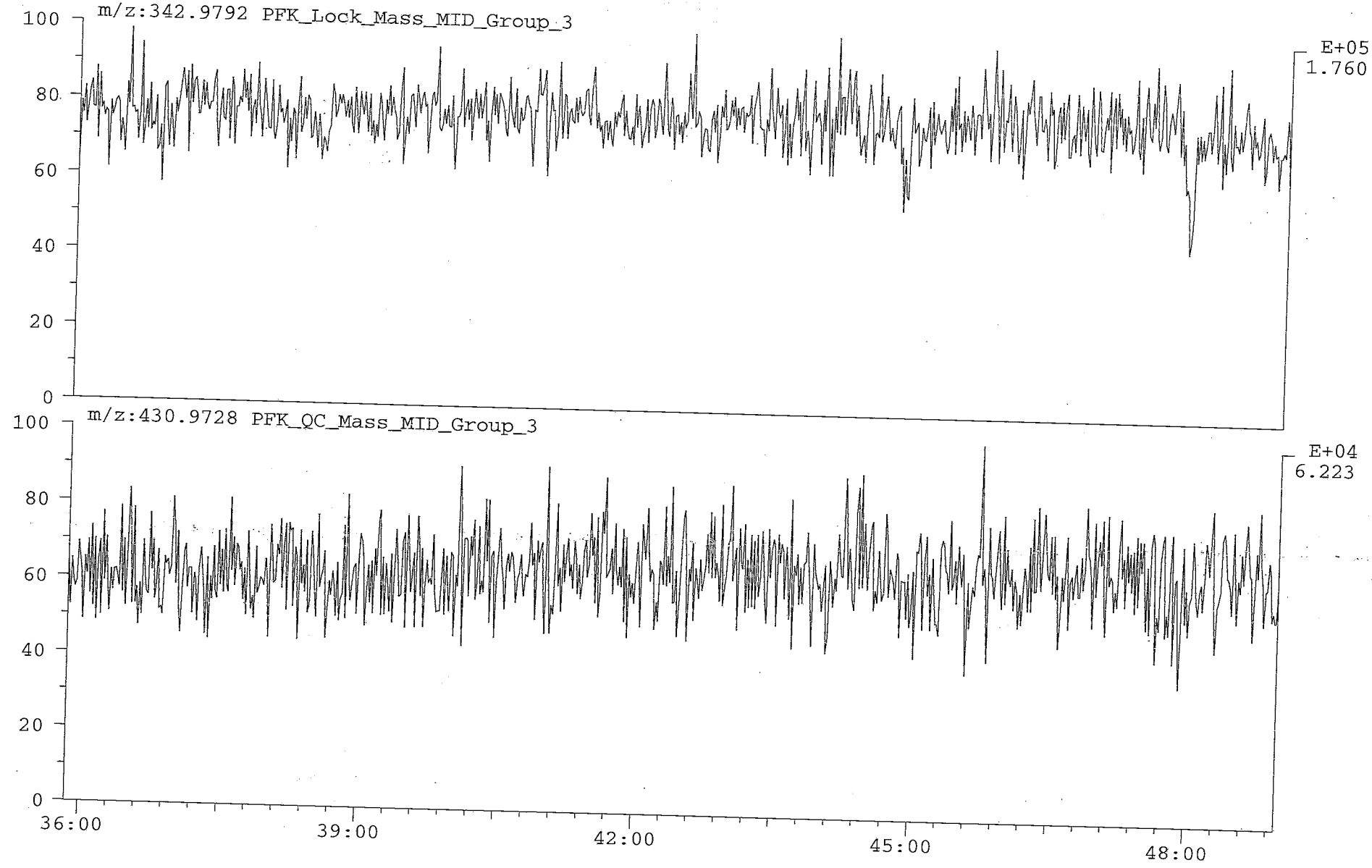
H-3242

3241

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 1404 > 2150
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 56:05 2550
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : 0, 0.0



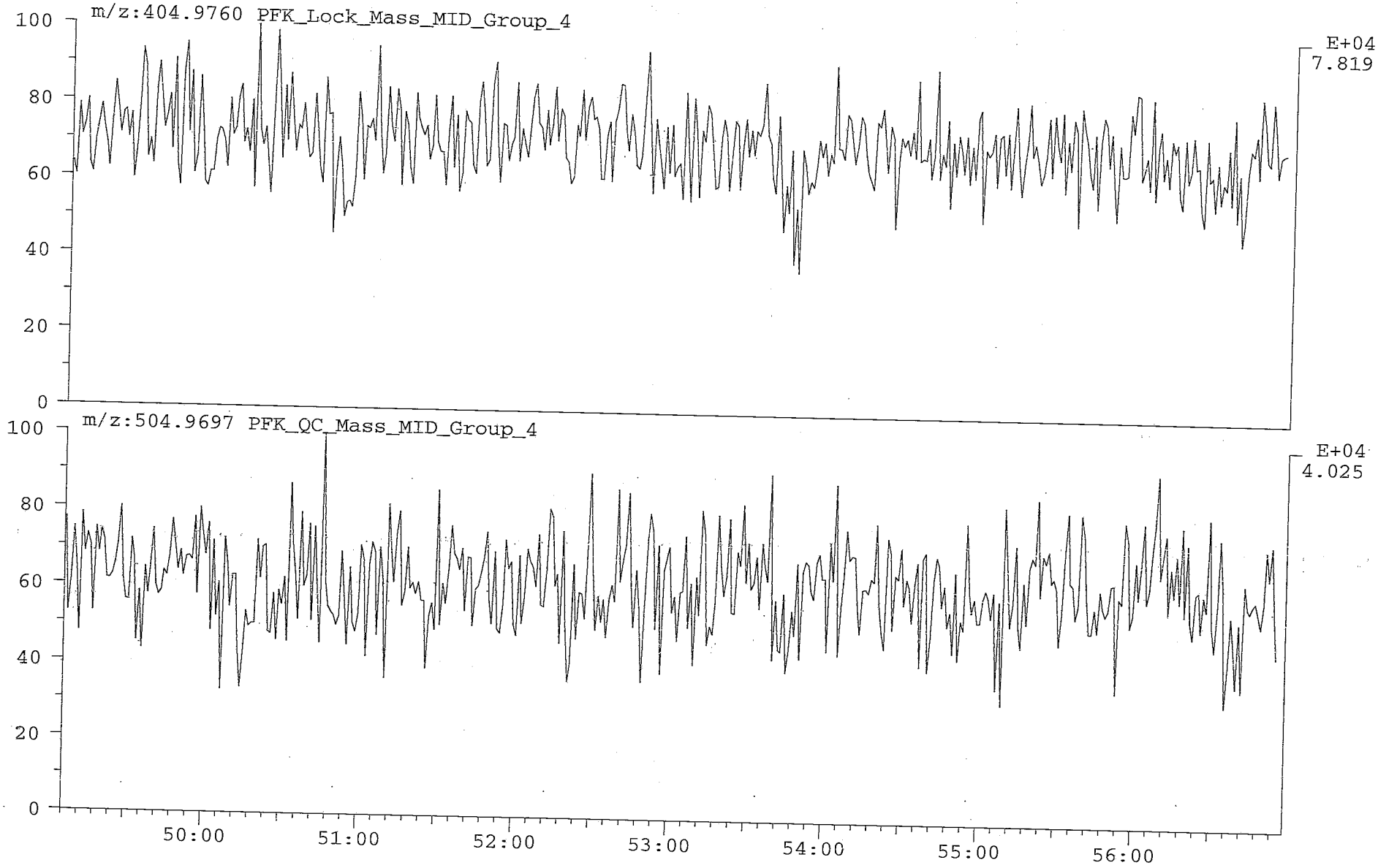
H-3243

3242

CHRO: apmkntmc
Samp: Vial 4 WO=mkntm1ac Meth=IE5 Dil=1
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM
Oper: JMN Client: H1G060000-028C
Peak: 100.00 ppm Label wndw: 2153 > 2600
Area: 5, 0.50, 15 Baseline : 100, 3
Disp: Height Area

13-Jul-11

Elapse: 56:05 2550
Start : 23:12:23 2597
Study : 1187028 (Air-2)
Inlet : GC Vial 4
Masses: 181 > 510
Label : 0, 0.0



H-3244

3243

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

\000\000\000\000\000\000\000ICL Version: 10.710
File name: apmkntmc
Study: 1187028 (Air-2)
Sample: WO=mkntm1ac Meth=IE5 Dil=1
Amount:  0.00
Volume:  0.00
Operator: JMN
Client: H1G060000-028C
Comments: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Injected volume:  2.00
Sample from Vial 4
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 1 of list 110713a
  ICL procedure: sleep7x
  MID procedure: epa1668

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start         Measure       End         Cycletime
  # 1   11:00 min    10:40 min    21:40 min     1.00 sec
  # 2   21:40 min    14:05 min    35:45 min     1.00 sec
  # 3   35:45 min    13:15 min    49:00 min     1.00 sec
  # 4   49:00 min     8:00 min    57:00 min     1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 l   10   1      4.10
    188.0393      1   1     47.79
    190.0363      1   1     47.79
    200.0795      1   1     47.79
    202.0766      1   1     47.79
    222.0003      1   1     47.79
    223.9974      1   1     47.79
    234.0406      1   1     47.79
    236.0376      1   1     47.79
    255.9613      1   1     47.79
    257.9584      1   1     47.79
    268.0016      1   1     47.79
    269.9986      1   1     47.79
    280.9824 c   10   1      4.10
    289.9224      1   1     47.79
    291.9194      1   1     47.79
    301.9626      1   1     47.79
    303.9597      1   1     47.79
  Window # 2
```

mass F	int	gr	time (ms)
255.9613	1	1	47.79
257.9584	1	1	47.79
268.0016	1	1	47.79
268.9824 l	10	1	4.10
269.9986	1	1	47.79
289.9224	1	1	47.79
291.9194	1	1	47.79
301.9626	1	1	47.79
303.9597	1	1	47.79
325.8804	1	1	47.79
327.8775	1	1	47.79
337.9207	1	1	47.79
339.9178	1	1	47.79
359.8415	1	1	47.79
361.8385	1	1	47.79
371.8817	1	1	47.79
373.8788	1	1	47.79
380.9760 c	10	1	4.10

Window # 3

mass F	int	gr	time (ms)
325.8804	1	1	47.79
327.8775	1	1	47.79
337.9207	1	1	47.79
339.9178	1	1	47.79
342.9792 l	10	1	4.10
359.8415	1	1	47.79
361.8385	1	1	47.79
371.8817	1	1	47.79
373.8788	1	1	47.79
393.8025	1	1	47.79
395.7995	1	1	47.79
405.8428	1	1	47.79
407.8398	1	1	47.79
427.7635	1	1	47.79
429.7606	1	1	47.79
430.9728 c	10	1	4.10
439.8038	1	1	47.79
441.8008	1	1	47.79

Window # 4

mass F	int	gr	time (ms)
393.8025	1	1	47.79
395.7995	1	1	47.79
404.9760 l	10	1	4.10
405.8428	1	1	47.79
407.8398	1	1	47.79
427.7635	1	1	47.79
429.7606	1	1	47.79
439.8038	1	1	47.79
441.8008	1	1	47.79
461.7246	1	1	47.79
463.7216	1	1	47.79
473.7648	1	1	47.79
475.7619	1	1	47.79
495.6856	1	1	47.79
497.6826	1	1	47.79
504.9697 c	10	1	4.10
507.7258	1	1	47.79
509.7229	1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times
Sample rinse cycles (R): 0 times
Syringe filling volume (F): 1.0 ul

Pullup delay time	(D):	4 sec
Sample pullup count	(P):	2 times
Sample pullup speed	(E):	5.0 ul/sec
Slvnt aftr pre inj cln	(U):	0.0 ul
Air after pre inj cln	(G):	2.0 ul
Sample volume	(V):	2.0 ul
Sample air volume	(A):	2.0 ul
Injection speed	(S):	10.0 ul/sec
Pre Inj. wait time	(W):	10 sec
Post Inj. hold time	(H):	3 sec
Solvent A clean cycles	(C):	15 times
Solvent B clean cycles	(B):	0 times
Loop clean w slvnt A	(LC):	0 times
Loop clean w slvnt B	(LB):	0 times
Standard sample volume	(X):	0.0 ul
Standard air volume	(Y):	0.0 ul
2nd Injection volume	(I):	0.0 ul
Air volume of 2nd inj	(J):	0.0 ul
Time btwn 2 injections	(T):	0 sec

GC descriptor : epa1668

Injector:	270 deg		270 deg max
Transfer Line:	280 deg		280 deg max
Column:	75 deg at	0.0 minutes	280 deg max
	75 deg at	2.0 minutes	
	150 deg at	7.0 minutes	
	270 deg at	55.0 minutes	
	270 deg at	57.0 minutes	

Inlet : Splitless mode
Purge time 1.5 min
Purge flow 40.0 ml/min
Gas saver is on
Saver time 3.0 min
Saver flow 15.0 ml/min
Column : Constant Flow 1.0 ml
Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.5098
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-36.8250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	23.0000	EDACZ	-548.0000	ELEN	64.2750
EMULT	1.7400	ENS	150.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	148.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	478.0000
FVINLET	508.0000	FVSRC	1175.0000	FWIN	0.7000
GCTC	75.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.4608	HVANAL	1436.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4778.9940	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1751.0000	LENSS	161.2000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2350075.0781
MDACR	23.0000	MRANGE	1031.5098	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	6681.0000	NSMAX	8.0000	NSMIN	2.0000

OCT	-2.0000	PSAM	10.0000	PUSHER	-12.5500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10314.6801	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	2598.0000
SHIELDS	0.2000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.7000	TCURR	0.8984
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	1.9500	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	2538.0000
XLENSS	-43.8000	YLENS	2634.0000	YLENSS	-171.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 13-Jul-11 23:12:23.0

Autosampler has injected sample from vial 4
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 8404
MID Time Window 3: Resolution is 8574
MID Time Window 4: Resolution is 8436
Analysis stopped at: 14-Jul-11 00:09:21.2 (run time 56.93 minutes)
Analysis stopped because user requested stop from analysis

TestAmerica Knoxville

IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntml.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	00:13	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
Total Monochlorobiphenyl		8623001	2777815			27.162189		27.162189		0.00851
13C12-PCB 1	12:07	4910084	1656512	1.502	20.00	18.063576	90.32	18.063576		0.0105
13C12-PCB 3	14:20	4585503	1281705	1.545	20.00	16.408820	82.04	16.408820		0.0102
PCB 1 (BZ)	12:08	2961807	1133252	1.383	10.00	8.722351	87.22	8.722351		0.00240
PCB 2 (BZ)	14:11	2832233	808784	1.338	10.00	8.919903	89.20	8.919903		0.00280
PCB 3 (BZ)	14:21	2828961	835779	1.296	10.00	9.519935	95.20	9.519935		0.00331
Total Dichlorobiphenyl		23404595	4893989			126.043186		126.043186	B	0.204
13C12-PCB 4	14:36	1919597	552930	0.619	20.00	17.130239	85.65	17.130239		0.0148
13C12-PCB 9	16:34	3618490	970768	1.000	20.00	20.000000	100.00	20.000000		0.00917
13C12-PCB 8				1.342	10.00			ND		0.0108
13C12-PCB 15	20:34	3144426	672148	1.090	20.00	15.948505	79.74	15.948505		0.00841
PCB 4 (BZ)	14:37	1154964	332186	1.273	10.00	9.454748	94.55	9.454748		0.0234
PCB 10 (BZ)	14:47	1916005	572188	1.357	10.00	11.151013	111.51	11.151013		0.0198
PCB 9 (BZ)	16:35	1812746	487647	1.459	10.00	9.813908	98.14	9.813908		0.0184
PCB 7 (BZ)	16:46	2095919	532020	1.466	10.00	11.293053	112.93	11.293053	B	0.0183
PCB 6 (BZ)	17:01	1956608	503501	1.507	10.00	10.257047	102.57	10.257047		0.0178
PCB 5 (BZ)	17:20	1921732	515626	1.417	10.00	10.712884	107.13	10.712884		0.0190
PCB 8 (BZ)	17:27	1955218	512920	1.540	10.00	10.029631	100.30	10.029631	B	0.0174
PCB 14 (BZ)	19:05	2405750	551568	1.732	10.00	10.969072	109.69	10.969072	B	0.0155
PCB 11 (BZ)	19:57	2053514	453777	1.532	10.00	10.590059	105.90	10.590059	B	0.0175
PCB 13 (BZ)	20:16	4053163	693269	1.494	20.00	21.425267	107.13	21.425267	BC12	0.0180
PCB 12 (BZ)		4053163		1.494	20.00	21.425267	107.13	21.425267	BC	0.0180
PCB 15 (BZ)	20:35	2078976	432556	1.278	10.00	10.346504	103.47	10.346504	B	0.0191
Total Trichlorobiphenyl		46704380	8055478			240.687803		240.687803	B	0.383
13C12-PCB 19	17:45	1490781	380404	0.572	20.00	17.259962	86.30	17.259962		0.0449
13C12-PCB 32	21:01	3022637	676639	1.000	20.00	20.000000	100.00	20.000000		0.0256
13C12-PCB 31	23:18	4587230	984890	1.000	20.00	20.000000	100.00	20.000000		0.0176
13C12-PCB 28	23:36	3934711	816108	1.003	20.00	17.099571	85.50	17.099571		0.0176
13C12-PCB 37	27:39	3787452	694576	0.908	20.00	18.176585	90.88	18.176585		0.0194
PCB 19 (BZ)	17:46	844493	217334	1.167	10.00	9.709671	97.10	9.709671		0.0313
PCB 30 (BZ)	19:34	2493294	362395	1.615	20.00	20.714016	103.57	20.714016	C18	0.0226
PCB 18 (BZ)		2493294		1.615	20.00	20.714016	103.57	20.714016	C	0.0226
PCB 17 (BZ)	20:02	1012443	235805	1.430	10.00	9.498234	94.98	9.498234		0.0256
PCB 27 (BZ)	20:16	1352698	327546	1.978	10.00	9.173591	91.74	9.173591		0.0185
PCB 24 (BZ)	20:25	1376522	302582	1.707	10.00	10.819609	108.20	10.819609		0.0214
PCB 16 (BZ)	20:32	763960	186501	1.193	10.00	8.592921	85.93	8.592921		0.0306
PCB 32 (BZ)	21:03	1517830	350203	2.018	10.00	10.091022	100.91	10.091022		0.0181
PCB 34 (BZ)	22:18	2099865	490724	1.195	10.00	9.276147	92.76	9.276147		0.0167
PCB 23 (BZ)	22:26	2294784	492916	1.177	10.00	10.295881	102.96	10.295881		0.0170
PCB 29 (BZ)		4615466		1.244	20.00	19.599471	98.00	19.599471	C26	0.0161
PCB 26 (BZ)	22:46	4615466	993398	1.244	20.00	19.599471	98.00	19.599471	C	0.0161
PCB 25 (BZ)	23:00	2358860	480719	1.320	10.00	9.439754	94.40	9.439754		0.0152
PCB 31 (BZ)	23:19	2354066	514385	1.252	10.00	9.928809	99.29	9.928809	B	0.0160
PCB 28 (BZ)	23:39	4520722	720540	1.223	20.00	19.524460	97.62	19.524460	BC20	0.0164
PCB 20 (BZ)		4520722		1.223	20.00	19.524460	97.62	19.524460	BC	0.0164
PCB 21 (BZ)	23:51	4968076	583942	1.219	20.00	21.513017	107.57	21.513017	C	0.0164
PCB 33 (BZ)		4968076		1.219	20.00	21.513017	107.57	21.513017	C21	0.0164
PCB 22 (BZ)	24:16	2154322	449041	1.200	10.00	9.477652	94.78	9.477652		0.0167
PCB 36 (BZ)	25:49	2493540	482475	1.204	10.00	10.937025	109.37	10.937025		0.0166

7-14-11 7-14-11

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntml.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	00:13	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 39 (BZ)	26:11	2497940	484162	1.284	10.00	10.276502	102.77	10.276502		0.0156
PCB 38 (BZ)	26:46	2274688	454365	1.141	10.00	10.526555	105.27	10.526555		0.0175
PCB 35 (BZ)	27:15	2334826	436359	1.163	10.00	10.598710	105.99	10.598710		0.0172
PCB 37 (BZ)	27:40	2375985	436423	1.173	10.00	10.694758	106.95	10.694758		0.0171
Total Tetrachlorobiphenyl		71703080	9178215			391.966566		391.966566	B	0.636
13C12-PCB 54	20:52	2084047	485010	0.600	20.00	22.980039	114.90	22.980039		0.0148
13C12-PCB 52	25:26	2524828	518727	1.000	20.00	20.000000	100.00	20.000000		0.0116
13C12-PCB 79				1.070	10.00			ND		0.00946
13C12-PCB 81	34:23	3216261	588542	1.312	20.00	19.422008	97.11	19.422008		0.00882
13C12-PCB 77	34:58	3385378	596183	1.357	20.00	19.760022	98.80	19.760022		0.00852
PCB 54 (BZ)	20:53	1177707	276849	1.233	10.00	9.165552	91.66	9.165552		0.0238
PCB 50 (BZ)		2684458		0.921	20.00	17.651751	88.26	17.651751	C	0.0261
PCB 53 (BZ)	23:03	2684458	574241	0.921	20.00	17.651751	88.26	17.651751	C50	0.0261
PCB 45 (BZ)	23:46	2502950	330128	0.856	20.00	17.725834	88.63	17.725834	C	0.0281
PCB 51 (BZ)		2502950		0.856	20.00	17.725834	88.63	17.725834	C45	0.0281
PCB 46 (BZ)	24:03	1058641	219282	0.724	10.00	8.861014	88.61	8.861014		0.0332
PCB 52 (BZ)	25:27	1249917	266225	0.920	10.00	8.231607	82.32	8.231607		0.0261
PCB 73 (BZ)	25:34	2920193	361028	0.949	20.00	18.640475	93.20	18.640475	C43	0.0253
PCB 43 (BZ)		2920193		0.949	20.00	18.640475	93.20	18.640475	C	0.0253
PCB 69 (BZ)	25:52	3187105	385596	1.077	20.00	17.935078	89.68	17.935078	C49	0.0223
PCB 49 (BZ)		3187105		1.077	20.00	17.935078	89.68	17.935078	C	0.0223
PCB 48 (BZ)	26:12	1287368	269908	0.894	10.00	8.725020	87.25	8.725020		0.0269
PCB 65 (BZ)		4409134		0.992	30.00	26.938666	89.80	26.938666	BC44	0.0243
PCB 47 (BZ)		4409134		0.992	30.00	26.938666	89.80	26.938666	BC44	0.0243
PCB 44 (BZ)	26:27	4409134	823836	0.992	30.00	26.938666	89.80	26.938666	BC	0.0243
PCB 62 (BZ)	26:47	5786446	894433	1.246	30.00	28.145134	93.82	28.145134	C59	0.0193
PCB 75 (BZ)		5786446		1.246	30.00	28.145134	93.82	28.145134	C59	0.0193
PCB 59 (BZ)		5786446		1.246	30.00	28.145134	93.82	28.145134	C	0.0193
PCB 42 (BZ)	26:58	1292874	264957	0.872	10.00	8.987345	89.87	8.987345		0.0276
PCB 41 (BZ)		3984697		0.887	30.00	27.220696	90.74	27.220696	C40	0.0271
PCB 71 (BZ)	27:29	3984697	578877	0.887	30.00	27.220696	90.74	27.220696	C40	0.0271
PCB 40 (BZ)		3984697		0.887	30.00	27.220696	90.74	27.220696	C	0.0271
PCB 64 (BZ)	27:42	2131336	441288	1.316	10.00	9.815220	98.15	9.815220		0.0183
PCB 72 (BZ)	28:30	1943854	400114	1.236	10.00	9.527352	95.27	9.527352		0.0195
PCB 68 (BZ)	28:48	2164792	405039	1.327	10.00	9.884579	98.85	9.884579		0.0181
PCB 57 (BZ)	29:14	1844212	356978	1.203	10.00	9.292151	92.92	9.292151		0.0200
PCB 58 (BZ)	29:28	1931896	373464	1.208	10.00	9.686508	96.87	9.686508		0.0199
PCB 67 (BZ)	29:38	2057777	372967	1.337	10.00	9.322151	93.22	9.322151		0.0180
PCB 63 (BZ)	29:54	2006073	404503	1.297	10.00	9.371163	93.71	9.371163		0.0185
PCB 61 (BZ)		7831905		1.247	40.00	38.062067	95.16	38.062067	BC	0.0193
PCB 70 (BZ)		7831905		1.247	40.00	38.062067	95.16	38.062067	BC61	0.0193
PCB 76 (BZ)		7831905		1.247	40.00	38.062067	95.16	38.062067	BC61	0.0193
PCB 74 (BZ)	30:15	7831905	900241	1.247	40.00	38.062067	95.16	38.062067	BC61	0.0193
PCB 66 (BZ)	30:34	1697536	346029	1.255	10.00	8.195754	81.96	8.195754		0.0192
PCB 55 (BZ)	30:44	1866714	372232	1.145	10.00	9.878009	98.78	9.878009		0.0210
PCB 56 (BZ)	31:15	1936080	367274	1.217	10.00	9.639619	96.40	9.639619		0.0198
PCB 60 (BZ)	31:28	2011253	381558	1.181	10.00	10.314498	103.14	10.314498		0.0204
PCB 80 (BZ)	31:51	2226550	429912	1.358	10.00	9.933129	99.33	9.933129		0.0177
PCB 79 (BZ)	33:24	2328331	398236	1.326	10.00	10.640612	106.41	10.640612		0.0181

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntml.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	00:13	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 78 (BZ)	33:58	2027011	358519	1.164	10.00	10.554938	105.55	10.554938		0.0207
PCB 81 (BZ)	34:25	2027530	361777	1.298	10.00	9.710842	97.11	9.710842		0.0186
PCB 77 (BZ)	34:59	2128740	382899	1.269	10.00	9.909804	99.10	9.909804	B	0.0188
Total Pentachlorobiphenyl		67492084	7763371			488.165507		488.165507		0.888
13C12-PCB 104	26:21	2378525	487866	1.246	20.00	17.523617	87.62	17.523617		0.0131
13C12-PCB 95				0.754	10.00			ND		0.0190
13C12-PCB 101	32:15	2179274	428585	1.000	20.00	20.000000	100.00	20.000000		0.0163
13C12-PCB 111	34:56	2689047	498819	1.266	20.00	19.485680	97.43	19.485680		0.0129
13C12-PCB 123	36:55	3514518	650480	0.954	20.00	17.529517	87.65	17.529517		0.00954
13C12-PCB 118	37:14	3759978	693476	0.995	20.00	17.988477	89.94	17.988477		0.00915
13C12-PCB 114	37:46	3713494	664744	0.952	20.00	18.569272	92.85	18.569272		0.00956
13C12-PCB 105	38:26	3679558	666156	0.942	20.00	18.599687	93.00	18.599687		0.00967
13C12-PCB 127	39:54	4201130	768937	1.000	20.00	20.000000	100.00	20.000000		0.00910
13C12-PCB 126	41:32	4089698	757802	0.991	20.00	19.642950	98.21	19.642950		0.00918
PCB 104 (BZ)	26:23	1477177	309028	1.184	10.00	10.489621	104.90	10.489621		0.0261
PCB 96 (BZ)	26:47	1297651	273042	1.055	10.00	10.341630	103.42	10.341630		0.0293
PCB 103 (BZ)	28:40	1105981	228758	0.900	10.00	10.332254	103.32	10.332254		0.0344
PCB 94 (BZ)	28:55	975500	200727	0.789	10.00	10.391862	103.92	10.391862		0.0392
PCB 95 (BZ)	29:22	999759	208462	0.838	10.00	10.028548	100.29	10.028548		0.0369
PCB 100 (BZ)	29:33	2072179	297494	0.888	20.00	19.614174	98.07	19.614174	C93	0.0348
PCB 93 (BZ)		2072179		0.888	20.00	19.614174	98.07	19.614174	C	0.0348
PCB 102 (BZ)	29:43	2148570	250427	0.917	20.00	19.711590	98.56	19.711590	C98	0.0338
PCB 98 (BZ)		2148570		0.917	20.00	19.711590	98.56	19.711590	C	0.0338
PCB 88 (BZ)		2098115		0.857	20.00	20.592197	102.96	20.592197	C	0.0361
PCB 91 (BZ)	30:14	2098115	227549	0.857	20.00	20.592197	102.96	20.592197	C88	0.0361
PCB 84 (BZ)	30:29	854773	167593	0.764	10.00	9.412993	94.13	9.412993		0.0405
PCB 89 (BZ)	30:56	977535	196531	0.789	10.00	10.417496	104.17	10.417496		0.0392
PCB 121 (BZ)	31:18	1587937	303030	1.215	10.00	10.989084	109.89	10.989084		0.0255
PCB 92 (BZ)	31:42	1029309	205959	0.892	10.00	9.702612	97.03	9.702612		0.0347
PCB 113 (BZ)	32:15	3973003	605070	1.013	30.00	32.993573	109.98	32.993573	C90	0.0306
PCB 90 (BZ)		3973003		1.013	30.00	32.993573	109.98	32.993573	C	0.0306
PCB 101 (BZ)		3973003		1.013	30.00	32.993573	109.98	32.993573	C90	0.0306
PCB 83 (BZ)		2125670		0.868	20.00	20.586272	102.93	20.586272	C	0.0356
PCB 99 (BZ)	32:51	2125670	255743	0.868	20.00	20.586272	102.93	20.586272	C83	0.0356
PCB 112 (BZ)	33:00	1561162	293572	1.160	10.00	11.315889	113.16	11.315889		0.0267
PCB 109 (BZ)/108 (IUPAC)	33:21	8277787	826197	1.030	60.00	67.555229	112.59	67.555229	C86	0.0300
PCB 86 (BZ)		8277787		1.030	60.00	67.555229	112.59	67.555229	C	0.0300
PCB 119 (BZ)		8277787		1.030	60.00	67.555229	112.59	67.555229	C86	0.0300
PCB 97 (BZ)		8277787		1.030	60.00	67.555229	112.59	67.555229	C86	0.0300
PCB 125 (BZ)		8277787		1.030	60.00	67.555229	112.59	67.555229	C86	0.0300
PCB 87 (BZ)		8277787		1.030	60.00	67.555229	112.59	67.555229	C86	0.0300
PCB 117 (BZ)		4255757		1.054	30.00	33.947391	113.16	33.947391	C85	0.0294
PCB 116 (BZ)	34:05	4255757	493433	1.054	30.00	33.947391	113.16	33.947391	C85	0.0294
PCB 85 (BZ)		4255757		1.054	30.00	33.947391	113.16	33.947391	C	0.0294
PCB 110 (BZ)	34:19	1929403	349930	1.194	20.00	13.592393	67.96	13.592393	C	0.0259
PCB 115 (BZ)		1929403		1.194	20.00	13.592393	67.96	13.592393	C110	0.0259
PCB 82 (BZ)	34:37	910576	171545	0.730	10.00	10.494802	104.95	10.494802		0.0424
PCB 111 (BZ)	34:58	1683483	318457	1.260	10.00	11.234923	112.35	11.234923		0.0246
PCB 120 (BZ)	35:24	1686827	306769	1.225	10.00	11.583247	115.83	11.583247		0.0253

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntml.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	00:13	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 124 (BZ)		4286736		1.029	20.00	22.209772	111.05	22.209772	C108	0.0214
PCB 108 (BZ)/107 (IUPAC)	36:35	4286736	790906	1.029	20.00	22.209772	111.05	22.209772	C	0.0214
PCB 107 (BZ)/109 (IUPAC)	36:50	2061783	396858	1.082	10.00	10.159909	101.60	10.159909		0.0203
PCB 123 (BZ)	36:56	2270237	438105	1.053	10.00	12.271812	122.72	12.271812		0.0221
PCB 106 (BZ)	37:03	2293342	404738	1.050	10.00	11.646938	116.47	11.646938		0.0210
PCB 118 (BZ)	37:16	2329920	410599	1.087	10.00	11.400955	114.01	11.400955		0.0200
PCB 122 (BZ)	37:37	1999921	379524	0.964	10.00	11.060959	110.61	11.060959		0.0228
PCB 114 (BZ)	37:48	2460640	433304	1.161	10.00	11.415982	114.16	11.415982		0.0196
PCB 105 (BZ)	38:28	2273943	409018	1.125	10.00	10.986422	109.86	10.986422		0.0201
PCB 127 (BZ)	39:55	2183186	397799	1.062	10.00	10.959749	109.60	10.959749		0.0207
PCB 126 (BZ)	41:33	2304222	406786	1.051	10.00	10.725232	107.25	10.725232		0.0190
Total Hexachlorobiphenyl		64721347	8524127			432.499352		432.499352		1.14
13C12-PCB 155	31:58	2348436	468275	1.068	20.00	20.185451	100.93	20.185451		0.0149
13C12-PCB 153				0.828	10.00			ND		0.0156
13C12-PCB 138	40:20	2511145	495370	1.000	20.00	20.000000	100.00	20.000000		0.0137
13C12-PCB 167	43:19	3411610	644688	1.247	20.00	21.789259	108.95	21.789259		0.0110
13C12-PCB 156	44:31	7255173	885081	1.233	40.00	46.860492	117.15	46.860492		0.0111
13C12-PCB 157								ND		0.000000
13C12-PCB 169	47:43	3133108	582814	1.173	20.00	21.271461	106.36	21.271461		0.0117
PCB 155 (BZ)	32:00	1387082	270442	1.128	10.00	10.474771	104.75	10.474771		0.0315
PCB 152 (BZ)	32:15	1267378	270032	1.075	10.00	10.038159	100.38	10.038159		0.0331
PCB 150 (BZ)	32:25	1367111	259886	1.096	10.00	10.618098	106.18	10.618098		0.0324
PCB 136 (BZ)	32:48	1202653	239895	1.022	10.00	10.021166	100.21	10.021166		0.0348
PCB 145 (BZ)	33:04	1235241	237543	1.069	10.00	9.842546	98.43	9.842546		0.0333
PCB 148 (BZ)	34:32	957030	181269	0.764	10.00	10.664605	106.65	10.664605		0.0465
PCB 151 (BZ)	35:10	1873642	205986	0.750	20.00	21.268586	106.34	21.268586	C135	0.0474
PCB 135 (BZ)		1873642		0.750	20.00	21.268586	106.34	21.268586	C	0.0474
PCB 154 (BZ)	35:23	1103093	214015	0.922	10.00	10.185903	101.86	10.185903		0.0386
PCB 144 (BZ)	35:44	1111318	183598	0.808	10.00	11.708164	117.08	11.708164		0.0440
PCB 147 (BZ)	36:05	2722012	523858	0.861	20.00	18.318894	91.59	18.318894	C	0.0366
PCB 149 (BZ)		2722012		0.861	20.00	18.318894	91.59	18.318894	C147	0.0366
PCB 134 (BZ)		2362517		0.717	20.00	19.113469	95.57	19.113469	C	0.0440
PCB 143 (BZ)	36:24	2362517	253612	0.717	20.00	19.113469	95.57	19.113469	C134	0.0440
PCB 139 (BZ)	36:41	2801435	476687	0.836	20.00	19.418721	97.09	19.418721	C	0.0377
PCB 140 (BZ)		2801435		0.836	20.00	19.418721	97.09	19.418721	C139	0.0377
PCB 131 (BZ)	36:54	1112770	213490	0.700	10.00	9.211211	92.11	9.211211		0.0450
PCB 142 (BZ)	37:02	1227591	230067	0.728	10.00	9.771766	97.72	9.771766		0.0433
PCB 132 (BZ)	37:24	1221303	234311	0.736	10.00	9.622015	96.22	9.622015		0.0428
PCB 133 (BZ)	37:51	1264756	238928	0.763	10.00	9.605587	96.06	9.605587		0.0413
PCB 165 (BZ)	38:14	1798040	353208	1.001	10.00	10.416051	104.16	10.416051		0.0315
PCB 146 (BZ)	38:29	1406819	283148	0.881	10.00	9.261503	92.62	9.261503		0.0358
PCB 161 (BZ)	38:36	1926586	348180	1.100	10.00	10.151384	101.51	10.151384		0.0287
PCB 153 (BZ)	39:07	3674680	585554	1.071	20.00	19.882073	99.41	19.882073	C	0.0294
PCB 168 (BZ)		3674680		1.071	20.00	19.882073	99.41	19.882073	C153	0.0294
PCB 141 (BZ)	39:19	1470206	269619	0.803	10.00	10.609057	106.09	10.609057		0.0392
PCB 130 (BZ)	39:43	1201562	227515	0.717	10.00	9.710307	97.10	9.710307		0.0439
PCB 137 (BZ)	39:56	1525253	292309	0.832	10.00	10.632367	106.32	10.632367		0.0379
PCB 164 (BZ)	40:04	1867808	363058	1.052	10.00	10.297097	102.97	10.297097		0.0300
PCB 138 (BZ)		6666018		0.926	40.00	41.720482	104.30	41.720482	C129	0.0340

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PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntml.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	00:13	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 163 (BZ)	40:22	6666018	689038	0.926	40.00	41.720482	104.30	41.720482	C129	0.0340
PCB 129 (BZ)		6666018		0.926	40.00	41.720482	104.30	41.720482	C	0.0340
PCB 160 (BZ)		6666018		0.926	40.00	41.720482	104.30	41.720482	C129	0.0340
PCB 158 (BZ)	40:44	2092052	395628	1.174	10.00	10.332187	103.32	10.332187		0.0269
PCB 166 (BZ)	41:35	3726515	479242	0.958	20.00	22.559527	112.80	22.559527	C128	0.0329
PCB 128 (BZ)		3726515		0.958	20.00	22.559527	112.80	22.559527	C	0.0329
PCB 159 (BZ)	42:35	2079955	396867	1.095	10.00	11.014146	110.14	11.014146		0.0288
PCB 162 (BZ)	42:52	2196601	389774	1.108	10.00	11.488668	114.89	11.488668		0.0284
PCB 167 (BZ)	43:21	2218659	425256	1.126	10.00	11.555083	115.55	11.555083		0.0229
PCB 156 (BZ)	44:31	4611411	578680	1.130	20.00	22.500470	112.50	22.500470	C	0.0333
PCB 157 (BZ)		4611411		1.130	20.00	22.500470	112.50	22.500470	C156	0.0333
PCB 169 (BZ)	47:45	2042250	365168	1.243	10.00	10.485293	104.85	10.485293		0.0230
Total Heptachlorobiphenyl		33335912	5125991			260.546471		260.546471		0.654
13C12-PCB 188	37:41	2732334	521671	1.217	20.00	19.868748	99.34	19.868748		0.0123
13C12-PCB 178	40:45	1766348	346364	0.881	20.00	17.746217	88.73	17.746217		0.0170
13C12-PCB 180	45:50	2259722	420094	1.000	20.00	20.000000	100.00	20.000000		0.0150
13C12-PCB 170	47:06	1923950	366206	0.828	20.00	20.561032	102.81	20.561032		0.0181
13C12-PCB 189	50:12	3912571	706858	1.588	20.00	21.747738	108.74	21.747738		0.00953
PCB 188 (BZ)	37:44	1555264	296647	1.111	10.00	10.249908	102.50	10.249908		0.0256
PCB 179 (BZ)	38:06	1469058	286204	1.220	10.00	10.347968	103.48	10.347968		0.0274
PCB 184 (BZ)	38:34	1396028	277625	1.188	10.00	10.097824	100.98	10.097824		0.0282
PCB 176 (BZ)	38:58	1632917	316767	1.286	10.00	10.909633	109.10	10.909633		0.0260
PCB 186 (BZ)	39:25	1548975	291217	1.223	10.00	10.879342	108.79	10.879342		0.0273
PCB 178 (BZ)	40:46	1125153	213899	0.906	10.00	10.667648	106.68	10.667648		0.0369
PCB 175 (BZ)	41:24	1165524	222268	0.980	10.00	10.221351	102.21	10.221351		0.0341
PCB 187 (BZ)	41:40	1249934	246866	1.054	10.00	10.185416	101.85	10.185416		0.0317
PCB 182 (BZ)	41:52	1312792	253315	1.009	10.00	11.182299	111.82	11.182299		0.0332
PCB 183 (BZ)	42:16	2547186	249238	0.987	20.00	22.171924	110.86	22.171924	C	0.0339
PCB 185 (BZ)		2547186		0.987	20.00	22.171924	110.86	22.171924	C183	0.0339
PCB 174 (BZ)	42:33	1067222	205306	0.941	10.00	9.747041	97.47	9.747041		0.0356
PCB 177 (BZ)	42:59	1066326	200875	0.918	10.00	9.976285	99.76	9.976285		0.0364
PCB 181 (BZ)	43:22	1262047	245615	0.980	10.00	11.060055	110.60	11.060055		0.0341
PCB 171 (BZ)		2251446		0.872	20.00	22.181120	110.91	22.181120	C	0.0384
PCB 173 (BZ)	43:35	2251446	416415	0.872	20.00	22.181120	110.91	22.181120	C171	0.0384
PCB 172 (BZ)	45:12	1143685	222348	0.881	10.00	11.157009	111.57	11.157009		0.0380
PCB 192 (BZ)	45:29	1564410	300746	1.152	10.00	11.662851	116.63	11.662851		0.0290
PCB 193 (BZ)	45:49	3018092	415111	1.154	20.00	22.472627	112.36	22.472627	C180	0.0290
PCB 180 (BZ)		3018092		1.154	20.00	22.472627	112.36	22.472627	C	0.0290
PCB 191 (BZ)	46:13	1697296	317982	1.287	10.00	11.329280	113.29	11.329280		0.0260
PCB 170 (BZ)	47:08	1179844	216536	1.102	10.00	11.128932	111.29	11.128932		0.0368
PCB 190 (BZ)	47:39	1712616	322460	1.265	10.00	11.630755	116.31	11.630755		0.0264
PCB 189 (BZ)	50:14	2370097	440077	1.073	10.00	11.287205	112.87	11.287205		0.0196
Total Octachlorobiphenyl		14852460	2717383			125.024367		125.024367		0.174
13C12-PCB 202	43:03	2286283	444460	0.907	20.00	22.302709	111.51	22.302709		0.0156
13C12-PCB 194	52:16	2265535	416234	1.000	20.00	20.000000	100.00	20.000000		0.0143
13C12-PCB 205	52:45	3489762	629796	1.395	20.00	22.089738	110.45	22.089738		0.0102
PCB 202 (BZ)	43:05	1145887	222963	1.007	10.00	9.956799	99.57	9.956799		0.0159
PCB 200 (BZ)/201 (IUPAC)	43:59	1305128	247971	1.134	10.00	10.066809	100.67	10.066809		0.0141
PCB 204 (BZ)	44:39	1283654	252272	1.034	10.00	10.858495	108.58	10.858495		0.0154

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IsoCalc Preliminary Sample Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntm1.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	7/14/2011	Matrix	AIR	Date Sampled	06/22/11
Analysis Time	00:13	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Anal Exp Date	08/20/11	Extract Vol	100 uL	Method	IE5
Instrument	M1D	Dil Factor	1.00	Code	IE5
Analyst	JMN				

Analyte	RT	Area	Height	RF	Std Amt	Amount	Rec	Conc (ng/sample		DL (ng/samp
PCB 197 (BZ)	44:52	1410720	271216	1.075	10.00	11.481014	114.81	11.481014		0.0149
PCB 199 (BZ)/200 (IUPAC)	45:01	1286272	254595	1.095	10.00	10.276349	102.76	10.276349		0.0146
PCB 198 (BZ)	47:46	1884328	250382	0.775	20.00	21.267810	106.34	21.267810	C	0.0206
PCB 201 (BZ)/199 (IUPAC)		1884328		0.775	20.00	21.267810	106.34	21.267810	C198	0.0206
PCB 196 (BZ)	48:27	979181	189548	0.800	10.00	10.709046	107.09	10.709046		0.0200
PCB 203 (BZ)	48:37	1050585	197669	0.868	10.00	10.592940	105.93	10.592940		0.0184
PCB 195 (BZ)	49:59	1246104	231080	0.765	10.00	9.335490	93.35	9.335490		0.0147
PCB 194 (BZ)	52:18	1400025	256373	0.830	10.00	9.664287	96.64	9.664287		0.0136
PCB 205 (BZ)	52:46	1860576	343314	0.986	10.00	10.815328	108.15	10.815328		0.0114
Total Nonachlorobiphenyl		4145916	775029			30.744934		30.744934		0.0391
13C12-PCB 208	49:41	2714473	513916	1.155	20.00	20.745755	103.73	20.745755		0.0124
13C12-PCB 206	54:27	2011942	383078	0.808	20.00	21.989488	109.95	21.989488		0.0177
PCB 208 (BZ)	49:42	1473113	276828	1.035	10.00	10.487016	104.87	10.487016		0.0123
PCB 207 (BZ)	50:37	1572620	297087	1.276	10.00	10.433231	104.33	10.433231		0.0114
PCB 206 (BZ)	54:28	1100183	201114	1.113	10.00	9.824687	98.25	9.824687		0.0154
13C12-PCB 209	56:02	1915311	351405	0.857	20.00	19.721131	98.61	19.721131		0.0196
PCB 209 (BZ)	56:04	1205621	212978	1.052	10.00	11.964996	119.65	11.964996		0.0168

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntm1.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/14/11 00:13	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
188					188.0393	190.0363	188.0393	190.0363	2.66-3.60	
	Noise	00:00	00:00	0	148	128	59	51	1.16 *	/
	PCB 1 (BZ)	12:08	12:09	-1	2255991	705816	857855	275397	3.20	ABB/ABB
	PCB 2 (BZ)	14:11	14:11	0	2162766	669467	618914	189870	3.23	ABV/ABV
	PCB 3 (BZ)	14:21	14:21	0	2156344	672617	632398	203381	3.21	AVV/AVV
200					200.0795	202.0766	200.0795	202.0766	2.66-3.60	
	Noise	00:00	00:00	0	215	553	86	221	0.39 *	/
	13C12-PCB 1	12:07	12:09	-2	3718002	1192082	1250992	405520	3.12	ABV/ABV
	13C12-PCB 3	14:20	14:21	-1	3527478	1058025	981067	300638	3.33	ABV/ABV
222					222.0003	223.9974	222.0003	223.9974	1.33-1.79	
	Noise	00:00	00:00	0	348	475	139	190	0.73 *	/
	PCB 4 (BZ)	14:37	14:38	-1	715957	439007	204623	127563	1.63	ABV/ABV
	PCB 10 (BZ)	14:47	14:48	-1	1189494	726511	352250	219938	1.64	AVB/AVV
	PCB 9 (BZ)	16:35	16:37	-2	1120788	691958	300608	187039	1.62	ABV/ABV
	PCB 7 (BZ)	16:46	16:46	0	1301246	794673	335695	196325	1.64	AVV/AVV
	PCB 6 (BZ)	17:01	17:02	-1	1211477	745131	313525	189976	1.63	AVB/AVB
	PCB 5 (BZ)	17:20	17:19	1	1193617	728115	316194	199432	1.64	ABV/ABV
	PCB 8 (BZ)	17:27	17:27	0	1213152	742066	318990	193930	1.63	AVB/AVB
	PCB 14 (BZ)	19:05	19:05	0	1491814	913936	343889	207679	1.63	ABV/ABV
	PCB 11 (BZ)	19:57	19:56	1	1276000	777514	281322	172455	1.64	ABV/ABV
	PCB 13 (BZ)	20:16	20:13	3	2504517	1548646	421641	271628	1.62	AVV/AVV
	PCB 15 (BZ)	20:35	20:33	2	1292255	786721	270258	162298	1.64	AVB/AVB
234					234.0406	236.0376	234.0406	236.0376	1.33-1.79	
	Noise	00:00	00:00	0	278	168	111	67	1.66	/
	13C12-PCB 4	14:36	14:37	-1	1201787	717810	344287	208643	1.67	AVV/ABV
	13C12-PCB 9	16:34	16:35	-1	2245269	1373221	598509	372259	1.64	AVV/ABV
	13C12-PCB 15	20:34	20:32	2	1956980	1187446	417438	254710	1.65	ABV/ABV
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20	
	Noise	00:00	00:00	0	320	375	128	150	0.85 *	/
	PCB 19 (BZ)	17:46	17:46	0	434230	410263	113176	104158	1.06	ABV/ABV
	PCB 30 (BZ)	19:34	19:35	-1	1274530	1218764	184917	177478	1.05	ABV/ABV
	PCB 17 (BZ)	20:02	20:03	-1	521814	490629	121770	114035	1.06	ABV/ABV
	PCB 27 (BZ)	20:16	20:17	-1	689190	663508	167825	159721	1.04	AVV/AVV
	PCB 24 (BZ)	20:25	20:24	1	706132	670390	158335	144247	1.05	AVV/AVV
	PCB 16 (BZ)	20:32	20:32	0	393186	370774	96581	89920	1.06	AVB/AVB
	PCB 32 (BZ)	21:03	21:02	1	777201	740629	179046	171157	1.05	AVV/AVB
	PCB 34 (BZ)	22:18	22:18	0	1069760	1030105	253516	237208	1.04	ABV/ABV
	PCB 23 (BZ)	22:26	22:26	0	1153369	1141415	248626	244290	1.01	AVB/AVB
	PCB 26 (BZ)	22:46	22:45	1	2328439	2287027	501893	491505	1.02	ABV/ABV
	PCB 25 (BZ)	23:00	22:59	1	1193532	1165328	243914	236805	1.02	AVV/AVV
	PCB 31 (BZ)	23:19	23:18	1	1187906	1166160	257332	257053	1.02	AVV/AVV
	PCB 28 (BZ)	23:39	23:35	4	2296916	2223806	362978	357562	1.03	AVV/AVV
	PCB 21 (BZ)	23:51	23:46	5	2513902	2454174	300046	283896	1.02	AVV/AVV
	PCB 22 (BZ)	24:16	24:14	2	1089480	1064842	224939	224102	1.02	AVB/AVB

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntml.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/14/11 00:13	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration	Flags
256					255.9613	257.9584	255.9613	257.9584	0.88-1.20		
	PCB 36 (BZ)	25:49	25:48	1	1272599	1220941	245415	237060	1.04	AVV/AVV	
	PCB 39 (BZ)	26:11	26:09	2	1276982	1220958	247043	237119	1.05	AVV/AVV	
	PCB 38 (BZ)	26:46	26:44	2	1148367	1126321	228532	225833	1.02	AVV/AVV	
	PCB 35 (BZ)	27:15	27:13	2	1197762	1137064	225973	210386	1.05	ABV/AVV	
	PCB 37 (BZ)	27:40	27:37	3	1216014	1159971	223322	213101	1.05	AVV/AVV	
268					268.0016	269.9986	268.0016	269.9986	0.88-1.20		
	Noise	00:00	00:00	0	515	353	206	141	1.46 *	/	
	13C12-PCB 19	17:45	17:45	0	764904	725877	197076	183328	1.05	AVV/AVV	
	13C12-PCB 32	21:01	21:01	0	1566792	1455845	351239	325400	1.08	AVV/AVV	
	13C12-PCB 31	23:18	23:17	1	2349587	2237643	504143	480747	1.05	ABV/ABV	
	13C12-PCB 28	23:36	23:34	2	2019144	1915567	420964	395144	1.05	AVB/AVB	
	13C12-PCB 37	27:39	27:36	3	1961686	1825766	357434	337142	1.07	ABV/ABV	
290					289.9224	291.9194	289.9224	291.9194	0.65-0.89		
	Noise	00:00	00:00	0	365	348	146	139	1.05 *	/	
	PCB 54 (BZ)	20:53	20:52	1	505838	671869	121317	155532	0.75	ABB/ABB	
	PCB 53 (BZ)	23:03	23:02	1	1178761	1505697	250629	323612	0.78	ABV/ABV	
	PCB 45 (BZ)	23:46	23:42	4	1096020	1406930	146414	183714	0.78	ABV/ABV	
	PCB 46 (BZ)	24:03	24:02	1	462856	595785	96564	122718	0.78	AVV/AVV	
	PCB 52 (BZ)	25:27	25:27	0	545584	704333	118369	147856	0.77	ABV/ABV	
	PCB 73 (BZ)	25:34	25:34	0	1273984	1646209	158078	202950	0.77	AVV/AVV	
	PCB 69 (BZ)	25:52	25:51	1	1396324	1790781	171404	214192	0.78	AVB/AVB	
	PCB 48 (BZ)	26:12	26:12	0	568980	718388	119460	150448	0.79	ABV/ABV	
	PCB 44 (BZ)	26:27	26:26	1	1939751	2469383	363389	460447	0.79	AVV/AVV	
	PCB 62 (BZ)	26:47	26:43	4	2529015	3257431	388938	505495	0.78	AVV/AVV	
	PCB 42 (BZ)	26:58	26:58	0	567115	725759	117820	147137	0.78	AVB/AVB	D
	PCB 71 (BZ)	27:29	27:28	1	1753428	2231269	253187	325690	0.79	ABV/ABV	
	PCB 64 (BZ)	27:42	27:41	1	937529	1193807	196438	244850	0.79	AVB/AVB	
	PCB 72 (BZ)	28:30	28:29	1	849934	1093920	172773	227341	0.78	ABV/ABV	
	PCB 68 (BZ)	28:48	28:46	2	951770	1213022	179536	225503	0.78	AVB/AVB	
	PCB 57 (BZ)	29:14	29:12	2	817221	1026991	157549	199429	0.80	ABV/ABV	
	PCB 58 (BZ)	29:28	29:27	1	851612	1080284	164181	209283	0.79	AVV/AVV	
	PCB 67 (BZ)	29:38	29:36	2	907585	1150192	166690	206277	0.79	AVV/AVV	
	PCB 63 (BZ)	29:54	29:53	1	888816	1117257	175623	228880	0.80	AVB/AVB	
	PCB 74 (BZ)	30:15	30:16	-1	3420581	4411324	388777	511464	0.78		M
	PCB 66 (BZ)	30:34	30:33	1	734507	963029	153886	192143	0.76	ABV/ABV	
	PCB 55 (BZ)	30:44	30:43	1	831130	1035584	165967	206265	0.80	AVV/AVV	
	PCB 56 (BZ)	31:15	31:13	2	845991	1090089	160929	206345	0.78	ABV/ABV	
	PCB 60 (BZ)	31:28	31:26	2	874707	1136546	164858	216700	0.77	AVV/AVV	
	PCB 80 (BZ)	31:51	31:49	2	971196	1255354	186730	243182	0.77	AVB/AVB	
	PCB 79 (BZ)	33:24	33:22	2	1021342	1306989	174527	223709	0.78	ABV/ABV	
	PCB 78 (BZ)	33:58	33:55	3	863627	1163384	157328	201191	0.74	ABV/AVV	
	PCB 81 (BZ)	34:25	34:21	4	876241	1151289	161278	200499	0.76	AVV/AVV	
	PCB 77 (BZ)	34:59	34:54	5	929717	1199023	167196	215703	0.78	ABV/ABV	

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T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

TestAmerica Knoxville

IsoCalc Preliminary Peak Report

PCB's by EPA Method 1668A (Solid/Air Table 4)

Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntm1.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/14/11 00:13	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
302					301.9626	303.9597	301.9626	303.9597	0.65-0.89	
	Noise	00:00	00:00	0	153	148	61	59	1.03 *	/
	13C12-PCB 54	20:52	20:52	0	927400	1156647	213104	271906	0.80	ABV/ABV
	13C12-PCB 52	25:26	25:25	1	1110043	1414785	229049	289678	0.78	ABV/ABV
	13C12-PCB 81	34:23	34:19	4	1408318	1807943	258661	329881	0.78	ABV/ABV
	13C12-PCB 77	34:58	34:53	5	1480545	1904833	260770	335413	0.78	AVV/AVV
326					325.8804	327.8775	325.8804	327.8775	1.32-1.78	
	Noise	00:00	00:00	0	453	303	181	121	1.50	/
	PCB 104 (BZ)	26:23	26:23	0	912251	564926	190870	118158	1.61	ABV/ABV
	PCB 96 (BZ)	26:47	26:47	0	802282	495369	168586	104456	1.62	AVV/AVV
	PCB 103 (BZ)	28:40	28:40	0	684330	421651	141621	87137	1.62	ABV/ABV
	PCB 94 (BZ)	28:55	28:54	1	600927	374573	124200	76527	1.60	AVV/AVV
	PCB 95 (BZ)	29:22	29:21	1	620518	379241	130154	78308	1.64	ABV/ABV
	PCB 100 (BZ)	29:33	29:32	1	1298198	773981	185419	112075	1.68	AVV/AVV
	PCB 102 (BZ)	29:43	29:42	1	1342344	806226	157327	93100	1.66	AVB/AVB
	PCB 91 (BZ)	30:14	30:13	1	1301678	796437	142494	85055	1.63	ABV/ABV
	PCB 84 (BZ)	30:29	30:27	2	524213	330560	105080	62513	1.59	AVB/AVB
	PCB 89 (BZ)	30:56	30:56	0	616316	361219	126966	69565	1.71	ABV/ABB
	PCB 121 (BZ)	31:18	31:17	1	985159	602778	187724	115306	1.63	AVB/ABB
	PCB 92 (BZ)	31:42	31:42	0	638042	391267	127838	78121	1.63	ABB/ABB
	PCB 113 (BZ)	32:15	32:13	2	2466076	1506927	374729	230341	1.64	ABV/ABB
	PCB 99 (BZ)	32:51	32:51	0	1301103	824567	158809	96934	1.58	ABV/ABV
	PCB 112 (BZ)	33:00	32:59	1	963021	598141	184181	109391	1.61	AVB/AVB
	PCB 109 (BZ)/108 (IUPAC	33:21	33:18	3	5128648	3149139	512837	313360	1.63	ABB/ABB
	PCB 116 (BZ)	34:05	34:03	2	2629370	1626387	303676	189757	1.62	ABV/ABV
	PCB 110 (BZ)	34:19	34:15	4	1220288	709115	220792	129138	1.72	ABB/ABB
	PCB 82 (BZ)	34:37	34:35	2	569249	341327	110232	61313	1.67	ABB/ABB
	PCB 111 (BZ)	34:58	34:56	2	1042691	640792	197964	120493	1.63	ABV/ABV
	PCB 120 (BZ)	35:24	35:24	0	1049263	637564	188263	118506	1.65	AVB/AVB
	PCB 108 (BZ)/107 (IUPAC	36:35	36:32	3	2618095	1668641	475952	314954	1.57	ABV/ABV
	PCB 107 (BZ)/109 (IUPAC	36:50	36:48	2	1191438	870345	239226	157632	1.37	AVV/AVV
	PCB 123 (BZ)	36:56	36:54	2	1440387	829850	267342	170763	1.74	AVV/AVV
	PCB 106 (BZ)	37:03	37:01	2	1399609	893733	249237	155501	1.57	AVV/AVV
	PCB 118 (BZ)	37:16	37:14	2	1423554	906366	252483	158116	1.57	AVB/AVB
	PCB 122 (BZ)	37:37	37:35	2	1222122	777799	231756	147768	1.57	ABV/ABV
	PCB 114 (BZ)	37:48	37:45	3	1509480	951160	266132	167172	1.59	AVV/AVV
	PCB 105 (BZ)	38:28	38:26	2	1405327	868616	254828	154190	1.62	ABB/ABB
	PCB 127 (BZ)	39:55	39:51	4	1336853	846333	244804	152995	1.58	AVV/AVV
	PCB 126 (BZ)	41:33	41:28	5	1418523	885699	246722	160064	1.60	AVV/AVV
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78	
	Noise	00:00	00:00	0	193	158	77	63	1.22 *	/
	13C12-PCB 104	26:21	26:22	-1	1477712	900813	300694	187172	1.64	ABV/ABV
	13C12-PCB 101	32:15	32:15	0	1356653	822621	265871	162714	1.65	AVV/ABV
	13C12-PCB 111	34:56	34:54	2	1663093	1025954	308738	190081	1.62	ABV/ABV

Notes:
R = ratio is outside limits M = data changed manually N = Peak not reported S = peak less than 2.5x S/N
T = peaks outside comax limit D = peak outside RT window W = peak outside first/last X = peak has dup match

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Workorder	MKNTM1AD	Prep Batch	1187028	Lot No	H1G060000-028
Data File	/20110713s1/apmkntml.d	Prep Date	07/06/11	SDG No	
Analysis ID	133596	Prep Exp Date	07/22/11	Date Received	07/06/11
Analysis Date	07/14/11 00:13	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
338					337.9207	339.9178	337.9207	339.9178	1.32-1.78	
	13C12-PCB 123	36:55	36:53	2	2165385	1349133	405635	244845	1.61	ABV/ABV
	13C12-PCB 118	37:14	37:12	2	2330329	1429649	433902	259574	1.63	AVV/AVV
	13C12-PCB 114	37:46	37:44	2	2287275	1426219	405876	258868	1.60	AVV/AVV
	13C12-PCB 105	38:26	38:24	2	2271229	1408329	413500	252656	1.61	ABB/ABB
	13C12-PCB 127	39:54	39:49	5	2596977	1604153	475134	293803	1.62	AVV/AVV
	13C12-PCB 126	41:32	41:27	5	2522244	1567454	464837	292965	1.61	ABV/ABV
360					359.8415	361.8385	359.8415	361.8385	1.05-1.43	
	Noise	00:00	00:00	0	400	433	160	173	0.92 *	/
	PCB 155 (BZ)	32:00	32:01	-1	780245	606837	154409	116033	1.29	ABV/ABV
	PCB 152 (BZ)	32:15	32:16	-1	716846	550532	152103	117929	1.30	AVV/AVV
	PCB 150 (BZ)	32:25	32:25	0	771263	595848	145439	114447	1.29	AVB/AVB
	PCB 136 (BZ)	32:48	32:48	0	687524	515129	135262	104633	1.33	ABV/ABV
	PCB 145 (BZ)	33:04	33:04	0	700406	534835	134299	103244	1.31	AVB/AVB
	PCB 148 (BZ)	34:32	34:33	-1	552143	404887	103211	78058	1.36	ABV/ABB
	PCB 151 (BZ)	35:10	35:09	1	1052667	820975	115309	90677	1.28	ABV/ABV
	PCB 154 (BZ)	35:23	35:24	-1	630645	472448	121073	92942	1.33	AVB/AVV
	PCB 144 (BZ)	35:44	35:43	1	626836	484482	105745	77853	1.29	ABB/AVB
	PCB 147 (BZ)	36:05	36:05	0	1522623	1199389	293591	230267	1.27	ABV/ABV
	PCB 143 (BZ)	36:24	36:24	0	1322009	1040508	141527	112085	1.27	AVV/AVV
	PCB 139 (BZ)	36:41	36:40	1	1563954	1237481	265100	211587	1.26	AVV/AVV
	PCB 131 (BZ)	36:54	36:53	1	625758	487012	119493	93997	1.28	AVV/AVV
	PCB 142 (BZ)	37:02	37:02	0	686523	541068	126075	103992	1.27	AVB/AVB
	PCB 132 (BZ)	37:24	37:22	2	683050	538253	129063	105248	1.27	ABB/ABB
	PCB 133 (BZ)	37:51	37:50	1	716467	548289	134143	104785	1.31	ABB/ABB
	PCB 165 (BZ)	38:14	38:14	0	1002162	795878	196105	157103	1.26	ABV/ABV
	PCB 146 (BZ)	38:29	38:29	0	813088	593731	159699	123449	1.37	AVV/AVV
	PCB 161 (BZ)	38:36	38:37	-1	1064748	861838	195233	152947	1.24	AVB/AVB
	PCB 153 (BZ)	39:07	39:05	2	2034675	1640005	326772	258782	1.24	ABV/ABV
	PCB 141 (BZ)	39:19	39:18	1	824473	645733	156197	113422	1.28	AVV/AVV
	PCB 130 (BZ)	39:43	39:43	0	674918	526644	127634	99881	1.28	ABV/ABV
	PCB 137 (BZ)	39:56	39:54	2	849148	676105	163090	129219	1.26	AVV/AVV
	PCB 164 (BZ)	40:04	40:02	2	1047642	820166	205885	157173	1.28	AVB/AVB
	PCB 163 (BZ)	40:22	40:20	2	3720978	2945040	388013	301025	1.26	ABV/ABV
	PCB 158 (BZ)	40:44	40:43	1	1164560	927492	218256	177372	1.26	AVB/AVB
	PCB 166 (BZ)	41:35	41:33	2	2076794	1649721	263489	215753	1.26	AVV/AVV
	PCB 159 (BZ)	42:35	42:33	2	1166045	913910	220466	176401	1.28	AVV/AVV
	PCB 162 (BZ)	42:52	42:50	2	1215704	980897	220274	169500	1.24	AVV/AVV
	PCB 167 (BZ)	43:21	43:19	2	1237870	980789	236741	188515	1.26	ABB/ABB
	PCB 156 (BZ)	44:31	44:27	4	2562177	2049234	325022	253658	1.25	ABB/ABB
	PCB 169 (BZ)	47:45	47:41	4	1142854	899396	205408	159760	1.27	ABV/ABV
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	Noise	00:00	00:00	0	183	158	73	63	1.16	/
	13C12-PCB 155	31:58	32:00	-2	1328208	1020228	263100	205175	1.30	ABV/ABV

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Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5

View Small Peaks? False View deleted peaks? False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
372					371.8817	373.8788	371.8817	373.8788	1.05-1.43	
	13C12-PCB 138	40:20	40:18	2	1419254	1091891	280380	214990	1.30	ABV/ABV
	13C12-PCB 167	43:19	43:18	1	1927088	1484522	364923	279765	1.30	AVV/AVV
	13C12-PCB 156	44:31	44:28	3	4093517	3161656	500952	384129	1.29	AVV/AVV
	13C12-PCB 169	47:43	47:40	3	1777654	1355454	328410	254404	1.31	ABV/ABV
394					393.8025	395.7995	393.8025	395.7995	0.89-1.21	
	Noise	00:00	00:00	0	355	388	142	155	0.92	/
	PCB 188 (BZ)	37:44	37:43	1	796800	758464	152602	144045	1.05	ABV/ABV
	PCB 179 (BZ)	38:06	38:06	0	758134	710924	147672	138532	1.07	AVV/AVV
	PCB 184 (BZ)	38:34	38:36	-2	725417	670611	143457	134168	1.08	AVV/AVB
	PCB 176 (BZ)	38:58	38:59	-1	843662	789255	160095	156672	1.07	AVV/ABV
	PCB 186 (BZ)	39:25	39:26	-1	802286	746689	150973	140244	1.07	AVB/ABB
	PCB 178 (BZ)	40:46	40:47	-1	585535	539618	111001	102898	1.09	ABV/ABV
	PCB 175 (BZ)	41:24	41:24	0	605893	559631	110687	111581	1.08	ABV/ABV
	PCB 187 (BZ)	41:40	41:40	0	643633	606301	125200	121666	1.06	AVV/AVV
	PCB 182 (BZ)	41:52	41:53	-1	673549	639243	130195	123120	1.05	AVB/AVB
	PCB 183 (BZ)	42:16	42:17	-1	1314584	1232602	128194	121044	1.07	ABV/ABV
	PCB 174 (BZ)	42:33	42:32	1	553477	513745	105209	100097	1.08	AVB/AVB
	PCB 177 (BZ)	42:59	42:59	0	546582	519744	103818	97057	1.05	ABB/ABB
	PCB 181 (BZ)	43:22	43:22	0	648975	613072	124772	120843	1.06	ABV/ABV
	PCB 173 (BZ)	43:35	43:34	1	1159511	1091935	213691	202724	1.06	AVB/AVB
	PCB 172 (BZ)	45:12	45:12	0	578679	565006	113158	109190	1.02	ABV/ABB
	PCB 192 (BZ)	45:29	45:28	1	807225	757185	157007	143739	1.07	AVV/ABB
	PCB 193 (BZ)	45:49	45:47	2	1556928	1461164	212910	202201	1.07	AVB/ABV
	PCB 191 (BZ)	46:13	46:12	1	881443	815853	159287	158695	1.08	ABB/ABB
	PCB 170 (BZ)	47:08	47:06	2	605495	574349	113134	103402	1.05	ABV/ABV
	PCB 190 (BZ)	47:39	47:37	2	885825	826791	167676	154784	1.07	ABB/ABV
	PCB 189 (BZ)	50:14	50:12	2	1200430	1169667	217358	222719	1.03	AVV/ABV
406					405.8428	407.8398	405.8428	407.8398	0.89-1.21	
	Noise	00:00	00:00	0	158	158	63	63	1.00	/
	13C12-PCB 188	37:41	37:43	-2	1422361	1309973	270763	250908	1.09	ABV/ABV
	13C12-PCB 178	40:45	40:45	0	907515	858833	178139	168225	1.06	ABV/ABV
	13C12-PCB 180	45:50	45:49	1	1178712	1081010	219173	200921	1.09	ABV/ABV
	13C12-PCB 170	47:06	47:05	1	1001589	922361	187576	178630	1.09	ABV/ABV
	13C12-PCB 189	50:12	50:11	1	1992834	1919737	356720	350138	1.04	ABV/ABV
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	Noise	00:00	00:00	0	185	170	74	68	1.09 *	/
	PCB 202 (BZ)	43:05	43:05	0	558668	587219	106834	116129	0.95	ABV/ABV
	PCB 200 (BZ)/201 (IUPAC	43:59	44:01	-2	618542	686586	118293	129678	0.90	ABB/ABB
	PCB 204 (BZ)	44:39	44:40	-1	604893	678761	119266	133006	0.89	ABV/ABV
	PCB 197 (BZ)	44:52	44:54	-2	670647	740073	130469	140747	0.91	AVV/AVV
	PCB 199 (BZ)/200 (IUPAC	45:01	45:01	0	617909	668363	122473	132122	0.92	AVB/AVB
	PCB 198 (BZ)	47:46	47:44	2	901985	982343	120691	129691	0.92	ABV/ABV
	PCB 196 (BZ)	48:27	48:27	0	462078	517103	90606	98942	0.89	ABV/ABV

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Analysis Date	07/14/11 00:13	Matrix	AIR	Date Sampled	06/22/11
Anal Exp Date	08/20/11	Initial Wt/Vol	1 Sample	Lims Test Code	XXSIPIE01
Instrument	M1D	Extract Vol	100 uL	Method	IE5
Analyst	JMN	Diluton Factor	1.00	Code	IE5
		View Small Peaks?	False	View deleted peaks?	False

Mass	Peak Name	RT	Pred RT	Δ	Area 1	Area 2	Height1	Height2	Ratio	Integration Flags
428					427.7635	429.7606	427.7635	429.7606	0.76-1.02	
	PCB 203 (BZ)	48:37	48:38	-1	500908	549677	93947	103722	0.91	AVB/AVB
	PCB 195 (BZ)	49:59	49:59	0	592299	653805	108590	122490	0.91	AVV/ABV
	PCB 194 (BZ)	52:18	52:17	1	655258	744767	119041	137332	0.88	ABV/ABV
	PCB 205 (BZ)	52:46	52:44	2	883181	977395	160144	183170	0.90	AVV/AVV
440					439.8038	441.8008	439.8038	441.8008	0.76-1.02	
	Noise	00:00	00:00	0	145	153	58	61	0.95	/
	13C12-PCB 202	43:03	43:03	0	1090425	1195858	214408	230052	0.91	ABV/ABV
	13C12-PCB 194	52:16	52:16	0	1081577	1183958	196378	219856	0.91	ABV/ABV
	13C12-PCB 205	52:45	52:43	2	1662713	1827049	300973	328823	0.91	ABV/ABV
462					461.7246	463.7216	461.7246	463.7216	0.65-0.89	
	Noise	00:00	00:00	0	183	145	73	58	1.26 *	/
	PCB 208 (BZ)	49:42	49:43	-1	649845	823268	123366	153462	0.79	ABV/ABV
	PCB 207 (BZ)	50:37	50:39	-2	700921	871699	131900	165187	0.80	ABV/AVV
	PCB 206 (BZ)	54:28	54:28	0	490654	609529	91005	110109	0.80	ABV/ABV
474					473.7648	475.7619	473.7648	475.7619	0.65-0.89	
	Noise	00:00	00:00	0	148	150	59	60	0.98 *	/
	13C12-PCB 208	49:41	49:42	-1	1212054	1502419	226682	287234	0.81	ABV/ABV
	13C12-PCB 206	54:27	54:28	-1	890715	1121227	169981	213097	0.79	ABV/ABV
496					495.6856	497.6826	495.6856	497.6826	0.59-0.79	
	Noise	00:00	00:00	0	155	155	62	62	1.00 *	/
	PCB 209 (BZ)	56:04	56:06	-2	506460	699161	87025	125953	0.72	AVV/AVV
508					507.7258	509.7229	507.7258	509.7229	0.59-0.79	
	Noise	00:00	00:00	0	140	210	56	84	0.67	/
	13C12-PCB 209	56:02	56:05	-3	793887	1121424	145028	206377	0.71	ABV/ABV

Notes:
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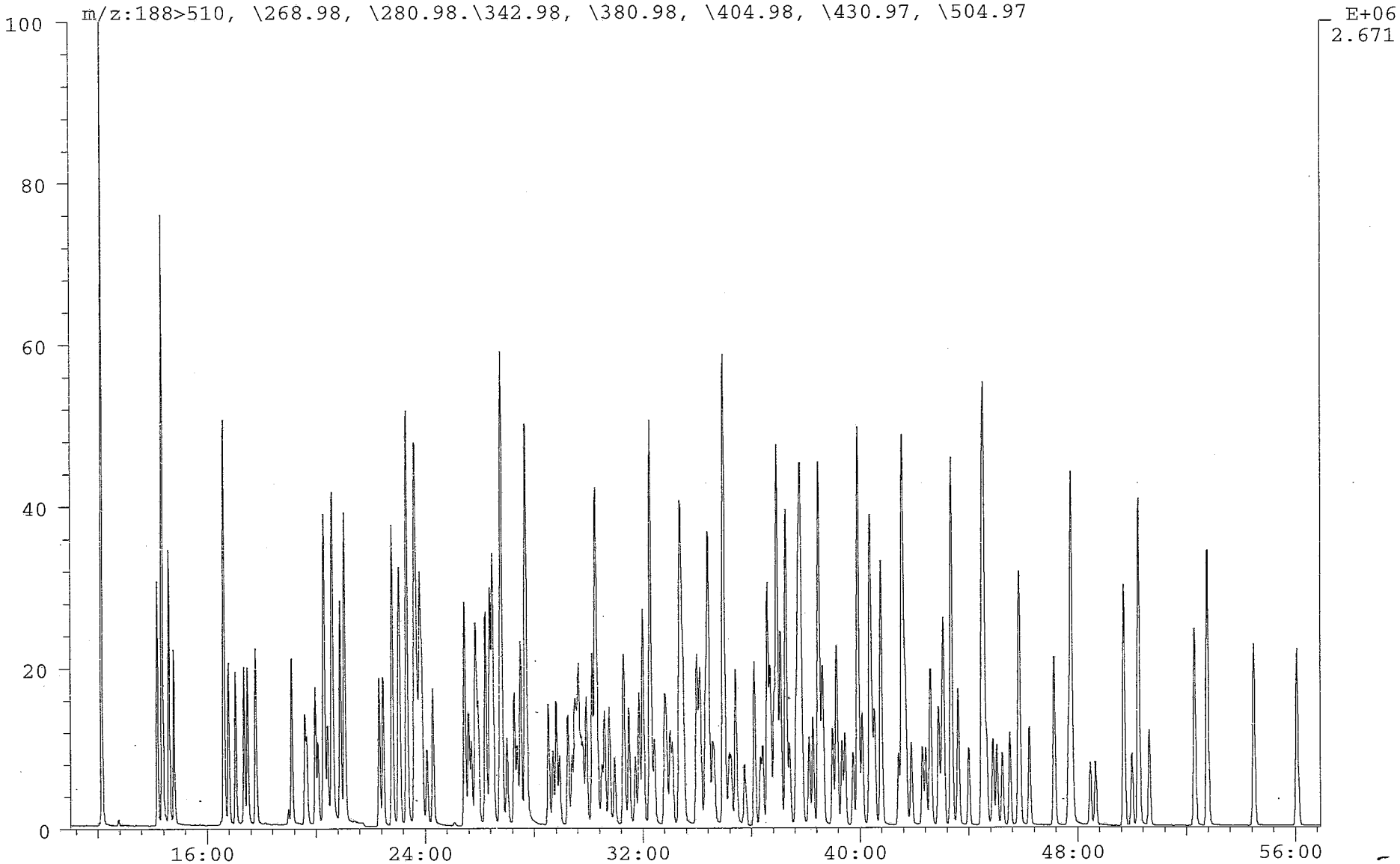
CHRO:	apmkntm1	14-Jul-11	Elapse:	11:00.9	1
Samp:	Vial 5 WO=mkntm1ad Meth=IE5 Dil=1		Start :	00:13:28	2597
Comm:	Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i				
Mode:	EI +VE +LMR ESCAN LR NRM		Study :	1187028 (Air-2)	
Oper:	JMN Client: H1G060000-028L		Inlet :	GC Vial 5	
Peak:	100.00 ppm Label wndw: 2 > 2597		Masses:	181 > 510	
Area:	5, 0.50, 0 Baseline : 100, 3		Label :	0, 0.0	
Disp:	Height Area				

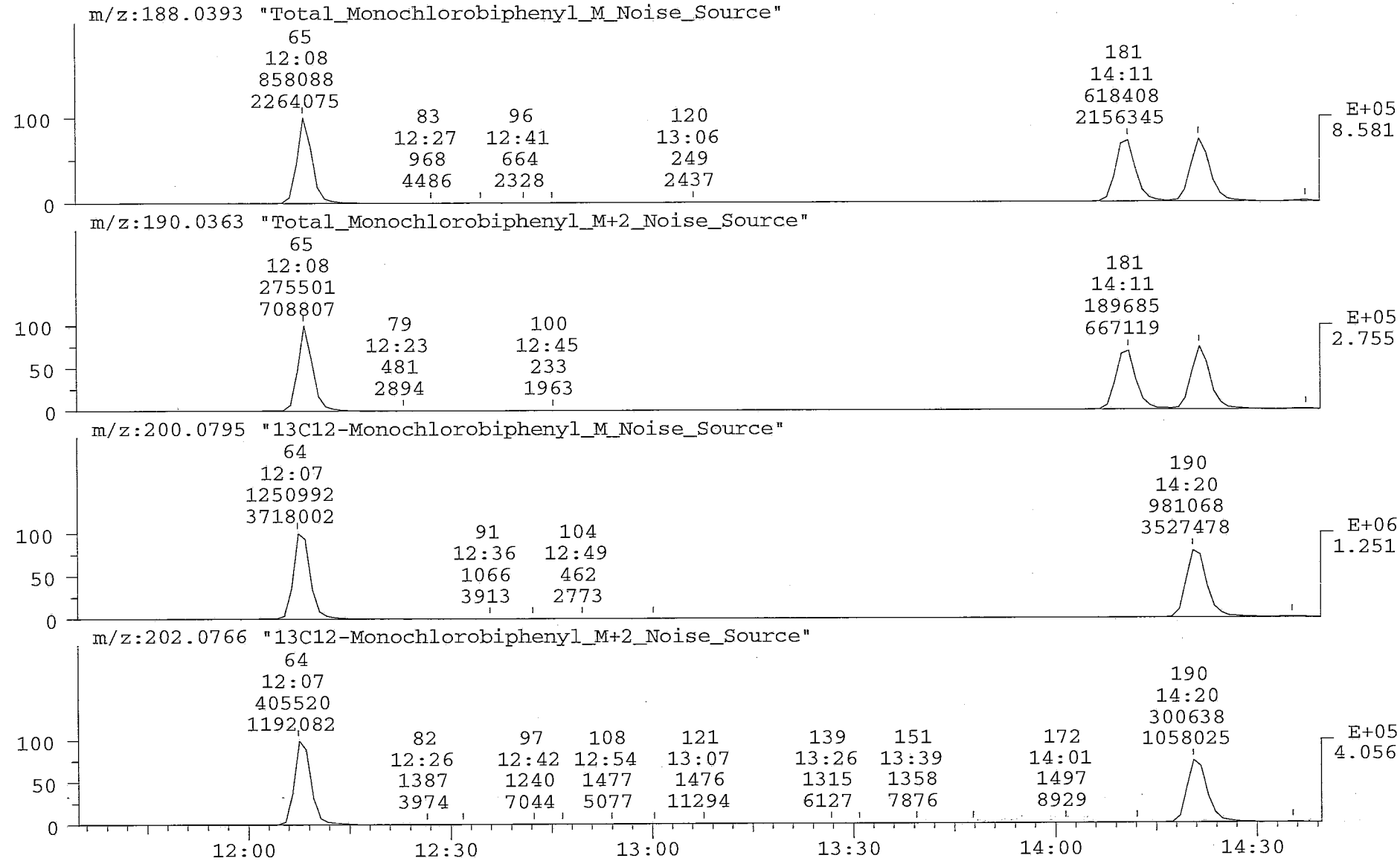
Int: JP 7/13/11
calc'd
QC Review MSD 7/14/11



H-3261

3260

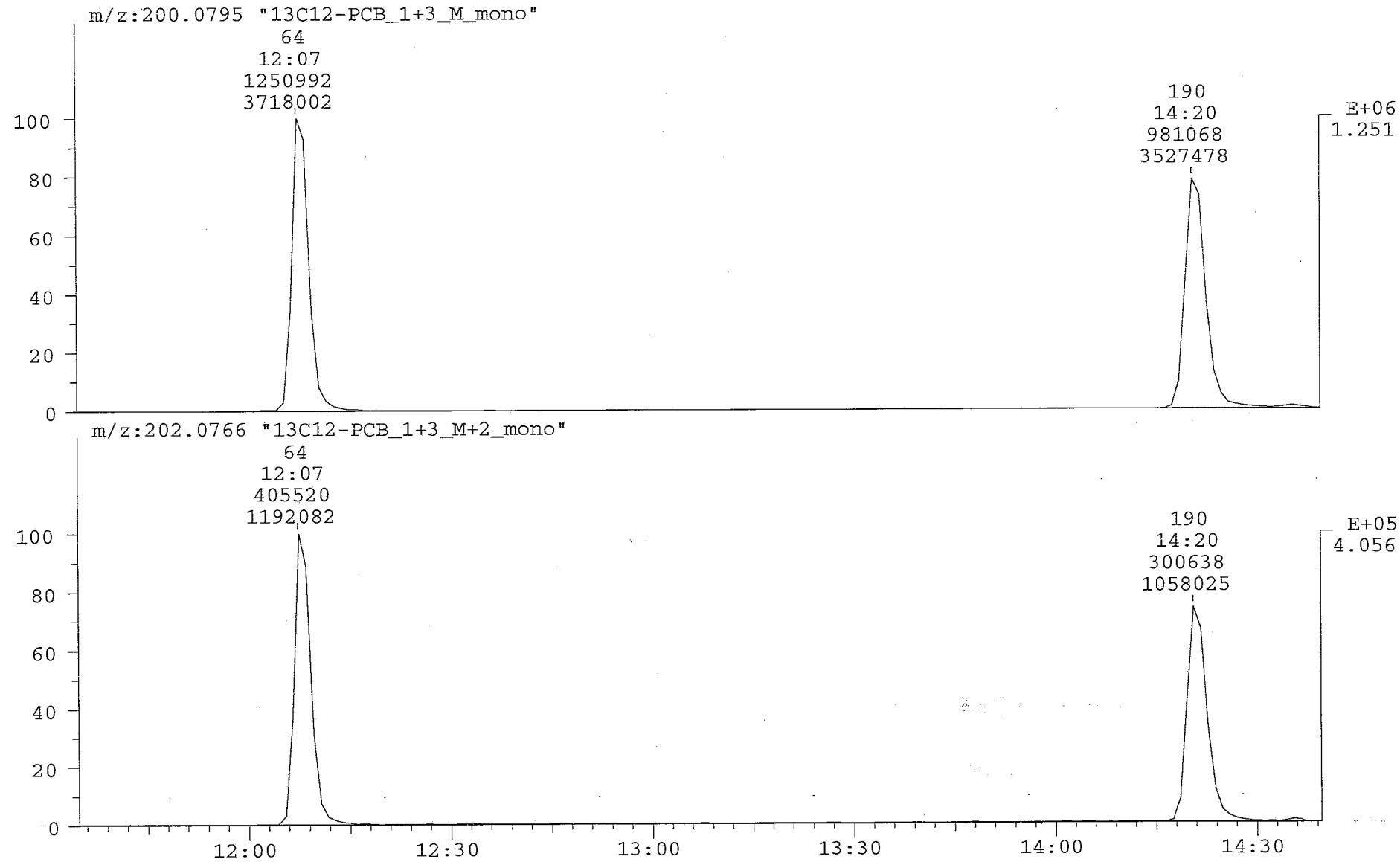
CHRO: apmkntml 14-Jul-11 Elapse: 13:20.3 133
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3262

3261

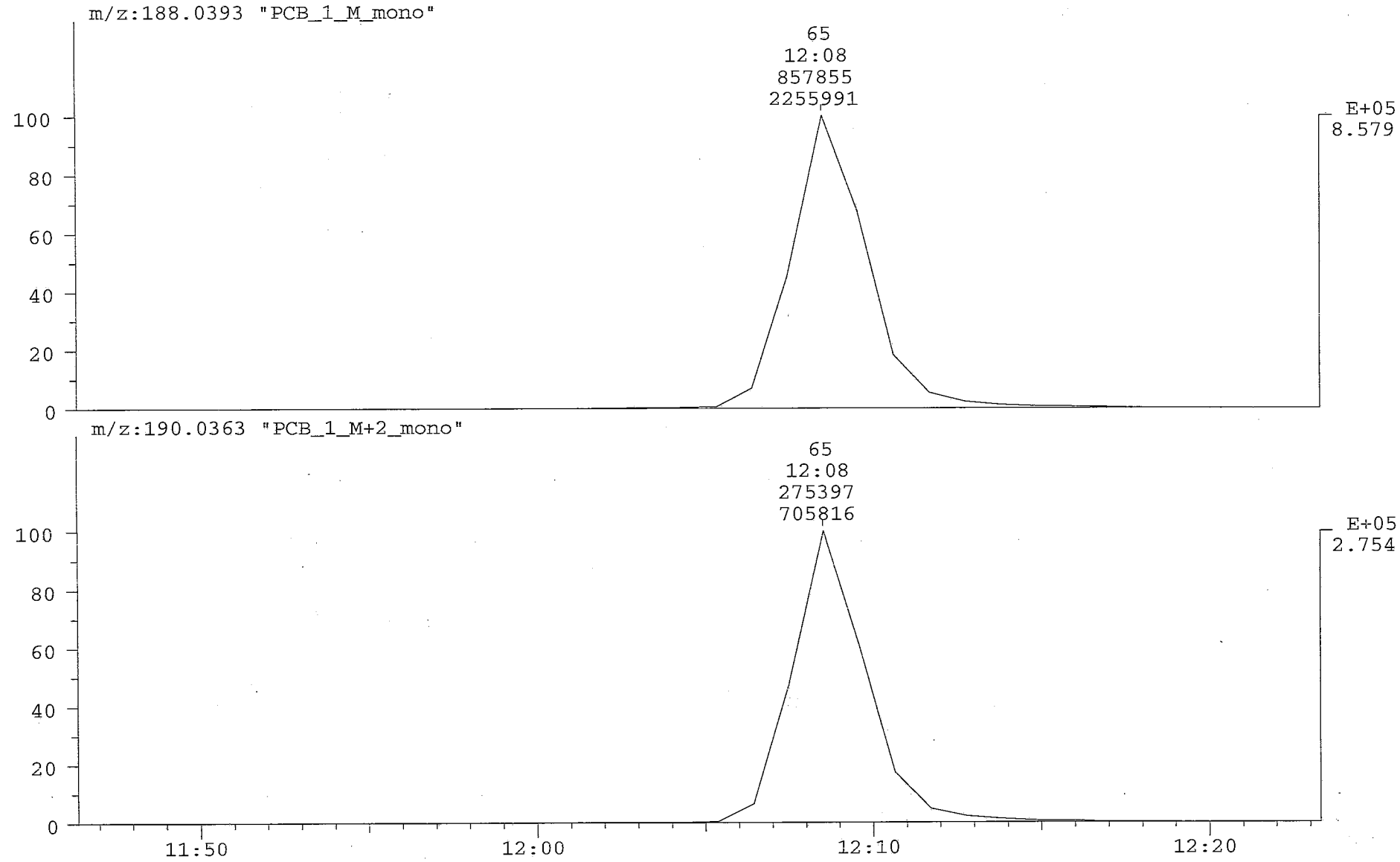
CHRO: apmkntml 14-Jul-11 Elapse: 13:20.3 133
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 33 > 208 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3263

3262

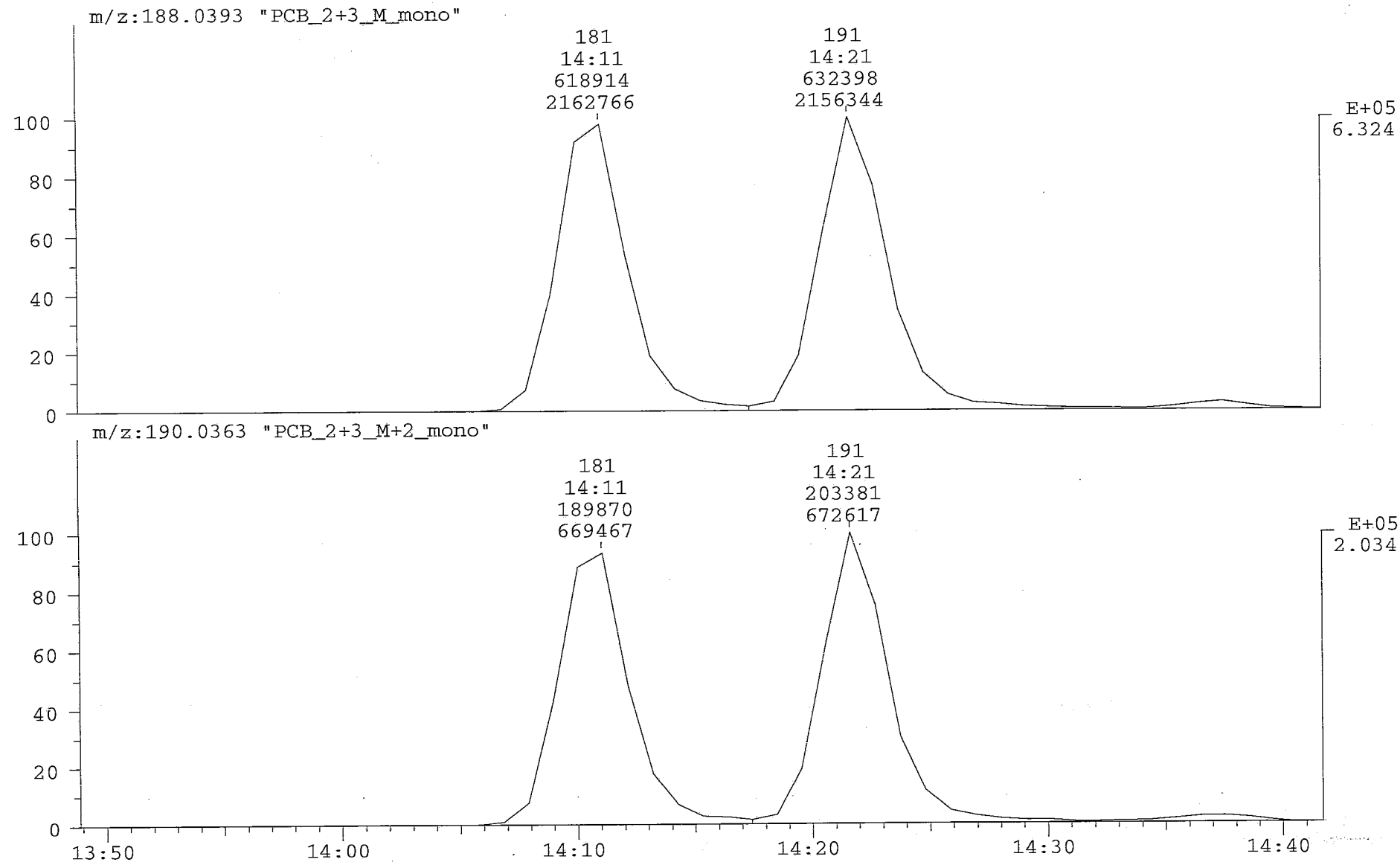
CHRO: apmkntm1 14-Jul-11 Elapse: 12:02.2 59
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 44 > 79 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3264

3263

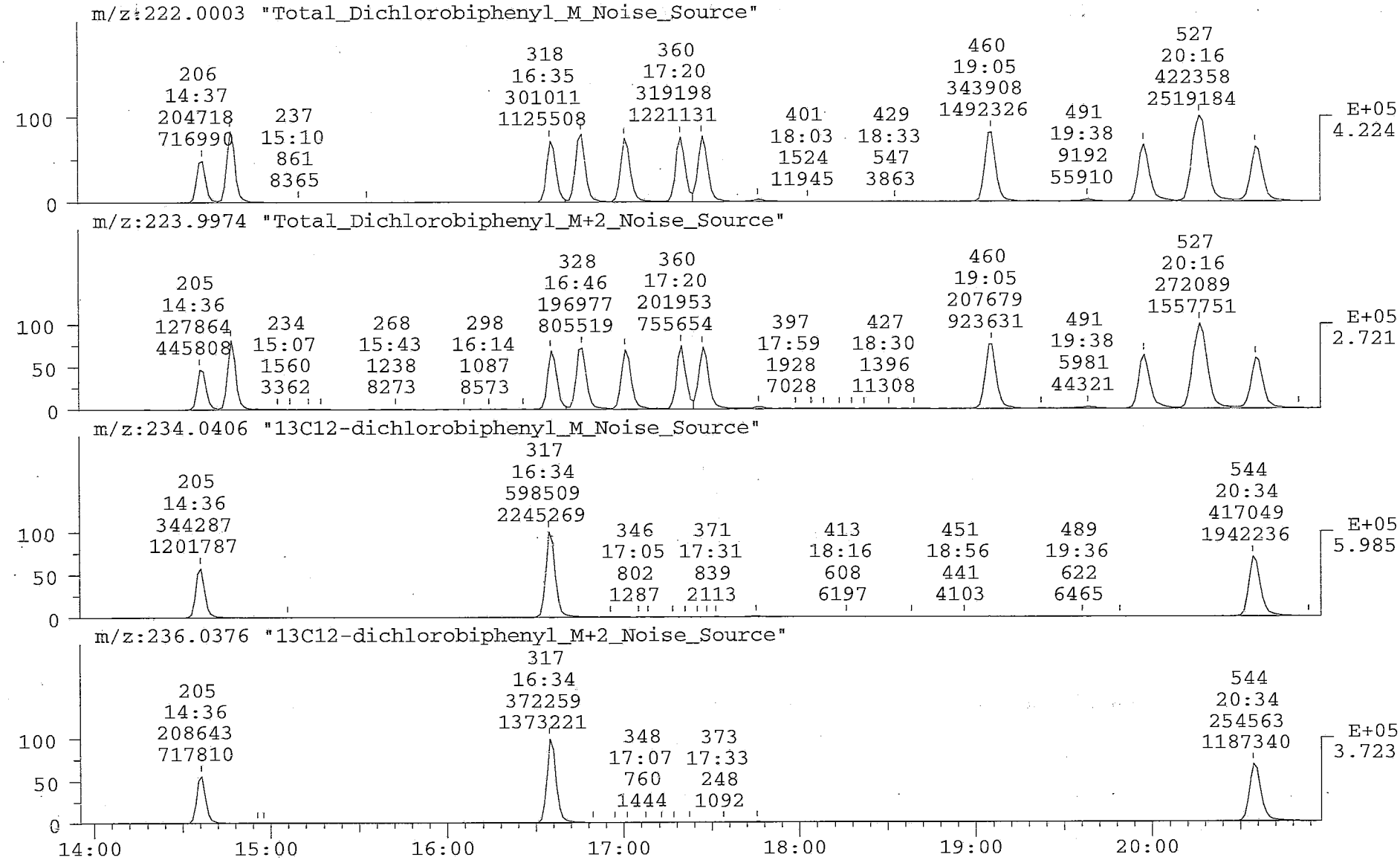
CHRO: apmkntm1 14-Jul-11 Elapse: 14:10.0 180
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 160 > 210 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3265

3264

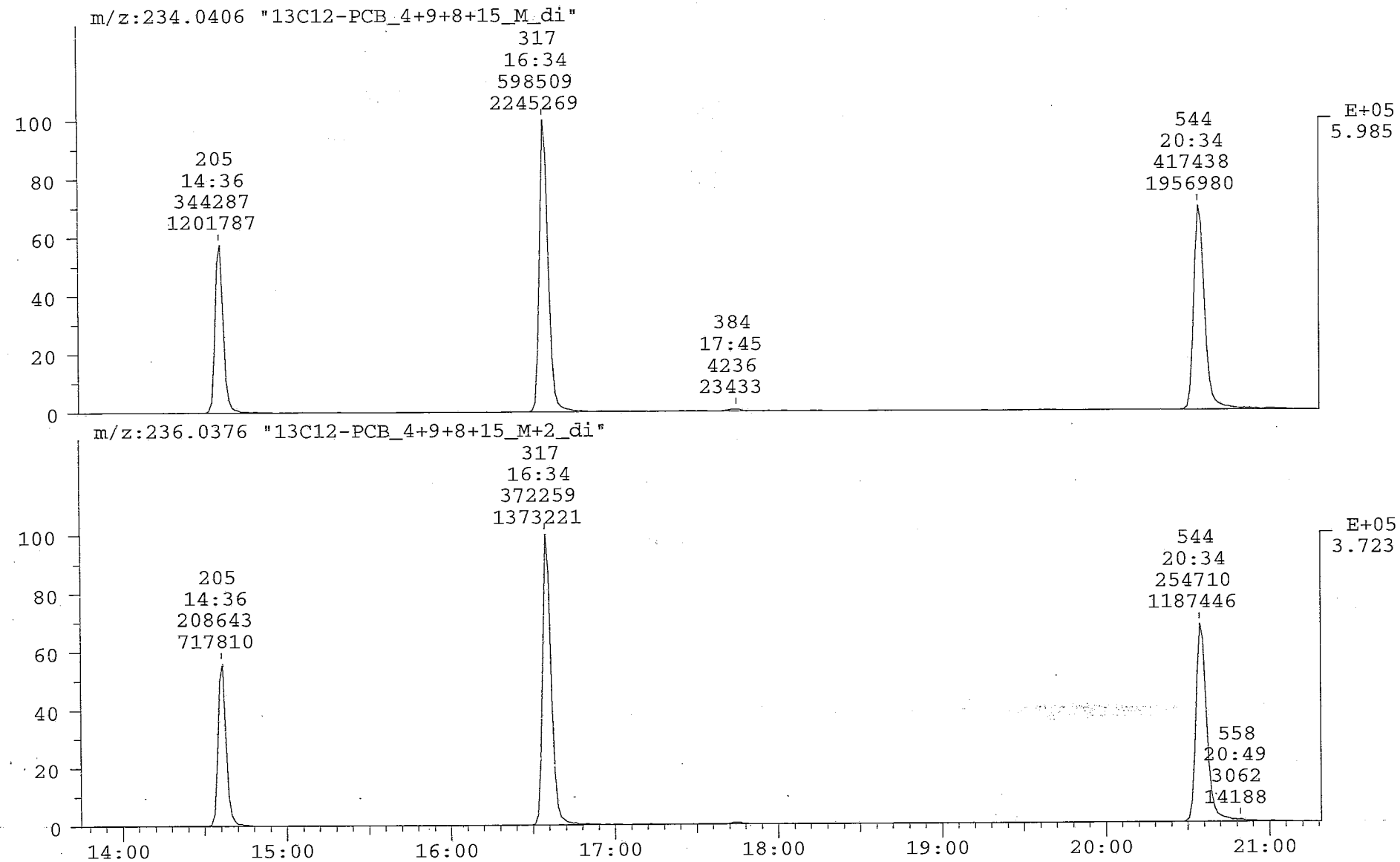
CHRO: apmkntm1 14-Jul-11 Elapse: 17:26.4 366
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 166 > 566 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3266

3265

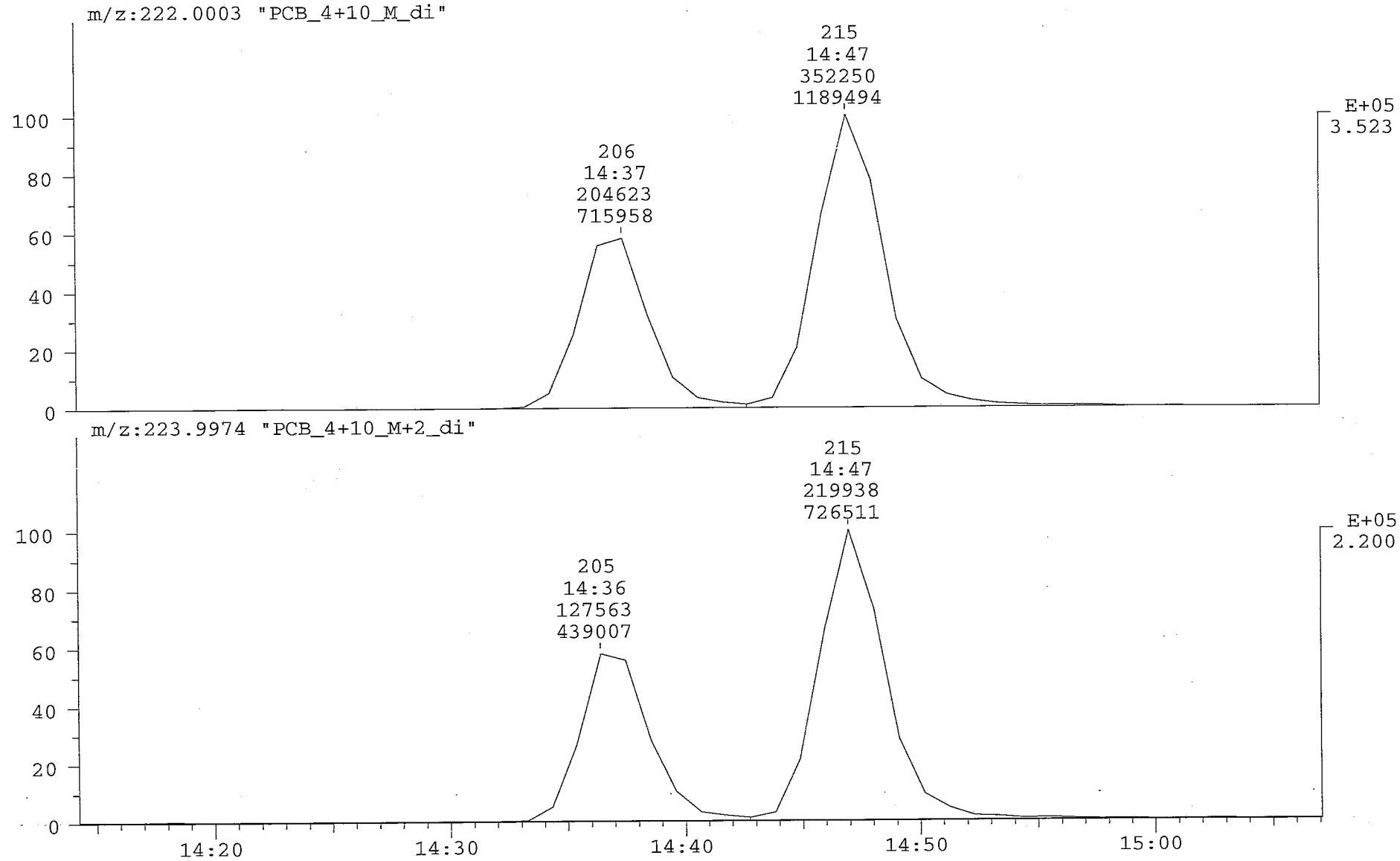
CHRO: apmkntml 14-Jul-11 Elapse: 17:26.4 366
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 156 > 586 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3267

3266

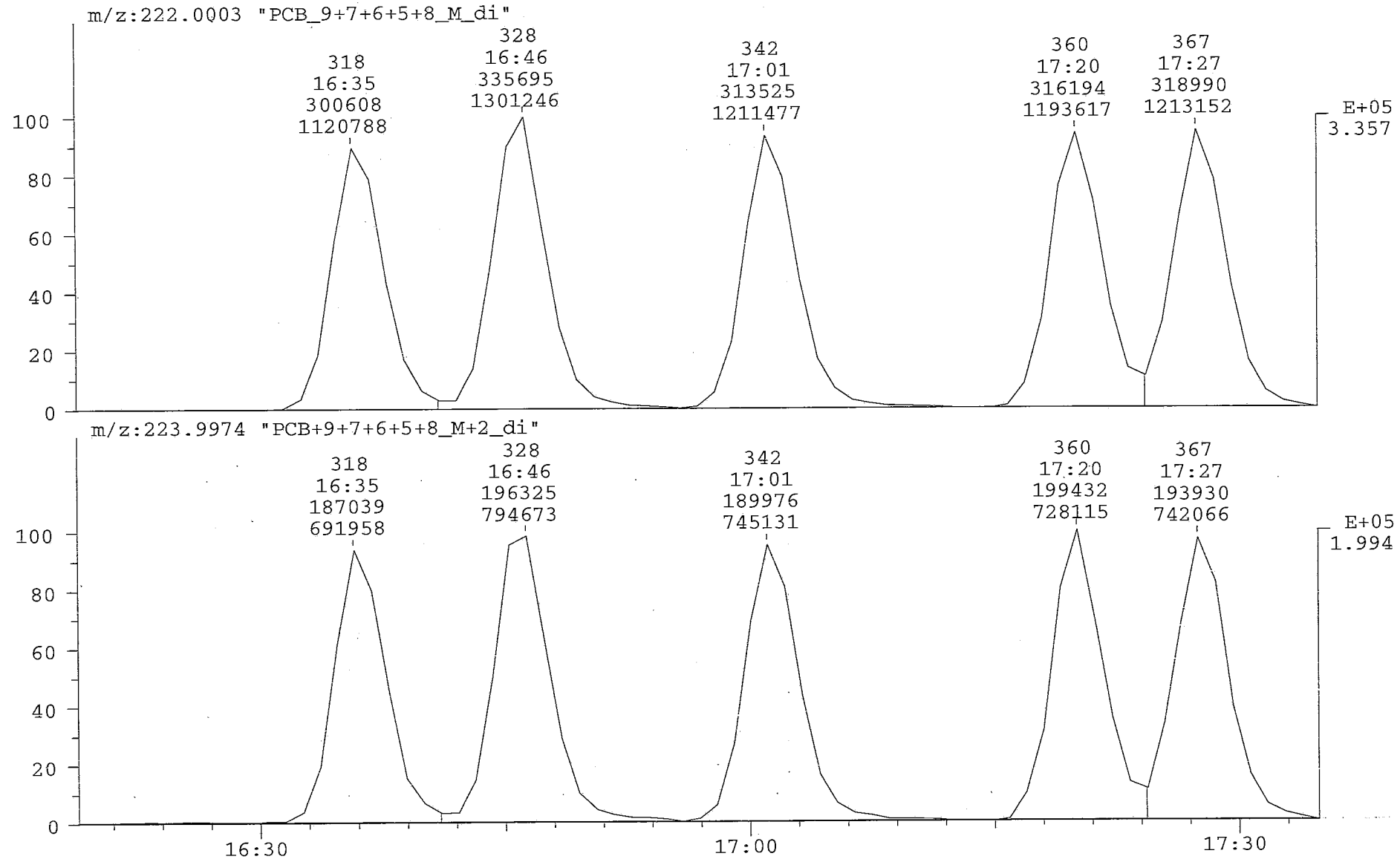
CHRO: apmkntm1 14-Jul-11 Elapse: 14:37.5 206
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 184 > 234 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3268

3267

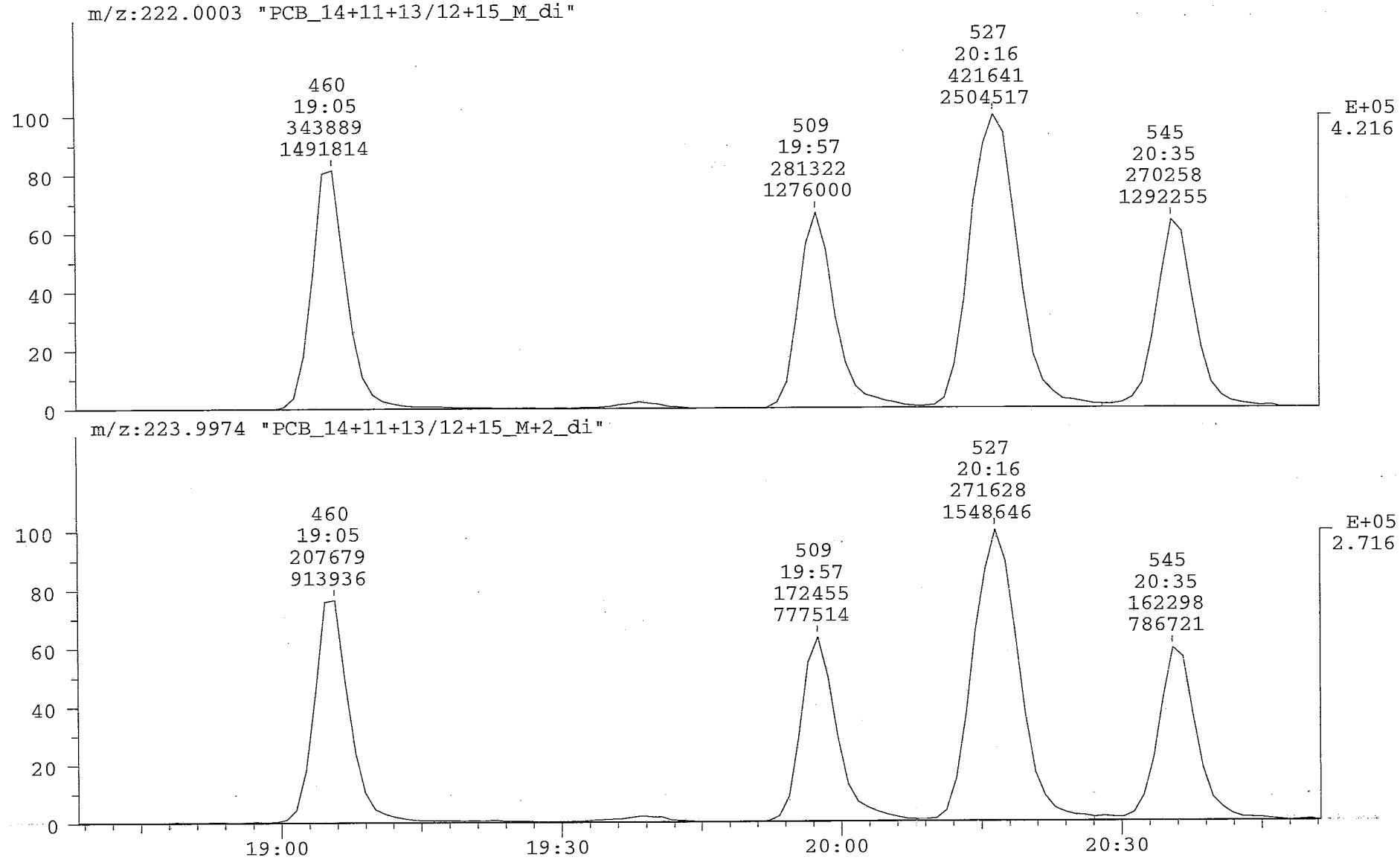
CHRO: apmkntml 14-Jul-11 Elapse: 16:55.8 337
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 302 > 374 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3269

3268

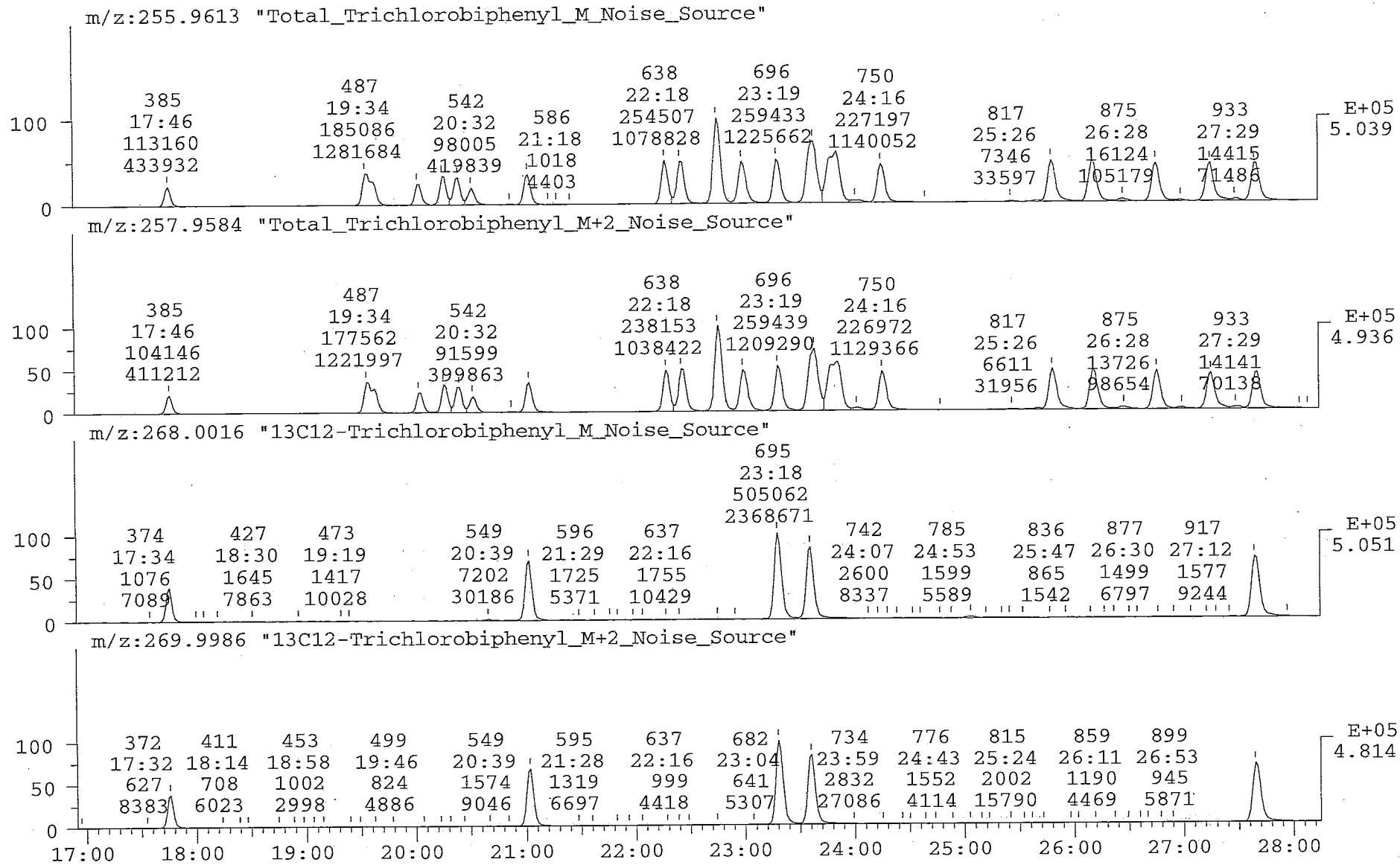
CHRO: apmkntm1 14-Jul-11 Elapse: 19:39.5 492
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 434 > 560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-3270

3269

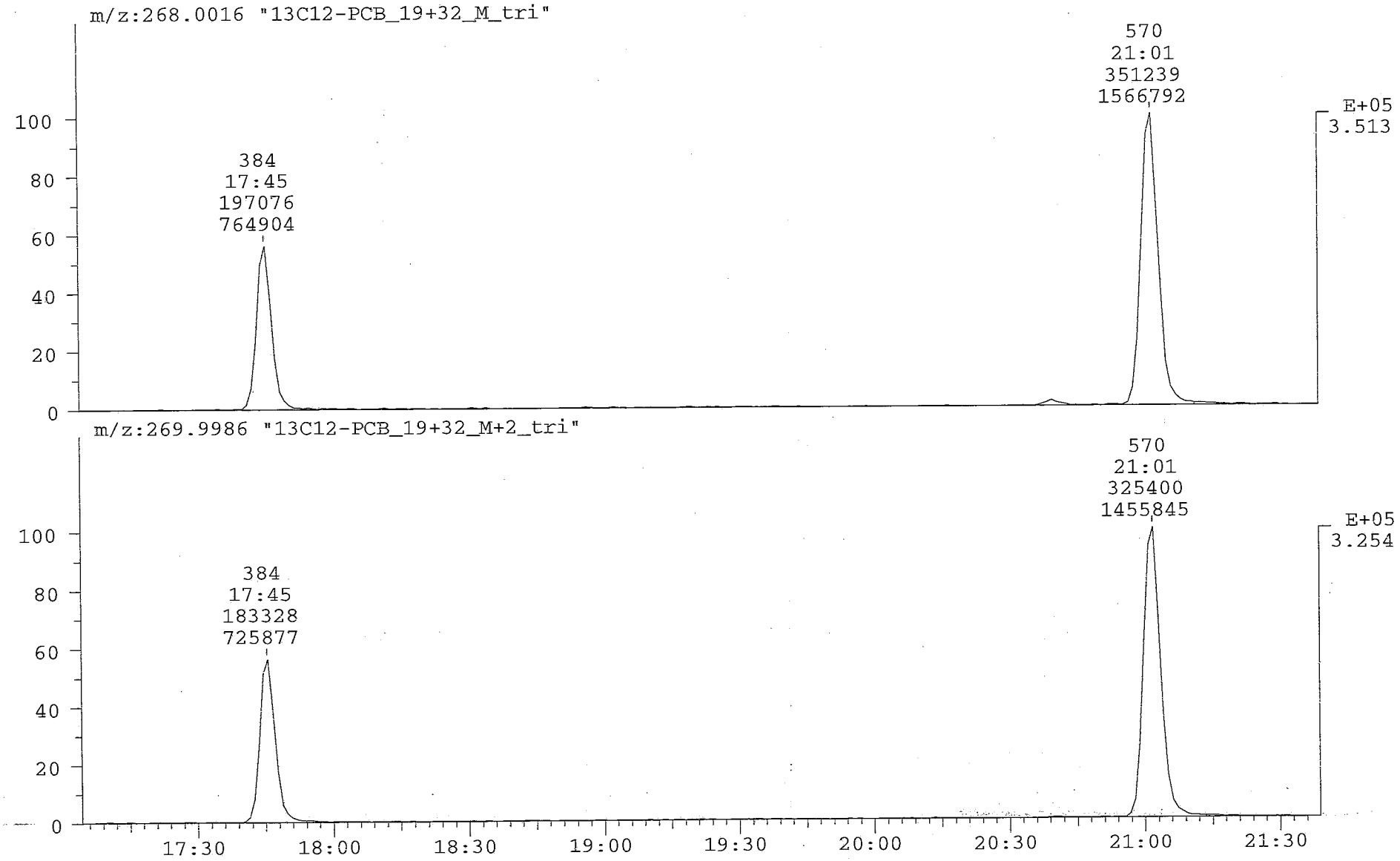
CHRO: apmkntm1 14-Jul-11 Elapse: 22:37.9 656
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 336 > 976 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3271

3270

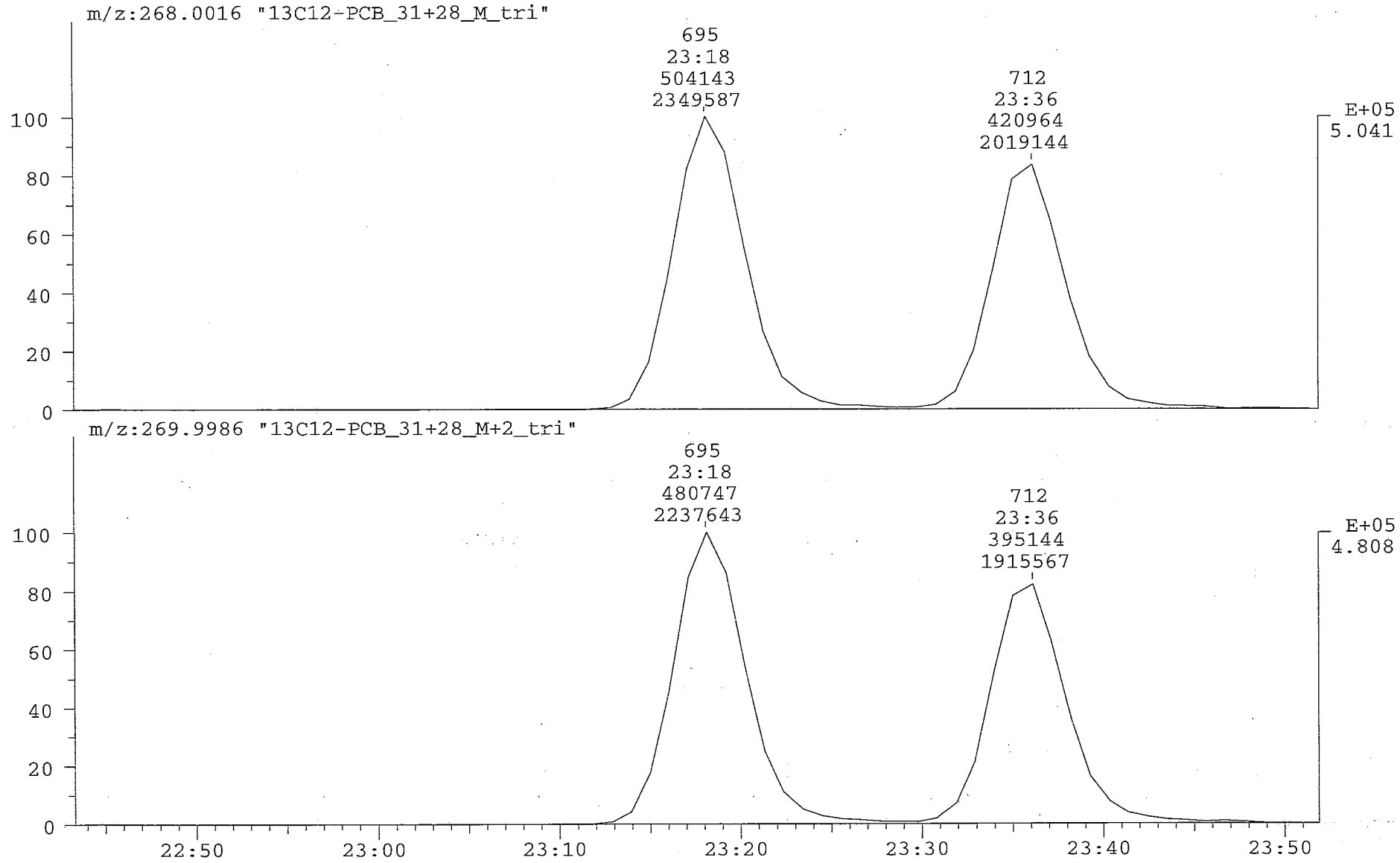
CHRO: apmkntm1 14-Jul-11 Elapse: 19:00.5 455
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 345 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3272

3271

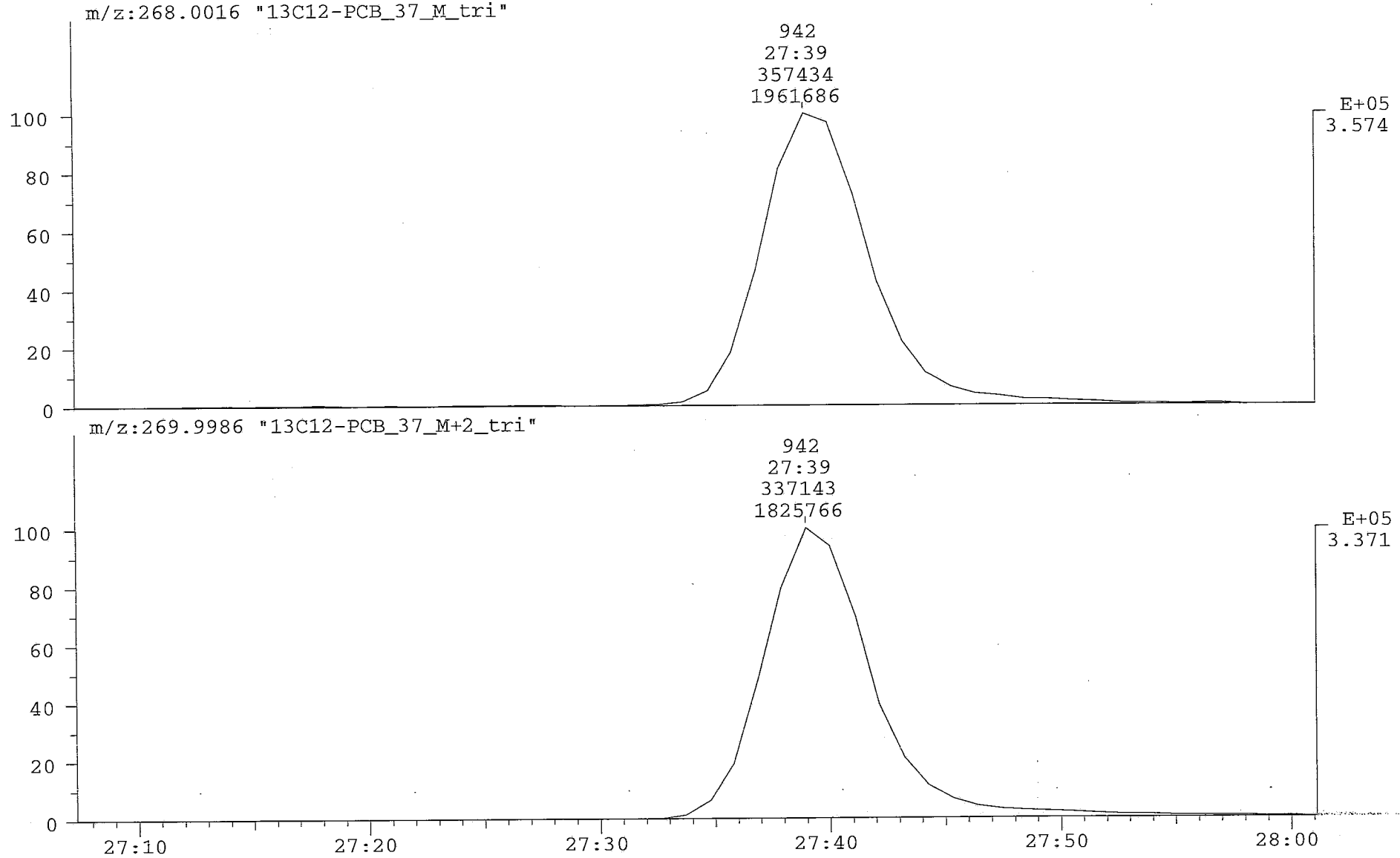
CHRO: apmkntm1 14-Jul-11 Elapse: 23:09.7 687
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 662 > 727 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3273

3272

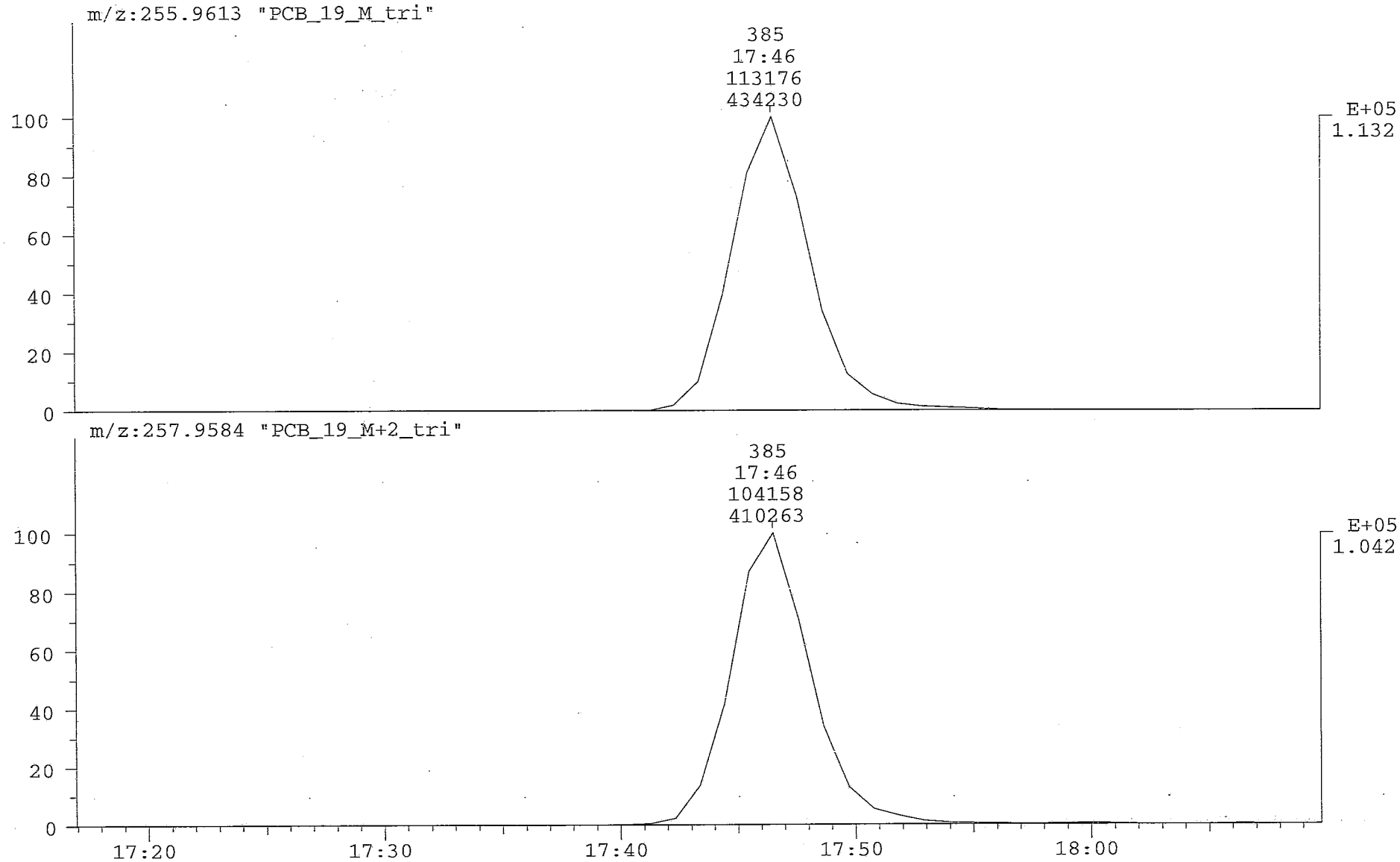
CHRO: apmkntm1 14-Jul-11 Elapse: 27:28.4 932
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 912 > 963 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3274

3273

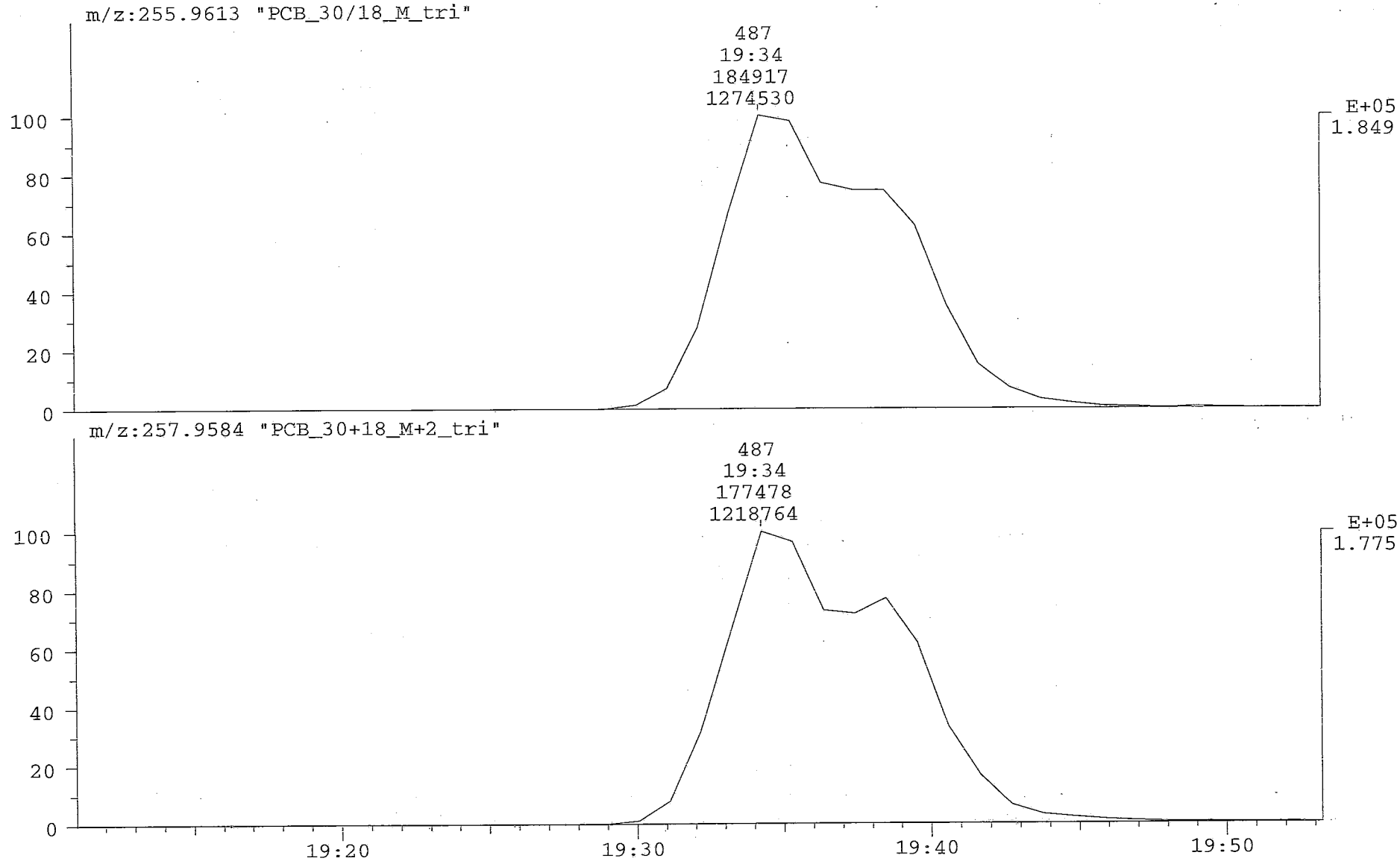
CHRO: apmkntm1 14-Jul-11 Elapse: 17:38.1 377
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 357 > 407 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3275

3274

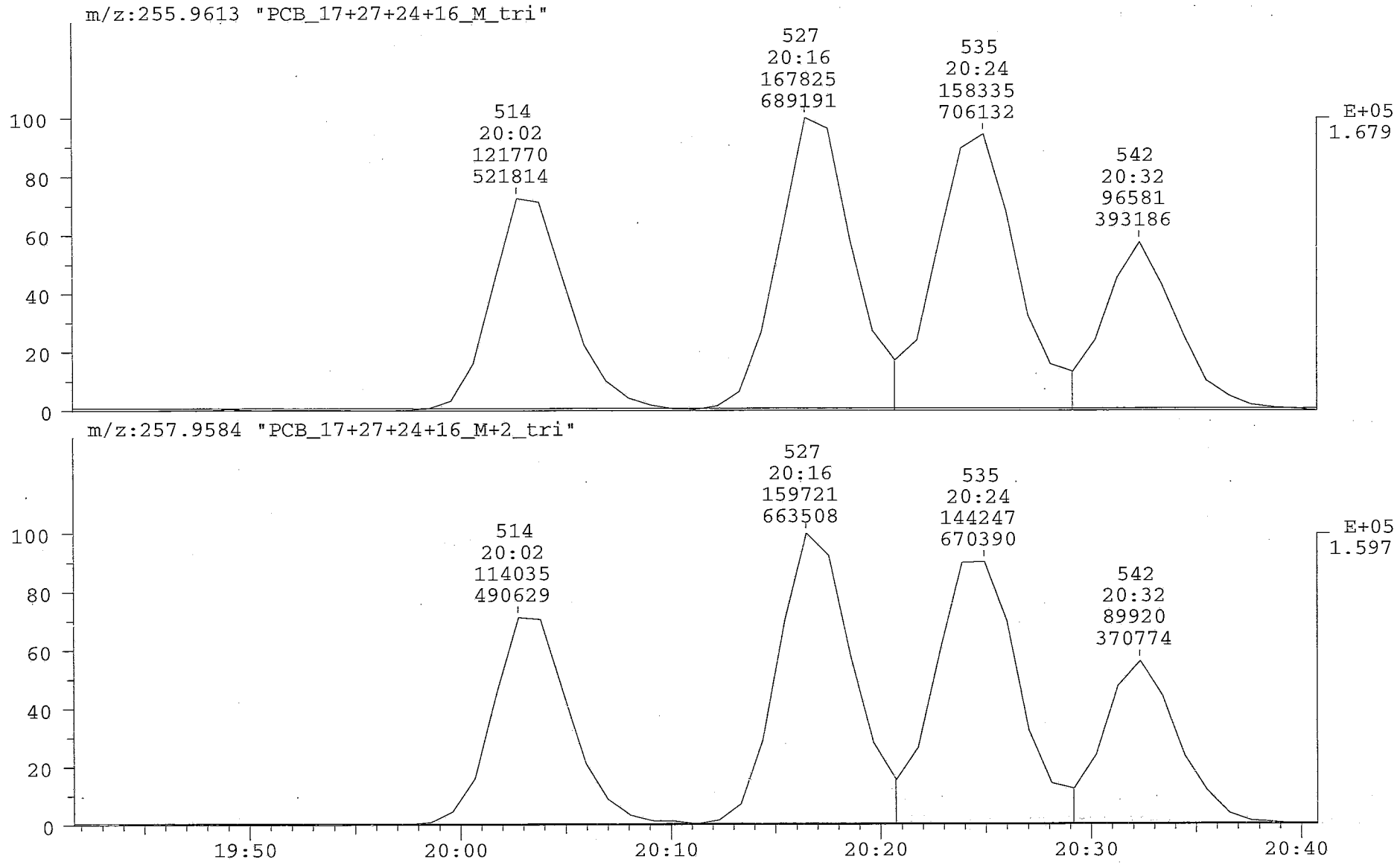
CHRO: apmkntm1 14-Jul-11 Elapse: 19:30.0 483
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 465 > 505 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-3276

3275

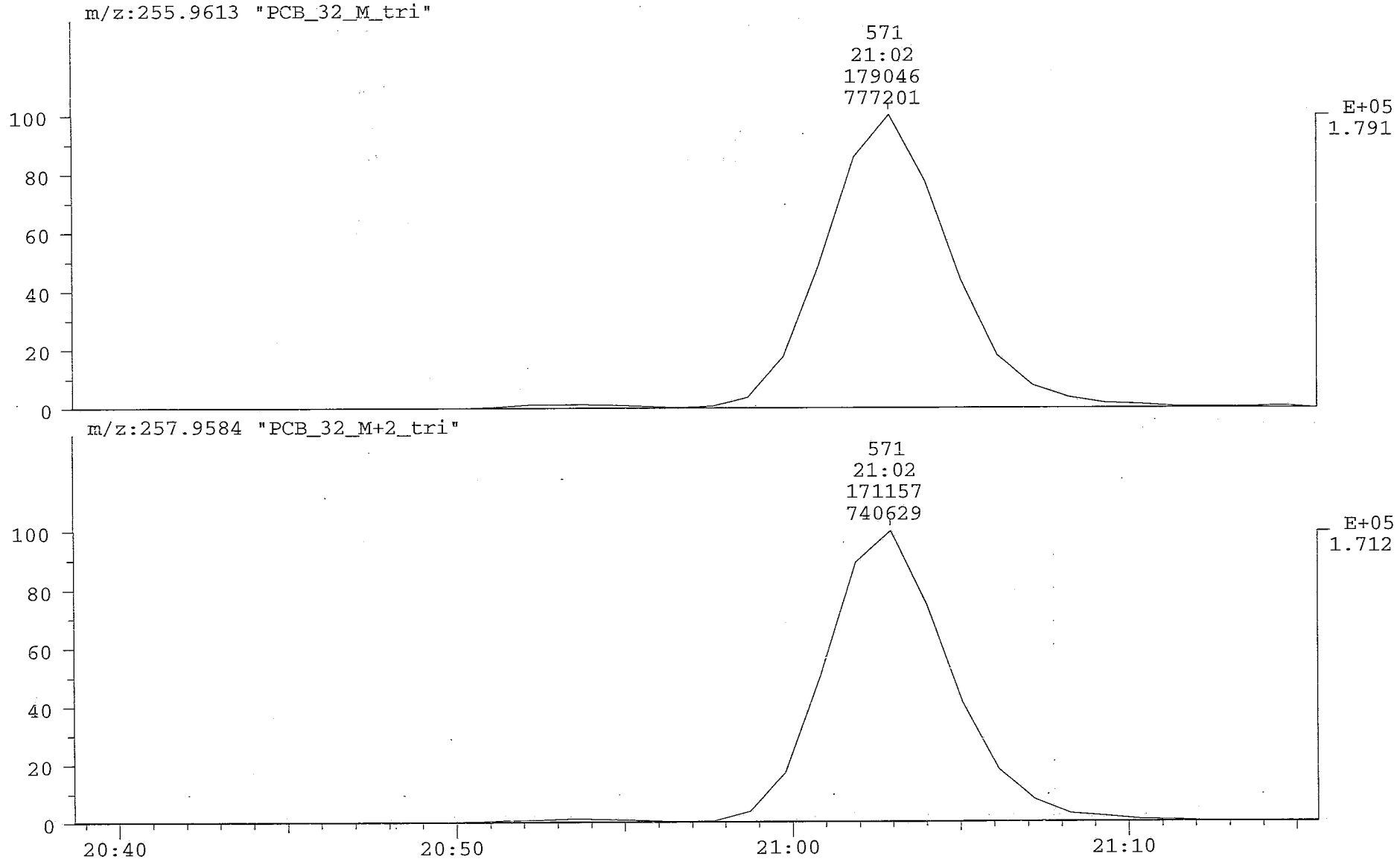
CHRO: apmkntm1 14-Jul-11 Elapse: 20:09.1 520
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 494 > 550 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3277

3276

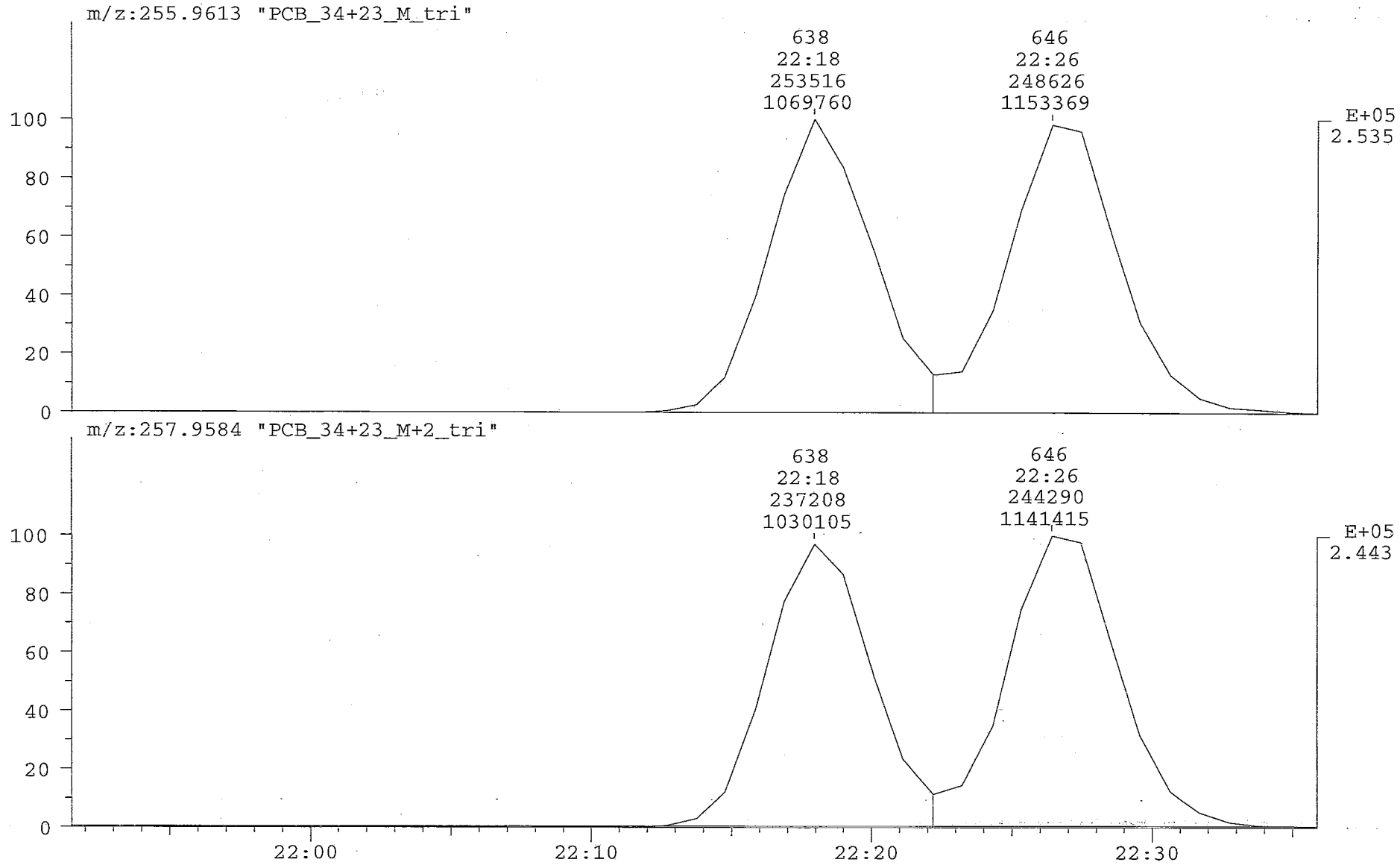
CHRO: apmkntm1 14-Jul-11 Elapse: 20:54.5 563
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 548 > 583 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3278

3277

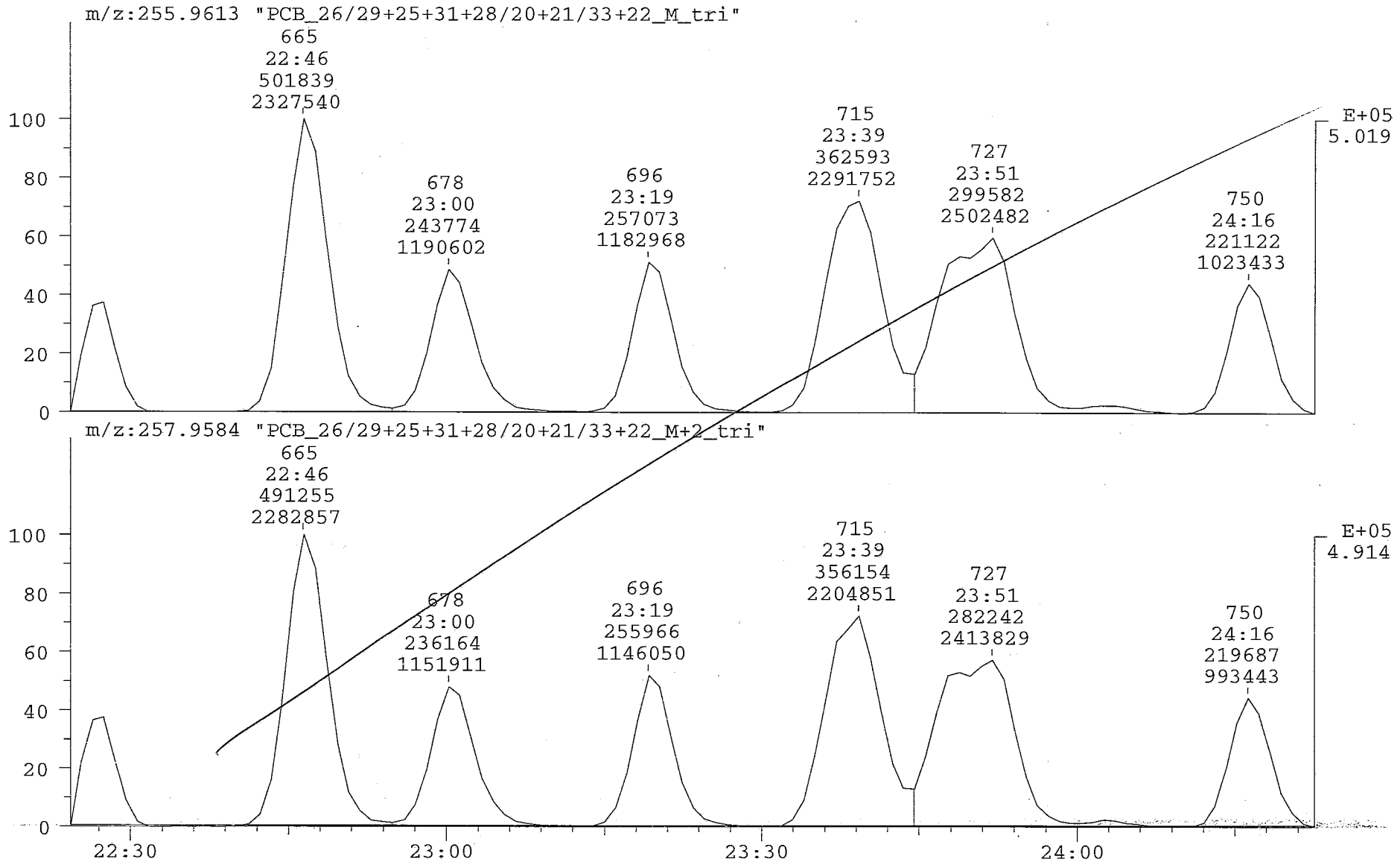
CHRO: apmkntml 14-Jul-11 Elapse: 22:09.5 630
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 613 > 655 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3279

3278

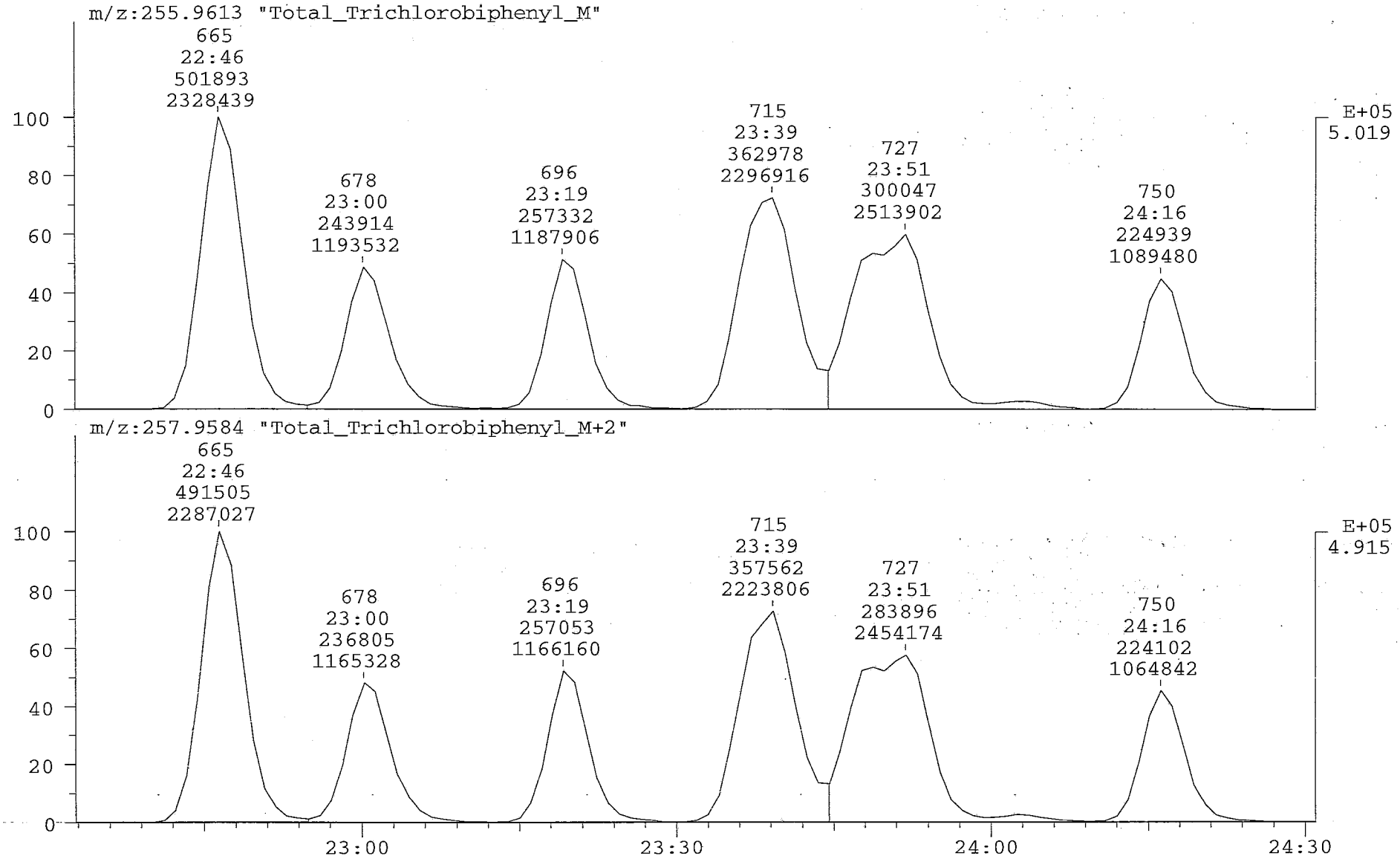
CHRO: apmkntml 14-Jul-11 Elapse: 23:37.1 713
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 644 > 756 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3280

3279

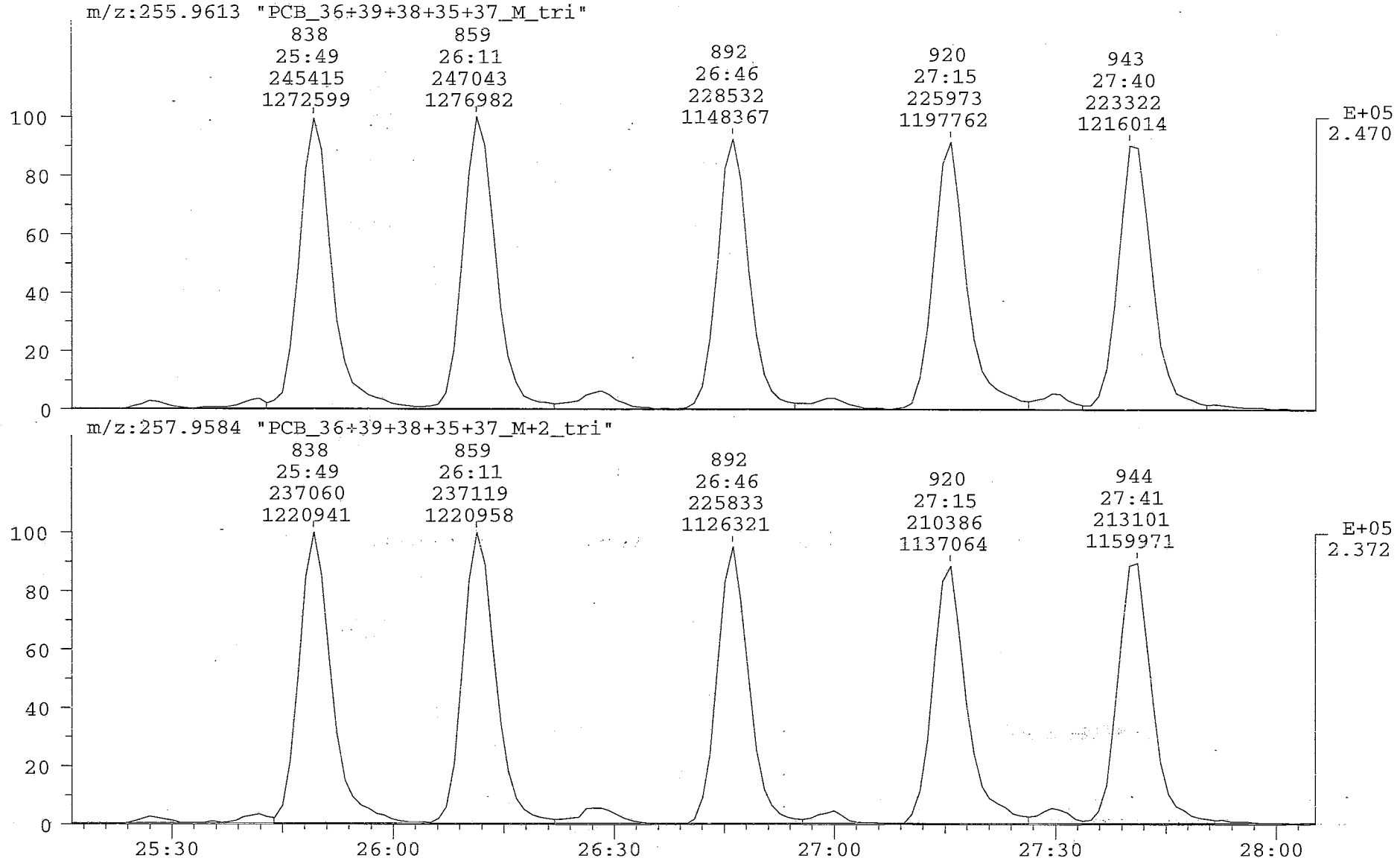
CHRO: apmkntm1 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 652 > 764 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3281

3280

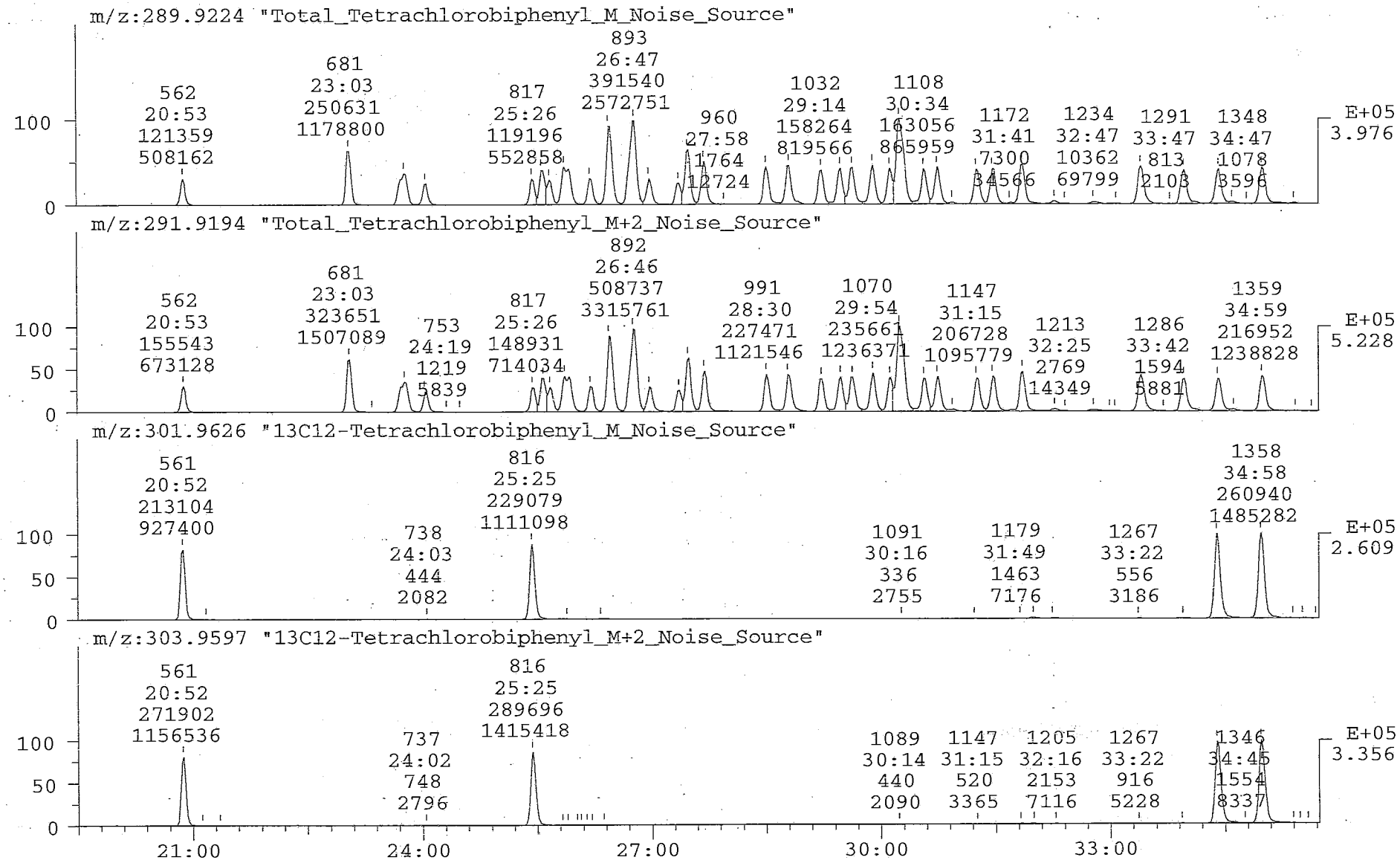
CHRO: apmkntm1 14-Jul-11 Elapse: 26:37.7 884
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 807 > 967 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3282

3281

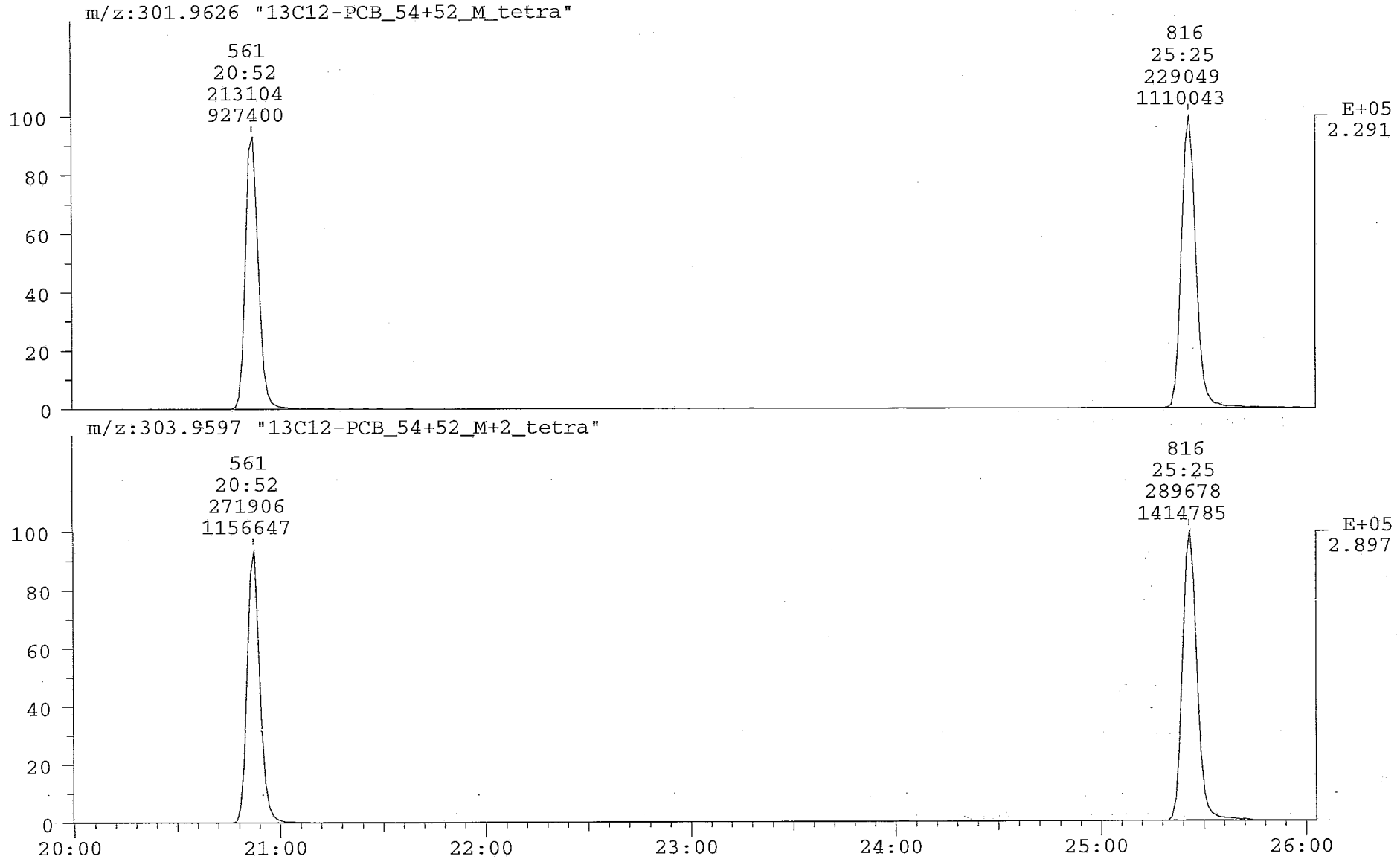
CHRO: apmkntm1 14-Jul-11 Elapse: 27:36.9 940
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 483 > 1401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3283

3282

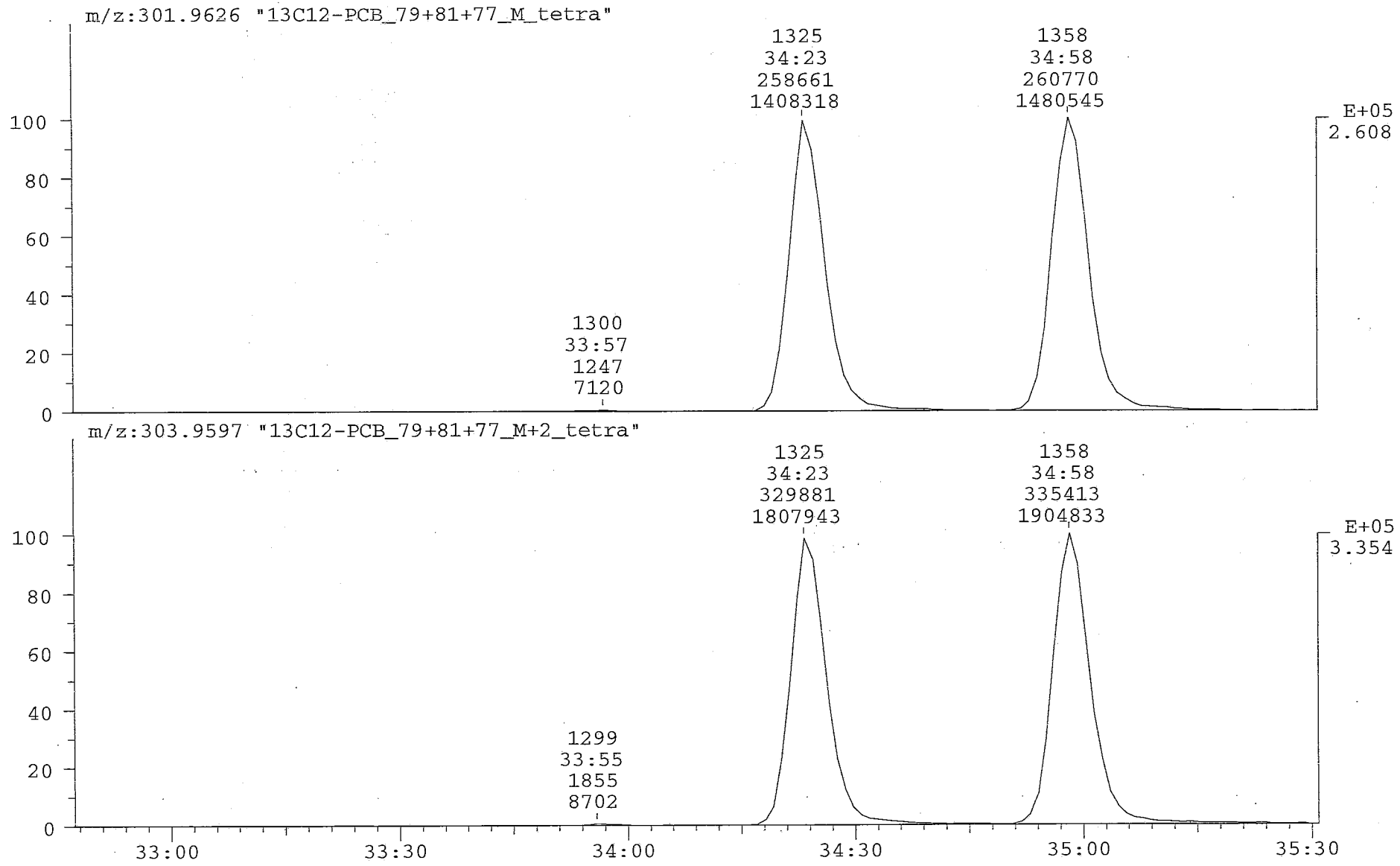
CHRO: apmkntm1 14-Jul-11 Elapse: 23:03.3 681
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 511 > 851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3284

3283

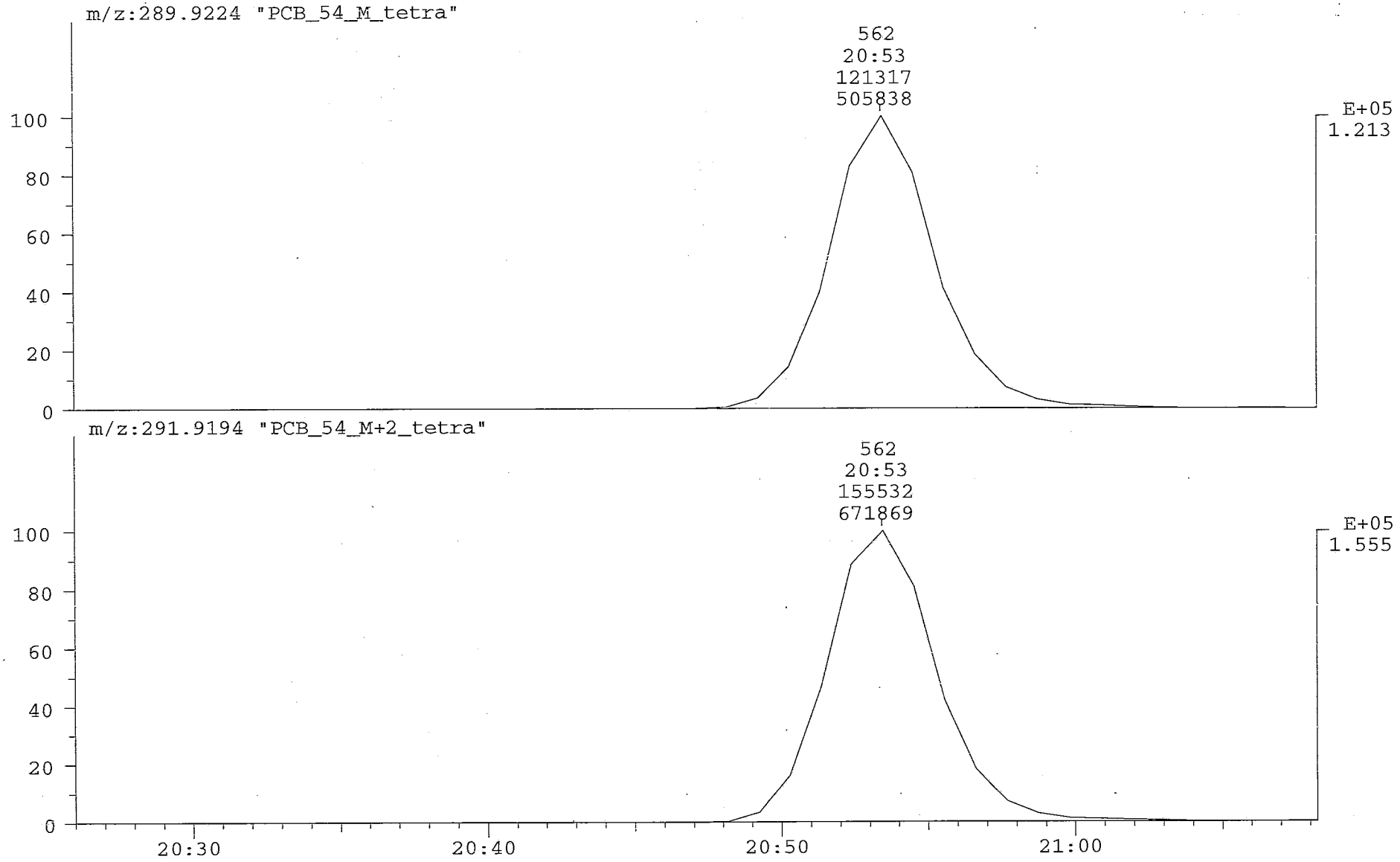
CHRO: apmkntm1 14-Jul-11 Elapse: 33:59 1302
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1234 > 1389 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3285

3284

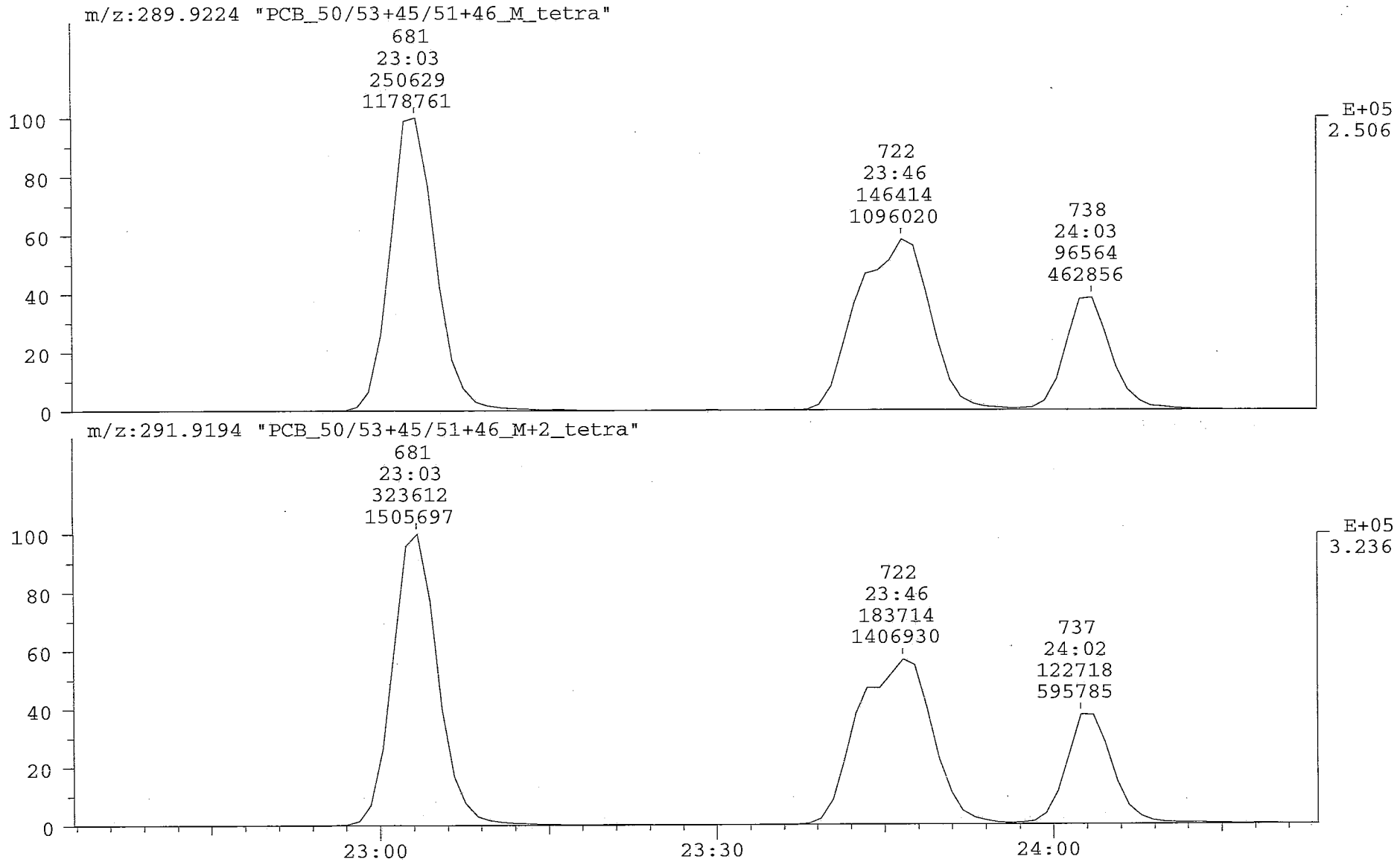
CHRO: apmkntm1 14-Jul-11 Elapse: 20:45.9 554
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 536 > 576 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3286

3285

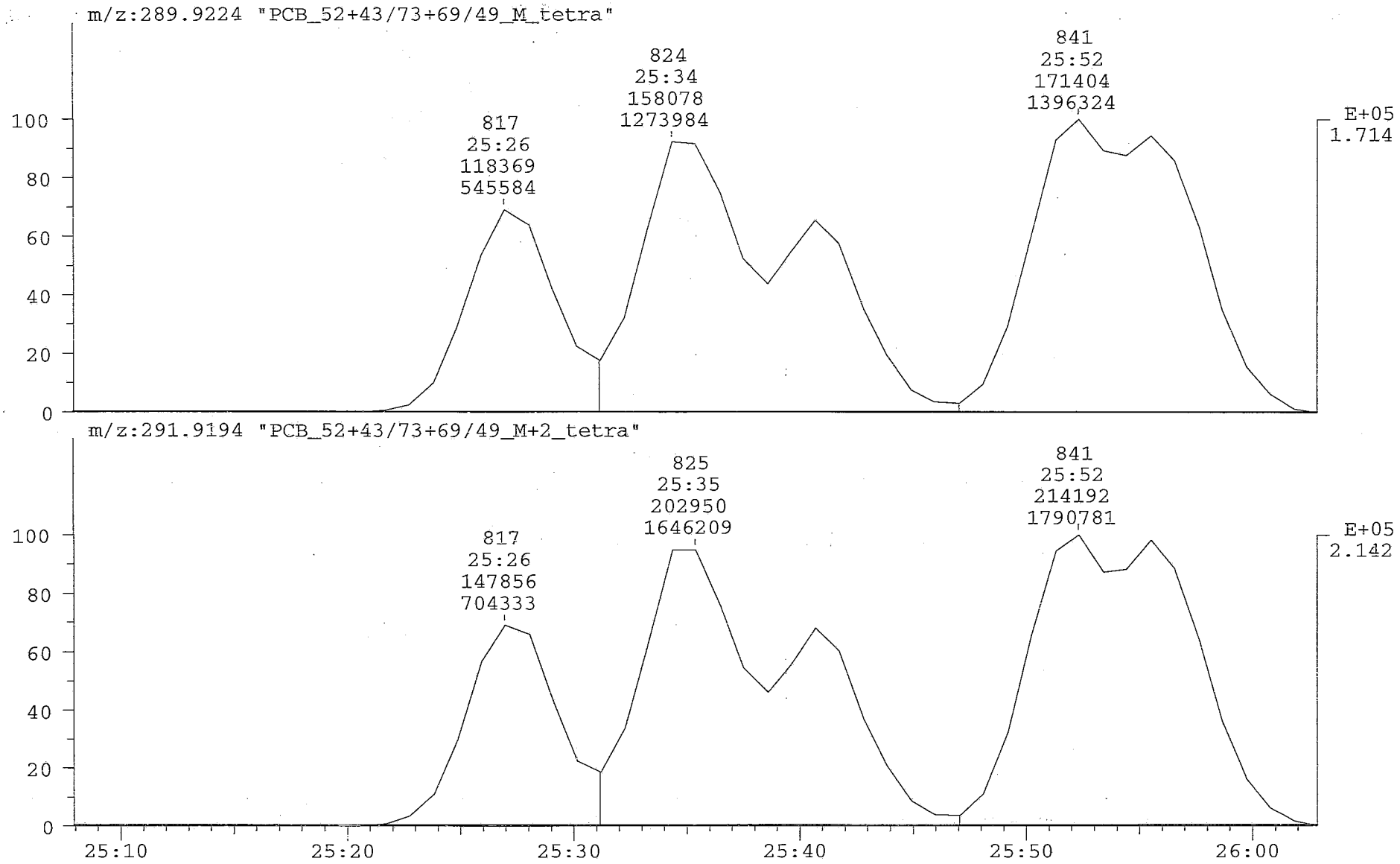
CHRO: apmkntml 14-Jul-11 Elapse: 23:30.8 707
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 652 > 757 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-3287

3286

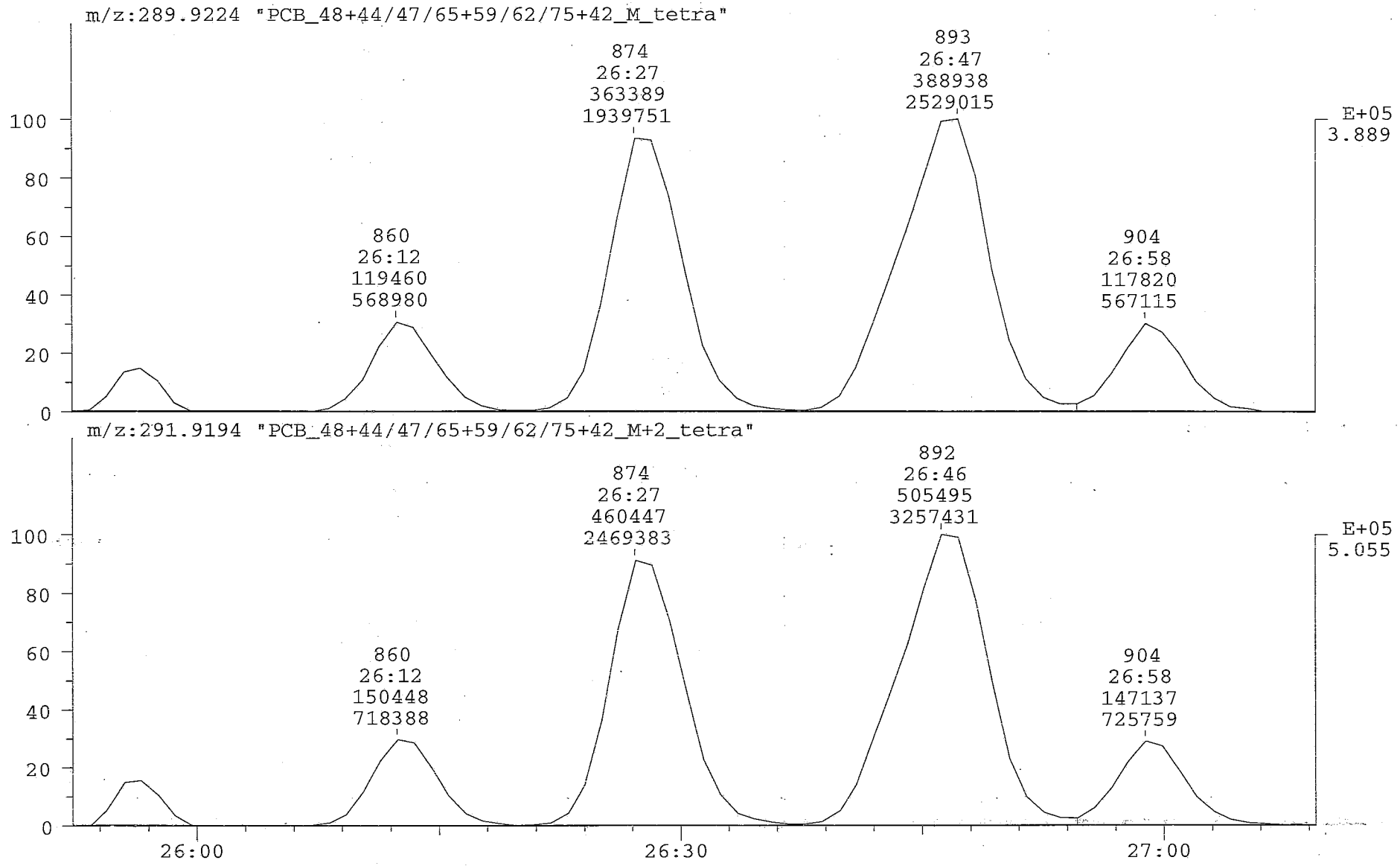
```
CHRO:  apmkntml                                14-Jul-11   Elapse:  25:37.5     827
Samp:  Vial 5 WO=mkntm1ad Meth=IE5 Dil=1                   Start :  00:13:28    2597
Comm:  Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                           Study :  1187028 (Air-2)
Oper:  JMN          Client:  H1G060000-028L                Inlet :  GC     Vial  5
Peak:  100.00  ppm     Label wndw:   799 > 851             Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 5               Label :  -3, 3.0
Disp:  Height  Area
```



H-3288

3287

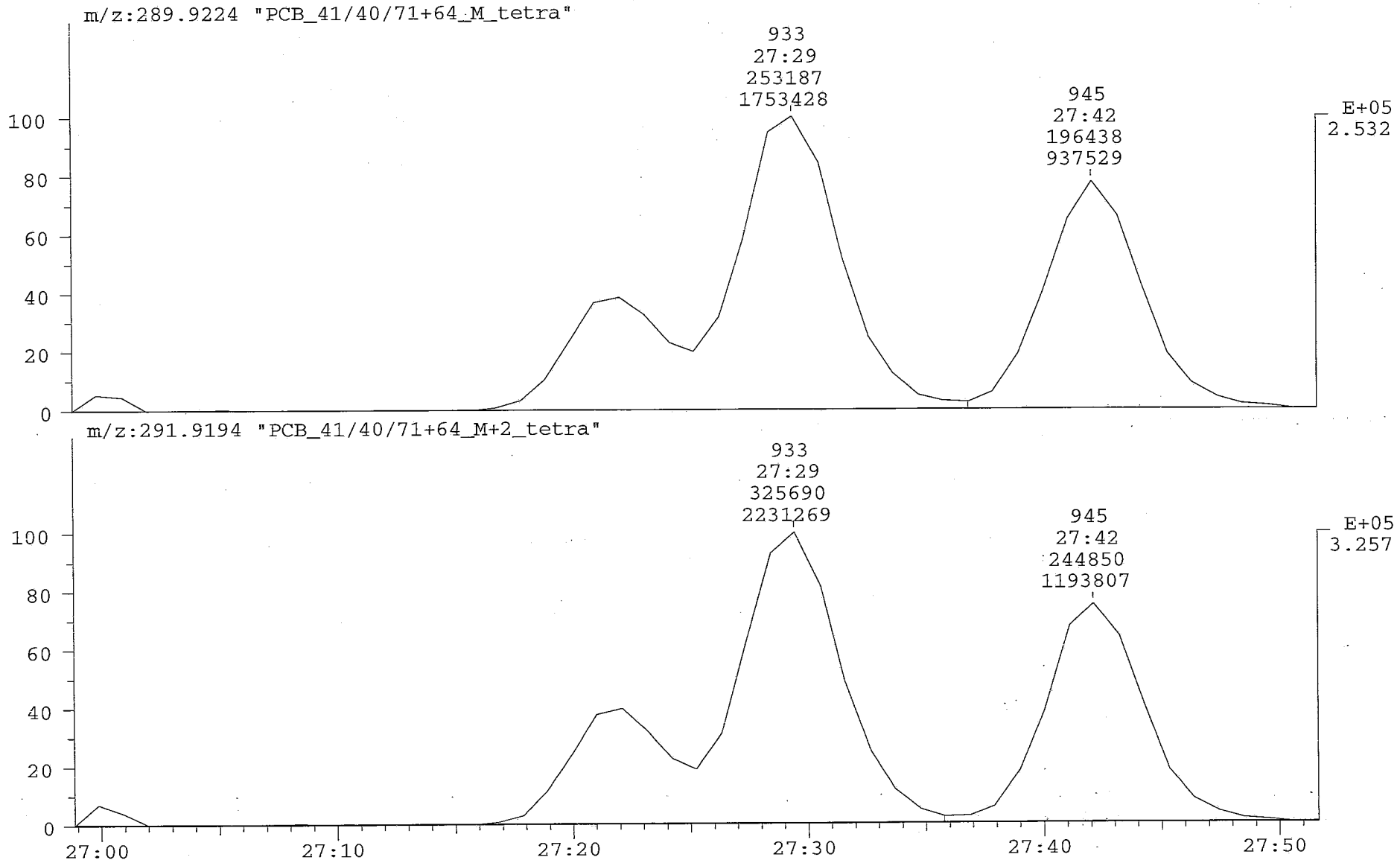
CHRO: apmkntm1 14-Jul-11 Elapse: 26:30.3 877
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 841 > 914 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-3289

3288

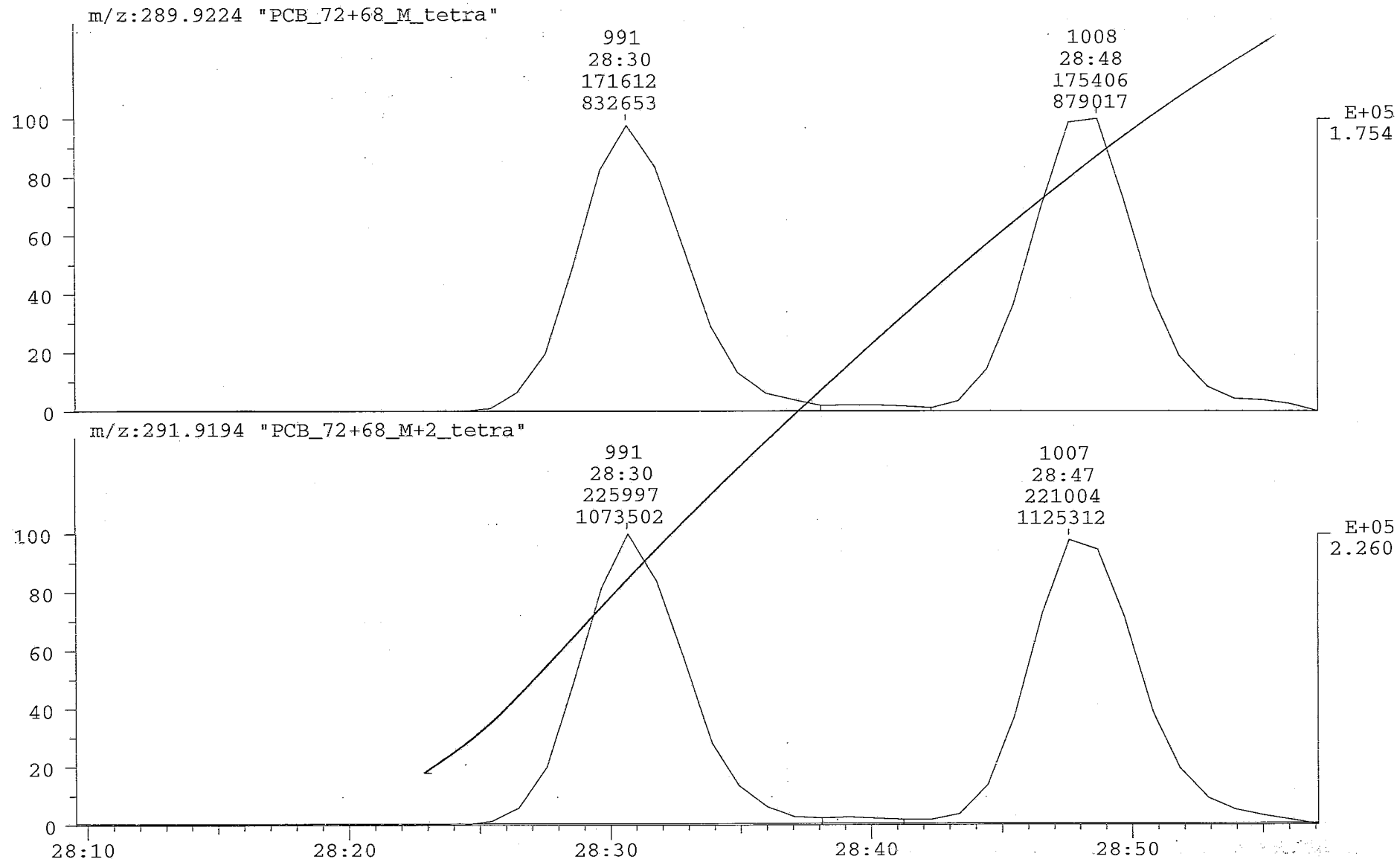
CHRO: apmkntml 14-Jul-11 Elapse: 27:30.5 934
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 904 > 954 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-3290

3289

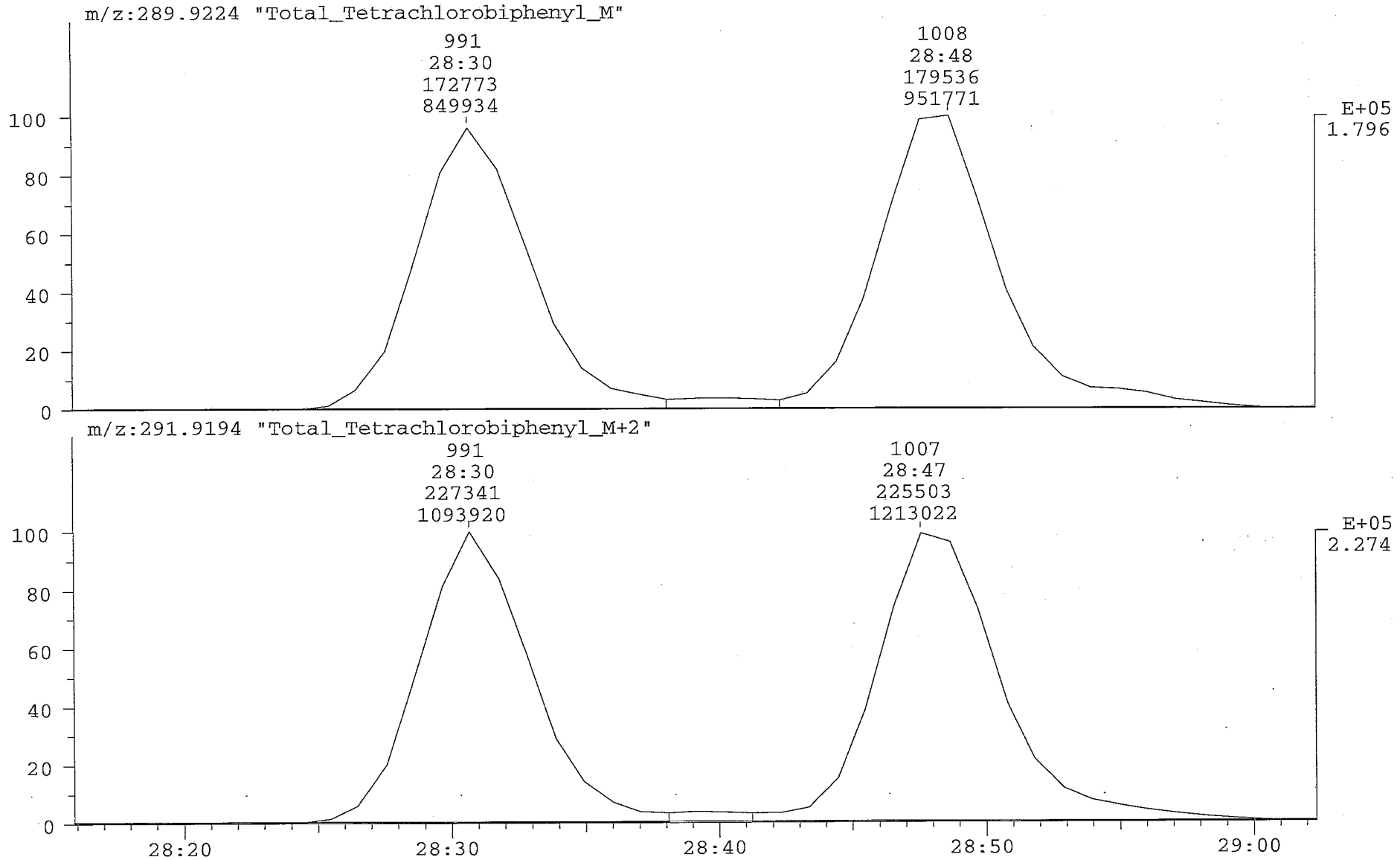
CHRO: apmkntm1 14-Jul-11 Elapse: 28:33.9 994
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 971 > 1016 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3291

3290

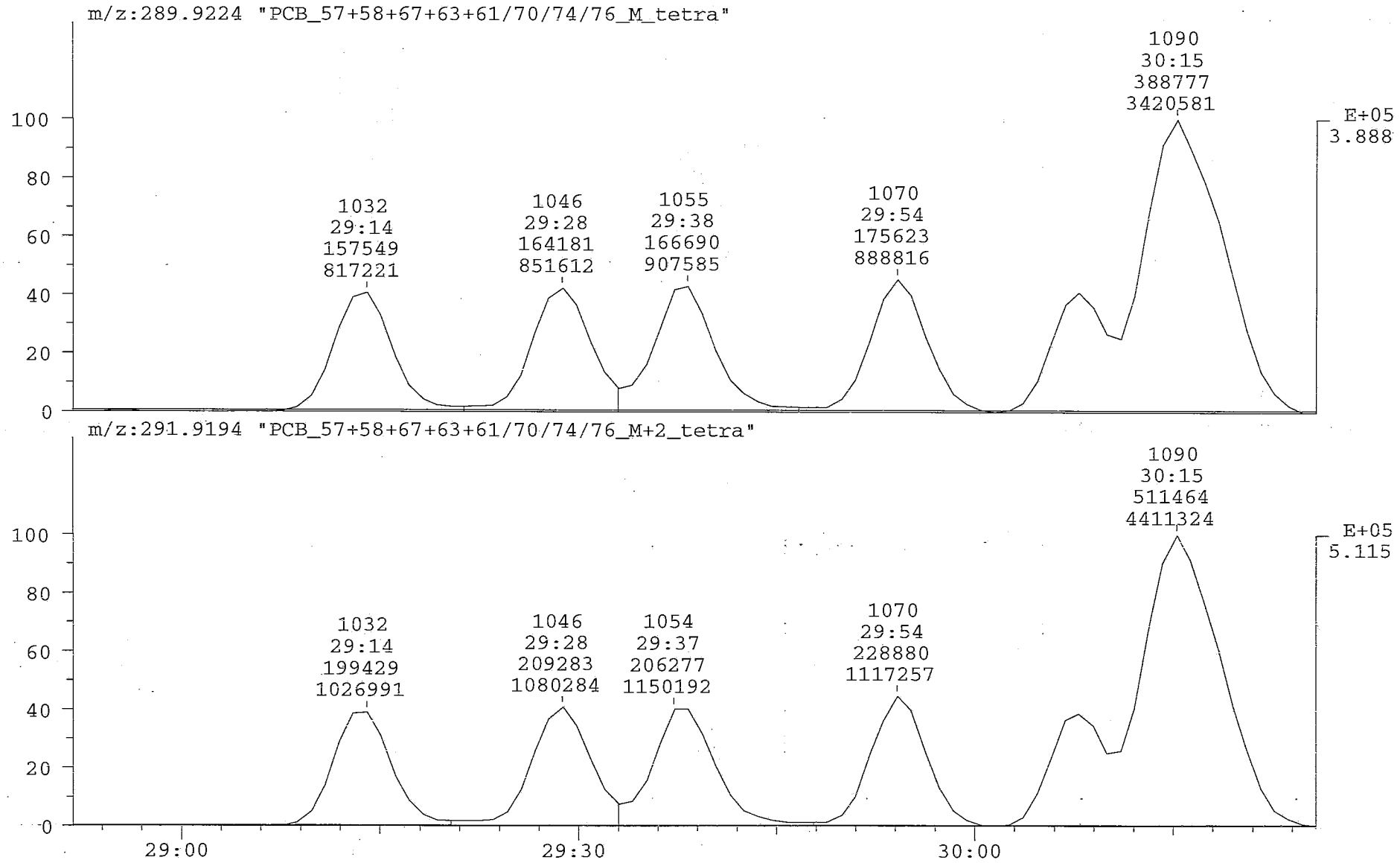
CHRO: apmkntml 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 977 > 1021 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3292

3291

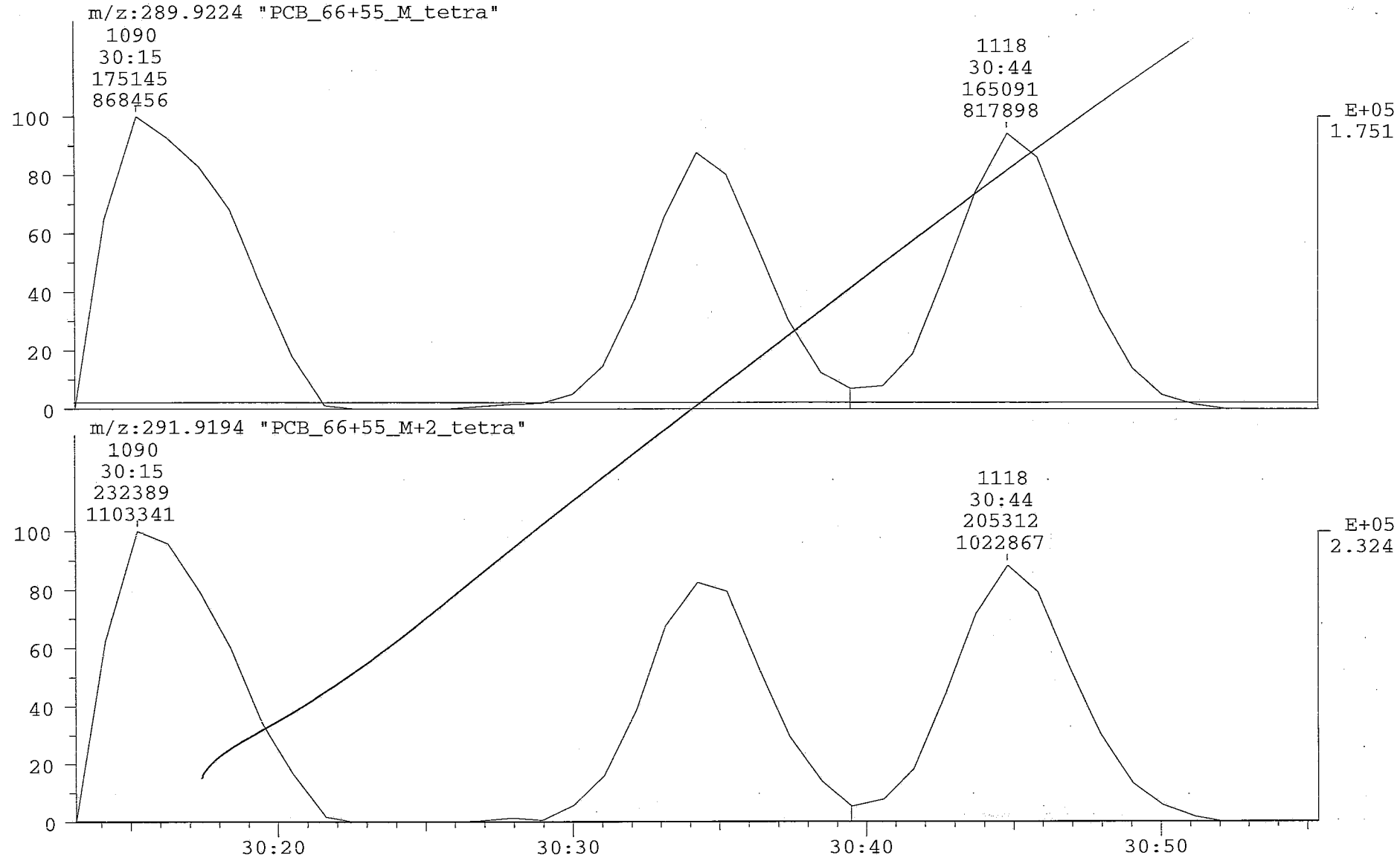
CHRO: apmkntm1 14-Jul-11 Elapse: 29:39 1056
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1011 > 1100 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3293

3292

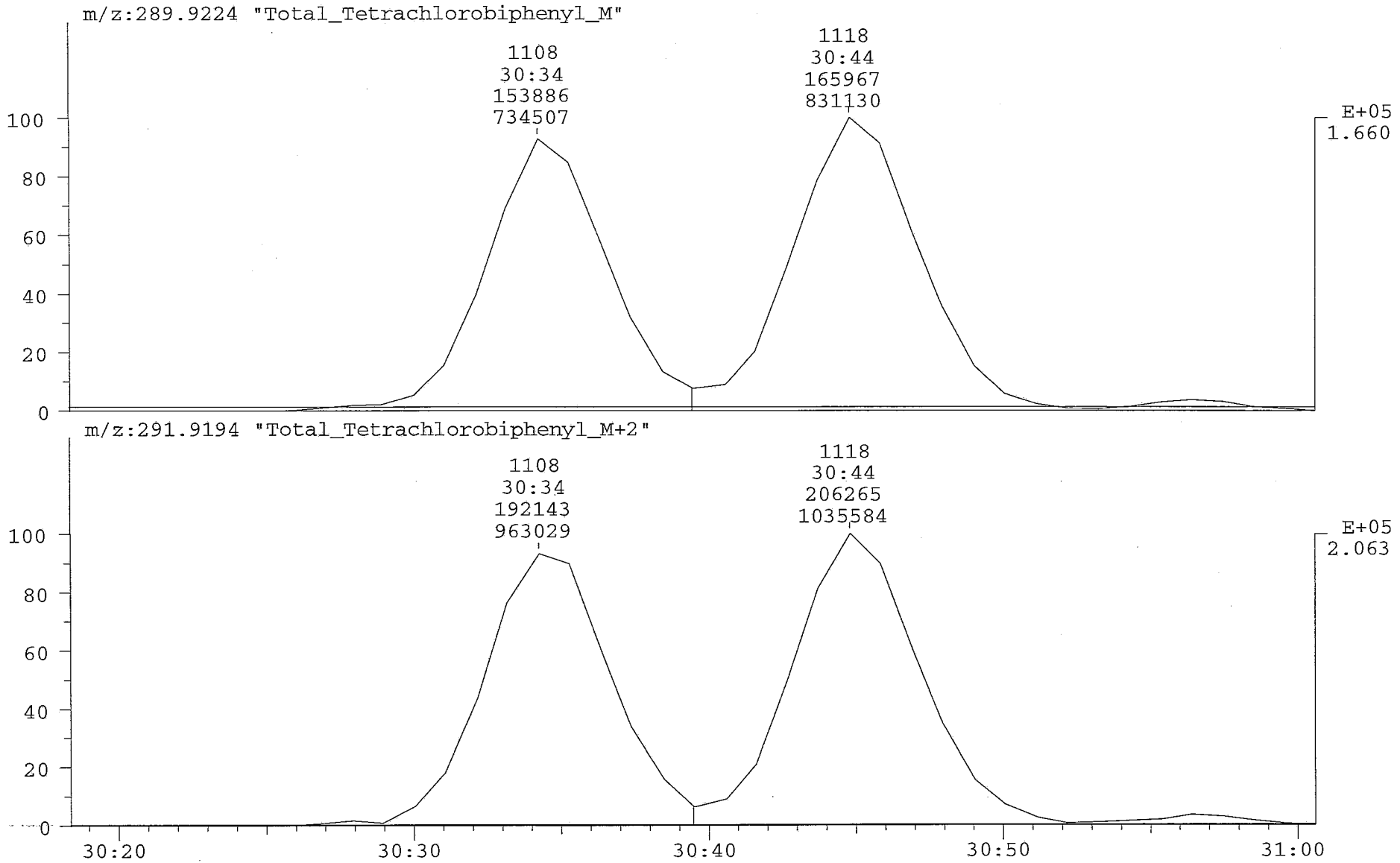
CHRO: apmkntm1 14-Jul-11 Elapse: 30:34 1108
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1088 > 1128 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3294

3293

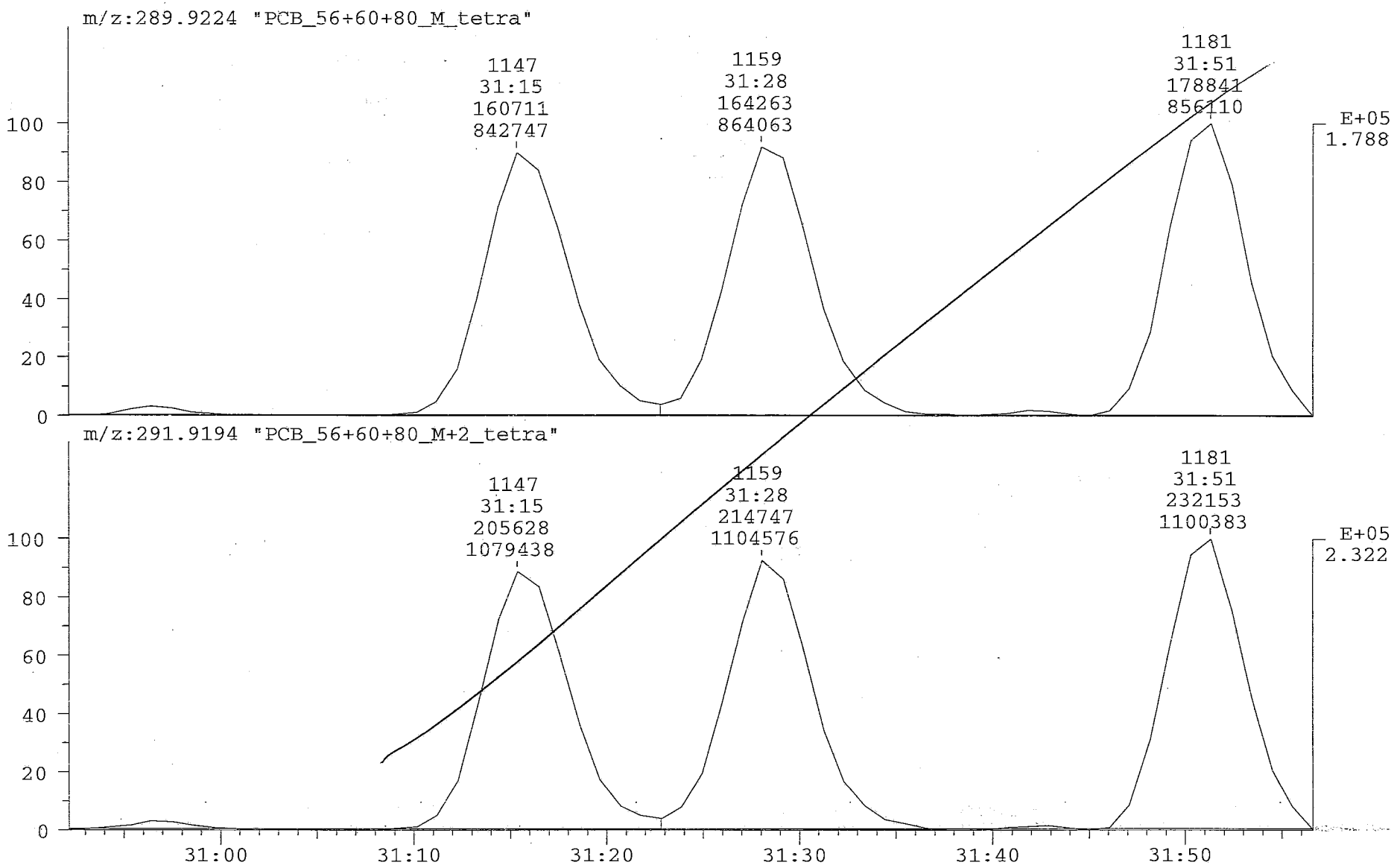
CHRO: apmkntm1 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1093 > 1133 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3295

3294

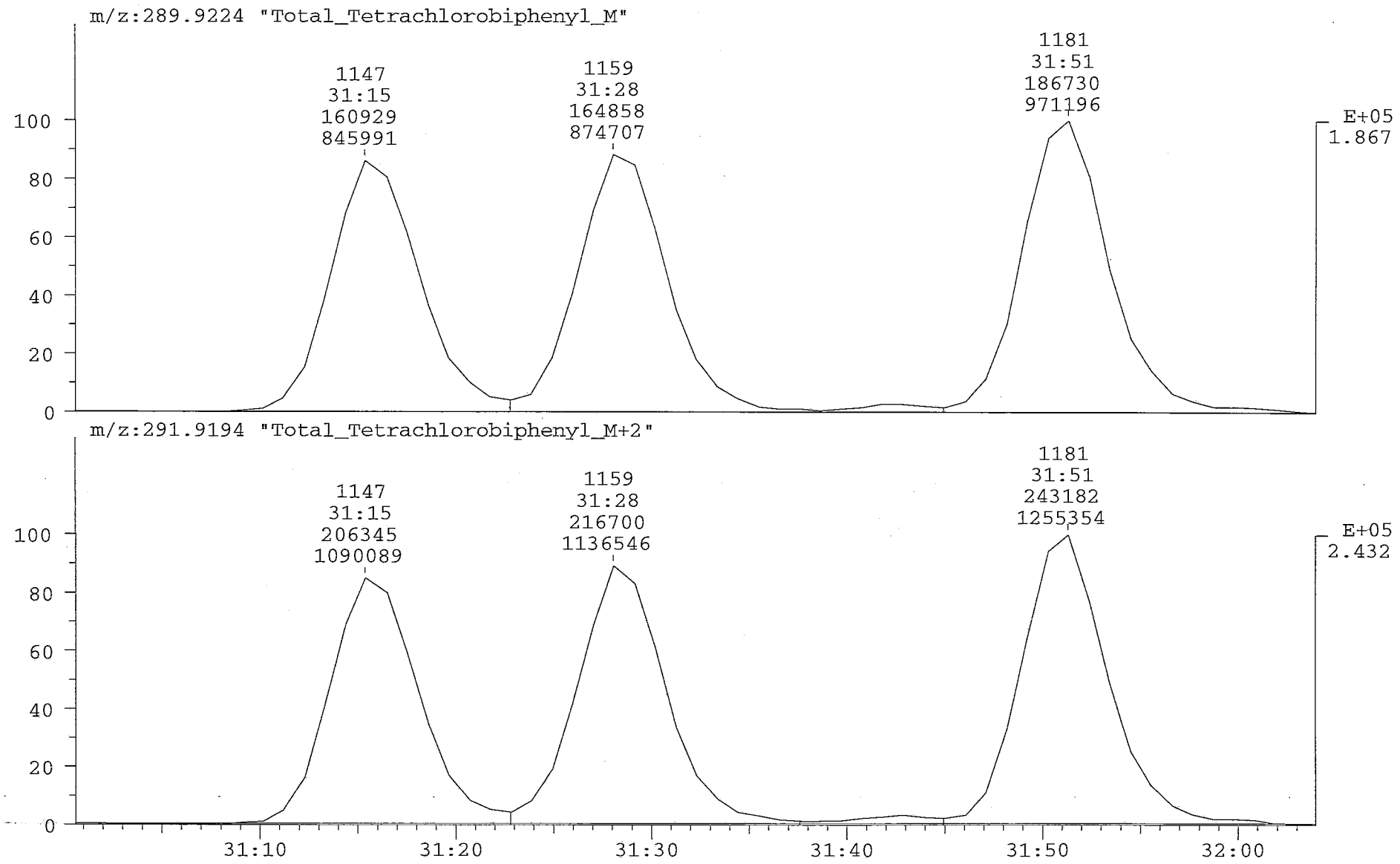
CHRO: apmkntml 14-Jul-11 Elapse: 31:27 1158
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1125 > 1186 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3296

3295

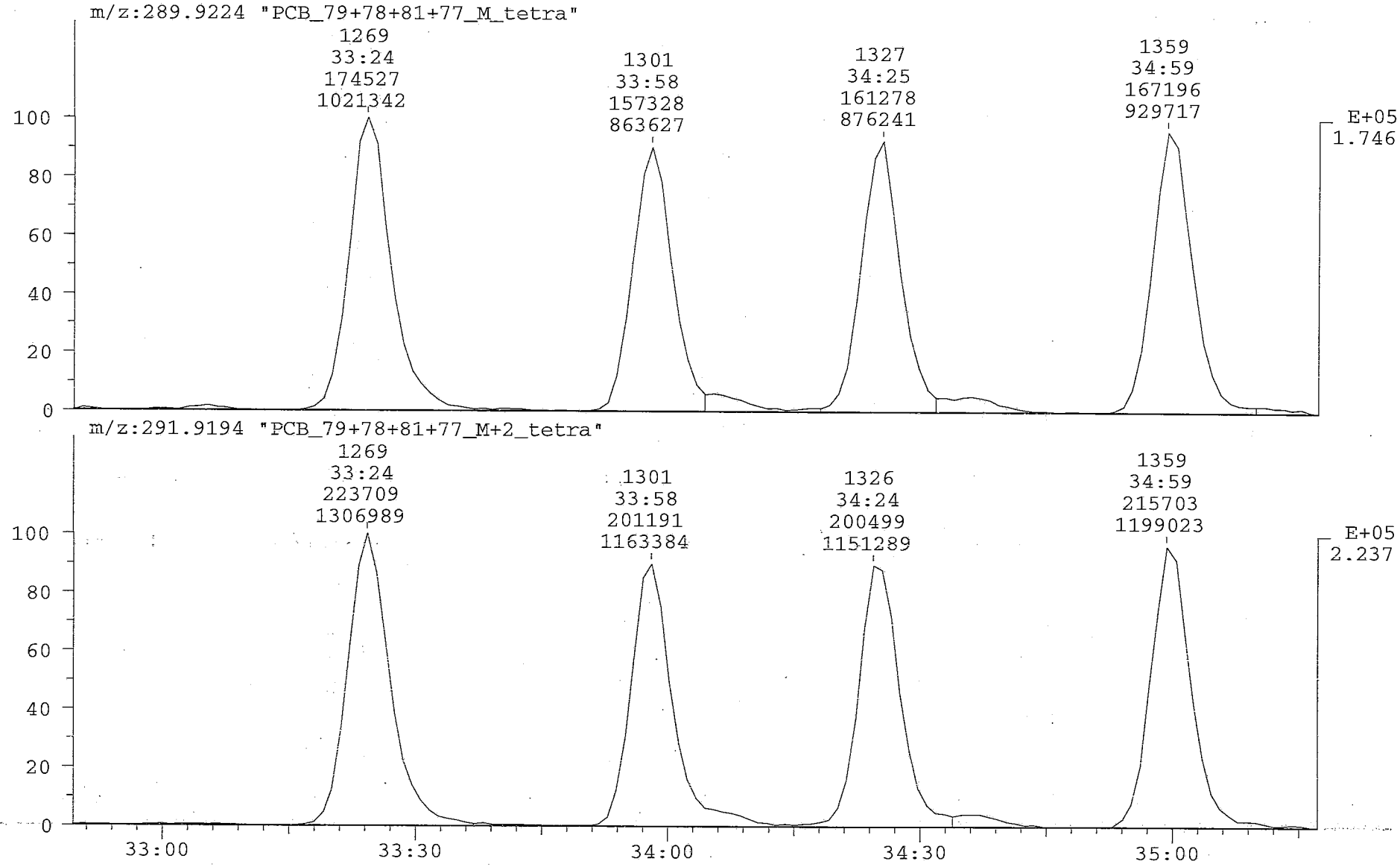
CHRO: apmkntml 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1133 > 1193 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3297

3296

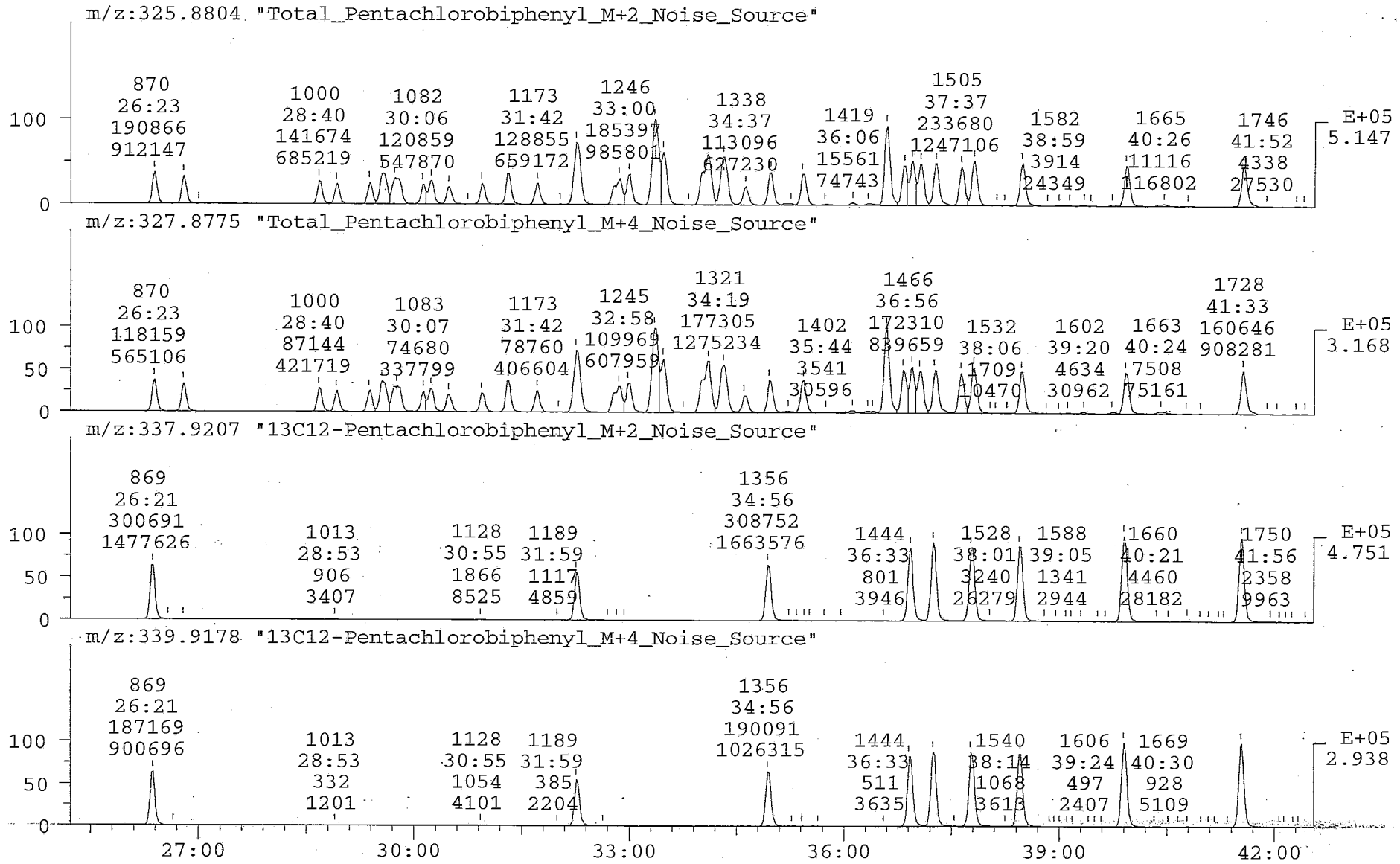
CHRO: apmkntm1 14-Jul-11 Elapse: 33:58 1301
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1236 > 1376 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3298

3297

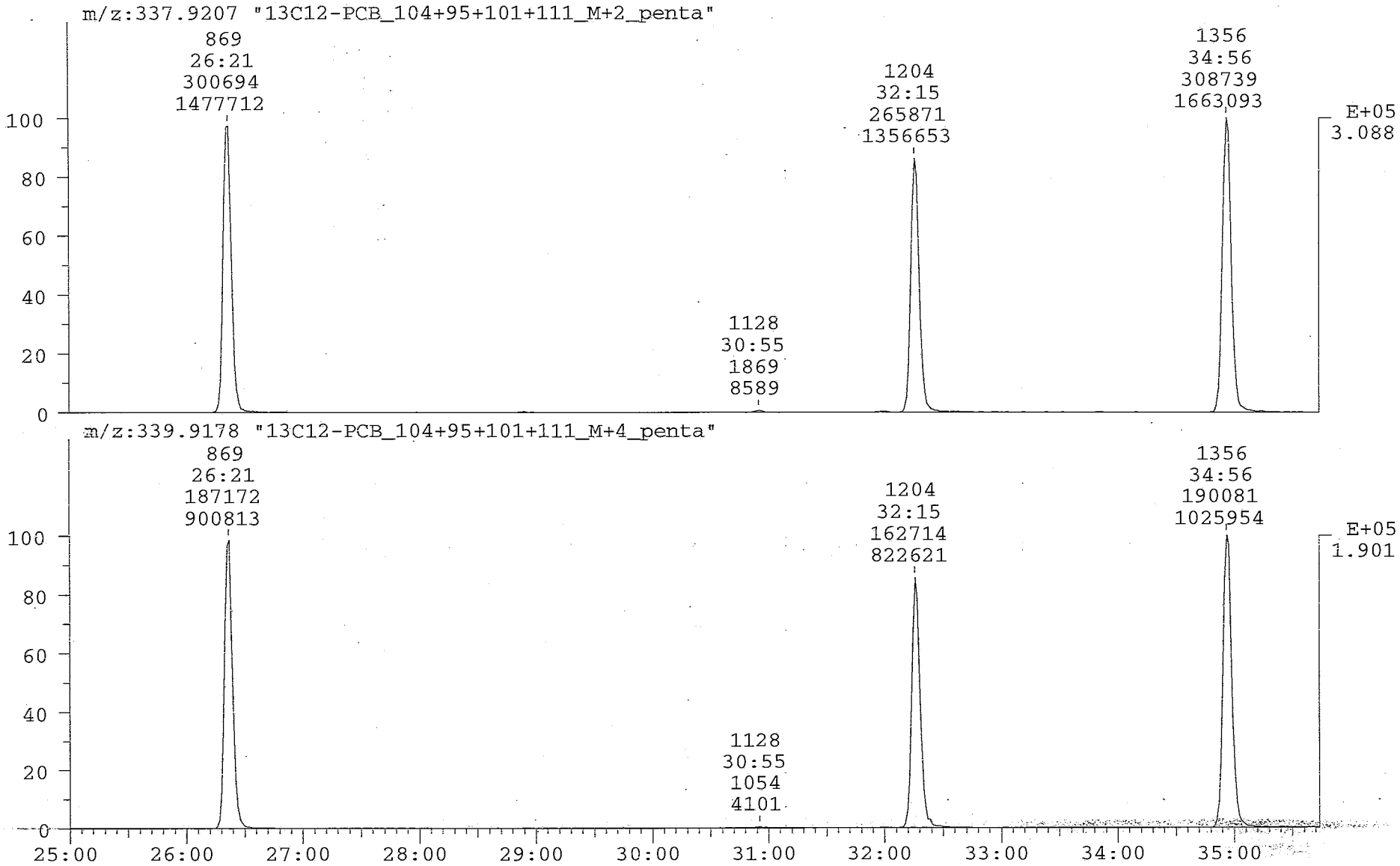
CHRO: apmkntm1 14-Jul-11 Elapse: 33:52 1296
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 804 > 1785 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3296

3298

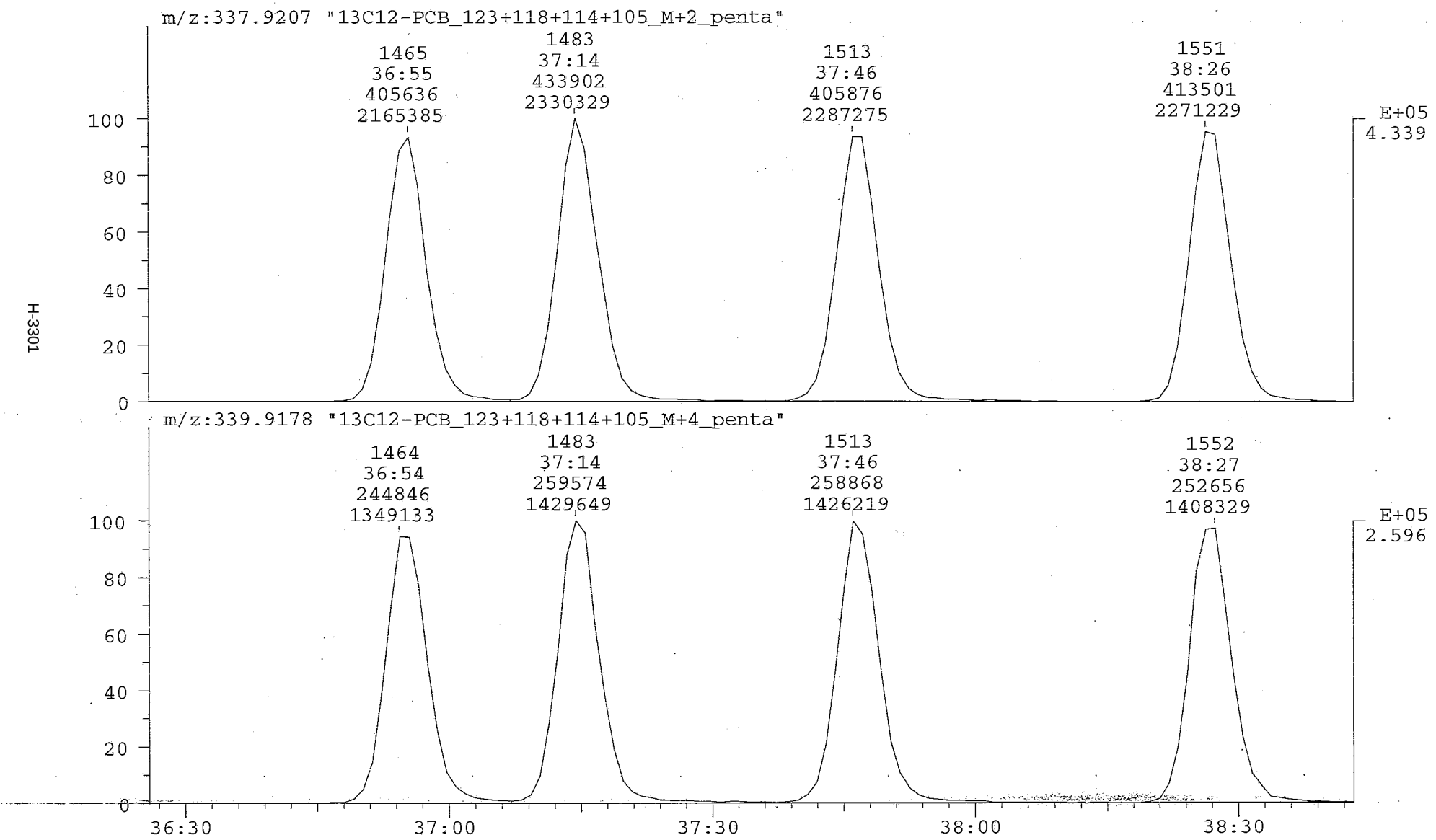
CHRO: apmkntm1 14-Jul-11 Elapse: 30:21 1096
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 791 > 1401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3300

3299

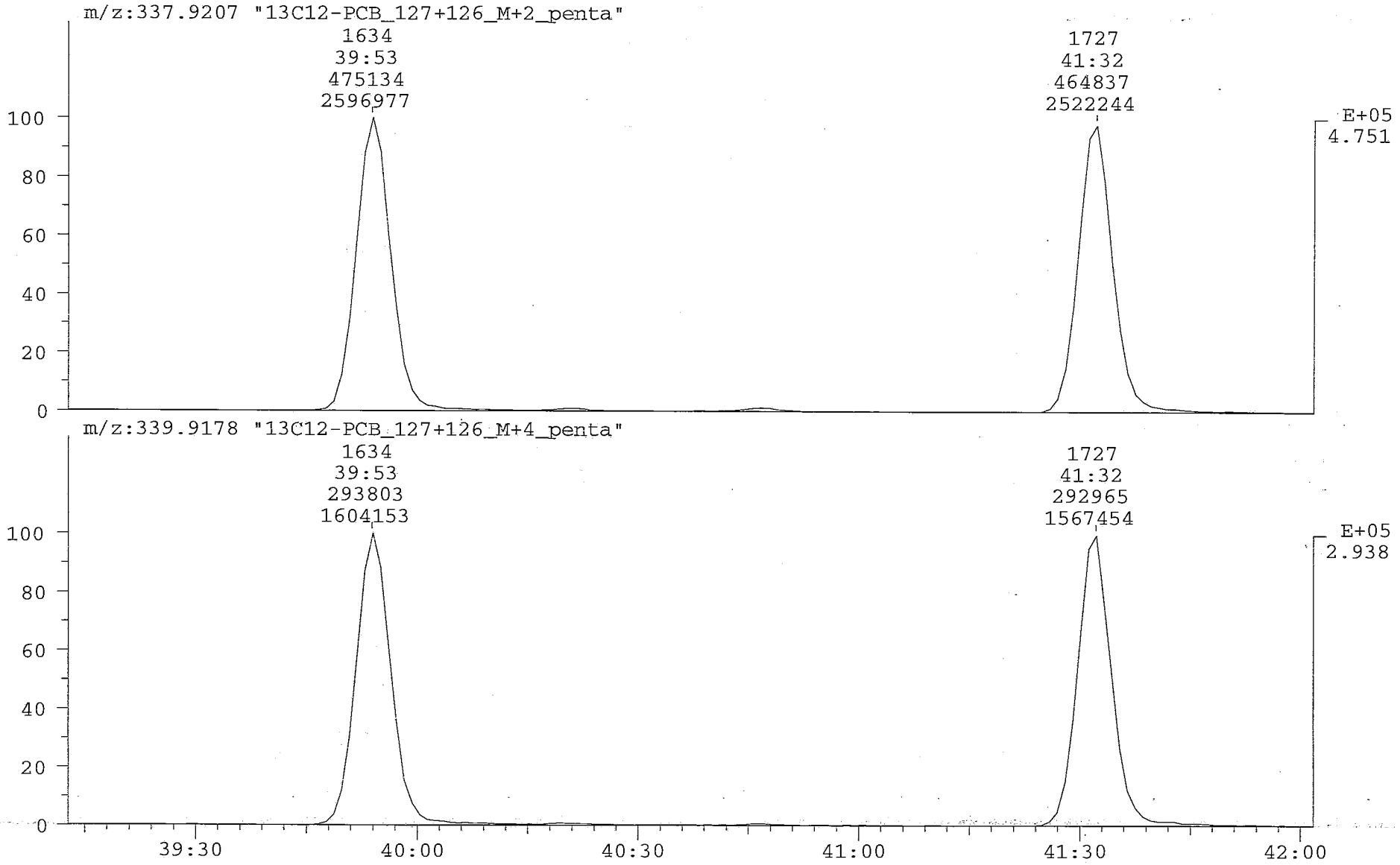
CHRO: apmkntm1 14-Jul-11 Elapse: 37:34 1502
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1437 > 1567 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3301

3300

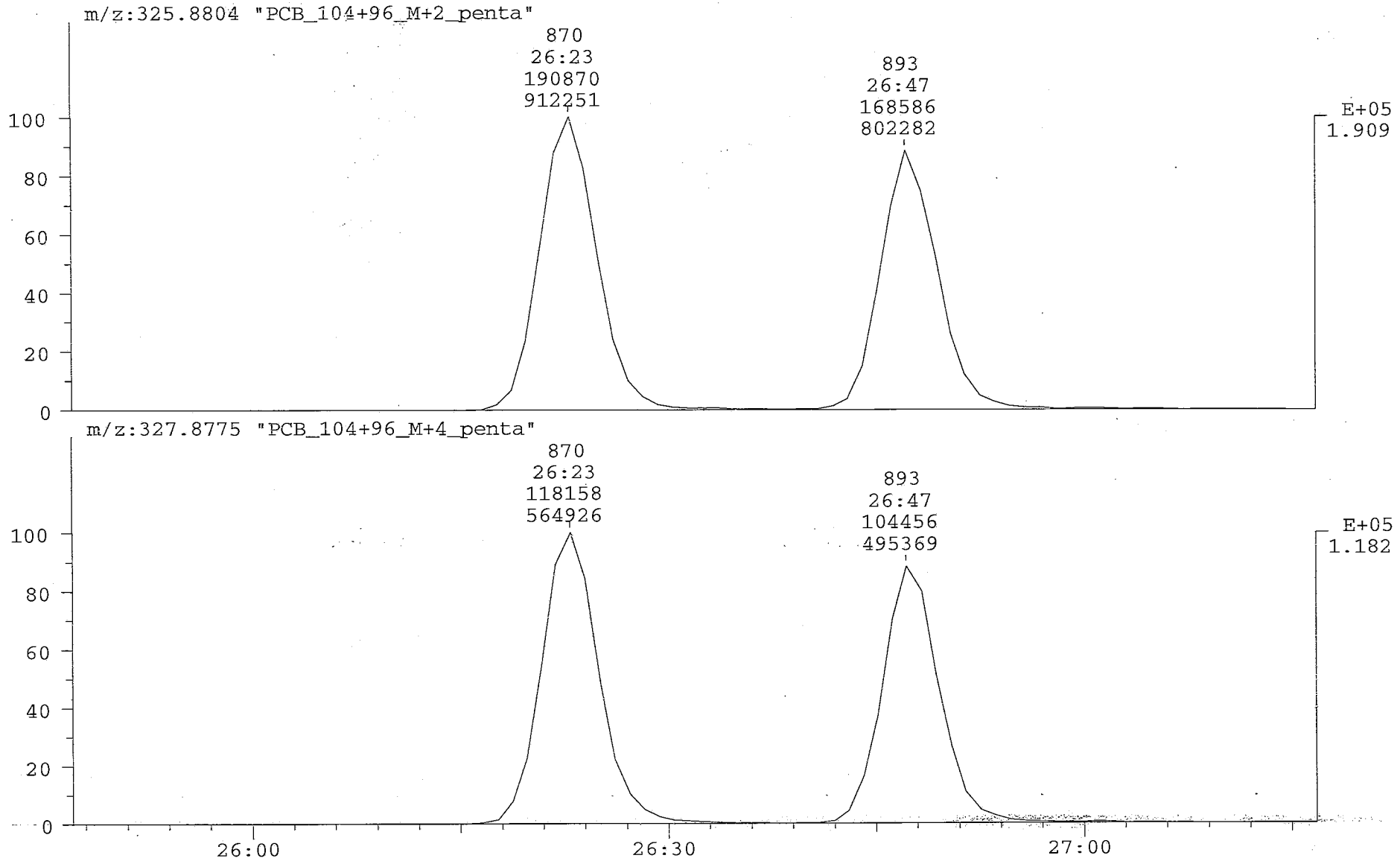
CHRO: apmkntml 14-Jul-11 Elapse: 40:37 1675
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1595 > 1755 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3302

3301

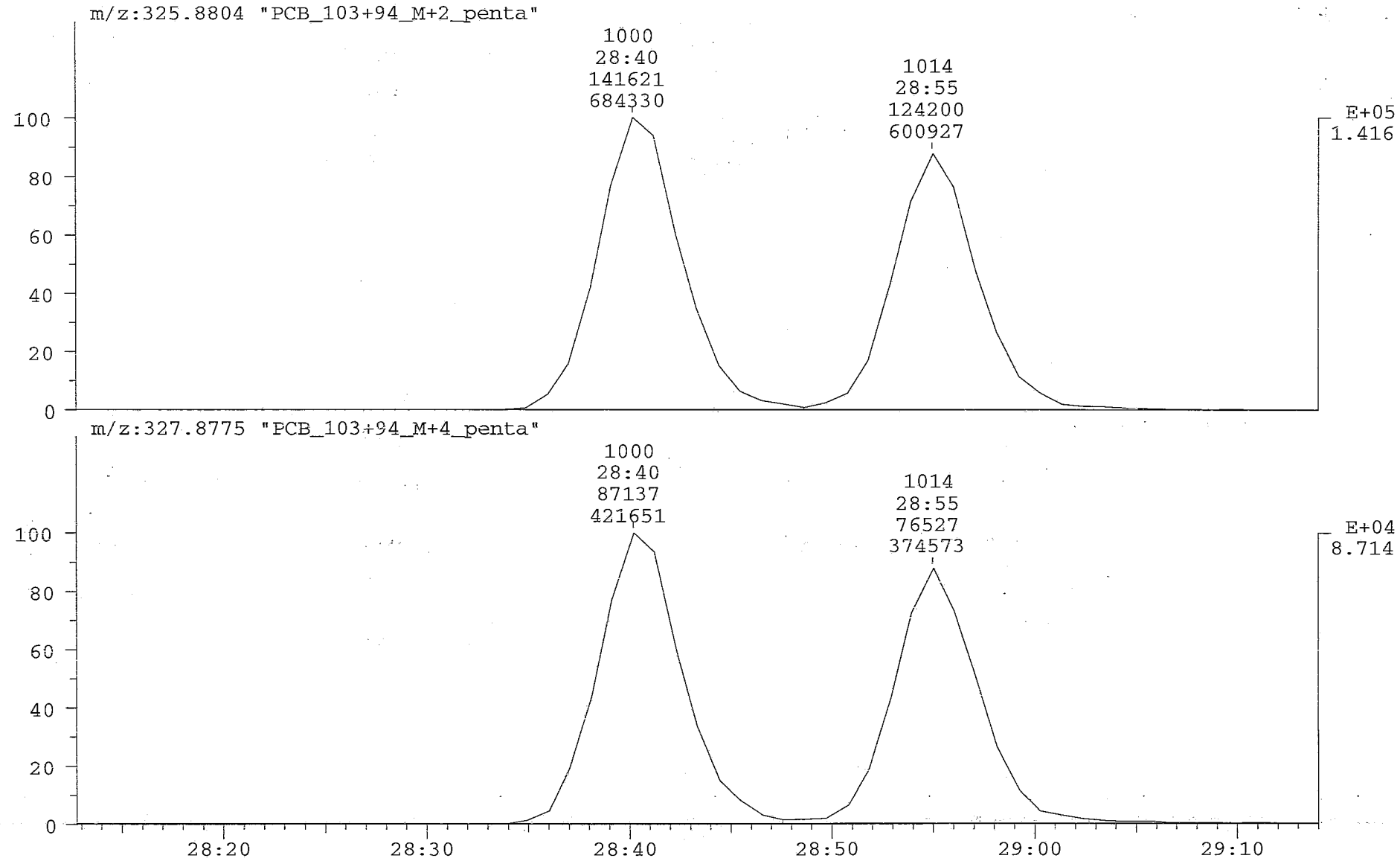
CHRO: apmkntm1 14-Jul-11 Elapse: 26:29.3 876
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 836 > 921 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3303

3302

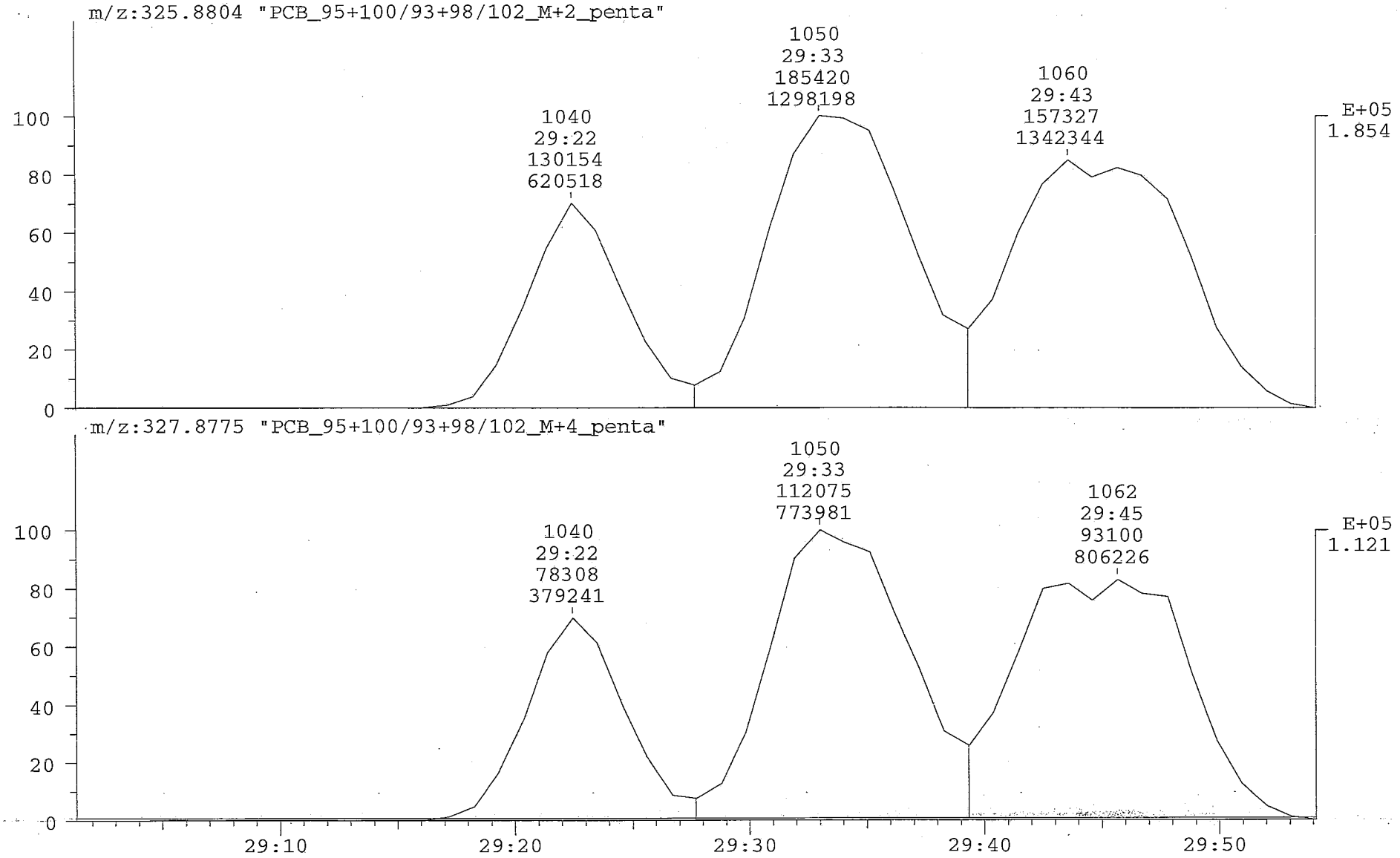
CHRO: apmkntml 14-Jul-11 Elapse: 28:43 1003
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 974 > 1032 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3304

3303

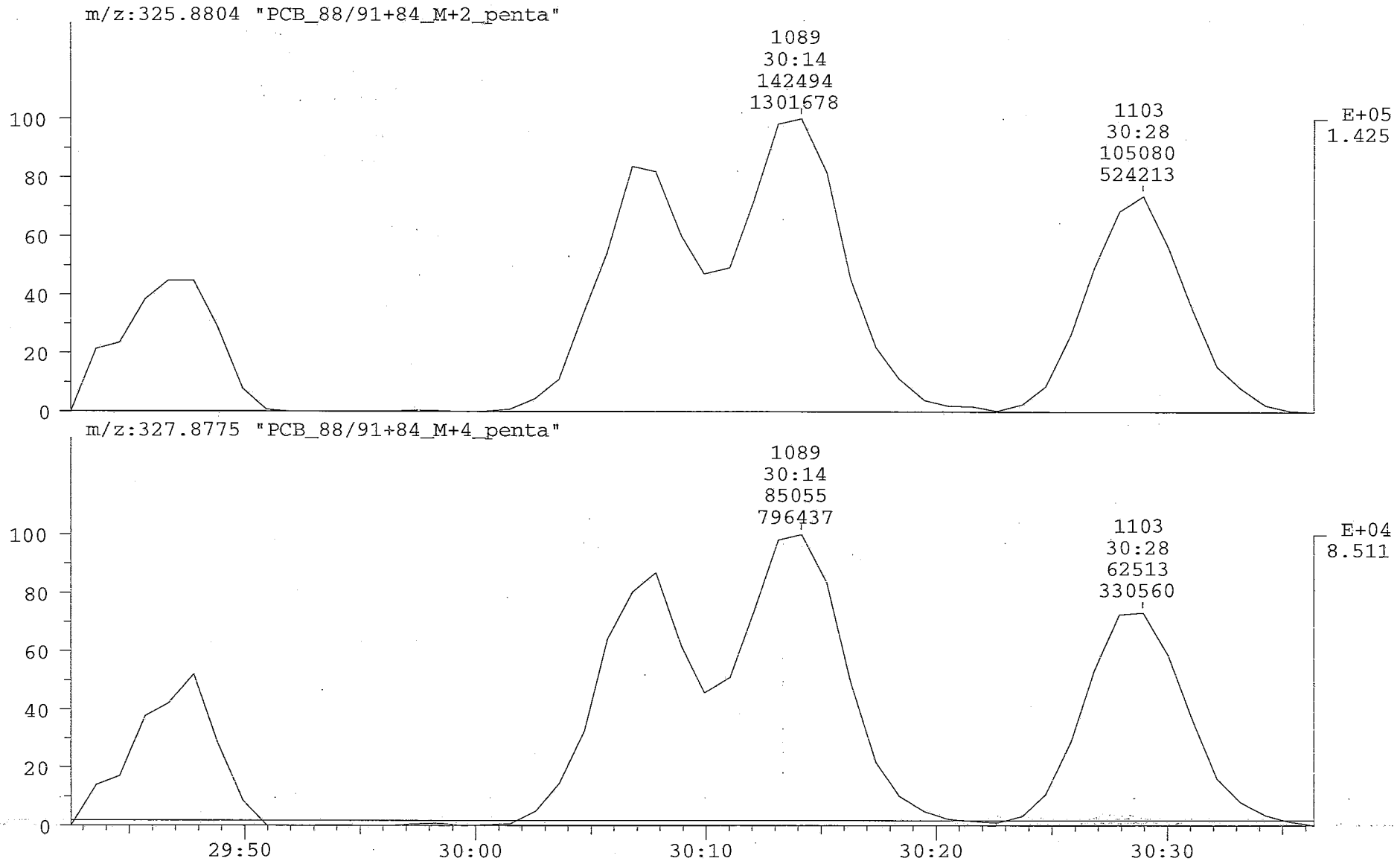
CHRO: apmkntm1 14-Jul-11 Elapse: 29:27 1045
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1020 > 1070 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-3305

3304

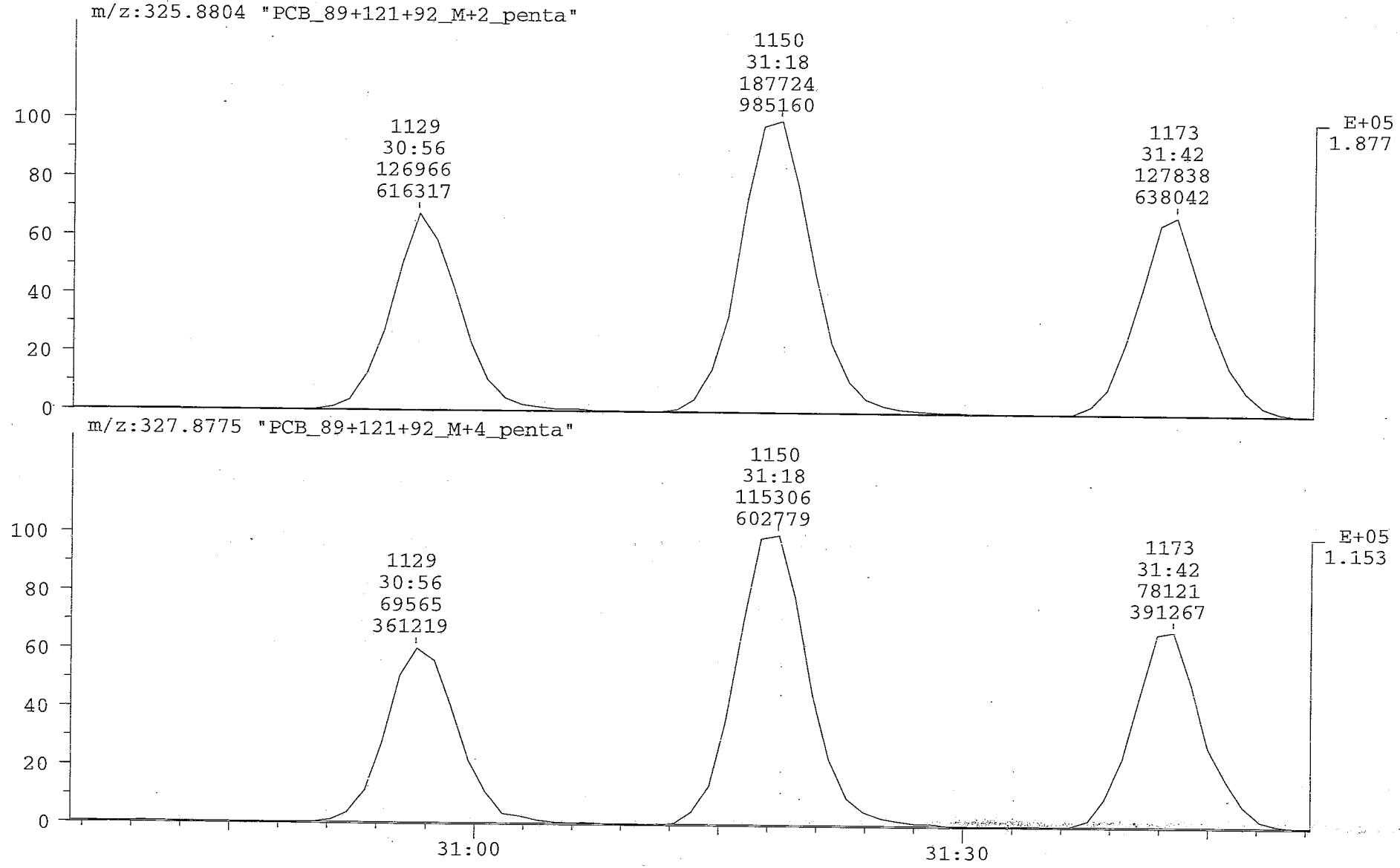
CHRO: apmkntm1 14-Jul-11 Elapse: 30:13 1088
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1059 > 1110 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 9 Label : -3, 3.0
Disp: Height Area



H-3306

3305

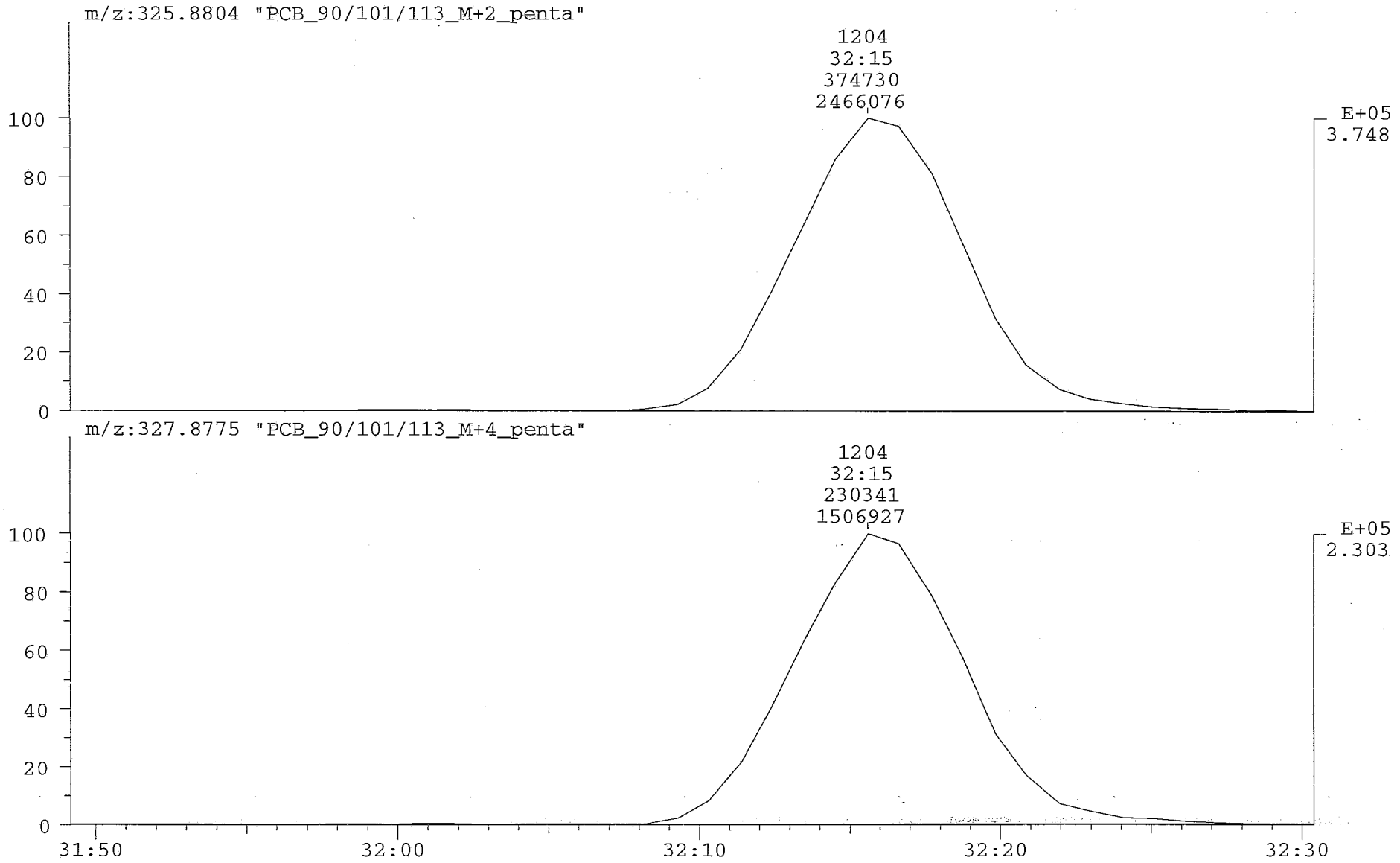
CHRO: apmkntml 14-Jul-11 Elapse: 31:15 1147
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1109 > 1181 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3307

3306

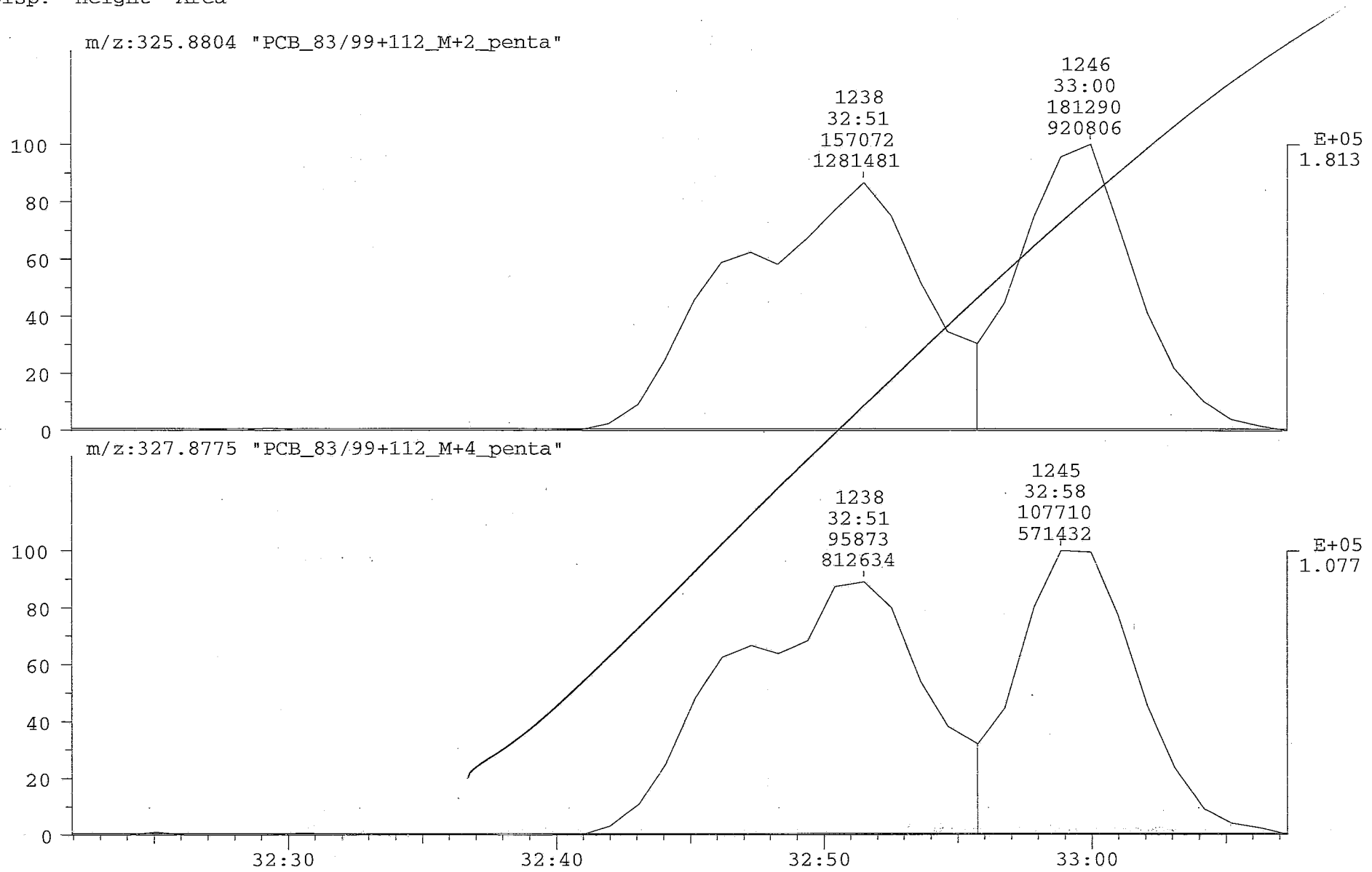
CHRO: apmkntml 14-Jul-11 Elapse: 32:09 1198
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1179 > 1218 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3308

3307

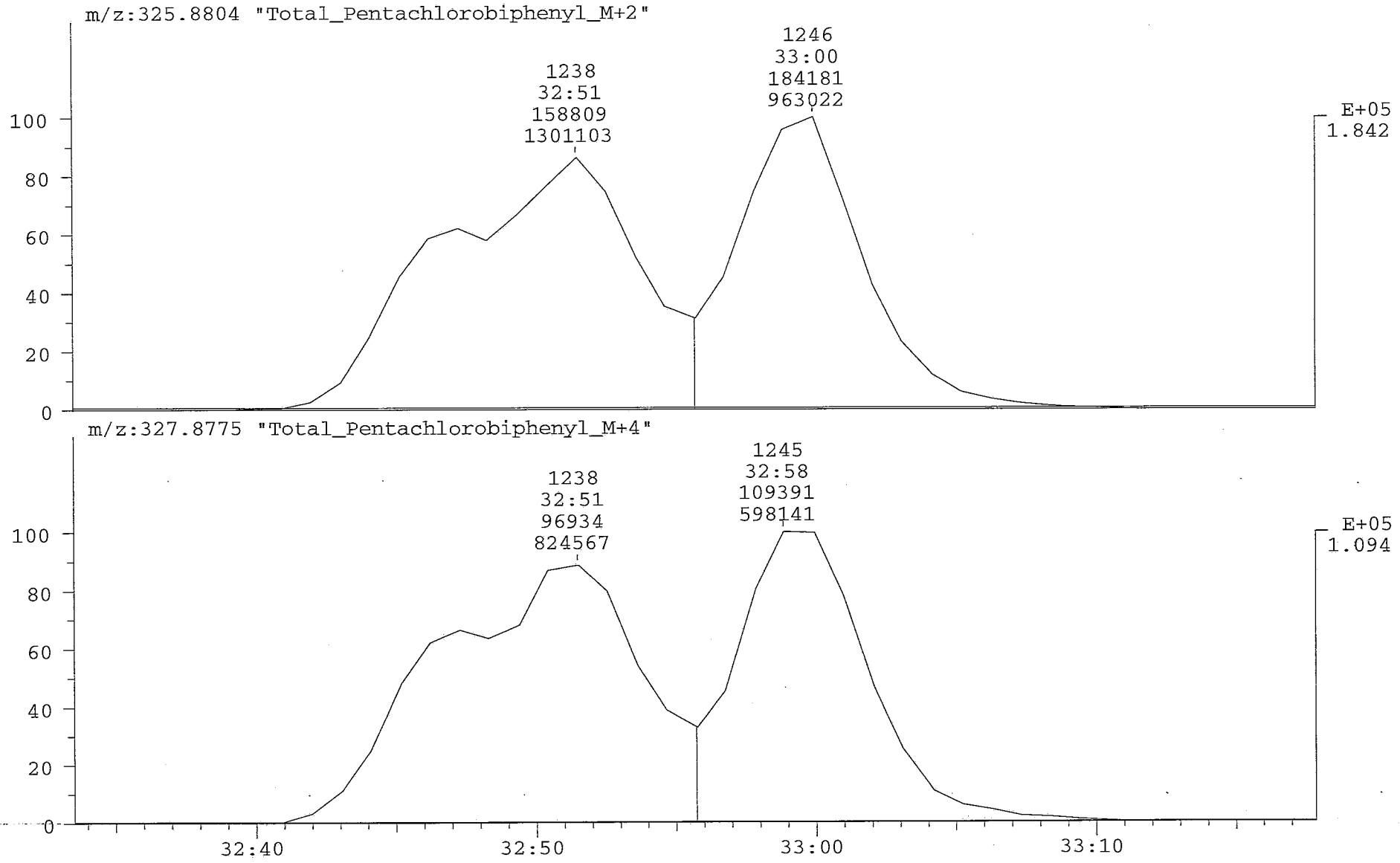
CHRO: apmkntm1 14-Jul-11 Elapse: 32:51 1238
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1210 > 1253 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 5 Label : -3, 3.0
Disp: Height Area



H-3309

3308

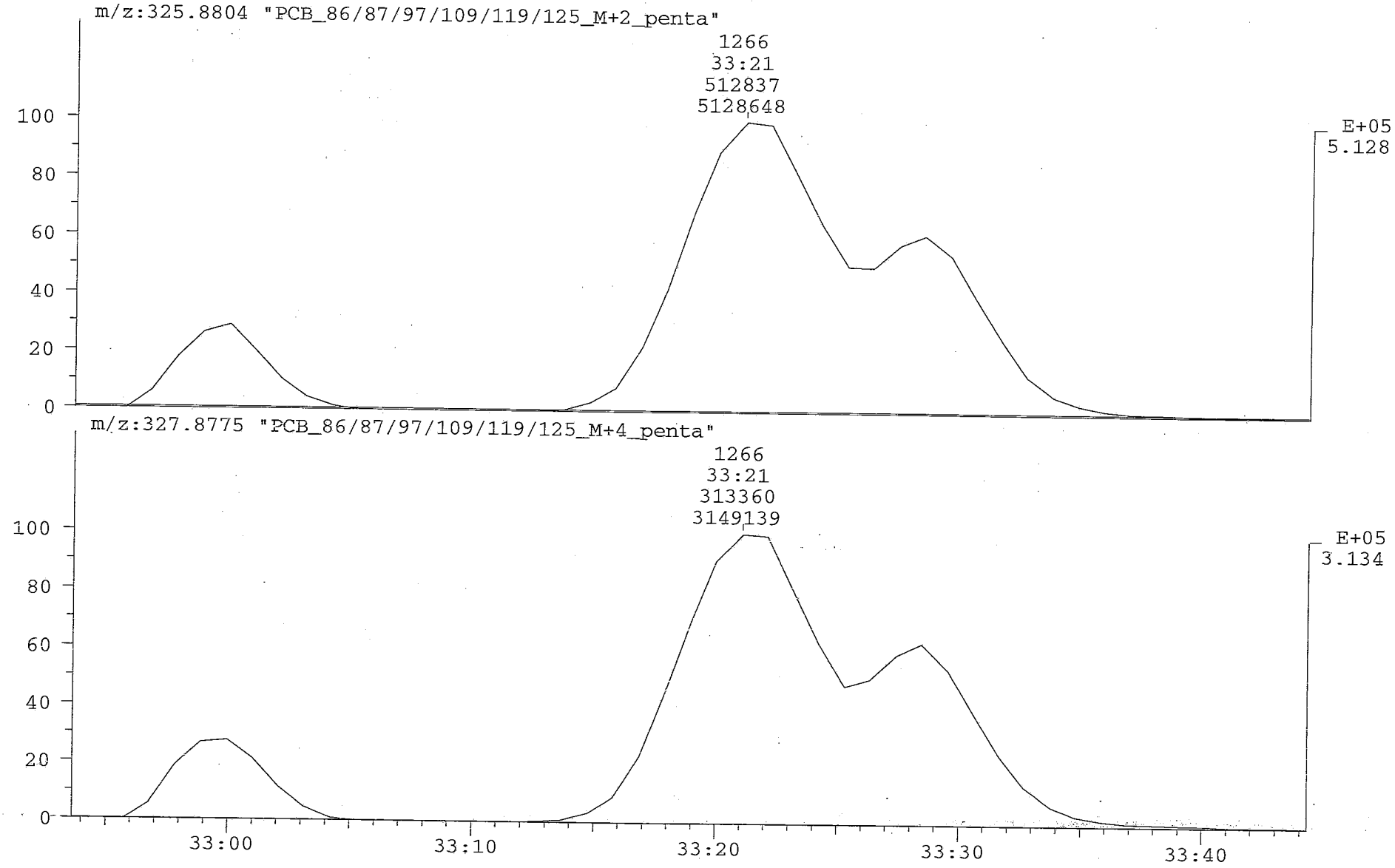
CHRO: apmkntm1 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1221 > 1263 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3310

3309

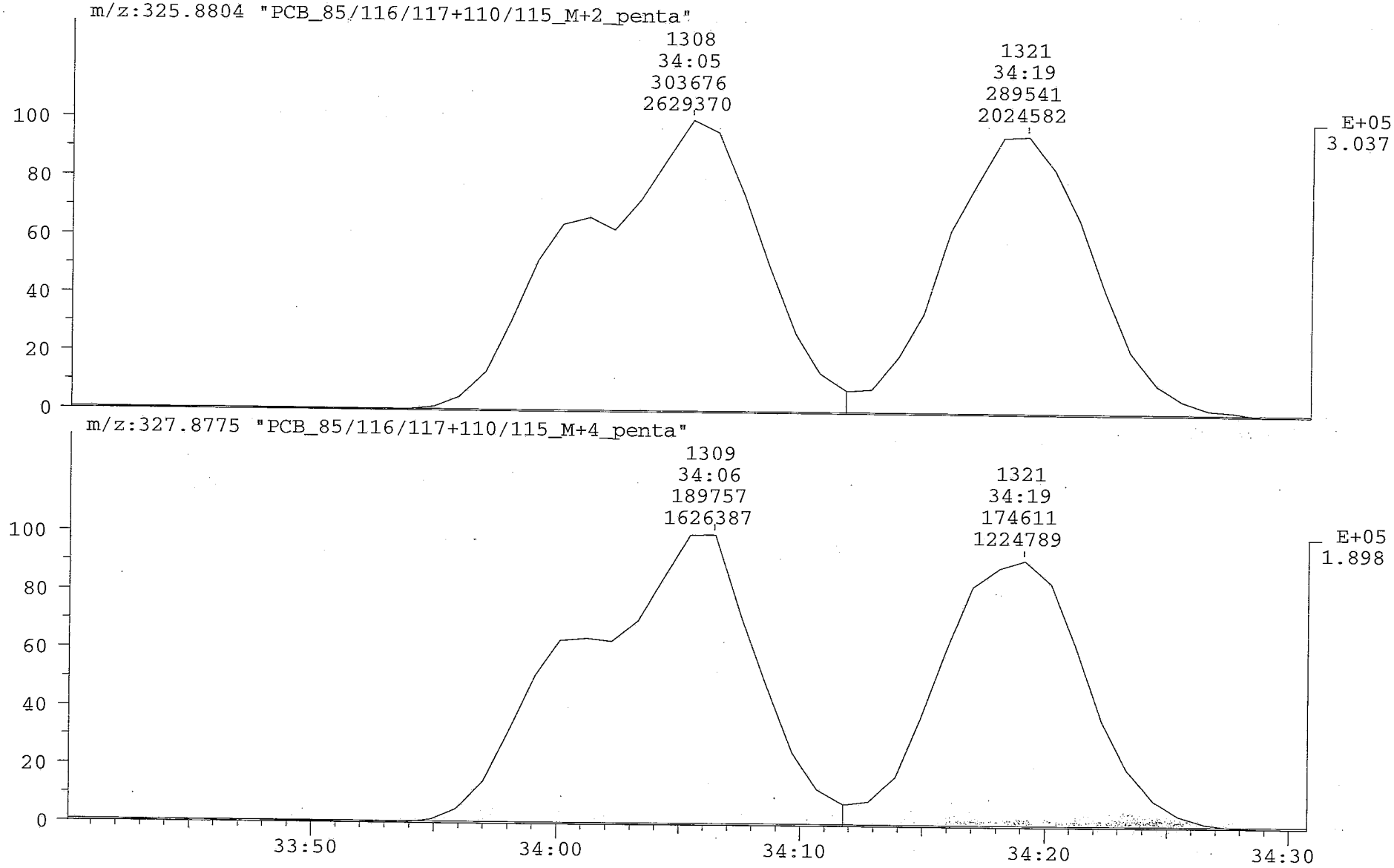
CHRO: apmkntm1 14-Jul-11 Elapse: 33:20 1265
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1240 > 1288 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 12 Label : -3, 3.0
Disp: Height Area



H-3311

3310

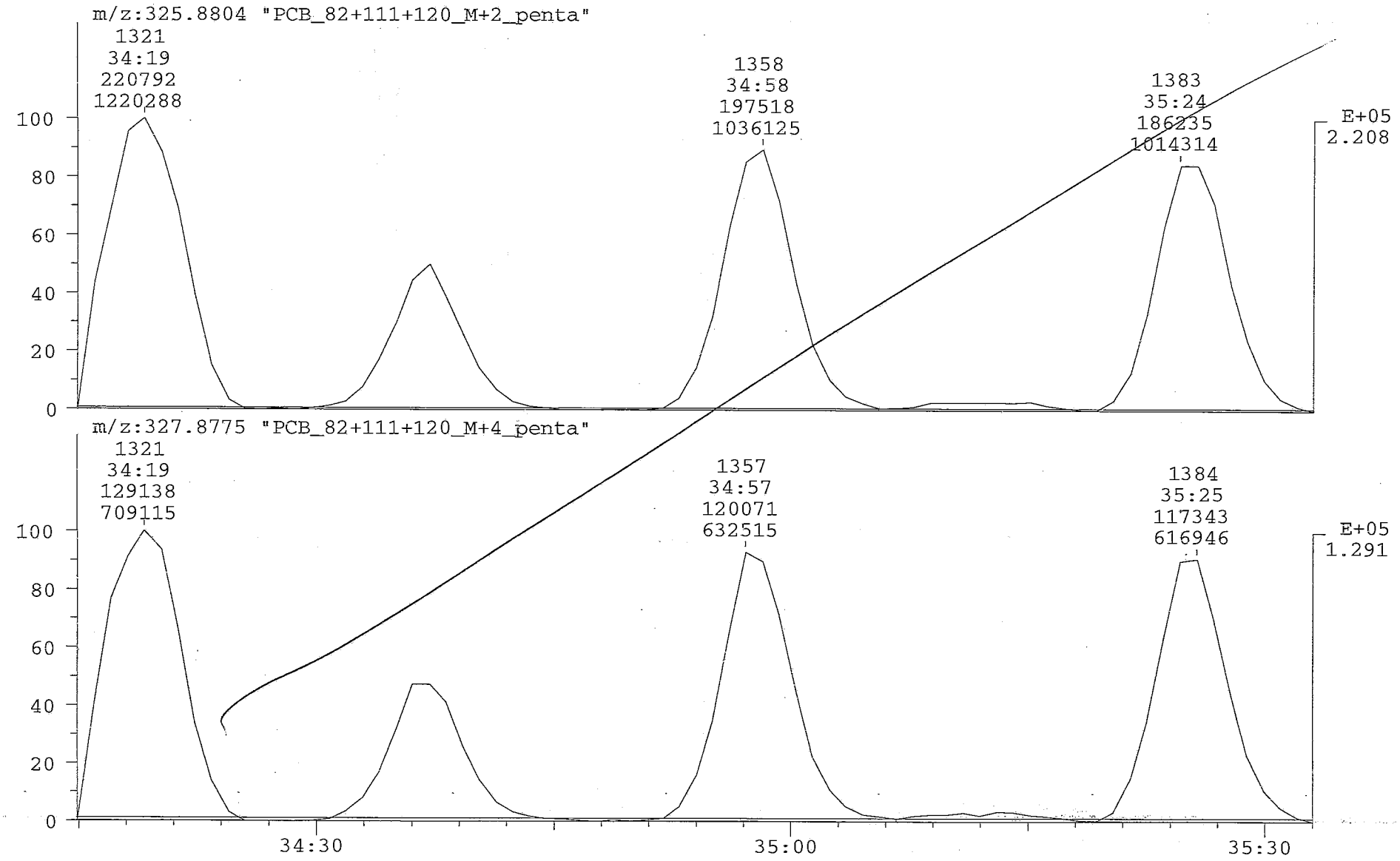
CHRO: apmkntml 14-Jul-11 Elapse: 34:07 1310
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1284 > 1332 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3312

3311

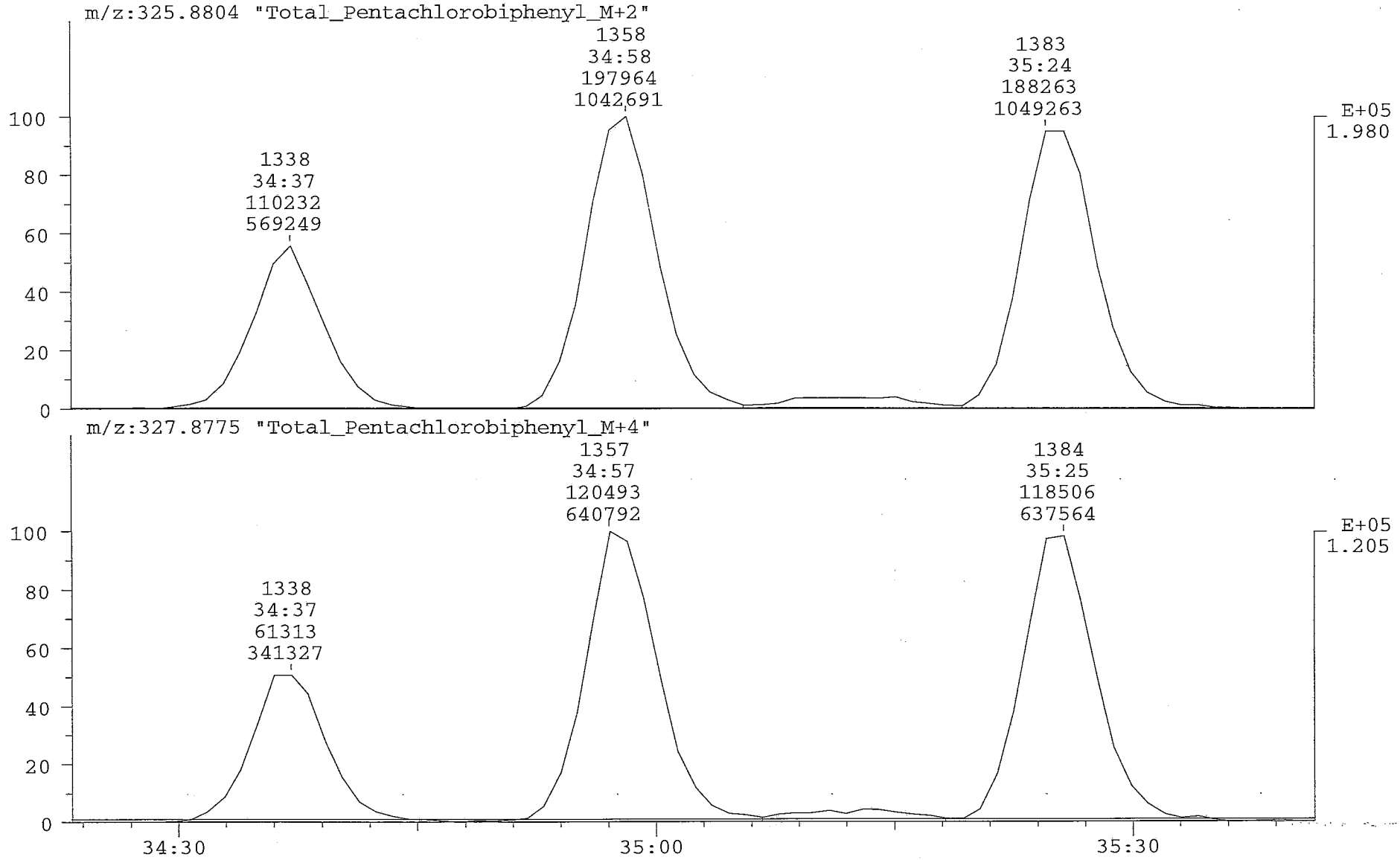
CHRO: apmkntm1 14-Jul-11 Elapse: 34:37 1338
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1317 > 1391 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3313

3312

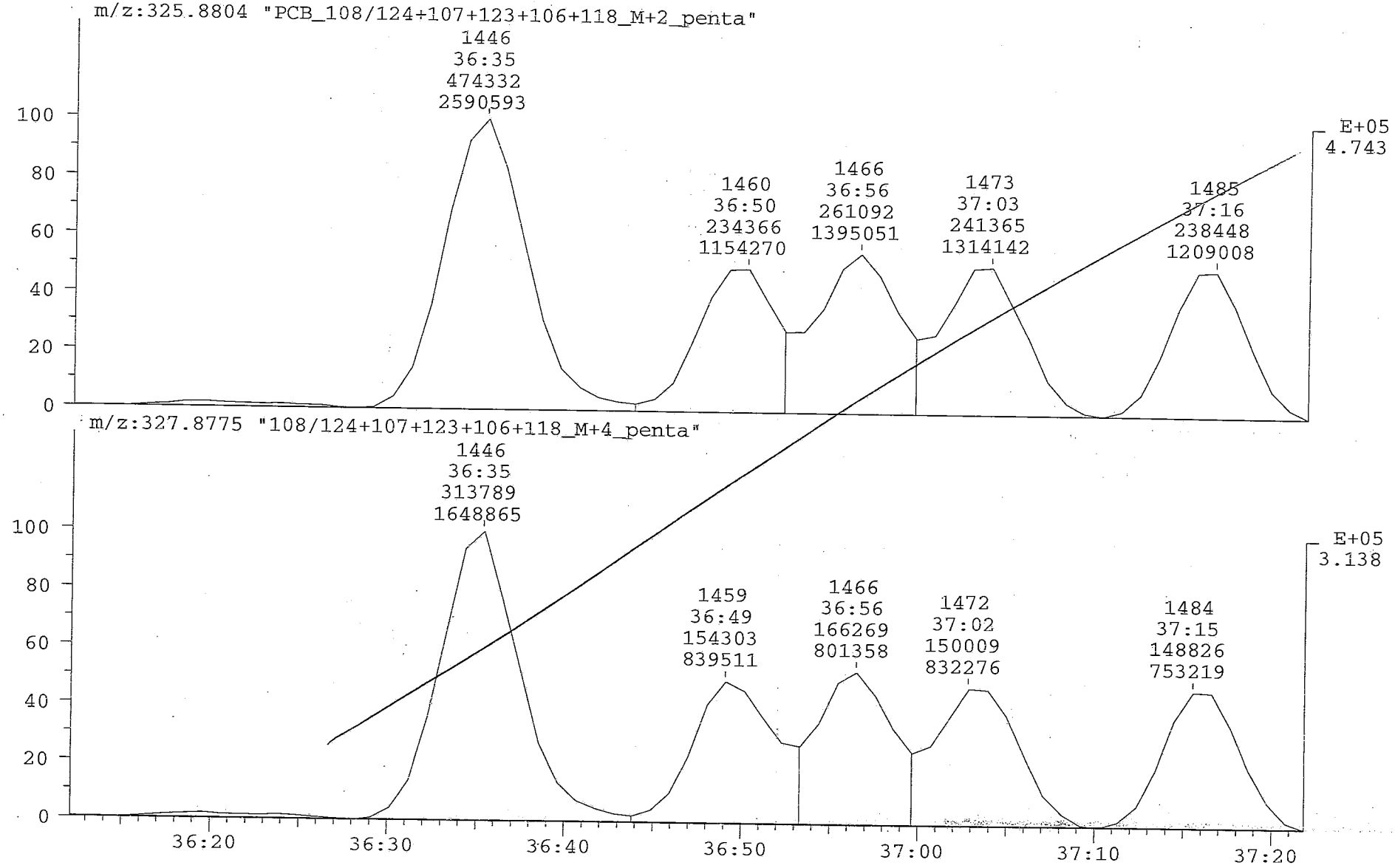
CHRO: apmkntml 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1325 > 1399 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3314

3313

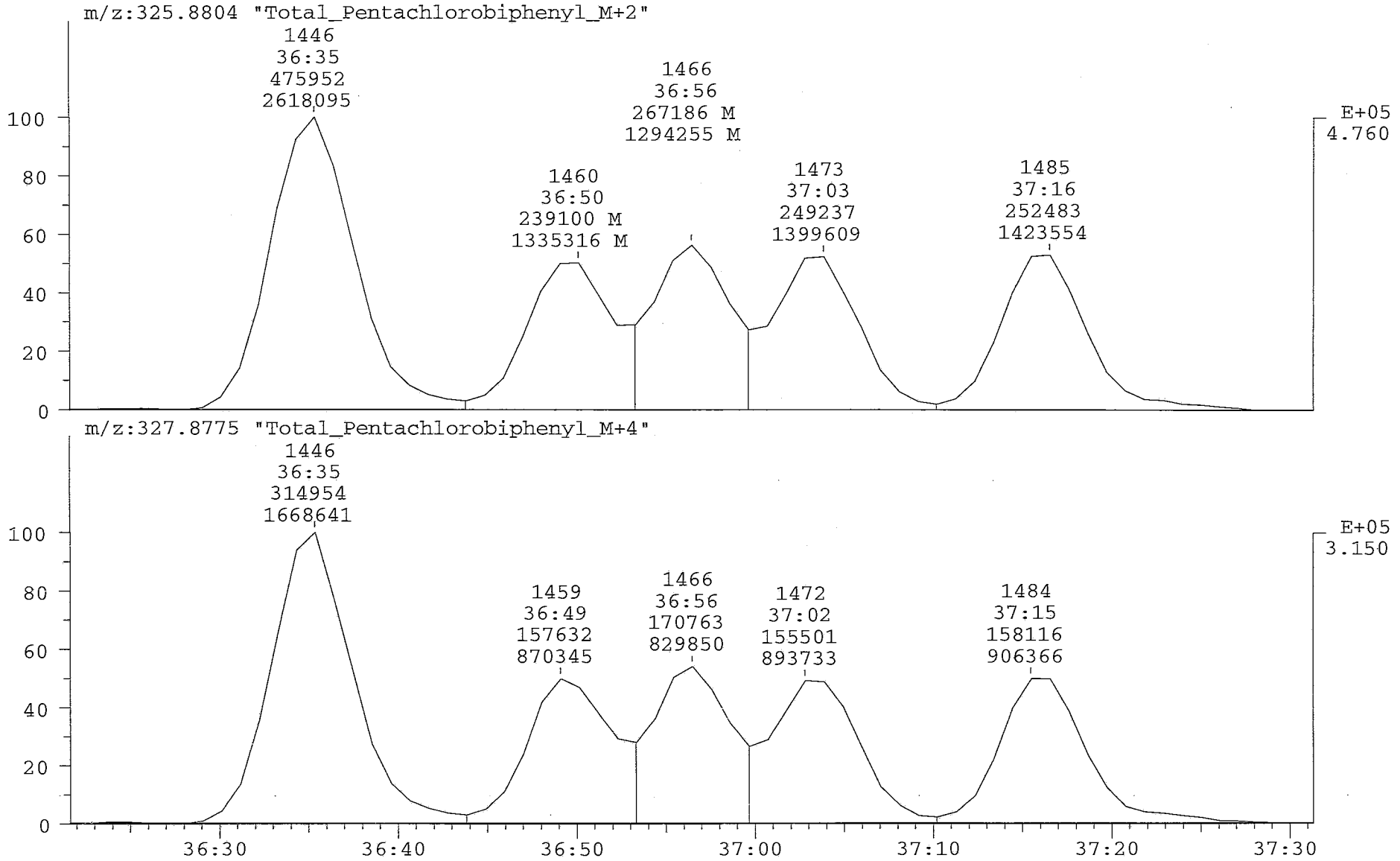
CHRO: apmkntm1 14-Jul-11 Elapse: 36:56 1466
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1424 > 1490 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3315

3314

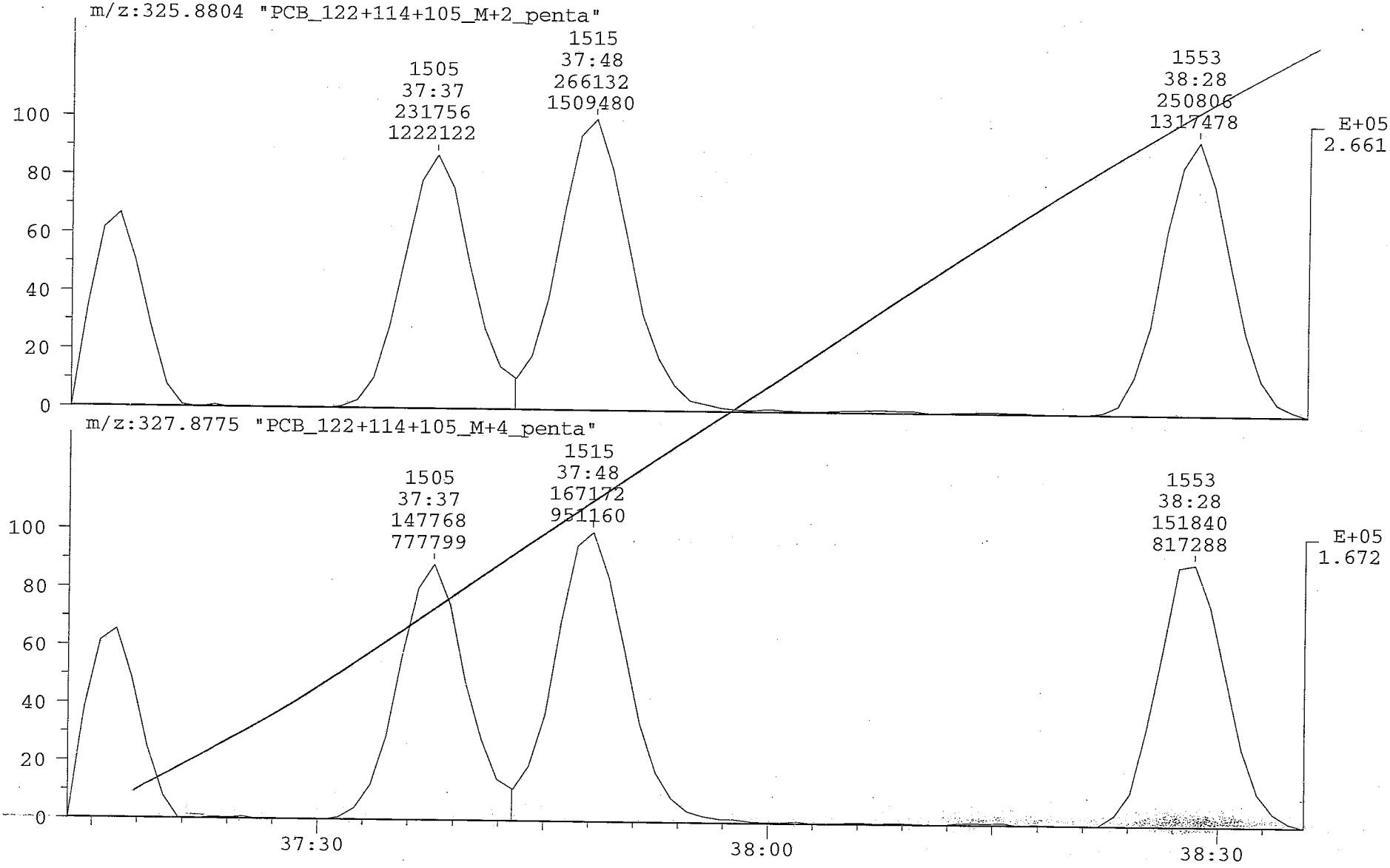
CHRO: apmkntm1 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1433 > 1499 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3316

3315

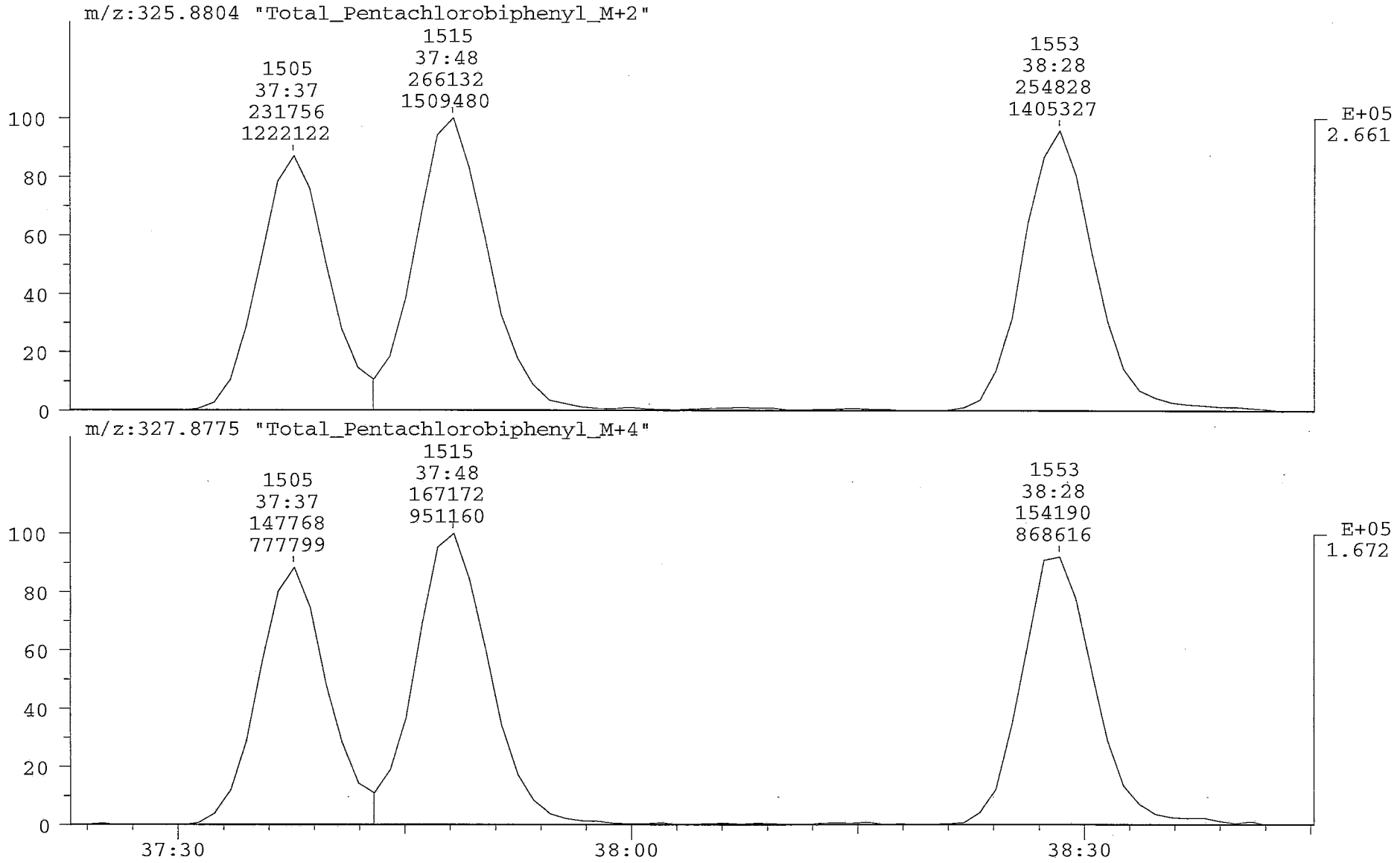
CHRO: apmkntm1 14-Jul-11 Elapse: 37:56 1523
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1482 > 1560 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3317

3316

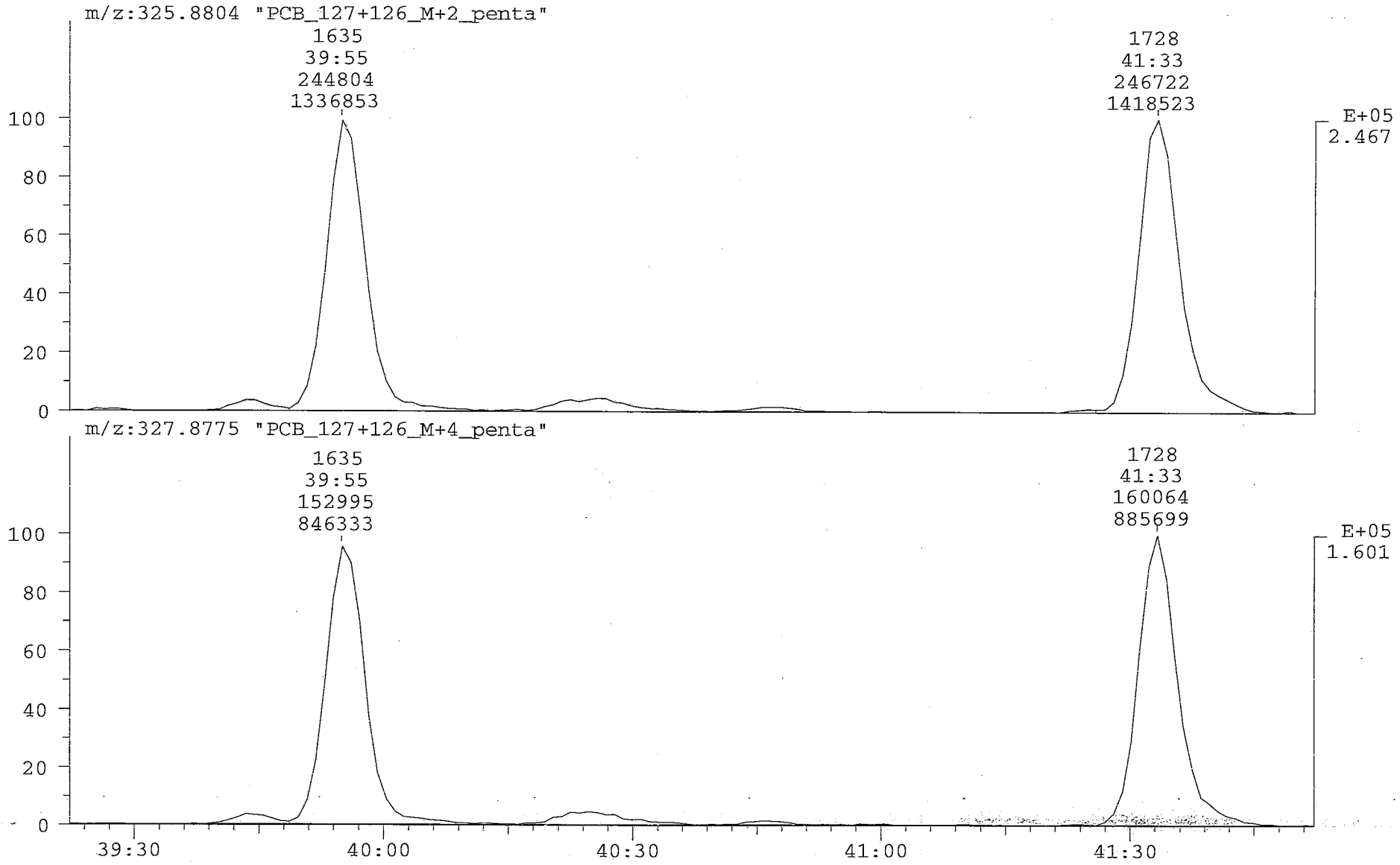
CHRO: apmkntm1 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1491 > 1569 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3318

3317

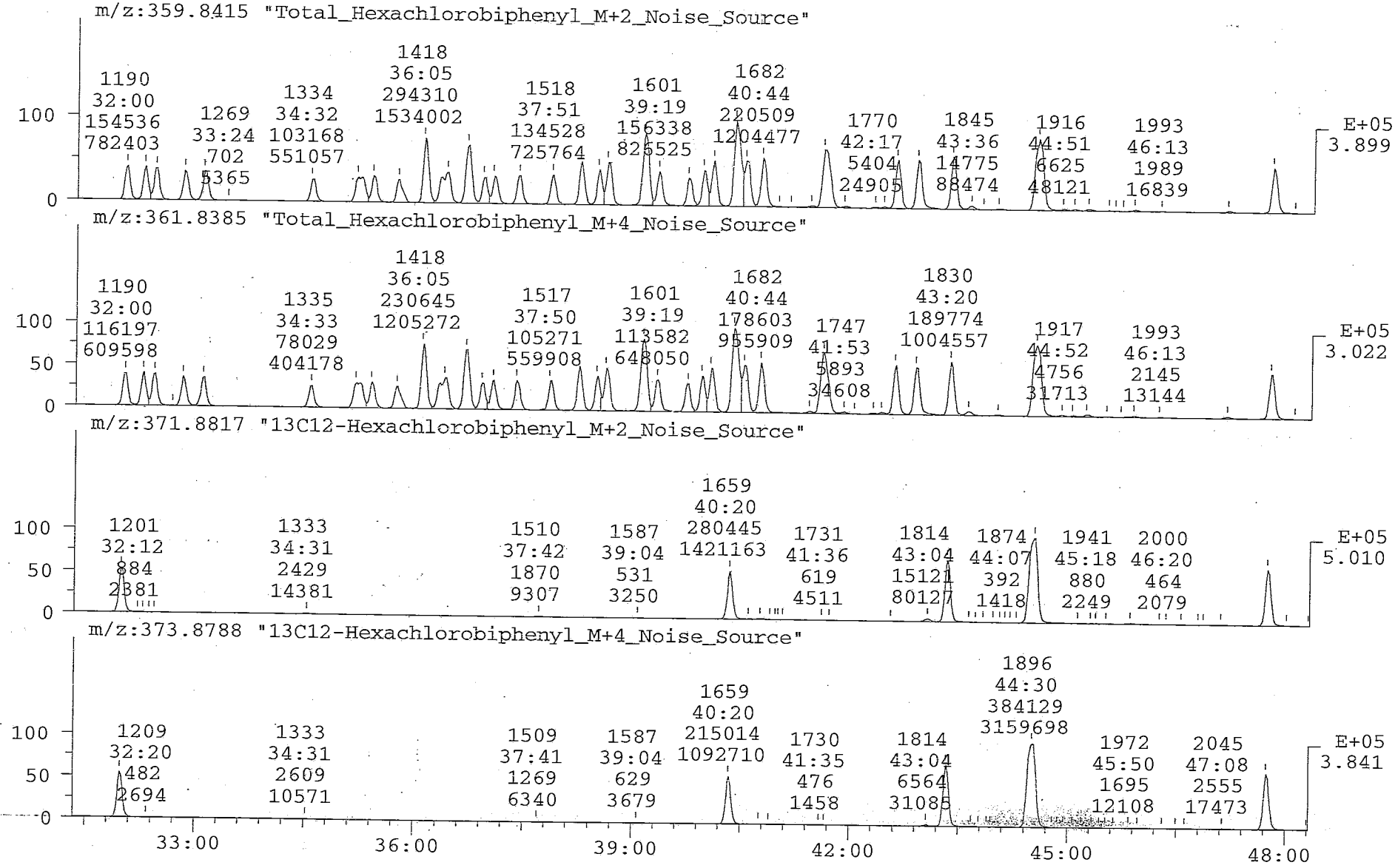
CHRO: apmkntml 14-Jul-11 Elapse: 40:38 1676
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1604 > 1746 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3319

3318

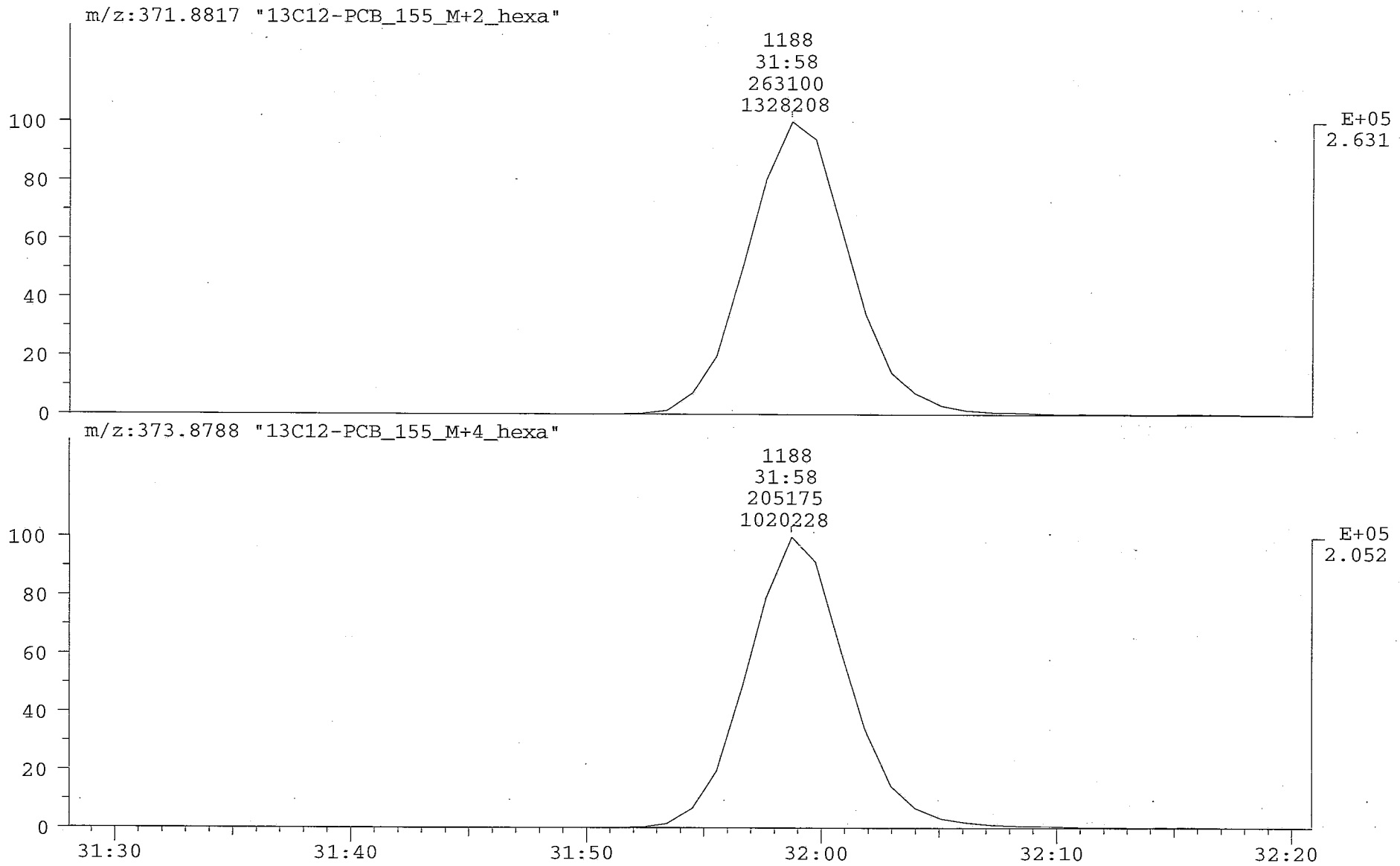
CHRO: apmkntml 14-Jul-11 Elapse: 39:48 1629
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1151 > 2112 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3320

3319

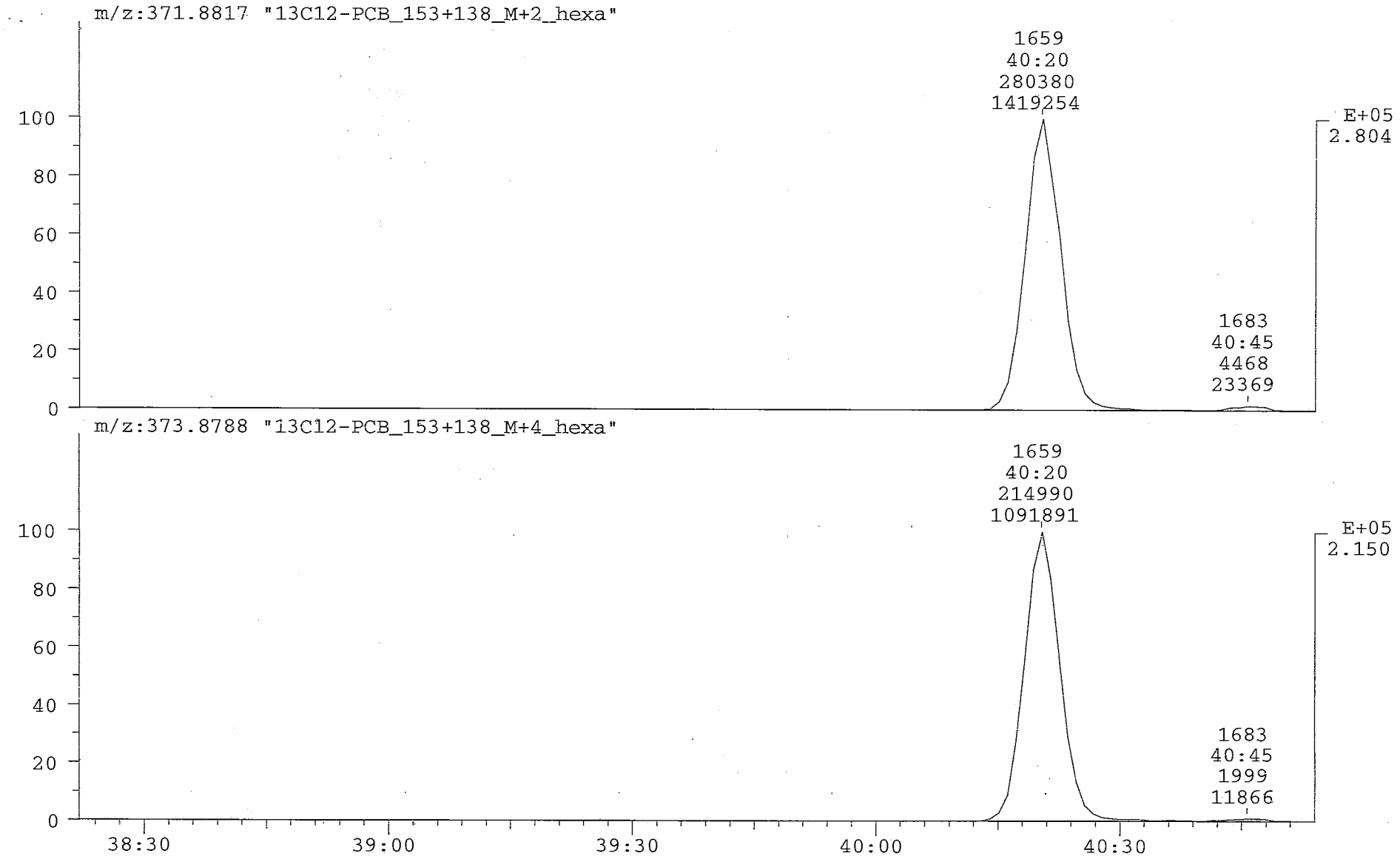
CHRO: apmkntm1 14-Jul-11 Elapse: 31:54 1184
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1159 > 1209 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3321

3320

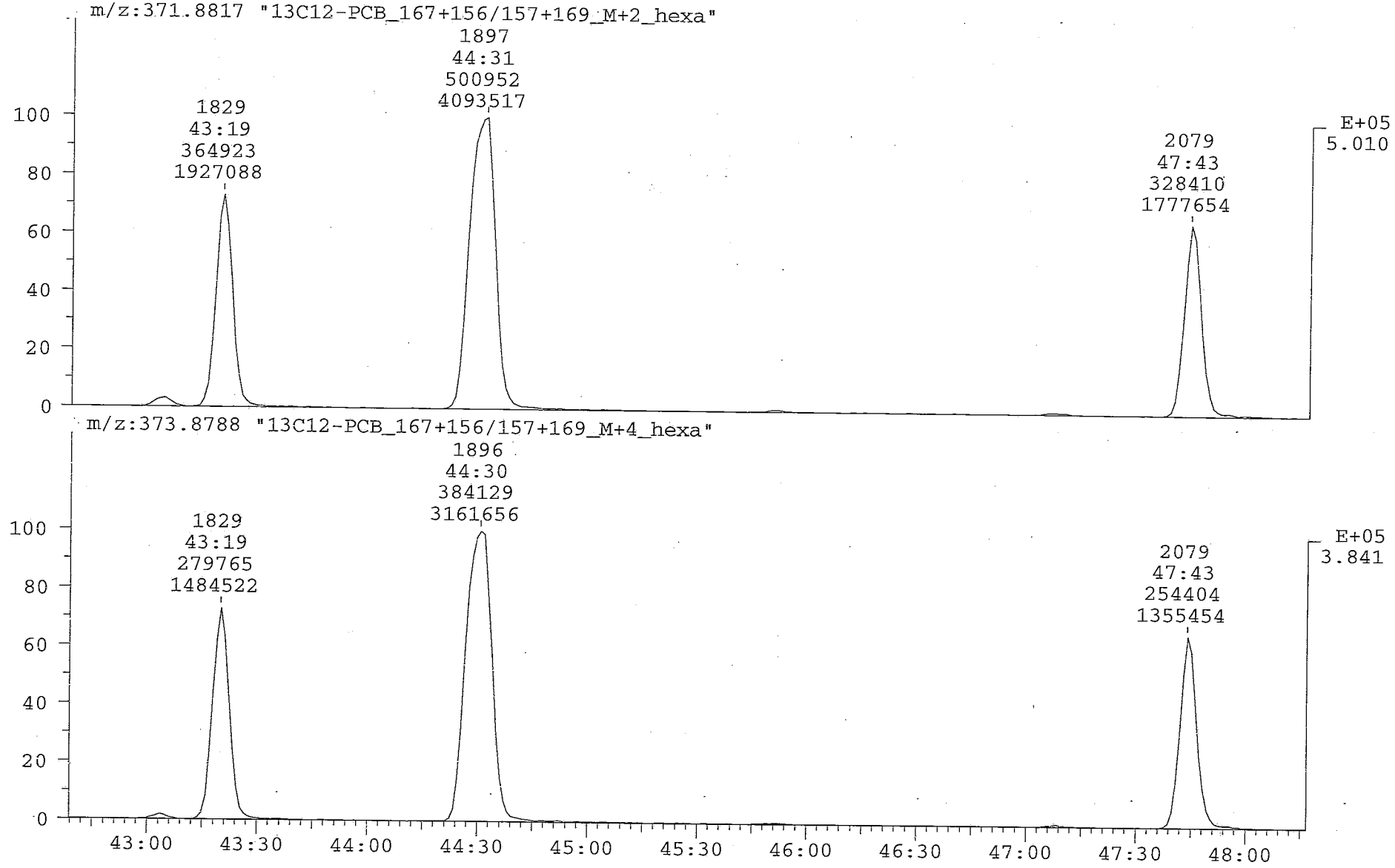
CHRO: apmkntml 14-Jul-11 Elapse: 39:38 1619
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1547 > 1691 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3322

3321

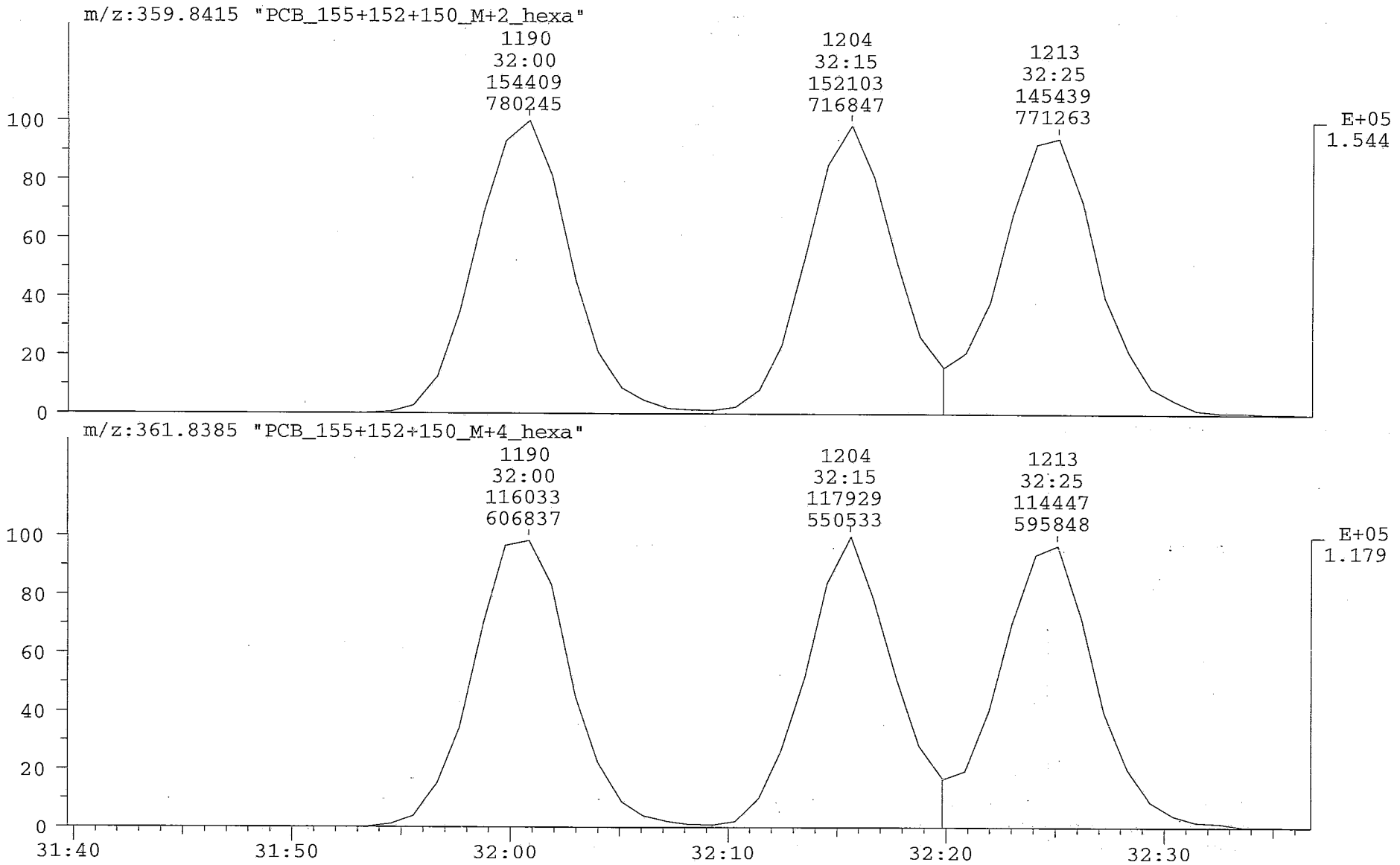
CHRO: apmkntm1 14-Jul-11 Elapse: 45:27 1950
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1790 > 2110 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 4 Label : -3, 3.0
Disp: Height Area



H-3323

3322

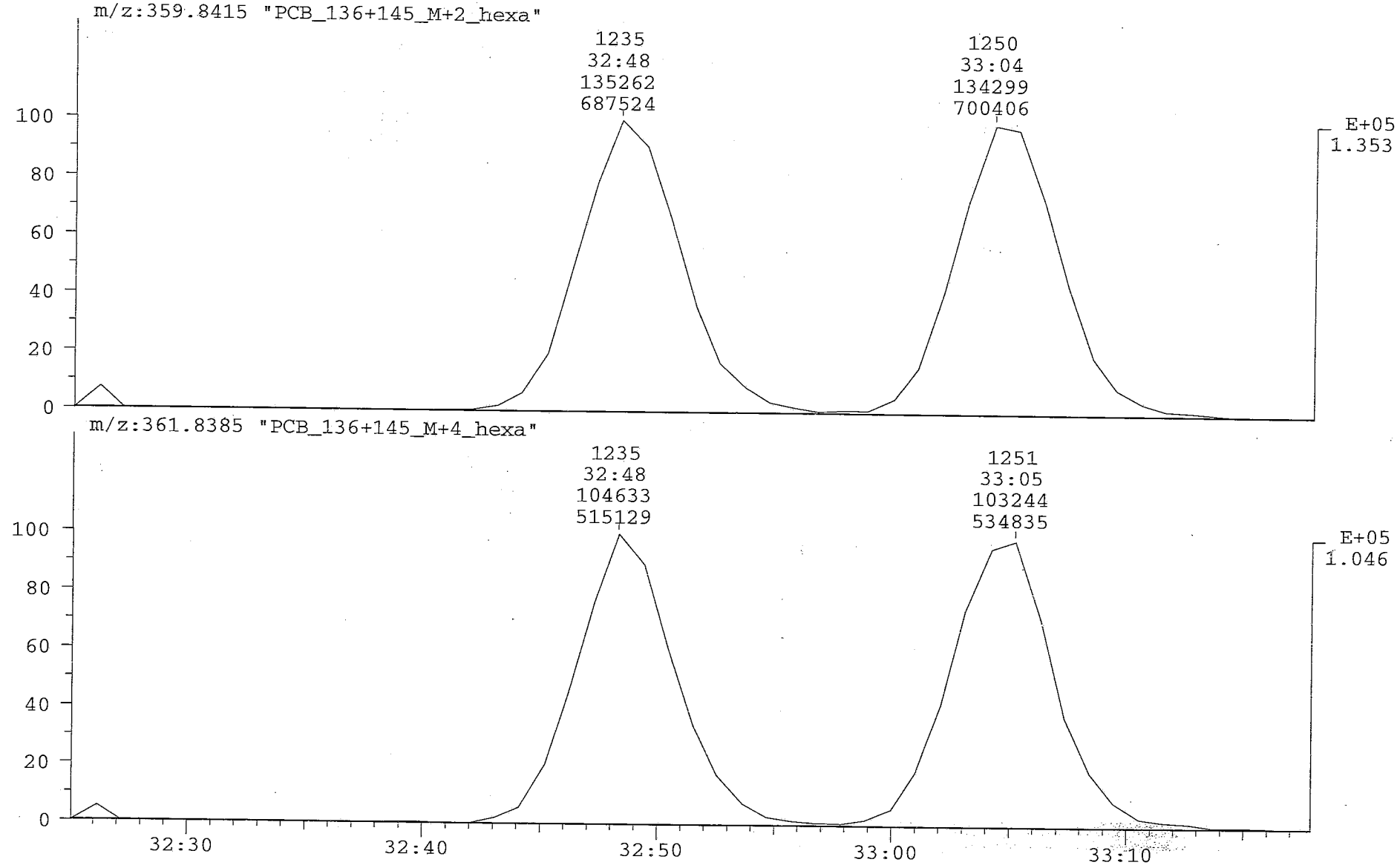
CHRO: apmkntml 14-Jul-11 Elapse: 32:09 1198
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1170 > 1224 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3324

3323

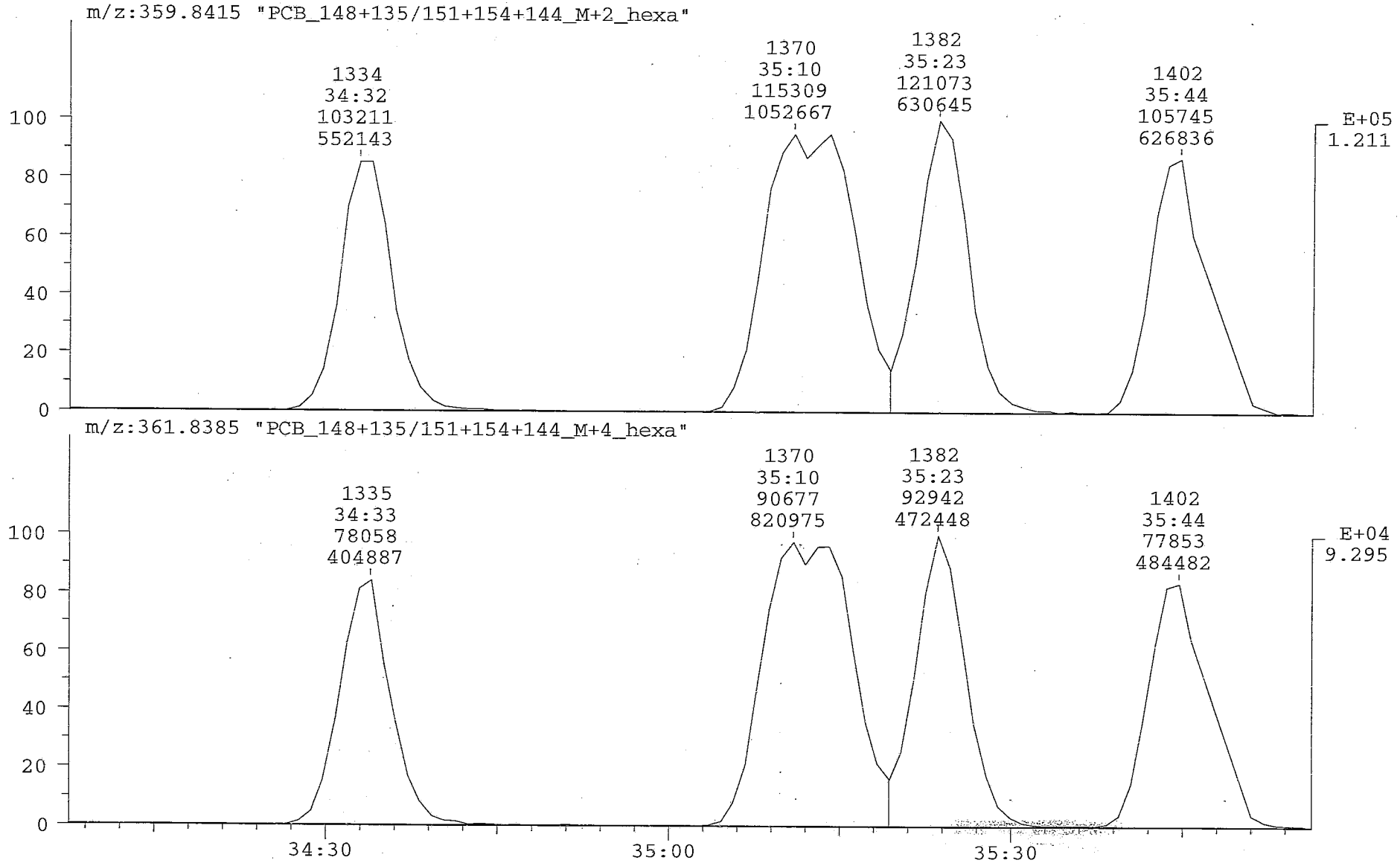
CHRO: apmkntm1 14-Jul-11 Elapse: 32:51 1238
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1213 > 1263 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3325

3324

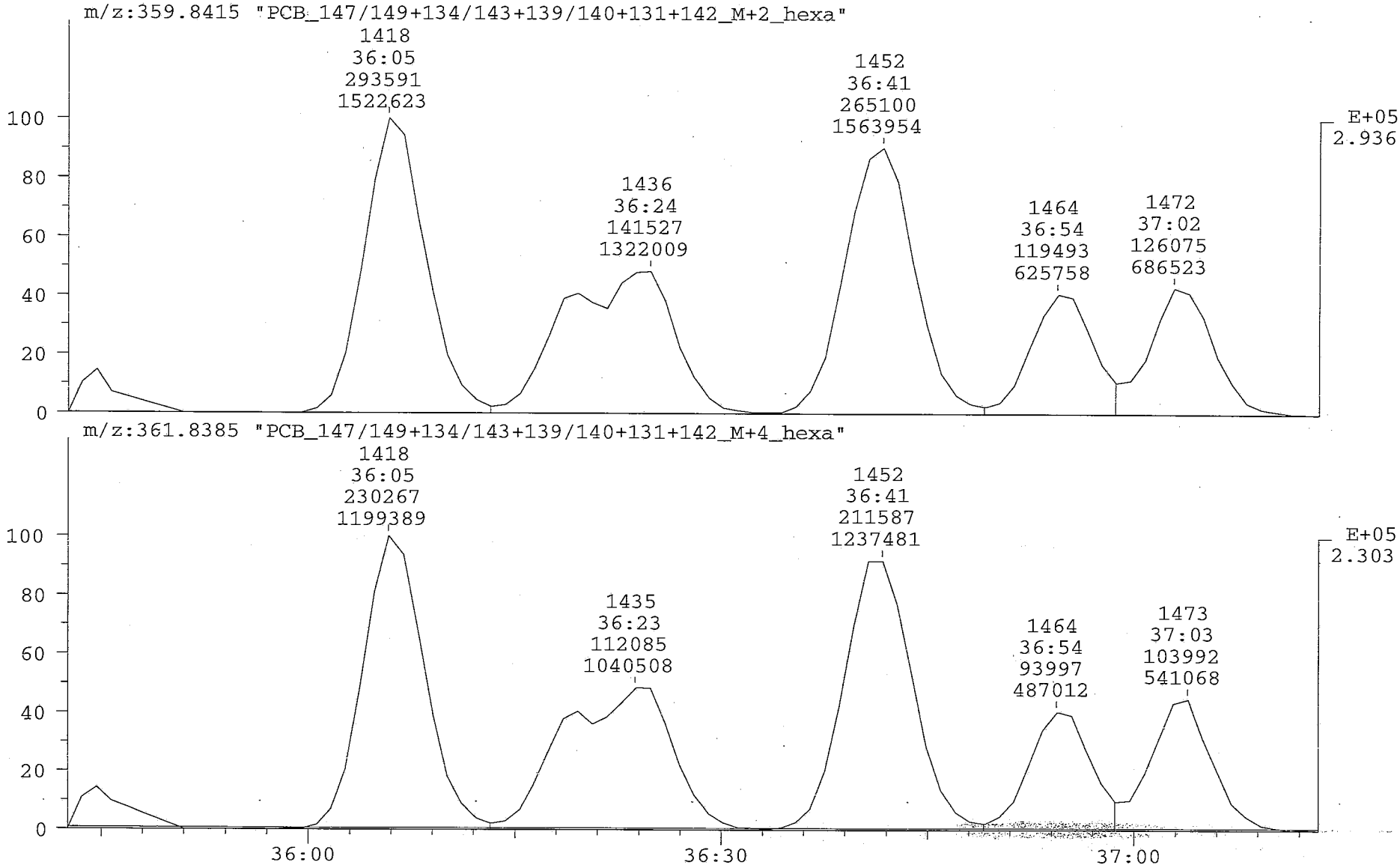
CHRO: apmkntm1 14-Jul-11 Elapse: 35:06 1366
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1310 > 1409 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3326

3325

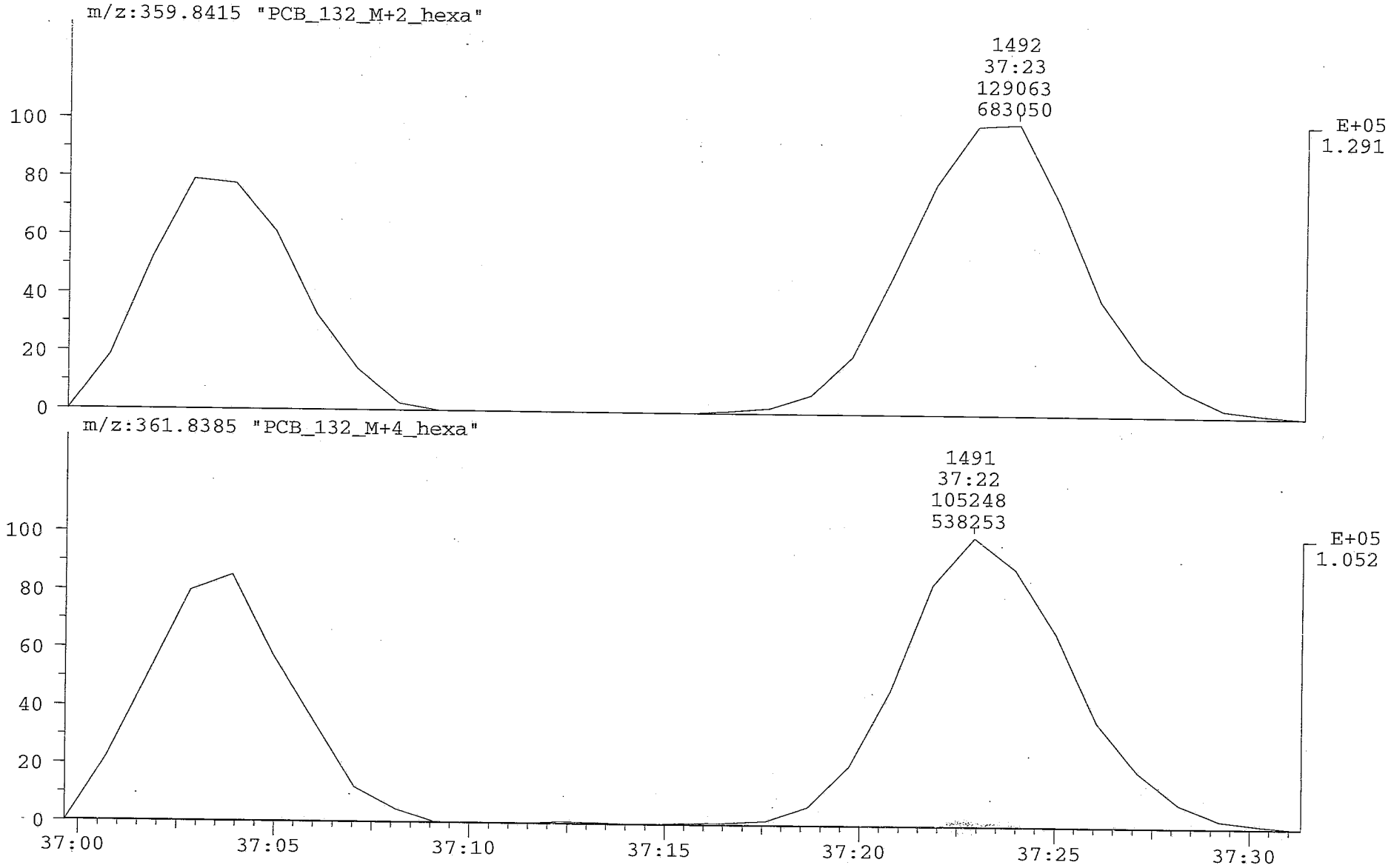
CHRO: apmkntml 14-Jul-11 Elapse: 36:35 1446
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1400 > 1482 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3327

3326

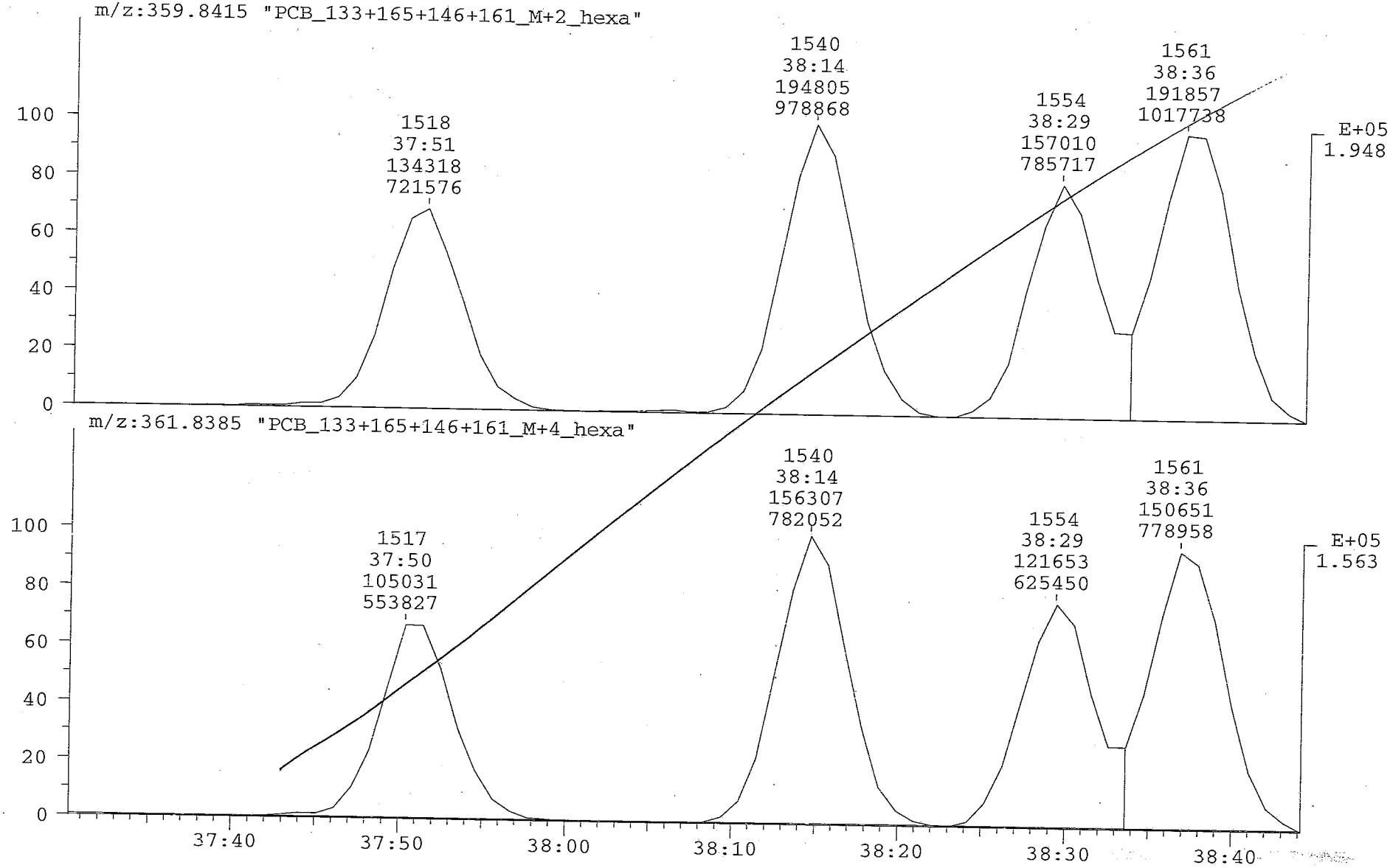
CHRO: apmkntm1 14-Jul-11 Elapse: 37:15 1484
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1469 > 1499 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3328

3327

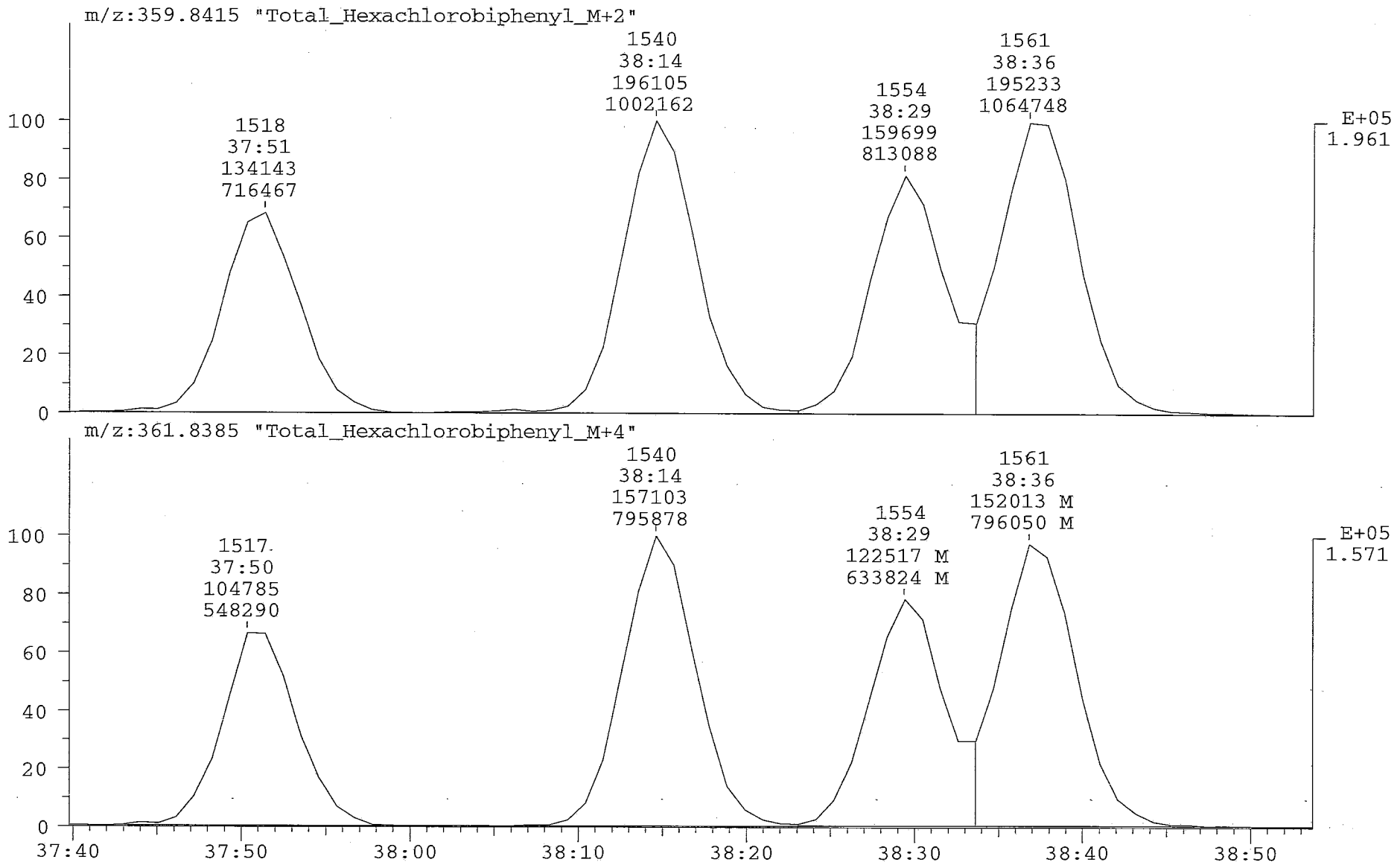
CHRO: apmkntml 14-Jul-11 Elapse: 38:10 1536
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1498 > 1568 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3329

3328

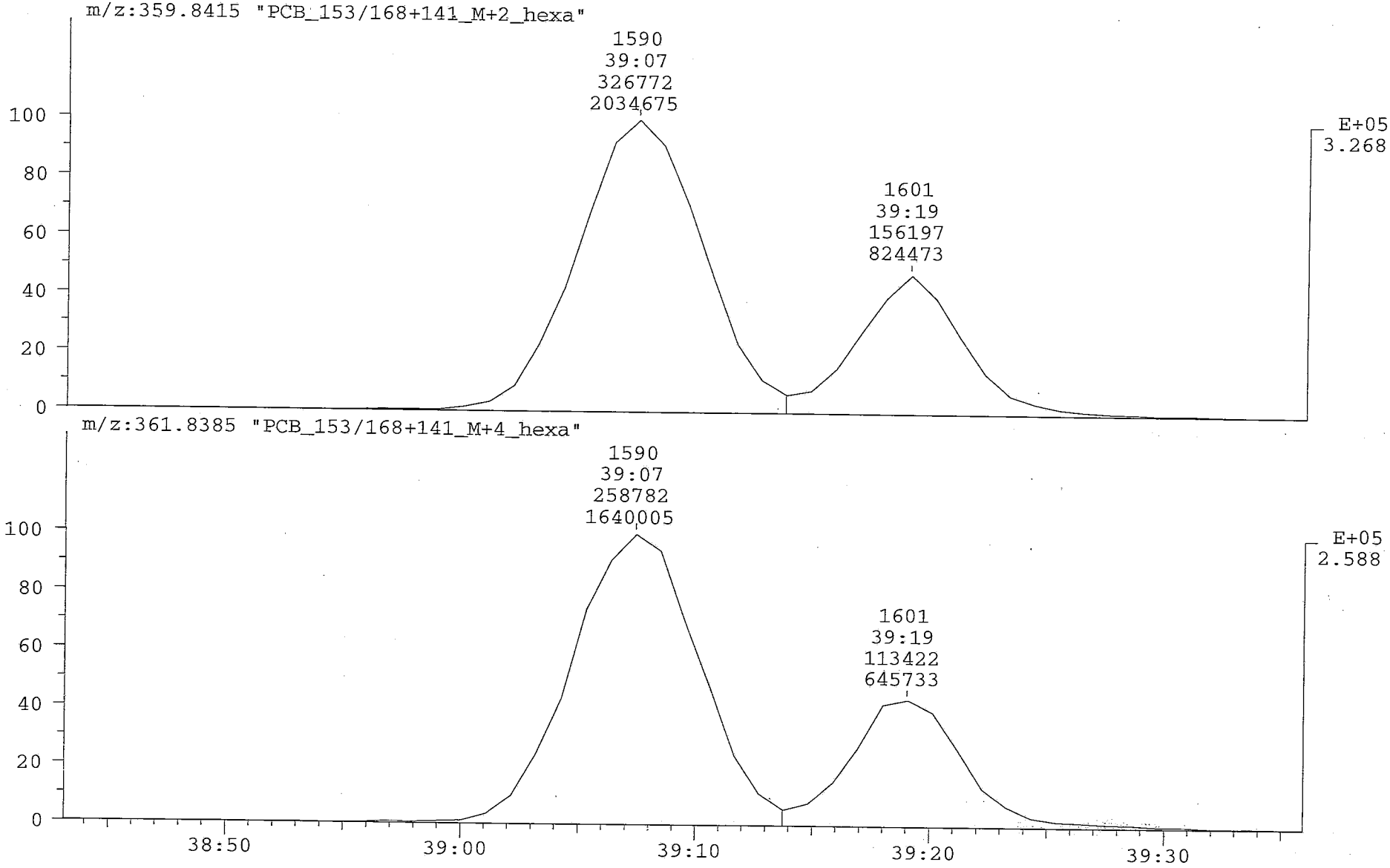
CHRO: apmkntml 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1507 > 1577 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3330

3329

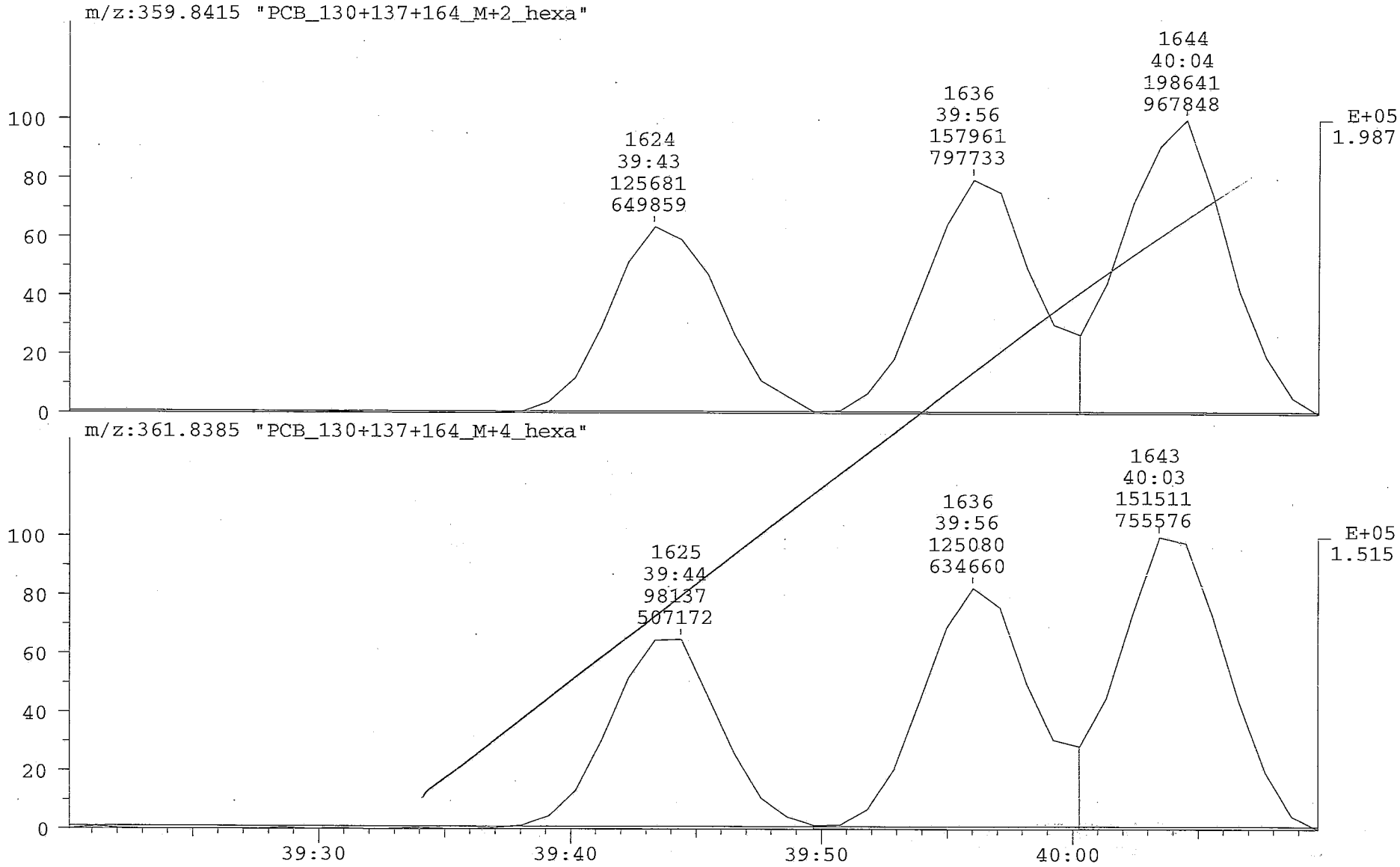
CHRO: apmkntm1 14-Jul-11 Elapse: 39:09 1592
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1567 > 1617 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-3331

3330

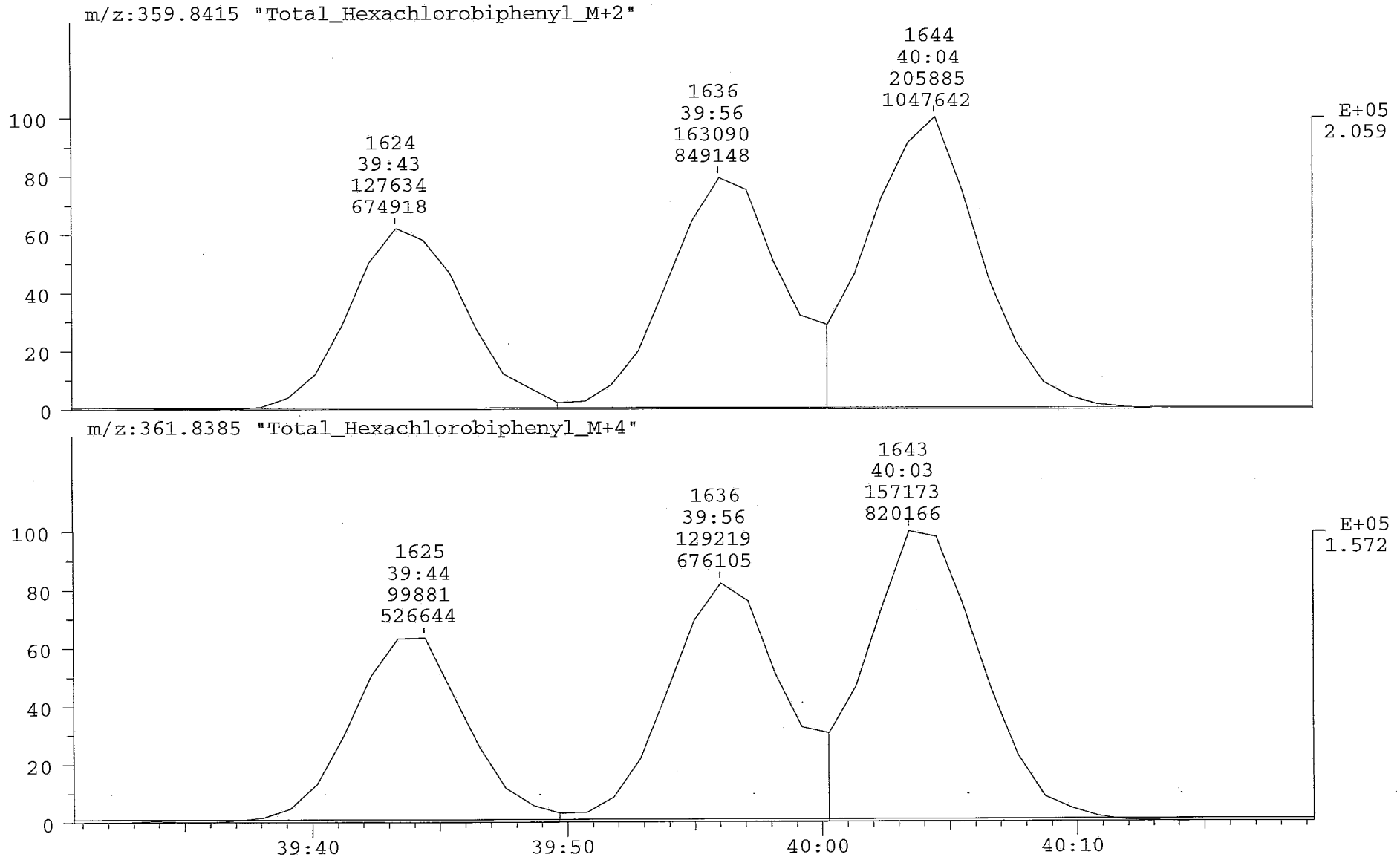
CHRO: apmkntm1 14-Jul-11 Elapse: 39:49 1630
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1602 > 1649 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3332

3331

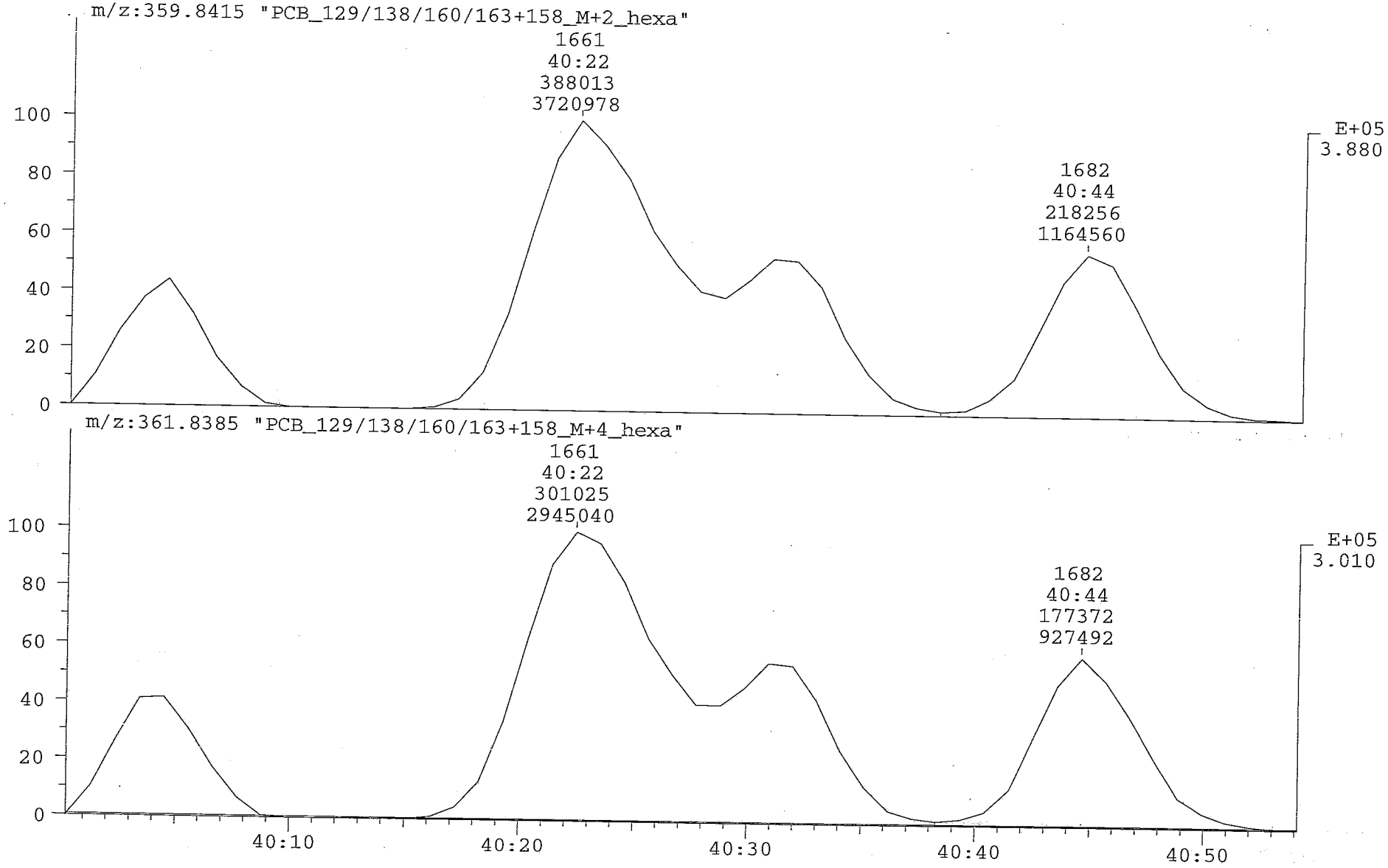
CHRO: apmkntm1 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1612 > 1658 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3333

3332

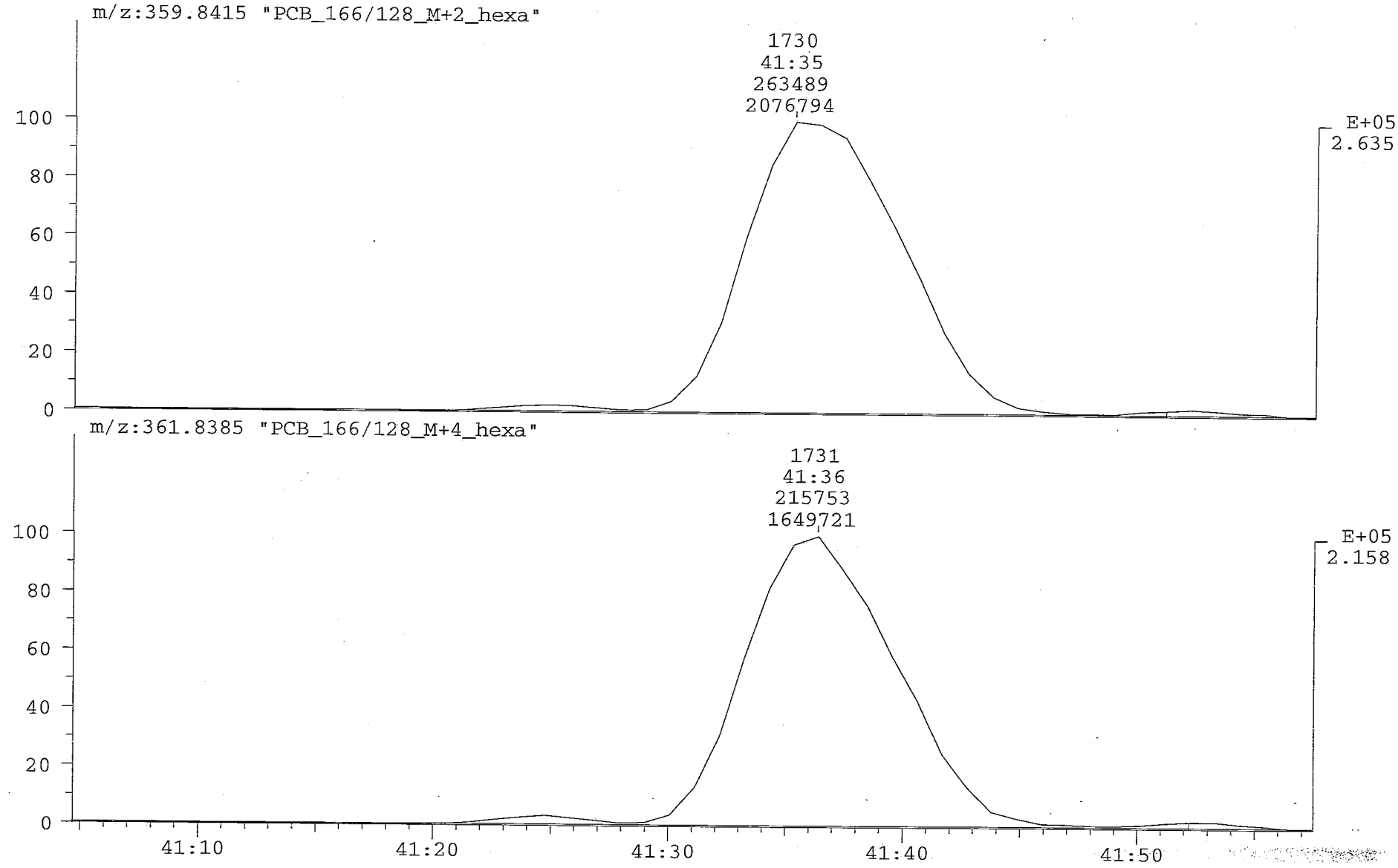
CHRO: apmkntm1 14-Jul-11 Elapse: 40:30 1669
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1640 > 1691 Masses: 181 > 510
Area: 5, 0.50, 0 Baseline : 100, 7 Label : -3, 3.0
Disp: Height Area



H-3334

3333

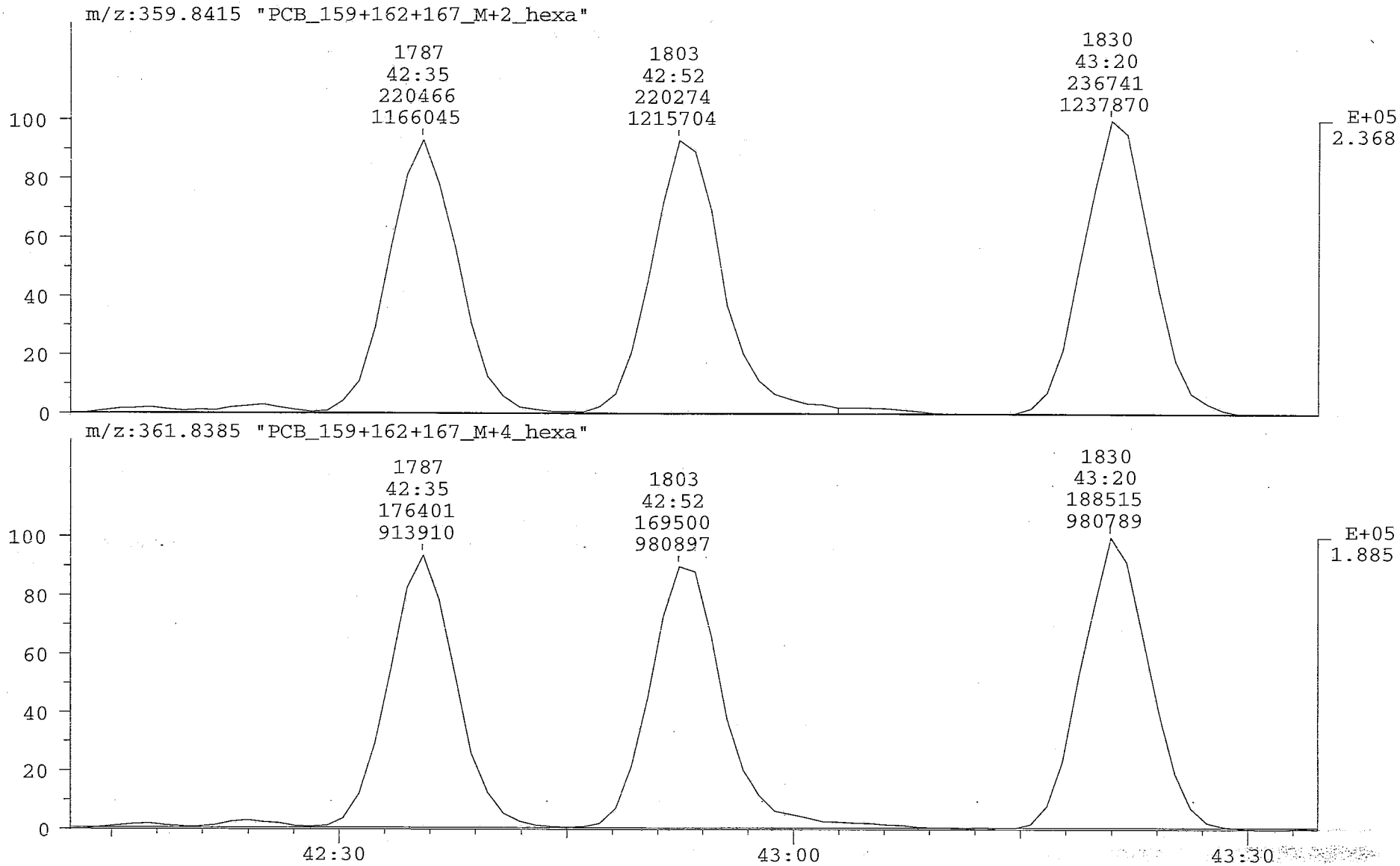
CHRO: apmkntml 14-Jul-11 Elapse: 41:33 1728
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1701 > 1751 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 8 Label : -3, 3.0
Disp: Height Area



H-3335

3334

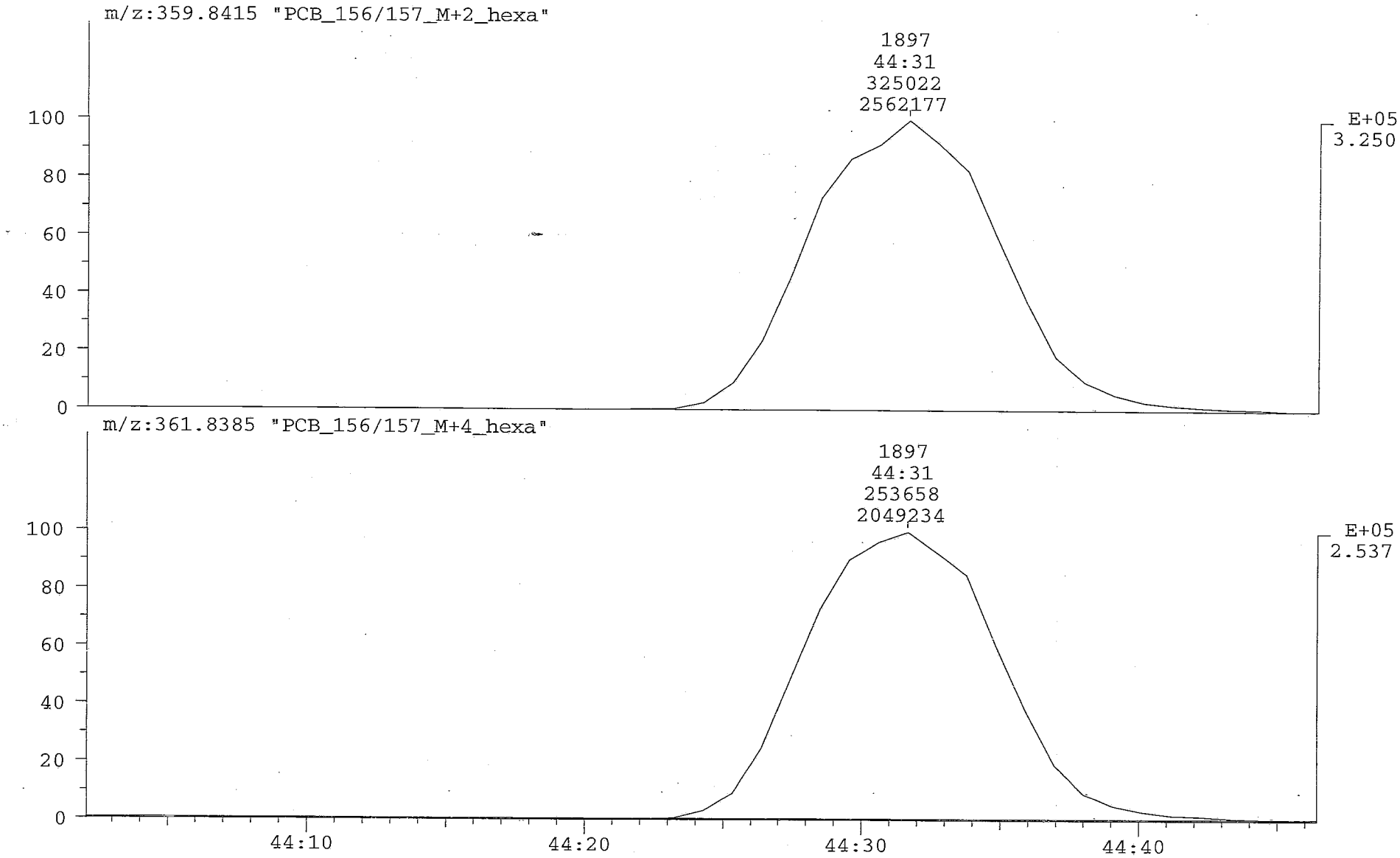
CHRO: apmkntm1 14-Jul-11 Elapse: 42:54 1805
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1765 > 1843 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3336

3335

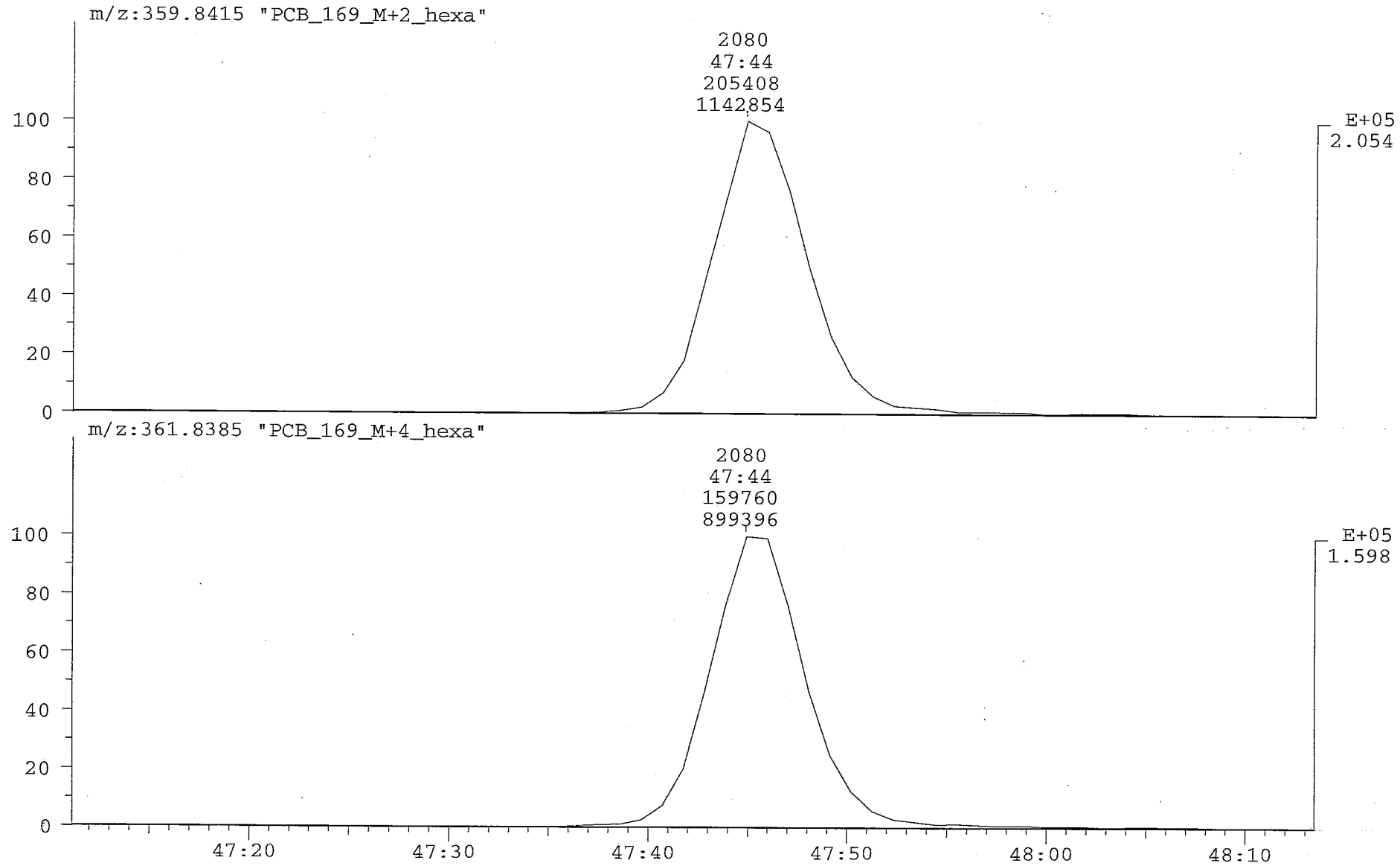
CHRO: apmkntm1 14-Jul-11 Elapse: 44:23 1889
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1869 > 1911 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 6 Label : -3, 3.0
Disp: Height Area



H-3337

3336

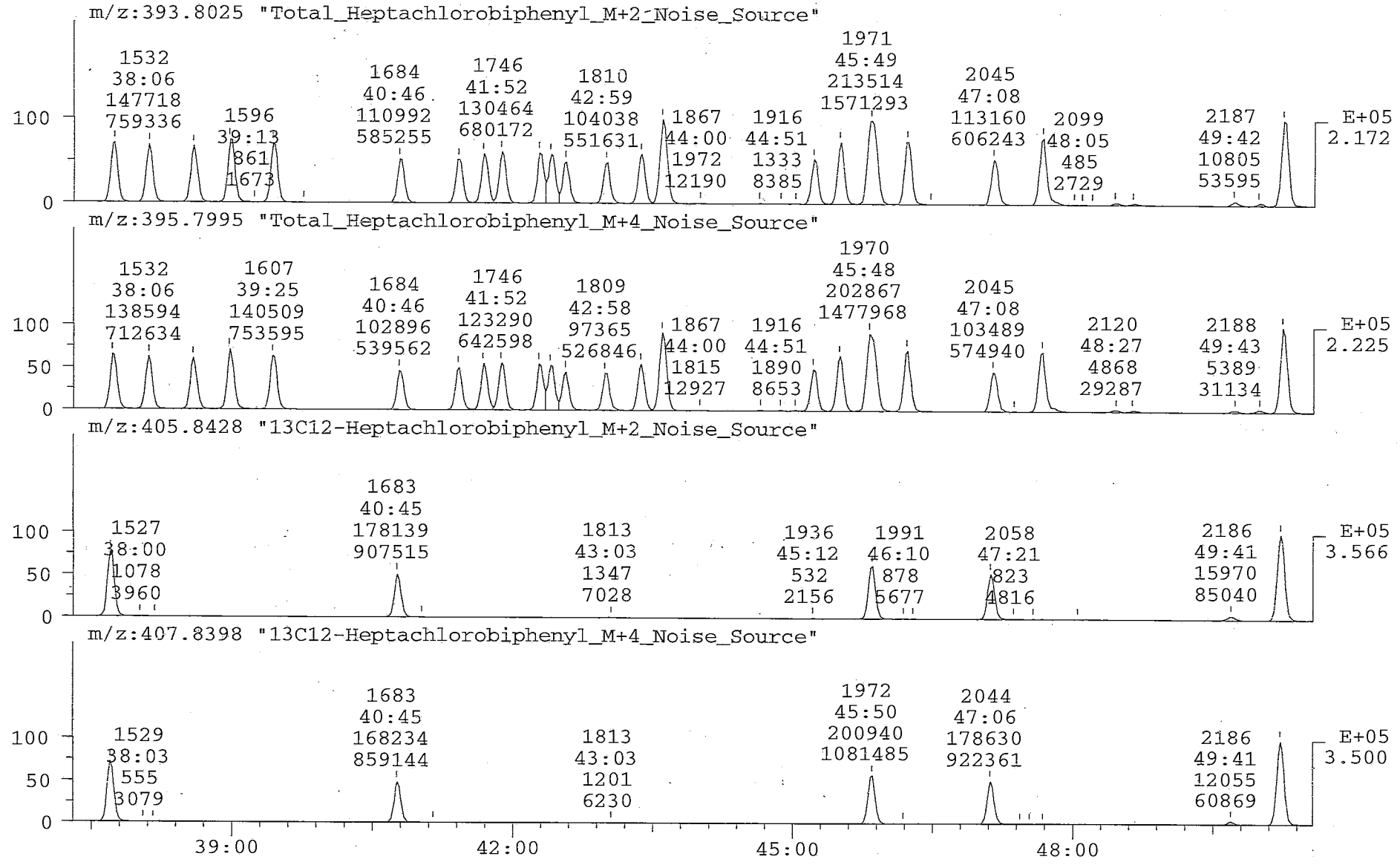
CHRO: apmkntm1 14-Jul-11 Elapse: 47:37 2073
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2048 > 2107 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3338

3337

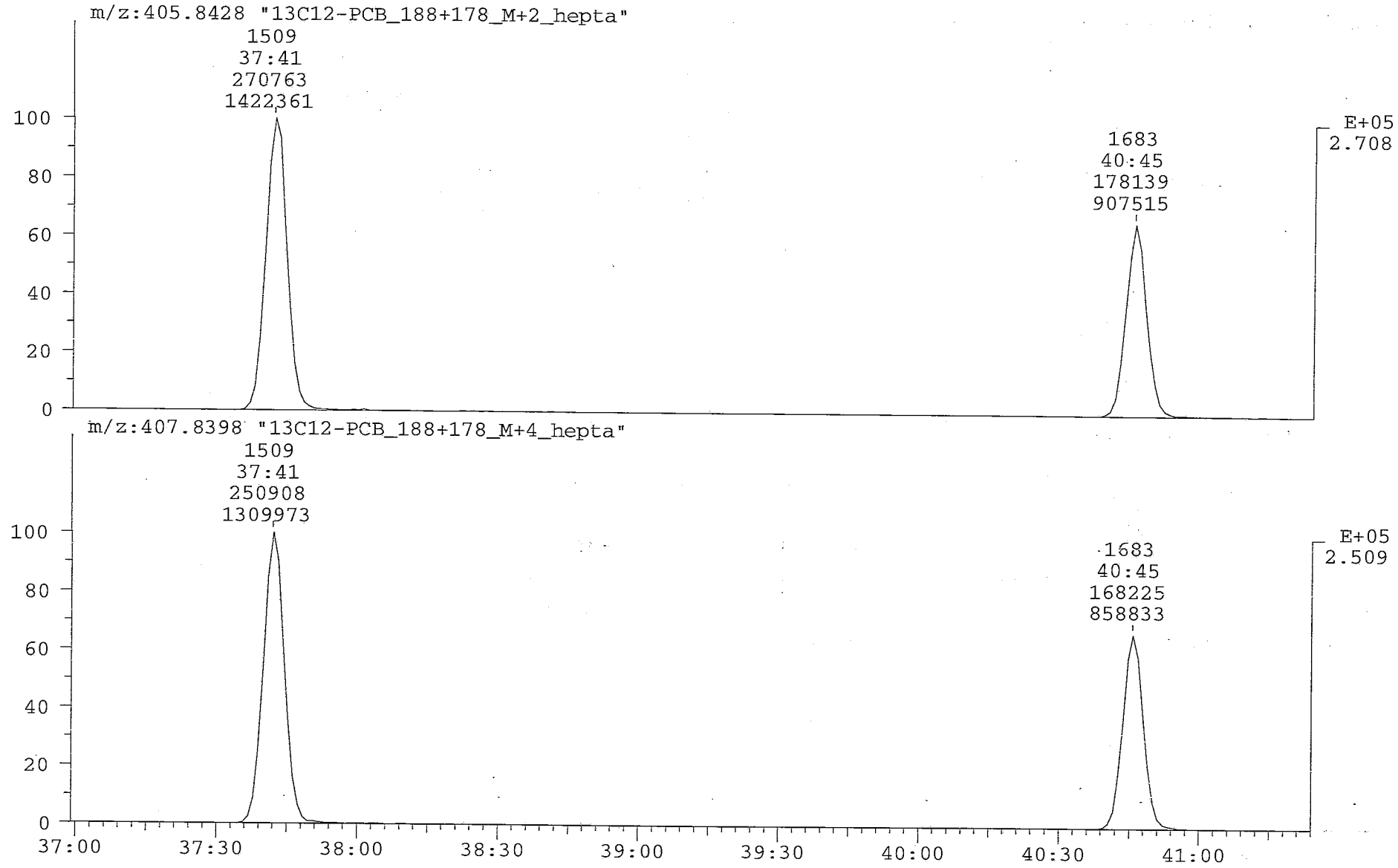
CHRO: apmkntm1 14-Jul-11 Elapse: 43:55 1863
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1486 > 2236 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3339

3338

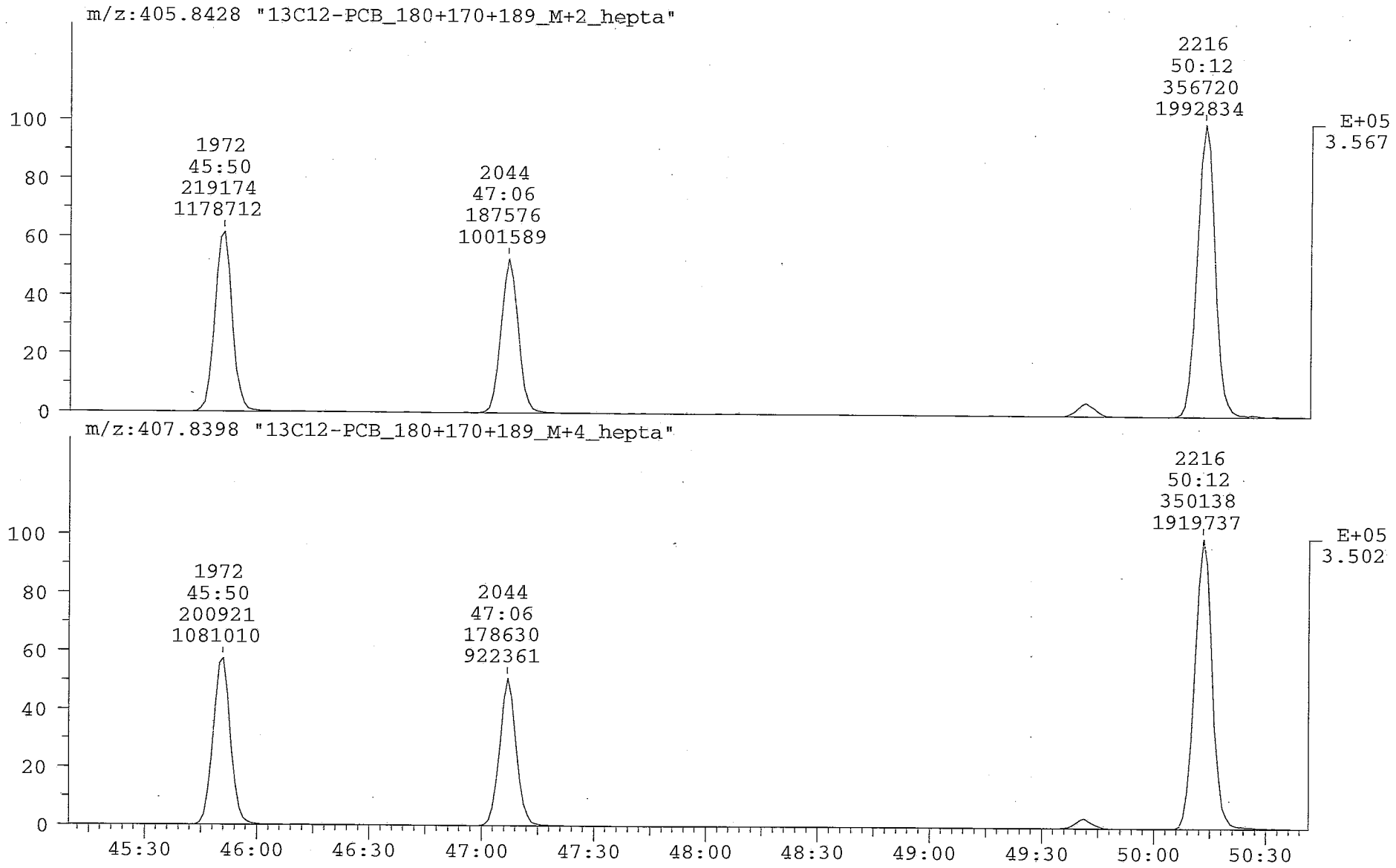
CHRO: apmkntml 14-Jul-11 Elapse: 39:10 1593
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1468 > 1719 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3340

3339

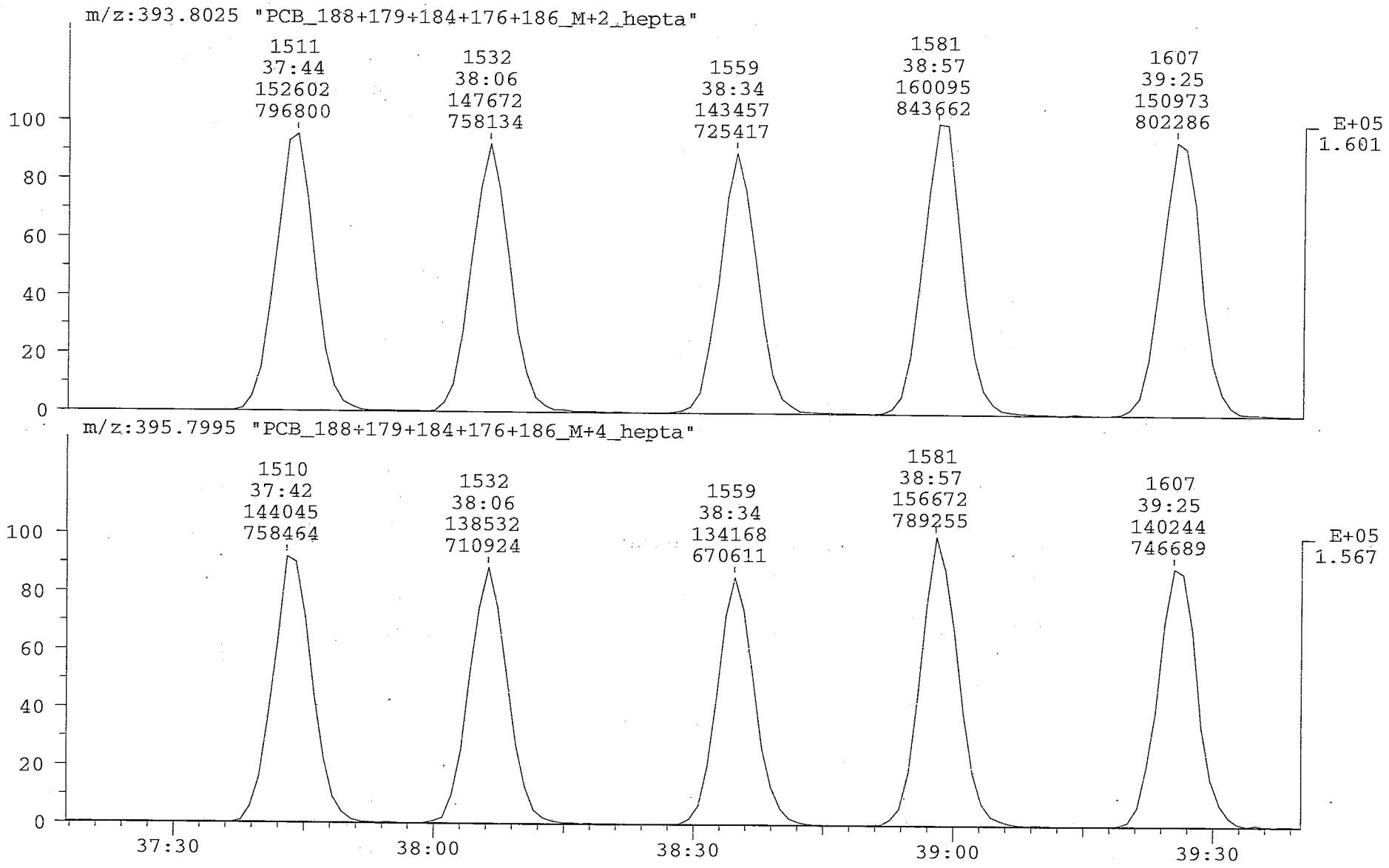
CHRO: apmkntm1 14-Jul-11 Elapse: 47:58 2093
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1933 > 2243 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3341

3340

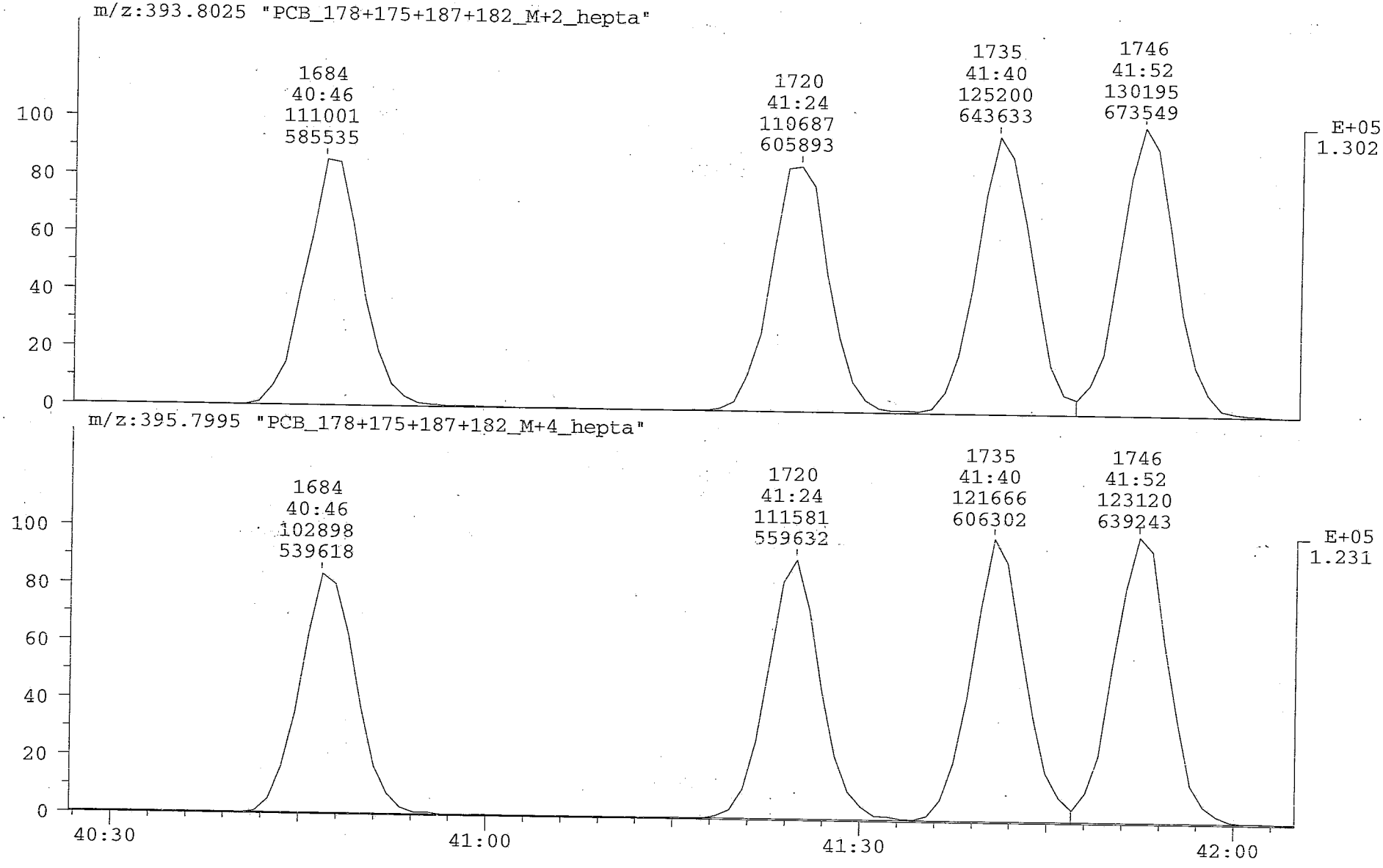
CHRO: apmkntm1 14-Jul-11 Elapse: 38:31 1556
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1486 > 1621 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3342

3341

CHRO: apmkntml 14-Jul-11 Elapse: 41:19 1715
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1665 > 1758 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3343

3342

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CHRO:  apmkntml                                14-Jul-11   Elapse:  42:27      1779
Samp:  Vial 5 WO=mkntm1ad Meth=IE5 Dil=1                   Start :  00:13:28   2597
Comm:  Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                           Study :  1187028 (Air-2)
Oper:  JMN          Client:  H1G060000-028L                Inlet :  GC     Vial  5
Peak:  100.00  ppm     Label wndw:   1746 > 1799           Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 7                Label :  -3, 3.0
Disp:  Height  Area
```
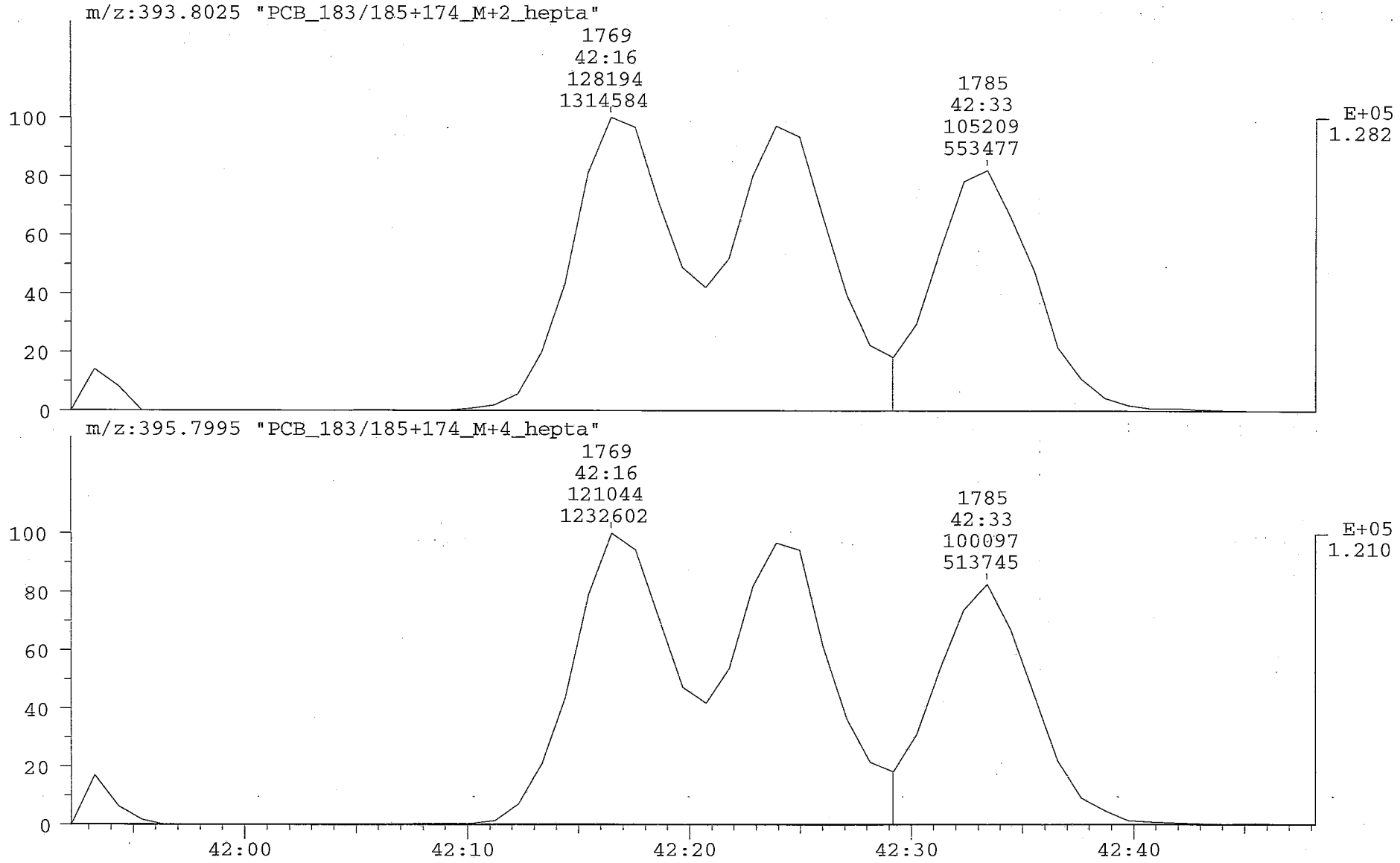
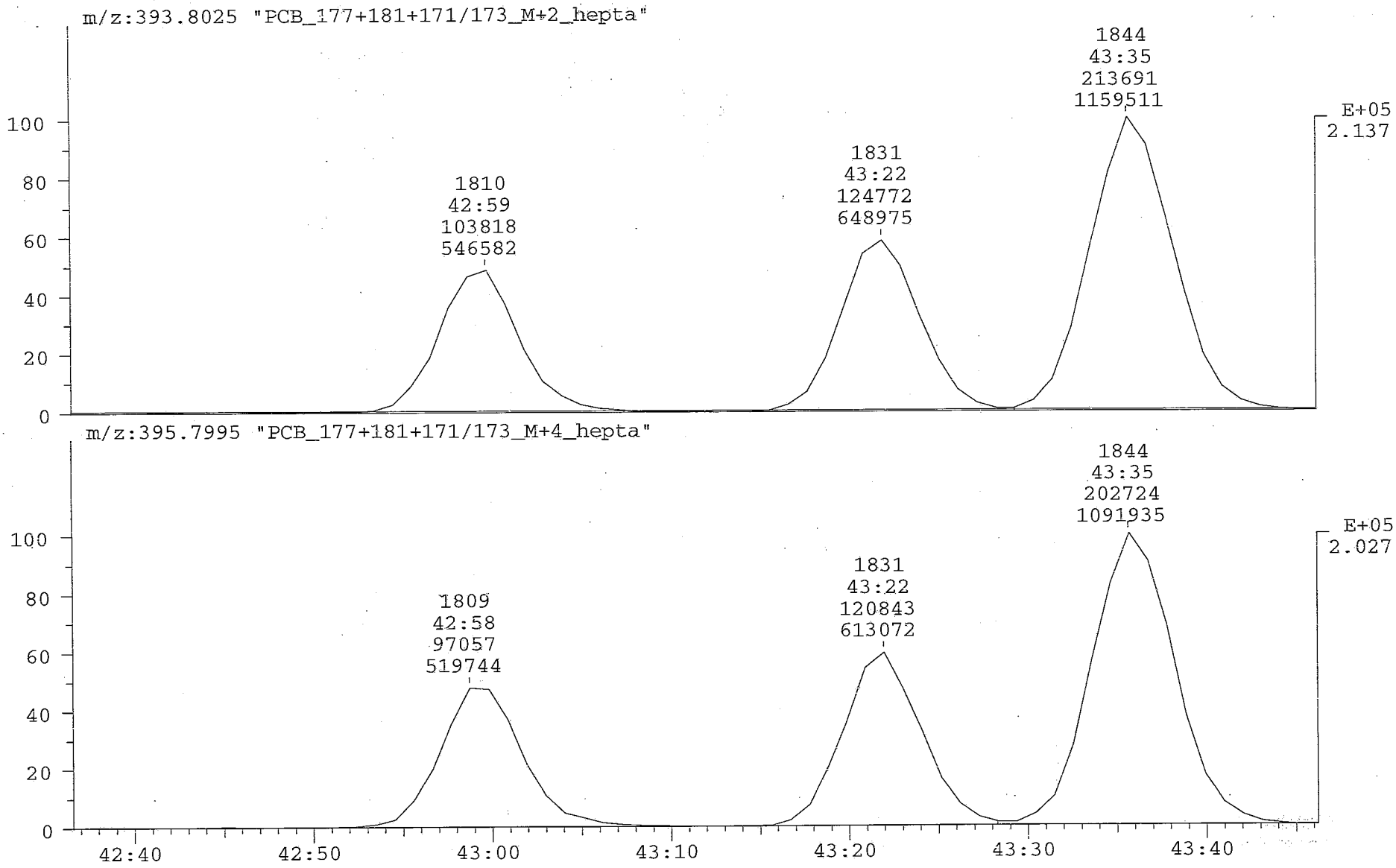



H-3344

3343

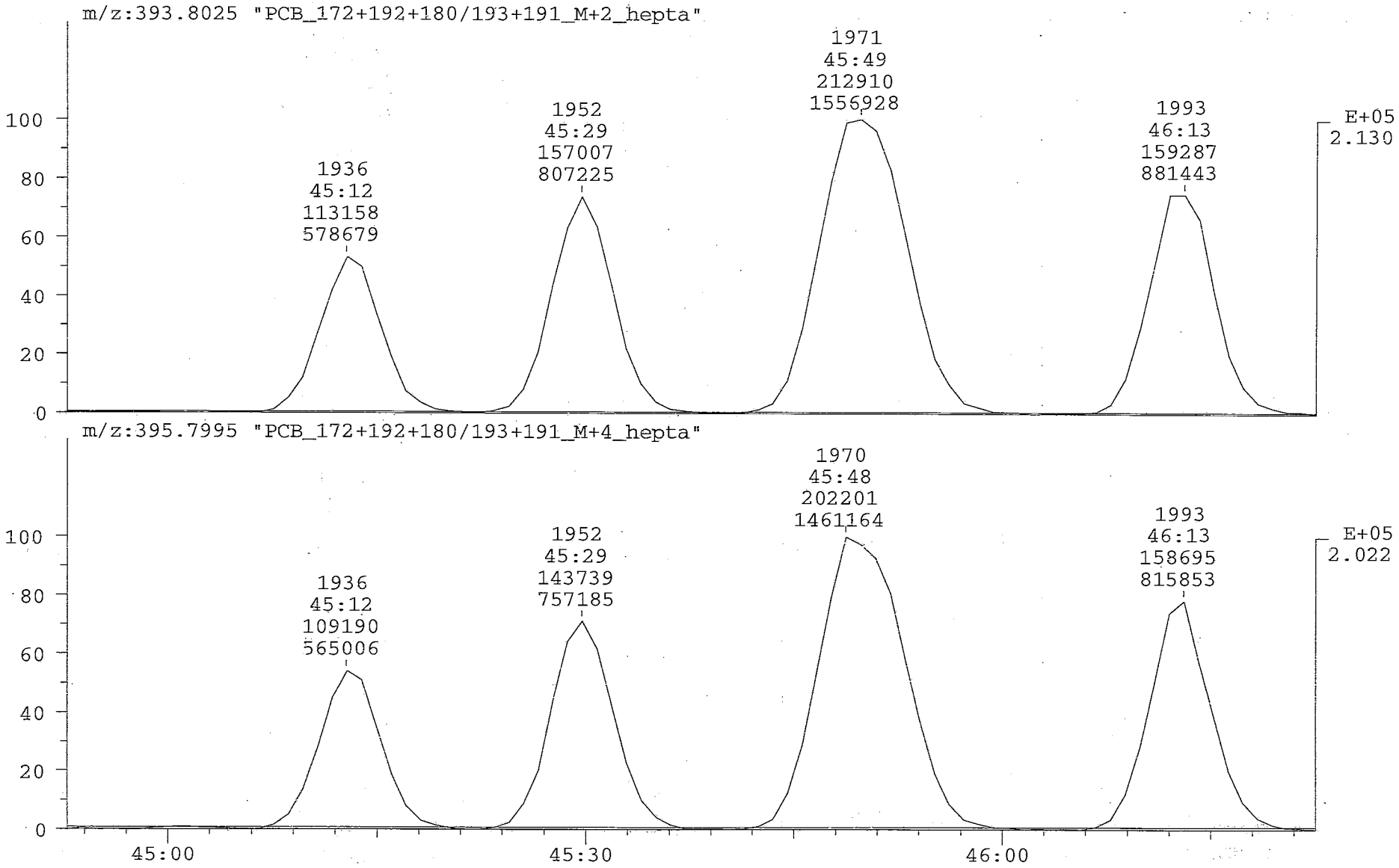
```
CHRO:  apmkntml                                  14-Jul-11   Elapse:  43:15      1825
Samp:  Vial 5 WO=mkntm1ad Meth=IE5 Dil=1                     Start :  00:13:28   2597
Comm:  Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode:  EI +VE +LMR  ESCAN LR NRM                             Study :  1187028 (Air-2)
Oper:  JMN           Client:  H1G060000-028L                 Inlet :  GC     Vial  5
Peak:  100.00  ppm     Label wndw:   1788 > 1854             Masses:  181 > 510
Area:  5, 0.50, 15     Baseline  :   100, 3                  Label :  -3, 3.0
Disp:  Height  Area
```



H-3345

3344

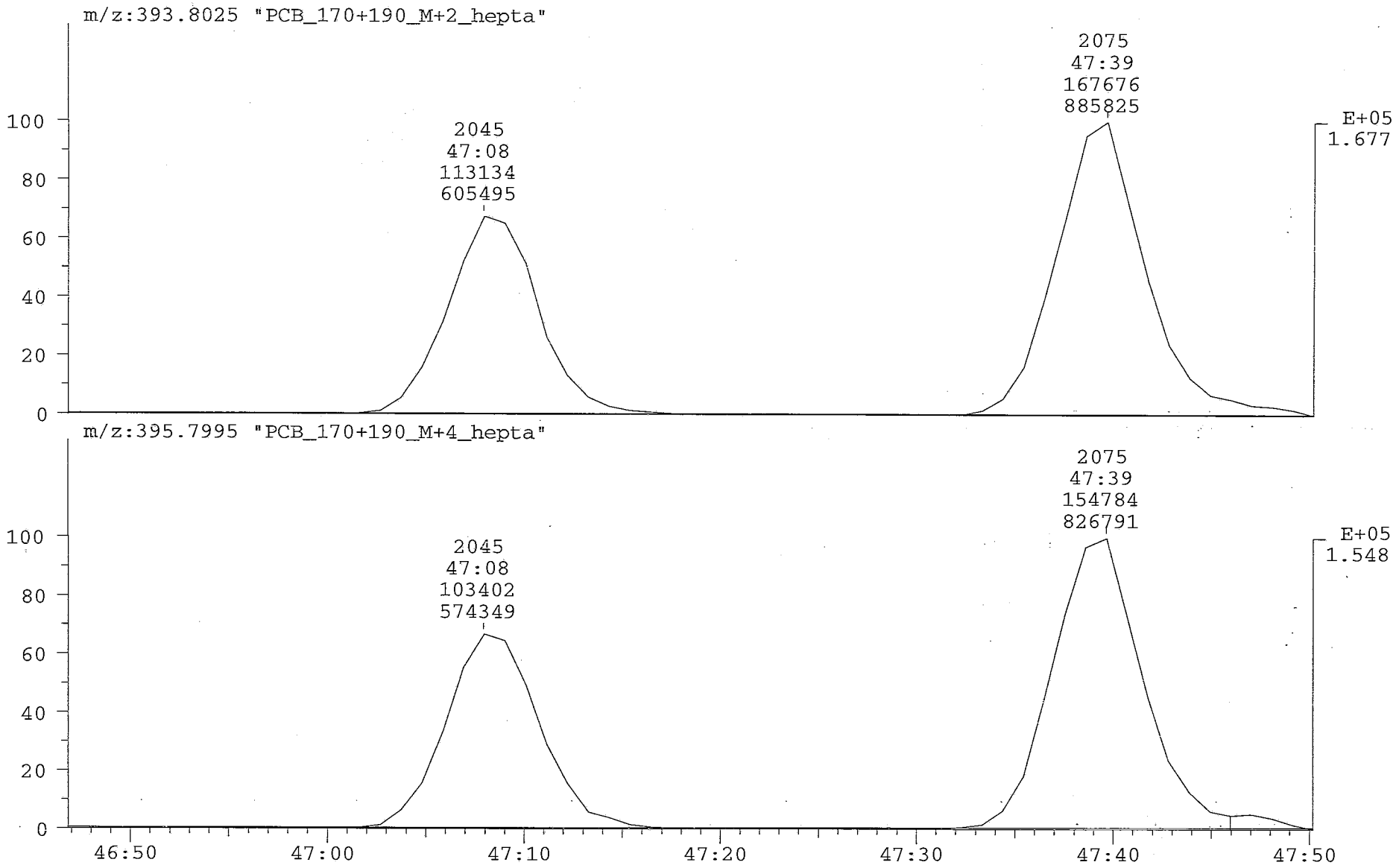
CHRO: apmkntm1 14-Jul-11 Elapse: 45:44 1966
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1917 > 2002 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3346

3345

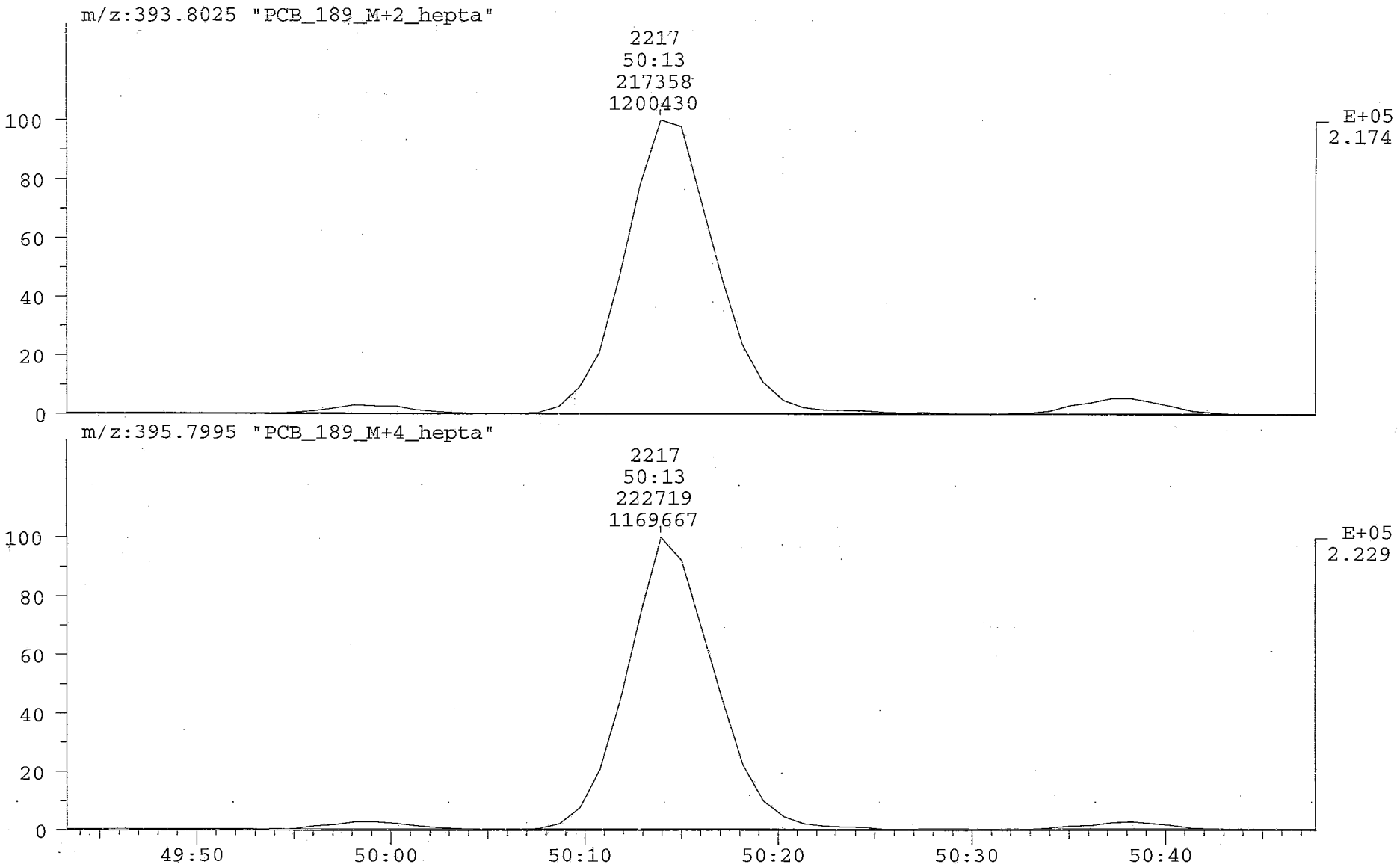
CHRO: apmkntm1 14-Jul-11 Elapse: 47:20 2057
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2025 > 2085 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 1 Label : -3, 3.0
Disp: Height Area



H-3347

3346

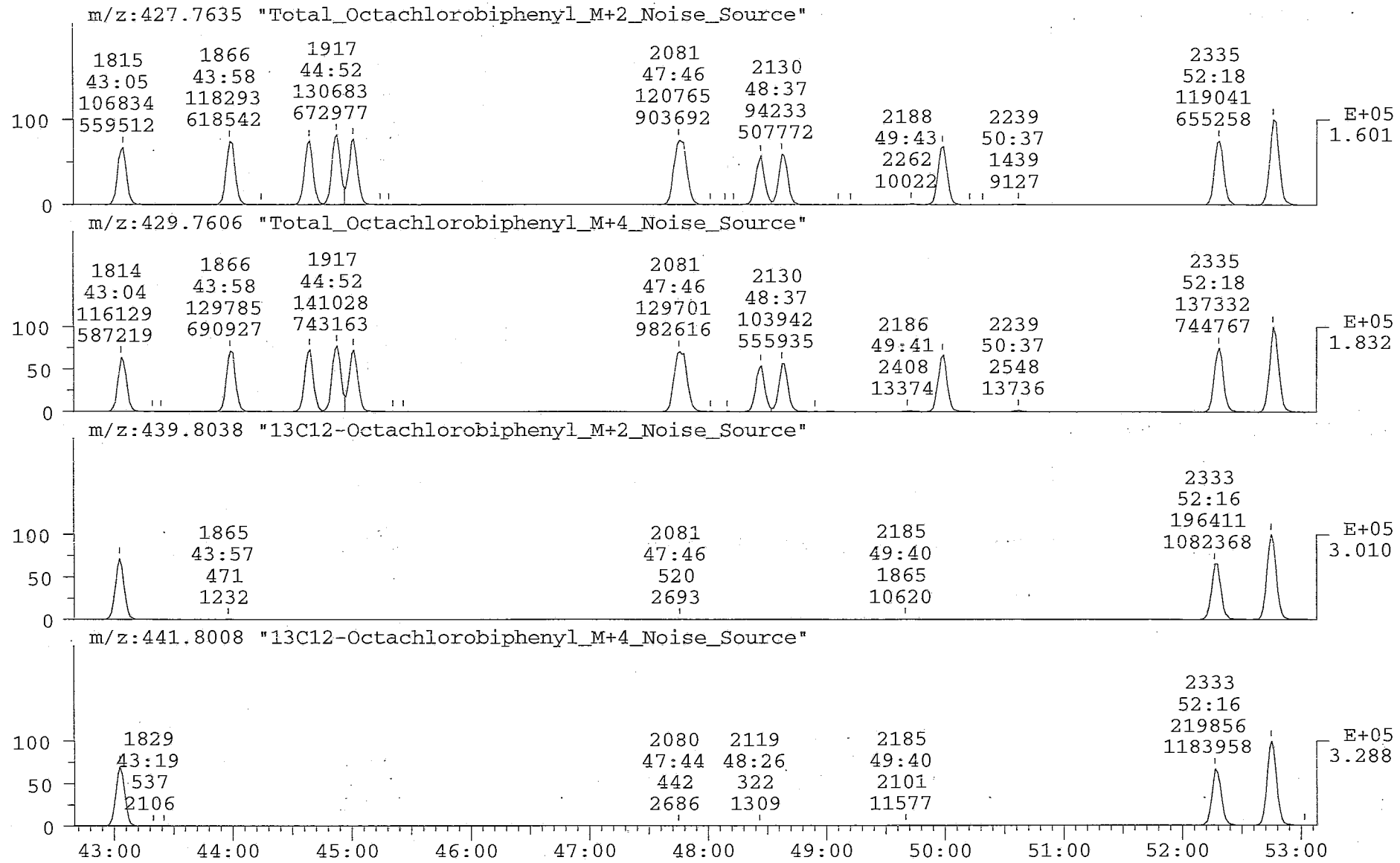
CHRO: apmkntm1 14-Jul-11 Elapse: 50:07 2211
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2188 > 2249 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3348

3347

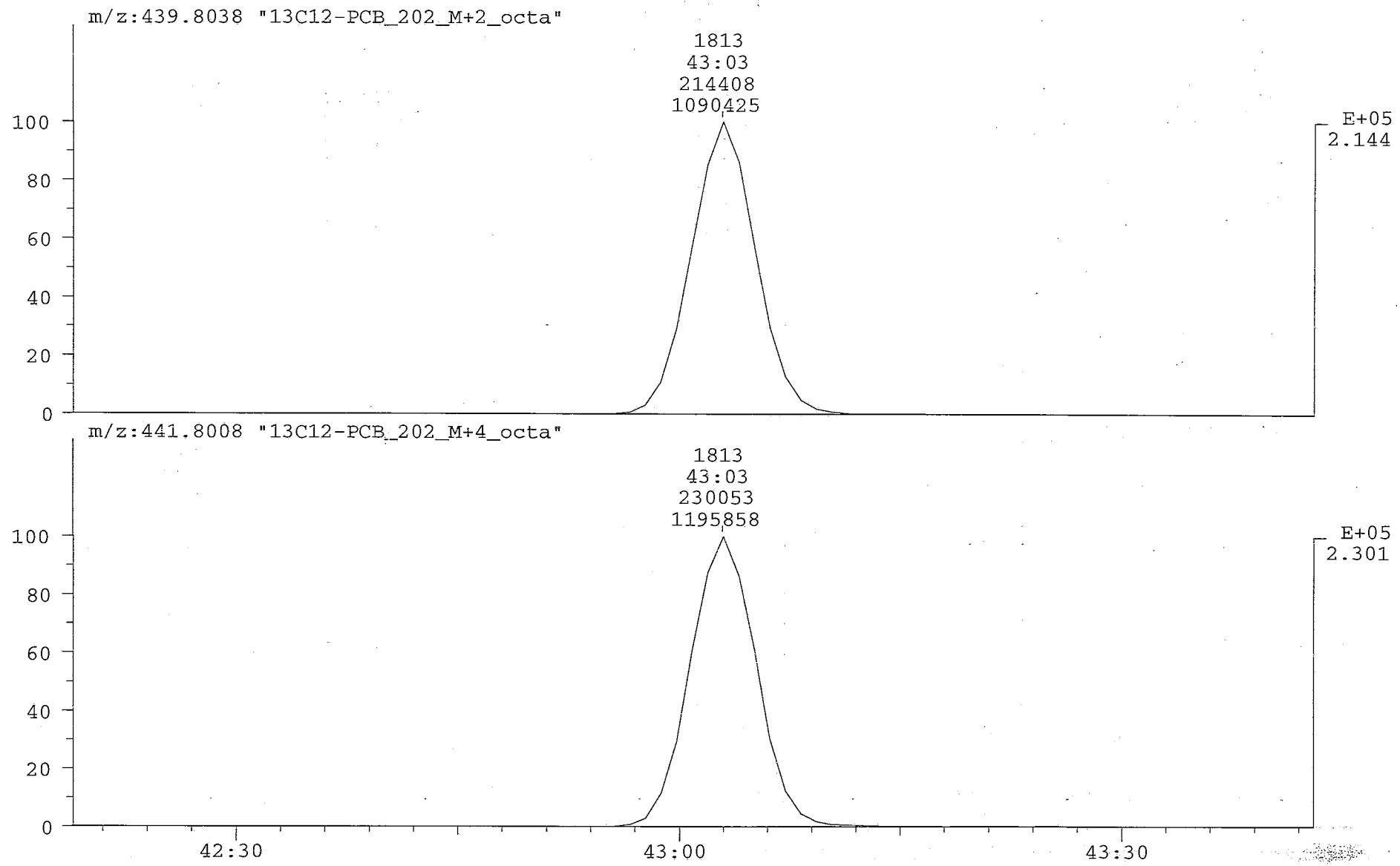
CHRO: apmkntm1 14-Jul-11 Elapse: 47:54 2089
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1791 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3349

3348

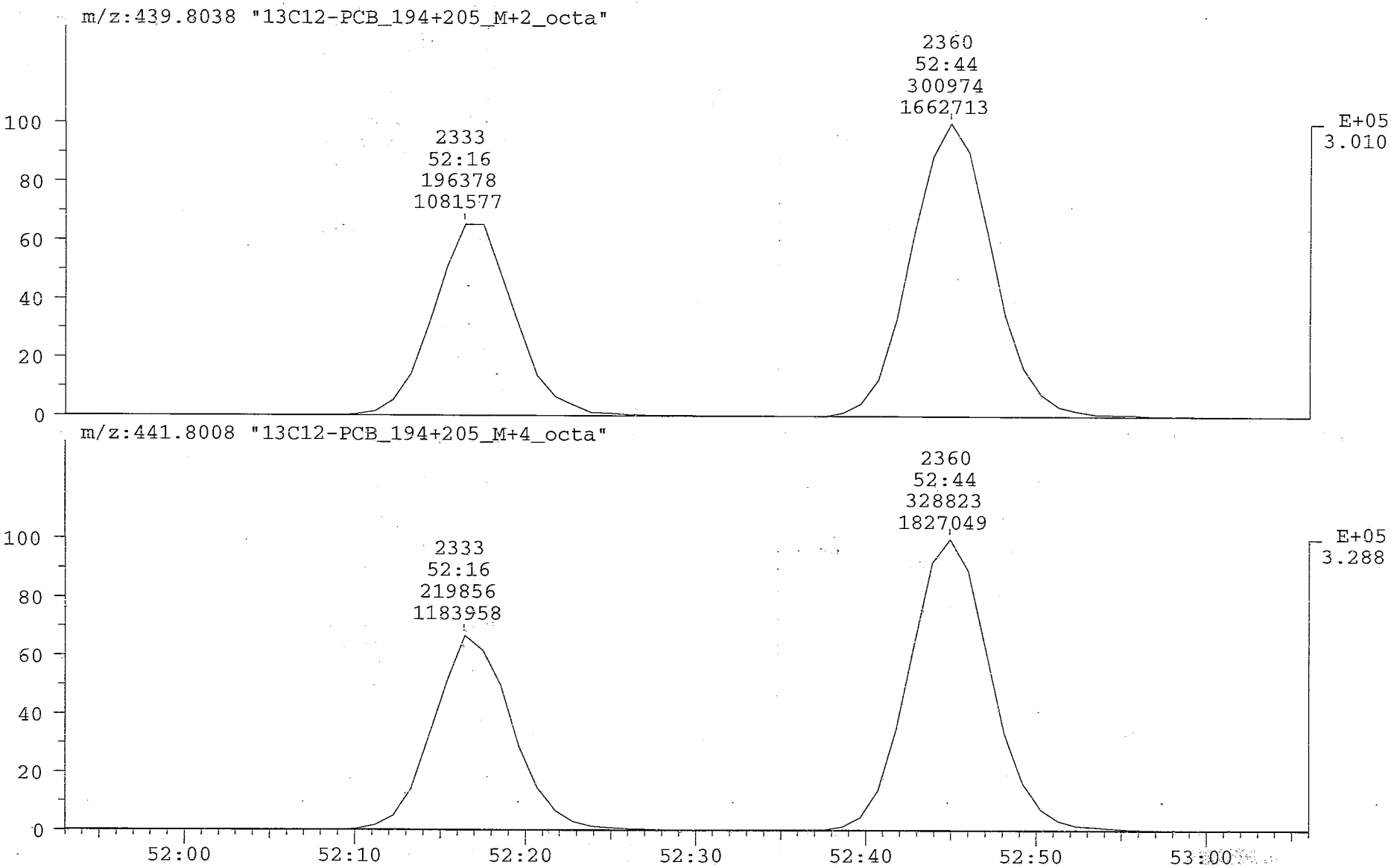
CHRO: apmkntm1 14-Jul-11 Elapse: 42:57 1808
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1771 > 1851 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3350

3349

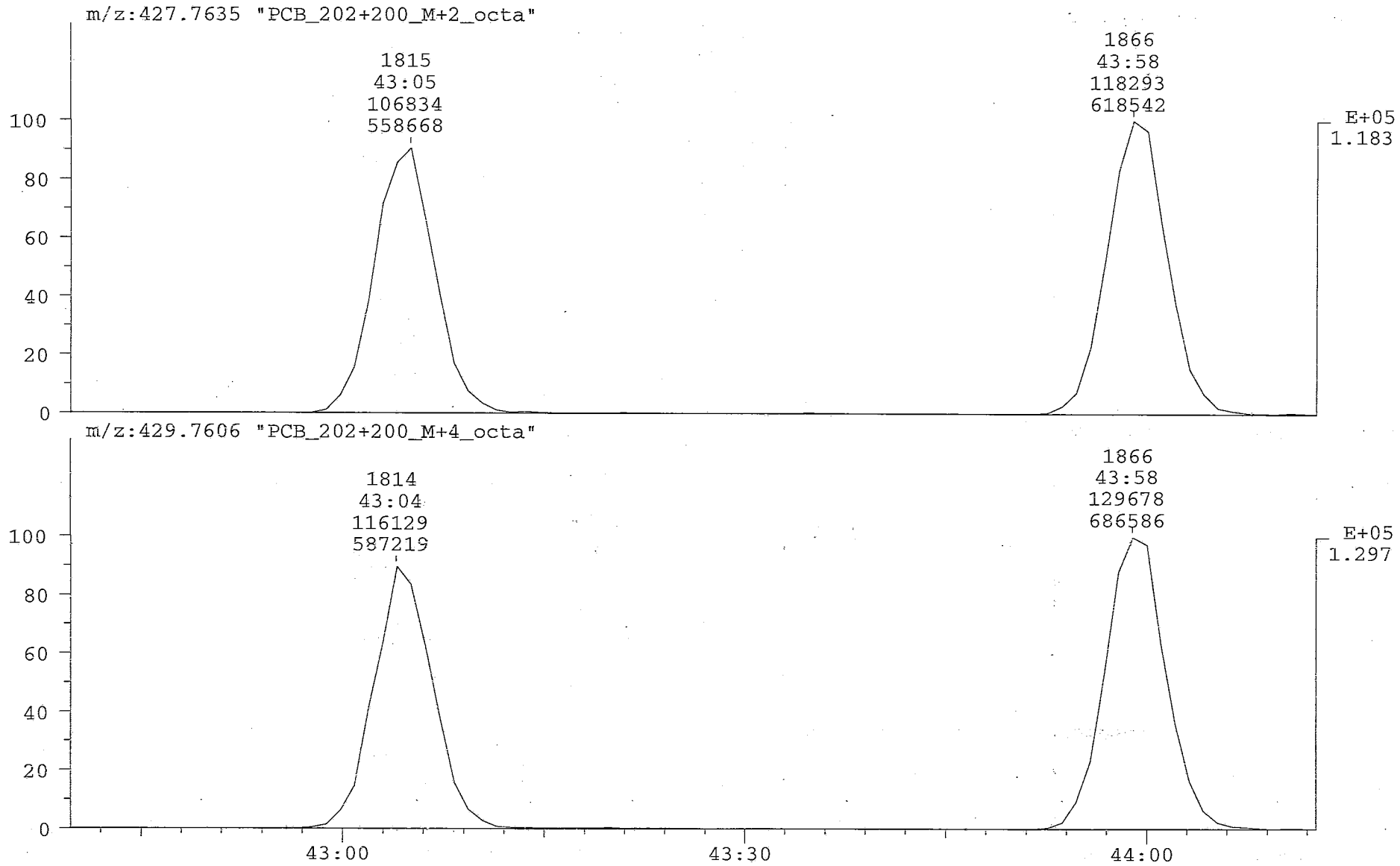
CHRO: apmkntm1 14-Jul-11 Elapse: 52:29 2345
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: HIG060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2311 > 2380 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3351

3350

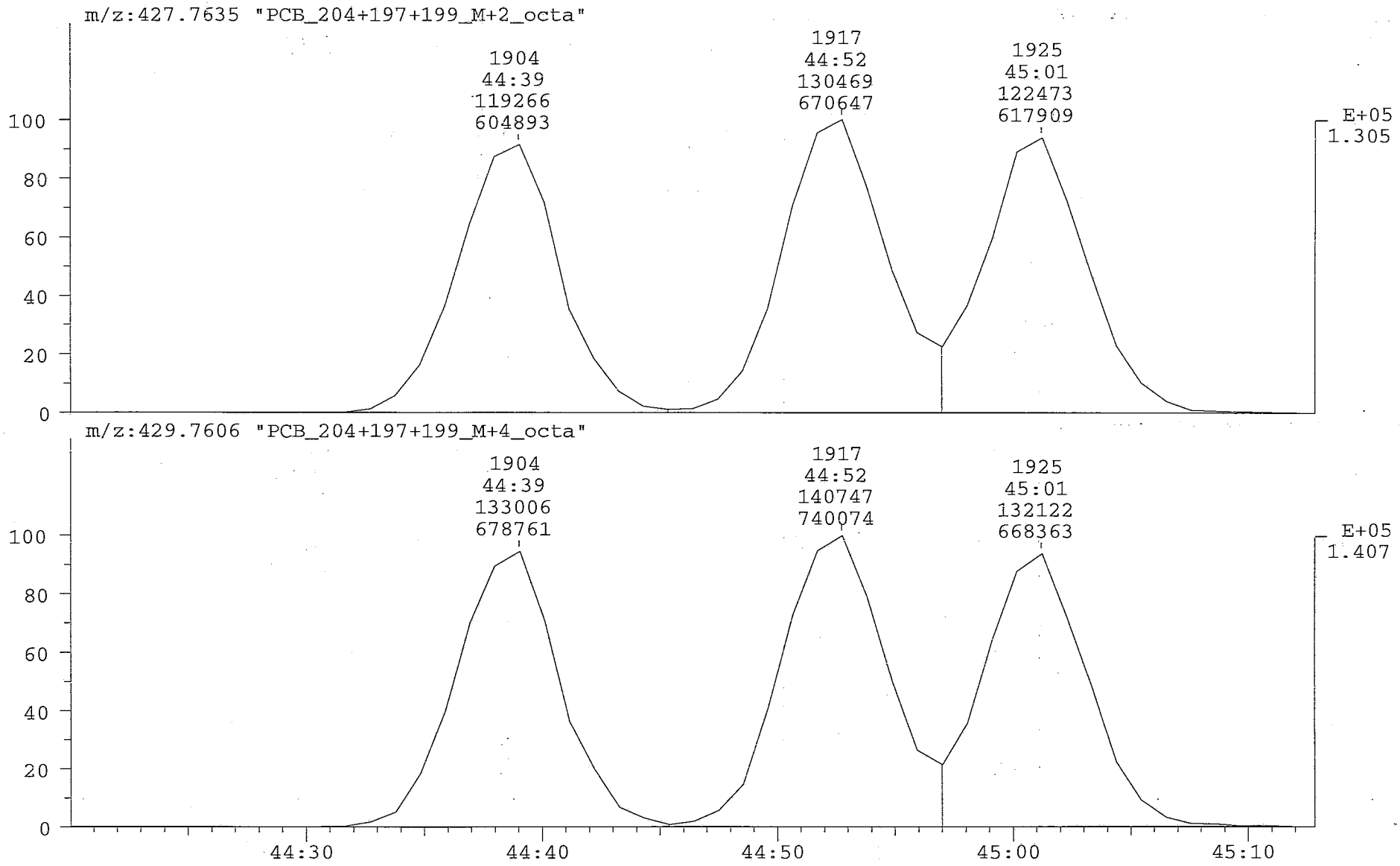
CHRO: apmkntml 14-Jul-11 Elapse: 43:30 1839
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1791 > 1879 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3352

3351

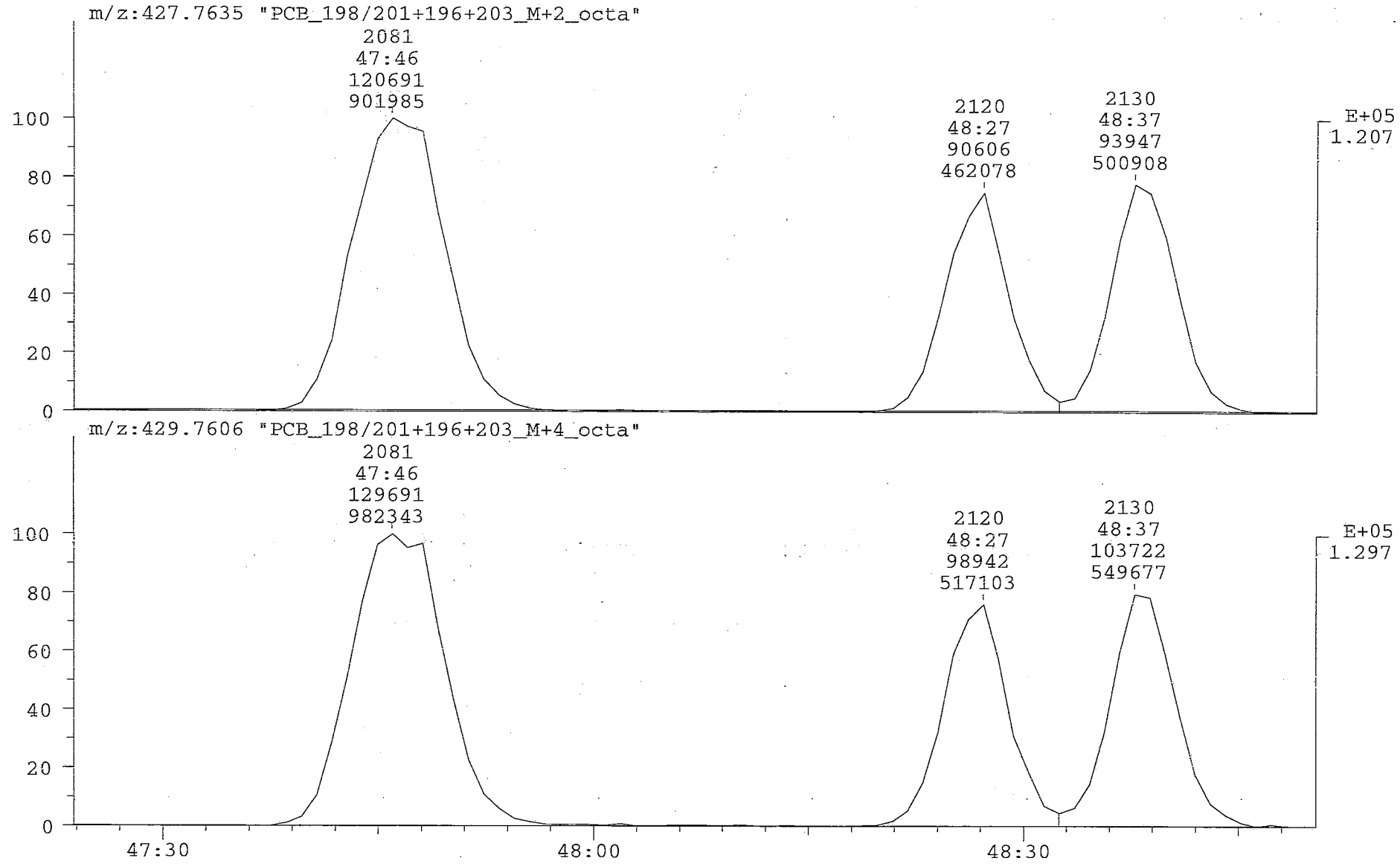
CHRO: apmkntm1 14-Jul-11 Elapse: 44:34 1900
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1886 > 1936 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 2 Label : -3, 3.0
Disp: Height Area



H-3353

3352

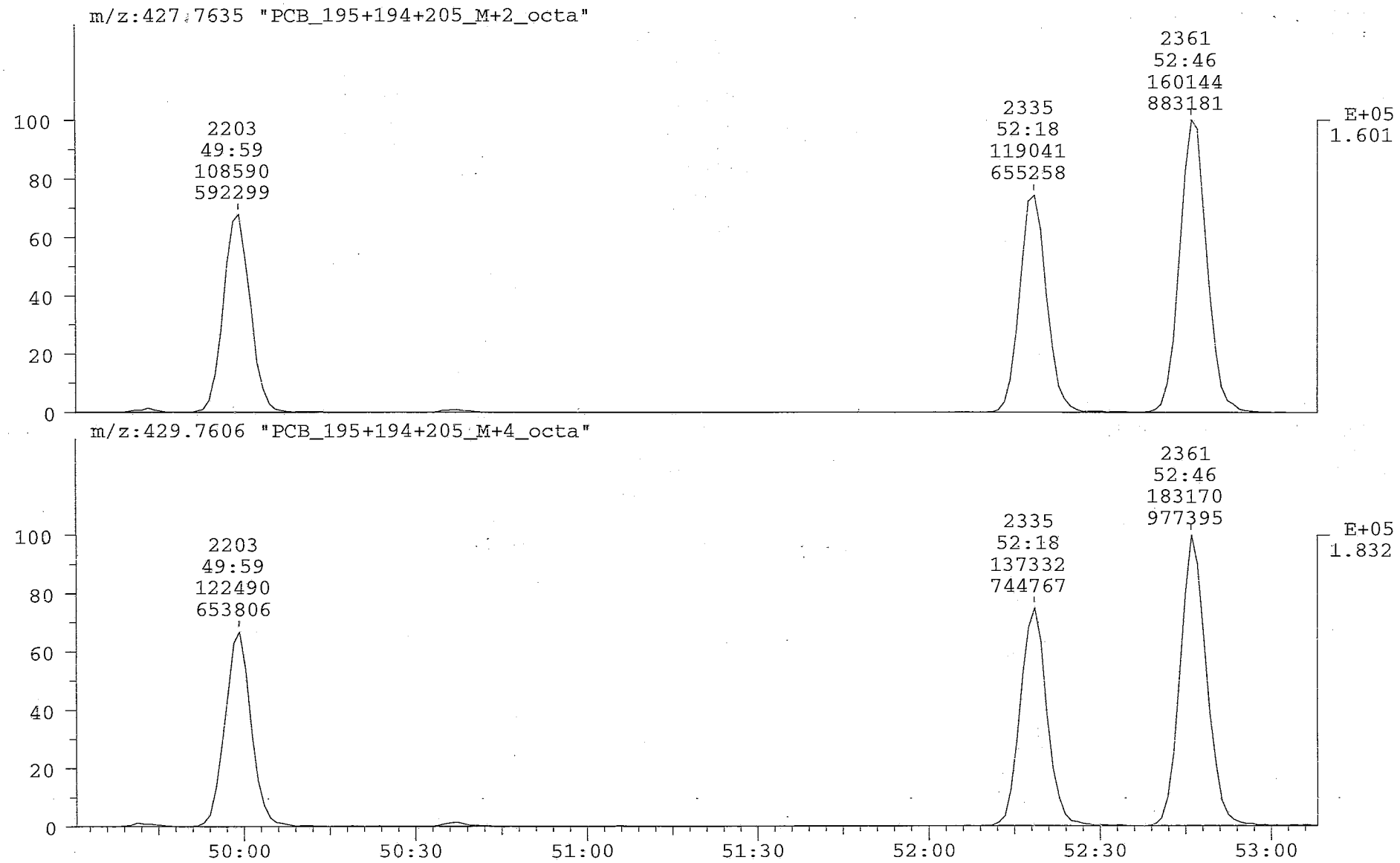
CHRO: apmkntm1 14-Jul-11 Elapse: 48:21 2115
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2060 > 2142 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3354

3353

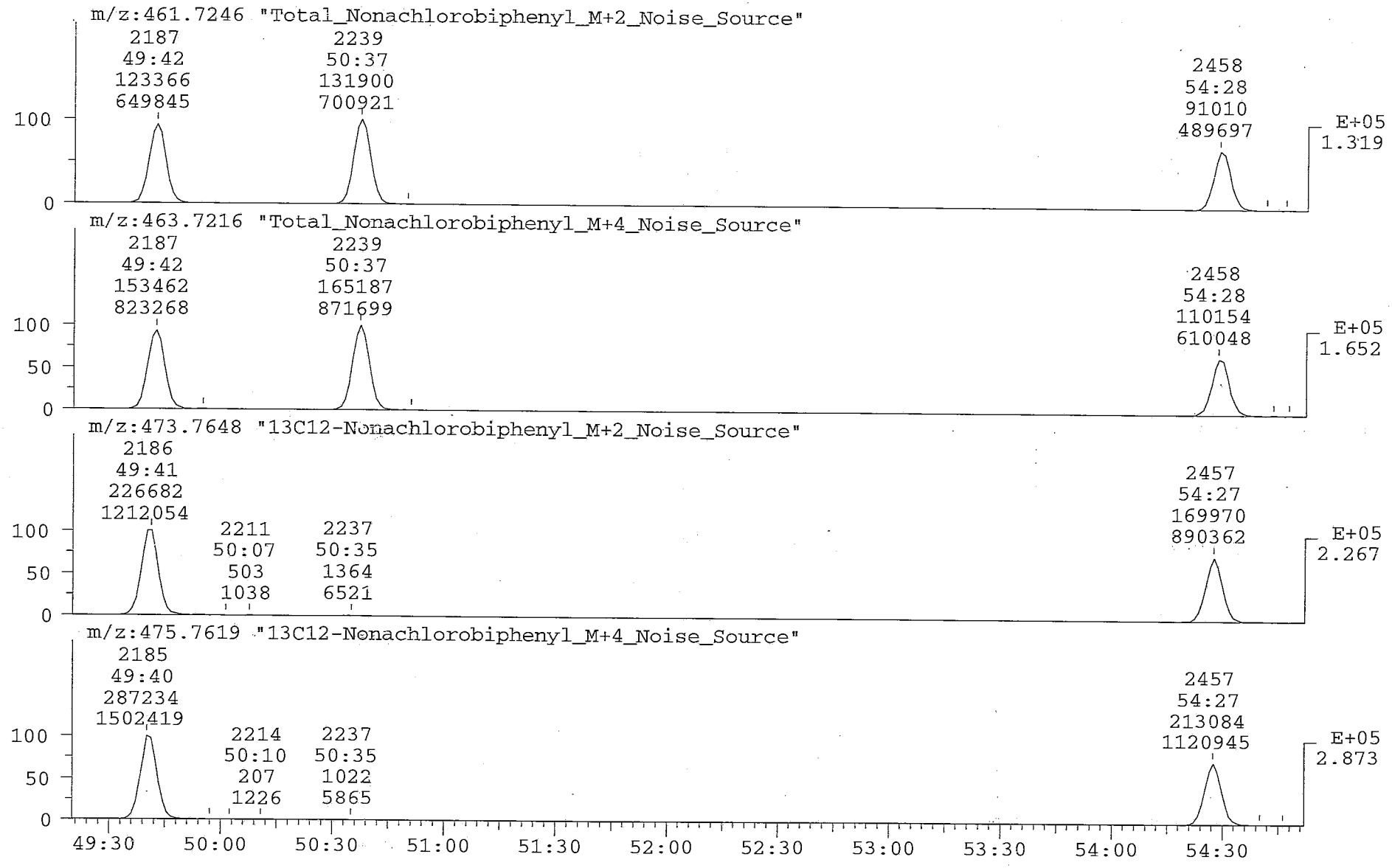
CHRO: apmkntm1 14-Jul-11 Elapse: 52:14 2331
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2176 > 2382 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3355

3354

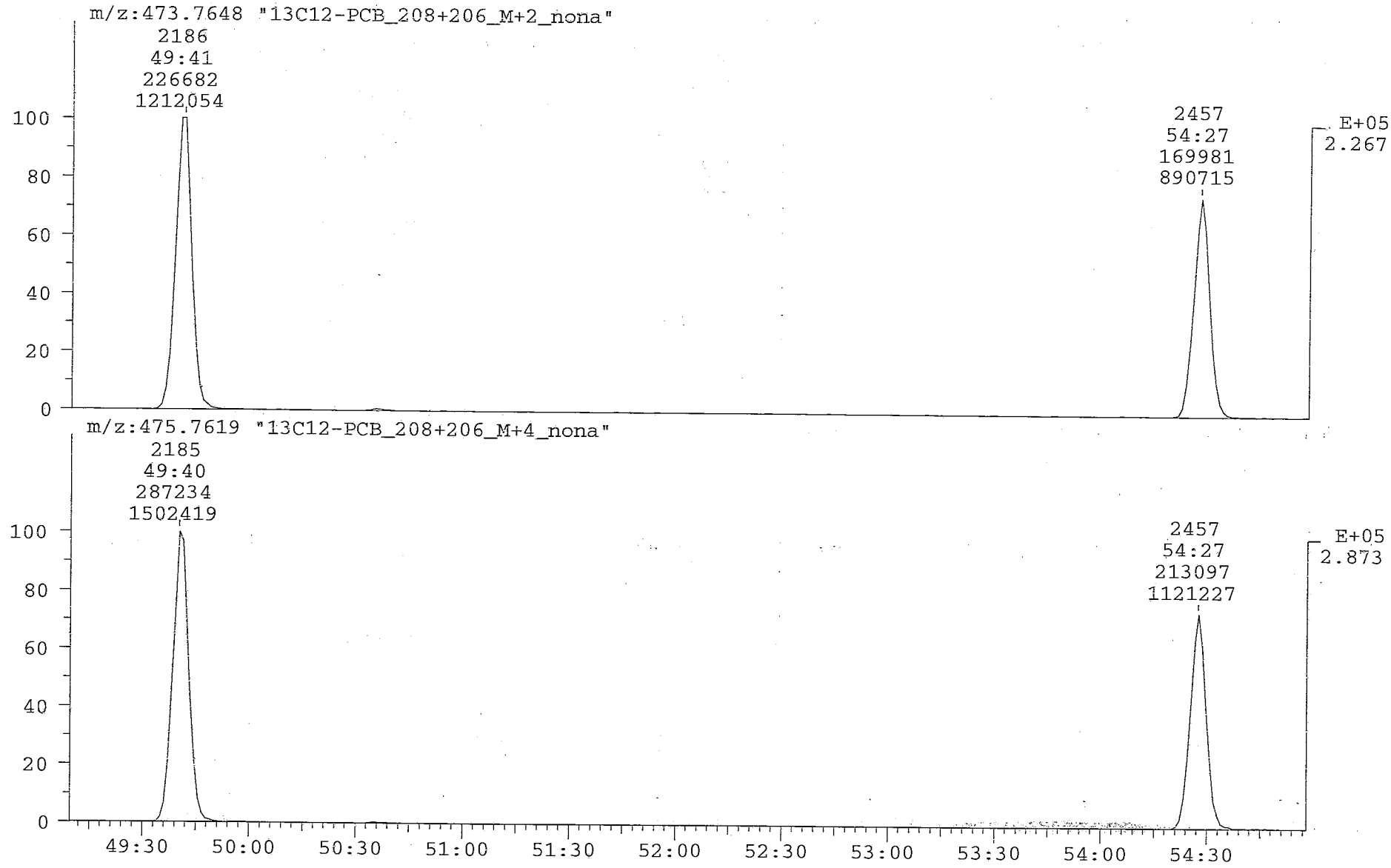
CHRO: apmkntml 14-Jul-11 Elapse: 52:05 2323
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2166 > 2480 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3356

3355

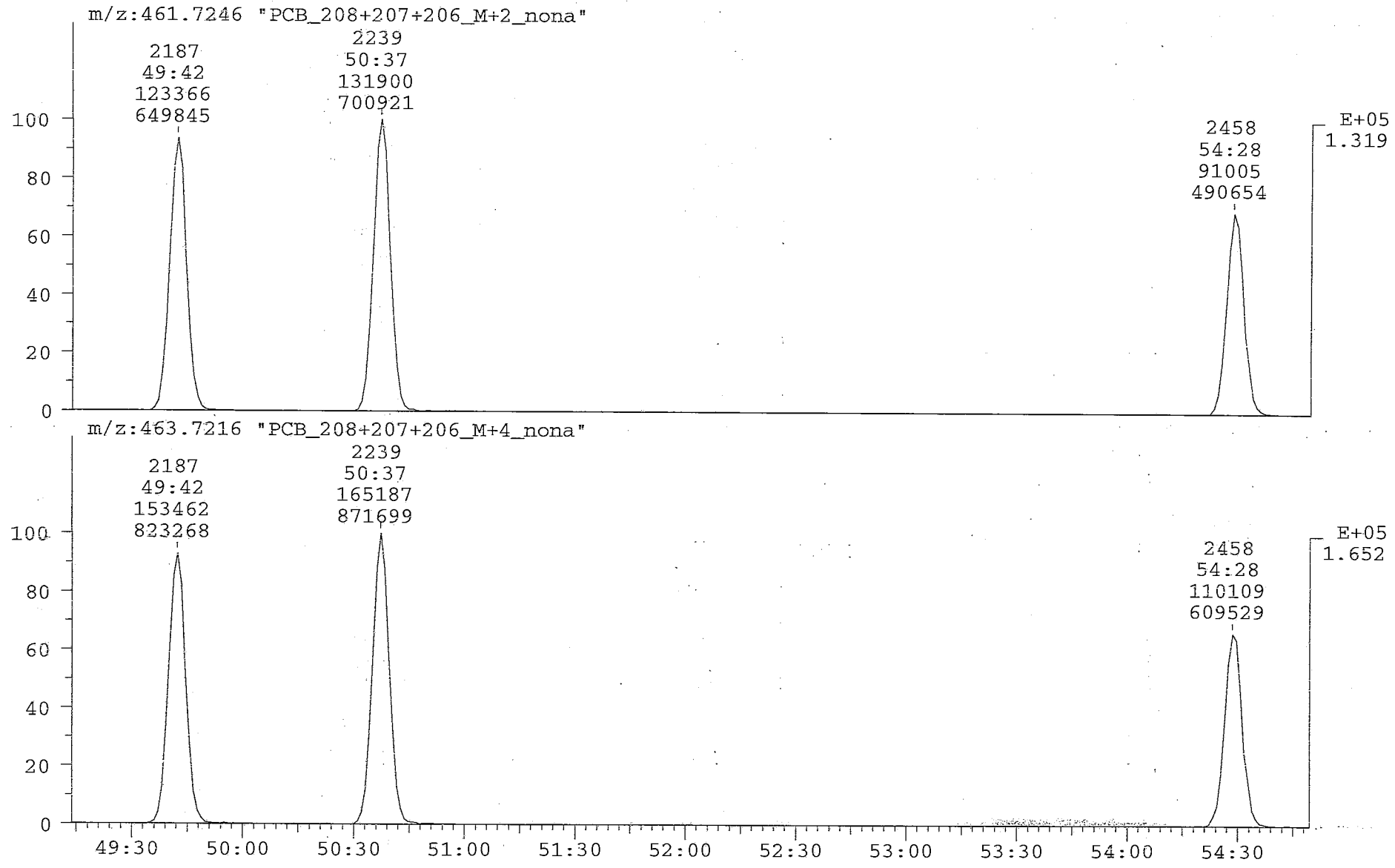
CHRO: apmkntml 14-Jul-11 Elapse: 52:03 2321
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1GC60000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2156 > 2486 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3357

3356

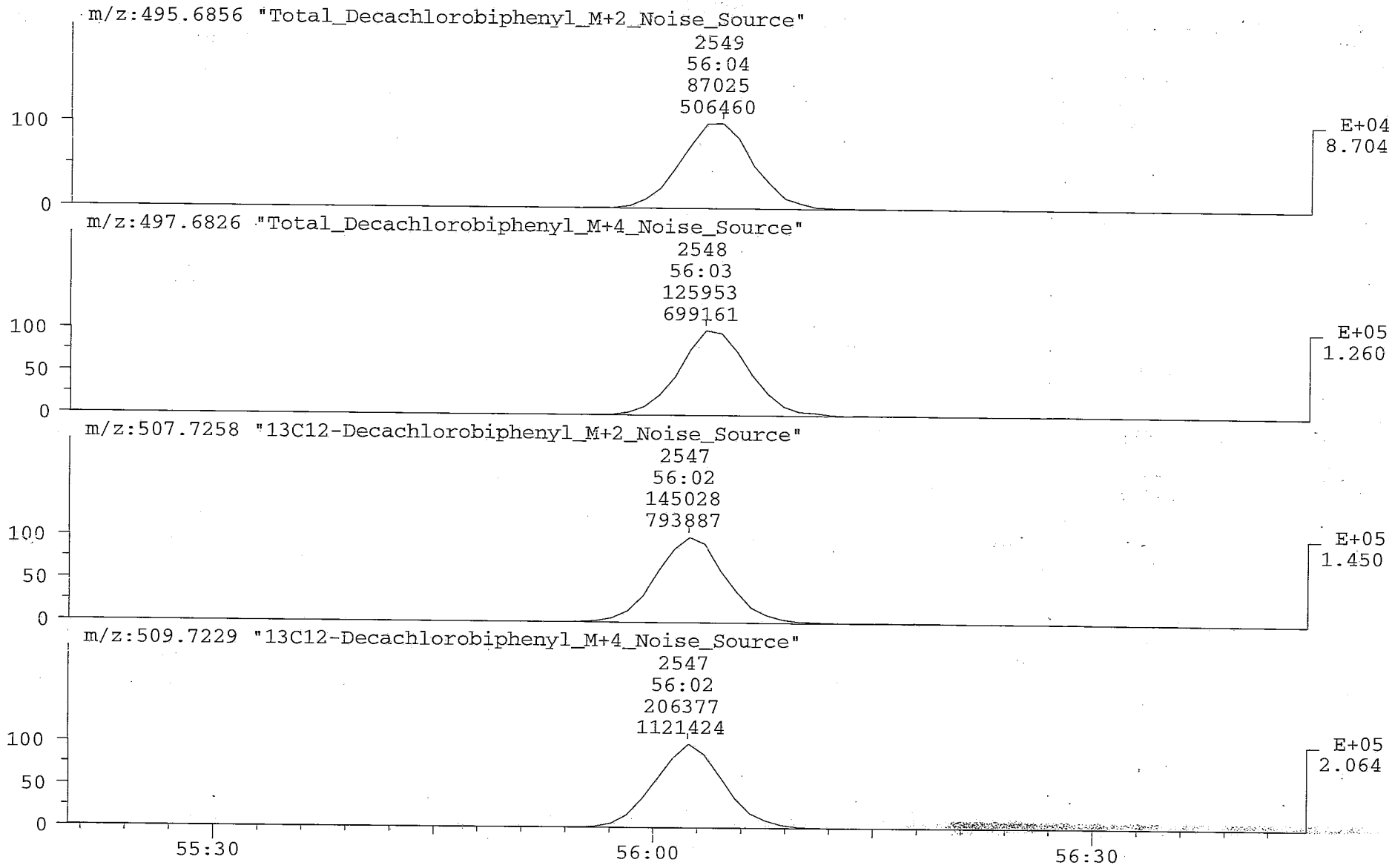
CHRO: apmkntm1 14-Jul-11 Elapse: 52:05 2323
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2160 > 2478 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3358

3357

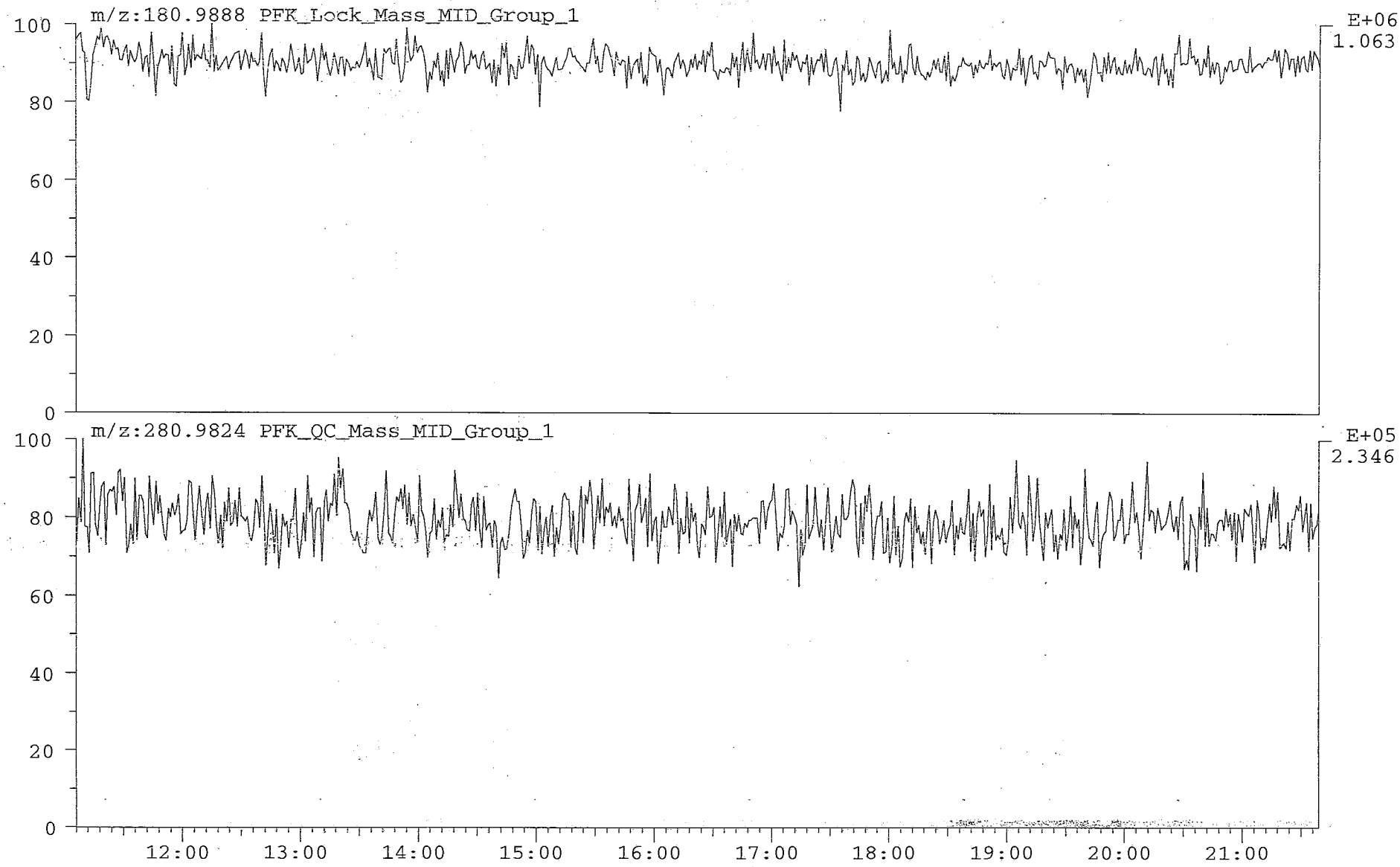
CHRO: apmkntm1 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2507 > 2587 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : -3, 3.0
Disp: Height Area



H-3359

3358

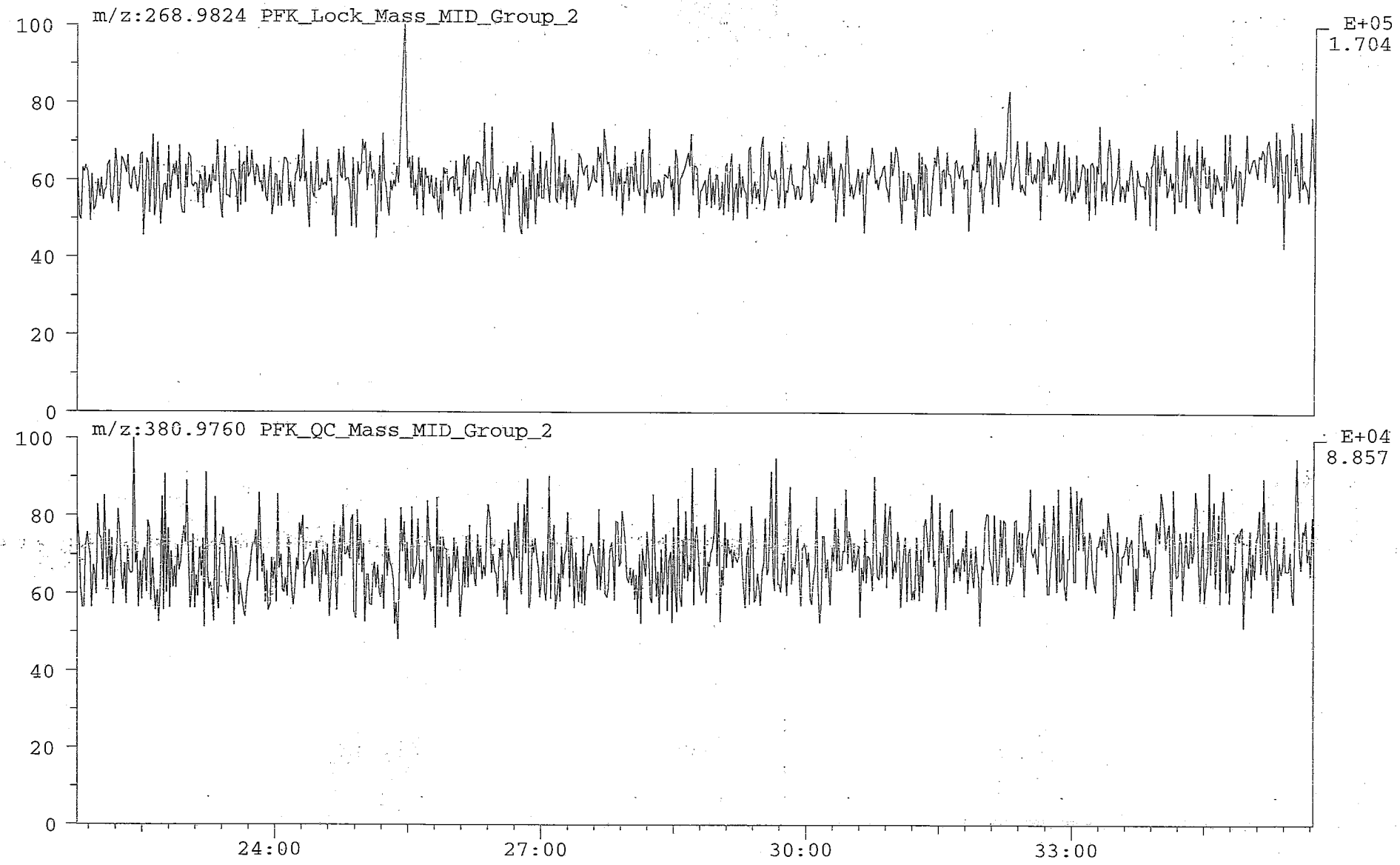
CHRO: apmkntml 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 6 > 605 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3360

3359

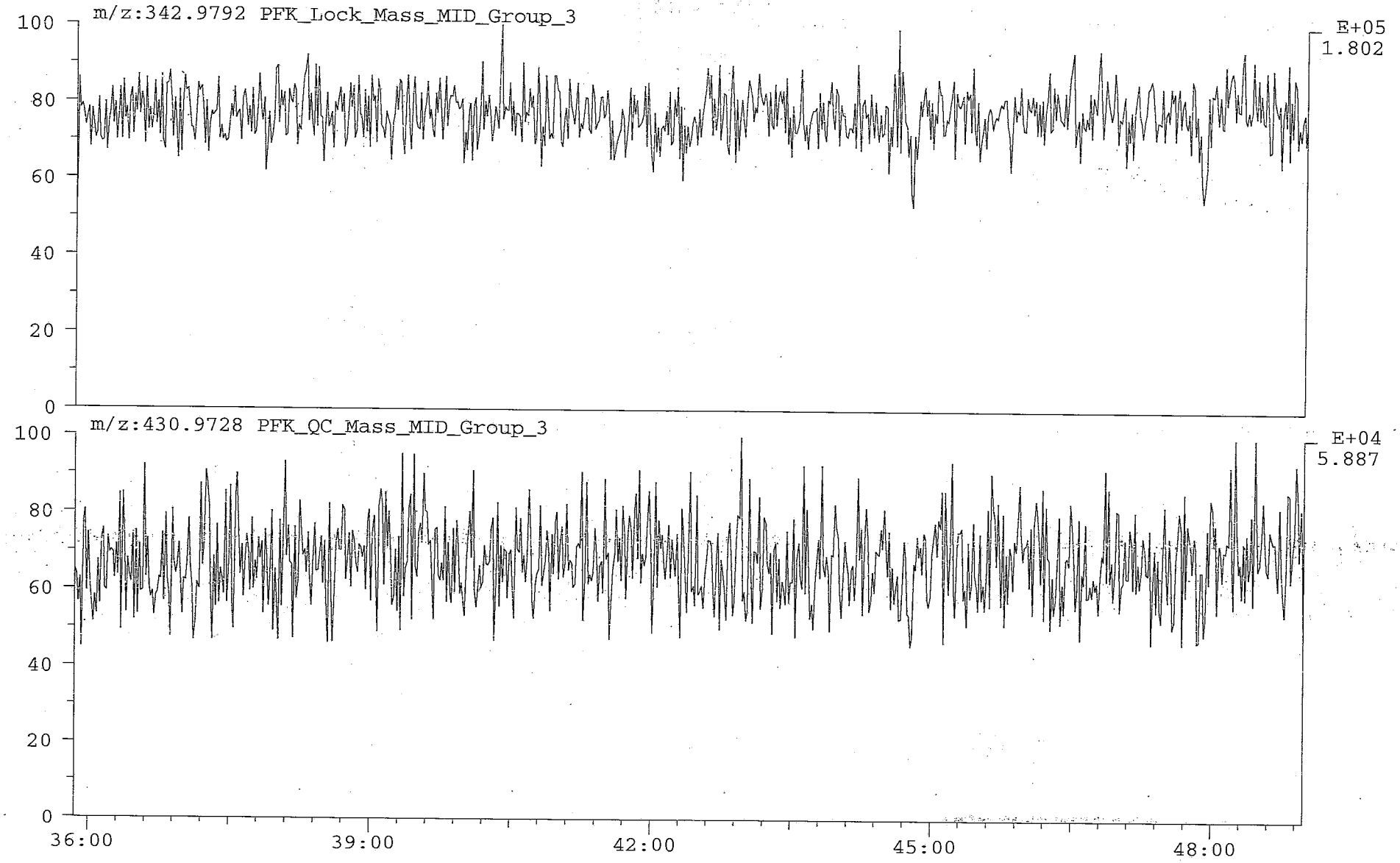
CHRO: apmkntm1 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 608 > 1401 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3361

3360

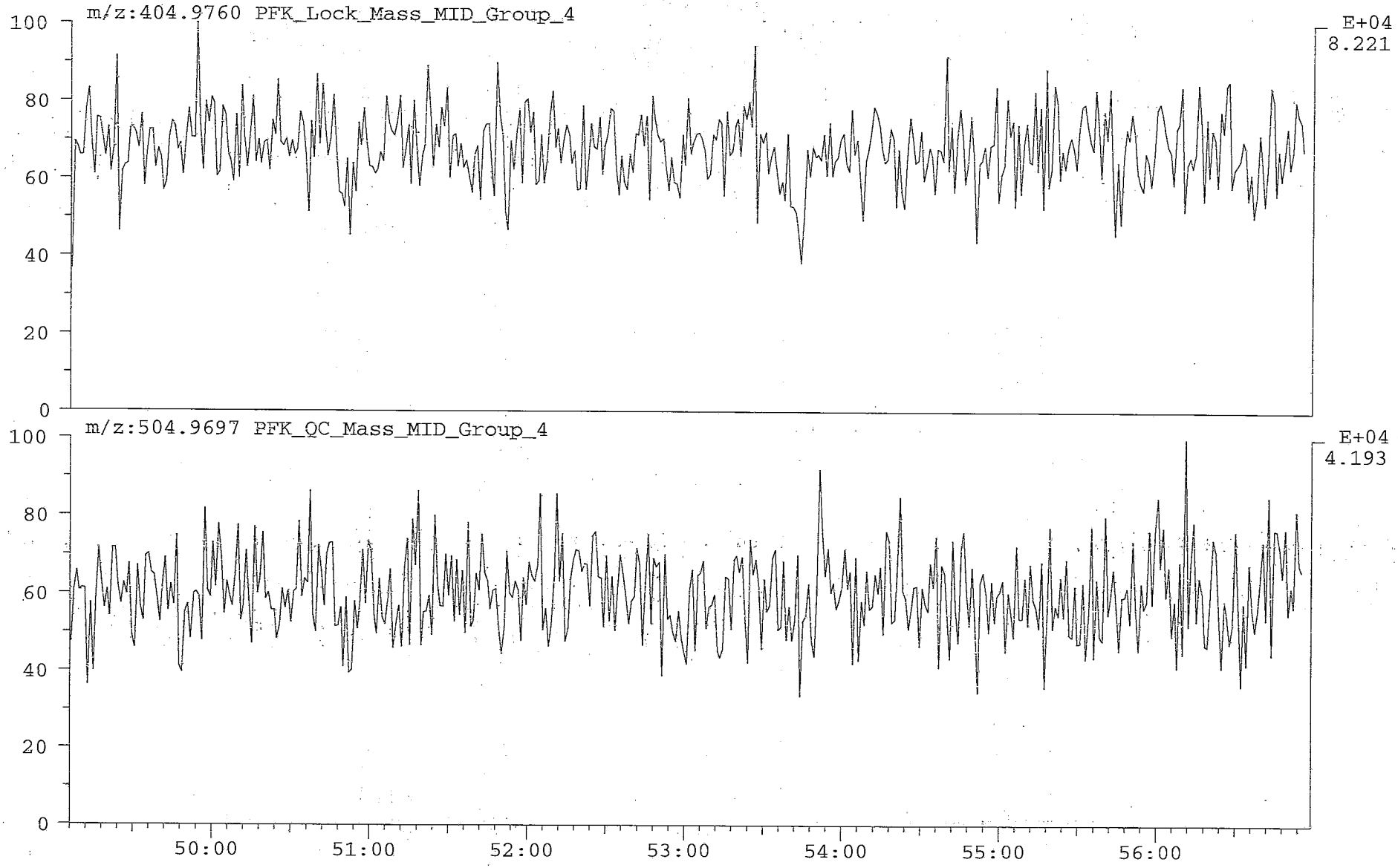
CHRO: apmkntml 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 1404 > 2150 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3362

3361

CHRO: apmkntm1 14-Jul-11 Elapse: 56:05 2550
Samp: Vial 5 WO=mkntm1ad Meth=IE5 Dil=1 Start : 00:13:28 2597
Comm: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Mode: EI +VE +LMR ESCAN LR NRM Study : 1187028 (Air-2)
Oper: JMN Client: H1G060000-028L Inlet : GC Vial 5
Peak: 100.00 ppm Label wndw: 2153 > 2600 Masses: 181 > 510
Area: 5, 0.50, 15 Baseline : 100, 3 Label : 0, 0.0
Disp: Height Area



H-3363

3362

```
Instrument internet name  -  mat95
Instrument model          -  MAT 95
Instrument serial number  -  000000
Workstation internet name -  icis1ms
ICIS Version 8.2.1

\000\000\000\000\000\000\000ICL Version: 10.710
File name: apmkntm1
Study: 1187028 (Air-2)
Sample: WO=mkntm1ad Meth=IE5 Dil=1
Amount:  0.00
Volume:  0.00
Operator: JMN
Client: H1G060000-028L
Comments: Inst=m1d/44968-01a Batch=20110713s1 Ccal=20080624i
Injected volume:  2.00
Sample from Vial 5
Analysis will stop when MID run finishes
Tune file name: tune2
Mcal file name: mcal1.cal
File 1 of list 110713a
  ICL procedure: sleep7x
  MID procedure: epa1668

  MID Remarks:  EPA 1668 - 209 PCBs- 2m/z's - 6/29/05

  Mid Set Up Parameter:
   Measure/lock ratio        1
   Damping Relay         FALSE
   Width first lock       0.20 amu
   Electric jump time       10 ms
   Magnetic jump time       60 ms
   Offset                   75 cts
   Electric range          300 %
   Sweep peak width       3.00
   MID mode              Lock mode
   Acq mode              Cent mode

  Mid Time Windows:
        Start        Measure      End        Cycletime
  # 1   11:00 min   10:40 min   21:40 min    1.00 sec
  # 2   21:40 min   14:05 min   35:45 min    1.00 sec
  # 3   35:45 min   13:15 min   49:00 min    1.00 sec
  # 4   49:00 min    8:00 min   57:00 min    1.00 sec

  Mid Masses:
   Window # 1
        mass F  int  gr  time (ms)
    180.9888 1   10   1      4.10
    188.0393     1   1     47.79
    190.0363     1   1     47.79
    200.0795     1   1     47.79
    202.0766     1   1     47.79
    222.0003     1   1     47.79
    223.9974     1   1     47.79
    234.0406     1   1     47.79
    236.0376     1   1     47.79
    255.9613     1   1     47.79
    257.9584     1   1     47.79
    268.0016     1   1     47.79
    269.9986     1   1     47.79
    280.9824 c   10  1      4.10
    289.9224     1   1     47.79
    291.9194     1   1     47.79
    301.9626     1   1     47.79
    303.9597     1   1     47.79
   Window # 2
```

mass	F	int	gr	time (ms)
255.9613		1	1	47.79
257.9584		1	1	47.79
268.0016		1	1	47.79
268.9824	l	10	1	4.10
269.9986		1	1	47.79
289.9224		1	1	47.79
291.9194		1	1	47.79
301.9626		1	1	47.79
303.9597		1	1	47.79
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
380.9760	c	10	1	4.10

Window # 3

mass	F	int	gr	time (ms)
325.8804		1	1	47.79
327.8775		1	1	47.79
337.9207		1	1	47.79
339.9178		1	1	47.79
342.9792	l	10	1	4.10
359.8415		1	1	47.79
361.8385		1	1	47.79
371.8817		1	1	47.79
373.8788		1	1	47.79
393.8025		1	1	47.79
395.7995		1	1	47.79
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
430.9728	c	10	1	4.10
439.8038		1	1	47.79
441.8008		1	1	47.79

Window # 4

mass	F	int	gr	time (ms)
393.8025		1	1	47.79
395.7995		1	1	47.79
404.9760	l	10	1	4.10
405.8428		1	1	47.79
407.8398		1	1	47.79
427.7635		1	1	47.79
429.7606		1	1	47.79
439.8038		1	1	47.79
441.8008		1	1	47.79
461.7246		1	1	47.79
463.7216		1	1	47.79
473.7648		1	1	47.79
475.7619		1	1	47.79
495.6856		1	1	47.79
497.6826		1	1	47.79
504.9697	c	10	1	4.10
507.7258		1	1	47.79
509.7229		1	1	47.79

Auto Sampler descriptor: 2ul
Normal Injection
Injector A
Slvnt A cln before inj (K): 3 times
Slvnt B cln before inj (L): 0 times
Sample rinse cycles (R): 0 times
Syringe filling volume (F): 1.0 ul

Pullup delay time	(D):	4	sec
Sample pullup count	(P):	2	times
Sample pullup speed	(E):	5.0	ul/sec
Slvnt aftr pre inj cln	(U):	0.0	ul
Air after pre inj cln	(G):	2.0	ul
Sample volume	(V):	2.0	ul
Sample air volume	(A):	2.0	ul
Injection speed	(S):	10.0	ul/sec
Pre Inj. wait time	(W):	10	sec
Post Inj. hold time	(H):	3	sec
Solvent A clean cycles	(C):	15	times
Solvent B clean cycles	(B):	0	times
Loop clean w slvnt A	(LC):	0	times
Loop clean w slvnt B	(LB):	0	times
Standard sample volume	(X):	0.0	ul
Standard air volume	(Y):	0.0	ul
2nd Injection volume	(I):	0.0	ul
Air volume of 2nd inj	(J):	0.0	ul
Time btwn 2 injections	(T):	0	sec

GC descriptor : epa1668

Injector:	270 deg			270 deg max
Transfer Line:	280 deg			280 deg max
Column:	75 deg at	0.0	minutes	280 deg max
	75 deg at	2.0	minutes	
	150 deg at	7.0	minutes	
	270 deg at	55.0	minutes	
	270 deg at	57.0	minutes	

Inlet : Splitless mode
- Purge time 1.5 min
- Purge flow 40.0 ml/min
- Gas saver is on
- Saver time 3.0 min
- Saver flow 15.0 ml/min

Column : Constant Flow 1.0 ml

Stabilize time 0.0 minutes

ICL Parameters

BCORRL	0.0150	BCORRS	0.0110	BCURR	16383.0000
BDEV	16383.0000	BFM	2.0000	BLM	1031.5098
BMASS	180.9888	BQUAD	0.0000	CAPIL	0.0000
CAPTEMP	359.9988	CAPTSET	200.0000	CCURR	3.6471
CORONA	0.0000	CYCLE	0.0000	DELAY	0.0000
DITEMP	0.1954	DITSET	0.0000	DRAW	-36.8250
DRAWC	1.0000	DRAWS	0.0000	ECORR	0.9998
ECURR	1.0000	EDAC	7969177.0000	EDACG	1.0001
EDACR	23.0000	EDACZ	-548.0000	ELEN	64.2750
EMULT	1.7400	ENS	150.0000	ERATIO	1.0000
ESA	763.8000	ESICUR	10.0011	ESIPAR	0.0000
EXS	148.0000	FDMA	18000000.0000	FLENS	1.0000
FM	20.0000	FMII	50.0000	FQUAD	0.0000
FREQ	600.9615	FSLOPE	54000000.0000	FVANAL	479.0000
FVINLET	513.0000	FVSRC	1288.0000	FWIN	0.7000
GCTC	131.0000	GCTI	270.0000	GCTL	280.0000
HACCU	156.0000	HCURR	1.4608	HVANAL	1431.0000
HVSRC	0.0000	ICAL0	0.0011	ICAL1	0.4030
ICAL2	0.5865	IONEN	4781.4360	IST	269.8026
ISTC	0.0000	ISTCKP	5.0000	ISTCTD	1.0000
ISTCTN	2.0000	ISTCTS	60.0000	ISTCTV	3.0000
ISTS	270.0000	LENS	1751.0000	LENSS	161.2000
LKM	180.9888	LM	800.0000	LMASS	180.9888
LMII	500.0000	MASS	180.9888	MDAC	2350075.0781
MDACR	23.0000	MRANGE	1031.5098	MSFM	2.0000
MSLM	3790.0000	NPEAK	200.0000	NSAM	200.0000
NSCAN	107.0000	NSMAX	8.0000	NSMIN	2.0000

OCT	-2.0000	PSAM	10.0000	PUSHER	-12.5500
RDRAW	0.0000	RDRAWC	0.0000	RECURR	0.0000
RELEN	0.0000	RES	10314.6801	RFAMP	799.9987
RFCUR	100.0110	RPUSHER	0.0000	RWIN	2.0000
SACCU	2.0000	SCIDLE	1.0000	SHIELD	2598.0000
SHIELDS	0.2000	SHIGH	180.0000	SKIM	7.0000
SLOW	60.0000	SPRAY	8.0000	SS	3.0000
SW	0.0500	TANAL	420.7700	TCURR	0.8984
TD	1.0000	THRESH	5.0000	TIS	0.2000
TREF	150.0000	TS	1.6021	TSAM	200.0000
TSET	0.0000	TUBEL	0.0000	UOFS	5.0000
URATIO	1.9500	USERVAR	0.0000	VAPTEMP	599.9997
VAPTSET	400.0000	VMASS	180.9888	XLENS	2538.0000
XLENSS	-43.8000	YLENS	2634.0000	YLENSS	-171.6000

Scantype is electric
Sourcemode is EI POS

Analysis started at: 14-Jul-11 00:13:28.8

Autosampler has injected sample from vial 5
MID Time Window 1: Resolution is 9049
MID Time Window 2: Resolution is 8404
MID Time Window 3: Resolution is 9527
MID Time Window 4: Resolution is 9203
Analysis stopped at: 14-Jul-11 01:10:26.7 (run time 56.92 minutes)
Analysis stopped because user requested stop from analysis

Miscellaneous Data

TestAmerica Knoxville SOG GC/MS Data Review/Narrative Checklist

Lot # HG050439

SOP Number: KNOX-ID-0013 Revision 9 **Page 1 of 1**

Batch # 1187028

Review Items A. Initial Calibration	N/A	Yes	No	Why is data reportable?	2nd
1. Was the correct ICAL used for quantitation? (Check 1-2 compounds for batch by manually calculating concentration using the ICAL avg. RF.)		✓			✓
B. Continuing Calibration	**N/A**	**Yes**	**No**		**2nd**
1. Has a Continuing Calibration Checklist been completed for each analytical batch?		✓			✓
C. Client Sample AND QC Sample Results	**N/A**	**Yes**	**No**		**2nd**
1. Were all special project requirements met?				See narrative	✓
2. Were the header information, prep factors, and dilution factors verified?		✓			✓
3. Is logbook date/time of analysis correct?		✓			✓
4. Sample analyses done within preparation and analytical holding time (HT)? *If no, list samples:* _____		✓		☐ HT expired upon receipt. ☐ Client requested analysis after HT expired. ☐ Re-extraction done after HT expired.	✓
5. Are internal standards within QC limits? *If no, list samples and reason (e.g.,* **sur1***):* Sample Reason Sample Reason _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____		✓		☐ **[sup]** Ion suppression due to matrix. ☐ **[low]** Low recovery. S/N >10 and EDL<ML. ☐ **[sam]** Not enough sample to re-extract. ☐ **[dil]** Dilution showed acceptable %R. ☐ **[mtx]** Obvious matrix interference. Further cleanup not possible.	✓
6. Were peaks ≥2.5 S/N, which did not meet the following criteria, properly calculated and reported as EMPCs? • All analytes within Method/SOP retention time criteria and both ions maximized within ±2 seconds. • The ion abundance ratios for all labeled and unlabeled analytes within the specified control limits.		✓			✓
7. Are all results < the upper calibration level? *If no, list samples:* _____		✓		☐ Sample extracted at lowest possible volume	✓
8. If manual integrations were performed, are they clearly identified, initialed and dated?		✓			✓
9. Final report acceptable? (Results correct, DLs calculated correctly, units correct, IS %R correct, appropriate flags used, dilution factor correct, and extraction/ analysis dates correct.)		✓			✓
10. Was a narrative prepared and all deviations noted?		✓			✓
D. Preparation/Matrix QC	**N/A**	**Yes**	**No**	**Why is data reportable?**	**2nd**
1. LCS done per prep batch and all LCS/LCSD recoveries and RPDs within QC limits? *If no, list ID(s):* _____		✓		☐ LCS/LCSD recoveries are high, no analytes detected above ML. ☐ Re-analysis not possible-insufficient sample ☐ See Comment/narrative	✓
2. Method blank done per prep batch and method blank or instrument blank analyzed with each sequence?		✓			✓
3. Method blank internal standard recoveries within QC limits? *If no, list blank ID:* _____		✓		☐ Internal standards are high and blank is free of contaminants. ☐ Internal standards are low, blank is free of contaminants, S/N>10 and EDL<EML.	✓
4. Are all analytes present in the method blank ≤ EML? *If no, list blank ID:* _____		✓		☐ Sample results are > 20x higher than blank. ☐ No affected analytes > RL in the samples. ☐ Not enough sample for re-extraction.	✓
5. MS/MSD done per batch and are all recoveries and RPDs within laboratory generated QC limits? *If no, list MS/MSD ID:* _____	✓			☐ LCS acceptable indicating sample matrix effects. ☐ LCS acceptable, high analyte concentration. ☐ LCS acceptable, lack of sample homogeneity.	✓
E. Other	**N/A**	**Yes**	**No**		**2nd**
1. Are all nonconformances documented appropriately and copy included with deliverable?	✓				✓

Analyst: CWK	Date: 7-14-11	Analyst: MSD	Date: 7/14/11
Comments:		Comments:	

TestAmerica Knoxville Prep Batch Review Checklist

Batch # 1187028

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Were the samples extracted within the required holding times?		✓		If No, NCM #: _____	✓
2. Are the final extracts free of water, precipitates, multiple phases, and for HRMS - color?		✓			✓
3. Were all project specific requirements met as noted on the Lot Checklists (L40) and the Sample List report?		✓			✓
4. Were MS Run numbers assigned properly?	✓				✓
5. Were the correct weights and volumes entered into QuantIMS for all samples and QC?		✓			✓
6. Was the correct completion date entered into QuantIMS?		✓			✓
7. Were the spike IDs and volumes entered correctly into QuantIMS?		✓			✓
8. Were all appropriate notes and observations recorded on the extraction benchsheet and in QuantIMS?		✓			✓
9. Was the extraction batch reviewed in QuantIMS using LIM L21?		✓			✓
10. Does the prep batch paperwork package contain all required documentation which has been properly and completely filled out, including: • Extraction Benchsheet • QuantIMS Benchsheet • Lot Checklists (L40) for all lots in batch • Sample List • Compound List Report • SOG Sample Tracking Sheet		✓			✓
11. Are all nonconformances documented appropriately and copy included with deliverable?	✓			If Yes, NCM#: _____	✓
Analyst : JDB **Date:** 7/14/11					
Comments:					
2nd Level Reviewer: AW **Date:** 7/14/11					
Comments:					

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/14/11
Time: 6:44:55

LEV 1	LEV 2		LEV 1	LEV 2			
Y	Y	Blank	Y	Y	Weights/Volumes	Y	Expanded Deliverable
Y	Y	Check	Y	Y	Spike & Surrogate Worksheet	Y	COC Completed
—	—	MS/MSD	Y	Y	Vial contains correct volume	Y	Bench Sheet Copied
—	—		Y	Y	Labels, greenbars, worksheets computer batch: correct & all match	Y	Package Submitted to AnalyticalGroup
			—	—	Anomalies to Extraction Method	Y	Bench Sheet Copied per COC

Extractionist: 044305 David R. McNeil
430384 Jeremy Blaschke
403968 Emayet Spencer
Concentrationist: 007259 Syed I. Ahmed
430513 Emily D. Lantzer

****
* *
* **QC BATCH: 1187028** *
* *
****

PREP DATE: 7/06/11 16:00
COMP DATE: 7/13/11 20:00

Reviewer/Date: BLASCHKJ / 7/14/11

PCBs, HRGC/HRMS (1668A)
SOXHLET (NOMINAL), Airtrains: Combined

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
		H1G050439-001													
7/22/11	7/18/11	**MKM55-1-AC**	D	IP	IE	AIR	1	NA	NA	NA	MECL2	350.0	HEXANE	10.0	
COMMENTS:	COND VOL 280ML						200.00uL								PCB0098,2.0ML,PCB C13
		H1G050439-003													
7/23/11	7/18/11	**MKM6A-1-AC**	D	IP	IE	AIR	1	NA	NA	NA	MECL2	350.0	HEXANE	10.0	
COMMENTS:	COND VOL 280ML						200.00uL								PCB0098,2.0ML,PCB C13
		H1G050439-005													
7/27/11	7/18/11	**MKM6F-1-AC**	D	IP	IE	AIR	1	NA	NA	NA	MECL2	350.0	HEXANE	10.0	
COMMENTS:	COND VOL 280ML						200.00uL								PCB0098,2.0ML,PCB C13
		H1G050439-007													
7/26/11	7/18/11	**MKM6M-1-AC**	D	IP	IE	AIR	1	NA	NA	NA	MECL2	350.0	HEXANE	10.0	
COMMENTS:	COND VOL 100ML						200.00uL								PCB0098,2.0ML,PCB C13
		H1G050439-015													
7/22/11	7/18/11	**MKM60-1-AC**	D	IP	IE	AIR	1	NA	NA	NA	MECL2	350.0	HEXANE	10.0	
COMMENTS:	NO CONDENSATE						200.00uL								PCB0098,2.0ML,PCB C13
		H1G060000-028													
7/22/11	0/00/00	**MKNIM-1-AA**B		IP	IE	AIR	1	NA	NA	NA	MECL2	350.0	HEXANE	10.0	
COMMENTS:	COND VOL 1000ML						200.00uL								PCB0098,2.0ML,PCB C13
		H1G060000-028													
7/22/11	0/00/00	**MKNIM-1-ACC**		IP	IE	AIR	1	NA	NA	NA	MECL2	350.0	HEXANE	10.0	PCB0049,2.0ML,PCB NATIVE
COMMENTS:	COND VOL 1000ML						200.00uL								PCB0098,2.0ML,PCB C13

H-3371

3370

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/14/11
Time: 6:44:55

QC BATCH: 1187028

PREP DATE: 7/06/11 16:00
COMP DATE: 7/13/11 20:00

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/22/11	0/00/00	H1G060000-028 **MKNIM-1-ADL**	R	IP	IE	AIR	1 200.00uL	NA	NA	NA	MECL2	350.0	HEXANE	10.0	PCB0049,2.0ML,PCB NATIVE PCB0098,2.0ML,PCB C13

COMMENTS: COND VOL 1000ML

MKM61AA WAS CONCENTRATED TO ~7ML ON THE HEATING MANTLE. THE ACETONE RINSES FOR MKM55, MKM6A, AND MKM6F HAD FINE YELLOWISH PARTICLES IN THEM.

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 8

H-3372

3371

TestAmerica Knoxville

Specialty Organics Group - PCB Sample Tracking Sheet - GC/MS Analysis Group

QC Batch No: 1187028

Work Order #		Column: SPB-Octyl				Column: SPB-Octyl				Column: SPB-Octyl			
		Date	Instrument	Analyst	Code	Date	Instrument	Analyst	Code	Date	Instrument	Analyst	Code
MKM55 1AC		7.14-18	MSD	JMN	OK								
MKM6A 1AC			MSD		OK								
MKM6F 1AC			MSD		OK								
MKM6M 1AC			MSD		OK								
MKM60 1AC			MSD		OK								
MKNTM 1AA	B		MSD		OK								
MKNTM 1AC	C		MSD		OK								
MKNTM 1AD	L	↓	MSD	↓	OK								

FB
MC

Comments: _____

_____

TestAmerica Knoxville Extraction Sheet
Method 0010/0023A Split/Combined Air Train - KNOX-ID-0012

Dioxin Batch #: 1187027
PCB Batch #: 1187028
BNA Batch #: N/A
PAH Batch #: ↓

Start Date/Time-$MeCl_2$: 7/6/11 16:45
Compl Date/Time-$MeCl_2$: 7/7/11 8:45
Start Date/Time-Toluene: 7/7/11 15:30
Compl Date/Time-Toluene: 7-8-11, 8:30

Dioxin IS ID: DF0087
Dioxin Spike ID: DF0102
PCB IS ID: PCB0098
PCB Spike ID: PCB0049

BNA Surr ID: N/A
BNA Spike ID:
PAH IS ID:
PAH Spike ID:
Naphthalene Spike ID: ↓

Extr $MeCl_2$ Lot #: 1207500
Extr Toluene Lot #: J45N59
Exchange Hexane Lot #: J38E27

Lot Number	Lot Sample Number	Work Order Number(s)	Suffix	SAC	Place FH/BH sample in med Soxhlet.	Add Method 23 IS (1.0/2.0 ng/mL). Record volume (mL).	Add BNA surr (100/150 µg/mL). Record volume (mL).	Add PCB IS (10 ng/mL). Record volume (mL).	Add PAH IS (0.25 µg/mL). Record volume (mL).	Add Dioxin spike (0.2/1.0/2.0 ng/mL) to LCS/LCSD. Record volume (mL).	Add BNA spike (100 µg/mL) to BNA LCS/LCSD. Record volume (mL).	Add PCB spike (5.0 ng/mL) to LCS/LCSD. Record volume (mL).	Add PAH spike (0.25 µg/mL) & Naphth spike (3.75 µg/mL) to LCS/LCSD. Record volume (mL).	Extract 16 hr with $MeCl_2$. (18-24 hr if SVOCs requested.)	Acetone present in solvent rinse?	Did solvent rinse lose volume during shipment?	Add FH/BH $MeCl_2$ rinse to $MeCl_2$ extract.	Concentrate to ~20 mL in boiling flask. QC to 20 mL.	Extract 16 hr with Toluene.	Add BH Toluene rinse to Toluene extract.	Concentrate to ~10 mL in boiling flask. QC to 10 mL.	Split extracts. Record split ratio.
H1G050439	1	MKM551AA–MKM551AC		X8 IE	✓	2 mL	N/A	2 mL	N/A	N/A	N/A	N/A	N/A	✓	J	N	✓	✓	✓	Y	Y	0.50
H1G050439	3	MKM6A1AA–MKM6A1AC		X8 IE																		
H1G050439	5	MKM6F1AA–MKM6F1AC		X8 IE																		
H1G050439	7	MKM6M1AA–MKM6M1AC		X8 IE																		
H1G050439	15	MKM601AA–MKM601AC		X8 IE				↓		↓												
H1G060000	27	MKNTL1AA	B	X8				N/A		↓												
H1G060000	27	MKNTL1AC	C	X8						2 mL												
H1G060000	27	MKNTL1AD	L	X8		↓		↓		↓												
H1G060000	28	MKNTM1AA	B	IE		N/A		2 mL		N/A		↓										
H1G060000	28	MKNTM1AC	C	IE								2 mL										
H1G060000	28	MKNTM1AD	L	IE	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
					BM by JDS 7/6/11										EDL 7/7/11					D.M 7-8-11	S	DH 7-13-11
													JDS 7/14/11									
													JDS 7/14/11									
Spiked by:					DH	N/A	DH	N/A	DH	N/A	DH	N/A										
Witness:					EDL	↓	EDL	↓	EDL	↓	EDL	↓										

Comments: MKM6A1AA was concentrated to ~7mL on the heating mantle. The Acetone rinses for MKM55, MKM6A and MKM6F had fine, yellowish particles in them.

TestAmerica Knoxville Extraction Sheet
Method 0010/0023A Split/Combined Air Train - KNOX-ID-0012

PCB Batch #: 1187028 | Start Date/Time: 7-7-11, 10:00 | PAH Alternate Std ID: NA
Compl Date/Time: 7-7-11, 15:00 | Spiker:
PAH Batch #: NA | Extr $MeCl_2$ Lot #: K07500 | Witness:

Lot Number	Lot Sample Number	Work Order Number(s)	Suffix	SAC	Did condensate rinse lose volume during shipment?	Measure Condensate Volume: Condensate 1 Volume (mL)	Condensate 2 Volume (mL)	Condensate 3 Volume (mL)	Record volume of condensate extracted (mL).	Add condensate and condensate rinses to sep funnel.	Record sample pH (for PAH only).	Add PAH Alternate Std (0.25 µg/mL) to all samples and QC. Record volume (mL).	Extract with methylene chloride.	Filter extract thru Na_2SO_4.	Concentrate to ≥20 mL on heating mantle.	Split extracts. Record split ratio.	Combine FH/BH $MeCl_2$ extract with condensate extract.
H1G050439	1	MKM551AC		IE	N	280 mL	NA	NA	280 mL	Y	NA	NA	Y	Y	Y	0.50	Y
H1G050439	3	MKM6A1AC		IE	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H1G050439	5	MKM6F1AC		IE	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H1G050439	7	MKM6M1AC		IE	↓	100 mL	↓	↓	100 mL	↓	↓	↓	↓	↓	↓	↓	↓
H1G050439	15	MKM601AC		IE	NA	→	→	→	→	→	→	→	→	→	→	→	→
H1G060000	28	MKNTM1AA	B	IE	↓	1000 mL	↓	↓	1000 mL	NA	↓	↓	↓	↓	↓	0.50	Y
H1G060000	28	MKNTM1AC	C	IE	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H1G060000	28	MKNTM1AD	L	IE	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
					ALS 7-8-11	→	→	→	→	→	→	→	→	→	→	DA 7-13-11	→

JDS 7/14/11

JDS 7/14/11

Comments:

TestAmerica Knoxville Extraction Sheet
Method 0010/0023A Split/Combined Air Train - KNOX-ID-0012

PCB Batch #: 1187028

Cleanup Std ID: PCB0099 Spiked by: JDB Witness: ES DATE: 7/13/11

Recovery Std ID: PCB 0091 Spiked by: SH Witness: NA

Delivered: 7/13/11; 2255 (Initials/Date/Time)

Received: (Initials/Date/Time)

Lot Sample Number	Work Order Number	Suf	If needed, exchange to hexane on N-EVAP. Bring to ~12 mL in hexane.	Add cleanup std (10 ng/mL). Record volume (mL).	Acid wash extracts if needed.	Concentrate extracts on N-EVAP to ~6 to 8 mL in hexane.	Perform silica gel column cleanup.	Concentrate to ~10 mL on N-EVAP for Florisil cleanup.	Perform Florisil cleanup if needed.	Concentrate to ~1 mL.	Add recovery std (100 µg/mL) to mini-vial. Record vol added (µL). Transfer extract to vial.	Conc to delivery volume in nonane. Record delivery volume in µL.
H1G050439 - 001	MKM551AC		✓	1.0	NA	✓	✓	✓	✓	✓	100µL/NA	100µL
H1G050439 - 003	MKM6A1AC		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H1G050439 - 005	MKM6F1AC		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H1G050439 - 007	MKM6M1AC		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H1G050439 - 015	MKM601AC		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H1G060000 - 028	MKNTM1AA	B	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H1G060000 - 028	MKNTM1AC	C	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H1G060000 - 028	MKNTM1AD	L	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
			JDB 7/13/11					→	JDB 7/13/11 →	→	SH 7/13/11 →	→

JDB 7/14/11

JDB 7/14/11

Conc Hexane Lot #: J38E27
H_2SO_4 Lot #: NA
5% NaCl ID:

Acid Silica ID: 4361-112
Deact Silica ID: 4361-110
SG Col Na_2SO_4 ID: 3796-5H
SG Col Hexane Lot #: J38E27

Florisil ID: 3796-5E
Fl Col Na_2SO_4 ID: 3796-5H
Fl Col Hexane Lot #: J38E27
6% Ether in Hexane ID: 4361-114

Comments:

H-3376

XAD Source Sampling Media Request Form

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
865-291-3000

Form Number: 061011-1

-scan completed document and save on the public drive under Media/PDFs; filename should be the form number. **Send a copy to PM.**

Date of Request: June 10, 2011
Company: URS - Petroleum ICR
Client Project: Chevron Global Hawaii Refinery
Client PO#: Pending

Rush Order? No
Quantims Quote: TBD
Media Needed By: 6/16/2011
Project Manager: Kevin Woodcock

Quantity	Media Type	Spiked for Method	Media Check ID
8	Spiked XAD	Dioxin, HRPCB, Supelpak-2SVM, Lot 22593	A 6443
8	Particulate Filter	87.5mm quartz fiber	A 6444
16	Particulate Filter	87.5mm quartz fiber	A 6445

URS, Chevron, HI
A 6443
D/F, PCB, XAD

URS, Chevron, HI
A 6444
D/F, PCB, Filter

Comments:

H-3377

Method	Color Code	Amt. Spiked	Conc. And Units	Spike Sol'n ID	Exp. Date	Spiked By/ Date	Verified By
8270C							
Dioxin	NA	200µl	20 ng/ml	DF0081	1-7-15	RH/6-14-11	EDR
1668 mod.	NA	200µl	50 ng/ml	PCB0060	8-1-12	RH/6-14-11	EDR
CARB 429							
8081A							
TCO/Grav.		NA	NA	NA	NA	NA	NA

Shipping *(include blank COCs and Custody Seals with this shipment. Send temperature blanks where applicable)*

Attn: Darnelle L. Kahalewai-Chai
Company: Chevron Global Downstream Hawaii Refinery
Address 1: 91-480 Malakole Street
Address 2:
City, State, Zip: Kapolei, HI 96707
Phone: (808) 682-2205
Fax:
FedEx Email: chis_weber@urscorp.com
Lot Number:

Completed/Shipped by: RH/EDR
Date Shipped: 6-14-11
Shipping Courier: Fed Ex.
Tracking Number

Invoice #:

Ref: Sampling Media
Dep: 140015
Date: 06/14/2011
Wgt: 15.8 LBS
DV: 0.00

SHIPPING: 56.60
SPECIAL: 9.34
HANDLING: 0.00
TOTAL: 65.94

Svcs: ** 2DAY **
TRCK: 4169 7487 5886

3376

Sample Receipt Documentation

H16050434

URS Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

7 Boxes Rec'd @ 3.8°C / 5.6°C, 4.1°C / 3.4°C, 4.6°C / 3.4°C, 5.3°C
3 coolers Rec'd @ 27.1°C / 27°C, 27.1°C
without custody seals 6/24 7/2/11
7 Boxes Fed x #'s 8704 3537 3800, 8729 7187 3430, 3521

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M23+-PNR-Ace	PNR - Acetone	6/22/11 1630	X	X				12	3429, 3532, 3510, 3543 all fractions Combine for Single Analysis
CHV-Stk-ICR1-M23+-PNR-MeCl	PNR - Methylene Chloride	6/22/11 1630	X	X				11	
CHV-Stk-ICR1-M23+-PNR-Tol	PNR - Toluene	6/22/11 1630	X	X				12	3 coolers Fed x # 8729 7187 3602, 3278, 3598
CHV-Stk-ICR1-M23+-Filt	Filter	6/22/11 1630	X	X				12	
CHV-Stk-ICR1-M23+-CR-Ace	Condenser Rns - Acetone	6/22/11 1630	X	X				12	~~Combine for Single Analysis~~ WADO 6/23/11
CHV-Stk-ICR1-M23+-CR-MeCl	Condenser Rns - Methylene Chloride	6/22/11 1630	X	X				11	
CHV-Stk-ICR1-M23+-CR-Tol	Condenser Rns - Toluene	6/22/11 1630	X	X				12	
CHV-Stk-ICR1-M23+-XAD	XAD Sorbent Cartridge	6/22/11 1630	X	X				14	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Meagan DeLoss	6/23/11	1200	[signature]	7/2/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

HIGDSD434

3379

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Page 2 of 2

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M23+-ImpsA	Impinger Catch - Bottle A	6/22/11 1636	X	X				11	~~Combine for Single Analysis (PCB Analysis Only)~~ MDD 6/23/11
CHV-Stk-ICR1-M23+-ImpsB	Impinger Catch - Bottle B								
CHV-Stk-ICR1-M23+-IR-Ace	Impinger Rinse - Acetone	6/22/11 1636	X	X				12	
CHV-Stk-ICR1-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride	6/22/11 1636	X	X				11	
CHV-Stk-ICR1-M23+-IR-Tol	Impinger Rinse - Toluene	6/22/11 1636	X	X				12	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Meagan DeCoito	6/23/11	1200		7/2/11	0:9:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

H160SD439

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M23+-PNR-Ace	PNR - Acetone	6/23/11 1306	X	X				14	Combine for Single Analysis ↓
CHV-Stk-ICR2-M23+-PNR-MeCl	PNR - Methylene Chloride		X	X				10	
CHV-Stk-ICR2-M23+-PNR-Tol	PNR - Toluene		X	X				9	
CHV-Stk-ICR2-M23+-Filt	Filter		X	X				12	
CHV-Stk-ICR2-M23+-CR-Ace	Condenser Rns - Acetone		X	X				14	~~Combine for Single Analysis~~
CHV-Stk-ICR2-M23+-CR-MeCl	Condenser Rns - Methylene Chloride		X	X				10	
CHV-Stk-ICR2-M23+-CR-Tol	Condenser Rns - Toluene		X	X				9	
CHV-Stk-ICR2-M23+-XAD	XAD Sorbent Cartridge	↓	X	X				14	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

1716050439

3381

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M23+-ImpsA	Impinger Catch - Bottle A	6/23/11 1306	X	X				23	Combine with Front-half fractions for single analysis ~~Combine for Single Analysis (PCB Analysis Only)~~
CHV-Stk-ICR2-M23+-ImpsB	Impinger Catch - Bottle B								
CHV-Stk-ICR2-M23+-IR-Ace	Impinger Rinse - Acetone	6/23/11 1306	X	X				14	
CHV-Stk-ICR2-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride	↓	X	X				10	
CHV-Stk-ICR2-M23+-IR-Tol	Impinger Rinse - Toluene	↓	X	X				9	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

4116050439

Page 1 of 2

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M23+-PNR-Ace	PNR - Acetone	6/27/11 1338	X	X				14	Combine for Single Analysis
CHV-Stk-ICR3-M23+-PNR-MeCl	PNR - Methylene Chloride		X	X				15	
CHV-Stk-ICR3-M23+-PNR-Tol	PNR - Toluene		X	X				16	
CHV-Stk-ICR3-M23+-Filt	Filter		X	X				12	
CHV-Stk-ICR3-M23+-CR-Ace	Condenser Rns - Acetone		X	X				14	~~Combine for Single~~ Analysis
CHV-Stk-ICR3-M23+-CR-MeCl	Condenser Rns - Methylene Chloride		X	X				15	
CHV-Stk-ICR3-M23+-CR-Tol	Condenser Rns - Toluene		X	X				16	
CHV-Stk-ICR3-M23+-XAD	XAD Sorbent Cartridge		X	X				11	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

HIGB0436

3383

URS

Chain of Custody Record

Page 2 of 2

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M23+-ImpsA	Impinger Catch - Bottle A	6/27/11 1338	X	X				23	Combine with front-half fraction for single analysis
CHV-Stk-ICR3-M23+-ImpsB	Impinger Catch - Bottle B								
CHV-Stk-ICR3-M23+-IR-Ace	Impinger Rinse - Acetone	6/27/11 1338	X	X				14	~~Combine for Single Analysis~~ (~~PCB Analysis~~ Only)
CHV-Stk-ICR3-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride	↓	X	X				15	
CHV-Stk-ICR3-M23+-IR-Tol	Impinger Rinse - Toluene	↓	X	X				10	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

H1605043 9

3384

URS

Chain of Custody Record

Page 1 of 1

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M23+-PNR-Ace	PNR - Acetone	6/26/11 1135	X	X				14	Combine for Single Analysis
CHV-Stk-ICRFB-M23+-PNR-MeCl	PNR - Methylene Chloride		X	X				10	
CHV-Stk-ICRFB-M23+-PNR-Tol	PNR - Toluene		X	X				9	
CHV-Stk-ICRFB-M23+-Filt	Filter		X	X				12	
CHV-Stk-ICRFB-M23+-CR-Ace	Condenser Rns - Acetone		X	X				14	~~Combine for Single Analysis~~
CHV-Stk-ICRFB-M23+-CR-MeCl	Condenser Rns - Methylene Chloride		X	X				15	
CHV-Stk-ICRFB-M23+-CR-Tol	Condenser Rns - Toluene		X	X				16	
CHV-Stk-ICRFB-M23+-XAD	XAD Sorbent Cartridge		X	X				11	
CHV-Stk-ICRFB-M23+-Imps	Impinger Catch		X	X				23	~~Combine for Single Analysis~~ (~~PCB Analysis Only~~)
CHV-Stk-ICRFB-M23+-IR-Ace	Impinger Rinse - Acetone		X	X				14	
CHV-Stk-ICRFB-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride		X	X				10	
CHV-Stk-ICRFB-M23+-IR-Tol	Impinger Rinse - Toluene		X	X				9	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

1716050434

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M23+-Filt	Filter	6/26/11 1230	X	X				12	
CHV-Stk-ICRRB-M23+-XAD	XAD Sorbent Cartridge		X	X				14	
CHV-Stk-ICRRB-M23+-Ace	Acetone		X	X				12	
CHV-Stk-ICRRB-M23+-MeCl	Methylene Chloride		X	X				10	
CHV-Stk-ICRRB-M23+-Tol	Toluene		X	X				9	
CHV-Stk-ICRRB-M23+-Water	Water	↓	X	X				10	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	6/26/11 6/29/11	1900		7/5/11	09:00			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H1G050439

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓	✓		☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☒ **1g** Other:	2B All samples at proper temp except two samples: (CHV-Stk-ICR2-M23+-ImpsA 27°C) (CHV-Stk-ICR3-M23+-ImpsA 27°C) 1G All samples Recieved on 7/2/11 except the Two samples above they were Recieved on 7/5/11 4A
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓	✓		☐ **2a** Temp Blank = _____ ☒ **2b** Cooler Temp = 27c ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☒ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: _____ Date: 7/5/11

QA026R22.doc, 012811

H-3387

3386

Appendix I

Report for HCl, Cl_2 and HF and

$PM_{2.5}$-FILT and $PM_{2.5}$-CON Analysis

URS Corporation

9400 Amberglen Blvd
Austin, TX 78729

Chevron - FCCU: Hawaii Refinery

Project # 40942312
PO # 251266.US

Analytical Report
(0611-24R)

EPA Method 26A

Hydrogen chloride, Hydrogen fluoride, Chloride

EPA SW-846 Method 8315A

Acetaldehyde, Formaldehyde, Propionaldehyde

EPA Method 201A

Particulate Matter

EPA Method 202

Condensable Particulate Matter

Enthalpy Analytical, Inc.

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
2202 Ellis Road Durham, NC 27703 - 5518

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains ??? pages.

Report Issued: xx/xx/xxxx

Summary of Results

Company	URS Corp. - Austin
Analyst	EO
Parameters	EPA Method 26A

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 3 blanks

Compound	Sample ID / Catch Weight (ug)		
	ICR1-M26A-AcdImp	***CHV-Stk ICR2-M26A-AcdImp***	***ICR3-M26A-AcdImp***
Hydrogen fluoride	169 J	181 J	214 J
Hydrogen chloride	779 J	733 J	672 J
	ICRFB-M26A-AcdImp	***ICRRB-M26A-H2SO4 Soln***	***ICRRB-M26A-Water***
Hydrogen fluoride	114 J	26.9 ND	25.3
Hydrogen chloride	66.8 ND	26.2 ND	1.11 ND

Company	URS Corporation
Analyst	EO
Parameters	EPA Method 26A

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 2 blanks

Compound	Sample ID / Catch Weight (ug)		
	ICR1-M26A-AlkImp	***CHV-Stk ICR2-M26A-AlkImp***	***ICR3-M26A-AlkImp***
Chloride	31.0 ND	36.0 ND	43.5 ND
	ICRFB-M26A-AlkImp	***ICRRB-M26A-NaOH Soln***	
Chloride	40.0 ND	20.4 ND	

Company	URS Corporation
Analyst	KHB
Parameters	EPA SW-846 Method 8315A

Client #	40942312
Job #	0611-24
# Samples	1 Run

Compound	Sample ID / Catch Weight (ug)	
	CHV-Stk-ICR2-M0011-Imp/RnsA	
Formaldehyde	159	
Acetaldehyde	25.6	
Propionaldehyde	1.28	ND

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 201A

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 4 Blanks

Sample ID / Total Particulate (mg)			
	CHV-Stk-ICR2	***CHV-Stk-ICR3***	***CHV-Stk-ICR4***
Total particulate (mg)	25.5	25.2	25.7
	CHV-Stk-ICRFB	***CHV-Stk-ICRRB***	
Total particulate (mg)	0.5	0.2	

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 202

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 12 blanks

Sample ID / Condensible Particulate Matter (CPM) Weight (mg)

	CHV-Stk-ICR2	***CHV-Stk-ICR3***	***CHV-Stk-ICR4***
Net Organic Catch	1.4	0.3	1.2
Corrected Inorganic	8.1	19.8	24.0
TB Corrected CPM	7.6	18.1	23.2

	CHV-Stk-ICRPB
Net Organic Catch	0.9
Corrected Inorganic	2.8
Non-TB Corrected CPM	3.7

	CHV-Stk-ICRFB	
Organic Catch	0.2	If Train Blank Corrected CPM is >2.0 mg,
Inorganic Catch	7.4	then sample correction is 2.0 mg.
CPM	7.6	

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 202

Client #	40942312
Job #	0611-24
# Samples	Filter Blank

Compound	Sample ID / Condensible Particulate Matter (CPM) Weight (mg)
	CHV-Stk-ICRRB-FPM
Net Organic Catch	0.1
Corrected Inorganic	0.1
Non-TB Corrected CPM	0.1

Results

Company	URS Corp. - Austin
Analyst	EO
Parameters	EPA Method 26A

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 3 blanks

MDL 0.0100 (ug/mL)
LOQ 0.200 (ug/mL)
Compound Hydrogen fluoride

Lower Curve Limit 0.200 (ug/mL)
Upper Curve Limit 10.0 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	CF Factor	Catch Weight (ug)	Qual
CHV-Stk-ICR1-M26A-AcdImp	014-1501.D	014-1502.D	HPLC55PG176.M	2.65	2.65	0.1	0.0318	0.0297	3.3	0.0308	10	522	1.053	169	J
CHV-Stk-ICR2-M26A-AcdImp	017-2001.D	017-2002.D	HPLC55PG176.M	2.65	2.65	0.0	0.0289	0.0284	0.9	0.0287	10	600	1.053	181	J
CHV-Stk-ICR3-M26A-AcdImp	018-2101.D	018-2102.D	HPLC55PG176.M	2.65	2.65	0.1	0.0235	0.0226	2.0	0.0230	10	880	1.053	214	J
CHV-Stk-ICRFB-M26A-AcdImp	019-2201.D	019-2202.D	HPLC55PG176.M	2.65	2.65	0.11	0.016	0.0169	1.8	0.0166	10	650	1.053	114	J
CHV-Stk-ICRRB-M26A-H2SO4 Soln	020-2301.D	020-2302.D	HPLC55PG176.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	10	255	1.053	26.9	ND
CHV-Stk-ICRRB-M26A-Water	021-2401.D	021-2402.D	HPLC55PG176.M	2.66	2.66	0.0	0.224	0.221	0.7	0.223	1	108	1.053	25.3	
0.01N H2SO4/NaOH RB	007-0801.D	007-0802.D	HPLC55PG176.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	1	1.00	1.053	0.0105	ND
MS CHV-Stk-ICR1-M26A-AcdImp	015-1601.D	015-1602.D	HPLC55PG176.M	2.65	2.65	0.0	3.36	3.35	0.2	3.35	1	10.0	1.053	35.3	
														Spike Amount (ug)	31.6
														Native Amount (ug)	0.324
														Spike Recovery (%)	111%
MSD CHV-Stk-ICR1-M26A-AcdImp	016-1901.D	016-1902.D	HPLC55PG176.M	2.65	2.65	0.0	3.35	3.35	0.0	3.35	1	10.0	1.053	35.3	
														Spike Amount (ug)	31.6
														Native Amount (ug)	0.324
														Spike Recovery (%)	111%
HPLC55pg176 #SS	006-0701.D	006-0702.D	HPLC55PG176.M	2.64	2.64	0.0	1.30	1.29	0.2	1.30	1	1.00	1.053	1.37	
														Spike Amount (ug)	1.32
														Spike Recovery (%)	104%
HPLC55pg176 #SS	006-3101.D	006-3102.D	HPLC55PG176.M	2.65	2.64	0.0	1.27	1.32	1.7	1.30	1	1.00	1.053	1.36	
														Spike Amount (ug)	1.32
														Spike Recovery (%)	104%

Company	URS Corp. - Austin
Analyst	EO
Parameters	EPA Method 26A

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 3 blanks

MDL 0.0100 (ug/mL)
LOQ 0.200 (ug/mL)
Compound Hydrogen chloride

Lower Curve Limit 0.200 (ug/mL)
Upper Curve Limit 10.0 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	CF Factor	Catch Weight (ug)	Qual
CHV-Stk-ICR1-M26A-AcdImp	014-1501.D	014-1502.D	HPLC55PG176.M	3.48	3.48	0.0	0.137	0.153	5.4	0.145	10	522	1.028	779	J
CHV-Stk-ICR2-M26A-AcdImp	017-2001.D	017-2002.D	HPLC55PG176.M	3.48	3.48	0.0	0.128	0.109	8.1	0.119	10	600	1.028	733	J
CHV-Stk-ICR3-M26A-AcdImp	018-2101.D	018-2102.D	HPLC55PG176.M	3.48	3.48	0.0	0.0712	0.0773	4.1	0.0742	10	880	1.028	672	J
CHV-Stk-ICRFB-M26A-AcdImp	019-2201.D	019-2202.D	HPLC55PG176.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	10	650	1.028	66.8	ND
CHV-Stk-ICRRB-M26A-H2SO4 Soln	020-2301.D	020-2302.D	HPLC55PG176.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	10	255	1.028	26.2	ND
CHV-Stk-ICRRB-M26A-Water	021-2401.D	021-2402.D	HPLC55PG176.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	1	108	1.028	1.11	ND
0.01N H2SO4/NaOH RB	007-0801.D	007-0802.D	HPLC55PG176.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	1	1.00	1.028	0.0103	ND
MS CHV-Stk-ICR1-M26A-AcdImp	015-1601.D	015-1602.D	HPLC55PG176.M	3.48	3.48	0.0	3.12	3.13	0.1	3.13	1	10.0	1.028	32.1	
													Spike Amount (ug)	30.8	
													Native Amount (ug)	1.49	
													Spike Recovery (%)	99.4%	
MSD CHV-Stk-ICR1-M26A-AcdImp	016-1901.D	016-1902.D	HPLC55PG176.M	3.48	3.48	0.1	3.12	3.13	0.2	3.13	1	10.0	1.028	32.2	
													Spike Amount (ug)	30.8	
													Native Amount (ug)	1.49	
													Spike Recovery (%)	99.4%	
HPLC55pg176 #SS	006-0701.D	006-0702.D	HPLC55PG176.M	3.48	3.48	0.0	2.43	2.43	0.0	2.43	1	1.00	1.028	2.50	
													Spike Amount (ug)	2.57	
													Spike Recovery (%)	97.3%	
HPLC55pg176 #SS	006-3101.D	006-3102.D	HPLC55PG176.M	3.48	3.48	0.0	2.38	2.44	1.3	2.41	1	1.00	1.028	2.48	
													Spike Amount (ug)	2.57	
													Spike Recovery (%)	96.5%	

Company	URS Corporation
Analyst	EO
Parameters	EPA Method 26A

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 2 blanks

MDL 0.0100 (ug/mL)
LOQ 0.200 (ug/mL)
Compound Chloride

Lower Curve Limit 0.200 (ug/mL)
Upper Curve Limit 10.0 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
CHV-Stk-ICR1-M26A-AlkImp	022-2501.D	022-2502.D	HPLC55PG176CL.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	10	310	31.0	ND
CHV-Stk-ICR2-M26A-AlkImp	025-2801.D	025-2802.D	HPLC55PG176CL.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	10	360	36.0	ND
CHV-Stk-ICR3-M26A-AlkImp	026-3301.D	026-3302.D	HPLC55PG176CL.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	10	435	43.5	ND
CHV-Stk-ICRFB-M26A-AlkImp	027-3401.D	027-3402.D	HPLC55PG176CL.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	10	400	40.0	ND
CHV-Stk-ICRRB-M26A-NaOH Soln	028-3501.D	028-3502.D	HPLC55PG176CL.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	10	204	20.4	ND
0.01N H2SO4/NaOH RB	007-0801.D	007-0802.D	HPLC55PG176.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	1	1.00	0.0100	ND
0.01N H2SO4/NaOH RB	007-3201.D	007-3202.D	HPLC55PG176.M	NA	NA	NA	0.0100	0.0100	0.0	0.0100	1	1.00	0.0100	ND
MS CHV-Stk-ICR1-M26A-AlkImp	023-2601.D	023-2602.D	HPLC55PG176CL.M	3.46	3.47	0.0	2.92	2.91	0.1	2.91	1	10.0	29.1	
												Spike Amount (ug)		30.0
												Native Amount (ug)		0.00
												Spike Recovery (%)		97.1%
MSD CHV-Stk-ICR1-M26A-AlkImp	024-2701.D	024-2702.D	HPLC55PG176CL.M	3.46	3.46	0.0	2.91	2.92	0.1	2.91	1	10.0	29.1	
												Spike Amount (ug)		30.0
												Native Amount (ug)		0.00
												Spike Recovery (%)		97.1%

Company	URS Corporation
Analyst	KHB
Parameters	EPA SW-846 Method 8315A

Client #	40942312
Job #	0611-24
# Samples	1 Run

MDL 0.00271 (ug/mL)
LOQ 0.0747 (ug/mL)
Compound Formaldehyde

Lower Curve Limit 0.0747 (ug/mL)
Upper Curve Limit 15.0 (ug/mL)

Sample ID	Lab ID	Analysis Method	Ret Time (min)	Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
CHV-Stk-ICR2-M0011-Imp/RnsA	078-3701.D	HPLC54PG120ICR.M	4.92	0.551	1	289	159	
MB-2	079-3801.D	HPLC54PG120ICR.M	NA	0.00271	1	1.00	0.00271	ND
RB/100% ACN	008-0901.D	HPLC54PG120.M	NA	0.00271	1	1.00	0.00271	ND
RB/100% ACN	008-0902.D	HPLC54PG120.M	NA	0.00271	1	1.00	0.00271	ND
RB/100% ACN	008-0903.D	HPLC54PG120.M	NA	0.00271	1	1.00	0.00271	ND
RB/100% ACN	002-0301.D	HPLC54PG120ICR.M	NA	0.00271	1	1.00	0.00271	ND
LCS-3	080-3901.D	HPLC54PG120ICR.M	4.92	6.88	1	139	957	
						Spike Amount (ug)	1,002	
						Spike Recovery (%)	95.5%	
LCS-3	080-4001.D	HPLC54PG120ICR.M	4.93	6.87	1	139	955	
						Spike Amount (ug)	1,002	
						Spike Recovery (%)	95.4%	
hplc54pg120 #SS	007-0801.D	HPLC54PG120.M	5.06	3.07	1	1.00	3.07	
hplc54pg120 #SS	007-0802.D	HPLC54PG120.M	5.07	3.07	1	1.00	3.07	
hplc54pg120 #SS	007-0803.D	HPLC54PG120.M	5.06	3.06	1	1.00	3.06	
						average	3.07	
						Spike Conc (µg/mL)	2.90	
						Spike Recovery (%)	106%	

Company	URS Corporation
Analyst	KHB
Parameters	EPA SW-846 Method 8315A

Client #	40942312
Job #	0611-24
# Samples	1 Run

MDL 0.00448 (ug/mL)
LOQ 0.0747 (ug/mL)
Compound Acetaldehyde

Lower Curve Limit 0.0747 (ug/mL)
Upper Curve Limit 15.0 (ug/mL)

Sample ID	Lab ID	Analysis Method	Ret Time (min)	Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
CHV-Stk-ICR2-M0011-Imp/RnsA	078-3701.D	HPLC54PG120ICR.M	6.23	0.0885	1	289	25.6	
MB-2	079-3801.D	HPLC54PG120ICR.M	NA	0.00448	1	1.00	0.00448	ND
RB/100% ACN	008-0901.D	HPLC54PG120.M	NA	0.00448	1	1.00	0.00448	ND
RB/100% ACN	008-0902.D	HPLC54PG120.M	NA	0.00448	1	1.00	0.00448	ND
RB/100% ACN	008-0903.D	HPLC54PG120.M	NA	0.00448	1	1.00	0.00448	ND
RB/100% ACN	002-0301.D	HPLC54PG120ICR.M	NA	0.00448	1	1.00	0.00448	ND
LCS-3	080-3901.D	HPLC54PG120ICR.M	6.23	6.07	1	139	843	
						Spike Amount (ug)	978	
						Spike Recovery (%)	86.3%	
LCS-3	080-4001.D	HPLC54PG120ICR.M	6.24	6.05	1	139	841	
						Spike Amount (ug)	978	
						Spike Recovery (%)	86.1%	
hplc54pg120 #SS	007-0801.D	HPLC54PG120.M	6.39	3.11	1	1.00	3.11	
hplc54pg120 #SS	007-0802.D	HPLC54PG120.M	6.39	3.11	1	1.00	3.11	
hplc54pg120 #SS	007-0803.D	HPLC54PG120.M	6.39	3.10	1	1.00	3.10	
						average	3.11	
						Spike Conc (µg/mL)	2.90	
						Spike Recovery (%)	107%	

Company	URS Corporation
Analyst	KHB
Parameters	EPA SW-846 Method 8315A

Client #	40942312
Job #	0611-24
# Samples	1 Run

MDL 0.00442 (ug/mL)
LOQ 0.0746 (ug/mL)
Compound Propionaldehyde

Lower Curve Limit 0.0746 (ug/mL)
Upper Curve Limit 15.0 (ug/mL)

Sample ID	Lab ID	Analysis Method	Ret Time (min)	Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
CHV-Stk-ICR2-M0011-Imp/RnsA	078-3701.D	HPLC54PG120ICR.M	NA	0.00442	1	289	1.28	ND
MB-2	079-3801.D	HPLC54PG120ICR.M	NA	0.00442	1	1.00	0.00442	ND
RB/100% ACN	008-0901.D	HPLC54PG120.M	NA	0.00442	1	1.00	0.00442	ND
RB/100% ACN	008-0902.D	HPLC54PG120.M	NA	0.00442	1	1.00	0.00442	ND
RB/100% ACN	008-0903.D	HPLC54PG120.M	NA	0.00442	1	1.00	0.00442	ND
RB/100% ACN	002-0301.D	HPLC54PG120ICR.M	NA	0.00442	1	1.00	0.00442	ND
LCS-3	080-3901.D	HPLC54PG120ICR.M	8.45	5.51	1	139	766	
						Spike Amount (ug)	962	
						Spike Recovery (%)	79.6%	
LCS-3	080-4001.D	HPLC54PG120ICR.M	8.46	5.51	1	139	766	
						Spike Amount (ug)	962	
						Spike Recovery (%)	79.6%	
hplc54pg120 #SS	007-0801.D	HPLC54PG120.M	8.62	3.08	1	1.00	3.08	
hplc54pg120 #SS	007-0802.D	HPLC54PG120.M	8.61	3.08	1	1.00	3.08	
hplc54pg120 #SS	007-0803.D	HPLC54PG120.M	8.62	3.07	1	1.00	3.07	
						average	3.08	
						Spike Conc (µg/mL)	2.90	
						Spike Recovery (%)	106%	

EPA Method 201A - Particulate Determination - Data Analysis

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 201A

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 4 Blanks

Analysis of Particulate Recovery

Sample ID	***CHV-Stk-ICR2***		***CHV-Stk-ICR3***		***CHV-Stk-ICR4***		***CHV-Stk-ICRFB***		***CHV-Stk-ICRRB***	
Filter ID	*3217*		*3218*		*3219*		*3223*		*3221*	
Filter tare (g)	0.1141		0.1156		0.1226		0.1201		0.1116	
Total tare (g)	0.1141	Dates	0.1156	Dates	0.1226	Dates	0.1201	Dates	0.1116	Dates
Final wt. (g) 1st	0.137513	7/20/11	0.138873	7/20/11	0.146015	7/20/11	0.120254	7/20/11	0.111846	7/20/11
Final wt. (g) 2nd	0.137489	7/21/11	0.138756	7/21/11	0.145923	7/21/11	0.120123	7/21/11	0.111785	7/21/11
Net filter catch (mg)	23.4		23.1		23.3		0.0		0.2	
Beaker number	*1378*	Dates	*1379*	Dates	*1380*	Dates	*1381*	Dates		
Final wt (g) 1st	2.242725	7/20/11 A	2.244654	7/20/11 A	2.247156	7/20/11 A	2.251341	7/20/11 A		
Final wt (g) 2nd	2.242735	7/20/11 P	2.244655	7/20/11 P	2.247142	7/20/11 P	2.251334	7/20/11 P		
Beaker tare (g)	2.240631		2.242491		2.244691		2.250901			
Acetone blank (g)	0.0000		0.0000		0.0000		0.0000			
Acetone vol (mL)	32.0		46.0		30.0		32.0			
Net front rinse (mg)	2.1		2.1		2.4		0.4			
Total particulate (mg)	25.5		25.2		25.7		0.5		0.2	

Blank Acetone Analysis

Blank beaker number	*1410*		Dates
Blank volume (mL)	220	Final wt (g) 1st	2.244246 7/20/11 A
Beaker tare (g)	2.244119	Final wt (g) 2nd	2.244244 7/20/11 P
Max acetone residue (g)	0.0017	Acetone residue (g)	0.0001

In-House Blank Acetone Analysis

Blank beaker number	*1412*		Dates
Blank volume (mL)	200	Final wt (g) 1st	2.247549 7/20/11 A
Beaker tare (g)	2.247345	Final wt (g) 2nd	2.247536 7/20/11 P
Max acetone residue (g)	0.0016	Acetone residue (g)	0.0002

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 202

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 12 blanks

Analysis of Condensible Particulate Recovery

Sample ID Number	***CHV-Stk-ICRFB***		***CHV-Stk-ICR2***		***CHV-Stk-ICR3***		***CHV-Stk-ICR4***	
Organic								
Beaker Number	*1398*		*1393*		*1394*		*1395*	
Initial Acetone Volume, mL	114		148		270		260	
Initial Hexane Volume, mL	190		140		266		164	
Lab Hexane Volume, mL	165	Dates	165	Dates	165	Dates	165	Dates
Final Weight, g	2.244065	7/20/11 A	2.244987	7/20/11 A	2.250097	7/20/11 A	2.251353	7/20/11 A
Reweigh, Final, g	2.244041	7/20/11 P	2.245030	7/20/11 P	2.250111	7/20/11 P	2.251375	7/20/11 P
Beaker Tare, g	2.243846	7/12/11	2.243588	7/12/11	2.249778	7/12/11	2.250160	7/12/11
Net Organic Catch, mg	0.2		1.4		0.3		1.2	
Inorganic								
Beaker Number	*1473*	Dates	*1469*	Dates	*1470*	Dates	*1471*	Dates
Final Weight, g	2.241819	7/20/11	2.236535	7/20/11	2.264640	7/20/11	2.274542	7/20/11
Reweigh, Final, g	2.241765	7/21/11	2.236146	7/21/11	2.264232	7/21/11	2.274316	7/21/11
Beaker Tare, g	2.233058	7/14/11	2.227875	7/14/11	2.240659	7/14/11	2.246196	7/14/11
Sample H2O volume, mL	170		340		510		650	
Added H2O, Filter Extraction, mL	75.0		75.0		75.0		75.0	
Removed Pre-aliquot, mL	0.500		0.500		0.500		0.500	
Pre-aliquot CF	1.002		1.001		1.001		1.001	
Resuspended Volume, mL	100		100		100		100	
Removed Post-aliquot, mL	0.500		0.500		0.500		0.500	
Post-aliquot CF	1.005		1.005		1.005		1.005	
Net Inorganic, mg	8.8		8.3		23.7		28.3	
Ammonium Correction, mg	1.4		0.2		4.0		4.3	
Corrected Inorganic, mg	7.4		8.1		19.8		24.0	
Condensible Particulate Matter, mg	7.6		9.6		20.1		25.2	
TB Corrected CPM, mg			7.6		18.1		23.2	

Client Blank Analyses

	CHV-Stk-ICRRB			***CHV-Stk-ICRRB***			***CHV-Stk-ICRRB***	
Type Blank	***Hexane***		Type Blank	***H2O Blank***		Type Blank	***Acetone***	
Beaker Number	*1409*	Dates	Beaker Number	*1474*	Dates	Beaker Number	*1410*	Dates
Tare weight, g	2.238081	7/14/11	Tare weight, g	2.234130	7/14/11	Tare weight, g	2.244119	7/12/11
Dry Residue Weight, g	2.238246	7/20/11 A	Dry Residue Weight, g	2.237666	7/20/11 A	Dry Residue Weight, g	2.244246	7/20/11 A
Reweigh, Final, g	2.238250	7/20/11 P	Reweigh, Final, g	2.237579	7/20/11 P	Reweigh, Final, g	2.244244	7/20/11 P
Hexane Residue, g	0.0002		Water Residue, g	0.0034		Acetone Residue, g	0.0001	
Hexane Volume, mL	198		Water Volume, mL	200		Acetone Volume, mL	220	
Max. Hexane Residue, g	0.0019		Max. Water Residue, g	0.0020		Max. Acetone Residue, g	0.0017	

In-House Blank Analyses

Type Blank	***Hexane***		Type Blank	***H2O Blank***		Type Blank	***Acetone***	
Beaker Number	*1411*	Dates	Beaker Number	*1475*	Dates	Beaker Number	*1412*	Dates
Tare weight, g	2.251735	7/14/11	Tare weight, g	2.238136	7/14/11	Tare weight, g	2.247345	7/14/11
Dry Residue Weight, g	2.252119	7/20/11 A	Dry Residue Weight, g	2.242212	7/20/11 A	Dry Residue Weight, g	2.247549	7/20/11 A
Reweigh, Final, g	2.252104	7/20/11 P	Reweigh, Final, g	2.242247	7/20/11 P	Reweigh, Final, g	2.247536	7/20/11 P
Hexane Residue, g	0.0004		Water Residue, g	0.0041		Acetone Residue, g	0.0002	
Hexane Volume, mL	225		Water Volume, mL	250		Acetone Volume, mL	200	
Max. Hexane Residue, g	0.0022		Max. Water Residue, g	0.0025		Max. Acetone Residue, g	0.0016	

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 202

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 12 blanks

Analysis of Condensible Particulate Recovery

Sample ID Number	***CHV-Stk-ICRFB***		***CHV-Stk-ICRPB***		***CHV-Stk-ICRPB***	
Organic			Hexane		Acetone	
Beaker Number	***1398***		***1396***		***1397***	
Initial Acetone Volume, mL	114		0		0	
Initial Hexane Volume, mL	190		0		0	
Initial Hexane/Acetone Volume, mL	304		204		206	
Lab Hexane Volume, mL	165	Dates	0.00	Dates	0.00	
Final Weight, g	2.244065	7/20/11 A	2.237337	7/20/11 A	2.244315	7/20/11 A
Reweigh, Final, g	2.244041	7/20/11 P	2.237345	7/20/11 P	2.244320	7/20/11 P
Beaker Tare, g	2.243846	7/12/11	2.237475	7/12/11	2.243274	7/12/11
Net Organic Catch, mg	0.2		-0.1		1.0	
Inorganic						
Beaker Number	***1473***	Dates	***1472***	Dates		
Final Weight, g	2.241819	7/20/11	2.252941	7/20/11		
Reweigh, Final, g	2.241765	7/21/11	2.252859	7/21/11		
Beaker Tare, g	2.233058	7/14/11	2.249840	7/14/11		
Sample H2O volume, mL	170		250			
Added H2O, Filter Extraction, mL	75.0		0.00			
Removed Pre-aliquot, mL	0.500		0.500			
Pre-aliquot CF	1.002		1.002			
Resuspended Volume, mL	100		100			
Removed Post-aliquot, mL	0.500		0.500			
Post-aliquot CF	1.005		1.005			
Net Inorganic, mg	8.8		3.0			
Ammonium Correction, mg	1.4		0.2			
Corrected Inorganic, mg	7.4		2.8			
Condensible Particulate Matter, mg	7.6		3.7			

----------Client Blank Analyses----------

	CHV-Stk-ICRRB			***CHV-Stk-ICRRB***			***CHV-Stk-ICRRB***	
Type Blank	Hexane		Type Blank	H2O Blank		Type Blank	Acetone	
Beaker Number	***1409***	Dates	Beaker Number	***1474***	Dates	Beaker Number	***1410***	Dates
Tare weight, g	2.238081	7/14/11	Tare weight, g	2.234130	7/14/11	Tare weight, g	2.244119	7/12/11
Dry Residue Weight, g	2.238246	7/20/11 A	Dry Residue Weight, g	2.237666	7/20/11 A	Dry Residue Weight, g	2.244246	7/20/11 A
Reweigh, Final, g	2.238250	7/20/11 P	Reweigh, Final, g	2.237579	7/20/11 P	Reweigh, Final, g	2.244244	7/20/11 P
Hexane Residue, g	0.0002		Water Residue, g	0.0034		Acetone Residue, g	0.0001	
Hexane Volume, mL	198		Water Volume, mL	200		Acetone Volume, mL	220	
Max. Hexane Residue, g	0.0019		Max. Water Residue, g	0.0020		Max. Acetone Residue, g	0.0017	

----------In-House Blank Analyses----------

Type Blank	Hexane		Type Blank	H2O Blank		Type Blank	Acetone	
Beaker Number	***1411***	Dates	Beaker Number	***1475***	Dates	Beaker Number	***1412***	Dates
Tare weight, g	2.251735	7/14/11	Tare weight, g	2.238136	7/14/11	Tare weight, g	2.247345	7/14/11
Dry Residue Weight, g	2.252119	7/20/11 A	Dry Residue Weight, g	2.242212	7/20/11 A	Dry Residue Weight, g	2.247549	7/20/11 A
Reweigh, Final, g	2.252104	7/20/11 P	Reweigh, Final, g	2.242247	7/20/11 P	Reweigh, Final, g	2.247536	7/20/11 P
Hexane Residue, g	0.0004		Water Residue, g	0.0041		Acetone Residue, g	0.0002	
Hexane Volume, mL	225		Water Volume, mL	250		Acetone Volume, mL	200	
Max. Hexane Residue, g	0.0022		Max. Water Residue, g	0.0025		Max. Acetone Residue, g	0.0016	

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 202

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 12 blanks

MDL 0.09 (mg Ammonium)
MDL 0.26 (mg Sulfate)
Blank titrant amount (Vtb) 0.08
NH4OH normality 0.100 Lot # Sigma Aldrich 318620

Sample ID.	Volume Resuspended (mL)	Titration Aliquot Vol (mL)	NH_4OH Titration Vol (mL)	Aliquot Factor (mL rec'd/aliq mL)	SO4 Catch (mg)	Ammonium equivalent (mg)
CHV-Stk-ICRFB	100	99.5	0.89	1.005	3.91	1.39
CHV-Stk-ICR2	100	99.5	0.20	1.005	0.579	0.205
CHV-Stk-ICR3	100	99.5	2.39	1.005	11.2	3.95
CHV-Stk-ICR4	100	99.5	2.60	1.005	12.2	4.31
CHV-Stk-ICRPB	100	99.5	0.21	1.005	0.628	0.223

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 202

Client #	40942312
Job #	0611-24
# Samples	Filter Blank

Analysis of Condensible Particulate Recovery

Sample ID Number	***CHV-Stk-ICRRB-FPM***	
Organic		
Beaker Number	***1863***	
Initial Hexane/Acetone Volume, mL	0	
Lab Hexane Volume, mL	75	Dates
Final Weight, g	2.2500	8/3/11
Reweigh, Final, g	2.2500	8/3/11
Beaker Tare, g	2.2500	7/29/11
Net Organic Catch, mg	0.1	
Inorganic		
Beaker Number	***1862***	Dates
Final Weight, g	2.2442	8/3/11
Reweigh, Final, g	2.2442	8/3/11
Beaker Tare, g	2.2442	7/29/11
Sample H2O volume, mL	0	
Added H2O, Filter Extraction, mL	75	
Removed Pre-aliquot, mL	0.5	
Pre-aliquot CF	1.007	
Resuspended Volume, mL	100.0	
Removed Post-aliquot, mL	0.5	
Post-aliquot CF	1.01	
Net Inorganic, mg	0.1	
Ammonium Correction, mg	0.0	
Corrected Inorganic, mg	0.1	
Condensible Particulate Matter, mg	0.1	

Client Blank Analyses

	CHV-Stk-ICRRB			***CHV-Stk-ICRRB***			***CHV-Stk-ICRRB***	
Type Blank	Hexane		Type Blank	H2O Blank		Type Blank	Acetone	
Beaker Number	***1409***	Dates	Beaker Number	***1474***	Dates	Beaker Number	***1410***	Dates
Tare weight, g	2.238081	7/14/11	Tare weight, g	2.2341	7/14/11	Tare weight, g	2.2441	7/12/11
Dry Residue Weight, g	2.238246	7/20/11 A	Dry Residue Weight, g	2.2377	7/20/11 A	Dry Residue Weight, g	2.2442	7/20/11 A
Reweigh, Final, g	2.238250	7/20/11 P	Reweigh, Final, g	2.2376	7/20/11 P	Reweigh, Final, g	2.2442	7/20/11 P
Hexane Residue, g	0.0002		Water Residue, g	0.0034		Acetone Residue, g	0.0001	
Hexane Volume, mL	198		Water Volume, mL	200		Acetone Volume, mL	220	
Max. Hexane Residue, g	0.0019		Max. Water Residue, g	0.0020		Max. Acetone Residue, g	0.0017	

In-House Blank Analyses

Type Blank	Hexane		Type Blank	H2O Blank		Type Blank	Acetone	
Beaker Number	***1411***	Dates	Beaker Number	***1475***	Dates	Beaker Number	***1412***	Dates
Tare weight, g	2.2517	7/14/11	Tare weight, g	2.2381	7/14/11	Tare weight, g	2.2473	7/14/11
Dry Residue Weight, g	2.2521	7/20/11 A	Dry Residue Weight, g	2.2422	7/20/11 A	Dry Residue Weight, g	2.2475	7/20/11 A
Reweigh, Final, g	2.2521	7/20/11 P	Reweigh, Final, g	2.2422	7/20/11 P	Reweigh, Final, g	2.2475	7/20/11 P
Hexane Residue, g	0.0004		Water Residue, g	0.0041		Acetone Residue, g	0.0002	
Hexane Volume, mL	225		Water Volume, mL	250		Acetone Volume, mL	200	
Max. Hexane Residue, g	0.0022		Max. Water Residue, g	0.0025		Max. Acetone Residue, g	0.0016	

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 202

Client #	40942312
Job #	0611-24
# Samples	Filter Blank

MDL 0.09 (mg Ammonium)
MDL 0.26 (mg Sulfate)
Blank titrant amount (Vtb) 0.04
NH4OH normality 0.1 Lot # Sigma Aldrich 318620

Sample ID.	Volume Resuspended (mL)	Titration Aliquot Vol (mL)	NH_4OH Titration Vol (mL)	Aliquot Factor (mL rec'd/aliq mL)	SO4 Catch (mg)	Ammonium equivalent (mg)
CHV-Stk-ICRRB-FPM	100	99.5	0.04	1.01	0.26 ND	0.09 ND

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	URS Corporation
Analyst	EO
Parameters	EPA Method 26A

Client #	40942312
Job #	0611-24
# Samples	6 Runs & 5 blanks

Custody	Lindsey Chatterton of Enthalpy Analytical, Inc. received samples on 6/30/11 at 24.7°C and Heather Tarjeft of Enthalpy Analytical, Inc. received samples on 7/5/11 at 27.5 °C after being relinquished by URS Corporation of Austin, TX. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.
Analysis	The samples were analyzed for chloride, hydrogen chloride, and hydrogen fluoride using the analytical procedures in EPA Method 26A, Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources Isokinetic Method (40 CFR Part 60, Appendix A). The samples were analyzed following the procedures in Section 11.0, Analytical Procedures. All samples and standards are prepared, stored, and analyzed using high-density polyethylene containers. The Metrohm 861 Compact IC ("Smithers" S/N 1861002007189) was equipped with a Metrohm 861 Conductivity Detector and a Metrosep A Supp 5 - 110/4.0mm (S/N # 7908289) column.
Calibration	The calibration curve is located in the Calibration Curve Chromatograms section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition method METROHM.M is included in the Calibration Curve Chromatograms section of this report.

Enthalpy Analytical Narrative Summary
(continued)

QC Notes	As required in Section 7.2.2, Absorbing Solution Blanks, client-provided reagent blanks were analyzed. Additionally, a quality control check sample was analyzed at the same time as the blanks and samples. All method required acceptance criteria were met. Duplicate matrix spikes were prepared using samples ***CHV-Stk-ICR1-M26A-AcdImp*** and ***CHV-Stk-ICR1-M26A-AlkImp***. The recovery values ranged from 97.1% to 111%. Second source standards were prepared and analyzed along with the samples as Laboratory Control Samples (LCS). The recovery values ragnged from 96.5% to 104%. All sample preparation and analytical holding times specified in the method were met. Section 13.2, Sample Stability, specifies an analytical holding time of four weeks. A confirmation analysis was performed on the sample ***CHV-Stk-ICRRB-M26A-Water***. The data agreed with the initial results. The samples ***CHV-Stk-ICR1-M26A-AcdImp*** and ***CHV-Stk-ICR2-M26A-AcdImp*** did not meet 5% difference in concentration between duplicate injections. The concentrations of these samples were below the limit of quantitation and are considered to be estimated values.
Reporting Notes	The sulfuric acid matrix samples were analyzed for chloride and fluoride but are reported as hydrogen chloride and hydrogen fluoride. The results were converted using a conversion factor of 1.028 for hydrogen chloride and 1.053 for hydrogen fluoride. These analyses met the requirements of the NELAC Standard. Any deviations from the requirements of the reference method and/or the NELAC Standard have been previously noted in this narrative. The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company	URS Corporation
Analyst	KHB
Parameters	EPA SW-846 Method 8315

Client #	40942312
Job #	0611-24
# Samples	1 process sample

Custody	Lindsey Chatterton of Enthalpy Analytical, Inc. received the samples on 7/5/11 at 25.4°C after being relinquished by URS Corporation of Austin, TX. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.
Analysis	The samples were analyzed for acetaldehyde, formaldehyde, and propionaldehyde using the analytical procedures in EPA SW-846 Method 8315A, Determination of Carbonyl Compounds by High Performance Liquid Chromatography (HPLC). The Agilent Model 1100, High Performance Liquid Chromatograph ("Bart") was equipped with an Ultraviolet (UV) Detector operating at 360 nm and a Restek Ultra C18, 150 x 4 mm (S/N 100316P) column.
Calibration	The calibration curve is located in the Calibration Curve Chromatograms section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition method 8315ICR.M is included in the Calibration Curve Chromatograms section of this report.
QC Notes	The data is intended for engineering purposes. A matrix spike sample and laboratory duplicate were not prepared and analyzed with the samples.
Reporting Notes	The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 201A

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 4 blanks

Custody	Lindsey Chatterton and Jordan Laster of Enthalpy Analytical, Inc. received the samples on 7/5/11, 7/6/11, and 7/7/2011 at 25.4°C and ambient temperature after being relinquished by URS Corporation of Austin, TX. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.
Analysis	All samples were analyzed in accordance to the requirements and specifications of EPA Method 201A. After evaporating the acetone rinses at room temperature to dryness, the remaining residue was desiccated for 24 hours to a constant weight and weighed twice at 6-hour intervals. All samples were weighed on Balance 8 (Sartorius Model ME 5-F, Serial # 23104965) certified by Mettler Toledo through July 30, 2012.
QC Notes	An acetone blank, Train Blank, and Reagent Blank Filter were received and analyzed with these samples. The organic catch weights are adjusted by a blank correction value. A mathematically determined (theoretical) maximum value is calculated and compared with the actual value measured for the blank. The lower of the two values is used as the blank correction value, which is then factored by the sample volume divided by the blank volume, and subtracted from the sample catch weight.
Reporting Notes	These analyses met the requirements of the NELAC Standard. Any deviations from the requirements of the reference method and/or the NELAC Standard have been previously noted in this narrative. The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company	URS Corporation
Analyst	KTH
Parameters	EPA Method 202

Client #	40942312
Job #	0611-24
# Samples	3 Runs & 12 blanks

Custody

Lindsey Chatterton and Jordan Laster of Enthalpy Analytical, Inc. received the samples on 7/5/11, 7/6/11 and 7/7/2011 at 25.4 °C and ambient temperature after being relinquished by URS Corporation of Austin, TX. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.

Analysis

The samples were analyzed for Condensable Particulate Matter using the analytical procedures in EPA Method 202, Determination of Condensible Particulate Emissions from Stationary Sources (40 CFR Part 51, Appendix M).

All samples were weighed on Balance 8 (Sartorius Model ME 5-F, Serial # 23104965) certified by Mettler Toledo through July 30, 2012.

QC Notes

The method specifies blank corrections are accomplished by subtracting the particulate mass determined in the 'Train Blank' or 2 mg (whichever is less) from the sample weight.

The inorganic results for the samples were corrected for the ammonium ions used to precipitate the sulfate, per the formula in the Method (Section 12.2.1).

When the pH of the samples was measured to be 7.0 or greater with the pH meter, no titrant was added.

Reporting Notes

Enthalpy considers gravimetric particulate analyses for to be ±0.5 mg. Therefore, negative catch weights between 0 and –0.5 mg are set to zero and no investigation is undertaken. Negative catch weights < -0.5 mg are investigated.

These analyses met the requirements of the NELAC Standard. Any deviations from the requirements of the reference method and/or the NELAC Standard have been previously noted in this narrative. The results presented in this report are representative of the samples as provided to the laboratory.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc. data reports, unless specifically noted otherwise.

- The acronym ***MDL*** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym ***LOQ*** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym ***ND*** following a value indicates a non-detect or analytical result below the MDL.
- The letter ***J*** following a value indicates an analytical result between the MDL and the LOQ. A J flag indicates that the laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter ***E*** following a value indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- The acronym ***DF*** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of ***MS*** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. This shows what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).
- The addition of ***MSD*** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as an MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of ***LD*** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of ***AD*** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.
- The Sample ID ***LCS*** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two extra spikes are prepared. The extras (randomly chosen) are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection and/or sample transport.

General Reporting Notes

(continued)

- **Significant Figures**: Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits.
- **Manual Integration**: The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations. The peak was ***not integrated*** by the software **"NI"**, the peak was ***integrated incorrectly*** by the software **"II"** or the ***wrong peak*** was integrated by the software **"WP"**. These codes will accompany the analyst's manual integration stamp placed next to the compound name.

Sample Custody

(1)

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter <2.5 µm from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M201A/202-NR	Nozzle Rinse	6/24/11 1324	X					27	
CHV-Stk-ICR2-M201A/202-FPM DNR LMC 7/5/11	Filter for Filterable PM		X					13	Rec'd 7/7 ADR for LMC
CHV-Stk-ICR2-M201A/202-CPM DNR LMC 7/5/11	Filter for Condensable PM			X				13	Rec'd 7/7 ADR for LMC
CHV-Stk-ICR2-M201A/202-CondA DNR LMC 7/5/11	Condensate - Bottle A			X				31	Rec'd 7/6 ADR for LMC
CHV-Stk-ICR2-M201A/202-CondB	Condensate - Bottle B								
CHV-Stk-ICR2-M201A/202-BHRns- DNR LMC 7/5/11	Back Half Rinse - Water			X				31	Rec'd 7/6 ADR for LMC
CHV-Stk-ICR2-M201A/202-BHRns-	Back Half Rinse - Acetone			X				21	
CHV-Stk-ICR2-M201A/202-BHRns-	Back Half Rinse - Hexane			X				30	

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	12:15 pm						25.9

Reptek Cam # 1

Seal #	Condition
	Good

Remarks:

(2)

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter
<2.5 µm from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M201A/202-NR	Nozzle Rinse	6/24/11 1932	X					27	FCCU
CHV-Stk-ICR3-M201A/202-FPM DNR LMC 7/5/11	Filter for Filterable PM		X					13	sent to Chevron after analysis - see addl. COC Rec'd 7/6 7/7
CHV-Stk-ICR3-M201A/202-CPM DNR LMC 7/5/11	Filter for Condensable PM			X				13	Rec'd 7/7
CHV-Stk-ICR3-M201A/202-CondA DNR LMC 7/5/11	Condensate - Bottle A			X				31	Rec'd 7/6
CHV-Stk-ICR3-M201A/202-CondB	Condensate - Bottle B			X					
CHV-Stk-ICR3-M201A/202-BHRns- DNR LMC 7/5/11	Back Half Rinse - Water			X				31	Rec'd 7/6
CHV-Stk-ICR3-M201A/202-BHRns-	Back Half Rinse - Acetone			X				21	
CHV-Stk-ICR3-M201A/202-BHRns-	Back Half Rinse - Hexane			X				30	
~~CHV-B6-MX->PM10~~	~~1st cyclone~~ Acetone	6/27/11 2342	X					32	Boiler 6
CHV-B6-MX-<PM10	acetone Front-half		X					32	
CHV-B6-MX-<PM2.5	acetone Front-half		X					32	
~~CHV-B6-MX-~~ FILT<CON DNR LMC 7/5/11	condensable Filter			X				13	Boiler 6 Rec'd 7/7

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	11:40am						25.4

Seal # | Condition: Good

Remarks

Rec'd by CHV-Stk-ICR3-M201A/202-FPM

ADL for LMC

(3)

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter <2.5 µm from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR4-M201A/202-NR	Nozzle Rinse	6/26/11 1740	X					27	FCCU
CHV-Stk-ICR4-M201A/202-FPM DNR LMC 7/5/11	Filter for Filterable PM		X					13	sent to Chevron Rec'd after analysis - 7/7 see addl. COC
CHV-Stk-ICR4-M201A/202-CPM DNR LMC 7/5/11	Filter for Condensable PM			X				13	Rec'd 7/7 JBL for LMC
CHV-Stk-ICR4-M201A/202-CondA DNR LMC 7/5/11	Condensate - Bottle A			X				31	Rec'd 7/6 JBL for LMC
CHV-Stk-ICR4-M201A/202-CondB	Condensate - Bottle B			X					
CHV-Stk-ICR4-M201A/202-BHRns-	Back Half Rinse - Water			X					
CHV-Stk-ICR4-M201A/202-BHRns-	Back Half Rinse - Acetone			X				21	
CHV-Stk-ICR4-M201A/202-BHRns-	Back Half Rinse - Hexane			X				30	
CHV-BS-MX-PM10	Acetone 1st cyclone	6/27/11 1833	X					32	Boiler 5
CHV-BS-MX-<PM10	Acetone front half		X					32	
CHV-BS-MX-<PM2.5	Acetone front half		X					32	

0711-41

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)	
[signature]	7/5/11	11:17						25.4	Reyfek Gun #1

Seal #	Condition
	Good

Remarks

(4)

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter <2.5 µm from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M201A/202-NR	Nozzle Rinse	6/29/11 1720	X					27	
CHV-Stk-ICRFB-M201A/202-FPM DNR LMC 7/5/11	Filter for Filterable PM		X					13	
CHV-Stk-ICRFB-M201A/202-CPM DNR LMC 7/5/11	Filter for Condensable PM			X				13	
~~CHV-Stk-ICRFB-M201A/202-Cond~~	~~Condensate~~			~~X~~				~~31~~	
CHV-Stk-ICRFB-M201A/202-BHRns-	Back Half Rinse - Water			X				30	
CHV-Stk-ICRFB-M201A/202-BHRns-	Back Half Rinse - Acetone			X				27	
CHV-Stk-ICRFB-M201A/202-BHRns-	Back Half Rinse - Hexane			X				30	
~~CHV-BS-MX-COND~~	condensate & H_2O rinse	6/27/11 1833		X				31	BS Boiler Rec'd 7/6
CHV-B6-MX-COND DNR LMC 7/5/11	condensate & H_2O rinse	6/27/11 2342		X				31	B6 Boiler 202 for LMC
CHV-BS-MX-FILT DNR LMC 7/5/11	In-Stack Filter	6/27/11 1833	X					13	BS Boiler
CHV-B6-MX-FILT DNR LMC 7/5/11	In-Stack Filter	6/27/11 2342	X					13	B6 Boiler Rec'd 7/7
CHV-BS-MX-FILT-COND DNR LMC 7/5/11	condensable filter	6/27/11 1833		X				13	BS Boiler 202 for LMC

7/11-7

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	11:44am						25.4 Raytek Gun #1

Seal #	Condition
	Good

Remarks

(5)

URS

Chain of Custody Record

Filterable and Condensable PM from Method 201A/202

~~Samples from Anions Sampling trains~~

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	HCl, Cl2 and HF by [illegible]	Gravimetric EPA Method 29A	Gravimetric EPA Method 202	Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR - M26A-AcidImp	Sulfuric Acid Impinger Catch								
CHV-Stk-ICR - M26A-AlkImp	Sodium Hydroxide Impinger Catch								
CHV-BS-Gas-COND	H_2O	6/30/11 1032			X				Condensate; H_2O Rinse
CHV-BS-Fa-COND	H_2O	6/30/11 1507			X				
CHV-STK-ICRFB-M201A/202-FPM-Flt	Filter	6/29/11 1720		X	X				Field Blank
CHV-STK-ICRFB-M201A/202-FPM-Flt	Filter	6/29/11 1720							Field Blank ID-3223
CHV-BS-Fa-Flt	Instack Filter	6/30/11 1507							ID-3225
CHV-BS-Gas-Flt	Filter	6/30/11 1032		07/11-41					ID-3053

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	1330	7-1-11						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	7/8/11	8:33 pm						23.4° Rayter Gun #1

Seal #	Condition
	Good

Remarks

(6)

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter <2.5 µm from Sampling Trains

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M201A/202-FPM DNR LMC 7/5/11	Filter for Filterable PM	6/26/11 1300	X					13	FCCU Rec'd 7/7
CHV-Stk-ICRRB-M201A/202-CPM DNR LMC 7/5/11	Filter for Condensable PM	↓		X				13	Rec'd 7/7 Aff for LMC
CHV-Stk-ICRRB-M201A/202-Ace	Acetone	6/26/11 1000		X				21	
CHV-Stk-ICRRB-M201A/202-Water DNR LMC 7/5/11	Water	↓		X				31	Rec'd 7/6 Aff for LMC
CHV-Stk-ICRRB-M201A/202-MeCl	Methylene Chloride								
CHV-Stk-ICRRB-M201A/202-Hex	Hexane	6/26/11 1600		X				30	
CHV-Stk-ICRPB-M201A/202-WTR	water proof blank DNR LMC 7/5/11	6/23/11 1200		X				31	Rec'd 7/6 Aff For LMC
CHV-Stk-ICRPB-M201A/202-Ace	acetone proof blank	↓		X				21	
CHV-Stk-ICRPB-M201A/202-Hex	hexane proof blank	↓		X				30	
~~CHV-BS-MX-Ace~~	acetone rinse back-half	6/27/11 1833		X				27	BS Boiler - Mix Fuel
CHV-BS-MX-HEX	Hexane back-half	↓		X				30	BS Boiler - Mix Fuel
~~CHV-B6-MX-HEX~~	Hexane back-half	6/27/11 2342		X				30	B6 Boiler - Mix Fuel

12-1140

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	11:47						25.4 Raytek Gun #1

Seal #	Condition
	Good

Remarks

(7)

URS

Chain of Custody Record

Samples from Anions Sampling trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	HCl, Cl2, and HF by HPLC/Ion Chromatography			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M26A-AcdImp	Sulfuric Acid Impinger Catch	6/22/11 1600	X						
CHV-Stk-ICR1-M26A-AlkImp	Sodium Hydroxide Impinger Catch	6/22/11 1600	X						
CHV-Stk-ICR2-M26A-AcdImp	Sulfuric Acid Impinger Catch	6/22/11 1902	X						
CHV-Stk-ICR2-M26A-AlkImp	Sodium Hydroxide Impinger Catch	6/22/11 1902	X						
CHV-Stk-ICR3-M26A-AcdImp	Sulfuric Acid Impinger Catch								
CHV-Stk-ICR3-M26A-AlkImp	Sodium Hydroxide Impinger Catch								
CHV-Stk-ICRFB-M26A-AcdImp	Sulfuric Acid Impinger Catch								
CHV-Stk-ICRFB-M26A-AlkImp	Sodium Hydroxide Impinger Catch								

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Meagan Dobbs	6/23/11	1200						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
Liz M Cox	6/30/11	12:05 pm						24.7C

Seal #	Condition

Remarks: Raytek gun 1

(8)

URS

Chain of Custody Record

Samples from Anions Sampling trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	HCl, Cl2, and HF by HPLC/Ion Chromatography			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M26A-AcdImp	Sulfuric Acid Impinger Catch	6/23/11 1205	X					36	
CHV-Stk-ICR3-M26A-AlkImp	Sodium Hydroxide Impinger Catch	↓	X					35	
CHV-Stk-ICRFB-M26A-AcdImp	Sulfuric Acid Impinger Catch	6/23/11 1220	X					36	
CHV-Stk-ICRFB-M26A-AlkImp	Sodium Hydroxide Impinger Catch	↓	X					35	
CHV-Stk-ICRRB-M26A-Water	Water	6/26/11 1730	X					36	
CHV-Stk-ICRRB-M26A-NaOH Soln	Sodium Hydroxide Solution	↓	X					35	
CHV-Stk-ICRRB-M26A-H2SO4 Soln	Sulfuric Acid Solution	↓	X					36	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	1250						21.5°C

Seal #	Condition
	Good

Remarks:

(9)

URS

Chain of Custody Record

Aldehydes from M0011 Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Aldehydes and Ketones by HPLC - SW-846 Method 8315A			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRMS M0011-Imp/RnsA	Comb Impinger Catch and Rinses A	6/28/11 1904	X			X	X	19	matrix spike run
CHV-Stk-ICR - M0011-Imp/RnsB	Comb Impinger Catch and Rinses B								
CHV-Stk-ICR1- M0011-Imp/RnsA	Comb Impinger Catch and Rinses A	6/28/11 1902	X			X		19	
CHV-Stk-ICR1- M0011-Imp/RnsB	Comb Impinger Catch and Rinses B								
CHV-Stk-ICR2- M0011-Imp/RnsA	Comb Impinger Catch and Rinses A	6/29/11 1057	X			X		22	
CHV-Stk-ICR2- M0011-Imp/RnsB	Comb Impinger Catch and Rinses B								
CHV-Stk-ICR3- M0011-Imp/RnsA	Comb Impinger Catch and Rinses A	6/29/11 1526	X			X		22	
CHV-Stk-ICR3- M0011-Imp/RnsB	Comb Impinger Catch and Rinses B								
CHV-Stk-ICRFB- M0011-Imp/Rns	Comb Impinger Catch and Rinses	6/29/11 1730	X			X		19	
CHV-Stk-ICRFS- M0011-Field Spike	Field Spike	6/29/11 1800	X			X		22	
CHV-Stk-ICRRB- M0011-DNPH	DNPH derivatizing agent	6/29/11 1810	X			X		19	
CHV-Stk-ICRRB- M0011-MeCl	Methylene Chloride								

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11							
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	11:46 AM						25.9 (Raytek Gun #1)

Seal #	Condition
	Good

Remarks:

Sample Chromatograms

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\014-1501.D
Sample Name: ~~Run 1~~ *10 ~~Acid~~ 0611-24

CHV-Stk ICR1-M26A-AcdImp

```
======================================================================
Acq. Operator   : EO                                Seq. Line :  15
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 8:20:08 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
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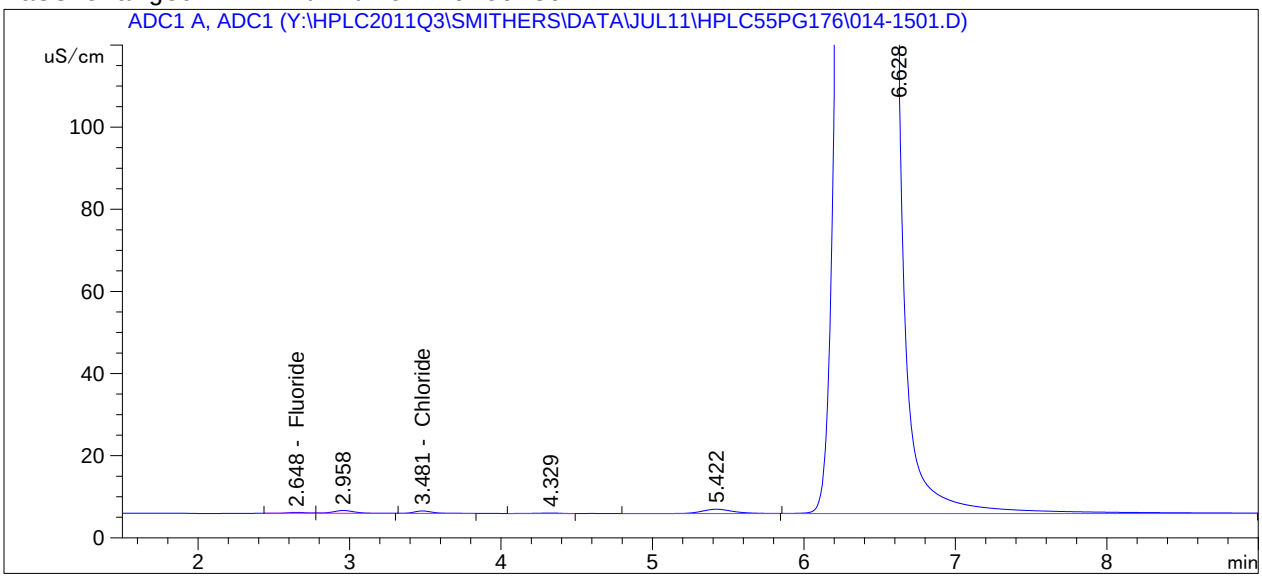


```
======================================================================
                      External Standard Report
======================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.648 BV        2.00095 1.58836e-2 3.17823e-2    Fluoride
  3.481 BB        4.76350 2.88356e-2 1.37359e-1    Chloride

Totals :                              1.69141e-1


======================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\014-1502.D
Sample Name: ~~Run 1~~ *10 ~~Acid~~ 0611-24 CHV-Stk ICR1-M26A-AcdImp

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  15
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 8:31:24 PM                     Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
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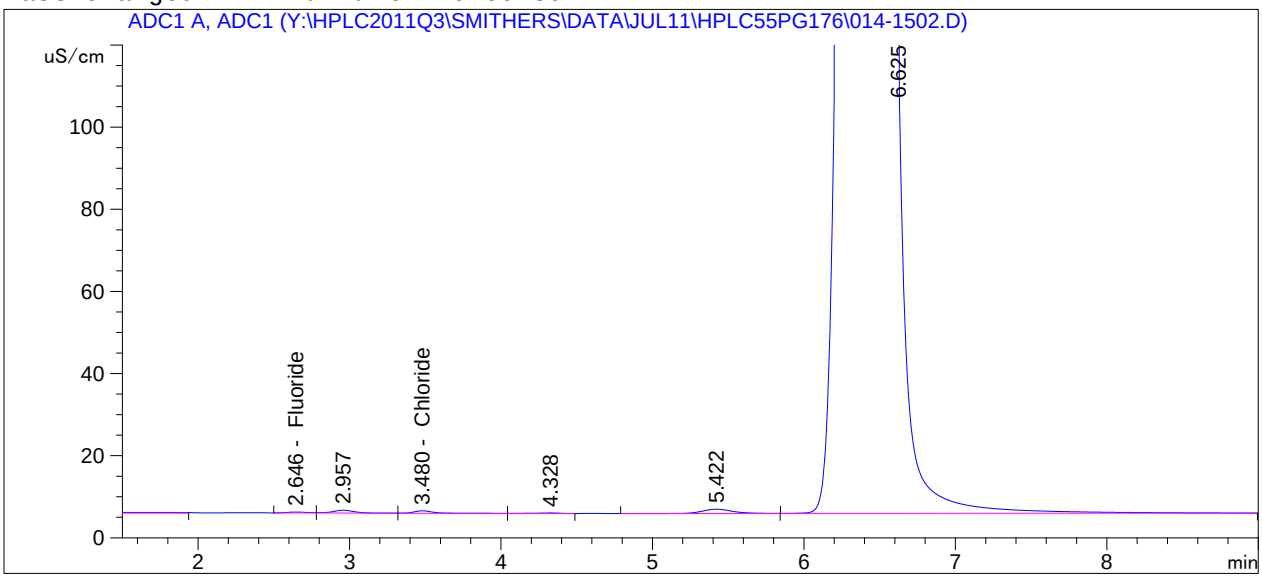
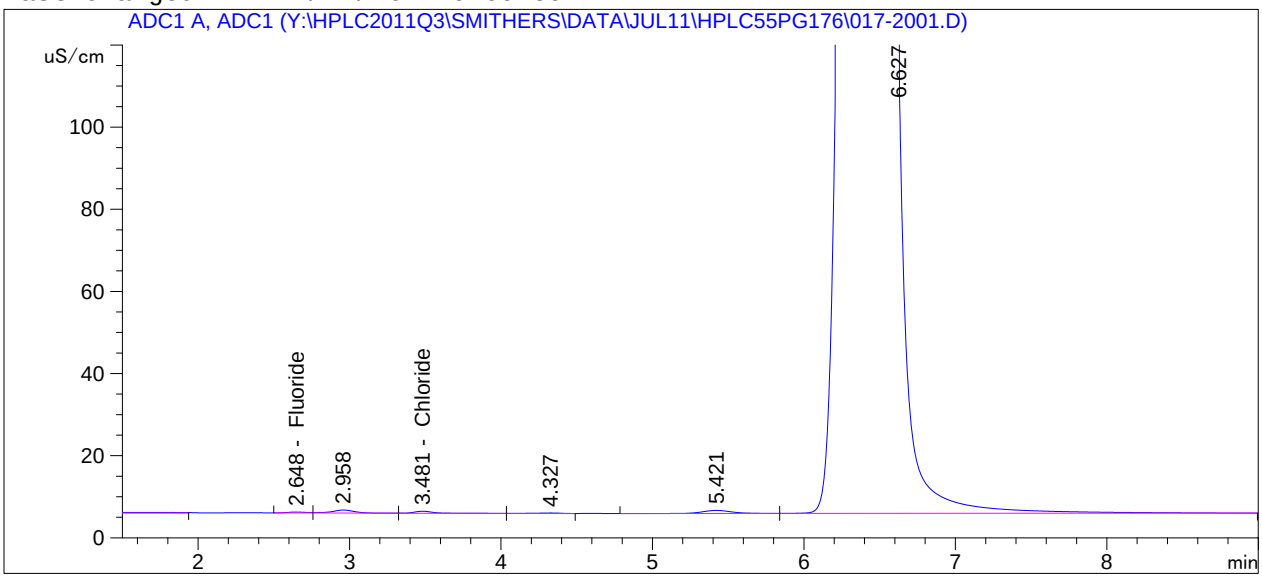



```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.646 BV        1.87298 1.58836e-2 2.97497e-2    Fluoride
  3.480 VV        5.30906 2.88356e-2 1.53090e-1    Chloride

Totals :                              1.82840e-1


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\017-2001.D
Sample Name: ~~Run 2~~ *10 ~~Acid~~ 0611-24 CHV-Stk ICR2-M26A-AcdImp

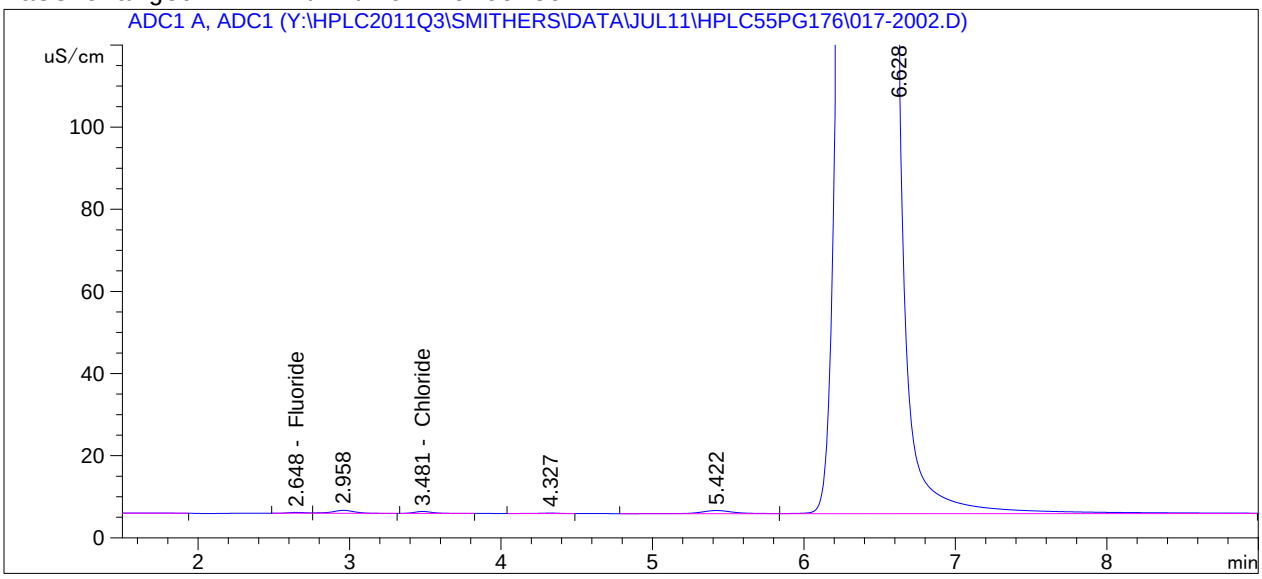
```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  20
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 10:12:50 PM                 Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.648 BV        1.82178 1.58836e-2 2.89365e-2    Fluoride
  3.481 VV        4.45353 2.88356e-2 1.28420e-1    Chloride

Totals :                              1.57357e-1


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\017-2002.D
Sample Name: ~~Run 2~~ *10 ~~Acid~~ 0611-24 CHV-Stk ICR2-M26A-AcdImp

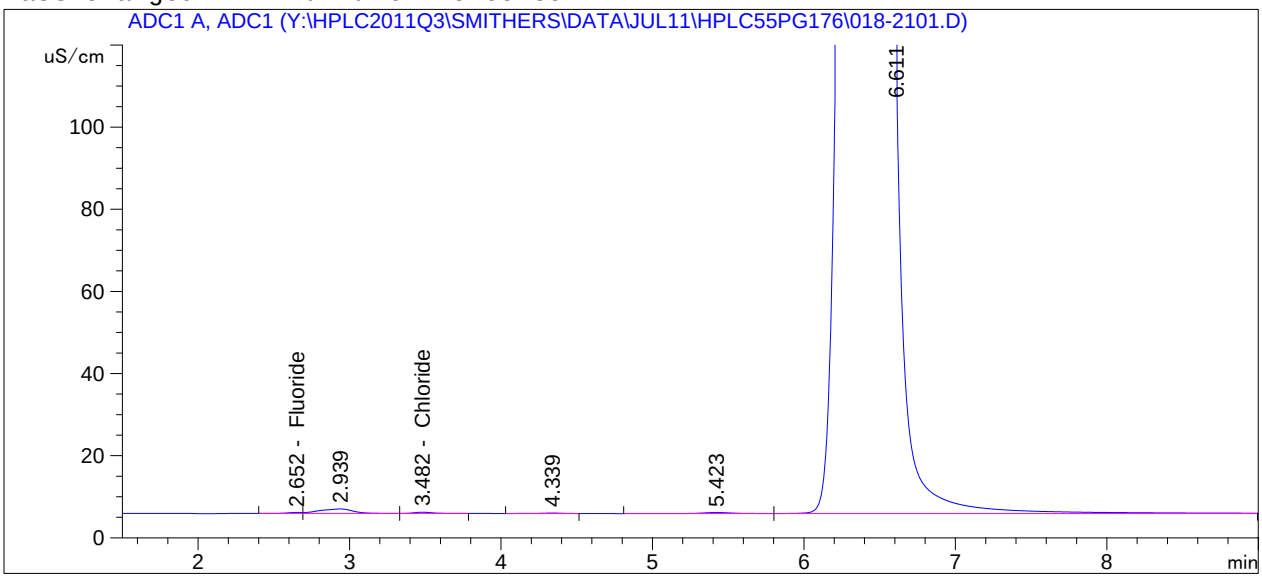
```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  20
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 10:24:06 PM                 Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.648 BV        1.78910 1.58836e-2 2.84173e-2    Fluoride
  3.481 BB        3.78759 2.88356e-2 1.09218e-1    Chloride

Totals :                              1.37635e-1


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\018-2101.D
Sample Name: ~~Run 3~~ *10 ~~Acid~~ 0611-24 CHV-Stk ICR3-M26A-AcdImp

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  21
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 10:35:22 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```

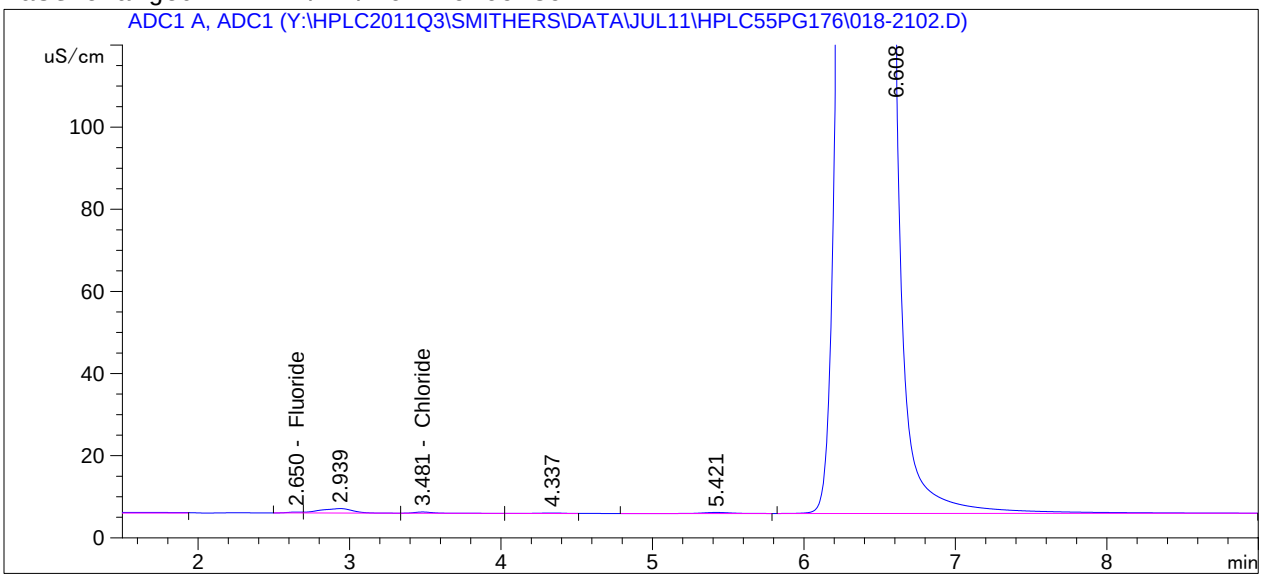



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.652 BV        1.47996 1.58836e-2 2.35071e-2    Fluoride
  3.482 VB        2.46999 2.88356e-2 7.12237e-2    Chloride

Totals :                              9.47308e-2


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\018-2102.D
Sample Name: ~~Run 3~~ *10 ~~Acid~~ 0611-24

CHV-Stk ICR3-M26A-AcdImp

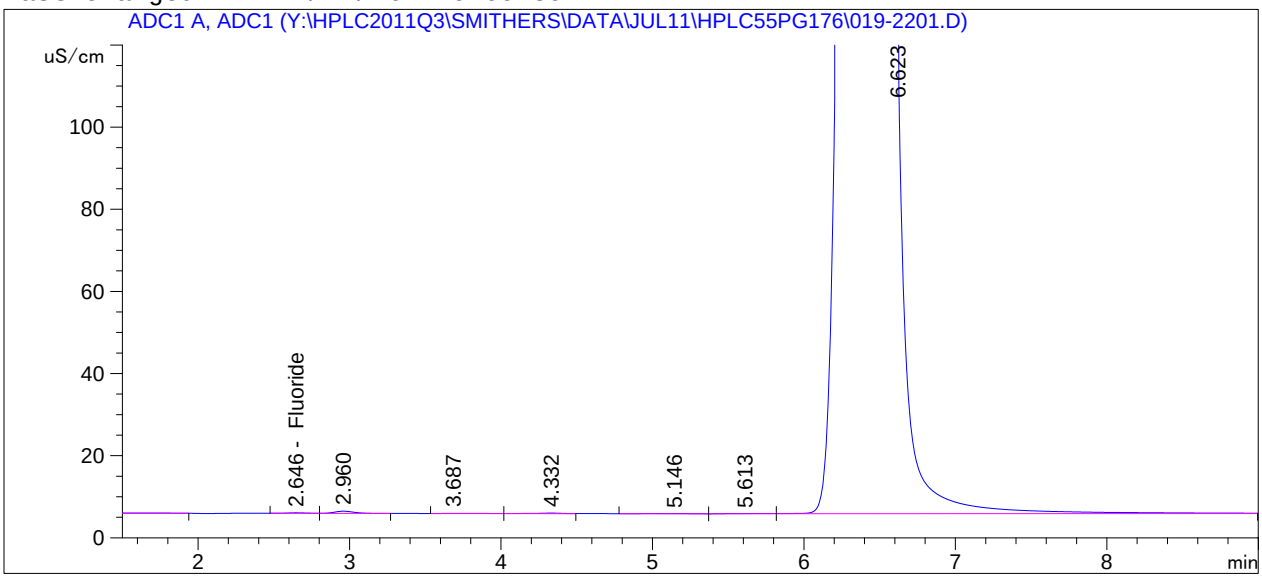
```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  21
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 10:46:39 PM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.650 BV        1.42209 1.58836e-2 2.25879e-2    Fluoride
  3.481 BB        2.67906 2.88356e-2 7.72525e-2    Chloride

Totals :                              9.98404e-2


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\019-2201.D
Sample Name: ~~H2SO4 FB~~ *10 0611-24 CHV-Stk ICRFB-M26A-AcdImp

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  22
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 10:57:55 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```

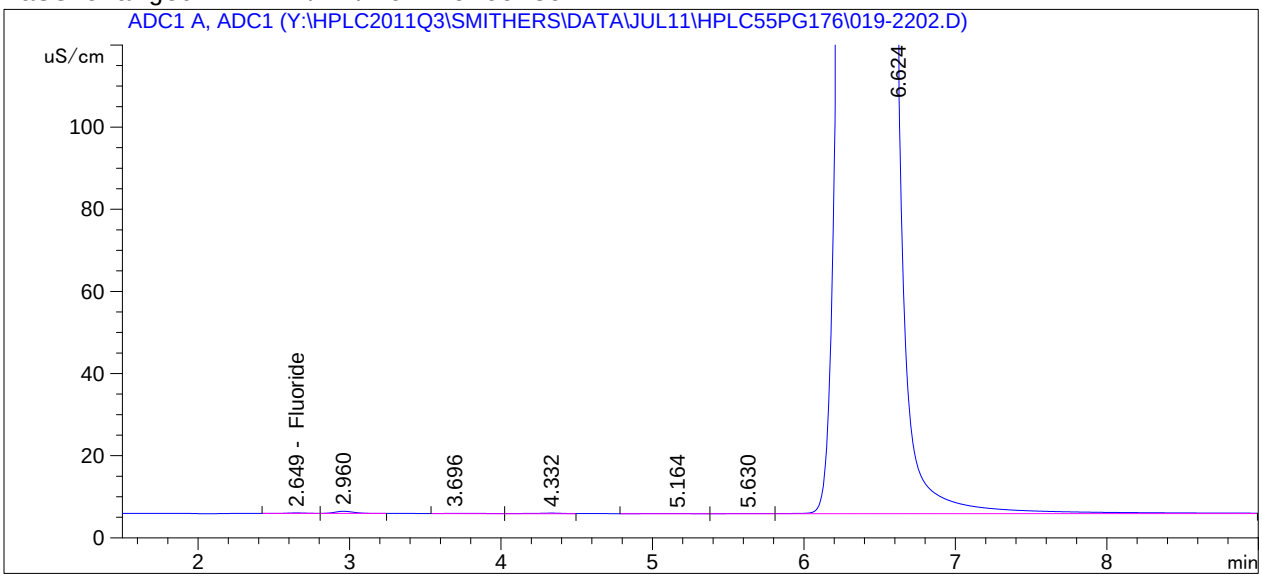



```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.646 BV        1.02734 1.58836e-2 1.63178e-2    Fluoride
  3.479            -          -          -         Chloride

Totals :                              1.63178e-2


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\019-2202.D
Sample Name: ~~H2SO4 FB~~ *10 0611-24

CHV-Stk ICRFB-M26A-AcdImp

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  22
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 11:09:11 PM                  Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.649 BV        1.06396 1.58836e-2 1.68995e-2    Fluoride
  3.479            -          -          -         Chloride

Totals :                              1.68995e-2


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
                           *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\020-2301.D
Sample Name: ~~H2SO4 RB~~ *10 0611-24

CHV-Stk ICRRB-M26A-H2SO4 Soln

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  23
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 11:20:28 PM                  Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
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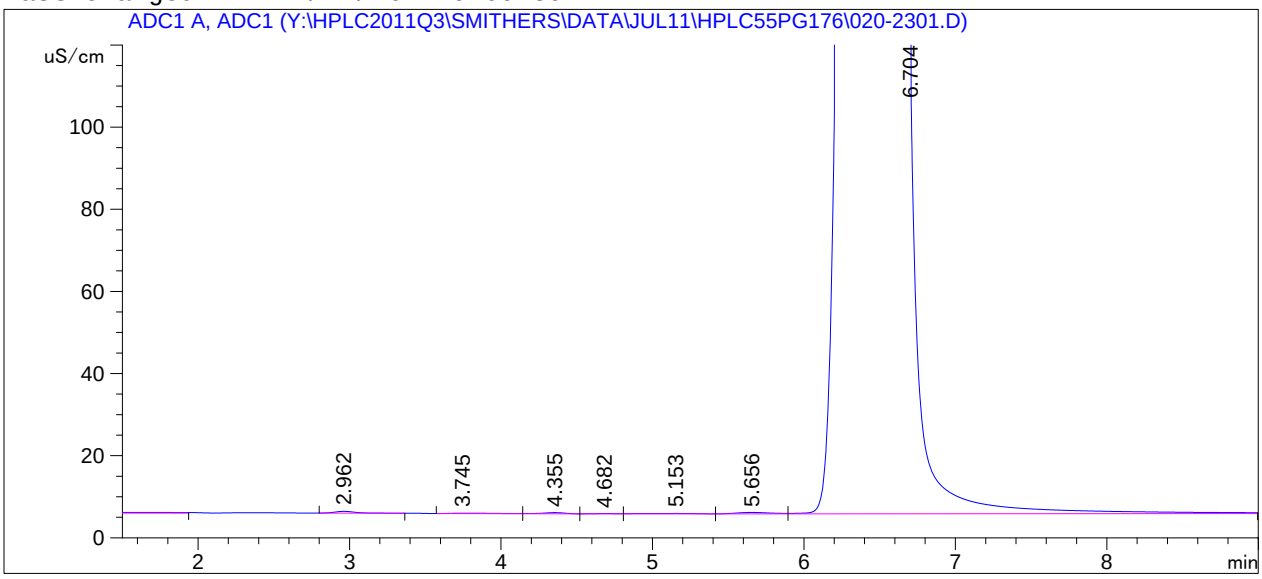


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.658            -          -          -         Fluoride
  3.479            -          -          -         Chloride

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\020-2302.D
Sample Name: ~~H2SO4 RB~~ *10 0611-24

CHV-Stk ICRRB-M26A-H2SO4 Soln

```
==========================================================================
Acq. Operator   : EO                              Seq. Line :  23
Acq. Instrument : Smithers                         Location :   -
Injection Date  : 7/11/2011 11:31:43 PM                Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
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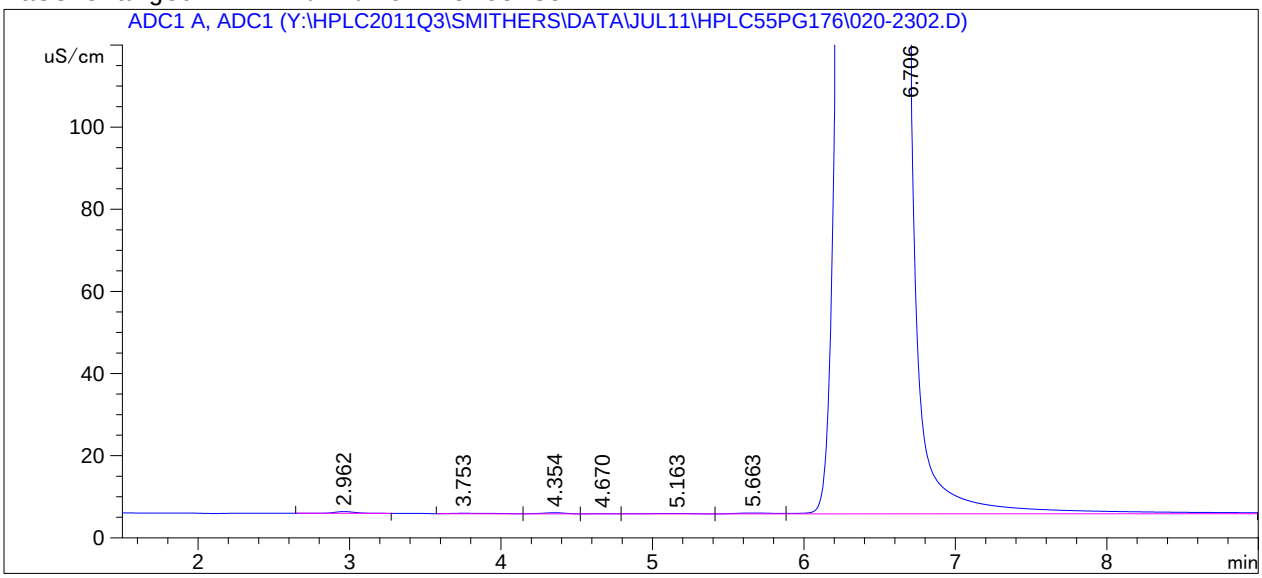


```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.658            -          -          -         Fluoride
  3.479            -          -          -         Chloride

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\021-2401.D
Sample Name: ~~DI H2O RB~~ 0611-24

CHV-Stk ICRRB-M26A-Water

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  24
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 11:42:59 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
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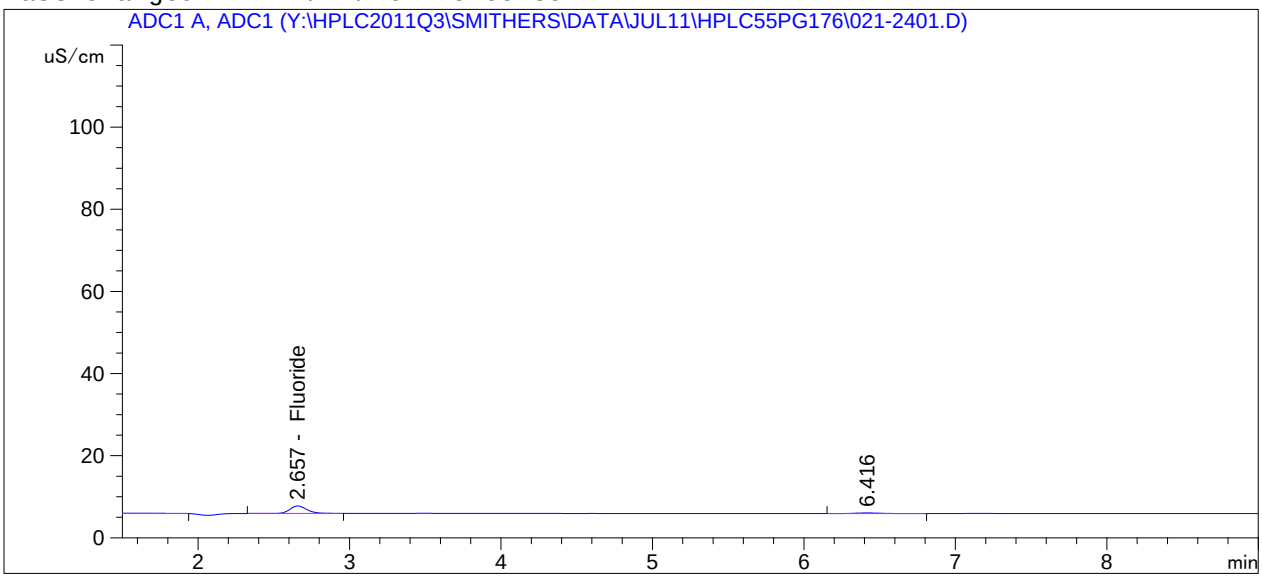



```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.657 BB       14.04479 1.59555e-2 2.24091e-1    Fluoride
  3.479            -          -          -         Chloride

Totals :                              2.24091e-1


1 Warnings or Errors :

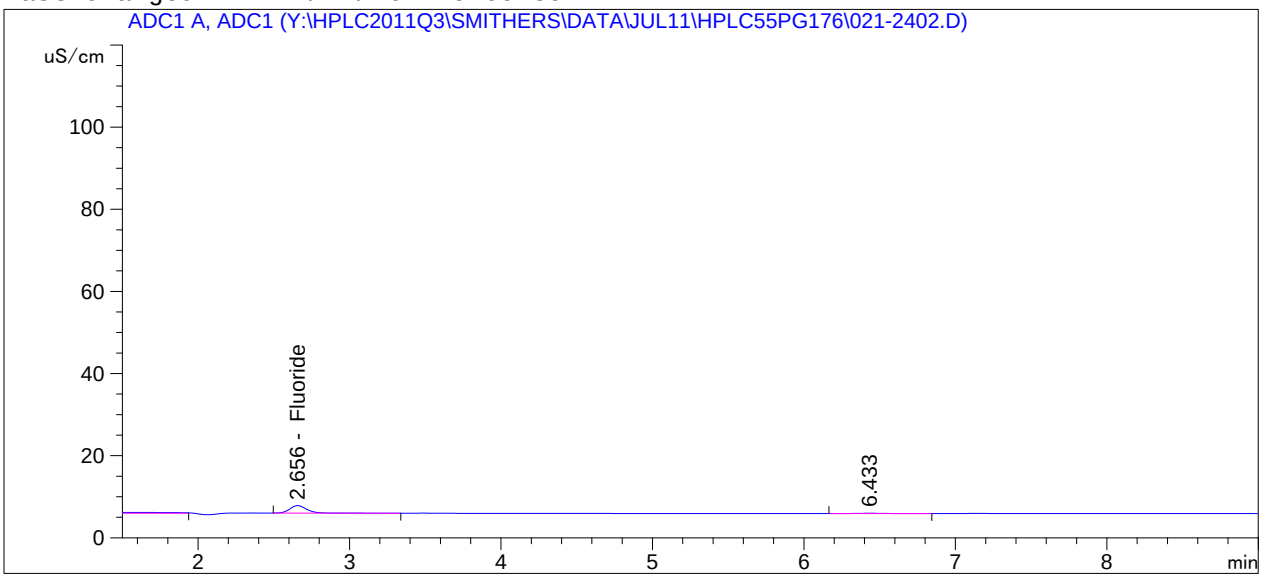
Warning : Calibrated compound(s) not found

==========================================================================
                           *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\021-2402.D
Sample Name: ~~DI H2O RB~~ 0611-24

CHV-Stk ICRRB-M26A-Water

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  24
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 11:54:15 PM                  Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.656 BB       13.86195 1.59473e-2 2.21060e-1    Fluoride
  3.479            -          -          -         Chloride

Totals :                              2.21060e-1

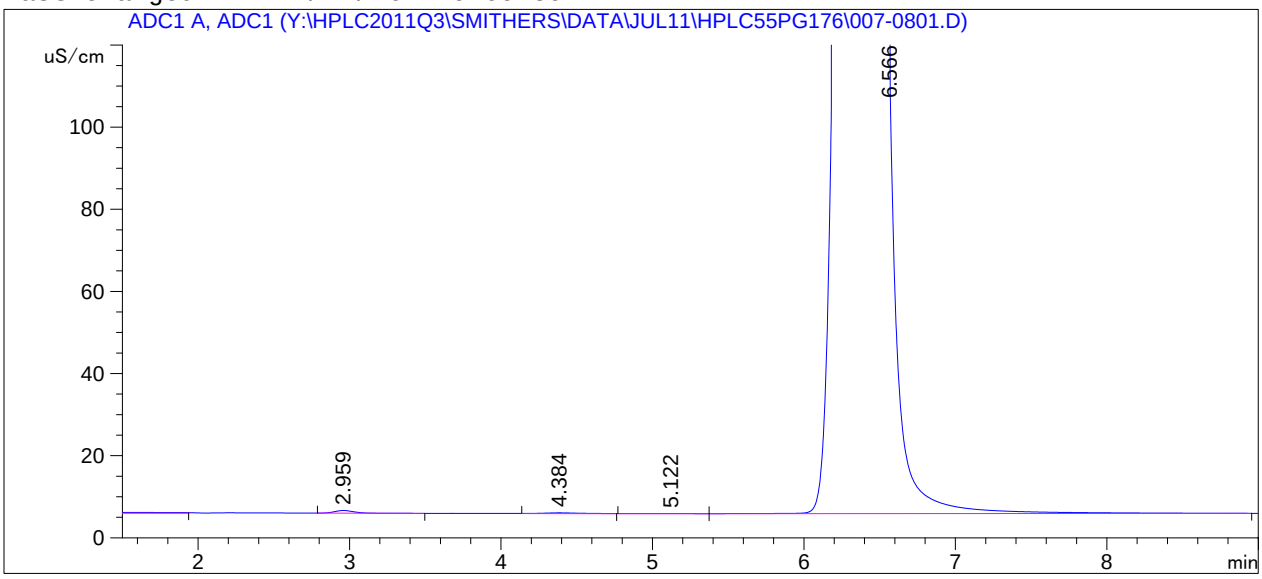

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
                           *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\007-0801.D
Sample Name: 0.01N H2SO4/NaOH RB

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :   8
Acq. Instrument : Smithers                          Location :   -
Injection Date  : 7/11/2011 5:42:21 PM                   Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.658            -          -          -         Fluoride
  3.479            -          -          -         Chloride

Totals :                                 0.00000


1 Warnings or Errors :

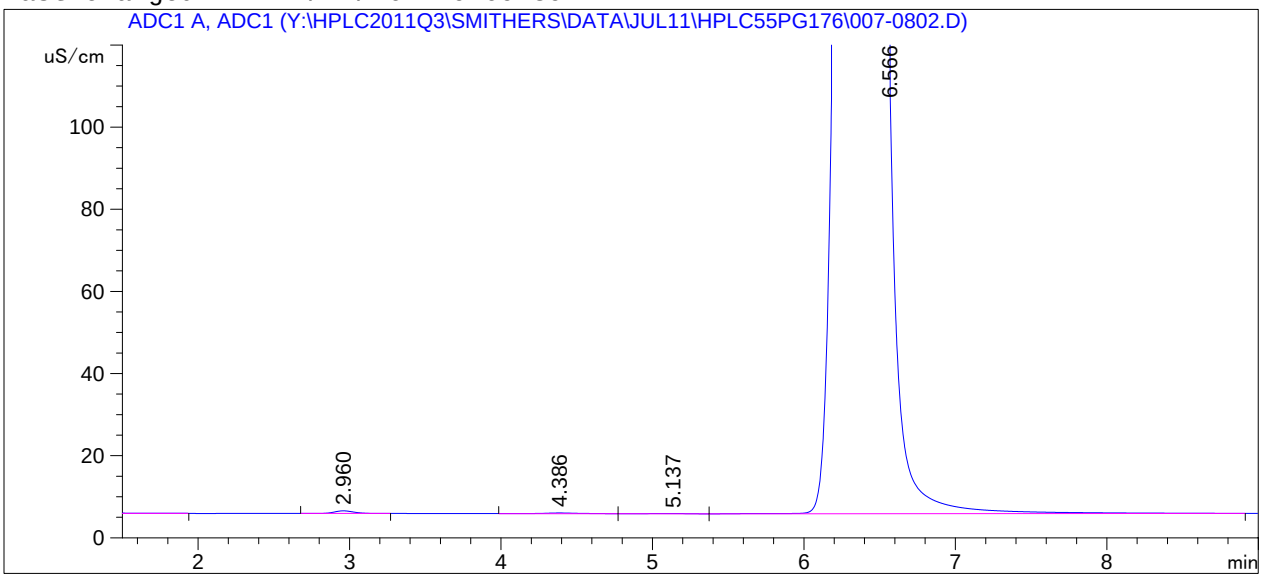
Warning : Calibrated compound(s) not found

==========================================================================
==========================================================================
                         Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\007-0802.D
Sample Name: 0.01N H2SO4/NaOH RB

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :   8
Acq. Instrument : Smithers                          Location :   -
Injection Date  : 7/11/2011 5:53:37 PM                   Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.658            -          -          -         Fluoride
  3.479            -          -          -         Chloride

Totals :                                0.00000


1 Warnings or Errors :

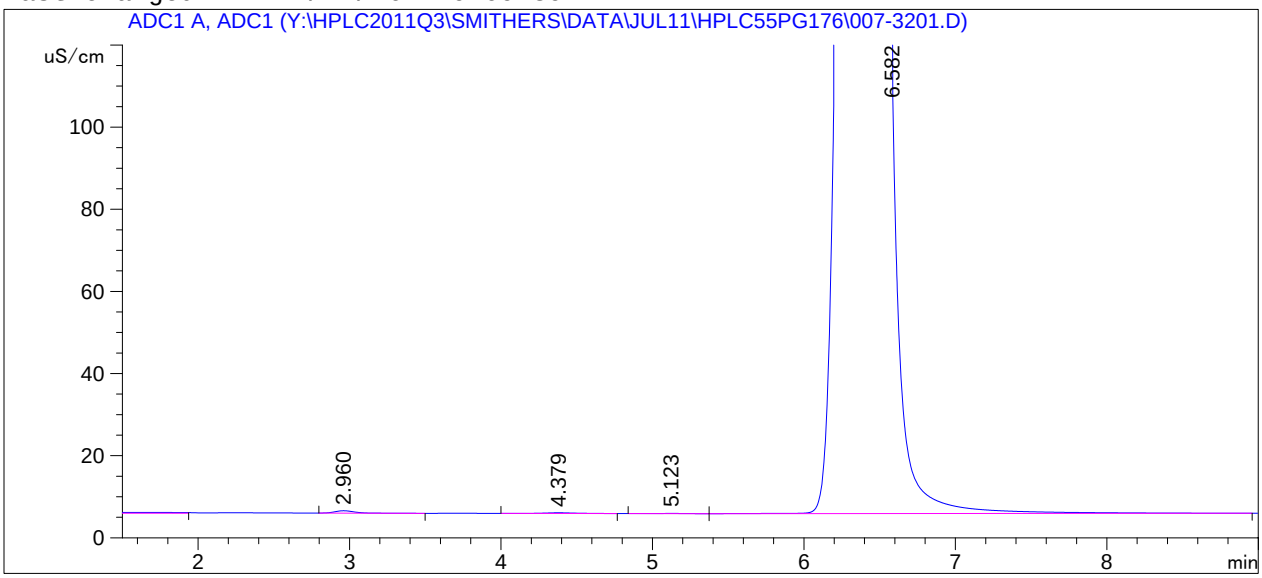
Warning : Calibrated compound(s) not found

==========================================================================
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\007-3201.D
Sample Name: 0.01N H2SO4/NaOH RB

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  32
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 3:27:32 AM                     Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.658            -          -          -         Fluoride
  3.479            -          -          -         Chloride

Totals :                                 0.00000


1 Warnings or Errors :

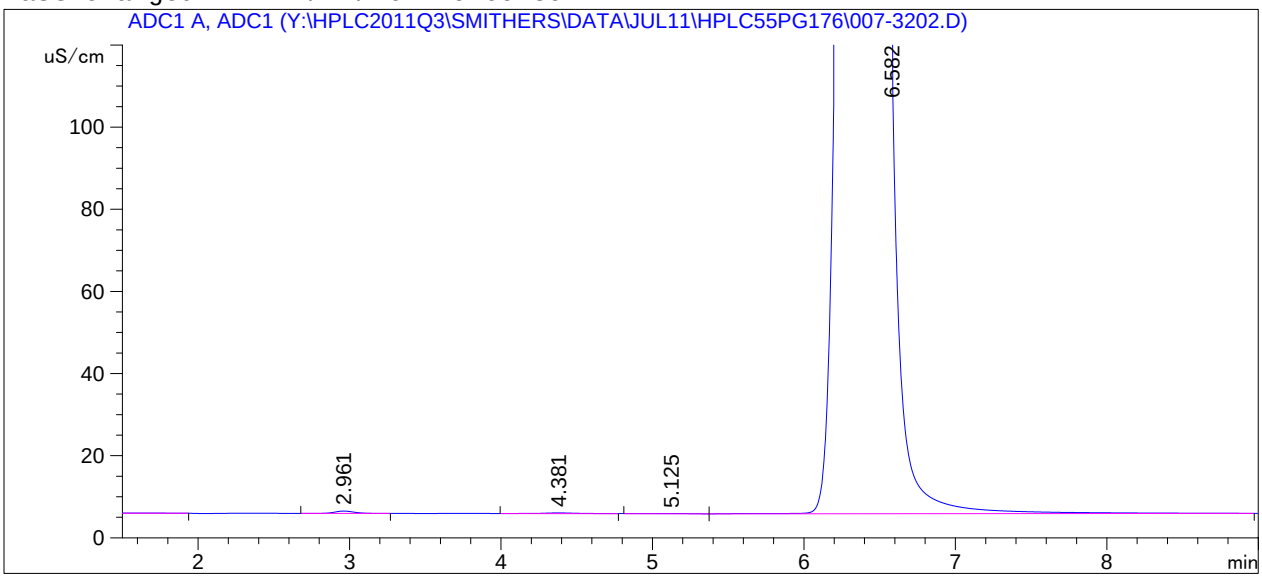
Warning : Calibrated compound(s) not found

==========================================================================
==========================================================================
                         Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\007-3202.D
Sample Name: 0.01N H2SO4/NaOH RB

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  32
Acq. Instrument : Smithers                          Location :   -
Injection Date  : 7/12/2011 3:38:49 AM                   Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.658            -          -          -         Fluoride
  3.479            -          -          -         Chloride

Totals :                                0.00000


1 Warnings or Errors :

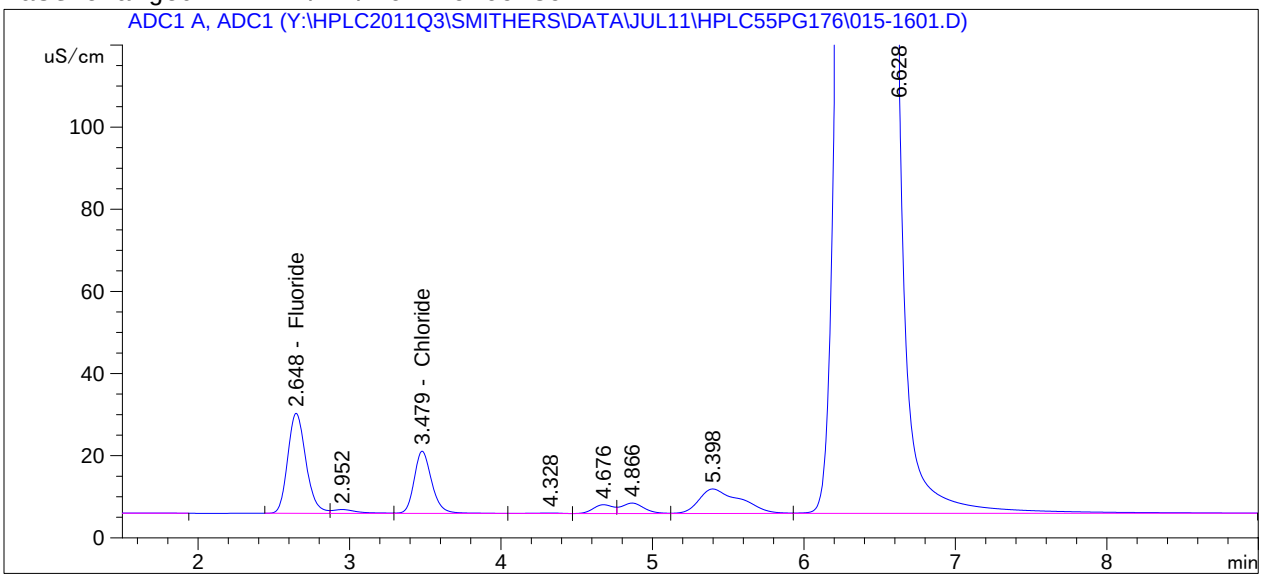
Warning : Calibrated compound(s) not found

==========================================================================
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\015-1601.D
Sample Name: MS ~~Run 1~~ *10 Acid 0611-24 CHV-Stk ICR1-M26A-AcdImp

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  16
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 8:42:40 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

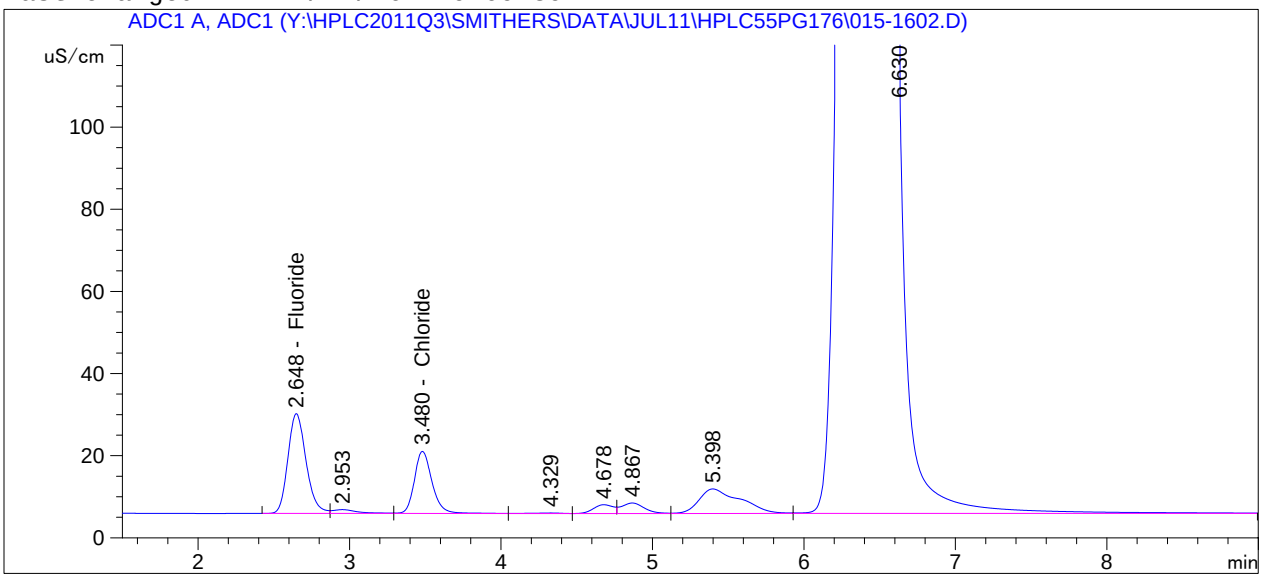
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.648 BV      203.24034 1.65351e-2    3.36060    Fluoride
  3.479 VV      122.06264 2.55890e-2    3.12346    Chloride

Totals :                                6.48406


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\015-1602.D
Sample Name: MS ~~Run 1~~ *10 Acid 0611-24 CHV-Stk ICR1-M26A-AcdImp

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  16
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 8:53:57 PM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

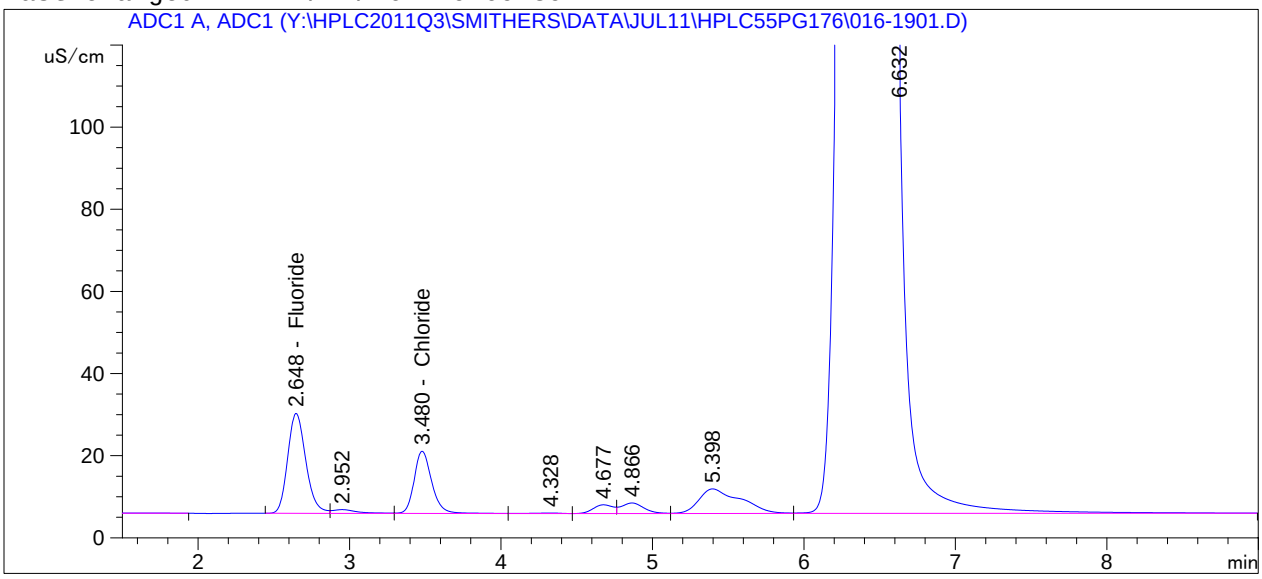
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.648 BV      202.45088 1.65349e-2    3.34751    Fluoride
  3.480 VV      122.26543 2.55887e-2    3.12861    Chloride

Totals :                                6.47612


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\016-1901.D
Sample Name: MSD Run 1 *10 Acid 0611-24 CHV-Stk ICR1-M26A-AcdImp

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  19
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 9:50:18 PM                   Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

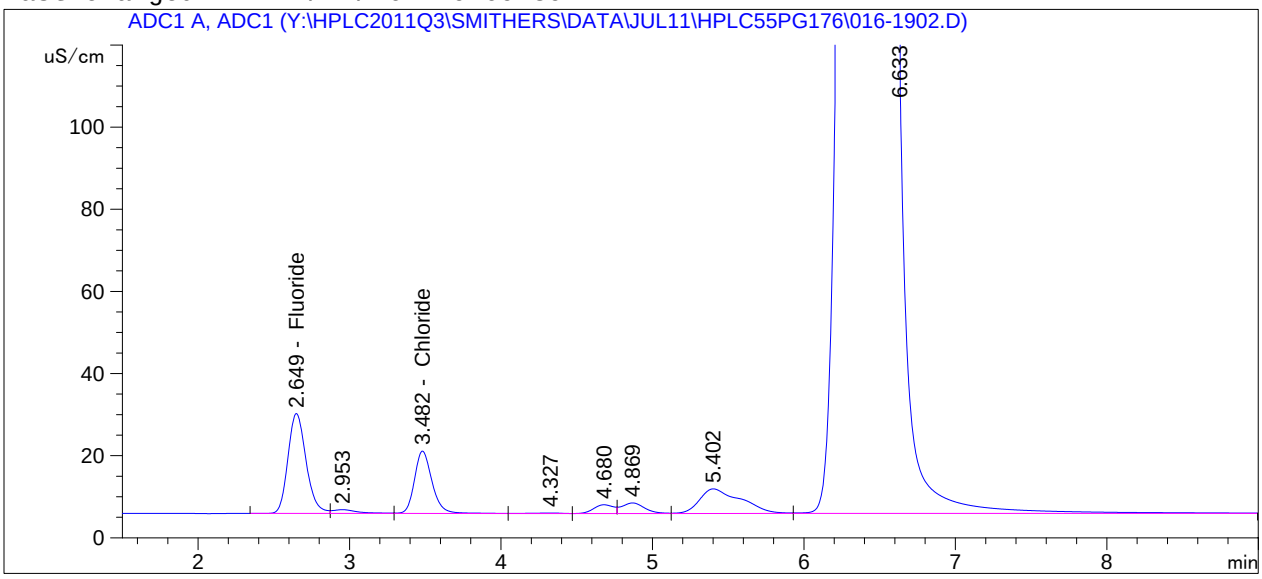
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.648 BV      202.73972 1.65350e-2    3.35230    Fluoride
  3.480 VV      122.07265 2.55890e-2    3.12371    Chloride

Totals :                                6.47601


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\016-1902.D
Sample Name: MSD Run 1 *10 Acid 0611-24 CHV-Stk ICR1-M26A-AcdImp

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  19
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 10:01:34 PM                  Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

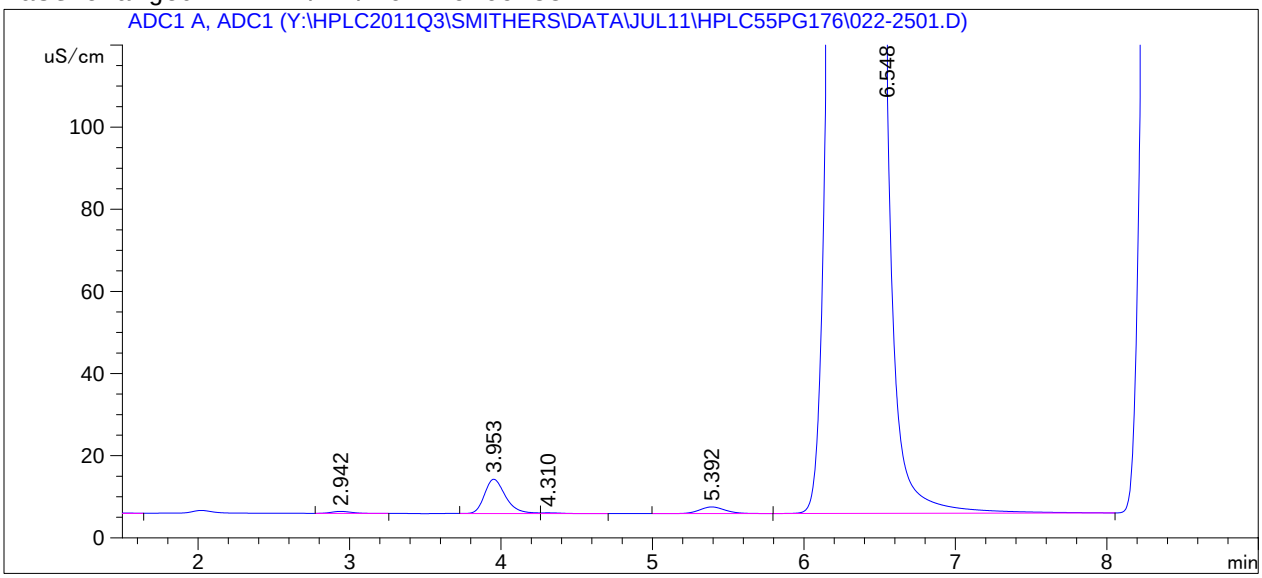
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.649 BV      202.60143 1.65349e-2    3.35000    Fluoride
  3.482 VV      122.46187 2.55883e-2    3.13360    Chloride

Totals :                                6.48360


==========================================================================
                          *** End of Report ***
```

CHV-Stk ICR1-M26A-Alkmp

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  25
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 12:05:33 AM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed    : 7/12/2011 9:09:55 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  3.479            -          -          -         Chloride

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

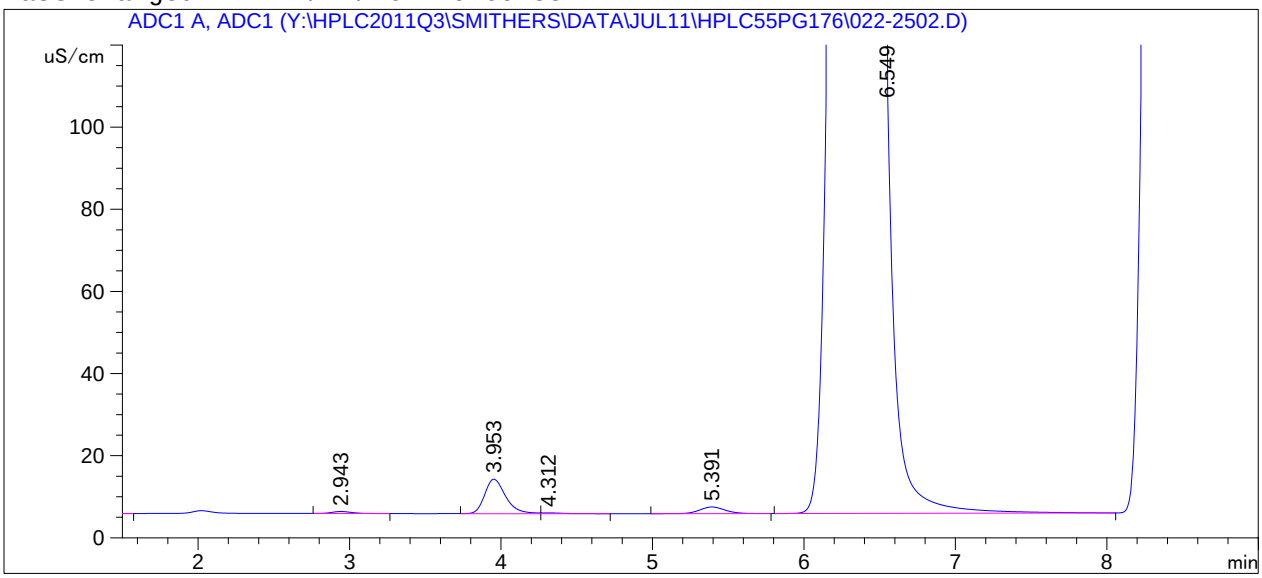
==========================================================================
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\022-2502.D
Sample Name: ~~Run 1~~ *10 ~~Base~~ 0611-24 CHV-Stk ICR1-M26A-Alkmp

==========

Acq. Operator : EO Seq. Line : 25
Acq. Instrument : Smithers Location : -
Injection Date : 7/12/2011 12:22:20 AM Inj : 2
Acq. Method : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed : 7/12/2011 9:09:55 AM



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External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS/cm*s]	Amt/Area	Amount [ug/mL]	Grp	Name
3.479		-	-	-		Chloride

Totals : 0.00000

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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Area Percent Report

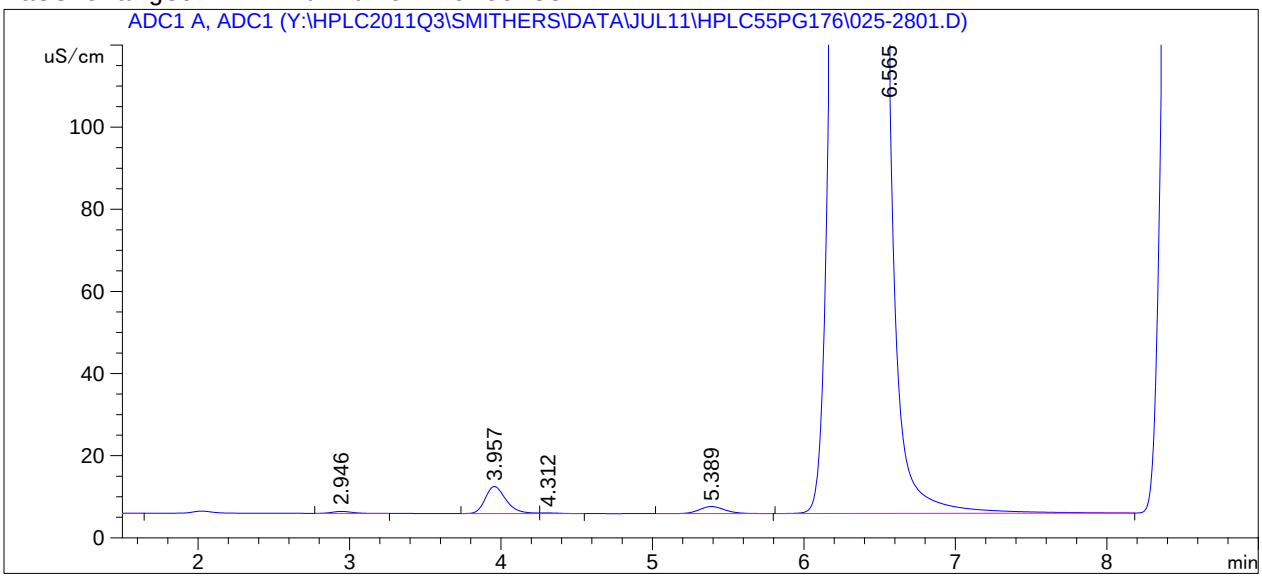
==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\025-2801.D
Sample Name: ~~Run 2~~ *10 ~~Base~~ 0611-24 CHV-Stk ICR2-M26A-Alkmp

==========

Acq. Operator : EO Seq. Line : 28
Acq. Instrument : Smithers Location : -
Injection Date : 7/12/2011 1:46:20 AM Inj : 1
Acq. Method : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed : 7/12/2011 9:09:55 AM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS/cm*s]	Amt/Area	Amount [ug/mL]	Grp	Name
3.479		-	-	-		Chloride

Totals : 0.00000

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

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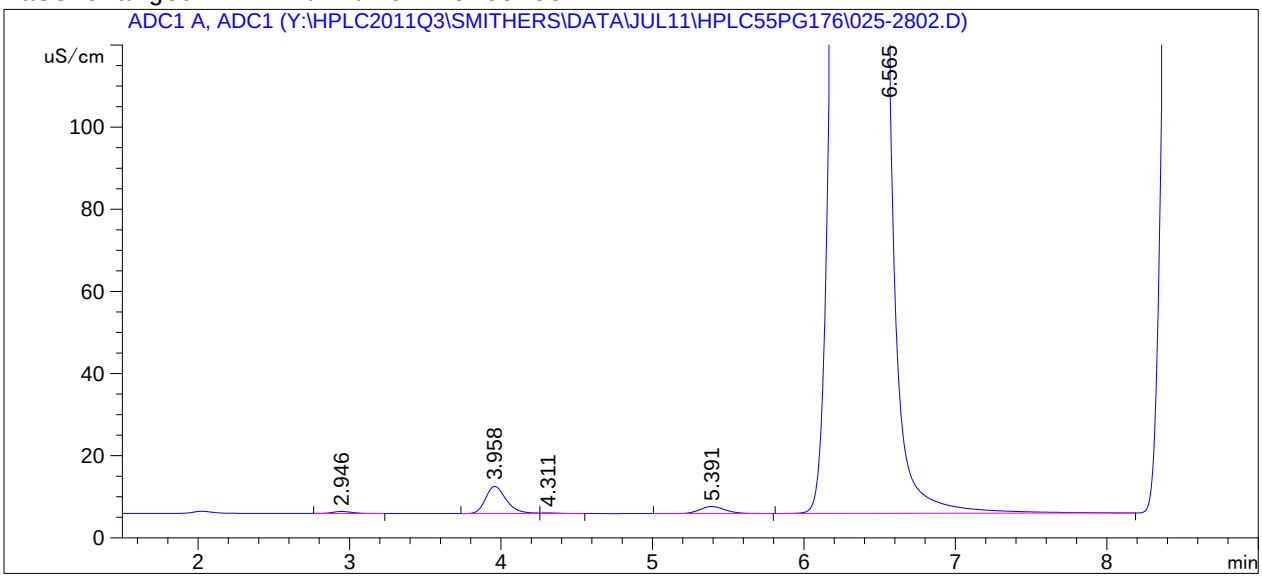
Area Percent Report

==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\025-2802.D
Sample Name: ~~Run 2~~ *10 ~~Base~~ 0611-24 CHV-Stk ICR2-M26A-Alkmp

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  28
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/12/2011 2:03:07 AM                   Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed    : 7/12/2011 9:09:55 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  3.479            -          -          -         Chloride

Totals :                                0.00000


1 Warnings or Errors :

Warning : Calibrated compound(s) not found

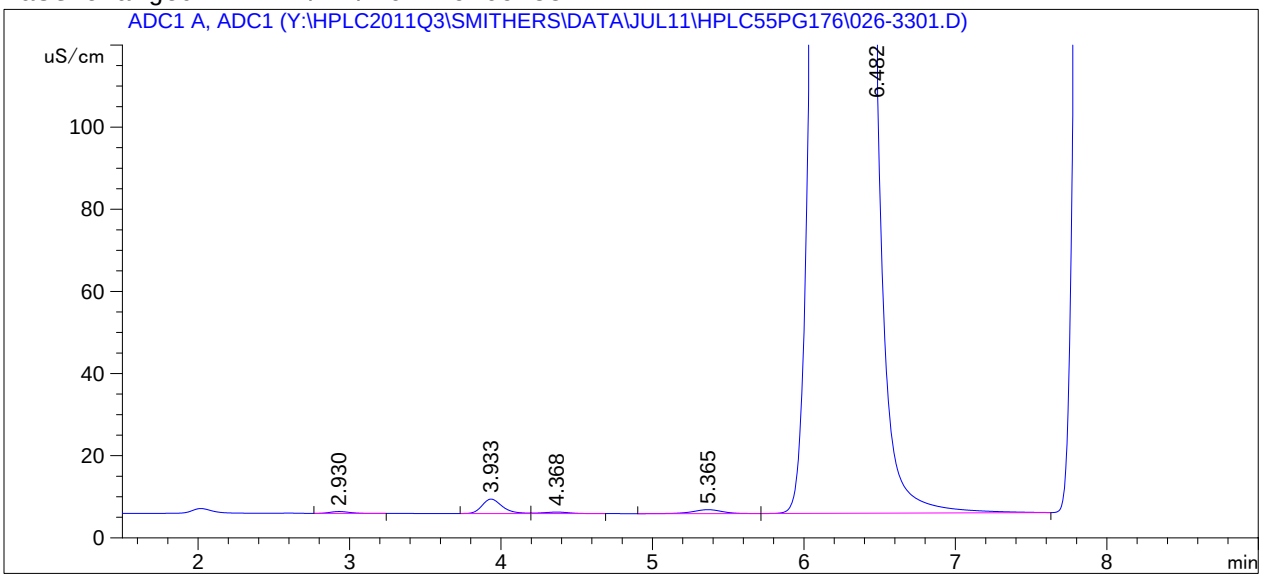
==========================================================================
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\026-3301.D
Sample Name: ~~Run 3~~ *10 ~~Base~~ 0611-24 CHV-Stk ICR3-M26A-Alkmp

==========

Acq. Operator : EO Seq. Line : 33
Acq. Instrument : Smithers Location : -
Injection Date : 7/12/2011 3:50:05 AM Inj : 1
Acq. Method : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed : 7/12/2011 9:09:55 AM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS/cm*s]	Amt/Area	Amount [ug/mL]	Grp	Name
3.479		-	-	-		Chloride

Totals : 0.00000

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

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Area Percent Report

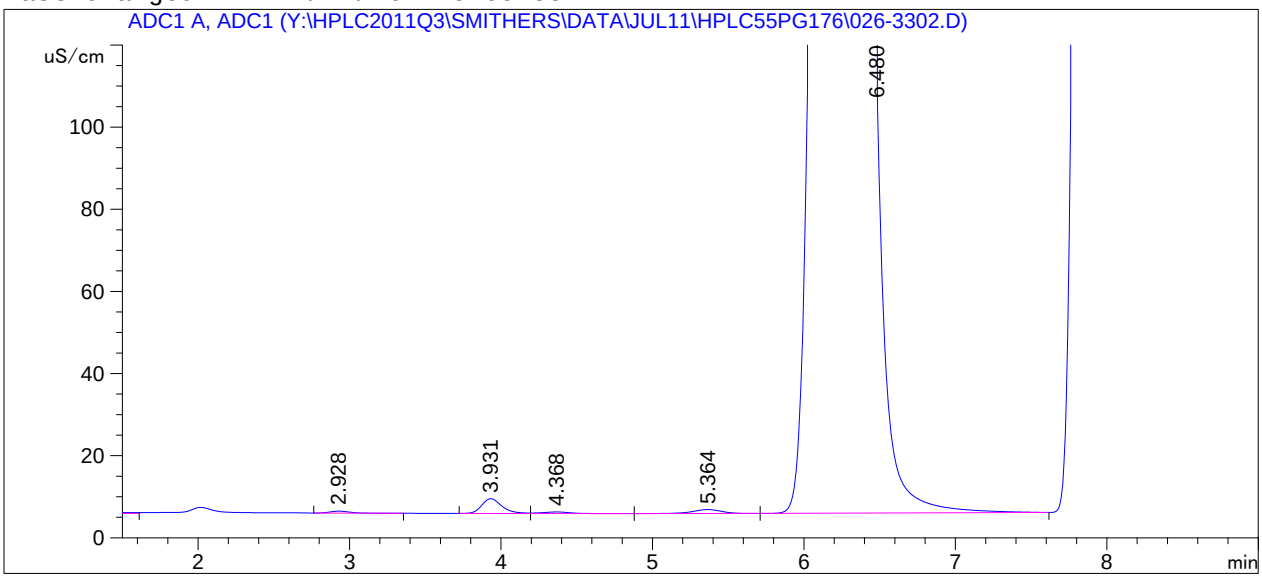
==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\026-3302.D
Sample Name: ~~Run 3~~ *10 ~~Base~~ 0611-24 CHV-Stk ICR3-M26A-Alkmp

==========

Acq. Operator : EO Seq. Line : 33
Acq. Instrument : Smithers Location : -
Injection Date : 7/12/2011 4:06:52 AM Inj : 2
Acq. Method : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed : 7/12/2011 9:09:55 AM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS/cm*s]	Amt/Area	Amount [ug/mL]	Grp	Name
3.479		-	-	-		Chloride

Totals : 0.00000

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

==========

Area Percent Report

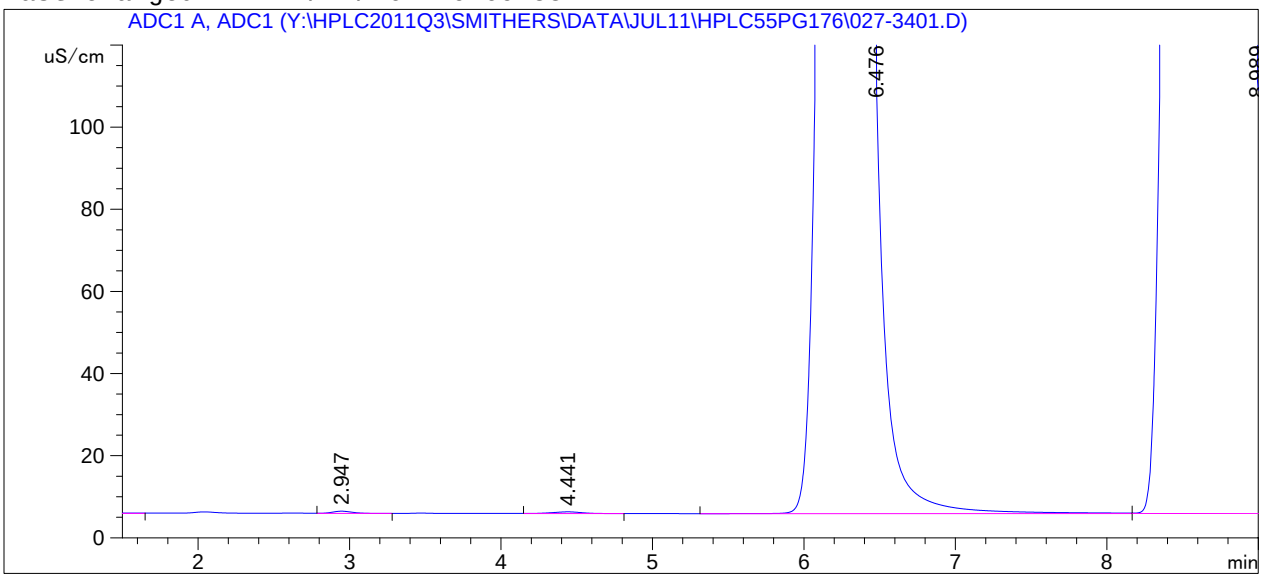
==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\027-3401.D
Sample Name: ~~NaOH FB~~ *10 0611-24 CHV-Stk ICRFB-M26A-Alkmp

==========

Acq. Operator : EO Seq. Line : 34
Acq. Instrument : Smithers Location : -
Injection Date : 7/12/2011 4:23:41 AM Inj : 1
Acq. Method : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed : 7/12/2011 9:09:55 AM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS/cm*s]	Amt/Area	Amount [ug/mL]	Grp	Name
3.479		-	-	-		Chloride

Totals : 0.00000

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

==========

Area Percent Report

==========

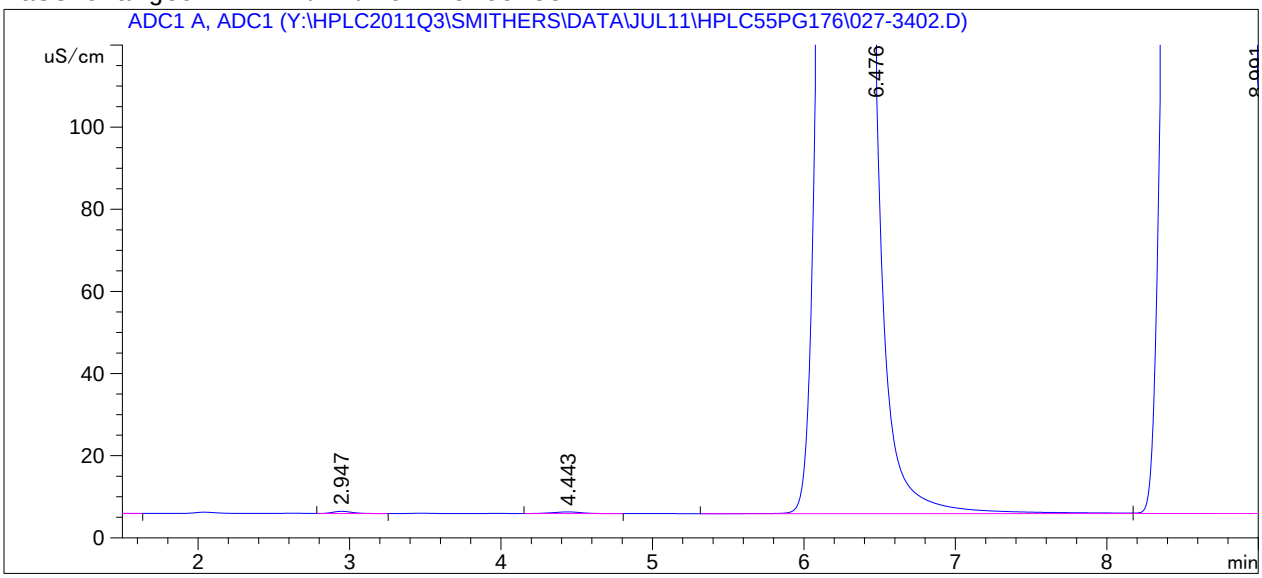
Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\027-3402.D
Sample Name: ~~NaOH FB~~ *10 0611-24

CHV-Stk ICRFB-M26A-Alkmp

==========

Acq. Operator : EO Seq. Line : 34
Acq. Instrument : Smithers Location : -
Injection Date : 7/12/2011 4:40:28 AM Inj : 2
Acq. Method : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed : 7/12/2011 9:09:55 AM



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS/cm*s]	Amt/Area	Amount [ug/mL]	Grp	Name
3.479		-	-	-		Chloride

Totals : 0.00000

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========

==========

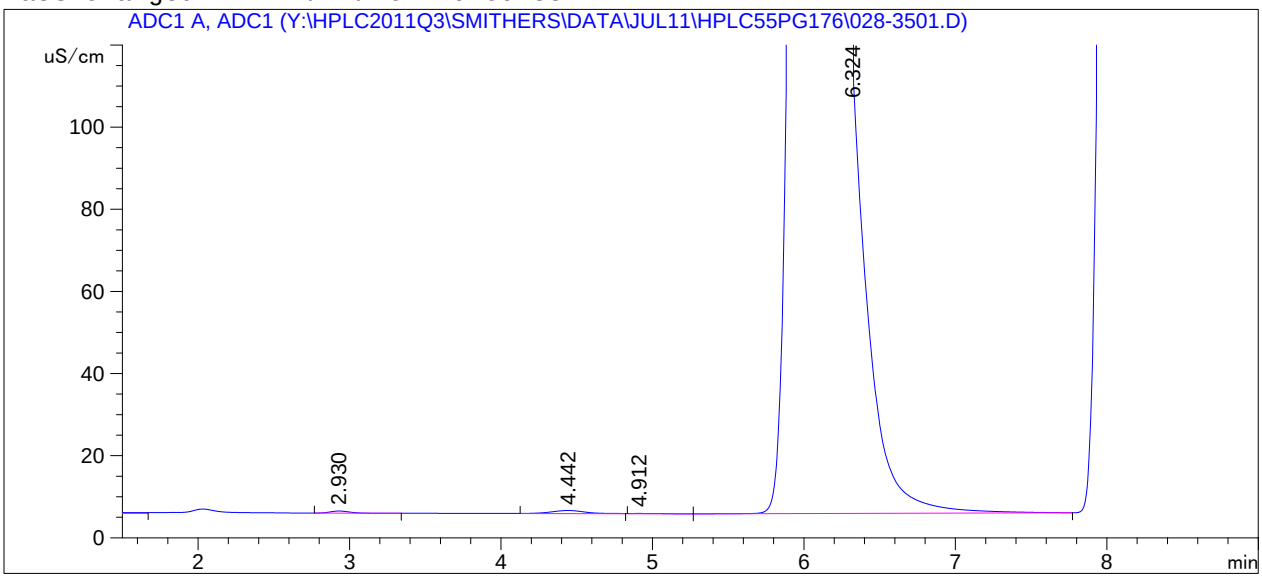
Area Percent Report

==========

Sorted By : Signal
Calib. Data Modified : 7/12/2011 9:09:48 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\028-3501.D
Sample Name: ~~NaOH RB~~ *10 0611-24 CHV-Stk ICRRB-M26A-NaOH Soln

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  35
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/12/2011 4:57:16 AM                   Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed    : 7/12/2011 9:09:55 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  3.479            -          -          -         Chloride

Totals :                                0.00000


1 Warnings or Errors :

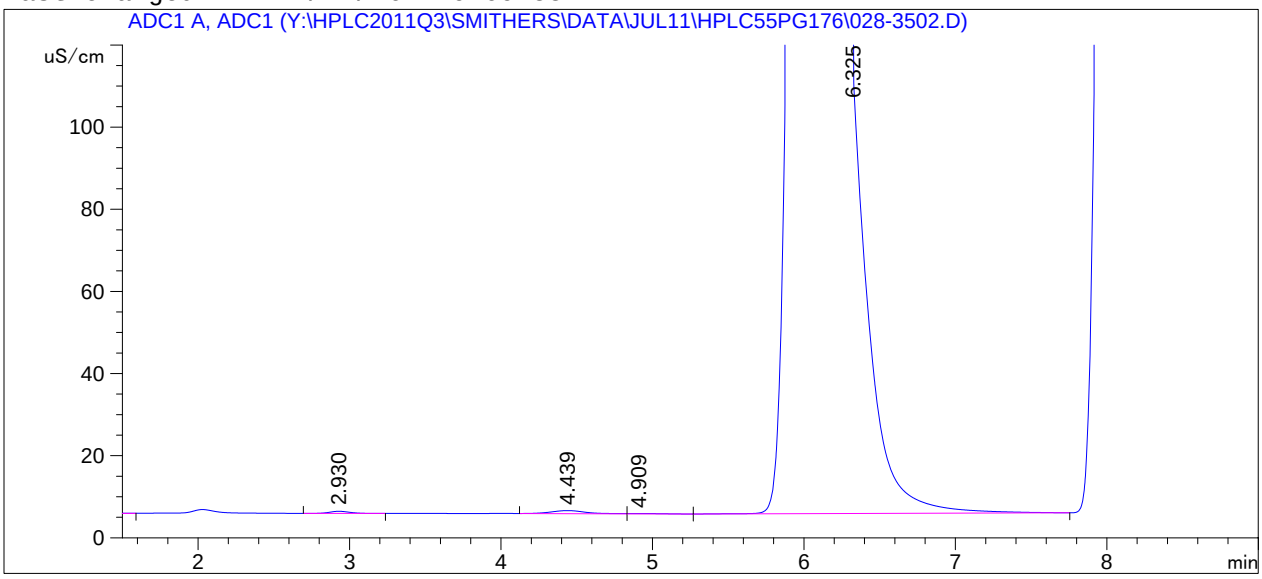
Warning : Calibrated compound(s) not found

==========================================================================
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\028-3502.D
Sample Name: ~~NaOH RB~~ *10 0611-24 CHV-Stk ICRRB-M26A-NaOH Soln

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  35
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 5:14:04 AM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed    : 7/12/2011 9:09:55 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  3.479            -          -          -         Chloride

Totals :                                0.00000


1 Warnings or Errors :

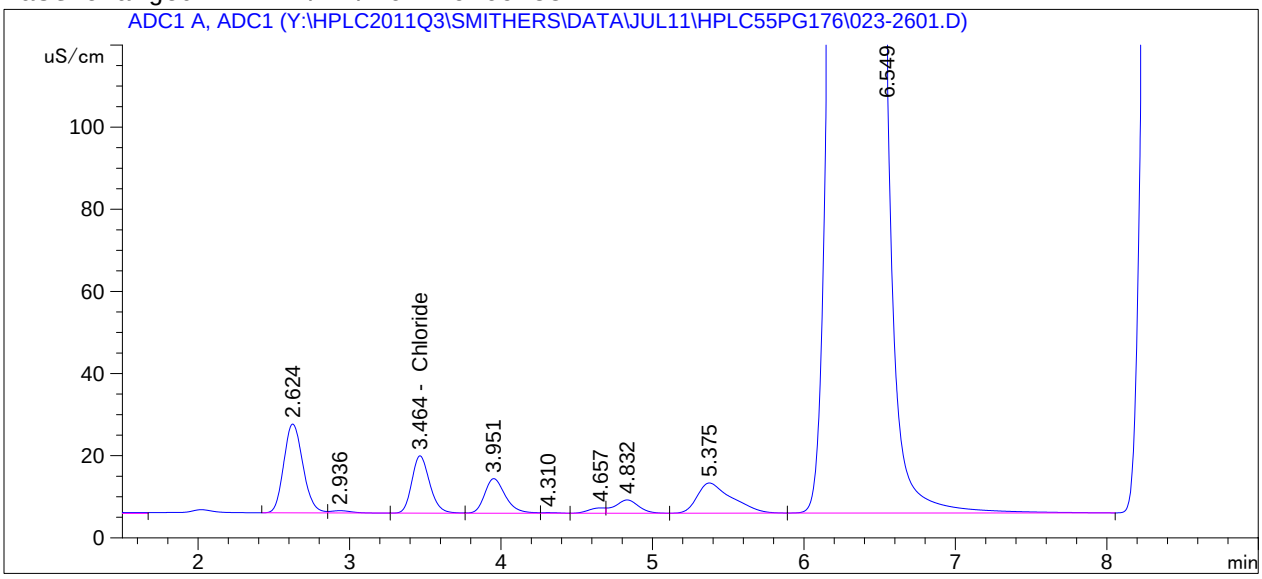
Warning : Calibrated compound(s) not found

==========================================================================
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\023-2601.D
Sample Name: MS ~~Run 1~~ *10 ~~Base~~ 0611-24 CHV-Stk ICR1-M26A-Alkmp

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  26
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 12:39:08 AM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed    : 7/12/2011 9:09:55 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

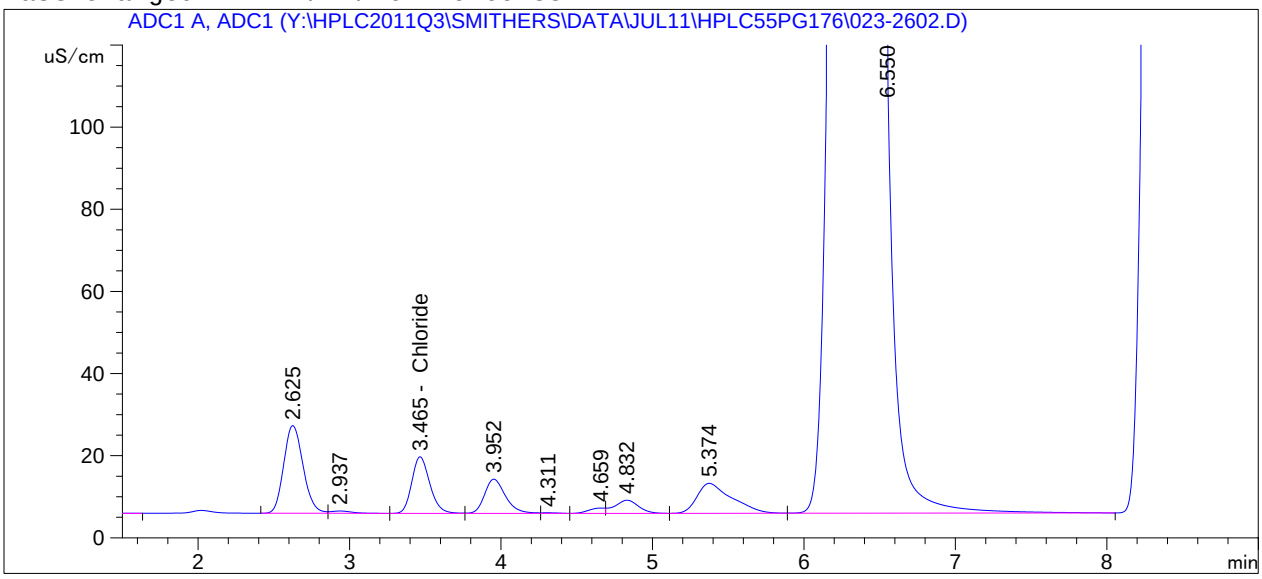
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  3.464 VV      113.93776 2.56029e-2    2.91714    Chloride

Totals :                                2.91714


==========================================================================
                           *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\023-2602.D
Sample Name: MS ~~Run 1~~ *10 ~~Base~~ 0611-24 CHV-Stk ICR1-M26A-Alkmp

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  26
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/12/2011 12:55:56 AM                  Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed    : 7/12/2011 9:09:55 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

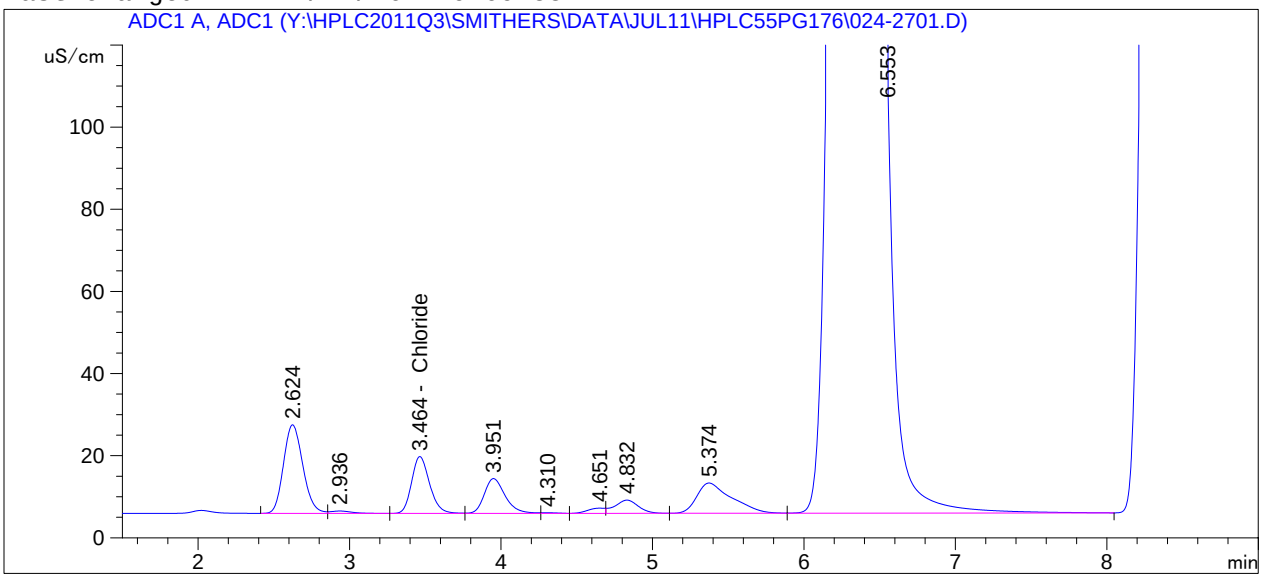
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  3.465 VV      113.62273 2.56035e-2    2.90914    Chloride

Totals :                                2.90914


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\024-2701.D
Sample Name: MSD Run 1 *10 Base 0611-24 CHV-Stk ICR1-M26A-Alkmp

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  27
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/12/2011 1:12:43 AM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed    : 7/12/2011 9:09:55 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

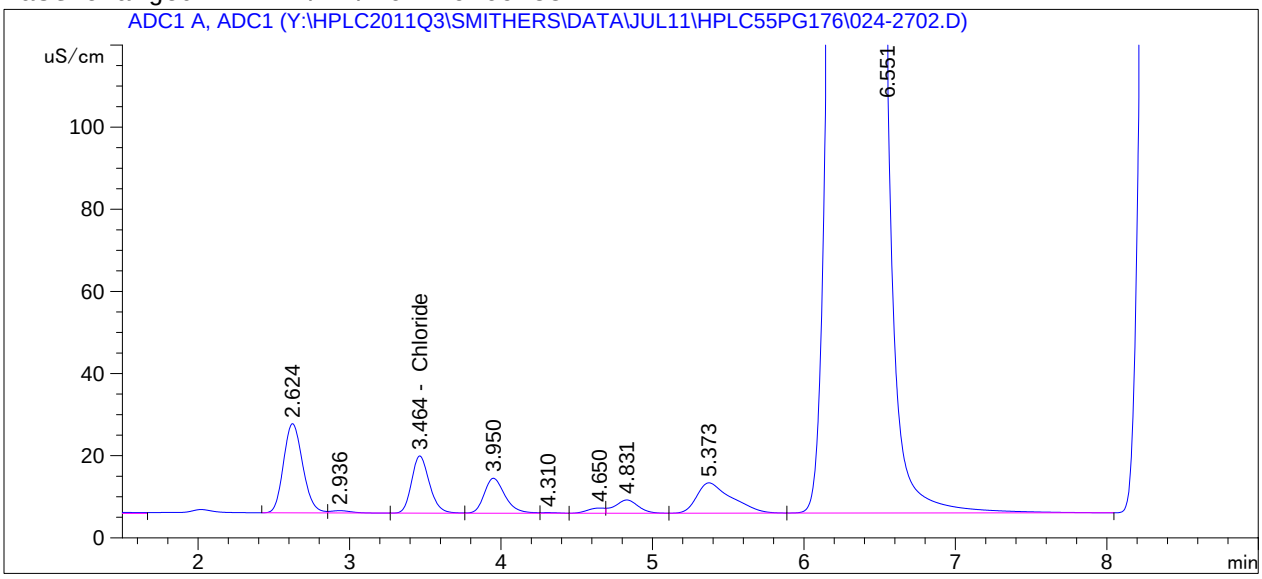
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  3.464 VV      113.72112 2.56033e-2    2.91164    Chloride

Totals :                                2.91164


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\024-2702.D
Sample Name: MSD ~~Run 1~~ *10 ~~Base~~ 0611-24 CHV-Stk ICR1-M26A-Alkmp

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  27
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/12/2011 1:29:31 AM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176CL.M
Last changed    : 7/12/2011 9:09:55 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:09:48 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  3.464 VV      113.92931 2.56030e-2    2.91693    Chloride

Totals :                                2.91693


==========================================================================
                          *** End of Report ***
```

Calibration Curve Chromatograms

Calibration Table

Calib. Data Modified : 7/12/2011 9:03:37 AM

Rel. Reference Window : 10.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 10.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Linear (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: ADC1 A, ADC1

RetTime [min]	Sig	Lvl	Amount [ug/mL]	Area	Amt/Area	Ref Grp	Name
2.658	1	1	2.00000e-1	12.07207	1.65672e-2		Fluoride
		2	1.00000	62.64527	1.59629e-2		
		3	5.00000	311.41177	1.60559e-2		
		4	10.00000	593.17308	1.68585e-2		
3.479	1	1	2.00000e-1	7.39200	2.70563e-2		Chloride
		2	1.00000	36.13053	2.76774e-2		
		3	5.00000	194.39698	2.57206e-2		
		4	10.00000	396.28094	2.52346e-2		

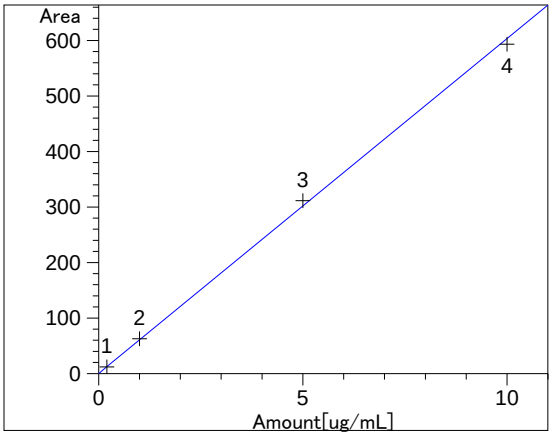
Peak Sum Table

No Entries in table

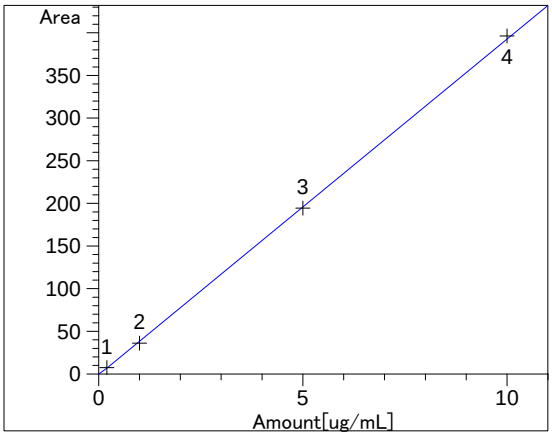
==========

Calibration Curves

==========



Fluoride at exp. RT: 2.658
ADC1 A, ADC1
Correlation: 0.99967
Residual Std. Dev.: 10.02879
Formula: y = mx + b
m: 60.32051
b: 5.27498e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.2
Level 3 : 0.04
Level 4 : 0.02

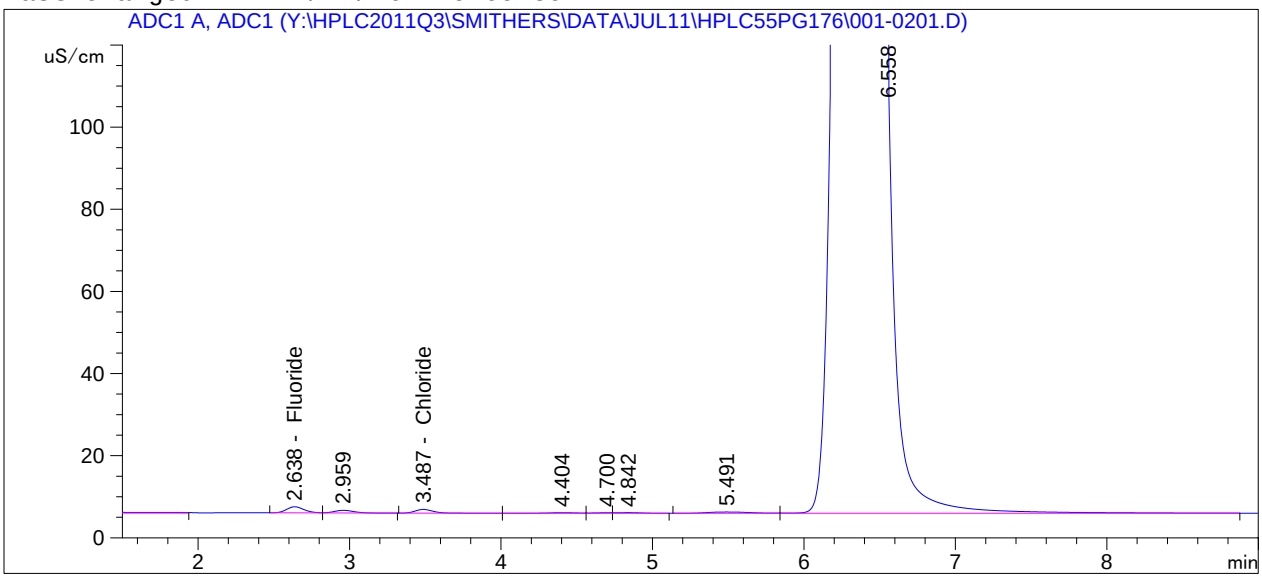


Chloride at exp. RT: 3.479
ADC1 A, ADC1
Correlation: 0.99981
Residual Std. Dev.: 3.13622
Formula: y = mx + b
m: 39.38032
b: -9.40205e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.2
Level 3 : 0.04
Level 4 : 0.02

==========

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\001-0201.D
Sample Name: HPLC55pg176 #1

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :   2
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 3:27:08 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

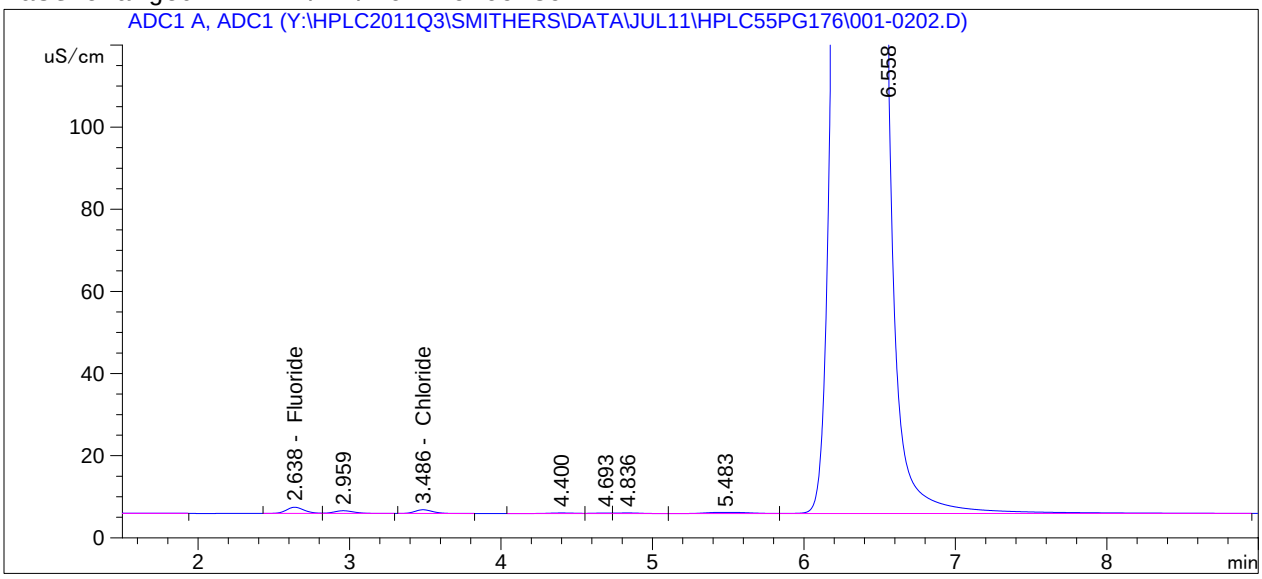
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.638 BV       11.95333 1.58836e-2 1.89862e-1    Fluoride
  3.487 BV        7.42690 2.86081e-2 2.12469e-1    Chloride

Totals :                              4.02331e-1


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\001-0202.D
Sample Name: HPLC55pg176 #1

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :   2
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 3:38:23 PM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

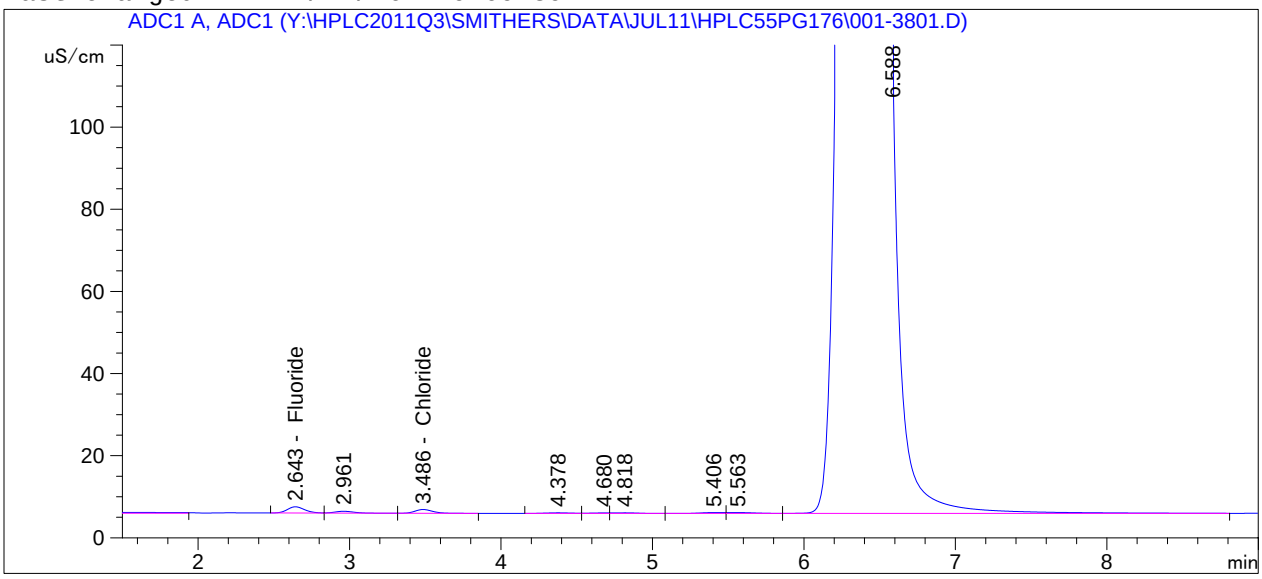
RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.638 BV       12.11618 1.58836e-2 1.92449e-1    Fluoride
  3.486 BB        7.35230 2.86407e-2 2.10575e-1    Chloride

Totals :                              4.03023e-1


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\001-3801.D
Sample Name: HPLC55pg176 #1

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  38
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 6:38:03 AM                     Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

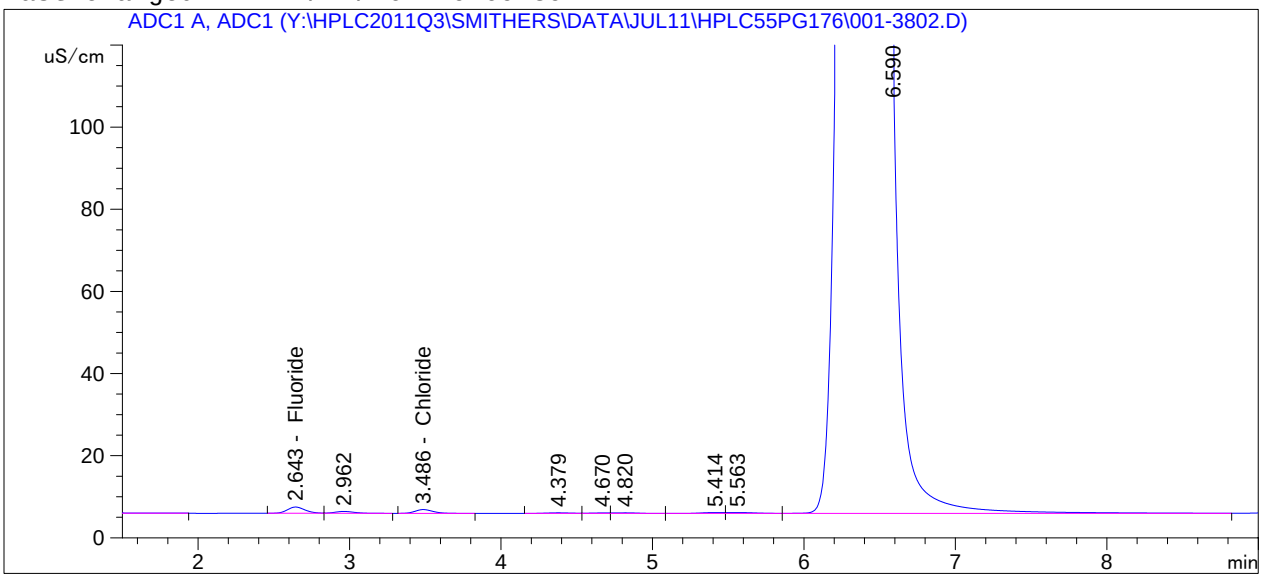
RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.643 BV       11.98306 1.58836e-2 1.90334e-1    Fluoride
  3.486 VB        7.35052 2.86415e-2 2.10530e-1    Chloride

Totals :                              4.00864e-1


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\001-3802.D
Sample Name: HPLC55pg176 #1

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  38
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 6:49:19 AM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

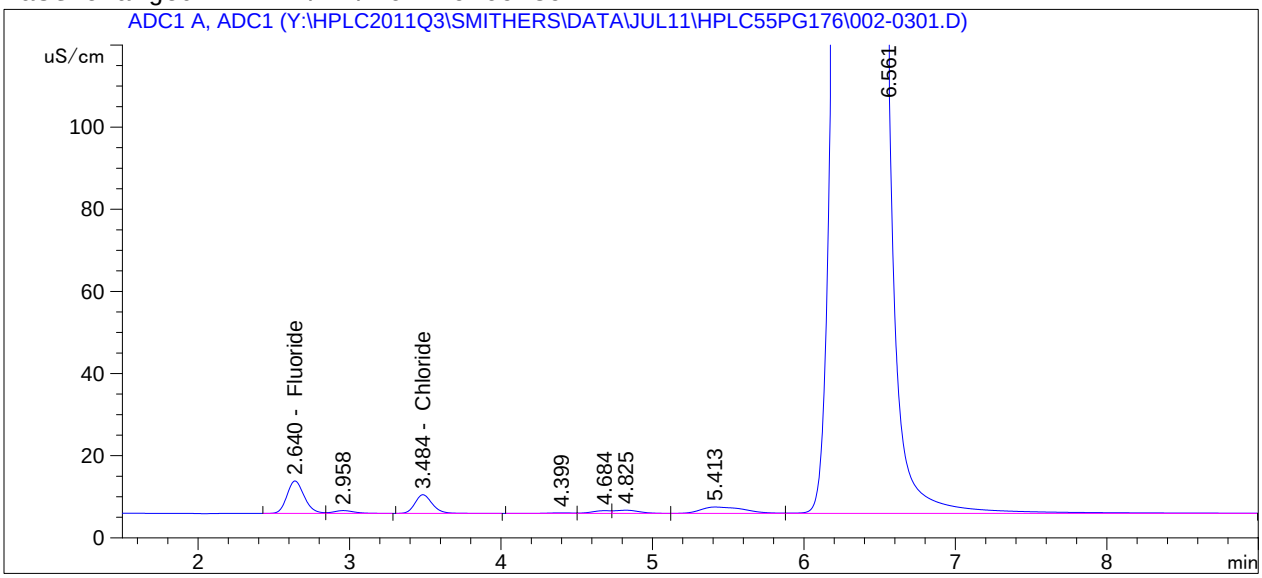
RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.643 BV       12.23569 1.58836e-2 1.94347e-1    Fluoride
  3.486 BB        7.43828 2.86031e-2 2.12758e-1    Chloride

Totals :                              4.07105e-1


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\002-0301.D
Sample Name: HPLC55pg176 #2

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :   3
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 3:49:39 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

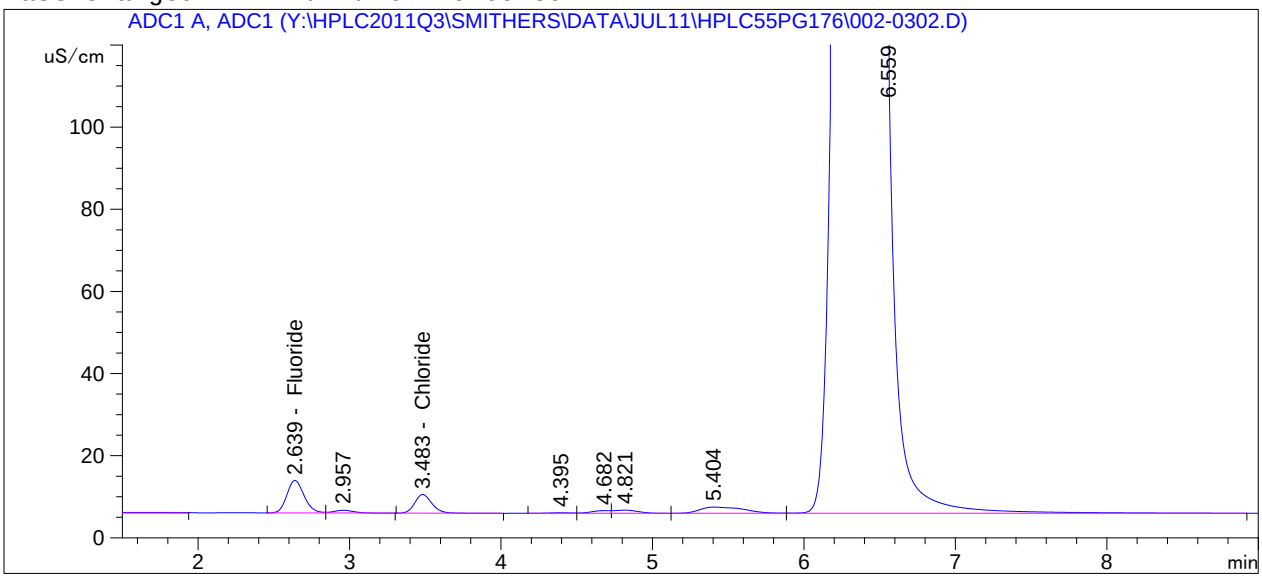
RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.640 BV       62.34982 1.64379e-2    1.02490    Fluoride
  3.484 BB       36.27824 2.60515e-2 9.45102e-1    Chloride

Totals :                                 1.97000


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\002-0302.D
Sample Name: HPLC55pg176 #2

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :   3
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 4:00:56 PM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

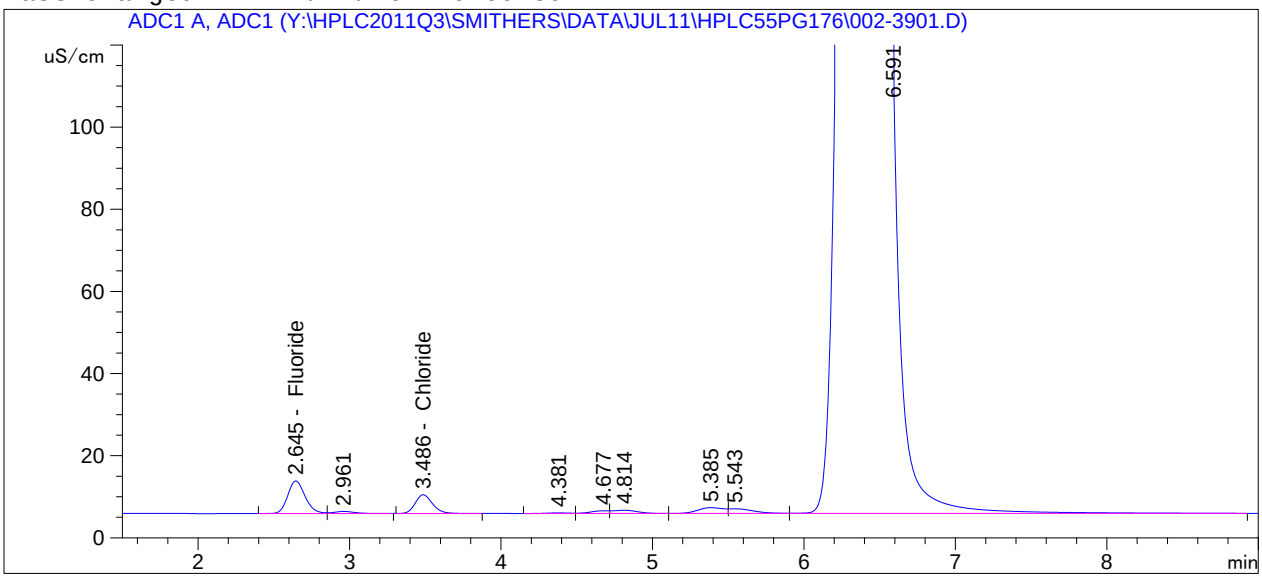
RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.639 BV       62.36409 1.64379e-2    1.02513    Fluoride
  3.483 BB       35.91504 2.60582e-2 9.35880e-1    Chloride

Totals :                                 1.96101


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\002-3901.D
Sample Name: HPLC55pg176 #2

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  39
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 7:00:35 AM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

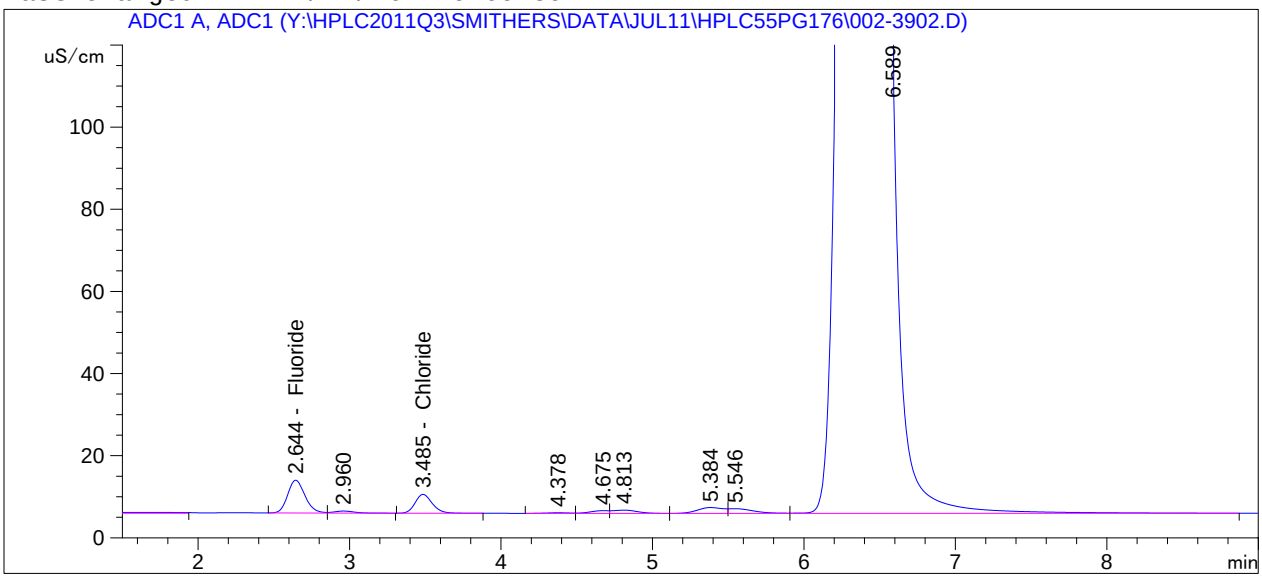
RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.645 BV       62.92327 1.64391e-2    1.03440    Fluoride
  3.486 BB       36.23780 2.60522e-2 9.44076e-1    Chloride

Totals :                                 1.97848


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\002-3902.D
Sample Name: HPLC55pg176 #2

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  39
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 7:11:50 AM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

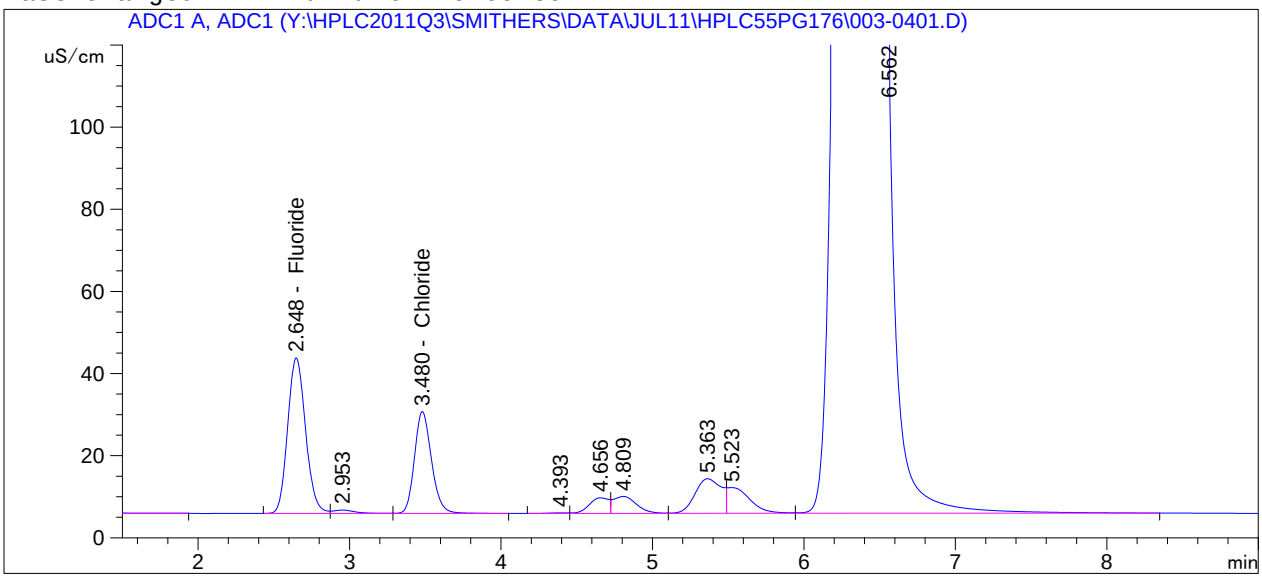
RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.644 BV       62.94391 1.64392e-2    1.03475    Fluoride
  3.485 BB       36.09105 2.60549e-2 9.40349e-1    Chloride

Totals :                                 1.97510


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\003-0401.D
Sample Name: HPLC55pg176 #3

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :   4
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 4:12:11 PM                   Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

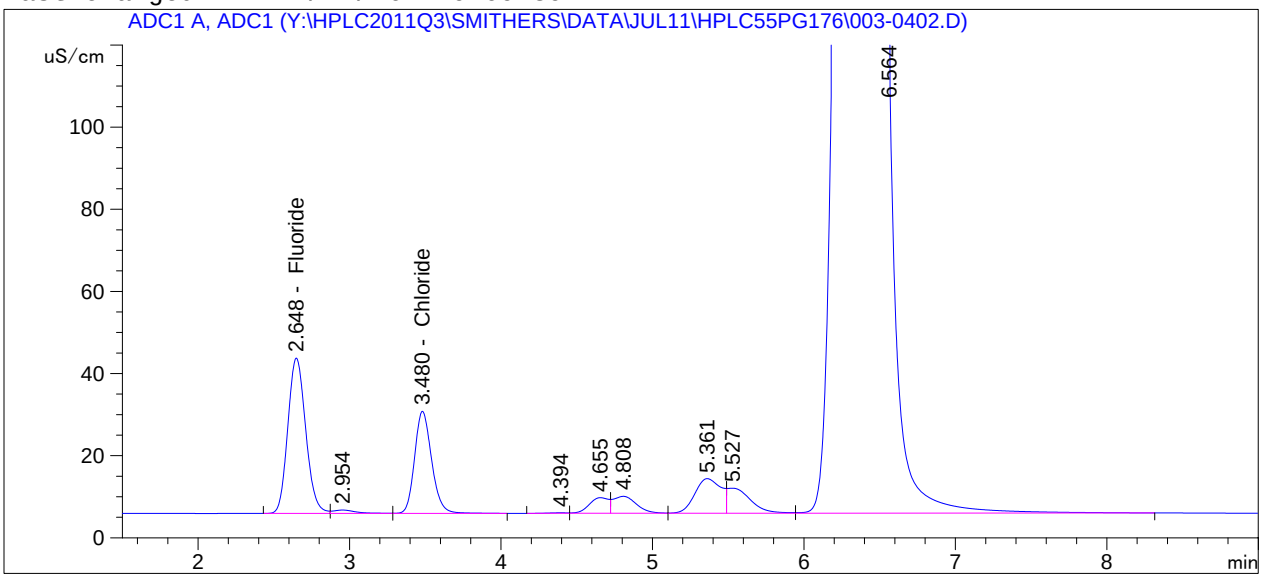
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.648 BV      310.74402 1.65500e-2    5.14280    Fluoride
  3.480 VB      193.63005 2.55167e-2    4.94080    Chloride

Totals :                                10.08360


==========================================================================
                           *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\003-0402.D
Sample Name: HPLC55pg176 #3

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :   4
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 4:23:28 PM                   Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

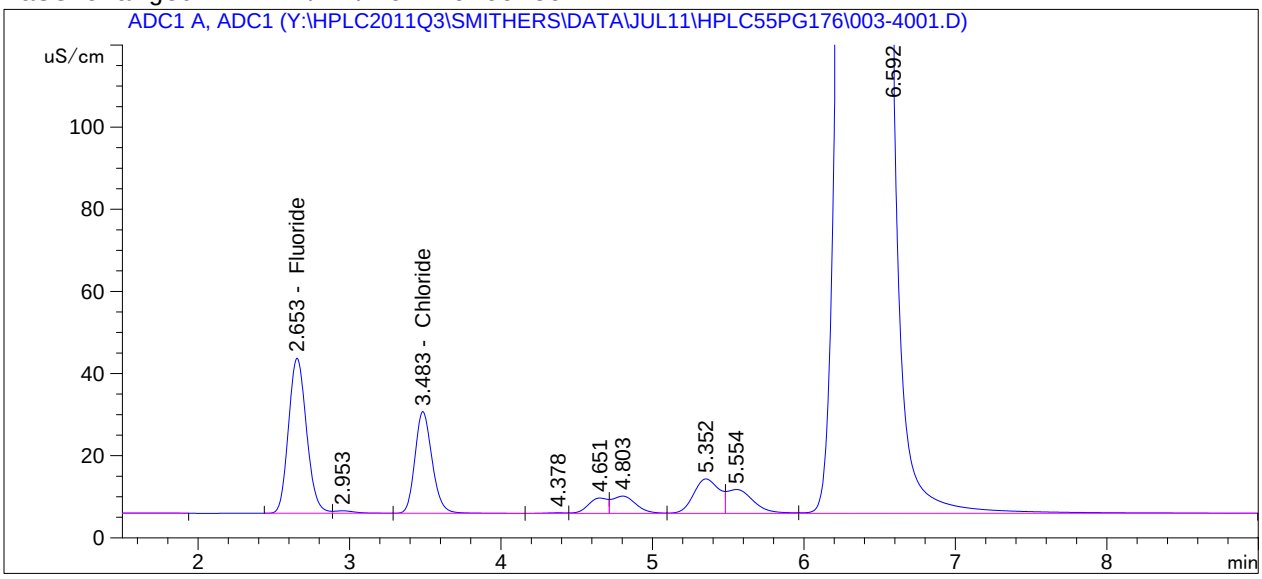
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.648 BV      310.18881 1.65499e-2    5.13360    Fluoride
  3.480 VB      194.04515 2.55164e-2    4.95134    Chloride

Totals :                                10.08494


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\003-4001.D
Sample Name: HPLC55pg176 #3

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  40
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/12/2011 7:23:07 AM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

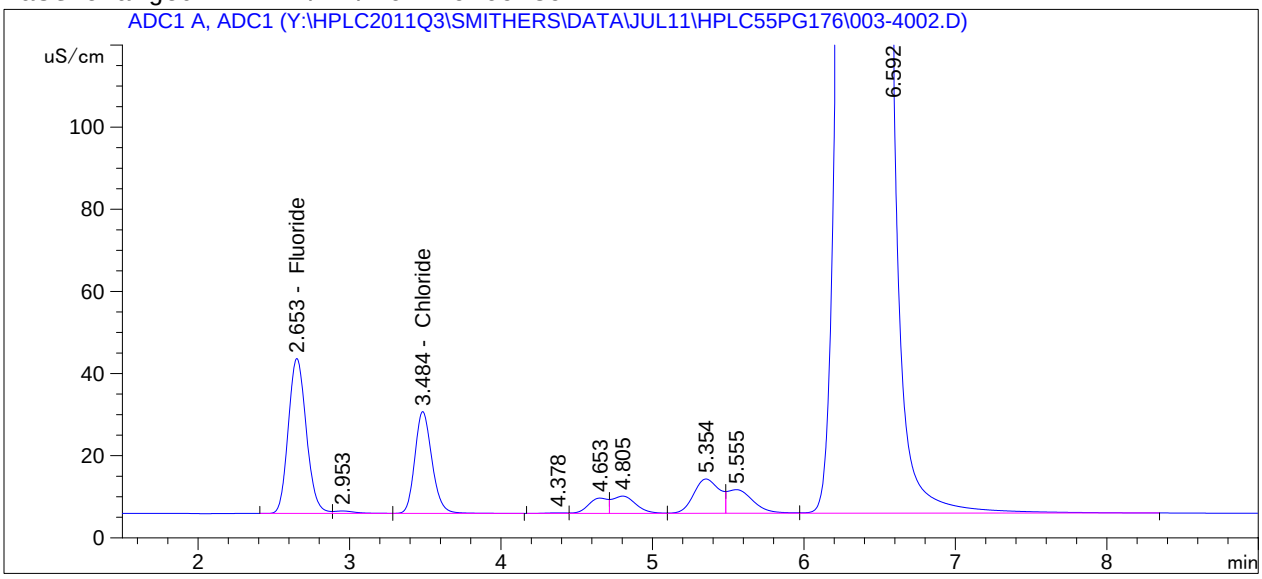
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.653 BV      313.02649 1.65502e-2    5.18064    Fluoride
  3.483 VB      195.08752 2.55158e-2    4.97781    Chloride

Totals :                                10.15845


==========================================================================
                           *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\003-4002.D
Sample Name: HPLC55pg176 #3

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  40
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/12/2011 7:34:23 AM                   Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

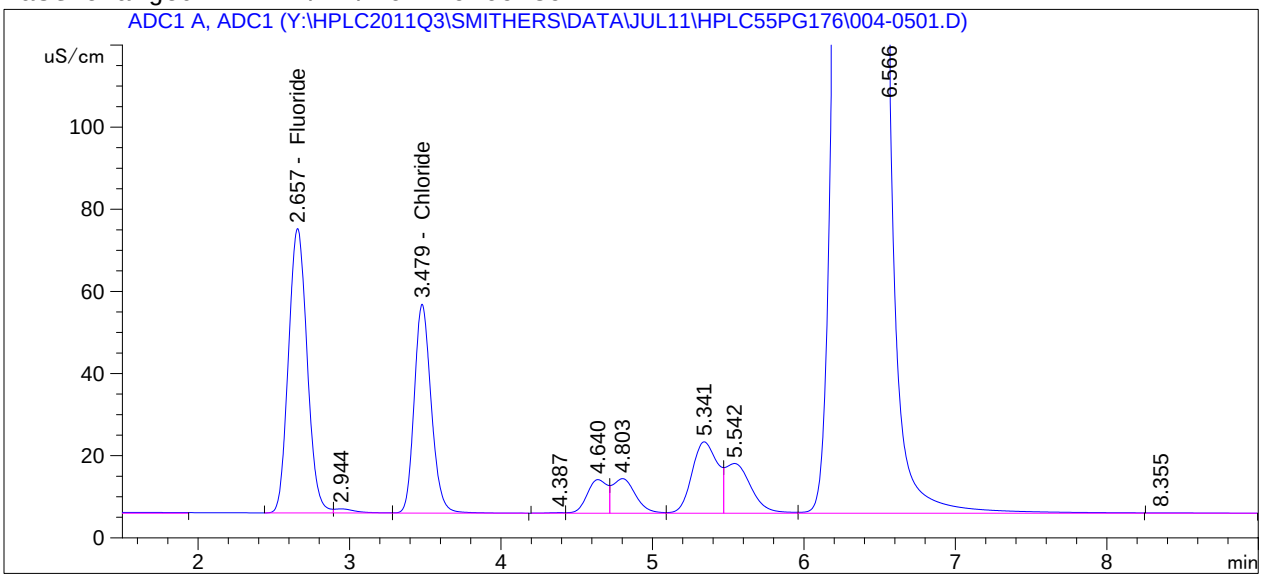
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.653 BV      311.68774 1.65501e-2    5.15845    Fluoride
  3.484 VB      194.82518 2.55159e-2    4.97115    Chloride

Totals :                                10.12960


==========================================================================
                           *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\004-0501.D
Sample Name: HPLC55pg176 #4

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :   5
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 4:34:44 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

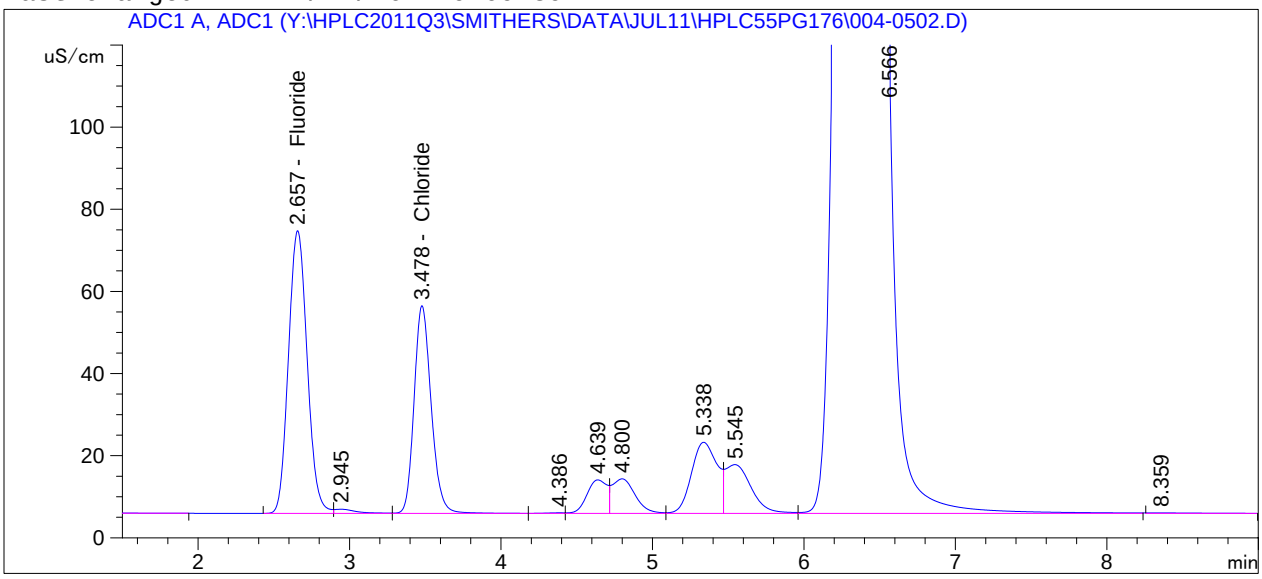
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.657 BV      593.16656 1.65634e-2    9.82484    Fluoride
  3.479 VB      395.92834 2.54537e-2   10.07784    Chloride

Totals :                                19.90267


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\004-0502.D
Sample Name: HPLC55pg176 #4

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :   5
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 4:46:01 PM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

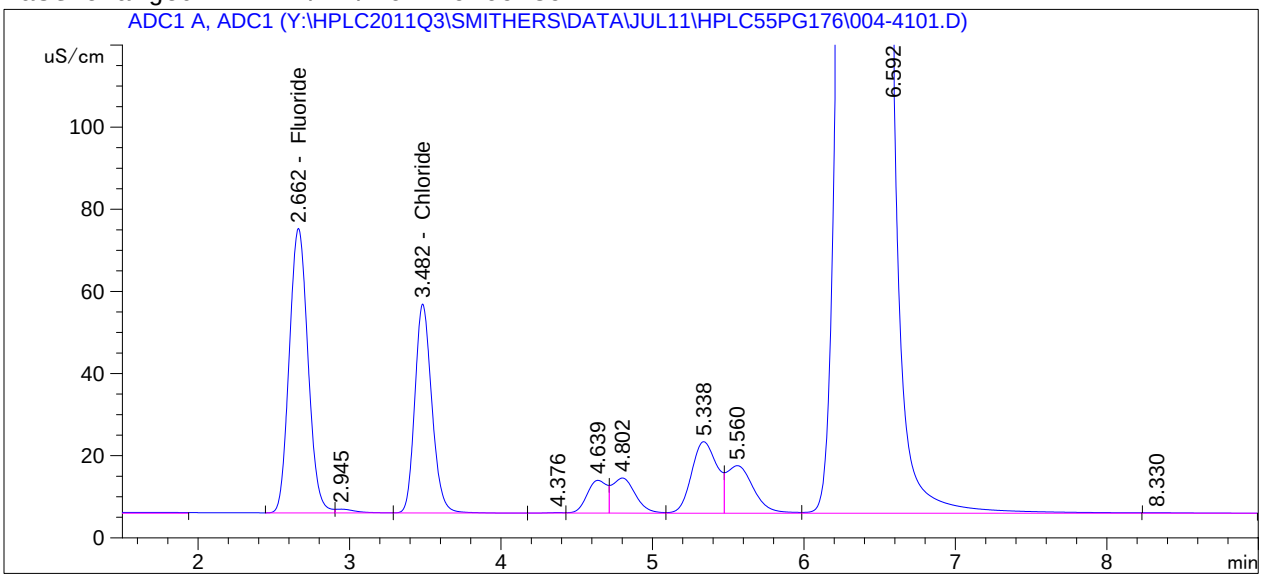
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.657 BV      590.52063 1.65633e-2    9.78097    Fluoride
  3.478 VB      395.09573 2.54538e-2   10.05670    Chloride

Totals :                                19.83767


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\004-4101.D
Sample Name: HPLC55pg176 #4

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  41
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 7:45:39 AM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

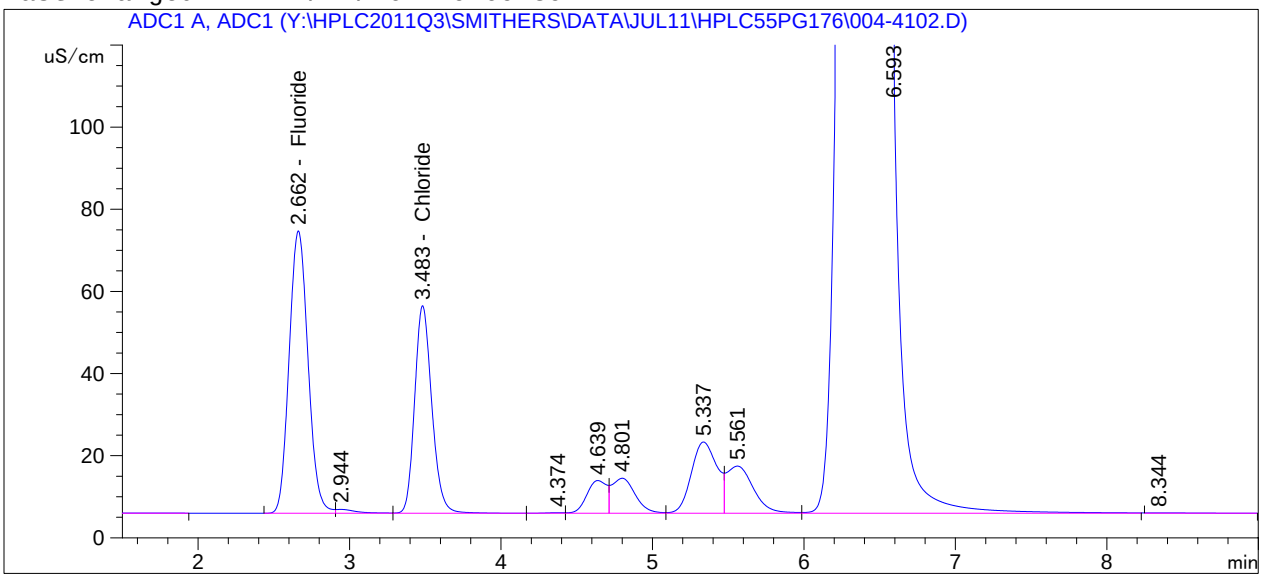
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.662 BV      594.39789 1.65634e-2    9.84525    Fluoride
  3.482 VV      396.88586 2.54535e-2   10.10215    Chloride

Totals :                                19.94740


==========================================================================
                           *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\004-4102.D
Sample Name: HPLC55pg176 #4

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  41
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 7:56:54 AM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

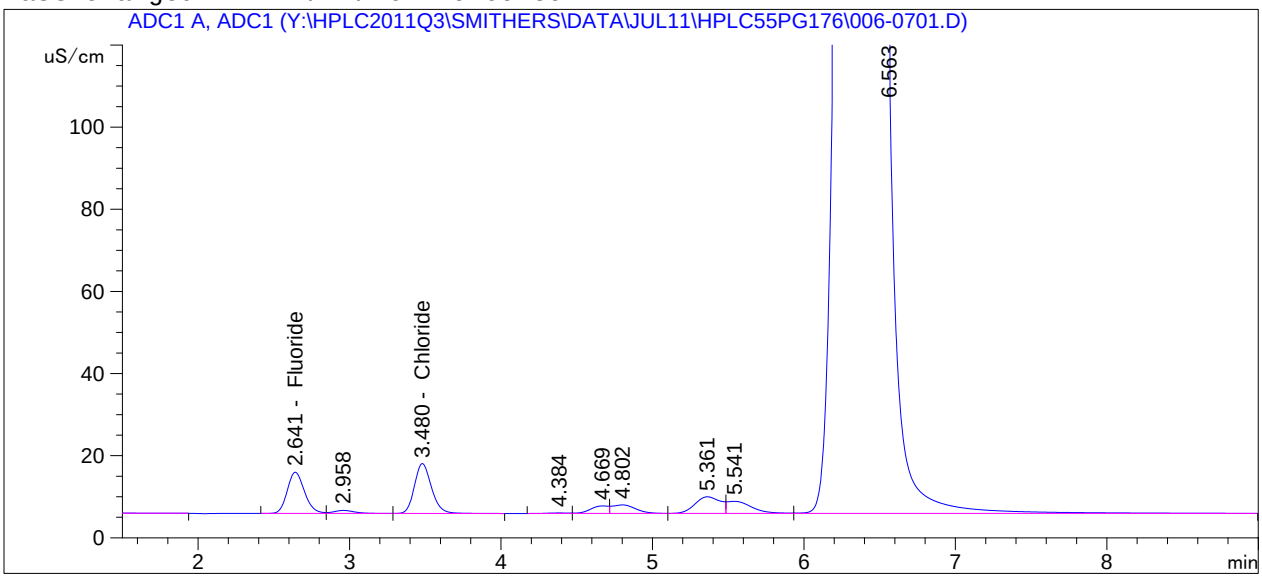
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.662 BV      594.60724 1.65634e-2    9.84872    Fluoride
  3.483 VV      397.21381 2.54535e-2   10.11048    Chloride

Totals :                                19.95920


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\006-0701.D
Sample Name: HPLC55pg176 #SS

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :   7
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 5:19:49 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

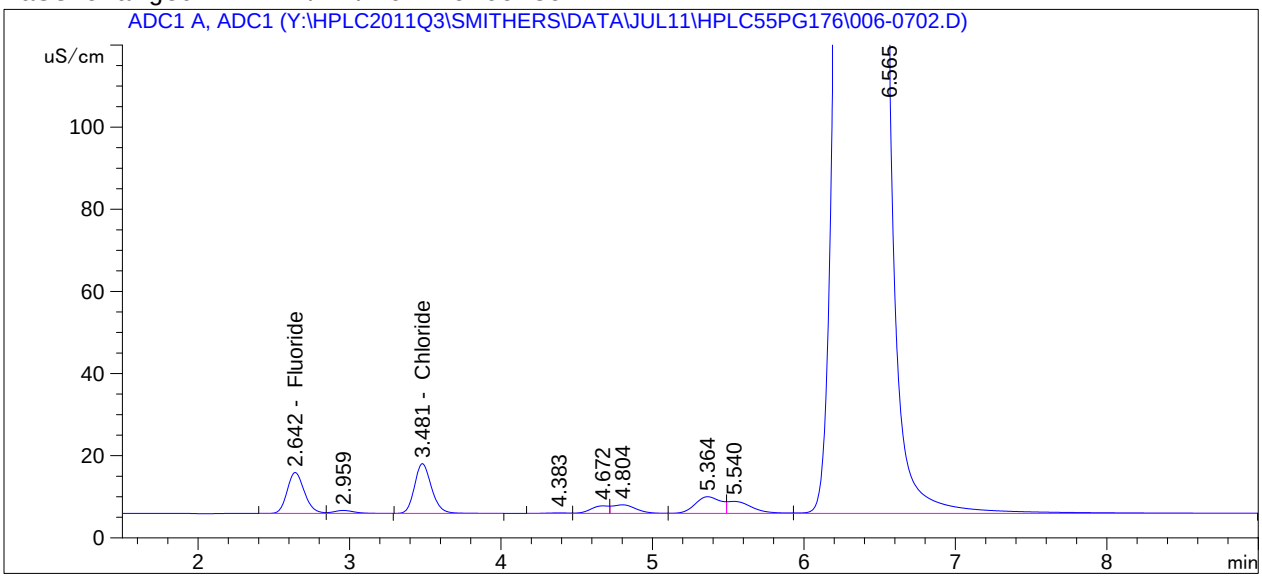
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.641 BV       78.97292 1.64674e-2    1.30048    Fluoride
  3.480 VB       94.82661 2.56452e-2    2.43184    Chloride

Totals :                                3.73232


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\006-0702.D
Sample Name: HPLC55pg176 #SS

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :   7
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 5:31:06 PM                   Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

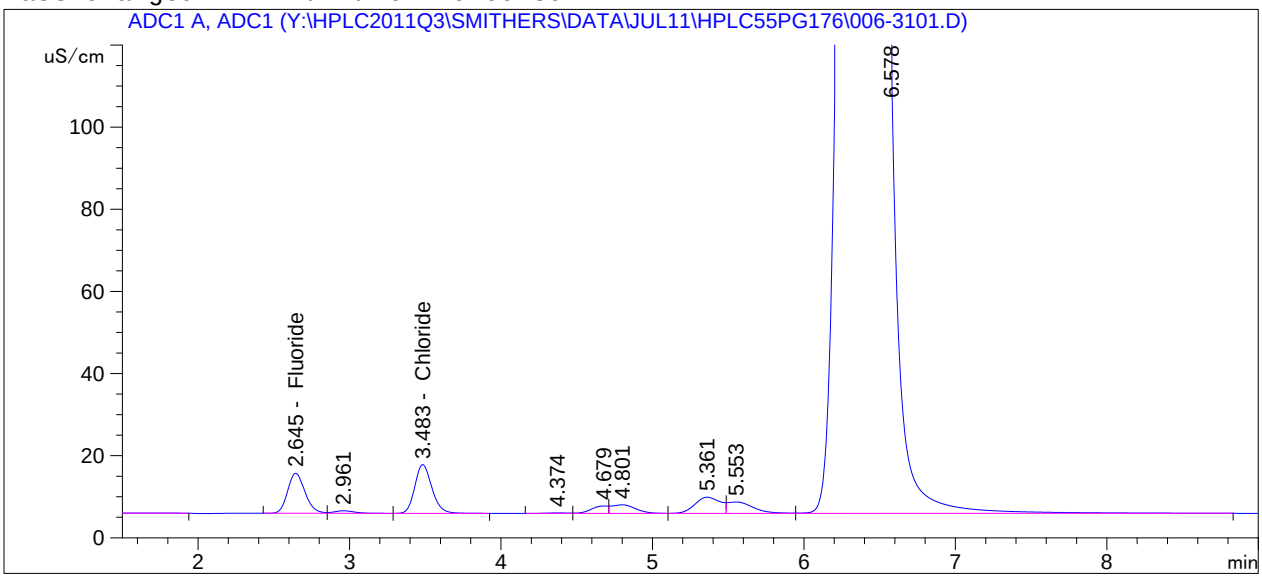
RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.642 BV       78.60994 1.64669e-2    1.29446    Fluoride
  3.481 BB       94.80038 2.56452e-2    2.43118    Chloride

Totals :                                3.72564


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\006-3101.D
Sample Name: HPLC55pg176 #SS

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  31
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 3:05:00 AM                     Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

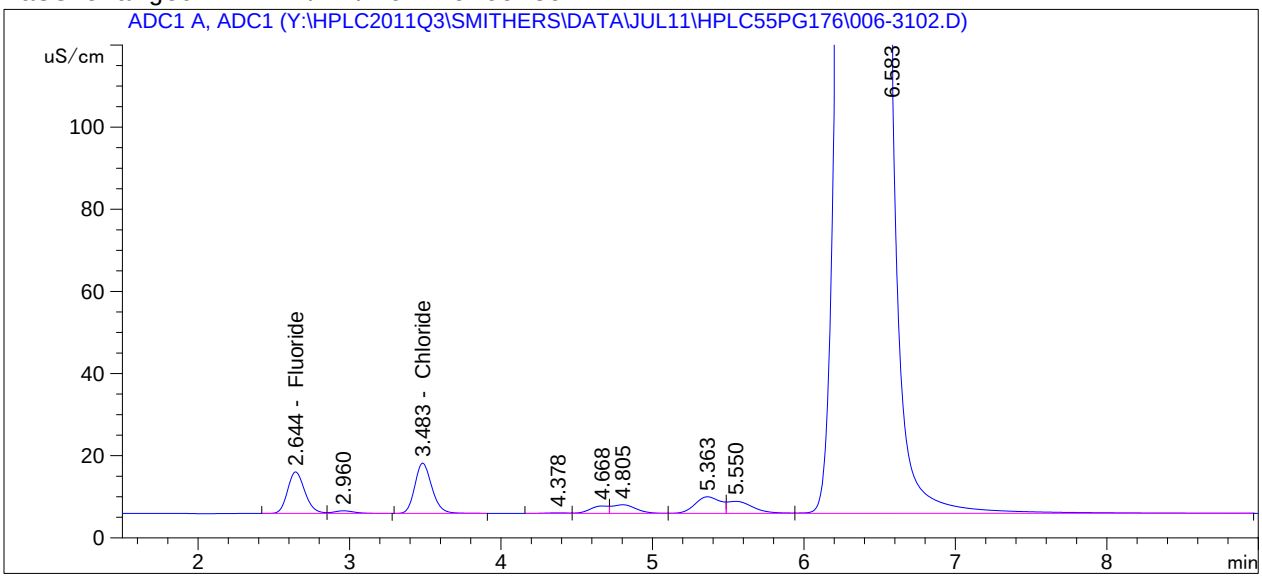
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.645 BV       77.35444 1.64651e-2    1.27365    Fluoride
  3.483 VB       92.88642 2.56504e-2    2.38258    Chloride

Totals :                                3.65622


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\006-3102.D
Sample Name: HPLC55pg176 #SS

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  31
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 3:16:16 AM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

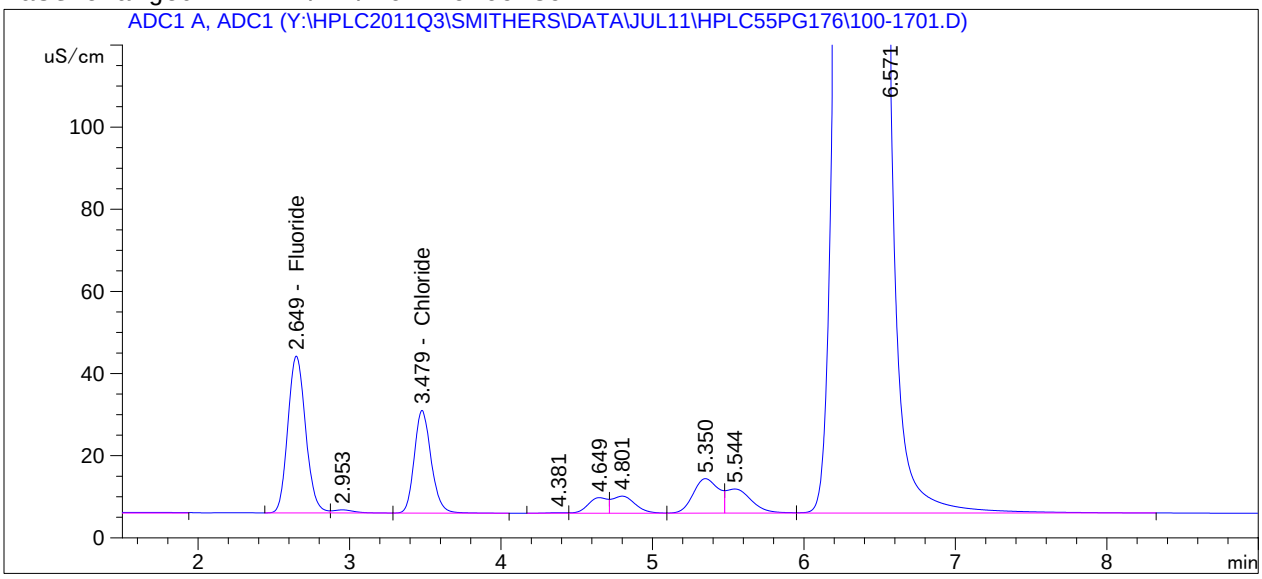
RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]              [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.644 BV       80.00335 1.64688e-2    1.31756    Fluoride
  3.483 BB       95.27872 2.56440e-2    2.44332    Chloride

Totals :                                3.76088


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\100-1701.D
Sample Name: HPLC55pg176 #3

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  17
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/11/2011 9:05:13 PM                    Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

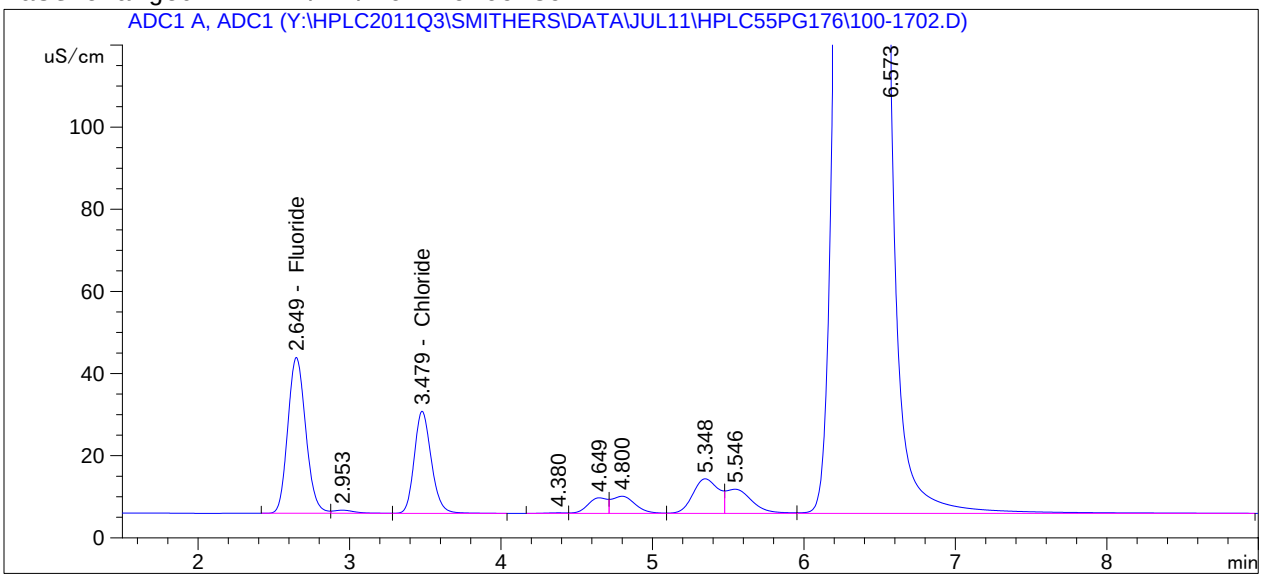
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.649 BV      311.05042 1.65500e-2    5.14788    Fluoride
  3.479 VB      193.72966 2.55166e-2    4.94333    Chloride

Totals :                                10.09121


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\100-1702.D
Sample Name: HPLC55pg176 #3

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  17
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/11/2011 9:16:29 PM                    Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

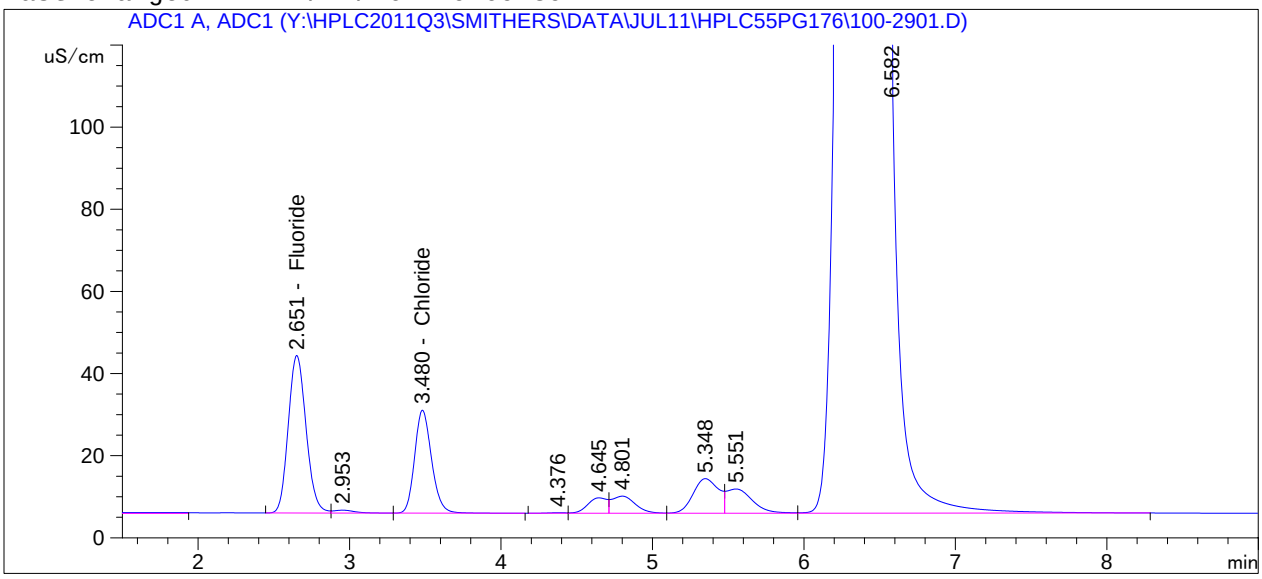
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.649 BV      311.86859 1.65501e-2    5.16145    Fluoride
  3.479 VB      194.41986 2.55162e-2    4.96085    Chloride

Totals :                                10.12230


==========================================================================
                          *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\100-2901.D
Sample Name: HPLC55pg176 #3

```
==========================================================================
Acq. Operator   : EO                                 Seq. Line :  29
Acq. Instrument : Smithers                            Location :   -
Injection Date  : 7/12/2011 2:19:55 AM                     Inj :   1
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

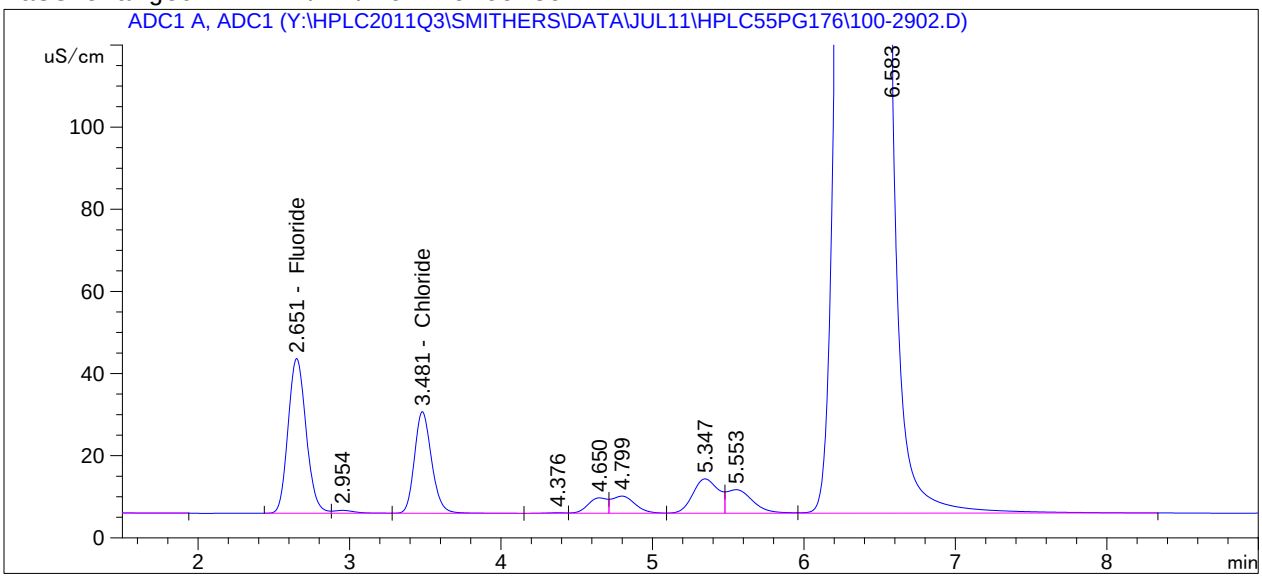
RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.651 BV      313.68057 1.65502e-2    5.19149    Fluoride
  3.480 VB      194.80711 2.55159e-2    4.97069    Chloride

Totals :                                10.16217


==========================================================================
                           *** End of Report ***
```

Data File Y:\HPLC2011Q3\SMITHERS\DATA\JUL11\HPLC55PG176\100-2902.D
Sample Name: HPLC55pg176 #3

```
==========================================================================
Acq. Operator   : EO                                Seq. Line :  29
Acq. Instrument : Smithers                           Location :   -
Injection Date  : 7/12/2011 2:31:11 AM                   Inj :   2
Acq. Method     : H:\HPLC2011Q3\SMITHERS\METHODS\METROHM.M
Last changed    : 5/6/2011 11:25:14 AM by EO
Analysis Method : Y:\HPLC2011Q2\SMITHERS\METHODS\HPLC55PG176.M
Last changed    : 7/12/2011 9:09:39 AM
```




```
==========================================================================
                        External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/12/2011 9:03:37 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]         [uS/cm*s]               [ug/mL]
-------|------|----------|----------|----------|--|------------------
  2.651 BV      311.49124 1.65500e-2    5.15519    Fluoride
  3.481 VB      194.42084 2.55162e-2    4.96088    Chloride

Totals :                                10.11607


==========================================================================
                           *** End of Report ***
```

Method Information

Method: U:\HPLC2010Q1\SMITHERS\METHODS\METROHM.M
Modified: 1/13/2010 at 7:06:26 AM

ANALOG DIGITAL CONVERTER

	Signal 1
Description:	ADC1 A, Metrohm
Source:	Signal
Unit:	mAU
Units/Volt:	100.000
Peakwidth (Data Rate):	0.027 Min (10.00 Hz)
Stop Time:	No Limit
Data Storage:	All

Start Signal Source: External Device Will Start 35900

Timed Event Table:
<no events>

Sequence Table:

Method and Injection Info Part:

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
~~1~~	~~Vial 127~~	~~DI Rinse~~	~~METROHM~~	~~4~~	~~Sample~~	
2	Vial 1	HPLC55pg176 #1	METROHM	2	Sample	
3	Vial 2	HPLC55pg176 #2	METROHM	2	Sample	
4	Vial 3	HPLC55pg176 #3	METROHM	2	Sample	
5	Vial 4	HPLC55pg176 #4	METROHM	2	Sample	
~~6~~	~~Vial 5~~	~~HPLC55pg176 #5~~	~~METROHM~~	~~2~~	~~Sample~~	
7	Vial 6	HPLC55pg176 #SS	METROHM	2	Sample	
8	Vial 7	0.01N H2SO4/NaOH RB	METROHM	2	Sample	
~~9~~	~~Vial 8~~	~~Run 1 *10 0711-62~~	~~METROHM~~	~~2~~	~~Sample~~	
10	Vial 9	MS Run 1 *10 0711-62	METROHM	2	Sample	
11	Vial 10	MSD Run 1 *10 0711-62	METROHM	2	Sample	
12	Vial 11	Run 2 *10 0711-62	METROHM	2	Sample	
13	Vial 12	Run 3 *10 0711-62	METROHM	2	Sample	
~~14~~	~~Vial 13~~	~~H2SO4 Blank *10 0711-62~~	~~METROHM~~	~~2~~	~~Sample~~	
15	Vial 14	Run 1 *10 Acid 0611-24	METROHM	2	Sample	
16	Vial 15	MS Run 1 *10 Acid 0611-24	METROHM	2	Sample	
17	Vial 100	HPLC55pg176 #3	METROHM	2	Sample	
~~18~~	~~Vial 101~~	~~HPLC55pg176 #4~~	~~METROHM~~	~~2~~	~~Sample~~	
19	Vial 16	MSD Run 1 *10 Acid 0611-24	METROHM	2	Sample	
20	Vial 17	Run 2 *10 Acid 0611-24	METROHM	2	Sample	
21	Vial 18	Run 3 *10 Acid 0611-24	METROHM	2	Sample	
22	Vial 19	H2SO4 FB *10 0611-24	METROHM	2	Sample	
23	Vial 20	H2SO4 RB *10 0611-24	METROHM	2	Sample	

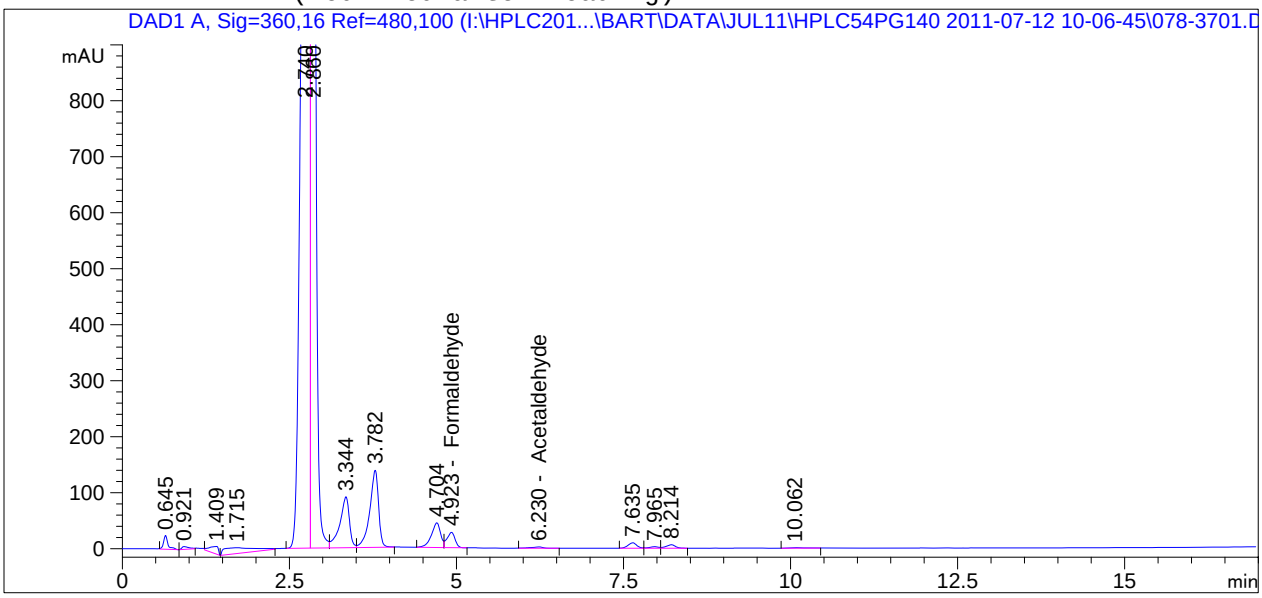
24	Vial 21	DI H2O RB 0611-24	METROHM	2	Sample
25	Vial 22	Run 1 *10 Base 0611-24	METROHM	2	Sample
26	Vial 23	MS Run 1 *10 Base 0611-24	METROHM	2	Sample
27	Vial 24	MSD Run 1 *10 Base 0611-24	METROHM	2	Sample
28	Vial 25	Run 2 *10 Base 0611-24	METROHM	2	Sample
29	Vial 100	HPLC55pg176 #3	METROHM	2	Sample
~~30~~	~~Vial 101~~	~~HPLC55pg176 #4~~	~~METROHM~~	~~2~~	~~Sample~~
31	Vial 6	HPLC55pg176 #SS	METROHM	2	Sample
32	Vial 7	0.01N H2SO4/NaOH RB	METROHM	2	Sample
33	Vial 26	Run 3 *10 Base 0611-24	METROHM	2	Sample
34	Vial 27	NaOH FB *10 0611-24	METROHM	2	Sample
35	Vial 28	NaOH RB *10 0611-24	METROHM	2	Sample
~~36~~	~~Vial 29~~	~~T9R1 NaOH *10 0611-125~~	~~METROHM~~	~~2~~	~~Sample~~
~~37~~	~~Vial 30~~	~~T9R0 NaOH *10 0611-125~~	~~METROHM~~	~~2~~	~~Sample~~
38	Vial 1	HPLC55pg176 #1	METROHM	2	Sample
39	Vial 2	HPLC55pg176 #2	METROHM	2	Sample
40	Vial 3	HPLC55pg176 #3	METROHM	2	Sample
41	Vial 4	HPLC55pg176 #4	METROHM	2	Sample
~~42~~	~~Vial 5~~	~~HPLC55pg176 #5~~	~~METROHM~~	~~2~~	~~Sample~~

Sample Chromatograms

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\078-3701.D
Sample Name: Run 2 0611-24

CHV-Stk-ICR2-M0011-Imp/RnsA

```
==========================================================================
Acq. Operator   : Kristen Bounds                 Seq. Line :  37
Acq. Instrument : Bart                           Location : Vial 78
Injection Date  : 7/12/2011 10:59:30 PM               Inj :   1
                                                Inj Volume : 15.0 µl
Acq. Method     : C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M
Last changed    : 6/23/2011 6:03:33 PM by System
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M
Last changed    : 7/14/2011 2:00:05 PM by KHB
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/14/2011 2:00:07 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  4.923 VB      227.27855 2.42472e-3 5.51087e-1    Formaldehyde
  6.230 BB       25.90539 3.41603e-3 8.84937e-2    Acetaldehyde
  8.449            -          -          -         Propionaldehyde

Totals :                              6.39580e-1

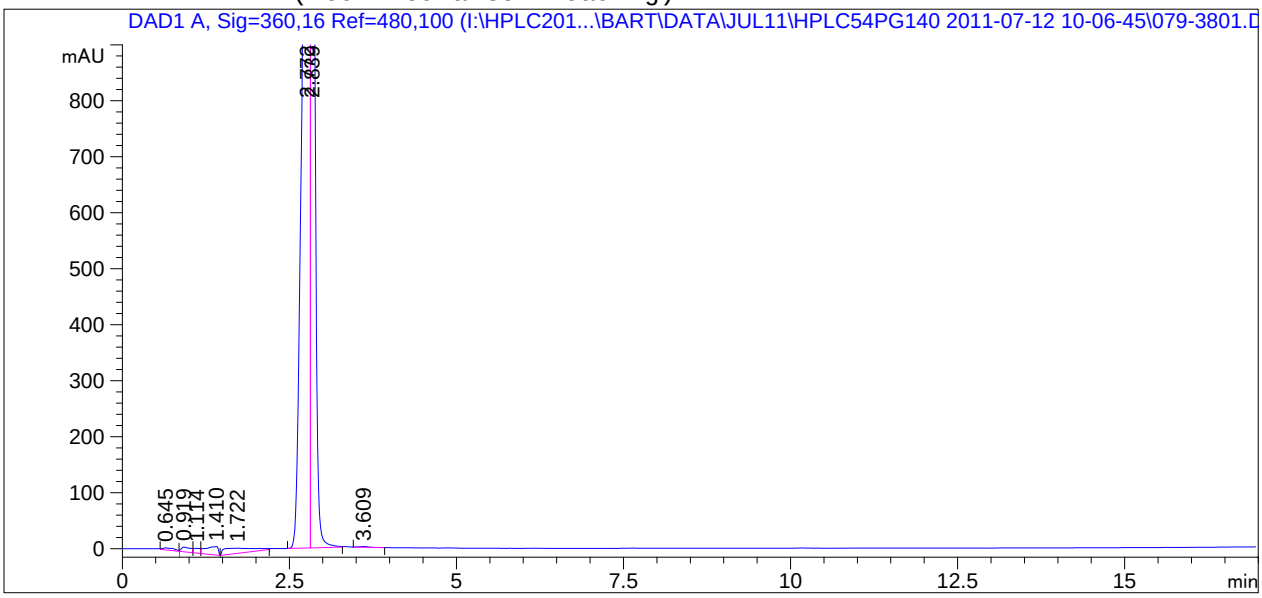

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\079-3801.D
Sample Name: MB-2 3 0611-135/24

Acq. Operator : Kristen Bounds Seq. Line : 38
Acq. Instrument : Bart Location : Vial 79
Injection Date : 7/12/2011 11:20:56 PM Inj : 1
Inj Volume : 15.0 µl
Acq. Method : C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M
Last changed : 6/23/2011 6:03:33 PM by System
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M
Last changed : 7/14/2011 2:00:05 PM by KHB
(modified after loading)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/14/2011 2:00:07 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.927		-	-	-		Formaldehyde
6.235		-	-	-		Acetaldehyde
8.449		-	-	-		Propionaldehyde

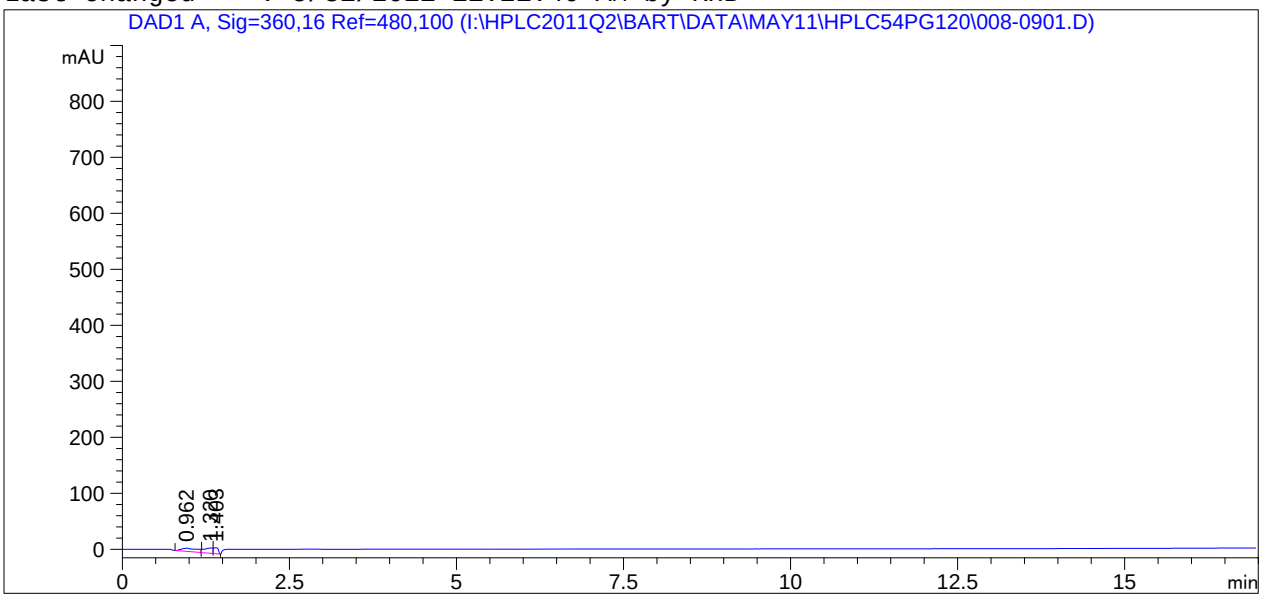
Totals : 0.00000

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\008-0901.D
Sample Name: RB/100% ACN

```
==========================================================================
Acq. Operator   : KHB                              Seq. Line :   9
Acq. Instrument : Bart                              Location : Vial 8
Injection Date  : 5/27/2011 11:24:14 PM                  Inj :   1
                                                  Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.057            -          -          -         Formaldehyde
  6.380            -          -          -         Acetaldehyde
  7.788            -          -          -         Acetone
  8.093            -          -          -         Acrolein
  8.604            -          -          -         Propionaldehyde

Totals :                                0.00000

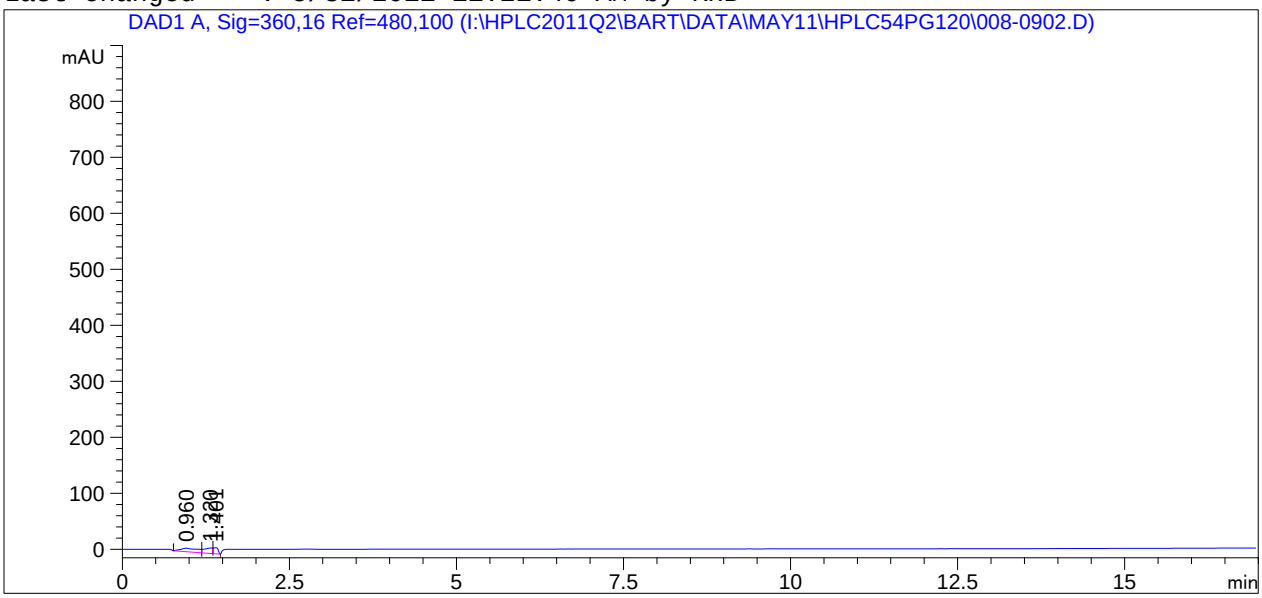

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\008-0902.D
Sample Name: RB/100% ACN

```
==========================================================================
Acq. Operator   : KHB                              Seq. Line :   9
Acq. Instrument : Bart                              Location : Vial 8
Injection Date  : 5/27/2011 11:45:53 PM                 Inj :   2
                                                  Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.057            -          -          -         Formaldehyde
  6.380            -          -          -         Acetaldehyde
  7.788            -          -          -         Acetone
  8.093            -          -          -         Acrolein
  8.604            -          -          -         Propionaldehyde

Totals :                                0.00000

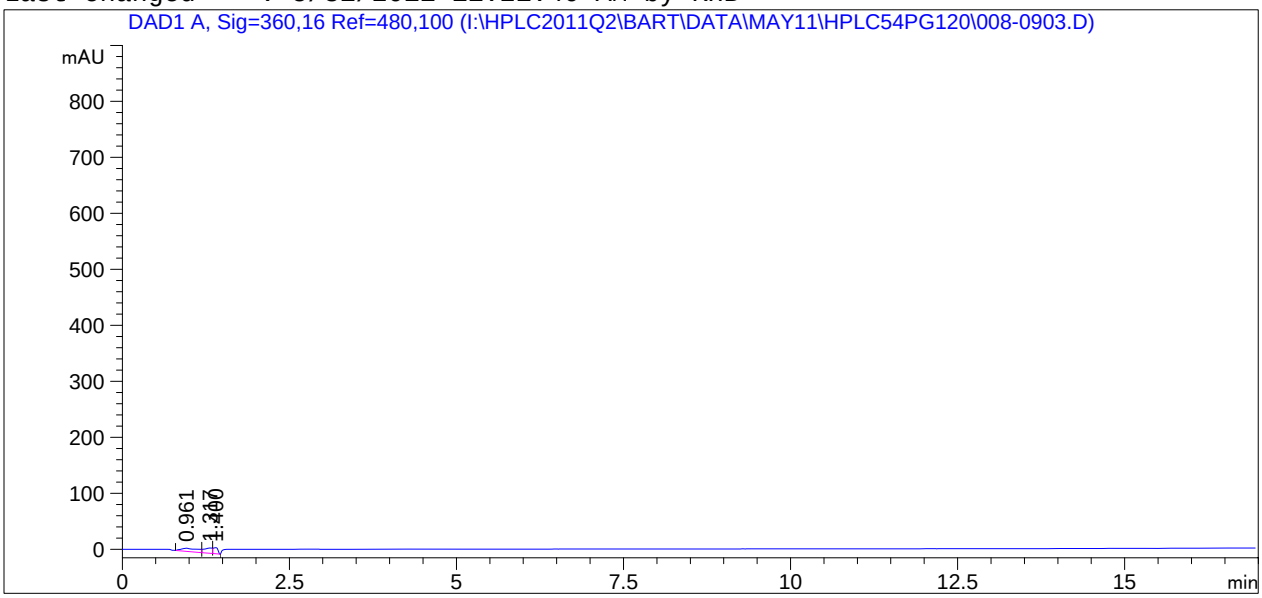

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\008-0903.D
Sample Name: RB/100% ACN

```
==========================================================================
Acq. Operator   : KHB                              Seq. Line :   9
Acq. Instrument : Bart                              Location : Vial 8
Injection Date  : 5/28/2011 12:07:30 AM                  Inj :   3
                                                  Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.057            -          -          -         Formaldehyde
  6.380            -          -          -         Acetaldehyde
  7.788            -          -          -         Acetone
  8.093            -          -          -         Acrolein
  8.604            -          -          -         Propionaldehyde

Totals :                                0.00000

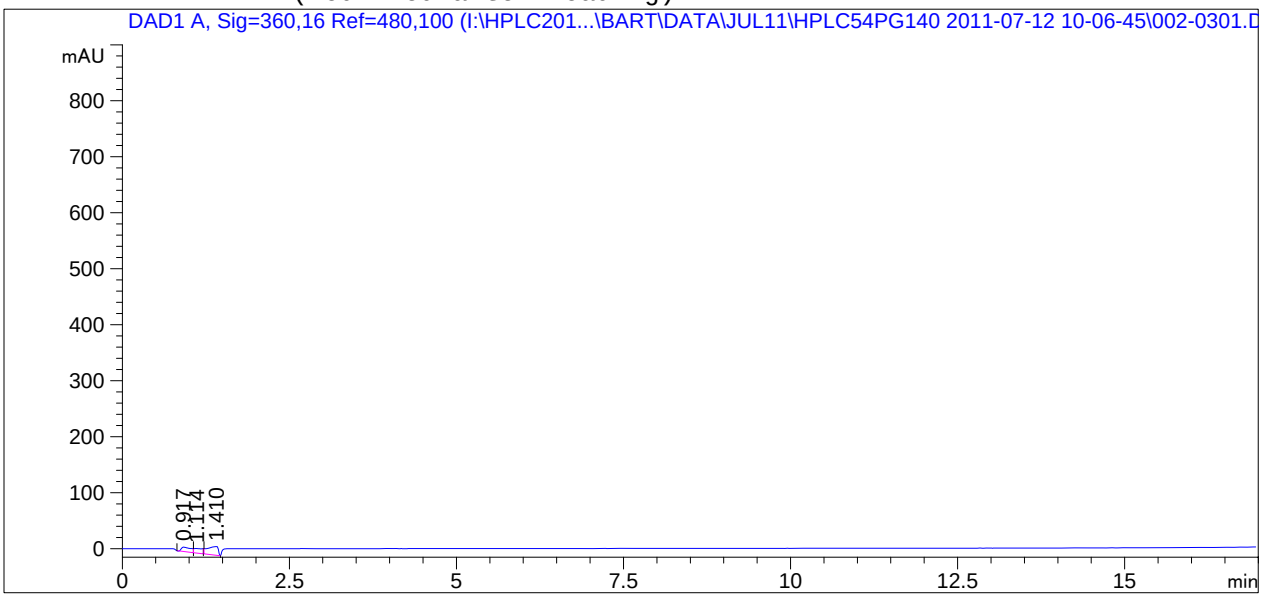

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========================================================================
```

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\002-0301.D
Sample Name: RB/100% ACN

```
==================================================================
Acq. Operator   : Kristen Bounds                Seq. Line :   3
Acq. Instrument : Bart                           Location : Vial 2
Injection Date  : 7/12/2011 10:51:13 AM               Inj :   1
                                               Inj Volume : 15.0 µl
Acq. Method     : C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M
Last changed    : 6/23/2011 6:03:33 PM by System
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M
Last changed    : 7/14/2011 2:00:05 PM by KHB
                  (modified after loading)
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/14/2011 2:00:07 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  4.927            -          -          -         Formaldehyde
  6.235            -          -          -         Acetaldehyde
  8.449            -          -          -         Propionaldehyde

Totals :                                0.00000

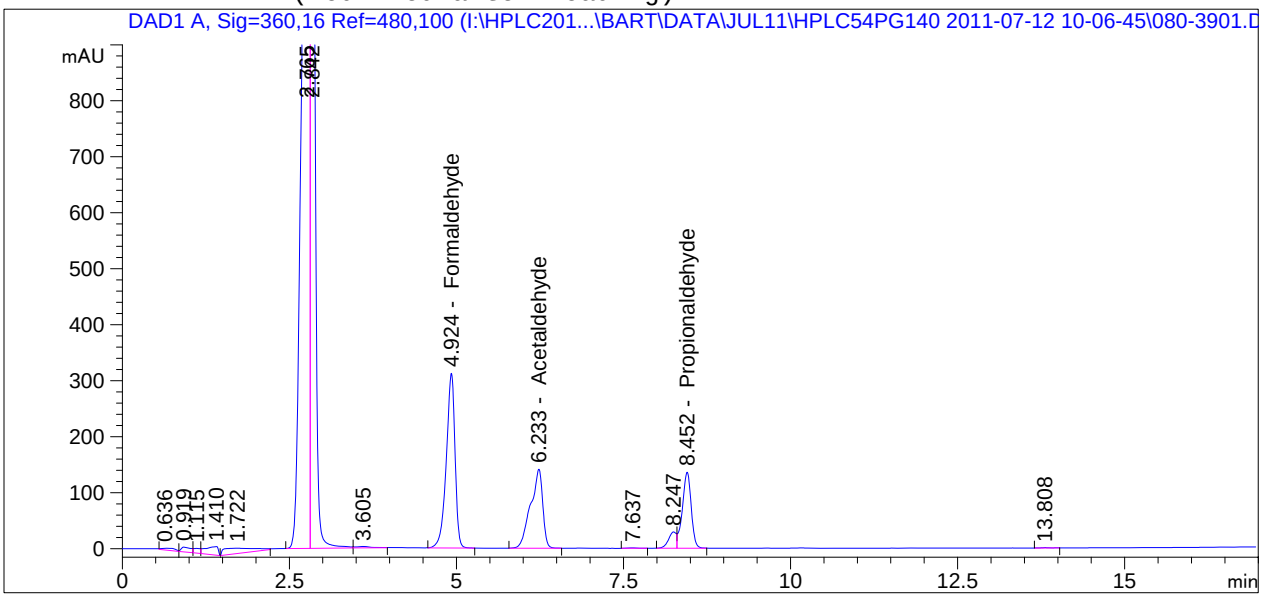

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==================================================================
```

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\080-3901.D
Sample Name: LCS-2 3 0611-135/24

Acq. Operator	: Kristen Bounds	Seq. Line	: 39
Acq. Instrument	: Bart	Location	: Vial 80
Injection Date	: 7/12/2011 11:42:20 PM	Inj	: 1
		Inj Volume	: 15.0 µl
Acq. Method	: C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M		
Last changed	: 6/23/2011 6:03:33 PM by System		
Analysis Method	: I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M		
Last changed	: 7/14/2011 2:00:05 PM by KHB (modified after loading)		



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/14/2011 2:00:07 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

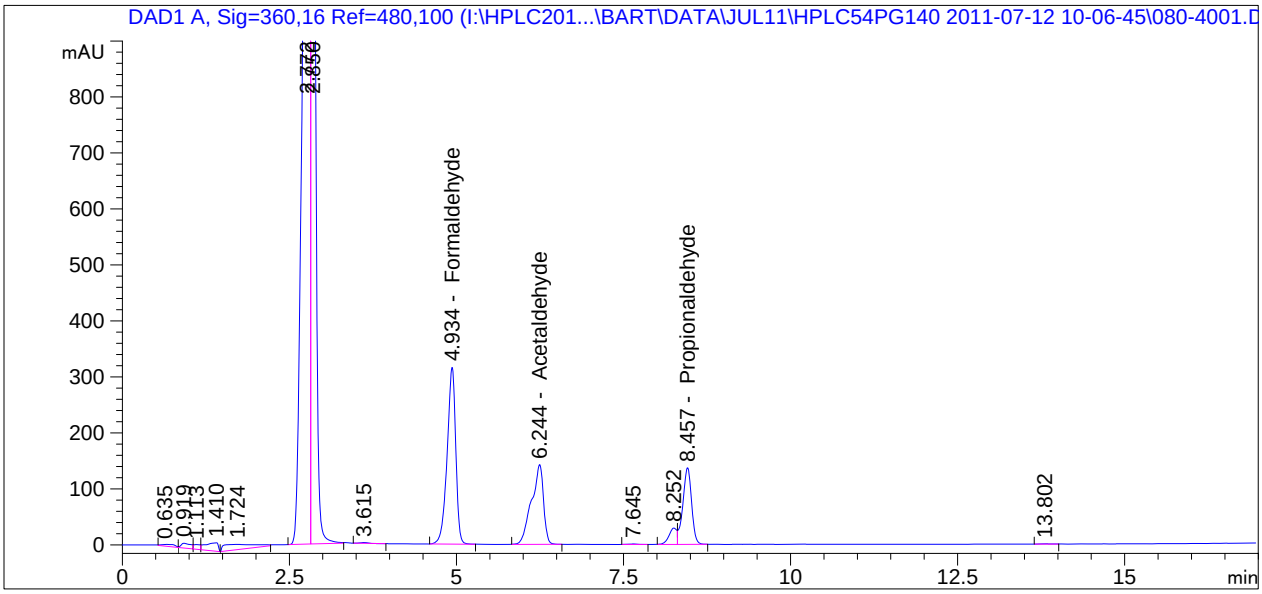
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.924	BB	2838.57080	2.42472e-3	6.88274		Formaldehyde
6.233	BB	1776.39075	3.41603e-3	6.06821		Acetaldehyde
8.452	VB	1246.86267	4.41958e-3	5.51061		Propionaldehyde

Totals : 18.46156

*** End of Report ***

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\080-4001.D
Sample Name: LCS-2 3 0611-135/24

Acq. Operator : Kristen Bounds Seq. Line : 40
Acq. Instrument : Bart Location : Vial 80
Injection Date : 7/13/2011 12:03:44 AM Inj : 1
Inj Volume : 15.0 µl
Acq. Method : C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M
Last changed : 6/23/2011 6:03:33 PM by System
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M
Last changed : 7/14/2011 2:00:05 PM by KHB
(modified after loading)
Sample Info : Duplicate Injection



External Standard Report

Sorted By : Signal
Calib. Data Modified : 7/14/2011 2:00:07 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.934	BB	2834.31006	2.42472e-3	6.87241		Formaldehyde
6.244	BB	1771.69409	3.41603e-3	6.05217		Acetaldehyde
8.457	VB	1246.91992	4.41958e-3	5.51086		Propionaldehyde
Totals :				18.43544		

*** End of Report ***

Calibration Curve Chromatograms

Calibration Table

Calib. Data Modified : Tuesday, May 31, 2011 11:20:41 AM

Rel. Reference Window : 5.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 5.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Average Response/Amount
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime [min]	Sig	Lvl	Amount [ug/mL]	Area	Amt/Area	Ref	Grp	Name
5.057	1	1	7.47000e-2	30.61963	2.43961e-3			Formaldehyde
		2	7.15000e-1	310.99482	2.29907e-3			
		3	2.50000	1000.60588	2.49849e-3			
		4	5.00000	2049.16028	2.44002e-3			
		5	9.01000	3688.39754	2.44280e-3			
		6	15.00000	6153.18799	2.43776e-3			
6.380	1	1	7.47000e-2	21.60617	3.45735e-3			Acetaldehyde
		2	7.15000e-1	220.44158	3.24349e-3			
		3	2.50000	712.11804	3.51065e-3			
		4	5.01000	1458.37695	3.43533e-3			
		5	9.01000	2621.98153	3.43633e-3			
		6	15.00000	4378.88102	3.42553e-3			
7.788	1	1	7.47000e-2	16.62340	4.49366e-3			Acetone
		2	7.15000e-1	165.24312	4.32696e-3			
		3	2.50000	533.17934	4.68885e-3			
		4	5.00000	1092.29525	4.57752e-3			
		5	9.01000	1967.45394	4.57952e-3			
		6	15.00000	3276.86100	4.57755e-3			
8.093	1	1	7.47000e-2	20.19522	3.69889e-3			Acrolein
		2	7.15000e-1	195.41486	3.65888e-3			
		3	2.50000	629.92090	3.96875e-3			
		4	5.01000	1287.60856	3.89093e-3			
		5	9.01000	2315.26774	3.89156e-3			
		6	15.00000	3867.90869	3.87806e-3			
8.604	1	1	7.46000e-2	16.01441	4.65831e-3			Propionaldehyde
		2	7.14000e-1	171.99996	4.15116e-3			
		3	2.50000	553.96212	4.51294e-3			
		4	5.00000	1133.32080	4.41181e-3			

RetTime [min]	Sig	Lvl	Amount [ug/mL]	Area	Amt/Area	Ref	Grp	Name
		5	9.00000	2038.95015	4.41404e-3			
		6	15.00000	3408.43978	4.40084e-3			

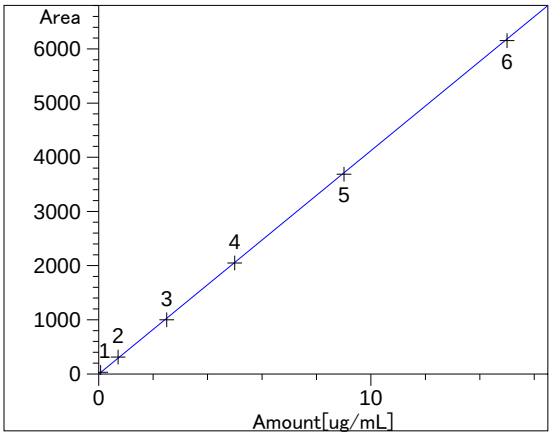
1 Warnings or Errors :

Warning : Overlapping peak time windows at 7.788 min, signal 1

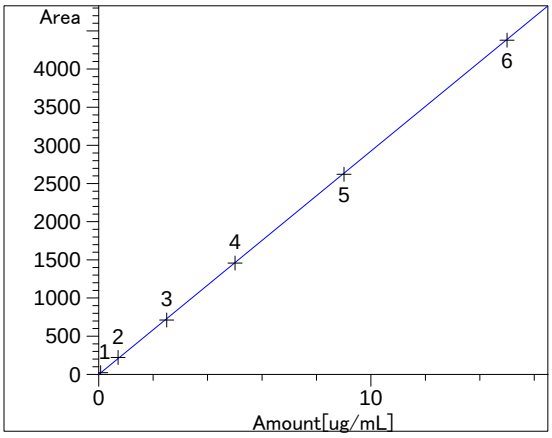
Peak Sum Table

No Entries in table

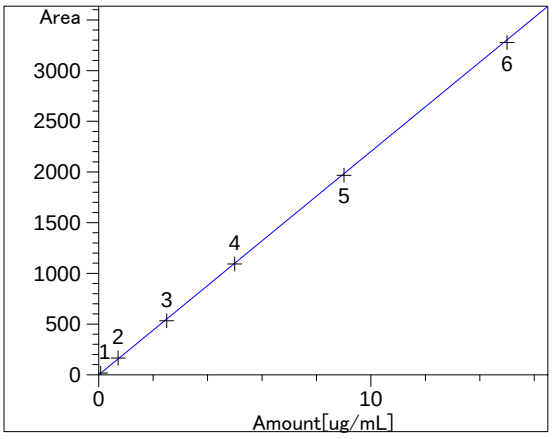
Calibration Curves



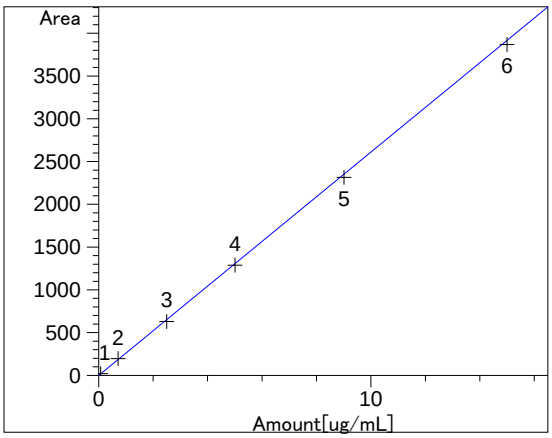
Formaldehyde at exp. RT: 5.057
DAD1 A, Sig=360,16 Ref=480,100
Correlation: 0.99998
Residual Std. Dev.: 28.30642
Formula: y = mx
m: 412.41885
x: Amount
y: Area



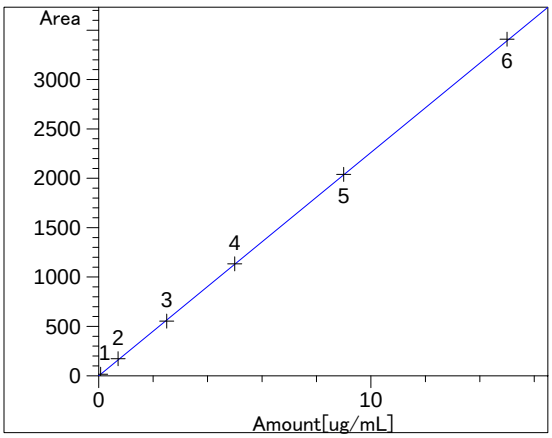
Acetaldehyde at exp. RT: 6.380
DAD1 A, Sig=360,16 Ref=480,100
Correlation: 0.99998
Residual Std. Dev.: 15.58800
Formula: y = mx
m: 292.73714
x: Amount
y: Area



Acetone at exp. RT: 7.788
DAD1 A, Sig=360,16 Ref=480,100
Correlation: 0.99998
Residual Std. Dev.: 20.06094
Formula: y = mx
m: 220.36606
x: Amount
y: Area



Acrolein at exp. RT: 8.093
DAD1 A, Sig=360,16 Ref=480,100
Correlation: 0.99998
Residual Std. Dev.: 35.78804
Formula: y = mx
m: 261.24361
x: Amount
y: Area

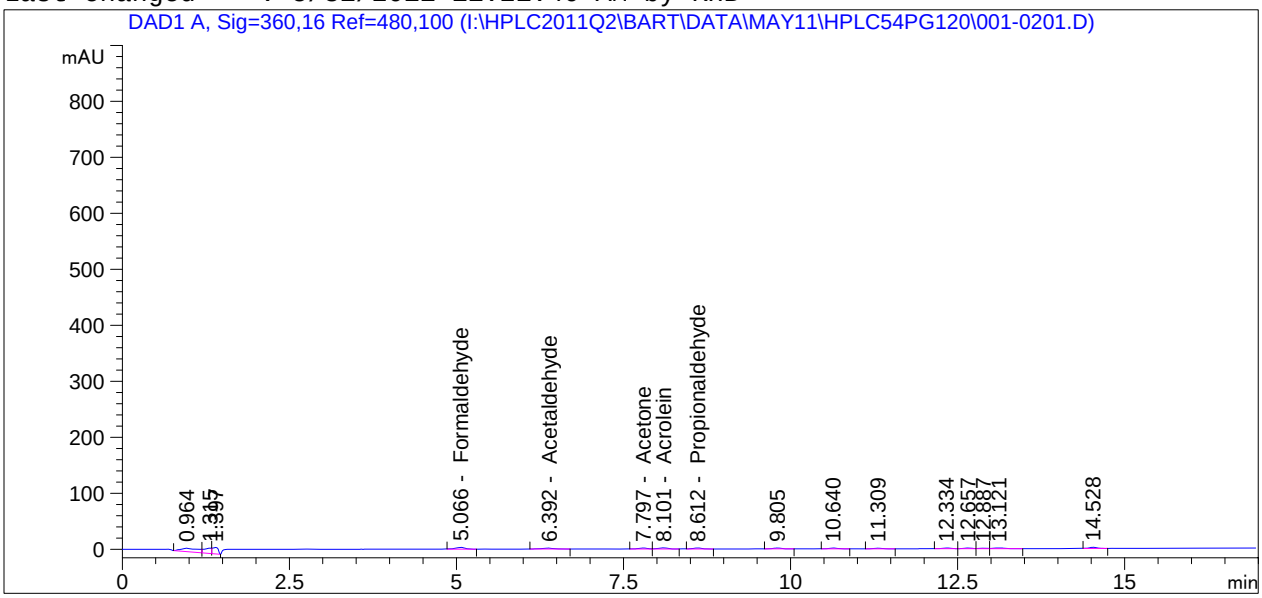


Propionaldehyde at exp. RT: 8.604
DAD1 A, Sig=360,16 Ref=480,100
Correlation: 0.99998
Residual Std. Dev.: 10.79580
Formula: y = mx
m: 226.26583
x: Amount
y: Area

==========

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\001-0201.D
Sample Name: hplc54pg120 #1

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   2
Acq. Instrument : Bart                          Location : Vial 1
Injection Date  : 5/27/2011 3:49:47 PM               Inj :   1
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.066 BB       29.63630 2.42472e-3 7.18597e-2    Formaldehyde
  6.392 BB       22.03458 3.41603e-3 7.52709e-2    Acetaldehyde
  7.797 BV       16.60152 4.53790e-3 7.53361e-2    Acetone
  8.101 VB       20.15335 3.82784e-3 7.71439e-2    Acrolein
  8.612 BB       16.10484 4.41958e-3 7.11766e-2    Propionaldehyde

Totals :                              3.70787e-1

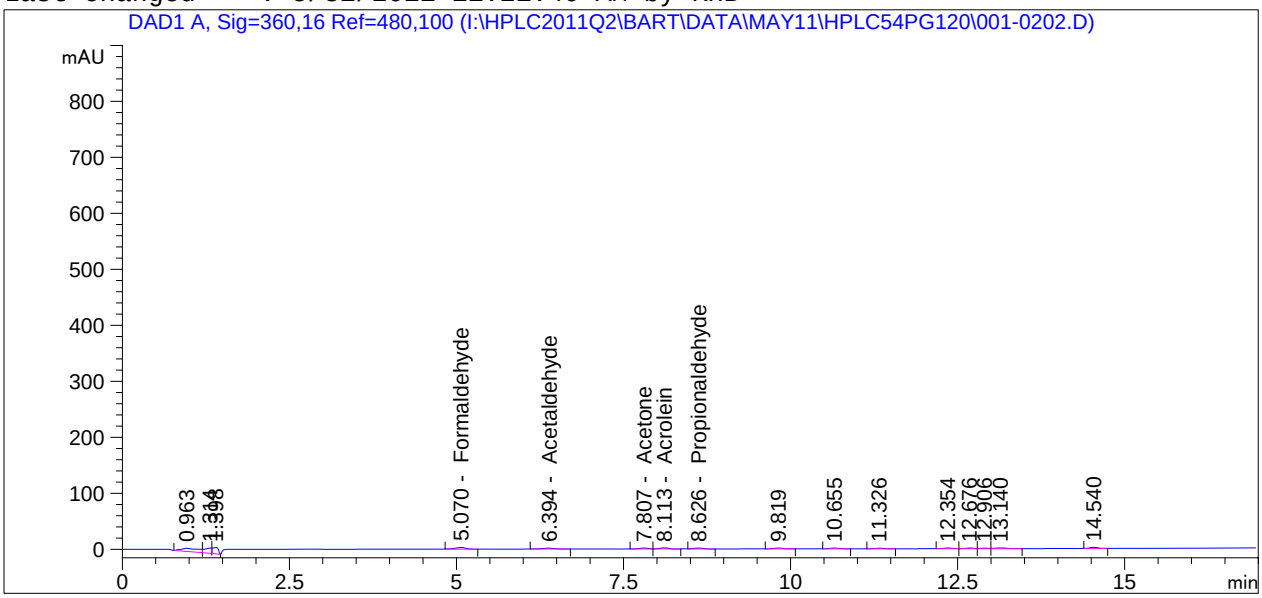

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\001-0202.D
Sample Name: hplc54pg120 #1

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   2
Acq. Instrument : Bart                          Location : Vial 1
Injection Date  : 5/27/2011 4:11:25 PM               Inj :   2
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.070 BB       31.00495 2.42472e-3 7.51783e-2    Formaldehyde
  6.394 BB       21.29319 3.41603e-3 7.27383e-2    Acetaldehyde
  7.807 BV       16.89919 4.53790e-3 7.66869e-2    Acetone
  8.113 VB       20.30722 3.82784e-3 7.77329e-2    Acrolein
  8.626 BB       16.01859 4.41958e-3 7.07955e-2    Propionaldehyde

Totals :                              3.73132e-1

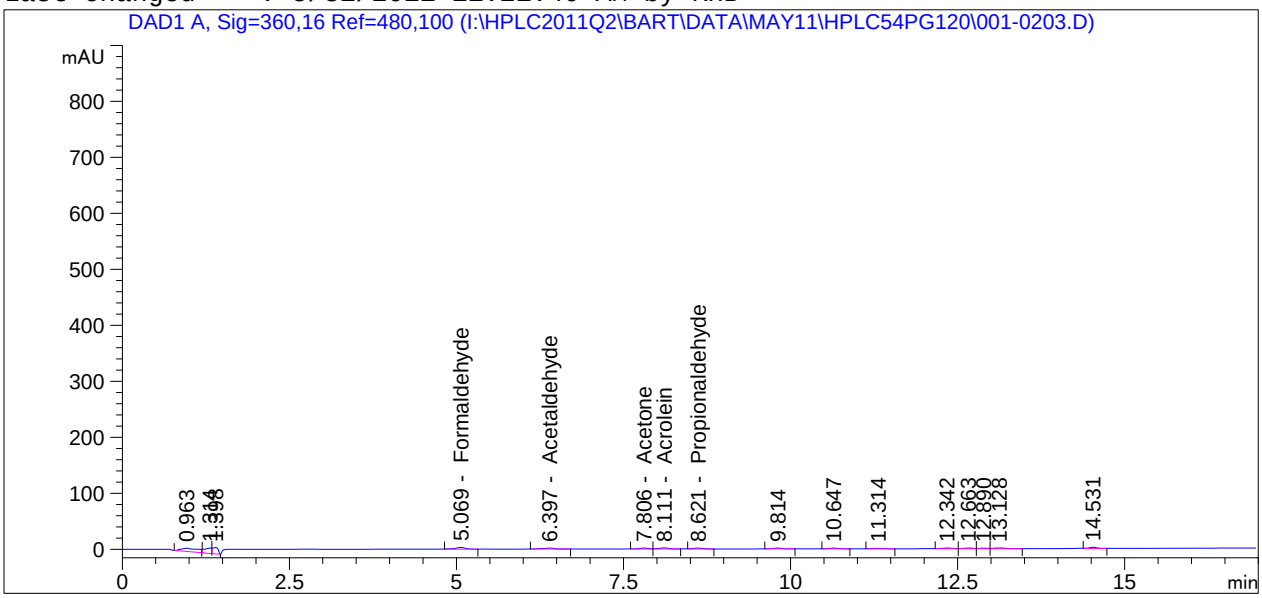

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\001-0203.D
Sample Name: hplc54pg120 #1

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   2
Acq. Instrument : Bart                          Location : Vial 1
Injection Date  : 5/27/2011 4:33:05 PM               Inj :   3
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.069 BB       31.21763 2.42472e-3 7.56940e-2    Formaldehyde
  6.397 BB       21.49072 3.41603e-3 7.34130e-2    Acetaldehyde
  7.806 BV       16.36949 4.53790e-3 7.42832e-2    Acetone
  8.111 VB       20.12511 3.82784e-3 7.70358e-2    Acrolein
  8.621 BB       15.91979 4.41958e-3 7.03588e-2    Propionaldehyde

Totals :                              3.70785e-1

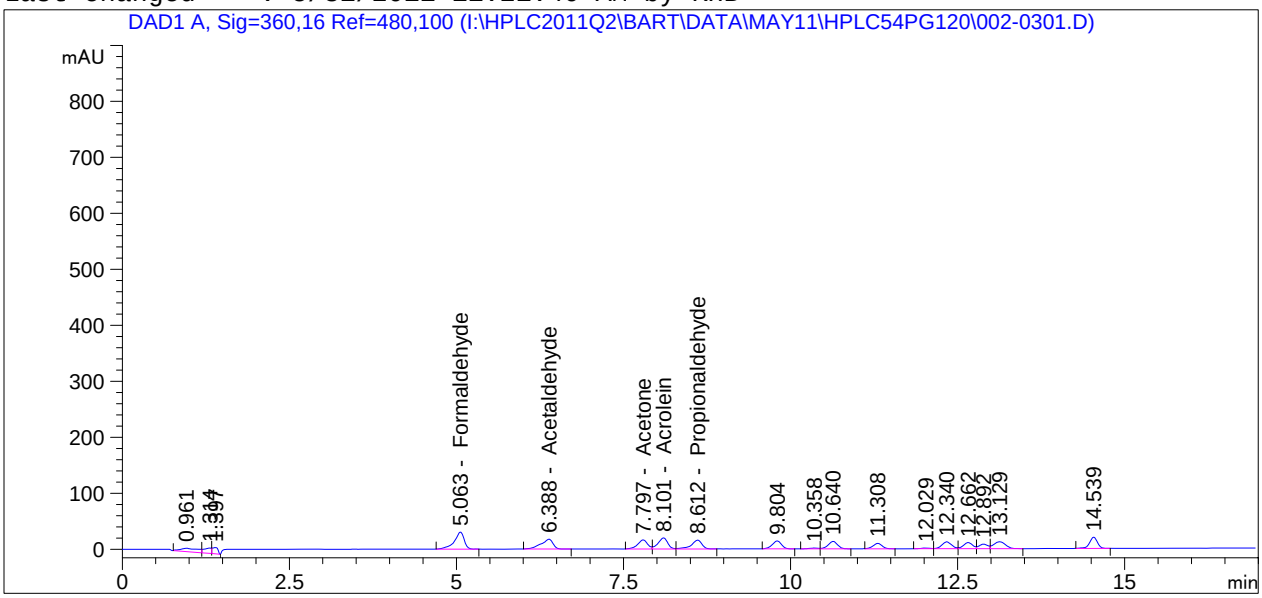

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\002-0301.D
Sample Name: hplc54pg120 #2

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   3
Acq. Instrument : Bart                          Location : Vial 2
Injection Date  : 5/27/2011 4:54:43 PM               Inj :   1
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.063 BB      311.51663 2.42472e-3 7.55340e-1    Formaldehyde
  6.388 BB      221.01292 3.41603e-3 7.54988e-1    Acetaldehyde
  7.797 BV      166.06204 4.53790e-3 7.53574e-1    Acetone
  8.101 VV      195.89969 3.82784e-3 7.49874e-1    Acrolein
  8.612 VB      172.74652 4.41958e-3 7.63467e-1    Propionaldehyde

Totals :                                3.77724

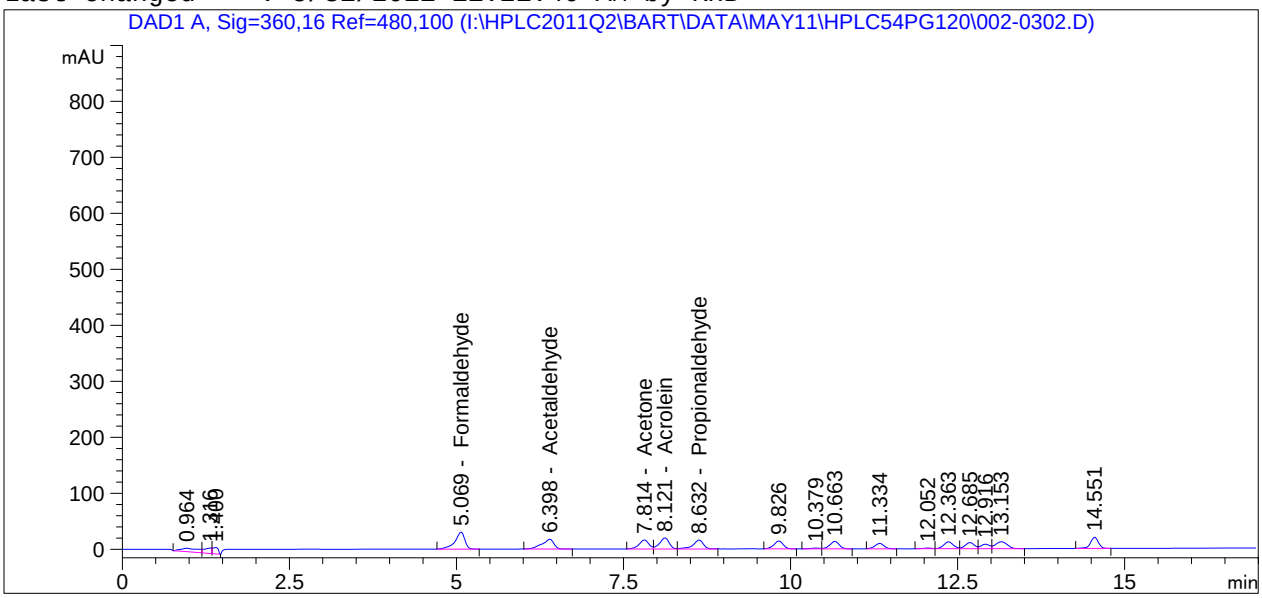

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\002-0302.D
Sample Name: hplc54pg120 #2

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   3
Acq. Instrument : Bart                          Location : Vial 2
Injection Date  : 5/27/2011 5:16:23 PM               Inj :   2
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.069 BB      310.92529 2.42472e-3 7.53907e-1    Formaldehyde
  6.398 BB      220.41605 3.41603e-3 7.52949e-1    Acetaldehyde
  7.814 BV      164.85385 4.53790e-3 7.48091e-1    Acetone
  8.121 VV      195.58609 3.82784e-3 7.48673e-1    Acrolein
  8.632 VB      171.94592 4.41958e-3 7.59929e-1    Propionaldehyde

Totals :                                3.76355

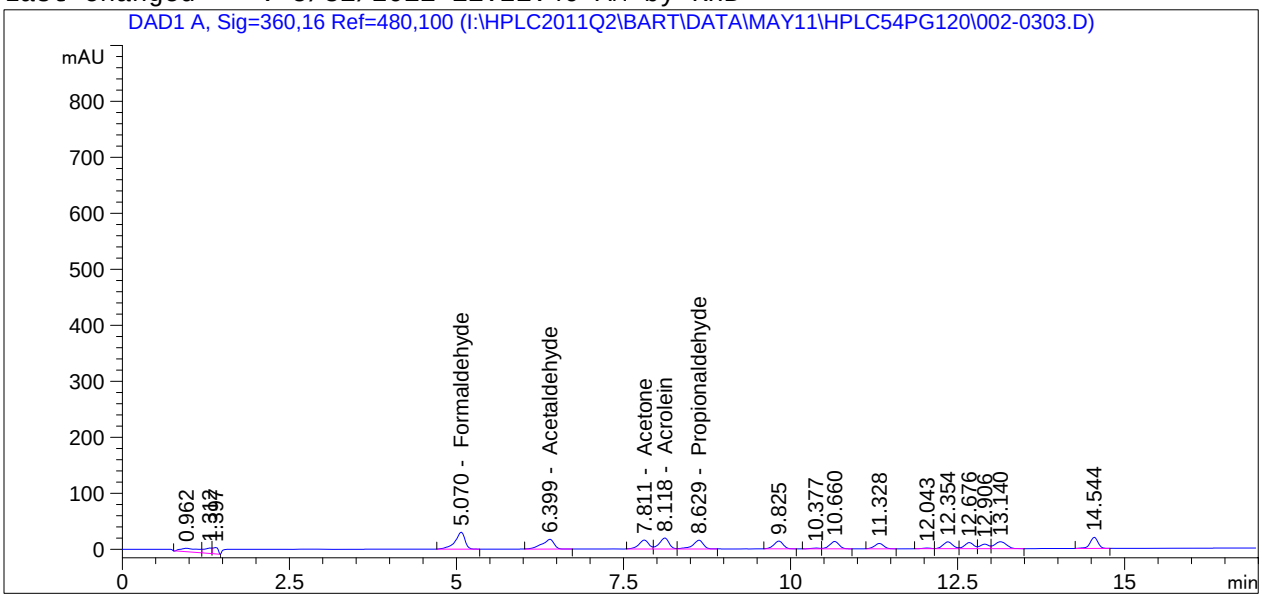

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\002-0303.D
Sample Name: hplc54pg120 #2

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   3
Acq. Instrument : Bart                          Location : Vial 2
Injection Date  : 5/27/2011 5:38:01 PM               Inj :   3
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.070 BB      310.54254 2.42472e-3 7.52979e-1    Formaldehyde
  6.399 BB      219.89577 3.41603e-3 7.51171e-1    Acetaldehyde
  7.811 BV      164.81348 4.53790e-3 7.47908e-1    Acetone
  8.118 VV      194.75879 3.82784e-3 7.45506e-1    Acrolein
  8.629 VB      171.30743 4.41958e-3 7.57107e-1    Propionaldehyde

Totals :                                3.75467

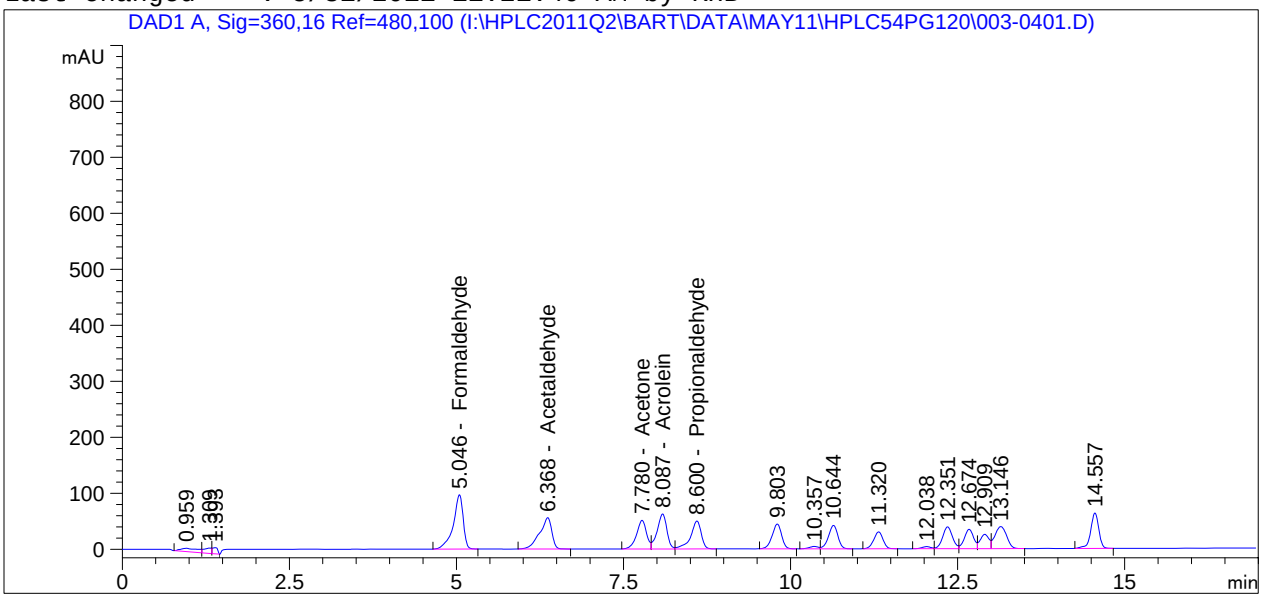

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\003-0401.D
Sample Name: hplc54pg120 #3

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   4
Acq. Instrument : Bart                          Location : Vial 3
Injection Date  : 5/27/2011 5:59:39 PM               Inj :   1
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]                [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.046 BB      998.41003 2.42472e-3    2.42086    Formaldehyde
  6.368 BB      709.74158 3.41603e-3    2.42450    Acetaldehyde
  7.780 BV      531.52472 4.53790e-3    2.41201    Acetone
  8.087 VV      627.80054 3.82784e-3    2.40312    Acrolein
  8.600 VB      551.54254 4.41958e-3    2.43759    Propionaldehyde

Totals :                               12.09808

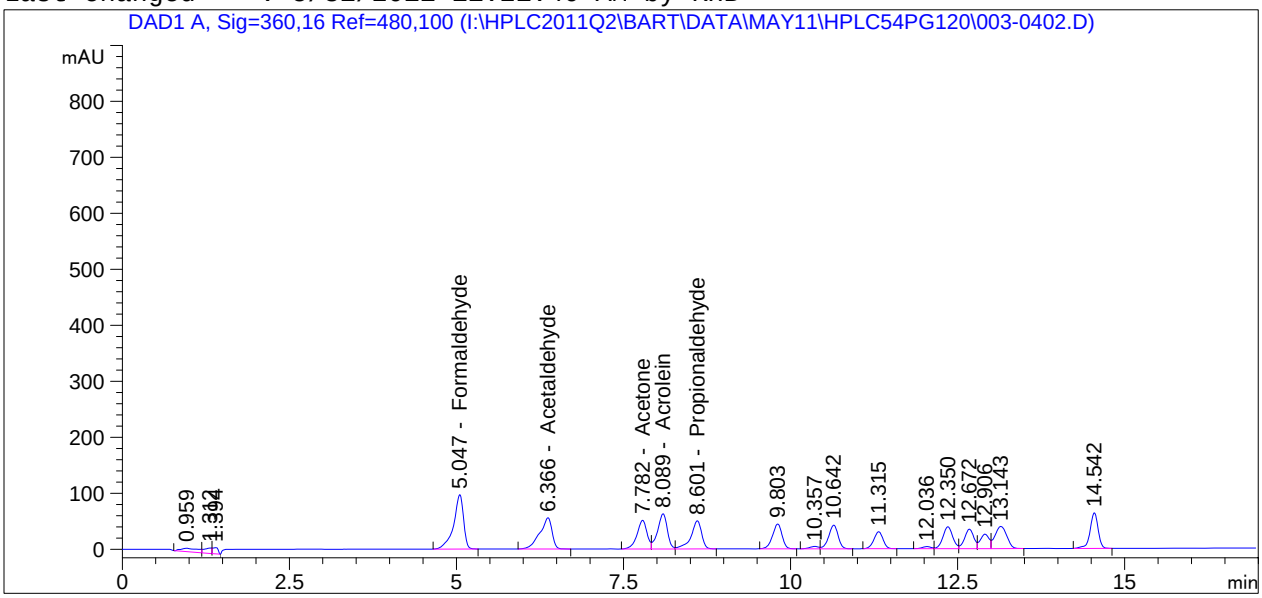

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\003-0402.D
Sample Name: hplc54pg120 #3

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   4
Acq. Instrument : Bart                          Location : Vial 3
Injection Date  : 5/27/2011 6:21:18 PM               Inj :   2
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]                [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.047 BB     1000.59607 2.42472e-3    2.42616    Formaldehyde
  6.366 BB      712.76935 3.41603e-3    2.43484    Acetaldehyde
  7.782 BV      534.88556 4.53790e-3    2.42726    Acetone
  8.089 VV      630.79639 3.82784e-3    2.41459    Acrolein
  8.601 VB      555.57050 4.41958e-3    2.45539    Propionaldehyde

Totals :                                12.15825

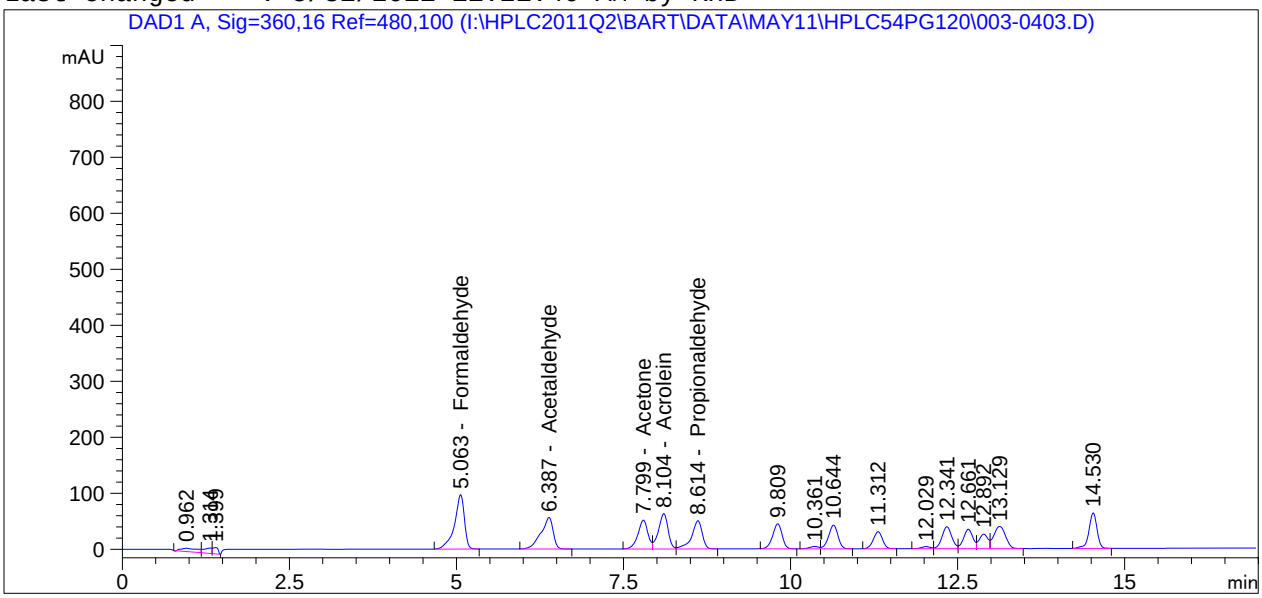

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\003-0403.D
Sample Name: hplc54pg120 #3

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   4
Acq. Instrument : Bart                          Location : Vial 3
Injection Date  : 5/27/2011 6:42:57 PM               Inj :   3
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]                [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.063 BB     1002.81152 2.42472e-3    2.43154    Formaldehyde
  6.387 BB      713.84320 3.41603e-3    2.43851    Acetaldehyde
  7.799 BV      533.12775 4.53790e-3    2.41928    Acetone
  8.104 VV      631.16577 3.82784e-3    2.41600    Acrolein
  8.614 VB      554.77332 4.41958e-3    2.45187    Propionaldehyde

Totals :                               12.15720

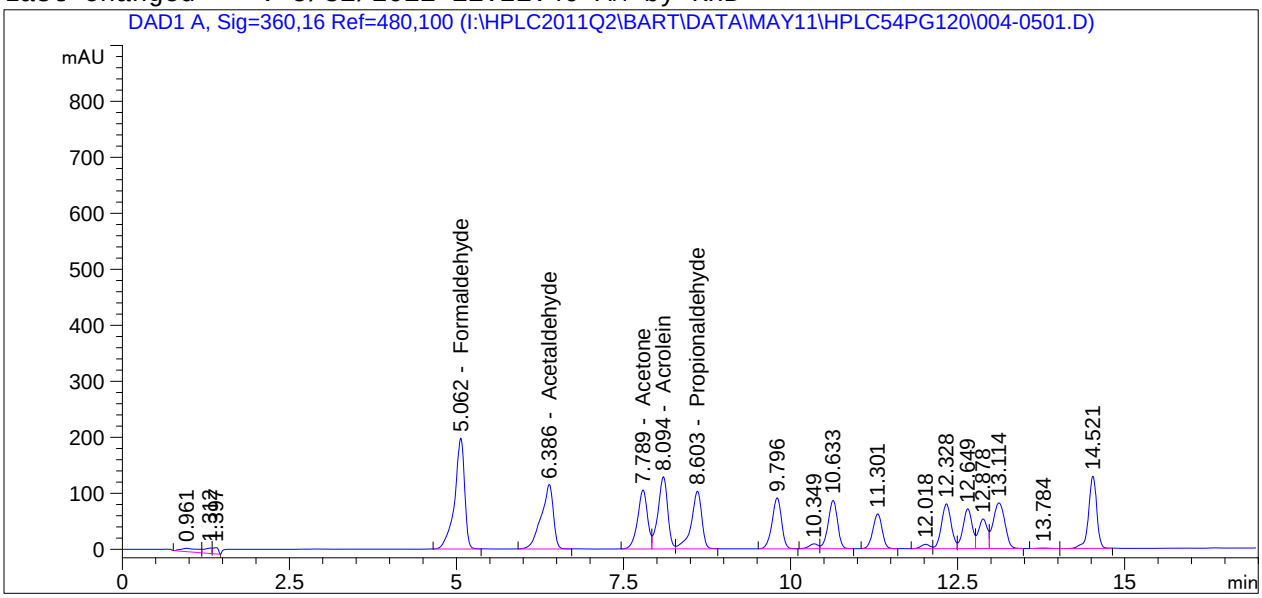

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\004-0501.D
Sample Name: hplc54pg120 #4

```
==========================================================================
Acq. Operator   : KHB                              Seq. Line :   5
Acq. Instrument : Bart                              Location : Vial 4
Injection Date  : 5/27/2011 7:04:36 PM                  Inj :   1
                                                  Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]                [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.062 BB     2044.54797 2.42472e-3    4.95746    Formaldehyde
  6.386 BB     1454.89929 3.41603e-3    4.96999    Acetaldehyde
  7.789 BV     1085.05432 4.53790e-3    4.92387    Acetone
  8.094 VV     1287.47888 3.82784e-3    4.92827    Acrolein
  8.603 VB     1130.24646 4.41958e-3    4.99522    Propionaldehyde

Totals :                                24.77480

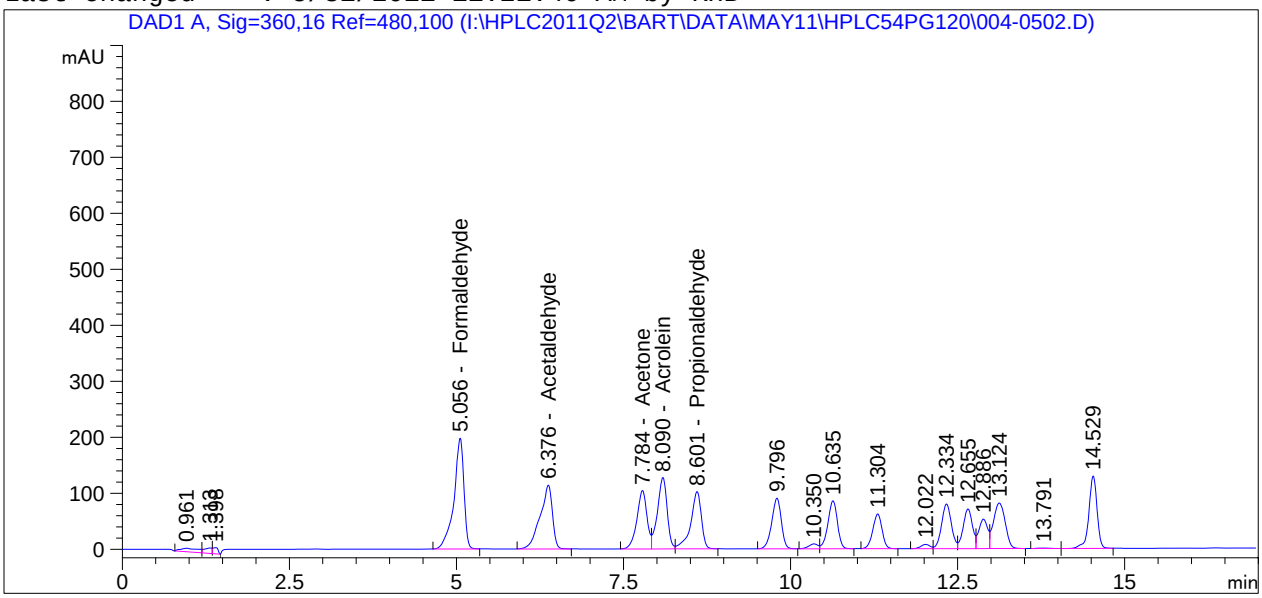

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\004-0502.D
Sample Name: hplc54pg120 #4

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   5
Acq. Instrument : Bart                          Location : Vial 4
Injection Date  : 5/27/2011 7:26:13 PM               Inj :   2
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]                [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.056 BB     2051.84546 2.42472e-3    4.97515    Formaldehyde
  6.376 BB     1460.14539 3.41603e-3    4.98791    Acetaldehyde
  7.784 BV     1094.21240 4.53790e-3    4.96543    Acetone
  8.090 VV     1288.81555 3.82784e-3    4.93339    Acrolein
  8.601 VB     1135.35559 4.41958e-3    5.01780    Propionaldehyde

Totals :                                24.87967

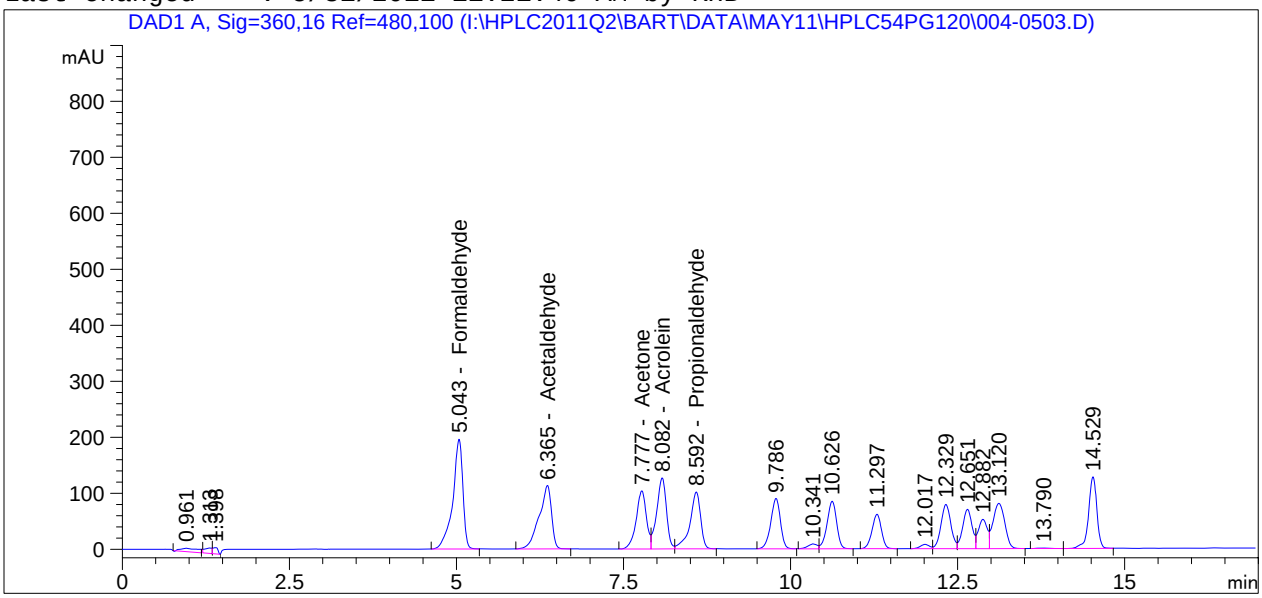

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\004-0503.D
Sample Name: hplc54pg120 #4

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   5
Acq. Instrument : Bart                          Location : Vial 4
Injection Date  : 5/27/2011 7:47:52 PM               Inj :   3
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.043 BB     2051.08740 2.42472e-3    4.97331    Formaldehyde
  6.365 BB     1460.08618 3.41603e-3    4.98770    Acetaldehyde
  7.777 BV     1097.61902 4.53790e-3    4.98089    Acetone
  8.082 VV     1286.53125 3.82784e-3    4.92464    Acrolein
  8.592 VB     1134.36035 4.41958e-3    5.01340    Propionaldehyde

Totals :                               24.87994

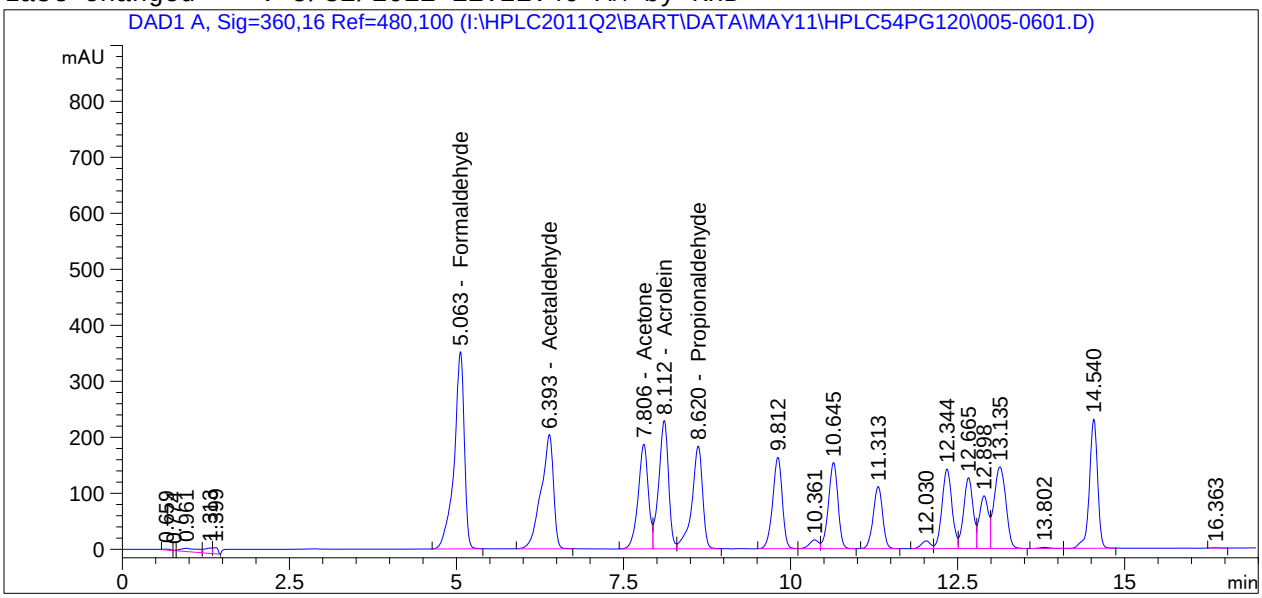

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\005-0601.D
Sample Name: hplc54pg120 #5

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   6
Acq. Instrument : Bart                          Location : Vial 5
Injection Date  : 5/27/2011 8:09:31 PM               Inj :   1
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
5.063	BB	3694.70972	2.42472e-3	8.95863		Formaldehyde
6.393	BB	2628.70581	3.41603e-3	8.97975		Acetaldehyde
7.806	BV	1967.23157	4.53790e-3	8.92711		Acetone
8.112	VV	2322.37964	3.82784e-3	8.88971		Acrolein
8.620	VB	2043.09290	4.41958e-3	9.02961		Propionaldehyde

```
Totals :                                  44.78481


1 Warnings or Errors :

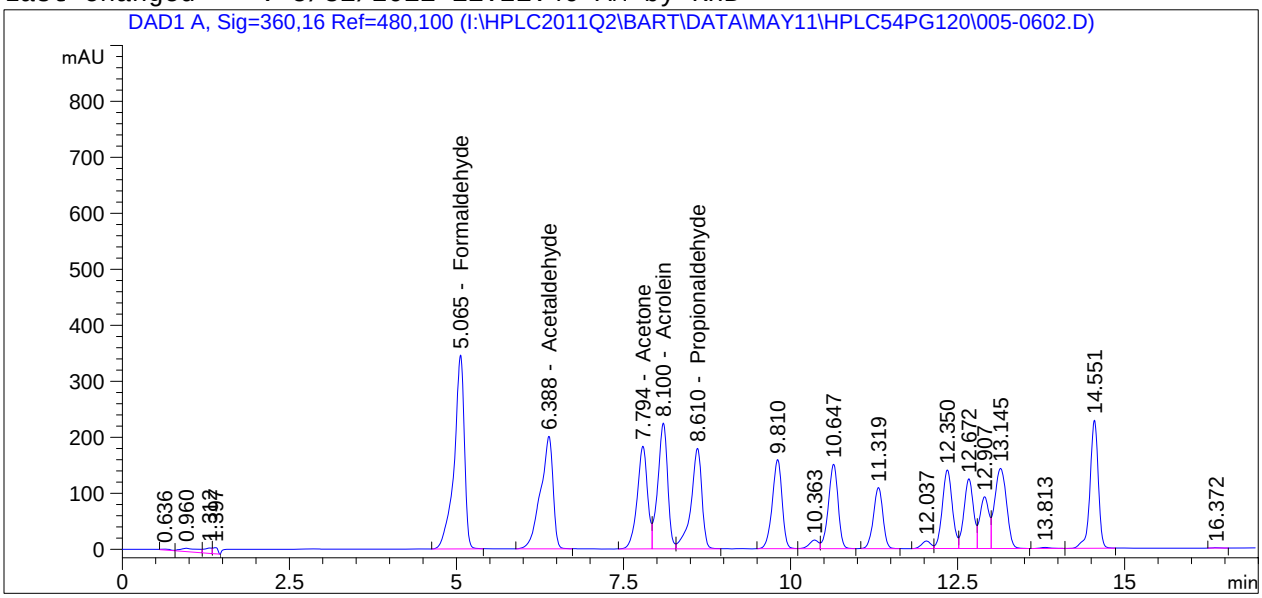
Warning : Calibration warnings (see calibration table listing)

==================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\005-0602.D
Sample Name: hplc54pg120 #5

==========

Acq. Operator : KHB Seq. Line : 6
Acq. Instrument : Bart Location : Vial 5
Injection Date : 5/27/2011 8:31:10 PM Inj : 2
Inj Volume : 15.000 µl
Acq. Method : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed : 5/31/2011 11:21:40 AM by KHB



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Tuesday, May 31, 2011 11:20:41 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
5.065	BB	3663.10767	2.42472e-3	8.88201		Formaldehyde
6.388	BB	2602.87476	3.41603e-3	8.89151		Acetaldehyde
7.794	BV	1958.41614	4.53790e-3	8.88710		Acetone
8.100	VV	2293.68091	3.82784e-3	8.77985		Acrolein
8.610	VB	2025.27539	4.41958e-3	8.95087		Propionaldehyde

Totals : 44.39134

1 Warnings or Errors :

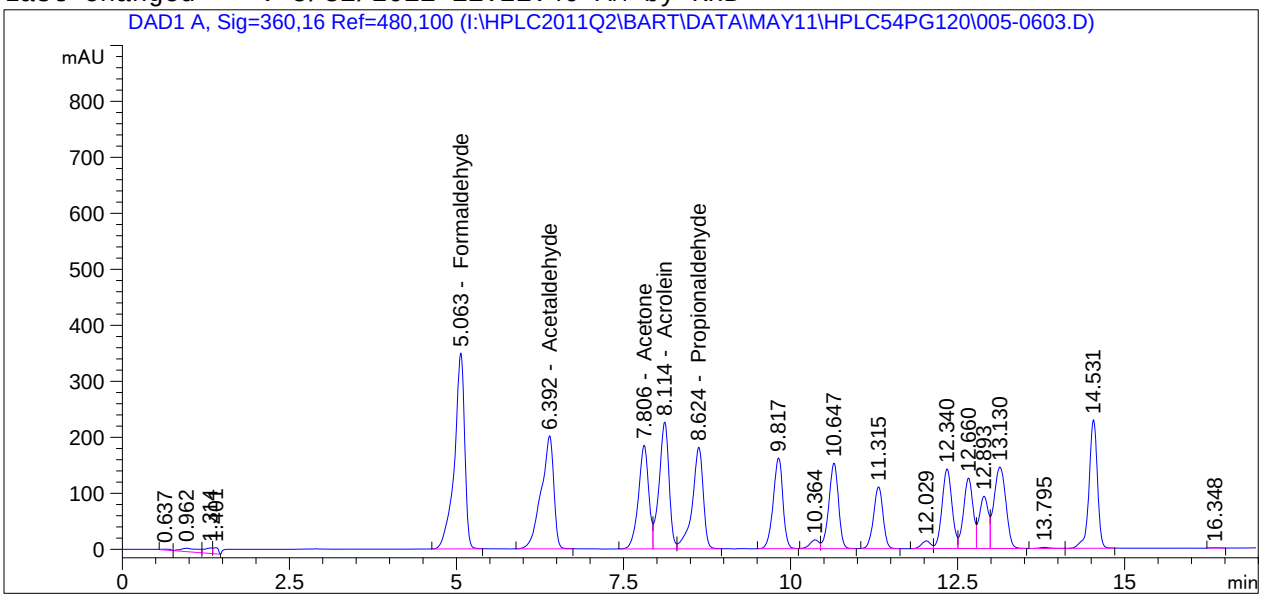
Warning : Calibration warnings (see calibration table listing)

==========

*** End of Report ***

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\005-0603.D
Sample Name: hplc54pg120 #5

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   6
Acq. Instrument : Bart                          Location : Vial 5
Injection Date  : 5/27/2011 8:52:48 PM               Inj :   3
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]                [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.063 BB     3707.37524 2.42472e-3    8.98934    Formaldehyde
  6.392 BB     2634.36401 3.41603e-3    8.99908    Acetaldehyde
  7.806 BV     1976.71411 4.53790e-3    8.97014    Acetone
  8.114 VV     2329.74268 3.82784e-3    8.91789    Acrolein
  8.624 VB     2048.48218 4.41958e-3    9.05343    Propionaldehyde

Totals :                                44.92989

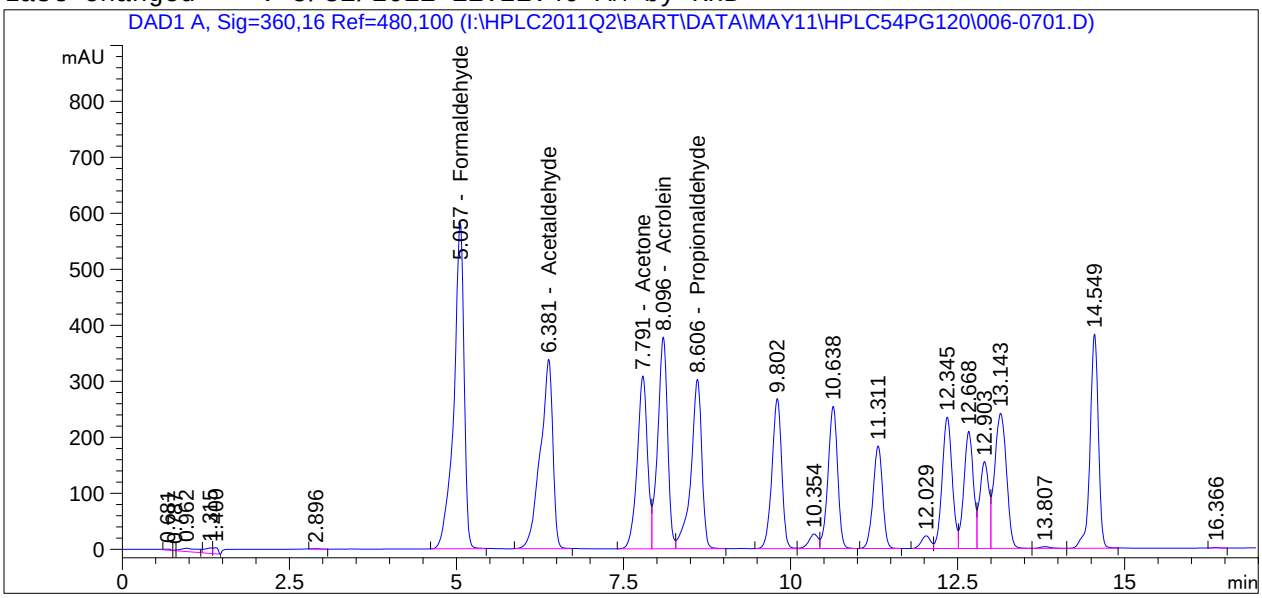

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\006-0701.D
Sample Name: hplc54pg120 #6

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   7
Acq. Instrument : Bart                          Location : Vial 6
Injection Date  : 5/27/2011 9:14:25 PM               Inj :   1
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
5.057	BB	6163.41943	2.42472e-3	14.94456		Formaldehyde
6.381	BB	4384.52734	3.41603e-3	14.97769		Acetaldehyde
7.791	BV	3290.95898	4.53790e-3	14.93406		Acetone
8.096	VV	3868.78564	3.82784e-3	14.80911		Acrolein
8.606	VB	3406.74805	4.41958e-3	15.05640		Propionaldehyde

```
Totals :                                74.72182


1 Warnings or Errors :

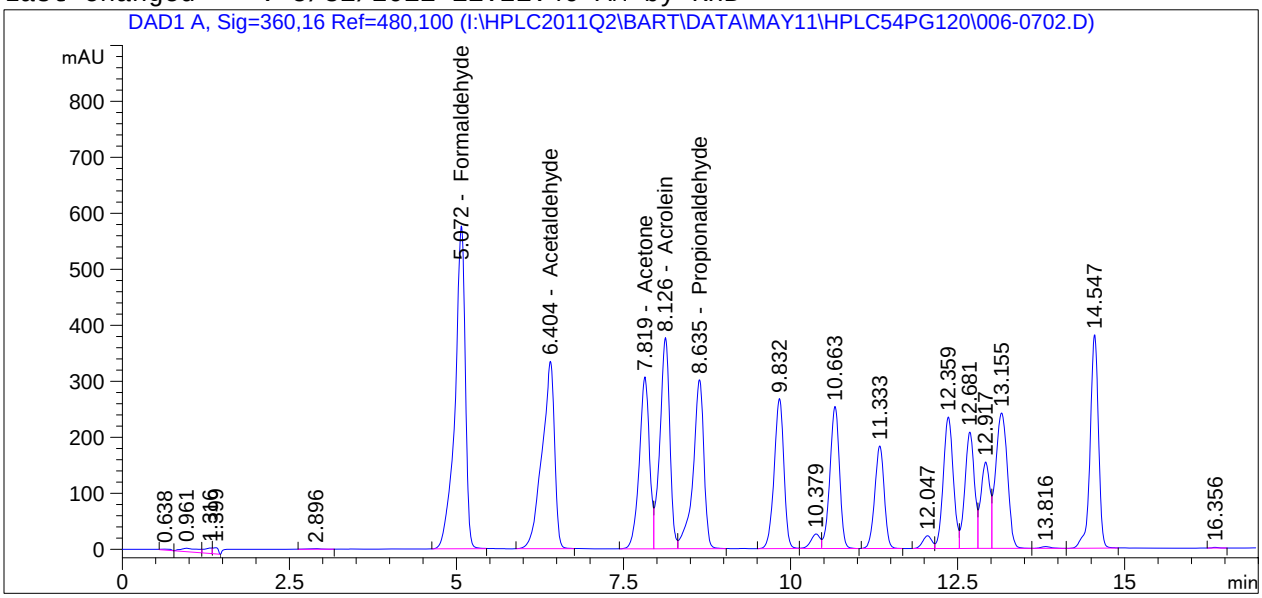
Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\006-0702.D
Sample Name: hplc54pg120 #6

==========

Acq. Operator : KHB Seq. Line : 7
Acq. Instrument : Bart Location : Vial 6
Injection Date : 5/27/2011 9:36:05 PM Inj : 2
Inj Volume : 15.000 µl
Acq. Method : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed : 5/31/2011 11:21:40 AM by KHB



==========

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Tuesday, May 31, 2011 11:20:41 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
5.072	BB	6128.59717	2.42472e-3	14.86013		Formaldehyde
6.404	BB	4362.37842	3.41603e-3	14.90203		Acetaldehyde
7.819	BV	3252.63745	4.53790e-3	14.76016		Acetone
8.126	VV	3856.25903	3.82784e-3	14.76116		Acrolein
8.635	VB	3395.85425	4.41958e-3	15.00825		Propionaldehyde

Totals : 74.29173

1 Warnings or Errors :

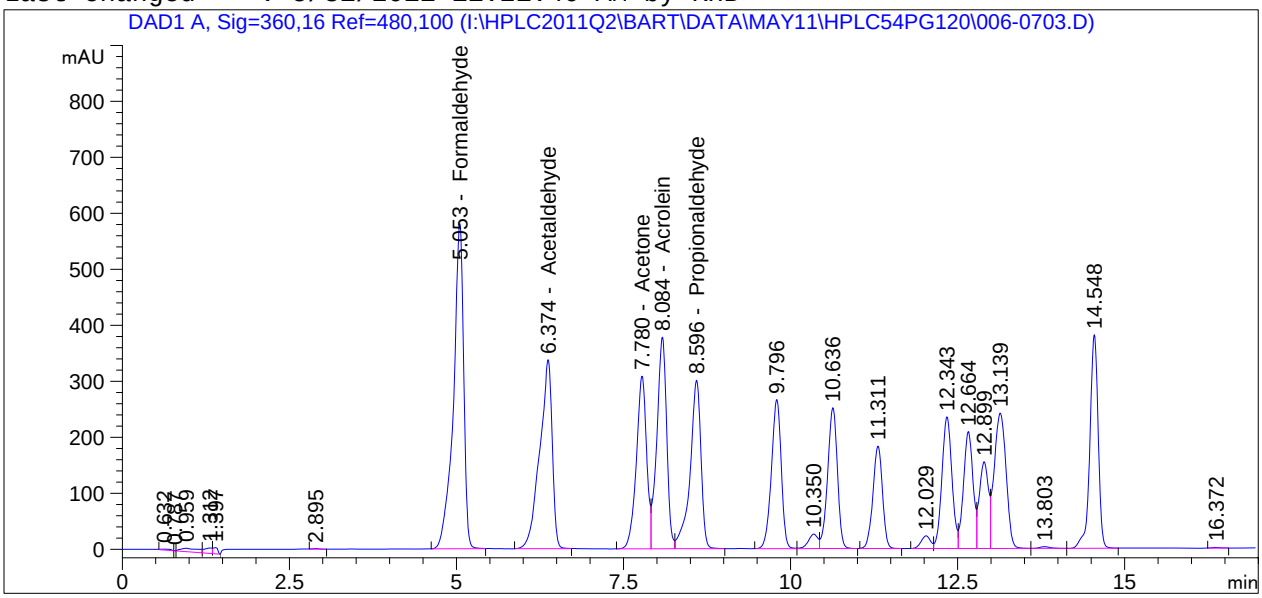
Warning : Calibration warnings (see calibration table listing)

==========

*** End of Report ***

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\006-0703.D
Sample Name: hplc54pg120 #6

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   7
Acq. Instrument : Bart                          Location : Vial 6
Injection Date  : 5/27/2011 9:57:44 PM               Inj :   3
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
5.053	BB	6167.54736	2.42472e-3	14.95457		Formaldehyde
6.374	BB	4389.73730	3.41603e-3	14.99549		Acetaldehyde
7.780	BV	3286.98657	4.53790e-3	14.91603		Acetone
8.084	VV	3878.68140	3.82784e-3	14.84699		Acrolein
8.596	VB	3422.71704	4.41958e-3	15.12697		Propionaldehyde

```
Totals :                                74.84006

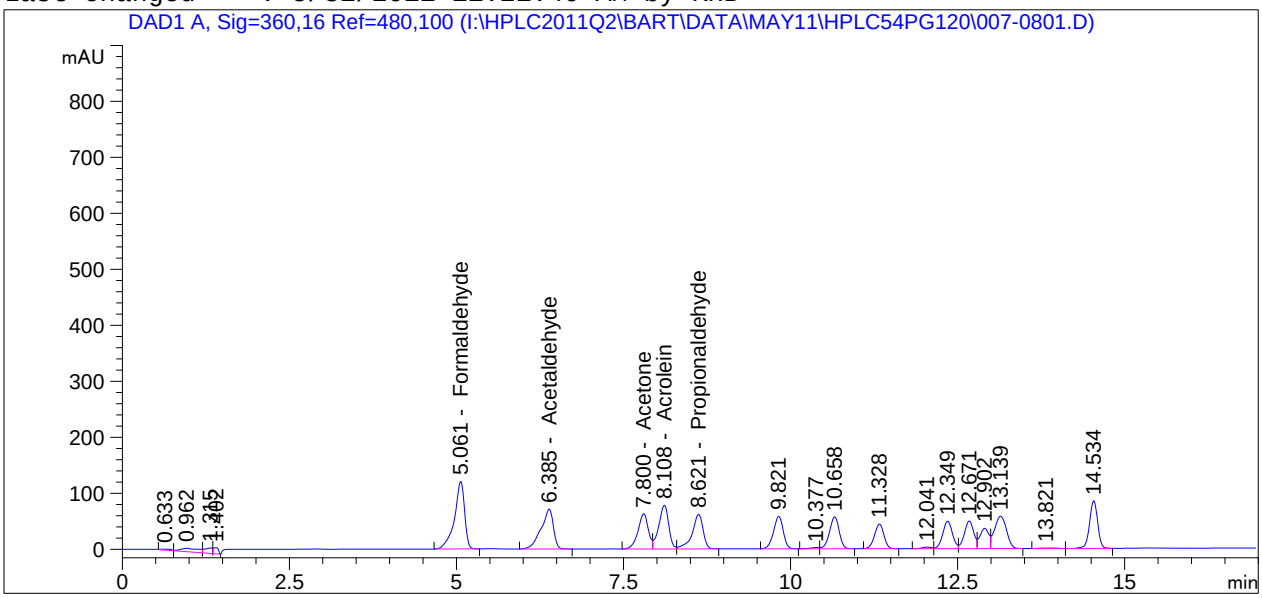

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\007-0801.D
Sample Name: hplc54pg120 #SS

```
==================================================================
Acq. Operator   : KHB                          Seq. Line :   8
Acq. Instrument : Bart                          Location : Vial 7
Injection Date  : 5/27/2011 10:19:22 PM              Inj :   1
                                               Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]                [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.061 BB     1265.50842 2.42472e-3    3.06850    Formaldehyde
  6.385 BB      910.46594 3.41603e-3    3.11018    Acetaldehyde
  7.800 BV      673.00220 4.53790e-3    3.05402    Acetone
  8.108 VV      804.38818 3.82784e-3    3.07907    Acrolein
  8.621 VB      697.69531 4.41958e-3    3.08352    Propionaldehyde

Totals :                                15.39530

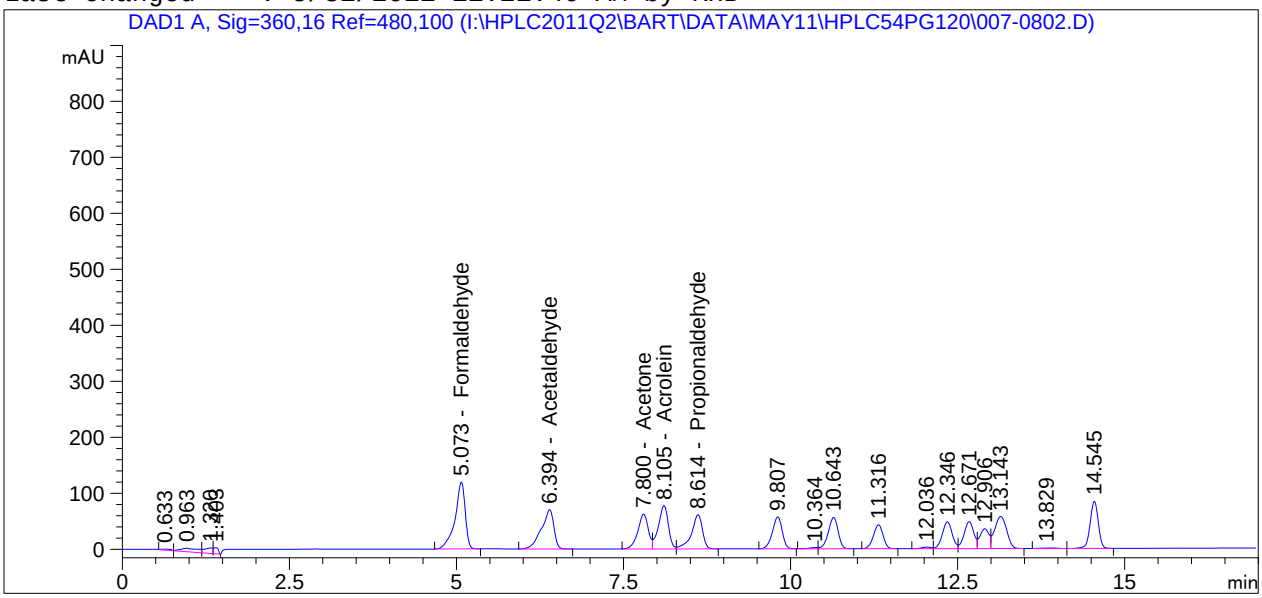

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\007-0802.D
Sample Name: hplc54pg120 #SS

```
==========================================================================
Acq. Operator   : KHB                              Seq. Line :   8
Acq. Instrument : Bart                              Location : Vial 7
Injection Date  : 5/27/2011 10:40:59 PM                 Inj :   2
                                                  Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.073 BB     1264.89819 2.42472e-3    3.06702    Formaldehyde
  6.394 BB      909.70721 3.41603e-3    3.10759    Acetaldehyde
  7.800 BV      676.37134 4.53790e-3    3.06931    Acetone
  8.105 VV      800.74591 3.82784e-3    3.06513    Acrolein
  8.614 VB      697.62158 4.41958e-3    3.08319    Propionaldehyde

Totals :                                15.39225

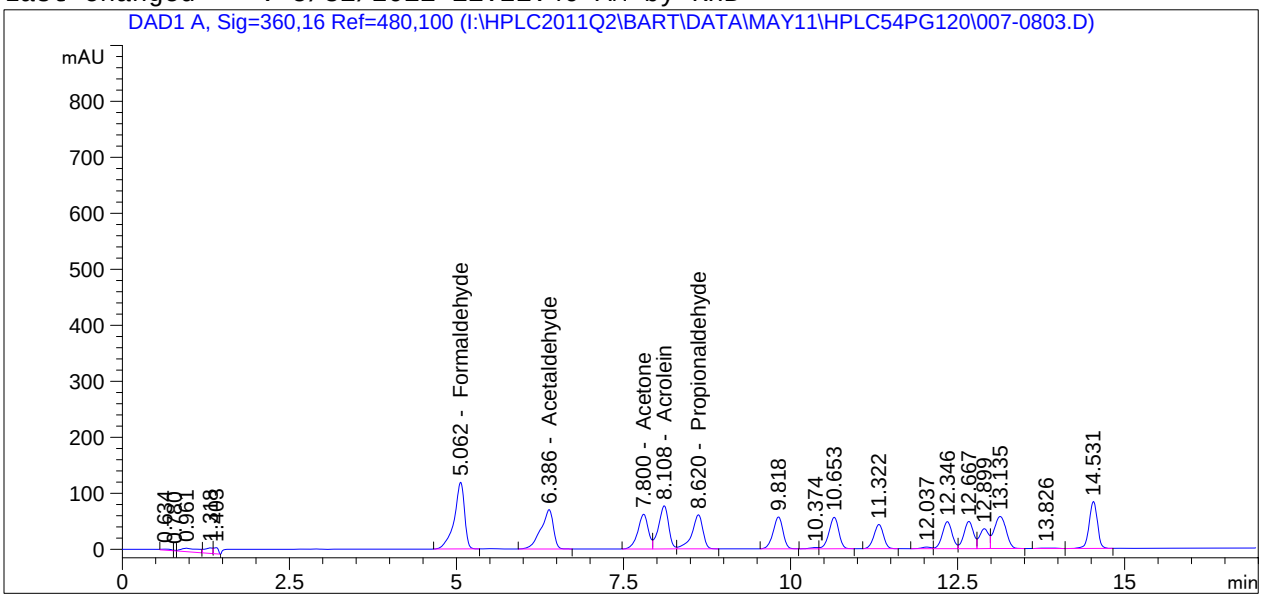

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q2\BART\DATA\MAY11\HPLC54PG120\007-0803.D
Sample Name: hplc54pg120 #SS

```
==========================================================================
Acq. Operator   : KHB                              Seq. Line :   8
Acq. Instrument : Bart                              Location : Vial 7
Injection Date  : 5/27/2011 11:02:36 PM                 Inj :   3
                                                  Inj Volume : 15.000 µl
Acq. Method     : H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Last changed    : 5/27/2011 3:16:54 PM by KHB
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120.M
Last changed    : 5/31/2011 11:21:40 AM by KHB
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      Tuesday, May 31, 2011 11:20:41 AM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area      Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]                [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  5.062 BB     1263.88220 2.42472e-3    3.06456    Formaldehyde
  6.386 BB      908.57458 3.41603e-3    3.10372    Acetaldehyde
  7.800 BV      674.59912 4.53790e-3    3.06127    Acetone
  8.108 VV      800.84680 3.82784e-3    3.06552    Acrolein
  8.620 VB      695.49054 4.41958e-3    3.07378    Propionaldehyde

Totals :                                15.36884

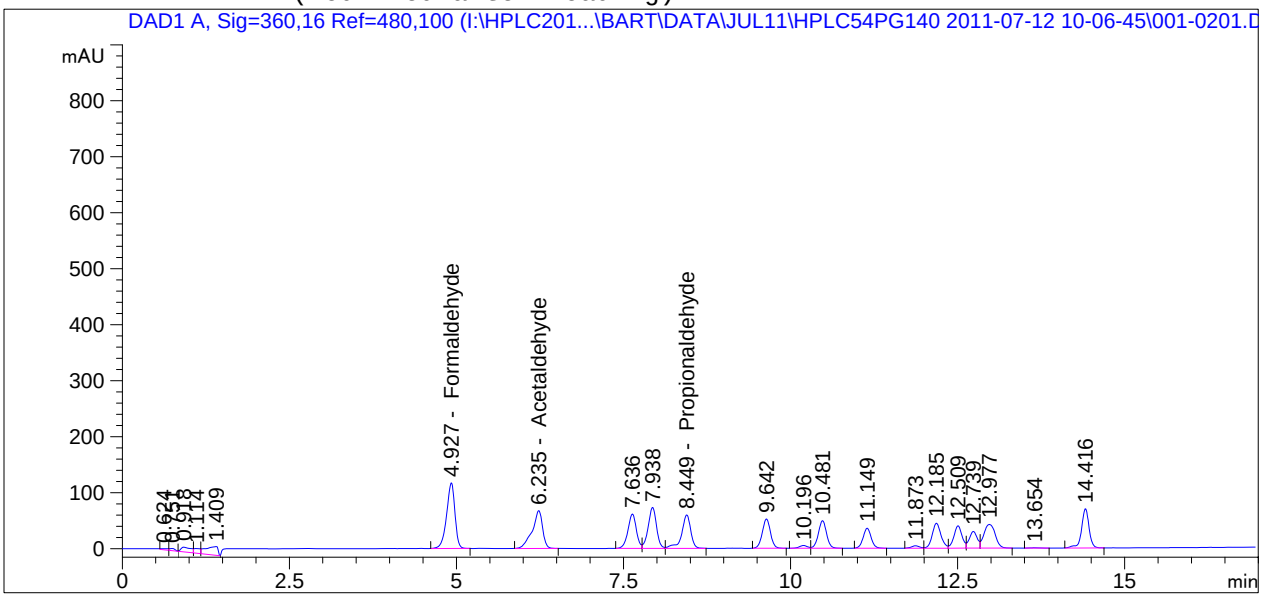

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\001-0201.D
Sample Name: hplc54pg122 #3

```
==========================================================================
Acq. Operator   : Kristen Bounds                 Seq. Line :   2
Acq. Instrument : Bart                          Location : Vial 1
Injection Date  : 7/12/2011 10:29:45 AM              Inj :   1
                                               Inj Volume : 15.0 µl
Acq. Method     : C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M
Last changed    : 6/23/2011 6:03:33 PM by System
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M
Last changed    : 7/14/2011 2:00:05 PM by KHB
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/14/2011 2:00:07 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100
```

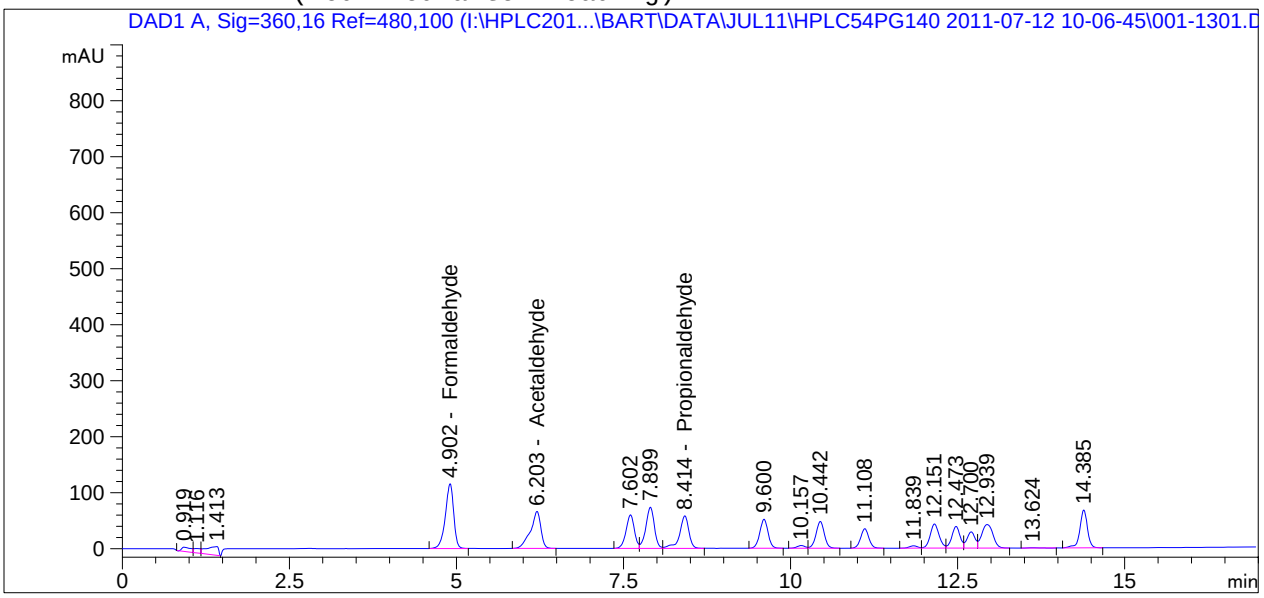
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.927	BB	1016.69043	2.42472e-3	2.46519		Formaldehyde
6.235	BB	727.43915	3.41603e-3	2.48496		Acetaldehyde
8.449	VB	565.92218	4.41958e-3	2.50114		Propionaldehyde

Totals : 7.45128

```
==========================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\001-1301.D
Sample Name: hplc54pg122 #3

```
==================================================================
Acq. Operator   : Kristen Bounds                Seq. Line :  13
Acq. Instrument : Bart                          Location : Vial 1
Injection Date  : 7/12/2011 2:25:16 PM               Inj :   1
                                               Inj Volume : 15.0 µl
Acq. Method     : C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M
Last changed    : 6/23/2011 6:03:33 PM by System
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M
Last changed    : 7/14/2011 2:00:05 PM by KHB
                  (modified after loading)
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/14/2011 2:00:07 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100
```

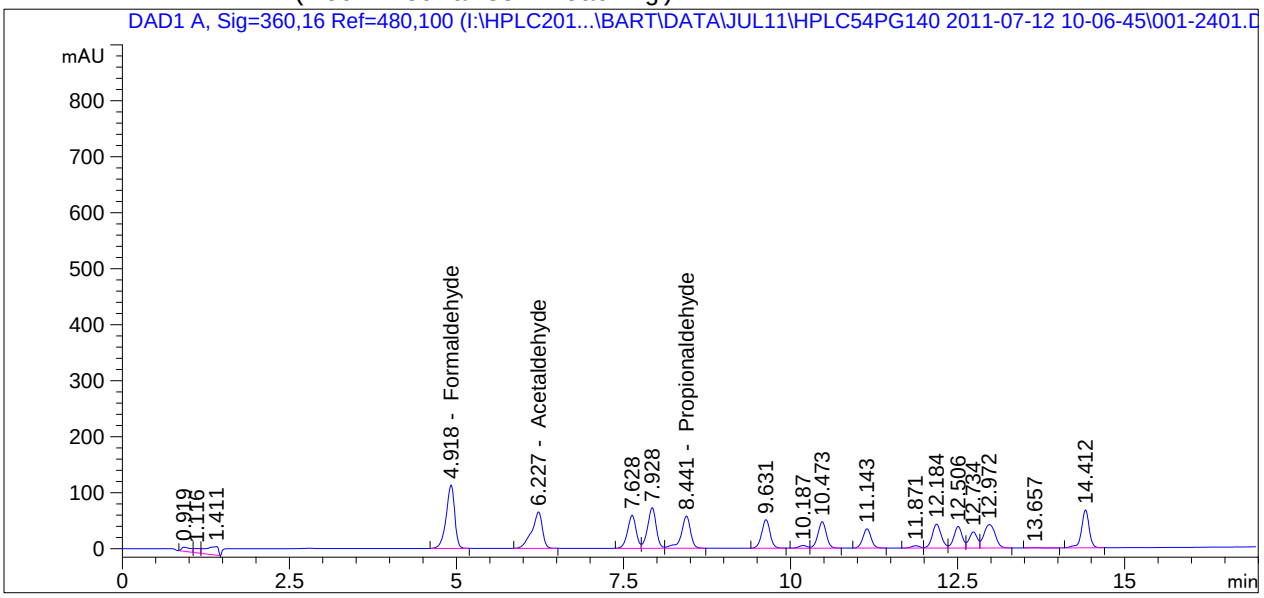
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.902	BB	1004.29150	2.42472e-3	2.43513		Formaldehyde
6.203	BB	716.62946	3.41603e-3	2.44803		Acetaldehyde
8.414	VB	557.49762	4.41958e-3	2.46391		Propionaldehyde

Totals : 7.34706

```
==================================================================
                        *** End of Report ***
```

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\001-2401.D
Sample Name: hplc54pg122 #3

```
==================================================================
Acq. Operator   : Kristen Bounds                 Seq. Line :  24
Acq. Instrument : Bart                           Location : Vial 1
Injection Date  : 7/12/2011 6:21:06 PM                Inj :   1
                                                Inj Volume : 15.0 µl
Acq. Method     : C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M
Last changed    : 6/23/2011 6:03:33 PM by System
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M
Last changed    : 7/14/2011 2:00:05 PM by KHB
                  (modified after loading)
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/14/2011 2:00:07 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

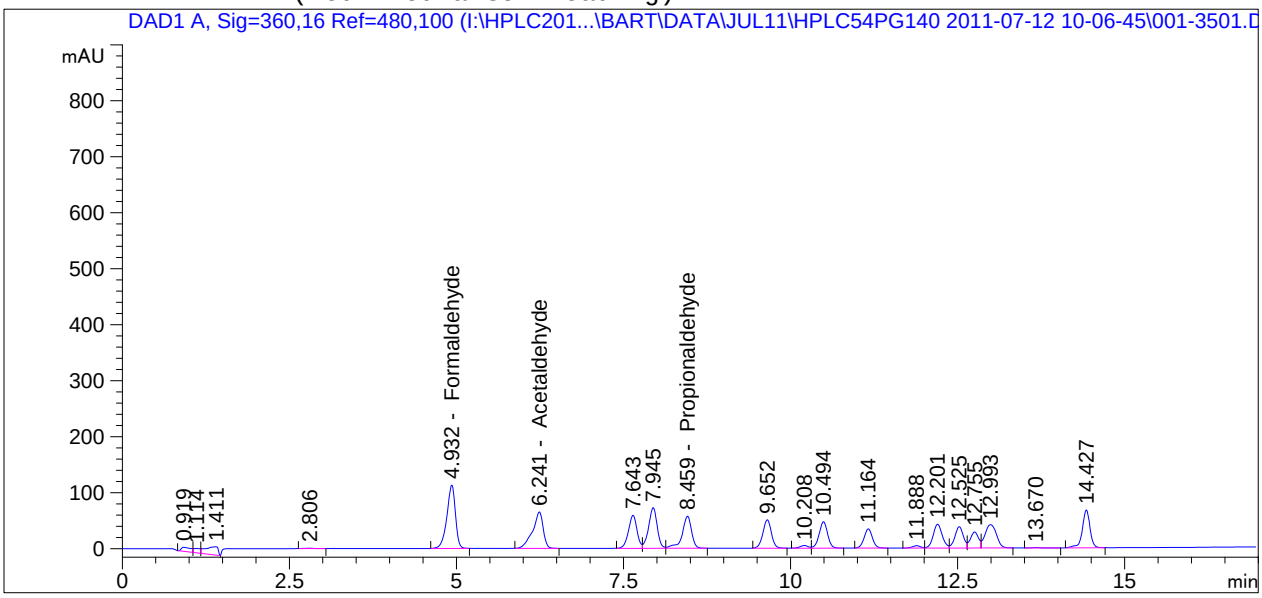
RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  4.918 BB     1005.85760 2.42472e-3    2.43892    Formaldehyde
  6.227 BB      715.30707 3.41603e-3    2.44351    Acetaldehyde
  8.441 VB      557.93756 4.41958e-3    2.46585    Propionaldehyde

Totals :                                7.34829


==================================================================
                         *** End of Report ***
```

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\001-3501.D
Sample Name: hplc54pg122 #3

```
==========================================================================
Acq. Operator   : Kristen Bounds                 Seq. Line :  35
Acq. Instrument : Bart                          Location : Vial 1
Injection Date  : 7/12/2011 10:16:44 PM              Inj :   1
                                               Inj Volume : 15.0 µl
Acq. Method     : C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M
Last changed    : 6/23/2011 6:03:33 PM by System
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M
Last changed    : 7/14/2011 2:00:05 PM by KHB
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/14/2011 2:00:07 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

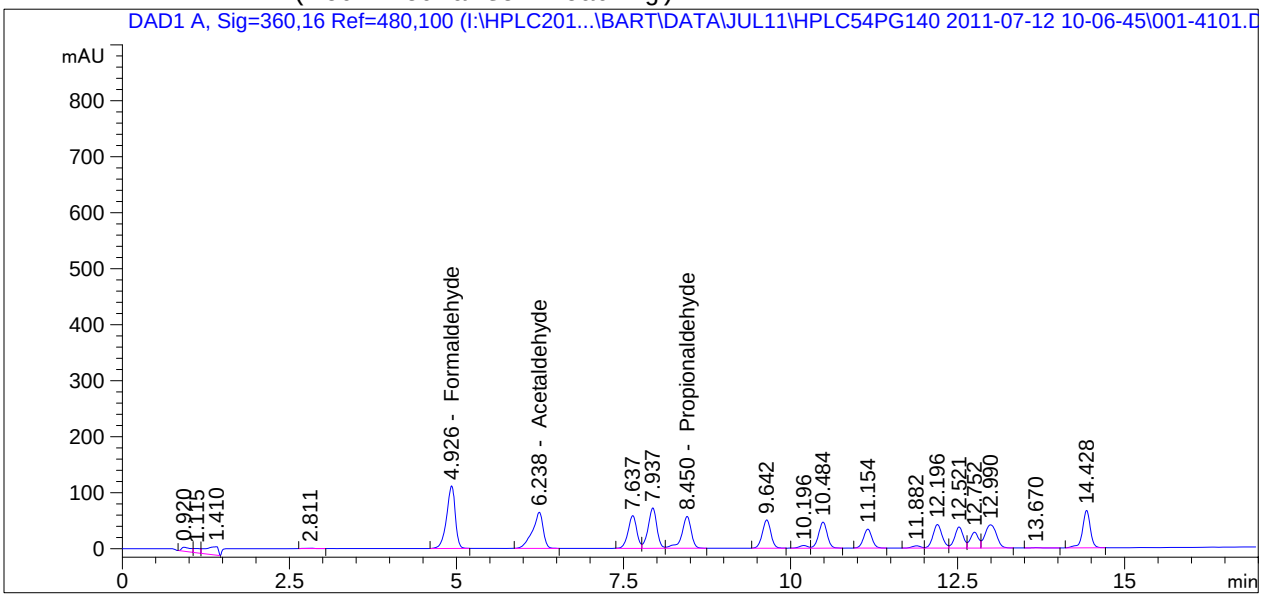
RetTime  Type     Area     Amt/Area    Amount   Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  4.932 BB     1004.43121 2.42472e-3    2.43546    Formaldehyde
  6.241 BB      716.92303 3.41603e-3    2.44903    Acetaldehyde
  8.459 VB      557.49207 4.41958e-3    2.46388    Propionaldehyde

Totals :                                7.34838


==========================================================================
                          *** End of Report ***
```

Data File I:\HPLC2011Q3\BART\DATA\JUL11\HPLC54PG140 2011-07-12 10-06-45\001-4101.D
Sample Name: hplc54pg122 #3

```
==========================================================================
Acq. Operator   : Kristen Bounds                 Seq. Line :  41
Acq. Instrument : Bart                          Location : Vial 1
Injection Date  : 7/13/2011 12:25:12 AM              Inj :   1
                                               Inj Volume : 15.0 µl
Acq. Method     : C:\HPLC2011Q2\BART\DATA\JUN11\HPLC54PG140 2011-07-12 10-06-45\8315ICR.M
Last changed    : 6/23/2011 6:03:33 PM by System
Analysis Method : I:\HPLC2011Q2\BART\METHODS\HPLC54PG120ICR.M
Last changed    : 7/14/2011 2:00:05 PM by KHB
                  (modified after loading)
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      7/14/2011 2:00:07 PM
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=360,16 Ref=480,100

RetTime  Type     Area     Amt/Area    Amount    Grp   Name
 [min]          [mAU*s]               [ug/mL]
-------|------|----------|----------|----------|--|-----------------
  4.926 BB     1004.74664 2.42472e-3    2.43623    Formaldehyde
  6.238 BB      718.65265 3.41603e-3    2.45494    Acetaldehyde
  8.450 VB      558.97784 4.41958e-3    2.47045    Propionaldehyde

Totals :                                7.36162


==========================================================================
                          *** End of Report ***
```

method: H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Modified on: 5/27/2011 at 3:16:54 PM

Method Information

Method: H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Modified: 5/27/2011 at 3:16:54 PM

Column: Restek Ultra C18, 4*150mm
Mobile Phase: 59:30:10:1 DIUF H2O:ACN:THF:IPA to 100% ACN on a gradient
Flow rate: 1.2 mL/min
UV Detection at 360 nm

method: H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Modified on: 5/27/2011 at 3:16:54 PM

Agilent 1100/1200 Quaternary Pump 1

Control

Column Flow	:	1.200 ml/min
Stoptime	:	17.00 min
Posttime	:	3.00 min

Solvents

Solvent A	:	100.0 % (59:30:10:1 DI:ACN:THF:IPA)
Solvent B	:	0.0 % (100% ACN)
Solvent C	:	Off
Solvent D	:	Off

PressureLimits

Minimum Pressure	:	0 bar
Maximum Pressure	:	400 bar

Auxiliary

Maximal Flow Ramp	:	100.00 ml/min^2
Primary Channel	:	Auto
Compressibility	:	83*10^-6/bar
Minimal Stroke	:	Auto

Store Parameters

Store Ratio A	:	Yes
Store Ratio B	:	Yes
Store Ratio C	:	Yes
Store Ratio D	:	Yes
Store Flow	:	Yes
Store Pressure	:	Yes

Agilent Contacts Option

Contact 1	:	Open
Contact 2	:	Open
Contact 3	:	Open
Contact 4	:	Open

Timetable

Time	Solv.B	Solv.C	Solv.D	Flow	Pressure
0.00	0.0	0.0	0.0		
0.10	0.0	0.0	0.0		
12.00	50.0	0.0	0.0		
17.00	100.0	0.0	0.0		

Agilent Contacts Option Timetable

Timetable is empty

Agilent 1100/1200 Diode Array Detector 1

method: H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Modified on: 5/27/2011 at 3:16:54 PM

Signals

Signal	Store	Signal,Bw	Reference,Bw [nm]
A:	Yes	360 16	480 100
B:	No	254 16	360 100
C:	No	218 8	360 100
D:	No	230 16	360 100
E:	No	280 16	360 100

Spectrum
- Store Spectra : None

Time
- Stoptime : As pump
- Posttime : Off

Required Lamps
- UV lamp required : Yes
- Vis lamp required : Yes

Autobalance
- Prerun balancing : Yes
- Postrun balancing : No
- Margin for negative Absorbance: 100 mAU

Peakwidth : > 0.1 min
Slit : 4 nm

Analog Outputs
- Zero offset ana. out. 1: 5 %
- Zero offset ana. out. 2: 5 %
- Attenuation ana. out. 1: 1000 mAU
- Attenuation ana. out. 2: 1000 mAU

Agilent Contacts Option

- Contact 1 : Open
- Contact 2 : Open
- Contact 3 : Open
- Contact 4 : Open

Agilent 1100 Autosampler 1

Injection
- Injection Mode : Needle Wash
- Injector volume : 15.00 µl
- Wash Vial : 100
- Optimization : Prefetch Sample Vial 8.00 min. after Injection

Auxiliary
- Drawspeed : 100 µl/min
- Ejectspeed : 1000 µl/min
- Draw position : 2.0 mm

Time
- Stoptime : As Pump
- Posttime : Off

method: H:\HPLC2011Q2\BART\METHODS\8315ICR.M
Modified on: 5/27/2011 at 3:16:54 PM

==========

Agilent 1100/1200 Column Thermostat 1

==========

Temperature settings

Left temperature	:	30.0°C
Right temperature	:	Same as left
Enable analysis	:	When Temp. is within setpoint +/- 0.8°C
Store left temperature	:	No
Store right temperature	:	No

Time

Stoptime	:	As pump
Posttime	:	Off

Column Switching Valve : Column 1

Timetable is empty

Sequence Table:

Method and Injection Info Part:

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
1	Vial 8	RB/100% ACN	8315ICR	1	Sample	
2	Vial 1	hplc54pg120 #1	8315ICR	3	Sample	
3	Vial 2	hplc54pg120 #2	8315ICR	3	Sample	
4	Vial 3	hplc54pg120 #3	8315ICR	3	Sample	
5	Vial 4	hplc54pg120 #4	8315ICR	3	Sample	
6	Vial 5	hplc54pg120 #5	8315ICR	3	Sample	
7	Vial 6	hplc54pg120 #6	8315ICR	3	Sample	
8	Vial 7	hplc54pg120 #SS	8315ICR	3	Sample	
9	Vial 8	RB/100% ACN	8315ICR	3	Sample	
10	Vial 11	052011-0011U-1-1 05 11-68	8315ICR	1	Sample	
11	Vial 11	052011-0011U-1-1 05 11-68	8315ICR	1	Sample	
12	Vial 12	052011-0011U-1-1 LD 0511-68	8315ICR	1	Sample	
13	Vial 13	052011-0011U-1-2 05 11-68	8315ICR	1	Sample	
14	Vial 14	052011-0011U-1-3 05 11-68	8315ICR	1	Sample	
15	Vial 15	052011-0011S-1-1 05 11-68	8315ICR	1	Sample	
16	Vial 16	052011-0011-FieldSpi ke 0511-68	8315ICR	1	Sample	
17	Vial 17	052011-0011-Sample B L 0511-68	8315ICR	1	Sample	
18	Vial 18	052011-0011-DM/H2O B L 0511-68	8315ICR	1	Sample	
19	Vial 19	MB-1 0511-68	8315ICR	1	Sample	
20	Vial 3	hplc54pg120 #3	8315ICR	3	Sample	
21	Vial 20	LCS-1 0511-68	8315ICR	1	Sample	
22	Vial 21	ZRT LCS-1	8315ICR	1	Sample	
23	Vial 22	ZRT LCS-2	8315ICR	1	Sample	

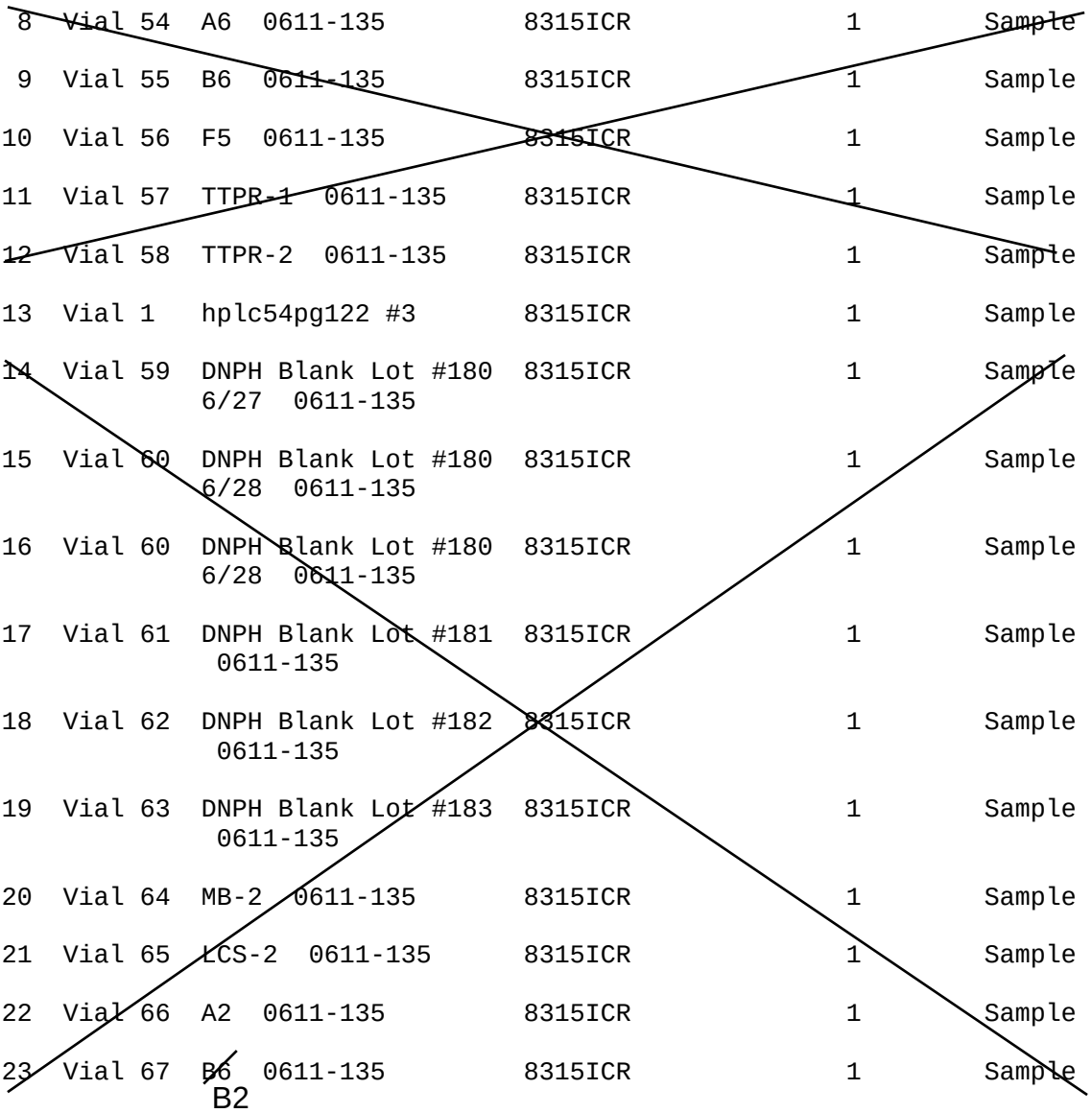
Sequence: I:\HPLC2011Q1\BART\SEQUENCE\HPLC54PG120.S

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
24	Vial 23	ZRT LCS-3	8315ICR	1	Sample	
25	Vial 24	ZRT LCS-4	8315ICR	1	Sample	
26	Vial 3	hplc54pg120 #3	8315ICR	3	Sample	
27	Vial 9	hplc54pg120 #MDL 1	8315ICR	8	Sample	
28	Vial 3	hplc54pg120 #3	8315ICR	3	Sample	
29	Vial 9	hplc54pg120 #MDL 1	8315ICR	8	Sample	
30	Vial 10	hplc54pg120 #MDL 2	8315ICR	8	Sample	
31	Vial 3	hplc54pg120 #3	8315ICR	3	Sample	

Sequence Table:

Method and Injection Info Part:

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
1	Vial 2	RB/100% ACN	8315ICR	1	Sample	
2	Vial 1	hplc54pg122 #3	8315ICR	1	Sample	
3	Vial 2	RB/100% ACN	8315ICR	1	Sample	
4	Vial 51	D6 0611-135	8315ICR	1	Sample	
5	Vial 51	D6 0611-135	8315ICR	1	Sample	
6	Vial 52	C6 0611-135	8315ICR	1	Sample	
7	Vial 53	LD/C6 0611-135	8315ICR	1	Sample	
8	Vial 54	A6 0611-135	8315ICR	1	Sample	
9	Vial 55	B6 0611-135	8315ICR	1	Sample	
10	Vial 56	F5 0611-135	8315ICR	1	Sample	
11	Vial 57	TTPR-1 0611-135	8315ICR	1	Sample	
12	Vial 58	TTPR-2 0611-135	8315ICR	1	Sample	
13	Vial 1	hplc54pg122 #3	8315ICR	1	Sample	
14	Vial 59	DNPH Blank Lot #180 6/27 0611-135	8315ICR	1	Sample	
15	Vial 60	DNPH Blank Lot #180 6/28 0611-135	8315ICR	1	Sample	
16	Vial 60	DNPH Blank Lot #180 6/28 0611-135	8315ICR	1	Sample	
17	Vial 61	DNPH Blank Lot #181 0611-135	8315ICR	1	Sample	
18	Vial 62	DNPH Blank Lot #182 0611-135	8315ICR	1	Sample	
19	Vial 63	DNPH Blank Lot #183 0611-135	8315ICR	1	Sample	
20	Vial 64	MB-2 0611-135	8315ICR	1	Sample	
21	Vial 65	LCS-2 0611-135	8315ICR	1	Sample	
22	Vial 66	A2 0611-135	8315ICR	1	Sample	
23	Vial 67	B6 0611-135	8315ICR	1	Sample	
24	Vial 1	hplc54pg122 #3	8315ICR	1	Sample	



Sequence: I:\HPLC2011Q1\BART\SEQUENCE\HPLC54PG140.S

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
25	Vial 68	RSB #180 0611-135	8315ICR	1	Sample	
26	Vial 69	RSB #181 0611-135	8315ICR	1	Sample	
27	Vial 70	H2O Blank 112049 06 11-135	8315ICR	1	Sample	
28	Vial 70	H2O Blank 112049 06 11-135	8315ICR	1	Sample	
29	Vial 71	MeCl2 Blank 0611-135	8315ICR	1	Sample	
30	Vial 72	MS/B1 0611-135	8315ICR	1	Sample	
31	Vial 73	MSD/B1 0611-135	8315ICR	1	Sample	
32	Vial 74	MS/B6 0611-135	8315ICR	1	Sample	
33	Vial 75	MSD/B6 0611-135	8315ICR	1	Sample	
34	Vial 76	MS/D6 0611-135	8315ICR	1	Sample	
35	Vial 1	hplc54pg122 #3	8315ICR	1	Sample	
36	Vial 77	MSD/D6 0611-135	8315ICR	1	Sample	
37	Vial 78	Run 2 0611-24	8315ICR	1	Sample	
38	Vial 79	MB-3 0611-135	8315ICR	1	Sample	
39	Vial 80	LCS-3 0611-135	8315ICR	1	Sample	
40	Vial 80	LCS-3 0611-135	8315ICR	1	Sample	
41	Vial 1	hplc54pg122 #3	8315ICR	1	Sample	

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This Is The Last Page Of This Report.

Appendix J

Report for Total Filterable PM and Other Metals Analysis

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

July 22, 2011

TestAmerica Project Number: G1G050412
PO/Contract: Work Order: 252149.US

Chris Weber
URS Corporation
9400 Amberglen Blvd
Austin, TX 78729

Dear Mr. Weber,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on July 2, 2011. These samples are associated with your 40942312 FCCU ICR project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4333.

Sincerely,

Robert Weidenfeld
Project Manager

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Case Narrative

TestAmerica West Sacramento Project Number G1G050412

General Comment
The sample fractions reported as matrix spikes are actually post spikes not separate aliquots taken independently through the digestion process.

AIR, ICPMS (6020)-Back Half
Samples: 2, 4, 6, 8
The laboratory method blank associated with the back half fractions is positive for lead slightly above the 0.15 ug reporting limit at 0.17 ug. As the entire sample is consumed in the digestion process, additional corrective action could not be taken.

AIR, ICPMS (6020)-Front Half
Samples: 1, 3, 5, 7
The post spike performed on front half sample -001 (run 2 front half) has a recovery of 77% which is below the 86% lower control limit. The associated laboratory control sample (LCS) has a recovery for this analyte within control limits demonstrating acceptable method performance. The low recovery is most likely matrix related.

There are no additional anomalies associated with this project.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ACCREDITED IN ACCORDANCE WITH nelac

TestAmerica Laboratories West Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
A2LA (DoD-ELAP)	2928-01	New Mexico	NA
Alaska	UST-055	New York*	11666
Arizona	AZ0708	Oregon*	CA 200005
Arkansas	88-0691	Pennsylvania*	68-1272
California*	01119CA	South Carolina	87014
Colorado	NA	Texas*	T104704399-08-TX
Connecticut	PH-0691	UCMR	CA00044
Florida*	E87570	US Fish & Wildlife	LE148388-0
Georgia	960	USDA Foreign Plant	37-82605
Guam	10-009r	USDA Foreign Soil	P330-09-00055
Hawaii	NA	Utah*	QUAN1
Illinois*	002701	Virginia	178
Kansas*	E-10375	Washington	C581
Louisiana*	01944	West Virginia	9930C, 334
Michigan	9947	Wisconsin	998204680
Nevada	CA44	Wyoming	8TMS-Q
New Jersey*	CA005		

*NELAP accredited. A more detailed parameter list is available upon request. *Updated 5/25/2011*

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary

TestAmerica West Sacramento Project Number G1G050412

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
MKMWN	1	CHV-Stk-ICR2-M5/29-Front Half	6/24/2011 01:31 PM	7/2/2011 09:00 AM
MKMWV	2	CHV-Stk-ICR2-M5/29-Back Half	6/24/2011 01:31 PM	7/2/2011 09:00 AM
MKMWW	3	CHV-Stk-ICR3-M5/29-Front Half	6/24/2011 07:42 PM	7/2/2011 09:00 AM
MKMW0	4	CHV-Stk-ICR3-M5/29-Back Half	6/24/2011 07:42 PM	7/2/2011 09:00 AM
MKMW6	5	CHV-Stk-ICR4-M5/29-Front Half	6/26/2011 05:38 PM	7/2/2011 09:00 AM
MKMXC	6	CHV-Stk-ICR4-M5/29-Back Half	6/26/2011 05:38 PM	7/2/2011 09:00 AM
MKMXD	7	CHV-Stk-ICRFB-M5/29-Front Half	6/26/2011 05:04 PM	7/2/2011 09:00 AM
MKMXF	8	CHV-Stk-ICRFB-M5/29-Back Half	6/26/2011 05:04 PM	7/2/2011 09:00 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

EXECUTIVE SUMMARY - Detection Highlights

G1G050412

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CHV-Stk-ICR2-M5/29-Front Half 06/24/11 13:31 001				
Arsenic	14.4	0.30	ug	SW846 6020
Beryllium	0.10 B	0.15	ug	SW846 6020
Cadmium	0.11 B	0.15	ug	SW846 6020
Cobalt	22.9	0.15	ug	SW846 6020
Chromium	7.7	0.30	ug	SW846 6020
Manganese	13.9	0.15	ug	SW846 6020
Nickel	365	0.30	ug	SW846 6020
Lead	2.9 J	0.15	ug	SW846 6020
Antimony	1.8 J	0.30	ug	SW846 6020
Selenium	0.92	0.30	ug	SW846 6020
Particulates (Filter)	0.0825	0.0005	g	CFR60A 5
Particulates (Acetone)	0.0146	0.0005	g	CFR60A 5
CHV-Stk-ICR2-M5/29-Back Half 06/24/11 13:31 002				
Arsenic	0.23 B	0.30	ug	SW846 6020
Cobalt	0.040 B	0.15	ug	SW846 6020
Chromium	1.3	0.30	ug	SW846 6020
Manganese	4.5	0.15	ug	SW846 6020
Nickel	0.98	0.30	ug	SW846 6020
Lead	0.69 J	0.15	ug	SW846 6020
Antimony	0.020 B	0.30	ug	SW846 6020
Selenium	5.4	0.30	ug	SW846 6020
CHV-Stk-ICR3-M5/29-Front Half 06/24/11 19:42 003				
Arsenic	13.1	0.30	ug	SW846 6020
Beryllium	0.082 B	0.15	ug	SW846 6020
Cadmium	0.058 B	0.15	ug	SW846 6020
Cobalt	20.0	0.15	ug	SW846 6020
Chromium	6.6	0.30	ug	SW846 6020
Manganese	13.9	0.15	ug	SW846 6020
Nickel	325	0.30	ug	SW846 6020
Lead	2.2 J	0.15	ug	SW846 6020
Antimony	1.5 J	0.30	ug	SW846 6020
Particulates (Filter)	0.0669	0.0005	g	CFR60A 5
Particulates (Acetone)	0.0213	0.0005	g	CFR60A 5
CHV-Stk-ICR3-M5/29-Back Half 06/24/11 19:42 004				
Cadmium	0.022 B	0.15	ug	SW846 6020
Cobalt	0.039 B	0.15	ug	SW846 6020
Chromium	1.2	0.30	ug	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

G1G050412

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CHV-Stk-ICR3-M5/29-Back Half 06/24/11 19:42 004				
Manganese	7.5	0.15	ug	SW846 6020
Nickel	1.2	0.30	ug	SW846 6020
Lead	0.41 J	0.15	ug	SW846 6020
Antimony	0.032 B	0.30	ug	SW846 6020
Selenium	8.0	0.30	ug	SW846 6020
CHV-Stk-ICR4-M5/29-Front Half 06/26/11 17:38 005				
Arsenic	12.0	0.30	ug	SW846 6020
Beryllium	0.076 B	0.15	ug	SW846 6020
Cadmium	0.047 B	0.15	ug	SW846 6020
Cobalt	20.3	0.15	ug	SW846 6020
Chromium	6.5	0.30	ug	SW846 6020
Manganese	17.4	0.15	ug	SW846 6020
Nickel	266	0.30	ug	SW846 6020
Lead	2.3 J	0.15	ug	SW846 6020
Antimony	1.6 J	0.30	ug	SW846 6020
Selenium	1.7	0.30	ug	SW846 6020
Particulates (Filter)	0.0611	0.0005	g	CFR60A 5
Particulates (Acetone)	0.0150	0.0001	g	CFR60A 5
CHV-Stk-ICR4-M5/29-Back Half 06/26/11 17:38 006				
Cobalt	0.043 B	0.15	ug	SW846 6020
Chromium	0.63	0.30	ug	SW846 6020
Manganese	0.80	0.15	ug	SW846 6020
Nickel	0.95	0.30	ug	SW846 6020
Lead	0.29 J	0.15	ug	SW846 6020
Antimony	0.0060 B	0.30	ug	SW846 6020
Selenium	5.9	0.30	ug	SW846 6020
CHV-Stk-ICRFB-M5/29-Front Half 06/26/11 17:04 007				
Arsenic	0.13 B	0.30	ug	SW846 6020
Cadmium	0.052 B	0.15	ug	SW846 6020
Cobalt	0.44	0.15	ug	SW846 6020
Chromium	2.1	0.30	ug	SW846 6020
Manganese	1.3	0.15	ug	SW846 6020
Nickel	2.6	0.30	ug	SW846 6020
Lead	0.54 J	0.15	ug	SW846 6020
Antimony	0.032 B,J	0.30	ug	SW846 6020
Particulates (Filter)	0.0024	0.0005	g	CFR60A 5
Particulates (Acetone)	0.0023	0.0005	g	CFR60A 5

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

G1G050412

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CHV-Stk-ICRFB-M5/29-Back Half 06/26/11 17:04 008				
Arsenic	0.078 B	0.30	ug	SW846 6020
Cobalt	0.042 B	0.15	ug	SW846 6020
Chromium	0.50	0.30	ug	SW846 6020
Manganese	3.1	0.15	ug	SW846 6020
Nickel	0.70	0.30	ug	SW846 6020
Lead	0.28 J	0.15	ug	SW846 6020
Antimony	0.0090 B	0.30	ug	SW846 6020

ANALYTICAL METHODS SUMMARY

G1G050412

PARAMETER	ANALYTICAL METHOD
ICP-MS (6020)	SW846 6020
Particulate Emissions	CFR60A 5
Particulates (Acetone) EPA Method 5	CFR60A 5

References:

CFR60A "Test Methods", 40 CFR, Part 60, Appendix A, July 1, 1993.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

G1G050412

ANALYTICAL METHOD	ANALYST	ANALYST ID
CFR60A 5	Steve Valmores	090182
SW846 6020	Sabine Hargrave	71

References:

CFR60A "Test Methods", 40 CFR, Part 60, Appendix A, July 1, 1993.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

URS Corporation

Client Sample ID: CHV-Stk-ICR2-M5/29-Front Half

TOTAL Metals

Lot-Sample #...: G1G050412-001 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1195193						
Arsenic	14.4	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	0.10 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.11 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	22.9	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	7.7	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	13.9	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	365	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	2.9 J	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	1.8 J	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	0.92	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level

URS Corporation

Client Sample ID: CHV-Stk-ICR2-M5/29-Back Half

TOTAL Metals

Lot-Sample #...: G1G050412-002 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1196180						
Arsenic	0.23 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	0.040 B	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	1.3	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	4.5	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	0.98	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	0.69 J	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	0.020 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	5.4	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICR3-M5/29-Front Half

TOTAL Metals

Lot-Sample #...: G1G050412-003 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1195193						
Arsenic	13.1	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	0.082 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.058 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	20.0	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	6.6	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	13.9	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	325	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	2.2 J	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	1.5 J	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	ND	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICR3-M5/29-Back Half

TOTAL Metals

Lot-Sample #...: G1G050412-004 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1196180						
Arsenic	ND	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.022 B	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	0.039 B	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	1.2	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	7.5	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	1.2	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	0.41 J	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	0.032 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	8.0	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICR4-M5/29-Front Half

TOTAL Metals

Lot-Sample #...: G1G050412-005 Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1195193						
Arsenic	12.0	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	0.076 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.047 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	20.3	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	6.5	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	17.4	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	266	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	2.3 J	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	1.6 J	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	1.7	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICR4-M5/29-Back Half

TOTAL Metals

Lot-Sample #...: G1G050412-006 Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1196180						
Arsenic	ND	0.30	ug	SW846 6020	07/15-07/18/11	MKMXC1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMXC1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMXC1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	0.043 B	0.15	ug	SW846 6020	07/15-07/18/11	MKMXC1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	0.63	0.30	ug	SW846 6020	07/15-07/18/11	MKMXC1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	0.80	0.15	ug	SW846 6020	07/15-07/18/11	MKMXC1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	0.95	0.30	ug	SW846 6020	07/15-07/18/11	MKMXC1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	0.29 J	0.15	ug	SW846 6020	07/15-07/18/11	MKMXC1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	0.0060 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMXC1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	5.9	0.30	ug	SW846 6020	07/15-07/18/11	MKMXC1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICRFB-M5/29-Front Half

TOTAL Metals

Lot-Sample #...: G1G050412-007 Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1195193						
Arsenic	0.13 B	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.052 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	0.44	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	2.1	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	1.3	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	2.6	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	0.54 J	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	0.032 B,J	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	ND	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICRFB-M5/29-Back Half

TOTAL Metals

Lot-Sample #...: G1G050412-008 Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1196180						
Arsenic	**0.078 B**	**0.30**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXF1AA**
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMXF1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMXF1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	**0.042 B**	**0.15**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXF1AE**
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	**0.50**	**0.30**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXF1AF**
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	**3.1**	**0.15**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXF1AG**
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	**0.70**	**0.30**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXF1AH**
		Dilution Factor: 1		MDL.....: 0.015		
Lead	**0.28 J**	**0.15**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXF1AJ**
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	**0.0090 B**	**0.30**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXF1AK**
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	ND	0.30	ug	SW846 6020	07/15-07/18/11	MKMXF1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICR2-M5/29-Front Half

General Chemistry

Lot-Sample #...: G1G050412-001 Work Order #...: MKMWN Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Particulates (Acetone)	0.0146	0.0005	g	CFR60A 5	07/06-07/07/11	1193197
	Dilution Factor: 1			MDL.....: 0		
Particulates (Filter)	0.0825	0.0005	g	CFR60A 5	07/06-07/08/11	1193194
	Dilution Factor: 1			MDL.....:		

URS Corporation

Client Sample ID: CHV-Stk-ICR3-M5/29-Front Half

General Chemistry

Lot-Sample #...: G1G050412-003 Work Order #...: MKMWW Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Particulates (Acetone)	0.0213	0.0005	g	CFR60A 5	07/06-07/07/11	1193197
	Dilution Factor: 1			MDL.....: 0		
Particulates (Filter)	0.0669	0.0005	g	CFR60A 5	07/06-07/08/11	1193194
	Dilution Factor: 1			MDL.....:		

URS Corporation

Client Sample ID: CHV-Stk-ICR4-M5/29-Front Half

General Chemistry

Lot-Sample #...: G1G050412-005 Work Order #...: MKMW6 Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/02/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Particulates (Acetone)	0.0150	0.0001	g	CFR60A 5	07/06-07/07/11	1193197
		Dilution Factor: 1		MDL.....: 0		
Particulates (Filter)	0.0611	0.0005	g	CFR60A 5	07/06-07/08/11	1193194
		Dilution Factor: 1		MDL.....:		

URS Corporation

Client Sample ID: CHV-Stk-ICRFB-M5/29-Front Half

General Chemistry

Lot-Sample #...: G1G050412-007 Work Order #...: MKMXD Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/02/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Particulates (Acetone)	0.0023	0.0005	g	CFR60A 5	07/06-07/07/11	1193197
		Dilution Factor: 1		MDL.....: 0		
Particulates (Filter)	0.0024	0.0005	g	CFR60A 5	07/06-07/08/11	1193194
		Dilution Factor: 1		MDL.....:		

QC DATA ASSOCIATION SUMMARY

G1G050412

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AIR	CFR60A 5		1193194	
	AIR	SW846 6020		1195193	1195093
	AIR	CFR60A 5		1193197	
002	AIR	SW846 6020		1196180	1196089
003	AIR	CFR60A 5		1193194	
	AIR	SW846 6020		1195193	1195093
	AIR	CFR60A 5		1193197	
004	AIR	SW846 6020		1196180	1196089
005	AIR	CFR60A 5		1193194	
	AIR	SW846 6020		1195193	1195093
	AIR	CFR60A 5		1193197	
006	AIR	SW846 6020		1196180	1196089
007	AIR	CFR60A 5		1193194	
	AIR	SW846 6020		1195193	1195093
	AIR	CFR60A 5		1193197	
008	AIR	SW846 6020		1196180	1196089

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: G1G140000-193 **Prep Batch #...:** 1195193						
Antimony	**0.0095 B**	**0.30** Dilution Factor: 1	**ug**	**SW846 6020**	**07/14-07/18/11**	**MKXL71AK**
Arsenic	ND	0.30 Dilution Factor: 1	ug	SW846 6020	07/14-07/18/11	MKXL71AA
Beryllium	ND	0.15 Dilution Factor: 1	ug	SW846 6020	07/14-07/18/11	MKXL71AC
Cadmium	ND	0.15 Dilution Factor: 1	ug	SW846 6020	07/14-07/18/11	MKXL71AD
Chromium	ND	0.30 Dilution Factor: 1	ug	SW846 6020	07/14-07/18/11	MKXL71AF
Cobalt	ND	0.15 Dilution Factor: 1	ug	SW846 6020	07/14-07/18/11	MKXL71AE
Lead	**0.044 B**	**0.15** Dilution Factor: 1	**ug**	**SW846 6020**	**07/14-07/18/11**	**MKXL71AJ**
Manganese	ND	0.15 Dilution Factor: 1	ug	SW846 6020	07/14-07/18/11	MKXL71AG
Nickel	ND	0.30 Dilution Factor: 1	ug	SW846 6020	07/14-07/18/11	MKXL71AH
Selenium	ND	0.30 Dilution Factor: 1	ug	SW846 6020	07/14-07/18/11	MKXL71AL
MB Lot-Sample #: G1G150000-180 **Prep Batch #...:** 1196180						
Antimony	ND	0.30 Dilution Factor: 1	ug	SW846 6020	07/15-07/18/11	MK0GA1AK
Arsenic	ND	0.30 Dilution Factor: 1	ug	SW846 6020	07/15-07/18/11	MK0GA1AA
Beryllium	ND	0.15 Dilution Factor: 1	ug	SW846 6020	07/15-07/18/11	MK0GA1AC
Cadmium	ND	0.15 Dilution Factor: 1	ug	SW846 6020	07/15-07/18/11	MK0GA1AD

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Chromium	ND	0.30	ug	SW846 6020	07/15-07/18/11	MK0GA1AF
		Dilution Factor: 1				
Cobalt	ND	0.15	ug	SW846 6020	07/15-07/18/11	MK0GA1AE
		Dilution Factor: 1				
Lead	**0.17**	**0.15**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MK0GA1AJ**
		Dilution Factor: 1				
Manganese	ND	0.15	ug	SW846 6020	07/15-07/18/11	MK0GA1AG
		Dilution Factor: 1				
Nickel	ND	0.30	ug	SW846 6020	07/15-07/18/11	MK0GA1AH
		Dilution Factor: 1				
Selenium	ND	0.30	ug	SW846 6020	07/15-07/18/11	MK0GA1AL
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Antimony	30.0	26.2	ug	87		SW846 6020	07/14-07/18/11	1195193
	30.0	25.7	ug	86	2.0	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Arsenic	30.0	27.6	ug	92		SW846 6020	07/14-07/18/11	1195193
	30.0	27.0	ug	90	2.2	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Beryllium	30.0	26.9	ug	90		SW846 6020	07/14-07/18/11	1195193
	30.0	26.6	ug	89	1.1	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Cadmium	30.0	27.1	ug	90		SW846 6020	07/14-07/18/11	1195193
	30.0	26.5	ug	88	2.5	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Chromium	30.0	26.8	ug	89		SW846 6020	07/14-07/18/11	1195193
	30.0	26.1	ug	87	2.7	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Cobalt	30.0	26.8	ug	89		SW846 6020	07/14-07/18/11	1195193
	30.0	26.2	ug	87	2.4	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Lead	30.0	26.0	ug	87		SW846 6020	07/14-07/18/11	1195193
	30.0	27.1	ug	90	4.1	SW846 6020	07/14-07/19/11	1195193
			Dilution Factor: 1					
Manganese	30.0	26.5	ug	88		SW846 6020	07/14-07/18/11	1195193
	30.0	25.8	ug	86	3.0	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Nickel	30.0	27.3	ug	91		SW846 6020	07/14-07/18/11	1195193
	30.0	26.3	ug	88	3.8	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Selenium	30.0	28.0	ug	93		SW846 6020	07/14-07/18/11	1195193
	30.0	27.6	ug	92	1.6	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Antimony	30.0	25.2	ug	84		SW846 6020	07/15-07/18/11	1196180
	30.0	24.0	ug	80	4.6	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Arsenic	30.0	25.6	ug	85		SW846 6020	07/15-07/18/11	1196180
	30.0	24.3	ug	81	5.0	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Beryllium	30.0	25.5	ug	85		SW846 6020	07/15-07/18/11	1196180
	30.0	24.5	ug	82	4.2	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Cadmium	30.0	25.6	ug	85		SW846 6020	07/15-07/18/11	1196180
	30.0	24.5	ug	82	4.4	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Chromium	30.0	29.6	ug	99		SW846 6020	07/15-07/18/11	1196180
	30.0	28.1	ug	94	5.2	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Cobalt	30.0	29.3	ug	98		SW846 6020	07/15-07/18/11	1196180
	30.0	28.2	ug	94	4.0	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Lead	30.0	27.1	ug	90		SW846 6020	07/15-07/18/11	1196180
	30.0	25.9	ug	86	4.4	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Manganese	30.0	28.7	ug	96		SW846 6020	07/15-07/18/11	1196180
	30.0	27.4	ug	91	4.7	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Nickel	30.0	29.5	ug	98		SW846 6020	07/15-07/18/11	1196180
	30.0	27.9	ug	93	5.8	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Selenium	30.0	24.4	ug	81		SW846 6020	07/15-07/18/11	1196180
	30.0	23.6	ug	79	3.2	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 Matrix.....: AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Antimony	87	(77 - 110)			SW846 6020	07/14-07/18/11	1195193
	86	(77 - 110)	2.0	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Arsenic	92	(79 - 110)			SW846 6020	07/14-07/18/11	1195193
	90	(79 - 110)	2.2	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Beryllium	90	(70 - 110)			SW846 6020	07/14-07/18/11	1195193
	89	(70 - 110)	1.1	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Cadmium	90	(79 - 110)			SW846 6020	07/14-07/18/11	1195193
	88	(79 - 110)	2.5	(0-16)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Chromium	89	(84 - 110)			SW846 6020	07/14-07/18/11	1195193
	87	(84 - 110)	2.7	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Cobalt	89	(81 - 113)			SW846 6020	07/14-07/18/11	1195193
	87	(81 - 113)	2.4	(0-17)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Lead	87	(86 - 110)			SW846 6020	07/14-07/18/11	1195193
	90	(86 - 110)	4.1	(0-15)	SW846 6020	07/14-07/19/11	1195193
		Dilution Factor: 1					
Manganese	88	(84 - 110)			SW846 6020	07/14-07/18/11	1195193
	86	(84 - 110)	3.0	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Nickel	91	(86 - 110)			SW846 6020	07/14-07/18/11	1195193
	88	(86 - 110)	3.8	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Selenium	93	(65 - 110)			SW846 6020	07/14-07/18/11	1195193
	92	(65 - 110)	1.6	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Antimony	84	(77 - 110)			SW846 6020	07/15-07/18/11	1196180
	80	(77 - 110)	4.6	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Arsenic	85	(79 - 110)			SW846 6020	07/15-07/18/11	1196180
	81	(79 - 110)	5.0	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Beryllium	85	(70 - 110)			SW846 6020	07/15-07/18/11	1196180
	82	(70 - 110)	4.2	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Cadmium	85	(79 - 110)			SW846 6020	07/15-07/18/11	1196180
	82	(79 - 110)	4.4	(0-16)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Chromium	99	(84 - 110)			SW846 6020	07/15-07/18/11	1196180
	94	(84 - 110)	5.2	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Cobalt	98	(81 - 113)			SW846 6020	07/15-07/18/11	1196180
	94	(81 - 113)	4.0	(0-17)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Lead	90	(86 - 110)			SW846 6020	07/15-07/18/11	1196180
	86	(86 - 110)	4.4	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Manganese	96	(84 - 110)			SW846 6020	07/15-07/18/11	1196180
	91	(84 - 110)	4.7	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Nickel	98	(86 - 110)			SW846 6020	07/15-07/18/11	1196180
	93	(86 - 110)	5.8	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Selenium	81	(65 - 110)			SW846 6020	07/15-07/18/11	1196180
	79	(65 - 110)	3.2	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: G1G050412-001 **Prep Batch #...:** 1195193									
Antimony									
	1.8	30.0	32.9	ug	103		SW846 6020	07/14-07/19/11	MKMWN1CC
	1.8	30.0	33.4	ug	105	1.5	SW846 6020	07/14-07/19/11	MKMWN1CD
			Dilution Factor: 1						
Arsenic									
	14.4	30.0	38.3	ug	80		SW846 6020	07/14-07/19/11	MKMWN1AT
	14.4	30.0	39.1	ug	82	1.9	SW846 6020	07/14-07/19/11	MKMWN1AU
			Dilution Factor: 1						
Beryllium									
	0.10	30.0	24.7	ug	82		SW846 6020	07/14-07/19/11	MKMWN1AV
	0.10	30.0	24.8	ug	82	0.54	SW846 6020	07/14-07/19/11	MKMWN1AW
			Dilution Factor: 1						
Cadmium									
	0.11	30.0	26.0	ug	86		SW846 6020	07/14-07/19/11	MKMWN1AX
	0.11	30.0	26.3	ug	87	1.3	SW846 6020	07/14-07/19/11	MKMWN1A0
			Dilution Factor: 1						
Chromium									
	7.7	30.0	36.7	ug	97		SW846 6020	07/14-07/19/11	MKMWN1A3
	7.7	30.0	37.7	ug	100	2.7	SW846 6020	07/14-07/19/11	MKMWN1A4
			Dilution Factor: 1						
Cobalt									
	22.9	30.0	49.5	ug	89		SW846 6020	07/14-07/19/11	MKMWN1A1
	22.9	30.0	50.3	ug	91	1.5	SW846 6020	07/14-07/19/11	MKMWN1A2
			Dilution Factor: 1						
Lead									
	2.9	30.0	31.6	ug	96		SW846 6020	07/14-07/19/11	MKMWN1A9
	2.9	30.0	32.3	ug	98	2.2	SW846 6020	07/14-07/19/11	MKMWN1CA
			Dilution Factor: 1						
Manganese									
	13.9	30.0	42.0	ug	94		SW846 6020	07/14-07/19/11	MKMWN1A5
	13.9	30.0	43.1	ug	97	2.5	SW846 6020	07/14-07/19/11	MKMWN1A6
			Dilution Factor: 1						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: G1G050412 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel									
	365	30.0	388 N	ug	77		SW846 6020	07/14-07/19/11	MKMWN1A7
	365	30.0	393	ug	93	1.2	SW846 6020	07/14-07/19/11	MKMWN1A8
			Dilution Factor: 1						
Selenium									
	0.92	30.0	23.5	ug	75		SW846 6020	07/14-07/19/11	MKMWN1CE
	0.92	30.0	23.8	ug	76	1.3	SW846 6020	07/14-07/19/11	MKMWN1CF
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: G1G050412-001 **Prep Batch #...:** 1195193							
Antimony	103	(77 - 110)			SW846 6020	07/14-07/19/11	MKMWN1CC
	105	(77 - 110)	1.5	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1CD
		Dilution Factor: 1					
Arsenic	80	(79 - 110)			SW846 6020	07/14-07/19/11	MKMWN1AT
	82	(79 - 110)	1.9	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1AU
		Dilution Factor: 1					
Beryllium	82	(70 - 110)			SW846 6020	07/14-07/19/11	MKMWN1AV
	82	(70 - 110)	0.54	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1AW
		Dilution Factor: 1					
Cadmium	86	(79 - 110)			SW846 6020	07/14-07/19/11	MKMWN1AX
	87	(79 - 110)	1.3	(0-16)	SW846 6020	07/14-07/19/11	MKMWN1A0
		Dilution Factor: 1					
Chromium	97	(84 - 110)			SW846 6020	07/14-07/19/11	MKMWN1A3
	100	(84 - 110)	2.7	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1A4
		Dilution Factor: 1					
Cobalt	89	(81 - 113)			SW846 6020	07/14-07/19/11	MKMWN1A1
	91	(81 - 113)	1.5	(0-17)	SW846 6020	07/14-07/19/11	MKMWN1A2
		Dilution Factor: 1					
Lead	96	(86 - 110)			SW846 6020	07/14-07/19/11	MKMWN1A9
	98	(86 - 110)	2.2	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1CA
		Dilution Factor: 1					
Manganese	94	(84 - 110)			SW846 6020	07/14-07/19/11	MKMWN1A5
	97	(84 - 110)	2.5	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1A6
		Dilution Factor: 1					
Nickel	77 N	(86 - 110)			SW846 6020	07/14-07/19/11	MKMWN1A7
	93	(86 - 110)	1.2	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1A8
		Dilution Factor: 1					
Selenium	75	(65 - 110)			SW846 6020	07/14-07/19/11	MKMWN1CE
	76	(65 - 110)	1.3	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1CF
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: G1G050412-002 **Prep Batch #...:** 1196180									
Antimony									
	0.020	30.0	24.2	ug	80		SW846 6020	07/15-07/19/11	MKMWV1A7
	0.020	30.0	23.7	ug	79	2.1	SW846 6020	07/15-07/20/11	MKMWV1A8
			Dilution Factor: 1						
Arsenic									
	0.23	30.0	24.7	ug	82		SW846 6020	07/15-07/19/11	MKMWV1AN
	0.23	30.0	25.3	ug	84	2.6	SW846 6020	07/15-07/20/11	MKMWV1AP
			Dilution Factor: 1						
Beryllium									
	ND	30.0	22.0	ug	73		SW846 6020	07/15-07/19/11	MKMWV1AQ
	ND	30.0	22.3	ug	74	1.6	SW846 6020	07/15-07/20/11	MKMWV1AR
			Dilution Factor: 1						
Cadmium									
	ND	30.0	24.6	ug	82		SW846 6020	07/15-07/19/11	MKMWV1AT
	ND	30.0	24.1	ug	80	1.7	SW846 6020	07/15-07/20/11	MKMWV1AU
			Dilution Factor: 1						
Chromium									
	1.3	30.0	31.8	ug	102		SW846 6020	07/15-07/19/11	MKMWV1AX
	1.3	30.0	30.8	ug	98	3.3	SW846 6020	07/15-07/20/11	MKMWV1A0
			Dilution Factor: 1						
Cobalt									
	0.040	30.0	30.3	ug	101		SW846 6020	07/15-07/19/11	MKMWV1AV
	0.040	30.0	31.2	ug	104	3.0	SW846 6020	07/15-07/20/11	MKMWV1AW
			Dilution Factor: 1						
Lead									
	0.69	30.0	28.6	ug	93		SW846 6020	07/15-07/19/11	MKMWV1A5
	0.69	30.0	28.4	ug	92	0.62	SW846 6020	07/15-07/20/11	MKMWV1A6
			Dilution Factor: 1						
Manganese									
	4.5	30.0	34.6	ug	101		SW846 6020	07/15-07/19/11	MKMWV1A1
	4.5	30.0	34.8	ug	101	0.37	SW846 6020	07/15-07/20/11	MKMWV1A2
			Dilution Factor: 1						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel									
	0.98	30.0	29.8	ug	96		SW846 6020	07/15-07/19/11	MKMWV1A3
	0.98	30.0	30.9	ug	100	3.5	SW846 6020	07/15-07/20/11	MKMWV1A4
			Dilution Factor: 1						
Selenium									
	5.4	30.0	29.7	ug	81		SW846 6020	07/15-07/19/11	MKMWV1A9
	5.4	30.0	30.8	ug	85	3.6	SW846 6020	07/15-07/20/11	MKMWV1CA
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: G1G050412-002 **Prep Batch #...:** 1196180							
Antimony	80	(77 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A7
	79	(77 - 110)	2.1	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A8
		Dilution Factor: 1					
Arsenic	82	(79 - 110)			SW846 6020	07/15-07/19/11	MKMWV1AN
	84	(79 - 110)	2.6	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1AP
		Dilution Factor: 1					
Beryllium	73	(70 - 110)			SW846 6020	07/15-07/19/11	MKMWV1AQ
	74	(70 - 110)	1.6	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1AR
		Dilution Factor: 1					
Cadmium	82	(79 - 110)			SW846 6020	07/15-07/19/11	MKMWV1AT
	80	(79 - 110)	1.7	(0-16)	SW846 6020	07/15-07/20/11	MKMWV1AU
		Dilution Factor: 1					
Chromium	102	(84 - 110)			SW846 6020	07/15-07/19/11	MKMWV1AX
	98	(84 - 110)	3.3	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A0
		Dilution Factor: 1					
Cobalt	101	(81 - 113)			SW846 6020	07/15-07/19/11	MKMWV1AV
	104	(81 - 113)	3.0	(0-17)	SW846 6020	07/15-07/20/11	MKMWV1AW
		Dilution Factor: 1					
Lead	93	(86 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A5
	92	(86 - 110)	0.62	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A6
		Dilution Factor: 1					
Manganese	101	(84 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A1
	101	(84 - 110)	0.37	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A2
		Dilution Factor: 1					
Nickel	96	(86 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A3
	100	(86 - 110)	3.5	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A4
		Dilution Factor: 1					
Selenium	81	(65 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A9
	85	(65 - 110)	3.6	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1CA
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Raw Data Package

M29 Metals by ICPMS (6020)

Metals Cover Page

SAMPLE SUMMARY

G1G050412

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MKMWN	001	CHV-Stk-ICR2-M5/29-Front Half	06/24/11	13:31
MKMWV	002	CHV-Stk-ICR2-M5/29-Back Half	06/24/11	13:31
MKMWW	003	CHV-Stk-ICR3-M5/29-Front Half	06/24/11	19:42
MKMW0	004	CHV-Stk-ICR3-M5/29-Back Half	06/24/11	19:42
MKMW6	005	CHV-Stk-ICR4-M5/29-Front Half	06/26/11	17:38
MKMXC	006	CHV-Stk-ICR4-M5/29-Back Half	06/26/11	17:38
MKMXD	007	CHV-Stk-ICRFB-M5/29-Front Half	06/26/11	17:04
MKMXF	008	CHV-Stk-ICRFB-M5/29-Back Half	06/26/11	17:04

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Metals Sample Data

URS Corporation

Client Sample ID: CHV-Stk-ICR2-M5/29-Front Half

TOTAL Metals

Lot-Sample #...: G1G050412-001 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1195193						
Arsenic	14.4	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	0.10 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.11 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	22.9	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	7.7	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	13.9	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	365	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	2.9 J	0.15	ug	SW846 6020	07/14-07/19/11	MKMWN1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	1.8 J	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	0.92	0.30	ug	SW846 6020	07/14-07/19/11	MKMWN1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICR2-M5/29-Back Half

TOTAL Metals

Lot-Sample #...: G1G050412-002 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1196180						
Arsenic	0.23 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	0.040 B	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	1.3	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	4.5	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	0.98	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	0.69 J	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	0.020 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	5.4	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICR3-M5/29-Front Half

TOTAL Metals

Lot-Sample #...: G1G050412-003 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1195193						
Arsenic	13.1	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	0.082 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.058 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	20.0	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	6.6	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	13.9	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	325	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	2.2 J	0.15	ug	SW846 6020	07/14-07/19/11	MKMWW1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	1.5 J	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	ND	0.30	ug	SW846 6020	07/14-07/19/11	MKMWW1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICR3-M5/29-Back Half

TOTAL Metals

Lot-Sample #...: G1G050412-004 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1196180						
Arsenic	ND	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.022 B	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	0.039 B	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	1.2	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	7.5	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	1.2	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	0.41 J	0.15	ug	SW846 6020	07/15-07/18/11	MKMW01AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	0.032 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	8.0	0.30	ug	SW846 6020	07/15-07/18/11	MKMW01AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level

URS Corporation

Client Sample ID: CHV-Stk-ICR4-M5/29-Front Half

TOTAL Metals

Lot-Sample #...: G1G050412-005 Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1195193						
Arsenic	12.0	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	0.076 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.047 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	20.3	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	6.5	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	17.4	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	266	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	2.3 J	0.15	ug	SW846 6020	07/14-07/19/11	MKMW61AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	1.6 J	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	1.7	0.30	ug	SW846 6020	07/14-07/19/11	MKMW61AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICR4-M5/29-Back Half

TOTAL Metals

Lot-Sample #...: G1G050412-006 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1196180						
Arsenic	ND	0.30	ug	SW846 6020	07/15-07/18/11	MKMXC1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMXC1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMXC1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	**0.043 B**	**0.15**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXC1AE**
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	**0.63**	**0.30**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXC1AF**
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	**0.80**	**0.15**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXC1AG**
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	**0.95**	**0.30**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXC1AH**
		Dilution Factor: 1		MDL.....: 0.015		
Lead	**0.29 J**	**0.15**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXC1AJ**
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	**0.0060 B**	**0.30**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXC1AK**
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	**5.9**	**0.30**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MKMXC1AL**
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICRFB-M5/29-Front Half

TOTAL Metals

Lot-Sample #...: G1G050412-007 Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1195193						
Arsenic	0.13 B	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	0.052 B	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	0.44	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	2.1	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	1.3	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	2.6	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	0.54 J	0.15	ug	SW846 6020	07/14-07/19/11	MKMXD1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	0.032 B,J	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	ND	0.30	ug	SW846 6020	07/14-07/19/11	MKMXD1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

URS Corporation

Client Sample ID: CHV-Stk-ICRFB-M5/29-Back Half

TOTAL Metals

Lot-Sample #...: G1G050412-008 Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1196180						
Arsenic	0.078 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMXF1AA
		Dilution Factor: 1		MDL.....: 0.075		
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMXF1AC
		Dilution Factor: 1		MDL.....: 0.012		
Cadmium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMXF1AD
		Dilution Factor: 1		MDL.....: 0.011		
Cobalt	0.042 B	0.15	ug	SW846 6020	07/15-07/18/11	MKMXF1AE
		Dilution Factor: 1		MDL.....: 0.0086		
Chromium	0.50	0.30	ug	SW846 6020	07/15-07/18/11	MKMXF1AF
		Dilution Factor: 1		MDL.....: 0.14		
Manganese	3.1	0.15	ug	SW846 6020	07/15-07/18/11	MKMXF1AG
		Dilution Factor: 1		MDL.....: 0.013		
Nickel	0.70	0.30	ug	SW846 6020	07/15-07/18/11	MKMXF1AH
		Dilution Factor: 1		MDL.....: 0.015		
Lead	0.28 J	0.15	ug	SW846 6020	07/15-07/18/11	MKMXF1AJ
		Dilution Factor: 1		MDL.....: 0.0099		
Antimony	0.0090 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMXF1AK
		Dilution Factor: 1		MDL.....: 0.0054		
Selenium	ND	0.30	ug	SW846 6020	07/15-07/18/11	MKMXF1AL
		Dilution Factor: 1		MDL.....: 0.26		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination The associated method blank contains the target analyte at a reportable level.

Metals QC Data

Metals ICV/CCV

TAL West Sac

CALIBRATION CHECK SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Method: 6020 **Instrument: M02** **Batch: 110718A2**

Sample ID	Type	File - Sequence	Analyzed Date	Q
ICV	ICV	110718A2, 4	07/18/2011 13:32:00	☐
ICB	ICB	110718A2, 5	07/18/2011 13:40:00	☐
ICSA	ICSA	110718A2, 8	07/18/2011 14:13:50	☐
ICSAB	ICSAB	110718A2, 9	07/18/2011 14:17:06	☐
CCV 1	CCV	110718A2, 11	07/18/2011 14:52:02	☐
CCB 1	CCB	110718A2, 12	07/18/2011 14:55:17	☐
CCV 2	CCV	110718A2, 15	07/18/2011 14:58:34	☐
CCB 2	CCB	110718A2, 16	07/18/2011 15:01:50	☐
CCV 3	CCV	110718A2, 26	07/18/2011 15:34:38	☐
CCB 3	CCB	110718A2, 27	07/18/2011 15:36:59	☐
CCV 4	CCV	110718A2, 30	07/18/2011 15:45:47	☐
CCB 4	CCB	110718A2, 31	07/18/2011 15:48:08	☐
CCV 5	CCV	110718A2, 39	07/18/2011 16:06:55	☐
CCB 5	CCB	110718A2, 40	07/18/2011 16:09:16	☐
CCV 6	CCV	110718A2, 41	07/18/2011 16:11:37	☐
CCB 6	CCB	110718A2, 42	07/18/2011 16:13:58	☐
CCV 7	CCV	110718A2, 49	07/18/2011 16:30:26	☐
CCB 7	CCB	110718A2, 50	07/18/2011 16:32:47	☐
CCV 8	CCV	110718A2, 51	07/18/2011 16:35:09	☐
CCB 8	CCB	110718A2, 52	07/18/2011 16:37:29	☐
CCV 9	CCV	110718A2, 59	07/18/2011 16:53:57	☐
CCB 9	CCB	110718A2, 60	07/18/2011 16:56:18	☐

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: ICV (ICV) Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: ICPMS M02 Channel 262
File: 110718A2 # 4 Method 6020_
Acquired: 07/18/2011 13:32:00 M02
Calibrated: 07/18/2011 13:27:27 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	21181	82.926	80.000	104	
7440-47-3	Chromium	52	548555	81.786	80.000	102	
7439-96-5	Manganese	55	870384	81.799	80.000	102	
7440-48-4	Cobalt	59	645119	82.639	80.000	103	
7440-02-0	Nickel	60	133417	82.332	80.000	103	
7440-38-2	Arsenic	75	137479	80.909	80.000	101	
7782-49-2	Selenium	78	45096	80.075	80.000	100	
7782-49-2	Selenium	82	13420	82.109	80.000	103	
7440-43-9	Cadmium	111	118616	81.769	80.000	102	
7440-43-9	Cadmium	114	280813	81.667	80.000	102	
7440-36-0	Antimony	121	194155	39.289	40.000	98.2	
7439-92-1	Lead	208	2017422	82.389	80.000	103	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1479246		☑
7440-56-4	Germanium	72	2377292		☑
7440-74-6	Indium	115	2427601		☑
7440-30-4	Thulium	169	2039672		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 1 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 11 Method 6020_
Acquired: 07/18/2011 14:52:02 M02
Calibrated: 07/18/2011 13:27:27 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	25247	99.558	100.00	99.6	
7440-47-3	Chromium	52	675261	97.159	100.00	97.2	
7439-96-5	Manganese	55	1080567	97.715	100.00	97.7	
7440-48-4	Cobalt	59	793739	97.801	100.00	97.8	
7440-02-0	Nickel	60	164448	97.629	100.00	97.6	
7440-38-2	Arsenic	75	170231	98.466	100.00	98.5	
7782-49-2	Selenium	78	54147	99.956	100.00	100	
7782-49-2	Selenium	82	16119	97.115	100.00	97.1	
7440-43-9	Cadmium	111	141387	97.233	100.00	97.2	
7440-43-9	Cadmium	114	335253	97.270	100.00	97.3	
7440-36-0	Antimony	121	242210	48.898	50.000	97.8	
7439-92-1	Lead	208	2326963	96.234	100.00	96.2	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1468697		☑
7440-56-4	Germanium	72	2471219		☑
7440-74-6	Indium	115	2433327		☑
7440-30-4	Thulium	169	2014265		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 2 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 15 Method 6020_
Acquired: 07/18/2011 14:58:34 M02
Calibrated: 07/18/2011 14:55:17 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	24979	98.491	100.00	98.5	
7440-47-3	Chromium	52	656256	98.619	100.00	98.6	
7439-96-5	Manganese	55	1046542	98.321	100.00	98.3	
7440-48-4	Cobalt	59	771143	98.624	100.00	98.6	
7440-02-0	Nickel	60	159665	98.563	100.00	98.6	
7440-38-2	Arsenic	75	164913	98.159	100.00	98.2	
7782-49-2	Selenium	78	51896	95.938	100.00	95.9	
7782-49-2	Selenium	82	15687	98.621	100.00	98.6	
7440-43-9	Cadmium	111	136338	97.599	100.00	97.6	
7440-43-9	Cadmium	114	323745	97.740	100.00	97.7	
7440-36-0	Antimony	121	236099	49.335	50.000	98.7	
7439-92-1	Lead	208	2260155	97.310	100.00	97.3	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1475318		☑
7440-56-4	Germanium	72	2434097		☑
7440-74-6	Indium	115	2403827		☑
7440-30-4	Thulium	169	2010280		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 3 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 26 Method 6020_
Acquired: 07/18/2011 15:34:38 M02
Calibrated: 07/18/2011 14:55:17 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	24805	93.417	100.00	93.4	
7440-47-3	Chromium	52	610394	94.313	100.00	94.3	
7439-96-5	Manganese	55	978802	94.643	100.00	94.6	
7440-48-4	Cobalt	59	708586	93.284	100.00	93.3	
7440-02-0	Nickel	60	145609	92.520	100.00	92.5	
7440-38-2	Arsenic	75	151954	92.505	100.00	92.5	
7782-49-2	Selenium	78	47818	88.400	100.00	88.4	
7782-49-2	Selenium	82	14332	91.892	100.00	91.9	
7440-43-9	Cadmium	111	125788	91.946	100.00	91.9	
7440-43-9	Cadmium	114	299994	92.480	100.00	92.5	
7440-36-0	Antimony	121	219817	46.899	50.000	93.8	
7439-92-1	Lead	208	2122833	92.200	100.00	92.2	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1544573		☑
7440-56-4	Germanium	72	2365001		☑
7440-74-6	Indium	115	2354423		☑
7440-30-4	Thulium	169	1992984		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 4 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 30 Method 6020_
Acquired: 07/18/2011 15:45:47 M02
Calibrated: 07/18/2011 15:34:38 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	24311	98.540	100.00	98.5	
7440-47-3	Chromium	52	599415	99.876	100.00	99.9	
7439-96-5	Manganese	55	955429	99.287	100.00	99.3	
7440-48-4	Cobalt	59	692540	99.396	100.00	99.4	
7440-02-0	Nickel	60	143039	99.900	100.00	99.9	
7440-38-2	Arsenic	75	151826	101.83	100.00	102	
7782-49-2	Selenium	78	47975	103.19	100.00	103	
7782-49-2	Selenium	82	14268	101.51	100.00	102	
7440-43-9	Cadmium	111	124631	101.68	100.00	102	
7440-43-9	Cadmium	114	294894	100.86	100.00	101	
7440-36-0	Antimony	121	217161	50.698	50.000	101	
7439-92-1	Lead	208	2094246	100.12	100.00	100	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1536616		☑
7440-56-4	Germanium	72	2325014		☑
7440-74-6	Indium	115	2294757		☑
7440-30-4	Thulium	169	1963711		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: CCV 5 (CCV) Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: ICPMS M02 Channel 262
File: 110718A2 # 39 Method 6020_
Acquired: 07/18/2011 16:06:55 M02
Calibrated: 07/18/2011 15:34:38 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	25378	96.622	100.00	96.6	
7440-47-3	Chromium	52	605862	97.817	100.00	97.8	
7439-96-5	Manganese	55	968126	97.521	100.00	97.5	
7440-48-4	Cobalt	59	696852	96.964	100.00	97.0	
7440-02-0	Nickel	60	143435	97.123	100.00	97.1	
7440-38-2	Arsenic	75	148062	95.615	100.00	95.6	
7782-49-2	Selenium	78	45856	91.702	100.00	91.7	
7782-49-2	Selenium	82	13813	94.311	100.00	94.3	
7440-43-9	Cadmium	111	125258	98.236	100.00	98.2	
7440-43-9	Cadmium	114	297238	97.742	100.00	97.7	
7440-36-0	Antimony	121	218880	49.113	50.000	98.2	
7439-92-1	Lead	208	2115564	97.484	100.00	97.5	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1635512		☑
7440-56-4	Germanium	72	2397970		☑
7440-74-6	Indium	115	2386143		☑
7440-30-4	Thulium	169	2036976		☑

Reviewed by: Date:

TAL West Sac

CALIBRATION CHECK SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Method: 6020 **Instrument: M02** **Batch: 110719A2**

Sample ID	Type	File - Sequence	Analyzed Date	Q
ICV	ICV	110719A2, 4	07/19/2011 14:35:29	☐
ICB	ICB	110719A2, 5	07/19/2011 14:38:45	☐
ICSA	ICSA	110719A2, 8	07/19/2011 14:50:28	☐
ICSAB	ICSAB	110719A2, 9	07/19/2011 14:53:44	☐
CCV 1	CCV	110719A2, 11	07/19/2011 15:07:37	☐
CCB 1	CCB	110719A2, 12	07/19/2011 15:10:53	☐
CCV 2	CCV	110719A2, 15	07/19/2011 15:14:10	☐
CCB 2	CCB	110719A2, 16	07/19/2011 15:17:26	☐
CCV 3	CCV	110719A2, 20	07/19/2011 15:30:34	☐
CCB 3	CCB	110719A2, 21	07/19/2011 15:32:54	☐
CCV 4	CCV	110719A2, 22	07/19/2011 15:35:16	☐
CCB 4	CCB	110719A2, 23	07/19/2011 15:37:37	☐
CCV 5	CCV	110719A2, 31	07/19/2011 16:02:52	☐
CCB 5	CCB	110719A2, 32	07/19/2011 16:05:12	☐
CCV 6	CCV	110719A2, 35	07/19/2011 16:07:34	☐
CCB 6	CCB	110719A2, 36	07/19/2011 16:09:55	☐
CCV 7	CCV	110719A2, 44	07/19/2011 16:35:10	☐
CCB 7	CCB	110719A2, 45	07/19/2011 16:37:30	☐
CCV 8	CCV	110719A2, 46	07/19/2011 16:39:52	☐
CCB 8	CCB	110719A2, 47	07/19/2011 16:42:13	☐
CCV 9	CCV	110719A2, 54	07/19/2011 17:04:12	☐
CCB 9	CCB	110719A2, 55	07/19/2011 17:06:32	☐
CCV 10	CCV	110719A2, 58	07/19/2011 17:08:54	☐
CCB 10	CCB	110719A2, 59	07/19/2011 17:11:14	☐
CCV 11	CCV	110719A2, 66	07/19/2011 17:33:13	☐
CCB 11	CCB	110719A2, 67	07/19/2011 17:35:33	☐
CCV 12	CCV	110719A2, 70	07/19/2011 17:37:54	☐
CCB 12	CCB	110719A2, 71	07/19/2011 17:40:15	☐
CCV 13	CCV	110719A2, 76	07/19/2011 17:55:41	☐
CCB 13	CCB	110719A2, 77	07/19/2011 17:58:02	☐

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **ICV (ICV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 4 Method 6020_
Acquired: 07/19/2011 14:35:29 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	22506	81.773	80.000	102	
7440-47-3	Chromium	52	583398	80.352	80.000	100	
7439-96-5	Manganese	55	927236	80.455	80.000	101	
7440-48-4	Cobalt	59	680929	80.392	80.000	100	
7440-02-0	Nickel	60	141327	80.812	80.000	101	
7440-38-2	Arsenic	75	143212	80.754	80.000	101	
7782-49-2	Selenium	78	46051	80.142	80.000	100	
7782-49-2	Selenium	82	13925	80.552	80.000	101	
7440-43-9	Cadmium	111	121215	81.391	80.000	102	
7440-36-0	Antimony	121	199500	39.329	40.000	98.3	
7439-92-1	Lead	208	1989978	81.498	80.000	102	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1588550		☑
7440-56-4	Germanium	72	2455930		☑
7440-74-6	Indium	115	2487805		☑
7440-30-4	Thulium	169	2027713		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 1 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 11 Method 6020_
Acquired: 07/19/2011 15:07:37 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	26715	101.29	100.00	101	
7440-47-3	Chromium	52	767144	97.782	100.00	97.8	
7439-96-5	Manganese	55	1214923	97.207	100.00	97.2	
7440-48-4	Cobalt	59	910654	99.153	100.00	99.2	
7440-02-0	Nickel	60	189030	99.668	100.00	99.7	
7440-38-2	Arsenic	75	187345	99.508	100.00	99.5	
7782-49-2	Selenium	78	58842	102.33	100.00	102	
7782-49-2	Selenium	82	18002	98.352	100.00	98.4	
7440-43-9	Cadmium	111	152027	97.258	100.00	97.3	
7440-36-0	Antimony	121	260671	48.965	50.000	97.9	
7439-92-1	Lead	208	2310161	94.410	100.00	94.4	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1522284		☑
7440-56-4	Germanium	72	2663820		☑
7440-74-6	Indium	115	2611358		☑
7440-30-4	Thulium	169	2032509		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 2 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 15 Method 6020_
Acquired: 07/19/2011 15:14:10 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	26676	98.284	100.00	98.3	
7440-47-3	Chromium	52	762845	98.146	100.00	98.1	
7439-96-5	Manganese	55	1206337	98.050	100.00	98.1	
7440-48-4	Cobalt	59	898302	97.409	100.00	97.4	
7440-02-0	Nickel	60	186830	97.592	100.00	97.6	
7440-38-2	Arsenic	75	187445	98.681	100.00	98.7	
7782-49-2	Selenium	78	58012	96.144	100.00	96.1	
7782-49-2	Selenium	82	17759	97.039	100.00	97.0	
7440-43-9	Cadmium	111	151868	99.175	100.00	99.2	
7440-36-0	Antimony	121	261258	49.754	50.000	99.5	
7439-92-1	Lead	208	2324348	98.769	100.00	98.8	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1546324		☑
7440-56-4	Germanium	72	2696982		☑
7440-74-6	Indium	115	2629991		☑
7440-30-4	Thulium	169	2070088		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 3 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 20 Method 6020_
Acquired: 07/19/2011 15:30:34 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	25969	98.791	100.00	98.8	
7440-47-3	Chromium	52	706128	95.054	100.00	95.1	
7439-96-5	Manganese	55	1126987	95.906	100.00	95.9	
7440-48-4	Cobalt	59	827685	93.973	100.00	94.0	
7440-02-0	Nickel	60	171838	93.963	100.00	94.0	
7440-38-2	Arsenic	75	176026	96.857	100.00	96.9	
7782-49-2	Selenium	78	53480	91.172	100.00	91.2	
7782-49-2	Selenium	82	16483	93.970	100.00	94.0	
7440-43-9	Cadmium	111	143193	98.747	100.00	98.7	
7440-36-0	Antimony	121	251820	50.640	50.000	101	
7439-92-1	Lead	208	2257458	98.111	100.00	98.1	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1497368		☑
7440-56-4	Germanium	72	2575467		☑
7440-74-6	Indium	115	2490143		☑
7440-30-4	Thulium	169	2023827		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 4 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 22 Method 6020_
Acquired: 07/19/2011 15:35:16 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	25155	101.20	100.00	101	
7440-47-3	Chromium	52	684992	95.603	100.00	95.6	
7439-96-5	Manganese	55	1091796	96.325	100.00	96.3	
7440-48-4	Cobalt	59	804292	94.670	100.00	94.7	
7440-02-0	Nickel	60	167916	95.206	100.00	95.2	
7440-38-2	Arsenic	75	170732	97.456	100.00	97.5	
7782-49-2	Selenium	78	52225	92.888	100.00	92.9	
7782-49-2	Selenium	82	16085	95.214	100.00	95.2	
7440-43-9	Cadmium	111	139552	98.784	100.00	98.8	
7440-36-0	Antimony	121	246074	50.798	50.000	102	
7439-92-1	Lead	208	2209523	98.358	100.00	98.4	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1416649		☑
7440-56-4	Germanium	72	2484473		☑
7440-74-6	Indium	115	2426119		☑
7440-30-4	Thulium	169	1976060		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 5 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 31 Method 6020_
Acquired: 07/19/2011 16:02:52 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	17026	110.90	100.00	111	
7440-47-3	Chromium	52	494376	91.756	100.00	91.8	
7439-96-5	Manganese	55	773368	90.830	100.00	90.8	
7440-48-4	Cobalt	59	631892	99.029	100.00	99.0	
7440-02-0	Nickel	60	134213	101.33	100.00	101	
7440-38-2	Arsenic	75	129961	98.906	100.00	98.9	
7782-49-2	Selenium	78	39749	94.752	100.00	94.8	
7782-49-2	Selenium	82	12618	99.991	100.00	100	
7440-43-9	Cadmium	111	120861	98.239	100.00	98.2	
7440-36-0	Antimony	121	214165	50.766	50.000	102	
7439-92-1	Lead	208	1952963	95.793	100.00	95.8	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	874794		☑
7440-56-4	Germanium	72	1866302		☑
7440-74-6	Indium	115	2113126		☑
7440-30-4	Thulium	169	1793960		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 6 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 35 Method 6020_
Acquired: 07/19/2011 16:07:34 M02
Calibrated: 07/19/2011 16:05:12 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	17179	101.43	100.00	101	
7440-47-3	Chromium	52	501214	101.55	100.00	102	
7439-96-5	Manganese	55	782755	101.35	100.00	101	
7440-48-4	Cobalt	59	635049	100.64	100.00	101	
7440-02-0	Nickel	60	134664	100.48	100.00	100	
7440-38-2	Arsenic	75	130783	100.85	100.00	101	
7782-49-2	Selenium	78	39741	100.17	100.00	100	
7782-49-2	Selenium	82	12649	100.46	100.00	100	
7440-43-9	Cadmium	111	119160	99.791	100.00	99.8	
7440-36-0	Antimony	121	212902	50.317	50.000	101	
7439-92-1	Lead	208	1914752	99.740	100.00	99.7	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	870291		☑
7440-56-4	Germanium	72	1863759		☑
7440-74-6	Indium	115	2087548		☑
7440-30-4	Thulium	169	1763057		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 7 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 44 Method 6020_
Acquired: 07/19/2011 16:35:10 M02
Calibrated: 07/19/2011 16:05:12 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	13056	85.859	100.00	85.9	
7440-47-3	Chromium	52	389949	107.46	100.00	107	
7439-96-5	Manganese	55	584789	102.91	100.00	103	
7440-48-4	Cobalt	59	499982	107.69	100.00	108	
7440-02-0	Nickel	60	107238	108.76	100.00	109	
7440-38-2	Arsenic	75	101386	106.84	100.00	107	
7782-49-2	Selenium	78	31733	112.89	100.00	113	
7782-49-2	Selenium	82	9663	104.85	100.00	105	
7440-43-9	Cadmium	111	92616	96.683	100.00	96.7	
7440-36-0	Antimony	121	166828	49.139	50.000	98.3	
7439-92-1	Lead	208	1676237	102.35	100.00	102	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	781252		☑
7440-56-4	Germanium	72	1371268		☑
7440-74-6	Indium	115	1674702		☑
7440-30-4	Thulium	169	1503947		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 8 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 46 Method 6020_
Acquired: 07/19/2011 16:39:52 M02
Calibrated: 07/19/2011 16:05:12 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	12446	85.119	100.00	85.1	
7440-47-3	Chromium	52	379811	105.33	100.00	105	
7439-96-5	Manganese	55	575942	102.01	100.00	102	
7440-48-4	Cobalt	59	488820	105.98	100.00	106	
7440-02-0	Nickel	60	111205	113.50	100.00	114	
7440-38-2	Arsenic	75	99841	105.81	100.00	106	
7782-49-2	Selenium	78	31352	112.00	100.00	112	
7782-49-2	Selenium	82	9420	102.64	100.00	103	
7440-43-9	Cadmium	111	90452	94.721	100.00	94.7	
7440-36-0	Antimony	121	164110	48.490	50.000	97.0	
7439-92-1	Lead	208	1645207	101.02	100.00	101	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	751234		☑
7440-56-4	Germanium	72	1362274		☑
7440-74-6	Indium	115	1669351		☑
7440-30-4	Thulium	169	1495458		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 9 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 54 Method 6020_
Acquired: 07/19/2011 17:04:12 M02
Calibrated: 07/19/2011 16:05:12 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	10343	74.457	100.00	74.5	
7440-47-3	Chromium	52	295387	101.78	100.00	102	
7439-96-5	Manganese	55	436876	96.179	100.00	96.2	
7440-48-4	Cobalt	59	393853	106.14	100.00	106	
7440-02-0	Nickel	60	88109	111.80	100.00	112	
7440-38-2	Arsenic	75	82032	108.29	100.00	108	
7782-49-2	Selenium	78	25980	116.84	100.00	117	
7782-49-2	Selenium	82	7721	104.85	100.00	105	
7440-43-9	Cadmium	111	71542	96.146	100.00	96.1	
7440-36-0	Antimony	121	128709	48.809	50.000	97.6	
7439-92-1	Lead	208	1307390	103.38	100.00	103	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	713718		☑
7440-56-4	Germanium	72	1095935		☐
7440-74-6	Indium	115	1300991		☐
7440-30-4	Thulium	169	1161309		☐

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 10 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 58 Method 6020_
Acquired: 07/19/2011 17:08:54 M02
Calibrated: 07/19/2011 17:06:32 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	9930	99.399	100.00	99.4	
7440-47-3	Chromium	52	293090	101.23	100.00	101	
7439-96-5	Manganese	55	428805	100.13	100.00	100	
7440-48-4	Cobalt	59	387816	100.45	100.00	100	
7440-02-0	Nickel	60	86247	99.838	100.00	99.8	
7440-38-2	Arsenic	75	80963	100.79	100.00	101	
7782-49-2	Selenium	78	25760	101.85	100.00	102	
7782-49-2	Selenium	82	7732	102.50	100.00	102	
7440-43-9	Cadmium	111	71553	101.75	100.00	102	
7440-36-0	Antimony	121	127870	50.537	50.000	101	
7439-92-1	Lead	208	1293513	100.000	100.00	100	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	689399		☑
7440-56-4	Germanium	72	1074404		☑
7440-74-6	Indium	115	1278657		☑
7440-30-4	Thulium	169	1148975		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 11 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 66 Method 6020_
Acquired: 07/19/2011 17:33:13 M02
Calibrated: 07/19/2011 17:06:32 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	9220	91.354	100.00	91.4	
7440-47-3	Chromium	52	261893	98.647	100.00	98.6	
7439-96-5	Manganese	55	381448	97.159	100.00	97.2	
7440-48-4	Cobalt	59	351684	99.366	100.00	99.4	
7440-02-0	Nickel	60	77024	97.136	100.00	97.1	
7440-38-2	Arsenic	75	74021	100.49	100.00	100	
7782-49-2	Selenium	78	23864	103.57	100.00	104	
7782-49-2	Selenium	82	6939	99.968	100.00	100	
7440-43-9	Cadmium	111	64998	100.73	100.00	101	
7440-36-0	Antimony	121	114293	49.223	50.000	98.4	
7439-92-1	Lead	208	1147418	97.589	100.00	97.6	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	696236		☑
7440-56-4	Germanium	72	984773		☑
7440-74-6	Indium	115	1173477		☑
7440-30-4	Thulium	169	1044468		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 12 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 70 Method 6020_
Acquired: 07/19/2011 17:37:54 M02
Calibrated: 07/19/2011 17:33:13 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	8744	100.24	100.00	100	
7440-47-3	Chromium	52	244995	98.909	100.00	98.9	
7439-96-5	Manganese	55	358038	99.240	100.00	99.2	
7440-48-4	Cobalt	59	332039	99.846	100.00	99.8	
7440-02-0	Nickel	60	73538	100.95	100.00	101	
7440-38-2	Arsenic	75	70192	100.32	100.00	100	
7782-49-2	Selenium	78	22650	100.63	100.00	101	
7782-49-2	Selenium	82	6695	102.38	100.00	102	
7440-43-9	Cadmium	111	61256	98.810	100.00	98.8	
7440-36-0	Antimony	121	108829	49.915	50.000	99.8	
7439-92-1	Lead	208	1080324	101.06	100.00	101	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	658867		☑
7440-56-4	Germanium	72	931343		☑
7440-74-6	Indium	115	1119114		☑
7440-30-4	Thulium	169	972928		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 13 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 76 Method 6020_
Acquired: 07/19/2011 17:55:41 M02
Calibrated: 07/19/2011 17:33:13 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	9210	93.402	100.00	93.4	
7440-47-3	Chromium	52	258689	98.769	100.00	98.8	
7439-96-5	Manganese	55	381023	99.901	100.00	99.9	
7440-48-4	Cobalt	59	351382	99.934	100.00	99.9	
7440-02-0	Nickel	60	80949	105.31	100.00	105	
7440-38-2	Arsenic	75	73222	98.786	100.00	98.8	
7782-49-2	Selenium	78	23482	97.362	100.00	97.4	
7782-49-2	Selenium	82	6908	99.565	100.00	99.6	
7440-43-9	Cadmium	111	65255	97.350	100.00	97.4	
7440-36-0	Antimony	121	116295	49.326	50.000	98.7	
7439-92-1	Lead	208	1203639	100.18	100.00	100	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	744833		☑
7440-56-4	Germanium	72	984552		☑
7440-74-6	Indium	115	1209967		☑
7440-30-4	Thulium	169	1093395		☑

Reviewed by: Date:

TAL West Sac

CALIBRATION CHECK SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Method: 6020 **Instrument: M02** **Batch: 110720A2**

Sample ID	Type	File - Sequence	Analyzed Date	Q
ICV	ICV	110720A2, 3	07/20/2011 12:21:30	☐
ICB	ICB	110720A2, 4	07/20/2011 12:25:00	☐
LLSTD1	CCV	110720A2, 5	07/20/2011 12:34:23	☐
LLSTD2	CCV	110720A2, 6	07/20/2011 12:36:59	☐
ICSA	ICSA	110720A2, 7	07/20/2011 12:44:15	☐
ICSAB	ICSAB	110720A2, 8	07/20/2011 12:46:50	☐
CCV 1	CCV	110720A2, 10	07/20/2011 12:52:55	☐
CCB 1	CCB	110720A2, 11	07/20/2011 12:55:29	☐
CCV 2	CCV	110720A2, 12	07/20/2011 12:58:05	☐
CCB 2	CCB	110720A2, 13	07/20/2011 13:00:39	☐
ICSA	ICSA	110720A2, 14	07/20/2011 13:03:14	☐
ICSAB	ICSAB	110720A2, 15	07/20/2011 13:05:49	☐
CCV 3	CCV	110720A2, 21	07/20/2011 13:26:27	☐
CCB 3	CCB	110720A2, 22	07/20/2011 13:29:02	☐
CCV 4	CCV	110720A2, 23	07/20/2011 13:31:37	☐
CCB 4	CCB	110720A2, 24	07/20/2011 13:34:12	☐
CCV 5	CCV	110720A2, 33	07/20/2011 13:57:25	☐
CCB 5	CCB	110720A2, 34	07/20/2011 13:59:59	☐
CCV 6	CCV	110720A2, 35	07/20/2011 14:02:34	☐
CCB 6	CCB	110720A2, 36	07/20/2011 14:05:09	☐
CCV 7	CCV	110720A2, 45	07/20/2011 14:28:22	☐
CCB 7	CCB	110720A2, 46	07/20/2011 14:30:57	☐
CCV 8	CCV	110720A2, 49	07/20/2011 14:41:23	☐
CCB 8	CCB	110720A2, 50	07/20/2011 14:43:58	☐
CCV 9	CCV	110720A2, 59	07/20/2011 15:07:10	☐
CCB 9	CCB	110720A2, 60	07/20/2011 15:09:45	☐
CCV 10	CCV	110720A2, 63	07/20/2011 15:24:42	☐
CCB 10	CCB	110720A2, 64	07/20/2011 15:27:16	☐
CCV 11	CCV	110720A2, 67	07/20/2011 15:33:58	☐
CCB 11	CCB	110720A2, 68	07/20/2011 15:36:32	☐
CCV 12	CCV	110720A2, 71	07/20/2011 15:39:08	☐
CCB 12	CCB	110720A2, 72	07/20/2011 15:41:42	☐
CCV 13	CCV	110720A2, 77	07/20/2011 15:54:38	☐
CCB 13	CCB	110720A2, 78	07/20/2011 15:57:12	☐
CCV 14	CCV	110720A2, 81	07/20/2011 15:59:48	☐
CCB 14	CCB	110720A2, 82	07/20/2011 16:02:22	☐
CCV 15	CCV	110720A2, 87	07/20/2011 16:15:18	☐
CCB 15	CCB	110720A2, 88	07/20/2011 16:17:53	☐

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: ICV (ICV) Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: ICPMS M02 Channel 262
File: 110720A2 # 3 Method 6020_
Acquired: 07/20/2011 12:21:30 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	17682	80.602	80.000	101	
7440-47-3	Chromium	52	512072	78.987	80.000	98.7	
7439-96-5	Manganese	55	811530	79.075	80.000	98.8	
7440-48-4	Cobalt	59	585201	79.995	80.000	100	
7440-02-0	Nickel	60	120309	80.083	80.000	100	
7440-50-8	Copper	65	129171	79.757	80.000	99.7	
7440-66-6	Zinc	68	46765	79.267	80.000	99.1	
7440-38-2	Arsenic	75	125542	79.038	80.000	98.8	
7782-49-2	Selenium	82	12312	78.561	80.000	98.2	
7440-43-9	Cadmium	111	108523	79.789	80.000	99.7	
7440-36-0	Antimony	121	182703	38.429	40.000	96.1	
7439-92-1	Lead	208	1869055	80.867	80.000	101	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1217344		☑
7440-56-4	Germanium	72	2299988		☑
7440-74-6	Indium	115	2348326		☑
7440-30-4	Thulium	169	2032401		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **LLSTD1 (CCV)** Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 5 Method 6020_
Acquired: 07/20/2011 12:34:23 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	256	0.95318	1.0000	95.3	
7440-47-3	Chromium	52	18175	1.0159	1.0000	102	
7439-96-5	Manganese	55	13332	0.98005	1.0000	98.0	
7440-48-4	Cobalt	59	8701	0.99896	1.0000	99.9	
7440-02-0	Nickel	60	1883	1.0164	1.0000	102	
7440-50-8	Copper	65	1963	0.97775	1.0000	97.8	
7440-66-6	Zinc	68	3945	4.7552	5.0000	95.1	
7440-38-2	Arsenic	75	15852	0.58556	1.0000	58.6	
7782-49-2	Selenium	82	1791	-1.0008	1.0000	-100	
7440-43-9	Cadmium	111	1623	1.0089	1.0000	101	
7440-36-0	Antimony	121	2999	0.50666	0.50000	101	
7439-92-1	Lead	208	28643	1.0043	1.0000	100	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1322786		☑
7440-56-4	Germanium	72	2423415		☑
7440-74-6	Indium	115	2523296		☑
7440-30-4	Thulium	169	2174907		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **LLSTD2 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 #6 Method 6020_
Acquired: 07/20/2011 12:36:59 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	479	1.9437	2.0000	97.2	
7440-47-3	Chromium	52	23988	1.9674	2.0000	98.4	
7439-96-5	Manganese	55	24516	2.0698	2.0000	103	
7440-48-4	Cobalt	59	16354	2.0424	2.0000	102	
7440-02-0	Nickel	60	3448	2.0577	2.0000	103	
7440-50-8	Copper	65	3600	1.9879	2.0000	99.4	
7440-66-6	Zinc	68	7123	10.251	10.000	103	
7440-38-2	Arsenic	75	16927	1.5564	2.0000	77.8	
7782-49-2	Selenium	82	2110	1.6373	2.0000	81.9	
7440-43-9	Cadmium	111	3007	1.9952	2.0000	99.8	
7440-36-0	Antimony	121	5468	1.0102	1.0000	101	
7439-92-1	Lead	208	52983	2.0440	2.0000	102	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1288229		☑
7440-56-4	Germanium	72	2367931		☑
7440-74-6	Indium	115	2476078		☑
7440-30-4	Thulium	169	2119820		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 1 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 10 Method 6020_
Acquired: 07/20/2011 12:52:55 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	24361	104.98	100.00	105	
7440-47-3	Chromium	52	716957	98.872	100.00	98.9	
7439-96-5	Manganese	55	1139793	98.925	100.00	98.9	
7440-48-4	Cobalt	59	824696	100.39	100.00	100	
7440-02-0	Nickel	60	171163	101.48	100.00	101	
7440-50-8	Copper	65	181431	99.783	100.00	99.8	
7440-66-6	Zinc	68	65242	98.870	100.00	98.9	
7440-38-2	Arsenic	75	174974	100.48	100.00	100	
7782-49-2	Selenium	82	16830	98.540	100.00	98.5	
7440-43-9	Cadmium	111	146353	99.299	100.00	99.3	
7440-36-0	Antimony	121	254317	49.382	50.000	98.8	
7439-92-1	Lead	208	2335621	97.557	100.00	97.6	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1287980		☑
7440-56-4	Germanium	72	2583397		☑
7440-74-6	Indium	115	2544910		☑
7440-30-4	Thulium	169	2105726		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 2 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 12 Method 6020_
Acquired: 07/20/2011 12:58:05 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	24079	104.56	100.00	105	
7440-47-3	Chromium	52	712527	98.448	100.00	98.4	
7439-96-5	Manganese	55	1128256	98.118	100.00	98.1	
7440-48-4	Cobalt	59	817915	99.763	100.00	99.8	
7440-02-0	Nickel	60	170384	101.22	100.00	101	
7440-50-8	Copper	65	179711	99.033	100.00	99.0	
7440-66-6	Zinc	68	65036	98.750	100.00	98.8	
7440-38-2	Arsenic	75	173211	99.581	100.00	99.6	
7782-49-2	Selenium	82	16772	98.383	100.00	98.4	
7440-43-9	Cadmium	111	144807	98.139	100.00	98.1	
7440-36-0	Antimony	121	250992	48.680	50.000	97.4	
7439-92-1	Lead	208	2312110	97.021	100.00	97.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1278192		☑
7440-56-4	Germanium	72	2578159		☑
7440-74-6	Indium	115	2547667		☑
7440-30-4	Thulium	169	2095897		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **CCV 3 (CCV)** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 21 Method 6020_
Acquired: 07/20/2011 13:26:27 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	22706	100.19	100.00	100	
7440-47-3	Chromium	52	687809	95.115	100.00	95.1	
7439-96-5	Manganese	55	1097855	95.603	100.00	95.6	
7440-48-4	Cobalt	59	794506	97.046	100.00	97.0	
7440-02-0	Nickel	60	164720	97.993	100.00	98.0	
7440-50-8	Copper	65	174620	96.359	100.00	96.4	
7440-66-6	Zinc	68	63030	95.802	100.00	95.8	
7440-38-2	Arsenic	75	167640	96.212	100.00	96.2	
7782-49-2	Selenium	82	16196	94.695	100.00	94.7	
7440-43-9	Cadmium	111	139268	95.123	100.00	95.1	
7440-36-0	Antimony	121	244516	47.797	50.000	95.6	
7439-92-1	Lead	208	2204199	93.512	100.00	93.5	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1257503		☑
7440-56-4	Germanium	72	2574385		☑
7440-74-6	Indium	115	2527802		☑
7440-30-4	Thulium	169	2073070		☑

Reviewed by: Date:

Metals Blank

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: G1G140000-193 **Prep Batch #...:** 1195193						
Antimony	**0.0095 B**	**0.30**	**ug**	**SW846 6020**	**07/14-07/18/11**	**MKXL71AK**
		Dilution Factor: 1				
Arsenic	ND	0.30	ug	SW846 6020	07/14-07/18/11	MKXL71AA
		Dilution Factor: 1				
Beryllium	ND	0.15	ug	SW846 6020	07/14-07/18/11	MKXL71AC
		Dilution Factor: 1				
Cadmium	ND	0.15	ug	SW846 6020	07/14-07/18/11	MKXL71AD
		Dilution Factor: 1				
Chromium	ND	0.30	ug	SW846 6020	07/14-07/18/11	MKXL71AF
		Dilution Factor: 1				
Cobalt	ND	0.15	ug	SW846 6020	07/14-07/18/11	MKXL71AE
		Dilution Factor: 1				
Lead	**0.044 B**	**0.15**	**ug**	**SW846 6020**	**07/14-07/18/11**	**MKXL71AJ**
		Dilution Factor: 1				
Manganese	ND	0.15	ug	SW846 6020	07/14-07/18/11	MKXL71AG
		Dilution Factor: 1				
Nickel	ND	0.30	ug	SW846 6020	07/14-07/18/11	MKXL71AH
		Dilution Factor: 1				
Selenium	ND	0.30	ug	SW846 6020	07/14-07/18/11	MKXL71AL
		Dilution Factor: 1				
MB Lot-Sample #: G1G150000-180 **Prep Batch #...:** 1196180						
Antimony	ND	0.30	ug	SW846 6020	07/15-07/18/11	MK0GA1AK
		Dilution Factor: 1				
Arsenic	ND	0.30	ug	SW846 6020	07/15-07/18/11	MK0GA1AA
		Dilution Factor: 1				
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MK0GA1AC
		Dilution Factor: 1				
Cadmium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MK0GA1AD
		Dilution Factor: 1				

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Chromium	ND	0.30	ug	SW846 6020	07/15-07/18/11	MK0GA1AF
		Dilution Factor: 1				
Cobalt	ND	0.15	ug	SW846 6020	07/15-07/18/11	MK0GA1AE
		Dilution Factor: 1				
Lead	**0.17**	**0.15**	**ug**	**SW846 6020**	**07/15-07/18/11**	**MK0GA1AJ**
		Dilution Factor: 1				
Manganese	ND	0.15	ug	SW846 6020	07/15-07/18/11	MK0GA1AG
		Dilution Factor: 1				
Nickel	ND	0.30	ug	SW846 6020	07/15-07/18/11	MK0GA1AH
		Dilution Factor: 1				
Selenium	ND	0.30	ug	SW846 6020	07/15-07/18/11	MK0GA1AL
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **ICB** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 5 Method 6020_
Acquired: 07/18/2011 13:40:00 M02
Calibrated: 07/18/2011 13:27:27 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	28	0.10417	1.0	0.10	0.0	
7440-47-3	Chromium	52	11867	0.15672	2.0	1.0	0.0	
7439-96-5	Manganese	55	2101	0.09248	1.0	0.40	0.0	
7440-48-4	Cobalt	59	754	0.09501	1.0	0.60	0.0	
7440-02-0	Nickel	60	227	0.08228	2.0	0.10	0.0	
7440-38-2	Arsenic	75	15482	-0.58897	2.0	1.0	0.0	
7782-49-2	Selenium	78	16124	-2.1078	2.0	1.0	0.0	
7782-49-2	Selenium	82	1912	-0.55263	2.0	1.0	0.0	
7440-43-9	Cadmium	111	144	0.09509	1.0	0.50	0.0	
7440-43-9	Cadmium	114	378	0.09917	1.0	0.50	0.0	
7440-36-0	Antimony	121	427	0.06118	2.0	0.20	0.0	
7439-92-1	Lead	208	2813	0.09764	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1471700		☑
7440-56-4	Germanium	72	2364739		☑
7440-74-6	Indium	115	2408527		☑
7440-30-4	Thulium	169	2004513		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 1** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 12 Method 6020_
Acquired: 07/18/2011 14:55:17 M02
Calibrated: 07/18/2011 14:52:02 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	33	0.12150	1.0	0.10	0.0	
7440-47-3	Chromium	52	17199	0.85562	2.0	1.0	0.0	
7439-96-5	Manganese	55	2496	0.11697	1.0	0.40	0.0	
7440-48-4	Cobalt	59	992	0.11754	1.0	0.60	0.0	
7440-02-0	Nickel	60	261	0.09365	2.0	0.10	0.0	
7440-38-2	Arsenic	75	17740	0.41754	2.0	1.0	0.0	
7782-49-2	Selenium	78	18155	1.4820	2.0	1.0	0.0	
7782-49-2	Selenium	82	2020	-0.40060	2.0	1.0	0.0	
7440-43-9	Cadmium	111	180	0.11619	1.0	0.50	0.0	
7440-43-9	Cadmium	114	449	0.11571	1.0	0.50	0.0	
7440-36-0	Antimony	121	361	0.04531	2.0	0.20	0.0	
7439-92-1	Lead	208	3183	0.11026	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1455839		☑
7440-56-4	Germanium	72	2471156		☑
7440-74-6	Indium	115	2426494		☑
7440-30-4	Thulium	169	2003159		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: CCB 2 Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: ICPMS M02 Channel 262
File: 110718A2 # 16 Method 6020_
Acquired: 07/18/2011 15:01:50 M02
Calibrated: 07/18/2011 14:55:17 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	14	-0.07584	1.0	0.10	0.0	
7440-47-3	Chromium	52	16710	-0.11076	2.0	1.0	0.0	
7439-96-5	Manganese	55	1653	-0.08047	1.0	0.40	0.0	
7440-48-4	Cobalt	59	408	-0.07452	1.0	0.60	0.0	
7440-02-0	Nickel	60	134	-0.07849	2.0	0.10	0.0	
7440-38-2	Arsenic	75	17334	-0.42946	2.0	1.0	0.0	
7782-49-2	Selenium	78	17883	-1.4662	2.0	1.0	0.0	
7782-49-2	Selenium	82	1945	-0.73193	2.0	1.0	0.0	
7440-43-9	Cadmium	111	82	-0.07064	1.0	0.50	0.0	
7440-43-9	Cadmium	114	203	-0.07442	1.0	0.50	0.0	
7440-36-0	Antimony	121	202	-0.03351	2.0	0.20	0.0	
7439-92-1	Lead	208	1582	-0.07029	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1485537		☑
7440-56-4	Germanium	72	2507094		☑
7440-74-6	Indium	115	2463968		☑
7440-30-4	Thulium	169	2032466		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 3** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 27 Method 6020_
Acquired: 07/18/2011 15:36:59 M02
Calibrated: 07/18/2011 15:34:38 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	61	0.11337	1.0	0.10	0.0	
7440-47-3	Chromium	52	16331	0.06110	2.0	1.0	0.0	
7439-96-5	Manganese	55	3254	0.09597	1.0	0.40	0.0	
7440-48-4	Cobalt	59	1713	0.10959	1.0	0.60	0.0	
7440-02-0	Nickel	60	410	0.11196	2.0	0.10	0.0	
7440-38-2	Arsenic	75	15819	-0.43449	2.0	1.0	0.0	
7782-49-2	Selenium	78	16051	-2.3667	2.0	1.0	0.0	
7782-49-2	Selenium	82	1800	-0.56221	2.0	1.0	0.0	
7440-43-9	Cadmium	111	318	0.11230	1.0	0.50	0.0	
7440-43-9	Cadmium	114	766	0.11029	1.0	0.50	0.0	
7440-36-0	Antimony	121	1170	0.18362	2.0	0.20	0.0	
7439-92-1	Lead	208	5634	0.11854	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1476391		☑
7440-56-4	Germanium	72	2296268		☑
7440-74-6	Indium	115	2304093		☑
7440-30-4	Thulium	169	1928183		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 4** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 31 Method 6020_
Acquired: 07/18/2011 15:48:08 M02
Calibrated: 07/18/2011 15:34:38 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	186	0.50556	1.0	0.10	0.0	
7440-47-3	Chromium	52	19736	0.49609	2.0	1.0	0.0	
7439-96-5	Manganese	55	8282	0.50557	1.0	0.40	0.0	
7440-48-4	Cobalt	59	5573	0.53897	1.0	0.60	0.0	
7440-02-0	Nickel	60	1206	0.53994	2.0	0.10	0.0	
7440-38-2	Arsenic	75	16713	0.33557	2.0	1.0	0.0	
7782-49-2	Selenium	78	16156	-1.0915	2.0	1.0	0.0	
7782-49-2	Selenium	82	1870	0.15585	2.0	1.0	0.0	
7440-43-9	Cadmium	111	995	0.54163	1.0	0.50	0.0	
7440-43-9	Cadmium	114	2337	0.52651	1.0	0.50	0.0	
7440-36-0	Antimony	121	3168	0.45781	2.0	0.20	0.0	
7439-92-1	Lead	208	16997	0.53608	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1512347		☑
7440-56-4	Germanium	72	2360201		☑
7440-74-6	Indium	115	2325996		☑
7440-30-4	Thulium	169	1966880		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 5** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 40 Method 6020_
Acquired: 07/18/2011 16:09:16 M02
Calibrated: 07/18/2011 15:34:38 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	53	-0.05080	1.0	0.10	0.0	
7440-47-3	Chromium	52	15027	-0.29759	2.0	1.0	0.0	
7439-96-5	Manganese	55	3188	-0.01618	1.0	0.40	0.0	
7440-48-4	Cobalt	59	1449	-0.04414	1.0	0.60	0.0	
7440-02-0	Nickel	60	379	-0.02929	2.0	0.10	0.0	
7440-38-2	Arsenic	75	14746	-1.1213	2.0	1.0	0.0	
7782-49-2	Selenium	78	15099	-4.4885	2.0	1.0	0.0	
7782-49-2	Selenium	82	1723	-1.0251	2.0	1.0	0.0	
7440-43-9	Cadmium	111	255	-0.05518	1.0	0.50	0.0	
7440-43-9	Cadmium	114	619	-0.05452	1.0	0.50	0.0	
7440-36-0	Antimony	121	758	-0.09971	2.0	0.20	0.0	
7439-92-1	Lead	208	4792	-0.04777	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1586297		☑
7440-56-4	Germanium	72	2360751		☑
7440-74-6	Indium	115	2350743		☑
7440-30-4	Thulium	169	1984875		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **ICB** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 5 Method 6020_
Acquired: 07/19/2011 14:38:45 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	37	0.05690	1.0	0.10	0.0	
7440-47-3	Chromium	52	14476	0.27230	2.0	1.0	0.0	
7439-96-5	Manganese	55	2067	0.08731	1.0	0.40	0.0	
7440-48-4	Cobalt	59	1047	0.04490	1.0	0.60	0.0	
7440-02-0	Nickel	60	241	0.05841	2.0	0.10	0.0	
7440-38-2	Arsenic	75	15738	-0.56769	2.0	1.0	0.0	
7782-49-2	Selenium	78	16357	-1.3912	2.0	1.0	0.0	
7782-49-2	Selenium	82	1899	0.11833	2.0	1.0	0.0	
7440-43-9	Cadmium	111	142	0.08375	1.0	0.50	0.0	
7440-36-0	Antimony	121	762	0.12896	2.0	0.20	0.0	
7439-92-1	Lead	208	3377	0.04414	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1643168		☑
7440-56-4	Germanium	72	2515721		☑
7440-74-6	Indium	115	2546069		☑
7440-30-4	Thulium	169	2063196		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 1** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 12 Method 6020_
Acquired: 07/19/2011 15:10:53 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	24	0.01892	1.0	0.10	0.0	
7440-47-3	Chromium	52	19671	0.83686	2.0	1.0	0.0	
7439-96-5	Manganese	55	3283	0.17529	1.0	0.40	0.0	
7440-48-4	Cobalt	59	725	0.00327	1.0	0.60	0.0	
7440-02-0	Nickel	60	317	0.09130	2.0	0.10	0.0	
7440-38-2	Arsenic	75	17790	0.10064	2.0	1.0	0.0	
7782-49-2	Selenium	78	18717	2.1458	2.0	1.0	0.0	
7782-49-2	Selenium	82	2090	0.62598	2.0	1.0	0.0	
7440-43-9	Cadmium	111	125	0.07082	1.0	0.50	0.0	
7440-36-0	Antimony	121	269	0.03292	2.0	0.20	0.0	
7439-92-1	Lead	208	2314	0.00271	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1506648		☑
7440-56-4	Germanium	72	2662124		☑
7440-74-6	Indium	115	2606348		☑
7440-30-4	Thulium	169	2033546		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 2** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 16 Method 6020_
Acquired: 07/19/2011 15:17:26 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	45	0.07987	1.0	0.10	0.0	
7440-47-3	Chromium	52	19703	0.01207	2.0	1.0	0.0	
7439-96-5	Manganese	55	4118	0.07008	1.0	0.40	0.0	
7440-48-4	Cobalt	59	1380	0.07262	1.0	0.60	0.0	
7440-02-0	Nickel	60	409	0.04954	2.0	0.10	0.0	
7440-38-2	Arsenic	75	17323	-0.24671	2.0	1.0	0.0	
7782-49-2	Selenium	78	17991	-1.6843	2.0	1.0	0.0	
7782-49-2	Selenium	82	2081	-0.02467	2.0	1.0	0.0	
7440-43-9	Cadmium	111	229	0.07059	1.0	0.50	0.0	
7440-36-0	Antimony	121	449	0.03566	2.0	0.20	0.0	
7439-92-1	Lead	208	4052	0.07560	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1503863		☑
7440-56-4	Germanium	72	2654608		☑
7440-74-6	Indium	115	2575866		☑
7440-30-4	Thulium	169	2031526		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 3** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 21 Method 6020_
Acquired: 07/19/2011 15:32:54 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	20	-0.00940	1.0	0.10	0.0	
7440-47-3	Chromium	52	16620	-0.32084	2.0	1.0	0.0	
7439-96-5	Manganese	55	3084	-0.00387	1.0	0.40	0.0	
7440-48-4	Cobalt	59	645	-0.00346	1.0	0.60	0.0	
7440-02-0	Nickel	60	299	-0.00068	2.0	0.10	0.0	
7440-38-2	Arsenic	75	15979	-0.69136	2.0	1.0	0.0	
7782-49-2	Selenium	78	16379	-4.2072	2.0	1.0	0.0	
7782-49-2	Selenium	82	2030	0.11991	2.0	1.0	0.0	
7440-43-9	Cadmium	111	123	0.00620	1.0	0.50	0.0	
7440-36-0	Antimony	121	399	0.03114	2.0	0.20	0.0	
7439-92-1	Lead	208	2190	-0.00132	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1465813		☑
7440-56-4	Germanium	72	2561528		☑
7440-74-6	Indium	115	2488240		☑
7440-30-4	Thulium	169	1998777		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 4** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 23 Method 6020_
Acquired: 07/19/2011 15:37:37 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	3	-0.08026	1.0	0.10	0.0	
7440-47-3	Chromium	52	15584	-0.43803	2.0	1.0	0.0	
7439-96-5	Manganese	55	2232	-0.07705	1.0	0.40	0.0	
7440-48-4	Cobalt	59	48	-0.07406	1.0	0.60	0.0	
7440-02-0	Nickel	60	147	-0.08633	2.0	0.10	0.0	
7440-38-2	Arsenic	75	15572	-0.82115	2.0	1.0	0.0	
7782-49-2	Selenium	78	16204	-4.1295	2.0	1.0	0.0	
7782-49-2	Selenium	82	1818	-1.1263	2.0	1.0	0.0	
7440-43-9	Cadmium	111	23	-0.06613	1.0	0.50	0.0	
7440-36-0	Antimony	121	147	-0.02161	2.0	0.20	0.0	
7439-92-1	Lead	208	495	-0.07815	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1444742		☑
7440-56-4	Germanium	72	2529863		☑
7440-74-6	Indium	115	2446876		☑
7440-30-4	Thulium	169	1978751		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 5** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 32 Method 6020_
Acquired: 07/19/2011 16:05:12 M02
Calibrated: 07/19/2011 16:02:52 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	0	-0.08859	1.0	0.10	0.0	
7440-47-3	Chromium	52	6950	-1.3118	2.0	1.0	0.0	
7439-96-5	Manganese	55	1637	-0.07912	1.0	0.40	0.0	
7440-48-4	Cobalt	59	58	-0.07057	1.0	0.60	0.0	
7440-02-0	Nickel	60	159	-0.04829	2.0	0.10	0.0	
7440-38-2	Arsenic	75	12806	0.23235	2.0	1.0	0.0	
7782-49-2	Selenium	78	13173	-0.02176	2.0	1.0	0.0	
7782-49-2	Selenium	82	1623	1.3630	2.0	1.0	0.0	
7440-43-9	Cadmium	111	17	-0.06848	1.0	0.50	0.0	
7440-36-0	Antimony	121	244	0.00648	2.0	0.20	0.0	
7439-92-1	Lead	208	488	-0.07606	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	862734		☑
7440-56-4	Germanium	72	1874652		☑
7440-74-6	Indium	115	2106016		☑
7440-30-4	Thulium	169	1780698		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 6** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 36 Method 6020_
Acquired: 07/19/2011 16:09:55 M02
Calibrated: 07/19/2011 16:05:12 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	4	0.02337	1.0	0.10	0.0	
7440-47-3	Chromium	52	6805	0.01751	2.0	1.0	0.0	
7439-96-5	Manganese	55	1627	0.00592	1.0	0.40	0.0	
7440-48-4	Cobalt	59	77	0.00340	1.0	0.60	0.0	
7440-02-0	Nickel	60	139	-0.01164	2.0	0.10	0.0	
7440-38-2	Arsenic	75	12622	0.20777	2.0	1.0	0.0	
7782-49-2	Selenium	78	13147	1.5710	2.0	1.0	0.0	
7782-49-2	Selenium	82	1531	-0.35546	2.0	1.0	0.0	
7440-43-9	Cadmium	111	22	0.00536	1.0	0.50	0.0	
7440-36-0	Antimony	121	246	0.00261	2.0	0.20	0.0	
7439-92-1	Lead	208	531	0.00356	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	810323		☑
7440-56-4	Germanium	72	1813080		☑
7440-74-6	Indium	115	2029108		☑
7440-30-4	Thulium	169	1700207		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 7** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 45 Method 6020_
Acquired: 07/19/2011 16:37:30 M02
Calibrated: 07/19/2011 16:05:12 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	3	0.01715	1.0	0.10	0.0	
7440-47-3	Chromium	52	5394	0.14317	2.0	1.0	0.0	
7439-96-5	Manganese	55	1200	0.00854	1.0	0.40	0.0	
7440-48-4	Cobalt	59	65	0.00540	1.0	0.60	0.0	
7440-02-0	Nickel	60	115	0.00331	2.0	0.10	0.0	
7440-38-2	Arsenic	75	11401	2.8589	2.0	1.0	0.0	
7782-49-2	Selenium	78	11624	12.392	2.0	1.0	0.0	
7782-49-2	Selenium	82	1183	0.50686	2.0	1.0	0.0	
7440-43-9	Cadmium	111	16	0.00309	1.0	0.50	0.0	
7440-36-0	Antimony	121	189	0.00085	2.0	0.20	0.0	
7439-92-1	Lead	208	432	0.00279	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	718455		☑
7440-56-4	Germanium	72	1321549		☑
7440-74-6	Indium	115	1605856		☑
7440-30-4	Thulium	169	1419212		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 8** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 47 Method 6020_
Acquired: 07/19/2011 16:42:13 M02
Calibrated: 07/19/2011 16:05:12 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	62	0.42163	1.0	0.10	0.0	
7440-47-3	Chromium	52	7692	0.66750	2.0	1.0	0.0	
7439-96-5	Manganese	55	5362	0.69867	1.0	0.40	0.0	
7440-48-4	Cobalt	59	4343	0.88607	1.0	0.60	0.0	
7440-02-0	Nickel	60	7104	6.7863	2.0	0.10	0.0	
7440-38-2	Arsenic	75	12282	3.0470	2.0	1.0	0.0	
7782-49-2	Selenium	78	12035	10.908	2.0	1.0	0.0	
7782-49-2	Selenium	82	1229	0.10905	2.0	1.0	0.0	
7440-43-9	Cadmium	111	438	0.43248	1.0	0.50	0.0	
7440-36-0	Antimony	121	1391	0.34322	2.0	0.20	0.0	
7439-92-1	Lead	208	8944	0.51807	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	741601		☑
7440-56-4	Germanium	72	1404342		☑
7440-74-6	Indium	115	1702649		☑
7440-30-4	Thulium	169	1500086		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 9** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 55 Method 6020_
Acquired: 07/19/2011 17:06:32 M02
Calibrated: 07/19/2011 17:04:12 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	17	0.11720	1.0	0.10	0.0	
7440-47-3	Chromium	52	5510	0.42147	2.0	1.0	0.0	
7439-96-5	Manganese	55	2442	0.30482	1.0	0.40	0.0	
7440-48-4	Cobalt	59	1964	0.49788	1.0	0.60	0.0	
7440-02-0	Nickel	60	4513	5.3777	2.0	0.10	0.0	
7440-38-2	Arsenic	75	10022	3.0526	2.0	1.0	0.0	
7782-49-2	Selenium	78	10265	13.553	2.0	1.0	0.0	
7782-49-2	Selenium	82	1009	0.18008	2.0	1.0	0.0	
7440-43-9	Cadmium	111	133	0.15680	1.0	0.50	0.0	
7440-36-0	Antimony	121	500	0.12410	2.0	0.20	0.0	
7439-92-1	Lead	208	2980	0.20268	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	721306		☑
7440-56-4	Germanium	72	1146174		☐
7440-74-6	Indium	115	1370973		☐
7440-30-4	Thulium	169	1206300		☐

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 10** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 59 Method 6020_
Acquired: 07/19/2011 17:11:14 M02
Calibrated: 07/19/2011 17:06:32 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	22	0.04741	1.0	0.10	0.0	
7440-47-3	Chromium	52	5789	0.08228	2.0	1.0	0.0	
7439-96-5	Manganese	55	2855	0.09169	1.0	0.40	0.0	
7440-48-4	Cobalt	59	2343	0.09354	1.0	0.60	0.0	
7440-02-0	Nickel	60	5040	0.61770	2.0	0.10	0.0	
7440-38-2	Arsenic	75	10413	0.43119	2.0	1.0	0.0	
7782-49-2	Selenium	78	10431	0.59417	2.0	1.0	0.0	
7782-49-2	Selenium	82	980	-0.49967	2.0	1.0	0.0	
7440-43-9	Cadmium	111	162	0.03429	1.0	0.50	0.0	
7440-36-0	Antimony	121	593	0.03091	2.0	0.20	0.0	
7439-92-1	Lead	208	3960	0.06597	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	723422		☑
7440-56-4	Germanium	72	1154143		☑
7440-74-6	Indium	115	1405746		☑
7440-30-4	Thulium	169	1244053		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 11** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 67 Method 6020_
Acquired: 07/19/2011 17:35:33 M02
Calibrated: 07/19/2011 17:33:13 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	6	-0.09575	1.0	0.10	0.0	☑
7440-47-3	Chromium	52	4360	-0.14388	2.0	1.0	0.0	☑
7439-96-5	Manganese	55	1260	-0.21645	1.0	0.40	0.0	☑
7440-48-4	Cobalt	59	735	-0.27279	1.0	0.60	0.0	☑
7440-02-0	Nickel	60	1710	0.90834	2.0	0.10	0.0	☑
7440-38-2	Arsenic	75	9426	1.2765	2.0	1.0	0.0	☑
7782-49-2	Selenium	78	9594	5.4214	2.0	1.0	0.0	☐
7782-49-2	Selenium	82	879	0.19371	2.0	1.0	0.0	☑
7440-43-9	Cadmium	111	48	-0.10329	1.0	0.50	0.0	☑
7440-36-0	Antimony	121	210	-0.09567	2.0	0.20	0.0	☑
7439-92-1	Lead	208	1224	-0.11662	1.0	0.60	0.0	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	682773		☐
7440-56-4	Germanium	72	984082		☐
7440-74-6	Indium	115	1182508		☐
7440-30-4	Thulium	169	1043879		☐

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 12** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 71 Method 6020_
Acquired: 07/19/2011 17:40:15 M02
Calibrated: 07/19/2011 17:33:13 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	14	0.08587	1.0	0.10	0.0	
7440-47-3	Chromium	52	4661	0.14720	2.0	1.0	0.0	
7439-96-5	Manganese	55	1832	0.15882	1.0	0.40	0.0	
7440-48-4	Cobalt	59	1340	0.17901	1.0	0.60	0.0	
7440-02-0	Nickel	60	3096	1.9131	2.0	0.10	0.0	
7440-38-2	Arsenic	75	9291	0.03105	2.0	1.0	0.0	
7782-49-2	Selenium	78	9471	0.23532	2.0	1.0	0.0	
7782-49-2	Selenium	82	888	0.39629	2.0	1.0	0.0	
7440-43-9	Cadmium	111	107	0.09046	1.0	0.50	0.0	
7440-36-0	Antimony	121	354	0.06323	2.0	0.20	0.0	
7439-92-1	Lead	208	2257	0.09103	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	676468		☑
7440-56-4	Germanium	72	968126		☑
7440-74-6	Indium	115	1175739		☑
7440-30-4	Thulium	169	1039438		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 13** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 77 Method 6020_
Acquired: 07/19/2011 17:58:02 M02
Calibrated: 07/19/2011 17:33:13 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	9	0.03027	1.0	0.10	0.0	
7440-47-3	Chromium	52	4173	0.00903	2.0	1.0	0.0	
7439-96-5	Manganese	55	1057	-0.03993	1.0	0.40	0.0	
7440-48-4	Cobalt	59	511	-0.05710	1.0	0.60	0.0	
7440-02-0	Nickel	60	1045	-0.81882	2.0	0.10	0.0	
7440-38-2	Arsenic	75	9142	0.27235	2.0	1.0	0.0	
7782-49-2	Selenium	78	9244	0.82037	2.0	1.0	0.0	
7782-49-2	Selenium	82	882	0.79812	2.0	1.0	0.0	
7440-43-9	Cadmium	111	48	0.00241	1.0	0.50	0.0	
7440-36-0	Antimony	121	215	0.00516	2.0	0.20	0.0	
7439-92-1	Lead	208	1140	-0.00456	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	678237		☑
7440-56-4	Germanium	72			☑
7440-74-6	Indium	115	1140650		☑
7440-30-4	Thulium	169	1011204		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **ICB** Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 4 Method 6020_
Acquired: 07/20/2011 12:25:00 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	24	-0.01187	1.0	0.10	0.0	
7440-47-3	Chromium	52	10407	-0.01263	2.0	1.0	0.0	
7439-96-5	Manganese	55	2502	-0.00531	1.0	0.40	0.0	
7440-48-4	Cobalt	59	861	-0.01076	1.0	0.60	0.0	
7440-02-0	Nickel	60	258	0.00064	2.0	0.10	0.0	
7440-50-8	Copper	65	278	0.00072	2.0	1.0	0.0	
7440-66-6	Zinc	68	993	0.03784	5.0	4.0	0.0	
7440-38-2	Arsenic	75	14114	0.21457	2.0	1.0	0.0	
7782-49-2	Selenium	82	1691	-0.65285	2.0	1.0	0.0	
7440-43-9	Cadmium	111	142	0.00293	1.0	0.50	0.0	
7440-36-0	Antimony	121	852	0.10116	2.0	0.20	0.0	
7439-92-1	Lead	208	3237	-0.01295	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1198825		☑
7440-56-4	Germanium	72	2230852		☑
7440-74-6	Indium	115	2292228		☑
7440-30-4	Thulium	169	1971010		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: CCB 1 Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: ICPMS M02 Channel 262
File: 110720A2 # 11 Method 6020_
Acquired: 07/20/2011 12:55:29 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	3	-0.11173	1.0	0.10	0.0	
7440-47-3	Chromium	52	19975	1.0626	2.0	1.0	0.0	
7439-96-5	Manganese	55	1624	-0.11803	1.0	0.40	0.0	
7440-48-4	Cobalt	59	70	-0.12400	1.0	0.60	0.0	
7440-02-0	Nickel	60	125	-0.10362	2.0	0.10	0.0	
7440-50-8	Copper	65	146	-0.09692	2.0	1.0	0.0	
7440-66-6	Zinc	68	944	-0.29853	5.0	4.0	0.0	
7440-38-2	Arsenic	75	16748	0.33182	2.0	1.0	0.0	
7782-49-2	Selenium	82	1875	-1.3680	2.0	1.0	0.0	
7440-43-9	Cadmium	111	26	-0.08700	1.0	0.50	0.0	
7440-36-0	Antimony	121	144	-0.05546	2.0	0.20	0.0	
7439-92-1	Lead	208	593	-0.13297	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1292360		☑
7440-56-4	Germanium	72	2617299		☑
7440-74-6	Indium	115	2606673		☑
7440-30-4	Thulium	169	2119752		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 2** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 13 Method 6020_
Acquired: 07/20/2011 13:00:39 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	1	-0.11876	1.0	0.10	0.0	
7440-47-3	Chromium	52	18625	0.94713	2.0	1.0	0.0	
7439-96-5	Manganese	55	1614	-0.11507	1.0	0.40	0.0	
7440-48-4	Cobalt	59	66	-0.12428	1.0	0.60	0.0	
7440-02-0	Nickel	60	116	-0.10734	2.0	0.10	0.0	
7440-50-8	Copper	65	140	-0.09848	2.0	1.0	0.0	
7440-66-6	Zinc	68	859	-0.39157	5.0	4.0	0.0	
7440-38-2	Arsenic	75	16747	0.62286	2.0	1.0	0.0	
7782-49-2	Selenium	82	2013	-0.08067	2.0	1.0	0.0	
7440-43-9	Cadmium	111	26	-0.08621	1.0	0.50	0.0	
7440-36-0	Antimony	121	139	-0.05542	2.0	0.20	0.0	
7439-92-1	Lead	208	549	-0.13406	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1237307		☑
7440-56-4	Germanium	72	2546207		☑
7440-74-6	Indium	115	2512939		☑
7440-30-4	Thulium	169	2048782		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **CCB 3** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 22 Method 6020_
Acquired: 07/20/2011 13:29:02 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	RL	MDL	%RSD	Q
7440-41-7	Beryllium	9	60	0.14211	1.0	0.10	0.0	
7440-47-3	Chromium	52	20772	1.2362	2.0	1.0	0.0	
7439-96-5	Manganese	55	4728	0.15817	1.0	0.40	0.0	
7440-48-4	Cobalt	59	2305	0.15180	1.0	0.60	0.0	
7440-02-0	Nickel	60	558	0.15802	2.0	0.10	0.0	
7440-50-8	Copper	65	646	0.18299	2.0	1.0	0.0	
7440-66-6	Zinc	68	1084	-0.04951	5.0	4.0	0.0	
7440-38-2	Arsenic	75	17142	0.81280	2.0	1.0	0.0	
7782-49-2	Selenium	82	1888	-1.0026	2.0	1.0	0.0	
7440-43-9	Cadmium	111	393	0.16675	1.0	0.50	0.0	
7440-36-0	Antimony	121	1219	0.15785	2.0	0.20	0.0	
7439-92-1	Lead	208	6700	0.13325	1.0	0.60	0.0	

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1260185		☑
7440-56-4	Germanium	72	2561509		☑
7440-74-6	Indium	115	2514028		☑
7440-30-4	Thulium	169	2035313		☑

Reviewed by: Date:

Metals ICSA/ICSAB

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: ICSA Mult: 1.00 Dilf: 1.00 Divs: 1.000

Instrument: ICPMS M02 Channel 262
File: 110718A2 # 8 Method 6020_
Acquired: 07/18/2011 14:13:50 M02
Calibrated: 07/18/2011 13:27:27 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	25	0.09947		*	☑
7440-47-3	Chromium	52	26315	2.9386		*	
7439-96-5	Manganese	55	64455	6.8593		*	
7440-48-4	Cobalt	59	11830	1.7378		*	
7440-02-0	Nickel	60	1127	0.74009		*	☑
7440-38-2	Arsenic	75	14689	0.28414		*	☑
7782-49-2	Selenium	78	16110	4.4134		*	
7782-49-2	Selenium	82	1690	-0.42400		*	☑
7440-43-9	Cadmium	111	1151	0.89334		*	☑
7440-43-9	Cadmium	114	7707	2.5258		*	
7440-36-0	Antimony	121	1077	0.22063		*	☑
7439-92-1	Lead	208	12767	0.59472		*	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1360306		☑
7440-56-4	Germanium	72	2069818		☑
7440-74-6	Indium	115	2144208		☑
7440-30-4	Thulium	169	1730611		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/19/11 13:07:57

Department: 120 (Metals) Source: MetEdit

Sample: **ICSAB** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110718A2 # 9 Method 6020_
Acquired: 07/18/2011 14:17:06 M02
Calibrated: 07/18/2011 13:27:27 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	21139	88.170	100.00	88.2	☑
7440-47-3	Chromium	52	577255	95.072	100.00	95.1	☑
7439-96-5	Manganese	55	974991	100.97	100.00	101	☑
7440-48-4	Cobalt	59	664928	93.826	100.00	93.8	☑
7440-02-0	Nickel	60	128168	87.133	100.00	87.1	☑
7440-38-2	Arsenic	75	148619	98.442	100.00	98.4	☑
7782-49-2	Selenium	78	48806	104.72	100.00	105	☑
7782-49-2	Selenium	82	14758	102.50	100.00	102	☑
7440-43-9	Cadmium	111	117496	88.691	100.00	88.7	☑
7440-43-9	Cadmium	114	283165	90.179	100.00	90.2	☑
7440-36-0	Antimony	121	211579	46.885	50.000	93.8	☑
7439-92-1	Lead	208	1852226	87.855	100.00	87.9	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1388559		☑
7440-56-4	Germanium	72	2158201		☑
7440-74-6	Indium	115	2217050		☑
7440-30-4	Thulium	169	1756276		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **ICSA** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 8 Method 6020_
Acquired: 07/19/2011 14:50:28 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	31	0.05712		*	☑
7440-47-3	Chromium	52	30735	3.0985		*	
7439-96-5	Manganese	55	72126	6.8875		*	
7440-48-4	Cobalt	59	13442	1.6928		*	
7440-02-0	Nickel	60	1520	0.89156		*	☑
7440-38-2	Arsenic	75	15285	0.48501		*	☑
7782-49-2	Selenium	78	16411	4.8552		*	
7782-49-2	Selenium	82	1686	0.29166		*	☑
7440-43-9	Cadmium	111	1283	0.93706		*	☑
7440-36-0	Antimony	121	1206	0.24340		*	☑
7439-92-1	Lead	208	12315	0.49741		*	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1391605		☑
7440-56-4	Germanium	72	2205531		☑
7440-74-6	Indium	115	2263851		☑
7440-30-4	Thulium	169	1736766		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:10

Department: 120 (Metals) Source: MetEdit

Sample: **ICSAB** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 9 Method 6020_
Acquired: 07/19/2011 14:53:44 M02
Calibrated: 07/19/2011 14:30:56 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	20930	91.193	100.00	91.2	☑
7440-47-3	Chromium	52	610082	93.523	100.00	93.5	☑
7439-96-5	Manganese	55	1015831	97.829	100.00	97.8	☑
7440-48-4	Cobalt	59	694619	91.023	100.00	91.0	☑
7440-02-0	Nickel	60	134563	85.385	100.00	85.4	☑
7440-38-2	Arsenic	75	153141	97.740	100.00	97.7	☑
7782-49-2	Selenium	78	50404	106.88	100.00	107	☑
7782-49-2	Selenium	82	15131	99.620	100.00	99.6	☑
7440-43-9	Cadmium	111	117393	87.035	100.00	87.0	☑
7440-36-0	Antimony	121	212019	46.154	50.000	92.3	☑
7439-92-1	Lead	208	1717521	82.206	100.00	82.2	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1324397		☑
7440-56-4	Germanium	72	2212852		☑
7440-74-6	Indium	115	2253052		☑
7440-30-4	Thulium	169	1735018		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **ICSA** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 7 Method 6020_
Acquired: 07/20/2011 12:44:15 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	6	-0.09574		*	☑
7440-47-3	Chromium	52	28623	3.1627		*	
7439-96-5	Manganese	55	69218	7.0419		*	
7440-48-4	Cobalt	59	12071	1.6506		*	
7440-02-0	Nickel	60	1148	0.64846		*	☑
7440-50-8	Copper	65	-2763	-2.0239		*	☑
7440-66-6	Zinc	68	2544	3.0166		*	☑
7440-38-2	Arsenic	75	13871	0.50866		*	☑
7782-49-2	Selenium	82	2132	3.4808		*	
7440-43-9	Cadmium	111	1210	0.83369		*	☑
7440-36-0	Antimony	121	1001	0.13954		*	☑
7439-92-1	Lead	208	11426	0.39088		*	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1284102		☑
7440-56-4	Germanium	72	2131774		☑
7440-74-6	Indium	115	2226747		☑
7440-30-4	Thulium	169	1835158		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **ICSAB** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 8 Method 6020_
Acquired: 07/20/2011 12:46:50 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	19553	88.125	100.00	88.1	☑
7440-47-3	Chromium	52	583240	97.786	100.00	97.8	☑
7439-96-5	Manganese	55	970058	102.39	100.00	102	☑
7440-48-4	Cobalt	59	649699	96.166	100.00	96.2	☑
7440-02-0	Nickel	60	125705	90.612	100.00	90.6	☑
7440-50-8	Copper	65	128443	85.875	100.00	85.9	☑
7440-66-6	Zinc	68	48123	88.503	100.00	88.5	☑
7440-38-2	Arsenic	75	141422	98.582	100.00	98.6	☑
7782-49-2	Selenium	82	14076	100.45	100.00	100	☑
7440-43-9	Cadmium	111	112401	88.548	100.00	88.5	☑
7440-36-0	Antimony	121	208872	47.094	50.000	94.2	☑
7439-92-1	Lead	208	1795048	87.773	100.00	87.8	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1231120		☑
7440-56-4	Germanium	72	2124477		☑
7440-74-6	Indium	115	2191620		☑
7440-30-4	Thulium	169	1798435		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **ICSA** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 14 Method 6020_
Acquired: 07/20/2011 13:03:14 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	7	-0.09042		*	☑
7440-47-3	Chromium	52	28877	3.1132		*	
7439-96-5	Manganese	55	69248	6.9068		*	
7440-48-4	Cobalt	59	12037	1.6121		*	
7440-02-0	Nickel	60	1148	0.63433		*	☑
7440-50-8	Copper	65	-2458	-1.7871		*	☑
7440-66-6	Zinc	68	2458	2.7712		*	☑
7440-38-2	Arsenic	75	14213	0.56193		*	☑
7782-49-2	Selenium	82	1686	-0.36654		*	☑
7440-43-9	Cadmium	111	1262	0.85853		*	☑
7440-36-0	Antimony	121	1014	0.13845		*	☑
7439-92-1	Lead	208	11130	0.37490		*	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1245045		☑
7440-56-4	Germanium	72	2172827		☑
7440-74-6	Indium	115	2266325		☑
7440-30-4	Thulium	169	1841330		☑

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/21/11 14:04:22

Department: 120 (Metals) Source: MetEdit

Sample: **ICSAB** Mult: **1.00** Dilf: **1.00** Divs: **1.000**

Instrument: **ICPMS M02** Channel 262
File: 110720A2 # 15 Method 6020_
Acquired: 07/20/2011 13:05:49 M02
Calibrated: 07/20/2011 12:16:30 Units: ug/L

CASN	Analyte Name	M/S	Area	Found	True	%R	Q
7440-41-7	Beryllium	9	19118	86.652	100.00	86.7	☑
7440-47-3	Chromium	52	588687	97.387	100.00	97.4	☑
7439-96-5	Manganese	55	978326	101.89	100.00	102	☑
7440-48-4	Cobalt	59	652432	95.293	100.00	95.3	☑
7440-02-0	Nickel	60	126196	89.767	100.00	89.8	☑
7440-50-8	Copper	65	128358	84.685	100.00	84.7	☑
7440-66-6	Zinc	68	47733	86.590	100.00	86.6	☑
7440-38-2	Arsenic	75	141318	97.074	100.00	97.1	☑
7782-49-2	Selenium	82	14101	99.152	100.00	99.2	☑
7440-43-9	Cadmium	111	112816	87.061	100.00	87.1	☑
7440-36-0	Antimony	121	207597	45.853	50.000	91.7	☑
7439-92-1	Lead	208	1768120	85.446	100.00	85.4	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1224050		☑
7440-56-4	Germanium	72	2152947		☑
7440-74-6	Indium	115	2237246		☑
7440-30-4	Thulium	169	1819625		☑

Reviewed by: Date:

Metals MS/MSD/PDS

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: G1G050412-001 **Prep Batch #...:** 1195193							
Antimony	103	(77 - 110)			SW846 6020	07/14-07/19/11	MKMWN1CC
	105	(77 - 110)	1.5	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1CD
		Dilution Factor: 1					
Arsenic	80	(79 - 110)			SW846 6020	07/14-07/19/11	MKMWN1AT
	82	(79 - 110)	1.9	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1AU
		Dilution Factor: 1					
Beryllium	82	(70 - 110)			SW846 6020	07/14-07/19/11	MKMWN1AV
	82	(70 - 110)	0.54	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1AW
		Dilution Factor: 1					
Cadmium	86	(79 - 110)			SW846 6020	07/14-07/19/11	MKMWN1AX
	87	(79 - 110)	1.3	(0-16)	SW846 6020	07/14-07/19/11	MKMWN1A0
		Dilution Factor: 1					
Chromium	97	(84 - 110)			SW846 6020	07/14-07/19/11	MKMWN1A3
	100	(84 - 110)	2.7	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1A4
		Dilution Factor: 1					
Cobalt	89	(81 - 113)			SW846 6020	07/14-07/19/11	MKMWN1A1
	91	(81 - 113)	1.5	(0-17)	SW846 6020	07/14-07/19/11	MKMWN1A2
		Dilution Factor: 1					
Lead	96	(86 - 110)			SW846 6020	07/14-07/19/11	MKMWN1A9
	98	(86 - 110)	2.2	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1CA
		Dilution Factor: 1					
Manganese	94	(84 - 110)			SW846 6020	07/14-07/19/11	MKMWN1A5
	97	(84 - 110)	2.5	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1A6
		Dilution Factor: 1					
Nickel	77 N	(86 - 110)			SW846 6020	07/14-07/19/11	MKMWN1A7
	93	(86 - 110)	1.2	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1A8
		Dilution Factor: 1					
Selenium	75	(65 - 110)			SW846 6020	07/14-07/19/11	MKMWN1CE
	76	(65 - 110)	1.3	(0-15)	SW846 6020	07/14-07/19/11	MKMWN1CF
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: G1G050412-001 **Prep Batch #...:** 1195193									
Antimony									
	1.8	30.0	32.9	ug	103		SW846 6020	07/14-07/19/11	MKMWN1CC
	1.8	30.0	33.4	ug	105	1.5	SW846 6020	07/14-07/19/11	MKMWN1CD
			Dilution Factor: 1						
Arsenic									
	14.4	30.0	38.3	ug	80		SW846 6020	07/14-07/19/11	MKMWN1AT
	14.4	30.0	39.1	ug	82	1.9	SW846 6020	07/14-07/19/11	MKMWN1AU
			Dilution Factor: 1						
Beryllium									
	0.10	30.0	24.7	ug	82		SW846 6020	07/14-07/19/11	MKMWN1AV
	0.10	30.0	24.8	ug	82	0.54	SW846 6020	07/14-07/19/11	MKMWN1AW
			Dilution Factor: 1						
Cadmium									
	0.11	30.0	26.0	ug	86		SW846 6020	07/14-07/19/11	MKMWN1AX
	0.11	30.0	26.3	ug	87	1.3	SW846 6020	07/14-07/19/11	MKMWN1A0
			Dilution Factor: 1						
Chromium									
	7.7	30.0	36.7	ug	97		SW846 6020	07/14-07/19/11	MKMWN1A3
	7.7	30.0	37.7	ug	100	2.7	SW846 6020	07/14-07/19/11	MKMWN1A4
			Dilution Factor: 1						
Cobalt									
	22.9	30.0	49.5	ug	89		SW846 6020	07/14-07/19/11	MKMWN1A1
	22.9	30.0	50.3	ug	91	1.5	SW846 6020	07/14-07/19/11	MKMWN1A2
			Dilution Factor: 1						
Lead									
	2.9	30.0	31.6	ug	96		SW846 6020	07/14-07/19/11	MKMWN1A9
	2.9	30.0	32.3	ug	98	2.2	SW846 6020	07/14-07/19/11	MKMWN1CA
			Dilution Factor: 1						
Manganese									
	13.9	30.0	42.0	ug	94		SW846 6020	07/14-07/19/11	MKMWN1A5
	13.9	30.0	43.1	ug	97	2.5	SW846 6020	07/14-07/19/11	MKMWN1A6
			Dilution Factor: 1						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel									
	365	30.0	388 N	ug	77		SW846 6020	07/14-07/19/11	MKMWN1A7
	365	30.0	393	ug	93	1.2	SW846 6020	07/14-07/19/11	MKMWN1A8
			Dilution Factor: 1						
Selenium									
	0.92	30.0	23.5	ug	75		SW846 6020	07/14-07/19/11	MKMWN1CE
	0.92	30.0	23.8	ug	76	1.3	SW846 6020	07/14-07/19/11	MKMWN1CF
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: G1G050412-002 **Prep Batch #...:** 1196180							
Antimony	80	(77 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A7
	79	(77 - 110)	2.1	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A8
		Dilution Factor: 1					
Arsenic	82	(79 - 110)			SW846 6020	07/15-07/19/11	MKMWV1AN
	84	(79 - 110)	2.6	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1AP
		Dilution Factor: 1					
Beryllium	73	(70 - 110)			SW846 6020	07/15-07/19/11	MKMWV1AQ
	74	(70 - 110)	1.6	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1AR
		Dilution Factor: 1					
Cadmium	82	(79 - 110)			SW846 6020	07/15-07/19/11	MKMWV1AT
	80	(79 - 110)	1.7	(0-16)	SW846 6020	07/15-07/20/11	MKMWV1AU
		Dilution Factor: 1					
Chromium	102	(84 - 110)			SW846 6020	07/15-07/19/11	MKMWV1AX
	98	(84 - 110)	3.3	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A0
		Dilution Factor: 1					
Cobalt	101	(81 - 113)			SW846 6020	07/15-07/19/11	MKMWV1AV
	104	(81 - 113)	3.0	(0-17)	SW846 6020	07/15-07/20/11	MKMWV1AW
		Dilution Factor: 1					
Lead	93	(86 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A5
	92	(86 - 110)	0.62	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A6
		Dilution Factor: 1					
Manganese	101	(84 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A1
	101	(84 - 110)	0.37	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A2
		Dilution Factor: 1					
Nickel	96	(86 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A3
	100	(86 - 110)	3.5	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1A4
		Dilution Factor: 1					
Selenium	81	(65 - 110)			SW846 6020	07/15-07/19/11	MKMWV1A9
	85	(65 - 110)	3.6	(0-15)	SW846 6020	07/15-07/20/11	MKMWV1CA
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: G1G050412-002 **Prep Batch #...:** 1196180									
Antimony									
	0.020	30.0	24.2	ug	80		SW846 6020	07/15-07/19/11	MKMWV1A7
	0.020	30.0	23.7	ug	79	2.1	SW846 6020	07/15-07/20/11	MKMWV1A8
			Dilution Factor: 1						
Arsenic									
	0.23	30.0	24.7	ug	82		SW846 6020	07/15-07/19/11	MKMWV1AN
	0.23	30.0	25.3	ug	84	2.6	SW846 6020	07/15-07/20/11	MKMWV1AP
			Dilution Factor: 1						
Beryllium									
	ND	30.0	22.0	ug	73		SW846 6020	07/15-07/19/11	MKMWV1AQ
	ND	30.0	22.3	ug	74	1.6	SW846 6020	07/15-07/20/11	MKMWV1AR
			Dilution Factor: 1						
Cadmium									
	ND	30.0	24.6	ug	82		SW846 6020	07/15-07/19/11	MKMWV1AT
	ND	30.0	24.1	ug	80	1.7	SW846 6020	07/15-07/20/11	MKMWV1AU
			Dilution Factor: 1						
Chromium									
	1.3	30.0	31.8	ug	102		SW846 6020	07/15-07/19/11	MKMWV1AX
	1.3	30.0	30.8	ug	98	3.3	SW846 6020	07/15-07/20/11	MKMWV1A0
			Dilution Factor: 1						
Cobalt									
	0.040	30.0	30.3	ug	101		SW846 6020	07/15-07/19/11	MKMWV1AV
	0.040	30.0	31.2	ug	104	3.0	SW846 6020	07/15-07/20/11	MKMWV1AW
			Dilution Factor: 1						
Lead									
	0.69	30.0	28.6	ug	93		SW846 6020	07/15-07/19/11	MKMWV1A5
	0.69	30.0	28.4	ug	92	0.62	SW846 6020	07/15-07/20/11	MKMWV1A6
			Dilution Factor: 1						
Manganese									
	4.5	30.0	34.6	ug	101		SW846 6020	07/15-07/19/11	MKMWV1A1
	4.5	30.0	34.8	ug	101	0.37	SW846 6020	07/15-07/20/11	MKMWV1A2
			Dilution Factor: 1						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: G1G050412 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/02/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel									
	0.98	30.0	29.8	ug	96		SW846 6020	07/15-07/19/11	MKMWV1A3
	0.98	30.0	30.9	ug	100	3.5	SW846 6020	07/15-07/20/11	MKMWV1A4
			Dilution Factor: 1						
Selenium									
	5.4	30.0	29.7	ug	81		SW846 6020	07/15-07/19/11	MKMWV1A9
	5.4	30.0	30.8	ug	85	3.6	SW846 6020	07/15-07/20/11	MKMWV1CA
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Metals LCS/LCSD

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Antimony	87	(77 - 110)			SW846 6020	07/14-07/18/11	1195193
	86	(77 - 110)	2.0	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Arsenic	92	(79 - 110)			SW846 6020	07/14-07/18/11	1195193
	90	(79 - 110)	2.2	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Beryllium	90	(70 - 110)			SW846 6020	07/14-07/18/11	1195193
	89	(70 - 110)	1.1	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Cadmium	90	(79 - 110)			SW846 6020	07/14-07/18/11	1195193
	88	(79 - 110)	2.5	(0-16)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Chromium	89	(84 - 110)			SW846 6020	07/14-07/18/11	1195193
	87	(84 - 110)	2.7	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Cobalt	89	(81 - 113)			SW846 6020	07/14-07/18/11	1195193
	87	(81 - 113)	2.4	(0-17)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Lead	87	(86 - 110)			SW846 6020	07/14-07/18/11	1195193
	90	(86 - 110)	4.1	(0-15)	SW846 6020	07/14-07/19/11	1195193
		Dilution Factor: 1					
Manganese	88	(84 - 110)			SW846 6020	07/14-07/18/11	1195193
	86	(84 - 110)	3.0	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Nickel	91	(86 - 110)			SW846 6020	07/14-07/18/11	1195193
	88	(86 - 110)	3.8	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					
Selenium	93	(65 - 110)			SW846 6020	07/14-07/18/11	1195193
	92	(65 - 110)	1.6	(0-15)	SW846 6020	07/14-07/18/11	1195193
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Antimony	84	(77 - 110)			SW846 6020	07/15-07/18/11	1196180
	80	(77 - 110)	4.6	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Arsenic	85	(79 - 110)			SW846 6020	07/15-07/18/11	1196180
	81	(79 - 110)	5.0	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Beryllium	85	(70 - 110)			SW846 6020	07/15-07/18/11	1196180
	82	(70 - 110)	4.2	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Cadmium	85	(79 - 110)			SW846 6020	07/15-07/18/11	1196180
	82	(79 - 110)	4.4	(0-16)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Chromium	99	(84 - 110)			SW846 6020	07/15-07/18/11	1196180
	94	(84 - 110)	5.2	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Cobalt	98	(81 - 113)			SW846 6020	07/15-07/18/11	1196180
	94	(81 - 113)	4.0	(0-17)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Lead	90	(86 - 110)			SW846 6020	07/15-07/18/11	1196180
	86	(86 - 110)	4.4	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Manganese	96	(84 - 110)			SW846 6020	07/15-07/18/11	1196180
	91	(84 - 110)	4.7	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Nickel	98	(86 - 110)			SW846 6020	07/15-07/18/11	1196180
	93	(86 - 110)	5.8	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					
Selenium	81	(65 - 110)			SW846 6020	07/15-07/18/11	1196180
	79	(65 - 110)	3.2	(0-15)	SW846 6020	07/15-07/18/11	1196180
		Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Antimony	30.0	26.2	ug	87		SW846 6020	07/14-07/18/11	1195193
	30.0	25.7	ug	86	2.0	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Arsenic	30.0	27.6	ug	92		SW846 6020	07/14-07/18/11	1195193
	30.0	27.0	ug	90	2.2	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Beryllium	30.0	26.9	ug	90		SW846 6020	07/14-07/18/11	1195193
	30.0	26.6	ug	89	1.1	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Cadmium	30.0	27.1	ug	90		SW846 6020	07/14-07/18/11	1195193
	30.0	26.5	ug	88	2.5	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Chromium	30.0	26.8	ug	89		SW846 6020	07/14-07/18/11	1195193
	30.0	26.1	ug	87	2.7	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Cobalt	30.0	26.8	ug	89		SW846 6020	07/14-07/18/11	1195193
	30.0	26.2	ug	87	2.4	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Lead	30.0	26.0	ug	87		SW846 6020	07/14-07/18/11	1195193
	30.0	27.1	ug	90	4.1	SW846 6020	07/14-07/19/11	1195193
			Dilution Factor: 1					
Manganese	30.0	26.5	ug	88		SW846 6020	07/14-07/18/11	1195193
	30.0	25.8	ug	86	3.0	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Nickel	30.0	27.3	ug	91		SW846 6020	07/14-07/18/11	1195193
	30.0	26.3	ug	88	3.8	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					
Selenium	30.0	28.0	ug	93		SW846 6020	07/14-07/18/11	1195193
	30.0	27.6	ug	92	1.6	SW846 6020	07/14-07/18/11	1195193
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Antimony	30.0	25.2	ug	84		SW846 6020	07/15-07/18/11	1196180
	30.0	24.0	ug	80	4.6	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Arsenic	30.0	25.6	ug	85		SW846 6020	07/15-07/18/11	1196180
	30.0	24.3	ug	81	5.0	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Beryllium	30.0	25.5	ug	85		SW846 6020	07/15-07/18/11	1196180
	30.0	24.5	ug	82	4.2	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Cadmium	30.0	25.6	ug	85		SW846 6020	07/15-07/18/11	1196180
	30.0	24.5	ug	82	4.4	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Chromium	30.0	29.6	ug	99		SW846 6020	07/15-07/18/11	1196180
	30.0	28.1	ug	94	5.2	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Cobalt	30.0	29.3	ug	98		SW846 6020	07/15-07/18/11	1196180
	30.0	28.2	ug	94	4.0	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Lead	30.0	27.1	ug	90		SW846 6020	07/15-07/18/11	1196180
	30.0	25.9	ug	86	4.4	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Manganese	30.0	28.7	ug	96		SW846 6020	07/15-07/18/11	1196180
	30.0	27.4	ug	91	4.7	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Nickel	30.0	29.5	ug	98		SW846 6020	07/15-07/18/11	1196180
	30.0	27.9	ug	93	5.8	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					
Selenium	30.0	24.4	ug	81		SW846 6020	07/15-07/18/11	1196180
	30.0	23.6	ug	79	3.2	SW846 6020	07/15-07/18/11	1196180
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: G1G050412 **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Metals Serial Dilution

TAL West Sac | SERIAL DILUTION

Method: 6020 (SOP: SAC-MT-001) | M02 | Reported: 07/19/11 13:08:20

Department: 120 (Metals) | Source: MetEdit

Sample: **MKMWVP5** | Serial Dilution: **5.00** | Sample Dilution: **1.00**

Instrument: **ICPMS M02** | Channel 262
File: 110718A2 # 33 | Method 6020_
Acquired: 07/18/2011 15:52:49 | M02 | Matrix: AIR
Calibrated: 07/18/2011 15:34:38 | Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	72	0.16969	-0.21507		0.078	NC	☑
7440-47-3	Chromium	52	24614	7.5714	8.4601	10.5	0.92	NC	☑
7439-96-5	Manganese	55	65629	33.545	29.707	12.9	0.087	E	☐
7440-48-4	Cobalt	59	2520	0.63836	0.26601	140	0.057	NC	☑
7440-02-0	Nickel	60	2306	6.8853	6.5502	5.12	0.098	NC	☑
7440-38-2	Arsenic	75	15572	0.11265	1.5211	92.6	0.50	NC	☑
7782-49-2	Selenium	78	17850	34.811	39.146	11.1	1.7	NC	☑
7782-49-2	Selenium	82	2715	39.767	36.155	9.99	1.7	NC	☑
7440-43-9	Cadmium	111	381	0.26977	0.02868	841	0.074	NC	☑
7440-43-9	Cadmium	114	775	0.02488	-0.15503		0.074	NC	☑
7440-36-0	Antimony	121	1353	0.22100	0.13113	68.5	0.036	NC	☑
7439-92-1	Lead	208	27219	5.2131	4.6152	13.0	0.066	NC	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1554241		☑
7440-56-4	Germanium	72	2257236		☐
7440-74-6	Indium	115	2306003		☐
7440-30-4	Thulium	169	1948738		☐

* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: | Date:

TAL West Sac

SERIAL DILUTION

Method: 6020 (SOP: SAC-MT-001) | M02 | Reported: 07/19/11 13:08:20

Department: 120 (Metals) | Source: MetEdit

Sample: **MKMWVP5** | Serial Dilution: **5.00** | Sample Dilution: **1.00**

Instrument: **ICPMS M02** | Channel 262
File: 110718A2 # 33 | Method 6020_
Acquired: 07/18/2011 15:52:49 | M02 | Matrix: AIR
Calibrated: 07/18/2011 15:34:38 | Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	72	0.16969	-0.21507		0.078	NC	☑
7440-47-3	Chromium	52	24614	7.5714	8.4601	10.5	0.92	NC	☑
7439-96-5	Manganese	55	65629	33.545	29.707	12.9	0.087	E	☐
7440-48-4	Cobalt	59	2520	0.63836	0.26601	140	0.057	NC	☑
7440-02-0	Nickel	60	2306	6.8853	6.5502	5.12	0.098	NC	☑
7440-38-2	Arsenic	75	15572	0.11265	1.5211	92.6	0.50	NC	☑
7782-49-2	Selenium	78	17850	34.811	39.146	11.1	1.7	NC	☑
7782-49-2	Selenium	82	2715	39.767	36.155	9.99	1.7	NC	☑
7440-43-9	Cadmium	111	381	0.26977	0.02868	841	0.074	NC	☑
7440-43-9	Cadmium	114	775	0.02488	-0.15503		0.074	NC	☑
7440-36-0	Antimony	121	1353	0.22100	0.13113	68.5	0.036	NC	☑
7439-92-1	Lead	208	27219	5.2131	4.6152	13.0	0.066	NC	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	1554241		☑
7440-56-4	Germanium	72	2257236		☐
7440-74-6	Indium	115	2306003		☐
7440-30-4	Thulium	169	1948738		☐

* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: Date:

Method: 6020 (SOP: SAC-MT-001) M02 Reported: 07/20/11 10:39:33

Department: 120 (Metals) Source: MetEdit

Sample: **MKMWNP5** Serial Dilution: **5.00** Sample Dilution: **1.00**

Instrument: **ICPMS M02** Channel 262
File: 110719A2 # 73 Method 6020_
Acquired: 07/19/2011 17:45:53 M02 Matrix: AIR
Calibrated: 07/19/2011 17:33:13 Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	18	0.59476	0.66970	11.2	0.078	NC	☑
7440-47-3	Chromium	52	31464	52.453	51.202	2.44	0.92	NC	☑
7439-96-5	Manganese	55	74966	96.671	92.751	4.23	0.087	4.2	☑
7440-48-4	Cobalt	59	117563	166.01	152.61	8.78	0.057	8.8	☑
7440-02-0	Nickel	60	409760	2702.3	2431.0	11.2	0.098	E	☐
7440-38-2	Arsenic	75	23912	111.60	95.972	16.3	0.50	E	☐
7782-49-2	Selenium	78	9771	5.0865	6.1226	16.9	1.7	NC	☑
7782-49-2	Selenium	82	1126	20.120	18.149	10.9	1.7	NC	☑
7440-43-9	Cadmium	111	136	0.68203	0.74683	8.68	0.074	NC	☑
7440-36-0	Antimony	121	5575	11.841	12.203	2.97	0.036	3.0	☑
7439-92-1	Lead	208	47698	20.324	19.502	4.22	0.066	4.2	☑

CASN	ISTD Name	M/S	Area	Amount	Q
LITHIUM6	Lithium-6	6	707749		☑
7440-56-4	Germanium	72	987462		☐
7440-74-6	Indium	115	1165535		☐
7440-30-4	Thulium	169	1041840		☐

* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: Date:

Metals MDL

URS Corporation

Client Sample ID: CHV-Stk-ICR2-M5/29-Back Half

TOTAL Metals

Lot-Sample #...: G1G050412-002 Matrix.....: AIR
Date Sampled...: 06/24/11 Date Received..: 07/02/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1196180						
Arsenic	0.23 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AA
		MDL.....: 0.075				
Beryllium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AC
		MDL.....: 0.012				
Cadmium	ND	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AD
		MDL.....: 0.011				
Cobalt	0.040 B	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AE
		MDL.....: 0.0086				
Chromium	1.3	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AF
		MDL.....: 0.14				
Manganese	4.5	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AG
		MDL.....: 0.013				
Nickel	0.98	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AH
		MDL.....: 0.015				
Lead	0.69 J	0.15	ug	SW846 6020	07/15-07/18/11	MKMWV1AJ
		MDL.....: 0.0099				
Antimony	0.020 B	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AK
		MDL.....: 0.0054				
Selenium	5.4	0.30	ug	SW846 6020	07/15-07/18/11	MKMWV1AL
		MDL.....: 0.26				

NOTE(S):

B Estimated result Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Metals Linear Ranges

Date	6/10/2010		Elan 6000 linear range levels				linrangeJune01.xls	
			Units = mg/L					
		M01	M02		Calibration			
			*		Levels			
					(Dual Detector Calibration)			
Li 7		*	1		0.1			
Be 9		10	10		0.1			
B 11		20	10		0.1			
Na 23		100	100		5			
Mg 24		100	100		5			
Al 27		200	100		5			
P 31		100	100		5			
K 39		200	100		5			
Ca 43		200	100		5			
Ca 44		100	100		5			
Ti 49		10	10		0.2			
V 51		10	10		0.1			
Cr 52		10	10		0.1			
Fe 54		200	200		5			
Fe 57		200	200		5			
Mn 55		20	20		0.1			
Co 59		10	10		0.1			
Ni 60		10	10		0.1			
Cu 65		10	10		0.1			
Zn 68		20	20		0.1			
As 75		10	10		0.1			
Se 78		10	10		0.1			
Se 82		10	10		0.1			
Sr 88		10	10		0.1			
Mo 97		10	10		0.1			
Ag 107		0.2	0.2		0.1			
Cd 111		20	20		0.1			
Cd 114		20	20		0.1			
Sn 118		20	20		0.1			
Sb 121		*	10		0.1			
Ba 135		20	20		0.1			
Hg 200		0.2	0.1		0.005			
Hg 202		0.2	0.1		0.005			
Tl 205		10	10		0.1			
Pb 208		20	20		0.1			
U		10	10		0.1			
Zn 66		20						
* Li and Sb need reruns; M02 not run yet.								

Metals Preparation Log

TestAmerica - West Sacramento
Metals - Air Toxics - Preparation Log

Date: 14-Jul-11 **Analyst:** TP **Matrix:** AIR

Fraction: FH **SOP:** WS-IP-0001 **Method:** ICPMS

LOT ID		Workorder		Volume Received	Volume Removed	Initial Prep Volume	Final Prep Volume	Batch	Prep Factor
G1G140000	193	MKXL7B	DE	NA	NA	NA	150	1195193	0.15
G1G140000	193	MKXL7C	DE	NA	NA	NA	150	1195193	0.15
G1G140000	193	MKXL7L	DE	NA	NA	NA	150	1195193	0.15
G1G050412	1	MKMWNS	DE	100	0	100	150	1195193	0.15
G1G050412	1	MKMWND	DE	100	0	100	150	1195193	0.15
G1G050412	1	MKMWN	DE	100	0	100	150	1195193	0.15
G1G050412	3	MKMWW	DE	100	0	100	150	1195193	0.15
G1G050412	5	MKMW6	DE	110	0	110	150	1195193	0.15
G1G050412	7	MKMXD	DE	110	0	110	150	1195193	0.15

For the cassette filter digest the whole filter is used.
For 1" filter: factor = 9 (9/1).
For 0.75" filter factor = 12 (9/0.75).

TestAmerica - West Sacramento

Metals - Air Toxics - Preparation Log

Date: 15-Jul-11 **Analyst:** TP **Matrix:** AIR

Fraction: BH **SOP:** WS-IP-0001 **Method:** ICPMS

LOT ID		Workorder		Volume Received	Volume Removed	Initial Prep Volume	Final Prep Volume	Batch	Prep Factor
G1G150000	180	MK0GAB	DF	NA	NA	NA	150	1196180	0.15
G1G150000	180	MK0GAC	DF	NA	NA	NA	150	1196180	0.15
G1G150000	180	MK0GAL	DF	NA	NA	NA	150	1196180	0.15
G1G050412	2	MKMWVS	DF	790	0	790	150	1196180	0.15
G1G050412	2	MKMWVD	DF	790	0	790	150	1196180	0.15
G1G050412	2	MKMWV	DF	790	0	790	150	1196180	0.15
G1G050412	4	MKMW0	DF	630	0	630	150	1196180	0.15
G1G050412	6	MKMXC	DF	630	0	630	150	1196180	0.15
G1G050412	8	MKMXF	DF	450	0	450	150	1196180	0.15

For the cassette filter digest the whole filter is used.
For 1" filter: factor = 9 (9/1).
For 0.75" filter factor = 12 (9/0.75).

Metals Analysis Run Log

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/19/11 13:07:46

File ID: 110718A2 Analyst: hargraves

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
1	Rinse 3X				3.0	07/18/11 13:25		☐
2	Blank				1.0	07/18/11 13:27		☐
3	Standard1				1.0	07/18/11 13:29		☐
4	ICV				1.0	07/18/11 13:32		☐
5	ICB				1.0	07/18/11 13:40		☐
6	LLSTD1				1.0	07/18/11 14:03		☐
7	LLSTD2				1.0	07/18/11 14:06		☐
8	ICSA				1.0	07/18/11 14:13		☐
9	ICSAB				1.0	07/18/11 14:17		☐
10	Rinse				1.0	07/18/11 14:45		☐
11	CCV 1				1.0	07/18/11 14:52		☐
12	CCB 1				1.0	07/18/11 14:55		☐
15	CCV 2				1.0	07/18/11 14:58		☐
16	CCB 2				1.0	07/18/11 15:01		☐
17	MK0GAB	G1G150000	1196180	DF	1.0	07/18/11 15:05		☐
18	MK0GAC	G1G150000	1196180	DF	1.0	07/18/11 15:08		☐
19	MK0GAL	G1G150000	1196180	DF	1.0	07/18/11 15:11		☐
20	MKXL7B	G1G140000	1195193	DE	1.0	07/18/11 15:14		☐
21	MKXL7C	G1G140000	1195193	DE	1.0	07/18/11 15:18		☐
22	MKXL7L	G1G140000	1195193	DE	1.0	07/18/11 15:21		☐
23	MKXL3B	G1G140000	1195192	EC	1.0	07/18/11 15:24		☐
24	MKXL3C	G1G140000	1195192	EC	1.0	07/18/11 15:28		☐
25	MKXL3L	G1G140000	1195192	EC	1.0	07/18/11 15:31		☐
26	CCV 3				1.0	07/18/11 15:34		☐
27	CCB 3				1.0	07/18/11 15:36		☐
30	CCV 4				1.0	07/18/11 15:45		☐
31	CCB 4				1.0	07/18/11 15:48		☐
32	MKMWV	G1G050412-2	1196180	DF	1.0	07/18/11 15:50		☐
33	MKMWVP5	G1G050412	1196180		5.0	07/18/11 15:52		☐
34	MKMWVS	G1G050412-2	1196180	DF	1.0	07/18/11 15:55		☐
35	MKMWVD	G1G050412-2	1196180	DF	1.0	07/18/11 15:57		☐
36	MKMW0	G1G050412-4	1196180	DF	1.0	07/18/11 15:59		☐
37	MKMXC	G1G050412-6	1196180	DF	1.0	07/18/11 16:02		☐
38	MKMXF	G1G050412-8	1196180	DF	1.0	07/18/11 16:04		☐
39	CCV 5				1.0	07/18/11 16:06		☐
40	CCB 5				1.0	07/18/11 16:09		☐
41	CCV 6				1.0	07/18/11 16:11		☐
42	CCB 6				1.0	07/18/11 16:13		☐
43	MKL51	G1G010441-10	1195192	EC	1.0	07/18/11 16:16		☐
44	MKL53	G1G010441-11	1195192	EC	1.0	07/18/11 16:18		☐
45	MKL55	G1G010441-12	1195192	EC	1.0	07/18/11 16:21		☐
46	MKL56	G1G010441-13	1195192	EC	1.0	07/18/11 16:23		☐
47	MKL6E	G1G010441-14	1195192	EC	1.0	07/18/11 16:25		☐
48	MKL6G	G1G010441-15	1195192	EC	1.0	07/18/11 16:28		☐
49	CCV 7				1.0	07/18/11 16:30		☐
50	CCB 7				1.0	07/18/11 16:32		☐

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/19/11 13:07:46

File ID: 110718A2 Analyst: hargraves

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
51	CCV 8				1.0	07/18/11 16:35		☐
52	CCB 8				1.0	07/18/11 16:37		☐
53	MKL5N	G1G010441-7	1195192	EC	1.0	07/18/11 16:39		☐
54	MKL5NP5	G1G010441	1195192		5.0	07/18/11 16:42		☐
55	MKL5NX	G1G010441-7	1195192	EC	1.0	07/18/11 16:44		☐
56	MKL5NZ	G1G010441-7	1195192		1.0	07/18/11 16:46		☐
57	MKL5R	G1G010441-8	1195192	EC	1.0	07/18/11 16:49		☐
58	MKL5V	G1G010441-9	1195192	EC	1.0	07/18/11 16:51		☐
59	CCV 9				1.0	07/18/11 16:53		☐
60	CCB 9				1.0	07/18/11 16:56		☐

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) | M02 (M02) | Reported: 07/19/11 13:07:46

File ID: 110718A2 | Analyst: hargraves

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
1	Rinse 3X	07/18/11 13:25	102.8	104.5	106.0	104.1	☐
2	Blank	07/18/11 13:27	100.0	100.0	100.0	100.0	☑
3	Standard1	07/18/11 13:29	101.7	101.8	104.9	104.4	☑
4	ICV	07/18/11 13:32	103.2	104.2	105.3	105.9	☑
5	ICB	07/18/11 13:40	102.7	103.4	104.8	104.1	☑
6	LLSTD1	07/18/11 14:03	100.8	101.0	104.8	102.5	☑
7	LLSTD2	07/18/11 14:06	102.1	102.2	105.2	103.7	☑
8	ICSA	07/18/11 14:13	89.9	92.1	96.8	89.8	☑
9	ICSAB	07/18/11 14:17	93.7	95.2	98.9	91.2	☑
10	Rinse	07/18/11 14:45	108.8	104.3	103.7	103.0	☑
11	CCV 1	07/18/11 14:52	107.3	104.5	104.6	104.6	☑
12	CCB 1	07/18/11 14:55	107.3	104.2	103.6	104.0	☑
15	CCV 2	07/18/11 14:58	98.5	99.1	101.3	100.4	☑
16	CCB 2	07/18/11 15:01	101.5	101.5	102.0	101.5	☑
17	MK0GAB	07/18/11 15:05	100.8	106.8	105.6	105.3	☑
18	MK0GAC	07/18/11 15:08	94.5	100.7	99.3	101.3	☑
19	MK0GAL	07/18/11 15:11	93.4	99.6	99.3	101.4	☑
20	MKXL7B	07/18/11 15:14	100.4	103.3	106.9	104.7	☑
21	MKXL7C	07/18/11 15:18	100.7	103.8	109.4	106.1	☑
22	MKXL7L	07/18/11 15:21	97.7	100.4	105.0	102.5	☑
23	MKXL3B	07/18/11 15:24	96.2	101.0	105.8	101.9	☑
24	MKXL3C	07/18/11 15:28	91.9	96.6	100.7	98.6	☑
25	MKXL3L	07/18/11 15:31	94.7	99.7	104.6	101.8	☑
26	CCV 3	07/18/11 15:34	95.7	97.0	106.1	99.5	☑
27	CCB 3	07/18/11 15:36	92.9	95.0	101.4	96.3	☑
30	CCV 4	07/18/11 15:45	101.3	99.6	104.1	101.8	☑
31	CCB 4	07/18/11 15:48	102.8	101.0	102.4	102.0	☑
32	MKMWV	07/18/11 15:50	95.2	99.6	117.8	100.4	☑
33	MKMWVP5	07/18/11 15:52	98.3	100.1	105.3	101.1	☐
34	MKMWVS	07/18/11 15:55	96.9	101.4	122.5	101.1	☑
35	MKMWVD	07/18/11 15:57	95.9	100.6	123.8	100.9	☑
36	MKMW0	07/18/11 15:59	97.2	101.1	126.3	102.1	☑
37	MKMXC	07/18/11 16:02	98.7	102.9	129.6	104.0	☑
38	MKMXF	07/18/11 16:04	99.9	104.6	125.9	105.2	☑
39	CCV 5	07/18/11 16:06	104.4	103.6	110.8	105.6	☑
40	CCB 5	07/18/11 16:09	102.8	102.0	107.4	102.9	☑
41	CCV 6	07/18/11 16:11	103.0	101.8	108.4	104.5	☑
42	CCB 6	07/18/11 16:13	102.9	102.0	108.0	103.2	☑
43	MKL51	07/18/11 16:16	93.6	92.7	115.2	93.7	☑
44	MKL53	07/18/11 16:18	101.5	99.3	120.5	100.0	☑
45	MKL55	07/18/11 16:21	101.4	100.0	116.3	100.2	☑
46	MKL56	07/18/11 16:23	101.0	102.7	115.3	102.2	☑
47	MKL6E	07/18/11 16:25	100.6	101.4	110.3	101.2	☑
48	MKL6G	07/18/11 16:28	105.7	107.4	115.1	106.0	☑
49	CCV 7	07/18/11 16:30	103.0	107.7	104.0	107.2	☑
50	CCB 7	07/18/11 16:32	102.5	109.3	102.2	107.0	☑

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 (M02) Reported: 07/19/11 13:07:46

File ID: 110718A2 Analyst: hargraves

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
51	CCV 8	07/18/11 16:35	101.0	107.3	99.4	106.0	☑
52	CCB 8	07/18/11 16:37	100.0	106.8	95.8	103.5	☑
53	MKL5N	07/18/11 16:39	105.3	108.1	110.5	105.9	☑
54	MKL5NP5	07/18/11 16:42	101.6	107.1	107.0	105.6	☐
55	MKL5NX	07/18/11 16:44	106.2	108.8	114.7	106.7	☑
56	MKL5NZ	07/18/11 16:46	103.5	106.9	110.5	103.9	☑
57	MKL5R	07/18/11 16:49	104.7	109.3	110.5	105.4	☑
58	MKL5V	07/18/11 16:51	107.4	112.8	110.4	107.3	☑
59	CCV 9	07/18/11 16:53	103.0	112.9	95.0	109.7	☑
60	CCB 9	07/18/11 16:56	98.0	108.9	89.1	104.7	☑

TAL West Sac

RUN SUMMARY

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/20/11 10:38:36

File ID: 110719A2 Analyst: hargraves

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
1	Rinse 3X				3.0	07/19/11 14:28		☐
2	Blank				1.0	07/19/11 14:30		☐
3	Standard1				1.0	07/19/11 14:33		☐
4	ICV				1.0	07/19/11 14:35		☐
5	ICB				1.0	07/19/11 14:38		☐
6	LLSTD1				1.0	07/19/11 14:42		☐
7	LLSTD2				1.0	07/19/11 14:45		☐
8	ICSA				1.0	07/19/11 14:50		☐
9	ICSAB				1.0	07/19/11 14:53		☐
10	Rinse				1.0	07/19/11 15:00		☐
11	CCV 1				1.0	07/19/11 15:07		☐
12	CCB 1				1.0	07/19/11 15:10		☐
15	CCV 2				1.0	07/19/11 15:14		☐
16	CCB 2				1.0	07/19/11 15:17		☐
17	MKXL7L	G1G140000	1195193	DE	1.0	07/19/11 15:20		☐
18	MKMWVS	G1G050412-2	1196180	DF	1.0	07/19/11 15:24		☐
19	MKMWVD	G1G050412-2	1196180	DF	1.0	07/19/11 15:27		☐
20	CCV 3				1.0	07/19/11 15:30		☐
21	CCB 3				1.0	07/19/11 15:32		☐
22	CCV 4				1.0	07/19/11 15:35		☐
23	CCB 4				1.0	07/19/11 15:37		☐
24	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 15:39		☐
25	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 15:43		☐
26	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 15:46		☐
27	MKMWN	G1G050412-1	1195193	DE	1.0	07/19/11 15:49		☐
28	MKMWNP5	G1G050412	1195193		5.0	07/19/11 15:53		☐
29	MKMWNS	G1G050412-1	1195193	DE	1.0	07/19/11 15:56		☐
30	MKMWND	G1G050412-1	1195193	DE	1.0	07/19/11 15:59		☐
31	CCV 5				1.0	07/19/11 16:02		☐
32	CCB 5				1.0	07/19/11 16:05		☐
35	CCV 6				1.0	07/19/11 16:07		☐
36	CCB 6				1.0	07/19/11 16:09		☐
37	MKMWN	G1G050412-1	1195193	DE	1.0	07/19/11 16:12		☐
38	MKMWNP5	G1G050412	1195193		5.0	07/19/11 16:15		☐
39	MKMWNS	G1G050412-1	1195193	DE	1.0	07/19/11 16:18		☐
40	MKMWND	G1G050412-1	1195193	DE	1.0	07/19/11 16:22		☐
41	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 16:25		☐
42	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 16:28		☐
43	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 16:31		☐
44	CCV 7				1.0	07/19/11 16:35		☐
45	CCB 7				1.0	07/19/11 16:37		☐
46	CCV 8				1.0	07/19/11 16:39		☐
47	CCB 8				1.0	07/19/11 16:42		☐
48	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 16:44		☐
49	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 16:47		☐
50	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 16:51		☐

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/20/11 10:38:36

File ID: 110719A2 **Analyst: hargraves**

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
51	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 16:54		☐
52	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 16:57		☐
53	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 17:00		☐
54	CCV 9				1.0	07/19/11 17:04		☐
55	CCB 9				1.0	07/19/11 17:06		☐
58	CCV 10				1.0	07/19/11 17:08		☐
59	CCB 10				1.0	07/19/11 17:11		☐
60	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 17:13		☐
61	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 17:16		☐
62	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 17:20		☐
63	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 17:23		☐
64	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 17:26		☐
65	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 17:29		☐
66	CCV 11				1.0	07/19/11 17:33		☐
67	CCB 11				1.0	07/19/11 17:35		☐
70	CCV 12				1.0	07/19/11 17:37		☐
71	CCB 12				1.0	07/19/11 17:40		☐
72	MKMWN	G1G050412-1	1195193	DE	1.0	07/19/11 17:42		☐
73	MKMWNP5	G1G050412	1195193		5.0	07/19/11 17:45		☐
74	MKMWNS	G1G050412-1	1195193	DE	1.0	07/19/11 17:49		☐
75	MKMWND	G1G050412-1	1195193	DE	1.0	07/19/11 17:52		☐
76	CCV 13				1.0	07/19/11 17:55		☐
77	CCB 13				1.0	07/19/11 17:58		☐

Method: 6020 (SOP: SAC-MT-001) M02 (M02) Reported: 07/20/11 10:38:36

File ID: 110719A2 Analyst: hargraves

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
1	Rinse 3X	07/19/11 14:28	108.0	106.9	110.1	108.2	☐
2	Blank	07/19/11 14:30	100.0	100.0	100.0	100.0	☑
3	Standard1	07/19/11 14:33	103.7	103.1	105.7	104.7	☑
4	ICV	07/19/11 14:35	102.2	101.5	100.9	102.3	☑
5	ICB	07/19/11 14:38	104.7	103.9	104.3	104.1	☑
6	LLSTD1	07/19/11 14:42	103.5	102.8	101.4	103.4	☑
7	LLSTD2	07/19/11 14:45	102.3	101.8	99.8	101.6	☑
8	ICSA	07/19/11 14:50	91.8	92.4	88.4	87.7	☑
9	ICSAB	07/19/11 14:53	92.1	91.9	84.1	87.6	☑
10	Rinse	07/19/11 15:00	117.2	112.7	99.8	105.4	☑
11	CCV 1	07/19/11 15:07	110.8	106.6	96.7	102.6	☑
12	CCB 1	07/19/11 15:10	110.8	106.3	95.7	102.6	☑
15	CCV 2	07/19/11 15:14	112.2	107.3	98.2	104.5	☑
16	CCB 2	07/19/11 15:17	110.4	105.1	95.5	102.5	☑
17	MKXL7L	07/19/11 15:20	108.7	106.3	96.5	105.6	☑
18	MKMWVS	07/19/11 15:24	104.2	105.3	112.7	103.2	☑
19	MKMWVD	07/19/11 15:27	97.9	90.7	84.1	88.6	☑
20	CCV 3	07/19/11 15:30	107.1	101.6	95.1	102.1	☑
21	CCB 3	07/19/11 15:32	106.6	101.5	93.1	100.9	☑
22	CCV 4	07/19/11 15:35	103.4	99.0	89.9	99.7	☑
23	CCB 4	07/19/11 15:37	105.2	99.8	91.7	99.9	☑
24	MKMWW	07/19/11 15:39	110.5	98.1	100.8	96.0	☑
25	MKMW6	07/19/11 15:43	107.8	98.7	92.4	95.8	☑
26	MKMXD	07/19/11 15:46	90.1	84.7	76.3	81.9	☑
27	MKMWN	07/19/11 15:49	95.7	92.2	79.7	91.1	☑
28	MKMWNP5	07/19/11 15:53	87.4	92.1	67.6	91.9	☐
29	MKMWNS	07/19/11 15:56	83.2	82.0	68.8	84.4	☑
30	MKMWND	07/19/11 15:59	76.2	77.2	63.6	81.4	☑
31	CCV 5	07/19/11 16:02	77.6	86.2	55.5	90.5	☑
32	CCB 5	07/19/11 16:05	78.0	85.9	54.8	89.9	☑
35	CCV 6	07/19/11 16:07	99.4	99.1	100.9	99.0	☑
36	CCB 6	07/19/11 16:09	96.7	96.3	93.9	95.5	☑
37	MKMWN	07/19/11 16:12	99.9	92.1	119.4	92.7	☑
38	MKMWNP5	07/19/11 16:15	98.6	96.5	101.0	98.0	☐
39	MKMWNS	07/19/11 16:18	87.7	81.6	104.8	84.0	☑
40	MKMWND	07/19/11 16:22	84.3	78.8	103.9	82.9	☑
41	MKMWW	07/19/11 16:25	83.5	78.4	105.7	83.5	☑
42	MKMW6	07/19/11 16:28	77.0	74.8	102.6	77.7	☑
43	MKMXD	07/19/11 16:31	81.1	78.2	105.8	82.3	☑
44	CCV 7	07/19/11 16:35	73.1	79.5	90.6	84.5	☑
45	CCB 7	07/19/11 16:37	70.5	76.3	83.3	79.7	☑
46	CCV 8	07/19/11 16:39	72.7	79.3	87.1	84.0	☑
47	CCB 8	07/19/11 16:42	74.9	80.8	86.0	84.2	☑
48	MKMWW	07/19/11 16:44	70.1	68.3	98.1	72.5	☑
49	MKMW6	07/19/11 16:47	66.3	64.0	95.3	68.2	☐
50	MKMXD	07/19/11 16:51	67.1	65.8	93.9	68.8	☐

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) | M02 (M02) | Reported: 07/20/11 10:38:36

File ID: 110719A2 Analyst: hargraves

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
51	MKMWW	07/19/11 16:54	62.7	60.8	91.8	64.6	☐
52	MKMW6	07/19/11 16:57	61.4	59.4	90.6	62.6	☐
53	MKMXD	07/19/11 17:00	60.7	59.2	87.3	61.5	☐
54	CCV 9	07/19/11 17:04	58.5	61.8	82.7	65.2	☐
55	CCB 9	07/19/11 17:06	61.1	65.1	83.6	67.7	☐
58	CCV 10	07/19/11 17:08	93.7	93.3	95.6	95.2	☑
59	CCB 10	07/19/11 17:11	100.7	102.5	100.3	103.1	☑
60	MKMWW	07/19/11 17:13	91.2	83.8	98.8	83.4	☑
61	MKMW6	07/19/11 17:16	87.8	80.5	97.7	80.1	☑
62	MKMXD	07/19/11 17:20	92.3	85.4	99.2	83.4	☑
63	MKMWW	07/19/11 17:23	88.1	80.7	97.2	79.6	☑
64	MKMW6	07/19/11 17:26	84.2	77.5	95.4	76.7	☑
65	MKMXD	07/19/11 17:29	88.8	82.7	97.4	80.9	☑
66	CCV 11	07/19/11 17:33	85.9	85.6	96.5	86.6	☑
67	CCB 11	07/19/11 17:35	85.9	86.3	94.7	86.5	☐
70	CCV 12	07/19/11 17:37	94.6	94.6	96.5	93.2	☑
71	CCB 12	07/19/11 17:40	98.4	99.4	99.1	99.6	☑
72	MKMWN	07/19/11 17:42	95.4	87.4	102.2	87.2	☑
73	MKMWNP5	07/19/11 17:45	100.3	98.6	103.7	99.8	☐
74	MKMWNS	07/19/11 17:49	95.8	88.5	107.6	89.8	☑
75	MKMWND	07/19/11 17:52	94.5	88.0	109.8	89.0	☑
76	CCV 13	07/19/11 17:55	100.0	102.3	109.1	104.7	☑
77	CCB 13	07/19/11 17:58	95.2	96.5	99.3	96.9	☑

TAL West Sac

RUN SUMMARY

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/21/11 14:04:11

File ID: 110720A2 Analyst: jonesb

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
1	Blank				1.0	07/20/11 12:16		☐
2	Standard1				1.0	07/20/11 12:19		☐
3	ICV				1.0	07/20/11 12:21		☐
4	ICB				1.0	07/20/11 12:25		☐
5	LLSTD1				1.0	07/20/11 12:34		☐
6	LLSTD2				1.0	07/20/11 12:36		☐
7	ICSA				1.0	07/20/11 12:44		☐
8	ICSAB				1.0	07/20/11 12:46		☐
9	Rinse				1.0	07/20/11 12:50		☐
10	CCV 1				1.0	07/20/11 12:52		☐
11	CCB 1				1.0	07/20/11 12:55		☐
12	CCV 2				1.0	07/20/11 12:58		☐
13	CCB 2				1.0	07/20/11 13:00		☐
14	ICSA				1.0	07/20/11 13:03		☐
15	ICSAB				1.0	07/20/11 13:05		☐
16	Rinse				1.0	07/20/11 13:13		☐
17	MKMWVD	G1G050412-2	1196180	DF	1.0	07/20/11 13:16		☐
18	MK1W8B	G1G190000	1200151	EC	1.0	07/20/11 13:18		☐
19	MK1W8C	G1G190000	1200151	EC	1.0	07/20/11 13:21		☐
20	MK1XAL	G1G190000	1200152	EC	1.0	07/20/11 13:23		☐
21	CCV 3				1.0	07/20/11 13:26		☐
22	CCB 3				1.0	07/20/11 13:29		☐
23	CCV 4				1.0	07/20/11 13:31		☐
24	CCB 4				1.0	07/20/11 13:34		☐
25	MKPL1	G1G060477-4	1200151	EC	1.0	07/20/11 13:36		☐
26	MKPL1P5	G1G060477	1200151		5.0	07/20/11 13:39		☐
27	MKPL1X	G1G060477-4	1200151	EC	1.0	07/20/11 13:41		☐
28	MKPL1Z	G1G060477-4	1200151		1.0	07/20/11 13:44		☐
29	MKPL6	G1G060477-5	1200151	EC	1.0	07/20/11 13:47		☐
30	MKPL8	G1G060477-6	1200151	EC	1.0	07/20/11 13:49		☐
31	MKPL9	G1G060477-7	1200151	EC	1.0	07/20/11 13:52		☐
32	MKPME	G1G060477-8	1200151	EC	1.0	07/20/11 13:54		☐
33	CCV 5				1.0	07/20/11 13:57		☐
34	CCB 5				1.0	07/20/11 13:59		☐
35	CCV 6				1.0	07/20/11 14:02		☐
36	CCB 6				1.0	07/20/11 14:05		☐
37	MKXRJ	G1G150408-1	1200152	EC	1.0	07/20/11 14:07		☐
38	MKXRJP5	G1G150408	1200152		5.0	07/20/11 14:10		☐
39	MKXRJX	G1G150408-1	1200152	EC	1.0	07/20/11 14:12		☐
40	MKXRJZ	G1G150408-1	1200152		1.0	07/20/11 14:15		☐
41	MKXRK	G1G150408-2	1200152	EC	1.0	07/20/11 14:18		☐
42	MKXRM	G1G150408-3	1200152	EC	1.0	07/20/11 14:20		☐
43	MKXRN	G1G150408-4	1200152	EC	1.0	07/20/11 14:23		☐
44	MKXRP	G1G150408-5	1200152	EC	1.0	07/20/11 14:25		☐
45	CCV 7				1.0	07/20/11 14:28		☐
46	CCB 7				1.0	07/20/11 14:30		☐

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/21/11 14:04:11

File ID: 110720A2 Analyst: jonesb

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
49	CCV 8				1.0	07/20/11 14:41		☐
50	CCB 8				1.0	07/20/11 14:43		☐
51	MKXRJ	G1G150408-1	1200152	EC	1.0	07/20/11 14:46		☐
52	MKXRJP5	G1G150408	1200152		5.0	07/20/11 14:49		☐
53	MKXRJX	G1G150408-1	1200152	EC	1.0	07/20/11 14:51		☐
54	MKXRJZ	G1G150408-1	1200152		1.0	07/20/11 14:54		☐
55	MKXRK	G1G150408-2	1200152	EC	1.0	07/20/11 14:56		☐
56	MKXRM	G1G150408-3	1200152	EC	1.0	07/20/11 14:59		☐
57	MKXRN	G1G150408-4	1200152	EC	1.0	07/20/11 15:02		☐
58	MKXRP	G1G150408-5	1200152	EC	1.0	07/20/11 15:04		☐
59	CCV 9				1.0	07/20/11 15:07		☐
60	CCB 9				1.0	07/20/11 15:09		☐
63	CCV 10				1.0	07/20/11 15:24		☐
64	CCB 10				1.0	07/20/11 15:27		☐
67	CCV 11				1.0	07/20/11 15:33		☐
68	CCB 11				1.0	07/20/11 15:36		☐
71	CCV 12				1.0	07/20/11 15:39		☐
72	CCB 12				1.0	07/20/11 15:41		☐
73	MKXRK	G1G150408-2	1200152	EC	1.0	07/20/11 15:44		☐
74	MKXRM	G1G150408-3	1200152	EC	1.0	07/20/11 15:46		☐
75	MKXRN	G1G150408-4	1200152	EC	1.0	07/20/11 15:49		☐
76	MKXRP	G1G150408-5	1200152	EC	1.0	07/20/11 15:52		☐
77	CCV 13				1.0	07/20/11 15:54		☐
78	CCB 13				1.0	07/20/11 15:57		☐
81	CCV 14				1.0	07/20/11 15:59		☐
82	CCB 14				1.0	07/20/11 16:02		☐
83	MKXRJ	G1G150408-1	1200152	EC	1.0	07/20/11 16:04		☐
84	MKXRJP5	G1G150408	1200152		5.0	07/20/11 16:07		☐
85	MKXRJX	G1G150408-1	1200152	EC	1.0	07/20/11 16:10		☐
86	MKXRJZ	G1G150408-1	1200152		1.0	07/20/11 16:12		☐
87	CCV 15				1.0	07/20/11 16:15		☐
88	CCB 15				1.0	07/20/11 16:17		☐

Method: 6020 (SOP: SAC-MT-001) M02 (M02) Reported: 07/21/11 14:04:11

File ID: 110720A2 Analyst: jonesb

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
1	Blank	07/20/11 12:16	100.0	100.0	100.0	100.0	☑
2	Standard1	07/20/11 12:19	99.3	98.6	101.0	99.6	☑
3	ICV	07/20/11 12:21	99.0	97.6	96.4	98.0	☑
4	ICB	07/20/11 12:25	96.0	95.3	94.9	95.1	☑
5	LLSTD1	07/20/11 12:34	104.3	104.9	104.7	104.9	☑
6	LLSTD2	07/20/11 12:36	101.9	102.9	102.0	102.2	☑
7	ICSA	07/20/11 12:44	91.7	92.6	101.7	88.5	☑
8	ICSAB	07/20/11 12:46	91.4	91.1	97.5	86.7	☑
9	Rinse	07/20/11 12:50	110.6	105.9	103.1	99.9	☑
10	CCV 1	07/20/11 12:52	111.2	105.8	102.0	101.6	☑
11	CCB 1	07/20/11 12:55	112.6	108.4	102.3	102.2	☑
12	CCV 2	07/20/11 12:58	110.9	105.9	101.2	101.1	☑
13	CCB 2	07/20/11 13:00	109.6	104.5	98.0	98.8	☑
14	ICSA	07/20/11 13:03	93.5	94.2	98.6	88.8	☑
15	ICSAB	07/20/11 13:05	92.6	93.0	96.9	87.8	☑
16	Rinse	07/20/11 13:13	114.4	107.9	102.7	100.3	☑
17	MKMWVD	07/20/11 13:16	102.0	108.2	114.0	104.8	☑
18	MK1W8B	07/20/11 13:18	111.3	109.8	113.5	105.4	☑
19	MK1W8C	07/20/11 13:21	111.3	110.0	108.3	106.1	☑
20	MK1XAL	07/20/11 13:23	109.8	107.6	104.0	103.6	☑
21	CCV 3	07/20/11 13:26	110.8	105.1	99.6	100.0	☑
22	CCB 3	07/20/11 13:29	110.2	104.5	99.8	98.2	☑
23	CCV 4	07/20/11 13:31	110.5	105.2	100.5	100.0	☑
24	CCB 4	07/20/11 13:34	110.6	104.6	100.6	98.4	☑
25	MKPL1	07/20/11 13:36	102.3	102.0	121.1	100.9	☑
26	MKPL1P5	07/20/11 13:39	102.6	105.6	114.6	104.2	☐
27	MKPL1X	07/20/11 13:41	99.2	99.5	111.0	98.4	☑
28	MKPL1Z	07/20/11 13:44	99.8	99.6	111.0	98.3	☑
29	MKPL6	07/20/11 13:47	105.7	105.2	119.4	102.5	☑
30	MKPL8	07/20/11 13:49	105.8	105.3	123.3	101.9	☑
31	MKPL9	07/20/11 13:52	109.6	109.3	127.9	105.3	☑
32	MKPME	07/20/11 13:54	109.0	108.8	123.9	105.0	☑
33	CCV 5	07/20/11 13:57	104.5	106.7	101.2	102.4	☑
34	CCB 5	07/20/11 13:59	105.8	109.0	104.4	104.1	☑
35	CCV 6	07/20/11 14:02	101.3	103.5	96.2	99.8	☑
36	CCB 6	07/20/11 14:05	100.0	102.9	94.8	98.6	☑
37	MKXRJ	07/20/11 14:07	99.4	101.2	101.4	97.3	☑
38	MKXRJP5	07/20/11 14:10	96.6	99.4	93.2	96.0	☐
39	MKXRJX	07/20/11 14:12	97.4	100.3	97.5	96.1	☑
40	MKXRJZ	07/20/11 14:15	92.5	96.6	90.8	92.9	☑
41	MKXRK	07/20/11 14:18	92.0	96.3	86.3	93.8	☑
42	MKXRM	07/20/11 14:20	92.2	97.7	87.4	94.5	☑
43	MKXRN	07/20/11 14:23	87.3	93.0	79.7	90.9	☑
44	MKXRP	07/20/11 14:25	86.0	92.3	78.2	90.4	☑
45	CCV 7	07/20/11 14:28	76.9	84.3	63.6	86.0	☑
46	CCB 7	07/20/11 14:30	76.7	85.0	61.9	84.5	☑

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 (M02) Reported: 07/21/11 14:04:11

File ID: 110720A2 Analyst: jonesb

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
49	CCV 8	07/20/11 14:41	99.7	98.2	101.2	100.0	☑
50	CCB 8	07/20/11 14:43	96.4	95.8	96.2	96.0	☑
51	MKXRJ	07/20/11 14:46	105.7	103.6	118.6	104.3	☑
52	MKXRJP5	07/20/11 14:49	99.1	98.2	100.8	99.0	☐
53	MKXRJX	07/20/11 14:51	104.4	104.0	117.6	104.1	☑
54	MKXRJZ	07/20/11 14:54	100.1	99.9	113.2	101.5	☑
55	MKXRK	07/20/11 14:56	100.5	100.7	111.4	102.0	☑
56	MKXRM	07/20/11 14:59	96.4	96.5	109.5	98.6	☑
57	MKXRN	07/20/11 15:02	97.5	98.0	111.7	100.2	☑
58	MKXRP	07/20/11 15:04	96.5	96.9	111.4	99.9	☑
59	CCV 9	07/20/11 15:07	84.7	85.6	94.9	89.3	☑
60	CCB 9	07/20/11 15:09	69.9	69.4	74.6	71.9	☐
63	CCV 10	07/20/11 15:24	119.8	122.1	125.1	122.3	☑
64	CCB 10	07/20/11 15:27	93.1	90.5	98.1	93.0	☑
67	CCV 11	07/20/11 15:33	118.5	128.6	120.6	123.5	☑
68	CCB 11	07/20/11 15:36	131.2	139.9	128.0	133.0	☐
71	CCV 12	07/20/11 15:39	89.7	91.9	93.7	92.1	☑
72	CCB 12	07/20/11 15:41	100.2	101.5	100.9	101.4	☑
73	MKXRK	07/20/11 15:44	110.6	110.2	116.1	112.8	☑
74	MKXRM	07/20/11 15:46	104.2	103.2	110.8	105.6	☑
75	MKXRN	07/20/11 15:49	104.5	103.6	111.6	106.0	☑
76	MKXRP	07/20/11 15:52	102.8	101.6	112.0	105.3	☑
77	CCV 13	07/20/11 15:54	91.2	93.8	101.1	95.9	☑
78	CCB 13	07/20/11 15:57	90.8	95.8	100.1	96.4	☑
81	CCV 14	07/20/11 15:59	96.5	95.6	98.1	95.7	☑
82	CCB 14	07/20/11 16:02	95.2	94.3	95.7	93.2	☑
83	MKXRJ	07/20/11 16:04	108.5	102.9	107.7	105.9	☑
84	MKXRJP5	07/20/11 16:07	101.3	98.9	99.8	100.2	☐
85	MKXRJX	07/20/11 16:10	102.6	99.1	104.3	101.7	☑
86	MKXRJZ	07/20/11 16:12	101.6	99.3	107.8	103.2	☑
87	CCV 15	07/20/11 16:15	87.9	85.2	93.8	85.8	☑
88	CCB 15	07/20/11 16:17	89.2	88.8	93.9	88.0	☑

Metals ICP/MS Tune

Instrument Tuning Report

File Name: Default.tun

Sample Information

Sample Date/Time: Monday, July 18, 2011 11:00:41

Sample ID: TUNE SHARGRAVE

Analyte	Exact Mass	Meas. Mass	Mass DAC	Meas. Pk. Width	Res. DAC	Custom Res.
Li	7.016	7.025	1562	0.722	2027	
Be	9.012	9.075	2076	0.720	2022	
Mg	23.985	23.925	5711	0.726	1993	
Co	58.933	58.925	14246	0.732	1942	
In	114.904	114.875	27915	0.725	1924	
Ce	139.905	139.925	33990	0.729	1972	
Tl	204.975	204.975	49708	0.722	2174	
Pb	207.977	207.975	50430	0.720	2193	
U	238.050	238.075	57656	0.712	2350	

Elan 6000 Instrument Optomization Report

File Name default.dac
Path D:\Elandata\Optimize\default.dac

Sample Information

Sample Date/Time: Monday, July 18, 2011 11:00:41
Sample ID: TUNE SHARGRAVE

Parameter Settings

Nebulizer Gas Flow	0.9
Lens Voltage	6.8
ICP RF Power	1100.0
Analog Stage Voltage	-1875.0
Pulse Stage Voltage	1000.0
Discriminator Threshold	70.0
AC Rod Offset	-7.0
Service DAC 1	60.0
Quadrupole Rod Offset	0.0
Differential Aperture	0.0

AutoLens Calibration

Date:	7/18/2011 11:07:59 AM
Sample Filename:	D:\Elandata\DataSet\110718a2\AutoLens.003
Dataset Pathname:	110718a2\
Lens Voltage Start:	V
Lens Voltage End:	V
Lens Voltage Step:	V
Slope:	0.0166
Intercept:	5.9856

Analyte	Mass	Optimum Voltage	Maximum Intensity	# Points
Be	9.012	6.3 V	4852 cps	15
Co	58.933	6.8 V	119775 cps	15
In	114.904	8.0 V	308650 cps	15

Dual Detector Calibration

Date:	7/11/2011 1:37:44 PM
Sample Filename:	D:\Elandata\DataSet\Dual Detector Calibration\Dual Detector Calibration.856
Dataset Pathname:	Dual Detector Calibration\
Points Acquired:	45
Lens Voltage Start:	2.00 V
Lens Voltage End:	13.00 V
Lens Voltage Step:	0.25 V

Analyte	Mass	Gain	N(max)
Li	6.015	16986	7.37e+008 cps
Li	7.016	15959	7.84e+008 cps
Be	9.012	15035	8.33e+008 cps
B	11.009	15407	8.13e+008 cps

Na	22.990	15256	8.21e+008 cps
Mg	23.985	14656	8.54e+008 cps
Mg	24.986	14242	8.79e+008 cps
Al	26.982	14126	8.86e+008 cps
P	30.994	13304	9.41e+008 cps
K	38.964	13096	9.56e+008 cps
Ca	42.959	12778	9.80e+008 cps
Ca	43.956	13210	9.48e+008 cps
Sc	44.956		cps
V	50.944	12979	9.65e+008 cps
Cr	51.941	12743	9.82e+008 cps
Fe	53.940	12522	1.00e+009 cps
Mn	54.938	12553	9.97e+008 cps
Fe	56.935	12100	1.03e+009 cps
Co	58.933	12361	1.01e+009 cps
Ni	59.933	12213	1.03e+009 cps
Cu	62.930	12128	1.03e+009 cps
Cu	64.928	11820	1.06e+009 cps
Zn	67.925	11949	1.05e+009 cps
Ge	71.922	12050	1.04e+009 cps
As	74.922	11740	1.07e+009 cps
Se	77.917	12067	1.04e+009 cps
Br	78.918		cps
Se	81.917	11660	1.07e+009 cps
Sr	87.906	12022	1.04e+009 cps
Mo	96.906	11774	1.06e+009 cps
Ag	106.905	11102	1.13e+009 cps
Ag	108.905	11188	1.12e+009 cps
Cd	110.904	11247	1.11e+009 cps
Cd	113.904	11570	1.08e+009 cps
In	114.904	11609	1.08e+009 cps
Sn	117.902	11619	1.08e+009 cps
Sb	120.904	11497	1.09e+009 cps
Ba	134.906	11161	1.12e+009 cps
Tm	168.934	11510	1.09e+009 cps
Tl	204.975	11264	1.11e+009 cps
Pb	207.977	11301	1.11e+009 cps
Bi	208.980		cps
U	238.050	12346	1.01e+009 cps

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, July 18, 2011 11:09:51
Sample Description:
Sample File: D:\Elandata\Sample\1194157X.sam
Method File: D:\Elandata\Method\000-DAILY_EPA-FAST.mth
Dataset File: D:\Elandata\DataSet\110718a2\Daily Performance Check.004
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. RSD
	Mg	24	44169.635	1.560
	Rh	103	208144.733	1.274
	Pb	208	194587.874	1.218
⌈>	Ba	138	253846.559	1.540
⌊	Ba++	69	0.027	1.404
⌈>	Ce	140	315474.972	1.079
⌊	CeO	156	0.012	1.082
	Bkgd	220	5.429	22.017
	Li	7	10826.446	2.641
	Be	9	3755.348	3.260
	Co	59	107674.283	1.375
	In	115	291136.780	1.568
	Tl	205	266065.841	1.612

Instrument Tuning Report

File Name: Default.tun

Sample Information

Sample Date/Time: Tuesday, July 19, 2011 14:07:07
Sample ID: TUNE SHARGRAVE

Analyte	Exact Mass	Meas. Mass	Mass DAC	Meas. Pk. Width	Res. DAC	Custom Res.
Li	7.016	7.025	1564	0.724	2027	
Be	9.012	8.975	2067	0.704	2022	
Mg	23.985	23.975	5708	0.731	1993	
Co	58.933	58.975	14256	0.737	1942	
In	114.904	114.925	27920	0.731	1924	
Ce	139.905	139.925	33994	0.729	1972	
Tl	204.975	204.975	49708	0.723	2174	
Pb	207.977	207.975	50429	0.721	2193	
U	238.050	237.975	57637	0.703	2350	

Elan 6000 Instrument Optomization Report

File Name default.dac
Path D:\Elandata\Optimize\default.dac

Sample Information

Sample Date/Time: Tuesday, July 19, 2011 14:07:07
Sample ID: TUNE SHARGRAVE

Parameter Settings

Nebulizer Gas Flow	0.9
Lens Voltage	6.8
ICP RF Power	1100.0
Analog Stage Voltage	-1875.0
Pulse Stage Voltage	1000.0
Discriminator Threshold	70.0
AC Rod Offset	-7.0
Service DAC 1	60.0
Quadrupole Rod Offset	0.0
Differential Aperture	0.0

AutoLens Calibration

Date: 7/19/2011 2:10:35 PM
Sample Filename: D:\Elandata\DataSet\110719a2\AutoLens.001
Dataset Pathname: 110719a2\

Lens Voltage Start: V
Lens Voltage End: V
Lens Voltage Step: V
Slope: 0.0143
Intercept: 6.2099

Analyte	Mass	Optimum Voltage	Maximum Intensity	# Points
Be	9.012	6.5 V	4289 cps	17
Co	58.933	6.8 V	109806 cps	17
In	114.904	8.0 V	276078 cps	17

Dual Detector Calibration

Date: 7/11/2011 1:37:44 PM
Sample Filename: D:\Elandata\DataSet\Dual Detector Calibration\Dual Detector Calibration.856
Dataset Pathname: Dual Detector Calibration\

Points Acquired: 45
Lens Voltage Start: 2.00 V
Lens Voltage End: 13.00 V
Lens Voltage Step: 0.25 V

Analyte	Mass	Gain	N(max)
Li	6.015	16986	7.37e+008 cps
Li	7.016	15959	7.84e+008 cps
Be	9.012	15035	8.33e+008 cps
B	11.009	15407	8.13e+008 cps

Na	22.990	15256	8.21e+008 cps
Mg	23.985	14656	8.54e+008 cps
Mg	24.986	14242	8.79e+008 cps
Al	26.982	14126	8.86e+008 cps
P	30.994	13304	9.41e+008 cps
K	38.964	13096	9.56e+008 cps
Ca	42.959	12778	9.80e+008 cps
Ca	43.956	13210	9.48e+008 cps
Sc	44.956		cps
V	50.944	12979	9.65e+008 cps
Cr	51.941	12743	9.82e+008 cps
Fe	53.940	12522	1.00e+009 cps
Mn	54.938	12553	9.97e+008 cps
Fe	56.935	12100	1.03e+009 cps
Co	58.933	12361	1.01e+009 cps
Ni	59.933	12213	1.03e+009 cps
Cu	62.930	12128	1.03e+009 cps
Cu	64.928	11820	1.06e+009 cps
Zn	67.925	11949	1.05e+009 cps
Ge	71.922	12050	1.04e+009 cps
As	74.922	11740	1.07e+009 cps
Se	77.917	12067	1.04e+009 cps
Br	78.918		cps
Se	81.917	11660	1.07e+009 cps
Sr	87.906	12022	1.04e+009 cps
Mo	96.906	11774	1.06e+009 cps
Ag	106.905	11102	1.13e+009 cps
Ag	108.905	11188	1.12e+009 cps
Cd	110.904	11247	1.11e+009 cps
Cd	113.904	11570	1.08e+009 cps
In	114.904	11609	1.08e+009 cps
Sn	117.902	11619	1.08e+009 cps
Sb	120.904	11497	1.09e+009 cps
Ba	134.906	11161	1.12e+009 cps
Tm	168.934	11510	1.09e+009 cps
Tl	204.975	11264	1.11e+009 cps
Pb	207.977	11301	1.11e+009 cps
Bi	208.980		cps
U	238.050	12346	1.01e+009 cps

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Tuesday, July 19, 2011 14:23:41
Sample Description:
Sample File: D:\Elandata\Sample\1168045X.sam
Method File: D:\Elandata\Method\000-DAILY_EPA-FAST.mth
Dataset File: D:\Elandata\DataSet\110719a2\Daily Performance Check.003
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. RSD
	Mg	24	51088.031	1.529
	Rh	103	226913.885	1.605
	Pb	208	207693.700	1.200
⌈>	Ba	138	279126.226	0.935
⌊	Ba++	69	0.030	0.467
⌈>	Ce	140	349125.496	1.242
⌊	CeO	156	0.013	3.713
	Bkgd	220	5.429	60.009
	Li	7	13688.875	2.456
	Be	9	4443.086	1.588
	Co	59	121794.392	1.953
	In	115	319892.846	0.986
	Tl	205	289476.554	1.235

Instrument Tuning Report

File Name: Default.tun

Sample Information

Sample Date/Time: Wednesday, July 20, 2011 10:29:14

Sample ID: TUNE SHARGRAVE

Analyte	Exact Mass	Meas. Mass	Mass DAC	Meas. Pk. Width	Res. DAC	Custom Res.
Li	7.016	7.025	1566	0.731	2027	
Be	9.012	8.975	2058	0.723	2022	
Mg	23.985	24.025	5717	0.696	1993	
Co	58.933	58.975	14266	0.723	1942	
In	114.904	114.925	27925	0.720	1924	
Ce	139.905	139.875	33986	0.721	1972	
Tl	204.975	204.975	49708	0.714	2174	
Pb	207.977	207.975	50428	0.706	2193	
U	238.050	238.125	57655	0.705	2350	

Elan 6000 Instrument Optomization Report

File Name default.dac
Path D:\Elandata\Optimize\default.dac

Sample Information

Sample Date/Time: Wednesday, July 20, 2011 10:29:14
Sample ID: TUNE SHARGRAVE

Parameter Settings

Nebulizer Gas Flow	0.9
Lens Voltage	6.8
ICP RF Power	1100.0
Analog Stage Voltage	-1875.0
Pulse Stage Voltage	1000.0
Discriminator Threshold	70.0
AC Rod Offset	-7.0
Service DAC 1	60.0
Quadrupole Rod Offset	0.0
Differential Aperture	0.0

AutoLens Calibration

Date: 7/20/2011 11:26:35 AM
Sample Filename: D:\Elandata\DataSet\AutoLens.001
Dataset Pathname:

Lens Voltage Start: V
Lens Voltage End: V
Lens Voltage Step: V
Slope: 0.0143
Intercept: 5.9599

Analyte	Mass	Optimum Voltage	Maximum Intensity	# Points
Be	9.012	6.3 V	4245 cps	17
Co	58.933	6.5 V	104610 cps	17
In	114.904	7.8 V	267553 cps	17

Dual Detector Calibration

Date: 7/11/2011 1:37:44 PM
Sample Filename: D:\Elandata\DataSet\Dual Detector Calibration\Dual Detector Calibration.856
Dataset Pathname: Dual Detector Calibration\

Points Acquired: 45
Lens Voltage Start: 2.00 V
Lens Voltage End: 13.00 V
Lens Voltage Step: 0.25 V

Analyte	Mass	Gain	N(max)
Li	6.015	16986	7.37e+008 cps
Li	7.016	15959	7.84e+008 cps
Be	9.012	15035	8.33e+008 cps
B	11.009	15407	8.13e+008 cps

Na	22.990	15256	8.21e+008 cps
Mg	23.985	14656	8.54e+008 cps
Mg	24.986	14242	8.79e+008 cps
Al	26.982	14126	8.86e+008 cps
P	30.994	13304	9.41e+008 cps
K	38.964	13096	9.56e+008 cps
Ca	42.959	12778	9.80e+008 cps
Ca	43.956	13210	9.48e+008 cps
Sc	44.956		cps
V	50.944	12979	9.65e+008 cps
Cr	51.941	12743	9.82e+008 cps
Fe	53.940	12522	1.00e+009 cps
Mn	54.938	12553	9.97e+008 cps
Fe	56.935	12100	1.03e+009 cps
Co	58.933	12361	1.01e+009 cps
Ni	59.933	12213	1.03e+009 cps
Cu	62.930	12128	1.03e+009 cps
Cu	64.928	11820	1.06e+009 cps
Zn	67.925	11949	1.05e+009 cps
Ge	71.922	12050	1.04e+009 cps
As	74.922	11740	1.07e+009 cps
Se	77.917	12067	1.04e+009 cps
Br	78.918		cps
Se	81.917	11660	1.07e+009 cps
Sr	87.906	12022	1.04e+009 cps
Mo	96.906	11774	1.06e+009 cps
Ag	106.905	11102	1.13e+009 cps
Ag	108.905	11188	1.12e+009 cps
Cd	110.904	11247	1.11e+009 cps
Cd	113.904	11570	1.08e+009 cps
In	114.904	11609	1.08e+009 cps
Sn	117.902	11619	1.08e+009 cps
Sb	120.904	11497	1.09e+009 cps
Ba	134.906	11161	1.12e+009 cps
Tm	168.934	11510	1.09e+009 cps
Tl	204.975	11264	1.11e+009 cps
Pb	207.977	11301	1.11e+009 cps
Bi	208.980		cps
U	238.050	12346	1.01e+009 cps

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, July 20, 2011 11:42:18
Sample Description:
Sample File: D:\Elandata\Sample\1168045X.sam
Method File: D:\Elandata\Method\000-DAILY_EPA-FAST.mth
Dataset File: D:\Elandata\DataSet\110720a2\Daily Performance Check.005
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. RSD
	Mg	24	56701.025	3.559
	Rh	103	254656.366	2.310
	Pb	208	253400.249	2.302
⌈>	Ba	138	329786.556	1.702
⌊	Ba++	69	0.026	1.794
⌈>	Ce	140	410184.536	2.037
⌊	CeO	156	0.014	4.418
	Bkgd	220	1.714	108.653
	Li	7	14727.927	2.709
	Be	9	4657.765	2.941
	Co	59	131798.775	1.829
	In	115	365045.644	2.207
	Tl	205	355177.642	2.081

Metals Raw Data

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICP-MS Data Review Checklist
Level I and Level II

Instrument ID (Circle one): **M01** **M02**			Method 6020 SOP SAC-MT-0001
File Number	Batch Numbers	Date	Analyst
110718A2	1196180, 1195193, 1195192	7-18-11	SH

Lot Numbers: G1G050412, G1G010441	YES	NO	NA
1. Copy of analysis protocol used included?	✓		
IS Recovery (Raw Data Value / Upload Data Value)	✓		
2. ICVs & CCVs within 10% of true value or recal and rerun?	✓		
3. ICB & CCBs < reporting limit or recal and rerun?	✓		
4. 10 samples or less analyzed between calibration checks?	✓		
5. All parameters within linear range?	✓		
6. LCS/LCSD within limits?	✓		
7. Prep blank value < reporting limit or all samples >20x blank?	✓		
8. Internal standard intensities for samples (unless followed by dilution) are > 30% and <120% of the Calibration Blank intensities?	✓		
9. Appropriate dilution factors applied to data?	✓		
10. Matrix spike and spike dup within customer defined limits?			✓
11. Each batch checked for presence of internal standard in samples?	✓		
12. Anomalies entered using Clouseau?			✓

COMMENTS: G1G050412 - MS/MSD - rerun for all elements missed to spike. rerun G1G050412 - 1, MS/MSD, 2, 5, 7 for all elements. ESB

REVIEWED BY: JRB	DATA ENTERED BY: SH
DATE: 7/19/11	DATE: 7-19-11

q:\forms\checklists\qa-427 icpms review.doc QA-427 RKE 1/28/2011

Dataset Report

Perkin Elmer M02
SOP No. WS-MT-0001
Method: 6020,200.8

User Name: metal
Computer Name: TAISAC-M02
Dataset File Path: D:\Elandata\DataSet\110718a2\
Report Date/Time: Tuesday, July 19, 2011 10:53:54

The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Description
	TUNE SHARGRAVE	11:00:41 Mon 18-Jul-11	Sample	
SmartTune - AutoLe	AutoLens	11:07:59 Mon 18-Jul-11	Sample	
SmartTune - Daily F	Daily Performance Ch	11:09:51 Mon 18-Jul-11	Sample	
	Rinse 3X	13:25:05 Mon 18-Jul-11	Sample	
	Blank	13:27:27 Mon 18-Jul-11	Blank	
	Standard 1	13:29:43 Mon 18-Jul-11	Standard #1	
	ICV	13:32:00 Mon 18-Jul-11	Sample	
	ICB	13:40:00 Mon 18-Jul-11	Sample	
	LLSTD1	14:03:41 Mon 18-Jul-11	Sample	LLSTD@10X
	LLSTD2	14:06:57 Mon 18-Jul-11	Sample	LLSTD@5X
	ICSA	14:13:50 Mon 18-Jul-11	Sample	
	ICSAB	14:17:06 Mon 18-Jul-11	Sample	
	Rinse	14:45:05 Mon 18-Jul-11	Sample	
	CCV 1	14:52:02 Mon 18-Jul-11	Sample	
	CCB 1 > Recal	14:55:17 Mon 18-Jul-11	Sample	
	CCV 2	14:58:34 Mon 18-Jul-11	Sample	
	CCB 2	15:01:50 Mon 18-Jul-11	Sample	
1196180	MK0GAB	15:05:06 Mon 18-Jul-11	Sample	G1G150000-180 BLK
1196180	MK0GAC	15:08:23 Mon 18-Jul-11	Sample	G1G150000-180 LCS
1196180	MK0GAL	15:11:40 Mon 18-Jul-11	Sample	G1G150000-180 LCSD
1195193	MKXL7B	15:14:56 Mon 18-Jul-11	Sample	G1G140000-193 BLK
1195193	MKXL7C	15:18:13 Mon 18-Jul-11	Sample	G1G140000-193 LCS
1195193	MKXL7L	15:21:30 Mon 18-Jul-11	Sample	G1G140000-193 LCSD → 1 Pb remov
1195192	MKXL3B	15:24:47 Mon 18-Jul-11	Sample	G1G140000-192 BLK
1195192	MKXL3C	15:28:05 Mon 18-Jul-11	Sample	G1G140000-192 LCS
1195192	MKXL3L	15:31:21 Mon 18-Jul-11	Sample	G1G140000-192 LCSD
	CCV 3	15:34:38 Mon 18-Jul-11	Sample	
	CCB 3 > Recal	15:36:59 Mon 18-Jul-11	Sample	
	CCV 4	15:45:47 Mon 18-Jul-11	Sample	
	CCB 4	15:48:08 Mon 18-Jul-11	Sample	
1196180	MKMWV	15:50:29 Mon 18-Jul-11	Sample	G1G050412-2
1196180	MKMWVP5	15:52:49 Mon 18-Jul-11	Sample	G1G050412-2 5X
1196180	MKMWVS	15:55:10 Mon 18-Jul-11	Sample	G1G050412-2 MS
1196180	MKMWVD	15:57:31 Mon 18-Jul-11	Sample	G1G050412-2 SD > not spiked remov
1196180	MKMW0	15:59:51 Mon 18-Jul-11	Sample	G1G050412-4
1196180	MKMXC	16:02:12 Mon 18-Jul-11	Sample	G1G050412-6
1196180	MKMXF	16:04:33 Mon 18-Jul-11	Sample	G1G050412-8
	CCV 5	16:06:55 Mon 18-Jul-11	Sample	
	CCB 5	16:09:16 Mon 18-Jul-11	Sample	
	CCV 6	16:11:37 Mon 18-Jul-11	Sample	
	CCB 6	16:13:58 Mon 18-Jul-11	Sample	
1195192	MKL51	16:16:21 Mon 18-Jul-11	Sample	G1G010441-10
1195192	MKL53	16:18:41 Mon 18-Jul-11	Sample	G1G010441-11
1195192	MKL55	16:21:02 Mon 18-Jul-11	Sample	G1G010441-12
1195192	MKL56	16:23:23 Mon 18-Jul-11	Sample	G1G010441-13
1195192	MKL6E	16:25:43 Mon 18-Jul-11	Sample	G1G010441-14
1195192	MKL6G	16:28:04 Mon 18-Jul-11	Sample	G1G010441-15

	CCV 7	16:30:26 Mon 18-Jul-11	Sample	
	CCB 7	16:32:47 Mon 18-Jul-11	Sample	
	CCV 8	16:35:09 Mon 18-Jul-11	Sample	
	CCB 8	16:37:29 Mon 18-Jul-11	Sample	
1195192	MKL5N	16:39:51 Mon 18-Jul-11	Sample	G1G010441-7
1195192	MKL5NP5	16:42:12 Mon 18-Jul-11	Sample	G1G010441-7 5X
1195192	MKL5NX	16:44:33 Mon 18-Jul-11	Sample	G1G010441-7 DU
1195192	MKL5NZ	16:46:53 Mon 18-Jul-11	Sample	G1G010441-7 PS
1195192	MKL5R	16:49:14 Mon 18-Jul-11	Sample	G1G010441-8
1195192	MKL5V	16:51:34 Mon 18-Jul-11	Sample	G1G010441-9
	CCV 9	16:53:57 Mon 18-Jul-11	Sample	
	CCB 9	16:56:18 Mon 18-Jul-11	Sample	
	CCV 10	16:58:39 Mon 18-Jul-11	Sample	
	CCB 10	17:01:00 Mon 18-Jul-11	Sample	
1195193	MKMWN	17:03:22 Mon 18-Jul-11	Sample	G1G050412-1
1195193	MKMWNP5	17:05:43 Mon 18-Jul-11	Sample	G1G050412-1 5X
1195193	MKMWNS	17:08:03 Mon 18-Jul-11	Sample	G1G050412-1 MS
1195193	MKMWND	17:10:24 Mon 18-Jul-11	Sample	G1G050412-1 SD
1195193	MKMWW	17:12:45 Mon 18-Jul-11	Sample	G1G050412-3
1195193	MKMW6	17:15:05 Mon 18-Jul-11	Sample	G1G050412-5
1195193	MKMXD	17:17:26 Mon 18-Jul-11	Sample	G1G050412-7
	CCV 11	17:19:48 Mon 18-Jul-11	Sample	
	CCB 11	17:22:09 Mon 18-Jul-11	Sample	
	CCV 12	17:24:30 Mon 18-Jul-11	Sample	
	CCB 12	17:26:50 Mon 18-Jul-11	Sample	
1195193	MKMWN	17:29:13 Mon 18-Jul-11	Sample	G1G050412-1
1195193	MKMWNP5	17:31:33 Mon 18-Jul-11	Sample	G1G050412-1 5X
1195193	MKMWNS	17:33:54 Mon 18-Jul-11	Sample	G1G050412-1 MS
1195193	MKMWND	17:36:15 Mon 18-Jul-11	Sample	G1G050412-1 SD
1195193	MKMWW	17:38:35 Mon 18-Jul-11	Sample	G1G050412-3
1195193	MKMW6	17:40:56 Mon 18-Jul-11	Sample	G1G050412-5
1195193	MKMXD	17:43:16 Mon 18-Jul-11	Sample	G1G050412-7
	CCV 13	17:45:39 Mon 18-Jul-11	Sample	
	CCB 13	17:47:59 Mon 18-Jul-11	Sample	

TAL West Sac

RUN SUMMARY

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/19/11 13:07:46

File ID: 110718A2 Analyst: hargraves

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
1	Rinse 3X				3.0	07/18/11 13:25		
2	Blank				1.0	07/18/11 13:27		
3	Standard1				1.0	07/18/11 13:29		
4	ICV				1.0	07/18/11 13:32		
5	ICB				1.0	07/18/11 13:40		
6	LLSTD1				1.0	07/18/11 14:03		
7	LLSTD2				1.0	07/18/11 14:06		
8	ICSA				1.0	07/18/11 14:13		
9	ICSAB				1.0	07/18/11 14:17		
10	Rinse				1.0	07/18/11 14:45		
11	CCV 1				1.0	07/18/11 14:52		
12	CCB 1				1.0	07/18/11 14:55		
15	CCV 2				1.0	07/18/11 14:58		
16	CCB 2				1.0	07/18/11 15:01		
17	MK0GAB	G1G150000	1196180	DF	1.0	07/18/11 15:05		
18	MK0GAC	G1G150000	1196180	DF	1.0	07/18/11 15:08		
19	MK0GAL	G1G150000	1196180	DF	1.0	07/18/11 15:11		
20	MKXL7B	G1G140000	1195193	DE	1.0	07/18/11 15:14		
21	MKXL7C	G1G140000	1195193	DE	1.0	07/18/11 15:18		
22	MKXL7L	G1G140000	1195193	DE	1.0	07/18/11 15:21		
23	MKXL3B	G1G140000	1195192	EC	1.0	07/18/11 15:24		
24	MKXL3C	G1G140000	1195192	EC	1.0	07/18/11 15:28		
25	MKXL3L	G1G140000	1195192	EC	1.0	07/18/11 15:31		
26	CCV 3				1.0	07/18/11 15:34		
27	CCB 3				1.0	07/18/11 15:36		
30	CCV 4				1.0	07/18/11 15:45		
31	CCB 4				1.0	07/18/11 15:48		
32	MKMWV	G1G050412-2	1196180	DF	1.0	07/18/11 15:50		
33	MKMWVP5	G1G050412	1196180		5.0	07/18/11 15:52		
34	MKMWVS	G1G050412-2	1196180	DF	1.0	07/18/11 15:55		
35	MKMWVD	G1G050412-2	1196180	DF	1.0	07/18/11 15:57		
36	MKMW0	G1G050412-4	1196180	DF	1.0	07/18/11 15:59		
37	MKMXC	G1G050412-6	1196180	DF	1.0	07/18/11 16:02		
38	MKMXF	G1G050412-8	1196180	DF	1.0	07/18/11 16:04		
39	CCV 5				1.0	07/18/11 16:06		
40	CCB 5				1.0	07/18/11 16:09		
41	CCV 6				1.0	07/18/11 16:11		
42	CCB 6				1.0	07/18/11 16:13		
43	MKL51	G1G010441-10	1195192	EC	1.0	07/18/11 16:16		
44	MKL53	G1G010441-11	1195192	EC	1.0	07/18/11 16:18		
45	MKL55	G1G010441-12	1195192	EC	1.0	07/18/11 16:21		
46	MKL56	G1G010441-13	1195192	EC	1.0	07/18/11 16:23		
47	MKL6E	G1G010441-14	1195192	EC	1.0	07/18/11 16:25		
48	MKL6G	G1G010441-15	1195192	EC	1.0	07/18/11 16:28		
49	CCV 7				1.0	07/18/11 16:30		
50	CCB 7				1.0	07/18/11 16:32		

TAL West Sac

RUN SUMMARY

Method: 6020 (SOP: SAC-MT-001) | Instrument: M02 | Reported: 07/19/11 13:07:46

File ID: 110718A2 Analyst: hargraves

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
51	CCV 8				1.0	07/18/11 16:35		☐
52	CCB 8				1.0	07/18/11 16:37		☐
53	MKL5N	G1G010441-7	1195192	EC	1.0	07/18/11 16:39		☐
54	MKL5NP5	G1G010441	1195192		5.0	07/18/11 16:42		☐
55	MKL5NX	G1G010441-7	1195192	EC	1.0	07/18/11 16:44		☐
56	MKL5NZ	G1G010441-7	1195192		1.0	07/18/11 16:46		☐
57	MKL5R	G1G010441-8	1195192	EC	1.0	07/18/11 16:49		☐
58	MKL5V	G1G010441-9	1195192	EC	1.0	07/18/11 16:51		☐
59	CCV 9				1.0	07/18/11 16:53		☐
60	CCB 9				1.0	07/18/11 16:56		☐

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) | M02 (M02) | Reported: 07/19/11 13:07:46

File ID: 110718A2 | Analyst: hargraves

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
1	Rinse 3X	07/18/11 13:25	102.8	104.5	106.0	104.1	☐
2	Blank	07/18/11 13:27	100.0	100.0	100.0	100.0	☑
3	Standard1	07/18/11 13:29	101.7	101.8	104.9	104.4	☑
4	ICV	07/18/11 13:32	103.2	104.2	105.3	105.9	☑
5	ICB	07/18/11 13:40	102.7	103.4	104.8	104.1	☑
6	LLSTD1	07/18/11 14:03	100.8	101.0	104.8	102.5	☑
7	LLSTD2	07/18/11 14:06	102.1	102.2	105.2	103.7	☑
8	ICSA	07/18/11 14:13	89.9	92.1	96.8	89.8	☑
9	ICSAB	07/18/11 14:17	93.7	95.2	98.9	91.2	☑
10	Rinse	07/18/11 14:45	108.8	104.3	103.7	103.0	☑
11	CCV 1	07/18/11 14:52	107.3	104.5	104.6	104.6	☑
12	CCB 1	07/18/11 14:55	107.3	104.2	103.6	104.0	☑
15	CCV 2	07/18/11 14:58	98.5	99.1	101.3	100.4	☑
16	CCB 2	07/18/11 15:01	101.5	101.5	102.0	101.5	☑
17	MK0GAB	07/18/11 15:05	100.8	106.8	105.6	105.3	☑
18	MK0GAC	07/18/11 15:08	94.5	100.7	99.3	101.3	☑
19	MK0GAL	07/18/11 15:11	93.4	99.6	99.3	101.4	☑
20	MKXL7B	07/18/11 15:14	100.4	103.3	106.9	104.7	☑
21	MKXL7C	07/18/11 15:18	100.7	103.8	109.4	106.1	☑
22	MKXL7L	07/18/11 15:21	97.7	100.4	105.0	102.5	☑
23	MKXL3B	07/18/11 15:24	96.2	101.0	105.8	101.9	☑
24	MKXL3C	07/18/11 15:28	91.9	96.6	100.7	98.6	☑
25	MKXL3L	07/18/11 15:31	94.7	99.7	104.6	101.8	☑
26	CCV 3	07/18/11 15:34	95.7	97.0	106.1	99.5	☑
27	CCB 3	07/18/11 15:36	92.9	95.0	101.4	96.3	☑
30	CCV 4	07/18/11 15:45	101.3	99.6	104.1	101.8	☑
31	CCB 4	07/18/11 15:48	102.8	101.0	102.4	102.0	☑
32	MKMWV	07/18/11 15:50	95.2	99.6	117.8	100.4	☑
33	MKMWVP5	07/18/11 15:52	98.3	100.1	105.3	101.1	☐
34	MKMWVS	07/18/11 15:55	96.9	101.4	122.5	101.1	☑
35	MKMWVD	07/18/11 15:57	95.9	100.6	123.8	100.9	☑
36	MKMW0	07/18/11 15:59	97.2	101.1	126.3	102.1	☑
37	MKMXC	07/18/11 16:02	98.7	102.9	129.6	104.0	☑
38	MKMXF	07/18/11 16:04	99.9	104.6	125.9	105.2	☑
39	CCV 5	07/18/11 16:06	104.4	103.6	110.8	105.6	☑
40	CCB 5	07/18/11 16:09	102.8	102.0	107.4	102.9	☑
41	CCV 6	07/18/11 16:11	103.0	101.8	108.4	104.5	☑
42	CCB 6	07/18/11 16:13	102.9	102.0	108.0	103.2	☑
43	MKL51	07/18/11 16:16	93.6	92.7	115.2	93.7	☑
44	MKL53	07/18/11 16:18	101.5	99.3	120.5	100.0	☑
45	MKL55	07/18/11 16:21	101.4	100.0	116.3	100.2	☑
46	MKL56	07/18/11 16:23	101.0	102.7	115.3	102.2	☑
47	MKL6E	07/18/11 16:25	100.6	101.4	110.3	101.2	☑
48	MKL6G	07/18/11 16:28	105.7	107.4	115.1	106.0	☑
49	CCV 7	07/18/11 16:30	103.0	107.7	104.0	107.2	☑
50	CCB 7	07/18/11 16:32	102.5	109.3	102.2	107.0	☑

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 (M02) Reported: 07/19/11 13:07:46

File ID: 110718A2 **Analyst: hargraves**

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
51	CCV 8	07/18/11 16:35	101.0	107.3	99.4	106.0	☑
52	CCB 8	07/18/11 16:37	100.0	106.8	95.8	103.5	☑
53	MKL5N	07/18/11 16:39	105.3	108.1	110.5	105.9	☑
54	MKL5NP5	07/18/11 16:42	101.6	107.1	107.0	105.6	☐
55	MKL5NX	07/18/11 16:44	106.2	108.8	114.7	106.7	☑
56	MKL5NZ	07/18/11 16:46	103.5	106.9	110.5	103.9	☑
57	MKL5R	07/18/11 16:49	104.7	109.3	110.5	105.4	☑
58	MKL5V	07/18/11 16:51	107.4	112.8	110.4	107.3	☑
59	CCV 9	07/18/11 16:53	103.0	112.9	95.0	109.7	☑
60	CCB 9	07/18/11 16:56	98.0	108.9	89.1	104.7	☑

Quantitative Method Report

File Name: 1195193.mth
File Path: D:\Elandata\Method\1195193.mth

Timing Parameters

Sweeps/Reading:	50
Readings/Replicate:	1
Number of Replicates:	3
Tuning File:	default.tun
Optimization File:	default.dac
QC Enabled:	Yes
Settling Time:	Normal

Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
Sc	44.956	Peak Hopping	1	14.0 ms	700 ms
Li-1	6.015	Peak Hopping	1	14.0 ms	700 ms
Be	9.012	Peak Hopping	1	14.0 ms	700 ms
Ca	43.956	Peak Hopping	1	14.0 ms	700 ms
Cr	51.941	Peak Hopping	1	14.0 ms	700 ms
Mn	54.938	Peak Hopping	1	14.0 ms	700 ms
Co	58.933	Peak Hopping	1	14.0 ms	700 ms
Ni	59.933	Peak Hopping	1	14.0 ms	700 ms
As	74.922	Peak Hopping	1	20.0 ms	1000 ms
Se	81.917	Peak Hopping	1	20.0 ms	1000 ms
Ge-1	71.922	Peak Hopping	1	14.0 ms	700 ms
Cd	110.904	Peak Hopping	1	14.0 ms	700 ms
Sb	120.904	Peak Hopping	1	14.0 ms	700 ms
In-1	114.904	Peak Hopping	1	14.0 ms	700 ms
Pb	207.977	Peak Hopping	1	14.0 ms	700 ms
Tm-1	168.934	Peak Hopping	1	14.0 ms	700 ms
Cr	49.946	Peak Hopping	1	5.0 ms	250 ms
Cr	52.941	Peak Hopping	1	5.0 ms	250 ms
Ni	60.931	Peak Hopping	1	5.0 ms	250 ms
Se	75.919	Peak Hopping	1	5.0 ms	250 ms
Se	76.920	Peak Hopping	1	20.0 ms	1000 ms
Se	77.917	Peak Hopping	1	20.0 ms	1000 ms
Br	78.918	Peak Hopping	1	20.0 ms	1000 ms
Ge	71.922	Peak Hopping	1	14.0 ms	700 ms
Cd	107.904	Peak Hopping	1	5.0 ms	250 ms
Cd	113.904	Peak Hopping	1	14.0 ms	700 ms
In	114.904	Peak Hopping	1	14.0 ms	700 ms
207.977	207.977	Peak Hopping	1	14.0 ms	700 ms
Pb	206.976	Peak Hopping	1	14.0 ms	700 ms
Pb	205.975	Peak Hopping	1	14.0 ms	700 ms
Tm	168.934	Peak Hopping	1	14.0 ms	700 ms
Pd	105.903	Peak Hopping	1	14.0 ms	700 ms
Kr	83.912	Peak Hopping	1	14.0 ms	700 ms

Signal Processing

Detector Mode:	Dual
Measurement Units:	counts

Report Date/Time: Tuesday, July 19, 2011 10:54:27
Page 1

AutoLens:	On
Spectral Peak Processing:	Average
Signal Profile Processing:	Average
Blank Subtraction:	Subtracted after internal standard
Baseline Readings:	0
Smoothing:	Yes, Factor 5

Equations

Analyte	Mass	Corrections
Ni	59.933	-0.005 * Ca 43
As	74.922	-3.1278 * Se 77 + 1.0177 * Se 78
Se	81.917	- 0.00093 * Br 79
Cd	110.904	-1.073 * Pd 108 + 0.712 * Pd 106
In-1	114.904	- 0.014032 * Sn 118
Pb	207.977	+ 1.0 * Pb 207 + 1.0 * Pb 206
Cr	49.946	- 0.739726 * Ti 47 - 0.002506 * V 51
Se	75.919	- 0.268980 * Ge 72
Se	77.917	- 0.030435 * Kr 83
Cd	107.904	- 1.184953 * Pd 105
Cd	113.904	- 0.026826 * Sn 118
In	114.904	- 0.014032 * Sn 118
Pd	105.903	- 0.097656 * Cd 111
Kr	83.912	- 0.006781 * Sr 88

Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Sc	44.956	Linear Thru Zero	ug/L	ug/L				
Li-1	6.015	Linear Thru Zero	ug/L	ug/L				
Be	9.012	Linear Thru Zero	ug/L	ug/L	100			
Ca	43.956	Linear Thru Zero	ug/L	ug/L	5.1e+003			
Cr	51.941	Linear Thru Zero	ug/L	ug/L	100			
Mn	54.938	Linear Thru Zero	ug/L	ug/L	100			
Co	58.933	Linear Thru Zero	ug/L	ug/L	100			
Ni	59.933	Linear Thru Zero	ug/L	ug/L	100			
As	74.922	Linear Thru Zero	ug/L	ug/L	100			
Se	81.917	Linear Thru Zero	ug/L	ug/L	100			
Ge-1	71.922	Linear Thru Zero	ug/L	ug/L				
Cd	110.904	Linear Thru Zero	ug/L	ug/L	100			
Sb	120.904	Linear Thru Zero	ug/L	ug/L	50			
In-1	114.904	Linear Thru Zero	ug/L	ug/L				
Pb	207.977	Linear Thru Zero	ug/L	ug/L	100			
Tm-1	168.934	Linear Thru Zero	ug/L	ug/L				
Cr	49.946	Linear Thru Zero	ug/L	ug/L	100			
Cr	52.941	Linear Thru Zero	ug/L	ug/L	100			
Ni	60.931	Linear Thru Zero	ug/L	ug/L	100			
Se	75.919	Linear Thru Zero	ug/L	ug/L	100			
Se	76.920	Linear Thru Zero	ug/L	ug/L	100			
Se	77.917	Linear Thru Zero	ug/L	ug/L	100			
Br	78.918	Linear Thru Zero	ug/L	ug/L	100			
Ge	71.922	Linear Thru Zero	ug/L	ug/L				
Cd	107.904	Linear Thru Zero	ug/L	ug/L	100			
Cd	113.904	Linear Thru Zero	ug/L	ug/L	100			

In	114.904	Linear Thru Zero	ug/L	ug/L	
207.97	207.977	Linear Thru Zero	ug/L	ug/L	100
Pb	206.976	Linear Thru Zero	ug/L	ug/L	100
Pb	205.975	Linear Thru Zero	ug/L	ug/L	100
Tm	168.934	Linear Thru Zero	ug/L	ug/L	
Pd	105.903	Linear Thru Zero	ug/L	ug/L	
Kr	83.912	Linear Thru Zero	ug/L	ug/L	

Sample ID: Rinse 3X
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 13:25:05
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\Rinse 3X.110
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 6
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3995.921	ug/L	3610.357
>	6	Li-1			1489015.172	ug/L	1404641.470
	9	Be	-0.001707	343.999	1.333	ug/L	1.667
	44	Ca	-3.733547	85.296	20689.258	ug/L	20899.598
	52	Cr	0.192878	6.862	12118.196	ug/L	10564.431
	55	Mn	0.019137	37.352	1333.473	ug/L	1100.428
	59	Co	0.005085	35.202	60.000	ug/L	20.000
	60	Ni	0.026572	28.523	138.458	ug/L	93.069
	75	As	-0.090267	344.643	16237.828	ug/L	15935.446
	82	Se	-0.034624	1803.129	1974.200	ug/L	1926.394
>	72	Ge-1			2366767.646	ug/L	2303294.011
	111	Cd	0.005933	5.562	17.234	ug/L	8.238
	121	Sb	0.011251	7.094	186.336	ug/L	125.001
>	115	In-1			2433443.089	ug/L	2328638.974
	208	Pb	0.008253	41.438	680.682	ug/L	463.673
>	169	Tm-1			2005013.914	ug/L	1926474.668
	50	Cr	0.019165	542.554	-21.883	ug/L	-24.313
	53	Cr	2.502345	46.568	12665.870	ug/L	11614.949
	61	Ni	0.169097	58.390	6.667	ug/L	2.333
	76	Se	-51.755225	210.099	-314224.936	ug/L	-307356.882
	77	Se	5.587644	31.177	6217.126	ug/L	5384.929
	78	Se	-0.127415	975.408	16829.452	ug/L	16423.930
	79	Br	0.211506	869.218	11129.486	ug/L	10779.387
>	72	Ge			2366767.646	ug/L	2303294.011
	108	Cd	0.012630	54.871	5.963	ug/L	4.507
	114	Cd	0.001949	117.712	49.175	ug/L	40.657
>	115	In			2433443.089	ug/L	2328638.974
	208	207.977	0.009483	34.427	374.344	ug/L	247.338
	207	Pb	0.007715	48.398	142.335	ug/L	99.334
	206	Pb	0.006376	66.286	164.002	ug/L	117.001
>	169	Tm			2005013.914	ug/L	1926474.668
	106	Pd			4.217	ug/L	4.096
	84	Kr			6918.545	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		106.007
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.756
	Cd	111		
	Sb	121		
>	In-1	115		104.501
	Pb	208		
>	Tm-1	169		104.077
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.756
	Cd	108		
	Cd	114		
>	In	115		104.501
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		104.077
	Pd	106		
	Kr	84		

Sample ID: Blank
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 13:27:27
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\Blank.111
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3610.357	ug/L	
>	6	Li-1			1404641.470	ug/L	
	9	Be			1.667	ug/L	
	44	Ca			20899.598	ug/L	
	52	Cr			10564.431	ug/L	
	55	Mn			1100.428	ug/L	
	59	Co			20.000	ug/L	
	60	Ni			93.069	ug/L	
	75	As			15935.446	ug/L	
	82	Se			1936.850	ug/L	
>	72	Ge-1			2303294.011	ug/L	
	111	Cd			8.238	ug/L	
	121	Sb			125.001	ug/L	
>	115	In-1			2328638.974	ug/L	
	208	Pb			463.673	ug/L	
>	169	Tm-1			1926474.668	ug/L	
	50	Cr			-24.313	ug/L	
	53	Cr			11614.949	ug/L	
	61	Ni			2.333	ug/L	
	76	Se			-307356.882	ug/L	
	77	Se			5384.929	ug/L	
	78	Se			16423.930	ug/L	
	79	Br			10779.387	ug/L	
>	72	Ge			2303294.011	ug/L	
	108	Cd			4.507	ug/L	
	114	Cd			40.657	ug/L	
>	115	In			2328638.974	ug/L	
	208	207.977			247.338	ug/L	
	207	Pb			99.334	ug/L	
	206	Pb			117.001	ug/L	
>	169	Tm			1926474.668	ug/L	
	106	Pd			4.096	ug/L	
	84	Kr			6901.796	ug/L	

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	As	75	
	Se	82	
>	Ge-1	72	
	Cd	111	
	Sb	121	
>	In-1	115	
	Pb	208	
>	Tm-1	169	
	Cr	50	
	Cr	53	
	Ni	61	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	
	Cd	108	
	Cd	114	
>	In	115	
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	
	Pd	106	
	Kr	84	

Sample ID: Standard 1

Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 13:29:43
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\Standard 1.112
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3824.482	ug/L	3610.357
>	6	Li-1			1473337.691	ug/L	1404641.470
	9	Be	100.000000	0.828	25434.415	ug/L	1.667
	44	Ca	5100.000000	1.250	1079179.243	ug/L	20899.598
	52	Cr	100.000000	0.417	658239.430	ug/L	10564.431
	55	Mn	100.000000	1.101	1047652.164	ug/L	1100.428
	59	Co	100.000000	0.889	768876.432	ug/L	20.000
	60	Ni	100.000000	0.915	159579.145	ug/L	93.069
	75	As	100.000000	1.960	163513.022	ug/L	15935.446
	82	Se	100.000000	2.305	15665.381	ug/L	1936.850
>	72	Ge-1			2341666.056	ug/L	2303294.011
	111	Cd	100.000000	1.680	141626.817	ug/L	8.238
	121	Sb	50.000000	1.572	241219.872	ug/L	125.001
>	115	In-1			2370654.206	ug/L	2328638.974
	208	Pb	100.000000	1.400	2414040.461	ug/L	463.673
>	169	Tm-1			2011353.023	ug/L	1926474.668
	50	Cr	100.000000	2.986	15656.116	ug/L	-24.313
	53	Cr	100.000000	0.596	40775.966	ug/L	11614.949
	61	Ni	100.000000	2.651	2497.706	ug/L	2.333
	76	Se	100.000000	85.438	-315612.037	ug/L	-307356.882
	77	Se	100.000000	0.926	17604.704	ug/L	5384.929
	78	Se	100.000000	2.181	51308.055	ug/L	16423.930
	79	Br	100.000000	11.190	34580.878	ug/L	10779.387
>	72	Ge			2341666.056	ug/L	2303294.011
	108	Cd	100.000000	1.016	9643.637	ug/L	4.507
	114	Cd	100.000000	1.730	335686.312	ug/L	40.657
>	115	In			2370654.206	ug/L	2328638.974
	208	207.977	100.000000	1.401	1238808.601	ug/L	247.338
	207	Pb	100.000000	1.303	508328.311	ug/L	99.334
	206	Pb	100.000000	1.502	666903.549	ug/L	117.001
>	169	Tm			2011353.023	ug/L	1926474.668
	106	Pd			-987.833	ug/L	4.096
	84	Kr			7034.570	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: ICV
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 13:32:00
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\ICV .113
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 3
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4368.166	ug/L	3610.357
>	6	Li-1			1479245.537	ug/L	1404641.470
	9	Be	82.926135	0.474	21181.202	ug/L	1.667
	44	Ca	853.767748	0.663	201398.326	ug/L	20899.598
	52	Cr	81.785993	0.505	548555.402	ug/L	10564.431
	55	Mn	81.798757	0.454	870384.022	ug/L	1100.428
	59	Co	82.638650	0.776	645118.721	ug/L	20.000
	60	Ni	82.332106	0.571	133417.452	ug/L	93.069
	75	As	80.909236	0.589	137479.210	ug/L	15935.446
	82	Se	82.108886	1.676	13419.773	ug/L	1936.850
>	72	Ge-1			2377292.024	ug/L	2303294.011
	111	Cd	81.769448	0.741	118615.818	ug/L	8.238
	121	Sb	39.288730	1.450	194154.887	ug/L	125.001
>	115	In-1			2427600.512	ug/L	2328638.974
	208	Pb	82.389457	0.358	2017422.254	ug/L	463.673
>	169	Tm-1			2039672.245	ug/L	1926474.668
	50	Cr	69.712877	1.768	11076.985	ug/L	-24.313
	53	Cr	79.295063	2.515	35306.161	ug/L	11614.949
	61	Ni	83.723789	1.074	2123.659	ug/L	2.333
	76	Se	215.870086	24.774	-324024.635	ug/L	-307356.882
	77	Se	75.352932	2.911	14837.102	ug/L	5384.929
	78	Se	80.074558	1.224	45096.112	ug/L	16423.930
	79	Br	17.044542	45.506	15212.509	ug/L	10779.387
>	72	Ge			2377292.024	ug/L	2303294.011
	108	Cd	80.634468	1.359	7963.256	ug/L	4.507
	114	Cd	81.667453	0.821	280813.196	ug/L	40.657
>	115	In			2427600.512	ug/L	2328638.974
	208	207.977	84.365386	0.328	1060098.803	ug/L	247.338
	207	Pb	86.660129	0.450	446814.486	ug/L	99.334
	206	Pb	75.464137	0.466	510508.965	ug/L	117.001
>	169	Tm			2039672.245	ug/L	1926474.668
	106	Pd			-872.506	ug/L	4.096
	84	Kr			6125.776	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		105.311
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		103.213
	Cd	111		
	Sb	121		
>	In-1	115		104.250
	Pb	208		
>	Tm-1	169		105.876
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		103.213
	Cd	108		
	Cd	114		
>	In	115		104.250
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		105.876
	Pd	106		
	Kr	84		

Sample ID: ICB
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 13:40:00
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\ICB.115
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3608.356	ug/L	3610.357
>	6	Li-1			1471700.462	ug/L	1404641.470
	9	Be	0.104173	68.675	28.000	ug/L	1.667
	44	Ca	-1.366175	268.915	21163.813	ug/L	20899.598
	52	Cr	0.156723	75.701	11867.414	ug/L	10564.431
	55	Mn	0.092475	85.396	2101.381	ug/L	1100.428
	59	Co	0.095013	84.416	753.731	ug/L	20.000
	60	Ni	0.082282	91.693	227.301	ug/L	93.069
	75	As	-0.588968	35.777	15481.893	ug/L	15935.446
	82	Se	-0.552627	59.720	1911.677	ug/L	1936.850
>	72	Ge-1			2364738.524	ug/L	2303294.011
	111	Cd	0.095089	94.884	144.070	ug/L	8.238
	121	Sb	0.061182	71.208	427.017	ug/L	125.001
>	115	In-1			2408527.486	ug/L	2328638.974
	208	Pb	0.097641	89.511	2812.660	ug/L	463.673
>	169	Tm-1			2004512.563	ug/L	1926474.668
	50	Cr	0.006303	2005.577	-24.125	ug/L	-24.313
	53	Cr	3.337582	19.751	12902.876	ug/L	11614.949
	61	Ni	0.170412	69.507	6.667	ug/L	2.333
	76	Se	290.218950	26.348	-324621.853	ug/L	-307356.882
	77	Se	2.449807	45.063	5829.537	ug/L	5384.929
	78	Se	-2.107809	15.536	16124.029	ug/L	16423.930
	79	Br	4.060584	19.692	12035.296	ug/L	10779.387
>	72	Ge			2364738.524	ug/L	2303294.011
	108	Cd	0.096855	93.154	14.050	ug/L	4.507
	114	Cd	0.099174	82.441	377.759	ug/L	40.657
>	115	In			2408527.486	ug/L	2328638.974
	208	207.977	0.099315	89.756	1473.564	ug/L	247.338
	207	Pb	0.099653	89.889	604.039	ug/L	99.334
	206	Pb	0.092998	88.773	735.057	ug/L	117.001
>	169	Tm			2004512.563	ug/L	1926474.668
	106	Pd			6.148	ug/L	4.096
	84	Kr			6619.823	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		104.774
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.668
	Cd	111		
	Sb	121		
>	In-1	115		103.431
	Pb	208		
>	Tm-1	169		104.051
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.668
	Cd	108		
	Cd	114		
>	In	115		103.431
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		104.051
	Pd	106		
	Kr	84		

Sample ID: LLSTD1
Sample Description: LLSTD@10X
Batch ID:
Sample Date/Time: Monday, July 18, 2011 14:03:41
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\LLSTD1.116
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 175
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3435.927	ug/L	3610.357
>	6	Li-1			1471644.800	ug/L	1404641.470
	9	Be	1.038619	1.442	265.672	ug/L	1.667
	44	Ca	51.977960	4.117	31768.769	ug/L	20899.598
	52	Cr	1.210032	2.609	18423.632	ug/L	10564.431
	55	Mn	1.098312	0.931	12512.290	ug/L	1100.428
	59	Co	1.100612	2.693	8413.894	ug/L	20.000
	60	Ni	1.053750	0.964	1761.020	ug/L	93.069
	75	As	0.962578	36.776	17475.425	ug/L	15935.446
	82	Se	0.814069	14.263	2063.842	ug/L	1936.850
>	72	Ge-1			2322643.716	ug/L	2303294.011
	111	Cd	1.065335	1.996	1505.032	ug/L	8.238
	121	Sb	0.562008	3.434	2814.623	ug/L	125.001
>	115	In-1			2351424.633	ug/L	2328638.974
	208	Pb	1.124576	1.019	27138.639	ug/L	463.673
>	169	Tm-1			1975573.027	ug/L	1926474.668
	50	Cr	1.535496	14.056	214.620	ug/L	-24.313
	53	Cr	6.281943	23.121	13517.778	ug/L	11614.949
	61	Ni	1.306132	7.519	34.667	ug/L	2.333
	76	Se	93.616405	95.095	-312820.172	ug/L	-307356.882
	77	Se	2.565328	6.055	5738.811	ug/L	5384.929
	78	Se	0.014943	5572.582	16566.079	ug/L	16423.930
	79	Br	1.310093	8.941	11177.201	ug/L	10779.387
>	72	Ge			2322643.716	ug/L	2303294.011
	108	Cd	1.042086	6.831	104.138	ug/L	4.507
	114	Cd	1.085796	1.367	3656.631	ug/L	40.657
>	115	In			2351424.633	ug/L	2328638.974
	208	207.977	1.161630	1.455	14386.243	ug/L	247.338
	207	Pb	1.209093	1.825	6138.627	ug/L	99.334
	206	Pb	0.991330	0.407	6613.769	ug/L	117.001
>	169	Tm			1975573.027	ug/L	1926474.668
	106	Pd			-1.957	ug/L	4.096
	84	Kr			6686.058	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		104.770
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.840
	Cd	111		
	Sb	121		
>	In-1	115		100.978
	Pb	208		
>	Tm-1	169		102.549
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.840
	Cd	108		
	Cd	114		
>	In	115		100.978
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.549
	Pd	106		
	Kr	84		

Sample ID: LLSTD2
Sample Description: LLSTD@5X
Batch ID:
Sample Date/Time: Monday, July 18, 2011 14:06:57
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\LLSTD2.117
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 174
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3411.248	ug/L	3610.357
>	6	Li-1			1477397.176	ug/L	1404641.470
	9	Be	2.179958	2.575	557.691	ug/L	1.667
	44	Ca	100.878229	5.030	42326.980	ug/L	20899.598
	52	Cr	2.089302	3.039	24360.888	ug/L	10564.431
	55	Mn	2.118402	0.951	23379.877	ug/L	1100.428
	59	Co	2.082411	2.342	16091.323	ug/L	20.000
	60	Ni	2.076202	2.186	3420.087	ug/L	93.069
	75	As	1.597753	18.895	18621.003	ug/L	15935.446
	82	Se	1.683552	38.717	2207.676	ug/L	1936.850
>	72	Ge-1			2350694.296	ug/L	2303294.011
	111	Cd	2.111151	3.389	3011.341	ug/L	8.238
	121	Sb	1.062787	1.965	5274.852	ug/L	125.001
>	115	In-1			2380894.997	ug/L	2328638.974
	208	Pb	2.113649	1.921	51138.826	ug/L	463.673
>	169	Tm-1			1997235.900	ug/L	1926474.668
	50	Cr	2.835070	8.660	421.136	ug/L	-24.313
	53	Cr	4.705505	36.321	13218.353	ug/L	11614.949
	61	Ni	1.749183	28.743	46.334	ug/L	2.333
	76	Se	222.548671	33.455	-320632.180	ug/L	-307356.882
	77	Se	0.015348	14927.368	5497.331	ug/L	5384.929
	78	Se	-0.243816	426.367	16672.747	ug/L	16423.930
	79	Br	-1.362608	67.821	10675.265	ug/L	10779.387
>	72	Ge			2350694.296	ug/L	2303294.011
	108	Cd	1.954844	3.993	193.782	ug/L	4.507
	114	Cd	2.051193	1.189	6956.847	ug/L	40.657
>	115	In			2380894.997	ug/L	2328638.974
	208	207.977	2.177453	1.709	27036.990	ug/L	247.338
	207	Pb	2.280118	2.083	11610.585	ug/L	99.334
	206	Pb	1.868252	2.269	12491.250	ug/L	117.001
>	169	Tm			1997235.900	ug/L	1926474.668
	106	Pd			-15.278	ug/L	4.096
	84	Kr			6565.492	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		105.180
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.058
	Cd	111		
	Sb	121		
>	In-1	115		102.244
	Pb	208		
>	Tm-1	169		103.673
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.058
	Cd	108		
	Cd	114		
>	In	115		102.244
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		103.673
	Pd	106		
	Kr	84		

Sample ID: ICSA
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 14:13:50
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\ICSA .118
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 2
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3445.266	ug/L	3610.357
>	6	Li-1			1360306.220	ug/L	1404641.470
	9	Be	0.099466	25.380	25.000	ug/L	1.667
	44	Ca	90668.616773	1.131	16647122.335	ug/L	20899.598
	52	Cr	2.938611	3.722	26314.659	ug/L	10564.431
	55	Mn	6.859318	1.679	64455.225	ug/L	1100.428
	59	Co	1.737766	1.725	11829.655	ug/L	20.000
	60	Ni	0.740089	11.221	1127.168	ug/L	93.069
	75	As	0.284137	101.284	14689.313	ug/L	15935.446
	82	Se	-0.424001	380.152	1689.707	ug/L	1936.850
>	72	Ge-1			2069817.848	ug/L	2303294.011
	111	Cd	0.893344	17.590	1151.220	ug/L	8.238
	121	Sb	0.220626	5.009	1077.425	ug/L	125.001
>	115	In-1			2144208.131	ug/L	2328638.974
	208	Pb	0.594720	3.261	12766.992	ug/L	463.673
>	169	Tm-1			1730610.911	ug/L	1926474.668
	50	Cr	301.423441	3.210	41770.092	ug/L	-24.313
	53	Cr	28.332779	9.569	17695.043	ug/L	11614.949
	61	Ni	15.015799	3.320	333.358	ug/L	2.333
	76	Se	326.427489	21.704	-285136.943	ug/L	-307356.882
	77	Se	63.087412	1.038	11603.067	ug/L	5384.929
	78	Se	4.413362	18.535	16109.601	ug/L	16423.930
	79	Br	40625.097136	37.417	8482734.879	ug/L	10779.387
>	72	Ge			2069817.848	ug/L	2303294.011
	108	Cd	34.080944	3.302	2975.429	ug/L	4.507
	114	Cd	2.525834	1.371	7706.925	ug/L	40.657
>	115	In			2144208.131	ug/L	2328638.974
	208	207.977	0.609152	2.283	6714.207	ug/L	247.338
	207	Pb	0.611928	6.148	2764.935	ug/L	99.334
	206	Pb	0.554796	3.594	3287.849	ug/L	117.001
>	169	Tm			1730610.911	ug/L	1926474.668
	106	Pd			-261.786	ug/L	4.096
	84	Kr			6662.598	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		96.844
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		89.863
	Cd	111		
	Sb	121		
>	In-1	115		92.080
	Pb	208		
>	Tm-1	169		89.833
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		89.863
	Cd	108		
	Cd	114		
>	In	115		92.080
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		89.833
	Pd	106		
	Kr	84		

Sample ID: ICSAB
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 14:17:06
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\ICSAB.119
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 1
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3475.949	ug/L	3610.357
[>	6	Li-1			1388559.471	ug/L	1404641.470
[	9	Be	88.170008	0.614	21138.719	ug/L	1.667
[	44	Ca	91439.200663	1.046	17503534.439	ug/L	20899.598
[	52	Cr	95.071879	1.194	577255.207	ug/L	10564.431
[	55	Mn	100.966014	1.425	974991.009	ug/L	1100.428
[	59	Co	93.825900	1.432	664928.327	ug/L	20.000
[	60	Ni	87.133500	1.590	128168.103	ug/L	93.069
[	75	As	98.441857	1.045	148618.712	ug/L	15935.446
[	82	Se	102.499970	1.262	14757.529	ug/L	1936.850
[>	72	Ge-1			2158200.981	ug/L	2303294.011
[	111	Cd	88.691250	0.845	117495.738	ug/L	8.238
[	121	Sb	46.884775	1.485	211579.264	ug/L	125.001
[>	115	In-1			2217050.024	ug/L	2328638.974
[	208	Pb	87.854751	1.780	1852225.949	ug/L	463.673
[>	169	Tm-1			1756276.090	ug/L	1926474.668
[	50	Cr	371.392447	5.560	53691.129	ug/L	-24.313
[	53	Cr	114.250750	1.780	41387.153	ug/L	11614.949
[	61	Ni	104.283105	3.138	2400.267	ug/L	2.333
[	76	Se	332.771653	30.927	-297512.155	ug/L	-307356.882
[	77	Se	154.709818	1.749	22340.421	ug/L	5384.929
[	78	Se	104.724925	0.301	48806.006	ug/L	16423.930
[	79	Br	12943.698221	12.895	2828053.320	ug/L	10779.387
[>	72	Ge			2158200.981	ug/L	2303294.011
[	108	Cd	126.611621	0.594	11417.322	ug/L	4.507
[	114	Cd	90.178578	1.275	283164.767	ug/L	40.657
[>	115	In			2217050.024	ug/L	2328638.974
[	208	207.977	87.792672	1.828	949824.812	ug/L	247.338
[	207	Pb	87.715305	1.881	389407.038	ug/L	99.334
[	206	Pb	88.076344	1.614	512994.099	ug/L	117.001
[>	169	Tm			1756276.090	ug/L	1926474.668
	106	Pd			-1042.728	ug/L	4.096
	84	Kr			6516.027	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		98.855
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		93.701
	Cd	111		
	Sb	121		
>	In-1	115		95.208
	Pb	208		
>	Tm-1	169		91.165
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		93.701
	Cd	108		
	Cd	114		
>	In	115		95.208
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		91.165
	Pd	106		
	Kr	84		

Sample ID: Rinse
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 14:45:05
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\Rinse.120
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 6
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3682.065	ug/L	3610.357
>	6	Li-1			1457253.302	ug/L	1404641.470
	9	Be	0.010342	80.006	4.333	ug/L	1.667
	44	Ca	5.139059	23.858	23874.368	ug/L	20899.598
	52	Cr	1.576580	4.266	22416.093	ug/L	10564.431
	55	Mn	0.026496	7.542	1493.842	ug/L	1100.428
	59	Co	0.003679	19.536	52.000	ug/L	20.000
	60	Ni	-0.003670	85.300	95.004	ug/L	93.069
	75	As	0.415748	65.557	17991.862	ug/L	15935.446
	82	Se	0.132265	187.629	2126.138	ug/L	1936.850
>	72	Ge-1			2505573.103	ug/L	2303294.011
	111	Cd	0.008256	23.692	20.576	ug/L	8.238
	121	Sb	0.005659	72.673	158.335	ug/L	125.001
>	115	In-1			2428851.288	ug/L	2328638.974
	208	Pb	0.001553	52.359	514.341	ug/L	463.673
>	169	Tm-1			1983492.665	ug/L	1926474.668
	50	Cr	-0.472745	2.914	-105.810	ug/L	-24.313
	53	Cr	35.559786	5.458	23656.190	ug/L	11614.949
	61	Ni	0.117681	81.243	5.667	ug/L	2.333
	76	Se	230.747364	67.999	-342027.634	ug/L	-307356.882
	77	Se	40.620041	8.938	11128.815	ug/L	5384.929
	78	Se	3.548464	22.711	19180.003	ug/L	16423.930
	79	Br	26.406102	4.154	18402.610	ug/L	10779.387
>	72	Ge			2505573.103	ug/L	2303294.011
	108	Cd	-0.034226	59.653	1.322	ug/L	4.507
	114	Cd	0.001906	78.426	48.962	ug/L	40.657
>	115	In			2428851.288	ug/L	2328638.974
	208	207.977	0.000710	331.673	263.339	ug/L	247.338
	207	Pb	0.000547	402.307	105.001	ug/L	99.334
	206	Pb	0.003885	30.681	146.002	ug/L	117.001
>	169	Tm			1983492.665	ug/L	1926474.668
	106	Pd			2.388	ug/L	4.096
	84	Kr			7376.944	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		103.746
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		108.782
	Cd	111		
	Sb	121		
>	In-1	115		104.303
	Pb	208		
>	Tm-1	169		102.960
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		108.782
	Cd	108		
	Cd	114		
>	In	115		104.303
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.960
	Pd	106		
	Kr	84		

Sample ID: CCV 1
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 14:52:02
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 1.121
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3726.758	ug/L	3610.357
>	6	Li-1			1468696.635	ug/L	1404641.470
	9	Be	99.557849	1.385	25246.994	ug/L	1.667
	44	Ca	4967.311132	0.861	1110068.501	ug/L	20899.598
	52	Cr	97.158611	0.908	675261.236	ug/L	10564.431
	55	Mn	97.714841	0.788	1080567.277	ug/L	1100.428
	59	Co	97.801187	1.170	793738.613	ug/L	20.000
	60	Ni	97.629313	1.341	164447.735	ug/L	93.069
	75	As	98.466202	1.215	170230.628	ug/L	15935.446
	82	Se	97.114501	1.593	16119.251	ug/L	1936.850
>	72	Ge-1			2471218.718	ug/L	2303294.011
	111	Cd	97.233064	0.943	141386.862	ug/L	8.238
	121	Sb	48.898006	0.585	242209.921	ug/L	125.001
>	115	In-1			2433327.374	ug/L	2328638.974
	208	Pb	96.234340	1.077	2326963.152	ug/L	463.673
>	169	Tm-1			2014264.822	ug/L	1926474.668
	50	Cr	96.950466	0.682	16023.902	ug/L	-24.313
	53	Cr	114.930840	3.858	47609.019	ug/L	11614.949
	61	Ni	101.080233	2.684	2664.562	ug/L	2.333
	76	Se	342.971650	26.124	-340961.519	ug/L	-307356.882
	77	Se	115.047693	3.999	20508.800	ug/L	5384.929
	78	Se	99.956180	1.987	54147.380	ug/L	16423.930
	79	Br	823.284806	21.166	216546.027	ug/L	10779.387
>	72	Ge			2471218.718	ug/L	2303294.011
	108	Cd	97.341078	0.563	9635.650	ug/L	4.507
	114	Cd	97.269802	0.604	335253.346	ug/L	40.657
>	115	In			2433327.374	ug/L	2328638.974
	208	207.977	96.188232	0.994	1193536.952	ug/L	247.338
	207	Pb	96.271199	1.242	490183.089	ug/L	99.334
	206	Pb	96.291890	1.124	643243.111	ug/L	117.001
>	169	Tm			2014264.822	ug/L	1926474.668
	106	Pd			-853.743	ug/L	4.096
	84	Kr			7355.961	ug/L	6901.796

Internal Standard Recoveries

Analyte	Mass	Int Std	% Recovery
Sc	45		
> Li-1	6		104.560
Be	9		
Ca	44		
Cr	52		
Mn	55		
Co	59		
Ni	60		
As	75		
Se	82		
> Ge-1	72		107.291
Cd	111		
Sb	121		
> In-1	115		104.496
Pb	208		
> Tm-1	169		104.557
Cr	50		
Cr	53		
Ni	61		
Se	76		
Se	77		
Se	78		
Br	79		
> Ge	72		107.291
Cd	108		
Cd	114		
> In	115		104.496
207.977	208		
Pb	207		
Pb	206		
> Tm	169		104.557
Pd	106		
Kr	84		

Sample ID: CCB 1
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 14:55:17
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 1.122
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3510.303	ug/L	3610.357
>	6	Li-1			1455838.721	ug/L	1404641.470
	9	Be	0.121495	128.647	33.000	ug/L	1.667
	44	Ca	78.303102	117.799	39862.170	ug/L	20899.598
	52	Cr	0.855619	20.857	17199.012	ug/L	10564.431
	55	Mn	0.116967	125.333	2496.305	ug/L	1100.428
	59	Co	0.117535	123.645	992.487	ug/L	20.000
	60	Ni	0.093650	145.703	260.859	ug/L	93.069
	75	As	0.417542	71.271	17739.899	ug/L	15935.446
	82	Se	-0.400597	26.713	2020.305	ug/L	1936.850
>	72	Ge-1			2471156.492	ug/L	2303294.011
	111	Cd	0.116188	106.795	180.320	ug/L	8.238
	121	Sb	0.045314	166.666	360.685	ug/L	125.001
>	115	In-1			2426494.188	ug/L	2328638.974
	208	Pb	0.110260	127.487	3183.218	ug/L	463.673
>	169	Tm-1			2003158.634	ug/L	1926474.668
	50	Cr	-0.079691	482.781	-38.353	ug/L	-24.313
	53	Cr	17.295187	6.995	17748.066	ug/L	11614.949
	61	Ni	0.218428	92.317	8.333	ug/L	2.333
	76	Se	404.987518	13.624	-343031.610	ug/L	-307356.882
	77	Se	17.637110	5.830	8035.886	ug/L	5384.929
	78	Se	1.482040	95.254	18154.829	ug/L	16423.930
	79	Br	366.267594	16.261	102804.474	ug/L	10779.387
>	72	Ge			2471156.492	ug/L	2303294.011
	108	Cd	0.116004	123.192	16.384	ug/L	4.507
	114	Cd	0.115714	118.517	448.517	ug/L	40.657
>	115	In			2426494.188	ug/L	2328638.974
	208	207.977	0.110470	127.919	1646.047	ug/L	247.338
	207	Pb	0.108242	128.108	661.728	ug/L	99.334
	206	Pb	0.111409	126.250	875.442	ug/L	117.001
>	169	Tm			2003158.634	ug/L	1926474.668
	106	Pd			6.998	ug/L	4.096
	84	Kr			7101.254	ug/L	6901.796

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		103.645
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		107.288
	Cd	111		
	Sb	121		
>	In-1	115		104.202
	Pb	208		
>	Tm-1	169		103.981
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		107.288
	Cd	108		
	Cd	114		
>	In	115		104.202
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		103.981
	Pd	106		
	Kr	84		

Sample ID: STD1 RECAL
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 14:52:02
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 1.121
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3726.758	ug/L	3510.303
>	6	Li-1			1468696.635	ug/L	1455838.721
	9	Be	100.000000	1.387	25246.994	ug/L	33.000
	44	Ca	5100.000000	0.875	1110068.501	ug/L	39862.170
	52	Cr	100.000000	0.916	675261.236	ug/L	17199.012
	55	Mn	100.000000	0.789	1080567.277	ug/L	2496.305
	59	Co	100.000000	1.171	793738.613	ug/L	992.487
	60	Ni	100.000000	1.342	164447.735	ug/L	260.859
	75	As	100.000000	1.220	170230.628	ug/L	17739.899
	82	Se	100.000000	1.586	16119.251	ug/L	2020.305
>	72	Ge-1			2471218.718	ug/L	2471156.492
	111	Cd	100.000000	0.944	141386.862	ug/L	180.320
	121	Sb	50.000000	0.586	242209.921	ug/L	360.685
>	115	In-1			2433327.374	ug/L	2426494.188
	208	Pb	100.000000	1.078	2326963.152	ug/L	3183.218
>	169	Tm-1			2014264.822	ug/L	2003158.634
	50	Cr	100.000000	0.681	16023.902	ug/L	-38.353
	53	Cr	100.000000	4.542	47609.019	ug/L	17748.066
	61	Ni	100.000000	2.690	2664.562	ug/L	8.333
	76	Se	100.000000	142.629	-340961.519	ug/L	-343031.610
	77	Se	100.000000	4.723	20508.800	ug/L	8035.886
	78	Se	100.000000	2.016	54147.380	ug/L	18154.829
	79	Br	100.000000	38.093	216546.027	ug/L	102804.474
>	72	Ge			2471218.718	ug/L	2471156.492
	108	Cd	100.000000	0.564	9635.650	ug/L	16.384
	114	Cd	100.000000	0.605	335253.346	ug/L	448.517
>	115	In			2433327.374	ug/L	2426494.188
	208	207.977	100.000000	0.995	1193536.952	ug/L	1646.047
	207	Pb	100.000000	1.243	490183.089	ug/L	661.728
	206	Pb	100.000000	1.126	643243.111	ug/L	875.442
>	169	Tm			2014264.822	ug/L	2003158.634
	106	Pd			-853.743	ug/L	6.998
	84	Kr			7355.961	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	As	75	
	Se	82	
>	Ge-1	72	
	Cd	111	
	Sb	121	
>	In-1	115	
	Pb	208	
>	Tm-1	169	
	Cr	50	
	Cr	53	
	Ni	61	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	
	Cd	108	
	Cd	114	
>	In	115	
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	
	Pd	106	
	Kr	84	

Sample ID: CCV 2
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 14:58:34
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 2.123
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3619.363	ug/L	3510.303
>	6	Li-1			1475318.489	ug/L	1455838.721
	9	Be	98.490801	0.663	24978.936	ug/L	33.000
	44	Ca	5039.934114	0.613	1080978.711	ug/L	39862.170
	52	Cr	98.618968	1.160	656255.834	ug/L	17199.012
	55	Mn	98.321106	1.192	1046541.754	ug/L	2496.305
	59	Co	98.624484	1.570	771142.725	ug/L	992.487
	60	Ni	98.563100	1.653	159665.208	ug/L	260.859
	75	As	98.158946	1.289	164913.331	ug/L	17739.899
	82	Se	98.621310	2.473	15686.567	ug/L	2020.305
>	72	Ge-1			2434096.612	ug/L	2471156.492
	111	Cd	97.598826	1.332	136338.111	ug/L	180.320
	121	Sb	49.335423	1.006	236099.182	ug/L	360.685
>	115	In-1			2403827.462	ug/L	2426494.188
	208	Pb	97.310194	0.927	2260154.701	ug/L	3183.218
>	169	Tm-1			2010279.510	ug/L	2003158.634
	50	Cr	96.604762	3.807	15253.878	ug/L	-38.353
	53	Cr	95.513135	4.557	45577.744	ug/L	17748.066
	61	Ni	98.814977	2.464	2594.148	ug/L	8.333
	76	Se	21.999860	351.233	-337431.378	ug/L	-343031.610
	77	Se	95.244401	4.702	19617.505	ug/L	8035.886
	78	Se	95.938351	1.775	51896.104	ug/L	18154.829
	79	Br	48.018100	24.224	155066.554	ug/L	102804.474
>	72	Ge			2434096.612	ug/L	2471156.492
	108	Cd	97.944380	1.042	9324.428	ug/L	16.384
	114	Cd	97.740292	0.958	323744.997	ug/L	448.517
>	115	In			2403827.462	ug/L	2426494.188
	208	207.977	97.390253	1.000	1160223.628	ug/L	1646.047
	207	Pb	97.389357	0.667	476485.636	ug/L	661.728
	206	Pb	97.101317	1.074	623445.436	ug/L	875.442
>	169	Tm			2010279.510	ug/L	2003158.634
	106	Pd			-994.595	ug/L	6.998
	84	Kr			6761.053	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		101.338
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		98.500
	Cd	111		
	Sb	121		
>	In-1	115		99.066
	Pb	208		
>	Tm-1	169		100.355
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		98.500
	Cd	108		
	Cd	114		
>	In	115		99.066
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		100.355
	Pd	106		
	Kr	84		

Sample ID: CCB 2
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 15:01:50
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 2.124
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3489.290	ug/L	3510.303
>	6	Li-1			1485537.259	ug/L	1455838.721
	9	Be	-0.075836	18.125	14.333	ug/L	33.000
	44	Ca	-72.801315	7.341	24943.187	ug/L	39862.170
	52	Cr	-0.110759	28.507	16709.578	ug/L	17199.012
	55	Mn	-0.080469	25.667	1652.551	ug/L	2496.305
	59	Co	-0.074520	23.990	407.681	ug/L	992.487
	60	Ni	-0.078493	6.121	133.910	ug/L	260.859
	75	As	-0.429460	9.316	17333.621	ug/L	17739.899
	82	Se	-0.731925	55.116	1944.939	ug/L	2020.305
>	72	Ge-1			2507093.591	ug/L	2471156.492
	111	Cd	-0.070636	26.355	82.161	ug/L	180.320
	121	Sb	-0.033514	38.306	202.337	ug/L	360.685
>	115	In-1			2463967.675	ug/L	2426494.188
	208	Pb	-0.070285	26.964	1582.083	ug/L	3183.218
>	169	Tm-1			2032466.394	ug/L	2003158.634
	50	Cr	-0.040890	200.331	-45.579	ug/L	-38.353
	53	Cr	-2.353487	47.287	17292.886	ug/L	17748.066
	61	Ni	-0.103325	75.345	5.667	ug/L	8.333
	76	Se	-217.506978	33.793	-352555.067	ug/L	-343031.610
	77	Se	-2.609536	56.982	7822.365	ug/L	8035.886
	78	Se	-1.466161	17.426	17883.422	ug/L	18154.829
	79	Br	-27.281315	32.090	72706.836	ug/L	102804.474
>	72	Ge			2507093.591	ug/L	2471156.492
	108	Cd	-0.069734	41.257	9.840	ug/L	16.384
	114	Cd	-0.074416	24.204	203.181	ug/L	448.517
>	115	In			2463967.675	ug/L	2426494.188
	208	207.977	-0.067407	30.595	859.728	ug/L	1646.047
	207	Pb	-0.068376	25.373	333.676	ug/L	661.728
	206	Pb	-0.077081	22.479	388.679	ug/L	875.442
>	169	Tm			2032466.394	ug/L	2003158.634
	106	Pd			6.301	ug/L	6.998
	84	Kr			6928.653	ug/L	7101.254

Internal Standard Recoveries

Analyte	Mass	Int Std	% Recovery
Sc	45		
> Li-1	6		102.040
Be	9		
Ca	44		
Cr	52		
Mn	55		
Co	59		
Ni	60		
As	75		
Se	82		
> Ge-1	72		101.454
Cd	111		
Sb	121		
> In-1	115		101.544
Pb	208		
> Tm-1	169		101.463
Cr	50		
Cr	53		
Ni	61		
Se	76		
Se	77		
Se	78		
Br	79		
> Ge	72		101.454
Cd	108		
Cd	114		
> In	115		101.544
207.977	208		
Pb	207		
Pb	206		
> Tm	169		101.463
Pd	106		
Kr	84		

Sample ID: MK0GAB
Sample Description: G1G150000-180 BLK
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 15:05:06
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MK0GAB.125
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 176
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3649.046	ug/L	3510.303
>	6	Li-1			1537633.020	ug/L	1455838.721
	9	Be	-0.129464	3.448	0.667	ug/L	33.000
	44	Ca	-92.774175	3.768	20546.454	ug/L	39862.170
	52	Cr	-0.308407	31.802	15284.682	ug/L	17199.012
	55	Mn	-0.076794	5.231	1682.223	ug/L	2496.305
	59	Co	-0.104464	3.516	165.336	ug/L	992.487
	60	Ni	-0.047279	29.273	184.786	ug/L	260.859
	75	As	0.397373	86.205	18483.783	ug/L	17739.899
	82	Se	0.325312	411.243	2080.059	ug/L	2020.305
>	72	Ge-1			2490763.219	ug/L	2471156.492
	111	Cd	-0.081934	11.761	69.390	ug/L	180.320
	121	Sb	-0.029166	11.741	234.671	ug/L	360.685
>	115	In-1			2590659.023	ug/L	2426494.188
	208	Pb	1.127006	0.616	30774.673	ug/L	3183.218
>	169	Tm-1			2109317.476	ug/L	2003158.634
	50	Cr	0.888233	11.366	104.913	ug/L	-38.353
	53	Cr	-24.553293	14.191	10492.284	ug/L	17748.066
	61	Ni	-0.115116	66.298	5.333	ug/L	8.333
	76	Se	-60.243454	152.173	-347028.063	ug/L	-343031.610
	77	Se	-33.127552	7.124	3934.854	ug/L	8035.886
	78	Se	1.606601	78.045	18875.112	ug/L	18154.829
	79	Br	-66.757714	17.471	26722.591	ug/L	102804.474
>	72	Ge			2490763.219	ug/L	2471156.492
	108	Cd	0.096046	26.617	27.358	ug/L	16.384
	114	Cd	-0.099949	19.864	123.530	ug/L	448.517
>	115	In			2590659.023	ug/L	2426494.188
	208	207.977	1.160149	0.431	16212.967	ug/L	1646.047
	207	Pb	1.180172	0.880	6745.908	ug/L	661.728
	206	Pb	1.024993	0.858	7815.798	ug/L	875.442
>	169	Tm			2109317.476	ug/L	2003158.634
	106	Pd			76.070	ug/L	6.998
	84	Kr			7080.329	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		105.618
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.793
	Cd	111		
	Sb	121		
>	In-1	115		106.766
	Pb	208		
>	Tm-1	169		105.300
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.793
	Cd	108		
	Cd	114		
>	In	115		106.766
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		105.300
	Pd	106		
	Kr	84		

Sample ID: MK0GAC
Sample Description: G1G150000-180 LCS
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 15:08:23
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MK0GAC.126
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 190
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3491.291	ug/L	3510.303
>	6	Li-1			1445752.389	ug/L	1455838.721
	9	Be	170.314200	0.995	42298.123	ug/L	33.000
	44	Ca	1011.466803	0.223	238217.590	ug/L	39862.170
	52	Cr	197.353434	1.404	1243357.487	ug/L	17199.012
	55	Mn	191.208265	0.214	1950143.210	ug/L	2496.305
	59	Co	195.373728	1.093	1464263.018	ug/L	992.487
	60	Ni	196.938606	1.398	305754.084	ug/L	260.859
	75	As	170.706118	1.169	262709.319	ug/L	17739.899
	82	Se	162.441523	0.780	23550.126	ug/L	2020.305
>	72	Ge-1			2335110.640	ug/L	2471156.492
	111	Cd	170.644342	1.570	242115.543	ug/L	180.320
	121	Sb	167.683521	1.484	814725.535	ug/L	360.685
>	115	In-1			2443479.770	ug/L	2426494.188
	208	Pb	180.375675	1.056	4223822.816	ug/L	3183.218
>	169	Tm-1			2028458.422	ug/L	2003158.634
	50	Cr	170.007887	0.252	25768.087	ug/L	-38.353
	53	Cr	164.462941	2.821	63155.662	ug/L	17748.066
	61	Ni	194.593509	1.475	4891.592	ug/L	8.333
	76	Se	-30.395861	435.928	-324738.902	ug/L	-343031.610
	77	Se	108.615665	3.965	20389.516	ug/L	8035.886
	78	Se	163.445081	2.050	72731.431	ug/L	18154.829
	79	Br	-76.775971	0.555	14379.705	ug/L	102804.474
>	72	Ge			2335110.640	ug/L	2471156.492
	108	Cd	170.288275	2.054	16462.568	ug/L	16.384
	114	Cd	169.205342	1.593	569248.371	ug/L	448.517
>	115	In			2443479.770	ug/L	2426494.188
	208	207.977	180.837920	0.599	2172114.573	ug/L	1646.047
	207	Pb	199.663121	1.493	984790.560	ug/L	661.728
	206	Pb	164.819829	1.592	1066917.684	ug/L	875.442
>	169	Tm			2028458.422	ug/L	2003158.634
	106	Pd			-1695.040	ug/L	6.998
	84	Kr			6503.474	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.307
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		94.495
	Cd	111		
	Sb	121		
>	In-1	115		100.700
	Pb	208		
>	Tm-1	169		101.263
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		94.495
	Cd	108		
	Cd	114		
>	In	115		100.700
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		101.263
	Pd	106		
	Kr	84		

Sample ID: MK0GAL
Sample Description: G1G150000-180 LCSD
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 15:11:40
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MK0GAL.127
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 189
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3528.645	ug/L	3510.303
>	6	Li-1			1445483.676	ug/L	1455838.721
	9	Be	163.224164	0.810	40535.048	ug/L	33.000
	44	Ca	962.170506	0.822	225843.440	ug/L	39862.170
	52	Cr	187.392217	0.310	1168112.466	ug/L	17199.012
	55	Mn	182.410209	0.694	1839502.349	ug/L	2496.305
	59	Co	187.708803	0.680	1390901.879	ug/L	992.487
	60	Ni	185.880642	0.695	285320.762	ug/L	260.859
	75	As	162.329044	0.829	247791.849	ug/L	17739.899
	82	Se	157.330345	0.609	22611.215	ug/L	2020.305
>	72	Ge-1			2308623.837	ug/L	2471156.492
	111	Cd	163.290744	0.649	229176.389	ug/L	180.320
	121	Sb	160.072630	0.608	769308.617	ug/L	360.685
>	115	In-1			2416820.040	ug/L	2426494.188
	208	Pb	172.567164	0.340	4048601.063	ug/L	3183.218
>	169	Tm-1			2031996.200	ug/L	2003158.634
	50	Cr	163.440056	0.795	24490.266	ug/L	-38.353
	53	Cr	154.127871	2.791	59553.241	ug/L	17748.066
	61	Ni	187.283539	0.608	4655.096	ug/L	8.333
	76	Se	-60.643327	238.391	-321651.692	ug/L	-343031.610
	77	Se	101.987056	3.514	19383.311	ug/L	8035.886
	78	Se	155.103648	1.254	69100.942	ug/L	18154.829
	79	Br	-77.766311	0.343	13159.519	ug/L	102804.474
>	72	Ge			2308623.837	ug/L	2471156.492
	108	Cd	162.642783	0.205	15554.952	ug/L	16.384
	114	Cd	162.159161	0.879	539627.837	ug/L	448.517
>	115	In			2416820.040	ug/L	2426494.188
	208	207.977	174.102105	0.666	2095093.448	ug/L	1646.047
	207	Pb	190.185156	0.333	939838.104	ug/L	661.728
	206	Pb	156.293167	0.307	1013669.511	ug/L	875.442
>	169	Tm			2031996.200	ug/L	2003158.634
	106	Pd			-1415.404	ug/L	6.998
	84	Kr			6471.412	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.289
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		93.423
	Cd	111		
	Sb	121		
>	In-1	115		99.601
	Pb	208		
>	Tm-1	169		101.440
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		93.423
	Cd	108		
	Cd	114		
>	In	115		99.601
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		101.440
	Pd	106		
	Kr	84		

Sample ID: MKXL7B
Sample Description: G1G140000-193 BLK
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 15:14:56
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKXL7B.128
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 177
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4472.574	ug/L	3510.303
>	6	Li-1			1556631.025	ug/L	1455838.721
	9	Be	-0.081453	49.934	13.333	ug/L	33.000
	44	Ca	-72.714916	11.403	24663.417	ug/L	39862.170
	52	Cr	-0.713975	7.327	12556.069	ug/L	17199.012
	55	Mn	-0.090555	34.624	1518.852	ug/L	2496.305
	59	Co	-0.034029	96.724	720.044	ug/L	992.487
	60	Ni	-0.038856	80.690	196.758	ug/L	260.859
	75	As	-0.731365	46.165	16678.564	ug/L	17739.899
	82	Se	-1.323687	89.627	1839.085	ug/L	2020.305
>	72	Ge-1			2480774.529	ug/L	2471156.492
	111	Cd	-0.035543	88.132	133.622	ug/L	180.320
	121	Sb	0.063460	52.102	685.371	ug/L	360.685
>	115	In-1			2507236.840	ug/L	2426494.188
	208	Pb	0.292749	10.438	10403.320	ug/L	3183.218
>	169	Tm-1			2097630.627	ug/L	2003158.634
	50	Cr	0.311038	45.325	11.472	ug/L	-38.353
	53	Cr	-18.954093	3.531	12141.730	ug/L	17748.066
	61	Ni	-0.112431	56.681	5.333	ug/L	8.333
	76	Se	-350.623757	23.061	-351629.988	ug/L	-343031.610
	77	Se	-36.641096	4.747	3485.672	ug/L	8035.886
	78	Se	-5.277898	18.853	16311.184	ug/L	18154.829
	79	Br	-80.944309	0.132	10505.741	ug/L	102804.474
>	72	Ge			2480774.529	ug/L	2471156.492
	108	Cd	-0.014243	323.042	15.420	ug/L	16.384
	114	Cd	-0.030304	152.714	355.414	ug/L	448.517
>	115	In			2507236.840	ug/L	2426494.188
	208	207.977	0.303118	10.481	5478.360	ug/L	1646.047
	207	Pb	0.309167	12.918	2265.071	ug/L	661.728
	206	Pb	0.261000	8.305	2659.889	ug/L	875.442
>	169	Tm			2097630.627	ug/L	2003158.634
	106	Pd			5.491	ug/L	6.998
	84	Kr			6545.362	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		106.923
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.389
	Cd	111		
	Sb	121		
>	In-1	115		103.328
	Pb	208		
>	Tm-1	169		104.716
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.389
	Cd	108		
	Cd	114		
>	In	115		103.328
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		104.716
	Pd	106		
	Kr	84		

Sample ID: MKXL7C
Sample Description: G1G140000-193 LCS
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 15:18:13
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKXL7C.129
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 188
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4020.270	ug/L	3510.303
>	6	Li-1			1592884.239	ug/L	1455838.721
	9	Be	179.642347	1.052	49161.201	ug/L	33.000
	44	Ca	938.622555	1.512	238528.297	ug/L	39862.170
	52	Cr	178.968428	1.750	1203558.888	ug/L	17199.012
	55	Mn	176.945505	1.336	1923855.552	ug/L	2496.305
	59	Co	178.836988	1.145	1428865.143	ug/L	992.487
	60	Ni	181.844486	1.421	300960.015	ug/L	260.859
	75	As	183.908540	1.822	300314.216	ug/L	17739.899
	82	Se	186.746432	2.101	28556.531	ug/L	2020.305
>	72	Ge-1			2489012.764	ug/L	2471156.492
	111	Cd	180.848972	1.159	264612.614	ug/L	180.320
	121	Sb	174.629247	1.166	875006.398	ug/L	360.685
>	115	In-1			2519518.438	ug/L	2426494.188
	208	Pb	173.047540	1.299	4248040.416	ug/L	3183.218
>	169	Tm-1			2126136.793	ug/L	2003158.634
	50	Cr	154.874350	1.999	25019.009	ug/L	-38.353
	53	Cr	151.400730	2.673	63395.993	ug/L	17748.066
	61	Ni	179.966981	0.577	4823.113	ug/L	8.333
	76	Se	-345.912689	54.865	-352690.735	ug/L	-343031.610
	77	Se	131.937786	3.700	24662.424	ug/L	8035.886
	78	Se	182.391637	1.826	84393.919	ug/L	18154.829
	79	Br	-81.727611	0.388	9638.780	ug/L	102804.474
>	72	Ge			2489012.764	ug/L	2471156.492
	108	Cd	179.393005	1.145	17885.143	ug/L	16.384
	114	Cd	179.110793	1.363	621409.132	ug/L	448.517
>	115	In			2519518.438	ug/L	2426494.188
	208	207.977	175.226458	1.037	2206302.271	ug/L	1646.047
	207	Pb	189.287932	1.715	978780.043	ug/L	661.728
	206	Pb	156.628464	1.708	1062958.103	ug/L	875.442
>	169	Tm			2126136.793	ug/L	2003158.634
	106	Pd			-1825.195	ug/L	6.998
	84	Kr			5552.801	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		109.414
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.723
	Cd	111		
	Sb	121		
>	In-1	115		103.834
	Pb	208		
>	Tm-1	169		106.139
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.723
	Cd	108		
	Cd	114		
>	In	115		103.834
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		106.139
	Pd	106		
	Kr	84		

Sample ID: MKXL7L
Sample Description: G1G140000-193 LCSD
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 15:21:30
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKXL7L.130
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 187
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3913.537	ug/L	3510.303
>	6	Li-1			1528656.088	ug/L	1455838.721
	9	Be	177.653169	1.315	46647.015	ug/L	33.000
	44	Ca	916.222798	0.861	226718.139	ug/L	39862.170
	52	Cr	174.192453	1.353	1136308.158	ug/L	17199.012
	55	Mn	171.759423	1.071	1810885.109	ug/L	2496.305
	59	Co	174.644738	1.232	1353024.333	ug/L	992.487
	60	Ni	175.007663	1.756	280847.049	ug/L	260.859
	75	As	179.850445	1.605	285145.994	ug/L	17739.899
	82	Se	183.690108	2.475	27264.829	ug/L	2020.305
>	72	Ge-1			2413824.332	ug/L	2471156.492
	111	Cd	176.424822	1.617	249514.340	ug/L	180.320
	121	Sb	171.089212	1.656	828608.353	ug/L	360.685
>	115	In-1			2435898.683	ug/L	2426494.188
	208	Pb	168.571508	1.272	3997317.989	ug/L	3183.218
>	169	Tm-1			2054092.444	ug/L	2003158.634
	50	Cr	153.254442	1.298	24011.009	ug/L	-38.353
	53	Cr	143.370376	3.840	59120.466	ug/L	17748.066
	61	Ni	172.774080	0.491	4490.767	ug/L	8.333
	76	Se	-401.098973	16.303	-343139.040	ug/L	-343031.610
	77	Se	129.626227	3.750	23629.673	ug/L	8035.886
	78	Se	179.308411	0.898	80756.933	ug/L	18154.829
	79	Br	-79.792709	0.124	11502.273	ug/L	102804.474
>	72	Ge			2413824.332	ug/L	2471156.492
	108	Cd	174.351811	2.511	16800.147	ug/L	16.384
	114	Cd	175.606067	1.576	588890.834	ug/L	448.517
>	115	In			2435898.683	ug/L	2426494.188
	208	207.977	170.838428	0.983	2078035.659	ug/L	1646.047
	207	Pb	185.385417	1.714	925907.824	ug/L	661.728
	206	Pb	151.552094	2.022	993374.507	ug/L	875.442
>	169	Tm			2054092.444	ug/L	2003158.634
	106	Pd			-1757.847	ug/L	6.998
	84	Kr			5621.407	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		105.002
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		97.680
	Cd	111		
	Sb	121		
>	In-1	115		100.388
	Pb	208		
>	Tm-1	169		102.543
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		97.680
	Cd	108		
	Cd	114		
>	In	115		100.388
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.543
	Pd	106		
	Kr	84		

SOP No. SAC-MT-0001

BJones

Sample ID: CCV 3

Sample Description:

Batch ID:

Sample Date/Time: Monday, July 18, 2011 15:34:38

Method File: D:\Elandata\Method\1195193.mth

Dataset File: D:\Elandata\DataSet\110718a2\CCV 3.134

Tuning File: D:\Elandata\Tuning\Default.tun

Optimization File: D:\Elandata\Optimize\Default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3879.516	ug/L	3510.303
>	6	Li-1			1544573.491	ug/L	1455838.721
	9	Be	93.416734	0.302	24804.917	ug/L	33.000
	44	Ca	4815.545950	1.297	1005132.006	ug/L	39862.170
	52	Cr	94.312850	1.075	610393.649	ug/L	17199.012
	55	Mn	94.642785	0.794	978802.402	ug/L	2496.305
	59	Co	93.284255	1.001	708585.546	ug/L	992.487
	60	Ni	92.520209	1.316	145609.008	ug/L	260.859
	75	As	92.504943	1.809	151954.491	ug/L	17739.899
	82	Se	91.891702	2.419	14332.085	ug/L	2020.305
>	72	Ge-1			2365000.957	ug/L	2471156.492
	111	Cd	91.945955	1.421	125788.296	ug/L	180.320
	121	Sb	46.898712	1.610	219817.252	ug/L	360.685
>	115	In-1			2354422.826	ug/L	2426494.188
	208	Pb	92.199794	1.799	2122833.132	ug/L	3183.218
>	169	Tm-1			1992984.334	ug/L	2003158.634
	50	Cr	94.789933	0.276	14535.013	ug/L	-38.353
	53	Cr	81.786742	2.645	40346.660	ug/L	17748.066
	61	Ni	90.413270	1.381	2306.170	ug/L	8.333
	76	Se	-706.142766	19.112	-342196.054	ug/L	-343031.610
	77	Se	83.999702	2.055	17712.907	ug/L	8035.886
	78	Se	88.400389	2.419	47817.654	ug/L	18154.829
	79	Br	-29.083254	4.510	66635.409	ug/L	102804.474
>	72	Ge			2365000.957	ug/L	2471156.492
	108	Cd	92.384462	1.057	8613.854	ug/L	16.384
	114	Cd	92.480018	1.584	299993.911	ug/L	448.517
>	115	In			2354422.826	ug/L	2426494.188
	208	207.977	92.264183	1.754	1089604.179	ug/L	1646.047
	207	Pb	92.231605	1.625	447338.138	ug/L	661.728
	206	Pb	92.056080	2.101	585890.815	ug/L	875.442
>	169	Tm			1992984.334	ug/L	2003158.634
	106	Pd			-909.258	ug/L	6.998
	84	Kr			5883.278	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		106.095
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		95.704
	Cd	111		
	Sb	121		
>	In-1	115		97.030
	Pb	208		
>	Tm-1	169		99.492
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		95.704
	Cd	108		
	Cd	114		
>	In	115		97.030
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		99.492
	Pd	106		
	Kr	84		

Sample ID: CCB 3
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 15:36:59
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 3.135
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3729.760	ug/L	3510.303
>	6	Li-1			1476390.650	ug/L	1455838.721
	9	Be	0.113368	88.941	61.334	ug/L	33.000
	44	Ca	-69.695156	12.026	23402.300	ug/L	39862.170
	52	Cr	0.061098	224.726	16331.266	ug/L	17199.012
	55	Mn	0.095974	92.161	3254.192	ug/L	2496.305
	59	Co	0.109592	69.043	1712.575	ug/L	992.487
	60	Ni	0.111962	68.968	409.627	ug/L	260.859
	75	As	-0.434487	264.997	15819.343	ug/L	17739.899
	82	Se	-0.562211	170.984	1800.495	ug/L	2020.305
>	72	Ge-1			2296267.838	ug/L	2471156.492
	111	Cd	0.112295	79.453	317.687	ug/L	180.320
	121	Sb	0.183622	51.820	1169.781	ug/L	360.685
>	115	In-1			2304093.251	ug/L	2426494.188
	208	Pb	0.118541	76.064	5633.703	ug/L	3183.218
>	169	Tm-1			1928182.659	ug/L	2003158.634
	50	Cr	0.112709	44.464	-18.799	ug/L	-38.353
	53	Cr	-8.770642	30.958	14036.884	ug/L	17748.066
	61	Ni	0.092788	120.294	10.000	ug/L	8.333
	76	Se	-616.846427	9.186	-330538.422	ug/L	-343031.610
	77	Se	-7.802900	13.431	6560.368	ug/L	8035.886
	78	Se	-2.366720	116.535	16050.687	ug/L	18154.829
	79	Br	-76.544303	1.267	14358.340	ug/L	102804.474
>	72	Ge			2296267.838	ug/L	2471156.492
	108	Cd	0.070891	206.114	21.680	ug/L	16.384
	114	Cd	0.110286	85.319	766.178	ug/L	448.517
>	115	In			2304093.251	ug/L	2426494.188
	208	207.977	0.126960	71.895	2998.078	ug/L	1646.047
	207	Pb	0.130921	74.526	1235.127	ug/L	661.728
	206	Pb	0.093485	88.374	1400.497	ug/L	875.442
>	169	Tm			1928182.659	ug/L	2003158.634
	106	Pd			6.684	ug/L	6.998
	84	Kr			6291.804	ug/L	7101.254

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		101.412
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		92.923
	Cd	111		
	Sb	121		
>	In-1	115		94.956
	Pb	208		
>	Tm-1	169		96.257
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		92.923
	Cd	108		
	Cd	114		
>	In	115		94.956
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		96.257
	Pd	106		
	Kr	84		

Sample ID: BLK RECAL
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 15:36:59
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 3.135
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3729.760	ug/L	
>	6	Li-1			1476390.650	ug/L	
	9	Be			61.334	ug/L	
	44	Ca			23402.300	ug/L	
	52	Cr			16331.266	ug/L	
	55	Mn			3254.192	ug/L	
	59	Co			1712.575	ug/L	
	60	Ni			409.627	ug/L	
	75	As			15819.343	ug/L	
	82	Se			1800.495	ug/L	
>	72	Ge-1			2296267.838	ug/L	
	111	Cd			317.687	ug/L	
	121	Sb			1169.781	ug/L	
>	115	In-1			2304093.251	ug/L	
	208	Pb			5633.703	ug/L	
>	169	Tm-1			1928182.659	ug/L	
	50	Cr			-18.799	ug/L	
	53	Cr			14036.884	ug/L	
	61	Ni			10.000	ug/L	
	76	Se			-330538.422	ug/L	
	77	Se			6560.368	ug/L	
	78	Se			16050.687	ug/L	
	79	Br			14358.340	ug/L	
>	72	Ge			2296267.838	ug/L	
	108	Cd			21.680	ug/L	
	114	Cd			766.178	ug/L	
>	115	In			2304093.251	ug/L	
	208	207.977			2998.078	ug/L	
	207	Pb			1235.127	ug/L	
	206	Pb			1400.497	ug/L	
>	169	Tm			1928182.659	ug/L	
	106	Pd			6.684	ug/L	
	84	Kr			6291.804	ug/L	

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: STD1RECAL
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 15:34:38
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 3.134
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3879.516	ug/L	3729.760
>	6	Li-1			1544573.491	ug/L	1476390.650
	9	Be	100.000000	0.303	24804.917	ug/L	61.334
	44	Ca	5100.000000	1.279	1005132.006	ug/L	23402.300
	52	Cr	100.000000	1.075	610393.649	ug/L	16331.266
	55	Mn	100.000000	0.794	978802.402	ug/L	3254.192
	59	Co	100.000000	1.003	708585.546	ug/L	1712.575
	60	Ni	100.000000	1.317	145609.008	ug/L	409.627
	75	As	100.000000	1.800	151954.491	ug/L	15819.343
	82	Se	100.000000	2.403	14332.085	ug/L	1800.495
>	72	Ge-1			2365000.957	ug/L	2296267.838
	111	Cd	100.000000	1.423	125788.296	ug/L	317.687
	121	Sb	50.000000	1.616	219817.252	ug/L	1169.781
>	115	In-1			2354422.826	ug/L	2304093.251
	208	Pb	100.000000	1.802	2122833.132	ug/L	5633.703
>	169	Tm-1			1992984.334	ug/L	1928182.659
	50	Cr	100.000000	0.277	14535.013	ug/L	-18.799
	53	Cr	100.000000	2.387	40346.660	ug/L	14036.884
	61	Ni	100.000000	1.383	2306.170	ug/L	10.000
	76	Se	100.000000	151.555	-342196.054	ug/L	-330538.422
	77	Se	100.000000	1.880	17712.907	ug/L	6560.368
	78	Se	100.000000	2.354	47817.654	ug/L	16050.687
	79	Br	100.000000	2.762	66635.409	ug/L	14358.340
>	72	Ge			2365000.957	ug/L	2296267.838
	108	Cd	100.000000	1.058	8613.854	ug/L	21.680
	114	Cd	100.000000	1.586	299993.911	ug/L	766.178
>	115	In			2354422.826	ug/L	2304093.251
	208	207.977	100.000000	1.756	1089604.179	ug/L	2998.078
	207	Pb	100.000000	1.628	447338.138	ug/L	1235.127
	206	Pb	100.000000	2.103	585890.815	ug/L	1400.497
>	169	Tm			1992984.334	ug/L	1928182.659
	106	Pd			-909.258	ug/L	6.684
	84	Kr			5883.278	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	As	75	
	Se	82	
>	Ge-1	72	
	Cd	111	
	Sb	121	
>	In-1	115	
	Pb	208	
>	Tm-1	169	
	Cr	50	
	Cr	53	
	Ni	61	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	
	Cd	108	
	Cd	114	
>	In	115	
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	
	Pd	106	
	Kr	84	

Sample ID: CCV 4
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 15:45:47
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 4.136
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3944.223	ug/L	3729.760
>	6	Li-1			1536615.750	ug/L	1476390.650
	9	Be	98.539736	0.893	24310.737	ug/L	61.334
	44	Ca	5108.328644	0.698	989729.061	ug/L	23402.300
	52	Cr	99.875702	0.296	599415.029	ug/L	16331.266
	55	Mn	99.286932	0.883	955429.062	ug/L	3254.192
	59	Co	99.395520	1.009	692540.050	ug/L	1712.575
	60	Ni	99.899646	1.252	143039.306	ug/L	409.627
	75	As	101.832086	0.381	151825.641	ug/L	15819.343
	82	Se	101.507489	2.053	14268.212	ug/L	1800.495
>	72	Ge-1			2325013.730	ug/L	2296267.838
	111	Cd	101.677320	1.039	124631.109	ug/L	317.687
	121	Sb	50.697674	1.122	217161.181	ug/L	1169.781
>	115	In-1			2294756.805	ug/L	2304093.251
	208	Pb	100.120256	0.227	2094245.701	ug/L	5633.703
>	169	Tm-1			1963710.564	ug/L	1928182.659
	50	Cr	101.031562	1.699	14435.500	ug/L	-18.799
	53	Cr	108.326873	1.169	41785.394	ug/L	14036.884
	61	Ni	102.812014	0.667	2330.529	ug/L	10.000
	76	Se	-126.292314	60.800	-332470.659	ug/L	-330538.422
	77	Se	104.678332	2.047	17923.017	ug/L	6560.368
	78	Se	103.187582	2.219	47974.587	ug/L	16050.687
	79	Br	315.260591	45.939	177321.787	ug/L	14358.340
>	72	Ge			2325013.730	ug/L	2296267.838
	108	Cd	100.285438	0.209	8419.718	ug/L	21.680
	114	Cd	100.859917	0.281	294893.850	ug/L	766.178
>	115	In			2294756.805	ug/L	2304093.251
	208	207.977	100.048129	0.267	1074151.315	ug/L	2998.078
	207	Pb	100.309999	0.264	442142.279	ug/L	1235.127
	206	Pb	100.109529	0.193	577952.107	ug/L	1400.497
>	169	Tm			1963710.564	ug/L	1928182.659
	106	Pd			-975.205	ug/L	6.684
	84	Kr			5861.104	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		104.079
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		101.252
	Cd	111		
	Sb	121		
>	In-1	115		99.595
	Pb	208		
>	Tm-1	169		101.843
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		101.252
	Cd	108		
	Cd	114		
>	In	115		99.595
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		101.843
	Pd	106		
	Kr	84		

Sample ID: CCB 4
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 15:48:08
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 4.137
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3740.099	ug/L	3729.760
[>	6	Li-1			1512347.132	ug/L	1476390.650
[	9	Be	0.505562	67.958	185.670	ug/L	61.334
[	44	Ca	7.990784	109.622	25593.878	ug/L	23402.300
[	52	Cr	0.496087	83.830	19736.247	ug/L	16331.266
[	55	Mn	0.505571	66.313	8281.628	ug/L	3254.192
[	59	Co	0.538968	66.357	5573.115	ug/L	1712.575
[	60	Ni	0.539940	73.062	1206.092	ug/L	409.627
[	75	As	0.335569	126.810	16713.001	ug/L	15819.343
[	82	Se	0.155855	627.027	1869.658	ug/L	1800.495
[>	72	Ge-1			2360201.407	ug/L	2296267.838
[	111	Cd	0.541628	69.692	995.195	ug/L	317.687
[	121	Sb	0.457805	72.782	3168.235	ug/L	1169.781
[>	115	In-1			2325996.469	ug/L	2304093.251
[	208	Pb	0.536078	70.111	16997.173	ug/L	5633.703
[>	169	Tm-1			1966880.119	ug/L	1928182.659
[	50	Cr	0.358883	99.819	32.993	ug/L	-18.799
[	53	Cr	2.053936	96.536	14960.133	ug/L	14036.884
[	61	Ni	0.494796	74.577	21.667	ug/L	10.000
[	76	Se	3.601121	5248.957	-339818.667	ug/L	-330538.422
[	77	Se	-0.523656	288.612	6686.794	ug/L	6560.368
[	78	Se	-1.091467	39.098	16155.935	ug/L	16050.687
[	79	Br	-1.778580	48.300	13839.204	ug/L	14358.340
[>	72	Ge			2360201.407	ug/L	2296267.838
[	108	Cd	0.585702	90.444	71.989	ug/L	21.680
[	114	Cd	0.526514	63.667	2336.538	ug/L	766.178
[>	115	In			2325996.469	ug/L	2304093.251
[	208	207.977	0.550360	69.123	8985.916	ug/L	2998.078
[	207	Pb	0.555838	72.895	3717.926	ug/L	1235.127
[	206	Pb	0.494447	69.779	4293.331	ug/L	1400.497
[>	169	Tm			1966880.119	ug/L	1928182.659
	106	Pd			2.482	ug/L	6.684
	84	Kr			6412.580	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		102.435
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.784
	Cd	111		
	Sb	121		
>	In-1	115		100.951
	Pb	208		
>	Tm-1	169		102.007
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.784
	Cd	108		
	Cd	114		
>	In	115		100.951
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.007
	Pd	106		
	Kr	84		

Sample ID: MKMWV
Sample Description: G1G050412-2
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 15:50:29
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWV.138
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 101
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4947.924	ug/L	3729.760
>	6	Li-1			1739146.611	ug/L	1476390.650
	9	Be	-0.215073	7.719	12.333	ug/L	61.334
	44	Ca	1238.534627	1.405	242474.156	ug/L	23402.300
	52	Cr	8.460117	1.505	61962.254	ug/L	16331.266
	55	Mn	29.707412	0.677	270941.694	ug/L	3254.192
	59	Co	0.266014	8.400	3368.893	ug/L	1712.575
	60	Ni	6.550175	1.218	9180.591	ug/L	409.627
	75	As	1.521108	29.441	16964.860	ug/L	15819.343
	82	Se	36.155001	3.884	5884.353	ug/L	1800.495
>	72	Ge-1			2185883.614	ug/L	2296267.838
	111	Cd	0.028678	143.755	351.594	ug/L	317.687
	121	Sb	0.131134	22.534	1723.234	ug/L	1169.781
>	115	In-1			2294069.247	ug/L	2304093.251
	208	Pb	4.615168	0.142	100613.663	ug/L	5633.703
>	169	Tm-1			1936714.115	ug/L	1928182.659
	50	Cr	31.888477	2.587	4271.599	ug/L	-18.799
	53	Cr	-14.306422	21.979	9943.479	ug/L	14036.884
	61	Ni	6.891011	10.812	155.672	ug/L	10.000
	76	Se	153.394180	54.749	-317127.368	ug/L	-330538.422
	77	Se	-1.380792	302.400	6107.726	ug/L	6560.368
	78	Se	39.145724	3.562	26602.957	ug/L	16050.687
	79	Br	87.248055	2.520	55469.049	ug/L	14358.340
>	72	Ge			2185883.614	ug/L	2296267.838
	108	Cd	2.056218	6.876	193.745	ug/L	21.680
	114	Cd	-0.155031	43.386	312.162	ug/L	766.178
>	115	In			2294069.247	ug/L	2304093.251
	208	207.977	4.759189	0.400	53265.002	ug/L	2998.078
	207	Pb	4.802624	0.706	22060.845	ug/L	1235.127
	206	Pb	4.204363	0.941	25287.817	ug/L	1400.497
>	169	Tm			1936714.115	ug/L	1928182.659
	106	Pd			496.286	ug/L	6.684
	84	Kr			6102.781	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		117.797
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		95.193
	Cd	111		
	Sb	121		
>	In-1	115		99.565
	Pb	208		
>	Tm-1	169		100.442
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		95.193
	Cd	108		
	Cd	114		
>	In	115		99.565
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		100.442
	Pd	106		
	Kr	84		

Sample ID: MKMWVP5
Sample Description: G1G050412-2 5X
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 15:52:49
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWVP5.139
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 102
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3887.187	ug/L	3729.760
>	6	Li-1			1554241.399	ug/L	1476390.650
	9	Be	0.033937	601.526	72.334	ug/L	61.334
	44	Ca	250.544227	3.381	68982.563	ug/L	23402.300
	52	Cr	1.514283	15.761	24613.546	ug/L	16331.266
	55	Mn	6.708921	3.769	65629.444	ug/L	3254.192
	59	Co	0.127671	183.635	2520.284	ug/L	1712.575
	60	Ni	1.377059	16.434	2306.016	ug/L	409.627
	75	As	0.022529	1977.997	15572.008	ug/L	15819.343
	82	Se	7.953336	15.953	2714.765	ug/L	1800.495
>	72	Ge-1			2257235.652	ug/L	2296267.838
	111	Cd	0.053955	401.849	381.491	ug/L	317.687
	121	Sb	0.044201	386.949	1352.503	ug/L	1169.781
>	115	In-1			2306002.905	ug/L	2304093.251
	208	Pb	1.042621	21.954	27219.229	ug/L	5633.703
>	169	Tm-1			1948738.029	ug/L	1928182.659
	50	Cr	6.993120	6.050	952.233	ug/L	-18.799
	53	Cr	-7.213790	7.746	12016.369	ug/L	14036.884
	61	Ni	1.150667	16.463	35.000	ug/L	10.000
	76	Se	176.162062	63.053	-327892.747	ug/L	-330538.422
	77	Se	-4.962320	9.238	5930.268	ug/L	6560.368
	78	Se	6.962168	21.661	17849.764	ug/L	16050.687
	79	Br	19.956571	3.206	23993.648	ug/L	14358.340
>	72	Ge			2257235.652	ug/L	2296267.838
	108	Cd	0.464166	37.921	60.779	ug/L	21.680
	114	Cd	0.004975	4327.345	774.875	ug/L	766.178
>	115	In			2306002.905	ug/L	2304093.251
	208	207.977	1.080917	22.564	14482.067	ug/L	2998.078
	207	Pb	1.076532	20.012	5932.800	ug/L	1235.127
	206	Pb	0.945545	22.415	6804.362	ug/L	1400.497
>	169	Tm			1948738.029	ug/L	1928182.659
	106	Pd			75.436	ug/L	6.684
	84	Kr			5967.544	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		105.273
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		98.300
	Cd	111		
	Sb	121		
>	In-1	115		100.083
	Pb	208		
>	Tm-1	169		101.066
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		98.300
	Cd	108		
	Cd	114		
>	In	115		100.083
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		101.066
	Pd	106		
	Kr	84		

Sample ID: MKMWVS
Sample Description: G1G050412-2 MS
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 15:55:10
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWVS.140
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 103
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4728.759	ug/L	3729.760
>	6	Li-1			1808743.263	ug/L	1476390.650
	9	Be	0.682367	142.902	283.678	ug/L	61.334
	44	Ca	1206.506966	0.595	240880.029	ug/L	23402.300
	52	Cr	9.320914	10.876	68022.036	ug/L	16331.266
	55	Mn	29.550249	1.590	274353.901	ug/L	3254.192
	59	Co	1.489460	92.370	11844.358	ug/L	1712.575
	60	Ni	7.492627	16.015	10678.208	ug/L	409.627
	75	As	2.071631	24.022	17978.579	ug/L	15819.343
	82	Se	35.347354	4.117	5888.150	ug/L	1800.495
>	72	Ge-1			2223955.349	ug/L	2296267.838
	111	Cd	1.027531	108.464	1648.851	ug/L	317.687
	121	Sb	0.994040	99.257	5644.951	ug/L	1169.781
>	115	In-1			2337331.214	ug/L	2304093.251
	208	Pb	5.580698	18.905	121897.590	ug/L	5633.703
>	169	Tm-1			1948806.009	ug/L	1928182.659
	50	Cr	31.651274	3.060	4317.561	ug/L	-18.799
	53	Cr	-14.982875	11.837	9943.080	ug/L	14036.884
	61	Ni	8.339123	11.416	190.341	ug/L	10.000
	76	Se	342.712421	56.574	-325859.660	ug/L	-330538.422
	77	Se	-1.624115	33.782	6185.439	ug/L	6560.368
	78	Se	36.573600	7.650	26280.443	ug/L	16050.687
	79	Br	79.934863	4.723	52820.354	ug/L	14358.340
>	72	Ge			2223955.349	ug/L	2296267.838
	108	Cd	2.872785	42.125	270.440	ug/L	21.680
	114	Cd	0.833934	127.544	3361.107	ug/L	766.178
>	115	In			2337331.214	ug/L	2304093.251
	208	207.977	5.745044	18.708	64421.651	ug/L	2998.078
	207	Pb	5.820396	19.609	26789.647	ug/L	1235.127
	206	Pb	5.092237	18.741	30686.292	ug/L	1400.497
>	169	Tm			1948806.009	ug/L	1928182.659
	106	Pd			498.628	ug/L	6.684
	84	Kr			6056.826	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		122.511
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		96.851
	Cd	111		
	Sb	121		
>	In-1	115		101.443
	Pb	208		
>	Tm-1	169		101.070
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		96.851
	Cd	108		
	Cd	114		
>	In	115		101.443
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		101.070
	Pd	106		
	Kr	84		

Sample ID: MKMWVD
Sample Description: G1G050412-2 SD
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 15:57:31
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWVD.141
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 104
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4752.441	ug/L	3729.760
>	6	Li-1			1827161.615	ug/L	1476390.650
	9	Be	-0.160541	16.625	29.000	ug/L	61.334
	44	Ca	1210.424730	0.378	239156.040	ug/L	23402.300
	52	Cr	8.288457	1.554	61460.579	ug/L	16331.266
	55	Mn	29.433417	0.702	270389.394	ug/L	3254.192
	59	Co	0.309455	3.318	3678.063	ug/L	1712.575
	60	Ni	6.482224	1.014	9154.332	ug/L	409.627
	75	As	1.281469	13.966	16784.434	ug/L	15819.343
	82	Se	35.041063	2.478	5796.081	ug/L	1800.495
>	72	Ge-1			2201304.939	ug/L	2296267.838
	111	Cd	0.084033	34.085	423.569	ug/L	317.687
	121	Sb	0.178755	6.092	1945.297	ug/L	1169.781
>	115	In-1			2317650.676	ug/L	2304093.251
	208	Pb	4.624303	0.532	101234.196	ug/L	5633.703
>	169	Tm-1			1944973.652	ug/L	1928182.659
	50	Cr	30.389729	2.598	4100.268	ug/L	-18.799
	53	Cr	-18.165555	8.687	9083.497	ug/L	14036.884
	61	Ni	6.877802	10.858	156.339	ug/L	10.000
	76	Se	354.524530	7.474	-322648.631	ug/L	-330538.422
	77	Se	-3.785422	45.112	5904.920	ug/L	6560.368
	78	Se	36.772646	1.211	26097.168	ug/L	16050.687
	79	Br	80.947155	0.503	52830.122	ug/L	14358.340
>	72	Ge			2201304.939	ug/L	2296267.838
	108	Cd	2.074053	14.664	197.473	ug/L	21.680
	114	Cd	-0.111038	35.449	441.948	ug/L	766.178
>	115	In			2317650.676	ug/L	2304093.251
	208	207.977	4.774712	0.808	53660.380	ug/L	2998.078
	207	Pb	4.818837	0.359	22225.422	ug/L	1235.127
	206	Pb	4.196220	0.404	25348.394	ug/L	1400.497
>	169	Tm			1944973.652	ug/L	1928182.659
	106	Pd			499.248	ug/L	6.684
	84	Kr			5978.254	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		123.759
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		95.864
	Cd	111		
	Sb	121		
>	In-1	115		100.588
	Pb	208		
>	Tm-1	169		100.871
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		95.864
	Cd	108		
	Cd	114		
>	In	115		100.588
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		100.871
	Pd	106		
	Kr	84		

Sample ID: MKMW0
Sample Description: G1G050412-4
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 15:59:51
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMW0.142
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 105
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4816.157	ug/L	3729.760
>	6	Li-1			1864315.018	ug/L	1476390.650
	9	Be	-0.089571	69.565	51.000	ug/L	61.334
	44	Ca	972.345161	0.009	199195.282	ug/L	23402.300
	52	Cr	8.329889	0.899	62511.217	ug/L	16331.266
	55	Mn	50.027737	0.495	463518.284	ug/L	3254.192
	59	Co	0.257003	34.060	3381.251	ug/L	1712.575
	60	Ni	8.269836	0.662	11725.950	ug/L	409.627
	75	As	0.466646	11.953	15967.921	ug/L	15819.343
	82	Se	53.356347	2.642	8029.205	ug/L	1800.495
>	72	Ge-1			2231068.097	ug/L	2296267.838
	111	Cd	0.143760	49.501	500.302	ug/L	317.687
	121	Sb	0.211907	32.429	2101.352	ug/L	1169.781
>	115	In-1			2329079.178	ug/L	2304093.251
	208	Pb	2.727228	2.261	62790.702	ug/L	5633.703
>	169	Tm-1			1968559.785	ug/L	1928182.659
	50	Cr	30.554992	2.630	4177.425	ug/L	-18.799
	53	Cr	-18.246425	11.145	9178.523	ug/L	14036.884
	61	Ni	8.354649	4.227	190.675	ug/L	10.000
	76	Se	432.639749	16.652	-328309.822	ug/L	-330538.422
	77	Se	13.887148	17.987	7807.686	ug/L	6560.368
	78	Se	53.038906	2.568	31248.151	ug/L	16050.687
	79	Br	59.513570	1.579	43055.722	ug/L	14358.340
>	72	Ge			2231068.097	ug/L	2296267.838
	108	Cd	1.687077	9.807	165.436	ug/L	21.680
	114	Cd	-0.005491	1790.645	760.531	ug/L	766.178
>	115	In			2329079.178	ug/L	2304093.251
	208	207.977	2.808384	2.002	33205.456	ug/L	2998.078
	207	Pb	2.810201	2.743	13644.623	ug/L	1235.127
	206	Pb	2.513032	2.425	15940.622	ug/L	1400.497
>	169	Tm			1968559.785	ug/L	1928182.659
	106	Pd			408.581	ug/L	6.684
	84	Kr			5805.828	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		126.275
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		97.161
	Cd	111		
	Sb	121		
>	In-1	115		101.084
	Pb	208		
>	Tm-1	169		102.094
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		97.161
	Cd	108		
	Cd	114		
>	In	115		101.084
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.094
	Pd	106		
	Kr	84		

Sample ID: MKMXC
Sample Description: G1G050412-6
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 16:02:12
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMXC.143
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 106
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4850.849	ug/L	3729.760
>	6	Li-1			1912942.463	ug/L	1476390.650
	9	Be	-0.141496	39.733	36.333	ug/L	61.334
	44	Ca	968.526012	1.521	201565.324	ug/L	23402.300
	52	Cr	4.223463	1.336	40130.146	ug/L	16331.266
	55	Mn	5.350333	0.714	53211.243	ug/L	3254.192
	59	Co	0.283473	19.043	3612.701	ug/L	1712.575
	60	Ni	6.316603	1.002	9189.826	ug/L	409.627
	75	As	0.221569	195.664	15892.035	ug/L	15819.343
	82	Se	39.532857	4.735	6500.303	ug/L	1800.495
>	72	Ge-1			2265787.724	ug/L	2296267.838
	111	Cd	0.020232	194.862	353.103	ug/L	317.687
	121	Sb	0.039779	113.000	1381.152	ug/L	1169.781
>	115	In-1			2370556.509	ug/L	2304093.251
	208	Pb	1.924593	0.806	46863.961	ug/L	5633.703
>	169	Tm-1			2005348.147	ug/L	1928182.659
	50	Cr	29.774360	1.004	4132.925	ug/L	-18.799
	53	Cr	-22.984698	9.971	8142.587	ug/L	14036.884
	61	Ni	6.186954	13.565	146.005	ug/L	10.000
	76	Se	440.255040	3.169	-333538.122	ug/L	-330538.422
	77	Se	0.571515	239.017	6531.679	ug/L	6560.368
	78	Se	38.256964	5.515	27299.271	ug/L	16050.687
	79	Br	52.419555	3.730	40194.666	ug/L	14358.340
>	72	Ge			2265787.724	ug/L	2296267.838
	108	Cd	0.942955	2.066	103.866	ug/L	21.680
	114	Cd	-0.102894	54.023	480.772	ug/L	766.178
>	115	In			2370556.509	ug/L	2304093.251
	208	207.977	1.988747	0.316	24862.824	ug/L	2998.078
	207	Pb	1.965683	1.879	10110.031	ug/L	1235.127
	206	Pb	1.773970	1.360	11891.106	ug/L	1400.497
>	169	Tm			2005348.147	ug/L	1928182.659
	106	Pd			264.623	ug/L	6.684
	84	Kr			5881.605	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		129.569
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		98.673
	Cd	111		
	Sb	121		
>	In-1	115		102.885
	Pb	208		
>	Tm-1	169		104.002
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		98.673
	Cd	108		
	Cd	114		
>	In	115		102.885
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		104.002
	Pd	106		
	Kr	84		

Sample ID: MKMXF
Sample Description: G1G050412-8
Batch ID: 1196180
Sample Date/Time: Monday, July 18, 2011 16:04:33
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMXF.144
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 107
Number of Replicates: 3
Dual Detector Mode: *Dual*
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4904.890	ug/L	3729.760
>	6	Li-1			1859443.636	ug/L	1476390.650
	9	Be	-0.192256	2.943	20.000	ug/L	61.334
	44	Ca	936.153053	0.597	198033.714	ug/L	23402.300
	52	Cr	3.346485	1.187	35576.510	ug/L	16331.266
	55	Mn	20.538535	0.802	197563.974	ug/L	3254.192
	59	Co	0.281143	3.466	3638.374	ug/L	1712.575
	60	Ni	4.670634	0.612	6985.923	ug/L	409.627
	75	As	0.521025	20.111	16487.026	ug/L	15819.343
	82	Se	0.436696	154.087	1850.537	ug/L	1800.495
>	72	Ge-1			2293654.330	ug/L	2296267.838
	111	Cd	-0.027978	93.818	296.550	ug/L	317.687
	121	Sb	0.059729	7.146	1490.508	ug/L	1169.781
>	115	In-1			2409011.531	ug/L	2304093.251
	208	Pb	1.854890	1.160	45910.508	ug/L	5633.703
>	169	Tm-1			2028835.143	ug/L	1928182.659
	50	Cr	4.829603	5.470	662.884	ug/L	-18.799
	53	Cr	-21.014178	11.878	8741.160	ug/L	14036.884
	61	Ni	4.920880	9.995	119.670	ug/L	10.000
	76	Se	374.121970	12.119	-336513.163	ug/L	-330538.422
	77	Se	-31.801107	4.348	3172.888	ug/L	6560.368
	78	Se	1.983863	34.883	16632.825	ug/L	16050.687
	79	Br	-0.034109	959.103	14323.275	ug/L	14358.340
>	72	Ge			2293654.330	ug/L	2296267.838
	108	Cd	0.637493	12.457	78.717	ug/L	21.680
	114	Cd	-0.106772	5.100	474.167	ug/L	766.178
>	115	In			2409011.531	ug/L	2304093.251
	208	207.977	1.914501	1.529	24335.132	ug/L	2998.078
	207	Pb	1.914893	1.588	9996.516	ug/L	1235.127
	206	Pb	1.698276	0.670	11578.860	ug/L	1400.497
>	169	Tm			2028835.143	ug/L	1928182.659
	106	Pd			159.531	ug/L	6.684
	84	Kr			6100.032	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		125.945
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		99.886
	Cd	111		
	Sb	121		
>	In-1	115		104.554
	Pb	208		
>	Tm-1	169		105.220
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		99.886
	Cd	108		
	Cd	114		
>	In	115		104.554
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		105.220
	Pd	106		
	Kr	84		

Sample ID: CCV 5
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:06:55
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 5.145
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3881.850	ug/L	3729.760
>	6	Li-1			1635511.708	ug/L	1476390.650
	9	Be	96.622490	0.967	25377.856	ug/L	61.334
	44	Ca	4994.014341	1.000	998634.733	ug/L	23402.300
	52	Cr	97.817242	1.022	605862.238	ug/L	16331.266
	55	Mn	97.521135	1.456	968126.188	ug/L	3254.192
	59	Co	96.964334	1.411	696852.157	ug/L	1712.575
	60	Ni	97.122807	1.491	143435.024	ug/L	409.627
	75	As	95.614801	0.859	148062.440	ug/L	15819.343
	82	Se	94.310945	0.249	13813.182	ug/L	1800.495
>	72	Ge-1			2397970.128	ug/L	2296267.838
	111	Cd	98.235853	1.131	125257.898	ug/L	317.687
	121	Sb	49.112748	0.972	218879.961	ug/L	1169.781
>	115	In-1			2386142.616	ug/L	2304093.251
	208	Pb	97.483593	0.518	2115564.233	ug/L	5633.703
>	169	Tm-1			2036975.716	ug/L	1928182.659
	50	Cr	99.213169	0.525	14622.365	ug/L	-18.799
	53	Cr	93.710237	1.811	39262.697	ug/L	14036.884
	61	Ni	100.091764	1.592	2340.204	ug/L	10.000
	76	Se	403.920390	27.272	-352331.210	ug/L	-330538.422
	77	Se	91.611312	1.710	17030.278	ug/L	6560.368
	78	Se	91.701985	0.689	45856.429	ug/L	16050.687
	79	Br	0.086137	1911.246	15047.821	ug/L	14358.340
>	72	Ge			2397970.128	ug/L	2296267.838
	108	Cd	96.516387	2.520	8429.095	ug/L	21.680
	114	Cd	97.741635	1.084	297238.470	ug/L	766.178
>	115	In			2386142.616	ug/L	2304093.251
	208	207.977	97.372530	0.444	1084644.020	ug/L	2998.078
	207	Pb	97.963968	0.482	447991.920	ug/L	1235.127
	206	Pb	97.323434	0.852	582928.293	ug/L	1400.497
>	169	Tm			2036975.716	ug/L	1928182.659
	106	Pd			-971.434	ug/L	6.684
	84	Kr			5661.215	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		110.778
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		104.429
	Cd	111		
	Sb	121		
>	In-1	115		103.561
	Pb	208		
>	Tm-1	169		105.642
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		104.429
	Cd	108		
	Cd	114		
>	In	115		103.561
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		105.642
	Pd	106		
	Kr	84		

Sample ID: CCB 5
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:09:16
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 5.146
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3586.344	ug/L	3729.760
>	6	Li-1			1586296.933	ug/L	1476390.650
	9	Be	-0.050797	102.287	53.000	ug/L	61.334
	44	Ca	-7.550873	19.664	22608.090	ug/L	23402.300
	52	Cr	-0.297590	9.486	15027.058	ug/L	16331.266
	55	Mn	-0.016183	208.022	3188.137	ug/L	3254.192
	59	Co	-0.044141	66.759	1449.167	ug/L	1712.575
	60	Ni	-0.029288	111.754	378.681	ug/L	409.627
	75	As	-1.121283	12.217	14745.689	ug/L	15819.343
	82	Se	-1.025111	75.658	1723.031	ug/L	1800.495
>	72	Ge-1			2360750.623	ug/L	2296267.838
	111	Cd	-0.055180	47.184	255.187	ug/L	317.687
	121	Sb	-0.099711	21.580	758.379	ug/L	1169.781
>	115	In-1			2350743.259	ug/L	2304093.251
	208	Pb	-0.047768	69.866	4791.705	ug/L	5633.703
>	169	Tm-1			1984874.919	ug/L	1928182.659
	50	Cr	0.023531	466.549	-15.817	ug/L	-18.799
	53	Cr	-3.771820	19.995	13455.045	ug/L	14036.884
	61	Ni	-0.114482	76.821	7.667	ug/L	10.000
	76	Se	418.573638	21.918	-347146.174	ug/L	-330538.422
	77	Se	-3.821052	7.324	6326.868	ug/L	6560.368
	78	Se	-4.488490	4.557	15099.256	ug/L	16050.687
	79	Br	-0.538222	83.770	14481.860	ug/L	14358.340
>	72	Ge			2360750.623	ug/L	2296267.838
	108	Cd	-0.046266	82.650	18.173	ug/L	21.680
	114	Cd	-0.054518	48.894	619.030	ug/L	766.178
>	115	In			2350743.259	ug/L	2304093.251
	208	207.977	-0.055987	62.681	2480.157	ug/L	2998.078
	207	Pb	-0.046804	65.552	1063.423	ug/L	1235.127
	206	Pb	-0.033224	97.606	1248.124	ug/L	1400.497
>	169	Tm			1984874.919	ug/L	1928182.659
	106	Pd			6.000	ug/L	6.684
	84	Kr			5923.705	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		107.444
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.808
	Cd	111		
	Sb	121		
>	In-1	115		102.025
	Pb	208		
>	Tm-1	169		102.940
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.808
	Cd	108		
	Cd	114		
>	In	115		102.025
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.940
	Pd	106		
	Kr	84		

Sample ID: CCV 6
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:11:37
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 6.147
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3889.189	ug/L	3729.760
>	6	Li-1			1600131.811	ug/L	1476390.650
	9	Be	99.475529	2.014	25553.209	ug/L	61.334
	44	Ca	5044.613463	1.355	994173.498	ug/L	23402.300
	52	Cr	100.019099	1.692	610293.911	ug/L	16331.266
	55	Mn	98.808229	1.802	966802.823	ug/L	3254.192
	59	Co	98.645887	1.342	698778.090	ug/L	1712.575
	60	Ni	98.817287	1.692	143836.837	ug/L	409.627
	75	As	99.131001	1.395	150723.797	ug/L	15819.343
	82	Se	96.970641	1.785	13949.038	ug/L	1800.495
>	72	Ge-1			2364424.686	ug/L	2296267.838
	111	Cd	99.913715	2.069	125168.163	ug/L	317.687
	121	Sb	49.773565	2.064	217945.155	ug/L	1169.781
>	115	In-1			2345508.373	ug/L	2304093.251
	208	Pb	98.316804	2.073	2110293.680	ug/L	5633.703
>	169	Tm-1			2015488.457	ug/L	1928182.659
	50	Cr	101.209889	2.761	14703.186	ug/L	-18.799
	53	Cr	98.304335	2.332	39893.111	ug/L	14036.884
	61	Ni	100.014320	3.696	2304.835	ug/L	10.000
	76	Se	384.214538	51.840	-347119.398	ug/L	-330538.422
	77	Se	95.640898	1.808	17229.314	ug/L	6560.368
	78	Se	96.506059	2.082	46706.344	ug/L	16050.687
	79	Br	-3.597756	31.577	12912.837	ug/L	14358.340
>	72	Ge			2364424.686	ug/L	2296267.838
	108	Cd	99.455396	2.164	8531.837	ug/L	21.680
	114	Cd	99.988772	2.058	298757.708	ug/L	766.178
>	115	In			2345508.373	ug/L	2304093.251
	208	207.977	98.285646	2.061	1082828.342	ug/L	2998.078
	207	Pb	98.855345	2.373	447102.576	ug/L	1235.127
	206	Pb	97.963709	1.871	580362.762	ug/L	1400.497
>	169	Tm			2015488.457	ug/L	1928182.659
	106	Pd			-902.316	ug/L	6.684
	84	Kr			5570.910	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		108.381
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.968
	Cd	111		
	Sb	121		
>	In-1	115		101.797
	Pb	208		
>	Tm-1	169		104.528
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.968
	Cd	108		
	Cd	114		
>	In	115		101.797
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		104.528
	Pd	106		
	Kr	84		

Sample ID: CCB 6
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:13:58
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 6.148
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3708.082	ug/L	3729.760
[>	6	Li-1			1594346.805	ug/L	1476390.650
[	9	Be	-0.151394	51.737	28.333	ug/L	61.334
[	44	Ca	-13.544626	12.783	21470.844	ug/L	23402.300
|	52	Cr	-0.358158	37.449	14704.407	ug/L	16331.266
|	55	Mn	-0.105121	76.988	2346.474	ug/L	3254.192
|	59	Co	-0.130830	47.504	850.735	ug/L	1712.575
|	60	Ni	-0.126695	39.665	239.766	ug/L	409.627
|	75	As	-1.294231	32.120	14513.559	ug/L	15819.343
|	82	Se	-1.465000	24.488	1669.749	ug/L	1800.495
[>	72	Ge-1			2363126.048	ug/L	2296267.838
[	111	Cd	-0.140081	52.684	151.312	ug/L	317.687
|	121	Sb	-0.174785	28.620	436.685	ug/L	1169.781
[>	115	In-1			2349897.044	ug/L	2304093.251
[	208	Pb	-0.139494	46.385	2904.308	ug/L	5633.703
[>	169	Tm-1			1990233.988	ug/L	1928182.659
[	50	Cr	-0.071738	68.903	-29.578	ug/L	-18.799
|	53	Cr	-4.011389	16.609	13404.107	ug/L	14036.884
|	61	Ni	-0.203727	39.130	5.667	ug/L	10.000
|	76	Se	432.363639	7.981	-347745.227	ug/L	-330538.422
|	77	Se	-4.083825	24.734	6306.525	ug/L	6560.368
|	78	Se	-4.658325	30.856	15049.059	ug/L	16050.687
|	79	Br	-2.773248	8.451	13340.795	ug/L	14358.340
[>	72	Ge			2363126.048	ug/L	2296267.838
[	108	Cd	-0.137399	51.052	10.470	ug/L	21.680
|	114	Cd	-0.136166	43.893	380.049	ug/L	766.178
[>	115	In			2349897.044	ug/L	2304093.251
[	208	207.977	-0.142609	45.843	1567.224	ug/L	2998.078
|	207	Pb	-0.151803	43.740	607.034	ug/L	1235.127
|	206	Pb	-0.124309	50.306	730.050	ug/L	1400.497
[>	169	Tm			1990233.988	ug/L	1928182.659
	106	Pd			5.294	ug/L	6.684
	84	Kr			5948.216	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		107.989
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.912
	Cd	111		
	Sb	121		
>	In-1	115		101.988
	Pb	208		
>	Tm-1	169		103.218
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.912
	Cd	108		
	Cd	114		
>	In	115		101.988
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		103.218
	Pd	106		
	Kr	84		

Sample ID: CCV 7
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:30:26
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 7.155
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5369.599	ug/L	3729.760
>	6	Li-1			1535540.898	ug/L	1476390.650
	9	Be	98.319182	1.447	24240.418	ug/L	61.334
	44	Ca	5150.751784	0.749	1015192.004	ug/L	23402.300
	52	Cr	97.933276	0.693	598298.201	ug/L	16331.266
	55	Mn	100.732399	0.633	986220.015	ug/L	3254.192
	59	Co	99.580964	0.988	705811.122	ug/L	1712.575
	60	Ni	99.755666	1.081	145291.977	ug/L	409.627
	75	As	97.437957	0.575	148529.177	ug/L	15819.343
	82	Se	104.724698	0.570	14926.624	ug/L	1800.495
>	72	Ge-1			2365677.331	ug/L	2296267.838
	111	Cd	98.931491	0.020	131210.759	ug/L	317.687
	121	Sb	48.454278	0.129	224644.785	ug/L	1169.781
>	115	In-1			2482250.920	ug/L	2304093.251
	208	Pb	97.205079	0.674	2140792.662	ug/L	5633.703
>	169	Tm-1			2067303.172	ug/L	1928182.659
	50	Cr	97.435844	3.300	14162.398	ug/L	-18.799
	53	Cr	79.040065	2.259	34929.030	ug/L	14036.884
	61	Ni	101.733428	3.128	2346.211	ug/L	10.000
	76	Se	282.464076	36.815	-345473.757	ug/L	-330538.422
	77	Se	74.834465	2.934	14958.630	ug/L	6560.368
	78	Se	98.104160	0.556	47239.536	ug/L	16050.687
	79	Br	-0.236886	129.169	14670.164	ug/L	14358.340
>	72	Ge			2365677.331	ug/L	2296267.838
	108	Cd	98.512945	0.333	8947.108	ug/L	21.680
	114	Cd	98.303612	0.465	310946.735	ug/L	766.178
>	115	In			2482250.920	ug/L	2304093.251
	208	207.977	96.822372	0.816	1094514.889	ug/L	2998.078
	207	Pb	97.749182	0.689	453630.321	ug/L	1235.127
	206	Pb	97.501275	0.486	592647.452	ug/L	1400.497
>	169	Tm			2067303.172	ug/L	1928182.659
	106	Pd			-899.204	ug/L	6.684
	84	Kr			6104.988	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		104.006
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		103.023
	Cd	111		
	Sb	121		
>	In-1	115		107.732
	Pb	208		
>	Tm-1	169		107.215
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		103.023
	Cd	108		
	Cd	114		
>	In	115		107.732
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		107.215
	Pd	106		
	Kr	84		

Sample ID: CCB 7
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:32:47
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 7.156
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4578.980	ug/L	3729.760
>	6	Li-1			1508936.397	ug/L	1476390.650
	9	Be	-0.071405	50.048	45.333	ug/L	61.334
	44	Ca	2.034553	285.783	24372.964	ug/L	23402.300
	52	Cr	-1.202155	4.001	9637.629	ug/L	16331.266
	55	Mn	0.027575	252.085	3600.374	ug/L	3254.192
	59	Co	-0.045968	118.903	1430.168	ug/L	1712.575
	60	Ni	-0.026814	189.486	380.947	ug/L	409.627
	75	As	-1.406380	19.707	14314.059	ug/L	15819.343
	82	Se	-0.497104	157.298	1783.255	ug/L	1800.495
>	72	Ge-1			2353962.534	ug/L	2296267.838
	111	Cd	-0.076707	79.056	243.717	ug/L	317.687
	121	Sb	-0.133548	26.408	653.368	ug/L	1169.781
>	115	In-1			2518247.150	ug/L	2304093.251
	208	Pb	-0.020666	316.187	5560.657	ug/L	5633.703
>	169	Tm-1			2062621.068	ug/L	1928182.659
	50	Cr	0.172560	35.918	5.641	ug/L	-18.799
	53	Cr	-18.821056	2.836	9538.645	ug/L	14036.884
	61	Ni	0.077961	316.983	12.000	ug/L	10.000
	76	Se	127.948513	29.103	-341074.394	ug/L	-330538.422
	77	Se	-21.184837	0.934	4415.072	ug/L	6560.368
	78	Se	-5.810205	9.620	14642.784	ug/L	16050.687
	79	Br	0.489069	136.540	14970.320	ug/L	14358.340
>	72	Ge			2353962.534	ug/L	2296267.838
	108	Cd	-0.072888	28.573	16.989	ug/L	21.680
	114	Cd	-0.062948	80.000	635.363	ug/L	766.178
>	115	In			2518247.150	ug/L	2304093.251
	208	207.977	-0.023028	291.491	2941.373	ug/L	2998.078
	207	Pb	-0.031293	204.674	1174.112	ug/L	1235.127
	206	Pb	-0.008165	772.234	1445.171	ug/L	1400.497
>	169	Tm			2062621.068	ug/L	1928182.659
	106	Pd			3.911	ug/L	6.684
	84	Kr			6113.607	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		102.204
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.513
	Cd	111		
	Sb	121		
>	In-1	115		109.294
	Pb	208		
>	Tm-1	169		106.972
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.513
	Cd	108		
	Cd	114		
>	In	115		109.294
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		106.972
	Pd	106		
	Kr	84		

BJones

Sample ID: CCV 8
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:35:09
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 8.157
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4859.190	ug/L	3729.760
>	6	Li-1			1468130.694	ug/L	1476390.650
	9	Be	98.986814	3.073	23321.693	ug/L	61.334
	44	Ca	5233.143667	3.112	1009817.902	ug/L	23402.300
	52	Cr	100.249617	3.320	599411.827	ug/L	16331.266
	55	Mn	102.017585	2.623	978357.438	ug/L	3254.192
	59	Co	102.096711	2.961	708719.354	ug/L	1712.575
	60	Ni	102.361064	2.645	146024.427	ug/L	409.627
	75	As	98.960953	4.227	147465.959	ug/L	15819.343
	82	Se	106.551633	1.545	14848.368	ug/L	1800.495
>	72	Ge-1			2318666.637	ug/L	2296267.838
	111	Cd	99.507491	2.409	131321.581	ug/L	317.687
	121	Sb	48.221669	2.546	222463.167	ug/L	1169.781
>	115	In-1			2471375.555	ug/L	2304093.251
	208	Pb	97.878814	3.220	2130166.373	ug/L	5633.703
>	169	Tm-1			2044634.765	ug/L	1928182.659
	50	Cr	100.305809	4.346	14278.736	ug/L	-18.799
	53	Cr	86.012912	5.226	35978.220	ug/L	14036.884
	61	Ni	103.612194	5.245	2339.537	ug/L	10.000
	76	Se	207.665702	12.101	-337339.555	ug/L	-330538.422
	77	Se	79.377020	4.481	15141.268	ug/L	6560.368
	78	Se	100.571363	5.459	47014.847	ug/L	16050.687
	79	Br	-2.200217	10.005	13377.175	ug/L	14358.340
>	72	Ge			2318666.637	ug/L	2296267.838
	108	Cd	99.391526	2.233	8982.392	ug/L	21.680
	114	Cd	98.630162	3.026	310399.074	ug/L	766.178
>	115	In			2471375.555	ug/L	2304093.251
	208	207.977	97.669902	3.315	1091016.511	ug/L	2998.078
	207	Pb	97.982664	3.504	449318.501	ug/L	1235.127
	206	Pb	98.187924	2.832	589831.360	ug/L	1400.497
>	169	Tm			2044634.765	ug/L	1928182.659
	106	Pd			-922.680	ug/L	6.684
	84	Kr			5956.640	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.441
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.975
	Cd	111		
	Sb	121		
>	In-1	115		107.260
	Pb	208		
>	Tm-1	169		106.039
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.975
	Cd	108		
	Cd	114		
>	In	115		107.260
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		106.039
	Pd	106		
	Kr	84		

Sample ID: CCB 8
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:37:29
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 8.158
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4179.706	ug/L	3729.760
>	6	Li-1			1413711.604	ug/L	1476390.650
	9	Be	-0.108763	44.313	34.000	ug/L	61.334
	44	Ca	-1.290611	278.621	23162.423	ug/L	23402.300
	52	Cr	-1.213845	3.376	9337.182	ug/L	16331.266
	55	Mn	-0.067953	66.866	2609.210	ug/L	3254.192
	59	Co	-0.105820	33.329	985.413	ug/L	1712.575
	60	Ni	-0.088817	52.913	284.257	ug/L	409.627
	75	As	-1.114246	1.678	14354.516	ug/L	15819.343
	82	Se	-0.050801	864.252	1795.108	ug/L	1800.495
>	72	Ge-1			2296771.061	ug/L	2296267.838
	111	Cd	-0.120173	41.530	181.280	ug/L	317.687
	121	Sb	-0.176315	11.242	443.016	ug/L	1169.781
>	115	In-1			2461463.220	ug/L	2304093.251
	208	Pb	-0.090852	49.316	3901.149	ug/L	5633.703
>	169	Tm-1			1996267.189	ug/L	1928182.659
	50	Cr	-0.037863	232.710	-24.184	ug/L	-18.799
	53	Cr	-15.841095	2.096	10056.872	ug/L	14036.884
	61	Ni	-0.015603	700.314	9.667	ug/L	10.000
	76	Se	333.935789	25.720	-336281.419	ug/L	-330538.422
	77	Se	-20.058894	5.764	4427.745	ug/L	6560.368
	78	Se	-4.218497	16.374	14771.243	ug/L	16050.687
	79	Br	-1.319279	20.584	13697.647	ug/L	14358.340
>	72	Ge			2296771.061	ug/L	2296267.838
	108	Cd	-0.004416	1595.955	22.717	ug/L	21.680
	114	Cd	-0.116330	27.774	453.823	ug/L	766.178
>	115	In			2461463.220	ug/L	2304093.251
	208	207.977	-0.096950	45.246	2046.340	ug/L	2998.078
	207	Pb	-0.100927	45.989	826.722	ug/L	1235.127
	206	Pb	-0.071826	63.351	1028.087	ug/L	1400.497
>	169	Tm			1996267.189	ug/L	1928182.659
	106	Pd			8.380	ug/L	6.684
	84	Kr			6284.541	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		95.755
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.022
	Cd	111		
	Sb	121		
>	In-1	115		106.830
	Pb	208		
>	Tm-1	169		103.531
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.022
	Cd	108		
	Cd	114		
>	In	115		106.830
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		103.531
	Pd	106		
	Kr	84		

Sample ID: CCV 9
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:53:57
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 9.165
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			6009.839	ug/L	3729.760
>	6	Li-1			1401856.726	ug/L	1476390.650
	9	Be	101.129013	2.039	22757.638	ug/L	61.334
	44	Ca	5193.379238	0.991	1023260.331	ug/L	23402.300
	52	Cr	96.971334	1.052	592531.336	ug/L	16331.266
	55	Mn	99.261959	0.569	971760.448	ug/L	3254.192
	59	Co	101.514372	0.120	719381.590	ug/L	1712.575
	60	Ni	102.079779	0.720	148643.254	ug/L	409.627
	75	As	96.267357	0.841	146909.883	ug/L	15819.343
	82	Se	103.695112	1.200	14796.789	ug/L	1800.495
>	72	Ge-1			2365225.513	ug/L	2296267.838
	111	Cd	97.593865	0.124	135654.638	ug/L	317.687
	121	Sb	47.154372	0.763	229138.253	ug/L	1169.781
>	115	In-1			2601434.901	ug/L	2304093.251
	208	Pb	94.867319	0.637	2137060.180	ug/L	5633.703
>	169	Tm-1			2114481.102	ug/L	1928182.659
	50	Cr	93.849346	1.341	13642.595	ug/L	-18.799
	53	Cr	75.171394	1.558	33922.323	ug/L	14036.884
	61	Ni	103.385632	2.635	2384.251	ug/L	10.000
	76	Se	507.242828	16.281	-349343.600	ug/L	-330538.422
	77	Se	71.951973	1.504	14643.122	ug/L	6560.368
	78	Se	95.426735	1.739	46388.235	ug/L	16050.687
	79	Br	0.374887	312.128	14987.365	ug/L	14358.340
>	72	Ge			2365225.513	ug/L	2296267.838
	108	Cd	96.698096	2.742	9205.445	ug/L	21.680
	114	Cd	96.380307	0.921	319502.325	ug/L	766.178
>	115	In			2601434.901	ug/L	2304093.251
	208	207.977	94.295083	0.950	1090272.539	ug/L	2998.078
	207	Pb	95.042764	0.502	451217.577	ug/L	1235.127
	206	Pb	95.797212	0.664	595570.064	ug/L	1400.497
>	169	Tm			2114481.102	ug/L	1928182.659
	106	Pd			-939.102	ug/L	6.684
	84	Kr			5687.550	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		94.952
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		103.003
	Cd	111		
	Sb	121		
>	In-1	115		112.905
	Pb	208		
>	Tm-1	169		109.662
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		103.003
	Cd	108		
	Cd	114		
>	In	115		112.905
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		109.662
	Pd	106		
	Kr	84		

Sample ID: CCB 9
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:56:18
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 9.166
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4835.174	ug/L	3729.760
>	6	Li-1			1314824.578	ug/L	1476390.650
	9	Be	-0.099190	77.737	34.000	ug/L	61.334
	44	Ca	9.306917	45.926	24634.992	ug/L	23402.300
	52	Cr	-1.306863	7.121	8624.863	ug/L	16331.266
	55	Mn	-0.074929	134.719	2503.543	ug/L	3254.192
	59	Co	-0.110852	76.726	939.087	ug/L	1712.575
	60	Ni	-0.090442	96.014	277.812	ug/L	409.627
	75	As	-1.152802	21.837	14005.670	ug/L	15819.343
	82	Se	-0.376408	167.590	1719.782	ug/L	1800.495
>	72	Ge-1			2249565.572	ug/L	2296267.838
	111	Cd	-0.084673	122.399	233.907	ug/L	317.687
	121	Sb	-0.168355	37.469	491.690	ug/L	1169.781
>	115	In-1			2508139.661	ug/L	2304093.251
	208	Pb	-0.109452	82.390	3567.132	ug/L	5633.703
>	169	Tm-1			2018046.194	ug/L	1928182.659
	50	Cr	-0.064951	164.308	-27.601	ug/L	-18.799
	53	Cr	-20.955333	3.094	8589.875	ug/L	14036.884
	61	Ni	-0.099992	245.333	7.667	ug/L	10.000
	76	Se	278.187928	25.758	-328463.253	ug/L	-330538.422
	77	Se	-20.431120	2.586	4298.350	ug/L	6560.368
	78	Se	-3.970877	15.836	14539.925	ug/L	16050.687
	79	Br	-0.069286	475.047	14032.827	ug/L	14358.340
>	72	Ge			2249565.572	ug/L	2296267.838
	108	Cd	-0.097172	19.382	14.717	ug/L	21.680
	114	Cd	-0.090017	108.436	549.851	ug/L	766.178
>	115	In			2508139.661	ug/L	2304093.251
	208	207.977	-0.118127	77.971	1847.325	ug/L	2998.078
	207	Pb	-0.114048	79.030	781.057	ug/L	1235.127
	206	Pb	-0.089818	96.679	938.750	ug/L	1400.497
>	169	Tm			2018046.194	ug/L	1928182.659
	106	Pd			7.644	ug/L	6.684
	84	Kr			6057.372	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		89.057
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		97.966
	Cd	111		
	Sb	121		
>	In-1	115		108.856
	Pb	208		
>	Tm-1	169		104.661
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		97.966
	Cd	108		
	Cd	114		
>	In	115		108.856
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		104.661
	Pd	106		
	Kr	84		

Sample ID: CCV 10
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 16:58:39
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 10.167
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4671.047	ug/L	3729.760
>	6	Li-1			1301988.091	ug/L	1476390.650
	9	Be	104.360226	1.883	21811.653	ug/L	61.334
	44	Ca	5314.218078	1.645	995388.929	ug/L	23402.300
	52	Cr	99.862574	1.296	579884.444	ug/L	16331.266
	55	Mn	101.934885	1.020	949059.983	ug/L	3254.192
	59	Co	105.590717	1.367	711661.146	ug/L	1712.575
	60	Ni	106.074850	0.172	146902.289	ug/L	409.627
	75	As	100.010795	1.476	144570.318	ug/L	15819.343
	82	Se	108.091974	0.590	14593.855	ug/L	1800.495
>	72	Ge-1			2249611.565	ug/L	2296267.838
	111	Cd	101.134348	1.033	134982.582	ug/L	317.687
	121	Sb	48.722921	0.904	227324.065	ug/L	1169.781
>	115	In-1			2498055.473	ug/L	2304093.251
	208	Pb	97.086991	0.598	2109016.963	ug/L	5633.703
>	169	Tm-1			2039057.595	ug/L	1928182.659
	50	Cr	97.106017	1.229	13425.690	ug/L	-18.799
	53	Cr	82.563732	0.874	34086.728	ug/L	14036.884
	61	Ni	109.405958	1.124	2399.266	ug/L	10.000
	76	Se	367.179176	19.000	-329939.754	ug/L	-330538.422
	77	Se	78.316950	0.344	14589.364	ug/L	6560.368
	78	Se	100.967614	0.949	45775.979	ug/L	16050.687
	79	Br	-3.374569	10.079	12402.790	ug/L	14358.340
>	72	Ge			2249611.565	ug/L	2296267.838
	108	Cd	99.165484	1.283	9063.975	ug/L	21.680
	114	Cd	99.359498	0.756	316289.666	ug/L	766.178
>	115	In			2498055.473	ug/L	2304093.251
	208	207.977	96.339285	0.411	1074195.589	ug/L	2998.078
	207	Pb	97.850629	0.989	447901.382	ug/L	1235.127
	206	Pb	97.894173	0.709	586919.993	ug/L	1400.497
>	169	Tm			2039057.595	ug/L	1928182.659
	106	Pd			-1044.869	ug/L	6.684
	84	Kr			5739.700	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		88.187
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		97.968
	Cd	111		
	Sb	121		
>	In-1	115		108.418
	Pb	208		
>	Tm-1	169		105.750
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		97.968
	Cd	108		
	Cd	114		
>	In	115		108.418
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		105.750
	Pd	106		
	Kr	84		

Sample ID: CCB 10
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 17:01:00
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 10.168
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4816.509	ug/L	3729.760
>	6	Li-1			1267469.395	ug/L	1476390.650
	9	Be	0.175943	254.572	87.668	ug/L	61.334
	44	Ca	25.664452	100.037	27146.385	ug/L	23402.300
	52	Cr	-0.951441	49.319	10436.202	ug/L	16331.266
	55	Mn	0.289280	189.007	5732.517	ug/L	3254.192
	59	Co	0.238127	196.100	3197.625	ug/L	1712.575
	60	Ni	0.278270	178.842	766.753	ug/L	409.627
	75	As	-0.546571	100.348	14554.048	ug/L	15819.343
	82	Se	0.235654	348.869	1762.902	ug/L	1800.495
>	72	Ge-1			2214369.778	ug/L	2296267.838
	111	Cd	0.298984	170.676	736.512	ug/L	317.687
	121	Sb	0.064959	483.507	1556.966	ug/L	1169.781
>	115	In-1			2486160.587	ug/L	2304093.251
	208	Pb	0.250324	193.906	11070.542	ug/L	5633.703
>	169	Tm-1			1986554.585	ug/L	1928182.659
	50	Cr	0.174944	240.551	5.202	ug/L	-18.799
	53	Cr	-18.587184	2.120	9030.915	ug/L	14036.884
	61	Ni	0.442003	155.196	19.000	ug/L	10.000
	76	Se	379.717704	3.665	-324974.532	ug/L	-330538.422
	77	Se	-20.393359	0.456	4234.319	ug/L	6560.368
	78	Se	-3.015186	30.862	14592.127	ug/L	16050.687
	79	Br	-2.080642	8.095	12836.726	ug/L	14358.340
>	72	Ge			2214369.778	ug/L	2296267.838
	108	Cd	0.435573	155.302	62.692	ug/L	21.680
	114	Cd	0.308328	176.164	1794.805	ug/L	766.178
>	115	In			2486160.587	ug/L	2304093.251
	208	207.977	0.253523	195.433	5826.161	ug/L	2998.078
	207	Pb	0.246373	203.386	2364.364	ug/L	1235.127
	206	Pb	0.247391	183.884	2880.017	ug/L	1400.497
>	169	Tm			1986554.585	ug/L	1928182.659
	106	Pd			1.158	ug/L	6.684
	84	Kr			6138.005	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		85.849
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		96.433
	Cd	111		
	Sb	121		
>	In-1	115		107.902
	Pb	208		
>	Tm-1	169		103.027
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		96.433
	Cd	108		
	Cd	114		
>	In	115		107.902
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		103.027
	Pd	106		
	Kr	84		

Sample ID: MKMWN
Sample Description: G1G050412-1
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:03:22
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWN.169
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 120
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			296835.317	ug/L	3729.760
>	6	Li-1			1385886.434	ug/L	1476390.650
	9	Be	0.442491	11.373	156.002	ug/L	61.334
	44	Ca	6180.060840	0.425	1173787.840	ug/L	23402.300
	52	Cr	49.051854	0.668	298081.514	ug/L	16331.266
	55	Mn	91.864354	1.202	870598.697	ug/L	3254.192
	59	Co	154.723760	0.497	1060030.971	ug/L	1712.575
	60	Ni	2466.298636	0.605	3465386.452	ug/L	409.627
	75	As	97.575199	0.574	143884.008	ug/L	15819.343
	82	Se	15.639738	5.810	3681.873	ug/L	1800.495
>	72	Ge-1			2288673.512	ug/L	2296267.838
	111	Cd	0.576514	10.584	1049.484	ug/L	317.687
	121	Sb	11.754163	0.986	52683.883	ug/L	1169.781
>	115	In-1			2358365.878	ug/L	2304093.251
	208	Pb	19.007371	0.793	382005.703	ug/L	5633.703
>	169	Tm-1			1864817.055	ug/L	1928182.659
	50	Cr	212.942741	13.559	30050.922	ug/L	-18.799
	53	Cr	21.679291	8.525	19429.839	ug/L	14036.884
	61	Ni	2527.182379	0.398	56160.784	ug/L	10.000
	76	Se	632.137781	3.771	-340155.075	ug/L	-330538.422
	77	Se	-29.744861	3.153	3386.632	ug/L	6560.368
	78	Se	4.086931	17.875	17234.152	ug/L	16050.687
	79	Br	4.565686	297.560	16715.640	ug/L	14358.340
>	72	Ge			2288673.512	ug/L	2296267.838
	108	Cd	4.212881	5.374	384.745	ug/L	21.680
	114	Cd	0.385388	11.749	1938.943	ug/L	766.178
>	115	In			2358365.878	ug/L	2304093.251
	208	207.977	19.377587	0.904	199922.905	ug/L	2998.078
	207	Pb	19.613968	1.161	83068.754	ug/L	1235.127
	206	Pb	17.856175	0.284	99014.044	ug/L	1400.497
>	169	Tm			1864817.055	ug/L	1928182.659
	106	Pd			848.736	ug/L	6.684
	84	Kr			5200.827	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		93.870
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		99.669
	Cd	111		
	Sb	121		
>	In-1	115		102.355
	Pb	208		
>	Tm-1	169		96.714
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		99.669
	Cd	108		
	Cd	114		
>	In	115		102.355
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		96.714
	Pd	106		
	Kr	84		

Sample ID: MKMWNP5
Sample Description: G1G050412-1 5X
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:05:43
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWNP5.170
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 121
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			61110.020	ug/L	3729.760
>	6	Li-1			1172558.868	ug/L	1476390.650
	9	Be	0.005067	131.223	49.667	ug/L	61.334
	44	Ca	1340.657282	0.220	252974.416	ug/L	23402.300
	52	Cr	8.990403	1.768	62963.006	ug/L	16331.266
	55	Mn	19.990818	0.719	177943.151	ug/L	3254.192
	59	Co	34.300628	0.474	219074.126	ug/L	1712.575
	60	Ni	549.644640	0.721	716270.359	ug/L	409.627
	75	As	21.894287	0.651	41262.838	ug/L	15819.343
	82	Se	3.127672	18.520	2013.340	ug/L	1800.495
>	72	Ge-1			2121527.987	ug/L	2296267.838
	111	Cd	0.085444	81.436	430.812	ug/L	317.687
	121	Sb	2.112180	0.908	10408.506	ug/L	1169.781
>	115	In-1			2349274.632	ug/L	2304093.251
	208	Pb	3.892488	1.964	86200.662	ug/L	5633.703
>	169	Tm-1			1947157.500	ug/L	1928182.659
	50	Cr	50.087728	5.658	6522.219	ug/L	-18.799
	53	Cr	-15.543741	1.279	9358.563	ug/L	14036.884
	61	Ni	570.509117	1.466	11759.347	ug/L	10.000
	76	Se	405.153179	27.666	-311744.516	ug/L	-330538.422
	77	Se	-24.843014	2.095	3619.387	ug/L	6560.368
	78	Se	-1.553856	54.176	14393.205	ug/L	16050.687
	79	Br	-8.752890	1.818	9194.982	ug/L	14358.340
>	72	Ge			2121527.987	ug/L	2296267.838
	108	Cd	0.817820	21.741	92.176	ug/L	21.680
	114	Cd	0.060363	85.345	961.204	ug/L	766.178
>	115	In			2349274.632	ug/L	2304093.251
	208	207.977	3.970358	1.709	45174.789	ug/L	2998.078
	207	Pb	4.008125	1.693	18715.148	ug/L	1235.127
	206	Pb	3.659470	3.069	22310.726	ug/L	1400.497
>	169	Tm			1947157.500	ug/L	1928182.659
	106	Pd			163.940	ug/L	6.684
	84	Kr			5466.046	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		79.421
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		92.390
	Cd	111		
	Sb	121		
>	In-1	115		101.961
	Pb	208		
>	Tm-1	169		100.984
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		92.390
	Cd	108		
	Cd	114		
>	In	115		101.961
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		100.984
	Pd	106		
	Kr	84		

SOP No. SAC-MT-0001

BJones

Sample ID: MKMWNS

Sample Description: G1G050412-1 MS
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:08:03
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWNS.171
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 122
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			266706.319	ug/L	3729.760
>	6	Li-1			1244107.886	ug/L	1476390.650
	9	Be	171.353787	0.832	34208.919	ug/L	61.334
	44	Ca	7006.554747	1.802	1214945.718	ug/L	23402.300
	52	Cr	235.274693	2.915	1251598.845	ug/L	16331.266
	55	Mn	279.134242	2.118	2414374.102	ug/L	3254.192
	59	Co	350.376932	1.222	2194267.384	ug/L	1712.575
	60	Ni	2627.466454	0.967	3377888.149	ug/L	409.627
	75	As	262.487324	1.631	329774.353	ug/L	15819.343
	82	Se	188.325336	1.970	22453.072	ug/L	1800.495
>	72	Ge-1			2093555.867	ug/L	2296267.838
	111	Cd	177.261293	2.593	215877.222	ug/L	317.687
	121	Sb	213.596925	1.804	906357.657	ug/L	1169.781
>	115	In-1			2281430.402	ug/L	2304093.251
	208	Pb	211.428801	2.141	4121554.162	ug/L	5633.703
>	169	Tm-1			1832566.340	ug/L	1928182.659
	50	Cr	314.200178	3.960	40451.837	ug/L	-18.799
	53	Cr	208.539002	3.210	60624.859	ug/L	14036.884
	61	Ni	2684.017660	1.075	54570.399	ug/L	10.000
	76	Se	537.153200	10.426	-309669.498	ug/L	-330538.422
	77	Se	114.652568	3.079	17108.780	ug/L	6560.368
	78	Se	168.376891	1.345	61282.076	ug/L	16050.687
	79	Br	-5.846478	25.050	10421.674	ug/L	14358.340
>	72	Ge			2093555.867	ug/L	2296267.838
	108	Cd	179.260674	2.446	14949.162	ug/L	21.680
	114	Cd	175.026054	1.974	508342.435	ug/L	766.178
>	115	In			2281430.402	ug/L	2304093.251
	208	207.977	220.092548	1.893	2201937.577	ug/L	2998.078
	207	Pb	222.958154	2.564	915763.705	ug/L	1235.127
	206	Pb	186.523494	2.367	1003852.880	ug/L	1400.497
>	169	Tm			1832566.340	ug/L	1928182.659
	106	Pd			-825.206	ug/L	6.684
	84	Kr			3470.681	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		84.267
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		91.172
	Cd	111		
	Sb	121		
>	In-1	115		99.016
	Pb	208		
>	Tm-1	169		95.041
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		91.172
	Cd	108		
	Cd	114		
>	In	115		99.016
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		95.041
	Pd	106		
	Kr	84		

Sample ID: MKMWND
Sample Description: G1G050412-1 SD
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:10:24
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWND.172
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 123
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			242585.481	ug/L	3729.760
>	6	Li-1			1087366.904	ug/L	1476390.650
	9	Be	173.272810	1.634	30207.070	ug/L	61.334
	44	Ca	6979.886611	1.601	1097337.312	ug/L	23402.300
	52	Cr	229.960008	0.756	1109082.105	ug/L	16331.266
	55	Mn	272.771772	1.449	2138156.319	ug/L	3254.192
	59	Co	352.635182	1.030	2001133.874	ug/L	1712.575
	60	Ni	2671.627575	0.879	3112073.730	ug/L	409.627
	75	As	262.557838	0.631	298856.303	ug/L	15819.343
	82	Se	186.530502	0.516	20167.022	ug/L	1800.495
>	72	Ge-1			1897699.622	ug/L	2296267.838
	111	Cd	174.620550	0.766	198374.741	ug/L	317.687
	121	Sb	212.457426	1.155	840843.715	ug/L	1169.781
>	115	In-1			2128828.575	ug/L	2304093.251
	208	Pb	208.760544	0.770	3939642.439	ug/L	5633.703
>	169	Tm-1			1774149.094	ug/L	1928182.659
	50	Cr	286.705927	3.690	33509.490	ug/L	-18.799
	53	Cr	204.647319	2.173	54130.845	ug/L	14036.884
	61	Ni	2723.571581	1.161	50168.608	ug/L	10.000
	76	Se	574.217355	26.211	-281199.937	ug/L	-330538.422
	77	Se	114.056677	2.101	15451.816	ug/L	6560.368
	78	Se	169.505586	1.132	55808.837	ug/L	16050.687
	79	Br	-6.870136	9.269	9015.486	ug/L	14358.340
>	72	Ge			1897699.622	ug/L	2296267.838
	108	Cd	177.329439	1.554	13800.907	ug/L	21.680
	114	Cd	172.123476	1.157	466350.417	ug/L	766.178
>	115	In			2128828.575	ug/L	2304093.251
	208	207.977	217.304233	0.524	2104604.615	ug/L	2998.078
	207	Pb	220.068396	1.148	875059.302	ug/L	1235.127
	206	Pb	184.247479	1.157	959978.522	ug/L	1400.497
>	169	Tm			1774149.094	ug/L	1928182.659
	106	Pd			-902.771	ug/L	6.684
	84	Kr			3168.035	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		73.650
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		82.643
	Cd	111		
	Sb	121		
>	In-1	115		92.393
	Pb	208		
>	Tm-1	169		92.011
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		82.643
	Cd	108		
	Cd	114		
>	In	115		92.393
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		92.011
	Pd	106		
	Kr	84		

Sample ID: MKMWW
Sample Description: G1G050412-3
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:12:45
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWW.173
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 124
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			214205.909	ug/L	3729.760
[>	6	Li-1			981552.839	ug/L	1476390.650
[	9	Be	0.403364	17.727	104.001	ug/L	61.334
[	44	Ca	5733.263185	1.138	855464.398	ug/L	23402.300
[	52	Cr	40.102483	0.705	193455.364	ug/L	16331.266
[	55	Mn	85.814043	1.627	638008.080	ug/L	3254.192
[	59	Co	136.385074	0.950	733103.461	ug/L	1712.575
[	60	Ni	2236.573486	0.192	2465005.675	ug/L	409.627
[	75	As	88.696522	0.870	103708.453	ug/L	15819.343
[	82	Se	7.699290	10.124	2135.505	ug/L	1800.495
[>	72	Ge-1			1794947.600	ug/L	2296267.838
[	111	Cd	0.358005	15.387	672.843	ug/L	317.687
[	121	Sb	9.559176	0.463	37412.019	ug/L	1169.781
[>	115	In-1			2048613.302	ug/L	2304093.251
[	208	Pb	14.016239	0.347	268862.339	ug/L	5633.703
[>	169	Tm-1			1770908.727	ug/L	1928182.659
[	50	Cr	117.516778	18.513	13001.315	ug/L	-18.799
[	53	Cr	9.880800	16.315	12917.316	ug/L	14036.884
[	61	Ni	2308.957209	0.409	40241.215	ug/L	10.000
[	76	Se	833.223822	15.740	-269451.899	ug/L	-330538.422
[	77	Se	-39.195490	2.151	1869.526	ug/L	6560.368
[	78	Se	-2.407861	9.332	11975.445	ug/L	16050.687
[	79	Br	-10.099148	10.486	7255.239	ug/L	14358.340
[>	72	Ge			1794947.600	ug/L	2296267.838
[	108	Cd	4.646548	2.801	366.528	ug/L	21.680
[	114	Cd	0.112233	61.778	971.698	ug/L	766.178
[>	115	In			2048613.302	ug/L	2304093.251
[	208	207.977	14.242544	0.450	140267.750	ug/L	2998.078
[	207	Pb	14.435133	0.379	58354.008	ug/L	1235.127
[	206	Pb	13.275835	0.775	70240.581	ug/L	1400.497
[>	169	Tm			1770908.727	ug/L	1928182.659
	106	Pd			876.908	ug/L	6.684
	84	Kr			4322.055	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		66.483
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		78.168
	Cd	111		
	Sb	121		
>	In-1	115		88.912
	Pb	208		
>	Tm-1	169		91.843
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		78.168
	Cd	108		
	Cd	114		
>	In	115		88.912
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		91.843
	Pd	106		
	Kr	84		

Sample ID: MKMW6
Sample Description: G1G050412-5
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:15:05
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMW6.174
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 125
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			201366.777	ug/L	3729.760
>	6	Li-1			875607.490	ug/L	1476390.650
	9	Be	0.565048	39.041	115.334	ug/L	61.334
	44	Ca	7989.450369	0.816	1065255.359	ug/L	23402.300
	52	Cr	38.492339	0.798	167390.983	ug/L	16331.266
	55	Mn	104.710518	0.773	699304.926	ug/L	3254.192
	59	Co	136.891480	0.463	661494.061	ug/L	1712.575
	60	Ni	1916.760735	0.500	1899102.625	ug/L	409.627
	75	As	80.529854	0.852	85673.367	ug/L	15819.343
	82	Se	20.115885	5.634	2977.594	ug/L	1800.495
>	72	Ge-1			1613719.970	ug/L	2296267.838
	111	Cd	0.450793	21.427	703.985	ug/L	317.687
	121	Sb	10.753509	0.712	38176.196	ug/L	1169.781
>	115	In-1			1864154.693	ug/L	2304093.251
	208	Pb	14.845630	0.761	268705.050	ug/L	5633.703
>	169	Tm-1			1672862.132	ug/L	1928182.659
	50	Cr	68.314455	21.785	6792.158	ug/L	-18.799
	53	Cr	9.256086	22.406	11504.768	ug/L	14036.884
	61	Ni	1953.732639	0.753	30618.327	ug/L	10.000
	76	Se	833.616974	4.672	-242249.499	ug/L	-330538.422
	77	Se	-29.410959	3.319	2412.321	ug/L	6560.368
	78	Se	10.241841	14.794	13468.204	ug/L	16050.687
	79	Br	-9.594548	5.377	6697.803	ug/L	14358.340
>	72	Ge			1613719.970	ug/L	2296267.838
	108	Cd	3.837514	9.738	278.279	ug/L	21.680
	114	Cd	0.261757	37.879	1236.935	ug/L	766.178
>	115	In			1864154.693	ug/L	2304093.251
	208	207.977	15.108216	0.852	140395.222	ug/L	2998.078
	207	Pb	15.337370	1.186	58497.642	ug/L	1235.127
	206	Pb	13.982180	0.597	69812.186	ug/L	1400.497
>	169	Tm			1672862.132	ug/L	1928182.659
	106	Pd			667.897	ug/L	6.684
	84	Kr			3936.773	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		59.307
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		70.276
	Cd	111		
	Sb	121		
>	In-1	115		80.906
	Pb	208		
>	Tm-1	169		86.758
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		70.276
	Cd	108		
	Cd	114		
>	In	115		80.906
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		86.758
	Pd	106		
	Kr	84		

Sample ID: MKMXD
Sample Description: G1G050412-7
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:17:26
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMXD.175
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 126
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			178337.602	ug/L	3729.760
>	6	Li-1			886266.661	ug/L	1476390.650
	9	Be	-0.130050	17.562	18.333	ug/L	61.334
	44	Ca	3397.861540	1.139	481131.080	ug/L	23402.300
	52	Cr	11.856380	2.330	61894.573	ug/L	16331.266
	55	Mn	8.239108	1.066	59432.952	ug/L	3254.192
	59	Co	3.363818	1.086	18130.124	ug/L	1712.575
	60	Ni	23.988244	2.353	25019.330	ug/L	409.627
	75	As	0.834377	10.273	12371.043	ug/L	15819.343
	82	Se	4.532273	13.811	1718.240	ug/L	1800.495
>	72	Ge-1			1678968.410	ug/L	2296267.838
	111	Cd	0.254330	30.588	530.568	ug/L	317.687
	121	Sb	0.207367	10.614	1731.902	ug/L	1169.781
>	115	In-1			1940660.852	ug/L	2304093.251
	208	Pb	3.510565	0.833	70056.225	ug/L	5633.703
>	169	Tm-1			1742088.155	ug/L	1928182.659
	50	Cr	-78.323005	3.153	-8103.738	ug/L	-18.799
	53	Cr	-18.325920	2.275	6895.114	ug/L	14036.884
	61	Ni	25.950147	5.288	430.041	ug/L	10.000
	76	Se	863.490576	8.102	-252424.214	ug/L	-330538.422
	77	Se	-40.231452	1.487	1667.486	ug/L	6560.368
	78	Se	-2.289745	26.743	11226.818	ug/L	16050.687
	79	Br	-11.225744	8.487	6369.905	ug/L	14358.340
>	72	Ge			1678968.410	ug/L	2296267.838
	108	Cd	3.221539	10.256	246.216	ug/L	21.680
	114	Cd	0.071150	35.084	820.189	ug/L	766.178
>	115	In			1940660.852	ug/L	2304093.251
	208	207.977	3.543208	0.620	36361.590	ug/L	2998.078
	207	Pb	3.612934	1.579	15203.140	ug/L	1235.127
	206	Pb	3.371753	0.964	18491.494	ug/L	1400.497
>	169	Tm			1742088.155	ug/L	1928182.659
	106	Pd			666.044	ug/L	6.684
	84	Kr			4302.565	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		60.029
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		73.117
	Cd	111		
	Sb	121		
>	In-1	115		84.227
	Pb	208		
>	Tm-1	169		90.349
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		73.117
	Cd	108		
	Cd	114		
>	In	115		84.227
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		90.349
	Pd	106		
	Kr	84		

Sample ID: CCV 11
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 17:19:48
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 11.176
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4888.214	ug/L	3729.760
>	6	Li-1			810772.097	ug/L	1476390.650
	9	Be	98.420923	1.610	12818.579	ug/L	61.334
	44	Ca	4995.618809	0.385	701295.843	ug/L	23402.300
	52	Cr	91.683390	0.612	399404.719	ug/L	16331.266
	55	Mn	90.195861	0.564	628761.063	ug/L	3254.192
	59	Co	102.807040	0.831	518586.074	ug/L	1712.575
	60	Ni	109.688166	2.774	113637.040	ug/L	409.627
	75	As	99.768235	0.677	107960.532	ug/L	15819.343
	82	Se	106.332467	1.119	10766.337	ug/L	1800.495
>	72	Ge-1			1683556.931	ug/L	2296267.838
	111	Cd	96.268419	1.843	107086.437	ug/L	317.687
	121	Sb	48.287364	0.147	187740.750	ug/L	1169.781
>	115	In-1			2081633.672	ug/L	2304093.251
	208	Pb	93.668270	1.419	1907757.633	ug/L	5633.703
>	169	Tm-1			1911626.763	ug/L	1928182.659
	50	Cr	85.025879	3.554	8799.267	ug/L	-18.799
	53	Cr	67.562745	1.693	22745.969	ug/L	14036.884
	61	Ni	114.388391	3.862	1876.108	ug/L	10.000
	76	Se	595.994221	15.366	-249769.880	ug/L	-330538.422
	77	Se	70.610882	0.828	10317.854	ug/L	6560.368
	78	Se	100.872474	1.327	34238.809	ug/L	16050.687
	79	Br	-7.994051	3.456	7576.156	ug/L	14358.340
>	72	Ge			1683556.931	ug/L	2296267.838
	108	Cd	94.542718	0.470	7201.830	ug/L	21.680
	114	Cd	96.099407	1.496	254941.261	ug/L	766.178
>	115	In			2081633.672	ug/L	2304093.251
	208	207.977	93.006877	1.444	972333.944	ug/L	2998.078
	207	Pb	93.756708	1.384	402376.860	ug/L	1235.127
	206	Pb	94.830314	1.454	533046.828	ug/L	1400.497
>	169	Tm			1911626.763	ug/L	1928182.659
	106	Pd			-1028.837	ug/L	6.684
	84	Kr			4336.332	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		54.916
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		73.317
	Cd	111		
	Sb	121		
>	In-1	115		90.345
	Pb	208		
>	Tm-1	169		99.141
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		73.317
	Cd	108		
	Cd	114		
>	In	115		90.345
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		99.141
	Pd	106		
	Kr	84		

Sample ID: CCB 11
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 17:22:09
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 11.177
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4106.993	ug/L	3729.760
>	6	Li-1			771187.846	ug/L	1476390.650
	9	Be	0.130061	102.362	48.000	ug/L	61.334
	44	Ca	75.325667	12.262	26852.600	ug/L	23402.300
	52	Cr	-1.083510	9.937	7227.778	ug/L	16331.266
	55	Mn	0.339623	42.192	4634.735	ug/L	3254.192
	59	Co	0.539980	35.670	3880.562	ug/L	1712.575
	60	Ni	6.106073	27.332	6457.780	ug/L	409.627
	75	As	1.285544	27.810	12550.867	ug/L	15819.343
	82	Se	0.836948	47.375	1363.019	ug/L	1800.495
>	72	Ge-1			1645771.978	ug/L	2296267.838
	111	Cd	0.152791	86.080	446.513	ug/L	317.687
	121	Sb	0.083454	106.115	1349.815	ug/L	1169.781
>	115	In-1			2039645.693	ug/L	2304093.251
	208	Pb	0.191776	62.479	8973.876	ug/L	5633.703
>	169	Tm-1			1812319.711	ug/L	1928182.659
	50	Cr	0.690415	29.950	56.387	ug/L	-18.799
	53	Cr	-23.916325	1.977	5750.934	ug/L	14036.884
	61	Ni	5.522480	24.491	95.335	ug/L	10.000
	76	Se	709.044368	9.493	-245545.462	ug/L	-330538.422
	77	Se	-19.911531	4.751	3183.557	ug/L	6560.368
	78	Se	4.369599	19.348	12454.983	ug/L	16050.687
	79	Br	-6.416529	5.623	7975.497	ug/L	14358.340
>	72	Ge			1645771.978	ug/L	2296267.838
	108	Cd	0.149183	75.307	30.260	ug/L	21.680
	114	Cd	0.176725	57.252	1134.912	ug/L	766.178
>	115	In			2039645.693	ug/L	2304093.251
	208	207.977	0.187417	65.000	4662.779	ug/L	2998.078
	207	Pb	0.209314	59.283	2006.996	ug/L	1235.127
	206	Pb	0.186496	60.741	2304.102	ug/L	1400.497
>	169	Tm			1812319.711	ug/L	1928182.659
	106	Pd			-4.134	ug/L	6.684
	84	Kr			4745.964	ug/L	6291.804

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		52.235
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		71.672
	Cd	111		
	Sb	121		
>	In-1	115		88.523
	Pb	208		
>	Tm-1	169		93.991
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		71.672
	Cd	108		
	Cd	114		
>	In	115		88.523
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		93.991
	Pd	106		
	Kr	84		

Sample ID: BLK RECAL
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 17:22:09
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 11.177
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4106.993	ug/L	
>	6	Li-1			771187.846	ug/L	
	9	Be			48.000	ug/L	
	44	Ca			26852.600	ug/L	
	52	Cr			7227.778	ug/L	
	55	Mn			4634.735	ug/L	
	59	Co			3880.562	ug/L	
	60	Ni			6457.780	ug/L	
	75	As			12550.867	ug/L	
	82	Se			1363.019	ug/L	
>	72	Ge-1			1645771.978	ug/L	
	111	Cd			446.513	ug/L	
	121	Sb			1349.815	ug/L	
>	115	In-1			2039645.693	ug/L	
	208	Pb			8973.876	ug/L	
>	169	Tm-1			1812319.711	ug/L	
	50	Cr			56.387	ug/L	
	53	Cr			5750.934	ug/L	
	61	Ni			95.335	ug/L	
	76	Se			-245545.462	ug/L	
	77	Se			3183.557	ug/L	
	78	Se			12454.983	ug/L	
	79	Br			7975.497	ug/L	
>	72	Ge			1645771.978	ug/L	
	108	Cd			30.260	ug/L	
	114	Cd			1134.912	ug/L	
>	115	In			2039645.693	ug/L	
	208	207.977			4662.779	ug/L	
	207	Pb			2006.996	ug/L	
	206	Pb			2304.102	ug/L	
>	169	Tm			1812319.711	ug/L	
	106	Pd			-4.134	ug/L	
	84	Kr			4745.964	ug/L	

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	As	75	
	Se	82	
>	Ge-1	72	
	Cd	111	
	Sb	121	
>	In-1	115	
	Pb	208	
>	Tm-1	169	
	Cr	50	
	Cr	53	
	Ni	61	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	
	Cd	108	
	Cd	114	
>	In	115	
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	
	Pd	106	
	Kr	84	

Sample ID: STD1 RECAL
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 17:19:48
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 11.176
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4888.214	ug/L	4106.993
>	6	Li-1			810772.097	ug/L	771187.846
	9	Be	100.000000	1.612	12818.579	ug/L	48.000
	44	Ca	5100.000000	0.391	701295.843	ug/L	26852.600
	52	Cr	100.000000	0.604	399404.719	ug/L	7227.778
	55	Mn	100.000000	0.566	628761.063	ug/L	4634.735
	59	Co	100.000000	0.836	518586.074	ug/L	3880.562
	60	Ni	100.000000	2.937	113637.040	ug/L	6457.780
	75	As	100.000000	0.686	107960.532	ug/L	12550.867
	82	Se	100.000000	1.128	10766.337	ug/L	1363.019
>	72	Ge-1			1683556.931	ug/L	1645771.978
	111	Cd	100.000000	1.846	107086.437	ug/L	446.513
	121	Sb	50.000000	0.147	187740.750	ug/L	1349.815
>	115	In-1			2081633.672	ug/L	2039645.693
	208	Pb	100.000000	1.422	1907757.633	ug/L	8973.876
>	169	Tm-1			1911626.763	ug/L	1812319.711
	50	Cr	100.000000	3.583	8799.267	ug/L	56.387
	53	Cr	100.000000	1.250	22745.969	ug/L	5750.934
	61	Ni	100.000000	4.058	1876.108	ug/L	95.335
	76	Se	100.000000	80.887	-249769.880	ug/L	-245545.462
	77	Se	100.000000	0.646	10317.854	ug/L	3183.557
	78	Se	100.000000	1.387	34238.809	ug/L	12454.983
	79	Br	100.000000	17.520	7576.156	ug/L	7975.497
>	72	Ge			1683556.931	ug/L	1645771.978
	108	Cd	100.000000	0.471	7201.830	ug/L	30.260
	114	Cd	100.000000	1.499	254941.261	ug/L	1134.912
>	115	In			2081633.672	ug/L	2039645.693
	208	207.977	100.000000	1.447	972333.944	ug/L	4662.779
	207	Pb	100.000000	1.387	402376.860	ug/L	2006.996
	206	Pb	100.000000	1.457	533046.828	ug/L	2304.102
>	169	Tm			1911626.763	ug/L	1812319.711
	106	Pd			-1028.837	ug/L	-4.134
	84	Kr			4336.332	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: CCV 12
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 17:24:30
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 12.178
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3831.159	ug/L	4106.993
>	6	Li-1			791173.719	ug/L	771187.846
	9	Be	101.679842	0.293	12714.693	ug/L	48.000
	44	Ca	5156.857033	0.354	692403.144	ug/L	26852.600
	52	Cr	101.874833	1.129	397374.008	ug/L	7227.778
	55	Mn	101.168595	0.222	621347.885	ug/L	4634.735
	59	Co	101.325380	0.763	513235.222	ug/L	3880.562
	60	Ni	100.445473	1.746	111536.697	ug/L	6457.780
	75	As	101.521386	1.025	106884.812	ug/L	12550.867
	82	Se	100.343920	0.964	10547.580	ug/L	1363.019
>	72	Ge-1			1644735.773	ug/L	1645771.978
	111	Cd	100.599217	1.032	105724.331	ug/L	446.513
	121	Sb	50.299940	0.945	185371.836	ug/L	1349.815
>	115	In-1			2043349.214	ug/L	2039645.693
	208	Pb	100.912186	0.484	1863045.542	ug/L	8973.876
>	169	Tm-1			1850039.962	ug/L	1812319.711
	50	Cr	99.439123	1.866	8547.403	ug/L	56.387
	53	Cr	106.351724	1.638	23261.782	ug/L	5750.934
	61	Ni	97.208360	3.358	1786.036	ug/L	95.335
	76	Se	198.393192	25.005	-242649.216	ug/L	-245545.462
	77	Se	103.426456	2.266	10313.180	ug/L	3183.557
	78	Se	102.392303	1.274	33946.362	ug/L	12454.983
	79	Br	100.685537	26.157	7395.674	ug/L	7975.497
>	72	Ge			1644735.773	ug/L	1645771.978
	108	Cd	99.396041	1.337	7026.069	ug/L	30.260
	114	Cd	100.902624	0.858	252463.634	ug/L	1134.912
>	115	In			2043349.214	ug/L	2039645.693
	208	207.977	100.787958	0.543	948374.850	ug/L	4662.779
	207	Pb	101.172315	0.514	393985.128	ug/L	2006.996
	206	Pb	100.942443	0.551	520685.564	ug/L	2304.102
>	169	Tm			1850039.962	ug/L	1812319.711
	106	Pd			-1100.876	ug/L	-4.134
	84	Kr			4238.167	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		102.592
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		99.937
	Cd	111		
	Sb	121		
>	In-1	115		100.182
	Pb	208		
>	Tm-1	169		102.081
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		99.937
	Cd	108		
	Cd	114		
>	In	115		100.182
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.081
	Pd	106		
	Kr	84		

Sample ID: CCB 12
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 17:26:50
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 12.179
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4026.949	ug/L	4106.993
>	6	Li-1			780522.575	ug/L	771187.846
	9	Be	0.074275	307.792	58.000	ug/L	48.000
	44	Ca	-4.412009	333.394	26524.062	ug/L	26852.600
	52	Cr	0.089626	331.236	7643.997	ug/L	7227.778
	55	Mn	0.075435	432.705	5149.968	ug/L	4634.735
	59	Co	0.077630	487.956	4318.664	ug/L	3880.562
	60	Ni	0.425240	680.289	6979.622	ug/L	6457.780
	75	As	-0.085941	559.099	12584.065	ug/L	12550.867
	82	Se	0.151308	184.721	1389.182	ug/L	1363.019
>	72	Ge-1			1660289.668	ug/L	1645771.978
	111	Cd	0.109098	226.105	566.254	ug/L	446.513
	121	Sb	0.038256	446.808	1504.866	ug/L	1349.815
>	115	In-1			2054783.502	ug/L	2039645.693
	208	Pb	0.077885	326.554	10387.724	ug/L	8973.876
>	169	Tm-1			1810991.274	ug/L	1812319.711
	50	Cr	0.097387	265.532	65.372	ug/L	56.387
	53	Cr	2.492754	38.339	6216.160	ug/L	5750.934
	61	Ni	1.304499	196.779	119.337	ug/L	95.335
	76	Se	107.631313	44.344	-246213.272	ug/L	-245545.462
	77	Se	0.336493	484.587	3234.576	ug/L	3183.557
	78	Se	-0.975733	39.922	12357.551	ug/L	12454.983
	79	Br	41.683592	79.044	7805.350	ug/L	7975.497
>	72	Ge			1660289.668	ug/L	1645771.978
	108	Cd	0.047525	303.319	33.927	ug/L	30.260
	114	Cd	0.050292	454.544	1272.972	ug/L	1134.912
>	115	In			2054783.502	ug/L	2039645.693
	208	207.977	0.083495	310.883	5434.288	ug/L	4662.779
	207	Pb	0.065737	386.512	2259.117	ug/L	2006.996
	206	Pb	0.076821	319.472	2694.319	ug/L	2304.102
>	169	Tm			1810991.274	ug/L	1812319.711
	106	Pd			7.318	ug/L	-4.134
	84	Kr			4757.413	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		101.210
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.882
	Cd	111		
	Sb	121		
>	In-1	115		100.742
	Pb	208		
>	Tm-1	169		99.927
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.882
	Cd	108		
	Cd	114		
>	In	115		100.742
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		99.927
	Pd	106		
	Kr	84		

BJones

Sample ID: MKMWN
Sample Description: G1G050412-1
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:29:13
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWN.180
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 127
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			1113.444	ug/L	4106.993
>	6	Li-1			412255.927	ug/L	771187.846
	9	Be	-0.138371	126.207	11.000	ug/L	48.000
	44	Ca	216.145485	173.163	18382.583	ug/L	26852.600
	52	Cr	0.050922	3189.778	2624.886	ug/L	7227.778
	55	Mn	-0.322055	107.501	958.073	ug/L	4634.735
	59	Co	-0.367851	83.987	736.043	ug/L	3880.562
	60	Ni	-2.888773	92.663	1218.022	ug/L	6457.780
	75	As	28.334800	137.853	12638.780	ug/L	12550.867
	82	Se	26.663564	138.527	1276.165	ug/L	1363.019
>	72	Ge-1			930885.319	ug/L	1645771.978
	111	Cd	-0.165823	105.194	104.210	ug/L	446.513
	121	Sb	-0.141506	92.477	338.676	ug/L	1349.815
>	115	In-1			1107099.499	ug/L	2039645.693
	208	Pb	-0.212499	88.117	2161.479	ug/L	8973.876
>	169	Tm-1			1043075.275	ug/L	1812319.711
	50	Cr	-0.921379	93.706	0.385	ug/L	56.387
	53	Cr	32.099833	161.766	3968.859	ug/L	5750.934
	61	Ni	-0.821695	600.962	24.667	ug/L	95.335
	76	Se	883.956783	314.920	-142657.600	ug/L	-245545.462
	77	Se	-9.926335	166.640	1106.743	ug/L	3183.557
	78	Se	122.187081	138.216	12437.697	ug/L	12454.983
	79	Br	-265.065539	478.997	3503.696	ug/L	7975.497
>	72	Ge			930885.319	ug/L	1645771.978
	108	Cd	-0.109656	150.694	9.568	ug/L	30.260
	114	Cd	-0.205169	79.984	241.705	ug/L	1134.912
>	115	In			1107099.499	ug/L	2039645.693
	208	207.977	-0.216811	85.819	1132.103	ug/L	4662.779
	207	Pb	-0.248008	72.894	453.017	ug/L	2006.996
	206	Pb	-0.177851	109.334	576.360	ug/L	2304.102
>	169	Tm			1043075.275	ug/L	1812319.711
	106	Pd			4.217	ug/L	-4.134
	84	Kr			4527.082	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		53.457
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		56.562
	Cd	111		
	Sb	121		
>	In-1	115		54.279
	Pb	208		
>	Tm-1	169		57.555
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		56.562
	Cd	108		
	Cd	114		
>	In	115		54.279
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		57.555
	Pd	106		
	Kr	84		

Sample ID: MKMWNP5
Sample Description: G1G050412-1 5X
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:31:33
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWNP5.181
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 128
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			50271.850	ug/L	4106.993
>	6	Li-1			826086.027	ug/L	771187.846
	9	Be	-0.005949	948.677	50.667	ug/L	48.000
	44	Ca	1224.584290	1.760	193490.568	ug/L	26852.600
	52	Cr	10.368944	1.712	49114.535	ug/L	7227.778
	55	Mn	19.435912	0.924	128830.579	ug/L	4634.735
	59	Co	32.883950	1.193	177057.619	ug/L	3880.562
	60	Ni	529.053642	0.913	585843.552	ug/L	6457.780
	75	As	21.801911	2.218	34321.762	ug/L	12550.867
	82	Se	2.949956	36.193	1708.029	ug/L	1363.019
>	72	Ge-1			1721071.334	ug/L	1645771.978
	111	Cd	-0.022331	469.780	426.157	ug/L	446.513
	121	Sb	2.233250	4.305	9562.856	ug/L	1349.815
>	115	In-1			2051525.031	ug/L	2039645.693
	208	Pb	3.948244	2.283	81389.839	ug/L	8973.876
>	169	Tm-1			1842712.314	ug/L	1812319.711
	50	Cr	53.273956	5.651	4816.678	ug/L	56.387
	53	Cr	10.214461	13.346	7773.610	ug/L	5750.934
	61	Ni	527.661894	1.504	9698.992	ug/L	95.335
	76	Se	8.914492	1544.106	-256661.806	ug/L	-245545.462
	77	Se	-2.972108	15.570	3114.533	ug/L	3183.557
	78	Se	-1.713054	89.081	12646.673	ug/L	12454.983
	79	Br	172.901448	2.432	7311.940	ug/L	7975.497
>	72	Ge			1721071.334	ug/L	1645771.978
	108	Cd	0.679583	35.967	78.510	ug/L	30.260
	114	Cd	-0.080809	121.908	940.536	ug/L	1134.912
>	115	In			2051525.031	ug/L	2039645.693
	208	207.977	4.040876	2.564	42434.150	ug/L	4662.779
	207	Pb	4.078500	1.743	17779.818	ug/L	2006.996
	206	Pb	3.681100	2.362	21175.872	ug/L	2304.102
>	169	Tm			1842712.314	ug/L	1812319.711
	106	Pd			137.305	ug/L	-4.134
	84	Kr			4645.926	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		107.119
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		104.575
	Cd	111		
	Sb	121		
>	In-1	115		100.582
	Pb	208		
>	Tm-1	169		101.677
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		104.575
	Cd	108		
	Cd	114		
>	In	115		100.582
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		101.677
	Pd	106		
	Kr	84		

Sample ID: MKMWNS
Sample Description: G1G050412-1 MS
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:33:54
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWNS.182
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 129
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			200218.826	ug/L	4106.993
>	6	Li-1			838787.399	ug/L	771187.846
	9	Be	178.856761	1.649	23681.422	ug/L	48.000
	44	Ca	7114.653418	4.332	857125.238	ug/L	26852.600
	52	Cr	255.942451	3.973	895507.979	ug/L	7227.778
	55	Mn	298.497660	3.749	1655000.494	ug/L	4634.735
	59	Co	353.964516	4.754	1616639.254	ug/L	3880.562
	60	Ni	2686.443450	4.718	2553324.840	ug/L	6457.780
	75	As	274.795650	4.355	242948.551	ug/L	12550.867
	82	Se	179.389423	3.524	16134.782	ug/L	1363.019
>	72	Ge-1			1494712.255	ug/L	1645771.978
	111	Cd	181.293908	0.693	163437.396	ug/L	446.513
	121	Sb	227.385878	0.907	715871.176	ug/L	1349.815
>	115	In-1			1755820.449	ug/L	2039645.693
	208	Pb	226.310844	0.949	3623726.446	ug/L	8973.876
>	169	Tm-1			1609204.782	ug/L	1812319.711
	50	Cr	359.373347	3.521	27928.921	ug/L	56.387
	53	Cr	260.738269	5.100	44164.367	ug/L	5750.934
	61	Ni	2601.705005	4.066	41106.674	ug/L	95.335
	76	Se	262.941526	214.929	-220063.649	ug/L	-245545.462
	77	Se	148.698171	5.339	12190.852	ug/L	3183.557
	78	Se	177.411861	6.504	45055.618	ug/L	12454.983
	79	Br	-96.337378	168.472	7770.722	ug/L	7975.497
>	72	Ge			1494712.255	ug/L	1645771.978
	108	Cd	182.508363	0.921	11067.863	ug/L	30.260
	114	Cd	180.561287	0.518	387495.776	ug/L	1134.912
>	115	In			1755820.449	ug/L	2039645.693
	208	207.977	236.125813	1.288	1926549.337	ug/L	4662.779
	207	Pb	239.046528	0.459	807212.022	ug/L	2006.996
	206	Pb	198.809014	0.737	889965.088	ug/L	2304.102
>	169	Tm			1609204.782	ug/L	1812319.711
	106	Pd			-893.316	ug/L	-4.134
	84	Kr			2374.107	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		108.766
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		90.821
	Cd	111		
	Sb	121		
>	In-1	115		86.085
	Pb	208		
>	Tm-1	169		88.793
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		90.821
	Cd	108		
	Cd	114		
>	In	115		86.085
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		88.793
	Pd	106		
	Kr	84		

Sample ID: MKMWND
Sample Description: G1G050412-1 SD
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:36:15
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWND.183
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 130
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			187471.741	ug/L	4106.993
>	6	Li-1			797952.188	ug/L	771187.846
	9	Be	172.608482	1.713	21737.751	ug/L	48.000
	44	Ca	7312.641922	1.204	798540.621	ug/L	26852.600
	52	Cr	265.514303	0.422	842434.816	ug/L	7227.778
	55	Mn	308.972764	0.306	1553223.472	ug/L	4634.735
	59	Co	369.115168	0.728	1529535.846	ug/L	3880.562
	60	Ni	2803.536077	0.685	2417369.067	ug/L	6457.780
	75	As	286.588727	0.230	229391.327	ug/L	12550.867
	82	Se	189.688848	0.292	15405.825	ug/L	1363.019
>	72	Ge-1			1352990.739	ug/L	1645771.978
	111	Cd	180.430902	1.051	154542.317	ug/L	446.513
	121	Sb	227.283111	0.311	679972.045	ug/L	1349.815
>	115	In-1			1668080.190	ug/L	2039645.693
	208	Pb	228.156384	0.329	3541009.985	ug/L	8973.876
>	169	Tm-1			1559460.616	ug/L	1812319.711
	50	Cr	346.563336	2.503	24381.288	ug/L	56.387
	53	Cr	269.269716	1.113	41221.001	ug/L	5750.934
	61	Ni	2727.538444	0.650	39081.567	ug/L	95.335
	76	Se	855.772510	5.157	-192158.364	ug/L	-245545.462
	77	Se	158.605073	0.854	11617.087	ug/L	3183.557
	78	Se	187.447452	0.564	42618.751	ug/L	12454.983
	79	Br	-30.088812	128.242	6699.805	ug/L	7975.497
>	72	Ge			1352990.739	ug/L	1645771.978
	108	Cd	180.754054	0.900	10411.828	ug/L	30.260
	114	Cd	179.453258	0.418	365876.636	ug/L	1134.912
>	115	In			1668080.190	ug/L	2039645.693
	208	207.977	237.974017	0.289	1882086.001	ug/L	4662.779
	207	Pb	240.679183	0.600	787671.347	ug/L	2006.996
	206	Pb	200.810290	0.650	871252.636	ug/L	2304.102
>	169	Tm			1559460.616	ug/L	1812319.711
	106	Pd			-808.528	ug/L	-4.134
	84	Kr			2258.888	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		103.471
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		82.210
	Cd	111		
	Sb	121		
>	In-1	115		81.783
	Pb	208		
>	Tm-1	169		86.048
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		82.210
	Cd	108		
	Cd	114		
>	In	115		81.783
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		86.048
	Pd	106		
	Kr	84		

Sample ID: MKMWW
Sample Description: G1G050412-3
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:38:35
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMWW.184
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 131
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			174060.966	ug/L	4106.993
>	6	Li-1			758289.600	ug/L	771187.846
	9	Be	0.366918	3.935	91.001	ug/L	48.000
	44	Ca	6109.961120	4.282	644848.814	ug/L	26852.600
	52	Cr	47.810442	4.857	150488.330	ug/L	7227.778
	55	Mn	99.183970	5.356	481700.709	ug/L	4634.735
	59	Co	145.204247	4.641	580268.951	ug/L	3880.562
	60	Ni	2398.884529	4.672	1989147.961	ug/L	6457.780
	75	As	98.157459	5.032	82042.492	ug/L	12550.867
	82	Se	9.425823	8.682	1759.717	ug/L	1363.019
>	72	Ge-1			1301405.686	ug/L	1645771.978
	111	Cd	0.241543	32.423	548.469	ug/L	446.513
	121	Sb	10.283350	4.034	30465.427	ug/L	1349.815
>	115	In-1			1598177.086	ug/L	2039645.693
	208	Pb	15.564363	7.316	238660.865	ug/L	8973.876
>	169	Tm-1			1500528.767	ug/L	1812319.711
	50	Cr	133.305984	10.485	9034.452	ug/L	56.387
	53	Cr	45.397250	9.768	10456.350	ug/L	5750.934
	61	Ni	2326.859239	4.165	32061.280	ug/L	95.335
	76	Se	669.165604	6.006	-186858.776	ug/L	-245545.462
	77	Se	-16.783870	8.970	1600.141	ug/L	3183.557
	78	Se	3.680339	56.451	10455.479	ug/L	12454.983
	79	Br	176.895206	43.176	5506.002	ug/L	7975.497
>	72	Ge			1301405.686	ug/L	1645771.978
	108	Cd	4.720821	9.682	283.229	ug/L	30.260
	114	Cd	-0.028888	176.654	834.612	ug/L	1134.912
>	115	In			1598177.086	ug/L	2039645.693
	208	207.977	15.888171	7.509	124141.931	ug/L	4662.779
	207	Pb	16.059407	7.393	51968.685	ug/L	2006.996
	206	Pb	14.600556	6.869	62550.249	ug/L	2304.102
>	169	Tm			1500528.767	ug/L	1812319.711
	106	Pd			706.868	ug/L	-4.134
	84	Kr			3235.841	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		98.327
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		79.076
	Cd	111		
	Sb	121		
>	In-1	115		78.356
	Pb	208		
>	Tm-1	169		82.796
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		79.076
	Cd	108		
	Cd	114		
>	In	115		78.356
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		82.796
	Pd	106		
	Kr	84		

Sample ID: MKMW6
Sample Description: G1G050412-5
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:40:56
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMW6.185
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 132
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			174860.379	ug/L	4106.993
[>	6	Li-1			747431.137	ug/L	771187.846
[	9	Be	0.278944	37.612	79.334	ug/L	48.000
[	44	Ca	8569.179324	0.455	867540.776	ug/L	26852.600
[	52	Cr	44.373038	0.507	135670.785	ug/L	7227.778
[	55	Mn	118.429176	1.063	556471.236	ug/L	4634.735
[	59	Co	142.516142	0.272	551605.645	ug/L	3880.562
[	60	Ni	2001.392569	0.386	1607925.623	ug/L	6457.780
[	75	As	85.678352	0.358	70567.258	ug/L	12550.867
[	82	Se	26.769874	17.602	2912.155	ug/L	1363.019
[>	72	Ge-1			1259447.231	ug/L	1645771.978
[	111	Cd	0.039886	92.075	369.788	ug/L	446.513
[	121	Sb	10.940093	0.548	31243.237	ug/L	1349.815
[>	115	In-1			1542993.679	ug/L	2039645.693
[	208	Pb	16.012893	2.609	241605.468	ug/L	8973.876
[>	169	Tm-1			1474805.694	ug/L	1812319.711
[	50	Cr	58.055472	37.091	3858.880	ug/L	56.387
[	53	Cr	41.754130	1.456	9669.551	ug/L	5750.934
[	61	Ni	1938.335835	0.126	25875.589	ug/L	95.335
[	76	Se	624.137663	20.526	-181295.517	ug/L	-245545.462
[	77	Se	-5.441553	24.024	2149.921	ug/L	3183.557
[	78	Se	13.317569	15.166	11666.541	ug/L	12454.983
[	79	Br	172.065409	22.017	5356.915	ug/L	7975.497
[>	72	Ge			1259447.231	ug/L	1645771.978
[	108	Cd	3.727686	2.075	220.929	ug/L	30.260
[	114	Cd	-0.188098	7.547	504.081	ug/L	1134.912
[>	115	In			1542993.679	ug/L	2039645.693
[	208	207.977	16.342834	2.726	125652.956	ug/L	4662.779
[	207	Pb	16.500304	2.577	52541.846	ug/L	2006.996
[	206	Pb	15.043666	2.438	63410.665	ug/L	2304.102
[>	169	Tm			1474805.694	ug/L	1812319.711
	106	Pd			577.778	ug/L	-4.134
	84	Kr			4738.650	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		96.919
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		76.526
	Cd	111		
	Sb	121		
>	In-1	115		75.650
	Pb	208		
>	Tm-1	169		81.377
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		76.526
	Cd	108		
	Cd	114		
>	In	115		75.650
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		81.377
	Pd	106		
	Kr	84		

Sample ID: MKMXD
Sample Description: G1G050412-7
Batch ID: 1195193
Sample Date/Time: Monday, July 18, 2011 17:43:16
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\MKMXD.186
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 133
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			151433.724	ug/L	4106.993
>	6	Li-1			750996.712	ug/L	771187.846
	9	Be	-0.260124	25.641	16.000	ug/L	48.000
	44	Ca	3603.253434	1.513	386668.638	ug/L	26852.600
	52	Cr	14.789650	1.773	50198.891	ug/L	7227.778
	55	Mn	9.013465	2.326	46829.026	ug/L	4634.735
	59	Co	2.952502	6.602	14712.677	ug/L	3880.562
	60	Ni	17.950941	9.000	19827.137	ug/L	6457.780
	75	As	1.356572	33.289	10848.839	ug/L	12550.867
	82	Se	17.188144	8.216	2309.051	ug/L	1363.019
>	72	Ge-1			1293043.766	ug/L	1645771.978
	111	Cd	0.107006	72.710	435.733	ug/L	446.513
	121	Sb	0.099544	101.317	1336.478	ug/L	1349.815
>	115	In-1			1592605.675	ug/L	2039645.693
	208	Pb	3.594980	4.014	61668.975	ug/L	8973.876
>	169	Tm-1			1517197.053	ug/L	1812319.711
	50	Cr	-97.482181	5.586	-6494.075	ug/L	56.387
	53	Cr	11.988972	7.330	6071.437	ug/L	5750.934
	61	Ni	19.761089	10.478	344.693	ug/L	95.335
	76	Se	583.112001	2.642	-186596.108	ug/L	-245545.462
	77	Se	-19.046249	3.697	1468.785	ug/L	3183.557
	78	Se	1.077535	117.122	9961.426	ug/L	12454.983
	79	Br	300.787760	15.282	4922.334	ug/L	7975.497
>	72	Ge			1293043.766	ug/L	1645771.978
	108	Cd	3.032486	6.414	189.942	ug/L	30.260
	114	Cd	-0.150091	58.747	594.021	ug/L	1134.912
>	115	In			1592605.675	ug/L	2039645.693
	208	207.977	3.647565	2.883	31907.484	ug/L	4662.779
	207	Pb	3.678314	4.666	13364.030	ug/L	2006.996
	206	Pb	3.436243	5.708	16397.462	ug/L	2304.102
>	169	Tm			1517197.053	ug/L	1812319.711
	106	Pd			574.636	ug/L	-4.134
	84	Kr			6528.503	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		97.382
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		78.568
	Cd	111		
	Sb	121		
>	In-1	115		78.082
	Pb	208		
>	Tm-1	169		83.716
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		78.568
	Cd	108		
	Cd	114		
>	In	115		78.082
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		83.716
	Pd	106		
	Kr	84		

Sample ID: CCV 13
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 17:45:39
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCV 13.187
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4787.227	ug/L	4106.993
>	6	Li-1			707343.110	ug/L	771187.846
	9	Be	87.628120	1.266	9804.891	ug/L	48.000
	44	Ca	5236.792513	0.583	546744.167	ug/L	26852.600
	52	Cr	105.249236	0.661	319158.101	ug/L	7227.778
	55	Mn	101.955001	0.667	487144.533	ug/L	4634.735
	59	Co	106.311001	0.201	418805.968	ug/L	3880.562
	60	Ni	114.879821	8.956	98615.813	ug/L	6457.780
	75	As	107.732566	1.675	87617.561	ug/L	12550.867
	82	Se	110.574609	4.830	8933.298	ug/L	1363.019
>	72	Ge-1			1279513.460	ug/L	1645771.978
	111	Cd	98.581550	1.263	86262.214	ug/L	446.513
	121	Sb	50.909177	0.615	156193.986	ug/L	1349.815
>	115	In-1			1701278.695	ug/L	2039645.693
	208	Pb	100.653505	1.041	1689119.166	ug/L	8973.876
>	169	Tm-1			1681770.309	ug/L	1812319.711
	50	Cr	100.818908	4.164	6735.105	ug/L	56.387
	53	Cr	110.906702	2.745	18678.105	ug/L	5750.934
	61	Ni	111.172667	9.266	1579.553	ug/L	95.335
	76	Se	757.013979	23.383	-182752.455	ug/L	-245545.462
	77	Se	111.361743	1.100	8451.595	ug/L	3183.557
	78	Se	112.240746	2.364	28013.088	ug/L	12454.983
	79	Br	81.464800	32.006	5841.879	ug/L	7975.497
>	72	Ge			1279513.460	ug/L	1645771.978
	108	Cd	97.343928	1.305	5728.942	ug/L	30.260
	114	Cd	98.790938	0.625	205826.207	ug/L	1134.912
>	115	In			1701278.695	ug/L	2039645.693
	208	207.977	100.467736	1.061	859327.563	ug/L	4662.779
	207	Pb	100.938189	1.067	357268.997	ug/L	2006.996
	206	Pb	100.777440	1.099	472522.606	ug/L	2304.102
>	169	Tm			1681770.309	ug/L	1812319.711
	106	Pd			-826.425	ug/L	-4.134
	84	Kr			4965.367	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		91.721
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		77.745
	Cd	111		
	Sb	121		
>	In-1	115		83.411
	Pb	208		
>	Tm-1	169		92.797
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		77.745
	Cd	108		
	Cd	114		
>	In	115		83.411
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		92.797
	Pd	106		
	Kr	84		

Sample ID: CCB 13
Sample Description:
Batch ID:
Sample Date/Time: Monday, July 18, 2011 17:47:59
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110718a2\CCB 13.188
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3399.909	ug/L	4106.993
>	6	Li-1			698737.297	ug/L	771187.846
	9	Be	-0.176273	44.662	24.000	ug/L	48.000
	44	Ca	26.062142	34.426	24369.251	ug/L	26852.600
	52	Cr	0.003034	3074.689	5837.345	ug/L	7227.778
	55	Mn	-0.264023	49.684	2433.151	ug/L	4634.735
	59	Co	-0.266795	60.604	2040.681	ug/L	3880.562
	60	Ni	-1.708835	87.667	3753.409	ug/L	6457.780
	75	As	1.236068	39.505	11049.049	ug/L	12550.867
	82	Se	3.307582	46.172	1344.592	ug/L	1363.019
>	72	Ge-1			1327805.659	ug/L	1645771.978
	111	Cd	-0.156523	53.293	243.207	ug/L	446.513
	121	Sb	-0.133497	50.984	740.712	ug/L	1349.815
>	115	In-1			1756637.475	ug/L	2039645.693
	208	Pb	-0.198206	46.709	5081.156	ug/L	8973.876
>	169	Tm-1			1709112.322	ug/L	1812319.711
	50	Cr	-0.675028	23.963	-1.151	ug/L	56.387
	53	Cr	5.297697	6.983	5344.947	ug/L	5750.934
	61	Ni	-1.123551	80.316	61.001	ug/L	95.335
	76	Se	589.845901	4.964	-191535.457	ug/L	-245545.462
	77	Se	4.849367	17.931	2839.110	ug/L	3183.557
	78	Se	5.375172	19.711	10957.990	ug/L	12454.983
	79	Br	33.289437	19.732	6281.837	ug/L	7975.497
>	72	Ge			1327805.659	ug/L	1645771.978
	108	Cd	-0.244885	25.285	11.199	ug/L	30.260
	114	Cd	-0.202964	37.933	541.430	ug/L	1134.912
>	115	In			1756637.475	ug/L	2039645.693
	208	207.977	-0.204037	43.889	2623.568	ug/L	4662.779
	207	Pb	-0.217906	47.668	1108.770	ug/L	2006.996
	206	Pb	-0.172715	52.009	1348.818	ug/L	2304.102
>	169	Tm			1709112.322	ug/L	1812319.711
	106	Pd			12.685	ug/L	-4.134
	84	Kr			4865.532	ug/L	4745.964

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		90.605
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		80.680
	Cd	111		
	Sb	121		
>	In-1	115		86.125
	Pb	208		
>	Tm-1	169		94.305
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		80.680
	Cd	108		
	Cd	114		
>	In	115		86.125
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		94.305
	Pd	106		
	Kr	84		

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ICP-MS Data Review Checklist
Level I and Level II

Instrument ID (Circle one): **M01** (M02)			Method 6020 SOP SAC-MT-0001
File Number 110719A2	Batch Numbers 119519 3, 119618 0,	Date 7-19-11	Analyst SH

Lot Numbers: 61601044 1 , 61605041 2	YES	NO	NA
1. Copy of analysis protocol used included?	✓		
IS Recovery (Raw Data Value / Upload Data Value)	✓		
2. ICVs & CCVs within 10% of true value or recal and rerun?	✓		
3. ICB & CCBs < reporting limit or recal and rerun?	✓		
4. 10 samples or less analyzed between calibration checks?	✓		
5. All parameters within linear range?	✓		
6. LCS/LCSD within limits?	✓		
7. Prep blank value < reporting limit or all samples >20x blank?	✓		
8. Internal standard intensities for samples (unless followed by dilution) are > 30% and <120% of the Calibration Blank intensities?	✓		
9. Appropriate dilution factors applied to data?	✓		
10. Matrix spike and spike dup within customer defined limits?			✓
11. Each batch checked for presence of internal standard in samples?	✓		
12. Anomalies entered using Clouseau?			✓

COMMENTS: rerun 61605041 2 - MSD for all elements.

REVIEWED BY: JRB	DATA ENTERED BY: SA
DATE: 7/20/11	DATE: 7-20-11

Dataset Report

Perkin Elmer M02
SOP No. WS-MT-0001
Method: 6020,200.8

User Name: metal
Computer Name: TAISAC-M02
Dataset File Path: D:\Elandata\DataSet\110719a2\
Report Date/Time: Wednesday, July 20, 2011 09:43:42

The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Description
	TUNE SHARGRAVE	14:07:07 Tue 19-Jul-11	Sample	
SmartTune - AutoLe	AutoLens	14:10:35 Tue 19-Jul-11	Sample	
SmartTune - Daily F	Daily Performance Ch	14:23:41 Tue 19-Jul-11	Sample	
	Rinse 3X	14:28:34 Tue 19-Jul-11	Sample	
	Blank	14:30:56 Tue 19-Jul-11	Blank	
	Standard 1	14:33:13 Tue 19-Jul-11	Standard #1	
	ICV	14:35:29 Tue 19-Jul-11	Sample	
	ICB	14:38:45 Tue 19-Jul-11	Sample	
	LLSTD1	14:42:20 Tue 19-Jul-11	Sample	LLSTD@10X
	LLSTD2	14:45:37 Tue 19-Jul-11	Sample	LLSTD@5X
	ICSA	14:50:28 Tue 19-Jul-11	Sample	
	ICSAB	14:53:44 Tue 19-Jul-11	Sample	
	Rinse	15:00:40 Tue 19-Jul-11	Sample	
	CCV 1	15:07:37 Tue 19-Jul-11	Sample	
	CCB 1 > Recal	15:10:53 Tue 19-Jul-11	Sample	
	CCV 2	15:14:10 Tue 19-Jul-11	Sample	
	CCB 2	15:17:26 Tue 19-Jul-11	Sample	
1195193	MKXL7L	15:20:43 Tue 19-Jul-11	Sample	G1G140000-193 LCSD → report Pb
1196180	MKMWVS	15:24:00 Tue 19-Jul-11	Sample	G1G050412-2 MS
1196180	MKMWVD	15:27:16 Tue 19-Jul-11	Sample	G1G050412-2 SD → mixed tube acid
	CCV 3	15:30:34 Tue 19-Jul-11	Sample	
	CCB 3	15:32:54 Tue 19-Jul-11	Sample	
	CCV 4	15:35:16 Tue 19-Jul-11	Sample	
	CCB 4	15:37:37 Tue 19-Jul-11	Sample	
1195193	MKMWW	15:39:59 Tue 19-Jul-11	Sample	G1G050412-3
1195193	MKMW6	15:43:14 Tue 19-Jul-11	Sample	G1G050412-5
1195193	MKMXD	15:46:30 Tue 19-Jul-11	Sample	G1G050412-7
1195193	MKMWN	15:49:47 Tue 19-Jul-11	Sample	G1G050412-1
1195193	MKMWNP5	15:53:03 Tue 19-Jul-11	Sample	G1G050412-1 5X
1195193	MKMWNS	15:56:19 Tue 19-Jul-11	Sample	G1G050412-1 MS
1195193	MKMWND	15:59:34 Tue 19-Jul-11	Sample	G1G050412-1 SD → don't use conditioning instrument
	CCV 5 > Recal	16:02:52 Tue 19-Jul-11	Sample	
	CCB 5	16:05:12 Tue 19-Jul-11	Sample	> IS & Be, Ci
	CCV 6	16:07:34 Tue 19-Jul-11	Sample	
	CCB 6	16:09:55 Tue 19-Jul-11	Sample	
1195193	MKMWN	16:12:17 Tue 19-Jul-11	Sample	G1G050412-1
1195193	MKMWNP5	16:15:33 Tue 19-Jul-11	Sample	G1G050412-1 5X
1195193	MKMWNS	16:18:48 Tue 19-Jul-11	Sample	G1G050412-1 MS
1195193	MKMWND	16:22:04 Tue 19-Jul-11	Sample	G1G050412-1 SD → don't use conditioning instrument
1195193	MKMWW	16:25:20 Tue 19-Jul-11	Sample	G1G050412-3
1195193	MKMW6	16:28:36 Tue 19-Jul-11	Sample	G1G050412-5
1195193	MKMXD	16:31:51 Tue 19-Jul-11	Sample	G1G050412-7
	CCV 7	16:35:10 Tue 19-Jul-11	Sample	
	CCB 7	16:37:30 Tue 19-Jul-11	Sample	> cut Be, IS & Ge, In
	CCV 8	16:39:52 Tue 19-Jul-11	Sample	
	CCB 8	16:42:13 Tue 19-Jul-11	Sample	
1195193	MKMWW	16:44:36 Tue 19-Jul-11	Sample	G1G050412-3

1195193	MKMW6	16:47:51 Tue 19-Jul-11	Sample	G1G050412-5	don't use
1195193	MKMXD	16:51:07 Tue 19-Jul-11	Sample	G1G050412-7	
1195193	MKMWW	16:54:23 Tue 19-Jul-11	Sample	G1G050412-3	
1195193	MKMW6	16:57:39 Tue 19-Jul-11	Sample	G1G050412-5	
1195193	MKMXD	17:00:54 Tue 19-Jul-11	Sample	G1G050412-7	
	CCV 9	17:04:12 Tue 19-Jul-11	Sample		
	CCB 9	17:06:32 Tue 19-Jul-11	Sample		
	CCV 10	17:08:54 Tue 19-Jul-11	Sample		
	CCB 10	17:11:14 Tue 19-Jul-11	Sample		
1195193	MKMWW	17:13:37 Tue 19-Jul-11	Sample	G1G050412-3	report all but Ni use Sc 78
1195193	MKMW6	17:16:52 Tue 19-Jul-11	Sample	G1G050412-5	
1195193	MKMXD	17:20:08 Tue 19-Jul-11	Sample	G1G050412-7	
1195193	MKMWW	17:23:24 Tue 19-Jul-11	Sample	G1G050412-3	reference only
1195193	MKMW6	17:26:40 Tue 19-Jul-11	Sample	G1G050412-5	
1195193	MKMXD	17:29:55 Tue 19-Jul-11	Sample	G1G050412-7	
	CCV 11	17:33:13 Tue 19-Jul-11	Sample		
	CCB 11	17:35:33 Tue 19-Jul-11	Sample		— omit Ni, too negative
	CCV 12	17:37:54 Tue 19-Jul-11	Sample		
	CCB 12	17:40:15 Tue 19-Jul-11	Sample		
1195193	MKMWN	17:42:37 Tue 19-Jul-11	Sample	G1G050412-1	report all use Sc 79
1195193	MKMWNP5	17:45:53 Tue 19-Jul-11	Sample	G1G050412-1 5X	
1195193	MKMWNS	17:49:09 Tue 19-Jul-11	Sample	G1G050412-1 MS	
1195193	MKMWND	17:52:25 Tue 19-Jul-11	Sample	G1G050412-1 SD	
	CCV 13	17:55:41 Tue 19-Jul-11	Sample		
	CCB 13	17:58:02 Tue 19-Jul-11	Sample		

TAL West Sac

RUN SUMMARY

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/20/11 10:38:36

File ID: 110719A2 Analyst: hargraves

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
1	Rinse 3X				3.0	07/19/11 14:28		☐
2	Blank				1.0	07/19/11 14:30		☐
3	Standard1				1.0	07/19/11 14:33		☐
4	ICV				1.0	07/19/11 14:35		☐
5	ICB				1.0	07/19/11 14:38		☐
6	LLSTD1				1.0	07/19/11 14:42		☐
7	LLSTD2				1.0	07/19/11 14:45		☐
8	ICSA				1.0	07/19/11 14:50		☐
9	ICSAB				1.0	07/19/11 14:53		☐
10	Rinse				1.0	07/19/11 15:00		☐
11	CCV 1				1.0	07/19/11 15:07		☐
12	CCB 1				1.0	07/19/11 15:10		☐
15	CCV 2				1.0	07/19/11 15:14		☐
16	CCB 2				1.0	07/19/11 15:17		☐
17	MKXL7L	G1G140000	1195193	DE	1.0	07/19/11 15:20		☐
18	MKMWVS	G1G050412-2	1196180	DF	1.0	07/19/11 15:24		☐
19	MKMWVD	G1G050412-2	1196180	DF	1.0	07/19/11 15:27		☐
20	CCV 3				1.0	07/19/11 15:30		☐
21	CCB 3				1.0	07/19/11 15:32		☐
22	CCV 4				1.0	07/19/11 15:35		☐
23	CCB 4				1.0	07/19/11 15:37		☐
24	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 15:39		☐
25	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 15:43		☐
26	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 15:46		☐
27	MKMWN	G1G050412-1	1195193	DE	1.0	07/19/11 15:49		☐
28	MKMWNP5	G1G050412	1195193		5.0	07/19/11 15:53		☐
29	MKMWNS	G1G050412-1	1195193	DE	1.0	07/19/11 15:56		☐
30	MKMWND	G1G050412-1	1195193	DE	1.0	07/19/11 15:59		☐
31	CCV 5				1.0	07/19/11 16:02		☐
32	CCB 5				1.0	07/19/11 16:05		☐
35	CCV 6				1.0	07/19/11 16:07		☐
36	CCB 6				1.0	07/19/11 16:09		☐
37	MKMWN	G1G050412-1	1195193	DE	1.0	07/19/11 16:12		☐
38	MKMWNP5	G1G050412	1195193		5.0	07/19/11 16:15		☐
39	MKMWNS	G1G050412-1	1195193	DE	1.0	07/19/11 16:18		☐
40	MKMWND	G1G050412-1	1195193	DE	1.0	07/19/11 16:22		☐
41	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 16:25		☐
42	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 16:28		☐
43	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 16:31		☐
44	CCV 7				1.0	07/19/11 16:35		☐
45	CCB 7				1.0	07/19/11 16:37		☐
46	CCV 8				1.0	07/19/11 16:39		☐
47	CCB 8				1.0	07/19/11 16:42		☐
48	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 16:44		☐
49	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 16:47		☐
50	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 16:51		☐

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/20/11 10:38:36

File ID: 110719A2 Analyst: hargraves

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
51	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 16:54		☐
52	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 16:57		☐
53	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 17:00		☐
54	CCV 9				1.0	07/19/11 17:04		☐
55	CCB 9				1.0	07/19/11 17:06		☐
58	CCV 10				1.0	07/19/11 17:08		☐
59	CCB 10				1.0	07/19/11 17:11		☐
60	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 17:13		☐
61	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 17:16		☐
62	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 17:20		☐
63	MKMWW	G1G050412-3	1195193	DE	1.0	07/19/11 17:23		☐
64	MKMW6	G1G050412-5	1195193	DE	1.0	07/19/11 17:26		☐
65	MKMXD	G1G050412-7	1195193	DE	1.0	07/19/11 17:29		☐
66	CCV 11				1.0	07/19/11 17:33		☐
67	CCB 11				1.0	07/19/11 17:35		☐
70	CCV 12				1.0	07/19/11 17:37		☐
71	CCB 12				1.0	07/19/11 17:40		☐
72	MKMWN	G1G050412-1	1195193	DE	1.0	07/19/11 17:42		☐
73	MKMWNP5	G1G050412	1195193		5.0	07/19/11 17:45		☐
74	MKMWNS	G1G050412-1	1195193	DE	1.0	07/19/11 17:49		☐
75	MKMWND	G1G050412-1	1195193	DE	1.0	07/19/11 17:52		☐
76	CCV 13				1.0	07/19/11 17:55		☐
77	CCB 13				1.0	07/19/11 17:58		☐

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 (M02) Reported: 07/20/11 10:38:36

File ID: 110719A2 Analyst: hargraves

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
1	Rinse 3X	07/19/11 14:28	108.0	106.9	110.1	108.2	☐
2	Blank	07/19/11 14:30	100.0	100.0	100.0	100.0	☑
3	Standard1	07/19/11 14:33	103.7	103.1	105.7	104.7	☑
4	ICV	07/19/11 14:35	102.2	101.5	100.9	102.3	☑
5	ICB	07/19/11 14:38	104.7	103.9	104.3	104.1	☑
6	LLSTD1	07/19/11 14:42	103.5	102.8	101.4	103.4	☑
7	LLSTD2	07/19/11 14:45	102.3	101.8	99.8	101.6	☑
8	ICSA	07/19/11 14:50	91.8	92.4	88.4	87.7	☑
9	ICSAB	07/19/11 14:53	92.1	91.9	84.1	87.6	☑
10	Rinse	07/19/11 15:00	117.2	112.7	99.8	105.4	☑
11	CCV 1	07/19/11 15:07	110.8	106.6	96.7	102.6	☑
12	CCB 1	07/19/11 15:10	110.8	106.3	95.7	102.6	☑
15	CCV 2	07/19/11 15:14	112.2	107.3	98.2	104.5	☑
16	CCB 2	07/19/11 15:17	110.4	105.1	95.5	102.5	☑
17	MKXL7L	07/19/11 15:20	108.7	106.3	96.5	105.6	☑
18	MKMWVS	07/19/11 15:24	104.2	105.3	112.7	103.2	☑
19	MKMWVD	07/19/11 15:27	97.9	90.7	84.1	88.6	☑
20	CCV 3	07/19/11 15:30	107.1	101.6	95.1	102.1	☑
21	CCB 3	07/19/11 15:32	106.6	101.5	93.1	100.9	☑
22	CCV 4	07/19/11 15:35	103.4	99.0	89.9	99.7	☑
23	CCB 4	07/19/11 15:37	105.2	99.8	91.7	99.9	☑
24	MKMWW	07/19/11 15:39	110.5	98.1	100.8	96.0	☑
25	MKMW6	07/19/11 15:43	107.8	98.7	92.4	95.8	☑
26	MKMXD	07/19/11 15:46	90.1	84.7	76.3	81.9	☑
27	MKMWN	07/19/11 15:49	95.7	92.2	79.7	91.1	☑
28	MKMWNP5	07/19/11 15:53	87.4	92.1	67.6	91.9	☐
29	MKMWNS	07/19/11 15:56	83.2	82.0	68.8	84.4	☑
30	MKMWND	07/19/11 15:59	76.2	77.2	63.6	81.4	☑
31	CCV 5	07/19/11 16:02	77.6	86.2	55.5	90.5	☑
32	CCB 5	07/19/11 16:05	78.0	85.9	54.8	89.9	☑
35	CCV 6	07/19/11 16:07	99.4	99.1	100.9	99.0	☑
36	CCB 6	07/19/11 16:09	96.7	96.3	93.9	95.5	☑
37	MKMWN	07/19/11 16:12	99.9	92.1	119.4	92.7	☑
38	MKMWNP5	07/19/11 16:15	98.6	96.5	101.0	98.0	☐
39	MKMWNS	07/19/11 16:18	87.7	81.6	104.8	84.0	☑
40	MKMWND	07/19/11 16:22	84.3	78.8	103.9	82.9	☑
41	MKMWW	07/19/11 16:25	83.5	78.4	105.7	83.5	☑
42	MKMW6	07/19/11 16:28	77.0	74.8	102.6	77.7	☑
43	MKMXD	07/19/11 16:31	81.1	78.2	105.8	82.3	☑
44	CCV 7	07/19/11 16:35	73.1	79.5	90.6	84.5	☑
45	CCB 7	07/19/11 16:37	70.5	76.3	83.3	79.7	☑
46	CCV 8	07/19/11 16:39	72.7	79.3	87.1	84.0	☑
47	CCB 8	07/19/11 16:42	74.9	80.8	86.0	84.2	☑
48	MKMWW	07/19/11 16:44	70.1	68.3	98.1	72.5	☑
49	MKMW6	07/19/11 16:47	66.3	64.0	95.3	68.2	☐
50	MKMXD	07/19/11 16:51	67.1	65.8	93.9	68.8	☐

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 (M02) Reported: 07/20/11 10:38:36

File ID: 110719A2 **Analyst:** hargraves

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
51	MKMWW	07/19/11 16:54	62.7	60.8	91.8	64.6	☐
52	MKMW6	07/19/11 16:57	61.4	59.4	90.6	62.6	☐
53	MKMXD	07/19/11 17:00	60.7	59.2	87.3	61.5	☐
54	CCV 9	07/19/11 17:04	58.5	61.8	82.7	65.2	☐
55	CCB 9	07/19/11 17:06	61.1	65.1	83.6	67.7	☐
58	CCV 10	07/19/11 17:08	93.7	93.3	95.6	95.2	☑
59	CCB 10	07/19/11 17:11	100.7	102.5	100.3	103.1	☑
60	MKMWW	07/19/11 17:13	91.2	83.8	98.8	83.4	☑
61	MKMW6	07/19/11 17:16	87.8	80.5	97.7	80.1	☑
62	MKMXD	07/19/11 17:20	92.3	85.4	99.2	83.4	☑
63	MKMWW	07/19/11 17:23	88.1	80.7	97.2	79.6	☑
64	MKMW6	07/19/11 17:26	84.2	77.5	95.4	76.7	☑
65	MKMXD	07/19/11 17:29	88.8	82.7	97.4	80.9	☑
66	CCV 11	07/19/11 17:33	85.9	85.6	96.5	86.6	☑
67	CCB 11	07/19/11 17:35	85.9	86.3	94.7	86.5	☐
70	CCV 12	07/19/11 17:37	94.6	94.6	96.5	93.2	☑
71	CCB 12	07/19/11 17:40	98.4	99.4	99.1	99.6	☑
72	MKMWN	07/19/11 17:42	95.4	87.4	102.2	87.2	☑
73	MKMWNP5	07/19/11 17:45	100.3	98.6	103.7	99.8	☐
74	MKMWNS	07/19/11 17:49	95.8	88.5	107.6	89.8	☑
75	MKMWND	07/19/11 17:52	94.5	88.0	109.8	89.0	☑
76	CCV 13	07/19/11 17:55	100.0	102.3	109.1	104.7	☑
77	CCB 13	07/19/11 17:58	95.2	96.5	99.3	96.9	☑

Quantitative Method Report

File Name: 1195193.mth
File Path: D:\Elandata\Method\1195193.mth

Timing Parameters

Sweeps/Reading:	50
Readings/Replicate:	1
Number of Replicates:	3
Tuning File:	default.tun
Optimization File:	default.dac
QC Enabled:	Yes
Settling Time:	Normal

Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
Sc	44.956	Peak Hopping	1	14.0 ms	700 ms
Li-1	6.015	Peak Hopping	1	14.0 ms	700 ms
Be	9.012	Peak Hopping	1	14.0 ms	700 ms
Ca	43.956	Peak Hopping	1	14.0 ms	700 ms
Cr	51.941	Peak Hopping	1	14.0 ms	700 ms
Mn	54.938	Peak Hopping	1	14.0 ms	700 ms
Co	58.933	Peak Hopping	1	14.0 ms	700 ms
Ni	59.933	Peak Hopping	1	14.0 ms	700 ms
As	74.922	Peak Hopping	1	20.0 ms	1000 ms
Se	81.917	Peak Hopping	1	20.0 ms	1000 ms
Ge-1	71.922	Peak Hopping	1	14.0 ms	700 ms
Cd	110.904	Peak Hopping	1	14.0 ms	700 ms
Sb	120.904	Peak Hopping	1	14.0 ms	700 ms
In-1	114.904	Peak Hopping	1	14.0 ms	700 ms
Pb	207.977	Peak Hopping	1	14.0 ms	700 ms
Tm-1	168.934	Peak Hopping	1	14.0 ms	700 ms
Cr	49.946	Peak Hopping	1	5.0 ms	250 ms
Cr	52.941	Peak Hopping	1	5.0 ms	250 ms
Ni	60.931	Peak Hopping	1	5.0 ms	250 ms
Se	75.919	Peak Hopping	1	5.0 ms	250 ms
Se	76.920	Peak Hopping	1	20.0 ms	1000 ms
Se	77.917	Peak Hopping	1	20.0 ms	1000 ms
Br	78.918	Peak Hopping	1	20.0 ms	1000 ms
Ge	71.922	Peak Hopping	1	14.0 ms	700 ms
Cd	107.904	Peak Hopping	1	5.0 ms	250 ms
Cd	113.904	Peak Hopping	1	14.0 ms	700 ms
In	114.904	Peak Hopping	1	14.0 ms	700 ms
207.977	207.977	Peak Hopping	1	14.0 ms	700 ms
Pb	206.976	Peak Hopping	1	14.0 ms	700 ms
Pb	205.975	Peak Hopping	1	14.0 ms	700 ms
Tm	168.934	Peak Hopping	1	14.0 ms	700 ms
Pd	105.903	Peak Hopping	1	14.0 ms	700 ms
Kr	83.912	Peak Hopping	1	14.0 ms	700 ms

Signal Processing

Detector Mode:	Dual
Measurement Units:	counts

Report Date/Time: Wednesday, July 20, 2011 10:22:49
Page 1

AutoLens:	On
Spectral Peak Processing:	Average
Signal Profile Processing:	Average
Blank Subtraction:	Subtracted after internal standard
Baseline Readings:	0
Smoothing:	Yes, Factor 5

Equations

Analyte	Mass	Corrections
Ni	59.933	-0.005 * Ca 43
As	74.922	-3.1278 * Se 77 + 1.0177 * Se 78
Se	81.917	- 0.00094 * Br 79
Cd	110.904	-1.073 * Pd 108 + 0.712 * Pd 106
In-1	114.904	- 0.014032 * Sn 118
Pb	207.977	+ 1.0 * Pb 207 + 1.0 * Pb 206
Cr	49.946	- 0.739726 * Ti 47 - 0.002506 * V 51
Se	75.919	- 0.268980 * Ge 72
Se	77.917	- 0.030435 * Kr 83
Cd	107.904	- 1.184953 * Pd 105
Cd	113.904	- 0.026826 * Sn 118
In	114.904	- 0.014032 * Sn 118
Pd	105.903	- 0.097656 * Cd 111
Kr	83.912	- 0.006781 * Sr 88

Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Sc	44.956	Linear Thru Zero	ug/L	ug/L				
Li-1	6.015	Linear Thru Zero	ug/L	ug/L				
Be	9.012	Linear Thru Zero	ug/L	ug/L	100			
Ca	43.956	Linear Thru Zero	ug/L	ug/L	5.1e+003			
Cr	51.941	Linear Thru Zero	ug/L	ug/L	100			
Mn	54.938	Linear Thru Zero	ug/L	ug/L	100			
Co	58.933	Linear Thru Zero	ug/L	ug/L	100			
Ni	59.933	Linear Thru Zero	ug/L	ug/L	100			
As	74.922	Linear Thru Zero	ug/L	ug/L	100			
Se	81.917	Linear Thru Zero	ug/L	ug/L	100			
Ge-1	71.922	Linear Thru Zero	ug/L	ug/L				
Cd	110.904	Linear Thru Zero	ug/L	ug/L	100			
Sb	120.904	Linear Thru Zero	ug/L	ug/L	50			
In-1	114.904	Linear Thru Zero	ug/L	ug/L				
Pb	207.977	Linear Thru Zero	ug/L	ug/L	100			
Tm-1	168.934	Linear Thru Zero	ug/L	ug/L				
Cr	49.946	Linear Thru Zero	ug/L	ug/L	100			
Cr	52.941	Linear Thru Zero	ug/L	ug/L	100			
Ni	60.931	Linear Thru Zero	ug/L	ug/L	100			
Se	75.919	Linear Thru Zero	ug/L	ug/L	100			
Se	76.920	Linear Thru Zero	ug/L	ug/L	100			
Se	77.917	Linear Thru Zero	ug/L	ug/L	100			
Br	78.918	Linear Thru Zero	ug/L	ug/L	100			
Ge	71.922	Linear Thru Zero	ug/L	ug/L				
Cd	107.904	Linear Thru Zero	ug/L	ug/L	100			
Cd	113.904	Linear Thru Zero	ug/L	ug/L	100			

In	114.904	Linear Thru Zero	ug/L	ug/L	
207.97	207.977	Linear Thru Zero	ug/L	ug/L	100
Pb	206.976	Linear Thru Zero	ug/L	ug/L	100
Pb	205.975	Linear Thru Zero	ug/L	ug/L	100
Tm	168.934	Linear Thru Zero	ug/L	ug/L	
Pd	105.903	Linear Thru Zero	ug/L	ug/L	
Kr	83.912	Linear Thru Zero	ug/L	ug/L	

TAL-W. SACRMENTO – Perkin Elmer Elan 6000 ICPMS, M02 – Methods 6020, 200.8

AIR TOX Standards - 4 % HNO3, 0.5 % HCl

Standards for run:

Tuning standard: 4075-36D

Internal standard: 4319-3D

Blank, CCBs: 3185-45C

Standard 1, CCVs: 4075-54A

ICV: 4075-54E

ICSA: 4319-7B

ICSAB: 4319-7C

File Number: 110719A2

Sample ID: Rinse 3X
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 14:28:34
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\Rinse 3X.004
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 6
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			7303.013	ug/L	5221.475
>	6	Li-1			1733695.577	ug/L	1574984.119
	9	Be	-0.048885	8.255	7.333	ug/L	20.000
	44	Ca	51.052835	173.515	38197.369	ug/L	24093.526
	52	Cr	0.105134	10.117	13683.696	ug/L	11936.185
	55	Mn	0.168401	4.303	3120.765	ug/L	991.411
	59	Co	-0.056396	2.116	175.336	ug/L	629.365
	60	Ni	0.021634	90.032	181.125	ug/L	130.768
	75	As	-0.820859	18.692	15824.580	ug/L	15911.840
	82	Se	-0.900591	194.891	1796.252	ug/L	1796.098
>	72	Ge-1			2596545.396	ug/L	2403697.662
	111	Cd	0.015169	61.271	38.676	ug/L	13.839
	121	Sb	0.003077	70.739	112.001	ug/L	89.334
>	115	In-1			2620907.214	ug/L	2450752.004
	208	Pb	-0.048553	14.300	1122.038	ug/L	2195.148
>	169	Tm-1			2143335.664	ug/L	1981238.004
	50	Cr	0.042903	146.531	-20.949	ug/L	-26.682
	53	Cr	0.206757	206.503	13533.846	ug/L	12464.760
	61	Ni	0.016721	649.786	7.333	ug/L	6.333
	76	Se	-22.029487	360.799	-371770.747	ug/L	-344499.391
	77	Se	3.763066	36.910	6887.942	ug/L	5904.584
	78	Se	-2.597256	22.442	16410.390	ug/L	16131.000
	79	Br	142.827039	17.782	8435.585	ug/L	9765.910
>	72	Ge			2596545.396	ug/L	2403697.662
	108	Cd	0.136728	31.811	10.655	ug/L	-3.505
	114	Cd	0.013449	47.982	99.677	ug/L	46.195
>	115	In			2620907.214	ug/L	2450752.004
	208	207.977	-0.050425	13.616	571.693	ug/L	1142.438
	207	Pb	-0.049450	12.036	249.672	ug/L	480.352
	206	Pb	-0.044428	18.947	300.674	ug/L	572.359
>	169	Tm			2143335.664	ug/L	1981238.004
	106	Pd			12.833	ug/L	3.934
	84	Kr			6372.194	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		110.077
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		108.023
	Cd	111		
	Sb	121		
>	In-1	115		106.943
	Pb	208		
>	Tm-1	169		108.182
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		108.023
	Cd	108		
	Cd	114		
>	In	115		106.943
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		108.182
	Pd	106		
	Kr	84		

Sample ID: Blank
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 14:30:56
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\Blank.005
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5221.475	ug/L	
>	6	Li-1			1574984.119	ug/L	
	9	Be			20.000	ug/L	
	44	Ca			24093.526	ug/L	
	52	Cr			11936.185	ug/L	
	55	Mn			991.411	ug/L	
	59	Co			629.365	ug/L	
	60	Ni			130.768	ug/L	
	75	As			15911.840	ug/L	
	82	Se			1796.000	ug/L	
>	72	Ge-1			2403697.662	ug/L	
	111	Cd			13.839	ug/L	
	121	Sb			89.334	ug/L	
>	115	In-1			2450752.004	ug/L	
	208	Pb			2195.148	ug/L	
>	169	Tm-1			1981238.004	ug/L	
	50	Cr			-26.682	ug/L	
	53	Cr			12464.760	ug/L	
	61	Ni			6.333	ug/L	
	76	Se			-344499.391	ug/L	
	77	Se			5904.584	ug/L	
	78	Se			16131.000	ug/L	
	79	Br			9765.910	ug/L	
>	72	Ge			2403697.662	ug/L	
	108	Cd			-3.505	ug/L	
	114	Cd			46.195	ug/L	
>	115	In			2450752.004	ug/L	
	208	207.977			1142.438	ug/L	
	207	Pb			480.352	ug/L	
	206	Pb			572.359	ug/L	
>	169	Tm			1981238.004	ug/L	
	106	Pd			3.934	ug/L	
	84	Kr			6388.332	ug/L	

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: Standard 1
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 14:33:13
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\Standard 1.006
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5648.842	ug/L	5221.475
>	6	Li-1			1665333.086	ug/L	1574984.119
	9	Be	100.000000	0.802	28855.971	ug/L	20.000
	44	Ca	5100.000000	1.117	1194970.923	ug/L	24093.526
	52	Cr	100.000000	0.257	734105.857	ug/L	11936.185
	55	Mn	100.000000	0.198	1169851.686	ug/L	991.411
	59	Co	100.000000	0.547	859644.978	ug/L	629.365
	60	Ni	100.000000	0.247	177532.657	ug/L	130.768
	75	As	100.000000	1.442	176113.697	ug/L	15911.840
	82	Se	100.000000	0.503	17104.583	ug/L	1796.000
>	72	Ge-1			2493165.700	ug/L	2403697.662
	111	Cd	100.000000	1.518	151161.401	ug/L	13.839
	121	Sb	50.000000	1.376	257404.408	ug/L	89.334
>	115	In-1			2525549.314	ug/L	2450752.004
	208	Pb	100.000000	1.085	2497129.678	ug/L	2195.148
>	169	Tm-1			2074336.241	ug/L	1981238.004
	50	Cr	100.000000	1.840	17718.797	ug/L	-26.682
	53	Cr	100.000000	0.732	45142.196	ug/L	12464.760
	61	Ni	100.000000	2.044	2862.471	ug/L	6.333
	76	Se	100.000000	121.772	-358975.439	ug/L	-344499.391
	77	Se	100.000000	1.953	19152.504	ug/L	5904.584
	78	Se	100.000000	2.342	54194.208	ug/L	16131.000
	79	Br	100.000000	23.536	8703.166	ug/L	9765.910
>	72	Ge			2493165.700	ug/L	2403697.662
	108	Cd	100.000000	1.442	10164.203	ug/L	-3.505
	114	Cd	100.000000	1.036	360560.372	ug/L	46.195
>	115	In			2525549.314	ug/L	2450752.004
	208	207.977	100.000000	1.176	1275015.707	ug/L	1142.438
	207	Pb	100.000000	0.979	528520.746	ug/L	480.352
	206	Pb	100.000000	1.025	693593.225	ug/L	572.359
>	169	Tm			2074336.241	ug/L	1981238.004
	106	Pd			-1191.979	ug/L	3.934
	84	Kr			6432.800	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	As	75	
	Se	82	
>	Ge-1	72	
	Cd	111	
	Sb	121	
>	In-1	115	
	Pb	208	
>	Tm-1	169	
	Cr	50	
	Cr	53	
	Ni	61	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	
	Cd	108	
	Cd	114	
>	In	115	
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	
	Pd	106	
	Kr	84	

Sample ID: ICV
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 14:35:29
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\ICV .007
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 3
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5642.167	ug/L	5221.475
>	6	Li-1			1588550.283	ug/L	1574984.119
	9	Be	81.773140	1.452	22505.740	ug/L	20.000
	44	Ca	840.624957	1.663	214567.276	ug/L	24093.526
	52	Cr	80.351761	0.627	583398.282	ug/L	11936.185
	55	Mn	80.455012	0.974	927235.600	ug/L	991.411
	59	Co	80.392429	0.347	680928.619	ug/L	629.365
	60	Ni	80.812262	1.273	141326.900	ug/L	130.768
	75	As	80.753708	1.958	143212.178	ug/L	15911.840
	82	Se	80.551842	2.647	13925.153	ug/L	1796.000
>	72	Ge-1			2455929.962	ug/L	2403697.662
	111	Cd	81.391473	0.691	121214.696	ug/L	13.839
	121	Sb	39.329408	0.410	199500.075	ug/L	89.334
>	115	In-1			2487804.684	ug/L	2450752.004
	208	Pb	81.497561	0.489	1989978.481	ug/L	2195.148
>	169	Tm-1			2027713.478	ug/L	1981238.004
	50	Cr	66.686074	3.831	11634.026	ug/L	-26.682
	53	Cr	76.959972	1.007	37150.931	ug/L	12464.760
	61	Ni	79.739829	3.154	2249.782	ug/L	6.333
	76	Se	378.755252	69.701	-358091.221	ug/L	-344499.391
	77	Se	74.302406	1.096	15565.317	ug/L	5904.584
	78	Se	80.142426	3.737	46050.679	ug/L	16131.000
	79	Br	-36.070253	16.141	10482.041	ug/L	9765.910
>	72	Ge			2455929.962	ug/L	2403697.662
	108	Cd	80.239770	0.543	8033.855	ug/L	-3.505
	114	Cd	80.962904	0.293	287603.166	ug/L	46.195
>	115	In			2487804.684	ug/L	2450752.004
	208	207.977	83.621472	0.498	1042543.083	ug/L	1142.438
	207	Pb	85.083347	0.614	439675.608	ug/L	480.352
	206	Pb	74.861302	0.432	507759.790	ug/L	572.359
>	169	Tm			2027713.478	ug/L	1981238.004
	106	Pd			-1037.257	ug/L	3.934
	84	Kr			5873.287	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		100.861
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.173
	Cd	111		
	Sb	121		
>	In-1	115		101.512
	Pb	208		
>	Tm-1	169		102.346
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.173
	Cd	108		
	Cd	114		
>	In	115		101.512
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.346
	Pd	106		
	Kr	84		

Sample ID: ICB
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 14:38:45
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\ICB.008
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4997.962	ug/L	5221.475
>	6	Li-1			1643168.108	ug/L	1574984.119
	9	Be	0.056904	113.739	37.000	ug/L	20.000
	44	Ca	-3.681284	24.653	24363.551	ug/L	24093.526
	52	Cr	0.272295	5.121	14475.781	ug/L	11936.185
	55	Mn	0.087311	30.989	2067.008	ug/L	991.411
	59	Co	0.044898	86.278	1047.425	ug/L	629.365
	60	Ni	0.058409	42.381	241.350	ug/L	130.768
	75	As	-0.567688	31.212	15738.007	ug/L	15911.840
	82	Se	0.118333	1526.789	1898.515	ug/L	1796.000
>	72	Ge-1			2515721.417	ug/L	2403697.662
	111	Cd	0.083750	30.478	141.964	ug/L	13.839
	121	Sb	0.128963	16.998	761.713	ug/L	89.334
>	115	In-1			2546068.666	ug/L	2450752.004
	208	Pb	0.044136	85.722	3376.695	ug/L	2195.148
>	169	Tm-1			2063196.063	ug/L	1981238.004
	50	Cr	0.033013	204.650	-22.038	ug/L	-26.682
	53	Cr	1.627148	91.604	13576.139	ug/L	12464.760
	61	Ni	0.059099	66.439	8.333	ug/L	6.333
	76	Se	382.043023	3.390	-366796.521	ug/L	-344499.391
	77	Se	2.655068	50.513	6529.346	ug/L	5904.584
	78	Se	-1.391222	2.033	16356.627	ug/L	16131.000
	79	Br	-5.951274	108.376	10306.172	ug/L	9765.910
>	72	Ge			2515721.417	ug/L	2403697.662
	108	Cd	0.160265	24.120	12.778	ug/L	-3.505
	114	Cd	0.088640	32.683	370.012	ug/L	46.195
>	115	In			2546068.666	ug/L	2450752.004
	208	207.977	0.044001	85.088	1744.917	ug/L	1142.438
	207	Pb	0.043372	84.874	727.043	ug/L	480.352
	206	Pb	0.044965	88.084	904.735	ug/L	572.359
>	169	Tm			2063196.063	ug/L	1981238.004
	106	Pd			1.181	ug/L	3.934
	84	Kr			6651.450	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		104.329
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		104.660
	Cd	111		
	Sb	121		
>	In-1	115		103.889
	Pb	208		
>	Tm-1	169		104.137
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		104.660
	Cd	108		
	Cd	114		
>	In	115		103.889
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		104.137
	Pd	106		
	Kr	84		

Sample ID: LLSTD1
Sample Description: LLSTD@10X
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 14:42:20
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\LLSTD1.009
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 175
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4822.827	ug/L	5221.475
>	6	Li-1			1597022.418	ug/L	1574984.119
	9	Be	1.099686	7.792	324.342	ug/L	20.000
	44	Ca	51.077048	3.405	36641.188	ug/L	24093.526
	52	Cr	1.173886	3.454	20813.987	ug/L	11936.185
	55	Mn	1.144074	0.782	14374.551	ug/L	991.411
	59	Co	1.081072	1.333	9921.395	ug/L	629.365
	60	Ni	1.077827	4.358	2043.738	ug/L	130.768
	75	As	0.423088	104.021	17146.298	ug/L	15911.840
	82	Se	0.964180	234.999	2005.108	ug/L	1796.000
>	72	Ge-1			2488574.473	ug/L	2403697.662
	111	Cd	1.098624	3.143	1671.285	ug/L	13.839
	121	Sb	0.597435	1.006	3160.118	ug/L	89.334
>	115	In-1			2519899.601	ug/L	2450752.004
	208	Pb	1.082126	0.934	28933.010	ug/L	2195.148
>	169	Tm-1			2048435.965	ug/L	1981238.004
	50	Cr	1.336658	13.860	209.168	ug/L	-26.682
	53	Cr	1.370448	144.385	13343.774	ug/L	12464.760
	61	Ni	1.197719	22.185	40.667	ug/L	6.333
	76	Se	322.892673	53.431	-361890.636	ug/L	-344499.391
	77	Se	1.396714	30.192	6294.512	ug/L	5904.584
	78	Se	-0.147954	482.486	16644.566	ug/L	16131.000
	79	Br	3.857468	70.283	10055.892	ug/L	9765.910
>	72	Ge			2488574.473	ug/L	2403697.662
	108	Cd	1.160985	0.553	114.200	ug/L	-3.505
	114	Cd	1.086013	1.966	3954.352	ug/L	46.195
>	115	In			2519899.601	ug/L	2450752.004
	208	207.977	1.122028	1.010	15297.031	ug/L	1142.438
	207	Pb	1.162885	1.507	6561.382	ug/L	480.352
	206	Pb	0.947246	1.493	7074.597	ug/L	572.359
>	169	Tm			2048435.965	ug/L	1981238.004
	106	Pd			-2.806	ug/L	3.934
	84	Kr			6747.671	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		101.399
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		103.531
	Cd	111		
	Sb	121		
>	In-1	115		102.821
	Pb	208		
>	Tm-1	169		103.392
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		103.531
	Cd	108		
	Cd	114		
>	In	115		102.821
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		103.392
	Pd	106		
	Kr	84		

Sample ID: LLSTD2
Sample Description: LLSTD@5X
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 14:45:37
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\LLSTD2.010
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 174
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4604.666	ug/L	5221.475
>	6	Li-1			1571304.671	ug/L	1574984.119
	9	Be	2.165198	4.309	609.029	ug/L	20.000
	44	Ca	108.235697	4.765	49133.653	ug/L	24093.526
	52	Cr	2.210660	4.857	27941.559	ug/L	11936.185
	55	Mn	2.279988	4.637	27290.443	ug/L	991.411
	59	Co	2.223795	4.411	19480.462	ug/L	629.365
	60	Ni	2.230857	4.172	4035.874	ug/L	130.768
	75	As	1.680608	19.579	18922.401	ug/L	15911.840
	82	Se	2.058609	73.173	2145.736	ug/L	1796.000
>	72	Ge-1			2458865.425	ug/L	2403697.662
	111	Cd	2.175305	4.720	3261.413	ug/L	13.839
	121	Sb	1.126477	2.969	5816.658	ug/L	89.334
>	115	In-1			2494106.173	ug/L	2450752.004
	208	Pb	2.248483	5.717	56650.132	ug/L	2195.148
>	169	Tm-1			2012488.851	ug/L	1981238.004
	50	Cr	2.652390	11.330	437.105	ug/L	-26.682
	53	Cr	0.656214	203.509	12957.517	ug/L	12464.760
	61	Ni	1.785589	34.917	56.667	ug/L	6.333
	76	Se	361.665264	38.415	-358193.915	ug/L	-344499.391
	77	Se	0.021295	5006.259	6042.007	ug/L	5904.584
	78	Se	1.195774	28.792	16942.900	ug/L	16131.000
	79	Br	15.351975	70.687	9773.918	ug/L	9765.910
>	72	Ge			2458865.425	ug/L	2403697.662
	108	Cd	2.116208	7.742	208.930	ug/L	-3.505
	114	Cd	2.164355	4.493	7753.770	ug/L	46.195
>	115	In			2494106.173	ug/L	2450752.004
	208	207.977	2.327723	5.899	29925.990	ug/L	1142.438
	207	Pb	2.385042	5.048	12705.353	ug/L	480.352
	206	Pb	1.998777	6.277	14018.789	ug/L	572.359
>	169	Tm			2012488.851	ug/L	1981238.004
	106	Pd			-17.167	ug/L	3.934
	84	Kr			6489.383	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.766
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		102.295
	Cd	111		
	Sb	121		
>	In-1	115		101.769
	Pb	208		
>	Tm-1	169		101.577
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		102.295
	Cd	108		
	Cd	114		
>	In	115		101.769
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		101.577
	Pd	106		
	Kr	84		

Sample ID: ICSA
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 14:50:28
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\ICSA .011
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 2
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4851.850	ug/L	5221.475
>	6	Li-1			1391604.774	ug/L	1574984.119
	9	Be	0.057116	55.619	31.333	ug/L	20.000
	44	Ca	97156.913776	0.695	19742810.425	ug/L	24093.526
	52	Cr	3.098514	0.879	30735.047	ug/L	11936.185
	55	Mn	6.887464	0.740	72126.120	ug/L	991.411
	59	Co	1.692760	0.828	13442.184	ug/L	629.365
	60	Ni	0.891558	7.952	1519.540	ug/L	130.768
	75	As	0.485014	7.774	15285.187	ug/L	15911.840
	82	Se	0.291663	1010.988	1686.105	ug/L	1796.000
>	72	Ge-1			2205530.923	ug/L	2403697.662
	111	Cd	0.937057	3.782	1282.765	ug/L	13.839
	121	Sb	0.243398	9.010	1205.781	ug/L	89.334
>	115	In-1			2263850.672	ug/L	2450752.004
	208	Pb	0.497411	2.536	12315.282	ug/L	2195.148
>	169	Tm-1			1736765.908	ug/L	1981238.004
	50	Cr	311.242519	3.033	48818.937	ug/L	-26.682
	53	Cr	22.216627	8.463	17765.526	ug/L	12464.760
	61	Ni	16.441907	7.279	421.039	ug/L	6.333
	76	Se	499.850617	19.631	-323261.036	ug/L	-344499.391
	77	Se	62.534339	2.286	12624.094	ug/L	5904.584
	78	Se	4.855151	0.933	16410.788	ug/L	16131.000
	79	Br	-2324078.241354	32.890	29279399.753	ug/L	9765.910
>	72	Ge			2205530.923	ug/L	2403697.662
	108	Cd	37.361902	3.942	3402.723	ug/L	-3.505
	114	Cd	2.688551	3.018	8732.705	ug/L	46.195
>	115	In			2263850.672	ug/L	2450752.004
	208	207.977	0.508378	2.945	6423.908	ug/L	1142.438
	207	Pb	0.512845	1.086	2688.568	ug/L	480.352
	206	Pb	0.465494	3.343	3202.806	ug/L	572.359
>	169	Tm			1736765.908	ug/L	1981238.004
	106	Pd			-305.053	ug/L	3.934
	84	Kr			6649.201	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		88.357
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		91.756
	Cd	111		
	Sb	121		
>	In-1	115		92.374
	Pb	208		
>	Tm-1	169		87.661
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		91.756
	Cd	108		
	Cd	114		
>	In	115		92.374
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		87.661
	Pd	106		
	Kr	84		

Sample ID: ICSAB
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 14:53:44
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\ICSAB.012
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 1
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4755.776	ug/L	5221.475
>	6	Li-1			1324396.765	ug/L	1574984.119
	9	Be	91.192584	0.613	20929.698	ug/L	20.000
	44	Ca	95578.394685	0.448	19487403.127	ug/L	24093.526
	52	Cr	93.523099	0.408	610082.414	ug/L	11936.185
	55	Mn	97.829422	0.348	1015830.581	ug/L	991.411
	59	Co	91.022842	0.612	694619.496	ug/L	629.365
	60	Ni	85.384815	0.047	134562.757	ug/L	130.768
	75	As	97.739897	0.745	153141.083	ug/L	15911.840
	82	Se	99.619666	3.149	15130.738	ug/L	1796.000
>	72	Ge-1			2212851.995	ug/L	2403697.662
	111	Cd	87.035192	0.804	117392.769	ug/L	13.839
	121	Sb	46.154215	0.334	212019.203	ug/L	89.334
>	115	In-1			2253052.232	ug/L	2450752.004
	208	Pb	82.205807	1.077	1717520.555	ug/L	2195.148
>	169	Tm-1			1735018.263	ug/L	1981238.004
	50	Cr	355.634991	4.241	55977.559	ug/L	-26.682
	53	Cr	107.824206	2.049	42297.662	ug/L	12464.760
	61	Ni	99.175883	2.281	2519.063	ug/L	6.333
	76	Se	214.652724	41.899	-320230.584	ug/L	-344499.391
	77	Se	154.393051	0.827	23285.452	ug/L	5904.584
	78	Se	106.883615	0.479	50403.819	ug/L	16131.000
	79	Br	-457357.202809	24.641	5777211.181	ug/L	9765.910
>	72	Ge			2212851.995	ug/L	2403697.662
	108	Cd	126.006881	0.390	11428.424	ug/L	-3.505
	114	Cd	88.639721	0.423	285161.153	ug/L	46.195
>	115	In			2253052.232	ug/L	2450752.004
	208	207.977	82.394228	1.023	878976.508	ug/L	1142.438
	207	Pb	81.617329	1.038	360913.831	ug/L	480.352
	206	Pb	82.307835	1.208	477630.216	ug/L	572.359
>	169	Tm			1735018.263	ug/L	1981238.004
	106	Pd			-1048.484	ug/L	3.934
	84	Kr			6615.371	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		84.090
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		92.060
	Cd	111		
	Sb	121		
>	In-1	115		91.933
	Pb	208		
>	Tm-1	169		87.572
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		92.060
	Cd	108		
	Cd	114		
>	In	115		91.933
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		87.572
	Pd	106		
	Kr	84		

Sample ID: Rinse
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:00:40
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\Rinse.013
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 6
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5019.980	ug/L	5221.475
>	6	Li-1			1571623.287	ug/L	1574984.119
	9	Be	0.032907	154.964	29.000	ug/L	20.000
	44	Ca	56.647978	24.670	42948.030	ug/L	24093.526
	52	Cr	1.267850	0.536	24322.063	ug/L	11936.185
	55	Mn	0.222415	8.190	4100.659	ug/L	991.411
	59	Co	0.015224	112.608	886.730	ug/L	629.365
	60	Ni	0.057449	30.304	268.660	ug/L	130.768
	75	As	0.094750	302.956	18811.673	ug/L	15911.840
	82	Se	0.389857	574.405	2169.596	ug/L	1796.000
>	72	Ge-1			2816429.149	ug/L	2403697.662
	111	Cd	0.076108	20.864	141.762	ug/L	13.839
	121	Sb	0.033318	25.409	288.673	ug/L	89.334
>	115	In-1			2762091.130	ug/L	2450752.004
	208	Pb	0.011726	156.735	2612.548	ug/L	2195.148
>	169	Tm-1			2088252.258	ug/L	1981238.004
	50	Cr	-0.217608	66.723	-74.651	ug/L	-26.682
	53	Cr	22.359862	6.520	22735.829	ug/L	12464.760
	61	Ni	0.059111	76.187	9.333	ug/L	6.333
	76	Se	405.563760	56.283	-411108.275	ug/L	-344499.391
	77	Se	36.107612	4.556	12229.554	ug/L	5904.584
	78	Se	2.500221	38.340	19955.845	ug/L	16131.000
	79	Br	-3258.293742	58.241	63492.367	ug/L	9765.910
>	72	Ge			2816429.149	ug/L	2403697.662
	108	Cd	0.162058	41.984	14.162	ug/L	-3.505
	114	Cd	0.075221	27.762	349.538	ug/L	46.195
>	115	In			2762091.130	ug/L	2450752.004
	208	207.977	0.012933	135.750	1372.151	ug/L	1142.438
	207	Pb	0.006017	377.720	539.357	ug/L	480.352
	206	Pb	0.013856	120.274	701.039	ug/L	572.359
>	169	Tm			2088252.258	ug/L	1981238.004
	106	Pd			2.424	ug/L	3.934
	84	Kr			7453.531	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.787
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		117.171
	Cd	111		
	Sb	121		
>	In-1	115		112.704
	Pb	208		
>	Tm-1	169		105.401
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		117.171
	Cd	108		
	Cd	114		
>	In	115		112.704
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		105.401
	Pd	106		
	Kr	84		

Sample ID: CCV 1
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:07:37
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 1.014
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5099.710	ug/L	5221.475
>	6	Li-1			1522283.753	ug/L	1574984.119
	9	Be	101.293982	1.712	26714.625	ug/L	20.000
	44	Ca	5027.539388	1.642	1259070.045	ug/L	24093.526
	52	Cr	97.782188	1.482	767144.097	ug/L	11936.185
	55	Mn	97.206919	1.382	1214923.013	ug/L	991.411
	59	Co	99.152555	1.762	910654.304	ug/L	629.365
	60	Ni	99.667976	1.673	189030.044	ug/L	130.768
	75	As	99.508459	1.660	187344.936	ug/L	15911.840
	82	Se	98.351831	4.039	18002.204	ug/L	1796.000
>	72	Ge-1			2663820.252	ug/L	2403697.662
	111	Cd	97.258472	1.660	152027.431	ug/L	13.839
	121	Sb	48.964948	1.250	260670.939	ug/L	89.334
>	115	In-1			2611357.801	ug/L	2450752.004
	208	Pb	94.409922	1.355	2310160.586	ug/L	2195.148
>	169	Tm-1			2032508.881	ug/L	1981238.004
	50	Cr	97.115919	2.764	18377.701	ug/L	-26.682
	53	Cr	111.112644	2.978	52042.152	ug/L	12464.760
	61	Ni	99.653340	5.165	3046.043	ug/L	6.333
	76	Se	430.196277	55.669	-389263.451	ug/L	-344499.391
	77	Se	118.728831	3.576	23061.549	ug/L	5904.584
	78	Se	102.325676	2.378	58841.604	ug/L	16131.000
	79	Br	-664.095459	9.883	20902.353	ug/L	9765.910
>	72	Ge			2663820.252	ug/L	2403697.662
	108	Cd	98.727773	1.159	10377.115	ug/L	-3.505
	114	Cd	97.151154	1.687	362190.598	ug/L	46.195
>	115	In			2611357.801	ug/L	2450752.004
	208	207.977	94.248963	1.348	1177553.887	ug/L	1142.438
	207	Pb	94.117641	0.940	487449.803	ug/L	480.352
	206	Pb	94.928494	1.713	645156.896	ug/L	572.359
>	169	Tm			2032508.881	ug/L	1981238.004
	106	Pd			-1132.757	ug/L	3.934
	84	Kr			6366.966	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		96.654
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		110.822
	Cd	111		
	Sb	121		
>	In-1	115		106.553
	Pb	208		
>	Tm-1	169		102.588
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		110.822
	Cd	108		
	Cd	114		
>	In	115		106.553
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.588
	Pd	106		
	Kr	84		

Sample ID: CCB 1
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:10:53
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 1.015
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4754.442	ug/L	5221.475
>	6	Li-1			1506648.499	ug/L	1574984.119
	9	Be	0.018920	208.823	24.000	ug/L	20.000
	44	Ca	41.794843	42.146	36870.844	ug/L	24093.526
	52	Cr	0.836856	3.011	19671.040	ug/L	11936.185
	55	Mn	0.175285	13.941	3282.516	ug/L	991.411
	59	Co	0.003269	683.877	724.710	ug/L	629.365
	60	Ni	0.091297	30.716	317.114	ug/L	130.768
	75	As	0.100644	180.319	17790.207	ug/L	15911.840
	82	Se	0.625979	426.716	2090.370	ug/L	1796.000
>	72	Ge-1			2662123.907	ug/L	2403697.662
	111	Cd	0.070822	40.573	124.553	ug/L	13.839
	121	Sb	0.032919	34.440	269.006	ug/L	89.334
>	115	In-1			2606347.739	ug/L	2450752.004
	208	Pb	0.002714	942.946	2313.835	ug/L	2195.148
>	169	Tm-1			2033545.572	ug/L	1981238.004
	50	Cr	-0.041111	419.817	-37.737	ug/L	-26.682
	53	Cr	15.859341	3.832	19256.572	ug/L	12464.760
	61	Ni	-0.032619	211.290	6.000	ug/L	6.333
	76	Se	429.940110	23.634	-388992.119	ug/L	-344499.391
	77	Se	20.769260	1.669	9427.553	ug/L	5904.584
	78	Se	2.145816	65.288	18717.129	ug/L	16131.000
	79	Br	-657.631648	4.415	20796.095	ug/L	9765.910
>	72	Ge			2662123.907	ug/L	2403697.662
	108	Cd	0.150395	4.114	12.050	ug/L	-3.505
	114	Cd	0.068055	35.616	300.984	ug/L	46.195
>	115	In			2606347.739	ug/L	2450752.004
	208	207.977	0.001554	1659.512	1189.116	ug/L	1142.438
	207	Pb	0.001914	1404.958	501.687	ug/L	480.352
	206	Pb	0.005456	445.608	623.032	ug/L	572.359
>	169	Tm			2033545.572	ug/L	1981238.004
	106	Pd			5.768	ug/L	3.934
	84	Kr			7305.859	ug/L	6388.332

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		95.661
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		110.751
	Cd	111		
	Sb	121		
>	In-1	115		106.349
	Pb	208		
>	Tm-1	169		102.640
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		110.751
	Cd	108		
	Cd	114		
>	In	115		106.349
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		102.640
	Pd	106		
	Kr	84		

Sample ID: BLK RECAL
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:10:53
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 1.015
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4754.442	ug/L	
>	6	Li-1			1506648.499	ug/L	
	9	Be			24.000	ug/L	
	44	Ca			36870.844	ug/L	
	52	Cr			19671.040	ug/L	
	55	Mn			3282.516	ug/L	
	59	Co			724.710	ug/L	
	60	Ni			317.114	ug/L	
	75	As			17790.207	ug/L	
	82	Se			2090.370	ug/L	
>	72	Ge-1			2662123.907	ug/L	
	111	Cd			124.553	ug/L	
	121	Sb			269.006	ug/L	
>	115	In-1			2606347.739	ug/L	
	208	Pb			2313.835	ug/L	
>	169	Tm-1			2033545.572	ug/L	
	50	Cr			-37.737	ug/L	
	53	Cr			19256.572	ug/L	
	61	Ni			6.000	ug/L	
	76	Se			-388992.119	ug/L	
	77	Se			9427.553	ug/L	
	78	Se			18717.129	ug/L	
	79	Br			20796.095	ug/L	
>	72	Ge			2662123.907	ug/L	
	108	Cd			12.050	ug/L	
	114	Cd			300.984	ug/L	
>	115	In			2606347.739	ug/L	
	208	207.977			1189.116	ug/L	
	207	Pb			501.687	ug/L	
	206	Pb			623.032	ug/L	
>	169	Tm			2033545.572	ug/L	
	106	Pd			5.768	ug/L	
	84	Kr			7305.859	ug/L	

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: STD1 RECAL
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:07:37
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 1.014
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5099.710	ug/L	4754.442
>	6	Li-1			1522283.753	ug/L	1506648.499
	9	Be	100.000000	1.713	26714.625	ug/L	24.000
	44	Ca	5100.000000	1.655	1259070.045	ug/L	36870.844
	52	Cr	100.000000	1.495	767144.097	ug/L	19671.040
	55	Mn	100.000000	1.384	1214923.013	ug/L	3282.516
	59	Co	100.000000	1.762	910654.304	ug/L	724.710
	60	Ni	100.000000	1.674	189030.044	ug/L	317.114
	75	As	100.000000	1.661	187344.936	ug/L	17790.207
	82	Se	100.000000	4.064	18002.204	ug/L	2090.370
>	72	Ge-1			2663820.252	ug/L	2662123.907
	111	Cd	100.000000	1.661	152027.431	ug/L	124.553
	121	Sb	50.000000	1.251	260670.939	ug/L	269.006
>	115	In-1			2611357.801	ug/L	2606347.739
	208	Pb	100.000000	1.355	2310160.586	ug/L	2313.835
>	169	Tm-1			2032508.881	ug/L	2033545.572
	50	Cr	100.000000	2.763	18377.701	ug/L	-37.737
	53	Cr	100.000000	3.473	52042.152	ug/L	19256.572
	61	Ni	100.000000	5.163	3046.043	ug/L	6.000
	76	Se	100.000000	23110.354	-389263.451	ug/L	-388992.119
	77	Se	100.000000	4.333	23061.549	ug/L	9427.553
	78	Se	100.000000	2.429	58841.604	ug/L	18717.129
	79	Br	100.000000	969.623	20902.353	ug/L	20796.095
>	72	Ge			2663820.252	ug/L	2662123.907
	108	Cd	100.000000	1.161	10377.115	ug/L	12.050
	114	Cd	100.000000	1.688	362190.598	ug/L	300.984
>	115	In			2611357.801	ug/L	2606347.739
	208	207.977	100.000000	1.348	1177553.887	ug/L	1189.116
	207	Pb	100.000000	0.940	487449.803	ug/L	501.687
	206	Pb	100.000000	1.713	645156.896	ug/L	623.032
>	169	Tm			2032508.881	ug/L	2033545.572
	106	Pd			-1132.757	ug/L	5.768
	84	Kr			6366.966	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: CCV 2
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:14:10
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 2.016
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5217.140	ug/L	4754.442
>	6	Li-1			1546323.964	ug/L	1506648.499
	9	Be	98.283665	0.357	26676.149	ug/L	24.000
	44	Ca	5014.131670	0.797	1254082.836	ug/L	36870.844
	52	Cr	98.146405	0.766	762844.708	ug/L	19671.040
	55	Mn	98.050394	0.573	1206336.681	ug/L	3282.516
	59	Co	97.409379	0.664	898302.367	ug/L	724.710
	60	Ni	97.592100	0.763	186829.827	ug/L	317.114
	75	As	98.681171	0.735	187445.140	ug/L	17790.207
	82	Se	97.038564	2.864	17758.567	ug/L	2090.370
>	72	Ge-1			2696981.513	ug/L	2662123.907
	111	Cd	99.175031	0.978	151867.626	ug/L	124.553
	121	Sb	49.753905	0.799	261258.223	ug/L	269.006
>	115	In-1			2629990.718	ug/L	2606347.739
	208	Pb	98.768959	1.023	2324347.734	ug/L	2313.835
>	169	Tm-1			2070087.508	ug/L	2033545.572
	50	Cr	95.652975	0.701	17796.101	ug/L	-37.737
	53	Cr	95.221794	1.860	51115.311	ug/L	19256.572
	61	Ni	97.798535	1.591	3017.336	ug/L	6.000
	76	Se	-16000.676201	147.426	-397038.887	ug/L	-388992.119
	77	Se	92.831952	1.459	22365.488	ug/L	9427.553
	78	Se	96.144283	1.248	58011.543	ug/L	18717.129
	79	Br	-2366.848482	25.626	18597.677	ug/L	20796.095
>	72	Ge			2696981.513	ug/L	2662123.907
	108	Cd	98.039174	2.101	10247.666	ug/L	12.050
	114	Cd	99.459463	0.352	362851.567	ug/L	300.984
>	115	In			2629990.718	ug/L	2606347.739
	208	207.977	98.766087	0.834	1184716.857	ug/L	1189.116
	207	Pb	98.884188	1.368	491023.009	ug/L	501.687
	206	Pb	98.687152	1.236	648607.868	ug/L	623.032
>	169	Tm			2070087.508	ug/L	2033545.572
	106	Pd			-1294.539	ug/L	5.768
	84	Kr			6489.517	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		102.633
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		101.309
	Cd	111		
	Sb	121		
>	In-1	115		100.907
	Pb	208		
>	Tm-1	169		101.797
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		101.309
	Cd	108		
	Cd	114		
>	In	115		100.907
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		101.797
	Pd	106		
	Kr	84		

Sample ID: CCB 2
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:17:26
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 2.017
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4789.803	ug/L	4754.442
>	6	Li-1			1503863.481	ug/L	1506648.499
	9	Be	0.079872	54.137	45.000	ug/L	24.000
	44	Ca	13.560615	121.770	39994.354	ug/L	36870.844
	52	Cr	0.012068	820.836	19703.144	ug/L	19671.040
	55	Mn	0.070076	59.363	4118.011	ug/L	3282.516
	59	Co	0.072620	58.372	1380.157	ug/L	724.710
	60	Ni	0.049544	83.915	409.185	ug/L	317.114
	75	As	-0.246708	57.725	17322.680	ug/L	17790.207
	82	Se	-0.024668	4532.328	2080.766	ug/L	2090.370
>	72	Ge-1			2654608.039	ug/L	2662123.907
	111	Cd	0.070587	65.138	228.665	ug/L	124.553
	121	Sb	0.035660	68.212	448.683	ug/L	269.006
>	115	In-1			2575865.741	ug/L	2606347.739
	208	Pb	0.075600	67.440	4051.530	ug/L	2313.835
>	169	Tm-1			2031526.007	ug/L	2033545.572
	50	Cr	0.044657	453.037	-29.388	ug/L	-37.737
	53	Cr	-2.107232	54.305	18513.451	ug/L	19256.572
	61	Ni	0.242053	69.073	13.333	ug/L	6.000
	76	Se	-22632.082155	20.332	-391939.107	ug/L	-388992.119
	77	Se	-4.813923	11.246	8746.873	ug/L	9427.553
	78	Se	-1.684331	20.562	17991.186	ug/L	18717.129
	79	Br	-2093.080143	10.789	18592.998	ug/L	20796.095
>	72	Ge			2654608.039	ug/L	2662123.907
	108	Cd	0.051360	48.309	17.162	ug/L	12.050
	114	Cd	0.072043	52.285	554.241	ug/L	300.984
>	115	In			2575865.741	ug/L	2606347.739
	208	207.977	0.080065	63.914	2127.374	ug/L	1189.116
	207	Pb	0.071083	64.631	846.392	ug/L	501.687
	206	Pb	0.070864	77.248	1077.764	ug/L	623.032
>	169	Tm			2031526.007	ug/L	2033545.572
	106	Pd			4.319	ug/L	5.768
	84	Kr			7242.006	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.815
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		99.718
	Cd	111		
	Sb	121		
>	In-1	115		98.830
	Pb	208		
>	Tm-1	169		99.901
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		99.718
	Cd	108		
	Cd	114		
>	In	115		98.830
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		99.901
	Pd	106		
	Kr	84		

Sample ID: MKMWVS
Sample Description: G1G050412-2 MS
Batch ID: 1196180
Sample Date/Time: Tuesday, July 19, 2011 15:24:00
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\MKMWVS.019
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 188
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			7170.706	ug/L	4754.442
>	6	Li-1			1775582.166	ug/L	1506648.499
	9	Be	146.391908	1.143	45610.921	ug/L	24.000
	44	Ca	2158.402618	0.753	521229.303	ug/L	36870.844
	52	Cr	212.157984	1.027	1510265.168	ug/L	19671.040
	55	Mn	230.853848	0.606	2634076.798	ug/L	3282.516
	59	Co	202.121960	1.016	1730777.028	ug/L	724.710
	60	Ni	198.595286	0.399	352803.818	ug/L	317.114
	75	As	164.702666	0.583	279386.331	ug/L	17790.207
	82	Se	198.317765	0.510	31647.867	ug/L	2090.370
>	72	Ge-1			2505064.470	ug/L	2662123.907
	111	Cd	163.748278	0.719	245956.552	ug/L	124.553
	121	Sb	161.117051	0.209	829482.833	ug/L	269.006
>	115	In-1			2580282.245	ug/L	2606347.739
	208	Pb	190.733050	0.423	4429217.243	ug/L	2313.835
>	169	Tm-1			2043850.165	ug/L	2033545.572
	50	Cr	200.218618	3.342	34645.658	ug/L	-37.737
	53	Cr	174.986757	2.437	72088.773	ug/L	19256.572
	61	Ni	201.093373	1.762	5755.950	ug/L	6.000
	76	Se	-34899.208804	23.918	-371941.414	ug/L	-388992.119
	77	Se	141.620039	2.974	27036.527	ug/L	9427.553
	78	Se	198.610992	1.147	92557.833	ug/L	18717.129
	79	Br	60820.627036	5.409	78436.829	ug/L	20796.095
>	72	Ge			2505064.470	ug/L	2662123.907
	108	Cd	163.967229	1.919	16808.793	ug/L	12.050
	114	Cd	162.109467	0.361	580087.862	ug/L	300.984
>	115	In			2580282.245	ug/L	2606347.739
	208	207.977	199.238025	0.901	2358273.238	ug/L	1189.116
	207	Pb	202.561871	0.395	992471.561	ug/L	501.687
	206	Pb	166.274535	0.330	1078472.444	ug/L	623.032
>	169	Tm			2043850.165	ug/L	2033545.572
	106	Pd			-1264.800	ug/L	5.768
	84	Kr			5282.380	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		117.850
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		94.100
	Cd	111		
	Sb	121		
>	In-1	115		99.000
	Pb	208		
>	Tm-1	169		100.507
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		94.100
	Cd	108		
	Cd	114		
>	In	115		99.000
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		100.507
	Pd	106		
	Kr	84		

Sample ID: CCV 3
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:30:34
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 3.021
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5618.480	ug/L	4754.442
>	6	Li-1			1497368.305	ug/L	1506648.499
	9	Be	98.790820	0.976	25968.921	ug/L	24.000
	44	Ca	4861.746945	0.129	1162286.362	ug/L	36870.844
	52	Cr	95.053990	0.761	706127.631	ug/L	19671.040
	55	Mn	95.905884	0.817	1126987.030	ug/L	3282.516
	59	Co	93.972678	0.929	827684.532	ug/L	724.710
	60	Ni	93.962575	2.182	171838.416	ug/L	317.114
	75	As	96.856811	0.905	176025.662	ug/L	17790.207
	82	Se	93.970258	0.467	16483.018	ug/L	2090.370
>	72	Ge-1			2575466.879	ug/L	2662123.907
	111	Cd	98.746518	1.475	143193.007	ug/L	124.553
	121	Sb	50.640133	1.536	251820.074	ug/L	269.006
>	115	In-1			2490142.691	ug/L	2606347.739
	208	Pb	98.110993	1.127	2257457.954	ug/L	2313.835
>	169	Tm-1			2023827.303	ug/L	2033545.572
	50	Cr	95.173534	0.638	16908.220	ug/L	-37.737
	53	Cr	86.575441	1.032	46075.365	ug/L	19256.572
	61	Ni	95.064641	1.372	2801.394	ug/L	6.000
	76	Se	-30173.333881	23.184	-381544.688	ug/L	-388992.119
	77	Se	79.655466	1.803	19623.174	ug/L	9427.553
	78	Se	91.171981	0.863	53479.955	ug/L	18717.129
	79	Br	-1392.927409	37.088	18742.672	ug/L	20796.095
>	72	Ge			2575466.879	ug/L	2662123.907
	108	Cd	97.834735	1.720	9683.913	ug/L	12.050
	114	Cd	98.869436	1.460	341598.154	ug/L	300.984
>	115	In			2490142.691	ug/L	2606347.739
	208	207.977	98.287796	1.038	1152748.607	ug/L	1189.116
	207	Pb	98.268128	1.050	477069.757	ug/L	501.687
	206	Pb	97.669603	1.376	627639.590	ug/L	623.032
>	169	Tm			2023827.303	ug/L	2033545.572
	106	Pd			-1395.490	ug/L	5.768
	84	Kr			5580.120	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.384
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		96.745
	Cd	111		
	Sb	121		
>	In-1	115		95.541
	Pb	208		
>	Tm-1	169		99.522
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		96.745
	Cd	108		
	Cd	114		
>	In	115		95.541
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		99.522
	Pd	106		
	Kr	84		

Sample ID: CCB 3
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:32:54
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 3.022
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5459.677	ug/L	4754.442
>	6	Li-1			1465813.210	ug/L	1506648.499
	9	Be	-0.009399	1292.941	20.000	ug/L	24.000
	44	Ca	-18.640813	79.702	31107.806	ug/L	36870.844
	52	Cr	-0.320845	3.785	16620.021	ug/L	19671.040
	55	Mn	-0.003873	3121.052	3083.500	ug/L	3282.516
	59	Co	-0.003464	3389.831	645.417	ug/L	724.710
	60	Ni	-0.000680	18991.258	298.989	ug/L	317.114
	75	As	-0.691359	63.365	15978.722	ug/L	17790.207
	82	Se	0.119905	796.808	2029.716	ug/L	2090.370
>	72	Ge-1			2561528.165	ug/L	2662123.907
	111	Cd	0.006199	2035.696	123.460	ug/L	124.553
	121	Sb	0.031143	323.203	399.358	ug/L	269.006
>	115	In-1			2488240.385	ug/L	2606347.739
	208	Pb	-0.001318	9873.163	2189.979	ug/L	2313.835
>	169	Tm-1			1998776.774	ug/L	2033545.572
	50	Cr	-0.107934	94.849	-55.708	ug/L	-37.737
	53	Cr	-7.602362	11.302	16128.721	ug/L	19256.572
	61	Ni	0.009973	1440.037	6.000	ug/L	6.000
	76	Se	-42146.701668	9.355	-381555.899	ug/L	-388992.119
	77	Se	-14.185861	8.400	7214.867	ug/L	9427.553
	78	Se	-4.207221	22.151	16378.809	ug/L	18717.129
	79	Br	-1734.035058	46.080	18278.358	ug/L	20796.095
>	72	Ge			2561528.165	ug/L	2662123.907
	108	Cd	-0.007996	2058.883	10.322	ug/L	12.050
	114	Cd	0.003359	3524.965	289.057	ug/L	300.984
>	115	In			2488240.385	ug/L	2606347.739
	208	207.977	0.000691	19438.570	1148.221	ug/L	1189.116
	207	Pb	-0.002719	4879.417	468.370	ug/L	501.687
	206	Pb	-0.003928	3069.110	573.388	ug/L	623.032
>	169	Tm			1998776.774	ug/L	2033545.572
	106	Pd			6.728	ug/L	5.768
	84	Kr			6958.127	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		97.290
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		96.221
	Cd	111		
	Sb	121		
>	In-1	115		95.468
	Pb	208		
>	Tm-1	169		98.290
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		96.221
	Cd	108		
	Cd	114		
>	In	115		95.468
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		98.290
	Pd	106		
	Kr	84		

Sample ID: CCV 4
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:35:16
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 4.023
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5756.937	ug/L	4754.442
>	6	Li-1			1416648.697	ug/L	1506648.499
	9	Be	101.199962	2.291	25154.969	ug/L	24.000
	44	Ca	4896.155331	0.446	1128934.931	ug/L	36870.844
	52	Cr	95.603068	1.095	684992.171	ug/L	19671.040
	55	Mn	96.324897	0.530	1091796.039	ug/L	3282.516
	59	Co	94.670335	0.647	804291.520	ug/L	724.710
	60	Ni	95.206320	1.324	167915.649	ug/L	317.114
	75	As	97.456028	0.206	170731.655	ug/L	17790.207
	82	Se	95.214437	0.947	16085.354	ug/L	2090.370
>	72	Ge-1			2484472.942	ug/L	2662123.907
	111	Cd	98.784384	0.635	139551.944	ug/L	124.553
	121	Sb	50.798301	1.031	246074.262	ug/L	269.006
>	115	In-1			2426118.652	ug/L	2606347.739
	208	Pb	98.358166	1.015	2209522.554	ug/L	2313.835
>	169	Tm-1			1976060.215	ug/L	2033545.572
	50	Cr	95.797575	0.759	16420.199	ug/L	-37.737
	53	Cr	87.200530	1.126	44630.652	ug/L	19256.572
	61	Ni	95.227470	4.018	2707.615	ug/L	6.000
	76	Se	-28031.167622	4.297	-367722.364	ug/L	-388992.119
	77	Se	78.521808	0.859	18782.720	ug/L	9427.553
	78	Se	92.888441	0.931	52225.351	ug/L	18717.129
	79	Br	-3720.846928	15.319	15845.488	ug/L	20796.095
>	72	Ge			2484472.942	ug/L	2662123.907
	108	Cd	98.277343	2.806	9476.933	ug/L	12.050
	114	Cd	99.149989	1.239	333712.436	ug/L	300.984
>	115	In			2426118.652	ug/L	2606347.739
	208	207.977	98.544937	1.174	1128395.896	ug/L	1189.116
	207	Pb	98.332017	0.957	466072.034	ug/L	501.687
	206	Pb	98.037047	0.926	615054.624	ug/L	623.032
>	169	Tm			1976060.215	ug/L	2033545.572
	106	Pd			-1098.974	ug/L	5.768
	84	Kr			6040.971	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		94.026
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		93.327
	Cd	111		
	Sb	121		
>	In-1	115		93.085
	Pb	208		
>	Tm-1	169		97.173
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		93.327
	Cd	108		
	Cd	114		
>	In	115		93.085
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		97.173
	Pd	106		
	Kr	84		

Sample ID: CCB 4
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 15:37:37
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 4.024
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5574.777	ug/L	4754.442
⌈>	6	Li-1			1444742.247	ug/L	1506648.499
⌊	9	Be	-0.080262	3.166	2.667	ug/L	24.000
⌈	44	Ca	-20.647984	15.933	30327.099	ug/L	36870.844
|	52	Cr	-0.438034	18.213	15583.750	ug/L	19671.040
|	55	Mn	-0.077055	10.185	2232.392	ug/L	3282.516
|	59	Co	-0.074063	2.196	48.334	ug/L	724.710
|	60	Ni	-0.086334	8.101	146.630	ug/L	317.114
|	75	As	-0.821155	61.701	15572.471	ug/L	17790.207
|	82	Se	-1.126303	68.011	1817.973	ug/L	2090.370
⌊>	72	Ge-1			2529863.043	ug/L	2662123.907
⌈	111	Cd	-0.066126	4.769	22.825	ug/L	124.553
|	121	Sb	-0.021611	18.424	147.002	ug/L	269.006
⌊>	115	In-1			2446876.225	ug/L	2606347.739
⌈	208	Pb	-0.078151	1.593	495.007	ug/L	2313.835
⌊>	169	Tm-1			1978751.079	ug/L	2033545.572
⌈	50	Cr	-0.253164	21.899	-80.155	ug/L	-37.737
|	53	Cr	-7.799382	3.090	15870.235	ug/L	19256.572
|	61	Ni	-0.061006	197.421	4.000	ug/L	6.000
|	76	Se	-30372.489300	25.345	-374857.642	ug/L	-388992.119
|	77	Se	-14.790736	9.181	7045.399	ug/L	9427.553
|	78	Se	-4.129488	34.263	16204.207	ug/L	18717.129
|	79	Br	-3290.940187	18.898	16538.030	ug/L	20796.095
⌊>	72	Ge			2529863.043	ug/L	2662123.907
⌈	108	Cd	-0.112058	42.707	0.347	ug/L	12.050
|	114	Cd	-0.067668	2.149	52.992	ug/L	300.984
⌊>	115	In			2446876.225	ug/L	2606347.739
⌈	208	207.977	-0.079460	2.092	246.671	ug/L	1189.116
|	207	Pb	-0.078076	0.180	118.001	ug/L	501.687
|	206	Pb	-0.075820	2.732	130.335	ug/L	623.032
⌊>	169	Tm			1978751.079	ug/L	2033545.572
	106	Pd			7.055	ug/L	5.768
	84	Kr			6378.681	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		95.891
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		95.032
	Cd	111		
	Sb	121		
>	In-1	115		93.881
	Pb	208		
>	Tm-1	169		97.305
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		95.032
	Cd	108		
	Cd	114		
>	In	115		93.881
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		97.305
	Pd	106		
	Kr	84		

Sample ID: CCV 5
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:02:52
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 5.032
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5912.412	ug/L	4754.442
>	6	Li-1			874793.722	ug/L	1506648.499
	9	Be	110.902987	0.627	17026.088	ug/L	24.000
	44	Ca	5186.645438	0.330	896750.826	ug/L	36870.844
	52	Cr	91.756139	0.188	494376.095	ug/L	19671.040
	55	Mn	90.830206	0.831	773368.279	ug/L	3282.516
	59	Co	99.029122	0.362	631891.680	ug/L	724.710
	60	Ni	101.333403	0.367	134213.225	ug/L	317.114
	75	As	98.906199	0.912	129960.922	ug/L	17790.207
	82	Se	99.991217	2.150	12618.038	ug/L	2090.370
>	72	Ge-1			1866302.344	ug/L	2662123.907
	111	Cd	98.239310	1.042	120860.768	ug/L	124.553
	121	Sb	50.766156	0.840	214164.838	ug/L	269.006
>	115	In-1			2113125.548	ug/L	2606347.739
	208	Pb	95.792894	1.835	1952963.389	ug/L	2313.835
>	169	Tm-1			1793959.519	ug/L	2033545.572
	50	Cr	81.430510	3.028	10477.595	ug/L	-37.737
	53	Cr	72.743871	1.666	30204.397	ug/L	19256.572
	61	Ni	100.994848	1.214	2156.023	ug/L	6.000
	76	Se	-10748.811787	47.836	-274061.201	ug/L	-388992.119
	77	Se	64.090834	2.748	12729.239	ug/L	9427.553
	78	Se	94.751808	2.208	39749.144	ug/L	18717.129
	79	Br	-5356.990341	17.952	10710.648	ug/L	20796.095
>	72	Ge			1866302.344	ug/L	2662123.907
	108	Cd	96.075325	1.117	8069.297	ug/L	12.050
	114	Cd	98.500940	1.110	288701.444	ug/L	300.984
>	115	In			2113125.548	ug/L	2606347.739
	208	207.977	95.642879	1.819	993928.466	ug/L	1189.116
	207	Pb	95.288582	1.743	409903.455	ug/L	501.687
	206	Pb	96.447668	1.945	549131.467	ug/L	623.032
>	169	Tm			1793959.519	ug/L	2033545.572
	106	Pd			-1120.287	ug/L	5.768
	84	Kr			5006.116	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		58.062
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		70.106
	Cd	111		
	Sb	121		
>	In-1	115		81.076
	Pb	208		
>	Tm-1	169		88.218
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		70.106
	Cd	108		
	Cd	114		
>	In	115		81.076
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		88.218
	Pd	106		
	Kr	84		

Sample ID: CCB 5
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:05:12
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 5.033
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5777.288	ug/L	4754.442
>	6	Li-1			862734.178	ug/L	1506648.499
	9	Be	-0.088588	4.397	0.333	ug/L	24.000
	44	Ca	73.993366	5.181	38440.087	ug/L	36870.844
	52	Cr	-1.311783	1.743	6950.127	ug/L	19671.040
	55	Mn	-0.079121	5.333	1636.544	ug/L	3282.516
	59	Co	-0.070568	2.099	58.334	ug/L	724.710
	60	Ni	-0.048288	14.748	159.113	ug/L	317.114
	75	As	0.232354	44.809	12805.798	ug/L	17790.207
	82	Se	1.362999	166.851	1622.865	ug/L	2090.370
>	72	Ge-1			1874651.504	ug/L	2662123.907
	111	Cd	-0.068476	3.730	16.727	ug/L	124.553
	121	Sb	0.006479	99.294	244.338	ug/L	269.006
>	115	In-1			2106016.244	ug/L	2606347.739
	208	Pb	-0.076060	1.377	488.007	ug/L	2313.835
>	169	Tm-1			1780697.807	ug/L	2033545.572
	50	Cr	-0.388861	18.751	-76.922	ug/L	-37.737
	53	Cr	-18.109340	3.684	9381.323	ug/L	19256.572
	61	Ni	0.144592	102.178	7.333	ug/L	6.000
	76	Se	-24696.091665	87.773	-277040.602	ug/L	-388992.119
	77	Se	-27.209609	4.860	4027.225	ug/L	9427.553
	78	Se	-0.021759	2590.961	13173.250	ug/L	18717.129
	79	Br	-5117.466027	2.327	10940.246	ug/L	20796.095
>	72	Ge			1874651.504	ug/L	2662123.907
	108	Cd	-0.073431	45.290	3.630	ug/L	12.050
	114	Cd	-0.072083	1.508	32.783	ug/L	300.984
>	115	In			2106016.244	ug/L	2606347.739
	208	207.977	-0.076794	1.352	249.672	ug/L	1189.116
	207	Pb	-0.078042	0.730	106.334	ug/L	501.687
	206	Pb	-0.073222	2.642	132.001	ug/L	623.032
>	169	Tm			1780697.807	ug/L	2033545.572
	106	Pd			9.503	ug/L	5.768
	84	Kr			5588.543	ug/L	7305.859

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		57.262
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		70.419
	Cd	111		
	Sb	121		
>	In-1	115		80.803
	Pb	208		
>	Tm-1	169		87.566
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		70.419
	Cd	108		
	Cd	114		
>	In	115		80.803
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		87.566
	Pd	106		
	Kr	84		

Sample ID: BLK RECAL
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:05:12
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 5.033
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5777.288	ug/L	
>	6	Li-1			862734.178	ug/L	
	9	Be			0.333	ug/L	
	44	Ca			38440.087	ug/L	
	52	Cr			6950.127	ug/L	
	55	Mn			1636.544	ug/L	
	59	Co			58.334	ug/L	
	60	Ni			159.113	ug/L	
	75	As			12805.798	ug/L	
	82	Se			1622.865	ug/L	
>	72	Ge-1			1874651.504	ug/L	
	111	Cd			16.727	ug/L	
	121	Sb			244.338	ug/L	
>	115	In-1			2106016.244	ug/L	
	208	Pb			488.007	ug/L	
>	169	Tm-1			1780697.807	ug/L	
	50	Cr			-76.922	ug/L	
	53	Cr			9381.323	ug/L	
	61	Ni			7.333	ug/L	
	76	Se			-277040.602	ug/L	
	77	Se			4027.225	ug/L	
	78	Se			13173.250	ug/L	
	79	Br			10940.246	ug/L	
>	72	Ge			1874651.504	ug/L	
	108	Cd			3.630	ug/L	
	114	Cd			32.783	ug/L	
>	115	In			2106016.244	ug/L	
	208	207.977			249.672	ug/L	
	207	Pb			106.334	ug/L	
	206	Pb			132.001	ug/L	
>	169	Tm			1780697.807	ug/L	
	106	Pd			9.503	ug/L	
	84	Kr			5588.543	ug/L	

Internal Standard Recoveries

Analyte	Mass	Int Std	% Recovery
Sc	45		
> Li-1	6		
Be	9		
Ca	44		
Cr	52		
Mn	55		
Co	59		
Ni	60		
As	75		
Se	82		
> Ge-1	72		
Cd	111		
Sb	121		
> In-1	115		
Pb	208		
> Tm-1	169		
Cr	50		
Cr	53		
Ni	61		
Se	76		
Se	77		
Se	78		
Br	79		
> Ge	72		
Cd	108		
Cd	114		
> In	115		
207.977	208		
Pb	207		
Pb	206		
> Tm	169		
Pd	106		
Kr	84		

Sample ID: STD1 RECAL
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:02:52
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 5.032
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5912.412	ug/L	5777.288
>	6	Li-1			874793.722	ug/L	862734.178
	9	Be	100.000000	0.626	17026.088	ug/L	0.333
	44	Ca	5100.000000	0.335	896750.826	ug/L	38440.087
	52	Cr	100.000000	0.186	494376.095	ug/L	6950.127
	55	Mn	100.000000	0.830	773368.279	ug/L	1636.544
	59	Co	100.000000	0.362	631891.680	ug/L	58.334
	60	Ni	100.000000	0.367	134213.225	ug/L	159.113
	75	As	100.000000	0.914	129960.922	ug/L	12805.798
	82	Se	100.000000	2.180	12618.038	ug/L	1622.865
>	72	Ge-1			1866302.344	ug/L	1874651.504
	111	Cd	100.000000	1.041	120860.768	ug/L	16.727
	121	Sb	50.000000	0.840	214164.838	ug/L	244.338
>	115	In-1			2113125.548	ug/L	2106016.244
	208	Pb	100.000000	1.834	1952963.389	ug/L	488.007
>	169	Tm-1			1793959.519	ug/L	1780697.807
	50	Cr	100.000000	3.014	10477.595	ug/L	-76.922
	53	Cr	100.000000	1.334	30204.397	ug/L	9381.323
	61	Ni	100.000000	1.216	2156.023	ug/L	7.333
	76	Se	100.000000	36.882	-274061.201	ug/L	-277040.602
	77	Se	100.000000	1.929	12729.239	ug/L	4027.225
	78	Se	100.000000	2.207	39749.144	ug/L	13173.250
	79	Br	100.000000	402.731	10710.648	ug/L	10940.246
>	72	Ge			1866302.344	ug/L	1874651.504
	108	Cd	100.000000	1.116	8069.297	ug/L	3.630
	114	Cd	100.000000	1.110	288701.444	ug/L	32.783
>	115	In			2113125.548	ug/L	2106016.244
	208	207.977	100.000000	1.818	993928.466	ug/L	249.672
	207	Pb	100.000000	1.742	409903.455	ug/L	106.334
	206	Pb	100.000000	1.943	549131.467	ug/L	132.001
>	169	Tm			1793959.519	ug/L	1780697.807
	106	Pd			-1120.287	ug/L	9.503
	84	Kr			5006.116	ug/L	5588.543

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	As	75	
	Se	82	
>	Ge-1	72	
	Cd	111	
	Sb	121	
>	In-1	115	
	Pb	208	
>	Tm-1	169	
	Cr	50	
	Cr	53	
	Ni	61	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	
	Cd	108	
	Cd	114	
>	In	115	
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	
	Pd	106	
	Kr	84	

Sample ID: CCV 6
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:07:34
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 6.034
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			6080.906	ug/L	5777.288
>	6	Li-1			870290.966	ug/L	862734.178
	9	Be	101.425921	2.062	17179.496	ug/L	0.333
	44	Ca	5147.989781	1.174	903538.836	ug/L	38440.087
	52	Cr	101.547364	0.403	501214.217	ug/L	6950.127
	55	Mn	101.348778	0.692	782755.389	ug/L	1636.544
	59	Co	100.639384	0.940	635049.002	ug/L	58.334
	60	Ni	100.476232	1.050	134664.261	ug/L	159.113
	75	As	100.853888	1.274	130783.228	ug/L	12805.798
	82	Se	100.459760	0.734	12649.274	ug/L	1622.865
>	72	Ge-1			1863759.178	ug/L	1874651.504
	111	Cd	99.790678	0.265	119159.540	ug/L	16.727
	121	Sb	50.316555	1.445	212902.179	ug/L	244.338
>	115	In-1			2087548.205	ug/L	2106016.244
	208	Pb	99.740036	1.296	1914751.683	ug/L	488.007
>	169	Tm-1			1763057.068	ug/L	1780697.807
	50	Cr	103.048069	4.646	10786.189	ug/L	-76.922
	53	Cr	105.565392	2.054	31322.363	ug/L	9381.323
	61	Ni	101.208253	3.747	2178.377	ug/L	7.333
	76	Se	133.936459	98.727	-273107.343	ug/L	-277040.602
	77	Se	99.544783	1.548	12674.164	ug/L	4027.225
	78	Se	100.165661	2.279	39741.098	ug/L	13173.250
	79	Br	630.743289	40.387	9788.938	ug/L	10940.246
>	72	Ge			1863759.178	ug/L	1874651.504
	108	Cd	99.556035	1.053	7934.396	ug/L	3.630
	114	Cd	100.399093	1.060	286355.943	ug/L	32.783
>	115	In			2087548.205	ug/L	2106016.244
	208	207.977	99.490106	1.596	972017.450	ug/L	249.672
	207	Pb	100.225650	1.106	403839.924	ug/L	106.334
	206	Pb	99.829923	1.037	538894.308	ug/L	132.001
>	169	Tm			1763057.068	ug/L	1780697.807
	106	Pd			-1042.549	ug/L	9.503
	84	Kr			5054.335	ug/L	5588.543

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		100.876
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		99.419
	Cd	111		
	Sb	121		
>	In-1	115		99.123
	Pb	208		
>	Tm-1	169		99.009
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		99.419
	Cd	108		
	Cd	114		
>	In	115		99.123
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		99.009
	Pd	106		
	Kr	84		

Sample ID: CCB 6
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:09:55
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 6.035
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5851.692	ug/L	5777.288
>	6	Li-1			810323.487	ug/L	862734.178
	9	Be	0.023371	53.844	4.000	ug/L	0.333
	44	Ca	13.182885	26.346	39333.536	ug/L	38440.087
	52	Cr	0.017506	231.424	6804.972	ug/L	6950.127
	55	Mn	0.005923	80.725	1627.208	ug/L	1636.544
	59	Co	0.003403	198.952	77.334	ug/L	58.334
	60	Ni	-0.011644	162.764	138.726	ug/L	159.113
	75	As	0.207768	120.432	12621.500	ug/L	12805.798
	82	Se	-0.355464	387.201	1531.415	ug/L	1622.865
>	72	Ge-1			1813079.832	ug/L	1874651.504
	111	Cd	0.005363	52.343	22.324	ug/L	16.727
	121	Sb	0.002606	215.077	246.005	ug/L	244.338
>	115	In-1			2029107.578	ug/L	2106016.244
	208	Pb	0.003563	264.659	531.342	ug/L	488.007
>	169	Tm-1			1700206.977	ug/L	1780697.807
	50	Cr	-0.096260	115.675	-84.268	ug/L	-76.922
	53	Cr	4.490423	14.988	9983.549	ug/L	9381.323
	61	Ni	-0.004426	3244.336	7.000	ug/L	7.333
	76	Se	41.556461	379.128	-267232.393	ug/L	-277040.602
	77	Se	1.929593	81.411	4058.573	ug/L	4027.225
	78	Se	1.570979	6.347	13147.193	ug/L	13173.250
	79	Br	358.450817	4.927	9981.810	ug/L	10940.246
>	72	Ge			1813079.832	ug/L	1874651.504
	108	Cd	-0.055573	67.523	-0.801	ug/L	3.630
	114	Cd	0.002936	94.028	39.756	ug/L	32.783
>	115	In			2029107.578	ug/L	2106016.244
	208	207.977	0.003674	238.309	272.673	ug/L	249.672
	207	Pb	0.002623	420.155	111.668	ug/L	106.334
	206	Pb	0.004065	248.678	147.002	ug/L	132.001
>	169	Tm			1700206.977	ug/L	1780697.807
	106	Pd			9.844	ug/L	9.503
	84	Kr			5678.317	ug/L	5588.543

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
⌈>	Li-1	6		93.925
⌊	Be	9		
⌈	Ca	44		
|	Cr	52		
|	Mn	55		
|	Co	59		
|	Ni	60		
|	As	75		
|	Se	82		
⌊>	Ge-1	72		96.716
⌈	Cd	111		
|	Sb	121		
⌊>	In-1	115		96.348
⌈	Pb	208		
⌊>	Tm-1	169		95.480
⌈	Cr	50		
|	Cr	53		
|	Ni	61		
|	Se	76		
|	Se	77		
|	Se	78		
|	Br	79		
⌊>	Ge	72		96.716
⌈	Cd	108		
|	Cd	114		
⌊>	In	115		96.348
⌈	207.977	208		
|	Pb	207		
|	Pb	206		
⌊>	Tm	169		95.480
	Pd	106		
	Kr	84		

Sample ID: CCV 7
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:35:10
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 7.043
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4829.167	ug/L	5777.288
>	6	Li-1			781252.055	ug/L	862734.178
	9	Be	85.858767	0.214	13056.383	ug/L	0.333
	44	Ca	5472.995280	1.272	705040.412	ug/L	38440.087
	52	Cr	107.464175	1.094	389949.095	ug/L	6950.127
	55	Mn	102.908520	0.087	584789.284	ug/L	1636.544
	59	Co	107.687014	0.296	499982.408	ug/L	58.334
	60	Ni	108.760778	1.299	107238.289	ug/L	159.113
	75	As	106.838141	0.241	101386.237	ug/L	12805.798
	82	Se	104.850589	4.221	9663.186	ug/L	1622.865
>	72	Ge-1			1371268.072	ug/L	1874651.504
	111	Cd	96.682888	1.038	92615.540	ug/L	16.727
	121	Sb	49.138587	0.162	166828.243	ug/L	244.338
>	115	In-1			1674701.910	ug/L	2106016.244
	208	Pb	102.349045	0.177	1676237.227	ug/L	488.007
>	169	Tm-1			1503946.671	ug/L	1780697.807
	50	Cr	110.976199	1.363	8552.805	ug/L	-76.922
	53	Cr	111.412410	1.334	23943.463	ug/L	9381.323
	61	Ni	109.040125	3.373	1726.322	ug/L	7.333
	76	Se	631.311673	19.452	-194538.237	ug/L	-277040.602
	77	Se	109.978335	1.337	9993.490	ug/L	4027.225
	78	Se	112.890810	0.826	31733.203	ug/L	13173.250
	79	Br	1314.977509	10.217	6341.213	ug/L	10940.246
>	72	Ge			1371268.072	ug/L	1874651.504
	108	Cd	97.631038	2.242	6243.333	ug/L	3.630
	114	Cd	98.025017	1.108	224309.217	ug/L	32.783
>	115	In			1674701.910	ug/L	2106016.244
	208	207.977	101.789431	0.131	848435.850	ug/L	249.672
	207	Pb	102.759297	0.498	353218.593	ug/L	106.334
	206	Pb	103.055697	0.357	474582.785	ug/L	132.001
>	169	Tm			1503946.671	ug/L	1780697.807
	106	Pd			-1026.309	ug/L	9.503
	84	Kr			3974.456	ug/L	5588.543

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		90.555
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		73.148
	Cd	111		
	Sb	121		
>	In-1	115		79.520
	Pb	208		
>	Tm-1	169		84.458
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		73.148
	Cd	108		
	Cd	114		
>	In	115		79.520
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		84.458
	Pd	106		
	Kr	84		

Sample ID: CCB 7
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:37:30
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 7.044
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3979.577	ug/L	5777.288
>	6	Li-1			718454.606	ug/L	862734.178
	9	Be	0.017150	88.075	2.667	ug/L	0.333
	44	Ca	49.777715	9.233	33032.867	ug/L	38440.087
	52	Cr	0.143166	8.881	5393.618	ug/L	6950.127
	55	Mn	0.008541	101.831	1200.447	ug/L	1636.544
	59	Co	0.005404	46.365	65.334	ug/L	58.334
	60	Ni	0.003310	526.432	115.319	ug/L	159.113
	75	As	2.858912	7.008	11400.533	ug/L	12805.798
	82	Se	0.506856	501.521	1182.945	ug/L	1622.865
>	72	Ge-1			1321548.567	ug/L	1874651.504
	111	Cd	0.003086	70.220	15.587	ug/L	16.727
	121	Sb	0.000849	1130.055	189.003	ug/L	244.338
>	115	In-1			1605856.350	ug/L	2106016.244
	208	Pb	0.002786	74.230	432.006	ug/L	488.007
>	169	Tm-1			1419211.674	ug/L	1780697.807
	50	Cr	-0.089946	173.305	-60.986	ug/L	-76.922
	53	Cr	4.301557	24.811	7249.549	ug/L	9381.323
	61	Ni	0.098930	194.121	6.667	ug/L	7.333
	76	Se	359.345843	14.596	-190847.294	ug/L	-277040.602
	77	Se	7.870419	13.751	3325.275	ug/L	4027.225
	78	Se	12.391709	5.277	11624.136	ug/L	13173.250
	79	Br	974.498720	15.138	6525.676	ug/L	10940.246
>	72	Ge			1321548.567	ug/L	1874651.504
	108	Cd	-0.059177	50.927	-0.863	ug/L	3.630
	114	Cd	0.005257	50.392	36.518	ug/L	32.783
>	115	In			1605856.350	ug/L	2106016.244
	208	207.977	0.002127	80.320	215.670	ug/L	249.672
	207	Pb	0.003449	58.180	96.001	ug/L	106.334
	206	Pb	0.003485	104.708	120.334	ug/L	132.001
>	169	Tm			1419211.674	ug/L	1780697.807
	106	Pd			9.397	ug/L	9.503
	84	Kr			4302.361	ug/L	5588.543

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		83.276
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		70.496
	Cd	111		
	Sb	121		
>	In-1	115		76.251
	Pb	208		
>	Tm-1	169		79.700
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		70.496
	Cd	108		
	Cd	114		
>	In	115		76.251
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		79.700
	Pd	106		
	Kr	84		

Sample ID: CCV 8
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:39:52
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 8.045
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4892.552	ug/L	5777.288
>	6	Li-1			751233.757	ug/L	862734.178
	9	Be	85.119459	0.973	12445.828	ug/L	0.333
	44	Ca	5332.722133	0.595	683206.530	ug/L	38440.087
	52	Cr	105.331635	0.473	379811.453	ug/L	6950.127
	55	Mn	102.012760	0.704	575942.177	ug/L	1636.544
	59	Co	105.976237	0.932	488819.903	ug/L	58.334
	60	Ni	113.501663	1.858	111204.645	ug/L	159.113
	75	As	105.805052	0.850	99840.581	ug/L	12805.798
	82	Se	102.635480	0.762	9420.250	ug/L	1622.865
>	72	Ge-1			1362273.656	ug/L	1874651.504
	111	Cd	94.721448	0.486	90452.393	ug/L	16.727
	121	Sb	48.490239	0.502	164109.980	ug/L	244.338
>	115	In-1			1669351.318	ug/L	2106016.244
	208	Pb	101.021037	0.783	1645207.446	ug/L	488.007
>	169	Tm-1			1495457.703	ug/L	1780697.807
	50	Cr	103.459832	3.982	7914.680	ug/L	-76.922
	53	Cr	111.363624	1.076	23778.755	ug/L	9381.323
	61	Ni	114.883030	2.403	1807.052	ug/L	7.333
	76	Se	600.056459	17.979	-193636.239	ug/L	-277040.602
	77	Se	109.180424	1.484	9878.367	ug/L	4027.225
	78	Se	111.995881	0.891	31351.983	ug/L	13173.250
	79	Br	1558.031747	10.889	5994.645	ug/L	10940.246
>	72	Ge			1362273.656	ug/L	1874651.504
	108	Cd	94.764974	0.355	6040.442	ug/L	3.630
	114	Cd	96.035834	0.608	219073.032	ug/L	32.783
>	115	In			1669351.318	ug/L	2106016.244
	208	207.977	100.389408	1.277	832089.800	ug/L	249.672
	207	Pb	101.166054	0.192	345790.389	ug/L	106.334
	206	Pb	102.056009	0.381	467327.258	ug/L	132.001
>	169	Tm			1495457.703	ug/L	1780697.807
	106	Pd			-973.146	ug/L	9.503
	84	Kr			3860.553	ug/L	5588.543

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		87.076
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		72.668
	Cd	111		
	Sb	121		
>	In-1	115		79.266
	Pb	208		
>	Tm-1	169		83.982
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		72.668
	Cd	108		
	Cd	114		
>	In	115		79.266
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		83.982
	Pd	106		
	Kr	84		

Sample ID: CCB 8
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 16:42:13
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 8.046
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4776.807	ug/L	5777.288
>	6	Li-1			741601.134	ug/L	862734.178
	9	Be	0.421627	58.716	61.667	ug/L	0.333
	44	Ca	59.346750	11.952	36329.449	ug/L	38440.087
	52	Cr	0.667496	41.013	7692.427	ug/L	6950.127
	55	Mn	0.698667	51.125	5362.238	ug/L	1636.544
	59	Co	0.886074	54.052	4343.168	ug/L	58.334
	60	Ni	6.786298	53.603	7104.021	ug/L	159.113
	75	As	3.047045	7.022	12282.004	ug/L	12805.798
	82	Se	0.109049	1697.904	1228.521	ug/L	1622.865
>	72	Ge-1			1404342.128	ug/L	1874651.504
	111	Cd	0.432484	53.366	437.719	ug/L	16.727
	121	Sb	0.343220	56.275	1390.512	ug/L	244.338
>	115	In-1			1702648.741	ug/L	2106016.244
	208	Pb	0.518069	56.561	8943.603	ug/L	488.007
>	169	Tm-1			1500085.989	ug/L	1780697.807
	50	Cr	0.897232	55.119	15.142	ug/L	-76.922
	53	Cr	3.536789	56.272	7570.925	ug/L	9381.323
	61	Ni	6.494510	53.395	112.670	ug/L	7.333
	76	Se	377.738506	114.503	-202784.372	ug/L	-277040.602
	77	Se	7.617377	17.804	3513.346	ug/L	4027.225
	78	Se	10.907755	23.256	12035.005	ug/L	13173.250
	79	Br	1205.733694	10.736	6628.418	ug/L	10940.246
>	72	Ge			1404342.128	ug/L	1874651.504
	108	Cd	0.389197	67.421	28.285	ug/L	3.630
	114	Cd	0.448379	51.017	1077.484	ug/L	32.783
>	115	In			1702648.741	ug/L	2106016.244
	208	207.977	0.527140	56.126	4628.371	ug/L	249.672
	207	Pb	0.537557	57.921	1948.365	ug/L	106.334
	206	Pb	0.487105	56.298	2366.867	ug/L	132.001
>	169	Tm			1500085.989	ug/L	1780697.807
	106	Pd			12.055	ug/L	9.503
	84	Kr			4334.099	ug/L	5588.543

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		85.959
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		74.912
	Cd	111		
	Sb	121		
>	In-1	115		80.847
	Pb	208		
>	Tm-1	169		84.241
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		74.912
	Cd	108		
	Cd	114		
>	In	115		80.847
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		84.241
	Pd	106		
	Kr	84		

Sample ID: CCV 9
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:04:12
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 9.053
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4166.034	ug/L	5777.288
>	6	Li-1			713717.793	ug/L	862734.178
	9	Be	74.456521	1.379	10343.401	ug/L	0.333
	44	Ca	5020.564770	0.776	518752.630	ug/L	38440.087
	52	Cr	101.776633	0.706	295386.658	ug/L	6950.127
	55	Mn	96.179133	0.350	436875.841	ug/L	1636.544
	59	Co	106.137581	0.271	393852.845	ug/L	58.334
	60	Ni	111.797447	1.805	88109.473	ug/L	159.113
	75	As	108.289116	1.149	82031.755	ug/L	12805.798
	82	Se	104.852439	2.958	7720.978	ug/L	1622.865
>	72	Ge-1			1095934.981	ug/L	1874651.504
	111	Cd	96.145916	1.589	71542.380	ug/L	16.727
	121	Sb	48.808695	1.462	128708.609	ug/L	244.338
>	115	In-1			1300990.875	ug/L	2106016.244
	208	Pb	103.382627	0.779	1307389.946	ug/L	488.007
>	169	Tm-1			1161309.380	ug/L	1780697.807
	50	Cr	101.298000	3.646	6234.092	ug/L	-76.922
	53	Cr	105.994031	0.903	18473.785	ug/L	9381.323
	61	Ni	116.593893	2.375	1475.479	ug/L	7.333
	76	Se	552.981737	10.520	-156274.205	ug/L	-277040.602
	77	Se	110.643705	0.546	8021.204	ug/L	4027.225
	78	Se	116.842169	1.049	25980.231	ug/L	13173.250
	79	Br	1095.900283	8.671	5288.872	ug/L	10940.246
>	72	Ge			1095934.981	ug/L	1874651.504
	108	Cd	97.483429	1.136	4841.782	ug/L	3.630
	114	Cd	98.037187	0.983	174263.327	ug/L	32.783
>	115	In			1300990.875	ug/L	2106016.244
	208	207.977	102.998499	0.636	662904.132	ug/L	249.672
	207	Pb	103.438939	1.012	274547.615	ug/L	106.334
	206	Pb	104.035847	0.864	369938.199	ug/L	132.001
>	169	Tm			1161309.380	ug/L	1780697.807
	106	Pd			-759.829	ug/L	9.503
	84	Kr			3140.575	ug/L	5588.543

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		82.727
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		58.461
	Cd	111		
	Sb	121		
>	In-1	115		61.775
	Pb	208		
>	Tm-1	169		65.217
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		58.461
	Cd	108		
	Cd	114		
>	In	115		61.775
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		65.217
	Pd	106		
	Kr	84		

Sample ID: CCB 9
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:06:32
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 9.054
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3858.503	ug/L	5777.288
>	6	Li-1			721306.482	ug/L	862734.178
	9	Be	0.117197	45.597	16.667	ug/L	0.333
	44	Ca	61.714228	28.138	29843.528	ug/L	38440.087
	52	Cr	0.421470	13.504	5510.388	ug/L	6950.127
	55	Mn	0.304816	38.000	2441.816	ug/L	1636.544
	59	Co	0.497882	34.734	1963.658	ug/L	58.334
	60	Ni	5.377676	33.461	4513.375	ug/L	159.113
	75	As	3.052645	11.928	10022.131	ug/L	12805.798
	82	Se	0.180075	1689.833	1009.240	ug/L	1622.865
>	72	Ge-1			1146173.645	ug/L	1874651.504
	111	Cd	0.156797	27.513	133.146	ug/L	16.727
	121	Sb	0.124097	35.037	500.354	ug/L	244.338
>	115	In-1			1370972.693	ug/L	2106016.244
	208	Pb	0.202683	33.397	2980.281	ug/L	488.007
>	169	Tm-1			1206300.247	ug/L	1780697.807
	50	Cr	0.661217	107.814	-4.010	ug/L	-76.922
	53	Cr	2.885886	49.978	6101.848	ug/L	9381.323
	61	Ni	5.186272	48.540	72.668	ug/L	7.333
	76	Se	401.391516	5.761	-165062.628	ug/L	-277040.602
	77	Se	12.089371	9.103	3109.532	ug/L	4027.225
	78	Se	13.553282	13.431	10264.771	ug/L	13173.250
	79	Br	1479.818708	6.910	5126.447	ug/L	10940.246
>	72	Ge			1146173.645	ug/L	1874651.504
	108	Cd	0.119365	54.460	8.655	ug/L	3.630
	114	Cd	0.149262	30.754	298.914	ug/L	32.783
>	115	In			1370972.693	ug/L	2106016.244
	208	207.977	0.203936	32.155	1526.859	ug/L	249.672
	207	Pb	0.208887	34.973	645.368	ug/L	106.334
	206	Pb	0.195784	34.849	808.054	ug/L	132.001
>	169	Tm			1206300.247	ug/L	1780697.807
	106	Pd			8.809	ug/L	9.503
	84	Kr			3503.661	ug/L	5588.543

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		83.607
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		61.141
	Cd	111		
	Sb	121		
>	In-1	115		65.098
	Pb	208		
>	Tm-1	169		67.743
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		61.141
	Cd	108		
	Cd	114		
>	In	115		65.098
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		67.743
	Pd	106		
	Kr	84		

Sample ID: BLK RECAL
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:06:32
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 9.054
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3858.503	ug/L	
>	6	Li-1			721306.482	ug/L	
	9	Be			16.667	ug/L	
	44	Ca			29843.528	ug/L	
	52	Cr			5510.388	ug/L	
	55	Mn			2441.816	ug/L	
	59	Co			1963.658	ug/L	
	60	Ni			4513.375	ug/L	
	75	As			10022.131	ug/L	
	82	Se			1009.240	ug/L	
>	72	Ge-1			1146173.645	ug/L	
	111	Cd			133.146	ug/L	
	121	Sb			500.354	ug/L	
>	115	In-1			1370972.693	ug/L	
	208	Pb			2980.281	ug/L	
>	169	Tm-1			1206300.247	ug/L	
	50	Cr			-4.010	ug/L	
	53	Cr			6101.848	ug/L	
	61	Ni			72.668	ug/L	
	76	Se			-165062.628	ug/L	
	77	Se			3109.532	ug/L	
	78	Se			10264.771	ug/L	
	79	Br			5126.447	ug/L	
>	72	Ge			1146173.645	ug/L	
	108	Cd			8.655	ug/L	
	114	Cd			298.914	ug/L	
>	115	In			1370972.693	ug/L	
	208	207.977			1526.859	ug/L	
	207	Pb			645.368	ug/L	
	206	Pb			808.054	ug/L	
>	169	Tm			1206300.247	ug/L	
	106	Pd			8.809	ug/L	
	84	Kr			3503.661	ug/L	

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: STD1 RECAL
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:04:12
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 9.053
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4166.034	ug/L	3858.503
>	6	Li-1			713717.793	ug/L	721306.482
	9	Be	100.000000	1.382	10343.401	ug/L	16.667
	44	Ca	5100.000000	0.786	518752.630	ug/L	29843.528
	52	Cr	100.000000	0.708	295386.658	ug/L	5510.388
	55	Mn	100.000000	0.351	436875.841	ug/L	2441.816
	59	Co	100.000000	0.272	393852.845	ug/L	1963.658
	60	Ni	100.000000	1.896	88109.473	ug/L	4513.375
	75	As	100.000000	1.182	82031.755	ug/L	10022.131
	82	Se	100.000000	2.965	7720.978	ug/L	1009.240
>	72	Ge-1			1095934.981	ug/L	1146173.645
	111	Cd	100.000000	1.592	71542.380	ug/L	133.146
	121	Sb	50.000000	1.466	128708.609	ug/L	500.354
>	115	In-1			1300990.875	ug/L	1370972.693
	208	Pb	100.000000	0.780	1307389.946	ug/L	2980.281
>	169	Tm-1			1161309.380	ug/L	1206300.247
	50	Cr	100.000000	3.670	6234.092	ug/L	-4.010
	53	Cr	100.000000	0.928	18473.785	ug/L	6101.848
	61	Ni	100.000000	2.485	1475.479	ug/L	72.668
	76	Se	100.000000	38.509	-156274.205	ug/L	-165062.628
	77	Se	100.000000	0.613	8021.204	ug/L	3109.532
	78	Se	100.000000	1.186	25980.231	ug/L	10264.771
	79	Br	100.000000	24.823	5288.872	ug/L	5126.447
>	72	Ge			1095934.981	ug/L	1146173.645
	108	Cd	100.000000	1.137	4841.782	ug/L	8.655
	114	Cd	100.000000	0.984	174263.327	ug/L	298.914
>	115	In			1300990.875	ug/L	1370972.693
	208	207.977	100.000000	0.637	662904.132	ug/L	1526.859
	207	Pb	100.000000	1.014	274547.615	ug/L	645.368
	206	Pb	100.000000	0.866	369938.199	ug/L	808.054
>	169	Tm			1161309.380	ug/L	1206300.247
	106	Pd			-759.829	ug/L	8.809
	84	Kr			3140.575	ug/L	3503.661

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: CCV 10
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:08:54
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 10.055
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3448.268	ug/L	3858.503
>	6	Li-1			689399.232	ug/L	721306.482
	9	Be	99.399050	0.900	9930.409	ug/L	16.667
	44	Ca	5035.179947	0.328	502439.389	ug/L	29843.528
	52	Cr	101.231960	1.029	293089.504	ug/L	5510.388
	55	Mn	100.132521	1.599	428804.660	ug/L	2441.816
	59	Co	100.454401	0.878	387816.280	ug/L	1963.658
	60	Ni	99.837679	0.601	86247.011	ug/L	4513.375
	75	As	100.787346	1.600	80963.095	ug/L	10022.131
	82	Se	102.497855	4.236	7732.231	ug/L	1009.240
>	72	Ge-1			1074403.817	ug/L	1146173.645
	111	Cd	101.752192	0.295	71552.817	ug/L	133.146
	121	Sb	50.537300	0.542	127870.394	ug/L	500.354
>	115	In-1			1278657.468	ug/L	1370972.693
	208	Pb	99.999823	1.384	1293513.382	ug/L	2980.281
>	169	Tm-1			1148974.633	ug/L	1206300.247
	50	Cr	99.818938	2.627	6099.853	ug/L	-4.010
	53	Cr	102.089482	4.078	18365.605	ug/L	6101.848
	61	Ni	97.308083	1.908	1409.103	ug/L	72.668
	76	Se	140.311747	90.156	-152617.534	ug/L	-165062.628
	77	Se	101.090190	3.158	7918.116	ug/L	3109.532
	78	Se	101.847470	1.490	25760.055	ug/L	10264.771
	79	Br	59.539431	35.747	5030.058	ug/L	5126.447
>	72	Ge			1074403.817	ug/L	1146173.645
	108	Cd	100.050982	1.776	4762.179	ug/L	8.655
	114	Cd	100.557618	0.470	172242.784	ug/L	298.914
>	115	In			1278657.468	ug/L	1370972.693
	208	207.977	100.341932	1.477	658107.652	ug/L	1526.859
	207	Pb	99.641861	1.242	270666.611	ug/L	645.368
	206	Pb	99.652482	1.335	364739.119	ug/L	808.054
>	169	Tm			1148974.633	ug/L	1206300.247
	106	Pd			-742.789	ug/L	8.809
	84	Kr			3105.591	ug/L	3503.661

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		95.576
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		93.738
	Cd	111		
	Sb	121		
>	In-1	115		93.266
	Pb	208		
>	Tm-1	169		95.248
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		93.738
	Cd	108		
	Cd	114		
>	In	115		93.266
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		95.248
	Pd	106		
	Kr	84		

Sample ID: CCB 10
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:11:14
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 10.056
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3859.507	ug/L	3858.503
>	6	Li-1			723421.735	ug/L	721306.482
	9	Be	0.047408	212.501	21.667	ug/L	16.667
	44	Ca	-10.564810	248.594	28925.756	ug/L	29843.528
	52	Cr	0.082282	245.307	5788.977	ug/L	5510.388
	55	Mn	0.091695	315.557	2855.386	ug/L	2441.816
	59	Co	0.093539	342.881	2342.846	ug/L	1963.658
	60	Ni	0.617698	547.663	5040.280	ug/L	4513.375
	75	As	0.431192	124.622	10413.309	ug/L	10022.131
	82	Se	-0.499671	419.586	980.371	ug/L	1009.240
>	72	Ge-1			1154143.227	ug/L	1146173.645
	111	Cd	0.034288	252.817	161.976	ug/L	133.146
	121	Sb	0.030909	345.222	593.365	ug/L	500.354
>	115	In-1			1405745.824	ug/L	1370972.693
	208	Pb	0.065970	228.743	3959.887	ug/L	2980.281
>	169	Tm-1			1244052.796	ug/L	1206300.247
	50	Cr	0.383392	173.624	21.190	ug/L	-4.010
	53	Cr	1.477584	126.593	6334.816	ug/L	6101.848
	61	Ni	1.536636	170.874	95.336	ug/L	72.668
	76	Se	107.114905	88.215	-164492.065	ug/L	-165062.628
	77	Se	-0.755511	257.252	3089.859	ug/L	3109.532
	78	Se	0.594169	256.527	10430.907	ug/L	10264.771
	79	Br	-44.155257	5.381	4982.033	ug/L	5126.447
>	72	Ge			1154143.227	ug/L	1146173.645
	108	Cd	0.008771	2411.823	8.989	ug/L	8.655
	114	Cd	0.070346	201.571	432.901	ug/L	298.914
>	115	In			1405745.824	ug/L	1370972.693
	208	207.977	0.068495	229.819	2040.718	ug/L	1526.859
	207	Pb	0.067810	235.514	856.068	ug/L	645.368
	206	Pb	0.060082	222.233	1063.102	ug/L	808.054
>	169	Tm			1244052.796	ug/L	1206300.247
	106	Pd			7.741	ug/L	8.809
	84	Kr			3557.167	ug/L	3503.661

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		100.293
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.695
	Cd	111		
	Sb	121		
>	In-1	115		102.536
	Pb	208		
>	Tm-1	169		103.130
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.695
	Cd	108		
	Cd	114		
>	In	115		102.536
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		103.130
	Pd	106		
	Kr	84		

Sample ID: MKMWW
Sample Description: G1G050412-3
Batch ID: 1195193
Sample Date/Time: Tuesday, July 19, 2011 17:13:37
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\MKMWW.057
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 121
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			164854.810	ug/L	3858.503
>	6	Li-1			712491.013	ug/L	721306.482
	9	Be	0.543520	26.429	72.334	ug/L	16.667
	44	Ca	6296.278052	0.844	604609.609	ug/L	29843.528
	52	Cr	43.996434	0.830	126798.032	ug/L	5510.388
	55	Mn	92.918783	0.479	387409.190	ug/L	2441.816
	59	Co	133.337763	0.692	500393.429	ug/L	1963.658
	60	Ni	2166.881209	0.290	1736117.548	ug/L	4513.375
	75	As	87.593272	0.578	69673.980	ug/L	10022.131
	82	Se	8.907483	40.326	1491.689	ug/L	1009.240
>	72	Ge-1			1045433.418	ug/L	1146173.645
	111	Cd	0.388409	15.302	355.977	ug/L	133.146
	121	Sb	9.976479	0.572	23014.220	ug/L	500.354
>	115	In-1			1148680.734	ug/L	1370972.693
	208	Pb	14.691397	0.346	168600.218	ug/L	2980.281
>	169	Tm-1			1006581.718	ug/L	1206300.247
	50	Cr	110.658696	8.080	6575.468	ug/L	-4.010
	53	Cr	40.192809	10.070	10417.557	ug/L	6101.848
	61	Ni	2079.418706	0.729	27952.892	ug/L	72.668
	76	Se	5.172848	918.468	-150479.548	ug/L	-165062.628
	77	Se	-22.323948	4.402	1761.838	ug/L	3109.532
	78	Se	0.946662	78.997	9507.080	ug/L	10264.771
	79	Br	295.029488	134.699	5782.263	ug/L	5126.447
>	72	Ge			1045433.418	ug/L	1146173.645
	108	Cd	5.769420	3.745	253.524	ug/L	8.655
	114	Cd	0.155725	26.574	488.816	ug/L	298.914
>	115	In			1148680.734	ug/L	1370972.693
	208	207.977	15.072284	0.660	87684.871	ug/L	1526.859
	207	Pb	15.109386	0.674	36412.582	ug/L	645.368
	206	Pb	13.698796	0.741	44502.765	ug/L	808.054
>	169	Tm			1006581.718	ug/L	1206300.247
	106	Pd			638.680	ug/L	8.809
	84	Kr			2945.262	ug/L	3503.661

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		98.778
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		91.211
	Cd	111		
	Sb	121		
>	In-1	115		83.786
	Pb	208		
>	Tm-1	169		83.444
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		91.211
	Cd	108		
	Cd	114		
>	In	115		83.786
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		83.444
	Pd	106		
	Kr	84		

Sample ID: MKMW6
Sample Description: G1G050412-5
Batch ID: 1195193
Sample Date/Time: Tuesday, July 19, 2011 17:16:52
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\MKMW6.058
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 122
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			166313.324	ug/L	3858.503
>	6	Li-1			704388.592	ug/L	721306.482
	9	Be	0.509923	13.509	68.334	ug/L	16.667
	44	Ca	8790.651035	0.598	802490.572	ug/L	29843.528
	52	Cr	43.222226	1.481	120040.688	ug/L	5510.388
	55	Mn	115.960386	0.468	465055.047	ug/L	2441.816
	59	Co	135.463134	0.453	489509.142	ug/L	1963.658
	60	Ni	1776.405437	0.664	1371228.208	ug/L	4513.375
	75	As	79.896931	1.355	61974.809	ug/L	10022.131
	82	Se	19.322129	16.987	2083.713	ug/L	1009.240
>	72	Ge-1			1006837.378	ug/L	1146173.645
	111	Cd	0.315109	10.634	297.627	ug/L	133.146
	121	Sb	10.934651	1.083	24183.207	ug/L	500.354
>	115	In-1			1103239.883	ug/L	1370972.693
	208	Pb	15.462853	1.580	170243.196	ug/L	2980.281
>	169	Tm-1			966744.331	ug/L	1206300.247
	50	Cr	55.287731	10.796	3158.660	ug/L	-4.010
	53	Cr	34.951516	8.561	9422.873	ug/L	6101.848
	61	Ni	1787.702923	0.605	23152.727	ug/L	72.668
	76	Se	29.836459	170.062	-144568.573	ug/L	-165062.628
	77	Se	-12.925854	18.470	2133.585	ug/L	3109.532
	78	Se	11.156268	7.628	10672.623	ug/L	10264.771
	79	Br	-11.871066	113.497	4461.762	ug/L	5126.447
>	72	Ge			1006837.378	ug/L	1146173.645
	108	Cd	4.833287	9.904	205.301	ug/L	8.655
	114	Cd	0.064145	51.712	335.327	ug/L	298.914
>	115	In			1103239.883	ug/L	1370972.693
	208 207.977		15.916265	1.488	88829.631	ug/L	1526.859
	207	Pb	15.854286	2.416	36648.245	ug/L	645.368
	206	Pb	14.360014	1.144	44765.320	ug/L	808.054
>	169	Tm			966744.331	ug/L	1206300.247
	106	Pd			553.505	ug/L	8.809
	84	Kr			2640.588	ug/L	3503.661

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		97.655
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		87.843
	Cd	111		
	Sb	121		
>	In-1	115		80.471
	Pb	208		
>	Tm-1	169		80.141
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		87.843
	Cd	108		
	Cd	114		
>	In	115		80.471
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		80.141
	Pd	106		
	Kr	84		

Sample ID: MKMXD
Sample Description: G1G050412-7
Batch ID: 1195193
Sample Date/Time: Tuesday, July 19, 2011 17:20:08
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\MKMXD.059
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 123
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			146515.923	ug/L	3858.503
>	6	Li-1			715484.595	ug/L	721306.482
	9	Be	-0.059288	182.590	10.333	ug/L	16.667
	44	Ca	3957.035716	1.057	394838.283	ug/L	29843.528
	52	Cr	13.866965	0.523	43931.139	ug/L	5510.388
	55	Mn	8.804787	0.666	39195.019	ug/L	2441.816
	59	Co	2.952604	4.206	12984.575	ug/L	1963.658
	60	Ni	17.304395	7.501	18158.236	ug/L	4513.375
	75	As	0.897513	50.458	9877.588	ug/L	10022.131
	82	Se	4.449538	34.592	1221.093	ug/L	1009.240
>	72	Ge-1			1058155.770	ug/L	1146173.645
	111	Cd	0.345005	12.062	335.547	ug/L	133.146
	121	Sb	0.214633	22.622	922.067	ug/L	500.354
>	115	In-1			1170717.101	ug/L	1370972.693
	208	Pb	3.624147	1.053	43446.000	ug/L	2980.281
>	169	Tm-1			1006234.426	ug/L	1206300.247
	50	Cr	-95.008922	2.344	-5725.377	ug/L	-4.010
	53	Cr	6.412109	24.142	6417.392	ug/L	6101.848
	61	Ni	18.616354	9.788	319.689	ug/L	72.668
	76	Se	61.198953	85.351	-151466.270	ug/L	-165062.628
	77	Se	-27.027768	5.808	1554.133	ug/L	3109.532
	78	Se	-1.253116	87.569	9279.320	ug/L	10264.771
	79	Br	-36.678517	305.087	4599.171	ug/L	5126.447
>	72	Ge			1058155.770	ug/L	1146173.645
	108	Cd	3.713467	5.504	168.877	ug/L	8.655
	114	Cd	0.089190	40.502	394.632	ug/L	298.914
>	115	In			1170717.101	ug/L	1370972.693
	208	207.977	3.692411	1.070	22433.145	ug/L	1526.859
	207	Pb	3.737901	0.989	9409.285	ug/L	645.368
	206	Pb	3.417430	1.190	11603.570	ug/L	808.054
>	169	Tm			1006234.426	ug/L	1206300.247
	106	Pd			516.395	ug/L	8.809
	84	Kr			3191.324	ug/L	3503.661

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.193
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		92.321
	Cd	111		
	Sb	121		
>	In-1	115		85.393
	Pb	208		
>	Tm-1	169		83.415
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		92.321
	Cd	108		
	Cd	114		
>	In	115		85.393
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		83.415
	Pd	106		
	Kr	84		

Sample ID: CCV 11
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:33:13
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 11.063
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3292.186	ug/L	3858.503
>	6	Li-1			696236.197	ug/L	721306.482
	9	Be	91.353736	0.977	9220.011	ug/L	16.667
	44	Ca	4837.006093	0.357	443437.546	ug/L	29843.528
	52	Cr	98.646904	0.453	261893.068	ug/L	5510.388
	55	Mn	97.159193	0.357	381447.555	ug/L	2441.816
	59	Co	99.365928	0.336	351684.073	ug/L	1963.658
	60	Ni	97.135581	1.276	77023.928	ug/L	4513.375
	75	As	100.486526	0.565	74021.022	ug/L	10022.131
	82	Se	99.968493	2.591	6938.646	ug/L	1009.240
>	72	Ge-1			984772.654	ug/L	1146173.645
	111	Cd	100.725039	0.980	64998.142	ug/L	133.146
	121	Sb	49.223070	1.140	114293.116	ug/L	500.354
>	115	In-1			1173477.114	ug/L	1370972.693
	208	Pb	97.589340	0.833	1147418.259	ug/L	2980.281
>	169	Tm-1			1044467.926	ug/L	1206300.247
	50	Cr	97.047075	2.021	5435.716	ug/L	-4.010
	53	Cr	96.768047	0.875	16231.771	ug/L	6101.848
	61	Ni	95.068856	1.832	1263.685	ug/L	72.668
	76	Se	191.870988	67.997	-139134.876	ug/L	-165062.628
	77	Se	100.484244	2.379	7228.874	ug/L	3109.532
	78	Se	103.574066	0.727	23864.237	ug/L	10264.771
	79	Br	61.307238	18.505	4618.173	ug/L	5126.447
>	72	Ge			984772.654	ug/L	1146173.645
	108	Cd	99.337261	0.958	4338.357	ug/L	8.655
	114	Cd	99.526383	1.178	156429.107	ug/L	298.914
>	115	In			1173477.114	ug/L	1370972.693
	208	207.977	97.595921	0.968	581812.065	ug/L	1526.859
	207	Pb	97.062162	1.133	239647.242	ug/L	645.368
	206	Pb	97.968732	0.379	325958.952	ug/L	808.054
>	169	Tm			1044467.926	ug/L	1206300.247
	106	Pd			-674.318	ug/L	8.809
	84	Kr			2761.865	ug/L	3503.661

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		96.524
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		85.918
	Cd	111		
	Sb	121		
>	In-1	115		85.594
	Pb	208		
>	Tm-1	169		86.584
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		85.918
	Cd	108		
	Cd	114		
>	In	115		85.594
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		86.584
	Pd	106		
	Kr	84		

Sample ID: CCB 11
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:35:33
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 11.064
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3004.378	ug/L	3858.503
>	6	Li-1			682772.625	ug/L	721306.482
	9	Be	-0.095750	21.033	6.333	ug/L	16.667
	44	Ca	-15.220695	48.309	24294.290	ug/L	29843.528
	52	Cr	-0.143880	41.108	4359.831	ug/L	5510.388
	55	Mn	-0.216453	44.867	1260.134	ug/L	2441.816
	59	Co	-0.272793	42.920	735.053	ug/L	1963.658
	60	Ni	0.908345	47.098	1710.163	ug/L	4513.375
	75	As	1.276479	56.421	9425.884	ug/L	10022.131
	82	Se	0.193710	464.348	878.878	ug/L	1009.240
>	72	Ge-1			984081.851	ug/L	1146173.645
	111	Cd	-0.103294	32.675	48.269	ug/L	133.146
	121	Sb	-0.095671	33.426	210.337	ug/L	500.354
>	115	In-1			1182508.232	ug/L	1370972.693
	208	Pb	-0.116618	38.717	1224.385	ug/L	2980.281
>	169	Tm-1			1043878.572	ug/L	1206300.247
	50	Cr	-0.467106	8.085	-29.619	ug/L	-4.010
	53	Cr	1.403126	186.345	5391.055	ug/L	6101.848
	61	Ni	-2.734174	61.814	28.334	ug/L	72.668
	76	Se	129.368572	44.429	-139920.278	ug/L	-165062.628
	77	Se	1.671694	51.308	2746.415	ug/L	3109.532
	78	Se	5.421381	34.187	9593.875	ug/L	10264.771
	79	Br	8.960428	244.465	4430.746	ug/L	5126.447
>	72	Ge			984081.851	ug/L	1146173.645
	108	Cd	-0.151125	94.722	0.804	ug/L	8.655
	114	Cd	-0.091057	42.152	115.232	ug/L	298.914
>	115	In			1182508.232	ug/L	1370972.693
	208	207.977	-0.116948	37.845	632.369	ug/L	1526.859
	207	Pb	-0.118915	36.539	268.340	ug/L	645.368
	206	Pb	-0.114322	42.189	323.677	ug/L	808.054
>	169	Tm			1043878.572	ug/L	1206300.247
	106	Pd			9.240	ug/L	8.809
	84	Kr			3220.754	ug/L	3503.661

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		94.658
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		85.858
	Cd	111		
	Sb	121		
>	In-1	115		86.253
	Pb	208		
>	Tm-1	169		86.536
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		85.858
	Cd	108		
	Cd	114		
>	In	115		86.253
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		86.536
	Pd	106		
	Kr	84		

Sample ID: BLK RECAL
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:35:33
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 11.064
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3004.378	ug/L	
>	6	Li-1			682772.625	ug/L	
	9	Be			6.333	ug/L	
	44	Ca			24294.290	ug/L	
	52	Cr			4359.831	ug/L	
	55	Mn			1260.134	ug/L	
	59	Co			735.053	ug/L	
	60	Ni			1710.163	ug/L	
	75	As			9425.884	ug/L	
	82	Se			878.878	ug/L	
>	72	Ge-1			984081.851	ug/L	
	111	Cd			48.269	ug/L	
	121	Sb			210.337	ug/L	
>	115	In-1			1182508.232	ug/L	
	208	Pb			1224.385	ug/L	
>	169	Tm-1			1043878.572	ug/L	
	50	Cr			-29.619	ug/L	
	53	Cr			5391.055	ug/L	
	61	Ni			28.334	ug/L	
	76	Se			-139920.278	ug/L	
	77	Se			2746.415	ug/L	
	78	Se			9593.875	ug/L	
	79	Br			4430.746	ug/L	
>	72	Ge			984081.851	ug/L	
	108	Cd			0.804	ug/L	
	114	Cd			115.232	ug/L	
>	115	In			1182508.232	ug/L	
	208	207.977			632.369	ug/L	
	207	Pb			268.340	ug/L	
	206	Pb			323.677	ug/L	
>	169	Tm			1043878.572	ug/L	
	106	Pd			9.240	ug/L	
	84	Kr			3220.754	ug/L	

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: STD1 RECAL
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:33:13
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 11.063
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3292.186	ug/L	3004.378
>	6	Li-1			696236.197	ug/L	682772.625
	9	Be	100.000000	0.976	9220.011	ug/L	6.333
	44	Ca	5100.000000	0.356	443437.546	ug/L	24294.290
	52	Cr	100.000000	0.452	261893.068	ug/L	4359.831
	55	Mn	100.000000	0.356	381447.555	ug/L	1260.134
	59	Co	100.000000	0.335	351684.073	ug/L	735.053
	60	Ni	100.000000	1.239	77023.928	ug/L	1710.163
	75	As	100.000000	0.572	74021.022	ug/L	9425.884
	82	Se	100.000000	2.596	6938.646	ug/L	878.878
>	72	Ge-1			984772.654	ug/L	984081.851
	111	Cd	100.000000	0.979	64998.142	ug/L	48.269
	121	Sb	50.000000	1.138	114293.116	ug/L	210.337
>	115	In-1			1173477.114	ug/L	1182508.232
	208	Pb	100.000000	0.832	1147418.259	ug/L	1224.385
>	169	Tm-1			1044467.926	ug/L	1043878.572
	50	Cr	100.000000	2.011	5435.716	ug/L	-29.619
	53	Cr	100.000000	0.887	16231.771	ug/L	5391.055
	61	Ni	100.000000	1.781	1263.685	ug/L	28.334
	76	Se	100.000000	207.518	-139134.876	ug/L	-139920.278
	77	Se	100.000000	2.420	7228.874	ug/L	2746.415
	78	Se	100.000000	0.766	23864.237	ug/L	9593.875
	79	Br	100.000000	21.456	4618.173	ug/L	4430.746
>	72	Ge			984772.654	ug/L	984081.851
	108	Cd	100.000000	0.956	4338.357	ug/L	0.804
	114	Cd	100.000000	1.177	156429.107	ug/L	115.232
>	115	In			1173477.114	ug/L	1182508.232
	208	207.977	100.000000	0.967	581812.065	ug/L	632.369
	207	Pb	100.000000	1.132	239647.242	ug/L	268.340
	206	Pb	100.000000	0.378	325958.952	ug/L	323.677
>	169	Tm			1044467.926	ug/L	1043878.572
	106	Pd			-674.318	ug/L	9.240
	84	Kr			2761.865	ug/L	3220.754

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		
	Cd	111		
	Sb	121		
>	In-1	115		
	Pb	208		
>	Tm-1	169		
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		
	Cd	108		
	Cd	114		
>	In	115		
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		
	Pd	106		
	Kr	84		

Sample ID: CCV 12
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:37:54
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 12.065
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			2960.361	ug/L	3004.378
>	6	Li-1			658866.825	ug/L	682772.625
	9	Be	100.238287	0.859	8744.337	ug/L	6.333
	44	Ca	5027.131070	0.779	413657.522	ug/L	24294.290
	52	Cr	98.908609	1.023	244994.913	ug/L	4359.831
	55	Mn	99.240181	0.109	358038.453	ug/L	1260.134
	59	Co	99.845757	1.071	332038.613	ug/L	735.053
	60	Ni	100.952525	2.485	73537.841	ug/L	1710.163
	75	As	100.321728	1.545	70191.887	ug/L	9425.884
	82	Se	102.379091	2.116	6694.501	ug/L	878.878
>	72	Ge-1			931342.509	ug/L	984081.851
	111	Cd	98.810053	0.090	61256.285	ug/L	48.269
	121	Sb	49.915014	0.464	108828.846	ug/L	210.337
>	115	In-1			1119113.846	ug/L	1182508.232
	208	Pb	101.064741	0.320	1080324.169	ug/L	1224.385
>	169	Tm-1			972927.883	ug/L	1043878.572
	50	Cr	100.179131	1.608	5151.069	ug/L	-29.619
	53	Cr	104.907481	3.211	15849.406	ug/L	5391.055
	61	Ni	99.690750	2.482	1191.312	ug/L	28.334
	76	Se	25.271549	401.289	-132224.817	ug/L	-139920.278
	77	Se	101.504483	1.201	6900.285	ug/L	2746.415
	78	Se	100.632648	2.312	22650.474	ug/L	9593.875
	79	Br	14.762757	27.095	4218.979	ug/L	4430.746
>	72	Ge			931342.509	ug/L	984081.851
	108	Cd	98.435022	2.342	4071.881	ug/L	0.804
	114	Cd	98.951070	0.660	147632.885	ug/L	115.232
>	115	In			1119113.846	ug/L	1182508.232
	208	207.977	101.154893	0.662	548266.930	ug/L	632.369
	207	Pb	100.884683	0.171	225246.447	ug/L	268.340
	206	Pb	101.036205	0.358	306810.791	ug/L	323.677
>	169	Tm			972927.883	ug/L	1043878.572
	106	Pd			-648.260	ug/L	9.240
	84	Kr			2716.999	ug/L	3220.754

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		96.499
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		94.641
	Cd	111		
	Sb	121		
>	In-1	115		94.639
	Pb	208		
>	Tm-1	169		93.203
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		94.641
	Cd	108		
	Cd	114		
>	In	115		94.639
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		93.203
	Pd	106		
	Kr	84		

Sample ID: CCB 12
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:40:15
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 12.066
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			2939.693	ug/L	3004.378
>	6	Li-1			676467.584	ug/L	682772.625
	9	Be	0.085872	247.092	14.000	ug/L	6.333
	44	Ca	6.611082	460.133	24433.125	ug/L	24294.290
	52	Cr	0.147199	235.265	4661.413	ug/L	4359.831
	55	Mn	0.158820	303.582	1832.433	ug/L	1260.134
	59	Co	0.179014	316.129	1339.673	ug/L	735.053
	60	Ni	1.913144	324.627	3096.217	ug/L	1710.163
	75	As	0.031049	2523.199	9291.348	ug/L	9425.884
	82	Se	0.396294	326.382	888.393	ug/L	878.878
>	72	Ge-1			968126.259	ug/L	984081.851
	111	Cd	0.090458	229.868	106.999	ug/L	48.269
	121	Sb	0.063227	249.384	354.017	ug/L	210.337
>	115	In-1			1175738.690	ug/L	1182508.232
	208	Pb	0.091029	279.767	2256.656	ug/L	1224.385
>	169	Tm-1			1039438.200	ug/L	1043878.572
	50	Cr	0.225362	486.004	-17.071	ug/L	-29.619
	53	Cr	2.782191	47.632	5599.558	ug/L	5391.055
	61	Ni	2.181713	271.049	54.335	ug/L	28.334
	76	Se	-61.394479	27.908	-138181.724	ug/L	-139920.278
	77	Se	1.407426	98.192	2764.087	ug/L	2746.415
	78	Se	0.235315	236.251	9471.049	ug/L	9593.875
	79	Br	-66.282511	40.130	4238.988	ug/L	4430.746
>	72	Ge			968126.259	ug/L	984081.851
	108	Cd	0.090475	251.744	4.742	ug/L	0.804
	114	Cd	0.074666	274.515	231.804	ug/L	115.232
>	115	In			1175738.690	ug/L	1182508.232
	208	207.977	0.089212	292.547	1145.222	ug/L	632.369
	207	Pb	0.095712	272.529	495.039	ug/L	268.340
	206	Pb	0.090830	262.989	616.395	ug/L	323.677
>	169	Tm			1039438.200	ug/L	1043878.572
	106	Pd			4.120	ug/L	9.240
	84	Kr			3168.468	ug/L	3220.754

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.077
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		98.379
	Cd	111		
	Sb	121		
>	In-1	115		99.428
	Pb	208		
>	Tm-1	169		99.575
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		98.379
	Cd	108		
	Cd	114		
>	In	115		99.428
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		99.575
	Pd	106		
	Kr	84		

Sample ID: MKMWN
Sample Description: G1G050412-1
Batch ID: 1195193
Sample Date/Time: Tuesday, July 19, 2011 17:42:37
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\MKMWN.067
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 127
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			149108.244	ug/L	3004.378
>	6	Li-1			697654.046	ug/L	682772.625
	9	Be	0.669696	9.698	68.334	ug/L	6.333
	44	Ca	6778.577393	1.347	554201.034	ug/L	24294.290
	52	Cr	51.201739	0.719	129847.849	ug/L	4359.831
	55	Mn	92.751201	0.914	337337.543	ug/L	1260.134
	59	Co	152.608945	0.523	511203.183	ug/L	735.053
	60	Ni	2430.970083	0.690	1746459.907	ug/L	1710.163
	75	As	95.972462	1.386	68081.534	ug/L	9425.884
	82	Se	18.148794	12.953	1886.409	ug/L	878.878
>	72	Ge-1			938673.679	ug/L	984081.851
	111	Cd	0.746829	9.207	468.998	ug/L	48.269
	121	Sb	12.203251	0.901	24701.190	ug/L	210.337
>	115	In-1			1033022.914	ug/L	1182508.232
	208	Pb	19.501635	0.243	195917.995	ug/L	1224.385
>	169	Tm-1			910351.674	ug/L	1043878.572
	50	Cr	173.076414	10.984	8995.061	ug/L	-29.619
	53	Cr	44.870285	8.064	9780.703	ug/L	5391.055
	61	Ni	2414.860115	0.609	28456.059	ug/L	28.334
	76	Se	-210.597155	36.532	-135225.584	ug/L	-139920.278
	77	Se	-13.216755	17.757	2055.900	ug/L	2746.415
	78	Se	6.122564	12.618	9984.320	ug/L	9593.875
	79	Br	892.854820	101.873	5803.622	ug/L	4430.746
>	72	Ge			938673.679	ug/L	984081.851
	108	Cd	5.268384	5.594	201.962	ug/L	0.804
	114	Cd	0.593312	4.417	917.078	ug/L	115.232
>	115	In			1033022.914	ug/L	1182508.232
	208	207.977	20.029912	0.319	102029.949	ug/L	632.369
	207	Pb	20.082484	0.961	42137.729	ug/L	268.340
	206	Pb	18.131640	0.461	51750.317	ug/L	323.677
>	169	Tm			910351.674	ug/L	1043878.572
	106	Pd			453.071	ug/L	9.240
	84	Kr			2554.955	ug/L	3220.754

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		102.180
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		95.386
	Cd	111		
	Sb	121		
>	In-1	115		87.359
	Pb	208		
>	Tm-1	169		87.209
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		95.386
	Cd	108		
	Cd	114		
>	In	115		87.359
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		87.209
	Pd	106		
	Kr	84		

Sample ID: MKMWNP5
Sample Description: G1G050412-1 5X
Batch ID: 1195193
Sample Date/Time: Tuesday, July 19, 2011 17:45:53
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\MKMWNP5.068
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 128
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			35216.853	ug/L	3004.378
>	6	Li-1			707748.879	ug/L	682772.625
	9	Be	0.118953	31.273	17.667	ug/L	6.333
	44	Ca	1374.011765	1.068	137594.038	ug/L	24294.290
	52	Cr	10.490691	1.183	31463.593	ug/L	4359.831
	55	Mn	19.334298	1.569	74965.652	ug/L	1260.134
	59	Co	33.202066	1.194	117562.707	ug/L	735.053
	60	Ni	540.452199	0.873	409760.391	ug/L	1710.163
	75	As	22.320548	2.541	23912.301	ug/L	9425.884
	82	Se	4.024023	32.371	1126.190	ug/L	878.878
>	72	Ge-1			987461.887	ug/L	984081.851
	111	Cd	0.136407	12.924	135.639	ug/L	48.269
	121	Sb	2.368108	0.784	5574.774	ug/L	210.337
>	115	In-1			1165535.438	ug/L	1182508.232
	208	Pb	4.064735	1.019	47697.868	ug/L	1224.385
>	169	Tm-1			1041839.613	ug/L	1043878.572
	50	Cr	56.871882	7.157	3086.778	ug/L	-29.619
	53	Cr	6.739540	20.424	6143.300	ug/L	5391.055
	61	Ni	535.114527	2.494	6654.396	ug/L	28.334
	76	Se	-73.149418	15.499	-141044.296	ug/L	-139920.278
	77	Se	-0.750505	242.555	2722.408	ug/L	2746.415
	78	Se	1.017292	122.020	9770.796	ug/L	9593.875
	79	Br	404.346541	30.467	5191.818	ug/L	4430.746
>	72	Ge			987461.887	ug/L	984081.851
	108	Cd	0.928324	12.010	40.756	ug/L	0.804
	114	Cd	0.103170	6.181	273.702	ug/L	115.232
>	115	In			1165535.438	ug/L	1182508.232
	208	207.977	4.154407	1.378	24717.247	ug/L	632.369
	207	Pb	4.197952	0.214	10293.319	ug/L	268.340
	206	Pb	3.806732	1.244	12687.302	ug/L	323.677
>	169	Tm			1041839.613	ug/L	1043878.572
	106	Pd			100.632	ug/L	9.240
	84	Kr			3022.973	ug/L	3220.754

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		103.658
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.343
	Cd	111		
	Sb	121		
>	In-1	115		98.565
	Pb	208		
>	Tm-1	169		99.805
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.343
	Cd	108		
	Cd	114		
>	In	115		98.565
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		99.805
	Pd	106		
	Kr	84		

Sample ID: MKMWNS
Sample Description: G1G050412-1 MS
Batch ID: 1195193
Sample Date/Time: Tuesday, July 19, 2011 17:49:09
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\MKMWNS.069
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 129
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			152243.199	ug/L	3004.378
>	6	Li-1			734415.002	ug/L	682772.625
	9	Be	164.448956	0.676	15987.057	ug/L	6.333
	44	Ca	7854.920832	0.512	641302.727	ug/L	24294.290
	52	Cr	244.836664	1.021	607941.185	ug/L	4359.831
	55	Mn	280.329510	0.221	1021678.200	ug/L	1260.134
	59	Co	330.286095	0.768	1110509.384	ug/L	735.053
	60	Ni	2585.709138	0.176	1865734.102	ug/L	1710.163
	75	As	255.619203	0.880	167109.234	ug/L	9425.884
	82	Se	170.586629	0.416	10734.036	ug/L	878.878
>	72	Ge-1			942843.308	ug/L	984081.851
	111	Cd	173.379931	0.821	100509.657	ug/L	48.269
	121	Sb	219.172441	0.591	446359.883	ug/L	210.337
>	115	In-1			1046762.820	ug/L	1182508.232.
	208	Pb	210.681070	0.514	2168584.956	ug/L	1224.385
>	169	Tm-1			937384.035	ug/L	1043878.572
	50	Cr	322.138436	8.653	16840.064	ug/L	-29.619
	53	Cr	244.783194	2.512	30571.085	ug/L	5391.055
	61	Ni	2518.032638	1.191	29806.280	ug/L	28.334
	76	Se	92.560593	26.806	-133277.494	ug/L	-139920.278
	77	Se	138.874691	2.181	8591.060	ug/L	2746.415
	78	Se	156.927750	0.291	30623.696	ug/L	9593.875
	79	Br	386.973137	91.930	4932.690	ug/L	4430.746
>	72	Ge			942843.308	ug/L	984081.851
	108	Cd	175.026359	1.392	6774.817	ug/L	0.804
	114	Cd	173.221994	0.361	241688.890	ug/L	115.232
>	115	In			1046762.820	ug/L	1182508.232
	208	207.977	213.702257	0.583	1115405.606	ug/L	632.369
	207	Pb	230.747904	0.674	496019.525	ug/L	268.340
	206	Pb	190.535084	0.428	557159.825	ug/L	323.677
>	169	Tm			937384.035	ug/L	1043878.572
	106	Pd			-715.693	ug/L	9.240
	84	Kr			1577.378	ug/L	3220.754

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		107.564
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		95.809
	Cd	111		
	Sb	121		
>	In-1	115		88.521
	Pb	208		
>	Tm-1	169		89.798
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		95.809
	Cd	108		
	Cd	114		
>	In	115		88.521
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		89.798
	Pd	106		
	Kr	84		

Sample ID: MKMWND
Sample Description: G1G050412-1 SD
Batch ID: 1195193
Sample Date/Time: Tuesday, July 19, 2011 17:52:25
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\MKMWND.070
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 130
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			150529.699	ug/L	3004.378
>	6	Li-1			749871.139	ug/L	682772.625
	9	Be	165.344824	1.270	16413.478	ug/L	6.333
	44	Ca	7965.097997	0.445	641302.930	ug/L	24294.290
	52	Cr	251.571182	0.766	616157.747	ug/L	4359.831
	55	Mn	287.434898	0.209	1033489.822	ug/L	1260.134
	59	Co	335.368838	0.818	1112482.064	ug/L	735.053
	60	Ni	2617.569706	0.190	1863499.089	ug/L	1710.163
	75	As	260.467909	0.912	167826.576	ug/L	9425.884
	82	Se	173.706097	0.821	10770.009	ug/L	878.878
>	72	Ge-1			930233.055	ug/L	984081.851
	111	Cd	175.589921	0.621	101179.817	ug/L	48.269
	121	Sb	222.516491	0.239	450430.598	ug/L	210.337
>	115	In-1			1040461.937	ug/L	1182508.232
	208	Pb	215.312417	0.971	2197915.350	ug/L	1224.385
>	169	Tm-1			929565.959	ug/L	1043878.572
	50	Cr	357.858712	6.313	18438.812	ug/L	-29.619
	53	Cr	250.940337	1.182	30787.189	ug/L	5391.055
	61	Ni	2564.277041	0.786	29941.283	ug/L	28.334
	76	Se	63.346185	113.133	-131744.916	ug/L	-139920.278
	77	Se	140.083949	2.810	8526.332	ug/L	2746.415
	78	Se	158.924184	1.726	30482.345	ug/L	9593.875
	79	Br	266.939964	82.953	4653.864	ug/L	4430.746
>	72	Ge			930233.055	ug/L	984081.851
	108	Cd	177.940934	1.358	6844.761	ug/L	0.804
	114	Cd	175.321952	0.963	243130.564	ug/L	115.232
>	115	In			1040461.937	ug/L	1182508.232
	208	207.977	218.715658	0.796	1132106.734	ug/L	632.369
	207	Pb	235.432155	1.403	501932.725	ug/L	268.340
	206	Pb	194.445582	0.965	563875.891	ug/L	323.677
>	169	Tm			929565.959	ug/L	1043878.572
	106	Pd			-624.771	ug/L	9.240
	84	Kr			1415.240	ug/L	3220.754

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		109.827
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		94.528
	Cd	111		
	Sb	121		
>	In-1	115		87.988
	Pb	208		
>	Tm-1	169		89.049
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		94.528
	Cd	108		
	Cd	114		
>	In	115		87.988
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		89.049
	Pd	106		
	Kr	84		

Sample ID: CCV 13
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:55:41
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCV 13.071
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 7
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3625.446	ug/L	3004.378
>	6	Li-1			744832.633	ug/L	682772.625
	9	Be	93.402273	2.262	9210.329	ug/L	6.333
	44	Ca	4822.400185	0.897	420513.037	ug/L	24294.290
	52	Cr	98.769012	1.260	258688.710	ug/L	4359.831
	55	Mn	99.900788	1.892	381022.835	ug/L	1260.134
	59	Co	99.933719	1.232	351382.182	ug/L	735.053
	60	Ni	105.311622	9.112	80948.774	ug/L	1710.163
	75	As	98.785576	1.577	73222.087	ug/L	9425.884
	82	Se	99.564913	2.359	6908.085	ug/L	878.878
>	72	Ge-1			984552.046	ug/L	984081.851
	111	Cd	97.350034	1.514	65254.896	ug/L	48.269
	121	Sb	49.325514	1.231	116295.165	ug/L	210.337
>	115	In-1			1209967.227	ug/L	1182508.232
	208	Pb	100.181608	1.348	1203639.182	ug/L	1224.385
>	169	Tm-1			1093394.708	ug/L	1043878.572
	50	Cr	108.593401	4.927	5902.781	ug/L	-29.619
	53	Cr	97.763668	0.668	15986.705	ug/L	5391.055
	61	Ni	102.816196	6.651	1297.371	ug/L	28.334
	76	Se	61.241102	117.821	-139455.225	ug/L	-139920.278
	77	Se	106.851350	2.411	7534.789	ug/L	2746.415
	78	Se	97.361720	1.655	23482.119	ug/L	9593.875
	79	Br	218.215738	31.260	4832.951	ug/L	4430.746
>	72	Ge			984552.046	ug/L	984081.851
	108	Cd	98.232582	3.303	4395.828	ug/L	0.804
	114	Cd	98.372953	1.887	158703.720	ug/L	115.232
>	115	In			1209967.227	ug/L	1182508.232
	208	207.977	100.154082	1.412	610147.193	ug/L	632.369
	207	Pb	100.315938	1.950	251762.305	ug/L	268.340
	206	Pb	100.131982	1.117	341729.684	ug/L	323.677
>	169	Tm			1093394.708	ug/L	1043878.572
	106	Pd			-687.639	ug/L	9.240
	84	Kr			2643.145	ug/L	3220.754

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		109.089
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		100.048
	Cd	111		
	Sb	121		
>	In-1	115		102.322
	Pb	208		
>	Tm-1	169		104.743
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		100.048
	Cd	108		
	Cd	114		
>	In	115		102.322
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		104.743
	Pd	106		
	Kr	84		

Sample ID: CCB 13
Sample Description:
Batch ID:
Sample Date/Time: Tuesday, July 19, 2011 17:58:02
Method File: D:\Elandata\Method\1195193.mth
Dataset File: D:\Elandata\DataSet\110719a2\CCB 13.072
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 8
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			2632.878	ug/L	3004.378
>	6	Li-1			678237.372	ug/L	682772.625
	9	Be	0.030267	161.547	9.000	ug/L	6.333
	44	Ca	-26.052062	7.779	21088.886	ug/L	24294.290
	52	Cr	0.009028	861.781	4173.371	ug/L	4359.831
	55	Mn	-0.039931	193.016	1056.759	ug/L	1260.134
	59	Co	-0.057102	156.422	510.692	ug/L	735.053
	60	Ni	-0.818821	95.332	1044.540	ug/L	1710.163
	75	As	0.272354	163.065	9141.737	ug/L	9425.884
	82	Se	0.798116	82.878	882.400	ug/L	878.878
>	72	Ge-1			936773.420	ug/L	984081.851
	111	Cd	0.002405	2210.265	48.185	ug/L	48.269
	121	Sb	0.005159	694.064	214.671	ug/L	210.337
>	115	In-1			1140650.444	ug/L	1182508.232
	208	Pb	-0.004560	896.819	1140.377	ug/L	1224.385
>	169	Tm-1			1011203.926	ug/L	1043878.572
	50	Cr	0.160905	85.334	-19.784	ug/L	-29.619
	53	Cr	0.327990	211.067	5165.866	ug/L	5391.055
	61	Ni	-0.766252	71.052	18.000	ug/L	28.334
	76	Se	61.592017	102.930	-132677.477	ug/L	-139920.278
	77	Se	2.845332	9.466	2735.745	ug/L	2746.415
	78	Se	0.820370	86.693	9244.282	ug/L	9593.875
	79	Br	7.338039	298.231	4230.651	ug/L	4430.746
>	72	Ge			936773.420	ug/L	984081.851
	108	Cd	0.053736	126.798	3.050	ug/L	0.804
	114	Cd	0.003010	980.714	115.895	ug/L	115.232
>	115	In			1140650.444	ug/L	1182508.232
	208	207.977	-0.005752	712.888	582.696	ug/L	632.369
	207	Pb	-0.005480	827.174	248.339	ug/L	268.340
	206	Pb	-0.001753	2141.591	309.342	ug/L	323.677
>	169	Tm			1011203.926	ug/L	1043878.572
	106	Pd			3.117	ug/L	9.240
	84	Kr			3129.019	ug/L	3220.754

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		99.336
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	As	75		
	Se	82		
>	Ge-1	72		95.193
	Cd	111		
	Sb	121		
>	In-1	115		96.460
	Pb	208		
>	Tm-1	169		96.870
	Cr	50		
	Cr	53		
	Ni	61		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		95.193
	Cd	108		
	Cd	114		
>	In	115		96.460
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		96.870
	Pd	106		
	Kr	84		

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICP-MS Data Review Checklist
Level I and Level II

Instrument ID (Circle one): **M01** (**M02**)		Method 6020 SOP SAC-MT-0001	
File Number 110720A2	Batch Numbers 119618O, 1200151, 1200152	Date 7/20/11	Analyst SH/BRJ

Lot Numbers G1G050412, G1G060477, G1G150408	YES	NO	NA
1. Copy of analysis protocol used included?	✓		
IS Recovery — Raw Data Value / Upload Data Value			
2. ICVs & CCVs within 10% of true value or recal and rerun?	✓		
3. ICB & CCBs < reporting limit or recal and rerun?	✓		
4. 10 samples or less analyzed between calibration checks?	✓		
5. All parameters within linear range?	✓		
6. LCS/LCSD within limits?	✓		
7. Prep blank value < reporting limit or all samples >20x blank?	✓		
8. Internal standard intensities for samples (unless followed by dilution) are > 30% and <120% of the Calibration Blank intensities?	✓		
9. Appropriate dilution factors applied to data?	✓		
10. Matrix spike and spike dup within customer defined limits?	✓		
11. Each batch checked for presence of internal standard in samples?	✓		
12. Anomalies entered using Clouseau?	✓		

COMMENTS: _____

REVIEWED BY: JRB
DATE: 7/21/11

DATA ENTERED BY: BRJ
DATE: 7/21/11

Dataset Report

Perkin Elmer M02
User Name: metal
Computer Name: TAISAC-M02
Dataset File Path: D:\Elandata\DataSet\110720a2\
Report Date/Time: Thursday, July 21, 2011 09:46:45

The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Description
	TUNE SHARGRAVE	10:29:14 Wed 20-Jul-11	Sample	
SmartTune - AutoLe	AutoLens	11:26:35 Wed 20-Jul-11	Sample	
SmartTune - Daily F	Daily Performance Ch	11:42:18 Wed 20-Jul-11	Sample	
	Rinse 2X	11:51:06 Wed 20-Jul-11	Sample	
	Blank	11:54:36 Wed 20-Jul-11	Blank	
	Standard 1	11:57:07 Wed 20-Jul-11	Standard #1	
	ICV	11:59:37 Wed 20-Jul-11	Sample	
	ICB	12:03:07 Wed 20-Jul-11	Sample	
	ICB	12:09:53 Wed 20-Jul-11	Sample	
	Blank	12:16:30 Wed 20-Jul-11	Blank	
	Standard 1	12:19:00 Wed 20-Jul-11	Standard #1	
	ICV	12:21:30 Wed 20-Jul-11	Sample	
	ICB	12:25:00 Wed 20-Jul-11	Sample	
	LLSTD1	12:34:23 Wed 20-Jul-11	Sample	LLSTD@10X -DUP Se
	LLSTD2	12:36:59 Wed 20-Jul-11	Sample	LLSTD@5X
	ICSA	12:44:15 Wed 20-Jul-11	Sample	
	ICSAB	12:46:50 Wed 20-Jul-11	Sample	
	Rinse	12:50:19 Wed 20-Jul-11	Sample	
	CCV 1	12:52:55 Wed 20-Jul-11	Sample	
	CCB 1	12:55:29 Wed 20-Jul-11	Sample	
	CCV 2	12:58:05 Wed 20-Jul-11	Sample	
	CCB 2	13:00:39 Wed 20-Jul-11	Sample	
	ICSA	13:03:14 Wed 20-Jul-11	Sample	
	ICSAB	13:05:49 Wed 20-Jul-11	Sample	
	Rinse	13:13:29 Wed 20-Jul-11	Sample	
1196180	MKMWVD	13:16:05 Wed 20-Jul-11	Sample	G1G050412-2 SD
1200151/52	MK1W8B	13:18:40 Wed 20-Jul-11	Sample	G1G190000-151 BLK
1200151/52	MK1W8C	13:21:16 Wed 20-Jul-11	Sample	G1G190000-151 LCS
1200152/51	MK1XAL	13:23:51 Wed 20-Jul-11	Sample	G1G190000-152 LCSD
	CCV 3	13:26:27 Wed 20-Jul-11	Sample	
	CCB 3	13:29:02 Wed 20-Jul-11	Sample	
	CCV 4	13:31:37 Wed 20-Jul-11	Sample	
	CCB 4	13:34:12 Wed 20-Jul-11	Sample	
1200151	MKPL1	13:36:47 Wed 20-Jul-11	Sample	G1G060477-4
1200151	MKPL1P5	13:39:21 Wed 20-Jul-11	Sample	G1G060477-4 5X
1200151	MKPL1X	13:41:56 Wed 20-Jul-11	Sample	G1G060477-4 DU
1200151	MKPL1Z	13:44:30 Wed 20-Jul-11	Sample	G1G060477-4 PS
1200151	MKPL6	13:47:05 Wed 20-Jul-11	Sample	G1G060477-5
1200151	MKPL8	13:49:39 Wed 20-Jul-11	Sample	G1G060477-6
1200151	MKPL9	13:52:14 Wed 20-Jul-11	Sample	G1G060477-7
1200151	MKPME	13:54:48 Wed 20-Jul-11	Sample	G1G060477-8
	CCV 5	13:57:25 Wed 20-Jul-11	Sample	
	CCB 5	13:59:59 Wed 20-Jul-11	Sample	
	CCV 6	14:02:34 Wed 20-Jul-11	Sample	
	CCB 6	14:05:09 Wed 20-Jul-11	Sample	
1200152	MKXRJ	14:07:45 Wed 20-Jul-11	Sample	G1G150408-1
1200152	MKXRJP5	14:10:19 Wed 20-Jul-11	Sample	G1G150408-1 5X
1200152	MKXRJX	14:12:54 Wed 20-Jul-11	Sample	G1G150408-1 DU } DO NOT REPORT
1200152	MKXRJZ	14:15:28 Wed 20-Jul-11	Sample	G1G150408-1 PS
1200152	MKXRK	14:18:03 Wed 20-Jul-11	Sample	G1G150408-2

1200152	MKXRM	14:20:37 Wed 20-Jul-11	Sample	G1G150408-3
1200152	MKXRN	14:23:12 Wed 20-Jul-11	Sample	G1G150408-4
1200152	MKXRP	14:25:46 Wed 20-Jul-11	Sample	G1G150408-5
	CCV 7	14:28:22 Wed 20-Jul-11	Sample	- our Mn ; Li, Ge < 80%
	CCB 7	14:30:57 Wed 20-Jul-11	Sample	- our Se^{78} ; Li, Ge < 80%
	CCV 8	14:41:23 Wed 20-Jul-11	Sample	
	CCB 8	14:43:58 Wed 20-Jul-11	Sample	
1200152	MKXRJ	14:46:33 Wed 20-Jul-11	Sample	G1G150408-1
1200152	MKXRJP5	14:49:08 Wed 20-Jul-11	Sample	G1G150408-1 5X
1200152	MKXRJX	14:51:42 Wed 20-Jul-11	Sample	G1G150408-1 DU
1200152	MKXRJZ	14:54:17 Wed 20-Jul-11	Sample	G1G150408-1 PS
1200152	MKXRK	14:56:51 Wed 20-Jul-11	Sample	G1G150408-2
1200152	MKXRM	14:59:26 Wed 20-Jul-11	Sample	G1G150408-3
1200152	MKXRN	15:02:00 Wed 20-Jul-11	Sample	G1G150408-4
1200152	MKXRP	15:04:35 Wed 20-Jul-11	Sample	G1G150408-5
	CCV 9	15:07:10 Wed 20-Jul-11	Sample	- our Se^{82}
	~~CCB 9~~	15:09:45 Wed 20-Jul-11	Sample	- our Ag, Se ; INT STD < 80%
	CCV 10	15:24:42 Wed 20-Jul-11	Sample	- INT STD > 120%
	~~CCB 10~~	15:27:16 Wed 20-Jul-11	Sample	
	CCV 11	15:33:58 Wed 20-Jul-11	Sample	- INT STD > 120%
	CCB 11	15:36:32 Wed 20-Jul-11	Sample	- our Ag, Se ; INT STD > 120%
	CCV 12	15:39:08 Wed 20-Jul-11	Sample	
	CCB 12	15:41:42 Wed 20-Jul-11	Sample	
1200152	MKXRK	15:44:18 Wed 20-Jul-11	Sample	G1G150408-2
1200152	MKXRM	15:46:53 Wed 20-Jul-11	Sample	G1G150408-3
1200152	MKXRN	15:49:27 Wed 20-Jul-11	Sample	G1G150408-4
1200152	MKXRP	15:52:02 Wed 20-Jul-11	Sample	G1G150408-5
	CCV 13	15:54:38 Wed 20-Jul-11	Sample	
	CCB 13	15:57:12 Wed 20-Jul-11	Sample	
	CCV 14	15:59:48 Wed 20-Jul-11	Sample	
	CCB 14	16:02:22 Wed 20-Jul-11	Sample	
1200152	MKXRJ	16:04:58 Wed 20-Jul-11	Sample	G1G150408-1
1200152	MKXRJP5	16:07:33 Wed 20-Jul-11	Sample	G1G150408-1 5X
1200152	MKXRJX	16:10:07 Wed 20-Jul-11	Sample	G1G150408-1 DU
1200152	MKXRJZ	16:12:42 Wed 20-Jul-11	Sample	G1G150408-1 PS
	CCV 15	16:15:18 Wed 20-Jul-11	Sample	
	CCB 15	16:17:53 Wed 20-Jul-11	Sample	

DO NOT REPORT

DO NOT REPORT

RECAL

RECAL

RECAL

RECAL

different runs

CCB = AIR

TAL West Sac

RUN SUMMARY

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/21/11 14:04:11

File ID: 110720A2 Analyst: jonesb

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
1	Blank				1.0	07/20/11 12:16		☐
2	Standard1				1.0	07/20/11 12:19		☐
3	ICV				1.0	07/20/11 12:21		☐
4	ICB				1.0	07/20/11 12:25		☐
5	LLSTD1				1.0	07/20/11 12:34		☐
6	LLSTD2				1.0	07/20/11 12:36		☐
7	ICSA				1.0	07/20/11 12:44		☐
8	ICSAB				1.0	07/20/11 12:46		☐
9	Rinse				1.0	07/20/11 12:50		☐
10	CCV 1				1.0	07/20/11 12:52		☐
11	CCB 1				1.0	07/20/11 12:55		☐
12	CCV 2				1.0	07/20/11 12:58		☐
13	CCB 2				1.0	07/20/11 13:00		☐
14	ICSA				1.0	07/20/11 13:03		☐
15	ICSAB				1.0	07/20/11 13:05		☐
16	Rinse				1.0	07/20/11 13:13		☐
17	MKMWVD	G1G050412-2	1196180	DF	1.0	07/20/11 13:16		☐
18	MK1W8B	G1G190000	1200151	EC	1.0	07/20/11 13:18		☐
19	MK1W8C	G1G190000	1200151	EC	1.0	07/20/11 13:21		☐
20	MK1XAL	G1G190000	1200152	EC	1.0	07/20/11 13:23		☐
21	CCV 3				1.0	07/20/11 13:26		☐
22	CCB 3				1.0	07/20/11 13:29		☐
23	CCV 4				1.0	07/20/11 13:31		☐
24	CCB 4				1.0	07/20/11 13:34		☐
25	MKPL1	G1G060477-4	1200151	EC	1.0	07/20/11 13:36		☐
26	MKPL1P5	G1G060477	1200151		5.0	07/20/11 13:39		☐
27	MKPL1X	G1G060477-4	1200151	EC	1.0	07/20/11 13:41		☐
28	MKPL1Z	G1G060477-4	1200151		1.0	07/20/11 13:44		☐
29	MKPL6	G1G060477-5	1200151	EC	1.0	07/20/11 13:47		☐
30	MKPL8	G1G060477-6	1200151	EC	1.0	07/20/11 13:49		☐
31	MKPL9	G1G060477-7	1200151	EC	1.0	07/20/11 13:52		☐
32	MKPME	G1G060477-8	1200151	EC	1.0	07/20/11 13:54		☐
33	CCV 5				1.0	07/20/11 13:57		☐
34	CCB 5				1.0	07/20/11 13:59		☐
35	CCV 6				1.0	07/20/11 14:02		☐
36	CCB 6				1.0	07/20/11 14:05		☐
37	MKXRJ	G1G150408-1	1200152	EC	1.0	07/20/11 14:07		☐
38	MKXRJP5	G1G150408	1200152		5.0	07/20/11 14:10		☐
39	MKXRJX	G1G150408-1	1200152	EC	1.0	07/20/11 14:12		☐
40	MKXRJZ	G1G150408-1	1200152		1.0	07/20/11 14:15		☐
41	MKXRK	G1G150408-2	1200152	EC	1.0	07/20/11 14:18		☐
42	MKXRM	G1G150408-3	1200152	EC	1.0	07/20/11 14:20		☐
43	MKXRN	G1G150408-4	1200152	EC	1.0	07/20/11 14:23		☐
44	MKXRP	G1G150408-5	1200152	EC	1.0	07/20/11 14:25		☐
45	CCV 7				1.0	07/20/11 14:28		☐
46	CCB 7				1.0	07/20/11 14:30		☐

Method: 6020 (SOP: SAC-MT-001) Instrument: M02 Reported: 07/21/11 14:04:11

File ID: 110720A2 **Analyst: jonesb**

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
49	CCV 8				1.0	07/20/11 14:41		☐
50	CCB 8				1.0	07/20/11 14:43		☐
51	MKXRJ	G1G150408-1	1200152	EC	1.0	07/20/11 14:46		☐
52	MKXRJP5	G1G150408	1200152		5.0	07/20/11 14:49		☐
53	MKXRJX	G1G150408-1	1200152	EC	1.0	07/20/11 14:51		☐
54	MKXRJZ	G1G150408-1	1200152		1.0	07/20/11 14:54		☐
55	MKXRK	G1G150408-2	1200152	EC	1.0	07/20/11 14:56		☐
56	MKXRM	G1G150408-3	1200152	EC	1.0	07/20/11 14:59		☐
57	MKXRN	G1G150408-4	1200152	EC	1.0	07/20/11 15:02		☐
58	MKXRP	G1G150408-5	1200152	EC	1.0	07/20/11 15:04		☐
59	CCV 9				1.0	07/20/11 15:07		☐
60	CCB 9				1.0	07/20/11 15:09		☐
63	CCV 10				1.0	07/20/11 15:24		☐
64	CCB 10				1.0	07/20/11 15:27		☐
67	CCV 11				1.0	07/20/11 15:33		☐
68	CCB 11				1.0	07/20/11 15:36		☐
71	CCV 12				1.0	07/20/11 15:39		☐
72	CCB 12				1.0	07/20/11 15:41		☐
73	MKXRK	G1G150408-2	1200152	EC	1.0	07/20/11 15:44		☐
74	MKXRM	G1G150408-3	1200152	EC	1.0	07/20/11 15:46		☐
75	MKXRN	G1G150408-4	1200152	EC	1.0	07/20/11 15:49		☐
76	MKXRP	G1G150408-5	1200152	EC	1.0	07/20/11 15:52		☐
77	CCV 13				1.0	07/20/11 15:54		☐
78	CCB 13				1.0	07/20/11 15:57		☐
81	CCV 14				1.0	07/20/11 15:59		☐
82	CCB 14				1.0	07/20/11 16:02		☐
83	MKXRJ	G1G150408-1	1200152	EC	1.0	07/20/11 16:04		☐
84	MKXRJP5	G1G150408	1200152		5.0	07/20/11 16:07		☐
85	MKXRJX	G1G150408-1	1200152	EC	1.0	07/20/11 16:10		☐
86	MKXRJZ	G1G150408-1	1200152		1.0	07/20/11 16:12		☐
87	CCV 15				1.0	07/20/11 16:15		☐
88	CCB 15				1.0	07/20/11 16:17		☐

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 (M02) Reported: 07/21/11 14:04:11

File ID: 110720A2 Analyst: jonesb

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
1	Blank	07/20/11 12:16	100.0	100.0	100.0	100.0	☑
2	Standard1	07/20/11 12:19	99.3	98.6	101.0	99.6	☑
3	ICV	07/20/11 12:21	99.0	97.6	96.4	98.0	☑
4	ICB	07/20/11 12:25	96.0	95.3	94.9	95.1	☑
5	LLSTD1	07/20/11 12:34	104.3	104.9	104.7	104.9	☑
6	LLSTD2	07/20/11 12:36	101.9	102.9	102.0	102.2	☑
7	ICSA	07/20/11 12:44	91.7	92.6	101.7	88.5	☑
8	ICSAB	07/20/11 12:46	91.4	91.1	97.5	86.7	☑
9	Rinse	07/20/11 12:50	110.6	105.9	103.1	99.9	☑
10	CCV 1	07/20/11 12:52	111.2	105.8	102.0	101.6	☑
11	CCB 1	07/20/11 12:55	112.6	108.4	102.3	102.2	☑
12	CCV 2	07/20/11 12:58	110.9	105.9	101.2	101.1	☑
13	CCB 2	07/20/11 13:00	109.6	104.5	98.0	98.8	☑
14	ICSA	07/20/11 13:03	93.5	94.2	98.6	88.8	☑
15	ICSAB	07/20/11 13:05	92.6	93.0	96.9	87.8	☑
16	Rinse	07/20/11 13:13	114.4	107.9	102.7	100.3	☑
17	MKMWVD	07/20/11 13:16	102.0	108.2	114.0	104.8	☑
18	MK1W8B	07/20/11 13:18	111.3	109.8	113.5	105.4	☑
19	MK1W8C	07/20/11 13:21	111.3	110.0	108.3	106.1	☑
20	MK1XAL	07/20/11 13:23	109.8	107.6	104.0	103.6	☑
21	CCV 3	07/20/11 13:26	110.8	105.1	99.6	100.0	☑
22	CCB 3	07/20/11 13:29	110.2	104.5	99.8	98.2	☑
23	CCV 4	07/20/11 13:31	110.5	105.2	100.5	100.0	☑
24	CCB 4	07/20/11 13:34	110.6	104.6	100.6	98.4	☑
25	MKPL1	07/20/11 13:36	102.3	102.0	121.1	100.9	☑
26	MKPL1P5	07/20/11 13:39	102.6	105.6	114.6	104.2	☐
27	MKPL1X	07/20/11 13:41	99.2	99.5	111.0	98.4	☑
28	MKPL1Z	07/20/11 13:44	99.8	99.6	111.0	98.3	☑
29	MKPL6	07/20/11 13:47	105.7	105.2	119.4	102.5	☑
30	MKPL8	07/20/11 13:49	105.8	105.3	123.3	101.9	☑
31	MKPL9	07/20/11 13:52	109.6	109.3	127.9	105.3	☑
32	MKPME	07/20/11 13:54	109.0	108.8	123.9	105.0	☑
33	CCV 5	07/20/11 13:57	104.5	106.7	101.2	102.4	☑
34	CCB 5	07/20/11 13:59	105.8	109.0	104.4	104.1	☑
35	CCV 6	07/20/11 14:02	101.3	103.5	96.2	99.8	☑
36	CCB 6	07/20/11 14:05	100.0	102.9	94.8	98.6	☑
37	MKXRJ	07/20/11 14:07	99.4	101.2	101.4	97.3	☑
38	MKXRJP5	07/20/11 14:10	96.6	99.4	93.2	96.0	☐
39	MKXRJX	07/20/11 14:12	97.4	100.3	97.5	96.1	☑
40	MKXRJZ	07/20/11 14:15	92.5	96.6	90.8	92.9	☑
41	MKXRK	07/20/11 14:18	92.0	96.3	86.3	93.8	☑
42	MKXRM	07/20/11 14:20	92.2	97.7	87.4	94.5	☑
43	MKXRN	07/20/11 14:23	87.3	93.0	79.7	90.9	☑
44	MKXRP	07/20/11 14:25	86.0	92.3	78.2	90.4	☑
45	CCV 7	07/20/11 14:28	76.9	84.3	63.6	86.0	☑
46	CCB 7	07/20/11 14:30	76.7	85.0	61.9	84.5	☑

TAL West Sac

INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001) M02 (M02) Reported: 07/21/11 14:04:11

File ID: 110720A2 Analyst: jonesb

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
49	CCV 8	07/20/11 14:41	99.7	98.2	101.2	100.0	☑
50	CCB 8	07/20/11 14:43	96.4	95.8	96.2	96.0	☑
51	MKXRJ	07/20/11 14:46	105.7	103.6	118.6	104.3	☑
52	MKXRJP5	07/20/11 14:49	99.1	98.2	100.8	99.0	☐
53	MKXRJX	07/20/11 14:51	104.4	104.0	117.6	104.1	☑
54	MKXRJZ	07/20/11 14:54	100.1	99.9	113.2	101.5	☑
55	MKXRK	07/20/11 14:56	100.5	100.7	111.4	102.0	☑
56	MKXRM	07/20/11 14:59	96.4	96.5	109.5	98.6	☑
57	MKXRN	07/20/11 15:02	97.5	98.0	111.7	100.2	☑
58	MKXRP	07/20/11 15:04	96.5	96.9	111.4	99.9	☑
59	CCV 9	07/20/11 15:07	84.7	85.6	94.9	89.3	☑
60	CCB 9	07/20/11 15:09	69.9	69.4	74.6	71.9	☐
63	CCV 10	07/20/11 15:24	119.8	122.1	125.1	122.3	☑
64	CCB 10	07/20/11 15:27	93.1	90.5	98.1	93.0	☑
67	CCV 11	07/20/11 15:33	118.5	128.6	120.6	123.5	☑
68	CCB 11	07/20/11 15:36	131.2	139.9	128.0	133.0	☐
71	CCV 12	07/20/11 15:39	89.7	91.9	93.7	92.1	☑
72	CCB 12	07/20/11 15:41	100.2	101.5	100.9	101.4	☑
73	MKXRK	07/20/11 15:44	110.6	110.2	116.1	112.8	☑
74	MKXRM	07/20/11 15:46	104.2	103.2	110.8	105.6	☑
75	MKXRN	07/20/11 15:49	104.5	103.6	111.6	106.0	☑
76	MKXRP	07/20/11 15:52	102.8	101.6	112.0	105.3	☑
77	CCV 13	07/20/11 15:54	91.2	93.8	101.1	95.9	☑
78	CCB 13	07/20/11 15:57	90.8	95.8	100.1	96.4	☑
81	CCV 14	07/20/11 15:59	96.5	95.6	98.1	95.7	☑
82	CCB 14	07/20/11 16:02	95.2	94.3	95.7	93.2	☑
83	MKXRJ	07/20/11 16:04	108.5	102.9	107.7	105.9	☑
84	MKXRJP5	07/20/11 16:07	101.3	98.9	99.8	100.2	☐
85	MKXRJX	07/20/11 16:10	102.6	99.1	104.3	101.7	☑
86	MKXRJZ	07/20/11 16:12	101.6	99.3	107.8	103.2	☑
87	CCV 15	07/20/11 16:15	87.9	85.2	93.8	85.8	☑
88	CCB 15	07/20/11 16:17	89.2	88.8	93.9	88.0	☑

TAL-W. SACRAMENTO - Perkin Elmer Elan 6000 ICPMS, M01 – Methods 6020, 200.8

AIR TOX STANDARDS - 4 % HNO3, 0.5 % HCl

Standards for run:

Tuning standard: 4075-42B

Internal standard: 4319-3D

Blank, CCBs: 3185-45C

Standard 1, CCVs: 4075-51B

ICV: 4075-51C

ICSA: 4319-7B

ICSAB: 4319-7C

File Number: **110720A2**

BJones

Sample ID: Blank
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:16:30
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\Blank.012
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4075.305	ug/L	
>	6	Li-1			1262935.509	ug/L	
	9	Be			28.000	ug/L	
	44	Ca			23942.307	ug/L	
	52	Cr			10924.057	ug/L	
	55	Mn			2662.584	ug/L	
	59	Co			977.102	ug/L	
	60	Ni			267.956	ug/L	
	65	Cu			288.196	ug/L	
	68	Zn			1012.606	ug/L	
	75	As			14400.092	ug/L	
	82	Se			1849.525	ug/L	
>	72	Ge-1			2324161.499	ug/L	
	111	Cd			144.702	ug/L	
	121	Sb			402.348	ug/L	
>	115	In-1			2405300.263	ug/L	
	208	Pb			3709.878	ug/L	
>	169	Tm-1			2073364.697	ug/L	
	50	Cr			-29.320	ug/L	
	53	Cr			12614.637	ug/L	
	61	Ni			7.000	ug/L	
	63	Cu			208.678	ug/L	
	67	Zn			1480.483	ug/L	
	66	Zn			510.391	ug/L	
	76	Se			-337517.691	ug/L	
	77	Se			5450.302	ug/L	
	78	Se			14405.869	ug/L	
	79	Br			9471.935	ug/L	
>	72	Ge			2324161.499	ug/L	
	108	Cd			10.297	ug/L	
	114	Cd			337.564	ug/L	
>	115	In			2405300.263	ug/L	
	208	207.977			1953.723	ug/L	
	207	Pb			777.393	ug/L	
	206	Pb			978.762	ug/L	

>	169 Tm	2073364.697	ug/L
	106 Pd	4.506	ug/L
	84 Kr	6386.133	ug/L

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
>	Ge-1	72	
	Cd	111	
	Sb	121	
>	In-1	115	
	Pb	208	
>	Tm-1	169	
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	
	Cd	108	
	Cd	114	
>	In	115	
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	
	Pd	106	
	Kr	84	

Sample ID: Standard 1
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:19:00
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\Standard 1.013
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4303.122	ug/L	4075.305
>	6	Li-1			1276169.359	ug/L	1262935.509
	9	Be	100.000000	0.419	22996.478	ug/L	28.000
	44	Ca	5100.000000	0.586	1034995.278	ug/L	23942.307
	52	Cr	100.000000	0.584	647514.357	ug/L	10924.057
	55	Mn	100.000000	1.096	1029016.903	ug/L	2662.584
	59	Co	100.000000	1.231	733688.199	ug/L	977.102
	60	Ni	100.000000	1.234	150635.537	ug/L	267.956
	65	Cu	100.000000	1.018	162391.697	ug/L	288.196
	68	Zn	100.000000	0.975	58922.550	ug/L	1012.606
	75	As	100.000000	0.722	155591.966	ug/L	14400.092
	82	Se	100.000000	0.973	15225.230	ug/L	1849.525
>	72	Ge-1			2307187.219	ug/L	2324161.499
	111	Cd	100.000000	1.472	137361.520	ug/L	144.702
	121	Sb	50.000000	0.662	239986.162	ug/L	402.348
>	115	In-1			2371672.297	ug/L	2405300.263
	208	Pb	100.000000	1.245	2347772.947	ug/L	3709.878
>	169	Tm-1			2064821.911	ug/L	2073364.697
	50	Cr	100.000000	1.071	15762.567	ug/L	-29.320
	53	Cr	100.000000	0.318	39500.989	ug/L	12614.637
	61	Ni	100.000000	0.450	2443.646	ug/L	7.000
	63	Cu	100.000000	1.342	119556.647	ug/L	208.678
	67	Zn	100.000000	3.278	6494.270	ug/L	1480.483
	66	Zn	100.000000	0.910	30829.709	ug/L	510.391
	76	Se	100.000000	21.849	-336417.101	ug/L	-337517.691
	77	Se	100.000000	1.035	16053.495	ug/L	5450.302
	78	Se	100.000000	0.694	48019.528	ug/L	14405.869
	79	Br	100.000000	26.352	10065.237	ug/L	9471.935
>	72	Ge			2307187.219	ug/L	2324161.499
	108	Cd	100.000000	1.265	9220.067	ug/L	10.297
	114	Cd	100.000000	1.196	325015.964	ug/L	337.564
>	115	In			2371672.297	ug/L	2405300.263
	208	207.977	100.000000	1.264	1196691.450	ug/L	1953.723
	207	Pb	100.000000	0.740	495912.573	ug/L	777.393
	206	Pb	100.000000	1.791	655168.924	ug/L	978.762

L>	169 Tm	2064821.911	ug/L	2073364.697
	106 Pd	-1324.540	ug/L	4.506
	84 Kr	5549.416	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
⌈>	Li-1	6	
L	Be	9	
⌈	Ca	44	
|	Cr	52	
|	Mn	55	
|	Co	59	
|	Ni	60	
|	Cu	65	
|	Zn	68	
|	As	75	
|	Se	82	
L>	Ge-1	72	
⌈	Cd	111	
|	Sb	121	
L>	In-1	115	
⌈	Pb	208	
L>	Tm-1	169	
⌈	Cr	50	
|	Cr	53	
|	Ni	61	
|	Cu	63	
|	Zn	67	
|	Zn	66	
|	Se	76	
|	Se	77	
|	Se	78	
|	Br	79	
L>	Ge	72	
⌈	Cd	108	
|	Cd	114	
L>	In	115	
⌈	207.977	208	
|	Pb	207	
|	Pb	206	
L>	Tm	169	
	Pd	106	
	Kr	84	

Sample ID: ICV
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:21:30
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\ICV .014
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 3
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4370.835	ug/L	4075.305
>	6	Li-1			1217344.159	ug/L	1262935.509
	9	Be	80.602237	1.802	17681.540	ug/L	28.000
	44	Ca	834.536258	0.900	188619.709	ug/L	23942.307
	52	Cr	78.987023	0.574	512072.328	ug/L	10924.057
	55	Mn	79.074927	1.028	811530.252	ug/L	2662.584
	59	Co	79.995059	0.531	585200.783	ug/L	977.102
	60	Ni	80.082881	0.433	120309.003	ug/L	267.956
	65	Cu	79.757179	0.101	129171.134	ug/L	288.196
	68	Zn	79.266954	0.292	46765.335	ug/L	1012.606
	75	As	79.038114	1.773	125541.760	ug/L	14400.092
	82	Se	78.560778	2.165	12312.474	ug/L	1849.525
>	72	Ge-1			2299987.895	ug/L	2324161.499
	111	Cd	79.789225	0.979	108522.942	ug/L	144.702
	121	Sb	38.428816	0.514	182702.528	ug/L	402.348
>	115	In-1			2348326.176	ug/L	2405300.263
	208	Pb	80.867144	0.799	1869055.473	ug/L	3709.878
>	169	Tm-1			2032401.246	ug/L	2073364.697
	50	Cr	67.167982	2.130	10542.003	ug/L	-29.320
	53	Cr	75.900896	2.963	32884.887	ug/L	12614.637
	61	Ni	81.016070	0.950	1974.858	ug/L	7.000
	63	Cu	80.347189	0.733	95808.275	ug/L	208.678
	67	Zn	78.008620	3.464	5369.669	ug/L	1480.483
	66	Zn	77.984895	1.167	24073.859	ug/L	510.391
	76	Se	249.427712	97.599	-337457.168	ug/L	-337517.691
	77	Se	74.296207	1.786	13274.688	ug/L	5450.302
	78	Se	79.251999	3.522	40877.847	ug/L	14405.869
	79	Br	222.292759	1.739	10840.129	ug/L	9471.935
>	72	Ge			2299987.895	ug/L	2324161.499
	108	Cd	79.330625	1.705	7244.576	ug/L	10.297
	114	Cd	79.817493	1.048	256877.235	ug/L	337.564
>	115	In			2348326.176	ug/L	2405300.263
	208	207.977	82.904533	0.941	976626.733	ug/L	1953.723
	207	Pb	84.405460	0.487	412069.518	ug/L	777.393
	206	Pb	74.467997	0.853	480359.223	ug/L	978.762

>	169 Tm	2032401.246	ug/L	2073364.697
	106 Pd	-969.218	ug/L	4.506
	84 Kr	5544.246	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	96.390
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
>	Ge-1	72	98.960
	Cd	111	
	Sb	121	
>	In-1	115	97.631
	Pb	208	
>	Tm-1	169	98.024
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	98.960
	Cd	108	
	Cd	114	
>	In	115	97.631
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	98.024
	Pd	106	
	Kr	84	

Sample ID: ICB
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:25:00
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\ICB.015
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			3711.749	ug/L	4075.305
>	6	Li-1			1198825.037	ug/L	1262935.509
	9	Be	-0.011873	110.286	24.000	ug/L	28.000
	44	Ca	4.888765	54.619	23915.528	ug/L	23942.307
	52	Cr	-0.012629	339.111	10406.839	ug/L	10924.057
	55	Mn	-0.005313	224.078	2502.493	ug/L	2662.584
	59	Co	-0.010762	149.770	861.392	ug/L	977.102
	60	Ni	0.000645	1293.567	258.059	ug/L	267.956
	65	Cu	0.000721	3358.644	277.655	ug/L	288.196
	68	Zn	0.037836	88.478	993.224	ug/L	1012.606
	75	As	0.214574	130.709	14114.026	ug/L	14400.092
	82	Se	-0.652855	41.358	1690.600	ug/L	1849.525
>	72	Ge-1			2230851.658	ug/L	2324161.499
	111	Cd	0.002927	706.704	141.543	ug/L	144.702
	121	Sb	0.101162	4.197	851.724	ug/L	402.348
>	115	In-1			2292228.034	ug/L	2405300.263
	208	Pb	-0.012948	80.502	3236.994	ug/L	3709.878
>	169	Tm-1			1971009.887	ug/L	2073364.697
	50	Cr	-0.045890	201.612	-35.063	ug/L	-29.320
	53	Cr	-0.911397	79.170	11871.605	ug/L	12614.637
	61	Ni	0.011667	339.063	7.000	ug/L	7.000
	63	Cu	-0.002293	712.398	197.675	ug/L	208.678
	67	Zn	-0.032525	4326.205	1419.778	ug/L	1480.483
	66	Zn	-0.071335	121.861	469.049	ug/L	510.391
	76	Se	153.776533	76.975	-325990.596	ug/L	-337517.691
	77	Se	-0.937585	120.034	5135.785	ug/L	5450.302
	78	Se	1.748504	1.228	14397.618	ug/L	14405.869
	79	Br	39.960334	23.053	9347.470	ug/L	9471.935
>	72	Ge			2230851.658	ug/L	2324161.499
	108	Cd	-0.005814	458.719	9.322	ug/L	10.297
	114	Cd	0.012651	74.397	361.549	ug/L	337.564
>	115	In			2292228.034	ug/L	2405300.263
	208	207.977	-0.010726	119.827	1735.238	ug/L	1953.723
	207	Pb	-0.013925	85.202	673.036	ug/L	777.393
	206	Pb	-0.016267	41.785	828.721	ug/L	978.762

>	169 Tm	1971009.887	ug/L	2073364.697
	106 Pd	0.075	ug/L	4.506
	84 Kr	6037.995	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	94.924
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
>	Ge-1	72	95.985
	Cd	111	
	Sb	121	
>	In-1	115	95.299
	Pb	208	
>	Tm-1	169	95.063
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	95.985
	Cd	108	
	Cd	114	
>	In	115	95.299
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	95.063
	Pd	106	
	Kr	84	

Sample ID: LLSTD1
Sample Description: LLSTD@10X
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:34:23
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\LLSTD1.016
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 175
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4021.940	ug/L	4075.305
>	6	Li-1			1322786.333	ug/L	1262935.509
	9	Be	0.953178	1.853	256.339	ug/L	28.000
	44	Ca	45.584836	16.585	34403.751	ug/L	23942.307
	52	Cr	1.015923	4.070	18175.277	ug/L	10924.057
	55	Mn	0.980052	2.626	13332.294	ug/L	2662.584
	59	Co	0.998957	2.627	8700.615	ug/L	977.102
	60	Ni	1.016363	4.001	1882.551	ug/L	267.956
	65	Cu	0.977746	3.696	1963.401	ug/L	288.196
	68	Zn	4.755178	3.830	3945.098	ug/L	1012.606
	75	As	0.585558	107.604	15851.590	ug/L	14400.092
	82	Se	-1.000768	78.903	1791.433	ug/L	1849.525
>	72	Ge-1			2423415.315	ug/L	2324161.499
	111	Cd	1.008870	3.547	1622.826	ug/L	144.702
	121	Sb	0.506658	5.878	2998.706	ug/L	402.348
>	115	In-1			2523295.527	ug/L	2405300.263
	208	Pb	1.004329	4.494	28642.916	ug/L	3709.878
>	169	Tm-1			2174906.583	ug/L	2073364.697
	50	Cr	1.371902	9.499	197.478	ug/L	-29.320
	53	Cr	2.245418	106.159	13766.233	ug/L	12614.637
	61	Ni	1.007105	8.938	33.000	ug/L	7.000
	63	Cu	1.003349	3.189	1475.480	ug/L	208.678
	67	Zn	5.614375	15.444	1838.410	ug/L	1480.483
	66	Zn	4.433205	6.580	1941.496	ug/L	510.391
	76	Se	240.361768	140.066	-355530.635	ug/L	-337517.691
	77	Se	2.356024	44.381	5942.610	ug/L	5450.302
	78	Se	-0.312498	831.911	14878.577	ug/L	14405.869
	79	Br	-206.947503	26.614	8424.235	ug/L	9471.935
>	72	Ge			2423415.315	ug/L	2324161.499
	108	Cd	0.896146	8.468	98.348	ug/L	10.297
	114	Cd	0.985710	3.543	3754.497	ug/L	337.564
>	115	In			2523295.527	ug/L	2405300.263
	208	207.977	1.046343	4.371	15193.792	ug/L	1953.723
	207	Pb	1.067448	3.954	6373.525	ug/L	777.393
	206	Pb	0.879822	5.408	7075.599	ug/L	978.762

>	169 Tm	2174906.583	ug/L	2073364.697
	106 Pd	-0.815	ug/L	4.506
	84 Kr	5839.778	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	104.739
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
>	Ge-1	72	104.271
	Cd	111	
	Sb	121	
>	In-1	115	104.906
	Pb	208	
>	Tm-1	169	104.897
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	104.271
	Cd	108	
	Cd	114	
>	In	115	104.906
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	104.897
	Pd	106	
	Kr	84	

BJones

Sample ID: LLSTD2
Sample Description: LLSTD@5X
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:36:59
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\LLSTD2.017
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 174
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45	Sc			3874.180	ug/L	4075.305
6	Li-1			1288229.090	ug/L	1262935.509
9	Be	1.943678	2.492	479.018	ug/L	28.000
44	Ca	98.733066	1.865	44478.600	ug/L	23942.307
52	Cr	1.967439	1.369	23988.160	ug/L	10924.057
55	Mn	2.069798	0.500	24516.495	ug/L	2662.584
59	Co	2.042439	1.227	16353.663	ug/L	977.102
60	Ni	2.057679	2.062	3447.681	ug/L	267.956
65	Cu	1.987940	1.335	3600.492	ug/L	288.196
68	Zn	10.251055	1.898	7123.231	ug/L	1012.606
75	As	1.556446	4.806	16926.685	ug/L	14400.092
82	Se	1.637295	60.481	2110.310	ug/L	1849.525
72	Ge-1			2367931.009	ug/L	2324161.499
111	Cd	1.995175	0.765	3007.485	ug/L	144.702
121	Sb	1.010184	1.275	5468.350	ug/L	402.348
115	In-1			2476077.680	ug/L	2405300.263
208	Pb	2.043976	0.836	52982.818	ug/L	3709.878
169	Tm-1			2119820.344	ug/L	2073364.697
50	Cr	3.253772	3.388	497.350	ug/L	-29.320
53	Cr	-0.160156	340.114	12807.672	ug/L	12614.637
61	Ni	1.787756	20.967	52.001	ug/L	7.000
63	Cu	2.022500	1.813	2690.259	ug/L	208.678
67	Zn	10.062966	11.275	2028.240	ug/L	1480.483
66	Zn	9.627505	1.196	3515.718	ug/L	510.391
76	Se	269.563861	40.809	-347642.762	ug/L	-337517.691
77	Se	0.220760	158.184	5577.044	ug/L	5450.302
78	Se	1.111375	71.734	15057.313	ug/L	14405.869
79	Br	-260.084250	1.685	7883.085	ug/L	9471.935
72	Ge			2367931.009	ug/L	2324161.499
108	Cd	1.987155	13.550	201.807	ug/L	10.297
114	Cd	1.969295	1.034	7023.382	ug/L	337.564
115	In			2476077.680	ug/L	2405300.263
208 207.977		2.122759	1.244	28036.668	ug/L	1953.723
207	Pb	2.188219	1.107	11919.494	ug/L	777.393
206	Pb	1.790912	1.272	13026.656	ug/L	978.762

>	169 Tm	2119820.344	ug/L	2073364.697
	106 Pd	-21.654	ug/L	4.506
	84 Kr	6419.936	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	102.003
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
>	Ge-1	72	101.883
	Cd	111	
	Sb	121	
>	In-1	115	102.943
	Pb	208	
>	Tm-1	169	102.241
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	101.883
	Cd	108	
	Cd	114	
>	In	115	102.943
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	102.241
	Pd	106	
	Kr	84	

Sample ID: ICSA
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:44:15
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\ICSA .018
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 2
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4489.918	ug/L	4075.305
>	6	Li-1			1284102.249	ug/L	1262935.509
	9	Be	-0.095742	3.165	6.333	ug/L	28.000
	44	Ca	103144.813697	0.917	18921463.516	ug/L	23942.307
	52	Cr	3.162729	1.383	28622.586	ug/L	10924.057
	55	Mn	7.041950	0.382	69218.231	ug/L	2662.584
	59	Co	1.650641	0.844	12070.777	ug/L	977.102
	60	Ni	0.648464	6.605	1147.765	ug/L	267.956
	65	Cu	-2.023887	6.767	-2763.460	ug/L	288.196
	68	Zn	3.016564	1.978	2543.647	ug/L	1012.606
	75	As	0.508659	55.213	13871.255	ug/L	14400.092
	82	Se	3.480755	58.509	2131.600	ug/L	1849.525
>	72	Ge-1			2131773.699	ug/L	2324161.499
	111	Cd	0.833692	8.462	1209.513	ug/L	144.702
	121	Sb	0.139542	6.899	1001.079	ug/L	402.348
>	115	In-1			2226746.631	ug/L	2405300.263
	208	Pb	0.390883	1.370	11425.988	ug/L	3709.878
>	169	Tm-1			1835158.067	ug/L	2073364.697
	50	Cr	324.857612	3.972	47407.204	ug/L	-29.320
	53	Cr	33.326853	3.393	19872.852	ug/L	12614.637
	61	Ni	18.156285	2.370	415.371	ug/L	7.000
	63	Cu	2.941570	4.483	3437.606	ug/L	208.678
	67	Zn	20.007402	6.417	2285.816	ug/L	1480.483
	66	Zn	5.667599	6.829	2057.935	ug/L	510.391
	76	Se	173.603865	57.827	-311790.185	ug/L	-337517.691
	77	Se	81.054340	3.715	12974.934	ug/L	5450.302
	78	Se	6.402843	8.942	15204.939	ug/L	14405.869
	79	Br	2520451.040991	30.023	15510092.621	ug/L	9471.935
>	72	Ge			2131773.699	ug/L	2324161.499
	108	Cd	36.715317	7.030	3188.862	ug/L	10.297
	114	Cd	2.534716	6.872	8049.868	ug/L	337.564
>	115	In			2226746.631	ug/L	2405300.263
	208	207.977	0.401183	2.537	5988.150	ug/L	1953.723
	207	Pb	0.403911	2.508	2465.811	ug/L	777.393
	206	Pb	0.362210	0.948	2972.027	ug/L	978.762

169	Tm	1835158.067	ug/L	2073364.697
106	Pd	-288.159	ug/L	4.506
84	Kr	5792.704	ug/L	6386.133

Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
Li-1	6	101.676
Be	9	
Ca	44	
Cr	52	
Mn	55	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
Ge-1	72	91.722
Cd	111	
Sb	121	
In-1	115	92.577
Pb	208	
Tm-1	169	88.511
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
Ge	72	91.722
Cd	108	
Cd	114	
In	115	92.577
207.977	208	
Pb	207	
Pb	206	
Tm	169	88.511
Pd	106	
Kr	84	

Sample ID: ICSAB
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:46:50
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\ICSAB.019
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 1
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4467.568	ug/L	4075.305
>	6	Li-1			1231120.459	ug/L	1262935.509
	9	Be	88.124592	0.767	19553.328	ug/L	28.000
	44	Ca	103474.385761	0.301	18913565.950	ug/L	23942.307
	52	Cr	97.785604	0.315	583240.312	ug/L	10924.057
	55	Mn	102.388124	0.330	970058.464	ug/L	2662.584
	59	Co	96.166425	0.072	649699.446	ug/L	977.102
	60	Ni	90.611818	0.086	125704.564	ug/L	267.956
	65	Cu	85.874756	0.703	128443.228	ug/L	288.196
	68	Zn	88.503464	0.781	48123.181	ug/L	1012.606
	75	As	98.582231	0.475	141422.362	ug/L	14400.092
	82	Se	100.454522	0.641	14076.162	ug/L	1849.525
>	72	Ge-1			2124476.977	ug/L	2324161.499
	111	Cd	88.548084	0.704	112401.109	ug/L	144.702
	121	Sb	47.093664	1.067	208872.234	ug/L	402.348
>	115	In-1			2191620.030	ug/L	2405300.263
	208	Pb	87.773402	0.948	1795047.628	ug/L	3709.878
>	169	Tm-1			1798434.851	ug/L	2073364.697
	50	Cr	395.191991	4.105	57430.314	ug/L	-29.320
	53	Cr	128.478150	1.500	43444.983	ug/L	12614.637
	61	Ni	107.244429	0.293	2412.613	ug/L	7.000
	63	Cu	91.760640	0.631	101029.114	ug/L	208.678
	67	Zn	108.274506	1.276	6362.226	ug/L	1480.483
	66	Zn	91.973386	1.561	26145.882	ug/L	510.391
	76	Se	153.798991	39.625	-310454.895	ug/L	-337517.691
	77	Se	178.747905	1.261	22499.141	ug/L	5450.302
	78	Se	107.183746	0.992	46446.584	ug/L	14405.869
	79	Br	715826.059893	35.437	4364992.438	ug/L	9471.935
>	72	Ge			2124476.977	ug/L	2324161.499
	108	Cd	127.630268	1.277	10871.545	ug/L	10.297
	114	Cd	90.400651	0.560	271513.737	ug/L	337.564
>	115	In			2191620.030	ug/L	2405300.263
	208	207.977	88.116461	1.151	918525.333	ug/L	1953.723
	207	Pb	87.444692	0.615	377763.390	ug/L	777.393
	206	Pb	87.395663	0.875	498758.905	ug/L	978.762

>	169 Tm	1798434.851	ug/L	2073364.697
	106 Pd	-1186.482	ug/L	4.506
	84 Kr	5728.157	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		97.481
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	Cu	65		
	Zn	68		
	As	75		
	Se	82		
>	Ge-1	72		91.408
	Cd	111		
	Sb	121		
>	In-1	115		91.116
	Pb	208		
>	Tm-1	169		86.740
	Cr	50		
	Cr	53		
	Ni	61		
	Cu	63		
	Zn	67		
	Zn	66		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		91.408
	Cd	108		
	Cd	114		
>	In	115		91.116
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		86.740
	Pd	106		
	Kr	84		

BJones

Sample ID: Rinse
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:50:19
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\Rinse.020
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 6
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4274.769	ug/L	4075.305
>	6	Li-1			1302551.175	ug/L	1262935.509
	9	Be	-0.005280	343.407	27.667	ug/L	28.000
	44	Ca	50.869455	43.802	37760.633	ug/L	23942.307
	52	Cr	1.772471	7.605	24660.790	ug/L	10924.057
	55	Mn	0.085972	45.314	3931.895	ug/L	2662.584
	59	Co	-0.003975	971.296	1051.426	ug/L	977.102
	60	Ni	0.008721	718.066	312.028	ug/L	267.956
	65	Cu	-0.008605	380.552	303.781	ug/L	288.196
	68	Zn	-0.199089	29.991	991.234	ug/L	1012.606
	75	As	0.687066	57.875	16998.252	ug/L	14400.092
	82	Se	-2.669753	46.043	1649.005	ug/L	1849.525
>	72	Ge-1			2570047.771	ug/L	2324161.499
	111	Cd	0.019513	149.369	182.689	ug/L	144.702
	121	Sb	0.019878	97.180	530.023	ug/L	402.348
>	115	In-1			2548168.238	ug/L	2405300.263
	208	Pb	-0.018651	200.559	3277.677	ug/L	3709.878
>	169	Tm-1			2070925.924	ug/L	2073364.697
	50	Cr	0.074943	282.033	-18.863	ug/L	-29.320
	53	Cr	34.673976	3.096	24365.919	ug/L	12614.637
	61	Ni	0.034683	173.380	8.667	ug/L	7.000
	63	Cu	0.003283	1272.428	235.679	ug/L	208.678
	67	Zn	4.618326	19.394	1895.123	ug/L	1480.483
	66	Zn	-0.386202	16.820	433.708	ug/L	510.391
	76	Se	261.671600	39.499	-377206.002	ug/L	-337517.691
	77	Se	54.706114	1.299	12512.607	ug/L	5450.302
	78	Se	4.617078	20.765	17660.078	ug/L	14405.869
	79	Br	530260.952126	72.173	3891580.330	ug/L	9471.935
>	72	Ge			2570047.771	ug/L	2324161.499
	108	Cd	0.030244	114.132	13.915	ug/L	10.297
	114	Cd	0.020489	198.537	430.955	ug/L	337.564
>	115	In			2548168.238	ug/L	2405300.263
	208	207.977	-0.021348	168.672	1700.905	ug/L	1953.723
	207	Pb	-0.015034	287.011	704.375	ug/L	777.393
	206	Pb	-0.016466	216.463	872.396	ug/L	978.762

>	169 Tm	2070925.924	ug/L	2073364.697
	106 Pd	9.340	ug/L	4.506
	84 Kr	6410.519	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	103.137
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
>	Ge-1	72	110.580
	Cd	111	
	Sb	121	
>	In-1	115	105.940
	Pb	208	
>	Tm-1	169	99.882
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	110.580
	Cd	108	
	Cd	114	
>	In	115	105.940
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	99.882
	Pd	106	
	Kr	84	

Sample ID: CCV 1
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:52:55
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\CCV 1.021
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4425.539	ug/L	4075.305
>	6	Li-1			1287980.389	ug/L	1262935.509
	9	Be	104.983615	1.634	24360.873	ug/L	28.000
	44	Ca	5079.232881	0.947	1154242.179	ug/L	23942.307
	52	Cr	98.871937	0.596	716957.024	ug/L	10924.057
	55	Mn	98.925258	0.725	1139792.762	ug/L	2662.584
	59	Co	100.389470	0.842	824695.946	ug/L	977.102
	60	Ni	101.483859	0.385	171162.757	ug/L	267.956
	65	Cu	99.783077	0.366	181431.341	ug/L	288.196
	68	Zn	98.870421	1.028	65242.388	ug/L	1012.606
	75	As	100.478954	0.111	174974.176	ug/L	14400.092
	82	Se	98.540267	0.580	16829.851	ug/L	1849.525
>	72	Ge-1			2583396.687	ug/L	2324161.499
	111	Cd	99.299108	0.717	146353.376	ug/L	144.702
	121	Sb	49.381806	1.102	254317.337	ug/L	402.348
>	115	In-1			2544910.223	ug/L	2405300.263
	208	Pb	97.556659	0.954	2335621.458	ug/L	3709.878
>	169	Tm-1			2105725.880	ug/L	2073364.697
	50	Cr	99.315095	1.632	17527.285	ug/L	-29.320
	53	Cr	119.749850	2.570	50198.181	ug/L	12614.637
	61	Ni	101.890409	2.252	2788.043	ug/L	7.000
	63	Cu	101.051169	1.007	135265.901	ug/L	208.678
	67	Zn	101.913691	1.369	7379.296	ug/L	1480.483
	66	Zn	97.543881	0.639	33685.470	ug/L	510.391
	76	Se	444.108779	20.948	-381939.924	ug/L	-337517.691
	77	Se	134.105472	5.604	22043.398	ug/L	5450.302
	78	Se	102.552782	1.529	54731.967	ug/L	14405.869
	79	Br	6298.470423	73.456	57358.684	ug/L	9471.935
>	72	Ge			2583396.687	ug/L	2324161.499
	108	Cd	100.534278	1.605	9945.518	ug/L	10.297
	114	Cd	98.986124	0.830	345193.477	ug/L	337.564
>	115	In			2544910.223	ug/L	2405300.263
	208	207.977	97.161338	0.849	1185690.348	ug/L	1953.723
	207	Pb	97.761754	0.924	494397.402	ug/L	777.393
	206	Pb	98.123410	1.170	655533.708	ug/L	978.762

>	169 Tm	2105725.880	ug/L	2073364.697
	106 Pd	-1202.656	ug/L	4.506
	84 Kr	5657.736	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	101.983
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
>	Ge-1	72	111.154
	Cd	111	
	Sb	121	
>	In-1	115	105.804
	Pb	208	
>	Tm-1	169	101.561
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	111.154
	Cd	108	
	Cd	114	
>	In	115	105.804
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	101.561
	Pd	106	
	Kr	84	

Sample ID: CCB 1
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:55:29
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\CCB 1.022
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4278.438	ug/L	4075.305
>	6	Li-1			1292359.597	ug/L	1262935.509
	9	Be	-0.111725	2.186	2.667	ug/L	28.000
	44	Ca	-12.061199	20.636	24246.781	ug/L	23942.307
	52	Cr	1.062597	4.703	19974.636	ug/L	10924.057
	55	Mn	-0.118030	5.327	1623.874	ug/L	2662.584
	59	Co	-0.124001	2.117	69.667	ug/L	977.102
	60	Ni	-0.103623	10.365	124.968	ug/L	267.956
	65	Cu	-0.096919	2.147	146.319	ug/L	288.196
	68	Zn	-0.298527	7.345	944.123	ug/L	1012.606
	75	As	0.331823	49.594	16747.589	ug/L	14400.092
	82	Se	-1.368002	35.463	1874.651	ug/L	1849.525
>	72	Ge-1			2617299.254	ug/L	2324161.499
	111	Cd	-0.087004	4.904	25.609	ug/L	144.702
	121	Sb	-0.055463	5.012	144.002	ug/L	402.348
>	115	In-1			2606672.618	ug/L	2405300.263
	208	Pb	-0.132970	2.453	593.011	ug/L	3709.878
>	169	Tm-1			2119752.364	ug/L	2073364.697
	50	Cr	-0.209372	3.890	-70.528	ug/L	-29.320
	53	Cr	20.019804	6.587	20331.215	ug/L	12614.637
	61	Ni	-0.068197	140.364	6.000	ug/L	7.000
	63	Cu	-0.109309	4.949	87.002	ug/L	208.678
	67	Zn	2.858167	30.672	1830.070	ug/L	1480.483
	66	Zn	-0.439880	18.990	423.373	ug/L	510.391
	76	Se	483.657757	13.451	-387577.183	ug/L	-337517.691
	77	Se	35.514102	4.328	10425.309	ug/L	5450.302
	78	Se	2.860769	1.871	17317.019	ug/L	14405.869
	79	Br	1739.127255	8.373	23727.300	ug/L	9471.935
>	72	Ge			2617299.254	ug/L	2324161.499
	108	Cd	-0.095620	24.165	1.470	ug/L	10.297
	114	Cd	-0.082988	5.577	69.684	ug/L	337.564
>	115	In			2606672.618	ug/L	2405300.263
	208	207.977	-0.138481	1.815	299.007	ug/L	1953.723
	207	Pb	-0.129649	3.218	135.668	ug/L	777.393
	206	Pb	-0.125421	3.515	158.335	ug/L	978.762

L>	169 Tm	2119752.364	ug/L	2073364.697
	106 Pd	7.461	ug/L	4.506
	84 Kr	6573.873	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
⌈>	Li-1	6	102.330
L	Be	9	
⌈	Ca	44	
|	Cr	52	
|	Mn	55	
|	Co	59	
|	Ni	60	
|	Cu	65	
|	Zn	68	
|	As	75	
|	Se	82	
L>	Ge-1	72	112.613
⌈	Cd	111	
|	Sb	121	
L>	In-1	115	108.372
⌈	Pb	208	
L>	Tm-1	169	102.237
⌈	Cr	50	
|	Cr	53	
|	Ni	61	
|	Cu	63	
|	Zn	67	
|	Zn	66	
|	Se	76	
|	Se	77	
|	Se	78	
|	Br	79	
L>	Ge	72	112.613
⌈	Cd	108	
|	Cd	114	
L>	In	115	108.372
⌈	207.977	208	
|	Pb	207	
|	Pb	206	
L>	Tm	169	102.237
	Pd	106	
	Kr	84	

Sample ID: CCV 2
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 12:58:05
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\CCV 2.023
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4412.529	ug/L	4075.305
>	6	Li-1			1278192.460	ug/L	1262935.509
	9	Be	104.556839	1.290	24079.143	ug/L	28.000
	44	Ca	5057.162242	0.188	1147056.631	ug/L	23942.307
	52	Cr	98.448485	0.332	712526.905	ug/L	10924.057
	55	Mn	98.117687	0.183	1128255.646	ug/L	2662.584
	59	Co	99.762862	0.429	817915.356	ug/L	977.102
	60	Ni	101.224459	0.463	170383.746	ug/L	267.956
	65	Cu	99.032511	0.569	179711.357	ug/L	288.196
	68	Zn	98.750042	0.745	65035.641	ug/L	1012.606
	75	As	99.581235	0.748	173211.015	ug/L	14400.092
	82	Se	98.382736	0.182	16771.780	ug/L	1849.525
>	72	Ge-1			2578158.847	ug/L	2324161.499
	111	Cd	98.138607	0.505	144806.718	ug/L	144.702
	121	Sb	48.679663	0.473	250992.375	ug/L	402.348
>	115	In-1			2547666.651	ug/L	2405300.263
	208	Pb	97.020963	0.535	2312110.274	ug/L	3709.878
>	169	Tm-1			2095897.144	ug/L	2073364.697
	50	Cr	97.323477	0.543	17141.416	ug/L	-29.320
	53	Cr	116.162162	2.308	49018.226	ug/L	12614.637
	61	Ni	99.698200	2.793	2722.631	ug/L	7.000
	63	Cu	100.464001	0.884	134209.730	ug/L	208.678
	67	Zn	102.364683	0.764	7389.663	ug/L	1480.483
	66	Zn	96.807110	0.379	33367.842	ug/L	510.391
	76	Se	474.989243	22.116	-381635.151	ug/L	-337517.691
	77	Se	129.266311	3.695	21423.234	ug/L	5450.302
	78	Se	100.644470	0.960	53904.006	ug/L	14405.869
	79	Br	1350.701223	8.686	20505.477	ug/L	9471.935
>	72	Ge			2578158.847	ug/L	2324161.499
	108	Cd	99.497794	0.545	9853.923	ug/L	10.297
	114	Cd	98.343532	0.505	343340.897	ug/L	337.564
>	115	In			2547666.651	ug/L	2405300.263
	208	207.977	96.799036	0.405	1175828.688	ug/L	1953.723
	207	Pb	97.182147	0.726	489203.314	ug/L	777.393
	206	Pb	97.304275	0.738	647078.272	ug/L	978.762

>	169 Tm	2095897.144	ug/L	2073364.697
	106 Pd	-1208.840	ug/L	4.506
	84 Kr	5672.331	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std	% Recovery
	Sc	45		
>	Li-1	6		101.208
	Be	9		
	Ca	44		
	Cr	52		
	Mn	55		
	Co	59		
	Ni	60		
	Cu	65		
	Zn	68		
	As	75		
	Se	82		
>	Ge-1	72		110.929
	Cd	111		
	Sb	121		
>	In-1	115		105.919
	Pb	208		
>	Tm-1	169		101.087
	Cr	50		
	Cr	53		
	Ni	61		
	Cu	63		
	Zn	67		
	Zn	66		
	Se	76		
	Se	77		
	Se	78		
	Br	79		
>	Ge	72		110.929
	Cd	108		
	Cd	114		
>	In	115		105.919
	207.977	208		
	Pb	207		
	Pb	206		
>	Tm	169		101.087
	Pd	106		
	Kr	84		

Sample ID: CCB 2
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 13:00:39
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\CCB 2.024
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4172.368	ug/L	4075.305
>	6	Li-1			1237306.633	ug/L	1262935.509
	9	Be	-0.118759	3.703	1.000	ug/L	28.000
	44	Ca	-7.513412	27.149	24582.392	ug/L	23942.307
	52	Cr	0.947134	6.058	18624.901	ug/L	10924.057
	55	Mn	-0.115068	10.097	1613.872	ug/L	2662.584
	59	Co	-0.124282	2.803	65.667	ug/L	977.102
	60	Ni	-0.107340	7.218	115.509	ug/L	267.956
	65	Cu	-0.098480	5.627	139.524	ug/L	288.196
	68	Zn	-0.391569	15.839	859.398	ug/L	1012.606
	75	As	0.622859	13.045	16747.032	ug/L	14400.092
	82	Se	-0.080673	1256.085	2013.474	ug/L	1849.525
>	72	Ge-1			2546206.943	ug/L	2324161.499
	111	Cd	-0.086212	10.011	25.848	ug/L	144.702
	121	Sb	-0.055417	2.392	139.002	ug/L	402.348
>	115	In-1			2512938.530	ug/L	2405300.263
	208	Pb	-0.134056	2.993	548.676	ug/L	3709.878
>	169	Tm-1			2048781.528	ug/L	2073364.697
	50	Cr	-0.083920	243.143	-46.469	ug/L	-29.320
	53	Cr	17.194648	1.172	18939.602	ug/L	12614.637
	61	Ni	-0.099541	35.051	5.000	ug/L	7.000
	63	Cu	-0.101018	20.482	95.669	ug/L	208.678
	67	Zn	2.964760	4.658	1786.369	ug/L	1480.483
	66	Zn	-0.442280	8.195	411.037	ug/L	510.391
	76	Se	408.306220	36.247	-375917.937	ug/L	-337517.691
	77	Se	30.135670	4.090	9511.642	ug/L	5450.302
	78	Se	4.355577	8.348	17402.394	ug/L	14405.869
	79	Br	1029.741848	5.585	17900.950	ug/L	9471.935
>	72	Ge			2546206.943	ug/L	2324161.499
	108	Cd	-0.084241	38.197	2.532	ug/L	10.297
	114	Cd	-0.083760	4.460	64.609	ug/L	337.564
>	115	In			2512938.530	ug/L	2405300.263
	208	207.977	-0.139371	2.339	278.673	ug/L	1953.723
	207	Pb	-0.132308	4.328	118.334	ug/L	777.393
	206	Pb	-0.125674	3.347	151.669	ug/L	978.762

L>	169 Tm	2048781.528	ug/L	2073364.697
	106 Pd	6.298	ug/L	4.506
	84 Kr	6992.155	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
F>	Li-1	6	97.971
L	Be	9	
F	Ca	44	
|	Cr	52	
|	Mn	55	
|	Co	59	
|	Ni	60	
|	Cu	65	
|	Zn	68	
|	As	75	
|	Se	82	
L>	Ge-1	72	109.554
F	Cd	111	
|	Sb	121	
L>	In-1	115	104.475
F	Pb	208	
L>	Tm-1	169	98.814
F	Cr	50	
|	Cr	53	
|	Ni	61	
|	Cu	63	
|	Zn	67	
|	Zn	66	
|	Se	76	
|	Se	77	
|	Se	78	
|	Br	79	
L>	Ge	72	109.554
F	Cd	108	
|	Cd	114	
L>	In	115	104.475
F	207.977	208	
|	Pb	207	
|	Pb	206	
L>	Tm	169	98.814
	Pd	106	
	Kr	84	

Sample ID: ICSA
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 13:03:14
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\ICSA .025
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 2
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4165.363	ug/L	4075.305
>	6	Li-1			1245045.200	ug/L	1262935.509
	9	Be	-0.090421	11.589	7.333	ug/L	28.000
	44	Ca	104053.419076	0.676	19451864.078	ug/L	23942.307
	52	Cr	3.113236	2.189	28877.046	ug/L	10924.057
	55	Mn	6.906776	0.286	69248.116	ug/L	2662.584
	59	Co	1.612118	0.468	12037.041	ug/L	977.102
	60	Ni	0.634331	6.393	1148.242	ug/L	267.956
	65	Cu	-1.787140	3.375	-2458.118	ug/L	288.196
	68	Zn	2.771180	3.021	2457.807	ug/L	1012.606
	75	As	0.561930	50.618	14213.466	ug/L	14400.092
	82	Se	-0.366536	1002.375	1686.120	ug/L	1849.525
>	72	Ge-1			2172826.891	ug/L	2324161.499
	111	Cd	0.858534	12.880	1262.269	ug/L	144.702
	121	Sb	0.138452	16.902	1013.748	ug/L	402.348
>	115	In-1			2266324.553	ug/L	2405300.263
	208	Pb	0.374902	0.953	11130.472	ug/L	3709.878
>	169	Tm-1			1841330.059	ug/L	2073364.697
	50	Cr	317.129053	3.637	47141.038	ug/L	-29.320
	53	Cr	29.411140	1.063	19266.334	ug/L	12614.637
	61	Ni	17.289400	3.415	403.369	ug/L	7.000
	63	Cu	2.981109	3.028	3546.100	ug/L	208.678
	67	Zn	20.588150	7.559	2357.556	ug/L	1480.483
	66	Zn	5.820029	4.851	2139.007	ug/L	510.391
	76	Se	571.241745	15.260	-322889.148	ug/L	-337517.691
	77	Se	79.974741	2.126	13111.116	ug/L	5450.302
	78	Se	6.765305	8.165	15614.664	ug/L	14405.869
	79	Br	5352608.140283	19.518	33371049.335	ug/L	9471.935
>	72	Ge			2172826.891	ug/L	2324161.499
	108	Cd	38.433246	4.328	3393.228	ug/L	10.297
	114	Cd	2.679524	2.762	8633.465	ug/L	337.564
>	115	In			2266324.553	ug/L	2405300.263
	208	207.977	0.388729	2.866	5875.378	ug/L	1953.723
	207	Pb	0.385386	2.229	2392.116	ug/L	777.393
	206	Pb	0.341714	2.575	2862.978	ug/L	978.762

L>	169 Tm	1841330.059	ug/L	2073364.697
	106 Pd	-324.849	ug/L	4.506
	84 Kr	7107.006	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
⌈>	Li-1	6	98.583
|	Be	9	
⌈	Ca	44	
|	Cr	52	
|	Mn	55	
|	Co	59	
|	Ni	60	
|	Cu	65	
|	Zn	68	
|	As	75	
|	Se	82	
L>	Ge-1	72	93.489
⌈	Cd	111	
|	Sb	121	
L>	In-1	115	94.222
⌈	Pb	208	
L>	Tm-1	169	88.809
⌈	Cr	50	
|	Cr	53	
|	Ni	61	
|	Cu	63	
|	Zn	67	
|	Zn	66	
|	Se	76	
|	Se	77	
|	Se	78	
|	Br	79	
L>	Ge	72	93.489
⌈	Cd	108	
|	Cd	114	
L>	In	115	94.222
⌈	207.977	208	
|	Pb	207	
|	Pb	206	
L>	Tm	169	88.809
	Pd	106	
	Kr	84	

BJones

Sample ID: ICSAB
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 13:05:49
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\ICSAB.026
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 1
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4063.964	ug/L	4075.305
>	6	Li-1			1224050.080	ug/L	1262935.509
	9	Be	86.652451	0.438	19117.682	ug/L	28.000
	44	Ca	104238.193096	0.203	19308918.125	ug/L	23942.307
	52	Cr	97.387310	0.285	588686.880	ug/L	10924.057
	55	Mn	101.893053	0.077	978325.915	ug/L	2662.584
	59	Co	95.293367	0.134	652431.677	ug/L	977.102
	60	Ni	89.766715	0.514	126196.114	ug/L	267.956
	65	Cu	84.685238	0.671	128357.826	ug/L	288.196
	68	Zn	86.590433	0.548	47732.969	ug/L	1012.606
	75	As	97.074416	1.106	141317.973	ug/L	14400.092
	82	Se	99.152358	1.181	14101.343	ug/L	1849.525
>	72	Ge-1			2152946.909	ug/L	2324161.499
	111	Cd	87.060840	0.769	112816.289	ug/L	144.702
	121	Sb	45.852821	1.306	207596.712	ug/L	402.348
>	115	In-1			2237246.068	ug/L	2405300.263
	208	Pb	85.445983	0.580	1768120.315	ug/L	3709.878
>	169	Tm-1			1819624.699	ug/L	2073364.697
	50	Cr	388.100002	1.875	57158.006	ug/L	-29.320
	53	Cr	125.743589	1.262	43336.287	ug/L	12614.637
	61	Ni	104.488095	1.635	2382.248	ug/L	7.000
	63	Cu	90.677572	0.257	101174.619	ug/L	208.678
	67	Zn	107.991798	4.107	6432.090	ug/L	1480.483
	66	Zn	91.086198	0.532	26246.384	ug/L	510.391
	76	Se	370.100122	31.774	-317381.439	ug/L	-337517.691
	77	Se	176.068263	1.553	22533.898	ug/L	5450.302
	78	Se	105.285668	2.188	46463.617	ug/L	14405.869
	79	Br	801974.687154	51.408	4934258.718	ug/L	9471.935
>	72	Ge			2152946.909	ug/L	2324161.499
	108	Cd	125.237474	0.279	10889.882	ug/L	10.297
	114	Cd	88.704083	0.458	271966.435	ug/L	337.564
>	115	In			2237246.068	ug/L	2405300.263
	208	207.977	85.803748	0.622	905003.959	ug/L	1953.723
	207	Pb	85.028197	0.768	371658.826	ug/L	777.393
	206	Pb	85.108810	0.391	491457.529	ug/L	978.762

L>	169 Tm	1819624.699	ug/L	2073364.697
	106 Pd	-1168.037	ug/L	4.506
	84 Kr	6243.316	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
⌈>	Li-1	6	96.921
L	Be	9	
⌈	Ca	44	
¦	Cr	52	
¦	Mn	55	
¦	Co	59	
¦	Ni	60	
¦	Cu	65	
¦	Zn	68	
¦	As	75	
¦	Se	82	
L>	Ge-1	72	92.633
⌈	Cd	111	
¦	Sb	121	
L>	In-1	115	93.013
⌈	Pb	208	
L>	Tm-1	169	87.762
⌈	Cr	50	
¦	Cr	53	
¦	Ni	61	
¦	Cu	63	
¦	Zn	67	
¦	Zn	66	
¦	Se	76	
¦	Se	77	
¦	Se	78	
¦	Br	79	
L>	Ge	72	92.633
⌈	Cd	108	
¦	Cd	114	
L>	In	115	93.013
⌈	207.977	208	
¦	Pb	207	
¦	Pb	206	
L>	Tm	169	87.762
	Pd	106	
	Kr	84	

Sample ID: Rinse
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 13:13:29
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\Rinse.027
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 6
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4101.322	ug/L	4075.305
>	6	Li-1			1297111.466	ug/L	1262935.509
	9	Be	0.076163	66.693	46.667	ug/L	28.000
	44	Ca	110.427579	19.410	52599.023	ug/L	23942.307
	52	Cr	1.916468	3.001	26555.324	ug/L	10924.057
	55	Mn	0.151661	21.782	4837.512	ug/L	2662.584
	59	Co	0.057822	58.814	1605.540	ug/L	977.102
	60	Ni	0.069448	51.914	426.515	ug/L	267.956
	65	Cu	0.066020	55.600	452.895	ug/L	288.196
	68	Zn	-0.061768	28.947	1116.808	ug/L	1012.606
	75	As	0.707131	35.066	17616.954	ug/L	14400.092
	82	Se	-1.790953	24.643	1839.398	ug/L	1849.525
>	72	Ge-1			2658190.116	ug/L	2324161.499
	111	Cd	0.071959	33.921	264.064	ug/L	144.702
	121	Sb	0.028874	49.642	585.361	ug/L	402.348
>	115	In-1			2596306.805	ug/L	2405300.263
	208	Pb	0.039447	81.697	4649.664	ug/L	3709.878
>	169	Tm-1			2079955.898	ug/L	2073364.697
	50	Cr	0.224430	21.757	7.219	ug/L	-29.320
	53	Cr	45.539903	4.069	28582.000	ug/L	12614.637
	61	Ni	0.082252	84.505	10.333	ug/L	7.000
	63	Cu	0.066496	53.304	330.024	ug/L	208.678
	67	Zn	6.163593	23.949	2050.259	ug/L	1480.483
	66	Zn	-0.151191	82.262	531.062	ug/L	510.391
	76	Se	411.950135	21.221	-392499.490	ug/L	-337517.691
	77	Se	70.016354	5.517	14819.747	ug/L	5450.302
	78	Se	5.651526	19.433	18669.499	ug/L	14405.869
	79	Br	91288.790119	63.376	707132.146	ug/L	9471.935
>	72	Ge			2658190.116	ug/L	2324161.499
	108	Cd	0.171933	55.133	28.397	ug/L	10.297
	114	Cd	0.079788	29.634	647.715	ug/L	337.564
>	115	In			2596306.805	ug/L	2405300.263
	208	207.977	0.036160	85.540	2393.457	ug/L	1953.723
	207	Pb	0.039130	98.346	974.410	ug/L	777.393
	206	Pb	0.045690	66.471	1281.798	ug/L	978.762

>	169 Tm	2079955.898	ug/L	2073364.697
	106 Pd	4.029	ug/L	4.506
	84 Kr	6697.261	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	102.706
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
>	Ge-1	72	114.372
	Cd	111	
	Sb	121	
>	In-1	115	107.941
	Pb	208	
>	Tm-1	169	100.318
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	114.372
	Cd	108	
	Cd	114	
>	In	115	107.941
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	100.318
	Pd	106	
	Kr	84	

Sample ID: MKMWVD
Sample Description: G1G050412-2 SD
Batch ID: 1196180
Sample Date/Time: Wednesday, July 20, 2011 13:16:05
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\MKMWVD.028
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 188
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			5326.228	ug/L	4075.305
>	6	Li-1			1439622.982	ug/L	1262935.509
	9	Be	148.818509	3.644	38549.756	ug/L	28.000
	44	Ca	2429.447062	3.118	519262.948	ug/L	23942.307
	52	Cr	205.307866	0.982	1354088.224	ug/L	10924.057
	55	Mn	231.720516	0.639	2446107.840	ug/L	2662.584
	59	Co	208.249690	0.726	1568676.333	ug/L	977.102
	60	Ni	205.675847	1.664	318020.706	ug/L	267.956
	65	Cu	203.143607	1.263	338616.951	ug/L	288.196
	68	Zn	287.717796	0.661	172235.350	ug/L	1012.606
	75	As	168.964025	1.753	259966.438	ug/L	14400.092
	82	Se	205.505651	0.873	30156.111	ug/L	1849.525
>	72	Ge-1			2370420.065	ug/L	2324161.499
	111	Cd	160.969131	1.456	242436.746	ug/L	144.702
	121	Sb	157.825557	1.165	829957.201	ug/L	402.348
>	115	In-1			2601653.162	ug/L	2405300.263
	208	Pb	189.546155	0.929	4677969.563	ug/L	3709.878
>	169	Tm-1			2172479.140	ug/L	2073364.697
	50	Cr	202.646716	0.906	32846.822	ug/L	-29.320
	53	Cr	199.342183	3.069	68113.948	ug/L	12614.637
	61	Ni	203.839051	1.651	5110.073	ug/L	7.000
	63	Cu	199.517101	1.667	244844.785	ug/L	208.678
	67	Zn	279.066818	2.570	15914.881	ug/L	1480.483
	66	Zn	280.348170	1.408	87861.113	ug/L	510.391
	76	Se	312.282511	49.042	-348614.149	ug/L	-337517.691
	77	Se	186.603600	3.715	25961.701	ug/L	5450.302
	78	Se	214.026550	1.973	88834.456	ug/L	14405.869
	79	Br	10340.679483	3.938	79991.986	ug/L	9471.935
>	72	Ge			2370420.065	ug/L	2324161.499
	108	Cd	163.600644	1.097	16538.035	ug/L	10.297
	114	Cd	160.550959	1.095	572130.662	ug/L	337.564
>	115	In			2601653.162	ug/L	2405300.263
	208	207.977	199.394661	0.763	2508328.702	ug/L	1953.723
	207	Pb	199.467848	1.739	1039703.163	ug/L	777.393
	206	Pb	164.049640	1.039	1129937.698	ug/L	978.762

169 Tm	2172479.140	ug/L	2073364.697
106 Pd	-1572.832	ug/L	4.506
84 Kr	4322.568	ug/L	6386.133

Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
Li-1	6	113.990
Be	9	
Ca	44	
Cr	52	
Mn	55	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
Ge-1	72	101.990
Cd	111	
Sb	121	
In-1	115	108.163
Pb	208	
Tm-1	169	104.780
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
Ge	72	101.990
Cd	108	
Cd	114	
In	115	108.163
207.977	208	
Pb	207	
Pb	206	
Tm	169	104.780
Pd	106	
Kr	84	

Sample ID: CCV 3
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 13:26:27
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\CCV 3.032
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 4
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4700.069	ug/L	4075.305
>	6	Li-1			1257502.579	ug/L	1262935.509
	9	Be	100.190066	0.974	22706.462	ug/L	28.000
	44	Ca	5070.845547	1.985	1148142.666	ug/L	23942.307
	52	Cr	95.114603	0.460	687808.896	ug/L	10924.057
	55	Mn	95.603363	0.454	1097854.519	ug/L	2662.584
	59	Co	97.045950	0.659	794506.376	ug/L	977.102
	60	Ni	97.992927	0.742	164719.507	ug/L	267.956
	65	Cu	96.358685	0.823	174619.726	ug/L	288.196
	68	Zn	95.802390	0.826	63030.331	ug/L	1012.606
	75	As	96.211753	0.794	167640.190	ug/L	14400.092
	82	Se	94.695051	0.834	16195.988	ug/L	1849.525
>	72	Ge-1			2574384.681	ug/L	2324161.499
	111	Cd	95.122597	0.880	139268.074	ug/L	144.702
	121	Sb	47.797403	0.427	244515.775	ug/L	402.348
>	115	In-1			2527802.078	ug/L	2405300.263
	208	Pb	93.512113	0.846	2204199.395	ug/L	3709.878
>	169	Tm-1			2073070.118	ug/L	2073364.697
	50	Cr	94.551842	0.748	16628.789	ug/L	-29.320
	53	Cr	105.846255	0.499	45835.332	ug/L	12614.637
	61	Ni	97.075111	1.636	2647.542	ug/L	7.000
	63	Cu	96.957958	1.096	129355.002	ug/L	208.678
	67	Zn	95.907975	2.522	7015.143	ug/L	1480.483
	66	Zn	94.222623	1.147	32442.947	ug/L	510.391
	76	Se	791.976539	21.034	-385935.685	ug/L	-337517.691
	77	Se	119.944182	2.143	20278.258	ug/L	5450.302
	78	Se	97.052003	0.919	52469.523	ug/L	14405.869
	79	Br	958.265709	8.635	17564.624	ug/L	9471.935
>	72	Ge			2574384.681	ug/L	2324161.499
	108	Cd	96.246031	1.492	9459.327	ug/L	10.297
	114	Cd	95.099934	1.242	329457.567	ug/L	337.564
>	115	In			2527802.078	ug/L	2405300.263
	208	207.977	93.498221	0.959	1123348.309	ug/L	1953.723
	207	Pb	93.567470	0.725	465867.529	ug/L	777.393
	206	Pb	93.495584	0.754	614983.557	ug/L	978.762

>	169 Tm	2073070.118	ug/L	2073364.697
	106 Pd	-1198.529	ug/L	4.506
	84 Kr	5539.430	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
>	Li-1	6	99.570
	Be	9	
	Ca	44	
	Cr	52	
	Mn	55	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
>	Ge-1	72	110.766
	Cd	111	
	Sb	121	
>	In-1	115	105.093
	Pb	208	
>	Tm-1	169	99.986
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
>	Ge	72	110.766
	Cd	108	
	Cd	114	
>	In	115	105.093
	207.977	208	
	Pb	207	
	Pb	206	
>	Tm	169	99.986
	Pd	106	
	Kr	84	

Sample ID: CCB 3
Sample Description:
Batch ID:
Sample Date/Time: Wednesday, July 20, 2011 13:29:02
Method File: D:\Elandata\Method\1200151.mth
Dataset File: D:\Elandata\DataSet\110720a2\CCB 3.033
Tuning File: D:\Elandata\Tuning\Default.tun
Optimization File: D:\Elandata\Optimize\Default.dac
Autosampler Position: 5
Number of Replicates: 3
Dual Detector Mode: Dual
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted To Volume (mL):

Sample Result Summary

	Mass	Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
	45	Sc			4755.445	ug/L	4075.305
>	6	Li-1			1260185.100	ug/L	1262935.509
	9	Be	0.142114	49.694	60.000	ug/L	28.000
	44	Ca	49.693926	34.640	37291.842	ug/L	23942.307
	52	Cr	1.236197	7.400	20771.854	ug/L	10924.057
	55	Mn	0.158168	54.700	4727.800	ug/L	2662.584
	59	Co	0.151795	56.779	2305.441	ug/L	977.102
	60	Ni	0.158023	54.845	557.844	ug/L	267.956
	65	Cu	0.182985	41.336	645.702	ug/L	288.196
	68	Zn	-0.049512	220.297	1083.808	ug/L	1012.606
	75	As	0.812795	43.483	17141.524	ug/L	14400.092
	82	Se	-1.002557	65.103	1888.485	ug/L	1849.525
>	72	Ge-1			2561509.227	ug/L	2324161.499
	111	Cd	0.166751	46.892	392.505	ug/L	144.702
	121	Sb	0.157847	40.714	1218.788	ug/L	402.348
>	115	In-1			2514027.542	ug/L	2405300.263
	208	Pb	0.133253	57.377	6700.409	ug/L	3709.878
>	169	Tm-1			2035313.045	ug/L	2073364.697
	50	Cr	0.072894	236.432	-19.756	ug/L	-29.320
	53	Cr	16.560866	7.491	18859.933	ug/L	12614.637
	61	Ni	0.208091	23.269	13.333	ug/L	7.000
	63	Cu	0.183577	39.232	472.384	ug/L	208.678
	67	Zn	2.776729	19.435	1786.369	ug/L	1480.483
	66	Zn	-0.284042	25.667	466.715	ug/L	510.391
	76	Se	819.315080	16.440	-384410.034	ug/L	-337517.691
	77	Se	31.281530	3.212	9702.509	ug/L	5450.302
	78	Se	3.654423	22.414	17242.371	ug/L	14405.869
	79	Br	700.527802	9.549	15584.350	ug/L	9471.935
>	72	Ge			2561509.227	ug/L	2324161.499
	108	Cd	0.194670	44.804	29.717	ug/L	10.297
	114	Cd	0.179757	37.369	969.255	ug/L	337.564
>	115	In			2514027.542	ug/L	2405300.263
	208	207.977	0.131435	57.355	3455.641	ug/L	1953.723
	207	Pb	0.148788	56.522	1484.514	ug/L	777.393
	206	Pb	0.124814	58.272	1760.254	ug/L	978.762

L>	169 Tm	2035313.045	ug/L	2073364.697
	106 Pd	4.132	ug/L	4.506
	84 Kr	6561.278	ug/L	6386.133

Internal Standard Recoveries

	Analyte	Mass	Int Std % Recovery
	Sc	45	
⌈>	Li-1	6	99.782
L	Be	9	
⌈	Ca	44	
|	Cr	52	
|	Mn	55	
|	Co	59	
|	Ni	60	
|	Cu	65	
|	Zn	68	
|	As	75	
|	Se	82	
L>	Ge-1	72	110.212
⌈	Cd	111	
|	Sb	121	
L>	In-1	115	104.520
⌈	Pb	208	
L>	Tm-1	169	98.165
⌈	Cr	50	
|	Cr	53	
|	Ni	61	
|	Cu	63	
|	Zn	67	
|	Zn	66	
|	Se	76	
|	Se	77	
|	Se	78	
|	Br	79	
L>	Ge	72	110.212
⌈	Cd	108	
|	Cd	114	
L>	In	115	104.520
⌈	207.977	208	
|	Pb	207	
|	Pb	206	
L>	Tm	169	98.165
	Pd	106	
	Kr	84	

Metals Prep Data

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

Preparation Data Review Checklist

Prep Batch(es) 1196180 Test: 6020

Prep Date: 7/15/11 Holding Times: 12/29/14 NCM: Y (N)

A. Spike Witness/Batch setup	Spike Witness	Reviewer
1. **Holding times checked?** NCMs filed as appropriate	✓	✓
2. QAS checked for QC instructions (LCS, LCSD, MS,MSD, etc)	✓	✓
3. Amount of samples in hood match amount of samples on bench sheet. Sample IDS match.	✓	NA
4. Worksheets have been checked for required spiking compounds	✓	✓
5. Spiking volumes are correctly documented	✓	✓
6. Std ID numbers on spike labels match numbers on bench sheet	✓	NA
7. Expiration dates have been checked	✓	✓
8. Calibration expiration dates on pipettors have been checked	✓	NA
9. Spiker and spike witness have signed and dated bench sheet	✓	✓
B. Weights and Volumes		
1. Recorded weights are in anticipated range	NA	NA
2. Balance upload or raw data for weights is included	NA	NA
3. Weights and volumes have been transcribed correctly to LIMS.	NA	✓
4. Weights are not targeted to meet exact weights.	NA	NA
5. Each weight or volume measurement is a unique record (no dittos or line downs)	NA	✓
C. Standards and Reagents		
1. Lot numbers for all reagents, including clean up stages, are recorded.	NA	✓
2. Are dates and analysts for cleanups recorded?	NA	NA
3. Are correct IDs used for standards? Are expiration dates to day/month/year, when listed?	NA	✓
D. Documentation		
1. Are all nonconformances documented appropriately?	NA	NA
2. QuantIMs entry correct, including dates and times.	NA	✓
3. Are all fields completed?	NA	✓

Spike witness: TD Date: 7/15/11

2nd Level Reviewer: SH Date: 7/19/11

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica West Sacramento
Metals – Air Toxics
Preparation Log

Chemist: CFR Date: 7/13/11 Method: M29

Matrix: AQUEOUS Balance: QA-50 Last Calibrated: 5/9/11

	KMnO4	HCl
Filter Type/Lot #:	N/A	N/A
Filtering Start Time:		

HCl Lot #: N/A

Note: Condensate was combined with the HNO_3/H_2O_2 fraction

Lot Number	Smp #	FH Initial Volume (mL)	FH Final Volume (mL)	BH Initial Volume (mL)	$KMnO_4$ Initial Volume (mL)	$KMnO_4$ Final Volume (mL)	HCl Initial Volume (mL)	HCl Final Volume (mL)	Volume of Condensate (mL)
G1G050412	1	100	150	—					—
	2	—		670					120
	3	100	150	—					—
	4	—		520					110
	5	110	150	—					—
	6	—		520					110
	7	110	150	—					—
	8	—		540					110

TP 7/15/11

TP 7/15/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

Metals Spiking Documentation Form

Lot #(s): G1G050412 ; G1G010441

Batch Number: 1196180, 1195192

EPA Analytical Method ID: 6020

Spiked Date: 07/15/11

MS Sample(s): N/A

EPA Prep Method ID: M29

Hot Plate / Microwave ID: AirTox I & II

Analyst Initial/Date: CFR 7/15/11

Witness Initial/Date: [illegible] 7/15/11

Hot Plate Temp: Initial: 90 Final: 90

Correct Folder ID Witness: N/A

Digestion Cup Lot #: N/A

Thermometer ID: B709

Filter Paper Lot #: N/A

Fin Vol Cup Lot: 05910002

Check If Used	Bottle Name	Elements	Stock Concentration (mg/L)	Tracking Number	LCS/LCSD Volume Spiked	MS/SD Volume Spiked	Expiration Date
	ICP Part 1 5% HNO_3	Ca, Mg	5,000				
		Al, As, Ba, Se, Sn, Tl	200				
		Fe,Mo,Ti	100				
		Sb,Co,Pb,Mn,Ni,V,Zn	50				
		Cu	25				
		Cr	20				
		,Be,Cd	5				
		Ag	5.0				
	ICP Part 2 2% HNO_3	K,Na	5,000				
		P,S	1,000				
		B,Li,Sr	100			CFR	7/15/11
	Si H20/Tr HF	Si	1,000				
✓	TACA-1 5% HNO_3	Al,K,Mg,Ca,Na,Fe,P,B	500				
		As,Be,Cd,Cr,Co,Cu,Pb, Mn,Ni,Se,U,V,Zn,Ba,Li Sr	100	3189-7-13	300 µL	N/A	09/01/11
		Ag,Tl	25				
✓	TACA-2 5% HNO_3	Mo, Sb, Sn, Ti	100	3189-7-14	300 µL	N/A	09/01/11
	Misc. Elements					CFR	7/15/11

Prep Reagents:

Check If Used	Reagent	Supplier	Lot Number	Check If Used	Reagent	Supplier	Lot Number
✓	70% HNO_3	Mallinckrodt	K11059	✓	30% H_2O_2	Mallinckrodt	J11OA10
	37% HCl	Mallinckrodt			49% HF	Fisher	
	3M HNO_3	In-House			1:1 HCl	In-House	

ICP matrix spike and LCS: For final volumes of 100ml, add 1mL from bottles ICP Part 1, ICP Part 2. Add 1ml of Silica (Si) when requested.
ICPMS matrix spike and LCS: For final volumes of 100ml, add 0.2 mL each of TACA-1 and TACA-2.
Amount to spike is as listed above for final volumes of 100ml. If a different final volume is used, increase or decrease the amount you spike proportionally.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

Metals Spiking Documentation Form

Lot #(s): G1G050412, G1G010441

Batch Number: 1195192, 1195193
EPA Analytical Method ID: 6020
Spiked Date: 7/14/11

MS Sample(s): N/A
EPA Prep Method ID: M29 (DE)
Hot Plate / Microwave ID: I

Analyst Initial/Date: TP 7/14/11
Witness Initial/Date: JMN 7/14/11
Hot Plate Temp: Initial: N/A, Final: N/A

Correct Folder ID Witness: N/A
Digestion Cup Lot #: N/A
Thermometer ID: N/A
Filter Paper Lot #: Whatman 41 / 3910 47
Fin Vol Cup Lot: 23409008

Check If Used	Bottle Name	Elements	Stock Concentration (mg/L)	Tracking Number	LCS/LCSD Volume Spiked	MS/SD Volume Spiked	Expiration Date
	ICP Part 1 5% HNO_3	Ca, Mg	5,000				
		Al, As, Ba, Se, Sn, Tl	200				
		Fe,Mo,Ti	100				
		Sb,Co,Pb,Mn,Ni,V,Zn	50				
		Cu	25				
		Cr	20				
		,Be,Cd	5				
		Ag	5.0				
	ICP Part 2 2% HNO_3	K,Na	5,000				
		P,S	1,000				
		B,Li,Sr	100				
	SI H20/TI HF	Si	1,000				TP 7/14/11
✓	TACA-1 5% HNO_3	Al,K,Mg,Ca,Na,Fe,P,B	500				
		As,Be,Cd,Cr,Co,Cu,Pb, Mn,Ni,Se,U,V,Zn,Ba,Li Sr	100	3189-7-13	300 uL	N/A	8/01/11
		Ag,Tl	25				
✓	TACA-2 5% HNO_3	Mo, Sb, Sn, Tl	100	3189-7-14	300 uL	N/A	8/01/11
	Misc. Elements						TP 7/14/11

Prep Reagents:

Check If Used	Reagent	Supplier	Lot Number	Check If Used	Reagent	Supplier	Lot Number
✓	70% HNO_3	Mallinckrodt	H04630		30% H_2O_2	Mallinckrodt	TP 7/14/11
	37% HCl	Mallinckrodt		✓	49% HF	Fisher	5108072
	3M HNO_3	In-House			1:1 HCl	In-House	TP 7/14/11

ICP matrix spike and LCS: For final volumes of 100ml, add 1mL from bottles ICP Part 1, ICP Part 2. Add 1ml of Silica (Si) when requested.
ICPMS matrix spike and LCS: For final volumes of 100ml, add 0.2 mL each of TACA-1 and TACA-2.
Amount to spike is as listed above for final volumes of 100ml. If a different final volume is used, increase or decrease the amount you spike proportionally.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

Preparation Data Review Checklist

Prep Batch(es) 195192, 195193 Test: 6020

Prep Date: 7/14/11 Holding Times: 12/29/11 NCM: Y (N)

A. Spike Witness/Batch setup	Spike Witness	Reviewer
1. **Holding times checked?** NCMs filed as appropriate	✓	✓
2. QAS checked for QC instructions (LCS, LCSD, MS,MSD, etc)	✓	✓
3. Amount of samples in hood match amount of samples on bench sheet. Sample IDS match.	✓	NA
4. Worksheets have been checked for required spiking compounds	✓	✓
5. Spiking volumes are correctly documented	✓	✓
6. Std ID numbers on spike labels match numbers on bench sheet	✓	NA
7. Expiration dates have been checked	✓	✓
8. Calibration expiration dates on pipettors have been checked	✓	NA
9. Spiker and spike witness have signed and dated bench sheet	✓	✓
B. Weights and Volumes		
1. Recorded weights are in anticipated range	NA	NA
2. Balance upload or raw data for weights is included	NA	NA
3. Weights and volumes have been transcribed correctly to LIMS.	NA	✓
4. Weights are not targeted to meet exact weights.	NA	NA
5. Each weight or volume measurement is a unique record (no dittos or line downs)	NA	✓
C. Standards and Reagents		
1. Lot numbers for all reagents, including clean up stages, are recorded.	NA	✓
2. Are dates and analysts for cleanups recorded?	NA	NA
3. Are correct IDs used for standards? Are expiration dates to day/month/year, when listed?	NA	✓
D. Documentation		
1. Are all nonconformances documented appropriately?	NA	NA
2. QuantIMs entry correct, including dates and times.	NA	✓
3. Are all fields completed?	NA	✓

Spike witness: [signature] Date: 7/14/11

2nd Level Reviewer: SH Date: 7/19/11

Comments:

q:\forms\checklists\qa-588 prep_review.doc

QA-588 Revised 12/30/2008 ERS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica West Sacramento

Metals – Air Toxics
Preparation Log

Chemist: CFR Date: 7/13/11 Method: M29

Matrix: AQUEOUS Balance: QA-50 Last Calibrated: 5/9/11

	KMnO4	HCl
Filter Type/Lot #:	N/A	N/A
Filtering Start Time:		

HCl Lot #: N/A

Note: Condensate was combined with the HNO_3/H_2O_2 fraction

Lot Number	Smp #	FH Initial Volume (mL)	FH Final Volume (mL)	BH Initial Volume (mL)	$KMnO_4$ Initial Volume (mL)	$KMnO_4$ Final Volume (mL)	HCl Initial Volume (mL)	HCl Final Volume (mL)	Volume of Condensate (mL)
G1G050412	1	100	150	—					—
	2	—		670					120
	3	100	150	—					—
	4	—		520					110
	5	110	150	—					—
	6	—		520					110
	7	110	150	—					—
	8	—		340					110
								TP 7/15/11	
								TP 7/15/11	

M5 Particulate

PARTICULATE ANALYSIS

LEVEL 1 & 2 REVIEW CHECKLIST

LAB NUMBERS: G1G050412-1, 3, 5, 7 filter Batch #: 1193194

ANALYSIS: (circle) TSP/PM10 or METHOD 5

DATE: 7/12/11 ANALYST: S Valmores

LEVEL 1 ANALYSIS REVIEW	YES	NO	NA
1. Samples are in good condition.	✓		
2. Sample filter number matches the folder or petri ID number.	✓		
3. Desiccator temperature and % humidity criteria in control.	✓		
4. Balance calibration criteria met.	✓		
5. Beginning and ending calibration sample bracket weights are in calibration.	✓		
6. Samples reached stable weight.	✓		
7. Samples exceeded 5 consecutive final weighings.			✓
LEVEL 1 DATA REVIEW			
1. Benchsheet is complete.	✓		
2. QAS or QAPP consulted and followed for client specifics.	✓		
3. Data entered in properly.	✓		
4. Copy of spreadsheet or logbook raw data entry attached to data package.	✓		
5. Analyst observations, HTV's, Anomalies properly documented and attached to data package.			✓

Completed By & Date: S Valmores 7/12/11

LEVEL 2 REVIEW:			
1. Level 1 checklist complete and verified.	✓		
2. Deviations, Anomalies, Holding times checked and approved.			✓
3. Reanalysis documented and chemist notified.			✓
4. Client specific criteria met.	✓		
5. Data entry checked and released in Quantims.	✓		
6. Indication on benchsheet or spreadsheet on review and released (dated & signed).	✓		

Completed By & Date: MAT 7/14/11

Comments: dus 3-A

RQC050

TestAmerica Laboratories, Inc.
WET CHEM BATCHSHEET

Run Date: 7/12/11
Time: 18:54:58

TestAmerica West Sacramen

PRODUCTION FIGURES - WET CHEM

TOTAL NUMBER	SAMPLE NUMBER	QC	RE-RUN MATRIX	RE-RUN OTHER	MISC NUMBER	TOTAL HOURS	EXPANDED DELIVERABLE

METHOD: AG Particulate Emissions (CFR60-5)
QC BATCH #: **1193194**
PREP DATE: 7/06/11 11:18
COMP DATE: 7/08/11 9:45
USER: VALMORES

INITIALS:
PREP KV
ANAL 8V

DATA ENTRY: SV
INITIALS
DATE 7/12/11

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID:
MKMWN-1-AM	G-1G050412-001	XX S 88 AG 3V	Y-D	7/8/11	CHV-Stk-ICR2-M5/29-Front Half
MKMWW-1-AM	G-1G050412-003	XX S 88 AG 3V	Y-D		CHV-Stk-ICR3-M5/29-Front Half
MKMW6-1-AM	G-1G050412-005	XX S 88 AG 3V	Y-D		CHV-Stk-ICR4-M5/29-Front Half
MKMXD-1-AM	G-1G050412-007	XX S 88 AG 3V	Y-D		CHV-Stk-ICRFB-M5/29-Front Half

Control Limits

SOP# : Sac-IP-0006

GRAVIMETRIC BALANCE: QA-45

TestAmerica West Sacramento
AIR TOXICS GRAVIMETRIC ANALYSES

Lab ID	Filter ID	Initial Weight (g) date/time initials	Initial Weight (g) date/time initials	Final Weight (g) date/time initials	Final Weight (g) date/time initials	Final Weight (g) date/time initials	Final Weight (g) date/time initials	Final Weight (g) date/time initials	Final Weight (g) date/time initials	Wt of Particulate (g)
	5 g wt	4.9998 061411skv1052	4.9999 061511skv1230	5.0003 070611skv1118	5.0002 070711skv1005	4.9997 070811skv0940				-0.0002
MKMXD1 070511skv1015	cgd061411-1	0.4185 061411skv1053	0.4181 061511skv1230	0.4221 070611skv1118	0.4204 070711skv1007	0.4205 070811skv0941				0.0024
MKMW6 070511skv1015	cgd061411-2	0.4297 061411skv1053	0.4293 061511skv1231	0.4921 070611skv1119	0.4901 070711skv1008	0.4904 070811skv0943				0.0611
MKMWN 070511skv1015	cgd061411-3	0.4361 061411skv1054	0.4358 061511skv1232	0.5197 070611skv1120	0.5181 070711skv1009	0.5183 070811skv0943				0.0825
	cgd061411-4	0.4387 061411skv1054	0.4382 061511skv1232							NC
MKMXG 070511skv1015	cgd061411-5	0.4349 061411skv1055	0.4345 061511skv1233	0.4351 070611skv1120	0.4340 070711skv1010	0.4341 070811skv0944				-0.0004
MKMWW 070511skv1015	cgd061411-6	0.4222 061411skv1055	0.4218 061511skv1234	0.4901 070611skv1121	0.4889 070711skv1012	0.4887 070811skv0945				0.0669
	cgd061411-7	0.4364 061411skv1056	0.4361 061511skv1234							NC
	cgd061411-8	0.4347 061411skv1057	0.4346 061511skv1235							NC
	5 g wt	4.9998 061411skv1058	5.0001 061511skv1235	5.0004 070611skv1122	5.0002 070711skv1016	5.0000 070811skv0945				-0.0001

rev 020303
N:/atg/air/airgrav3k.xls

Page 1/1 Batch#: 193194

Reviewed by: MAR 7/14/11

PDE115

TestAmerica Laboratories, Inc.
Inorganics Batch Review
QC Batch **1193194**

Date 7/12/2011
Time 18:15:04

Method Code:**AG Particulate Emissions (CFR60-5)**
Analyst:**Steve Valmores**

Work Order	Result	Units	LDL/Dil	Prep. - Anal.	Total Solids	PSRL Flag	R/R	Rounded Result	Output LDL	Dil.
MKMWN-1-AM	0.0825	g	0.0005	07/06-07/08/11	.00	N		0.0825	0.0005	1.00
MKMWW-1-AM	0.0669	g	0.0005	07/06-07/08/11	.00	N		0.0669	0.0005	1.00
MKMW6-1-AM	0.0611	g	0.0005	07/06-07/08/11	.00	N		0.0611	0.0005	1.00
MKMXD-1-AM	0.0024	g	0.0005	07/06-07/08/11	.00	N		0.0024	0.0005	1.00

Notes:

PRODUCTION TOTALS

TEST	TOTAL #	SAMPLE #	QC #	MATRIX #	OTHER #	MISC #	HOURS
	0	0	0	0	0	0	.0

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica West Sacramento
Air Toxics
Desiccator Humidity/Temperature Logbook

Desiccator #		1			2			3			4			5			6			7			Amb	
Date	Init	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH
7/5/11	✓	71	32	-	71	29	-	73	26	-	71	28	-	72	28	-	72	31		72	11	(2)	72	52
7/6/11	✓	72	32	-	72	28	-	73	27		72	28	-	72	27	(2)	72	32	-	72	11	(2)	73	55
7/7/11	✓	71	32	-	71	28	-	72	27	-	71	28	-	71	28	-	72	32		72	11	2	72	42
7/8/11	✓	70	32	-	71	28	-	72	27	-	70	28	-	71	28	-	72	32	-	72	12	(2)	72	53
7/11/11	✓	69	32	-	70	28	-	71	27	(2)	70	28	-	70	31	-	72	34	-	72	12	(2)	72	45
7/12/11	✓	68	32	-	69	28	-	70	28	-	69	28	-	69	31		70	34	-	70	14	(2)	72	45

Abbreviations: T = Temperature (°F) RH = Relative Humidity (%) FN = Foot Note
Limits: RH 33± 5% Temperature 22± 5 °C or 71.6± 9°F
Foot Notes: 1 = Desiccant Changed 2 = Desiccator < 28% Humidity

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica West Sacramento
Air Toxics
Desiccator Humidity/Temperature Logbook

Desiccator #		1			2			3			4			5			6			7			Amb	
Date	Init	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH
6/6/11	[illegible]	70	32	-	71	34	-	72	28	-	71	35	-	71	28	-	72	36	-	72	35		73	50
6/13/11	[illegible]	69	32	-	69	34	-	70	30	-	68	40	1	69	28	-	70	30	-	70	35		72	48
6/14/11	[illegible]	71	32	-	71	37	-	72	30	-	71	28	-	72	28	-	72	36	-	72	36	-	73	60
6/15/11	[illegible]	71	32	-	72	38	(1)	73	31	-	72	28	-	72	27	-	73	37	-	72	36	-	73	42
6/16/11	[illegible]	71	32	-	71	28	-	72	33	-	71	28	-	71	28	-	73	37	-	72	35	-	73	34
6/17/11	[illegible]	70	32	-	70	29	-	71	33	-	70	28	-	70	28	-	72	36	-	72	35		73	42
6/20/11	[illegible]	69	32	-	69	28	-	70	34	-	69	28	-	70	28	-	70	31	-	70	35	-	72	47
6/20/11	[illegible]	72	32	-	70	27	-	74	36	-	73	28	-	73	30	-	72	38	-	72	36	-	73	42
6/21/11	[illegible]	72	31	-	73	27		74	38	(1)	73	28		73	31	-	72	38	-	73	36	-	75	51
6/24/11	[illegible]	67	33	-	67	27		68	40	(1)	67	33	-	70	36	(1)	68	38	(1)	68	35	-	68	49
6/25/11	[illegible]	68	32	-	68	28	-	69	27	-	68	32	-	68	28	-	68	17	(2)	68	36	-	70	48
6/29/11	[illegible]	68	32	-	68	33	-	70	29	-	69	35	-	69	28	-	70	23	(2)	70	36		72	45
6/30/11	[illegible]	69	32	-	68	33	-	69	27	-	68	35	-	68	25	-	68	23	-	68	37	-	70	57
7/1/11	[illegible]	71	32	-	71	38	(1)	72	26	-	72	40	(1)	71	28	-	72	25	-	72	37	(1)	72	47
7/2/11	[illegible]	72	32	-	72	28	-	73	26	-	72	28	-	72	28	-	72	21	-	72	14	(2)	73	64

Abbreviations: T = Temperature (°F) RH = Relative Humidity (%) FN = Foot Note
Limits: RH 33± 5% Temperature 22± 5 °C or 71.6± 9°F
Foot Notes: 1 = Desiccant Changed 2 = Desiccator < 28% Humidity

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica West Sacramento
Balance Calibration Check Log

WEIGHT #1				WEIGHT #2				DATE	INIT.	WEIGHT ID	P/F *1
Working WT Denomination (g)	OBSERVED WEIGHT (g)	Acceptance limits*2 Lower (g)	Upper (g)	Working WT Denomination (g)	OBSERVED WEIGHT (g)	Acceptance limits*2 Lower (g)	Upper (g)				
0.2000	0.2001	0.1995	0.2005	10.0000	10.0004	9.9000	10.1000	5/29/11 5/30/11 5/31/11	SV	QA-11	P
0.2000	0.2001	0.1995	0.2005	10.0000	9.9998	9.9000	10.1000	5/31/11	SV	QA-11	P
0.2000	0.2000	0.1995	0.2005	10.0000	9.9998	9.9000	10.1000	6/2/11	SV	QA-11	P
0.2000	0.2000	0.1995	0.2005	10.0000	9.9998	9.9000	10.1000	6/3/11	SV	QA-11	P
0.2000	0.2000	0.1995	0.2005	10.0000	10.0003	9.9000	10.1000	6/6/11	SV	QA-11	P
0.2000	0.2000	0.1995	0.2005	10.0000	10.0001	9.9000	10.1000	6/7/11	SV	QA-11	P
0.2000	0.2000	0.1995	0.2005	10.0000	10.0005	9.9000	10.1000	6/8/11	SV	QA-11	P
0.2000	0.2000	0.1995	0.2005	10.0000	10.0009	9.9000	10.1000	6/13/11	SV	QA-11	P
0.2000	0.2002	0.1995	0.2005	10.0000	10.0002	9.9000	10.1000	6/14/11	SV	QA-11	P
0.2000	0.2001	0.1995	0.2005	10.0000	10.0009	9.9000	10.1000	6/15/11	SV	QA-11	P
0.2000	0.2001	0.1995	0.2005	10.0000	10.0006	9.9000	10.1000	6/16/11	SV	QA-11	P
0.2000	0.2000	0.1995	0.2005	10.0000	10.0002	9.9000	10.1000	6/17/11	SV	QA-11	P
0.2000	0.2001	0.1995	0.2005	10.0000	10.0005	9.9000	10.1000	6/18/11	SV	QA-11	P
0.2000	0.2000	0.1995	0.2005	10.0000	10.0008	9.9000	10.1000	6/21/11	SV	QA-11	P

1 P= Pass, F= Fail. The observed weight must be with in the listed tolerances in order to pass. If calibration check values fall outside acceptance limits, the balance is considered to be out of calibration.
a) Do not move or use the balance
b) Attach a sign instructing others not to use the balance (see front of logbook).
c) Notify the QA department.

*2 Balance Tolerances (grams):

Denomination	Range	Denomination	Range
0.2000	0.1995 – 0.2005	10	9.9000 – 10.100
0.5000	0.4995 – 0.5005	20	19.8000 – 20.200
1	0.9900 – 1.0100	50	49.5000 – 50.500
2	1.9800 – 2.0200	100	99.0000 – 101.000
5	4.9500 – 5.0500		

Calibration range is (+/-) 1% for top loading balances. The above tolerances have been rounded to meet balance read out capability.

*3 When performing Method 1664A, the following Class 1 weights and tolerances must be used (in grams).

Denomination	Range
0.0020	0.0018 – 0.0022
1	0.9950 – 1.0050

Calibration range is (±) 10% for 2 mg weight and (±) 0.5% for 1 g weight. The above tolerances have been modified to meet balance read out capability.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica West Sacramento
Balance Calibration Check Log

WEIGHT #1				WEIGHT #2				DATE	INIT.	WEIGHT ID	P/F *1
Working WT Denomination (g)	OBSERVED WEIGHT (g)	Acceptance limits*2 Lower (g)	Upper (g)	Working WT Denomination (g)	OBSERVED WEIGHT (g)	Acceptance limits*2 Lower (g)	Upper (g)				
0.2000	0.2000	0.1995	0.2005	10.0g	10.0003	9.9000	10.1000	6/25/11	SV	QA-11	P
0.2000	0.2001	0.1995	0.2005	10.0g	10.0004	9.9000	10.1000	6/29/11	SV	QA-11	P
0.2000	0.2002	0.1995	0.2005	10.0g	10.0007	9.9000	10.1000	6/30/11	SV	QA-11	P
0.2000	0.2002	0.1995	0.2005	10.0g	10.0012	9.9000	10.1000	7/5/11	SV	QA-11	P
0.2000	0.2002	0.1995	0.2005	10.0g	10.0009	9.9000	10.1000	7/6/11	SV	QA-11	P
0.2000	0.2001	0.1995	0.2005	10.0g	10.0009	9.9000	10.1000	7/7/11	SV	QA-11	P
0.2000	0.2002	0.1995	0.2005	10.0g	10.0005	9.9000	10.1000	7/8/11	SV	QA-11	P
0.2000	0.2001	0.1995	0.2005	10.0g	10.0006	9.9000	10.1000	7/12/11	SV	QA-11	P

1 P= Pass, F= Fail. The observed weight must be with in the listed tolerances in order to pass. If calibration check values fall outside acceptance limits, the balance is considered to be out of calibration.
a) Do not move or use the balance
b) Attach a sign instructing others not to use the balance (see front of logbook).
c) Notify the QA department.

*2 Balance Tolerances (grams):

Denomination	Range	Denomination	Range
0.2000	0.1995 – 0.2005	10	9.9000 – 10.100
0.5000	0.4995 – 0.5005	20	19.8000 – 20.200
1	0.9900 – 1.0100	50	49.5000 – 50.500
2	1.9800 – 2.0200	100	99.0000 – 101.000
5	4.9500 – 5.0500		

Calibration range is (+/-) 1% for top loading balances. The above tolerances have been rounded to meet balance read out capability.

*3 When performing Method 1664A, the following Class 1 weights and tolerances must be used (in grams).

Denomination	Range
0.0020	0.0018 – 0.0022
1	0.9950 – 1.0050
Calibration range is (±) 10% for 2 mg weight and (±) 0 5% for 1 g weight. The above tolerances have been modified to meet balance read out capability.	

PARTICULATE ANALYSIS

LEVEL 1 & 2 REVIEW CHECKLIST

LAB NUMBERS: G1G050412-1,3,5,7 Acetone Batch #: 1193197

ANALYSIS: (circle) TSP/PM10 or (METHOD 5)

DATE: 7/12/11 ANALYST: [signature]

LEVEL 1 ANALYSIS REVIEW	YES	NO	NA
1. Samples are in good condition.	✓		
2. Sample filter number matches the folder or petri ID number.			✓
3. Desiccator temperature and % humidity criteria in control.	✓		
4. Balance calibration criteria met.	✓		
5. Beginning and ending calibration sample bracket weights are in calibration.	✓		
6. Samples reached stable weight.	✓		
7. Samples exceeded 5 consecutive final weighings.			✓
LEVEL 1 DATA REVIEW			
1. Benchsheet is complete.	✓		
2. QAS or QAPP consulted and followed for client specifics.	✓		
3. Data entered in properly.	✓		
4. Copy of spreadsheet or logbook raw data entry attached to data package.	✓		
5. Analyst observations, HTV's, Anomalies properly documented and attached to data package.			✓

Completed By & Date: [signature] 7/12/11

LEVEL 2 REVIEW:			
1. Level 1 checklist complete and verified.	✓		
2. Deviations, Anomalies, Holding times checked and approved.			✓
3. Reanalysis documented and chemist notified.			✓
4. Client specific criteria met.	✓		
5. Data entry checked and released in Quantims.	✓		
6. Indication on benchsheet or spreadsheet on review and released (dated & signed).	✓		

Completed By & Date: MMT 7/14/11

Comments: 4L2 3B

RQC050

TestAmerica Laboratories, Inc.
WET CHEM BATCHSHEET

Run Date: 7/12/11
Time: 18:53:56

TestAmerica West Sacramen

PRODUCTION FIGURES - WET CHEM

TOTAL NUMBER	SAMPLE NUMBER	QC	RE-RUN MATRIX	RE-RUN OTHER	MISC NUMBER	TOTAL HOURS	EXPANDED DELIVERABLE

METHOD: 01 Particulate Emissions, Acetone Fraction (CFR60-5)
QC BATCH #: **1193197**
PREP DATE: 7/06/11 13:15
COMP DATE: 7/07/11 10:32
USER: VALMORES

INITIALS:
PREP DV
ANAL RV

DATA ENTRY: RV
INITIALS
DATE 7/12/11

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID:
MKMWN-1-AN	G-1G050412-001	XX S 88 01 3V	Y-D	7/7/11	CHV-Stk-ICR2-M5/29-Front Half
MKMWW-1-AN	G-1G050412-003	XX S 88 01 3V	Y-D		CHV-Stk-ICR3-M5/29-Front Half
MKMW6-1-AN	G-1G050412-005	XX S 88 01 3V	Y-D		CHV-Stk-ICR4-M5/29-Front Half
MKMXD-1-AN	G-1G050412-007	XX S 88 01 3V	Y-D		CHV-Stk-ICRFB-M5/29-Front Half

Control Limits

TestAmerica West Sacramento

Gravimetric Balance ID: QA-61

Air Toxics Gravimetic Analysis (Acetone Fraction - Method 5)

Batch Number: 193197

	Date/Time	Dessicator ID
Beaker prep (in dessicator):	051311/1030	4B
Sample analysis (in dessicator):	070511/1200	3B

Reviewed by: MAT 7/14/11

Sample ID	Beaker ID	Initial Weight (g) date/initials/time	Initial Weight (g) date/initials/time	Final Weight (g) date/initials/time	Final Weight (g) date/initials/time	Final Weight (g) date/initials/time	Final Weight (g) date/initials/time	Final Weight (g) date/initials/time	Wt of Particulate (g)	Sample Volume (mL)
	10 g wt	9.9998 070111skv1542	10.0003 070511skv1122	9.9997 070611skv1315	9.9999 070711skv1028				-0.0004	
MKMWN	B-1	79.1331 070111skv1543	79.1336 070511skv1126	79.1479 070611skv1316	79.1482 070711skv1029				0.0146	100
MKMWW	B-2	65.9543 070111skv1543	65.9548 070511skv1126	65.9758 070611skv1317	65.9761 070711skv1030				0.0213	84
MKMW6	B-3	70.4023 070111skv1544	70.4025 070511skv1127	70.4172 070611skv1317	70.4175 070711skv1030				0.0150	84
MKMXD	B-4	73.0838 070111skv1545	73.0843 070511skv1129	73.0870 070611skv1317	73.0866 070711skv1031				0.0023	91
MKMXG	B-5	69.9825 070111skv1546	69.9830 070511skv1130	69.9830 070611skv1318	69.9830 070711skv1031				0.0000	99
	10 g wt	9.9998 070111skv1552	10.0003 070511skv1135	9.9996 070611skv1319	9.9996 070711skv1032				-0.0007	

PDE115

TestAmerica Laboratories, Inc.
Inorganics Batch Review
QC Batch **1193197**

Date 7/12/2011
Time 18:16:46

Method Code:**01 Particulate Emissions, Acetone Fraction (CFR60-5)**
Analyst:**Steve Valmores**

Work Order	Result	Units	LDL/Dil	Prep. - Anal.	Total Solids	PSRL Flag	R/R	Rounded Result	Output LDL	Dil.
MKMWN-1-AN	0.0146	g	0.0005	07/06-07/07/11	.00	N		0.0146	0.0005	1.00
MKMWW-1-AN	0.0213	g	0.0005	07/06-07/07/11	.00	N		0.0213	0.0005	1.00
MKMW6-1-AN	0.0150	g	0.0001	07/06-07/07/11	.00	N		0.0150	0.0001	1.00
MKMXD-1-AN	0.0023	g	0.0005	07/06-07/07/11	.00	N		0.0023	0.0005	1.00

Notes:

PRODUCTION TOTALS

TEST	TOTAL #	SAMPLE #	QC #	MATRIX #	OTHER #	MISC #	HOURS
	0	0	0	0	0	0	.0

TestAmerica

West Sacramento

Weight Difference Worksheet

Batch Id: 110706S

Created Date: 7/6/11 1:25:10 PM

Test Date: 7/6/11

Group Comments: ACETONE RINSE VOLUME

ANALYST: VALMORES

TEST: M5-ACETONE

BALANCE ID: QA-036

QuantIMS Batch:_____

Sample ID:	Initial Weight (g)	Weight after rinse (g)	Weight Diff (g)	Comments:
G1G050412-1	283.73	183.99	99.74	
G1G050412-3	266.24	182.60	83.64	
G1G050412-5	266.53	182.68	83.85	
G1G050412-7	275.22	183.79	91.43	
G1G050412-9	282.89	184.21	98.68	

Water Weight Different Worksheet, Revised 12/31/2008 ERS Printed Wednesday, July 06, 2011 1:30:00 PM

TestAmerica West Sacramento
Balance Calibration Check Log

WEIGHT #1				WEIGHT #2				DATE	INIT.	WEIGHT ID	P/F [1]
Working WT Denomination (g)	OBSERVED WEIGHT (g)	Acceptance limits [2,3] Lower (g)	Upper (g)	Working WT Denomination (g)	OBSERVED WEIGHT (g)	Acceptance limits [2,3] Lower (g)	Upper (g)				
0.0200	0.0200	0.0198	0.0202	100.0000	99.9998	99.9000	100.1000	6.17.11	JOR	QA 057	P
0.0200	0.0200	0.0198	0.0202	100.0000	99.9996	99.9000	100.1000	6/20/11	KK	QA-057	P
0.0200	0.0201	0.0198	0.0202	100.0000	100.0002	99.9000	100.1000	6/24/11	KK	QA-024	P
0.0200	0.0202	0.0198	0.0202	200.0000	200.0034	199.8000	200.2000	6/27/11	JR	QA-064 QA-024	P
0.0200	0.0201	0.0198	0.0202	200.0000	200.0012	199.8000	200.2000	6/28/11	KK	QA-064 QA-024	P
0.0200	0.0200	0.0198	0.0202	100.0000	99.9996	99.9000	100.1000	6/29/11	KK	QA-057	P
0.0200	0.0199	0.0198	0.0202	200.0000	200.0026	199.8000	200.2000	6/30/11	SV	QA 56/64	P
0.0200	0.0198	0.0198	0.0202	100.0000	100.0016	99.9000	100.1000	7.1.11	JOR	QA.057	P
0.0200	0.0200	0.0198	0.0202	100.0000	100.0022	99.9000	100.1000	7.5.11	JOR	QA.057	P
0.0200	0.0198	0.0198	0.0202	200.000	200.0026	199.8000	200.2000	7/6/11	SV	QA 57/64	P
0.0200	0.0200	0.0198	0.0202	200.000	200.0026	199.8000	200.2000	7/7/11	SV	QA 57/64	P
0.0200	0.0200	0.0198	0.0202	100.0000	100.0022	99.9000	100.1000	7.11.11	JOR	QA.057	P
0.0200	0.0198	0.0198 ~~0.0197~~ JOR 7.12.11	0.0202	100.0000	100.0020	99.9000	100.1000	7.12.11	JOR	QA.057	P

1 P= Pass, F= Fail. The observed weight must be with in the listed tolerances in order to pass. If calibration check values fall outside acceptance limits, the balance is considered to be out of calibration.
- a) Do not move or use the balance
- b) Attach a sign instructing others not to use the balance (see front of logbook).
- c) Notify the QA department.

[2] Balance Tolerances (grams):

Denomination	Range	Denomination	Range
0.200	0.1998 - 0.2002	20	19.9800 - 20.0200
0.500	0.4995 - 0.5005	50	49.9500 - 50.0500
1	0.9990 - 1.0010	100	99.9000 - 100.1000
2	1.9980 - 2.0020	200	199.8000 - 200.2000
5	4.9950 - 5.0050	1000	999.0000 - 1001.0000
10	9.9900 - 10.0100	2000	1998.0000 - 2002.0000

Calibration range is (+/-) 0.1% for analytical balances. The above tolerances have been rounded to meet balance read out capability.

[3] When performing Method 1664A, the following Class 1 weights and tolerances must be used (grams):

Denomination	Range
0.002	0.0018 - 0.0022
1	0.9950 - 1.0050

Calibration range is (+/-) 10% for 2 mg weight and (+/-) 0.5% for 1 g weight. The above tolerances have been rounded to meet balance read out capability.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica West Sacramento
Air Toxics
Desiccator Humidity/Temperature Logbook

Desiccator #		1			2			3			4			5			6			7			Amb	
Date	Init	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH
6/1/11	SV	70	32	-	71	34	-	72	28	-	71	35	-	71	28	-	72	36	-	72	35		73	50
6/13/11	SV	69	32	-	69	34	-	70	30	-	68	40	1	69	28	-	70	30	-	70	35		72	48
6/14/11	SV	71	32	-	71	37	-	72	30	-	71	28	-	72	28	-	72	36	-	72	34	-	73	60
6/15/11	SV	71	32	-	72	38	(1)	73	31	-	72	28	-	72	27	-	73	37	-	72	36	-	73	42
6/16/11	SV	71	32	-	71	28	-	72	33	-	71	28	-	71	28	-	73	37	-	72	35	-	73	34
6/17/11	SV	70	32	-	70	29	-	71	33	-	70	28	-	70	28	-	72	36	-	72	35		73	42
6/18/11	SV	69	32	-	69	28	-	70	34	-	69	28	-	70	28	-	70	34	-	70	35	-	72	47
6/20/11	SV	72	32	-	72	27	-	74	36	-	73	28	-	73	30	-	72	38	-	72	36	-	73	42
6/21/11	SV	72	31	-	73	27		74	38	(1)	73	28		73	31	-	72	38	-	73	36	-	75	51
6/22/11	SV	67	33	-	67	27		68	40	(1)	67	33	-	70	36	(1)	68	38	(1)	68	35	-	68	45
6/25/11	SV	68	32	-	68	28	-	69	27	-	68	32	-	68	28	-	68	17	(2)	68	36	-	70	48
6/29/11	SV	68	32	-	68	33	-	70	27	-	69	35	-	69	28	-	70	23	(2)	70	36		72	45
6/30/11	SV	69	32	-	68	33	-	69	27	-	68	35	-	68	25	-	68	23	-	68	37	-	70	57
7/1/11	SV	71	32	-	71	38	(1)	72	26	-	72	40	(1)	71	28	-	72	25	-	72	37	(1)	72	47
7/2/11	SV	72	32	-	72	28	-	73	28	-	72	28	-	72	28	-	72	21	-	72	14	(2)	73	64

Abbreviations: T = Temperature (°F) RH = Relative Humidity (%) FN = Foot Note
Limits: RH 33± 5% Temperature 22± 5 °C or 71.6± 9°F
Foot Notes: 1 = Desiccant Changed 2 = Desiccator < 28% Humidity

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica West Sacramento
Air Toxics
Desiccator Humidity/Temperature Logbook

Desiccator #		1			2			3			4			5			6			7			Amb	
Date	Init	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH	FN	T	RH
7/5/11	SV	71	32	-	71	28	-	73	26	-	71	28	-	72	28	-	72	31		72	11	(2)	72	51
7/6/11	SV	72	32	-	72	28	-	73	27		72	28	-	72	27	(2)	72	32	-	72	11	(2)	73	55
7/7/11	SV	71	32	-	71	28	-	72	27	-	71	28	-	71	28	-	72	32		72	11	2	72	42
7/8/11	SV	70	32	-	71	28	-	72	27	-	70	28	-	71	28	-	72	32	-	72	12	(2)	72	53
7/11/11	SV	64	32	-	70	28	-	71	27	(2)	70	28	-	70	31	-	72	34	-	72	12	(2)	72	45
7/12/11	SV	68	32	-	69	28	-	70	28	-	69	28	-	69	31		70	34	-	70	14	(2)	72	45

Abbreviations: T = Temperature (°F) RH = Relative Humidity (%) FN = Foot Note
Limits: RH 33± 5% Temperature 22± 5 °C or 71.6± 9°F
Foot Notes: 1 = Desiccant Changed 2 = Desiccator < 28% Humidity

Shipping and Receiving Documents

URS

Chain of Custody Record

Samples from Multi-Metals Sampling Train (Including PM Determination)

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ~~ICPES~~ - SW-846 Method 6010B ICP/MS		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M5/29-PNR-Ace	PNR - Acetone	6/24/11 1331	X					4	
CHV-Stk-ICR2-M5/29-PNR-NA	PNR - Nitric Acid			X				6S	labeled-ICR3- 7-2-11
CHV-Stk-ICR2-M5/29-Filt	Filter		X	X				1	
CHV-Stk-ICR2-M5/29-NPIA	Nitric/Peroxide Impingers - Bottle A			X				1	
CHV-Stk-ICR2-M5/29-NPIB	Nitric/Peroxide Impingers - Bottle B								
CHV-Stk-ICR2-M5/29-EIR	Empty Impinger Rinse								
CHV-Stk-ICR2-M5/29-Perm	Permanganate Impinger								
CHV-Stk-ICR2-M5/29-HClRns	HCl Rinse of Permanganate Imp								
CHV-stk-ICR2-M5/29-EIR	empty impinger rinse	6/24/11 1331		X				6S	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[redacted]	6/29/11	1900	[redacted]	7-1-11	1200			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples from Multi-Metals Sampling Train (including PM Determination)

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ~~ICPES~~ - SW-846 Method 6010B ICP/MS		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M5/29-PNR-Ace	PNR - Acetone	6/24/11 1942	X					4	
CHV-Stk-ICR3-M5/29-PNR-NA	PNR - Nitric Acid	↓		X				6	
CHV-Stk-ICR3-M5/29-Filt	Filter		X	X				1	
CHV-Stk-ICR3-M5/29-NPIA	Nitric/Peroxide Impingers - Bottle A			X				1	
CHV-Stk-ICR3-M5/29-NPIB	Nitric/Peroxide Impingers - Bottle B								
CHV-Stk-ICR3-M5/29-EIR	Empty Impinger Rinse								
CHV-Stk-ICR3-M5/29-Perm	Permanganate Impinger								
CHV-Stk-ICR3-M5/29-HClRns	HCl Rinse of Permanganate Imp								
CHV-Stk-ICR3 M5/29-EIR	empty impinger rinse	6/24/11 1942		X				6	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7-2-11	1200			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Samples from Multi-Metals Sampling Train
(Including PM Determination)

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ~~ICPES~~ - SW-846 Method 6010B ICP/MS		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR4-M5/29-PNR-Ace	PNR - Acetone	6/26/11 1738	X					4	
CHV-Stk-ICR4-M5/29-PNR-NA	PNR - Nitric Acid			X				6	
CHV-Stk-ICR4-M5/29-Filt	Filter		X	X				1	
CHV-Stk-ICR4-M5/29-NPIA	Nitric/Peroxide Impingers - Bottle A			X				1	
CHV-Stk-ICR4-M5/29-NPIB	Nitric/Peroxide Impingers - Bottle B								
CHV-Stk-ICR4-M5/29-EIR	Empty Impinger Rinse								
CHV-Stk-ICR4-M5/29-Perm	Permanganate Impinger								
CHV-Stk-ICR4-M5/29-HClRns	HCl Rinse of Permanganate Imp								
CHV-Stk-ICR4-M5/29-EIR	empty impinger rinse	6/26/11 1738		X				6	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7-1-11	1206			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples from Multi-Metals Sampling Train (including PM Determination)

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ICPES - SW-846 Method 6010B (ICPMS)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M5/29-PNR-Ace	PNR - Acetone	6/26/11 1704	X					4	FD dissolved, can't read 7-2-11
CHV-Stk-ICRFB-M5/29-PNR-NA	PNR - Nitric Acid			X				5	
CHV-Stk-ICRFB-M5/29-Filt	Filter		X	X				1	
CHV-Stk-ICRFB-M5/29-NPI	Nitric/Peroxide Impingers			X				1	
CHV-Stk-ICRFB-M5/29-EIR	Empty Impinger Rinse								
CHV-Stk-ICRFB-M5/29-Perm	Permanganate Impinger								
CHV-Stk-ICRFB-M5/29-HClRns	HCl Rinse of Permanganate Imp								
CHV-Stk-ICRFB MS129-EIR	Empty Impiger Rinse	6/26/11 1704		X				5	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7-Jul	1000			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Samples from Multi-Metals Sampling Train (Including PM Determination)

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ICPES - SW-846 Method 6010B 12 Mns		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M5/29-Filt	Filter	6/26/11 1900	X	X		X		1	
CHV-Stk-ICRRB-M5/29-Ace	Acetone	↓	X			X		4	
CHV-Stk-ICRRB-M5/29-NA Rns Soln	Nitric Acid Rinse Solution	↓		X		X		1	
CHV-Stk-ICRRB-M5/29-Perm Soln	Permanganate Solution								
CHV-Stk-ICRRB-M5/29-HCl Soln	HCl Rinse Solution								
CHV-Stk-ICRRB-M5/29-NP1	nitric peroxide	6/26/11 1900		X		X		1	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7-1-11	1200			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

FedEx US Airbill

Express

FedEx Tracking Number: 8729 7187 3500

From This portion can be removed for Recipient's records.

Date 6/29/11 FedEx Tracking Number 872971873500

Sender's Name Carl Galloway 512 633 7612 cell

Phone 808 682-2261

Company CHEVRON PRODUCTS CO

Address 91-480 MALAKOLE ST

Dept/Floor/Suite/Room

City KAPOLEI State HI ZIP 96707

Your Internal Billing Reference 60942312.54210.02

To

Recipient's Name Sample Control Phone 916 373 5600

Company TestAmerica Sacramento

Address 880 Riverside Parkway

We cannot deliver to P.O. boxes or P.O. ZIP codes

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City West Sacramento State CA ZIP 95605

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

0422449528

8729 7187 3500

SLA12

Form ID No. 0215

4a Express Package Service

* To most locations. Packages up to 150 lbs.

- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.*
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

4b Express Freight Service

** To most locations. Packages over 150 lbs.

- [ ] FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

5 Packaging

* Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak* Includes FedEx Small Pak and FedEx Large Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

- [x] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight.

- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods? One box must be checked

- [ ] No
- [x] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

- [ ] Cargo Aircraft Only

7 Payment Bill to:

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip Acct. No. [ ]

Total Packages 1 Total Weight 7.5 lbs.

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

605

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FedEx US Airbill

Express

FedEx Tracking Number: 8729 7187 3576

This portion can be removed for Recipient's records.

6/29/11 FedEx Tracking Number 872971873576

Carl Galloway 512 633 7612 cell

Phone 808 682-2261

Company CHEVRON PRODUCTS CO

Address 91-480 MALAKOLE ST

Dept/Floor/Suite/Room

KAPOLEI State HI ZIP 96707

Internal Billing Reference 60942312.54210.02

Recipient's Name Sample Control Phone 916 373 5600

Company TestAmerica Sacramento

Address 880 Riverside Parkway

We cannot deliver to P.O. boxes or P.O. ZIP codes

Address

Use this line for the HOLD location address or for continuation of your shipping address.

West Sacramento State CA ZIP 95605

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

0422449529

SLA12

Form ID No. 0215

4a Express Package Service — * To most locations. Packages up to 150 lbs.

- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
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- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

4b Express Freight Service — ** To most locations. Packages over 150 lbs.

- [ ] FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

5 Packaging — * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak* Includes FedEx Small Pak and FedEx Large Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

- [x] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight.

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- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods? One box must be checked

- [ ] No
- [x] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

- [ ] Cargo Aircraft Only

7 Payment Bill to:

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip Acct. No [ ]

Total Packages 1 Total Weight 7.5 lbs.

Credit Card Auth.

fedex.com 1800.GoFedEx 1800.463.3339

RECIPIENT: PEEL HERE

FedEx. US Airbill Express

FedEx Tracking Number **8729 7187 3495**

SLA12

Form ID No. 0215

1 From This portion can be removed for Recipient's records.

Date 6/29/11 FedEx Tracking Number 872971873495

Sender's Name Carl Galloway Phone 512 633 2612 909 682-2261

Company CHEVRON PRODUCTS CO

Address 91-180 MALAKOLE ST Dept/Floor/Suite/Room

City KAPOLEI State HI ZIP 96707

2 Your Internal Billing Reference 4094 2312 . SY210.02

3 To

Recipient's Name Sample Control Phone 916 373 5600

Company TestAmerica Sacramento

Address 880 Riverside Parkway

We cannot deliver to P.O. boxes or P.O. ZIP codes.

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City West Sacramento State CA ZIP 95605

0422449528

8729 7187 3495

4a Express Package Service * To most locations. *Packages up to 150 lbs.*

- [ ] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.*
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

4b Express Freight Service ** To most locations. *Packages over 150 lbs.*

- [ ] FedEx 1Day Freight — Next business day** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.
- [ ] FedEx 2Day Freight — Second business day** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day** Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak and FedEx Large Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

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- [ ] No
- [x] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [x] Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment *Bill to:*

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Enter FedEx Acct. No. or Credit Card No. below

Obtain recip Acct. No [ ]

Total Packages: 1 Total Weight: 8.5 lbs. Credit Card Auth.

† Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

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FedEx. US Airbill Express

FedEx Tracking Number **8729 7187 3484**

SLA12

Form ID No. 0215

1 From This portion can be removed for Recipient's records.

Date 6/29/11 FedEx Tracking Number 872971873484

Sender's Name Carl Galloway Phone 512 633 2612 Carl 909 682-2261

Company CHEVRON PRODUCTS CO

Address 91-480 MALAKOLE ST Dept/Floor/Suite/Room

City KAPOLEI State HI ZIP 96707

2 Your Internal Billing Reference 4094 2312 . SY210.02

3 To

Recipient's Name Sample Control Phone 916 373 5600

Company TestAmerica Sacramento

Address 880 Riverside Parkway

We cannot deliver to P.O. boxes or P.O. ZIP codes.

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City West Sacramento State CA ZIP 95605

0422449493

4a Express Package Service * To most locations. *Packages up to 150 lbs.*

- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.*
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- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [x] Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment *Bill to:*

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Enter FedEx Acct. No. or Credit Card No. below

Obtain recip Acct. No [ ]

Total Packages: 1 Total Weight: 8.5 lbs. Credit Card Auth.

fedex.com 1800 GoFedEx 1800 463.3339

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT URS PM PW LOG # 71442

LOT# (QUANTIMS ID) G1G050412 QUOTE# 89157 LOCATION EPA-1

Checked (✓)

DATE RECEIVED 7-2-11 TIME RECEIVED 906 ☑

DELIVERED BY ☑ FEDEX ☐ ON TRAC ☐ OTHER

☐ GOLDENSTATE ☐ UPS ☐ EZ PARCEL

☐ TAL COURIER ☐ TAL SF ☐ CLIENT ☑

SHIPPPING CONTAINER(S) ☐ TAL ☑ CLIENT (Boxes) ☐ N/A ☑

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☑ N/A ☑

CUSTODY SEAL #(S) _____

COC #(S) _____ ☑

TEMPERATURE BLANK Observed: NA Corrected: _____

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: NA Average _____ Corrected Average _____

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☐ #5 ☐ ☑ OTHER NA ☑

Initials: AK Date: 7-2-11

---

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A ☑

LABELED BY..... ☑

LABELS CHECKED BY..... ☑

PEER REVIEW _____ ☑ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ☑

WETCHEM ☑ N/A ☑

VOA-ENCORES ☑ N/A ☑

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A ☑

☑ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A ☑

☐ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☑ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☑ NO COOLING AGENTS USED ☑ PM NOTIFIED

Initials: [signature] Date: 05 July 11

Notes _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: G1G050412

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*																				
VOAh*																				
AGB		1		1		1														
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
____AGJ																				
500AGJ								1	1											
250AGJ	2	1	2	1	2	1	2	1	48	glassware										
125AGJ																				
____CGJ																				
500CGJ																				
250CGJ																				
125CGJ																				
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
____"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter	1		1		1		1		1											
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid **s** = sulfuric acid **na** = sodium hydroxide **n** = nitric acid **zn** = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

QA-185 5/05 EM

Page 3

Appendix K

URS FTIR Raw Data

Raw Run Data

URS FTIR Raw Data
Run 1

HCN CF = 1.00
MEOH CF = 1.18

Date	Time	HCN (ppmv)	MEOH (ppmv)	Temp C	Pressure (Atm)
06/22/11	**13:55:12**	26.2	0.226	150.0	0.94
06/22/11	**14:00:12**	25.3	0.232	150.0	0.94
06/22/11	**14:05:11**	25.3	0.236	150.0	0.94
06/22/11	**14:10:11**	25.1	0.207	150.0	0.94
06/22/11	**14:15:10**	25.0	0.191	150.0	0.94
06/22/11	**14:20:10**	24.8	0.218	150.0	0.94
06/22/11	**14:25:09**	24.7	0.187	150.0	0.94
06/22/11	**14:30:09**	24.9	0.215	150.0	0.94
06/22/11	**14:35:08**	25.9	BDL	150.0	0.94
06/22/11	**14:40:12**	25.4	BDL	150.0	0.94
06/22/11	**14:45:11**	25.1	BDL	150.0	0.94
06/22/11	**14:50:11**	24.8	BDL	150.0	0.94
06/22/11	**14:55:10**	24.8	BDL	150.0	0.94
06/22/11	**15:00:10**	24.7	BDL	150.0	0.94
06/22/11	**15:05:09**	24.8	BDL	150.0	0.94
06/22/11	**15:10:09**	24.5	BDL	150.0	0.94
06/22/11	**15:15:08**	25.5	BDL	150.0	0.94
06/22/11	**15:20:08**	25.5	BDL	150.0	0.94
06/22/11	**15:25:07**	25.6	BDL	150.0	0.94
06/22/11	**15:30:07**	25.8	BDL	150.0	0.94
06/22/11	**15:35:06**	25.5	BDL	150.0	0.94
06/22/11	**15:40:06**	25.3	BDL	150.0	0.94
06/22/11	**15:45:05**	24.7	BDL	150.0	0.94
06/22/11	**15:50:05**	24.4	BDL	150.0	0.94
06/22/11	**15:55:04**	25.7	BDL	150.0	0.94
06/22/11	**16:00:04**	25.9	BDL	150.0	0.94
06/22/11	**16:05:03**	25.7	BDL	150.0	0.94
06/22/11	**16:10:03**	25.6	BDL	150.0	0.94
	Minimum	24.4	<0.184		
	Maximum	26.2	0.236		
	Average	25.2	0.193		
	MDL	0.20	0.184		

URS FTIR Raw Data
Run 2

HCN CF = 1.00
MEOH CF = 1.18

Date	Time	HCN (ppmv)	MEOH (ppmv)	Temp C	Pressure (Atm)
06/22/11	**17:01:16**	25.1	0.137	150.0	0.94
06/22/11	**17:06:16**	25.4	0.108	150.0	0.94
06/22/11	**17:11:16**	25.7	0.122	150.0	0.94
06/22/11	**17:16:15**	25.6	0.092	150.0	0.94
06/22/11	**17:21:14**	26.1	0.099	150.0	0.94
06/22/11	**17:26:14**	25.5	BDL	150.0	0.94
06/22/11	**17:31:13**	25.4	0.112	150.0	0.94
06/22/11	**17:36:13**	25.2	0.125	150.0	0.94
06/22/11	**17:41:12**	24.7	BDL	150.0	0.94
06/22/11	**17:46:12**	24.9	0.096	150.0	0.94
06/22/11	**17:51:11**	24.8	0.111	150.0	0.94
06/22/11	**17:56:11**	24.8	BDL	150.0	0.94
06/22/11	**18:01:10**	24.9	BDL	150.0	0.94
06/22/11	**18:06:10**	24.9	BDL	150.0	0.94
06/22/11	**18:11:09**	25.5	BDL	150.0	0.94
06/22/11	**18:16:09**	25.7	BDL	150.0	0.94
06/22/11	**18:21:08**	25.6	BDL	150.0	0.94
06/22/11	**18:26:08**	25.4	BDL	150.0	0.94
06/22/11	**18:31:07**	25.1	BDL	150.0	0.94
06/22/11	**18:36:07**	24.8	BDL	150.0	0.94
06/22/11	**18:41:06**	25.0	BDL	150.0	0.94
06/22/11	**18:46:06**	25.6	0.101	150.0	0.94
06/22/11	**18:51:05**	25.1	BDL	150.0	0.94
06/22/11	**18:56:05**	25.3	0.178	150.0	0.94
06/22/11	**19:01:04**	25.5	6.138	150.0	0.94
06/22/11	**19:06:04**	25.9	5.146	150.0	0.94
	Minimum	24.7	<0.092		
	Maximum	26.1	6.138		
	Average	25.3	0.529		
	MDL	0.20	0.092		

URS FTIR Raw Data
Run 3

HCN CF = 1.00
MEOH CF = 1.18

Date	Time	HCN (ppmv)	MEOH (ppmv)	Temp C	Pressure (Atm)
06/23/11	**10:06:31**	26.6	3.718	150.0	0.94
06/23/11	**10:11:31**	26.2	2.674	150.0	0.94
06/23/11	**10:16:30**	25.8	2.186	150.0	0.94
06/23/11	**10:21:30**	25.5	1.879	150.0	0.94
06/23/11	**10:26:29**	25.6	1.690	150.0	0.94
06/23/11	**10:31:29**	25.1	1.520	150.0	0.94
06/23/11	**10:36:28**	24.9	1.434	150.0	0.94
06/23/11	**10:41:28**	25.5	1.310	150.0	0.94
06/23/11	**10:46:31**	25.3	1.192	150.0	0.94
06/23/11	**10:51:30**	25.4	1.102	150.0	0.94
06/23/11	**10:56:30**	25.2	1.005	150.0	0.94
06/23/11	**11:01:29**	25.2	0.939	150.0	0.94
06/23/11	**11:06:29**	25.1	0.855	150.0	0.94
06/23/11	**11:11:28**	25.2	0.796	150.0	0.94
06/23/11	**11:16:28**	25.1	0.772	150.0	0.94
06/23/11	**11:21:27**	25.4	0.701	150.0	0.94
	Minimum	24.9	0.701		
	Maximum	26.6	3.718		
	Average	25.4	1.486		
	MDL	0.20	0.092		

URS FTIR Raw Data
Run 5

NH3 CF = 1.00
MEOH CF = 1.18

Date	Time	MEOH (ppmv)	NH3 (ppmv)	Temp C	Pressure (Atm)
06/24/11	**9:51:51**	0.092	0.89	150.0	0.95
06/24/11	**9:52:50**	0.092	0.90	150.0	0.95
06/24/11	**9:53:50**	0.092	0.85	150.0	0.95
06/24/11	**9:54:50**	0.092	0.89	150.0	0.95
06/24/11	**9:55:50**	0.092	0.88	150.0	0.95
06/24/11	**9:56:50**	0.092	0.87	150.0	0.95
06/24/11	**10:05:26**	0.092	0.89	150.0	0.95
06/24/11	**10:10:25**	0.092	0.92	150.0	0.95
06/24/11	**10:15:25**	0.092	0.90	150.0	0.95
06/24/11	**10:20:24**	0.092	0.86	150.0	0.95
06/24/11	**10:25:24**	0.092	0.86	150.0	0.95
06/24/11	**10:30:23**	0.092	0.86	150.0	0.95
06/24/11	**10:35:23**	0.092	0.88	150.0	0.95
06/24/11	**10:40:22**	0.092	0.90	150.0	0.95
06/24/11	**10:45:22**	0.092	0.86	150.0	0.95
06/24/11	**10:50:21**	0.092	0.87	150.0	0.95
06/24/11	**10:55:21**	0.092	0.86	150.0	0.95
06/24/11	**11:00:20**	0.092	0.85	150.0	0.95
06/24/11	**11:05:20**	0.092	0.87	150.0	0.95
06/24/11	**11:10:19**	0.092	0.85	150.0	0.95
06/24/11	**11:15:19**	0.092	0.84	150.0	0.95
06/24/11	**11:20:18**	0.092	0.79	150.0	0.95
06/24/11	**11:25:17**	0.092	0.80	150.0	0.95
06/24/11	**11:30:17**	0.092	0.77	150.0	0.95
06/24/11	**11:35:22**	0.092	0.77	150.0	0.95
06/24/11	**11:40:20**	0.092	0.76	150.0	0.95
	Minimum	<0.092	0.76		
	Maximum	<0.092	0.92		
	Average	<0.092	0.86		
	MDL	0.092	0.06		

URS FTIR Raw Data
Run 6

NH3 CF = 1.00
MEOH CF = 1.18

Date	Time	MEOH (ppmv)	NH3 (ppmv)	Temp C	Pressure (Atm)
06/24/11	**15:31:57**	0.179	0.82	150.0	0.95
06/24/11	**15:36:57**	0.192	0.90	150.0	0.95
06/24/11	**15:41:56**	0.179	0.90	150.0	0.95
06/24/11	**15:46:56**	0.197	0.90	150.0	0.95
06/24/11	**15:51:55**	0.133	0.93	150.0	0.95
06/24/11	**15:56:55**	0.125	0.89	150.0	0.95
06/24/11	**16:01:58**	0.140	0.87	150.0	0.95
06/24/11	**16:06:57**	0.138	0.79	150.0	0.95
06/24/11	**16:11:57**	0.134	0.79	150.0	0.95
06/24/11	**16:16:56**	0.149	0.78	150.0	0.95
06/24/11	**16:21:56**	0.111	0.80	150.0	0.95
06/24/11	**16:26:55**	0.137	0.76	150.0	0.95
06/24/11	**16:31:55**	0.138	0.81	150.0	0.95
06/24/11	**16:36:54**	0.133	0.82	150.0	0.95
06/24/11	**16:41:54**	0.108	0.84	150.0	0.95
06/24/11	**16:46:53**	0.140	0.85	150.0	0.95
06/24/11	**16:51:53**	BDL	0.83	150.0	0.95
06/24/11	**16:56:52**	0.109	0.86	150.0	0.95
06/24/11	**17:01:52**	0.095	0.80	150.0	0.95
06/24/11	**17:06:51**	0.107	0.79	150.0	0.95
06/24/11	**17:11:51**	BDL	0.84	150.0	0.95
06/24/11	**17:16:50**	BDL	0.78	150.0	0.95
06/24/11	**17:21:50**	BDL	0.84	150.0	0.95
06/24/11	**17:26:49**	BDL	0.77	150.0	0.95
06/24/11	**17:31:49**	BDL	0.82	150.0	0.95
06/24/11	**17:36:48**	BDL	0.83	150.0	0.95
06/24/11	**17:41:48**	BDL	0.86	150.0	0.95
06/24/11	**17:46:47**	BDL	0.82	150.0	0.95
06/24/11	**17:51:47**	BDL	0.79	150.0	0.95
06/24/11	**17:56:46**	BDL	0.82	150.0	0.95
06/24/11	**18:01:46**	BDL	0.83	150.0	0.95
06/24/11	**18:06:45**	BDL	0.85	150.0	0.95
06/24/11	**18:11:45**	BDL	0.81	150.0	0.95
06/24/11	**18:16:44**	BDL	0.85	150.0	0.95
06/24/11	**18:21:44**	BDL	0.88	150.0	0.95
06/24/11	**18:26:43**	BDL	0.85	150.0	0.95
06/24/11	**18:31:43**	BDL	0.82	150.0	0.95
	Minimum	<0.092	0.76		
	Maximum	0.197	0.93		
	Average	0.116	0.83		
	MDL	0.092	0.06		

URS FTIR Raw Data
Run 7

NH3 CF = 1.00
MEOH CF = 1.18

Date	Time	MEOH (ppmv)	NH3 (ppmv)	Temp C	Pressure (Atm)
06/26/11	**10:40:09**	0.531	0.78	150.0	0.95
06/26/11	**10:45:08**	0.457	0.81	150.0	0.95
06/26/11	**10:50:12**	0.383	0.79	150.0	0.95
06/26/11	**10:55:11**	0.341	0.83	150.0	0.95
06/26/11	**11:00:11**	0.346	0.89	150.0	0.95
06/26/11	**11:05:10**	0.354	0.83	150.0	0.95
06/26/11	**11:10:10**	0.304	0.88	150.0	0.95
06/26/11	**11:15:09**	0.264	0.92	150.0	0.95
06/26/11	**11:20:12**	0.252	0.94	150.0	0.95
06/26/11	**11:25:12**	0.225	0.93	150.0	0.95
06/26/11	**11:30:11**	0.224	0.99	150.0	0.95
06/26/11	**11:35:11**	0.197	1.03	150.0	0.95
06/26/11	**11:40:10**	0.168	0.99	150.0	0.95
06/26/11	**11:45:10**	0.165	0.99	150.0	0.95
06/26/11	**11:50:09**	0.134	0.98	150.0	0.95
06/26/11	**11:55:09**	0.145	0.99	150.0	0.95
06/26/11	**12:00:08**	0.133	0.98	150.0	0.95
	Minimum	0.133	0.78		
	Maximum	0.531	1.03		
	Average	0.272	0.92		
	MDL	0.092	0.06		

URS FTIR Raw Data
Run 8

Acetald CF = 1.24
H2CO CF = 1.13
Prop CF = 1.00
MEOH CF = 1.18
13BUT CF = 0.86
Styrene CF = 1.00

Date	Time	13BUT (ppmv)	Acetald (ppmv)	ACTNL (ppmv)	H2CO (ppmv)	MEOH (ppmv)	Propanal (ppmv)	Styrene (ppmv)	Temp C	Pressure (Atm)
06/27/11	**12:17:19**	BDL	BDL	BDL	0.126	BDL	BDL	BDL	150	0.95
06/27/11	**12:22:18**	BDL	BDL	BDL	0.146	BDL	BDL	BDL	150	0.95
06/27/11	**12:27:18**	BDL	BDL	BDL	0.103	BDL	BDL	BDL	150	0.95
06/27/11	**12:32:17**	BDL	BDL	BDL	0.136	BDL	BDL	BDL	150	0.95
06/27/11	**12:37:17**	BDL	BDL	BDL	0.109	BDL	BDL	BDL	150	0.95
06/27/11	**12:42:16**	BDL	BDL	BDL	0.103	BDL	BDL	BDL	150	0.95
06/27/11	**12:47:16**	BDL	BDL	BDL	0.120	BDL	BDL	BDL	150	0.95
06/27/11	**12:52:15**	BDL	BDL	BDL	0.090	BDL	BDL	BDL	150	0.95
06/27/11	**12:57:15**	BDL	BDL	BDL	0.091	BDL	BDL	BDL	150	0.95
06/27/11	**13:02:14**	BDL	BDL	BDL	0.091	BDL	BDL	BDL	150	0.95
06/27/11	**13:07:14**	BDL	BDL	BDL	0.104	BDL	BDL	BDL	150	0.95
06/27/11	**13:12:14**	BDL	BDL	BDL	0.091	BDL	BDL	BDL	150	0.95
06/27/11	**13:17:13**	BDL	BDL	BDL	0.090	BDL	BDL	BDL	150	0.95
06/27/11	**13:22:12**	BDL	BDL	BDL	0.085	BDL	BDL	BDL	150	0.95
06/27/11	**13:27:12**	BDL	BDL	BDL	0.107	BDL	BDL	BDL	150	0.95
06/27/11	**13:32:11**	BDL	BDL	BDL	0.087	BDL	BDL	BDL	150	0.95
06/27/11	**13:37:11**	BDL	BDL	BDL	0.097	BDL	BDL	BDL	150	0.95
06/27/11	**13:42:10**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150	0.95
06/27/11	**13:47:10**	BDL	BDL	BDL	0.078	BDL	BDL	BDL	150	0.95
06/27/11	**13:52:09**	BDL	BDL	BDL	0.075	BDL	BDL	BDL	150	0.95
06/27/11	**13:57:09**	BDL	BDL	BDL	0.077	BDL	BDL	BDL	150	0.95
06/27/11	**14:02:08**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150	0.95
06/27/11	**14:07:08**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150	0.95
06/27/11	**14:12:07**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150	0.95
	Minimum	<0.089	<0.48	<2.36	<0.074	<0.092	<0.38	<0.2		
	Maximum	<0.089	<0.48	<2.36	0.146	<0.092	<0.38	<0.2		
	Average	<0.089	<0.48	<2.36	0.097	<0.092	<0.38	<0.2		
	MDL	0.089	0.49	2.36	0.074	0.092	0.38	0.20		

URS FTIR Raw Data
Run 9

Acetald CF = 1.24
H2CO CF = 1.13
Prop CF = 1.00
MEOH CF = 1.18
13BUT CF = 0.86
Styrene CF = 1.00

Date	Time	13BUT (ppmv)	Acetald (ppmv)	ACTNL (ppmv)	H2CO (ppmv)	MEOH (ppmv)	Propanal (ppmv)	Styrene (ppmv)	Temp C	Pressure (Atm)
06/28/11	**12:04:13**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:09:12**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:14:12**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:19:11**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:24:11**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:29:10**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:34:10**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:39:09**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:44:09**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:49:08**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:54:08**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**12:59:07**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:04:07**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:09:06**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:14:06**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:19:05**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:24:05**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:29:04**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:34:04**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:39:03**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:44:03**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:49:02**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:54:02**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/28/11	**13:59:01**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
	Minimum	<0.097	<0.48	<2.36	<0.074	<0.092	<0.38	<0.20		
	Maximum	<0.097	<0.48	<2.36	<0.074	<0.092	<0.38	<0.20		
	Average	<0.097	<0.48	<2.36	<0.074	<0.092	<0.38	<0.20		
	MDL	0.097	0.49	2.36	0.074	0.092	0.38	0.20		

URS FTIR Raw Data
Run 11

Acetald CF = 1.24
H2CO CF = 1.13
Prop CF = 1.00
MEOH CF = 1.18
13BUT CF = 0.86
Styrene CF = 1.00

Date	Time	13BUT (ppmv)	Acetald (ppmv)	ACTNL (ppmv)	H2CO (ppmv)	MeOH (ppmv)	Propanal (ppmv)	Styrene (ppmv)	Temp C	Pressure (Atm)
06/29/11	**9:30:07**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**9:35:06**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**9:40:06**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**9:45:05**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**9:50:05**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**9:55:04**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:00:08**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:05:07**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:10:07**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:15:06**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:20:06**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:25:05**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:30:05**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:35:04**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:40:04**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:45:03**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:50:03**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**10:55:02**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:00:02**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:05:01**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:10:08**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:15:08**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:20:07**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:25:07**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:30:06**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:35:06**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:40:05**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:45:05**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:50:04**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
06/29/11	**11:55:04**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	150.0	0.95
	Minimum	<0.076	<0.48	<2.65	<0.074	<0.092	<0.38	<0.2		
	Maximum	<0.076	<0.48	<2.65	<0.074	<0.092	<0.38	<0.2		
	Average	<0.076	<0.48	<2.65	<0.074	<0.092	<0.38	<0.2		
	MDL	0.077	0.49	2.65	0.074	0.092	0.38	0.20		

Raw QA Spike Data

Method 320 Validation
Summary Tables

Ammonia Method 320 QA Spike Recoveries (Carbon Tetrafluoride Tracer)						
Spike Level	Tracer Conc. (ppmv)	Dilution Factor	Expected Spike (ppmv)	Observed Spike (ppmv)	Percent Recovery (%)	Comment
High	1.047	0.043	4.20	3.72	88.7	Pass
Low	0.296	0.012	1.19	0.84	71.2	Pass
Mid	0.535	0.022	2.14	1.76	82.4	Pass

Hydrogen Cyanide Method 320 QA Spike Recoveries (Sulfur Hexafluoride Tracer)						
Spike Level	Tracer Conc. (ppmv)	Dilution Factor	Expected Spike (ppmv)	Observed Spike (ppmv)	Percent Recovery (%)	Comment
High	1.411	0.083	9.84	10.21	103.8	Pass
Mid	1.162	0.069	8.11	8.14	100.4	Pass
Low	0.894	0.053	6.23	6.88	110.4	Pass

Formaldehyde Method 320 QA Spike Recoveries (Sulfur Hexafluoride Tracer)						
Spike Level	Tracer Conc. (ppmv)	Dilution Factor	Expected Spike (ppmv)	Observed Spike (ppmv)	Percent Recovery (%)	Comment
Mid	1.567	0.091	2.67	2.15	80.4	Pass
High	2.516	0.146	4.29	3.84	89.5	Pass
Low -1	0.708	0.041	1.21	0.93	77.1	Pass
Low -2	0.875	0.051	1.49	1.20	80.2	Pass

Propanal Method 320 QA Spike Results (Sulfur Hexafluoride Tracer)						
Spike Level	Tracer Conc. (ppmv)	Dilution Factor	Expected Spike (ppmv)	Observed Spike (ppmv)	Percent Recovery (%)	Comment
High	0.721	0.043	4.25	4.23	99.3	Pass
Low	0.284	0.017	1.68	1.81	107.8	Pass
Mid	0.468	0.028	2.76	2.74	99.3	Pass

Acetaldehyde Method 320 QA Spike Results (Sulfur Hexafluoride Tracer)						
Spike Level	Tracer Conc. (ppmv)	Dilution Factor	Expected Spike (ppmv)	Observed Spike (ppmv)	Percent Recovery (%)	Comment
Low	0.259	0.015	1.395	0.992	71.1	Pass
High	0.924	0.055	4.976	4.497	90.4	Pass
Mid	0.453	0.027	2.440	2.055	84.2	Pass

Methanol Method 320 QA Spike Results (Tetrachloroethylene Tracer)						
Spike Level	Tracer Conc. (ppmv)	Dilution Factor	Expected Spike (ppmv)	Observed Spike (ppmv)	Percent Recovery (%)	Comment
Mid	0.905	0.045	0.944	0.751	79.5	Pass
Low	0.513	0.025	0.535	0.433	80.9	Pass
High	1.707	0.085	1.781	1.635	91.8	Pass

1,3-Butadiene Method 320 QA Spike Results (Tetrachloroethylene Tracer)						
Spike Level	Tracer Conc. (ppmv)	Dilution Factor	Expected Spike (ppmv)	Observed Spike (ppmv)	Percent Recovery (%)	Comment
Mid	0.905	0.045	0.899	1.030	114.6	Pass
Low	0.513	0.025	0.509	0.556	109.1	Pass
High	1.707	0.085	1.696	1.969	116.1	Pass

Acetonitrile Method 320 QA Spike Results (Tetrachloroethylene Tracer)						
Spike Level	Tracer Conc. (ppmv)	Dilution Factor	Expected Spike (ppmv)	Observed Spike (ppmv)	Percent Recovery (%)	Comment
Mid	0.905	0.045	0.895	-1.200	-134.058	Fail
Low	0.513	0.025	0.507	-0.704	-138.914	Fail
High	1.707	0.085	1.688	0.166	9.807	Fail

Styrene Method 320 QA Spike Results (Tetrachloroethylene Tracer)						
Spike Level	Tracer Conc. (ppmv)	Dilution Factor	Expected Spike (ppmv)	Observed Spike (ppmv)	Percent Recovery (%)	Comment
Mid	0.905	0.045	0.926	0.786	84.9	Pass
Low	0.513	0.025	0.525	0.460	87.7	Pass
High	1.707	0.085	1.747	1.609	92.1	Pass

Method 301 Validation
Formaldehyde (H2CO)

Formaldehyde: 301 Validation by Dynamic Analyte Spiking (biases taken into account)

Spiking Data

Total tracer conc. (ppm):	17.231
tracer conc. while line spiking (ppm):	0.639
Percentage of native exhaust in total spiked sample:	0.963
Certified cylinder conc. of analyte (ppm):	29.4
Conc. of analyte spiked into extracted exhaust (ppm):	1.090

Validation Data (conc. in ppm)

		Analyte Concentrations					Tracer Concentrations	
	Pair #	Unspiked Native Conc.	Corr. Native Conc.	Native + Spiked Conc.	Native + Spiked (meas.)	% Recovery	SF6 unspiked	SF6 spiked
	1	0.334	0.322	1.412	1.305	92.427	-0.004	0.685
	2	0.307	0.296	1.386	1.190	85.881	-0.001	0.651
	3	0.297	0.286	1.376	1.287	93.530	0.000	0.684
	4	0.319	0.307	1.398	1.228	87.879	-0.003	0.659
	5	0.294	0.283	1.373	1.205	87.741	0.001	0.631
	6	0.260	0.251	1.341	1.142	85.193	-0.003	0.612
	7	0.217	0.209	1.299	1.152	88.677	-0.002	0.617
	8	0.235	0.227	1.317	1.109	84.237	-0.001	0.605
	9	0.179	0.172	1.262	1.150	91.058	-0.003	0.628
	10	0.230	0.221	1.311	1.160	88.487	-0.004	0.627
	11	0.170	0.164	1.254	1.126	89.815	-0.001	0.613
	12	0.213	0.205	1.295	1.116	86.161	-0.002	0.633
Mean Conc.:		0.255	0.245	1.335	1.181	88.424	-0.002	0.637

Method 320/301 Analyte Spiking Statistical Results

Mean of FTIR meas. spiked samples:	1.1809	
Mean of FTIR meas. unspiked samp:	0.2545	
CS Calculated value of Spiked Samples:	1.3353	
SD St.Dev of spiked samples Eq 301-2:	0.0644	also Eq 301-5 in 2011 version of m301
SDM = SD/sqrt(12)	0.0186	
F-test:	0.0833	For n=6, if 0.139<F<7.146, calculate pooled SD
SD_{pooled}-pooled std. dev.:	NA	
RSD:	**0.0545**	RSD must be <= 0.20 for successful validation
RSD, if using pooled SD:	NA	RSD must be <= 0.50 for successful validation
B-bias at spike level m320 Eq. 7:	-0.1544	
t-statistic, Eq. 301-4:	**8.3126**	if t-stat.>=2.201 (11 degrees of freedom), then B is statistically significant must calc. and use CF (also Eq 301-6 in 2011 version of m301)
Br, Relative Bias Eq. 301-7 (2011 ver):	**0.1157**	If < 0.1 the CF not required (CF=1) if Br>0.3 then validation is unsucessful
CF-correction factor Eq. 301-5 (pre-2011):	**1.1308**	if 0.7<=CF<=1.3 or if B not statistically signif., then validation successful

Method 301 Validation
Formaldehyde (H2CO)
Direct

Date	Time	H2CO (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)
06/23/11	**9:27:50**	-0.12	0.00	150.00	1.01
06/23/11	**9:28:50**	-0.07	0.00	150.00	1.01
06/23/11	**9:29:50**	8.77	5.62	150.00	1.01
06/23/11	**9:30:50**	26.18	17.12	150.00	1.01
06/23/11	**9:31:50**	27.89	17.12	150.00	1.01
06/23/11	**9:32:50**	28.41	17.13	150.00	1.01
06/23/11	**9:33:50**	28.75	17.14	150.00	1.01
06/23/11	**9:34:49**	28.94	17.15	150.00	1.01
06/23/11	**9:35:49**	28.95	17.15	150.00	1.01
06/23/11	**9:36:49**	29.10	17.16	150.00	1.01
06/23/11	**9:37:49**	29.23	17.18	150.00	1.01
06/23/11	**9:38:49**	29.44	17.19	150.00	1.01
06/23/11	**9:39:49**	29.56	17.20	150.00	1.01
06/23/11	**9:40:49**	29.68	17.22	150.00	1.01
06/23/11	**9:41:49**	29.80	17.22	150.00	1.01
06/23/11	**9:42:49**	29.80	17.23	150.00	1.01
06/23/11	**9:43:48**	29.82	17.24	150.00	1.01
	Average	29.77	17.23		

Method 301 Validation
Formaldehyde (H2CO)
Raw Data

unspiked
spiked

Date	Time	H2CO (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)	
06/23/11	**11:44:01**	0.37	-0.004	150.00	0.94	
06/23/11	**11:45:01**	0.41	-0.001	150.00	0.94	
06/23/11	**11:46:01**	0.40	-0.006	150.00	0.94	
06/23/11	**11:47:00**	0.38	-0.002	150.00	0.94	
06/23/11	**11:48:00**	0.37	-0.003	150.00	0.94	
06/23/11	**11:49:00**	0.33	-0.001	150.00	0.94	
06/23/11	**11:50:00**	0.36	-0.006	150.00	0.94	1
06/23/11	**11:51:00**	0.30	-0.003	150.00	0.94	
06/23/11	**11:52:00**	0.76	0.360	150.00	0.94	
06/23/11	**11:53:00**	3.25	2.688	150.00	0.94	
06/23/11	**11:54:00**	4.27	2.698	150.00	0.94	
06/23/11	**11:55:00**	4.40	2.696	150.00	0.94	
06/23/11	**11:55:59**	3.18	1.817	150.00	0.94	
06/23/11	**11:56:59**	1.80	0.986	150.00	0.94	
06/23/11	**11:57:59**	1.79	0.990	150.00	0.94	
06/23/11	**11:58:59**	1.77	0.990	150.00	0.94	
06/23/11	**11:59:59**	1.45	0.760	150.00	0.94	
06/23/11	**12:00:59**	1.29	0.686	150.00	0.94	
06/23/11	**12:01:59**	1.27	0.682	150.00	0.94	1
06/23/11	**12:02:59**	1.34	0.687	150.00	0.94	
06/23/11	**12:03:59**	0.81	0.352	150.00	0.94	
06/23/11	**12:04:59**	0.31	-0.001	150.00	0.94	2
06/23/11	**12:05:58**	0.30	-0.002	150.00	0.94	
06/23/11	**12:06:58**	0.88	0.429	150.00	0.94	
06/23/11	**12:07:58**	1.07	0.670	150.00	0.94	
06/23/11	**12:08:58**	1.17	0.666	150.00	0.94	
06/23/11	**12:09:58**	1.21	0.657	150.00	0.94	
06/23/11	**12:10:58**	1.22	0.651	150.00	0.94	
06/23/11	**12:11:58**	1.19	0.650	150.00	0.94	2
06/23/11	**12:12:58**	1.19	0.653	150.00	0.94	
06/23/11	**12:13:58**	0.75	0.303	150.00	0.94	
06/23/11	**12:14:58**	0.30	0.000	150.00	0.94	3
06/23/11	**12:15:57**	0.30	0.000	150.00	0.94	
06/23/11	**12:16:57**	0.77	0.351	150.00	0.94	
06/23/11	**12:17:57**	1.19	0.663	150.00	0.94	
06/23/11	**12:18:57**	1.13	0.674	150.00	0.94	
06/23/11	**12:19:57**	1.21	0.680	150.00	0.94	
06/23/11	**12:20:57**	1.33	0.684	150.00	0.94	3
06/23/11	**12:21:57**	1.25	0.685	150.00	0.94	
06/23/11	**12:22:57**	0.71	0.286	150.00	0.94	
06/23/11	**12:23:57**	0.29	-0.003	150.00	0.94	4
06/23/11	**12:24:57**	0.34	-0.003	150.00	0.94	
06/23/11	**12:25:56**	0.76	0.317	150.00	0.94	
06/23/11	**12:26:56**	1.14	0.667	150.00	0.94	
06/23/11	**12:27:56**	1.17	0.664	150.00	0.94	
06/23/11	**12:28:56**	1.21	0.660	150.00	0.94	4
06/23/11	**12:29:56**	1.24	0.658	150.00	0.94	
06/23/11	**12:30:56**	0.73	0.319	150.00	0.94	
06/23/11	**12:31:56**	0.27	0.000	150.00	0.94	5
06/23/11	**12:32:56**	0.32	0.001	150.00	0.94	
06/23/11	**12:33:56**	0.69	0.267	150.00	0.94	

Method 301 Validation
Formaldehyde (H2CO)
Raw Data

unspiked
spiked

Date	Time	H2CO (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)	
06/23/11	**12:34:56**	1.14	0.637	150.00	0.94	
06/23/11	**12:35:55**	1.13	0.636	150.00	0.94	
06/23/11	**12:36:55**	1.16	0.633	150.00	0.94	
06/23/11	**12:37:55**	1.21	0.634	150.00	0.94	5
06/23/11	**12:38:55**	1.19	0.628	150.00	0.94	
06/23/11	**12:39:55**	1.02	0.517	150.00	0.94	
06/23/11	**12:40:55**	0.25	-0.003	150.00	0.94	6
06/23/11	**12:41:55**	0.27	-0.002	150.00	0.94	
06/23/11	**12:42:55**	0.50	0.208	150.00	0.94	
06/23/11	**12:43:55**	1.13	0.621	150.00	0.94	
06/23/11	**12:44:55**	1.11	0.627	150.00	0.94	
06/23/11	**12:45:54**	1.14	0.614	150.00	0.94	6
06/23/11	**12:46:54**	1.15	0.610	150.00	0.94	
06/23/11	**12:47:54**	0.98	0.475	150.00	0.94	
06/23/11	**12:48:54**	0.23	-0.003	150.00	0.94	7
06/23/11	**12:49:54**	0.20	-0.001	150.00	0.94	
06/23/11	**12:50:54**	0.35	0.050	150.00	0.94	
06/23/11	**12:51:54**	1.08	0.606	150.00	0.94	
06/23/11	**12:52:54**	1.08	0.614	150.00	0.94	
06/23/11	**12:53:54**	1.10	0.613	150.00	0.94	
06/23/11	**12:54:54**	1.14	0.615	150.00	0.94	
06/23/11	**12:55:53**	1.16	0.620	150.00	0.94	7
06/23/11	**12:56:53**	1.14	0.615	150.00	0.94	
06/23/11	**12:57:53**	0.66	0.319	150.00	0.94	
06/23/11	**12:58:53**	0.22	-0.001	150.00	0.94	8
06/23/11	**12:59:53**	0.25	-0.001	150.00	0.94	
06/23/11	**13:00:53**	0.55	0.237	150.00	0.94	
06/23/11	**13:01:53**	1.06	0.602	150.00	0.94	
06/23/11	**13:02:53**	1.04	0.607	150.00	0.94	
06/23/11	**13:03:53**	1.07	0.611	150.00	0.94	
06/23/11	**13:04:52**	1.11	0.608	150.00	0.94	
06/23/11	**13:05:52**	1.10	0.601	150.00	0.94	8
06/23/11	**13:06:52**	1.11	0.609	150.00	0.94	
06/23/11	**13:07:52**	1.08	0.618	150.00	0.94	
06/23/11	**13:08:52**	0.57	0.253	150.00	0.94	
06/23/11	**13:09:52**	0.24	-0.001	150.00	0.94	
06/23/11	**13:10:52**	0.18	-0.003	150.00	0.94	9
06/23/11	**13:11:52**	0.18	-0.002	150.00	0.94	
06/23/11	**13:12:52**	0.68	0.350	150.00	0.94	
06/23/11	**13:13:52**	1.03	0.610	150.00	0.94	
06/23/11	**13:14:52**	1.08	0.614	150.00	0.94	
06/23/11	**13:15:51**	1.16	0.616	150.00	0.94	
06/23/11	**13:16:51**	1.08	0.625	150.00	0.94	
06/23/11	**13:17:51**	1.15	0.628	150.00	0.94	9
06/23/11	**13:18:51**	1.15	0.628	150.00	0.94	
06/23/11	**13:19:51**	0.61	0.255	150.00	0.94	
06/23/11	**13:20:51**	0.22	-0.004	150.00	0.94	10
06/23/11	**13:21:51**	0.24	-0.004	150.00	0.94	
06/23/11	**13:22:51**	0.72	0.394	150.00	0.94	
06/23/11	**13:23:51**	1.04	0.628	150.00	0.94	
06/23/11	**13:24:50**	1.11	0.630	150.00	0.94	

Method 301 Validation
Formaldehyde (H2CO)
Raw Data

unspiked
spiked

Date	Time	H2CO (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)	
06/23/11	**13:25:50**	1.08	0.629	150.00	0.94	
06/23/11	**13:26:50**	1.14	0.629	150.00	0.94	10
06/23/11	**13:27:50**	1.18	0.625	150.00	0.94	
06/23/11	**13:28:50**	1.09	0.621	150.00	0.94	
06/23/11	**13:29:50**	0.63	0.268	150.00	0.94	
06/23/11	**13:30:50**	0.15	0.000	150.00	0.94	11
06/23/11	**13:31:50**	0.19	-0.002	150.00	0.94	
06/23/11	**13:32:50**	0.73	0.379	150.00	0.94	
06/23/11	**13:33:50**	1.09	0.610	150.00	0.94	
06/23/11	**13:34:49**	1.14	0.615	150.00	0.94	
06/23/11	**13:35:49**	1.14	0.616	150.00	0.94	
06/23/11	**13:36:49**	1.10	0.612	150.00	0.94	11
06/23/11	**13:37:49**	1.15	0.615	150.00	0.94	
06/23/11	**13:38:49**	0.78	0.402	150.00	0.94	
06/23/11	**13:39:49**	0.23	-0.002	150.00	0.94	12
06/23/11	**13:40:49**	0.19	-0.002	150.00	0.94	
06/23/11	**13:41:49**	0.26	0.057	150.00	0.94	
06/23/11	**13:42:49**	0.99	0.612	150.00	0.94	
06/23/11	**13:43:49**	1.03	0.629	150.00	0.94	
06/23/11	**13:44:48**	1.13	0.631	150.00	0.94	
06/23/11	**13:45:48**	1.12	0.630	150.00	0.94	12
06/23/11	**13:46:48**	1.12	0.635	150.00	0.94	
06/23/11	**13:47:48**	0.73	0.356	150.00	0.94	
06/23/11	**13:48:48**	0.16	-0.001	150.00	0.94	
06/23/11	**13:49:48**	0.15	-0.001	150.00	0.94	
06/23/11	**13:50:48**	0.20	-0.003	150.00	0.94	
06/23/11	**13:51:48**	0.20	-0.001	150.00	0.94	
06/23/11	**13:52:48**	0.16	-0.001	150.00	0.94	

Method 320 Validation
Formaldehyde (H2CO)

Method 320 Spikes for Formaldehyde (H2CO) using a Sulfur Hexafluoride (SF6) Tracer

Spike #1

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	17.23	0.000	0.001	1.568	1.567	1.567	100
1	H2CO	29.40	0.180	0.000	2.313	2.150	2.674	80
2								
3								

Dil Factor 0.091 Entered Values

Spike #2

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	17.23	0.000	0.001	2.517	2.516	2.516	100
1	H2CO	29.40	0.180	0.000	3.995	3.842	4.293	89
2								
3								

Dil Factor 0.146 Entered Values

Spike #3

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	17.23	0.000	0.001	0.709	0.708	0.708	100
1	H2CO	29.40	0.180	0.000	1.104	0.932	1.209	77
2								
3								

Dil Factor 0.041 Entered Values

Spike #4

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	17.23	0.000	0.001	0.875	0.875	0.875	100
1	H2CO	29.40	0.180	0.000	1.367	1.197	1.492	80
2								
3								

Dil Factor 0.051 Entered Values

Method 320 Validation
Formaldehyde (H2CO)
Raw Data

	Date	Time	H2CO (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)
Bkg	06/27/11	**10:26:10**	0.17	0.002	150.00	0.95
	06/27/11	**10:27:10**	0.15	-0.002	150.00	0.95
	06/27/11	**10:28:10**	0.22	0.001	150.00	0.95
	06/27/11	**10:29:09**	0.90	0.919	150.00	0.95
	06/27/11	**10:30:09**	1.48	1.610	150.00	0.95
	06/27/11	**10:31:09**	1.79	1.602	150.00	0.95
	06/27/11	**10:32:09**	2.03	1.596	150.00	0.95
	06/27/11	**10:33:09**	2.11	1.590	150.00	0.95
	06/27/11	**10:34:09**	2.14	1.585	150.00	0.95
	06/27/11	**10:35:09**	2.23	1.585	150.00	0.95
	06/27/11	**10:36:09**	2.17	1.573	150.00	0.95
	06/27/11	**10:37:09**	2.26	1.567	150.00	0.95
	06/27/11	**10:38:09**	2.28	1.572	150.00	0.95
	06/27/11	**10:39:08**	2.32	1.572	150.00	0.95
Spike 1	06/27/11	**10:40:08**	2.28	1.571	150.00	0.95
	06/27/11	**10:41:08**	2.26	1.565	150.00	0.95
	06/27/11	**10:42:08**	2.40	1.568	150.00	0.95
	06/27/11	**10:43:08**	2.42	1.622	150.00	0.95
	06/27/11	**10:44:08**	3.88	2.498	150.00	0.95
	06/27/11	**10:45:08**	3.90	2.496	150.00	0.95
	06/27/11	**10:46:08**	3.88	2.507	150.00	0.95
	06/27/11	**10:47:08**	3.97	2.509	150.00	0.95
Spike 2	06/27/11	**10:48:08**	4.03	2.521	150.00	0.95
	06/27/11	**10:49:07**	3.94	2.518	150.00	0.95
	06/27/11	**10:50:07**	4.01	2.511	150.00	0.95
	06/27/11	**10:51:07**	2.03	1.194	150.00	0.95
	06/27/11	**10:52:07**	1.20	0.726	150.00	0.95
	06/27/11	**10:53:07**	1.17	0.722	150.00	0.95
	06/27/11	**10:54:07**	1.11	0.723	150.00	0.95
	06/27/11	**10:55:07**	1.14	0.721	150.00	0.95
	06/27/11	**10:56:07**	1.12	0.716	150.00	0.95
	06/27/11	**10:57:07**	1.16	0.713	150.00	0.95
	06/27/11	**10:58:07**	1.09	0.711	150.00	0.95
	06/27/11	**10:59:06**	1.15	0.714	150.00	0.95
	06/27/11	**11:00:06**	1.07	0.705	150.00	0.95
Spike 3	06/27/11	**11:01:06**	1.07	0.707	150.00	0.95
	06/27/11	**11:02:06**	1.11	0.708	150.00	0.95
	06/27/11	**11:03:06**	1.13	0.711	150.00	0.95
	06/27/11	**11:04:06**	1.41	0.914	150.00	0.95
	06/27/11	**11:05:06**	1.25	0.795	150.00	0.95
	06/27/11	**11:06:06**	1.21	0.800	150.00	0.95
	06/27/11	**11:07:06**	1.38	0.932	150.00	0.95
	06/27/11	**11:08:06**	1.48	0.963	150.00	0.95
	06/27/11	**11:09:06**	1.24	0.779	150.00	0.95
	06/27/11	**11:10:05**	1.34	0.865	150.00	0.95
Spike 4	06/27/11	**11:11:05**	1.38	0.877	150.00	0.95
	06/27/11	**11:12:06**	1.34	0.874	150.00	0.95
	06/27/11	**11:13:05**	1.38	0.875	150.00	0.95
	06/27/11	**11:14:05**	0.43	0.201	150.00	0.95

Method 301 Validation
Acetaldehyde

Acetaldehyde: Validation by Dynamic Analyte Spiking (biases taken into account)

Spiking Data

Total tracer conc. (ppm):	16.787	
tracer conc. while line spiking (ppm):	0.387	
Percentage of native exhaust in total spiked sample:	0.977	
Cylinder conc. of analyte (ppm):	90.441	Dir Injection
Conc. of analyte spiked into extracted exhaust (ppm):	2.083	

Validation Data (conc. in ppm)

		Analyte Concentrations					Tracer Concentrations			
	Pair #	Unspiked Native Conc.	Corr. Native Conc.	Native + Spiked Conc.	Native + Spiked (meas.)	% Recovery	SF6 unspiked		SF6 spiked	
	1	-0.586	-0.572	1.511	1.261	83.428		-0.010		0.406
	2	-0.629	-0.614	1.469	1.374	93.511		-0.010		0.415
	3	-0.602	-0.588	1.495	1.212	81.045		-0.006		0.394
	4	-0.709	-0.693	1.391	1.291	92.843		-0.006		0.404
	5	-0.693	-0.677	1.406	1.320	93.891		-0.008		0.400
	6	-0.637	-0.622	1.461	1.167	79.848		-0.010		0.387
	7	-0.648	-0.633	1.451	1.143	78.794		-0.008		0.386
	8	-0.702	-0.686	1.398	0.988	70.661		-0.012		0.352
	9	-0.752	-0.735	1.348	0.971	71.985		-0.011		0.345
	10	-0.648	-0.633	1.450	1.003	69.177		-0.009		0.348
	11	-0.608	-0.594	1.489	1.023	68.708		-0.008		0.350
	12	-0.696	-0.679	1.404	1.099	78.303		-0.006		0.350
Mean Conc.:		-0.659	-0.644	1.439	1.154	80.183		-0.009		0.378

Method 320/301 Analyte Spiking Statistical Results

Mean of FTIR meas. spiked samples:	1.1543	
Mean of FTIR meas. unspiked samp:	-0.6590	
CS Calculated value of Spiked Samples:	1.4395	
SD St.Dev of spiked samples Eq 301-2:	0.1394	also Eq 301-5 in 2011 version of m301
SDM = SD/sqrt(12)	0.0403	
F-test:	0.0833	For n=6, if 0.139<F<7.146, calculate pooled SD
SD_{pooled}-pooled std. dev.:	NA	
RSD:	**0.1208**	RSD must be <= 0.20 for successful validation
RSD, if using pooled SD:	NA	RSD must be <= 0.50 for successful validation
B-bias at spike level m320 Eq. 7:	-0.2852	
t-statistic, Eq. 301-4:	**7.0845**	if t-stat.>=2.201 (11 degrees of freedom), then B is statistically significant must calc. and use CF (also Eq 301-6 in 2011 version of m301)
Br, Relative Bias Eq. 301-7 (2011 ver):	**0.1981**	If < 0.1 the CF not required (CF=1) if Br>0.3 then validation is unsucessful
CF-correction factor Eq. 301-5 (pre-2011):	**1.2471**	if 0.7<=CF<=1.3 or if B not statistically signif., then validation successful

Method 301 Validation
Acetaldehyde
Direct

Date	Time	Acetaldehyde (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)
06/30/11	**16:26:26**	0.00	0.000	149.55	1.01
06/30/11	**16:31:00**	0.09	0.006	149.55	1.01
06/30/11	**16:32:00**	-0.12	-0.001	149.57	1.01
06/30/11	**16:33:00**	-0.14	0.001	149.61	1.01
06/30/11	**16:34:00**	4.54	0.718	149.61	1.01
06/30/11	**16:35:00**	82.05	16.641	149.61	1.01
06/30/11	**16:36:00**	88.44	16.747	149.61	1.01
06/30/11	**16:37:00**	89.22	16.729	149.60	1.01
06/30/11	**16:37:59**	89.06	16.754	149.62	1.01
06/30/11	**16:38:59**	89.55	16.726	149.59	1.01
06/30/11	**16:39:59**	89.75	16.738	149.59	1.01
06/30/11	**16:40:59**	89.95	16.725	149.61	1.01
06/30/11	**16:41:59**	89.62	16.718	149.61	1.01
06/30/11	**16:42:59**	89.99	16.711	149.62	1.01
06/30/11	**16:43:59**	90.14	16.718	149.65	1.01
06/30/11	**16:44:59**	90.10	16.778	149.62	1.01
06/30/11	**16:45:59**	90.34	16.766	149.64	1.01
06/30/11	**16:46:59**	90.18	16.769	149.62	1.01
06/30/11	**16:47:59**	90.39	16.781	149.57	1.01
06/30/11	**16:48:58**	90.51	16.810	149.56	1.01
06/30/11	**16:49:58**	90.43	16.776	149.57	1.01
06/30/11	**16:50:58**	90.55	16.792	149.59	1.01
06/30/11	**16:51:58**	90.70	16.817	149.56	1.01
	Average	90.44	16.787		

Method 301 Validation
Acetaldehyde
Raw Data

Date	Time	Acetaldehyde (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)	
06/30/11	**17:09:46**	-0.69	-0.011	149.54	0.95	
06/30/11	**17:10:46**	-0.64	-0.005	149.55	0.95	
06/30/11	**17:11:46**	-0.59	-0.011	149.55	0.95	
06/30/11	**17:12:46**	-0.63	-0.006	149.54	0.95	
06/30/11	**17:13:46**	-0.60	-0.010	149.52	0.95	
06/30/11	**17:14:46**	-0.66	-0.008	149.53	0.95	
06/30/11	**17:15:46**	-0.82	-0.004	149.52	0.95	
06/30/11	**17:16:46**	-0.66	-0.009	149.51	0.95	
06/30/11	**17:17:45**	-0.69	-0.007	149.49	0.95	
06/30/11	**17:18:45**	-0.76	-0.006	149.50	0.95	
06/30/11	**17:19:45**	-0.67	-0.011	149.51	0.95	1
06/30/11	**17:20:45**	-0.50	-0.008	149.53	0.95	
06/30/11	**17:21:45**	-0.66	-0.009	149.53	0.95	
06/30/11	**17:22:45**	-0.64	-0.005	149.50	0.95	
06/30/11	**17:23:45**	3.24	0.948	149.52	0.95	
06/30/11	**17:24:45**	3.52	0.976	149.52	0.95	
06/30/11	**17:25:45**	3.68	0.957	149.53	0.95	
06/30/11	**17:26:45**	3.62	0.949	149.52	0.95	
06/30/11	**17:27:45**	3.41	0.854	149.55	0.95	
06/30/11	**17:28:44**	2.20	0.615	149.54	0.95	
06/30/11	**17:29:44**	1.48	0.415	149.55	0.95	
06/30/11	**17:30:44**	1.37	0.412	149.50	0.95	
06/30/11	**17:31:44**	1.29	0.408	149.53	0.95	1
06/30/11	**17:32:44**	1.23	0.404	149.51	0.95	
06/30/11	**17:33:44**	-0.07	0.082	149.52	0.95	
06/30/11	**17:34:44**	-0.46	-0.006	149.50	0.95	
06/30/11	**17:35:44**	-0.62	-0.009	149.53	0.95	2
06/30/11	**17:36:44**	-0.63	-0.012	149.56	0.95	
06/30/11	**17:37:44**	0.35	0.221	149.53	0.95	
06/30/11	**17:38:44**	0.58	0.265	149.58	0.95	
06/30/11	**17:39:43**	0.51	0.264	149.57	0.95	
06/30/11	**17:40:43**	0.46	0.264	149.55	0.95	
06/30/11	**17:41:43**	0.51	0.265	149.56	0.95	
06/30/11	**17:42:43**	0.49	0.260	149.52	0.95	
06/30/11	**17:43:43**	0.62	0.264	149.51	0.95	
06/30/11	**17:44:43**	0.62	0.293	149.46	0.95	
06/30/11	**17:45:43**	1.76	0.546	149.47	0.95	
06/30/11	**17:46:43**	1.40	0.464	149.53	0.95	
06/30/11	**17:47:43**	1.54	0.445	149.56	0.95	
06/30/11	**17:48:43**	1.27	0.386	149.53	0.95	
06/30/11	**17:49:43**	0.95	0.350	149.57	0.95	
06/30/11	**17:50:42**	0.96	0.348	149.55	0.95	
06/30/11	**17:51:42**	1.17	0.344	149.52	0.95	
06/30/11	**17:52:42**	1.16	0.344	149.54	0.95	
06/30/11	**17:53:42**	1.16	0.342	149.51	0.95	
06/30/11	**17:54:42**	0.73	0.341	149.51	0.95	
06/30/11	**17:55:42**	0.80	0.337	149.52	0.95	
06/30/11	**17:56:42**	1.35	0.384	149.53	0.95	
06/30/11	**17:57:42**	1.53	0.428	149.52	0.95	
06/30/11	**17:58:42**	1.44	0.429	149.50	0.95	
06/30/11	**17:59:42**	1.30	0.415	149.53	0.95	
06/30/11	**18:00:42**	1.37	0.414	149.53	0.95	2
06/30/11	**18:01:41**	1.38	0.415	149.54	0.95	
06/30/11	**18:02:41**	-0.20	0.100	149.53	0.95	
06/30/11	**18:03:41**	-0.56	-0.006	149.55	0.95	3
06/30/11	**18:04:41**	-0.65	-0.006	149.57	0.95	
06/30/11	**18:05:41**	0.74	0.307	149.58	0.95	
06/30/11	**18:06:41**	1.35	0.392	149.59	0.95	3
06/30/11	**18:07:41**	1.07	0.395	149.58	0.95	
06/30/11	**18:08:41**	0.02	0.112	149.56	0.95	
06/30/11	**18:09:41**	-0.73	-0.006	149.56	0.95	4
06/30/11	**18:10:41**	-0.68	-0.006	149.55	0.95	
06/30/11	**18:11:41**	0.83	0.305	149.54	0.95	
06/30/11	**18:12:40**	1.15	0.401	149.54	0.95	
06/30/11	**18:13:40**	1.31	0.404	149.53	0.95	4
06/30/11	**18:14:40**	1.27	0.404	149.52	0.95	

unspiked
spiked

Method 301 Validation
Acetaldehyde
Raw Data

Date	Time	Acetaldehyde (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)	
06/30/11	**18:15:40**	-0.16	0.095	149.53	0.95	
06/30/11	**18:16:40**	-0.69	-0.006	149.54	0.95	5
06/30/11	**18:17:40**	-0.69	-0.010	149.56	0.95	
06/30/11	**18:18:40**	0.10	0.161	149.60	0.95	
06/30/11	**18:19:40**	1.33	0.398	149.60	0.95	5
06/30/11	**18:20:40**	1.31	0.403	149.58	0.95	
06/30/11	**18:21:40**	-0.16	0.063	149.56	0.95	
06/30/11	**18:22:40**	-0.63	-0.009	149.56	0.95	6
06/30/11	**18:23:39**	-0.64	-0.011	149.56	0.95	
06/30/11	**18:24:39**	0.97	0.308	149.56	0.95	
06/30/11	**18:25:39**	1.16	0.386	149.57	0.95	6
06/30/11	**18:26:39**	1.18	0.389	149.57	0.95	
06/30/11	**18:27:39**	-0.22	0.074	149.57	0.95	
06/30/11	**18:28:39**	-0.70	-0.006	149.59	0.95	7
06/30/11	**18:29:39**	-0.59	-0.011	149.58	0.95	
06/30/11	**18:30:39**	0.80	0.304	149.58	0.95	
06/30/11	**18:31:39**	1.20	0.385	149.57	0.95	7
06/30/11	**18:32:39**	1.08	0.387	149.55	0.95	
06/30/11	**18:33:38**	-0.22	0.093	149.55	0.95	
06/30/11	**18:34:38**	-0.66	-0.014	149.56	0.95	8
06/30/11	**18:35:38**	-0.75	-0.009	149.55	0.95	
06/30/11	**18:36:38**	0.84	0.279	149.54	0.95	
06/30/11	**18:37:38**	1.04	0.350	149.55	0.95	8
06/30/11	**18:38:38**	0.93	0.355	149.55	0.95	
06/30/11	**18:39:38**	0.77	0.312	149.51	0.95	
06/30/11	**18:40:38**	-0.67	-0.008	149.49	0.95	
06/30/11	**18:41:38**	-0.76	-0.010	149.48	0.95	
06/30/11	**18:42:38**	-0.85	-0.010	149.51	0.95	9
06/30/11	**18:43:38**	-0.65	-0.011	149.51	0.95	
06/30/11	**18:44:38**	-0.69	0.028	149.50	0.95	
06/30/11	**18:45:37**	1.01	0.338	149.53	0.95	
06/30/11	**18:46:37**	0.98	0.344	149.55	0.95	9
06/30/11	**18:47:37**	0.96	0.347	149.56	0.95	
06/30/11	**18:48:37**	-0.46	0.052	149.55	0.95	
06/30/11	**18:49:37**	-0.65	-0.009	149.57	0.95	10
06/30/11	**18:50:37**	-0.64	-0.009	149.57	0.95	
06/30/11	**18:51:37**	0.80	0.283	149.57	0.95	
06/30/11	**18:52:37**	1.02	0.346	149.57	0.95	10
06/30/11	**18:53:37**	0.98	0.349	149.58	0.95	
06/30/11	**18:54:37**	-0.17	0.086	149.58	0.95	
06/30/11	**18:55:36**	-0.68	-0.005	149.57	0.95	11
06/30/11	**18:56:36**	-0.53	-0.010	149.59	0.95	
06/30/11	**18:57:36**	0.41	0.214	149.58	0.95	
06/30/11	**18:58:36**	1.09	0.344	149.57	0.95	
06/30/11	**18:59:36**	1.02	0.350	149.58	0.95	11
06/30/11	**19:00:36**	1.02	0.350	149.58	0.95	
06/30/11	**19:01:36**	-0.28	0.051	149.59	0.95	
06/30/11	**19:02:36**	-0.82	-0.005	149.57	0.95	12
06/30/11	**19:03:36**	-0.58	-0.006	149.60	0.95	
06/30/11	**19:04:36**	0.60	0.278	149.59	0.95	
06/30/11	**19:05:36**	1.05	0.344	149.60	0.95	
06/30/11	**19:06:35**	1.02	0.341	149.61	0.95	
06/30/11	**19:07:35**	1.24	0.348	149.60	0.95	12
06/30/11	**19:08:35**	0.96	0.352	149.58	0.95	
06/30/11	**19:09:35**	0.10	0.165	149.58	0.95	
06/30/11	**19:10:35**	-0.63	-0.008	149.56	0.95	
06/30/11	**19:11:35**	-0.63	-0.006	149.59	0.95	
06/30/11	**19:12:35**	-0.63	-0.009	149.59	0.95	
06/30/11	**19:13:35**	3.16	0.313	149.56	0.95	
06/30/11	**19:14:35**	0.60	-0.001	149.60	0.96	
06/30/11	**19:15:35**	0.17	-0.004	149.58	0.96	
06/30/11	**19:16:35**	0.64	0.209	149.56	0.96	
06/30/11	**19:17:34**	-0.56	-0.005	149.58	0.95	
06/30/11	**19:18:34**	-0.62	-0.003	149.60	0.95	

unspiked
spiked

Method 320 Validation
Acetaldehyde

Method 320 Spikes for Acetaldehyde (ACET) using a Sulfur Hexafluoride (SF6) Tracer

Spike #1

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	16.79	0.000	-0.008	0.252	0.259	0.259	100.0
1	ACET	90.44	0.000	-0.675	0.327	0.992	1.395	71.1
2								
3								

Dil Factor 0.015 Entered Values

Spike #2

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	16.79	0.000	-0.008	0.916	0.924	0.924	100.0
1	ACET	90.44	0.000	-0.658	3.874	4.497	4.976	90.4
2								
3								

Dil Factor 0.055 Entered Values

Spike #3

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	16.79	0.000	-0.008	0.446	0.453	0.453	100.0
1	ACET	90.44	0.000	-0.658	1.414	2.055	2.440	84.2
2								
3								

Dil Factor 0.027 Entered Values

Method 320 Validation
Acetaldehyde
Raw Data

	Date	Time	Acetaldehyde (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)
Bkg	06/30/11	**19:19:34**	-0.67	-0.007	149.58	0.95
	06/30/11	**19:20:34**	-0.68	-0.008	149.58	0.95
	06/30/11	**19:21:34**	-0.62	-0.008	149.60	0.95
	06/30/11	**19:22:34**	1.86	0.548	149.59	0.95
	06/30/11	**19:23:34**	0.61	0.357	149.61	0.95
	06/30/11	**19:24:34**	0.22	0.307	149.58	0.95
Spike 1	06/30/11	**19:25:34**	0.43	0.276	149.57	0.95
	06/30/11	**19:26:34**	0.31	0.257	149.59	0.95
	06/30/11	**19:27:34**	0.30	0.242	149.57	0.95
	06/30/11	**19:28:33**	0.28	0.232	149.60	0.95
	06/30/11	**19:29:33**	0.13	0.222	149.57	0.95
	06/30/11	**19:30:33**	0.15	0.215	149.57	0.95
	06/30/11	**19:31:33**	0.13	0.211	149.58	0.95
	06/30/11	**19:32:33**	0.19	0.199	149.59	0.95
	06/30/11	**19:33:33**	3.78	0.675	149.60	0.95
	06/30/11	**19:34:33**	4.04	0.964	149.59	0.95
	06/30/11	**19:35:33**	3.87	0.934	149.59	0.95
Spike 2	06/30/11	**19:36:33**	4.01	0.928	149.58	0.95
	06/30/11	**19:37:33**	3.87	0.918	149.60	0.95
	06/30/11	**19:38:33**	3.74	0.903	149.61	0.95
	06/30/11	**19:39:32**	1.55	0.475	149.59	0.95
	06/30/11	**19:40:32**	1.48	0.458	149.60	0.95
	06/30/11	**19:41:32**	1.42	0.451	149.59	0.95
Spike 3	06/30/11	**19:42:32**	1.38	0.446	149.59	0.95
	06/30/11	**19:43:32**	1.34	0.446	149.57	0.95
	06/30/11	**19:44:32**	1.53	0.444	149.59	0.95
	06/30/11	**19:45:32**	0.19	0.173	149.57	0.95
	06/30/11	**19:46:47**	0.09	-0.001	149.47	1.00
	06/30/11	**19:47:47**	0.14	-0.013	149.27	1.00

Propanal: Validation by Dynamic Analyte Spiking (biases taken into account)

Spiking Data

Total tracer conc. (ppm):	16.937	Dir. Inject
tracer conc. while line spiking (ppm):	0.290	
Percentage of native exhaust in total spiked sample:	0.983	
Certified cylinder conc. of analyte (ppm):	100	
Conc. of analyte spiked into extracted exhaust (ppm):	1.709	

Validation Data (conc. in ppm)

		Analyte Concentrations					Tracer Concentrations			
	Pair #	Unspiked Native Conc.	Corr. Native Conc.	Native + Spiked Conc.	Native + Spiked (meas.)	% Recovery	SF6 unspiked		SF6 spiked	
	1	-0.223	-0.219	1.491	1.461	98.018		-0.002		0.299
	2	-0.246	-0.241	1.468	1.357	92.419		0.001		0.292
	3	-0.166	-0.163	1.547	1.385	89.565		0.000		0.283
	4	-0.227	-0.223	1.487	1.407	94.654		-0.001		0.288
	5	-0.148	-0.146	1.564	1.291	82.586		-0.001		0.277
	6	-0.073	-0.071	1.638	1.399	85.415		-0.001		0.288
	7	-0.177	-0.174	1.535	1.399	91.138		-0.003		0.294
	8	-0.175	-0.172	1.538	1.342	87.301		0.000		0.292
	9	-0.246	-0.242	1.468	1.333	90.813		0.000		0.285
	10	-0.275	-0.270	1.439	1.430	99.344		-0.004		0.290
	11	-0.206	-0.202	1.507	1.429	94.798		-0.001		0.286
	12	-0.302	-0.297	1.413	1.341	94.934		0.000		0.288
Mean Conc.:		-0.205	-0.202	1.508	1.381	91.749		-0.001		0.289

Method 320/301 Analyte Spiking Statistical Results

Mean of FTIR meas. spiked samples:	1.3812	
Mean of FTIR meas. unspiked samp:	-0.2051	
CS Calculated value of Spiked Samples:	1.5077	
SD St.Dev of spiked samples Eq 301-2:	0.0490	also Eq 301-5 in 2011 version of m301
SDM = SD/sqrt(12)	0.0141	
F-test:	0.0833	For n=6, if 0.139<F<7.146, calculate pooled SD
SD_{pooled}-pooled std. dev.:	NA	
RSD:	**0.0355**	RSD must be <= 0.20 for successful validation
RSD, if using pooled SD:	NA	RSD must be <= 0.50 for successful validation
B-bias at spike level m320 Eq. 7:	-0.1265	
t-statistic, Eq. 301-4:	**8.9455**	if t-stat.>=2.201 (11 degrees of freedom), then B is statistically significant must calc. and use CF (also Eq 301-6 in 2011 version of m301)
Br, Relative Bias Eq. 301-7 (2011 ver):	**0.0839**	If < 0.1 the CF not required (CF=1) if Br>0.3 then validation is unsucessful
CF-correction factor Eq. 301-5 (pre-2011):	1.0916	if 0.7<=CF<=1.3 or if B not statistically signif., then validation successful

Method 301 Validation
Propanal
Direct

Date	Time	Propanal (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)
06/14/11	**20:51:29**	94.55	16.86	149.70	0.97
06/14/11	**20:51:38**	95.86	16.86	149.72	0.97
06/14/11	**20:51:48**	96.72	16.87	149.71	0.97
06/14/11	**20:51:57**	97.52	16.96	149.70	0.97
06/14/11	**20:52:06**	97.81	16.97	149.72	0.97
06/14/11	**20:52:16**	98.11	16.97	149.71	0.97
06/14/11	**20:52:25**	98.49	16.96	149.71	0.97
06/14/11	**20:52:35**	98.78	16.95	149.70	0.97
06/14/11	**20:52:44**	98.76	16.99	149.74	0.97
06/14/11	**20:52:53**	99.16	16.98	149.74	0.97
06/14/11	**20:53:03**	99.51	16.99	149.72	0.97
06/14/11	**20:53:12**	99.51	16.99	149.70	0.97
06/14/11	**20:53:21**	99.61	16.98	149.70	0.97
06/14/11	**20:53:31**	99.94	16.95	149.67	0.97
06/14/11	**20:53:40**	99.70	16.98	149.68	0.97
06/14/11	**20:53:49**	99.73	16.97	149.68	0.97
06/14/11	**20:53:59**	99.93	17.00	149.73	0.97
06/14/11	**20:54:08**	99.88	16.98	149.74	0.97
06/14/11	**20:54:17**	100.03	17.00	149.66	0.97
06/14/11	**20:54:27**	100.15	17.01	149.66	0.97
06/14/11	**20:54:36**	100.29	17.03	149.69	0.97
06/14/11	**20:54:46**	100.33	17.01	149.69	0.97
06/14/11	**20:54:55**	100.52	17.00	149.68	0.97
06/14/11	**20:55:04**	100.23	16.97	149.65	0.97
06/14/11	**20:55:14**	100.51	16.96	149.68	0.97
06/14/11	**20:55:23**	100.21	16.97	149.68	0.97
06/14/11	**20:55:32**	100.64	16.96	149.70	0.97
06/14/11	**20:55:42**	100.49	16.94	149.70	0.97
06/14/11	**20:55:51**	100.52	16.91	149.69	0.97
06/14/11	**20:56:00**	100.89	16.92	149.68	0.97
06/14/11	**20:56:10**	100.74	16.91	149.68	0.97
06/14/11	**20:56:19**	100.61	16.89	149.65	0.97
06/14/11	**20:56:28**	100.58	16.88	149.65	0.97
06/14/11	**20:56:38**	100.58	16.89	149.70	0.97
06/14/11	**20:56:47**	100.96	16.90	149.67	0.97
06/14/11	**20:56:57**	100.78	16.90	149.68	0.97
06/14/11	**20:57:06**	100.74	16.89	149.66	0.97
06/14/11	**20:57:15**	100.93	16.88	149.66	0.97
06/14/11	**20:57:25**	100.80	16.91	149.75	0.97
06/14/11	**20:57:34**	100.75	16.98	149.69	0.97
06/14/11	**20:57:43**	100.95	16.98	149.70	0.97
06/14/11	**20:57:53**	100.95	16.97	149.68	0.97
06/14/11	**20:58:02**	101.24	16.92	149.65	0.97
06/14/11	**20:58:11**	101.04	16.93	149.69	0.97
06/14/11	**20:58:21**	100.52	16.95	149.70	0.97
06/14/11	**20:58:30**	100.63	16.95	149.76	0.97
06/14/11	**20:58:40**	100.02	16.93	149.71	0.97
06/14/11	**20:58:49**	99.49	16.93	149.75	0.97
06/14/11	**20:58:58**	99.82	16.90	149.79	0.97
06/14/11	**20:59:08**	99.76	16.92	149.75	0.97
06/14/11	**20:59:17**	99.48	16.96	149.70	0.97

Method 301 Validation
Propanal
Direct

Date	Time	Propanal (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)
06/14/11	**20:59:26**	99.31	16.93	149.74	0.97
06/14/11	**20:59:36**	99.36	16.93	149.72	0.97
06/14/11	**20:59:45**	99.66	16.91	149.74	0.97
06/14/11	**20:59:54**	99.77	16.92	149.77	0.97
06/14/11	**21:00:04**	99.72	16.93	149.72	0.97
06/14/11	**21:00:13**	99.54	16.93	149.75	0.97
06/14/11	**21:00:22**	99.95	16.97	149.74	0.97
06/14/11	**21:00:32**	99.91	16.95	149.74	0.97
06/14/11	**21:00:41**	99.74	16.93	149.79	0.97
06/14/11	**21:00:51**	99.76	16.96	149.76	0.97
06/14/11	**21:01:00**	99.51	16.96	149.74	0.97
06/14/11	**21:01:09**	99.70	16.92	149.72	0.97
	Average	99.73	16.94		

Method 301 Validation
Propanal
Raw Data

unspiked
spiked

Date	Time	Propanal (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)
06/26/11	**12:14:22**	-0.19	-0.002	150.00	0.95
06/26/11	**12:15:22**	-0.17	-0.002	150.00	0.95
06/26/11	**12:16:22**	-0.23	-0.001	150.00	0.95
06/26/11	**12:17:22**	-0.30	-0.001	150.00	0.95
06/26/11	**12:18:21**	-0.16	-0.001	150.00	0.95
06/26/11	**12:19:21**	-0.23	-0.005	150.00	0.95
06/26/11	**12:20:21**	-0.25	-0.001	150.00	0.95
06/26/11	**12:21:21**	-0.21	-0.004	150.00	0.95
06/26/11	**12:22:21**	-0.16	-0.002	150.00	0.95
06/26/11	**12:23:21**	-0.24	-0.002	150.00	0.95
06/26/11	**12:24:21**	-0.16	0.001	150.00	0.95
06/26/11	**12:25:21**	-0.24	0.000	150.00	0.95
06/26/11	**12:26:21**	-0.15	0.000	150.00	0.95
06/26/11	**12:27:21**	-0.26	-0.001	150.00	0.95
06/26/11	**12:28:20**	-0.23	-0.003	150.00	0.95
06/26/11	**12:29:20**	-0.14	0.135	150.00	0.95
06/26/11	**12:30:20**	0.36	0.204	150.00	0.95
06/26/11	**12:31:20**	0.58	0.206	150.00	0.95
06/26/11	**12:32:20**	0.63	0.205	150.00	0.95
06/26/11	**12:33:20**	0.58	0.210	150.00	0.95
06/26/11	**12:34:20**	0.63	0.210	150.00	0.95
06/26/11	**12:35:20**	0.72	0.209	150.00	0.95
06/26/11	**12:36:20**	0.75	0.210	150.00	0.95
06/26/11	**12:37:20**	0.85	0.209	150.00	0.95
06/26/11	**12:38:19**	0.85	0.211	150.00	0.95
06/26/11	**12:39:19**	0.86	0.204	150.00	0.95
06/26/11	**12:40:19**	0.84	0.210	150.00	0.95
06/26/11	**12:41:19**	0.90	0.206	150.00	0.95
06/26/11	**12:42:19**	0.83	0.207	150.00	0.95
06/26/11	**12:43:19**	0.89	0.210	150.00	0.95
06/26/11	**12:44:26**	0.97	0.208	150.00	0.95
06/26/11	**12:45:26**	0.93	0.210	150.00	0.95
06/26/11	**12:46:26**	1.00	0.209	150.00	0.95
06/26/11	**12:47:26**	0.97	0.210	150.00	0.95
06/26/11	**12:48:26**	0.92	0.207	150.00	0.95
06/26/11	**12:49:26**	0.93	0.210	150.00	0.95
06/26/11	**12:50:26**	1.07	0.210	150.00	0.95
06/26/11	**12:51:26**	0.77	0.162	150.00	0.95
06/26/11	**12:52:26**	-0.19	-0.002	150.00	0.95
06/26/11	**12:53:25**	8.49	0.983	150.00	0.95
06/26/11	**12:54:25**	-0.27	0.000	150.00	0.95
06/26/11	**12:55:33**	1.68	0.302	150.00	0.95
06/26/11	**12:56:33**	3.38	0.647	150.00	0.95
06/26/11	**12:57:33**	5.19	1.005	150.00	0.95
06/26/11	**12:58:32**	5.36	0.999	150.00	0.95
06/26/11	**12:59:32**	4.39	0.839	150.00	0.95
06/26/11	**13:00:32**	2.37	0.469	150.00	0.95
06/26/11	**13:01:32**	2.36	0.466	150.00	0.95
06/26/11	**13:02:32**	2.38	0.463	150.00	0.95
06/26/11	**13:03:32**	2.38	0.465	150.00	0.95
06/26/11	**13:04:32**	1.81	0.355	150.00	0.95

Method 301 Validation
Propanal
Raw Data

Date	Time	Propanal (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	13:05:32	-0.17	-0.004	150.00	0.95	1
06/26/11	13:06:32	-0.27	-0.001	150.00	0.95	
06/26/11	13:07:32	2.11	0.381	150.00	0.95	
06/26/11	13:08:31	1.42	0.297	150.00	0.95	
06/26/11	13:09:31	1.38	0.298	150.00	0.95	
06/26/11	13:10:31	1.52	0.303	150.00	0.95	1
06/26/11	13:11:31	1.40	0.296	150.00	0.95	
06/26/11	13:12:31	0.55	0.116	150.00	0.95	
06/26/11	13:13:31	-0.16	0.002	150.00	0.95	2
06/26/11	13:14:31	-0.33	0.000	150.00	0.95	
06/26/11	13:15:31	1.03	0.209	150.00	0.95	
06/26/11	13:16:31	1.31	0.289	150.00	0.95	2
06/26/11	13:17:30	1.40	0.295	150.00	0.95	
06/26/11	13:18:30	0.42	0.109	150.00	0.95	
06/26/11	13:19:30	-0.23	0.002	150.00	0.95	3
06/26/11	13:20:30	-0.10	-0.001	150.00	0.95	
06/26/11	13:21:30	0.52	0.129	150.00	0.95	
06/26/11	13:22:30	1.37	0.284	150.00	0.95	3
06/26/11	13:23:30	1.40	0.282	150.00	0.95	
06/26/11	13:24:30	0.81	0.178	150.00	0.95	
06/26/11	13:25:30	-0.21	-0.001	150.00	0.95	4
06/26/11	13:26:30	-0.24	0.000	150.00	0.95	
06/26/11	13:27:29	0.57	0.145	150.00	0.95	
06/26/11	13:28:29	1.44	0.289	150.00	0.95	4
06/26/11	13:29:29	1.37	0.287	150.00	0.95	
06/26/11	13:30:29	0.31	0.091	150.00	0.95	
06/26/11	13:31:29	-0.18	0.000	150.00	0.95	5
06/26/11	13:32:29	-0.12	-0.001	150.00	0.95	
06/26/11	13:33:29	0.80	0.179	150.00	0.95	
06/26/11	13:34:29	1.36	0.277	150.00	0.95	
06/26/11	13:35:29	1.28	0.279	150.00	0.95	5
06/26/11	13:36:29	1.31	0.274	150.00	0.95	
06/26/11	13:37:28	0.68	0.148	150.00	0.95	
06/26/11	13:38:28	-0.11	-0.001	150.00	0.95	6
06/26/11	13:39:28	-0.03	-0.001	150.00	0.95	
06/26/11	13:40:28	0.84	0.187	150.00	0.95	
06/26/11	13:41:28	1.38	0.288	150.00	0.95	6
06/26/11	13:42:28	1.42	0.289	150.00	0.95	
06/26/11	13:43:28	0.52	0.129	150.00	0.95	
06/26/11	13:44:28	-0.19	-0.001	150.00	0.95	7
06/26/11	13:45:28	-0.17	-0.005	150.00	0.95	
06/26/11	13:46:27	0.91	0.217	150.00	0.95	
06/26/11	13:47:27	1.30	0.288	150.00	0.95	7
06/26/11	13:48:27	1.50	0.300	150.00	0.95	
06/26/11	13:49:27	1.05	0.226	150.00	0.95	
06/26/11	13:50:27	-0.16	0.000	150.00	0.95	8
06/26/11	13:51:27	-0.19	0.000	150.00	0.95	
06/26/11	13:52:27	0.93	0.205	150.00	0.95	
06/26/11	13:53:27	1.37	0.291	150.00	0.95	8
06/26/11	13:54:27	1.31	0.292	150.00	0.95	
06/26/11	13:55:27	0.27	0.093	150.00	0.95	

unspiked
spiked

Method 301 Validation
Propanal
Raw Data

Date	Time	Propanal (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**13:56:27**	-0.21	0.002	150.00	0.95	9
06/26/11	**13:57:26**	-0.28	-0.003	150.00	0.95	
06/26/11	**13:58:26**	0.56	0.149	150.00	0.95	
06/26/11	**13:59:26**	1.31	0.283	150.00	0.95	9
06/26/11	**14:00:26**	1.36	0.288	150.00	0.95	
06/26/11	**14:01:26**	0.43	0.111	150.00	0.95	
06/26/11	**14:02:26**	-0.26	-0.002	150.00	0.95	10
06/26/11	**14:03:26**	-0.29	-0.005	150.00	0.95	
06/26/11	**14:04:26**	0.89	0.195	150.00	0.95	
06/26/11	**14:05:26**	1.46	0.288	150.00	0.95	10
06/26/11	**14:06:25**	1.40	0.293	150.00	0.95	
06/26/11	**14:07:25**	0.33	0.088	150.00	0.95	
06/26/11	**14:08:25**	-0.20	-0.001	150.00	0.95	11
06/26/11	**14:09:25**	-0.22	-0.002	150.00	0.95	
06/26/11	**14:10:25**	0.27	0.076	150.00	0.95	
06/26/11	**14:11:25**	1.44	0.285	150.00	0.95	11
06/26/11	**14:12:25**	1.42	0.287	150.00	0.95	
06/26/11	**14:13:25**	0.60	0.144	150.00	0.95	
06/26/11	**14:14:25**	-0.27	-0.001	150.00	0.95	12
06/26/11	**14:15:25**	-0.33	0.000	150.00	0.95	
06/26/11	**14:16:25**	0.81	0.155	150.00	0.95	
06/26/11	**14:17:24**	1.30	0.286	150.00	0.95	12
06/26/11	**14:18:24**	1.38	0.290	150.00	0.95	
06/26/11	**14:19:24**	0.30	0.072	150.00	0.95	
06/26/11	**14:20:24**	-0.38	0.000	150.00	0.95	
06/26/11	**14:21:24**	-0.17	-0.005	150.00	0.95	
06/26/11	**14:22:24**	-0.21	-0.001	150.00	0.95	
06/26/11	**14:23:24**	-0.28	-0.003	150.00	0.95	
06/26/11	**14:24:24**	-0.19	-0.004	150.00	0.95	
06/26/11	**14:25:24**	-0.10	-0.003	150.00	0.95	
06/26/11	**14:26:23**	-0.24	-0.002	150.00	0.95	
06/26/11	**14:27:23**	-0.40	0.002	150.00	0.95	
06/26/11	**14:28:23**	-0.14	-0.003	150.00	0.95	
06/26/11	**14:29:23**	-0.22	0.000	150.00	0.95	

unspiked
spiked

Method 320 Validation
Propanal

Method 320 Spikes for Propanal (Prop) using a Sulfur Hexafluoride (SF6) Tracer

Spike #1

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	16.94	0.000	0.001	0.721	0.721	0.721	100
1	Prop	100.00	0.000	-0.416	3.828	4.226	4.254	99
2								
3								

Dil Factor 0.043 Entered Values

Spike #2

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	16.94	0.000	0.001	0.284	0.284	0.284	100
1	Prop	100.00	0.000	-0.416	1.397	1.806	1.675	108
2								
3								

Dil Factor 0.017 Entered Values

Spike #3

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	SF6	16.94	0.000	0.001	0.468	0.468	0.468	100
1	Prop	100.00	0.000	-0.416	2.338	2.743	2.761	99
2								
3								

Dil Factor 0.028 Entered Values

Method 320 Validation
Propanal
Raw Data

	Date	Time	Propanal (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)
	06/27/11	**9:28:45**	0.00	0.000	150.00	1.01
	06/27/11	**9:32:16**	-0.46	-0.001	150.00	0.95
	06/27/11	**9:33:15**	-0.38	-0.002	150.00	0.95
	06/27/11	**9:34:15**	-0.35	-0.003	150.00	0.95
	06/27/11	**9:35:15**	-0.33	-0.002	150.00	0.95
	06/27/11	**9:36:15**	-0.43	-0.002	150.00	0.95
	06/27/11	**9:37:15**	-0.53	-0.003	150.00	0.95
	06/27/11	**9:38:14**	-0.46	0.001	150.00	0.95
	06/27/11	**9:39:14**	-0.46	0.000	150.00	0.95
	06/27/11	**9:40:14**	-0.45	0.000	150.00	0.95
	06/27/11	**9:41:14**	-0.33	0.001	150.00	0.95
	06/27/11	**9:42:14**	-0.40	0.000	150.00	0.95
	06/27/11	**9:43:14**	-0.54	-0.003	150.00	0.95
	06/27/11	**9:44:14**	-0.09	0.000	150.00	0.95
	06/27/11	**9:45:14**	-0.30	-0.003	150.00	0.95
	06/27/11	**9:46:14**	-0.33	-0.002	150.00	0.95
	06/27/11	**9:47:14**	-0.19	-0.003	150.00	0.95
	06/27/11	**9:48:13**	-0.29	-0.005	150.00	0.95
	06/27/11	**9:49:13**	-0.35	-0.002	150.00	0.95
	06/27/11	**9:50:13**	-0.22	-0.002	150.00	0.95
	06/27/11	**9:51:13**	-0.31	-0.001	150.00	0.95
	06/27/11	**9:52:13**	-0.27	-0.004	150.00	0.95
	06/27/11	**9:53:13**	-0.24	0.002	150.00	0.95
	06/27/11	**9:54:13**	-0.18	0.000	150.00	0.95
	06/27/11	**9:55:13**	-0.15	-0.001	150.00	0.95
	06/27/11	**9:56:13**	-0.21	-0.001	150.00	0.95
	06/27/11	**9:57:13**	-0.30	0.000	150.00	0.95
	06/27/11	**9:58:13**	1.91	0.426	150.00	0.95
	06/27/11	**9:59:12**	3.41	0.718	150.00	0.95
	06/27/11	**10:00:12**	3.59	0.718	150.00	0.95
	06/27/11	**10:01:12**	3.70	0.720	150.00	0.95
	06/27/11	**10:02:12**	3.75	0.719	150.00	0.95
	06/27/11	**10:03:12**	3.81	0.723	150.00	0.95
	06/27/11	**10:04:12**	3.69	0.716	150.00	0.95
	06/27/11	**10:05:12**	3.75	0.721	150.00	0.95
	06/27/11	**10:06:12**	3.84	0.721	150.00	0.95
Spike 1	06/27/11	**10:07:12**	3.74	0.721	150.00	0.95
	06/27/11	**10:08:12**	3.81	0.721	150.00	0.95
	06/27/11	**10:09:11**	3.93	0.721	150.00	0.95
	06/27/11	**10:10:11**	2.33	0.455	150.00	0.95
	06/27/11	**10:11:11**	1.34	0.291	150.00	0.95
	06/27/11	**10:12:11**	1.30	0.287	150.00	0.95
	06/27/11	**10:13:11**	1.31	0.284	150.00	0.95
Spike 2	06/27/11	**10:14:11**	1.39	0.286	150.00	0.95
	06/27/11	**10:15:11**	1.33	0.282	150.00	0.95
	06/27/11	**10:16:11**	1.47	0.285	150.00	0.95
	06/27/11	**10:17:11**	2.08	0.413	150.00	0.95
	06/27/11	**10:18:11**	2.30	0.468	150.00	0.95
Spike 3	06/27/11	**10:19:10**	2.35	0.468	150.00	0.95
	06/27/11	**10:20:10**	2.37	0.469	150.00	0.95
	06/27/11	**10:21:10**	2.29	0.467	150.00	0.95
	06/27/11	**10:22:10**	2.53	0.475	150.00	0.95
	06/27/11	**10:23:10**	0.69	0.176	150.00	0.95
	06/27/11	**10:24:10**	-0.38	-0.001	150.00	0.95
	06/27/11	**10:25:10**	-0.45	0.001	150.00	0.95
Bkg	06/27/11	**10:26:10**	-0.46	0.002	150.00	0.95
	06/27/11	**10:27:10**	-0.44	-0.002	150.00	0.95
	06/27/11	**10:28:10**	-0.34	0.001	150.00	0.95

Method 301 Validation
Acetonitrile

Acetonitrile: Validation by Dynamic Analyte Spiking (biases taken into account)

Spiking Data

Total tracer conc. (ppm):	20.121
tracer conc. while line spiking (ppm):	0.757
Percentage of native exhaust in total spiked sample:	0.962
Certified cylinder conc. of analyte (ppm):	19.9
Conc. of analyte spiked into extracted exhaust (ppm):	0.749

Validation Data (conc. in ppm)

	Pair #	Analyte Concentrations: Unspiked Native Conc.	Corr. Native Conc.	Native + Spiked Conc.	Native + Spiked (meas.)	% Recovery	Tracer Concentrations: C2Cl4 unspiked		C2Cl4 spiked	
	1	2.314	2.227	2.976	-0.827	-27.795		0.068		0.794
	2	1.268	1.220	1.969	-0.299	-15.199		0.027		0.818
	3	1.000	0.963	1.712	-1.162	-67.900		0.068		0.840
	4	0.557	0.536	1.285	0.217	16.872		0.008		0.829
	5	-0.618	-0.595	0.154	-0.617	-399.824		0.054		0.722
	6	0.226	0.218	0.967	0.477	49.305		0.001		0.813
	7	-0.177	-0.171	0.579	0.357	61.726		0.064		0.794
	8	0.515	0.496	1.245	2.566	206.189		0.034		0.733
	9	0.177	0.170	0.920	-0.249	-27.121		0.052		0.788
	10	-1.173	-1.129	-0.380	0.764	-201.214		0.001		0.808
	11	0.420	0.404	1.153	0.893	77.483		0.003		0.818
	12	-2.050	-1.973	-1.224	0.107	-8.748		0.072		0.786
Mean Conc.:		0.205	0.197	0.946	0.186	-28.019		0.038		0.795

Method 320/301 Analyte Spiking Statistical Results

Mean of FTIR meas. spiked samples:	0.1855	
Mean of FTIR meas. unspiked samp:	0.2049	
CS Calculated value of Spiked Samples:	0.9464	
SD St.Dev of spiked samples Eq 301-2:	0.9787	also Eq 301-5 in 2011 version of m301
SDM = SD/sqrt(12)	0.2825	
F-test:	0.0833	For n=6, if 0.139<F<7.146, calculate pooled SD
SD_{pooled}-pooled std. dev.:	NA	
RSD:	**5.2748**	RSD must be <= 0.20 for successful validation
RSD, if using pooled SD:	NA	RSD must be <= 0.50 for successful validation
B-bias at spike level m320 Eq. 7:	-0.7608	
t-statistic, Eq. 301-4:	2.6930	if t-stat.>=2.201 (11 degrees of freedom), then B is statistically significant must calc. and use CF (also Eq 301-6 in 2011 version of m301)
Br, Relative Bias Eq. 301-7 (2011 ver):	0.8039	If < 0.1 the CF not required (CF=1) if Br>0.3 then validation is unsucessful
CF-correction factor Eq. 301-5 (pre-2011):	**5.1006**	if 0.7<=CF<=1.3 or if B not statistically signif., then validation successful

Method 301 Validation
Acetonitrile
Direct

Date	Time	Acetonitrile (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)
06/26/11	**15:07:27**	10.20	20.06	150.00	1.01
06/26/11	**15:08:27**	10.19	20.12	150.00	1.01
06/26/11	**15:09:27**	10.21	20.16	150.00	1.01
06/26/11	**15:10:27**	9.70	20.08	150.00	1.01
06/26/11	**15:11:27**	9.84	20.20	150.00	1.01
	Average	10.034028	20.12079		

Method 301 Validation
Acetonitrile
Raw Data

unspiked
spiked

Date	Time	Acetonitrile (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**16:42:54**	0.00	0.00	150.00	1.01	
06/26/11	**16:43:56**	-1.44	0.00	150.00	1.01	
06/26/11	**16:45:55**	-1.74	-0.01	150.00	0.98	
06/26/11	**16:46:55**	-2.25	0.02	150.00	0.95	
06/26/11	**16:47:55**	-0.59	0.12	150.00	0.95	
06/26/11	**16:48:55**	-0.08	-0.06	150.00	0.95	
06/26/11	**16:49:55**	1.98	0.35	150.00	0.95	
06/26/11	**16:50:55**	-0.03	0.36	150.00	0.95	
06/26/11	**16:51:55**	1.59	0.08	150.00	0.95	
06/26/11	**16:52:55**	-1.22	0.21	150.00	0.95	
06/26/11	**16:53:55**	-3.45	0.41	150.00	0.95	
06/26/11	**16:54:55**	-1.06	0.33	150.00	0.95	
06/26/11	**16:55:55**	1.00	0.25	150.00	0.95	
06/26/11	**16:56:54**	-2.40	0.23	150.00	0.95	
06/26/11	**16:57:54**	-2.02	0.25	150.00	0.95	
06/26/11	**16:58:54**	-1.15	0.32	150.00	0.95	
06/26/11	**16:59:58**	-0.47	0.18	150.00	0.95	
06/26/11	**17:00:58**	0.69	0.04	150.00	0.95	
06/26/11	**17:01:58**	-1.78	0.02	150.00	0.95	
06/26/11	**17:02:58**	-2.11	-0.01	150.00	0.95	
06/26/11	**17:03:57**	0.45	-0.01	150.00	0.95	
06/26/11	**17:04:57**	-0.78	0.06	150.00	0.95	
06/26/11	**17:07:05**	-2.52	0.09	150.00	0.95	
06/26/11	**17:08:05**	0.99	0.07	150.00	0.95	
06/26/11	**17:09:05**	-0.16	0.08	150.00	0.95	
06/26/11	**17:10:05**	0.05	0.01	150.00	0.95	
06/26/11	**17:11:05**	0.84	-0.01	150.00	0.95	
06/26/11	**17:12:05**	1.39	-0.05	150.00	0.95	
06/26/11	**17:13:05**	0.01	0.04	150.00	0.95	
06/26/11	**17:14:04**	-0.44	0.01	150.00	0.95	
06/26/11	**17:15:04**	-0.25	0.35	150.00	0.95	
06/26/11	**17:16:04**	-2.02	0.81	150.00	0.95	
06/26/11	**17:17:04**	-0.92	0.76	150.00	0.95	
06/26/11	**17:18:04**	-1.68	0.82	150.00	0.95	
06/26/11	**17:19:04**	-0.31	0.84	150.00	0.95	
06/26/11	**17:20:04**	-0.86	0.19	150.00	0.95	
06/26/11	**17:21:04**	1.77	0.02	150.00	0.95	
06/26/11	**17:22:04**	-0.62	0.10	150.00	0.95	
06/26/11	**17:23:04**	0.82	0.05	150.00	0.95	
06/26/11	**17:24:03**	-1.10	0.04	150.00	0.95	
06/26/11	**17:25:03**	0.88	0.54	150.00	0.95	
06/26/11	**17:26:03**	-2.56	0.75	150.00	0.95	
06/26/11	**17:27:03**	-0.53	0.82	150.00	0.95	
06/26/11	**17:28:03**	-1.16	0.73	150.00	0.95	
06/26/11	**17:29:03**	-1.40	0.15	150.00	0.95	
06/26/11	**17:30:03**	1.95	0.05	150.00	0.95	1
06/26/11	**17:31:03**	2.68	0.09	150.00	0.95	
06/26/11	**17:32:03**	0.45	0.58	150.00	0.95	
06/26/11	**17:33:03**	-0.23	0.75	150.00	0.95	1
06/26/11	**17:34:02**	-1.43	0.84	150.00	0.95	
06/26/11	**17:35:02**	-0.34	0.53	150.00	0.95	

Method 301 Validation
Acetonitrile
Raw Data

unspiked
spiked

Date	Time	Acetonitrile (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	17:36:02	0.41	0.02	150.00	0.95	2
06/26/11	17:37:02	2.13	0.03	150.00	0.95	
06/26/11	17:38:02	1.08	0.01	150.00	0.95	
06/26/11	17:39:02	-2.49	0.63	150.00	0.95	
06/26/11	17:40:02	-0.68	0.83	150.00	0.95	2
06/26/11	17:41:02	0.08	0.80	150.00	0.95	
06/26/11	17:42:02	1.20	0.37	150.00	0.95	
06/26/11	17:43:02	-0.61	0.03	150.00	0.95	3
06/26/11	17:44:01	2.61	0.11	150.00	0.95	
06/26/11	17:45:01	-1.59	0.51	150.00	0.95	
06/26/11	17:46:01	1.87	0.78	150.00	0.95	
06/26/11	17:47:01	0.58	0.84	150.00	0.95	3
06/26/11	17:48:01	-2.91	0.84	150.00	0.95	
06/26/11	17:49:01	-1.45	0.36	150.00	0.95	
06/26/11	17:50:01	0.71	0.06	150.00	0.95	
06/26/11	17:51:01	0.47	-0.01	150.00	0.95	4
06/26/11	17:52:01	0.65	0.03	150.00	0.95	
06/26/11	17:53:01	-0.66	0.62	150.00	0.95	
06/26/11	17:54:00	-0.18	0.79	150.00	0.95	4
06/26/11	17:55:00	0.61	0.87	150.00	0.95	
06/26/11	17:56:00	1.17	0.30	150.00	0.95	
06/26/11	17:57:00	-1.10	0.04	150.00	0.95	5
06/26/11	17:58:00	-0.14	0.07	150.00	0.95	
06/26/11	17:59:00	0.51	-0.01	150.00	0.95	
06/26/11	18:00:00	-0.27	0.61	150.00	0.95	5
06/26/11	18:01:00	-0.96	0.83	150.00	0.95	
06/26/11	18:02:00	-0.45	0.79	150.00	0.95	
06/26/11	18:03:00	0.40	0.42	150.00	0.95	
06/26/11	18:03:59	-0.77	0.00	150.00	0.95	
06/26/11	18:04:59	0.48	-0.02	150.00	0.95	6
06/26/11	18:05:59	-0.03	0.03	150.00	0.95	
06/26/11	18:06:59	1.12	0.44	150.00	0.95	
06/26/11	18:07:59	1.02	0.84	150.00	0.95	6
06/26/11	18:08:59	-0.07	0.79	150.00	0.95	
06/26/11	18:09:59	-1.59	0.31	150.00	0.95	
06/26/11	18:10:59	0.00	0.07	150.00	0.95	7
06/26/11	18:11:59	-0.36	0.06	150.00	0.95	
06/26/11	18:12:59	-0.98	0.63	150.00	0.95	
06/26/11	18:13:58	0.00	0.76	150.00	0.95	
06/26/11	18:14:58	0.51	0.79	150.00	0.95	7
06/26/11	18:15:58	0.20	0.79	150.00	0.95	
06/26/11	18:16:58	1.50	0.24	150.00	0.95	
06/26/11	18:17:58	0.90	0.08	150.00	0.95	8
06/26/11	18:18:58	0.13	-0.01	150.00	0.95	
06/26/11	18:19:58	-0.46	0.69	150.00	0.95	
06/26/11	18:20:58	0.22	0.80	150.00	0.95	
06/26/11	18:21:58	1.90	0.68	150.00	0.95	8
06/26/11	18:22:58	3.23	0.78	150.00	0.95	
06/26/11	18:23:57	-1.25	0.80	150.00	0.95	
06/26/11	18:24:57	0.00	0.15	150.00	0.95	
06/26/11	18:25:57	0.92	0.01	150.00	0.95	9

Method 301 Validation
Acetonitrile
Raw Data

unspiked
spiked

Date	Time	Acetonitrile (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**18:26:57**	-0.57	0.09	150.00	0.95	
06/26/11	**18:27:57**	1.80	0.02	150.00	0.95	
06/26/11	**18:28:57**	-0.29	0.03	150.00	0.95	
06/26/11	**18:29:57**	1.65	0.60	150.00	0.95	
06/26/11	**18:30:57**	-0.38	0.81	150.00	0.95	9
06/26/11	**18:31:57**	-0.12	0.77	150.00	0.95	
06/26/11	**18:32:57**	2.01	0.17	150.00	0.95	
06/26/11	**18:33:56**	0.42	0.00	150.00	0.95	
06/26/11	**18:34:56**	0.42	0.00	150.00	0.95	10
06/26/11	**18:35:56**	-2.77	0.00	150.00	0.95	
06/26/11	**18:36:56**	0.64	0.60	150.00	0.95	
06/26/11	**18:37:56**	1.20	0.82	150.00	0.95	
06/26/11	**18:38:56**	0.13	0.81	150.00	0.95	10
06/26/11	**18:39:56**	1.39	0.80	150.00	0.95	
06/26/11	**18:40:56**	2.18	0.23	150.00	0.95	
06/26/11	**18:41:56**	-0.18	0.02	150.00	0.95	11
06/26/11	**18:42:56**	1.02	-0.01	150.00	0.95	
06/26/11	**18:43:55**	1.61	0.05	150.00	0.95	
06/26/11	**18:44:55**	-1.75	-0.01	150.00	0.95	
06/26/11	**18:45:55**	0.44	0.56	150.00	0.95	
06/26/11	**18:46:55**	0.82	0.79	150.00	0.95	11
06/26/11	**18:47:55**	0.97	0.85	150.00	0.95	
06/26/11	**18:48:55**	-0.53	0.26	150.00	0.95	
06/26/11	**18:49:55**	-1.96	0.07	150.00	0.95	12
06/26/11	**18:50:55**	-2.14	0.07	150.00	0.95	
06/26/11	**18:51:55**	0.97	0.71	150.00	0.95	
06/26/11	**18:52:55**	0.07	0.80	150.00	0.95	12
06/26/11	**18:53:54**	0.14	0.77	150.00	0.95	
06/26/11	**18:54:54**	-0.30	0.15	150.00	0.95	
06/26/11	**18:55:54**	0.14	-0.02	150.00	0.95	
06/26/11	**18:56:54**	-2.87	0.10	150.00	0.95	

Method 320 Validation
Acetonitrile

Method 320 Spikes for Acetonitrile (ACTNL) using a Tetrachloroethylene (C2Cl4) Tracer

Spike #1

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	0.911	0.905	0.905	100.0
1	ACTNL	19.90	0.000	0.477	-0.744	-1.200	0.895	-134.1
2								
3								

Dil Factor 0.045 Entered Values

Spike #2

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	0.519	0.513	0.513	100.0
1	ACTNL	19.90	0.000	0.477	-0.239	-0.704	0.507	-138.9
2								
3								

Dil Factor 0.025 Entered Values

Spike #3

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	1.713	1.707	1.707	100.0
1	ACTNL	19.90	0.000	0.477	0.602	0.166	1.688	9.8
2								
3								

Dil Factor 0.085 Entered Values

Method 320 Validation
Acetonitrile
Raw Data

	Date	Time	ACTNL (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)
Bkg	06/27/11	**11:16:38**	0.00	0.00	150.00	0.95
	06/27/11	**11:17:38**	1.18	0.04	150.00	0.95
	06/27/11	**11:18:38**	0.26	-0.02	150.00	0.95
	06/27/11	**11:19:38**	-3.44	0.03	150.00	0.95
	06/27/11	**11:20:38**	-4.04	0.08	150.00	0.95
	06/27/11	**11:21:38**	0.07	1.31	150.00	0.95
	06/27/11	**11:22:37**	-3.80	0.89	150.00	0.95
	06/27/11	**11:23:37**	-2.33	0.84	150.00	0.95
	06/27/11	**11:24:37**	-1.36	0.91	150.00	0.95
	06/27/11	**11:25:37**	-0.78	0.85	150.00	0.95
Spike 1	06/27/11	**11:26:37**	-0.02	0.86	150.00	0.95
	06/27/11	**11:27:37**	-0.46	0.94	150.00	0.95
	06/27/11	**11:28:37**	-1.75	0.94	150.00	0.95
	06/27/11	**11:29:37**	-2.25	0.87	150.00	0.95
	06/27/11	**11:30:37**	-1.26	0.70	150.00	0.95
	06/27/11	**11:31:37**	-0.70	0.54	150.00	0.95
	06/27/11	**11:32:36**	0.93	0.47	150.00	0.95
Spike 2	06/27/11	**11:33:36**	-0.16	0.55	150.00	0.95
	06/27/11	**11:34:36**	-0.36	0.52	150.00	0.95
	06/27/11	**11:35:36**	-0.20	0.48	150.00	0.95
	06/27/11	**11:36:36**	-1.05	0.63	150.00	0.95
	06/27/11	**11:37:36**	2.55	1.88	150.00	0.95
	06/27/11	**11:38:36**	-1.66	1.73	150.00	0.95
Spike 3	06/27/11	**11:39:36**	2.55	1.69	150.00	0.95
	06/27/11	**11:40:36**	0.36	1.77	150.00	0.95
	06/27/11	**11:41:36**	-1.10	1.67	150.00	0.95
	06/27/11	**11:42:35**	2.64	1.72	150.00	0.95
	06/27/11	**11:43:35**	-0.98	1.34	150.00	0.95

Method 301 Validation
1,3-Butadiene

1,3-Butadiene: Validation by Dynamic Analyte Spiking (biases taken into account)

Spiking Data

Total tracer conc. (ppm):	20.121
tracer conc. while line spiking (ppm):	0.757
Percentage of native exhaust in total spiked sample:	0.962
Certified cylinder conc. of analyte (ppm):	20.0
Conc. of analyte spiked into extracted exhaust (ppm):	0.753

Validation Data (conc. in ppm)

		Analyte Concentrations					Tracer Concentrations			
	Pair #	Unspiked Native Conc.	Corr. Native Conc.	Native + Spiked Conc.	Native + Spiked (meas.)	% Recovery	C2Cl4 unspiked		C2Cl4 spiked	
	1	0.256	0.246	0.999	1.140	114.065		0.068		0.794
	2	0.233	0.224	0.977	1.210	123.848		0.027		0.818
	3	0.314	0.302	1.055	1.150	108.981		0.068		0.840
	4	0.182	0.175	0.928	1.200	129.239		0.008		0.829
	5	0.266	0.256	1.009	1.094	108.463		0.054		0.722
	6	0.292	0.281	1.034	1.191	115.139		0.001		0.813
	7	0.271	0.261	1.014	1.208	119.167		0.064		0.794
	8	0.277	0.266	1.019	1.120	109.914		0.034		0.733
	9	0.223	0.214	0.967	1.189	122.963		0.052		0.788
	10	0.295	0.284	1.037	1.129	108.834		0.001		0.808
	11	0.278	0.267	1.020	1.147	112.400		0.003		0.818
	12	0.212	0.204	0.957	1.185	123.861		0.072		0.786
Mean Conc.:		0.258	0.248	1.001	1.164	116.406		0.038		0.795

Method 320/301 Analyte Spiking Statistical Results

Mean of FTIR meas. spiked samples:	1.1635	
Mean of FTIR meas. unspiked samp:	0.2582	
CS Calculated value of Spiked Samples:	1.0014	
SD St.Dev of spiked samples Eq 301-2:	0.0384	also Eq 301-5 in 2011 version of m301
SDM = SD/sqrt(12)	0.0111	
F-test:	0.0833	For n=6, if 0.139<F<7.146, calculate pooled SD
SD_{pooled}-pooled std. dev.:	NA	
RSD:	**0.0330**	RSD must be <= 0.20 for successful validation
RSD, if using pooled SD:	NA	RSD must be <= 0.50 for successful validation
B-bias at spike level m320 Eq. 7:	0.1621	
t-statistic, Eq. 301-4:	**14.6341**	if t-stat.>=2.201 (11 degrees of freedom), then B is statistically significant must calc. and use CF (also Eq 301-6 in 2011 version of m301)
Br, Relative Bias Eq. 301-7 (2011 ver):	**0.1619**	If < 0.1 the CF not required (CF=1) if Br>0.3 then validation is unsucessful
CF-correction factor Eq. 301-5 (pre-2011):	**0.8607**	if 0.7<=CF<=1.3 or if B not statistically signif., then validation successful

Method 301 Validation
1,3-Butadiene
Direct

Date	Time	13BUT (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)
06/26/11	**15:07:27**	23.49	20.06	150.00	1.01
06/26/11	**15:08:27**	23.46	20.12	150.00	1.01
06/26/11	**15:09:27**	23.53	20.16	150.00	1.01
06/26/11	**15:10:27**	23.47	20.08	150.00	1.01
06/26/11	**15:11:27**	23.64	20.20	150.00	1.01
	Average	23.49	20.12		

Method 301 Validation
1,3-Butadiene
Raw Data

unspiked
spiked

Date	Time	13BUT (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**16:42:54**	0.00	0.00	150.00	1.01	
06/26/11	**16:43:56**	-0.01	0.00	150.00	1.01	
06/26/11	**16:45:55**	0.41	-0.01	150.00	0.98	
06/26/11	**16:46:55**	0.15	0.02	150.00	0.95	
06/26/11	**16:47:55**	0.26	0.12	150.00	0.95	
06/26/11	**16:48:55**	0.30	-0.06	150.00	0.95	
06/26/11	**16:49:55**	-0.19	0.35	150.00	0.95	
06/26/11	**16:50:55**	-0.34	0.36	150.00	0.95	
06/26/11	**16:51:55**	0.22	0.08	150.00	0.95	
06/26/11	**16:52:55**	-0.07	0.21	150.00	0.95	
06/26/11	**16:53:55**	-0.16	0.41	150.00	0.95	
06/26/11	**16:54:55**	-0.25	0.33	150.00	0.95	
06/26/11	**16:55:55**	-0.18	0.25	150.00	0.95	
06/26/11	**16:56:54**	-0.21	0.23	150.00	0.95	
06/26/11	**16:57:54**	-0.01	0.25	150.00	0.95	
06/26/11	**16:58:54**	-0.17	0.32	150.00	0.95	
06/26/11	**16:59:58**	0.05	0.18	150.00	0.95	
06/26/11	**17:00:58**	0.26	0.04	150.00	0.95	
06/26/11	**17:01:58**	0.22	0.02	150.00	0.95	
06/26/11	**17:02:58**	0.31	-0.01	150.00	0.95	
06/26/11	**17:03:57**	0.22	-0.01	150.00	0.95	
06/26/11	**17:04:57**	0.34	0.06	150.00	0.95	
06/26/11	**17:07:05**	0.34	0.09	150.00	0.95	
06/26/11	**17:08:05**	0.52	0.07	150.00	0.95	
06/26/11	**17:09:05**	0.24	0.08	150.00	0.95	
06/26/11	**17:10:05**	0.19	0.01	150.00	0.95	
06/26/11	**17:11:05**	0.27	-0.01	150.00	0.95	
06/26/11	**17:12:05**	0.27	-0.05	150.00	0.95	
06/26/11	**17:13:05**	0.18	0.04	150.00	0.95	
06/26/11	**17:14:04**	0.36	0.01	150.00	0.95	
06/26/11	**17:15:04**	0.64	0.35	150.00	0.95	
06/26/11	**17:16:04**	1.35	0.81	150.00	0.95	
06/26/11	**17:17:04**	1.32	0.76	150.00	0.95	
06/26/11	**17:18:04**	1.18	0.82	150.00	0.95	
06/26/11	**17:19:04**	1.19	0.84	150.00	0.95	
06/26/11	**17:20:04**	0.51	0.19	150.00	0.95	
06/26/11	**17:21:04**	0.30	0.02	150.00	0.95	
06/26/11	**17:22:04**	0.21	0.10	150.00	0.95	
06/26/11	**17:23:04**	0.27	0.05	150.00	0.95	
06/26/11	**17:24:03**	0.30	0.04	150.00	0.95	
06/26/11	**17:25:03**	0.98	0.54	150.00	0.95	
06/26/11	**17:26:03**	1.21	0.75	150.00	0.95	
06/26/11	**17:27:03**	1.21	0.82	150.00	0.95	
06/26/11	**17:28:03**	1.22	0.73	150.00	0.95	
06/26/11	**17:29:03**	0.45	0.15	150.00	0.95	
06/26/11	**17:30:03**	0.33	0.05	150.00	0.95	1
06/26/11	**17:31:03**	0.18	0.09	150.00	0.95	
06/26/11	**17:32:03**	0.95	0.58	150.00	0.95	
06/26/11	**17:33:03**	1.13	0.75	150.00	0.95	1
06/26/11	**17:34:02**	1.15	0.84	150.00	0.95	
06/26/11	**17:35:02**	0.77	0.53	150.00	0.95	

Method 301 Validation
1,3-Butadiene
Raw Data

unspiked
spiked

Date	Time	13BUT (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	17:36:02	0.25	0.02	150.00	0.95	2
06/26/11	17:37:02	0.21	0.03	150.00	0.95	
06/26/11	17:38:02	0.36	0.01	150.00	0.95	
06/26/11	17:39:02	0.96	0.63	150.00	0.95	
06/26/11	17:40:02	1.16	0.83	150.00	0.95	2
06/26/11	17:41:02	1.26	0.80	150.00	0.95	
06/26/11	17:42:02	0.50	0.37	150.00	0.95	
06/26/11	17:43:02	0.27	0.03	150.00	0.95	3
06/26/11	17:44:01	0.36	0.11	150.00	0.95	
06/26/11	17:45:01	0.91	0.51	150.00	0.95	
06/26/11	17:46:01	1.22	0.78	150.00	0.95	
06/26/11	17:47:01	1.18	0.84	150.00	0.95	3
06/26/11	17:48:01	1.12	0.84	150.00	0.95	
06/26/11	17:49:01	0.46	0.36	150.00	0.95	
06/26/11	17:50:01	0.36	0.06	150.00	0.95	
06/26/11	17:51:01	0.20	-0.01	150.00	0.95	4
06/26/11	17:52:01	0.17	0.03	150.00	0.95	
06/26/11	17:53:01	1.08	0.62	150.00	0.95	
06/26/11	17:54:00	1.18	0.79	150.00	0.95	4
06/26/11	17:55:00	1.22	0.87	150.00	0.95	
06/26/11	17:56:00	0.57	0.30	150.00	0.95	
06/26/11	17:57:00	0.27	0.04	150.00	0.95	5
06/26/11	17:58:00	0.27	0.07	150.00	0.95	
06/26/11	17:59:00	0.32	-0.01	150.00	0.95	
06/26/11	18:00:00	1.00	0.61	150.00	0.95	5
06/26/11	18:01:00	1.19	0.83	150.00	0.95	
06/26/11	18:02:00	1.10	0.79	150.00	0.95	
06/26/11	18:03:00	0.60	0.42	150.00	0.95	
06/26/11	18:03:59	0.26	0.00	150.00	0.95	
06/26/11	18:04:59	0.40	-0.02	150.00	0.95	6
06/26/11	18:05:59	0.19	0.03	150.00	0.95	
06/26/11	18:06:59	0.83	0.44	150.00	0.95	
06/26/11	18:07:59	1.13	0.84	150.00	0.95	6
06/26/11	18:08:59	1.25	0.79	150.00	0.95	
06/26/11	18:09:59	0.62	0.31	150.00	0.95	
06/26/11	18:10:59	0.24	0.07	150.00	0.95	7
06/26/11	18:11:59	0.30	0.06	150.00	0.95	
06/26/11	18:12:59	1.07	0.63	150.00	0.95	
06/26/11	18:13:58	1.20	0.76	150.00	0.95	
06/26/11	18:14:58	1.26	0.79	150.00	0.95	7
06/26/11	18:15:58	1.15	0.79	150.00	0.95	
06/26/11	18:16:58	0.48	0.24	150.00	0.95	
06/26/11	18:17:58	0.23	0.08	150.00	0.95	8
06/26/11	18:18:58	0.32	-0.01	150.00	0.95	
06/26/11	18:19:58	0.88	0.69	150.00	0.95	
06/26/11	18:20:58	1.14	0.80	150.00	0.95	
06/26/11	18:21:58	1.05	0.68	150.00	0.95	8
06/26/11	18:22:58	1.19	0.78	150.00	0.95	
06/26/11	18:23:57	1.12	0.80	150.00	0.95	
06/26/11	18:24:57	0.32	0.15	150.00	0.95	
06/26/11	18:25:57	0.23	0.01	150.00	0.95	9

Method 301 Validation
1,3-Butadiene
Raw Data

unspiked
spiked

Date	Time	13BUT (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**18:26:57**	0.22	0.09	150.00	0.95	
06/26/11	**18:27:57**	0.24	0.02	150.00	0.95	
06/26/11	**18:28:57**	0.34	0.03	150.00	0.95	
06/26/11	**18:29:57**	0.92	0.60	150.00	0.95	
06/26/11	**18:30:57**	1.18	0.81	150.00	0.95	9
06/26/11	**18:31:57**	1.19	0.77	150.00	0.95	
06/26/11	**18:32:57**	0.39	0.17	150.00	0.95	
06/26/11	**18:33:56**	0.26	0.00	150.00	0.95	
06/26/11	**18:34:56**	0.36	0.00	150.00	0.95	10
06/26/11	**18:35:56**	0.23	0.00	150.00	0.95	
06/26/11	**18:36:56**	0.95	0.60	150.00	0.95	
06/26/11	**18:37:56**	1.19	0.82	150.00	0.95	
06/26/11	**18:38:56**	1.14	0.81	150.00	0.95	10
06/26/11	**18:39:56**	1.12	0.80	150.00	0.95	
06/26/11	**18:40:56**	0.41	0.23	150.00	0.95	
06/26/11	**18:41:56**	0.27	0.02	150.00	0.95	11
06/26/11	**18:42:56**	0.28	-0.01	150.00	0.95	
06/26/11	**18:43:55**	0.30	0.05	150.00	0.95	
06/26/11	**18:44:55**	0.28	-0.01	150.00	0.95	
06/26/11	**18:45:55**	0.94	0.56	150.00	0.95	
06/26/11	**18:46:55**	1.16	0.79	150.00	0.95	11
06/26/11	**18:47:55**	1.13	0.85	150.00	0.95	
06/26/11	**18:48:55**	0.64	0.26	150.00	0.95	
06/26/11	**18:49:55**	0.34	0.07	150.00	0.95	12
06/26/11	**18:50:55**	0.08	0.07	150.00	0.95	
06/26/11	**18:51:55**	0.96	0.71	150.00	0.95	
06/26/11	**18:52:55**	1.15	0.80	150.00	0.95	12
06/26/11	**18:53:54**	1.22	0.77	150.00	0.95	
06/26/11	**18:54:54**	0.36	0.15	150.00	0.95	
06/26/11	**18:55:54**	0.33	-0.02	150.00	0.95	
06/26/11	**18:56:54**	0.20	0.10	150.00	0.95	

Method 320 Validation
1,3-Butadiene

Method 320 Spikes for 1,3-Butadiene (13BUT) using a Tetrachloroethylene (C2Cl4) Tracer

Spike #1

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	0.911	0.905	0.905	100.0
1	13BUT	20.00	0.000	0.186	1.208	1.030	0.899	114.6
2								
3								

Dil Factor 0.045 Entered Values

Spike #2

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	0.519	0.513	0.513	100.0
1	13BUT	20.00	0.000	0.186	0.737	0.556	0.509	109.1
2								
3								

Dil Factor 0.025 Entered Values

Spike #3

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	1.713	1.707	1.707	100.0
1	13BUT	20.00	0.000	0.186	2.140	1.969	1.696	116.1
2								
3								

Dil Factor 0.085 Entered Values

Method 320 Validation
1,3-Butadiene
Raw Data

	Date	Time	13BUT (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)
Bkg	06/27/11	**11:16:38**	0.15	0.00	150.00	0.95
	06/27/11	**11:17:38**	0.22	0.04	150.00	0.95
	06/27/11	**11:18:38**	0.19	-0.02	150.00	0.95
	06/27/11	**11:19:38**	0.16	0.03	150.00	0.95
	06/27/11	**11:20:38**	0.09	0.08	150.00	0.95
	06/27/11	**11:21:38**	1.99	1.31	150.00	0.95
	06/27/11	**11:22:37**	1.19	0.89	150.00	0.95
	06/27/11	**11:23:37**	1.18	0.84	150.00	0.95
	06/27/11	**11:24:37**	1.11	0.91	150.00	0.95
	06/27/11	**11:25:37**	1.31	0.85	150.00	0.95
Spike 1	06/27/11	**11:26:37**	1.29	0.86	150.00	0.95
	06/27/11	**11:27:37**	1.17	0.94	150.00	0.95
	06/27/11	**11:28:37**	1.16	0.94	150.00	0.95
	06/27/11	**11:29:37**	1.17	0.87	150.00	0.95
	06/27/11	**11:30:37**	0.86	0.70	150.00	0.95
	06/27/11	**11:31:37**	0.77	0.54	150.00	0.95
	06/27/11	**11:32:36**	0.72	0.47	150.00	0.95
Spike 2	06/27/11	**11:33:36**	0.74	0.55	150.00	0.95
	06/27/11	**11:34:36**	0.76	0.52	150.00	0.95
	06/27/11	**11:35:36**	0.71	0.48	150.00	0.95
	06/27/11	**11:36:36**	0.83	0.63	150.00	0.95
	06/27/11	**11:37:36**	2.31	1.88	150.00	0.95
	06/27/11	**11:38:36**	2.12	1.73	150.00	0.95
Spike 3	06/27/11	**11:39:36**	2.20	1.69	150.00	0.95
	06/27/11	**11:40:36**	2.09	1.77	150.00	0.95
	06/27/11	**11:41:36**	2.13	1.67	150.00	0.95
	06/27/11	**11:42:35**	2.14	1.72	150.00	0.95
	06/27/11	**11:43:35**	1.58	1.34	150.00	0.95

Method 301 Validation
Styrene

Styrene: Validation by Dynamic Analyte Spiking (biases taken into account)

Spiking Data

Total tracer conc. (ppm):	20.121
tracer conc. while line spiking (ppm):	0.757
Percentage of native exhaust in total spiked sample:	0.962
Certified cylinder conc. of analyte (ppm):	20.6
Conc. of analyte spiked into extracted exhaust (ppm):	0.776

Validation Data (conc. in ppm)

		Analyte Concentrations					Tracer Concentrations			
	Pair #	Unspiked Native Conc.	Corr. Native Conc.	Native + Spiked Conc.	Native + Spiked (meas.)	% Recovery	C2Cl4 unspiked		C2Cl4 spiked	
	1	-0.305	-0.293	0.482	0.438	90.929		0.068		0.794
	2	-0.175	-0.169	0.607	0.560	92.327		0.027		0.818
	3	-0.214	-0.206	0.569	0.556	97.746		0.068		0.840
	4	-0.172	-0.165	0.610	0.616	100.919		0.008		0.829
	5	-0.102	-0.098	0.677	0.436	64.429		0.054		0.722
	6	-0.054	-0.052	0.723	0.533	73.662		0.001		0.813
	7	-0.271	-0.261	0.515	0.574	111.399		0.064		0.794
	8	-0.195	-0.188	0.587	0.685	116.622		0.034		0.733
	9	-0.217	-0.209	0.567	0.451	79.552		0.052		0.788
	10	-0.206	-0.199	0.577	0.608	105.289		0.001		0.808
	11	-0.183	-0.176	0.600	0.563	93.853		0.003		0.818
	12	-0.203	-0.195	0.580	0.523	90.237		0.072		0.786
Mean Conc.:		-0.191	-0.184	0.591	0.545	93.080		0.038		0.795

Method 320/301 Analyte Spiking Statistical Results

Mean of FTIR meas. spiked samples:	0.5453	
Mean of FTIR meas. unspiked samp:	-0.1915	
CS Calculated value of Spiked Samples:	0.5912	
SD St.Dev of spiked samples Eq 301-2:	0.0755	also Eq 301-5 in 2011 version of m301
SDM = SD/sqrt(12)	0.0218	
F-test:	0.0833	For n=6, if 0.139<F<7.146, calculate pooled SD
SD_{pooled}-pooled std. dev.:	NA	
RSD:	**0.1384**	RSD must be <= 0.20 for successful validation
RSD, if using pooled SD:	NA	RSD must be <= 0.50 for successful validation
B-bias at spike level m320 Eq. 7:	-0.0460	
t-statistic, Eq. 301-4:	**2.1098**	if t-stat.>=2.201 (11 degrees of freedom), then B is statistically significant must calc. and use CF (also Eq 301-6 in 2011 version of m301)
Br, Relative Bias Eq. 301-7 (2011 ver):	0.0777	If < 0.1 the CF not required (CF=1) if Br>0.3 then validation is unsucessful
CF-correction factor Eq. 301-5 (pre-2011):	1.0843	if 0.7<=CF<=1.3 or if B not statistically signif., then validation successful

Method 301 Validation
Styrene
Direct

Date	Time	Styrene (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)
06/26/11	**15:07:27**	20.17	20.06	150.00	1.01
06/26/11	**15:08:27**	20.35	20.12	150.00	1.01
06/26/11	**15:09:27**	20.29	20.16	150.00	1.01
06/26/11	**15:10:27**	20.37	20.08	150.00	1.01
06/26/11	**15:11:27**	9.84	20.20	150.00	1.01
	Average	20.34	20.12		

Method 301 Validation
Styrene
Raw Data

unspiked
spiked

Date	Time	Styrene (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**16:42:54**	0.00	0.00	150.00	1.01	
06/26/11	**16:43:56**	0.05	0.00	150.00	1.01	
06/26/11	**16:45:55**	0.00	-0.01	150.00	0.98	
06/26/11	**16:46:55**	-0.12	0.02	150.00	0.95	
06/26/11	**16:47:55**	-0.14	0.12	150.00	0.95	
06/26/11	**16:48:55**	-0.08	-0.06	150.00	0.95	
06/26/11	**16:49:55**	-0.54	0.35	150.00	0.95	
06/26/11	**16:50:55**	-0.43	0.36	150.00	0.95	
06/26/11	**16:51:55**	-0.04	0.08	150.00	0.95	
06/26/11	**16:52:55**	-0.50	0.21	150.00	0.95	
06/26/11	**16:53:55**	-0.69	0.41	150.00	0.95	
06/26/11	**16:54:55**	-0.57	0.33	150.00	0.95	
06/26/11	**16:55:55**	-0.44	0.25	150.00	0.95	
06/26/11	**16:56:54**	-0.32	0.23	150.00	0.95	
06/26/11	**16:57:54**	-0.32	0.25	150.00	0.95	
06/26/11	**16:58:54**	-0.25	0.32	150.00	0.95	
06/26/11	**16:59:58**	-0.25	0.18	150.00	0.95	
06/26/11	**17:00:58**	0.02	0.04	150.00	0.95	
06/26/11	**17:01:58**	-0.15	0.02	150.00	0.95	
06/26/11	**17:02:58**	-0.24	-0.01	150.00	0.95	
06/26/11	**17:03:57**	0.05	-0.01	150.00	0.95	
06/26/11	**17:04:57**	0.09	0.06	150.00	0.95	
06/26/11	**17:07:05**	0.09	0.09	150.00	0.95	
06/26/11	**17:08:05**	-0.23	0.07	150.00	0.95	
06/26/11	**17:09:05**	-0.13	0.08	150.00	0.95	
06/26/11	**17:10:05**	-0.15	0.01	150.00	0.95	
06/26/11	**17:11:05**	-0.15	-0.01	150.00	0.95	
06/26/11	**17:12:05**	-0.31	-0.05	150.00	0.95	
06/26/11	**17:13:05**	-0.25	0.04	150.00	0.95	
06/26/11	**17:14:04**	-0.26	0.01	150.00	0.95	
06/26/11	**17:15:04**	-0.43	0.35	150.00	0.95	
06/26/11	**17:16:04**	0.41	0.81	150.00	0.95	
06/26/11	**17:17:04**	0.45	0.76	150.00	0.95	
06/26/11	**17:18:04**	0.59	0.82	150.00	0.95	
06/26/11	**17:19:04**	0.39	0.84	150.00	0.95	
06/26/11	**17:20:04**	-0.21	0.19	150.00	0.95	
06/26/11	**17:21:04**	-0.21	0.02	150.00	0.95	
06/26/11	**17:22:04**	-0.19	0.10	150.00	0.95	
06/26/11	**17:23:04**	-0.36	0.05	150.00	0.95	
06/26/11	**17:24:03**	-0.30	0.04	150.00	0.95	
06/26/11	**17:25:03**	0.22	0.54	150.00	0.95	
06/26/11	**17:26:03**	0.57	0.75	150.00	0.95	
06/26/11	**17:27:03**	0.50	0.82	150.00	0.95	
06/26/11	**17:28:03**	0.58	0.73	150.00	0.95	
06/26/11	**17:29:03**	-0.12	0.15	150.00	0.95	
06/26/11	**17:30:03**	-0.38	0.05	150.00	0.95	1
06/26/11	**17:31:03**	-0.23	0.09	150.00	0.95	
06/26/11	**17:32:03**	0.30	0.58	150.00	0.95	
06/26/11	**17:33:03**	0.40	0.75	150.00	0.95	1
06/26/11	**17:34:02**	0.48	0.84	150.00	0.95	
06/26/11	**17:35:02**	0.19	0.53	150.00	0.95	

Method 301 Validation
Styrene
Raw Data

Date	Time	Styrene (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**17:36:02**	-0.25	0.02	150.00	0.95	2
06/26/11	**17:37:02**	-0.10	0.03	150.00	0.95	
06/26/11	**17:38:02**	-0.23	0.01	150.00	0.95	
06/26/11	**17:39:02**	0.40	0.63	150.00	0.95	
06/26/11	**17:40:02**	0.59	0.83	150.00	0.95	2
06/26/11	**17:41:02**	0.53	0.80	150.00	0.95	
06/26/11	**17:42:02**	0.36	0.37	150.00	0.95	
06/26/11	**17:43:02**	-0.13	0.03	150.00	0.95	3
06/26/11	**17:44:01**	-0.29	0.11	150.00	0.95	
06/26/11	**17:45:01**	0.31	0.51	150.00	0.95	
06/26/11	**17:46:01**	0.58	0.78	150.00	0.95	
06/26/11	**17:47:01**	0.62	0.84	150.00	0.95	3
06/26/11	**17:48:01**	0.50	0.84	150.00	0.95	
06/26/11	**17:49:01**	0.20	0.36	150.00	0.95	
06/26/11	**17:50:01**	-0.21	0.06	150.00	0.95	
06/26/11	**17:51:01**	-0.23	-0.01	150.00	0.95	4
06/26/11	**17:52:01**	-0.11	0.03	150.00	0.95	
06/26/11	**17:53:01**	0.41	0.62	150.00	0.95	
06/26/11	**17:54:00**	0.57	0.79	150.00	0.95	4
06/26/11	**17:55:00**	0.67	0.87	150.00	0.95	
06/26/11	**17:56:00**	-0.03	0.30	150.00	0.95	
06/26/11	**17:57:00**	-0.02	0.04	150.00	0.95	5
06/26/11	**17:58:00**	-0.18	0.07	150.00	0.95	
06/26/11	**17:59:00**	-0.15	-0.01	150.00	0.95	
06/26/11	**18:00:00**	0.30	0.61	150.00	0.95	5
06/26/11	**18:01:00**	0.58	0.83	150.00	0.95	
06/26/11	**18:02:00**	0.71	0.79	150.00	0.95	
06/26/11	**18:03:00**	0.31	0.42	150.00	0.95	
06/26/11	**18:03:59**	-0.13	0.00	150.00	0.95	
06/26/11	**18:04:59**	-0.11	-0.02	150.00	0.95	6
06/26/11	**18:05:59**	0.00	0.03	150.00	0.95	
06/26/11	**18:06:59**	0.48	0.44	150.00	0.95	
06/26/11	**18:07:59**	0.61	0.84	150.00	0.95	6
06/26/11	**18:08:59**	0.45	0.79	150.00	0.95	
06/26/11	**18:09:59**	0.15	0.31	150.00	0.95	
06/26/11	**18:10:59**	-0.27	0.07	150.00	0.95	7
06/26/11	**18:11:59**	-0.27	0.06	150.00	0.95	
06/26/11	**18:12:59**	0.43	0.63	150.00	0.95	
06/26/11	**18:13:58**	0.48	0.76	150.00	0.95	
06/26/11	**18:14:58**	0.59	0.79	150.00	0.95	7
06/26/11	**18:15:58**	0.56	0.79	150.00	0.95	
06/26/11	**18:16:58**	0.05	0.24	150.00	0.95	
06/26/11	**18:17:58**	-0.20	0.08	150.00	0.95	8
06/26/11	**18:18:58**	-0.20	-0.01	150.00	0.95	
06/26/11	**18:19:58**	0.35	0.69	150.00	0.95	
06/26/11	**18:20:58**	0.71	0.80	150.00	0.95	
06/26/11	**18:21:58**	0.75	0.68	150.00	0.95	8
06/26/11	**18:22:58**	0.62	0.78	150.00	0.95	
06/26/11	**18:23:57**	0.54	0.80	150.00	0.95	
06/26/11	**18:24:57**	0.10	0.15	150.00	0.95	
06/26/11	**18:25:57**	-0.20	0.01	150.00	0.95	9

unspiked
spiked

Method 301 Validation
Styrene
Raw Data

Date	Time	Styrene (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**18:26:57**	-0.23	0.09	150.00	0.95	
06/26/11	**18:27:57**	-0.20	0.02	150.00	0.95	
06/26/11	**18:28:57**	-0.23	0.03	150.00	0.95	
06/26/11	**18:29:57**	0.19	0.60	150.00	0.95	
06/26/11	**18:30:57**	0.39	0.81	150.00	0.95	9
06/26/11	**18:31:57**	0.51	0.77	150.00	0.95	
06/26/11	**18:32:57**	-0.02	0.17	150.00	0.95	
06/26/11	**18:33:56**	-0.19	0.00	150.00	0.95	
06/26/11	**18:34:56**	-0.25	0.00	150.00	0.95	10
06/26/11	**18:35:56**	-0.16	0.00	150.00	0.95	
06/26/11	**18:36:56**	0.33	0.60	150.00	0.95	
06/26/11	**18:37:56**	0.46	0.82	150.00	0.95	
06/26/11	**18:38:56**	0.61	0.81	150.00	0.95	10
06/26/11	**18:39:56**	0.61	0.80	150.00	0.95	
06/26/11	**18:40:56**	-0.03	0.23	150.00	0.95	
06/26/11	**18:41:56**	-0.17	0.02	150.00	0.95	11
06/26/11	**18:42:56**	-0.19	-0.01	150.00	0.95	
06/26/11	**18:43:55**	-0.18	0.05	150.00	0.95	
06/26/11	**18:44:55**	-0.22	-0.01	150.00	0.95	
06/26/11	**18:45:55**	0.49	0.56	150.00	0.95	
06/26/11	**18:46:55**	0.58	0.79	150.00	0.95	11
06/26/11	**18:47:55**	0.55	0.85	150.00	0.95	
06/26/11	**18:48:55**	0.10	0.26	150.00	0.95	
06/26/11	**18:49:55**	-0.25	0.07	150.00	0.95	12
06/26/11	**18:50:55**	-0.15	0.07	150.00	0.95	
06/26/11	**18:51:55**	0.25	0.71	150.00	0.95	
06/26/11	**18:52:55**	0.48	0.80	150.00	0.95	12
06/26/11	**18:53:54**	0.56	0.77	150.00	0.95	
06/26/11	**18:54:54**	-0.14	0.15	150.00	0.95	
06/26/11	**18:55:54**	-0.02	-0.02	150.00	0.95	
06/26/11	**18:56:54**	-0.19	0.10	150.00	0.95	

unspiked
spiked

Method 320 Validation
Styrene

Method 320 Spikes for Styrene using a Tetrachloroethylene (C2Cl4) Tracer

Spike #1

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	0.911	0.905	0.905	100.0
1	Styrene	20.60	0.000	-0.009	0.778	0.786	0.926	84.9
2								
3								

Dil Factor 0.045 Entered Values

Spike #2

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	0.519	0.513	0.513	100.0
1	Styrene	20.60	0.000	-0.009	0.452	0.460	0.525	87.7
2								
3								

Dil Factor 0.025 Entered Values

Spike #3

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	1.713	1.707	1.707	100.0
1	Styrene	20.60	0.000	-0.009	1.601	1.609	1.747	92.1
2								
3								

Dil Factor 0.085 Entered Values

Method 320 Validation
Styrene
Raw Data

	Date	Time	Styrene (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)
Bkg	06/27/11	**11:16:38**	0.00	0.00	150.00	0.95
	06/27/11	**11:17:38**	0.00	0.04	150.00	0.95
	06/27/11	**11:18:38**	-0.02	-0.02	150.00	0.95
	06/27/11	**11:19:38**	-0.01	0.03	150.00	0.95
	06/27/11	**11:20:38**	-0.05	0.08	150.00	0.95
	06/27/11	**11:21:38**	1.03	1.31	150.00	0.95
	06/27/11	**11:22:37**	0.63	0.89	150.00	0.95
	06/27/11	**11:23:37**	0.87	0.84	150.00	0.95
	06/27/11	**11:24:37**	0.72	0.91	150.00	0.95
	06/27/11	**11:25:37**	0.60	0.85	150.00	0.95
Spike 1	06/27/11	**11:26:37**	0.88	0.86	150.00	0.95
	06/27/11	**11:27:37**	0.69	0.94	150.00	0.95
	06/27/11	**11:28:37**	0.76	0.94	150.00	0.95
	06/27/11	**11:29:37**	0.75	0.87	150.00	0.95
	06/27/11	**11:30:37**	0.44	0.70	150.00	0.95
	06/27/11	**11:31:37**	0.30	0.54	150.00	0.95
	06/27/11	**11:32:36**	0.37	0.47	150.00	0.95
Spike 2	06/27/11	**11:33:36**	0.48	0.55	150.00	0.95
	06/27/11	**11:34:36**	0.33	0.52	150.00	0.95
	06/27/11	**11:35:36**	0.54	0.48	150.00	0.95
	06/27/11	**11:36:36**	0.61	0.63	150.00	0.95
	06/27/11	**11:37:36**	1.93	1.88	150.00	0.95
	06/27/11	**11:38:36**	1.60	1.73	150.00	0.95
Spike 3	06/27/11	**11:39:36**	1.51	1.69	150.00	0.95
	06/27/11	**11:40:36**	1.66	1.77	150.00	0.95
	06/27/11	**11:41:36**	1.64	1.67	150.00	0.95
	06/27/11	**11:42:35**	1.59	1.72	150.00	0.95
	06/27/11	**11:43:35**	1.11	1.34	150.00	0.95

Method 301 Validation
Methanol (MeOH)

Methanol: Validation by Dynamic Analyte Spiking (biases taken into account)

Spiking Data

Total tracer conc. (ppm):	20.121
tracer conc. while line spiking (ppm):	0.757
Percentage of native exhaust in total spiked sample:	0.962
Certified cylinder conc. of analyte (ppm):	21.0
Conc. of analyte spiked into extracted exhaust (ppm):	0.791

Validation Data (conc. in ppm)

		Analyte Concentrations					Tracer Concentrations			
	Pair #	Unspiked Native Conc.	Corr. Native Conc.	Native + Spiked Conc.	Native + Spiked (meas.)	% Recovery	C2Cl4 unspiked		C2Cl4 spiked	
	1	-0.066	-0.063	0.727	0.589	80.998		0.068		0.794
	2	-0.052	-0.050	0.740	0.673	90.889		0.027		0.818
	3	0.005	0.005	0.796	0.681	85.631		0.068		0.840
	4	-0.020	-0.019	0.771	0.677	87.787		0.008		0.829
	5	-0.017	-0.017	0.774	0.654	84.496		0.054		0.722
	6	0.040	0.038	0.829	0.654	78.837		0.001		0.813
	7	0.015	0.014	0.805	0.643	79.916		0.064		0.794
	8	-0.012	-0.012	0.779	0.683	87.696		0.034		0.733
	9	-0.023	-0.022	0.769	0.661	85.924		0.052		0.788
	10	-0.013	-0.012	0.778	0.691	88.823		0.001		0.808
	11	0.005	0.005	0.796	0.721	90.668		0.003		0.818
	12	0.039	0.038	0.828	0.659	79.590		0.072		0.786
Mean Conc.:		-0.008	-0.008	0.783	0.665	85.105		0.038		0.795

Method 320/301 Analyte Spiking Statistical Results

Mean of FTIR meas. spiked samples:	0.6655	
Mean of FTIR meas. unspiked samp:	-0.0083	
CS Calculated value of Spiked Samples:	0.7826	
SD St.Dev of spiked samples Eq 301-2:	0.0319	also Eq 301-5 in 2011 version of m301
SDM = SD/sqrt(12)	0.0092	
F-test:	0.0833	For n=6, if 0.139<F<7.146, calculate pooled SD
SD_{pooled}-pooled std. dev.:	NA	
RSD:	**0.0480**	RSD must be <= 0.20 for successful validation
RSD, if using pooled SD:	NA	RSD must be <= 0.50 for successful validation
B-bias at spike level m320 Eq. 7:	-0.1171	
t-statistic, Eq. 301-4:	**12.7053**	if t-stat.>=2.201 (11 degrees of freedom), then B is statistically significant must calc. and use CF (also Eq 301-6 in 2011 version of m301)
Br, Relative Bias Eq. 301-7 (2011 ver):	**0.1497**	If < 0.1 the CF not required (CF=1) if Br>0.3 then validation is unsucessful
CF-correction factor Eq. 301-5 (pre-2011):	**1.1760**	if 0.7<=CF<=1.3 or if B not statistically signif., then validation successful

Method 301 Validation
Methanol (MeOH)
Direct

Date	Time	MEOH (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)
06/26/11	**15:07:27**	19.48	20.06	150.00	1.01
06/26/11	**15:08:27**	19.60	20.12	150.00	1.01
06/26/11	**15:09:27**	19.57	20.16	150.00	1.01
06/26/11	**15:10:27**	19.57	20.08	150.00	1.01
06/26/11	**15:11:27**	19.91	20.20	150.00	1.01
	Average	19.58081	20.12079		

Method 301 Validation
Methanol (MeOH)
Raw Data

unspiked
spiked

Date	Time	MEOH (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**16:42:54**	0.00	0.00	150.00	1.01	
06/26/11	**16:43:56**	-0.05	0.00	150.00	1.01	
06/26/11	**16:45:55**	0.05	-0.01	150.00	0.98	
06/26/11	**16:46:55**	-0.04	0.02	150.00	0.95	
06/26/11	**16:47:55**	0.06	0.12	150.00	0.95	
06/26/11	**16:48:55**	0.01	-0.06	150.00	0.95	
06/26/11	**16:49:55**	0.02	0.35	150.00	0.95	
06/26/11	**16:50:55**	0.02	0.36	150.00	0.95	
06/26/11	**16:51:55**	0.00	0.08	150.00	0.95	
06/26/11	**16:52:55**	-0.05	0.21	150.00	0.95	
06/26/11	**16:53:55**	-0.03	0.41	150.00	0.95	
06/26/11	**16:54:55**	0.03	0.33	150.00	0.95	
06/26/11	**16:55:55**	0.01	0.25	150.00	0.95	
06/26/11	**16:56:54**	0.04	0.23	150.00	0.95	
06/26/11	**16:57:54**	0.01	0.25	150.00	0.95	
06/26/11	**16:58:54**	-0.03	0.32	150.00	0.95	
06/26/11	**16:59:58**	-0.02	0.18	150.00	0.95	
06/26/11	**17:00:58**	-0.05	0.04	150.00	0.95	
06/26/11	**17:01:58**	0.01	0.02	150.00	0.95	
06/26/11	**17:02:58**	0.01	-0.01	150.00	0.95	
06/26/11	**17:03:57**	-0.02	-0.01	150.00	0.95	
06/26/11	**17:04:57**	0.03	0.06	150.00	0.95	
06/26/11	**17:07:05**	0.01	0.09	150.00	0.95	
06/26/11	**17:08:05**	-0.06	0.07	150.00	0.95	
06/26/11	**17:09:05**	0.01	0.08	150.00	0.95	
06/26/11	**17:10:05**	-0.01	0.01	150.00	0.95	
06/26/11	**17:11:05**	-0.02	-0.01	150.00	0.95	
06/26/11	**17:12:05**	0.07	-0.05	150.00	0.95	
06/26/11	**17:13:05**	0.01	0.04	150.00	0.95	
06/26/11	**17:14:04**	0.05	0.01	150.00	0.95	
06/26/11	**17:15:04**	0.57	0.35	150.00	0.95	
06/26/11	**17:16:04**	0.54	0.81	150.00	0.95	
06/26/11	**17:17:04**	0.59	0.76	150.00	0.95	
06/26/11	**17:18:04**	0.65	0.82	150.00	0.95	
06/26/11	**17:19:04**	0.65	0.84	150.00	0.95	
06/26/11	**17:20:04**	0.14	0.19	150.00	0.95	
06/26/11	**17:21:04**	-0.03	0.02	150.00	0.95	
06/26/11	**17:22:04**	-0.04	0.10	150.00	0.95	
06/26/11	**17:23:04**	0.01	0.05	150.00	0.95	
06/26/11	**17:24:03**	-0.09	0.04	150.00	0.95	
06/26/11	**17:25:03**	0.47	0.54	150.00	0.95	
06/26/11	**17:26:03**	0.68	0.75	150.00	0.95	
06/26/11	**17:27:03**	0.61	0.82	150.00	0.95	
06/26/11	**17:28:03**	0.63	0.73	150.00	0.95	
06/26/11	**17:29:03**	0.14	0.15	150.00	0.95	
06/26/11	**17:30:03**	-0.04	0.05	150.00	0.95	1
06/26/11	**17:31:03**	-0.09	0.09	150.00	0.95	
06/26/11	**17:32:03**	0.50	0.58	150.00	0.95	
06/26/11	**17:33:03**	0.56	0.75	150.00	0.95	1
06/26/11	**17:34:02**	0.62	0.84	150.00	0.95	
06/26/11	**17:35:02**	0.45	0.53	150.00	0.95	

Method 301 Validation
Methanol (MeOH)
Raw Data

unspiked
spiked

Date	Time	MEOH (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**17:36:02**	-0.05	0.02	150.00	0.95	2
06/26/11	**17:37:02**	-0.05	0.03	150.00	0.95	
06/26/11	**17:38:02**	-0.02	0.01	150.00	0.95	
06/26/11	**17:39:02**	0.49	0.63	150.00	0.95	
06/26/11	**17:40:02**	0.66	0.83	150.00	0.95	2
06/26/11	**17:41:02**	0.69	0.80	150.00	0.95	
06/26/11	**17:42:02**	0.26	0.37	150.00	0.95	
06/26/11	**17:43:02**	0.00	0.03	150.00	0.95	3
06/26/11	**17:44:01**	0.01	0.11	150.00	0.95	
06/26/11	**17:45:01**	0.42	0.51	150.00	0.95	
06/26/11	**17:46:01**	0.67	0.78	150.00	0.95	
06/26/11	**17:47:01**	0.73	0.84	150.00	0.95	3
06/26/11	**17:48:01**	0.63	0.84	150.00	0.95	
06/26/11	**17:49:01**	0.28	0.36	150.00	0.95	
06/26/11	**17:50:01**	-0.05	0.06	150.00	0.95	
06/26/11	**17:51:01**	0.01	-0.01	150.00	0.95	4
06/26/11	**17:52:01**	-0.05	0.03	150.00	0.95	
06/26/11	**17:53:01**	0.47	0.62	150.00	0.95	
06/26/11	**17:54:00**	0.68	0.79	150.00	0.95	4
06/26/11	**17:55:00**	0.67	0.87	150.00	0.95	
06/26/11	**17:56:00**	0.26	0.30	150.00	0.95	
06/26/11	**17:57:00**	-0.02	0.04	150.00	0.95	5
06/26/11	**17:58:00**	-0.02	0.07	150.00	0.95	
06/26/11	**17:59:00**	0.02	-0.01	150.00	0.95	
06/26/11	**18:00:00**	0.60	0.61	150.00	0.95	5
06/26/11	**18:01:00**	0.71	0.83	150.00	0.95	
06/26/11	**18:02:00**	0.66	0.79	150.00	0.95	
06/26/11	**18:03:00**	0.34	0.42	150.00	0.95	
06/26/11	**18:03:59**	0.05	0.00	150.00	0.95	
06/26/11	**18:04:59**	0.06	-0.02	150.00	0.95	6
06/26/11	**18:05:59**	0.02	0.03	150.00	0.95	
06/26/11	**18:06:59**	0.45	0.44	150.00	0.95	
06/26/11	**18:07:59**	0.68	0.84	150.00	0.95	6
06/26/11	**18:08:59**	0.63	0.79	150.00	0.95	
06/26/11	**18:09:59**	0.39	0.31	150.00	0.95	
06/26/11	**18:10:59**	0.00	0.07	150.00	0.95	7
06/26/11	**18:11:59**	0.03	0.06	150.00	0.95	
06/26/11	**18:12:59**	0.56	0.63	150.00	0.95	
06/26/11	**18:13:58**	0.70	0.76	150.00	0.95	
06/26/11	**18:14:58**	0.66	0.79	150.00	0.95	7
06/26/11	**18:15:58**	0.62	0.79	150.00	0.95	
06/26/11	**18:16:58**	0.22	0.24	150.00	0.95	
06/26/11	**18:17:58**	-0.01	0.08	150.00	0.95	8
06/26/11	**18:18:58**	-0.01	-0.01	150.00	0.95	
06/26/11	**18:19:58**	0.55	0.69	150.00	0.95	
06/26/11	**18:20:58**	0.64	0.80	150.00	0.95	
06/26/11	**18:21:58**	0.66	0.68	150.00	0.95	8
06/26/11	**18:22:58**	0.71	0.78	150.00	0.95	
06/26/11	**18:23:57**	0.63	0.80	150.00	0.95	
06/26/11	**18:24:57**	0.10	0.15	150.00	0.95	
06/26/11	**18:25:57**	0.00	0.01	150.00	0.95	9

Method 301 Validation
Methanol (MeOH)
Raw Data

unspiked
spiked

Date	Time	MEOH (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)	
06/26/11	**18:26:57**	-0.04	0.09	150.00	0.95	
06/26/11	**18:27:57**	0.03	0.02	150.00	0.95	
06/26/11	**18:28:57**	-0.04	0.03	150.00	0.95	
06/26/11	**18:29:57**	0.50	0.60	150.00	0.95	
06/26/11	**18:30:57**	0.66	0.81	150.00	0.95	9
06/26/11	**18:31:57**	0.66	0.77	150.00	0.95	
06/26/11	**18:32:57**	0.17	0.17	150.00	0.95	
06/26/11	**18:33:56**	0.00	0.00	150.00	0.95	
06/26/11	**18:34:56**	-0.05	0.00	150.00	0.95	10
06/26/11	**18:35:56**	0.03	0.00	150.00	0.95	
06/26/11	**18:36:56**	0.51	0.60	150.00	0.95	
06/26/11	**18:37:56**	0.68	0.82	150.00	0.95	
06/26/11	**18:38:56**	0.70	0.81	150.00	0.95	10
06/26/11	**18:39:56**	0.68	0.80	150.00	0.95	
06/26/11	**18:40:56**	0.21	0.23	150.00	0.95	
06/26/11	**18:41:56**	-0.01	0.02	150.00	0.95	11
06/26/11	**18:42:56**	0.02	-0.01	150.00	0.95	
06/26/11	**18:43:55**	0.02	0.05	150.00	0.95	
06/26/11	**18:44:55**	0.00	-0.01	150.00	0.95	
06/26/11	**18:45:55**	0.63	0.56	150.00	0.95	
06/26/11	**18:46:55**	0.71	0.79	150.00	0.95	11
06/26/11	**18:47:55**	0.73	0.85	150.00	0.95	
06/26/11	**18:48:55**	0.24	0.26	150.00	0.95	
06/26/11	**18:49:55**	0.02	0.07	150.00	0.95	12
06/26/11	**18:50:55**	0.06	0.07	150.00	0.95	
06/26/11	**18:51:55**	0.51	0.71	150.00	0.95	
06/26/11	**18:52:55**	0.63	0.80	150.00	0.95	12
06/26/11	**18:53:54**	0.69	0.77	150.00	0.95	
06/26/11	**18:54:54**	0.16	0.15	150.00	0.95	
06/26/11	**18:55:54**	0.05	-0.02	150.00	0.95	
06/26/11	**18:56:54**	0.00	0.10	150.00	0.95	

Method 320 Validation
Methanol (MeOH)

Method 320 Spikes for Methanol (MEOH) using a Tetrachloroethylene (C2Cl4) Tracer

Spike #1

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	0.911	0.905	0.905	100.0
1	MEOH	21.00	0.000	0.003	0.754	0.751	0.944	79.5
2								
3								

Dil Factor 0.045 Entered Values

Spike #2

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	0.519	0.513	0.513	100.0
1	MEOH	21.00	0.000	0.003	0.435	0.433	0.535	80.9
2								
3								

Dil Factor 0.025 Entered Values

Spike #3

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	C2Cl4	20.12	0.000	0.007	1.713	1.707	1.707	100.0
1	MEOH	21.00	0.000	0.003	1.638	1.635	1.781	91.8
2								
3								

Dil Factor 0.085 Entered Values

Method 320 Validation
Methanol (MeOH)
Raw Data

	Date	Time	MEOH (ppmv)	C2Cl4 (ppmv)	Temp C	Pressure (Atm)
Bkg	06/27/11	**11:16:38**	0.00	0.00	150.00	0.95
	06/27/11	**11:17:38**	0.01	0.04	150.00	0.95
	06/27/11	**11:18:38**	0.00	-0.02	150.00	0.95
	06/27/11	**11:19:38**	-0.01	0.03	150.00	0.95
	06/27/11	**11:20:38**	0.04	0.08	150.00	0.95
	06/27/11	**11:21:38**	1.60	1.31	150.00	0.95
	06/27/11	**11:22:37**	0.70	0.89	150.00	0.95
	06/27/11	**11:23:37**	0.71	0.84	150.00	0.95
	06/27/11	**11:24:37**	0.70	0.91	150.00	0.95
	06/27/11	**11:25:37**	0.76	0.85	150.00	0.95
Spike 1	06/27/11	**11:26:37**	0.75	0.86	150.00	0.95
	06/27/11	**11:27:37**	0.76	0.94	150.00	0.95
	06/27/11	**11:28:37**	0.75	0.94	150.00	0.95
	06/27/11	**11:29:37**	0.78	0.87	150.00	0.95
	06/27/11	**11:30:37**	0.49	0.70	150.00	0.95
	06/27/11	**11:31:37**	0.48	0.54	150.00	0.95
	06/27/11	**11:32:36**	0.45	0.47	150.00	0.95
Spike 2	06/27/11	**11:33:36**	0.42	0.55	150.00	0.95
	06/27/11	**11:34:36**	0.42	0.52	150.00	0.95
	06/27/11	**11:35:36**	0.47	0.48	150.00	0.95
	06/27/11	**11:36:36**	0.56	0.63	150.00	0.95
	06/27/11	**11:37:36**	1.68	1.88	150.00	0.95
	06/27/11	**11:38:36**	1.60	1.73	150.00	0.95
Spike 3	06/27/11	**11:39:36**	1.65	1.69	150.00	0.95
	06/27/11	**11:40:36**	1.64	1.77	150.00	0.95
	06/27/11	**11:41:36**	1.63	1.67	150.00	0.95
	06/27/11	**11:42:35**	1.67	1.72	150.00	0.95
	06/27/11	**11:43:35**	1.24	1.34	150.00	0.95

Method 301 Validation
Hydrogen Cyanide (HCN)

Hydrogen cyanide: Validation by Dynamic Analyte Spiking (biases taken into account)

Spiking Data

Total tracer conc. (ppm):	16.964
tracer conc. while line spiking (ppm):	1.636
Percentage of native exhaust in total spiked sample:	0.904
Certified cylinder conc. of analyte (ppm):	118.310
Conc. of analyte spiked into extracted exhaust (ppm):	11.408

Validation Data (conc. in ppm)

		Analyte Concentrations					Tracer Concentrations			
	Pair #	Unspiked Native Conc.	Corr. Native Conc.	Native + Spiked Conc.	Native + Spiked (meas.)	% Recovery	SF6 unspiked		SF6 spiked	
	1	27.793	25.113	36.521	35.893	98.280		-0.006		1.542
	2	31.162	28.157	39.565	38.032	96.126		-0.008		1.606
	3	31.471	28.437	39.845	37.488	94.085		-0.026		1.651
	4	30.592	27.642	39.050	36.456	93.359		-0.006		1.663
	5	28.740	25.968	37.376	34.186	91.466		-0.006		1.630
	6	26.472	23.919	35.327	32.891	93.104		-0.005		1.637
	7	25.612	23.143	34.550	32.648	94.493		-0.005		1.647
	8	25.988	23.482	34.890	33.380	95.673		-0.004		1.641
	9	26.564	24.002	35.410	34.200	96.581		-0.005		1.634
	10	27.583	24.923	36.331	35.258	97.045		-0.006		1.628
	11	28.495	25.748	37.155	36.431	98.051		-0.006		1.636
	12	24.331	21.985	33.393	36.035	107.911		0.000		1.631
Mean Conc.:		27.900	25.210	36.618	35.241	96.348		-0.007		1.629

Method 320/301 Analyte Spiking Statistical Results

Mean of FTIR meas. spiked samples:	35.2415	
Mean of FTIR meas. unspiked samp:	27.9002	
CS Calculated value of Spiked Samples:	36.6178	
SD St.Dev of spiked samples Eq 301-2:	1.7760	also Eq 301-5 in 2011 version of m301
SDM = SD/sqrt(12)	0.5127	
F-test:	0.0833	For n=6, if 0.139<F<7.146, calculate pooled SD
SD_{pooled}-pooled std. dev.:	NA	
RSD:	**0.0504**	RSD must be <= 0.20 for successful validation
RSD, if using pooled SD:	NA	RSD must be <= 0.50 for successful validation
B-bias at spike level m320 Eq. 7:	-1.3763	
t-statistic, Eq. 301-4:	**2.6845**	if t-stat.>=2.201 (11 degrees of freedom), then B is statistically significant must calc. and use CF (also Eq 301-6 in 2011 version of m301)
Br, Relative Bias Eq. 301-7 (2011 ver):	**0.0376**	If < 0.1 the CF not required (CF=1) if Br>0.3 then validation is unsucessful
CF-correction factor Eq. 301-5 (pre-2011):	1.0391	if 0.7<=CF<=1.3 or if B not statistically signif., then validation successful

Method 301 Validation
Hydrogen Cyanide (HCN)
Direct

Date	Time	HCN (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)
06/15/11	**12:53:33**	0.00	0.00	149.30	0.99
06/15/11	**12:54:04**	-0.01	0.00	149.31	0.99
06/15/11	**12:54:33**	-0.01	0.00	149.33	0.99
06/15/11	**12:55:02**	0.04	-0.01	149.40	0.97
06/15/11	**12:55:31**	0.01	0.00	149.55	0.97
06/15/11	**12:56:00**	0.03	0.00	149.59	0.97
06/15/11	**12:56:29**	0.03	0.00	149.62	0.97
06/15/11	**12:56:58**	29.16	3.21	149.63	0.98
06/15/11	**12:57:27**	97.77	17.32	149.61	0.98
06/15/11	**12:57:56**	99.70	17.33	149.55	0.98
06/15/11	**12:58:25**	100.19	17.33	149.52	0.98
06/15/11	**12:58:54**	100.47	17.33	149.52	0.98
06/15/11	**12:59:23**	100.61	17.34	149.52	0.98
06/15/11	**12:59:52**	100.74	17.32	149.48	0.98
06/15/11	**13:00:21**	100.77	17.32	149.51	0.98
06/15/11	**13:00:50**	100.88	17.32	149.51	0.98
06/15/11	**13:01:19**	101.02	17.34	149.52	0.98
06/15/11	**13:01:48**	101.03	17.33	149.54	0.98
06/15/11	**13:02:17**	101.01	17.31	149.54	0.98
06/15/11	**13:02:46**	101.10	17.33	149.51	0.98
06/15/11	**13:03:15**	101.12	17.33	149.52	0.98
06/15/11	**13:03:44**	101.24	17.33	149.56	0.98
06/15/11	**13:06:31**	101.49	17.36	150.00	0.98
06/15/11	**13:07:00**	101.53	17.35	150.00	0.98
06/15/11	**13:07:29**	101.47	17.36	150.00	0.98
06/15/11	**13:07:58**	101.48	17.36	150.00	0.98
06/15/11	**13:08:27**	101.47	17.36	150.00	0.98
06/15/11	**13:08:56**	101.53	17.36	150.00	0.98
06/15/11	**13:09:25**	101.52	17.36	150.00	0.98
06/15/11	**13:09:54**	101.53	17.35	150.00	0.98
06/15/11	**13:10:23**	101.56	17.36	150.00	0.98
06/15/11	**13:10:52**	101.70	17.37	150.00	0.98
06/15/11	**13:11:21**	101.61	17.36	150.00	0.98
06/15/11	**13:11:50**	101.69	17.36	150.00	0.98
06/15/11	**13:12:19**	101.67	17.37	150.00	0.98
06/15/11	**13:12:48**	101.67	17.37	150.00	0.98
06/15/11	**13:13:17**	101.69	17.37	150.00	0.98
06/15/11	**13:13:46**	101.66	17.37	150.00	0.98
06/15/11	**13:14:15**	101.73	17.37	150.00	0.98
06/15/11	**13:14:44**	101.64	17.36	150.00	0.98
06/15/11	**13:15:13**	101.74	17.38	150.00	0.98
06/15/11	**13:15:42**	101.75	17.38	150.00	0.98
06/15/11	**13:16:11**	101.72	17.38	150.00	0.98
06/15/11	**13:16:40**	102.37	17.42	150.00	0.99
06/15/11	**13:17:09**	103.92	16.98	150.00	0.97
06/15/11	**13:17:38**	104.22	16.96	150.00	0.97
06/15/11	**13:18:07**	104.01	16.99	150.00	0.97
06/15/11	**13:18:37**	103.93	16.97	150.00	0.97
06/15/11	**13:19:06**	103.82	16.96	150.00	0.97
06/15/11	**13:19:35**	103.94	16.96	150.00	0.97
06/15/11	**13:20:04**	103.73	16.94	150.00	0.97
	Average	**103.94**	**16.96**		

Method 301 Validation
Hydrogen Cyanide (HCN)
Raw Data

unspiked
spiked

Date	Time	HCN (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)	
06/21/11	**13:49:12**	28.64	-0.005	-0.10	0.39	
06/21/11	**13:50:12**	28.52	-0.006	-0.10	0.39	
06/21/11	**13:51:12**	28.23	-0.006	-0.12	0.40	
06/21/11	**13:52:11**	28.24	-0.006	-0.11	0.40	
06/21/11	**13:53:11**	28.13	-0.004	-0.08	0.39	
06/21/11	**13:54:11**	28.16	-0.006	-0.12	0.35	
06/21/11	**13:55:11**	27.83	-0.005	-0.09	0.39	
06/21/11	**13:56:11**	27.79	-0.006	-0.15	0.39	
06/21/11	**13:57:11**	27.38	-0.005	-0.10	0.38	
06/21/11	**13:58:11**	27.23	-0.004	-0.12	0.36	
06/21/11	**13:59:11**	27.16	-0.004	-0.16	0.40	
06/21/11	**14:10:42**	27.17	-0.007	-0.11	0.40	
06/21/11	**14:11:41**	27.98	-0.006	-0.07	0.42	
06/21/11	**14:12:41**	28.49	-0.005	-0.03	0.40	
06/21/11	**14:13:41**	28.52	-0.004	-0.04	0.40	
06/21/11	**14:14:41**	28.40	-0.006	-0.06	0.40	
06/21/11	**14:15:41**	28.08	-0.004	-0.05	0.40	
06/21/11	**14:16:41**	28.08	-0.006	-0.02	0.41	1
06/21/11	**14:17:41**	27.51	-0.006	-0.02	0.38	
	NATIVE	27.98	-0.005			
06/21/11	**14:18:41**	33.83	1.610	-0.01	0.45	
06/21/11	**14:19:41**	35.74	1.899	0.00	0.45	
06/21/11	**14:20:41**	35.21	1.752	-0.12	0.43	
06/21/11	**14:21:40**	35.71	1.776	0.74	15.12	
06/21/11	**14:22:40**	35.05	1.552	0.28	8.83	
06/21/11	**14:23:40**	34.96	1.522	0.17	5.16	
06/21/11	**14:24:40**	35.23	1.514	0.20	4.33	
06/21/11	**14:25:40**	35.82	1.526	0.26	3.72	
06/21/11	**14:26:40**	35.86	1.537	0.23	3.22	1
06/21/11	**14:27:40**	35.93	1.547	0.07	2.87	
06/21/11	**14:28:40**	33.23	0.761	0.22	2.70	
06/21/11	**14:29:40**	32.60	0.642	0.17	2.52	
06/21/11	**14:30:40**	32.93	0.650	0.16	2.27	
06/21/11	**14:31:39**	33.11	0.656	0.15	2.07	
06/21/11	**14:32:39**	33.14	0.541	0.16	1.91	
06/21/11	**14:33:39**	30.88	-0.009	0.17	1.81	
06/21/11	**14:34:39**	31.09	-0.008	0.11	1.70	2
06/21/11	**14:35:39**	31.24	-0.008	0.16	1.60	
06/21/11	**14:36:39**	34.27	0.676	0.79	9.60	
06/21/11	**14:37:39**	37.86	1.616	1.23	17.60	
06/21/11	**14:38:39**	38.06	1.604	0.26	6.32	2
06/21/11	**14:39:39**	38.00	1.608	0.24	5.47	
06/21/11	**14:40:39**	32.80	0.294	0.24	5.76	
06/21/11	**14:41:38**	31.67	-0.016	1.24	15.26	3
06/21/11	**14:42:38**	31.27	-0.036	0.68	9.53	
06/21/11	**14:43:38**	33.96	0.631	0.45	6.86	
06/21/11	**14:44:38**	37.66	1.624	0.20	5.34	
06/21/11	**14:45:38**	37.46	1.641	-0.09	4.63	3
06/21/11	**14:46:38**	37.52	1.661	-0.21	4.14	
06/21/11	**14:47:38**	31.47	0.245	-0.32	3.96	
06/21/11	**14:48:38**	30.69	-0.007	-0.11	3.57	4
06/21/11	**14:49:38**	30.50	-0.005	-0.05	3.16	

Method 301 Validation
Hydrogen Cyanide (HCN)
Raw Data

unspiked
spiked

Date	Time	HCN (ppmv)	SF6 (ppmv)	Temp C	Pressure (Atm)	
06/21/11	**14:50:38**	34.31	1.001	-0.17	2.79	
06/21/11	**14:51:37**	36.63	1.661	-0.16	2.53	4
06/21/11	**14:52:37**	36.28	1.664	-0.12	2.39	
06/21/11	**14:53:37**	32.98	0.673	0.06	2.28	
06/21/11	**14:54:37**	29.41	-0.006	0.04	2.22	
06/21/11	**14:55:37**	28.98	-0.006	0.04	2.11	5
06/21/11	**14:56:37**	28.49	-0.006	0.03	1.99	
06/21/11	**14:57:37**	31.78	0.961	-0.09	1.85	
06/21/11	**14:58:37**	34.29	1.625	-0.09	1.76	5
06/21/11	**14:59:37**	34.09	1.634	-0.10	1.71	
06/21/11	**15:00:37**	29.37	0.603	-0.07	1.69	
06/21/11	**15:01:37**	26.50	-0.005	-0.08	1.63	6
06/21/11	**15:02:36**	26.45	-0.006	0.01	1.59	
06/21/11	**15:03:36**	29.78	0.763	0.02	1.49	
06/21/11	**15:04:36**	32.87	1.633	-0.07	1.39	6
06/21/11	**15:05:36**	32.91	1.642	-0.10	1.39	
06/21/11	**15:06:36**	31.25	1.263	-0.09	1.35	
06/21/11	**15:07:36**	25.55	-0.005	-0.09	1.38	7
06/21/11	**15:08:36**	25.67	-0.005	0.03	1.36	
06/21/11	**15:09:36**	30.19	1.003	-0.02	1.27	
06/21/11	**15:10:36**	32.63	1.644	-0.06	1.24	7
06/21/11	**15:11:36**	32.67	1.650	-0.08	1.20	
06/21/11	**15:12:35**	29.44	0.830	-0.08	1.19	
06/21/11	**15:13:35**	25.98	-0.005	0.04	1.21	8
06/21/11	**15:14:35**	26.00	-0.004	0.01	1.16	
06/21/11	**15:15:35**	29.75	0.866	-0.08	1.12	
06/21/11	**15:16:35**	33.23	1.637	-0.06	1.09	8
06/21/11	**15:17:35**	33.53	1.644	-0.08	1.07	
06/21/11	**15:18:35**	27.85	0.370	-0.10	1.07	
06/21/11	**15:19:35**	26.53	-0.005	0.05	1.08	9
06/21/11	**15:20:35**	26.60	-0.005	0.02	1.03	
06/21/11	**15:21:35**	32.95	1.358	-0.01	1.00	
06/21/11	**15:22:34**	34.19	1.634	-0.05	0.98	9
06/21/11	**15:23:34**	34.21	1.634	-0.02	0.96	
06/21/11	**15:24:34**	30.52	0.714	-0.06	0.98	
06/21/11	**15:25:34**	27.20	-0.006	-0.05	1.00	10
06/21/11	**15:26:34**	27.96	-0.005	0.03	0.99	
06/21/11	**15:27:34**	33.08	0.862	0.06	0.94	
06/21/11	**15:28:34**	35.47	1.625	0.06	0.95	10
06/21/11	**15:29:34**	35.05	1.631	-0.05	0.94	
06/21/11	**15:30:34**	30.37	0.465	-0.08	0.94	
06/21/11	**15:31:34**	28.53	-0.006	0.07	0.93	11
06/21/11	**15:32:34**	28.46	-0.006	0.03	0.93	
06/21/11	**15:33:33**	34.03	1.267	0.02	0.92	
06/21/11	**15:34:33**	35.45	1.629	-0.08	0.89	
06/21/11	**15:35:33**	36.57	1.634	-0.12	0.92	11
06/21/11	**15:36:33**	36.30	1.637	-0.07	0.88	
06/21/11	**15:37:33**	36.37	1.638	-0.09	0.87	
06/21/11	**15:38:33**	36.06	1.635	-0.10	0.89	12
06/21/11	**15:39:33**	36.01	1.626	-0.10	0.84	
06/21/11	**15:40:33**	35.20	1.350	-0.06	0.83	
06/21/11	**15:41:33**	24.47	0.002	-0.12	0.73	12
06/21/11	**15:42:33**	24.19	-0.002	-0.06	0.73	

Method 320 Validation
Hydrogen Cyanide (HCN)

Method 320 Spikes for Hydrogen Cyanide (HCN) using a Sulfur Hexafluoride (SF6) Tracer								
Spike #1								
		Cyl. Conc.	**Native Conc.**	**Method Bias**	**Meas. Conc.**	**Spike Obs.**	**Spike Exp.**	**Recovery**
Compound #	**Name**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(%)**
tracer	SF6	16.96	0.000	-0.010	1.403	1.411	1.411	100
1	HCN	118.31	24.044	0.000	32.257	10.213	9.843	104
2								
3								
Dil Factor	0.083		Entered Values					
Spike #2								
		Cyl. Conc.	**Native Conc.**	**Method Bias**	**Meas. Conc.**	**Spike Obs.**	**Spike Exp.**	**Recovery**
Compound #	**Name**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(%)**
tracer	SF6	16.96	0.000	-0.010	1.153	1.162	1.162	100
1	HCN	118.31	24.044	0.000	30.534	8.137	8.105	100
2								
3								
Dil Factor	0.069		Entered Values					
Spike #3								
		Cyl. Conc.	**Native Conc.**	**Method Bias**	**Meas. Conc.**	**Spike Obs.**	**Spike Exp.**	**Recovery**
Compound #	**Name**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(ppmv)**	**(%)**
tracer	SF6	16.96	0.000	-0.010	0.885	0.894	0.894	100
1	HCN	118.31	24.044	0.000	29.660	6.883	6.234	110
2								
3								
Dil Factor	0.053		Entered Values					

Method 320 Validation
Hydrogen Cyanide (HCN)
Raw Data

			HCN	SF6	Temp	Pressure
	Date	Time	(ppmv)	(ppmv)	C	(Atm)
Bkg 1	06/22/11	**10:59:39**	26.15	-0.009	150.00	0.94
	06/22/11	**11:00:39**	26.22	-0.013	150.00	0.94
	06/22/11	**11:01:39**	25.83	-0.012	150.00	0.94
	06/22/11	**11:02:39**	30.72	1.184	150.00	0.94
	06/22/11	**11:03:39**	31.23	1.145	150.00	0.94
	06/22/11	**11:04:39**	29.35	0.667	150.00	0.94
	06/22/11	**11:05:39**	29.08	0.735	150.00	0.94
	06/22/11	**11:06:39**	28.85	0.684	150.00	0.94
	06/22/11	**11:07:38**	30.62	1.062	150.00	0.94
	06/22/11	**11:08:38**	32.10	1.355	150.00	0.94
	06/22/11	**11:09:38**	31.94	1.370	150.00	0.94
	06/22/11	**11:10:38**	32.38	1.380	150.00	0.94
Spike 1	06/22/11	**11:11:38**	32.35	1.390	150.00	0.94
	06/22/11	**11:12:38**	32.32	1.402	150.00	0.94
	06/22/11	**11:13:38**	32.09	1.415	150.00	0.94
	06/22/11	**11:14:38**	31.00	1.130	150.00	0.94
	06/22/11	**11:15:38**	30.72	1.132	150.00	0.94
	06/22/11	**11:16:38**	30.72	1.140	150.00	0.94
Spike 2	06/22/11	**11:17:37**	30.66	1.148	150.00	0.94
	06/22/11	**11:18:37**	30.44	1.154	150.00	0.94
	06/22/11	**11:19:37**	30.50	1.158	150.00	0.94
	06/22/11	**11:20:37**	29.80	1.005	150.00	0.94
	06/22/11	**11:21:37**	29.19	0.865	150.00	0.94
	06/22/11	**11:22:37**	29.17	0.874	150.00	0.94
Spike 3	06/22/11	**11:23:37**	29.69	0.878	150.00	0.94
	06/22/11	**11:24:37**	29.85	0.885	150.00	0.94
	06/22/11	**11:25:37**	29.44	0.891	150.00	0.94
	06/22/11	**11:26:37**	28.51	0.723	150.00	0.94
	06/22/11	**11:27:36**	27.80	0.410	150.00	0.94
	06/22/11	**11:28:36**	23.31	-0.001	150.00	0.94
Bkg 2	06/22/11	**11:29:36**	22.12	-0.008	150.00	0.94
	06/22/11	**11:30:36**	22.03	-0.007	150.00	0.94
	06/22/11	**11:31:36**	21.90	-0.009	150.00	0.94

Method 301 Validation
Ammonia (NH3)

Ammonia:	**Validation by Dynamic Analyte Spiking (biases taken into account)**									
Spiking Data										
Total tracer conc. (ppm):	24.382									
tracer conc. while line spiking (ppm):	0.763									
Percentage of native exhaust in total spiked sample:	0.969									
Certified cylinder conc. of analyte (ppm):	97.730									
Conc. of analyte spiked into extracted exhaust (ppm):	3.060									
Validation Data (conc. in ppm)		**Analyte Concentrations**					**Tracer Concentrations**			
	Pair #	Unspiked Native Conc.	Corr. Native Conc.	Native + Spiked Conc.	Native + Spiked (meas.)	% Recovery	**CF4 unspiked**		**CF4 spiked**	
	1	1.119	1.084	4.143	3.892	93.936		0.012		0.775
	2	1.141	1.105	4.165	3.842	92.251		0.015		0.778
	3	1.138	1.102	4.162	3.897	93.643		0.008		0.776
	4	1.107	1.072	4.132	3.822	92.497		0.012		0.774
	5	1.047	1.014	4.074	3.784	92.877		0.013		0.773
	6	1.129	1.094	4.153	3.784	91.099		0.016		0.778
	7	1.066	1.033	4.093	3.765	92.005		0.014		0.778
	8	1.127	1.092	4.152	3.821	92.029		0.013		0.776
	9	1.044	1.011	4.071	3.833	94.146		0.013		0.774
	10	1.041	1.008	4.068	3.840	94.386		0.015		0.776
	11	0.992	0.961	4.021	3.822	95.052		0.011		0.779
	12	1.012	0.981	4.040	3.870	95.777		0.015		0.782
Mean Conc.:		1.080	1.046	4.106	3.831	93.308		0.013		0.777
Method 320/301 Analyte Spiking Statistical Results										
Mean of FTIR meas. spiked samples	3.8310									
Mean of FTIR meas. unspiked samp	1.0802									
CS Calculated value of Spiked Samples:	4.1062									
SD St.Dev of spiked samples Eq 301-2:	0.0414	also Eq 301-5 in 2011 version of m301								
SDM = SD/sqrt(12)	0.0120									
F-test:	0.0833	For n=6, if 0.139<F<7.146, calculate pooled SD								
SD_{pooled}-pooled std. dev.:	NA									
RSD:	**0.0108**	RSD must be <= 0.20 for successful validation								
RSD, if using pooled SD:	NA	RSD must be <= 0.50 for successful validation								
B-bias at spike level m320 Eq. 7:	-0.2752									
t-statistic, Eq. 301-4:	**23.0233**	if t-stat.>=2.201 (11 degrees of freedom), then B is statistically significant must calc. and use CF (also Eq 301-6 in 2011 version of m301)								
Br, Relative Bias Eq. 301-7 (2011 ver)	**0.0670**	If < 0.1 the CF not required (CF=1) if Br>0.3 then validation is unsucessful								
CF-correction factor Eq. 301-5 (pre-2011):	1.0718	if 0.7<=CF<=1.3 or if B not statistically signif., then validation successful								

Method 301 Validation
Ammonia (NH3)
Direct

Date	Time	NH3 (ppmv)	CF4 (ppmv)	Temp C	Pressure (Atm)
06/21/11	**16:08:40**	-0.01	23.66	150.00	1.01
06/21/11	**16:09:40**	0.00	23.64	150.00	1.01
06/21/11	**16:10:40**	0.01	23.58	150.00	1.01
06/21/11	**16:11:40**	0.00	23.60	150.00	1.01
06/21/11	**16:12:39**	2.84	23.65	150.00	1.01
06/21/11	**16:13:39**	14.60	23.60	150.00	1.01
06/21/11	**16:14:39**	25.69	23.82	150.00	1.01
06/21/11	**16:15:39**	73.09	24.24	150.00	1.02
06/21/11	**16:16:39**	82.08	24.33	150.00	1.02
06/21/11	**16:17:39**	85.97	24.33	150.00	1.02
06/21/11	**16:18:39**	88.16	24.33	150.00	1.02
06/21/11	**16:19:39**	89.84	24.29	150.00	1.02
06/21/11	**16:20:39**	91.36	24.27	150.00	1.02
06/21/11	**16:21:39**	92.68	24.35	150.00	1.02
06/21/11	**16:22:38**	93.66	24.36	150.00	1.02
06/21/11	**16:23:38**	94.72	24.39	150.00	1.02
06/21/11	**16:24:38**	95.20	24.37	150.00	1.02
06/21/11	**16:25:38**	95.82	24.36	150.00	1.02
06/21/11	**16:26:38**	96.21	24.36	150.00	1.02
06/21/11	**16:27:38**	96.59	24.34	150.00	1.02
06/21/11	**16:28:38**	96.95	24.34	150.00	1.02
06/21/11	**16:29:38**	97.35	24.33	150.00	1.02
06/21/11	**16:30:38**	97.52	24.38	150.00	1.02
06/21/11	**16:31:38**	97.82	24.32	150.00	1.02
06/21/11	**16:32:38**	97.92	24.38	150.00	1.02
06/21/11	**16:33:37**	98.26	24.38	150.00	1.02
06/21/11	**16:34:37**	98.32	24.38	150.00	1.02
	Average	98.29	24.38		

Method 301 Validation
Ammonia (NH3)
Raw Data

unspiked
spiked

Date	Time	NH3 (ppmv)	CF4 (ppmv)	Temp C	Pressure (Atm)	
06/22/11	**11:34:47**	1.17	0.008	150.00	0.94	
06/22/11	**11:35:46**	1.23	0.012	150.00	0.94	
06/22/11	**11:36:46**	1.29	0.013	150.00	0.94	
06/22/11	**11:37:46**	1.24	0.009	150.00	0.94	
06/22/11	**11:38:46**	1.34	0.543	150.00	0.94	
06/22/11	**11:39:46**	1.56	0.763	150.00	0.94	
06/22/11	**11:40:46**	1.85	0.777	150.00	0.94	
06/22/11	**11:41:46**	2.35	0.776	150.00	0.94	
06/22/11	**11:42:46**	2.77	0.778	150.00	0.94	
06/22/11	**11:43:46**	3.04	0.781	150.00	0.94	
06/22/11	**11:44:46**	3.21	0.776	150.00	0.94	
06/22/11	**11:45:45**	3.37	0.775	150.00	0.94	
06/22/11	**11:46:45**	3.47	0.773	150.00	0.94	
06/22/11	**11:47:45**	3.55	0.777	150.00	0.94	
06/22/11	**11:48:45**	3.61	0.773	150.00	0.94	
06/22/11	**11:49:45**	3.68	0.775	150.00	0.94	
06/22/11	**11:50:45**	3.73	0.778	150.00	0.94	
06/22/11	**11:51:45**	3.77	0.773	150.00	0.94	
06/22/11	**11:52:45**	3.76	0.774	150.00	0.94	
06/22/11	**11:53:45**	3.82	0.776	150.00	0.94	
06/22/11	**11:54:45**	3.87	0.775	150.00	0.94	
06/22/11	**11:55:44**	3.82	0.775	150.00	0.94	
06/22/11	**11:56:44**	3.86	0.774	150.00	0.94	
06/22/11	**11:57:44**	3.90	0.774	150.00	0.94	
06/22/11	**11:58:44**	3.92	0.775	150.00	0.94	
06/22/11	**11:59:44**	3.90	0.773	150.00	0.94	1
06/22/11	**12:00:44**	3.88	0.776	150.00	0.94	
06/22/11	**12:01:44**	2.99	0.433	150.00	0.94	
06/22/11	**12:02:44**	1.27	0.013	150.00	0.94	
06/22/11	**12:03:44**	1.13	0.012	150.00	0.94	1
06/22/11	**12:04:44**	1.11	0.013	150.00	0.94	
06/22/11	**12:05:43**	1.89	0.311	150.00	0.94	
06/22/11	**12:06:43**	3.41	0.775	150.00	0.94	
06/22/11	**12:07:43**	3.65	0.779	150.00	0.94	
06/22/11	**12:08:43**	3.81	0.777	150.00	0.94	2
06/22/11	**12:09:43**	3.88	0.778	150.00	0.94	
06/22/11	**12:10:43**	2.54	0.324	150.00	0.94	
06/22/11	**12:11:43**	1.15	0.015	150.00	0.94	2
06/22/11	**12:12:43**	1.13	0.014	150.00	0.94	
06/22/11	**12:13:43**	2.48	0.485	150.00	0.94	
06/22/11	**12:14:43**	3.55	0.777	150.00	0.94	
06/22/11	**12:15:43**	3.76	0.777	150.00	0.94	
06/22/11	**12:16:42**	3.88	0.775	150.00	0.94	3
06/22/11	**12:17:42**	3.92	0.776	150.00	0.94	
06/22/11	**12:18:42**	3.53	0.610	150.00	0.94	
06/22/11	**12:19:42**	1.23	0.013	150.00	0.94	
06/22/11	**12:20:42**	1.14	0.009	150.00	0.94	3
06/22/11	**12:21:42**	1.14	0.008	150.00	0.94	
06/22/11	**12:22:42**	2.63	0.521	150.00	0.94	
06/22/11	**12:23:42**	3.58	0.775	150.00	0.94	
06/22/11	**12:24:42**	3.79	0.771	150.00	0.94	4
06/22/11	**12:25:42**	3.86	0.777	150.00	0.94	
06/22/11	**12:26:41**	2.87	0.407	150.00	0.94	
06/22/11	**12:27:41**	1.12	0.012	150.00	0.94	4
06/22/11	**12:28:41**	1.09	0.011	150.00	0.94	
06/22/11	**12:29:41**	1.20	0.112	150.00	0.94	
06/22/11	**12:30:41**	3.52	0.768	150.00	0.94	
06/22/11	**12:31:41**	3.72	0.771	150.00	0.94	
06/22/11	**12:32:41**	3.80	0.775	150.00	0.94	5
06/22/11	**12:33:41**	3.77	0.771	150.00	0.94	
06/22/11	**12:34:41**	2.31	0.279	150.00	0.94	

Method 301 Validation
Ammonia (NH3)
Raw Data

unspiked
spiked

Date	Time	NH3 (ppmv)	CF4 (ppmv)	Temp C	Pressure (Atm)	
06/22/11	**12:35:41**	1.07	0.012	150.00	0.94	5
06/22/11	**12:36:40**	1.02	0.014	150.00	0.94	
06/22/11	**12:37:40**	2.27	0.443	150.00	0.94	
06/22/11	**12:38:40**	3.58	0.778	150.00	0.94	
06/22/11	**12:39:40**	3.76	0.779	150.00	0.94	6
06/22/11	**12:40:40**	3.80	0.778	150.00	0.94	
06/22/11	**12:41:40**	2.43	0.290	150.00	0.94	
06/22/11	**12:42:40**	1.16	0.017	150.00	0.94	6
06/22/11	**12:43:40**	1.10	0.015	150.00	0.94	
06/22/11	**12:44:40**	2.23	0.404	150.00	0.94	
06/22/11	**12:45:40**	3.58	0.779	150.00	0.94	
06/22/11	**12:46:39**	3.69	0.777	150.00	0.94	7
06/22/11	**12:47:39**	3.84	0.779	150.00	0.94	
06/22/11	**12:48:39**	2.38	0.280	150.00	0.94	
06/22/11	**12:49:39**	1.10	0.014	150.00	0.94	7
06/22/11	**12:50:39**	1.03	0.014	150.00	0.94	
06/22/11	**12:51:39**	2.49	0.508	150.00	0.94	
06/22/11	**12:52:39**	3.60	0.778	150.00	0.94	
06/22/11	**12:53:39**	3.73	0.775	150.00	0.94	
06/22/11	**12:54:39**	3.79	0.776	150.00	0.94	8
06/22/11	**12:55:39**	3.85	0.776	150.00	0.94	
06/22/11	**12:56:39**	2.89	0.406	150.00	0.94	
06/22/11	**12:57:38**	1.16	0.014	150.00	0.94	8
06/22/11	**12:58:38**	1.09	0.012	150.00	0.94	
06/22/11	**12:59:38**	1.61	0.251	150.00	0.94	
06/22/11	**13:00:38**	3.65	0.778	150.00	0.94	
06/22/11	**13:01:38**	3.73	0.777	150.00	0.94	
06/22/11	**13:02:38**	3.80	0.774	150.00	0.94	9
06/22/11	**13:03:38**	3.86	0.773	150.00	0.94	
06/22/11	**13:04:38**	2.95	0.439	150.00	0.94	
06/22/11	**13:05:38**	1.06	0.013	150.00	0.94	9
06/22/11	**13:06:38**	1.03	0.014	150.00	0.94	
06/22/11	**13:07:37**	2.10	0.393	150.00	0.94	
06/22/11	**13:08:37**	3.63	0.777	150.00	0.94	
06/22/11	**13:09:37**	3.74	0.779	150.00	0.94	
06/22/11	**13:10:37**	3.85	0.776	150.00	0.94	10
06/22/11	**13:11:37**	3.83	0.775	150.00	0.94	
06/22/11	**13:12:37**	2.75	0.383	150.00	0.94	
06/22/11	**13:13:37**	1.05	0.015	150.00	0.94	10
06/22/11	**13:14:37**	1.03	0.016	150.00	0.94	
06/22/11	**13:15:37**	2.33	0.456	150.00	0.94	
06/22/11	**13:16:37**	3.67	0.781	150.00	0.94	
06/22/11	**13:17:37**	3.80	0.780	150.00	0.94	11
06/22/11	**13:18:36**	3.84	0.778	150.00	0.94	
06/22/11	**13:19:36**	2.74	0.375	150.00	0.94	
06/22/11	**13:20:36**	1.09	0.015	150.00	0.94	
06/22/11	**13:21:36**	1.01	0.008	150.00	0.94	11
06/22/11	**13:22:36**	0.97	0.013	150.00	0.94	
06/22/11	**13:23:36**	2.42	0.496	150.00	0.94	
06/22/11	**13:24:36**	3.65	0.783	150.00	0.94	
06/22/11	**13:25:36**	3.82	0.786	150.00	0.94	
06/22/11	**13:26:36**	3.86	0.782	150.00	0.94	12
06/22/11	**13:27:36**	3.88	0.782	150.00	0.94	
06/22/11	**13:28:35**	2.27	0.251	150.00	0.94	
06/22/11	**13:29:35**	1.04	0.016	150.00	0.94	12
06/22/11	**13:30:35**	0.98	0.014	150.00	0.94	
06/22/11	**13:31:35**	0.98	0.016	150.00	0.94	
06/22/11	**13:32:35**	0.93	0.018	150.00	0.94	
06/22/11	**13:33:35**	0.94	0.013	150.00	0.94	

Method 320 Validation
Ammonia (NH3)

Method 320 Spikes for Ammonia (NH3) using a Carbon Tetrafluoride (CF4) Tracer

Spike #1

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	CF4	24.38	0.000	0.005	1.052	1.047	1.047	100.0
1	NH3	97.73	1.012	0.000	4.691	3.722	4.197	88.7
2								
3								

Dil Factor 0.043 Entered Values

Spike #2

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	CF4	24.38	0.000	0.005	0.301	0.296	0.296	100.0
1	NH3	97.73	1.012	0.000	1.845	0.845	1.186	71.2
2								
3								

Dil Factor 0.012 Entered Values

Spike #3

Compound #	Name	Cyl. Conc. (ppmv)	Native Conc. (ppmv)	Method Bias (ppmv)	Meas. Conc. (ppmv)	Spike Obs. (ppmv)	Spike Exp. (ppmv)	Recovery (%)
tracer	CF4	24.38	0.000	0.005	0.540	0.535	0.535	100.0
1	NH3	97.73	1.012	0.000	2.755	1.765	2.143	82.4
2								
3								

Dil Factor 0.022 Entered Values

Method 320 Validation
Ammonia (NH3)
Raw Data

	Date	Time	CF4 (ppmv)	NH3 (ppmv)	Temp C	Pressure (Atm)
	06/23/11	**15:38:03**	0.008	0.94	150.00	0.93
	06/23/11	**15:39:03**	0.009	1.01	150.00	0.93
	06/23/11	**15:40:03**	0.008	1.03	150.00	0.93
Bkg	06/23/11	**15:41:03**	0.006	1.00	150.00	0.93
	06/23/11	**15:42:03**	0.004	0.99	150.00	0.93
	06/23/11	**15:43:03**	0.004	1.01	150.00	0.93
	06/23/11	**15:44:03**	0.006	1.05	150.00	0.94
	06/23/11	**15:45:02**	0.009	1.01	150.00	0.94
	06/23/11	**15:46:02**	0.004	0.96	150.00	0.94
	06/23/11	**15:47:02**	1.007	0.94	150.00	0.94
	06/23/11	**15:48:02**	0.569	0.94	150.00	0.94
	06/23/11	**15:49:02**	0.567	0.95	150.00	0.94
	06/23/11	**15:50:02**	0.572	0.93	150.00	0.94
	06/23/11	**15:51:02**	0.571	0.89	150.00	0.94
	06/23/11	**15:52:02**	0.572	0.93	150.00	0.94
	06/23/11	**15:53:02**	0.574	0.95	150.00	0.94
	06/23/11	**15:54:01**	0.572	0.93	150.00	0.94
	06/23/11	**15:55:01**	0.568	0.90	150.00	0.94
	06/23/11	**15:56:01**	2.723	16.42	150.00	0.94
	06/23/11	**15:57:01**	25.297	91.16	150.00	0.94
	06/23/11	**15:58:01**	25.447	94.83	150.00	0.94
	06/23/11	**15:59:01**	25.215	96.05	150.00	0.94
	06/23/11	**16:00:01**	25.100	96.98	150.00	0.94
	06/23/11	**16:01:01**	2.308	25.54	150.00	0.94
	06/23/11	**16:02:01**	1.067	5.13	150.00	0.94
	06/23/11	**16:03:01**	1.060	4.58	150.00	0.93
	06/23/11	**16:04:00**	1.058	4.49	150.00	0.94
	06/23/11	**16:05:00**	1.058	4.46	150.00	0.94
	06/23/11	**16:06:00**	1.054	4.45	150.00	0.93
	06/23/11	**16:07:00**	1.055	4.46	150.00	0.93
	06/23/11	**16:08:00**	1.057	4.49	150.00	0.93
	06/23/11	**16:09:00**	1.058	4.56	150.00	0.93
	06/23/11	**16:10:00**	1.055	4.58	150.00	0.93
	06/23/11	**16:11:00**	1.054	4.57	150.00	0.93
	06/23/11	**16:12:00**	1.054	4.57	150.00	0.93
	06/23/11	**16:13:00**	1.055	4.57	150.00	0.93
	06/23/11	**16:13:59**	1.051	4.64	150.00	0.93
	06/23/11	**16:14:59**	1.054	4.65	150.00	0.93
	06/23/11	**16:15:59**	1.050	4.65	150.00	0.93
	06/23/11	**16:16:59**	1.053	4.68	150.00	0.93
Spike 1	06/23/11	**16:17:59**	1.053	4.67	150.00	0.93
	06/23/11	**16:18:59**	1.052	4.70	150.00	0.93
	06/23/11	**16:19:59**	1.051	4.70	150.00	0.93
	06/23/11	**16:20:59**	0.655	3.70	150.00	0.93
	06/23/11	**16:21:59**	0.306	2.16	150.00	0.93
	06/23/11	**16:22:59**	0.303	2.07	150.00	0.93
	06/23/11	**16:23:58**	0.301	2.01	150.00	0.93
	06/23/11	**16:24:58**	0.302	1.91	150.00	0.93
Spike 2	06/23/11	**16:25:58**	0.303	1.87	150.00	0.94
	06/23/11	**16:26:58**	0.300	1.84	150.00	0.93
	06/23/11	**16:27:58**	0.300	1.82	150.00	0.93

Method 320 Validation
Ammonia (NH3)
Raw Data

	Date	Time	CF4 (ppmv)	NH3 (ppmv)	Temp C	Pressure (Atm)
	06/23/11	**16:28:58**	0.329	1.74	150.00	0.93
	06/23/11	**16:29:58**	0.532	2.33	150.00	0.93
	06/23/11	**16:30:58**	0.539	2.46	150.00	0.93
	06/23/11	**16:31:58**	0.538	2.58	150.00	0.93
	06/23/11	**16:32:57**	0.538	2.62	150.00	0.93
	06/23/11	**16:33:57**	0.536	2.64	150.00	0.93
	06/23/11	**16:34:57**	0.540	2.63	150.00	0.93
	06/23/11	**16:35:57**	0.541	2.69	150.00	0.93
	06/23/11	**16:36:57**	0.538	2.68	150.00	0.93
	06/23/11	**16:37:57**	0.541	2.74	150.00	0.93
Spike 3	06/23/11	**16:38:57**	0.536	2.70	150.00	0.93
	06/23/11	**16:39:57**	0.539	2.78	150.00	0.93
	06/23/11	**16:40:57**	0.543	2.78	150.00	0.93
	06/23/11	**16:41:57**	0.353	2.47	150.00	0.93
	06/23/11	**16:42:56**	0.008	1.30	150.00	0.93
	06/23/11	**16:43:56**	0.010	1.18	150.00	0.93

Appendix L

Report for Speciated Hg Analysis

H1G050441 Analytical Report 1

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

REVISED

PROJECT NO. 40942312

Chevron - OH

Lot #: H1G050441

Chris Weber

URS Corporation
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Austin, TX 78729

TESTAMERICA LABORATORIES, INC.

Kevin S. Woodcock
Project Manager

August 23, 2011

ANALYTICAL METHODS SUMMARY

H1G050441

PARAMETER	ANALYTICAL METHOD
Mercury (Ontario Hydro)	ASTM D6784-02

References:

ASTM Annual Book Of ASTM Standards.

SAMPLE SUMMARY

H1G050441

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MKM7A	006	CHV-STK-ICR2-OH-PNR/FILTER	06/24/11	12:45
MKM7D	007	CHV-STK-ICR2-OH-KCLA	06/24/11	12:45
MKM7F	008	CHV-STK-ICR2-OH-NPI	06/24/11	12:45
MKM7G	009	CHV-STK-ICR2-OH-PERM	06/24/11	12:45
MKM7J	010	CHV-STK-ICR3-OH-PNR/FILT	06/26/11	17:45
MKM7P	011	CHV-STK-ICR3-OH-KCLA	06/26/11	17:45
MKM7R	012	CHV-STK-ICR3-OH-NPI	06/26/11	17:45
MKM7T	013	CHV-STK-ICR3-OH-PERM	06/26/11	17:45
MKM7W	014	CHV-STK-ICRFB-OH-PNR/FILT	06/26/11	14:54
MKM70	015	CHV-STK-ICRFB-OH-KCL	06/26/11	14:54
MKM71	016	CHV-STK-ICRFB-OH-NPI	06/26/11	14:54
MKM72	017	CHV-STK-ICRFB-OH-PERM	06/26/11	14:54
MKM77	018	CHV-STK-ICR4-OH-PNR/FILT	06/26/11	17:00
MKM79	019	CHV-STK-ICR4-OH-KCLA	06/26/11	17:00
MKM8C	020	CHV-STK-ICR4-OH-NPI	06/26/11	17:00
MKM8D	021	CHV-STK-ICR4-OH-PERM	06/26/11	17:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H1G050441 – Revised August 23, 2011

Revision notes

This report was revised per client request to include additional analyses for the KMnO4 fractions of the Ontario Hydro Hg trains received.

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Sample Receipt

Custody seals were not present.

Samples CHV-Stk-ICRRB-OH-Water, CHV-Stk-ICRRB-OH 10% NA, and CHV-Stk-ICRRB-OH-HA were not received, but were listed on the chain of custody documentation.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

These stack gas samples were prepared and analyzed using TestAmerica Knoxville standard operating procedure KNOX-IP-0006 which is based on ASTM Method D6784-02, "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)" with modifications from EPA Method 29. SW-846 Method 7470A, as incorporated in TestAmerica Knoxville standard operating procedure KNOX-MT-0009, was used to perform the final instrument analysis.

Thimbles were received instead of filters for the front half samples. Each thimble was divided in half because the digestion vessels are not large enough for the entire thimble. Acid digestion was performed on each half of the front half particulate thimbles and the nitric acid probe rinse fractions separately using HNO_3, HCl and HF. Heating was done by microwave. After digestion, the probe rinse digestate was combined with one of the thimble fractions. For each of the two digestates, the HF was sequestered using H_3BO_3 followed by another microwave cycle, and the final volume for each was adjusted to 100 mL. These digestates were combined (total volume of 200 mL) and a portion was digested for CVAA analysis in order to determine the particle-bound mercury. Results were calculated using the following equation:

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, DoD ELAP Cert. #ADE-1434, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky EEC Lab #90101, Louisiana DEQ AI# 83979 Cert. #03079, Louisiana DOHH, Maryland DOE Cert #277, Michigan DNRE Lab #9933, Minnesota DOH ELAP Lab #047-999-429, Nevada DEP Lab #TN00009, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DHHS Lab #21705, North Carolina DENR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DEC Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C593, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, and USDA Soil Permit #P330-11-00035. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

PROJECT NARRATIVE
H1G050441 – Revised August 23, 2011

$$\text{Hg, ug} = (\text{Hg, ug/L}) * (\text{Micr. Digestate Volume, L}) * \left(\frac{\text{Final Volume Hg Digestate (mL)}}{\text{Volume Micr. Digestate Used (mL)}} \right) * \text{Bench Dilution}$$

Please note that the dilution factor reported on the sample result form for the front half samples is actually a combination of preparation factors and bench dilution factors.

For the 5%HNO_3/10%H_2O_2 impinger samples, a 10 milliliter portion of the sample as received was processed for mercury. The KCl and 4% $KMnO_4$/10%H_2SO_4 impinger samples were treated with hydroxylamine hydrochloride, followed by removal of a 25 mL portion of sample for mercury processing. Results were calculated using the equation listed below. For the KCl and 4% $KMnO_4$/10%H_2SO_4 impinger samples, the sample volume includes the volume of hydroxylamine hydrochloride added to the sample.

$$\text{Hg, ug} = (\text{Hg, ug/L}) * (\text{Sample Volume, L}) * \left(\frac{\text{FinalVolume Hg Digestate (mL)}}{\text{Volume Sample Digested (mL)}} \right) * \text{Bench Dilution}$$

Please note that the dilution factor reported on the sample result form for the back half impingers is actually the combination of preparation factors (not just a dilution factor) required by the method to convert the Hg reporting limits and method detection limits in concentration units from ug/L to a total ug unit:

$$\text{DilutionFactor} = (\text{Volume, L}) * \left(\frac{\text{FinalVolume Hg Digestate (mL)}}{\text{Volume Sample Digested (mL)}} \right) * \text{Bench Dilution}$$

The matrix spike/matrix spike duplicate recoveries for sample CHV-STK-ICR3-OH-PERM were outside control limits for mercury. However, the laboratory control samples showed acceptable results indicating that the analysis was in control. The matrix spike/matrix spike duplicate results are, therefore, attributed to matrix effects. The affected analytes are flagged appropriately on the matrix spike/matrix spike duplicate report. A post digestion spike/post digestion spike duplicate was analyzed on CHV-STK-ICR3-OH-PERM with acceptable recoveries.

Added – August 23, 2011

After discussions on 08/19/11with the client about the poor matrix spike recoveries on sample CHV-STK-ICR3-OH-PERM, a decision was made to re-digest using less sample volume in an attempt to lessen any possible matrix interferences and reanalyze the four permanganate impingers associated with this lot. The reanalysis on these samples was done outside the 45 day holding time for mercury. The matrix spike/matrix spike duplicate recoveries for sample CHV-STK-ICR3-OH-PERM were within control limits for mercury on the reanalysis done on 08/22/11. Both sets of data have been incorporated into this revised data package.

QC DATA ASSOCIATION SUMMARY

H1G050441

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
006	AIR	ASTM D6784-02		1187043	
007	AIR	ASTM D6784-02		1187046	
008	AIR	ASTM D6784-02		1187045	
009	AIR	ASTM D6784-02		1187046	
010	AIR	ASTM D6784-02		1187043	
011	AIR	ASTM D6784-02		1187046	1187028
012	AIR	ASTM D6784-02		1187045	1187027
013	AIR	ASTM D6784-02		1187046	1187029
014	AIR	ASTM D6784-02		1187043	
015	AIR	ASTM D6784-02		1187046	
016	AIR	ASTM D6784-02		1187045	
017	AIR	ASTM D6784-02		1187046	
018	AIR	ASTM D6784-02		1187043	
019	AIR	ASTM D6784-02		1187046	
020	AIR	ASTM D6784-02		1187045	
021	AIR	ASTM D6784-02		1187046	

Sample Data Summary

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR2-OH-PNR/FILTER

TOTAL Metals

Lot-Sample #...: H1G050441-006 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187043						
Mercury	ND	0.020	ug	ASTM D6784-02	07/15-07/16/11	MKM7A1AA
		Dilution Factor: 0.2		Analysis Time..: 09:51	MDL.....: 0.012	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR2-OH-KCLA

TOTAL Metals

Lot-Sample #...: H1G050441-007 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.12 B**	**0.13**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7D1AA**
		Dilution Factor: 1.32		Analysis Time..: 10:27	MDL.....: 0.079	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR2-OH-NPI

TOTAL Metals

Lot-Sample #...: H1G050441-008 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187045						
Mercury	ND	0.080	ug	ASTM D6784-02	07/15-07/16/11	MKM7F1AA
		Dilution Factor: 0.8		Analysis Time..: 10:11	MDL.....: 0.048	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR2-OH-PERM

TOTAL Metals

Lot-Sample #...: H1G050441-009 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.81**	**0.099**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7G1AA**
		Dilution Factor: 0.99		Analysis Time..: 10:42	MDL.....: 0.059	
Prep Batch #...: 1234102						
Mercury	**0.16 B**	**0.20**	**ug**	**ASTM D6784-02**	**08/22/11**	**MKM7G2AA**
		Dilution Factor: 1.98		Analysis Time..: 13:28	MDL.....: 0.12	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR3-OH-PNR/FILT

TOTAL Metals

Lot-Sample #...: H1G050441-010 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187043						
Mercury	**0.025**	**0.020**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7J1AA**
		Dilution Factor: 0.2		Analysis Time..: 09:53	MDL.....: 0.012	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR3-OH-KCLA

TOTAL Metals

Lot-Sample #...: H1G050441-011 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.12 B**	**0.16**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7P1AA**
		Dilution Factor: 1.62		Analysis Time..: 10:28	MDL.....: 0.097	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR3-OH-NPI

TOTAL Metals

Lot-Sample #...: H1G050441-012 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187045						
Mercury	ND	0.082	ug	ASTM D6784-02	07/15-07/16/11	MKM7R1AA
		Dilution Factor: 0.82		Analysis Time..: 10:13	MDL.....: 0.049	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR3-OH-PERM

TOTAL Metals

Lot-Sample #...: H1G050441-013 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**1.0**	**0.095**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7T1AA**
		Dilution Factor: 0.95		Analysis Time..: 10:44	MDL.....: 0.057	
Prep Batch #...: 1234102						
Mercury	**0.36**	**0.19**	**ug**	**ASTM D6784-02**	**08/22/11**	**MKM7T2AA**
		Dilution Factor: 1.9		Analysis Time..: 13:30	MDL.....: 0.11	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICRFB-OH-PNR/FILT

TOTAL Metals

Lot-Sample #...: H1G050441-014 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187043						
Mercury	**0.013 B**	**0.020**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7W1AA**
		Dilution Factor: 0.2		Analysis Time..: 09:59	MDL.....: 0.012	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICRFB-OH-KCL

TOTAL Metals

Lot-Sample #...: H1G050441-015 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	ND	0.14	ug	ASTM D6784-02	07/15-07/16/11	MKM701AA
		Dilution Factor: 1.37		Analysis Time..: 10:38	MDL.....: 0.082	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICRFB-OH-NPI

TOTAL Metals

Lot-Sample #...: H1G050441-016 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187045						
Mercury	ND	0.075	ug	ASTM D6784-02	07/15-07/16/11	MKM711AA
		Dilution Factor: 0.75		Analysis Time..: 10:19	MDL.....: 0.045	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICRFB-OH-PERM

TOTAL Metals

Lot-Sample #...: H1G050441-017 Matrix.....: AIR
Date Sampled...: 06/26/11 Date Received..: 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	0.14	0.094	ug	ASTM D6784-02	07/15-07/16/11	MKM721AA
		Dilution Factor: 0.94		Analysis Time..: 10:50	MDL.....: 0.056	
Prep Batch #...: 1234102						
Mercury	0.14 B	0.19	ug	ASTM D6784-02	08/22/11	MKM722AA
		Dilution Factor: 1.88		Analysis Time..: 13:37	MDL.....: 0.11	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR4-OH-PNR/FILT

TOTAL Metals

Lot-Sample #...: H1G050441-018 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187043						
Mercury	ND	0.020	ug	ASTM D6784-02	07/15-07/16/11	MKM771AA
		Dilution Factor: 0.2		Analysis Time..: 10:02	MDL.....: 0.012	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR4-OH-KCLA

TOTAL Metals

Lot-Sample #...: H1G050441-019 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.25**	**0.14**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM791AA**
		Dilution Factor: 1.42		Analysis Time..: 10:40	MDL.....: 0.085	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR4-OH-NPI

TOTAL Metals

Lot-Sample #...: H1G050441-020 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187045						
Mercury	ND	0.082	ug	ASTM D6784-02	07/15-07/16/11	MKM8C1AA
		Dilution Factor: 0.82		Analysis Time..: 10:21	MDL.....: 0.049	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR4-OH-PERM

TOTAL Metals

Lot-Sample #...: H1G050441-021 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.42**	**0.10**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM8D1AA**
		Dilution Factor: 1.01		Analysis Time..: 10:52	MDL.....: 0.061	
Prep Batch #...: 1234102						
Mercury	**0.40**	**0.20**	**ug**	**ASTM D6784-02**	**08/22/11**	**MKM8D2AA**
		Dilution Factor: 2.02		Analysis Time..: 13:40	MDL.....: 0.12	

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H1G060000-043 **Prep Batch #...:** 1187043						
Mercury	ND	0.020	ug	ASTM D6784-02	07/15-07/16/11	MKNV51AA
		Dilution Factor: 0.2				
		Analysis Time..: 09:40				
MB Lot-Sample #: H1G060000-045 **Prep Batch #...:** 1187045						
Mercury	ND	0.025	ug	ASTM D6784-02	07/15-07/16/11	MKNWC1AA
		Dilution Factor: 0.25				
		Analysis Time..: 10:04				
MB Lot-Sample #: H1G060000-046 **Prep Batch #...:** 1187046						
Mercury	ND	0.010	ug	ASTM D6784-02	07/15-07/16/11	MKNWE1AA
		Dilution Factor: 0.1				
		Analysis Time..: 10:22				
Mercury	ND	0.010	ug	ASTM D6784-02	07/15-07/16/11	MKNWE1AD
		Dilution Factor: 0.1				
		Analysis Time..: 10:22				
MB Lot-Sample #: H1H220000-102 **Prep Batch #...:** 1234102						
Mercury	ND	0.020	ug	ASTM D6784-02	08/22/11	MLV691AA
		Dilution Factor: 0.2				
		Analysis Time..: 13:24				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: H1G050441 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Mercury	109	(80 - 120)			ASTM D6784-02	07/15-07/16/11	1187043
	107	(80 - 120)	1.5	(0-20)	ASTM D6784-02	07/15-07/16/11	1187043

Dilution Factor: 0.2 Analysis Time..: 09:46

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: H1G050441 **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Mercury	1.00	1.09	ug	109		ASTM D6784-02	07/15-07/16/11	1187043
	1.00	1.07	ug	107	1.5	ASTM D6784-02	07/15-07/16/11	1187043

Dilution Factor: 0.2 Analysis Time..: 09:46

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H1G060000-045 **Prep Batch #...:** 1187045					
Mercury	81	(80 - 120)	ASTM D6784-02	07/15-07/16/11	MKNWC1AC
		Dilution Factor: 0.25	Analysis Time..: 10:06		
LCS Lot-Sample#: H1G060000-046 **Prep Batch #...:** 1187046					
Mercury	100	(80 - 120)	ASTM D6784-02	07/15-07/16/11	MKNWE1AC
		Dilution Factor: 0.1	Analysis Time..: 10:25		
Mercury	100	(80 - 120)	ASTM D6784-02	07/15-07/16/11	MKNWE1AE
		Dilution Factor: 0.1	Analysis Time..: 10:25		
LCS Lot-Sample#: H1H220000-102 **Prep Batch #...:** 1234102					
Mercury	103	(80 - 120)	ASTM D6784-02	08/22/11	MLV691AC
		Dilution Factor: 0.2	Analysis Time..: 13:26		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H1G060000-045 **Prep Batch #...:** 1187045							
Mercury	1.25	1.01	ug	81	ASTM D6784-02	07/15-07/16/11	MKNWC1AC
			Dilution Factor: 0.25		Analysis Time..: 10:06		
LCS Lot-Sample#: H1G060000-046 **Prep Batch #...:** 1187046							
Mercury	0.500	0.500	ug	100	ASTM D6784-02	07/15-07/16/11	MKNWE1AC
			Dilution Factor: 0.1		Analysis Time..: 10:25		
Mercury	0.500	0.500	ug	100	ASTM D6784-02	07/15-07/16/11	MKNWE1AE
			Dilution Factor: 0.1		Analysis Time..: 10:25		
LCS Lot-Sample#: H1H220000-102 **Prep Batch #...:** 1234102							
Mercury	1.00	1.03	ug	103	ASTM D6784-02	08/22/11	MLV691AC
			Dilution Factor: 0.2		Analysis Time..: 13:26		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-012 **Prep Batch #...:** 1187045							
Mercury	83	(80 - 120)			ASTM D6784-02	07/15-07/16/11	MKM7R1AC
	85	(80 - 120)	2.5	(0-20)	ASTM D6784-02	07/15-07/16/11	MKM7R1AD
		Dilution Factor: 0.82					
		Analysis Time..: 10:15					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-012 **Prep Batch #...:** 1187045									
Mercury									
	ND	0.825	0.684	ug	83		ASTM D6784-02	07/15-07/16/11	MKM7R1AC
	ND	0.825	0.701	ug	85	2.5	ASTM D6784-02	07/15-07/16/11	MKM7R1AD

Dilution Factor: 0.82
Analysis Time..: 10:15

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-011 **Prep Batch #...:** 1187046							
Mercury	94	(80 - 120)			ASTM D6784-02	07/15-07/16/11	MKM7P1AC
	91	(80 - 120)	2.8	(0-20)	ASTM D6784-02	07/15-07/16/11	MKM7P1AD
		Dilution Factor: 1.62					
		Analysis Time..: 10:34					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-011 **Prep Batch #...:** 1187046									
Mercury									
	0.12	1.62	1.64	ug	94		ASTM D6784-02	07/15-07/16/11	MKM7P1AC
	0.12	1.62	1.59	ug	91	2.8	ASTM D6784-02	07/15-07/16/11	MKM7P1AD
			Dilution Factor: 1.62						
			Analysis Time..: 10:34						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-013 **Prep Batch #...:** 1187046							
Mercury	51 N	(80 - 120)			ASTM D6784-02	07/15-07/16/11	MKM7T1AC
	43 N	(80 - 120)	5.3	(0-20)	ASTM D6784-02	07/15-07/16/11	MKM7T1AD
		Dilution Factor: 0.95					
		Analysis Time..: 10:46					
MS Lot-Sample #: H1G050441-013 **Prep Batch #...:** 1234102							
Mercury	94	(80 - 120)			ASTM D6784-02	08/22/11	MKM7T1AE
	100	(80 - 120)	5.2	(0-20)	ASTM D6784-02	08/22/11	MKM7T1AF
		Dilution Factor: 1.9					
		Analysis Time..: 13:32					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-013 **Prep Batch #...:** 1187046									
Mercury									
	1.0	0.950	1.48 N	ug	51		ASTM D6784-02	07/15-07/16/11	MKM7T1AC
	1.0	0.950	1.41 N	ug	43	5.3	ASTM D6784-02	07/15-07/16/11	MKM7T1AD
			Dilution Factor: 0.95						
			Analysis Time..: 10:46						
MS Lot-Sample #: H1G050441-013 **Prep Batch #...:** 1234102									
Mercury									
	0.36	1.90	2.15	ug	94		ASTM D6784-02	08/22/11	MKM7T1AE
	0.36	1.90	2.26	ug	100	5.2	ASTM D6784-02	08/22/11	MKM7T1AF
			Dilution Factor: 1.9						
			Analysis Time..: 13:32						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDS MKM7J	Original Sample MKM7J	Spike Added	Percent Recovery
Hg	1.05	0.113	1.0	93.7

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDSD MKM7J	Original Sample MKM7J	Spike Added	Percent Recovery
Hg	1.04	0.113	1.0	92.7

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDS MKM7T	Original Sample MKM7T	Spike Added	Percent Recovery
Hg	1.75	0.95	1.0	80.0

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDSD MKM7T	Original Sample MKM7T	Spike Added	Percent Recovery
Hg	1.80	0.95	1.0	85.0

Form 5B Equivalent

Sample Receipt Documentation

URS

Chain of Custody Record

H16 DSDY41

Samples from Ontario Hydro Sampling Trains

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

4 Boxes Recd @ Ambient Temp without custody Seals. GMH 7/5/11

4 Boxes fed x #'s 8729 7187 3462 3289 3440

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-OH-PNR	Probe and Nozzle Rinse	6/23/11 1923	X			X		3	Hold - Do not analyze
CHV-Stk-ICR1-OH-Filt	Filter		X			X		26	Hold - Do not analyze
CHV-Stk-ICR1-OH-KCIA	Potassium Chloride Impingers - Bottle A		X			X		7	
CHV-Stk-ICR1-OH-KCIB	Potassium Chloride Impinger - Bottle B		X			X			
CHV-Stk-ICR1-OH-NPI	Nitric/Peroxide Impingers		X			X		2	
CHV-Stk-ICR1-OH-Perm	Permanganate Impinger		X			X		8	
CHV-Stk-ICR2-OH-PNR	Probe and Nozzle Rinse	6/24/11 1245	X					3	Analyze
CHV-Stk-ICR2-OH-Filt	Filter		X					26	
CHV-Stk-ICR2-OH-KCIA	Potassium Chloride Impingers - Bottle A		X					7	
CHV-Stk-ICR2-OH-KCIB	Potassium Chloride Impinger - Bottle B		X						
CHV-Stk-ICR2-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICR2-OH-Perm	Permanganate Impinger		X					8	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
DDCurb	6/29/11	1900		7/5/11	09:30			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

H1G0SD441

URS

Chain of Custody Record

Samples from Ontario Hydro Sampling Trains

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-OH-PNR	Probe and Nozzle Rinse	6/24/11 1745	X					3	
CHV-Stk-ICR3-OH-Filt	Filter		X					26	
CHV-Stk-ICR3-OH-KCIA	Potassium Chloride Impingers - Bottle A		X					7	
CHV-Stk-ICR3-OH-KCIB	Potassium Chloride Impinger - Bottle B		X						
CHV-Stk-ICR3-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICR3-OH-Perm	Permanganate Impinger		X					8	
CHV-Stk-ICRFB-OH-PNR	Probe and Nozzle Rinse	6/26/11 1454	X					3	
CHV-Stk-ICRFB-OH-Filt	Filter		X					26	
CHV-Stk-ICRFB-OH-KCI	Potassium Chloride Impingers		X					7	
CHV-Stk-ICRFB-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICRFB-OH-Perm	Permanganate Impinger		X					8	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:30			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

H16050441

URS

Chain of Custody Record

Samples from ~~Multi-Metals Sampling Train~~ Ontario Hydro Sampling Train

~~(Including PM Determination)~~

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR4-OH-PNR	Probe and Nozzle Rinse	6/26/11 1700	X					3	
CHV-Stk-ICR4-OH-Filt	Filter		X					26	
CHV-Stk-ICR4-OH-KCIA	Potassium Chloride Impingers - Bottle A		X					7	
CHV-Stk-ICR4-OH-KCIB	Potassium Chloride Impinger - Bottle B								
CHV-Stk-ICR4-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICR4-OH-Perm	Permanganate Impinger		X					8	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:30			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #:	Date	Time	Temp (C)

Seal #	Condition

Remarks:

H160S0441

URS

Chain of Custody Record

Samples from Ontario Hydro Sampling Trains

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-OH-Filt	Filter	6/26/11 1200	X			X		26	Hold - do not analyze
CHV-Stk-ICRRB-OH-KCl	Potassium Chloride Impingers	6/23/11 1915	X			X		7	
CHV-Stk-ICRRB-OH-NPI	Nitric/Peroxide Impingers		X			X		2	
CHV-Stk-ICRRB-OH-Perm	Permanganate Impinger		X			X		8	
CHV-Stk-ICRRB-OH-Water	Water		X			X		5	
CHV-Stk-ICRRB-OH-NA Rns Soln	Nitric Acid Rinse Solution		X			X		3	
CHV-Stk-ICRRB-OH-10% NA	10% Nitric Acid Rinse Solution		X			X		25	
CHV-Stk-ICRRB-OH-HA	Hydroxylamine sulfate solution	6/23/11 1915	X			X		6	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:30			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: _____

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	4A 5B Did not receive samples: CHV-Stk-ICRRB-OH-water CHV-Stk-ICRRB-OH-10% NA CHV-Stk-ICRRB-OH-HA
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?		✓		☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 89172 PM Instructions: NA

Sample Receiving Associate: George P Hancock Date: 7/5/11

QA026R22.doc, 012811

Metals

Sample Results

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR2-OH-PNR/FILTER

TOTAL Metals

Lot-Sample #...: H1G050441-006 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187043						
Mercury	ND	0.020	ug	ASTM D6784-02	07/15-07/16/11	MKM7A1AA
		Dilution Factor: 0.2		Analysis Time..: 09:51	MDL.....: 0.012	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR2-OH-KCLA

TOTAL Metals

Lot-Sample #...: H1G050441-007 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.12 B**	**0.13**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7D1AA**
		Dilution Factor: 1.32		Analysis Time..: 10:27	MDL.....: 0.079	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR2-OH-NPI

TOTAL Metals

Lot-Sample #...: H1G050441-008 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187045						
Mercury	ND	0.080	ug	ASTM D6784-02	07/15-07/16/11	MKM7F1AA
		Dilution Factor: 0.8		Analysis Time..: 10:11	MDL.....: 0.048	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR2-OH-PERM

TOTAL Metals

Lot-Sample #...: H1G050441-009 **Matrix.....:** AIR
Date Sampled...: 06/24/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.81**	**0.099**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7G1AA**
		Dilution Factor: 0.99		Analysis Time..: 10:42	MDL.....: 0.059	
Prep Batch #...: 1234102						
Mercury	**0.16 B**	**0.20**	**ug**	**ASTM D6784-02**	**08/22/11**	**MKM7G2AA**
		Dilution Factor: 1.98		Analysis Time..: 13:28	MDL.....: 0.12	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR3-OH-PNR/FILT

TOTAL Metals

Lot-Sample #...: H1G050441-010 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187043						
Mercury	**0.025**	**0.020**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7J1AA**
		Dilution Factor: 0.2		Analysis Time..: 09:53	MDL.....: 0.012	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR3-OH-KCLA

TOTAL Metals

Lot-Sample #...: H1G050441-011 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.12 B**	**0.16**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7P1AA**
		Dilution Factor: 1.62		Analysis Time..: 10:28	MDL.....: 0.097	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR3-OH-NPI

TOTAL Metals

Lot-Sample #...: H1G050441-012 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187045						
Mercury	ND	0.082	ug	ASTM D6784-02	07/15-07/16/11	MKM7R1AA
		Dilution Factor: 0.82		Analysis Time..: 10:13	MDL.....: 0.049	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR3-OH-PERM

TOTAL Metals

Lot-Sample #...: H1G050441-013 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**1.0**	**0.095**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7T1AA**
		Dilution Factor: 0.95		Analysis Time..: 10:44	MDL.....: 0.057	
Prep Batch #...: 1234102						
Mercury	**0.36**	**0.19**	**ug**	**ASTM D6784-02**	**08/22/11**	**MKM7T2AA**
		Dilution Factor: 1.9		Analysis Time..: 13:30	MDL.....: 0.11	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICRFB-OH-PNR/FILT

TOTAL Metals

Lot-Sample #...: H1G050441-014 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187043						
Mercury	**0.013 B**	**0.020**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM7W1AA**
		Dilution Factor: 0.2		Analysis Time..: 09:59	MDL.....: 0.012	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICRFB-OH-KCL

TOTAL Metals

Lot-Sample #...: H1G050441-015 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	ND	0.14	ug	ASTM D6784-02	07/15-07/16/11	MKM701AA
		Dilution Factor: 1.37		Analysis Time..: 10:38	MDL.....: 0.082	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICRFB-OH-NPI

TOTAL Metals

Lot-Sample #...: H1G050441-016 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187045						
Mercury	ND	0.075	ug	ASTM D6784-02	07/15-07/16/11	MKM711AA
		Dilution Factor: 0.75		Analysis Time..: 10:19	MDL.....: 0.045	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICRFB-OH-PERM

TOTAL Metals

Lot-Sample #...: H1G050441-017 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.14**	**0.094**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM721AA**
		Dilution Factor: 0.94		Analysis Time..: 10:50	MDL.....: 0.056	
Prep Batch #...: 1234102						
Mercury	**0.14 B**	**0.19**	**ug**	**ASTM D6784-02**	**08/22/11**	**MKM722AA**
		Dilution Factor: 1.88		Analysis Time..: 13:37	MDL.....: 0.11	

NOTE(S):

B Estimated result. Result is less than RL.

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR4-OH-PNR/FILT

TOTAL Metals

Lot-Sample #...: H1G050441-018 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187043						
Mercury	ND	0.020	ug	ASTM D6784-02	07/15-07/16/11	MKM771AA
		Dilution Factor: 0.2		Analysis Time..: 10:02	MDL.....: 0.012	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR4-OH-KCLA

TOTAL Metals

Lot-Sample #...: H1G050441-019 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.25**	**0.14**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM791AA**
		Dilution Factor: 1.42		Analysis Time..: 10:40	MDL.....: 0.085	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR4-OH-NPI

TOTAL Metals

Lot-Sample #...: H1G050441-020 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187045						
Mercury	ND	0.082	ug	ASTM D6784-02	07/15-07/16/11	MKM8C1AA
		Dilution Factor: 0.82		Analysis Time..: 10:21	MDL.....: 0.049	

URS Austin Source Testing #1427536

Client Sample ID: CHV-STK-ICR4-OH-PERM

TOTAL Metals

Lot-Sample #...: H1G050441-021 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1187046						
Mercury	**0.42**	**0.10**	**ug**	**ASTM D6784-02**	**07/15-07/16/11**	**MKM8D1AA**
		Dilution Factor: 1.01		Analysis Time..: 10:52	MDL.....: 0.061	
Prep Batch #...: 1234102						
Mercury	**0.40**	**0.20**	**ug**	**ASTM D6784-02**	**08/22/11**	**MKM8D2AA**
		Dilution Factor: 2.02		Analysis Time..: 13:40	MDL.....: 0.12	

QC Summary

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H1G060000-043 **Prep Batch #...:** 1187043						
Mercury	ND	0.020	ug	ASTM D6784-02	07/15-07/16/11	MKNV51AA
		Dilution Factor: 0.2				
		Analysis Time..: 09:40				
MB Lot-Sample #: H1G060000-045 **Prep Batch #...:** 1187045						
Mercury	ND	0.025	ug	ASTM D6784-02	07/15-07/16/11	MKNWC1AA
		Dilution Factor: 0.25				
		Analysis Time..: 10:04				
MB Lot-Sample #: H1G060000-046 **Prep Batch #...:** 1187046						
Mercury	ND	0.010	ug	ASTM D6784-02	07/15-07/16/11	MKNWE1AA
		Dilution Factor: 0.1				
		Analysis Time..: 10:22				
Mercury	ND	0.010	ug	ASTM D6784-02	07/15-07/16/11	MKNWE1AD
		Dilution Factor: 0.1				
		Analysis Time..: 10:22				
MB Lot-Sample #: H1H220000-102 **Prep Batch #...:** 1234102						
Mercury	ND	0.020	ug	ASTM D6784-02	08/22/11	MLV691AA
		Dilution Factor: 0.2				
		Analysis Time..: 13:24				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: H1G050441 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Mercury	109	(80 - 120)			ASTM D6784-02	07/15-07/16/11	1187043
	107	(80 - 120)	1.5	(0-20)	ASTM D6784-02	07/15-07/16/11	1187043

Dilution Factor: 0.2 Analysis Time..: 09:46

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: H1G050441 **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Mercury	1.00	1.09	ug	109		ASTM D6784-02	07/15-07/16/11	1187043
	1.00	1.07	ug	107	1.5	ASTM D6784-02	07/15-07/16/11	1187043

Dilution Factor: 0.2 Analysis Time..: 09:46

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H1G060000-045 **Prep Batch #...:** 1187045					
Mercury	81	(80 - 120)	ASTM D6784-02	07/15-07/16/11	MKNWC1AC
		Dilution Factor: 0.25	Analysis Time..: 10:06		
LCS Lot-Sample#: H1G060000-046 **Prep Batch #...:** 1187046					
Mercury	100	(80 - 120)	ASTM D6784-02	07/15-07/16/11	MKNWE1AC
		Dilution Factor: 0.1	Analysis Time..: 10:25		
Mercury	100	(80 - 120)	ASTM D6784-02	07/15-07/16/11	MKNWE1AE
		Dilution Factor: 0.1	Analysis Time..: 10:25		
LCS Lot-Sample#: H1H220000-102 **Prep Batch #...:** 1234102					
Mercury	103	(80 - 120)	ASTM D6784-02	08/22/11	MLV691AC
		Dilution Factor: 0.2	Analysis Time..: 13:26		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H1G060000-045 **Prep Batch #...:** 1187045							
Mercury	1.25	1.01	ug	81	ASTM D6784-02	07/15-07/16/11	MKNWC1AC
			Dilution Factor: 0.25		Analysis Time..: 10:06		
LCS Lot-Sample#: H1G060000-046 **Prep Batch #...:** 1187046							
Mercury	0.500	0.500	ug	100	ASTM D6784-02	07/15-07/16/11	MKNWE1AC
			Dilution Factor: 0.1		Analysis Time..: 10:25		
Mercury	0.500	0.500	ug	100	ASTM D6784-02	07/15-07/16/11	MKNWE1AE
			Dilution Factor: 0.1		Analysis Time..: 10:25		
LCS Lot-Sample#: H1H220000-102 **Prep Batch #...:** 1234102							
Mercury	1.00	1.03	ug	103	ASTM D6784-02	08/22/11	MLV691AC
			Dilution Factor: 0.2		Analysis Time..: 13:26		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-012 **Prep Batch #...:** 1187045							
Mercury	83	(80 - 120)			ASTM D6784-02	07/15-07/16/11	MKM7R1AC
	85	(80 - 120)	2.5	(0-20)	ASTM D6784-02	07/15-07/16/11	MKM7R1AD
		Dilution Factor: 0.82					
		Analysis Time..: 10:15					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-012 **Prep Batch #...:** 1187045									
Mercury									
	ND	0.825	0.684	ug	83		ASTM D6784-02	07/15-07/16/11	MKM7R1AC
	ND	0.825	0.701	ug	85	2.5	ASTM D6784-02	07/15-07/16/11	MKM7R1AD
			Dilution Factor: 0.82						
			Analysis Time..: 10:15						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-011 **Prep Batch #...:** 1187046							
Mercury	94	(80 - 120)			ASTM D6784-02	07/15-07/16/11	MKM7P1AC
	91	(80 - 120)	2.8	(0-20)	ASTM D6784-02	07/15-07/16/11	MKM7P1AD
		Dilution Factor: 1.62					
		Analysis Time..: 10:34					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-011 **Prep Batch #...:** 1187046									
Mercury									
	0.12	1.62	1.64	ug	94		ASTM D6784-02	07/15-07/16/11	MKM7P1AC
	0.12	1.62	1.59	ug	91	2.8	ASTM D6784-02	07/15-07/16/11	MKM7P1AD
			Dilution Factor: 1.62						
			Analysis Time..: 10:34						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-013 **Prep Batch #...:** 1187046							
Mercury	51 N	(80 - 120)			ASTM D6784-02	07/15-07/16/11	MKM7T1AC
	43 N	(80 - 120)	5.3	(0-20)	ASTM D6784-02	07/15-07/16/11	MKM7T1AD
		Dilution Factor: 0.95					
		Analysis Time..: 10:46					
MS Lot-Sample #: H1G050441-013 **Prep Batch #...:** 1234102							
Mercury	94	(80 - 120)			ASTM D6784-02	08/22/11	MKM7T1AE
	100	(80 - 120)	5.2	(0-20)	ASTM D6784-02	08/22/11	MKM7T1AF
		Dilution Factor: 1.9					
		Analysis Time..: 13:32					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N :Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H1G050441 **Matrix.....:** AIR
Date Sampled...: 06/26/11 **Date Received..:** 07/05/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H1G050441-013 **Prep Batch #...:** 1187046									
Mercury									
	1.0	0.950	1.48 N	ug	51		ASTM D6784-02	07/15-07/16/11	MKM7T1AC
	1.0	0.950	1.41 N	ug	43	5.3	ASTM D6784-02	07/15-07/16/11	MKM7T1AD
			Dilution Factor: 0.95						
			Analysis Time..: 10:46						
MS Lot-Sample #: H1G050441-013 **Prep Batch #...:** 1234102									
Mercury									
	0.36	1.90	2.15	ug	94		ASTM D6784-02	08/22/11	MKM7T1AE
	0.36	1.90	2.26	ug	100	5.2	ASTM D6784-02	08/22/11	MKM7T1AF
			Dilution Factor: 1.9						
			Analysis Time..: 13:32						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDS MKM7J	Original Sample MKM7J	Spike Added	Percent Recovery
Hg	1.05	0.113	1.0	93.7

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDSD MKM7J	Original Sample MKM7J	Spike Added	Percent Recovery
Hg	1.04	0.113	1.0	92.7

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDS MKM7T	Original Sample MKM7T	Spike Added	Percent Recovery
Hg	1.75	0.95	1.0	80.0

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDSD MKM7T	Original Sample MKM7T	Spike Added	Percent Recovery
Hg	1.80	0.95	1.0	85.0

Form 5B Equivalent

Quality Control Results Mercury

TestAmerica Knoxville

Mercury Data Reporting Form

Initial Calibration Verification

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Elem	True Conc	Ck2icv 7/16/2011 8:35 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Hg	2.5	2.58	**103.2**										

TestAmerica Knoxville

Mercury Data Reporting Form

Continuing Calibration Verification

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Elem	True Conc	Ck3ccv 7/16/2011 8:41 AM Found	% Rec	Ck3ccv 7/16/2011 9:01 AM Found	% Rec	Ck3ccv 7/16/2011 9:18 AM Found	% Rec	Ck3ccv 7/16/2011 9:42 AM Found	% Rec	Ck3ccv 7/16/2011 10:07 AM Found	% Rec	Ck3ccv 7/16/2011 10:30 AM Found	% Rec
Hg	5.0	4.94	**98.8**	4.63	**92.6**	4.80	**96.0**	4.90	**98.0**	4.79	**95.8**	4.89	**97.8**

TestAmerica Knoxville

Mercury Data Reporting Form

Continuing Calibration Verification

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Elem	True Conc	Ck3ccv 7/16/2011 10:54 AM Found	% Rec	Ck3ccv 7/16/2011 11:19 AM Found	% Rec	Ck3ccv 7/16/2011 11:43 AM Found	% Rec	Ck3ccv 7/16/2011 12:02 PM Found	% Rec	Ck3ccv 7/16/2011 12:23 PM Found	% Rec	Ck3ccv 7/16/2011 12:37 PM Found	% Rec
Hg	5.0	5.00	**100.0**	4.88	**97.6**	4.77	**95.4**	4.72	**94.4**	4.80	**96.0**	4.84	**96.8**

TestAmerica Knoxville

Mercury Data Reporting Form

Continuing Calibration Verification

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Elem	True Conc	Ck3ccv 7/16/2011 12:49 PM Found	% Rec	Ck3ccv 7/16/2011 1:11 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Hg	5.0	4.76	**95.2**	4.73	**94.6**								

TestAmerica Knoxville

Mercury Data Reporting Form

Contract Required Detection Limit Standard(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Elem	True Conc	CRA 7/16/2011 8:39 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Hg	0.2	0.19	**95.0**										

TestAmerica Knoxville

Mercury Data Reporting Form

Initial Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Elem	Reporting Limit	ICB 7/16/2011 8:37 AM Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Hg	0.2	0.06	U										

TestAmerica Knoxville

Mercury Data Reporting Form

Continuing Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Elem	Reporting Limit	Ck1ccb 7/16/2011 8:43 AM		Ck1ccb 7/16/2011 9:05 AM		Ck1ccb 7/16/2011 9:20 AM		Ck1ccb 7/16/2011 9:45 AM		Ck1ccb 7/16/2011 10:09 AM		Ck1ccb 7/16/2011 10:32 AM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Hg	0.2	0.06	U	0.06	U	0.06	U	0.06	U	-0.07	B	0.06	U

TestAmerica Knoxville

Mercury Data Reporting Form

Continuing Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Elem	Reporting Limit	Ck1ccb 7/16/2011 10:56 AM		Ck1ccb 7/16/2011 11:21 AM		Ck1ccb 7/16/2011 11:45 AM		Ck1ccb 7/16/2011 12:04 PM		Ck1ccb 7/16/2011 12:25 PM		Ck1ccb 7/16/2011 12:39 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Hg	0.2	0.06	U	0.06	U	0.06	U	-0.07	B	0.06	U	0.06	U

TestAmerica Knoxville

Mercury Data Reporting Form

Continuing Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Elem	Reporting Limit	Ck1ccb 7/16/2011 12:51 PM		Ck1ccb 7/16/2011 1:13 PM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Hg	0.2	0.06	U	0.06	U								

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDS MKM7J	Original Sample MKM7J	Spike Added	Percent Recovery
Hg	1.05	0.113	1.0	93.7

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDSD MKM7J	Original Sample MKM7J	Spike Added	Percent Recovery
Hg	1.04	0.113	1.0	92.7

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDS MKM7T	Original Sample MKM7T	Spike Added	Percent Recovery
Hg	1.75	0.95	1.0	80.0

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Post Digestion Spike

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg

Data File Name: M071611. PRN

Element	PDSD MKM7T	Original Sample MKM7T	Spike Added	Percent Recovery
Hg	1.80	0.95	1.0	85.0

Form 5B Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Instrument Detection Limits

Units: ug/L (ppb)

IDL Completion Date: 12/8/2010

Instrument ID: Leeman HydraAA Hg An

Data File Name: M071611.PRN

Element	Wavelength (nm)	Reporting Limit	IDL
Hg	253.70	0.2	0.06

TestAmerica Knoxville

Sample ID Nomenclature

The sample ID consists of 5 alpha-numeric characters followed by a suffix in the 6th position that designates the sample type:

Suffix	Sample Type:
B	Method Blank
C	Laboratory Control Sample
L	Laboratory Control Sample Duplicate
S	Matrix Spike
D	Matrix Spike Duplicate
X	Sample Duplicate
P	Serial Dilution
A	Post Digestion Spike
Z#	Dilution; # = Dilution Factor

TestAmerica Knoxville

Mercury Data Reporting Form

Initial Calibration Verification

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M082211.PRN

Elem	True Conc	Ck2icv 8/22/2011 1:15 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Hg	2.5	2.53	**101.2**										

TestAmerica Knoxville

Mercury Data Reporting Form

Continuing Calibration Verification

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M082211.PRN

Elem	True Conc	Ck3ccv 8/22/2011 1:20 PM Found	% Rec	Ck3ccv 8/22/2011 1:42 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Hg	5.0	5.16	**103.2**	5.06	**101.2**								

TestAmerica Knoxville

Mercury Data Reporting Form

Contract Required Detection Limit Standard(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M082211.PRN

Elem	True Conc	CRA 8/22/2011 1:18 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Hg	0.2	0.20	**101.0**										

TestAmerica Knoxville

Mercury Data Reporting Form

Initial Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M082211.PRN

Elem	Reporting Limit	ICB 8/22/2011 1:17 PM Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Hg	0.2	0.06	U										

Mercury Report Generator Version 2.0

B - Analyte concentration is between IDL and Reporting Limit
U - Analyte concentration is less than IDL

Form 3 Equivalent

TestAmerica Knoxville

Mercury Data Reporting Form

Continuing Calibration Blank(s)

Units: ug/L (ppb)

Instrument ID: Leeman HydraAA Hg An

Data File Name: M082211.PRN

Elem	Reporting Limit	Ck1ccb 8/22/2011 1:22 PM		Ck1ccb 8/22/2011 1:44 PM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag	Found	Flag
Hg	0.2	0.06	U	0.06	U								

TestAmerica Knoxville

Mercury Data Reporting Form

Instrument Detection Limits

Units: ug/L (ppb)

IDL Completion Date: 12/8/2010

Instrument ID: Leeman HydraAA Hg An

Data File Name: M082211.PRN

Element	Wavelength (nm)	Reporting Limit	IDL
Hg	253.70	0.2	0.06

TestAmerica Knoxville

Sample ID Nomenclature

The sample ID consists of 5 alpha-numeric characters followed by a suffix in the 6th position that designates the sample type:

Suffix	Sample Type:
B	Method Blank
C	Laboratory Control Sample
L	Laboratory Control Sample Duplicate
S	Matrix Spike
D	Matrix Spike Duplicate
X	Sample Duplicate
P	Serial Dilution
A	Post Digestion Spike
Z#	Dilution; # = Dilution Factor

Raw Data
Mercury

TestAmerica Knoxville
Mercury Analysis Cover Sheet

Analyst	DKW	**Instrument**	**Leeman Hydra AA Mercury Analyzer**
Run Date	7/16/11	**Chart Name**	M071611

Daily Maintenance		**As Needed Maintenance**	
☑	Check tubing.	☑	Adjust/change Hg lamp.
☑	Check maintenance schedule flags.	☐	Clean or replace optical cell.
		☐	Lubricate pump and autosampler arm.
		☐	Change the drying tube.

```
--------------------------------------------------------------------------------
:       Instrument Upload                                    Run Log - Page  1 :
:       Started Mon Jul 18 07:08:04 2011 by WILBURND                           :
:       Data File: UPL$KNX_DATA_ROOT:<LHG>M071611.PRN;1                        :
--------------------------------------------------------------------------------
```

JN WASTE ↓ 3051

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	CK2ICV	1.00	16-JUL-2011	08:35:42			HG
2	ICB	1.00	16-JUL-2011	08:37:32			HG
3	CRA	1.00	16-JUL-2011	08:39:37			HG
4	CK3CCV	1.00	16-JUL-2011	08:41:29			HG
5	CK1CCB	1.00	16-JUL-2011	08:43:16			HG
6	MKW5KB	1.00	16-JUL-2011	08:45:28	1195086	H1G140000	HG
7	MKW5KC	1.00	16-JUL-2011	08:47:19	1195086	H1G140000	HG
8	MKW5KL	1.00	16-JUL-2011	08:50:26	1195086	H1G140000	HG
9	MKWW2	1.00	16-JUL-2011	08:52:14	1195086	H1G140402	HG
10	MKWW3	1.00	16-JUL-2011	08:54:11	1195086	H1G140402	HG
11	MKMRXB	1.00	16-JUL-2011	08:55:58	1187035	H1G050000	HG
12	CK3CCV	1.00	16-JUL-2011	09:01:08			HG
13	CK1CCB	1.00	16-JUL-2011	09:05:09			HG
14	MKMRXB	1.00	16-JUL-2011	09:09:34	1187035	H1G050000	HG
15	MKMRXC	1.00	16-JUL-2011	09:11:22	1187035	H1G050000	HG
16	MKJ91	1.00	16-JUL-2011	09:13:20	1187035	H1F290430	HG
17	MKJ91S	1.00	16-JUL-2011	09:15:08	1187035	H1F290430	HG
18	MKJ91D	1.00	16-JUL-2011	09:16:57	1187035	H1F290430	HG
19	CK3CCV	1.00	16-JUL-2011	09:18:48			HG
20	CK1CCB	1.00	16-JUL-2011	09:20:39			HG
21	MKJ93	1.00	16-JUL-2011	09:22:25	1187035	H1F290430	HG
22	MKJ93S	1.00	16-JUL-2011	09:24:24	1187035	H1F290430	HG
23	MKJ93D	1.00	16-JUL-2011	09:26:20	1187035	H1F290430	HG
24	MKJ96	1.00	16-JUL-2011	09:28:08	1187035	H1F290430	HG
25	MKJ96S	1.00	16-JUL-2011	09:30:06	1187035	H1F290430	HG
26	MKJ96D	1.00	16-JUL-2011	09:32:03	1187035	H1F290430	HG
27	MKKAC	1.00	16-JUL-2011	09:34:06	1187035	H1F290430	HG
28	MKKACS	1.00	16-JUL-2011	09:36:47	1187035	H1F290430	HG
29	MKKACD	1.00	16-JUL-2011	09:38:35	1187035	H1F290430	HG
30	MKNV5B	1.00	16-JUL-2011	09:40:23	1187043	H1G060000	HG
31	CK3CCV	1.00	16-JUL-2011	09:42:21			HG
32	CK1CCB	1.00	16-JUL-2011	09:45:07			HG
33	MKNV5C	1.00	16-JUL-2011	09:46:59	1187043	H1G060000	HG
34	MKNV5L	1.00	16-JUL-2011	09:49:25	1187043	H1G060000	HG
35	MKM7A	1.00	16-JUL-2011	09:51:31	1187043	H1G050441	HG
36	MKM7J	1.00	16-JUL-2011	09:53:49	1187043	H1G050441	HG
37	MKM7JA	1.00	16-JUL-2011	09:56:06	1187043	H1G050441	HG
38	MKM7JA	1.00	16-JUL-2011	09:58:04	1187043	H1G050441	HG
39	MKM7W	1.00	16-JUL-2011	09:59:54	1187043	H1G050441	HG
40	MKM77	1.00	16-JUL-2011	10:02:01	1187043	H1G050441	HG
41	MKNWCB	1.00	16-JUL-2011	10:04:20	1187045	H1G060000	HG
42	MKNWCC	1.00	16-JUL-2011	10:06:08	1187045	H1G060000	HG
43	CK3CCV	1.00	16-JUL-2011	10:07:55			HG
44	CK1CCB	1.00	16-JUL-2011	10:09:42			HG

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--------------------------------------------------------------------------------
:       Instrument Upload                                    Run Log - Page  2 :
:       Started Mon Jul 18 07:08:04 2011 by WILBURND                           :
:       Data File: UPL$KNX_DATA_ROOT:<LHG>M071611.PRN;1                        :
--------------------------------------------------------------------------------
```

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	MKM7F	1.00	16-JUL-2011	10:11:42	1187045	H1G050441	HG
46	MKM7R	1.00	16-JUL-2011	10:13:35	1187045	H1G050441	HG
47	MKM7RS	1.00	16-JUL-2011	10:15:21	1187045	H1G050441	HG
48	MKM7RD	1.00	16-JUL-2011	10:17:19	1187045	H1G050441	HG
49	MKM71	1.00	16-JUL-2011	10:19:05	1187045	H1G050441	HG
50	MKM8C	1.00	16-JUL-2011	10:21:07	1187045	H1G050441	HG
51	MKNWEB	1.00	16-JUL-2011	10:22:59	1187046	H1G060000	HG
52	MKNWEC	1.00	16-JUL-2011	10:25:00	1187046	H1G060000	HG
53	MKM7D	1.00	16-JUL-2011	10:27:00	1187046	H1G050441	HG
54	MKM7P	1.00	16-JUL-2011	10:28:52	1187046	H1G050441	HG
55	CK3CCV	1.00	16-JUL-2011	10:30:40			HG
56	CK1CCB	1.00	16-JUL-2011	10:32:40			HG
57	MKM7PS	1.00	16-JUL-2011	10:34:41	1187046	H1G050441	HG
58	MKM7PD	1.00	16-JUL-2011	10:36:32	1187046	H1G050441	HG
59	MKM70	1.00	16-JUL-2011	10:38:20	1187046	H1G050441	HG
60	MKM79	1.00	16-JUL-2011	10:40:38	1187046	H1G050441	HG
61	MKM7G	1.00	16-JUL-2011	10:42:29	1187046	H1G050441	HG
62	MKM7T	1.00	16-JUL-2011	10:44:37	1187046	H1G050441	HG
63	MKM7TS	1.00	16-JUL-2011	10:46:26	1187046	H1G050441	HG
64	MKM7TD	1.00	16-JUL-2011	10:48:14	1187046	H1G050441	HG
65	MKM72	1.00	16-JUL-2011	10:50:44	1187046	H1G050441	HG
66	MKM8D	1.00	16-JUL-2011	10:52:42	1187046	H1G050441	HG
67	CK3CCV	1.00	16-JUL-2011	10:54:36			HG
68	CK1CCB	1.00	16-JUL-2011	10:56:32			HG
69	MKP8GB	6.00	16-JUL-2011	10:58:22	1188134	H1G070000	HG
70	MKP8GC	6.00	16-JUL-2011	11:00:25	1188134	H1G070000	HG
71	MKNVE	5.93	16-JUL-2011	11:02:27	1188134	H1G060408	HG
72	MKNVH	5.61	16-JUL-2011	11:04:26	1188134	H1G060408	HG
73	MKNVJ	5.99	16-JUL-2011	11:06:16	1188134	H1G060408	HG
74	MKNVK	5.96	16-JUL-2011	11:08:04	1188134	H1G060408	HG
75	MKNVM	5.88	16-JUL-2011	11:10:07	1188134	H1G060408	HG
76	MKNVN	5.64	16-JUL-2011	11:11:56	1188134	H1G060408	HG
77	MKNVP	6.00	16-JUL-2011	11:13:56	1188134	H1G060408	HG
78	MKNVQ	5.95	16-JUL-2011	11:15:58	1188134	H1G060408	HG
79	CK3CCV	1.00	16-JUL-2011	11:19:26			HG
80	CK1CCB	1.00	16-JUL-2011	11:21:38			HG
81	MKNVR	5.62	16-JUL-2011	11:23:39	1188134	H1G060408	HG
82	MKNVT	5.88	16-JUL-2011	11:25:33	1188134	H1G060408	HG
83	MKNVV	5.58	16-JUL-2011	11:27:22	1188134	H1G060408	HG
84	MKNVW	5.96	16-JUL-2011	11:29:10	1188134	H1G060408	HG
85	MKNVX	5.89	16-JUL-2011	11:31:18	1188134	H1G060408	HG
86	MKNV0	5.75	16-JUL-2011	11:33:18	1188134	H1G060408	HG
87	MKNV0X	5.94	16-JUL-2011	11:35:16	1188134	H1G060408	HG
88	MKNV0S	5.67	16-JUL-2011	11:37:19	1188134	H1G060408	HG

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--------------------------------------------------------------------------------
:       Instrument Upload                                    Run Log - Page  3 :
:       Started Mon Jul 18 07:08:04 2011 by WILBURND                           :
:       Data File: UPL$KNX_DATA_ROOT:<LHG>M071611.PRN;1                        :
--------------------------------------------------------------------------------
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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
89	MKNV1	5.87	16-JUL-2011	11:39:12	1188134	H1G060408	HG
90	MKNV2	5.61	16-JUL-2011	11:41:04	1188134	H1G060408	HG
91	CK3CCV	1.00	16-JUL-2011	11:43:32			HG
92	CK1CCB	1.00	16-JUL-2011	11:45:31			HG
93	MKNV3	5.86	16-JUL-2011	11:47:20	1188134	H1G060408	HG
94	MKNV6	5.94	16-JUL-2011	11:49:11	1188134	H1G060408	HG
95	MKNV7	5.94	16-JUL-2011	11:51:04	1188134	H1G060408	HG
96	MKNV8	5.87	16-JUL-2011	11:52:53	1188134	H1G060408	HG
97	MKM7TA	1.00	16-JUL-2011	11:58:40	1187046	H1G050441	HG
98	MKM7TA	1.00	16-JUL-2011	12:00:31	1187046	H1G050441	HG
99	CK3CCV	1.00	16-JUL-2011	12:02:40			HG
100	CK1CCB	1.00	16-JUL-2011	12:04:27			HG
101	MKWW2Z5	1.00	16-JUL-2011	12:07:45	1195086	H1G140402	HG
102	MKWW3Z5	1.00	16-JUL-2011	12:09:34	1195086	H1G140402	HG
103	MKWW2Z10	1.00	16-JUL-2011	12:15:46	1195086	H1G140402	HG
104	MKWW3Z10	1.00	16-JUL-2011	12:17:36	1195086	H1G140402	HG
105	CK3CCV	1.00	16-JUL-2011	12:23:25			HG
106	CK1CCB	1.00	16-JUL-2011	12:25:36			HG
107	MKWW2Z20	1.00	16-JUL-2011	12:27:24	1195086	H1G140402	HG
108	MKWW3Z20	1.00	16-JUL-2011	12:29:37	1195086	H1G140402	HG
109	MKWW2Z100	1.00	16-JUL-2011	12:33:42	1195086	H1G140402	HG
110	MKWW3Z100	1.00	16-JUL-2011	12:35:30	1195086	H1G140402	HG
111	CK3CCV	1.00	16-JUL-2011	12:37:40			HG
112	CK1CCB	1.00	16-JUL-2011	12:39:46			HG
113	MKWW2Z100A	1.00	16-JUL-2011	12:47:24	1195086	H1G140402	HG
114	CK3CCV	1.00	16-JUL-2011	12:49:35			HG
115	CK1CCB	1.00	16-JUL-2011	12:51:24			HG
116	MKWW2Z1000	1.00	16-JUL-2011	12:59:40	1195086	H1G140402	HG
117	MKWW3Z1000	1.00	16-JUL-2011	13:01:39	1195086	H1G140402	HG
118	MKWW2Z1KA	1.00	16-JUL-2011	13:07:44	1195086	H1G140402	HG
119	MKWW3Z1KA	1.00	16-JUL-2011	13:09:58	1195086	H1G140402	HG
120	CK3CCV	1.00	16-JUL-2011	13:11:48			HG
121	CK1CCB	1.00	16-JUL-2011	13:13:38			HG

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---------------------------------- End of Report -------------------------------
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--------------------------------------------------------------------------------
:       Instrument Upload                                    Run Log - Page  1 :
:       Started Mon Jul 18 07:21:31 2011 by WILBURND                           :
:       Data File: UPL$KNX_DATA_ROOT:<LHG>M071611.PRN;1                        :
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OH TRAIN 4 AQUEOUS

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	CK2ICV	1.00	16-JUL-2011	08:35:42			HG
2	ICB	1.00	16-JUL-2011	08:37:32			HG
3	CRA	1.00	16-JUL-2011	08:39:37			HG
4	CK3CCV	1.00	16-JUL-2011	08:41:29			HG
5	CK1CCB	1.00	16-JUL-2011	08:43:16			HG
6	MKW5KB	1.00	16-JUL-2011	08:45:28	1195086	H1G140000	HG
7	MKW5KC	1.00	16-JUL-2011	08:47:19	1195086	H1G140000	HG
8	MKW5KL	1.00	16-JUL-2011	08:50:26	1195086	H1G140000	HG
9	MKWW2	1.00	16-JUL-2011	08:52:14	1195086	H1G140402	HG
10	MKWW3	1.00	16-JUL-2011	08:54:11	1195086	H1G140402	HG
11	MKMRXB	1.00	16-JUL-2011	08:55:58	1187035	H1G050000	HG
12	CK3CCV	1.00	16-JUL-2011	09:01:08			HG
13	CK1CCB	1.00	16-JUL-2011	09:05:09			HG
14	MKMRXB	1.00	16-JUL-2011	09:09:34	1187035	H1G050000	HG
15	MKMRXC	1.00	16-JUL-2011	09:11:22	1187035	H1G050000	HG
16	MKJ91	1.00	16-JUL-2011	09:13:20	1187035	H1F290430	HG
17	MKJ91S	1.00	16-JUL-2011	09:15:08	1187035	H1F290430	HG
18	MKJ91D	1.00	16-JUL-2011	09:16:57	1187035	H1F290430	HG
19	CK3CCV	1.00	16-JUL-2011	09:18:48			HG
20	CK1CCB	1.00	16-JUL-2011	09:20:39			HG
21	MKJ93	1.00	16-JUL-2011	09:22:25	1187035	H1F290430	HG
22	MKJ93S	1.00	16-JUL-2011	09:24:24	1187035	H1F290430	HG
23	MKJ93D	1.00	16-JUL-2011	09:26:20	1187035	H1F290430	HG
24	MKJ96	1.00	16-JUL-2011	09:28:08	1187035	H1F290430	HG
25	MKJ96S	1.00	16-JUL-2011	09:30:06	1187035	H1F290430	HG
26	MKJ96D	1.00	16-JUL-2011	09:32:03	1187035	H1F290430	HG
27	MKKAC	1.00	16-JUL-2011	09:34:06	1187035	H1F290430	HG
28	MKKACS	1.00	16-JUL-2011	09:36:47	1187035	H1F290430	HG
29	MKKACD	1.00	16-JUL-2011	09:38:35	1187035	H1F290430	HG
30	MKNV5B	0.20	16-JUL-2011	09:40:23	1187043	H1G060000	HG
31	CK3CCV	1.00	16-JUL-2011	09:42:21			HG
32	CK1CCB	1.00	16-JUL-2011	09:45:07			HG
33	MKNV5C	0.20	16-JUL-2011	09:46:59	1187043	H1G060000	HG
34	MKNV5L	0.20	16-JUL-2011	09:49:25	1187043	H1G060000	HG
35	MKM7A	0.20	16-JUL-2011	09:51:31	1187043	H1G050441	HG
36	MKM7J	0.20	16-JUL-2011	09:53:49	1187043	H1G050441	HG
37	MKM7JA	1.00	16-JUL-2011	09:56:06	1187043	H1G050441	HG
38	MKM7JA	1.00	16-JUL-2011	09:58:04	1187043	H1G050441	HG
39	MKM7W	0.20	16-JUL-2011	09:59:54	1187043	H1G050441	HG
40	MKM77	0.20	16-JUL-2011	10:02:01	1187043	H1G050441	HG
41	MKNWCB	0.25	16-JUL-2011	10:04:20	1187045	H1G060000	HG
42	MKNWCC	0.25	16-JUL-2011	10:06:08	1187045	H1G060000	HG
43	CK3CCV	1.00	16-JUL-2011	10:07:55			HG
44	CK1CCB	1.00	16-JUL-2011	10:09:42			HG

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--------------------------------------------------------------------------------
:       Instrument Upload                                    Run Log - Page  2 :
:       Started Mon Jul 18 07:21:31 2011 by WILBURND                           :
:       Data File: UPL$KNX_DATA_ROOT:<LHG>M071611.PRN;1                        :
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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	MKM7F	0.80	16-JUL-2011	10:11:42	1187045	H1G050441	HG
46	MKM7R	0.83	16-JUL-2011	10:13:35	1187045	H1G050441	HG
47	MKM7RS	0.83	16-JUL-2011	10:15:21	1187045	H1G050441	HG
48	MKM7RD	0.83	16-JUL-2011	10:17:19	1187045	H1G050441	HG
49	MKM71	0.75	16-JUL-2011	10:19:05	1187045	H1G050441	HG
50	MKM8C	0.82	16-JUL-2011	10:21:07	1187045	H1G050441	HG
51	MKNWEB	0.10	16-JUL-2011	10:22:59	1187046	H1G060000	HG
52	MKNWEC	0.10	16-JUL-2011	10:25:00	1187046	H1G060000	HG
53	MKM7D	1.32	16-JUL-2011	10:27:00	1187046	H1G050441	HG
54	MKM7P	1.62	16-JUL-2011	10:28:52	1187046	H1G050441	HG
55	CK3CCV	1.00	16-JUL-2011	10:30:40			HG
56	CK1CCB	1.00	16-JUL-2011	10:32:40			HG
57	MKM7PS	1.62	16-JUL-2011	10:34:41	1187046	H1G050441	HG
58	MKM7PD	1.62	16-JUL-2011	10:36:32	1187046	H1G050441	HG
59	MKM70	1.37	16-JUL-2011	10:38:20	1187046	H1G050441	HG
60	MKM79	1.42	16-JUL-2011	10:40:38	1187046	H1G050441	HG
61	MKM7G	0.99	16-JUL-2011	10:42:29	1187046	H1G050441	HG
62	MKM7T	0.95	16-JUL-2011	10:44:37	1187046	H1G050441	HG
63	MKM7TS	0.95	16-JUL-2011	10:46:26	1187046	H1G050441	HG
64	MKM7TD	0.95	16-JUL-2011	10:48:14	1187046	H1G050441	HG
65	MKM72	0.94	16-JUL-2011	10:50:44	1187046	H1G050441	HG
66	MKM8D	1.01	16-JUL-2011	10:52:42	1187046	H1G050441	HG
67	CK3CCV	1.00	16-JUL-2011	10:54:36			HG
68	CK1CCB	1.00	16-JUL-2011	10:56:32			HG
69	MKP8GB	1.00	16-JUL-2011	10:58:22	1188134	H1G070000	HG
70	MKP8GC	1.00	16-JUL-2011	11:00:25	1188134	H1G070000	HG
71	MKNVE	1.00	16-JUL-2011	11:02:27	1188134	H1G060408	HG
72	MKNVH	1.00	16-JUL-2011	11:04:26	1188134	H1G060408	HG
73	MKNVJ	1.00	16-JUL-2011	11:06:16	1188134	H1G060408	HG
74	MKNVK	1.00	16-JUL-2011	11:08:04	1188134	H1G060408	HG
75	MKNVM	1.00	16-JUL-2011	11:10:07	1188134	H1G060408	HG
76	MKNVN	1.00	16-JUL-2011	11:11:56	1188134	H1G060408	HG
77	MKNVP	1.00	16-JUL-2011	11:13:56	1188134	H1G060408	HG
78	MKNVQ	1.00	16-JUL-2011	11:15:58	1188134	H1G060408	HG
79	CK3CCV	1.00	16-JUL-2011	11:19:26			HG
80	CK1CCB	1.00	16-JUL-2011	11:21:38			HG
81	MKNVR	1.00	16-JUL-2011	11:23:39	1188134	H1G060408	HG
82	MKNVT	1.00	16-JUL-2011	11:25:33	1188134	H1G060408	HG
83	MKNVV	1.00	16-JUL-2011	11:27:22	1188134	H1G060408	HG
84	MKNVW	1.00	16-JUL-2011	11:29:10	1188134	H1G060408	HG
85	MKNVX	1.00	16-JUL-2011	11:31:18	1188134	H1G060408	HG
86	MKNV0	1.00	16-JUL-2011	11:33:18	1188134	H1G060408	HG
87	MKNV0X	1.00	16-JUL-2011	11:35:16	1188134	H1G060408	HG
88	MKNV0S	1.00	16-JUL-2011	11:37:19	1188134	H1G060408	HG

---------- (continued) ----------

```
--------------------------------------------------------------------------------
:       Instrument Upload                                    Run Log - Page  3 :
:       Started Mon Jul 18 07:21:31 2011 by WILBURND                           :
:       Data File: UPL$KNX_DATA_ROOT:<LHG>M071611.PRN;1                        :
--------------------------------------------------------------------------------
```

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
89	MKNV1	1.00	16-JUL-2011	11:39:12	1188134	H1G060408	HG
90	MKNV2	1.00	16-JUL-2011	11:41:04	1188134	H1G060408	HG
91	CK3CCV	1.00	16-JUL-2011	11:43:32			HG
92	CK1CCB	1.00	16-JUL-2011	11:45:31			HG
93	MKNV3	1.00	16-JUL-2011	11:47:20	1188134	H1G060408	HG
94	MKNV6	1.00	16-JUL-2011	11:49:11	1188134	H1G060408	HG
95	MKNV7	1.00	16-JUL-2011	11:51:04	1188134	H1G060408	HG
96	MKNV8	1.00	16-JUL-2011	11:52:53	1188134	H1G060408	HG
97	MKM7TA	1.00	16-JUL-2011	11:58:40	1187046	H1G050441	HG
98	MKM7TA	1.00	16-JUL-2011	12:00:31	1187046	H1G050441	HG
99	CK3CCV	1.00	16-JUL-2011	12:02:40			HG
100	CK1CCB	1.00	16-JUL-2011	12:04:27			HG
101	MKWW2Z5	1.00	16-JUL-2011	12:07:45	1195086	H1G140402	HG
102	MKWW3Z5	1.00	16-JUL-2011	12:09:34	1195086	H1G140402	HG
103	MKWW2Z10	1.00	16-JUL-2011	12:15:46	1195086	H1G140402	HG
104	MKWW3Z10	1.00	16-JUL-2011	12:17:36	1195086	H1G140402	HG
105	CK3CCV	1.00	16-JUL-2011	12:23:25			HG
106	CK1CCB	1.00	16-JUL-2011	12:25:36			HG
107	MKWW2Z20	1.00	16-JUL-2011	12:27:24	1195086	H1G140402	HG
108	MKWW3Z20	1.00	16-JUL-2011	12:29:37	1195086	H1G140402	HG
109	MKWW2Z100	1.00	16-JUL-2011	12:33:42	1195086	H1G140402	HG
110	MKWW3Z100	1.00	16-JUL-2011	12:35:30	1195086	H1G140402	HG
111	CK3CCV	1.00	16-JUL-2011	12:37:40			HG
112	CK1CCB	1.00	16-JUL-2011	12:39:46			HG
113	MKWW2Z100A	1.00	16-JUL-2011	12:47:24	1195086	H1G140402	HG
114	CK3CCV	1.00	16-JUL-2011	12:49:35			HG
115	CK1CCB	1.00	16-JUL-2011	12:51:24			HG
116	MKWW2Z1000	1000.	16-JUL-2011	12:59:40	1195086	H1G140402	HG
117	MKWW3Z1000	1000.	16-JUL-2011	13:01:39	1195086	H1G140402	HG
118	MKWW2Z1KA	1.00	16-JUL-2011	13:07:44	1195086	H1G140402	HG
119	MKWW3Z1KA	1.00	16-JUL-2011	13:09:58	1195086	H1G140402	HG
120	CK3CCV	1.00	16-JUL-2011	13:11:48			HG
121	CK1CCB	1.00	16-JUL-2011	13:13:38			HG

```
---------------------------------- End of Report -------------------------------
```

TestAmerica Knoxville

Method Information

Method Name: Ontario-Hydro Method **Element:** Hg **Chart Number:** **m071611.prn**

Instrument Calibrated Every ? Hours:	24	**Number of Calibration Standards:**	6
Correlation Coefficient >/=:	0.995	**Run ICV Immediately After Calibration?:**	Yes
CRA Required?:	Yes	**Number of Samples Between CCVs:**	10
Duplicate RPD:	20	**Calculate Duplicates by CLP or SW-846?:**	SW-846 Protocol

CRA Recovery Range:	30.5	**CRA Conc. (ug/L):**	0.2
ICV Recovery Range:	10.5	**ICV Conc. (ug/L):**	2.5
CCV Recovery Range:	20.5	**CCV Conc. (ug/L):**	5
LCS Recovery Range:	20.5	**LCS Spike Level (ug/L):**	5
MS/MSD Recovery Range:	20.5	**MS Spike Level (ug/L):**	1

Letter to Signify Blanks:	B	**Position to Signify Blanks:**	6
Letter to Signify LCS's:	C	**Position to Signify LCS's:**	6
Letter to Signify LCSD's:	L	**Position to Signify LCSD's:**	6
Letter to Signify Dilutions:	Z	**Position to Signify Dilutions:**	6
Letter to Signify Duplicates:	X	**Position to Signify Duplicates:**	6
Letter to Signify MS's:	S	**Position to Signify MS's:**	6
Letter to Signify MSD's:	D	**Position to Signify MSD's:**	6
Letters to Signify MSA's:	MSA+	**Position to Signify MSA's:**	6
Number of Additions:	3		

Calibration Standard Concentrations (ug/L)

Standard 1 Conc: 0.1	**Standard 2 Conc:** 0.2	**Standard 3 Conc:** 0.5	**Standard 4 Conc:** 1
Standard 5 Conc: 5	**Standard 6 Conc:** 10	**Standard 7 Conc:** 0	**Standard 8 Conc:** 0

ICB/CCB Check Level (ug/L): 0.099 **Prep Blank Check Level (ug/L):** 0.099 **Reporting Limit (ug/L):** 0.1

IDL (ug/L): 0.06 **Date of IDL:** 12/8/2010

TestAmerica Knoxville Mercury Data Review Checklist

Method: Ontario-Hydro Method

Analyst:	DKW			Instrument:	Leeman Hydra AA Mercury Analyzer		
Run Date:	Jul-16-11	Calibration Number:	1	Chart Name:	m071611.prn	Element:	Hg

A. Calibration/Instrument Run QC	N/A	Yes	No	Comments
1. Instrument calibrated every 24 hours?		X		Calibration was 4 hours and 54 minutes long
2. Instrument calibrated using a minimum of a blank and 5 standards?		X		
3. Do standard absorbances increase as standard concentrations increase?		X		
4. Instrument calibrated with standards at the SOP levels?		X		
5. Correlation coefficient greater than or equal to 0.995?		X		Correlation coefficient was 0.9999
6. ICV analyzed directly after calibration?		X		
7. ICV within specified control limits?		X		
8. ICB analyzed immediately after ICV?		X		
9. ICB within acceptable range?		X		
10. CRA analyzed at the beginning of the run?		X		
11. CRA results within acceptable range?		X		
12. All CCV's within specified control limits?		X		
13. All CCB's within acceptable range?		X		
14. All CCB's analyzed immediately after CCV's?		X		
B. Client Sample and QC Sample Results				
1. Were all sample results within the linear range of the instrument ?		X		
2. Were there any samples with results more negative than Report Limit?		X		See Comments on Next Page
3. Were samples analyzed within the holding time?			X	MKKAC-05/ms/msD
C. Preparation/Matrix QC				
1. Was one method blank prepared for each batch?		X		
2. Were all method blanks less than the specified level?		X		
3. Was an LCS prepared for each batch?		X		
4. Were all LCS recoveries within QC limits?		X		
5. Were matrix spikes, sample duplicates and/or post-digestion spikes run at required frequency?		X		
6. Were all matrix spike recoveries within QC limits?			X	See Comments on Next Page
7. Were post-digestion spike recoveries within QC limits?				
8. Were duplicate RPDs within QC limits?		X		
D. Other				
1. Current IDL data on file?		X		
2. Current MDL data on file?		X		
3. Are all nonconformances documented appropriately?		X		
4. Were all project specific instructions followed?		X		NCM#: 08-0010400

Question Number:	Problem(s) Found:
B2	Sample MKWW2 at 7/16/2011 8:52:14 AM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKWW3 at 7/16/2011 8:54:11 AM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKMRXB at 7/16/2011 8:55:58 AM: Original sample is more negative than report limit. Dilute sample and re-analyze.

TestAmerica Knoxville Mercury Data Review Checklist

B2	Sample MKWW2Z5 at 7/16/2011 12:07:45 PM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKWW3Z5 at 7/16/2011 12:09:34 PM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKWW2Z10 at 7/16/2011 12:15:46 PM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKWW3Z10 at 7/16/2011 12:17:36 PM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKWW2Z20 at 7/16/2011 12:27:24 PM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKWW3Z20 at 7/16/2011 12:29:37 PM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKWW2Z100 at 7/16/2011 12:33:42 PM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKWW3Z100 at 7/16/2011 12:35:30 PM: Original sample is more negative than report limit. Dilute sample and re-analyze.
B2	Sample MKWW2Z100A at 7/16/2011 12:47:24 PM: Original sample is more negative than report limit. Dilute sample and re-analyze.
C6	Matrix spike sample MKM7TS at 7/16/2011 10:46:26 AM had 51% recovery.
C6	Matrix spike sample MKM7TD at 7/16/2011 10:48:14 AM had 43% recovery.
C6	Matrix spike sample MKNV0S at 7/16/2011 11:37:19 AM had ~~508.9~~ 101.8 % recovery. DKW 7/18/11

Analyst: DKW **Date:** 7/18/11

Analyst Comments: B2: MKWW2 AND MKWW3 WERE BOTH DILUTED AND REPORTED FROM A 1000 DILUTION DUE TO MATRIX INTERFERENCE. PDS/PDSD ANALYZED.
C6: MKM7T - RAN PDS/PDS DUPLICATE DUE TO POOR SPIKE RECOVERIES.
MKNV0S - SPIKED @ 5.0ppb - RECOVERY IS 101.78%

TESTAMERICA KNOXVILLE 2

INTERMEDIATE STANDARD – CALIBRATION (10.0 ppm)

Stock Std Name: PLHG4-2Y
Element: Hg
Stock Source: Spex
Stock Std Lot #: 16-81HG
Stock Std Expiration Date: 3-15-12
Stock Conc.: 1000 ppm
HNO_3 Lot J11045

Stock Vol (ml)/100ml: 1ml
Date Prepared: 6/20/11
Expiration Date: 7/20/11
QC Check: MOG 2/11
Initials: DKW
Matrix: 2% HNO_3
Intermediate Standard ID: ICAL 4389-2
Pipet ID: MET-008

WORKING STANDARD -- CALIBRATION

One ml Intermediate Standard/100ml 0.15% Concentrated Nitric Acid

1. I-CAL 4389-2-1	Initials DKW	Date: 6/20/11	Exp. Date: 6/21/11	HN03 Lot: J11045
2. I-CAL 4389-2-2	Initials DKW	Date: 6/21/11	Exp. Date: 6/22/11	HN03 Lot: J11045
3. .I-CAL 4389-2-3	Initials DKW	Date: 6/27/11	Exp. Date: 6/28/11	HN03 Lot: J11045
4. .I-CAL 4389-2-4	Initials DKW	Date: 7/7/11	Exp. Date: 7/8/11	HN03 Lot: J11045
5. .I-CAL 4389-2-5	Initials DKW	Date: 7/15/11	Exp. Date: 7/16/11	HN03 Lot: J11045
6. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
7. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
8. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
9. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
10..I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
11..I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
12..I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
13. I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
14. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
15. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
16. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
17. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
18. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
19. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
20. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
21. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
22. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
23. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
24. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
25. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:

TESTAMERICA KNOXVILLE

INTERMEDIATE STANDARD – Initial Verification Calibration (10 ppm)

Stock Std Name: ICP-080
Element: Hg
Stock Source: Ultra
Stock Std Lot #: K00200
Stock Std Expiration Date: 3/31/16
Stock Conc.: 1000 ppm
Acid Lot: J11045

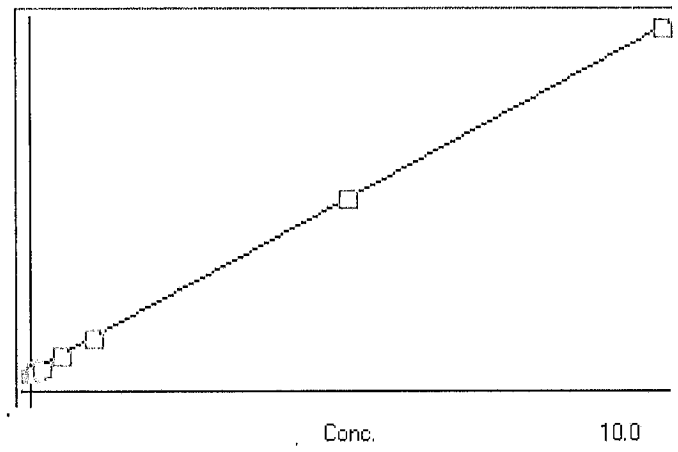
Stock Vol (ml)/100ml: 1.0 ml
Date Prepared: 6/20/11
Expiration Date: 7/20/11
QC Check: M062111
Initials: DKW
Matrix: 2% HNO_3
Intermediate Standard ID: IVER4388-2
Pipet ID: MET-008

WORKING STANDARD -- VERIFICATION

1 ml Intermediate Standard/100 ml 0.15 % Concentrated Nitric Acid

1.	I-VER	4388-2-1	Initials	DKW	Date:	6/30/11	Exp. Date:	6/31/11	HN03 Lot: J11045
2.	I-VER	4388-2-2	Initials	DKW	Date:	6/31/11	Exp. Date:	6/30/11	HN03 Lot: J11045
3.	I-VER	4388-2-3	Initials	DKW	Date:	6/27/11	Exp. Date:	6/28/11	HN03 Lot: J11045
4.	I-VER	4388-2-3/4 DKW 7/7/11	Initials	DKW	Date:	7/7/11	Exp. Date:	7/8/11	HN03 Lot: J11045
5.	I-VER	4388-2-5	Initials	DKW	Date:	7/15/11	Exp. Date:	7/16/11	HN03 Lot: J11045
6.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
7.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
8.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
9.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
10.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
11.	I-VER		Initial		Date:		Exp. Date:		HN03 Lot:
12.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
13.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
14.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
15.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
16.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
17.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
18.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
19.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
20.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
21.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
22.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
23.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
24.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:
25.	I-VER		Initials		Date:		Exp. Date:		HN03 Lot:

Protocol: 7ptcurve



Linear

☑ Calibrated

☑ Accepted

A

B 3.68021e-4

C -5.45956e-1

Rhc .999974 ✓

Accepted Date: 16-Jul-11 08:33

DKW 7/14/11

S	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
01	.00000	-.017	-.017	1437	1	1436				
02	.10000	.101	.001	1757	0%	1757				
03	.20000	.211	.011	2056	0%	2056				
04	.50000	.500	.000	2843	0%	2843				
05	1.0000	.977	-.023	4139	0%	4139				
06	5.0000	5.05	.054	15216	0%	15216				
07	10.000	9.97	-.025	28587	0%	28587				
08										
09										
10										

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 0 08:19:47 16 Jul 11 HG

Hg .000 ppb 1436

*** Standard: 2 Rep: 1 Seq: 1 08:22:44 16 Jul 11 HG

Hg .100 ppb 1757

*** Standard: 3 Rep: 1 Seq: 2 08:24:41 16 Jul 11 HG

Hg .200 ppb 2056

*** Standard: 4 Rep: 1 Seq: 3 08:26:39 16 Jul 11 HG

Hg .500 ppb 2843

*** Standard: 5 Rep: 1 Seq: 4 08:29:00 16 Jul 11 HG

Hg 1.00 ppb 4139

*** Standard: 6 Rep: 1 Seq: 5 08:30:59 16 Jul 11 HG

Hg 5.00 ppb 15216

*** Standard: 7 Rep: 1 Seq: 6 08:32:57 16 Jul 11 HG

Hg 10.0 ppb 28587

*** Check Standard: 2 Ck2icv Seq: 7 08:35:42 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		103.	2.58	2.50	ppb	.000 %

*** Sample ID: ICB Seq: 8 08:37:32 16 Jul 11 HG

ICB

Hg -.010 ppb .000 % -.010

*** Sample ID: CRA Seq: 9 08:39:37 16 Jul 11 HG

Hg .190 ppb .000 % .190

*** Check Standard: 3 Ck3ccv Seq: 10 08:41:29 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		98.8	4.94	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb Seq: 11 08:43:16 16 Jul 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.037	.200	ppb	.000 %

*** Sample ID: MKW5KB Seq: 12 08:45:28 16 Jul 11 HG

1195086

Hg .006 ppb .000 % .006

*** Sample ID: MKW5KC Seq: 13 08:47:19 16 Jul 11 HG

Hg 5.07 ppb .000 % 5.07

*** Sample ID: MKW5KL Seq: 14 08:50:26 16 Jul 11 HG

Hg 4.93 ppb .000 % 4.93

*** Sample ID: MKWW2 Seq: 15 08:52:14 16 Jul 11 HG

Hg -.604 ppb .000 % -.604

DILUTE & REANALYZE

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: MKWW3 Seq: 16 08:54:11 16 Jul 11 HG

Hg -.545 ppb .000 % -.545

DILUTE & REANALYZE

*** Sample ID: MKMRXB Seq: 17 08:55:58 16 Jul 11 HG
1187035
Hg -.382 ppb .000 % -.382

REANALYZE

*** Check Standard: 3 Ck3ccv Seq: 18 09:01:08 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		92.7	4.63	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb Seq: 19 09:05:09 16 Jul 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.021	.200	ppb	.000 %

*** Sample ID: MKMRXB Seq: 20 09:09:34 16 Jul 11 HG
1187035
Hg -.019 ppb .000 % -.019

*** Sample ID: MKMRXC Seq: 21 09:11:22 16 Jul 11 HG

Hg 5.21 ppb .000 % 5.21

*** Sample ID: MKJ91 Seq: 22 09:13:20 16 Jul 11 HG

Hg .164 ppb .000 % .164

*** Sample ID: MKJ91S Seq: 23 09:15:08 16 Jul 11 HG

Hg 1.11 ppb .000 % 1.11

*** Sample ID: MKJ91D Seq: 24 09:16:57 16 Jul 11 HG

Hg 1.22 ppb .000 % 1.22

*** Check Standard: 3 Ck3ccv Seq: 25 09:18:48 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		96.0	4.80	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb Seq: 26 09:20:39 16 Jul 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.040	.200	ppb	.000 %

*** Sample ID: MKJ93 Seq: 27 09:22:25 16 Jul 11 HG

Hg -.011 ppb .000 % -.011

*** Sample ID: MKJ93S Seq: 28 09:24:24 16 Jul 11 HG

Hg .918 ppb .000 % .918

*** Sample ID: MKJ93D Seq: 29 09:26:20 16 Jul 11 HG

Hg .915 ppb .000 % .915

*** Sample ID: MKJ96 Seq: 30 09:28:08 16 Jul 11 HG

Hg .009 ppb .000 % .009

*** Sample ID: MKJ96S Seq: 31 09:30:06 16 Jul 11 HG

Hg 1.08 ppb .000 % 1.08

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: MKJ96D				Seq: 32		09:32:03 16 Jul 11			HG
Hg	1.03	ppb	.000 %	1.03					
*** Sample ID: MKKAC				Seq: 33		09:34:06 16 Jul 11			HG
Hg	.020	ppb	.000 %	.020					
*** Sample ID: MKKACS				Seq: 34		09:36:47 16 Jul 11			HG
Hg	1.09	ppb	.000 %	1.09					
*** Sample ID: MKKACD				Seq: 35		09:38:35 16 Jul 11			HG
Hg	1.05	ppb	.000 %	1.05					
*** Sample ID: MKNV5B				Seq: 36		09:40:23 16 Jul 11			HG
				1187043					
Hg	-.016	ppb	.000 %	-.016					

*** Check Standard: 3 Ck3ccv				Seq: 37	09:42:21 16 Jul 11	HG
Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		98.0	4.90	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb				Seq: 38	09:45:07 16 Jul 11	HG
Line	Flag	Found	Range(+/-)	Units	SD/RSD	
Hg		-.004	.200	ppb	.000 %	

*** Sample ID: MKNV5C				Seq: 39	09:46:59 16 Jul 11	HG
Hg	5.43	ppb	.000 %	5.43		
*** Sample ID: MKNV5L				Seq: 40	09:49:25 16 Jul 11	HG
Hg	5.35	ppb	.000 %	5.35		
*** Sample ID: MKM7A				Seq: 41	09:51:31 16 Jul 11	HG
Hg	.018	ppb	.000 %	.018		
*** Sample ID: MKM7J				Seq: 42	09:53:49 16 Jul 11	HG
Hg	.125	ppb	.000 %	.125		
*** Sample ID: MKM7JA				Seq: 43	09:56:06 16 Jul 11	HG
				1mL 10std+9mL sample		
Hg	1.05	ppb	.000 %	1.05		
*** Sample ID: MKM7JA				Seq: 44	09:58:04 16 Jul 11	HG
				1mL 10std+9mL sample		
Hg	1.04	ppb	.000 %	1.04		
*** Sample ID: MKM7W				Seq: 45	09:59:54 16 Jul 11	HG
Hg	.067	ppb	.000 %	.067		
*** Sample ID: MKM77				Seq: 46	10:02:01 16 Jul 11	HG
Hg	.018	ppb	.000 %	.018		
*** Sample ID: MKNWCB				Seq: 47	10:04:20 16 Jul 11	HG
				1187045		
Hg	-.057	ppb	.000 %	-.057		

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: MKNWCC Seq: 48 10:06:08 16 Jul 11 HG

Hg 4.04 ppb .000 % 4.04

*** Check Standard: 3 Ck3ccv Seq: 49 10:07:55 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		95.8	4.79	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb Seq: 50 10:09:42 16 Jul 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.071	.200	ppb	.000 %

*** Sample ID: MKM7F Seq: 51 10:11:42 16 Jul 11 HG

Hg -.026 ppb .000 % -.026

*** Sample ID: MKM7R Seq: 52 10:13:35 16 Jul 11 HG

Hg -.037 ppb .000 % -.037

*** Sample ID: MKM7RS Seq: 53 10:15:21 16 Jul 11 HG

Hg .829 ppb .000 % .829

*** Sample ID: MKM7RD Seq: 54 10:17:19 16 Jul 11 HG

Hg .850 ppb .000 % .850

*** Sample ID: MKM71 Seq: 55 10:19:05 16 Jul 11 HG

Hg -.071 ppb .000 % -.071

*** Sample ID: MKM8C Seq: 56 10:21:07 16 Jul 11 HG

Hg -.031 ppb .000 % -.031

*** Sample ID: MKNWEB Seq: 57 10:22:59 16 Jul 11 HG
1187046
Hg -.008 ppb .000 % -.008

*** Sample ID: MKNWEC Seq: 58 10:25:00 16 Jul 11 HG

Hg 5.00 ppb .000 % 5.00

*** Sample ID: MKM7D Seq: 59 10:27:00 16 Jul 11 HG

Hg .093 ppb .000 % .093

*** Sample ID: MKM7P Seq: 60 10:28:52 16 Jul 11 HG

Hg .071 ppb .000 % .071

*** Check Standard: 3 Ck3ccv Seq: 61 10:30:40 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		97.9	4.89	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb Seq: 62 10:32:40 16 Jul 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.010	.200	ppb	.000 %

*** Sample ID: MKM7PS Seq: 63 10:34:41 16 Jul 11 HG

Hg 1.01 ppb .000 % 1.01

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: MKM7PD				Seq: 64	10:36:32 16 Jul 11	HG		
Hg	.982	ppb	.000 %	.982				
*** Sample ID: MKM70				Seq: 65	10:38:20 16 Jul 11	HG		
Hg	.035	ppb	.000 %	.035				
*** Sample ID: MKM79				Seq: 66	10:40:38 16 Jul 11	HG		
Hg	.174	ppb	.000 %	.174				
*** Sample ID: MKM7G				Seq: 67	10:42:29 16 Jul 11	HG		
Hg	.823	ppb	.000 %	.823				
*** Sample ID: MKM7T				Seq: 68	10:44:37 16 Jul 11	HG		
Hg	1.05	ppb	.000 %	1.05				
*** Sample ID: MKM7TS				Seq: 69	10:46:26 16 Jul 11	HG		
Hg	1.56	ppb	.000 %	1.56				
*** Sample ID: MKM7TD				Seq: 70	10:48:14 16 Jul 11	HG		
Hg	1.48	ppb	.000 %	1.48				
*** Sample ID: MKM72				Seq: 71	10:50:44 16 Jul 11	HG		
Hg	.149	ppb	.000 %	.149				
*** Sample ID: MKM8D				Seq: 72	10:52:42 16 Jul 11	HG		
Hg	.413	ppb	.000 %	.413				

*** Check Standard: 3 Ck3ccv Seq: 73 10:54:36 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		100.	5.00	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb Seq: 74 10:56:32 16 Jul 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.021	.200	ppb	.000 %

*** Sample ID: MKP8GB				Seq: 75	10:58:22 16 Jul 11	HG		
				1188134				
Hg	-.013	ppb	.000 %	-.013				
*** Sample ID: MKP8GC				Seq: 76	11:00:25 16 Jul 11	HG		
Hg	5.02	ppb	.000 %	5.02				
*** Sample ID: MKNVE				Seq: 77	11:02:27 16 Jul 11	HG		
Hg	.073	ppb	.000 %	.073				
*** Sample ID: MKNVH				Seq: 78	11:04:26 16 Jul 11	HG		
Hg	.169	ppb	.000 %	.169				
*** Sample ID: MKNVJ				Seq: 79	11:06:16 16 Jul 11	HG		
Hg	.037	ppb	.000 %	.037				

Line	Conc.	Units	SD/RSD		1	2	3	4	5
*** Sample ID: MKNVK					Seq: 80	11:08:04 16 Jul 11		HG	
Hg	.118	ppb	.000	%	.118				
*** Sample ID: MKNVM					Seq: 81	11:10:07 16 Jul 11		HG	
Hg	.040	ppb	.000	%	.040				
*** Sample ID: MKNVN					Seq: 82	11:11:56 16 Jul 11		HG	
Hg	.120	ppb	.000	%	.120				
*** Sample ID: MKNVP					Seq: 83	11:13:56 16 Jul 11		HG	
Hg	.024	ppb	.000	%	.024				
*** Sample ID: MKNVQ					Seq: 84	11:15:58 16 Jul 11		HG	
Hg	-.015	ppb	.000	%	-.015				
*** Check Standard: 3 Ck3ccv					Seq: 85	11:19:26 16 Jul 11		HG	
Line	Flag	%Rcv.	Found	True	Units	SD/RSD			
Hg		97.6	4.88	5.00	ppb	.000 %			
*** Check Standard: 1 Ck1ccb					Seq: 86	11:21:38 16 Jul 11		HG	
Line	Flag	Found	Range(+/-)	Units	SD/RSD				
Hg		-.013	.200	ppb	.000 %				
*** Sample ID: MKNVR					Seq: 87	11:23:39 16 Jul 11		HG	
Hg	.120	ppb	.000	%	.120				
*** Sample ID: MKNVT					Seq: 88	11:25:33 16 Jul 11		HG	
Hg	.128	ppb	.000	%	.128				
*** Sample ID: MKNVV					Seq: 89	11:27:22 16 Jul 11		HG	
Hg	.359	ppb	.000	%	.359				
*** Sample ID: MKNVW					Seq: 90	11:29:10 16 Jul 11		HG	
Hg	.084	ppb	.000	%	.084				
*** Sample ID: MKNVX					Seq: 91	11:31:18 16 Jul 11		HG	
Hg	.093	ppb	.000	%	.093				
*** Sample ID: MKNV0					Seq: 92	11:33:18 16 Jul 11		HG	
Hg	.221	ppb	.000	%	.221				
*** Sample ID: MKNV0X					Seq: 93	11:35:16 16 Jul 11		HG	
Hg	.246	ppb	.000	%	.246				
*** Sample ID: MKNV0S					Seq: 94	11:37:19 16 Jul 11		HG	
Hg	5.31	ppb	.000	%	5.31				
*** Sample ID: MKNV1					Seq: 95	11:39:12 16 Jul 11		HG	
Hg	.067	ppb	.000	%	.067				

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: MKNV2 Seq: 96 11:41:04 16 Jul 11 HG

Hg .276 ppb .000 % .276

*** Check Standard: 3 Ck3ccv Seq: 97 11:43:32 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		95.4	4.77	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb Seq: 98 11:45:31 16 Jul 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.029	.200	ppb	.000 %

*** Sample ID: MKNV3 Seq: 99 11:47:20 16 Jul 11 HG

Hg .107 ppb .000 % .107

*** Sample ID: MKNV6 Seq: 100 11:49:11 16 Jul 11 HG

Hg .078 ppb .000 % .078

*** Sample ID: MKNV7 Seq: 101 11:51:04 16 Jul 11 HG

Hg .087 ppb .000 % .087

*** Sample ID: MKNV8 Seq: 102 11:52:53 16 Jul 11 HG

Hg .111 ppb .000 % .111

*** Sample ID: MKM7TA Seq: 103 11:58:40 16 Jul 11 HG
1mL 10std+9mL sample
Hg 1.75 ppb .000 % 1.75

*** Sample ID: MKM7TA Seq: 104 12:00:31 16 Jul 11 HG
1mL 10std+9mL sample
Hg 1.80 ppb .000 % 1.80

*** Check Standard: 3 Ck3ccv Seq: 105 12:02:40 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		94.4	4.72	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb Seq: 106 12:04:27 16 Jul 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.074	.200	ppb	.000 %

*** Sample ID: MKWW2Z5 Seq: 107 12:07:45 16 Jul 11 HG
2mL to 10mL
Hg -.535 ppb .000 % -.535

*** Sample ID: MKWW3Z5 Seq: 108 12:09:34 16 Jul 11 HG
2mL to 10mL
Hg -.546 ppb .000 % -.546

*** Sample ID: MKWW2Z10 Seq: 109 12:15:46 16 Jul 11 HG
1mL to 10mL
Hg -.539 ppb .000 % -.539

*** Sample ID: MKWW3Z10 Seq: 110 12:17:36 16 Jul 11 HG
1mL to 10mL
Hg -.552 ppb .000 % -.552

*** Check Standard: 3 Ck3ccv Seq: 111 12:23:25 16 Jul 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		96.1	4.80	5.00	ppb	.000 %

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 1 Ck1ccb Seq: 112 12:25:36 16 Jul 11 HG
Line Flag Found Range(+/-) Units SD/RSD
Hg -.026 .200 ppb .000 %

*** Sample ID: MKWW2Z20 Seq: 113 12:27:24 16 Jul 11 HG
0.5mL to 10mL
Hg -.547 ppb .000 % -.547

*** Sample ID: MKWW3Z20 Seq: 114 12:29:37 16 Jul 11 HG
0.5mL to 10mL
Hg -.550 ppb .000 % -.550

*** Sample ID: MKWW2Z100 Seq: 115 12:33:42 16 Jul 11 HG
2.0mL Z20 to 10mL
Hg -.451 ppb .000 % -.451

*** Sample ID: MKWW3Z100 Seq: 116 12:35:30 16 Jul 11 HG
2.0mL Z20 to 10mL
Hg -.530 ppb .000 % -.530

*** Check Standard: 3 Ck3ccv Seq: 117 12:37:40 16 Jul 11 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg 96.8 4.84 5.00 ppb .000 %

*** Check Standard: 1 Ck1ccb Seq: 118 12:39:46 16 Jul 11 HG
Line Flag Found Range(+/-) Units SD/RSD
Hg -.018 .200 ppb .000 %

*** Sample ID: MKWW2Z100A Seq: 119 12:47:24 16 Jul 11 HG
1mL 10std+9mL sample
Hg -.238 ppb .000 % -.238

*** Check Standard: 3 Ck3ccv Seq: 120 12:49:35 16 Jul 11 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg 95.2 4.76 5.00 ppb .000 %

*** Check Standard: 1 Ck1ccb Seq: 121 12:51:24 16 Jul 11 HG
Line Flag Found Range(+/-) Units SD/RSD
Hg -.039 .200 ppb .000 %

*** Sample ID: MKWW2Z1000 Seq: 122 12:59:40 16 Jul 11 HG
0.01mL to 10mL
Hg -.075 ppb .000 % -.075

*** Sample ID: MKWW3Z1000 Seq: 123 13:01:39 16 Jul 11 HG
0.01mL to 10mL
Hg -.075 ppb .000 % -.075

*** Sample ID: MKWW2Z1KA Seq: 124 13:07:44 16 Jul 11 HG
1mL 10std+9mL Z1000
Hg .842 ppb .000 % .842

*** Sample ID: MKWW3Z1KA Seq: 125 13:09:58 16 Jul 11 HG
1mL 10std+9mL Z1000
Hg .832 ppb .000 % .832

*** Check Standard: 3 Ck3ccv Seq: 126 13:11:48 16 Jul 11 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg 94.5 4.73 5.00 ppb .000 %

*** Check Standard: 1 Ck1ccb Seq: 127 13:13:38 16 Jul 11 HG
Line Flag Found Range(+/-) Units SD/RSD
Hg -.048 .200 ppb .000 %

TestAmerica Knoxville
Mercury Analysis Cover Sheet

Analyst	KND	Instrument	Leeman Hydra AA Mercury Analyzer
Run Date	8/22/11	Chart Name	MD82211

Daily Maintenance		As Needed Maintenance	
☒	Check tubing.	☐	Adjust/change Hg lamp.
☒	Check maintenance schedule flags.	☐	Clean or replace optical cell.
		☐	Lubricate pump and autosampler arm.
		☐	Change the drying tube.

```
--------------------------------------------------------------------------------
:       Instrument Upload                                    Run Log - Page  1 :
:       Started Mon Aug 22 12:07:52 2011 by DAWSONK                            :
:       Data File: UPL$KNX_DATA_ROOT:<LHG>M082211.PRN;1                        :
--------------------------------------------------------------------------------
```

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	CK2ICV	1.00	22-AUG-2011	13:15:21			HG
2	ICB	1.00	22-AUG-2011	13:17:07			HG
3	CRA	1.00	22-AUG-2011	13:18:54			HG
4	CK3CCV	1.00	22-AUG-2011	13:20:55			HG
5	CK1CCB	1.00	22-AUG-2011	13:22:54			HG
6	MLV69B	0.20	22-AUG-2011	13:24:52	1234102	H1H220000	HG
7	MLV69C	0.20	22-AUG-2011	13:26:39	1234102	H1H220000	HG
8	MKM7GR	1.98	22-AUG-2011	13:28:27	1234102	H1G050441	HG
9	MKM7TR	1.90	22-AUG-2011	13:30:15	1234102	H1G050441	HG
10	MKM7TS	1.00	22-AUG-2011	13:32:32	1187046	H1G050441	HG
11	MKM7TD	1.00	22-AUG-2011	13:35:45	1187046	H1G050441	HG
12	MKM72R	1.88	22-AUG-2011	13:37:33	1234102	H1G050441	HG
13	MKM8DR	2.02	22-AUG-2011	13:40:10	1234102	H1G050441	HG
14	CK3CCV	1.00	22-AUG-2011	13:42:08			HG
15	CK1CCB	1.00	22-AUG-2011	13:44:05			HG

```
---------------------------------- End of Report -------------------------------
```

TestAmerica Knoxville

Method Information

Method Name: Ontario-Hydro Method **Element:** Hg **Chart Number:** **m082211.prn**

Instrument Calibrated Every ? Hours:	24	**Number of Calibration Standards:**	6
Correlation Coefficient >/=:	0.995	**Run ICV Immediately After Calibration?:**	Yes
CRA Required?:	Yes	**Number of Samples Between CCVs:**	10
Duplicate RPD:	20	**Calculate Duplicates by CLP or SW-846?:**	SW-846 Protocol

CRA Recovery Range:	30.5	**CRA Conc. (ug/L):**	0.2
ICV Recovery Range:	10.5	**ICV Conc. (ug/L):**	2.5
CCV Recovery Range:	20.5	**CCV Conc. (ug/L):**	5
LCS Recovery Range:	20.5	**LCS Spike Level (ug/L):**	5
MS/MSD Recovery Range:	20.5	**MS Spike Level (ug/L):**	1

Letter to Signify Blanks:	B	**Position to Signify Blanks:**	6
Letter to Signify LCS's:	C	**Position to Signify LCS's:**	6
Letter to Signify LCSD's:	L	**Position to Signify LCSD's:**	6
Letter to Signify Dilutions:	Z	**Position to Signify Dilutions:**	6
Letter to Signify Duplicates:	X	**Position to Signify Duplicates:**	6
Letter to Signify MS's:	S	**Position to Signify MS's:**	6
Letter to Signify MSD's:	D	**Position to Signify MSD's:**	6
Letters to Signify MSA's:	MSA+	**Position to Signify MSA's:**	6
Number of Additions:	3		

Calibration Standard Concentrations (ug/L)

Standard 1 Conc: 0.1	**Standard 2 Conc:** 0.2	**Standard 3 Conc:** 0.5	**Standard 4 Conc:** 1
Standard 5 Conc: 5	**Standard 6 Conc:** 10	**Standard 7 Conc:** 0	**Standard 8 Conc:** 0

ICB/CCB Check Level (ug/L): 0.099 **Prep Blank Check Level (ug/L):** 0.099 **Reporting Limit (ug/L):** 0.1

IDL (ug/L): 0.06 **Date of IDL:** 12/8/2010

TestAmerica Knoxville Mercury Data Review Checklist

Method: Ontario-Hydro Method

Analyst:	~~DKW~~ KND 8/22/11			**Instrument:**	Leeman Hydra AA Mercury Analyzer		
Run Date:	Aug-22-11	**Calibration Number:**	1	**Chart Name:**	m082211.prn	**Element:**	Hg

A. Calibration/Instrument Run QC	N/A	Yes	No	Comments
1. Instrument calibrated every 24 hours?		X		Calibration was 47 minutes long
2. Instrument calibrated using a minimum of a blank and 5 standards?		X		
3. Do standard absorbances increase as standard concentrations increase?		X		
4. Instrument calibrated with standards at the SOP levels?		X		
5. Correlation coefficient greater than or equal to 0.995?		X		Correlation coefficient was 0.9999
6. ICV analyzed directly after calibration?		X		
7. ICV within specified control limits?		X		
8. ICB analyzed immediately after ICV?		X		
9. ICB within acceptable range?		X		
10. CRA analyzed at the beginning of the run?		X		
11. CRA results within acceptable range?		X		
12. All CCV's within specified control limits?		X		
13. All CCB's within acceptable range?		X		
14. All CCB's analyzed immediately after CCV's?		X		
B. Client Sample and QC Sample Results				
1. Were all sample results within the linear range of the instrument ?		X		
2. Were there any samples with results more negative than Report Limit?			X	
3. Were samples analyzed within the holding time?			X	
C. Preparation/Matrix QC				
1. Was one method blank prepared for each batch?		X		
2. Were all method blanks less than the specified level?		X		
3. Was an LCS prepared for each batch?		X		
4. Were all LCS recoveries within QC limits?		X		
5. Were matrix spikes, sample duplicates and/or post-digestion spikes run at required frequency?		X		
6. Were all matrix spike recoveries within QC limits?		X		
7. Were post-digestion spike recoveries within QC limits?	X			
8. Were duplicate RPDs within QC limits?		X		
D. Other				
1. Current IDL data on file?		X		
2. Current MDL data on file?		X		
3. Are all nonconformances documented appropriately?		X		
4. Were all project specific instructions followed?		X		NCM#: 08-00104179

Analyst: KND **Date:** 8/22/11

Analyst Comments:

TESTAMERICA KNOXVILLE 4

INTERMEDIATE STANDARD – CALIBRATION (10.0 ppm)

Stock Std Name: PLHG4-2Y
Element: Hg
Stock Source: Spex
Stock Std Lot #: 110-81HG
Stock Std Expiration Date: 3/15/12
Stock Conc.: 1000 ppm
HNO_3 Lot 141059

Stock Vol (ml)/100ml: 1ml
Date Prepared: 8/22/11
Expiration Date: 9/22/11
QC Check: MD822A11
Initials: MD
Matrix: 2% HNO_3
Intermediate Standard ID: ICAL-4389-4
Pipet ID: MET-002

WORKING STANDARD -- CALIBRATION

One ml Intermediate Standard/100ml 0.15% Concentrated Nitric Acid

1. I-CAL 4389-4-1	Initials MD	Date: 8/22/11	Exp. Date: 8/23/11	HN03 Lot: 141059
2. I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
3. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
4. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
5. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
6. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
7. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
8. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
9. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
10..I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
11..I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
12..I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
13. I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
14. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
15. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
16. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
17. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
18. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
19. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
20. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
21. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
22. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
23. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
24. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:
25. .I-CAL	Initials	Date:	Exp. Date:	HN03 Lot:

TESTAMERICA KNOXVILLE

INTERMEDIATE STANDARD – Initial Verification Calibration (10 ppm)

Stock Std Name: ICP-080
Element: Hg
Stock Source: Ultra
Stock Std Lot #: 1000200
Stock Std Expiration Date: 3/31/16
Stock Conc.: 1000 ppm
Acid Lot: 141059

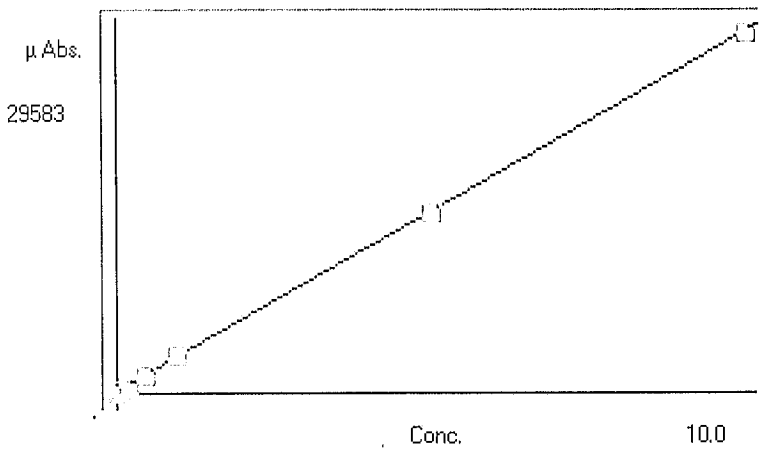
Stock Vol (ml)/100ml: 1.0 ml
Date Prepared: 8/22/11
Expiration Date: 9/22/11
QC Check: M082211
Initials: KWD
Matrix: 2% HNO_3
Intermediate Standard ID: IVER-43884
Pipet ID: MET-002

WORKING STANDARD -- VERIFICATION

1 ml Intermediate Standard/100 ml 0.15 % Concentrated Nitric Acid

1. I-VER 43884-1	Initials KWD	Date: 8/22/11	Exp. Date: 8/23/11	HN03 Lot: 141059
2. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
3. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
4. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
5. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
6. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
7. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
8. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
9. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
10. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
11. I-VER	Initial	Date:	Exp. Date:	HN03 Lot:
12. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
13. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
14. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
15. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
16. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
17. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
18. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
19. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
20. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
21. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
22. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
23. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
24. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:
25. I-VER	Initials	Date:	Exp. Date:	HN03 Lot:

Protocol: 7ptcurve



Linear

☑ Calibrated

☑ Accepted

A

B 3.39962e-4

C -3.89871e-2

Rhc .999979

KMD 8/22/11

Accepted Date: 22-Aug-11 13:13

S	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
01	.00000	-.017	-.017	67	1	66				
02	.10000	.108	.008	433	0%	432				
03	.20000	.198	-.002	698	0%	697				
04	.50000	.504	.004	1599	0%	1598				
05	1.0000	1.03	.032	3151	0%	3151				
06	5.0000	4.96	-.044	14693	0%	14693				
07	10.000	10.0	.018	29583	0%	29583				
08										
09										
10										

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 0 12:57:47 22 Aug 11 HG

Hg .000 ppb 66

*** Standard: 2 Rep: 1 Seq: 1 12:59:44 22 Aug 11 HG

Hg .100 ppb 432

*** Standard: 3 Rep: 1 Seq: 2 13:01:31 22 Aug 11 HG

Hg .200 ppb 697

*** Standard: 4 Rep: 1 Seq: 3 13:03:29 22 Aug 11 HG

Hg .500 ppb 1598

*** Standard: 5 Rep: 1 Seq: 4 13:05:19 22 Aug 11 HG

Hg 1.00 ppb 3151

*** Standard: 6 Rep: 1 Seq: 5 13:08:17 22 Aug 11 HG

Hg 5.00 ppb 14693

*** Standard: 7 Rep: 1 Seq: 6 13:10:59 22 Aug 11 HG

Hg 10.0 ppb 29583

*** Check Standard: 2 Ck2icv Seq: 7 13:15:21 22 Aug 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		101.	2.53	2.50	ppb	.000 %

*** Sample ID: ICB Seq: 8 13:17:07 22 Aug 11 HG

ICB

Hg -.044 ppb .000 % -.044

*** Sample ID: CRA Seq: 9 13:18:54 22 Aug 11 HG

Hg .202 ppb .000 % .202

*** Check Standard: 3 Ck3ccv Seq: 10 13:20:55 22 Aug 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		103.	5.16	5.00	ppb	.000 %

*** Check Standard: 1 Ck1ccb Seq: 11 13:22:54 22 Aug 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.026	.200	ppb	.000 %

*** Sample ID: MLV69B Seq: 12 13:24:52 22 Aug 11 HG

1234102

Hg -.022 ppb .000 % -.022

*** Sample ID: MLV69C Seq: 13 13:26:39 22 Aug 11 HG

Hg 5.13 ppb .000 % 5.13

*** Sample ID: MKM7G Seq: 14 13:28:27 22 Aug 11 HG

Hg .079 ppb .000 % .079

*** Sample ID: MKM7T Seq: 15 13:30:15 22 Aug 11 HG

Hg .191 ppb .000 % .191

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: MKM7TS Seq: 16 13:32:32 22 Aug 11 HG

Hg	1.13	ppb	.000	%	1.13

*** Sample ID: MKM7TD Seq: 17 13:35:45 22 Aug 11 HG

Hg	1.19	ppb	.000	%	1.19

*** Sample ID: MKM72 Seq: 18 13:37:33 22 Aug 11 HG

Hg	.077	ppb	.000	%	.077

*** Sample ID: MKM8D Seq: 19 13:40:10 22 Aug 11 HG

Hg	.199	ppb	.000	%	.199

*** Check Standard: 3 Ck3ccv Seq: 20 13:42:08 22 Aug 11 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD	
Hg		101.	5.06	5.00	ppb	.000	%

*** Check Standard: 1 Ck1ccb Seq: 21 13:44:05 22 Aug 11 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD	
Hg		-.018	.200	ppb	.000	%

Miscellaneous Data

TestAmerica Knoxville Mercury Data Review / Narrative Checklist
Methods 7470A/7471A, 7471B and 245.1/245.5 - KNOX-MT-0009, Rev 10 and KNOX-MT-0010, Rev 9

Lot / SDG #:	HIG050441

A. Review of QuantIMS / QDS Results	NA	Yes	No	*Why is data reportable?*
1. Were PM checklists, Lot Summary and any applicable QAS reviewed?		✓		
2. Were all prep sheets, prep spreadsheets and any existing NCMs reviewed?		✓		
3. Were manual calculations of results and RLs performed for each sample, blank, LCS, LCSD, MS, MSD and DUP? (Document 1 calculation per batch.)		✓		
4. Were elements with negative results >RL reported as ND G?	✓			
5. For each sample, blank, LCS, LCSD, MS, MSD and DUP, were flags, units, DFs, prep date, date/time of analysis verified to be correct?		✓		
6. Were spike amounts verified for each LCS/MS? (Document 1 manual calculation.)		✓		
7. Were method blank results ≤1/2 RL for water/solid samples or <RL for air train samples?		✓		☐ **[mb3] No analyte >QC limit in associated samples.** ☐ **[mb5] Insufficient sample for reanalysis.*** ☐ **[mb7] Samples >10x blank**
8. LCS or LCS/LCSD within QC limits? (90-110%R) 80-120% AIR		✓		☐ **[lcs2] Insufficient sample for reanalysis.** ☐ **[lcs3] LCS%R >QC limits & sample results < RL.***
9. MS/MSD or MS/DUP run at required frequency?		✓		☐ [lcsd] Insufficient sample – lcs/lcsd analyzed.
10. MS %R or MS/MSD %R & RPD within QC limits?			✓	☐ [ms1] ☑ [msd1] LCS acceptable - matrix effects. ☐ [ms2] ☐ [msd2] Native analyte > 4x spike level. ☐ [ms3] ☐ [msd3] Matrix effects & native >4x spike. ☐ [batch] Batch QC on client's sample outside limits.
11. DUP RPD within limits? (0-20 RPD for results ≥5xRL; +RL if result <5xRL)	✓			☐ [rpd] LCS acceptable. Results indicate sample heterogeneity.
12. Were J flags added to the DUP as needed?	✓			
13. Is DUP RPD=0 for two ND results and RPD=200 for one ND and a positive result?	✓			
14. Are all results present for all samples?		✓		
15. Were the samples analyzed within the holding time?		✓		☐ [ht1] HT expired upon receipt ☐ *[ht2] Analysis requested after HT expired.* ☐ See comments section below.

Data Reviewer: DKW **Date:** 7/19/11

Calculation Checks / Comments: Calculations checked by Rmudgett 7/19/11

8/23/11 DKW
ADDED PREPPED REANALYSIS FOR KMnO4 IMPINGERS REQUESTED BY CLIENT ON 8/19/11. NCM- OR-0D104479

*Such action must be taken in consultation with client.

NOTE: Nonconformance memos are required for **bold** and *italicized* [autotext] statements: **Bold** = deficiency, *italicized* = anomoly.

TestAmerica Knoxville Mercury Data Review / Narrative Checklist
Methods 7470A/7471A, 7471B and 245.1/245.5 - KNOX-MT-0009, Rev 10 and KNOX-MT-0010, Rev 9

Lot / SDG #: HIG050441

B. Review of QC Summary Forms *Note:* Y=Yes, N=No, NA=Not Applicable	Chart # M071611	Chart # M082211	Chart #	Chart #	*Why is data reportable?*
1. ICV within limits? (7470A/7471A/7471B=90-110%R; 245.1/245.5=95-105%R)	Y	Y			
2. CCV within limits? (7470A/7471A/7471B=80-120%R; 245.1/245.5=90-110%R)	Y	Y			If no, list details:
3. ICB/CCB within limits? (<MDL for water/solid samples; <RL for air train samples)	Y	Y			If no, list details:
4. CRA within limits? (The CRA standard contains mercury at 0.2 ug/L. The CRA result must fall within 30% of the true value.)	Y	Y			
5. PDS or PDS/PDSD run at required frequency?	Y	N/A			
6. PDS/PDSD within limits? (75-125%R) **Reminder:** Place copy of PDS results in Sample Data Summary and QC Summary sections of report.	Y	N/A			☐ [pds1] ☐ [pdsd1] LCS acceptable - matrix effects. ☐ [pds2] ☐ [pdsd2] Native analyte > 4x spike level. ☐ [pds3] ☐ [pdsd3] Matrix effects & native >4x spike.
7. Are the IDLs on summary forms current?	Y	Y			
8. Are the QC summary forms correct?	Y	Y			

Data Reviewer: DKW / DKW **Date:** 7/19/11 8/23/11

Comments:

*Such action must be taken in consultation with client.

NOTE: Nonconformance memos are required for **bold** and *italicized* [autotext] statements: **Bold** = deficiency, *italicized* = anomoly.

TestAmerica Knoxville Metals Final Deliverable Data Review / Narrative Checklist

Lot / SDG #:	HIG050441			
Report Type:	☐ Report (COA)	☑ Level 4 Package	☐ QDS Package	☐ Forms Only	☐ Other _____

Review of Final Deliverable	NA	Yes	No	
1. Are all nonconformances documented and discussed in narrative? (**Reminder:** Place copy of all NCMs in front of deliverable.)	✓ DTW 8/23/11	✓		List NCM #: 08-0010479
2. For air train samples, was the appropriate autotext selected for the narrative? (**Reminder:** Review the autotext and make all appropriate changes.)		✓		☐ [MMT1] Multi-metals trains analyzed for ICP & Hg. ☐ [MMT2] Multi-metals trains analyzed for ICP only. ☐ [MMT3] Multi-metals trains analyzed for Hg only. ☐ [MMT4] Combined FH/BH analyzed for ICP only. ☐ [OH] Ontario-Hydro train. ☑ [OH thimble] Ontario-Hydro train with thimble-FH. ☐ [Method 12] Method 12 air train – Pb only.
3. For PM10 projects, was the appropriate autotext selected for the narrative?	✓			☐ [pm10] PM10 filters analyzed for ICP & Hg. ☐ [pm10icp] PM10 filters analyzed for ICP only.
4. Was a Filter Lot Check report included for PM10 filters?	✓			☐ [fb1] Filter Lot Check Report in Misc. Section. ☐ [fb2] Filter Lot Check Report after LCS report.
5. For low-level waste samples, was the JN autotext selected for the narrative?	✓			☐ [JN] Low-level waste prep.
6. Is the narrative complete and does it contain the appropriate deviations noted on the analyst DRCs, ICP DRC, and Hg DRC?		✓		
7. Were all client/project specific requirements met? (As described in the QuantIMS LIM L40 reports, Lot Summary or Client Analysis Summary, and any applicable QAS.)		✓		
8. Are the original DRCs behind narrative with copy in report?		✓		
9. Are results present for all samples?		✓		
10. Is the final deliverable in the proper format?		✓		
11. Were the ICP and Hg charts and cover pages scanned? (Check .pdf files.)		✓		
12. Are all pertinent ICP Charts listed on page 2 of the ICP DRC?	✓			
13. Are all pertinent Hg Charts listed on page 2 of the Hg DRC?		✓		

Data Reviewer: DTW Date: 7/19/11

Comments:

Revised 8/23/11 DTW
Added reprep and reanalysis for permanganate interferences.

TestAmerica Knoxville
Ontario-Hydro Air Train - SOP KNOX-IP-0006
Front Half Mercury Sample Preparation Worksheet

Batch Number: 1187043
Prep Date: 07/14/2011 0800
Comp Date: 07/15/2011 1700

Microwave Prep Performed by: KND Date: 7/15/2011
1st Level Review/Relinquished by: DKW Date: 7/16/2011
2nd Level Review/Received by: [signature] Date: 7/18/11

Lot Number	Lot Sample Number	Suffix	Method Code	Client ID	WO #	PDS	Total Volume Probe Rinse (L)	Probe Rinse pH	Final Microwave Digestate Volume (L)	Final Hg Digestate Volume (ml)	Volume Microwave Digestate Used (ml)	Hg Bench Dilution Factor	QuantIMS Upload Dilution Factor	QuantIMS Upload Multiplier
H1G050441	6		DXLO	CHV-STK-ICR2-OH-PNR/FILTER	MKM7A		0.165	<2	0.200	50.0	50.0	1	0.20	0.20
H1G050441	10		DXLO	CHV-STK-ICR3-OH-PNR/FILT	MKM7J	**	0.130	<2	0.200	50.0	50.0	1	0.20	0.20
H1G050441	14		DXLO	CHV-STK-ICRFB-OH-PNR/FILT	MKM7W		0.075	<2	0.200	50.0	50.0	1	0.20	0.20
H1G050441	18		DXLO	CHV-STK-ICR4-OH-PNR/FILT	MKM77		0.080	<2	0.200	50.0	50.0	1	0.20	0.20
H1G060000	43	B	DXLO	INTRA-LAB BLANK	MKNV5				0.200	50.0	50.0	1	0.20	0.20
H1G060000	43	C	DXLO	INTRA-LAB CHECK	MKNV5				0.200	50.0	50.0	1	0.20	0.20
H1G060000	43	L	DXLO	INTRA-LAB CHECK	MKNV5				0.200	50.0	50.0	1	0.20	0.20

* = Sample chosen for PDS.
** = Sample chosen for PDS/PDSD.

Hg LCS/LCSD Spike: 50 uL of see coments

Expiration Date	Pipet ID
7/20/2011	MET-009

HNO_3 Lot #: J50063
HCl Lot #: J43036
HF Lot #: 5110090
H_3BO_3 Lot # 3651-60

Comments: 100 uL of I-CAL-4389-2 was used to spike the LCS/LCSD. 0.1N HN03 used was 3651-64 Samples filtered through 0.1um filter Lot C0323504-1143 Thimbles were received for this lot. They were torn into pieces and digested in two separate micowave vessels to achieve a complete digestion then combined with the probe rinse and brought to a final volume of 200mL.

QuantIMS Upload Dilution Factor ***and*** QuantIMS Multiplier = Final Microwave Digestate Volume (L) x Final Hg Digestate Volume (ml) / Volume Microwave Digestate Used (ml) x Hg Bench Dilution Factor

TestAmerica Knoxville
Ontario-Hydro Air Train - SOP KNOX-IP-0006
Back Half Mercury Sample Preparation Worksheet

Batch Number: 1187045
Prep Date: 07/15/2011 0800
Comp Date: 07/15/2011 1700

Pre-prep Performed by: DKW Date: 7/15/2011
1st Level Review/Relinquished by: DKW Date: 7/15/2011
2nd Level Review/Received by: ICAD Date: 7/18/11

Lot Number	Lot Sample Number	Suffix	Method Code	Client ID	WO #	PDS	Total Sample Volume (L)	Sample pH	Volume NH_2OH Added (L)	Final Hg Digestate Volume (ml)	Volume Sample Used (ml)	Hg Bench Dilution Factor	QuantIMS Upload Dilution Factor	QuantIMS Upload Multiplier
H1G050441	8		DYLO	CHV-STK-ICR2-OH-NPI	MKM7F		0.160	<2		50.0	10.0	1	0.80	0.80
H1G050441	12		DYLO	CHV-STK-ICR3-OH-NPI	MKM7R		0.165	<2		50.0	10.0	1	0.83	0.83
H1G050441	12	S	DYLO	CHV-STK-ICR3-OH-NPI	MKM7R		0.165	<2		50.0	10.0	1	0.83	0.83
H1G050441	12	D	DYLO	CHV-STK-ICR3-OH-NPI	MKM7R		0.165	<2		50.0	10.0	1	0.83	0.83
H1G050441	16		DYLO	CHV-STK-ICRFB-OH-NPI	MKM71		0.150	<2		50.0	10.0	1	0.75	0.75
H1G050441	20		DYLO	CHV-STK-ICR4-OH-NPI	MKM8C		0.163	<2		50.0	10.0	1	0.82	0.82
H1G060000	45	B	DYLO	INTRA-LAB BLANK	MKNWC		0.050			50.0	10.0	1	0.25	0.25
H1G060000	45	C	DYLO	INTRA-LAB CHECK	MKNWC		0.050			50.0	10.0	1	0.25	0.25

Pre-prep KMnO4 Lot #: 096809

Comments:

Hg LCS/LCSD Spike: 2.5 mL of I-CAL-4389-2-5

Hg MS/MSD Spike: 0.5 mL of I-CAL-4389-2-5

Exp Date	Pipet ID
7/16/2011	MET-001
7/16/2011	MET-008

* = Sample chosen for PDS.
** = Sample chosen for PDS/PDSD.

QuantIMS Upload Dilution Factor ***and*** QuantIMS Multiplier = (Total Sample Volume (L) + Volume NH_2OH Added (L)) x Final Hg Digestate Volume (ml) / Volume Sample Used (ml) x Hg Bench Dilution Factor

TestAmerica Knoxville
Ontario-Hydro Air Train - SOP KNOX-IP-0006
Back Half Mercury Sample Preparation Worksheet

Batch Number: 1187046
Prep Date: 07/15/2011 0800
Comp Date: 07/15/2011 1700

Pre-prep Performed by: NA Date:
1st Level Review/Relinquished by: DKW Date: 7/15/2011
2nd Level Review/Received by: IGND Date: 7/18/11

Lot Number	Lot Sample Number	Suffix	Method Code	Client ID	WO #	PDS	Total Sample Volume (L)	Sample pH	Volume NH_2OH Added (L)	Final Hg Digestate Volume (ml)	Volume Sample Used (ml)	Hg Bench Dilution Factor	QuantIMS Upload Dilution Factor	QuantIMS Upload Multiplier
H1G050441	7		GNLO	CHV-STK-ICR2-OH-KCLA	MKM7D		0.650	<2	0.010	50.0	25.0	1	1.32	1.32
H1G050441	9		DZLO	CHV-STK-ICR2-OH-PERM	MKM7G		0.475	<2	0.020	50.0	25.0	1	0.99	0.99
H1G050441	11		GNLO	CHV-STK-ICR3-OH-KCLA	MKM7P		0.800	<2	0.010	50.0	25.0	1	1.62	1.62
H1G050441	11	S	GNLO	CHV-STK-ICR3-OH-KCLA	MKM7P		0.800	<2	0.010	50.0	25.0	1	1.62	1.62
H1G050441	11	D	GNLO	CHV-STK-ICR3-OH-KCLA	MKM7P		0.800	<2	0.010	50.0	25.0	1	1.62	1.62
H1G050441	13		DZLO	CHV-STK-ICR3-OH-PERM	MKM7T		0.450	<2	0.025	50.0	25.0	1	0.95	0.95
H1G050441	13	S	DZLO	CHV-STK-ICR3-OH-PERM	MKM7T		0.450	<2	0.025	50.0	25.0	1	0.95	0.95
H1G050441	13	D	DZLO	CHV-STK-ICR3-OH-PERM	MKM7T		0.450	<2	0.025	50.0	25.0	1	0.95	0.95
H1G050441	15		GNLO	CHV-STK-ICRFB-OH-KCL	MKM70		0.675	<2	0.010	50.0	25.0	1	1.37	1.37
H1G050441	17		DZLO	CHV-STK-ICRFB-OH-PERM	MKM72		0.450	<2	0.020	50.0	25.0	1	0.94	0.94
H1G050441	19		GNLO	CHV-STK-ICR4-OH-KCLA	MKM79		0.700	<2	0.010	50.0	25.0	1	1.42	1.42
H1G050441	21		DZLO	CHV-STK-ICR4-OH-PERM	MKM8D		0.480	<2	0.025	50.0	25.0	1	1.01	1.01
H1G060000	46	B	GNLO	INTRA-LAB BLANK	MKNWE		0.050			50.0	25.0	1	0.10	0.10
H1G060000	46	C	GNLO	INTRA-LAB CHECK	MKNWE		0.050			50.0	25.0	1	0.10	0.10
H1G060000	46	B	DZLO	INTRA-LAB BLANK	MKNWE		0.050			50.0	25.0	1	0.10	0.10
H1G060000	46	C	DZLO	INTRA-LAB CHECK	MKNWE		0.050			50.0	25.0	1	0.10	0.10

Pre-prep KMnO4 Lot #: NA

Comments:

	Exp Date	Pipet ID
Hg LCS/LCSD Spike: 2.5 mL of I-CAL-4389-2-5	7/16/2011	MET-001
Hg MS/MSD Spike: 0.5 mL of I-CAL-4389-2-5	7/16/2011	MET-008

* = Sample chosen for PDS.
** = Sample chosen for PDS/PDSD.

QuantIMS Upload Dilution Factor ***and*** QuantIMS Multiplier = (Total Sample Volume (L) + Volume NH_2OH Added (L)) x Final Hg Digestate Volume (ml) / Volume Sample Used (ml) x Hg Bench Dilution Factor

TestAmerica Knoxville
Ontario-Hydro Air Train - SOP KNOX-IP-0006
Mercury Sample Preparation Worksheet

Batch Number: 1187043_45_46 | Time In: 3:00 PM | Bath A Temp: 93 °C

Analyst: DKW | Time Out: 5:00 PM | Bath B Temp: 92 °C

Prep Date: 07/15/11 | Thermometer ID: MT-4

(Acceptance range 90° – 95°C)

Standard Type	Standard ID	Working Standard		Volume Used (mL)	Final Volume (mL)	Final Concentration (ug/L)
		Source	Conc.(ug/L)			
Calibration Std 1	N/A	N/A	N/A	N/A	50	Blank
Calibration Std 2	I-CAL-4389-2-5	SPEX	100	0.05	50	0.1
Calibration Std 3	I-CAL-4389-2-5	SPEX	100	0.1	50	0.2
Calibration Std 4	I-CAL-4389-2-5	SPEX	100	0.25	50	0.5
Calibration Std 5	I-CAL-4389-2-5	SPEX	100	0.5	50	1
Calibration Std 6	I-CAL-4389-2-5	SPEX	100	2.5	50	5
Calibration Std 7	I-CAL-4389-2-5	SPEX	100	5	50	10

Standard Type	Standard ID	Working Standard		Volume Used (mL)	Final Volume/ Weight	Final Concentration
		Source	Conc.(ug/L)			
ICV	I-VER-4388-2-5	ULTRA	100	1.25	50 mL	2.5 ug/L
CCV	I-CAL-4389-2-5	SPEX	100	2.5	50 mL	5.0 ug/L
CRA	I-CAL-4389-2-5	SPEX	100	0.1	50 mL	0.2 ug/L
Aqueous LCS	I-CAL-	SPEX	100	2.5	50 mL	5.0 ug/L
Aqueous MS	I-CAL-	SPEX	100	0.5	50 mL	1.0 ug/L
Soil LCS	I-CAL-	SPEX	100	2.5	0.3 g	0.83 mg/kg
Soil MS	I-CAL-	SPEX	100	0.5	0.3 g	0.17 mg/kg
TCLP MS	I-CAL-	SPEX	100	2.5	50 mL	5.0 ug/L

REAGENTS			
Conc. H_2SO_4 Lot #:	J32022	5% $KMnO_4$ ID #:	B-3752-13-C
Conc. HNO_3 Lot #:	J11045	5% $K_2S_2O_8$ ID #:	D-3755-7-E
Conc. HCL Lot #:	J43036	$SnCl_2$ Solution ID #:	A-4284-10-B
12% $NaCl{\cdot}NH_2OH{\cdot}HCL$ ID #:	C-3756-6-B	Aqua Regia ID #:	NA

TestAmerica Knoxville
Ontario-Hydro Air Train - SOP KNOX-IP-0006
Back Half Mercury Sample Preparation Worksheet

Batch Number: 1234102
Prep Date: 08/22/2011 0800
Comp Date: 08/22/2011 1130

Pre-prep Performed by: NA Date: NA
1st Level Review/Relinquished by: KND Date: 8/22/2011
2nd Level Review/Received by: DKW Date: 8/23/11

Lot Number	Lot Sample Number	Suffix	Method Code	Client ID	WO #	PDS	Total Sample Volume (L)	Sample pH	Volume NH_2OH Added (L)	Final Hg Digestate Volume (ml)	Volume Sample Used (ml)	Hg Bench Dilution Factor	QuantIMS Upload Dilution Factor	QuantIMS Upload Multiplier
H1G050441	9		DZLO	CHV-STK-ICR2-OH-PERM	MKM7G		0.475	<2	0.020	50.0	12.5	1	1.98	1.9800
H1G050441	13	S	DZLO	CHV-STK-ICR3-OH-PERM	MKM7T		0.450	<2	0.025	50.0	12.5	1	1.90	1.9000
H1G050441	13	D	DZLO	CHV-STK-ICR3-OH-PERM	MKM7T		0.450	<2	0.025	50.0	12.5	1	1.90	1.9000
H1G050441	13		DZLO	CHV-STK-ICR3-OH-PERM	MKM7T		0.450	<2	0.025	50.0	12.5	1	1.90	1.9000
H1G050441	17		DZLO	CHV-STK-ICRFB-OH-PERM	MKM72		0.450	<2	0.020	50.0	12.5	1	1.88	1.8800
H1G050441	21		DZLO	CHV-STK-ICR4-OH-PERM	MKM8D		0.480	<2	0.025	50.0	12.5	1	2.02	2.0200
H1H220000	102	B	DZLO	INTRA-LAB BLANK	MLV69		0.050			50.0	12.5	1	0.20	0.2000
H1H220000	102	C	DZLO	INTRA-LAB CHECK	MLV69		0.050			50.0	12.5	1	0.20	0.2000

Pre-prep KMnO4 Lot #: NA

Comments:

	Exp Date	Pipet ID
Hg LCS/LCSD Spike: 2.5 mL of ICAL4389-4-1	8/23/2011	MET-001
Hg MS/MSD Spike: 0.5 mL of ICAL4389-4-1	8/23/2011	MET-002

* = Sample chosen for PDS.
** = Sample chosen for PDS/PDSD.

QuantIMS Upload Dilution Factor ***and*** QuantIMS Multiplier = (Total Sample Volume (L) + Volume NH_2OH Added (L)) x Final Hg Digestate Volume (ml) / Volume Sample Used (ml) x Hg Bench Dilution Factor

TestAmerica Knoxville
Ontario-Hydro Air Train - SOP KNOX-IP-0006
Mercury Sample Preparation Worksheet

Batch Number: 1234102 | Time In: 9:10 AM | Bath A Temp: NA °C

Analyst: KND | Time Out: 11:10 AM | Bath B Temp: 95 °C

Prep Date: 8/22/11 | Thermometer ID: MT-4

(Acceptance range 90° – 95°C)

Standard Type	Standard ID	Working Standard		Volume Used (mL)	Final Volume (mL)	Final Concentration (ug/L)
		Source	Conc.(ug/L)			
Calibration Std 1	N/A	N/A	N/A	N/A	50	Blank
Calibration Std 2	I-CAL-4389-4-1	SPEX	100	0.05	50	0.1
Calibration Std 3	I-CAL-4389-4-1	SPEX	100	0.1	50	0.2
Calibration Std 4	I-CAL-4389-4-1	SPEX	100	0.25	50	0.5
Calibration Std 5	I-CAL-4389-4-1	SPEX	100	0.5	50	1
Calibration Std 6	I-CAL-4389-4-1	SPEX	100	2.5	50	5
Calibration Std 7	I-CAL-4389-4-1	SPEX	100	5	50	10

Standard Type	Standard ID	Working Standard		Volume Used (mL)	Final Volume/ Weight	Final Concentration
		Source	Conc.(ug/L)			
ICV	I-VER-4388-4-1	ULTRA	100	1.25	50 mL	2.5 ug/L
CCV	I-CAL-4389-4-1	SPEX	100	2.5	50 mL	5.0 ug/L
CRA	I-CAL-4389-4-1	SPEX	100	0.1	50 mL	0.2 ug/L
Aqueous LCS	I-CAL-	SPEX	100	2.5	50 mL	5.0 ug/L
Aqueous MS	I-CAL-	SPEX	100	0.5	50 mL	1.0 ug/L
Soil LCS	I-CAL-	SPEX	100	2.5	0.3 g	0.83 mg/kg
Soil MS	I-CAL-	SPEX	100	0.5	0.3 g	0.17 mg/kg
TCLP MS	I-CAL-	SPEX	100	2.5	50 mL	5.0 ug/L

REAGENTS			
Conc. H_2SO_4 Lot #:	J25034	5% $KMnO_4$ ID #:	B-3752-13-E
Conc. HNO_3 Lot #:	K11059	5% $K_2S_2O_8$ ID #:	D-3755-8-B
Conc. HCL Lot #:	K12061	$SnCl_2$ Solution ID #:	A-4284-12-B
12% $NaCl{\cdot}NH_2OH{\cdot}HCL$ ID #:	C-3756-6-D	Aqua Regia ID #:	NA

Sample Receipt Documentation

H16 DSDM41

URS Chain of Custody Record

Samples from Ontario Hydro Sampling Trains

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

4 Boxes Recd @ Ambient Temp without custody Seals. GMH 7/5/11

4 Boxes fed x #'s 8729 7187 3462 3289 3440

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-OH-PNR	Probe and Nozzle Rinse	6/23/11 1923	X			X		3	Hold - Do not analyze
CHV-Stk-ICR1-OH-Filt	Filter		X			X		26	Hold - Do not analyze
CHV-Stk-ICR1-OH-KCIA	Potassium Chloride Impingers - Bottle A		X			X		7	
CHV-Stk-ICR1-OH-KCIB	Potassium Chloride Impinger - Bottle B		X			X			
CHV-Stk-ICR1-OH-NPI	Nitric/Peroxide Impingers		X			X		2	
CHV-Stk-ICR1-OH-Perm	Permanganate Impinger		X			X		8	
CHV-Stk-ICR2-OH-PNR	Probe and Nozzle Rinse	6/24/11 1245	X					3	Analyze
CHV-Stk-ICR2-OH-Filt	Filter		X					26	
CHV-Stk-ICR2-OH-KCIA	Potassium Chloride Impingers - Bottle A		X					7	
CHV-Stk-ICR2-OH-KCIB	Potassium Chloride Impinger - Bottle B		X						
CHV-Stk-ICR2-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICR2-OH-Perm	Permanganate Impinger		X					8	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
DDCurb	6/29/11	1900		7/5/11	09:30			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

H1G050441

URS

Chain of Custody Record

Samples from Ontario Hydro Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-OH-PNR	Probe and Nozzle Rinse	6/24/11 1745	X					3	
CHV-Stk-ICR3-OH-Filt	Filter		X					26	
CHV-Stk-ICR3-OH-KCIA	Potassium Chloride Impingers - Bottle A		X					7	
CHV-Stk-ICR3-OH-KCIB	Potassium Chloride Impinger - Bottle B		X						
CHV-Stk-ICR3-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICR3-OH-Perm	Permanganate Impinger		X					8	
CHV-Stk-ICRFB-OH-PNR	Probe and Nozzle Rinse	6/26/11 1454	X					3	
CHV-Stk-ICRFB-OH-Filt	Filter		X					26	
CHV-Stk-ICRFB-OH-KCI	Potassium Chloride Impingers		X					7	
CHV-Stk-ICRFB-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICRFB-OH-Perm	Permanganate Impinger		X					8	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:30			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

H16050441

URS

Chain of Custody Record

Samples from ~~Multi-Metals Sampling Train~~ Ontario Hydro Sampling Train

~~(Including PM Determination)~~

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR4-OH-PNR	Probe and Nozzle Rinse	6/26/11 1700	X					3	
CHV-Stk-ICR4-OH-Filt	Filter		X					26	
CHV-Stk-ICR4-OH-KCIA	Potassium Chloride Impingers - Bottle A		X					7	
CHV-Stk-ICR4-OH-KCIB	Potassium Chloride Impinger - Bottle B								
CHV-Stk-ICR4-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICR4-OH-Perm	Permanganate Impinger		X					8	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:30			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #:	Date	Time	Temp (C)

Seal #	Condition

Remarks:

H160S0441

URS

Chain of Custody Record

Samples from Ontario Hydro Sampling Trains

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-OH-Filt	Filter	6/26/11 1200	X			X		26	Hold - do not analyze
CHV-Stk-ICRRB-OH-KCl	Potassium Chloride Impingers	6/23/11 1915	X			X		7	
CHV-Stk-ICRRB-OH-NPI	Nitric/Peroxide Impingers		X			X		2	
CHV-Stk-ICRRB-OH-Perm	Permanganate Impinger		X			X		8	
CHV-Stk-ICRRB-OH-Water	Water		X			X		5	
CHV-Stk-ICRRB-OH-NA Rns Soln	Nitric Acid Rinse Solution		X			X		3	
CHV-Stk-ICRRB-OH-10% NA	10% Nitric Acid Rinse Solution		X			X		25	
CHV-Stk-ICRRB-OH-HA	Hydroxylamine sulfate solution	6/23/11 1915	X			X		6	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900	[signature]	7/5/11	09:30			
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: _____

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	4A 5B Did not receive samples: CHV-Stk-ICRRB-OH-water CHV-Stk-ICRRB-OH-10% NA CHV-Stk-ICRRB-OH-HA
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?		✓		☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 89172 PM Instructions: NA

Sample Receiving Associate: George P Hancock Date: 7/5/11

QA026R22.doc, 012811

Appendix M

Report for SVOC HAP Analysis

URS Corp. - Austin

9400 Amberglen Blvd
Austin, TX 78729

Chevron - FCCU: Hawaii Refinery

Client 40942312
PO # 251266.US

Analytical Report
(0611-23R)

EPA SW-846 Method 8270C

SW-846 Method 8270C - SCAN Mode
23 PAHs - Selective Ion Mode (SIM)

Enthalpy Analytical, Inc.

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
2202 Ellis Road Durham, NC 27703 - 5518

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains ??? pages.

Report Issued: xx/xx/xxxx

Results (Scan)

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 1**
Data File: W1101459.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
N-Nitrosodimethylamine	74	NA	0	0.772	3.86	ND
Pyridine	79	NA	0	10.5	52.6	ND
Phenol (CCC)	94	5.85	45,052	4.53	22.6	J
Aniline	66	NA	0	0.694	3.47	ND
bis(2-Chloroethyl)ether	63	NA	0	0.788	3.94	ND
2-Chlorophenol	128	NA	0	0.624	3.12	ND
1,3-Dichlorobenzene	146	NA	0	0.558	2.79	ND
1,4-Dichlorobenzene (CCC)	146	NA	0	0.528	2.64	ND
Benzyl alcohol	108	NA	0	0.700	3.50	ND
1,2-Dichlorobenzene	146	NA	0	0.558	2.79	ND
2-Methylphenol	107	NA	0	0.677	3.39	ND
bis(2-Chloroisopropyl) ether	45	NA	0	0.982	4.91	ND
3/4-Methylphenol	107	NA	0	0.591	2.95	ND
N-Nitroso-di-n-propylamine (SPCC)	70	NA	0	0.832	4.16	ND
o-Toluidine	106	NA	0	1.00	5.00	ND
Hexachloroethane	117	NA	0	0.632	3.16	ND
Nitrobenzene	77	6.88	11,211	1.31	6.55	J
Isophorone	82	NA	0	0.748	3.74	ND
2,4-Dimethylphenol	107	NA	0	0.729	3.64	ND
2-Nitrophenol (CCC)	139	7.27	8,620	2.10	10.5	J
Benzoic acid	105	7.30	120,773	29.6	148	
bis(2-Chloroethoxy)methane	93	NA	0	0.732	3.66	ND
2,4-Dichlorophenol (CCC)	162	NA	0	0.652	3.26	ND
a,a-Dimethylphenethylamine	58	NA	0	1.00	5.00	ND
1,2,4-Trichlorobenzene	180	NA	0	0.617	3.09	ND
4-Chloroaniline	65	NA	0	0.849	4.24	ND
Hexachlorobutadiene (CCC)	225	NA	0	0.609	3.05	ND
Quinoline	129	NA	0	1.00	5.00	ND
1,4-Phenylenediamine	108	NA	0	1.00	5.00	ND
4-Chloro-3 methylphenol (CCC)	107	NA	0	0.661	3.31	ND
Hexachlorocyclopentadiene (SPCC)	237	NA	0	8.12	40.6	ND
2,4,6-Trichlorophenol (CCC)	196	NA	0	0.738	3.69	ND
2,4,5-Trichlorophenol	196	NA	0	0.541	2.70	ND
Biphenyl	154	NA	0	1.00	5.00	ND
2-Chloronaphthalene	162	NA	0	0.652	3.26	ND
2-Nitroaniline	65	NA	0	0.966	4.83	ND
1,4-Dinitrobenzene	168	NA	0	0.672	3.36	ND
Dimethylphthalate	163	NA	0	0.809	4.05	ND
1,3-Dinitrobenzene	168	NA	0	0.819	4.09	ND
2,6-Dinitrotoluene	165	NA	0	0.775	3.88	ND
1,2-Dinitrobenzene	168	NA	0	0.777	3.89	ND
3-Nitroaniline	138	NA	0	0.816	4.08	ND
2,4-Dinitrophenol (SPCC)	184	NA	0	5.05	25.3	ND
4-Nitrophenol (SPCC)	139	NA	0	5.78	28.9	ND
2,4-Dinitrotoluene	165	NA	0	0.804	4.02	ND
Dibenzofuran	168	NA	0	0.688	3.44	ND
2,3,5,6-Tetrachlorophenol	232	NA	0	0.761	3.80	ND
2,3,4,6-Tetrachlorophenol	232	NA	0	0.701	3.50	ND
Diethlyphthalate	149	11.5	25,909	1.50	7.49	J
4-Chlorophenyl-phenylether	204	NA	0	0.754	3.77	ND

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 1**
Data File: W1101459.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
4-Nitroaniline	138	NA	0	0.943	4.72	ND
4,6-Dinitro2-methylphenol	198	NA	0	5.16	25.8	ND
N-Nitrosodiphenylamine (CCC)	169	NA	0	0.716	3.58	ND
Azobenzene	77	NA	0	0.991	4.96	ND
4-Bromophenyl-phenylether	248	NA	0	0.671	3.35	ND
Hexachlorobenzene	284	NA	0	0.546	2.73	ND
Pentachlorophenol (CCC)	266	NA	0	0.565	2.83	ND
Carbazole	167	NA	0	0.705	3.53	ND
Di-n-butylphthalate	149	NA	0	1.04	5.19	ND
Benzidine	184	NA	0	22.8	114	ND
4-Dimethylaminoazobenzene	120	NA	0	1.00	5.00	ND
Butylbenzylphthalate	149	NA	0	0.810	4.05	ND
3,3-Dimethylbenzidine	212	NA	0	10.8	53.9	ND
bis(2-Ethylhexyl)adipate	129	NA	0	0.874	4.37	ND
3,3-Dimethoxybenzidine	244	NA	0	1.00	5.00	ND
bis(2-Ethylhexyl)phthalate	149	NA	0	1.74	8.71	ND
3,3'-Dichlorobenzidine	252	NA	0	9.36	46.8	ND
Di-n-octylphthalate (CCC)	149	NA	0	0.644	3.22	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.27	317,496	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	1,011,615	40.0	N/A		
Acenaphthene-d10 (I)	164	10.8	564,544	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	1,042,937	40.0	N/A		
Chrysene-d12 (I)	240	19.1	924,815	40.0	N/A		
Perylene-d12 (I)	264	21.8	198,955	40.0	N/A		
2-Fluorophenol (surr)	112	5.14	64,523	7.31	73.1	50.0	PASS
Phenol-d5 (surr)	99	5.84	67,782	7.06	70.6	50.0	PASS
Nitrobenzene-d5 (surr)	82	6.86	178,373	19.0	95.1	100	PASS
2-Fluorobiphenyl (surr)	172	9.48	343,049	18.0	89.9	100	PASS
Fluorene-d10 (surr)	176	11.7	7,302	0.496	82.7	3.00	PASS
2,4,6-Tribromophenol (surr)	330	12.3	12,814	6.13	61.3	50.0	PASS
Pyrene-d10 (surr)	212	16.6	10,183	0.412	68.6	3.00	PASS
Terphenyl-d14 (surr)	244	16.9	336,861	19.0	95.1	100	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.27	363,171	317,496	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	1,011,615	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	564,544	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	1,042,937	Pass
Chrysene-d12 (I)	19.07	19.07	1,007,980	924,815	Pass
Perylene-d12 (I)	21.82	21.81	663,788	198,955	Fail

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 2**
Data File: W1101460.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
N-Nitrosodimethylamine	74	NA	0	0.772	3.86	ND
Pyridine	79	NA	0	10.5	52.6	ND
Phenol (CCC)	94	5.85	65,638	5.26	26.3	
Aniline	66	5.85	37,089	6.16	30.8	
bis(2-Chloroethyl)ether	63	NA	0	0.788	3.94	ND
2-Chlorophenol	128	NA	0	0.624	3.12	ND
1,3-Dichlorobenzene	146	NA	0	0.558	2.79	ND
1,4-Dichlorobenzene (CCC)	146	NA	0	0.528	2.64	ND
Benzyl alcohol	108	NA	0	0.700	3.50	ND
1,2-Dichlorobenzene	146	NA	0	0.558	2.79	ND
2-Methylphenol	107	NA	0	0.677	3.39	ND
bis(2-Chloroisopropyl) ether	45	NA	0	0.982	4.91	ND
3/4-Methylphenol	107	NA	0	0.591	2.95	ND
N-Nitroso-di-n-propylamine (SPCC)	70	NA	0	0.832	4.16	ND
o-Toluidine	106	NA	0	1.00	5.00	ND
Hexachloroethane	117	NA	0	0.632	3.16	ND
Nitrobenzene	77	6.88	11,829	1.10	5.51	J
Isophorone	82	NA	0	0.748	3.74	ND
2,4-Dimethylphenol	107	NA	0	0.729	3.64	ND
2-Nitrophenol (CCC)	139	7.28	15,896	3.11	15.5	J
Benzoic acid	105	7.32	85,572	16.8	84.1	
bis(2-Chloroethoxy)methane	93	NA	0	0.732	3.66	ND
2,4-Dichlorophenol (CCC)	162	NA	0	0.652	3.26	ND
a,a-Dimethylphenethylamine	58	NA	0	1.00	5.00	ND
1,2,4-Trichlorobenzene	180	NA	0	0.617	3.09	ND
4-Chloroaniline	65	NA	0	0.849	4.24	ND
Hexachlorobutadiene (CCC)	225	NA	0	0.609	3.05	ND
Quinoline	129	NA	0	1.00	5.00	ND
1,4-Phenylenediamine	108	NA	0	1.00	5.00	ND
4-Chloro-3 methylphenol (CCC)	107	NA	0	0.661	3.31	ND
Hexachlorocyclopentadiene (SPCC)	237	NA	0	8.12	40.6	ND
2,4,6-Trichlorophenol (CCC)	196	NA	0	0.738	3.69	ND
2,4,5-Trichlorophenol	196	NA	0	0.541	2.70	ND
Biphenyl	154	NA	0	1.00	5.00	ND
2-Chloronaphthalene	162	NA	0	0.652	3.26	ND
2-Nitroaniline	65	NA	0	0.966	4.83	ND
1,4-Dinitrobenzene	168	NA	0	0.672	3.36	ND
Dimethylphthalate	163	NA	0	0.809	4.05	ND
1,3-Dinitrobenzene	168	NA	0	0.819	4.09	ND
2,6-Dinitrotoluene	165	NA	0	0.775	3.88	ND
1,2-Dinitrobenzene	168	NA	0	0.777	3.89	ND
3-Nitroaniline	138	NA	0	0.816	4.08	ND
2,4-Dinitrophenol (SPCC)	184	NA	0	5.05	25.3	ND
4-Nitrophenol (SPCC)	139	NA	0	5.78	28.9	ND
2,4-Dinitrotoluene	165	NA	0	0.804	4.02	ND
Dibenzofuran	168	NA	0	0.688	3.44	ND
2,3,5,6-Tetrachlorophenol	232	NA	0	0.761	3.80	ND
2,3,4,6-Tetrachlorophenol	232	NA	0	0.701	3.50	ND
Diethlyphthalate	149	11.5	24,917	1.33	6.67	J
4-Chlorophenyl-phenylether	204	NA	0	0.754	3.77	ND

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 2**
Data File: W1101460.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
4-Nitroaniline	138	NA	0	0.943	4.72	ND
4,6-Dinitro2-methylphenol	198	NA	0	5.16	25.8	ND
N-Nitrosodiphenylamine (CCC)	169	NA	0	0.716	3.58	ND
Azobenzene	77	NA	0	0.991	4.96	ND
4-Bromophenyl-phenylether	248	NA	0	0.671	3.35	ND
Hexachlorobenzene	284	NA	0	0.546	2.73	ND
Pentachlorophenol (CCC)	266	NA	0	0.565	2.83	ND
Carbazole	167	NA	0	0.705	3.53	ND
Di-n-butylphthalate	149	NA	0	1.04	5.19	ND
Benzidine	184	NA	0	22.8	114	ND
4-Dimethylaminoazobenzene	120	NA	0	1.00	5.00	ND
Butylbenzylphthalate	149	NA	0	0.810	4.05	ND
3,3-Dimethylbenzidine	212	NA	0	10.8	53.9	ND
bis(2-Ethylhexyl)adipate	129	NA	0	0.874	4.37	ND
3,3-Dimethoxybenzidine	244	NA	0	1.00	5.00	ND
bis(2-Ethylhexyl)phthalate	149	NA	0	1.74	8.71	ND
3,3'-Dichlorobenzidine	252	NA	0	9.36	46.8	ND
Di-n-octylphthalate (CCC)	149	NA	0	0.644	3.22	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.27	398,301	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	1,259,852	40.0	N/A		
Acenaphthene-d10 (I)	164	10.8	610,291	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	1,369,795	40.0	N/A		
Chrysene-d12 (I)	240	19.1	1,007,330	40.0	N/A		
Perylene-d12 (I)	264	21.8	124,412	40.0	N/A		
2-Fluorophenol (surr)	112	5.14	80,515	7.27	72.7	50.0	PASS
Phenol-d5 (surr)	99	5.84	78,068	6.48	64.8	50.0	PASS
Nitrobenzene-d5 (surr)	82	6.86	201,963	17.2	85.9	100	PASS
2-Fluorobiphenyl (surr)	172	9.48	425,724	20.6	103	100	PASS
Fluorene-d10 (surr)	176	11.7	9,915	0.624	104	3.00	PASS
2,4,6-Tribromophenol (surr)	330	12.3	18,973	6.91	69.1	50.0	PASS
Pyrene-d10 (surr)	212	16.6	10,972	0.338	56.3	3.00	PASS
Terphenyl-d14 (surr)	244	16.9	438,554	18.8	94.2	100	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.27	363,171	398,301	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	1,259,852	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	610,291	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	1,369,795	Pass
Chrysene-d12 (I)	19.07	19.06	1,007,980	1,007,330	Pass
Perylene-d12 (I)	21.82	21.81	663,788	124,412	Fail

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 3**
Data File: W1101461.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
N-Nitrosodimethylamine	74	4.06	21,030	4.26	21.3	J
Pyridine	79	NA	0	10.5	52.6	ND
Phenol (CCC)	94	5.85	58,989	6.18	30.9	
Aniline	66	NA	0	0.694	3.47	ND
bis(2-Chloroethyl)ether	63	NA	0	0.788	3.94	ND
2-Chlorophenol	128	NA	0	0.624	3.12	ND
1,3-Dichlorobenzene	146	NA	0	0.558	2.79	ND
1,4-Dichlorobenzene (CCC)	146	NA	0	0.528	2.64	ND
Benzyl alcohol	108	NA	0	0.700	3.50	ND
1,2-Dichlorobenzene	146	NA	0	0.558	2.79	ND
2-Methylphenol	107	NA	0	0.677	3.39	ND
bis(2-Chloroisopropyl) ether	45	NA	0	0.982	4.91	ND
3/4-Methylphenol	107	NA	0	0.591	2.95	ND
N-Nitroso-di-n-propylamine (SPCC)	70	NA	0	0.832	4.16	ND
o-Toluidine	106	NA	0	1.00	5.00	ND
Hexachloroethane	117	NA	0	0.632	3.16	ND
Nitrobenzene	77	6.88	10,091	1.23	6.15	J
Isophorone	82	NA	0	0.748	3.74	ND
2,4-Dimethylphenol	107	NA	0	0.729	3.64	ND
2-Nitrophenol (CCC)	139	7.27	11,698	2.99	14.9	J
Benzoic acid	105	7.32	222,299	57.1	286	
bis(2-Chloroethoxy)methane	93	NA	0	0.732	3.66	ND
2,4-Dichlorophenol (CCC)	162	NA	0	0.652	3.26	ND
a,a-Dimethylphenethylamine	58	NA	0	1.00	5.00	ND
1,2,4-Trichlorobenzene	180	NA	0	0.617	3.09	ND
4-Chloroaniline	65	NA	0	0.849	4.24	ND
Hexachlorobutadiene (CCC)	225	NA	0	0.609	3.05	ND
Quinoline	129	NA	0	1.00	5.00	ND
1,4-Phenylenediamine	108	NA	0	1.00	5.00	ND
4-Chloro-3 methylphenol (CCC)	107	NA	0	0.661	3.31	ND
Hexachlorocyclopentadiene (SPCC)	237	NA	0	8.12	40.6	ND
2,4,6-Trichlorophenol (CCC)	196	NA	0	0.738	3.69	ND
2,4,5-Trichlorophenol	196	NA	0	0.541	2.70	ND
Biphenyl	154	NA	0	1.00	5.00	ND
2-Chloronaphthalene	162	NA	0	0.652	3.26	ND
2-Nitroaniline	65	NA	0	0.966	4.83	ND
1,4-Dinitrobenzene	168	NA	0	0.672	3.36	ND
Dimethylphthalate	163	NA	0	0.809	4.05	ND
1,3-Dinitrobenzene	168	NA	0	0.819	4.09	ND
2,6-Dinitrotoluene	165	NA	0	0.775	3.88	ND
1,2-Dinitrobenzene	168	NA	0	0.777	3.89	ND
3-Nitroaniline	138	NA	0	0.816	4.08	ND
2,4-Dinitrophenol (SPCC)	184	NA	0	5.05	25.3	ND
4-Nitrophenol (SPCC)	139	NA	0	5.78	28.9	ND
2,4-Dinitrotoluene	165	NA	0	0.804	4.02	ND
Dibenzofuran	168	NA	0	0.688	3.44	ND
2,3,5,6-Tetrachlorophenol	232	NA	0	0.761	3.80	ND
2,3,4,6-Tetrachlorophenol	232	NA	0	0.701	3.50	ND
Diethlyphthalate	149	NA	0	1.02	5.10	ND
4-Chlorophenyl-phenylether	204	NA	0	0.754	3.77	ND

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 3**
Data File: W1101461.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
4-Nitroaniline	138	NA	0	0.943	4.72	ND
4,6-Dinitro2-methylphenol	198	NA	0	5.16	25.8	ND
N-Nitrosodiphenylamine (CCC)	169	NA	0	0.716	3.58	ND
Azobenzene	77	NA	0	0.991	4.96	ND
4-Bromophenyl-phenylether	248	NA	0	0.671	3.35	ND
Hexachlorobenzene	284	NA	0	0.546	2.73	ND
Pentachlorophenol (CCC)	266	NA	0	0.565	2.83	ND
Carbazole	167	NA	0	0.705	3.53	ND
Di-n-butylphthalate	149	NA	0	1.04	5.19	ND
Benzidine	184	NA	0	22.8	114	ND
4-Dimethylaminoazobenzene	120	NA	0	1.00	5.00	ND
Butylbenzylphthalate	149	NA	0	0.810	4.05	ND
3,3-Dimethylbenzidine	212	NA	0	10.8	53.9	ND
bis(2-Ethylhexyl)adipate	129	NA	0	0.874	4.37	ND
3,3-Dimethoxybenzidine	244	NA	0	1.00	5.00	ND
bis(2-Ethylhexyl)phthalate	149	NA	0	1.74	8.71	ND
3,3'-Dichlorobenzidine	252	NA	0	9.36	46.8	ND
Di-n-octylphthalate (CCC)	149	NA	0	0.644	3.22	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.27	304,439	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	963,674	40.0	N/A		
Acenaphthene-d10 (I)	164	10.8	590,053	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	990,934	40.0	N/A		
Chrysene-d12 (I)	240	19.1	747,666	40.0	N/A		
Perylene-d12 (I)	264	21.8	304,804	40.0	N/A		
2-Fluorophenol (surr)	112	5.15	118,744	14.0	70.1	100	PASS
Phenol-d5 (surr)	99	5.84	125,381	13.6	68.1	100	PASS
Nitrobenzene-d5 (surr)	82	6.86	149,679	16.6	83.2	100	PASS
2-Fluorobiphenyl (surr)	172	9.48	298,860	15.0	74.9	100	PASS
Fluorene-d10 (surr)	176	11.7	5,654	0.368	92.0	2.00	PASS
2,4,6-Tribromophenol (surr)	330	12.3	30,184	15.2	76.0	100	PASS
Pyrene-d10 (surr)	212	16.6	8,156	0.347	86.8	2.00	PASS
Terphenyl-d14 (surr)	244	16.9	299,714	17.8	89.0	100	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.27	363,171	304,439	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	963,674	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	590,053	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	990,934	Pass
Chrysene-d12 (I)	19.07	19.06	1,007,980	747,666	Pass
Perylene-d12 (I)	21.82	21.81	663,788	304,804	Fail

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 3 LD**
Data File: W1101462.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags	% Diff
N-Nitrosodimethylamine	74	4.07	31,409	4.12	20.6	J	3.2
Pyridine	79	NA	0	10.5	52.6	ND	0.0
Phenol (CCC)	94	5.86	93,062	6.32	31.6		2.2
Aniline	66	NA	0	0.694	3.47	ND	0.0
bis(2-Chloroethyl)ether	63	NA	0	0.788	3.94	ND	0.0
2-Chlorophenol	128	NA	0	0.624	3.12	ND	0.0
1,3-Dichlorobenzene	146	NA	0	0.558	2.79	ND	0.0
1,4-Dichlorobenzene (CCC)	146	NA	0	0.528	2.64	ND	0.0
Benzyl alcohol	108	NA	0	0.700	3.50	ND	0.0
1,2-Dichlorobenzene	146	NA	0	0.558	2.79	ND	0.0
2-Methylphenol	107	NA	0	0.677	3.39	ND	0.0
bis(2-Chloroisopropyl) ether	45	NA	0	0.982	4.91	ND	0.0
3/4-Methylphenol	107	NA	0	0.591	2.95	ND	0.0
N-Nitroso-di-n-propylamine (SPCC)	70	NA	0	0.832	4.16	ND	0.0
o-Toluidine	106	NA	0	1.00	5.00	ND	0.0
Hexachloroethane	117	NA	0	0.632	3.16	ND	0.0
Nitrobenzene	77	6.88	16,776	1.33	6.63	J	7.7
Isophorone	82	NA	0	0.748	3.74	ND	0.0
2,4-Dimethylphenol	107	NA	0	0.729	3.64	ND	0.0
2-Nitrophenol (CCC)	139	7.27	20,530	3.43	17.1	J	14.8
Benzoic acid	105	7.34	525,377	88.3	442		54.6
bis(2-Chloroethoxy)methane	93	NA	0	0.732	3.66	ND	0.0
2,4-Dichlorophenol (CCC)	162	NA	0	0.652	3.26	ND	0.0
a,a-Dimethylphenethylamine	58	NA	0	1.00	5.00	ND	0.0
1,2,4-Trichlorobenzene	180	NA	0	0.617	3.09	ND	0.0
4-Chloroaniline	65	NA	0	0.849	4.24	ND	0.0
Hexachlorobutadiene (CCC)	225	NA	0	0.609	3.05	ND	0.0
Quinoline	129	NA	0	1.00	5.00	ND	0.0
1,4-Phenylenediamine	108	NA	0	1.00	5.00	ND	0.0
4-Chloro-3 methylphenol (CCC)	107	NA	0	0.661	3.31	ND	0.0
Hexachlorocyclopentadiene (SPCC)	237	NA	0	8.12	40.6	ND	0.0
2,4,6-Trichlorophenol (CCC)	196	NA	0	0.738	3.69	ND	0.0
2,4,5-Trichlorophenol	196	NA	0	0.541	2.70	ND	0.0
Biphenyl	154	NA	0	1.00	5.00	ND	0.0
2-Chloronaphthalene	162	NA	0	0.652	3.26	ND	0.0
2-Nitroaniline	65	NA	0	0.966	4.83	ND	0.0
1,4-Dinitrobenzene	168	NA	0	0.672	3.36	ND	0.0
Dimethylphthalate	163	NA	0	0.809	4.05	ND	0.0
1,3-Dinitrobenzene	168	NA	0	0.819	4.09	ND	0.0
2,6-Dinitrotoluene	165	NA	0	0.775	3.88	ND	0.0
1,2-Dinitrobenzene	168	NA	0	0.777	3.89	ND	0.0
3-Nitroaniline	138	NA	0	0.816	4.08	ND	0.0
2,4-Dinitrophenol (SPCC)	184	NA	0	5.05	25.3	ND	0.0
4-Nitrophenol (SPCC)	139	NA	0	5.78	28.9	ND	0.0
2,4-Dinitrotoluene	165	NA	0	0.804	4.02	ND	0.0
Dibenzofuran	168	NA	0	0.688	3.44	ND	0.0
2,3,5,6-Tetrachlorophenol	232	NA	0	0.761	3.80	ND	0.0
2,3,4,6-Tetrachlorophenol	232	NA	0	0.701	3.50	ND	0.0
Diethlyphthalate	149	NA	0	1.02	5.10	ND	0.0
4-Chlorophenyl-phenylether	204	NA	0	0.754	3.77	ND	0.0

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 3 LD**
Data File: W1101462.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags	% Diff
4-Nitroaniline	138	NA	0	0.943	4.72	ND	0.0
4,6-Dinitro2-methylphenol	198	NA	0	5.16	25.8	ND	0.0
N-Nitrosodiphenylamine (CCC)	169	NA	0	0.716	3.58	ND	0.0
Azobenzene	77	NA	0	0.991	4.96	ND	0.0
4-Bromophenyl-phenylether	248	NA	0	0.671	3.35	ND	0.0
Hexachlorobenzene	284	NA	0	0.546	2.73	ND	0.0
Pentachlorophenol (CCC)	266	NA	0	0.565	2.83	ND	0.0
Carbazole	167	NA	0	0.705	3.53	ND	0.0
Di-n-butylphthalate	149	NA	0	1.04	5.19	ND	0.0
Benzidine	184	NA	0	22.8	114	ND	0.0
4-Dimethylaminoazobenzene	120	NA	0	1.00	5.00	ND	0.0
Butylbenzylphthalate	149	NA	0	0.810	4.05	ND	0.0
3,3-Dimethylbenzidine	212	NA	0	10.8	53.9	ND	0.0
bis(2-Ethylhexyl)adipate	129	NA	0	0.874	4.37	ND	0.0
3,3-Dimethoxybenzidine	244	NA	0	1.00	5.00	ND	0.0
bis(2-Ethylhexyl)phthalate	149	NA	0	1.74	8.71	ND	0.0
3,3'-Dichlorobenzidine	252	NA	0	9.36	46.8	ND	0.0
Di-n-octylphthalate (CCC)	149	NA	0	0.644	3.22	ND	0.0

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.27	469,854	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	1,473,629	40.0	N/A		
Acenaphthene-d10 (I)	164	10.7	882,883	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	1,458,097	40.0	N/A		
Chrysene-d12 (I)	240	19.1	918,275	40.0	N/A		
Perylene-d12 (I)	264	21.8	270,784	40.0	N/A		
2-Fluorophenol (surr)	112	5.15	196,602	15.0	75.2	100	PASS
Phenol-d5 (surr)	99	5.84	195,601	13.8	68.9	100	PASS
Nitrobenzene-d5 (surr)	82	6.86	242,108	17.4	87.2	100	PASS
2-Fluorobiphenyl (surr)	172	9.48	475,695	15.9	79.7	100	PASS
Fluorene-d10 (surr)	176	11.7	9,152	0.398	99.5	2.00	PASS
2,4,6-Tribromophenol (surr)	330	12.3	46,416	15.9	79.4	100	PASS
Pyrene-d10 (surr)	212	16.6	12,268	0.355	88.7	2.00	PASS
Terphenyl-d14 (surr)	244	16.9	451,611	18.2	91.2	100	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.27	363,171	469,854	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	1,473,629	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	882,883	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	1,458,097	Pass
Chrysene-d12 (I)	19.07	19.07	1,007,980	918,275	Pass
Perylene-d12 (I)	21.82	21.81	663,788	270,784	Fail

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **FIELD BLANK**
Data File: W1101455.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
N-Nitrosodimethylamine	74	NA	0	0.772	3.86	ND
Pyridine	79	NA	0	10.5	52.6	ND
Phenol (CCC)	94	NA	0	0.649	3.25	ND
Aniline	66	NA	0	0.694	3.47	ND
bis(2-Chloroethyl)ether	63	NA	0	0.788	3.94	ND
2-Chlorophenol	128	NA	0	0.624	3.12	ND
1,3-Dichlorobenzene	146	NA	0	0.558	2.79	ND
1,4-Dichlorobenzene (CCC)	146	NA	0	0.528	2.64	ND
Benzyl alcohol	108	NA	0	0.700	3.50	ND
1,2-Dichlorobenzene	146	NA	0	0.558	2.79	ND
2-Methylphenol	107	NA	0	0.677	3.39	ND
bis(2-Chloroisopropyl) ether	45	NA	0	0.982	4.91	ND
3/4-Methylphenol	107	NA	0	0.591	2.95	ND
N-Nitroso-di-n-propylamine (SPCC)	70	NA	0	0.832	4.16	ND
o-Toluidine	106	NA	0	1.00	5.00	ND
Hexachloroethane	117	NA	0	0.632	3.16	ND
Nitrobenzene	77	NA	0	0.816	4.08	ND
Isophorone	82	NA	0	0.748	3.74	ND
2,4-Dimethylphenol	107	NA	0	0.729	3.64	ND
2-Nitrophenol (CCC)	139	NA	0	0.669	3.35	ND
Benzoic acid	105	NA	0	11.6	57.8	ND
bis(2-Chloroethoxy)methane	93	NA	0	0.732	3.66	ND
2,4-Dichlorophenol (CCC)	162	NA	0	0.652	3.26	ND
a,a-Dimethylphenethylamine	58	NA	0	1.00	5.00	ND
1,2,4-Trichlorobenzene	180	NA	0	0.617	3.09	ND
4-Chloroaniline	65	NA	0	0.849	4.24	ND
Hexachlorobutadiene (CCC)	225	NA	0	0.609	3.05	ND
Quinoline	129	NA	0	1.00	5.00	ND
1,4-Phenylenediamine	108	NA	0	1.00	5.00	ND
4-Chloro-3 methylphenol (CCC)	107	NA	0	0.661	3.31	ND
Hexachlorocyclopentadiene (SPCC)	237	NA	0	8.12	40.6	ND
2,4,6-Trichlorophenol (CCC)	196	NA	0	0.738	3.69	ND
2,4,5-Trichlorophenol	196	NA	0	0.541	2.70	ND
Biphenyl	154	NA	0	1.00	5.00	ND
2-Chloronaphthalene	162	NA	0	0.652	3.26	ND
2-Nitroaniline	65	NA	0	0.966	4.83	ND
1,4-Dinitrobenzene	168	NA	0	0.672	3.36	ND
Dimethylphthalate	163	NA	0	0.809	4.05	ND
1,3-Dinitrobenzene	168	NA	0	0.819	4.09	ND
2,6-Dinitrotoluene	165	NA	0	0.775	3.88	ND
1,2-Dinitrobenzene	168	NA	0	0.777	3.89	ND
3-Nitroaniline	138	NA	0	0.816	4.08	ND
2,4-Dinitrophenol (SPCC)	184	NA	0	5.05	25.3	ND
4-Nitrophenol (SPCC)	139	NA	0	5.78	28.9	ND
2,4-Dinitrotoluene	165	NA	0	0.804	4.02	ND
Dibenzofuran	168	NA	0	0.688	3.44	ND
2,3,5,6-Tetrachlorophenol	232	NA	0	0.761	3.80	ND
2,3,4,6-Tetrachlorophenol	232	NA	0	0.701	3.50	ND
Diethlyphthalate	149	NA	0	1.02	5.10	ND
4-Chlorophenyl-phenylether	204	NA	0	0.754	3.77	ND

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **FIELD BLANK**
Data File: W1101455.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
4-Nitroaniline	138	NA	0	0.943	4.72	ND
4,6-Dinitro2-methylphenol	198	NA	0	5.16	25.8	ND
N-Nitrosodiphenylamine (CCC)	169	NA	0	0.716	3.58	ND
Azobenzene	77	NA	0	0.991	4.96	ND
4-Bromophenyl-phenylether	248	NA	0	0.671	3.35	ND
Hexachlorobenzene	284	NA	0	0.546	2.73	ND
Pentachlorophenol (CCC)	266	NA	0	0.565	2.83	ND
Carbazole	167	NA	0	0.705	3.53	ND
Di-n-butylphthalate	149	NA	0	1.04	5.19	ND
Benzidine	184	NA	0	22.8	114	ND
4-Dimethylaminoazobenzene	120	NA	0	1.00	5.00	ND
Butylbenzylphthalate	149	NA	0	0.810	4.05	ND
3,3-Dimethylbenzidine	212	NA	0	10.8	53.9	ND
bis(2-Ethylhexyl)adipate	129	NA	0	0.874	4.37	ND
3,3-Dimethoxybenzidine	244	NA	0	1.00	5.00	ND
bis(2-Ethylhexyl)phthalate	149	NA	0	1.74	8.71	ND
3,3'-Dichlorobenzidine	252	NA	0	9.36	46.8	ND
Di-n-octylphthalate (CCC)	149	NA	0	0.644	3.22	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.27	256,537	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	794,615	40.0	N/A		
Acenaphthene-d10 (I)	164	10.8	468,060	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	763,248	40.0	N/A		
Chrysene-d12 (I)	240	19.1	587,407	40.0	N/A		
Perylene-d12 (I)	264	21.8	367,658	40.0	N/A		
2-Fluorophenol (surr)	112	5.14	61,955	8.69	86.9	50.0	PASS
Phenol-d5 (surr)	99	5.83	76,879	9.91	99.1	50.0	PASS
Nitrobenzene-d5 (surr)	82	6.86	155,893	20.6	103	100	PASS
2-Fluorobiphenyl (surr)	172	9.48	318,265	20.1	101	100	PASS
Fluorene-d10 (surr)	176	11.7	5,533	0.454	75.6	3.00	PASS
2,4,6-Tribromophenol (surr)	330	12.3	9,818	6.42	64.2	50.0	PASS
Pyrene-d10 (surr)	212	16.6	8,171	0.451	75.2	3.00	PASS
Terphenyl-d14 (surr)	244	16.9	294,181	22.7	113	100	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.27	363,171	256,537	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	794,615	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	468,060	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	763,248	Pass
Chrysene-d12 (I)	19.07	19.07	1,007,980	587,407	Pass
Perylene-d12 (I)	21.82	21.81	663,788	367,658	Pass

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **REAGENT BLANK**
Data File: W1101456.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
N-Nitrosodimethylamine	74	4.07	14,330	2.29	11.4	J
Pyridine	79	NA	0	10.5	52.6	ND
Phenol (CCC)	94	NA	0	0.649	3.25	ND
Aniline	66	NA	0	0.694	3.47	ND
bis(2-Chloroethyl)ether	63	NA	0	0.788	3.94	ND
2-Chlorophenol	128	NA	0	0.624	3.12	ND
1,3-Dichlorobenzene	146	NA	0	0.558	2.79	ND
1,4-Dichlorobenzene (CCC)	146	NA	0	0.528	2.64	ND
Benzyl alcohol	108	NA	0	0.700	3.50	ND
1,2-Dichlorobenzene	146	NA	0	0.558	2.79	ND
2-Methylphenol	107	NA	0	0.677	3.39	ND
bis(2-Chloroisopropyl) ether	45	NA	0	0.982	4.91	ND
3/4-Methylphenol	107	NA	0	0.591	2.95	ND
N-Nitroso-di-n-propylamine (SPCC)	70	NA	0	0.832	4.16	ND
o-Toluidine	106	NA	0	1.00	5.00	ND
Hexachloroethane	117	NA	0	0.632	3.16	ND
Nitrobenzene	77	NA	0	0.816	4.08	ND
Isophorone	82	NA	0	0.748	3.74	ND
2,4-Dimethylphenol	107	NA	0	0.729	3.64	ND
2-Nitrophenol (CCC)	139	NA	0	0.669	3.35	ND
Benzoic acid	105	NA	0	11.6	57.8	ND
bis(2-Chloroethoxy)methane	93	NA	0	0.732	3.66	ND
2,4-Dichlorophenol (CCC)	162	NA	0	0.652	3.26	ND
a,a-Dimethylphenethylamine	58	NA	0	1.00	5.00	ND
1,2,4-Trichlorobenzene	180	NA	0	0.617	3.09	ND
4-Chloroaniline	65	NA	0	0.849	4.24	ND
Hexachlorobutadiene (CCC)	225	NA	0	0.609	3.05	ND
Quinoline	129	NA	0	1.00	5.00	ND
1,4-Phenylenediamine	108	NA	0	1.00	5.00	ND
4-Chloro-3 methylphenol (CCC)	107	NA	0	0.661	3.31	ND
Hexachlorocyclopentadiene (SPCC)	237	NA	0	8.12	40.6	ND
2,4,6-Trichlorophenol (CCC)	196	NA	0	0.738	3.69	ND
2,4,5-Trichlorophenol	196	NA	0	0.541	2.70	ND
Biphenyl	154	NA	0	1.00	5.00	ND
2-Chloronaphthalene	162	NA	0	0.652	3.26	ND
2-Nitroaniline	65	NA	0	0.966	4.83	ND
1,4-Dinitrobenzene	168	NA	0	0.672	3.36	ND
Dimethylphthalate	163	NA	0	0.809	4.05	ND
1,3-Dinitrobenzene	168	NA	0	0.819	4.09	ND
2,6-Dinitrotoluene	165	NA	0	0.775	3.88	ND
1,2-Dinitrobenzene	168	NA	0	0.777	3.89	ND
3-Nitroaniline	138	NA	0	0.816	4.08	ND
2,4-Dinitrophenol (SPCC)	184	NA	0	5.05	25.3	ND
4-Nitrophenol (SPCC)	139	NA	0	5.78	28.9	ND
2,4-Dinitrotoluene	165	NA	0	0.804	4.02	ND
Dibenzofuran	168	NA	0	0.688	3.44	ND
2,3,5,6-Tetrachlorophenol	232	NA	0	0.761	3.80	ND
2,3,4,6-Tetrachlorophenol	232	NA	0	0.701	3.50	ND
Diethlyphthalate	149	NA	0	1.02	5.10	ND
4-Chlorophenyl-phenylether	204	NA	0	0.754	3.77	ND

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **REAGENT BLANK**
Data File: W1101456.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
4-Nitroaniline	138	NA	0	0.943	4.72	ND
4,6-Dinitro2-methylphenol	198	NA	0	5.16	25.8	ND
N-Nitrosodiphenylamine (CCC)	169	NA	0	0.716	3.58	ND
Azobenzene	77	NA	0	0.991	4.96	ND
4-Bromophenyl-phenylether	248	NA	0	0.671	3.35	ND
Hexachlorobenzene	284	NA	0	0.546	2.73	ND
Pentachlorophenol (CCC)	266	NA	0	0.565	2.83	ND
Carbazole	167	NA	0	0.705	3.53	ND
Di-n-butylphthalate	149	NA	0	1.04	5.19	ND
Benzidine	184	NA	0	22.8	114	ND
4-Dimethylaminoazobenzene	120	NA	0	1.00	5.00	ND
Butylbenzylphthalate	149	NA	0	0.810	4.05	ND
3,3-Dimethylbenzidine	212	NA	0	10.8	53.9	ND
bis(2-Ethylhexyl)adipate	129	NA	0	0.874	4.37	ND
3,3-Dimethoxybenzidine	244	NA	0	1.00	5.00	ND
bis(2-Ethylhexyl)phthalate	149	NA	0	1.74	8.71	ND
3,3'-Dichlorobenzidine	252	NA	0	9.36	46.8	ND
Di-n-octylphthalate (CCC)	149	NA	0	0.644	3.22	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.27	386,535	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	1,156,460	40.0	N/A		
Acenaphthene-d10 (I)	164	10.8	639,333	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	1,007,569	40.0	N/A		
Chrysene-d12 (I)	240	19.1	857,439	40.0	N/A		
Perylene-d12 (I)	264	21.8	489,342	40.0	N/A		
2-Fluorophenol (surr)	112	5.14	156,213	14.5	72.7	100	PASS
Phenol-d5 (surr)	99	5.83	192,211	16.4	82.2	100	PASS
Nitrobenzene-d5 (surr)	82	6.86	172,657	15.1	75.6	100	PASS
2-Fluorobiphenyl (surr)	172	9.48	362,937	16.8	84.0	100	PASS
Fluorene-d10 (surr)	176	11.7	6,055	0.364	90.9	2.00	PASS
2,4,6-Tribromophenol (surr)	330	12.3	24,987	12.4	61.9	100	PASS
Pyrene-d10 (surr)	212	16.6	9,529	0.399	99.7	2.00	PASS
Terphenyl-d14 (surr)	244	16.9	329,056	19.2	96.1	100	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.27	363,171	386,535	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	1,156,460	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	639,333	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	1,007,569	Pass
Chrysene-d12 (I)	19.07	19.07	1,007,980	857,439	Pass
Perylene-d12 (I)	21.82	21.81	663,788	489,342	Pass

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **0611-14/23 MB**
Data File: W1101454.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
N-Nitrosodimethylamine	74	NA	0	0.772	3.86	ND
Pyridine	79	NA	0	10.5	52.6	ND
Phenol (CCC)	94	NA	0	0.649	3.25	ND
Aniline	66	NA	0	0.694	3.47	ND
bis(2-Chloroethyl)ether	63	NA	0	0.788	3.94	ND
2-Chlorophenol	128	NA	0	0.624	3.12	ND
1,3-Dichlorobenzene	146	NA	0	0.558	2.79	ND
1,4-Dichlorobenzene (CCC)	146	NA	0	0.528	2.64	ND
Benzyl alcohol	108	NA	0	0.700	3.50	ND
1,2-Dichlorobenzene	146	NA	0	0.558	2.79	ND
2-Methylphenol	107	NA	0	0.677	3.39	ND
bis(2-Chloroisopropyl) ether	45	NA	0	0.982	4.91	ND
3/4-Methylphenol	107	NA	0	0.591	2.95	ND
N-Nitroso-di-n-propylamine (SPCC)	70	NA	0	0.832	4.16	ND
o-Toluidine	106	NA	0	1.00	5.00	ND
Hexachloroethane	117	NA	0	0.632	3.16	ND
Nitrobenzene	77	NA	0	0.816	4.08	ND
Isophorone	82	NA	0	0.748	3.74	ND
2,4-Dimethylphenol	107	NA	0	0.729	3.64	ND
2-Nitrophenol (CCC)	139	NA	0	0.669	3.35	ND
Benzoic acid	105	NA	0	11.6	57.8	ND
bis(2-Chloroethoxy)methane	93	NA	0	0.732	3.66	ND
2,4-Dichlorophenol (CCC)	162	NA	0	0.652	3.26	ND
a,a-Dimethylphenethylamine	58	NA	0	1.00	5.00	ND
1,2,4-Trichlorobenzene	180	NA	0	0.617	3.09	ND
4-Chloroaniline	65	NA	0	0.849	4.24	ND
Hexachlorobutadiene (CCC)	225	NA	0	0.609	3.05	ND
Quinoline	129	NA	0	1.00	5.00	ND
1,4-Phenylenediamine	108	NA	0	1.00	5.00	ND
4-Chloro-3 methylphenol (CCC)	107	NA	0	0.661	3.31	ND
Hexachlorocyclopentadiene (SPCC)	237	NA	0	8.12	40.6	ND
2,4,6-Trichlorophenol (CCC)	196	NA	0	0.738	3.69	ND
2,4,5-Trichlorophenol	196	NA	0	0.541	2.70	ND
Biphenyl	154	NA	0	1.00	5.00	ND
2-Chloronaphthalene	162	NA	0	0.652	3.26	ND
2-Nitroaniline	65	NA	0	0.966	4.83	ND
1,4-Dinitrobenzene	168	NA	0	0.672	3.36	ND
Dimethylphthalate	163	NA	0	0.809	4.05	ND
1,3-Dinitrobenzene	168	NA	0	0.819	4.09	ND
2,6-Dinitrotoluene	165	NA	0	0.775	3.88	ND
1,2-Dinitrobenzene	168	NA	0	0.777	3.89	ND
3-Nitroaniline	138	NA	0	0.816	4.08	ND
2,4-Dinitrophenol (SPCC)	184	NA	0	5.05	25.3	ND
4-Nitrophenol (SPCC)	139	NA	0	5.78	28.9	ND
2,4-Dinitrotoluene	165	NA	0	0.804	4.02	ND
Dibenzofuran	168	NA	0	0.688	3.44	ND
2,3,5,6-Tetrachlorophenol	232	NA	0	0.761	3.80	ND
2,3,4,6-Tetrachlorophenol	232	NA	0	0.701	3.50	ND
Diethlyphthalate	149	NA	0	1.02	5.10	ND
4-Chlorophenyl-phenylether	204	NA	0	0.754	3.77	ND

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **0611-14/23 MB**
Data File: W1101454.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
4-Nitroaniline	138	NA	0	0.943	4.72	ND
4,6-Dinitro2-methylphenol	198	NA	0	5.16	25.8	ND
N-Nitrosodiphenylamine (CCC)	169	NA	0	0.716	3.58	ND
Azobenzene	77	NA	0	0.991	4.96	ND
4-Bromophenyl-phenylether	248	NA	0	0.671	3.35	ND
Hexachlorobenzene	284	NA	0	0.546	2.73	ND
Pentachlorophenol (CCC)	266	NA	0	0.565	2.83	ND
Carbazole	167	NA	0	0.705	3.53	ND
Di-n-butylphthalate	149	NA	0	1.04	5.19	ND
Benzidine	184	NA	0	22.8	114	ND
4-Dimethylaminoazobenzene	120	NA	0	1.00	5.00	ND
Butylbenzylphthalate	149	NA	0	0.810	4.05	ND
3,3-Dimethylbenzidine	212	NA	0	10.8	53.9	ND
bis(2-Ethylhexyl)adipate	129	NA	0	0.874	4.37	ND
3,3-Dimethoxybenzidine	244	NA	0	1.00	5.00	ND
bis(2-Ethylhexyl)phthalate	149	NA	0	1.74	8.71	ND
3,3'-Dichlorobenzidine	252	NA	0	9.36	46.8	ND
Di-n-octylphthalate (CCC)	149	NA	0	0.644	3.22	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.27	269,044	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	786,569	40.0	N/A		
Acenaphthene-d10 (I)	164	10.8	431,722	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	679,063	40.0	N/A		
Chrysene-d12 (I)	240	19.1	568,716	40.0	N/A		
Perylene-d12 (I)	264	21.8	391,506	40.0	N/A		
Nitrobenzene-d5 (surr)	82	6.86	116,481	14.7	73.3	100	PASS
2-Fluorobiphenyl (surr)	172	9.48	232,130	15.9	79.5	100	PASS
Fluorene-d10 (surr)	176	11.7	4,890	0.435	54.3	4.00	PASS
Pyrene-d10 (surr)	212	16.6	7,409	0.460	57.5	4.00	PASS
Terphenyl-d14 (surr)	244	16.9	206,047	17.9	89.3	100	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.27	363,171	269,044	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	786,569	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	431,722	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	679,063	Pass
Chrysene-d12 (I)	19.07	19.06	1,007,980	568,716	Pass
Perylene-d12 (I)	21.82	21.81	663,788	391,506	Pass

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **CH2Cl2 SCN BLK**
Data File: W1101453.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 1.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
N-Nitrosodimethylamine	74	NA	0	0.772	0.772	ND
Pyridine	79	NA	0	10.5	10.5	ND
Phenol (CCC)	94	NA	0	0.649	0.649	ND
Aniline	66	NA	0	0.694	0.694	ND
bis(2-Chloroethyl)ether	63	NA	0	0.788	0.788	ND
2-Chlorophenol	128	NA	0	0.624	0.624	ND
1,3-Dichlorobenzene	146	NA	0	0.558	0.558	ND
1,4-Dichlorobenzene (CCC)	146	NA	0	0.528	0.528	ND
Benzyl alcohol	108	NA	0	0.700	0.700	ND
1,2-Dichlorobenzene	146	NA	0	0.558	0.558	ND
2-Methylphenol	107	NA	0	0.677	0.677	ND
bis(2-Chloroisopropyl) ether	45	NA	0	0.982	0.982	ND
3/4-Methylphenol	107	NA	0	0.591	0.591	ND
N-Nitroso-di-n-propylamine (SPCC)	70	NA	0	0.832	0.832	ND
o-Toluidine	106	NA	0	1.00	1.00	ND
Hexachloroethane	117	NA	0	0.632	0.632	ND
Nitrobenzene	77	NA	0	0.816	0.816	ND
Isophorone	82	NA	0	0.748	0.748	ND
2,4-Dimethylphenol	107	NA	0	0.729	0.729	ND
2-Nitrophenol (CCC)	139	NA	0	0.669	0.669	ND
Benzoic acid	105	NA	0	11.6	11.6	ND
bis(2-Chloroethoxy)methane	93	NA	0	0.732	0.732	ND
2,4-Dichlorophenol (CCC)	162	NA	0	0.652	0.652	ND
a,a-Dimethylphenethylamine	58	NA	0	1.00	1.00	ND
1,2,4-Trichlorobenzene	180	NA	0	0.617	0.617	ND
4-Chloroaniline	65	NA	0	0.849	0.849	ND
Hexachlorobutadiene (CCC)	225	NA	0	0.609	0.609	ND
Quinoline	129	NA	0	1.00	1.00	ND
1,4-Phenylenediamine	108	NA	0	1.00	1.00	ND
4-Chloro-3 methylphenol (CCC)	107	NA	0	0.661	0.661	ND
Hexachlorocyclopentadiene (SPCC)	237	NA	0	8.12	8.12	ND
2,4,6-Trichlorophenol (CCC)	196	NA	0	0.738	0.738	ND
2,4,5-Trichlorophenol	196	NA	0	0.541	0.541	ND
Biphenyl	154	NA	0	1.00	1.00	ND
2-Chloronaphthalene	162	NA	0	0.652	0.652	ND
2-Nitroaniline	65	NA	0	0.966	0.966	ND
1,4-Dinitrobenzene	168	NA	0	0.672	0.672	ND
Dimethylphthalate	163	NA	0	0.809	0.809	ND
1,3-Dinitrobenzene	168	NA	0	0.819	0.819	ND
2,6-Dinitrotoluene	165	NA	0	0.775	0.775	ND
1,2-Dinitrobenzene	168	NA	0	0.777	0.777	ND
3-Nitroaniline	138	NA	0	0.816	0.816	ND
2,4-Dinitrophenol (SPCC)	184	NA	0	5.05	5.05	ND
4-Nitrophenol (SPCC)	139	NA	0	5.78	5.78	ND
2,4-Dinitrotoluene	165	NA	0	0.804	0.804	ND
Dibenzofuran	168	NA	0	0.688	0.688	ND
2,3,5,6-Tetrachlorophenol	232	NA	0	0.761	0.761	ND
2,3,4,6-Tetrachlorophenol	232	NA	0	0.701	0.701	ND
Diethlyphthalate	149	NA	0	1.02	1.02	ND
4-Chlorophenyl-phenylether	204	NA	0	0.754	0.754	ND

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **CH2Cl2 SCN BLK**
Data File: W1101453.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 1.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags
4-Nitroaniline	138	NA	0	0.943	0.943	ND
4,6-Dinitro2-methylphenol	198	NA	0	5.16	5.16	ND
N-Nitrosodiphenylamine (CCC)	169	NA	0	0.716	0.716	ND
Azobenzene	77	NA	0	0.991	0.991	ND
4-Bromophenyl-phenylether	248	NA	0	0.671	0.671	ND
Hexachlorobenzene	284	NA	0	0.546	0.546	ND
Pentachlorophenol (CCC)	266	NA	0	0.565	0.565	ND
Carbazole	167	NA	0	0.705	0.705	ND
Di-n-butylphthalate	149	NA	0	1.04	1.04	ND
Benzidine	184	NA	0	22.8	22.8	ND
4-Dimethylaminoazobenzene	120	NA	0	1.00	1.00	ND
Butylbenzylphthalate	149	NA	0	0.810	0.810	ND
3,3-Dimethylbenzidine	212	NA	0	10.8	10.8	ND
bis(2-Ethylhexyl)adipate	129	NA	0	0.874	0.874	ND
3,3-Dimethoxybenzidine	244	NA	0	1.00	1.00	ND
bis(2-Ethylhexyl)phthalate	149	NA	0	1.74	1.74	ND
3,3'-Dichlorobenzidine	252	NA	0	9.36	9.36	ND
Di-n-octylphthalate (CCC)	149	NA	0	0.644	0.644	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.28	302,126	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	931,413	40.0	N/A		
Acenaphthene-d10 (I)	164	10.8	529,544	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	843,441	40.0	N/A		
Chrysene-d12 (I)	240	19.1	680,958	40.0	N/A		
Perylene-d12 (I)	264	21.8	432,016	40.0	N/A		

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.28	363,171	302,126	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	931,413	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	529,544	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	843,441	Pass
Chrysene-d12 (I)	19.07	19.07	1,007,980	680,958	Pass
Perylene-d12 (I)	21.82	21.81	663,788	432,016	Pass

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **0611-14/23 LCS-1**
Data File: W1101451.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags	Tag Value (ug)	% Rec
N-Nitrosodimethylamine	74	4.11	78,544	18.9	94.7		100	94.7
Pyridine	79	4.17	92,408	12.4	61.9		100	61.9
Phenol (CCC)	94	5.85	145,041	18.1	90.4		100	90.4
Aniline	66	5.94	55,460	14.3	71.7		100	71.7
bis(2-Chloroethyl)ether	63	5.95	96,859	19.1	95.3		100	95.3
2-Chlorophenol	128	6.07	124,452	17.7	88.5		100	88.5
1,3-Dichlorobenzene	146	6.23	149,262	16.5	82.6		100	82.6
1,4-Dichlorobenzene (CCC)	146	6.29	152,257	16.6	83.2		100	83.2
Benzyl alcohol	108	6.36	75,512	19.5	97.6		100	97.6
1,2-Dichlorobenzene	146	6.46	140,912	16.9	84.5		100	84.5
2-Methylphenol	107	6.44	97,975	18.4	92.0		100	92.0
bis(2-Chloroisopropyl) ether	45	6.49	150,232	22.4	112		100	111.8
3/4-Methylphenol	107	6.60	125,133	19.3	96.7		100	96.7
N-Nitroso-di-n-propylamine (SPCC)	70	6.63	94,269	20.6	103		100	103.2
o-Toluidine	106	6.71	168,225	17.1	85.4		100	85.4
Hexachloroethane	117	6.85	59,584	16.5	82.6		100	82.6
Nitrobenzene	77	6.88	146,017	21.2	106		100	106.0
Isophorone	82	7.15	235,777	19.0	95.1		100	95.1
2,4-Dimethylphenol	107	7.25	131,315	17.7	88.6		100	88.6
2-Nitrophenol (CCC)	139	7.28	65,404	20.0	100		100	100.1
Benzoic acid	105	7.28	70,202	21.6	108		100	108.1
bis(2-Chloroethoxy)methane	93	7.37	135,710	19.1	95.7		100	95.7
2,4-Dichlorophenol (CCC)	162	7.58	102,856	17.4	87.1		100	87.1
a,a-Dimethylphenethylamine	58	NA	0	1.00	5.00	ND	100	0.0
1,2,4-Trichlorobenzene	180	7.72	128,390	16.6	82.9		100	82.9
Naphthalene	128	7.85	383,368	18.3	91.5		100	91.5
4-Chloroaniline	65	7.87	40,958	15.0	75.2		100	75.2
Hexachlorobutadiene (CCC)	225	8.00	72,366	14.5	72.3		100	72.3
Quinoline	129	8.33	197,322	17.1	85.3	J	100	85.3
1,4-Phenylenediamine	108	NA	0	1.00	5.00	ND	100	0.0
4-Chloro-3 methylphenol (CCC)	107	8.55	98,837	17.3	86.6		100	86.6
2-Methylnaphthalene	142	8.90	233,749	17.0	85.1		100	85.1
1-Methylnaphthalene	142	9.07	232,362	17.8	89.1		100	89.1
Hexachlorocyclopentadiene (SPCC)	237	9.16	46,655	14.4	72.0		100	72.0
2,4,6-Trichlorophenol (CCC)	196	9.34	68,147	16.9	84.7		100	84.7
2,4,5-Trichlorophenol	196	9.41	70,449	16.6	82.8		100	82.8
Biphenyl	154	9.6748	291,220	17.5	87.5	J	100	87.5
2-Chloronaphthalene	162	9.73	224,211	17.6	87.8		100	87.8
2-Nitroaniline	65	9.87	61,278	21.0	105		100	105.2
1,4-Dinitrobenzene	168	10.1	29,836	19.6	98.0		100	98.0
Dimethylphthalate	163	10.2	257,711	18.4	91.9		100	91.9
1,3-Dinitrobenzene	168	10.2	37,175	19.6	97.9		100	97.9
2,6-Dinitrotoluene	165	10.3	57,874	20.1	101		100	100.7
1,2-Dinitrobenzene	168	10.4	25,552	19.3	96.6		100	96.6
Acenaphthylene	152	10.5	339,285	17.3	86.3		100	86.3
3-Nitroaniline	138	10.6	45,264	16.5	82.4		100	82.4
Acenaphthene (CCC)	154	10.8	219,248	18.5	92.4		100	92.4
2,4-Dinitrophenol (SPCC)	184	10.8	19,713	17.0	84.8		100	84.8
4-Nitrophenol (SPCC)	139	10.9	33,376	18.3	91.5		100	91.5
2,4-Dinitrotoluene	165	11.1	67,020	19.6	98.0		100	98.0
Dibenzofuran	168	11.1	307,075	18.3	91.3		100	91.3
2,3,5,6-Tetrachlorophenol	232	11.3	51,664	18.5	92.3		100	92.3
2,3,4,6-Tetrachlorophenol	232	11.4	52,999	17.8	89.2		100	89.2
Diethlyphthalate	149	11.5	259,384	18.4	91.8		100	91.8
4-Chlorophenyl-phenylether	204	11.8	123,398	17.5	87.6		100	87.6
Fluorene	166	11.8	256,011	18.1	90.5		100	90.5
4-Nitroaniline	138	11.8	46,058	16.7	83.6		100	83.6
4,6-Dinitro2-methylphenol	198	11.9	31,946	18.7	93.7		100	93.7
N-Nitrosodiphenylamine (CCC)	169	12.0	215,326	18.4	92.1		100	92.1
Azobenzene	77	12.1	264,171	18.4	91.8		100	91.8
4-Bromophenyl-phenylether	248	12.7	70,511	17.3	86.5		100	86.5
Hexachlorobenzene	284	12.9	72,099	17.4	86.8		100	86.8
Pentachlorophenol (CCC)	266	13.3	31,040	14.4	72.0		100	72.0
Phenanthrene	178	13.7	367,926	18.9	94.7		100	94.7
Anthracene	178	13.8	354,844	18.2	91.2		100	91.2

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **0611-14/23 LCS-1**
Data File: W1101451.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags	Tag Value (ug)	% Rec
Carbazole	167	14.1	310,773	19.3	96.5		100	96.5
Di-n-butylphthalate	149	14.8	420,030	18.4	91.9		100	91.9
Fluoranthene (CCC)	202	16.1	393,476	19.5	97.5		100	97.5
Benzidine	184	NA	0	22.8	114	ND	100	0.0
Pyrene	202	16.6	398,051	19.6	98.1		100	98.1
4-Dimethylaminoazobenzene	120	17.2	93,043	14.7	73.4		100	73.4
Butylbenzylphthalate	149	17.9	162,010	15.3	76.3		100	76.3
3,3-Dimethylbenzidine	212	NA	0	10.8	53.9	ND	100	0.0
bis(2-Ethylhexyl)adipate	129	18.0	130,340	15.4	77.2		100	77.2
3,3-Dimethoxybenzidine	244	NA	0	1.00	5.00	ND	100	0.0
bis(2-Ethylhexyl)phthalate	149	19.0	218,181	14.8	74.2		100	74.2
3,3'-Dichlorobenzidine	252	NA	0	9.36	46.8	ND	100	0.0
Benzo(a)anthracene	228	19.0	336,105	18.2	91.2		100	91.2
Chrysene	228	19.1	310,005	18.6	93.0		100	93.0
Di-n-octylphthalate (CCC)	149	20.3	288,006	14.5	72.4		100	72.4
7,12-Dimethylbenz(a)anthracene	256	21.1	113,716	16.0	80.2		100	80.2
Benzo(b)fluoranthene	252	21.1	266,071	17.5	87.3		100	87.3
Benzo(k)fluoranthene	252	21.2	254,572	18.4	92.2		100	92.2
Benzo(e)pyrene	252	21.6	222,872	18.2	90.8		100	90.8
Benzo(a)pyrene (CCC)	252	21.7	219,697	17.6	88.2		100	88.2
Perylene	252	21.9	222,922	17.2	86.2		100	86.2
3-Methylcholanthrene	268	22.4	107,866	16.6	83.0		100	83.0
Indeno(1,2,3-cd)pyrene	276	24.0	212,655	17.9	89.4		100	89.4
Dibenz(a,h)anthracene	278	24.1	172,699	17.4	86.9		100	86.9
Benzo(g,h,i)perylene	276	24.7	172,558	18.2	90.9		100	90.9
Dibenzo(a,e)pyrene	302	29.5	97,501	15.3	76.4		100	76.4

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.28	255,771	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	804,215	40.0	N/A		
Acenaphthene-d10 (I)	164	10.8	461,398	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	762,274	40.0	N/A		
Chrysene-d12 (I)	240	19.1	677,123	40.0	N/A		
Perylene-d12 (I)	264	21.8	463,849	40.0	N/A		
Nitrobenzene-d5 (surr)	82	6.86	144,655	19.2	95.8	100	PASS
2-Fluorobiphenyl (surr)	172	9.48	256,202	16.4	82.1	100	PASS
Fluorene-d10 (surr)	176	11.7	6,691	0.557	69.6	4.00	PASS
Pyrene-d10 (surr)	212	16.6	8,789	0.486	60.8	4.00	PASS
Terphenyl-d14 (surr)	244	16.9	230,035	17.8	88.8	100	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.28	363,171	255,771	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	804,215	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	461,398	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	762,274	Pass
Chrysene-d12 (I)	19.07	19.07	1,007,980	677,123	Pass
Perylene-d12 (I)	21.82	21.82	663,788	463,849	Pass

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **0611-14/63 LCS-2**
Data File: W1101452.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags	Tag Value (ug)	% Rec
N-Nitrosodimethylamine	74	4.11	82,205	17.4	86.9		100	86.9
Pyridine	79	NA	0	10.5	52.6	ND	100	0.0
Phenol (CCC)	94	5.85	152,601	16.7	83.4		100	83.4
Aniline	66	5.94	42,996	9.75	48.8		100	48.8
bis(2-Chloroethyl)ether	63	5.95	97,607	16.8	84.2		100	84.2
2-Chlorophenol	128	6.07	132,843	16.6	82.8		100	82.8
1,3-Dichlorobenzene	146	6.23	156,122	15.1	75.7		100	75.7
1,4-Dichlorobenzene (CCC)	146	6.29	160,560	15.4	77.0		100	77.0
Benzyl alcohol	108	6.36	74,685	16.9	84.7		100	84.7
1,2-Dichlorobenzene	146	6.46	146,253	15.4	76.9		100	76.9
2-Methylphenol	107	6.44	100,660	16.6	82.9		100	82.9
bis(2-Chloroisopropyl) ether	45	6.49	153,113	20.0	99.9		100	99.9
3/4-Methylphenol	107	6.60	127,021	17.2	86.1		100	86.1
N-Nitroso-di-n-propylamine (SPCC)	70	6.63	94,743	18.2	90.9		100	90.9
o-Toluidine	106	6.71	137,782	12.3	61.3		100	61.3
Hexachloroethane	117	6.85	60,701	14.8	73.8		100	73.8
Nitrobenzene	77	6.88	145,174	18.5	92.4		100	92.4
Isophorone	82	7.15	233,805	17.8	88.8		100	88.8
2,4-Dimethylphenol	107	7.25	131,491	16.7	83.5		100	83.5
2-Nitrophenol (CCC)	139	7.27	62,424	18.0	89.9		100	89.9
Benzoic acid	105	7.27	54,932	15.9	79.6		100	79.6
bis(2-Chloroethoxy)methane	93	7.37	137,152	18.2	91.0		100	91.0
2,4-Dichlorophenol (CCC)	162	7.58	103,340	16.5	82.3		100	82.3
a,a-Dimethylphenethylamine	58	NA	0	1.00	5.00	ND	100	0.0
1,2,4-Trichlorobenzene	180	7.72	128,199	15.6	77.9		100	77.9
Naphthalene	128	7.85	378,796	17.0	85.1		100	85.1
4-Chloroaniline	65	7.87	34,860	12.0	60.2		100	60.2
Hexachlorobutadiene (CCC)	225	8.00	73,312	13.8	68.9		100	68.9
Quinoline	129	8.33	154,538	12.6	62.9	J	100	62.9
1,4-Phenylenediamine	108	NA	0	1.00	5.00	ND	100	0.0
4-Chloro-3 methylphenol (CCC)	107	8.55	95,713	15.8	78.9		100	78.9
2-Methylnaphthalene	142	8.90	227,823	15.6	78.0		100	78.0
1-Methylnaphthalene	142	9.07	225,723	16.3	81.5		100	81.5
Hexachlorocyclopentadiene (SPCC)	237	9.16	45,140	13.1	65.6		100	65.6
2,4,6-Trichlorophenol (CCC)	196	9.34	67,467	16.7	83.7		100	83.7
2,4,5-Trichlorophenol	196	9.41	68,215	16.0	80.1		100	80.1
Biphenyl	154	9.6719	268,696	16.1	80.7	J	100	80.7
2-Chloronaphthalene	162	9.73	210,978	16.5	82.5		100	82.5
2-Nitroaniline	65	9.87	56,599	19.4	97.1		100	97.1
1,4-Dinitrobenzene	168	10.1	27,391	18.0	89.9		100	89.9
Dimethylphthalate	163	10.2	240,025	17.1	85.5		100	85.5
1,3-Dinitrobenzene	168	10.2	33,953	17.9	89.3		100	89.3
2,6-Dinitrotoluene	165	10.3	52,943	18.4	92.0		100	92.0
1,2-Dinitrobenzene	168	10.4	24,484	18.5	92.4		100	92.4
Acenaphthylene	152	10.5	319,124	16.2	81.1		100	81.1
3-Nitroaniline	138	10.6	43,320	15.7	78.7		100	78.7
Acenaphthene (CCC)	154	10.8	203,649	17.1	85.7		100	85.7
2,4-Dinitrophenol (SPCC)	184	10.8	16,695	14.4	71.8		100	71.8
4-Nitrophenol (SPCC)	139	10.9	28,911	15.8	79.2		100	79.2
2,4-Dinitrotoluene	165	11.1	58,586	17.1	85.6		100	85.6
Dibenzofuran	168	11.1	291,886	17.3	86.7		100	86.7
2,3,5,6-Tetrachlorophenol	232	11.3	49,611	17.7	88.5		100	88.5
2,3,4,6-Tetrachlorophenol	232	11.4	50,368	16.9	84.7		100	84.7
Diethlyphthalate	149	11.5	235,812	16.7	83.3		100	83.3
4-Chlorophenyl-phenylether	204	11.8	115,187	16.3	81.7		100	81.7
Fluorene	166	11.8	236,678	16.7	83.6		100	83.6
4-Nitroaniline	138	11.8	41,874	15.2	75.9		100	75.9
4,6-Dinitro2-methylphenol	198	11.8	27,707	16.2	81.2		100	81.2
N-Nitrosodiphenylamine (CCC)	169	12.0	196,398	16.8	83.9		100	83.9
Azobenzene	77	12.1	248,527	17.3	86.3		100	86.3
4-Bromophenyl-phenylether	248	12.7	63,750	16.1	80.5		100	80.5
Hexachlorobenzene	284	12.9	66,709	16.5	82.7		100	82.7
Pentachlorophenol (CCC)	266	13.3	30,331	14.5	72.4		100	72.4
Phenanthrene	178	13.7	332,938	17.7	88.3		100	88.3
Anthracene	178	13.8	319,945	16.9	84.7		100	84.7

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **0611-14/63 LCS-2**
Data File: W1101452.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ug/mL)	Catch Weight (ug)	Flags	Tag Value (ug)	% Rec
Carbazole	167	14.1	276,862	17.7	88.5		100	88.5
Di-n-butylphthalate	149	14.8	372,808	16.8	84.0		100	84.0
Fluoranthene (CCC)	202	16.1	353,840	18.1	90.3		100	90.3
Benzidine	184	NA	0	22.8	114	ND	100	0.0
Pyrene	202	16.6	359,956	18.3	91.3		100	91.3
4-Dimethylaminoazobenzene	120	17.2	76,184	12.6	62.8		100	62.8
Butylbenzylphthalate	149	17.9	140,720	13.9	69.3		100	69.3
3,3-Dimethylbenzidine	212	NA	0	10.8	53.9	ND	100	0.0
bis(2-Ethylhexyl)adipate	129	18.0	114,136	14.1	70.7		100	70.7
3,3-Dimethoxybenzidine	244	18.9	5,625	1.23	6.16	J	100	6.2
bis(2-Ethylhexyl)phthalate	149	19.0	195,858	13.9	69.7		100	69.7
3,3'-Dichlorobenzidine	252	19.0	60,795	10.6	53.1		100	0.0
Benzo(a)anthracene	228	19.0	298,838	17.0	84.8		100	84.8
Chrysene	228	19.1	273,973	17.2	85.9		100	85.9
Di-n-octylphthalate (CCC)	149	20.3	249,372	13.1	65.6		100	65.6
7,12-Dimethylbenz(a)anthracene	256	21.1	96,850	14.4	72.0		100	72.0
Benzo(b)fluoranthene	252	21.1	244,392	16.9	84.4		100	84.4
Benzo(k)fluoranthene	252	21.2	226,297	17.3	86.3		100	86.3
Benzo(e)pyrene	252	21.6	196,377	16.9	84.3		100	84.3
Benzo(a)pyrene (CCC)	252	21.7	196,708	16.6	83.2		100	83.2
Perylene	252	21.9	203,233	16.6	82.8		100	82.8
3-Methylcholanthrene	268	22.4	93,474	15.1	75.7		100	75.7
Indeno(1,2,3-cd)pyrene	276	24.0	186,757	16.5	82.7		100	82.7
Dibenz(a,h)anthracene	278	24.1	155,003	16.4	82.1		100	82.1
Benzo(g,h,i)perylene	276	24.7	151,873	16.9	84.3		100	84.3
Dibenzo(a,e)pyrene	302	29.5	90,880	15.0	75.0		100	75.0

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.27	291,694	40.0	N/A		
Naphthalene-d8 (I)	136	7.82	854,574	40.0	N/A		
Acenaphthene-d10 (I)	164	10.8	461,945	40.0	N/A		
Phenanthrene-d10 (I)	188	13.7	740,295	40.0	N/A		
Chrysene-d12 (I)	240	19.1	647,446	40.0	N/A		
Perylene-d12 (I)	264	21.8	440,327	40.0	N/A		
Nitrobenzene-d5 (surr)	82	6.86	149,191	17.3	86.6	100	PASS
2-Fluorobiphenyl (surr)	172	9.48	254,727	16.3	81.6	100	PASS
Fluorene-d10 (surr)	176	11.7	6,182	0.514	64.2	4.00	PASS
Pyrene-d10 (surr)	212	16.6	8,641	0.492	61.5	4.00	PASS
Terphenyl-d14 (surr)	244	16.9	212,313	16.9	84.4	100	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.28	6.27	363,171	291,694	Pass
Naphthalene-d8 (I)	7.82	7.82	1,145,020	854,574	Pass
Acenaphthene-d10 (I)	10.76	10.75	692,550	461,945	Pass
Phenanthrene-d10 (I)	13.66	13.66	1,218,641	740,295	Pass
Chrysene-d12 (I)	19.07	19.07	1,007,980	647,446	Pass
Perylene-d12 (I)	21.82	21.81	663,788	440,327	Pass

Results (SIM)

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 1**
Data File: W1101601.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ng/mL)	Catch Weight (ng)	Flags
Naphthalene	128	7.59	32,313	536	2,681	
2-Methylnaphthalene	142	8.62	1,792	41.8	209	
1-Methylnaphthalene	142	8.78	628	15.2	75.8	
Acenaphthylene	152	NA	0	10.0	50.0	ND
Acenaphthene (CCC)	154	NA	0	10.0	50.0	ND
Fluorene	166	11.5	460	13.9	69.5	
Phenanthrene	178	13.4	1,416	13.4	67.1	
Anthracene	178	NA	0	10.0	50.0	ND
Fluoranthene (CCC)	202	NA	0	10.0	50.0	ND
Pyrene	202	NA	0	10.0	50.0	ND
Benzo(a)anthracene	228	NA	0	10.0	50.0	ND
Chrysene	228	NA	0	10.0	50.0	ND
7,12-Dimethylbenz(a)anthracene	256	NA	0	10.0	50.0	ND
Benzo(b)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(k)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(e)pyrene	252	NA	0	10.0	50.0	ND
Benzo(a)pyrene (CCC)	252	NA	0	10.0	50.0	ND
Perylene	252	NA	0	10.0	50.0	ND
3-Methylcholanthrene	268	NA	0	10.0	50.0	ND
Indeno(1,2,3-cd)pyrene	276	NA	0	10.0	50.0	ND
Dibenz(a,h)anthracene	278	NA	0	10.0	50.0	ND
Benzo(g,h,i)perylene	276	NA	0	10.0	50.0	ND
Dibenzo(a,e)pyrene	302	NA	0	10.0	50.0	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.06	10,662	400	N/A		
Naphthalene-d8 (I)	136	7.56	28,104	400	N/A		
Acenaphthene-d10 (I)	164	10.4	12,160	400	N/A		
Phenanthrene-d10 (I)	188	13.3	47,420	400	N/A		
Chrysene-d12 (I)	240	18.7	34,318	400	N/A		
Perylene-d12 (I)	264	21.5	953	400	N/A		
Fluorene-d10 (surr)	176	11.4	25,525	795	133	3000	FAIL
Pyrene-d10 (surr)	212	16.2	27,263	230	38.3	3000	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.06	6.06	9,340	10,662	Pass
Naphthalene-d8 (I)	7.56	7.56	21,164	28,104	Pass
Acenaphthene-d10 (I)	10.46	10.45	14,676	12,160	Pass
Phenanthrene-d10 (I)	13.35	13.34	25,569	47,420	Pass
Chrysene-d12 (I)	18.74	18.74	27,641	34,318	Pass
Perylene-d12 (I)	21.48	21.48	16,815	953	Fail

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 1 LD**
Data File: W1101602.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ng/mL)	Catch Weight (ng)	Flags	% Diff
Naphthalene	128	7.59	38,464	537	2,683		0.1
2-Methylnaphthalene	142	8.62	2,013	39.5	197		5.6
1-Methylnaphthalene	142	8.78	720	14.6	73.1		3.6
Acenaphthylene	152	NA	0	10.0	50.0	ND	0.0
Acenaphthene (CCC)	154	NA	0	10.0	50.0	ND	0.0
Fluorene	166	11.5	513	13.4	67.1		3.4
Phenanthrene	178	13.4	1,575	13.6	67.8		1.0
Anthracene	178	NA	0	10.0	50.0	ND	0.0
Fluoranthene (CCC)	202	NA	0	10.0	50.0	ND	0.0
Pyrene	202	NA	0	10.0	50.0	ND	0.0
Benzo(a)anthracene	228	NA	0	10.0	50.0	ND	0.0
Chrysene	228	NA	0	10.0	50.0	ND	0.0
7,12-Dimethylbenz(a)anthracene	256	NA	0	10.0	50.0	ND	0.0
Benzo(b)fluoranthene	252	NA	0	10.0	50.0	ND	0.0
Benzo(k)fluoranthene	252	NA	0	10.0	50.0	ND	0.0
Benzo(e)pyrene	252	NA	0	10.0	50.0	ND	0.0
Benzo(a)pyrene (CCC)	252	NA	0	10.0	50.0	ND	0.0
Perylene	252	NA	0	10.0	50.0	ND	0.0
3-Methylcholanthrene	268	NA	0	10.0	50.0	ND	0.0
Indeno(1,2,3-cd)pyrene	276	NA	0	10.0	50.0	ND	0.0
Dibenz(a,h)anthracene	278	NA	0	10.0	50.0	ND	0.0
Benzo(g,h,i)perylene	276	NA	0	10.0	50.0	ND	0.0
Dibenzo(a,e)pyrene	302	NA	0	10.0	50.0	ND	0.0

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.06	13,026	400	N/A		
Naphthalene-d8 (I)	136	7.56	33,431	400	N/A		
Acenaphthene-d10 (I)	164	10.4	14,042	400	N/A		
Phenanthrene-d10 (I)	188	13.3	52,240	400	N/A		
Chrysene-d12 (I)	240	18.7	34,117	400	N/A		
Perylene-d12 (I)	264	21.5	1,443	400	N/A		
Fluorene-d10 (surr)	176	11.4	29,929	808	135	3000	FAIL
Pyrene-d10 (surr)	212	16.2	28,119	215	35.9	3000	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.06	6.06	9,340	13,026	Pass
Naphthalene-d8 (I)	7.56	7.56	21,164	33,431	Pass
Acenaphthene-d10 (I)	10.46	10.45	14,676	14,042	Pass
Phenanthrene-d10 (I)	13.35	13.34	25,569	52,240	Fail
Chrysene-d12 (I)	18.74	18.74	27,641	34,117	Pass
Perylene-d12 (I)	21.48	21.48	16,815	1,443	Fail

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 2**
Data File: W1101603.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ng/mL)	Catch Weight (ng)	Flags
Naphthalene	128	7.59	30,661	516	2,580	
2-Methylnaphthalene	142	8.62	1,314	31.1	155	
1-Methylnaphthalene	142	8.78	472	11.6	57.8	
Acenaphthylene	152	NA	0	10.0	50.0	ND
Acenaphthene (CCC)	154	NA	0	10.0	50.0	ND
Fluorene	166	11.5	404	14.9	74.5	
Phenanthrene	178	13.4	1,197	12.5	62.4	
Anthracene	178	NA	0	10.0	50.0	ND
Fluoranthene (CCC)	202	NA	0	10.0	50.0	ND
Pyrene	202	NA	0	10.0	50.0	ND
Benzo(a)anthracene	228	NA	0	10.0	50.0	ND
Chrysene	228	NA	0	10.0	50.0	ND
7,12-Dimethylbenz(a)anthracene	256	NA	0	10.0	50.0	ND
Benzo(b)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(k)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(e)pyrene	252	NA	0	10.0	50.0	ND
Benzo(a)pyrene (CCC)	252	NA	0	10.0	50.0	ND
Perylene	252	NA	0	10.0	50.0	ND
3-Methylcholanthrene	268	NA	0	10.0	50.0	ND
Indeno(1,2,3-cd)pyrene	276	NA	0	10.0	50.0	ND
Dibenz(a,h)anthracene	278	NA	0	10.0	50.0	ND
Benzo(g,h,i)perylene	276	NA	0	10.0	50.0	ND
Dibenzo(a,e)pyrene	302	NA	0	10.0	50.0	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.06	11,186	400	N/A		
Naphthalene-d8 (I)	136	7.56	27,709	400	N/A		
Acenaphthene-d10 (I)	164	10.4	9,967	400	N/A		
Phenanthrene-d10 (I)	188	13.3	43,133	400	N/A		
Chrysene-d12 (I)	240	18.7	33,164	400	N/A		
Perylene-d12 (I)	264	21.5	1,354	400	N/A		
Fluorene-d10 (surr)	176	11.4	26,353	1,002	167	3000	FAIL
Pyrene-d10 (surr)	212	16.2	21,822	202	33.7	3000	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.06	6.06	9,340	11,186	Pass
Naphthalene-d8 (I)	7.56	7.56	21,164	27,709	Pass
Acenaphthene-d10 (I)	10.46	10.45	14,676	9,967	Pass
Phenanthrene-d10 (I)	13.35	13.34	25,569	43,133	Pass
Chrysene-d12 (I)	18.74	18.74	27,641	33,164	Pass
Perylene-d12 (I)	21.48	21.48	16,815	1,354	Fail

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **RUN 3**
Data File: W1101604.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ng/mL)	Catch Weight (ng)	Flags
Naphthalene	128	7.58	26,483	378	1,889	
2-Methylnaphthalene	142	8.62	1,357	27.2	136	
1-Methylnaphthalene	142	8.78	655	13.6	68.0	
Acenaphthylene	152	NA	0	10.0	50.0	ND
Acenaphthene (CCC)	154	NA	0	10.0	50.0	ND
Fluorene	166	11.5	945	20.1	100	
Phenanthrene	178	13.4	1,245	10.3	51.4	
Anthracene	178	NA	0	10.0	50.0	ND
Fluoranthene (CCC)	202	NA	0	10.0	50.0	ND
Pyrene	202	NA	0	10.0	50.0	ND
Benzo(a)anthracene	228	NA	0	10.0	50.0	ND
Chrysene	228	NA	0	10.0	50.0	ND
7,12-Dimethylbenz(a)anthracene	256	NA	0	10.0	50.0	ND
Benzo(b)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(k)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(e)pyrene	252	NA	0	10.0	50.0	ND
Benzo(a)pyrene (CCC)	252	NA	0	10.0	50.0	ND
Perylene	252	NA	0	10.0	50.0	ND
3-Methylcholanthrene	268	NA	0	10.0	50.0	ND
Indeno(1,2,3-cd)pyrene	276	NA	0	10.0	50.0	ND
Dibenz(a,h)anthracene	278	NA	0	10.0	50.0	ND
Benzo(g,h,i)perylene	276	NA	0	10.0	50.0	ND
Dibenzo(a,e)pyrene	302	NA	0	10.0	50.0	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.06	13,106	400	N/A		
Naphthalene-d8 (I)	136	7.56	32,697	400	N/A		
Acenaphthene-d10 (I)	164	10.4	17,311	400	N/A		
Phenanthrene-d10 (I)	188	13.3	54,442	400	N/A		
Chrysene-d12 (I)	240	18.7	39,687	400	N/A		
Perylene-d12 (I)	264	21.5	7,973	400	N/A		
Fluorene-d10 (surr)	176	11.4	24,999	547	137	2000	FAIL
Pyrene-d10 (surr)	212	16.2	50,363	370	92.5	2000	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.06	6.06	9,340	13,106	Pass
Naphthalene-d8 (I)	7.56	7.56	21,164	32,697	Pass
Acenaphthene-d10 (I)	10.46	10.45	14,676	17,311	Pass
Phenanthrene-d10 (I)	13.35	13.34	25,569	54,442	Fail
Chrysene-d12 (I)	18.74	18.74	27,641	39,687	Pass
Perylene-d12 (I)	21.48	21.48	16,815	7,973	Fail

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **FIELD BLANK**
Data File: W1101593.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ng/mL)	Catch Weight (ng)	Flags
Naphthalene	128	7.59	15,022	351	1,755	
2-Methylnaphthalene	142	8.62	774	25.4	127	
1-Methylnaphthalene	142	8.79	333	11.3	56.6	
Acenaphthylene	152	NA	0	10.0	50.0	ND
Acenaphthene (CCC)	154	NA	0	10.0	50.0	ND
Fluorene	166	NA	0	10.0	50.0	ND
Phenanthrene	178	NA	0	10.0	50.0	ND
Anthracene	178	NA	0	10.0	50.0	ND
Fluoranthene (CCC)	202	NA	0	10.0	50.0	ND
Pyrene	202	NA	0	10.0	50.0	ND
Benzo(a)anthracene	228	NA	0	10.0	50.0	ND
Chrysene	228	NA	0	10.0	50.0	ND
7,12-Dimethylbenz(a)anthracene	256	NA	0	10.0	50.0	ND
Benzo(b)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(k)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(e)pyrene	252	NA	0	10.0	50.0	ND
Benzo(a)pyrene (CCC)	252	NA	0	10.0	50.0	ND
Perylene	252	NA	0	10.0	50.0	ND
3-Methylcholanthrene	268	NA	0	10.0	50.0	ND
Indeno(1,2,3-cd)pyrene	276	NA	0	10.0	50.0	ND
Dibenz(a,h)anthracene	278	NA	0	10.0	50.0	ND
Benzo(g,h,i)perylene	276	NA	0	10.0	50.0	ND
Dibenzo(a,e)pyrene	302	NA	0	10.0	50.0	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.06	8,419	400	N/A		
Naphthalene-d8 (I)	136	7.56	19,956	400	N/A		
Acenaphthene-d10 (I)	164	10.5	11,815	400	N/A		
Phenanthrene-d10 (I)	188	13.3	29,512	400	N/A		
Chrysene-d12 (I)	240	18.7	28,744	400	N/A		
Perylene-d12 (I)	264	21.5	15,308	400	N/A		
Fluorene-d10 (surr)	176	11.4	14,449	463	77.2	3000	PASS
Pyrene-d10 (surr)	212	16.2	37,400	507	84.5	3000	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.06	6.06	9,340	8,419	Pass
Naphthalene-d8 (I)	7.56	7.56	21,164	19,956	Pass
Acenaphthene-d10 (I)	10.46	10.45	14,676	11,815	Pass
Phenanthrene-d10 (I)	13.35	13.34	25,569	29,512	Pass
Chrysene-d12 (I)	18.74	18.74	27,641	28,744	Pass
Perylene-d12 (I)	21.48	21.47	16,815	15,308	Pass

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **REAGENT BLANK**
Data File: W1101594.D
Tank/Misc ID: 0611-23

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ng/mL)	Catch Weight (ng)	Flags
Naphthalene	128	7.59	36,445	585	2,927	
2-Methylnaphthalene	142	8.62	994	22.4	112	
1-Methylnaphthalene	142	NA	0	10.0	50.0	ND
Acenaphthylene	152	NA	0	10.0	50.0	ND
Acenaphthene (CCC)	154	NA	0	10.0	50.0	ND
Fluorene	166	11.5	512	11.7	58.4	
Phenanthrene	178	NA	0	10.0	50.0	ND
Anthracene	178	NA	0	10.0	50.0	ND
Fluoranthene (CCC)	202	NA	0	10.0	50.0	ND
Pyrene	202	NA	0	10.0	50.0	ND
Benzo(a)anthracene	228	NA	0	10.0	50.0	ND
Chrysene	228	NA	0	10.0	50.0	ND
7,12-Dimethylbenz(a)anthracene	256	NA	0	10.0	50.0	ND
Benzo(b)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(k)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(e)pyrene	252	NA	0	10.0	50.0	ND
Benzo(a)pyrene (CCC)	252	NA	0	10.0	50.0	ND
Perylene	252	NA	0	10.0	50.0	ND
3-Methylcholanthrene	268	NA	0	10.0	50.0	ND
Indeno(1,2,3-cd)pyrene	276	NA	0	10.0	50.0	ND
Dibenz(a,h)anthracene	278	NA	0	10.0	50.0	ND
Benzo(g,h,i)perylene	276	NA	0	10.0	50.0	ND
Dibenzo(a,e)pyrene	302	NA	0	10.0	50.0	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.06	11,644	400	N/A		
Naphthalene-d8 (I)	136	7.56	29,032	400	N/A		
Acenaphthene-d10 (I)	164	10.5	16,103	400	N/A		
Phenanthrene-d10 (I)	188	13.3	33,922	400	N/A		
Chrysene-d12 (I)	240	18.7	30,511	400	N/A		
Perylene-d12 (I)	264	21.5	14,955	400	N/A		
Fluorene-d10 (surr)	176	11.4	18,778	442	110	2000	FAIL
Pyrene-d10 (surr)	212	16.2	42,597	502	126	2000	FAIL

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.06	6.06	9,340	11,644	Pass
Naphthalene-d8 (I)	7.56	7.56	21,164	29,032	Pass
Acenaphthene-d10 (I)	10.46	10.45	14,676	16,103	Pass
Phenanthrene-d10 (I)	13.35	13.34	25,569	33,922	Pass
Chrysene-d12 (I)	18.74	18.74	27,641	30,511	Pass
Perylene-d12 (I)	21.48	21.47	16,815	14,955	Pass

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **0611-14/23 MB**
Data File: W1101592.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ng/mL)	Catch Weight (ng)	Flags
Naphthalene	128	7.59	14,213	396	1,978	
2-Methylnaphthalene	142	8.62	352	13.8	68.9	
1-Methylnaphthalene	142	NA	0	10.0	50.0	ND
Acenaphthylene	152	NA	0	10.0	50.0	ND
Acenaphthene (CCC)	154	NA	0	10.0	50.0	ND
Fluorene	166	NA	0	10.0	50.0	ND
Phenanthrene	178	NA	0	10.0	50.0	ND
Anthracene	178	NA	0	10.0	50.0	ND
Fluoranthene (CCC)	202	NA	0	10.0	50.0	ND
Pyrene	202	NA	0	10.0	50.0	ND
Benzo(a)anthracene	228	NA	0	10.0	50.0	ND
Chrysene	228	NA	0	10.0	50.0	ND
7,12-Dimethylbenz(a)anthracene	256	NA	0	10.0	50.0	ND
Benzo(b)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(k)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(e)pyrene	252	NA	0	10.0	50.0	ND
Benzo(a)pyrene (CCC)	252	NA	0	10.0	50.0	ND
Perylene	252	NA	0	10.0	50.0	ND
3-Methylcholanthrene	268	NA	0	10.0	50.0	ND
Indeno(1,2,3-cd)pyrene	276	NA	0	10.0	50.0	ND
Dibenz(a,h)anthracene	278	NA	0	10.0	50.0	ND
Benzo(g,h,i)perylene	276	NA	0	10.0	50.0	ND
Dibenzo(a,e)pyrene	302	NA	0	10.0	50.0	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.06	7,174	400	N/A		
Naphthalene-d8 (I)	136	7.56	16,759	400	N/A		
Acenaphthene-d10 (I)	164	10.5	11,408	400	N/A		
Phenanthrene-d10 (I)	188	13.3	22,300	400	N/A		
Chrysene-d12 (I)	240	18.7	20,737	400	N/A		
Perylene-d12 (I)	264	21.5	11,927	400	N/A		
Fluorene-d10 (surr)	176	11.4	17,807	592	73.9	4000	PASS
Pyrene-d10 (surr)	212	16.2	37,586	674	84.3	4000	PASS

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.06	6.06	9,340	7,174	Pass
Naphthalene-d8 (I)	7.56	7.56	21,164	16,759	Pass
Acenaphthene-d10 (I)	10.46	10.45	14,676	11,408	Pass
Phenanthrene-d10 (I)	13.35	13.34	25,569	22,300	Pass
Chrysene-d12 (I)	18.74	18.74	27,641	20,737	Pass
Perylene-d12 (I)	21.48	21.47	16,815	11,927	Pass

Company	URS Corp - Austin
Analyst	TDD
Parameters	EPA Method 8270C
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	8/14/2011

Sample ID: **CH2Cl2 SIM BLK**
Data File: W1101591.D
Tank/Misc ID:

DF: 1.00
Aliquot Factor: 1.00
Extraction Vol (mL): 5.00
ConCal 1

Compound	Quant	Ret. Time (min)	Area	Conc. (ng/mL)	Catch Weight (ng)	Flags
Naphthalene	128	NA	0	10.0	50.0	ND
2-Methylnaphthalene	142	NA	0	10.0	50.0	ND
1-Methylnaphthalene	142	NA	0	10.0	50.0	ND
Acenaphthylene	152	NA	0	10.0	50.0	ND
Acenaphthene (CCC)	154	NA	0	10.0	50.0	ND
Fluorene	166	NA	0	10.0	50.0	ND
Phenanthrene	178	NA	0	10.0	50.0	ND
Anthracene	178	NA	0	10.0	50.0	ND
Fluoranthene (CCC)	202	NA	0	10.0	50.0	ND
Pyrene	202	NA	0	10.0	50.0	ND
Benzo(a)anthracene	228	NA	0	10.0	50.0	ND
Chrysene	228	NA	0	10.0	50.0	ND
7,12-Dimethylbenz(a)anthracene	256	NA	0	10.0	50.0	ND
Benzo(b)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(k)fluoranthene	252	NA	0	10.0	50.0	ND
Benzo(e)pyrene	252	NA	0	10.0	50.0	ND
Benzo(a)pyrene (CCC)	252	NA	0	10.0	50.0	ND
Perylene	252	NA	0	10.0	50.0	ND
3-Methylcholanthrene	268	NA	0	10.0	50.0	ND
Indeno(1,2,3-cd)pyrene	276	NA	0	10.0	50.0	ND
Dibenz(a,h)anthracene	278	NA	0	10.0	50.0	ND
Benzo(g,h,i)perylene	276	NA	0	10.0	50.0	ND
Dibenzo(a,e)pyrene	302	NA	0	10.0	50.0	ND

					Rec. (%)	Spk Amt	Flags
1,4-Dichlorobenzene-d4 (I)	152	6.06	7,438	400	N/A		
Naphthalene-d8 (I)	136	7.57	16,533	400	N/A		
Acenaphthene-d10 (I)	164	10.5	12,145	400	N/A		
Phenanthrene-d10 (I)	188	13.3	19,080	400	N/A		
Chrysene-d12 (I)	240	18.7	13,589	400	N/A		
Perylene-d12 (I)	264	21.5	9,029	400	N/A		

Internal Standard Acceptance Criteria (Area -50%/+100%, RT +/- 30 sec.)

Internal Standard Name	Concal RT	Sample RT	Concal IS Area	Sample IS Area	Flag
1,4-Dichlorobenzene-d4 (I)	6.06	6.06	9,340	7,438	Pass
Naphthalene-d8 (I)	7.56	7.57	21,164	16,533	Pass
Acenaphthene-d10 (I)	10.46	10.46	14,676	12,145	Pass
Phenanthrene-d10 (I)	13.35	13.35	25,569	19,080	Pass
Chrysene-d12 (I)	18.74	18.74	27,641	13,589	Fail
Perylene-d12 (I)	21.48	21.48	16,815	9,029	Pass

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	URS Corp. - Austin
Analyst	TDD
Parameters	EPA SW-846 Method 8270C (SV)
# Samples	3 Runs & 2 Blanks

Client #	40942312
Job #	0611-23
PO #	251266.US
Report Date	August 15, 2011

Custody

Heather Tarjeft received all but six of the samples on 7/5/11 after being relinquished by URS Corp. - Austin. The samples were received at 22.2°C and good condition. One of the six samples was received on 7/6/11, and the remaining five samples were received on 7/7/11. These six samples were all received by Lindsey Chatterton. Additional copies of the original Chain of Custody pages are included in the custody section, showing which sampe was received on which date. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.

Analysis

The samples were analyzed for Polyaromatic Hydrocarbons (PAHs) by Selected Ion Monitoring (SIM) and for Semi-Volatile ICR target analytes by scan using the analytical procedures in EPA SW-846 Method 8270C, *Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)*.

The Agilent Technologies Model 6890N, Gas Chromatograph ("Wiley" S/N CN10244010) was equipped with a 5973N Mass Selective Detector and a Restek Rxi-5Sil MS, 30 m x 0.25 mm x 0.5 µm (SN 1040180) capillary column for these analyses.

Each sample train consisted of nine fractions: Filter, Acetone Probe Rinse, Methylene chloride Probe Rinse, XAD-2 Trap, Acetone Condenser Rinse, Methylene chloride Condenser Rinse, Impinger, Acetone Impinger Rinse, and Methylene chloride Impinger Rinse. The Field Blank consisted of eight fractions and the Reagent Blank consisted of five fractions. There was no Impinger received for the Field Blank and one set of acetone and methylene chloride reagent was received for the Reagent Blank. The Filter, XAD-2 Trap contents, Probe Rinses, and Condenser Rinses for each sample run were combined and soxhlet extracted. The Impinger was separatory funnel extracted. Additional acetone and methylene chloride rinses were combined at the KD step.

Prior to sample collection, the XAD-2 traps were spiked with a BN Surrogate Mix that consisted of 100 µg of nitrobenzene-d_5, 2-fluorobiphenyl, and terphenyl-d_{14}.

Enthalpy Analytical Narrative Summary
(continued)

Analysis (continued)	For samples ***Run 1***, ***Run 2***, and ***Field Blank***, each Filter/XAD-2 and COND was spiked with 50 µg of the acid extraction surrogates (2-fluorophenol, phenol-d_5, and 2,4,6-tribromophenol) and with 3 µg of the SIM PAH extraction surrogates (fluorene-d_{10} and pyrene-d_{10}). For samples ***Run 3*** and ***Reagent Blank***, each Filter/XAD-2 and COND was spiked with 100 µg of the acid extraction surrogates (2-fluorophenol, phenol-d_5, and 2,4,6-tribromophenol) and with 2 µg of the SIM PAH extraction surrogates (fluorene-d_{10} and pyrene-d_{10}). For the ***MB*** and QC samples, each Filter/XAD-2 and COND was spiked with no acid extraction surrogates (2-fluorophenol, phenol-d_5, and 2,4,6-tribromophenol) and with 4 µg of the SIM PAH extraction surrogates (fluorene-d_{10} and pyrene-d_{10}). Each filter/XAD-2 fraction was Soxhlet extracted for 18 hours. The FH and BH rinse fractions were added to the flat bottom flask and used to extract the corresponding filter/XAD-2 fractions. The Impinger fractions were Separatory funnel extracted with methylene chloride. Each impinger extract and remaining rinses fractions were combined with the corresponding Filter/XAD-2 extract and concentrated to a 5 mL final volume. Laboratory method blanks and Laboratory Control Samples (LCSs) were prepared and analyzed with these samples. These laboratory QC samples were spiked as noted above.A 100 µL aliquot of each sample extract was spiked with SVOA internal standard spiking solution such that the final concentration of the internal standards were 40 µg/mL, prior to scan analyses and 400ng/mL, prior to SIM analysis.
Calibration	All analytes met the 15% mean RSD initial calibration requirements. All SPCC and CCC criteria were met in the initial and continuing calibrations. All other compounds in the continuing calibration met the 50% difference in-house requirements.retention time) and quantify each target compound. None of the calibration data is included in the report to provide the client the requested type of data package. All the data is available upon request.
Chromatographic Conditions	The acquisition methods M8270SCN.m, PAHSIM.m, and DFTPP-1.m are available upon request but have not been included in this report as noted above.

Enthalpy Analytical Narrative Summary
(continued)

QC Notes	Perylene-d12 internal standard response was low for samples ***Run 1***, ***Run 2***, and ***Run 3*** in the Scan and SIM analyses. Phenanthrene-d10 internal standard response was high for sample ***Run 1 LD*** and ***Run 3*** in the SIM analyses. All other internal standard responses met QC criteria, except chrysene-d10 response was low in the associated methylene chloride SIM system blank. All surrogates met QC criteria in the Scan analysis. Fluorene-d10 surrogate recoveries were high in samples ***Run 1***, ***Run 2***, and ***Run 3*** for the SIM analysis. Fluorene-d10 and pyrene-d10 surrogate recoveries were high for the ***Reagent Blank*** sample in the SIM analysis. A second aliquot of sample ***Run 1*** was analyzed as a lab duplicate and confirmed failing QC. A second aliquot of sample ***Run 3*** was prepared as a lab duplicate for the scan analysis and sample ***Run 1*** was prepared as a lab duplicate for the SIM analysis. The QC duplicate analysis criterion of <20% difference was met for all analytes, except benzoic acid in the scan analysis at 54.6%. The LCSs were spiked with each analyte of interest and analyzed with these samples. The spiked compounds exhibited recovery values within acceptance limits, except for pyridine and aniline in ***LCS-1***, and a,a-dimethylphenethylamine, 1,4-phenylenediamine, benzidine, 3,3-dimethylbenzidine, 3,3-dimethoxybenzidine, and 3,3-dichlorobenzidine in both ***LCS-1*** and ***LCS-2***. All sample preparation and analytical holding times specified in the method were met.
Reporting Notes	All final results are reported as total 'Catch weight' values. The reporting units are ***µg*** for all scan analyses and ***ng*** for all SIM analyses. The results presented in this report are representative of the samples as provided to the laboratory.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc. data reports, unless specifically noted otherwise.

- The acronym ***MDL*** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym ***LOQ*** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym ***ND*** following a value indicates a non-detect or analytical result below the MDL.
- The letter ***J*** following a value indicates an analytical result between the MDL and the LOQ. A J flag indicates that the laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter ***E*** following a value indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- The acronym ***DF*** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of ***MS*** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. This shows what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).
- The addition of ***MSD*** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as an MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of ***LD*** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of ***AD*** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.
- The Sample ID ***LCS*** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two extra spikes are prepared. The extras (randomly chosen) are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection and/or sample transport.

General Reporting Notes

(continued)

- **Significant Figures**: Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits.
- **Manual Integration**: The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations. The peak was ***not integrated*** by the software **"NI"**, the peak was ***integrated incorrectly*** by the software **"II"** or the ***wrong peak*** was integrated by the software **"WP"**. These codes will accompany the analyst's manual integration stamp placed next to the compound name.

Sample Custody

URS

Chain of Custody Record

Page 1 of 1

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M0010-PNR-Ace	PNR - Acetone	6/27/11 1340	X					17	
CHV-Stk-ICR1-M0010-PNR-MeCl	PNR - Methylene Chloride		X					18	
CHV-Stk-ICR1-M0010-Filt	DUR Filter HLT 7/5/11		X					17	
CHV-Stk-ICR1-M0010-CR-Ace	Condenser Rns - Acetone		X					17	
CHV-Stk-ICR1-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					18	
CHV-Stk-ICR1-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICR1-M0010-CondA	Condensate - Bottle A		X					20	
CHV-Stk-ICR1-M0010-CondB	Condensate - Bottle B								
CHV-Stk-ICR1-M0010-IR-Ace	Impinger Rinse - Acetone		X					17	
CHV-Stk-ICR1-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride		X					18	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	11:15AM						22.2C Bag/Bk

Seal #	Condition
	Good

Remarks

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M0010-PNR-Ace	PNR - Acetone	6/28/11 1533	X					17	
CHV-Stk-ICR2-M0010-PNR-MeCl	PNR - Methylene Chloride		X					18	
CHV-Stk-ICR2-M0010-Filt	Filter DNR HUT 6/5/11		X					17	
CHV-Stk-ICR2-M0010-CR-Ace	Condenser Rns - Acetone		X					17	
CHV-Stk-ICR2-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					18	
CHV-Stk-ICR2-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICR2-M0010-CondA	Condensate - Bottle A		X					20	
CHV-Stk-ICR2-M0010-CondB	Condensate - Bottle B								
CHV-Stk-ICR2-M0010-IR-Ace	Impinger Rinse - Acetone		X					17	
CHV-Stk-ICR2-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride		X					18	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	11:18am						22.2°C Packet gun #2

Seal #	Condition
	Good

Remarks

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M0010-PNR-Ace	PNR - Acetone	6/29/11 1321	X					17	
CHV-Stk-ICR3-M0010-PNR-MeCl	PNR - Methylene Chloride		X					18	
CHV-Stk-ICR3-M0010-Filt	Filter DNR HLT 7/5/11		X					17	
CHV-Stk-ICR3-M0010-CR-Ace	Condenser Rns - Acetone		X					17	
CHV-Stk-ICR3-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					18	
CHV-Stk-ICR3-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICR3-M0010-CondA	Condensate - Bottle A		X					22	
CHV-Stk-ICR3-M0010-CondB	Condensate - Bottle B								
CHV-Stk-ICR3-M0010-IR-Ace	Impinger Rinse - Acetone		X					17	
CHV-Stk-ICR3-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride		X					18	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	11:18						22.2°C Ranges 2

Seal #	Condition
	Good

Remarks:

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M0010-PNR-Ace	PNR - Acetone	6/28/11 1927	X					21	
CHV-Stk-ICRFB-M0010-PNR-MeCl	PNR - Methylene Chloride		X					20	
CHV-Stk-ICRFB-M0010-Filt	Filter DNR HLT 7/5/11		X					17	
CHV-Stk-ICRFB-M0010-CR-Ace	Condenser Rns - Acetone		X					21	
CHV-Stk-ICRFB-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					20	
CHV-Stk-ICRFB-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICRFB-M0010-Cond	Condensate								
CHV-Stk-ICRFB-M0010-IR-Ace	Impinger Rinse - Acetone		X					21	
CHV-Stk-ICRFB-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride		X					20	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
[signature]	7/5/11	11:18am						22.2°C Raytek gun#2

Seal #	Condition
	Good

Remarks

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M0010-Filt	Filter DUR HLT 7/5/11	6/29/11 1830	X					17	
CHV-Stk-ICRRB-M0010-XAD	XAD Sorbent Cartridge	↓	X					17	
CHV-Stk-ICRRB-M0010-Ace	Acetone	6/30/11 1030	X					21	
CHV-Stk-ICRRB-M0010-MeCl	Methylene Chloride	↓	X					20	
CHV-Stk-ICRRB-M0010-Water	Water DUR MS 7/5/11	↓	X					24	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp. (C)
[signature]	7/5/11	11:18am						22.2°C Reyfek

Seal #	Condition
	Good

Remarks

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M0010-Filt	Filter DNR MCT 7/5/11	6/29/11 1830	X					17	
CHV-Stk-ICRRB-M0010-XAD	XAD Sorbent Cartridge	↓	X					17	
CHV-Stk-ICRRB-M0010-Ace	Acetone	6/30/11 1030	X					21	
CHV-Stk-ICRRB-M0010-MeCl	Methylene Chloride	↓	X					20	
CHV-Stk-ICRRB-M0010-Water	Water DNR MCT 7/5/11	↓	X					24	← Received on 7/6/11 LMC

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

[redacted]

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M0010-PNR-Ace	PNR - Acetone	6/27/11 1340	X					17	
CHV-Stk-ICR1-M0010-PNR-MeCl	PNR - Methylene Chloride		X					18	
CHV-Stk-ICR1-M0010-Filt	Filter DUR HLT 7/5/11		X					17	← Received @ LMC 7/7/11
CHV-Stk-ICR1-M0010-CR-Ace	Condenser Rns - Acetone		X					17	
CHV-Stk-ICR1-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					18	
CHV-Stk-ICR1-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICR1-M0010-CondA	Condensate - Bottle A		X					20	
CHV-Stk-ICR1-M0010-CondB	Condensate - Bottle B								
CHV-Stk-ICR1-M0010-IR-Ace	Impinger Rinse - Acetone		X					17	
CHV-Stk-ICR1-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride		X					18	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)
	7/5/11	11:15Am						3.2°C Ice pack

Seal #	Condition
	Good

Remarks

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M0010-PNR-Ace	PNR - Acetone	6/28/11 1533	X					17	
CHV-Stk-ICR2-M0010-PNR-MeCl	PNR - Methylene Chloride		X					18	
CHV-Stk-ICR2-M0010-Filt	Filter DNR, HDT 7/5/11		X					17	← Received on 7/7/11 LMC
CHV-Stk-ICR2-M0010-CR-Ace	Condenser Rns - Acetone		X					17	
CHV-Stk-ICR2-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					18	
CHV-Stk-ICR2-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICR2-M0010-CondA	Condensate - Bottle A		X					20	
CHV-Stk-ICR2-M0010-CondB	Condensate - Bottle B								
CHV-Stk-ICR2-M0010-IR-Ace	Impinger Rinse - Acetone		X					17	
CHV-Stk-ICR2-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride	↓	X					18	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[redacted]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			
[redacted]	7/5/11	[redacted]	Airbill No.	Opened by	Seal #	Date	Time	Temp °C 22.2°C Packed on Ice
Condition: Good								
[redacted]								

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M0010-PNR-Ace	PNR - Acetone	6/29/11 1321	X					17	
CHV-Stk-ICR3-M0010-PNR-MeCl	PNR - Methylene Chloride		X					18	
CHV-Stk-ICR3-M0010-Filt	Filter DNR-HLT 7/5/11		X					17	← Received on 7/7/11 LMC
CHV-Stk-ICR3-M0010-CR-Ace	Condenser Rns - Acetone		X					17	
CHV-Stk-ICR3-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					18	
CHV-Stk-ICR3-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICR3-M0010-CondA	Condensate - Bottle A		X					22	
CHV-Stk-ICR3-M0010-CondB	Condensate - Bottle B								
CHV-Stk-ICR3-M0010-IR-Ace	Impinger Rinse - Acetone		X					17	
CHV-Stk-ICR3-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride	↓	X					18	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #	Date	Time	Temp (°C)
[signature]	7/5/11	1112hrs						22.2°C Blank

Condition: Good

Remarks:

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M0010-PNR-Ace	PNR - Acetone	6/28/11 1927	X					21	
CHV-Stk-ICRFB-M0010-PNR-MeCl	PNR - Methylene Chloride		X					20	
CHV-Stk-ICRFB-M0010-Filt	Filter DNR 7/7/11		X					17	← Received on 7/7/11 LMC
CHV-Stk-ICRFB-M0010-CR-Ace	Condenser Rns - Acetone		X					21	
CHV-Stk-ICRFB-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					20	
CHV-Stk-ICRFB-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICRFB-M0010-Cond	Condensate								
CHV-Stk-ICRFB-M0010-IR-Ace	Impinger Rinse - Acetone		X					21	
CHV-Stk-ICRFB-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride		X					20	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (°C)
[signature]	7/5/11	1115am						24.2 Rad: 9.45

Seal #	Condition
	Good

Remarks:

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M0010-Filt	Filter DWR HLT 7/5/11	6/29/11 1830	X					17	← Received on 7/7/14 LMC
CHV-Stk-ICRRB-M0010-XAD	XAD Sorbent Cartridge	↓	X					17	
CHV-Stk-ICRRB-M0010-Ace	Acetone	6/30/11 1030	X					21	
CHV-Stk-ICRRB-M0010-MeCl	Methylene Chloride	↓	X					20	
CHV-Stk-ICRRB-M0010-Water	Water DWR 7/5/11	↓	X					24	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp °C
[signature]	7/5/11	1130am						0.2-2°C Packed on ice

Comments: Good

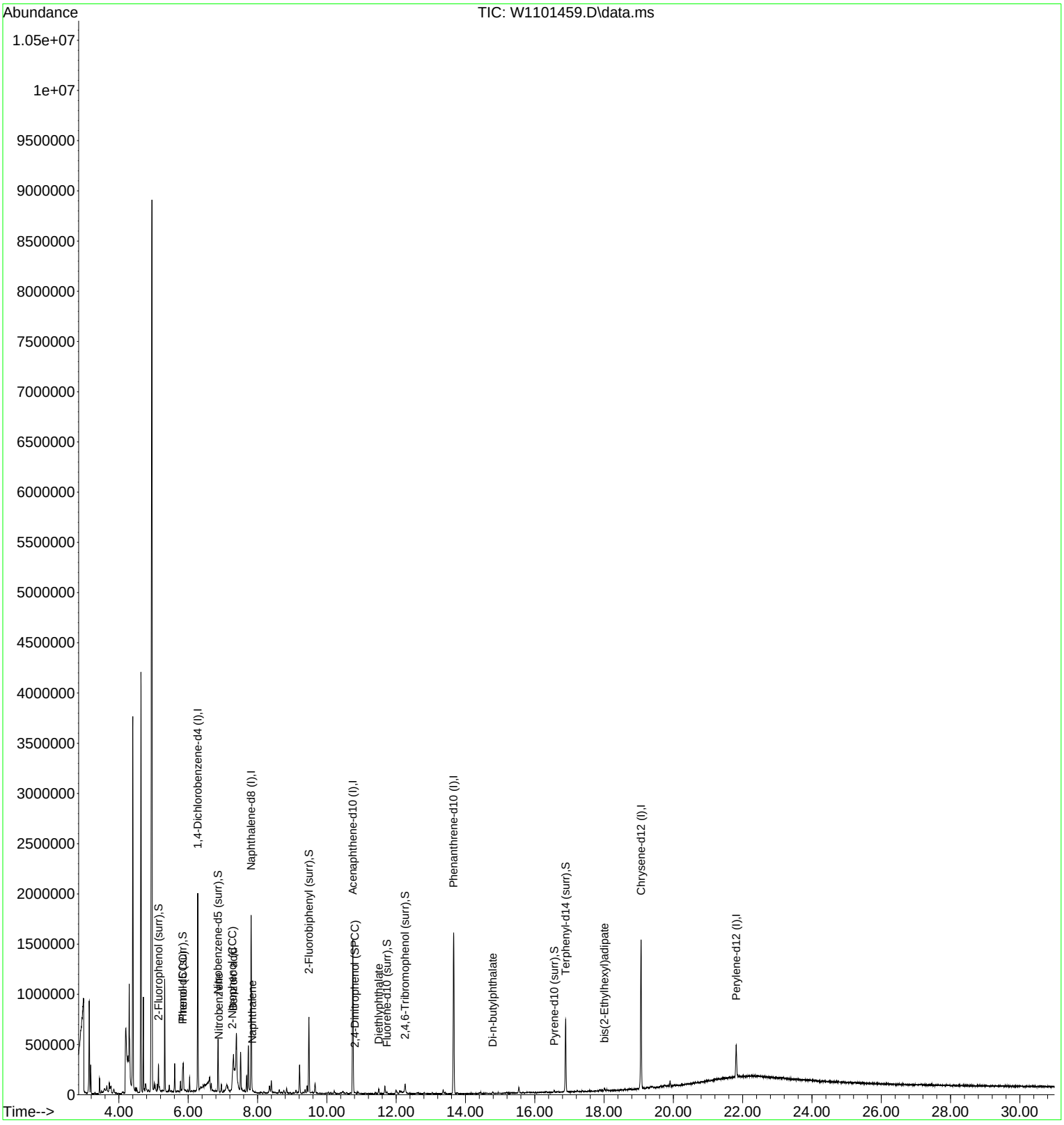
Log in Date	EA Job #	Client Sample ID	FV - ml	Enthalpy ID
7/5/2011	0611-23	ICR1-M0010-PNR-Ace		Run 1
7/5/2011	0611-23	ICR1-M0010-PNR-MeCl2		Run 1
7/5/2011	0611-23	ICR1-M0010-CR-Ace		Run 1
7/5/2011	0611-23	ICR1-M0010-CR-MeCl2		Run 1
7/5/2011	0611-23	ICR1-M0010-XAD		Run 1
7/5/2011	0611-23	ICR1-M0010-Cond A		Run 1
7/5/2011	0611-23	ICR1-M0010-IR-Ace		Run 1
7/5/2011	0611-23	ICR1-M0010-IR-MeCl2		Run 1
7/5/2011	0611-23	ICR2-M0010-PNR-Ace		Run 2
7/5/2011	0611-23	ICR2-M0010-PNR-MeCl2		Run 2
7/5/2011	0611-23	ICR2-M0010-CR-Ace		Run 2
7/5/2011	0611-23	ICR2-M0010-CR-MeCl2		Run 2
7/5/2011	0611-23	ICR2-M0010-XAD		Run 2
7/5/2011	0611-23	ICR2-M0010-Cond A		Run 2
7/5/2011	0611-23	ICR2-M0010-IR-Ace		Run 2
7/5/2011	0611-23	ICR2-M0010-IR-MeCl2		Run 2
7/5/2011	0611-23	ICR3-M0010-PNR-Ace		Run 3
7/5/2011	0611-23	ICR3-M0010-PNR-MeCl2		Run 3
7/5/2011	0611-23	ICR3-M0010-CR-Ace		Run 3
7/5/2011	0611-23	ICR3-M0010-CR-MeCl2		Run 3
7/5/2011	0611-23	ICR3-M0010-XAD		Run 3
7/5/2011	0611-23	ICR3-M0010-Cond A		Run 3
7/5/2011	0611-23	ICR3-M0010-IR-Ace		Run 3
7/5/2011	0611-23	ICR3-M0010-IR-MeCl2		Run 3
7/5/2011	0611-23	ICRFB-M0010-PNR-Ace		Field Blank
7/5/2011	0611-23	ICRFB-M0010-PNR-MeCl2		Field Blank
7/5/2011	0611-23	ICRFB-M0010-CR-Ace		Field Blank
7/5/2011	0611-23	ICRFB-M0010-CR-MeCl2		Field Blank
7/5/2011	0611-23	ICRFB-M0010-XAD		Field Blank
7/5/2011	0611-23	ICRFB-M0010-IR-Ace		Field Blank
7/5/2011	0611-23	ICRFB-M0010-IR-MeCl2		Field Blank
7/5/2011	0611-23	ICRRB-M0010-XAD		Reagent Blank
7/5/2011	0611-23	ICRRB-M0010-Ace		Reagent Blank
7/5/2011	0611-23	ICRRB-M0010-MeCl2		Reagent Blank
7/6/2011	0611-23	ICRRB-M0010-Water		Reagent Blank
7/7/2011	0611-23	ICR1-M0010-Filter		Reagent Blank
7/7/2011	0611-23	ICR2-M0010-Filter		Reagent Blank
7/7/2011	0611-23	ICR3-M0010-Filter		Reagent Blank
7/7/2011	0611-23	ICRFB-M0010-Filter		Reagent Blank
7/7/2011	0611-23	ICRRB-M0010-Filter		Reagent Blank

Sample Chromatograms (Scan)

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101459.D
Acq On : 13 Jul 2011 6:12 pm
Operator : tdd/lah
Sample : RUN 1
Misc : 0611-23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 14 06:52:09 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101459.D
Acq On : 13 Jul 2011 6:12 pm
Operator : tdd/lah
Sample : RUN 1
Misc : 0611-23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 14 06:52:09 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.275	152	317496	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.816	136	1011615	40.00	µg/mL	# 0.00
40) Acenaphthene-d10 (I)	10.750	164	564544	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.660	188	1042937	40.00	µg/mL	-0.01
83) Chrysene-d12 (I)	19.067	240	924815	40.00	µg/mL	-0.01
94) Perylene-d12 (I)	21.811	264	198955	40.00	µg/mL	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.142	112	64523	7.31	µg/mL	0.00
5) Phenol-d5 (surr)	5.837	99	67782	7.06	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.859	82	178373	19.02	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.485	172	343049	17.98	µg/mL	0.00
62) Fluorene-d10 (surr)	11.732	176	7302	0.50	µg/mL	-0.01
70) 2,4,6-Tribromophenol (...	12.258	330	12814	6.13	µg/mL	-0.01
80) Pyrene-d10 (surr)	16.560	212	10183	0.41	µg/mL	-0.01
82) Terphenyl-d14 (surr)	16.892	244	336861	19.01	µg/mL	-0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	d	
3) Pyridine	0.000		0	N.D.	d	
6) Phenol (CCC)	5.849	94	45052	4.53	µg/mL#	69
7) Aniline	0.000		0	N.D.	d	
8) bis(2-Chloroethyl)ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.	d	
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) bis(2-Chloroisopropyl)...	0.000		0	N.D.	d	
16) 3/4-Methylphenol	0.000		0	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		
18) o-Toluidine	0.000		0	N.D.	d	
19) Hexachloroethane	0.000		0	N.D.	d	
21) Nitrobenzene	6.879	77	11211	1.31	µg/mL#	59
23) Isophorone	0.000		0	N.D.	d	
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) 2-Nitrophenol (CCC)	7.274	139	8620	2.10	µg/mL#	54
26) Benzoic acid	7.302	105	120773	29.57	µg/mL	89
27) bis(2-Chloroethoxy)met...	0.000		0	N.D.	d	
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.		
29) a,a-Dimethylphenethyla...	0.000		0	N.D.		
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
31) Naphthalene	7.847	128	12523	0.48	µg/mL#	94
32) 4-Chloroaniline	0.000		0	N.D.	d	
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.		
34) Quinoline	0.000		0	N.D.		
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.		
37) 2-Methylnaphthalene	0.000		0	N.D.		
38) 1-Methylnaphthalene	0.000		0	N.D.		
39) Hexachlorocyclopentadi...	0.000		0	N.D.		
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.		
42) 2,4,5-Trichlorophenol	0.000		0	N.D.		
44) Biphenyl	0.000		0	N.D.	d	
45) 2-Chloronaphthalene	0.000		0	N.D.		
46) 2-Nitroaniline	0.000		0	N.D.		

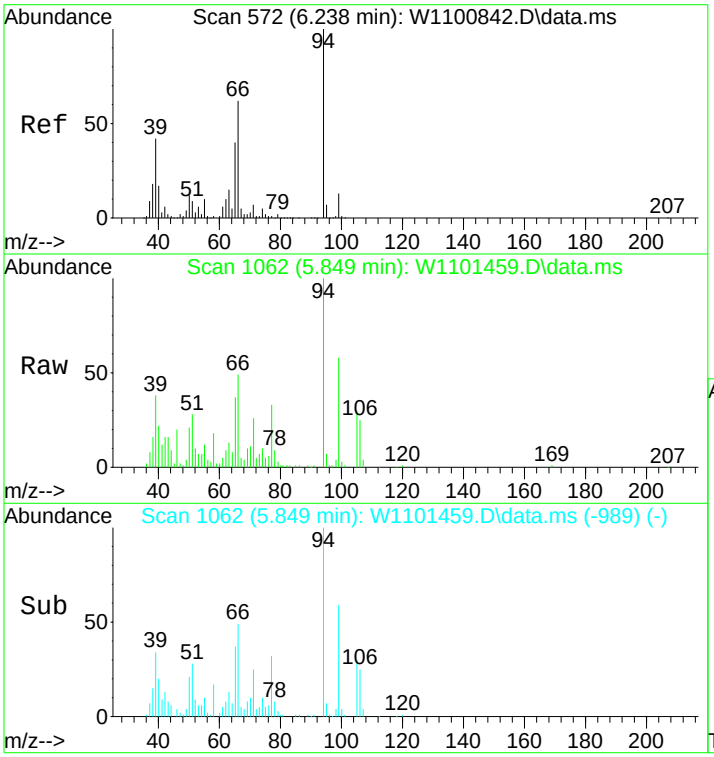
Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101459.D
Acq On : 13 Jul 2011 6:12 pm
Operator : tdd/lah
Sample : RUN 1
Misc : 0611-23
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 14 06:52:09 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.	
48) Dimethylphthalate	0.000		0	N.D.	
49) 1,3-Dinitrobenzene	0.000		0	N.D.	
50) 2,6-Dinitrotoluene	0.000		0	N.D.	
51) 1,2-Dinitrobenzene	0.000		0	N.D.	
52) Acenaphthylene	0.000		0	N.D.	
53) 3-Nitroaniline	0.000		0	N.D.	
54) Acenaphthene (CCC)	0.000		0	N.D. d	
55) 2,4-Dinitrophenol (SPCC)	10.807	184	1555	1.09 µg/mL#	28
56) 4-Nitrophenol (SPCC)	0.000		0	N.D. d	
57) 2,4-Dinitrotoluene	0.000		0	N.D.	
58) Dibenzofuran	0.000		0	N.D.	
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
61) Diethlyphthalate	11.497	149	25909	1.50 µg/mL	97
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.	
64) Fluorene	0.000		0	N.D.	
65) 4-Nitroaniline	0.000		0	N.D.	
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.	
67) N-Nitrosodiphenylamine...	0.000		0	N.D.	
68) Azobenzene	0.000		0	N.D. d	
71) 4-Bromophenyl-phenylether	0.000		0	N.D.	
72) Hexachlorobenzene	0.000		0	N.D.	
73) Pentachlorophenol (CCC)	0.000		0	N.D.	
74) Phenanthrene	0.000		0	N.D.	
75) Anthracene	0.000		0	N.D.	
76) Carbazole	0.000		0	N.D.	
77) Di-n-butylphthalate	14.786	149	10145	0.32 µg/mL#	77
78) Fluoranthene (CCC)	0.000		0	N.D.	
79) Benzidine	0.000		0	N.D.	
81) Pyrene	0.000		0	N.D.	
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.	
85) Butylbenzylphthalate	0.000		0	N.D. d	
86) 3,3-Dimethylbenzidine	0.000		0	N.D.	
87) bis(2-Ethylhexyl)adipate	18.008	129	6771	0.59 µg/mL#	82
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.	
89) bis(2-Ethylhexyl)phtha...	0.000		0	N.D. d	
90) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
91) Benzo(a)anthracene	0.000		0	N.D. d	
92) Chrysene	0.000		0	N.D. d	
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.	
95) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.	
96) Benzo(b)fluoranthene	0.000		0	N.D.	
97) Benzo(k)fluoranthene	0.000		0	N.D.	
98) Benzo(e)pyrene	0.000		0	N.D.	
99) Benzo(a)pyrene (CCC)	0.000		0	N.D.	
100) Perylene	0.000		0	N.D.	
101) 3-Methylcholanthrene	0.000		0	N.D.	
102) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
103) Dibenz(a,h)anthracene	0.000		0	N.D.	
104) Benzo(g,h,i)perylene	0.000		0	N.D.	
105) Dibenzo(a,e)pyrene	0.000		0	N.D.	

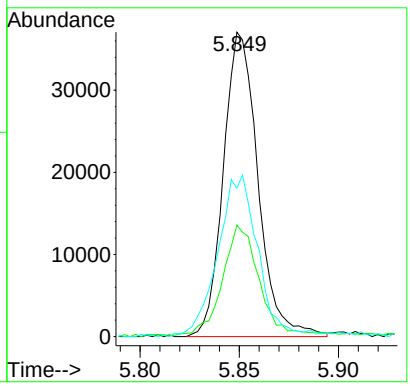
(#) = qualifier out of range (m) = manual integration (+) = signals summed

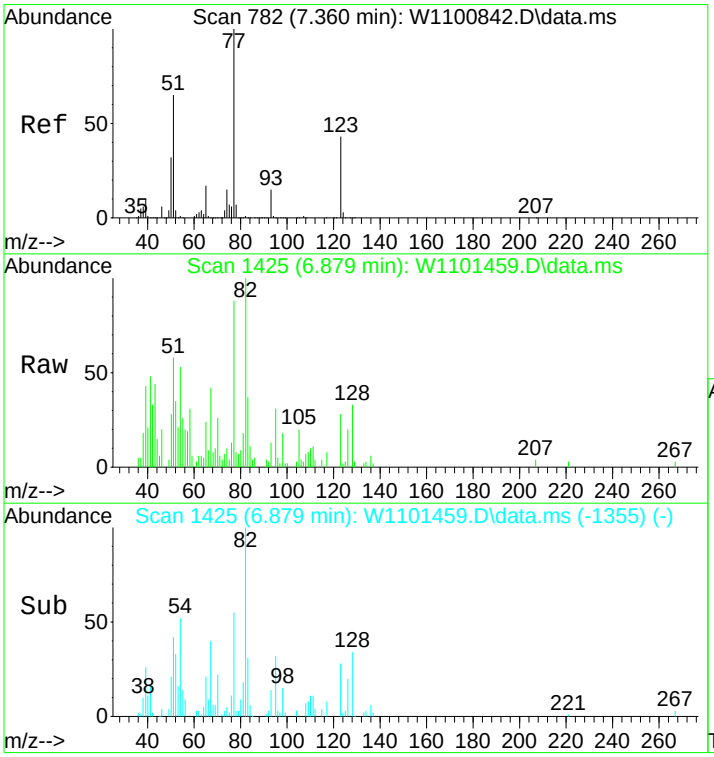


#6
Phenol (CCC)
Concen: 4.53 µg/mL
RT: 5.849 min Scan# 1062
Delta R.T. -0.000 min
Lab File: W1101459.D
Acq: 13 Jul 2011 6:12 pm

Tgt Ion: 94 Resp: 45052

Ion	Ratio	Lower	Upper
94	100		
65	37.3	22.7	34.1#
66	61.4	29.4	44.2#

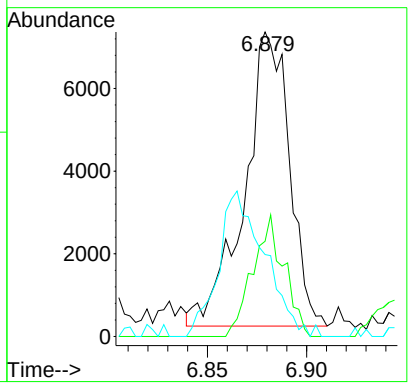


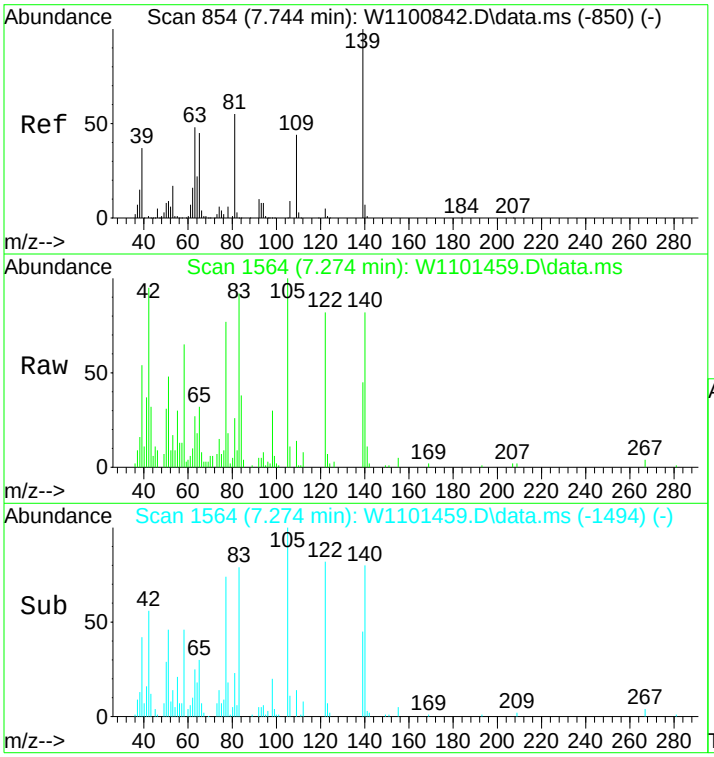


#21
Nitrobenzene
Concen: 1.31 µg/mL
RT: 6.879 min Scan# 1425
Delta R.T. -0.009 min
Lab File: W1101459.D
Acq: 13 Jul 2011 6:12 pm

Tgt Ion: 77 Resp: 11211

Ion	Ratio	Lower	Upper
77	100		
123	28.6	36.7	55.1#
65	50.6	11.2	16.8#

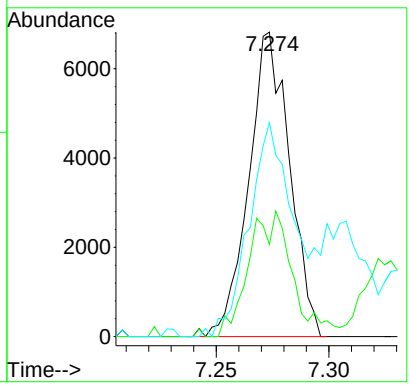


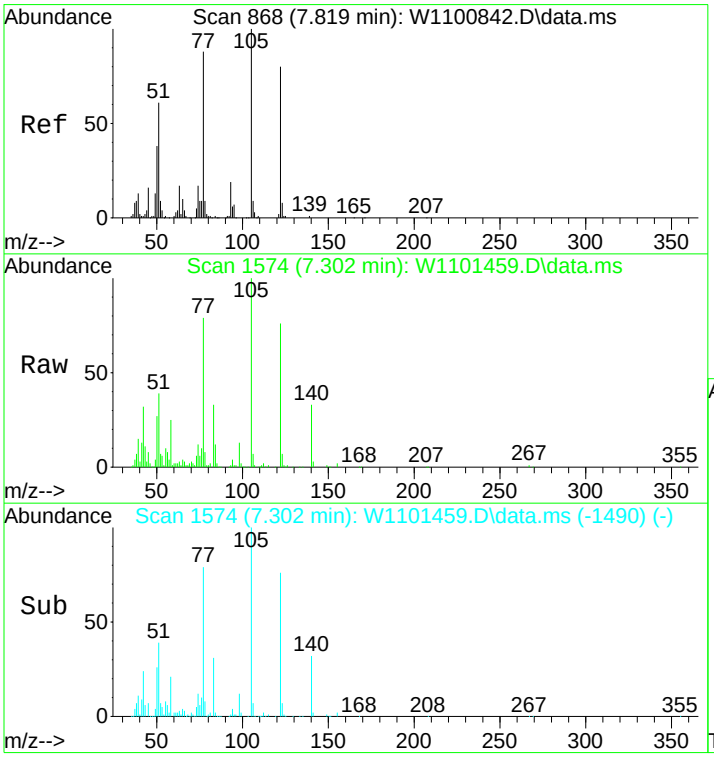


#25
2-Nitrophenol (CCC)
Concen: 2.10 µg/mL
RT: 7.274 min Scan# 1564
Delta R.T. -0.009 min
Lab File: W1101459.D
Acq: 13 Jul 2011 6:12 pm

Tgt Ion:139 Resp: 8620

Ion	Ratio	Lower	Upper
139	100		
109	23.0	30.6	45.8#
65	74.3	27.2	40.8#

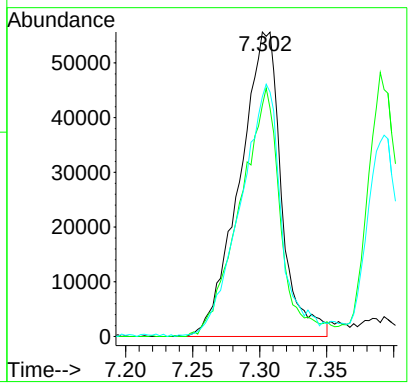


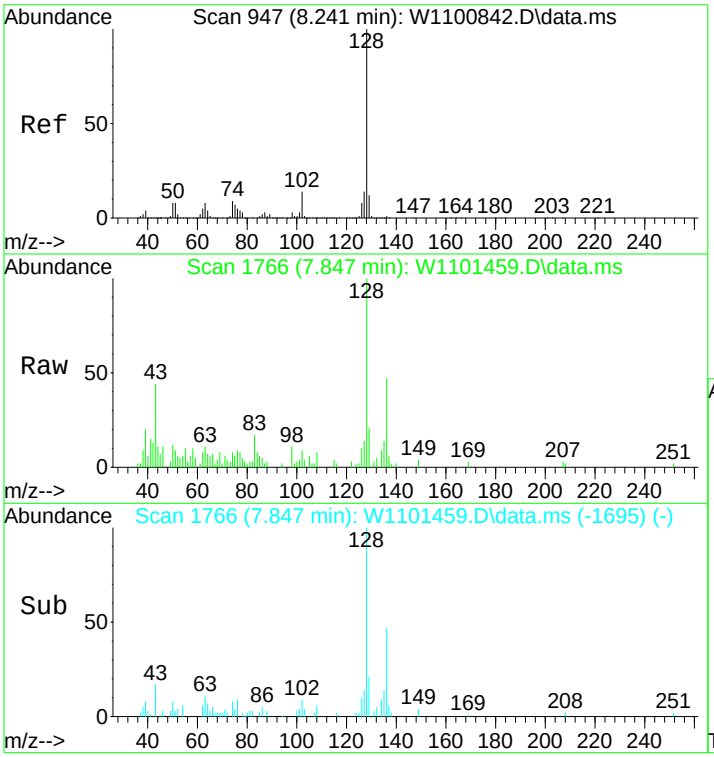


#26
Benzoic acid
Concen: 29.57 µg/mL
RT: 7.302 min Scan# 1574
Delta R.T. 0.031 min
Lab File: W1101459.D
Acq: 13 Jul 2011 6:12 pm

Tgt Ion:105 Resp: 120773

Ion	Ratio	Lower	Upper
105	100		
122	79.5	77.8	116.8
77	81.6	67.6	101.4

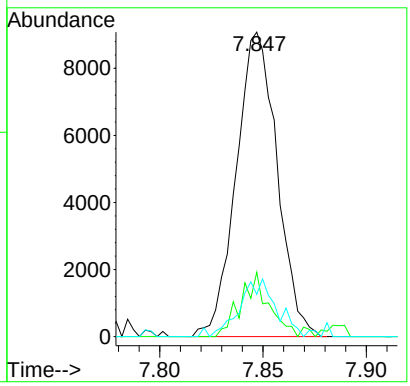


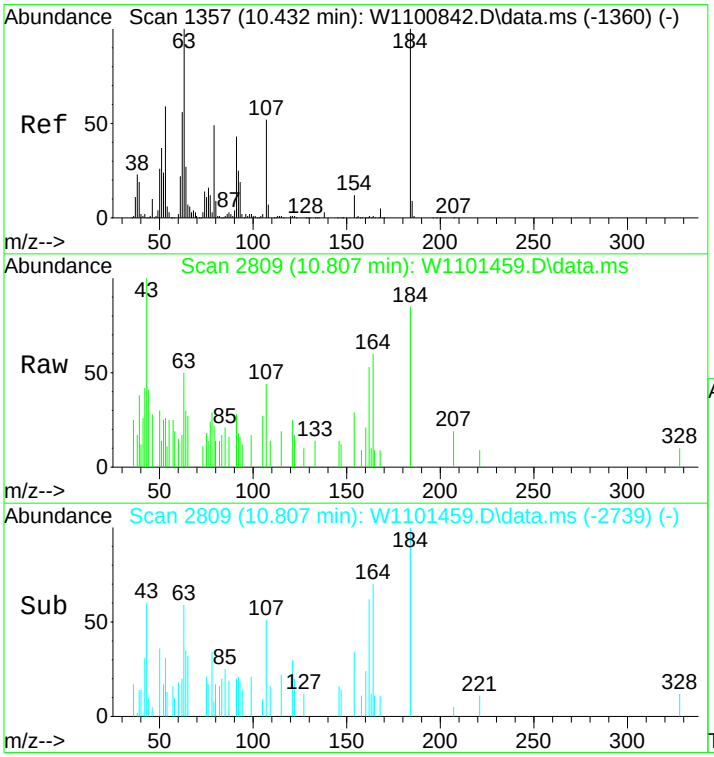


#31
Naphthalene
Concen: 0.48 µg/mL
RT: 7.847 min Scan# 1766
Delta R.T. -0.006 min
Lab File: W1101459.D
Acq: 13 Jul 2011 6:12 pm

Tgt Ion:128 Resp: 12523

Ion	Ratio	Lower	Upper
128	100		
129	14.3	9.1	13.7#
127	16.6	11.8	17.8

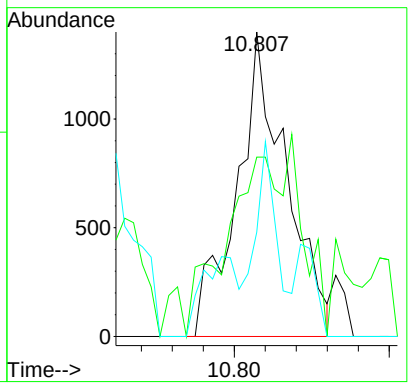


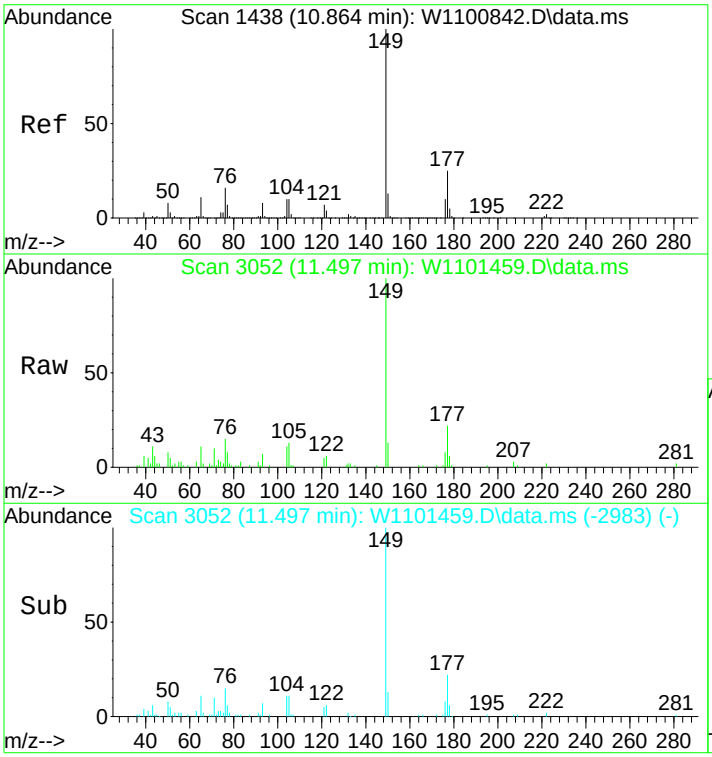


#55
2,4-Dinitrophenol (SPCC)
Concen: 1.09 µg/mL
RT: 10.807 min Scan# 2809
Delta R.T. -0.009 min
Lab File: W1101459.D
Acq: 13 Jul 2011 6:12 pm

Tgt Ion:184 Resp: 1555

Ion	Ratio	Lower	Upper
184	100		
63	89.9	61.7	92.5
154	149.5	25.0	37.4#

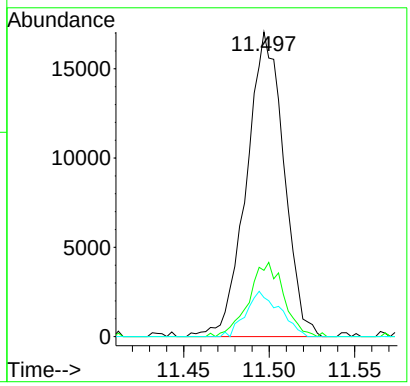


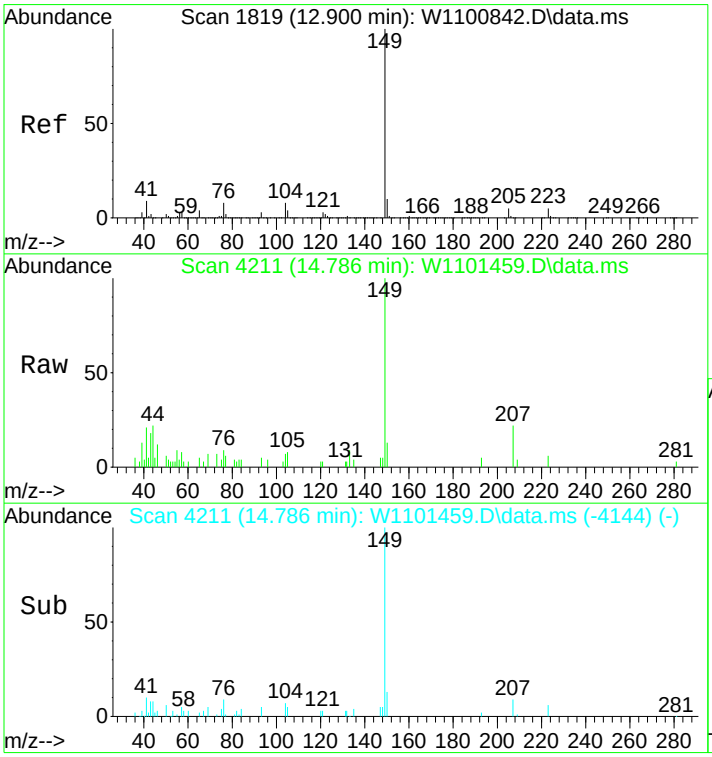


#61
Diethlyphthalate
Concen: 1.50 µg/mL
RT: 11.497 min Scan# 3052
Delta R.T. -0.011 min
Lab File: W1101459.D
Acq: 13 Jul 2011 6:12 pm

Tgt Ion:149 Resp: 25909

Ion	Ratio	Lower	Upper
149	100		
177	22.7	16.5	24.7
150	13.5	10.2	15.4

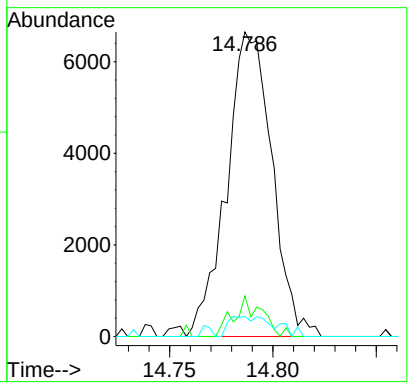


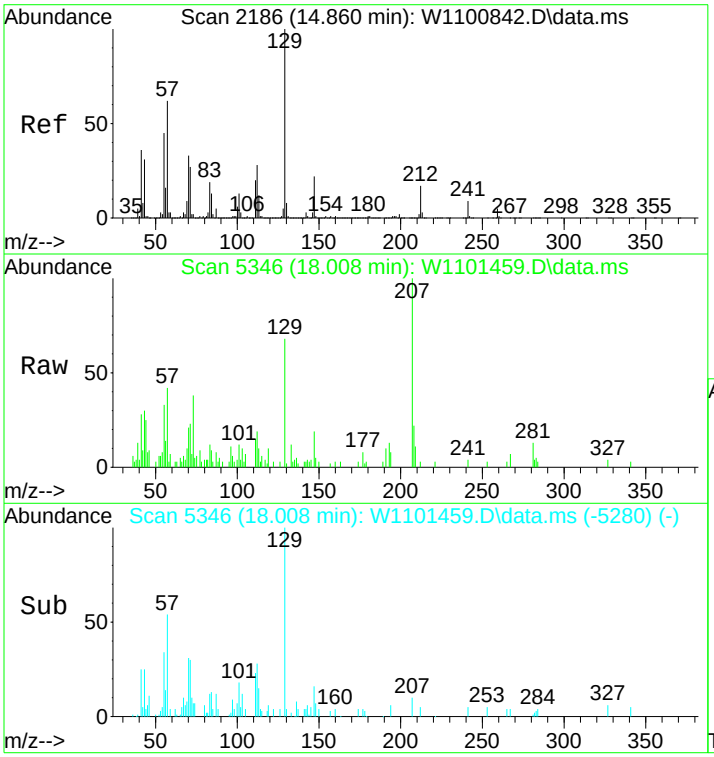


#77
Di-n-butylphthalate
Concen: 0.32 µg/mL
RT: 14.786 min Scan# 4211
Delta R.T. -0.017 min
Lab File: W1101459.D
Acq: 13 Jul 2011 6:12 pm

Tgt Ion:149 Resp: 10145

Ion	Ratio	Lower	Upper
149	100		
150	0.0	7.1	10.7#
104	0.0	5.6	8.4#

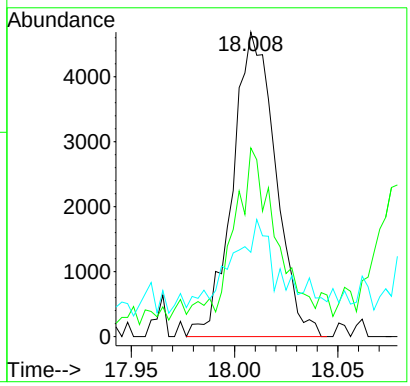




#87
bis(2-Ethylhexyl)adipate
Concen: 0.59 µg/mL
RT: 18.008 min Scan# 5346
Delta R.T. -0.020 min
Lab File: W1101459.D
Acq: 13 Jul 2011 6:12 pm

Tgt Ion:129 Resp: 6771

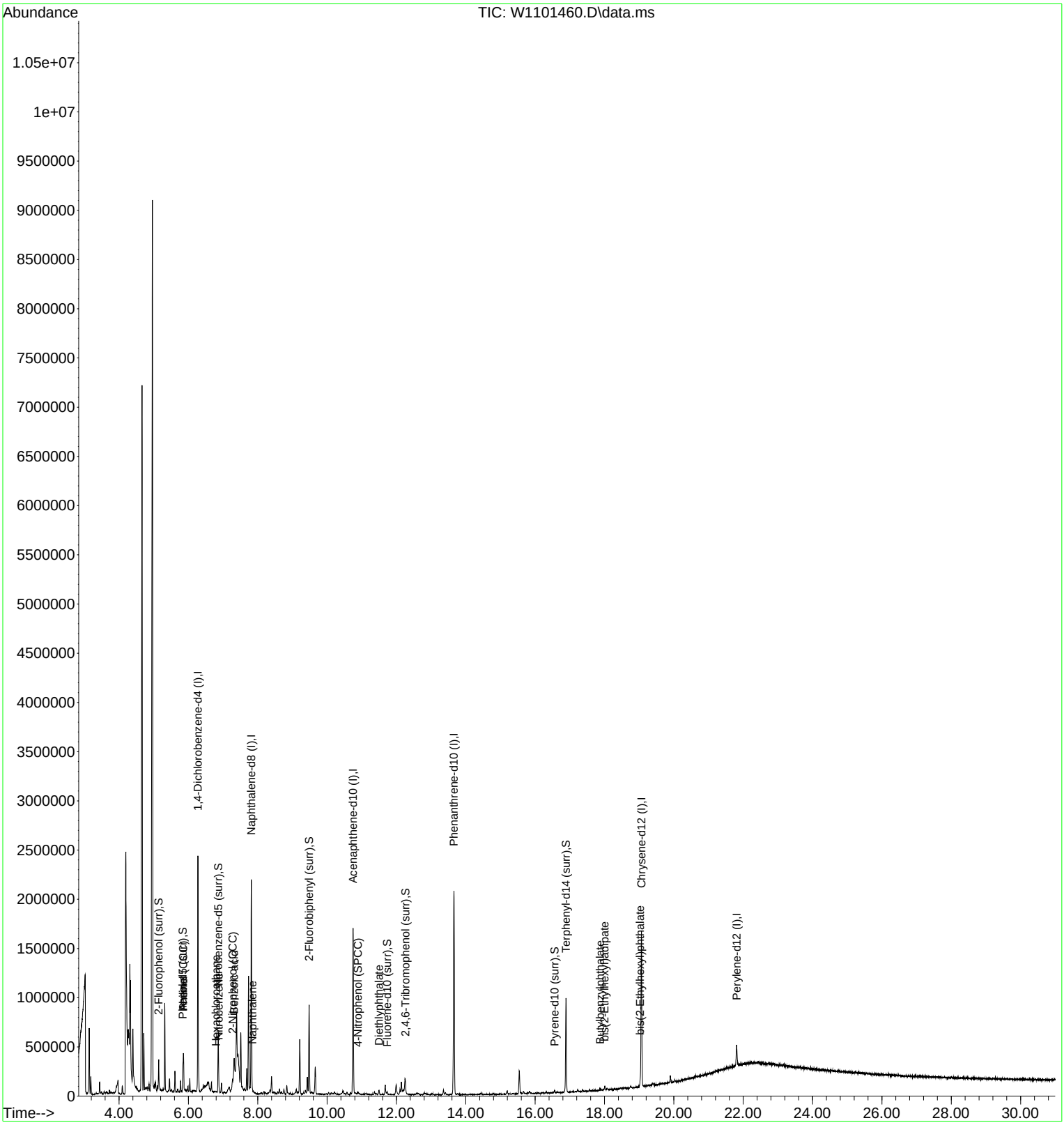
Ion	Ratio	Lower	Upper
129	100		
57	46.8	49.7	74.5#
147	28.5	17.8	26.6#



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101460.D
Acq On : 13 Jul 2011 6:49 pm
Operator : tdd/lah
Sample : RUN 2
Misc : 0611-23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 14 07:09:10 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101460.D
Acq On : 13 Jul 2011 6:49 pm
Operator : tdd/lah
Sample : RUN 2
Misc : 0611-23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 14 07:09:10 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.274	152	398301	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.816	136	1259852	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.750	164	610291	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.659	188	1369795	40.00	µg/mL	-0.01
83) Chrysene-d12 (I)	19.063	240	1007330	40.00	µg/mL	-0.02
94) Perylene-d12 (I)	21.811	264	124412	40.00	µg/mL	#-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.145	112	80515	7.27	µg/mL	0.01
5) Phenol-d5 (surr)	5.843	99	78068	6.48	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.862	82	201963m	17.17	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.484	172	425724	20.64	µg/mL	0.00
62) Fluorene-d10 (surr)	11.732	176	9915	0.62	µg/mL	-0.01
70) 2,4,6-Tribromophenol (...	12.260	330	18973	6.91	µg/mL	0.00
80) Pyrene-d10 (surr)	16.560	212	10972	0.34	µg/mL	-0.01
82) Terphenyl-d14 (surr)	16.889	244	438554	18.85	µg/mL	-0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	d	
3) Pyridine	0.000		0	N.D.	d	
6) Phenol (CCC)	5.854	94	65638	5.26	µg/mL#	73
7) Aniline	5.854	66	37089	6.16	µg/mL#	1
8) bis(2-Chloroethyl)ether	0.000		0	N.D.	d	
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.	d	
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) bis(2-Chloroisopropyl)...	0.000		0	N.D.		
16) 3/4-Methylphenol	0.000		0	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		
18) o-Toluidine	0.000		0	N.D.	d	
19) Hexachloroethane	6.799	117	2260	0.40	µg/mL#	2
21) Nitrobenzene	6.882	77	11829	1.10	µg/mL#	47
23) Isophorone	0.000		0	N.D.	d	
24) 2,4-Dimethylphenol	0.000		0	N.D.	d	
25) 2-Nitrophenol (CCC)	7.276	139	15896	3.11	µg/mL#	78
26) Benzoic acid	7.319	105	85572	16.82	µg/mL	86
27) bis(2-Chloroethoxy)met...	0.000		0	N.D.	d	
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.		
29) a,a-Dimethylphenethyla...	0.000		0	N.D.	d	
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
31) Naphthalene	7.850	128	15539	0.47	µg/mL#	94
32) 4-Chloroaniline	0.000		0	N.D.		
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.		
34) Quinoline	0.000		0	N.D.		
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.		
37) 2-Methylnaphthalene	0.000		0	N.D.		
38) 1-Methylnaphthalene	0.000		0	N.D.		
39) Hexachlorocyclopentadi...	0.000		0	N.D.		
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.		
42) 2,4,5-Trichlorophenol	0.000		0	N.D.		
44) Biphenyl	0.000		0	N.D.	d	
45) 2-Chloronaphthalene	0.000		0	N.D.		
46) 2-Nitroaniline	0.000		0	N.D.		

Manual Int. "II" (TDD)

Quantitation Report (QT Reviewed)

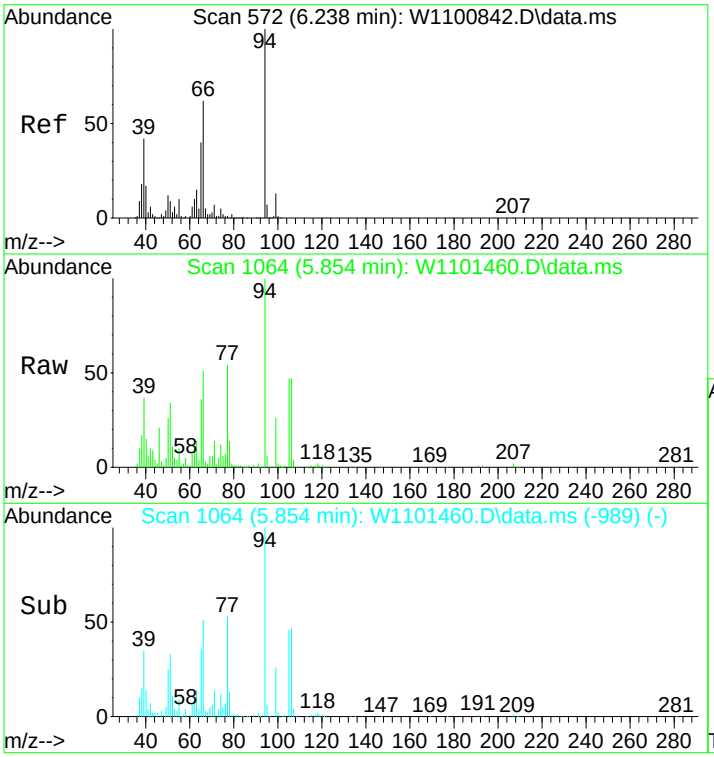
Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101460.D
Acq On : 13 Jul 2011 6:49 pm
Operator : tdd/lah
Sample : RUN 2
Misc : 0611-23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 14 07:09:10 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.	
48) Dimethylphthalate	0.000		0	N.D.	
49) 1,3-Dinitrobenzene	0.000		0	N.D.	
50) 2,6-Dinitrotoluene	0.000		0	N.D.	
51) 1,2-Dinitrobenzene	0.000		0	N.D.	
52) Acenaphthylene	0.000		0	N.D.	
53) 3-Nitroaniline	0.000		0	N.D.	
54) Acenaphthene (CCC)	0.000		0	N.D. d	
55) 2,4-Dinitrophenol (SPCC)	0.000		0	N.D. d	
56) 4-Nitrophenol (SPCC)	10.887	139	7517m	3.12 µg/mL	
57) 2,4-Dinitrotoluene	0.000		0	N.D.	
58) Dibenzofuran	0.000		0	N.D.	
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
61) Diethlyphthalate	11.497	149	24917	1.33 µg/mL	98
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.	
64) Fluorene	0.000		0	N.D.	
65) 4-Nitroaniline	0.000		0	N.D.	
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.	
67) N-Nitrosodiphenylamine...	0.000		0	N.D.	
68) Azobenzene	0.000		0	N.D. d	
71) 4-Bromophenyl-phenylether	0.000		0	N.D.	
72) Hexachlorobenzene	0.000		0	N.D.	
73) Pentachlorophenol (CCC)	0.000		0	N.D.	
74) Phenanthrene	0.000		0	N.D.	
75) Anthracene	0.000		0	N.D.	
76) Carbazole	0.000		0	N.D.	
77) Di-n-butylphthalate	14.786	149	9818	N.D.	
78) Fluoranthene (CCC)	0.000		0	N.D.	
79) Benzidine	0.000		0	N.D.	
81) Pyrene	0.000		0	N.D.	
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.	
85) Butylbenzylphthalate	17.871	149	5837	0.37 µg/mL#	82
86) 3,3-Dimethylbenzidine	0.000		0	N.D.	
87) bis(2-Ethylhexyl)adipate	18.005	129	10119	0.81 µg/mL#	86
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.	
89) bis(2-Ethylhexyl)phtha...	19.029	149	20702	0.95 µg/mL	99
90) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
91) Benzo(a)anthracene	0.000		0	N.D. d	
92) Chrysene	0.000		0	N.D. d	
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.	
95) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.	
96) Benzo(b)fluoranthene	0.000		0	N.D.	
97) Benzo(k)fluoranthene	0.000		0	N.D.	
98) Benzo(e)pyrene	0.000		0	N.D.	
99) Benzo(a)pyrene (CCC)	0.000		0	N.D.	
100) Perylene	0.000		0	N.D.	
101) 3-Methylcholanthrene	0.000		0	N.D.	
102) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
103) Dibenz(a,h)anthracene	0.000		0	N.D.	
104) Benzo(g,h,i)perylene	0.000		0	N.D.	
105) Dibenzo(a,e)pyrene	0.000		0	N.D.	

Manual Int. "II" (TDD)

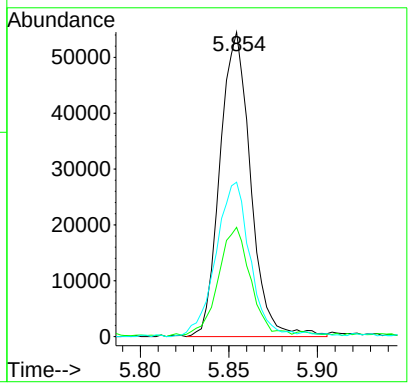
(#) = qualifier out of range (m) = manual integration (+) = signals summed

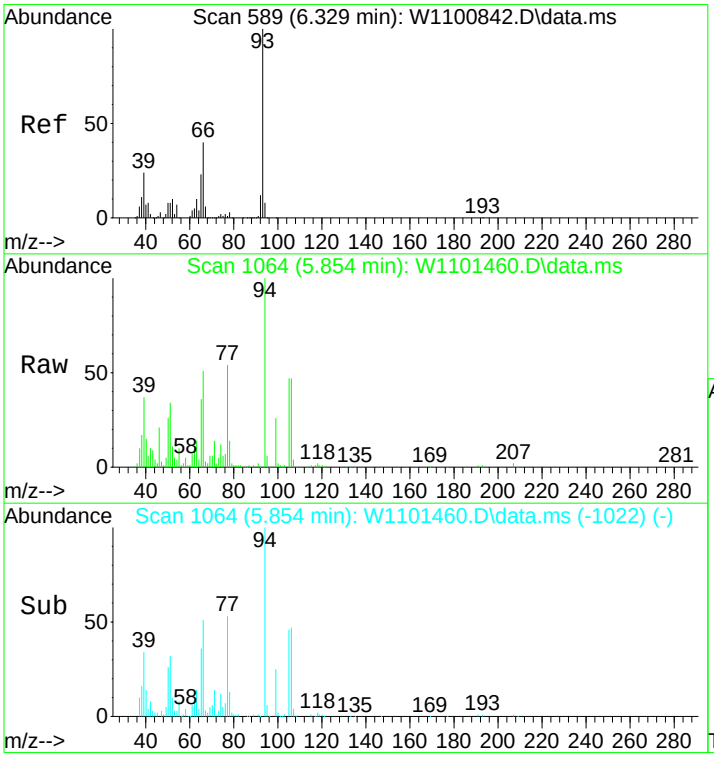


#6
Phenol (CCC)
Concen: 5.26 µg/mL
RT: 5.854 min Scan# 1064
Delta R.T. 0.005 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion: 94 Resp: 65638

Ion	Ratio	Lower	Upper
94	100		
65	38.4	22.7	34.1#
66	56.5	29.4	44.2#

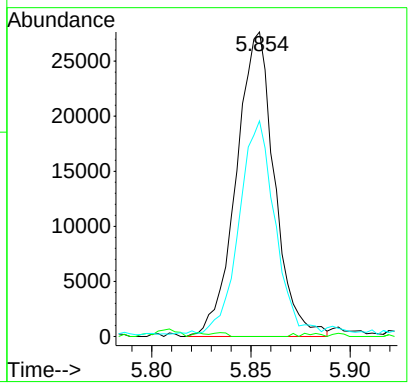


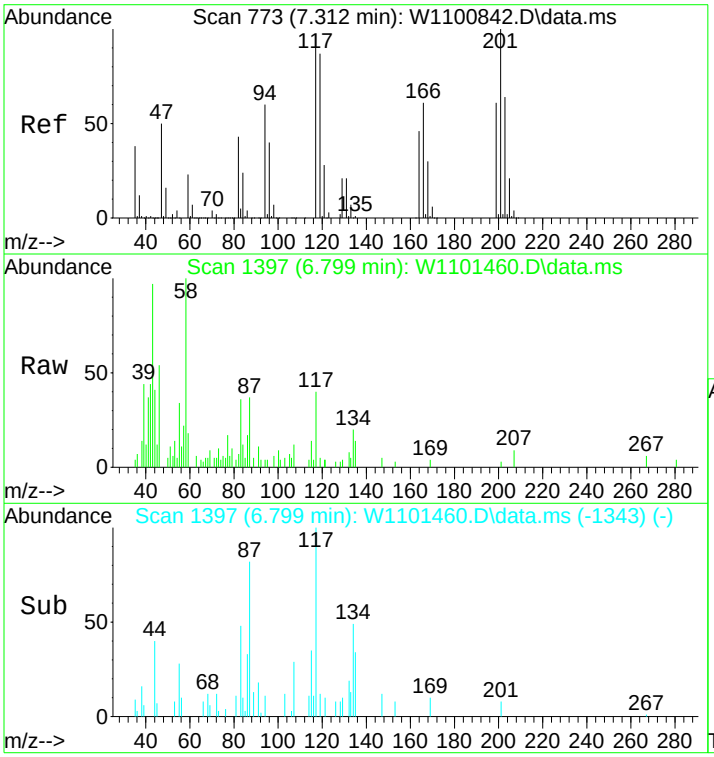


#7
Aniline
Concen: 6.16 µg/mL
RT: 5.854 min Scan# 1064
Delta R.T. -0.088 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion: 66 Resp: 37089

Ion	Ratio	Lower	Upper
66	100		
93	0.0	208.2	312.2#
65	65.7	42.4	63.6#

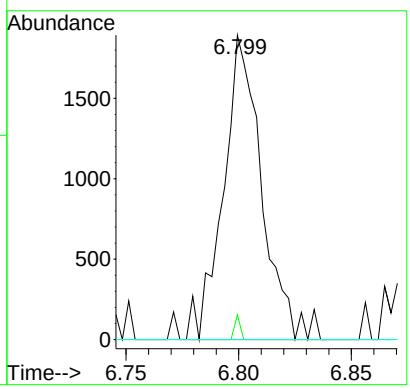


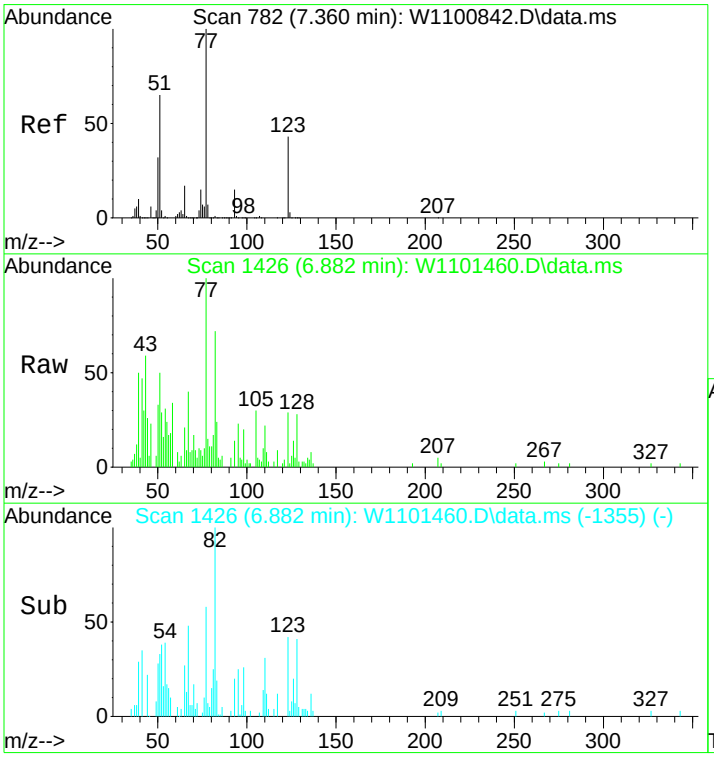


#19
Hexachloroethane
Concen: 0.40 µg/mL
RT: 6.799 min Scan# 1397
Delta R.T. -0.054 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion:117 Resp: 2260

Ion	Ratio	Lower	Upper
117	100		
201	0.0	89.7	134.5#
199	0.0	57.3	85.9#

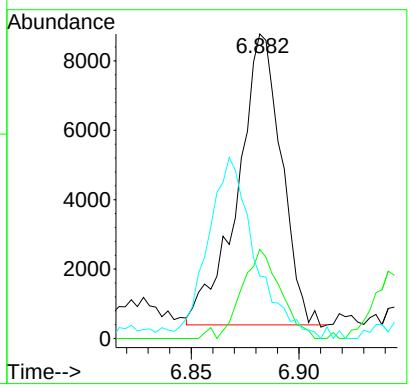


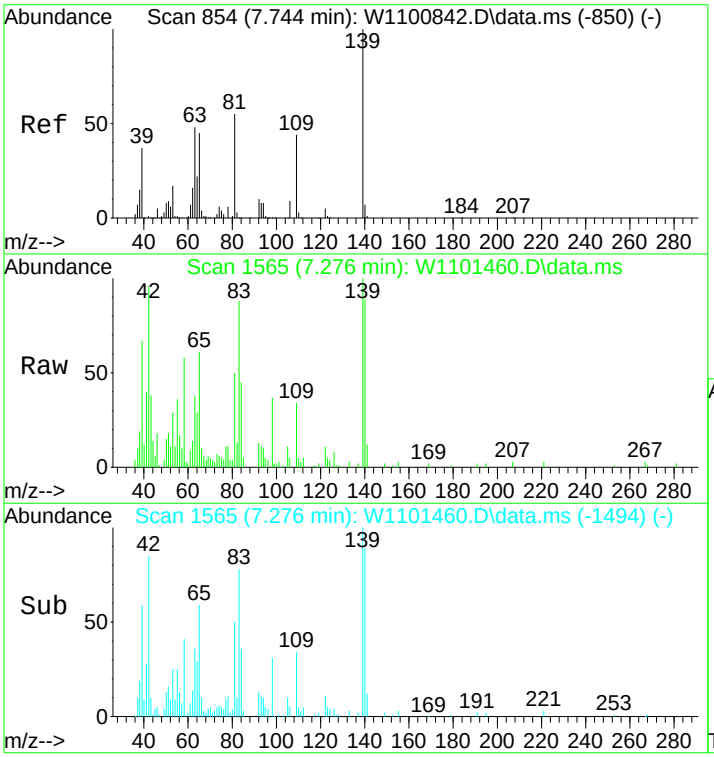


#21
Nitrobenzene
Concen: 1.10 µg/mL
RT: 6.882 min Scan# 1426
Delta R.T. -0.006 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion: 77 Resp: 11829

Ion	Ratio	Lower	Upper
77	100		
123	26.5	36.7	55.1#
65	67.6	11.2	16.8#

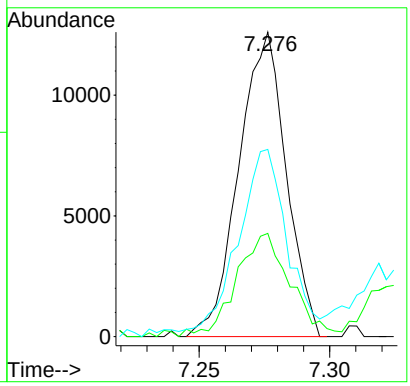


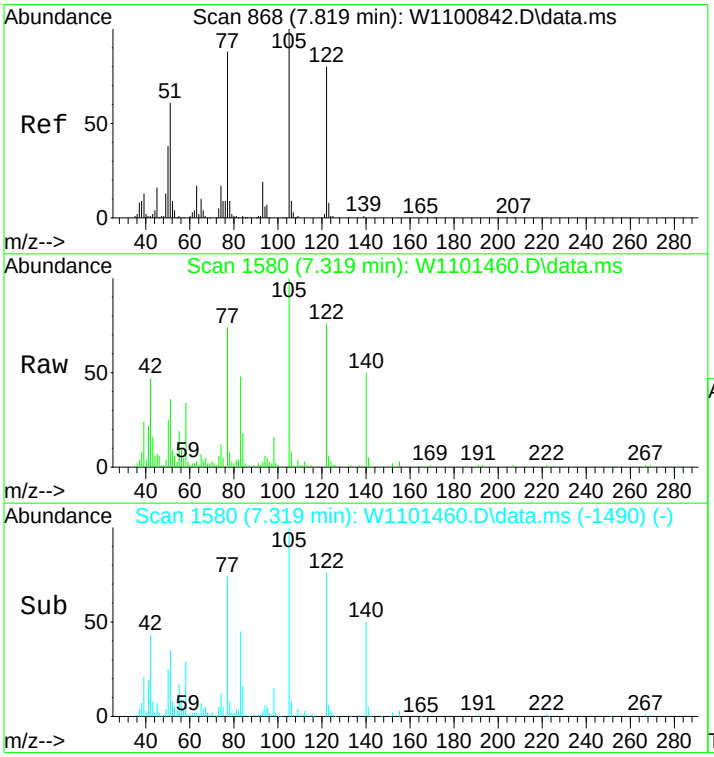


#25
2-Nitrophenol (CCC)
Concen: 3.11 µg/mL
RT: 7.276 min Scan# 1565
Delta R.T. -0.006 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion:139 Resp: 15896

Ion	Ratio	Lower	Upper
139	100		
109	38.6	30.6	45.8
65	60.1	27.2	40.8#

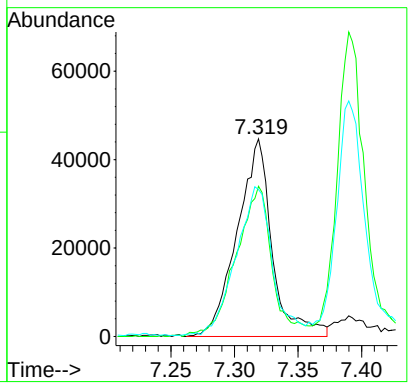


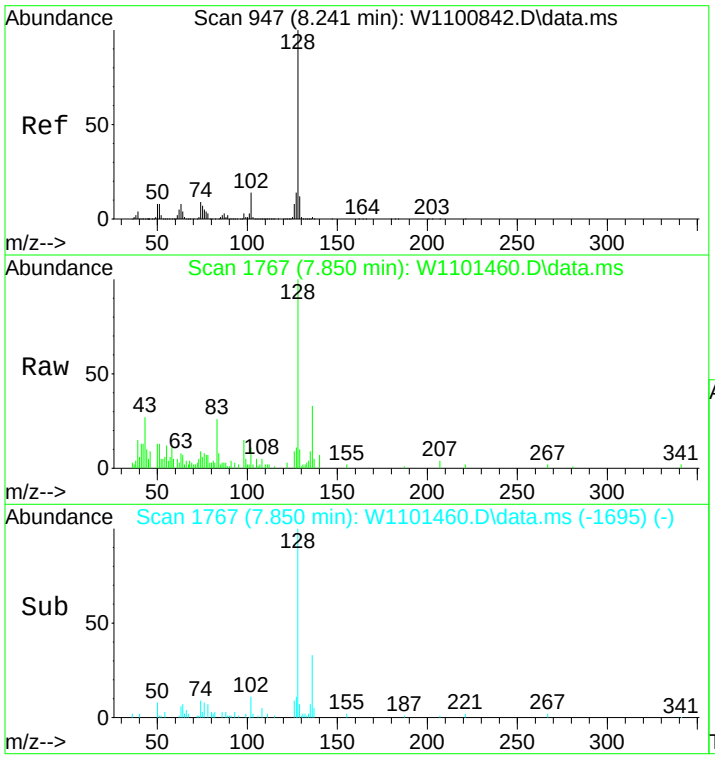


#26
Benzoic acid
Concen: 16.82 µg/mL
RT: 7.319 min Scan# 1580
Delta R.T. 0.048 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion:105 Resp: 85572

Ion	Ratio	Lower	Upper
105	100		
122	78.2	77.8	116.8
77	78.1	67.6	101.4

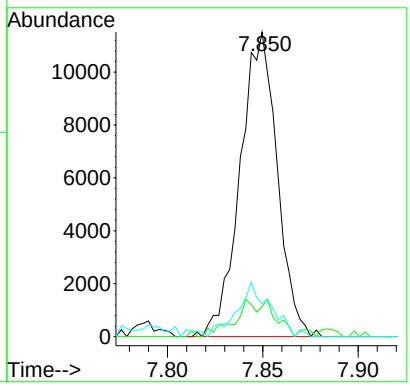


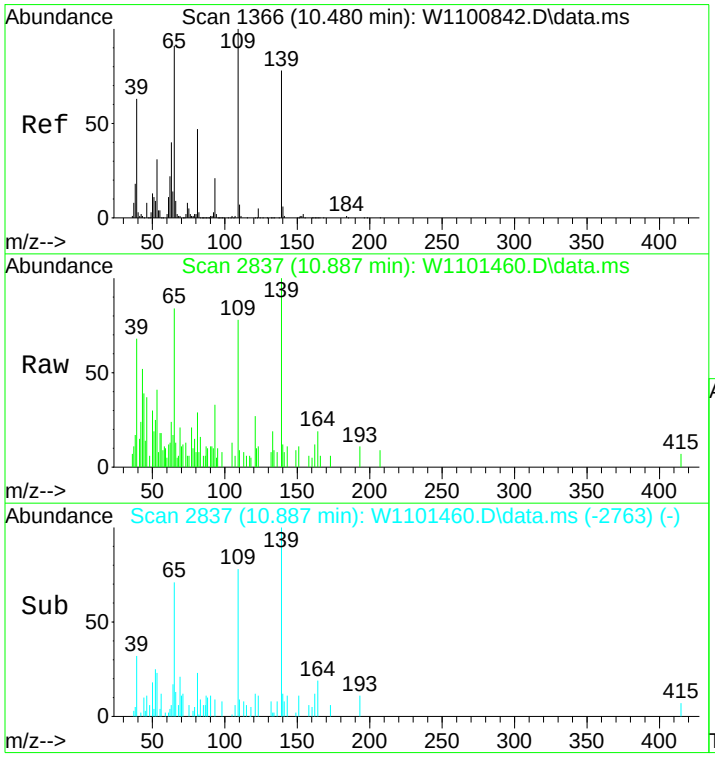


#31
Naphthalene
Concen: 0.47 µg/mL
RT: 7.850 min Scan# 1767
Delta R.T. -0.003 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion:128 Resp: 15539

Ion	Ratio	Lower	Upper
128	100		
129	7.3	9.1	13.7#
127	16.1	11.8	17.8

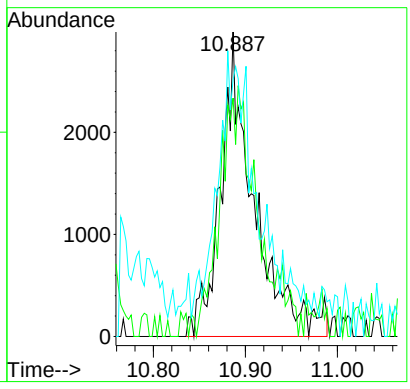


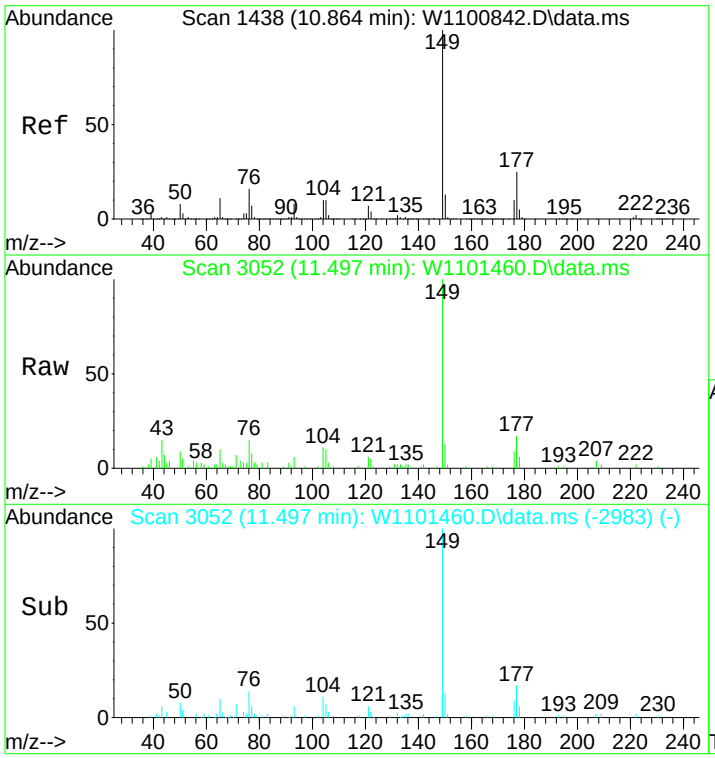


#56
4-Nitrophenol (SPCC)
Concen: 3.12 µg/mL m
RT: 10.887 min Scan# 2837
Delta R.T. 0.003 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion:139 Resp: 7517

Ion	Ratio	Lower	Upper
139	100		
109	40.7	84.8	127.2#
65	68.3	76.6	115.0#

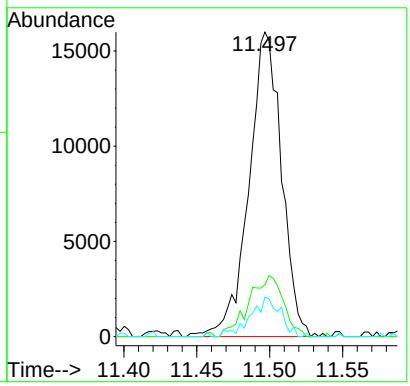


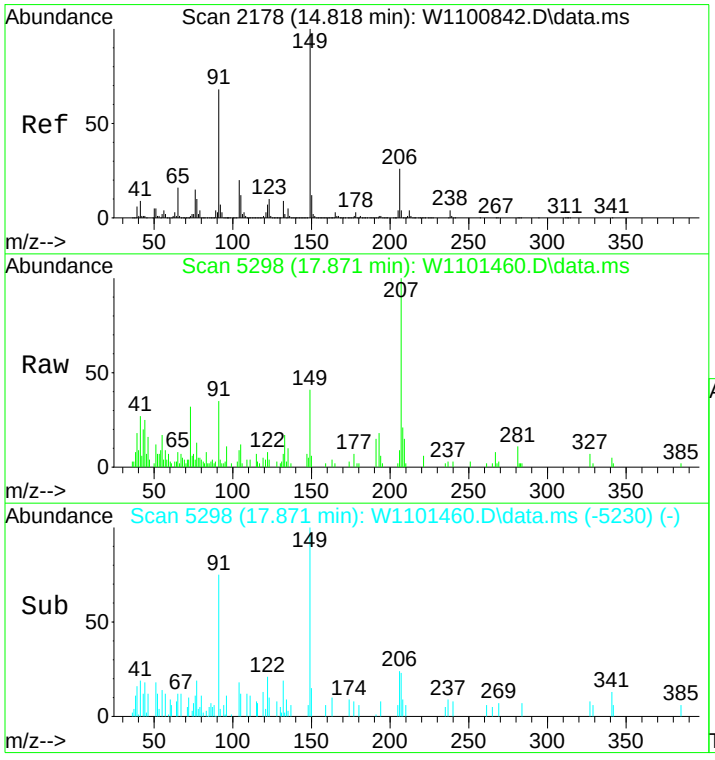


#61
Diethlyphthalate
Concen: 1.33 µg/mL
RT: 11.497 min Scan# 3052
Delta R.T. -0.012 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion:149 Resp: 24917

Ion	Ratio	Lower	Upper
149	100		
177	21.2	16.5	24.7
150	11.8	10.2	15.4

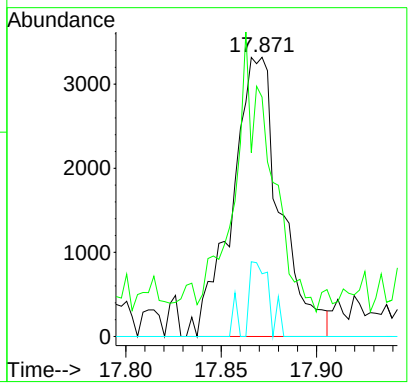


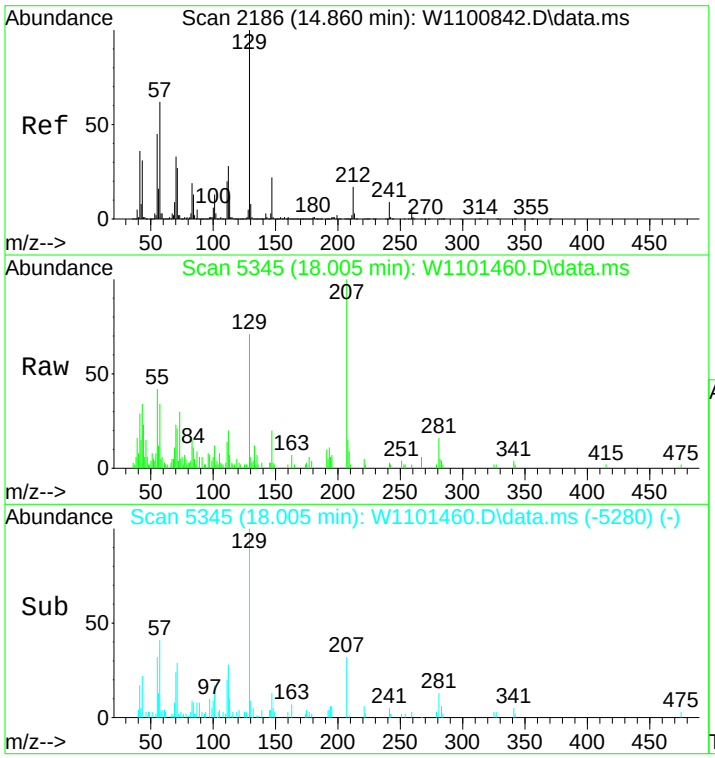


#85
Butylbenzylphthalate
Concen: 0.37 µg/mL
RT: 17.871 min Scan# 5298
Delta R.T. -0.014 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion:149 Resp: 5837

Ion	Ratio	Lower	Upper
149	100		
91	73.6	53.5	80.3
206	0.0	18.1	27.1#

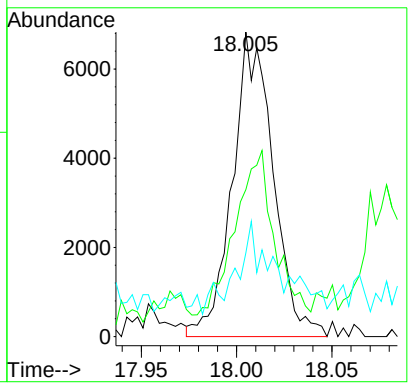


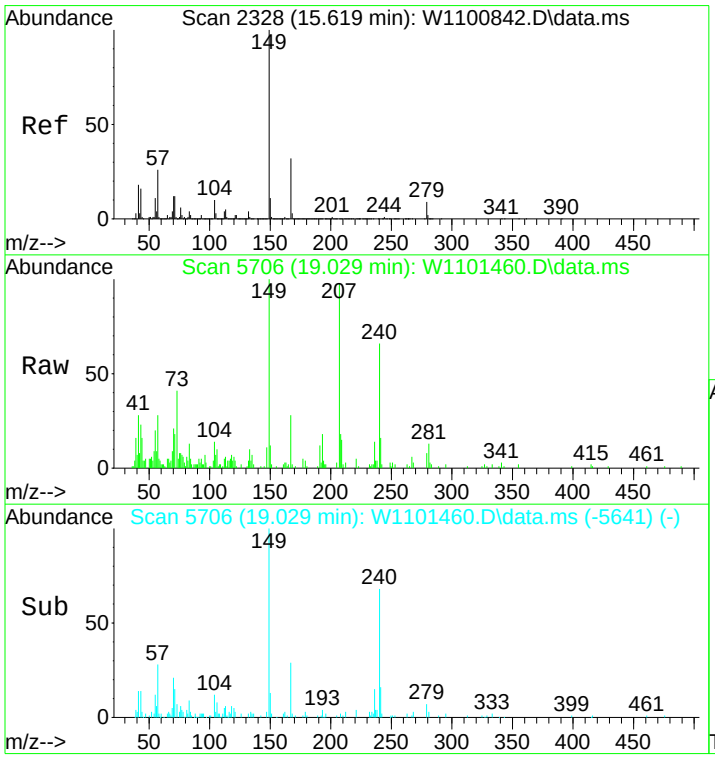


#87
bis(2-Ethylhexyl)adipate
Concen: 0.81 µg/mL
RT: 18.005 min Scan# 5345
Delta R.T. -0.023 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion:129 Resp: 10119

Ion	Ratio	Lower	Upper
129	100		
57	51.2	49.7	74.5
147	14.9	17.8	26.6#

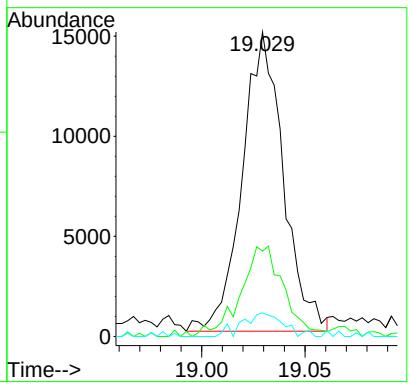




#89
bis(2-Ethylhexyl)phthalate
Concen: 0.95 µg/mL
RT: 19.029 min Scan# 5706
Delta R.T. -0.023 min
Lab File: W1101460.D
Acq: 13 Jul 2011 6:49 pm

Tgt Ion:149 Resp: 20702

Ion	Ratio	Lower	Upper
149	100		
167	31.7	25.0	37.4
279	7.9	6.0	9.0



Quantitation Report (QT Reviewed)

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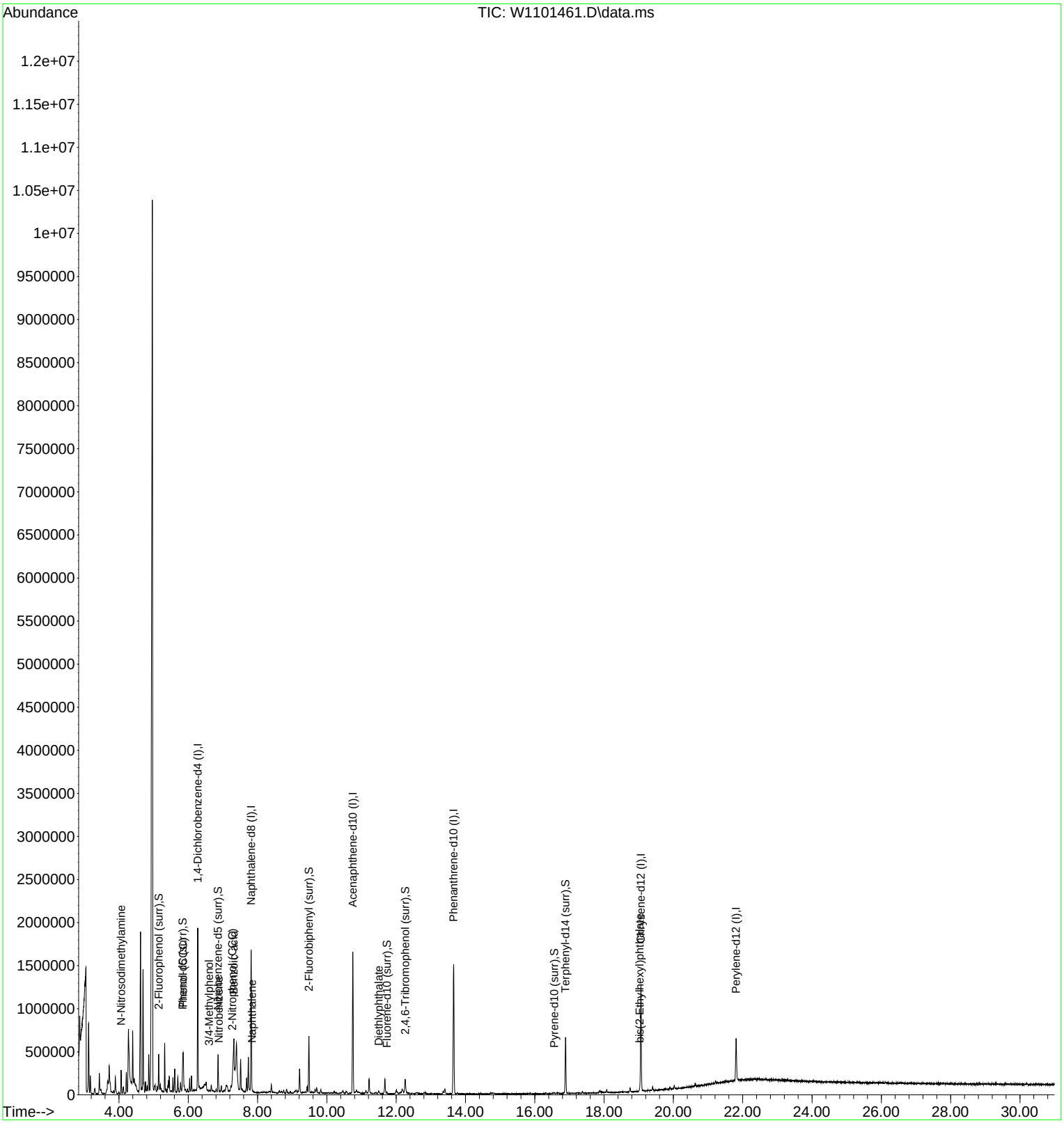
Data File : W1101461.D
Acq On : 13 Jul 2011 7:26 pm
Operator : tdd/lah
Sample : RUN 3
Misc : 0611-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 14 07:14:36 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

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Data File : W1101461.D
Acq On : 13 Jul 2011 7:26 pm
Operator : tdd/lah
Sample : RUN 3
Misc : 0611-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 14 07:14:36 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.274	152	304439	40.00 µg/mL	0.00	
22) Naphthalene-d8 (I)	7.816	136	963674	40.00 µg/mL	0.00	
40) Acenaphthene-d10 (I)	10.750	164	590053	40.00 µg/mL	0.00	
69) Phenanthrene-d10 (I)	13.657	188	990934	40.00 µg/mL	-0.01	
83) Chrysene-d12 (I)	19.061	240	747666	40.00 µg/mL	-0.02	
94) Perylene-d12 (I)	21.808	264	304804	40.00 µg/mL	-0.02	
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.148	112	118744	14.03 µg/mL	0.01	
5) Phenol-d5 (surr)	5.843	99	125381	13.62 µg/mL	0.00	
20) Nitrobenzene-d5 (surr)	6.859	82	149679	16.65 µg/mL	0.00	
43) 2-Fluorobiphenyl (surr)	9.482	172	298860	14.99 µg/mL	0.00	
62) Fluorene-d10 (surr)	11.732	176	5654	0.37 µg/mL	-0.01	
70) 2,4,6-Tribromophenol (...	12.260	330	30184m	15.20 µg/mL	0.00	**Manual Int. "II" (TDD)**
80) Pyrene-d10 (surr)	16.560	212	8156	0.35 µg/mL	-0.01	
82) Terphenyl-d14 (surr)	16.887	244	299714	17.81 µg/mL	-0.02	
Target Compounds					Qvalue	
2) N-Nitrosodimethylamine	4.063	74	21030	4.26 µg/mL#	63	
3) Pyridine	0.000		0	N.D.		
6) Phenol (CCC)	5.854	94	58989	6.18 µg/mL#	57	
7) Aniline	0.000		0	N.D. d		
8) bis(2-Chloroethyl)ether	0.000		0	N.D. d		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D. d		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D. d		
15) bis(2-Chloroisopropyl)...	0.000		0	N.D. d		
16) 3/4-Methylphenol	6.601	107	4141	0.54 µg/mL#	94	
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		
18) o-Toluidine	0.000		0	N.D. d		
19) Hexachloroethane	0.000		0	N.D. d		
21) Nitrobenzene	6.885	77	10091	1.23 µg/mL#	59	
23) Isophorone	0.000		0	N.D. d		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) 2-Nitrophenol (CCC)	7.274	139	11698	2.99 µg/mL#	63	
26) Benzoic acid	7.316	105	222299	57.13 µg/mL#	86	
27) bis(2-Chloroethoxy)met...	0.000		0	N.D. d		
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.		
29) a,a-Dimethylphenethyla...	0.000		0	N.D. d		
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
31) Naphthalene	7.841	128	8569	0.34 µg/mL#	78	
32) 4-Chloroaniline	0.000		0	N.D. d		
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.		
34) Quinoline	0.000		0	N.D.		
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.		
37) 2-Methylnaphthalene	0.000		0	N.D.		
38) 1-Methylnaphthalene	0.000		0	N.D.		
39) Hexachlorocyclopentadi...	0.000		0	N.D.		
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.		
42) 2,4,5-Trichlorophenol	0.000		0	N.D.		
44) Biphenyl	0.000		0	N.D. d		
45) 2-Chloronaphthalene	0.000		0	N.D.		
46) 2-Nitroaniline	0.000		0	N.D. d		

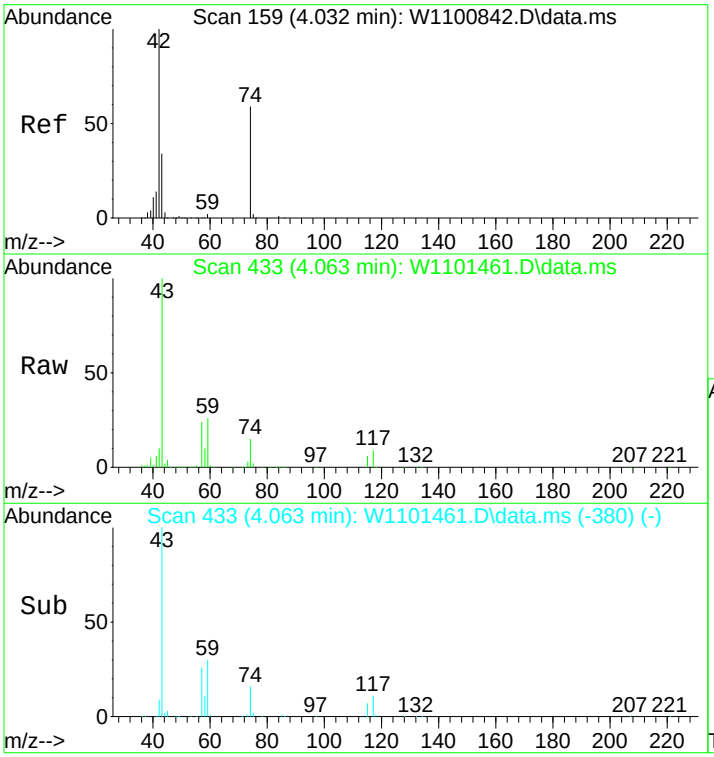
Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101461.D
Acq On : 13 Jul 2011 7:26 pm
Operator : tdd/lah
Sample : RUN 3
Misc : 0611-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 14 07:14:36 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.	
48) Dimethylphthalate	0.000		0	N.D.	
49) 1,3-Dinitrobenzene	0.000		0	N.D.	
50) 2,6-Dinitrotoluene	0.000		0	N.D.	
51) 1,2-Dinitrobenzene	0.000		0	N.D.	
52) Acenaphthylene	0.000		0	N.D.	
53) 3-Nitroaniline	0.000		0	N.D.	
54) Acenaphthene (CCC)	0.000		0	N.D. d	
55) 2,4-Dinitrophenol (SPCC)	0.000		0	N.D.	
56) 4-Nitrophenol (SPCC)	0.000		0	N.D. d	
57) 2,4-Dinitrotoluene	0.000		0	N.D.	
58) Dibenzofuran	0.000		0	N.D. d	
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
61) Diethlyphthalate	11.497	149	13944	0.77 µg/mL	96
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.	
64) Fluorene	0.000		0	N.D.	
65) 4-Nitroaniline	0.000		0	N.D.	
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.	
67) N-Nitrosodiphenylamine...	0.000		0	N.D.	
68) Azobenzene	0.000		0	N.D. d	
71) 4-Bromophenyl-phenylether	0.000		0	N.D.	
72) Hexachlorobenzene	0.000		0	N.D.	
73) Pentachlorophenol (CCC)	0.000		0	N.D.	
74) Phenanthrene	0.000		0	N.D.	
75) Anthracene	0.000		0	N.D.	
76) Carbazole	0.000		0	N.D.	
77) Di-n-butylphthalate	0.000		0	N.D. d	
78) Fluoranthene (CCC)	0.000		0	N.D.	
79) Benzidine	0.000		0	N.D.	
81) Pyrene	0.000		0	N.D.	
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.	
85) Butylbenzylphthalate	0.000		0	N.D. d	
86) 3,3-Dimethylbenzidine	0.000		0	N.D.	
87) bis(2-Ethylhexyl)adipate	0.000		0	N.D.	
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.	
89) bis(2-Ethylhexyl)phtha...	19.027	149	11669	0.72 µg/mL#	90
90) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
91) Benzo(a)anthracene	0.000		0	N.D. d	
92) Chrysene	0.000		0	N.D. d	
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.	
95) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.	
96) Benzo(b)fluoranthene	0.000		0	N.D.	
97) Benzo(k)fluoranthene	0.000		0	N.D.	
98) Benzo(e)pyrene	0.000		0	N.D.	
99) Benzo(a)pyrene (CCC)	0.000		0	N.D. d	
100) Perylene	0.000		0	N.D. d	
101) 3-Methylcholanthrene	0.000		0	N.D.	
102) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
103) Dibenz(a,h)anthracene	0.000		0	N.D.	
104) Benzo(g,h,i)perylene	0.000		0	N.D.	
105) Dibenzo(a,e)pyrene	0.000		0	N.D.	

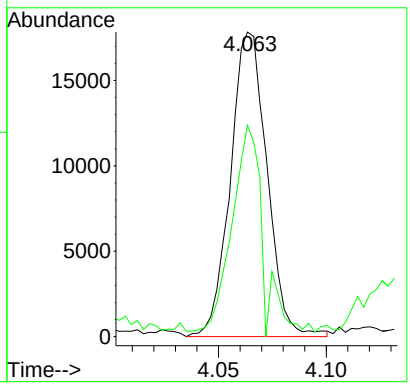
(#) = qualifier out of range (m) = manual integration (+) = signals summed

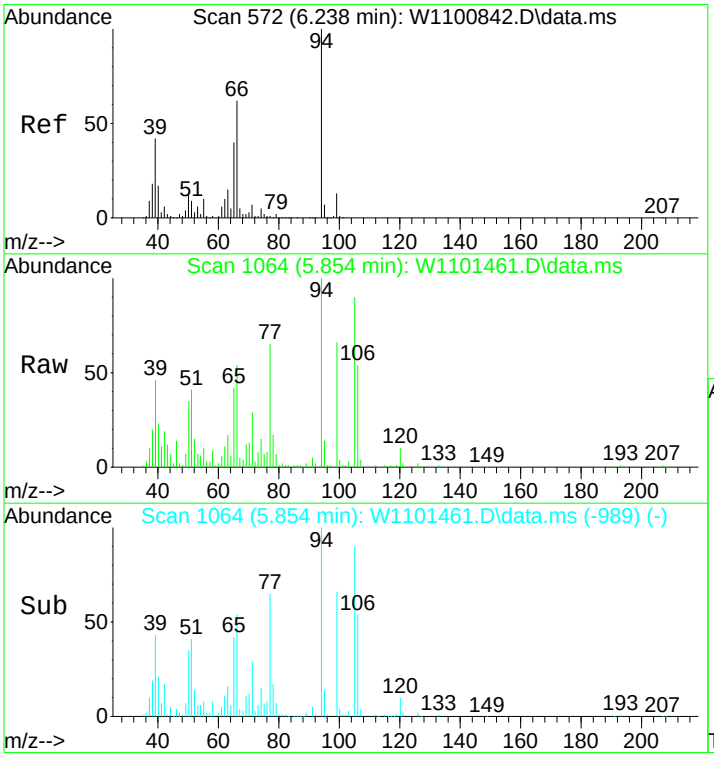


#2
N-Nitrosodimethylamine
Concen: 4.26 µg/mL
RT: 4.063 min Scan# 433
Delta R.T. -0.057 min
Lab File: W1101461.D
Acq: 13 Jul 2011 7:26 pm

Tgt Ion: 74 Resp: 21030

Ion	Ratio	Lower	Upper
74	100		
42	56.3	73.5	110.3#

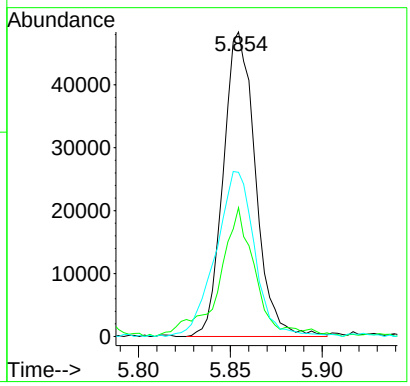


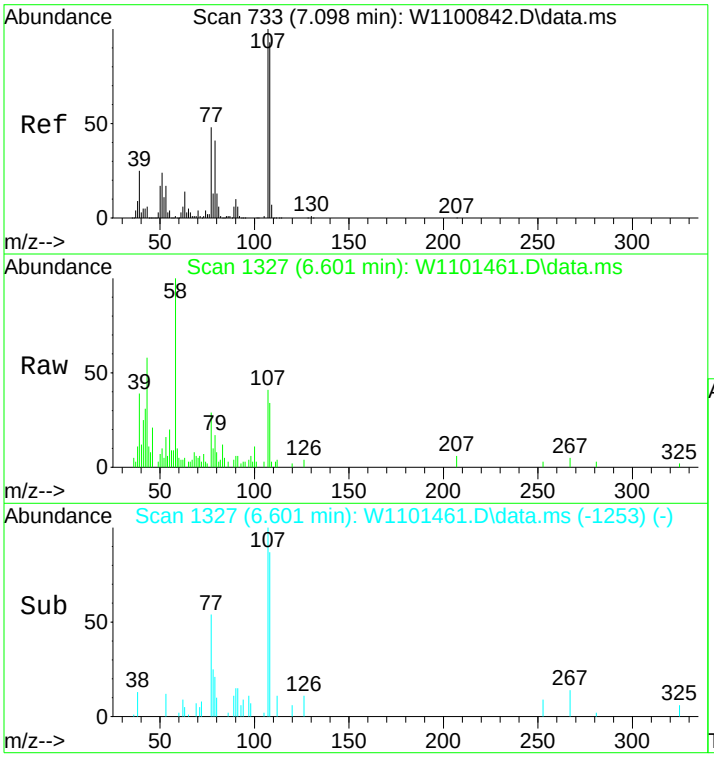


#6
Phenol (CCC)
Concen: 6.18 µg/mL
RT: 5.854 min Scan# 1064
Delta R.T. 0.006 min
Lab File: W1101461.D
Acq: 13 Jul 2011 7:26 pm

Tgt Ion: 94 Resp: 58989

Ion	Ratio	Lower	Upper
94	100		
65	47.8	22.7	34.1#
66	65.7	29.4	44.2#

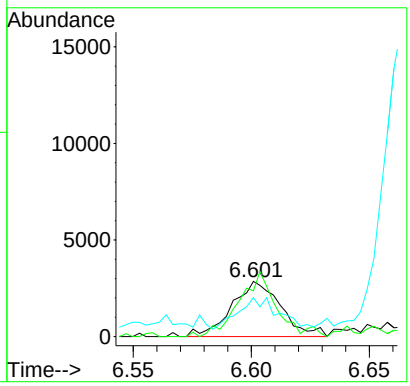


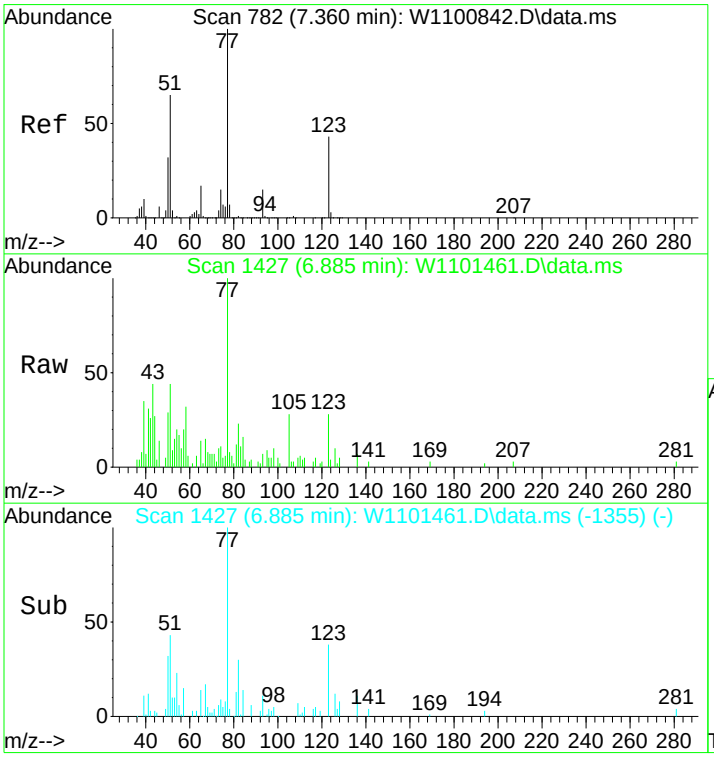


#16
3/4-Methylphenol
Concen: 0.54 µg/mL
RT: 6.601 min Scan# 1327
Delta R.T. 0.003 min
Lab File: W1101461.D
Acq: 13 Jul 2011 7:26 pm

Tgt Ion:107 Resp: 4141

Ion	Ratio	Lower	Upper
107	100		
108	90.5	73.7	110.5
77	47.0	29.0	43.6#

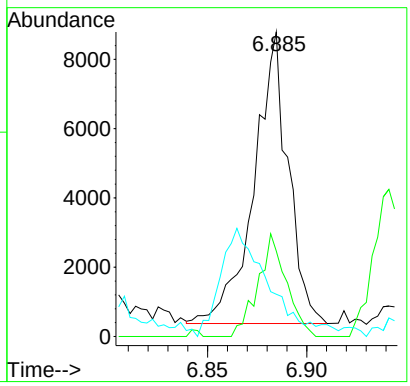


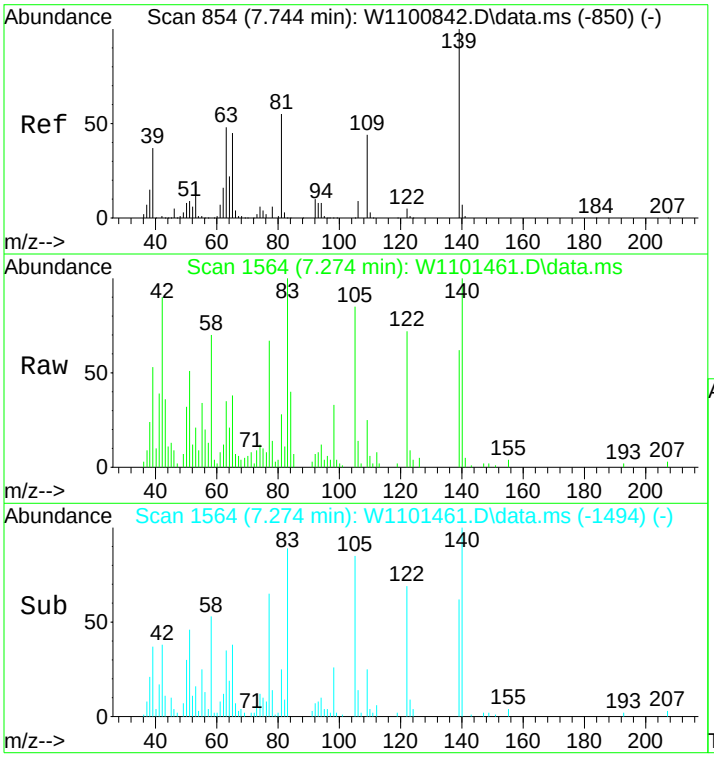


#21
Nitrobenzene
Concen: 1.23 µg/mL
RT: 6.885 min Scan# 1427
Delta R.T. -0.003 min
Lab File: W1101461.D
Acq: 13 Jul 2011 7:26 pm

Tgt Ion: 77 Resp: 10091

Ion	Ratio	Lower	Upper
77	100		
123	29.1	36.7	55.1#
65	51.9	11.2	16.8#

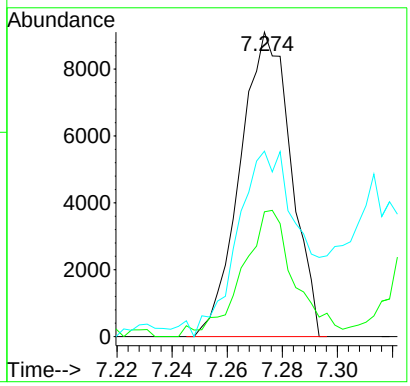


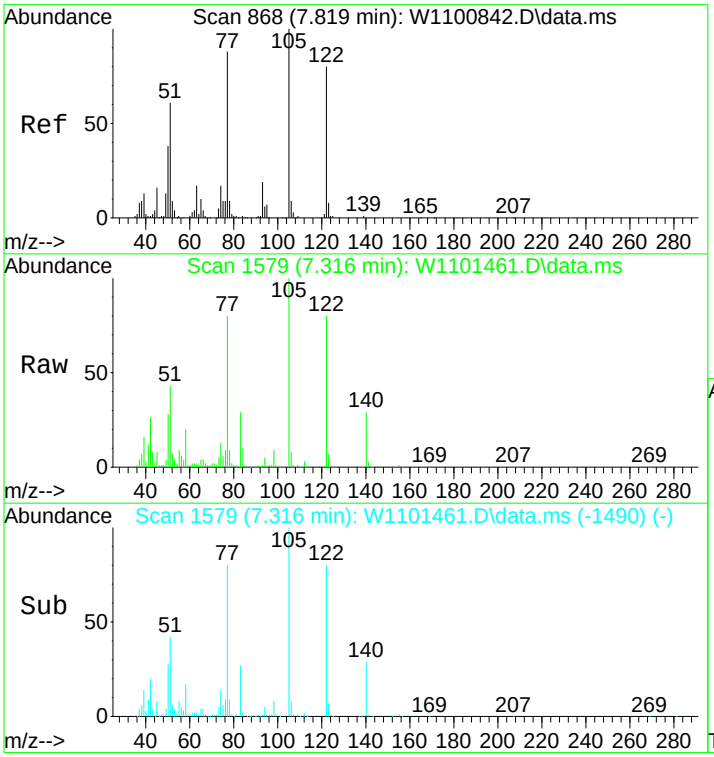


#25
2-Nitrophenol (CCC)
Concen: 2.99 µg/mL
RT: 7.274 min Scan# 1564
Delta R.T. -0.009 min
Lab File: W1101461.D
Acq: 13 Jul 2011 7:26 pm

Tgt Ion:139 Resp: 11698

Ion	Ratio	Lower	Upper
139	100		
109	42.9	30.6	45.8
65	73.5	27.2	40.8#

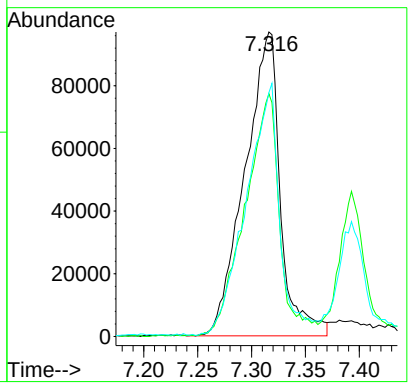


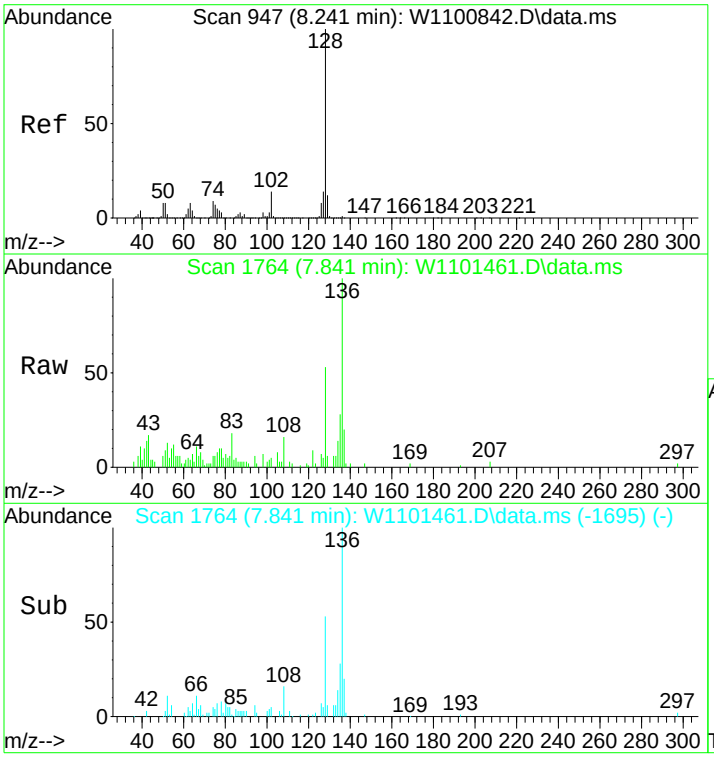


#26
Benzoic acid
Concen: 57.13 µg/mL
RT: 7.316 min Scan# 1579
Delta R.T. 0.045 min
Lab File: W1101461.D
Acq: 13 Jul 2011 7:26 pm

Tgt Ion:105 Resp: 222299

Ion	Ratio	Lower	Upper
105	100		
122	77.0	77.8	116.8#
77	78.2	67.6	101.4

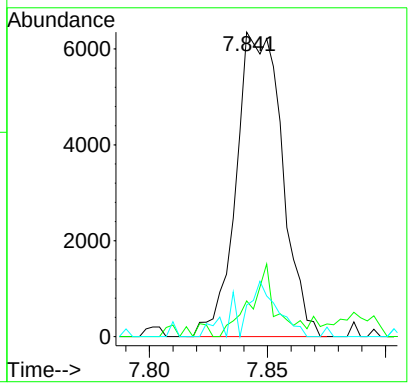


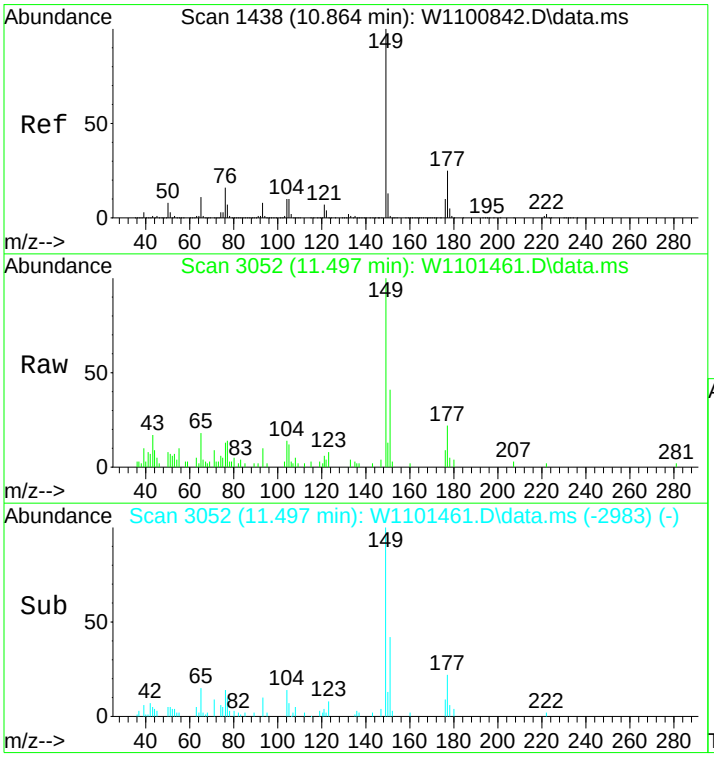


#31
Naphthalene
Concen: 0.34 µg/mL
RT: 7.841 min Scan# 1764
Delta R.T. -0.011 min
Lab File: W1101461.D
Acq: 13 Jul 2011 7:26 pm

Tgt Ion:128 Resp: 8569

Ion	Ratio	Lower	Upper
128	100		
129	12.7	9.1	13.7
127	0.0	11.8	17.8#

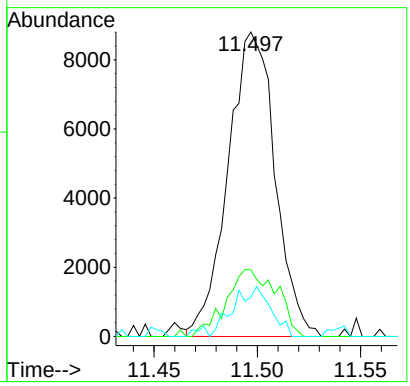


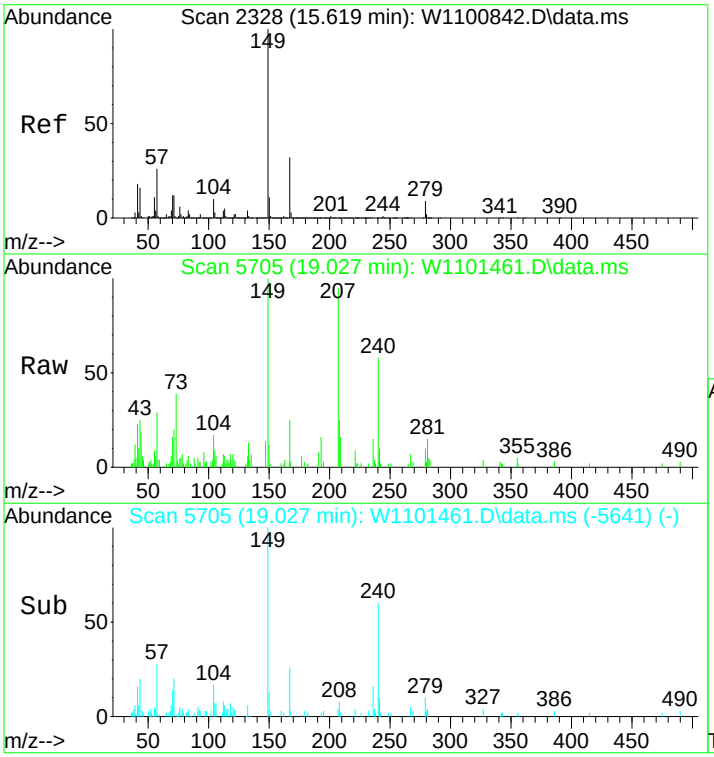


#61
Diethlyphthalate
Concen: 0.77 µg/mL
RT: 11.497 min Scan# 3052
Delta R.T. -0.012 min
Lab File: W1101461.D
Acq: 13 Jul 2011 7:26 pm

Tgt Ion:149 Resp: 13944

Ion	Ratio	Lower	Upper
149	100		
177	23.5	16.5	24.7
150	12.9	10.2	15.4

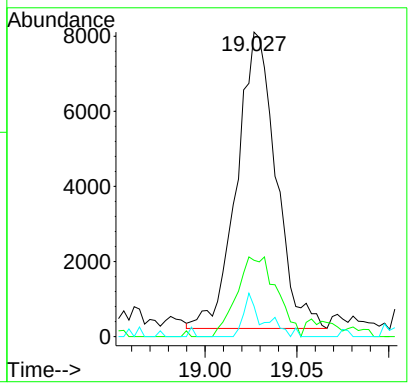




#89
bis(2-Ethylhexyl)phthalate
Concen: 0.72 µg/mL
RT: 19.027 min Scan# 5705
Delta R.T. -0.026 min
Lab File: W1101461.D
Acq: 13 Jul 2011 7:26 pm

Tgt Ion:149 Resp: 11669

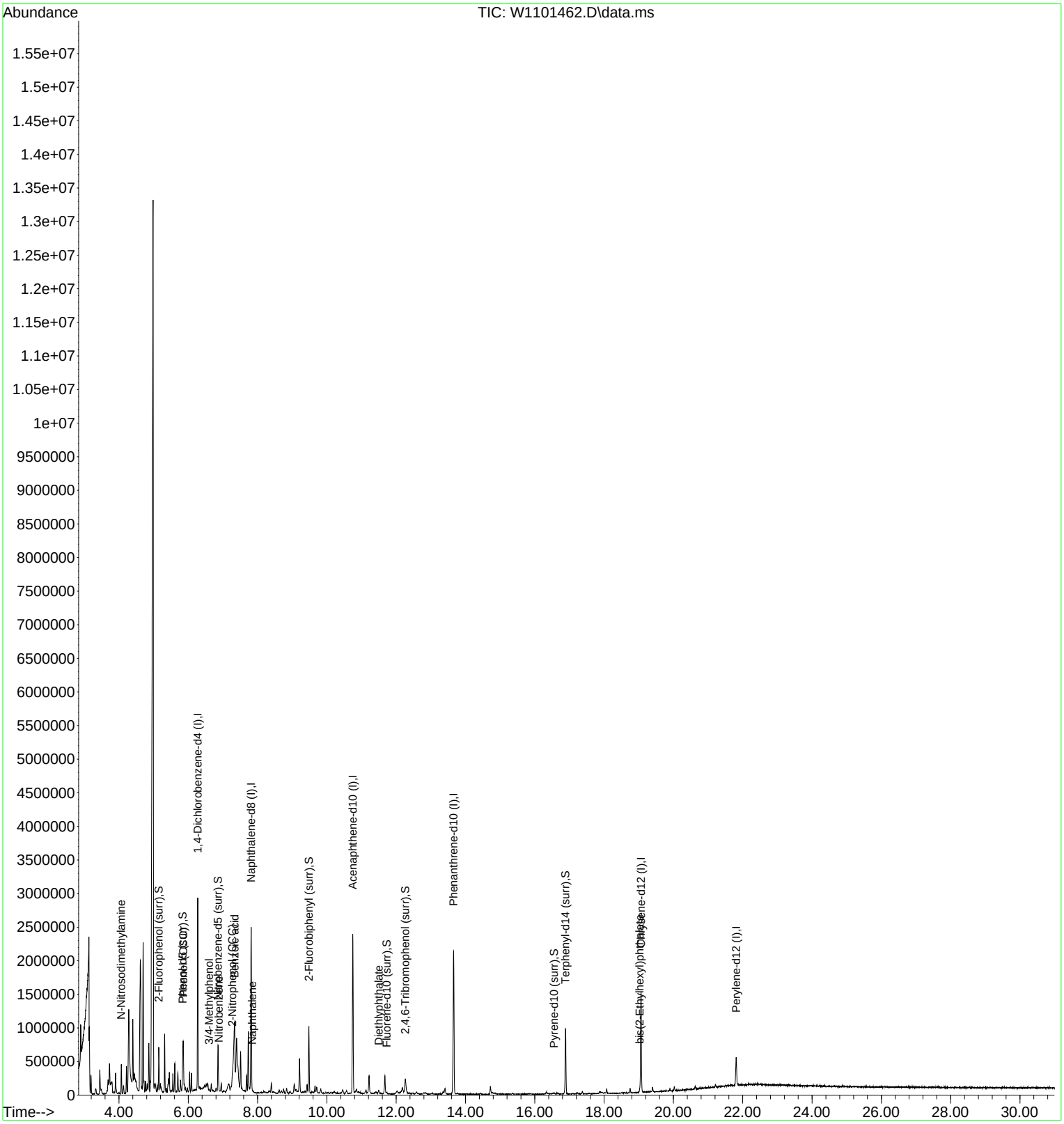
Ion	Ratio	Lower	Upper
149	100		
167	27.4	25.0	37.4
279	0.0	6.0	9.0#



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101462.D
Acq On : 13 Jul 2011 8:03 pm
Operator : tdd/lah
Sample : RUN 3 LD
Misc : 0611-23
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 14 07:18:20 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101462.D
Acq On : 13 Jul 2011 8:03 pm
Operator : tdd/lah
Sample : RUN 3 LD
Misc : 0611-23
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 14 07:18:20 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.274	152	469854	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.816	136	1473629	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.747	164	882883	40.00	µg/mL	-0.01
69) Phenanthrene-d10 (I)	13.660	188	1458097	40.00	µg/mL	-0.01
83) Chrysene-d12 (I)	19.066	240	918275	40.00	µg/mL	-0.01
94) Perylene-d12 (I)	21.811	264	270784	40.00	µg/mL	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.150	112	196602	15.05	µg/mL	0.02
5) Phenol-d5 (surr)	5.843	99	195601	13.77	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.859	82	242108	17.45	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.482	172	475695	15.94	µg/mL	0.00
62) Fluorene-d10 (surr)	11.730	176	9152	0.40	µg/mL	-0.01
70) 2,4,6-Tribromophenol (...	12.263	330	46416	15.89	µg/mL	0.00
80) Pyrene-d10 (surr)	16.557	212	12268	0.35	µg/mL	-0.02
82) Terphenyl-d14 (surr)	16.887	244	451611	18.23	µg/mL	-0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.069	74	31409	4.12	µg/mL#	67
3) Pyridine	0.000		0	N.D.		
6) Phenol (CCC)	5.857	94	93062	6.32	µg/mL#	66
7) Aniline	0.000		0	N.D.	d	
8) bis(2-Chloroethyl)ether	0.000		0	N.D.	d	
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.	d	
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.	d	
15) bis(2-Chloroisopropyl)...	0.000		0	N.D.		
16) 3/4-Methylphenol	6.604	107	6701	0.56	µg/mL	98
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		
18) o-Toluidine	0.000		0	N.D.	d	
19) Hexachloroethane	0.000		0	N.D.	d	
21) Nitrobenzene	6.885	77	16776	1.33	µg/mL#	63
23) Isophorone	0.000		0	N.D.	d	
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) 2-Nitrophenol (CCC)	7.273	139	20530	3.43	µg/mL#	69
26) Benzoic acid	7.336	105	525377	88.30	µg/mL#	86
27) bis(2-Chloroethoxy)met...	0.000		0	N.D.	d	
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.		
29) a,a-Dimethylphenethyla...	0.000		0	N.D.	d	
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
31) Naphthalene	7.847	128	14284	0.37	µg/mL#	92
32) 4-Chloroaniline	0.000		0	N.D.		
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.		
34) Quinoline	0.000		0	N.D.		
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.		
37) 2-Methylnaphthalene	0.000		0	N.D.		
38) 1-Methylnaphthalene	0.000		0	N.D.		
39) Hexachlorocyclopentadi...	0.000		0	N.D.		
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.		
42) 2,4,5-Trichlorophenol	0.000		0	N.D.		
44) Biphenyl	0.000		0	N.D.	d	
45) 2-Chloronaphthalene	0.000		0	N.D.		
46) 2-Nitroaniline	0.000		0	N.D.	d	

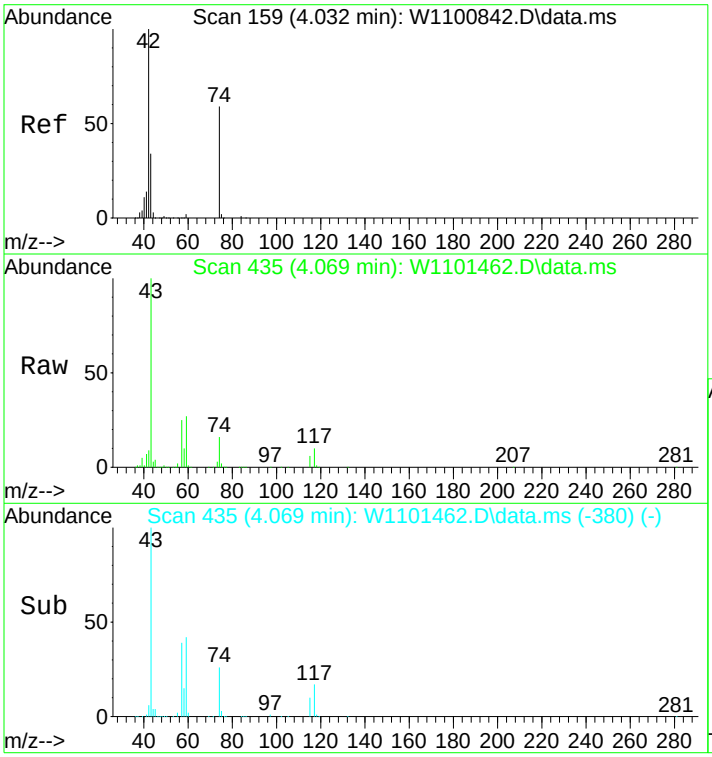
Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101462.D
Acq On : 13 Jul 2011 8:03 pm
Operator : tdd/lah
Sample : RUN 3 LD
Misc : 0611-23
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 14 07:18:20 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.	
48) Dimethylphthalate	0.000		0	N.D.	
49) 1,3-Dinitrobenzene	0.000		0	N.D.	
50) 2,6-Dinitrotoluene	0.000		0	N.D.	
51) 1,2-Dinitrobenzene	0.000		0	N.D.	
52) Acenaphthylene	0.000		0	N.D. d	
53) 3-Nitroaniline	0.000		0	N.D.	
54) Acenaphthene (CCC)	0.000		0	N.D. d	
55) 2,4-Dinitrophenol (SPCC)	0.000		0	N.D. d	
56) 4-Nitrophenol (SPCC)	0.000		0	N.D.	
57) 2,4-Dinitrotoluene	0.000		0	N.D.	
58) Dibenzofuran	0.000		0	N.D. d	
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
61) Diethlyphthalate	11.497	149	22854	0.85 µg/mL	96
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.	
64) Fluorene	0.000		0	N.D.	
65) 4-Nitroaniline	0.000		0	N.D.	
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.	
67) N-Nitrosodiphenylamine...	0.000		0	N.D.	
68) Azobenzene	0.000		0	N.D. d	
71) 4-Bromophenyl-phenylether	0.000		0	N.D.	
72) Hexachlorobenzene	0.000		0	N.D.	
73) Pentachlorophenol (CCC)	0.000		0	N.D.	
74) Phenanthrene	0.000		0	N.D.	
75) Anthracene	0.000		0	N.D.	
76) Carbazole	0.000		0	N.D.	
77) Di-n-butylphthalate	14.789	149	10018	N.D.	
78) Fluoranthene (CCC)	0.000		0	N.D.	
79) Benzidine	0.000		0	N.D.	
81) Pyrene	0.000		0	N.D.	
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.	
85) Butylbenzylphthalate	0.000		0	N.D. d	
86) 3,3-Dimethylbenzidine	0.000		0	N.D.	
87) bis(2-Ethylhexyl)adipate	0.000		0	N.D. d	
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.	
89) bis(2-Ethylhexyl)phtha...	19.027	149	16275	0.82 µg/mL#	93
90) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
91) Benzo(a)anthracene	0.000		0	N.D. d	
92) Chrysene	0.000		0	N.D. d	
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.	
95) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.	
96) Benzo(b)fluoranthene	0.000		0	N.D.	
97) Benzo(k)fluoranthene	0.000		0	N.D.	
98) Benzo(e)pyrene	0.000		0	N.D.	
99) Benzo(a)pyrene (CCC)	0.000		0	N.D.	
100) Perylene	0.000		0	N.D.	
101) 3-Methylcholanthrene	0.000		0	N.D.	
102) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
103) Dibenz(a,h)anthracene	0.000		0	N.D.	
104) Benzo(g,h,i)perylene	0.000		0	N.D.	
105) Dibenzo(a,e)pyrene	0.000		0	N.D.	

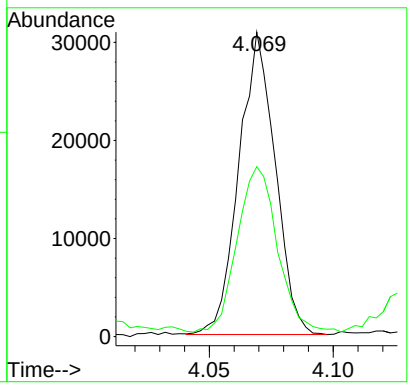
(#) = qualifier out of range (m) = manual integration (+) = signals summed

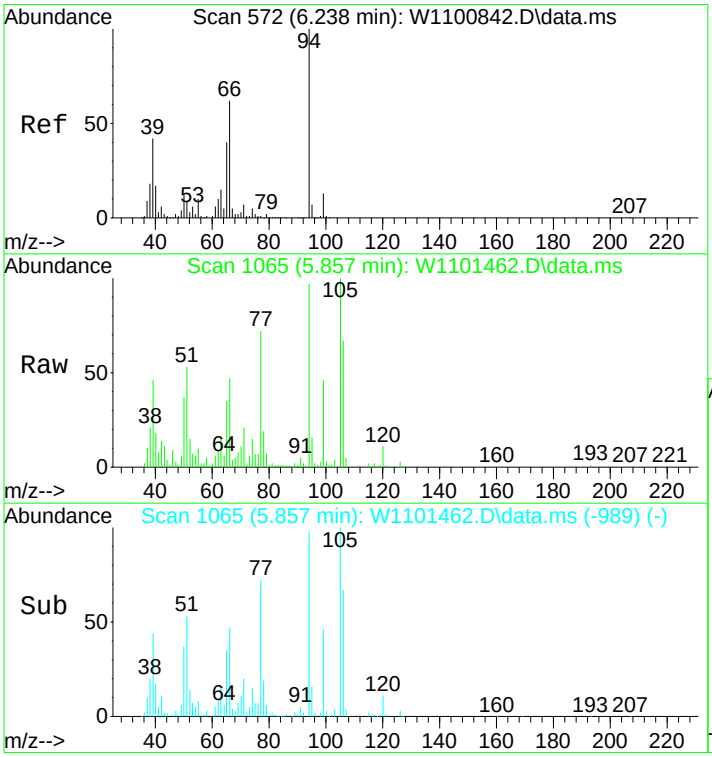


#2
N-Nitrosodimethylamine
Concen: 4.12 µg/mL
RT: 4.069 min Scan# 435
Delta R.T. -0.051 min
Lab File: W1101462.D
Acq: 13 Jul 2011 8:03 pm

Tgt Ion: 74 Resp: 31409

Ion	Ratio	Lower	Upper
74	100		
42	60.5	73.5	110.3#

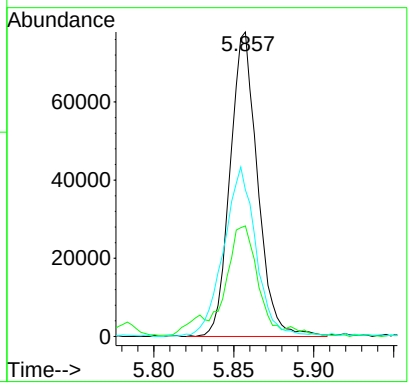


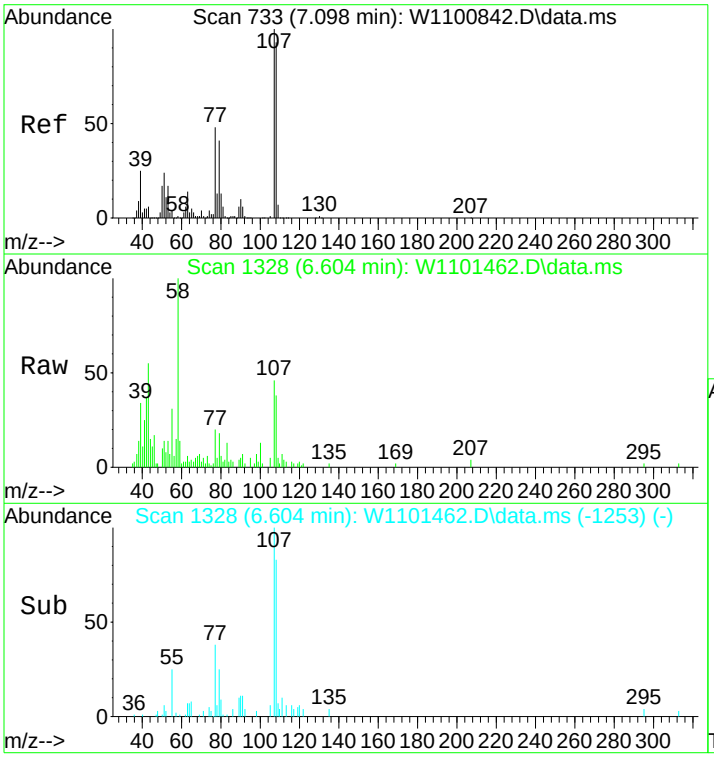


#6
Phenol (CCC)
Concen: 6.32 µg/mL
RT: 5.857 min Scan# 1065
Delta R.T. 0.008 min
Lab File: W1101462.D
Acq: 13 Jul 2011 8:03 pm

Tgt Ion: 94 Resp: 93062

Ion	Ratio	Lower	Upper
94	100		
65	35.9	22.7	34.1#
66	65.8	29.4	44.2#

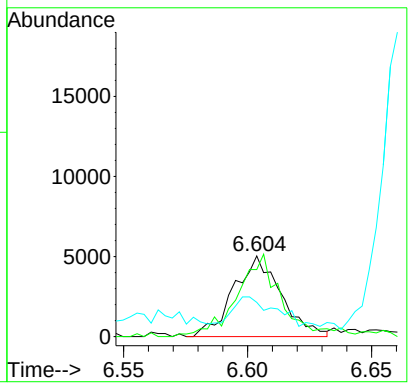


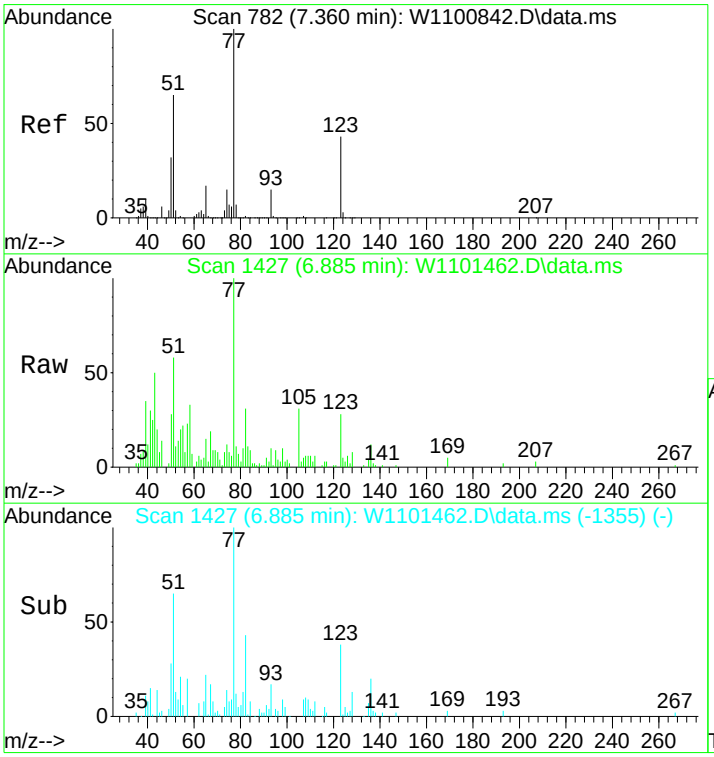


#16
3/4-Methylphenol
Concen: 0.56 µg/mL
RT: 6.604 min Scan# 1328
Delta R.T. 0.005 min
Lab File: W1101462.D
Acq: 13 Jul 2011 8:03 pm

Tgt Ion:107 Resp: 6701

Ion	Ratio	Lower	Upper
107	100		
108	91.7	73.7	110.5
77	32.8	29.0	43.6

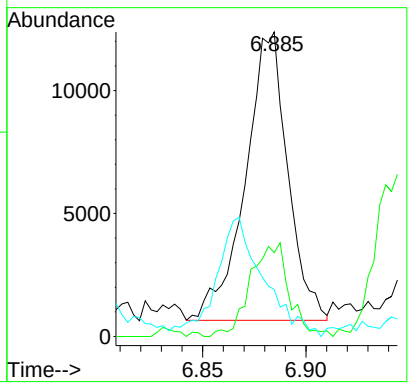


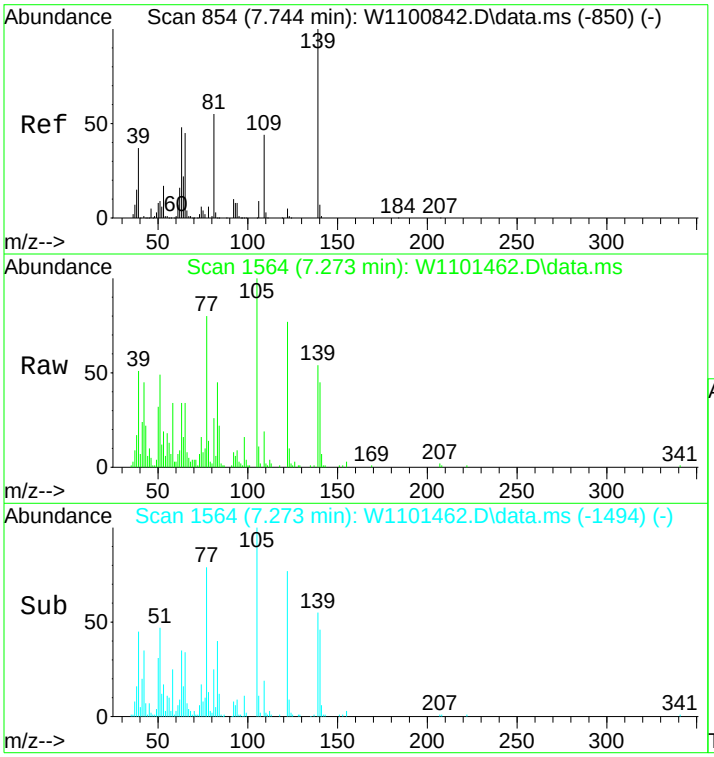


#21
Nitrobenzene
Concen: 1.33 µg/mL
RT: 6.885 min Scan# 1427
Delta R.T. -0.003 min
Lab File: W1101462.D
Acq: 13 Jul 2011 8:03 pm

Tgt Ion: 77 Resp: 16776

Ion	Ratio	Lower	Upper
77	100		
123	29.4	36.7	55.1#
65	45.9	11.2	16.8#

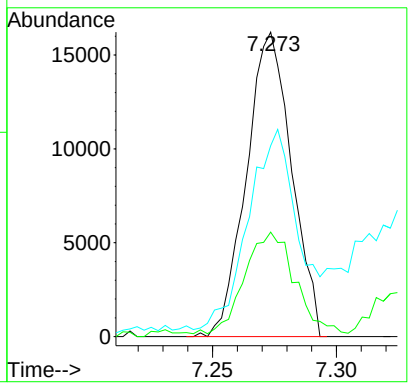


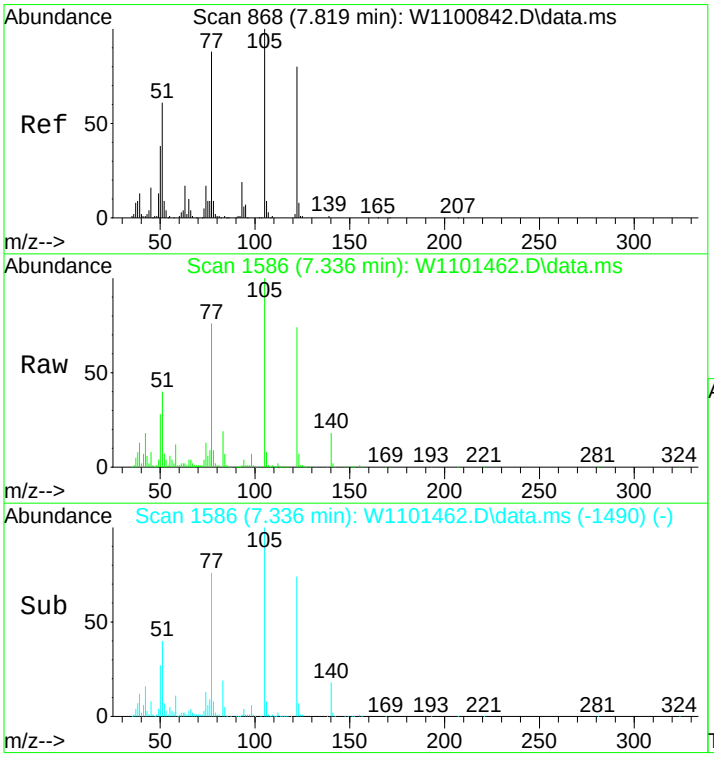


#25
2-Nitrophenol (CCC)
Concen: 3.43 µg/mL
RT: 7.273 min Scan# 1564
Delta R.T. -0.009 min
Lab File: W1101462.D
Acq: 13 Jul 2011 8:03 pm

Tgt Ion:139 Resp: 20530

Ion	Ratio	Lower	Upper
139	100		
109	37.4	30.6	45.8
65	71.4	27.2	40.8#

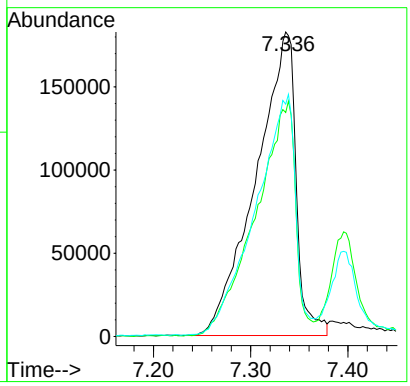


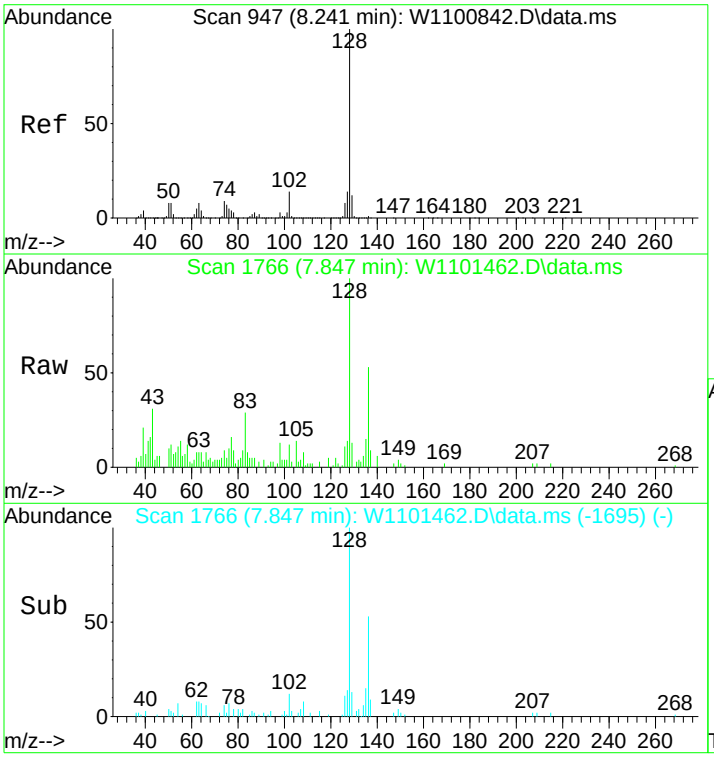


#26
Benzoic acid
Concen: 88.30 µg/mL
RT: 7.336 min Scan# 1586
Delta R.T. 0.065 min
Lab File: W1101462.D
Acq: 13 Jul 2011 8:03 pm

Tgt Ion:105 Resp: 525377

Ion	Ratio	Lower	Upper
105	100		
122	76.7	77.8	116.8#
77	79.0	67.6	101.4

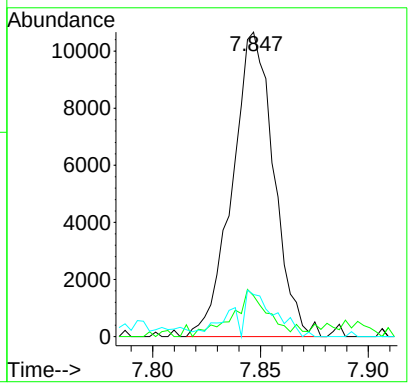


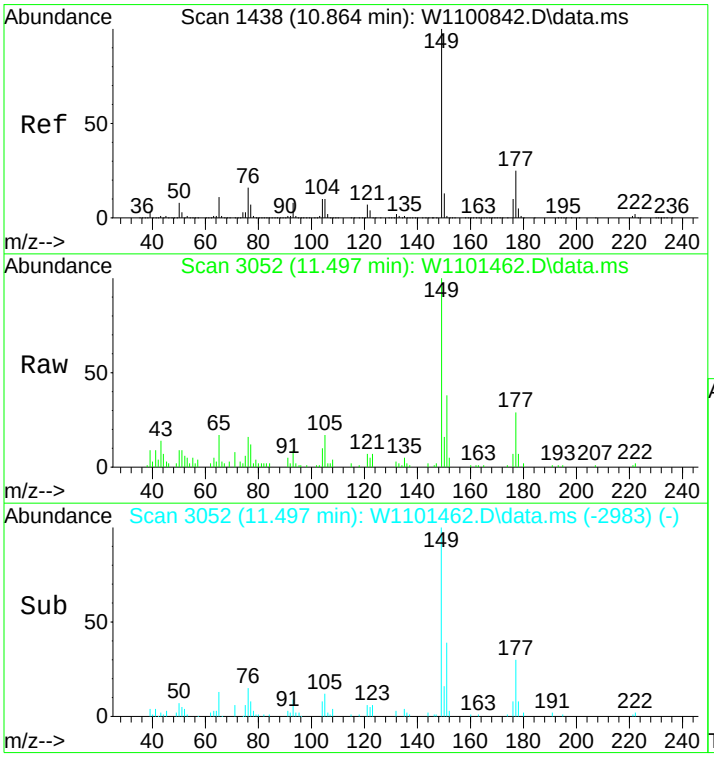


#31
Naphthalene
Concen: 0.37 µg/mL
RT: 7.847 min Scan# 1766
Delta R.T. -0.006 min
Lab File: W1101462.D
Acq: 13 Jul 2011 8:03 pm

Tgt Ion:128 Resp: 14284

Ion	Ratio	Lower	Upper
128	100		
129	12.8	9.1	13.7
127	10.3	11.8	17.8#

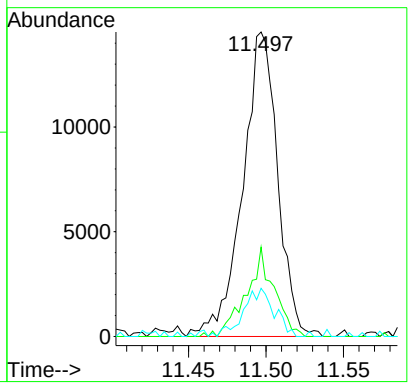


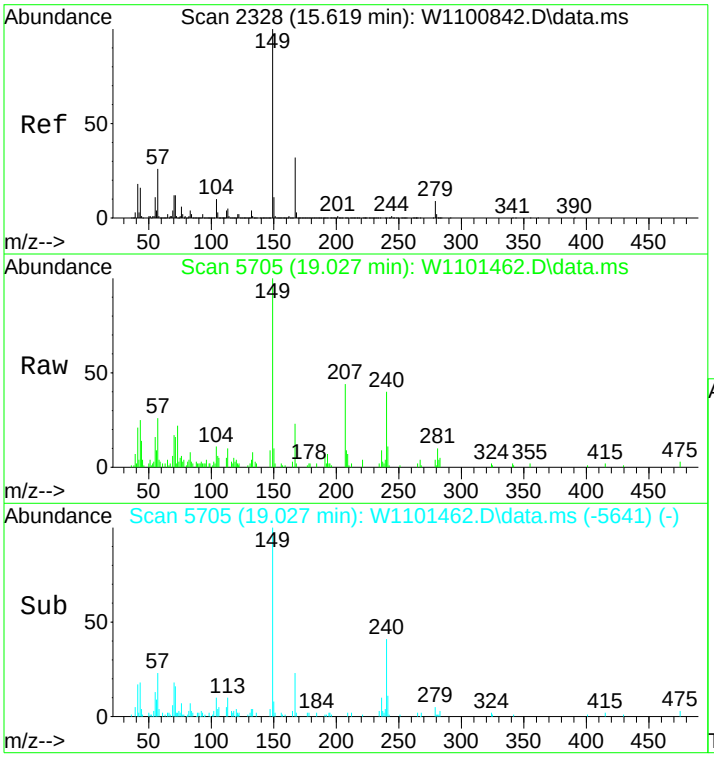


#61
Diethlyphthalate
Concen: 0.85 µg/mL
RT: 11.497 min Scan# 3052
Delta R.T. -0.012 min
Lab File: W1101462.D
Acq: 13 Jul 2011 8:03 pm

Tgt Ion:149 Resp: 22854

Ion	Ratio	Lower	Upper
149	100		
177	23.1	16.5	24.7
150	13.9	10.2	15.4

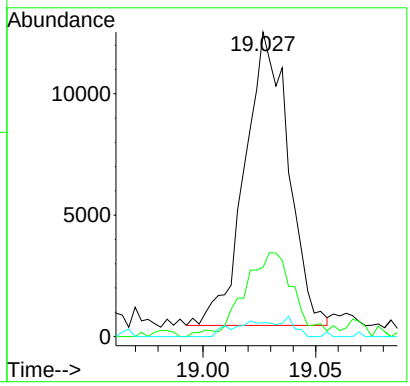




#89
bis(2-Ethylhexyl)phthalate
Concen: 0.82 µg/mL
RT: 19.027 min Scan# 5705
Delta R.T. -0.026 min
Lab File: W1101462.D
Acq: 13 Jul 2011 8:03 pm

Tgt Ion:149 Resp: 16275

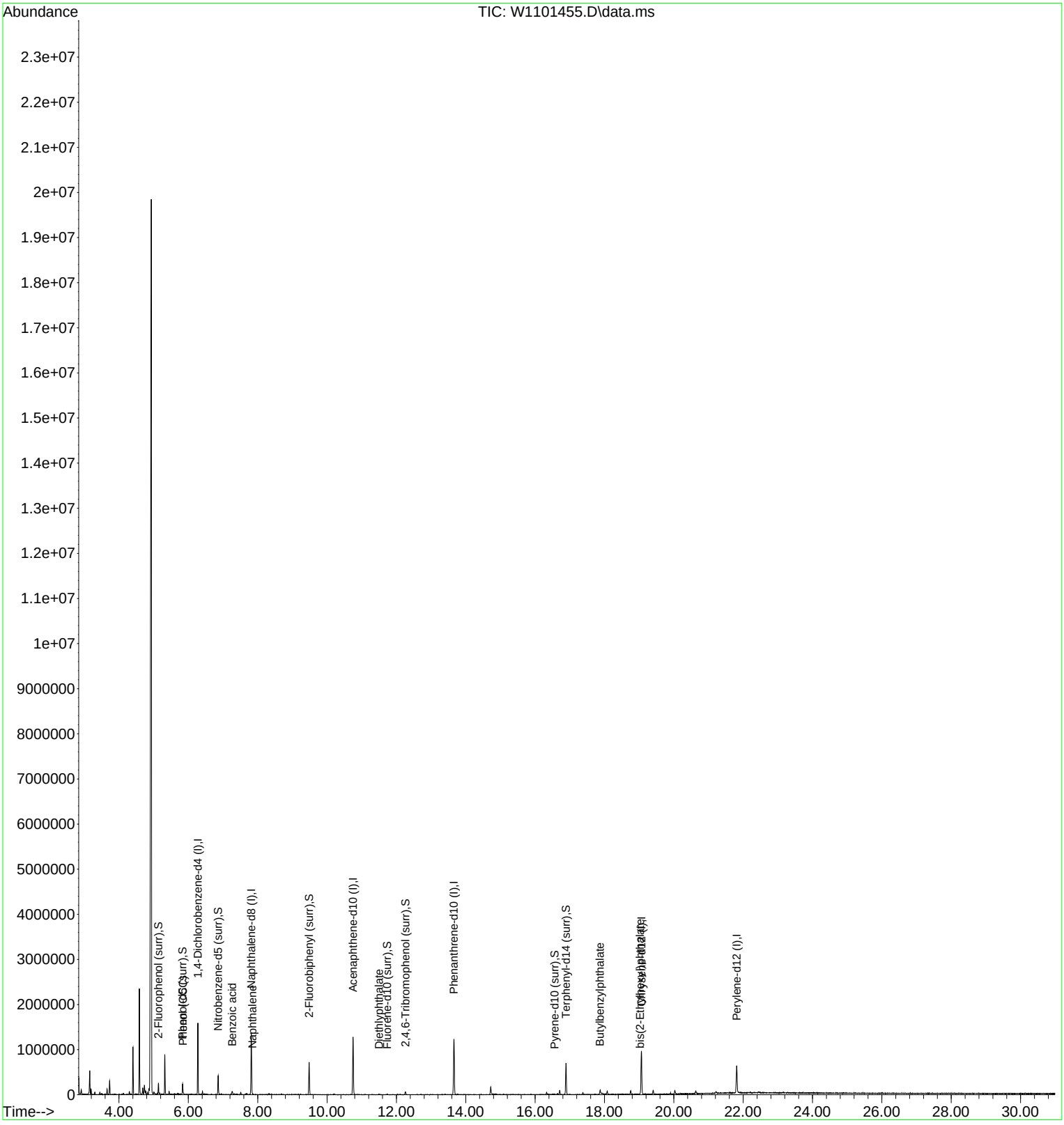
Ion	Ratio	Lower	Upper
149	100		
167	33.2	25.0	37.4
279	0.0	6.0	9.0#



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101455.D
Acq On : 13 Jul 2011 3:43 pm
Operator : tdd/lah
Sample : FIELD BLANK
Misc : 0611-23
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 16:22:27 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101455.D
Acq On : 13 Jul 2011 3:43 pm
Operator : tdd/lah
Sample : FIELD BLANK
Misc : 0611-23
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 16:22:27 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

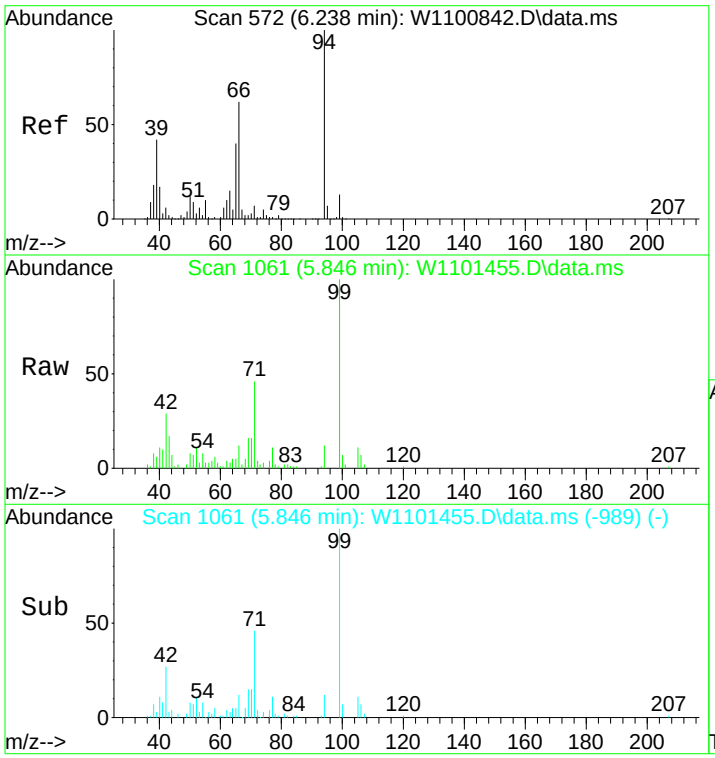
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.275	152	256537	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.816	136	794615	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.750	164	468060	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.660	188	763248	40.00	µg/mL	-0.01
83) Chrysene-d12 (I)	19.067	240	587407	40.00	µg/mL	-0.01
94) Perylene-d12 (I)	21.814	264	367658	40.00	µg/mL	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.136	112	61955	8.69	µg/mL	0.00
5) Phenol-d5 (surr)	5.835	99	76879	9.91	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.859	82	155893	20.58	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.485	172	318265	20.12	µg/mL	0.00
62) Fluorene-d10 (surr)	11.732	176	5533	0.45	µg/mL	-0.01
70) 2,4,6-Tribromophenol (...	12.263	330	9818	6.42	µg/mL	0.00
80) Pyrene-d10 (surr)	16.563	212	8171	0.45	µg/mL	-0.01
82) Terphenyl-d14 (surr)	16.890	244	294181	22.69	µg/mL	-0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol (CCC)	5.846	94	2591	0.32	µg/mL#	1
7) Aniline	0.000		0	N.D.	d	
8) bis(2-Chloroethyl)ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.	d	
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) bis(2-Chloroisopropyl)...	0.000		0	N.D.		
16) 3/4-Methylphenol	0.000		0	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		
18) o-Toluidine	0.000		0	N.D.		
19) Hexachloroethane	0.000		0	N.D.		
21) Nitrobenzene	0.000		0	N.D.		
23) Isophorone	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) 2-Nitrophenol (CCC)	0.000		0	N.D.		
26) Benzoic acid	7.265	105	32068m	10.00	µg/mL	**Manual Int. "II" (TDD)**
27) bis(2-Chloroethoxy)met...	0.000		0	N.D.		
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.		
29) a,a-Dimethylphenethyla...	0.000		0	N.D.		
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
31) Naphthalene	7.850	128	8770	0.42	µg/mL#	86
32) 4-Chloroaniline	0.000		0	N.D.		
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.		
34) Quinoline	0.000		0	N.D.		
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.		
37) 2-Methylnaphthalene	0.000		0	N.D.		
38) 1-Methylnaphthalene	0.000		0	N.D.		
39) Hexachlorocyclopentadi...	0.000		0	N.D.		
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.		
42) 2,4,5-Trichlorophenol	0.000		0	N.D.		
44) Biphenyl	0.000		0	N.D.	d	
45) 2-Chloronaphthalene	0.000		0	N.D.		
46) 2-Nitroaniline	0.000		0	N.D.		

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101455.D
Acq On : 13 Jul 2011 3:43 pm
Operator : tdd/lah
Sample : FIELD BLANK
Misc : 0611-23
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 16:22:27 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.	
48) Dimethylphthalate	0.000		0	N.D.	
49) 1,3-Dinitrobenzene	0.000		0	N.D.	
50) 2,6-Dinitrotoluene	0.000		0	N.D.	
51) 1,2-Dinitrobenzene	0.000		0	N.D.	
52) Acenaphthylene	0.000		0	N.D.	
53) 3-Nitroaniline	0.000		0	N.D.	
54) Acenaphthene (CCC)	0.000		0	N.D.	
55) 2,4-Dinitrophenol (SPCC)	0.000		0	N.D.	
56) 4-Nitrophenol (SPCC)	0.000		0	N.D.	
57) 2,4-Dinitrotoluene	0.000		0	N.D.	
58) Dibenzofuran	0.000		0	N.D.	
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
61) Diethlyphthalate	11.500	149	6869	0.48 µg/mL#	60
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.	
64) Fluorene	0.000		0	N.D.	
65) 4-Nitroaniline	0.000		0	N.D.	
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.	
67) N-Nitrosodiphenylamine...	0.000		0	N.D.	
68) Azobenzene	0.000		0	N.D.	
71) 4-Bromophenyl-phenylether	0.000		0	N.D.	
72) Hexachlorobenzene	0.000		0	N.D.	
73) Pentachlorophenol (CCC)	0.000		0	N.D.	
74) Phenanthrene	0.000		0	N.D.	
75) Anthracene	0.000		0	N.D.	
76) Carbazole	0.000		0	N.D.	
77) Di-n-butylphthalate	0.000		0	N.D. d	
78) Fluoranthene (CCC)	0.000		0	N.D.	
79) Benzidine	0.000		0	N.D.	
81) Pyrene	0.000		0	N.D.	
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.	
85) Butylbenzylphthalate	17.869	149	4672	0.51 µg/mL#	82
86) 3,3-Dimethylbenzidine	0.000		0	N.D.	
87) bis(2-Ethylhexyl)adipate	0.000		0	N.D. d	
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.	
89) bis(2-Ethylhexyl)phtha...	19.030	149	6589	0.52 µg/mL#	91
90) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
91) Benzo(a)anthracene	0.000		0	N.D. d	
92) Chrysene	0.000		0	N.D. d	
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.	
95) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.	
96) Benzo(b)fluoranthene	0.000		0	N.D.	
97) Benzo(k)fluoranthene	0.000		0	N.D.	
98) Benzo(e)pyrene	0.000		0	N.D.	
99) Benzo(a)pyrene (CCC)	0.000		0	N.D. d	
100) Perylene	0.000		0	N.D. d	
101) 3-Methylcholanthrene	0.000		0	N.D.	
102) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
103) Dibenz(a,h)anthracene	0.000		0	N.D.	
104) Benzo(g,h,i)perylene	0.000		0	N.D.	
105) Dibenzo(a,e)pyrene	0.000		0	N.D.	

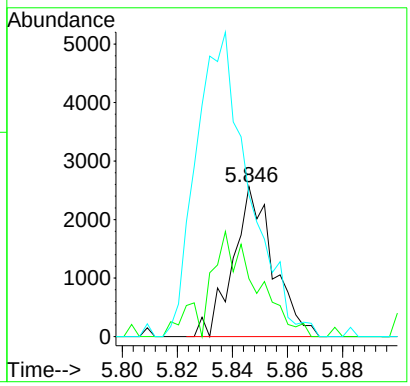
(#) = qualifier out of range (m) = manual integration (+) = signals summed

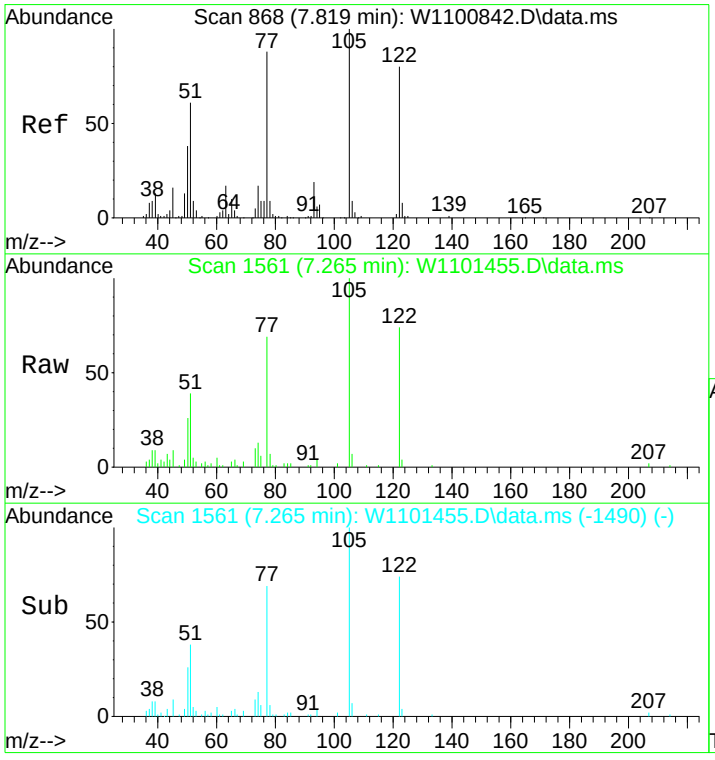


#6
Phenol (CCC)
Concen: 0.32 µg/mL
RT: 5.846 min Scan# 1061
Delta R.T. -0.003 min
Lab File: W1101455.D
Acq: 13 Jul 2011 3:43 pm

Tgt Ion: 94 Resp: 2591

Ion	Ratio	Lower	Upper
94	100		
65	83.8	22.7	34.1#
66	267.9	29.4	44.2#

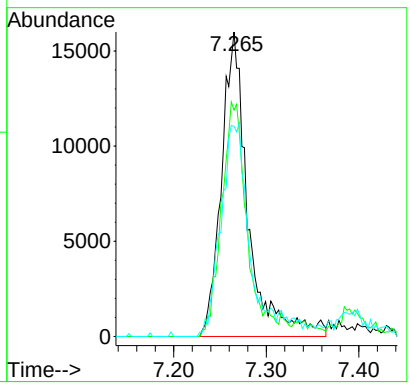


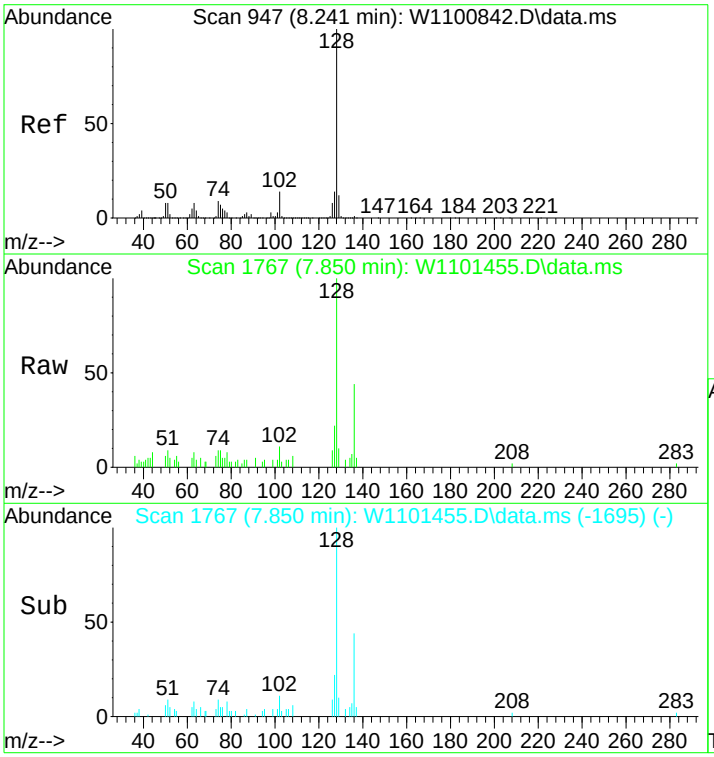


#26
Benzoic acid
Concen: 10.00 µg/mL m
RT: 7.265 min Scan# 1561
Delta R.T. -0.006 min
Lab File: W1101455.D
Acq: 13 Jul 2011 3:43 pm

Tgt Ion:105 Resp: 32068

Ion	Ratio	Lower	Upper
105	100		
122	72.8	77.8	116.8#
77	69.2	67.6	101.4

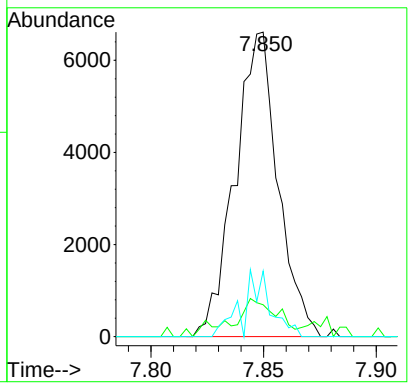


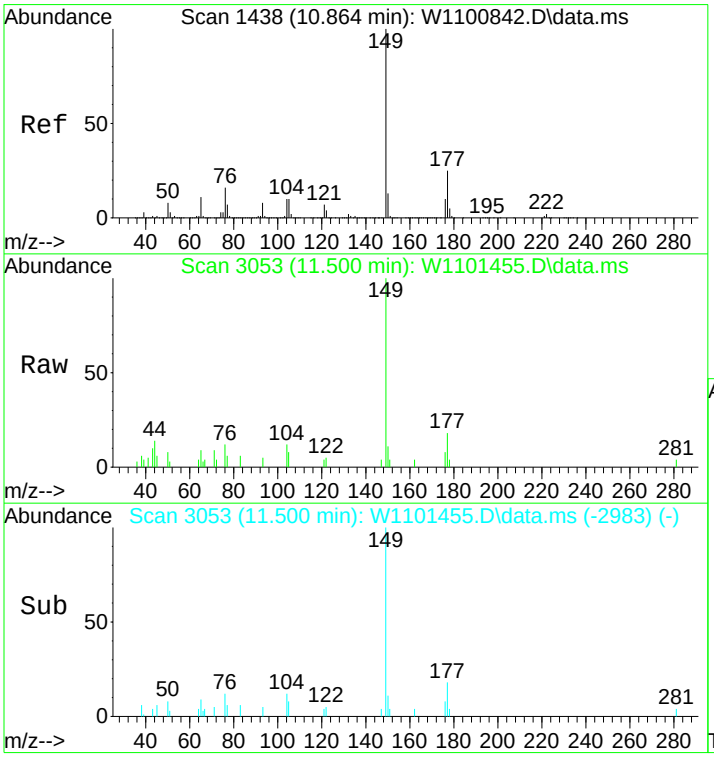


#31
Naphthalene
Concen: 0.42 µg/mL
RT: 7.850 min Scan# 1767
Delta R.T. -0.003 min
Lab File: W1101455.D
Acq: 13 Jul 2011 3:43 pm

Tgt Ion:128 Resp: 8770

Ion	Ratio	Lower	Upper
128	100		
129	0.0	9.1	13.7#
127	13.9	11.8	17.8

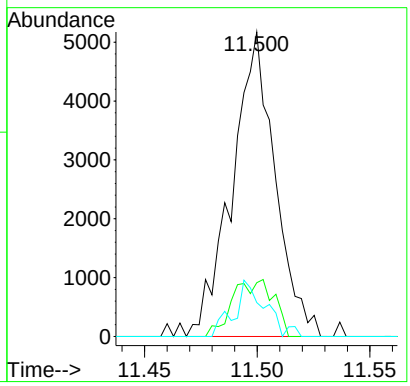


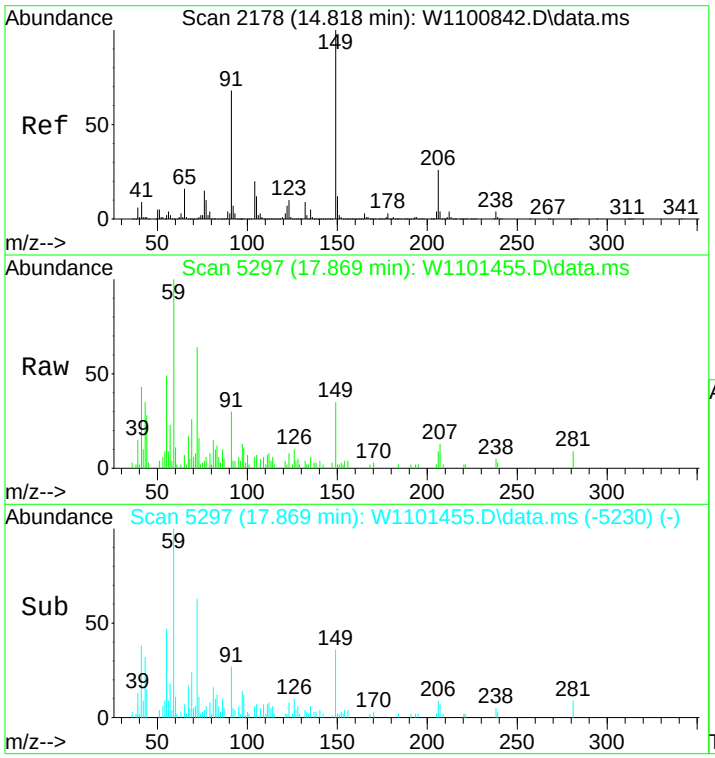


#61
Diethlyphthalate
Concen: 0.48 µg/mL
RT: 11.500 min Scan# 3053
Delta R.T. -0.009 min
Lab File: W1101455.D
Acq: 13 Jul 2011 3:43 pm

Tgt Ion:149 Resp: 6869

Ion	Ratio	Lower	Upper
149	100		
177	0.0	16.5	24.7#
150	0.0	10.2	15.4#

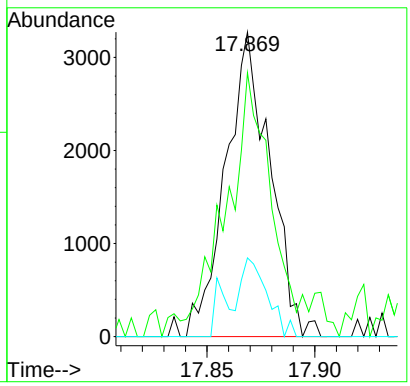


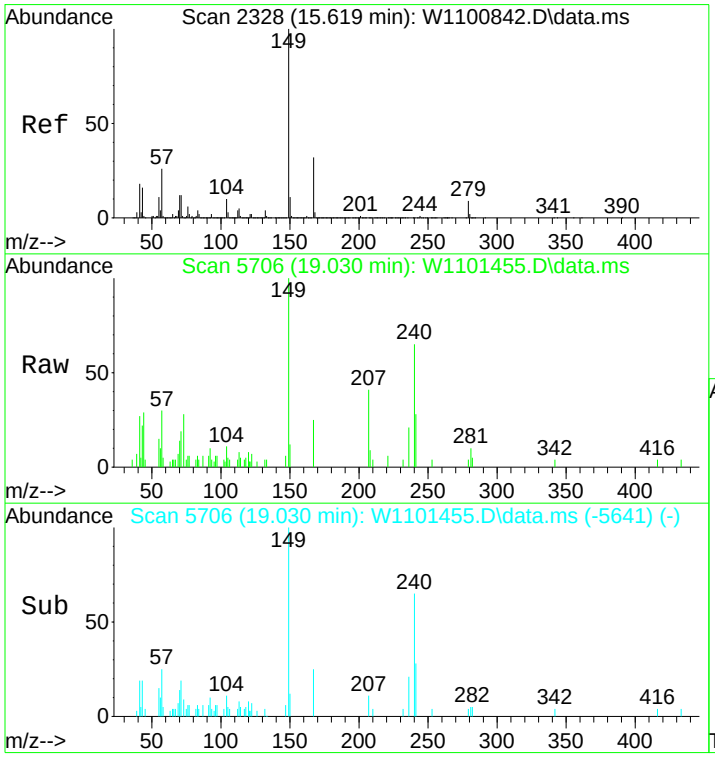


#85
Butylbenzylphthalate
Concen: 0.51 µg/mL
RT: 17.869 min Scan# 5297
Delta R.T. -0.017 min
Lab File: W1101455.D
Acq: 13 Jul 2011 3:43 pm

Tgt Ion:149 Resp: 4672

Ion	Ratio	Lower	Upper
149	100		
91	73.8	53.5	80.3
206	0.0	18.1	27.1#

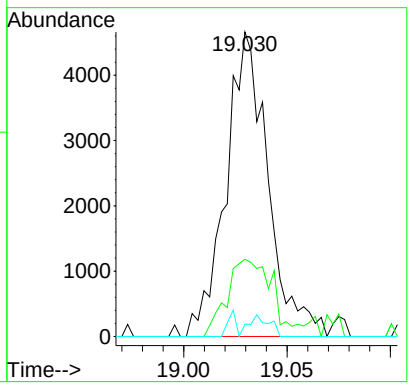




#89
bis(2-Ethylhexyl)phthalate
Concen: 0.52 µg/mL
RT: 19.030 min Scan# 5706
Delta R.T. -0.023 min
Lab File: W1101455.D
Acq: 13 Jul 2011 3:43 pm

Tgt Ion:149 Resp: 6589

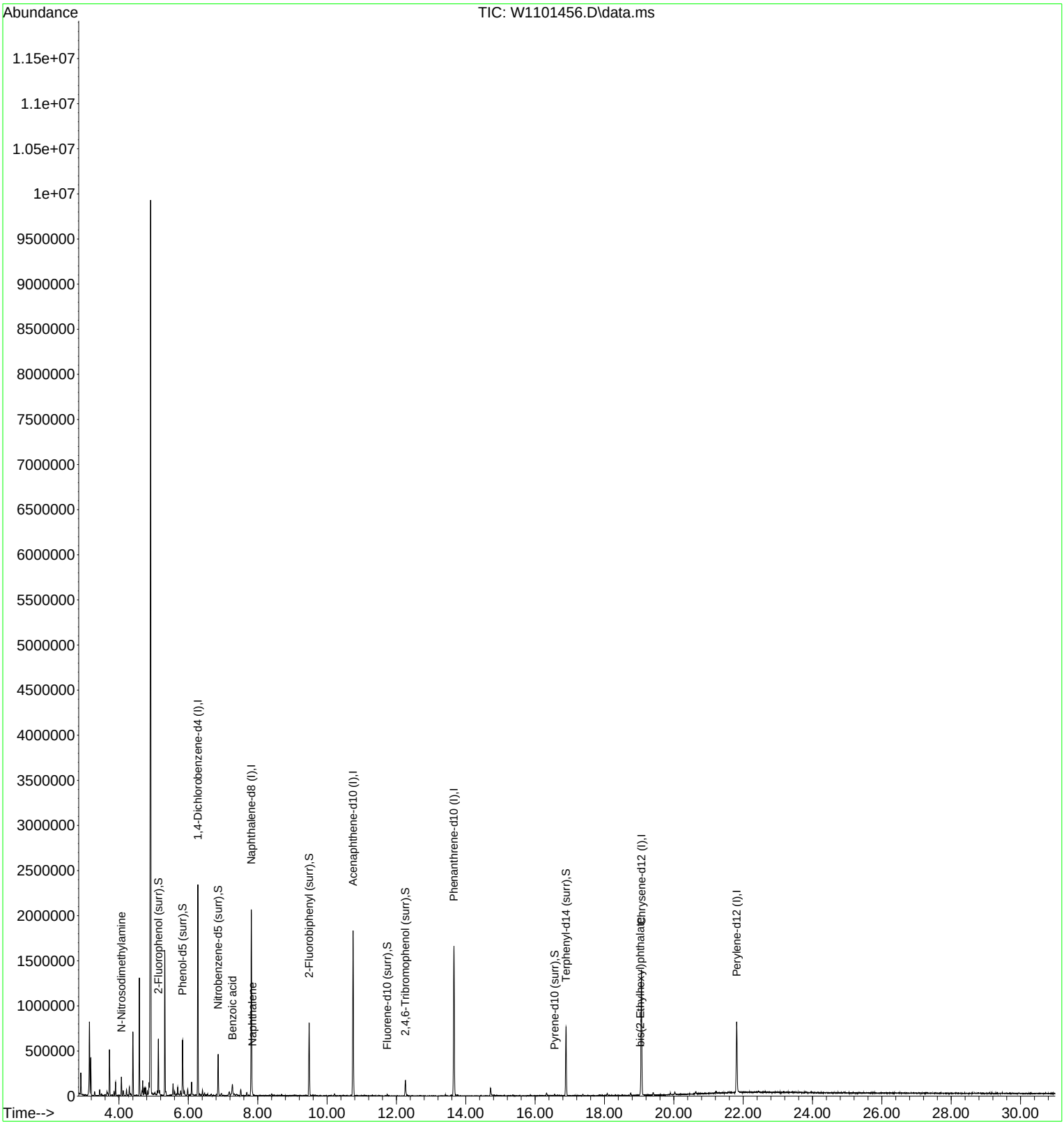
Ion	Ratio	Lower	Upper
149	100		
167	27.7	25.0	37.4
279	0.0	6.0	9.0#



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101456.D
Acq On : 13 Jul 2011 4:20 pm
Operator : tdd/lah
Sample : REAGENT BLANK
Misc : 0611-23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 14 06:45:55 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101456.D
Acq On : 13 Jul 2011 4:20 pm
Operator : tdd/lah
Sample : REAGENT BLANK
Misc : 0611-23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 14 06:45:55 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.275	152	386535	40.00	µg/mL	0.00	
22) Naphthalene-d8 (I)	7.816	136	1156460	40.00	µg/mL	0.00	
40) Acenaphthene-d10 (I)	10.751	164	639333	40.00	µg/mL	0.00	
69) Phenanthrene-d10 (I)	13.660	188	1007569	40.00	µg/mL	-0.01	
83) Chrysene-d12 (I)	19.067	240	857439	40.00	µg/mL	-0.01	
94) Perylene-d12 (I)	21.814	264	489342	40.00	µg/mL	-0.02	
System Monitoring Compounds							
4) 2-Fluorophenol (surr)	5.136	112	156213	14.54	µg/mL	0.00	
5) Phenol-d5 (surr)	5.835	99	192211	16.45	µg/mL	0.00	
20) Nitrobenzene-d5 (surr)	6.859	82	172657	15.13	µg/mL	0.00	
43) 2-Fluorobiphenyl (surr)	9.485	172	362937	16.80	µg/mL	0.00	
62) Fluorene-d10 (surr)	11.735	176	6055	0.36	µg/mL	0.00	
70) 2,4,6-Tribromophenol (...	12.258	330	24987	12.38	µg/mL	-0.01	
80) Pyrene-d10 (surr)	16.560	212	9529	0.40	µg/mL	-0.01	
82) Terphenyl-d14 (surr)	16.890	244	329056	19.23	µg/mL	-0.01	
Target Compounds						Qvalue	
2) N-Nitrosodimethylamine	4.069	74	14330	2.29	µg/mL#	61	
3) Pyridine	0.000		0	N.D.			
6) Phenol (CCC)	0.000		0	N.D.	d		
7) Aniline	0.000		0	N.D.			
8) bis(2-Chloroethyl)ether	0.000		0	N.D.	d		
9) 2-Chlorophenol	0.000		0	N.D.			
10) 1,3-Dichlorobenzene	0.000		0	N.D.			
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.			
12) Benzyl alcohol	0.000		0	N.D.	d		
13) 1,2-Dichlorobenzene	0.000		0	N.D.			
14) 2-Methylphenol	0.000		0	N.D.			
15) bis(2-Chloroisopropyl)...	0.000		0	N.D.			
16) 3/4-Methylphenol	0.000		0	N.D.			
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.			
18) o-Toluidine	0.000		0	N.D.			
19) Hexachloroethane	0.000		0	N.D.	d		
21) Nitrobenzene	0.000		0	N.D.			
23) Isophorone	0.000		0	N.D.	d		
24) 2,4-Dimethylphenol	0.000		0	N.D.			
25) 2-Nitrophenol (CCC)	0.000		0	N.D.			
26) Benzoic acid	7.271	105	53082m	11.37	µg/mL		Manual Int. "II" (TDD)
27) bis(2-Chloroethoxy)met...	0.000		0	N.D.			
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.			
29) a,a-Dimethylphenethyla...	0.000		0	N.D.			
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.			
31) Naphthalene	7.844	128	16526	0.55	µg/mL	99	
32) 4-Chloroaniline	0.000		0	N.D.			
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.			
34) Quinoline	0.000		0	N.D.			
35) 1,4-Phenylenediamine	0.000		0	N.D.			
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.			
37) 2-Methylnaphthalene	0.000		0	N.D.			
38) 1-Methylnaphthalene	0.000		0	N.D.			
39) Hexachlorocyclopentadi...	0.000		0	N.D.			
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.			
42) 2,4,5-Trichlorophenol	0.000		0	N.D.			
44) Biphenyl	0.000		0	N.D.			
45) 2-Chloronaphthalene	0.000		0	N.D.			
46) 2-Nitroaniline	0.000		0	N.D.			

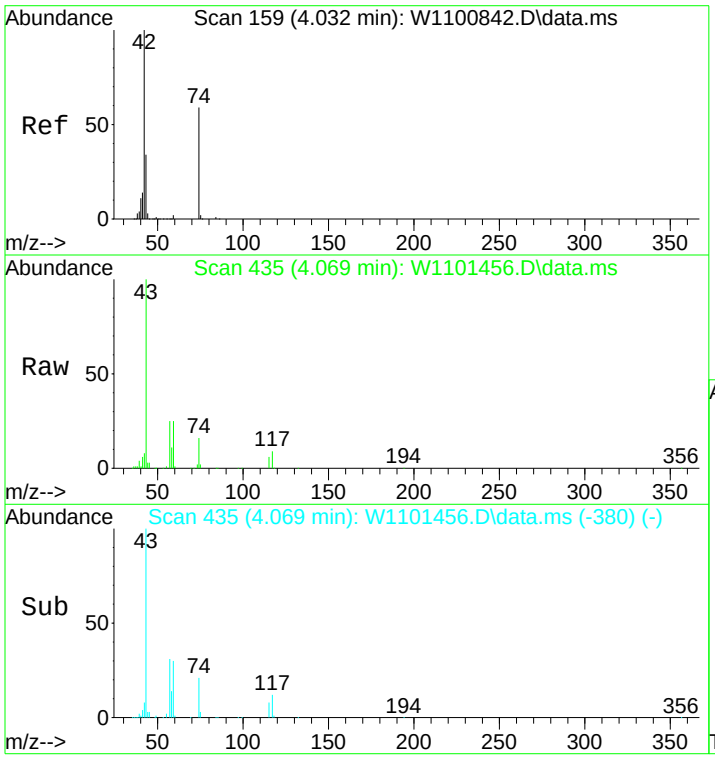
Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101456.D
Acq On : 13 Jul 2011 4:20 pm
Operator : tdd/lah
Sample : REAGENT BLANK
Misc : 0611-23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 14 06:45:55 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.	
48) Dimethylphthalate	0.000		0	N.D.	
49) 1,3-Dinitrobenzene	0.000		0	N.D.	
50) 2,6-Dinitrotoluene	0.000		0	N.D.	
51) 1,2-Dinitrobenzene	0.000		0	N.D.	
52) Acenaphthylene	0.000		0	N.D.	
53) 3-Nitroaniline	0.000		0	N.D.	
54) Acenaphthene (CCC)	0.000		0	N.D. d	
55) 2,4-Dinitrophenol (SPCC)	0.000		0	N.D.	
56) 4-Nitrophenol (SPCC)	0.000		0	N.D.	
57) 2,4-Dinitrotoluene	0.000		0	N.D.	
58) Dibenzofuran	0.000		0	N.D.	
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
61) Diethlyphthalate	0.000		0	N.D. d	
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.	
64) Fluorene	0.000		0	N.D.	
65) 4-Nitroaniline	0.000		0	N.D.	
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.	
67) N-Nitrosodiphenylamine...	0.000		0	N.D.	
68) Azobenzene	0.000		0	N.D.	
71) 4-Bromophenyl-phenylether	0.000		0	N.D.	
72) Hexachlorobenzene	0.000		0	N.D.	
73) Pentachlorophenol (CCC)	0.000		0	N.D.	
74) Phenanthrene	0.000		0	N.D.	
75) Anthracene	0.000		0	N.D.	
76) Carbazole	0.000		0	N.D.	
77) Di-n-butylphthalate	0.000		0	N.D. d	
78) Fluoranthene (CCC)	0.000		0	N.D.	
79) Benzidine	0.000		0	N.D.	
81) Pyrene	0.000		0	N.D.	
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.	
85) Butylbenzylphthalate	0.000		0	N.D. d	
86) 3,3-Dimethylbenzidine	0.000		0	N.D.	
87) bis(2-Ethylhexyl)adipate	0.000		0	N.D.	
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.	
89) bis(2-Ethylhexyl)phtha...	19.032	149	6357	0.34 µg/mL#	94
90) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
91) Benzo(a)anthracene	0.000		0	N.D. d	
92) Chrysene	0.000		0	N.D. d	
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.	
95) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.	
96) Benzo(b)fluoranthene	0.000		0	N.D.	
97) Benzo(k)fluoranthene	0.000		0	N.D.	
98) Benzo(e)pyrene	0.000		0	N.D.	
99) Benzo(a)pyrene (CCC)	0.000		0	N.D. d	
100) Perylene	0.000		0	N.D. d	
101) 3-Methylcholanthrene	0.000		0	N.D.	
102) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
103) Dibenz(a,h)anthracene	0.000		0	N.D.	
104) Benzo(g,h,i)perylene	0.000		0	N.D.	
105) Dibenzo(a,e)pyrene	0.000		0	N.D.	

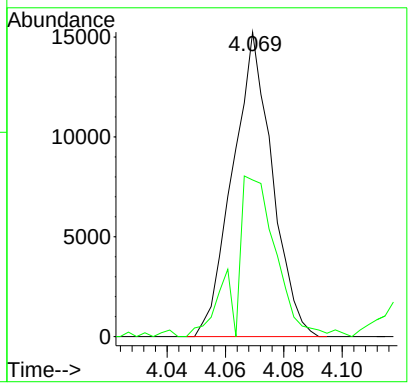
(#) = qualifier out of range (m) = manual integration (+) = signals summed

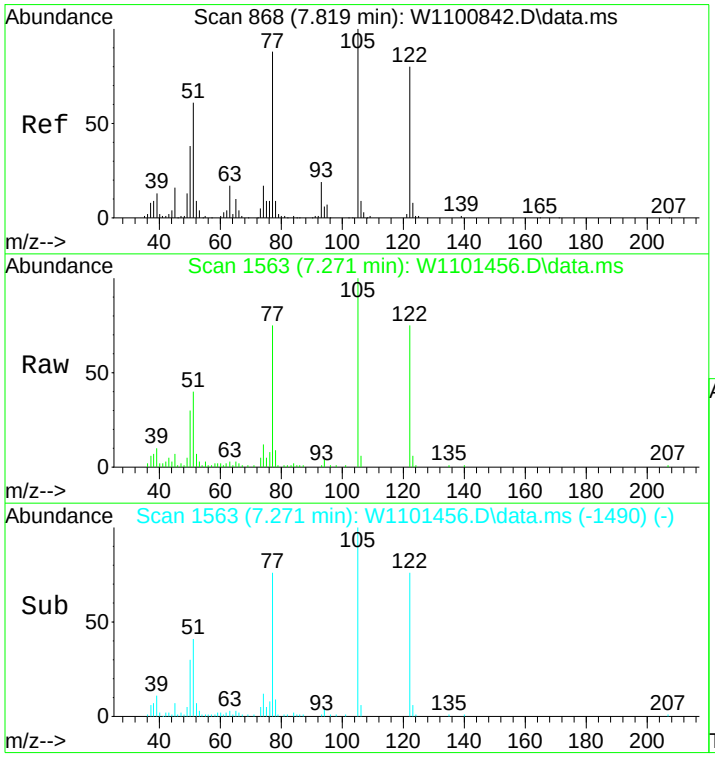


#2
N-Nitrosodimethylamine
Concen: 2.29 µg/mL
RT: 4.069 min Scan# 435
Delta R.T. -0.051 min
Lab File: W1101456.D
Acq: 13 Jul 2011 4:20 pm

Tgt Ion: 74 Resp: 14330

Ion	Ratio	Lower	Upper
74	100		
42	54.5	73.5	110.3#

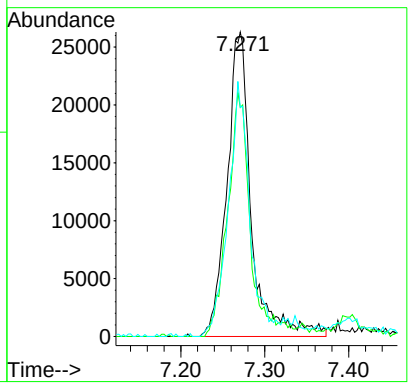


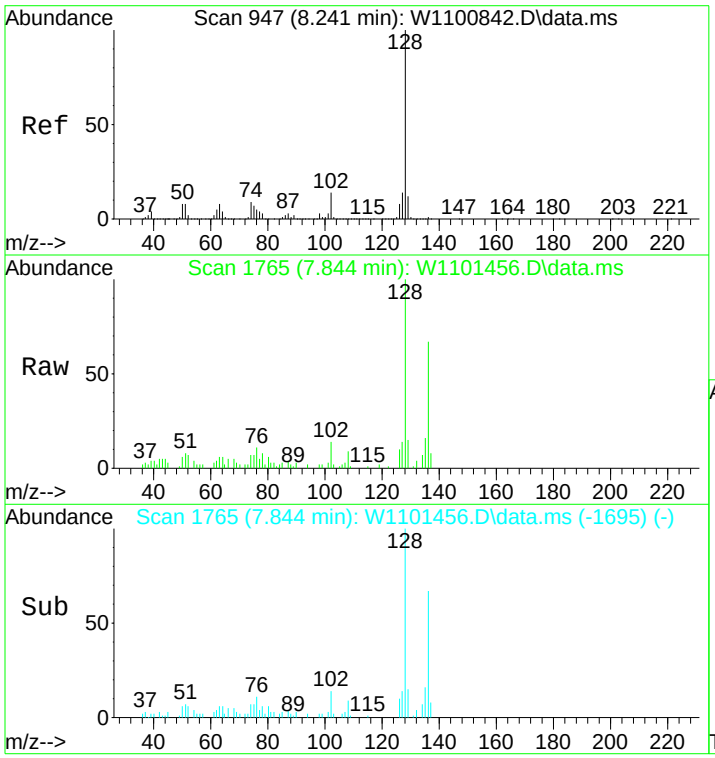


#26
Benzoic acid
Concen: 11.37 µg/mL m
RT: 7.271 min Scan# 1563
Delta R.T. -0.000 min
Lab File: W1101456.D
Acq: 13 Jul 2011 4:20 pm

Tgt Ion:105 Resp: 53082

Ion	Ratio	Lower	Upper
105	100		
122	72.4	77.8	116.8#
77	74.5	67.6	101.4

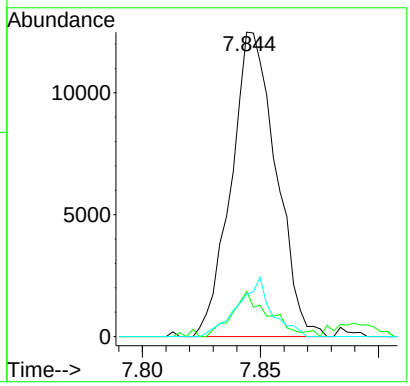


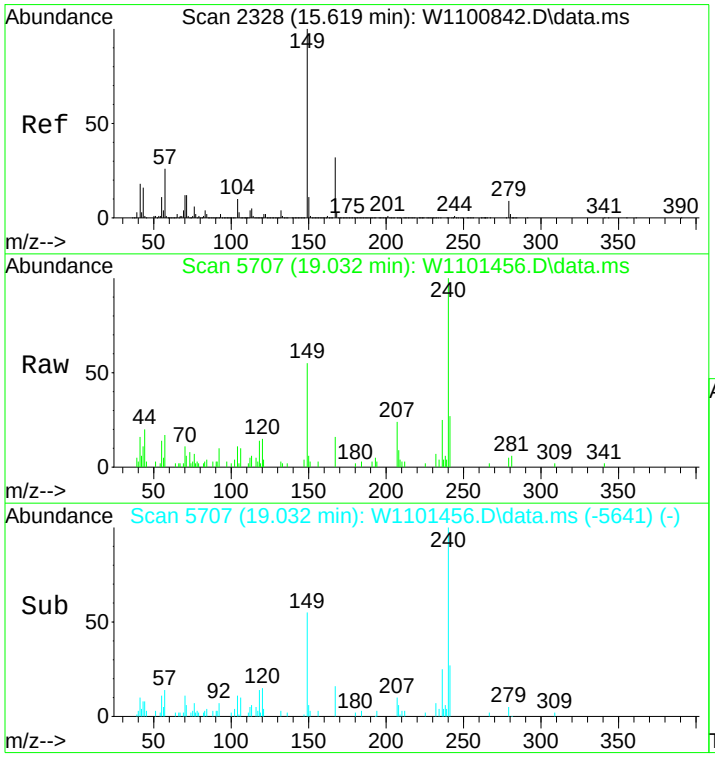


#31
Naphthalene
Concen: 0.55 µg/mL
RT: 7.844 min Scan# 1765
Delta R.T. -0.009 min
Lab File: W1101456.D
Acq: 13 Jul 2011 4:20 pm

Tgt Ion:128 Resp: 16526

Ion	Ratio	Lower	Upper
128	100		
129	12.1	9.1	13.7
127	14.5	11.8	17.8

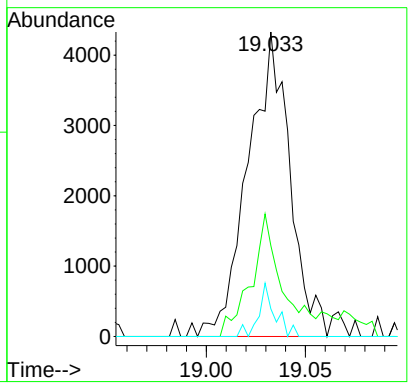




#89
bis(2-Ethylhexyl)phthalate
Concen: 0.34 µg/mL
RT: 19.032 min Scan# 5707
Delta R.T. -0.020 min
Lab File: W1101456.D
Acq: 13 Jul 2011 4:20 pm

Tgt Ion:149 Resp: 6357

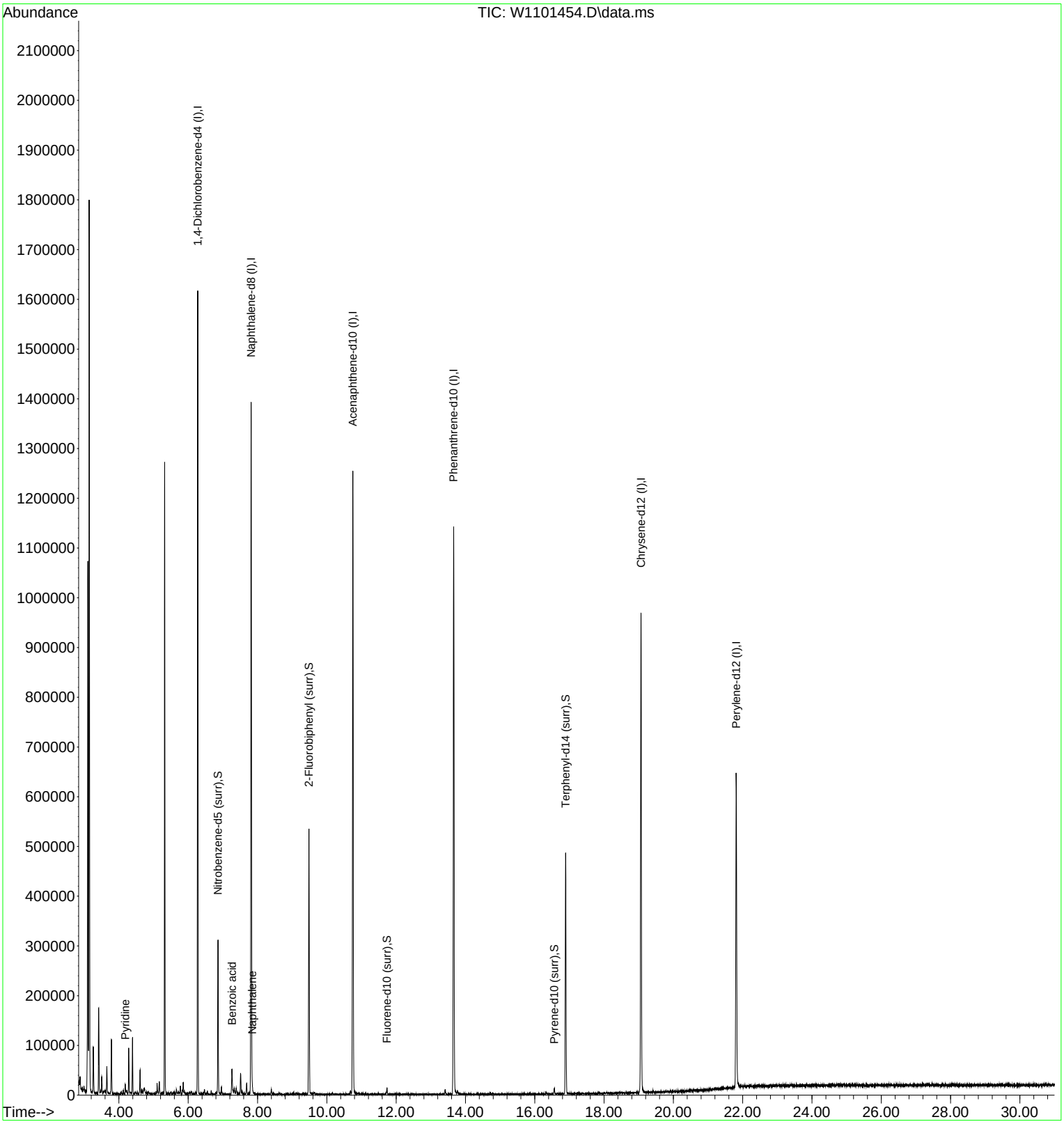
Ion	Ratio	Lower	Upper
149	100		
167	29.7	25.0	37.4
279	0.0	6.0	9.0#



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101454.D
Acq On : 13 Jul 2011 3:06 pm
Operator : tdd/lah
Sample : 0611-14/23 MB
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 16:20:23 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101454.D
Acq On : 13 Jul 2011 3:06 pm
Operator : tdd/lah
Sample : 0611-14/23 MB
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 16:20:23 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

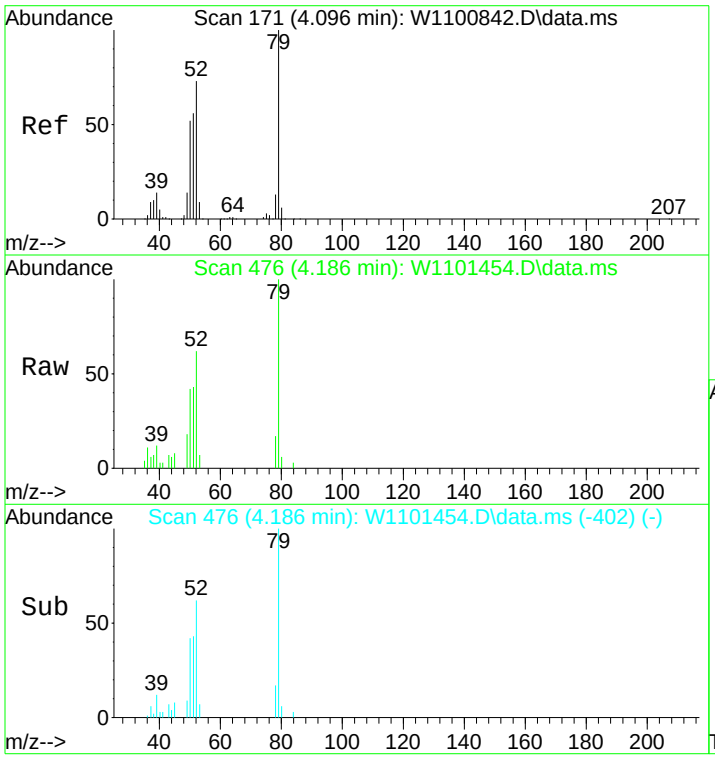
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.274	152	269044	40.00	µg/mL		0.00
22) Naphthalene-d8 (I)	7.816	136	786569	40.00	µg/mL	#	0.00
40) Acenaphthene-d10 (I)	10.750	164	431722	40.00	µg/mL		0.00
69) Phenanthrene-d10 (I)	13.660	188	679063	40.00	µg/mL		-0.01
83) Chrysene-d12 (I)	19.064	240	568716	40.00	µg/mL		-0.02
94) Perylene-d12 (I)	21.811	264	391506	40.00	µg/mL		-0.02
System Monitoring Compounds							
4) 2-Fluorophenol (surr)	0.000	112	0	0.00	µg/mL		
5) Phenol-d5 (surr)	0.000	99	0	0.00	µg/mL		
20) Nitrobenzene-d5 (surr)	6.859	82	116481	14.66	µg/mL		0.00
43) 2-Fluorobiphenyl (surr)	9.485	172	232130	15.91	µg/mL		0.00
62) Fluorene-d10 (surr)	11.735	176	4890	0.43	µg/mL		0.00
70) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	µg/mL		
80) Pyrene-d10 (surr)	16.563	212	7409	0.46	µg/mL		-0.01
82) Terphenyl-d14 (surr)	16.890	244	206047	17.86	µg/mL		-0.01
Target Compounds							Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.			
3) Pyridine	4.186	79	7402	0.94	µg/mL	#	89
6) Phenol (CCC)	0.000		0	N.D.	d		
7) Aniline	0.000		0	N.D.			
8) bis(2-Chloroethyl)ether	0.000		0	N.D.			
9) 2-Chlorophenol	0.000		0	N.D.			
10) 1,3-Dichlorobenzene	0.000		0	N.D.			
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.			
12) Benzyl alcohol	0.000		0	N.D.	d		
13) 1,2-Dichlorobenzene	0.000		0	N.D.			
14) 2-Methylphenol	0.000		0	N.D.			
15) bis(2-Chloroisopropyl)...	0.000		0	N.D.			
16) 3/4-Methylphenol	0.000		0	N.D.			
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.			
18) o-Toluidine	0.000		0	N.D.			
19) Hexachloroethane	0.000		0	N.D.			
21) Nitrobenzene	0.000		0	N.D.			
23) Isophorone	0.000		0	N.D.			
24) 2,4-Dimethylphenol	0.000		0	N.D.			
25) 2-Nitrophenol (CCC)	0.000		0	N.D.			
26) Benzoic acid	7.265	105	20040m	6.31	µg/mL		Manual Int. "II" (TDD)
27) bis(2-Chloroethoxy)met...	0.000		0	N.D.			
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.			
29) a,a-Dimethylphenethyla...	0.000		0	N.D.			
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.			
31) Naphthalene	7.844	128	7237	0.35	µg/mL	#	67
32) 4-Chloroaniline	0.000		0	N.D.			
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.			
34) Quinoline	0.000		0	N.D.			
35) 1,4-Phenylenediamine	0.000		0	N.D.			
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.			
37) 2-Methylnaphthalene	0.000		0	N.D.			
38) 1-Methylnaphthalene	0.000		0	N.D.			
39) Hexachlorocyclopentadi...	0.000		0	N.D.			
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.			
42) 2,4,5-Trichlorophenol	0.000		0	N.D.			
44) Biphenyl	0.000		0	N.D.			
45) 2-Chloronaphthalene	0.000		0	N.D.			
46) 2-Nitroaniline	0.000		0	N.D.			

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101454.D
Acq On : 13 Jul 2011 3:06 pm
Operator : tdd/lah
Sample : 0611-14/23 MB
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 16:20:23 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.		
48) Dimethylphthalate	0.000		0	N.D.		
49) 1,3-Dinitrobenzene	0.000		0	N.D.		
50) 2,6-Dinitrotoluene	0.000		0	N.D.		
51) 1,2-Dinitrobenzene	0.000		0	N.D.		
52) Acenaphthylene	0.000		0	N.D.		
53) 3-Nitroaniline	0.000		0	N.D.		
54) Acenaphthene (CCC)	0.000		0	N.D.	d	
55) 2,4-Dinitrophenol (SPCC)	0.000		0	N.D.		
56) 4-Nitrophenol (SPCC)	0.000		0	N.D.		
57) 2,4-Dinitrotoluene	0.000		0	N.D.		
58) Dibenzofuran	0.000		0	N.D.		
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.		
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.		
61) Diethlyphthalate	0.000		0	N.D.		
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.		
64) Fluorene	0.000		0	N.D.		
65) 4-Nitroaniline	0.000		0	N.D.		
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.		
67) N-Nitrosodiphenylamine...	0.000		0	N.D.		
68) Azobenzene	0.000		0	N.D.		
71) 4-Bromophenyl-phenylether	0.000		0	N.D.		
72) Hexachlorobenzene	0.000		0	N.D.		
73) Pentachlorophenol (CCC)	0.000		0	N.D.		
74) Phenanthrene	0.000		0	N.D.		
75) Anthracene	0.000		0	N.D.		
76) Carbazole	0.000		0	N.D.		
77) Di-n-butylphthalate	0.000		0	N.D.	d	
78) Fluoranthene (CCC)	0.000		0	N.D.		
79) Benzidine	0.000		0	N.D.		
81) Pyrene	0.000		0	N.D.		
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.		
85) Butylbenzylphthalate	0.000		0	N.D.		
86) 3,3-Dimethylbenzidine	0.000		0	N.D.		
87) bis(2-Ethylhexyl)adipate	0.000		0	N.D.		
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.		
89) bis(2-Ethylhexyl)phtha...	0.000		0	N.D.	d	
90) 3,3'-Dichlorobenzidine	0.000		0	N.D.		
91) Benzo(a)anthracene	0.000		0	N.D.	d	
92) Chrysene	0.000		0	N.D.	d	
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.		
95) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.		
96) Benzo(b)fluoranthene	0.000		0	N.D.		
97) Benzo(k)fluoranthene	0.000		0	N.D.		
98) Benzo(e)pyrene	0.000		0	N.D.		
99) Benzo(a)pyrene (CCC)	0.000		0	N.D.		
100) Perylene	0.000		0	N.D.		
101) 3-Methylcholanthrene	0.000		0	N.D.		
102) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.		
103) Dibenz(a,h)anthracene	0.000		0	N.D.		
104) Benzo(g,h,i)perylene	0.000		0	N.D.		
105) Dibenzo(a,e)pyrene	0.000		0	N.D.		

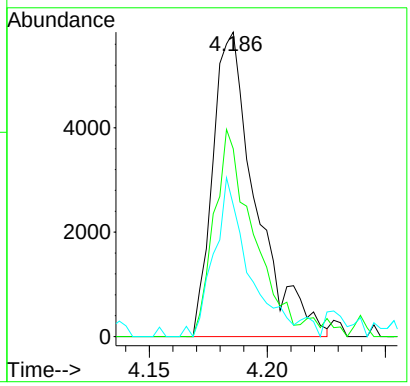
(#) = qualifier out of range (m) = manual integration (+) = signals summed

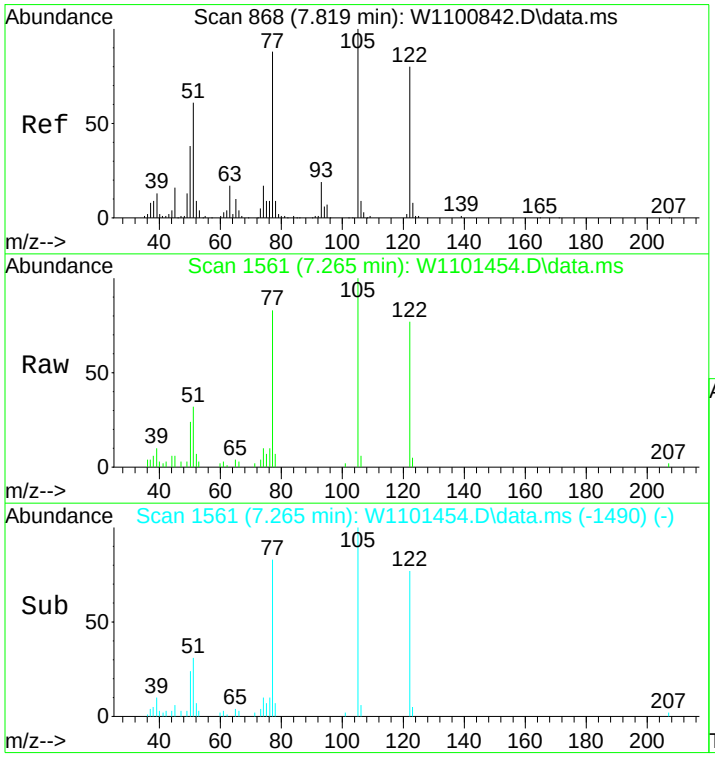


#3
Pyridine
Concen: 0.94 µg/mL
RT: 4.186 min Scan# 476
Delta R.T. 0.003 min
Lab File: W1101454.D
Acq: 13 Jul 2011 3:06 pm

Tgt Ion: 79 Resp: 7402

Ion	Ratio	Lower	Upper
79	100		
52	61.5	43.4	65.2
51	41.6	27.2	40.8#

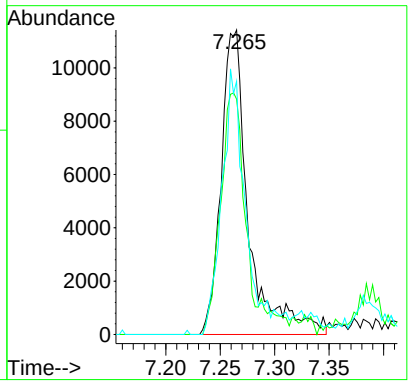


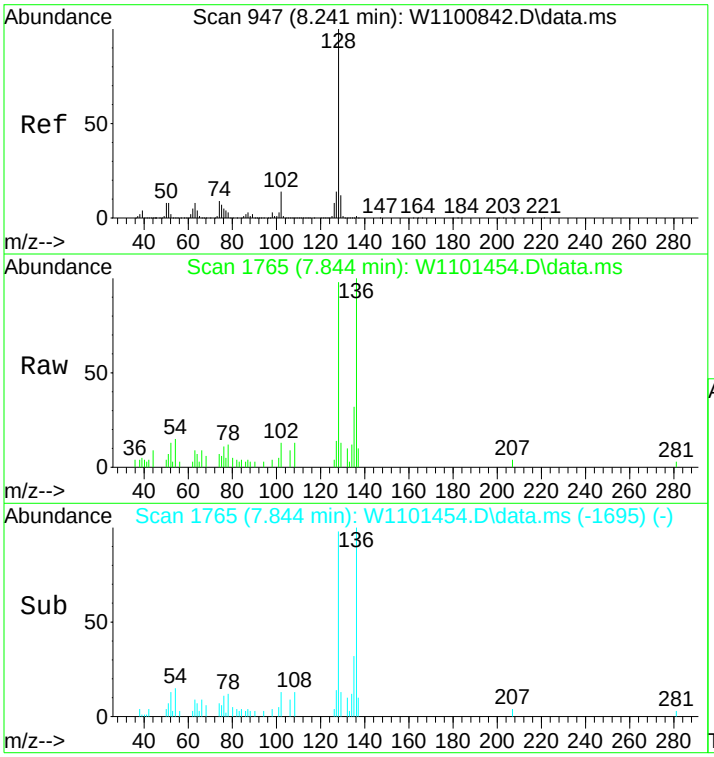


#26
Benzoic acid
Concen: 6.31 µg/mL m
RT: 7.265 min Scan# 1561
Delta R.T. -0.006 min
Lab File: W1101454.D
Acq: 13 Jul 2011 3:06 pm

Tgt Ion:105 Resp: 20040

Ion	Ratio	Lower	Upper
105	100		
122	68.1	77.8	116.8#
77	76.6	67.6	101.4

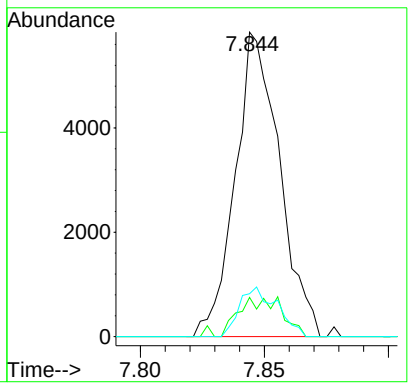




#31
Naphthalene
Concen: 0.35 µg/mL
RT: 7.844 min Scan# 1765
Delta R.T. -0.009 min
Lab File: W1101454.D
Acq: 13 Jul 2011 3:06 pm

Tgt Ion:128 Resp: 7237

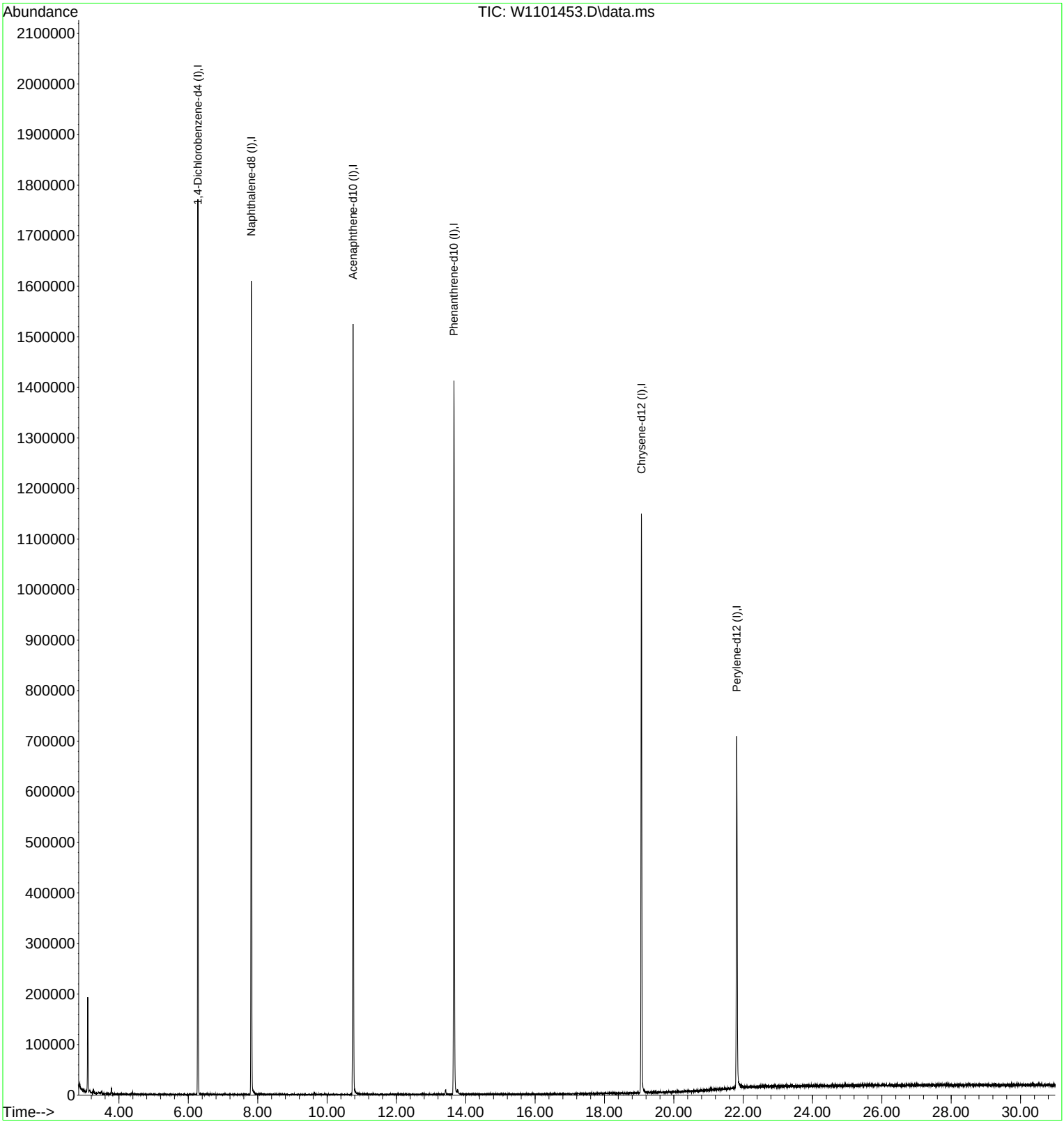
Ion	Ratio	Lower	Upper
128	100		
129	0.0	9.1	13.7#
127	0.0	11.8	17.8#



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101453.D
Acq On : 13 Jul 2011 2:29 pm
Operator : tdd/lah
Sample : CH2Cl2 SCN BLK
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 13 16:18:32 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101453.D
Acq On : 13 Jul 2011 2:29 pm
Operator : tdd/lah
Sample : CH2Cl2 SCN BLK
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 13 16:18:32 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.277	152	302126	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.816	136	931413	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.750	164	529544	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.660	188	843441	40.00	µg/mL	-0.01
83) Chrysene-d12 (I)	19.066	240	680958	40.00	µg/mL	-0.01
94) Perylene-d12 (I)	21.814	264	432016	40.00	µg/mL	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	0.000	112	0	0.00	µg/mL	
5) Phenol-d5 (surr)	0.000	99	0	0.00	µg/mL	
20) Nitrobenzene-d5 (surr)	0.000	82	0	0.00	µg/mL	
43) 2-Fluorobiphenyl (surr)	0.000	172	0	0.00	µg/mL	
62) Fluorene-d10 (surr)	0.000	176	0	0.00	µg/mL	
70) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	µg/mL	
80) Pyrene-d10 (surr)	0.000	212	0	0.00	µg/mL	
82) Terphenyl-d14 (surr)	0.000	244	0	0.00	µg/mL	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol (CCC)	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) bis(2-Chloroethyl)ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D. d		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) bis(2-Chloroisopropyl)...	0.000		0	N.D.		
16) 3/4-Methylphenol	0.000		0	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		
18) o-Toluidine	0.000		0	N.D.		
19) Hexachloroethane	0.000		0	N.D.		
21) Nitrobenzene	0.000		0	N.D.		
23) Isophorone	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) 2-Nitrophenol (CCC)	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) bis(2-Chloroethoxy)met...	0.000		0	N.D.		
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.		
29) a,a-Dimethylphenethyla...	0.000		0	N.D.		
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
31) Naphthalene	0.000		0	N.D.		
32) 4-Chloroaniline	0.000		0	N.D.		
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.		
34) Quinoline	0.000		0	N.D.		
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.		
37) 2-Methylnaphthalene	0.000		0	N.D.		
38) 1-Methylnaphthalene	0.000		0	N.D.		
39) Hexachlorocyclopentadi...	0.000		0	N.D.		
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.		
42) 2,4,5-Trichlorophenol	0.000		0	N.D.		
44) Biphenyl	0.000		0	N.D.		
45) 2-Chloronaphthalene	0.000		0	N.D.		
46) 2-Nitroaniline	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101453.D
Acq On : 13 Jul 2011 2:29 pm
Operator : tdd/lah
Sample : CH2Cl2 SCN BLK
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 13 16:18:32 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

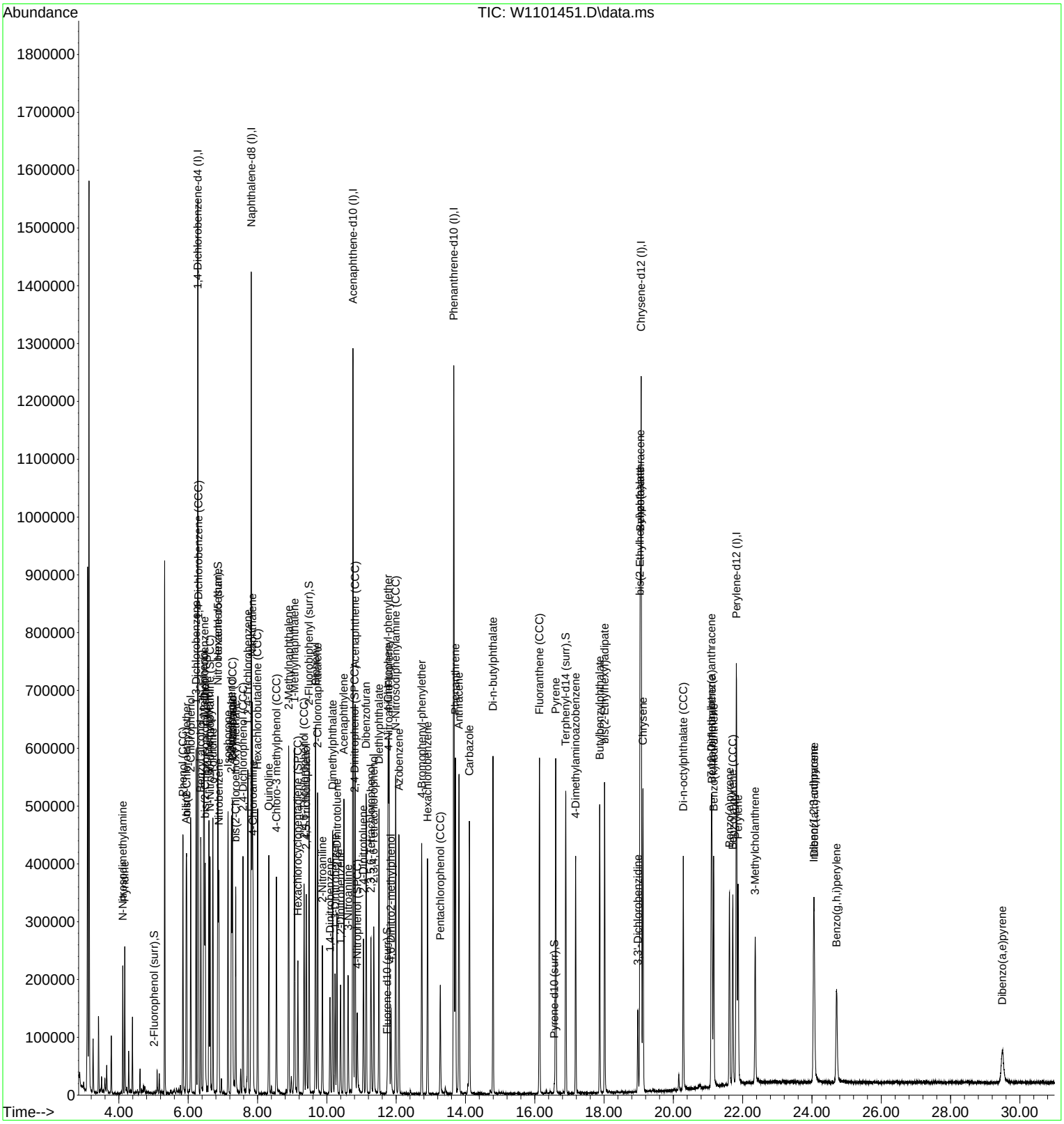
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.		
48) Dimethylphthalate	0.000		0	N.D.		
49) 1,3-Dinitrobenzene	0.000		0	N.D.		
50) 2,6-Dinitrotoluene	0.000		0	N.D.		
51) 1,2-Dinitrobenzene	0.000		0	N.D.		
52) Acenaphthylene	0.000		0	N.D.		
53) 3-Nitroaniline	0.000		0	N.D.		
54) Acenaphthene (CCC)	0.000		0	N.D.	d	
55) 2,4-Dinitrophenol (SPCC)	0.000		0	N.D.		
56) 4-Nitrophenol (SPCC)	0.000		0	N.D.		
57) 2,4-Dinitrotoluene	0.000		0	N.D.		
58) Dibenzofuran	0.000		0	N.D.		
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.		
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.		
61) Diethlyphthalate	0.000		0	N.D.		
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.		
64) Fluorene	0.000		0	N.D.		
65) 4-Nitroaniline	0.000		0	N.D.		
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.		
67) N-Nitrosodiphenylamine...	0.000		0	N.D.		
68) Azobenzene	0.000		0	N.D.		
71) 4-Bromophenyl-phenylether	0.000		0	N.D.		
72) Hexachlorobenzene	0.000		0	N.D.		
73) Pentachlorophenol (CCC)	0.000		0	N.D.		
74) Phenanthrene	0.000		0	N.D.		
75) Anthracene	0.000		0	N.D.		
76) Carbazole	0.000		0	N.D.		
77) Di-n-butylphthalate	0.000		0	N.D.		
78) Fluoranthene (CCC)	0.000		0	N.D.		
79) Benzidine	0.000		0	N.D.		
81) Pyrene	0.000		0	N.D.		
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.		
85) Butylbenzylphthalate	0.000		0	N.D.		
86) 3,3-Dimethylbenzidine	0.000		0	N.D.		
87) bis(2-Ethylhexyl)adipate	0.000		0	N.D.		
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.		
89) bis(2-Ethylhexyl)phtha...	0.000		0	N.D.		
90) 3,3'-Dichlorobenzidine	0.000		0	N.D.		
91) Benzo(a)anthracene	0.000		0	N.D.	d	
92) Chrysene	0.000		0	N.D.	d	
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.		
95) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.		
96) Benzo(b)fluoranthene	0.000		0	N.D.		
97) Benzo(k)fluoranthene	0.000		0	N.D.		
98) Benzo(e)pyrene	0.000		0	N.D.		
99) Benzo(a)pyrene (CCC)	0.000		0	N.D.		
100) Perylene	0.000		0	N.D.		
101) 3-Methylcholanthrene	0.000		0	N.D.		
102) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.		
103) Dibenz(a,h)anthracene	0.000		0	N.D.		
104) Benzo(g,h,i)perylene	0.000		0	N.D.		
105) Dibenzo(a,e)pyrene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101451.D
Acq On : 13 Jul 2011 1:14 pm
Operator : tdd/lah
Sample : 0611-14/23 LCS-1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 13 16:15:54 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101451.D
Acq On : 13 Jul 2011 1:14 pm
Operator : tdd/lah
Sample : 0611-14/23 LCS-1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 13 16:15:54 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.277	152	255771	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.819	136	804215	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.753	164	461398	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.663	188	762274	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.069	240	677123	40.00	µg/mL	-0.01
94) Perylene-d12 (I)	21.817	264	463849	40.00	µg/mL	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.014	112	1064	0.15	µg/mL	-0.12
5) Phenol-d5 (surr)	0.000	99	0	0.00	µg/mL	
20) Nitrobenzene-d5 (surr)	6.859	82	144655	19.15	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.485	172	256202	16.43	µg/mL	0.00
62) Fluorene-d10 (surr)	11.738	176	6691	0.56	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	µg/mL	
80) Pyrene-d10 (surr)	16.563	212	8789	0.49	µg/mL	-0.01
82) Terphenyl-d14 (surr)	16.892	244	230035	17.77	µg/mL	-0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.112	74	78544	18.94	µg/mL#	80
3) Pyridine	4.169	79	92408	12.38	µg/mL#	86
6) Phenol (CCC)	5.849	94	145041	18.09	µg/mL#	84
7) Aniline	5.940	66	55460	14.35	µg/mL#	1
8) bis(2-Chloroethyl)ether	5.954	63	96859	19.05	µg/mL#	1
9) 2-Chlorophenol	6.070	128	124452	17.69	µg/mL	98
10) 1,3-Dichlorobenzene	6.229	146	149262	16.51	µg/mL	99
11) 1,4-Dichlorobenzene (CCC)	6.292	146	152257	16.65	µg/mL	98
12) Benzyl alcohol	6.363	108	75512	19.52	µg/mL	89
13) 1,2-Dichlorobenzene	6.465	146	140912	16.90	µg/mL	98
14) 2-Methylphenol	6.445	107	97975	18.41	µg/mL	95
15) bis(2-Chloroisopropyl)...	6.490	45	150232	22.36	µg/mL#	73
16) 3/4-Methylphenol	6.598	107	125133	19.35	µg/mL	96
17) N-Nitroso-di-n-propyla...	6.629	70	94269	20.64	µg/mL	84
18) o-Toluidine	6.709	106	168225	17.07	µg/mL	99
19) Hexachloroethane	6.854	117	59584	16.51	µg/mL#	80
21) Nitrobenzene	6.885	77	146017	21.19	µg/mL	95
23) Isophorone	7.149	82	235777	19.03	µg/mL	98
24) 2,4-Dimethylphenol	7.245	107	131315	17.72	µg/mL	97
25) 2-Nitrophenol (CCC)	7.276	139	65404	20.02	µg/mL#	76
26) Benzoic acid	7.276	105	70202	21.62	µg/mL#	68
27) bis(2-Chloroethoxy)met...	7.370	93	135710	19.14	µg/mL#	1
28) 2,4-Dichlorophenol (CCC)	7.580	162	102856	17.41	µg/mL	98
29) a,a-Dimethylphenethyla...	0.000		0	N.D.		
30) 1,2,4-Trichlorobenzene	7.719	180	128390	16.57	µg/mL	97
31) Naphthalene	7.850	128	383368	18.29	µg/mL#	60
32) 4-Chloroaniline	7.870	65	40958	15.04	µg/mL#	28
33) Hexachlorobutadiene (CCC)	8.000	225	72366	14.45	µg/mL	99
34) Quinoline	8.327	129	197322	17.06	µg/mL	100
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	8.545	107	98837	17.31	µg/mL	94
37) 2-Methylnaphthalene	8.900	142	233749	17.02	µg/mL	98
38) 1-Methylnaphthalene	9.067	142	232362	17.83	µg/mL#	100
39) Hexachlorocyclopentadi...	9.164	237	46655	14.41	µg/mL	99
41) 2,4,6-Trichlorophenol ...	9.343	196	68147	16.93	µg/mL	97
42) 2,4,5-Trichlorophenol	9.405	196	70449	16.56	µg/mL	99
44) Biphenyl	9.675	154	291220	17.51	µg/mL	100
45) 2-Chloronaphthalene	9.734	162	224211	17.56	µg/mL	99
46) 2-Nitroaniline	9.871	65	61278	21.04	µg/mL#	71

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101451.D
Acq On : 13 Jul 2011 1:14 pm
Operator : tdd/lah
Sample : 0611-14/23 LCS-1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 13 16:15:54 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.092	168	29836	19.61 µg/mL	92
48) Dimethylphthalate	10.166	163	257711	18.37 µg/mL	99
49) 1,3-Dinitrobenzene	10.237	168	37175	19.59 µg/mL	96
50) 2,6-Dinitrotoluene	10.291	165	57874	20.14 µg/mL	92
51) 1,2-Dinitrobenzene	10.399	168	25552	19.32 µg/mL#	55
52) Acenaphthylene	10.492	152	339285	17.27 µg/mL	97
53) 3-Nitroaniline	10.611	138	45264	16.47 µg/mL#	88
54) Acenaphthene (CCC)	10.816	154	219248	18.48 µg/mL	98
55) 2,4-Dinitrophenol (SPCC)	10.804	184	19713	16.97 µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.875	139	33376	18.30 µg/mL	87
57) 2,4-Dinitrotoluene	11.054	165	67020	19.60 µg/mL	99
58) Dibenzofuran	11.134	168	307075	18.26 µg/mL	97
59) 2,3,5,6-Tetrachlorophenol	11.273	232	51664	18.45 µg/mL	98
60) 2,3,4,6-Tetrachlorophenol	11.352	232	52999	17.84 µg/mL#	90
61) Diethlyphthalate	11.505	149	259384	18.36 µg/mL	98
63) 4-Chlorophenyl-phenyle...	11.767	204	123398	17.52 µg/mL	90
64) Fluorene	11.795	166	256011	18.10 µg/mL	100
65) 4-Nitroaniline	11.781	138	46058	16.71 µg/mL#	78
66) 4,6-Dinitro2-methylphenol	11.852	198	31946	18.75 µg/mL	98
67) N-Nitrosodiphenylamine...	11.988	169	215326	18.43 µg/mL	98
68) Azobenzene	12.082	77	264171	18.36 µg/mL	91
71) 4-Bromophenyl-phenylether	12.737	248	70511	17.29 µg/mL	98
72) Hexachlorobenzene	12.908	284	72099	17.36 µg/mL	95
73) Pentachlorophenol (CCC)	13.274	266	31040	14.40 µg/mL	95
74) Phenanthrene	13.711	178	367926	18.94 µg/mL	99
75) Anthracene	13.813	178	354844	18.24 µg/mL	99
76) Carbazole	14.114	167	310773	19.29 µg/mL	99
77) Di-n-butylphthalate	14.795	149	420030	18.37 µg/mL	99
78) Fluoranthene (CCC)	16.137	202	393476	19.50 µg/mL	97
79) Benzidine	0.000		0	N.D.	
81) Pyrene	16.606	202	398051	19.61 µg/mL	99
84) 4-Dimethylaminoazobenzene	17.182	120	93043	14.67 µg/mL	92
85) Butylbenzylphthalate	17.874	149	162010	15.26 µg/mL	91
86) 3,3-Dimethylbenzidine	0.000		0	N.D.	
87) bis(2-Ethylhexyl)adipate	18.016	129	130340	15.43 µg/mL	93
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.	
89) bis(2-Ethylhexyl)phtha...	19.035	149	218181	14.84 µg/mL	97
90) 3,3'-Dichlorobenzidine	18.973	252	49354	8.24 µg/mL#	97
91) Benzo(a)anthracene	19.047	228	336105	18.24 µg/mL	99
92) Chrysene	19.123	228	310005	18.59 µg/mL	99
93) Di-n-octylphthalate (CCC)	20.284	149	288006	14.48 µg/mL#	95
95) 7,12-Dimethylbenz(a)an...	21.096	256	113716	16.04 µg/mL	96
96) Benzo(b)fluoranthene	21.113	252	266071m	17.45 µg/mL	
97) Benzo(k)fluoranthene	21.161	252	254572	18.43 µg/mL	99
98) Benzo(e)pyrene	21.621	252	222872	18.16 µg/mL	98
99) Benzo(a)pyrene (CCC)	21.715	252	219697	17.63 µg/mL	99
100) Perylene	21.868	252	222922	17.25 µg/mL	98
101) 3-Methylcholanthrene	22.359	268	107866	16.59 µg/mL	96
102) Indeno(1,2,3-cd)pyrene	24.048	276	212655	17.88 µg/mL	93
103) Dibenz(a,h)anthracene	24.062	278	172699	17.37 µg/mL#	94
104) Benzo(g,h,i)perylene	24.706	276	172558	18.19 µg/mL#	89
105) Dibenzo(a,e)pyrene	29.489	302	97501m	15.28 µg/mL	

Manual Int. "WP" (TDD)

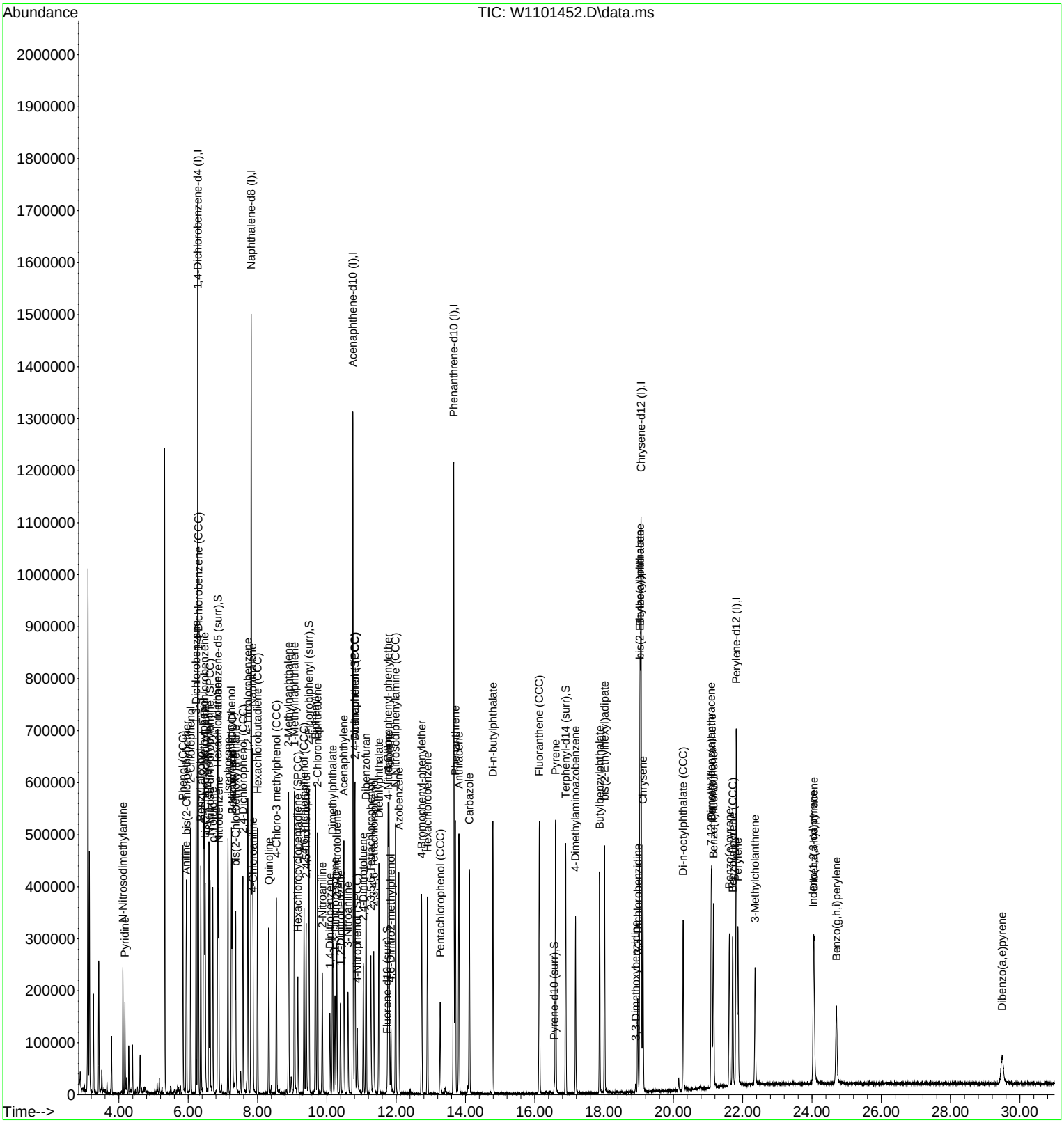
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101452.D
Acq On : 13 Jul 2011 1:51 pm
Operator : tdd/lah
Sample : 0611-14/63 LCS-2
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 13 16:17:22 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101452.D
Acq On : 13 Jul 2011 1:51 pm
Operator : tdd/lah
Sample : 0611-14/63 LCS-2
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 13 16:17:22 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.274	152	291694	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.816	136	854574	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.750	164	461945	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.662	188	740295	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.066	240	647446	40.00	µg/mL	-0.01
94) Perylene-d12 (I)	21.814	264	440327	40.00	µg/mL	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	0.000	112	0	0.00	µg/mL	
5) Phenol-d5 (surr)	0.000	99	0	0.00	µg/mL	
20) Nitrobenzene-d5 (surr)	6.859	82	149191	17.32	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.485	172	254727	16.32	µg/mL	0.00
62) Fluorene-d10 (surr)	11.738	176	6182	0.51	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	µg/mL	
80) Pyrene-d10 (surr)	16.563	212	8641	0.49	µg/mL	-0.01
82) Terphenyl-d14 (surr)	16.890	244	212313	16.88	µg/mL	-0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.115	74	82205	17.39	µg/mL#	78
3) Pyridine	4.171	79	65597	7.71	µg/mL#	86
6) Phenol (CCC)	5.846	94	152601	16.69	µg/mL#	84
7) Aniline	5.942	66	42996	9.75	µg/mL#	1
8) bis(2-Chloroethyl)ether	5.954	63	97607	16.83	µg/mL#	1
9) 2-Chlorophenol	6.070	128	132843	16.56	µg/mL	98
10) 1,3-Dichlorobenzene	6.229	146	156122	15.14	µg/mL	98
11) 1,4-Dichlorobenzene (CCC)	6.292	146	160560	15.39	µg/mL	98
12) Benzyl alcohol	6.360	108	74685	16.93	µg/mL#	86
13) 1,2-Dichlorobenzene	6.465	146	146253	15.38	µg/mL	99
14) 2-Methylphenol	6.442	107	100660	16.58	µg/mL	95
15) bis(2-Chloroisopropyl)...	6.490	45	153113	19.98	µg/mL#	70
16) 3/4-Methylphenol	6.595	107	127021	17.22	µg/mL	96
17) N-Nitroso-di-n-propyla...	6.629	70	94743	18.19	µg/mL#	83
18) o-Toluidine	6.709	106	137782	12.26	µg/mL	97
19) Hexachloroethane	6.848	117	60701	14.75	µg/mL#	80
21) Nitrobenzene	6.882	77	145174	18.48	µg/mL	97
23) Isophorone	7.146	82	233805	17.76	µg/mL	98
24) 2,4-Dimethylphenol	7.245	107	131491	16.69	µg/mL#	82
25) 2-Nitrophenol (CCC)	7.274	139	62424	17.98	µg/mL#	76
26) Benzoic acid	7.274	105	54932	15.92	µg/mL#	1
27) bis(2-Chloroethoxy)met...	7.370	93	137152	18.20	µg/mL#	1
28) 2,4-Dichlorophenol (CCC)	7.580	162	103340	16.46	µg/mL	99
29) a,a-Dimethylphenethyla...	0.000		0	N.D.		
30) 1,2,4-Trichlorobenzene	7.719	180	128199	15.57	µg/mL	98
31) Naphthalene	7.847	128	378796	17.01	µg/mL#	59
32) 4-Chloroaniline	7.870	65	34860	12.05	µg/mL#	23
33) Hexachlorobutadiene (CCC)	8.003	225	73312	13.78	µg/mL	97
34) Quinoline	8.327	129	154538	12.57	µg/mL	99
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	8.545	107	95713	15.78	µg/mL	95
37) 2-Methylnaphthalene	8.897	142	227823	15.61	µg/mL	98
38) 1-Methylnaphthalene	9.067	142	225723	16.30	µg/mL#	100
39) Hexachlorocyclopentadi...	9.164	237	45140	13.12	µg/mL	99
41) 2,4,6-Trichlorophenol ...	9.343	196	67467	16.74	µg/mL	96
42) 2,4,5-Trichlorophenol	9.405	196	68215	16.02	µg/mL	97
44) Biphenyl	9.672	154	268696	16.14	µg/mL	99
45) 2-Chloronaphthalene	9.731	162	210978	16.51	µg/mL	97
46) 2-Nitroaniline	9.871	65	56599	19.41	µg/mL#	72

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101452.D
Acq On : 13 Jul 2011 1:51 pm
Operator : tdd/lah
Sample : 0611-14/63 LCS-2
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 13 16:17:22 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.089	168	27391	17.98	µg/mL	91
48) Dimethylphthalate	10.166	163	240025	17.09	µg/mL	99
49) 1,3-Dinitrobenzene	10.237	168	33953	17.87	µg/mL	99
50) 2,6-Dinitrotoluene	10.288	165	52943	18.41	µg/mL	91
51) 1,2-Dinitrobenzene	10.398	168	24484	18.49	µg/mL#	60
52) Acenaphthylene	10.492	152	319124	16.22	µg/mL	98
53) 3-Nitroaniline	10.608	138	43320	15.75	µg/mL	89
54) Acenaphthene (CCC)	10.810	154	203649	17.15	µg/mL	98
55) 2,4-Dinitrophenol (SPCC)	10.807	184	16695	14.35	µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.875	139	28911	15.83	µg/mL	86
57) 2,4-Dinitrotoluene	11.051	165	58586	17.11	µg/mL	96
58) Dibenzofuran	11.134	168	291886	17.33	µg/mL	96
59) 2,3,5,6-Tetrachlorophenol	11.270	232	49611	17.70	µg/mL	97
60) 2,3,4,6-Tetrachlorophenol	11.355	232	50368	16.93	µg/mL#	92
61) Diethlyphthalate	11.503	149	235812	16.67	µg/mL	98
63) 4-Chlorophenyl-phenyle...	11.764	204	115187	16.34	µg/mL	88
64) Fluorene	11.798	166	236678	16.72	µg/mL	100
65) 4-Nitroaniline	11.778	138	41874	15.17	µg/mL#	76
66) 4,6-Dinitro2-methylphenol	11.849	198	27707	16.24	µg/mL	94
67) N-Nitrosodiphenylamine...	11.982	169	196398	16.79	µg/mL	98
68) Azobenzene	12.079	77	248527	17.25	µg/mL	92
71) 4-Bromophenyl-phenylether	12.737	248	63750	16.10	µg/mL	97
72) Hexachlorobenzene	12.905	284	66709	16.54	µg/mL	97
73) Pentachlorophenol (CCC)	13.271	266	30331	14.48	µg/mL	99
74) Phenanthrene	13.708	178	332938	17.65	µg/mL	99
75) Anthracene	13.810	178	319945	16.94	µg/mL	100
76) Carbazole	14.111	167	276862	17.70	µg/mL	98
77) Di-n-butylphthalate	14.792	149	372808	16.79	µg/mL	99
78) Fluoranthene (CCC)	16.132	202	353840	18.05	µg/mL	97
79) Benzidine	0.000		0	N.D.		
81) Pyrene	16.603	202	359956	18.26	µg/mL	99
84) 4-Dimethylaminoazobenzene	17.176	120	76184	12.56	µg/mL	92
85) Butylbenzylphthalate	17.872	149	140720	13.86	µg/mL	91
86) 3,3-Dimethylbenzidine	0.000		0	N.D. d		
87) bis(2-Ethylhexyl)adipate	18.013	129	114136	14.13	µg/mL	93
88) 3,3-Dimethoxybenzidine	18.916	244	5625	1.23	µg/mL#	81
89) bis(2-Ethylhexyl)phtha...	19.032	149	195858	13.93	µg/mL	96
90) 3,3'-Dichlorobenzidine	18.973	252	60795	10.62	µg/mL#	96
91) Benzo(a)anthracene	19.044	228	298838	16.96	µg/mL	99
92) Chrysene	19.120	228	273973	17.18	µg/mL	99
93) Di-n-octylphthalate (CCC)	20.281	149	249372	13.11	µg/mL#	95
95) 7,12-Dimethylbenz(a)an...	21.090	256	96850	14.39	µg/mL	97
96) Benzo(b)fluoranthene	21.110	252	244392m	16.89	µg/mL	
97) Benzo(k)fluoranthene	21.158	252	226297	17.26	µg/mL	99
98) Benzo(e)pyrene	21.615	252	196377	16.85	µg/mL	98
99) Benzo(a)pyrene (CCC)	21.712	252	196708	16.63	µg/mL	100
100) Perylene	21.862	252	203233	16.57	µg/mL	99
101) 3-Methylcholanthrene	22.356	268	93474	15.15	µg/mL	97
102) Indeno(1,2,3-cd)pyrene	24.039	276	186757	16.54	µg/mL#	77
103) Dibenz(a,h)anthracene	24.056	278	155003	16.43	µg/mL	98
104) Benzo(g,h,i)perylene	24.703	276	151873	16.86	µg/mL#	95
105) Dibenzo(a,e)pyrene	29.486	302	90880m	15.01	µg/mL	

Manual Int. "WP" (TDD)

Manual Int. "II" (TDD)

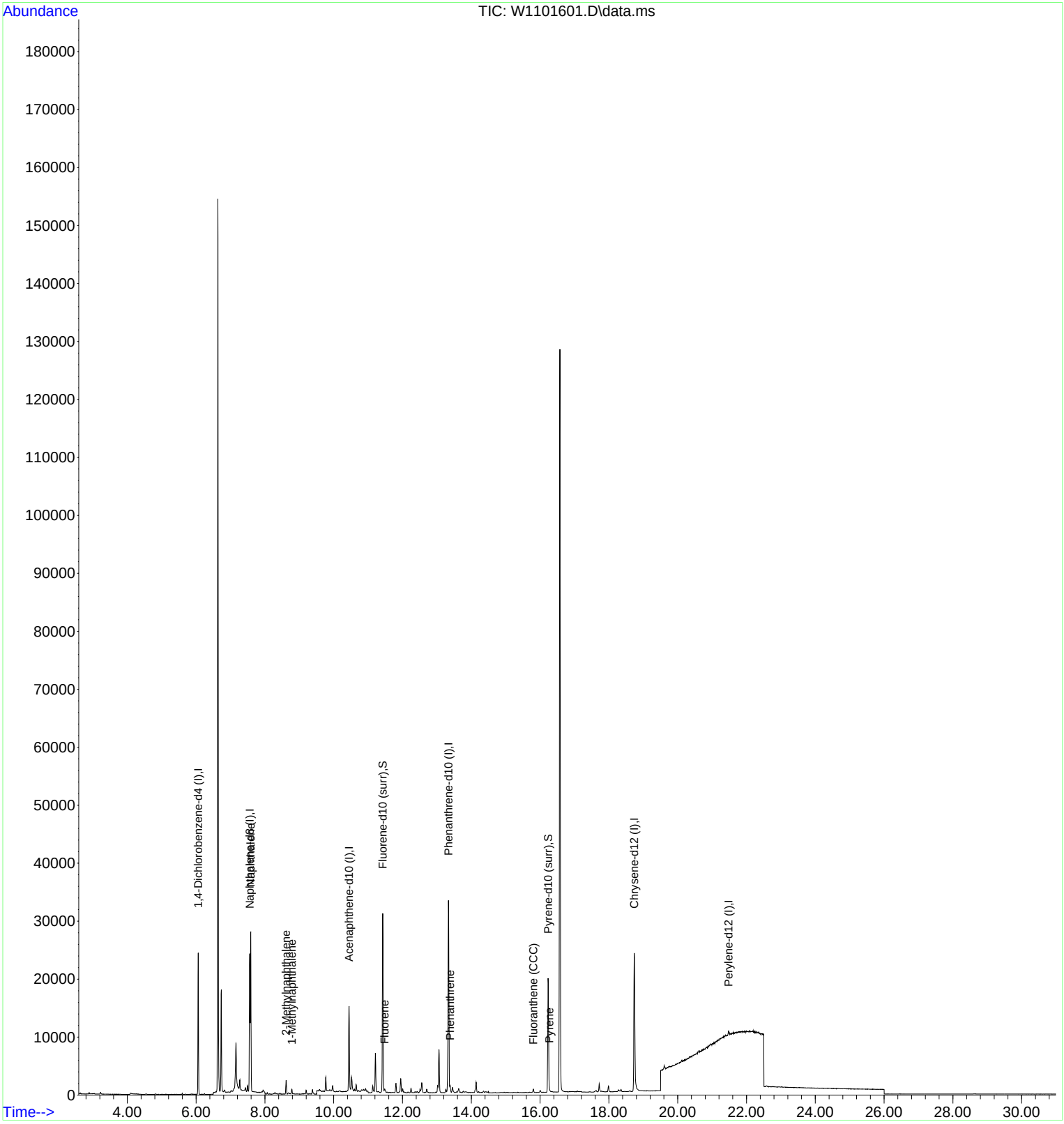
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample Chromatograms (SIM)

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101601.D
Acq On : 29 Jul 2011 7:35 pm
Operator : tdd/lah
Sample : RUN 1
Misc : 0611-23
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 14 11:18:03 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



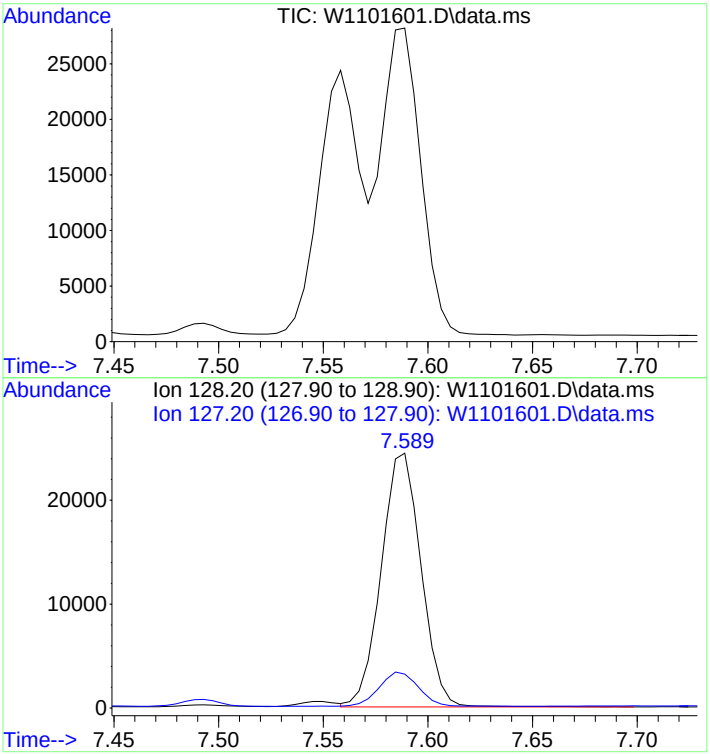
Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101601.D
Acq On : 29 Jul 2011 7:35 pm
Operator : tdd/lah
Sample : RUN 1
Misc : 0611-23
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 14 11:18:03 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.060	152	10662	400.00	ng/mL	0.00
2) Naphthalene-d8 (I)	7.558	136	28104	400.00	ng/mL	0.00
6) Acenaphthene-d10 (I)	10.447	164	12160	400.00	ng/mL	0.00
11) Phenanthrene-d10 (I)	13.336	188	47420	400.00	ng/mL	-0.01
17) Chrysene-d12 (I)	18.737	240	34318	400.00	ng/mL	-0.01
20) Perylene-d12 (I)	21.477	264	953	400.00	ng/mL	# 0.00
System Monitoring Compounds						
9) Fluorene-d10 (surr)	11.427	176	25525	795.49	ng/mL	-0.01
15) Pyrene-d10 (surr)	16.233	212	27263	229.94	ng/mL	-0.01
Target Compounds						Qvalue
3) Naphthalene	7.589	128	32313	536.23	ng/mL#	83
4) 2-Methylnaphthalene	8.617	142	1792	41.80	ng/mL	98
5) 1-Methylnaphthalene	8.784	142	628	15.16	ng/mL	88
7) Acenaphthylene	0.000		0	N.D.		
8) Acenaphthene (CCC)	0.000		0	N.D.	d	
10) Fluorene	11.483	166	460	13.90	ng/mL	94
12) Phenanthrene	13.385	178	1416	13.43	ng/mL	96
13) Anthracene	0.000		0	N.D.	d	
14) Fluoranthene (CCC)	15.803	202	812	6.88	ng/mL	97
16) Pyrene	16.271	202	443	3.59	ng/mL	92
18) Benzo(a)anthracene	0.000		0	N.D.	d	
19) Chrysene	0.000		0	N.D.	d	
21) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.		
22) Benzo(b)fluoranthene	0.000		0	N.D.	d	
23) Benzo(k)fluoranthene	0.000		0	N.D.	d	
24) Benzo(e)pyrene	0.000		0	N.D.	d	
25) Benzo(a)pyrene (CCC)	0.000		0	N.D.	d	
26) Perylene	0.000		0	N.D.		
27) 3-Methylcholanthrene	0.000		0	N.D.		
28) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.		
29) Dibenz(a,h)anthracene	0.000		0	N.D.		
30) Benzo(g,h,i)perylene	0.000		0	N.D.		
31) Dibenzo(a,e)pyrene	0.000		0	N.D.		

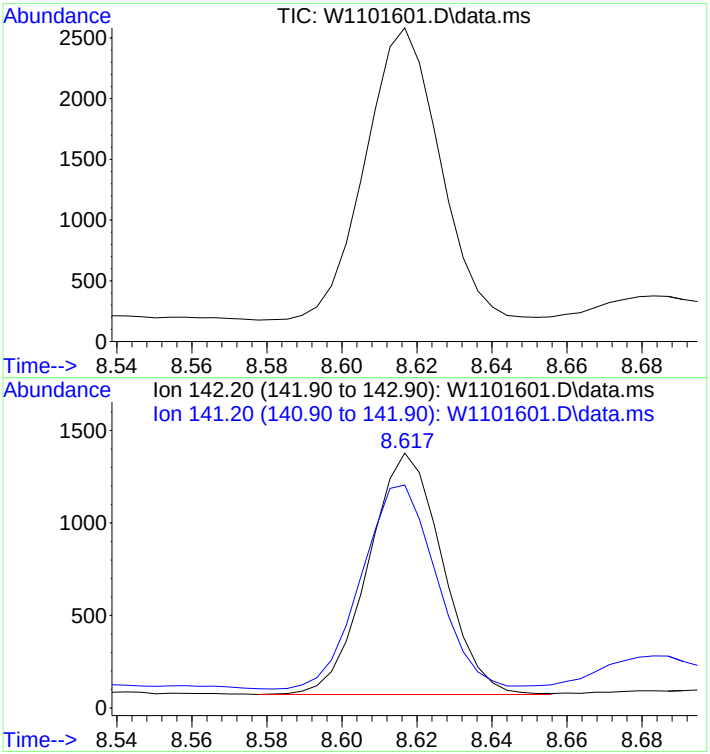
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#3
Naphthalene
Concen: 536.23 ng/mL
RT: 7.589 min Scan# 1253
Delta R.T. -0.004 min
Lab File: W1101601.D
Acq: 29 Jul 2011 7:35 pm

Tgt Ion:128 Resp: 32313

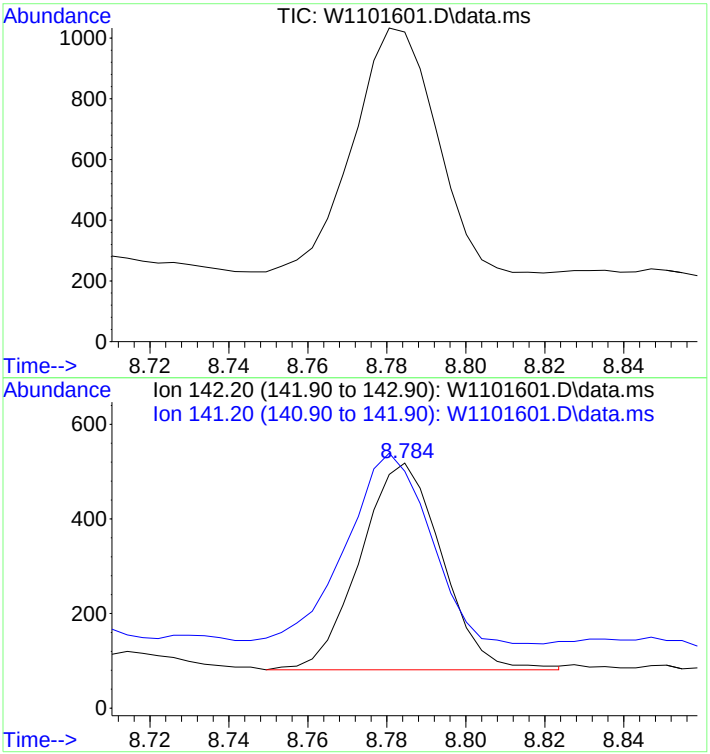
Ion	Ratio	Lower	Upper
128	100		
127	13.4	17.2	25.8#



#4
2-Methylnaphthalene
Concen: 41.80 ng/mL
RT: 8.617 min Scan# 1505
Delta R.T. -0.023 min
Lab File: W1101601.D
Acq: 29 Jul 2011 7:35 pm

Tgt Ion:142 Resp: 1792

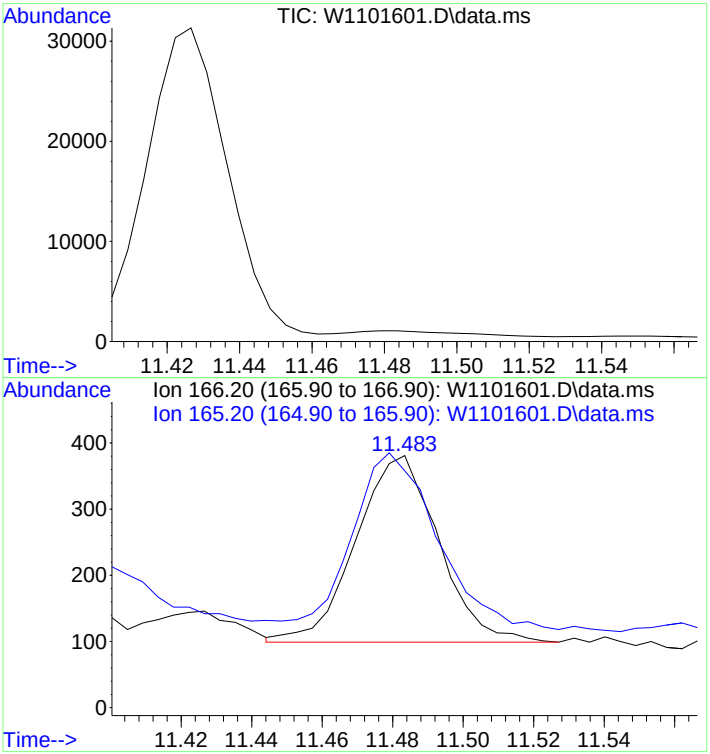
Ion	Ratio	Lower	Upper
142	100		
141	86.0	70.3	105.5



#5
1-Methylnaphthalene
Concen: 15.16 ng/mL
RT: 8.784 min Scan# 1548
Delta R.T. -0.015 min
Lab File: W1101601.D
Acq: 29 Jul 2011 7:35 pm

Tgt Ion:142 Resp: 628

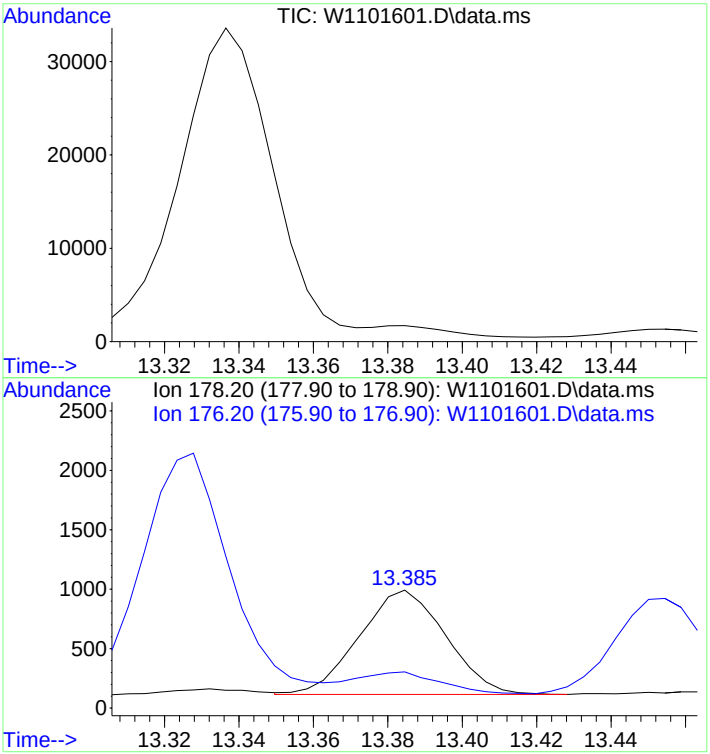
Ion	Ratio	Lower	Upper
142	100		
141	95.1	67.3	100.9



#10
Fluorene
Concen: 13.90 ng/mL
RT: 11.483 min Scan# 2142
Delta R.T. -0.013 min
Lab File: W1101601.D
Acq: 29 Jul 2011 7:35 pm

Tgt Ion:166 Resp: 460

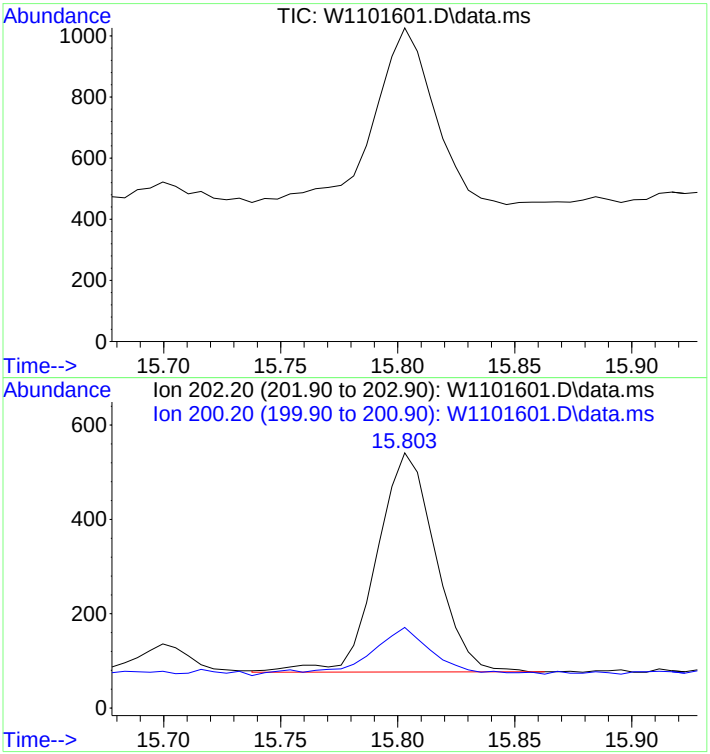
Ion	Ratio	Lower	Upper
166	100		
165	97.4	73.3	109.9



#12
Phenanthrene
Concen: 13.43 ng/mL
RT: 13.385 min Scan# 2577
Delta R.T. -0.013 min
Lab File: W1101601.D
Acq: 29 Jul 2011 7:35 pm

Tgt Ion:178 Resp: 1416

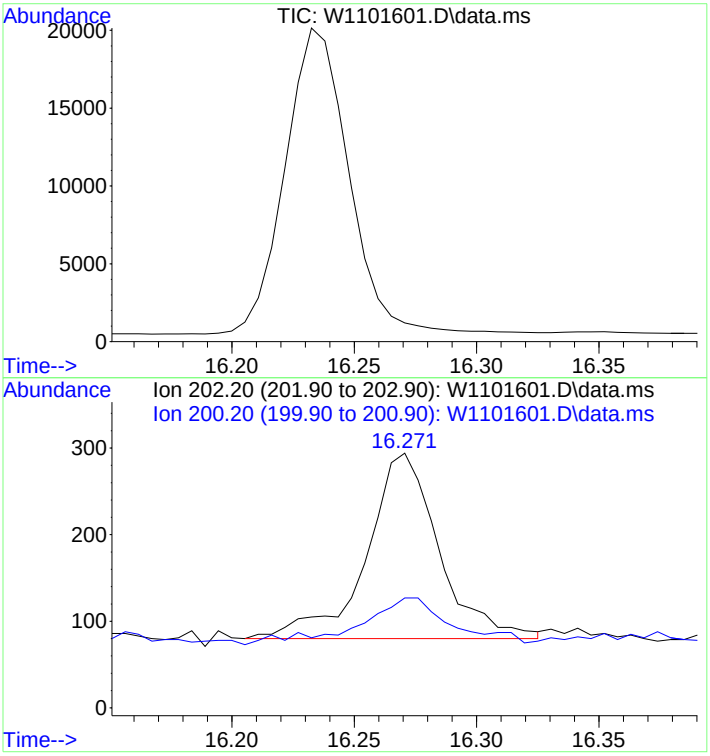
Ion	Ratio	Lower	Upper
178	100		
176	24.6	21.1	31.7



#14
Fluoranthene (CCC)
Concen: 6.88 ng/mL
RT: 15.803 min Scan# 3072
Delta R.T. -0.011 min
Lab File: W1101601.D
Acq: 29 Jul 2011 7:35 pm

Tgt Ion:202 Resp: 812

Ion	Ratio	Lower	Upper
202	100		
200	21.4	16.1	24.1



#16
Pyrene
Concen: 3.59 ng/mL
RT: 16.271 min Scan# 3158
Delta R.T. -0.005 min
Lab File: W1101601.D
Acq: 29 Jul 2011 7:35 pm

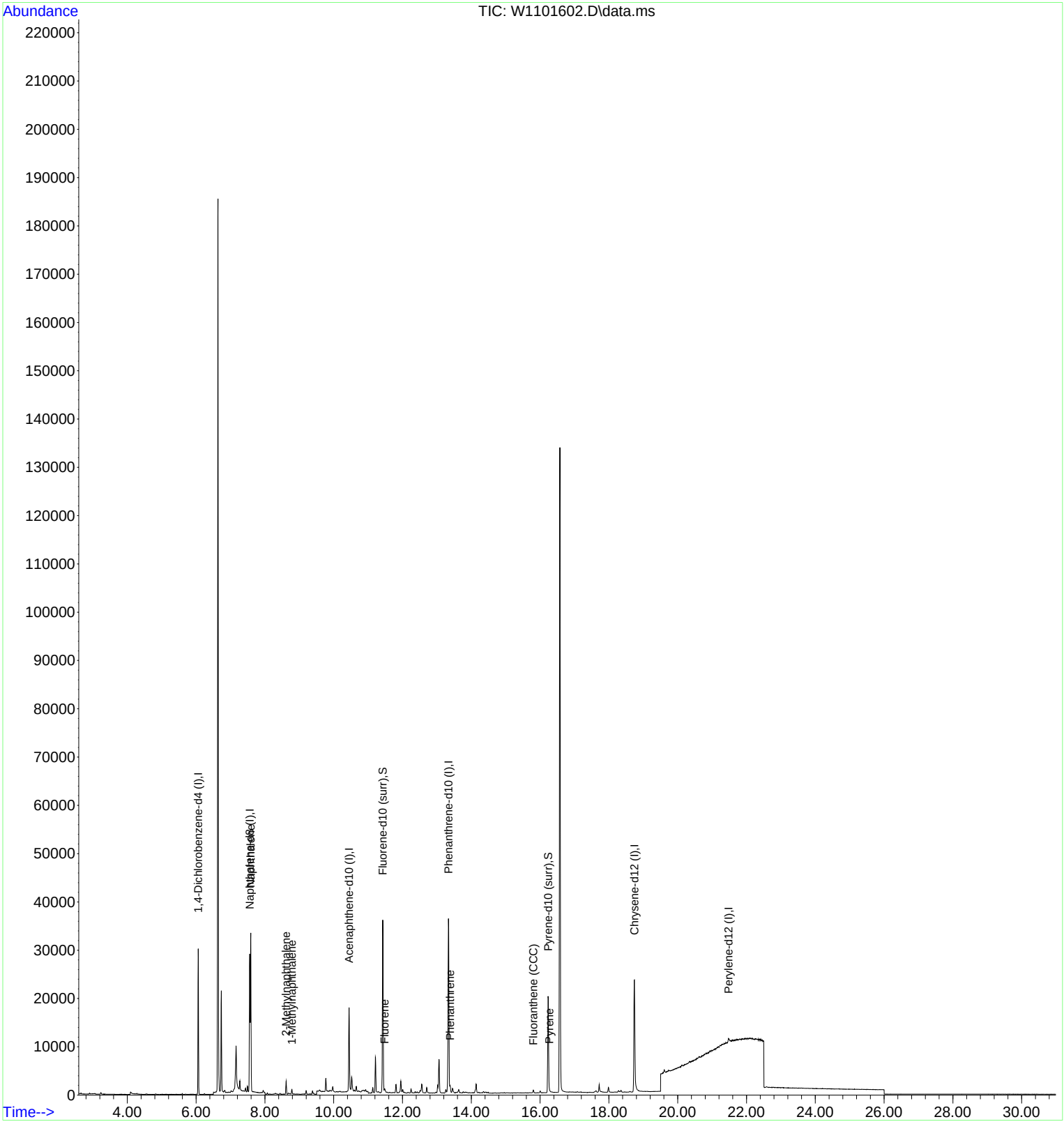
Tgt Ion:202 Resp: 443

Ion	Ratio	Lower	Upper
202	100		
200	32.5	22.7	34.1

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101602.D
Acq On : 29 Jul 2011 8:12 pm
Operator : tdd/lah
Sample : RUN 1 LD
Misc : 0611-23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 14 11:18:53 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



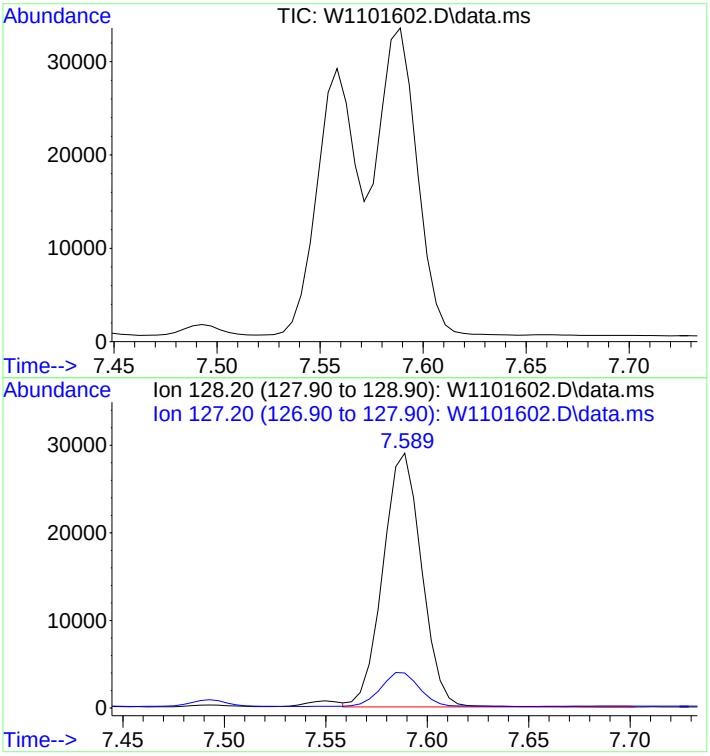
Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101602.D
Acq On : 29 Jul 2011 8:12 pm
Operator : tdd/lah
Sample : RUN 1 LD
Misc : 0611-23
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 14 11:18:53 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.064	152	13026	400.00	ng/mL	0.00
2) Naphthalene-d8 (I)	7.558	136	33431	400.00	ng/mL	0.00
6) Acenaphthene-d10 (I)	10.447	164	14042	400.00	ng/mL	0.00
11) Phenanthrene-d10 (I)	13.336	188	52240	400.00	ng/mL	-0.01
17) Chrysene-d12 (I)	18.743	240	34117	400.00	ng/mL	0.00
20) Perylene-d12 (I)	21.477	264	1443	400.00	ng/mL	# 0.00
System Monitoring Compounds						
9) Fluorene-d10 (surr)	11.427	176	29929	807.73	ng/mL	-0.01
15) Pyrene-d10 (surr)	16.232	212	28119	215.27	ng/mL	-0.01
Target Compounds						Qvalue
3) Naphthalene	7.589	128	38464	536.59	ng/mL#	83
4) 2-Methylnaphthalene	8.617	142	2013	39.48	ng/mL	98
5) 1-Methylnaphthalene	8.784	142	720	14.61	ng/mL	89
7) Acenaphthylene	0.000		0	N.D.		
8) Acenaphthene (CCC)	0.000		0	N.D.	d	
10) Fluorene	11.483	166	513	13.42	ng/mL	89
12) Phenanthrene	13.384	178	1575	13.56	ng/mL	100
13) Anthracene	0.000		0	N.D.	d	
14) Fluoranthene (CCC)	15.803	202	852	6.56	ng/mL	100
16) Pyrene	16.271	202	514	3.78	ng/mL	92
18) Benzo(a)anthracene	0.000		0	N.D.	d	
19) Chrysene	0.000		0	N.D.	d	
21) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.		
22) Benzo(b)fluoranthene	0.000		0	N.D.	d	
23) Benzo(k)fluoranthene	0.000		0	N.D.	d	
24) Benzo(e)pyrene	0.000		0	N.D.	d	
25) Benzo(a)pyrene (CCC)	0.000		0	N.D.	d	
26) Perylene	0.000		0	N.D.	d	
27) 3-Methylcholanthrene	0.000		0	N.D.	d	
28) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.		
29) Dibenz(a,h)anthracene	0.000		0	N.D.		
30) Benzo(g,h,i)perylene	0.000		0	N.D.		
31) Dibenzo(a,e)pyrene	0.000		0	N.D.		

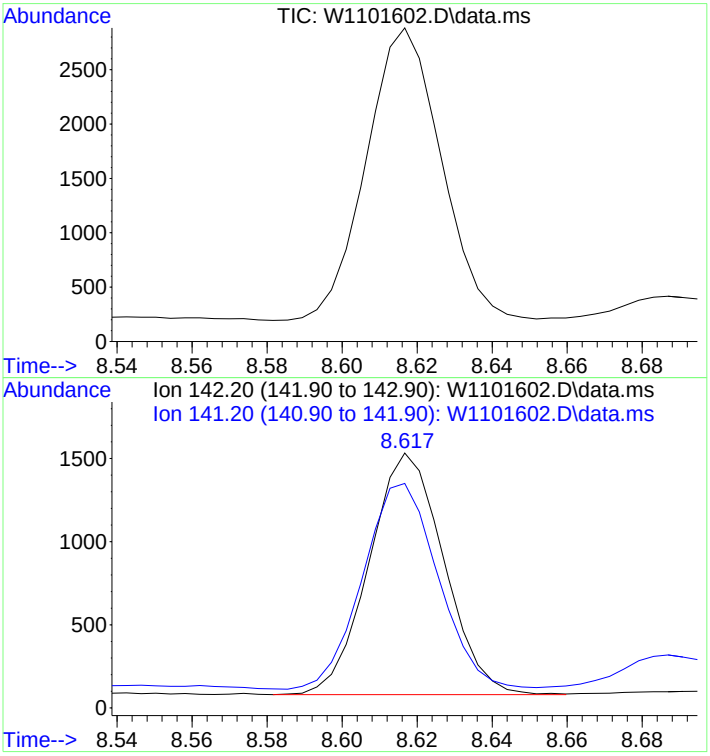
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#3
Naphthalene
Concen: 536.59 ng/mL
RT: 7.589 min Scan# 1253
Delta R.T. -0.004 min
Lab File: W1101602.D
Acq: 29 Jul 2011 8:12 pm

Tgt Ion:128 Resp: 38464

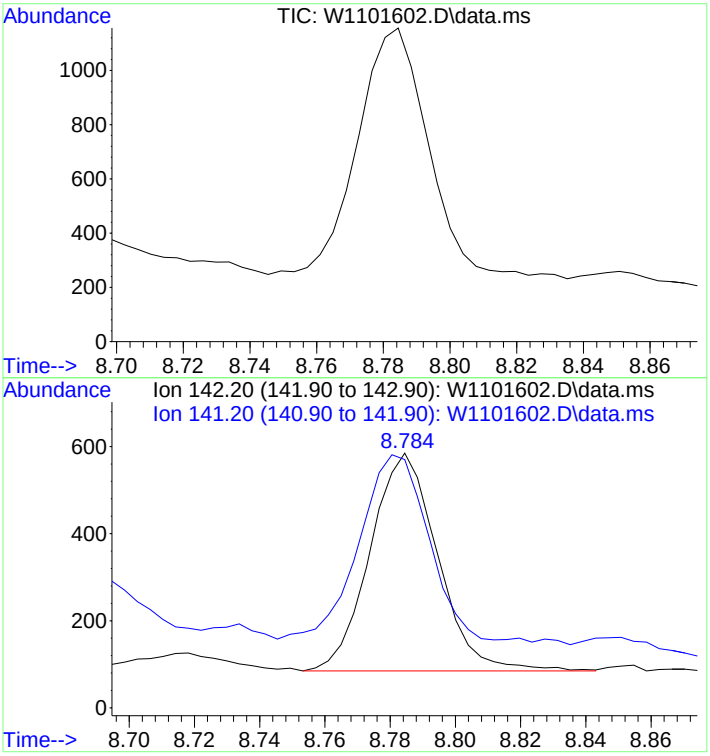
Ion	Ratio	Lower	Upper
128	100		
127	13.5	17.2	25.8#



#4
2-Methylnaphthalene
Concen: 39.48 ng/mL
RT: 8.617 min Scan# 1505
Delta R.T. -0.023 min
Lab File: W1101602.D
Acq: 29 Jul 2011 8:12 pm

Tgt Ion:142 Resp: 2013

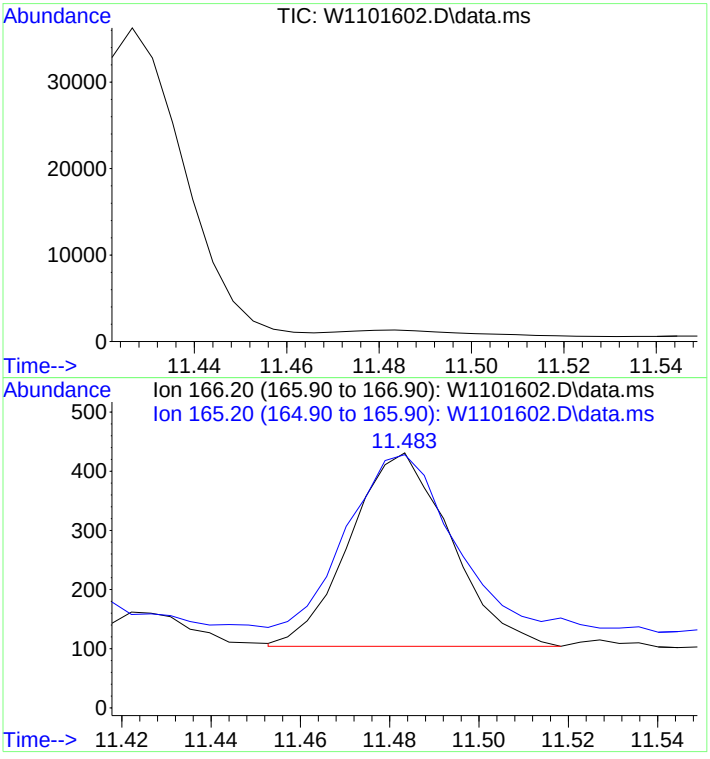
Ion	Ratio	Lower	Upper
142	100		
141	86.1	70.3	105.5



#5
1-Methylnaphthalene
Concen: 14.61 ng/mL
RT: 8.784 min Scan# 1548
Delta R.T. -0.016 min
Lab File: W1101602.D
Acq: 29 Jul 2011 8:12 pm

Tgt Ion:142 Resp: 720

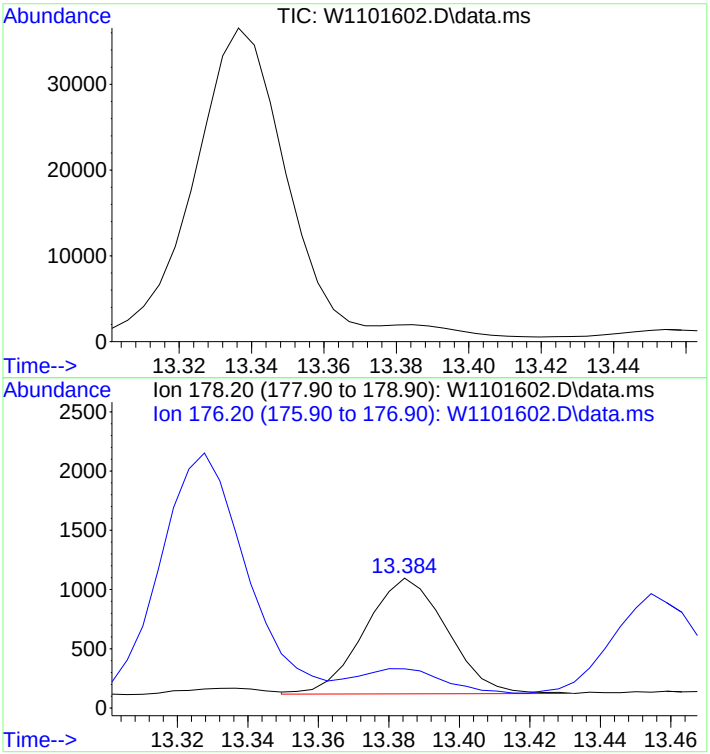
Ion	Ratio	Lower	Upper
142	100		
141	94.4	67.3	100.9



#10
Fluorene
Concen: 13.42 ng/mL
RT: 11.483 min Scan# 2142
Delta R.T. -0.013 min
Lab File: W1101602.D
Acq: 29 Jul 2011 8:12 pm

Tgt Ion:166 Resp: 513

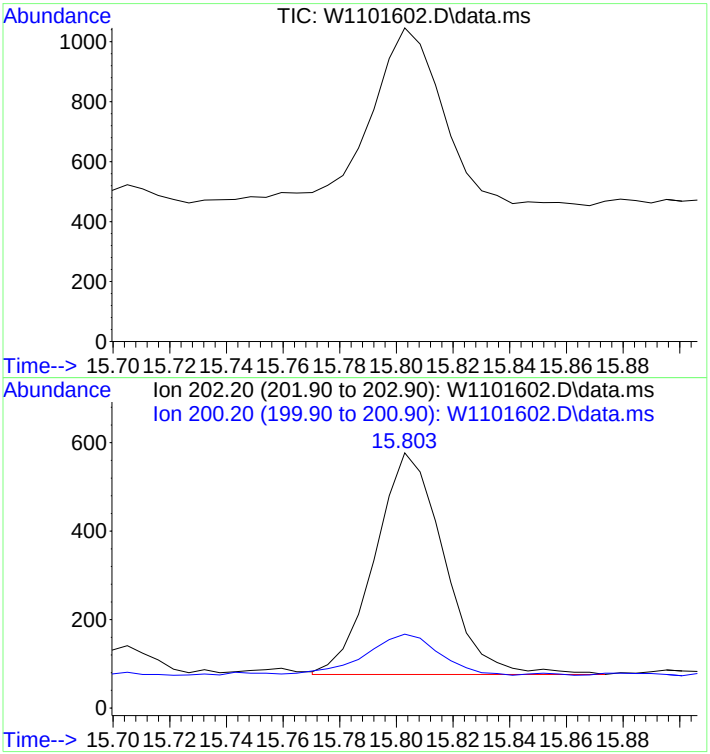
Ion	Ratio	Lower	Upper
166	100		
165	102.3	73.3	109.9



#12
Phenanthrene
Concen: 13.56 ng/mL
RT: 13.384 min Scan# 2577
Delta R.T. -0.013 min
Lab File: W1101602.D
Acq: 29 Jul 2011 8:12 pm

Tgt Ion:178 Resp: 1575

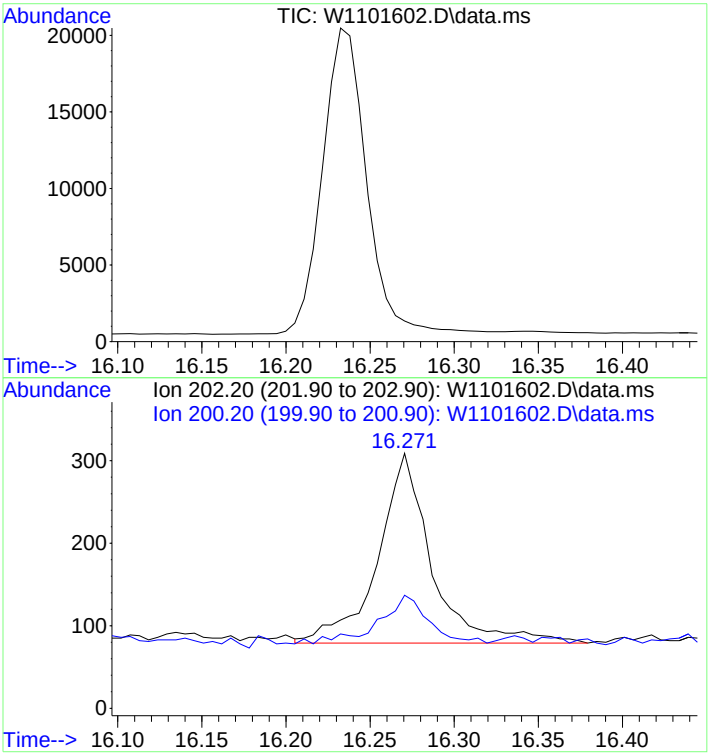
Ion	Ratio	Lower	Upper
178	100		
176	26.4	21.1	31.7



#14
Fluoranthene (CCC)
Concen: 6.56 ng/mL
RT: 15.803 min Scan# 3072
Delta R.T. -0.011 min
Lab File: W1101602.D
Acq: 29 Jul 2011 8:12 pm

Tgt Ion:202 Resp: 852

Ion	Ratio	Lower	Upper
202	100		
200	20.0	16.1	24.1



#16
Pyrene
Concen: 3.78 ng/mL
RT: 16.271 min Scan# 3158
Delta R.T. -0.005 min
Lab File: W1101602.D
Acq: 29 Jul 2011 8:12 pm

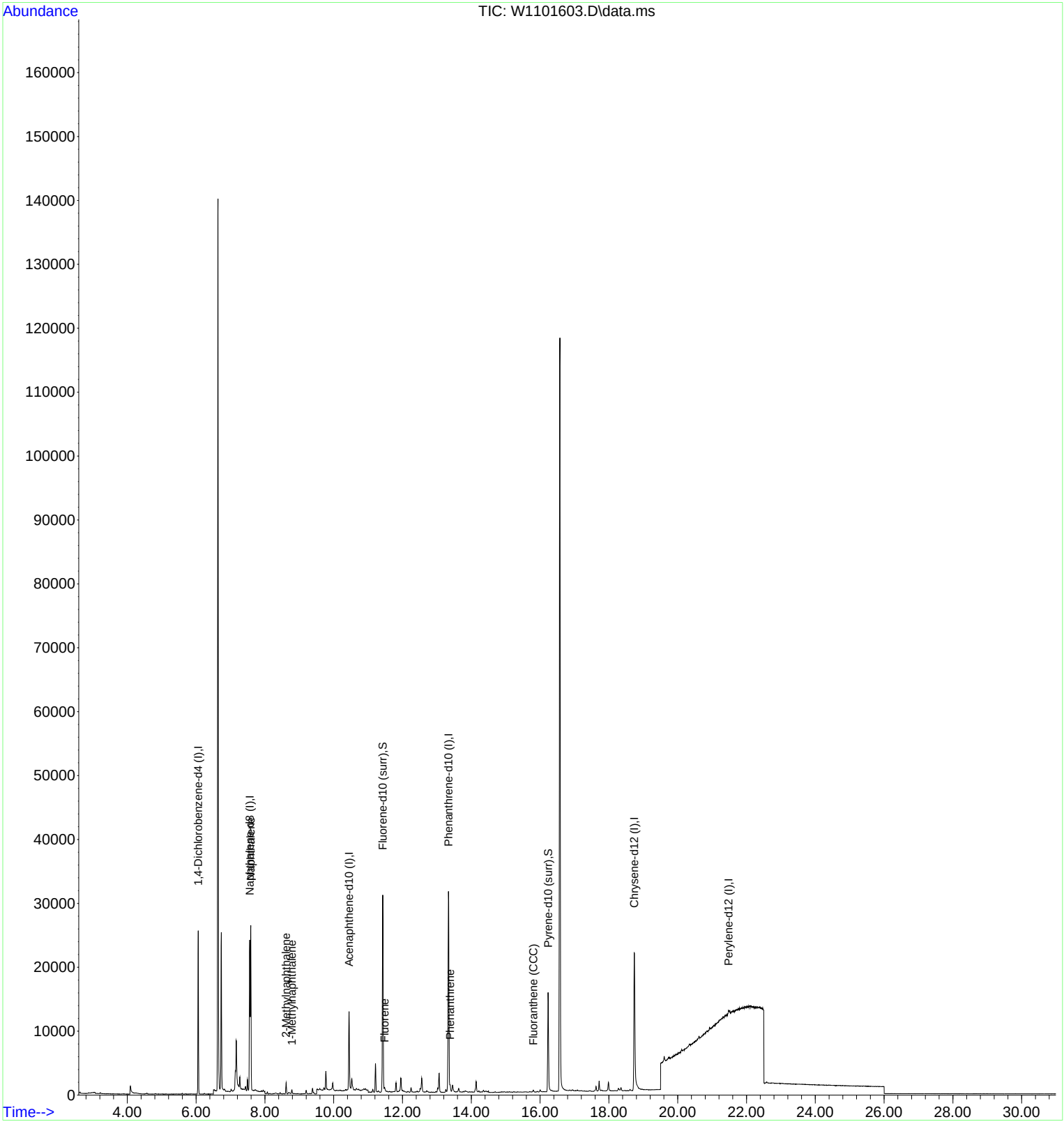
Tgt Ion:202 Resp: 514

Ion	Ratio	Lower	Upper
202	100		
200	23.9	22.7	34.1

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101603.D
Acq On : 29 Jul 2011 8:49 pm
Operator : tdd/lah
Sample : RUN 2
Misc : 0611-23
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 14 11:19:45 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



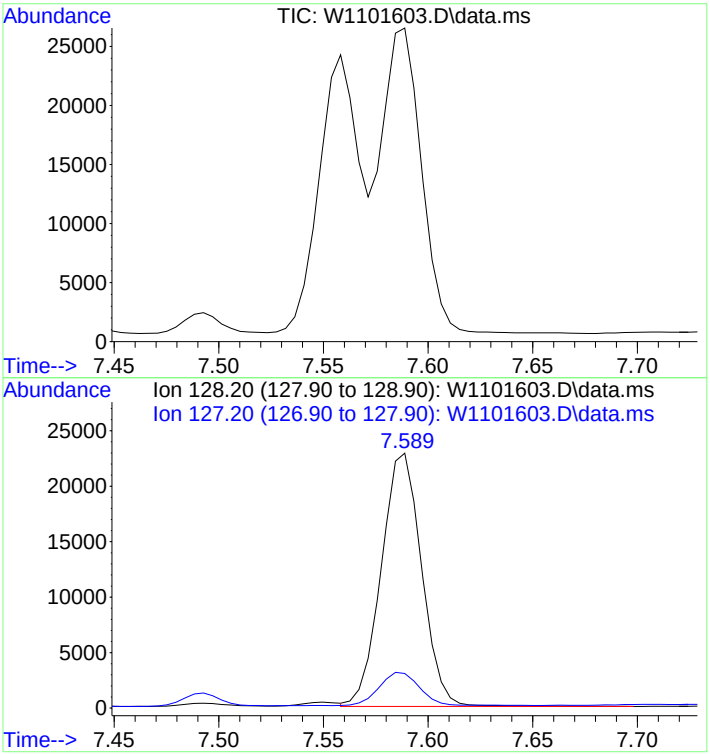
Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101603.D
Acq On : 29 Jul 2011 8:49 pm
Operator : tdd/lah
Sample : RUN 2
Misc : 0611-23
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 14 11:19:45 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.060	152	11186	400.00	ng/mL	0.00
2) Naphthalene-d8 (I)	7.558	136	27709	400.00	ng/mL	0.00
6) Acenaphthene-d10 (I)	10.447	164	9967	400.00	ng/mL	0.00
11) Phenanthrene-d10 (I)	13.336	188	43133	400.00	ng/mL	-0.01
17) Chrysene-d12 (I)	18.737	240	33164	400.00	ng/mL	-0.01
20) Perylene-d12 (I)	21.477	264	1354	400.00	ng/mL	# 0.00
System Monitoring Compounds						
9) Fluorene-d10 (surr)	11.426	176	26353	1002.00	ng/mL	-0.01
15) Pyrene-d10 (surr)	16.232	212	21822	202.34	ng/mL	-0.01
Target Compounds						Qvalue
3) Naphthalene	7.589	128	30661	516.07	ng/mL#	82
4) 2-Methylnaphthalene	8.617	142	1314	31.09	ng/mL	97
5) 1-Methylnaphthalene	8.784	142	472	11.56	ng/mL	97
7) Acenaphthylene	0.000		0	N.D.		
8) Acenaphthene (CCC)	0.000		0	N.D.	d	
10) Fluorene	11.479	166	404	14.89	ng/mL	87
12) Phenanthrene	13.384	178	1197	12.48	ng/mL	96
13) Anthracene	0.000		0	N.D.	d	
14) Fluoranthene (CCC)	15.803	202	441	4.11	ng/mL#	90
16) Pyrene	0.000		0	N.D.	d	
18) Benzo(a)anthracene	0.000		0	N.D.	d	
19) Chrysene	0.000		0	N.D.	d	
21) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.		
22) Benzo(b)fluoranthene	0.000		0	N.D.	d	
23) Benzo(k)fluoranthene	0.000		0	N.D.	d	
24) Benzo(e)pyrene	0.000		0	N.D.	d	
25) Benzo(a)pyrene (CCC)	0.000		0	N.D.	d	
26) Perylene	0.000		0	N.D.	d	
27) 3-Methylcholanthrene	0.000		0	N.D.	d	
28) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.		
29) Dibenz(a,h)anthracene	0.000		0	N.D.		
30) Benzo(g,h,i)perylene	0.000		0	N.D.		
31) Dibenzo(a,e)pyrene	0.000		0	N.D.		

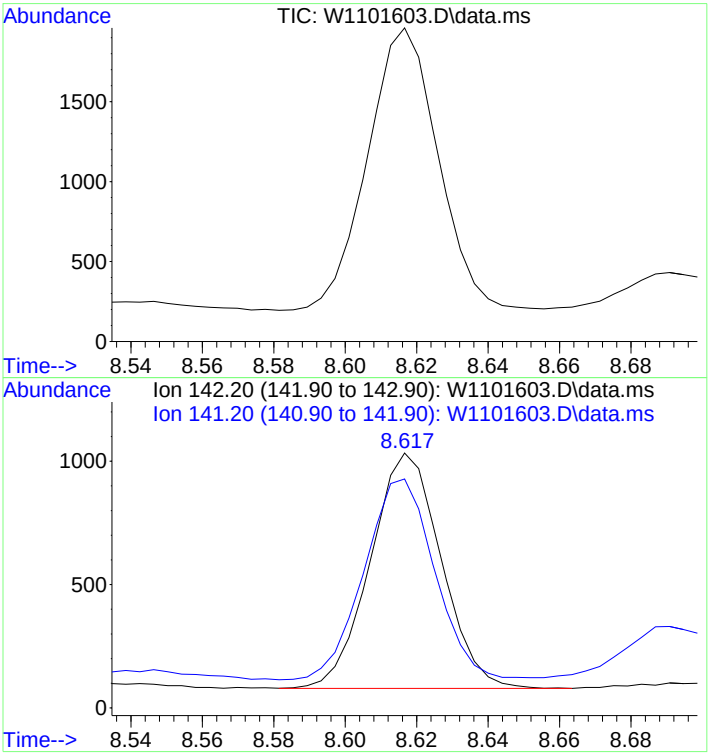
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#3
Naphthalene
Concen: 516.07 ng/mL
RT: 7.589 min Scan# 1253
Delta R.T. -0.004 min
Lab File: W1101603.D
Acq: 29 Jul 2011 8:49 pm

Tgt Ion:128 Resp: 30661

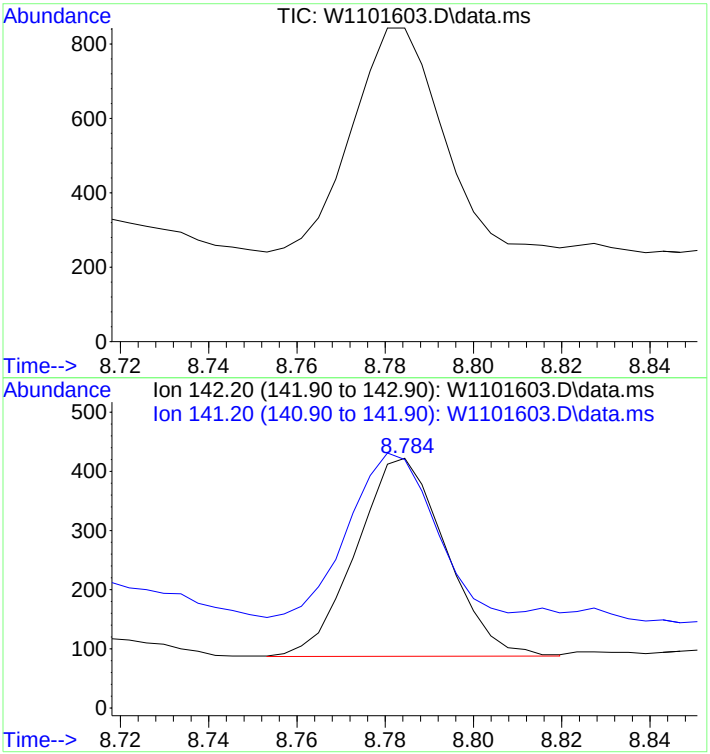
Ion	Ratio	Lower	Upper
128	100		
127	13.2	17.2	25.8#



#4
2-Methylnaphthalene
Concen: 31.09 ng/mL
RT: 8.617 min Scan# 1505
Delta R.T. -0.023 min
Lab File: W1101603.D
Acq: 29 Jul 2011 8:49 pm

Tgt Ion:142 Resp: 1314

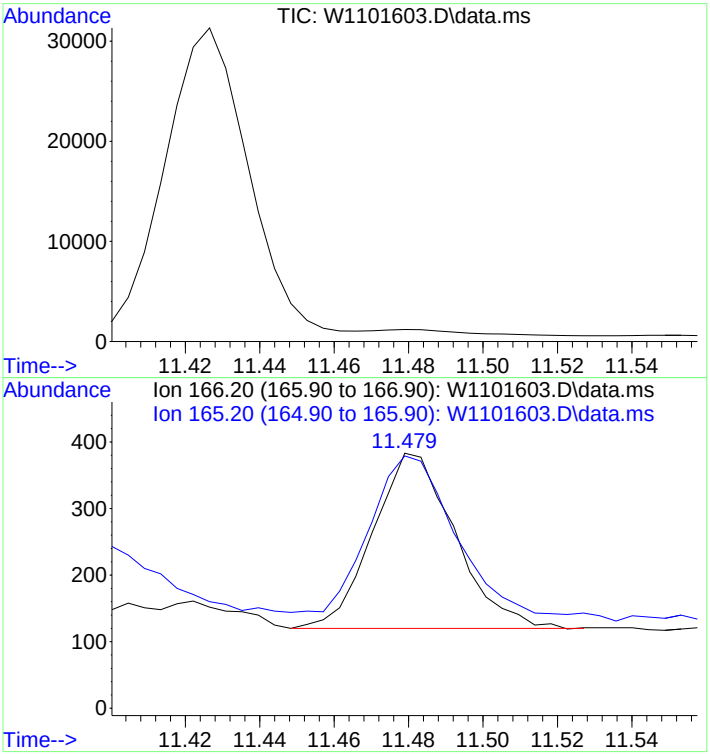
Ion	Ratio	Lower	Upper
142	100		
141	85.2	70.3	105.5



#5
1-Methylnaphthalene
Concen: 11.56 ng/mL
RT: 8.784 min Scan# 1548
Delta R.T. -0.016 min
Lab File: W1101603.D
Acq: 29 Jul 2011 8:49 pm

Tgt Ion:142 Resp: 472

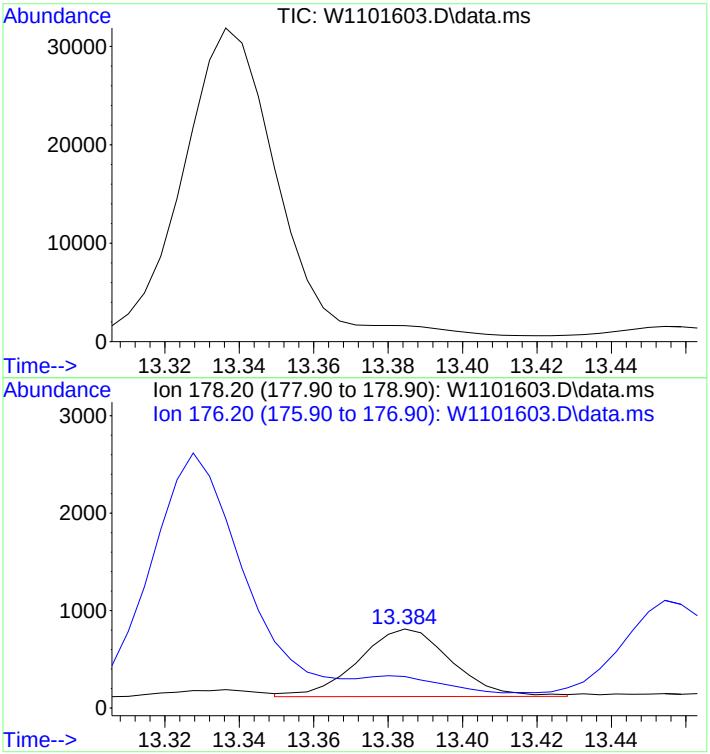
Ion	Ratio	Lower	Upper
142	100		
141	81.1	67.3	100.9



#10
Fluorene
Concen: 14.89 ng/mL
RT: 11.479 min Scan# 2141
Delta R.T. -0.017 min
Lab File: W1101603.D
Acq: 29 Jul 2011 8:49 pm

Tgt Ion:166 Resp: 404

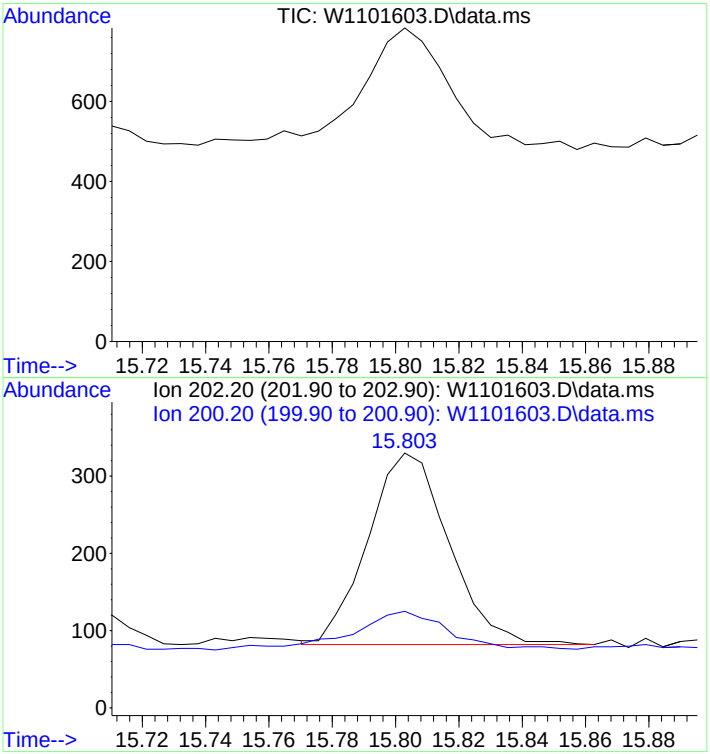
Ion	Ratio	Lower	Upper
166	100		
165	104.2	73.3	109.9



#12
Phenanthrene
Concen: 12.48 ng/mL
RT: 13.384 min Scan# 2577
Delta R.T. -0.013 min
Lab File: W1101603.D
Acq: 29 Jul 2011 8:49 pm

Tgt Ion:178 Resp: 1197

Ion	Ratio	Lower	Upper
178	100		
176	28.4	21.1	31.7



#14
Fluoranthene (CCC)
Concen: 4.11 ng/mL
RT: 15.803 min Scan# 3072
Delta R.T. -0.011 min
Lab File: W1101603.D
Acq: 29 Jul 2011 8:49 pm

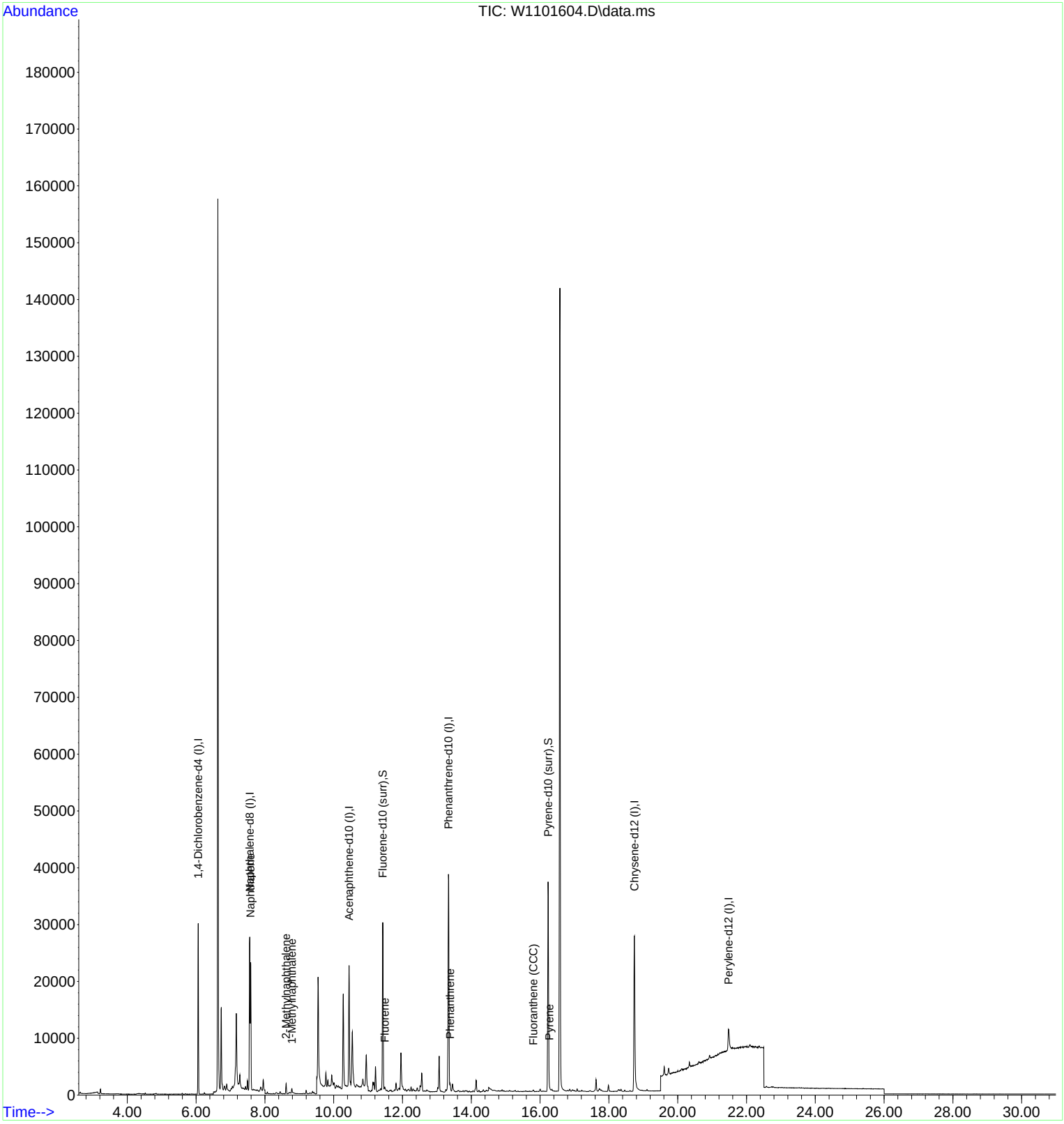
Tgt Ion:202 Resp: 441

Ion	Ratio	Lower	Upper
202	100		
200	24.5	16.1	24.1#

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101604.D
Acq On : 29 Jul 2011 9:26 pm
Operator : tdd/lah
Sample : RUN 3
Misc : 0611-23
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 14 11:20:46 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



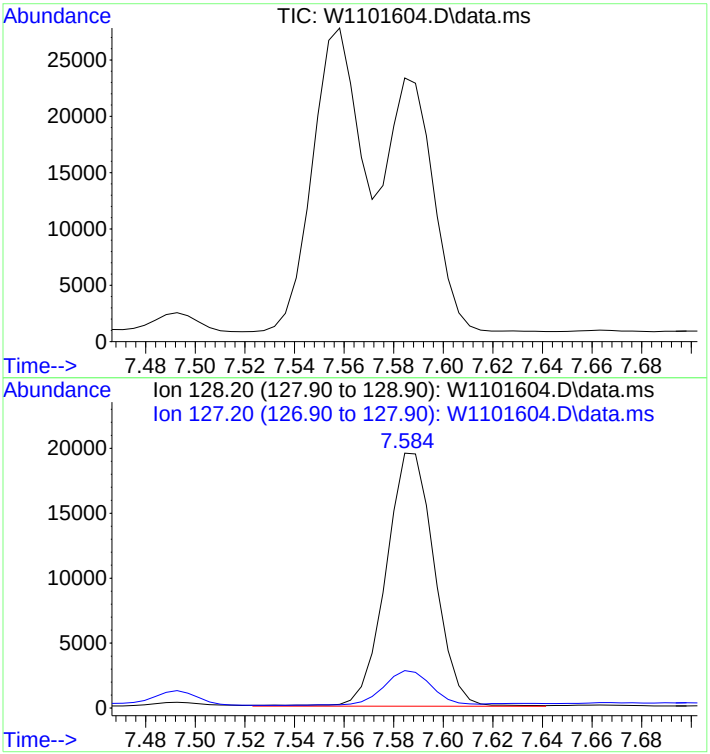
Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101604.D
Acq On : 29 Jul 2011 9:26 pm
Operator : tdd/lah
Sample : RUN 3
Misc : 0611-23
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 14 11:20:46 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.060	152	13106	400.00	ng/mL	0.00
2) Naphthalene-d8 (I)	7.558	136	32697	400.00	ng/mL	0.00
6) Acenaphthene-d10 (I)	10.447	164	17311	400.00	ng/mL	0.00
11) Phenanthrene-d10 (I)	13.336	188	54442	400.00	ng/mL	-0.01
17) Chrysene-d12 (I)	18.743	240	39687	400.00	ng/mL	0.00
20) Perylene-d12 (I)	21.477	264	7973	400.00	ng/mL	# 0.00
System Monitoring Compounds						
9) Fluorene-d10 (surr)	11.426	176	24999	547.27	ng/mL	-0.01
15) Pyrene-d10 (surr)	16.232	212	50363	369.97	ng/mL	-0.01
Target Compounds						Qvalue
3) Naphthalene	7.584	128	26483	377.75	ng/mL#	83
4) 2-Methylnaphthalene	8.617	142	1357	27.21	ng/mL	99
5) 1-Methylnaphthalene	8.784	142	655	13.59	ng/mL	91
7) Acenaphthylene	0.000		0	N.D.	d	
8) Acenaphthene (CCC)	0.000		0	N.D.	d	
10) Fluorene	11.488	166	945	20.05	ng/mL#	64
12) Phenanthrene	13.384	178	1245	10.28	ng/mL	96
13) Anthracene	0.000		0	N.D.	d	
14) Fluoranthene (CCC)	15.803	202	444	3.28	ng/mL#	85
16) Pyrene	16.270	202	678	4.79	ng/mL#	82
18) Benzo(a)anthracene	0.000		0	N.D.	d	
19) Chrysene	0.000		0	N.D.	d	
21) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.		
22) Benzo(b)fluoranthene	0.000		0	N.D.	d	
23) Benzo(k)fluoranthene	0.000		0	N.D.	d	
24) Benzo(e)pyrene	0.000		0	N.D.	d	
25) Benzo(a)pyrene (CCC)	0.000		0	N.D.	d	
26) Perylene	0.000		0	N.D.	d	
27) 3-Methylcholanthrene	0.000		0	N.D.	d	
28) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.		
29) Dibenz(a,h)anthracene	0.000		0	N.D.		
30) Benzo(g,h,i)perylene	0.000		0	N.D.		
31) Dibenzo(a,e)pyrene	0.000		0	N.D.		

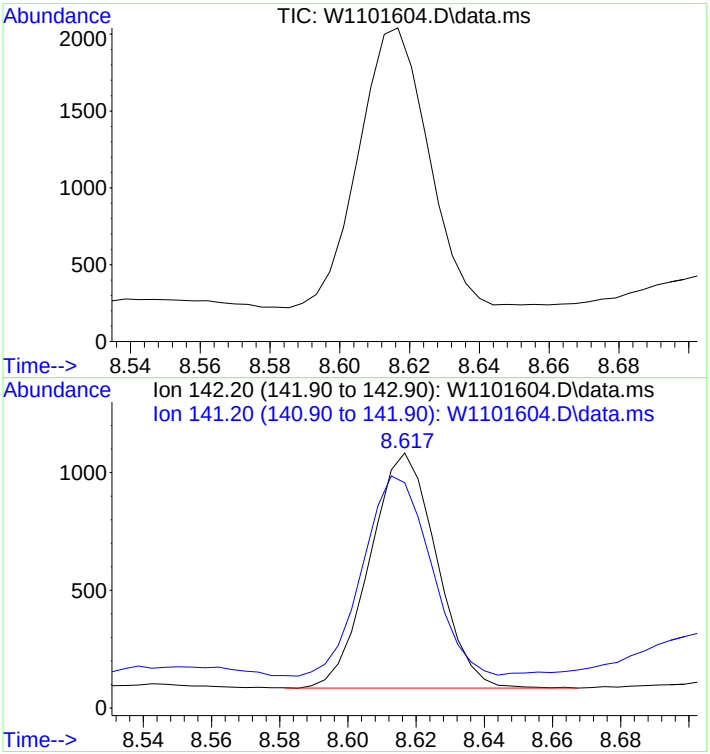
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#3
Naphthalene
Concen: 377.75 ng/mL
RT: 7.584 min Scan# 1252
Delta R.T. -0.009 min
Lab File: W1101604.D
Acq: 29 Jul 2011 9:26 pm

Tgt Ion:128 Resp: 26483

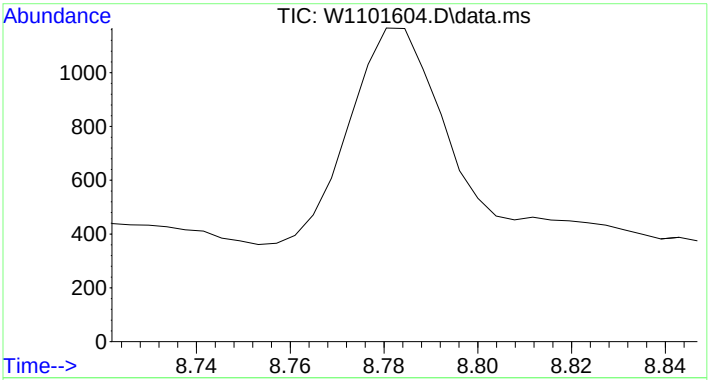
Ion	Ratio	Lower	Upper
128	100		
127	13.6	17.2	25.8#

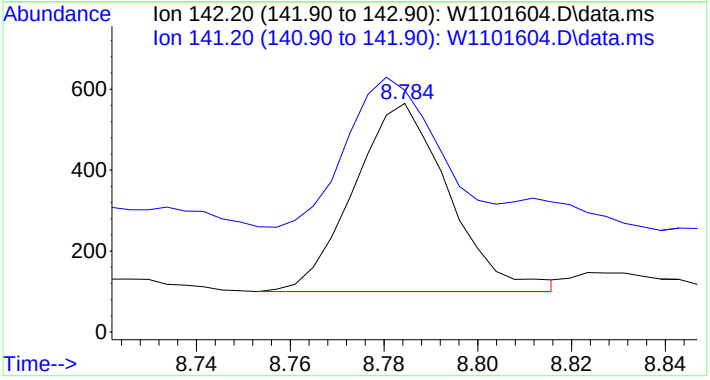


#4
2-Methylnaphthalene
Concen: 27.21 ng/mL
RT: 8.617 min Scan# 1505
Delta R.T. -0.023 min
Lab File: W1101604.D
Acq: 29 Jul 2011 9:26 pm

Tgt Ion:142 Resp: 1357

Ion	Ratio	Lower	Upper
142	100		
141	86.6	70.3	105.5

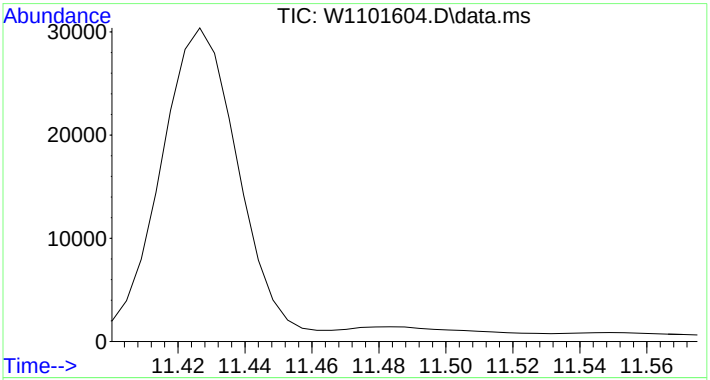


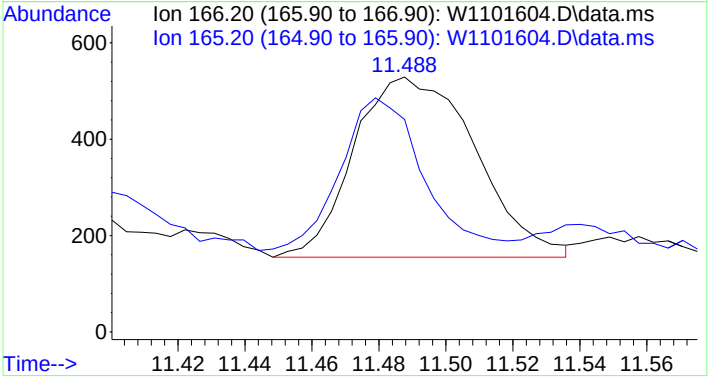


#5
1-Methylnaphthalene
Concen: 13.59 ng/mL
RT: 8.784 min Scan# 1548
Delta R.T. -0.016 min
Lab File: W1101604.D
Acq: 29 Jul 2011 9:26 pm

Tgt Ion:142 Resp: 655

Ion	Ratio	Lower	Upper
142	100		
141	76.3	67.3	100.9

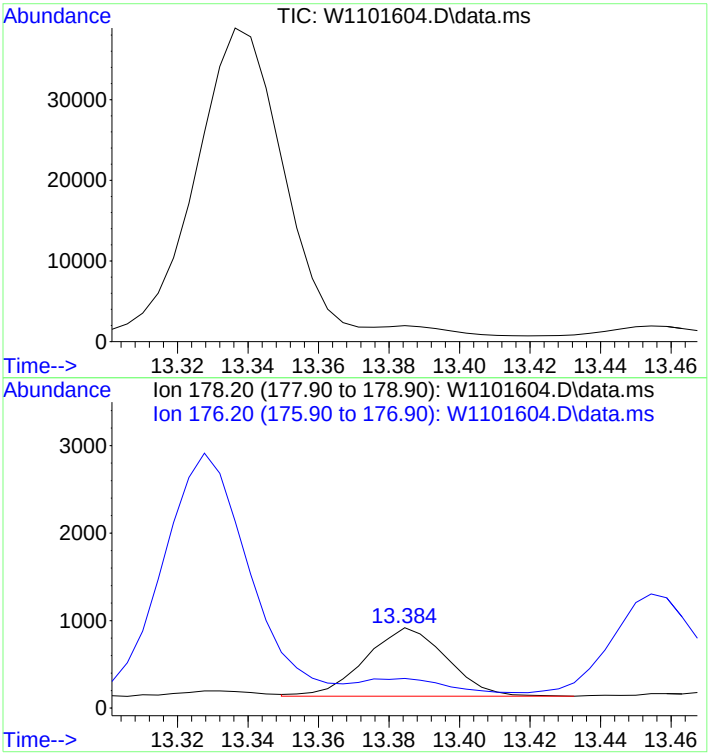




#10
Fluorene
Concen: 20.05 ng/mL
RT: 11.488 min Scan# 2143
Delta R.T. -0.009 min
Lab File: W1101604.D
Acq: 29 Jul 2011 9:26 pm

Tgt Ion:166 Resp: 945

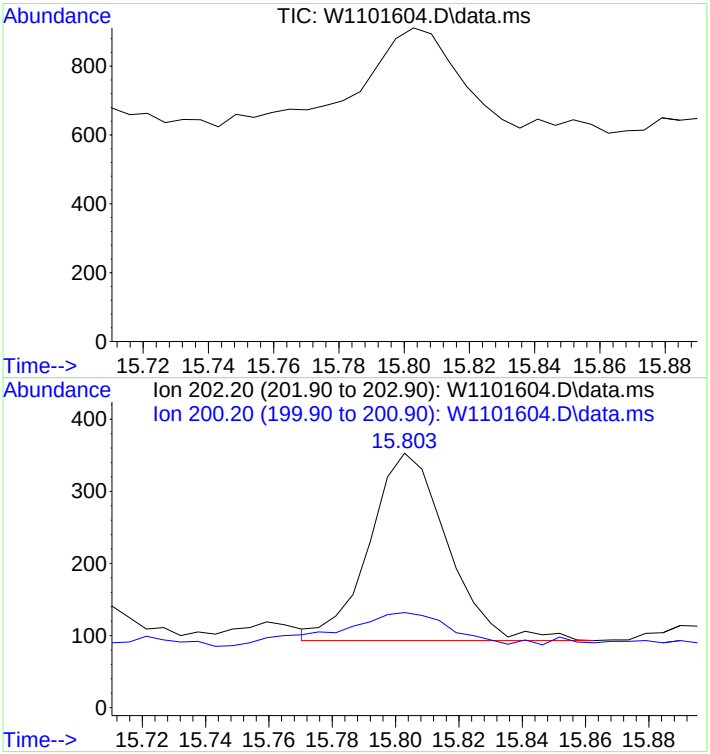
Ion	Ratio	Lower	Upper
166	100		
165	57.2	73.3	109.9#



#12
Phenanthrene
Concen: 10.28 ng/mL
RT: 13.384 min Scan# 2577
Delta R.T. -0.013 min
Lab File: W1101604.D
Acq: 29 Jul 2011 9:26 pm

Tgt Ion:178 Resp: 1245

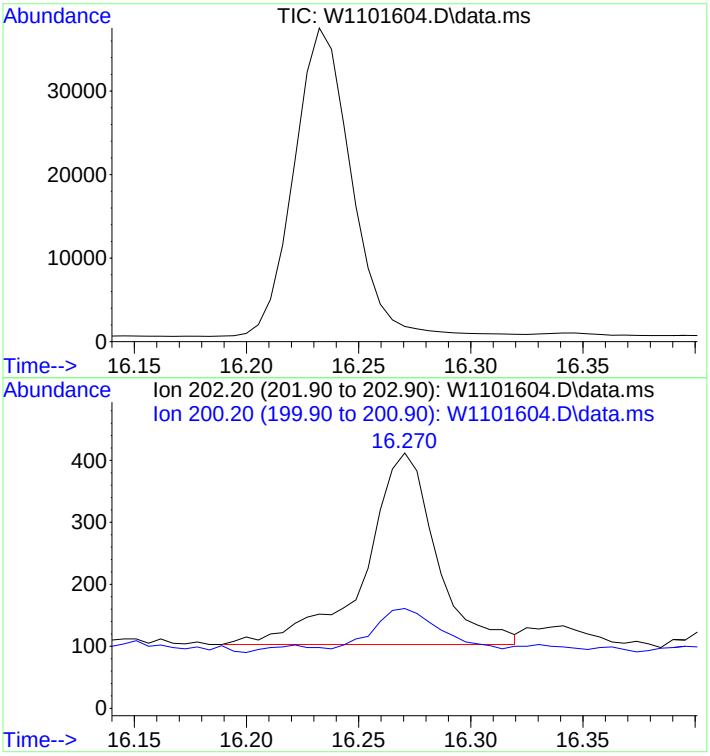
Ion	Ratio	Lower	Upper
178	100		
176	28.7	21.1	31.7



#14
Fluoranthene (CCC)
Concen: 3.28 ng/mL
RT: 15.803 min Scan# 3072
Delta R.T. -0.011 min
Lab File: W1101604.D
Acq: 29 Jul 2011 9:26 pm

Tgt Ion:202 Resp: 444

Ion	Ratio	Lower	Upper
202	100		
200	26.8	16.1	24.1#



#16
Pyrene
Concen: 4.79 ng/mL
RT: 16.270 min Scan# 3158
Delta R.T. -0.005 min
Lab File: W1101604.D
Acq: 29 Jul 2011 9:26 pm

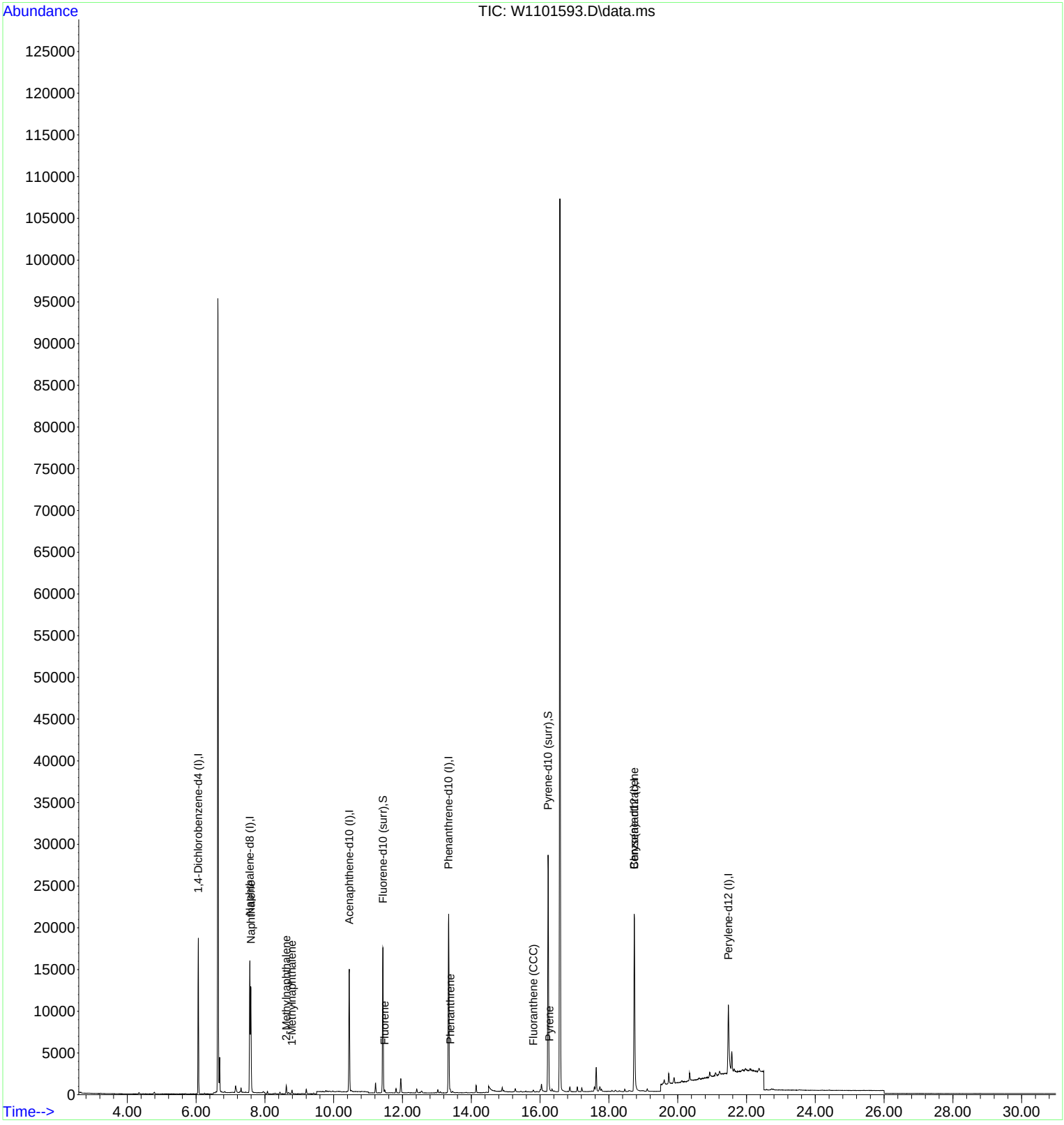
Tgt Ion:202 Resp: 678

Ion	Ratio	Lower	Upper
202	100		
200	18.7	22.7	34.1#

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101593.D
Acq On : 29 Jul 2011 2:38 pm
Operator : tdd/lah
Sample : FIELD BLANK
Misc : 0611-23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 14 10:54:33 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



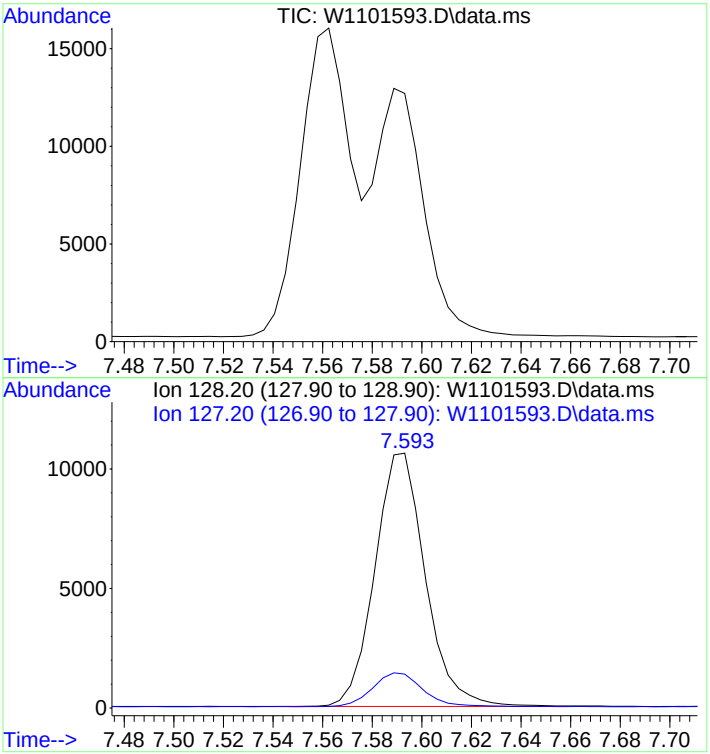
Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101593.D
Acq On : 29 Jul 2011 2:38 pm
Operator : tdd/lah
Sample : FIELD BLANK
Misc : 0611-23
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 14 10:54:33 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.064	152	8419	400.00	ng/mL	0.00
2) Naphthalene-d8 (I)	7.562	136	19956	400.00	ng/mL	0.00
6) Acenaphthene-d10 (I)	10.452	164	11815	400.00	ng/mL	0.00
11) Phenanthrene-d10 (I)	13.341	188	29512	400.00	ng/mL	0.00
17) Chrysene-d12 (I)	18.737	240	28744	400.00	ng/mL	-0.01
20) Perylene-d12 (I)	21.472	264	15308	400.00	ng/mL	# 0.00
System Monitoring Compounds						
9) Fluorene-d10 (surr)	11.431	176	14449	463.45	ng/mL	0.00
15) Pyrene-d10 (surr)	16.233	212	37400	506.83	ng/mL	-0.01
Target Compounds						Qvalue
3) Naphthalene	7.593	128	15022	351.07	ng/mL#	83
4) 2-Methylnaphthalene	8.620	142	774	25.43	ng/mL	97
5) 1-Methylnaphthalene	8.788	142	333	11.32	ng/mL	96
7) Acenaphthylene	0.000		0	N.D.		
8) Acenaphthene (CCC)	0.000		0	N.D.		
10) Fluorene	11.484	166	273	8.49	ng/mL	99
12) Phenanthrene	13.389	178	481	7.33	ng/mL	94
13) Anthracene	0.000		0	N.D.	d	
14) Fluoranthene (CCC)	15.803	202	323	4.40	ng/mL#	56
16) Pyrene	16.271	202	431	5.61	ng/mL#	46
18) Benzo(a)anthracene	18.737	228	115	1.96	ng/mL#	53
19) Chrysene	0.000		0	N.D.	d	
21) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.		
22) Benzo(b)fluoranthene	0.000		0	N.D.		
23) Benzo(k)fluoranthene	0.000		0	N.D.	d	
24) Benzo(e)pyrene	0.000		0	N.D.	d	
25) Benzo(a)pyrene (CCC)	0.000		0	N.D.		
26) Perylene	0.000		0	N.D.	d	
27) 3-Methylcholanthrene	0.000		0	N.D.		
28) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.		
29) Dibenz(a,h)anthracene	0.000		0	N.D.		
30) Benzo(g,h,i)perylene	0.000		0	N.D.		
31) Dibenzo(a,e)pyrene	0.000		0	N.D.		

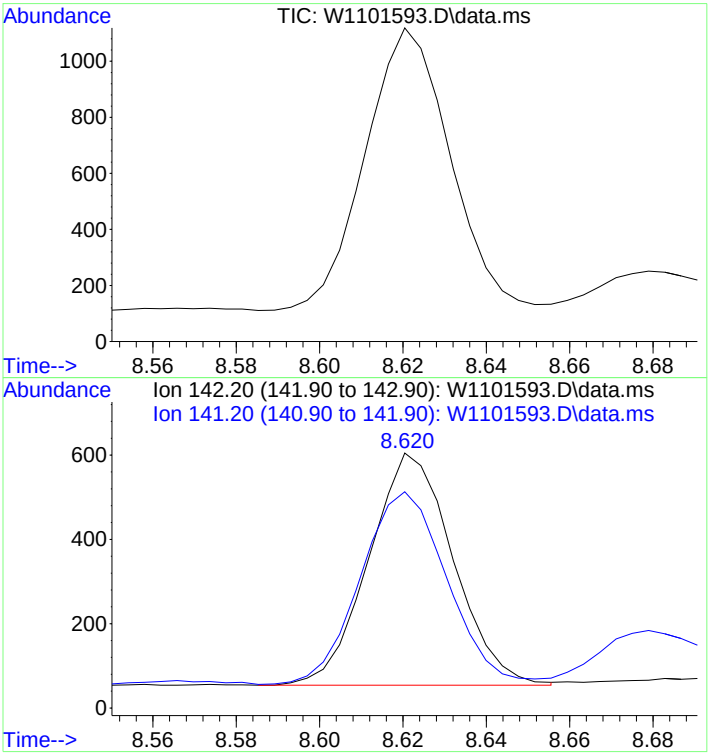
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#3
Naphthalene
Concen: 351.07 ng/mL
RT: 7.593 min Scan# 1254
Delta R.T. -0.000 min
Lab File: W1101593.D
Acq: 29 Jul 2011 2:38 pm

Tgt Ion:128 Resp: 15022

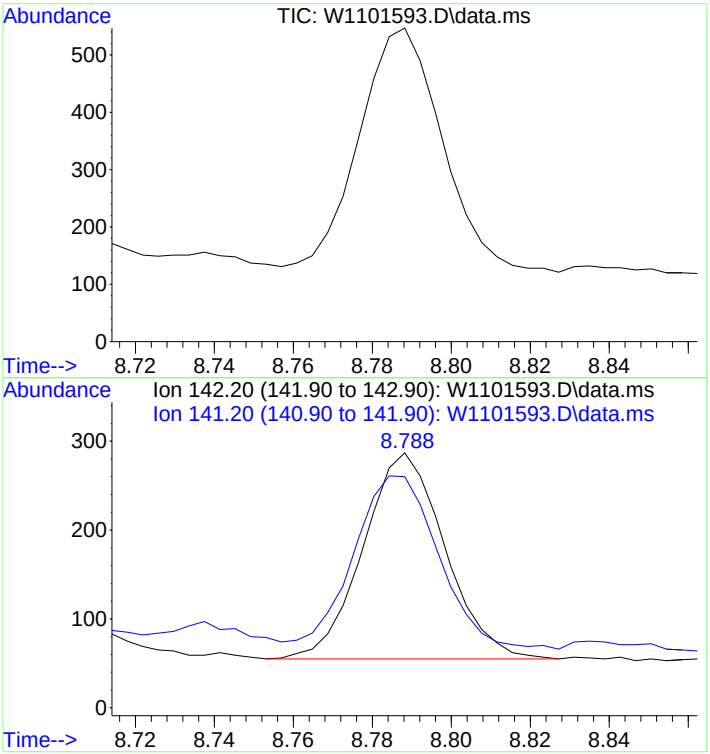
Ion	Ratio	Lower	Upper
128	100		
127	13.4	17.2	25.8#



#4
2-Methylnaphthalene
Concen: 25.43 ng/mL
RT: 8.620 min Scan# 1506
Delta R.T. -0.020 min
Lab File: W1101593.D
Acq: 29 Jul 2011 2:38 pm

Tgt Ion:142 Resp: 774

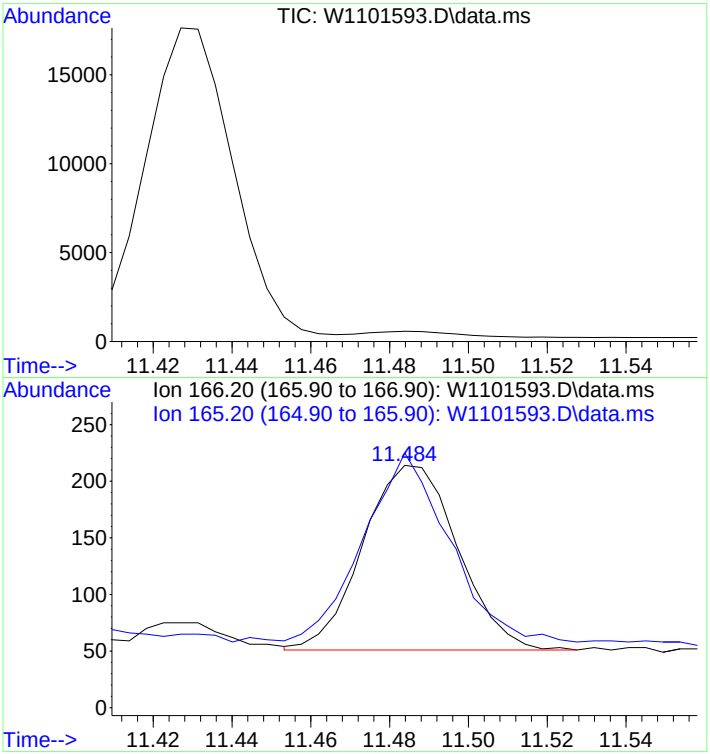
Ion	Ratio	Lower	Upper
142	100		
141	85.0	70.3	105.5



#5
1-Methylnaphthalene
Concen: 11.32 ng/mL
RT: 8.788 min Scan# 1549
Delta R.T. -0.012 min
Lab File: W1101593.D
Acq: 29 Jul 2011 2:38 pm

Tgt Ion:142 Resp: 333

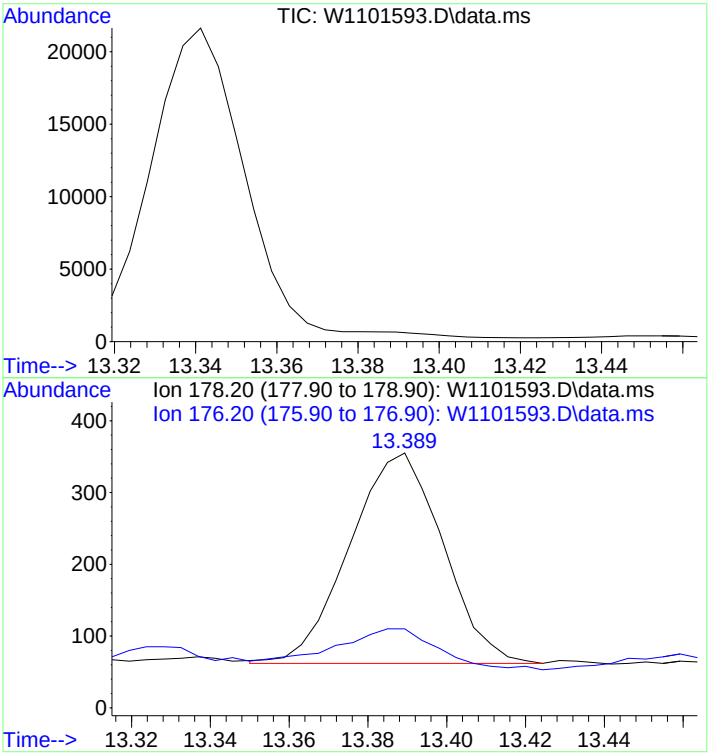
Ion	Ratio	Lower	Upper
142	100		
141	88.0	67.3	100.9



#10
Fluorene
Concen: 8.49 ng/mL
RT: 11.484 min Scan# 2142
Delta R.T. -0.013 min
Lab File: W1101593.D
Acq: 29 Jul 2011 2:38 pm

Tgt Ion:166 Resp: 273

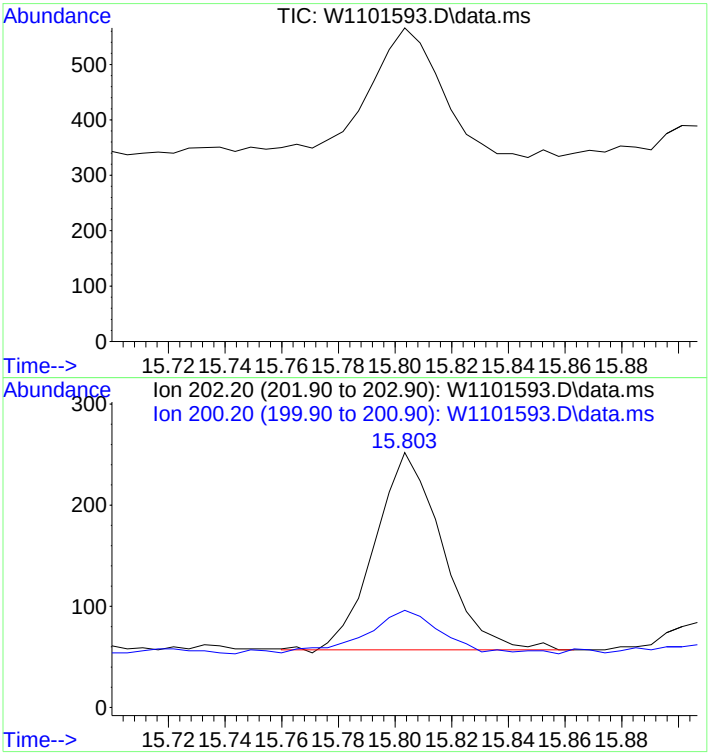
Ion	Ratio	Lower	Upper
166	100		
165	90.8	73.3	109.9



#12
Phenanthrene
Concen: 7.33 ng/mL
RT: 13.389 min Scan# 2578
Delta R.T. -0.008 min
Lab File: W1101593.D
Acq: 29 Jul 2011 2:38 pm

Tgt Ion:178 Resp: 481

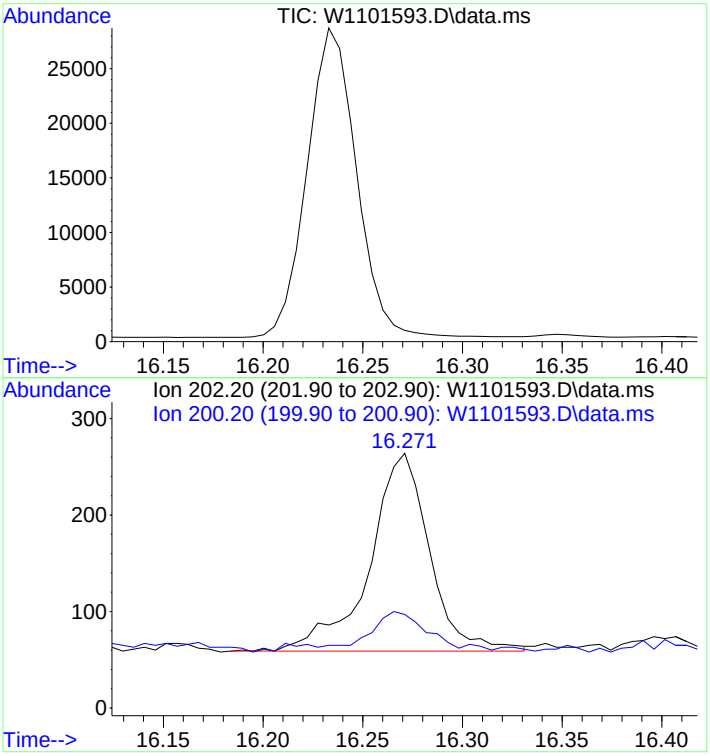
Ion	Ratio	Lower	Upper
178	100		
176	23.1	21.1	31.7



#14
Fluoranthene (CCC)
Concen: 4.40 ng/mL
RT: 15.803 min Scan# 3072
Delta R.T. -0.010 min
Lab File: W1101593.D
Acq: 29 Jul 2011 2:38 pm

Tgt Ion:202 Resp: 323

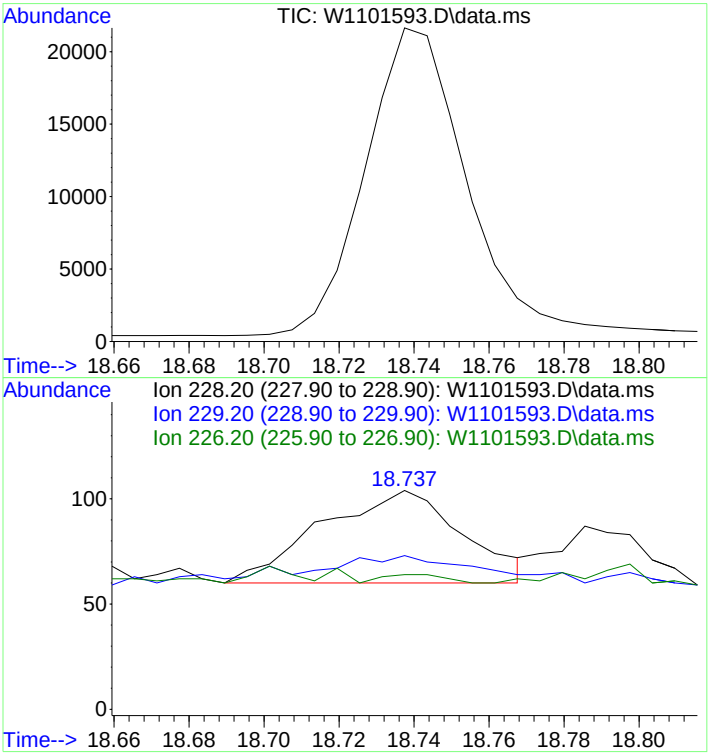
Ion	Ratio	Lower	Upper
202	100		
200	0.0	16.1	24.1#



#16
Pyrene
Concen: 5.61 ng/mL
RT: 16.271 min Scan# 3158
Delta R.T. -0.005 min
Lab File: W1101593.D
Acq: 29 Jul 2011 2:38 pm

Tgt Ion:202 Resp: 431

Ion	Ratio	Lower	Upper
202	100		
200	0.0	22.7	34.1#



#18
Benzo(a)anthracene
Concen: 1.96 ng/mL
RT: 18.737 min Scan# 3585
Delta R.T. 0.013 min
Lab File: W1101593.D
Acq: 29 Jul 2011 2:38 pm

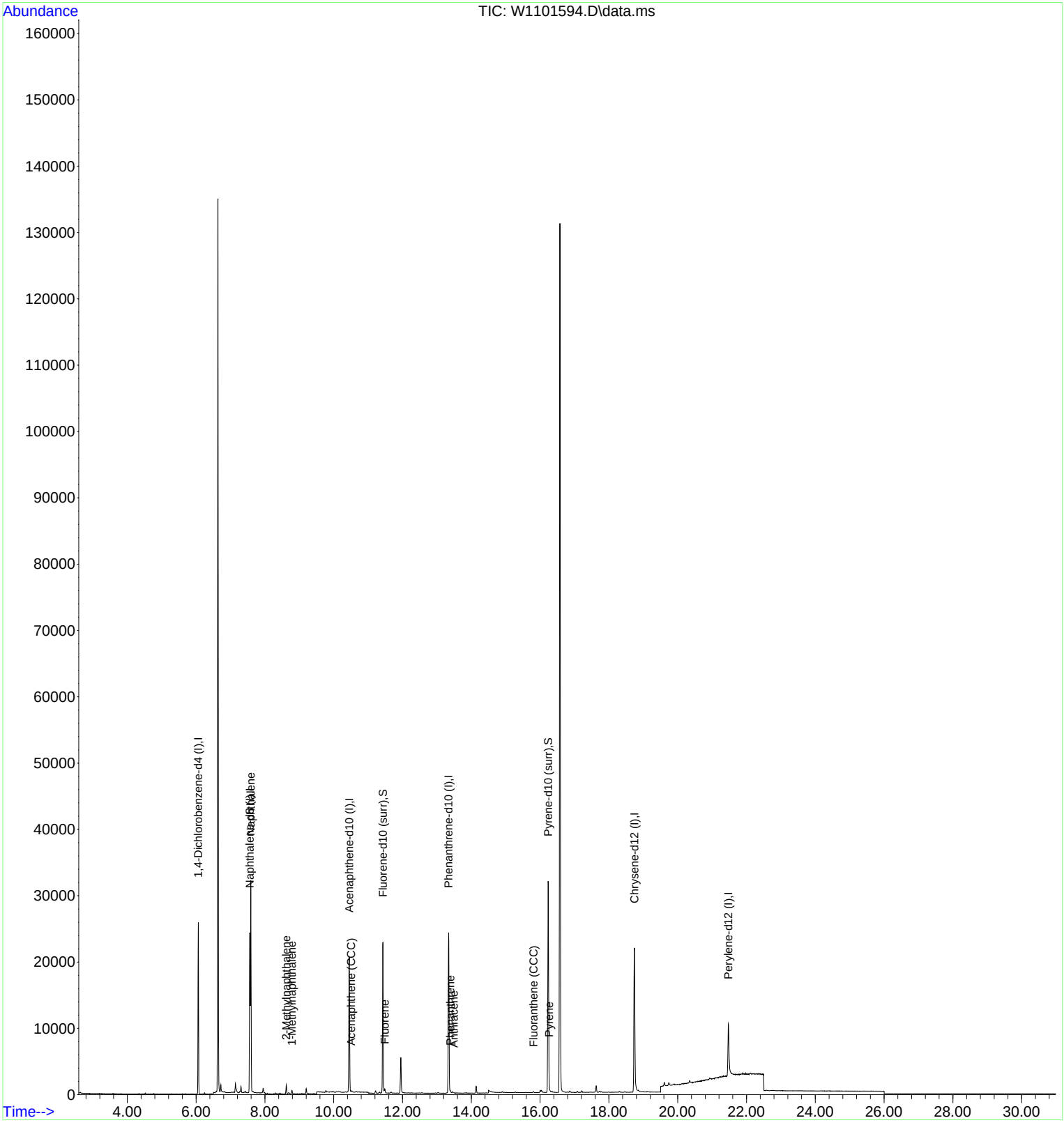
Tgt Ion:228 Resp: 115

Ion	Ratio	Lower	Upper
228	100		
229	0.0	16.0	24.0#
226	0.0	20.3	30.5#

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101594.D
Acq On : 29 Jul 2011 3:16 pm
Operator : tdd/lah
Sample : REAGENT BLANK
Misc : 0611-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 14 10:55:34 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



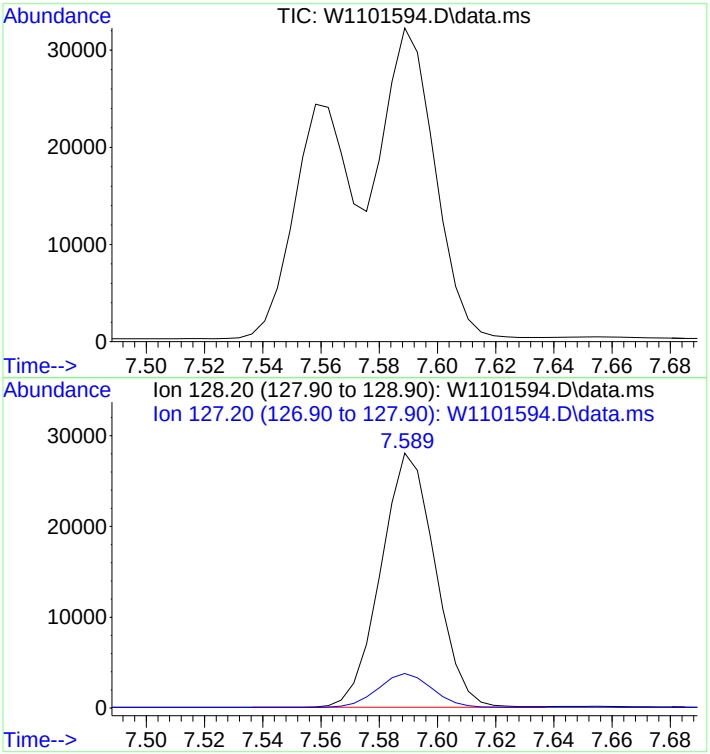
Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101594.D
Acq On : 29 Jul 2011 3:16 pm
Operator : tdd/lah
Sample : REAGENT BLANK
Misc : 0611-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 14 10:55:34 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	11644	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.558	136	29032	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.452	164	16103	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.341	188	33922	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	30511	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.471	264	14955	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.431	176	18778	441.92	ng/mL		0.00
15) Pyrene-d10 (surr)	16.232	212	42597	502.22	ng/mL		-0.01
Target Compounds							Qvalue
3) Naphthalene	7.589	128	36445	585.47	ng/mL	#	83
4) 2-Methylnaphthalene	8.620	142	994	22.45	ng/mL		98
5) 1-Methylnaphthalene	8.788	142	394	9.21	ng/mL		89
7) Acenaphthylene	0.000		0	N.D.			
8) Acenaphthene (CCC)	10.507	154	103	3.03	ng/mL	#	59
10) Fluorene	11.488	166	512	11.68	ng/mL		98
12) Phenanthrene	13.389	178	569	7.54	ng/mL	#	49
13) Anthracene	13.494	178	111	1.69	ng/mL	#	59
14) Fluoranthene (CCC)	15.808	202	232	2.75	ng/mL	#	56
16) Pyrene	16.265	202	399	4.52	ng/mL	#	46
18) Benzo(a)anthracene	0.000		0	N.D.	d		
19) Chrysene	0.000		0	N.D.	d		
21) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.			
22) Benzo(b)fluoranthene	0.000		0	N.D.			
23) Benzo(k)fluoranthene	0.000		0	N.D.	d		
24) Benzo(e)pyrene	0.000		0	N.D.	d		
25) Benzo(a)pyrene (CCC)	0.000		0	N.D.			
26) Perylene	0.000		0	N.D.			
27) 3-Methylcholanthrene	0.000		0	N.D.			
28) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.			
29) Dibenz(a,h)anthracene	0.000		0	N.D.			
30) Benzo(g,h,i)perylene	0.000		0	N.D.			
31) Dibenzo(a,e)pyrene	0.000		0	N.D.			

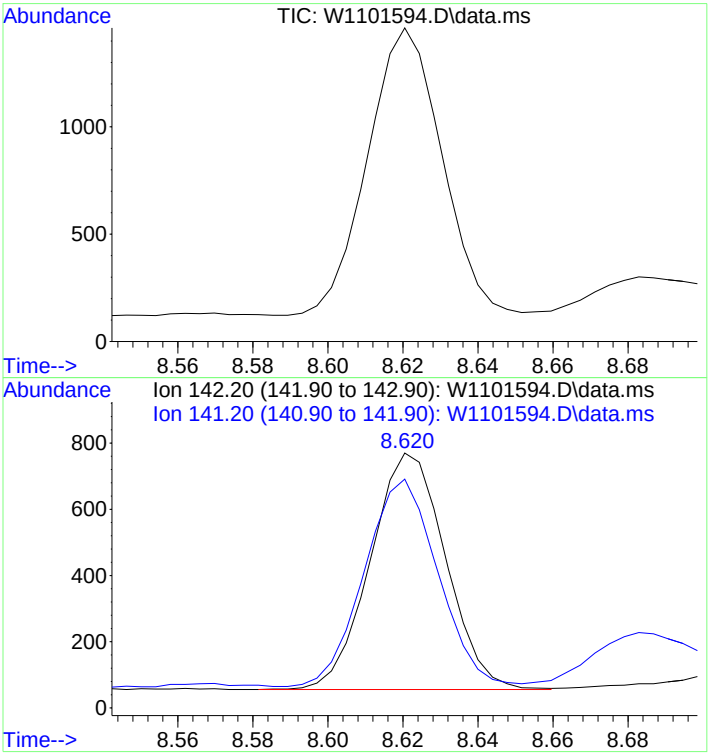
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#3
Naphthalene
Concen: 585.47 ng/mL
RT: 7.589 min Scan# 1253
Delta R.T. -0.004 min
Lab File: W1101594.D
Acq: 29 Jul 2011 3:16 pm

Tgt Ion:128 Resp: 36445

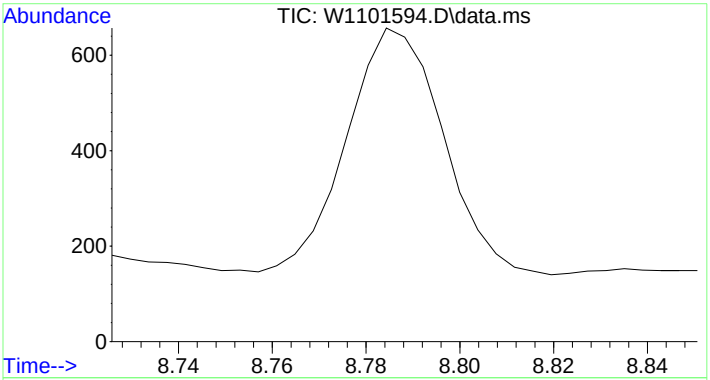
Ion	Ratio	Lower	Upper
128	100		
127	13.3	17.2	25.8#

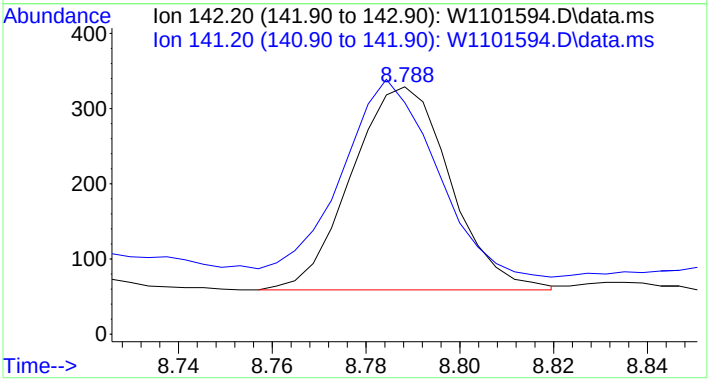


#4
2-Methylnaphthalene
Concen: 22.45 ng/mL
RT: 8.620 min Scan# 1506
Delta R.T. -0.020 min
Lab File: W1101594.D
Acq: 29 Jul 2011 3:16 pm

Tgt Ion:142 Resp: 994

Ion	Ratio	Lower	Upper
142	100		
141	85.8	70.3	105.5

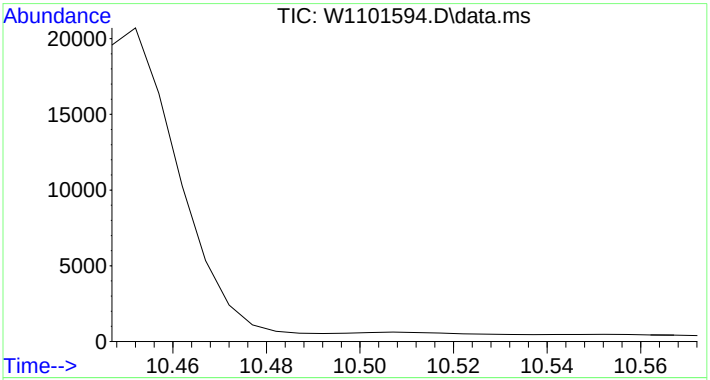


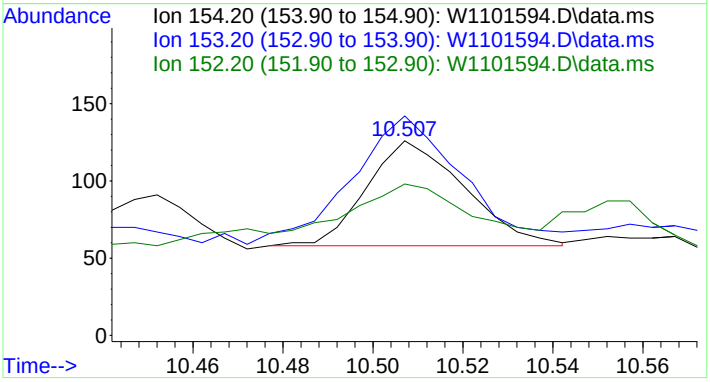


#5
1-Methylnaphthalene
Concen: 9.21 ng/mL
RT: 8.788 min Scan# 1549
Delta R.T. -0.012 min
Lab File: W1101594.D
Acq: 29 Jul 2011 3:16 pm

Tgt Ion:142 Resp: 394

Ion	Ratio	Lower	Upper
142	100		
141	93.7	67.3	100.9

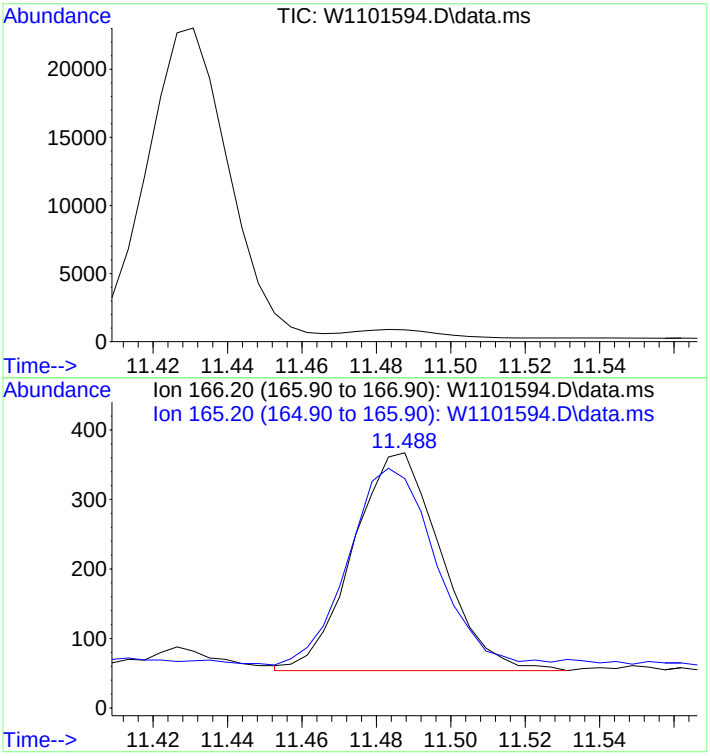




#8
Acenaphthene (CCC)
Concen: 3.03 ng/mL
RT: 10.507 min Scan# 1933
Delta R.T. -0.010 min
Lab File: W1101594.D
Acq: 29 Jul 2011 3:16 pm

Tgt Ion:154 Resp: 103

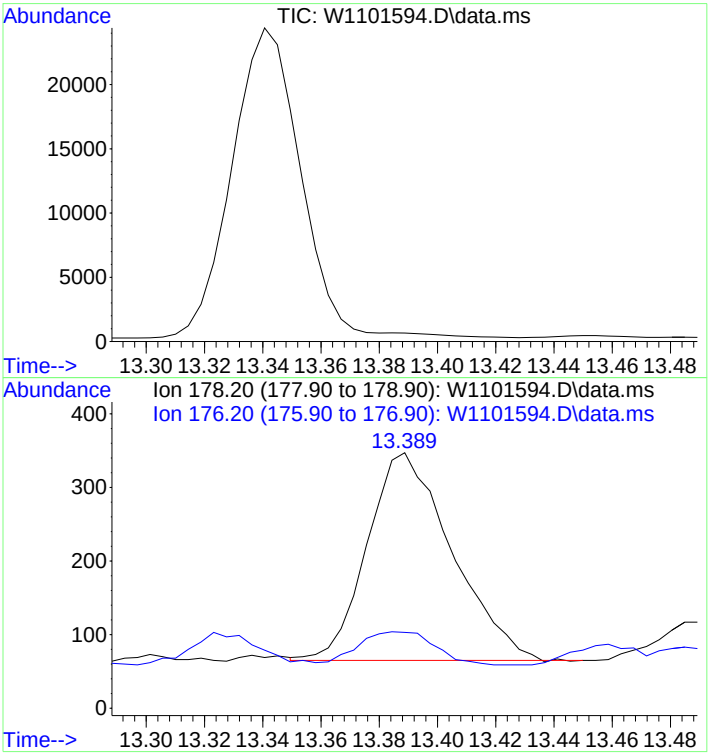
Ion	Ratio	Lower	Upper
154	100		
153	135.0	88.6	132.8#
152	0.0	44.0	66.0#



#10
Fluorene
Concen: 11.68 ng/mL
RT: 11.488 min Scan# 2143
Delta R.T. -0.009 min
Lab File: W1101594.D
Acq: 29 Jul 2011 3:16 pm

Tgt Ion:166 Resp: 512

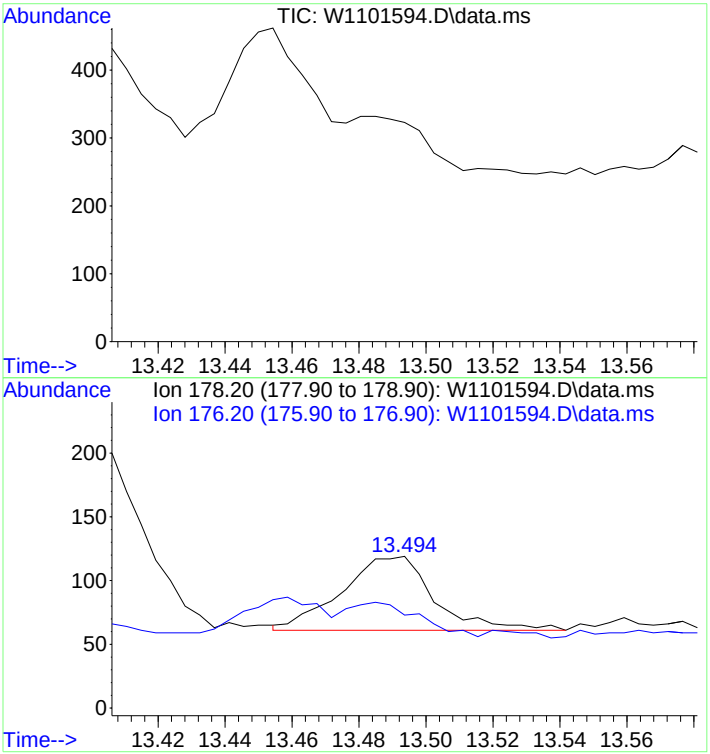
Ion	Ratio	Lower	Upper
166	100		
165	89.8	73.3	109.9



#12
Phenanthrene
Concen: 7.54 ng/mL
RT: 13.389 min Scan# 2578
Delta R.T. -0.009 min
Lab File: W1101594.D
Acq: 29 Jul 2011 3:16 pm

Tgt Ion:178 Resp: 569

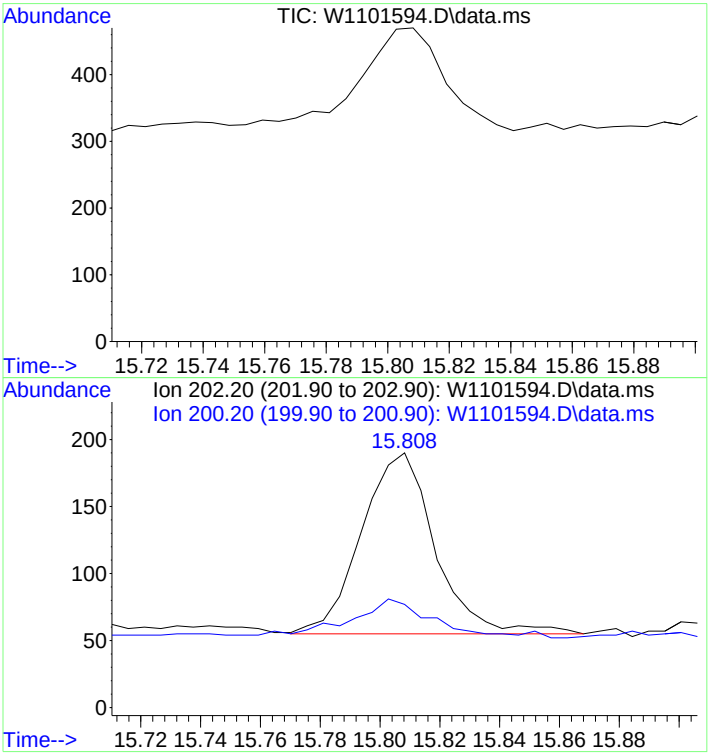
Ion	Ratio	Lower	Upper
178	100		
176	0.0	21.1	31.7#



#13
Anthracene
Concen: 1.69 ng/mL
RT: 13.494 min Scan# 2602
Delta R.T. -0.004 min
Lab File: W1101594.D
Acq: 29 Jul 2011 3:16 pm

Tgt Ion:178 Resp: 111

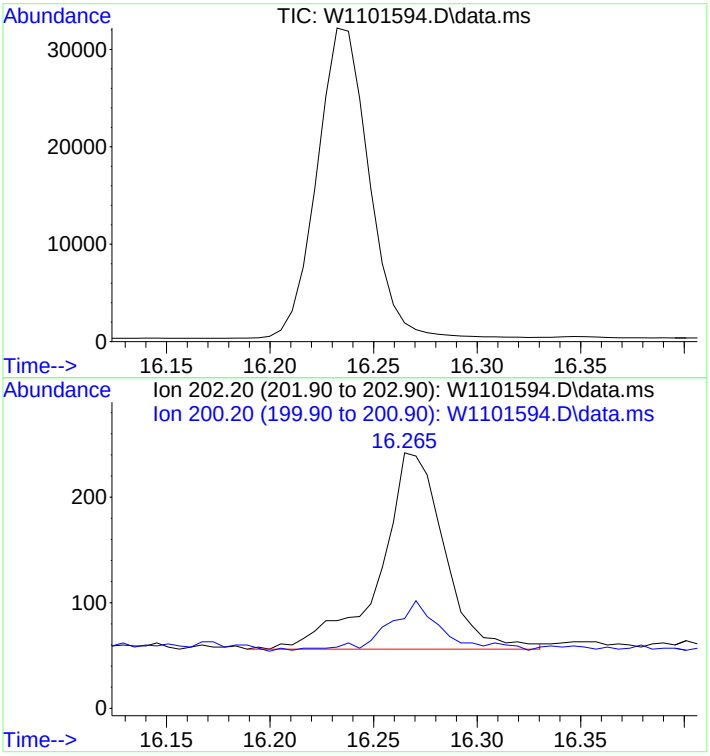
Ion	Ratio	Lower	Upper
178	100		
176	0.0	14.6	22.0#



#14
Fluoranthene (CCC)
Concen: 2.75 ng/mL
RT: 15.808 min Scan# 3073
Delta R.T. -0.005 min
Lab File: W1101594.D
Acq: 29 Jul 2011 3:16 pm

Tgt Ion:202 Resp: 232

Ion	Ratio	Lower	Upper
202	100		
200	0.0	16.1	24.1#



#16
Pyrene
Concen: 4.52 ng/mL
RT: 16.265 min Scan# 3157
Delta R.T. -0.011 min
Lab File: W1101594.D
Acq: 29 Jul 2011 3:16 pm

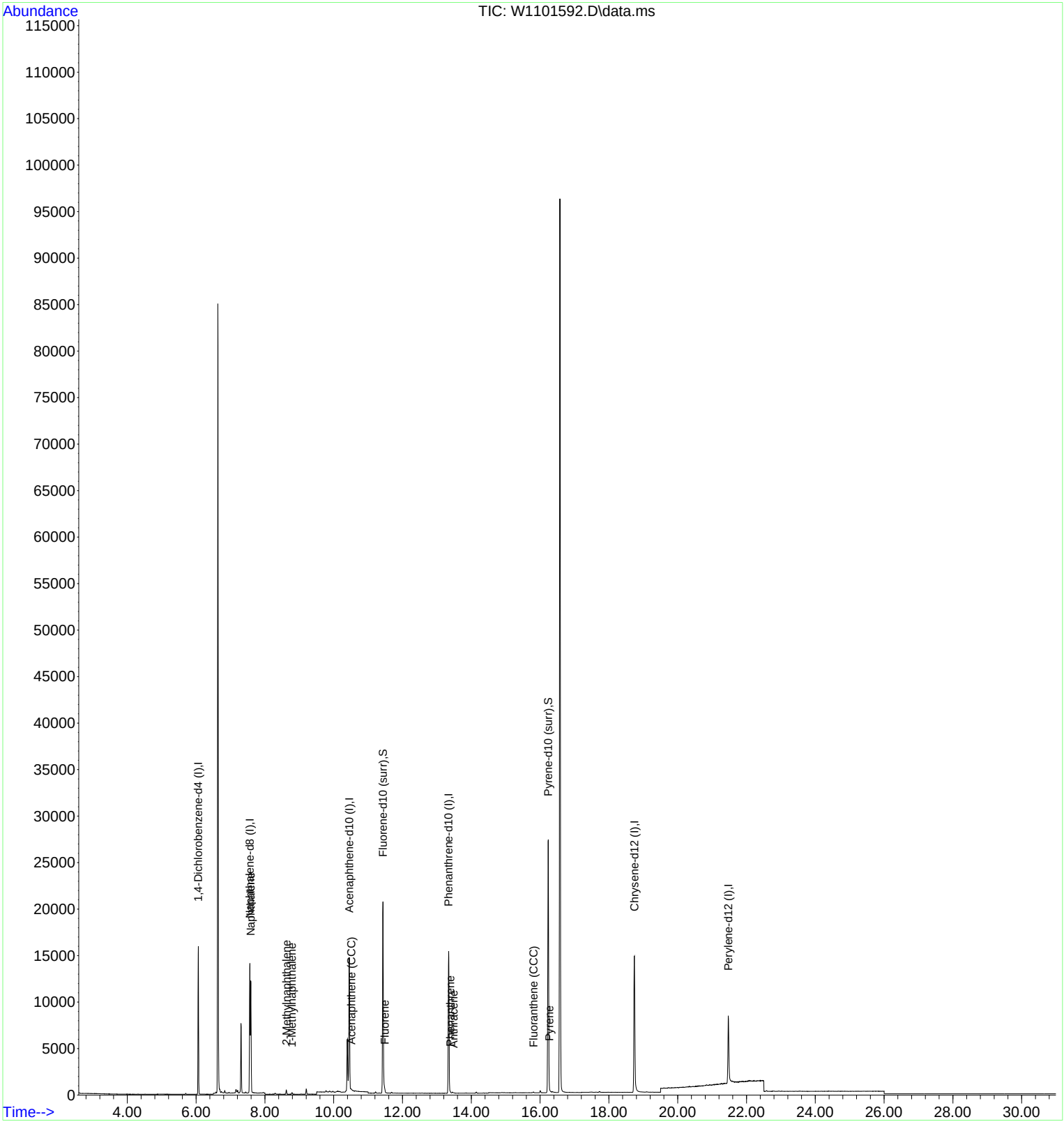
Tgt Ion:202 Resp: 399

Ion	Ratio	Lower	Upper
202	100		
200	0.0	22.7	34.1#

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101592.D
Acq On : 29 Jul 2011 2:01 pm
Operator : tdd/lah
Sample : 0611-14/23 MB
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 14 10:48:52 2011
Quant Method : C:\gcms\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

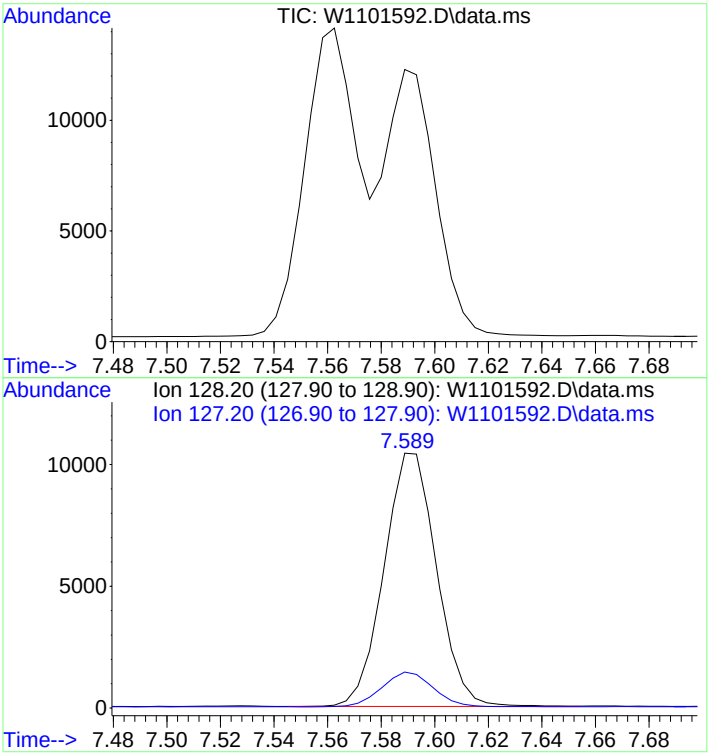
Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101592.D
Acq On : 29 Jul 2011 2:01 pm
Operator : tdd/lah
Sample : 0611-14/23 MB
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 14 10:48:52 2011
Quant Method : C:\gcms\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	7174	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.563	136	16759	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.452	164	11408	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.341	188	22300	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	20737	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.471	264	11927	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.431	176	17807	591.54	ng/mL		0.00
15) Pyrene-d10 (surr)	16.232	212	37586	674.08	ng/mL		-0.01
Target Compounds							Qvalue
3) Naphthalene	7.589	128	14213	395.53	ng/mL	#	83
4) 2-Methylnaphthalene	8.624	142	352	13.77	ng/mL		97
5) 1-Methylnaphthalene	8.788	142	145	5.87	ng/mL		100
7) Acenaphthylene	0.000		0	N.D.	d		
8) Acenaphthene (CCC)	10.517	154	108	4.49	ng/mL	#	5
10) Fluorene	11.488	166	212	6.83	ng/mL		83
12) Phenanthrene	13.389	178	188	3.79	ng/mL	#	49
13) Anthracene	13.489	178	58m	1.34	ng/mL		
14) Fluoranthene (CCC)	15.808	202	128	2.31	ng/mL	#	56
16) Pyrene	16.270	202	123	2.12	ng/mL	#	46
18) Benzo(a)anthracene	0.000		0	N.D.			
19) Chrysene	0.000		0	N.D.			
21) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.			
22) Benzo(b)fluoranthene	0.000		0	N.D.			
23) Benzo(k)fluoranthene	0.000		0	N.D.			
24) Benzo(e)pyrene	0.000		0	N.D.			
25) Benzo(a)pyrene (CCC)	0.000		0	N.D.			
26) Perylene	0.000		0	N.D.			
27) 3-Methylcholanthrene	0.000		0	N.D.			
28) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.			
29) Dibenz(a,h)anthracene	0.000		0	N.D.			
30) Benzo(g,h,i)perylene	0.000		0	N.D.			
31) Dibenzo(a,e)pyrene	0.000		0	N.D.			

Manual Int. "WP" (TDD)

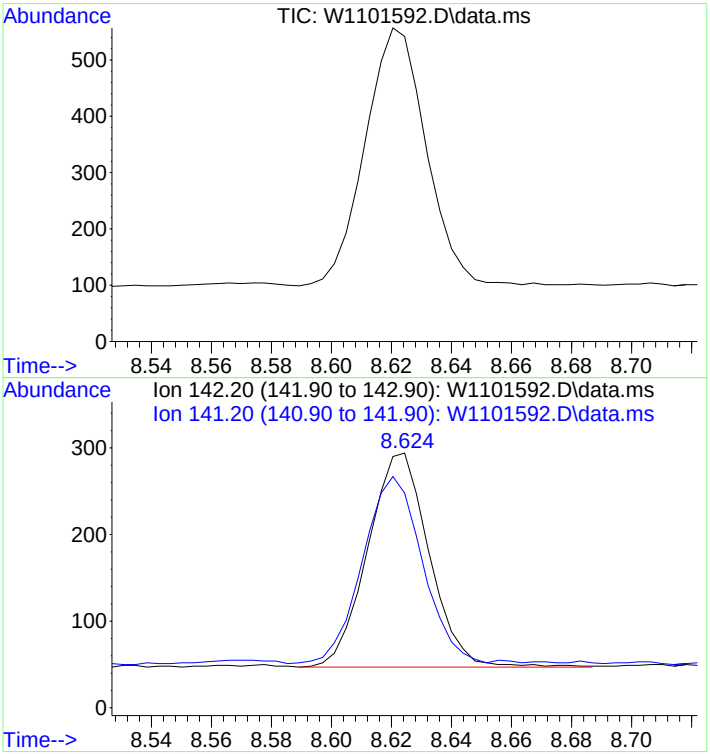
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#3
Naphthalene
Concen: 395.53 ng/mL
RT: 7.589 min Scan# 1253
Delta R.T. -0.004 min
Lab File: W1101592.D
Acq: 29 Jul 2011 2:01 pm

Tgt Ion:128 Resp: 14213

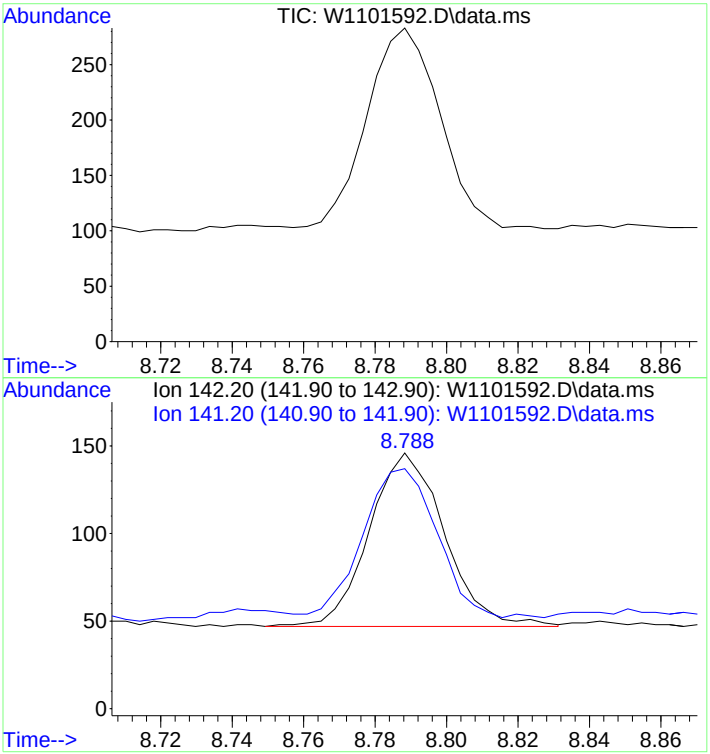
Ion	Ratio	Lower	Upper
128	100		
127	13.5	17.2	25.8#



#4
2-Methylnaphthalene
Concen: 13.77 ng/mL
RT: 8.624 min Scan# 1507
Delta R.T. -0.016 min
Lab File: W1101592.D
Acq: 29 Jul 2011 2:01 pm

Tgt Ion:142 Resp: 352

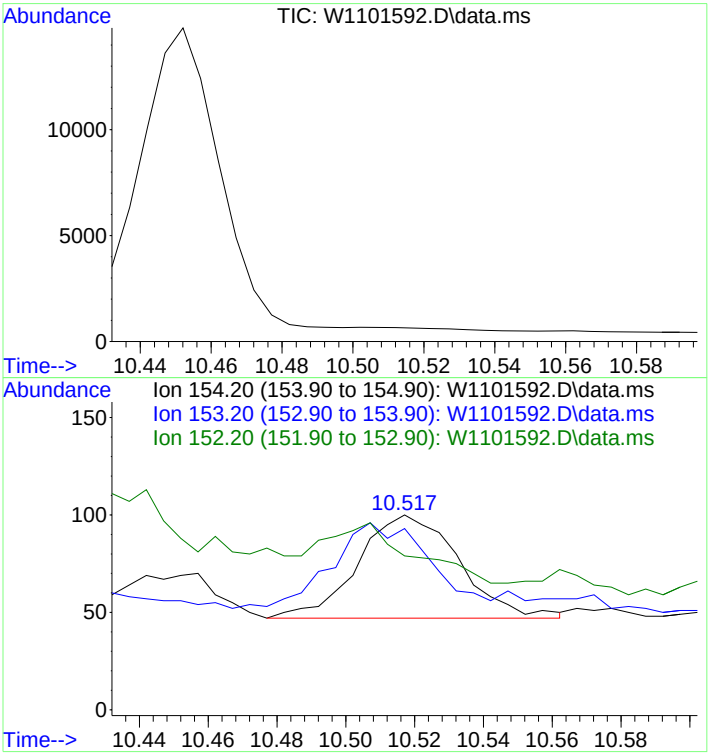
Ion	Ratio	Lower	Upper
142	100		
141	84.9	70.3	105.5



#5
1-Methylnaphthalene
Concen: 5.87 ng/mL
RT: 8.788 min Scan# 1549
Delta R.T. -0.012 min
Lab File: W1101592.D
Acq: 29 Jul 2011 2:01 pm

Tgt Ion:142 Resp: 145

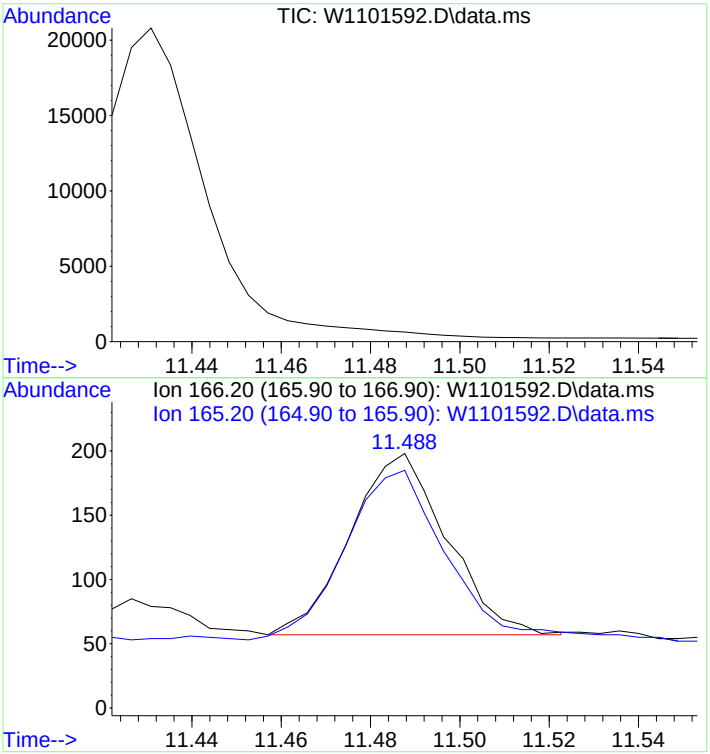
Ion	Ratio	Lower	Upper
142	100		
141	84.1	67.3	100.9



#8
Acenaphthene (CCC)
Concen: 4.49 ng/mL
RT: 10.517 min Scan# 1935
Delta R.T. 0.000 min
Lab File: W1101592.D
Acq: 29 Jul 2011 2:01 pm

Tgt Ion:154 Resp: 108

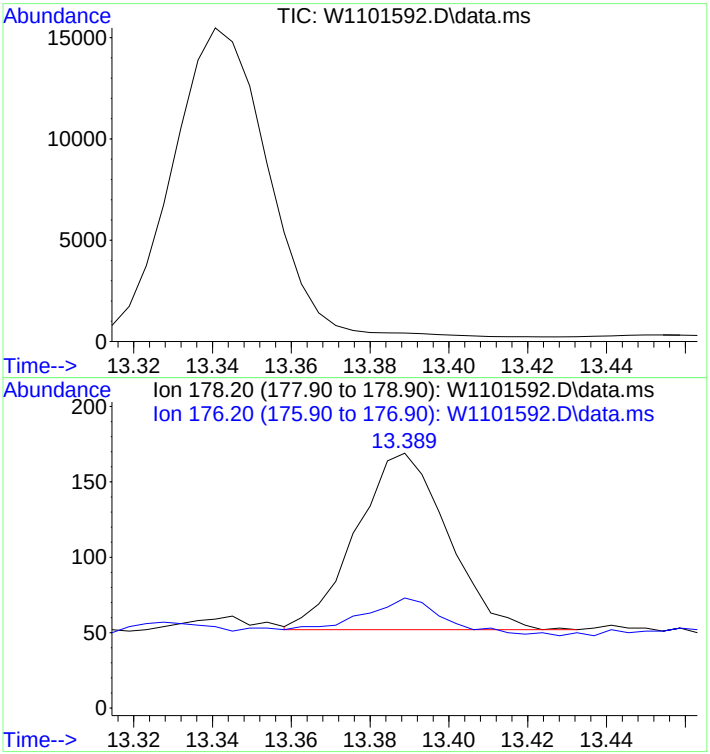
Ion	Ratio	Lower	Upper
154	100		
153	0.0	88.6	132.8#
152	0.0	44.0	66.0#



#10
Fluorene
Concen: 6.83 ng/mL
RT: 11.488 min Scan# 2143
Delta R.T. -0.009 min
Lab File: W1101592.D
Acq: 29 Jul 2011 2:01 pm

Tgt Ion:166 Resp: 212

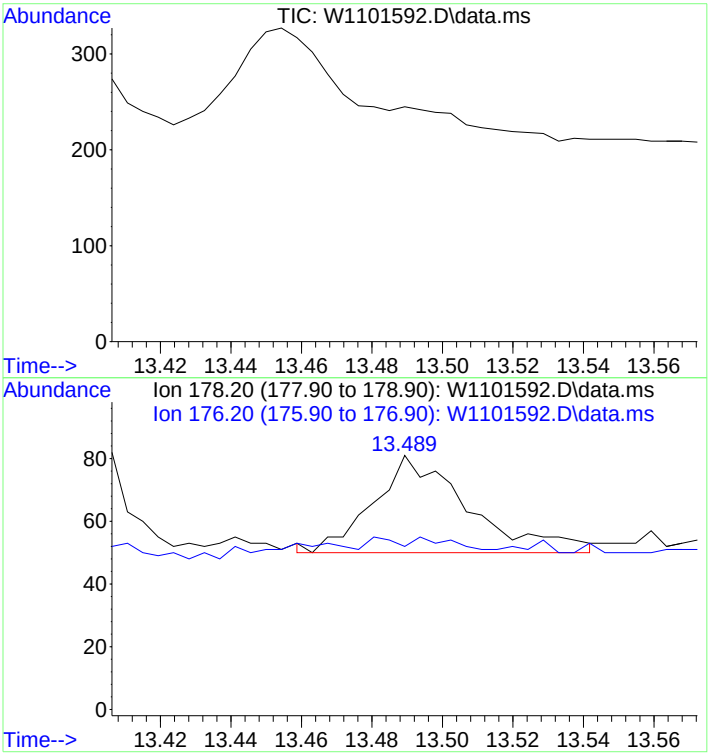
Ion	Ratio	Lower	Upper
166	100		
165	107.5	73.3	109.9



#12
Phenanthrene
Concen: 3.79 ng/mL
RT: 13.389 min Scan# 2578
Delta R.T. -0.009 min
Lab File: W1101592.D
Acq: 29 Jul 2011 2:01 pm

Tgt Ion:178 Resp: 188

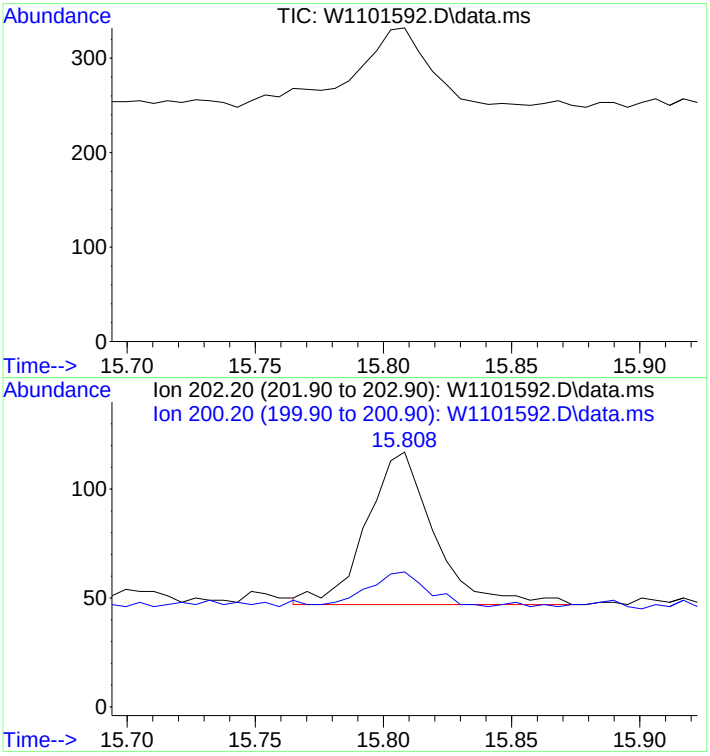
Ion	Ratio	Lower	Upper
178	100		
176	0.0	21.1	31.7#



#13
Anthracene
Concen: 1.34 ng/mL m
RT: 13.489 min Scan# 2601
Delta R.T. -0.009 min
Lab File: W1101592.D
Acq: 29 Jul 2011 2:01 pm

Tgt Ion:178 Resp: 58

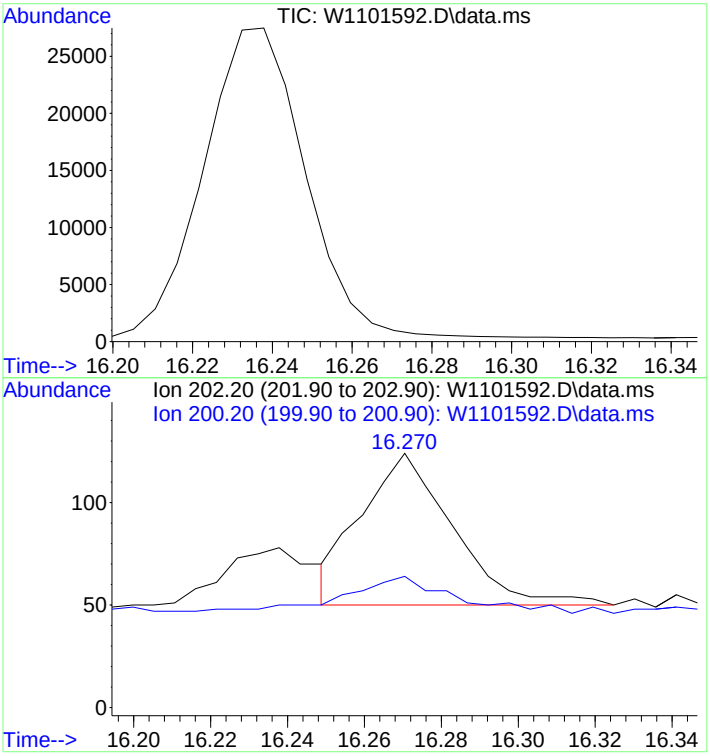
Ion	Ratio	Lower	Upper
178	100		
176	0.0	14.6	22.0#



#14
Fluoranthene (CCC)
Concen: 2.31 ng/mL
RT: 15.808 min Scan# 3073
Delta R.T. -0.005 min
Lab File: W1101592.D
Acq: 29 Jul 2011 2:01 pm

Tgt Ion:202 Resp: 128

Ion	Ratio	Lower	Upper
202	100		
200	0.0	16.1	24.1#



#16
Pyrene
Concen: 2.12 ng/mL
RT: 16.270 min Scan# 3158
Delta R.T. -0.005 min
Lab File: W1101592.D
Acq: 29 Jul 2011 2:01 pm

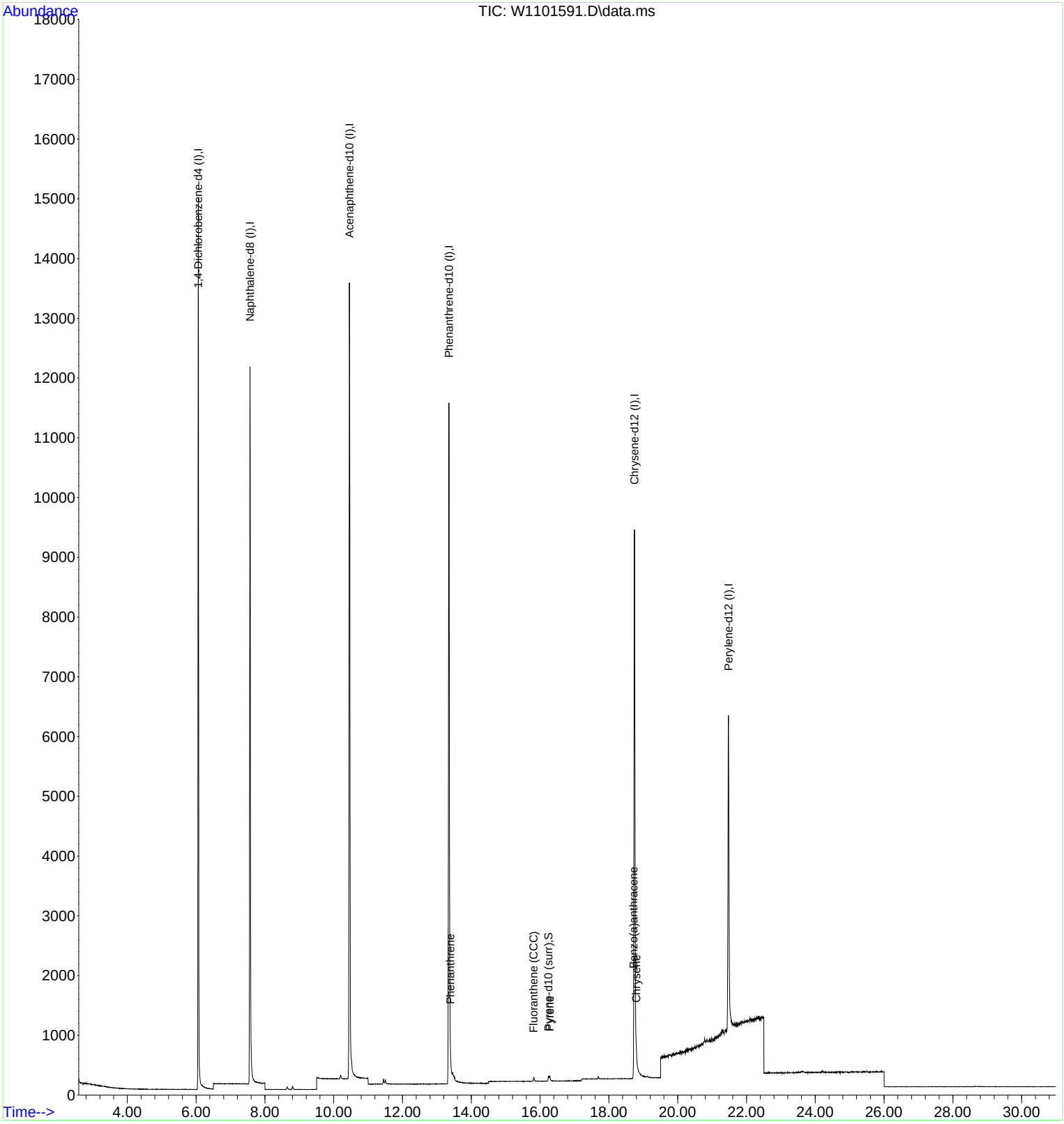
Tgt Ion:202 Resp: 123

Ion	Ratio	Lower	Upper
202	100		
200	0.0	22.7	34.1#

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101591.D
Acq On : 29 Jul 2011 1:24 pm
Operator : tdd/lah
Sample : CH2Cl2 SIM BLK
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 14 10:44:25 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



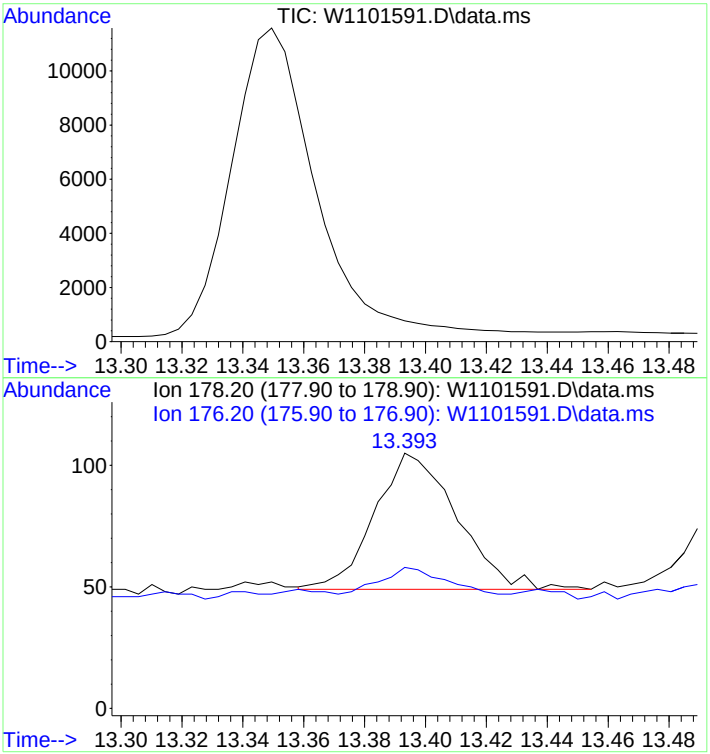
Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101591.D
Acq On : 29 Jul 2011 1:24 pm
Operator : tdd/lah
Sample : CH2Cl2 SIM BLK
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 14 10:44:25 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	7438	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.567	136	16533	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.457	164	12145	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.349	188	19080	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	13589	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	9029	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	0.000	176	0	0.00	ng/mL		
15) Pyrene-d10 (surr)	16.243	212	108	2.26	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	0.000		0	N.D.			
4) 2-Methylnaphthalene	0.000		0	N.D.			
5) 1-Methylnaphthalene	0.000		0	N.D.			
7) Acenaphthylene	0.000		0	N.D.			
8) Acenaphthene (CCC)	0.000		0	N.D.			
10) Fluorene	0.000		0	N.D.			
12) Phenanthrene	13.393	178	105	2.47	ng/mL	#	49
13) Anthracene	0.000		0	N.D.			
14) Fluoranthene (CCC)	15.814	202	121	2.55	ng/mL	#	56
16) Pyrene	16.281	202	135	2.72	ng/mL	#	46
18) Benzo(a)anthracene	18.719	228	103	3.72	ng/mL	#	53
19) Chrysene	18.797	228	103	3.10	ng/mL	#	42
21) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.			
22) Benzo(b)fluoranthene	0.000		0	N.D.	d		
23) Benzo(k)fluoranthene	0.000		0	N.D.	d		
24) Benzo(e)pyrene	0.000		0	N.D.	d		
25) Benzo(a)pyrene (CCC)	0.000		0	N.D.	d		
26) Perylene	0.000		0	N.D.			
27) 3-Methylcholanthrene	0.000		0	N.D.			
28) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.			
29) Dibenz(a,h)anthracene	0.000		0	N.D.			
30) Benzo(g,h,i)perylene	0.000		0	N.D.			
31) Dibenzo(a,e)pyrene	0.000		0	N.D.			

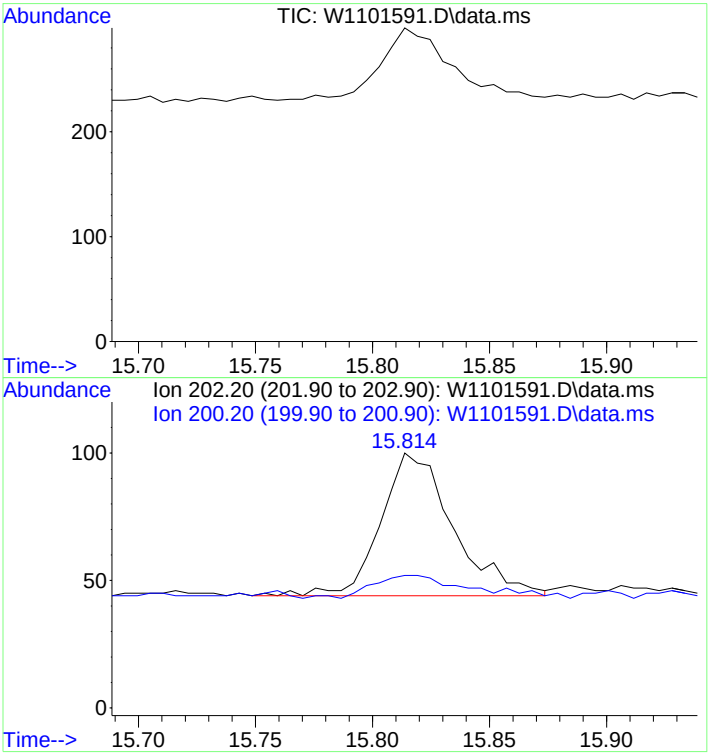
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#12
Phenanthrene
Concen: 2.47 ng/mL
RT: 13.393 min Scan# 2579
Delta R.T. -0.004 min
Lab File: W1101591.D
Acq: 29 Jul 2011 1:24 pm

Tgt Ion:178 Resp: 105

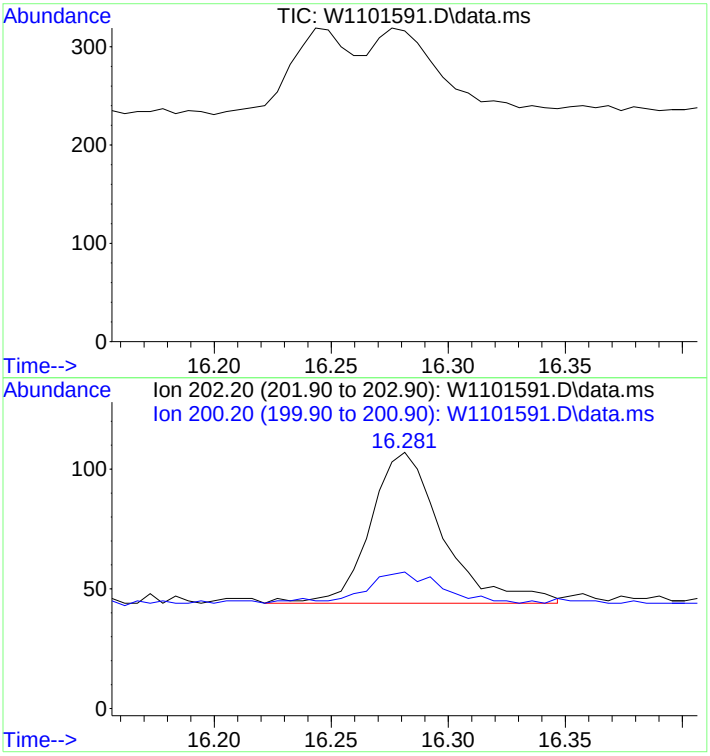
Ion	Ratio	Lower	Upper
178	100		
176	0.0	21.1	31.7#



#14
Fluoranthene (CCC)
Concen: 2.55 ng/mL
RT: 15.814 min Scan# 3074
Delta R.T. 0.000 min
Lab File: W1101591.D
Acq: 29 Jul 2011 1:24 pm

Tgt Ion:202 Resp: 121

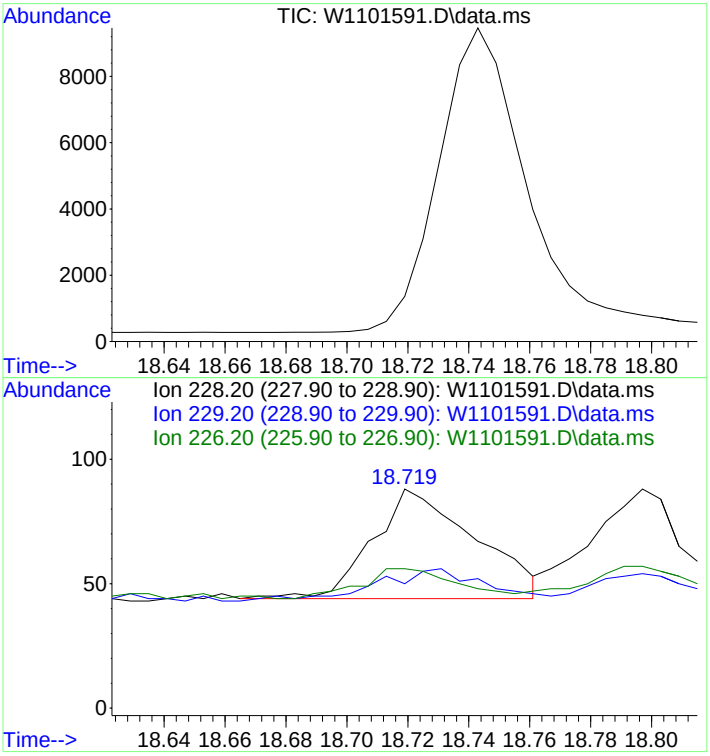
Ion	Ratio	Lower	Upper
202	100		
200	0.0	16.1	24.1#



#16
Pyrene
Concen: 2.72 ng/mL
RT: 16.281 min Scan# 3160
Delta R.T. 0.005 min
Lab File: W1101591.D
Acq: 29 Jul 2011 1:24 pm

Tgt Ion:202 Resp: 135

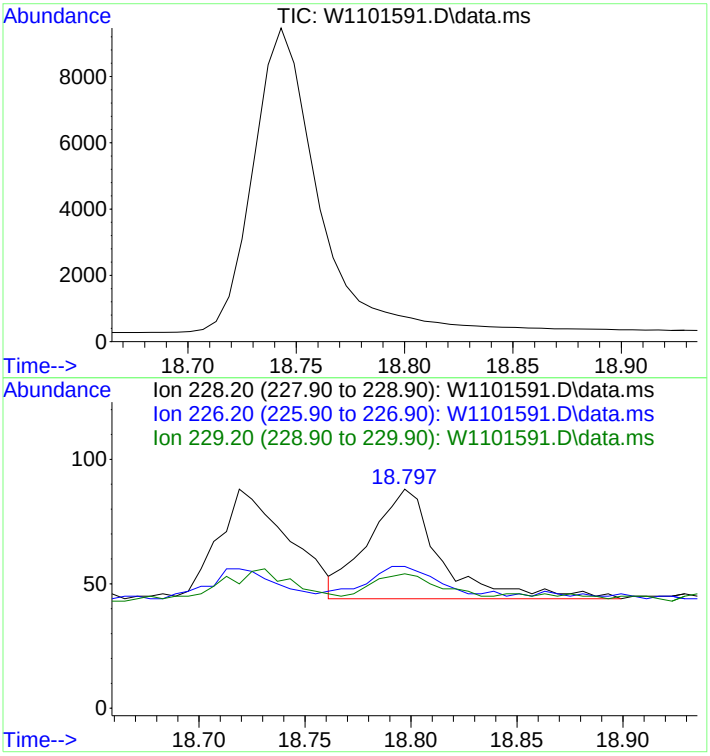
Ion	Ratio	Lower	Upper
202	100		
200	0.0	22.7	34.1#



#18
Benzo(a)anthracene
Concen: 3.72 ng/mL
RT: 18.719 min Scan# 3582
Delta R.T. -0.006 min
Lab File: W1101591.D
Acq: 29 Jul 2011 1:24 pm

Tgt Ion:228 Resp: 103

Ion	Ratio	Lower	Upper
228	100		
229	0.0	16.0	24.0#
226	0.0	20.3	30.5#



#19
Chrysene
Concen: 3.10 ng/mL
RT: 18.797 min Scan# 3595
Delta R.T. 0.000 min
Lab File: W1101591.D
Acq: 29 Jul 2011 1:24 pm

Tgt Ion:228 Resp: 103

Ion	Ratio	Lower	Upper
228	100		
226	0.0	29.7	44.5#
229	0.0	22.4	33.6#

Calibration Curve Chromatograms (Scan)

Response Factor Report

Sample ID	LID	FileName	Acq. Date
SSTD005 M8270/ICR SCN	5	W1101349.D	07/04/11 08:19
SSTD010 M8270/ICR SCN	10	W1101350.D	07/04/11 08:56
SSTD020 M8270/ICR SCN	20	W1101351.D	07/04/11 09:33
SSTD050 M8270/ICR SCN	50	W1101352.D	07/04/11 10:10
SSTD080 M8270/ICR SCN	80	W1101353.D	07/04/11 10:47
SSTD120 M8270/ICR SCN	120	W1101354.D	07/04/11 11:25
SSTD160 M8270/ICR SCN	160	W1101355.D	07/04/11 12:02

Inst: Wiley

Curve: W070411A-M8270.M

PASS

#	Name	Sheet1	Sheet1 (7)	Sheet1 (6)	Sheet1 (5)	Sheet1 (4)	Sheet1 (3)	Sheet1 (2)	Average RF	%RSD	Pass/Fail
2)	N-Nitrosodimethylamine	0.698	0.602	0.654	0.654	0.670	0.626	0.635	0.648	4.82%	Pass
3)	Pyridine	1.18	1.13	1.16	1.20	1.21	1.17	1.13	1.17	2.63%	Pass
6)	Phenol (CCC)	1.33	1.29	1.27	1.26	1.31	1.16	1.16	1.25	5.48%	Pass
7)	Aniline	0.663	0.611	0.577	0.593	0.627	0.575	0.585	0.604	5.24%	Pass
8)	bis(2-Chloroethyl)ether	0.878	0.834	0.777	0.765	0.805	0.747	0.759	0.795	5.93%	Pass
9)	2-Chlorophenol	1.10	1.05	1.06	1.11	1.18	1.09	1.11	1.10	3.75%	Pass
10)	1,3-Dichlorobenzene	1.39	1.43	1.35	1.39	1.48	1.42	1.43	1.41	2.90%	Pass
11)	1,4-Dichlorobenzene (CCC)	1.43	1.43	1.40	1.38	1.50	1.43	1.44	1.43	2.63%	Pass
12)	Benzyl alcohol	0.673	0.612	0.593	0.588	0.630	0.542	0.595	0.605	6.66%	Pass
13)	1,2-Dichlorobenzene	1.28	1.30	1.27	1.27	1.36	1.31	1.34	1.30	2.85%	Pass
14)	2-Methylphenol	0.909	0.849	0.796	0.832	0.863	0.762	0.816	0.832	5.72%	Pass
15)	bis(2-Chloroisopropyl) ether	1.26	1.11	1.05	1.02	1.04	0.944	0.923	1.05	10.8%	Pass
16)	3/4-Methylphenol	1.09	1.04	0.984	1.02	1.06	0.903	0.992	1.01	5.95%	Pass
17)	N-Nitroso-di-n-propylamine (SPCC)	0.817	0.725	0.696	0.720	0.733	0.622	0.688	0.714	8.20%	Pass
18)	o-Toluidine	1.66	1.57	1.48	1.53	1.61	1.44	1.50	1.54	5.19%	Pass
19)	Hexachloroethane	0.575	0.546	0.537	0.548	0.593	0.571	0.579	0.564	3.64%	Pass
21)	Nitrobenzene	1.24	0.876	1.02	1.10	1.18	1.05	1.09	1.08	10.8%	Pass
23)	Isophorone	0.667	0.637	0.603	0.605	0.623	0.579	0.600	0.616	4.71%	Pass
24)	2,4-Dimethylphenol	0.377	0.371	0.358	0.368	0.383	0.354	0.369	0.369	2.77%	Pass
25)	2-Nitrophenol (CCC)	0.153	0.101	0.142	0.168	0.190	0.187	0.196	0.162	20.7%	Pass
26)	Benzoic acid			0.0703	0.124	0.189	0.189	0.235	0.162	40.1%	Warning
27)	bis(2-Chloroethoxy)methane	0.384	0.355	0.347	0.352	0.356	0.334	0.341	0.353	4.51%	Pass
28)	2,4-Dichlorophenol (CCC)	0.283	0.273	0.283	0.298	0.314	0.292	0.312	0.294	5.22%	Pass
29)	a,a-Dimethylphenethylamine	0.576	0.496	0.561	0.634	0.665	0.596	0.623	0.593	9.35%	Pass
30)	1,2,4-Trichlorobenzene	0.368	0.380	0.371	0.373	0.400	0.402	0.404	0.385	4.13%	Pass
31)	Naphthalene	1.05	1.04	1.02	1.03	1.08	1.04	1.04	1.04	1.94%	Pass
32)	4-Chloroaniline	0.141	0.141	0.126	0.134	0.141	0.128	0.136	0.135	4.66%	Pass
33)	Hexachlorobutadiene (CCC)	0.225	0.241	0.239	0.240	0.261	0.267	0.271	0.249	6.86%	Pass
34)	Quinoline	0.560	0.545	0.534	0.574	0.627	0.576	0.613	0.575	5.91%	Pass
35)	1,4-Phenylenediamine	0.264	0.259	0.273	0.289	0.335	0.309	0.328	0.294	10.4%	Pass
36)	4-Chloro-3 methylphenol (CCC)	0.281	0.267	0.270	0.287	0.308	0.284	0.291	0.284	4.77%	Pass
37)	2-Methylnaphthalene	0.673	0.678	0.656	0.678	0.721	0.676	0.701	0.683	3.06%	Pass
38)	1-Methylnaphthalene	0.628	0.653	0.623	0.647	0.682	0.647	0.657	0.648	3.04%	Pass
39)	Hexachlorocyclopentadiene (SPCC)	0.146	0.113	0.133	0.154	0.193	0.192	0.198	0.161	20.8%	Warning
41)	2,4,6-Trichlorophenol (CCC)	0.318	0.294	0.323	0.347	0.387	0.383	0.390	0.349	11.1%	Pass
42)	2,4,5-Trichlorophenol	0.327	0.316	0.359	0.372	0.406	0.396	0.406	0.369	10.0%	Pass
44)	Biphenyl	1.43	1.45	1.42	1.40	1.47	1.50	1.43	1.44	2.27%	Pass
45)	2-Chloronaphthalene	1.08	1.10	1.09	1.08	1.15	1.15	1.10	1.11	2.51%	Pass
46)	2-Nitroaniline	0.230	0.139	0.225	0.266	0.312	0.295	0.300	0.252	23.9%	Warning
47)	1,4-Dinitrobenzene	0.0986	0.0815	0.103	0.132	0.171	0.164	0.173	0.132	28.9%	Warning
48)	Dimethylphthalate	1.18	1.17	1.20	1.19	1.30	1.23	1.24	1.22	3.73%	Pass
49)	1,3-Dinitrobenzene	0.129	0.106	0.138	0.173	0.208	0.195	0.203	0.165	24.4%	Warning
50)	2,6-Dinitrotoluene	0.215	0.181	0.234	0.257	0.296	0.278	0.281	0.249	16.5%	Warning
51)	1,2-Dinitrobenzene	0.0993	0.0796	0.105	0.120	0.139	0.129	0.130	0.115	18.4%	Warning
52)	Acenaphthylene	1.67	1.67	1.67	1.67	1.81	1.75	1.69	1.70	3.13%	Pass
53)	3-Nitroaniline	0.203	0.177	0.213	0.251	0.291	0.268	0.264	0.238	17.3%	Warning
54)	Acenaphthene (CCC)	1.01	0.982	0.968	0.994	1.08	1.08	1.08	1.03	5.08%	Pass
55)	2,4-Dinitrophenol (SPCC)			0.0466	0.0687	0.124	0.121	0.143	0.1007	40.7%	Warning
56)	4-Nitrophenol (SPCC)		0.107	0.132	0.166	0.196	0.171	0.177	0.158	20.7%	Warning
57)	2,4-Dinitrotoluene	0.224	0.201	0.259	0.318	0.383	0.347	0.342	0.296	23.1%	Warning
58)	Dibenzofuran	1.43	1.40	1.41	1.43	1.55	1.50	1.48	1.46	3.63%	Pass
59)	2,3,5,6-Tetrachlorophenol	0.180	0.173	0.210	0.246	0.303	0.285	0.303	0.243	23.1%	Warning
60)	2,3,4,6-Tetrachlorophenol	0.197	0.185	0.219	0.272	0.317	0.301	0.313	0.258	21.9%	Warning
61)	Diethlyphthalate	1.16	1.20	1.21	1.22	1.33	1.23	1.21	1.22	4.34%	Pass
63)	4-Chlorophenyl-phenylether	0.578	0.591	0.578	0.590	0.653	0.630	0.655	0.611	5.62%	Pass
64)	Fluorene	1.16	1.20	1.20	1.20	1.32	1.25	1.26	1.23	4.33%	Pass
65)	4-Nitroaniline	0.185	0.173	0.211	0.251	0.306	0.278	0.268	0.239	20.9%	Warning
66)	4,6-Dinitro2-methylphenol			0.0767	0.120	0.185	0.171	0.186	0.148	32.5%	Warning
67)	N-Nitrosodiphenylamine (CCC)	0.938	0.992	0.984	1.01	1.11	1.03	1.03	1.01	5.19%	Pass
68)	Azobenzene	1.30	1.29	1.27	1.24	1.29	1.20	1.15	1.25	4.46%	Pass
71)	4-Bromophenyl-phenylether	0.211	0.196	0.201	0.202	0.216	0.230	0.241	0.214	7.73%	Pass
72)	Hexachlorobenzene	0.206	0.202	0.204	0.207	0.225	0.236	0.245	0.218	7.98%	Pass
73)	Pentachlorophenol (CCC)			0.0748	0.0979	0.127	0.128	0.138	0.1131	23.1%	Pass
74)	Phenanthrene	1.04	1.01	0.982	0.989	1.05	1.05	1.01	1.02	2.75%	Pass
75)	Anthracene	1.01	1.01	0.982	1.00	1.06	1.07	1.01	1.02	3.25%	Pass
76)	Carbazole	0.806	0.834	0.821	0.835	0.913	0.890	0.818	0.845	4.77%	Pass
77)	Di-n-butylphthalate	1.19	1.20	1.20	1.23	1.22	1.23	1.12	1.20	3.11%	Pass
78)	Fluoranthene (CCC)	1.02	1.08	1.07	1.09	1.12	1.08	0.946	1.06	5.49%	Pass
79)	Benzidine		0.403	0.444	0.522	0.558	0.559	0.480	0.494	12.8%	Pass
81)	Pyrene	1.04	1.11	1.08	1.11	1.13	1.07	0.928	1.07	6.37%	Pass
84)	4-Dimethylaminoazobenzene	0.359	0.330	0.357	0.362	0.418	0.404	0.393	0.375	8.28%	Pass

Response Factor Report

Sample ID	LID	FileName	Acq. Date	
SSTD005 M8270/ICR SCN	5	W1101349.D	07/04/11 08:19	
SSTD010 M8270/ICR SCN	10	W1101350.D	07/04/11 08:56	**Inst:** **Wiley**
SSTD020 M8270/ICR SCN	20	W1101351.D	07/04/11 09:33	
SSTD050 M8270/ICR SCN	50	W1101352.D	07/04/11 10:10	**Curve:** **W070411A-M8270.M**
SSTD080 M8270/ICR SCN	80	W1101353.D	07/04/11 10:47	
SSTD120 M8270/ICR SCN	120	W1101354.D	07/04/11 11:25	
SSTD160 M8270/ICR SCN	160	W1101355.D	07/04/11 12:02	

PASS

#	Name	Sheet1	Sheet1 (7)	Sheet1 (6)	Sheet1 (5)	Sheet1 (4)	Sheet1 (3)	Sheet1 (2)	Average RF	%RSD	Pass/Fail
85)	Butylbenzylphthalate	0.603	0.560	0.627	0.629	0.673	0.656	0.642	0.627	5.92%	Pass
86)	3,3-Dimethylbenzidine	0.599	0.578	0.652	0.741	0.831	0.838	0.805	0.721	15.3%	Warning
87)	bis(2-Ethylhexyl)adipate	0.473	0.434	0.488	0.482	0.553	0.528	0.534	0.499	8.30%	Pass
88)	3,3-Dimethoxybenzidine			0.219	0.265	0.302	0.316	0.310	0.282	14.4%	Pass
89)	bis(2-Ethylhexyl)phthalate	0.828	0.783	0.859	0.867	0.946	0.909	0.889	0.869	6.14%	Pass
90)	3,3'-Dichlorobenzidine	0.297	0.321	0.331	0.361	0.384	0.394	0.386	0.354	10.6%	Pass
91)	Benzo(a)anthracene	1.08	1.07	1.06	1.07	1.14	1.12	1.09	1.09	2.69%	Pass
92)	Chrysene	0.987	0.964	0.967	0.964	1.01	1.01	0.986	0.985	2.23%	Pass
93)	Di-n-octylphthalate (CCC)	1.01	1.01	1.13	1.26	1.31	1.27	1.23	1.18	10.4%	Pass
95)	7,12-Dimethylbenz(a)anthracene	0.549	0.569	0.585	0.608	0.664	0.646	0.658	0.611	7.45%	Pass
96)	Benzo(b)fluoranthene	1.18	1.25	1.26	1.32	1.40	1.38	1.42	1.31	6.88%	Pass
97)	Benzo(k)fluoranthene	1.13	1.13	1.17	1.17	1.24	1.26	1.24	1.19	4.67%	Pass
98)	Benzo(e)pyrene	0.992	1.02	1.01	1.05	1.13	1.10	1.11	1.06	5.22%	Pass
99)	Benzo(a)pyrene (CCC)	0.963	1.00	1.00	1.08	1.17	1.15	1.17	1.07	8.19%	Pass
100)	Perylene	1.06	1.12	1.04	1.09	1.17	1.15	1.17	1.11	4.60%	Pass
101)	3-Methylcholanthrene	0.496	0.520	0.521	0.555	0.612	0.608	0.612	0.561	8.91%	Pass
102)	Indeno(1,2,3-cd)pyrene	0.893	0.958	0.930	1.01	1.13	1.12	1.14	1.03	10.2%	Pass
103)	Dibenz(a,h)anthracene	0.731	0.786	0.773	0.846	0.954	0.944	0.967	0.857	11.4%	Pass
104)	Benzo(g,h,i)perylene	0.726	0.779	0.744	0.810	0.894	0.887	0.887	0.818	8.79%	Pass
105)	Dibenzo(a,e)pyrene	0.464	0.501	0.497	0.568	0.624	0.589	0.607	0.550	11.3%	Pass
									Average %	9.6%	

SPCC Average RF must be > 0.05
CCC %RSD must be <= 30%
Other %RSD <= 15%
Average %RSD <= 15%
No %RSD > 50%

Relative Retention Time Report

Sample ID	LID	FileName	Acq. Date		
SSTD005 M8270/ICR SCN	5	W1101349.D	07/04/11 08:19		
SSTD010 M8270/ICR SCN	10	W1101350.D	07/04/11 08:56	**Inst:**	**Wiley**
SSTD020 M8270/ICR SCN	20	W1101351.D	07/04/11 09:33		
SSTD050 M8270/ICR SCN	50	W1101352.D	07/04/11 10:10	**Curve:**	**W070411A-M8270.M**
SSTD080 M8270/ICR SCN	80	W1101353.D	07/04/11 10:47		
SSTD120 M8270/ICR SCN	120	W1101354.D	07/04/11 11:25		
SSTD160 M8270/ICR SCN	160	W1101355.D	07/04/11 12:02		

#	Name	Sheet1	Sheet1 (7)	Sheet1 (6)	Sheet1 (5)	Sheet1 (4)	Sheet1 (3)	Sheet1 (2)	Average RRT
2)	N-Nitrosodimethylamine	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
3)	Pyridine	0.67	0.67	0.66	0.66	0.66	0.67	0.67	0.67
6)	Phenol (CCC)	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
7)	Aniline	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
8)	bis(2-Chloroethyl)ether	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
9)	2-Chlorophenol	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
10)	1,3-Dichlorobenzene	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
11)	1,4-Dichlorobenzene (CCC)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
12)	Benzyl alcohol	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.01
13)	1,2-Dichlorobenzene	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
14)	2-Methylphenol	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
15)	bis(2-Chloroisopropyl) ether	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
16)	3/4-Methylphenol	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
17)	N-Nitroso-di-n-propylamine (SPCC)	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
18)	o-Toluidine	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
19)	Hexachloroethane	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
21)	Nitrobenzene	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
23)	Isophorone	0.91	0.91	0.91	0.91	0.92	0.92	0.92	0.91
24)	2,4-Dimethylphenol	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
25)	2-Nitrophenol (CCC)	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
26)	Benzoic acid	0.93	0.93	0.93	0.93	0.94	0.94	0.94	0.93
27)	bis(2-Chloroethoxy)methane	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
28)	2,4-Dichlorophenol (CCC)	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
29)	a,a-Dimethylphenethylamine	0.96	0.96	0.97	0.97	0.97	0.97	0.98	0.97
30)	1,2,4-Trichlorobenzene	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
31)	Naphthalene	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
32)	4-Chloroaniline	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
33)	Hexachlorobutadiene (CCC)	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
34)	Quinoline	1.06	1.06	1.06	1.07	1.07	1.07	1.07	1.07
35)	1,4-Phenylenediamine	1.07	1.07	1.07	1.07	1.07	1.07	1.08	1.07
36)	4-Chloro-3 methylphenol (CCC)	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
37)	2-Methylnaphthalene	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
38)	1-Methylnaphthalene	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
39)	Hexachlorocyclopentadiene (SPCC)	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
41)	2,4,6-Trichlorophenol (CCC)	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
42)	2,4,5-Trichlorophenol	0.87	0.87	0.87	0.87	0.87	0.87	0.88	0.87
44)	Biphenyl	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
45)	2-Chloronaphthalene	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
46)	2-Nitroaniline	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
47)	1,4-Dinitrobenzene	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
48)	Dimethylphthalate	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
49)	1,3-Dinitrobenzene	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
50)	2,6-Dinitrotoluene	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
51)	1,2-Dinitrobenzene	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
52)	Acenaphthylene	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
53)	3-Nitroaniline	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
54)	Acenaphthene (CCC)	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
55)	2,4-Dinitrophenol (SPCC)	1.01	1.01	1.00	1.01	1.01	1.01	1.01	1.01
56)	4-Nitrophenol (SPCC)	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
57)	2,4-Dinitrotoluene	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
58)	Dibenzofuran	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
59)	2,3,5,6-Tetrachlorophenol	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
60)	2,3,4,6-Tetrachlorophenol	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
61)	Diethlyphthalate	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
63)	4-Chlorophenyl-phenylether	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
64)	Fluorene	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
65)	4-Nitroaniline	1.09	1.10	1.10	1.10	1.10	1.10	1.10	1.10
66)	4,6-Dinitro2-methylphenol	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
67)	N-Nitrosodiphenylamine (CCC)	1.11	1.11	1.11	1.11	1.11	1.11	1.12	1.11
68)	Azobenzene	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
71)	4-Bromophenyl-phenylether	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93

Relative Retention Time Report

Sample ID	LID	FileName	Acq. Date		
SSTD005 M8270/ICR SCN	5	W1101349.D	07/04/11 08:19		
SSTD010 M8270/ICR SCN	10	W1101350.D	07/04/11 08:56	**Inst:**	**Wiley**
SSTD020 M8270/ICR SCN	20	W1101351.D	07/04/11 09:33		
SSTD050 M8270/ICR SCN	50	W1101352.D	07/04/11 10:10	**Curve:**	**W070411A-M8270.M**
SSTD080 M8270/ICR SCN	80	W1101353.D	07/04/11 10:47		
SSTD120 M8270/ICR SCN	120	W1101354.D	07/04/11 11:25		
SSTD160 M8270/ICR SCN	160	W1101355.D	07/04/11 12:02		

#	Name	Sheet1	Sheet1 (7)	Sheet1 (6)	Sheet1 (5)	Sheet1 (4)	Sheet1 (3)	Sheet1 (2)	Average RRT
72)	Hexachlorobenzene	0.94	0.94	0.94	0.94	0.94	0.94	0.95	0.94
73)	Pentachlorophenol (CCC)	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
74)	Phenanthrene	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
75)	Anthracene	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
76)	Carbazole	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
77)	Di-n-butylphthalate	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08
78)	Fluoranthene (CCC)	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
79)	Benzidine	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
81)	Pyrene	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
84)	4-Dimethylaminoazobenzene	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
85)	Butylbenzylphthalate	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
86)	3,3-Dimethylbenzidine	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
87)	bis(2-Ethylhexyl)adipate	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
88)	3,3-Dimethoxybenzidine	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
89)	bis(2-Ethylhexyl)phthalate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
90)	3,3'-Dichlorobenzidine	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
91)	Benzo(a)anthracene	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
92)	Chrysene	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
93)	Di-n-octylphthalate (CCC)	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
95)	7,12-Dimethylbenz(a)anthracene	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
96)	Benzo(b)fluoranthene	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
97)	Benzo(k)fluoranthene	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
98)	Benzo(e)pyrene	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
99)	Benzo(a)pyrene (CCC)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
100)	Perylene	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
101)	3-Methylcholanthrene	1.02	1.02	1.02	1.02	1.03	1.03	1.03	1.02
102)	Indeno(1,2,3-cd)pyrene	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
103)	Dibenz(a,h)anthracene	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
104)	Benzo(g,h,i)perylene	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
105)	Dibenzo(a,e)pyrene	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35

= RRT outside 0.06 unit RRT window

Internal Standards Retention Time Report

Sample ID	LID	FileName	Acq. Date
SSTD005 M8270/ICR SCN	5	W1101349.D	07/04/11 08:19
SSTD010 M8270/ICR SCN	10	W1101350.D	07/04/11 08:56
SSTD020 M8270/ICR SCN	20	W1101351.D	07/04/11 09:33
SSTD050 M8270/ICR SCN	50	W1101352.D	07/04/11 10:10
SSTD080 M8270/ICR SCN	80	W1101353.D	07/04/11 10:47
SSTD120 M8270/ICR SCN	120	W1101354.D	07/04/11 11:25
SSTD160 M8270/ICR SCN	160	W1101355.D	07/04/11 12:02

Inst: **Wiley**

Curve: **W070411A-M8270.M**

#	Name	Sheet1	Sheet1 (7)	Sheet1 (6)	Sheet1 (5)	Sheet1 (4)	Sheet1 (3)	Sheet1 (2)	Average
1)	1,4-Dichlorobenzene-d4 (I)	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28
22)	Naphthalene-d8 (I)	7.82	7.82	7.82	7.82	7.82	7.82	7.83	7.82
40)	Acenaphthene-d10 (I)	10.76	10.76	10.76	10.76	10.76	10.76	10.76	10.76
69)	Phenanthrene-d10 (I)	13.67	13.67	13.67	13.67	13.67	13.67	13.67	13.67
83)	Chrysene-d12 (I)	19.08	19.08	19.08	19.08	19.09	19.08	19.09	19.08
94)	Perylene-d12 (I)	21.83	21.83	21.83	21.83	21.83	21.83	21.83	21.83

= ISTD retention time outside of 20 sec (0.33 min) window

Internal Standards Area Report

Sample ID	LID	FileName	Acq. Date
SSTD005 M8270/ICR SCN	5	W1101349.D	07/04/11 08:19
SSTD010 M8270/ICR SCN	10	W1101350.D	07/04/11 08:56
SSTD020 M8270/ICR SCN	20	W1101351.D	07/04/11 09:33
SSTD050 M8270/ICR SCN	50	W1101352.D	07/04/11 10:10
SSTD080 M8270/ICR SCN	80	W1101353.D	07/04/11 10:47
SSTD120 M8270/ICR SCN	120	W1101354.D	07/04/11 11:25
SSTD160 M8270/ICR SCN	160	W1101355.D	07/04/11 12:02

Inst: **Wiley**

Curve: **W070411A-M8270.M**

#	Name	Sheet1	Sheet1 (7)	Sheet1 (6)	Sheet1 (5)	Sheet1 (4)	Sheet1 (3)	Sheet1 (2)	Average
1)	1,4-Dichlorobenzene-d4 (I)	461,921	275,886	282,182	254,004	334,380	303,475	412,515	332,052
22)	Naphthalene-d8 (I)	1,396,822	801,453	791,276	730,312	993,145	831,493	1,205,007	964,215
40)	Acenaphthene-d10 (I)	771,720	449,788	439,468	429,952	588,957	461,413	710,312	550,230
69)	Phenanthrene-d10 (I)	1,136,853	754,787	749,240	739,886	1,056,471	732,284	1,101,420	895,849
83)	Chrysene-d12 (I)	806,989	621,141	585,987	625,876	770,007	524,234	697,285	661,646
94)	Perylene-d12 (I)	533,678	428,972	374,197	413,311	485,960	345,627	445,109	432,408

= ISTD response outside of 40% window

Response Factor Report Wiley

Method Path : M:\ms2011\methods\wiley\
Method File : W070411A-M8270.M
Title : 8270C - Full List
Last Update : Mon Jul 04 18:40:29 2011
Response Via : Initial Calibration

Calibration Files
5 =W1101349.D 10 =W1101350.D 20 =W1101351.D 50 =W1101352.D 80 =W1101353.D 120 =W1101354.D 160 =W1101355.D

		Compound	5	10	20	50	80	120	160	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------								
2)		N-Nitrosodimet...	0.698	0.602	0.654	0.654	0.670	0.626	0.635	0.648	4.82
3)		Pyridine	1.178	1.129	1.157	1.197	1.206	1.175	1.128	1.167	2.63
4)	S	2-Fluorophenol...	1.069	1.084	1.100	1.137	1.179	1.118	1.098	1.112	3.31
5)	S	Phenol-d5 (surr)	1.292	1.239	1.209	1.202	1.263	1.124	1.135	1.209	5.17
6)		Phenol (CCC)	1.332	1.289	1.266	1.258	1.312	1.165	1.156	1.254	5.48
7)		Aniline	0.663	0.611	0.577	0.593	0.627	0.575	0.585	0.604	5.24
8)		bis(2-Chloroet...	0.878	0.834	0.777	0.765	0.805	0.747	0.759	0.795	5.93
9)		2-Chlorophenol	1.102	1.050	1.061	1.112	1.176	1.088	1.110	1.100	3.75
10)		1,3-Dichlorobe...	1.392	1.426	1.351	1.390	1.481	1.425	1.431	1.414	2.90
11)		1,4-Dichlorobe...	1.430	1.428	1.400	1.383	1.503	1.431	1.439	1.430	2.63
12)		Benzyl alcohol	0.673	0.612	0.593	0.588	0.630	0.542	0.595	0.605	6.66
13)		1,2-Dichlorobe...	1.281	1.297	1.265	1.270	1.363	1.310	1.344	1.304	2.85
14)		2-Methylphenol	0.909	0.849	0.796	0.832	0.863	0.762	0.816	0.832	5.72
15)		bis(2-Chlorois...	1.262	1.113	1.047	1.022	1.044	0.944	0.923	1.051	10.79
16)		3/4-Methylphenol	1.090	1.038	0.984	1.017	1.056	0.903	0.992	1.012	5.95
17)		N-Nitroso-di-n...	0.817	0.725	0.696	0.720	0.733	0.622	0.688	0.714	8.20
18)		o-Toluidine	1.663	1.572	1.477	1.529	1.614	1.436	1.497	1.541	5.19
19)		Hexachloroethane	0.575	0.546	0.537	0.548	0.593	0.571	0.579	0.564	3.64
20)	S	Nitrobenzene-d...	1.322	0.900	1.066	1.204	1.328	1.199	1.250	1.181	12.89
21)		Nitrobenzene	1.238	0.876	1.017	1.095	1.182	1.049	1.085	1.078	10.85
22)	I	Naphthalene-d8 (I)	----------ISTD----------								
23)		Isophorone	0.667	0.637	0.603	0.605	0.623	0.579	0.600	0.616	4.71
24)		2,4-Dimethylph...	0.377	0.371	0.358	0.368	0.383	0.354	0.369	0.369	2.77
25)		2-Nitrophenol ...	0.153	0.101	0.142	0.168	0.190	0.187	0.196	0.162	20.69
26)		Benzoic acid			0.070	0.124	0.189	0.189	0.235	0.162	40.05
27)		bis(2-Chloroet...	0.384	0.355	0.347	0.352	0.356	0.334	0.341	0.353	4.51
28)		2,4-Dichloroph...	0.283	0.273	0.283	0.298	0.314	0.292	0.312	0.294	5.22
29)		a,a-Dimethylph...	0.576	0.496	0.561	0.634	0.665	0.596	0.623	0.593	9.35
30)		1,2,4-Trichlor...	0.368	0.380	0.371	0.373	0.400	0.402	0.404	0.385	4.13
31)		Naphthalene	1.049	1.044	1.015	1.026	1.079	1.038	1.045	1.042	1.94
32)		4-Chloroaniline	0.141	0.141	0.126	0.134	0.141	0.128	0.136	0.135	4.66
33)		Hexachlorobuta...	0.225	0.241	0.239	0.240	0.261	0.267	0.271	0.249	6.86
34)		Quinoline	0.560	0.545	0.534	0.574	0.627	0.576	0.613	0.575	5.91
35)		1,4-Phenylened...	0.264	0.259	0.273	0.289	0.335	0.309	0.328	0.294	10.39
36)		4-Chloro-3 met...	0.281	0.267	0.270	0.287	0.308	0.284	0.291	0.284	4.77
37)		2-Methylnaphth...	0.673	0.678	0.656	0.678	0.721	0.676	0.701	0.683	3.06
38)		1-Methylnaphth...	0.628	0.653	0.623	0.647	0.682	0.647	0.657	0.648	3.04
39)		Hexachlorocycl...	0.146	0.113	0.133	0.154	0.193	0.192	0.198	0.161	20.77
40)	I	Acenaphthene-d10 (I)	----------ISTD----------								
41)		2,4,6-Trichlor...	0.318	0.294	0.323	0.347	0.387	0.383	0.390	0.349	11.06
42)		2,4,5-Trichlor...	0.327	0.316	0.359	0.372	0.406	0.396	0.406	0.369	9.96

Method Path : M:\ms2011\methods\wiley\
Method File : W070411A-M8270.M

43)	S	2-Fluorobiphen...	1.355	1.349	1.330	1.298	1.382	1.412	1.339	1.352	2.71
44)		Biphenyl	1.427	1.449	1.417	1.403	1.472	1.496	1.429	1.442	2.27
45)		2-Chloronaphth...	1.085	1.099	1.089	1.079	1.145	1.146	1.104	1.107	2.51
46)		2-Nitroaniline	0.230	0.139	0.225	0.266	0.312	0.295	0.300	0.252	23.90
47)		1,4-Dinitroben...	0.099	0.081	0.103	0.132	0.171	0.164	0.173	0.132	28.95
48)		Dimethylphthalate	1.176	1.175	1.199	1.190	1.301	1.235	1.238	1.216	3.73
49)		1,3-Dinitroben...	0.129	0.106	0.138	0.173	0.208	0.195	0.203	0.165	24.39
50)		2,6-Dinitrotol...	0.215	0.181	0.234	0.257	0.296	0.278	0.281	0.249	16.46
51)		1,2-Dinitroben...	0.099	0.080	0.105	0.120	0.139	0.129	0.130	0.115	18.37
52)		Acenaphthylene	1.673	1.667	1.668	1.673	1.806	1.745	1.690	1.703	3.13
53)		3-Nitroaniline	0.203	0.177	0.213	0.251	0.291	0.268	0.264	0.238	17.27
54)		Acenaphthene (...	1.006	0.982	0.968	0.994	1.085	1.079	1.085	1.028	5.08
55)		2,4-Dinitrophe...			0.047	0.069	0.124	0.121	0.143	0.101	40.69
56)		4-Nitrophenol ...		0.107	0.132	0.166	0.196	0.171	0.177	0.158	20.75
57)		2,4-Dinitrotol...	0.224	0.201	0.259	0.318	0.383	0.347	0.342	0.296	23.14
58)		Dibenzofuran	1.428	1.402	1.414	1.433	1.546	1.502	1.481	1.458	3.63
59)		2,3,5,6-Tetrac...	0.180	0.173	0.210	0.246	0.303	0.285	0.303	0.243	23.14
60)		2,3,4,6-Tetrac...	0.197	0.185	0.219	0.272	0.317	0.301	0.313	0.258	21.90
61)		Diethlyphthalate	1.164	1.199	1.207	1.223	1.335	1.234	1.213	1.225	4.34
62)	S	Fluorene-d10 (...	0.963	1.018	1.019	1.015	1.126	1.069	1.085	1.042	5.21
63)		4-Chlorophenyl...	0.578	0.591	0.578	0.590	0.653	0.630	0.655	0.611	5.62
64)		Fluorene	1.158	1.200	1.198	1.199	1.318	1.247	1.262	1.226	4.33
65)		4-Nitroaniline	0.185	0.173	0.211	0.251	0.306	0.278	0.268	0.239	20.91
66)		4,6-Dinitro2-m...			0.077	0.120	0.185	0.171	0.186	0.148	32.47
67)		N-Nitrosodiphe...	0.938	0.992	0.984	1.009	1.108	1.032	1.028	1.013	5.19
68)		Azobenzene	1.296	1.293	1.269	1.235	1.287	1.203	1.148	1.247	4.46
69)	I	Phenanthrene-d10 (I)	----------	----------	----------	ISTD	----------	----------	----------	----------	
70)	S	2,4,6-Tribromo...	0.065	0.055	0.066	0.078	0.091	0.099	0.109	0.080	24.84
71)		4-Bromophenyl-...	0.211	0.196	0.201	0.202	0.216	0.230	0.241	0.214	7.73
72)		Hexachlorobenzene	0.206	0.202	0.204	0.207	0.225	0.236	0.245	0.218	7.98
73)		Pentachlorophe...			0.075	0.098	0.127	0.128	0.138	0.113	23.15
74)		Phenanthrene	1.043	1.011	0.982	0.989	1.049	1.048	1.013	1.019	2.75
75)		Anthracene	1.011	1.012	0.982	0.997	1.063	1.070	1.009	1.021	3.25
76)		Carbazole	0.806	0.834	0.821	0.835	0.913	0.890	0.818	0.845	4.77
77)		Di-n-butylphth...	1.192	1.201	1.200	1.230	1.221	1.231	1.122	1.200	3.11
78)		Fluoranthene (...	1.022	1.084	1.069	1.091	1.124	1.076	0.946	1.059	5.49
79)		Benzidine		0.403	0.444	0.522	0.558	0.559	0.480	0.494	12.84
80)	S	Pyrene-d10 (surr)	0.907	0.971	0.965	0.990	1.004	0.967	0.836	0.949	6.13
81)		Pyrene	1.035	1.110	1.076	1.109	1.128	1.069	0.928	1.065	6.37
82)	S	Terphenyl-d14 ...	0.630	0.688	0.688	0.707	0.723	0.695	0.625	0.679	5.52
83)	I	Chrysene-d12 (I)	----------	----------	----------	ISTD	----------	----------	----------	----------	
84)		4-Dimethylamin...	0.359	0.330	0.357	0.362	0.418	0.404	0.393	0.375	8.28
85)		Butylbenzylpht...	0.603	0.560	0.627	0.629	0.673	0.656	0.642	0.627	5.92
86)		3,3-Dimethylbe...	0.599	0.578	0.652	0.741	0.831	0.838	0.805	0.721	15.33
87)		bis(2-Ethylhex...	0.473	0.434	0.488	0.482	0.553	0.528	0.534	0.499	8.30
88)		3,3-Dimethoxyb...			0.219	0.265	0.302	0.316	0.310	0.282	14.41
89)		bis(2-Ethylhex...	0.828	0.783	0.859	0.867	0.946	0.909	0.889	0.869	6.14
90)		3,3'-Dichlorob...	0.297	0.321	0.331	0.361	0.384	0.394	0.386	0.354	10.59
91)		Benzo(a)anthra...	1.078	1.071	1.060	1.065	1.136	1.122	1.089	1.089	2.69
92)		Chrysene	0.987	0.964	0.967	0.964	1.013	1.015	0.986	0.985	2.23
93)		Di-n-octylphth...	1.015	1.013	1.134	1.255	1.308	1.266	1.235	1.175	10.41

Method Path : M:\ms2011\methods\wiley\
Method File : W070411A-M8270.M

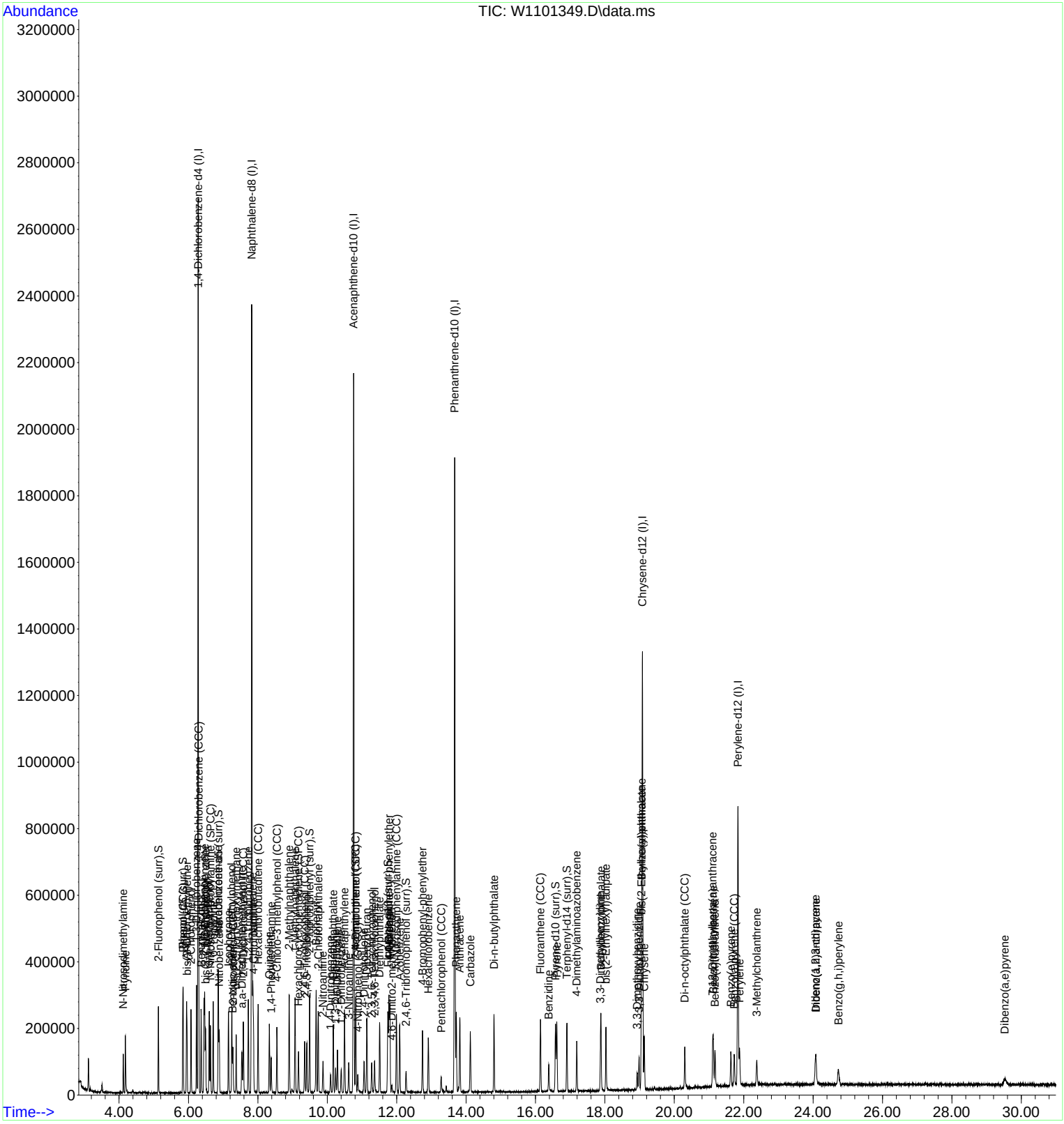
94)	I	Perylene-d12 (I)	----------ISTD----------							
95)		7,12-Dimethylb...	0.549	0.569	0.585	0.608	0.664	0.646	0.658	0.611	7.45
96)		Benzo(b)fluora...	1.176	1.247	1.264	1.317	1.400	1.379	1.421	1.315	6.88
97)		Benzo(k)fluora...	1.128	1.128	1.171	1.168	1.242	1.259	1.242	1.191	4.67
98)		Benzo(e)pyrene	0.992	1.016	1.008	1.053	1.126	1.102	1.114	1.059	5.22
99)		Benzo(a)pyrene...	0.963	0.998	1.000	1.076	1.168	1.151	1.165	1.074	8.19
100)		Perylene	1.059	1.121	1.045	1.088	1.168	1.154	1.166	1.114	4.60
101)		3-Methylcholan...	0.496	0.520	0.521	0.555	0.612	0.608	0.612	0.561	8.91
102)		Indeno(1,2,3-c...	0.893	0.958	0.930	1.007	1.134	1.117	1.141	1.026	10.18
103)		Dibenz(a,h)ant...	0.731	0.786	0.773	0.846	0.954	0.944	0.967	0.857	11.40
104)		Benzo(g,h,i)pe...	0.726	0.779	0.744	0.810	0.894	0.887	0.887	0.818	8.79
105)		Dibenzo(a,e)py...	0.464	0.501	0.497	0.568	0.624	0.589	0.607	0.550	11.31

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101349.D
Acq On : 4 Jul 2011 8:19 am
Operator : tdd/lah
Sample : SSTD005 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 04 18:02:43 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:00:08 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101349.D
Acq On : 4 Jul 2011 8:19 am
Operator : tdd/lah
Sample : SSTD005 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 04 18:02:43 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:00:08 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.280	152	461921	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.821	136	1396822	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.759	164	771720	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.671	188	1136853	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.081	240	806989	40.00	µg/mL	0.00
94) Perylene-d12 (I)	21.831	264	533678	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.134	112	61726	4.90	µg/mL	0.00
5) Phenol-d5 (surr)	5.838	99	74610	5.32	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.862	82	76306	5.69	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.487	172	130675	5.03	µg/mL	0.00
62) Fluorene-d10 (surr)	11.744	176	92862	4.63	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	12.269	330	9210	4.07	µg/mL	0.00
80) Pyrene-d10 (surr)	16.575	212	128937	4.81	µg/mL	0.00
82) Terphenyl-d14 (surr)	16.904	244	89552	4.72	µg/mL	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.120	74	40312	5.39	µg/mL#	75
3) Pyridine	4.183	79	67990	5.08	µg/mL#	86
6) Phenol (CCC)	5.849	94	76916	5.28	µg/mL#	73
7) Aniline	5.943	66	38263	5.46	µg/mL#	26
8) bis(2-Chloroethyl)ether	5.957	63	50709	5.58	µg/mL#	1
9) 2-Chlorophenol	6.073	128	63632	4.97	µg/mL	100
10) 1,3-Dichlorobenzene	6.229	146	80348	4.90	µg/mL	99
11) 1,4-Dichlorobenzene (CCC)	6.294	146	82560m	4.97	µg/mL	
12) Benzyl alcohol	6.365	108	38864	5.69	µg/mL#	81
13) 1,2-Dichlorobenzene	6.468	146	73951	4.84	µg/mL	100
14) 2-Methylphenol	6.445	107	52467	5.50	µg/mL	91
15) bis(2-Chloroisopropyl)...	6.493	45	72860	5.79	µg/mL#	67
16) 3/4-Methylphenol	6.598	107	62963	5.38	µg/mL#	96
17) N-Nitroso-di-n-propyla...	6.632	70	47147	5.71	µg/mL	86
18) o-Toluidine	6.712	106	96046	5.30	µg/mL	98
19) Hexachloroethane	6.854	117	33200	5.10	µg/mL#	76
21) Nitrobenzene	6.888	77	71455	5.70	µg/mL	96
23) Isophorone	7.152	82	116473	5.44	µg/mL#	98
24) 2,4-Dimethylphenol	7.248	107	65844	5.18	µg/mL	97
25) 2-Nitrophenol (CCC)	7.282	139	26722	4.67	µg/mL#	75
26) Benzoic acid	7.271	105	5244	1.07	µg/mL#	4
27) bis(2-Chloroethoxy)met...	7.373	93	67052	5.42	µg/mL#	1
28) 2,4-Dichlorophenol (CCC)	7.580	162	49485	4.90	µg/mL	99
29) a,a-Dimethylphenethyla...	7.540	58	100626	4.82	µg/mL#	63
30) 1,2,4-Trichlorobenzene	7.728	180	64311	4.79	µg/mL	98
31) Naphthalene	7.853	128	183127	5.02	µg/mL#	49
32) 4-Chloroaniline	7.873	65	24690	5.30	µg/mL#	46
33) Hexachlorobutadiene (CCC)	8.009	225	39324	4.57	µg/mL	98
34) Quinoline	8.329	129	97712	4.81	µg/mL	99
35) 1,4-Phenylenediamine	8.386	108	46028	4.46	µg/mL	97
36) 4-Chloro-3 methylpheno...	8.548	107	48993	5.05	µg/mL	90
37) 2-Methylnaphthalene	8.900	142	117582	4.90	µg/mL	98
38) 1-Methylnaphthalene	9.073	142	109723	4.80	µg/mL#	100
39) Hexachlorocyclopentadi...	9.170	237	25430	4.71	µg/mL	98
41) 2,4,6-Trichlorophenol ...	9.348	196	30649	4.64	µg/mL	97
42) 2,4,5-Trichlorophenol	9.408	196	31546	4.49	µg/mL	99
44) Biphenyl	9.678	154	137639	4.96	µg/mL	99
45) 2-Chloronaphthalene	9.740	162	104637	4.90	µg/mL	98
46) 2-Nitroaniline	9.873	65	22233	4.54	µg/mL#	72

Manual Int. "WP" (TDD)

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101349.D
Acq On : 4 Jul 2011 8:19 am
Operator : tdd/lah
Sample : SSTD005 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 04 18:02:43 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:00:08 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.092	168	9509	3.68	µg/mL	93
48) Dimethylphthalate	10.172	163	113404	4.86	µg/mL	98
49) 1,3-Dinitrobenzene	10.242	168	12426	3.81	µg/mL	99
50) 2,6-Dinitrotoluene	10.294	165	20784	4.23	µg/mL#	81
51) 1,2-Dinitrobenzene	10.401	168	9581	4.22	µg/mL#	58
52) Acenaphthylene	10.495	152	161363	4.90	µg/mL	97
53) 3-Nitroaniline	10.620	138	19606	4.19	µg/mL#	88
54) Acenaphthene (CCC)	10.819	154	97073	4.87	µg/mL	99
55) 2,4-Dinitrophenol (SPCC)	10.816	184	3096	1.79	µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.884	139	10741	3.52	µg/mL#	84
57) 2,4-Dinitrotoluene	11.057	165	21626	3.70	µg/mL	94
58) Dibenzofuran	11.139	168	137735	4.85	µg/mL	99
59) 2,3,5,6-Tetrachlorophenol	11.281	232	17389	3.74	µg/mL	99
60) 2,3,4,6-Tetrachlorophenol	11.364	232	19027m	3.80	µg/mL	
61) Diethlyphthalate	11.508	149	112287	4.80	µg/mL	98
63) 4-Chlorophenyl-phenyle...	11.772	204	55709	4.73	µg/mL	91
64) Fluorene	11.803	166	111723	4.70	µg/mL	98
65) 4-Nitroaniline	11.781	138	17824	3.92	µg/mL#	73
66) 4,6-Dinitro2-methylphenol	11.860	198	5773	2.25	µg/mL	94
67) N-Nitrosodiphenylamine...	11.994	169	90484	4.62	µg/mL	100
68) Azobenzene	12.084	77	125034	5.24	µg/mL#	91
71) 4-Bromophenyl-phenylether	12.743	248	30010	5.00	µg/mL	93
72) Hexachlorobenzene	12.913	284	29307	4.74	µg/mL	100
73) Pentachlorophenol (CCC)	13.285	266	8599	2.90	µg/mL	94
74) Phenanthrene	13.716	178	148169	5.12	µg/mL	99
75) Anthracene	13.819	178	143678	5.02	µg/mL	100
76) Carbazole	14.122	167	114536	4.76	µg/mL	98
77) Di-n-butylphthalate	14.804	149	169431	5.21	µg/mL	99
78) Fluoranthene (CCC)	16.143	202	145284	4.92	µg/mL	98
79) Benzidine	16.382	184	51217	3.65	µg/mL#	98
81) Pyrene	16.614	202	147126	4.88	µg/mL	99
84) 4-Dimethylaminoazobenzene	17.188	120	36213	5.10	µg/mL	89
85) Butylbenzylphthalate	17.886	149	60813	4.97	µg/mL	89
86) 3,3-Dimethylbenzidine	17.869	212	60418	4.35	µg/mL#	95
87) bis(2-Ethylhexyl)adipate	18.028	129	47701	4.97	µg/mL	93
88) 3,3-Dimethoxybenzidine	18.927	244	17534	3.57	µg/mL	89
89) bis(2-Ethylhexyl)phtha...	19.052	149	83505	5.02	µg/mL	96
90) 3,3'-Dichlorobenzidine	18.984	252	29994	4.09	µg/mL#	98
91) Benzo(a)anthracene	19.058	228	108740	5.04	µg/mL	99
92) Chrysene	19.132	228	99601	5.04	µg/mL	99
93) Di-n-octylphthalate (CCC)	20.304	149	102357	4.64	µg/mL#	93
95) 7,12-Dimethylbenz(a)an...	21.104	256	36643	4.51	µg/mL	96
96) Benzo(b)fluoranthene	21.124	252	78455m	4.48	µg/mL	
97) Benzo(k)fluoranthene	21.170	252	75223m	4.65	µg/mL	
98) Benzo(e)pyrene	21.629	252	66181	4.71	µg/mL#	89
99) Benzo(a)pyrene (CCC)	21.726	252	64214	4.59	µg/mL	98
100) Perylene	21.879	252	70663	4.67	µg/mL	97
101) 3-Methylcholanthrene	22.373	268	33113	4.65	µg/mL	99
102) Indeno(1,2,3-cd)pyrene	24.068	276	59551	4.54	µg/mL	96
103) Dibenz(a,h)anthracene	24.082	278	48754	4.45	µg/mL#	86
104) Benzo(g,h,i)perylene	24.732	276	48418	4.59	µg/mL#	66
105) Dibenzo(a,e)pyrene	29.517	302	30975m	4.11	µg/mL	

Manual Int. "WP" (TDD)

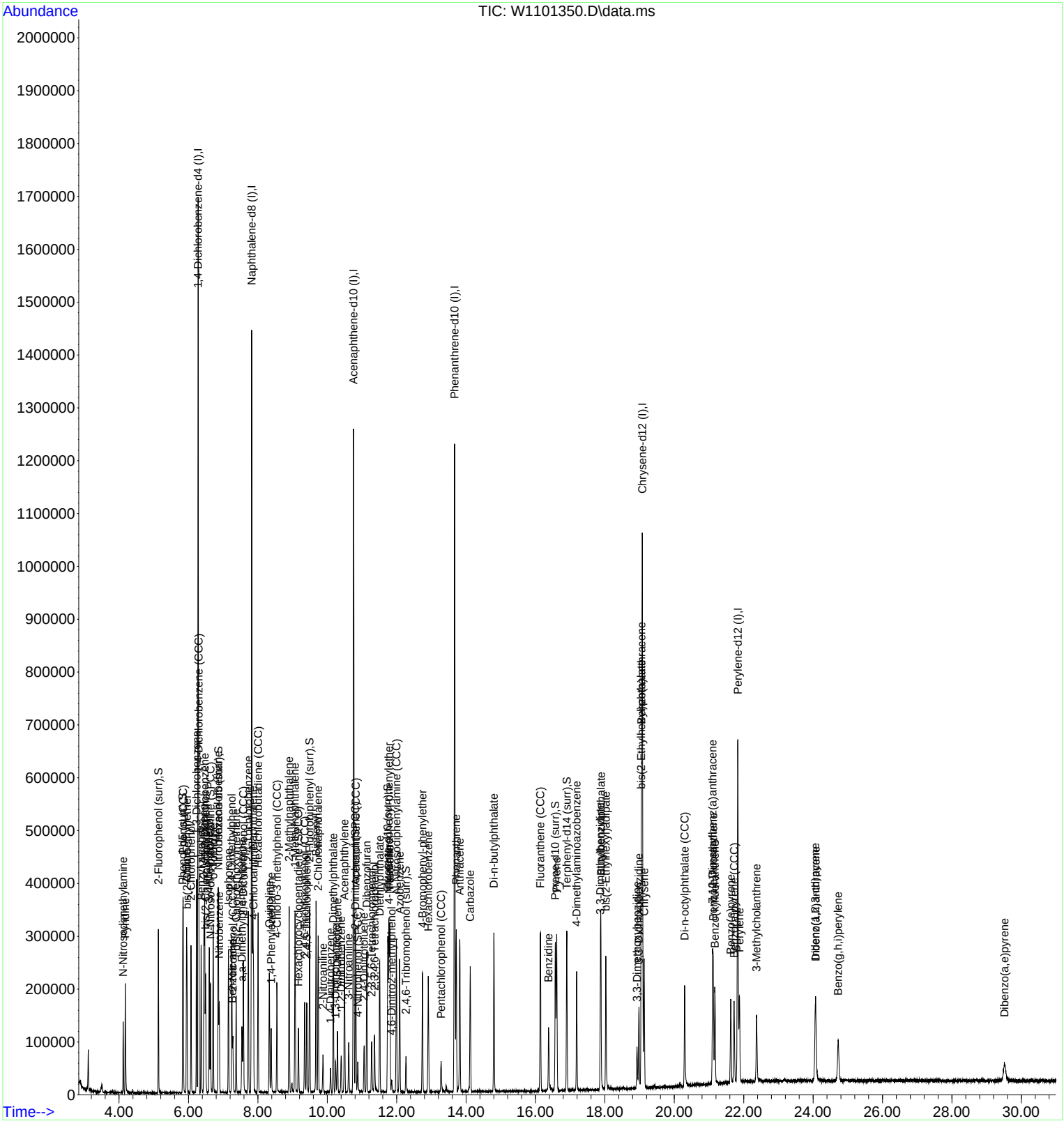
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101350.D
Acq On : 4 Jul 2011 8:56 am
Operator : tdd/lah
Sample : SSTD010 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 04 17:58:45 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:58:25 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101350.D
Acq On : 4 Jul 2011 8:56 am
Operator : tdd/lah
Sample : SSTD010 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 04 17:58:45 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:58:25 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.277	152	275886	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.821	136	801453	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.756	164	449788	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.668	188	754787	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.078	240	621141	40.00	µg/mL	0.00
94) Perylene-d12 (I)	21.831	264	428972	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.134	112	74776	10.04	µg/mL	0.00
5) Phenol-d5 (surr)	5.835	99	85430	10.02	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.862	82	62075	7.44	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.490	172	151676	10.09	µg/mL	0.00
62) Fluorene-d10 (surr)	11.741	176	114499	9.86	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	12.269	330	10351	6.72	µg/mL	0.00
80) Pyrene-d10 (surr)	16.569	212	183188	10.30	µg/mL	0.00
82) Terphenyl-d14 (surr)	16.904	244	129733	10.46	µg/mL	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.118	74	41508	9.01	µg/mL#	68
3) Pyridine	4.180	79	77881	9.72	µg/mL#	85
6) Phenol (CCC)	5.846	94	88873	10.05	µg/mL#	69
7) Aniline	5.945	66	42137	9.85	µg/mL#	21
8) bis(2-Chloroethyl)ether	5.957	63	57508	10.59	µg/mL#	1
9) 2-Chlorophenol	6.073	128	72428	9.32	µg/mL	99
10) 1,3-Dichlorobenzene	6.232	146	98367	9.97	µg/mL	99
11) 1,4-Dichlorobenzene (CCC)	6.294	146	98460	9.89	µg/mL	96
12) Benzyl alcohol	6.365	108	42192	10.26	µg/mL#	79
13) 1,2-Dichlorobenzene	6.468	146	89466	9.71	µg/mL	100
14) 2-Methylphenol	6.445	107	58590	10.21	µg/mL	92
15) bis(2-Chloroisopropyl)...	6.493	45	76758	9.68	µg/mL#	58
16) 3/4-Methylphenol	6.598	107	71590	10.11	µg/mL	95
17) N-Nitroso-di-n-propyla...	6.635	70	49980	9.91	µg/mL#	83
18) o-Toluidine	6.712	106	108451	9.72	µg/mL	98
19) Hexachloroethane	6.856	117	37686	9.67	µg/mL	82
21) Nitrobenzene	6.885	77	60436	7.63	µg/mL	96
23) Isophorone	7.152	82	127731	10.33	µg/mL#	97
24) 2,4-Dimethylphenol	7.248	107	74378	10.26	µg/mL	93
25) 2-Nitrophenol (CCC)	7.279	139	20243	5.78	µg/mL#	85
26) Benzoic acid	7.265	105	7611	2.35	µg/mL#	1
27) bis(2-Chloroethoxy)met...	7.373	93	71135	9.78	µg/mL#	1
28) 2,4-Dichlorophenol (CCC)	7.580	162	54747	9.52	µg/mL	98
29) a,a-Dimethylphenethyla...	7.538	58	99413	7.95	µg/mL#	52
30) 1,2,4-Trichlorobenzene	7.725	180	76112	9.94	µg/mL	97
31) Naphthalene	7.853	128	209210	9.99	µg/mL#	51
32) 4-Chloroaniline	7.873	65	28258	10.64	µg/mL#	45
33) Hexachlorobutadiene (CCC)	8.006	225	48258	9.96	µg/mL	97
34) Quinoline	8.327	129	109191	9.18	µg/mL	99
35) 1,4-Phenylenediamine	8.383	108	51942	8.50	µg/mL	96
36) 4-Chloro-3 methylpheno...	8.548	107	53521	9.59	µg/mL	92
37) 2-Methylnaphthalene	8.900	142	135873	9.80	µg/mL	97
38) 1-Methylnaphthalene	9.070	142	130876	9.90	µg/mL#	100
39) Hexachlorocyclopentadi...	9.167	237	22570	7.20	µg/mL	97
41) 2,4,6-Trichlorophenol ...	9.346	196	33109	8.60	µg/mL	97
42) 2,4,5-Trichlorophenol	9.408	196	35555	8.61	µg/mL	99
44) Biphenyl	9.675	154	162882	10.11	µg/mL	99
45) 2-Chloronaphthalene	9.737	162	123543	9.97	µg/mL	97
46) 2-Nitroaniline	9.876	65	15664	5.09	µg/mL	85

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101350.D
Acq On : 4 Jul 2011 8:56 am
Operator : tdd/lah
Sample : SSTD010 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 04 17:58:45 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:58:25 2011
Response via : Initial Calibration

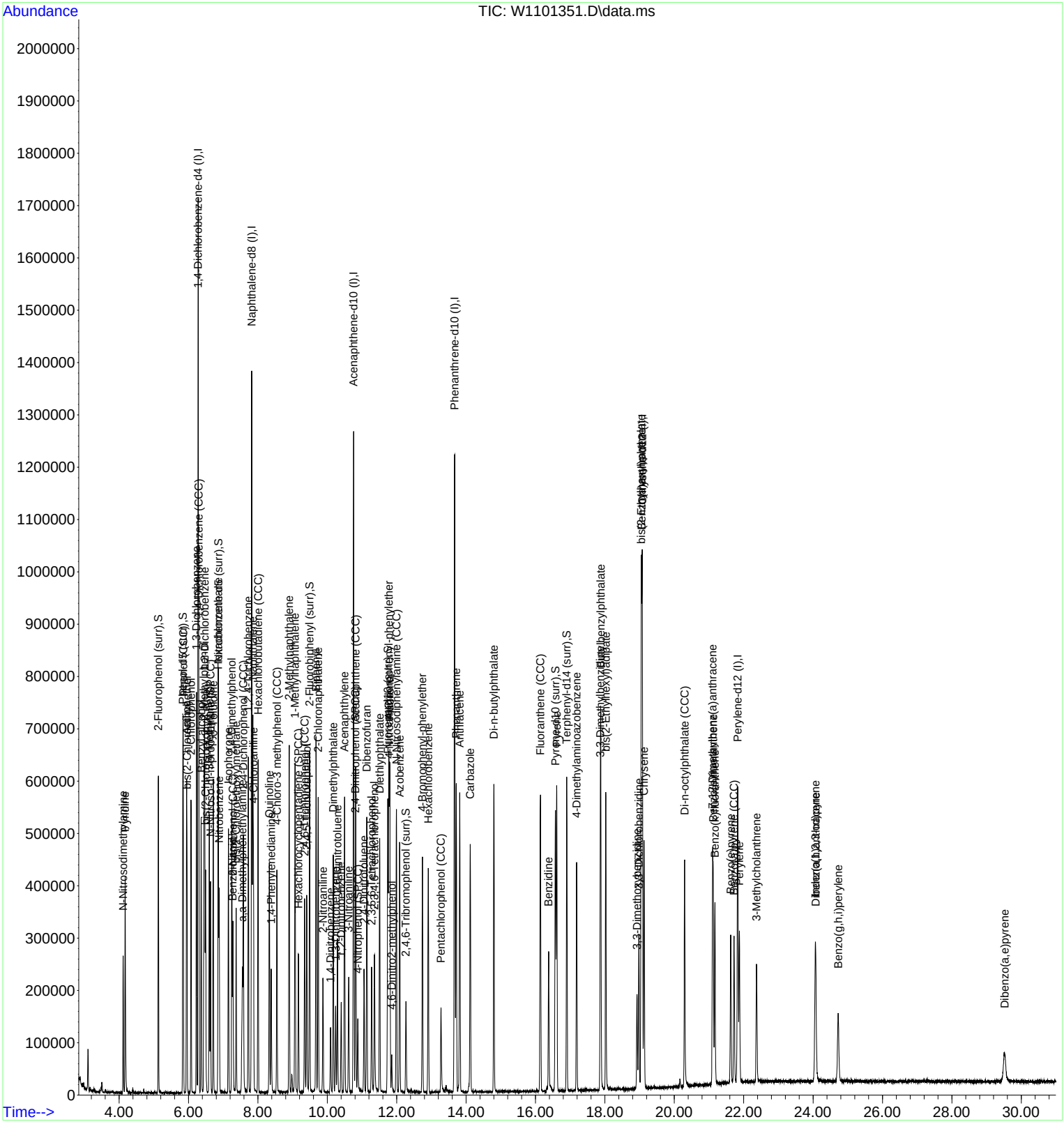
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.095	168	9163	5.75	µg/mL	83
48) Dimethylphthalate	10.172	163	132114	9.72	µg/mL	99
49) 1,3-Dinitrobenzene	10.237	168	11948	5.90	µg/mL	80
50) 2,6-Dinitrotoluene	10.291	165	20379	6.81	µg/mL	89
51) 1,2-Dinitrobenzene	10.401	168	8953	6.37	µg/mL#	63
52) Acenaphthylene	10.495	152	187460	9.70	µg/mL	97
53) 3-Nitroaniline	10.614	138	19904	6.98	µg/mL#	87
54) Acenaphthene (CCC)	10.821	154	110432	9.49	µg/mL	98
55) 2,4-Dinitrophenol (SPCC)	10.810	184	3821	3.37	µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.878	139	11994	6.79	µg/mL	90
57) 2,4-Dinitrotoluene	11.060	165	22656	6.33	µg/mL	91
58) Dibenzofuran	11.137	168	157669	9.45	µg/mL	99
59) 2,3,5,6-Tetrachlorophenol	11.278	232	19422	7.06	µg/mL	97
60) 2,3,4,6-Tetrachlorophenol	11.364	232	20778	6.98	µg/mL#	90
61) Diethlyphthalate	11.511	149	134846	10.03	µg/mL	99
63) 4-Chlorophenyl-phenyle...	11.769	204	66450	9.76	µg/mL	91
64) Fluorene	11.804	166	134893	9.74	µg/mL	99
65) 4-Nitroaniline	11.784	138	19501	7.23	µg/mL#	78
66) 4,6-Dinitro2-methylphenol	11.855	198	6480	4.07	µg/mL#	88
67) N-Nitrosodiphenylamine...	11.991	169	111547	9.76	µg/mL	98
68) Azobenzene	12.084	77	145353	10.46	µg/mL	91
71) 4-Bromophenyl-phenylether	12.743	248	37035	9.37	µg/mL	92
72) Hexachlorobenzene	12.910	284	38100	9.33	µg/mL	98
73) Pentachlorophenol (CCC)	13.282	266	11406	5.34	µg/mL	99
74) Phenanthrene	13.716	178	190698	9.91	µg/mL	99
75) Anthracene	13.816	178	190995	10.10	µg/mL	100
76) Carbazole	14.120	167	157462	9.82	µg/mL	99
77) Di-n-butylphthalate	14.801	149	226668	10.87	µg/mL	99
78) Fluoranthene (CCC)	16.140	202	204533	10.60	µg/mL	96
79) Benzidine	16.376	184	75999	8.25	µg/mL#	98
81) Pyrene	16.611	202	209470	10.50	µg/mL#	99
84) 4-Dimethylaminoazobenzene	17.185	120	51250	9.70	µg/mL	92
85) Butylbenzylphthalate	17.883	149	86950	9.40	µg/mL	89
86) 3,3-Dimethylbenzidine	17.869	212	89786	8.57	µg/mL#	96
87) bis(2-Ethylhexyl)adipate	18.025	129	67386	9.42	µg/mL	96
88) 3,3-Dimethoxybenzidine	18.925	244	27256	7.26	µg/mL#	89
89) bis(2-Ethylhexyl)phtha...	19.047	149	121633	9.86	µg/mL	96
90) 3,3'-Dichlorobenzidine	18.979	252	49872	8.97	µg/mL#	97
91) Benzo(a)anthracene	19.055	228	166301	10.08	µg/mL	99
92) Chrysene	19.132	228	149620	9.85	µg/mL	100
93) Di-n-octylphthalate (CCC)	20.298	149	157270	9.78	µg/mL	98
95) 7,12-Dimethylbenz(a)an...	21.104	256	61019	9.37	µg/mL	98
96) Benzo(b)fluoranthene	21.121	252	133701	9.53	µg/mL	96
97) Benzo(k)fluoranthene	21.170	252	121016	9.30	µg/mL	98
98) Benzo(e)pyrene	21.627	252	108908	9.68	µg/mL	98
99) Benzo(a)pyrene (CCC)	21.723	252	107069	9.62	µg/mL	98
100) Perylene	21.879	252	120210	10.01	µg/mL	98
101) 3-Methylcholanthrene	22.367	268	55772	10.09	µg/mL	97
102) Indeno(1,2,3-cd)pyrene	24.062	276	102695	10.18	µg/mL#	78
103) Dibenz(a,h)anthracene	24.076	278	84297	9.97	µg/mL#	96
104) Benzo(g,h,i)perylene	24.720	276	83589	10.26	µg/mL#	88
105) Dibenzo(a,e)pyrene	29.511	302	53747	9.63	µg/mL#	61

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101351.D
Acq On : 4 Jul 2011 9:33 am
Operator : tdd/lah
Sample : SSTD020 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 04 17:58:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:56:37 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101351.D
Acq On : 4 Jul 2011 9:33 am
Operator : tdd/lah
Sample : SSTD020 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 04 17:58:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:56:37 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.277	152	282182	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.821	136	791276	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.759	164	439468	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.668	188	749240	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.078	240	585987	40.00	µg/mL	-0.01
94) Perylene-d12 (I)	21.828	264	374197	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.133	112	155153	20.50	µg/mL	0.00
5) Phenol-d5 (surr)	5.837	99	170607	19.12	µg/mL	-0.02
20) Nitrobenzene-d5 (surr)	6.862	82	150394	17.15	µg/mL	-0.01
43) 2-Fluorobiphenyl (surr)	9.490	172	292215	19.99	µg/mL	0.00
62) Fluorene-d10 (surr)	11.744	176	223996	19.85	µg/mL	-0.01
70) 2,4,6-Tribromophenol (...	12.266	330	24571	15.81	µg/mL	-0.01
80) Pyrene-d10 (surr)	16.574	212	361556	20.56	µg/mL	-0.01
82) Terphenyl-d14 (surr)	16.898	244	257907	21.31	µg/mL	-0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.117	74	92286	19.16	µg/mL#	76
3) Pyridine	4.174	79	163301	19.60	µg/mL#	86
6) Phenol (CCC)	5.849	94	178650	19.32	µg/mL#	74
7) Aniline	5.945	66	81456	18.06	µg/mL#	18
8) bis(2-Chloroethyl)ether	5.957	63	109627	19.54	µg/mL#	1
9) 2-Chlorophenol	6.073	128	149695	18.56	µg/mL	97
10) 1,3-Dichlorobenzene	6.229	146	190554	18.82	µg/mL	99
11) 1,4-Dichlorobenzene (CCC)	6.297	146	197464	19.34	µg/mL	99
12) Benzyl alcohol	6.365	108	83636	19.48	µg/mL#	84
13) 1,2-Dichlorobenzene	6.465	146	178498	18.78	µg/mL	98
14) 2-Methylphenol	6.448	107	112358	18.79	µg/mL	94
15) bis(2-Chloroisopropyl)...	6.493	45	147789	17.36	µg/mL#	61
16) 3/4-Methylphenol	6.601	107	138897	18.73	µg/mL	95
17) N-Nitroso-di-n-propyla...	6.635	70	98264	18.37	µg/mL	84
18) o-Toluidine	6.712	106	208411	17.67	µg/mL	99
19) Hexachloroethane	6.853	117	75808	18.98	µg/mL#	81
21) Nitrobenzene	6.885	77	143476	17.16	µg/mL	96
23) Isophorone	7.151	82	238490	19.18	µg/mL#	97
24) 2,4-Dimethylphenol	7.248	107	141645	19.78	µg/mL	97
25) 2-Nitrophenol (CCC)	7.279	139	56246	15.72	µg/mL#	80
26) Benzoic acid	7.274	105	27808m	9.38	µg/mL	
27) bis(2-Chloroethoxy)met...	7.373	93	137375	18.63	µg/mL#	
28) 2,4-Dichlorophenol (CCC)	7.583	162	112056	19.60	µg/mL	98
29) a,a-Dimethylphenethyla...	7.552	58	222091	17.42	µg/mL#	67
30) 1,2,4-Trichlorobenzene	7.725	180	146630	19.42	µg/mL	96
31) Naphthalene	7.853	128	401707	19.47	µg/mL#	50
32) 4-Chloroaniline	7.872	65	49918	18.89	µg/mL#	30
33) Hexachlorobutadiene (CCC)	8.006	225	94376	20.06	µg/mL	99
34) Quinoline	8.329	129	211139	17.50	µg/mL	99
35) 1,4-Phenylenediamine	8.383	108	108180	17.12	µg/mL	99
36) 4-Chloro-3 methylpheno...	8.548	107	106959	19.26	µg/mL	92
37) 2-Methylnaphthalene	8.903	142	259699	18.84	µg/mL	97
38) 1-Methylnaphthalene	9.070	142	246324	18.70	µg/mL#	100
39) Hexachlorocyclopentadi...	9.167	237	52677	16.80	µg/mL	98
41) 2,4,6-Trichlorophenol ...	9.348	196	70938	18.84	µg/mL	100
42) 2,4,5-Trichlorophenol	9.408	196	78848	19.59	µg/mL	99
44) Biphenyl	9.678	154	311277	19.81	µg/mL	99
45) 2-Chloronaphthalene	9.737	162	239310	19.87	µg/mL	98
46) 2-Nitroaniline	9.876	65	49401	15.77	µg/mL#	74

Manual Int. "II" (TDD)

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101351.D
Acq On : 4 Jul 2011 9:33 am
Operator : tdd/lah
Sample : SSTD020 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 04 17:58:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:56:37 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.095	168	22619	13.72 µg/mL	96
48) Dimethylphthalate	10.174	163	263394	19.89 µg/mL	100
49) 1,3-Dinitrobenzene	10.242	168	30385	14.68 µg/mL	88
50) 2,6-Dinitrotoluene	10.293	165	51505	17.30 µg/mL	90
51) 1,2-Dinitrobenzene	10.401	168	23015	16.37 µg/mL#	61
52) Acenaphthylene	10.498	152	366537	19.30 µg/mL	98
53) 3-Nitroaniline	10.617	138	46730	16.28 µg/mL#	87
54) Acenaphthene (CCC)	10.818	154	212658	18.62 µg/mL	97
55) 2,4-Dinitrophenol (SPCC)	10.810	184	10247	8.85 µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.881	139	28910	16.64 µg/mL	92
57) 2,4-Dinitrotoluene	11.060	165	56975	15.75 µg/mL	98
58) Dibenzofuran	11.139	168	310725	18.95 µg/mL	98
59) 2,3,5,6-Tetrachlorophenol	11.275	232	46046	16.87 µg/mL	98
60) 2,3,4,6-Tetrachlorophenol	11.361	232	48104	16.34 µg/mL#	89
61) Diethlyphthalate	11.511	149	265233	20.42 µg/mL	98
63) 4-Chlorophenyl-phenyle...	11.772	204	127076	19.13 µg/mL	91
64) Fluorene	11.801	166	263294	19.46 µg/mL	99
65) 4-Nitroaniline	11.786	138	46467	17.49 µg/mL#	83
66) 4,6-Dinitro2-methylphenol	11.857	198	16862	10.07 µg/mL	92
67) N-Nitrosodiphenylamine...	11.993	169	216302	19.35 µg/mL	98
68) Azobenzene	12.084	77	278887	20.54 µg/mL	92
71) 4-Bromophenyl-phenylether	12.743	248	75176	19.29 µg/mL	97
72) Hexachlorobenzene	12.910	284	76405	18.95 µg/mL	96
73) Pentachlorophenol (CCC)	13.276	266	28015	13.35 µg/mL	97
74) Phenanthrene	13.716	178	367749	19.20 µg/mL	100
75) Anthracene	13.816	178	367981	19.63 µg/mL	100
76) Carbazole	14.119	167	307400	19.08 µg/mL	99
77) Di-n-butylphthalate	14.801	149	449636	22.33 µg/mL	99
78) Fluoranthene (CCC)	16.140	202	400618	21.21 µg/mL	96
79) Benzidine	16.379	184	166239	18.44 µg/mL	98
81) Pyrene	16.614	202	403271	20.45 µg/mL	99
84) 4-Dimethylaminoazobenzene	17.185	120	104463	21.45 µg/mL	94
85) Butylbenzylphthalate	17.880	149	183774	21.49 µg/mL	92
86) 3,3-Dimethylbenzidine	17.869	212	191161	19.57 µg/mL	97
87) bis(2-Ethylhexyl)adipate	18.028	129	143081	21.87 µg/mL	94
88) 3,3-Dimethoxybenzidine	18.924	244	64157	18.36 µg/mL#	89
89) bis(2-Ethylhexyl)phtha...	19.047	149	251587	22.41 µg/mL	97
90) 3,3'-Dichlorobenzidine	18.978	252	97107	18.54 µg/mL#	98
91) Benzo(a)anthracene	19.058	228	310456	19.95 µg/mL	100
92) Chrysene	19.129	228	283369	19.85 µg/mL	99
93) Di-n-octylphthalate (CCC)	20.298	149	332240	22.96 µg/mL	96
95) 7,12-Dimethylbenz(a)an...	21.104	256	109462	19.19 µg/mL	98
96) Benzo(b)fluoranthene	21.121	252	236461	19.34 µg/mL	95
97) Benzo(k)fluoranthene	21.172	252	219181	19.26 µg/mL	99
98) Benzo(e)pyrene	21.624	252	188535	19.29 µg/mL	98
99) Benzo(a)pyrene (CCC)	21.720	252	187168	19.36 µg/mL	98
100) Perylene	21.876	252	195429	18.71 µg/mL	99
101) 3-Methylcholanthrene	22.367	268	97396	20.70 µg/mL	97
102) Indeno(1,2,3-cd)pyrene	24.067	276	173961	20.38 µg/mL#	80
103) Dibenz(a,h)anthracene	24.076	278	144568	20.18 µg/mL	98
104) Benzo(g,h,i)perylene	24.723	276	139139	20.18 µg/mL	97
105) Dibenzo(a,e)pyrene	29.520	302	92908m	20.46 µg/mL	

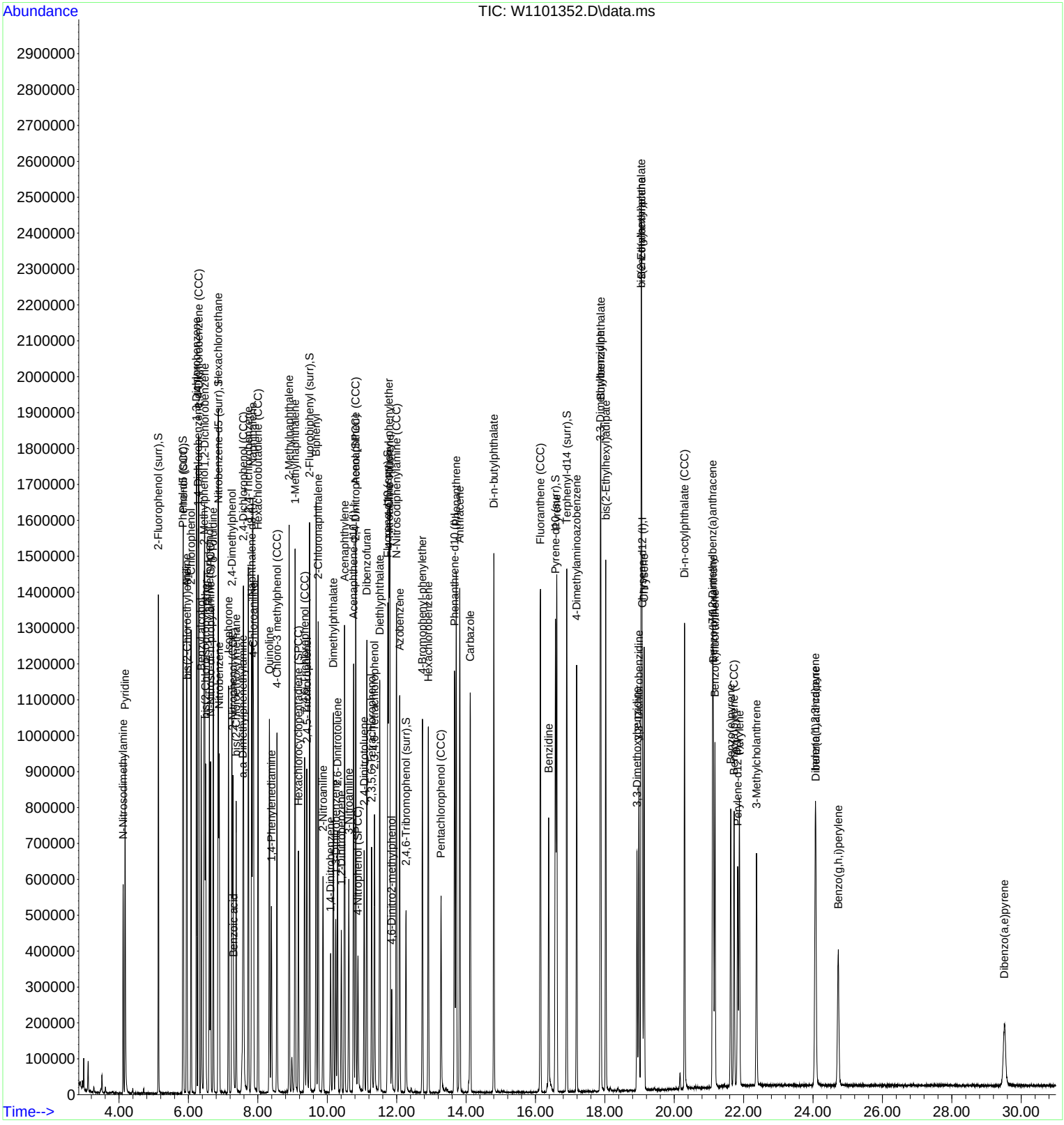
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101352.D
Acq On : 4 Jul 2011 10:10 am
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 04 17:49:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Sat Jul 02 15:58:20 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101352.D
Acq On : 4 Jul 2011 10:10 am
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 04 17:49:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Sat Jul 02 15:58:20 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.277	152	254004	40.00	µg/mL	0.00	
22) Naphthalene-d8 (I)	7.821	136	730312	40.00	µg/mL	0.00	
40) Acenaphthene-d10 (I)	10.759	164	429952	40.00	µg/mL	0.00	
69) Phenanthrene-d10 (I)	13.668	188	739886	40.00	µg/mL	0.00	
83) Chrysene-d12 (I)	19.078	240	625876	40.00	µg/mL	0.00	
94) Perylene-d12 (I)	21.831	264	413311	40.00	µg/mL	0.00	
System Monitoring Compounds							
4) 2-Fluorophenol (surr)	5.134	112	360965	52.13	µg/mL	0.01	
5) Phenol-d5 (surr)	5.840	99	381796	44.21	µg/mL	-0.07	
20) Nitrobenzene-d5 (surr)	6.865	82	382385	47.46	µg/mL	-0.02	
43) 2-Fluorobiphenyl (surr)	9.490	172	697457	49.90	µg/mL	0.07	
62) Fluorene-d10 (surr)	11.744	176	545582m	50.64	µg/mL	-0.13	
70) 2,4,6-Tribromophenol (...	12.269	330	71766m	45.12	µg/mL	0.11	
80) Pyrene-d10 (surr)	16.574	212	915999m	51.57	µg/mL	-0.34	
82) Terphenyl-d14 (surr)	16.904	244	653986m	54.65	µg/mL	-0.46	
Target Compounds						Qvalue	
2) N-Nitrosodimethylamine	4.117	74	207675m	42.97	µg/mL		
3) Pyridine	4.174	79	379972m	46.31	µg/mL		
6) Phenol (CCC)	5.852	94	399331m	45.02	µg/mL		
7) Aniline	5.945	66	188239	42.42	µg/mL#	23	
8) bis(2-Chloroethyl)ether	5.959	63	243034	47.61	µg/mL#	1	
9) 2-Chlorophenol	6.076	128	353003	47.82	µg/mL	96	
10) 1,3-Dichlorobenzene	6.232	146	441382	50.32	µg/mL	98	
11) 1,4-Dichlorobenzene (CCC)	6.297	146	439208	49.40	µg/mL	99	
12) Benzyl alcohol	6.365	108	186851	43.08	µg/mL#	83	
13) 1,2-Dichlorobenzene	6.468	146	403370	48.22	µg/mL	99	
14) 2-Methylphenol	6.448	107	264015	47.28	µg/mL	94	
15) bis(2-Chloroisopropyl)...	6.493	45	324459	38.14	µg/mL#	59	
16) 3/4-Methylphenol	6.601	107	322774	46.43	µg/mL	96	
17) N-Nitroso-di-n-propyla...	6.638	70	228653	42.77	µg/mL#	83	
18) o-Toluidine	6.714	106	485383	42.92	µg/mL	98	
19) Hexachloroethane	6.856	117	174064	49.80	µg/mL	84	
21) Nitrobenzene	6.888	77	347788	43.18	µg/mL	96	
23) Isophorone	7.152	82	551953	45.73	µg/mL#	96	
24) 2,4-Dimethylphenol	7.251	107	336240	52.59	µg/mL	93	
25) 2-Nitrophenol (CCC)	7.279	139	153730	45.28	µg/mL#	79	
26) Benzoic acid	7.299	105	112804m	72.94	µg/mL		Manual Int. "II" (TDD)
27) bis(2-Chloroethoxy)met...	7.376	93	321336	44.62	µg/mL#	1	
28) 2,4-Dichlorophenol (CCC)	7.583	162	272384	50.64	µg/mL	98	
29) a,a-Dimethylphenethyla...	7.569	58	579145m	44.76	µg/mL		Manual Int. "II" (TDD)
30) 1,2,4-Trichlorobenzene	7.725	180	340264	49.22	µg/mL	96	
31) Naphthalene	7.853	128	936240	52.51	µg/mL#	47	
32) 4-Chloroaniline	7.872	65	122655	49.51	µg/mL#	35	
33) Hexachlorobutadiene (CCC)	8.006	225	219136	51.11	µg/mL	99	
34) Quinoline	8.332	129	524406	45.05	µg/mL	100	
35) 1,4-Phenylenediamine	8.389	108	264095m	38.55	µg/mL		Manual Int. "II" (TDD)
36) 4-Chloro-3 methylpheno...	8.551	107	261923m	50.96	µg/mL		
37) 2-Methylnaphthalene	8.903	142	618704	49.83	µg/mL	97	
38) 1-Methylnaphthalene	9.073	142	590651	49.80	µg/mL#	100	
39) Hexachlorocyclopentadi...	9.170	237	140223	43.02	µg/mL	100	
41) 2,4,6-Trichlorophenol ...	9.345	196	186681	49.66	µg/mL	99	
42) 2,4,5-Trichlorophenol	9.414	196	199986m	48.97	µg/mL		Manual Int. "II" (TDD)
44) Biphenyl	9.678	154	754153	51.01	µg/mL	99	
45) 2-Chloronaphthalene	9.740	162	580137	50.73	µg/mL	98	
46) 2-Nitroaniline	9.879	65	142721	43.09	µg/mL#	75	

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101352.D
Acq On : 4 Jul 2011 10:10 am
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 04 17:49:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Sat Jul 02 15:58:20 2011
Response via : Initial Calibration

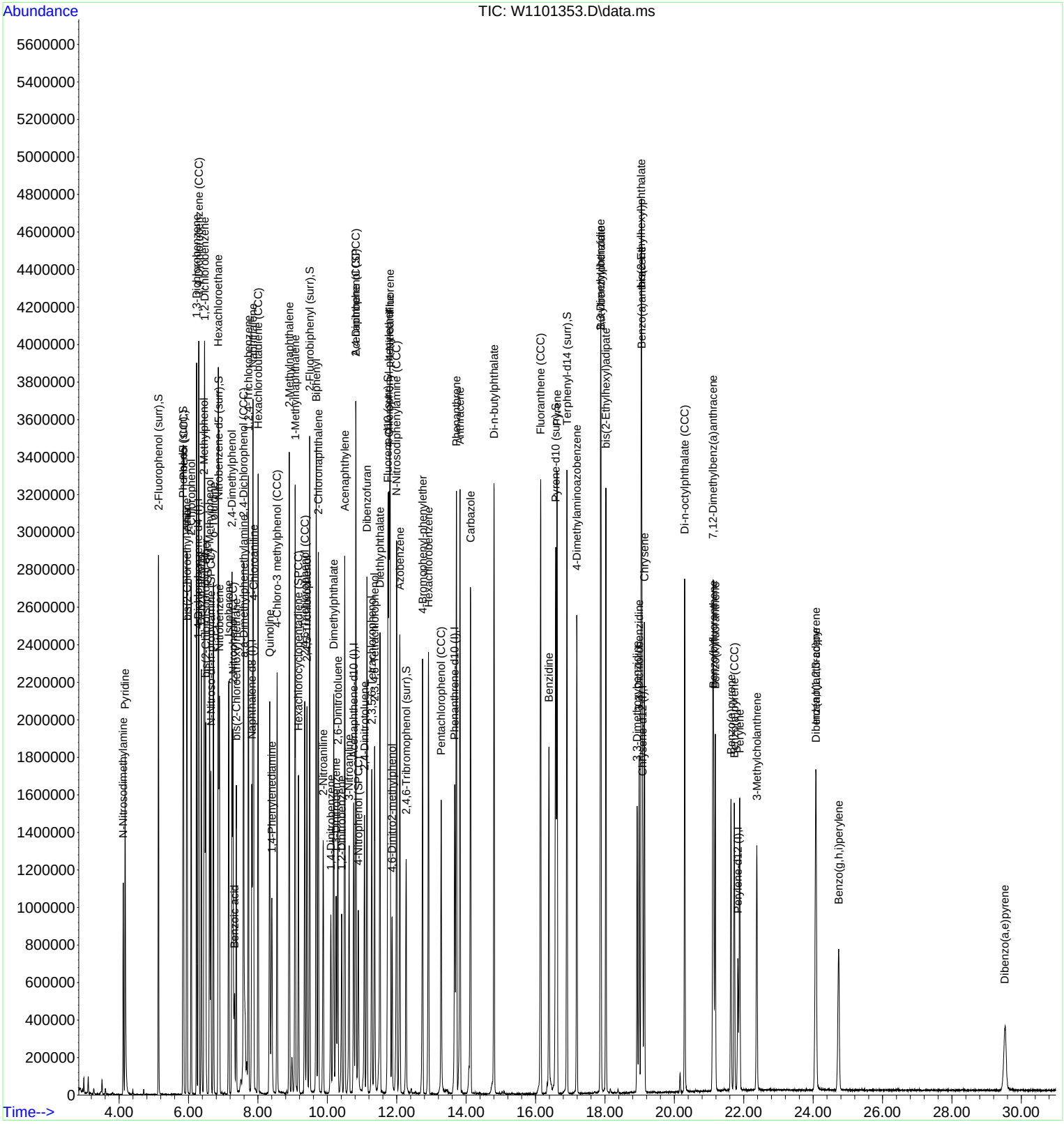
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
47) 1,4-Dinitrobenzene	10.095	168	71109	39.48	µg/mL	96	
48) Dimethylphthalate	10.177	163	639334	50.13	µg/mL	99	
49) 1,3-Dinitrobenzene	10.245	168	93233	43.15	µg/mL	91	
50) 2,6-Dinitrotoluene	10.296	165	138272	46.85	µg/mL	88	
51) 1,2-Dinitrobenzene	10.404	168	64443	45.38	µg/mL#	60	
52) Acenaphthylene	10.501	152	898907	49.13	µg/mL	97	
53) 3-Nitroaniline	10.620	138	134926	45.51	µg/mL#	92	
54) Acenaphthene (CCC)	10.821	154	534472	50.05	µg/mL	98	
55) 2,4-Dinitrophenol (SPCC)	10.816	184	36942	24.21	µg/mL#	1	
56) 4-Nitrophenol (SPCC)	10.887	139	89239m	47.31	µg/mL		Manual Int. "II" (TDD)
57) 2,4-Dinitrotoluene	11.063	165	171102m	46.44	µg/mL		
58) Dibenzofuran	11.142	168	770316	47.68	µg/mL	97	
59) 2,3,5,6-Tetrachlorophenol	11.278	232	132127m	46.16	µg/mL		
60) 2,3,4,6-Tetrachlorophenol	11.361	232	145921m	48.15	µg/mL		
61) Diethlyphthalate	11.511	149	657550m	54.44	µg/mL		
63) 4-Chlorophenyl-phenyle...	11.775	204	316992m	45.86	µg/mL		Manual Int. "II" (TDD)
64) Fluorene	11.803	166	644638m	48.50	µg/mL		
65) 4-Nitroaniline	11.789	138	134914m	53.98	µg/mL		
66) 4,6-Dinitro2-methylphenol	11.857	198	64457m	32.61	µg/mL		
67) N-Nitrosodiphenylamine...	11.994	169	542184m	50.19	µg/mL		
68) Azobenzene	12.087	77	663833m	50.15	µg/mL		
71) 4-Bromophenyl-phenylether	12.743	248	186989	47.55	µg/mL	97	
72) Hexachlorobenzene	12.913	284	191897	46.83	µg/mL	95	
73) Pentachlorophenol (CCC)	13.276	266	90585	42.83	µg/mL	97	
74) Phenanthrene	13.716	178	914959	48.68	µg/mL	100	
75) Anthracene	13.819	178	921827	50.47	µg/mL	100	
76) Carbazole	14.117	167	772432m	47.06	µg/mL		
77) Di-n-butylphthalate	14.801	149	1137343m	62.94	µg/mL		Manual Int. "II" (TDD)
78) Fluoranthene (CCC)	16.143	202	1008956m	54.26	µg/mL		
79) Benzidine	16.381	184	482472m	52.78	µg/mL		
81) Pyrene	16.614	202	1025503m	52.21	µg/mL		
84) 4-Dimethylaminoazobenzene	17.188	120	283434	61.11	µg/mL	94	
85) Butylbenzylphthalate	17.883	149	491735	61.20	µg/mL	93	
86) 3,3-Dimethylbenzidine	17.872	212	579656	57.30	µg/mL	98	
87) bis(2-Ethylhexyl)adipate	18.028	129	377039	63.82	µg/mL	91	
88) 3,3-Dimethoxybenzidine	18.925	244	206962m	51.74	µg/mL		Manual Int. "II" (TDD)
89) bis(2-Ethylhexyl)phtha...	19.049	149	678147m	68.89	µg/mL		
90) 3,3'-Dichlorobenzidine	18.981	252	282483	45.97	µg/mL#	97	
91) Benzo(a)anthracene	19.058	228	833365	47.63	µg/mL	100	
92) Chrysene	19.132	228	754249	50.22	µg/mL	99	
93) Di-n-octylphthalate (CCC)	20.295	149	982211m	79.59	µg/mL		Manual Int. "II" (TDD)
95) 7,12-Dimethylbenz(a)an...	21.104	256	314083	45.09	µg/mL	98	
96) Benzo(b)fluoranthene	21.124	252	680659	46.51	µg/mL	95	
97) Benzo(k)fluoranthene	21.172	252	603405	46.12	µg/mL	99	
98) Benzo(e)pyrene	21.629	252	544093	49.43	µg/mL	99	
99) Benzo(a)pyrene (CCC)	21.723	252	555979	51.32	µg/mL	100	
100) Perylene	21.879	252	562316	47.80	µg/mL	98	
101) 3-Methylcholanthrene	22.370	268	286548	56.05	µg/mL	97	
102) Indeno(1,2,3-cd)pyrene	24.065	276	520203m	58.62	µg/mL		
103) Dibenz(a,h)anthracene	24.079	278	436865m	59.02	µg/mL		
104) Benzo(g,h,i)perylene	24.726	276	418519m	60.72	µg/mL		Manual Int. "II" (TDD)
105) Dibenzo(a,e)pyrene	29.511	302	293370m	86.07	µg/mL		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101353.D
Acq On : 4 Jul 2011 10:47 am
Operator : tdd/lah
Sample : SSTD080 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 04 17:51:57 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:49:41 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101353.D
Acq On : 4 Jul 2011 10:47 am
Operator : tdd/lah
Sample : SSTD080 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 04 17:51:57 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:49:41 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.280	152	334380	40.00	µg/mL	# 0.00	
22) Naphthalene-d8 (I)	7.824	136	993145	40.00	µg/mL	0.00	
40) Acenaphthene-d10 (I)	10.762	164	588957	40.00	µg/mL	0.00	
69) Phenanthrene-d10 (I)	13.671	188	1056471	40.00	µg/mL	0.00	
83) Chrysene-d12 (I)	19.086	240	770007	40.00	µg/mL	0.00	
94) Perylene-d12 (I)	21.831	264	485960	40.00	µg/mL	0.00	
System Monitoring Compounds							
4) 2-Fluorophenol (surr)	5.136	112	788619	86.66	µg/mL	0.00	
5) Phenol-d5 (surr)	5.843	99	844607	76.01	µg/mL	0.00	
20) Nitrobenzene-d5 (surr)	6.868	82	887931	84.63	µg/mL	0.00	
43) 2-Fluorobiphenyl (surr)	9.493	172	1627631	85.00	µg/mL	0.00	
62) Fluorene-d10 (surr)	11.747	176	1326496	89.52	µg/mL	0.00	
70) 2,4,6-Tribromophenol (...	12.272	330	191386	85.45	µg/mL	0.00	
80) Pyrene-d10 (surr)	16.583	212	2121917	83.08	µg/mL	0.00	
82) Terphenyl-d14 (surr)	16.906	244	1527091	88.14	µg/mL	0.00	
Target Compounds						Qvalue	
2) N-Nitrosodimethylamine	4.120	74	447893	72.09	µg/mL#	72	
3) Pyridine	4.174	79	806631	76.28	µg/mL#	87	
6) Phenol (CCC)	5.857	94	877651	76.64	µg/mL#	72	
7) Aniline	5.948	66	419254	73.42	µg/mL#	21	
8) bis(2-Chloroethyl)ether	5.962	63	538469	81.02	µg/mL#	1	
9) 2-Chlorophenol	6.079	128	786727	81.46	µg/mL	96	
10) 1,3-Dichlorobenzene	6.232	146	990292	85.56	µg/mL	98	
11) 1,4-Dichlorobenzene (CCC)	6.297	146	1005048	85.94	µg/mL	99	
12) Benzyl alcohol	6.371	108	421300	75.98	µg/mL#	84	
13) 1,2-Dichlorobenzene	6.467	146	911471	82.86	µg/mL	99	
14) 2-Methylphenol	6.450	107	576921	79.10	µg/mL	94	
15) bis(2-Chloroisopropyl)...	6.496	45	697909	64.47	µg/mL#	56	
16) 3/4-Methylphenol	6.606	107	706359	78.04	µg/mL	95	
17) N-Nitroso-di-n-propyla...	6.646	70	490530	71.40	µg/mL	85	
18) o-Toluidine	6.720	106	1079108	73.71	µg/mL	98	
19) Hexachloroethane	6.856	117	396807	86.40	µg/mL	86	
21) Nitrobenzene	6.890	77	790614	76.04	µg/mL	97	
23) Isophorone	7.160	82	1237185	76.22	µg/mL#	95	
24) 2,4-Dimethylphenol	7.254	107	761291	86.81	µg/mL	97	
25) 2-Nitrophenol (CCC)	7.282	139	377190	83.00	µg/mL#	78	
26) Benzoic acid	7.327	105	376137m	157.34	µg/mL		Manual Int. "II" (TDD)
27) bis(2-Chloroethoxy)met...	7.378	93	706619	73.39	µg/mL#	1	
28) 2,4-Dichlorophenol (CCC)	7.586	162	623667	85.37	µg/mL	98	
29) a,a-Dimethylphenethyla...	7.594	58	1320515m	76.74	µg/mL		Manual Int. "II" (TDD)
30) 1,2,4-Trichlorobenzene	7.728	180	794149	84.11	µg/mL	96	
31) Naphthalene	7.855	128	2143990	87.36	µg/mL#	48	
32) 4-Chloroaniline	7.875	65	280704	83.00	µg/mL#	35	
33) Hexachlorobutadiene (CCC)	8.006	225	518861	88.19	µg/mL	99	
34) Quinoline	8.341	129	1244818	79.67	µg/mL	99	
35) 1,4-Phenylenediamine	8.403	108	664909	74.45	µg/mL	97	
36) 4-Chloro-3 methylpheno...	8.554	107	611009	87.37	µg/mL	95	
37) 2-Methylnaphthalene	8.903	142	1431171	84.66	µg/mL	97	
38) 1-Methylnaphthalene	9.076	142	1355520	83.86	µg/mL#	100	
39) Hexachlorocyclopentadi...	9.169	237	383141	88.56	µg/mL	99	
41) 2,4,6-Trichlorophenol ...	9.351	196	456054	89.23	µg/mL	98	
42) 2,4,5-Trichlorophenol	9.414	196	477999	86.09	µg/mL	98	
44) Biphenyl	9.680	154	1734361	85.50	µg/mL	99	
45) 2-Chloronaphthalene	9.740	162	1349181	86.04	µg/mL	99	
46) 2-Nitroaniline	9.882	65	367178	83.41	µg/mL#	75	

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101353.D
Acq On : 4 Jul 2011 10:47 am
Operator : tdd/lah
Sample : SSTD080 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 04 17:51:57 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:49:41 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.103	168	201998	85.38 µg/mL	97
48) Dimethylphthalate	10.186	163	1532389	87.79 µg/mL	99
49) 1,3-Dinitrobenzene	10.251	168	244724	84.84 µg/mL	90
50) 2,6-Dinitrotoluene	10.305	165	348742	87.28 µg/mL	94
51) 1,2-Dinitrobenzene	10.413	168	164197	85.88 µg/mL#	65
52) Acenaphthylene	10.503	152	2127901	85.10 µg/mL	97
53) 3-Nitroaniline	10.628	138	342768	85.97 µg/mL	92
54) Acenaphthene (CCC)	10.821	154	1277805	87.35 µg/mL	97
55) 2,4-Dinitrophenol (SPCC)	10.821	184	146211	76.24 µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.895	139	230820	90.46 µg/mL	91
57) 2,4-Dinitrotoluene	11.071	165	451368	90.91 µg/mL	97
58) Dibenzofuran	11.142	168	1821486	82.81 µg/mL	97
59) 2,3,5,6-Tetrachlorophenol	11.281	232	356452	92.74 µg/mL	98
60) 2,3,4,6-Tetrachlorophenol	11.363	232	373680	90.89 µg/mL#	93
61) Diethlyphthalate	11.520	149	1572011	94.22 µg/mL	98
63) 4-Chlorophenyl-phenyle...	11.778	204	769011	81.81 µg/mL	90
64) Fluorene	11.809	166	1552200	85.37 µg/mL	100
65) 4-Nitroaniline	11.800	138	360328	104.87 µg/mL#	86
66) 4,6-Dinitro2-methylphenol	11.866	198	217348	85.44 µg/mL	98
67) N-Nitrosodiphenylamine...	11.996	169	1305538	88.06 µg/mL	99
68) Azobenzene	12.090	77	1516474	83.83 µg/mL	96
71) 4-Bromophenyl-phenylether	12.746	248	456602	81.65 µg/mL	99
72) Hexachlorobenzene	12.916	284	474797	81.26 µg/mL	93
73) Pentachlorophenol (CCC)	13.282	266	267544	89.55 µg/mL	97
74) Phenanthrene	13.722	178	2217503	82.65 µg/mL	100
75) Anthracene	13.824	178	2246045	86.00 µg/mL	100
76) Carbazole	14.125	167	1929866	83.27 µg/mL	99
77) Di-n-butylphthalate	14.803	149	2579079	97.53 µg/mL	99
78) Fluoranthene (CCC)	16.149	202	2375088	88.49 µg/mL	94
79) Benzidine	16.387	184	1178361	89.11 µg/mL#	98
81) Pyrene	16.620	202	2382875	84.14 µg/mL#	99
84) 4-Dimethylaminoazobenzene	17.190	120	643859	112.59 µg/mL	94
85) Butylbenzylphthalate	17.886	149	1036262	103.52 µg/mL	93
86) 3,3-Dimethylbenzidine	17.874	212	1280009	102.48 µg/mL	99
87) bis(2-Ethylhexyl)adipate	18.030	129	851212	116.15 µg/mL	90
88) 3,3-Dimethoxybenzidine	18.927	244	464544	93.92 µg/mL	94
89) bis(2-Ethylhexyl)phtha...	19.049	149	1456888	116.90 µg/mL	98
90) 3,3'-Dichlorobenzidine	18.987	252	591737	78.38 µg/mL#	98
91) Benzo(a)anthracene	19.061	228	1748723	81.85 µg/mL	99
92) Chrysene	19.140	228	1559794	84.08 µg/mL	99
93) Di-n-octylphthalate (CCC)	20.298	149	2014517	126.27 µg/mL	97
95) 7,12-Dimethylbenz(a)an...	21.113	256	645127	80.60 µg/mL	97
96) Benzo(b)fluoranthene	21.133	252	1360324	79.96 µg/mL	95
97) Benzo(k)fluoranthene	21.181	252	1206676	79.22 µg/mL	99
98) Benzo(e)pyrene	21.635	252	1093965	84.81 µg/mL	99
99) Benzo(a)pyrene (CCC)	21.729	252	1134764	89.22 µg/mL	100
100) Perylene	21.882	252	1135157	82.30 µg/mL	98
101) 3-Methylcholanthrene	22.379	268	595171	97.97 µg/mL	98
102) Indeno(1,2,3-cd)pyrene	24.079	276	1102069	102.72 µg/mL	99
103) Dibenz(a,h)anthracene	24.084	278	927257	103.58 µg/mL	100
104) Benzo(g,h,i)perylene	24.737	276	869322	103.03 µg/mL	98
105) Dibenzo(a,e)pyrene	29.520	302	606590m	133.11 µg/mL	

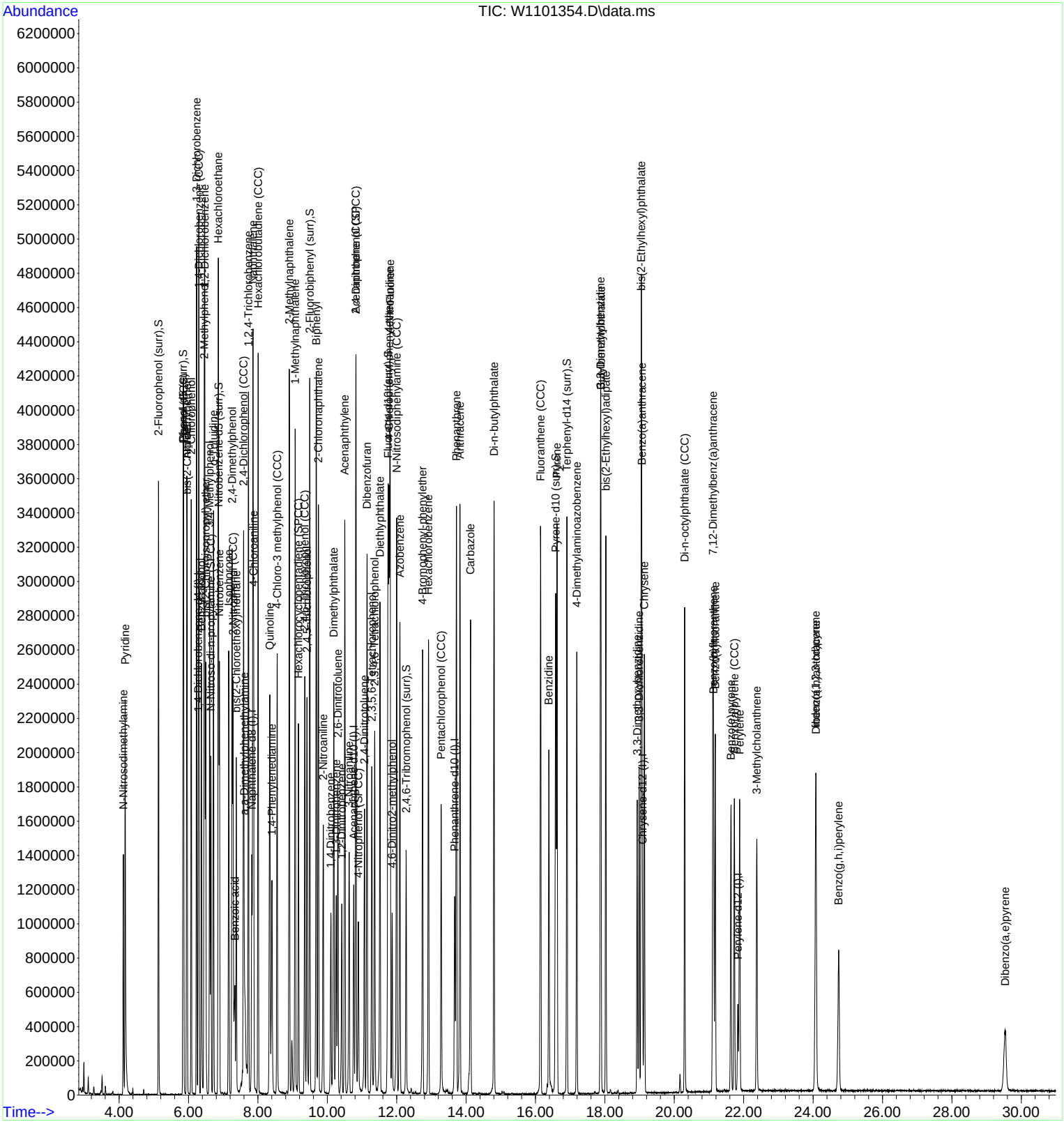
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101354.D
Acq On : 4 Jul 2011 11:25 am
Operator : tdd/lah
Sample : SSTD120 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 04 17:53:53 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:52:43 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101354.D
Acq On : 4 Jul 2011 11:25 am
Operator : tdd/lah
Sample : SSTD120 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 04 17:53:53 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:52:43 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.280	152	303475	40.00	µg/mL	# 0.00
22) Naphthalene-d8 (I)	7.824	136	831493	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.762	164	461413	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.671	188	732284	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.083	240	524234	40.00	µg/mL	0.00
94) Perylene-d12 (I)	21.831	264	345627	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.136	112	1017918	123.94	µg/mL	0.00
5) Phenol-d5 (surr)	5.846	99	1023760	102.99	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.870	82	1091231	114.32	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.496	172	1953932	129.79	µg/mL	0.00
62) Fluorene-d10 (surr)	11.749	176	1479564	125.79	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	12.274	330	216437	141.24	µg/mL	0.00
80) Pyrene-d10 (surr)	16.580	212	2124477	119.30	µg/mL	0.00
82) Terphenyl-d14 (surr)	16.906	244	1527518	125.30	µg/mL	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.123	74	569990	104.16	µg/mL#	71
3) Pyridine	4.177	79	1069642	114.23	µg/mL#	89
6) Phenol (CCC)	5.860	94	1060354	103.07	µg/mL#	73
7) Aniline	5.951	66	523601	103.05	µg/mL#	18
8) bis(2-Chloroethyl)ether	5.962	63	680166	112.95	µg/mL#	1
9) 2-Chlorophenol	6.079	128	990957	113.39	µg/mL	95
10) 1,3-Dichlorobenzene	6.235	146	1297062	122.11	µg/mL	99
11) 1,4-Dichlorobenzene (CCC)	6.300	146	1302540	121.27	µg/mL	99
12) Benzyl alcohol	6.374	108	493729	100.41	µg/mL#	86
13) 1,2-Dichlorobenzene	6.467	146	1192431	118.75	µg/mL	99
14) 2-Methylphenol	6.453	107	693470	105.57	µg/mL	93
15) bis(2-Chloroisopropyl)...	6.496	45	859821	89.77	µg/mL#	54
16) 3/4-Methylphenol	6.609	107	822529	100.41	µg/mL	96
17) N-Nitroso-di-n-propyla...	6.646	70	565863	92.46	µg/mL	85
18) o-Toluidine	6.720	106	1307452	99.37	µg/mL	99
19) Hexachloroethane	6.856	117	519682	123.47	µg/mL	86
21) Nitrobenzene	6.893	77	955037	102.45	µg/mL	98
23) Isophorone	7.160	82	1443463	107.47	µg/mL#	95
24) 2,4-Dimethylphenol	7.256	107	882420	119.06	µg/mL	97
25) 2-Nitrophenol (CCC)	7.282	139	466258	123.69	µg/mL#	81
26) Benzoic acid	7.339	105	471432m	193.76	µg/mL	Manual Int. "II" (TDD)
27) bis(2-Chloroethoxy)met...	7.378	93	832156	104.81	µg/mL#	1
28) 2,4-Dichlorophenol (CCC)	7.588	162	729111	119.72	µg/mL	97
29) a,a-Dimethylphenethyla...	7.603	58	1485804m	105.24	µg/mL	Manual Int. "II" (TDD)
30) 1,2,4-Trichlorobenzene	7.728	180	1001819	126.54	µg/mL	98
31) Naphthalene	7.858	128	2590001	124.08	µg/mL#	47
32) 4-Chloroaniline	7.878	65	320084	112.64	µg/mL#	29
33) Hexachlorobutadiene (CCC)	8.006	225	665648	135.31	µg/mL	98
34) Quinoline	8.343	129	1435756	110.18	µg/mL	99
35) 1,4-Phenylenediamine	8.406	108	770662	106.22	µg/mL	98
36) 4-Chloro-3 methylpheno...	8.556	107	708696	120.28	µg/mL	95
37) 2-Methylnaphthalene	8.905	142	1686277	117.95	µg/mL	97
38) 1-Methylnaphthalene	9.076	142	1613868	118.10	µg/mL#	100
39) Hexachlorocyclopentadi...	9.169	237	478444	135.68	µg/mL	100
41) 2,4,6-Trichlorophenol ...	9.351	196	530584	132.64	µg/mL	99
42) 2,4,5-Trichlorophenol	9.416	196	547601	126.66	µg/mL	97
44) Biphenyl	9.680	154	2070828	129.24	µg/mL	99
45) 2-Chloronaphthalene	9.746	162	1585879	128.19	µg/mL	98
46) 2-Nitroaniline	9.885	65	408573	120.14	µg/mL#	75

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101354.D
Acq On : 4 Jul 2011 11:25 am
Operator : tdd/lah
Sample : SSTD120 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 04 17:53:53 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:52:43 2011
Response via : Initial Calibration

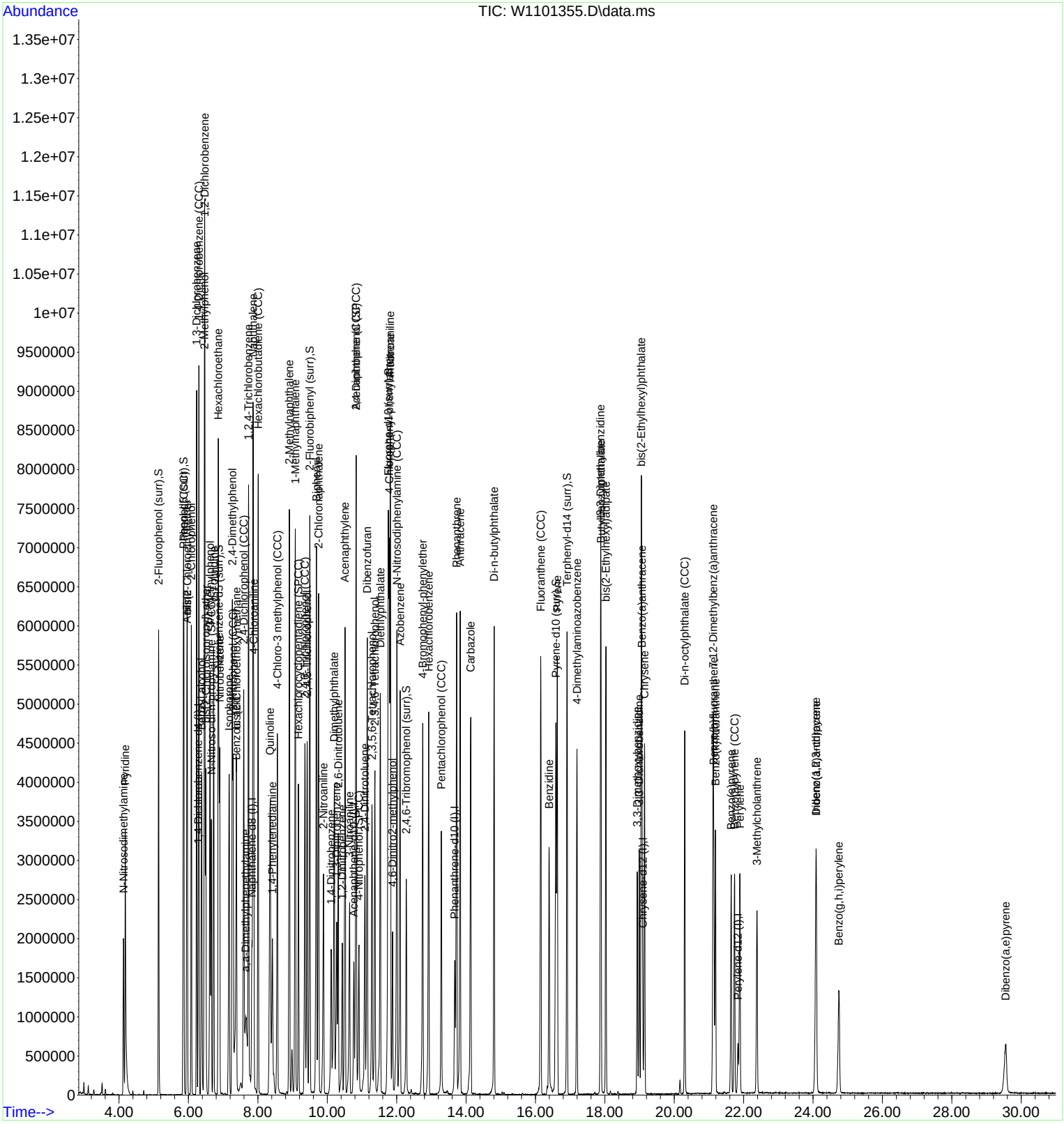
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.103	168	226910	124.54 µg/mL	97
48) Dimethylphthalate	10.188	163	1709278	123.77 µg/mL	99
49) 1,3-Dinitrobenzene	10.259	168	269513	120.16 µg/mL	90
50) 2,6-Dinitrotoluene	10.308	165	384355	122.13 µg/mL	94
51) 1,2-Dinitrobenzene	10.418	168	179164	119.51 µg/mL#	67
52) Acenaphthylene	10.503	152	2416154	122.48 µg/mL	97
53) 3-Nitroaniline	10.631	138	371653	119.32 µg/mL	95
54) Acenaphthene (CCC)	10.824	154	1493956	128.64 µg/mL	97
55) 2,4-Dinitrophenol (SPCC)	10.824	184	167192	116.57 µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.898	139	237169	119.49 µg/mL	91
57) 2,4-Dinitrotoluene	11.074	165	480612	122.90 µg/mL	97
58) Dibenzofuran	11.145	168	2078785	120.22 µg/mL	97
59) 2,3,5,6-Tetrachlorophenol	11.284	232	395024	131.94 µg/mL	98
60) 2,3,4,6-Tetrachlorophenol	11.366	232	416417	129.36 µg/mL#	93
61) Diethlyphthalate	11.519	149	1707646	127.88 µg/mL	97
63) 4-Chlorophenyl-phenyle...	11.778	204	871754	119.45 µg/mL	90
64) Fluorene	11.812	166	1726219	120.37 µg/mL	99
65) 4-Nitroaniline	11.803	138	384155	138.84 µg/mL	87
66) 4,6-Dinitro2-methylphenol	11.869	198	236735	121.67 µg/mL	99
67) N-Nitrosodiphenylamine...	11.999	169	1428502	121.74 µg/mL	99
68) Azobenzene	12.093	77	1665170	116.89 µg/mL	97
71) 4-Bromophenyl-phenylether	12.746	248	505663	131.90 µg/mL	99
72) Hexachlorobenzene	12.916	284	518387	129.16 µg/mL	93
73) Pentachlorophenol (CCC)	13.282	266	280970	134.58 µg/mL	98
74) Phenanthrene	13.722	178	2302796	123.63 µg/mL	100
75) Anthracene	13.824	178	2351366	129.39 µg/mL	99
76) Carbazole	14.128	167	1954677	122.22 µg/mL	99
77) Di-n-butylphthalate	14.806	149	2704423	143.95 µg/mL	99
78) Fluoranthene (CCC)	16.146	202	2363324	125.50 µg/mL	95
79) Benzidine	16.384	184	1229002	132.91 µg/mL	98
81) Pyrene	16.620	202	2348706	118.36 µg/mL	99
84) 4-Dimethylaminoazobenzene	17.190	120	634676	158.13 µg/mL	95
85) Butylbenzylphthalate	17.886	149	1031515	146.64 µg/mL	95
86) 3,3-Dimethylbenzidine	17.874	212	1318009	153.26 µg/mL	99
87) bis(2-Ethylhexyl)adipate	18.028	129	830326	158.61 µg/mL	90
88) 3,3-Dimethoxybenzidine	18.930	244	497197	149.01 µg/mL	94
89) bis(2-Ethylhexyl)phtha...	19.046	149	1429857	159.10 µg/mL	98
90) 3,3'-Dichlorobenzidine	18.987	252	620246	122.95 µg/mL#	96
91) Benzo(a)anthracene	19.064	228	1764727	122.64 µg/mL	99
92) Chrysene	19.137	228	1596010	126.45 µg/mL	99
93) Di-n-octylphthalate (CCC)	20.298	149	1991428	172.29 µg/mL	98
95) 7,12-Dimethylbenz(a)an...	21.116	256	669619	119.49 µg/mL	98
96) Benzo(b)fluoranthene	21.133	252	1429412	120.29 µg/mL	95
97) Benzo(k)fluoranthene	21.181	252	1305581	121.55 µg/mL	98
98) Benzo(e)pyrene	21.635	252	1142816	124.65 µg/mL	99
99) Benzo(a)pyrene (CCC)	21.731	252	1193150	131.72 µg/mL	99
100) Perylene	21.885	252	1196179	122.19 µg/mL	98
101) 3-Methylcholanthrene	22.379	268	629977	144.39 µg/mL	97
102) Indeno(1,2,3-cd)pyrene	24.079	276	1158700	147.94 µg/mL	98
103) Dibenz(a,h)anthracene	24.084	278	978614	149.20 µg/mL	99
104) Benzo(g,h,i)perylene	24.737	276	919768	147.46 µg/mL	99
105) Dibenzo(a,e)pyrene	29.534	302	610906	166.76 µg/mL#	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101355.D
Acq On : 4 Jul 2011 12:02 pm
Operator : tdd/lah
Sample : SSTD160 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 04 17:55:21 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:54:34 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101355.D
Acq On : 4 Jul 2011 12:02 pm
Operator : tdd/lah
Sample : SSTD160 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 04 17:55:21 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:54:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.280	152	412515	40.00	µg/mL	# 0.00	
22) Naphthalene-d8 (I)	7.827	136	1205007	40.00	µg/mL	0.00	
40) Acenaphthene-d10 (I)	10.765	164	710312	40.00	µg/mL	0.00	
69) Phenanthrene-d10 (I)	13.671	188	1101420	40.00	µg/mL	0.00	
83) Chrysene-d12 (I)	19.089	240	697285	40.00	µg/mL	0.00	
94) Perylene-d12 (I)	21.831	264	445109	40.00	µg/mL	0.00	
System Monitoring Compounds							
4) 2-Fluorophenol (surr)	5.139	112	1811973	163.19	µg/mL	0.00	
5) Phenol-d5 (surr)	5.854	99	1872135	141.44	µg/mL	0.00	
20) Nitrobenzene-d5 (surr)	6.873	82	2063316	160.56	µg/mL	0.00	
43) 2-Fluorobiphenyl (surr)	9.496	172	3803351	161.85	µg/mL	0.00	
62) Fluorene-d10 (surr)	11.758	176	3081880	169.54	µg/mL	0.00	
70) 2,4,6-Tribromophenol (...	12.277	330	480652	210.09	µg/mL	0.00	
80) Pyrene-d10 (surr)	16.589	212	3683677	138.68	µg/mL	0.00	
82) Terphenyl-d14 (surr)	16.909	244	2753149	151.38	µg/mL	0.00	
Target Compounds						Qvalue	
2) N-Nitrosodimethylamine	4.129	74	1047504	145.44	µg/mL#	74	
3) Pyridine	4.180	79	1861188	149.64	µg/mL#	89	
6) Phenol (CCC)	5.866	94	1908162	139.28	µg/mL#	72	
7) Aniline	5.954	66	966059	143.49	µg/mL#	22	
8) bis(2-Chloroethyl)ether	5.968	63	1251917	153.16	µg/mL#	1	
9) 2-Chlorophenol	6.082	128	1831187	155.09	µg/mL	94	
10) 1,3-Dichlorobenzene	6.235	146	2361742	161.81	µg/mL	99	
11) 1,4-Dichlorobenzene (CCC)	6.300	146	2375241	160.91	µg/mL	99	
12) Benzyl alcohol	6.380	108	982522	152.85	µg/mL#	86	
13) 1,2-Dichlorobenzene	6.470	146	2217332	161.56	µg/mL	100	
14) 2-Methylphenol	6.459	107	1346644	153.17	µg/mL	95	
15) bis(2-Chloroisopropyl)...	6.499	45	1522240	119.65	µg/mL#	50	
16) 3/4-Methylphenol	6.621	107	1636229	149.72	µg/mL	96	
17) N-Nitroso-di-n-propyla...	6.661	70	1134655	141.66	µg/mL	85	
18) o-Toluidine	6.726	106	2470286	141.25	µg/mL	99	
19) Hexachloroethane	6.856	117	955817	165.61	µg/mL	87	
21) Nitrobenzene	6.899	77	1790760	144.48	µg/mL	99	
23) Isophorone	7.174	82	2894408	151.56	µg/mL#	94	
24) 2,4-Dimethylphenol	7.262	107	1778418	165.26	µg/mL	97	
25) 2-Nitrophenol (CCC)	7.285	139	944577	173.99	µg/mL#	64	
26) Benzoic acid	7.376	105	1134134m	291.01	µg/mL		Manual Int. "II" (TDD)
27) bis(2-Chloroethoxy)met...	7.384	93	1645203	145.18	µg/mL#	1	
28) 2,4-Dichlorophenol (CCC)	7.594	162	1504710	172.54	µg/mL	97	
29) a,a-Dimethylphenethyla...	7.651	58	3004067m	150.94	µg/mL		Manual Int. "II" (TDD)
30) 1,2,4-Trichlorobenzene	7.731	180	1947075	169.45	µg/mL	96	
31) Naphthalene	7.861	128	5036197	163.76	µg/mL#	43	
32) 4-Chloroaniline	7.881	65	653477	161.47	µg/mL#	25	
33) Hexachlorobutadiene (CCC)	8.009	225	1304038	182.47	µg/mL	98	
34) Quinoline	8.355	129	2953774	159.48	µg/mL	99	
35) 1,4-Phenylenediamine	8.417	108	1579691	157.80	µg/mL	98	
36) 4-Chloro-3 methylpheno...	8.562	107	1403522	165.59	µg/mL	95	
37) 2-Methylnaphthalene	8.908	142	3377629	162.55	µg/mL	97	
38) 1-Methylnaphthalene	9.079	142	3166384	159.27	µg/mL#	100	
39) Hexachlorocyclopentadi...	9.170	237	952548	192.86	µg/mL	99	
41) 2,4,6-Trichlorophenol ...	9.357	196	1107611	180.76	µg/mL	98	
42) 2,4,5-Trichlorophenol	9.419	196	1153702	175.57	µg/mL	97	
44) Biphenyl	9.689	154	4061461	161.81	µg/mL	98	
45) 2-Chloronaphthalene	9.749	162	3137345	162.49	µg/mL	98	
46) 2-Nitroaniline	9.890	65	853373	166.19	µg/mL#	76	

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101355.D
Acq On : 4 Jul 2011 12:02 pm
Operator : tdd/lah
Sample : SSTD160 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 04 17:55:21 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 17:54:34 2011
Response via : Initial Calibration

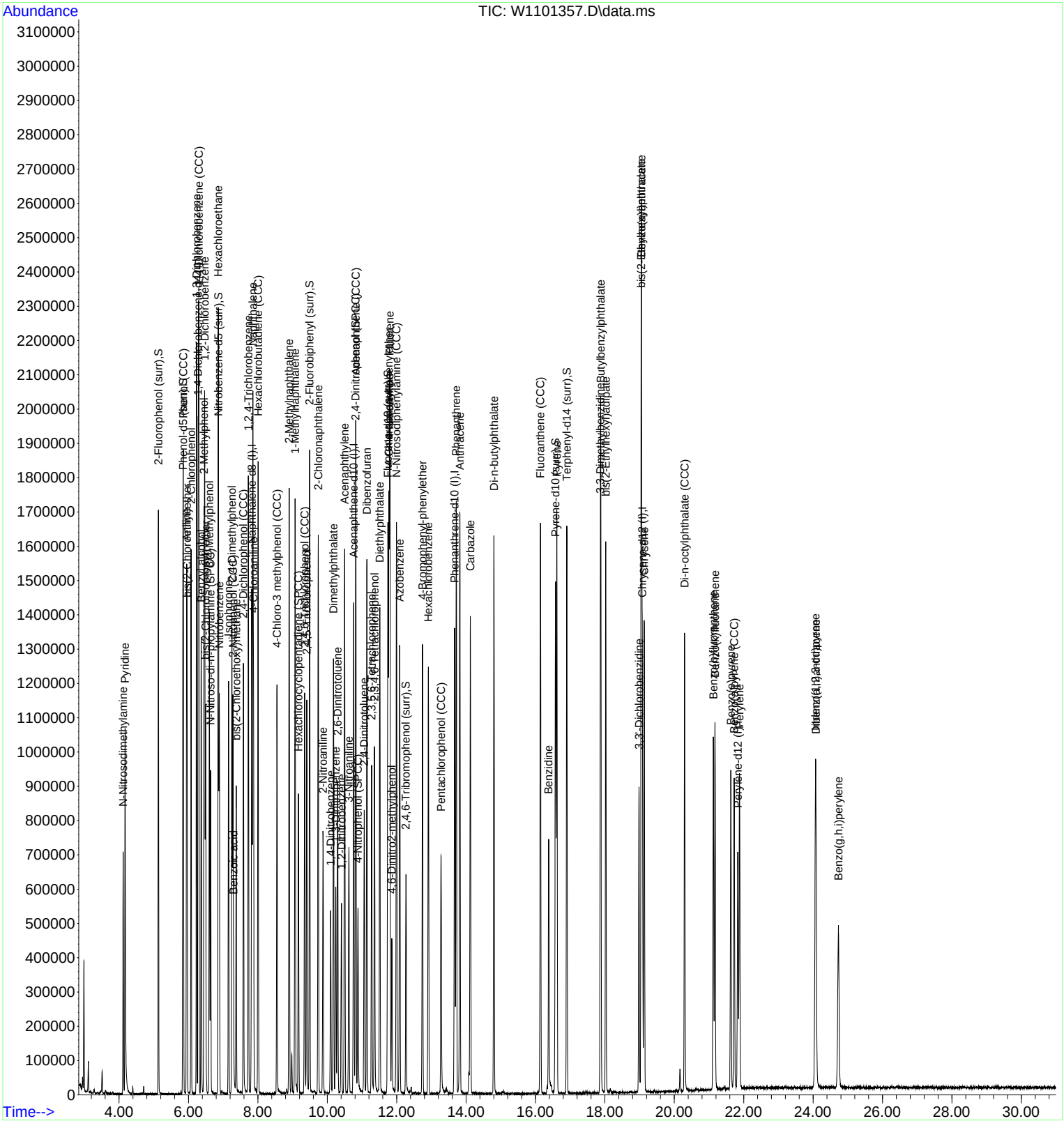
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.115	168	490737	180.28	µg/mL	98
48) Dimethylphthalate	10.203	163	3516329	164.78	µg/mL	98
49) 1,3-Dinitrobenzene	10.271	168	575428	169.80	µg/mL	80
50) 2,6-Dinitrotoluene	10.316	165	799688	165.51	µg/mL	93
51) 1,2-Dinitrobenzene	10.435	168	370000	161.49	µg/mL#	73
52) Acenaphthylene	10.512	152	4801468	156.97	µg/mL	96
53) 3-Nitroaniline	10.643	138	750080	159.06	µg/mL	94
54) Acenaphthene (CCC)	10.833	154	3081624	169.68	µg/mL	96
55) 2,4-Dinitrophenol (SPCC)	10.833	184	407384	200.75	µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.912	139	502943	171.67	µg/mL	93
57) 2,4-Dinitrotoluene	11.083	165	970724	163.11	µg/mL	95
58) Dibenzofuran	11.153	168	4207213	158.07	µg/mL	99
59) 2,3,5,6-Tetrachlorophenol	11.290	232	860571	191.28	µg/mL	98
60) 2,3,4,6-Tetrachlorophenol	11.372	232	888189	183.14	µg/mL#	93
61) Diethlyphthalate	11.531	149	3445371	165.50	µg/mL	97
63) 4-Chlorophenyl-phenyle...	11.784	204	1860574	169.59	µg/mL	90
64) Fluorene	11.818	166	3584832	162.99	µg/mL	100
65) 4-Nitroaniline	11.818	138	762871	178.01	µg/mL	86
66) 4,6-Dinitro2-methylphenol	11.880	198	529450	186.28	µg/mL	95
67) N-Nitrosodiphenylamine...	12.008	169	2921895	161.84	µg/mL	99
68) Azobenzene	12.099	77	3260620	148.34	µg/mL	99
71) 4-Bromophenyl-phenylether	12.751	248	1062342	184.81	µg/mL	99
72) Hexachlorobenzene	12.925	284	1080437	180.57	µg/mL	90
73) Pentachlorophenol (CCC)	13.285	266	610082	196.29	µg/mL	97
74) Phenanthrene	13.728	178	4461462	158.70	µg/mL	99
75) Anthracene	13.830	178	4444577	161.28	µg/mL	98
76) Carbazole	14.134	167	3602530	150.09	µg/mL	98
77) Di-n-butylphthalate	14.809	149	4944596	170.05	µg/mL	99
78) Fluoranthene (CCC)	16.152	202	4169174	147.64	µg/mL	94
79) Benzidine	16.396	184	2114871	153.91	µg/mL	99
81) Pyrene	16.628	202	4089837	137.98	µg/mL#	99
84) 4-Dimethylaminoazobenzene	17.196	120	1096401	196.69	µg/mL	95
85) Butylbenzylphthalate	17.889	149	1791393	183.52	µg/mL	96
86) 3,3-Dimethylbenzidine	17.877	212	2244527	193.94	µg/mL	99
87) bis(2-Ethylhexyl)adipate	18.031	129	1490227	202.89	µg/mL	89
88) 3,3-Dimethoxybenzidine	18.933	244	864976	200.09	µg/mL	94
89) bis(2-Ethylhexyl)phtha...	19.049	149	2478240	195.82	µg/mL	99
90) 3,3'-Dichlorobenzidine	18.990	252	1076864	165.38	µg/mL#	96
91) Benzo(a)anthracene	19.067	228	3036216	160.91	µg/mL	99
92) Chrysene	19.143	228	2748891	162.51	µg/mL	99
93) Di-n-octylphthalate (CCC)	20.301	149	3444095	210.94	µg/mL	98
95) 7,12-Dimethylbenz(a)an...	21.121	256	1171283	167.94	µg/mL	98
96) Benzo(b)fluoranthene	21.136	252	2530376	170.09	µg/mL	95
97) Benzo(k)fluoranthene	21.190	252	2210514	161.94	µg/mL	98
98) Benzo(e)pyrene	21.641	252	1983002	169.66	µg/mL	99
99) Benzo(a)pyrene (CCC)	21.737	252	2074334	179.50	µg/mL	99
100) Perylene	21.891	252	2076614	166.26	µg/mL	98
101) 3-Methylcholanthrene	22.384	268	1090241	194.46	µg/mL	98
102) Indeno(1,2,3-cd)pyrene	24.082	276	2031785	200.32	µg/mL	96
103) Dibenz(a,h)anthracene	24.093	278	1722439	203.10	µg/mL	99
104) Benzo(g,h,i)perylene	24.743	276	1580132	194.13	µg/mL	99
105) Dibenzo(a,e)pyrene	29.551	302	1081406	211.80	µg/mL#	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101357.D
Acq On : 4 Jul 2011 1:16 pm
Operator : tdd/lah
Sample : SSTD050-SS M8270 SCN
Misc : gcmsprep2pg30
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 04 19:08:03 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101357.D
Acq On : 4 Jul 2011 1:16 pm
Operator : tdd/lah
Sample : SSTD050-SS M8270 SCN
Misc : gcmsprep2pg30
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 04 19:08:03 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.277	152	316776	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.824	136	874287	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.762	164	505950	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.668	188	847722	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.078	240	674164	40.00	µg/mL	0.00
94) Perylene-d12 (I)	21.831	264	464374	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.133	112	436585	49.57	µg/mL	0.00
5) Phenol-d5 (surr)	5.840	99	456191	47.64	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.865	82	466842	49.90	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.490	172	827451	48.39	µg/mL	0.00
62) Fluorene-d10 (surr)	11.747	176	730906	55.45	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	12.266	330	91518	53.88	µg/mL	0.00
80) Pyrene-d10 (surr)	16.577	212	918542	45.68	µg/mL	0.00
82) Terphenyl-d14 (surr)	16.901	244	732876	50.89	µg/mL	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.117	74	250702	48.82	µg/mL#	71
3) Pyridine	4.171	79	447660	48.43	µg/mL#	87
6) Phenol (CCC)	5.852	94	480530	48.39	µg/mL#	73
7) Aniline	5.945	66	220964	46.16	µg/mL#	17
8) bis(2-Chloroethyl)ether	5.959	63	298304	47.38	µg/mL#	1
9) 2-Chlorophenol	6.076	128	437215	50.19	µg/mL	95
10) 1,3-Dichlorobenzene	6.232	146	563172	50.31	µg/mL	97
11) 1,4-Dichlorobenzene (CCC)	6.297	146	558539	49.30	µg/mL	99
12) Benzyl alcohol	6.368	108	225067	46.99	µg/mL	87
13) 1,2-Dichlorobenzene	6.467	146	511014	49.47	µg/mL	98
14) 2-Methylphenol	6.448	107	308727	46.84	µg/mL	93
15) bis(2-Chloroisopropyl)...	6.493	45	385539	46.34	µg/mL#	57
16) 3/4-Methylphenol	6.601	107	369589	46.14	µg/mL	96
17) N-Nitroso-di-n-propyla...	6.638	70	245670	43.43	µg/mL	85
18) o-Toluidine	0.000		0	N.D.		
19) Hexachloroethane	6.856	117	220437	49.32	µg/mL	86
21) Nitrobenzene	6.888	77	424331	49.73	µg/mL	99
23) Isophorone	7.154	82	605567	44.96	µg/mL#	96
24) 2,4-Dimethylphenol	7.251	107	375149	46.56	µg/mL	91
25) 2-Nitrophenol (CCC)	7.282	139	193960	54.61	µg/mL#	76
26) Benzoic acid	7.296	105	166214	47.09	µg/mL#	36
27) bis(2-Chloroethoxy)met...	7.376	93	366507	47.54	µg/mL#	1
28) 2,4-Dichlorophenol (CCC)	7.583	162	307678	47.91	µg/mL	98
29) a,a-Dimethylphenethyla...	0.000		0	N.D. d		
30) 1,2,4-Trichlorobenzene	7.725	180	424907	50.46	µg/mL	97
31) Naphthalene	7.855	128	1146359	50.32	µg/mL#	53
32) 4-Chloroaniline	7.872	65	138288	46.71	µg/mL#	32
33) Hexachlorobutadiene (CCC)	8.006	225	275641	50.64	µg/mL	98
34) Quinoline	0.000		0	N.D.		
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	8.548	107	303393	48.88	µg/mL	95
37) 2-Methylnaphthalene	8.900	142	715164	47.89	µg/mL	98
38) 1-Methylnaphthalene	9.073	142	689517	48.67	µg/mL#	100
39) Hexachlorocyclopentadi...	9.167	237	186713	53.04	µg/mL	99
41) 2,4,6-Trichlorophenol ...	9.348	196	233210	52.84	µg/mL	97
42) 2,4,5-Trichlorophenol	9.408	196	240834	51.63	µg/mL	97
44) Biphenyl	0.000		0	N.D.		
45) 2-Chloronaphthalene	9.740	162	691932	49.43	µg/mL	98
46) 2-Nitroaniline	9.879	65	184904	57.90	µg/mL#	74

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101357.D
Acq On : 4 Jul 2011 1:16 pm
Operator : tdd/lah
Sample : SSTD050-SS M8270 SCN
Misc : gcmsprep2pg30
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 04 19:08:03 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.098	168	99361	59.55 µg/mL	99
48) Dimethylphthalate	10.177	163	773859	50.31 µg/mL	99
49) 1,3-Dinitrobenzene	10.245	168	118944	57.15 µg/mL	90
50) 2,6-Dinitrotoluene	10.299	165	174274	55.32 µg/mL	89
51) 1,2-Dinitrobenzene	10.410	168	80768	55.69 µg/mL#	65
52) Acenaphthylene	10.501	152	1098701	51.00 µg/mL	97
53) 3-Nitroaniline	10.623	138	168374	55.88 µg/mL	94
54) Acenaphthene (CCC)	10.819	154	675255	51.91 µg/mL	97
55) 2,4-Dinitrophenol (SPCC)	10.816	184	64396	50.54 µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.884	139	115223	57.62 µg/mL	92
57) 2,4-Dinitrotoluene	11.065	165	220060	58.68 µg/mL	98
58) Dibenzofuran	11.142	168	959217	52.01 µg/mL	97
59) 2,3,5,6-Tetrachlorophenol	11.275	232	184263	60.01 µg/mL	99
60) 2,3,4,6-Tetrachlorophenol	11.361	232	187908	57.67 µg/mL#	93
61) Diethlyphthalate	11.514	149	796521	51.41 µg/mL	98
63) 4-Chlorophenyl-phenyle...	11.772	204	396624	51.36 µg/mL	90
64) Fluorene	11.803	166	787618	50.79 µg/mL	99
65) 4-Nitroaniline	11.792	138	170845	56.53 µg/mL#	85
66) 4,6-Dinitro2-methylphenol	11.860	198	96698	51.76 µg/mL	100
67) N-Nitrosodiphenylamine...	11.994	169	664987	51.89 µg/mL	99
68) Azobenzene	12.084	77	779608	49.41 µg/mL	95
71) 4-Bromophenyl-phenylether	12.743	248	235790	52.00 µg/mL	99
72) Hexachlorobenzene	12.913	284	238134	51.56 µg/mL	92
73) Pentachlorophenol (CCC)	13.279	266	117268	48.90 µg/mL	98
74) Phenanthrene	13.716	178	1111330	51.45 µg/mL	99
75) Anthracene	13.821	178	1111991	51.41 µg/mL	100
76) Carbazole	14.122	167	926049	51.69 µg/mL	98
77) Di-n-butylphthalate	14.803	149	1253187	49.29 µg/mL	99
78) Fluoranthene (CCC)	16.143	202	1104911	49.23 µg/mL	95
79) Benzidine	16.379	184	464355	44.33 µg/mL#	98
81) Pyrene	16.617	202	1161458	51.45 µg/mL	99
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.	
85) Butylbenzylphthalate	17.880	149	522795	49.46 µg/mL	95
86) 3,3-Dimethylbenzidine	17.869	212	547349	45.07 µg/mL	99
87) bis(2-Ethylhexyl)adipate	18.025	129	409435	48.70 µg/mL	90
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.	
89) bis(2-Ethylhexyl)phtha...	19.047	149	701650	47.93 µg/mL	98
90) 3,3'-Dichlorobenzidine	18.984	252	292924	49.14 µg/mL#	96
91) Benzo(a)anthracene	19.055	228	917385	50.00 µg/mL	99
92) Chrysene	19.132	228	828207	49.89 µg/mL	99
93) Di-n-octylphthalate (CCC)	20.295	149	974084	49.18 µg/mL	98
95) 7,12-Dimethylbenz(a)an...	0.000		0	N.D.	
96) Benzo(b)fluoranthene	21.127	252	703894	46.12 µg/mL	99
97) Benzo(k)fluoranthene	21.172	252	679048	49.11 µg/mL	98
98) Benzo(e)pyrene	21.629	252	603706	49.12 µg/mL	99
99) Benzo(a)pyrene (CCC)	21.723	252	633453	50.79 µg/mL	99
100) Perylene	21.879	252	632439	48.88 µg/mL	99
101) 3-Methylcholanthrene	0.000		0	N.D.	
102) Indeno(1,2,3-cd)pyrene	24.067	276	620381	52.10 µg/mL	98
103) Dibenz(a,h)anthracene	24.079	278	520371	52.29 µg/mL	99
104) Benzo(g,h,i)perylene	24.729	276	499312	52.56 µg/mL	98
105) Dibenzo(a,e)pyrene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101357.D
Acq On : 4 Jul 2011 1:16 pm
Operator : tdd/lah
Sample : SSTD050-SS M8270 SCN
Misc : gcmsprep2pg30
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 04 19:08:03 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (I)	1.000	1.000	0.0	125	0.00
2		N-Nitrosodimethylamine	0.648	0.633	2.3	121	0.00
3		Pyridine	1.167	1.131	3.1	118	-0.01
4	S	2-Fluorophenol (surr)	1.112	1.103	0.8	121	0.00
5	S	Phenol-d5 (surr)	1.209	1.152	4.7	119	0.00
6		Phenol (CCC)	1.254	1.214	3.2	120	0.00
7		Aniline	0.604	0.558	7.6	117	0.00
8		bis(2-Chloroethyl)ether	0.795	0.753	5.3	123	0.00
9		2-Chlorophenol	1.100	1.104	-0.4	124	0.00
10		1,3-Dichlorobenzene	1.414	1.422	-0.6	128	0.00
11		1,4-Dichlorobenzene (CCC)	1.430	1.411	1.3	127	0.00
12		Benzyl alcohol	0.605	0.568	6.1	120	0.00
13		1,2-Dichlorobenzene	1.304	1.291	1.0	127	0.00
14		2-Methylphenol	0.832	0.780	6.2	117	0.00
15		bis(2-Chloroisopropyl) ethe	1.051	0.974	7.3	119	0.00
16		3/4-Methylphenol	1.012	0.933	7.8	115	0.00
17		N-Nitroso-di-n-propylamine	0.714	0.620	13.2	107	0.00
18		o-Toluidine	1.541	0.000#	100.0#	0#	-6.71#
19		Hexachloroethane	0.564	0.557	1.2	127	0.00
20	S	Nitrobenzene-d5 (surr)	1.181	1.179	0.2	122	0.00
21		Nitrobenzene	1.078	1.072	0.6	122	0.00
22	I	Naphthalene-d8 (I)	1.000	1.000	0.0	120	0.00
23		Isophorone	0.616	0.554	10.1	110	0.00
24		2,4-Dimethylphenol	0.369	0.343	7.0	112	0.00
25		2-Nitrophenol (CCC)	0.162	0.177	-9.3	126	0.00
26		Benzoic acid	0.162	0.152	6.2	147	0.03
27		bis(2-Chloroethoxy)methane	0.353	0.335	5.1	114	0.00
28		2,4-Dichlorophenol (CCC)	0.294	0.282	4.1	113	0.00
29		a,a-Dimethylphenethylamine	0.593	0.000#	100.0#	0#	-7.54#
30		1,2,4-Trichlorobenzene	0.385	0.389	-1.0	125	0.00
31		Naphthalene	1.042	1.049	-0.7	122	0.00
32		4-Chloroaniline	0.135	0.127	5.9	113	0.00
33		Hexachlorobutadiene (CCC)	0.249	0.252	-1.2	126	0.00
34		Quinoline	0.575	0.000#	100.0#	0#	-8.33#
35		1,4-Phenylenediamine	0.294	0.000#	100.0#	0#	-8.39#
36		4-Chloro-3 methylphenol (CC	0.284	0.278	2.1	116	0.00
37		2-Methylnaphthalene	0.683	0.654	4.2	116	0.00
38		1-Methylnaphthalene	0.648	0.631	2.6	117	0.00
39		Hexachlorocyclopentadiene (	0.161	0.171	-6.2	133	0.00
40	I	Acenaphthene-d10 (I)	1.000	1.000	0.0	118	0.00
41		2,4,6-Trichlorophenol (CCC)	0.349	0.369	-5.7	125	0.00
42		2,4,5-Trichlorophenol	0.369	0.381	-3.3	120	0.00
43	S	2-Fluorobiphenyl (surr)	1.352	1.308	3.3	119	0.00
44		Biphenyl	1.442	0.000#	100.0#	0#	-9.68#
45		2-Chloronaphthalene	1.107	1.094	1.2	119	0.00
46		2-Nitroaniline	0.252	0.292	-15.9	130	0.00
47		1,4-Dinitrobenzene	0.132	0.157	-18.9	140	0.00
48		Dimethylphthalate	1.216	1.224	-0.7	121	0.00
49		1,3-Dinitrobenzene	0.165	0.188	-13.9	128	0.00
50		2,6-Dinitrotoluene	0.249	0.276	-10.8	126	0.00
51		1,2-Dinitrobenzene	0.115	0.128	-11.3	125	0.00
52		Acenaphthylene	1.703	1.737	-2.0	122	0.00

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101357.D
Acq On : 4 Jul 2011 1:16 pm
Operator : tdd/lah
Sample : SSTD050-SS M8270 SCN
Misc : gcmsprep2pg30
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 04 19:08:03 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53		3-Nitroaniline	0.238	0.266	-11.8	125	0.00
54		Acenaphthene (CCC)	1.028	1.068	-3.9	126	0.00
55		2,4-Dinitrophenol (SPCC)	0.101	0.102	-1.0	174	0.00
56		4-Nitrophenol (SPCC)	0.158	0.182	-15.2	129	0.00
57		2,4-Dinitrotoluene	0.296	0.348	-17.6	129	0.00
58		Dibenzofuran	1.458	1.517	-4.0	125	0.00
59		2,3,5,6-Tetrachlorophenol	0.243	0.291	-19.8	139	0.00
60		2,3,4,6-Tetrachlorophenol	0.258	0.297	-15.1	129	0.00
61		Diethlyphthalate	1.225	1.259	-2.8	121	0.00
62	S	Fluorene-d10 (surr)	1.042	1.156	-10.9	134	0.00
63		4-Chlorophenyl-phenylether	0.611	0.627	-2.6	125	0.00
64		Fluorene	1.226	1.245	-1.5	122	0.00
65		4-Nitroaniline	0.239	0.270	-13.0	127	0.01
66		4,6-Dinitro2-methylphenol	0.148	0.153	-3.4	150	0.00
67		N-Nitrosodiphenylamine (CCC	1.013	1.051	-3.8	123	0.00
68		Azobenzene	1.247	1.233	1.1	117	0.00
69	I	Phenanthrene-d10 (I)	1.000	1.000	0.0	115	0.00
70	S	2,4,6-Tribromophenol (surr)	0.080	0.086	-7.5	128	0.00
71		4-Bromophenyl-phenylether	0.214	0.223	-4.2	126	0.00
72		Hexachlorobenzene	0.218	0.225	-3.2	124	0.00
73		Pentachlorophenol (CCC)	0.113	0.111	1.8	129	0.00
74		Phenanthrene	1.019	1.049	-2.9	121	0.00
75		Anthracene	1.021	1.049	-2.7	121	0.00
76		Carbazole	0.845	0.874	-3.4	120	0.00
77		Di-n-butylphthalate	1.200	1.183	1.4	110	0.00
78		Fluoranthene (CCC)	1.059	1.043	1.5	110	0.00
79		Benzidine	0.494	0.438	11.3	96	0.00
80	S	Pyrene-d10 (surr)	0.949	0.867	8.6	100	0.00
81		Pyrene	1.065	1.096	-2.9	113	0.00
82	S	Terphenyl-d14 (surr)	0.679	0.692	-1.9	112	0.00
83	I	Chrysene-d12 (I)	1.000	1.000	0.0	108	0.00
84		4-Dimethylaminoazobenzene	0.375	0.000#	100.0#	0#	-17.19#
85		Butylbenzylphthalate	0.627	0.620	1.1	106	0.00
86		3,3-Dimethylbenzidine	0.721	0.650	9.8	94	0.00
87		bis(2-Ethylhexyl)adipate	0.499	0.486	2.6	109	0.00
88		3,3-Dimethoxybenzidine	0.282	0.000#	100.0#	0#	-18.93#
89		bis(2-Ethylhexyl)phthalate	0.869	0.833	4.1	103	0.00
90		3,3'-Dichlorobenzidine	0.354	0.348	1.7	104	0.00
91		Benzo(a)anthracene	1.089	1.089	0.0	110	0.00
92		Chrysene	0.985	0.983	0.2	110	0.00
93		Di-n-octylphthalate (CCC)	1.175	1.156	1.6	99	0.00
94	I	Perylene-d12 (I)	1.000	1.000	0.0	112	0.00
95		7,12-Dimethylbenz(a)anthrac	0.611	0.000#	100.0#	0#	-21.10#
96		Benzo(b)fluoranthene	1.315	1.213	7.8	103	0.00
97		Benzo(k)fluoranthene	1.191	1.170	1.8	113	0.00
98		Benzo(e)pyrene	1.059	1.040	1.8	111	0.00
99		Benzo(a)pyrene (CCC)	1.074	1.091	-1.6	114	0.00
100		Perylene	1.114	1.090	2.2	112	0.00
101		3-Methylcholanthrene	0.561	0.000#	100.0#	0#	-22.37#
102		Indeno(1,2,3-cd)pyrene	1.026	1.069	-4.2	119	0.00
103		Dibenz(a,h)anthracene	0.857	0.896	-4.6	119	0.00

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101357.D
Acq On : 4 Jul 2011 1:16 pm
Operator : tdd/lah
Sample : SSTD050-SS M8270 SCN
Misc : gcmsprep2pg30
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 04 19:08:03 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

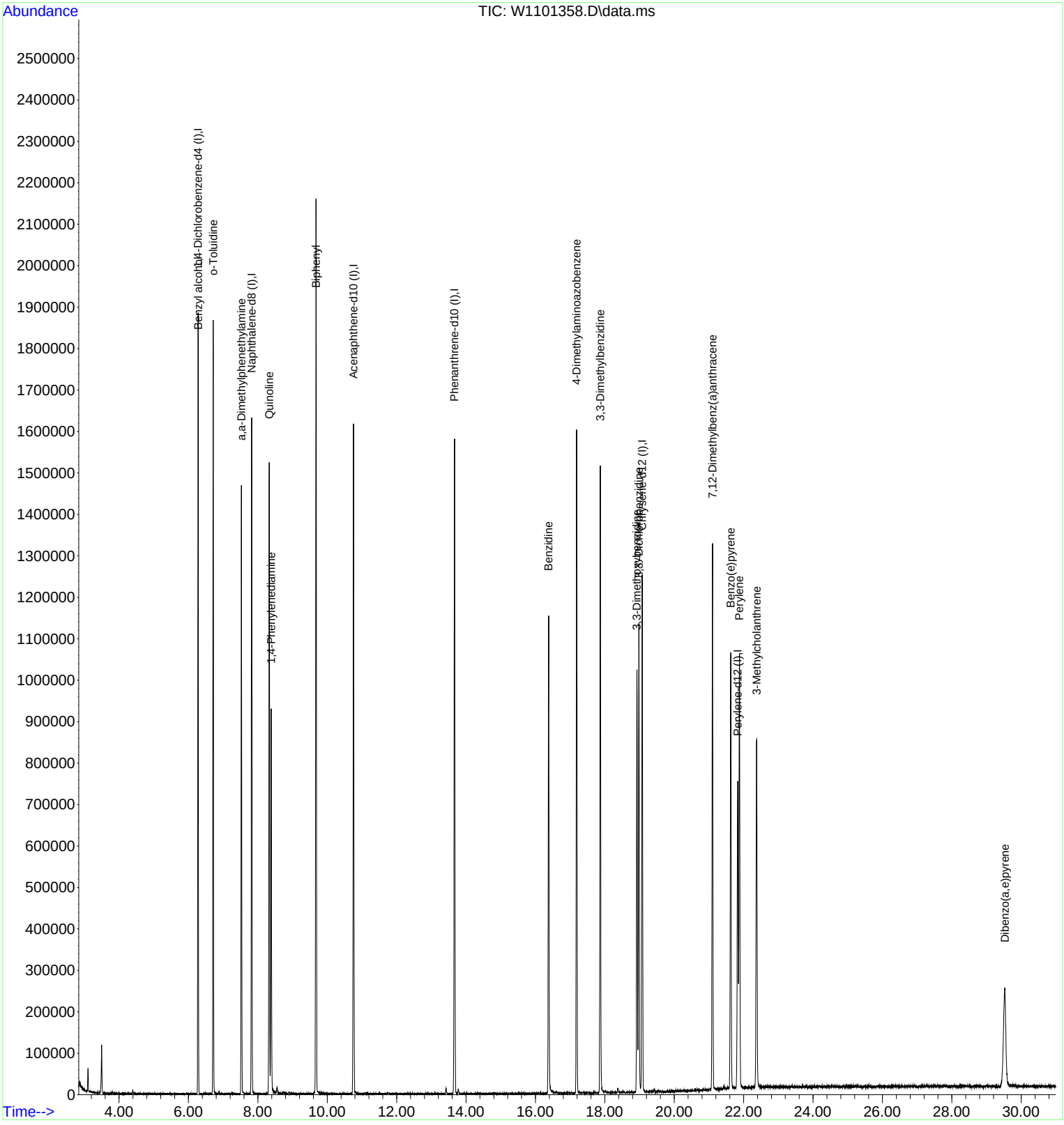
	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
104	Benzo(g,h,i)perylene	0.818	0.860	-5.1	119	0.00
105	Dibenzo(a,e)pyrene	0.550	0.000#	100.0#	0#	-29.52#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101358.D
Acq On : 4 Jul 2011 1:53 pm
Operator : tdd/lah
Sample : SSTD050-SS ADD'L ICR
Misc : gcmsprep2pg118
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 04 19:09:48 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:19:12 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101358.D
Acq On : 4 Jul 2011 1:53 pm
Operator : tdd/lah
Sample : SSTD050-SS ADD'L ICR
Misc : gcmsprep2pg118
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 04 19:09:48 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:19:12 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.277	152	312360	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.821	136	945018	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.756	164	566958	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.665	188	965981	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.075	240	784384	40.00	µg/mL	0.00
94) Perylene-d12 (I)	21.828	264	507640	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	0.000	112	0	0.00	µg/mL	
5) Phenol-d5 (surr)	0.000	99	0	0.00	µg/mL	
20) Nitrobenzene-d5 (surr)	0.000	82	0	0.00	µg/mL	
43) 2-Fluorobiphenyl (surr)	0.000	172	0	0.00	µg/mL	
62) Fluorene-d10 (surr)	11.741	176	1096	0.07	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	µg/mL	
80) Pyrene-d10 (surr)	16.569	212	1130	0.05	µg/mL	0.00
82) Terphenyl-d14 (surr)	0.000	244	0	0.00	µg/mL	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol (CCC)	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) bis(2-Chloroethyl)ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.		
12) Benzyl alcohol	6.280	108	2074	0.44	µg/mL#	1
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) bis(2-Chloroisopropyl)...	0.000		0	N.D.		
16) 3/4-Methylphenol	0.000		0	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		
18) o-Toluidine	6.712	106	631409	52.46	µg/mL	99
19) Hexachloroethane	0.000		0	N.D.		
21) Nitrobenzene	0.000		0	N.D.		
23) Isophorone	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) 2-Nitrophenol (CCC)	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) bis(2-Chloroethoxy)met...	0.000		0	N.D.		
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.		
29) a,a-Dimethylphenethyla...	7.523	58	780536	55.70	µg/mL#	82
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
31) Naphthalene	7.853	128	1315	N.D.		
32) 4-Chloroaniline	0.000		0	N.D.		
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.		
34) Quinoline	8.329	129	757805	55.75	µg/mL	99
35) 1,4-Phenylenediamine	8.383	108	414596m	59.72	µg/mL	**Manual Int. "II" (TDD)**
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.		
37) 2-Methylnaphthalene	8.897	142	1921	N.D.		
38) 1-Methylnaphthalene	0.000		0	N.D.		
39) Hexachlorocyclopentadi...	0.000		0	N.D.		
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.		
42) 2,4,5-Trichlorophenol	0.000		0	N.D.		
44) Biphenyl	9.675	154	1015911	49.71	µg/mL	100
45) 2-Chloronaphthalene	0.000		0	N.D.		
46) 2-Nitroaniline	0.000		0	N.D.		

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101358.D
Acq On : 4 Jul 2011 1:53 pm
Operator : tdd/lah
Sample : SSTD050-SS ADD'L ICR
Misc : gcmsprep2pg118
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 04 19:09:48 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:19:12 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.	
48) Dimethylphthalate	0.000		0	N.D.	
49) 1,3-Dinitrobenzene	0.000		0	N.D.	
50) 2,6-Dinitrotoluene	0.000		0	N.D.	
51) 1,2-Dinitrobenzene	0.000		0	N.D.	
52) Acenaphthylene	0.000		0	N.D.	
53) 3-Nitroaniline	0.000		0	N.D.	
54) Acenaphthene (CCC)	10.756	154	2021	N.D.	
55) 2,4-Dinitrophenol (SPCC)	0.000		0	N.D.	
56) 4-Nitrophenol (SPCC)	0.000		0	N.D.	
57) 2,4-Dinitrotoluene	0.000		0	N.D.	
58) Dibenzofuran	0.000		0	N.D.	
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
61) Diethlyphthalate	0.000		0	N.D.	
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.	
64) Fluorene	0.000		0	N.D.	
65) 4-Nitroaniline	0.000		0	N.D.	
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.	
67) N-Nitrosodiphenylamine...	0.000		0	N.D.	
68) Azobenzene	0.000		0	N.D.	
71) 4-Bromophenyl-phenylether	0.000		0	N.D.	
72) Hexachlorobenzene	0.000		0	N.D.	
73) Pentachlorophenol (CCC)	0.000		0	N.D.	
74) Phenanthrene	13.711	178	1141	N.D.	
75) Anthracene	0.000		0	N.D.	
76) Carbazole	0.000		0	N.D.	
77) Di-n-butylphthalate	14.801	149	1166	N.D.	
78) Fluoranthene (CCC)	0.000		0	N.D.	
79) Benzidine	16.379	184	707005	59.24 µg/mL#	98
81) Pyrene	16.609	202	1337	N.D.	
84) 4-Dimethylaminoazobenzene	17.188	120	386812	52.65 µg/mL	94
85) Butylbenzylphthalate	0.000		0	N.D.	
86) 3,3-Dimethylbenzidine	17.869	212	800893	56.67 µg/mL	99
87) bis(2-Ethylhexyl)adipate	0.000		0	N.D.	
88) 3,3-Dimethoxybenzidine	18.922	244	315330	56.97 µg/mL	90
89) bis(2-Ethylhexyl)phtha...	0.000		0	N.D. d	
90) 3,3'-Dichlorobenzidine	18.978	252	373888	53.91 µg/mL#	97
91) Benzo(a)anthracene	0.000		0	N.D. d	
92) Chrysene	0.000		0	N.D. d	
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.	
95) 7,12-Dimethylbenz(a)an...	21.101	256	410401	52.91 µg/mL	97
96) Benzo(b)fluoranthene	0.000		0	N.D. d	
97) Benzo(k)fluoranthene	0.000		0	N.D. d	
98) Benzo(e)pyrene	21.629	252	712336	53.02 µg/mL	99
99) Benzo(a)pyrene (CCC)	0.000		0	N.D. d	
100) Perylene	21.876	252	743273	52.55 µg/mL	98
101) 3-Methylcholanthrene	22.376	268	382649	53.79 µg/mL	97
102) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
103) Dibenz(a,h)anthracene	0.000		0	N.D.	
104) Benzo(g,h,i)perylene	0.000		0	N.D.	
105) Dibenzo(a,e)pyrene	29.525	302	394159	56.46 µg/mL#	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101358.D
Acq On : 4 Jul 2011 1:53 pm
Operator : tdd/lah
Sample : SSTD050-SS ADD'L ICR
Misc : gcmsprep2pg118
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 04 19:09:48 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:19:12 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (I)	1.000	1.000	0.0	123	0.00
2		N-Nitrosodimethylamine	0.648	0.000#	100.0#	0#	-4.12#
3		Pyridine	1.167	0.000#	100.0#	0#	-4.18#
4	S	2-Fluorophenol (surr)	1.112	0.000#	100.0#	0#	-5.13#
5	S	Phenol-d5 (surr)	1.209	0.000#	100.0#	0#	-5.84#
6		Phenol (CCC)	1.254	0.000#	100.0#	0#	-5.85#
7		Aniline	0.604	0.000#	100.0#	0#	-5.94#
8		bis(2-Chloroethyl)ether	0.795	0.000#	100.0#	0#	-5.96#
9		2-Chlorophenol	1.100	0.000#	100.0#	0#	-6.07#
10		1,3-Dichlorobenzene	1.414	0.000#	100.0#	0#	-6.23#
11		1,4-Dichlorobenzene (CCC)	1.430	0.000#	100.0#	0#	-6.29#
12		Benzyl alcohol	0.605	0.005#	99.2#	1#	-0.09
13		1,2-Dichlorobenzene	1.304	0.000#	100.0#	0#	-6.47#
14		2-Methylphenol	0.832	0.000#	100.0#	0#	-6.44#
15		bis(2-Chloroisopropyl) ethe	1.051	0.000#	100.0#	0#	-6.49#
16		3/4-Methylphenol	1.012	0.000#	100.0#	0#	-6.60#
17		N-Nitroso-di-n-propylamine	0.714	0.000#	100.0#	0#	-6.63#
18		o-Toluidine	1.541	1.617	-4.9	130	0.00
19		Hexachloroethane	0.564	0.000#	100.0#	0#	-6.85#
20	S	Nitrobenzene-d5 (surr)	1.181	0.000#	100.0#	0#	-6.86#
21		Nitrobenzene	1.078	0.000#	100.0#	0#	-6.89#
22	I	Naphthalene-d8 (I)	1.000	1.000	0.0	129	0.00
23		Isophorone	0.616	0.000#	100.0#	0#	-7.15#
24		2,4-Dimethylphenol	0.369	0.000#	100.0#	0#	-7.25#
25		2-Nitrophenol (CCC)	0.162	0.000#	100.0#	0#	-7.28#
26		Benzoic acid	0.162	0.000#	100.0#	0#	-7.27#
27		bis(2-Chloroethoxy)methane	0.353	0.000#	100.0#	0#	-7.37#
28		2,4-Dichlorophenol (CCC)	0.294	0.000#	100.0#	0#	-7.58#
29		a,a-Dimethylphenethylamine	0.593	0.661	-11.5	135	-0.02
30		1,2,4-Trichlorobenzene	0.385	0.000#	100.0#	0#	-7.73#
31		Naphthalene	1.042	0.001#	99.9#	0#	0.00
32		4-Chloroaniline	0.135	0.000#	100.0#	0#	-7.87#
33		Hexachlorobutadiene (CCC)	0.249	0.000#	100.0#	0#	-8.01#
34		Quinoline	0.575	0.642	-11.7	145	0.00
35		1,4-Phenylenediamine	0.294	0.351	-19.4	157	0.00
36		4-Chloro-3 methylphenol (CC	0.284	0.000#	100.0#	0#	-8.55#
37		2-Methylnaphthalene	0.683	0.002#	99.7#	0#	0.00
38		1-Methylnaphthalene	0.648	0.000#	100.0#	0#	-9.07#
39		Hexachlorocyclopentadiene (	0.161	0.000#	100.0#	0#	-9.17#
40	I	Acenaphthene-d10 (I)	1.000	1.000	0.0	132	0.00
41		2,4,6-Trichlorophenol (CCC)	0.349	0.000#	100.0#	0#	-9.35#
42		2,4,5-Trichlorophenol	0.369	0.000#	100.0#	0#	-9.41#
43	S	2-Fluorobiphenyl (surr)	1.352	0.000#	100.0#	0#	-9.49#
44		Biphenyl	1.442	1.433	0.6	135	0.00
45		2-Chloronaphthalene	1.107	0.000#	100.0#	0#	-9.74#
46		2-Nitroaniline	0.252	0.000#	100.0#	0#	-9.87#
47		1,4-Dinitrobenzene	0.132	0.000#	100.0#	0#	-10.09#
48		Dimethylphthalate	1.216	0.000#	100.0#	0#	-10.17#
49		1,3-Dinitrobenzene	0.165	0.000#	100.0#	0#	-10.24#
50		2,6-Dinitrotoluene	0.249	0.000#	100.0#	0#	-10.29#
51		1,2-Dinitrobenzene	0.115	0.000#	100.0#	0#	-10.40#
52		Acenaphthylene	1.703	0.000#	100.0#	0#	-10.50#

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101358.D
Acq On : 4 Jul 2011 1:53 pm
Operator : tdd/lah
Sample : SSTD050-SS ADD'L ICR
Misc : gcmsprep2pg118
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 04 19:09:48 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:19:12 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53		3-Nitroaniline	0.238	0.000#	100.0#	0#	-10.62#
54		Acenaphthene (CCC)	1.028	0.003#	99.7#	0#	-0.06
55		2,4-Dinitrophenol (SPCC)	0.101	0.000#	100.0#	0#	-10.82#
56		4-Nitrophenol (SPCC)	0.158	0.000#	100.0#	0#	-10.88#
57		2,4-Dinitrotoluene	0.296	0.000#	100.0#	0#	-11.06#
58		Dibenzofuran	1.458	0.000#	100.0#	0#	-11.14#
59		2,3,5,6-Tetrachlorophenol	0.243	0.000#	100.0#	0#	-11.28#
60		2,3,4,6-Tetrachlorophenol	0.258	0.000#	100.0#	0#	-11.36#
61		Diethlyphthalate	1.225	0.000#	100.0#	0#	-11.51#
62	S	Fluorene-d10 (surr)	1.042	0.002#	99.8#	0#	0.00
63		4-Chlorophenyl-phenylether	0.611	0.000#	100.0#	0#	-11.77#
64		Fluorene	1.226	0.000#	100.0#	0#	-11.80#
65		4-Nitroaniline	0.239	0.000#	100.0#	0#	-11.78#
66		4,6-Dinitro2-methylphenol	0.148	0.000#	100.0#	0#	-11.86#
67		N-Nitrosodiphenylamine (CCC	1.013	0.000#	100.0#	0#	-11.99#
68		Azobenzene	1.247	0.000#	100.0#	0#	-12.08#
69	I	Phenanthrene-d10 (I)	1.000	1.000	0.0	131	0.00
70	S	2,4,6-Tribromophenol (surr)	0.080	0.000#	100.0#	0#	-12.27#
71		4-Bromophenyl-phenylether	0.214	0.000#	100.0#	0#	-12.74#
72		Hexachlorobenzene	0.218	0.000#	100.0#	0#	-12.91#
73		Pentachlorophenol (CCC)	0.113	0.000#	100.0#	0#	-13.29#
74		Phenanthrene	1.019	0.001#	99.9#	0#	0.00
75		Anthracene	1.021	0.000#	100.0#	0#	-13.82#
76		Carbazole	0.845	0.000#	100.0#	0#	-14.12#
77		Di-n-butylphthalate	1.200	0.001#	99.9#	0#	0.00
78		Fluoranthene (CCC)	1.059	0.000#	100.0#	0#	-16.14#
79		Benzidine	0.494	0.586	-18.6	147	0.00
80	S	Pyrene-d10 (surr)	0.949	0.001#	99.9#	0#	0.00
81		Pyrene	1.065	0.001#	99.9#	0#	0.00
82	S	Terphenyl-d14 (surr)	0.679	0.000#	100.0#	0#	-16.90#
83	I	Chrysene-d12 (I)	1.000	1.000	0.0	125	0.00
84		4-Dimethylaminoazobenzene	0.375	0.395	-5.3	136	0.00
85		Butylbenzylphthalate	0.627	0.000#	100.0#	0#	-17.89#
86		3,3-Dimethylbenzidine	0.721	0.817	-13.3	138	0.00
87		bis(2-Ethylhexyl)adipate	0.499	0.000#	100.0#	0#	-18.03#
88		3,3-Dimethoxybenzidine	0.282	0.322	-14.2	152	0.00
89		bis(2-Ethylhexyl)phthalate	0.869	0.000#	100.0#	0#	-19.05#
90		3,3'-Dichlorobenzidine	0.354	0.381	-7.6	132	0.00
91		Benzo(a)anthracene	1.089	0.000#	100.0#	0#	-19.06#
92		Chrysene	0.985	0.000#	100.0#	0#	-19.13#
93		Di-n-octylphthalate (CCC)	1.175	0.000#	100.0#	0#	-20.30#
94	I	Perylene-d12 (I)	1.000	1.000	0.0	123	0.00
95		7,12-Dimethylbenz(a)anthrac	0.611	0.647	-5.9	131	0.00
96		Benzo(b)fluoranthene	1.315	0.000#	100.0#	0#	-21.12#
97		Benzo(k)fluoranthene	1.191	0.000#	100.0#	0#	-21.17#
98		Benzo(e)pyrene	1.059	1.123	-6.0	131	0.00
99		Benzo(a)pyrene (CCC)	1.074	0.000#	100.0#	0#	-21.73#
100		Perylene	1.114	1.171	-5.1	132	0.00
101		3-Methylcholanthrene	0.561	0.603	-7.5	134	0.00
102		Indeno(1,2,3-cd)pyrene	1.026	0.000#	100.0#	0#	-24.07#
103		Dibenz(a,h)anthracene	0.857	0.000#	100.0#	0#	-24.08#

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101358.D
Acq On : 4 Jul 2011 1:53 pm
Operator : tdd/lah
Sample : SSTD050-SS ADD'L ICR
Misc : gcmsprep2pg118
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 04 19:09:48 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:19:12 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

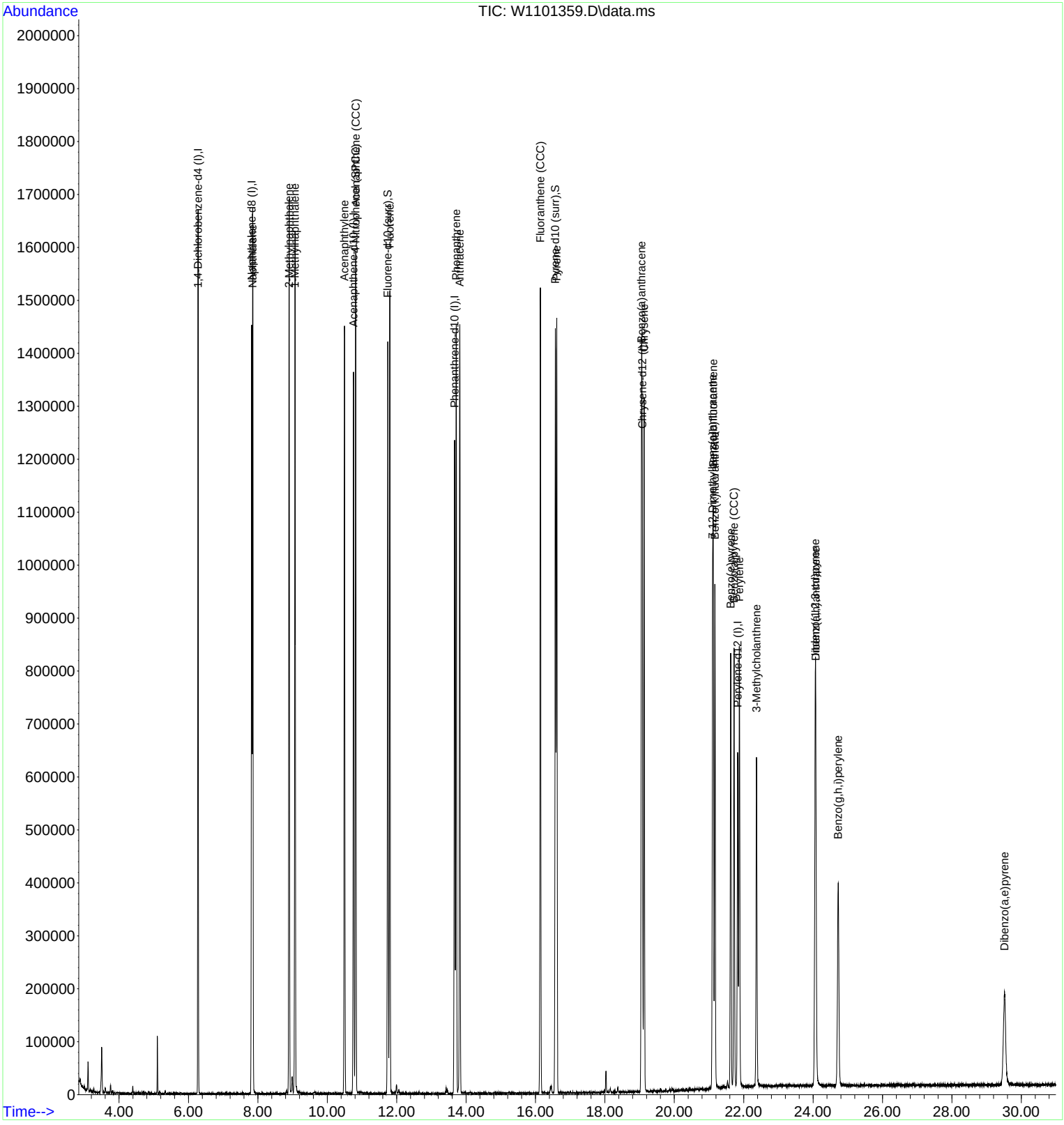
	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
104	Benzo(g,h,i)perylene	0.818	0.000#	100.0#	0#	-24.73#
105	Dibenzo(a,e)pyrene	0.550	0.621	-12.9	134	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101359.D
Acq On : 4 Jul 2011 2:30 pm
Operator : tdd/lah
Sample : SSTD050-SS PAH
Misc : gcmsprep2pg120
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 04 18:46:59 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101359.D
Acq On : 4 Jul 2011 2:30 pm
Operator : tdd/lah
Sample : SSTD050-SS PAH
Misc : gcmsprep2pg120
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 04 18:46:59 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.275	152	283517	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.821	136	850545	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.756	164	474431	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.665	188	777042	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.078	240	647877	40.00	µg/mL	0.00
94) Perylene-d12 (I)	21.825	264	419935	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	0.000	112	0	0.00	µg/mL	
5) Phenol-d5 (surr)	0.000	99	0	0.00	µg/mL	
20) Nitrobenzene-d5 (surr)	0.000	82	0	0.00	µg/mL	
43) 2-Fluorobiphenyl (surr)	0.000	172	0	0.00	µg/mL	
62) Fluorene-d10 (surr)	11.741	176	569935	46.11	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	µg/mL	
80) Pyrene-d10 (surr)	16.572	212	947751	51.42	µg/mL	0.00
82) Terphenyl-d14 (surr)	0.000	244	0	0.00	µg/mL	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol (CCC)	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) bis(2-Chloroethyl)ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene (CCC)	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D. d		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) bis(2-Chloroisopropyl)...	0.000		0	N.D.		
16) 3/4-Methylphenol	0.000		0	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		
18) o-Toluidine	0.000		0	N.D.		
19) Hexachloroethane	0.000		0	N.D.		
21) Nitrobenzene	0.000		0	N.D.		
23) Isophorone	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) 2-Nitrophenol (CCC)	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) bis(2-Chloroethoxy)met...	0.000		0	N.D.		
28) 2,4-Dichlorophenol (CCC)	0.000		0	N.D.		
29) a,a-Dimethylphenethyla...	0.000		0	N.D.		
30) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
31) Naphthalene	7.850	128	1011531	45.64	µg/mL	98
32) 4-Chloroaniline	0.000		0	N.D. d		
33) Hexachlorobutadiene (CCC)	0.000		0	N.D.		
34) Quinoline	0.000		0	N.D.		
35) 1,4-Phenylenediamine	0.000		0	N.D.		
36) 4-Chloro-3 methylpheno...	0.000		0	N.D.		
37) 2-Methylnaphthalene	8.900	142	679835	46.79	µg/mL	98
38) 1-Methylnaphthalene	9.070	142	639548	46.40	µg/mL#	100
39) Hexachlorocyclopentadi...	0.000		0	N.D.		
41) 2,4,6-Trichlorophenol ...	0.000		0	N.D.		
42) 2,4,5-Trichlorophenol	0.000		0	N.D.		
44) Biphenyl	0.000		0	N.D.		
45) 2-Chloronaphthalene	0.000		0	N.D.		
46) 2-Nitroaniline	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101359.D
Acq On : 4 Jul 2011 2:30 pm
Operator : tdd/lah
Sample : SSTD050-SS PAH
Misc : gcmsprep2pg120
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 04 18:46:59 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	0.000		0	N.D.	
48) Dimethylphthalate	0.000		0	N.D.	
49) 1,3-Dinitrobenzene	0.000		0	N.D.	
50) 2,6-Dinitrotoluene	0.000		0	N.D.	
51) 1,2-Dinitrobenzene	0.000		0	N.D.	
52) Acenaphthylene	10.495	152	969377	47.99 µg/mL	97
53) 3-Nitroaniline	0.000		0	N.D.	
54) Acenaphthene (CCC)	10.819	154	558758	45.81 µg/mL	96
55) 2,4-Dinitrophenol (SPCC)	0.000		0	N.D.	
~~56) 4-Nitrophenol (SPCC)~~	~~10.816~~	~~139~~	~~5101~~	~~2.72 µg/mL#~~	~~34~~
57) 2,4-Dinitrotoluene	0.000		0	N.D.	
58) Dibenzofuran	0.000		0	N.D.	
59) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
60) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
61) Diethlyphthalate	0.000		0	N.D.	
63) 4-Chlorophenyl-phenyle...	0.000		0	N.D.	
64) Fluorene	11.801	166	671930	46.21 µg/mL	99
65) 4-Nitroaniline	0.000		0	N.D. d	
66) 4,6-Dinitro2-methylphenol	0.000		0	N.D.	
67) N-Nitrosodiphenylamine...	0.000		0	N.D.	
68) Azobenzene	0.000		0	N.D.	
71) 4-Bromophenyl-phenylether	0.000		0	N.D.	
72) Hexachlorobenzene	0.000		0	N.D.	
73) Pentachlorophenol (CCC)	0.000		0	N.D.	
74) Phenanthrene	13.717	178	931090	47.03 µg/mL	99
75) Anthracene	13.816	178	945655	47.70 µg/mL	100
76) Carbazole	0.000		0	N.D.	
77) Di-n-butylphthalate	0.000		0	N.D.	
78) Fluoranthene (CCC)	16.140	202	1037863	50.45 µg/mL	95
79) Benzidine	0.000		0	N.D.	
81) Pyrene	16.609	202	1048144	50.66 µg/mL	99
84) 4-Dimethylaminoazobenzene	0.000		0	N.D.	
85) Butylbenzylphthalate	0.000		0	N.D.	
86) 3,3-Dimethylbenzidine	0.000		0	N.D.	
87) bis(2-Ethylhexyl)adipate	0.000		0	N.D.	
88) 3,3-Dimethoxybenzidine	0.000		0	N.D.	
89) bis(2-Ethylhexyl)phtha...	0.000		0	N.D. d	
90) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
91) Benzo(a)anthracene	19.055	228	806853	45.76 µg/mL	100
92) Chrysene	19.129	228	755982	47.38 µg/mL	99
93) Di-n-octylphthalate (CCC)	0.000		0	N.D.	
~~95) 7,12-Dimethylbenz(a)an...~~	~~21.102~~	~~256~~	~~244564~~	~~38.11 µg/mL~~	~~97~~
96) Benzo(b)fluoranthene	21.122	252	658068	47.68 µg/mL	96
97) Benzo(k)fluoranthene	21.170	252	608168	48.64 µg/mL	99
98) Benzo(e)pyrene	21.627	252	548885	49.39 µg/mL	99
99) Benzo(a)pyrene (CCC)	21.720	252	551301	48.88 µg/mL	100
100) Perylene	21.874	252	559363	47.81 µg/mL	99
101) 3-Methylcholanthrene	22.367	268	273269	46.44 µg/mL	98
102) Indeno(1,2,3-cd)pyrene	24.059	276	523412	48.61 µg/mL	98
103) Dibenz(a,h)anthracene	24.076	278	439246	48.81 µg/mL#	92
104) Benzo(g,h,i)perylene	24.720	276	428271	49.85 µg/mL	99
105) Dibenzo(a,e)pyrene	29.511	302	286707m	49.65 µg/mL	

Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101359.D
Acq On : 4 Jul 2011 2:30 pm
Operator : tdd/lah
Sample : SSTD050-SS PAH
Misc : gcmsprep2pg120
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 04 18:46:59 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (I)	1.000	1.000	0.0	112	0.00
2		N-Nitrosodimethylamine	0.648	0.000#	100.0#	0#	-4.12#
3		Pyridine	1.167	0.000#	100.0#	0#	-4.18#
4	S	2-Fluorophenol (surr)	1.112	0.000#	100.0#	0#	-5.13#
5	S	Phenol-d5 (surr)	1.209	0.000#	100.0#	0#	-5.84#
6		Phenol (CCC)	1.254	0.000#	100.0#	0#	-5.85#
7		Aniline	0.604	0.000#	100.0#	0#	-5.94#
8		bis(2-Chloroethyl)ether	0.795	0.000#	100.0#	0#	-5.96#
9		2-Chlorophenol	1.100	0.000#	100.0#	0#	-6.07#
10		1,3-Dichlorobenzene	1.414	0.000#	100.0#	0#	-6.23#
11		1,4-Dichlorobenzene (CCC)	1.430	0.000#	100.0#	0#	-6.29#
12		Benzyl alcohol	0.605	0.000#	100.0#	0#	-6.37#
13		1,2-Dichlorobenzene	1.304	0.000#	100.0#	0#	-6.47#
14		2-Methylphenol	0.832	0.000#	100.0#	0#	-6.44#
15		bis(2-Chloroisopropyl) ethe	1.051	0.000#	100.0#	0#	-6.49#
16		3/4-Methylphenol	1.012	0.000#	100.0#	0#	-6.60#
17		N-Nitroso-di-n-propylamine	0.714	0.000#	100.0#	0#	-6.63#
18		o-Toluidine	1.541	0.000#	100.0#	0#	-6.71#
19		Hexachloroethane	0.564	0.000#	100.0#	0#	-6.85#
20	S	Nitrobenzene-d5 (surr)	1.181	0.000#	100.0#	0#	-6.86#
21		Nitrobenzene	1.078	0.000#	100.0#	0#	-6.89#
22	I	Naphthalene-d8 (I)	1.000	1.000	0.0	116	0.00
23		Isophorone	0.616	0.000#	100.0#	0#	-7.15#
24		2,4-Dimethylphenol	0.369	0.000#	100.0#	0#	-7.25#
25		2-Nitrophenol (CCC)	0.162	0.000#	100.0#	0#	-7.28#
26		Benzoic acid	0.162	0.000#	100.0#	0#	-7.27#
27		bis(2-Chloroethoxy)methane	0.353	0.000#	100.0#	0#	-7.37#
28		2,4-Dichlorophenol (CCC)	0.294	0.000#	100.0#	0#	-7.58#
29		a,a-Dimethylphenethylamine	0.593	0.000#	100.0#	0#	-7.54#
30		1,2,4-Trichlorobenzene	0.385	0.000#	100.0#	0#	-7.73#
31		Naphthalene	1.042	0.951	8.7	108	0.00
32		4-Chloroaniline	0.135	0.000#	100.0#	0#	-7.87#
33		Hexachlorobutadiene (CCC)	0.249	0.000#	100.0#	0#	-8.01#
34		Quinoline	0.575	0.000#	100.0#	0#	-8.33#
35		1,4-Phenylenediamine	0.294	0.000#	100.0#	0#	-8.39#
36		4-Chloro-3 methylphenol (CC	0.284	0.000#	100.0#	0#	-8.55#
37		2-Methylnaphthalene	0.683	0.639	6.4	110	0.00
38		1-Methylnaphthalene	0.648	0.602	7.1	108	0.00
39		Hexachlorocyclopentadiene (	0.161	0.000#	100.0#	0#	-9.17#
40	I	Acenaphthene-d10 (I)	1.000	1.000	0.0	110	0.00
41		2,4,6-Trichlorophenol (CCC)	0.349	0.000#	100.0#	0#	-9.35#
42		2,4,5-Trichlorophenol	0.369	0.000#	100.0#	0#	-9.41#
43	S	2-Fluorobiphenyl (surr)	1.352	0.000#	100.0#	0#	-9.49#
44		Biphenyl	1.442	0.000#	100.0#	0#	-9.68#
45		2-Chloronaphthalene	1.107	0.000#	100.0#	0#	-9.74#
46		2-Nitroaniline	0.252	0.000#	100.0#	0#	-9.87#
47		1,4-Dinitrobenzene	0.132	0.000#	100.0#	0#	-10.09#
48		Dimethylphthalate	1.216	0.000#	100.0#	0#	-10.17#
49		1,3-Dinitrobenzene	0.165	0.000#	100.0#	0#	-10.24#
50		2,6-Dinitrotoluene	0.249	0.000#	100.0#	0#	-10.29#
51		1,2-Dinitrobenzene	0.115	0.000#	100.0#	0#	-10.40#
52		Acenaphthylene	1.703	1.635	4.0	108	0.00

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101359.D
Acq On : 4 Jul 2011 2:30 pm
Operator : tdd/lah
Sample : SSTD050-SS PAH
Misc : gcmsprep2pg120
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 04 18:46:59 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53		3-Nitroaniline	0.238	0.000#	100.0#	0#	-10.62#
54		Acenaphthene (CCC)	1.028	0.942	8.4	105	0.00
55		2,4-Dinitrophenol (SPCC)	0.101	0.000#	100.0#	0#	-10.82#
56		4-Nitrophenol (SPCC)	0.158	0.009#	94.3#	6#	-0.07
57		2,4-Dinitrotoluene	0.296	0.000#	100.0#	0#	-11.06#
58		Dibenzofuran	1.458	0.000#	100.0#	0#	-11.14#
59		2,3,5,6-Tetrachlorophenol	0.243	0.000#	100.0#	0#	-11.28#
60		2,3,4,6-Tetrachlorophenol	0.258	0.000#	100.0#	0#	-11.36#
61		Diethlyphthalate	1.225	0.000#	100.0#	0#	-11.51#
62	S	Fluorene-d10 (surr)	1.042	0.961	7.8	104	0.00
63		4-Chlorophenyl-phenylether	0.611	0.000#	100.0#	0#	-11.77#
64		Fluorene	1.226	1.133	7.6	104	0.00
65		4-Nitroaniline	0.239	0.000#	100.0#	0#	-11.78#
66		4,6-Dinitro2-methylphenol	0.148	0.000#	100.0#	0#	-11.86#
67		N-Nitrosodiphenylamine (CCC	1.013	0.000#	100.0#	0#	-11.99#
68		Azobenzene	1.247	0.000#	100.0#	0#	-12.08#
69	I	Phenanthrene-d10 (I)	1.000	1.000	0.0	105	0.00
70	S	2,4,6-Tribromophenol (surr)	0.080	0.000#	100.0#	0#	-12.27#
71		4-Bromophenyl-phenylether	0.214	0.000#	100.0#	0#	-12.74#
72		Hexachlorobenzene	0.218	0.000#	100.0#	0#	-12.91#
73		Pentachlorophenol (CCC)	0.113	0.000#	100.0#	0#	-13.29#
74		Phenanthrene	1.019	0.959	5.9	102	0.00
75		Anthracene	1.021	0.974	4.6	103	0.00
76		Carbazole	0.845	0.000#	100.0#	0#	-14.12#
77		Di-n-butylphthalate	1.200	0.000#	100.0#	0#	-14.80#
78		Fluoranthene (CCC)	1.059	1.069	-0.9	103	0.00
79		Benzidine	0.494	0.000#	100.0#	0#	-16.38#
80	S	Pyrene-d10 (surr)	0.949	0.976	-2.8	103	0.00
81		Pyrene	1.065	1.079	-1.3	102	0.00
82	S	Terphenyl-d14 (surr)	0.679	0.000#	100.0#	0#	-16.90#
83	I	Chrysene-d12 (I)	1.000	1.000	0.0	104	0.00
84		4-Dimethylaminoazobenzene	0.375	0.000#	100.0#	0#	-17.19#
85		Butylbenzylphthalate	0.627	0.000#	100.0#	0#	-17.89#
86		3,3-Dimethylbenzidine	0.721	0.000#	100.0#	0#	-17.87#
87		bis(2-Ethylhexyl)adipate	0.499	0.000#	100.0#	0#	-18.03#
88		3,3-Dimethoxybenzidine	0.282	0.000#	100.0#	0#	-18.93#
89		bis(2-Ethylhexyl)phthalate	0.869	0.000#	100.0#	0#	-19.05#
90		3,3'-Dichlorobenzidine	0.354	0.000#	100.0#	0#	-18.98#
91		Benzo(a)anthracene	1.089	0.996	8.5	97	0.00
92		Chrysene	0.985	0.933	5.3	100	0.00
93		Di-n-octylphthalate (CCC)	1.175	0.000#	100.0#	0#	-20.30#
94	I	Perylene-d12 (I)	1.000	1.000	0.0	102	0.00
~~95~~		~~7,12-Dimethylbenz(a)anthrac~~	~~0.611~~	~~0.466~~	~~23.7#~~	~~78~~	~~0.00~~
96		Benzo(b)fluoranthene	1.315	1.254	4.6	97	0.00
97		Benzo(k)fluoranthene	1.191	1.159	2.7	101	0.00
98		Benzo(e)pyrene	1.059	1.046	1.2	101	0.00
99		Benzo(a)pyrene (CCC)	1.074	1.050	2.2	99	0.00
100		Perylene	1.114	1.066	4.3	99	0.00
101		3-Methylcholanthrene	0.561	0.521	7.1	95	0.00
102		Indeno(1,2,3-cd)pyrene	1.026	0.997	2.8	101	0.00
103		Dibenz(a,h)anthracene	0.857	0.837	2.3	101	0.00

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101359.D
Acq On : 4 Jul 2011 2:30 pm
Operator : tdd/lah
Sample : SSTD050-SS PAH
Misc : gcmsprep2pg120
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 04 18:46:59 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
104	Benzo(g,h,i)perylene	0.818	0.816	0.2	102	-0.01
105	Dibenzo(a,e)pyrene	0.550	0.546	0.7	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101363.D
Acq On : 4 Jul 2011 7:32 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 06:20:16 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (I)	1.000	1.000	0.0	131	0.00
2		N-Nitrosodimethylamine	0.648	0.632	2.5	126	0.00
3		Pyridine	1.167	1.127	3.4	123	-0.01
4	S	2-Fluorophenol (surr)	1.112	1.104	0.7	127	0.00
5	S	Phenol-d5 (surr)	1.209	1.175	2.8	128	0.00
6		Phenol (CCC)	1.254	1.181	5.8	123	0.00
7		Aniline	0.604	0.595	1.5	131	0.00
8		bis(2-Chloroethyl)ether	0.795	0.759	4.5	129	0.00
9		2-Chlorophenol	1.100	1.091	0.8	128	0.00
10		1,3-Dichlorobenzene	1.414	1.363	3.6	128	0.00
11		1,4-Dichlorobenzene (CCC)	1.430	1.412	1.3	133	0.00
12		Benzyl alcohol	0.605	0.544	10.1	121	0.00
13		1,2-Dichlorobenzene	1.304	1.276	2.1	131	0.00
14		2-Methylphenol	0.832	0.779	6.4	122	0.00
15		bis(2-Chloroisopropyl) ethe	1.051	1.021	2.9	130	0.00
16		3/4-Methylphenol	1.012	0.949	6.2	122	0.00
17		N-Nitroso-di-n-propylamine	0.714	0.647	9.4	117	0.00
18		o-Toluidine	1.541	1.466	4.9	125	0.00
19		Hexachloroethane	0.564	0.545	3.4	130	0.00
20	S	Nitrobenzene-d5 (surr)	1.181	1.245	-5.4	135	0.00
21		Nitrobenzene	1.078	1.085	-0.6	129	0.00
22	I	Naphthalene-d8 (I)	1.000	1.000	0.0	133	0.00
23		Isophorone	0.616	0.567	8.0	125	0.00
24		2,4-Dimethylphenol	0.369	0.336	8.9	121	0.00
25		2-Nitrophenol (CCC)	0.162	0.179	-10.5	141	0.00
26		Benzoic acid	0.162	0.177	-9.3	191	0.04
27		bis(2-Chloroethoxy)methane	0.353	0.332	5.9	125	0.00
28		2,4-Dichlorophenol (CCC)	0.294	0.281	4.4	125	0.00
29		a,a-Dimethylphenethylamine	0.593	0.634	-6.9	133	0.04
30		1,2,4-Trichlorobenzene	0.385	0.377	2.1	134	0.00
31		Naphthalene	1.042	0.995	4.5	129	0.00
32		4-Chloroaniline	0.135	0.127	5.9	126	0.00
33		Hexachlorobutadiene (CCC)	0.249	0.244	2.0	135	0.00
34		Quinoline	0.575	0.610	-6.1	141	0.00
35		1,4-Phenylenediamine	0.294	0.327	-11.2	150	0.01
36		4-Chloro-3 methylphenol (CC	0.284	0.295	-3.9	136	0.00
37		2-Methylnaphthalene	0.683	0.664	2.8	130	0.00
38		1-Methylnaphthalene	0.648	0.626	3.4	128	0.00
39		Hexachlorocyclopentadiene (	0.161	0.164	-1.9	142	0.00
40	I	Acenaphthene-d10 (I)	1.000	1.000	0.0	137	0.00
41		2,4,6-Trichlorophenol (CCC)	0.349	0.357	-2.3	141	0.00
42		2,4,5-Trichlorophenol	0.369	0.381	-3.3	141	0.00
43	S	2-Fluorobiphenyl (surr)	1.352	1.276	5.6	135	0.00
44		Biphenyl	1.442	1.369	5.1	134	0.00
45		2-Chloronaphthalene	1.107	1.046	5.5	133	0.00
46		2-Nitroaniline	0.252	0.290	-15.1	150	0.00
47		1,4-Dinitrobenzene	0.132	0.159	-20.5	165	0.00
48		Dimethylphthalate	1.216	1.213	0.2	140	0.00
49		1,3-Dinitrobenzene	0.165	0.191	-15.8	151	0.00
50		2,6-Dinitrotoluene	0.249	0.272	-9.2	145	0.00
51		1,2-Dinitrobenzene	0.115	0.132	-14.8	151	0.01
52		Acenaphthylene	1.703	1.701	0.1	140	0.00

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101363.D
Acq On : 4 Jul 2011 7:32 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 06:20:16 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53		3-Nitroaniline	0.238	0.266	-11.8	146	0.00
54		Acenaphthene (CCC)	1.028	1.037	-0.9	143	0.00
55		2,4-Dinitrophenol (SPCC)	0.101	0.112	-10.9	224#	0.00
56		4-Nitrophenol (SPCC)	0.158	0.174	-10.1	144	0.00
57		2,4-Dinitrotoluene	0.296	0.352	-18.9	152	0.01
58		Dibenzofuran	1.458	1.440	1.2	138	0.00
59		2,3,5,6-Tetrachlorophenol	0.243	0.283	-16.5	158	0.00
60		2,3,4,6-Tetrachlorophenol	0.258	0.291	-12.8	147	0.00
61		Diethlyphthalate	1.225	1.244	-1.6	140	0.00
62	S	Fluorene-d10 (surr)	1.042	1.042	0.0	141	0.00
63		4-Chlorophenyl-phenylether	0.611	0.610	0.2	142	0.00
64		Fluorene	1.226	1.214	1.0	139	0.00
65		4-Nitroaniline	0.239	0.275	-15.1	150	0.01
66		4,6-Dinitro2-methylphenol	0.148	0.177	-19.6	203#	0.00
67		N-Nitrosodiphenylamine (CCC	1.013	1.034	-2.1	141	0.00
68		Azobenzene	1.247	1.225	1.8	136	0.00
69	I	Phenanthrene-d10 (I)	1.000	1.000	0.0	141	0.00
70	S	2,4,6-Tribromophenol (surr)	0.080	0.086	-7.5	156	0.00
71		4-Bromophenyl-phenylether	0.214	0.202	5.6	141	0.00
72		Hexachlorobenzene	0.218	0.212	2.8	144	0.00
73		Pentachlorophenol (CCC)	0.113	0.117	-3.5	168	0.00
74		Phenanthrene	1.019	0.985	3.3	140	0.00
75		Anthracene	1.021	0.985	3.5	139	0.00
76		Carbazole	0.845	0.854	-1.1	144	0.00
77		Di-n-butylphthalate	1.200	1.167	2.7	134	0.00
78		Fluoranthene (CCC)	1.059	1.057	0.2	136	0.00
79		Benzidine	0.494	0.536	-8.5	145	0.00
80	S	Pyrene-d10 (surr)	0.949	0.958	-0.9	136	0.00
81		Pyrene	1.065	1.061	0.4	135	0.00
82	S	Terphenyl-d14 (surr)	0.679	0.692	-1.9	138	0.00
83	I	Chrysene-d12 (I)	1.000	1.000	0.0	129	0.00
84		4-Dimethylaminoazobenzene	0.375	0.372	0.8	133	0.00
85		Butylbenzylphthalate	0.627	0.608	3.0	125	0.00
86		3,3-Dimethylbenzidine	0.721	0.761	-5.5	133	0.00
87		bis(2-Ethylhexyl)adipate	0.499	0.478	4.2	128	0.00
88		3,3-Dimethoxybenzidine	0.282	0.286	-1.4	140	0.00
89		bis(2-Ethylhexyl)phthalate	0.869	0.823	5.3	123	0.00
90		3,3'-Dichlorobenzidine	0.354	0.362	-2.3	130	0.00
91		Benzo(a)anthracene	1.089	1.062	2.5	129	0.00
92		Chrysene	0.985	0.958	2.7	129	0.00
93		Di-n-octylphthalate (CCC)	1.175	1.144	2.6	118	0.00
94	I	Perylene-d12 (I)	1.000	1.000	0.0	122	0.00
95		7,12-Dimethylbenz(a)anthrac	0.611	0.623	-2.0	125	0.00
96		Benzo(b)fluoranthene	1.315	1.313	0.2	122	0.00
97		Benzo(k)fluoranthene	1.191	1.213	-1.8	127	0.00
98		Benzo(e)pyrene	1.059	1.051	0.8	122	0.00
99		Benzo(a)pyrene (CCC)	1.074	1.070	0.4	121	0.00
100		Perylene	1.114	1.094	1.8	123	0.00
101		3-Methylcholanthrene	0.561	0.555	1.1	122	0.00
102		Indeno(1,2,3-cd)pyrene	1.026	0.981	4.4	119	0.00
103		Dibenz(a,h)anthracene	0.857	0.832	2.9	120	0.00

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101363.D
Acq On : 4 Jul 2011 7:32 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 06:20:16 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

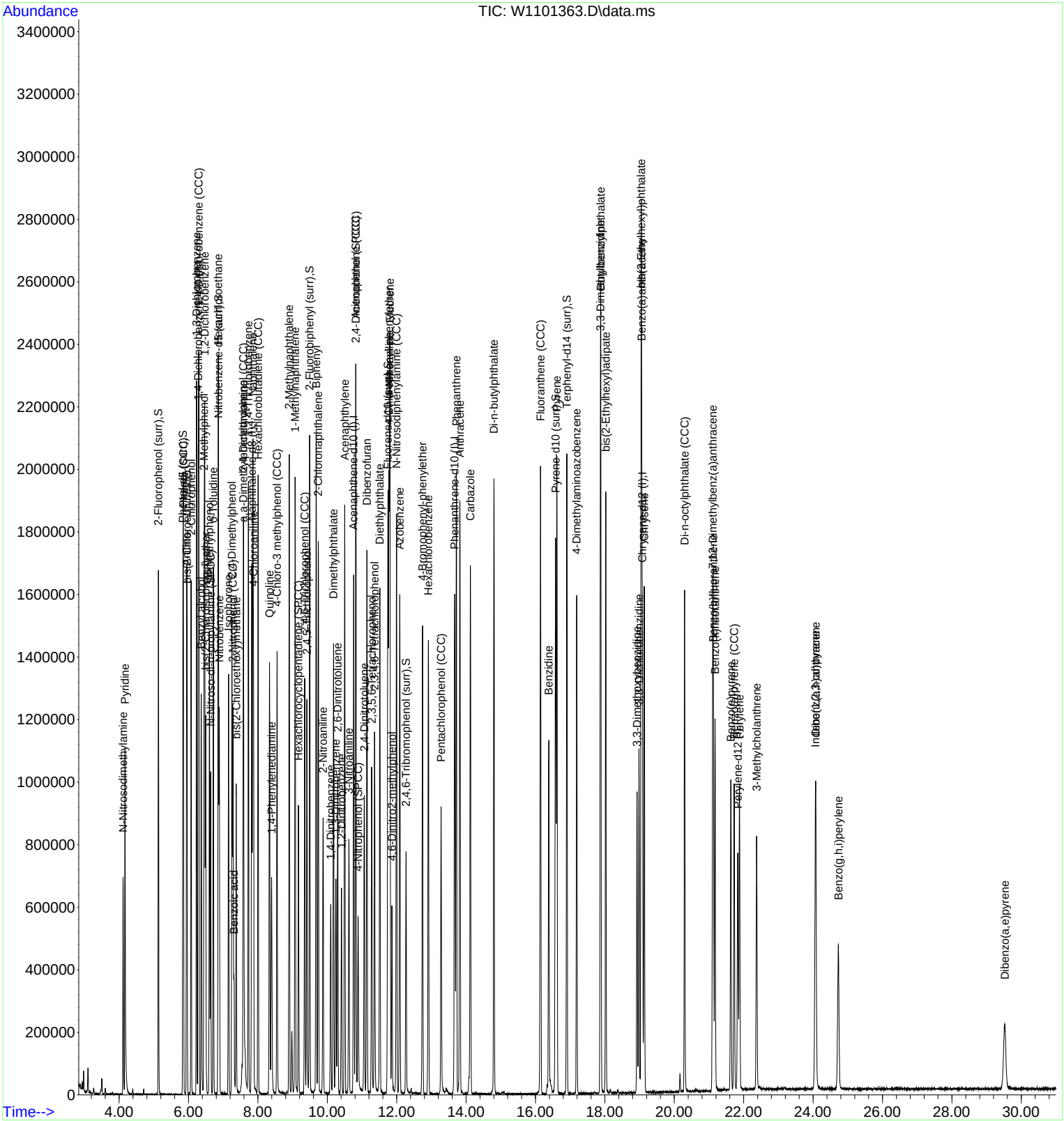
	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
104	Benzo(g,h,i)perylene	0.818	0.797	2.6	120	0.00
105	Dibenzo(a,e)pyrene	0.550	0.547	0.5	117	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101363.D
Acq On : 4 Jul 2011 7:32 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 06:20:16 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101363.D
Acq On : 4 Jul 2011 7:32 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 06:20:16 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.280	152	331601	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.824	136	969513	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.759	164	590916	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.671	188	1041770	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.081	240	810271	40.00	µg/mL	0.00
94) Perylene-d12 (I)	21.831	264	504075	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.133	112	457688	49.64	µg/mL	0.00
5) Phenol-d5 (surr)	5.840	99	486841	48.57	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.865	82	516038	52.70	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.490	172	942573	47.20	µg/mL	0.00
62) Fluorene-d10 (surr)	11.747	176	769676	49.99	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	12.272	330	111695	53.51	µg/mL	0.00
80) Pyrene-d10 (surr)	16.580	212	1247168	50.47	µg/mL	0.00
82) Terphenyl-d14 (surr)	16.904	244	900741	50.90	µg/mL	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.115	74	261930	48.73	µg/mL#	72
3) Pyridine	4.171	79	467233	48.29	µg/mL#	86
6) Phenol (CCC)	5.854	94	489384	47.08	µg/mL#	70
7) Aniline	5.945	66	246491	49.19	µg/mL#	25
8) bis(2-Chloroethyl)ether	5.959	63	314598	47.73	µg/mL#	1
9) 2-Chlorophenol	6.076	128	452281	49.60	µg/mL	96
10) 1,3-Dichlorobenzene	6.232	146	564777	48.19	µg/mL	99
11) 1,4-Dichlorobenzene (CCC)	6.297	146	585408	49.37	µg/mL	98
12) Benzyl alcohol	6.368	108	225468	44.97	µg/mL#	83
13) 1,2-Dichlorobenzene	6.467	146	528996	48.92	µg/mL	99
14) 2-Methylphenol	6.450	107	323023	46.81	µg/mL	94
15) bis(2-Chloroisopropyl)...	6.496	45	423141	48.58	µg/mL#	60
16) 3/4-Methylphenol	6.604	107	393270	46.90	µg/mL	96
17) N-Nitroso-di-n-propyla...	6.641	70	268327	45.31	µg/mL	86
18) o-Toluidine	6.717	106	607866	47.58	µg/mL	99
19) Hexachloroethane	6.856	117	226076	48.32	µg/mL	84
21) Nitrobenzene	6.890	77	449908	50.37	µg/mL	97
23) Isophorone	7.154	82	687372	46.02	µg/mL#	96
24) 2,4-Dimethylphenol	7.251	107	407417	45.59	µg/mL	93
25) 2-Nitrophenol (CCC)	7.279	139	216791	55.05	µg/mL#	76
26) Benzoic acid	7.313	105	214942	54.91	µg/mL#	58
27) bis(2-Chloroethoxy)met...	7.376	93	402663	47.10	µg/mL#	1
28) 2,4-Dichlorophenol (CCC)	7.583	162	341032	47.89	µg/mL	98
29) a,a-Dimethylphenethyla...	7.580	58	768347m	53.45	µg/mL	
30) 1,2,4-Trichlorobenzene	7.728	180	456494	48.88	µg/mL	97
31) Naphthalene	7.855	128	1206109	47.74	µg/mL#	50
32) 4-Chloroaniline	7.872	65	154514	47.06	µg/mL#	36
33) Hexachlorobutadiene (CCC)	8.009	225	296144	49.06	µg/mL	99
34) Quinoline	8.335	129	738777	52.97	µg/mL	100
35) 1,4-Phenylenediamine	8.397	108	396275	55.64	µg/mL	98
36) 4-Chloro-3 methylpheno...	8.554	107	357391	51.92	µg/mL	95
37) 2-Methylnaphthalene	8.903	142	804667	48.59	µg/mL	97
38) 1-Methylnaphthalene	9.073	142	758550	48.28	µg/mL#	100
39) Hexachlorocyclopentadi...	9.169	237	198697	50.90	µg/mL	99
41) 2,4,6-Trichlorophenol ...	9.348	196	263439	51.10	µg/mL	99
42) 2,4,5-Trichlorophenol	9.414	196	281214	51.62	µg/mL	98
44) Biphenyl	9.680	154	1010988	47.46	µg/mL	99
45) 2-Chloronaphthalene	9.740	162	772687	47.26	µg/mL	98
46) 2-Nitroaniline	9.879	65	214469	57.50	µg/mL#	74

Manual Int. "II" (TDD)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101363.D
Acq On : 4 Jul 2011 7:32 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 06:20:16 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.100	168	117173	60.12 µg/mL	97
48) Dimethylphthalate	10.180	163	896132	49.88 µg/mL	99
49) 1,3-Dinitrobenzene	10.248	168	141070	58.03 µg/mL	94
50) 2,6-Dinitrotoluene	10.302	165	200931	54.61 µg/mL	91
51) 1,2-Dinitrobenzene	10.413	168	97403	57.50 µg/mL#	64
52) Acenaphthylene	10.503	152	1256462	49.94 µg/mL	97
53) 3-Nitroaniline	10.623	138	196659	55.88 µg/mL	93
54) Acenaphthene (CCC)	10.821	154	765861	50.41 µg/mL	96
55) 2,4-Dinitrophenol (SPCC)	10.818	184	82688	55.57 µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.889	139	128470	55.01 µg/mL	92
57) 2,4-Dinitrotoluene	11.068	165	260210	59.41 µg/mL	98
58) Dibenzofuran	11.142	168	1063748	49.39 µg/mL	98
59) 2,3,5,6-Tetrachlorophenol	11.281	232	208866	58.24 µg/mL	98
60) 2,3,4,6-Tetrachlorophenol	11.363	232	215068	56.52 µg/mL#	92
61) Diethlyphthalate	11.514	149	918726	50.77 µg/mL	98
63) 4-Chlorophenyl-phenyle...	11.778	204	450215	49.91 µg/mL	89
64) Fluorene	11.806	166	896610	49.50 µg/mL	100
65) 4-Nitroaniline	11.795	138	203030	57.52 µg/mL#	86
66) 4,6-Dinitro2-methylphenol	11.863	198	130615	59.86 µg/mL	99
67) N-Nitrosodiphenylamine...	11.996	169	763509	51.01 µg/mL	99
68) Azobenzene	12.090	77	905120	49.12 µg/mL	95
71) 4-Bromophenyl-phenylether	12.746	248	263307	47.25 µg/mL	99
72) Hexachlorobenzene	12.913	284	275910	48.61 µg/mL	93
73) Pentachlorophenol (CCC)	13.279	266	151768	51.50 µg/mL	96
74) Phenanthrene	13.719	178	1282630	48.32 µg/mL	100
75) Anthracene	13.824	178	1282684	48.25 µg/mL	99
76) Carbazole	14.122	167	1112229	50.52 µg/mL	99
77) Di-n-butylphthalate	14.803	149	1520159	48.65 µg/mL	99
78) Fluoranthene (CCC)	16.146	202	1376735	49.92 µg/mL	95
79) Benzidine	16.384	184	698383	54.26 µg/mL#	98
81) Pyrene	16.617	202	1381745	49.81 µg/mL	99
84) 4-Dimethylaminoazobenzene	17.187	120	376712	49.64 µg/mL	95
85) Butylbenzylphthalate	17.883	149	616100	48.50 µg/mL	94
86) 3,3-Dimethylbenzidine	17.871	212	771266	52.83 µg/mL	99
87) bis(2-Ethylhexyl)adipate	18.028	129	484135	47.91 µg/mL	91
88) 3,3-Dimethoxybenzidine	18.927	244	289908	50.70 µg/mL	93
89) bis(2-Ethylhexyl)phtha...	19.047	149	833225	47.35 µg/mL	98
90) 3,3'-Dichlorobenzidine	18.984	252	366421	51.15 µg/mL#	97
91) Benzo(a)anthracene	19.061	228	1075846	48.79 µg/mL	100
92) Chrysene	19.135	228	970591	48.64 µg/mL	99
93) Di-n-octylphthalate (CCC)	20.298	149	1158584	48.67 µg/mL	97
95) 7,12-Dimethylbenz(a)an...	21.107	256	392460	50.95 µg/mL	97
96) Benzo(b)fluoranthene	21.127	252	827049	49.92 µg/mL	96
97) Benzo(k)fluoranthene	21.175	252	764614	50.94 µg/mL	98
98) Benzo(e)pyrene	21.632	252	662117	49.63 µg/mL	99
99) Benzo(a)pyrene (CCC)	21.726	252	674117	49.79 µg/mL	100
100) Perylene	21.882	252	689267	49.08 µg/mL	98
101) 3-Methylcholanthrene	22.373	268	349708	49.51 µg/mL	97
102) Indeno(1,2,3-cd)pyrene	24.067	276	618059	47.82 µg/mL	99
103) Dibenz(a,h)anthracene	24.076	278	524516	48.56 µg/mL	99
104) Benzo(g,h,i)perylene	24.729	276	502214	48.70 µg/mL	98
105) Dibenzo(a,e)pyrene	29.525	302	344481m	49.69 µg/mL	

Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101383.D
Acq On : 5 Jul 2011 7:57 am
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 05 09:38:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (I)	1.000	1.000	0.0	98	0.00
2		N-Nitrosodimethylamine	0.648	0.667	-2.9	100	0.00
3		Pyridine	1.167	1.226	-5.1	100	-0.01
4	S	2-Fluorophenol (surr)	1.112	1.099	1.2	95	0.00
5	S	Phenol-d5 (surr)	1.209	1.245	-3.0	101	0.00
6		Phenol (CCC)	1.254	1.314	-4.8	102	0.00
7		Aniline	0.604	0.619	-2.5	102	0.00
8		bis(2-Chloroethyl)ether	0.795	0.805	-1.3	103	0.00
9		2-Chlorophenol	1.100	1.110	-0.9	98	0.00
10		1,3-Dichlorobenzene	1.414	1.363	3.6	96	0.00
11		1,4-Dichlorobenzene (CCC)	1.430	1.386	3.1	98	0.00
12		Benzyl alcohol	0.605	0.619	-2.3	103	0.00
13		1,2-Dichlorobenzene	1.304	1.303	0.1	100	0.00
14		2-Methylphenol	0.832	0.853	-2.5	100	0.00
15		bis(2-Chloroisopropyl) ethe	1.051	1.114	-6.0	107	0.00
16		3/4-Methylphenol	1.012	1.036	-2.4	100	0.00
17		N-Nitroso-di-n-propylamine	0.714	0.726	-1.7	99	0.00
18		o-Toluidine	1.541	1.556	-1.0	100	0.00
19		Hexachloroethane	0.564	0.550	2.5	98	0.00
20	S	Nitrobenzene-d5 (surr)	1.181	1.276	-8.0	104	0.00
21		Nitrobenzene	1.078	1.156	-7.2	103	0.00
22	I	Naphthalene-d8 (I)	1.000	1.000	0.0	105	0.00
23		Isophorone	0.616	0.566	8.1	98	0.00
24		2,4-Dimethylphenol	0.369	0.345	6.5	98	0.00
25		2-Nitrophenol (CCC)	0.162	0.177	-9.3	110	0.00
26		Benzoic acid	0.162	0.136	16.0	115	0.02
27		bis(2-Chloroethoxy)methane	0.353	0.349	1.1	104	0.00
28		2,4-Dichlorophenol (CCC)	0.294	0.280	4.8	98	0.00
29		a,a-Dimethylphenethylamine	0.593	0.605	-2.0	100	0.03
30		1,2,4-Trichlorobenzene	0.385	0.359	6.8	101	0.00
31		Naphthalene	1.042	0.997	4.3	102	0.00
32		4-Chloroaniline	0.135	0.127	5.9	99	0.00
33		Hexachlorobutadiene (CCC)	0.249	0.228	8.4	100	0.00
34		Quinoline	0.575	0.557	3.1	102	0.00
35		1,4-Phenylenediamine	0.294	0.305	-3.7	110	0.00
36		4-Chloro-3 methylphenol (CC	0.284	0.275	3.2	101	0.00
37		2-Methylnaphthalene	0.683	0.638	6.6	99	0.00
38		1-Methylnaphthalene	0.648	0.606	6.5	98	0.00
39		Hexachlorocyclopentadiene (	0.161	0.178	-10.6	121	0.00
40	I	Acenaphthene-d10 (I)	1.000	1.000	0.0	102	0.00
41		2,4,6-Trichlorophenol (CCC)	0.349	0.340	2.6	100	0.00
42		2,4,5-Trichlorophenol	0.369	0.355	3.8	97	0.00
43	S	2-Fluorobiphenyl (surr)	1.352	1.242	8.1	97	0.00
44		Biphenyl	1.442	1.327	8.0	96	0.00
45		2-Chloronaphthalene	1.107	1.025	7.4	97	0.00
46		2-Nitroaniline	0.252	0.270	-7.1	103	0.00
47		1,4-Dinitrobenzene	0.132	0.140	-6.1	107	0.00
48		Dimethylphthalate	1.216	1.129	7.2	97	0.00
49		1,3-Dinitrobenzene	0.165	0.173	-4.8	101	0.00
50		2,6-Dinitrotoluene	0.249	0.248	0.4	98	0.00
51		1,2-Dinitrobenzene	0.115	0.120	-4.3	102	0.00
52		Acenaphthylene	1.703	1.565	8.1	95	0.00

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101383.D
Acq On : 5 Jul 2011 7:57 am
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 05 09:38:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53		3-Nitroaniline	0.238	0.242	-1.7	98	0.00
54		Acenaphthene (CCC)	1.028	0.999	2.8	102	0.00
55		2,4-Dinitrophenol (SPCC)	0.101	0.102	-1.0	151	0.00
56		4-Nitrophenol (SPCC)	0.158	0.172	-8.9	105	0.00
57		2,4-Dinitrotoluene	0.296	0.320	-8.1	102	0.00
58		Dibenzofuran	1.458	1.372	5.9	97	0.00
59		2,3,5,6-Tetrachlorophenol	0.243	0.251	-3.3	104	0.00
60		2,3,4,6-Tetrachlorophenol	0.258	0.255	1.2	95	0.00
61		Diethlyphthalate	1.225	1.133	7.5	94	0.00
62	S	Fluorene-d10 (surr)	1.042	0.952	8.6	95	0.00
63		4-Chlorophenyl-phenylether	0.611	0.558	8.7	96	0.00
64		Fluorene	1.226	1.149	6.3	97	0.00
65		4-Nitroaniline	0.239	0.248	-3.8	100	0.00
66		4,6-Dinitro2-methylphenol	0.148	0.159	-7.4	135	0.00
67		N-Nitrosodiphenylamine (CCC	1.013	0.968	4.4	98	0.00
68		Azobenzene	1.247	1.189	4.7	98	0.00
69	I	Phenanthrene-d10 (I)	1.000	1.000	0.0	99	0.00
70	S	2,4,6-Tribromophenol (surr)	0.080	0.077	3.8	98	0.00
71		4-Bromophenyl-phenylether	0.214	0.192	10.3	95	0.00
72		Hexachlorobenzene	0.218	0.199	8.7	95	0.00
73		Pentachlorophenol (CCC)	0.113	0.105	7.1	107	0.00
74		Phenanthrene	1.019	0.947	7.1	95	0.00
75		Anthracene	1.021	0.971	4.9	97	0.00
76		Carbazole	0.845	0.845	0.0	101	0.00
77		Di-n-butylphthalate	1.200	1.133	5.6	92	0.00
78		Fluoranthene (CCC)	1.059	1.063	-0.4	97	0.00
79		Benzidine	0.494	0.534	-8.1	102	0.00
80	S	Pyrene-d10 (surr)	0.949	0.965	-1.7	97	0.00
81		Pyrene	1.065	1.074	-0.8	96	0.00
82	S	Terphenyl-d14 (surr)	0.679	0.695	-2.4	98	0.00
83	I	Chrysene-d12 (I)	1.000	1.000	0.0	103	0.00
84		4-Dimethylaminoazobenzene	0.375	0.339	9.6	96	0.00
85		Butylbenzylphthalate	0.627	0.572	8.8	94	0.00
86		3,3-Dimethylbenzidine	0.721	0.687	4.7	96	0.00
87		bis(2-Ethylhexyl)adipate	0.499	0.436	12.6	93	0.00
88		3,3-Dimethoxybenzidine	0.282	0.260	7.8	101	0.00
89		bis(2-Ethylhexyl)phthalate	0.869	0.774	10.9	92	-0.01
90		3,3'-Dichlorobenzidine	0.354	0.342	3.4	98	0.00
91		Benzo(a)anthracene	1.089	1.004	7.8	97	0.00
92		Chrysene	0.985	0.909	7.7	97	0.00
93		Di-n-octylphthalate (CCC)	1.175	1.101	6.3	91	-0.02
94	I	Perylene-d12 (I)	1.000	1.000	0.0	103	0.00
95		7,12-Dimethylbenz(a)anthrac	0.611	0.586	4.1	99	0.00
96		Benzo(b)fluoranthene	1.315	1.276	3.0	99	0.00
97		Benzo(k)fluoranthene	1.191	1.156	2.9	102	0.00
98		Benzo(e)pyrene	1.059	1.022	3.5	100	0.00
99		Benzo(a)pyrene (CCC)	1.074	1.030	4.1	98	0.00
100		Perylene	1.114	1.064	4.5	100	0.00
101		3-Methylcholanthrene	0.561	0.548	2.3	101	0.00
102		Indeno(1,2,3-cd)pyrene	1.026	0.985	4.0	100	0.00
103		Dibenz(a,h)anthracene	0.857	0.829	3.3	101	-0.01

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101383.D
Acq On : 5 Jul 2011 7:57 am
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 05 09:38:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

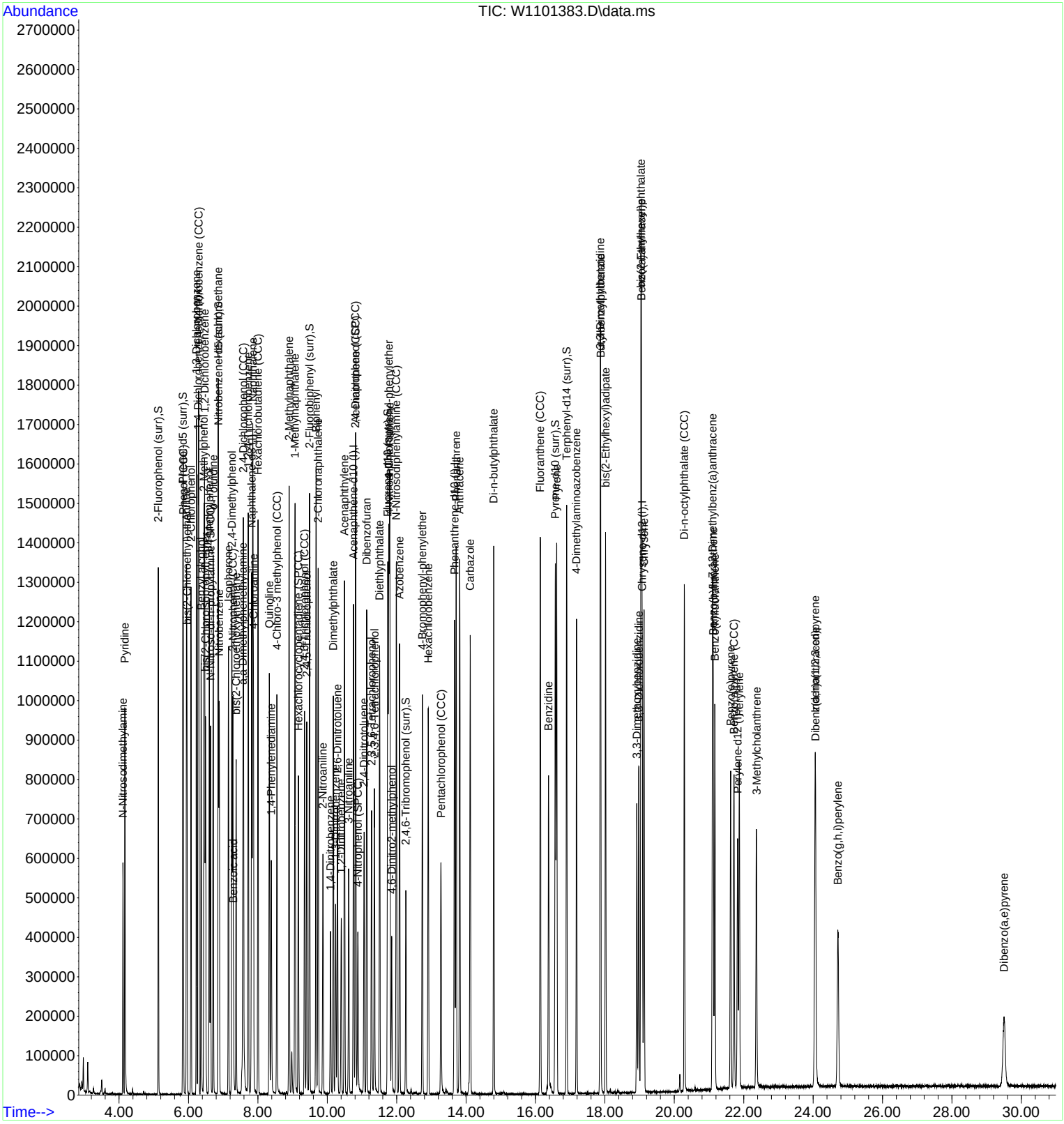
	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
104	Benzo(g,h,i)perylene	0.818	0.799	2.3	101	-0.02
105	Dibenzo(a,e)pyrene	0.550	0.528	4.0	95	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101383.D
Acq On : 5 Jul 2011 7:57 am
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 05 09:38:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101383.D
Acq On : 5 Jul 2011 7:57 am
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 05 09:38:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.277	152	248766	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.821	136	765696	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.756	164	437214	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.665	188	735382	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.075	240	646166	40.00	µg/mL	0.00
94) Perylene-d12 (I)	21.823	264	424083	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.131	112	341630	49.39	µg/mL	0.00
5) Phenol-d5 (surr)	5.838	99	387110	51.48	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.862	82	396900	54.03	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.487	172	678679	45.93	µg/mL	0.00
62) Fluorene-d10 (surr)	11.741	176	520227	45.67	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	12.263	330	70651	47.95	µg/mL	0.00
80) Pyrene-d10 (surr)	16.572	212	887415	50.88	µg/mL	0.00
82) Terphenyl-d14 (surr)	16.898	244	638900	51.15	µg/mL	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.112	74	207518	51.46	µg/mL#	77
3) Pyridine	4.169	79	381303	52.53	µg/mL#	88
6) Phenol (CCC)	5.852	94	408554	52.39	µg/mL#	76
7) Aniline	5.943	66	192604	51.23	µg/mL#	23
8) bis(2-Chloroethyl)ether	5.957	63	250425	50.65	µg/mL#	1
9) 2-Chlorophenol	6.073	128	345014	50.44	µg/mL	97
10) 1,3-Dichlorobenzene	6.229	146	423923	48.22	µg/mL	98
11) 1,4-Dichlorobenzene (CCC)	6.294	146	430913	48.44	µg/mL	99
12) Benzyl alcohol	6.365	108	192622	51.21	µg/mL#	87
13) 1,2-Dichlorobenzene	6.465	146	405172	49.95	µg/mL	96
14) 2-Methylphenol	6.445	107	265233	51.24	µg/mL	94
15) bis(2-Chloroisopropyl)...	6.490	45	346260	52.99	µg/mL#	65
16) 3/4-Methylphenol	6.601	107	322041	51.19	µg/mL	97
17) N-Nitroso-di-n-propyla...	6.635	70	225650	50.79	µg/mL	84
18) o-Toluidine	6.712	106	483890	50.48	µg/mL	99
19) Hexachloroethane	6.854	117	171034	48.73	µg/mL	83
21) Nitrobenzene	6.885	77	359388	53.63	µg/mL	97
23) Isophorone	7.152	82	541282	45.88	µg/mL#	97
24) 2,4-Dimethylphenol	7.251	107	330346	46.81	µg/mL	94
25) 2-Nitrophenol (CCC)	7.277	139	169730	54.57	µg/mL#	77
26) Benzoic acid	7.294	105	129953	42.04	µg/mL#	37
27) bis(2-Chloroethoxy)met...	7.373	93	334083	49.48	µg/mL#	1
28) 2,4-Dichlorophenol (CCC)	7.580	162	267909	47.63	µg/mL	98
29) a,a-Dimethylphenethyla...	7.569	58	579199	51.01	µg/mL#	69
30) 1,2,4-Trichlorobenzene	7.722	180	343780	46.61	µg/mL	96
31) Naphthalene	7.850	128	954530	47.84	µg/mL#	51
32) 4-Chloroaniline	7.873	65	121304	46.78	µg/mL#	33
33) Hexachlorobutadiene (CCC)	8.003	225	218414	45.82	µg/mL	99
34) Quinoline	8.329	129	532960	48.39	µg/mL	99
35) 1,4-Phenylenediamine	8.386	108	291750	51.87	µg/mL	98
36) 4-Chloro-3 methylpheno...	8.548	107	263389	48.45	µg/mL	93
37) 2-Methylnaphthalene	8.900	142	610405	46.67	µg/mL	98
38) 1-Methylnaphthalene	9.070	142	580116	46.75	µg/mL#	100
39) Hexachlorocyclopentadi...	9.167	237	170356	55.26	µg/mL	99
41) 2,4,6-Trichlorophenol ...	9.343	196	185950	48.75	µg/mL	98
42) 2,4,5-Trichlorophenol	9.408	196	194250	48.19	µg/mL	99
44) Biphenyl	9.678	154	725484	46.03	µg/mL	100
45) 2-Chloronaphthalene	9.737	162	560045	46.30	µg/mL	99
46) 2-Nitroaniline	9.873	65	147679	53.51	µg/mL#	73

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101383.D
Acq On : 5 Jul 2011 7:57 am
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 05 09:38:17 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.092	168	76287	52.91 µg/mL	98
48) Dimethylphthalate	10.174	163	617228	46.44 µg/mL	99
49) 1,3-Dinitrobenzene	10.240	168	94369	52.47 µg/mL	94
50) 2,6-Dinitrotoluene	10.296	165	135733	49.86 µg/mL	89
51) 1,2-Dinitrobenzene	10.401	168	65543	52.30 µg/mL#	65
52) Acenaphthylene	10.495	152	855418	45.95 µg/mL	96
53) 3-Nitroaniline	10.614	138	132338	50.83 µg/mL	91
54) Acenaphthene (CCC)	10.819	154	545966	48.57 µg/mL	96
55) 2,4-Dinitrophenol (SPCC)	10.813	184	55824	50.70 µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.881	139	93804	54.28 µg/mL	91
57) 2,4-Dinitrotoluene	11.060	165	175104	54.03 µg/mL	98
58) Dibenzofuran	11.137	168	749820	47.05 µg/mL	97
59) 2,3,5,6-Tetrachlorophenol	11.276	232	136921	51.60 µg/mL	98
60) 2,3,4,6-Tetrachlorophenol	11.361	232	139289	49.47 µg/mL#	90
61) Diethlyphthalate	11.508	149	619295	46.25 µg/mL	97
63) 4-Chlorophenyl-phenyle...	11.772	204	305121	45.72 µg/mL	90
64) Fluorene	11.801	166	627877	46.85 µg/mL	100
65) 4-Nitroaniline	11.786	138	135347	51.82 µg/mL#	84
66) 4,6-Dinitro2-methylphenol	11.857	198	86947	53.85 µg/mL	98
67) N-Nitrosodiphenylamine...	11.988	169	529230	47.79 µg/mL	98
68) Azobenzene	12.082	77	650030	47.68 µg/mL	93
71) 4-Bromophenyl-phenylether	12.740	248	176931	44.98 µg/mL	98
72) Hexachlorobenzene	12.910	284	182614	45.58 µg/mL	93
73) Pentachlorophenol (CCC)	13.277	266	96744	46.51 µg/mL	97
74) Phenanthrene	13.714	178	870234	46.44 µg/mL	100
75) Anthracene	13.813	178	892912	47.59 µg/mL	100
76) Carbazole	14.117	167	776879	49.99 µg/mL	98
77) Di-n-butylphthalate	14.795	149	1041848	47.24 µg/mL	99
78) Fluoranthene (CCC)	16.137	202	976905	50.18 µg/mL	96
79) Benzidine	16.376	184	490746	54.01 µg/mL#	98
81) Pyrene	16.611	202	987179	50.41 µg/mL	100
84) 4-Dimethylaminoazobenzene	17.182	120	273456	45.18 µg/mL	93
85) Butylbenzylphthalate	17.877	149	462159	45.62 µg/mL	93
86) 3,3-Dimethylbenzidine	17.866	212	555074	47.68 µg/mL	98
87) bis(2-Ethylhexyl)adipate	18.019	129	352199	43.70 µg/mL	92
88) 3,3-Dimethoxybenzidine	18.919	244	209850	46.02 µg/mL	91
89) bis(2-Ethylhexyl)phtha...	19.041	149	625108	44.55 µg/mL	97
90) 3,3'-Dichlorobenzidine	18.979	252	276178	48.34 µg/mL#	96
91) Benzo(a)anthracene	19.052	228	811312	46.14 µg/mL	100
92) Chrysene	19.129	228	734358	46.15 µg/mL	100
93) Di-n-octylphthalate (CCC)	20.287	149	889423	46.85 µg/mL	96
95) 7,12-Dimethylbenz(a)an...	21.099	256	310394	47.90 µg/mL	97
96) Benzo(b)fluoranthene	21.121	252	676191	48.51 µg/mL	94
97) Benzo(k)fluoranthene	21.170	252	612784	48.53 µg/mL	99
98) Benzo(e)pyrene	21.624	252	541859	48.28 µg/mL	99
99) Benzo(a)pyrene (CCC)	21.717	252	545843	47.92 µg/mL	99
100) Perylene	21.874	252	564282	47.76 µg/mL	98
101) 3-Methylcholanthrene	22.370	268	290502	48.88 µg/mL	96
102) Indeno(1,2,3-cd)pyrene	24.059	276	522362	48.04 µg/mL	98
103) Dibenz(a,h)anthracene	24.070	278	439377	48.35 µg/mL	99
104) Benzo(g,h,i)perylene	24.712	276	423362	48.80 µg/mL	96
105) Dibenzo(a,e)pyrene	29.503	302	279735	47.97 µg/mL#	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101450.D
Acq On : 13 Jul 2011 12:10 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 12:58:29 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (I)	1.000	1.000	0.0	143	0.00
2		N-Nitrosodimethylamine	0.648	0.642	0.9	140	0.00
3		Pyridine	1.167	1.014	13.1	121	-0.01
4	S	2-Fluorophenol (surr)	1.112	1.016	8.6	128	0.00
5	S	Phenol-d5 (surr)	1.209	1.171	3.1	139	0.00
6		Phenol (CCC)	1.254	1.232	1.8	140	0.00
7		Aniline	0.604	0.581	3.8	140	0.00
8		bis(2-Chloroethyl)ether	0.795	0.787	1.0	147	0.00
9		2-Chlorophenol	1.100	1.059	3.7	136	0.00
10		1,3-Dichlorobenzene	1.414	1.291	8.7	133	0.00
11		1,4-Dichlorobenzene (CCC)	1.430	1.302	9.0	135	0.00
12		Benzyl alcohol	0.605	0.571	5.6	139	0.00
13		1,2-Dichlorobenzene	1.304	1.217	6.7	137	0.00
14		2-Methylphenol	0.832	0.807	3.0	139	0.00
15		bis(2-Chloroisopropyl) ethe	1.051	1.119	-6.5	157	0.00
16		3/4-Methylphenol	1.012	0.960	5.1	135	0.00
17		N-Nitroso-di-n-propylamine	0.714	0.701	1.8	139	0.00
18		o-Toluidine	1.541	1.504	2.4	141	0.00
19		Hexachloroethane	0.564	0.527	6.6	137	0.00
20	S	Nitrobenzene-d5 (surr)	1.181	1.274	-7.9	151	0.00
21		Nitrobenzene	1.078	1.164	-8.0	152	0.00
22	I	Naphthalene-d8 (I)	1.000	1.000	0.0	157	0.00
23		Isophorone	0.616	0.544	11.7	141	0.00
24		2,4-Dimethylphenol	0.369	0.319	13.6	136	0.00
25		2-Nitrophenol (CCC)	0.162	0.172	-6.2	160	0.00
26		Benzoic acid	0.162	0.155	4.3	196	0.04
27		bis(2-Chloroethoxy)methane	0.353	0.331	6.2	148	0.00
28		2,4-Dichlorophenol (CCC)	0.294	0.262	10.9	138	0.00
29		a,a-Dimethylphenethylamine	0.593	0.608	-2.5	150	0.04
30		1,2,4-Trichlorobenzene	0.385	0.340	11.7	143	0.00
31		Naphthalene	1.042	0.958	8.1	147	0.00
32		4-Chloroaniline	0.135	0.117	13.3	136	0.00
33		Hexachlorobutadiene (CCC)	0.249	0.209	16.1	137	0.00
34		Quinoline	0.575	0.531	7.7	145	0.00
35		1,4-Phenylenediamine	0.294	0.283	3.7	153	0.00
36		4-Chloro-3 methylphenol (CC	0.284	0.260	8.5	142	0.00
37		2-Methylnaphthalene	0.683	0.609	10.8	141	0.00
38		1-Methylnaphthalene	0.648	0.585	9.7	142	0.00
39		Hexachlorocyclopentadiene (	0.161	0.165	-2.5	169	0.00
40	I	Acenaphthene-d10 (I)	1.000	1.000	0.0	161	0.00
41		2,4,6-Trichlorophenol (CCC)	0.349	0.316	9.5	147	0.00
42		2,4,5-Trichlorophenol	0.369	0.329	10.8	143	0.00
43	S	2-Fluorobiphenyl (surr)	1.352	1.163	14.0	144	0.00
44		Biphenyl	1.442	1.251	13.2	144	0.00
45		2-Chloronaphthalene	1.107	0.957	13.6	143	0.00
46		2-Nitroaniline	0.252	0.272	-7.9	165	0.00
47		1,4-Dinitrobenzene	0.132	0.149	-12.9	181	0.00
48		Dimethylphthalate	1.216	1.105	9.1	150	0.00
49		1,3-Dinitrobenzene	0.165	0.180	-9.1	167	0.00
50		2,6-Dinitrotoluene	0.249	0.252	-1.2	158	0.00
51		1,2-Dinitrobenzene	0.115	0.121	-5.2	162	0.00
52		Acenaphthylene	1.703	1.535	9.9	148	0.00

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101450.D
Acq On : 13 Jul 2011 12:10 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 12:58:29 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53		3-Nitroaniline	0.238	0.246	-3.4	158	0.00
54		Acenaphthene (CCC)	1.028	0.966	6.0	156	0.00
55		2,4-Dinitrophenol (SPCC)	0.101	0.124	-22.8#	290#	0.00
56		4-Nitrophenol (SPCC)	0.158	0.173	-9.5	168	0.00
57		2,4-Dinitrotoluene	0.296	0.326	-10.1	165	0.00
58		Dibenzofuran	1.458	1.315	9.8	148	0.00
59		2,3,5,6-Tetrachlorophenol	0.243	0.243	0.0	159	0.00
60		2,3,4,6-Tetrachlorophenol	0.258	0.256	0.8	152	0.00
61		Diethlyphthalate	1.225	1.109	9.5	146	0.00
62	S	Fluorene-d10 (surr)	1.042	0.941	9.7	149	0.00
63		4-Chlorophenyl-phenylether	0.611	0.539	11.8	147	0.00
64		Fluorene	1.226	1.124	8.3	151	0.00
65		4-Nitroaniline	0.239	0.254	-6.3	163	0.00
66		4,6-Dinitro2-methylphenol	0.148	0.175	-18.2	235#	0.00
67		N-Nitrosodiphenylamine (CCC	1.013	0.935	7.7	149	0.00
68		Azobenzene	1.247	1.148	7.9	150	0.00
69	I	Phenanthrene-d10 (I)	1.000	1.000	0.0	165	0.00
70	S	2,4,6-Tribromophenol (surr)	0.080	0.068	15.0	144	0.00
71		4-Bromophenyl-phenylether	0.214	0.177	17.3	145	0.00
72		Hexachlorobenzene	0.218	0.184	15.6	146	0.00
73		Pentachlorophenol (CCC)	0.113	0.104	8.0	174	-0.01
74		Phenanthrene	1.019	0.898	11.9	150	0.00
75		Anthracene	1.021	0.905	11.4	150	0.00
76		Carbazole	0.845	0.791	6.4	156	0.00
77		Di-n-butylphthalate	1.200	1.046	12.8	140	0.00
78		Fluoranthene (CCC)	1.059	0.973	8.1	147	0.00
79		Benzidine	0.494	0.490	0.8	155	0.00
80	S	Pyrene-d10 (surr)	0.949	0.879	7.4	146	0.00
81		Pyrene	1.065	0.983	7.7	146	0.00
82	S	Terphenyl-d14 (surr)	0.679	0.610	10.2	142	-0.01
83	I	Chrysene-d12 (I)	1.000	1.000	0.0	161	0.00
84		4-Dimethylaminoazobenzene	0.375	0.314	16.3	140	0.00
85		Butylbenzylphthalate	0.627	0.524	16.4	134	-0.01
86		3,3-Dimethylbenzidine	0.721	0.644	10.7	140	0.00
87		bis(2-Ethylhexyl)adipate	0.499	0.409	18.0	137	-0.01
88		3,3-Dimethoxybenzidine	0.282	0.239	15.2	146	0.00
89		bis(2-Ethylhexyl)phthalate	0.869	0.705	18.9	131	-0.02
90		3,3'-Dichlorobenzidine	0.354	0.312	11.9	139	0.00
91		Benzo(a)anthracene	1.089	0.955	12.3	144	0.00
92		Chrysene	0.985	0.852	13.5	142	0.00
93		Di-n-octylphthalate (CCC)	1.175	0.944	19.7	121	-0.02
94	I	Perylene-d12 (I)	1.000	1.000	0.0	161	0.00
95		7,12-Dimethylbenz(a)anthrac	0.611	0.545	10.8	144	0.00
96		Benzo(b)fluoranthene	1.315	1.155	12.2	141	0.00
97		Benzo(k)fluoranthene	1.191	1.063	10.7	146	0.00
98		Benzo(e)pyrene	1.059	0.933	11.9	142	0.00
99		Benzo(a)pyrene (CCC)	1.074	0.952	11.4	142	-0.01
100		Perylene	1.114	0.970	12.9	143	0.00
101		3-Methylcholanthrene	0.561	0.489	12.8	142	-0.01
102		Indeno(1,2,3-cd)pyrene	1.026	0.899	12.4	143	-0.01
103		Dibenz(a,h)anthracene	0.857	0.747	12.8	142	-0.02

Evaluate Continuing Calibration Report

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101450.D
Acq On : 13 Jul 2011 12:10 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 12:58:29 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

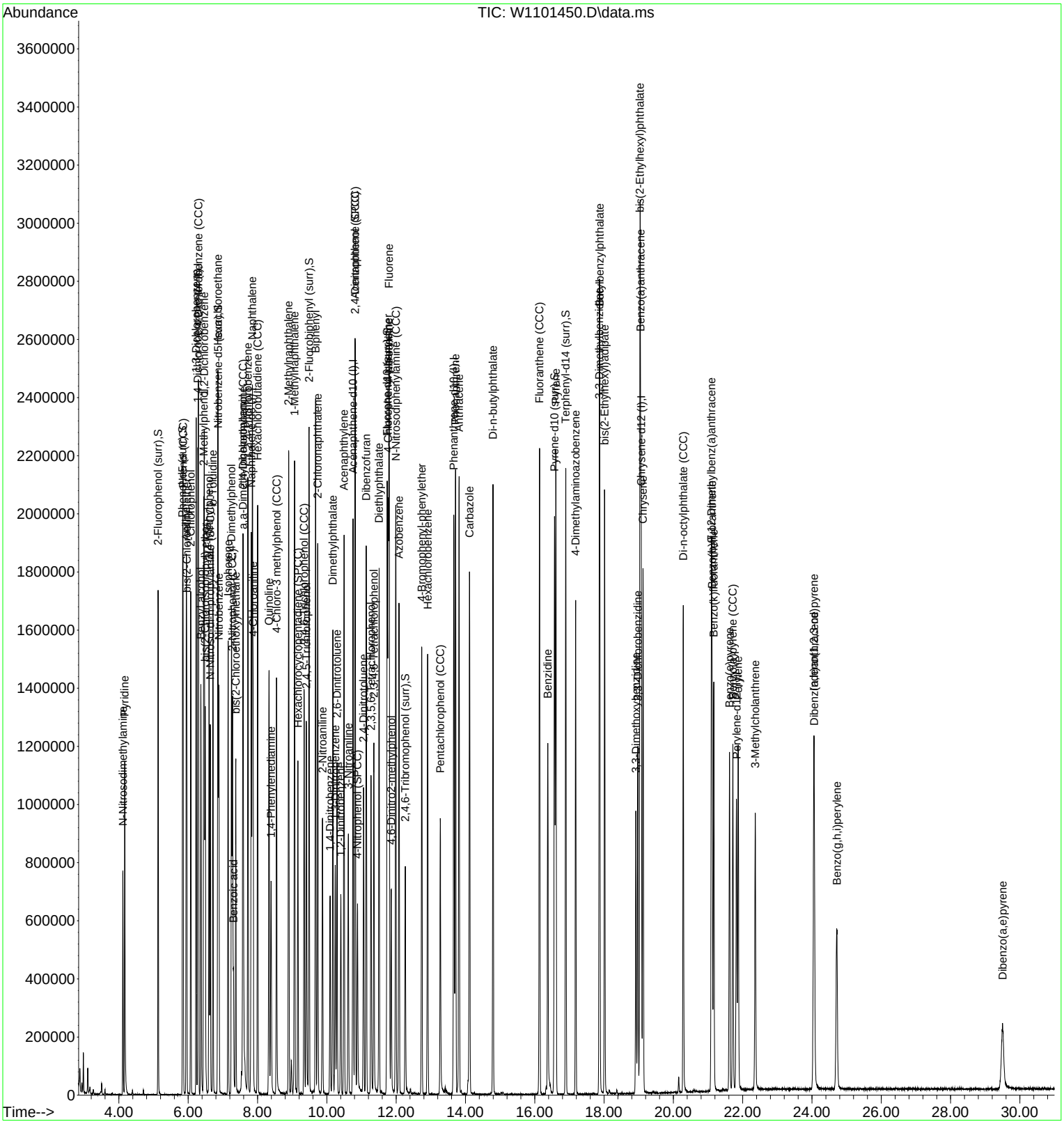
	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
104	Benzo(g,h,i)perylene	0.818	0.710	13.2	141	-0.01
105	Dibenzo(a,e)pyrene	0.550	0.427	22.4#	121	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101450.D
Acq On : 13 Jul 2011 12:10 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 12:58:29 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101450.D
Acq On : 13 Jul 2011 12:10 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 12:58:29 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.277	152	363171	40.00	µg/mL	0.00
22) Naphthalene-d8 (I)	7.819	136	1145020	40.00	µg/mL	0.00
40) Acenaphthene-d10 (I)	10.756	164	692550	40.00	µg/mL	0.00
69) Phenanthrene-d10 (I)	13.662	188	1218641	40.00	µg/mL	0.00
83) Chrysene-d12 (I)	19.072	240	1007980	40.00	µg/mL	0.00
94) Perylene-d12 (I)	21.822	264	663788	40.00	µg/mL	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (surr)	5.131	112	461177	45.67	µg/mL	0.00
5) Phenol-d5 (surr)	5.837	99	531724	48.43	µg/mL	0.00
20) Nitrobenzene-d5 (surr)	6.862	82	578325	53.92	µg/mL	0.00
43) 2-Fluorobiphenyl (surr)	9.487	172	1006892	43.02	µg/mL	0.00
62) Fluorene-d10 (surr)	11.741	176	814891	45.16	µg/mL	0.00
70) 2,4,6-Tribromophenol (...	12.263	330	103443	42.36	µg/mL	0.00
80) Pyrene-d10 (surr)	16.569	212	1339736	46.35	µg/mL	0.00
82) Terphenyl-d14 (surr)	16.892	244	928716	44.86	µg/mL	-0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.115	74	291395	49.50	µg/mL	82
3) Pyridine	4.169	79	460427	43.45	µg/mL	88
6) Phenol (CCC)	5.852	94	559306	49.12	µg/mL#	77
7) Aniline	5.942	66	263677	48.04	µg/mL#	18
8) bis(2-Chloroethyl)ether	5.957	63	357154	49.48	µg/mL#	1
9) 2-Chlorophenol	6.073	128	480580	48.12	µg/mL	98
10) 1,3-Dichlorobenzene	6.229	146	586105	45.67	µg/mL	98
11) 1,4-Dichlorobenzene (CCC)	6.294	146	591088	45.51	µg/mL	99
12) Benzyl alcohol	6.365	108	259095	47.18	µg/mL	87
13) 1,2-Dichlorobenzene	6.465	146	552269	46.64	µg/mL	98
14) 2-Methylphenol	6.448	107	366447	48.49	µg/mL	93
15) bis(2-Chloroisopropyl)...	6.490	45	507964	53.25	µg/mL#	68
16) 3/4-Methylphenol	6.601	107	435652	47.44	µg/mL	97
17) N-Nitroso-di-n-propyla...	6.635	70	318029	49.03	µg/mL	84
18) o-Toluidine	6.714	106	682613	48.78	µg/mL	99
19) Hexachloroethane	6.854	117	239205	46.69	µg/mL#	82
21) Nitrobenzene	6.885	77	528307	54.00	µg/mL	96
23) Isophorone	7.152	82	778312	44.12	µg/mL#	98
24) 2,4-Dimethylphenol	7.248	107	455880	43.20	µg/mL	92
25) 2-Nitrophenol (CCC)	7.276	139	245951	52.88	µg/mL#	77
26) Benzoic acid	7.308	105	221614	47.94	µg/mL#	67
27) bis(2-Chloroethoxy)met...	7.373	93	474089	46.96	µg/mL#	1
28) 2,4-Dichlorophenol (CCC)	7.580	162	374603	44.54	µg/mL	98
29) a,a-Dimethylphenethyla...	7.577	58	870479m	51.27	µg/mL	
30) 1,2,4-Trichlorobenzene	7.725	180	486705	44.13	µg/mL	96
31) Naphthalene	7.853	128	1371690	45.97	µg/mL#	51
32) 4-Chloroaniline	7.872	65	167181	43.12	µg/mL#	32
33) Hexachlorobutadiene (CCC)	8.003	225	299146	41.96	µg/mL	99
34) Quinoline	8.332	129	760266	46.16	µg/mL	99
35) 1,4-Phenylenediamine	8.392	108	404700	48.11	µg/mL	98
36) 4-Chloro-3 methylpheno...	8.548	107	372732	45.85	µg/mL	95
37) 2-Methylnaphthalene	8.897	142	871525	44.56	µg/mL	97
38) 1-Methylnaphthalene	9.067	142	837892	45.16	µg/mL#	100
39) Hexachlorocyclopentadi...	9.167	237	236547	51.31	µg/mL	99
41) 2,4,6-Trichlorophenol ...	9.343	196	273805	45.32	µg/mL	99
42) 2,4,5-Trichlorophenol	9.411	196	285089	44.65	µg/mL	97
44) Biphenyl	9.675	154	1082858	43.38	µg/mL	99
45) 2-Chloronaphthalene	9.737	162	828045	43.21	µg/mL	99
46) 2-Nitroaniline	9.876	65	235486	53.87	µg/mL#	74

Manual Int. "II" (TDD)

Quantitation Report (QT Reviewed)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101450.D
Acq On : 13 Jul 2011 12:10 pm
Operator : tdd/lah
Sample : SSTD050 M8270/ICR SCN
Misc : gcmsprep2pg115 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 12:58:29 2011
Quant Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Quant Title : 8270C - Full List
QLast Update : Mon Jul 04 18:40:29 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,4-Dinitrobenzene	10.095	168	128849	56.41 µg/mL	93
48) Dimethylphthalate	10.174	163	956175	45.42 µg/mL	99
49) 1,3-Dinitrobenzene	10.242	168	155760	54.67 µg/mL	94
50) 2,6-Dinitrotoluene	10.293	165	217955	50.54 µg/mL	92
51) 1,2-Dinitrobenzene	10.401	168	104466	52.62 µg/mL#	64
52) Acenaphthylene	10.498	152	1328776	45.06 µg/mL	97
53) 3-Nitroaniline	10.620	138	212542	51.53 µg/mL	92
54) Acenaphthene (CCC)	10.819	154	836395	46.97 µg/mL	97
55) 2,4-Dinitrophenol (SPCC)	10.813	184	106963	61.33 µg/mL#	1
56) 4-Nitrophenol (SPCC)	10.884	139	149865	54.75 µg/mL	90
57) 2,4-Dinitrotoluene	11.060	165	282142	54.96 µg/mL	97
58) Dibenzofuran	11.136	168	1138402	45.10 µg/mL	96
59) 2,3,5,6-Tetrachlorophenol	11.276	232	210070	49.98 µg/mL	99
60) 2,3,4,6-Tetrachlorophenol	11.358	232	221768	49.73 µg/mL#	92
61) Diethlyphthalate	11.508	149	960372	45.28 µg/mL	97
63) 4-Chlorophenyl-phenyle...	11.769	204	466979	44.17 µg/mL	89
64) Fluorene	11.798	166	973152	45.85 µg/mL	100
65) 4-Nitroaniline	11.789	138	219942	53.16 µg/mL#	81
66) 4,6-Dinitro2-methylphenol	11.857	198	151555	59.26 µg/mL	96
67) N-Nitrosodiphenylamine...	11.991	169	809249	46.13 µg/mL	99
68) Azobenzene	12.082	77	994152	46.04 µg/mL	94
71) 4-Bromophenyl-phenylether	12.737	248	270276	41.46 µg/mL	99
72) Hexachlorobenzene	12.910	284	280197	42.20 µg/mL	94
73) Pentachlorophenol (CCC)	13.274	266	157707	45.75 µg/mL	97
74) Phenanthrene	13.714	178	1368172	44.06 µg/mL	100
75) Anthracene	13.816	178	1378167	44.32 µg/mL	100
76) Carbazole	14.119	167	1204237	46.76 µg/mL	98
77) Di-n-butylphthalate	14.795	149	1592752	43.58 µg/mL	98
78) Fluoranthene (CCC)	16.137	202	1481413	45.92 µg/mL	96
79) Benzidine	16.376	184	746432	49.57 µg/mL#	98
81) Pyrene	16.609	202	1497695	46.15 µg/mL	100
84) 4-Dimethylaminoazobenzene	17.179	120	396236	41.97 µg/mL	92
85) Butylbenzylphthalate	17.874	149	659959	41.76 µg/mL	92
86) 3,3-Dimethylbenzidine	17.860	212	811931	44.71 µg/mL	97
87) bis(2-Ethylhexyl)adipate	18.014	129	515201	40.98 µg/mL	91
88) 3,3-Dimethoxybenzidine	18.919	244	301671	42.41 µg/mL	90
89) bis(2-Ethylhexyl)phtha...	19.035	149	887955	40.57 µg/mL	97
90) 3,3'-Dichlorobenzidine	18.976	252	393497	44.15 µg/mL#	98
91) Benzo(a)anthracene	19.052	228	1203440	43.87 µg/mL	99
92) Chrysene	19.123	228	1074039	43.27 µg/mL	99
93) Di-n-octylphthalate (CCC)	20.284	149	1189943	40.18 µg/mL	96
95) 7,12-Dimethylbenz(a)an...	21.096	256	451861	44.55 µg/mL	97
96) Benzo(b)fluoranthene	21.116	252	958126	43.91 µg/mL	95
97) Benzo(k)fluoranthene	21.167	252	881840	44.61 µg/mL	99
98) Benzo(e)pyrene	21.621	252	774019	44.06 µg/mL	99
99) Benzo(a)pyrene (CCC)	21.715	252	789531	44.28 µg/mL	100
100) Perylene	21.871	252	804999	43.53 µg/mL	98
101) 3-Methylcholanthrene	22.362	268	406141	43.66 µg/mL	97
102) Indeno(1,2,3-cd)pyrene	24.056	276	745875	43.82 µg/mL	96
103) Dibenz(a,h)anthracene	24.065	278	620064	43.59 µg/mL	98
104) Benzo(g,h,i)perylene	24.717	276	589467	43.41 µg/mL#	91
105) Dibenzo(a,e)pyrene	29.500	302	353884	38.77 µg/mL#	84

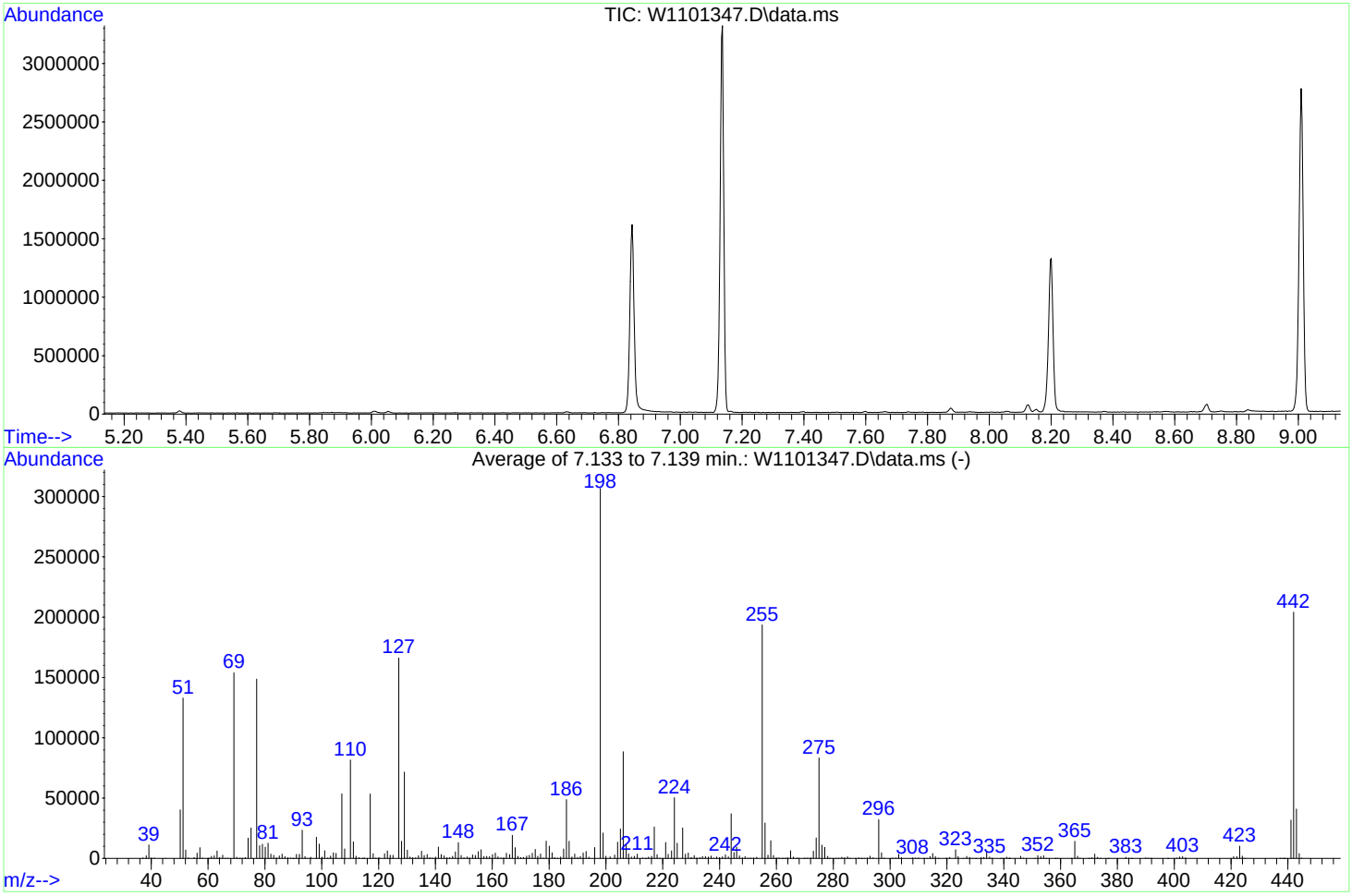
(#) = qualifier out of range (m) = manual integration (+) = signals summed

DFTPP

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101347.D
Acq On : 4 Jul 2011 7:22 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Title : 8270C - Full List
Last Update : Mon Jul 04 18:40:29 2011



AutoFind: Scans 1814, 1815, 1816; Background Corrected with Scan 1803

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.4	132963	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	50.2	153957	PASS
70	69	0.00	2	0.6	993	PASS
127	198	40	60	54.2	166165	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	306688	PASS
199	198	5	9	6.9	21141	PASS
275	198	10	30	27.2	83285	PASS
365	198	1	100	4.7	14276	PASS
441	443	0.01	100	77.4	31699	PASS
442	198	40	100	66.6	204139	PASS
443	442	17	23	20.1	40949	PASS

Average of 7.133 to 7.139 min.: W1101347.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	494	56.10	4440	67.00	260	80.10	9270
38.20	2192	57.10	9007	69.10	153957	81.10	12589
39.15	11124	58.05	414	70.05	993	82.10	3522
40.10	405	60.00	160	71.00	43	83.10	2577
41.10	335	60.20	63	72.15	124	84.10	468
45.05	103	61.15	1703	73.10	747	85.05	2126
50.20	40331	62.15	2201	74.10	16840	86.05	3627
51.20	132963	63.15	6190	75.10	25211	87.05	1486
52.10	6934	64.10	907	77.10	148685	88.05	637
53.10	453	65.10	2708	78.15	10564	89.10	406
55.10	792	66.10	286	79.10	11789	89.90	52

Average of 7.133 to 7.139 min.: W1101347.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.10	3288	103.10	2013	117.05	53387	130.10	6863
92.15	3502	104.10	4674	118.10	3921	131.05	1295
93.10	23435	105.05	4131	119.05	395	132.00	674
94.10	1538	107.05	53508	120.10	721	133.05	462
95.00	136	108.05	7802	122.10	3983	134.00	2225
96.10	1025	110.10	81573	123.10	6268	135.10	5980
98.10	17546	111.10	13752	124.10	2747	136.05	2461
99.10	11935	112.05	1836	125.05	2631	137.10	3301
100.10	1114	113.10	664	127.10	166165	138.00	737
101.05	6431	114.30	55	128.10	14242	138.95	381
102.10	418	115.00	373	129.10	71627	140.05	1156

Average of 7.133 to 7.139 min.: W1101347.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.05	9475	151.95	531	163.05	481	174.10	4325
142.05	3190	153.05	2947	164.05	529	175.10	7433
143.05	2149	154.05	2414	165.00	4279	176.00	1892
144.05	622	155.10	5706	166.10	3176	177.00	3699
145.00	576	156.10	7271	167.05	19158	178.00	351
146.05	1730	157.05	1606	168.05	8978	179.00	14409
147.05	5366	158.05	1670	169.05	1762	180.05	10149
148.05	13118	159.05	1451	170.05	708	181.05	4635
149.05	2418	160.10	3226	171.00	910	181.95	860
150.05	575	161.05	4478	172.10	1987	183.00	315
151.15	1206	162.00	1319	173.05	2538	184.05	1277

Average of 7.133 to 7.139 min.: W1101347.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
185.10	7826	198.00	306688	210.00	1706	223.10	6302
186.10	48752	199.00	21141	211.05	3531	224.10	50416
187.05	14184	200.00	1890	212.95	339	225.10	12685
188.05	1195	201.45	1394	213.90	59	227.00	25264
189.00	3604	203.05	2888	215.00	1151	228.00	3595
190.00	719	204.10	13481	216.10	1772	229.00	4583
191.00	1559	205.10	24347	217.00	26163	229.90	333
192.00	4495	206.10	88429	218.00	3205	230.05	578
193.05	5728	207.10	11360	219.00	305	231.05	2277
194.00	1059	207.95	3816	221.00	13308	231.90	249
196.05	9081	208.95	1282	221.90	3442	232.10	82

Average of 7.133 to 7.139 min.: W1101347.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
233.05	600	244.05	37000	256.00	29368	265.95	1091
234.00	1612	245.05	4882	257.05	2647	267.00	52
235.00	1562	246.00	9423	258.00	14754	267.85	282
236.05	1215	247.00	2109	258.95	2437	269.80	202
237.00	2024	248.00	468	260.00	351	270.10	92
237.90	214	248.95	1454	260.95	467	270.95	371
238.95	1185	249.95	233	262.00	58	272.10	456
239.95	783	250.90	441	263.00	62	273.00	6026
241.00	1353	252.00	410	263.90	327	274.00	17002
242.05	2926	253.05	1034	264.10	195	275.00	83285
243.10	1330	255.00	193557	265.00	6383	276.00	11055

Average of 7.133 to 7.139 min.: W1101347.D\data.ms

DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
277.00	9167	289.90	125	303.00	3318	319.70	71
278.05	1698	290.10	156	304.00	685	320.95	873
278.85	319	290.90	162	307.90	358	323.05	7271
281.00	195	291.95	447	308.95	291	323.95	1568
281.90	293	293.00	1886	310.00	341	325.85	190
283.00	1003	294.00	536	311.95	185	326.95	1722
284.00	643	296.00	32115	313.00	133	328.00	927
285.00	1361	297.00	4638	314.05	1569	328.95	166
285.90	245	297.95	356	315.00	4067	330.10	59
287.90	146	300.90	347	315.95	1454	332.05	753
288.95	489	302.00	392	317.00	302	333.00	896

Average of 7.133 to 7.139 min.: W1101347.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
334.00	5192	352.00	2377	371.05	678	397.70	53
335.00	1237	353.05	1547	372.00	3510	400.90	360
335.90	234	354.00	2208	373.00	935	401.90	1183
338.90	68	354.95	210	373.90	71	402.95	1641
339.85	130	358.10	64	376.70	60	403.95	505
341.00	1057	358.90	102	382.95	1039	420.90	1444
341.80	76	363.80	109	384.05	292	422.05	1501
342.00	60	365.00	14276	384.90	58	423.00	10173
345.95	1733	366.00	1827	389.95	502	423.95	1962
346.90	268	366.85	269	390.90	310	424.85	230
351.00	185	369.90	72	391.95	227	437.20	71

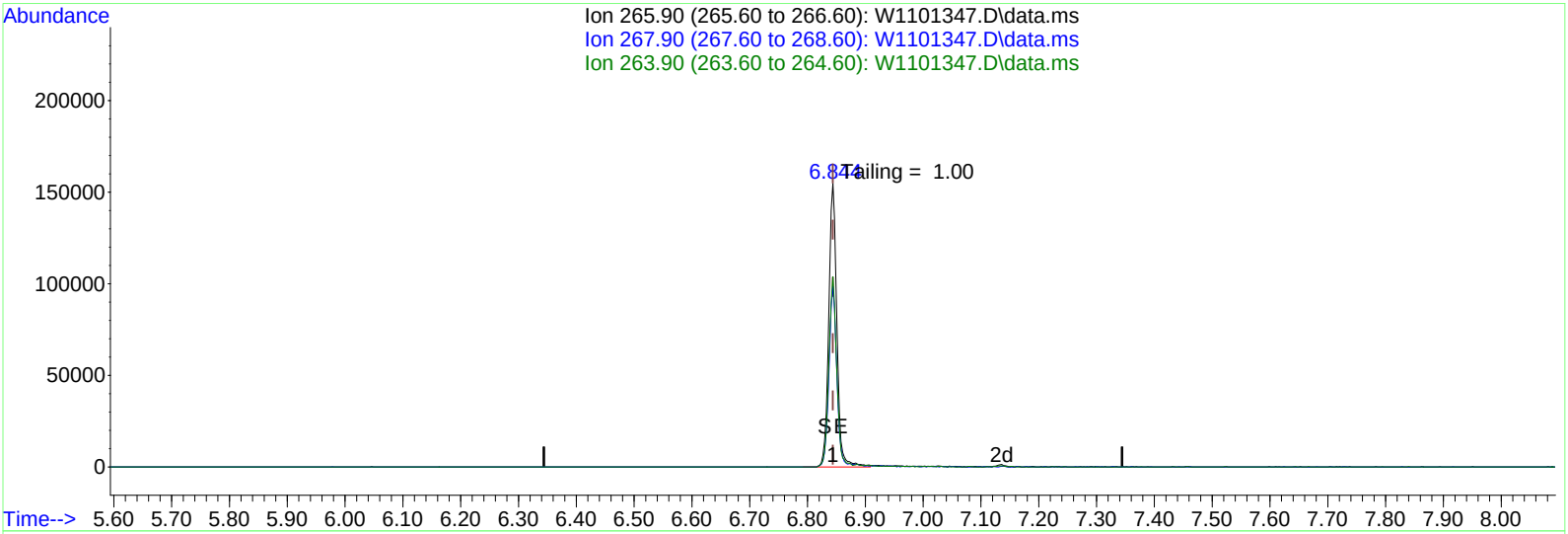
Average of 7.133 to 7.139 min.: W1101347.D\data.ms
DFTPP
Modified:subtracted

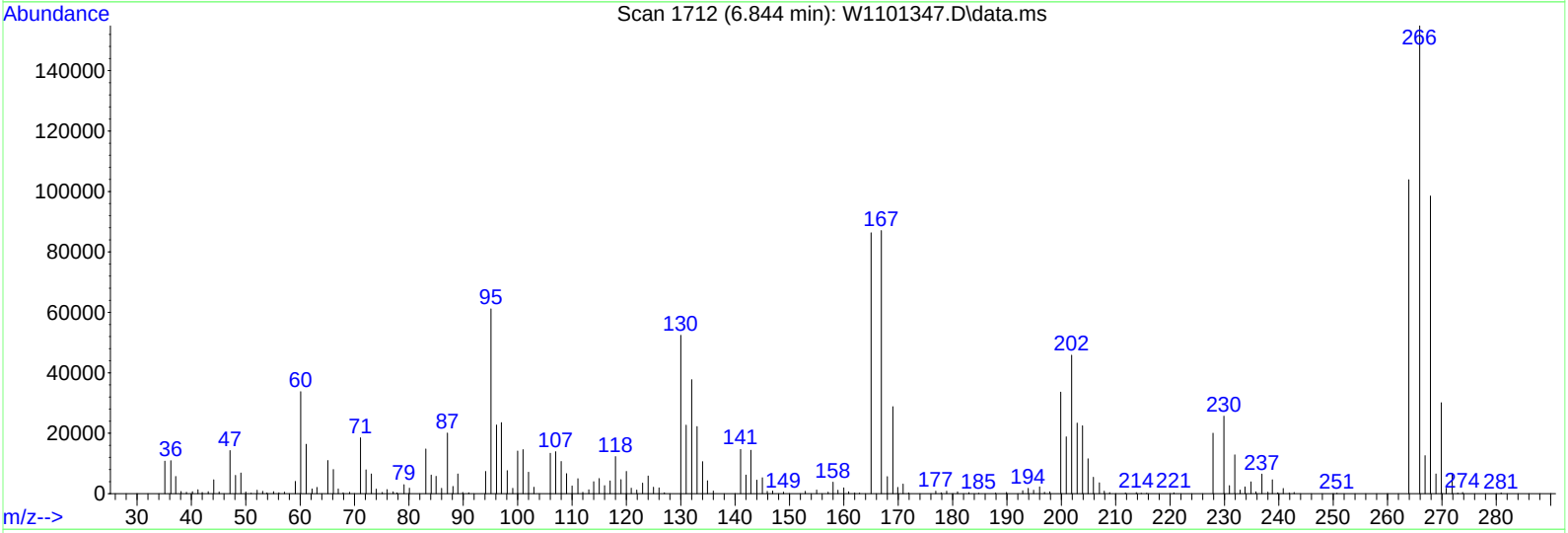
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
438.20	73						
438.90	60						
441.05	31699						
442.00	204139						
443.00	40949						
444.00	4031						
444.85	264						

Quantitation Report (Qedit)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101347.D
Acq On : 4 Jul 2011 7:22 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 05 11:22:28 2011
Quant Method : M:\ms2011\methods\wiley\DFTPP-4-EA.M
Quant Title : DFTPP
QLast Update : Tue Jul 05 11:22:19 2011
Response via : Initial Calibration





TIC: W1101347.D\data.ms

(1) Pentachlorophenol

6.844min (-0.000) 50.00 ug/mL

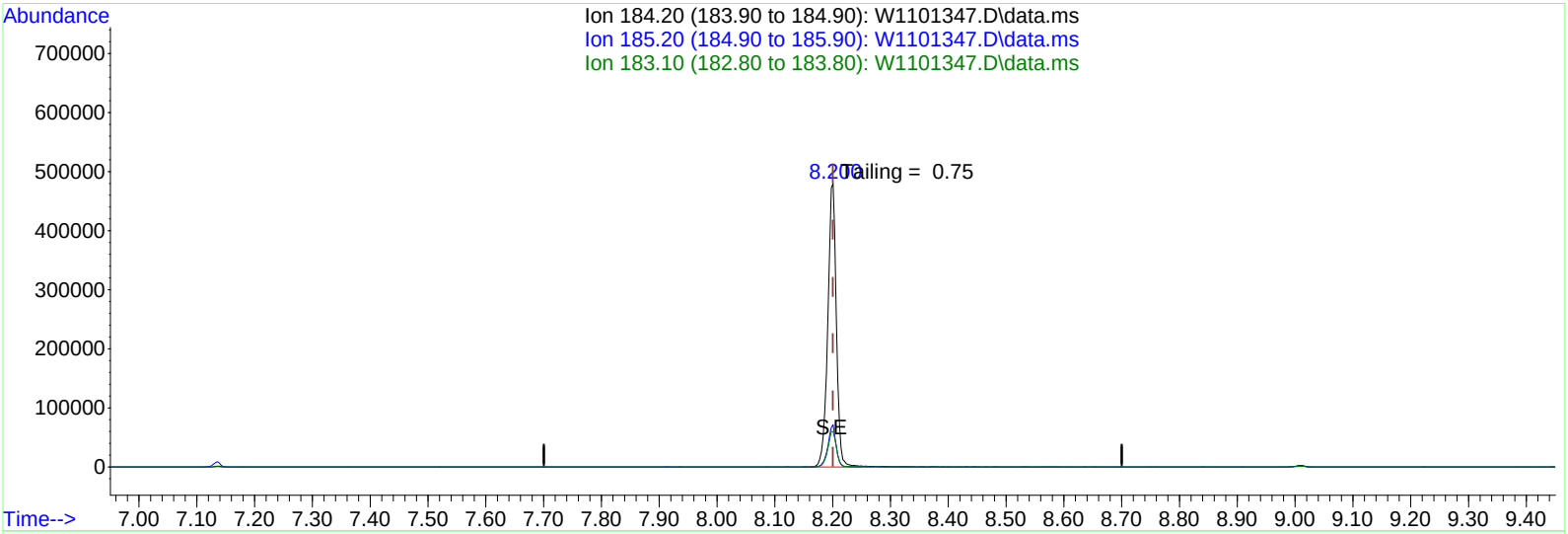
response 150740

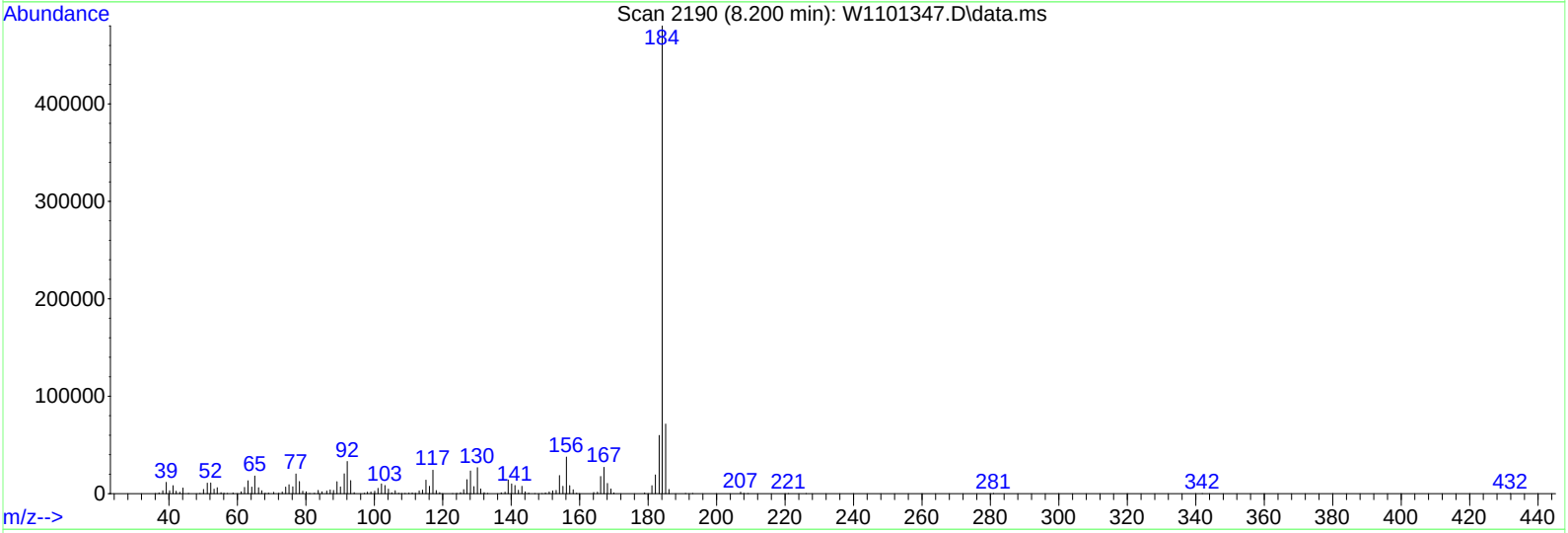
Ion	Exp%	Act%
265.90	100	100
267.90	63.60	62.95
263.90	67.10	65.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101347.D
Acq On : 4 Jul 2011 7:22 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 05 11:22:28 2011
Quant Method : M:\ms2011\methods\wiley\DFTPP-4-EA.M
Quant Title : DFTPP
QLast Update : Tue Jul 05 11:22:19 2011
Response via : Initial Calibration





TIC: W1101347.D\data.ms

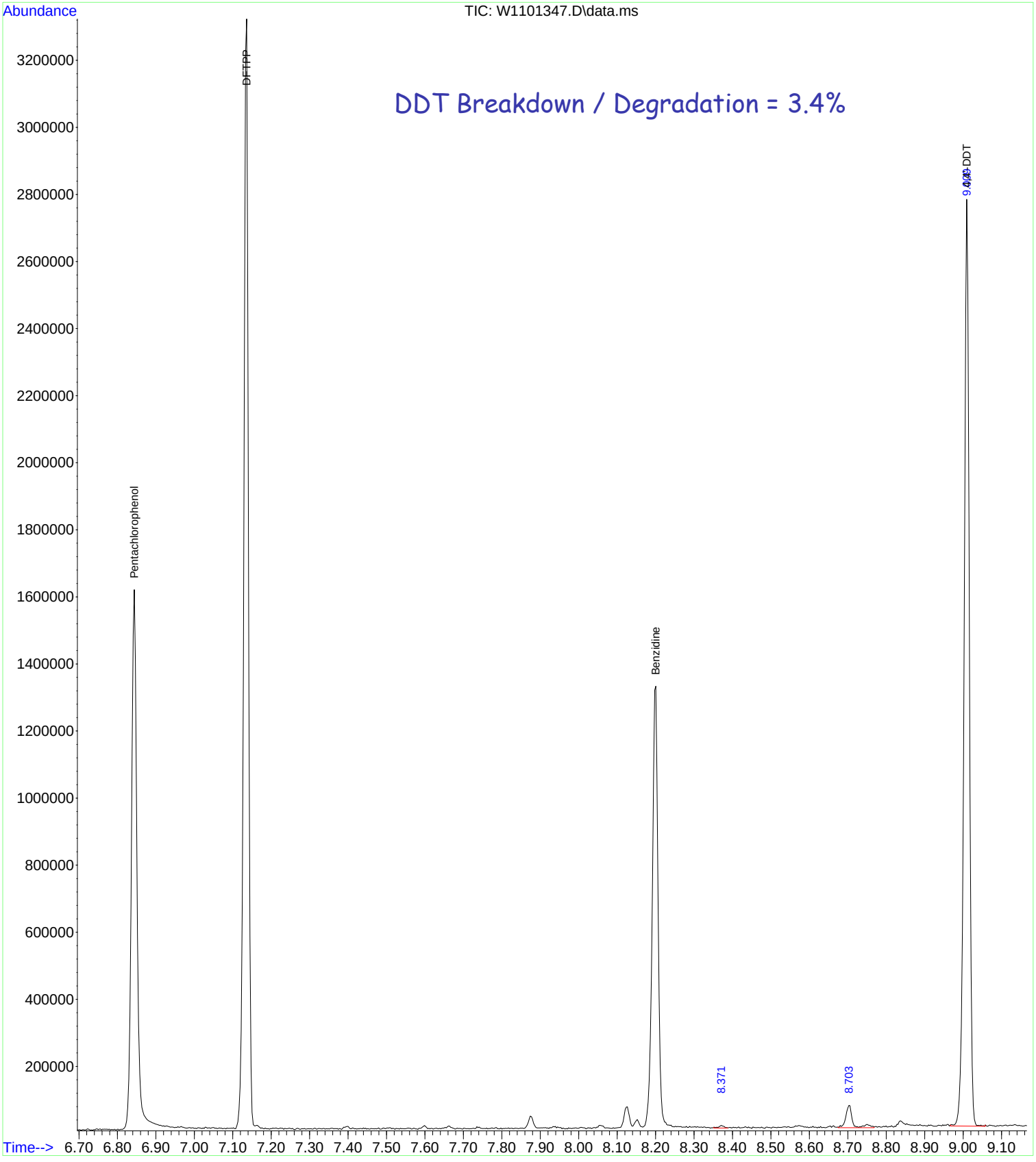
(3) Benzidine

8.200min (0.000) 50.22 ug/mL m

response 496245

Ion	Exp%	Act%
184.20	100	100
185.20	14.90	14.01
183.10	12.50	12.54
0.00	0.00	0.00

```
File       :M:\ms2011q3\wiley\data\jul11\W070411A\W1101347.D
Operator   : tdd/lah
Acquired   :  4 Jul 2011   7:22 am using AcqMethod DFTPP-1.M
Instrument :   Wiley
Sample Name: DFTPP
Misc Info  : gcmsprep2pg41
Vial Number: 1
```



TIC: W1101347.D\data.ms
DFTPP

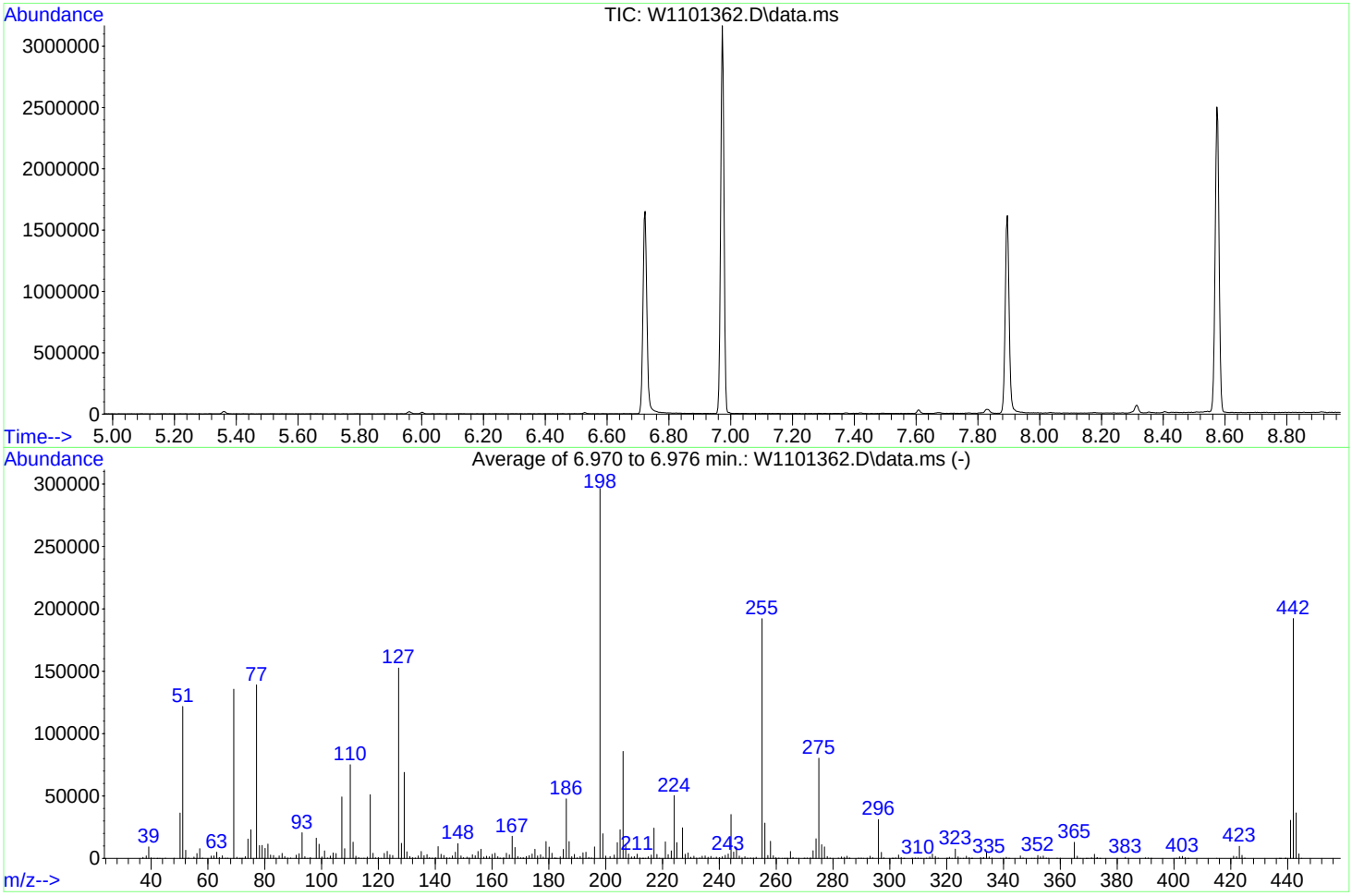
Peak #	Ret Time	Type	Width	Area	Start Time	End Time
1	8.371	rm	0.037	7497	8.351	8.388
2	8.703	rm	0.094	83134	8.674	8.768
3	9.009	rm	0.091	2599664	8.967	9.058

DFTPP

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101362.D
Acq On : 4 Jul 2011 7:07 pm
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Title : 8270C - Full List
Last Update : Mon Jul 04 18:40:29 2011



AutoFind: Scans 1686, 1687, 1688; Background Corrected with Scan 1677

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.1	121771	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.8	135664	PASS
70	69	0.00	2	0.7	948	PASS
127	198	40	60	51.5	152576	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	296469	PASS
199	198	5	9	6.7	19800	PASS
275	198	10	30	27.1	80336	PASS
365	198	1	100	4.4	12926	PASS
441	443	0.01	100	83.8	30611	PASS
442	198	40	100	64.8	192213	PASS
443	442	17	23	19.0	36515	PASS

Average of 6.970 to 6.976 min.: W1101362.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.15	795	52.15	6544	66.20	226	79.10	10475
38.25	2060	53.15	423	67.00	219	80.10	8116
39.15	9288	55.10	1031	69.10	135664	81.10	11531
40.05	500	56.10	3951	70.15	948	82.05	2781
41.10	148	57.10	7858	71.10	54	83.10	2359
42.10	61	58.05	307	71.90	59	83.95	247
43.05	96	61.15	1855	73.15	1398	85.05	2071
45.05	225	62.10	2053	74.10	15558	86.10	4047
48.10	169	63.10	4963	75.10	23053	87.05	1520
50.20	36400	64.05	764	77.10	139064	88.05	355
51.15	121771	65.10	2163	78.15	10346	89.10	372

Average of 6.970 to 6.976 min.: W1101362.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.05	2653	103.05	1947	116.10	1063	128.10	12128
92.10	3855	104.05	4414	117.10	51043	129.10	68915
93.10	20685	105.10	3970	118.10	4147	130.00	5376
94.10	1450	107.10	49312	119.00	453	131.05	1575
95.10	145	108.10	7835	120.00	680	132.00	612
96.05	707	110.10	75077	121.00	115	133.00	382
98.10	16280	111.10	12986	122.05	4082	134.05	1985
99.10	11352	112.05	1814	123.10	5655	135.05	5617
100.10	1177	113.05	707	124.05	2849	136.05	2278
101.05	6104	114.00	151	125.05	2415	137.10	3074
102.10	414	114.95	228	127.10	152576	138.00	701

Average of 6.970 to 6.976 min.: W1101362.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
138.90	90	148.00	11874	158.05	1822	167.05	17760
139.05	254	149.05	2064	159.05	1371	168.05	8830
140.00	396	149.95	560	160.05	3340	169.05	1599
140.20	353	151.15	1040	161.05	4183	170.05	572
141.00	9452	151.80	270	162.05	1408	170.90	458
142.05	3277	152.10	263	162.70	115	171.10	269
143.05	2362	153.05	2943	162.95	201	172.05	1600
144.00	626	154.05	2111	164.00	372	173.05	2317
145.05	407	155.05	5575	164.20	259	174.10	3525
146.05	1983	156.10	7320	165.05	4137	175.10	7386
147.10	4935	157.10	1097	166.10	2839	176.05	1992

Average of 6.970 to 6.976 min.: W1101362.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.05	2995	186.10	47744	198.00	296469	210.05	1400
178.00	1049	187.10	13539	199.00	19800	211.05	3448
179.00	13507	188.05	1382	200.00	1890	212.05	402
180.10	9088	189.00	3179	201.55	1539	212.90	150
181.05	4139	189.95	528	203.00	2693	213.10	57
182.00	400	191.00	1488	204.05	12648	214.00	177
182.20	300	192.00	4489	205.05	23029	214.95	1261
182.60	72	193.05	4979	206.10	85757	216.05	2689
182.90	106	194.05	856	207.05	10774	217.00	24283
184.00	1280	194.95	519	208.05	3569	218.00	3242
185.10	7237	196.05	9207	209.05	1185	218.95	271

Average of 6.970 to 6.976 min.: W1101362.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
221.00	13280	233.05	491	244.10	35173	255.00	192107
221.95	3109	233.95	1803	245.05	5119	256.00	28317
223.05	6043	235.00	1968	246.00	9069	257.05	2368
224.10	50296	236.05	1013	247.00	1902	258.00	13723
225.05	12739	237.00	1671	247.95	364	259.00	2171
227.00	24584	237.95	217	249.00	1481	259.85	434
227.95	3295	238.95	1128	249.70	75	260.95	341
229.00	4340	240.05	754	249.95	254	262.10	84
229.95	898	241.00	1362	250.95	464	262.90	55
231.05	1802	242.05	2475	251.95	350	263.85	275
231.95	272	243.10	3584	252.95	1008	265.00	5612

Average of 6.970 to 6.976 min.: W1101362.D\data.ms

DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
265.90	734	277.00	9286	290.85	114	304.00	672
267.00	75	277.95	1512	291.95	218	304.90	56
267.90	71	278.95	375	293.05	1829	307.80	189
269.80	92	281.85	308	293.95	604	308.00	110
270.05	208	282.95	1201	296.00	31208	308.95	356
270.90	393	284.00	924	297.00	4854	309.90	377
272.10	523	284.95	1761	297.90	461	311.00	151
273.00	6208	285.80	225	300.90	295	312.90	271
274.00	15767	285.95	273	301.10	55	314.05	1222
275.00	80336	289.00	331	302.05	458	314.95	3545
276.00	11013	289.95	344	303.05	2741	316.00	1630

Average of 6.970 to 6.976 min.: W1101362.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
317.00	329	328.70	62	341.85	143	358.90	286
320.00	58	329.00	81	342.20	128	360.00	97
320.15	152	331.95	743	345.95	1976	364.95	12926
320.95	901	332.80	277	346.85	343	365.95	1749
321.90	185	333.05	613	349.90	135	367.00	65
323.05	7516	334.00	4696	350.85	145	369.10	63
324.00	1315	334.95	1197	352.05	2402	369.90	109
324.80	85	335.95	256	353.00	1363	370.95	620
325.90	156	339.00	106	354.00	1958	372.00	3353
326.95	1742	339.90	82	355.05	355	372.80	290
327.95	635	341.00	954	355.90	84	373.05	590

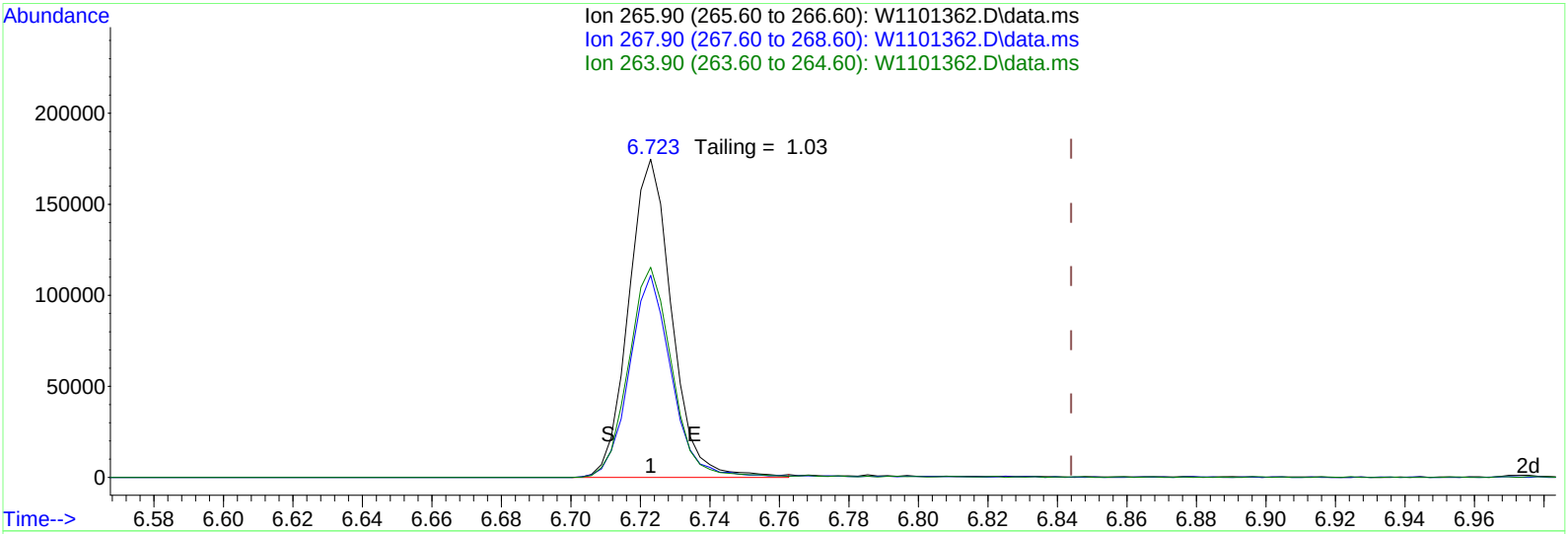
Average of 6.970 to 6.976 min.: W1101362.D\data.ms
DFTPP
Modified:subtracted

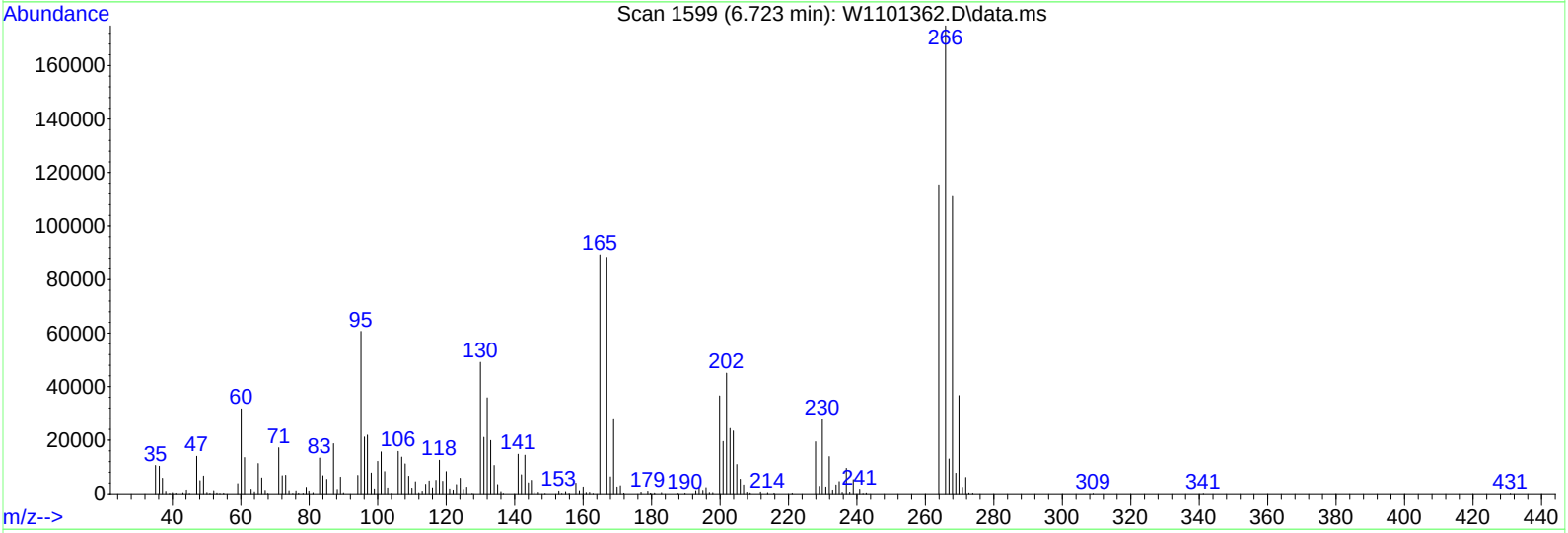
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
373.90	55	415.10	90	442.00	192213		
382.90	788	421.00	1774	443.00	36515		
383.90	121	422.00	1449	444.00	3707		
389.95	518	423.00	9677	444.95	142		
390.95	377	423.95	2536				
391.90	55	424.95	305				
400.90	256	437.10	152				
401.95	1299	437.40	54				
402.95	1694	439.10	59				
403.95	544	439.40	101				
404.90	62	441.00	30611				

Quantitation Report (Qedit)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101362.D
Acq On : 4 Jul 2011 7:07 pm
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 05 11:25:09 2011
Quant Method : M:\ms2011\methods\wiley\DFTPP-4-EA.M
Quant Title : DFTPP
QLast Update : Tue Jul 05 11:22:19 2011
Response via : Initial Calibration





TIC: W1101362.D\data.ms

(1) Pentachlorophenol

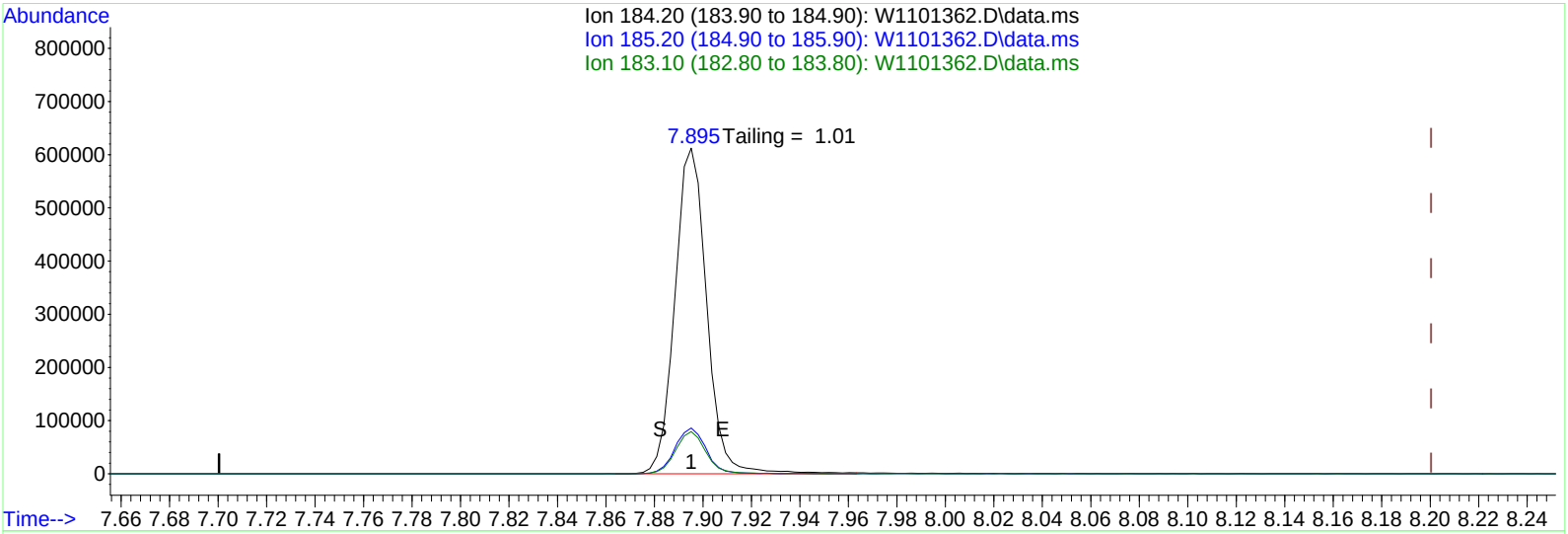
6.723min (-0.121) 50.25 ug/mL

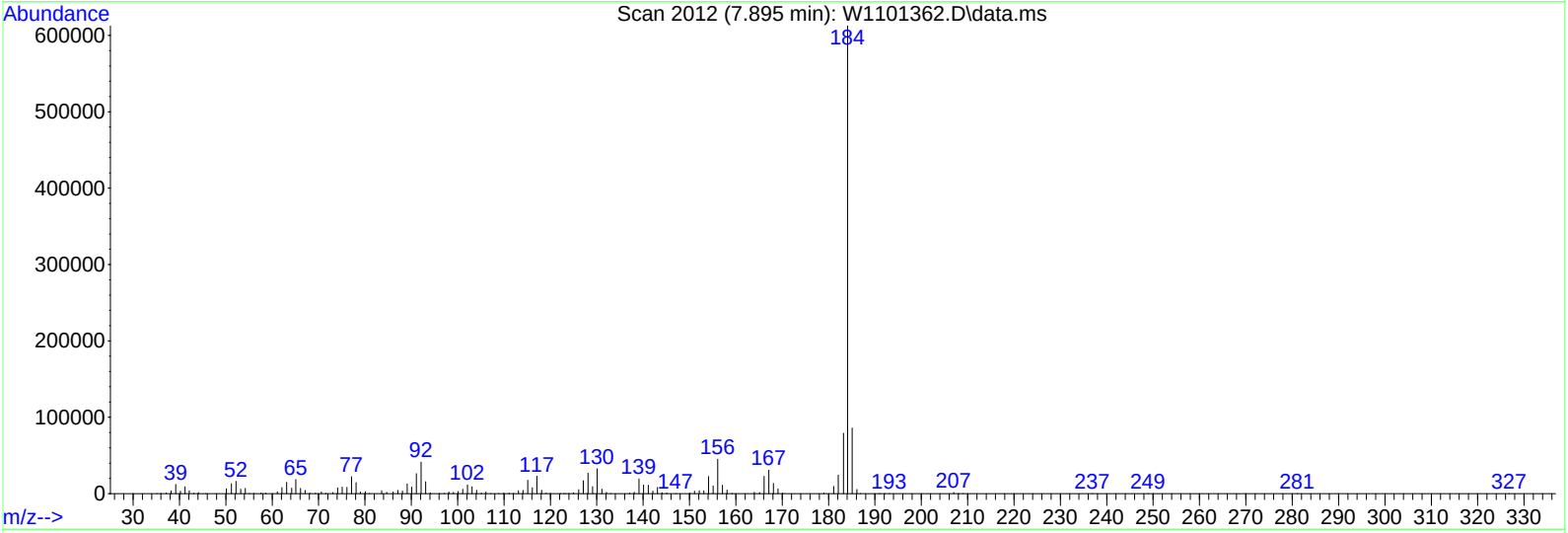
response 151487

Ion	Exp%	Act%
265.90	100	100
267.90	63.60	61.87
263.90	67.10	65.76
0.00	0.00	0.00

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101362.D
Acq On : 4 Jul 2011 7:07 pm
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 05 11:25:09 2011
Quant Method : M:\ms2011\methods\wiley\DFTPP-4-EA.M
Quant Title : DFTPP
QLast Update : Tue Jul 05 11:22:19 2011
Response via : Initial Calibration





TIC: W1101362.D\data.ms

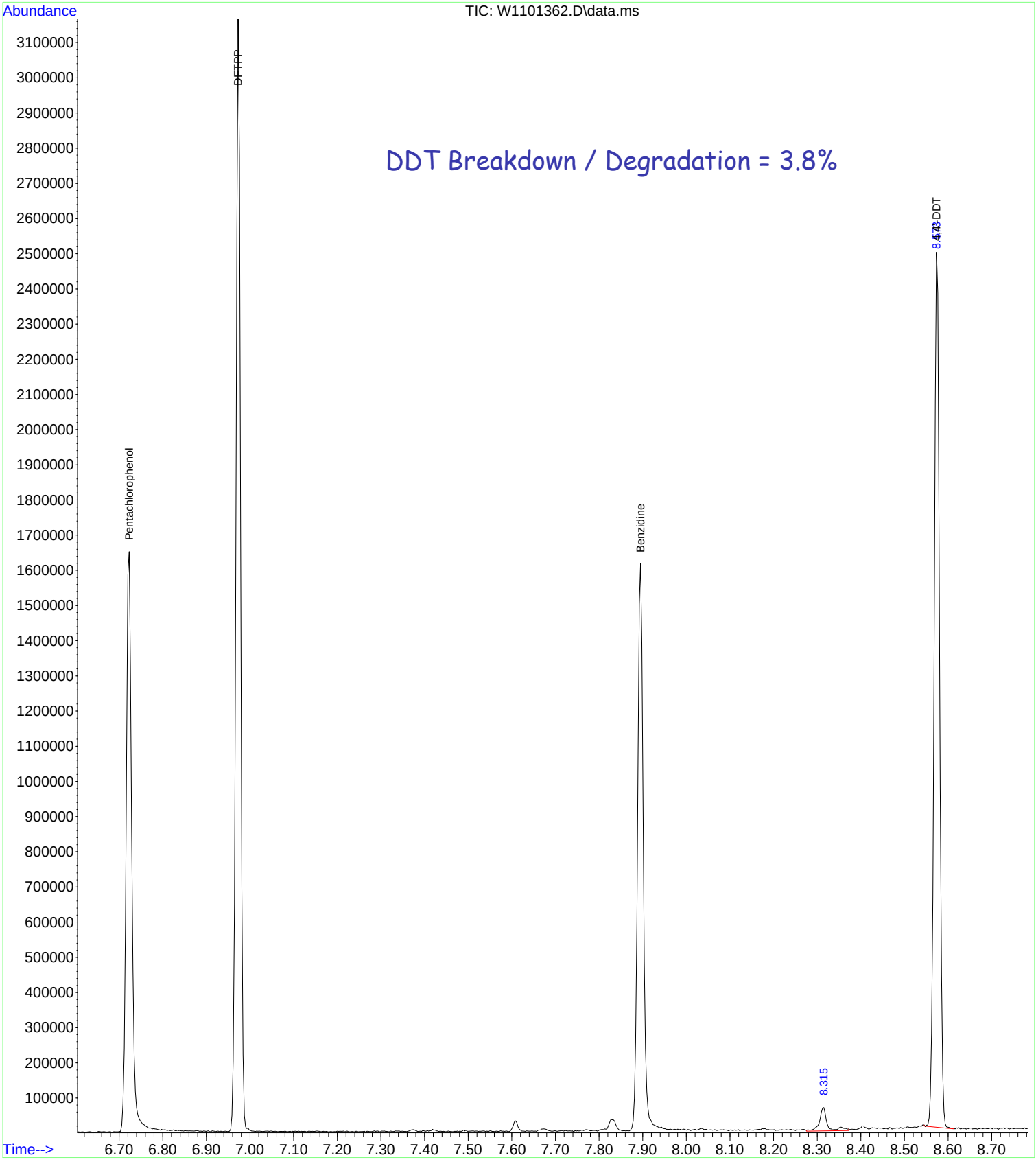
(3) Benzidine

7.895min (-0.305) 56.61 ug/mL

response 559428

Ion	Exp%	Act%
184.20	100	100
185.20	14.90	13.69
183.10	12.50	12.41
0.00	0.00	0.00

```
File       :M:\ms2011q3\wiley\data\jul11\W070411A\W1101362.D
Operator   : tdd/lah
Acquired   :  4 Jul 2011   7:07 pm using AcqMethod DFTPP-1.M
Instrument :   Wiley
Sample Name: DFTPP
Misc Info  : gcmsprep2pg41
Vial Number: 1
```



TIC: W1101362.D\data.ms
DFTPP

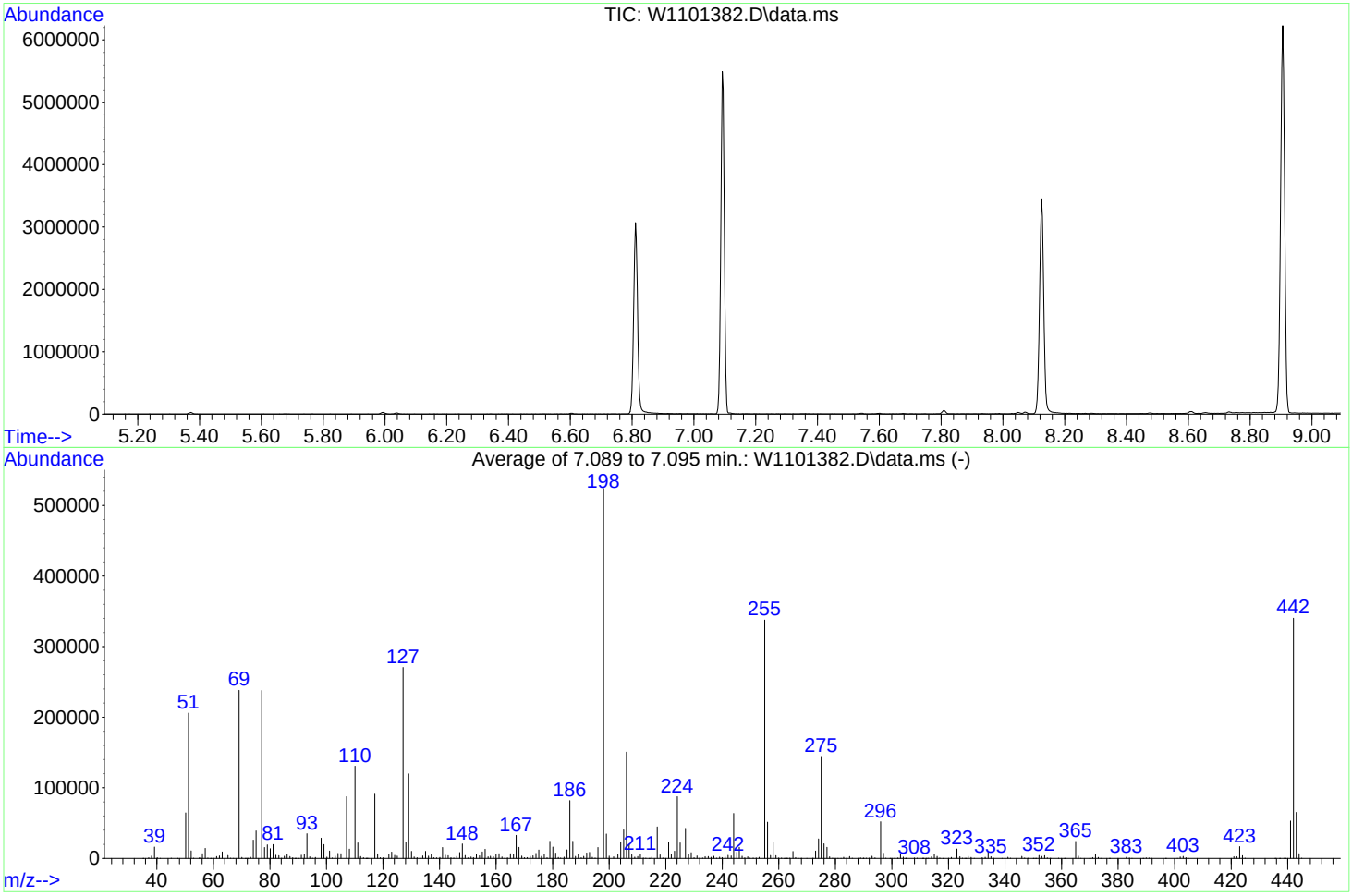
Peak #	Ret Time	Type	Width	Area	Start Time	End Time
1	8.315	rm	0.097	83766	8.275	8.372
2	8.573	rm	0.068	2147148	8.545	8.613

DFTPP

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101382.D
Acq On : 5 Jul 2011 7:39 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 22 Sample Multiplier: 1

Integration File: rteint.p

Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Title : 8270C - Full List
Last Update : Mon Jul 04 18:40:29 2011



AutoFind: Scans 1728, 1729, 1730; Background Corrected with Scan 1719

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	39.3	205739	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.4	238144	PASS
70	69	0.00	2	0.6	1460	PASS
127	198	40	60	51.6	270443	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	524053	PASS
199	198	5	9	6.6	34603	PASS
275	198	10	30	27.6	144488	PASS
365	198	1	100	4.6	24067	PASS
441	443	0.01	100	81.2	52899	PASS
442	198	40	100	64.9	340267	PASS
443	442	17	23	19.1	65141	PASS

Average of 7.089 to 7.095 min.: W1101382.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	62	53.05	434	64.10	1360	77.10	237888
37.15	1074	55.00	448	65.15	4235	78.10	15565
38.15	3349	55.15	926	66.10	458	79.10	19240
39.20	16177	56.10	6632	67.15	287	80.10	13817
40.15	971	57.10	14342	69.10	238144	81.10	19648
41.20	301	58.05	706	70.10	1460	82.10	4574
45.10	502	59.00	100	71.30	64	83.15	3989
47.20	65	60.10	188	72.00	75	84.00	295
50.20	64584	61.15	2658	73.15	1748	84.20	224
51.20	205739	62.15	3675	74.10	26014	85.10	3222
52.15	10648	63.15	9191	75.10	38893	86.10	6102

Average of 7.089 to 7.095 min.: W1101382.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.10	2630	98.10	28795	111.10	22008	123.05	8976
88.10	985	99.10	19587	112.10	2837	124.10	4500
88.90	78	100.15	1975	113.05	1157	125.05	3474
89.15	322	101.10	10464	114.00	117	127.10	270443
89.90	71	102.05	605	114.20	79	128.10	23197
91.10	4641	103.10	3333	114.90	131	129.10	119739
92.15	5620	104.10	7219	117.10	91123	130.05	10135
93.10	35093	105.10	6734	118.10	6602	131.00	2058
94.10	2282	107.10	87611	119.05	1002	132.05	1016
95.10	394	108.10	13142	120.10	1019	133.00	229
96.10	1403	110.10	130632	122.05	6326	133.20	202

Average of 7.089 to 7.095 min.: W1101382.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
134.05	3538	145.05	747	156.10	13015	167.10	32595
135.05	10032	146.05	3027	157.15	2366	168.10	15769
136.10	3426	147.10	8506	158.00	3143	169.10	3322
137.10	5720	148.05	20477	159.05	2463	170.05	1166
137.95	1077	149.05	4293	160.00	5424	171.00	1361
138.95	771	150.05	949	161.05	6721	172.05	3261
140.10	1385	151.15	2131	162.05	2057	173.05	3769
141.05	15476	152.00	1338	163.05	648	174.10	7109
142.05	4591	153.05	5393	164.00	874	175.10	11986
143.05	3932	154.10	3728	165.05	6642	176.05	2926
144.05	1111	155.10	9294	166.15	5430	177.05	5500

Average of 7.089 to 7.095 min.: W1101382.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
178.05	1069	189.05	5748	201.55	2317	212.95	519
179.00	24243	190.10	1018	203.05	5261	214.10	59
180.05	16229	191.00	2963	204.05	23499	215.05	1813
181.05	7516	192.05	7754	205.10	40533	217.00	44517
182.00	1437	193.05	8570	206.10	150531	218.00	5064
182.85	568	194.05	1654	207.05	19846	219.00	559
184.05	1997	195.00	548	208.00	5345	221.00	23101
185.10	12153	196.00	15428	209.05	1962	221.95	5613
186.10	81888	198.00	524053	210.10	2679	223.10	10311
187.10	24357	199.00	34603	211.00	6052	224.10	87517
188.05	2869	200.00	3396	212.05	757	225.10	22088

Average of 7.089 to 7.095 min.: W1101382.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
227.00	42440	238.00	373	249.00	2426	260.95	627
228.05	6318	239.05	1821	249.85	401	261.90	68
229.00	8238	239.95	1350	250.95	723	262.80	91
230.00	1163	241.00	2244	251.95	575	262.95	176
231.05	3523	242.05	4402	253.00	1679	263.90	383
232.00	686	243.15	3581	255.00	337707	265.00	9924
233.05	737	244.05	63675	256.00	51245	265.95	1342
233.95	2571	245.10	8801	257.05	4238	266.95	240
235.05	2801	246.00	15827	258.00	23160	267.80	93
236.00	1735	247.00	3168	259.00	3964	269.90	340
237.00	3200	247.95	885	260.00	730	271.00	926

Average of 7.089 to 7.095 min.: W1101382.D\data.ms

DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.10	364	284.05	1019	296.00	52043	307.95	736
273.00	10579	285.00	2751	297.00	7238	308.95	503
274.05	27763	285.95	472	297.90	515	309.90	730
275.00	144488	288.00	69	299.30	62	310.80	56
276.00	20645	288.90	830	301.00	533	311.00	119
277.00	15759	289.80	102	302.00	395	312.10	63
277.95	2384	290.00	497	302.20	411	312.95	473
279.00	539	290.95	381	303.00	5583	314.00	2415
280.95	221	291.95	527	304.00	1803	315.00	5613
282.00	326	293.00	3082	304.80	51	316.00	2900
282.95	1632	294.00	847	305.00	216	316.95	555

Average of 7.089 to 7.095 min.: W1101382.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
318.10	62	331.95	1078	348.00	70	365.95	3270
320.05	162	333.00	1633	350.00	77	366.85	230
321.00	1496	334.05	9110	350.80	122	369.90	87
323.00	13319	335.00	2482	352.00	4228	370.10	227
324.05	2476	336.05	298	353.00	3061	371.00	1229
324.95	468	338.95	202	354.00	4002	372.00	6391
325.80	206	340.05	174	354.95	782	373.00	1416
326.10	115	341.05	1766	355.90	73	373.90	183
326.95	3240	341.95	399	358.95	368	376.90	106
328.00	1382	345.95	3062	361.00	51	382.95	1651
329.10	165	346.95	699	365.00	24067	383.95	607

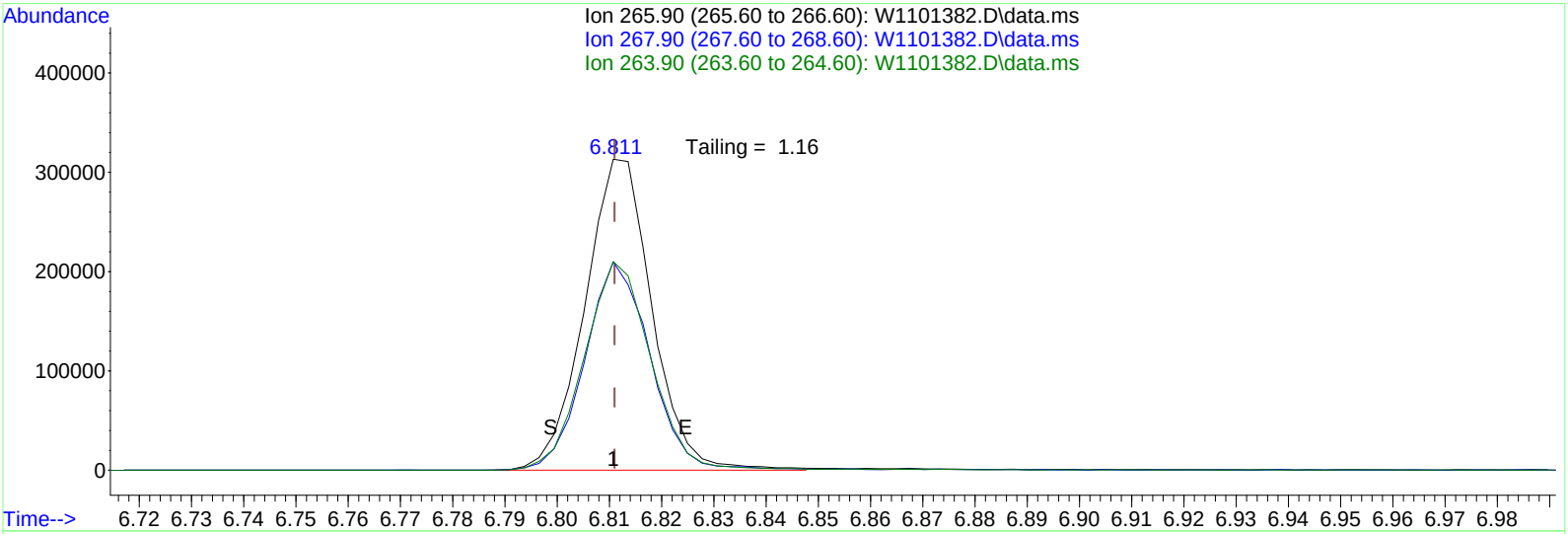
Average of 7.089 to 7.095 min.: W1101382.D\data.ms
DFTPP
Modified:subtracted

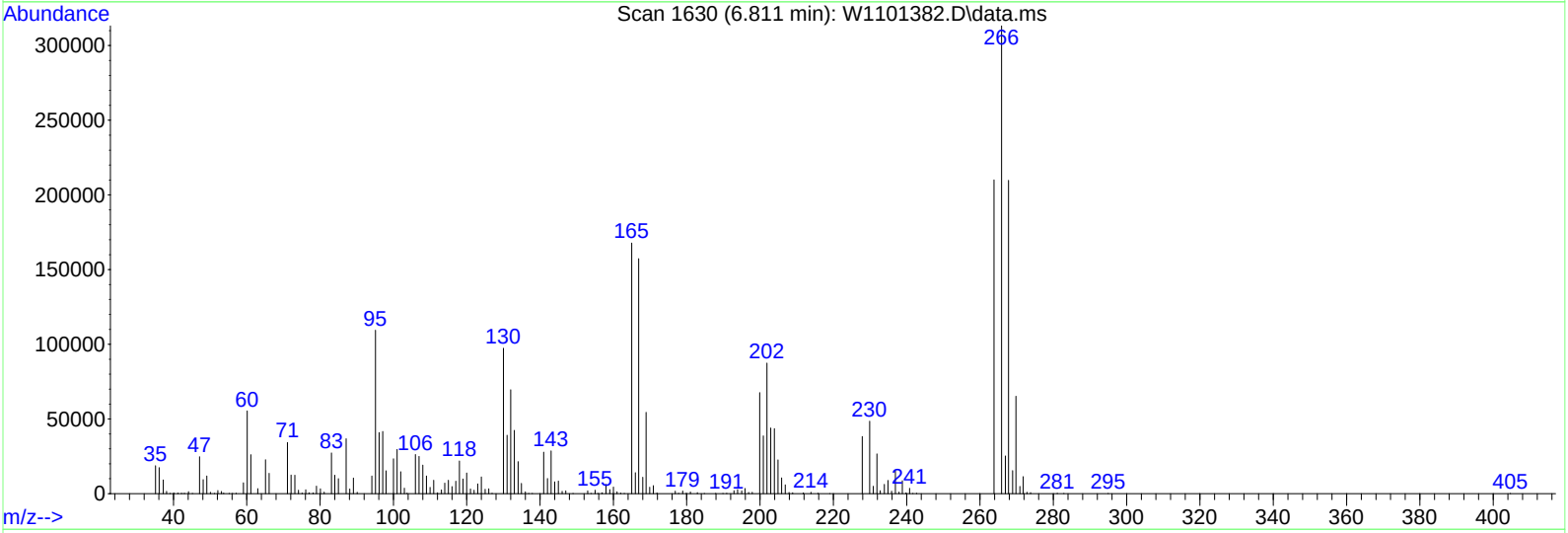
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
384.90	159	404.85	192	442.00	340267		
388.80	54	420.95	2467	443.00	65141		
389.95	844	422.00	2489	444.00	6629		
390.95	569	423.00	16822	444.95	521		
391.85	333	424.00	3933				
396.80	66	424.90	524				
400.95	182	435.50	61				
401.95	2186	437.10	110				
403.00	2960	438.60	158				
403.90	254	439.10	113				
404.05	872	441.00	52899				

Quantitation Report (Qedit)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101382.D
Acq On : 5 Jul 2011 7:39 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 05 09:37:49 2011
Quant Method : M:\ms2011\methods\wiley\DFTPP-4-EA.M
Quant Title : DFTPP
QLast Update : Tue Jul 05 09:37:07 2011
Response via : Initial Calibration





TIC: W1101382.D\data.ms

(1) Pentachlorophenol

6.811min (-0.000) 49.80 ug/mL

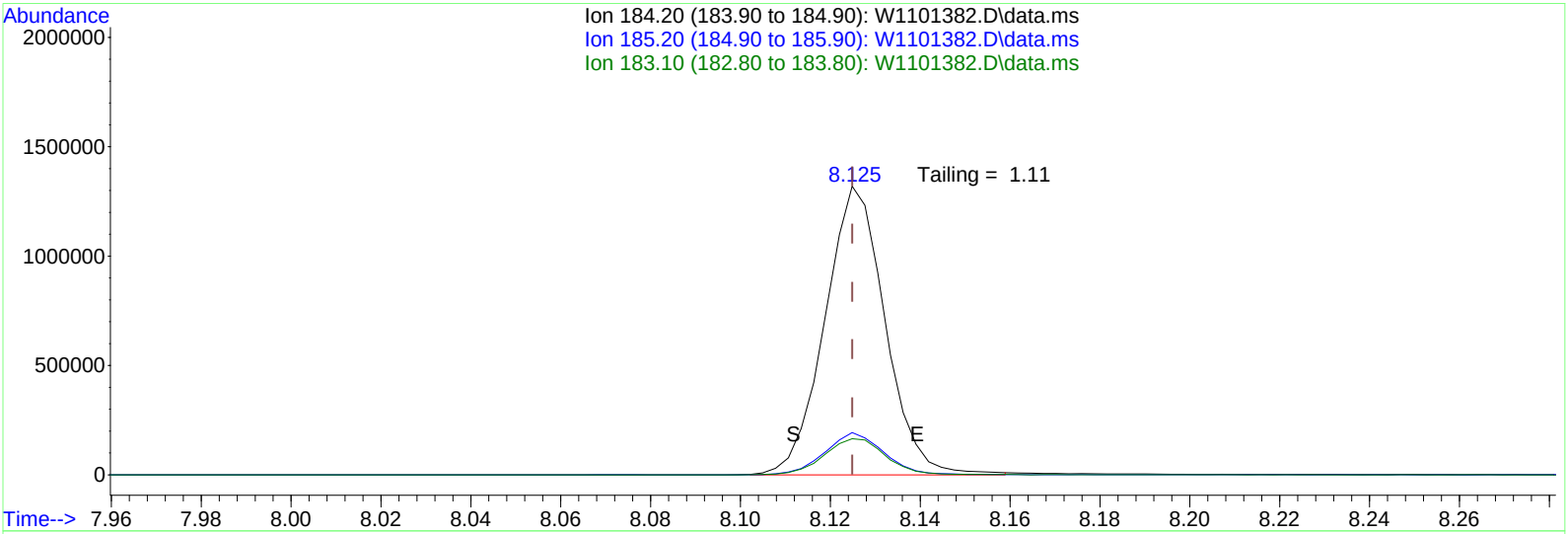
response 281775

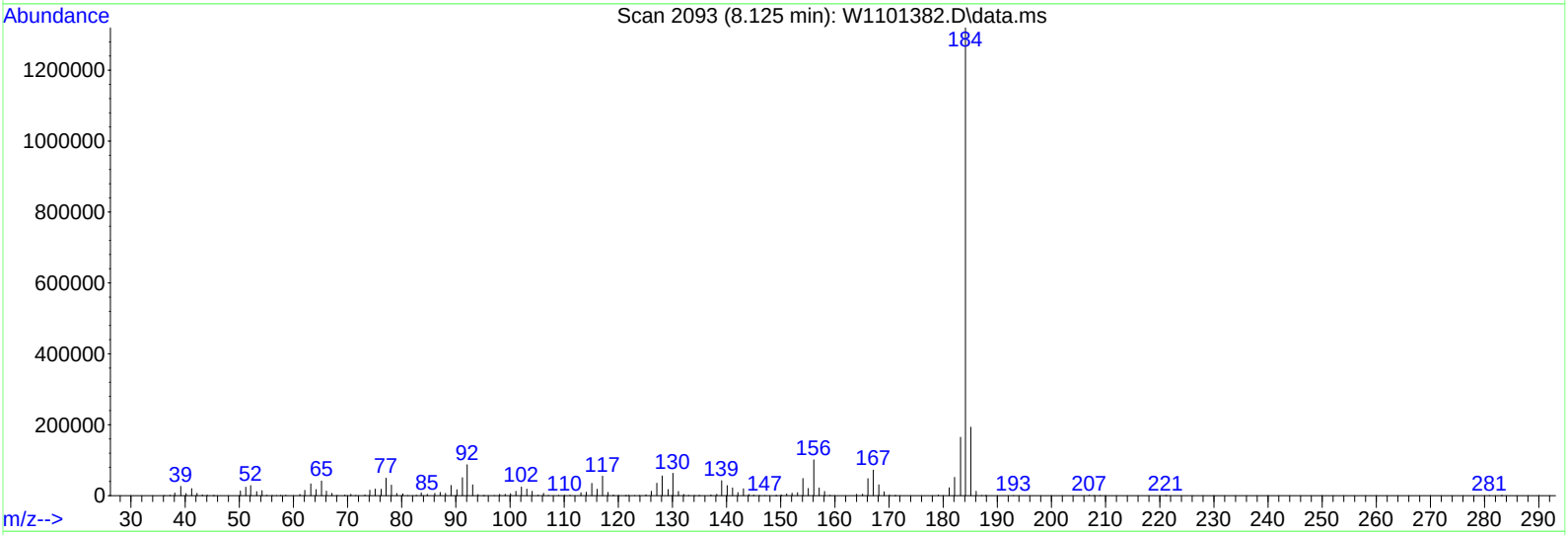
Ion	Exp%	Act%
265.90	100	100
267.90	65.10	64.81
263.90	65.90	66.14
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : M:\ms2011q3\wiley\data\jul11\W070411A\
Data File : W1101382.D
Acq On : 5 Jul 2011 7:39 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 05 09:37:49 2011
Quant Method : M:\ms2011\methods\wiley\DFTPP-4-EA.M
Quant Title : DFTPP
QLast Update : Tue Jul 05 09:37:07 2011
Response via : Initial Calibration





TIC: W1101382.D\data.ms

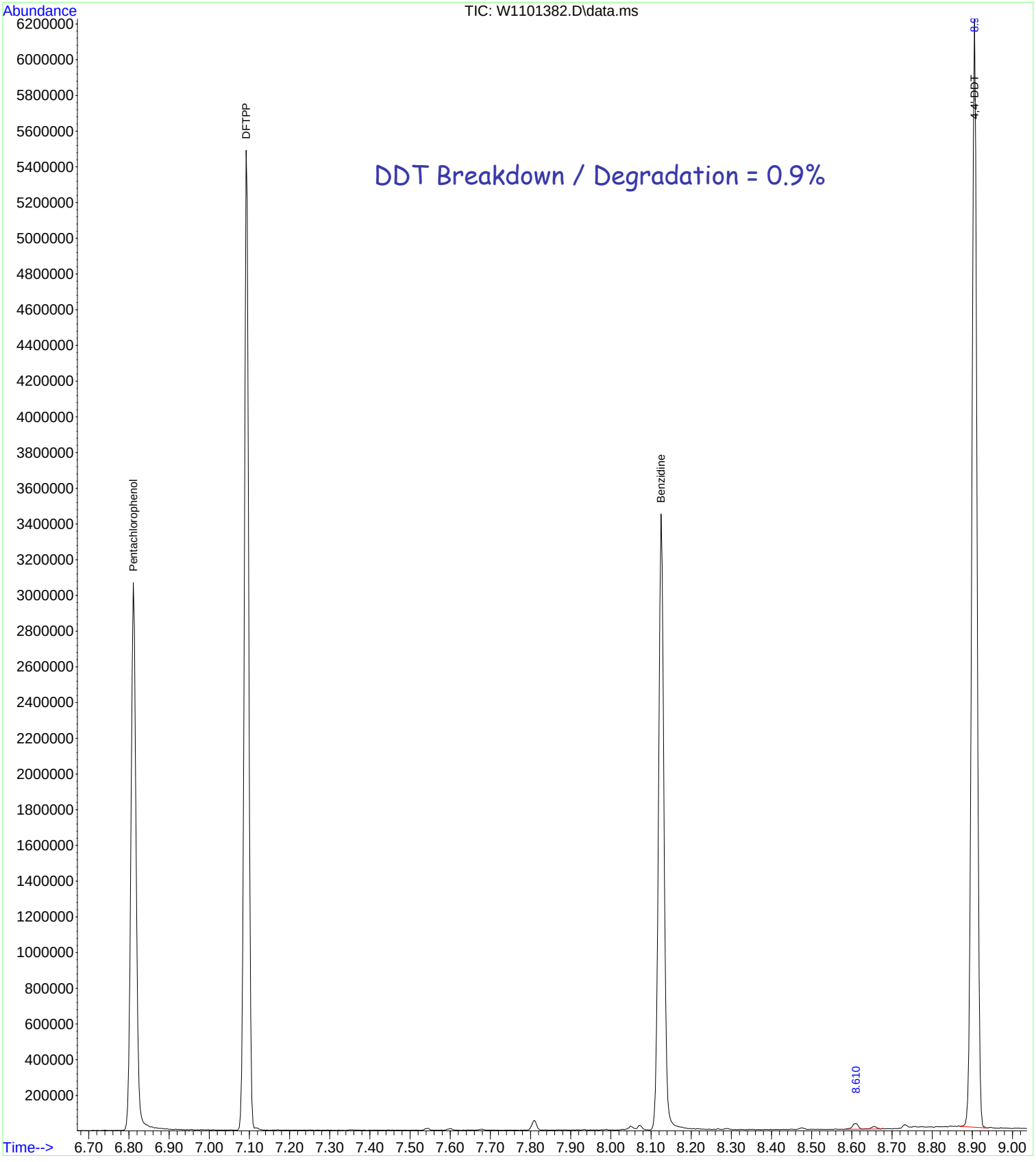
(3) Benzidine

8.125min (0.000) 49.68 ug/mL

response 1243398

Ion	Exp%	Act%
184.20	100	100
185.20	13.60	14.15
183.10	12.20	12.66
0.00	0.00	0.00

```
File       :M:\ms2011q3\wiley\data\jul11\W070411A\W1101382.D
Operator   : tdd/lah
Acquired   :  5 Jul 2011   7:39 am using AcqMethod DFTPP-1.M
Instrument :   Wiley
Sample Name: DFTPP
Misc Info  : gcmsprep2pg41
Vial Number: 22
```



TIC: W1101382.D\data.ms
DFTPP

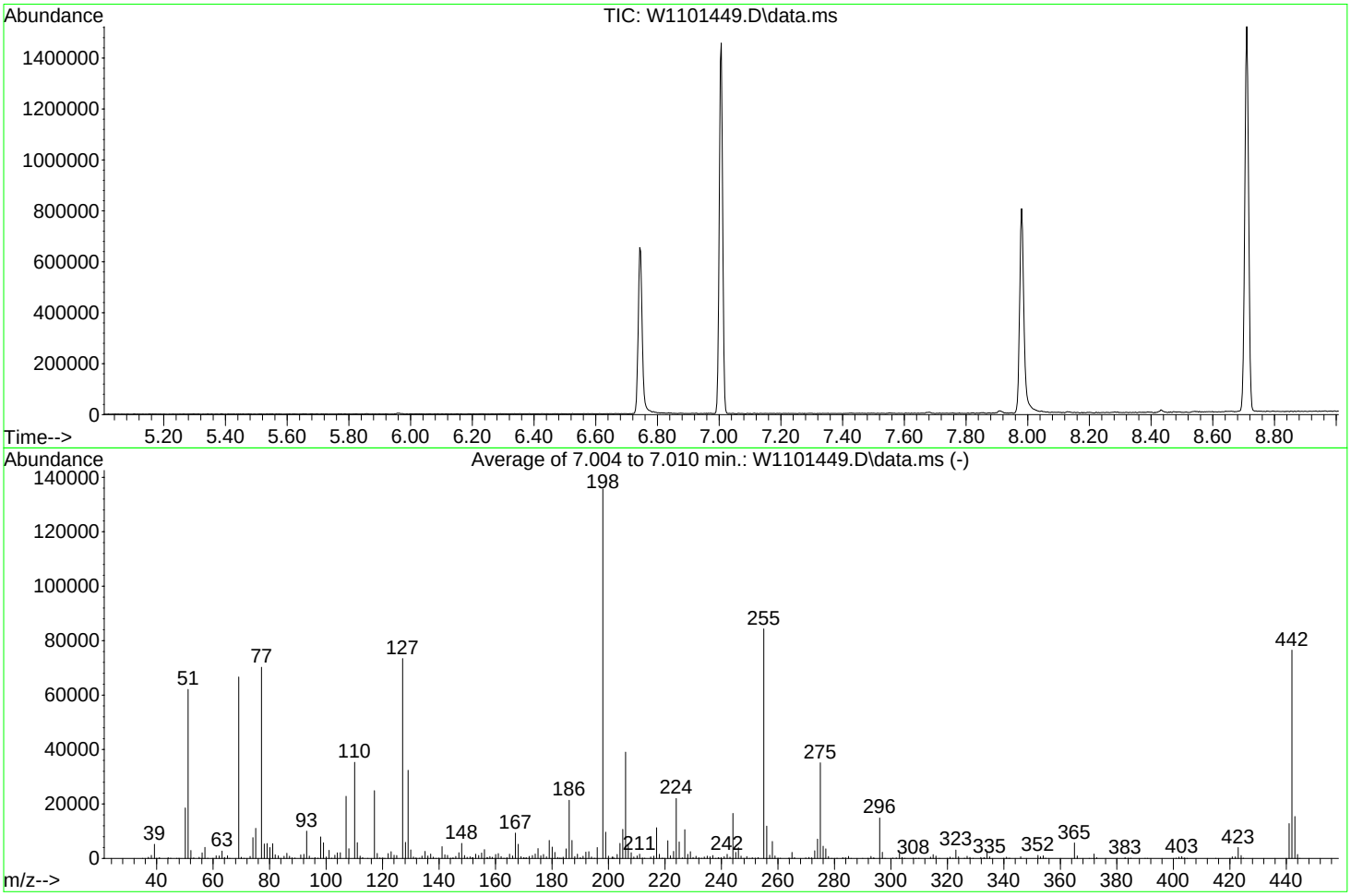
Peak #	Ret Time	Type	Width	Area	Start Time	End Time
1	8.610	rm	0.094	49470	8.582	8.675
2	8.905	rm	0.068	5563235	8.868	8.937

DFTPP

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101449.D
Acq On : 13 Jul 2011 11:55 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : M:\ms2011\methods\wiley\W070411A-M8270.M
Title : 8270C - Full List
Last Update : Mon Jul 04 18:40:29 2011



AutoFind: Scans 1698, 1699, 1700; Background Corrected with Scan 1689

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.7	62080	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.1	66659	PASS
70	69	0.00	2	0.7	448	PASS
127	198	40	60	54.1	73435	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	135747	PASS
199	198	5	9	7.1	9667	PASS
275	198	10	30	25.9	35160	PASS
365	198	1	100	4.2	5690	PASS
441	443	0.01	100	83.1	12790	PASS
442	198	40	100	56.4	76555	PASS
443	442	17	23	20.1	15395	PASS

Average of 7.004 to 7.010 min.: W1101449.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	70	51.15	62080	64.05	393	79.10	5467
37.10	437	52.15	2949	65.10	983	80.10	3999
38.15	1143	53.15	228	65.90	69	81.10	5429
39.20	5216	55.05	452	69.10	66659	82.00	1344
40.05	62	56.10	2050	69.95	448	83.10	965
41.00	307	57.10	4079	71.00	51	83.90	52
44.10	285	58.10	127	73.10	741	85.10	816
45.00	94	60.00	58	74.10	7637	86.10	1880
47.10	55	61.10	985	75.10	11075	87.05	839
47.90	62	62.15	939	77.15	70245	87.95	216
50.15	18582	63.15	2689	78.10	5310	89.00	187

Average of 7.004 to 7.010 min.: W1101449.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.05	1313	102.00	131	117.10	24896	128.10	5927
92.15	1502	103.10	1169	118.10	1854	129.05	32389
93.10	10034	104.00	2059	119.05	215	130.00	3147
94.05	851	105.05	2137	119.90	120	130.90	527
95.00	65	107.10	22837	120.10	155	131.70	125
96.05	340	108.05	3563	120.80	72	131.90	118
97.10	140	110.10	35312	122.00	1775	133.10	110
98.10	7921	111.05	5808	123.05	2522	133.95	856
99.10	5739	112.05	850	124.05	1221	135.05	2592
100.05	530	112.95	331	125.00	1101	136.05	947
101.05	2999	114.80	67	127.10	73435	137.05	1643

Average of 7.004 to 7.010 min.: W1101449.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
138.00	464	148.00	5558	157.20	188	168.05	5191
139.00	61	149.00	1064	158.00	724	169.05	638
139.90	133	149.95	429	158.85	445	169.95	256
141.05	4349	151.00	606	160.05	1472	170.20	106
142.05	1369	151.70	221	161.00	1808	170.70	128
143.00	1160	152.00	264	162.00	728	170.95	227
144.10	96	153.00	1574	162.95	131	171.90	765
144.80	162	154.05	1105	164.00	334	173.05	1089
145.10	110	155.05	1991	164.95	1584	174.05	1640
145.95	756	156.05	3244	166.05	947	175.05	3637
147.00	2132	157.00	375	167.05	9341	176.05	986

Average of 7.004 to 7.010 min.: W1101449.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.00	1442	186.05	21373	196.00	4029	207.00	5128
178.05	619	187.05	6635	198.00	135747	208.05	2096
179.00	6635	188.05	684	199.00	9667	208.95	554
180.05	4197	189.00	1554	200.00	884	210.10	917
181.00	2251	190.00	251	201.30	518	211.00	1600
182.00	397	190.30	56	201.50	555	212.00	163
182.70	102	191.00	805	201.90	185	212.85	119
182.90	113	192.00	2343	203.05	1478	214.95	572
183.30	69	193.05	2487	204.05	5562	216.05	898
183.95	482	193.95	559	205.05	10699	217.00	11262
185.00	3516	195.00	118	206.05	39035	218.00	1537

Average of 7.004 to 7.010 min.: W1101449.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
218.95	143	229.95	366	239.85	275	250.90	260
219.50	62	231.00	835	240.95	678	252.00	100
221.00	6508	231.95	296	242.00	1519	253.00	341
221.95	998	232.90	96	243.00	476	255.00	84349
223.05	2596	233.90	561	244.05	16535	256.00	11872
224.00	22040	234.95	857	245.05	2241	257.05	1177
225.00	6060	235.95	607	246.00	3968	258.00	6240
226.10	237	236.95	1106	246.95	855	258.95	943
227.00	10579	238.00	60	247.90	79	259.90	50
228.05	1512	238.90	337	248.95	682	260.20	52
229.00	2487	239.10	99	249.90	75	260.90	114

Average of 7.004 to 7.010 min.: W1101449.D\data.ms

DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
263.70	83	276.95	3511	293.90	218	308.80	57
263.95	125	277.90	725	294.10	81	309.90	91
264.95	2208	279.00	85	296.00	14887	314.00	476
265.85	331	280.90	115	296.95	2262	314.95	1438
269.85	217	282.95	349	297.90	58	315.95	871
270.95	363	283.90	249	300.70	168	317.20	80
271.90	237	285.00	738	301.85	244	320.00	51
273.00	2804	285.90	74	303.00	1662	320.95	502
274.00	7111	290.00	73	303.95	388	322.00	96
275.00	35160	291.90	68	304.90	64	323.00	3089
276.00	4486	292.95	768	307.95	123	323.95	592

Average of 7.004 to 7.010 min.: W1101449.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
326.00	90	341.70	57	372.85	282	404.10	70
326.95	811	342.00	106	382.80	91	404.90	56
327.95	407	345.95	671	382.95	197	415.00	69
329.10	52	352.05	1133	384.10	137	420.85	576
331.85	370	352.95	605	384.95	139	421.95	577
332.95	335	353.95	979	390.00	57	422.95	4029
333.20	111	354.80	94	390.90	55	424.00	1097
334.00	2189	364.95	5690	401.00	104	424.80	129
334.95	595	365.95	937	402.00	498	441.00	12790
339.90	56	370.20	56	403.00	648	442.00	76555
340.95	475	371.95	1627	403.85	170	443.00	15395

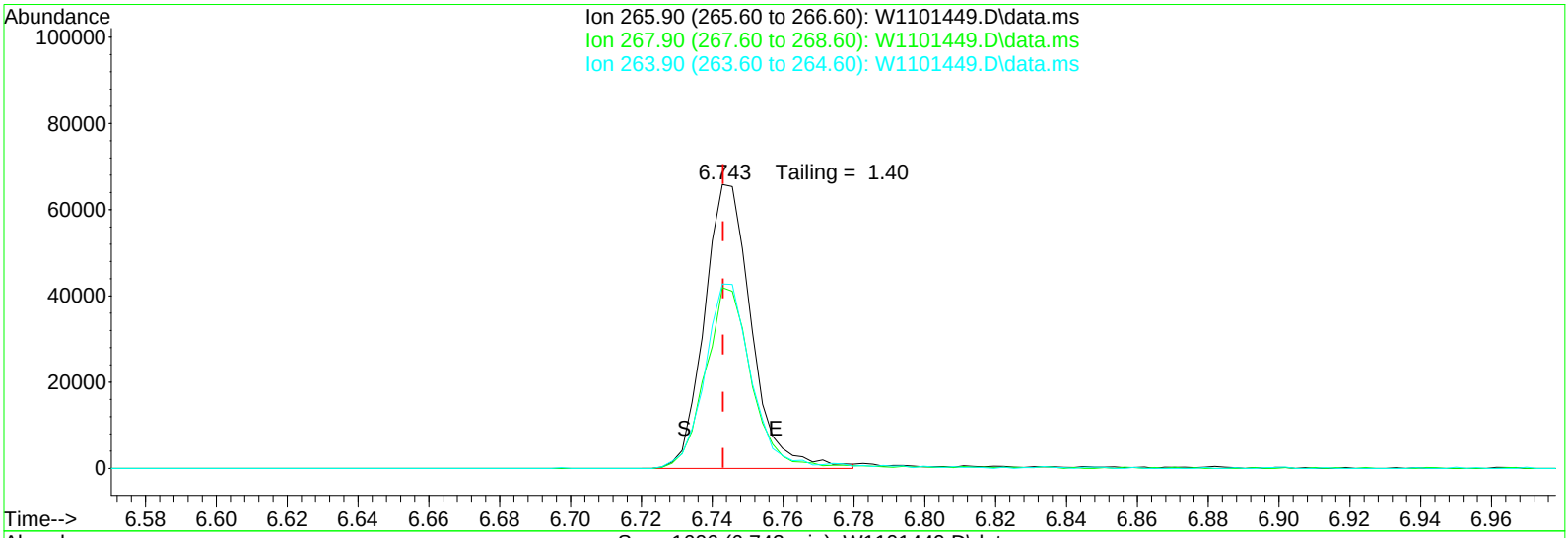
Average of 7.004 to 7.010 min.: W1101449.D\data.ms
DFTPP
Modified:subtracted

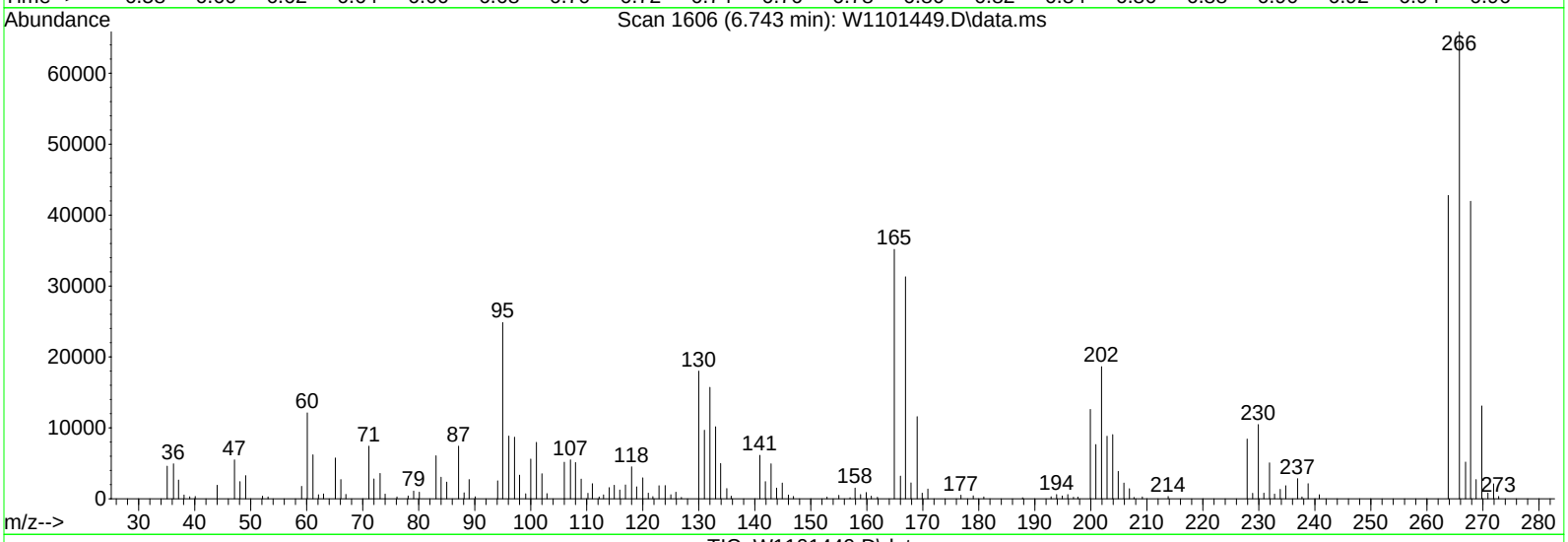
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.95	1470						
444.80	59						

Quantitation Report (Qedit)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101449.D
Acq On : 13 Jul 2011 11:55 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 13 16:25:08 2011
Quant Method : M:\ms2011\methods\wiley\DFTPP-4-EA.M
Quant Title : DFTPP
QLast Update : Wed Jul 13 16:24:57 2011
Response via : Initial Calibration





TIC: W1101449.D\data.ms

(1) Pentachlorophenol

6.743min (-0.000) 50.00 ug/mL

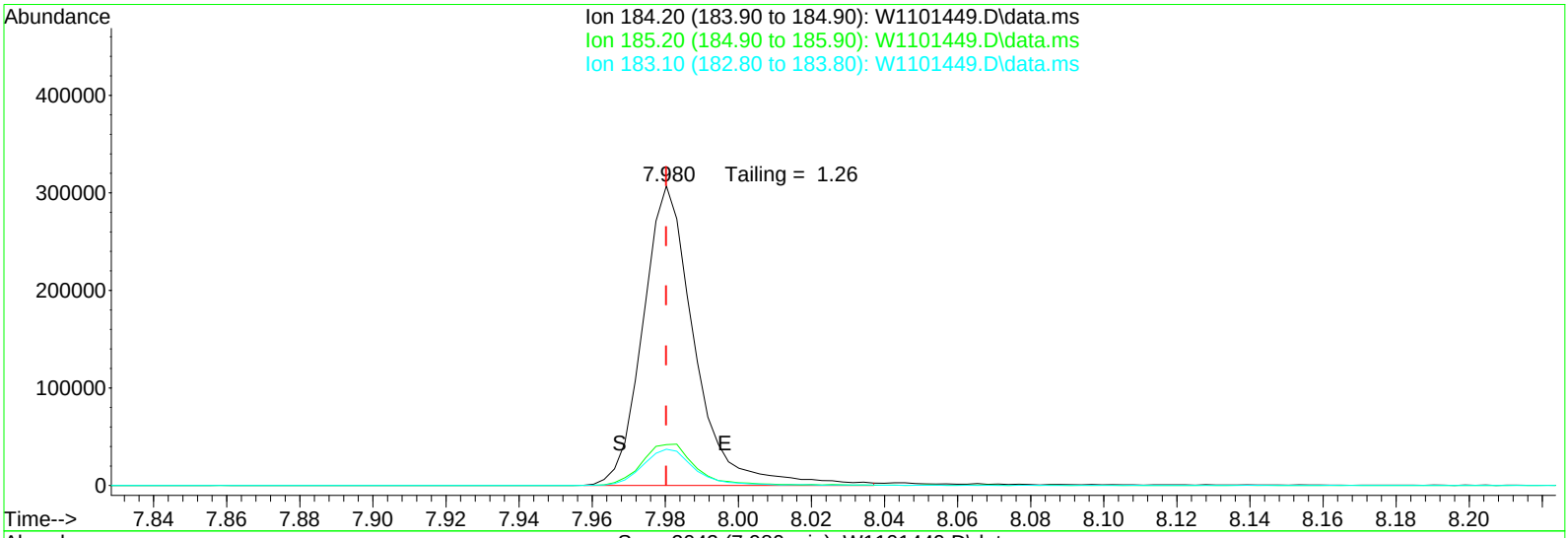
response 60837

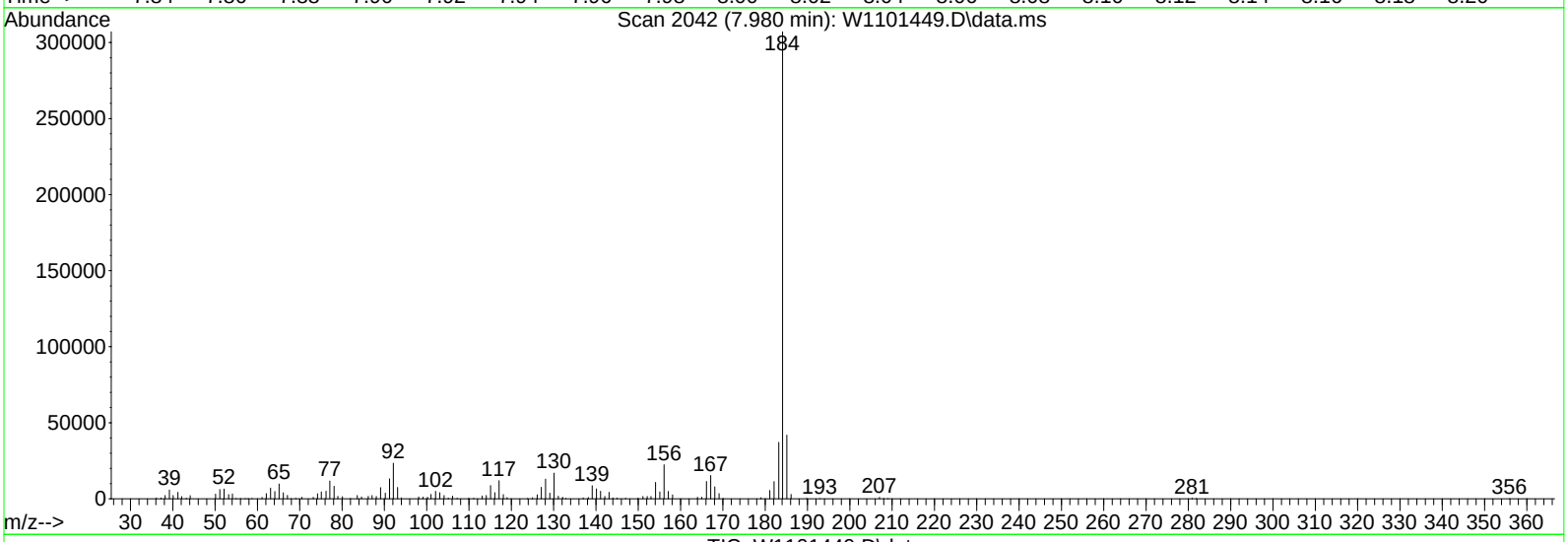
Ion	Exp%	Act%
265.90	100	100
267.90	63.60	62.69
263.90	67.10	63.62
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : M:\ms2011q3\wiley\data\jul11\W071311A\
Data File : W1101449.D
Acq On : 13 Jul 2011 11:55 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 13 16:25:08 2011
Quant Method : M:\ms2011\methods\wiley\DFTPP-4-EA.M
Quant Title : DFTPP
QLast Update : Wed Jul 13 16:24:57 2011
Response via : Initial Calibration





TIC: W1101449.D\data.ms

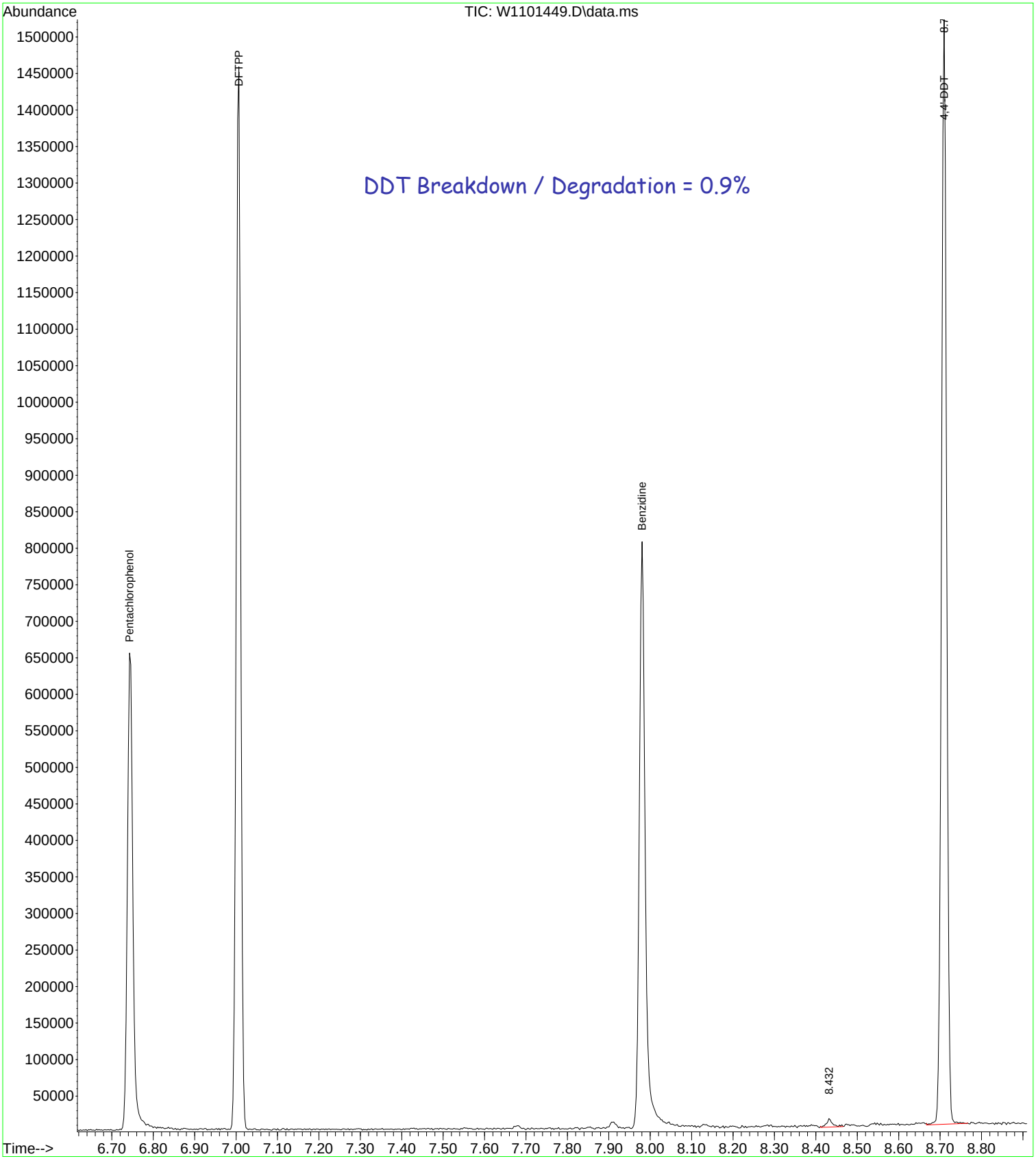
(3) Benzidine

7.980min (0.000) 50.00 ug/mL

response 303612

Ion	Exp%	Act%
184.20	100	100
185.20	14.90	14.61
183.10	12.50	12.04
0.00	0.00	0.00

```
File       :M:\ms2011q3\wiley\data\jul11\W071311A\W1101449.D
Operator   : tdd/lah
Acquired   : 13 Jul 2011  11:55 am using AcqMethod DFTPP-1.M
Instrument :   Wiley
Sample Name: DFTPP
Misc Info  : gcmsprep2pg41
Vial Number: 1
```



TIC: W1101449.D\data.ms
DFTPP

Peak #	Ret Time	Type	Width	Area	Start Time	End Time
1	8.432	rm	0.054	11638	8.412	8.466
2	8.710	rm	0.099	1305735	8.667	8.766

Sequence Name: M:\ms2011q3\wiley\sequence\w070411A

Operator: tdd

Datapath: C:\ms2011q3\wiley\data\jul11\w070411A

Line	Type	Vial	DataFile	Method	Sample Name	Additional Info
1	DFTPP	1	W1101347	DFTPP-1	DFTPP	gcmsprep2pg41
2	Calibration	2	W1101348	M8270SCN	SSTD005 M8270/ICR SCN	gcmsprep2pg115 "B"
3	Calibration	2	W1101349	M8270SCN	SSTD005 M8270/ICR SCN	gcmsprep2pg115 "B"
4	Calibration	3	W1101350	M8270SCN	SSTD010 M8270/ICR SCN	gcmsprep2pg115 "B"
5	Calibration	4	W1101351	M8270SCN	SSTD020 M8270/ICR SCN	gcmsprep2pg115 "B"
6	Calibration	5	W1101352	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"
7	Calibration	6	W1101353	M8270SCN	SSTD080 M8270/ICR SCN	gcmsprep2pg115 "B"
8	Calibration	7	W1101354	M8270SCN	SSTD120 M8270/ICR SCN	gcmsprep2pg115 "B"
9	Calibration	8	W1101355	M8270SCN	SSTD160 M8270/ICR SCN	gcmsprep2pg115 "B"
10	Sample	9	W1101356	M8270SCN	CH2Cl2 SCN BLK	
11	Calibration	10	W1101357	M8270SCN	SSTD050-SS M8270 SCN	gcmsprep2pg30
12	Calibration	11	W1101358	M8270SCN	SSTD050-SS ADD'L ICR	gcmsprep2pg118
13	Calibration	12	W1101359	M8270SCN	SSTD050-SS PAH	gcmsprep2pg120
14	DFTPP	1	W1101360	DFTPP-1	DFTPP	gcmsprep2pg41
15	DFTPP	1	W1101361	DFTPP-1	DFTPP	gcmsprep2pg41
16	DFTPP	1	W1101362	DFTPP-1	DFTPP	gcmsprep2pg41
17	Calibration	2	W1101363	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"
18	Sample	3	W1101364	M8270SCN	0511-64 LCS-1	
19	Sample	4	W1101365	M8270SCN	0511-64 LCS-2	
20	Sample	5	W1101366	M8270SCN	0611-36/42 LCS-1	
21	Sample	6	W1101367	M8270SCN	0611-36/42 LCS-2	
22	Sample	7	W1101368	M8270SCN	CH2Cl2 SCN BLK	
23	Sample	8	W1101369	M8270SCN	0511-64 MB	
24	Sample	9	W1101370	M8270SCN	0611-36/42 MB	
25	Sample	10	W1101371	M8270SCN	FIELD BLANK	0611-36
26	Sample	11	W1101372	M8270SCN	FIELD BLANK	0611-42
27	Sample	12	W1101373	M8270SCN	BLANK	0511-64
28	Sample	13	W1101374	M8270SCN	RUN 1	0511-64
29	Sample	14	W1101375	M8270SCN	RUN 2	0511-64
30	Sample	15	W1101376	M8270SCN	RUN 3	0511-64
31	Sample	16	W1101377	M8270SCN	RUN 3 LD	0511-64
32	Sample	17	W1101378	M8270SCN	RUN 1	0611-36
33	Sample	18	W1101379	M8270SCN	RUN 2	0611-36
34	Sample	19	W1101380	M8270SCN	RUN 3	0611-36
35	Sample	20	W1101381	M8270SCN	RUN 3 LD	0611-36
36	DFTPP	22	W1101382	DFTPP-1	DFTPP	gcmsprep2pg41
37	Calibration	23	W1101383	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"
38	Sample	24	W1101384	M8270SCN	CH2Cl2 SCN BLK	
39	Sample	21	W1101385	M8270SCN	RUN 1	0611-42
40	Sample	25	W1101386	M8270SCN	RUN 2	0611-42
41	Sample	28	W1101387	M8270SCN	RUN 1 *10	0611-42
42	Sample	29	W1101388	M8270SCN	RUN 1 *50	0611-42
43	Sample	30	W1101389	M8270SCN	RUN 2 *50	0611-42
44	Sample	31	W1101390	M8270SCN	RUN 3 *50	0611-42
45	Sample	32	W1101391	M8270SCN	RUN 3 LD *50	0611-42
46						
47						

Sequence Name: M:\ms2011q3\wiley\sequence\w071311A

Operator: tdd

Datapath: C:\ms2011q3\wiley\data\jul11\w071311A

Line	Type	Vial	DataFile	Method	Sample Name	Additional Info	Comments
1	Keyword			Clocksrt		11:37	
2	DFTPP	1	W1101448	DFTPP-1	DFTPP	gcmsprep2pg41	
3	DFTPP	1	W1101449	DFTPP-1	DFTPP	gcmsprep2pg41	
4	Calibration	2	W1101450	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"	
5	Keyword			Pause			
6	Sample	3	W1101451	M8270SCN	0611-14/23 LCS-1		
7	Sample	4	W1101452	M8270SCN	0611-14/63 LCS-2		
8	Sample	5	W1101453	M8270SCN	CH2Cl2 SCN BLK		
9	Sample	6	W1101454	M8270SCN	0611-14/23 MB		
10	Sample	7	W1101455	M8270SCN	FIELD BLANK	0611-23	
11	Sample	8	W1101456	M8270SCN	REAGENT BLANK	0611-23	
12	Sample	9	W1101457	M8270SCN	BLANK	0611-14	
13	Sample	10	W1101458	M8270SCN	RFB	0611-14	
14	Sample	11	W1101459	M8270SCN	RUN 1	0611-23	
15	Sample	12	W1101460	M8270SCN	RUN 2	0611-23	
16	Sample	13	W1101461	M8270SCN	RUN 3	0611-23	
17	Sample	14	W1101462	M8270SCN	RUN 3 LD	0611-23	
18	Sample	15	W1101463	M8270SCN	RUN 1	0611-14	
19	Sample	16	W1101464	M8270SCN	RUN 2	0611-14	
20	Sample	17	W1101465	M8270SCN	RUN 3	0611-14	
21	Sample	18	W1101466	M8270SCN	RUN 3 LD	0611-14	
22	Keyword			Pause			
23	DFTPP	1	W1101467	DFTPP-1	DFTPP	gcmsprep2pg41	
24	DFTPP	1	W1101468	DFTPP-1	DFTPP	gcmsprep2pg41	
25	DFTPP	1	W1101469	DFTPP-1	DFTPP	gcmsprep2pg41	
26	DFTPP	1	W1101470	DFTPP-1	DFTPP	gcmsprep2pg41	
27	DFTPP	1	W1101471	DFTPP-1	DFTPP	gcmsprep2pg41	
28	Calibration	2	W1101472	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"	
29	Calibration	3	W1101473	M8270SCN	STD #3 Siloxanes	gcmsprep2pg126	
30	Sample	4	W1101474	M8270SCN	CH2Cl2 SCN BLK		
31	Sample	5	W1101475	M8270SCN	22A-Tube 2	0611-113	
32	DFTPP	1	W1101476	DFTPP-1	DFTPP	gcmsprep2pg41	
33	DFTPP	1	W1101477	DFTPP-1	DFTPP	gcmsprep2pg41	
34	Calibration	2	W1101478	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"	
35	Sample	3	W1101479	M8270SCN	CH2Cl2 SCN BLK		
36	DFTPP	1	W1101480	DFTPP-1	DFTPP	gcmsprep2pg41	
37	DFTPP	1	W1101481	DFTPP-1	DFTPP	gcmsprep2pg41	
38	DFTPP	1	W1101482	DFTPP-1	DFTPP	gcmsprep2pg41	
39	DFTPP	1	W1101483	DFTPP-1	DFTPP	gcmsprep2pg41	
40	Calibration	2	W1101484	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"	
41	Calibration	2	W1101485	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"	
42	Sample	3	W1101486	M8270SCN	CH2Cl2 SCN BLK		
43	Sample	3	W1101487	M8270SCN	CH2Cl2 SCN BLK		
44	Sample	4	W1101488	M8270SCN	CH2Cl2		
45	Sample	4	W1101489	M8270SCN	CH2Cl2		
46	Sample	4	W1101490	M8270SCN	CH2Cl2		
47	Sample	4	W1101491	M8270SCN	CH2Cl2		
48	Sample	4	W1101492	M8270SCN	CH2Cl2		
49	Sample	4	W1101493	M8270SCN	CH2Cl2		
50	Sample	4	W1101494	M8270SCN	CH2Cl2		
51	Sample	4	W1101495	M8270SCN	CH2Cl2		
52	Sample	4	W1101496	M8270SCN	CH2Cl2		
53	Sample	4	W1101497	M8270SCN	CH2Cl2		
54	Sample	3	W1101498	M8270SCN	CH2Cl2 SCN BLK		
55	Keyword			Pause			
56	DFTPP	1	W1101499	DFTPP-1	DFTPP	gcmsprep2pg41	
57	DFTPP	1	W1101500	DFTPP-1	DFTPP	gcmsprep2pg41	
58	DFTPP	1	W1101501	DFTPP-1	DFTPP	gcmsprep2pg41	
59	DFTPP	1	W1101502	DFTPP-1	DFTPP	gcmsprep2pg41	
60	Calibration	2	W1101503	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"	

M:\MS2011\METHODS\WILEY\m8270scn.M
Fri Jul 08 19:45:41 2011

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Mass Spectrometer : Enabled

6890 GC METHOD

OVEN
Initial temp: 40 'C (On)
Initial time: 2.00 min
Maximum temp: 340 'C
Equilibration time: 0.20 min
Ramps:

#	Rate	Final temp	Final time
1	35.00	130	0.00
2	12.00	330	9.76
3	0.0(Off)		

Post temp: 0 'C
Post time: 0.00 min
Run time: 31.00 min

FRONT INLET (SPLIT/SPLITLESS)
Mode: Pulsed Splitless
Initial temp: 250 'C (On)
Pressure: 7.15 psi (On)
Pulse pressure: 30.0 psi
Pulse time: 0.40 min
Purge flow: 50.0 mL/min
Purge time: 0.35 min
Total flow: 53.9 mL/min
Gas saver: On
Saver flow: 20.0 mL/min
Saver time: 2.00 min
Gas type: Helium

BACK INLET (SPLIT/SPLITLESS)
Mode: Split
Initial temp: 50 'C (Off)
Pressure: 10.74 psi (On)
Split ratio: 50:1
Split flow: 40.0 mL/min
Total flow: 48.2 mL/min
Gas saver: Off
Gas type: Hydrogen

COLUMN 1
Capillary Column
Model Number: Restek 13638
Rxi-5Sil MS, 30m x 0.25mm x 0.5um
Max temperature: 350 'C
Nominal length: 30.0 m
Nominal diameter: 250.00 um
Nominal film thickness: 0.50 um
Mode: constant flow
Initial flow: 1.0 mL/min
Nominal init pressure: 7.16 psi
Average velocity: 36 cm/sec
Inlet: Front Inlet
Outlet: MSD
Outlet pressure: vacuum

COLUMN 2
Capillary Column
Model Number: Restek 40111
RTX-1, 20m x 0.18mm x 0.4um
Max temperature: 330 'C
Nominal length: 20.0 m
Nominal diameter: 180.00 um
Nominal film thickness: 0.40 um
Mode: constant pressure
Pressure: 10.74 psi
Nominal initial flow: 0.8 mL/min
Average velocity: 40 cm/sec
Inlet: Back Inlet
Outlet: Back Detector
Outlet pressure: ambient

FRONT DETECTOR (NO DET)

BACK DETECTOR (FID)
Temperature: 250 'C (On)
Hydrogen flow: 40.0 mL/min (Off)
Air flow: 450.0 mL/min (Off)
Mode: Constant makeup flow
Makeup flow: 45.0 mL/min (On)
Makeup Gas Type: Nitrogen
Flame: Off
Electrometer: On
Lit offset: 2.0

SIGNAL 1
   Data rate: 50 Hz
   Type: back detector
   Save Data: Off
   Zero: 0.0 (Off)
   Range: 0
   Fast Peaks: Off
   Attenuation: 0

SIGNAL 2
   Data rate: 50 Hz
   Type: back detector
   Save Data: Off
   Zero: 0.0 (Off)
   Range: 0
   Fast Peaks: Off
   Attenuation: 0

COLUMN COMP 1
   Derive from back detector

COLUMN COMP 2
   Derive from back detector

THERMAL AUX 2
   Use: MSD Transfer Line Heater
   Description:
   Initial temp: 280 'C (On)
   Initial time: 0.00 min
      # Rate Final temp Final time
      1   0.0(Off)

POST RUN
   Post Time: 0.00 min

TIME TABLE
   Time   Specifier   Parameter & Setpoint

GC Injector

Front Injector:

Sample Washes	1
Sample Pumps	3
Injection Volume	0.20 microliters
Syringe Size	10.0 microliters
PreInj Solvent A Washes	0
PreInj Solvent B Washes	0
PostInj Solvent A Washes	5
PostInj Solvent B Washes	5
Viscosity Delay	2 seconds
Plunger Speed	Fast
PreInjection Dwell	0.00 minutes
PostInjection Dwell	0.00 minutes
Sampling Depth	2.0 mm

Back Injector:
No parameters specified

Column 1 Inventory Number : 13638
Column 2 Inventory Number : 40111

MS ACQUISITION PARAMETERS

General Information
------- -----------

Tune File   : dftpp-070311a.U
Acquistion Mode   : Scan

MS Information
-- -----------

Solvent Delay   : 2.75 min

EMV Mode   : Gain Factor
Gain Factor   : 1.40
Resulting EM Voltage   : 1800

[Scan Parameters]

Low Mass : 35.0
High Mass : 500.0
Threshold : 150
Sample # : 1 A/D Samples 2

[MSZones]

MS Source : 230 C maximum 250 C
MS Quad : 150 C maximum 200 C

END OF MS ACQUISITION PARAMETERS

TUNE PARAMETERS for SN: US21844806

Trace Ion Detection is OFF.

EMISSION : 34.610
ENERGY : 69.922
REPELLER : 26.772
IONFOCUS : 82.565
ENTRANCE_LE : 0.000
EMVOLTS : 1764.706
Actual EMV : 1800
GAIN FACTOR : 1.38
AMUGAIN : 2053.000
AMUOFFSET : 132.000
FILAMENT : 1.000
DCPOLARITY : 0.000
ENTLENSOFFS : 15.812@ 3 15.812@ 50 16.816@ 69 17.820@131 21.333@219 17.067@414
19.827@502 19.827@799
MASSGAIN : 57.000
MASSOFFSET : -10.000

END OF TUNE PARAMETERS

END OF INSTRUMENT CONTROL PARAMETERS

INSTRUMENT CONTROL PARAMETERS: Wiley

M:\MS2011\METHODS\WILEY\dftpp-1.M
Fri Jul 08 19:46:13 2011

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Mass Spectrometer : Enabled

6890 GC METHOD

OVEN
- Initial temp: 125 'C (On)
- Initial time: 2.00 min
- Ramps:

#	Rate	Final temp	Final time
1	35.00	330	4.14
2	0.0(Off)		

- Post temp: 0 'C
- Post time: 0.00 min
- Run time: 12.00 min
- Maximum temp: 340 'C
- Equilibration time: 0.20 min

FRONT INLET (SPLIT/SPLITLESS)
- Mode: Pulsed Splitless
- Initial temp: 250 'C (On)
- Pressure: 12.03 psi (On)
- Pulse pressure: 30.0 psi
- Pulse time: 0.40 min
- Purge flow: 50.0 mL/min
- Purge time: 0.35 min
- Total flow: 53.8 mL/min
- Gas saver: On
- Saver flow: 20.0 mL/min
- Saver time: 2.00 min
- Gas type: Helium

BACK INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 50 'C (Off)
- Pressure: 10.74 psi (On)
- Split ratio: 50:1
- Split flow: 26.7 mL/min
- Total flow: 34.7 mL/min
- Gas saver: Off
- Gas type: Hydrogen

COLUMN 1
- Capillary Column
- Model Number: Restek 13638
- Rxi-5Sil MS, 30m x 0.25mm x 0.5um
- Max temperature: 350 'C
- Nominal length: 30.0 m
- Nominal diameter: 250.00 um
- Nominal film thickness: 0.50 um
- Mode: constant flow
- Initial flow: 1.0 mL/min
- Nominal init pressure: 12.04 psi
- Average velocity: 38 cm/sec
- Inlet: Front Inlet
- Outlet: MSD
- Outlet pressure: vacuum

COLUMN 2
- Capillary Column
- Model Number: Restek 40111
- RTX-1, 20m x 0.18mm x 0.4um
- Max temperature: 330 'C
- Nominal length: 20.0 m
- Nominal diameter: 180.00 um
- Nominal film thickness: 0.40 um
- Mode: constant pressure
- Pressure: 10.74 psi
- Nominal initial flow: 0.5 mL/min
- Average velocity: 34 cm/sec
- Inlet: Back Inlet
- Outlet: Back Detector
- Outlet pressure: ambient

FRONT DETECTOR (NO DET)

BACK DETECTOR (FID)
- Temperature: 250 'C (On)
- Hydrogen flow: 40.0 mL/min (Off)
- Air flow: 450.0 mL/min (Off)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: Off
- Electrometer: On
- Lit offset: 2.0

SIGNAL 1
   Data rate: 50 Hz
   Type: back detector
   Save Data: Off
   Zero: 0.0 (Off)
   Range: 0
   Fast Peaks: Off
   Attenuation: 0

SIGNAL 2
   Data rate: 50 Hz
   Type: back detector
   Save Data: Off
   Zero: 0.0 (Off)
   Range: 0
   Fast Peaks: Off
   Attenuation: 0

COLUMN COMP 1
   Derive from back detector

COLUMN COMP 2
   Derive from back detector

THERMAL AUX 2
   Use: MSD Transfer Line Heater
   Description:
   Initial temp: 280 'C (On)
   Initial time: 0.00 min
      # Rate Final temp Final time
      1   0.0(Off)

POST RUN
   Post Time: 0.00 min

TIME TABLE
   Time   Specifier   Parameter & Setpoint

GC Injector

Front Injector:

Sample Washes	1
Sample Pumps	3
Injection Volume	0.20 microliters
Syringe Size	10.0 microliters
PreInj Solvent A Washes	0
PreInj Solvent B Washes	0
PostInj Solvent A Washes	5
PostInj Solvent B Washes	5
Viscosity Delay	2 seconds
Plunger Speed	Fast
PreInjection Dwell	0.00 minutes
PostInjection Dwell	0.00 minutes
Sampling Depth	2.0 mm

Back Injector:
No parameters specified

Column 1 Inventory Number : 13638
Column 2 Inventory Number : 40111

MS ACQUISITION PARAMETERS

General Information
------- -----------

Tune File   : dftpp-070311a.U
Acquistion Mode   : Scan

MS Information
-- -----------

Solvent Delay   : 2.10 min

EMV Mode   : Gain Factor
Gain Factor   : 1.40
Resulting EM Voltage   : 1800

[Scan Parameters]

Low Mass : 35.0
High Mass : 500.0
Threshold : 150
Sample # : 1 A/D Samples 2

[MSZones]

MS Source : 230 C maximum 250 C
MS Quad : 150 C maximum 200 C

END OF MS ACQUISITION PARAMETERS

TUNE PARAMETERS for SN: US21844806

Trace Ion Detection is OFF.

EMISSION : 34.610
ENERGY : 69.922
REPELLER : 26.772
IONFOCUS : 82.565
ENTRANCE_LE : 0.000
EMVOLTS : 1764.706
Actual EMV : 1800
GAIN FACTOR : 1.38
AMUGAIN : 2053.000
AMUOFFSET : 132.000
FILAMENT : 1.000
DCPOLARITY : 0.000
ENTLENSOFFS : 15.812@ 3 15.812@ 50 16.816@ 69 17.820@131 21.333@219 17.067@414
19.827@502 19.827@799
MASSGAIN : 57.000
MASSOFFSET : -10.000

END OF TUNE PARAMETERS

END OF INSTRUMENT CONTROL PARAMETERS

Calibration Curve Chromatograms (SIM)

Response Factor Report

Sample ID	LID	FileName	Acq. Date		
10000ng SIM ICR PAH	10	W1101578.D	07/29/11	04:39	
10ng SIM ICR PAH	10	W1101569.D	07/28/11	23:06	**Inst:** **Wiley**
20ng SIM ICR PAH	20	W1101570.D	07/28/11	23:43	
50ng SIM ICR PAH	50	W1101571.D	07/29/11	00:20	**Curve:** **ICR-W072811A-PAH.M**
100ng SIM ICR PAH	100	W1101572.D	07/29/11	00:57	
250ng SIM ICR PAH	250	W1101573.D	07/29/11	01:34	
500ng SIM ICR PAH	500	W1101574.D	07/29/11	02:11	
1000ng SIM ICR PAH	1000	W1101575.D	07/29/11	02:48	
2500ng SIM ICR PAH	2500	W1101576.D	07/29/11	03:25	
5000ng SIM ICR PAH	5000	W1101577.D	07/29/11	04:02	

PASS

#	Name	10ng SIM ICR PAH	20ng SIM ICR PAH	50ng SIM ICR PAH	100ng SIM ICR PAH	250ng SIM ICR PAH	500ng SIM ICR PAH	1000ng SIM ICR PAH	2500ng SIM ICR PAH	5000ng SIM ICR PAH	10000ng SIM ICR PAH	Average RF	%RSD	Pass/Fail
3)	Naphthalene	0.944	0.861	0.887	0.846	0.842	0.840	0.824	0.863	0.846	0.822	0.9	4%	Pass
4)	2-Methylnaphthalene	0.634	0.583	0.629	0.605	0.613	0.597	0.597	0.622	0.608	0.612	0.6	3%	Pass
5)	1-Methylnaphthalene	0.617	0.573	0.607	0.588	0.594	0.580	0.576	0.596	0.580	0.584	0.6	3%	Pass
7)	Acenaphthylene	1.36	1.20	1.33	1.27	1.25	1.27	1.27	1.43	1.46	1.47	1	7%	Pass
8)	Acenaphthene (CCC)	0.863	0.793	0.855	0.823	0.821	0.822	0.819	0.888	0.887	0.871	0.8	4%	Pass
10)	Fluorene	1.06	1.00	1.06	1.03	1.07	1.03	1.06	1.21	1.23	1.14	1	7%	Pass
12)	Phenanthrene	0.889	0.889	0.897	0.855	0.864	0.863	0.861	0.940	0.934	0.904	0.9	4%	Pass
13)	Anthracene	0.736	0.688	0.734	0.702	0.722	0.753	0.757	0.884	0.889	0.884	0.8	10%	Pass
14)	Fluoranthene (CCC)	0.974	0.913	0.938	0.860	0.895	0.953	0.969	1.12	1.12	1.21	1	9%	Pass
16)	Pyrene	1.03	0.925	0.949	0.875	0.927	1.00	1.04	1.19	1.19	1.27	1	11%	Pass
18)	Benzo(a)anthracene	1.01	0.814	0.796	0.752	0.758	0.750	0.746	0.825	0.845	0.852	0.8	10%	Pass
19)	Chrysene	1.06	1.01	1.03	0.963	0.954	0.948	0.934	0.984	0.970	0.936	1.0	4%	Pass
21)	7,12-Dimethylbenz(a)anthracene	0.543	0.403	0.477	0.462	0.431	0.431	0.429	0.472	0.463	0.440	0.5	9%	Pass
22)	Benzo(b)fluoranthene	1.08	1.10	1.14	1.09	1.12	1.09	1.09	1.30	1.34	1.32	1	9%	Pass
23)	Benzo(k)fluoranthene	1.10	1.10	1.21	1.00	1.19	1.27	1.28	1.46	1.45	1.41	1	13%	Pass
24)	Benzo(e)pyrene	1.23	1.18	1.16	1.09	1.09	1.07	1.09	1.20	1.20	1.17	1	5%	Pass
25)	Benzo(a)pyrene (CCC)	0.984	0.875	1.00	0.830	0.846	0.877	0.878	1.03	1.08	1.10	1	10%	Pass
26)	Perylene	0.947	1.01	1.04	0.984	1.04	1.03	1.06	1.18	1.19	1.19	1	8%	Pass
27)	3-Methylcholanthrene	0.671	0.516	0.528	0.470	0.473	0.477	0.471	0.520	0.526	0.526	0.5	12%	Pass
28)	Indeno(1,2,3-cd)pyrene	0.583	0.642	0.680	0.738	0.768	0.822	0.849	0.946	0.923	0.902	0.8	16%	Warning
29)	Dibenz(a,h)anthracene	0.419	0.500	0.466	0.543	0.583	0.623	0.640	0.749	0.742	0.727	0.6	20%	Warning
30)	Benzo(g,h,i)perylene	0.664	0.672	0.678	0.758	0.756	0.801	0.842	0.863	0.799	0.784	0.8	10%	Pass
31)	Dibenzo(a,e)pyrene	0.210	0.183	0.207	0.262	0.243	0.283	0.279	0.300	0.290	0.316	0.3	17%	Warning
												Average %	8.8%	

SPCC Average RF must be > 0.05
CCC %RSD must be <= 30%
Other %RSD <= 15%
Average %RSD <= 15%
No %RSD > 50%

Relative Retention Time Report

Sample ID	LID	FileName	Acq. Date	
10000ng SIM ICR PAH	10	W1101578.D	07/29/11 04:39	
10ng SIM ICR PAH	10	W1101569.D	07/28/11 23:06	**Inst:** **Wiley**
20ng SIM ICR PAH	20	W1101570.D	07/28/11 23:43	
50ng SIM ICR PAH	50	W1101571.D	07/29/11 00:20	**Curve:** **ICR-W072811A-PAH.M**
100ng SIM ICR PAH	100	W1101572.D	07/29/11 00:57	
250ng SIM ICR PAH	250	W1101573.D	07/29/11 01:34	
500ng SIM ICR PAH	500	W1101574.D	07/29/11 02:11	
1000ng SIM ICR PAH	1000	W1101575.D	07/29/11 02:48	
2500ng SIM ICR PAH	2500	W1101576.D	07/29/11 03:25	
5000ng SIM ICR PAH	5000	W1101577.D	40,753.17	

#	Name	10000ng SIM ICR PAH	10ng SIM ICR PAH	20ng SIM ICR PAH	50ng SIM ICR PAH	100ng SIM ICR PAH	250ng SIM ICR PAH	500ng SIM ICR PAH	1000ng SIM ICR PAH	2500ng SIM ICR PAH	5000ng SIM ICR PAH	Average RRT
3)	Naphthalene	1.00346446	1.00346245	1.00404398	1.00404425	1.00404387	1.00404393	1.00347594	1.00404628	1.00404628	1.00346437	1.00381358
4)	2-Methylnaphthalene	1.1398876	1.14181501	1.14130147	1.14131081	1.14078234	1.1402688	1.14027993	1.14041653	1.13990083	1.1398839	1.14058472
5)	1-Methylnaphthalene	1.16156033	1.16295973	1.16296189	1.16297266	1.16294436	1.16244433	1.16245721	1.16259174	1.16208926	1.16207175	1.16250532
7)	Acenaphthylene	0.97462687	0.9755953	0.97510758	0.97510639	0.97511738	0.97510782	0.97510639	0.97510524	0.97509591	0.97461778	0.97505867
8)	Acenaphthene (CCC)	1.00526215	1.00574735	1.00573778	1.00573806	1.00574729	1.00573773	1.00573806	1.0057501	1.00574047	1.00574042	1.00569394
10)	Fluorene	1.09872752	1.09939753	1.09944535	1.0994501	1.09938702	1.09896625	1.09903888	1.09908152	1.09908057	1.09907962	1.09916543
12)	Phenanthrene	1.00327554	1.00360316	1.00327341	1.00327353	1.00360313	1.00360432	1.00360432	1.00359683	1.00360551	1.00360548	1.00350452
13)	Anthracene	1.01113834	1.01113159	1.01113109	1.0111315	1.0111315	1.01113517	1.01113517	1.01113517	1.01146866	1.01113876	1.0111677
14)	Fluoranthene (CCC)	1.18454723	1.18460006	1.18459176	1.18459867	1.18459867	1.18457711	1.18457711	1.18456962	1.18496781	1.18455415	1.18461822
16)	Pyrene	1.21959629	1.21922334	1.21921348	1.21922169	1.21922169	1.21961619	1.21921155	1.21961619	1.21961366	1.21961202	1.21941461
18)	Benzo(a)anthracene	0.99903936	0.99871992	0.99871956	0.99871952	0.99871952	0.99871952	0.99871952	0.99871952	0.99871952	0.99871419	0.99875102
19)	Chrysene	1.00288726	1.00256548	1.00288633	1.00288108	1.00288108	1.00256096	1.00256096	1.00256631	1.00256096	1.00256094	1.00269113
21)	7,12-Dimethylbenz(a)anthracene	0.96753897	0.96755164	0.96727318	0.96727242	0.96727242	0.96727242	0.96699771	0.96726777	0.96727242	0.96754287	0.96732618
22)	Benzo(b)fluoranthene	0.96809784	0.96810571	0.9681066	0.96810586	0.96810586	0.9681012	0.9678265	0.96782184	0.9678265	0.9680971	0.9680195
23)	Benzo(k)fluoranthene	0.97031469	0.97060138	0.97032284	0.97032215	0.97032215	0.97004279	0.97004745	0.97004279	0.97004279	0.970314	0.9702373
24)	Benzo(e)pyrene	0.99112328	0.99112547	0.99112572	0.99112551	0.99112551	0.99112551	0.99112551	0.99112086	0.99112551	0.99112308	0.9911246
25)	Benzo(a)pyrene (CCC)	0.99556164	0.99556274	0.99528816	0.99528339	0.99528339	0.99528339	0.99500868	0.99528339	0.99528339	0.99556154	0.99533997
26)	Perylene	1.00221685	1.00222096	1.00194154	1.00194158	1.00194158	1.00194158	1.00194158	1.00194158	1.00194158	1.00222156	1.00202504
27)	3-Methylcholanthrene	1.0244133	1.02413257	1.02413189	1.02413246	1.02440716	1.0241278	1.02413246	1.0241278	1.0241278	1.02441387	1.02421471
28)	Indeno(1,2,3-cd)pyrene	1.0978069	1.09834615	1.09778469	1.09806167	1.09750294	1.09750294	1.09750294	1.09750294	1.09750294	1.09780918	1.09773233
29)	Dibenz(a,h)anthracene	1.09864521	1.09890489	1.09890212	1.09890442	1.09862506	1.09834104	1.09806633	1.09834104	1.09834104	1.09836806	1.09854392
30)	Benzo(g,h,i)perylene	1.12635118	1.12660403	1.12632113	1.12660344	1.12632407	1.12604005	1.12604005	1.12604005	1.12604005	1.12635413	1.12627182
31)	Dibenzo(a,e)pyrene	1.33329608	1.33401933	1.33482014	1.33482793	1.33401778	1.33374307	1.33320762	1.33320296	1.33293291	1.33330384	1.33373717

= RRT outside 0.06 unit RRT window

Internal Standards Retention Time Report

Sample ID	LID	FileName	Acq. Date
10000ng SIM ICR PAH	10	W1101578.D	07/29/11 04:39
10ng SIM ICR PAH	10	W1101569.D	07/28/11 23:06
20ng SIM ICR PAH	20	W1101570.D	07/28/11 23:43
50ng SIM ICR PAH	50	W1101571.D	07/29/11 00:20
100ng SIM ICR PAH	100	W1101572.D	07/29/11 00:57
250ng SIM ICR PAH	250	W1101573.D	07/29/11 01:34
500ng SIM ICR PAH	500	W1101574.D	07/29/11 02:11
1000ng SIM ICR PAH	1000	W1101575.D	07/29/11 02:48
2500ng SIM ICR PAH	2500	W1101576.D	07/29/11 03:25
5000ng SIM ICR PAH	5000	W1101577.D	40,753.17

Inst: **Wiley**

Curve: **ICR-W072811A-PAH.M**

#	Name	10000ng SIM ICR PAH	10ng SIM ICR PAH	20ng SIM ICR PAH	50ng SIM ICR PAH	100ng SIM ICR PAH	250ng SIM ICR PAH	500ng SIM ICR PAH	1000ng SIM ICR PAH	2500ng SIM ICR PAH	5000ng SIM ICR PAH	Average
1)	1,4-Dichlorobenzene-d4 (I)	6.0638	6.0678	6.0638	6.0637	6.0678	6.0639	6.0677	6.0678	6.0639	6.064	6.06542
2)	Naphthalene-d8 (I)	7.5625	7.5669	7.5668	7.5663	7.567	7.5669	7.5663	7.5625	7.5625	7.5627	7.56504
6)	Acenaphthene-d10 (I)	10.452	10.457	10.457	10.4565	10.4571	10.4571	10.4565	10.452	10.4521	10.4522	10.45495
11)	Phenanthrene-d10 (I)	13.3413	13.3494	13.35	13.3495	13.3495	13.3451	13.3451	13.3451	13.3407	13.3408	13.34565
17)	Chrysene-d12 (I)	18.7375	18.7489	18.7435	18.743	18.743	18.743	18.743	18.7429	18.743	18.7431	18.74309
20)	Perylene-d12 (I)	21.4719	21.4772	21.4778	21.4773	21.4773	21.4773	21.4773	21.4773	21.4773	21.4714	21.47621

= ISTD retention time outside of 20 sec (0.33 min) window

Internal Standards Area Report

Sample ID	LID	FileName	Acq. Date	
10000ng SIM ICR PAH	10	W1101578.D	07/29/11	04:39
10ng SIM ICR PAH	10	W1101569.D	07/28/11	23:06
20ng SIM ICR PAH	20	W1101570.D	07/28/11	23:43
50ng SIM ICR PAH	50	W1101571.D	07/29/11	00:20
100ng SIM ICR PAH	100	W1101572.D	07/29/11	00:57
250ng SIM ICR PAH	250	W1101573.D	07/29/11	01:34
500ng SIM ICR PAH	500	W1101574.D	07/29/11	02:11
1000ng SIM ICR PAH	1000	W1101575.D	07/29/11	02:48
2500ng SIM ICR PAH	2500	W1101576.D	07/29/11	03:25
5000ng SIM ICR PAH	5000	W1101577.D	07/29/11	04:02

Inst: **Wiley**

Curve: **ICR-W072811A-PAH.M**

#	Name	10000ng SIM ICR PAH	10ng SIM ICR PAH	20ng SIM ICR PAH	50ng SIM ICR PAH	100ng SIM ICR PAH	250ng SIM ICR PAH	500ng SIM ICR PAH	1000ng SIM ICR PAH	2500ng SIM ICR PAH	5000ng SIM ICR PAH	Average
1)	1,4-Dichlorobenzene-d4 (I)	7915	10183	9084	7236	6753	8072	8133	6896	7946	9054	8127.2
2)	Naphthalene-d8 (I)	19281	24784	21865	17084	15836	18464	19347	16359	19387	22191	19459.8
6)	Acenaphthene-d10 (I)	11908	18496	16353	12501	11405	14026	13510	11927	12181	12584	13489.1
11)	Phenanthrene-d10 (I)	23106	34206	28326	21218	19283	24322	23382	20257	23568	24747	24241.5
17)	Chrysene-d12 (I)	30221	29172	22054	17931	14767	20125	21324	20135	25579	28095	22940.3
20)	Perylene-d12 (I)	17887	18121	13805	11522	10152	13302	13890	13731	15710	16763	14488.3

= ISTD response outside of 40% window

Response Factor Report Wiley

Method Path : C:\gcms\ms2011\methods\wiley\
Method File : ICR-W072811A-PAH.M
Title : PAHs by SIM
Last Update : Fri Jul 29 08:07:34 2011
Response Via : Initial Calibration

Calibration Files
10 =W1101569.D 20 =W1101570.D 50 =W1101571.D 100 =W1101572.D 250 =W1101573.D 500 =W1101574.D 1000=W1101575.D
2500=W1101576.D 5000=W1101577.D 10K =W1101578.D

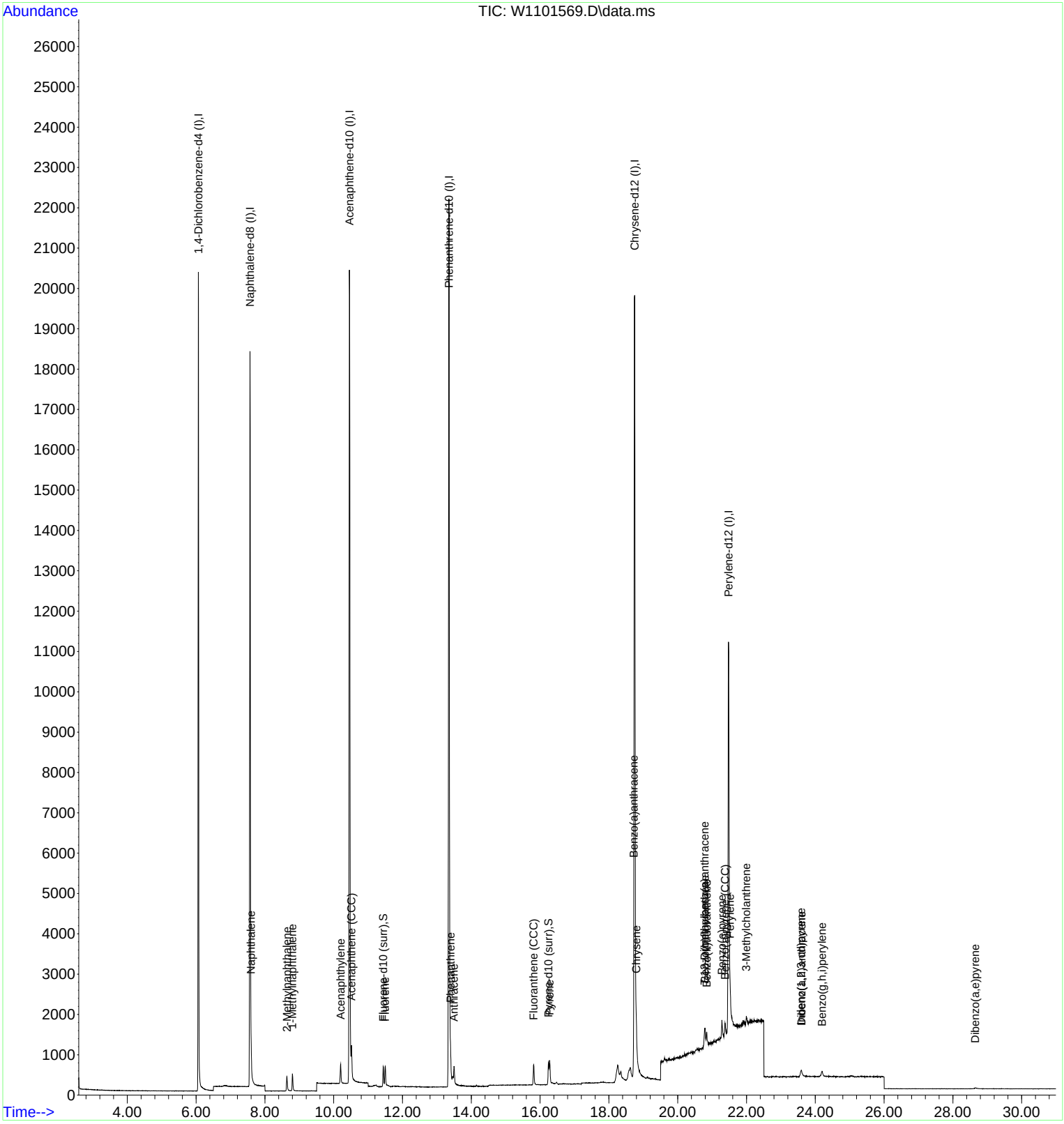
		Compound	10	20	50	100	250	500	1000	2500	5000	10K	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------											
2)	I	Naphthalene-d8 (I)	----------ISTD----------											
3)		Naphthalene	0.944	0.861	0.887	0.846	0.842	0.840	0.824	0.863	0.846	0.822	0.858	4.17
4)		2-Methylnaphth...	0.634	0.583	0.629	0.605	0.613	0.597	0.597	0.622	0.608	0.612	0.610	2.58
5)		1-Methylnaphth...	0.617	0.573	0.607	0.588	0.594	0.580	0.576	0.596	0.580	0.584	0.589	2.39
6)	I	Acenaphthene-d10 (I)	----------ISTD----------											
7)		Acenaphthylene	1.360	1.196	1.325	1.272	1.254	1.269	1.271	1.426	1.460	1.473	1.331	7.17
8)		Acenaphthene (...	0.863	0.793	0.855	0.823	0.821	0.822	0.819	0.888	0.887	0.871	0.844	3.89
9)	S	Fluorene-d10 (...	1.060	0.964	1.036	1.017	1.035	1.001	1.019	1.155	1.172	1.096	1.055	6.33
10)		Fluorene	1.055	0.998	1.056	1.035	1.074	1.034	1.061	1.209	1.225	1.141	1.089	7.06
11)	I	Phenanthrene-d10 (I)	----------ISTD----------											
12)		Phenanthrene	0.889	0.889	0.897	0.855	0.864	0.863	0.861	0.940	0.934	0.904	0.889	3.39
13)		Anthracene	0.736	0.688	0.734	0.702	0.722	0.753	0.757	0.884	0.889	0.884	0.775	10.23
14)		Fluoranthene (...	0.974	0.913	0.938	0.860	0.895	0.953	0.969	1.115	1.125	1.209	0.995	11.52
15)	S	Pyrene-d10 (surr)	0.947	0.878	0.935	0.854	0.894	0.963	0.990	1.141	1.155	1.245	1.000	13.30
16)		Pyrene	1.035	0.925	0.949	0.875	0.927	1.005	1.037	1.193	1.192	1.270	1.041	12.92
17)	I	Chrysene-d12 (I)	----------ISTD----------											
18)		Benzo(a)anthra...	1.011	0.814	0.796	0.752	0.758	0.750	0.746	0.825	0.845	0.852	0.815	9.79
19)		Chrysene	1.056	1.012	1.028	0.963	0.954	0.948	0.934	0.984	0.970	0.936	0.978	4.21
20)	I	Perylene-d12 (I)	----------ISTD----------											
21)		7,12-Dimethylb...	0.490	0.403	0.477	0.462	0.431	0.431	0.429	0.472	0.463	0.440	0.450	6.05
22)		Benzo(b)fluora...	1.082	1.098	1.144	1.087	1.124	1.092	1.093	1.302	1.340	1.323	1.168	9.22
23)		Benzo(k)fluora...	1.101	1.230	1.277	1.108	1.188	1.272	1.277	1.457	1.449	1.406	1.276	10.05
24)		Benzo(e)pyrene	1.230	1.184	1.155	1.087	1.094	1.073	1.087	1.197	1.197	1.172	1.148	4.97
25)		Benzo(a)pyrene...	0.984	0.959	0.998	0.894	0.846	0.877	0.878	1.028	1.083	1.103	0.965	9.32
26)		Perylene	0.947	1.152	1.039	0.984	1.038	1.035	1.063	1.179	1.195	1.187	1.082	8.29
27)		3-Methylcholan...	0.556	0.532	0.460	0.528	0.480	0.477	0.471	0.520	0.526	0.526	0.508	6.39
28)		Indeno(1,2,3-c...	0.622	0.710	0.678	0.748	0.768	0.822	0.849	0.946	0.923	0.902	0.797	13.74
29)		Dibenz(a,h)ant...	0.475	0.542	0.482	0.563	0.583	0.623	0.640	0.749	0.742	0.727	0.613	16.66
30)		Benzo(g,h,i)pe...	0.664	0.672	0.705	0.784	0.756	0.801	0.842	0.863	0.799	0.784	0.767	8.79
31)		Dibenzo(a,e)py...	0.210	0.226	0.221	0.270	0.258	0.283	0.279	0.300	0.290	0.330	0.267	14.33

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101569.D
Acq On : 28 Jul 2011 11:06 pm
Operator : tdd/lah
Sample : 10ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 29 08:07:28 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:51:30 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101569.D
Acq On : 28 Jul 2011 11:06 pm
Operator : tdd/lah
Sample : 10ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 29 08:07:28 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:51:30 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.068	152	10183	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.567	136	24784	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.457	164	18496	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.349	188	34206	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.749	240	29172	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	18121	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.440	176	490	10.04	ng/mL		0.00
15) Pyrene-d10 (surr)	16.243	212	810	9.47	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.593	128	585	11.01	ng/mL	#	54
4) 2-Methylnaphthalene	8.640	142	393	10.40	ng/mL		95
5) 1-Methylnaphthalene	8.800	142	382	10.45	ng/mL		94
7) Acenaphthylene	10.202	152	629	10.22	ng/mL	#	66
8) Acenaphthene (CCC)	10.517	154	399	10.22	ng/mL		98
10) Fluorene	11.496	166	488	9.69	ng/mL		85
12) Phenanthrene	13.397	178	760	9.99	ng/mL	#	87
13) Anthracene	13.498	178	629	9.49	ng/mL		96
14) Fluoranthene (CCC)	15.814	202	833	9.79	ng/mL		100
16) Pyrene	16.276	202	885	9.94	ng/mL	#	86
18) Benzo(a)anthracene	18.725	228	737	12.35	ng/mL	#	85
19) Chrysene	18.797	228	770	10.79	ng/mL	#	87
21) 7,12-Dimethylbenz(a)an...	20.780	256	222m	10.77	ng/mL		
22) Benzo(b)fluoranthene	20.792	252	490	9.26	ng/mL		98
23) Benzo(k)fluoranthene	20.846	252	499	8.80	ng/mL	#	54
24) Benzo(e)pyrene	21.287	252	557	10.71	ng/mL	#	82
25) Benzo(a)pyrene (CCC)	21.382	252	446	10.36	ng/mL	#	88
26) Perylene	21.525	252	429	8.87	ng/mL	#	86
27) 3-Methylcholanthrene	21.995	268	252m	10.74	ng/mL		
28) Indeno(1,2,3-cd)pyrene	23.589	276	282m	7.93	ng/mL		
29) Dibenz(a,h)anthracene	23.601	278	215m	7.92	ng/mL		
30) Benzo(g,h,i)perylene	24.196	276	301	8.72	ng/mL	#	74
31) Dibenzo(a,e)pyrene	28.651	302	95m	8.15	ng/mL		

Manual Int. "WP" (TDD)

Manual Int. "II" (TDD)

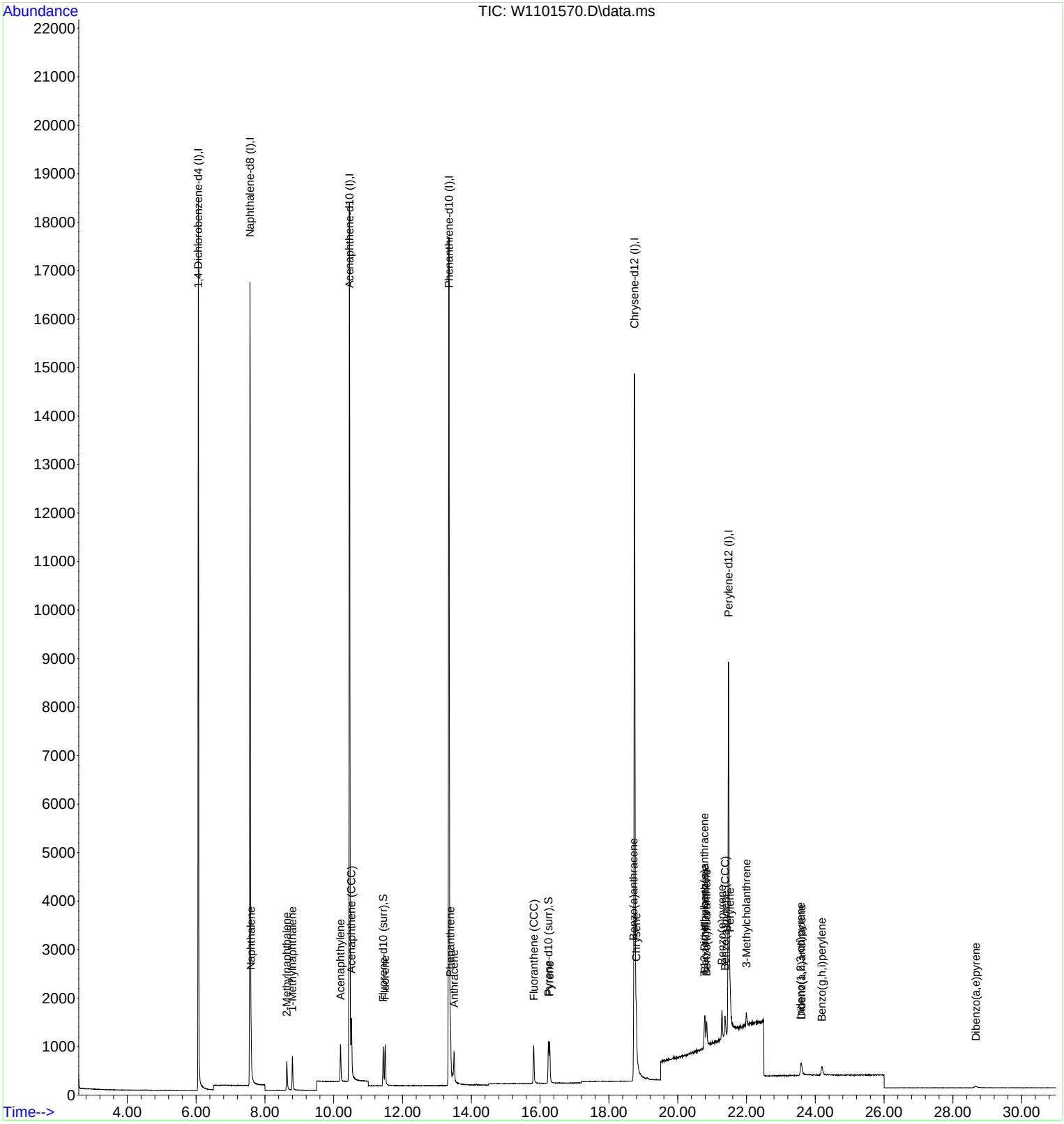
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101570.D
Acq On : 28 Jul 2011 11:43 pm
Operator : tdd/lah
Sample : 20ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 29 08:06:27 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 00:36:37 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101570.D
Acq On : 28 Jul 2011 11:43 pm
Operator : tdd/lah
Sample : 20ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 29 08:06:27 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 00:36:37 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	9084	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.567	136	21865	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.457	164	16353	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.350	188	28326	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.744	240	22054	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.478	264	13805	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.440	176	788	20.22	ng/mL		0.00
15) Pyrene-d10 (surr)	16.244	212	1244	19.68	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.597	128	941	19.79	ng/mL	#	83
4) 2-Methylnaphthalene	8.636	142	637	20.24	ng/mL		97
5) 1-Methylnaphthalene	8.800	142	626	20.02	ng/mL		95
7) Acenaphthylene	10.197	152	978	17.31	ng/mL	#	80
8) Acenaphthene (CCC)	10.517	154	648	17.69	ng/mL		98
10) Fluorene	11.497	166	816	18.94	ng/mL		100
12) Phenanthrene	13.394	178	1259	19.43	ng/mL	#	84
13) Anthracene	13.499	178	974	16.99	ng/mL		98
14) Fluoranthene (CCC)	15.814	202	1293	20.09	ng/mL		98
16) Pyrene	16.276	202	1310	19.06	ng/mL	#	82
18) Benzo(a)anthracene	18.720	228	898	21.25	ng/mL		98
19) Chrysene	18.798	228	1116	20.62	ng/mL	#	79
21) 7,12-Dimethylbenz(a)an...	20.775	256	278	17.09	ng/mL		92
22) Benzo(b)fluoranthene	20.793	252	758	17.95	ng/mL	#	86
23) Benzo(k)fluoranthene	20.840	252	849m	18.82	ng/mL		
24) Benzo(e)pyrene	21.287	252	817	20.11	ng/mL	#	88
25) Benzo(a)pyrene (CCC)	21.377	252	662m	20.33	ng/mL		
26) Perylene	21.520	252	795m	21.20	ng/mL		
27) 3-Methylcholanthrene	21.996	268	367m	21.91	ng/mL		
28) Indeno(1,2,3-cd)pyrene	23.578	276	490m	18.63	ng/mL		
29) Dibenz(a,h)anthracene	23.602	278	374m	18.19	ng/mL		
30) Benzo(g,h,i)perylene	24.191	276	464	18.63	ng/mL	#	74
31) Dibenzo(a,e)pyrene	28.669	302	156m	16.02	ng/mL		

Manual Int. "WP" (TDD)

Manual Int. "II" (TDD)

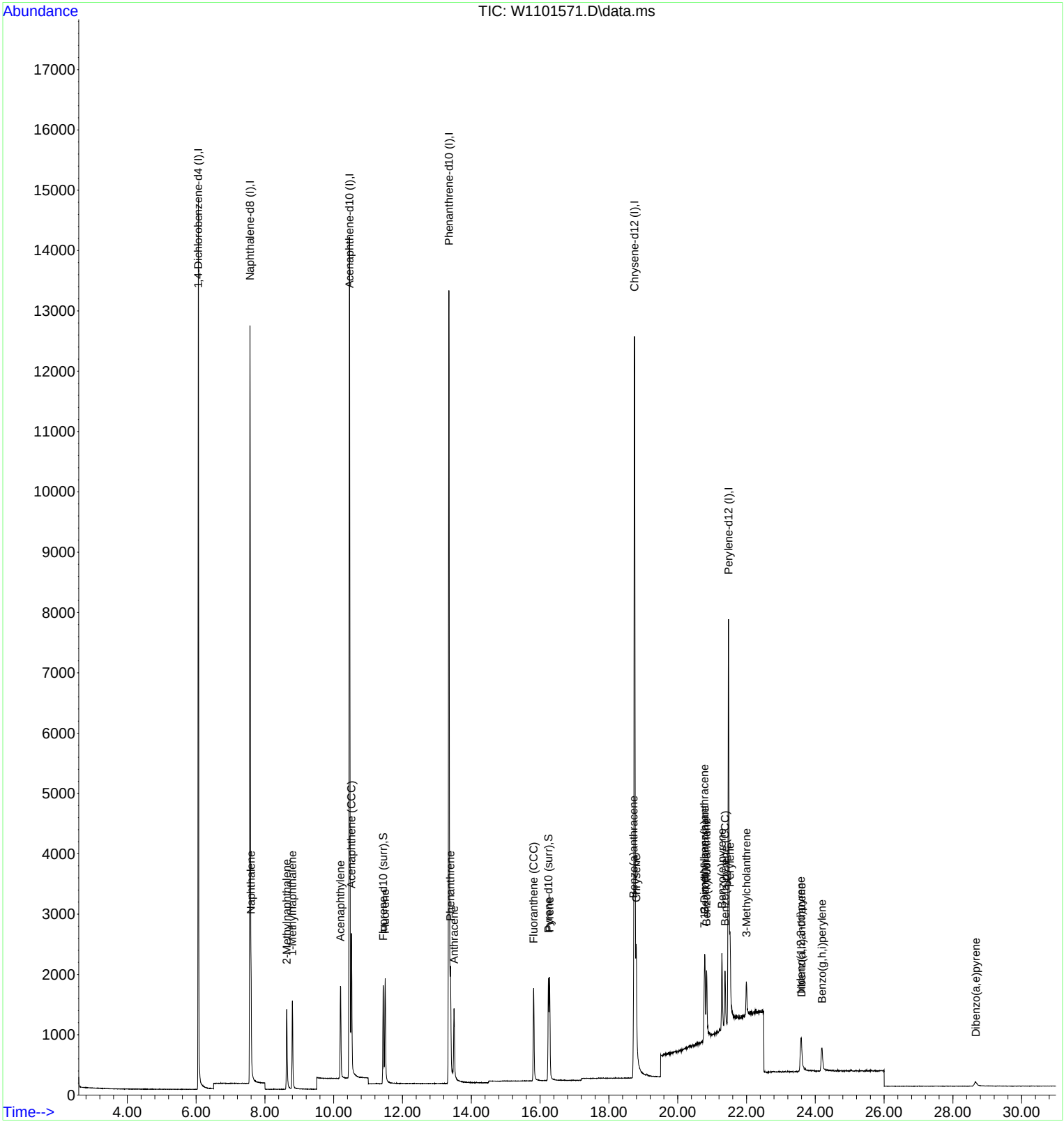
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101571.D
Acq On : 29 Jul 2011 12:20 am
Operator : tdd/lah
Sample : 50ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 29 08:05:32 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 00:37:32 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101571.D
Acq On : 29 Jul 2011 12:20 am
Operator : tdd/lah
Sample : 50ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 29 08:05:32 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 00:37:32 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	7236	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.566	136	17084	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.456	164	12501	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.349	188	21218	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	17931	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	11522	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.440	176	1619	54.55	ng/mL		0.00
15) Pyrene-d10 (surr)	16.243	212	2480	52.87	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.597	128	1894	50.52	ng/mL	#	83
4) 2-Methylnaphthalene	8.636	142	1344	54.76	ng/mL		98
5) 1-Methylnaphthalene	8.799	142	1296	52.92	ng/mL		94
7) Acenaphthylene	10.196	152	2071	48.10	ng/mL	#	78
8) Acenaphthene (CCC)	10.517	154	1336	47.59	ng/mL		97
10) Fluorene	11.496	166	1650	50.16	ng/mL		99
12) Phenanthrene	13.393	178	2378	48.85	ng/mL	#	85
13) Anthracene	13.498	178	1948	45.47	ng/mL		98
14) Fluoranthene (CCC)	15.814	202	2489	51.82	ng/mL		98
16) Pyrene	16.276	202	2517	49.26	ng/mL	#	84
18) Benzo(a)anthracene	18.719	228	1785	52.86	ng/mL		99
19) Chrysene	18.797	228	2305	53.10	ng/mL	#	82
21) 7,12-Dimethylbenz(a)an...	20.774	256	687	51.92	ng/mL		95
22) Benzo(b)fluoranthene	20.792	252	1648	47.11	ng/mL	#	71
23) Benzo(k)fluoranthene	20.840	252	1839m	49.36	ng/mL		98
24) Benzo(e)pyrene	21.287	252	1664	49.70	ng/mL		95
25) Benzo(a)pyrene (CCC)	21.376	252	1437m	53.00	ng/mL		
26) Perylene	21.519	252	1496	48.49	ng/mL		
27) 3-Methylcholanthrene	21.996	268	663m	47.64	ng/mL		
28) Indeno(1,2,3-cd)pyrene	23.583	276	977m	45.01	ng/mL		
29) Dibenz(a,h)anthracene	23.601	278	694m	40.52	ng/mL		
30) Benzo(g,h,i)perylene	24.196	276	1015m	49.15	ng/mL		
31) Dibenzo(a,e)pyrene	28.668	302	318m	39.82	ng/mL		

Manual Int. "WP" (TDD)

Manual Int. "WP" (TDD)

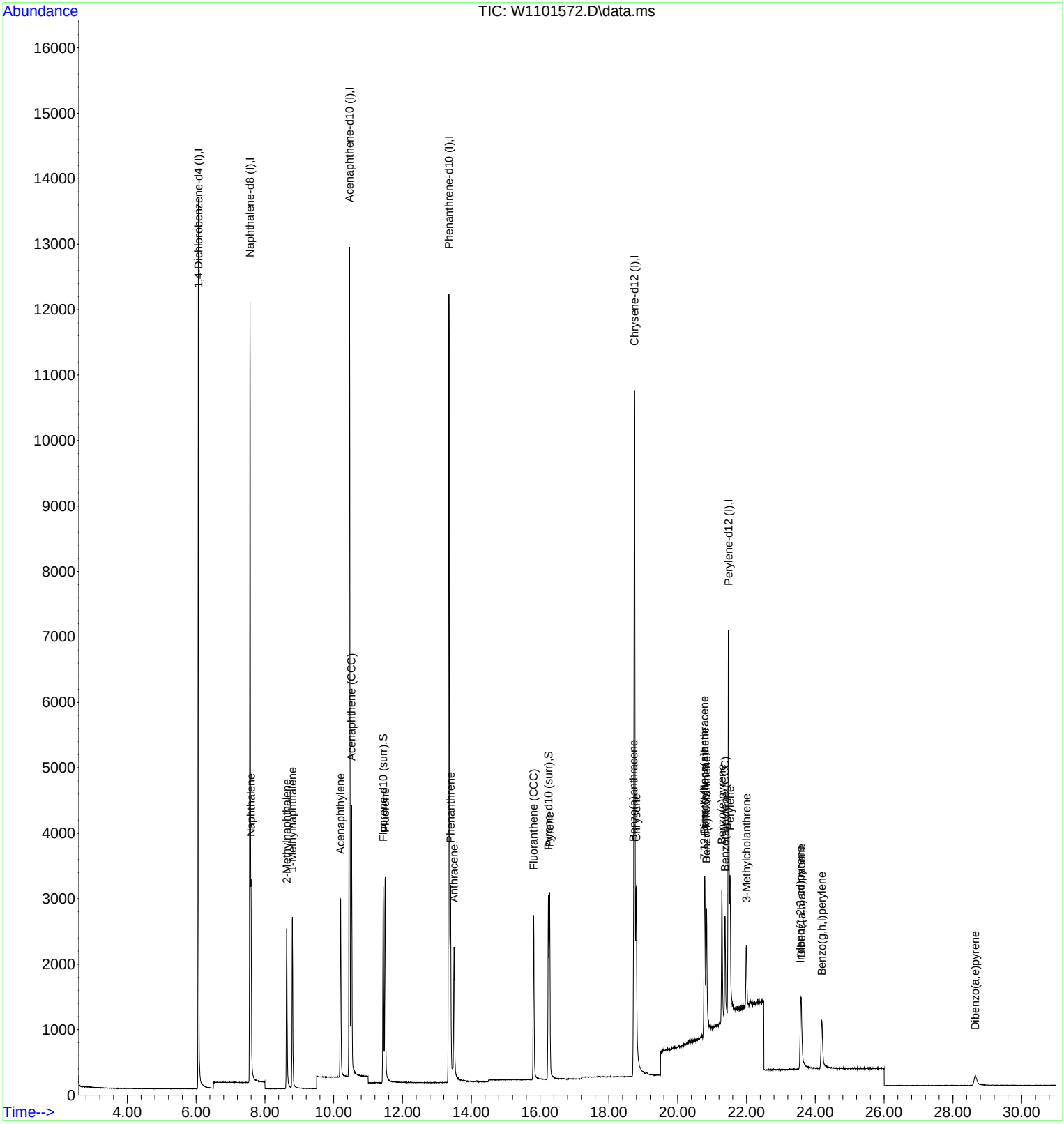
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101572.D
Acq On : 29 Jul 2011 12:57 am
Operator : tdd/lah
Sample : 100ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 29 08:00:00 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:28:37 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101572.D
Acq On : 29 Jul 2011 12:57 am
Operator : tdd/lah
Sample : 100ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 29 08:00:00 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:28:37 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.068	152	6753	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.567	136	15836	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.457	164	11405	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.350	188	19283	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	14767	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	10152	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.440	176	2900	106.23	ng/mL		0.00
15) Pyrene-d10 (surr)	16.243	212	4119	96.08	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.598	128	3350	95.44	ng/mL	#	82
4) 2-Methylnaphthalene	8.632	142	2396	104.66	ng/mL		97
5) 1-Methylnaphthalene	8.800	142	2329	101.80	ng/mL		96
7) Acenaphthylene	10.197	152	3626	91.57	ng/mL	#	79
8) Acenaphthene (CCC)	10.517	154	2348	90.83	ng/mL		98
10) Fluorene	11.496	166	2951	97.48	ng/mL		99
12) Phenanthrene	13.398	178	4121	92.26	ng/mL	#	84
13) Anthracene	13.498	178	3383	86.44	ng/mL		97
14) Fluoranthene (CCC)	15.814	202	4147	94.25	ng/mL		99
16) Pyrene	16.276	202	4216	90.29	ng/mL	#	83
18) Benzo(a)anthracene	18.719	228	2776	98.51	ng/mL		100
19) Chrysene	18.797	228	3555	98.50	ng/mL	#	82
21) 7,12-Dimethylbenz(a)an...	20.774	256	1172	98.91	ng/mL		96
22) Benzo(b)fluoranthene	20.792	252	2758	87.97	ng/mL	#	70
23) Benzo(k)fluoranthene	20.840	252	2811m	84.01	ng/mL		
24) Benzo(e)pyrene	21.287	252	2759	92.02	ng/mL		98
25) Benzo(a)pyrene (CCC)	21.376	252	2269m	93.28	ng/mL		
26) Perylene	21.519	252	2498	91.12	ng/mL		97
27) 3-Methylcholanthrene	22.002	268	1340m	107.33	ng/mL		
28) Indeno(1,2,3-cd)pyrene	23.571	276	1899m	97.90	ng/mL		
29) Dibenz(a,h)anthracene	23.595	278	1428m	93.46	ng/mL		
30) Benzo(g,h,i)perylene	24.190	276	1990m	108.05	ng/mL		
31) Dibenzo(a,e)pyrene	28.651	302	685m	98.30	ng/mL		

Manual Int. "WP" (TDD)

Manual Int. "WP" (TDD)

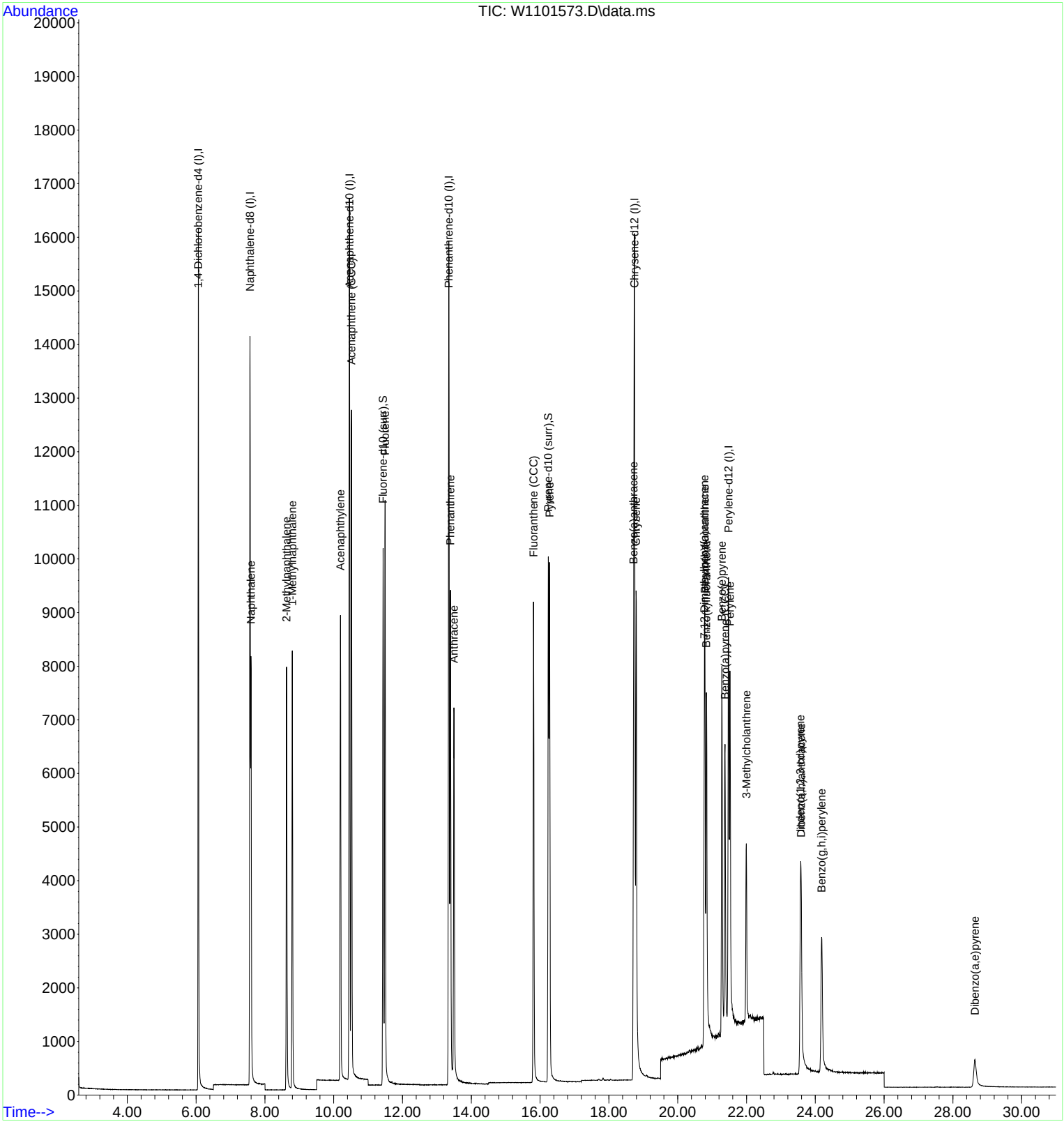
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101573.D
Acq On : 29 Jul 2011 1:34 am
Operator : tdd/lah
Sample : 250ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 29 08:04:11 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:30:38 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101573.D
Acq On : 29 Jul 2011 1:34 am
Operator : tdd/lah
Sample : 250ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 29 08:04:11 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:30:38 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	8072	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.567	136	18464	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.457	164	14026	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.345	188	24322	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	20125	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	13302	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.435	176	9072	267.90	ng/mL		0.00
15) Pyrene-d10 (surr)	16.238	212	13588	251.32	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.598	128	9721	235.42	ng/mL	#	83
4) 2-Methylnaphthalene	8.628	142	7072	262.81	ng/mL		97
5) 1-Methylnaphthalene	8.796	142	6856	254.65	ng/mL		95
7) Acenaphthylene	10.197	152	10991	224.09	ng/mL	#	78
8) Acenaphthene (CCC)	10.517	154	7201	224.52	ng/mL		98
10) Fluorene	11.492	166	9417	251.11	ng/mL		99
12) Phenanthrene	13.393	178	13134	231.26	ng/mL	#	85
13) Anthracene	13.494	178	10979	222.07	ng/mL		97
14) Fluoranthene (CCC)	15.808	202	13603	244.70	ng/mL		98
16) Pyrene	16.276	202	14089	239.03	ng/mL	#	83
18) Benzo(a)anthracene	18.719	228	9534	245.03	ng/mL		99
19) Chrysene	18.791	228	11996	241.96	ng/mL	#	84
21) 7,12-Dimethylbenz(a)an...	20.774	256	3580	226.89	ng/mL		94
22) Benzo(b)fluoranthene	20.792	252	9341	223.05	ng/mL	#	68
23) Benzo(k)fluoranthene	20.834	252	9879	222.45	ng/mL		95
24) Benzo(e)pyrene	21.287	252	9095	227.57	ng/mL		98
25) Benzo(a)pyrene (CCC)	21.376	252	7033	216.71	ng/mL		98
26) Perylene	21.519	252	8630	240.11	ng/mL		98
27) 3-Methylcholanthrene	21.996	268	3987m	240.75	ng/mL		
28) Indeno(1,2,3-cd)pyrene	23.571	276	6382	243.63	ng/mL		96
29) Dibenz(a,h)anthracene	23.589	278	4851	235.22	ng/mL		98
30) Benzo(g,h,i)perylene	24.184	276	6286	252.08	ng/mL		96
31) Dibenzo(a,e)pyrene	28.645	302	2147m	225.80	ng/mL		

Manual Int. "II" (TDD)

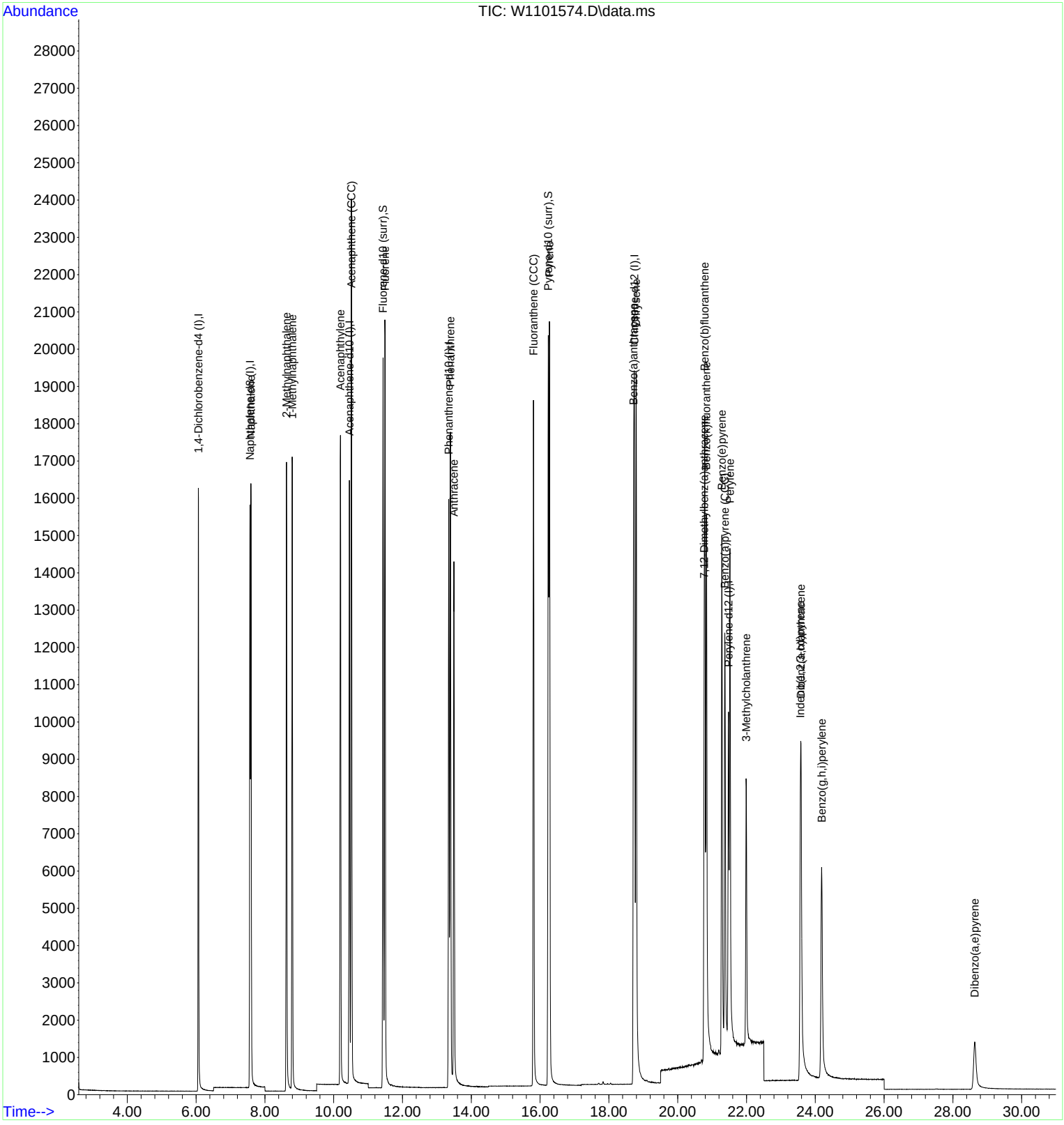
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101574.D
Acq On : 29 Jul 2011 2:11 am
Operator : tdd/lah
Sample : 500ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 29 07:39:23 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:39:10 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101574.D
Acq On : 29 Jul 2011 2:11 am
Operator : tdd/lah
Sample : 500ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 29 07:39:23 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:39:10 2011
Response via : Initial Calibration

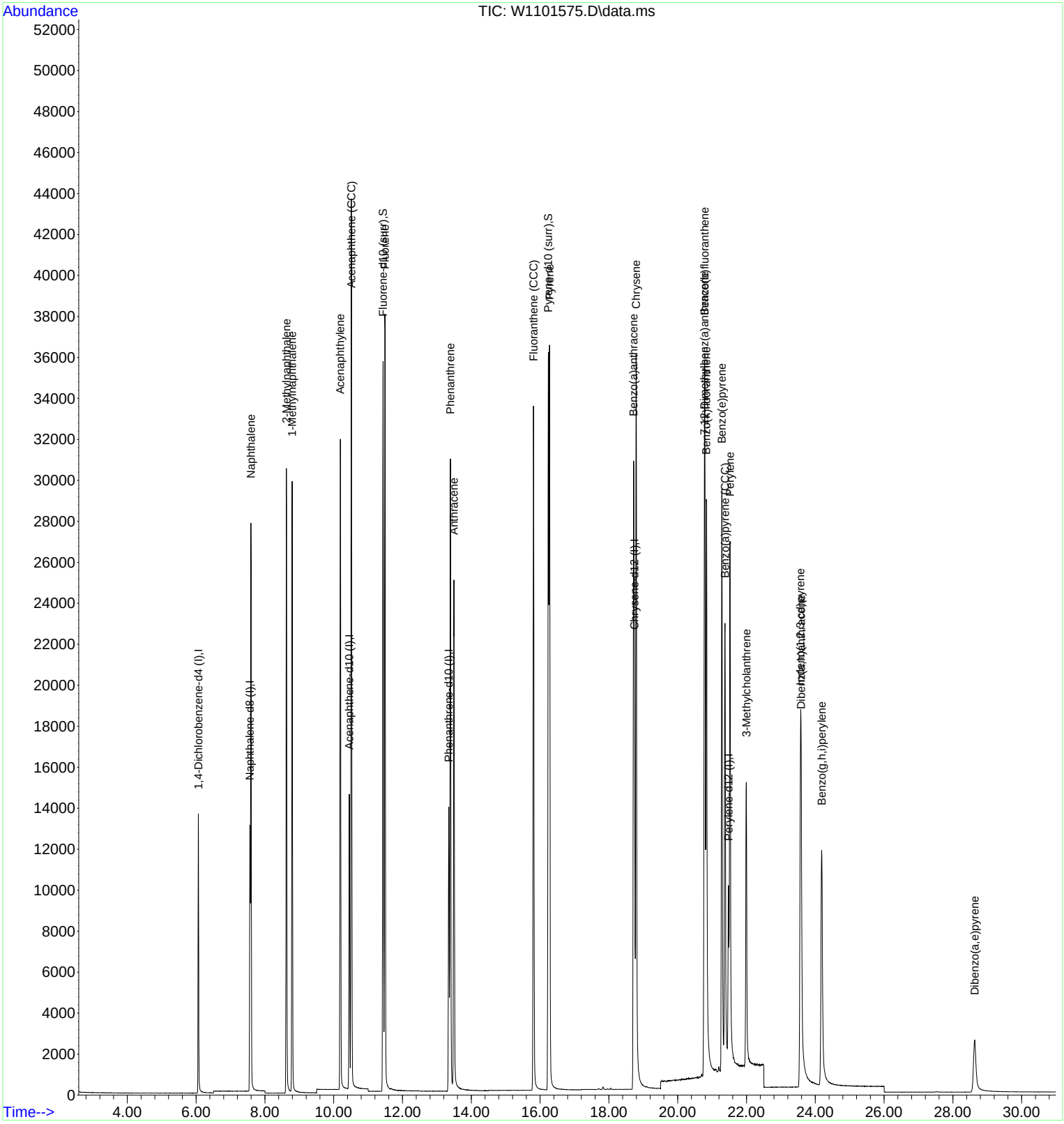
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.068	152	8133	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.566	136	19347	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.456	164	13510	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.345	188	23382	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	21324	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	13890	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.435	176	16904	515.78	ng/mL		0.00
15) Pyrene-d10 (surr)	16.238	212	28133	538.43	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.593	128	20317	466.87	ng/mL	#	83
4) 2-Methylnaphthalene	8.628	142	14430	507.69	ng/mL		97
5) 1-Methylnaphthalene	8.796	142	14026	492.51	ng/mL		96
7) Acenaphthylene	10.196	152	21427	452.22	ng/mL	#	78
8) Acenaphthene (CCC)	10.517	154	13879	447.15	ng/mL		97
10) Fluorene	11.492	166	17460	481.31	ng/mL		99
12) Phenanthrene	13.393	178	25216	458.87	ng/mL	#	84
13) Anthracene	13.494	178	22022	461.63	ng/mL		97
14) Fluoranthene (CCC)	15.808	202	27843	517.63	ng/mL		98
16) Pyrene	16.271	202	29367	514.96	ng/mL	#	83
18) Benzo(a)anthracene	18.719	228	19981	479.63	ng/mL		99
19) Chrysene	18.791	228	25275	478.46	ng/mL	#	84
21) 7,12-Dimethylbenz(a)an...	20.768	256	7480	449.46	ng/mL		95
22) Benzo(b)fluoranthene	20.786	252	18962	424.80	ng/mL	#	67
23) Benzo(k)fluoranthene	20.834	252	22089	470.95	ng/mL		99
24) Benzo(e)pyrene	21.287	252	18637	440.06	ng/mL		99
25) Benzo(a)pyrene (CCC)	21.370	252	15224	445.45	ng/mL		100
26) Perylene	21.519	252	17964	475.96	ng/mL		98
27) 3-Methylcholanthrene	21.996	268	8280	472.39	ng/mL		95
28) Indeno(1,2,3-cd)pyrene	23.571	276	14269	510.59	ng/mL		96
29) Dibenz(a,h)anthracene	23.583	278	10817	488.63	ng/mL		96
30) Benzo(g,h,i)perylene	24.184	276	13903	524.19	ng/mL	#	96
31) Dibenzo(a,e)pyrene	28.634	302	4916	482.77	ng/mL		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101575.D
Acq On : 29 Jul 2011 2:48 am
Operator : tdd/lah
Sample : 1000ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 29 07:41:18 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:40:35 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101575.D
Acq On : 29 Jul 2011 2:48 am
Operator : tdd/lah
Sample : 1000ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 29 07:41:18 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:40:35 2011
Response via : Initial Calibration

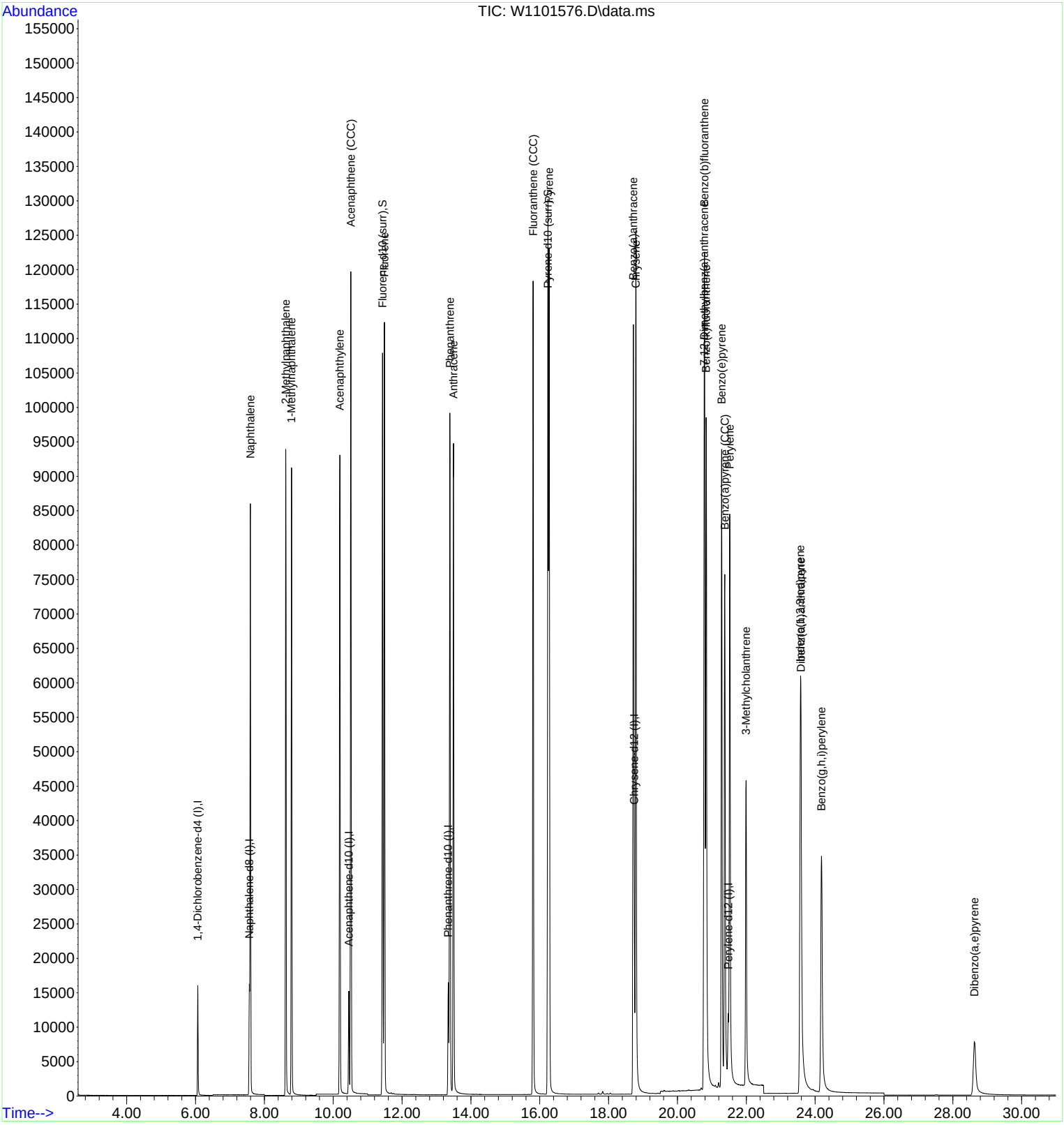
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.068	152	6896	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.563	136	16359	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.452	164	11927	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.345	188	20257	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	20135	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	13731	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.435	176	30388	1032.11	ng/mL		0.00
15) Pyrene-d10 (surr)	16.238	212	50131	1084.57	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.593	128	33712	925.13	ng/mL	#	82
4) 2-Methylnaphthalene	8.624	142	24422	1004.54	ng/mL		97
5) 1-Methylnaphthalene	8.792	142	23560	977.53	ng/mL		95
7) Acenaphthylene	10.192	152	37907	911.86	ng/mL	#	78
8) Acenaphthene (CCC)	10.512	154	24413	903.89	ng/mL		96
10) Fluorene	11.488	166	31627	983.11	ng/mL		99
12) Phenanthrene	13.393	178	43592	924.97	ng/mL	#	85
13) Anthracene	13.494	178	38312	934.40	ng/mL		98
14) Fluoranthene (CCC)	15.808	202	49053	1036.48	ng/mL		99
16) Pyrene	16.276	202	52506	1051.86	ng/mL	#	84
18) Benzo(a)anthracene	18.719	228	37537	941.45	ng/mL		99
19) Chrysene	18.791	228	47006	948.86	ng/mL	#	85
21) 7,12-Dimethylbenz(a)an...	20.774	256	14713	902.45	ng/mL		95
22) Benzo(b)fluoranthene	20.786	252	37510	860.35	ng/mL	#	69
23) Benzo(k)fluoranthene	20.834	252	43824	962.99	ng/mL		97
24) Benzo(e)pyrene	21.287	252	37305	902.65	ng/mL		99
25) Benzo(a)pyrene (CCC)	21.376	252	30147	895.32	ng/mL		100
26) Perylene	21.519	252	36482	976.75	ng/mL		99
27) 3-Methylcholanthrene	21.995	268	16184	930.63	ng/mL		97
28) Indeno(1,2,3-cd)pyrene	23.571	276	29146	1059.62	ng/mL		94
29) Dibenz(a,h)anthracene	23.589	278	21965	1016.80	ng/mL		99
30) Benzo(g,h,i)perylene	24.184	276	28887	1100.83	ng/mL		96
31) Dibenzo(a,e)pyrene	28.634	302	9593	983.19	ng/mL		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101576.D
Acq On : 29 Jul 2011 3:25 am
Operator : tdd/lah
Sample : 2500ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 29 07:42:00 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:41:43 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101576.D
Acq On : 29 Jul 2011 3:25 am
Operator : tdd/lah
Sample : 2500ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 29 07:42:00 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:41:43 2011
Response via : Initial Calibration

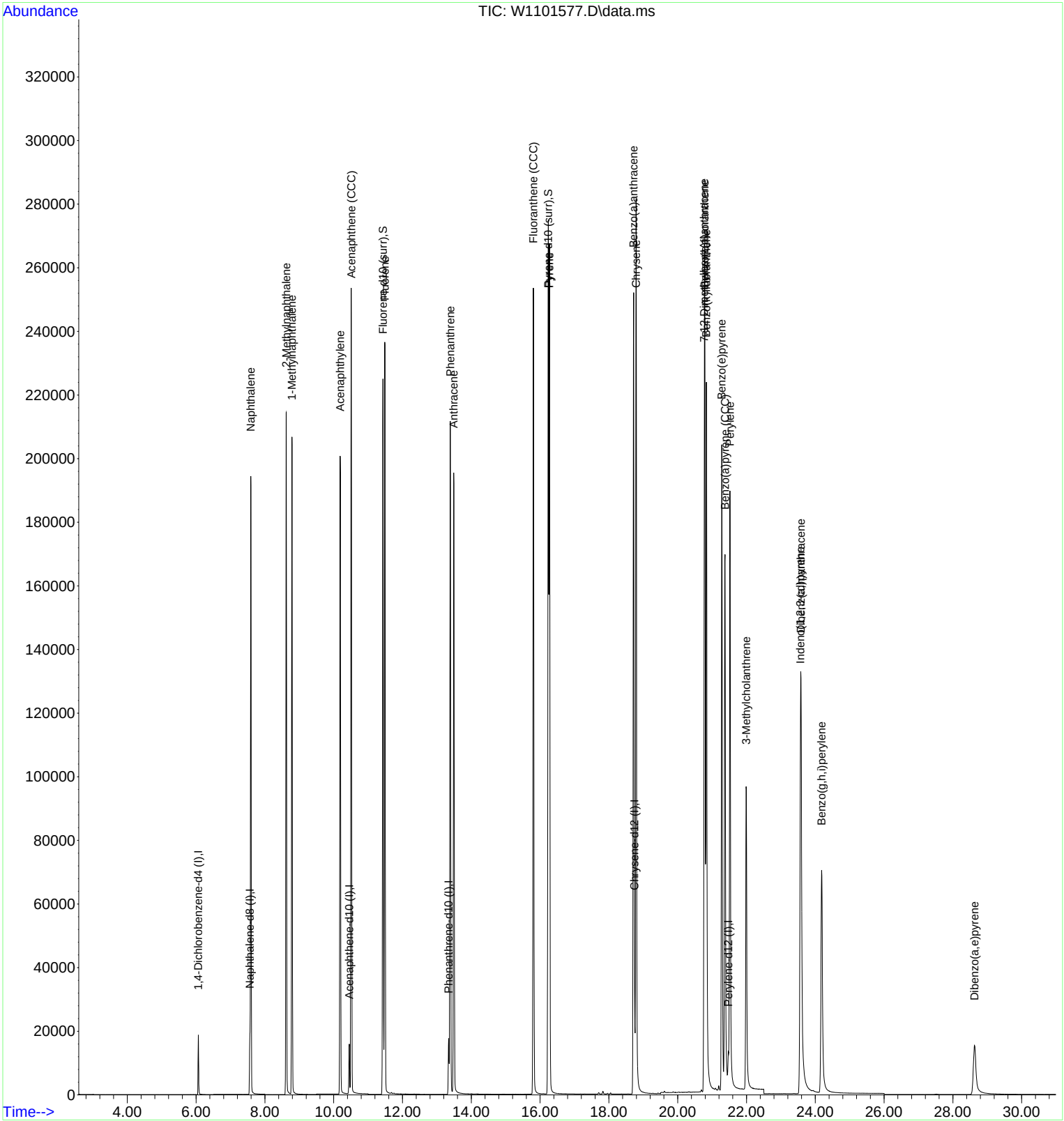
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	7946	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.563	136	19387	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.452	164	12181	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.341	188	23568	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	25579	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	15710	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.431	176	87967	2885.57	ng/mL		0.00
15) Pyrene-d10 (surr)	16.238	212	168024	3076.56	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.593	128	104586	2447.71	ng/mL	#	83
4) 2-Methylnaphthalene	8.620	142	75367	2592.07	ng/mL		97
5) 1-Methylnaphthalene	8.788	142	72275	2530.23	ng/mL		95
7) Acenaphthylene	10.192	152	108591	2584.86	ng/mL	#	78
8) Acenaphthene (CCC)	10.512	154	67586	2495.93	ng/mL		96
10) Fluorene	11.488	166	92064	2801.90	ng/mL		99
12) Phenanthrene	13.389	178	138417	2557.81	ng/mL	#	84
13) Anthracene	13.494	178	130258	2767.30	ng/mL		99
14) Fluoranthene (CCC)	15.808	202	164305	2954.65	ng/mL		99
16) Pyrene	16.270	202	175701	3005.44	ng/mL	#	84
18) Benzo(a)anthracene	18.719	228	131856	2574.09	ng/mL		100
19) Chrysene	18.791	228	157278	2517.78	ng/mL	#	84
21) 7,12-Dimethylbenz(a)an...	20.774	256	46380	2512.16	ng/mL		95
22) Benzo(b)fluoranthene	20.786	252	127802	2613.83	ng/mL	#	69
23) Benzo(k)fluoranthene	20.834	252	143012	2804.47	ng/mL		97
24) Benzo(e)pyrene	21.287	252	117573	2517.96	ng/mL		99
25) Benzo(a)pyrene (CCC)	21.376	252	100907	2640.25	ng/mL		100
26) Perylene	21.519	252	115791	2718.40	ng/mL		99
27) 3-Methylcholanthrene	21.996	268	51061	2556.47	ng/mL		98
28) Indeno(1,2,3-cd)pyrene	23.571	276	92881	2965.54	ng/mL		96
29) Dibenz(a,h)anthracene	23.589	278	73532	3027.41	ng/mL		98
30) Benzo(g,h,i)perylene	24.184	276	84696	2808.26	ng/mL		97
31) Dibenzo(a,e)pyrene	28.628	302	29469	2721.86	ng/mL		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101577.D
Acq On : 29 Jul 2011 4:02 am
Operator : tdd/lah
Sample : 5000ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 29 07:42:36 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:42:25 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101577.D
Acq On : 29 Jul 2011 4:02 am
Operator : tdd/lah
Sample : 5000ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 29 07:42:36 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:42:25 2011
Response via : Initial Calibration

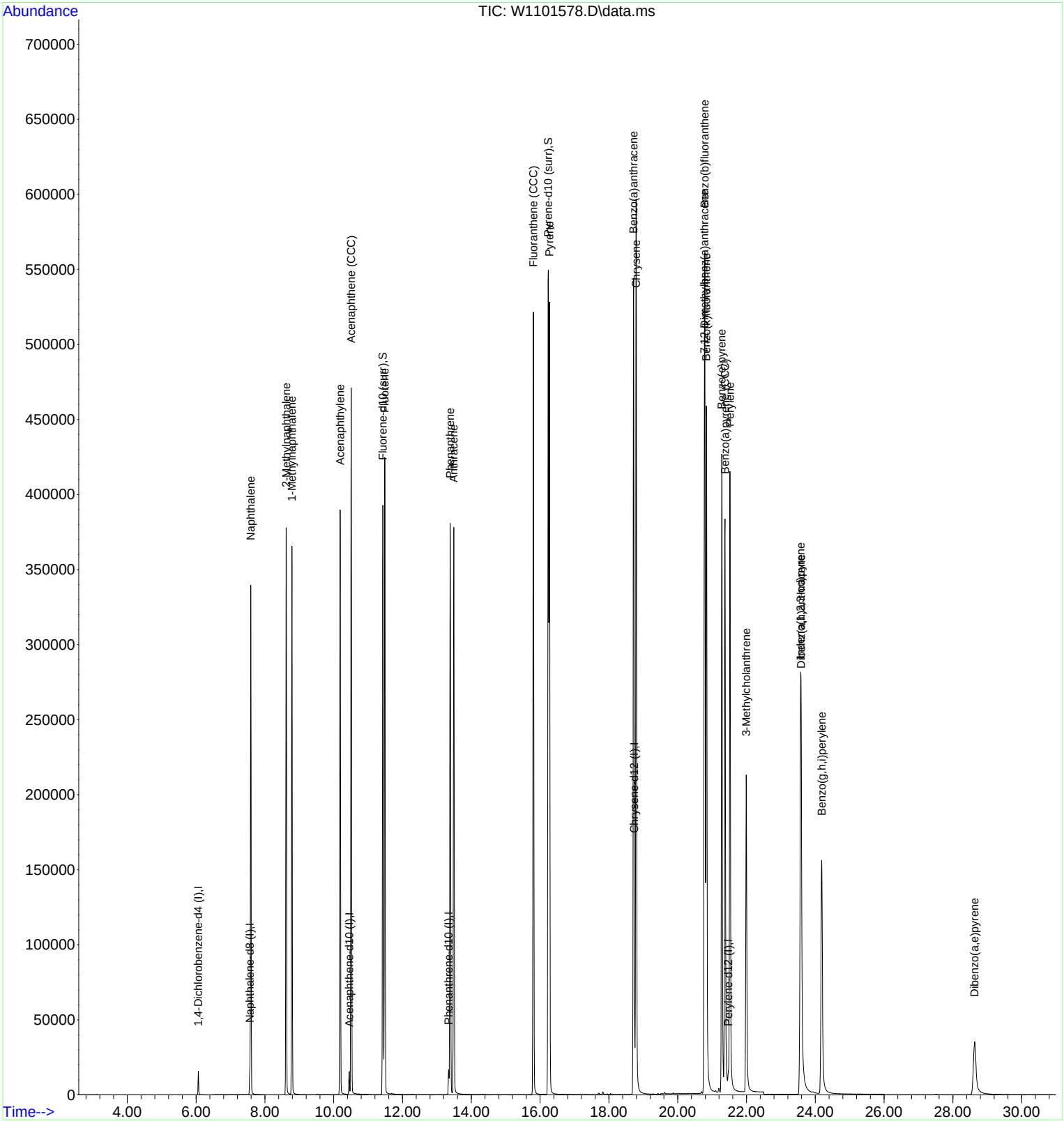
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	9054	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.563	136	22191	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.452	164	12584	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.341	188	24747	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	28095	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.471	264	16763	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.431	176	184285	5738.01	ng/mL		0.00
15) Pyrene-d10 (surr)	16.238	212	357263	6086.99	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.589	128	234775	4851.59	ng/mL	#	83
4) 2-Methylnaphthalene	8.621	142	168790	5040.50	ng/mL		98
5) 1-Methylnaphthalene	8.788	142	160762	4918.81	ng/mL		95
7) Acenaphthylene	10.187	152	229667	5356.24	ng/mL	#	78
8) Acenaphthene (CCC)	10.512	154	139569	5079.50	ng/mL		96
10) Fluorene	11.488	166	192711	5651.88	ng/mL		99
12) Phenanthrene	13.389	178	288930	5145.94	ng/mL	#	85
13) Anthracene	13.489	178	274964	5616.22	ng/mL		99
14) Fluoranthene (CCC)	15.803	202	347909	5865.12	ng/mL		99
16) Pyrene	16.271	202	368865	5930.22	ng/mL	#	84
18) Benzo(a)anthracene	18.719	228	296860	5229.50	ng/mL		100
19) Chrysene	18.791	228	340695	4975.79	ng/mL	#	84
21) 7,12-Dimethylbenz(a)an...	20.774	256	96921	4954.71	ng/mL		96
22) Benzo(b)fluoranthene	20.786	252	280771	5493.44	ng/mL	#	67
23) Benzo(k)fluoranthene	20.834	252	303723	5650.85	ng/mL		100
24) Benzo(e)pyrene	21.281	252	250773	5097.98	ng/mL		99
25) Benzo(a)pyrene (CCC)	21.376	252	226924	5606.59	ng/mL		100
26) Perylene	21.519	252	250298	5529.12	ng/mL		100
27) 3-Methylcholanthrene	21.996	268	110180	5137.08	ng/mL		98
28) Indeno(1,2,3-cd)pyrene	23.572	276	193450	5828.14	ng/mL		97
29) Dibenz(a,h)anthracene	23.584	278	155441	6083.64	ng/mL		98
30) Benzo(g,h,i)perylene	24.184	276	167398	5215.77	ng/mL		97
31) Dibenzo(a,e)pyrene	28.628	302	60819	5474.66	ng/mL		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101578.D
Acq On : 29 Jul 2011 4:39 am
Operator : tdd/lah
Sample : 10000ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 29 07:44:00 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:43:10 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101578.D
Acq On : 29 Jul 2011 4:39 am
Operator : tdd/lah
Sample : 10000ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 29 07:44:00 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 07:43:10 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.064	152	7915	400.00 ng/mL	0.00
2) Naphthalene-d8 (I)	7.563	136	19281	400.00 ng/mL	0.00
6) Acenaphthene-d10 (I)	10.452	164	11908	400.00 ng/mL	0.00
11) Phenanthrene-d10 (I)	13.341	188	23106	400.00 ng/mL	0.00
17) Chrysene-d12 (I)	18.738	240	30221	400.00 ng/mL	0.00
20) Perylene-d12 (I)	21.472	264	17887	400.00 ng/mL	# 0.00
System Monitoring Compounds					
9) Fluorene-d10 (surr)	11.427	176	326395	10514.78 ng/mL	0.00
15) Pyrene-d10 (surr)	16.233	212	718918	12815.88 ng/mL	0.00
Target Compounds					Qvalue
3) Naphthalene	7.589	128	396413	9505.62 ng/mL#	83
4) 2-Methylnaphthalene	8.620	142	295240	10094.30 ng/mL	97
5) 1-Methylnaphthalene	8.784	142	281733	9922.86 ng/mL	95
7) Acenaphthylene	10.187	152	438422	10928.68 ng/mL#	78
8) Acenaphthene (CCC)	10.507	154	259384	10142.86 ng/mL	96
10) Fluorene	11.484	166	339708	10455.44 ng/mL	99
12) Phenanthrene	13.385	178	522325	10057.27 ng/mL#	85
13) Anthracene	13.490	178	510639	11278.87 ng/mL	99
14) Fluoranthene (CCC)	15.803	202	698420	12413.70 ng/mL	99
16) Pyrene	16.271	202	733822	12463.02 ng/mL#	84
18) Benzo(a)anthracene	18.720	228	643719	10438.73 ng/mL	100
19) Chrysene	18.792	228	706799	9574.39 ng/mL#	85
21) 7,12-Dimethylbenz(a)an...	20.775	256	196663	9481.35 ng/mL	97
22) Benzo(b)fluoranthene	20.787	252	591686	11028.55 ng/mL#	67
23) Benzo(k)fluoranthene	20.834	252	628584	11060.36 ng/mL	100
24) Benzo(e)pyrene	21.281	252	524199	10090.52 ng/mL	99
25) Benzo(a)pyrene (CCC)	21.377	252	493050	11486.39 ng/mL	100
26) Perylene	21.520	252	531009	11051.67 ng/mL	99
27) 3-Methylcholanthrene	21.996	268	235431	10217.81 ng/mL	99
28) Indeno(1,2,3-cd)pyrene	23.572	276	403428	11527.95 ng/mL	97
29) Dibenz(a,h)anthracene	23.590	278	325110	12136.08 ng/mL	98
30) Benzo(g,h,i)perylene	24.185	276	350621	10367.67 ng/mL	97
31) Dibenzo(a,e)pyrene	28.628	302	147345m	13001.09 ng/mL	

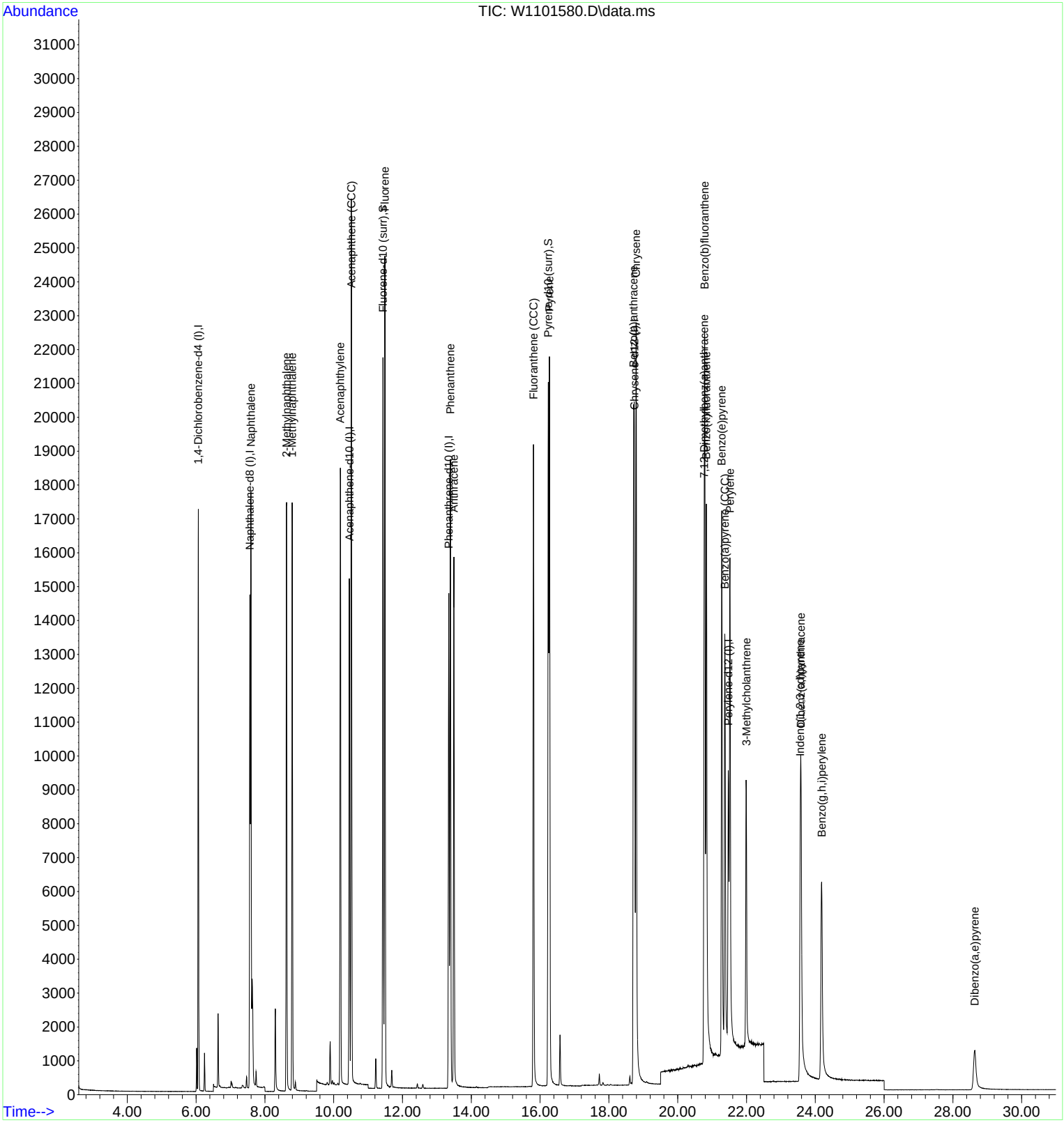
Manual Int. "II" (TDD)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101580.D
Acq On : 29 Jul 2011 5:53 am
Operator : tdd/lah
Sample : 500ng-SS SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 29 08:08:13 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101580.D
Acq On : 29 Jul 2011 5:53 am
Operator : tdd/lah
Sample : 500ng-SS SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 29 08:08:13 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	7761	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.563	136	18053	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.457	164	12369	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.345	188	21016	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	21612	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.471	264	13494	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.431	176	18494	566.63	ng/mL		0.00
15) Pyrene-d10 (surr)	16.238	212	28596	544.19	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.593	128	21542	556.52	ng/mL	#	82
4) 2-Methylnaphthalene	8.628	142	14435	524.22	ng/mL		98
5) 1-Methylnaphthalene	8.792	142	13920	523.20	ng/mL		95
7) Acenaphthylene	10.192	152	21733	528.18	ng/mL	#	78
8) Acenaphthene (CCC)	10.512	154	14252	545.94	ng/mL		97
10) Fluorene	11.488	166	19345	574.54	ng/mL		98
12) Phenanthrene	13.393	178	26003	556.43	ng/mL	#	84
13) Anthracene	13.494	178	21574	529.91	ng/mL		99
14) Fluoranthene (CCC)	15.808	202	28261	540.54	ng/mL		98
16) Pyrene	16.270	202	30421	556.34	ng/mL	#	84
18) Benzo(a)anthracene	18.719	228	22851	519.02	ng/mL		99
19) Chrysene	18.791	228	29252	553.33	ng/mL	#	83
~~21) 7,12-Dimethylbenz(a)an...~~	~~20.768~~	~~256~~	~~10375~~	~~683.99~~	~~ng/mL~~		~~93~~
22) Benzo(b)fluoranthene	20.786	252	22506	571.00	ng/mL	#	67
23) Benzo(k)fluoranthene	20.834	252	25191	585.00	ng/mL		97
24) Benzo(e)pyrene	21.281	252	21321	550.72	ng/mL		99
25) Benzo(a)pyrene (CCC)	21.370	252	16967	521.21	ng/mL		99
26) Perylene	21.519	252	20280	555.68	ng/mL		98
27) 3-Methylcholanthrene	21.996	268	8983	524.53	ng/mL		96
28) Indeno(1,2,3-cd)pyrene	23.565	276	14962	556.56	ng/mL		97
29) Dibenz(a,h)anthracene	23.583	278	11203	542.18	ng/mL		96
30) Benzo(g,h,i)perylene	24.184	276	14716	568.79	ng/mL	#	97
31) Dibenzo(a,e)pyrene	28.634	302	4546	505.25	ng/mL		91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Evaluate Continuing Calibration Report

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101580.D
Acq On : 29 Jul 2011 5:53 am
Operator : tdd/lah
Sample : 500ng-SS SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 29 08:08:13 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

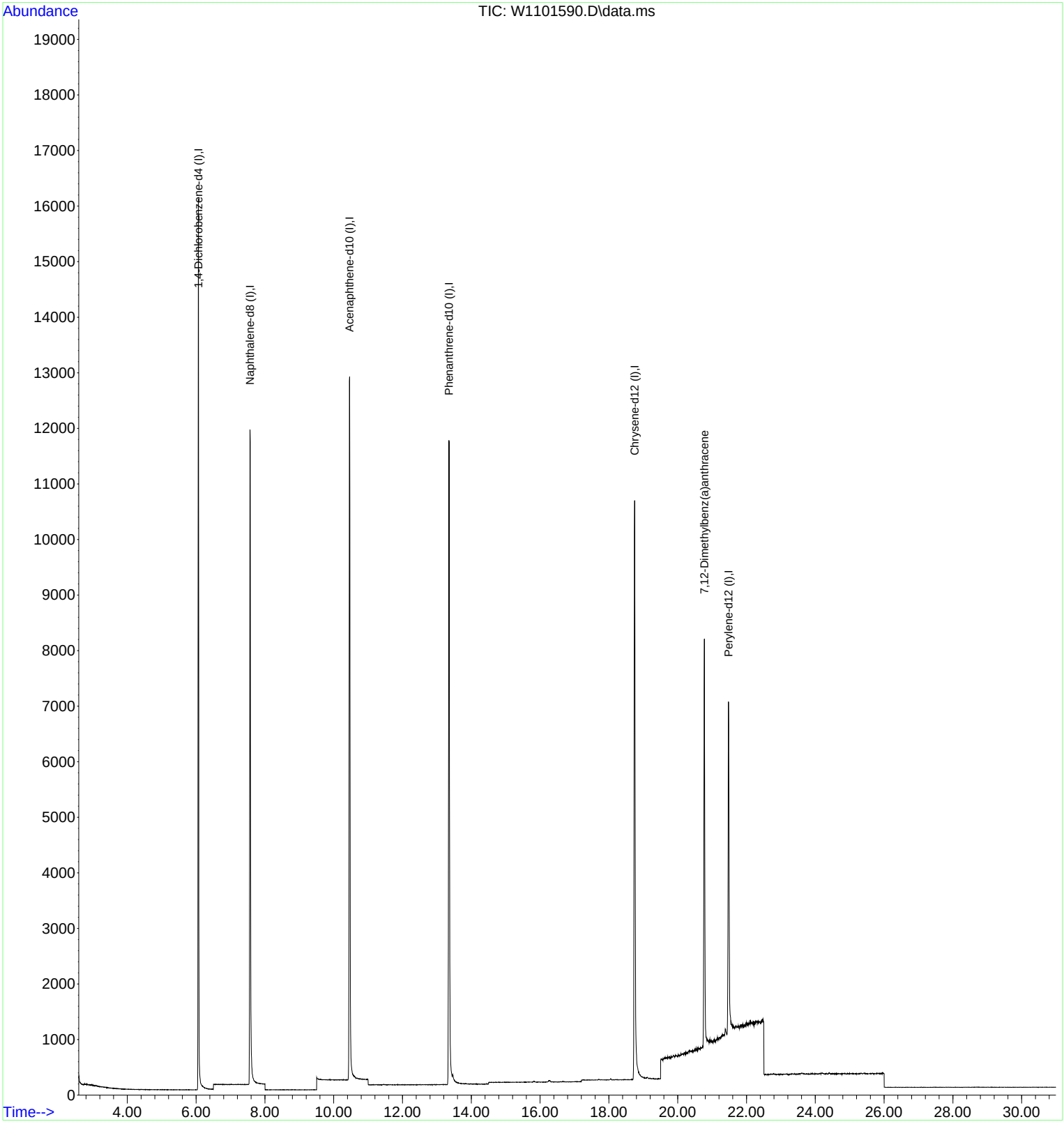
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (I)	1.000	1.000	0.0	95	0.00
2	I	Naphthalene-d8 (I)	1.000	1.000	0.0	93	0.00
3		Naphthalene	0.858	0.955	-11.3	106	0.00
4		2-Methylnaphthalene	0.610	0.640	-4.9	100	-0.01
5		1-Methylnaphthalene	0.589	0.617	-4.8	99	0.00
6	I	Acenaphthene-d10 (I)	1.000	1.000	0.0	92	0.00
7		Acenaphthylene	1.331	1.406	-5.6	101	0.00
8		Acenaphthene (CCC)	0.844	0.922	-9.2	103	0.00
9	S	Fluorene-d10 (surr)	1.055	1.196	-13.4	109	0.00
10		Fluorene	1.089	1.251	-14.9	111	0.00
11	I	Phenanthrene-d10 (I)	1.000	1.000	0.0	90	0.00
12		Phenanthrene	0.889	0.990	-11.4	103	0.00
13		Anthracene	0.775	0.821	-5.9	98	0.00
14		Fluoranthene (CCC)	0.995	1.076	-8.1	102	0.00
15	S	Pyrene-d10 (surr)	1.000	1.089	-8.9	102	0.00
16		Pyrene	1.041	1.158	-11.2	104	0.00
17	I	Chrysene-d12 (I)	1.000	1.000	0.0	101	0.00
18		Benzo(a)anthracene	0.815	0.846	-3.8	114	0.00
19		Chrysene	0.978	1.083	-10.7	116	0.00
20	I	Perylene-d12 (I)	1.000	1.000	0.0	97	0.00
~~21~~		~~7,12-Dimethylbenz(a)anthrac~~	~~0.450~~	~~0.615~~	~~-36.7#~~	~~139~~	~~-0.01~~
22		Benzo(b)fluoranthene	1.168	1.334	-14.2	119	0.00
23		Benzo(k)fluoranthene	1.276	1.493	-17.0	114	-0.01
24		Benzo(e)pyrene	1.148	1.264	-10.1	114	0.00
25		Benzo(a)pyrene (CCC)	0.965	1.006	-4.2	111	-0.01
26		Perylene	1.082	1.202	-11.1	113	0.00
27		3-Methylcholanthrene	0.508	0.533	-4.9	108	0.00
28		Indeno(1,2,3-cd)pyrene	0.797	0.887	-11.3	105	-0.02
29		Dibenz(a,h)anthracene	0.613	0.664	-8.3	104	-0.02
30		Benzo(g,h,i)perylene	0.767	0.872	-13.7	106	-0.01
31		Dibenzo(a,e)pyrene	0.267	0.270	-1.1	92	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101590.D
Acq On : 29 Jul 2011 12:47 pm
Operator : tdd/lah
Sample : 500ng-SS SIM 7,12-DMB(a)A
Misc : gcmsprep2pg118 "B"
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 14 10:43:26 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101590.D
Acq On : 29 Jul 2011 12:47 pm
Operator : tdd/lah
Sample : 500ng-SS SIM 7,12-DMB(a)A
Misc : gcmsprep2pg118 "B"
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 14 10:43:26 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.068	152	7958	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.567	136	17155	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.462	164	11888	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.350	188	19480	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.749	240	15070	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	10005	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	0.000	176	0	0.00	ng/mL		
15) Pyrene-d10 (surr)	0.000	212	0	0.00	ng/mL		
Target Compounds							Qvalue
3) Naphthalene	0.000		0	N.D.			
4) 2-Methylnaphthalene	0.000		0	N.D.			
5) 1-Methylnaphthalene	0.000		0	N.D.			
7) Acenaphthylene	0.000		0	N.D.			
8) Acenaphthene (CCC)	0.000		0	N.D.			
10) Fluorene	0.000		0	N.D.			
12) Phenanthrene	0.000		0	N.D.			
13) Anthracene	0.000		0	N.D.			
14) Fluoranthene (CCC)	0.000		0	N.D.			
16) Pyrene	0.000		0	N.D.			
18) Benzo(a)anthracene	0.000		0	N.D.			
19) Chrysene	0.000		0	N.D.			
21) 7,12-Dimethylbenz(a)an...	20.774	256	6350	564.63	ng/mL		92
22) Benzo(b)fluoranthene	0.000		0	N.D.	d		
23) Benzo(k)fluoranthene	0.000		0	N.D.	d		
24) Benzo(e)pyrene	0.000		0	N.D.			
25) Benzo(a)pyrene (CCC)	0.000		0	N.D.			
26) Perylene	0.000		0	N.D.			
27) 3-Methylcholanthrene	0.000		0	N.D.			
28) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.			
29) Dibenz(a,h)anthracene	0.000		0	N.D.			
30) Benzo(g,h,i)perylene	0.000		0	N.D.			
31) Dibenzo(a,e)pyrene	0.000		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Evaluate Continuing Calibration Report

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101590.D
Acq On : 29 Jul 2011 12:47 pm
Operator : tdd/lah
Sample : 500ng-SS SIM 7,12-DMB(a)A
Misc : gcmsprep2pg118 "B"
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 14 10:43:26 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (I)	1.000	1.000	0.0	98	0.00
2	I	Naphthalene-d8 (I)	1.000	1.000	0.0	89	0.00
3		Naphthalene	0.858	0.000#	100.0#	0#	-7.59#
4		2-Methylnaphthalene	0.610	0.000#	100.0#	0#	-8.64#
5		1-Methylnaphthalene	0.589	0.000#	100.0#	0#	-8.80#
6	I	Acenaphthene-d10 (I)	1.000	1.000	0.0	88	0.00
7		Acenaphthylene	1.331	0.000#	100.0#	0#	-10.20#
8		Acenaphthene (CCC)	0.844	0.000#	100.0#	0#	-10.52#
9	S	Fluorene-d10 (surr)	1.055	0.000#	100.0#	0#	-11.44#
10		Fluorene	1.089	0.000#	100.0#	0#	-11.50#
11	I	Phenanthrene-d10 (I)	1.000	1.000	0.0	83	0.00
12		Phenanthrene	0.889	0.000#	100.0#	0#	-13.40#
13		Anthracene	0.775	0.000#	100.0#	0#	-13.50#
14		Fluoranthene (CCC)	0.995	0.000#	100.0#	0#	-15.81#
15	S	Pyrene-d10 (surr)	1.000	0.000#	100.0#	0#	-16.24#
16		Pyrene	1.041	0.000#	100.0#	0#	-16.28#
17	I	Chrysene-d12 (I)	1.000	1.000	0.0	71	0.00
18		Benzo(a)anthracene	0.815	0.000#	100.0#	0#	-18.72#
19		Chrysene	0.978	0.000#	100.0#	0#	-18.80#
20	I	Perylene-d12 (I)	1.000	1.000	0.0	72	0.00
21		7,12-Dimethylbenz(a)anthrac	0.450	0.508	-12.9	85	0.00
22		Benzo(b)fluoranthene	1.168	0.000#	100.0#	0#	-20.79#
23		Benzo(k)fluoranthene	1.276	0.000#	100.0#	0#	-20.85#
24		Benzo(e)pyrene	1.148	0.000#	100.0#	0#	-21.29#
25		Benzo(a)pyrene (CCC)	0.965	0.000#	100.0#	0#	-21.38#
26		Perylene	1.082	0.000#	100.0#	0#	-21.52#
27		3-Methylcholanthrene	0.508	0.000#	100.0#	0#	-22.00#
28		Indeno(1,2,3-cd)pyrene	0.797	0.000#	100.0#	0#	-23.59#
29		Dibenz(a,h)anthracene	0.613	0.000#	100.0#	0#	-23.60#
30		Benzo(g,h,i)perylene	0.767	0.000#	100.0#	0#	-24.20#
31		Dibenzo(a,e)pyrene	0.267	0.000#	100.0#	0#	-28.65#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101589.D
Acq On : 29 Jul 2011 11:52 am
Operator : tdd/lah
Sample : 500ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 29 12:41:01 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

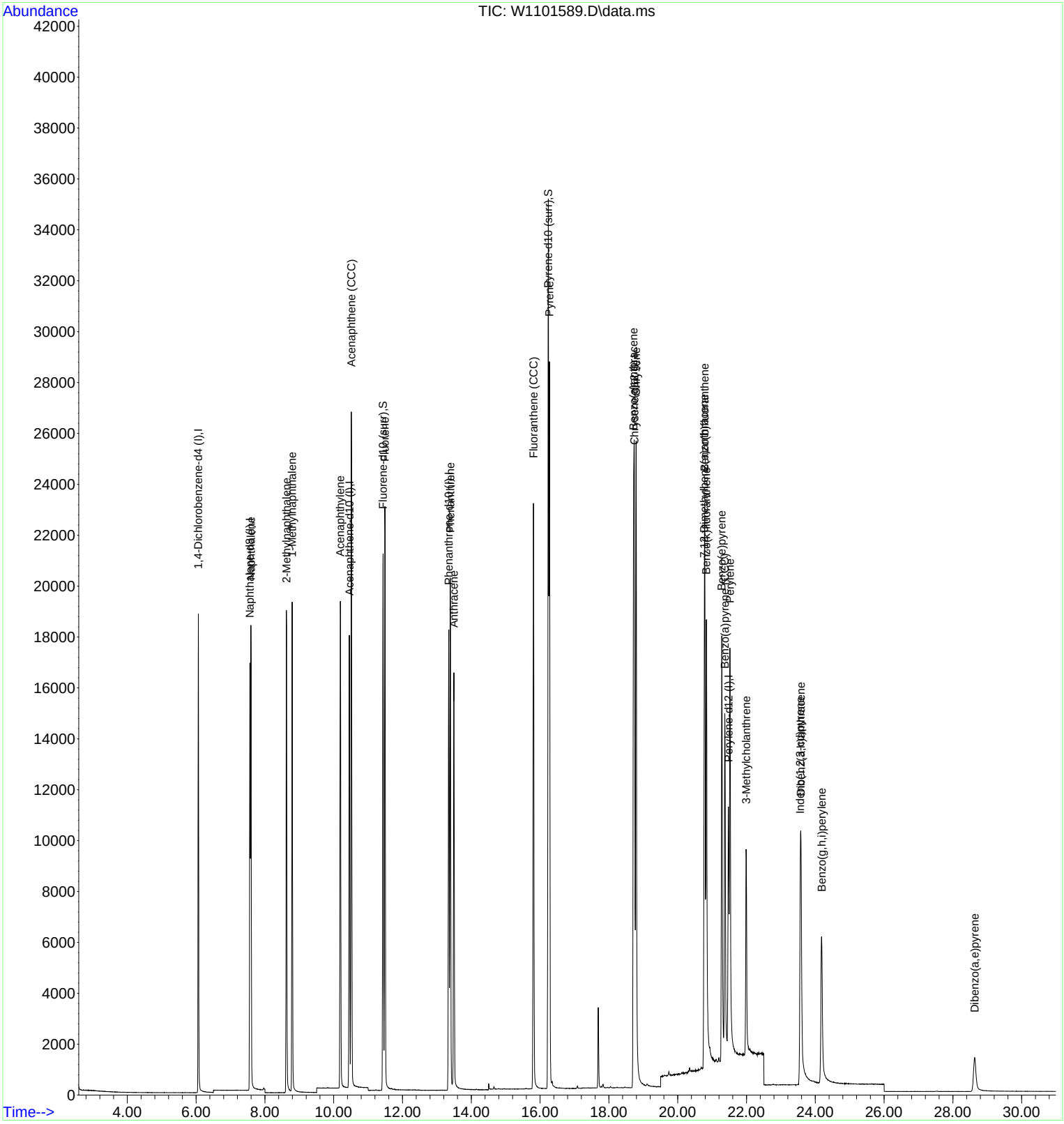
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (I)	1.000	1.000	0.0	115	0.00
2	I	Naphthalene-d8 (I)	1.000	1.000	0.0	109	0.00
3		Naphthalene	0.858	0.833	2.9	108	0.00
4		2-Methylnaphthalene	0.610	0.592	3.0	109	-0.01
5		1-Methylnaphthalene	0.589	0.572	2.9	108	0.00
6	I	Acenaphthene-d10 (I)	1.000	1.000	0.0	109	0.00
7		Acenaphthylene	1.331	1.271	4.5	109	0.00
8		Acenaphthene (CCC)	0.844	0.822	2.6	109	0.00
9	S	Fluorene-d10 (surr)	1.055	0.965	8.5	105	0.00
10		Fluorene	1.089	1.010	7.3	106	0.00
11	I	Phenanthrene-d10 (I)	1.000	1.000	0.0	109	0.00
12		Phenanthrene	0.889	0.870	2.1	110	0.00
13		Anthracene	0.775	0.730	5.8	106	0.00
14		Fluoranthene (CCC)	0.995	1.041	-4.6	120	0.00
15	S	Pyrene-d10 (surr)	1.000	1.197	-19.7	136	0.00
16		Pyrene	1.041	1.242	-19.3	135	0.00
17	I	Chrysene-d12 (I)	1.000	1.000	0.0	130	0.00
18		Benzo(a)anthracene	0.815	0.775	4.9	134	0.00
19		Chrysene	0.978	0.948	3.1	130	0.00
20	I	Perylene-d12 (I)	1.000	1.000	0.0	121	0.00
21		7,12-Dimethylbenz(a)anthrac	0.450	0.434	3.6	122	0.00
22		Benzo(b)fluoranthene	1.168	1.098	6.0	122	0.00
23		Benzo(k)fluoranthene	1.276	1.294	-1.4	123	-0.01
24		Benzo(e)pyrene	1.148	1.064	7.3	120	0.00
25		Benzo(a)pyrene (CCC)	0.965	0.881	8.7	122	-0.01
26		Perylene	1.082	1.082	0.0	127	0.00
27		3-Methylcholanthrene	0.508	0.440	13.4	112	0.00
28		Indeno(1,2,3-cd)pyrene	0.797	0.742	6.9	109	-0.02
29		Dibenz(a,h)anthracene	0.613	0.571	6.9	111	-0.02
30		Benzo(g,h,i)perylene	0.767	0.693	9.6	105	-0.01
31		Dibenzo(a,e)pyrene	0.267	0.238	10.9	102	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101589.D
Acq On : 29 Jul 2011 11:52 am
Operator : tdd/lah
Sample : 500ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 29 12:41:01 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101589.D
Acq On : 29 Jul 2011 11:52 am
Operator : tdd/lah
Sample : 500ng SIM ICR PAH
Misc : gcmsprep2pg118 "B"
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 29 12:41:01 2011
Quant Method : M:\ms2011\methods\wiley\ICR-W072811A-PAH.M
Quant Title : PAHs by SIM
QLast Update : Fri Jul 29 08:07:34 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.064	152	9340	400.00	ng/mL		0.00
2) Naphthalene-d8 (I)	7.563	136	21164	400.00	ng/mL		0.00
6) Acenaphthene-d10 (I)	10.457	164	14676	400.00	ng/mL		0.00
11) Phenanthrene-d10 (I)	13.345	188	25569	400.00	ng/mL		0.00
17) Chrysene-d12 (I)	18.743	240	27641	400.00	ng/mL		0.00
20) Perylene-d12 (I)	21.477	264	16815	400.00	ng/mL	#	0.00
System Monitoring Compounds							
9) Fluorene-d10 (surr)	11.435	176	17698	457.00	ng/mL		0.00
15) Pyrene-d10 (surr)	16.238	212	38256m	598.38	ng/mL		0.00
Target Compounds							Qvalue
3) Naphthalene	7.593	128	22034	485.55	ng/mL#		83
4) 2-Methylnaphthalene	8.628	142	15662	485.17	ng/mL		97
5) 1-Methylnaphthalene	8.792	142	15135	485.25	ng/mL		94
7) Acenaphthylene	10.192	152	23319	477.64	ng/mL#		78
8) Acenaphthene (CCC)	10.512	154	15078	486.79	ng/mL		97
10) Fluorene	11.488	166	18520	463.58	ng/mL		99
12) Phenanthrene	13.389	178	27797	488.90	ng/mL#		84
13) Anthracene	13.494	178	23339	471.18	ng/mL		99
14) Fluoranthene (CCC)	15.808	202	33279	523.18	ng/mL		98
16) Pyrene	16.271	202	39708	596.87	ng/mL#		85
18) Benzo(a)anthracene	18.719	228	26783	475.64	ng/mL		99
19) Chrysene	18.791	228	32740	484.23	ng/mL#		84
21) 7,12-Dimethylbenz(a)an...	20.774	256	9112	482.08	ng/mL		95
22) Benzo(b)fluoranthene	20.786	252	23083	469.97	ng/mL#		67
23) Benzo(k)fluoranthene	20.834	252	27202	506.94	ng/mL		98
24) Benzo(e)pyrene	21.281	252	22366	463.61	ng/mL		99
25) Benzo(a)pyrene (CCC)	21.370	252	18526	456.71	ng/mL		99
26) Perylene	21.519	252	22739	500.00	ng/mL		98
27) 3-Methylcholanthrene	21.990	268	9257	433.78	ng/mL		97
28) Indeno(1,2,3-cd)pyrene	23.565	276	15600	465.69	ng/mL		95
29) Dibenz(a,h)anthracene	23.583	278	11993	465.78	ng/mL		96
30) Benzo(g,h,i)perylene	24.184	276	14572	451.98	ng/mL#		96
31) Dibenzo(a,e)pyrene	28.634	302	4995	445.51	ng/mL		92

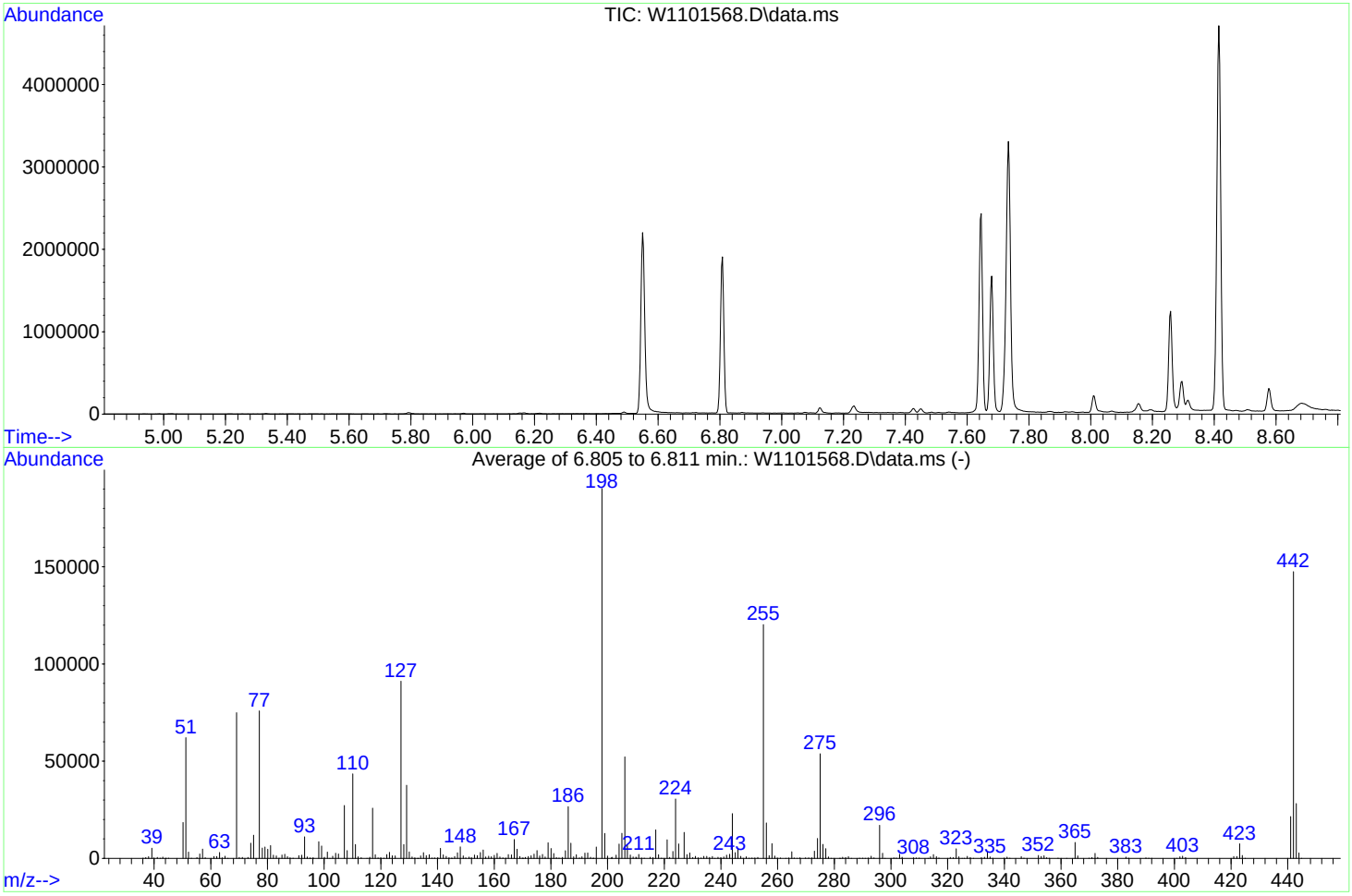
(#) = qualifier out of range (m) = manual integration (+) = signals summed

DFTPP

Data Path : X:\ms2011q3\wiley\data\jul11\W072811A\
Data File : W1101568.D
Acq On : 28 Jul 2011 10:49 pm
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\gcms\ms2011\methods\wiley\ICR-W072811A-PAH.M
Title : PAHs by SIM
Last Update : Fri Jul 29 08:07:34 2011



AutoFind: Scans 1311, 1312, 1313; Background Corrected with Scan 1302

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.6	62117	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.4	74987	PASS
70	69	0.00	2	0.7	542	PASS
127	198	40	60	47.9	91123	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	190272	PASS
199	198	5	9	6.7	12833	PASS
275	198	10	30	28.3	53856	PASS
365	198	1	100	4.3	8177	PASS
441	443	0.01	100	76.2	21480	PASS
442	198	40	100	77.5	147477	PASS
443	442	17	23	19.1	28184	PASS

Average of 6.805 to 6.811 min.: W1101568.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	126	51.20	62117	65.00	1179	80.10	4714
37.05	449	52.15	3268	66.05	59	81.10	6633
38.05	919	53.10	137	69.10	74987	82.10	1712
39.20	5269	55.10	482	70.05	542	83.10	1319
39.95	227	56.10	2257	71.10	555	84.10	148
41.10	547	57.10	4787	73.10	559	85.10	1771
42.10	138	58.05	400	74.10	7842	86.10	2155
43.05	667	61.10	965	75.10	11942	87.05	903
44.00	1	62.10	999	77.10	75848	88.00	351
45.10	153	63.10	3054	78.15	5345	89.00	154
50.20	18501	64.10	293	79.10	5827	91.05	1468

Average of 6.805 to 6.811 min.: W1101568.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.10	1718	102.00	104	116.10	580	128.10	7163
93.10	11121	103.00	1175	117.10	25816	129.10	37611
94.05	755	104.05	2650	118.05	1943	130.05	3313
94.95	232	105.05	2257	119.00	338	131.00	747
95.20	102	107.10	27243	119.95	386	131.90	150
96.00	254	108.10	4064	121.05	138	132.05	171
96.20	124	110.10	43456	122.10	1945	132.95	23
98.10	8610	111.05	7112	123.05	3120	134.05	1284
99.10	6395	112.00	850	124.00	1391	135.05	2986
100.10	627	113.05	412	125.05	1266	136.00	1417
101.10	3310	115.10	98	127.10	91123	137.05	1877

Average of 6.805 to 6.811 min.: W1101568.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
138.00	216	148.05	5971	159.00	866	169.90	185
138.95	272	149.05	1299	160.05	1639	170.10	154
140.10	495	149.95	349	161.00	2621	170.30	100
141.05	5187	151.10	684	162.00	744	171.00	551
142.05	1816	151.95	445	163.05	281	172.00	1022
143.05	1110	153.05	1779	164.10	186	173.00	1366
144.05	388	154.05	1454	165.00	1951	174.05	2214
144.95	197	155.10	3034	166.05	1813	175.10	4045
145.20	95	156.10	4322	167.05	9761	176.05	1304
146.05	1017	157.00	780	168.05	4685	177.05	2084
147.05	2865	158.05	1138	169.05	975	177.95	780

Average of 6.805 to 6.811 min.: W1101568.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
179.00	8025	190.05	321	201.40	320	211.00	2086
180.05	5077	190.95	873	201.55	579	212.00	200
181.00	2538	192.00	2722	203.00	1666	212.90	166
181.95	458	193.00	2850	204.05	7367	215.00	635
182.90	236	194.00	652	205.05	12953	216.00	368
184.05	537	194.80	100	206.10	52256	217.00	14697
185.10	3979	195.10	124	207.00	6779	218.00	1927
186.10	26595	196.00	5874	208.00	1787	219.05	159
187.05	7847	198.00	190272	209.00	757	221.00	9554
188.05	825	199.00	12833	210.00	709	221.90	524
189.00	1881	200.00	1255	210.20	314	223.05	3592

Average of 6.805 to 6.811 min.: W1101568.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.00	30589	236.00	542	247.00	1066	259.00	1198
225.10	7430	237.00	1019	247.85	111	259.90	238
227.00	13370	237.90	60	248.95	878	260.95	204
228.00	2022	238.95	588	249.95	152	262.90	119
229.00	2853	239.95	500	250.95	262	263.90	247
230.05	487	241.00	762	251.95	228	265.00	3397
231.00	1063	242.00	1692	253.00	542	265.85	255
231.95	292	243.10	2132	255.00	120309	266.90	68
233.00	211	244.00	23011	256.00	18268	267.85	346
233.95	1056	245.05	2951	257.00	1451	269.85	281
235.00	1072	246.00	4878	258.00	7607	270.95	311

Average of 6.805 to 6.811 min.: W1101568.D\data.ms

DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.05	348	284.00	440	297.90	61	316.00	927
273.00	3739	285.00	938	301.00	317	316.90	227
274.05	10280	286.00	88	301.90	227	320.90	534
275.00	53856	288.90	198	303.00	2131	321.95	368
276.00	7243	290.05	173	303.90	581	323.00	4928
277.00	4997	290.90	90	307.95	292	323.95	860
277.95	746	292.00	221	308.90	213	325.10	52
278.95	118	293.00	1152	309.95	229	325.95	116
281.90	57	294.00	284	313.10	88	326.90	1101
282.10	109	296.00	17038	313.95	862	327.95	449
282.95	608	297.00	2656	314.95	1954	329.10	68

Average of 6.805 to 6.811 min.: W1101568.D\data.ms
DFTPP
Modified:subtracted

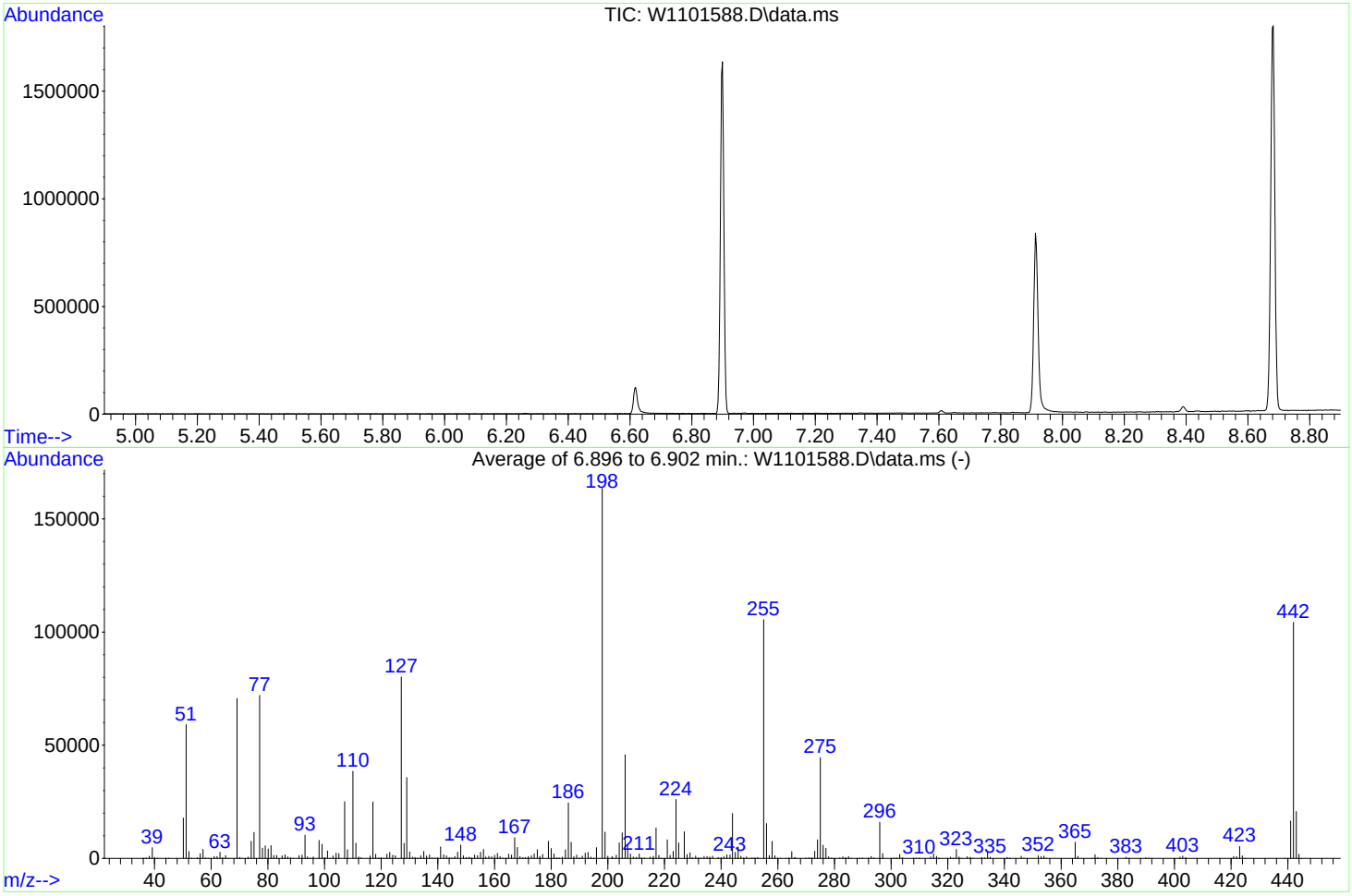
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
331.90	386	353.00	986	372.95	524	420.95	1022
332.95	617	354.00	1398	382.90	726	422.05	1000
334.00	3429	354.95	381	383.70	87	423.00	7505
334.95	728	355.80	51	384.00	66	423.95	1523
335.90	56	358.95	120	389.95	339	425.00	68
339.85	145	362.00	62	390.95	148	441.00	21480
340.95	700	364.95	8177	392.00	95	442.00	147477
341.95	184	365.90	1265	400.90	60	443.00	28184
345.95	901	369.85	164	401.95	813	443.95	2834
346.90	167	370.90	473	402.90	1161	444.90	66
352.00	1525	372.00	2615	403.90	487		

DFTPP

Data Path : X:\ms2011q3\wiley\data\jul11\W072911A\
Data File : W1101588.D
Acq On : 29 Jul 2011 11:35 am
Operator : tdd/lah
Sample : DFTPP
Misc : gcmsprep2pg41
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\gcms\ms2011\methods\wiley\ICR-W072811A-PAH.M
Title : PAHs by SIM
Last Update : Fri Jul 29 08:07:34 2011



AutoFind: Scans 1343, 1344, 1345; Background Corrected with Scan 1334

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.2	59109	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.2	70680	PASS
70	69	0.00	2	0.6	456	PASS
127	198	40	60	49.1	80192	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	163456	PASS
199	198	5	9	7.1	11602	PASS
275	198	10	30	27.2	44539	PASS
365	198	1	100	4.4	7171	PASS
441	443	0.01	100	80.0	16556	PASS
442	198	40	100	63.8	104323	PASS
443	442	17	23	19.8	20704	PASS

Average of 6.896 to 6.902 min.: W1101588.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	19	53.05	110	66.10	62	81.10	5662
37.05	288	55.05	326	69.10	70680	82.05	1320
38.15	967	56.10	2039	70.05	456	83.10	1288
39.20	4786	57.10	4023	71.00	53	85.05	1174
40.05	397	58.05	266	73.05	613	86.05	1660
41.05	167	59.10	59	74.10	7582	87.00	741
44.05	44	61.05	860	75.10	11474	88.05	312
44.95	116	62.05	858	77.10	72016	89.00	55
50.15	17836	63.10	2682	78.10	4604	91.00	1237
51.15	59109	64.05	349	79.10	5564	92.05	1543
52.15	2992	65.10	1278	80.10	4174	93.10	10244

Average of 6.896 to 6.902 min.: W1101588.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	724	105.05	2128	119.30	51	131.05	599
94.95	144	107.10	25099	119.95	387	131.95	441
96.05	631	108.10	3841	121.00	143	132.95	242
98.10	7956	110.05	38563	122.05	1864	134.00	1157
99.10	6279	111.05	6767	123.00	2712	135.05	3105
100.00	252	112.05	642	124.05	1445	136.00	1080
100.15	315	112.90	330	125.00	1198	137.05	1577
101.05	3351	116.10	1138	127.10	80192	137.95	275
102.00	52	117.10	24952	128.10	6644	138.90	63
103.00	1097	118.05	1839	129.05	35728	139.05	129
104.10	2378	118.95	136	130.05	2862	139.95	330

Average of 6.896 to 6.902 min.: W1101588.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.00	5111	151.20	165	161.00	2222	170.95	411
142.05	1621	151.90	121	161.95	804	171.95	859
143.05	1107	152.10	134	162.95	200	173.00	1175
144.05	303	153.00	1488	164.00	96	174.00	2051
144.95	236	154.05	1238	164.20	88	175.10	3862
146.00	884	155.05	2745	165.00	1922	176.00	911
147.00	2743	156.10	4017	166.05	1472	177.00	1762
148.05	5962	156.95	627	167.10	9133	179.00	7565
149.00	1157	158.00	928	168.05	4861	180.00	4381
150.00	338	159.00	709	169.00	798	181.00	1976
151.00	454	160.05	1350	170.05	425	181.90	217

Average of 6.896 to 6.902 min.: W1101588.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
182.10	157	193.00	2701	205.05	11275	217.00	13465
182.90	218	194.00	597	206.10	45800	218.00	1314
183.95	565	195.00	123	207.00	5887	218.90	125
185.05	3779	196.00	4778	208.00	1951	221.00	8242
186.05	24509	198.00	163456	209.00	674	221.95	1356
187.05	7142	199.00	11602	210.05	531	223.05	3163
188.00	762	200.00	977	211.05	1942	224.05	26040
189.00	1521	201.45	846	211.85	292	225.00	6889
190.05	268	202.00	83	212.95	183	227.00	11758
190.95	1065	203.00	1460	214.95	574	228.00	1734
192.00	2356	204.00	6841	216.05	889	229.00	2468

Average of 6.896 to 6.902 min.: W1101588.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.85	328	242.00	1570	251.95	185	264.95	2989
231.00	1034	243.10	1596	252.90	451	265.80	160
231.90	237	244.00	19856	255.00	105568	266.00	451
232.95	221	245.00	2712	256.00	15429	266.90	82
234.00	828	246.00	5080	257.00	1262	269.85	191
235.00	826	246.95	984	258.00	7512	270.95	313
235.95	638	247.95	260	259.00	1157	272.00	315
236.95	976	248.95	730	259.95	226	273.00	3209
239.00	422	249.90	66	260.90	146	274.00	8207
240.05	407	250.90	245	262.80	62	275.00	44539
240.95	731	251.80	53	263.85	271	276.00	5832

Average of 6.896 to 6.902 min.: W1101588.D\data.ms

DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
277.00	4450	292.95	858	309.95	202	327.90	538
277.90	742	293.95	270	313.95	687	328.90	107
278.95	181	296.00	16016	314.95	1955	332.00	379
281.90	215	297.00	2185	316.00	933	332.95	255
282.95	697	300.95	211	316.85	198	334.00	2833
283.90	390	301.90	248	320.95	535	334.95	617
284.95	852	303.00	1751	322.00	121	340.95	480
285.90	84	303.80	139	323.00	3943	341.80	59
288.95	111	304.05	294	323.95	665	342.00	86
289.95	195	307.90	161	324.90	51	345.90	1014
291.85	211	308.85	157	326.90	805	346.85	199

Average of 6.896 to 6.902 min.: W1101588.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
351.95	1213	383.80	67	423.95	1135		
352.95	817	389.80	163	424.90	131		
353.95	1065	390.00	69	438.90	57		
354.90	124	390.80	62	441.00	16556		
364.95	7171	391.10	94	442.00	104323		
365.90	951	401.95	653	443.00	20704		
371.00	140	402.90	1021	443.95	1829		
371.95	1629	403.95	389	444.90	60		
372.90	402	420.85	856				
374.00	50	421.90	774				
382.95	502	423.00	5297				

Sequence Name: M:\ms2011q3\wiley\sequence\w072811A

Operator: tdd/lah

Datapath: C:\ms2011q3\wiley\data\jul11\w072811A

Line	Type	Vial	DataFile	Method	Sample Name	Additional Info	Comments
1	DFTPP	1	W1101542	DFTPP-1	DFTPP	gcmsprep2pg41	
2	DFTPP	1	W1101543	DFTPP-1	DFTPP	gcmsprep2pg41	
3	DFTPP	1	W1101544	DFTPP-1	DFTPP	gcmsprep2pg41	
4	Calibration	2	W1101545	M8270SCN	SSTD050 M8270/ICR SCN	gcmsprep2pg115 "B"	
5	Keyword			Pause			
6	DFTPP	1	W1101546	DFTPP-1	DFTPP	gcmsprep2pg41	
7	DFTPP	1	W1101547	DFTPP-1	DFTPP	gcmsprep2pg41	
8	DFTPP	1	W1101548	DFTPP-1	DFTPP	gcmsprep2pg41	
9	Calibration	3	W1101549	PAHSIM	20ng SIM ICR PAH	gcmsprep2pg118 "B"	
10	Calibration	4	W1101550	PAHSIM	50ng SIM ICR PAH	gcmsprep2pg118 "B"	
11	Calibration	5	W1101551	PAHSIM	100ng SIM ICR PAH	gcmsprep2pg118 "B"	
12	Calibration	6	W1101552	PAHSIM	250ng SIM ICR PAH	gcmsprep2pg118 "B"	
13	Calibration	7	W1101553	PAHSIM	500ng SIM ICR PAH	gcmsprep2pg118 "B"	
14	DFTPP	1	W1101554	DFTPP-1	DFTPP	gcmsprep2pg41	
15	Calibration	2	W1101555	PAHSIM	10ng SIM ICR PAH	gcmsprep2pg118 "B"	
16	Calibration	3	W1101556	PAHSIM	20ng SIM ICR PAH	gcmsprep2pg118 "B"	
17	Calibration	4	W1101557	PAHSIM	50ng SIM ICR PAH	gcmsprep2pg118 "B"	
18	Calibration	5	W1101558	PAHSIM	100ng SIM ICR PAH	gcmsprep2pg118 "B"	
19	DFTPP	1	W1101559	DFTPP-1	DFTPP	gcmsprep2pg41	
20	Calibration	2	W1101560	PAHSIM	10ng SIM ICR PAH	gcmsprep2pg118 "B"	IS may be conc - reprep/rerun
21	Calibration	3	W1101561	PAHSIM	20ng SIM ICR PAH	gcmsprep2pg118 "B"	IS may be conc - reprep/rerun
22	Calibration	4	W1101562	PAHSIM	50ng SIM ICR PAH	gcmsprep2pg118 "B"	IS may be conc - reprep/rerun
23	Calibration	5	W1101563	PAHSIM	100ng SIM ICR PAH	gcmsprep2pg118 "B"	IS may be conc - reprep/rerun
24	Calibration	6	W1101564	PAHSIM	250ng SIM ICR PAH	gcmsprep2pg118 "B"	IS may be conc - reprep/rerun
25	Calibration	7	W1101565	PAHSIM	500ng SIM ICR PAH	gcmsprep2pg118 "B"	No peaks
26	Calibration	8	W1101566	PAHSIM	1000ng SIM ICR PAH	gcmsprep2pg118 "B"	No peaks
27	DFTPP	1	W1101567	DFTPP-1	DFTPP	gcmsprep2pg41	
28	DFTPP	1	W1101568	DFTPP-1	DFTPP	gcmsprep2pg41	
29	Calibration	2	W1101569	PAHSIM	10ng SIM ICR PAH	gcmsprep2pg118 "B"	
30	Calibration	3	W1101570	PAHSIM	20ng SIM ICR PAH	gcmsprep2pg118 "B"	
31	Calibration	4	W1101571	PAHSIM	50ng SIM ICR PAH	gcmsprep2pg118 "B"	
32	Calibration	5	W1101572	PAHSIM	100ng SIM ICR PAH	gcmsprep2pg118 "B"	
33	Calibration	6	W1101573	PAHSIM	250ng SIM ICR PAH	gcmsprep2pg118 "B"	
34	Calibration	7	W1101574	PAHSIM	500ng SIM ICR PAH	gcmsprep2pg118 "B"	
35	Calibration	8	W1101575	PAHSIM	1000ng SIM ICR PAH	gcmsprep2pg118 "B"	
36	Calibration	9	W1101576	PAHSIM	2500ng SIM ICR PAH	gcmsprep2pg118 "B"	
37	Calibration	10	W1101577	PAHSIM	5000ng SIM ICR PAH	gcmsprep2pg118 "B"	
38	Calibration	11	W1101578	PAHSIM	10000ng SIM ICR PAH	gcmsprep2pg118 "B"	
39	Blank	12	W1101579	PAHSIM	CH2Cl2 SIM BLK		
40	Calibration	13	W1101580	PAHSIM	500ng-SS SIM ICR PAH	gcmsprep2pg118 "B"	
41	Blank	12	W1101581	PAHSIM	CH2Cl2 SIM BLK		
42	Sample	14	W1101582	M8270SCN	SVOAPrep2Pg14 (SIM)		
43	Sample	15	W1101583	M8270SCN	SVOAPrep2Pg19 (SIM)		
44	Sample	16	W1101584	M8270SCN	SVOAPrep2Pg14 (SIM)		
45	Sample	17	W1101585	M8270SCN	SVOAPrep2Pg19 (SIM)		
46	Sample	16	W1101586	PAHSIM	SVOAPrep2Pg14 (SIM)		
47	Sample	17	W1101587	PAHSIM	SVOAPrep2Pg19 (SIM)		

Sequence Name: M:\ms2011q3\wiley\sequence\w072911A

Operator: tdd

Datapath: C:\ms2011q3\wiley\data\jul11\w072911A

Line	Type	Vial	DataFile	Method	Sample Name	Additional Info	Comments
1	DFTPP	1	W1101588	DFTPP-1	DFTPP	gcmsprep2pg41	
2	Calibration	2	W1101589	PAHSIM	500ng SIM ICR PAH	gcmsprep2pg118 "B"	
3	Keyword			Pause			
4	Calibration	3	W1101590	PAHSIM	500ng-SS SIM 7,12-	gcmsprep2pg118 "B"	
5	Blank	4	W1101591	PAHSIM	CH2Cl2 SIM BLK		
6	Sample	11	W1101592	PAHSIM	0611-14/23 MB		
7	Sample	12	W1101593	PAHSIM	FIELD BLANK	0611-23	
8	Sample	13	W1101594	PAHSIM	REAGENT BLANK	0611-23	
9	Sample	14	W1101595	PAHSIM	BLANK	0611-14	
10	Sample	15	W1101596	PAHSIM	RFB	0611-14	
11	Sample	16	W1101597	PAHSIM	RUN 1	0611-14	
12	Sample	17	W1101598	PAHSIM	RUN 2	0611-14	
13	Sample	18	W1101599	PAHSIM	RUN 3	0611-14	
14	Sample	19	W1101600	PAHSIM	RUN 3 LD	0611-14	
15	Sample	20	W1101601	PAHSIM	RUN 1	0611-23	
16	Sample	21	W1101602	PAHSIM	RUN 1 LD	0611-23	
17	Sample	22	W1101603	PAHSIM	RUN 2	0611-23	
18	Sample	23	W1101604	PAHSIM	RUN 3	0611-23	
19							
20							
21							
22							
23							
24							
25							
26							
27							

INSTRUMENT CONTROL PARAMETERS: Wiley

M:\MS2011\METHODS\WILEY\pahsim.M
Sun Jun 12 14:35:13 2011

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Mass Spectrometer : Enabled

6890 GC METHOD

OVEN
- Initial temp: 40 'C (On)
- Initial time: 2.00 min
- Maximum temp: 340 'C
- Equilibration time: 0.20 min
- Ramps:

#	Rate	Final temp	Final time
1	35.00	130	0.00
2	12.00	330	4.76
3	0.0(Off)		

- Post temp: 0 'C
- Post time: 0.00 min
- Run time: 26.00 min

FRONT INLET (SPLIT/SPLITLESS)
- Mode: Pulsed Splitless
- Initial temp: 250 'C (On)
- Pressure: 7.15 psi (On)
- Pulse pressure: 30.0 psi
- Pulse time: 0.40 min
- Purge flow: 50.0 mL/min
- Purge time: 0.35 min
- Total flow: 53.9 mL/min
- Gas saver: On
- Saver flow: 20.0 mL/min
- Saver time: 2.00 min
- Gas type: Helium

BACK INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 50 'C (Off)
- Pressure: 10.74 psi (On)
- Split ratio: 50:1
- Split flow: 40.0 mL/min
- Total flow: 48.2 mL/min
- Gas saver: Off
- Gas type: Hydrogen

COLUMN 1
- Capillary Column
- Model Number: Restek 13638
- Rxi-5Sil MS, 30m x 0.25mm x 0.5um
- Max temperature: 350 'C
- Nominal length: 30.0 m
- Nominal diameter: 250.00 um
- Nominal film thickness: 0.50 um
- Mode: constant flow
- Initial flow: 1.0 mL/min
- Nominal init pressure: 7.16 psi
- Average velocity: 36 cm/sec
- Inlet: Front Inlet
- Outlet: MSD
- Outlet pressure: vacuum

COLUMN 2
- Capillary Column
- Model Number: Restek 40111
- RTX-1, 20m x 0.18mm x 0.4um
- Max temperature: 330 'C
- Nominal length: 20.0 m
- Nominal diameter: 180.00 um
- Nominal film thickness: 0.40 um
- Mode: constant pressure
- Pressure: 10.74 psi
- Nominal initial flow: 0.8 mL/min
- Average velocity: 40 cm/sec
- Inlet: Back Inlet
- Outlet: Back Detector
- Outlet pressure: ambient

FRONT DETECTOR (NO DET)

BACK DETECTOR (FID)
- Temperature: 250 'C (On)
- Hydrogen flow: 40.0 mL/min (Off)
- Air flow: 450.0 mL/min (Off)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: Off
- Electrometer: On
- Lit offset: 2.0

SIGNAL 1
   Data rate: 50 Hz
   Type: back detector
   Save Data: Off
   Zero: 0.0 (Off)
   Range: 0
   Fast Peaks: Off
   Attenuation: 0

SIGNAL 2
   Data rate: 50 Hz
   Type: back detector
   Save Data: Off
   Zero: 0.0 (Off)
   Range: 0
   Fast Peaks: Off
   Attenuation: 0

COLUMN COMP 1
   Derive from back detector

COLUMN COMP 2
   Derive from back detector

THERMAL AUX 2
   Use: MSD Transfer Line Heater
   Description:
   Initial temp: 280 'C (On)
   Initial time: 0.00 min
      # Rate Final temp Final time
      1   0.0(Off)

POST RUN
   Post Time: 0.00 min

TIME TABLE
   Time   Specifier   Parameter & Setpoint

GC Injector

   Front Injector:
      Sample Washes   1
      Sample Pumps   3
      Injection Volume   0.20 microliters
      Syringe Size   10.0 microliters
      PreInj Solvent A Washes   0
      PreInj Solvent B Washes   0
      PostInj Solvent A Washes   5
      PostInj Solvent B Washes   5
      Viscosity Delay   2 seconds
      Plunger Speed   Fast
      PreInjection Dwell   0.00 minutes
      PostInjection Dwell   0.00 minutes
      Sampling Depth   2.0 mm

   Back Injector:
No parameters specified

 Column 1 Inventory Number : 13638
 Column 2 Inventory Number : 40111

MS ACQUISITION PARAMETERS

General Information
------- -----------

Tune File   : dftpp060911f.u
Acquistion Mode   : SIM

MS Information
-- -----------

Solvent Delay   : 1.90 min

EMV Mode   : Gain Factor
Gain Factor   : 2.50
Resulting EM Voltage   : 1882

[Sim Parameters]

GROUP 1
Group ID : 1
Resolution : Low
Plot 1 Ion : 150.10
Ions/Dwell In Group (Mass, Dwell) (Mass, Dwell)
(150.10, 100) (152.10, 100)

GROUP 2
Group ID : 2
Resolution : High
Group Start Time : 5.80
Plot 1 Ion : 108.20
Ions/Dwell In Group (Mass, Dwell) (Mass, Dwell) (Mass, Dwell)
(108.20, 50) (127.20, 50) (128.20, 50)
(136.20, 50)

GROUP 3
Group ID : 3
Resolution : High
Group Start Time : 6.80
Plot 1 Ion : 141.20
Ions/Dwell In Group (Mass, Dwell) (Mass, Dwell)
(141.20, 100) (142.20, 100)

GROUP 4
Group ID : 4
Resolution : High
Group Start Time : 8.10
Plot 1 Ion : 151.20
Ions/Dwell In Group (Mass, Dwell) (Mass, Dwell) (Mass, Dwell)
(151.20, 35) (152.20, 35) (153.20, 35)
(154.20, 35) (162.20, 35) (164.20, 35)

GROUP 5
Group ID : 5
Resolution : High
Group Start Time : 9.40
Plot 1 Ion : 165.20
Ions/Dwell In Group (Mass, Dwell) (Mass, Dwell) (Mass, Dwell)
(165.20, 50) (166.20, 50) (174.20, 50)
(176.20, 50)

GROUP 6
Group ID : 6
Resolution : High
Group Start Time : 11.00
Plot 1 Ion : 176.20
Ions/Dwell In Group (Mass, Dwell) (Mass, Dwell) (Mass, Dwell)
(176.20, 50) (178.20, 50) (188.20, 50)
(189.20, 50)

GROUP 7
Group ID : 7
Resolution : High
Group Start Time : 13.00
Plot 1 Ion : 200.20
Ions/Dwell In Group (Mass, Dwell) (Mass, Dwell) (Mass, Dwell)
(200.20, 50) (202.20, 50) (213.20, 50)
(212.20, 50) (211.20, 50)

GROUP 8
Group ID : 8
Resolution : High
Group Start Time : 15.50
Plot 1 Ion : 241.20
Ions/Dwell In Group (Mass, Dwell) (Mass, Dwell) (Mass, Dwell)
(241.20, 45) (226.20, 45) (228.20, 45)
(229.20, 45) (240.20, 45) (236.20, 45)

GROUP 9
Group ID : 9
Resolution : High
Group Start Time : 18.00

```
Plot 1 Ion                : 250.20
Ions/Dwell In Group       (  Mass,  Dwell) (  Mass,  Dwell) (  Mass,  Dwell)
                          (250.20,     25) (252.20,     25) (253.20,     25)
                          (260.20,     25) (264.20,     25) (268.20,     25)
                          (241.10,     25) (239.10,     25) (256.20,     25)

GROUP 10
Group ID                  : 10
Resolution                : High
Group Start Time          : 20.70
Plot 1 Ion                : 138.20
Ions/Dwell In Group       (  Mass,  Dwell) (  Mass,  Dwell) (  Mass,  Dwell)
                          (138.20,     45) (139.20,     45) (276.20,     45)
                          (277.20,     45) (278.20,     45) (279.20,     45)

GROUP 11
Group ID                  : 11
Resolution                : High
Group Start Time          : 23.50
Plot 1 Ion                : 302.20
Ions/Dwell In Group       (  Mass,  Dwell) (  Mass,  Dwell) (  Mass,  Dwell)
                          (302.20,    100) (300.20,    100) (303.30,    100)

[MSZones]

MS Source                 : 230 C   maximum 250 C
MS Quad                   : 150 C   maximum 200 C


                      END OF MS ACQUISITION PARAMETERS


                       TUNE PARAMETERS for SN: US21844806
                    ----------------------------

 Trace Ion Detection is OFF.

 EMISSION    :      34.610
 ENERGY      :      69.922
 REPELLER    :      27.610
 IONFOCUS    :      92.055
 ENTRANCE_LE :       0.000
 EMVOLTS     :    1800.000
                            Actual EMV  :    1882.35
                            GAIN FACTOR :       2.54
 AMUGAIN     :    2051.000
 AMUOFFSET   :     133.000
 FILAMENT    :       1.000
 DCPOLARITY  :       0.000
 ENTLENSOFFS :     13.051@  3    13.450@ 50    14.100@ 69    16.460@131    23.840@219    18.220@414
 20.380@502    20.580@799
 MASSGAIN    :      59.000
 MASSOFFSET  :     -10.000

                          END OF TUNE PARAMETERS
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                        END OF INSTRUMENT CONTROL PARAMETERS
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```

INSTRUMENT CONTROL PARAMETERS: Wiley

M:\MS2011\METHODS\WILEY\dftpp-1.M
Sun Jun 12 14:34:19 2011

Control Information

Sample Inlet : GC
Injection Source : GC ALS
Mass Spectrometer : Enabled

6890 GC METHOD

OVEN
- Initial temp: 125 'C (On)
- Initial time: 2.00 min
- Maximum temp: 340 'C
- Equilibration time: 0.20 min
- Ramps:

#	Rate	Final temp	Final time
1	35.00	330	4.14
2	0.0(Off)		

- Post temp: 0 'C
- Post time: 0.00 min
- Run time: 12.00 min

FRONT INLET (SPLIT/SPLITLESS)
- Mode: Pulsed Splitless
- Initial temp: 250 'C (On)
- Pressure: 12.03 psi (On)
- Pulse pressure: 30.0 psi
- Pulse time: 0.40 min
- Purge flow: 50.0 mL/min
- Purge time: 0.35 min
- Total flow: 53.8 mL/min
- Gas saver: On
- Saver flow: 20.0 mL/min
- Saver time: 2.00 min
- Gas type: Helium

BACK INLET (SPLIT/SPLITLESS)
- Mode: Split
- Initial temp: 50 'C (Off)
- Pressure: 10.74 psi (On)
- Split ratio: 50:1
- Split flow: 26.7 mL/min
- Total flow: 34.7 mL/min
- Gas saver: Off
- Gas type: Hydrogen

COLUMN 1
- Capillary Column
- Model Number: Restek 13638
- Rxi-5Sil MS, 30m x 0.25mm x 0.5um
- Max temperature: 350 'C
- Nominal length: 30.0 m
- Nominal diameter: 250.00 um
- Nominal film thickness: 0.50 um
- Mode: constant flow
- Initial flow: 1.0 mL/min
- Nominal init pressure: 12.04 psi
- Average velocity: 38 cm/sec
- Inlet: Front Inlet
- Outlet: MSD
- Outlet pressure: vacuum

COLUMN 2
- Capillary Column
- Model Number: Restek 40111
- RTX-1, 20m x 0.18mm x 0.4um
- Max temperature: 330 'C
- Nominal length: 20.0 m
- Nominal diameter: 180.00 um
- Nominal film thickness: 0.40 um
- Mode: constant pressure
- Pressure: 10.74 psi
- Nominal initial flow: 0.5 mL/min
- Average velocity: 34 cm/sec
- Inlet: Back Inlet
- Outlet: Back Detector
- Outlet pressure: ambient

FRONT DETECTOR (NO DET)

BACK DETECTOR (FID)
- Temperature: 250 'C (On)
- Hydrogen flow: 40.0 mL/min (Off)
- Air flow: 450.0 mL/min (Off)
- Mode: Constant makeup flow
- Makeup flow: 45.0 mL/min (On)
- Makeup Gas Type: Nitrogen
- Flame: Off
- Electrometer: On
- Lit offset: 2.0

SIGNAL 1
   Data rate: 50 Hz
   Type: back detector
   Save Data: Off
   Zero: 0.0 (Off)
   Range: 0
   Fast Peaks: Off
   Attenuation: 0

SIGNAL 2
   Data rate: 50 Hz
   Type: back detector
   Save Data: Off
   Zero: 0.0 (Off)
   Range: 0
   Fast Peaks: Off
   Attenuation: 0

COLUMN COMP 1
   Derive from back detector

COLUMN COMP 2
   Derive from back detector

THERMAL AUX 2
   Use: MSD Transfer Line Heater
   Description:
   Initial temp: 280 'C (On)
   Initial time: 0.00 min
      # Rate Final temp Final time
      1   0.0(Off)

POST RUN
   Post Time: 0.00 min

TIME TABLE
   Time   Specifier   Parameter & Setpoint

GC Injector

Front Injector:

Sample Washes	1
Sample Pumps	3
Injection Volume	0.20 microliters
Syringe Size	10.0 microliters
PreInj Solvent A Washes	0
PreInj Solvent B Washes	0
PostInj Solvent A Washes	5
PostInj Solvent B Washes	5
Viscosity Delay	2 seconds
Plunger Speed	Fast
PreInjection Dwell	0.00 minutes
PostInjection Dwell	0.00 minutes
Sampling Depth	2.0 mm

Back Injector:
No parameters specified

Column 1 Inventory Number : 13638
Column 2 Inventory Number : 40111

MS ACQUISITION PARAMETERS

General Information
------- -----------

Tune File   : dftpp060911f.u
Acquistion Mode   : Scan

MS Information
-- -----------

Solvent Delay   : 1.90 min

EMV Mode   : Gain Factor
Gain Factor   : 2.50
Resulting EM Voltage   : 1882

[Scan Parameters]

Low Mass : 35.0
High Mass : 500.0
Threshold : 150
Sample # : 1 A/D Samples 2

[MSZones]

MS Source : 230 C maximum 250 C
MS Quad : 150 C maximum 200 C

END OF MS ACQUISITION PARAMETERS

TUNE PARAMETERS for SN: US21844806

Trace Ion Detection is OFF.

EMISSION : 34.610
ENERGY : 69.922
REPELLER : 27.610
IONFOCUS : 92.055
ENTRANCE_LE : 0.000
EMVOLTS : 1800.000
Actual EMV : 1882.35
GAIN FACTOR : 2.54
AMUGAIN : 2051.000
AMUOFFSET : 133.000
FILAMENT : 1.000
DCPOLARITY : 0.000
ENTLENSOFFS : 13.051@ 3 13.450@ 50 14.100@ 69 16.460@131 23.840@219 18.220@414
20.380@502 20.580@799
MASSGAIN : 59.000
MASSOFFSET : -10.000

END OF TUNE PARAMETERS

END OF INSTRUMENT CONTROL PARAMETERS

This Is The Last Page Of This Report.

Appendix N

URS Data Quality Assessments

Data Quality Assessment
Collection of Stack Gas in all Isokinetic Sampling Trains

Analyte(s)	Method(s)
Hydrogen Chloride and Chlorine	EPA Method 26A
Particulate Matter/Metals	EPA Method 29
PM10	EPA Methods 201A/202
Speciated Mercury	Ontario Hydro
Semivolatile Organics	SW-846 Method 0010
PCDD/PCDF/PCB	SW-846 Method 0023A

Preliminary Measurements	Sampling Location Measurements	All ports meet the minimum requirements for distance from upstream and downstream disturbances.
	Cyclonic Flow Check	Cyclonic flow demonstrated to be within constraints for isokinetic sampling.
Sample Collection	Minimum Sample Volume	Two runs for Methods 201A/202 fell short of the volume specification in the test plan. All other runs met test plan specifications. This was corrected for subsequent runs. See table below.
	Minimum Sample Duration	Most runs fell below the target in the test plan. See table below.
	Isokinetic Sampling Rate	All trains met method specifications. See table below.
Sampling Train Operation	Probe Temperature	See table below.
	Filter Temperature	All runs met method specifications. See table below.
	Transfer Line Temperature	All runs met method specifications. See table below.
	Condenser Exit Temperature	See table below.
	Impinger Exit Temperature	All runs but two met method specifications. The two outliers were points at the beginning of the run, before any cool gas had moved through the sampling train. See table below.
Leak Checks	Sampling Train – Pre Test	All runs met method specifications. See table below.
	Sampling Train – Port Changes	All runs met method specifications. See table below.
	Sampling Train – Post Test	All runs met method specifications. See table below.
	Pitot Tubes – Pre Test	All runs met method specifications. See table below.
	Pitot Tubes – Post Test	All runs met method specifications. See table below.

Sampling Documentation	Documentation of Calibration	All calibrations documented appropriately; All calibrations meet specifications.
	Correct Calibration Factors Used	Yes.
	Correct Molecular Weight Used	Yes.
	Completed Data Sheets – Sample Collection	Yes. See table below.
	Completed Data Sheets – Sample Recovery	All required information collected on sampling data sheets. See table below.
Conclusions and Comments	These data are acceptable for the intended purpose. The slight shortfall for volume on two M201A/M202 runs (1.76 and 1.92 m^3 compared to the specification of 2 m^3) is not significant. This was resolved on subsequent runs. The volume collected gives sufficient sensitivity to interpret these data. No data are qualified based on this finding. The sample durations presented in the test plan were estimates to accomplish the volumes required in the ICR. As, for the most part, the volume targets were accomplished, the shortfalls in sample duration have no impact on the usability of these data.	

Sampling Details

	HCl/Cl_2 EPA Method 26A	Particulate Matter/Metals EPA Methods 5/29	PM10 and Condensable PM EPA Methods 201A/202
Sample Volume			
Target	2 m^3	3 m^3	2 m^3
Achieved	Yes	Yes	**No [1]**
Sampling Duration			
Target	4 hours	4 hours	4 hours
Achieved	**No**	**No**	**No**
Isokinetic Sampling Rate between 90&110%	Yes	Yes	Yes
Temperatures Within Specification			
Probe	Yes	Yes	Yes
Filter	Yes	Yes	Yes
Impinger Exit	Yes	**No [2]**	Yes
Data Sheets Complete			
Sample Collection	Yes		Yes
Train Recovery	Yes		Yes
Train Leak Checks			
pre	Yes		Yes
port changes	Yes		Yes
Post (at proper vacuum)	Yes		Yes
Pitot Leak Checks			
pre	Yes		Yes
post	Yes		Yes

[1] This train was to collect 2 cubic meters. 1.81 and 1.97 cubic meters were collected on runs 1 and 2.
[2] The first point on Run 2, and the first two points on Run 3 were above the specified temperature of 68°F. ice was added, and the temperatures for the rest of the run were fine.

	Semivolatile Organics SW-846 Method 0010	**Speciated Mercury Ontario Hydro**	**PCDD/PCDF SW-846 Method 0023A**
Sample Volume			
Target	>4 m^3	1-2.5 m^3	3 m^3
Achieved	Yes	Yes	Yes
Sampling Duration			
Target	4 hours	4 hours	4 hours
Achieved	Yes	**No**	**No**
Isokinetic Sampling Rate between 90&110%	Yes	Yes	Yes
Temperatures Within Specification			
Probe	Yes	Yes	Yes
Filter	Yes	Yes	Yes
Heat-Traced Line	Yes	Yes	Yes
Condenser Exit	Yes	--	Yes
Impinger Exit	Yes	Yes	Yes
Data Sheets Complete			
Sample Collection	Yes		Yes
Train Recovery	Yes		Yes
Train Leak Checks			
pre	Yes		Yes
port changes	Yes		Yes
Post (at proper vacuum)	Yes		Yes
Pitot Leak Checks			
pre	Yes		Yes
post	Yes		Yes

Data Quality Assessment
Analysis of Stack Gas for Filterable and Condensable Particulate Matter

Parameter	Filterable and Condensable Particulate Loading in Stack Gas
Sampling Method	EPA Methods 201A and 202
Analytical Method	Gravimetric Analysis
Laboratory ID Number(s)	0611-24
Sample Shipping and Receipt	Samples received intact and at ambient temperature.
Holding Time(s)	All samples prepared and analyzed within 27 days of sampling. Test plan specifies analysis within 14 days. The method has no specification for holding time. See table below.
Blank Results	Negligible levels found in laboratory blanks. Field Blank results for FPM well below actual results. Field blank results for CPM are significant and on the same order as the field results. See tables below and in main body of report.
Results of Multiple Weighings	Final weighing stable within < 0.5 mg.
Balance Calibration	Performed daily during applicable periods.
Conclusions and Comments	These data are acceptable for the intended purpose. The analysis of these samples outside the holding time specified in the test plan has no impact on the usability of these results. No data are flagged based on this finding. The results for FPM and CPM presented in the report are not corrected for field blanks. These may have a positive bias for CPM, but represent a conservative estimate of emissions. No data are flagged based on blank results.

Holding Time

	Sample Date	Analysis Date	Holding Time (Days
CHV-Stk-ICR2-M201A/M202-NR	24-Jun	20-Jul	26
CHV-Stk-ICR2-M201A/M202-FPM	24-Jun	21-Jul	27
CHV-Stk-ICR2-M201A/M202-CPM	24-Jun	21-Jul	27
CHV-Stk-ICR2-M201A/M202-CondA	24-Jun	21-Jul	27
CHV-Stk-ICR2-M201A/M202-BHRns-Wtr	24-Jun	21-Jul	27
CHV-Stk-ICR2-M201A/M202-BHRns-Ace	24-Jun	20-Jul	26
CHV-Stk-ICR2-M201A/M202-BHRns-Hex	24-Jun	20-Jul	26
CHV-Stk-ICR2-M201A/M202-NR	24-Jun	20-Jul	26
CHV-Stk-ICR3-M201A/M202-FPM	24-Jun	21-Jul	27
CHV-Stk-ICR3-M201A/M202-CPM	24-Jun	21-Jul	27
CHV-Stk-ICR3-M201A/M202-CondA	24-Jun	21-Jul	27
CHV-Stk-ICR3-M201A/M202-BHRns-Wtr	24-Jun	21-Jul	27
CHV-Stk-ICR3-M201A/M202-BHRns-Ace	24-Jun	20-Jul	26
CHV-Stk-ICR3-M201A/M202-BHRns-Hex	24-Jun	20-Jul	26
CHV-Stk-ICR4-M201A/M202-NR	26-Jun	20-Jul	24
CHV-Stk-ICR4-M201A/M202-FPM	26-Jun	21-Jul	25
CHV-Stk-ICR4-M201A/M202-CPM	26-Jun	21-Jul	25
CHV-Stk-ICR4-M201A/M202-CondA	26-Jun	21-Jul	25
CHV-Stk-ICR4-M201A/M202-BHRns-Wtr	26-Jun	21-Jul	25
CHV-Stk-ICR4-M201A/M202-BHRns-Ace	26-Jun	20-Jul	24
CHV-Stk-ICR4-M201A/M202-BHRns-Hex	26-Jun	20-Jul	24
CHV-Stk-ICRFB-M201A/M202-NR	29-Jun	20-Jul	21
CHV-Stk-ICRFB-M201A/M202-FPM	29-Jun	21-Jul	22
CHV-Stk-ICRFB-M201A/M202-CPM	29-Jun	21-Jul	22
CHV-Stk-ICRFB-M201A/M202-CondA	29-Jun	21-Jul	22
CHV-Stk-ICRFB-M201A/M202-BHRns-Wtr	29-Jun	21-Jul	22
CHV-Stk-ICRFB-M201A/M202-BHRns-Ace	29-Jun	20-Jul	21
CHV-Stk-ICRFB-M201A/M202-BHRns-Hex	29-Jun	20-Jul	21

Blank Results

	Blank Result (mg/sample)	
	FPM	CPM
Field Blank Train	0.5	7.6
Reagent Blank Acetone	0.1	
Laboratory Blank Acetone	0.2	
Reagent Blank Acetone		1.7
Reagent Blank Water		2.0
Reagent Blank Hexane		1.9
Laboratory Blank Acetone		1.6
Laboratory Blank Water		2.5
Laboratory Blank Hexane		2.2
Laboratory Filter		0.1
Range of Field Results	25.2-25.7	9.6-25.2

Data Quality Assessment
Analysis of Stack Gas for Particulate Matter

Parameter	Particulate Loading in Stack Gas
Sampling Method	EPA Method 5 (in combination with Method 29)
Analytical Method	Gravimetric Analysis – EPA Method 5
Laboratory ID Number(s)	G1G050412
Preparation Batch Number(s)	1193194, 1193197
Sample Shipping and Receipt	Samples received intact and at ambient temperature.
Holding Time(s)	All samples prepared and analyzed within 14 days of sampling. Test plan specifies analysis within 14 days. See table below.
Blank Results	Negligible levels found in Field Blanks. Field Blank results well below actual results. See tables below and in main body of report.
Results of Multiple Weighings	Final weighing stable within < 0.5 mg.
Balance Calibration	Performed daily during applicable periods.
Conclusions and Comments	These data are acceptable for the intended purpose.

Holding Time

	Sample Date	Analysis Date	Holding Time (Days
CHV-Stk-ICR2-M5/29-Front Half	24-Jun	7-Jul	13
CHV-Stk-ICR3-M5/29-Front Half	24-Jun	7-Jul	13
CHV-Stk-ICR4-M5/29-Front Half	26-Jun	7-Jul	11
CHV-Stk-ICRFB-M5/29-Front Half	26-Jun	7-Jul	11
CHV-Stk-ICR2-M5/29-Front Half	24-Jun	8-Jul	14
CHV-Stk-ICR3-M5/29-Front Half	24-Jun	8-Jul	14
CHV-Stk-ICR4-M5/29-Front Half	26-Jun	8-Jul	12
CHV-Stk-ICRFB-M5/29-Front Half	26-Jun	8-Jul	12

Blank Results

	Field Blank Result (g/sample)	Range of Field Results (g/sample)
Probe and Nozzle Rinse	0.0023	0.0146-0.0213
Filter	0.0024	0.0611-0.0825

Data Quality Assessment
Analysis of Stack Gas for Metals

Parameter	Selected Metals in Stack Gas
Sampling Method	EPA Method 29
Analytical Method	ICPMS, SW-846 Method 6020
Laboratory Job ID Number(s)	G1G050412
Preparation Batch Number(s)	195193, 1196180
Sample Shipping and Receipt	Samples received intact and at ambient temperature. Test plan has no specification for temperature.
Holding Time(s)	All samples analyzed within 25 days of sample collection. The test plan specifies analysis within 14 days. See table below.
Blank Results	Lead found in laboratory blanks near the detection limit. Field blank results show detectable levels of most target analytes... See tables below and in the main body of the report.
Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results	All recoveries are between 75 and 100%. All relative percent deviations are below 10%. These meet the laboratory specifications. See tables below.
Matrix Spike (MS) and Matrix Spike (MSD) Results	All recoveries are between 75 and 105%. RPDs are all below 5%. Test plan specifications are MS/MSD between 75 and 125% with RPD below 25%. All MS/MSD results met the test plan criteria. One recovery (nickel on the front half sample) was just outside the laboratory specifications. (77% recovery; acceptance 86-110). Results are summarized in tables below.
Conclusions and Comments	These data are acceptable for the intended purpose. The analysis of these samples outside the test plan specified holding time of 14 days has no impact on the data. The method-specified holding time for these analyses is 6 months. No data are qualified based on this finding. The levels of target analytes found in the field and laboratory blanks are well below the levels found in the field samples. As such, these blank levels are insignificant and negligible. No data are qualified based on blank results. The nickel recovery outside laboratory criteria is attributed to the low spike level compared to the native level. This has no impact on the results. No data are qualified based on MS/MSD results.

Holding Time

	Sample Date	Metals ICPMS	
		Analysis Date	Holding Time (days)
CHV-Stk-ICR2-M5/29-Front Half	24-Jun	19-Jul	25
CHV-Stk-ICR3-M5/29-Front Half	24-Jun	19-Jul	25
CHV-Stk-ICR4-M5/29-Front Half	26-Jun	19-Jul	23
CHV-Stk-ICRFB-M5/29-Front Half	26-Jun	19-Jul	23
CHV-Stk-ICR2-M5/29-Back Half	24-Jun	18-Jul	24
CHV-Stk-ICR3-M5/29-Back Half	24-Jun	18-Jul	24
CHV-Stk-ICR4-M5/29-Back Half	26-Jun	18-Jul	22
CHV-Stk-ICRFB-M5/29-Back Half	26-Jun	18-Jul	22

Blank Results – Metals Excluding Mercury

	Blank Results (µg/sample)				Range of Sample Results (µg/Sample)
	CHV-Stk-ICRFB-M5/29-Front Half	CHV-Stk-ICRFB-M5/29-Back Half	Laboratory Blank; Batch 1196180	Laboratory Blank; Batch 1195193	
Antimony	0.032	0.009	<0.0054	0.0095	1.53-1.82
Arsenic	0.13	0.078	<0.075	<0.075	12.1-14.6
Beryllium	<0.012	<0.012	<0.012	<0.012	
Cadmium	0.052	<0.011	<0.011	<0.011	0.058-0.121
Chromium	2.1	0.5	<0.14	<0.14	7.13-9.00
Cobalt	0.44	0.042	<0.0086	<0.0086	20.0-22.9
Lead	0.54	0.28	0.17	0.044	2.59-3.59
Manganese	1.3	3.1	<0.013	<0.013	18.2-21.4
Nickel	2.6	0.7	<0.015	<0.015	267-366
Selenium	<0.26	<0.26	<0.26	<0.26	

Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results – Metals Excluding Mercury

	LCS/LCSD; Batch 1195193			LCS/LCSD; Batch 1196180			Laboratory Specification	
	LCS Recovery (%)	LCSD Recovery (%)	Relative Percent Difference (%)	LCS Recovery (%)	LCSD Recovery (%)	Relative Percent Difference (%)	Recovery (%)	Relative Percent Difference (%)
Antimony	87	86	2	84	80	4.6	77-110	15
Arsenic	92	90	2.2	85	81	5	79-110	15
Beryllium	90	89	1.1	85	82	4.2	70-110	15
Cadmium	90	88	2.5	85	82	4.4	79-110	16
Chromium	89	87	2.7	99	94	5.2	84-110	15
Cobalt	89	87	2.4	98	94	4	81-113	17
Lead	87	90	4.1	90	86	4.4	86-110	15
Manganese	88	86	3	96	91	4.7	84-110	15
Nickel	91	88	3.8	98	93	5.8	86-110	15
Selenium	93	92	1.6	81	79	3.2	65-110	15

Matrix Spike (MS) and Matrix Spike (MSD) Results

CHV-Stk-ICR2-M5/29-Front Half									
	Sample Result (μg)	Spike Amount (μg)	MS Result (μg)	MSD Result (μg)	MS Recovery (%)	MSD Recovery (%)	Relative Percent Difference (%)	Laboratory Specification	
								Recovery (%)	Relative Percent Difference (%)
Antimony	1.8	30	32.9	33.4	103	105	1.5	77-110	15
Arsenic	14.4	30	38.3	39.1	80	82	1.9	79-110	15
Beryllium	0.1	30	24.7	24.8	82	82	0.54	70-110	15
Cadmium	0.11	30	26	26.3	86	87	1.3	79-110	16
Chromium	7.7	30	36.7	37.7	97	100	2.7	84-110	15
Cobalt	22.9	30	49.5	50.3	89	91	1.5	81-113	17
Lead	2.9	30	31.6	32.3	96	98	2.2	86-110	15
Manganese	13.9	30	42	43.1	94	97	2.5	84-110	15
Nickel	365	30	388	393	**77**	93	1.2	86-110	15
Selenium	0.92	30	23.5	23.8	75	76	1.3	65-110	15

CHV-Stk-ICR2-M5/29-Back Half									
	Sample Result (μg)	Spike Amount (μg)	MS Result (μg)	MSD Result (μg)	MS Recovery (%)	MSD Recovery (%)	Relative Percent Difference (%)	Laboratory Specification	
								Recovery (%)	Relative Percent Difference (%)
Antimony	0.02	30	24.2	23.7	80	79	2.1	77-110	15
Arsenic	0.23	30	24.7	25.3	82	84	2.6	79-110	15
Beryllium	<0.012	30	22	22.3	73	74	1.6	70-110	15
Cadmium	<0.011	30	24.6	24.1	82	80	1.7	79-110	16
Chromium	1.3	30	31.8	30.8	102	98	3.3	84-110	15
Cobalt	0.04	30	30.3	31.2	101	104	3	81-113	17
Lead	0.69	30	28.6	28.4	93	92	0.62	86-110	15
Manganese	4.5	30	34.6	34.8	101	101	0.37	84-110	15
Nickel	0.98	30	29.8	30.9	96	100	3.5	86-110	15
Selenium	5.4	30	29.7	30.8	81	85	3.6	65-110	15

Data Quality Assessment
Analysis of Stack Gas for Mercury

Parameter	Mercury in Stack Gas
Sampling Method	Ontario Hydro
Analytical Method	CVAA, SW846 Method 7470A
Laboratory Job ID Number(s)	H1G050441
Preparation Batch Number(s)	1187043, 1187045, 1187046
Sample Shipping and Receipt	Samples received intact and at ambient temperature. QAPP has no specification for temperature.
Holding Time(s)	All samples were originally analyzed within 22 days of sample collection. Permanganate fractions were re-analyzed between 55 and 60 day after sample collection. Test plan specifies analysis within 14 days. The method specified analysis within 45 days. See table below.
Blank Results	Nothing detected in laboratory blanks. Field blanks near the detection limit. See tables below and in the main body of the report.
Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results	All recoveries are between 80 and 110%. All relative percent deviations are below 5%. See tables below.
Matrix Spike (MS) and Matrix Spike (MSD) Results	Test plan specifications are MS/MSD recovery at 90-110% recovery MS/MSD results for the KCl fraction met these criteria. MS/MSD results for the nitric peroxide fraction were outside these criteria, but met the laboratory specification of 80-120% recovery. Initially, MS/MSD results for the permanganate fraction were below both the test plan and laboratory specifications. The permanganate samples were re-prepared and analyzed with acceptable MS recoveries. Results are summarized in tables below.

Conclusions and Comments	As the method specifies analysis of samples within 45 days of sample collection, the analysis of the samples outside the test plan specification of 14 days has no impact on the interpretation of results. The four samples analyzed between 55 and 60 days were re-analyzed based on MS/MSD issues. As these samples were kept in laboratory conditions and under very acidic conditions, there is no reason to suspect any loss of mercury. No data are flagged based on holding time. The levels of mercury found in the blank samples are well below the levels found in the field samples. No data are qualified or invalidated based on blank results. The MS/MSD results for the initial analysis of the permanganate fraction have recoveries (43, 51%) well outside the acceptance criteria (80-120%). These samples were re-analyzed at a higher dilution to mitigate the matrix effects. The more diluted analyses provided analytical results within method specification for MS recovery, and these data are reported in the body of the report.

Holding Time

	Sample Date	Analysis Date	Holding Time (days)
CHV-STK-ICR2-OH-PNR/FILTER	24-Jun	16-Jul	22
CHV-STK-ICR2-OH-KCLA	24-Jun	16-Jul	22
CHV-STK-ICR2-OH-NPI	24-Jun	16-Jul	22
CHV-STK-ICR2-OH-PERM (Dil=0.99)	24-Jun	16-Jul	22
CHV-STK-ICR2-OH-PERM (Dil=1.98)	24-Jun	22-Aug	59
CHV-STK-ICR3-OH-PNR/FILT	26-Jun	16-Jul	20
CHV-STK-ICR3-OH-KCLA	26-Jun	16-Jul	20
CHV-STK-ICR3-OH-NPI	26-Jun	16-Jul	20
CHV-STK-ICR3-OH-PERM (Dil=0.95)	26-Jun	16-Jul	20
CHV-STK-ICR3-OH-PERM (Dil=1.9)	26-Jun	22-Aug	57
CHV-STK-ICR4-OH-PNR/FILT	26-Jun	16-Jul	20
CHV-STK-ICR4-OH-KCLA	26-Jun	16-Jul	20
CHV-STK-ICR4-OH-NPI	26-Jun	16-Jul	20
CHV-STK-ICR4-OH-PERM (Dil=1.01)	26-Jun	16-Jul	20
CHV-STK-ICR4-OH-PERM (Dil=2.02)	26-Jun	22-Aug	57
CHV-STK-ICRFB-OH-PNR/FILT	26-Jun	16-Jul	20
CHV-STK-ICRFB-OH-KCL	26-Jun	16-Jul	20
CHV-STK-ICRFB-OH-NPI	26-Jun	16-Jul	20
CHV-STK-ICRFB-OH-PERM (Dil=0.94)	26-Jun	16-Jul	20
CHV-STK-ICRFB-OH-PERM (Dil=1.88)	26-Jun	22-Aug	57

Blank Results –Mercury

	Mercury (µg/sample)
CHV-STK-ICRFB-OH-PNR/FILT	0.013
CHV-STK-ICRFB-OH-KCL	<0.082
CHV-STK-ICRFB-OH-NPI	<0.045
CHV-STK-ICRFB-OH-PERM (Dil=0.94)	0.14
CHV-STK-ICRFB-OH-PERM (Dil=1.88)	0.14
Laboratory Blank; Batch 1187043	<0.012
Laboratory Blank; Batch 1187045	<0.015
Laboratory Blank; Batch 1187046	<0.006
Laboratory Blank; Batch 1187046	<0.006
Laboratory Blank; Batch 2341020	<0.012

Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results –Mercury

LCS/LCSD; Batch 1187043	LCS Recovery (%)	109
	LCSD Recovery (%)	107
	Relative Percent Difference (%)	1.5
LCS; Batch 1187045	LCS Recovery (%)	81
LCS; Batch 1187046	LCS Recovery (%)	100
LCS; Batch 2341020	LCS Recovery (%)	103
Laboratory Specification	Recovery (%)	80-120
	Relative Percent Difference (%)	20

Matrix Spike (MS) and Matrix Spike (MSD) Results

		Mercury
CHV-STK-ICR3-OH-KCLA	Sample Result (ug/sample)	0.12
	Spike Amount (ug/sample)	1.62
	MS Result (ug/sample)	1.64
	MSD Result (ug/sample)	1.59
	MS Recovery (%)	94
	MSD Recovery (%)	91
	Relative Percent Difference (%)	2.8
CHV-STK-ICR3-OH-NPI	Sample Result (ug/sample)	<0.049
	Spike Amount (ug/sample)	0.825
	MS Result (ug/sample)	0.684
	MSD Result (ug/sample)	0.701
	MS Recovery (%)	83
	MSD Recovery (%)	85
	Relative Percent Difference (%)	2.5
CHV-STK-ICR3-OH-PERM (Dil=0.95)	Sample Result (ug/sample)	1
	Spike Amount (ug/sample)	0.95
	MS Result (ug/sample)	1.48
	MSD Result (ug/sample)	1.41
	MS Recovery (%)	51
	MSD Recovery (%)	43
	Relative Percent Difference (%)	5.3
CHV-STK-ICR3-OH-PERM (Dil=1.9)	Sample Result (ug/sample)	0.36
	Spike Amount (ug/sample)	1.9
	MS Result (ug/sample)	2.15
	MSD Result (ug/sample)	2.26
	MS Recovery (%)	94
	MSD Recovery (%)	100
	Relative Percent Difference (%)	5.2
Laboratory Specification	Recovery (%)	80-120
	Relative Percent Difference (%)	20

Data Quality Assessment
Analysis of Stack Gas for Polychlorinated Dibenzodioxins and Dibenzofurans

Parameter	PCDD/PCDF in Stack Gas
Sampling Method	EPA Method 23
Analytical Method	EPA Method 23
Laboratory Project Number(s)	H1G050439
Preparation Batch Number(s)	1187027
Sample Shipping and Receipt	All samples received intact and at or below 4°C. The test plan specifies <4°C.
Holding Time(s)	All samples prepared within 14 days of sampling and analyzed within 8 days of preparation. The test plan specifies analysis within 14 days of sample collection. See table below.
Blank Results	Nothing detected observed in the laboratory blank. Results for field blank show 4 compounds detected. The levels observed in the field samples are very low. For all four compounds the level in the field blank is similar to the levels in the field samples. See table below and in the main body of the report.
Laboratory Check Sample (LCS) Results	Recovery of all species in LCS between 85 and 110%. See table below.
Surrogate and Internal Standard Spike Results	Recovery of internal standards between 60 and 100%. Recovery of pre-sampling surrogates between 75 and 105%. Test plan specifies internal standard recovery of 25-130% and recovery of surrogates between 70-130%. See tables below.
Conclusions and Comments	These data are acceptable for the intended purpose. As noted above, sample analysis was conducted outside the 14-day specification in the test plan. Method 23 specifies that samples be extracted within 30 days of collection and analyzed within 45 days of extraction. As the holding times met the method specification, no data are qualified or invalidated based on this finding. As noted above, the field blank had four compounds at levels similar to the field samples. This indicates a potential positive bias in the field samples, which is conservative relative to the determination of emission rate. No data are qualified based on field blank results.

Holding Time

	Sample Date	Extraction Date	Analysis Date	Holding Time (Days)	
				Sampling to Extraction	Extraction to Analysis
CHV-STK-ICR1-M23-COMBINED	22-Jun	6-Jul	14-Jul	14	8
CHV-STK-ICR2-M23-COMBINED	23-Jun	6-Jul	14-Jul	13	8
CHV-STK-ICR3-M23-COMBINED	27-Jun	6-Jul	14-Jul	9	8
CHV-STK-ICRFB-M23-COMBINED	26-Jun	6-Jul	14-Jul	10	8

Blank Results

	Analytical Result (pg/sample)		
	CHV-STK-ICRFB-M23-COMBINED	Laboratory Blank Batch 1187027	Range of Field Samples
2,3,7,8-TCDD	<32	<9.6	
1,2,3,7,8-PeCDD	<16	<3.6	
1,2,3,4,7,8-HxCDD	13	<3.5	<2.7 - <13
1,2,3,6,7,8-HxCDD	<12	<3.4	
1,2,3,7,8,9-HxCDD	<12	<3.5	
1,2,3,4,6,7,8-HpCDD	<15	<5.4	
OCDD	52	<6.3	13* - 47
2,3,7,8-TCDF	<21	<5.6	
1,2,3,7,8-PeCDF	<12	<3.4	
2,3,4,7,8-PeCDF	8.8*	<3.5	<2.2 - 7.5*
1,2,3,4,7,8-HxCDF	<7	<2.2	
1,2,3,6,7,8-HxCDF	<6.3	<1.9	
1,2,3,7,8,9-HxCDF	<7.6	<2.3	
2,3,4,6,7,8-HxCDF	<6.6	<2	
1,2,3,4,6,7,8-HpCDF	13*	<2.4	5.4* - 42
1,2,3,4,7,8,9-HpCDF	<13	<3.1	
OCDF	60	<4.6	19 - 140

* - Value reported is Estimated Maximum Possible Concentration (EMPC)

Laboratory Check Sample (LCS) Results

	Laboratory Check Sample Batch 1187027			
	LCS Recovery (%)	LCSD Recovery (%)	Specification	
			(Recovery, %)	RPD (%)
2,3,7,8-TCDD	102	94	70-130	50
1,2,3,7,8-PeCDD	93	94	70-130	50
1,2,3,4,7,8-HxCDD	96	98	70-130	50
1,2,3,6,7,8-HxCDD	98	92	70-130	50
1,2,3,7,8,9-HxCDD	105	104	70-130	50
1,2,3,4,6,7,8-HpCDD	96	98	70-130	50
OCDD	93	96	70-130	50
2,3,7,8-TCDF	89	89	70-130	50
1,2,3,7,8-PeCDF	98	98	70-130	50
2,3,4,7,8-PeCDF	91	93	70-130	50
1,2,3,4,7,8-HxCDF	101	107	70-130	50
1,2,3,6,7,8-HxCDF	98	99	70-130	50
1,2,3,7,8,9-HxCDF	95	103	70-130	50
2,3,4,6,7,8-HxCDF	94	99	70-130	50
1,2,3,4,6,7,8-HpCDF	92	91	70-130	50
1,2,3,4,7,8,9-HpCDF	88	91	70-130	50
OCDF	100	102	70-130	50

Internal Standard and Surrogate Recovery

		CHV-STK-ICR1-M23-COMBINED	CHV-STK-ICR2-M23-COMBINED	CHV-STK-ICR3-M23-COMBINED	CHV-STK-ICRFB-M23-COMBINED	LCS Batch 1187027	LCSD Batch 1187027	Laboratory Blank Batch 1187027	A-6443, A-6444 MEDIA CHECK
Internal Standards	^{13}C-2,3,7,8-TCDF	79	81	78	84	85	86	75	79
	^{13}C -1,2,3,7,8-PeCDF	84	77	74	81	86	83	74	93
	^{13}C -1,2,3,6,7,8-HxCDF	89	84	80	92	84	80	92	82
	^{13}C -1,2,3,4,6,7,8-HpCDF	83	71	77	84	87	86	96	87
	^{13}C -2,3,7,8-TCDD	81	85	82	87	83	82	68	76
	^{13}C -1,2,3,7,8-PeCDD	84	84	80	87	93	86	78	96
	^{13}C -1,2,3,6,7,8-HxCDD	89	82	82	90	83	84	93	87
	^{13}C -1,2,3,4,6,7,8-HpCDD	82	75	77	90	85	85	84	82
	^{13}C -OCDD	69	64	64	72	72	70	73	71
Pre-Sampling Surrogates	^{13}C -2,3,4,7,8-PeCDF	95	99	98	98	--	--	--	--
	^{13}C -1,2,3,4,7,8-HxCDF	98	93	96	95	--	--	--	--
	^{13}C -1,2,3,4,7,8,9-HpCDF	93	96	89	91	--	--	--	--
	$^{37}Cl_4$-2,3,7,8-TCDD	88	78	85	82	--	--	--	--
	^{13}C -1,2,3,4,7,8-HxCDD	100	100	103	104	--	--	--	--

Data Quality Assessment
Analysis of Stack Gas for Polychlorinated Biphenyls

Parameter	PCB in Stack Gas
Sampling Method	EPA Method 23
Analytical Method	EPA Method 1668A
Work Order Number(s)	H1G050439
Preparation Batch Number(s)	1187028
Sample Shipping and Receipt	All samples received intact. With two exceptions all samples at or below 4°C. The impinger catch samples from runs 2 and 3 were received at 27°C. The test plan specifies <4°C.
Holding Time(s)	All samples prepared within 14 days of sampling and analyzed within 9 days of preparation. The test plan specifies analysis within 14 days of collection. See table below.
Blank Results	Levels of three PCB analytes were observed in the laboratory and field blank sample. The levels observed in the field samples are very low. For all three compounds the level in the field blank is similar to the levels in the field samples. See table below and in the main body of the report.
Laboratory Check Sample (LCS) and Laboratory Check Sample Duplicate (LCSD) Results	Recovery of all species in LCS and LCSD is between 95 and 130%. All RPDs are below 10%. See table below.
Surrogate and Internal Standard Spike Results	Recovery of all internal standards between 60 and 135%. Recovery of surrogates between 75 and 115% with a pooled relative standard deviation below 10%. Test plan specifies internal standard recovery of 25-130% and recovery of surrogates between 70-130%. See tables below.

Conclusions and Comments	These data are acceptable for the intended purpose. As noted above, samples associated with two different runs were received at temperatures outside the test plan specification. These samples were aqueous fractions, and are not expected to contain significant amounts of the target analytes. Further, EPA Method 23 has no specification for the analysis of the impinger fractions, and therefore the results which include the impinger fractions represent a conservative estimate of PCB emissions. No data are qualified based on this finding. As noted above, sample analysis was conducted outside the 14-day specification in the test plan. Method 23 specifies that samples be extracted within 30 days of collection and analyzed within 45 days of extraction. Method 1668 notes that there is no holding time as long as samples are kept cold. As the holding times met the method specification, no data are qualified or invalidated based on this finding. As noted above, the laboratory and field blank had three compounds at levels similar to the field samples. This indicates a potential positive bias in the field samples, which is conservative relative to the determination of emission rate. No data are qualified based on field blank results.

Holding Time

	Sample Date	Extraction Date	Analysis Date	Holding Time (Days)	
				Sampling to Extraction	Extraction to Analysis
CHV-STK-ICR1-M23-COMBINED	22-Jun	6-Jul	15-Jul	14	9
CHV-STK-ICR2-M23-COMBINED	23-Jun	6-Jul	15-Jul	13	9
CHV-STK-ICR3-M23-COMBINED	27-Jun	6-Jul	15-Jul	9	9
CHV-STK-ICRFB-M23-COMBINED	26-Jun	6-Jul	15-Jul	10	9

Blank Results

	Analytical Result (pg/sample)		
	CHV-STK-ICRFB-M23-COMBINED	Laboratory Blank Batch 1187028	Range of Field Samples
PCB 77 (BZ)	<0.0057	0.0062*	0.014* - 0.022
PCB 81 (BZ)	<0.006	<0.0052	
PCB 105 (BZ)	0.038	<0.0049	0.033* - 0.1*
PCB 114 (BZ)	<0.0057	<0.0048	
PCB 118 (BZ)	0.068*	<0.005	0.11 - 0.27
PCB 123 (BZ)	<0.0061	<0.0056	
PCB 126 (BZ)	<0.0052	<0.0046	
PCB 156 (BZ)	<0.0088	<0.0086	
PCB 157 (BZ)	<0.0088	<0.0086	
PCB 167 (BZ)	<0.0066	<0.006	
PCB 169 (BZ)	<0.0063	<0.0057	

PCB 189 (BZ)	<0.0056	<0.005	

* - Value reported is Estimated Maximum Possible Concentration (EMPC)

Laboratory Check Sample (LCS) and Laboratory Check Sample Duplicate (LCSD) Results

	Laboratory Check Sample Batch 1187028			
	LCS Recovery (%)	LCSD Recovery (%)	Specification	
			(Recovery, %)	RPD (%)
PCB 77 (BZ)	98	99	50-150	50
PCB 81 (BZ)	99	97	50-150	50
PCB 105 (BZ)	112	110	50-150	50
PCB 114 (BZ)	114	114	50-150	50
PCB 118 (BZ)	112	114	50-150	50
PCB 123 (BZ)	128	123	50-150	50
PCB 126 (BZ)	106	107	50-150	50
PCB 156 (BZ)	113	113	50-150	50
PCB 157 (BZ)	113	113	50-150	50
PCB 167 (BZ)	116	116	50-150	50
PCB 169 (BZ)	104	105	50-150	50
PCB 189 (BZ)	114	113	50-150	50

Internal Standard and Surrogate Spike Recovery

		CHV-STK-ICR1-M23-COMBINED	CHV-STK-ICR2-M23-COMBINED	CHV-STK-ICR3-M23-COMBINED	CHV-STK-ICRFB-M23-COMBINED	LCS Batch 1187028	LCSD Batch 1187028	Laboratory Blank Batch 1187028	A-6443, A-6444 MEDIA CHECK
Internal Standards	$^{13}C_{12}$-PCB 3	66	69	66	75	78	82	83	96
	$^{13}C_{12}$-PCB 15	80	77	71	72	80	80	79	90
	$^{13}C_{12}$-PCB 77	94	88	81	86	102	99	96	109
	$^{13}C_{12}$-PCB 105	91	87	82	86	92	93	93	108
	$^{13}C_{12}$-PCB 114	91	87	82	83	91	93	91	107
	$^{13}C_{12}$-PCB 118	89	84	80	82	88	90	89	104
	$^{13}C_{12}$-PCB 123	86	83	78	82	87	88	86	101
	$^{13}C_{12}$-PCB 126	89	87	85	92	96	98	98	115
	$^{13}C_{12}$-PCB 156	107	101	102	107	110	117	108	134
	$^{13}C_{12}$-PCB 157	107	101	102	107	110	117	108	134
	$^{13}C_{12}$-PCB 167	105	97	95	97	107	109	105	119
	$^{13}C_{12}$-PCB 169	97	92	93	98	104	106	109	118
	$^{13}C_{12}$-PCB 170	101	94	88	94	101	103	102	114
	$^{13}C_{12}$-PCB 189	105	99	95	98	108	109	106	123
	$^{13}C_{12}$-PCB 206	105	98	96	99	110	110	109	128
	$^{13}C_{12}$-PCB 209	92	88	86	93	97	99	99	116
	$^{13}C_{12}$-PCB 81	90	86	79	83	98	97	92	104
	$^{13}C_{12}$-PCB 208	98	92	89	95	101	104	104	118
	$^{13}C_{12}$-PCB 4	76	74	74	77	81	86	86	100
	$^{13}C_{12}$-PCB 1	60	69	62	81	84	90	91	105
	$^{13}C_{12}$-PCB 19	82	76	75	77	84	86	85	96
	$^{13}C_{12}$-PCB 54	108	101	100	98	112	115	115	129
	$^{13}C_{12}$-PCB 202	108	101	92	99	109	112	109	124
	$^{13}C_{12}$-PCB 37	85	82	77	77	92	91	87	100
	$^{13}C_{12}$-PCB 104	88	83	82	82	84	88	90	102
	$^{13}C_{12}$-PCB 155	99	93	90	91	99	101	100	115
	$^{13}C_{12}$-PCB 188	101	95	87	89	95	99	99	113
	$^{13}C_{12}$-PCB 205	106	99	96	105	108	110	109	129
Pre-Sampling Surrogates	$^{13}C_{12}$-PCB 28	84	83	79	74	84	85	83	96
	$^{13}C_{12}$-PCB 95	104	101	97	100	--	--	--	--
	$^{13}C_{12}$-PCB 153	114	111	109	104	--	--	--	--
	$^{13}C_{12}$-PCB 111	99	95	90	89	97	97	98	112
	$^{13}C_{12}$-PCB 178	90	88	79	80	86	89	84	96
	$^{13}C_{12}$-PCB 8	106	101	105	103	--	--	--	--
	$^{13}C_{12}$-PCB 79	110	109	108	108	--	--	--	--

Data Quality Assessment
Analysis of Stack Gas for Hydrogen Chloride, Hydrogen Fluoride and Chlorine

Parameter	Hydrogen Chloride, Hydrogen Fluoride and Chlorine in Stack Gas
Sampling Method	EPA Method 26A
Analytical Method	Ion Chromatography, EPA Method 26A
Laboratory Project ID Number(s)	0611-24
Sample Shipping and Receipt	Sample received intact and at ambient temperature.
Holding Time(s)	All samples prepared and analyzed within 20 days of sample collection. The test plan specifies analysis within 14 days. See table below.
Blank Results	No chloride was detected in laboratory or field blanks. Fluoride was detected in the field blank and in one reagent blank at levels below the levels in the field samples. See table below.
Laboratory Check Sample (LCS) Results	All LCS recoveries are between 95 and 105%. See table below.
Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results	All recoveries are between 90 and 115%: all RPDs are less than 5%. The test plan specifies recovery between 75 and 125% and <25% RPD. See table below.
Duplicate Analyses	All samples analyzed in duplicate. 15 of 17 samples had duplicates meeting the method specification of 5% difference from the mean. The two outliers were results near the detection limit with 5.4 and 8.1% difference from the mean. See table below.
Conclusions and Comments	These data are acceptable for the intended purpose. Although the samples were analyzed outside the plan-specified holding time of 14 days, they were analyzed within the 4-week window allowed by EPA Method 26A. No data are qualified based on this finding. The results for fluoride in the blank samples indicate that the field results may have a positive bias. As the data are not corrected, the emissions estimates are conservative. No data are qualified based on the blank results. Although two samples had precision outside method acceptance, these results are very near the detection limit. At these levels, the results carry a "J" flag, and are expected to have increased imprecision. No data are qualified based on these results.

Holding Time

	Sample Date	Analysis Date	Holding Time (Days)
CHV-Stk-ICR1-M26A-AcdImp	22-Jun	11-Jul	19
CHV-Stk-ICR1-M26A-AlkImp	22-Jun	12-Jul	20
CHV-Stk-ICR2-M26A-AcdImp	22-Jun	11-Jul	19
CHV-Stk-ICR2-M26A-AlkImp	22-Jun	12-Jul	20
CHV-Stk-ICR3-M26A-AcdImp	23-Jun	11-Jul	18
CHV-Stk-ICR3-M26A-AlkImp	23-Jun	12-Jul	19
CHV-Stk-ICRFB-M26A-AcdImp	23-Jun	11-Jul	18
CHV-Stk-ICRFB-M26A-AlkImp	23-Jun	12-Jul	19
CHV-Stk-ICRRB-M26A-Water	26-Jun	11-Jul	15
CHV-Stk-ICRRB-M26A-NaOH Soln	26-Jun	12-Jul	16
CHV-Stk-ICRRB-M26A-H2SO4 Soln	26-Jun	11-Jul	15

Blank Results

	Analytical Result (µg/sample)		
	Hydrogen Chloride	Hydrogen Fluoride	Chlorine
CHV-Stk-ICRFB-M26A-AcdImp	<67	**114**	
CHV-Stk-ICRFB-M26A-AlkImp			<40
CHV-Stk-ICRRB-M26A-Water	<1.1	**25.3**	
CHV-Stk-ICRRB-M26A-NaOH Soln			<20
CHV-Stk-ICRRB-M26A-H2SO4 Soln	<26	<27	
Laboratory Blank	<0.010	<0.010	
Laboratory Blank			<0.010

Laboratory Check Sample (LCS) Results

		Hydrogen Chloride	Hydrogen Fluoride	Chlorine
LCS	LCS Recovery (%)	104	97.3	--
LCS	LCS Recovery (%)	104	96.5	99

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

		Hydrogen Chloride	Hydrogen Fluoride	Chlorine
CHV-Stk-ICR1-M26A-AcdImp	Sample Result (µg/sample)	1.49	0.324	--
	Spike Amount (µg/sample)	30.8	31.6	--
	MS Result (µg/sample)	32.1	35.3	--
	MSD Result (µg/sample)	32.2	35.3	--

	MS Recovery (%)	99.4	111	--
	MSD Recovery (%)	99.4	111	--
	Relative Percent Difference (%)	0.3	0	--
CHV-Stk-ICR1-M26A-AlkImp	Sample Result (µg/sample)	--	--	0.00
	Spike Amount (µg/sample)	--	--	30.0
	MS Result (µg/sample)	--	--	29.1
	MSD Result (µg/sample)	--	--	29.1
	MS Recovery (%)	--	--	97.1
	MSD Recovery (%)	--	--	97.1
	Relative Percent Difference (%)	--	--	0

Data Quality Assessment
Collection of Stack Gas in all Non-Isokinetic Sampling Trains

Analyte(s)	Method(s)
Selected VOC	Method 18 bag
Selected VOC	Method 18 sorbent
Methanol	Method 308

Sample Collection	Minimum Sample Volume	Most trains met specifications. See table below.
	Minimum Sample Duration	All trains met specifications. See table below.
Leak Checks	Sampling Train – Pre Test	All runs met specifications.
Sampling Documentation	Documentation of Calibration	Dry gas meters and temperature readouts were calibrated. Calibration met all applicable specifications.
	Correct Calibration Factors Used	Yes
	Completed Data Sheets – Sample Collection	All required information collected on sampling data sheets.
	Completed Data Sheets – Sample Recovery	All required information collected on recovery data sheets.
Conclusions and Comments	These data are acceptable for the intended purpose. Although 4 bag samples collected less sample volume than specified, there was sufficient sample in the bag for analysis, and the data are considered representative. No data are qualified based on this finding.	

Sampling Details

	Method 18 Bag	Method 18 Sorbent	Method 308
Sample Volume			
Target	6 L	90 L	90 L
Achieved	2 runs of 6 [1]	Yes	Yes
Sampling Duration			
Target	1 hr	1.5 hr	1.5 hr
Achieved	Yes	Yes	Yes
Data Sheets Complete			
Sample Collection			Yes
Train Recovery			Yes
Train Leak Checks			
pre	Yes	Yes	Yes

[1] These ranged from 4.7 to 6.4 liters

Data Quality Assessment

Analysis of Stack Gas for Selected Organic Compounds

Bag Sample

Parameter	1,3-Butadiene, acrolein, acetone, pentane, methylene chloride, hexane, benzene, trichloroethene, toluene, 1,2-dibromethane, tetrachloroethene Carbon disulfide
Sampling Method	EPA Method 18
Analytical Method	GC
Work Order Number(s)	0611-22
Holding Time(s)	All bag samples prepared and analyzed within 64 hours of sample collection. See table below Test plan specifies analysis within 24 hours.
Blank Results	Nothing was observed in any blank samples.
Replicate Analysis	All samples analyzed in triplicate. Results show good repeatability with all difference from the mean below 5%. Details are in the appended laboratory report.
Spike Results	Per EPA Method 18, bags were spiked with several analytes of interest, and analyzed. Matrix spiked samples were all held for longer than the samples themselves. Bag samples were spiked with 1,3-Butadiene, acrolein, acetone, methylene chloride, hexane, benzene, trichloroethene, and toluene With the exception of 1,3-butadiene, recovery of all spiked species was measured between 70 and 130%. For the spiked compounds, the results were corrected for spike recovery. For non-spiked compounds, all results are reported un corrected (as if there were 100% spike recovery). Recovery of 1,3-butadiene was measured at 55%. The bag samples were not spiked with acetonitrile, acrylonitrile, pentane, 1,2-dibromomethane, tetrachloroethene or carbon disulfide. See table below.
Other Observations	The test plan specifies the use of flex film bags for sample collection. Tedlar bags were used instead, based on laboratory recommendation about the sturdiness of flex-film bags. As recoveries are acceptable, no data are flagged based on this observation.

Conclusions and Comments	These data are acceptable for the intended purpose. Although the samples were analyzed outside the time specified in the test plan, the spiked samples were analyzed at a holding time longer than the samples, as specified in EPA Method 18. No data are qualified based on holding time. The low recovery of 1,3-butadiene indicated increased uncertainty in these results. However, since the results are corrected for the low recovery, there may not be a bias in the data.

Holding Time

Sample ID	Sample Date and Time	Analysis Date and Time		Holding Time (Hours)	
		All analytes except CS_2	Carbon Disulfide	All analytes except CS_2	Carbon Disulfide
CHV-Stk-ICR1-M18b-Bag A	6/27/11 11:05	6/29/11 15:32	6/30/11 10:01	46.45	64.9
CHV-Stk-ICR2-M18b-Bag A	6/28/11 12:33	6/30/11 12:27	6/30/11 18:29	41.9	47.9
CHV-Stk-ICR3-M18b-Bag A	6/29/11 10:12	7/1/11 12:06	7/1/11 14:14	43.9	46.0

Spike Recovery

Analyte	Spike Recovery (%)
1,3-Butadiene	55.5
Acrolein	95.6
Acetone	108
Methylene chloride	103
Hexane	113
Benzene	106
Trichloroethene	109
Toluene	103

Data Quality Assessment

Analysis of Stack Gas for Volatile Organic Species

Sorbent Tube Samples

Parameter	Volatile Organic Compounds in Stack Gas Acetonitrile, acrylonitrile, methy t-butyl ether, 2-nitropropane, isooctane, methyl isobutyl ketone, chlorobenzene, ethylbenzene, p/m-xylene, styrene, o-xylene, cumene, nitorbenzne
Sampling Method	EPA Method 18
Analytical Method	EPA method 18
Laboratory Job ID Number(s)	0611-22
Sample Shipping and Receipt	All samples received intact. Different packages received at 3°C, 10°C and 19°C. Test plan specifies 4°C.
Holding Time(s)	All samples analyzed within 22 days of sample collection. Test plan specifies analysis within 14 days of sample collection. See table below
Blank Results	No target analyte was measured in any laboratory blank or field blank.
Breakthrough	Breakthrough is assessed across the XAD-4 sorbent (front half and back half of the sorbent trap and across the charcoal (front half and back half). In addition, breakthrough is assessed across all four sorbent fractions. See table below. In most cases, the breakthrough across the XAD-4 or charcoal was below 25%. In three cases, the breakthrough across the whole train exceeded 25%. These are all three runs for acetonitrile.
Spiked Sample Recovery	Eleven of thirteen target analytes had spike recoveries within 70-130%. The outliers are acetonitrile (28.4%) and styrene (10.7%).
Replicate Analysis	Every analysis was performed in triplicate. 594 of 615 triplicate analyses had differences from the mean result that did not exceed 5%. The 21 outliers were distributed as follows: • Acrylonitrile, 2 occurrences • Methyl tert-butyl ether, 7 occurrences • 2-Nitropropane, 1 occurrence • Isooctane, 6 occurrences • Methyl isobutyl ketone, 2 occurrences • Chlorobenzene, 1 occurrence • Styrene, 1 occurrence • Cumene, 1 occurrence In every case, these outliers were associated with analyses between the method detection limit (MDL) and the lowest calibration standard. In addition, separate analytical aliquots were prepared of two different samples. All RPDs for these were less than 10%.

Laboratory Check Sample (LCS) Results	Spiked sorbent tubes or laboratory media were analyzed to assess overall laboratory analytical recovery. A second source standard was analyzed with each batch. Except as noted, recovery of all analytes in all these samples is between 80 and 120%. • Acetonitrile, aqueous LCS, 0% recovery • Acrylonitrile, aqueous LCS, 15-20% recovery • 2-Nitropropane, aqueous LCS, 65-70% recovery LCS were prepared with the raffinate samples analyzed for acetonitrile and acrylonitrile. These recoveries ranged from 75 to 95%.
Conclusions and Comments	With the exceptions noted below, these data are acceptable for the intended purpose. Although some of the samples arrived at temperatures outside the specification, there is no indication of sample degradation. Except as noted, spike recoveries met method specification, and results from all runs were similar. No data are qualified based on preservation. Although the samples were analyzed outside the time specification in the test plan, they were analyzed within the time allowed by EPA Method 18. No data are qualified based on holding time. The consistent breakthrough of approximately 35% or more of the acetonitrile found in the sampling train suggests that there may be significant loss of acetonitrile from the sampling train. This is consistent with the low spike recovery and low LCS recoveries. The spike recoveries outside acceptance criteria for acetonitrile and styrene indicate that these data may be questionable. As discussed in the body of the report, results for styrene were developed by an alternate methodology, FTIR. The FTIR results met all method specifications and are presented in the summary for these two compounds. The low spike recovery for acetonitrile, combined with the results for LCS recovery and breakthrough suggests that there may be significant loss of acetonitrile in results for field samples. The extremely low LCS recovery for acetonitrile suggests that there may be significant loss of acetonitrile in results for field samples. The low recoveries for acrylonitrile and 2-nitropropane in LCS samples suggest that there may be losses in field samples. However, recovery of field spikes for both of these species are acceptable. Data for 2-nitropropane and acrylonitrile are not qualified based on LCS recovery. Results for acetonitrile are rejected, based on low LCS recovery, low field spike recovery and breakthrough. As noted above, all the replicate results outside acceptance criteria were associated with results between the method detection limit and the lowest calibration standard. Increased imprecision is expected at these low levels. No data are qualified or invalidated based on replicate results.

Holding Time

	Sample Date	Analysis Date	Holding Time (Days)
CHV-Stk-ICR1-M18s-CondA	27-Jun	12-Jul	15
CHV-Stk-ICR1-M18s-XAD-FH	27-Jun	12-Jul	15
CHV-Stk-ICR1-M18s-XAD-BH	27-Jun	12-Jul	15
CHV-Stk-ICR1-M18s-Char-FH	27-Jun	12-Jul	15
CHV-Stk-ICR1-M18s-Char-BH	27-Jun	12-Jul	15
CHV-Stk-ICR1-M18s-Raff	27-Jun	20-Jul	23
CHV-Stk-ICR1S-M18s-CondA	27-Jun	13-Jul	16
CHV-Stk-ICR1S-M18s-XAD-FH	27-Jun	13-Jul	16
CHV-Stk-ICR1S-M18s-XAD-BH	27-Jun	13-Jul	16
CHV-Stk-ICR1S-M18s-Char-FH	27-Jun	13-Jul	16
CHV-Stk-ICR1S-M18s-Char-BH	27-Jun	13-Jul	16
CHV-Stk-ICR1S-M18s-Raff	27-Jun	20-Jul	23
CHV-Stk-ICR2-M18s-CondA	28-Jun	13-Jul	15
CHV-Stk-ICR2-M18s-XAD-FH	28-Jun	13-Jul	15
CHV-Stk-ICR2-M18s-XAD-BH	28-Jun	13-Jul	15
CHV-Stk-ICR2-M18s-Char-FH	28-Jun	13-Jul	15
CHV-Stk-ICR2-M18s-Char-BH	28-Jun	13-Jul	15
CHV-Stk-ICR2-M18s-Raff	28-Jun	20-Jul	22
CHV-Stk-ICR2S-M18s-CondA	28-Jun	13-Jul	15
CHV-Stk-ICR2S-M18s-XAD-FH	28-Jun	13-Jul	15
CHV-Stk-ICR2S-M18s-XAD-BH	28-Jun	13-Jul	15
CHV-Stk-ICR2S-M18s-Char-FH	28-Jun	13-Jul	15
CHV-Stk-ICR2S-M18s-Char-BH	28-Jun	13-Jul	15
CHV-Stk-ICR2S-M18s-Raff	28-Jun	20-Jul	22
CHV-Stk-ICR3-M18s-CondA	29-Jun	14-Jul	15
CHV-Stk-ICR3-M18s-XAD-FH	29-Jun	14-Jul	15
CHV-Stk-ICR3-M18s-XAD-BH	29-Jun	14-Jul	15
CHV-Stk-ICR3-M18s-Char-FH	29-Jun	14-Jul	15
CHV-Stk-ICR3-M18s-Char-BH	29-Jun	14-Jul	15
CHV-Stk-ICR3-M18s-Raff	29-Jun	20-Jul	21
CHV-Stk-ICR3S-M18s-CondA	29-Jun	14-Jul	15
CHV-Stk-ICR3S-M18s-XAD-FH	29-Jun	14-Jul	15
CHV-Stk-ICR3S-M18s-XAD-BH	29-Jun	14-Jul	15
CHV-Stk-ICR3S-M18s-Char-FH	29-Jun	14-Jul	15
CHV-Stk-ICR3S-M18s-Char-BH	29-Jun	14-Jul	15
CHV-Stk-ICR3S-M18s-Raff	29-Jun	20-Jul	21

Breakthrough

	Analytical Result (µg/sample)				Breakthrough (% of total mass)		
	XAD FH	XAD-BH	Char FH	Char BH	XAD	Charcoal	Overall
Acetonitrile							
CHV-Stk-ICR1-M18s	ND	ND	ND	ND	NC	NC	NC
CHV-Stk-ICR1s-M18s	ND	ND	20.9	11.3	NC	**35.1**	**35.1**
CHV-Stk-ICR2-M18s	ND	ND	ND	ND	NC	NC	NC
CHV-Stk-ICR2s-M18s	ND	ND	22.1	13.3	NC	**37.6**	**37.6**
CHV-Stk-ICR3-M18s	ND	ND	ND	ND	NC	NC	NC
CHV-Stk-ICR3s-M18s	ND	ND	32.3	18.8	NC	**36.8**	**36.8**
Acrylonitrile							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	ND	ND	177	3.35	NC	1.9	1.9
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	ND	ND	175	7.45	NC	4.1	4.1
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	ND	ND	175	3.3	NC	1.9	1.9
Methyl t-butyl ether							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	2.06	0.978	19.2	ND	**32.2**	0.0	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	0.992	0.957	18.7	ND	**49.1**	0.0	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	2.04	1.22	18.1	ND	**37.4**	0.0	0.0
2-Nitropropane							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	8.62	4.26	12.5	ND	**33.1**	0.0	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	7.62	4.49	12.9	ND	**37.1**	0.0	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	9.62	4.57	11.7	ND	**32.2**	0.0	0.0
Isooctane							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	22.5	1.38	0.78	ND	5.8	0.0	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	21.9	1.62	1.04	ND	6.9	0.0	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	22.3	1.18	ND	ND	5.0	NC	0.0

	Analytical Result (µg/sample)				Breakthrough (% of total mass)		
	XAD FH	XAD-BH	Char FH	Char BH	XAD	Charcoal	Overall
Methyl iso-butyl Ketone							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	21.0	1.3	ND	ND	5.8	NC	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	20.2	1.38	ND	ND	6.4	NC	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	20.8	0.977	ND	ND	4.5	NC	0.0
Chlorobenzene							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	31.8	1.68	ND	ND	5.0	NC	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	32.1	1.9	ND	ND	5.6	NC	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	32.7	1.49	ND	ND	4.4	NC	0.0
Ethylbenzene							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	22.3	ND	ND	ND	0.0	NC	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	19.4	ND	ND	ND	0.0	NC	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	19.0	ND	ND	ND	0.0	NC	0.0
m/p-Xylene							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	38.6	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	35.2	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	34.3	ND	ND	ND	0	NC	0.0
Styrene							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	4.89	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	2.16	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	1.66	ND	ND	ND	0	NC	0.0
o-Xylene							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	23.9	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	22.1	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	21.7	ND	ND	ND	0	NC	0.0

	Analytical Result (µg/sample)				Breakthrough (% of total mass)		
	XAD FH	XAD-BH	Char FH	Char BH	XAD	Charcoal	Overall
Cumene							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	23.1	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	20.5	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	20.3	ND	ND	ND	0	NC	0.0
Nitrobenzene							
ShellICR-CR3-Stk-11-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-11-M18-Spiked	34.4	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-12-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-12-M18-Spiked	35	ND	ND	ND	0	NC	0.0
ShellICR-CR3-Stk-13-M18-Unspiked	ND	ND	ND	ND	NC	NC	NC
ShellICR-CR3-Stk-13-M18-Spiked	35.1	ND	ND	ND	0	NC	0.0

Spiked Sample Recovery

	Spike Amount (µg)	Analytical Result (µg/sample)		Recovery (%)	Average Recovery (%)
		Unspiked Sample	Spiked Sample		
Acetonitrile					
ShellICR-CR3-Stk-11-M18	235	ND	49.3	21.0	**28.4**
ShellICR-CR3-Stk-12-M18	235	ND	60.8	25.8	
ShellICR-CR3-Stk-13-M18	235	ND	90.2	38.3	
Acrylonitrile					
ShellICR-CR3-Stk-11-M18	236	ND	181	76.6	76.5
ShellICR-CR3-Stk-12-M18	236	ND	182	77.4	
ShellICR-CR3-Stk-13-M18	236	ND	178	75.5	
Methyl t-butyl ether					
ShellICR-CR3-Stk-11-M18	22.1	ND	22.2	100.2	96.6
ShellICR-CR3-Stk-12-M18	22.1	ND	20.6	93.1	
ShellICR-CR3-Stk-13-M18	22.1	ND	21.3	96.4	
2-Nitropropane					
ShellICR-CR3-Stk-11-M18	29	ND	25.4	87.4	87.5
ShellICR-CR3-Stk-12-M18	29	ND	25.0	86.1	
ShellICR-CR3-Stk-13-M18	29	ND	25.9	89.1	
Isooctane					
ShellICR-CR3-Stk-11-M18	24.1	ND	24.7	102	100.5
ShellICR-CR3-Stk-12-M18	24.1	ND	24.5	102	
ShellICR-CR3-Stk-13-M18	24.1	ND	23.5	97.4	

		Spike Amount (µg)	Analytical Result (µg/sample)		Recovery (%)	Average Recovery (%)
			Unspiked Sample	Spiked Sample		
Methyl iso-butyl Ketone						
	ShellICR-CR3-Stk-11-M18	23.9	ND	22.3	93.5	91.6
	ShellICR-CR3-Stk-12-M18	23.9	ND	21.6	90.3	
	ShellICR-CR3-Stk-13-M18	23.9	ND	21.7	91.0	
Chlorobenzene						
	ShellICR-CR3-Stk-11-M18	33.2	ND	33.4	100.7	102.1
	ShellICR-CR3-Stk-12-M18	33.2	ND	34.0	102.6	
	ShellICR-CR3-Stk-13-M18	33.2	ND	34.2	103	
Ethylbenzene						
	ShellICR-CR3-Stk-11-M18	26.0	ND	22.3	85.7	77.9
	ShellICR-CR3-Stk-12-M18	26.0	ND	19.4	74.9	
	ShellICR-CR3-Stk-13-M18	26.0	ND	19.0	73.1	
m/p-Xylene						
	ShellICR-CR3-Stk-11-M18	43.0	ND	38.6	89.9	83.9
	ShellICR-CR3-Stk-12-M18	43.0	ND	35.2	81.9	
	ShellICR-CR3-Stk-13-M18	43.0	ND	34.3	79.9	
Styrene						
	ShellICR-CR3-Stk-11-M18	27.2	ND	4.89	18.0	**10.7**
	ShellICR-CR3-Stk-12-M18	27.2	ND	2.16	7.9	
	ShellICR-CR3-Stk-13-M18	27.2	ND	1.66	6.1	
o-Xylene						
	ShellICR-CR3-Stk-11-M18	26.3	ND	23.9	90.7	85.7
	ShellICR-CR3-Stk-12-M18	26.3	ND	22.1	84.0	
	ShellICR-CR3-Stk-13-M18	26.3	ND	21.7	82.3	
Cumene						
	ShellICR-CR3-Stk-11-M18	26.0	ND	23.1	89.0	82.0
	ShellICR-CR3-Stk-12-M18	26.0	ND	20.5	78.7	
	ShellICR-CR3-Stk-13-M18	26.0	ND	20.3	78.3	
Nitrobenzene						
	ShellICR-CR3-Stk-11-M18	36.1	ND	34.4	95.4	96.7
	ShellICR-CR3-Stk-12-M18	36.1	ND	35.0	97.1	
	ShellICR-CR3-Stk-13-M18	36.1	ND	35.1	97.5	

Data Quality Assessment
Analysis of Stack Gas for Volatile Organics

Parameter	Methane and Ethane in Stack Gas (bag samples)
Sampling Method	Method 18
Analytical Method	GC
Holding Time(s)	All samples prepared and analyzed real time.
Calibration	Instrument calibrated before test effort. Average of three injections met method specifications. Instrument calibrated after test effort. Post-test calibration met method specifications. See tables below.
Recovery Study	Analytes recovered within method specifications.
Replicate Analysis	Multiple analyses conducted within each test run. Results show good repeatability.
Conclusions and Comments	These data are acceptable for the intended purpose.

Pre-Test Calibration

	Run	Date	Injection Volume (µL)	Injection 1		Injection 2		Injection 3		Average
				Area Counts	Diff from Mean (%)	Area Counts	Diff from Mean (%)	Area Counts	Diff from Mean (%)	Area Counts
Methane	8	6/27/11	200	137	0.307	136	0.164	136	0.143	137
			350	226	0.444	228	0.359	227	0.0847	227
			600	360	0.604	356	1.72	371	2.32	362
	9	6/28/11	200	148	0.114	147	0.118	148	0.00450	148
			350	244	0.114	245	0.353	244	0.239	244
			600	385	0.506	377	1.79	388	1.29	384
	11	6/29/11	200	158	0.106	158	0.109	157	0.215	157
			350	260	0.331	262	0.341	261	0.0101	261
			600	418	0.356	414	0.608	417	0.253	416
Ethane	8	6/27/11	200	244	0.344	243	0.197	243	0.147	243
			350	412	0.503	410	0.00658	408	0.509	410
			600	713	0.428	716	0.848	701	1.28	710
	9	6/28/11	200	263	0.0252	263	0.171	262	0.196	263
			350	448	0.695	445	0.0637	442	0.632	445
			600	757	0.156	756	0.0593	754	0.215	755
	11	6/29/11	200	281	0.109	281	0.129	281	0.0193	281
			350	481	0.213	479	0.121	480	0.0920	480
			600	818	0.794	810	0.162	806	0.632	811

Post-Test Calibration Results

	Run	Date	Inj Vol (µL)	Sequence	Injection 1		Injection 2		Injection 3		Average (1-3) Area Counts	Average (Pre/Post) Area Counts	RPD (%)
					Area Counts	Diff from Mean (%)	Area Counts	Diff from Mean (%)	Area Counts	Diff from Mean (%)			
Methane	8	6/27/11	350	Pre-Test	226	0.444	228	0.359	227	0.0847	227	226	0.784
				Post-Test	224	0.606	225	0.0689	227	0.675	225		
	9	6/27/11	350	Pre-Test	244	0.114	245	0.353	244	0.239	244	244	0.439
				Post-Test	243	0.167	243	0.122	244	0.289	243		
	11	6/29/11	350	Pre-Test	260	0.331	262	0.341	261	0.0101	261	261	0.457
				Post-Test	258	0.711	261	0.331	261	0.380	260		
Ethane	8	6/27/11	350	Pre-Test	412	0.503	410	0.00658	408	0.509	410	418	3.86
				Post-Test	465	9.22	406	4.64	407	4.58	426		
	9	6/27/11	350	Pre-Test	448	0.695	445	0.0637	442	0.632	445	444	0.438
				Post-Test	441	0.381	442	0.145	445	0.526	443		
	11	6/29/11	350	Pre-Test	481	0.213	479	0.121	480	0.0920	480	478	0.822
				Post-Test	474	0.328	478	0.465	475	0.136	476		

Recovery Study

	Run	Date	Injection Volume (uL)	Sequence	Injection 1		Injection 2		Injection 3		Average (1-3) Area Counts	Average Area Counts	RPD (%)
					Area Counts	RPD (%)	Area Counts	RPD (%)	Area Counts	RPD (%)			
Methane	**8**	6/27/11	350	Pre-Test	226	0.444	228	0.359	227	0.0847	227	221	5.16
				Recovery	212	1.74	211	2.17	224	3.91	216		
	9	6/27/11	350	Pre-Test	244	0.114	245	0.353	244	0.239	244	238	5.43
				Recovery	231	0.221	227	1.85	236	2.07	231		
	11	6/29/11	350	Pre-Test	260	0.331	262	0.341	261	0.0101	261	254	5.40
				Recovery	248	0.0909	245	0.898	250	0.807	248		
Ethane	**8**	6/27/11	350	Pre-Test	412	0.503	410	0.00658	408	0.509	410	398	6.22
				Recovery	380	1.42	378	1.90	398	3.31	385		
	9	6/27/11	350	Pre-Test	448	0.695	445	0.0637	442	0.632	445	429	7.48
				Recovery	411	0.427	406	1.58	421	2.01	413		
	11	6/29/11	350	Pre-Test	481	0.213	479	0.121	480	0.0920	480	463	7.25
				Recovery	450	0.833	443	0.816	446	0.0170	446		

Data Quality Assessment
Stack Gas Continuous Emission Monitors

Parameter(s)	Oxygen, Carbon Dioxide, Total Hydrocarbon
Method(s)	EPA Methods 3A, 25A
Calibration Gas	Spans were set appropriately; gases were of appropriate and documented quality. Correct values of all calibration gases used in all calculations. See CEM data in appendix.
Interference	All analyzers used met the interference check criteria.
Stratification Check	Stratification check performed using one analyte (oxygen). Results of stratification check used to determine number of sampling points. See table below.
Calibration Error	All calibration error checks met method specifications. See tables below.
System Bias	All system bias checks met method specifications. See tables below.
Drift	All drift checks met the method specifications. See tables below
Conclusions and Comments	These data are acceptable for the intended purpose.

Stratification Check Results– Oxygen

Date	Traverse Point	Oxygen Concentration (%)	Difference from Mean (%)	% Difference from Mean
6/22/2011	**1**	13.46	0.26	1.97
	2	13.25	0.05	0.41
	3	12.89	0.31	2.38
Mean Concentration of all Traverse Points		13.20		
Do the concentrations at each traverse point differ from the mean concentration by no more than (a) ±5.0% of the mean or (b) ±0.5 ppm (whichever is less restrictive)?		YES	**Use 1 point**	

Calibration Error Test Results – Oxygen – Method 3A

	Cylinder ID	Certified Value (%)	Time	CEM Response (%)	Absolute Difference (%)	Calibration Error (% of Span) 2% Limit

22 June 2011 Runs 1 and 2	ASZ788	0.00	12:34	-0.05	0.05	0.21%
	CC82073	22.10	12:35	22.05	0.05	0.21%
	CC67546	11.10	12:37	11.11	0.01	0.06%
23 June 2011 Run 3	ASZ788	0.00	09:05	-0.04	0.04	0.18%
	CC82073	22.10	09:07	22.14	0.04	0.17%
	CC67546	11.10	09:08	11.16	0.06	0.26%
24 June 2011 Runs 5 and 6	ASZ788	0.00	08:56	-0.03	0.03	0.13%
	CC82073	22.10	08:57	22.14	0.04	0.19%
	CC67546	11.10	08:58	11.16	0.06	0.27%
26 June 2011 Run 7	ASZ788	0.00	08:40	-0.02	0.02	0.09%
	CC82073	22.10	08:41	22.15	0.05	0.21%
	CC67546	11.10	08:42	11.17	0.07	0.33%
27 June 2011 Run 8	ASZ788	0.00	08:14	-0.01	0.01	0.03%
	CC82073	22.10	08:15	22.10	0.00	0.02%
	CC67546	11.10	08:17	11.13	0.03	0.15%
28 June 2011 Runs 9 and 10	ASZ788	0.00	10:13	-0.08	0.08	0.34%
	CC82073	22.10	10:14	22.06	0.04	0.19%
	CC67546	11.10	10:16	11.11	0.01	0.03%
29 June 2011 Run 11	ASZ788	0.00	08:20	-0.01	0.01	0.04%
	CC82073	22.10	08:22	22.08	0.02	0.08%
	CC67546	11.10	08:23	11.13	0.03	0.14%
30 June 2011 Run 12	ASZ788	0.00	08:25	0.00	0.00	0.02%
	CC82073	22.10	08:27	22.16	0.06	0.29%
	CC67546	11.10	08:29	11.17	0.07	0.33%

Calibration Error Test Results – Carbon Dioxide – Method 3A

	Cylinder ID	Certified Value (%)	Time	CEM Response (%)	Absolute Difference (%)	Calibration Error (% of Span) 2% Limit
22 June 2011 Runs 1 and 2	ASZ788	0.00	12:34	0.08	0.08	0.40%
	CC82073	22.10	12:35	19.02	0.12	0.65%
	CC67546	11.10	12:37	9.91	0.17	0.88%
23 June 2011 Run 3	ASZ788	0.00	09:05	0.11	0.11	0.60%
	CC82073	22.10	09:07	19.14	0.24	1.29%
	CC67546	11.10	09:08	9.97	0.23	1.19%
24 June 2011 Runs 5 and 6	ASZ788	0.00	08:56	0.16	0.16	0.87%
	CC82073	22.10	08:57	19.15	0.25	1.32%
	CC67546	11.10	08:58	9.97	0.23	1.24%
26 June 2011 Run 7	ASZ788	0.00	08:40	0.11	0.11	0.56%
	CC82073	22.10	08:41	19.14	0.24	1.25%
	CC67546	11.10	08:42	9.99	0.25	1.30%
27 June 2011 Run 8	ASZ788	0.00	08:14	0.17	0.17	0.87%
	CC82073	22.10	08:15	19.01	0.11	0.60%
	CC67546	11.10	08:17	9.90	0.16	0.84%
28 June 2011 Runs 9 and 10	ASZ788	0.00	10:13	0.16	0.16	0.87%
	CC82073	22.10	10:14	19.04	0.14	0.75%
	CC67546	11.10	10:16	9.92	0.18	0.94%
29 June 2011 Run 11	ASZ788	0.00	08:20	0.13	0.13	0.68%
	CC82073	22.10	08:22	18.98	0.08	0.40%
	CC67546	11.10	08:23	9.91	0.17	0.89%
30 June 2011 Run 12	ASZ788	0.00	08:25	0.15	0.15	0.80%
	CC82073	22.10	08:27	18.98	0.08	0.43%
	CC67546	11.10	08:29	9.91	0.17	0.92%

System Bias– Oxygen, Method 3A

Run No.	Cylinder Value (%)	CEMS Response during Calibration Error Test (%)	Time	CEMs Response (%)	Bias (% of Span) 5% Limit
22 June 2011 Runs 1 and 2	0.00	-0.05	12:39	0.21	1.15%
	11.10	11.11	12:41	11.06	-0.27%
	0.00	-0.05	16:41	0.37	1.90%
	11.10	11.11	16:43	11.05	-0.29%
	0.00	-0.05	19:06	0.03	0.34%
	11.10	11.11	19:10	11.07	-0.20%
23 June 2011 Run 3	0.00	-0.04	09:10	0.06	0.43%
	11.10	11.16	09:12	11.10	-0.25%
	0.00	-0.04	13:11	0.03	0.30%
	11.10	11.16	13:13	11.05	-0.48%
24 June 2011 Runs 5 and 6	0.00	-0.03	09:00	0.08	0.51%
	11.10	11.16	09:01	11.10	-0.29%
	0.00	-0.03	13:41	0.04	0.30%
	11.10	11.16	13:43	11.04	-0.52%
	0.00	-0.03	19:45	0.05	0.34%
	11.10	11.16	19:46	11.05	-0.52%
26 June 2011 Run 7	0.00	-0.02	08:46	0.07	0.41%
	11.10	11.17	08:47	11.10	-0.35%
	0.00	-0.02	17:50	0.00	0.11%
	11.10	11.17	17:52	11.00	-0.78%
27 June 2011 Run 8	0.00	-0.01	08:20	0.10	0.46%
	11.10	11.13	08:22	11.09	-0.19%
	0.00	-0.01	13:51	0.01	0.09%
	11.10	11.13	13:58	10.94	-0.87%
28 June 2011 Runs 9 and 10	0.00	-0.08	10:21	0.05	0.56%
	11.10	11.11	10:22	11.04	-0.29%
	0.00	-0.08	17:11	0.04	0.52%
	11.10	11.11	17:13	11.01	-0.44%
	0.00	-0.08	19:23	0.03	0.49%
	11.10	11.11	19:25	11.03	-0.35%
29 June 2011 Run 11	0.00	-0.01	08:25	0.12	0.59%
	11.10	11.13	08:26	11.07	-0.29%
	0.00	-0.01	16:10	0.06	0.33%
	11.10	11.13	16:12	11.02	-0.49%
30 June 2011 Run 12	0.00	0.00	08:31	0.12	0.57%
	11.10	11.17	08:32	11.14	-0.16%
	0.00	0.00	12:14	0.02	0.11%
	11.10	11.17	12:16	11.06	-0.51%

System Bias– Carbon Dioxide, Method 3A

Run No.	Cylinder Value (%)	CEMS Response during Calibration Error Test (%)	Time	CEMs Response (%)	Bias (% of Span) 5% Limit
22 June 2011 Runs 1 and 2	0.00	0.08	12:39	0.50	2.22%
	9.74	9.91	12:41	9.80	-0.55%
	0.00	0.08	16:41	0.93	4.52%
	9.74	9.91	16:43	9.81	-0.50%
	0.00	0.08	19:06	0.08	0.04%
	9.74	9.91	19:10	9.84	-0.36%
23 June 2011 Run 3	0.00	0.11	09:10	0.12	0.03%
	9.74	9.97	09:12	9.88	-0.44%
	0.00	0.11	13:11	0.13	0.07%
	9.74	9.97	13:13	9.86	-0.55%
24 June 2011 Runs 5 and 6	0.00	0.16	09:00	0.19	0.12%
	9.74	9.97	09:01	9.88	-0.52%
	0.00	0.16	13:41	0.15	-0.05%
	9.74	9.97	13:43	9.88	-0.51%
	0.00	0.16	19:45	0.18	0.07%
	9.74	9.97	19:46	9.88	-0.50%
26 June 2011 Run 7	0.00	0.11	08:46	0.15	0.21%
	9.74	9.99	08:47	9.89	-0.50%
	0.00	0.11	17:50	0.17	0.33%
	9.74	9.99	17:52	9.91	-0.39%
27 June 2011 Run 8	0.00	0.17	08:20	0.12	-0.23%
	9.74	9.90	08:22	9.80	-0.51%
	0.00	0.17	13:51	0.18	0.09%
	9.74	9.90	13:58	9.85	-0.25%
28 June 2011 Runs 9 and 10	0.00	0.16	10:21	0.16	-0.02%
	9.74	9.92	10:22	9.82	-0.52%
	0.00	0.16	17:11	0.23	0.36%
	9.74	9.92	17:13	9.81	-0.56%
	0.00	0.16	19:23	0.19	0.12%
	9.74	9.92	19:25	9.81	-0.55%
29 June 2011 Run 11	0.00	0.13	08:25	0.15	0.10%
	9.74	9.91	08:26	9.79	-0.64%
	0.00	0.13	16:10	0.26	0.71%
	9.74	9.91	16:12	9.81	-0.50%
30 June 2011 Run 12	0.00	0.15	08:31	0.18	0.13%
	9.74	9.91	08:32	9.84	-0.41%
	0.00	0.15	12:14	0.23	0.41%
	9.74	9.91	12:16	9.85	-0.34%

Drift Tests – Oxygen, Method 3A

Run No.	Cylinder Value (%)	Pre Test		Post test		Drift (% of Span) 3% Limit
		Time	CEMs Response (%)	Time	CEMs Response (%)	
22 June 2011 Runs 1 and 2	0.00	12:39	0.21	16:41	0.37	0.75%
	11.10	12:41	11.06	16:43	11.05	-0.03%
	0.00	16:41	0.37	19:06	0.03	-1.56%
	11.10	16:43	11.05	19:10	11.07	0.09%
23 June 2011 Run 3	0.00	09:10	0.06	13:11	0.03	-0.13%
	11.10	09:12	11.10	13:13	11.05	-0.23%
24 June 2011 Runs 5 and 6	0.00	09:00	0.08	13:41	0.04	-0.21%
	11.10	09:01	11.10	13:43	11.04	-0.23%
	0.00	13:41	0.04	19:45	0.05	0.04%
	11.10	13:43	11.04	19:46	11.05	0.01%
26 June 2011 Run 7	0.00	08:46	0.07	17:50	0.00	-0.31%
	11.10	08:47	11.10	17:52	11.00	-0.43%
27 June 2011 Run 8	0.00	08:20	0.10	13:51	0.01	-0.37%
	11.10	08:22	11.09	13:58	10.94	-0.68%
28 June 2011 Runs 9 and 10	0.00	10:21	0.05	17:11	0.04	-0.04%
	11.10	10:22	11.04	17:13	11.01	-0.15%
	0.00	17:11	0.04	19:23	0.03	-0.03%
	11.10	17:13	11.01	19:25	11.03	0.09%
29 June 2011 Run 11	0.00	08:25	0.12	16:10	0.06	-0.26%
	11.10	08:26	11.07	16:12	11.02	-0.19%
30 June 2011 Run 12	0.00	08:31	0.12	12:14	0.02	-0.46%
	11.10	08:32	11.14	12:16	11.06	-0.35%

Drift Tests – Carbon Dioxide, Method 3A

Run No.	Cylinder Value (%)	Pre Test		Post test		Drift (% of Span) 3% Limit
		Time	CEMs Response (%)	Time	CEMs Response (%)	
22 June 2011 Runs 1 and 2	0.00	12:39	0.50	16:41	0.93	2.30%
	9.74	12:41	9.80	16:43	9.81	0.05%
	0.00	16:41	0.93	19:06	0.08	-4.48%
	9.74	16:43	9.81	19:10	9.84	0.14%
23 June 2011 Run 3	0.00	09:10	0.12	13:11	0.13	0.04%
	9.74	09:12	9.88	13:13	9.86	-0.11%
24 June 2011 Runs 5 and 6	0.00	09:00	0.19	13:41	0.15	-0.17%
	9.74	09:01	9.88	13:43	9.88	0.01%
	0.00	13:41	0.15	19:45	0.18	0.12%
	9.74	13:43	9.88	19:46	9.88	0.01%
26 June 2011 Run 7	0.00	08:46	0.15	17:50	0.17	0.12%
	9.74	08:47	9.89	17:52	9.91	0.12%
27 June 2011 Run 8	0.00	08:20	0.12	13:51	0.18	0.31%
	9.74	08:22	9.80	13:58	9.85	0.26%
28 June 2011 Runs 9 and 10	0.00	10:21	0.16	17:11	0.23	0.38%
	9.74	10:22	9.82	17:13	9.81	-0.03%
	0.00	17:11	0.23	19:23	0.19	-0.24%
	9.74	17:13	9.81	19:25	9.81	0.01%
29 June 2011 Run 11	0.00	08:25	0.15	16:10	0.26	0.61%
	9.74	08:26	9.79	16:12	9.81	0.14%
30 June 2011 Run 12	0.00	08:31	0.18	12:14	0.23	0.28%
	9.74	08:32	9.84	12:16	9.85	0.07%

Calibration Error Tests – Total Hydrocarbon, Method 25A

	Cylinder ID	Certified Value (ppm)	Time	CEM Response (ppm)	Absolute Difference (ppm)	Cal Error [1] (% of Span) 5% Limit
27 June 2011 Run 8	ASZ788	0.00	08:20	0.35	0.35	n/a
	CC18793	84.50	08:26	86.83	2.33	2.76%
	CC82348	49.80	08:28	49.79	0.02	0.03%
	CC84418	30.00	08:36	31.05	1.05	3.48%
28 June 2011 Runs 9 and 10	ASZ788	0.00	10:21	0.10	0.10	n/a
	CC18793	84.50	10:24	85.51	1.01	1.20%
	CC82348	49.80	10:26	49.29	0.51	1.03%
	CC84418	30.00	10:28	30.58	0.58	1.94%
29 June 2011 Run 11	ASZ788	0.00	08:25	0.39	0.39	n/a
	CC18793	84.50	08:30	84.87	0.37	0.44%
	CC82348	49.80	08:31	49.88	0.08	0.17%
	CC84418	30.00	08:34	30.28	0.28	0.95%

[1] Calibration Error can not be calculated for the zero gases. The specification is in percent of the certified value. These are indicated as n/c – not calculated.

Drift Tests – Total Hydrocarbon, Method 25A

Run No.	CEMs Response from Calibration Error Test (ppm)	Time	CEMs Response (ppm)	Drift (% of Span) 3% Limit
27 June 2011 Run 8	0.35	08:38	0.82	0.47%
	49.79	08:40	50.14	0.35%
	0.35	09:45	1.17	0.82%
	49.79	09:46	50.36	0.58%
	0.35	10:40	0.64	0.28%
	49.79	10:42	50.70	0.91%
	0.35	11:43	0.37	0.02%
	49.79	11:45	50.47	0.68%
	0.35	12:44	0.32	-0.04%
	49.79	12:46	50.24	0.46%
	0.35	13:51	0.26	-0.09%
	49.79	13:52	49.93	0.15%
28 June 2011 Runs 9 and 10	0.10	10:30	0.10	0.00%
	49.29	10:31	50.21	0.92%
	0.10	11:22	0.09	-0.01%
	49.29	11:23	50.24	0.95%
	0.10	12:27	0.32	0.22%
	49.29	12:28	50.36	1.07%
	0.10	13:29	0.20	0.10%
	49.29	13:30	50.26	0.98%
	0.10	15:59	0.10	0.00%
	49.29	16:00	50.11	0.83%
	0.10	17:11	0.09	-0.01%
	49.29	17:14	50.22	0.94%
	0.10	18:07	0.07	-0.03%
	49.29	18:08	50.09	0.80%
	0.10	19:23	0.03	-0.07%
	49.29	19:26	50.12	0.83%
29 June 2011 Run 11	0.39	08:36	-0.14	-0.53%
	49.88	08:37	49.78	-0.10%
	0.39	09:46	-0.20	-0.59%
	49.88	09:47	49.50	-0.38%
	0.39	10:53	0.02	-0.37%
	49.88	10:54	49.54	-0.34%
	0.39	11:55	-0.17	-0.56%
	49.88	11:57	49.37	-0.52%
	0.39	13:08	-0.09	-0.48%
	49.88	13:10	49.57	-0.32%
	0.39	14:13	-0.11	-0.50%
	49.88	14:14	49.57	-0.31%
	0.39	14:47	-0.13	-0.53%
	49.88	14:48	49.53	-0.35%
	0.39	15:54	-0.15	-0.54%
	49.88	15:56	49.60	-0.29%
	0.39	16:10	-0.17	-0.56%
	49.88	16:14	49.55	-0.33%

Appendix O

URS Sampling Equipment

Calibration Documentation

Temperature Readout Calibration

Isokinetic Sampling Consoles

Readout ID Number A161362 Calibrated by: DC

Reference Thermometer ID Number J31117 Date 05-16-11

Voltage Generator ID Number A178550 Reviewed by EDF

Date 5-23-11

Temperature Readout Calibration	
Reference Thermometer (°F)	Temperature Readout (°F) (after adjustment)
32	32

Temperature Readout Calibration Check

Channel	Voltage (mV)	Temperature (°F)		
		Theoretical	Observed	Difference [1,2]
1 [3]	0.0	32	32	0
	1.0	77	77	0
	3.0	165	166	+1
	5.0	251	254	+3
	7.0	341	343	+2
	10.0	475	475	0
	15.0	692	696	+4
	20.0	905	908	+3
	30.0	1329	1332	+3
	40.0	1772	1776	+4
2	0.0	32	32	0
	3.0	165	165	0
	4.0	208	210	+2
	5.0	251	254	+3
	7.0	341	343	+2
3	0.0	32	32	0
	3.0	165	165	0
	4.0	208	209	+1
	5.0	251	254	+3
	7.0	341	342	+1

Channel	Voltage (mV)	Temperature (°F)		
		Theoretical	Observed	Difference
4	-1.0	-10	-12	-2
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0
5	-1.0	-10	-12	-2
	0.0	32	32	0
	1.0	77	76	-1
	2.0	121	121	0
	3.0	165	165	0
6	-1.0	-10	-11	-1
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0
7	-1.0	-10	-12	-2
	0.0	32	32	0
	1.0	77	76	-1
	2.0	121	120	-1
	3.0	165	165	0

[1] Difference is calculated as follows:

Difference = Measured – Theoretical

[2] Acceptable difference is ±5°F for temperatures below 1000°F and ±10°F for temperatures above 1000°F.

[3] Select at least 5 of the voltage/temperature combinations.

CDS-02 Temperature Readout
Revision Date: February 2011

Five-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161362

Calibrated by	Initials	DC	Reviewed by	Initials	EDF	Leak Check	(+)	OK
	Date	5-16-11		Date	5-20-11		(-)	OK

			Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B	Run 4A	Run 4B	Run 5A	Run 5B
Critical Orifice	Identification Number		N-1		N-2		N-3		N-4		N-5	
	K Factor		0.2639		0.3598		0.5180		0.6073		0.7245	
Subject DGM	DGM Initial Reading (ft^3)		205.844	210.968	193.713	199.782	179.000	186.354	216.092	223.885	231.688	242.857
	DGM Final Reading (ft^3)		210.968	216.092	199.782	205.844	186.354	193.713	223.885	231.688	242.857	252.202
	Temperature (°F)	Inlet Initial	73	74	72	73	70	71	74	76	73	73
		Outlet Initial	72	72	70	71	69	70	73	73	73	72
		Inlet Final	74	74	73	73	71	73	76	77	73	75
		Outlet Final	72	73	71	72	70	70	73	74	72	72
Test Time (minutes)			15	15	13	13	11	11	10	10	12	10
Orifice Manometer, ΔH (" H_2O)			0.36	0.36	0.66	0.66	1.35	1.35	1.85	1.85	2.6	2.6
Barometric Pressure (" Hg)			29.25	29.25	29.25	29.25	29.25	29.25	29.25	29.25	29.20	29.20
Ambient Temperature (°F)			68	68	68	68	68	68	68	68	68	68
Pump Vacuum (" Hg)			23	23	22	22	20	20	18	18	17	17

Notes:

5 Point Console Dry Gas Meter Calibration

Console ID A161362

Calibrated by	Initials	DC
	Date	5/16/11
Reviewed by	Initials	EOF
	Date	5-20-11

Orifice ID:	N-1		N-2		N-3		N-4		N-5	
Orifice K':	0.2639		0.3598		0.5180		0.6073		0.7245	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b	Run #4a	Run #4b	Run #5a	Run #5b
Initial Reading, (ft^3)	205.844	210.968	193.713	199.782	179.000	186.354	216.092	223.885	231.688	242.857
Final Reading, (ft^3)	210.968	216.092	199.782	205.844	186.354	193.713	223.885	231.688	242.857	252.202
Difference, (ft^3)	5.124	5.124	6.069	6.062	7.354	7.359	7.793	7.803	11.169	9.345
Initial Meter Inlet Temp., (°F)	73	74	72	73	70	71	74	76	73	73
Initial Meter Outlet Temp., (°F)	72	72	70	71	69	70	73	73	73	72
Final Meter Inlet Temp., (°F)	74	74	73	73	71	73	76	77	73	75
Final Meter Outlet Temp., (°F)	72	73	71	72	70	70	73	74	72	72
Average Meter Temp., (°F)	72.8	73.3	71.5	72.3	70.0	71.0	74.0	75.0	72.8	73.0
Test Time (min.)	15	15	13	13	11	11	10	10	12	10
Orifice Manometer Reading, ("H_2O)	0.36	0.36	0.66	0.66	1.35	1.35	1.85	1.85	2.60	2.60
Barometric Pressure, ("Hg)	29.25	29.25	29.25	29.25	29.25	29.25	29.25	29.25	29.20	29.20
Ambient Temperature, (°F)	68	68	68	68	68	68	68	68	68	68
Pump Vacuum, ("Hg)	23	23	22	22	20	20	18	18	17	17
Standard Volume of the Meter, (V_{mstd})	4.967	4.962	5.901	5.886	7.184	7.175	7.565	7.560	10.869	9.090
Standard Volume of Critical Orifice, (V_{crstd})	5.039	5.039	5.954	5.954	7.253	7.253	7.731	7.731	11.048	9.207
Flow Rate (cfm)	0.331	0.331	0.454	0.453	0.653	0.652	0.756	0.756	0.906	0.909
DGM Calibration Factor, (Y)	1.014	1.015	1.009	1.012	1.010	1.011	1.022	1.023	1.016	1.013
Average DGM Calibration Factor (Y)	1.015		1.010		1.010		1.022		1.015	
Delta H@	1.742	1.740	1.724	1.722	1.713	1.709	1.699	1.696	1.691	1.690

Current Average Y =	1.014
Average Delta H@ =	1.713
All Individual Values within 2% of mean?	TRUE

CDS-04S DGM 5 point against orifice
Revision Date: January 2011

Three-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161362

Calibrated by	Initials	EDF	Reviewed by	Initials	BLW	Leak Check	(+)	OK
	Date	9-1-11		Date	09-07-11		(-)	OK

				Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B
DGM Calibration	Critical Orifice		Identification Number	N-2		N-3		N-4	
			K Factor	0.3598		0.5180		0.6073	
	Subject DGM		DGM Initial Reading (ft^3)	736.300	741.943	747.587	754.332	761.083	768.955
			DGM Final Reading (ft^3)	741.943	747.587	754.332	761.083	768.955	776.831
		Temperature (°F)	Inlet Initial	74	77	77	78	79	82
			Outlet Initial	71	73	72	72	73	74
			Inlet Final	77	77	78	79	82	82
			Outlet Final	73	72	72	73	74	73
			Test Time (minutes)	12	12	10	10	10	10
			Orifice Manometer, ΔH (" H_2O)	0.67	0.67	1.4	1.4	1.9	1.9
			Barometric Pressure (" Hg)	29.10	29.10	29.10	29.10	29.10	29.10
			Ambient Temperature (°F)	70	70	70	70	70	70
			Pump Vacuum (" Hg)	25	25	24	24	23	23

Temperature Readout Calibration

Check the readout against a NIST Thermometer

NIST Thermometer ID 231117

Thermometer Reading (°F)	32
Readout Reading (°F)	32

Check the readout linearity (one channel only)

Voltage Supply ID A178550 Channel No 1

Voltage (mv)	Theoretical (°F)	Observed (°F)	Difference (°F)
0	32	32	0
1	77	76	-1
3	165	165	0
7	341	342	1
15	692	695	3

Pre/Post Test Console Calibration Check

Console ID		A161362
Calibrated by	Initials	EDF
	Date	9/1/11
Reviewed by	Initials	RVW
	Date	09-07-11

Orifice ID:	N-2		N-3		N-4	
Orifice K':	0.3598		0.5180		0.6073	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b
Initial Reading, (ft^3)	736.300	741.943	747.587	754.332	761.083	768.955
Final Reading, (ft^3)	741.943	747.587	754.332	761.083	768.955	776.831
Difference, (ft^3)	5.643	5.644	6.745	6.751	7.872	7.876
Initial Meter Inlet Temp., (°F)	74	77	77	78	79	82
Initial Meter Outlet Temp., (°F)	71	73	72	72	73	74
Final Meter Inlet Temp., (°F)	77	77	78	79	82	82
Final Meter Outlet Temp., (°F)	73	72	72	73	74	73
Average Meter Temp., (°F)	73.8	74.8	74.8	75.5	77.0	77.8
Test Time (min.)	12	12	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.67	0.67	1.4	1.4	1.9	1.9
Barometric Pressure, ("Hg)	29.10	29.10	29.10	29.10	29.10	29.10
Ambient Temperature, (°F)	70	70	70	70	70	70
Pump Vacuum, ("Hg)	25	25	24	24	23	23
Standard Volume of the Meter, (Vmstd)	5.436	5.427	6.498	6.494	7.561	7.554
Standard Volume of Critical Orifice, (Vcrstd)	5.458	5.458	6.548	6.548	7.676	7.676
DGM Calibration Factor, (Y)	1.004	1.006	1.008	1.008	1.015	1.016
Difference from Average	-0.006	-0.004	-0.002	-0.001	0.006	0.007
Delta H@	1.76	1.76	1.78	1.77	1.75	1.75

Average Y =	1.009
Reference Yd =	1.014
Percent Difference =	-0.5
Is Measured Y within 5% of Reference Yd?	TRUE
Average Delta H@ =	1.761

CDS-0451 DGM 3 point cal check against orifice
Revision Date: January 2011

Temperature Readout Calibration

Isokinetic Sampling Consoles

Readout ID Number: A161396 Calibrated by: DC

Reference Thermometer ID Number: J31117 Date: 5-16-11

Voltage Generator ID Number: A178550 Reviewed by: EDF

Date: 5-20-11

Temperature Readout Calibration	
Reference Thermometer (°F)	Temperature Readout (°F) (after adjustment)
32	32

Temperature Readout Calibration Check

Channel	Voltage (mV)	Temperature (°F)			Channel	Voltage (mV)	Temperature (°F)		
		Theoretical	Observed	Difference [1,2]			Theoretical	Observed	Difference
1 [3]	0.0	32	32	0	4	-1.0	-10	-11	-1
	1.0	77	76	-1		0.0	32	32	0
	3.0	165	164	-1		1.0	77	76	-1
	5.0	251	253	+2		2.0	121	120	-1
	7.0	341	341	0		3.0	165	164	-1
	10.0	475	474	-1	5	-1.0	-10	-10	0
	15.0	692	694	+2		0.0	32	32	0
	20.0	905	906	+1		1.0	77	76	-1
	30.0	1329	1331	+2		2.0	121	121	0
	40.0	1772	1777	+5		3.0	165	165	0
2	0.0	32	32	0	6	-1.0	-10	-11	-1
	3.0	165	165	0		0.0	32	32	0
	4.0	208	210	+2		1.0	77	76	-1
	5.0	251	254	+3		2.0	121	121	0
	7.0	341	343	+2		3.0	165	164	-1
3	0.0	32	32	0	7	-1.0	-10	-11	-1
	3.0	165	165	0		0.0	32	32	0
	4.0	208	209	+1		1.0	77	77	0
	5.0	251	254	+3		2.0	121	121	0
	7.0	341	342	+1		3.0	165	164	-1

[1] Difference is calculated as follows:

Difference = Measured – Theoretical

[2] Acceptable difference is ±5°F for temperatures below 1000°F and ±10°F for temperatures above 1000°F.

[3] Select at least 5 of the voltage/temperature combinations.

Five-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161396

Calibrated by	Initials	DC	Reviewed by	Initials	EDF	Leak Check	(+)	OK
	Date	5-16-11		Date	5-20-11		(-)	OK

			Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B	Run 4A	Run 4B	Run 5A	Run 5B
Critical Orifice	Identification Number		N-1		N-2		N-3		N-4		N-5	
	K Factor		0.2639		0.3598		0.5180		0.6073		0.7245	
Subject DGM	DGM Initial Reading (ft^3)		261.435	266.571	248.688	255.293	200.900	207.459	214.202	222.061	229.910	239.293
	DGM Final Reading (ft^3)		266.571	271.708	255.293	261.435	207.459	214.202	222.061	229.910	239.293	248.688
	Temperature (°F)	Inlet Initial	68	68	68	68	65	66	67	68	69	70
		Outlet Initial	67	67	67	67	65	65	66	66	67	68
		Inlet Final	68	68	68	68	66	67	68	69	70	71
		Outlet Final	67	67	67	67	65	66	66	67	68	68
Test Time (minutes)			15	15	14	13	10	10	10	10	10	10
Orifice Manometer, ΔH (" H_2O)			0.35	0.35	0.69	0.69	1.5	1.5	2.1	2.1	3.0	3.0
Barometric Pressure (" Hg)			29.20	29.20	29.20	29.20	29.25	29.25	29.25	29.25	29.25	29.25
Ambient Temperature (°F)			68	68	68	68	68	68	68	68	68	68
Pump Vacuum (" Hg)			22	22	21	21	20	20	18	18	17	17

Notes:

5 Point Console Dry Gas Meter Calibration

Console ID A161396

Calibrated by	Initials	DC
	Date	5/16/11
Reviewed by	Initials	EDF
	Date	5-20-11

Orifice ID:	N-1		N-2		N-3		N-4		N-5	
Orifice K':	0.2639		0.3598		0.5180		0.6073		0.7245	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b	Run #4a	Run #4b	Run #5a	Run #5b
Initial Reading, (ft^3)	261.435	266.571	248.688	255.293	200.700	207.459	214.202	222.061	229.910	239.293
Final Reading, (ft^3)	266.571	271.708	255.293	261.435	207.459	214.202	222.061	229.910	239.293	248.688
Difference, (ft^3)	5.136	5.137	6.605	6.142	6.759	6.743	7.859	7.849	9.383	9.395
Initial Meter Inlet Temp., (°F)	68	68	68	68	65	66	67	68	69	70
Initial Meter Outlet Temp., (°F)	67	67	67	67	65	65	66	66	67	68
Final Meter Inlet Temp., (°F)	68	68	68	68	66	67	68	69	70	71
Final Meter Outlet Temp., (°F)	67	67	67	67	65	66	66	67	68	68
Average Meter Temp., (°F)	67.5	67.5	67.5	67.5	65.3	66.0	66.8	67.5	68.5	69.3
Test Time (min.)	15	15	14	13	10	10	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.35	0.35	0.69	0.69	1.50	1.50	2.10	2.10	3.00	3.00
Barometric Pressure, ("Hg)	29.20	29.20	29.20	29.20	29.25	29.25	29.25	29.25	29.25	29.25
Ambient Temperature, (°F)	68	68	68	68	68	68	68	68	68	68
Pump Vacuum, ("Hg)	22	22	21	21	20	20	18	18	17	17
Standard Volume of the Meter, (V_{mstd})	5.020	5.021	6.461	6.008	6.665	6.639	7.739	7.718	9.230	9.228
Standard Volume of Critical Orifice, (V_{crstd})	5.030	5.030	6.401	5.944	6.594	6.594	7.731	7.731	9.222	9.222
Flow Rate (cfm)	0.335	0.335	0.461	0.462	0.666	0.664	0.774	0.772	0.923	0.923
DGM Calibration Factor, (Y)	1.002	1.002	0.991	0.989	0.989	0.993	0.999	1.002	0.999	0.999
Average DGM Calibration Factor (Y)	1.002		0.990		0.991		1.000		0.999	
Delta H@	1.713	1.713	1.820	1.820	1.921	1.919	1.957	1.955	1.967	1.964

Current Average Y =	0.997
Average Delta H@ =	1.875
All Individual Values within 2% of mean?	TRUE

CDS-04S DGM 5 point against orifice
Revision Date: January 2011

Five-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161396

Calibrated by	Initials	DC	Reviewed by	Initials	EDF	Leak Check	(+)	OK
	Date	5-16-11		Date	5-20-11		(-)	OK

			Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B	Run 4A	Run 4B	Run 5A	Run 5B
Critical Orifice	Identification Number		N-1		N-2		N-3		N-4		N-5	
	K Factor		0.2639		0.3598		0.5180		0.6073		0.7245	
Subject DGM	DGM Initial Reading (ft^3)		261.435	266.571	248.688	255.293	200.700	207.459	214.202	222.061	229.910	239.293
	DGM Final Reading (ft^3)		266.571	271.708	255.293	261.435	207.459	214.202	222.061	229.910	239.293	248.688
	Temperature (°F)	Inlet Initial	68	68	68	68	65	66	67	68	69	70
		Outlet Initial	67	67	67	67	65	65	66	66	67	68
		Inlet Final	68	68	68	68	66	67	68	69	70	71
		Outlet Final	67	67	67	67	65	66	66	67	68	68
Test Time (minutes)			15	15	14	13	10	10	10	10	10	10
Orifice Manometer, ΔH (" H_2O)			0.35	0.35	0.69	0.69	1.5	1.5	2.1	2.1	3.0	3.0
Barometric Pressure (" Hg)			29.20	29.20	29.20	29.20	29.25	29.25	29.25	29.25	29.25	29.25
Ambient Temperature (°F)			68	68	68	68	68	68	68	68	68	68
Pump Vacuum (" Hg)			22	22	21	21	20	20	18	18	17	17

Notes:

5 Point Console Dry Gas Meter Calibration

Console ID A161396

Calibrated by	Initials	DC
	Date	5/16/11
Reviewed by	Initials	EDF
	Date	5-20-11

Orifice ID:	N-1		N-2		N-3		N-4		N-5	
Orifice K':	0.2639		0.3598		0.5180		0.6073		0.7245	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b	Run #4a	Run #4b	Run #5a	Run #5b
Initial Reading, (ft^3)	261.435	266.571	248.688	255.293	200.700	207.459	214.202	222.061	229.910	239.293
Final Reading, (ft^3)	266.571	271.708	255.293	261.435	207.459	214.202	222.061	229.910	239.293	248.688
Difference, (ft^3)	5.136	5.137	6.605	6.142	6.759	6.743	7.859	7.849	9.383	9.395
Initial Meter Inlet Temp., (°F)	68	68	68	68	65	66	67	68	69	70
Initial Meter Outlet Temp., (°F)	67	67	67	67	65	65	66	66	67	68
Final Meter Inlet Temp., (°F)	68	68	68	68	66	67	68	69	70	71
Final Meter Outlet Temp., (°F)	67	67	67	67	65	66	66	67	68	68
Average Meter Temp., (°F)	67.5	67.5	67.5	67.5	65.3	66.0	66.8	67.5	68.5	69.3
Test Time (min.)	15	15	14	13	10	10	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.35	0.35	0.69	0.69	1.50	1.50	2.10	2.10	3.00	3.00
Barometric Pressure, ("Hg)	29.20	29.20	29.20	29.20	29.25	29.25	29.25	29.25	29.25	29.25
Ambient Temperature, (°F)	68	68	68	68	68	68	68	68	68	68
Pump Vacuum, ("Hg)	22	22	21	21	20	20	18	18	17	17
Standard Volume of the Meter, (V_{mstd})	5.020	5.021	6.461	6.008	6.665	6.639	7.739	7.718	9.230	9.228
Standard Volume of Critical Orifice, (V_{crstd})	5.030	5.030	6.401	5.944	6.594	6.594	7.731	7.731	9.222	9.222
Flow Rate (cfm)	0.335	0.335	0.461	0.462	0.666	0.664	0.774	0.772	0.923	0.923
DGM Calibration Factor, (Y)	1.002	1.002	0.991	0.989	0.989	0.993	0.999	1.002	0.999	0.999
Average DGM Calibration Factor (Y)	1.002		0.990		0.991		1.000		0.999	
Delta H@	1.713	1.713	1.820	1.820	1.921	1.919	1.957	1.955	1.967	1.964

Current Average Y =	0.997
Average Delta H@ =	1.875
All Individual Values within 2% of mean?	TRUE

CDS-04S DGM 5 point against orifice
Revision Date: January 2011

Three-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161396

Calibrated by	Initials	RF	Reviewed by	Initials	RVW	Leak Check	(+)	ok
	Date	7/6/11		Date	07-06-11		(-)	ok

				Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B
DGM Calibration	Critical Orifice		Identification Number	N-2		N-3		N-4	
			K Factor	RF 7/6/11 0.3598		0.5180		0.6073	
	Subject DGM		DGM Initial Reading (ft^3)	139.204	145.006	109.438	116.296	123.163	131.156
			DGM Final Reading (ft^3)	~~144.9~~ 145.006	150.778	116.296	123.163	131.156	139.204
		Temperature (°F)	Inlet Initial	80	78	78	76	77	79
			Outlet Initial	76	76	78	76	76	76
			Inlet Final	78	78	76	77	79	80
			Outlet Final	76	76	76	76	76	76
			Test Time (minutes)	12	12	10	10	10	10
			Orifice Manometer, ΔH (" H_2O)	0.71	0.72	1.6	1.6	2.1	2.1
			Barometric Pressure (" Hg)	29.15	29.15	29.15	29.15	29.15	29.15
			Ambient Temperature (°F)	68	68	68	68	68	68
			Pump Vacuum (" Hg)	24	24	22.5	22.5	22	22

Temperature Readout Calibration

Check the readout against a NIST Thermometer

NIST Thermometer ID J3117

Thermometer Reading (°F)	32
Readout Reading (°F)	32

Check the readout linearity (one channel only)

Voltage Supply ID A178550 Channel No 1

Voltage (mv)	Theoretical (°F)	Observed (°F)	Difference (°F)
0	32	32	0
1	77	76	-1
3	165	165	0
7	341	342	1
15	692	695	3

Pre/Post Test Console Calibration Check

Console ID		A161396
Calibrated by	Initials	RF
	Date	7/6/11
Reviewed by	Initials	RVW
	Date	07-06-11

Orifice ID:	N-2		N-3		N-4	
Orifice K':	0.3598		0.5180		0.6073	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b
Initial Reading, (ft^3)	139.204	145.006	109.438	116.296	123.163	131.156
Final Reading, (ft^3)	145.006	150.778	116.296	123.163	131.156	139.204
Difference, (ft^3)	5.802	5.772	6.858	6.867	7.993	8.048
Initial Meter Inlet Temp., (°F)	80	78	78	76	77	79
Initial Meter Outlet Temp., (°F)	76	76	78	76	76	76
Final Meter Inlet Temp., (°F)	78	78	76	77	79	80
Final Meter Outlet Temp., (°F)	76	76	76	76	76	76
Average Meter Temp., (°F)	77.5	77.0	77.0	76.3	77.0	77.8
Test Time (min.)	12	12	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.71	0.72	1.6	1.6	2.1	2.1
Barometric Pressure, ("Hg)	29.15	29.15	29.15	29.15	29.15	29.15
Ambient Temperature, (°F)	68	68	68	68	68	68
Pump Vacuum, ("Hg)	24	24	22.5	22.5	22	22
Standard Volume of the Meter, (Vmstd)	5.560	5.537	6.593	6.611	7.694	7.736
Standard Volume of Critical Orifice, (Vcrstd)	5.477	5.477	6.571	6.571	7.704	7.704
DGM Calibration Factor, (Y)	0.985	0.989	0.997	0.994	1.001	0.996
Difference from Average	-0.009	-0.004	0.003	0.000	0.008	0.002
Delta H@	1.84	1.87	2.01	2.02	1.93	1.92

Average Y =	0.994
Reference Yd =	0.997
Percent Difference =	-0.3
Is Measured Y within 5% of Reference Yd?	TRUE
Average Delta H@ =	1.931

CDS-0451 DGM 3 point cal check against orifice
Revision Date: January 2011

Temperature Readout Calibration

Isokinetic Sampling Consoles

Readout ID Number: A161400 Calibrated by: PC

Reference Thermometer ID Number: J31117 Date: 5-17-11

Voltage Generator ID Number: A178550 Reviewed by: EOF

Date: 5-20-11

Temperature Readout Calibration	
Reference Thermometer (°F)	Temperature Readout (°F) (after adjustment)
32	32

Temperature Readout Calibration Check

Channel	Voltage (mV)	Temperature (°F)			Channel	Voltage (mV)	Temperature (°F)		
		Theoretical	Observed	Difference [1,2]			Theoretical	Observed	Difference
1 [3]	0.0	32	32	0	4	-1.0	-10	-12	-2
	1.0	77	76	-1		0.0	32	32	0
	3.0	165	165	0		1.0	77	77	0
	5.0	251	253	+2		2.0	121	121	0
	7.0	341	342	+1		3.0	165	165	0
	10.0	475	474	-1	5	-1.0	-10	-12	-2
	15.0	692	695	+3		0.0	32	32	0
	20.0	905	907	+2		1.0	77	76	-1
	30.0	1329	1331	+2		2.0	121	121	0
	40.0	1772	1775	+3		3.0	165	165	0
2	0.0	32	32	0	6	-1.0	-10	-11	-1
	3.0	165	165	0		0.0	32	32	0
	4.0	208	209	+1		1.0	77	76	-1
	5.0	251	254	+3		2.0	121	121	0
	7.0	341	342	+1		3.0	165	165	0
3	0.0	32	32	0	7	-1.0	-10	-12	-2
	3.0	165	165	0		0.0	32	32	0
	4.0	208	210	+2		1.0	77	76	-1
	5.0	251	254	+3		2.0	121	121	0
	7.0	341	342	+1		3.0	165	165	0

[1] Difference is calculated as follows:

Difference = Measured – Theoretical

[2] Acceptable difference is ±5°F for temperatures below 1000°F and ±10°F for temperatures above 1000°F.

[3] Select at least 5 of the voltage/temperature combinations.

CDS-02 Temperature Readout
Revision Date: February 2011

Five-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161400

Calibrated by	Initials	DC	Reviewed by	Initials	EDF	Leak Check	(+)	OK
	Date	5-17-11		Date	5-20-11		(-)	OK

			Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B	Run 4A	Run 4B	Run 5A	Run 5B
Critical Orifice	Identification Number		N-1		N-2		N-3		N-4		N-5	
	K Factor		0.2639		0.3598		0.5180		0.6073		0.7245	
Subject DGM	DGM Initial Reading (ft^3)		526.526	531.747	536.982	542.706	513.000	519.740	549.390	558.826	566.702	577.050
	DGM Final Reading (ft^3)		531.747	536.982	542.706	549.390	519.740	526.526	558.826	566.702	577.050	586.480
	Temperature (°F)	Inlet Initial	75	76	76	76	72	73	72	74	77	81
		Outlet Initial	72	74	74	74	69	71	72	73	73	74
		Inlet Final	76	76	76	76	75	76	74	77	81	82
		Outlet Final	74	74	73	74	71	72	73	73	74	75
Test Time (minutes)			15	15	12	14	10	10	12	10	10 11 5-17-11 DC	10
Orifice Manometer, ΔH (" H_2O)			0.33	0.33	0.65	0.65	1.45	1.45	2.0	2.0	2.8	2.8
Barometric Pressure (" Hg)			29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11
Ambient Temperature (°F)			68	68	68	68	68	68	68	68	68	68
Pump Vacuum (" Hg)			25	25	24	24	22	22	21	21	20	20

Notes:

CDS-04 DGM 5 point against orifice
Revision Date: July 2008
Reviewed: June 2010

5 Point Console Dry Gas Meter Calibration

Console ID: A161400

Calibrated by	Initials	DC
	Date	5/17/11
Reviewed by	Initials	EDF
	Date	5-20-11

Orifice ID:	N-1		N-2		N-3		N-4		N-5	
Orifice K':	0.2639		0.3598		0.5180		0.6073		0.7245	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b	Run #4a	Run #4b	Run #5a	Run #5b
Initial Reading, (ft^3)	526.526	531.747	536.982	542.706	513.000	519.740	549.390	558.826	566.702	577.050
Final Reading, (ft^3)	531.747	536.982	542.706	549.390	519.740	526.526	558.826	566.702	577.050	586.480
Difference, (ft^3)	5.221	5.235	5.724	6.684	6.740	6.786	9.436	7.876	10.348	9.430
Initial Meter Inlet Temp., (°F)	75	76	76	76	72	73	72	74	77	81
Initial Meter Outlet Temp., (°F)	72	74	74	74	69	71	72	73	73	74
Final Meter Inlet Temp., (°F)	76	76	76	76	75	76	74	77	81	82
Final Meter Outlet Temp., (°F)	74	74	73	74	71	72	73	73	74	75
Average Meter Temp., (°F)	74.3	75.0	74.8	75.0	71.8	73.0	72.8	74.3	76.3	78.0
Test Time (min.)	15	15	12	14	10	10	12	10	11	10
Orifice Manometer Reading, ("H_2O)	0.33	0.33	0.65	0.65	1.45	1.45	2.00	2.00	2.80	2.80
Barometric Pressure, ("Hg)	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11
Ambient Temperature, (°F)	68	68	68	68	68	68	68	68	68	68
Pump Vacuum, ("Hg)	25	25	24	24	22	22	21	21	20	20
Standard Volume of the Meter, (V_{mstd})	5.022	5.029	5.506	6.426	6.533	6.562	9.141	7.608	9.979	9.064
Standard Volume of Critical Orifice, (V_{crstd})	5.015	5.015	5.470	6.381	6.562	6.562	9.232	7.694	10.096	9.178
Flow Rate (cfm)	0.335	0.335	0.459	0.459	0.653	0.656	0.762	0.761	0.907	0.906
DGM Calibration Factor, (Y)	0.998	0.997	0.993	0.993	1.005	1.000	1.010	1.011	1.012	1.013
Average DGM Calibration Factor (Y)	0.998		0.993		1.002		1.011		1.012	
Delta H@	1.600	1.597	1.696	1.695	1.843	1.839	1.851	1.846	1.816	1.811

Current Average Y =	1.003
Average Delta H@ =	1.759
All Individual Values within 2% of mean?	TRUE

CDS-04S DGM 5 point against orifice
Revision Date: January 2011

Five-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161400

Calibrated by	Initials	DC	Reviewed by	Initials	EDF	Leak Check	(+)	OK
	Date	5-17-11		Date	5-20-11		(-)	OK

			Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B	Run 4A	Run 4B	Run 5A	Run 5B
Critical Orifice	Identification Number		N-1		N-2		N-3		N-4		N-5	
	K Factor		0.2639		0.3598		0.5180		0.6073		0.7245	
Subject DGM	DGM Initial Reading (ft^3)		526.526	531.747	536.982	542.706	513.000	519.740	549.390	558.826	566.702	577.050
	DGM Final Reading (ft^3)		531.747	536.982	542.706	549.390	519.740	526.526	558.826	566.702	577.050	586.480
	Temperature (°F)	Inlet Initial	75	76	76	76	72	73	72	74	77	81
		Outlet Initial	72	74	74	74	69	71	72	73	73	74
		Inlet Final	76	76	76	76	75	76	74	77	81	82
		Outlet Final	74	74	73	74	71	72	73	73	74	75
Test Time (minutes)			15	15	12	14	10	10	12	10	~~10~~ 11 5-17-11 DC	10
Orifice Manometer, ΔH (" H_2O)			0.33	0.33	0.65	0.65	1.45	1.45	2.0	2.0	2.8	2.8
Barometric Pressure (" Hg)			29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11
Ambient Temperature (°F)			68	68	68	68	68	68	68	68	68	68
Pump Vacuum (" Hg)			25	25	24	24	22	22	21	21	20	20

Notes:

5 Point Console Dry Gas Meter Calibration

Console ID A161400

Calibrated by	Initials	DC
	Date	5/17/11
Reviewed by	Initials	EDF
	Date	5-20-11

Orifice ID:	N-1		N-2		N-3		N-4		N-5	
Orifice K':	0.2639		0.3598		0.5180		0.6073		0.7245	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b	Run #4a	Run #4b	Run #5a	Run #5b
Initial Reading, (ft^3)	526.526	531.747	536.982	542.706	513.000	519.740	549.390	558.826	566.702	577.050
Final Reading, (ft^3)	531.747	536.982	542.706	549.390	519.740	526.526	558.826	566.702	577.050	586.480
Difference, (ft^3)	5.221	5.235	5.724	6.684	6.740	6.786	9.436	7.876	10.348	9.430
Initial Meter Inlet Temp., (°F)	75	76	76	76	72	73	72	74	77	81
Initial Meter Outlet Temp., (°F)	72	74	74	74	69	71	72	73	73	74
Final Meter Inlet Temp., (°F)	76	76	76	76	75	76	74	77	81	82
Final Meter Outlet Temp., (°F)	74	74	73	74	71	72	73	73	74	75
Average Meter Temp., (°F)	74.3	75.0	74.8	75.0	71.8	73.0	72.8	74.3	76.3	78.0
Test Time (min.)	15	15	12	14	10	10	12	10	11	10
Orifice Manometer Reading, ("H_2O)	0.33	0.33	0.65	0.65	1.45	1.45	2.00	2.00	2.80	2.80
Barometric Pressure, ("Hg)	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11	29.11
Ambient Temperature, (°F)	68	68	68	68	68	68	68	68	68	68
Pump Vacuum, ("Hg)	25	25	24	24	22	22	21	21	20	20
Standard Volume of the Meter, (V_{mstd})	5.022	5.029	5.506	6.426	6.533	6.562	9.141	7.608	9.979	9.064
Standard Volume of Critical Orifice, (V_{crstd})	5.015	5.015	5.470	6.381	6.562	6.562	9.232	7.694	10.096	9.178
Flow Rate (cfm)	0.335	0.335	0.459	0.459	0.653	0.656	0.762	0.761	0.907	0.906
DGM Calibration Factor, (Y)	0.998	0.997	0.993	0.993	1.005	1.000	1.010	1.011	1.012	1.013
Average DGM Calibration Factor (Y)	0.998		0.993		1.002		1.011		1.012	
Delta H@	1.600	1.597	1.696	1.695	1.843	1.839	1.851	1.846	1.816	1.811

Current Average Y =	1.003
Average Delta H@ =	1.759
All Individual Values within 2% of mean?	TRUE

CDS-04S DGM 5 point against orifice
Revision Date: January 2011

Three-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A16/400

Calibrated by	Initials	NR	Reviewed by	Initials	RVW	Leak Check	(+)	OK
	Date	7/6/11		Date	07-07-11		(-)	OK

				Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B
DGM Calibration	Critical Orifice		Identification Number	N-2		N-3		N-4	
			K Factor	0.3598		0.5180		0.6073	
	Subject DGM		DGM Initial Reading (ft^3)	849.193	853.939	820.110	826.794	833.498	841.327
			DGM Final Reading (ft^3)	~~854~~ 853.939	858.685	826.794	833.498	841.327	849.193
		Temperature (°F)	Inlet Initial	87 NS 7/6/11	86	74	77	80	84
			Outlet Initial	78	80	71	73	74	77
			Inlet Final	86	85	77	80	84	87
			Outlet Final	80 RVW	81	73	74	77	78
			Test Time (minutes)	10 07-07-11	10	10	10	10	10
			Orifice Manometer, ΔH (" H_2O)	0.71	0.71	1.5	1.5	2.0	2.0
			Barometric Pressure (" Hg)	29.12	29.12	29.12	29.12	29.12	29.12
			Ambient Temperature (°F)	72	72	72	72	72	72
			Pump Vacuum (" Hg)	25	25	22	22	22	22

Temperature Readout Calibration

Check the readout against a NIST Thermometer

NIST Thermometer ID J31117

Thermometer Reading (°F)	36
Readout Reading (°F)	36

Check the readout linearity (one channel only)

Voltage Supply ID A178550 Channel No 1

Voltage (mv)	Theoretical (°F)	Observed (°F)	Difference (°F)
0	32	32	0
1	77	76	-1
3	165	164	-1
7	341	341	0
15	692	694	+2

Three-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161400

Calibrated by	Initials	ZF	Reviewed by	Initials	RVW	Leak Check	(+)	OK
	Date	7/7/11		Date	07-07-11		(-)	OK

				Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B
DGM Calibration	Critical Orifice		Identification Number	11-2					
			K Factor	0.3598					
	Subject DGM		DGM Initial Reading (ft^3)	858.684	864.293				
			DGM Final Reading (ft^3)	864.293	869.900				
		Temperature (°F)	Inlet Initial	69	71			RVW 07-07-11	
			Outlet Initial	69	70				
			Inlet Final	71	73				
			Outlet Final	70	72				
			Test Time (minutes)	12	12				
			Orifice Manometer, ΔH (" H_2O)	~~0.65~~ 0.67 RF 7/7	~~0.65~~ 0.67 RF 7/7				
			Barometric Pressure (" Hg)	29.18	29.18				
			Ambient Temperature (°F)	68	68				
			Pump Vacuum (" Hg)	24	24				

Temperature Readout Calibration

Check the readout against a NIST Thermometer

NIST Thermometer ID J3117

Thermometer Reading (°F)	32
Readout Reading (°F)	32

Check the readout linearity (one channel only)

Voltage Supply ID _____ Channel No _____

Voltage (mv)	Theoretical (°F)	Observed (°F)	Difference (°F)
0	32		
1	77		RVW 07-07-11
3	165		
7	341		
15	692		

CDS-05 DGM Calibration, 3 point vs orifices
Revision Date: July 2008
Reviewed: June 2010

Pre/Post Test Console Calibration Check

Console ID		A161400
Calibrated by	Initials	RF
	Date	7/7/11
Reviewed by	Initials	RJW
	Date	07-07-11

Orifice ID:	N-2		N-3		N-4	
Orifice K':	0.3598		0.5180		0.6073	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b
Initial Reading, (ft^3)	858.684	864.293	820.110	826.794	833.498	841.327
Final Reading, (ft^3)	864.293	869.900	826.794	833.498	841.327	849.193
Difference, (ft^3)	5.609	5.607	6.684	6.704	7.829	7.866
Initial Meter Inlet Temp., (°F)	69	71	74	77	80	84
Initial Meter Outlet Temp., (°F)	69	70	71	73	74	77
Final Meter Inlet Temp., (°F)	71	73	77	80	84	87
Final Meter Outlet Temp., (°F)	70	72	73	74	77	78
Average Meter Temp., (°F)	69.8	71.5	73.8	76.0	78.8	81.5
Test Time (min.)	12	12	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.67	0.67	1.5	1.5	2.0	2.0
Barometric Pressure, ("Hg)	29.18	29.18	29.12	29.12	29.12	29.12
Ambient Temperature, (°F)	68	68	72	72	72	72
Pump Vacuum, ("Hg)	24	24	22	22	22	22
Standard Volume of the Meter, (Vmstd)	5.459	5.439	6.457	6.449	7.502	7.500
Standard Volume of Critical Orifice, (Vcrstd)	5.483	5.483	6.540	6.540	7.667	7.667
DGM Calibration Factor, (Y)	1.004	1.008	1.013	1.014	1.022	1.022
Difference from Average	-0.010	-0.006	-0.001	0.000	0.008	0.008
Delta H@	1.761	1.755	1.914	1.906	1.844	1.834

Average Y =	1.014
Reference Yd =	1.003
Percent Difference =	1.065
Is Measured Y within 5% of Reference Yd?	TRUE
Average Delta H@ =	1.836

CDS-0451 DGM 3 point cal check against orifice
Revision Date: January 2011

Temperature Readout Calibration

Isokinetic Sampling Consoles

Readout ID Number: A161401 Calibrated by: DC

Reference Thermometer ID Number: J31117 Date: 5-16-11

Voltage Generator ID Number: A178550 Reviewed by: EDF

Date: 5-20-11

Temperature Readout Calibration	
Reference Thermometer (°F)	Temperature Readout (°F) (after adjustment)
32	32

Temperature Readout Calibration Check

Channel	Voltage (mV)	Temperature (°F)			Channel	Voltage (mV)	Temperature (°F)		
		Theoretical	Observed	Difference [1,2]			Theoretical	Observed	Difference
1 [3]	0.0	32	32	0	4	-1.0	-10	-10	0
	1.0	77	77	0		0.0	32	32	0
	3.0	165	165	0		1.0	77	76	-1
	5.0	251	254	+3		2.0	121	121	0
	7.0	341	342	+1		3.0	165	165	0
	10.0	475	474	-1	5	-1.0	-10	-11	-1
	15.0	692	695	+3		0.0	32	32	0
	20.0	905	906	+1		1.0	77	76	-1
	30.0	1329	1330	+1		2.0	121	121	0
	40.0	1772	1774	+2		3.0	165	165	0
2	0.0	32	32	0	6	-1.0	-10	-10	0
	3.0	165	165	0		0.0	32	32	0
	4.0	208	209	+1		1.0	77	77	0
	5.0	251	253	+2		2.0	121	121	0
	7.0	341	342	+1		3.0	165	165	0
3	0.0	32	32	0	7	-1.0	-10	-11	-1
	3.0	165	165	0		0.0	32	32	0
	4.0	208	209	+1		1.0	77	76	-1
	5.0	251	253	+2		2.0	121	120	-1
	7.0	341	342	+1		3.0	165	164	-1

[1] Difference is calculated as follows:

Difference = Measured – Theoretical

[2] Acceptable difference is ±5°F for temperatures below 1000°F and ±10°F for temperatures above 1000°F.

[3] Select at least 5 of the voltage/temperature combinations.

Five-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161401

Calibrated by	Initials	pc	Reviewed by	Initials	EDF	Leak Check	(+)	OK
	Date	5-16-11		Date	5-20-11		(-)	OK

			Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B	Run 4A	Run 4B	Run 5A	Run 5B
Critical Orifice	Identification Number		N-1		N-2		N-3		N-4		N-5	
	K Factor		0.2639		0.3598		0.5180		0.6073		0.7245	
Subject DGM	DGM Initial Reading (ft^3)		823.000	828.170	791.209	796.922	777.600	784.414	802.614	810.549	833.680	843.109
	DGM Final Reading (ft^3)		828.170	833.680	796.922	802.614	784.414	791.209	810.549	818.462	843.109	852.577
	Temperature (°F)	Inlet Initial	71	72	73	73	72	72	73	75	73	78
		Outlet Initial	70	70	72	72	72	72	72	72	71	72
		Inlet Final	72	73	73	73	72	73	75	77	78	81
		Outlet Final	70	70	72	71	72	72	72	73	72	73
Test Time (minutes)			15	16	12	12	10	10	10	10	10	10
Orifice Manometer, ΔH (" H_2O)			0.33	0.33	0.65	0.65	1.4	1.4	1.9	1.9	2.7	2.7
Barometric Pressure (" Hg)			29.11	29.11	29.15	29.15	29.15	29.15	29.15	29.15	29.11	29.11
Ambient Temperature (°F)			68	68	68	68	68	68	68	68	68	68
Pump Vacuum (" Hg)			26	26	22	25	20	20	23	23	22	22

Notes:

CDS-04 DGM 5 point against orifice
Revision Date: July 2008
Reviewed: June 2010

5 Point Console Dry Gas Meter Calibration

Console ID A161401

Calibrated by	Initials	DC
	Date	5/16/11
Reviewed by	Initials	EJF
	Date	5-20-11

Orifice ID:	N-1		N-2		N-3		N-4		N-5	
Orifice K':	0.2639		0.3598		0.5180		0.6073		0.7245	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b	Run #4a	Run #4b	Run #5a	Run #5b
Initial Reading, (ft^3)	823.000	828.170	791.209	796.922	777.600	784.414	802.614	810.549	833.680	843.109
Final Reading, (ft^3)	828.170	833.680	796.922	802.614	784.414	791.209	810.549	818.462	843.109	852.577
Difference, (ft^3)	5.170	5.510	5.713	5.692	6.814	6.795	7.935	7.913	9.429	9.468
Initial Meter Inlet Temp., (°F)	71	72	73	73	72	72	73	75	73	78
Initial Meter Outlet Temp., (°F)	70	70	72	72	72	72	72	72	71	72
Final Meter Inlet Temp., (°F)	72	73	73	73	72	73	75	77	78	81
Final Meter Outlet Temp., (°F)	70	70	72	71	72	72	72	73	72	73
Average Meter Temp., (°F)	70.8	71.3	72.5	72.3	72.0	72.3	73.0	74.3	73.5	76.0
Test Time (min.)	15	16	12	12	10	10	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.33	0.33	0.65	0.65	1.40	1.40	1.90	1.90	2.70	2.70
Barometric Pressure, ("Hg)	29.11	29.11	29.15	29.15	29.15	29.15	29.15	29.15	29.11	29.11
Ambient Temperature, (°F)	68	68	68	68	68	68	68	68	68	68
Pump Vacuum, ("Hg)	26	26	22	25	20	20	23	23	22	22
Standard Volume of the Meter, (V_{mstd})	5.006	5.330	5.526	5.508	6.609	6.588	7.692	7.653	9.137	9.132
Standard Volume of Critical Orifice, (V_{crstd})	5.015	5.349	5.477	5.477	6.571	6.571	7.704	7.704	9.178	9.178
Flow Rate (cfm)	0.334	0.333	0.460	0.459	0.661	0.659	0.769	0.765	0.914	0.913
DGM Calibration Factor, (Y)	1.002	1.004	0.991	0.994	0.994	0.997	1.002	1.007	1.004	1.005
Average DGM Calibration Factor (Y)	1.003		0.993		0.996		1.004		1.005	
Delta H@	1.610	1.609	1.701	1.702	1.776	1.775	1.755	1.750	1.760	1.751

Current Average Y =	1.000
Average Delta H@ =	1.719
All Individual Values within 2% of mean?	TRUE

CDS-04S DGM 5 point against orifice
Revision Date: January 2011

Five-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161401

Calibrated by	Initials	DC	Reviewed by	Initials	EDF	Leak Check	(+)	OK
	Date	5-16-11		Date	5-20-11		(-)	OK

			Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B	Run 4A	Run 4B	Run 5A	Run 5B
Critical Orifice	Identification Number		N-1		N-2		N-3		N-4		N-5	
	K Factor		0.2639		0.3598		0.5180		0.6073		0.7245	
Subject DGM	DGM Initial Reading (ft^3)		823.000	828.170	791.209	796.922	777.600	784.414	802.614	810.549	833.680	843.109
	DGM Final Reading (ft^3)		828.170	833.680	796.922	802.614	784.414	791.209	810.549	818.462	843.109	852.577
	Temperature (°F)	Inlet Initial	71	72	73	73	72	72	73	75	73	78
		Outlet Initial	70	70	72	72	72	72	72	72	71	72
		Inlet Final	72	73	73	73	72	73	75	77	78	81
		Outlet Final	70	70	72	71	72	72	72	73	72	73
Test Time (minutes)			15	16	12	12	10	10	10	10	10	10
Orifice Manometer, ΔH (" H_2O)			0.33	0.33	0.65	0.65	1.4	1.4	1.9	1.9	2.7	2.7
Barometric Pressure (" Hg)			29.11	29.11	29.15	29.15	29.15	29.15	29.15	29.15	29.11	29.11
Ambient Temperature (°F)			68	68	68	68	68	68	68	68	68	68
Pump Vacuum (" Hg)			26	26	22	25	20	20	23	23	22	22

Notes:

5 Point Console Dry Gas Meter Calibration

Console ID A161401

Calibrated by	Initials	DC
	Date	5/16/11
Reviewed by	Initials	EDF
	Date	5-20-11

Orifice ID:	N-1		N-2		N-3		N-4		N-5	
Orifice K':	0.2639		0.3598		0.5180		0.6073		0.7245	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b	Run #4a	Run #4b	Run #5a	Run #5b
Initial Reading, (ft^3)	823.000	828.170	791.209	796.922	777.600	784.414	802.614	810.549	833.680	843.109
Final Reading, (ft^3)	828.170	833.680	796.922	802.614	784.414	791.209	810.549	818.462	843.109	852.577
Difference, (ft^3)	5.170	5.510	5.713	5.692	6.814	6.795	7.935	7.913	9.429	9.468
Initial Meter Inlet Temp., (°F)	71	72	73	73	72	72	73	75	73	78
Initial Meter Outlet Temp., (°F)	70	70	72	72	72	72	72	72	71	72
Final Meter Inlet Temp., (°F)	72	73	73	73	72	73	75	77	78	81
Final Meter Outlet Temp., (°F)	70	70	72	71	72	72	72	73	72	73
Average Meter Temp., (°F)	70.8	71.3	72.5	72.3	72.0	72.3	73.0	74.3	73.5	76.0
Test Time (min.)	15	16	12	12	10	10	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.33	0.33	0.65	0.65	1.40	1.40	1.90	1.90	2.70	2.70
Barometric Pressure, ("Hg)	29.11	29.11	29.15	29.15	29.15	29.15	29.15	29.15	29.11	29.11
Ambient Temperature, (°F)	68	68	68	68	68	68	68	68	68	68
Pump Vacuum, ("Hg)	26	26	22	25	20	20	23	23	22	22
Standard Volume of the Meter, (V_{mstd})	5.006	5.330	5.526	5.508	6.609	6.588	7.692	7.653	9.137	9.132
Standard Volume of Critical Orifice, (V_{crstd})	5.015	5.349	5.477	5.477	6.571	6.571	7.704	7.704	9.178	9.178
Flow Rate (cfm)	0.334	0.333	0.460	0.459	0.661	0.659	0.769	0.765	0.914	0.913
DGM Calibration Factor, (Y)	1.002	1.004	0.991	0.994	0.994	0.997	1.002	1.007	1.004	1.005
Average DGM Calibration Factor (Y)	1.003		0.993		0.996		1.004		1.005	
Delta H@	1.610	1.609	1.701	1.702	1.776	1.775	1.755	1.750	1.760	1.751

Current Average Y =	1.000
Average Delta H@ =	1.719
All Individual Values within 2% of mean?	TRUE

CDS-045 DGM 5 point against orifice
Revision Date: January 2011

Three-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID ~~A161700~~ A161401 NR 7/6/11

Calibrated by	Initials	NC	Reviewed by	Initials	RVW	Leak Check	(+)	OK
	Date	7/6/11		Date	07-07-11		(-)	OK

DGM Calibration				Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B
Critical Orifice		Identification Number		N-2		N-3		N-4	
		K Factor		0.3598		0.5180		0.6073	
Subject DGM		DGM Initial Reading (ft^3)		1006.820	1011.650	977.005	983.870	990.752	998.788
		DGM Final Reading (ft^3)		1011.650	1016.474	983.870	990.752	998.788	1006.820
	Temperature (°F)	Inlet Initial		87	86	80	82	84	86
		Outlet Initial		79	80	74	75 ~~85~~ NR 7/6/11	77	79
		Inlet Final		86	85	82	84	86	87
		Outlet Final		80 RVW	80	75 ~~85~~ NR 7/6/11	77	79	79
		Test Time (minutes)		10 07-07-11	10	10	10	10	10
		Orifice Manometer, ΔH (" H_2O)		0.69	0.69	1.04	1.04	1.9	1.9
		Barometric Pressure (" Hg)		29.12	29.12	29.12	29.12	29.12	29.12
		Ambient Temperature (°F)		72	72	72	72	72	72
		Pump Vacuum (" Hg)		25	25	24	24	23	23

Temperature Readout Calibration

Check the readout against a NIST Thermometer

NIST Thermometer ID J31117

Thermometer Reading (°F)	35
Readout Reading (°F)	35

Check the readout linearity (one channel only)

Voltage Supply ID A178550 Channel No 1

Voltage (mv)	Theoretical (°F)	Observed (°F)	Difference (°F)
0	32	32	0
1	77	76	-1
3	165	164	-1
7	341	341	0
15	692	694	+2

Three-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A161401

Calibrated by	Initials	ZF	Reviewed by	Initials	RVW	Leak Check	(+)	OK
	Date	7/7/11		Date	07-07-11		(-)	OK

				Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B
DGM Calibration	Critical Orifice		Identification Number	N-2					
			K Factor	0.3548					
	Subject DGM		DGM Initial Reading (ft^3)	1016.473	1022.181				
			DGM Final Reading (ft^3)	1022.168	1027.901				
		Temperature (°F)	Inlet Initial	70	72				
			Outlet Initial	70	70			RVW	
			Inlet Final	72	74			07-07-11	
			Outlet Final	70	73				
			Test Time (minutes)	12	12				
			Orifice Manometer, ΔH (" H_2O)	ZF 7/7 ~~0.63~~ 0.66	0.66				
			Barometric Pressure (" Hg)	29.18	29.18				
			Ambient Temperature (°F)	68	68				
			Pump Vacuum (" Hg)	24	22.5				

Temperature Readout Calibration	Check the readout against a NIST Thermometer	
	NIST Thermometer ID J3117	
	Thermometer Reading (°F)	32
	Readout Reading (°F)	32

Check the readout linearity (one channel only)			
Voltage Supply ID _____		Channel No _____	
Voltage (mv)	Theoretical (°F)	Observed (°F)	Difference (°F)
0	32		
1	77		RVW
3	165		07-07-11
7	341		
15	692		

Pre/Post Test Console Calibration Check

Console ID		A161401
Calibrated by	Initials	RF
	Date	7/7/11
Reviewed by	Initials	RW
	Date	07-07-11

Orifice ID:	N-2		N-3		N-4	
Orifice K':	0.3598		0.5180		0.6073	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b
Initial Reading, (ft^3)	1016.473	1022.181	977.005	983.870	990.752	998.788
Final Reading, (ft^3)	1022.168	1027.901	983.870	990.752	998.788	1006.820
Difference, (ft^3)	5.695	5.720	6.865	6.882	8.036	8.032
Initial Meter Inlet Temp., (°F)	70	72	80	82	84	86
Initial Meter Outlet Temp., (°F)	70	70	74	75	77	79
Final Meter Inlet Temp., (°F)	72	74	82	84	86	87
Final Meter Outlet Temp., (°F)	70	73	75	77	79	79
Average Meter Temp., (°F)	70.5	72.3	77.8	79.5	81.5	82.8
Test Time (min.)	12	12	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.66	0.66	1.4	1.4	1.9	1.9
Barometric Pressure, ("Hg)	29.18	29.18	29.12	29.12	29.12	29.12
Ambient Temperature, (°F)	68	68	72	72	72	72
Pump Vacuum, ("Hg)	24	22.5	24	24	23	23
Standard Volume of the Meter, (Vmstd)	5.535	5.541	6.581	6.576	7.660	7.638
Standard Volume of Critical Orifice, (Vcrstd)	5.483	5.483	6.540	6.540	7.667	7.667
DGM Calibration Factor, (Y)	0.991	0.990	0.994	0.995	1.001	1.004
Difference from Average	-0.005	-0.006	-0.002	-0.001	0.005	0.008
Delta H@	1.732	1.726	1.772	1.766	1.742	1.738

Average Y =	0.996
Reference Yd =	1.000
Percent Difference =	-0.451
Is Measured Y within 5% of Reference Yd?	TRUE
Average Delta H@ =	1.746

CDS-04S1 DGM 3 point cal check against orifice
Revision Date: January 2011

Temperature Readout Calibration

Isokinetic Sampling Consoles

Readout ID Number: A167041 Calibrated by: DC

Reference Thermometer ID Number: J31117 Date: 05-18-11

Voltage Generator ID Number: A178550 Reviewed by: EDF

Date: 5-20-11

Temperature Readout Calibration	
Reference Thermometer (°F)	Temperature Readout (°F) (after adjustment)
32	32

Temperature Readout Calibration Check

Channel	Voltage (mV)	Temperature (°F)		
		Theoretical	Observed	Difference [1,2]
1 [3]	0.0	32	32	0
	1.0	77	76	-1
	3.0	165	165	0
	5.0	251	253	+2
	7.0	341	342	+1
	10.0	475	474	-1
	15.0	692	695	+3
	20.0	905	907	+2
	30.0	1329	1330	+1
	40.0	1772	1774	+2
2	0.0	32	32	0
	3.0	165	165	0
	4.0	208	209	+1
	5.0	251	254	+3
	7.0	341	342	+1
3	0.0	32	32	0
	3.0	165	165	0
	4.0	208	209	+1
	5.0	251	253	+2
	7.0	341	342	+1

Channel	Voltage (mV)	Temperature (°F)		
		Theoretical	Observed	Difference
4	-1.0	-10	-12	-2
	0.0	32	32	0
	1.0	77	76	-1
	2.0	121	120	-1
	3.0	165	165	0
5	-1.0	-10	-12	-2
	0.0	32	32	0
	1.0	77	76	-1
	2.0	121	121	0
	3.0	165	165	0
6	-1.0	-10	-11	-1
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0
7	-1.0	-10	-11	-1
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0

[1] Difference is calculated as follows:

Difference = Measured – Theoretical

[2] Acceptable difference is ±5°F for temperatures below 1000°F and ±10°F for temperatures above 1000°F.

[3] Select at least 5 of the voltage/temperature combinations.

CDS-02 Temperature Readout
Revision Date: February 2011

Five-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A167041

Calibrated by	Initials	DC	Reviewed by	Initials	EDF	Leak Check	(+)	OK
	Date	05-18-11		Date	5-20-11		(-)	OK

			Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B	Run 4A	Run 4B	Run 5A	Run 5B
Critical Orifice	Identification Number		N-1		N-2		N-3		N-4		N-5	
	K Factor		0.2639		0.3598		0.5180		0.6073		0.7245	
Subject DGM	DGM Initial Reading (ft^3)		925.700	930.878	936.087	941.800	912.100	918.890	947.505	955.450	963.357	972.807
	DGM Final Reading (ft^3)		930.878	936.087	941.800	947.505	918.890	925.700	955.450	963.357	972.807	982.253
	Temperature (°F)	Inlet Initial	69	69	69	70	68	68	67	66	69	72
		Outlet Initial	66	67	67	66	66	65	68	65	66	67
		Inlet Final	69	69	70	70	68	69	66	69	72	75
		Outlet Final	67	67	66	68	65	66	65	66	66	68
Test Time (minutes)			15	15	12	12	10	10	10	10	10	10
Orifice Manometer, ΔH (" H_2O)			0.37	0.37	0.72	0.72	1.55	1.55	2.1	2.1	3.0	3.0
Barometric Pressure (" Hg)			28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95
Ambient Temperature (°F)			67	67	67	67	67	67	67	67	67	67
Pump Vacuum (" Hg)			24	24	23	23	21	21	20	20	19	19

Notes:

CDS-04 DGM 5 point against orifice
Revision Date: July 2008
Reviewed: June 2010

5 Point Console Dry Gas Meter Calibration

Console ID A167041

Calibrated by	Initials	DC
	Date	5/18/11
Reviewed by	Initials	EOF
	Date	5-20-11

Orifice ID:	N-1		N-2		N-3		N-4		N-5	
Orifice K':	0.2639		0.3598		0.5180		0.6073		0.7245	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b	Run #4a	Run #4b	Run #5a	Run #5b
Initial Reading, (ft^3)	925.700	930.878	936.087	941.800	912.100	918.890	947.505	955.450	963.357	972.807
Final Reading, (ft^3)	930.878	936.087	941.800	947.505	918.890	925.700	955.450	963.357	972.807	982.253
Difference, (ft^3)	5.178	5.209	5.713	5.705	6.790	6.810	7.945	7.907	9.450	9.446
Initial Meter Inlet Temp., (°F)	69	69	69	70	68	68	67	66	69	72
Initial Meter Outlet Temp., (°F)	66	67	67	66	66	65	68	65	66	67
Final Meter Inlet Temp., (°F)	69	69	70	70	68	69	66	69	72	75
Final Meter Outlet Temp., (°F)	67	67	66	68	65	66	65	66	66	68
Average Meter Temp., (°F)	67.8	68.0	68.0	68.5	66.8	67.0	66.5	66.5	68.3	70.5
Test Time (min.)	15	15	12	12	10	10	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.37	0.37	0.72	0.72	1.55	1.55	2.10	2.10	3.00	3.00
Barometric Pressure, ("Hg)	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95
Ambient Temperature, (°F)	67	67	67	67	67	67	67	67	67	67
Pump Vacuum, ("Hg)	24	24	23	23	21	21	20	20	19	19
Standard Volume of the Meter, (V_{mstd})	5.015	5.043	5.536	5.523	6.609	6.625	7.747	7.710	9.205	9.162
Standard Volume of Critical Orifice, (V_{crstd})	4.992	4.992	5.445	5.445	6.532	6.532	7.659	7.659	9.137	9.137
Flow Rate (cfm)	0.334	0.336	0.461	0.460	0.661	0.663	0.775	0.771	0.921	0.916
DGM Calibration Factor, (Y)	0.995	0.990	0.984	0.986	0.988	0.986	0.989	0.993	0.993	0.997
Average DGM Calibration Factor (Y)	0.993		0.985		0.987		0.991		0.995	
Delta H@	1.822	1.822	1.910	1.909	1.997	1.996	1.975	1.975	1.985	1.977

Current Average Y =	0.990
Average Delta H@ =	1.937
All Individual Values within 2% of mean?	TRUE

CDS-045 DGM 5 point against orifice
Revision Date: January 2011

Five-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A167041

Calibrated by	Initials	DC	Reviewed by	Initials	EDF	Leak Check	(+)	OK
	Date	05-18-11		Date	5-20-11		(-)	OK

			Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B	Run 4A	Run 4B	Run 5A	Run 5B
Critical Orifice	Identification Number		N-1		N-2		N-3		N-4		N-5	
	K Factor		0.2639		0.3598		0.5180		0.6073		0.7245	
Subject DGM	DGM Initial Reading (ft^3)		925.700	930.878	936.087	941.800	912.100	918.890	947.505	955.450	963.357	972.807
	DGM Final Reading (ft^3)		930.878	936.087	941.800	947.505	918.890	925.700	955.450	963.357	972.807	982.253
	Temperature (°F)	Inlet Initial	69	69	69	70	68	68	67	66	69	72
		Outlet Initial	66	67	67	66	66	65	68	65	66	67
		Inlet Final	69	69	70	70	68	69	66	69	72	75
		Outlet Final	67	67	66	68	65	66	65	66	66	68
Test Time (minutes)			15	15	12	12	10	10	10	10	10	10
Orifice Manometer, ΔH (" H_2O)			0.37	0.37	0.72	0.72	1.55	1.55	2.1	2.1	3.0	3.0
Barometric Pressure (" Hg)			28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95
Ambient Temperature (°F)			67	67	67	67	67	67	67	67	67	67
Pump Vacuum (" Hg)			24	24	23	23	21	21	20	20	19	19

Notes:

5 Point Console Dry Gas Meter Calibration

Console ID A167041

Calibrated by	Initials	DC
	Date	5/18/11
Reviewed by	Initials	EDF
	Date	5-20-11

Orifice ID:	N-1		N-2		N-3		N-4		N-5	
Orifice K':	0.2639		0.3598		0.5180		0.6073		0.7245	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b	Run #4a	Run #4b	Run #5a	Run #5b
Initial Reading, (ft^3)	925.700	930.878	936.087	941.800	912.100	918.890	947.505	955.450	963.357	972.807
Final Reading, (ft^3)	930.878	936.087	941.800	947.505	918.890	925.700	955.450	963.357	972.807	982.253
Difference, (ft^3)	5.178	5.209	5.713	5.705	6.790	6.810	7.945	7.907	9.450	9.446
Initial Meter Inlet Temp., (°F)	69	69	69	70	68	68	67	66	69	72
Initial Meter Outlet Temp., (°F)	66	67	67	66	66	65	68	65	66	67
Final Meter Inlet Temp., (°F)	69	69	70	70	68	69	66	69	72	75
Final Meter Outlet Temp., (°F)	67	67	66	68	65	66	65	66	66	68
Average Meter Temp., (°F)	67.8	68.0	68.0	68.5	66.8	67.0	66.5	66.5	68.3	70.5
Test Time (min.)	15	15	12	12	10	10	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.37	0.37	0.72	0.72	1.55	1.55	2.10	2.10	3.00	3.00
Barometric Pressure, ("Hg)	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95	28.95
Ambient Temperature, (°F)	67	67	67	67	67	67	67	67	67	67
Pump Vacuum, ("Hg)	24	24	23	23	21	21	20	20	19	19
Standard Volume of the Meter, (V_{mstd})	5.015	5.043	5.536	5.523	6.609	6.625	7.747	7.710	9.205	9.162
Standard Volume of Critical Orifice, (V_{crstd})	4.992	4.992	5.445	5.445	6.532	6.532	7.659	7.659	9.137	9.137
Flow Rate (cfm)	0.334	0.336	0.461	0.460	0.661	0.663	0.775	0.771	0.921	0.916
DGM Calibration Factor, (Y)	0.995	0.990	0.984	0.986	0.988	0.986	0.989	0.993	0.993	0.997
Average DGM Calibration Factor (Y)	0.993		0.985		0.987		0.991		0.995	
Delta H@	1.822	1.822	1.910	1.909	1.997	1.996	1.975	1.975	1.985	1.977

Current Average Y =	0.990
Average Delta H@ =	1.937
All Individual Values within 2% of mean?	TRUE

Three-Point Dry Gas Meter Calibration
(Against Critical Orifice)

Console ID A167041

Calibrated by	Initials	TF	Reviewed by	Initials	RWD	Leak Check	(+)	ok
	Date	7/6/11		Date	07-06-11		(-)	ok

				Run 1A	Run 1B	Run 2A	Run 2B	Run 3A	Run 3B
DGM Calibration	Critical Orifice		Identification Number	N-2		N-3		N-4	
			K Factor	0.3598		0.5180		0.6073	
	Subject DGM		DGM Initial Reading (ft^3)	370.262	375.977	381.699	388.476	395.264	403.176
			DGM Final Reading (ft^3)	375.977	381.699	388.476	395.264	403.176	411.086
		Temperature (°F)	Inlet Initial	76	74	74	75	76	78
			Outlet Initial	75	73	71	73	72	73
			Inlet Final	74	74	75	76	78	79
			Outlet Final	73	71	73	72	73	74
			Test Time (minutes)	12	12	10	10	10	10
			Orifice Manometer, ΔH (" H_2O)	0.73	0.72	1.6	1.6	2.1	2.1
			Barometric Pressure (" Hg)	29.15	29.15	29.15	29.15	29.15	29.15
			Ambient Temperature (°F)	68	68	68	68	68	68
			Pump Vacuum (" Hg)	23	23	22	22	21	21

Temperature Readout Calibration

Check the readout against a NIST Thermometer

NIST Thermometer ID J3117

Thermometer Reading (°F)	32
Readout Reading (°F)	32

Check the readout linearity (one channel only)

Voltage Supply ID A178550 Channel No 1

Voltage (mv)	Theoretical (°F)	Observed (°F)	Difference (°F)
0	32	32	0
1	77	76	-1
3	165	164	-1
7	341	341	0
15	692	694	2

Pre/Post Test Console Calibration Check

Console ID		A167041
Calibrated by	Initials	RF
	Date	7/6/11
Reviewed by	Initials	RvW
	Date	07-06-11

Orifice ID:	N-2		N-3		N-4	
Orifice K':	0.3598		0.5180		0.6073	
Dry Gas Meter	Run #1a	Run #1b	Run #2a	Run #2b	Run #3a	Run #3b
Initial Reading, (ft^3)	370.262	375.977	381.699	388.476	395.264	403.176
Final Reading, (ft^3)	375.977	381.699	388.476	395.264	403.176	411.086
Difference, (ft^3)	5.715	5.722	6.777	6.788	7.912	7.910
Initial Meter Inlet Temp., (°F)	76	74	74	75	76	78
Initial Meter Outlet Temp., (°F)	75	73	71	73	72	73
Final Meter Inlet Temp., (°F)	74	74	75	76	78	79
Final Meter Outlet Temp., (°F)	73	71	73	72	73	74
Average Meter Temp., (°F)	74.5	73.0	73.3	74.0	74.8	76.0
Test Time (min.)	12	12	10	10	10	10
Orifice Manometer Reading, ("H_2O)	0.73	0.72	1.6	1.6	2.1	2.1
Barometric Pressure, ("Hg)	29.15	29.15	29.15	29.15	29.15	29.15
Ambient Temperature, (°F)	68	68	68	68	68	68
Pump Vacuum, ("Hg)	23	23	22	22	21	21
Standard Volume of the Meter, (Vmstd)	5.508	5.530	6.561	6.563	7.648	7.629
Standard Volume of Critical Orifice, (Vcrstd)	5.477	5.477	6.571	6.571	7.704	7.704
DGM Calibration Factor, (Y)	0.994	0.990	1.002	1.001	1.007	1.010
Difference from Average	-0.006	-0.010	0.001	0.000	0.006	0.009
Delta H@	1.90	1.88	2.03	2.02	1.93	1.93

Average Y =	1.001
Reference Yd =	0.990
Percent Difference =	1.1
Is Measured Y within 5% of Reference Yd?	TRUE
Average Delta H@ =	1.950

CDS-0451 DGM 3 point cal check against orifice
Revision Date: January 2011

Temperature Readout Calibration

Isokinetic Sampling Consoles

Readout ID Number: 80-011309-1 Calibrated by: RF

Reference Thermometer ID Number: J31117 Date: 5/10/11

Voltage Generator ID Number: A178550 Reviewed by: RVW

Date: 05-13-11

Temperature Readout Calibration	
Reference Thermometer (°F)	Temperature Readout (°F) (after adjustment)
32	34

Temperature Readout Calibration Check

Channel	Voltage (mV)	Temperature (°F) Theoretical	Observed	Difference [1,2]
1 [3]	0.0	32		
	1.0	77		
	3.0	165		
	5.0	251	RVW	
	7.0	341	05-13-11	
	10.0	475		
	15.0	692		
	20.0	905		
	30.0	1329		
	40.0	1772		
Probe 2	0.0	32	32	0
	3.0	165	165	0
	4.0	208	208	0
	5.0	251	252	+1 RF 5/10
	7.0	341	341	0
Filter 3	0.0	32	32	0
	3.0	165	165	0
	4.0	208	208	0
	5.0	251	252	1
	7.0	341	341	0

Channel	Voltage (mV)	Temperature (°F) Theoretical	Observed	Difference
AUX-1 4	-1.0	-10	-14	-4
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	122	1
	3.0	165	166	1
AUX-2 5	-1.0	-10	-15	-5
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0
D6M IN 6	-1.0	-10	-15	-5
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	164	-1
D6M OUT 7	-1.0	-10	-14	-4
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	122	1
	3.0	165	165	0

[1] Difference is calculated as follows:

Difference = Measured – Theoretical

[2] Acceptable difference is ±5°F for temperatures below 1000°F and ±10°F for temperatures above 1000°F.

[3] Select at least 5 of the voltage/temperature combinations.

CDS-02 Temperature Readout
Revision Date: February 2011

VOST Console DGM & Thermocouple Calibration

Console ID 80-011309-1 Nominal Orifice Flow Rate 1.0 L/min

DGM Calibration

Calibrated by	Initials	RF	Reviewed by	Initials	RVW	Leak Check	(-)	ok
	Date	5/31/11		Date	06-02-11			

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-2		
	K Factor		0.8001		
DGM being Calibrated	Vol (L)	Initial	0.000	0.000	0.000
		Final	10.469	10.578	10.546
	T_{meter} (°F)	Inlet Initial	73	74	76
		Outlet Initial	72	73	74
		Inlet Final	74	76	77
		Outlet Final	73	74	75
	Meter Pressure (" H2O))		1.2	1.2	1.2
Test Conditions	Pump Vacuum (" Hg)		19	18	18.5
	P_{bar} (" Hg)		29.31	29.31	29.31
	$T_{ambient}$ (°F)		68	68	68
	Test Duration (min)		10	10	10

Thermocouple Calibration

Thermometer ID 131117 Voltage Supply ID A178550

Temperature Readout Accuracy			Temperature Readout Linearity			
Thermometer Reading (°F)	Temperature Readout		Channel No.	Voltage	Theoretical Temp (°F)	Observed Temp (°F)
	Channel No.	Temperature (°F)				
32	AUX-1 ~~33~~ RF 5/31	33	AUX-1	0	32	32
				1	77	77
				3	165	165
				7	341	340
				15	692	691

VOST Console DGM Calibration

Console ID 80-011309-1

Nominal Orifice Flow Rate (l/min) 1

DGM Calibration

Calibrated By	Initials	RF
	Date	5/31/11
Reviewed By	Initials	RVW
	Date	06-02-11

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-2		
	K Factor		0.8001		
DGM being Calibrated	Vol (L)	Initial	0.000	0.000	0.000
		Final	10.469	10.578	10.546
	T meter (°F)	Inlet Initial	73	74	76
		Outlet Initial	72	73	74
		Inlet Final	74	76	77
		Outlet Final	73	74	75
	Meter Pressure (H_2O)		1.2	1.2	1.2
Test Conditions	Pump Vacuum ("Hg)		19	18	18.5
	Pbar ("Hg)		29.31	29.31	29.31
	T ambient (°F)		68	68	68
	Test Duration (minutes)		10	10	10
Calculated Values	DGMCF, Y		1.002	0.994	0.999
	Average DGMCF, Yd		0.998		

Acceptance Criteria:

1: Each individual Y value must be within 2% of the average Y value

2: Average Y value must be between 0.95 and 1.05

CDS-03sa VOST Console
Revision Date November 2008
Reviewed: January 2010

VOST Console DGM & Thermocouple Calibration

Console ID 80-01/309-1 Nominal Orifice Flow Rate @ 0.500 L/min

DGM Calibration

Calibrated by	Initials	RT	Reviewed by	Initials	RW	Leak Check	(-)	OK
	Date	7/8/11		Date	07-15-11			

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-1		
	K Factor		0.3834		
DGM being Calibrated	Vol (L)	Initial	105.227	110.173	115.260
		Final	110.169	115.257	120.311
	T_{meter} (°F)	Inlet Initial	72	75	77
		Outlet Initial	72	74	76
		Inlet Final	75	77	79
		Outlet Final	74	76	78
	Meter Pressure (" H2O))		1.2	1.2	1.2
Test Conditions	Pump Vacuum (" Hg)		23	22	22
	P_{bar} (" Hg)		29.05	29.05	29.05
	$T_{ambient}$ (°F)		68	68	68
	Test Duration (min)		10	10	10

Thermocouple Calibration

Thermometer ID J3117 Voltage Supply ID A178550

Temperature Readout Accuracy		
Thermometer Reading (°F)	Temperature Readout	
	Channel No.	Temperature (°F)
32	AUX-1	33

Temperature Readout Linearity			
Channel No.	Voltage	Theoretical Temp (°F)	Observed Temp (°F)
AUX-1	0	32	32
	1	77	77
	3	165	165
	7	341	341
	15	692	692

VOST Console DGM Calibration

Console ID 80-011309-1

Nominal Orifice Flow Rate (l/min) 0.5

DGM Calibration

Calibrated By	Initials	RF	Reviewed By	Initials	RVJ
	Date	7/8/11		Date	07-13-11

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-1		
	K Factor		0.3834		
DGM being Calibrated	Vol (L)	Initial	105.227	110.173	115.260
		Final	110.169	115.257	120.311
	T meter (°F)	Inlet Initial	72	75	77
		Outlet Initial	72	74	76
		Inlet Final	75	77	79
		Outlet Final	74	76	78
	Meter Pressure (H_2O)		1.2	1.2	1.2
Test Conditions	Pump Vacuum ("Hg)		23	22	22
	Pbar ("Hg)		29.05	29.05	29.05
	T ambient (°F)		68	68	68
	Test Duration (minutes)		10	10	10
Calculated Values	DGMCF, Y		1.018	0.993	1.004
	Average DGMCF, Yd		1.005		

Acceptance Criteria:

1: Each individual Y value must be within 2% of the average Y value

2: Average Y value must be between 0.95 and 1.05

CDS-03sa VOST Console
Revision Date November 2008
Reviewed: January 2010

Temperature Readout Calibration

Isokinetic Sampling Consoles

Readout ID Number: 80-10204-1 Calibrated by: RF

Reference Thermometer ID Number: J 31117 Date: 5/10/11

Voltage Generator ID Number: A178550 Reviewed by: RvW

Date: 05-12-11

Temperature Readout Calibration	
Reference Thermometer (°F)	Temperature Readout (°F) (after adjustment)
32	32

Temperature Readout Calibration Check

Channel	Voltage (mV)	Temperature (°F) Theoretical	Observed	Difference [1,2]
1 [3]	0.0	32	32 RF 5/10	
	1.0	77		
	3.0	165		
	5.0	251	RvW	
	7.0	341	05-12-11	
	10.0	475		
	15.0	692		
	20.0	905		
	30.0	1329		
	40.0	1772		
Probe 2	0.0	32	32	0
	3.0	165	165	0
	4.0	208	208	0
	5.0	251	251	0
	7.0	341	340	-1
Filter 3	0.0	32	32	0
	3.0	165	165	0
	4.0	208	209	1
	5.0	251	253	2
	7.0	341	342	1

Channel	Voltage (mV)	Temperature (°F) Theoretical	Observed	Difference
AUX-1 4	-1.0	-10	-15	-5
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	122	1
	3.0	165	165	0
AUX-2 5	-1.0	-10	-15	-5
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0
DGM IN 6	-1.0	-10	-15	~~0~~ -5 RF 5/10
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0
DGM OUT 7	-1.0	-10	-14	-4
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0

[1] Difference is calculated as follows:

Difference = Measured – Theoretical

[2] Acceptable difference is ±5°F for temperatures below 1000°F and ±10°F for temperatures above 1000°F.

[3] Select at least 5 of the voltage/temperature combinations.

CDS-02 Temperature Readout
Revision Date: February 2011

VOST Console DGM & Thermocouple Calibration

Console ID 80-10204-1 Nominal Orifice Flow Rate 1.0 L/min

DGM Calibration

Calibrated by	Initials	RF	Reviewed by	Initials	RW	Leak Check	(-)	ok
	Date	6/1/11		Date	06-02-11			

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-2		
	K Factor		0.8001		
DGM being Calibrated	Vol (L)	Initial	3481.77	3492.48	3503.17
		Final	3492.48	3503.13	3513.93
	T_{meter} (°F)	Inlet Initial	69	70	71
		Outlet Initial	68	69	70
		Inlet Final	70	71	72
		Outlet Final	69	70	71
	Meter Pressure (" H2O))		1.3	1.3	1.4
Test Conditions	Pump Vacuum (" Hg)		21.5	21	21
	P_{bar} (" Hg)		29.34	29.34	29.34
	$T_{ambient}$ (°F)		68	68	68
	Test Duration (min)		10	10	10

Thermocouple Calibration

Thermometer ID J3117 Voltage Supply ID A178550

Temperature Readout Accuracy			Temperature Readout Linearity			
Thermometer Reading (°F)	Temperature Readout		Channel No.	Voltage	Theoretical Temp (°F)	Observed Temp (°F)
	Channel No.	Temperature (°F)				
32	Aux-1	32	Aux-1	0	32	32
				1	77	77
				3	165	165
				7	341	341
				15	692	692

VOST Console DGM Calibration

Console ID 80-10204-1

Nominal Orifice Flow Rate (l/min) 1.0

DGM Calibration

Calibrated By	Initials	RF	Reviewed By	Initials	TKW
	Date	6/1/11		Date	06-07-11

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-2		
	K Factor		0.8001		
DGM being Calibrated	Vol (L)	Initial	3481.77	3492.48	3503.17
		Final	3492.48	3503.13	3513.93
	T meter (°F)	Inlet Initial	69	70	71
		Outlet Initial	68	69	70
		Inlet Final	70	71	72
		Outlet Final	69	70	71
	Meter Pressure (H_2O)		1.3	1.3	1.4
Test Conditions	Pump Vacuum ("Hg)		21.5	21	21
	Pbar ("Hg)		29.34	29.34	29.34
	T ambient (°F)		68	68	68
	Test Duration (minutes)		10	10	10
Calculated Values	DGMCF, Y		0.972	0.979	0.971
	Average DGMCF, Yd		0.974		

Acceptance Criteria:

1: Each individual Y value must be within 2% of the average Y value

2: Average Y value must be between 0.95 and 1.05

VOST Console DGM & Thermocouple Calibration

Console ID 80-10204-1 Nominal Orifice Flow Rate 0.500 L/min

DGM Calibration

Calibrated by	Initials	RF	Reviewed by	Initials	RVW	Leak Check	(-)	ok
	Date	7/8/11		Date	07-13-11			

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-1		
	K Factor		0.3834		
DGM being Calibrated	Vol (L)	Initial	3909.97	3914.97	3920.93
		Final	3914.97	3919.85	3926.06
	T_{meter} (°F)	Inlet Initial	69	72	75
		Outlet Initial	69	72	74
		Inlet Final	72	75	77
		Outlet Final	72	74	76
	Meter Pressure (" H2O))		1.2	1.2	1.2
Test Conditions	Pump Vacuum (" Hg)		24	24	24
	P_{bar} (" Hg)		29.05	29.05	29.05
	$T_{ambient}$ (°F)		68	68	68
	Test Duration (min)		10	10	10

Thermocouple Calibration

Thermometer ID J31117 Voltage Supply ID A178550

Temperature Readout Accuracy			Temperature Readout Linearity			
Thermometer Reading (°F)	Temperature Readout		Channel No.	Voltage	Theoretical Temp (°F)	Observed Temp (°F)
	Channel No.	Temperature (°F)				
32	AUX-1	31	AUX-1	0	32	32
				1	77	77
				3	165	164
				7	341	340
				15	692	691

VOST Console DGM Calibration

Console ID 80-10204-1

Nominal Orifice Flow Rate (l/min) 0.5

DGM Calibration

Calibrated By	Initials	RF	Reviewed By	Initials	RJW
	Date	7/8/11		Date	07-13-11

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-1		
	K Factor		0.3834		
DGM being Calibrated	Vol (L)	Initial	3909.97	3914.97	3920.93
		Final	3914.97	3919.85	3926.06
	T meter (°F)	Inlet Initial	69	72	75
		Outlet Initial	69	72	74
		Inlet Final	72	75	77
		Outlet Final	72	74	76
	Meter Pressure (H_2O)		1.2	1.2	1.2
Test Conditions	Pump Vacuum ("Hg)		24	24	24
	Pbar ("Hg)		29.05	29.05	29.05
	T ambient (°F)		68	68	68
	Test Duration (minutes)		10	10	10
Calculated Values	DGMCF, Y		1.001	1.030	0.984
	Average DGMCF, Yd		1.005		

Acceptance Criteria:

1: Each individual Y value must be within 2% of the average Y value

2: Average Y value must be between 0.95 and 1.05

CDS-03sa VOST Console
Revision Date November 2008
Reviewed: January 2010

Temperature Readout Calibration

Isokinetic Sampling Consoles

Readout ID Number: 80-111701-1
Calibrated by: DC
Reference Thermometer ID Number: J31117
Date: 6-2-11
Voltage Generator ID Number: A179550
Reviewed by: RVW
Date: 06-02-11

Temperature Readout Calibration	
Reference Thermometer (°F)	Temperature Readout (°F) (after adjustment)
32	32

Temperature Readout Calibration Check

Channel	Voltage (mV)	Temperature (°F) Theoretical	Observed	Difference [1,2]
1 [3]	0.0	32		
	1.0	77		
	3.0	165		
	5.0	251	RVW	
	7.0	341	06-02-11	
	10.0	475		
	15.0	692		
	20.0	905		
	30.0	1329		
	40.0	1772		
probe 2	0.0	32	32	0
	3.0	165	164	-1
	4.0	208	207	-1
	5.0	251	251	0
	7.0	341	340	-1
Filter 3	0.0	32	32	0
	3.0	165	164	-1
	4.0	208	208	0
	5.0	251	251	0
	7.0	341	340	-1

Channel	Voltage (mV)	Temperature (°F) Theoretical	Observed	Difference
DGM Inlet 4	-1.0	-10	-12	-2
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	164	-1
DGM outlet 5	-1.0	-10	-13	-3
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0
Aux-1 6	-1.0	-10	-13	-3
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	164	-1
Aux-2 7	-1.0	-10	-12	-2
	0.0	32	32	0
	1.0	77	77	0
	2.0	121	121	0
	3.0	165	165	0

[1] Difference is calculated as follows:

Difference = Measured – Theoretical

[2] Acceptable difference is ±5°F for temperatures below 1000°F and ±10°F for temperatures above 1000°F.

[3] Select at least 5 of the voltage/temperature combinations.

VOST Console DGM & Thermocouple Calibration

Console ID 80-111701-1 Nominal Orifice Flow Rate 1.0 L/min

DGM Calibration

Calibrated by	Initials	BF	Reviewed by	Initials	RVW	Leak Check	(-)	OK
	Date	6/1/11		Date	06-02-11			

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-2		
	K Factor		0.8001		
DGM being Calibrated	Vol (L)	Initial	968.63	979.01	989.68
		Final	979.01	989.68	1000.53
	T_{meter} (°F)	Inlet Initial	71	71	73
		Outlet Initial	70	71	72
		Inlet Final	71	73	73
		Outlet Final	71	72	73
	Meter Pressure (" H2O))		1.0	1.1	1.1
Test Conditions	Pump Vacuum (" Hg)		20	20	20
	P_{bar} (" Hg)		29.34	29.34	29.34
	$T_{ambient}$ (°F)		68	68	68
	Test Duration (min)		10	10	10

Thermocouple Calibration

Thermometer ID T3117 Voltage Supply ID A178550

Temperature Readout Accuracy			Temperature Readout Linearity			
Thermometer Reading (°F)	Temperature Readout		Channel No.	Voltage	Theoretical Temp (°F)	Observed Temp (°F)
	Channel No.	Temperature (°F)				
32	Avx-1	33	Avx-1	0	32	32
				1	77	77
				3	165	165
				7	341	340
				15	692	691

VOST Console DGM Calibration

Console ID 80-111701-1

Nominal Orifice Flow Rate (l/min) 1.0

DGM Calibration

Calibrated By	Initials	RF	Reviewed By	Initials	RVW
	Date	6/1/11		Date	06-02-11

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-2		
	K Factor		0.8001		
DGM being Calibrated	Vol (L)	Initial	968.63	979.01	989.68
		Final	979.01	989.68	1000.53
	T meter (°F)	Inlet Initial	71	71	73
		Outlet Initial	70	71	72
		Inlet Final	71	73	73
		Outlet Final	71	72	73
	Meter Pressure (H_2O)		1.0	1.1	1.1
Test Conditions	Pump Vacuum ("Hg)		20	20	20
	Pbar ("Hg)		29.34	29.34	29.34
	T ambient (°F)		68	68	68
	Test Duration (minutes)		10	10	10
Calculated Values	DGMCF, Y		1.007	0.981	0.967
	Average DGMCF, Yd		0.985		

Acceptance Criteria:

1: Each individual Y value must be within 2% of the average Y value

2: Average Y value must be between 0.95 and 1.05

CDS-03sa VOST Console
Revision Date November 2008
Reviewed: January 2010

VOST Console DGM & Thermocouple Calibration

Console ID 80-111701-1 Nominal Orifice Flow Rate 0.500 L/min

DGM Calibration

Calibrated by	Initials	RF	Reviewed by	Initials	RJW	Leak Check	(-)	OK
	Date	7/8/11		Date	07-13-11			

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-1		
	K Factor		0.3834		
DGM being Calibrated	Vol (L)	Initial	1328.77	1333.78	1338.82
		Final	1333.78	1338.82	1343.86
	T_{meter} (°F)	Inlet Initial	74	75	77
		Outlet Initial	74	74	76
		Inlet Final	75	77	79
		Outlet Final	74	76	77
	Meter Pressure (" H2O))		1.0	1.0	1.0
Test Conditions	Pump Vacuum (" Hg)		21.5	21.5	21.5
	P_{bar} (" Hg)		29.05	29.05	29.05
	$T_{ambient}$ (°F)		68	68	68
	Test Duration (min)		10	10	10

Thermocouple Calibration

Thermometer ID 531117 Voltage Supply ID A178550

Temperature Readout Accuracy		
Thermometer Reading (°F)	Temperature Readout	
	Channel No.	Temperature (°F)
32	AUX-1	32

Temperature Readout Linearity			
Channel No.	Voltage	Theoretical Temp (°F)	Observed Temp (°F)
AUX-1	0	32	32
	1	77	77
	3	165	165
	7	341	341
	15	692	692

VOST Console DGM Calibration

Console ID 80-111701-1

Nominal Orifice Flow Rate (l/min) 0.5

DGM Calibration

Calibrated By	Initials	RF	Reviewed By	Initials	KW
	Date	7/8/11		Date	07-13-11

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-1		
	K Factor		0.3834		
DGM being Calibrated	Vol (L)	Initial	1328.77	1333.78	1338.82
		Final	1333.78	1338.82	1343.86
	T meter (°F)	Inlet Initial	74	75	77
		Outlet Initial	74	74	76
		Inlet Final	75	77	79
		Outlet Final	74	76	77
	Meter Pressure (H_2O)		1.0	1.0	1.0
Test Conditions	Pump Vacuum ("Hg)		21.5	21.5	21.5
	Pbar ("Hg)		29.05	29.05	29.05
	T ambient (°F)		68	68	68
	Test Duration (minutes)		10	10	10
Calculated Values	DGMCF, Y		1.006	1.002	1.006
	Average DGMCF, Yd		1.005		

Acceptance Criteria:

1: Each individual Y value must be within 2% of the average Y value

2: Average Y value must be between 0.95 and 1.05

CDS-03sa VOST Console
Revision Date November 2008
Reviewed: January 2010

Temperature Readout Calibration

Isokinetic Sampling Consoles

Readout ID Number: SN1543
Reference Thermometer ID Number: J31117
Voltage Generator ID Number: A178550
Calibrated by: EDF
Date: 4/18/11
Reviewed by: RW
Date: 04-19-11

Temperature Readout Calibration	
Reference Thermometer (°F)	Temperature Readout (°F) (after adjustment)
32	32

Temperature Readout Calibration Check

Channel	Voltage (mV)	Temperature (°F) Theoretical	Observed	Difference [1,2]
1 [3]	0.0	32	32	0
	1.0	77	76	-1
	3.0	165	165	0
	5.0	251	253	2
	7.0	341	341	0
	10.0	475	473	-2
	15.0	692	694	2
	20.0	905	905	0
	30.0	1329	1328	-1
	40.0	1772	1771	-1
2	0.0	32	32	0
	3.0	165	165	0
	4.0	208	209	1
	5.0	251	253	2
	7.0	341	342	1
3	0.0	32	32	0
	3.0	165	165	0
	4.0	208	209	1
	5.0	251	253	2
	7.0	341	341	0

Channel	Voltage (mV)	Temperature (°F) Theoretical	Observed	Difference
4	-1.0	-10	-11	-1
	0.0	32	32	0
	1.0	77	76	-1
	2.0	121	121	0
	3.0	165	165	0
5	-1.0	-10	-12	-2
	0.0	32	32	0
	1.0	77	76	-1
	2.0	121	120	-1
	3.0	165	164	-1
6	-1.0	-10	-11	-1
	0.0	32	32	0
	1.0	77	76	-1
	2.0	121	120	-1
	3.0	165	164	-1
7	-1.0	-10	-11	-1
	0.0	32	32	0
	1.0	77	76	-1
	2.0	121	120	-1
	3.0	165	164	-1

[1] Difference is calculated as follows:

Difference = Measured – Theoretical

[2] Acceptable difference is ±5°F for temperatures below 1000°F and ±10°F for temperatures above 1000°F.

[3] Select at least 5 of the voltage/temperature combinations.

VOST Console DGM & Thermocouple Calibration

Console ID SN1543 Nominal Orifice Flow Rate 1.0 L/min

DGM Calibration

Calibrated by	Initials	TF	Reviewed by	Initials	RVW	Leak Check	(-)	OK
	Date	6/1/11		Date	06-02-11			

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-2		
	K Factor		0.8001		
DGM being Calibrated	Vol (L)	Initial	1989.22	1999.82	2010.47
		Final	1999.82	2010.47	2021.26
	T_{meter} (°F)	Inlet Initial	68	69	70
		Outlet Initial	67	69	70
		Inlet Final	69	70	70
		Outlet Final	69	70	71
	Meter Pressure (" H2O))		1.4	1.4	1.45
Test Conditions	Pump Vacuum (" Hg)		18	18	18
	P_{bar} (" Hg)		29.41	29.41	29.41
	$T_{ambient}$ (°F)		68	68	68
	Test Duration (min)		10	10	10

Thermocouple Calibration

Thermometer ID J31117 Voltage Supply ID A178550

Temperature Readout Accuracy			Temperature Readout Linearity			
Thermometer Reading (°F)	Temperature Readout		Channel No.	Voltage	Theoretical Temp (°F)	Observed Temp (°F)
	Channel No.	Temperature (°F)				
32	1	32	1	0	32	32
			1	1	77	76
			1	3	165	164
			1	7	341	340
			1	15	692	693

VOST Console DGM Calibration

Console ID SN1543

Nominal Orifice Flow Rate (l/min) 1.0

DGM Calibration

Calibrated By	Initials	RF	Reviewed By	Initials	RVL
	Date	6/1/11		Date	06-07-11

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-2		
	K Factor		0.8001		
DGM being Calibrated	Vol (L)	Initial	1989.22	1999.82	2010.47
		Final	1999.82	2010.47	2021.26
	T meter (°F)	Inlet Initial	68	69	70
		Outlet Initial	67	69	70
		Inlet Final	69	70	70
		Outlet Final	69	70	71
	Meter Pressure (H_2O)		1.4	1.4	1.45
Test Conditions	Pump Vacuum ("Hg)		18	18	18
	Pbar ("Hg)		29.41	29.41	29.41
	T ambient (°F)		68	68	68
	Test Duration (minutes)		10	10	10
Calculated Values	DGMCF, Y		0.980	0.978	0.967
	Average DGMCF, Yd		0.975		

Acceptance Criteria:

1: Each individual Y value must be within 2% of the average Y value

2: Average Y value must be between 0.95 and 1.05

CDS-03sa VOST Console
Revision Date November 2008
Reviewed: January 2010

VOST Console DGM & Thermocouple Calibration

Console ID SN1543 Nominal Orifice Flow Rate 0.500 L/min

DGM Calibration

Calibrated by	Initials	TJ	Reviewed by	Initials	RVW	Leak Check	(-)	OK
	Date	7/8/11		Date	07-12-11			

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-1		
	K Factor		0.3834		
DGM being Calibrated	Vol (L)	Initial	2128.79	2134.07	2139.35
		Final	2134.07	2139.35	2144.58
	T_{meter} (°F)	Inlet Initial	72	73	74
		Outlet Initial	72	73	74
		Inlet Final	73	74	76
		Outlet Final	73	74	76
	Meter Pressure (" H2O))		1.0	1.0	1.0
Test Conditions	Pump Vacuum (" Hg)		21	22	22.5
	P_{bar} (" Hg)		29.05	29.05	29.05
	$T_{ambient}$ (°F)		68	68	68
	Test Duration (min)		10	10	10

Thermocouple Calibration

Thermometer ID 31117 Voltage Supply ID A178552

Temperature Readout Accuracy			Temperature Readout Linearity			
Thermometer Reading (°F)	Temperature Readout		Channel No.	Voltage	Theoretical Temp (°F)	Observed Temp (°F)
	Channel No.	Temperature (°F)				
32	1	32	1	0	32	32
			1	1	77	76
			1	3	165	164
			1	7	341	341
			1	15	692	694

VOST Console DGM Calibration

Console ID SN1543

Nominal Orifice Flow Rate (l/min) 0.5

DGM Calibration

Calibrated By	Initials	RF	Reviewed By	Initials	RWD
	Date	7/8/11		Date	07-12-11

			Run 1	Run 2	Run 3
Orifice Information	ID Number		L-1		
	K Factor		0.3834		
DGM being Calibrated	Vol (L)	Initial	2128.79	2134.07	2139.35
		Final	2134.07	2139.35	2144.58
	T meter (°F)	Inlet Initial	72	73	74
		Outlet Initial	72	73	74
		Inlet Final	73	74	76
		Outlet Final	73	74	76
	Meter Pressure (H_2O)		1.0	1.0	1.0
Test Conditions	Pump Vacuum ("Hg)		21	22	22.5
	Pbar ("Hg)		29.05	29.05	29.05
	T ambient (°F)		68	68	68
	Test Duration (minutes)		10	10	10
Calculated Values	DGMCF, Y		0.952	0.953	0.965
	Average DGMCF, Yd		0.957		

Acceptance Criteria:

1: Each individual Y value must be within 2% of the average Y value

2: Average Y value must be between 0.95 and 1.05

CDS-03sa VOST Console
Revision Date November 2008
Reviewed: January 2010

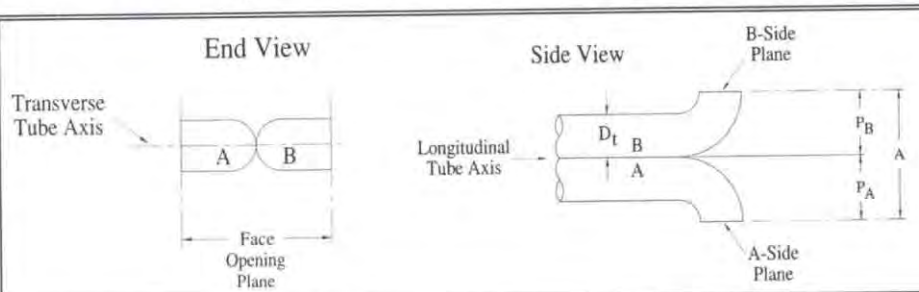
S-Type Pitot Tube Inspection and Probe Thermocouple Calibration Check

Pitot ID: 7-01

Caliper ID: 100805

Calibrated by	Initials	RE	Reviewed by	Initials	RVW
	Date	5/31/11		Date	06-02-11

General Pitot Tube Alignment



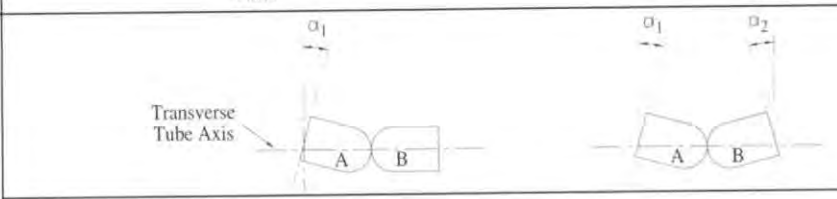
A = 0.945

D_t = 0.375

$0.188" \le D_t \le 0.375"$? Y (y/n)

$1.05 \le A/2D_t \le 1.50$? Y (y/n)

Misalignment

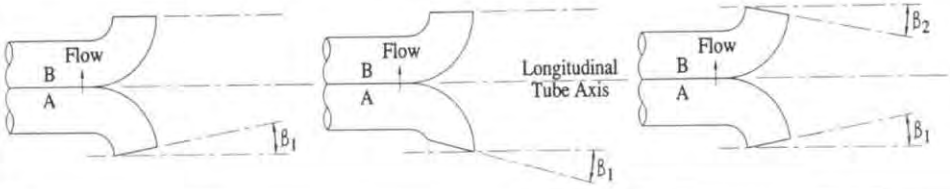


α_1 = 3

α_2 = 3

$\alpha_1 \le 10°$? Y (y/n)

$\alpha_2 \le 10°$? Y (y/n)

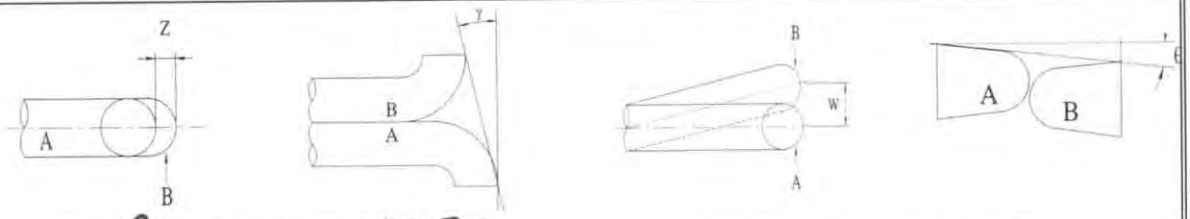


β_1 = 0

β_2 = 2

$\beta_1 \le 5°$? Y (y/n)

$\beta_2 \le 5°$? Y (y/n)



γ = 10° $Z = A \tan(\gamma)$ = 0.0163

θ = 0° $W = A \tan(\theta)$ = 0

$Z \le 0.125"$? Y (y/n)

$W \le 0.031"$? Y (y/n)

Acceptability for Use (Circle Selection)

If all answers are "Y", this pitot tube is available for use, and may be assigned a correction factor of 0.84	If all answers except the first (D_t) are "Y", this pitot tube is available for use, but needs to be calibrated using a wind tunnel.	Any other situation, the pitot tube must be removed from service.

Probe ID: 7-01

Calibrated by	Initials	RE	Reviewed by	Initials	RVW
	Date	5/31/11		Date	06-02-11

Stack Thermocouple Calibration [1]

Reference Thermometer ID No. [2] 1-01294042

T_F 501 °F

$T_{abs,\,RT}$ 961 °R

Thermocouple Readout ID No. A61402

T_F 499 °F

$T_{abs,\,TC}$ 959 °R

Compare thermocouple to reference thermometer

$\frac{T_{abs,TC}}{T_{abs,RT}}$ = 0.998

Is this between 0.985 and 1.015? Y (y/n)

Calculate applicability range for thermocouple.

$Min_{abs} = 0.9 \times T_{abs,TC}$ = 503 °R → $Min_F = Min_{abs} - 460$ = 863 °F

$Max_{abs} = 1.1 \times T_{abs,TC}$ = 595 °R → $Max_F = Max_{abs} - 460$ = 1055 °F

[1] Per SOP 032, this calibration is generally performed at 160°F.

[2] $T_{abs;}$ (°R) = T_F (°F) + 460

RE 5/31/11

S-Type Pitot Tube Inspection and Probe Thermocouple Calibration Check

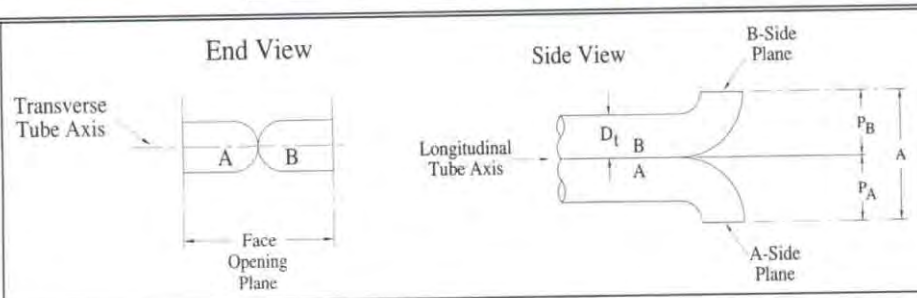
NR 5/31/11

Pitot ID: 01 7-04

Caliper ID: 700839

Calibrated by	Initials	NR	Reviewed by	Initials	RVW
	Date	5/31/11		Date	06-02-11

General Pitot Tube Alignment



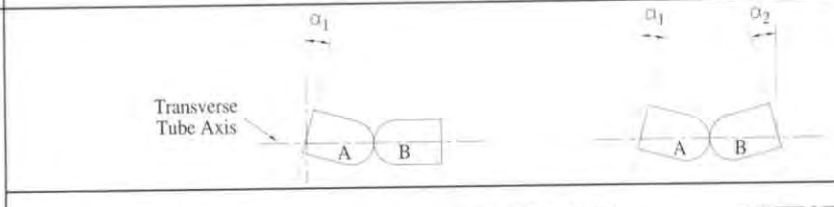
A = 0.934

D_t = 0.375

$0.188" \le D_t \le 0.375"$? Y (y/n)

$1.05 \le A/2D_t \le 1.50$? Y (y/n)

Misalignment

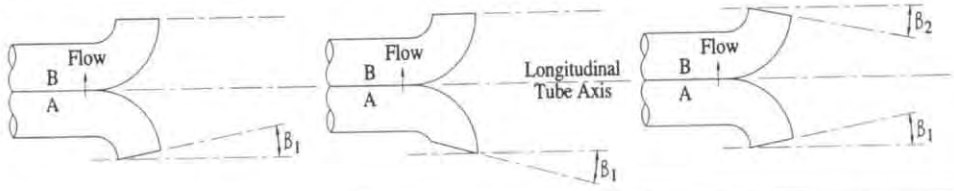


α_1 = 1

α_2 = 1

$\alpha_1 \le 10°$? Y (y/n)

$\alpha_2 \le 10°$? Y (y/n)

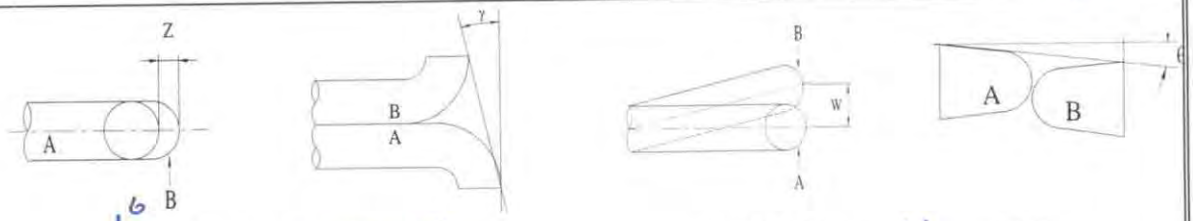


β_1 = 0°

β_2 = 1°

$\beta_1 \le 5°$? Y (y/n)

$\beta_2 \le 5°$? Y (y/n)



γ = 1° Z = A tan(γ) = 0.0163

θ = 1° W = A tan(θ) = 0.0163

$Z \le 0.125"$? Y (y/n)

$W \le 0.031"$? Y (y/n)

Acceptability for Use (Circle Selection)	If all answers are "Y", this pitot tube is available for use, and may be assigned a correction factor of 0.84	If all answers except the first (D_t) are "Y", this pitot tube is available for use, but needs to be calibrated using a wind tunnel.	Any other situation, the pitot tube must be removed from service.

Probe ID: 7-04

Calibrated by	Initials	NR	Reviewed by	Initials	RVW
	Date	5/31/11		Date	06-02-11

Stack Thermocouple Calibration [1]

Reference Thermometer ID No. [2]: 1-012940421

T_F 503 °F

$T_{abs, RT}$ 963 °R

Thermocouple Readout ID No.: A161402

T_F 500 °F

$T_{abs, TC}$ 960 °R

Compare thermocouple to reference thermometer

$\frac{T_{abs,TC}}{T_{abs,RT}}$ = 0.997

Is this between 0.985 and 1.015? Y (y/n)

Calculate applicability range for thermocouple.

$Min_{abs} = 0.9 \times T_{abs,TC}$	$Min_F = Min_{abs} - 460$
864 °R	404 °F
$Max_{abs} = 1.1 \times T_{abs,TC}$	$Max_F = Max_{abs} - 460$
1056 °R	596 °F

[1] Per SOP 032, this calibration is generally performed at 160°F.

[2] T_{abs} (°R) = T_F (°F) + 460

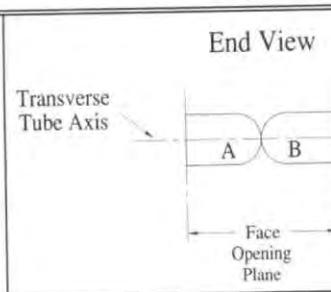
S-Type Pitot Tube Inspection and Probe Thermocouple Calibration Check

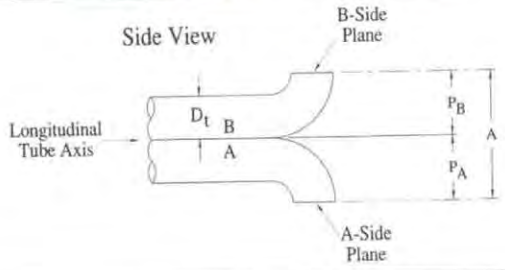
Pitot ID: P-343

Caliper ID: 700839

Calibrated by	Initials	NC	Reviewed by	Initials	RVW
	Date	5/31/11		Date	06-02-11

General Pitot Tube Alignment





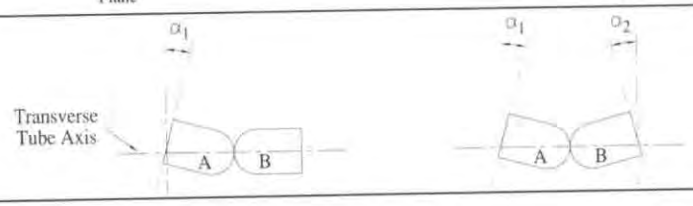
A = 0.928

D_t = 0.375

$0.188" \le D_t \le 0.375"$? Y (y/n)

$1.05 \le A/2D_t \le 1.50$? Y (y/n)

Misalignment

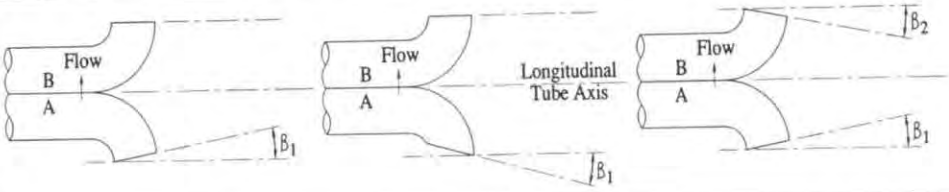


α_1 = 2°

α_2 = 1°

$\alpha_1 \le 10°$? Y (y/n)

$\alpha_2 \le 10°$? Y (y/n)

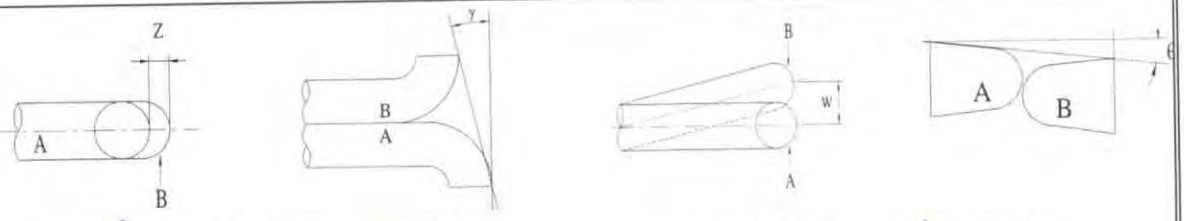


β_1 = 2°

β_2 = 2°

$\beta_1 \le 5°$? Y (y/n)

$\beta_2 \le 5°$? Y (y/n)



γ = 1° Z = A tan(γ) = 0.0162

θ = 1° W = A tan(θ) = 0.0162

$Z \le 0.125"$? Y (y/n)

$W \le 0.031"$? Y (y/n)

Acceptability for Use (Circle Selection)	If all answers are "Y", this pitot tube is available for use, and may be assigned a correction factor of 0.84	If all answers except the first (D_t) are "Y", this pitot tube is available for use, but needs to be calibrated using a wind tunnel.	Any other situation, the pitot tube must be removed from service.

Probe ID: P-343

Calibrated by	Initials	NC	Reviewed by	Initials	RVW
	Date	5/31/11 NC 5/31/11		Date	06-02-11

Stack Thermocouple Calibration [1]	Reference Thermometer ID No. [2]	Thermocouple Readout ID No.	Compare thermocouple to reference thermometer	Calculate applicability range for thermocouple.	
	1-0129040421	A161402	$\frac{T_{abs,TC}}{T_{abs,RT}}$ = 0.992	$Min_{abs} = 0.9 \times T_{abs,TC}$ = 881 °R	$Min_F = Min_{abs} - 460$ = 421 °F
	T_F 527 °F	T_F 519 °F			
	$T_{abs,RT}$ 987 °R	$T_{abs,TC}$ 979 °R	Is this between 0.985 and 1.015? Y (y/n)	$Max_{abs} = 1.1 \times T_{abs,TC}$ ~~1007~~ 1077 °R	$Max_F = Max_{abs} - 460$ = 617 °F

[1] Per SOP 032, this calibration is generally performed at 160°F.

[2] T_{abs} (°R) = T_F (°F) + 460

RVW 06-02-11

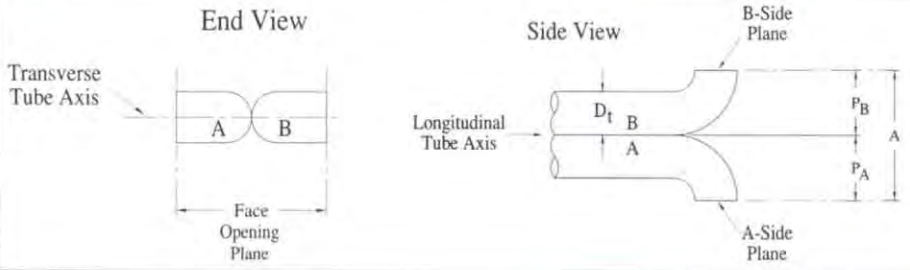
S-Type Pitot Tube Inspection and Probe Thermocouple Calibration Check

Pitot ID: P-344

Caliper ID: 700 839

Calibrated by	Initials	NC	Reviewed by	Initials	RW
	Date	5/31/11		Date	06-02-11

General Pitot Tube Alignment



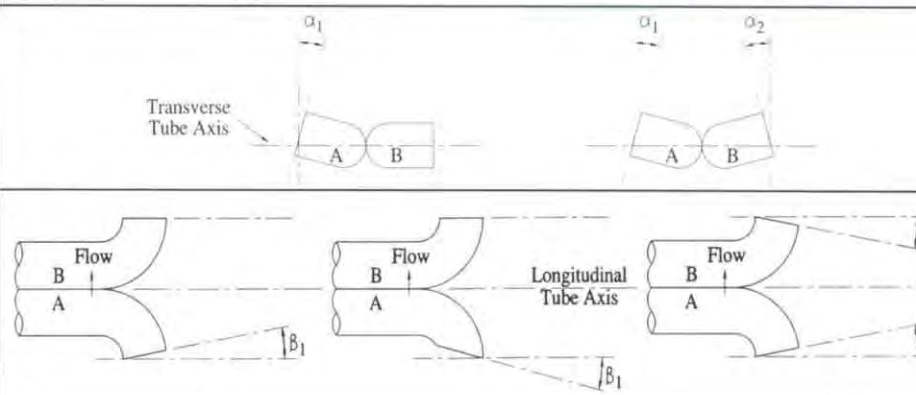
A = 0.925

D_t = 0.375

0.188" ≤ D_t ≤ 0.375"? Y (y/n)

$1.05 \le \frac{A}{2D_t} \le 1.50$? Y (y/n)

Misalignment



α_1 = 0

α_2 = 1

$\alpha_1 \le 10°$? Y (y/n)

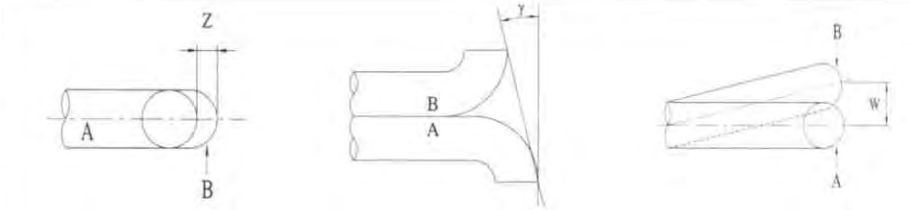
$\alpha_2 \le 10°$? Y (y/n)

β_1 = 0

β_2 = 3

$\beta_1 \le 5°$? Y (y/n)

$\beta_2 \le 5°$? Y (y/n)



γ = 0 Z = A tan(γ) = 0

θ = 1° W = A tan(θ) = 0.0162

Z ≤ 0.125"? Y (y/n)

W ≤ 0.031"? Y (y/n)

Acceptability for Use (Circle Selection)

If all answers are "Y", this pitot tube is available for use, and may be assigned a correction factor of 0.84	If all answers except the first (D_t) are "Y", this pitot tube is available for use, but needs to be calibrated using a wind tunnel.	Any other situation, the pitot tube must be removed from service.

Probe ID: P-344

Calibrated by	Initials	NC	Reviewed by	Initials	RW
	Date	5/31/11		Date	06-02-11

Stack Thermocouple Calibration [1]

Reference Thermometer ID No. [2] 1-012990421

T_F 494 °F

$T_{abs,RT}$ 954 °R

Thermocouple Readout ID No. A161402

T_F 490 °F

$T_{abs,TC}$ 950 °R

Compare thermocouple to reference thermometer

$\frac{T_{abs,TC}}{T_{abs,RT}}$ = 0.996

Is this between 0.985 and 1.015? Y (y/n)

Calculate applicability range for thermocouple.

$Min_{abs} = 0.9 \times T_{abs,TC}$ = 395 °R

$Min_F = Min_{abs} - 460$ = 855 °F

$Max_{abs} = 1.1 \times T_{abs,TC}$ = 585 °R

$Max_F = Max_{abs} - 460$ = 1045 °F

[1] Per SOP 032, this calibration is generally performed at 160°F.

[2] $T_{abs;}$ (°R) = T_F (°F) + 460

NC 5/31/11

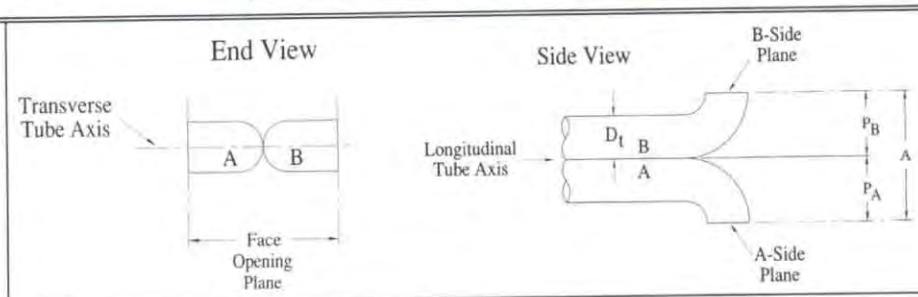
S-Type Pitot Tube Inspection and Probe Thermocouple Calibration Check

Pitot ID: P-371

Caliper ID: 700839

Calibrated by	Initials	NR	Reviewed by	Initials	RVW
	Date	5/31/11		Date	06-02-11

General Pitot Tube Alignment



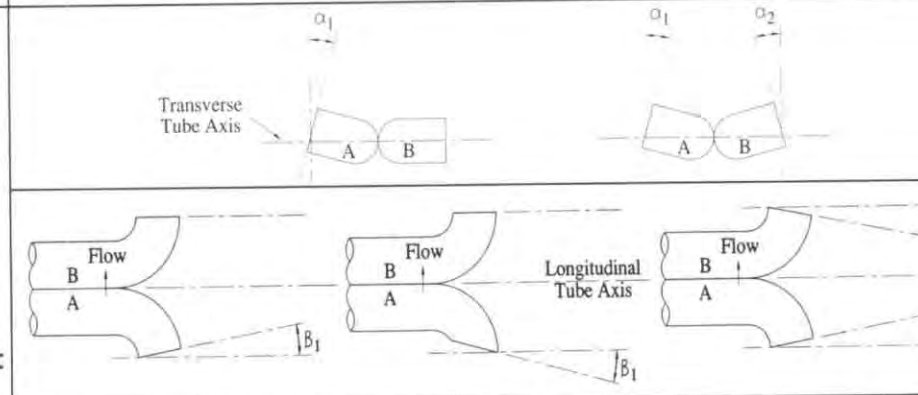
A = 0.940

D_t = 0.375

0.188" ≤ D_t ≤ 0.375"? Y (y/n)

1.05 ≤ $A/2D_t$ ≤ 1.50? Y (y/n)

Misalignment



α_1 = 3°

α_2 = 3°

$\alpha_1 \leq 10°$? Y (y/n)

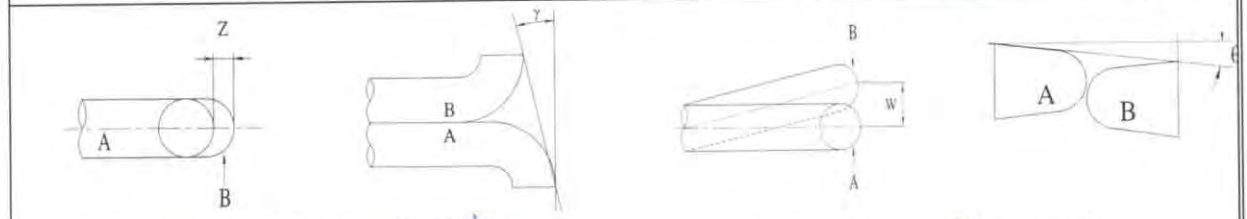
$\alpha_2 \leq 10°$? Y (y/n)

β_1 = 0

β_2 = 1

$\beta_1 \leq 5°$? Y (y/n)

$\beta_2 \leq 5°$? Y (y/n)



Y = 1 Z = A tan(Y) = 0.0164

θ = 1 W = A tan(θ) = 0.0164

Z ≤ 0.125"? Y (y/n)

W ≤ 0.031"? Y (y/n)

Acceptability for Use (Circle Selection)

If all answers are "Y", this pitot tube is available for use, and may be assigned a correction factor of 0.84	If all answers except the first (D_t) are "Y", this pitot tube is available for use, but needs to be calibrated using a wind tunnel.	Any other situation, the pitot tube must be removed from service.

Probe ID: P-371

Calibrated by	Initials	NR	Reviewed by	Initials	RVW
	Date	5/31/11		Date	06-02-11

Stack Thermocouple Calibration [1]	Reference Thermometer ID No. [2]	Thermocouple Readout ID No.	Compare thermocouple to reference thermometer	Calculate applicability range for thermocouple.	
	1-012740421	4161402	$\frac{T_{abs,TC}}{T_{abs,RT}}$ = 0.996	$Min_{abs} = 0.9 \times T_{abs,TC}$	$Min_F = Min_{abs} - 460$
	T_F 520 °F	T_F 516 °F		418 °R	878 °F
	$T_{abs,RT}$ 980 °R	$T_{abs,TC}$ 976 °R	Is this between 0.985 and 1.015? Y (y/n)	$Max_{abs} = 1.1 \times T_{abs,TC}$	$Max_F = Max_{abs} - 460$
				614 °R	1074 °F

[1] Per SOP 032, this calibration is generally performed at 160°F.

[2] T_{abs} (°R) = T_F (°F) + 460

NR 5/31/11

Portable Barometer Calibration

Portable Barometer Identification BP-1

Reference Barometer Identification _____

Calibrated by	Initials	NR
	Date	5/25/11
Reviewed by	Initials	RW
	Date	06-02-11

Laboratory barometer reading (reference) (in Hg)	29.00
Portable barometer reading after correction (in Hg)	29.00
Difference between reference and portable after correction (in Hg)	0.0
Is the difference ≤±0.1 in Hg (yes/no)	yes

Notes:

CDS-20 Portable Barometer
Revision Date: January 2008
Reviewed: December 2011

Bastrop Scale Company, Inc.
P.O. Drawer 2100
Bastrop, TX 78602

(877) 321-3443
Fax (512) 321-1114
email: info@bastropscale.com
wwwbastropscale.com

CERTIFICATION OF CALIBRATION

CUSTOMER # : 132950 SCALE # : 100008310

CUSTOMER NAME : URS CORPORATION

SERVICE ADDRESS : 9400 AMBERGLEN BLVD.

SERVICE CITY ST ZIP : AUSTIN TX. 78729

MAKE : SARTORIUS CAPACITY : 4100G

MODEL : TE4101 B GRADUATION SIZE : .1 G

S.N. : 21450056 TOLERANCE :

LOCATION / DEPT. : MOBILE

BEFORE SERVICE:

Corner or Section Error: 0.06 at 1006

AFTER SERVICE:

Corner or Section Error: 0.06 at 1006

Test Weights Applied	Scale Reading as Found	Scale Reading as Left
10 G	10.06	10.06
100 G	100.06	100.06
1000 G	999.86	1000.06
2000 G	1999.66	2000.06
4000 G	3999.06	4000.06

The weights used for this test are traceable to the National Institute of Standards & Technology (NIST). Proceedures used for testing are in accordance with NIST Handbook 44 regulation.

Technician _____

License # 24207 Date 3/16/10

Bastrop Scale Co., Inc.
TDA Service & Inspection License #245519

BSCI FORM: ISO-R

___ Class F: TDA Certification of Calibration #G000002632 10/9/2009
___ Class F: TDA Certification of Calibration #G000002666 10/29/2009
___ Class F: TDA Certification of Calibration #G000002642 10/19/2009
___ Class F: TDA Certification of Calibration #G000002649 10/21/2009
___ Class F: TDA Certification of Calibration #G000002425 3/18/2009
___ Class F: TDA Certification of Calibration #G000002450 3/26/2009
___ Class F: TDA Certification of Calibration #G000002914 5/3/2010
___ Class F: TDA Certification of Calibration #G000002936 5/12/2010
__/__ Class 1: RLWS TMAP Traceable Certificate #1553848 9/15/2009
___ Class 1: RLWS TMAP Traceable Certificate #1553848A 9/15/2009
___ Class 1: RLWS TMAP Traceable Certificate # 1551483 9/8/2009

Balance Calibration

Balance ID TE 4101B

Calibrated by	Initials	RVW	**Reviewed by**	Initials	OK
	Date	07-13-10		Date	7-13-10

Initial Calibration	Calibration Weight	
	ID #	Mass
	11308	2 KG

	Calibration Weight		Balance Reading (g)	Acceptable Range (g)
	ID #	Mass (g)		
Linearity Check	27946	50	50.0	49.9 – 50.1
	20101	100	100.0	99.9 - 100.1
	94-059828	200	200.0	199.8 - 200.2
	↓	500	500.0	499.5 - 500.5
	↓	1000	1000.0	999 - 1001

	Calibration Weight [1] (g)	Balance Reading (g)
Calibration of Student Weights	20A	20.0
	20B	20.0
	50	50.0
	100	100.0
	200A	200.0
Student Weight Set ID 700226	200B	200.0
	500	500.0
	1 Kg	1000.0
	RVW	
	07-13-10	

[1] Use only calibration weights greater than 20 g.

Field Balance Calibration Check

Balance ID TE4101

Calibration Checked by	Initials	DCW
	Date	6/22/11

	Student Calibration Weight [a,b] (g)	Actual Mass (from Annual Calibration) (g)	Balance Reading (g)	Difference (g)	Percent Difference [c]
Calibration Check of Balance Using Student Weights	1000	1000.0	998.7	1.3	0.13
	500	500.0	499.4	0.6	0.12
	200 A	200.0	199.7	0.3	0.15
	~~A~~ 100	100.0	99.8	0.2	0.20
Student Weight Set ID 700226	50	50.0	50.0	0	0
	20 A	20.0	20.0	0	0

[a] Use only calibration weights greater than 20 g.

[b] If the balance is used to weigh amounts greater than 1000g, combine the 1000 and 500 gram weights for a calibration check.

[c] The acceptance criteria for percent difference is ±0.5%. This is calculated using this equation:

$$\text{Percent Difference} = \frac{\text{balance reading} - \text{actual mass}}{\text{actual mass}} \times 100$$

CDS-08B: Field Balance Calibration
Per EM SOP-010
Revision Date: April 2011

Field Balance Calibration Check

Balance ID TE4101

Calibration Checked by	Initials	DCW
	Date	6/23/11

	Student Calibration Weight[a,b] (g)	Actual Mass (from Annual Calibration) (g)	Balance Reading (g)	Difference (g)	Percent Difference[c]
Calibration Check of Balance Using Student Weights **Student Weight Set ID** 700226	1000	1000.0	998.2	1.8	0.18
	500	500.0	499.1	0.9	0.18
	200A	200.0	199.7	0.3	0.15
	100	100.0	99.8	0.2	0.20
	50	50.0	49.9	0.1	0.20
	20A	20.0	19.9	0.1	0.50

[a] Use only calibration weights greater than 20 g.

[b] If the balance is used to weigh amounts greater than 1000g, combine the 1000 and 500 gram weights for a calibration check.

[c] The acceptance criteria for percent difference is ±0.5%. This is calculated using this equation:

$$\text{Percent Difference} = \frac{\text{balance reading} - \text{actual mass}}{\text{actual mass}} \times 100$$

CDS-08B: Field Balance Calibration
Per EM SOP-010
Revision Date: April 2011

Field Balance Calibration Check

Balance ID TE 4101B

Calibration Checked by	Initials	WDD
	Date	6/24/11

	Student Calibration Weight [a,b] (g)	Actual Mass (from Annual Calibration) (g)	Balance Reading (g)	Difference (g)	Percent Difference [c]
Calibration Check of Balance Using Student Weights **Student Weight Set ID** 700226	1000	1000.0	998.3	1.7	0.17
	500	500.0	499.2	0.8	0.16
	200A	200.0	199.7	0.3	0.15
	200B	200.0	199.7	0.3	0.15
	100	100.0	99.8	0.2	0.20
	50	50.0	49.9	0.1	0.20
	20A	20.0	20.0	0.0	0
	20B	20.0	20.0	0.0	0

[a] Use only calibration weights greater than 20 g.

[b] If the balance is used to weigh amounts greater than 1000g, combine the 1000 and 500 gram weights for a calibration check.

[c] The acceptance criteria for percent difference is ±0.5%. This is calculated using this equation:

$$\text{Percent Difference} = \frac{\text{balance reading} - \text{actual mass}}{\text{actual mass}} \times 100$$

CDS-08B: Field Balance Calibration
Per EM SOP-010
Revision Date: April 2011

Field Balance Calibration Check

Balance ID TE4101

Calibration Checked by	Initials	DCW
	Date	6/26/11

	Student Calibration Weight[a,b] (g)	Actual Mass (from Annual Calibration) (g)	Balance Reading (g)	Difference (g)	Percent Difference[c]
Calibration Check of Balance Using Student Weights	1000	1000.0	998.1	1.9	0.19
	500	500.0	499.1	0.9	0.18
	200A	200.0	200.0	0.0	0
	100	100.0	99.9	0.1	0.10
Student Weight Set ID 700226	50	50.0	50.0	0.0	0
	20A	20.0	20.0	0.0	0

[a] Use only calibration weights greater than 20 g.

[b] If the balance is used to weigh amounts greater than 1000g, combine the 1000 and 500 gram weights for a calibration check.

[c] The acceptance criteria for percent difference is ±0.5%. This is calculated using this equation:

$$\text{Percent Difference} = \frac{\text{balance reading} - \text{actual mass}}{\text{actual mass}} \times 100$$

CDS-08B: Field Balance Calibration
Per EM SOP-010
Revision Date: April 2011

Field Balance Calibration Check

Balance ID TE4101

Calibration Checked by	Initials	DCW
	Date	6/27/11

	Student Calibration Weight[a,b] (g)	Actual Mass (from Annual Calibration) (g)	Balance Reading (g)	Difference (g)	Percent Difference[c]
Calibration Check of Balance Using Student Weights **Student Weight Set ID** 700226	1000	1000.0	998.2	1.8	0.18
	500	500.0	499.5	0.5	0.10
	200 A	200.0	199.6	0.4	0.20
	100	100.0	99.8	0.2	0.20
	50	50.0	50.0	0.0	0
	20 A	20.0	20.0	0.0	0

[a] Use only calibration weights greater than 20 g.

[b] If the balance is used to weigh amounts greater than 1000g, combine the 1000 and 500 gram weights for a calibration check.

[c] The acceptance criteria for percent difference is ±0.5%. This is calculated using this equation:

$$\text{Percent Difference} = \frac{\text{balance reading} - \text{actual mass}}{\text{actual mass}} \times 100$$

CDS-08B: Field Balance Calibration
Per EM SOP-010
Revision Date: April 2011

Calibration Data Sheet - Calipers

Caliper ID Number 700904

Calibrated by	Initials	RVW
	Date	01-19-10
Reviewed by	Initials	JP
	Date	1/21/10

	Ring Gauge		Caliper	
	ID No.	Diameter (in)	Measurement (in)	Error
1	020035	0.23984	0.238	-0.77
2	↓	↓	0.238	-0.77
3	↓	↓	0.238	-0.77

$$\text{Error} = \frac{\text{Measured} - \text{Standard}}{\text{Standard}} \times 100\%$$

Error for each of the three determinations must be within ±2%

Calibration Data Sheet - Calipers

Caliper ID Number 700904

Calibrated by	Initials	RVW
	Date	01-19-10
Reviewed by	Initials	JP
	Date	1/21/10

	Ring Gauge		Caliper	
	ID No.	Diameter (in)	Measurement (in)	Error
1	030042	0.34999	0.349	-0.28
2	↓	↓	0.349	-0.28
3	↓	↓	0.349	-0.28

$$\text{Error} = \frac{\text{Measured} - \text{Standard}}{\text{Standard}} \times 100\%$$

Error for each of the three determinations must be within ±2%

CDS-18 Calipers
Revision Date: March 2008
Reviewed: March 2009

AIR LIQUIDE Air Liquide America Specialty Gases LLC

SCOTT™

RATA CLASS

Dual-Analyzed Calibration Standard

11426 FAIRMONT PKWY, LA PORTE, TX 77571 Phone: 800-248-1427 Fax: 281-474-8419

CERTIFICATE™ OF ACCURACY: Interference Free Multi-Component EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
11426 FAIRMONT PKWY
LA PORTE, TX 77571

P.O. No.: URS
Project No.: 04-83362-001

Customer

URS
ITEM# URS20

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: CC82073 **Certification Date:** 19Apr2010 **Exp. Date:** 19Apr2013
Cylinder Pressure*:** 1900 PSIG **Batch No:** LAP0015277

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ANALYTICAL ACCURACY**	TRACEABILITY
CARBON DIOXIDE	18.9	%	+/- 1%	Direct NIST and VSL
OXYGEN	22.1	%	+/- 1%	
NITROGEN		BALANCE		

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1800	01Mar2013	K017950	17.87 %	CARBON DIOXIDE
NTRM 2350	01Apr2012	A6820	23.51 %	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//000929060	15Apr2010	FTIR
BIG SERVOMEX/1101-4605C/4605C	12Apr2010	PARAMAGNETIC

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis **Second Triad Analysis** **Calibration Curve**

CARBON DIOXIDE

Date: 19Apr2010 Response Unit: %

Z1 = 0.00172 R1 = 17.94549 T1 = 18.97990
R2 = 17.96295 Z2 = 0.01680 T2 = 18.98601
Z3 = 0.01781 T3 = 19.00763 R3 = 17.97121
Avg. Concentration: 18.90 %

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 9.99977E-1
Constants: A = 0.00000E+0
B = 9.01988E-1 C = 1.18130E-2
D = 0.00000E+0 E = 0.00000E+0

OXYGEN

Date: 20Apr2010 Response Unit: VOLTS

Z1 = 0.00000 R1 = 0.88150 T1 = 0.82940
R2 = 0.88220 Z2 = 0.00000 T2 = 0.82850
Z3 = 0.00000 T3 = 0.82850 R3 = 0.88110
Avg. Concentration: 22.10 %

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 0.9999869
Constants: A = 0.016432989
B = 26.66250384 C =
D = E =

Special Notes: CERTS AND TAGS ITEM# URS20 DOC#36821546 URS

APPROVED BY: DAVID KELLY

AIR LIQUIDE Air Liquide America Specialty Gases LLC | Scott™

RATA CLASS

Dual-Analyzed Calibration Standard

11426 FAIRMONT PKWY, LA PORTE, TX 77571 Phone: 800-248-1427 Fax: 281-474-8419

CERTIFICATE™ OF ACCURACY: Interference Free Multi-Component EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
11426 FAIRMONT PKWY
LA PORTE, TX 77571

P.O. No.: URS
Document # : 41429652-001

Customer

URS CORPORATION

9400 AMBERGLEN BLVD
AUSTIN,TX 78729
US

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: CC67546 **Certification Date:** 03May2011 **Exp. Date:** 03May2014
Cylinder Pressure*:** 2000 PSIG **Batch No:** LAP0040412

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY**	TRACEABILITY
CARBON DIOXIDE	9.74 %	+/- 1%	Direct NIST and VSL
OXYGEN	11.1 %	+/- 1%	
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.
** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1674	03Feb2016	K009587	7.016 %	CARBON DIOXIDE
NTRM 2350	01May2013	K026427	23.50 %	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//MG-09-149	21Apr2011	FTIR
SERVOMEX/MODEL 244A/701/716	25Apr2011	PARAMAGNETIC

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis | **Second Triad Analysis** | **Calibration Curve**

CARBON DIOXIDE

Date: 02May2011 Response Unit: %

Z1=0.00109	R1=6.88841	T1=9.56012
R2=6.89089	Z2=0.00217	T2=9.56222
Z3=0.00490	T3=9.56296	R3=6.89108
Avg. Concentration:	9.737 %	

Concentration=A+Bx+Cx2+Dx3+Ex4
r=9.99990E-1

Constants:	A=0.00000E+0
B=7.32425E-1	C=7.66800E-3
D=0.00000E+0	E=0.00000E+0

OXYGEN

Date: 03May2011 Response Unit: VOLTS

Z1=0.00000	R1=0.94000	T1=0.44450
R2=0.94000	Z2=0.00000	T2=0.44450
Z3=0.00000	T3=0.44450	R3=0.94000
Avg. Concentration:	11.10 %	

Concentration=A+Bx+Cx2+Dx3+Ex4
r=0.9999987

Constants:	A=0.00024921
B=24.9768807	C=
D=	E=

Special Notes: URS019 CO2 RANGE 8-11% O2 RANGE 10-12.5%; PI #48426 CGA 590 ; DEW PT. 40 DEG. F.

APPROVED BY: DAVID KELLY

AIR LIQUIDE Air Liquide America Specialty Gases LLC SCOTT™

CERTIFIED MASTER CLASS

Single-Certified Calibration Standard

11426 FAIRMONT PKWY, LA PORTE, TX 77571 Phone: 800-248-1427 Fax: 281-474-8419

CERTIFICATE OF ACCURACY: Certified Master Class Calibration Standard

Product Information
Project No.: 04-84292-005
Item No.: 0402B700100PAL
P.O. No.: CC042710KK

Cylinder Number: ALM050235
Cylinder Size: 30AL
Certification Date: 30Apr2010
Expiration Date: 29Apr2012
Lot Number: LAP0016859

Customer

URS CORP C/O MARATHON PETROLEUM
4663 WEST AIRLINE HWY
GARYVILLE, LA 70051

CERTIFIED CONCENTRATION

Component Name	Concentration (Moles)		Accuracy (+/-%)
N-BUTANE	51.	PPM	2
ETHANE	50.	PPM	2
N-HEXANE	50.	PPM	2
METHANE	50.	PPM	2
N-PENTANE	50.	PPM	2
PROPANE	51.	PPM	2
NITROGEN		BALANCE	

TRACEABILITY

Traceable To

NIST

APPROVED BY: Roger Nguyen
ROGER NGUYEN

DATE: 05/03/2010

AIR LIQUIDE

CERTIFICATE of ANALYSIS

Interference-Free Multi-Component EPA Protocol Gases

NOTE: Analytical uncertainty and NIST traceability are in compliance with EPA-600/R-97/121

Section 2.2 Procedure: G-1

Cyl. Number: CC18793

Customer:	URS CORPORATION	**Shipping Order #:**	34250439
P.O. Number:		**Transfer #:**	34250439
Item Number:	URS003	**LOT #:**	LPX255408
Notes:		**Valve**	CGA590
File Name:	342504391A	**Cyl. Pressure:***	1900psig
Assay Date:	20-Aug-09	**Expiration Date: 19-Aug-12**	

*Cylinder should not be used when gas pressure is below 150 psig

Component	Requested Concentration	Assay Concentration
Propane	**85 ppm**	**84.5 ±0.6 ppm**
Air	**Balance**	**Balance**

Reference Standard(s) Employed For Analysis:

Std name	Std #	Conc.	Units	Std. Error	Comp.	Balance	Cyl. No.	Exp. Date	Sample No.
NTRM1667	NTRM1667	49.8	ppm	0.3	C3H8	N2	ALM039005	10/2/2012	012199

Analysis Information:

Component 1:	Propane
Analyzer Information	
Manufacturer:	HP
Model Number:	6890
Serial Number:	8295
Analytical Principle:	GC-FID
MPC Calibrated:	08/18/09

	First Triad Analysis On:		8/20/2009	
	Trial 1	Trial 2	Trial 3	Units
Zero	0.00	0.00	0.00	
Reference	52.08	52.50	52.31	
Candidate	88.95	88.62	88.65	
Result	84.70	84.39	84.42	ppm
	Mean Result:		84.51	ppm

	Second Triad Analysis On:			
	Trial 1	Trial 2	Trial 3	Units
Zero				
Reference				
Candidate				
Result				
	Mean Result:			

Analyst Signature: _____ M. Adnane

Calculated by: _____ M. Adnane

Mix Assayed At: Air Liquide America 11426 Fairmont Pkwy, La Porte, TX, 77571 Phone:(281)474-8400 Fax:(281)474-8419

AIR LIQUIDE

CERTIFICATE of ANALYSIS

Interference-Free Multi-Component EPA Protocol Gases

NOTE: Analytical uncertainty and NIST traceability are in compliance with EPA-600/R-97/121

Section 2.2 Procedure: G-1

Cyl. Number: CC82348

Customer:	URS CORPORATION	**Shipping Order #:**	34250489
P.O. Number:		**Transfer #:**	34250489
Item Number:	URS002	**LOT #:**	LPX255409
Notes:		**Valve**	CGA590
File Name:	342504891A	**Cyl. Pressure:***	1900psig
Assay Date:	20-Aug-09	**Expiration Date: 19-Aug-12**	*Cylinder should not be used when gas pressure is below 150 psig

Component	Requested Concentration	Assay Concentration
Propane	**50 ppm**	**49.8 ±0.4 ppm**
Air	**Balance**	**Balance**

Reference Standard(s) Employed For Analysis:

Std name	Std #	Conc.	Units	Std. Error	Comp.	Balance	Cyl. No.	Exp. Date	Sample No.
NTRM1667	NTRM1667	49.8	ppm	0.3	C3H8	N2	ALM039005	10/2/2012	012199

Analysis Information:

Component 1:	Propane										
Analyzer Information			First Triad Analysis On:		8/20/2009			Second Triad Analysis On:			
Manufacturer:	HP		Trial 1	Trial 2	Trial 3	Units		Trial 1	Trial 2	Trial 3	Units
Model Number:	6890	Zero	0.00	0.00	0.00		Zero				
Serial Number:	8295	Reference	52.08	52.50	52.31		Reference				
Analytical Principle:	GC-FID	Candidate	52.29	52.38	52.32		Candidate				
MPC Calibrated:	08/18/09	Result	49.79	49.88	49.83	ppm	Result				
				Mean Result:	49.83	ppm			Mean Result:		

Analyst Signature: _____ M. Adnane

Calculated by: _____ M. Adnane

Mix Assayed At: Air Liquide America 11426 Fairmont Pkwy, La Porte, TX, 77571 Phone:(281)474-8400 Fax:(281)474-8419

AIR LIQUIDE

CERTIFICATE of ANALYSIS

Interference-Free Multi-Component EPA Protocol Gases

NOTE: Analytical uncertainty and NIST traceability are in compliance with EPA-600/R-97/121

Section 2.2 Procedure: G-1

Cyl. Number: CC84418

Customer:	URS CORPORATION	**Shipping Order #:**	34250508
P.O. Number:		**Transfer #:**	34250508
Item Number:	URS001	**LOT #:**	LPX255410
Notes:		**Valve**	CGA590
File Name:	342505081A	**Cyl. Pressure:***	1900psig
Assay Date:	20-Aug-09	**Expiration Date: 19-Aug-12**	*Cylinder should not be used when gas pressure is below 150 psig

Component	Requested Concentration	Assay Concentration
Propane	**30 ppm**	**30.0 ±0.3 ppm**
Air	**Balance**	**Balance**

Reference Standard(s) Employed For Analysis:

Std name	Std #	Conc.	Units	Std. Error	Comp.	Balance	Cyl. No.	Exp. Date	Sample No.
NTRM1667	NTRM1667	49.8	ppm	0.3	C3H8	N2	ALM039005	10/2/2012	012199

Analysis Information:

Component 1:	Propane
Analyzer Information	
Manufacturer:	HP
Model Number:	6890
Serial Number:	8295
Analytical Principle:	GC-FID
MPC Calibrated:	08/18/09

	First Triad Analysis On:		8/20/2009	
	Trial 1	Trial 2	Trial 3	Units
Zero	0.00	0.00	0.00	
Reference	52.08	52.50	52.31	
Candidate	31.59	31.38	31.55	
Result	30.08	29.89	30.04	ppm
		Mean Result:	30.00	ppm

	Second Triad Analysis On:			
	Trial 1	Trial 2	Trial 3	Units
Zero				
Reference				
Candidate				
Result				
		Mean Result:		

Analyst Signature: _____ M. Adnane

Calculated by: _____ M. Adnane

Mix Assayed At: Air Liquide America 11426 Fairmont Pkwy, La Porte, TX, 77571 Phone:(281)474-8400 Fax:(281)474-8419

AIR LIQUIDE Air Liquide America Specialty Gases LLC | Scott™

CUSTOM CLASS

6141 EASTON ROAD, BLDG 1, PLUMSTEADVILLE, PA 18949-0310 Phone: 800-331-4953 Fax: 215-766-7226

CERTIFICATE OF ACCURACY: Custom Class Calibration Standard

Product Information
Document # : 41645755-001
Item No.: MF300026-Z-30AL
P.O. No.: 6978240P

Cylinder Number: ALM050991
Cylinder Size: 30AL
Certification Date: 19May2011
Expiration Date: 19May2012

Customer

URS CORPORATION
9400 AMBERGLEN BLVD
AUSTIN, TX 78729
US

CERTIFIED CONCENTRATION

Component Name	Concentration (Moles)		Accuracy (+/-%)	
FORMALDEHYDE	29.4	PPM	5	
SULFUR HEXAFLUORIDE	15.9	PPM	5	Dual-Certified
NITROGEN		BALANCE		

TRACEABILITY

Description	Traceability Type	Traceable To
BLEND PROCESS TRACEABILITY	WEIGHT	NIST
ANALYTICAL TRACEABILITY	GAS STANDARDS	SRS

APPROVED BY: T. Ludwig
T.LUDWIG

DATE: 5-19-11

SPECIFICATIONS

Component Name	Requested Concentration (Moles)	Gravimetric Concentration (Moles)	Analyzed Concentration (Moles)	Blend Tolerance Result (+/- %)	Blend Process Accuracy Result (+/- %)	Analytical Accuracy Result (+/- %)	Interlocking Result (+/- %)
FORMALDEHYDE	30. PPM	N/A	29.4 PPM	2.0	N/A	5.00	N/A
SULFUR HEXAFLUORIDE	16. PPM	16.8 PPM	15.9 PPM	5.0	5.00	5.00	5.30
NITROGEN		N/A	N/A		N/A	N/A	N/A

TRACEABILITY

Analytical Traceability

Type/SRM No.	Expiration Date	Cylinder Number	Concentration	Component
SRS CSTD	19May2011	APL001015	28.30 PPM	FORMALDEHYDE
SRS FSTD	19May2011		15.80 PPM	SULFUR HEXAFLUORIDE

Instrumentation

Instrument/Model/Serial#	Date Last Calibrated	Analytical Principle	Analytical Method
INTERSCAN/RM-16/712585	16May2011	ELECTROCHEMICAL	
VARIAN/3400/0164	19May2011	GC-FPD/FID	

PHYSICAL PROPERTIES

Cylinder Size: 30AL

Pressure: 1290 PSIG
Expiration Date: 19May2012

SPECIAL HANDLING INSTRUCTIONS

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

Use of calibration standards at or below dew point temperature may result in calibration error.

CUSTOM CLASS

6141 EASTON ROAD, BLDG 1, PLUMSTEADVILLE, PA 18949-0310 Phone: 800-331-4953 Fax: 215-766-7226

CERTIFICATE OF ACCURACY: Custom Class Calibration Standard

Product Information
Document # : 42316710-001
Item No.: MA300394-Z-30AL
P.O. No.: 6978240P

Cylinder Number: CC353763
Cylinder Size: 30AL
Certification Date: 28Jun2011
Expiration Date: 27Jun2013
Lot Number: PLU0045481

Customer

CHEVRON GLOBAL DOWNSTREAM
DARNELLE L KAHALEWAI-CHAI
91-480 MALAKOLE STREET
KAPOLEI, HI 96707
US

CERTIFIED CONCENTRATION

Component Name	Concentration (Moles)		Accuracy (+/-%)	
ACETALDEHYDE	100.	PPM	5	
SULFUR HEXAFLUORIDE	16.0	PPM	5	Dual-Certified
NITROGEN		BALANCE		

TRACEABILITY

Description	Traceability Type	Traceable To
BLEND PROCESS TRACEABILITY	WEIGHT	NIST
ANALYTICAL TRACEABILITY	GAS STANDARDS	

APPROVED BY: for Nora Pike
GENYA KOGUT

DATE: _____

SPECIFICATIONS

Component Name	Requested Concentration (Moles)	Gravimetric Concentration (Moles)	Analyzed Concentration (Moles)	Blend Tolerance Result (+/- %)	Blend Process Accuracy Result (+/- %)	Analytical Accuracy Result (+/- %)	Interlocking Result (+/- %)
ACETALDEHYDE	100. PPM	N/A	100. PPM	.0	N/A	5.00	N
SULFUR HEXAFLUORIDE	16. PPM	16.0 PPM		.0	5.00		
NITROGEN		N/A	N/A		N/A	N/A	N/A

TRACEABILITY

Analytical Traceability

Type/SRM No.	Expiration Date	Cylinder Number	Concentration	Component
SRS CSTD	28Jun2011	CC353769	101.0 PPM	ACETALDEHYDE

Instrumentation

Instrument/Model/Serial#	Date Last Calibrated	Analytical Principle	Analytical Method
VARIAN/3400/0164	28Jun2011	GC-FPD/FID	GC-FID GC-FPD

PHYSICAL PROPERTIES

Cylinder Size: 30AL

Pressure: 2000 PSIG
Expiration Date: 27Jun2013

SPECIAL HANDLING INSTRUCTIONS

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

Use of calibration standards at or below dew point temperature may result in calibration error.

AIR LIQUIDE Air Liquide America Specialty Gases LLC | Scott™

CUSTOM CLASS

6141 EASTON ROAD, BLDG 1, PLUMSTEADVILLE, PA 18949-0310 Phone: 800-331-4953 Fax: 215-766-7226

CERTIFICATE OF ACCURACY: Custom Class Calibration Standard

Product Information
Document # : 41645831-001
Item No.: MP300058-Z-30AL
P.O. No.: 697824OP

Cylinder Number: ALM018043
Cylinder Size: 30AL
Certification Date: 02Jun2011
Expiration Date: 01Jun2012

Customer

URS CORPORATION
9400 AMBERGLEN BLVD
AUSTIN, TX 78729
US

CERTIFIED CONCENTRATION

Component Name	Concentration (Moles)		Accuracy (+/-%)
PROPANAL	100.	PPM	2
SULFUR HEXAFLUORIDE	16.0	PPM	5
NITROGEN		BALANCE	

TRACEABILITY

Description	Traceability Type	Traceable To
BLEND PROCESS TRACEABILITY	WEIGHT	NIST
ANALYTICAL TRACEABILITY	GAS STANDARDS	

APPROVED BY: Walter Sabitus
WALTER SABITUS

DATE: 6/3/11

SPECIFICATIONS

Component Name	Requested Concentration (Moles)	Gravimetric Concentration (Moles)	Analyzed Concentration (Moles)	Blend Tolerance Result (+/- %)	Blend Process Accuracy Result (+/- %)	Analytical Accuracy Result (+/- %)	Interlocking Result (+/- %)
PROPANAL	100. PPM	N/A	100. PPM	.0	N/A	2.00	N/A
SULFUR HEXAFLUORIDE	16. PPM	16.0 PPM	N/A	.0	5.00	N/A	N/A
NITROGEN		N/A	N/A		N/A	N/A	N/A

TRACEABILITY

Analytical Traceability

Type/SRM No.	Expiration Date	Cylinder Number	Concentration	Component
SRS TSTD	02Jun2011			PROPANAL

PHYSICAL PROPERTIES

Cylinder Size: 30AL

Pressure: 2000 PSIG
Expiration Date: 01Jun2012

SPECIAL HANDLING INSTRUCTIONS

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

Use of calibration standards at or below dew point temperature may result in calibration error.

AIR LIQUIDE Air Liquide America Specialty Gases LLC | Scott™

CUSTOM CLASS

2330 HAMILTON BOULEVARD, SOUTH PLAINFIELD, NJ 07080 Phone: 908-754-7700 Fax: 908-754-7303

CERTIFICATE OF ACCURACY: Custom Class Calibration Standard

Product Information
Document # : 41789042-001
Item No.: MA300395-Z-30AL
P.O. No.: 697824OP

Cylinder Number: ALM033110
Cylinder Size: 30AL
Certification Date: 03Jun2011
Expiration Date: 02Jun2012

AC - MAILROOM
JUN 13 2011

Customer

URS CORPORATION
9400 AMBERGLEN BLVD
AUSTIN, TX 78729
US

CERTIFIED CONCENTRATION

Component Name	Concentration (Moles)		Accuracy (+/-%)	
AMMONIA	97.73	PPM	5	
CARBON TETRAFLUORIDE	21.70	PPM	5	Dual-Certified
NITROGEN		BALANCE		

TRACEABILITY

Description	Traceability Type	Traceable To
BLEND PROCESS TRACEABILITY	WEIGHT	NIST
ANALYTICAL TRACEABILITY	GAS STANDARDS	

APPROVED BY: _____ DATE: 6/6/11
TOM CLEARY

AIR LIQUIDE Air Liquide America Specialty Gases LLC Scott™

CUSTOM CLASS

2330 HAMILTON BOULEVARD, SOUTH PLAINFIELD, NJ 07080 Phone: 908-754-7700 Fax: 908-754-7303

CERTIFICATE OF ACCURACY: Custom Class Calibration Standard

Product Information
Document # : 41774798-001
Item No.: MH300285-Z-30AL
P.O. No.: 697824OP

Cylinder Number: ALM025706
Cylinder Size: 30AL
Certification Date: 03Jun2011
Expiration Date: 02Jun2012

Customer

URS CORPORATION
9400 AMBERGLEN BLVD
AUSTIN, TX 78729
US

CERTIFIED CONCENTRATION

Component Name	Concentration (Moles)		Accuracy (+/-%)	
HYDROGEN CYANIDE	118.31	PPM	5	
SULFUR HEXAFLUORIDE	15.98	PPM	5	Dual-Certified
NITROGEN		BALANCE		

TRACEABILITY

Description	Traceability Type	Traceable To
BLEND PROCESS TRACEABILITY	WEIGHT	NIST
ANALYTICAL TRACEABILITY	GAS STANDARDS	

APPROVED BY: _____
TOM CLEARY

DATE: 3-Jun-4

SPECIFICATIONS

Component Name	Requested Concentration (Moles)	Gravimetric Concentration (Moles)	Analyzed Concentration (Moles)	Blend Tolerance Result (+/- %)	Blend Process Accuracy Result (+/- %)	Analytical Accuracy Result (+/- %)	Interlocking Result (+/- %)
HYDROGEN CYANIDE	100. PPM	N/A	118.31 PPM	18.3	N/A	5.00	N/A
SULFUR HEXAFLUORIDE	16. PPM	15.98 PPM	15.98 PPM	.1	5.00	5.00	.00
NITROGEN		N/A	N/A		N/A	N/A	N/A

TRACEABILITY

Analytical Traceability

Type/SRM No.	Expiration Date	Cylinder Number	Concentration	Component
SRS TSTD	03Jun2011			HYDROGEN CYANIDE
SRS TSTD	03Jun2011			SULFUR HEXAFLUORIDE

PHYSICAL PROPERTIES

Cylinder Size: 30AL

Pressure: 1800 PSIG
Expiration Date: 02Jun2012

SPECIAL HANDLING INSTRUCTIONS

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

Use of calibration standards at or below dew point temperature may result in calibration error.

AIR LIQUIDE Air Liquide America Specialty Gases LLC Scott™

CUSTOM CLASS

2330 HAMILTON BOULEVARD, SOUTH PLAINFIELD, NJ 07080 Phone: 908-754-7700 Fax: 908-754-7303

CERTIFICATE OF ACCURACY: Custom Class Calibration Standard

Product Information
Document # : 41774798-001
Item No.: MH300285-Z-30AL
P.O. No.: 697824OP

Cylinder Number: ALM050368
Cylinder Size: 30AL
Certification Date: 03Jun2011
Expiration Date: 02Jun2012

Customer

URS CORPORATION
9400 AMBERGLEN BLVD
AUSTIN, TX 78729
US

CERTIFIED CONCENTRATION

Component Name	Concentration (Moles)		Accuracy (+/-%)	
HYDROGEN CYANIDE	118.31	PPM	5	
SULFUR HEXAFLUORIDE	15.99	PPM	5	Dual-Certified
NITROGEN		BALANCE		

TRACEABILITY

Description	Traceability Type	Traceable To
BLEND PROCESS TRACEABILITY	WEIGHT	NIST
ANALYTICAL TRACEABILITY	GAS STANDARDS	

APPROVED BY: _____
TOM CLEARY

DATE: 3-Jun-11

SPECIFICATIONS

Component Name	Requested Concentration (Moles)	Gravimetric Concentration (Moles)	Analyzed Concentration (Moles)	Blend Tolerance Result (+/- %)	Blend Process Accuracy Result (+/- %)	Analytical Accuracy Result (+/- %)	Interlocking Result (+/- %)
HYDROGEN CYANIDE	100. PPM	N/A	118.31 PPM	18.3	N/A	5.00	N/A
SULFUR HEXAFLUORIDE	16. PPM	15.99 PPM	15.99 PPM	.1	5.00	5.00	.00
NITROGEN		N/A	N/A		N/A	N/A	N/A

TRACEABILITY

Analytical Traceability

Type/SRM No.	Expiration Date	Cylinder Number	Concentration	Component
SRS TSTD	03Jun2011			HYDROGEN CYANIDE
SRS TSTD	03Jun2011			SULFUR HEXAFLUORIDE

PHYSICAL PROPERTIES

Cylinder Size: 30AL

Pressure: 1800 PSIG
Expiration Date: 02Jun2012

SPECIAL HANDLING INSTRUCTIONS

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

Use of calibration standards at or below dew point temperature may result in calibration error.

Appendix P

URS Sample Logbook

And Chain-of-Custody Forms

URS Sample Logbook

Sample Logbook

Cheveron Oahu - FCCU ICR

Project Number 40942312

Sample ID Code	Stream/Sampling Trai	Fraction	Cond	Run	Date	Time	TW	GW	Comments
CHV-Stk-ICR1-M18b-CondB	Stack - Method 18 (Bag)	Condensate B	ICR	1	6/27	1321	—	—	Flexfilm
CHV-Stk-ICR__-M18b-Bag A	Stack - Method 18 (Bag)	Bag Sample A	ICR	__					
CHV-Stk-ICR__-M18b-Bag B	Stack - Method 18 (Bag)	Bag Sample B	ICR	__					
CHV-Stk-ICR__-M18b-Bag C	Stack - Method 18 (Bag)	Bag Sample C	ICR	__					
CHV-Stk-ICR1-M18b-CondA	Stack - Method 18 (Bag)	Condensate A	ICR	1	6/27	1105	31.3	74.5	Tedlar
CHV-Stk-ICR1-M18b-Bag A	Stack - Method 18 (Bag)	Bag Sample A	ICR	1	6/27	1105	—	—	Tedlar
CHV-Stk-ICR1-M18b-Bag B	Stack - Method 18 (Bag)	Bag Sample B	ICR	1	6/27	1321	—	—	Flexfilm
~~CHV-Stk-ICR1-M18b-Bag C~~	~~Stack - Method 18 (Bag)~~	Bag Sample C	ICR	1					
CHV-Stk-ICR2-M18b-Cond	Stack - Method 18 (Bag)	Condensate A	ICR	2	6/28	1233	30.8	73.0	Tedlar
CHV-Stk-ICR2-M18b-Bag A	Stack - Method 18 (Bag)	Bag Sample A	ICR	2	↓	↓	—	—	Tedlar
CHV-Stk-ICR2-M18b-Bag B	Stack - Method 18 (Bag)	Bag Sample B	ICR	2	6/28	1408	—	—	Flexfilm
CHV-Stk-ICR2-M18b-Bag C	Stack - Method 18 (Bag)	Bag Sample C	ICR	2					
CHV-Stk-ICR3-M18b-Cond	Stack - Method 18 (Bag)	Condensate	ICR	3	6/29	1012	—	—	
CHV-Stk-ICR3-M18b-Bag A	Stack - Method 18 (Bag)	Bag Sample A	ICR	3	6/29	1012	—	—	Tedlar
CHV-Stk-ICR3-M18b-Bag B	Stack - Method 18 (Bag)	Bag Sample B	ICR	3	↓	1128	—	—	Flexfilm
CHV-Stk-ICR3-M18b-Bag C	Stack - Method 18 (Bag)	Bag Sample C	ICR	3					
CHV-Stk-ICR__-M18s-CondA	Stack - Method 18 (sorbent)	Condensate - Bottle A	ICR	__					
CHV-Stk-ICR__-M18s-CondB	Stack - Method 18 (sorbent)	Condensate - Bottle B	ICR	__					
CHV-Stk-ICR__-M18s-Sorbent	Stack - Method 18 (sorbent)	Sorbent	ICR	__					
CHV-Stk-ICR__-M18s-Charcoal	Stack - Method 18 (sorbent)	Charcoal	ICR	__					
CHV-Stk-ICR__S-M18s-CondA	Stack - Method 18 (sorbent)	Condensate - Bottle A	ICR	__S					
CHV-Stk-ICR__S-M18s-CondB	Stack - Method 18 (sorbent)	Condensate - Bottle B	ICR	__S					
CHV-Stk-ICR__S-M18s-Sorbent	Stack - Method 18 (sorbent)	Sorbent	ICR	__S					
CHV-Stk-ICR__S-M18s-Charcoal	Stack - Method 18 (sorbent)	Charcoal	ICR	__S					
CHV-Stk-ICR1-M18s-CondA	Stack - Method 18 (sorbent)	Condensate - Bottle A	ICR	1	6/27/11	1326	30.9	73.4	
~~CHV-Stk-ICR1-M18s-CondB~~	~~Stack - Method 18 (sorbent)~~	~~Condensate - Bottle B~~	ICR	1					
CHV-Stk-ICR2-M18b-CondB	Stack - M18 (bag)	Condensate B	ICR	2	6/28	1408	31.1	73.9	Flexfilm
CHV-Stk-ICR3-M18b-CondB	Stack - M18 (bag)	Condensate B	ICR	3	6/29	1128			Flexfilm

Cheveron Oahu - FCCU ICR

Project Number 40942312

Sample ID Code	Stream/Sampling Trai	Fraction	Cond	Run	Date	Time	TW	GW	Comments
CHV-Stk-ICR1-M18s-Sorbent	Stack - Method 18 (sorbent)	Sorbent	ICR	1	6/27/11	1326			
CHV-Stk-ICR1-M18s-Charcoal	Stack - Method 18 (sorbent)	Charcoal	ICR	1	↓	↓			
CHV-Stk-ICR1S-M18s-CondA	Stack - Method 18 (sorbent)	Condensate - Bottle A	ICR	1S	6/27/11	1326	30.5	72.4	
~~CHV-Stk-ICR1S-M18s-CondB~~	~~Stack - Method 18 (sorbent)~~	~~Condensate - Bottle B~~	~~ICR~~	~~1S~~					
CHV-Stk-ICR1S-M18s-Sorbent	Stack - Method 18 (sorbent)	Sorbent	ICR	1S	6/27/11	1326			
CHV-Stk-ICR1S-M18s-Charcoal	Stack - Method 18 (sorbent)	Charcoal	ICR	1S	↓	↓			
CHV-Stk-ICR2-M18s-CondA	Stack - Method 18 (sorbent)	Condensate - Bottle A	ICR	2	6/28/11	1405			
~~CHV-Stk-ICR2-M18s-CondB~~	~~Stack - Method 18 (sorbent)~~	~~Condensate - Bottle B~~	~~ICR~~	~~2~~					
CHV-Stk-ICR2-M18s-Sorbent	Stack - Method 18 (sorbent)	Sorbent	ICR	2	6/28/11	1405			
CHV-Stk-ICR2-M18s-Charcoal	Stack - Method 18 (sorbent)	Charcoal	ICR	2	↓	↓			
CHV-Stk-ICR2S-M18s-CondA	Stack - Method 18 (sorbent)	Condensate - Bottle A	ICR	2S	6/28/11	1405			
~~CHV-Stk-ICR2S-M18s-CondB~~	~~Stack - Method 18 (sorbent)~~	~~Condensate - Bottle B~~	~~ICR~~	~~2S~~					
CHV-Stk-ICR2S-M18s-Sorbent	Stack - Method 18 (sorbent)	Sorbent	ICR	2S					
CHV-Stk-ICR2S-M18s-Charcoal	Stack - Method 18 (sorbent)	Charcoal	ICR	2S					
CHV-Stk-ICR3-M18s-CondA	Stack - Method 18 (sorbent)	Condensate - Bottle A	ICR	3	6/29	1140			
~~CHV-Stk-ICR3-M18s-CondB~~	~~Stack - Method 18 (sorbent)~~	~~Condensate - Bottle B~~	~~ICR~~	~~3~~					
CHV-Stk-ICR3-M18s-Sorbent	Stack - Method 18 (sorbent)	Sorbent	ICR	3	6/29	1140			
CHV-Stk-ICR3-M18s-Charcoal	Stack - Method 18 (sorbent)	Charcoal	ICR	3	↓	↓			
CHV-Stk-ICR3S-M18s-CondA	Stack - Method 18 (sorbent)	Condensate - Bottle A	ICR	3S	↓	↓			
~~CHV-Stk-ICR3S-M18s-CondB~~	~~Stack - Method 18 (sorbent)~~	~~Condensate - Bottle B~~	~~ICR~~	~~3S~~					
CHV-Stk-ICR3S-M18s-Sorbent	Stack - Method 18 (sorbent)	Sorbent	ICR	3S	6/29	1140			
CHV-Stk-ICR3S-M18s-Charcoal	Stack - Method 18 (sorbent)	Charcoal	ICR	3S	↓	↓			
CHV-Stk-ICRRB-M18s-Sorbent	Stack - Method 18 (sorbent)	Sorbent	ICR	RB	6/27	1510			Reagent Blank
CHV-Stk-ICRRB-M18s-Charcoal	Stack - Method 18 (sorbent)	Charcoal	ICR	RB	↓	↓			Reagent Blank
CHV-Stk-ICRRB-M18s-Water	Stack - Method 18 (sorbent)	Water	ICR	RB	↓	↓			Reagent Blank
CHV-Stk-ICR__-M308-CondA	Stack - Method 308 (MeOH)	Condensate - Bottle A	ICR	__					

Cheveron Oahu - FCCU ICR

Project Number 40942312

Sample ID Code	Stream/Sampling Trai	Fraction	Cond	Run	Date	Time	TW	GW	Comments
CHV-Stk-ICR__-M308-CondB	Stack - Method 308 (MeOH)	Condensate - Bottle B	ICR	__					
CHV-Stk-ICR__-M308-Silica	Stack - Method 308 (MeOH)	Silica	ICR	__					
CHV-Stk-ICR1-M308-CondA	Stack - Method 308 (MeOH)	Condensate - Bottle A	ICR	1	6/27/11	1326	31.2	73.7	
CHV-Stk-ICR1-M308-CondB	Stack - Method 308 (MeOH)	Condensate - Bottle B	ICR	1	↓	↓	30.8	73.3	
CHV-Stk-ICR1-M308-Silica	Stack - Method 308 (MeOH)	Silica	ICR	1	↓	↓	—	—	
CHV-Stk-ICR2-M308-CondA	Stack - Method 308 (MeOH)	Condensate - Bottle A	ICR	2	6/28/11	1904	—	—	
CHV-Stk-ICR2-M308-CondB	Stack - Method 308 (MeOH)	Condensate - Bottle B	ICR	2	↓	↓	—	—	
CHV-Stk-ICR2-M308-Silica	Stack - Method 308 (MeOH)	Silica	ICR	2	↓	↓	—	—	
CHV-Stk-ICR3-M308-CondA	Stack - Method 308 (MeOH)	Condensate - Bottle A	ICR	3	6/29/11	1120	30.5	72.4	
CHV-Stk-ICR3-M308-CondB	Stack - Method 308 (MeOH)	Condensate - Bottle B	ICR	3	↓	↓	31.0	73.6	
CHV-Stk-ICR3-M308-Silica	Stack - Method 308 (MeOH)	Silica	ICR	3	↓	↓			
CHV-Stk-ICRRB-M308-Silica	Stack - Method 308 (MeOH)	Silica	ICR	RB	6/29/11	1310	—	—	Reagent Blank
CHV-Stk-ICRRB-M308-Water	Stack - Method 308 (MeOH)	Water	ICR	RB	↓	↓	—	—	Reagent Blank
CHV-Stk-ICR__-OTM29-Filt	Stack - HCN	Filter	ICR	__					
CHV-Stk-ICR__-OTM29-NaOH ImpA	Stack - HCN	NaOH Impinger Catch - Bottle A	ICR	__					
CHV-Stk-ICR__-OTM29-NaOH ImpB	Stack - HCN	NaOH Impinger Catch - Bottle B	ICR	__					
CHV-Stk-ICR__-OTM29-Final NaOH	Stack - HCN	Final NaOH Impinger Catch	ICR	__					
CHV-Stk-ICR1-OTM29-Filt	Stack - HCN	Filter	ICR	1					
CHV-Stk-ICR1-OTM29-NaOH ImpA	Stack - HCN	NaOH Impinger Catch - Bottle A	ICR	1					
CHV-Stk-ICR1-OTM29-NaOH ImpB	Stack - HCN	NaOH Impinger Catch - Bottle B	ICR	1					
CHV-Stk-ICR1-OTM29-Final NaOH	Stack - HCN	Final NaOH Impinger Catch	ICR	1					
CHV-Stk-ICR2-OTM29-Filt	Stack - HCN	Filter	ICR	2					
CHV-Stk-ICR2-OTM29-NaOH ImpA	Stack - HCN	NaOH Impinger Catch - Bottle A	ICR	2					
CHV-Stk-ICR2-OTM29-NaOH ImpB	Stack - HCN	NaOH Impinger Catch - Bottle B	ICR	2					
CHV-Stk-ICR2-OTM29-Final NaOH	Stack - HCN	Final NaOH Impinger Catch	ICR	2					
CHV-Stk-ICR3-OTM29-Filt	Stack - HCN	Filter	ICR	3					

Cheveron Oahu - FCCU ICR

Project Number 40942312

	Sample ID Code	Stream/Sampling Trai	Fraction	Cond	Run	Date	Time	TW	GW	Comments	
	CHV-Stk-IC[illegible]-OTM29-NaOH ImpA	Stack - HCN	NaOH Impinger Catch - Bottle A	ICR	3						
	CHV-Stk-ICR3-OTM29-NaOH ImpB	Stack - HCN	NaOH Impinger Catch - Bottle B	ICR	3						
	CHV-Stk-ICR3-OTM29-Final NaOH	Stack - HCN	Final NaOH Impinger Catch	ICR	3						
	CHV-Stk-ICRFB-OTM29-Filt	Stack - HCN	Filter	ICR	FB					Field Blank Train	
	CHV-Stk-ICRFB-OTM29-NaOH Imp	Stack - HCN	NaOH Impinger Catch	ICR	FB					Field Blank Train	
	CHV-Stk-ICRFB-OTM29-Final NaOH	Stack - HCN	Final NaOH Impinger Catch	ICR	FB					Field Blank Train	
	CHV-Stk-ICRFS-OTM29-Field Spike	Stack - HCN	Field Spike	ICR	FS					field spike. Spike matl from lab, spike done in field	
	CHV-Stk-ICRRB-OTM29-Filt	Stack - HCN	Filter	ICR	RB					Reagent Blank	
	CHV-Stk-ICRRB-OTM29-6.0N NaOH	Stack - HCN	Sodium Hydroxide Impinger Solution	ICR	RB					Reagent Blank	
	CHV-Stk-ICRRB-OTM29-0.1N NaOH	Stack - HCN	Sodium Hydroxide Rinse Solution	ICR	RB					Reagent Blank	
	CHV-Stk-ICR__-M0010-PNR-Ace	Stack - M0010 (Semi-Volatiles)	PNR - Acetone	ICR	__						
	CHV-Stk-ICR__-M0010-PNR-MeCl	Stack - M0010 (Semi-Volatiles)	PNR - Methylene Chloride	ICR	__						
	CHV-Stk-ICR__-M0010-Filt	Stack - M0010 (Semi-Volatiles)	Filter	ICR	__						
	CHV-Stk-ICR__-M0010-CR-Ace	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Acetone	ICR	__						
	CHV-Stk-ICR__-M0010-CR-MeCl	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Methylene Chloride	ICR	__						
	CHV-Stk-ICR__-M0010-XAD	Stack - M0010 (Semi-Volatiles)	XAD Sorbent Cartridge	ICR	__						
	CHV-Stk-ICR__-M0010-CondA	Stack - M0010 (Semi-Volatiles)	Condensate - Bottle A	ICR	__						
	CHV-Stk-ICR__-M0010-CondB	Stack - M0010 (Semi-Volatiles)	Condensate - Bottle B	ICR	__						
	CHV-Stk-ICR__-M0010-IR-Ace	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Acetone	ICR	__						
	CHV-Stk-ICR__-M0010-IR-MeCl	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Methylene Chloride	ICR	__				229.6		
17	CHV-Stk-ICR1-M0010-PNR-Ace	Stack - M0010 (Semi-Volatiles)	PNR - Acetone	ICR	1	6/29/11	1340	180.6	~~248.9~~	50 ml e	✓
18	CHV-Stk-ICR1-M0010-PNR-MeCl	Stack - M0010 (Semi-Volatiles)	PNR - Methylene Chloride	ICR	1	6/29/11	1340	180.5	293.0	100 ml E	✓
17	CHV-Stk-ICR1-M0010-Filt	Stack - M0010 (Semi-Volatiles)	Filter	ICR	1			——	——	– e	✓
17	CHV-Stk-ICR1-M0010-CR-Ace	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Acetone	ICR	1			180.6	229.7	50 ml e	✓
18	CHV-Stk-ICR1-M0010-CR-MeCl	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Methylene Chloride	ICR	1			180.7	270.4	100 ml e	✓
18	CHV-Stk-ICR1-M0010-XAD	Stack - M0010 (Semi-Volatiles)	XAD Sorbent Cartridge	ICR	1	"	"	——	——	– e	✓

Sample Logbook

Cheveron Oahu - FCCU ICR

Project Number 40942312

	Sample ID Code	Stream/Sampling Train	Fraction	Cond	Run	Date	Time	TW	GW	Comments
20	CHV-Stk-ICR1-M0010-CondA	Stack - M0010 (Semi-Volatiles)	Condensate - Bottle A	ICR	1	6/27/11	1340	401.7	622.4	250 ml e ✓
X	~~CHV-Stk-ICR1-M0010-CondB~~	~~Stack - M0010 (Semi-Volatiles)~~	~~Condensate - Bottle B~~	~~ICR~~	~~1~~					
17	CHV-Stk-ICR1-M0010-IR-Ace	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Acetone	ICR	1			181.5	211.9	50 ml e ✓
18	CHV-Stk-ICR1-M0010-IR-MeCl	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Methylene Chloride	ICR	1	↓	↓	180.5	231.8	50 ml e ✓
17	CHV-Stk-ICR2-M0010-PNR-Ace	Stack - M0010 (Semi-Volatiles)	PNR - Acetone	ICR	2	6/28/11	1533	180.5	230.4	50 ml e ✓
18	CHV-Stk-ICR2-M0010-PNR-MeCl	Stack - M0010 (Semi-Volatiles)	PNR - Methylene Chloride	ICR	2			181.5	319.3	150 ml e ✓
17	CHV-Stk-ICR2-M0010-Filt	Stack - M0010 (Semi-Volatiles)	Filter	ICR	2			—	—	— e ✓
17	CHV-Stk-ICR2-M0010-CR-Ace	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Acetone	ICR	2			180.6	224.6	50 ml e ✓
18	CHV-Stk-ICR2-M0010-CR-MeCl	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Methylene Chloride	ICR	2			181.7	228.2	50 ml e ✓
18	CHV-Stk-ICR2-M0010-XAD	Stack - M0010 (Semi-Volatiles)	XAD Sorbent Cartridge	ICR	2			—	—	— e ✓
20	CHV-Stk-ICR2-M0010-CondA	Stack - M0010 (Semi-Volatiles)	Condensate - Bottle A	ICR	2			401.8	627.4	250 ml e ✓
	~~CHV-Stk-ICR2-M0010-CondB~~	~~Stack - M0010 (Semi-Volatiles)~~	~~Condensate - Bottle B~~	~~ICR~~	~~2~~					e
17	CHV-Stk-ICR2-M0010-IR-Ace	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Acetone	ICR	2			181.6	223.8	50 ml e ✓
18	CHV-Stk-ICR2-M0010-IR-MeCl	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Methylene Chloride	ICR	2	↓	↓	181.4	215.8	50 ml e ✓
17	CHV-Stk-ICR3-M0010-PNR-Ace	Stack - M0010 (Semi-Volatiles)	PNR - Acetone	ICR	3	6/29/11	1321	181.5	214.2	50 ml e ✓
18	CHV-Stk-ICR3-M0010-PNR-MeCl	Stack - M0010 (Semi-Volatiles)	PNR - Methylene Chloride	ICR	3			180.5	208.9	150 ml e ✓
17	CHV-Stk-ICR3-M0010-Filt	Stack - M0010 (Semi-Volatiles)	Filter	ICR	3			—	—	— e ✓
17	CHV-Stk-ICR3-M0010-CR-Ace	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Acetone	ICR	3			180.6	275.5	50 ml e ✓
18	CHV-Stk-ICR3-M0010-CR-MeCl	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Methylene Chloride	ICR	3			180.4	271.6	50 ml e ✓
18	CHV-Stk-ICR3-M0010-XAD	Stack - M0010 (Semi-Volatiles)	XAD Sorbent Cartridge	ICR	3			—	—	— e ✓
22	CHV-Stk-ICR3-M0010-CondA	Stack - M0010 (Semi-Volatiles)	Condensate - Bottle A	ICR	3			401.9	666.9	250 ml e ✓
	~~CHV-Stk-ICR3-M0010-CondB~~	~~Stack - M0010 (Semi-Volatiles)~~	~~Condensate - Bottle B~~	~~ICR~~	~~3~~					e
17	CHV-Stk-ICR3-M0010-IR-Ace	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Acetone	ICR	3			181.5	230.5	50 ml e ✓
18	CHV-Stk-ICR3-M0010-IR-MeCl	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Methylene Chloride	ICR	3	↓	↓	180.4	228.1	50 ml e ✓
21	CHV-Stk-ICRFB-M0010-PNR-Ace	Stack - M0010 (Semi-Volatiles)	PNR - Acetone	ICR	FB	6/28/11	1927	181.6	216.0	Field Blank Train 50 ml e ✓
20	CHV-Stk-ICRFB-M0010-PNR-MeCl	Stack - M0010 (Semi-Volatiles)	PNR - Methylene Chloride	ICR	FB	↓	↓	180.6	240.9	Field Blank Train 100 ml e ✓

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Sample ID Code	Stream/Sampling Train	Fraction	Cond	Run	Date	Time	TW	GW	Comments
CHV-Stk-ICRFB-M0010-Filt	Stack - M0010 (Semi-Volatiles)	Filter	ICR	FB	6/28/11	1927	—	—	Field Blank Train — e ✓
CHV-Stk-ICRFB-M0010-CR-Ace	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Acetone	ICR	FB			180.7	280.5	Field Blank Train 100 ml e ✓
CHV-Stk-ICRFB-M0010-CR-MeCl	Stack - M0010 (Semi-Volatiles)	Condenser Rns - Methylene Chloride	ICR	FB			180.5	301.4	Field Blank Train 150 ml e ✓
CHV-Stk-ICRFB-M0010-XAD	Stack - M0010 (Semi-Volatiles)	XAD Sorbent Cartridge	ICR	FB			—	—	Field Blank Train — e ✓
~~CHV-Stk-ICRFB-M0010-Cond~~	~~Stack - M0010 (Semi-Volatiles)~~	~~Condensate~~	~~ICR~~	~~FB~~			~~180.5~~		~~Field Blank Train~~
CHV-Stk-ICRFB-M0010-IR-Ace	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Acetone	ICR	FB			180.4	231.1	Field Blank Train 50 ml e ✓
CHV-Stk-ICRFB-M0010-IR-MeCl	Stack - M0010 (Semi-Volatiles)	Impinger Rinse - Methylene Chloride	ICR	FB			180.5	241.5	Field Blank Train 100 ml e ✓
CHV-Stk-ICRRB-M0010-Filt	Stack - M0010 (Semi-Volatiles)	Filter	ICR	RB	6/29/11	1830	—	—	Reagent Blank e ✓
CHV-Stk-ICRRB-M0010-XAD	Stack - M0010 (Semi-Volatiles)	XAD Sorbent Cartridge	ICR	RB	"	"	—	—	Reagent Blank e ✓
CHV-Stk-ICRRB-M0010-Ace	Stack - M0010 (Semi-Volatiles)	Acetone	ICR	RB	6/30/11	1030	180.5	259.8	Reagent Blank
CHV-Stk-ICRRB-M0010-MeCl	Stack - M0010 (Semi-Volatiles)	Methylene Chloride	ICR	RB			180.4	313.9	Reagent Blank
CHV-Stk-ICRRB-M0010-Water	Stack - M0010 (Semi-Volatiles)	Water	ICR	RB			181.6	281.6	Reagent Blank
~~CHV-Stk-ICR__-M23+-PNR-Ace~~	~~Stack - Method 23 (PCDD/PCDF/PCB)~~	~~PNR - Acetone~~	~~ICR~~						
CHV-Stk-ICR__-M23+-PNR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Methylene Chloride	ICR	__					
CHV-Stk-ICR__-M23+-PNR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Toluene	ICR	__					
CHV-Stk-ICR__-M23+-Filt	Stack - Method 23 (PCDD/PCDF/PCB)	Filter	ICR	__					
CHV-Stk-ICR__-M23+-CR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Acetone	ICR	__					
CHV-Stk-ICR__-M23+-CR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Methylene Chloride	ICR	__					
CHV-Stk-ICR__-M23+-CR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Toluene	ICR	__			402.2		
CHV-Stk-ICR__-M23+-XAD	Stack - Method 23 (PCDD/PCDF/PCB)	XAD Sorbent Cartridge	ICR	__					
CHV-Stk-ICR__-M23+-ImpsA	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Catch - Bottle A	ICR	__					
CHV-Stk-ICR__-M23+-ImpsB	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Catch - Bottle B	ICR	__					
CHV-Stk-ICR__-M23+-IR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Acetone	ICR	__					
CHV-Stk-ICR__-M23+-IR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Methylene Chloride	ICR	__					
~~CHV-Stk-ICR__-M23+-IR-Tol~~	~~Stack - Method 23 (PCDD/PCDF/PCB)~~	~~Impinger Rinse - Toluene~~	~~ICR~~	__					
CHV-Stk-ICR1-M23+-PNR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Acetone	ICR	1	6/22/11	1036	181.4	230.3	50ml TAK ✓

Sample Logbook

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	Sample ID Code	Stream/Sampling Trair	Fraction	Cond	Run	Date	Time	TW	GW	Comments	
(11)	CHV-Stk-ICR1-M23+-PNR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Methylene Chloride	ICR	1	6/22/11	1636	181.4	273.8	100 ml TAK	✓
(12)	CHV-Stk-ICR1-M23+-PNR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Toluene	ICR	1			181.4	227.8	50 ml TAK	✓
(13)	CHV-Stk-ICR1-M23+-Filt	Stack - Method 23 (PCDD/PCDF/PCB)	Filter	ICR	1			—	—	— TAK	✓
(12)	CHV-Stk-ICR1-M23+-CR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Acetone	ICR	1			297.5	273.8	100 ml TAK	✓
(11)	CHV-Stk-ICR1-M23+-CR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Methylene Chloride	ICR	1			402.9	1096.7	~~700~~ ml TAK	✓
(12)	CHV-Stk-ICR1-M23+-CR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Toluene	ICR	1			402.3	769.7	400 ml TAK	✓
(14)	CHV-Stk-ICR1-M23+-XAD	Stack - Method 23 (PCDD/PCDF/PCB)	XAD Sorbent Cartridge	ICR	1			—	—	— TAK	✓
11	CHV-Stk-ICR1-M23+-ImpsA	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Catch - Bottle A	ICR	1			402.1	678.1	300 ml TAK	✓
X	CHV-Stk-ICR1-M23+-ImpsB	Stack - Method 23 (PCDD/PCDF/PCB)	~~Impinger Catch - Bottle B~~	ICR	1						
12	CHV-Stk-ICR1-M23+-IR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Acetone	ICR	1	6/22/11	1636	180.5	249.2	100 ml TAK	✓
10	CHV-Stk-ICR1-M23+-IR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Methylene Chloride	ICR	1			181.6	248.2	100 ml TAK	✓
12	CHV-Stk-ICR1-M23+-IR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Toluene	ICR	1			181.4	214.6	50 ml TAK	✓
14	CHV-Stk-ICR2-M23+-PNR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Acetone	ICR	2	6/23/11	1306	181.6	268.6	100 ml TAK	✓
10	CHV-Stk-ICR2-M23+-PNR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Methylene Chloride	ICR	2			180.4	317.1	150 ml TAK	✓
9	CHV-Stk-ICR2-M23+-PNR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Toluene	ICR	2			180.7	262.4	100 ml TAK	✓
(12)	CHV-Stk-ICR2-M23+-Filt	Stack - Method 23 (PCDD/PCDF/PCB)	Filter	ICR	2			—	—	— TAK	✓
14	CHV-Stk-ICR2-M23+-CR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Acetone	ICR	2			~~245.8~~ 181.0	273.9	100 ml TAK	✓
10	CHV-Stk-ICR2-M23+-CR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Methylene Chloride	ICR	2			403.8	~~405~~ 1156.6	300 ml TAK	✓
9	CHV-Stk-ICR2-M23+-CR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Toluene	ICR	2			401.6	889.1	500 ml TAK	✓
14	CHV-Stk-ICR2-M23+-XAD	Stack - Method 23 (PCDD/PCDF/PCB)	XAD Sorbent Cartridge	ICR	2			—	—	— TAK	✓
	CHV-Stk-ICR2-M23+-ImpsA	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Catch - Bottle A	ICR	2			402.0	686.1	300 ml TAK	✓
X	CHV-Stk-ICR2-M23+-ImpsB	Stack - Method 23 (PCDD/PCDF/PCB)	~~Impinger Catch - Bottle B~~	ICR	2						
14	CHV-Stk-ICR2-M23+-IR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Acetone	ICR	2	6/23/11	1306	181.4	218.0	50 ml TAK	✓
10	CHV-Stk-ICR2-M23+-IR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Methylene Chloride	ICR	2			180.5	221.2	50 ml TAK	✓
9	CHV-Stk-ICR2-M23+-IR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Toluene	ICR	2			181.5	218.7	50 ml TAK	✓
14	CHV-Stk-ICR3-M23+-PNR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Acetone	ICR	3	6/27/11	1338	180	241.9	100 ml TAK	✓

Sample Logbook

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	Sample ID Code	Stream/Sampling Train	Fraction	Cond	Run	Date	Time	TW	GW	Comments
15	CHV-Stk-ICR3-M23+-PNR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Methylene Chloride	ICR	3	6/27/11	1338	—	~~295.8~~ 314.5	200 ml TAK ✓
16	CHV-Stk-ICR3-M23+-PNR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Toluene	ICR	3	6/27/11	1338	—	~~314.7~~ 329.3	200 ml TAK ✓
(12)	CHV-Stk-ICR3-M23+-Filt	Stack - Method 23 (PCDD/PCDF/PCB)	Filter	ICR	3			—	—	— TAK ✓
14	CHV-Stk-ICR3-M23+-CR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Acetone	ICR	3			296.0	—	100 ml TAK ✓
15	CHV-Stk-ICR3-M23+-CR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Methylene Chloride	ICR	3			402.1	1022.7	700 ml TAK ✓
16	CHV-Stk-ICR3-M23+-CR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Toluene	ICR	3			402.4	767.8	400 ml TAK ✓
11	CHV-Stk-ICR3-M23+-XAD	Stack - Method 23 (PCDD/PCDF/PCB)	XAD Sorbent Cartridge	ICR	3			—	—	— TAK ✓
	CHV-Stk-ICR3-M23+-ImpsA	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Catch - Bottle A	ICR	3			402.6	672.5	300 ml TAK ✓
X	~~CHV-Stk-ICR3-M23+-ImpsB~~	~~Stack - Method 23 (PCDD/PCDF/PCB)~~	~~Impinger Catch - Bottle B~~	~~ICR~~	~~3~~					
14	CHV-Stk-ICR3-M23+-IR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Acetone	ICR	3			181.5	209.5	50 ml TAK ✓
15	CHV-Stk-ICR3-M23+-IR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Methylene Chloride	ICR	3			180.2	230.6	50 ml TAK ✓
16	CHV-Stk-ICR3-M23+-IR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Toluene	ICR	3			181.0	223.0	50 ml TAK ✓
14	CHV-Stk-ICRFB-M23+-PNR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Acetone	ICR	FB	6/24/11	1135	180.5	~~260.5~~ 260.0	Field Blank Train 100 ml TAK ✓
10	CHV-Stk-ICRFB-M23+-PNR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Methylene Chloride	ICR	FB	6/26/11	1135	181.	263.1	Field Blank Train 100 ml TAK ✓
9	CHV-Stk-ICRFB-M23+-PNR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	PNR - Toluene	ICR	FB			180.	254.2	Field Blank Train 100 ml TAK ✓
(12)	CHV-Stk-ICRFB-M23+-Filt	Stack - Method 23 (PCDD/PCDF/PCB)	Filter	ICR	FB			—	—	Field Blank Train — TAK ✓
14	CHV-Stk-ICRFB-M23+-CR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Acetone	ICR	FB			180.3	266.4	Field Blank Train 100 ml TAK ✓
15	CHV-Stk-ICRFB-M23+-CR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Methylene Chloride	ICR	FB			401.3	960.3	Field Blank Train 600 ml TAK ✓
16	CHV-Stk-ICRFB-M23+-CR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Condenser Rns - Toluene	ICR	FB			401.2	760.6	Field Blank Train 400 ml TAK ✓
11	CHV-Stk-ICRFB-M23+-XAD	Stack - Method 23 (PCDD/PCDF/PCB)	XAD Sorbent Cartridge	ICR	FB			—	—	Field Blank Train — TAK ✓
	CHV-Stk-ICRFB-M23+-Imps	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Catch	ICR	FB			296.2	391.6	Field Blank Train 100 ml TAK ✓
14	CHV-Stk-ICRFB-M23+-IR-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Acetone	ICR	FB			181.2	221.0	Field Blank Train 50 ml TAK ✓
10	CHV-Stk-ICRFB-M23+-IR-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Methylene Chloride	ICR	FB			181.4	243.2	Field Blank Train 100 ml TAK ✓
9	CHV-Stk-ICRFB-M23+-IR-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Impinger Rinse - Toluene	ICR	FB			181.2	226.4	Field Blank Train 50 ml TAK ✓
(12)	CHV-Stk-ICRRB-M23+-Filt	Stack - Method 23 (PCDD/PCDF/PCB)	Filter	ICR	RB	6/24/11	1230	—	—	Reagent Blank — TAK ✓

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	Sample ID Code	Stream/Sampling Train	Fraction	Cond	Run	Date	Time	TW	GW	Comments
14	CHV-Stk-ICRRB-M23+-XAD	Stack - Method 23 (PCDD/PCDF/PCB)	XAD Sorbent Cartridge	ICR	RB	6/25/11	1230	—	—	Reagent Blank – TAK ✓
12	CHV-Stk-ICRRB-M23+-Ace	Stack - Method 23 (PCDD/PCDF/PCB)	Acetone	ICR	RB	6/26/11	1230	180.3	344.8	Reagent Blank 200 ml TAK ✓
10	CHV-Stk-ICRRB-M23+-MeCl	Stack - Method 23 (PCDD/PCDF/PCB)	Methylene Chloride	ICR	RB	6/26/11	1230	181.4	460.6	Reagent Blank 300 ml TAK ✓
9	CHV-Stk-ICRRB-M23+-Tol	Stack - Method 23 (PCDD/PCDF/PCB)	Toluene	ICR	RB	6/26/11	1230	180.5	374.1	Reagent Blank 200 ml TAK ✓
10	CHV-Stk-ICRRB-M23+-Water	Stack - Method 23 (PCDD/PCDF/PCB)	Water	ICR	RB	6/26/11	1230	181.6	281.8	Reagent Blank 100 ml TAK ✓
19	CHV-Stk-ICRMS-M0011-Imp/RnsA	Stack - M0011 (Aldehydes/Ketones)	Comb Impinger Catch and Rinses A	ICR	MS	6/28/11	1904	404.1	1428.3	Matrix Spike 1L e ✓
	CHV-Stk-ICR__-M0011-Imp/RnsB	Stack - M0011 (Aldehydes/Ketones)	Comb Impinger Catch and Rinses B	ICR	—					
19	CHV-Stk-ICR1-M0011-Imp/RnsA	Stack - M0011 (Aldehydes/Ketones)	Comb Impinger Catch and Rinses A	ICR	1	6/28/11	1902	403.7	1247.7	1L e ✓
	CHV-Stk-ICR1-M0011-Imp/RnsB	Stack - M0011 (Aldehydes/Ketones)	Comb Impinger Catch and Rinses B	ICR	1					
22	CHV-Stk-ICR2-M0011-Imp/RnsA	Stack - M0011 (Aldehydes/Ketones)	Comb Impinger Catch and Rinses A	ICR	2	6/29/11	1057	404.1	1379.7	1L e
	CHV-Stk-ICR2-M0011-Imp/RnsB	Stack - M0011 (Aldehydes/Ketones)	Comb Impinger Catch and Rinses B	ICR	2					
22	CHV-Stk-ICR3-M0011-Imp/RnsA	Stack - M0011 (Aldehydes/Ketones)	Comb Impinger Catch and Rinses A	ICR	3	6/29/11	1526	402.3	1312.9	1L e
	CHV-Stk-ICR3-M0011-Imp/RnsB	Stack - M0011 (Aldehydes/Ketones)	Comb Impinger Catch and Rinses B	ICR	3					
19	CHV-Stk-ICRFB-M0011-Imp/Rns	Stack - M0011 (Aldehydes/Ketones)	Comb Impinger Catch and Rinses	ICR	FB	6/29/11	1730	402.4	1178.9	Field Blank Train 1L e
22	CHV-Stk-ICRFS-M0011-Field Spike	Stack - M0011 (Aldehydes/Ketones)	Field Spike	ICR	FS	6/29/11	1800	402.1	725.3	field spike. Spike matl from lab, spike done in field 280ml e
19	CHV-Stk-ICRRB-M0011-DNPH	Stack - M0011 (Aldehydes/Ketones)	DNPH derivatizing agent	ICR	RB	6/29/11	1810	414.0	1404.0	Reagent Blank 1L e ✓
	CHV-Stk-ICRRB-M0011-MeCl	Stack - M0011 (Aldehydes/Ketones)	Methylene Chloride	ICR	RB					Reagent Blank
	CHV-Stk-ICR__-M26A-AcdImp	Stack - Method 26A	Sulfuric Acid Impinger Catch	ICR						
	CHV-Stk-ICR__-M26A-AlkImp	Stack - Method 26A	Sodium Hydroxide Impinger Catch	ICR	—					
already sent 6/28/11	CHV-Stk-ICR1-M26A-AcdImp	Stack - Method 26A	Sulfuric Acid Impinger Catch	ICR	1	6/22/11	1600	129.4	645.9	550 ml TAK e ✓
	CHV-Stk-ICR1-M26A-AlkImp	Stack - Method 26A	Sodium Hydroxide Impinger Catch	ICR	1	6/22/11	1600	62.2	370.4	300 ml TAK e
	CHV-Stk-ICR2-M26A-AcdImp	Stack - Method 26A	Sulfuric Acid Impinger Catch	ICR	2	6/22/11	1902	129.2	718.5	600 ml TAK e
	CHV-Stk-ICR2-M26A-AlkImp	Stack - Method 26A	Sodium Hydroxide Impinger Catch	ICR	2	6/22/11	1902	62.7	416.8	400 ml TAK e
	CHV-Stk-ICR3-M26A-AcdImp	Stack - Method 26A	Sulfuric Acid Impinger Catch	ICR	3	6/23/11	1205	129.6	1001.4	900 ml TAK e
	CHV-Stk-ICR3-M26A-AlkImp	Stack - Method 26A	Sodium Hydroxide Impinger Catch	ICR	3	6/23/11	1205	62.8	493.1	480 ml e

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CHV-Stk-ICRFB-M26A-Acdlmp	Stack - Method 26A	Sulfuric Acid Impinger Catch	ICR	FB	6/23/11	1220	129.0	767.9	Field Blank Train 700 ml e
CHV-Stk-ICRFB-M26A-Alklmp	Stack - Method 26A	Sodium Hydroxide Impinger Catch	ICR	FB	6/23/11	1220	62.6	474.2	Field Blank Train 400 ml e
CHV-Stk-ICRRB-M26A-Water	Stack - Method 26A	Water	ICR	RB	6/26/11	1730	45.6	152.6	Reagent Blank 100 ml e
CHV-Stk-ICRRB-M26A-NaOH Soln	Stack - Method 26A	Sodium Hydroxide Solution	ICR	RB	"	"	45.4	247.0	Reagent Blank 200 ml e
CHV-Stk-ICRRB-M26A-H2SO4 Soln	Stack - Method 26A	Sulfuric Acid Solution	ICR	RB	"	"	46.3	298.3	Reagent Blank 250 ml e
CHV-Stk-ICR__-M201A/202-NR	Stack - Method 201A/202	Nozzle Rinse	ICR	__					
CHV-Stk-ICR__-M201A/202-FPM Filt	Stack - Method 201A/202	Filter for Filterable PM	ICR	__					
CHV-Stk-ICR__-M201A/202-CPM Filt	Stack - Method 201A/202	Filter for Condensable PM	ICR	__					
CHV-Stk-ICR__-M201A/202-CondA	Stack - Method 201A/202	Condensate - Bottle A	ICR	__					
CHV-Stk-ICR__-M201A/202-CondB	Stack - Method 201A/202	Condensate - Bottle B	ICR	__					
CHV-Stk-ICR__-M201A/202-BHRns-Wtr	Stack - Method 201A/202	Back Half Rinse - Water	ICR	__					
CHV-Stk-ICR__-M201A/202-BHRns-Ace	Stack - Method 201A/202	Back Half Rinse - Acetone	ICR	__					
CHV-Stk-ICR__-M201A/202-BHRns-Hex	Stack - Method 201A/202	Back Half Rinse - Hexane	ICR	__					
CHV-Stk-ICR1-M201A/202-NR	Stack - Method 201A/202	Nozzle Rinse	ICR	4	6/26/11	1740			
CHV-Stk-ICR1-M201A/202-FPM Filt	Stack - Method 201A/202	Filter for Filterable PM	ICR	4			—	—	3219 e ✓
CHV-Stk-ICR1-M201A/202-CPM Filt	Stack - Method 201A/202	Filter for Condensable PM	ICR	4			—	—	COLD 0611-24 e ✓
CHV-Stk-ICR1-M201A/202-CondA	Stack - Method 201A/202	Condensate - Bottle A	ICR	4			402.3		
CHV-Stk-ICR1-M201A/202-CondB	Stack - Method 201A/202	~~Condensate - Bottle B~~	~~ICR~~	~~4~~					
CHV-Stk-ICR1-M201A/202-BHRns-Wtr	Stack - Method 201A/202	~~Back Half Rinse - Water~~	~~ICR~~	~~4~~					
CHV-Stk-ICR1-M201A/202-BHRns-Ace	Stack - Method 201A/202	Back Half Rinse - Acetone	ICR	4					
CHV-Stk-ICR1-M201A/202-BHRns-Hex	Stack - Method 201A/202	Back Half Rinse - Hexane	ICR	4					
CHV-Stk-ICR2-M201A/202-NR	Stack - Method 201A/202	Nozzle Rinse	ICR	2	6/24/11	1323:45	181.0	206.7	
CHV-Stk-ICR2-M201A/202-FPM Filt	Stack - Method 201A/202	Filter for Filterable PM	ICR	2			—	—	#3217 e ✓
CHV-Stk-ICR2-M201A/202-CPM Filt	Stack - Method 201A/202	Filter for Condensable PM	ICR	2			—	—	#0611-24 e ✓
CHV-Stk-ICR2-M201A/202-CondA	Stack - Method 201A/202	Condensate - Bottle A	ICR	2			402.0	669.0	COLD
CHV-Stk-ICR2-M201A/202-CondB	Stack - Method 201A/202	~~Condensate - Bottle B~~	~~ICR~~	~~2~~					

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CHV-Stk-ICR2-M201A/202-BHRns-Wtr	Stack - Method 201A/202	Back Half Rinse - Water	ICR	2	6/24/11	1323:45	181.2	252.0	COLD
CHV-Stk-ICR2-M201A/202-BHRns-Ace	Stack - Method 201A/202	Back Half Rinse - Acetone	iCR	2	↓	↓	181.0	302.7	↓
CHV-Stk-ICR2-M201A/202-BHRns-Hex	Stack - Method 201A/202	Back Half Rinse - Hexane	ICR	2	↓	↓	181.2	272.5	↓
CHV-Stk-ICR3-M201A/202-NR	Stack - Method 201A/202	Nozzle Rinse	ICR	3	6/24/11	1932	181.0	222.3	
CHV-Stk-ICR3-M201A/202-FPM Filt	Stack - Method 201A/202	Filter for Filterable PM	ICR	3	↓	↓	—	—	#3218 ~~6011-24~~ e ✓
CHV-Stk-ICR3-M201A/202-CPM Filt	Stack - Method 201A/202	Filter for Condensable PM	ICR	3	↓	↓	—	—	#0611-24 e ✓
CHV-Stk-ICR3-M201A/202-CondA	Stack - Method 201A/202	Condensate - Bottle A	ICR	3	↓	↓	402.1	708.1	COLD
CHV-Stk-ICR3-M201A/202-CondB	Stack - Method 201A/202	~~Condensate - Bottle B~~	ICR	3					↓
CHV-Stk-ICR3-M201A/202-BHRns-Wtr	Stack - Method 201A/202	Back Half Rinse - Water	ICR	3	6/24/11	1932	181.3	402.7	
CHV-Stk-ICR3-M201A/202-BHRns-Ace	Stack - Method 201A/202	Back Half Rinse - Acetone	ICR	3	↓	↓	181.3	397.9	↓
CHV-Stk-ICR3-M201A/202-BHRns-Hex	Stack - Method 201A/202	Back Half Rinse - Hexane	ICR	3	↓	↓	181.2	353.2	↓
CHV-Stk-ICRFB-M201A/202-NR	Stack - Method 201A/202	Nozzle Rinse	ICR	FB	6/29/11	1720	181.3	209.0	Field Blank Train
CHV-Stk-ICRFB-M201A/202-FPM Filt	Stack - Method 201A/202	Filter for Filterable PM	ICR	FB	↓	↓	—	—	Field Blank Train #3223
CHV-Stk-ICRFB-M201A/202-CPM Filt	Stack - Method 201A/202	Filter for Condensable PM	ICR	FB	↓	↓	—	—	Field Blank Train #0611-24
CHV-Stk-ICRFB-M201A/202-Cond	Stack - Method 201A/202	~~Condensate~~	ICR	FB					Field Blank Train
CHV-Stk-ICRFB-M201A/202-BHRns-Wtr	Stack - Method 201A/202	Back Half Rinse - Water	ICR	FB	↓	↓	181.5	349.4	Field Blank Train
CHV-Stk-ICRFB-M201A/202-BHRns-Ace	Stack - Method 201A/202	Back Half Rinse - Acetone	ICR	FB	↓	↓	181.6	277.0	Field Blank Train
CHV-Stk-ICRFB-M201A/202-BHRns-Hex	Stack - Method 201A/202	Back Half Rinse - Hexane	ICR	FB	↓	↓	180.3	305.2	Field Blank Train
CHV-Stk-ICRRB-M201A/202-FPM Filt	Stack - Method 201A/202	Filter for Filterable PM	ICR	RB	6/26/11	1380	—	—	Reagent Blank 3221 e ✓
CHV-Stk-ICRRB-M201A/202-CPM Filt	Stack - Method 201A/202	Filter for Condensable PM	ICR	RB	6/26/11	1300	—	—	Reagent Blank 0611-24 e ✓
CHV-Stk-ICRRB-M201A/202-Ace	Stack - Method 201A/202	Acetone	ICR	RB	6/26/11	1006	—	—	Reagent Blank
CHV-Stk-ICRRB-M201A/202-Water	Stack - Method 201A/202	Water	ICR	RB	6/26/11	1306	—	—	Reagent Blank
CHV-Stk-ICRRB-M201A/202-MeCl	Stack - Method 201A/202	Methylene Chloride	ICR	RB					Reagent Blank
CHV-Stk-ICRRB-M201A/202-Hex	Stack - Method 201A/202	Hexane	ICR	RB	6/26/11	1600	176.8	308.6	Reagent Blank 1502 e ✓
CHV-Stk-ICR__-M5/29-PNR-Ace	Stack - Method 5/29 (PM/Metals)	PNR - Acetone	ICR	4	6/26/11	1738	180.3	252.4	
CHV-Stk-ICR__-M5/29-PNR-NA	Stack - Method 5/29 (PM/Metals)	PNR - Nitric Acid	ICR	4	↓	↓	180.5	276.8	

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CHV-Stk-ICR4-M5/29-Filt	Stack - Method 5/29 (PM/Metals)	Filter	ICR	4	6/24/11	1738	—	—	# CGD061411-2 TAS ✓
CHV-Stk-ICR4-M5/29-NPIA	Stack - Method 5/29 (PM/Metals)	Nitric/Peroxide Impingers - Bottle A	ICR	4	1	1	401.6 ~~180.4~~	915.0 ~~280.1~~	TAS
CHV-Stk-ICR4-M5/29-NPIB	Stack - Method 5/29 (PM/Metals)	~~Nitric/Peroxide Impingers - Bottle B~~	ICR	—					
CHV-Stk-ICR4-M5/29-EIR	Stack - Method 5/29 (PM/Metals)	Empty Impinger Rinse	ICR	4	6/24/11	1738	180.4	280.1	TAS
~~CHV-Stk-ICR__M5/29-Perm~~	~~Stack - Method 5/29 (PM/Metals)~~	~~Permanganate Impinger~~	ICR						
~~CHV-Stk-ICR__M5/29-HClRns~~	Stack - Method 5/29 (PM/Metals)	~~HCl Rinse of Permanganate Imp~~	ICR	—					
CHV-Stk-ICR1-M5/29-PNR-Ace	Stack - Method 5/29 (PM/Metals)	PNR - Acetone	ICR	1					
CHV-Stk-ICR1-M5/29-PNR-NA	Stack - Method 5/29 (PM/Metals)	PNR - Nitric Acid	ICR	1					
CHV-Stk-ICR1-M5/29-Filt	Stack - Method 5/29 (PM/Metals)	Filter	ICR	1					
CHV-Stk-ICR1-M5/29-NPIA	Stack - Method 5/29 (PM/Metals)	Nitric/Peroxide Impingers - Bottle A	ICR	1			401.6		
CHV-Stk-ICR1-M5/29-NPIB	Stack - Method 5/29 (PM/Metals)	Nitric/Peroxide Impingers - Bottle B	ICR	1					
CHV-Stk-ICR1-M5/29-EIR	Stack - Method 5/29 (PM/Metals)	Empty Impinger Rinse	ICR	1					
CHV-Stk-ICR1-M5/29-Perm	Stack - Method 5/29 (PM/Metals)	Permanganate Impinger	ICR	1			296.5		
~~CHV-Stk-ICR1-M5/29-HClRns~~	~~Stack - Method 5/29 (PM/Metals)~~	~~HCl Rinse of Permanganate Imp~~	ICR	1					
CHV-Stk-ICR2-M5/29-PNR-Ace	Stack - Method 5/29 (PM/Metals)	PNR - Acetone	ICR	2	6/24/11	1331	181.0	247.4	TAS
CHV-Stk-ICR2-M5/29-PNR-NA	Stack - Method 5/29 (PM/Metals)	PNR - Nitric Acid	ICR	2	↓	↓	181.2	270.7	TAS
CHV-Stk-ICR2-M5/29-Filt	Stack - Method 5/29 (PM/Metals)	Filter	ICR	2			—	—	CGD061411-3 TAS ✓
CHV-Stk-ICR2-M5/29-NPIA	Stack - Method 5/29 (PM/Metals)	Nitric/Peroxide Impingers - Bottle A	ICR	2			401.84	1058.4	TAS
CHV-Stk-ICR2-M5/29-NPIB	Stack - Method 5/29 (PM/Metals)	~~Nitric/Peroxide Impingers - Bottle B~~	ICR	2					
CHV-Stk-ICR2-M5/29-EIR	Stack - Method 5/29 (PM/Metals)	Empty Impinger Rinse	ICR	2	6/24/11	1331	180.4	284.2	TAS
CHV-Stk-ICR2-M5/29-Perm	Stack - Method 5/29 (PM/Metals)	~~Permanganate Impinger~~	ICR	2			296.1		
CHV-Stk-ICR2-M5/29-HClRns	Stack - Method 5/29 (PM/Metals)	~~HCl Rinse of Permanganate Imp~~	ICR	2					
CHV-Stk-ICR3-M5/29-PNR-Ace	Stack - Method 5/29 (PM/Metals)	PNR - Acetone	ICR	3	6/24/11	1942	181.0	246.5	TAS
CHV-Stk-ICR3-M5/29-PNR-NA	Stack - Method 5/29 (PM/Metals)	PNR - Nitric Acid	ICR	3	↓	↓	181.2	271.1	TAS
CHV-Stk-ICR3-M5/29-Filt	Stack - Method 5/29 (PM/Metals)	Filter	ICR	3			—	—	# CGD061411-6 TAS ✓
CHV-Stk-ICR3-M5/29-NPIA	Stack - Method 5/29 (PM/Metals)	Nitric/Peroxide Impingers - Bottle A	ICR	3			401.8	906.5	TAS

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CHV-Stk-ICR3-M5/29-NPIB	Stack - Method 5/29 (PM/Metals)	~~Nitric/Peroxide Impingers - Bottle B~~	ICR	3					
CHV-Stk-ICR3-M5/29-EIR	Stack - Method 5/29 (PM/Metals)	Empty Impinger Rinse	ICR	3	6/29/11	1942	181.3	280.4	TAS
CHV-Stk-ICR3-M5/29-Perm	Stack - Method 5/29 (PM/Metals)	~~Permanganate Impinger~~	ICR	3			296.9		
CHV-Stk-ICR3-M5/29-HClRns	Stack - Method 5/29 (PM/Metals)	~~HCl Rinse of Permanganate Imp~~	ICR	3					
CHV-Stk-ICRFB-M5/29-PNR-Ace	Stack - Method 5/29 (PM/Metals)	PNR - Acetone	ICR	FB	6/28/11	1704	181.2	251.7	Field Blank Train TAS
CHV-Stk-ICRFB-M5/29-PNR-NA	Stack - Method 5/29 (PM/Metals)	PNR - Nitric Acid	ICR	FB	"	"	181.6	274.6	Field Blank Train TAS
CHV-Stk-ICRFB-M5/29-Filt	Stack - Method 5/29 (PM/Metals)	Filter	ICR	FB	"	"	—	—	Field Blank Train CGD061411-1 TAS ✓
CHV-Stk-ICRFB-M5/29-NPI	Stack - Method 5/29 (PM/Metals)	Nitric/Peroxide Impingers	ICR	FB	"	"	295.4	607.0	Field Blank Train TAS
CHV-Stk-ICRFB-M5/29-EIR	Stack - Method 5/29 (PM/Metals)	Empty Impinger Rinse	ICR	FB	"	"	180.4	278.3	Field Blank Train TAS
CHV-Stk-ICRFB-M5/29-Perm	Stack - Method 5/29 (PM/Metals)	~~Permanganate Impinger~~	ICR	FB					~~Field Blank Train~~
CHV-Stk-ICRFB-M5/29-HClRns	Stack - Method 5/29 (PM/Metals)	~~HCl Rinse of Permanganate Imp~~	ICR	FB					~~Field Blank Train~~
CHV-Stk-ICRRB-M5/29-Filt	Stack - Method 5/29 (PM/Metals)	Filter	ICR	RB	6/28/11	1900	—	—	Reagent Blank #CGD061411-5 TAS ✓
CHV-Stk-ICRRB-M5/29-Ace	Stack - Method 5/29 (PM/Metals)	Acetone	ICR	RB	"	"	181.6	259.6	Reagent Blank TAS
CHV-Stk-ICRRB-M5/29-NA Rns Soln	Stack - Method 5/29 (PM/Metals)	Nitric Acid Rinse Solution	ICR	RB	"	"	295.8	590.3	Reagent Blank TAS
CHV-Stk-ICRRB-M5/29-Perm Soln	Stack - Method 5/29 (PM/Metals)	~~Permanganate Solution~~	ICR	RB					~~Reagent Blank~~
CHV-Stk-ICRRB-M5/29-HCl Soln	Stack - Method 5/29 (PM/Metals)	~~HCl Rinse Solution~~	ICR	RB					~~Reagent Blank~~
CHV-Stk-ICR4-OH-PNR	Stack - Ontario Hydro (Mercury)	Probe and Nozzle Rinse	ICR	4	6/28/11	1700	181.4	251.5	TAK
CHV-Stk-ICR4-OH-Filt	Stack - Ontario Hydro (Mercury)	Filter	ICR	4	"	"	129.1	132.0	
CHV-Stk-ICR4-OH-KClA	Stack - Ontario Hydro (Mercury)	Potassium Chloride Impingers - Bottle A	ICR	4	"	"	401.8	1107.1	
CHV-Stk-ICR4-OH-KClB	Stack - Ontario Hydro (Mercury)	~~Potassium Chloride Impinger - Bottle B~~	ICR	—					
CHV-Stk-ICR4-OH-NPI	Stack - Ontario Hydro (Mercury)	Nitric/Peroxide Impingers	ICR	4	6/28/11	1700	180.8	341.6	
CHV-Stk-ICR4-OH-Perm	Stack - Ontario Hydro (Mercury)	Permanganate Impinger	ICR	4	"	"	297.1	842.6	
CHV-Stk-ICR1-OH-PNR	Stack - Ontario Hydro (Mercury)	Probe and Nozzle Rinse	ICR	1	6/23/11	1923	181.7	329.5	
CHV-Stk-ICR1-OH-Filt	Stack - Ontario Hydro (Mercury)	Filter	ICR	1	"	"	128.9	131.8	
CHV-Stk-ICR1-OH-KClA	Stack - Ontario Hydro (Mercury)	Potassium Chloride Impingers - Bottle A	ICR	1	"	"	401.8	1219.1	
CHV-Stk-ICR1-OH-KClB	Stack - Ontario Hydro (Mercury)	~~Potassium Chloride Impinger - Bottle B~~	ICR	1					

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CHV-Stk-ICR1-OH-NPI	Stack - Ontario Hydro (Mercury)	Nitric/Peroxide Impingers	ICR	1	6/23/11	1923	181.6	345.7	TAK
CHV-Stk-ICR1-OH-Perm	Stack - Ontario Hydro (Mercury)	Permanganate Impinger	ICR	1	↓	↓	296.4	835.1	
CHV-Stk-ICR2-OH-PNR	Stack - Ontario Hydro (Mercury)	Probe and Nozzle Rinse	ICR	2	6/24/11	1245	181.5	338.4	
CHV-Stk-ICR2-OH-Filt	Stack - Ontario Hydro (Mercury)	Filter	ICR	2	↓	↓	129.3	132.2	
CHV-Stk-ICR2-OH-KClA	Stack - Ontario Hydro (Mercury)	Potassium Chloride Impingers - Bottle A	ICR	2	↓	↓	402.1	1082.6	
CHV-Stk-ICR2-OH-KClB	Stack - Ontario Hydro (Mercury)	~~Potassium Chloride Impinger - Bottle B~~	~~ICR~~	~~2~~					
CHV-Stk-ICR2-OH-NPI	Stack - Ontario Hydro (Mercury)	Nitric/Peroxide Impingers	ICR	2	6/24/11	1245	180.6	346.9	
CHV-Stk-ICR2-OH-Perm	Stack - Ontario Hydro (Mercury)	Permanganate Impinger	ICR	2	↓	↓	296.9	~~839~~836.9	
CHV-Stk-ICR3-OH-PNR	Stack - Ontario Hydro (Mercury)	Probe and Nozzle Rinse	ICR	3	6/24/11	1745	181.6	310.1	
CHV-Stk-ICR3-OH-Filt	Stack - Ontario Hydro (Mercury)	Filter	ICR	3	↓	↓	129.1	132.0	
CHV-Stk-ICR3-OH-KClA	Stack - Ontario Hydro (Mercury)	Potassium Chloride Impingers - Bottle A	ICR	3	↓	↓	401.3	1233.8	
CHV-Stk-ICR3-OH-KClB	Stack - Ontario Hydro (Mercury)	~~Potassium Chloride Impinger - Bottle B~~	~~ICR~~	~~3~~					
CHV-Stk-ICR3-OH-NPI	Stack - Ontario Hydro (Mercury)	Nitric/Peroxide Impingers	ICR	3	6/24/11	1745	180.6	345.0	
CHV-Stk-ICR3-OH-Perm	Stack - Ontario Hydro (Mercury)	Permanganate Impinger	ICR	3	↓	↓	297.2	787.5	
CHV-Stk-ICRFB-OH-PNR	Stack - Ontario Hydro (Mercury)	Probe and Nozzle Rinse	ICR	FB	6/24/11	1454	180.5	252.8	Field Blank Train
CHV-Stk-ICRFB-OH-Filt	Stack - Ontario Hydro (Mercury)	Filter	ICR	FB			129.4	133.0	Field Blank Train
CHV-Stk-ICRFB-OH-KCl	Stack - Ontario Hydro (Mercury)	Potassium Chloride Impingers	ICR	FB			~~181.5~~ AIA 1	1095.2	Field Blank Train
CHV-Stk-ICRFB-OH-NPI	Stack - Ontario Hydro (Mercury)	Nitric/Peroxide Impingers	ICR	FB			180.5	345.1	Field Blank Train
CHV-Stk-ICRFB-OH-Perm	Stack - Ontario Hydro (Mercury)	Permanganate Impinger	ICR	FB			~~180.4~~ 180.3	811.6	Field Blank Train
CHV-Stk-ICRRB-OH-Filt	Stack - Ontario Hydro (Mercury)	Filter	ICR	RB	6/20/11	1200	129.0	131.9	Reagent Blank
CHV-Stk-ICRRB-OH-KCl	Stack - Ontario Hydro (Mercury)	Potassium Chloride Impingers	ICR	RB	6/23/11	1915	181.7	236.4	Reagent Blank
CHV-Stk-ICRRB-OH-NPI	Stack - Ontario Hydro (Mercury)	Nitric/Peroxide Impingers	ICR	RB			180.4	234.2	Reagent Blank
CHV-Stk-ICRRB-OH-Perm	Stack - Ontario Hydro (Mercury)	Permanganate Impinger	ICR	RB			180.6	237.5	Reagent Blank
CHV-Stk-ICRRB-OH-Water	Stack - Ontario Hydro (Mercury)	Water	ICR	RB			181.6	231.7	Reagent Blank
CHV-Stk-ICRRB-OH-NA Rns Soln	Stack - Ontario Hydro (Mercury)	Nitric Acid Rinse Solution	ICR	RB			180.5	232.0	Reagent Blank
CHV-Stk-ICRRB-OH-10% NA	Stack - Ontario Hydro (Mercury)	10% Nitric Acid Rinse Solution	ICR	RB	↓	↓	181.4	234.8	Reagent Blank

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~~CHV-Stk-ICR__-M0061-Imp/Rns~~	~~Stack - M0061 (Hexavalent Chromium)~~	~~Comb Impinger Catch and Rinses~~	~~ICR~~	__					~~TAK~~
CHV-Stk-ICR1-M0061-Imp/Rns	Stack - M0061 (Hexavalent Chromium)	Comb Impinger Catch and Rinses	ICR	1	6/28/11	1620	294.9	1333.5	
CHV-Stk-ICR2-M0061-Imp/Rns	Stack - M0061 (Hexavalent Chromium)	Comb Impinger Catch and Rinses	ICR	2	6/29/11	1547	~~294.6~~	1251.9	
CHV-Stk-ICR3-M0061-Imp/Rns	Stack - M0061 (Hexavalent Chromium)	Comb Impinger Catch and Rinses	ICR	3			~~294.9~~		
CHV-Stk-ICRFB-M0061-Imp/Rns	Stack - M0061 (Hexavalent Chromium)	Comb Impinger Catch and Rinses	ICR	FB	6/28/11	1743	~~295.7~~	873.5	Field Blank Train
CHV-Stk-ICRRB-M0061-KOH Soln	Stack - M0061 (Hexavalent Chromium)	KOH Solution	ICR	RB	6/30/11	0930	~~180.5~~	372.0	Reagent Blank
CHV-Stk-ICRRB-M0061-Water	Stack - M0061 (Hexavalent Chromium)	Water	ICR	RB	1	1	~~181.5~~	363.4	Reagent Blank
~~CHV-Stk-ICR__-M207.1-Filt~~	~~Stack - Ammonia~~	~~Filter~~	~~ICR~~						
CHV-Stk-ICR__-M207.1-ImpsA	Stack - Ammonia	Impinger Catch - Bottle A	ICR	__					
CHV-Stk-ICR__-M207.1-ImpsB	Stack - Ammonia	Impinger Catch - Bottle B	ICR	__					
CHV-Stk-ICR1-M207.1-Filt	Stack - Ammonia	Filter	ICR	1					
CHV-Stk-ICR1-M207.1-ImpsA	Stack - Ammonia	Impinger Catch - Bottle A	ICR	1					
CHV-Stk-ICR1-M207.1-ImpsB	Stack - Ammonia	Impinger Catch - Bottle B	ICR	1					
CHV-Stk-ICR2-M207.1-Filt	Stack - Ammonia	Filter	ICR	2					
CHV-Stk-ICR2-M207.1-ImpsA	Stack - Ammonia	Impinger Catch - Bottle A	ICR	2					
CHV-Stk-ICR2-M207.1-ImpsB	Stack - Ammonia	Impinger Catch - Bottle B	ICR	2					
CHV-Stk-ICR3-M207.1-Filt	Stack - Ammonia	Filter	ICR	3					
CHV-Stk-ICR3-M207.1-ImpsA	Stack - Ammonia	Impinger Catch - Bottle A	ICR	3					
CHV-Stk-ICR3-M207.1-ImpsB	Stack - Ammonia	Impinger Catch - Bottle B	ICR	3					
CHV-Stk-ICRFB-M207.1-Filt	Stack - Ammonia	Filter	ICR	FB					Field Blank Train
CHV-Stk-ICRFB-M207.1-Imps	Stack - Ammonia	Impinger Catch	ICR	FB					Field Blank Train
CHV-Stk-ICRRB-M207.1-H2SO4 Soln	Stack - Ammonia	Sulfuric Acid Solution	ICR	RB					Reagent Blank
~~CHV-Stk-ICRRB-M207.1-Water~~	Stack - Ammonia	Water	ICR	RB					Reagent Blank
CHV-Stk-Pre1-M18S-XAD	Stack Pre-Survey M18	XAD Sorbent	Pre	1	6/20/11	1904			(console #60-1024-1)
CHV-Stk-Pre1-M18S-C	Stack Pre-Survey M18	Charcoal	Pre	1	1	1			(console #60-1024-1)
CHV-Stk-Pre2-M18S-XAD	Stack Pre-Survey M18	XAD Sorbent	Pre	2	1	1			Redundant (console # SN1543)

Cheveron Oahu - FCCU ICR

Project Number 40942312

Sample ID Code	Stream/Sampling Train	Fraction	Cond	Run	Date	Time	TW	GW	Comments
CHV-Stk-Pre2-MBS-C	Stack Pre-Survey ~~Charcoal~~	Charcoal	Pre	2	6/20/11	1904	—	—	Redundant (Console #SN1543)
CHV-Stk-ICRPB-201A	202-Wtr	Proof Blank-Water	ICR	PB	6/23/11	1200	181.5	427.5	
CHV-Stk-ICRPB-201A	202-Ace	Proof Blank-Acetone	ICR	PB	"	"	181.2	347.3	
CHV-Stk-ICRPB-201A	202-Hex	Proof Blank-Hexane	ICR	PB	"	"	180.3	313.6	
CHV-Stk-ICRRB-BH-HA		Hydroxylamine sulfate	ICR	RB	6/23/11	1915	180.5	308.7	
CHV-Stk-ICRRB-MBS	29-NPI	Nitric Peroxide	ICR	RB	6/20/11	1900	181.4	395.1	
CHV-BS-GAS-7PM10	Method 201A	Aceton 1st cyclone	GAS	1	6/30/11	1032	—	319.2	
CHV-BS-GAS-<PM10	"	Aceton-PM10	GAS	"	"	"	—	326.7	
CHV-BS-GAS-FILT	"	In Stack Filter	GAS	"	"	"	—	—	
CHV-BS-GAS-COND	Old M202	Condensate & H_2O rinse	GAS	"	"	"	415.4	1002.9	
CHV-BS-GAS-$MeCl_2$	"	$MeCl_2$ Rinse BH	GAS	"	"	"	182.0	256.3	
CHV-BG-FO-7PM10	Method 201A	Acetone 1st Cyclone	FO	1	6/30/11	1507	—	479.1	
CHV-BG-FO-<PM10	"	Acetone-PM10	"	"	"	"	—	465.4	
CHV-BG-FO-<PM2.5	"	Acetone-PM2.5	"	"	"	"	—	432.2	
CHV-BG-FO-FILT	"	In Stack Filter	"	"	"	"	—	—	
CHV-BG-FO-COND	Old M202	Condensate: H_2O rinse	"	"	"	"	—		
CHV-BG-FO-$MeCl_2$	"	$MeCl_2$ Rinse	"	"	"	"	—		
CHV-									
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Cheveron Oahu - ~~FCCU HCR~~ Boiler PM Testing

Project Number ~~40942312~~

Sample ID Code	Stream/Sampling Train	Fraction	Cond	Run	Date	Time	TW	GW	Comments
CHV-B5-MX->PM10	Method 201A	Acetone 1st cyclone	Mix	1	6/27/11	1833	180.4	196.7	B5 50 ml e ✓
CHV-B5-MX-<PM10	Method 201A	Acetone - FH PM10	Mix	1			182.0	242.0	100 ml e ✓
CHV-B5-MX-<PM2.5	Method 201A	Acetone - FH PM2.5	Mix	1			181.3	199.1	100 ml e ✓
CHV-B5-MX-FILT	Method 201A	In-Stack Filter	Mix	1			—		ID: 3222 e —
CHV-B5-MX-COND	Method ~~201A~~ 202	Condensate + H_2O rinse	Mix	1			416.7	847.2	COLD 500 ml e ✓
CHV-B5-MX-ACE	Method 202	Acetone Rinse BH	Mix	1			183.3	302.1	150 ml e ✓
CHV-B5-MX-HEX	Method 202	Hexane Rinse BH	Mix	1			182.7	278.6	100 ml e ✓
CHV-B5-MX-FILT-CON	Method 202	Condensable Filter	Mix	1			—		e ✓
CHV-B6-MX->PM10	Method 201A	Acetone 1st cyclone	Mix	1	6/27/11	2342	181.2	207.2	B6 50 ml e ✓
CHV-B6-MX-<PM10	↓	Acetone - FH PM10	Mix	1			180.4	225.1	50 ml e ✓
CHV-B6-MX-<PM2.5		Acetone - FH PM2.5	Mix	1			181.5	192.9	100 ml e ✓
CHV-B6-MX-FILT		In-Stack Filter	Mix	1			—		ID: 3224 e ✓
CHV-B6-MX-COND		Condensate + H_2O rinse	Mix	1			416.6	853.5	COLD 500 ml e ✓
CHV-B6-MX-ACE		Acetone Rinse BH	Mix	1			182.1	313.5	150 ml e ✓
CHV-B6-MX-HEX		Hexane Rinse BH	Mix	1			180.8	313.9	150 ml e ✓
CHV-B6-MX-FILT-CON	Method 201A	Condensable Filter	Mix	1			—		
CHV-B5-FO->PM10		Acetone 1st cyclone	FO	1	6/29/11	1359	—	281.1	
CHV-B5-FO-<PM10		Acetone - FH PM10	FO	1			—	228.6	
CHV-B5-FO-<PM2.5		Acetone - FH PM2.5	FO	1			—	191.9	
CHV-B5-FO-FILT		In-Stack Filter	FO	1			—		
CHV-B5-FO-COND	OLD Method 202	Condensate + H_2O Rinse	FO	1			415.4	930.1	
CHV-B5-FO-MeCl2		$MeCl_2$ Rinse BH	FO	1			181.0	289.8	
CHV-									
CHV-									
CHV-									
CHV-									

TestAmerica Chain-of-Custody Forms

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M23+-PNR-Ace	PNR - Acetone	6/22/11 1630	X	X				12	all fractions Combine for Single Analysis
CHV-Stk-ICR1-M23+-PNR-MeCl	PNR - Methylene Chloride	6/22/11 1630	X	X				11	
CHV-Stk-ICR1-M23+-PNR-Tol	PNR - Toluene	6/22/11 1630	X	X				12	
CHV-Stk-ICR1-M23+-Filt	Filter	6/22/11 1630	X	X				12	
CHV-Stk-ICR1-M23+-CR-Ace	Condenser Rns - Acetone	6/22/11 1630	X	X				12	~~Combine for Single Analysis~~ WDO 6/23/11
CHV-Stk-ICR1-M23+-CR-MeCl	Condenser Rns - Methylene Chloride	6/22/11 1630	X	X				11	
CHV-Stk-ICR1-M23+-CR-Tol	Condenser Rns - Toluene	6/22/11 1630	X	X				12	
CHV-Stk-ICR1-M23+-XAD	XAD Sorbent Cartridge	6/22/11 1630	X	X				14	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Meagan DeLoss	6/23/11	1200						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M23+-ImpsA	Impinger Catch - Bottle A	6/22/11 1630	X	X				11	~~Combine for Single Analysis (PCB Analysis Only)~~ MDD 6/23/11
CHV-Stk-ICR1-M23+-ImpsB	Impinger Catch - Bottle B								
CHV-Stk-ICR1-M23+-IR-Ace	Impinger Rinse - Acetone	6/22/11 1630	X	X				12	
CHV-Stk-ICR1-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride	6/22/11 1630	X	X				11	
CHV-Stk-ICR1-M23+-IR-Tol	Impinger Rinse - Toluene	6/22/11 1630	X	X				12	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Meagan DeCoito	6/23/11	1200						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M23+-PNR-Ace	PNR - Acetone	6/23/11 1306	X	X				14	Combine for Single Analysis
CHV-Stk-ICR2-M23+-PNR-MeCl	PNR - Methylene Chloride		X	X				10	
CHV-Stk-ICR2-M23+-PNR-Tol	PNR - Toluene		X	X				9	
CHV-Stk-ICR2-M23+-Filt	Filter		X	X				12	
CHV-Stk-ICR2-M23+-CR-Ace	Condenser Rns - Acetone		X	X				14	~~Combine for Single Analysis~~
CHV-Stk-ICR2-M23+-CR-MeCl	Condenser Rns - Methylene Chloride		X	X				10	
CHV-Stk-ICR2-M23+-CR-Tol	Condenser Rns - Toluene		X	X				9	
CHV-Stk-ICR2-M23+-XAD	XAD Sorbent Cartridge		X	X				14	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M23+-ImpsA	Impinger Catch - Bottle A	6/23/11 1306	X	X				23	Combine with Front-half fractions for single analysis ~~Combine for Single Analysis (PCB Analysis Only)~~
CHV-Stk-ICR2-M23+-ImpsB	Impinger Catch - Bottle B								
CHV-Stk-ICR2-M23+-IR-Ace	Impinger Rinse - Acetone	6/23/11 1306	X	X				14	
CHV-Stk-ICR2-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride		X	X				~~10~~	
CHV-Stk-ICR2-M23+-IR-Tol	Impinger Rinse - Toluene		X	X				9	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	~~6/28/11~~ 6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M23+-PNR-Ace	PNR - Acetone	6/27/11 1338	X	X				14	Combine for Single Analysis
CHV-Stk-ICR3-M23+-PNR-MeCl	PNR - Methylene Chloride		X	X				15	
CHV-Stk-ICR3-M23+-PNR-Tol	PNR - Toluene		X	X				16	
CHV-Stk-ICR3-M23+-Filt	Filter		X	X				12	
CHV-Stk-ICR3-M23+-CR-Ace	Condenser Rns - Acetone		X	X				14	~~Combine for Single Analysis~~
CHV-Stk-ICR3-M23+-CR-MeCl	Condenser Rns - Methylene Chloride		X	X				15	
CHV-Stk-ICR3-M23+-CR-Tol	Condenser Rns - Toluene		X	X				16	
CHV-Stk-ICR3-M23+-XAD	XAD Sorbent Cartridge		X	X				11	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M23+-ImpsA	Impinger Catch - Bottle A	6/27/11 1338	X	X				23	Combine with front-half fraction for single analysis
CHV-Stk-ICR3-M23+-ImpsB	Impinger Catch - Bottle B								
CHV-Stk-ICR3-M23+-IR-Ace	Impinger Rinse - Acetone	6/27/11 1338	X	X				14	~~Combine for Single Analysis~~ (~~PCB Analysis~~ Only)
CHV-Stk-ICR3-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride	↓	X	X				15	
CHV-Stk-ICR3-M23+-IR-Tol	Impinger Rinse - Toluene	↓	X	X				16	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/28/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M23+-PNR-Ace	PNR - Acetone	6/26/11 1135	X	X				14	Combine for Single Analysis
CHV-Stk-ICRFB-M23+-PNR-MeCl	PNR - Methylene Chloride		X	X				10	
CHV-Stk-ICRFB-M23+-PNR-Tol	PNR - Toluene		X	X				9	
CHV-Stk-ICRFB-M23+-Filt	Filter		X	X				12	
CHV-Stk-ICRFB-M23+-CR-Ace	Condenser Rns - Acetone		X	X				14	~~Combine for Single Analysis~~
CHV-Stk-ICRFB-M23+-CR-MeCl	Condenser Rns - Methylene Chloride		X	X				15 ~~10~~	
CHV-Stk-ICRFB-M23+-CR-Tol	Condenser Rns - Toluene		X	X				16	
CHV-Stk-ICRFB-M23+-XAD	XAD Sorbent Cartridge		X	X				11	
CHV-Stk-ICRFB-M23+-Imps	Impinger Catch		X	X				23	~~Combine for Single Analysis~~ (~~PCB Analysis Only~~)
CHV-Stk-ICRFB-M23+-IR-Ace	Impinger Rinse - Acetone		X	X				14	
CHV-Stk-ICRFB-M23+-IR-MeCl	Impinger Rinse - Methylene Chloride		X	X				10	
CHV-Stk-ICRFB-M23+-IR-Tol	Impinger Rinse - Toluene		X	X				9	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	**Date**	**Time**	**Relinquished by:**	**Date**	**Time**			
Received for Lab by	**Date**	**Time**	**Airbill No**	**Opened by**		**Seal #**	**Date**	**Time**	**Temp (C)**
Seal #	**Condition**							
Remarks								

URS

Chain of Custody Record

Samples for HRCGMS from Combined Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	PCDD/PCDF by HRGCMS (EPA Method 23)	PCB by HRGCMS (EPA Method 1668A)		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M23+-Filt	Filter	6/26/11 1230	X	X				12	
CHV-Stk-ICRRB-M23+-XAD	XAD Sorbent Cartridge		X	X				14	
CHV-Stk-ICRRB-M23+-Ace	Acetone		X	X				12	
CHV-Stk-ICRRB-M23+-MeCl	Methylene Chloride		X	X				10	
CHV-Stk-ICRRB-M23+-Tol	Toluene		X	X				9	
CHV-Stk-ICRRB-M23+-Water	Water		X	X				10	

Remarks: Provide results in total nanograms per sample. Raw data package required. PCB analysis only for 12 PCB Congeners: PCB-77, -81, -105, -114, -118, -123, -126, -156, -157, -167, -169, and -189)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/26/11 6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Samples from Multi-Metals Sampling Train (Including PM Determination)

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ~~ICPES~~ ICP/MS - SW-846 Method 6010B		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M5/29-PNR-Ace	PNR - Acetone	6/24/11 1331	X					4	
CHV-Stk-ICR2-M5/29-PNR-NA	PNR - Nitric Acid	↓		X				6S	
CHV-Stk-ICR2-M5/29-Filt	Filter	↓	X	X				1	
CHV-Stk-ICR2-M5/29-NPIA	Nitric/Peroxide Impingers - Bottle A	↓		X				1	
CHV-Stk-ICR2-M5/29-NPIB	Nitric/Peroxide Impingers - Bottle B								
CHV-Stk-ICR2-M5/29-EIR	Empty Impinger Rinse								
CHV-Stk-ICR2-M5/29-Perm	Permanganate Impinger								
CHV-Stk-ICR2-M5/29-HClRns	HCl Rinse of Permanganate Imp								
CHV-Stk-ICR2-M5/29-EIR	empty impinger rinse	6/24/11 1331		X				6S	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples from Multi-Metals Sampling Train (Including PM Determination)

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ~~ICPES~~ - SW-846 Method 6010B ICPMS		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M5/29-PNR-Ace	PNR - Acetone	6/24/11 1942	X					4	
CHV-Stk-ICR3-M5/29-PNR-NA	PNR - Nitric Acid			X				6	
CHV-Stk-ICR3-M5/29-Filt	Filter		X	X				1	
CHV-Stk-ICR3-M5/29-NPIA	Nitric/Peroxide Impingers - Bottle A			X				1	
CHV-Stk-ICR3-M5/29-NPIB	Nitric/Peroxide Impingers - Bottle B								
CHV-Stk-ICR3-M5/29-EIR	Empty Impinger Rinse								
CHV-Stk-ICR3-M5/29-Perm	Permanganate Impinger								
CHV-Stk-ICR3-M5/29-HClRns	HCl Rinse of Permanganate Imp								
CHV-Stk-ICR3 M5/29-EIR	empty impinger rinse	6/24/11 1942		X				6	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Samples from Multi-Metals Sampling Train (Including PM Determination)

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ~~IOPES~~ - SW-846 Method 6010B ICP/MS		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR4-M5/29-PNR-Ace	PNR - Acetone	6/26/11 1738	X					4	
CHV-Stk-ICR4-M5/29-PNR-NA	PNR - Nitric Acid	↓		X				6	
CHV-Stk-ICR4-M5/29-Filt	Filter		X	X				1	
CHV-Stk-ICR4-M5/29-NPIA	Nitric/Peroxide Impingers - Bottle A			X				1	
CHV-Stk-ICR4-M5/29-NPIB	Nitric/Peroxide Impingers - Bottle B								
CHV-Stk-ICR4-M5/29-EIR	Empty Impinger Rinse								
CHV-Stk-ICR4-M5/29-Perm	Permanganate Impinger								
CHV-Stk-ICR4-M5/29-HClRns	HCl Rinse of Permanganate Imp								
CHV-Stk-ICR4-M5/29-EIR	empty impinger rinse	6/26/11 1738		X				6	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples from Multi-Metals Sampling Train (Including PM Determination)

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ICPES - SW-846 Method 6010B 1/23/15		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M5/29-PNR-Ace	PNR - Acetone	6/26/11 1704	X					4	
CHV-Stk-ICRFB-M5/29-PNR-NA	PNR - Nitric Acid			X				5	
CHV-Stk-ICRFB-M5/29-Filt	Filter		X	X				1	
CHV-Stk-ICRFB-M5/29-NPI	Nitric/Peroxide Impingers			X				1	
CHV-Stk-ICRFB-M5/29-EIR	Empty Impinger Rinse								
CHV-Stk-ICRFB-M5/29-Perm	Permanganate Impinger								
CHV-Stk-ICRFB-M5/29-HClRns	HCl Rinse of Permanganate Imp								
CHV-Stk-ICRFB MS/29-EIR	Empty Impiger Rinse	6/26/11 1704		X				5	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Page 1 of 1

Samples from Multi-Metals Sampling Train (Including PM Determination)

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 5	Metals by ~~ICPES~~ SW-846 Method 6010B ICP/MS		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M5/29-Filt	Filter	6/26/11 1900	X	X		X		1	
CHV-Stk-ICRRB-M5/29-Ace	Acetone	↓	X			X		4	
CHV-Stk-ICRRB-M5/29-NA Rns Soln	Nitric Acid Rinse Solution	↓		X		X		1	
CHV-Stk-ICRRB-M5/29-Perm Soln	~~Permanganate Solution~~								
CHV-Stk-ICRRB-M5/29-HCl Soln	HCl Rinse Solution								
CHV-Stk-ICRRB-M5/29-NP1	nitric peroxide	6/26/11 1900		X		X		1	

Remarks: Provide results in total mass per sample. Raw data package required. Metals for analysis are Sb, As, Be, Cd, Cr, Co, Pb, Mn, Ni, and Se.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples from Ontario Hydro Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-OH-PNR	Probe and Nozzle Rinse	6/23/11 1923	X			X		3	Hold - Do not analyze
CHV-Stk-ICR1-OH-Filt	Filter		X			X		26	Hold - Do not analyze
CHV-Stk-ICR1-OH-KCIA	Potassium Chloride Impingers - Bottle A		X			X		7	
CHV-Stk-ICR1-OH-KCIB	Potassium Chloride Impinger - Bottle B		X			X			
CHV-Stk-ICR1-OH-NPI	Nitric/Peroxide Impingers		X			X		2	
CHV-Stk-ICR1-OH-Perm	Permanganate Impinger		X			X		8	
CHV-Stk-ICR2-OH-PNR	Probe and Nozzle Rinse	6/24/11 1245	X			[illegible]		3	Analyze
CHV-Stk-ICR2-OH-Filt	Filter		X			[illegible]		26	
CHV-Stk-ICR2-OH-KCIA	Potassium Chloride Impingers - Bottle A		X			[illegible]		7	
CHV-Stk-ICR2-OH-KCIB	Potassium Chloride Impinger - Bottle B		X			[illegible]			
CHV-Stk-ICR2-OH-NPI	Nitric/Peroxide Impingers		X			[illegible]		2	
CHV-Stk-ICR2-OH-Perm	Permanganate Impinger		X			[illegible]		8	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
D.D Cul	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples from Ontario Hydro Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-OH-PNR	Probe and Nozzle Rinse	6/24/11 1745	X					3	
CHV-Stk-ICR3-OH-Filt	Filter		X					26	
CHV-Stk-ICR3-OH-KClA	Potassium Chloride Impingers - Bottle A		X					7	
CHV-Stk-ICR3-OH-KClB	Potassium Chloride Impinger - Bottle B		X						
CHV-Stk-ICR3-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICR3-OH-Perm	Permanganate Impinger		X					8	
CHV-Stk-ICRFB-OH-PNR	Probe and Nozzle Rinse	6/26/11 1454	X					3	
CHV-Stk-ICRFB-OH-Filt	Filter		X					26	
CHV-Stk-ICRFB-OH-KCl	Potassium Chloride Impingers		X					7	
CHV-Stk-ICRFB-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICRFB-OH-Perm	Permanganate Impinger		X					8	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Samples from ~~Multi-Metals Sampling Train~~ Ontario Hydro Sampling Train

(~~Including PM Determination~~)

Page 1 of 1

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR4-OH-PNR	Probe and Nozzle Rinse	6/26/11 1700	X					3	
CHV-Stk-ICR4-OH-Filt	Filter		X					26	
CHV-Stk-ICR4-OH-KCIA	Potassium Chloride Impingers - Bottle A		X					7	
CHV-Stk-ICR4-OH-KCIB	~~Potassium Chloride Impinger - Bottle B~~								
CHV-Stk-ICR4-OH-NPI	Nitric/Peroxide Impingers		X					2	
CHV-Stk-ICR4-OH-Perm	Permanganate Impinger		X					8	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Samples from Ontario Hydro Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Mercury by CVAA - Ontario Hydro Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-OH-Filt	Filter	6/26/11 1200	X			X		24	Hold - do not analyze
CHV-Stk-ICRRB-OH-KCl	Potassium Chloride Impingers	6/23/11 1915	X			X		7	
CHV-Stk-ICRRB-OH-NPI	Nitric/Peroxide Impingers		X			X		2	
CHV-Stk-ICRRB-OH-Perm	Permanganate Impinger		X			X		8	
CHV-Stk-ICRRB-OH-Water	Water		X			X		5	
CHV-Stk-ICRRB-OH-NA Rns Soln	Nitric Acid Rinse Solution		X			X		3	
CHV-Stk-ICRRB-OH-10% NA	10% Nitric Acid Rinse Solution		X			X		25	
CHV-Stk-ICRRB-OH-HA	Hydroxylamine sulfate solution	6/23/11 1915	X			X		6	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Hexavalent Chromium from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Hexavalent Chromium by SW-846 Method 7199			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR - M0061-Imp/Rns	Comb Impinger Catch and Rinses								
CHV-Stk-ICR1-M0061-Imp/Rns	Comb Impinger Catch and Rinses	6/28/11 1620	X					37	
CHV-Stk-ICR2-M0061-Imp/Rns	Comb Impinger Catch and Rinses	6/29/11 1547	X					37	
CHV-Stk-ICR3-M0061-Imp/Rns	Comb Impinger Catch and Rinses	6/30/11	X					37	
CHV-Stk-ICRFB-M0061-Imp/Rns	Comb Impinger Catch and Rinses	6/28/11 1743	X					37	
CHV-Stk-ICRRB-M0061-KOH Soln	KOH Solution	6/30/11 930	X					37	
CHV-Stk-ICRRB-M0061-Water	Water	↓	X					37	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

Enthalpy Chain-of-Custody Forms

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M18b-Cond A	Condensate 6/27	~~6/28/11~~ 1105	X			X			backup sample
CHV-Stk-ICR1-M18b-Bag A	Bag Sample A 6/27	6/28/11 1105	X			X			tedlar bag - backup sample
CHV-Stk-ICR__-M18b-Bag B	Bag Sample B								* analyze these samples
CHV-Stk-ICR__-M18b-Bag C	Bag Sample C								only if CHV-Stk-ICR1-M18b-COND B and CHV-Stk-ICR1-M18b-Bag B samples are lost, delayed in shipment, or do not meet M18 QA/QC criteria

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/27	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M18b-Cond B	Condensate B	6/27/11 1321	X						Collected w/ Flexfilm Bag
CHV-Stk-ICR1-M18b-Bag A	Bag Sample A								
CHV-Stk-ICR1-M18b-Bag B	Bag Sample B	6/27/11 1321	X						Flexfilm
CHV-Stk-ICR1-M18b-Bag C	Bag Sample C								

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/27/11	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M18b-Cond A	Condensate A	6/28/11 1233	X			X			Tedlar (backup)
CHV-Stk-ICR2-M18b-Bag A	Bag Sample A	6/28/11 1233	X			X			Tedlar (backup)
CHV-Stk-ICR2-M18b-Bag B	Bag Sample B	6/28/11 1408	X						Flexfilm
CHV-Stk-ICR2-M18b-Bag C	Bag Sample C								
CHV-Stk-ICR2-M18b-Cond B	Condensate B	6/28/11 1408	X						Flexfilm
									Condensate A and Bag sample A collected as backup samples in case Condensate B and Bag sample B are lost or damaged during shipment, or M18 QA/QC criteria not met.
									* note holding time >40 hours

All times Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/28/11	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M18b-Cond A	Condensate A	6/29/11 1012	X						
CHV-Stk-ICR3-M18b-Bag A	Bag Sample A	↓	X						
CHV-Stk-ICR3-M18b-Bag B	Bag Sample B	6/29/11 1128	X						
CHV-Stk-ICR3-M18b-Bag C	Bag Sample C								
CHV-Stk-ICR3-M18b-Cond B	Condensate B	6/29/11 1128	X						

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1145						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M18s-CondA	Condensate - Bottle A	6/27/11 ~~6/28/11~~ 1326	X						
CHV-Stk-ICR1-M18s-CondB	Condensate - Bottle B	27							
CHV-Stk-ICR1-M18s-Sorbent	Sorbent	~~6/28/11~~ 6/27/11 1326	X						
CHV-Stk-ICR1-M18s-Charcoal	Charcoal	6/27/11 1326	X						
		27							
CHV-Stk-ICR1S-M18s-CondA	Condensate - Bottle A	~~6/28/11~~ 6/27/11 1326	X						spiked M18 sampling train
~~CHV-Stk-ICR1S-~~ M18s-CondB	~~Condensate - Bottle B~~	27							
CHV-Stk-ICR1S-M18s-Sorbent	Sorbent	~~6/28/11~~ 6/27/11 1326	X						spiked M18 sampling train
CHV-Stk-ICR1S-M18s-Charcoal	Charcoal	6/27/11 1326	X						

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/28/11	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M18s-CondA	Condensate - Bottle A	6/28/11 1405	X						
~~CHV-Stk-ICR2-M18s-CondB~~	~~Condensate - Bottle B~~								
CHV-Stk-ICR2-M18s-Sorbent	Sorbent		X						
CHV-Stk-ICR2-M18s-Charcoal	Charcoal		X						
CHV-Stk-ICR2S-M18s-CondA	Condensate - Bottle A	6/28/11 1405	X						spiked train
~~CHV-Stk-ICR2S-M18s-CondB~~	~~Condensate - Bottle B~~								
CHV-Stk-ICR2S-M18s-Sorbent	Sorbent		X						spiked train
CHV-Stk-ICR2S-M18s-Charcoal	Charcoal		X						spiked train

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1130						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M18s-CondA	Condensate - Bottle A	6/29/11 1140	X						
CHV-Stk-ICR3-M18s-CondB	Condensate - Bottle B		X						
CHV-Stk-ICR3-M18s-Sorbent	Sorbent		X						
CHV-Stk-ICR3-M18s-Charcoal	Charcoal		X						
			X						
CHV-Stk-ICR3S-M18s-CondA	Condensate - Bottle A		X						
CHV-Stk-ICR3S-M18s-CondB	Condensate - Bottle B		X						
CHV-Stk-ICR3S-M18s-Sorbent	Sorbent		X						
CHV-Stk-ICR3S-M18s-Charcoal	Charcoal		X						

Hawaii Time

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Nathan Reluntf	1654	6/29/11						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M18s-Sorbent	Sorbent	6/29/11 1310	X						
CHV-Stk-ICRRB-M18s-Charcoal	Charcoal	↓	X						
CHV-Stk-ICRRB-M18s-Water	Water	↓	X						

Hawaii Time

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Nathan Rehn	6/29/11	1654						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks:

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M308-CondA	Condensate - Bottle A	~~6/28/11~~ 6/27/11 1326		X					
CHV-Stk-ICR1-M308-CondB	Condensate - Bottle B	6/27/11 1326		X					
CHV-Stk-ICR1-M308-Silica	Silica	~~6/28/11~~ 6/27/11 1326		X					

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/28/11	1400						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks:

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M308-CondA	Condensate - Bottle A	6/28/11 1404		X					
CHV-Stk-ICR2-M308-CondB	Condensate - Bottle B	↓		X					
CHV-Stk-ICR2-M308-Silica	Silica	↓		X					

All times are Hawaii Time Zone

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1130						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M308-CondA	Condensate - Bottle A	6/29/11 1310		X					
CHV-Stk-ICR3-M308-CondB	Condensate - Bottle B	↓		X					
CHV-Stk-ICR3-M308-Silica	Silica	↓		X					

Hawaii Time

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Nathan Reichert	6/29/11	1654						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Volatile Organics from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	VOCs by GC/FID	Methanol by GC/FID		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M308-Water	Water	6/29/11 1310		X					
CHV-Stk-ICRRB-M308-Silica	Silica	↓		X					

Hawaii Time

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11	1654						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M0010-PNR-Ace	PNR - Acetone	6/27/11 1340	X					17	
CHV-Stk-ICR1-M0010-PNR-MeCl	PNR - Methylene Chloride		X					18	
CHV-Stk-ICR1-M0010-Filt	Filter		X					17	
CHV-Stk-ICR1-M0010-CR-Ace	Condenser Rns - Acetone		X					17	
CHV-Stk-ICR1-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					18	
CHV-Stk-ICR1-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICR1-M0010-CondA	Condensate - Bottle A		X					20	
CHV-Stk-ICR1-M[redacted]	Condensate - Bottle B								
CHV-Stk-ICR1-M0010-IR-Ace	Impinger Rinse - Acetone		X					17	
CHV-Stk-ICR1-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride		X					18	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M0010-PNR-Ace	PNR - Acetone	6/28/11 1533	X					17	
CHV-Stk-ICR2-M0010-PNR-MeCl	PNR - Methylene Chloride		X					18	
CHV-Stk-ICR2-M0010-Filt	Filter		X					17	
CHV-Stk-ICR2-M0010-CR-Ace	Condenser Rns - Acetone		X					17	
CHV-Stk-ICR2-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					18	
CHV-Stk-ICR2-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICR2-M0010-CondA	Condensate - Bottle A		X					20	
CHV-Stk-ICR2-M0010-CondB	Condensate - Bottle B								
CHV-Stk-ICR2-M0010-IR-Ace	Impinger Rinse - Acetone		X					17	
CHV-Stk-ICR2-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride		X					18	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks:

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M0010-PNR-Ace	PNR - Acetone	6/29/11 1321	X					17	
CHV-Stk-ICR3-M0010-PNR-MeCl	PNR - Methylene Chloride		X					18	
CHV-Stk-ICR3-M0010-Filt	Filter		X					17	
CHV-Stk-ICR3-M0010-CR-Ace	Condenser Rns - Acetone		X					17	
CHV-Stk-ICR3-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					18	
CHV-Stk-ICR3-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICR3-M0010-CondA	Condensate - Bottle A		X					22	
CHV-Stk-ICR3-M0010-CondB	Condensate - Bottle B								
CHV-Stk-ICR3-M0010-IR-Ace	Impinger Rinse - Acetone		X					17	
CHV-Stk-ICR3-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride	↓	X					18	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition:

Remarks:

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M0010-PNR-Ace	PNR - Acetone	6/28/11 1927	X					21	
CHV-Stk-ICRFB-M0010-PNR-MeCl	PNR - Methylene Chloride		X					20	
CHV-Stk-ICRFB-M0010-Filt	Filter		X					17	
CHV-Stk-ICRFB-M0010-CR-Ace	Condenser Rns - Acetone		X					21	
CHV-Stk-ICRFB-M0010-CR-MeCl	Condenser Rns - Methylene Chloride		X					20	
CHV-Stk-ICRFB-M0010-XAD	XAD Sorbent Cartridge		X					18	
CHV-Stk-ICRFB-M0010-Cond	Condensate								
CHV-Stk-ICRFB-M0010-IR-Ace	Impinger Rinse - Acetone		X					21	
CHV-Stk-ICRFB-M0010-IR-MeCl	Impinger Rinse - Methylene Chloride		X					20	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples from Semivolatile Organic Sampling Trains

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	Semivolatile Organic Compounds by GC/MS - SW-846 Method			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M0010-Filt	Filter	6/29/11 1830	X					17	
CHV-Stk-ICRRB-M0010-XAD	XAD Sorbent Cartridge	↓	X					17	
CHV-Stk-ICRRB-M0010-Ace	Acetone	6/30/11 1030	X					21	
CHV-Stk-ICRRB-M0010-MeCl	Methylene Chloride	↓	X					20	
CHV-Stk-ICRRB-M0010-Water	Water	↓	X					24	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1100						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition	

Remarks

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter
<2.5 µm from Sampling Trains

Project	**FCCU ICR**
Site	**Cheveron Oahu**
Project Number	**40942312**
Prepared by	**URS Corporation**

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR2-M201A/202-NR	Nozzle Rinse	6/24/11 1324	X					27	
CHV-Stk-ICR2-M201A/202-FPM	Filter for Filterable PM		X					13	Send to Chevron after analysis - see addl. COC
CHV-Stk-ICR2-M201A/202-CPM	Filter for Condensable PM			X				13	
CHV-Stk-ICR2-M201A/202-CondA	Condensate - Bottle A			X				31	
CHV-Stk-ICR2-M201A/202-CondB	Condensate - Bottle B								
CHV-Stk-ICR2-M201A/202-BHRns-	Back Half Rinse - Water			X				31	
CHV-Stk-ICR2-M201A/202-BHRns-	Back Half Rinse - Acetone			X				21	
CHV-Stk-ICR2-M201A/202-BHRns-	Back Half Rinse - Hexane			X				30	

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter <2.5 µm from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M201A/202-NR	Nozzle Rinse	6/24/11 1932	X					27	FCCU
CHV-Stk-ICR3-M201A/202-FPM	Filter for Filterable PM		X					13	sent to Chevron after analysis - see addl. COC
CHV-Stk-ICR3-M201A/202-CPM	Filter for Condensable PM			X				13	
CHV-Stk-ICR3-M201A/202-CondA	Condensate - Bottle A			X				31	
CHV-Stk-ICR3-M201A/202-CondB	Condensate - Bottle B			X					
CHV-Stk-ICR3-M201A/202-BHRns-	Back Half Rinse - Water			X				31	
CHV-Stk-ICR3-M201A/202-BHRns-	Back Half Rinse - Acetone			X				21	
CHV-Stk-ICR3-M201A/202-BHRns-	Back Half Rinse - Hexane			X				30	
CHV-B6-MX-PM10	1st cyclone Acetone	6/27/11 2342	X					32	Boiler 6
CHV-B6-MX-PM10	acetone Front-half		X					32	
CHV-B6-MX-PM2.5	acetone Front-half		X					32	
CHV-B6-MX-FILT-CON	condensable Filter			X				13	Boiler 6

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No.	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter <2.5 µm from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312 >
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR4-M201A/202-NR	Nozzle Rinse	6/26/11 1740	X					27	FCCU
CHV-Stk-ICR4-M201A/202-FPM	Filter for Filterable PM		X					13	sent to Chevron after analysis - see addl. COC
CHV-Stk-ICR4-M201A/202-CPM	Filter for Condensable PM			X				13	
CHV-Stk-ICR4-M201A/202-CondA	Condensate - Bottle A			X				31	
CHV-Stk-ICR4-M201A/202-CondB	Condensate - Bottle B			X					
CHV-Stk-ICR4-M201A/202-BHRns-	Back Half Rinse - Water			X					
CHV-Stk-ICR4-M201A/202-BHRns-	Back Half Rinse - Acetone			X				21	
CHV-Stk-ICR4-M201A/202-BHRns-	Back Half Rinse - Hexane			X				30	
CHV-BS-MX-≥PM10	Acetone (1st cyclone	6/27/11 1833	X					32	Baker 5
CHV-BS-MX-≥PM10	Acetone front half		X					32	
CHV-BS-MX-<PM2.5	Acetone front half		X					32	

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date:	Time:	Airbill No:	Opened by:	Seal #:	Date:	Time:	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter <2.5 µm from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRFB-M201A/202-NR	Nozzle Rinse	6/29/11 1720	X					27	
CHV-Stk-ICRFB-M201A/202-FPM	Filter for Filterable PM		X					13	
CHV-Stk-ICRFB-M201A/202-CPM	Filter for Condensable PM			X				13	
CHV-Stk-ICRFB-M201A/202-Cond	Condensate			X				31	
CHV-Stk-ICRFB-M201A/202-BHRns-	Back Half Rinse - Water			X				30	
CHV-Stk-ICRFB-M201A/202-BHRns-	Back Half Rinse - Acetone			X				27	
CHV-Stk-ICRFB-M201A/202-BHRns-	Back Half Rinse - Hexane			X				30	
CHV-B5-MX-COND	condensate ? H2O rinse	6/27/11 1833		X				31	B5 Boiler
CHV-B6-MX-COND	condensate ? H2O rinse	6/27/11 2342		X				31	B6 Boiler
CHV-B5-MX-FILT	In-Stack Filter	6/27/11 1833	X	X				13	B5 Boiler
CHV-B6-MX-FILT	In-Stack Filter	6/27/11 2342	X	X				13	B6 Boiler
CHV-B5-MX-FILT-CON	condensable filter	6/27/11 1833		X				13	B5 Boiler

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Filterable and Condensable Particulate Matter
<2.5 µm from Sampling Trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Particulate Matter - Gravimetric Determination per EPA Method 201A	Particulate Matter - Gravimetric Determination per EPA Method 202		Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRRB-M201A/202-FPM	Filter for Filterable PM	6/26/11 1300	X					13	FCCU
CHV-Stk-ICRRB-M201A/202-CPM	Filter for Condensable PM			X				13	
CHV-Stk-ICRRB-M201A/202-Ace	Acetone	6/26/11 1000		X				21	
CHV-Stk-ICRRB-M201A/202-Water	Water			X				31	
CHV-Stk-ICRRB-M201A/202-MeCl	Methylene Chloride							—	
CHV-Stk-ICRRB-M201A/202-Hex	Hexane	6/26/11 1600		X				30	
CHV-Stk-ICRPB M201A/202-WTR	water proof blank	6/23/11 1200		X				31	
CHV-Stk-ICRPB M201A/202-Ace	acetone proof blank			X				21	
CHV-Stk-ICRPB-M201A/202-Hex	hexane proof blank			X				30	
CHV-BS-MX-Ace	acetone rinse back-half	6/27/11 1835		X				27	BS Boiler - Mix fuel
CHV-BS-MX-HEX	hexane back-half			X				30	BS Boiler - Mix fuel
CHV-B6-MX-HEX	hexane back-half	6/27/11 2342		X				30	B6 Boiler - Mix fuel

Remarks: Provide results in total milligrams per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #	Date	Time	Temp (°)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples from Anions Sampling trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	HCl, Cl2, and HF by HPLC/Ion Chromatography			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR1-M26A-AcdImp	Sulfuric Acid Impinger Catch	6/22/11 1600	X						
CHV-Stk-ICR1-M26A-AlkImp	Sodium Hydroxide Impinger Catch	6/22/11 1600	X						
CHV-Stk-ICR2-M26A-AcdImp	Sulfuric Acid Impinger Catch	6/22/11 1902	X						
CHV-Stk-ICR2-M26A-AlkImp	Sodium Hydroxide Impinger Catch	6/22/11 1902	X						
CHV-Stk-ICR3-M26A-AcdImp	Sulfuric Acid Impinger Catch								
CHV-Stk-ICR3-M26A-AlkImp	Sodium Hydroxide Impinger Catch								
CHV-Stk-ICRFB-M26A-AcdImp	Sulfuric Acid Impinger Catch								
CHV-Stk-ICRFB-M26A-AlkImp	Sodium Hydroxide Impinger Catch								

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Meagan Dobbs	6/23/11	1200						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Samples from Anions Sampling trains

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	HCl, Cl2, and HF by HPLC/Ion Chromatography			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICR3-M26A-AcdImp	Sulfuric Acid Impinger Catch	6/23/11 1205	X					36	
CHV-Stk-ICR3-M26A-AlkImp	Sodium Hydroxide Impinger Catch	↓	X					35	
CHV-Stk-ICRFB-M26A-AcdImp	Sulfuric Acid Impinger Catch	6/23/11 1220	X					36	
CHV-Stk-ICRFB-M26A-AlkImp	Sodium Hydroxide Impinger Catch	↓	X					35	
CHV-Stk-ICRRB-M26A-Water	Water	6/26/11 1730	X					36	
CHV-Stk-ICRRB-M26A-NaOH Soln	Sodium Hydroxide Solution	↓	X					35	
CHV-Stk-ICRRB-M26A-H2SO4 Soln	Sulfuric Acid Solution	↓	X					36	

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/30/11	1900						
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by:	Date	Time	Airbill No:	Opened by:	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks:

URS

Chain of Custody Record

Aldehydes from M0011 Sampling Train

Project	FCCU ICR
Site	Cheveron Oahu
Project Number	40942312
Prepared by	URS Corporation

Sample ID Code	Sample Matrix	Date/Time	Aldehydes and Ketones by HPLC - SW-846 Method 8315A			Hold	MS/MSD	Shipping Container Number	Comments
CHV-Stk-ICRMS M0011-Imp/RnsA	Comb Impinger Catch and Rinses A	6/28/11 1904	X			X	X	19	matrix spike run
CHV-Stk-ICR M0011-Imp/RnsB	Comb Impinger Catch and Rinses B								
CHV-Stk-ICR1-M0011-Imp/RnsA	Comb Impinger Catch and Rinses A	6/28/11 1902	X			X		19	
CHV-Stk-ICR1-M0011-Imp/RnsB	Comb Impinger Catch and Rinses B								
CHV-Stk-ICR2-M0011-Imp/RnsA	Comb Impinger Catch and Rinses A	6/29/11 1057	X			X		22	
CHV-Stk-ICR2-M0011-Imp/RnsB	Comb Impinger Catch and Rinses B								
CHV-Stk-ICR3-M0011-Imp/RnsA	Comb Impinger Catch and Rinses A	6/29/11 1526	X			X		22	
CHV-Stk-ICR3-M0011-Imp/RnsB	Comb Impinger Catch and Rinses B								
CHV-Stk-ICRFB-M0011-Imp/Rns	Comb Impinger Catch and Rinses	6/29/11 1730	X			X		19	
CHV-Stk-ICRFS-M0011-Field Spike	Field Spike	6/29/11 1800	X			X		22	
CHV-Stk-ICRRB-M0011-DNPH	DNPH derivatizing agent	6/29/11 1810	X			X		19	
CHV-Stk-ICRRB-M0011-MeCl	Methylene Chloride								

Remarks: Provide results in total micrograms per sample. Raw data package required

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature]	6/29/11							
Received by:	Date	Time	Relinquished by:	Date	Time			

Received for Lab by	Date	Time	Airbill No	Opened by	Seal #	Date	Time	Temp (C)

Seal #	Condition

Remarks

Appendix Q

Correspondence from U.S. EPA

Dewees.Jason@epamail.epa.gov
06/22/2011 05:01 PM

To Chris_Weber@URSCorp.com
cc Garwood.Gerri@epamail.epa.gov
bcc
Subject Soot Blows - response to voice mail

History: This message has been replied to.

The two main components expected to increase during a soot blow would be PMs and metals. You may also see some larger organics such as PAHs. I don't believe there is a requirement in the ICR to perform testing during a soot blow, but to test during normal operations (which may include a soot blow). If the facility would like to submit a soot blow run to show variability and possibly increase of emissions, the data would certainly be welcomed.

Jason M DeWees
USEPA/OAQPS/AQAD/MTG
109 TW Alexander Drive (E143-02)
Research Triangle Park, NC 27711
(919)541-9724(Voice)/(919)541-0516(Fax)
email: dewees.jason@epa.gov

Dewees.Jason@epamail.epa.gov
06/27/2011 11:10 AM

To Chris_Weber@URSCorp.com
cc Chris_Weber@URSCorp.com, Garwood.Gerri@epamail.epa.gov
bcc
Subject Re: Method 320 for VOC HAPs

History: This message has been forwarded.

We will accept 320 in lieu of Method 18 for Methanol since the concentrations are detectable and was self validated per Section 13.0 We would be open to using 320 for other compounds on a case by case basis, but would want the in stack concentrations above the FTIR detection limit and each compound must be validated (Sec 13) .

Jason M DeWees
USEPA/OAQPS/AQAD/MTG
109 TW Alexander Drive (E143-02)
Research Triangle Park, NC 27711
(919)541-9724(Voice)/(919)541-0516(Fax)
email: dewees.jason@epa.gov

From: Chris_Weber@URSCorp.com

To: Jason Dewees/RTP/USEPA/US@EPA

Cc: Chris_Weber@URSCorp.com, Gerri Garwood/RTP/USEPA/US@EPA

Date: 06/27/2011 12:03 PM

Subject: Method 320 for VOC HAPs

Hi Jason and Gerri,

Yesterday we validated our FTIR, per section 13.0 of Method 320, on an FCCU for methanol, and the concentrations in the stack are above detection limits. May we use this method in lieu of Method 18 or Method 308 for methanol during the ICR testing? Would you accept Method 320 for any of the other VOC HAPs on the ICR list?

Best regards,

Chris Weber
URS Corporation
Project Manager
Measurements Group
512.419.5369 office
512.983.5158 cell

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information that may be proprietary or privileged. If you receive this message in error or are not the intended recipient, you should not retain, distribute, disclose or use any of this information and you should destroy the e-mail and any attachments or copies.

Garwood.Gerri@epamail.epa.gov
05/20/2011 02:11 PM

To Chris_Weber@URSCorp.com
cc Bouchard.Andrew@epamail.epa.gov, Shine.Brenda@epamail.epa.gov, cob@rti.org, Boswell.Colin@epamail.epa.gov,
bcc
Subject Re: Use of EPA Methods 201A/202 and SW-846 Method 0061 on a FCCU for Refinery ICR

History: This message has been forwarded.

Chris,

There could be issues with the Teflon at elevated temperatures. We do agree that a water cooled probe may be necessary. You may even want to consider using an air/water cooled probe with a glass liner.

As for total filterable particulate, for stacks without entrained water droplets, see the row for metals in Table 1.2 of Component 4. You should determine filterable PM emissions according with Method 29 using a filter temperature of 320°F ± 25°F. Alternatively, you may opt to conduct a separate EPA Method 5 or 5F test with a filter temperature of 320°F ± 25°F in lieu of measuring PM with the Method 29 train.

Sincerely,
Gerri G. Garwood, P.E.
U.S. Environmental Protection Agency
Measurement Policy Group
OAR/OAQPS/SPPD

From: Chris_Weber@URSCorp.com

To: Gerri Garwood/RTP/USEPA/US@EPA

Cc: Kristen Benedict/RTP/USEPA/US@EPA, Colin Boswell/RTP/USEPA/US@EPA, Andrew Bouchard/RTP/USEPA/US@EPA, cob@rti.org, Jason Dewees/RTP/USEPA/US@EPA, Steffan Johnson/RTP/USEPA/US@EPA, Raymond Merrill/RTP/USEPA/US@EPA, Robin Segall/RTP/USEPA/US@EPA, Brenda Shine/RTP/USEPA/US@EPA, Peter Westlin/RTP/USEPA/US@EPA

Date: 05/18/2011 06:10 PM

Subject: Use of EPA Methods 201A/202 and SW-846 Method 0061 on a FCCU for Refinery ICR

Hi Gerri,

URS is planning to conduct source testing on a FCCU according to Component 4 of the Refinery ICR. The FCCU stack gas temperature is approximately 400 degrees Fahrenheit, and there is not a wet scrubber and presumably no entrained water droplets in the gas stream. I would like to ask for a few clarifications regarding the use of EPA Methods 201A/202 and SW-846 Method 0061.

Section 1.1 of SW-846 Method 0061 states that the sampling train has only been evaluated at temperatures of less than 300 degrees Fahrenheit. However, the stack gas temperature of the FCCU that is required to be tested is approximately 400 degrees Fahrenheit. Does EPA still require the use of SW-846 Method 0061 for compliance with the Refinery ICR, and if so, do you recommend the use of a water-cooled sampling probe?

Component 4 of the Refinery ICR requires the testing for PM/PM2.5 (filterable) on FCCUs using EPA Method 201A when no water droplets are entrained in the gas stream. Will you please clarify if analysis for total filterable particulate (PM) and filterable PM2.5 is required? Presumably, this would require a separate analytical fraction for PM, obtained by brush cleaning the cyclone cup and rinsing the cyclone cup, internal surface of the nozzle, the cyclone internal surfaces, and the outside surface of the downcomer line with acetone. In addition, according to Section 1.6 of EPA Method 201A, an isokinetic sampling rate between 90 and 110% would be required. On an FCCU with a stack gas temperature of approximately 400 degrees Fahrenheit, do you require the use of an in-stack PM2.5 filter or an out-of-stack PM2.5 filter heated according to EPA Method 5 criteria?

Best regards,

Chris Weber
URS Corporation
Project Manager
Measurements Group
512.419.5369 office
512.983.5158 cell

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Appendix R

Correspondence from Federal Express

3076 Airways Boulevard
Memphis, TN 38116-4034
Telephone 800 463 3339
Fax 901 332 0200

FedEx.

August 15, 2011

Mr. Carl Galloway
Chevron Products Co
91-480 Malakole Street
Kapolei, HI 96707

Dear Mr. Galloway;

The problem encountered with the July 1 shipment you sent to Enthalpy Analytical, Inc. in Durham, NC on package tracking number 872971873565 has been brought to my attention.

We are very concerned, and deeply regret any inconvenience caused by our failure to deliver this shipment as expected. According to our records the package was tendered in Honolulu, HI on July 1. Unfortunately, we are unable to provide further package status information or proof of delivery information for this item.

A trace has been initiated on this shipment under control number 0808621145 and is currently ongoing. Thus far, all attempts made by our tracing representatives to locate the shipment have been unsuccessful. They will notify you of further developments as they occur.

Should you need to contact us with further questions or concerns regarding this shipment, please call our toll-free customer service number, 1-800-463-3339, and reference the control number. A FedEx Customer Service Representative will be happy to assist you.

Regards,

Margaret E. Boyle
Customer Relations Department

meb/477199